### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Application to change ) DOCKET NO. 920385-TL
depreciation rates and schedules ) ORDER NO. PSC-93-0462-FOF-TL
effective January 1, 1992, by ) ISSUED: 3/25/93
BELLSOUTH TELECOMMUNICATIONS, )
INC. d/b/a SOUTHERN BELL )
TELEPHONE AND TELEGRAPH COMPANY )

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON, Chairman THOMAS M. BEARD SUSAN F. CLARK LUIS J. LAUREDO

Pursuant to Notice, a public hearing was held on October 26-27, 1992, in Tallahassee, Florida.

APPEARANCES:

R. DOUGLAS LACKEY, Esquire, and NANCY B. WHITE, Esquire, 4300 Southern Bell Center, 675 West Peachtree Street, N.E., Atlanta, GA 30375, and J. PHILLIP CARVER, Esquire, 150 West Flagler Street, Miami, FL 33130 On behalf of BellSouth Telecommunications, Inc. d/b/a

Southern Bell Telephone and Telegraph Company.

PETER M. DUNBAR, Esquire, Haben, Culpepper, Dunbar & French, P.A., Post Office Box 10095, Tallahassee, FL 32302

On behalf of Florida Cable Television Association.

RICHARD D. MELSON, Esquire, Hopping, Boyd, Green & Sams, Post Office Box 6526, Tallahassee, FL 32314, and MICHAEL J. HENRY, MCI Center, Three Ravinia Drive, Atlanta, GA 30346

On behalf of MCI Telecommunications Corp.

CHARLES J. BECK, Esquire, Office of Public Counsel, c/o The Florida Legislature, 111 West Madison Street, Room 812, Tallahassee, FL 32399-1400 On behalf of the Citizens of the State of Florida.

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PATRICIA A. KURLIN, Esquire, Florida Public Service Commission, 101 E. Gaines Street, Tallahassee, Florida 32399-0863 On behalf of the Commission Staff.

WILLIAM E. WYROUGH, JR., Esquire, Florida Public Service Commission, 101 E. Gaines Street, Tallahassee, Florida 32399-0862 On behalf of the Commissioners.

# ORDER SETTING DEPRECIATION RATES AND SCHEDULES

#### BY THE COMMISSION:

#### I. CASE BACKGROUND

On May 1, 1992, BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company (Southern Bell or the Company) filed its 1992 depreciation study (the Study). The Company requests that the Commission prescribe new depreciation rates and capital recovery schedules as proposed in the depreciation study, effective January 1, 1992.

By Order No. PSC-92-0360-PCO-TL, issued May 14, 1992, we acknowledged the intervention of the Office of Public Counsel (OPC) in this docket. In addition, intervention was sought by and granted to the Florida Cable Television Association (FCTA), and MCI Telecommunications Corporation (MCI).

Pursuant to Notice, a Prehearing Conference was held on October 7, 1992, establishing the issues to be addressed and the procedure to govern the hearings. The hearing was held on October 26-27, 1992, in Tallahassee.

#### II. ADEQUACY OF CURRENT SCHEDULES

Southern Bell filed its current depreciation study pursuant to Rule 25-4.0175, Florida Administrative Code. At the Prehearing Conference, all parties agreed to a stipulation that currently prescribed depreciation rates and capital recovery schedules should be revised. Upon review, we find that the stipulation is appropriate, and hereby approve it.

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# III. BROADBAND SWITCHED FIBER INFRASTRUCTURE

In this proceeding, OPC raised the issue of whether the Commission should promote the building of a broadband switched fiber infrastructure in Florida's telecommunications network. Southern Bell and OPC offered testimony on this issue, while FCTA and MCI did not. While we agree that the issue has broad policy implications, we do not believe that the issue is appropriate or necessary to the represcription of depreciation rates. Therefore, we decline to make any determination on this issue as it is not material to the represcription of depreciation rates.

### IV. RESERVE TRANSFERS

According to the data submitted in the Company's depreciation study, the account for Operator Systems-Digital currently has a reserve deficiency of approximately \$2.469 million. The information supplied by the Company indicates that retirements of several operator system locations occurred in 1989, causing the reserve for the account to become negative by approximately \$2.034 million. These retirements were unforeseen at the time of the last depreciation review. The Company has calculated the theoretically correct reserve position for this account to be \$435,479 inferring a total account reserve deficit of \$2.469 million. In addition, there is a perceived reserve surplus in the Circuit-Digital account of over \$64 million.

Southern Bell contends that there is no need for reserve transfers between accounts at this time. Southern Bell supports a method of adjustments in depreciation rates which will correct any reserve imbalance. FCTA, MCI, and OPC took no position on this issue.

We realize that there are several options available for correcting reserve imbalances. The difference between these options is one of timing, whether recovery should be provided immediately or over the remaining life of the given account. Making no corrective reserve measures at this time would result in an overstated depreciation rate for Operator Systems-Digital and an understated depreciation rate for Circuit-Digital. Amortizing the reserve imbalances over a specified period of time would result in increased expenses during the period of amortization. We believe that the appropriate treatment is to transfer \$2.469 million from Circuit-Digital to offset the negative reserve and bring the

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Operator Systems-Digital account to its calculated theoretical level. This action immediately corrects the reserve imbalances for these accounts and results in more correct depreciation rates and depreciation expenses for the plant actually serving the public.

Accordingly, we find that the corrective reserve transfer, as shown on Attachment C, shall be made. In light of the possible impact of reserve transfers on cost allocation and jurisdictional separations, the Company shall make corresponding entries to the related depreciation expense accounts.

# V. NETWORK PLANS INCLUDING SWITCHING RETIREMENTS

### A. Burden of Proof

We were asked to determine whether Southern Bell is required to carry the burden of proof to justify the reasonableness of its plans which are used to support its proposed depreciation rates. This issue was included at the request of OPC. MCI did not take a position on this issue. Southern Bell, FCTA, and OPC all agree that it is the Company's burden to justify the reasonableness of its plans. The parties differ only on whether or not that burden has been met. We agree that Southern Bell has the burden of proof to justify the reasonableness of its network plans.

## B. Planning Process

Southern Bell has over 400 major projects in some phase of implementation in Florida during the 1992-1994 time period. The Company employs a Fundamental Planning Process to evaluate the appropriateness of these projects. Extensive evidence regarding Southern Bell's network planning process was presented in this proceeding. Although our purpose is not to evaluate each step of the process, the process as a whole is important to evaluating Southern Bell's network plans.

The Fundamental Planning Process consists of the following steps: periodic review of the network in relation to growth and service demands, customer needs, productivity improvement potential, and revenue potential; determine the network elements for which action is required; formulate network deployment alternatives, if appropriate; utilize the principles of engineering economy, by comparing the alternatives using the discounted cash flow study methodology over an appropriate study period, or

implementing general deployment guidelines based on such economic studies; select the best alternative network deployment plan; document the plan if the selection represents a change in the network from the present method of operation; and, secure internal approval to proceed with implementation.

The initial stage of this process is to identify a trigger in the network that would justify further evaluation of that portion of the network. Once the trigger has been identified, the network planner evaluates the different alternatives available to the Company. Southern Bell utilizes two basic tools: screening criteria and mechanized economic modeling tools.

The mechanized tools all utilize existing and forecasted data in conjunction with cost information to formulate capital, expense and revenue cash flows for each alternative identified by the network planner. Once the cash flows are calculated the information is fed into a program called "CUCRIT" (Capital Utilization Criteria). The CUCRIT analysis identifies the most economic alternative available to the Company.

In addition to the mechanized tools discussed above, Southern Bell utilizes screening criteria to help evaluate portions of the network. These guidelines were developed by the Company to reduce the amount of work and time needed to support a decision for a specific circumstance that in the past had been determined through economic studies to be the economical choice. This methodology is used extensively in the outside plant deployments if certain criteria are met. If the screening criteria are not met, then either no further action is required or an economic study would be conducted to determine the appropriate action.

When the alternative that is determined to be the most economic is chosen, the network planner drafts an executive approval letter which describes the specific cause for action for the location or geographic area under study, the various alternatives studied, the results of the economic study, any intangible factors that could influence the selected outcome and a recommended plan. If the recommendation is judged to be prudent by all affected organizations within the Company then the project is approved. Projects that meet the screening guidelines will not go through the executive approval process since the guidelines provide the solution.

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### 1. Near Term Switching

In the current Study, Southern Bell proposes to retire 25 analog central offices in the 1992-1994 time period. In addition, the Company is proposing to retire 3 digital remotes during that time period. We have reviewed the economic studies and Demand and Facility Charts provided by the Company as justification for these retirements. No party has stated any specific objections to the proposed near term retirements. However, FCTA states that the Company's network plans for 1992-1994 are not reasonable and economic for adequate basic local exchange service. We find that the information provided by the Company supports its planned switching retirements.

## 2. Future Switching Plans

It is apparent from Southern Bell's Study that the Company plans to move from an analog environment to a digital one during the next decade. The Company plans to replace analog switches with digital switches when the economics justify the retirements and also deploy SONET equipment. No party has objected to the move to a digital network, or the Company's plans to deploy SONET in portions of its network provided the economics justify the deployment. It appears that the main discrepancy between Southern Bell and the other parties is the timing of the retirement of a specific type of technology.

# 3. Copper Cable Near Term Retirement

Southern Bell has approximately 385 anticipated cable projects for the 1992-1994 period. We have reviewed appropriate sample sizes of projects consisting of additions, replacements and retirements of interoffice and feeder facilities throughout Southern Bell's service territory.

OPC asserts that Southern Bell's deployment of fiber technology is based on improper economic analysis which results in uneconomic investment. However, OPC was unable to identify any specific uneconomic investments.

- FCTA claims that Southern Bell has not demonstrated that the network plans for 1992-1994 are reasonable and economic for adequate basic local exchange service. However, FCTA provided no witness to address this issue. Additionally, FCTA did not discuss

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any of the Company's specific network plans during its cross examination at the hearing.

No party has specifically identified any outside plant project that they believe is inappropriate. Upon review, we believe that the Company's near term outside network plans are appropriate.

### 4. Future Plans for Outside Plant

The Company asserts that the deployment of fiber in the interoffice network is well into the rapid deployment stage, and the deployment of fiber in the feeder network is also entering the rapid deployment stage. In addition, the Company states that the deployment of fiber in the distribution network will begin this year. OPC does not object to the continued growth of fiber transmission facilities as long as the fiber growth can be economically justified. We agree, and find that future deployment of fiber, particularly in the distribution network, should be based on economics. Therefore, each fiber project shall continue to be cost justified on an individual basis using standard engineering economic analysis tools and techniques.

# VI. DEPRECIATION RATES JUSTIFIED FOR TELEPHONE SERVICE

FCTA raised the issue of whether Southern Bell should be required to justify its depreciation rates based on what is required for providing monopoly services; however, FCTA neither presented testimony nor conducted any discovery on this issue. FCTA asserts that the Commission must establish depreciation rates that are economically justified for adequate basic local exchange service to avoid having Southern Bell's monopoly services subsidize its competitive services. FCTA's position is based on its interpretation of Chapter 364.3381, Florida Statutes.

FCTA contends that Southern Bell offers various services for which there is competition from other providers, as well as monopoly services for which it faces no competition. It notes as support various comments of Company witnesses. Since Southern Bell is a regulated monopoly that offers both competitive and monopoly services, FCTA concludes that the Company is subject to the crosssubsidization requirements of Chapter 364. Moreover, FCTA asserts that any depreciation rates prescribed in this proceeding should be based on what is required to provide basic local exchange service only.

Southern Bell disagrees with FCTA, asserting that depreciation rates should be based on all services offered or expected to be offered in the near term under the Commission's jurisdiction. Revenues from all telephone services subject to the Commission's jurisdiction are and should be considered as input to a network modernization deployment economic study. This is regardless of whether they are considered competitive or monopoly services. The Company's witness pointed out that depreciation and capital recovery deals with lives of plant rather than who is going to pay for that plant.

OPC also disagrees with FCTA, maintaining that the Company would be required to justify its depreciation rates based on its total investment. OPC agrees with the Company that the depreciation decision of establishing fair lives for the existing investment should be transparent to the use of the equipment in providing services. OPC believes that once depreciation rates are established, the appropriate levels of expense may be separated by Southern Bell to develop costs for individual services as required by the Commission.

FCTA concludes that since Southern Bell acknowledges that there is competition for certain of the Company's services, the cross-subsidy requirements of Section 364.3381 apply to setting depreciation rates. However, Section 364.3381 does not address depreciation rates. Determination of depreciation rates is unrelated to the services provided by use of the plant; it merely provides for recovery of the investment and thereby a means to determine total annual depreciation expenses. Moreover, except where a category of investment is solely related to providing a single service, there is no directly identifiable relationship between investment and services provided using the investment. Depreciation concerns the determination of a category of expense; it identifies a cost to be recovered but it does not specify how the cost should be recovered. Cost recovery is the domain of revenue rate design, and rate design is the means whereby prices for various services are set to recover depreciation expenses. In addition, the record in this proceeding is devoid of any substantive evidence that would provide clear guidance as to how to identify what should be considered "basic local exchange service" and how this is related to preventing Southern Bell's competitive services being subsidized by its monopoly services.

We believe that it is inappropriate to attempt to develop depreciation rates based on whether the equipment provides a

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competitive service or a monopoly service. The network provides both competitive services as well as monopoly service and we believe that the recovery of the network should be provided for the entire network rather that simply a portion that is constantly changing. There is nothing in the record in this proceeding to support a determination that depreciation rates should be established only for the provision of monopoly services or that such is required by Section 364.3381.

### VII. Impact of Fiber Growth

Both Southern Bell and OPC agree that the growth of fiber will create increased retirement of existing metallic facilities in the future. FCTA adopts the position of OPC, and MCI takes no position on this issue.

We agree with the parties. As fiber deployment becomes more economic than existing copper facilities, the retirement of existing metallic facilities will increase. However, we also note that the real debate on the matter of the future retirements of metallic cable is on the timing and how much impact fiber will have.

Additionally, both Southern Bell and OPC agree that there is no known specific date to assume that fiber facilities will reach cost parity with copper cable in the growth of Southern Bell's distribution facilities. However, OPC asserts that the Company has no consistent position regarding cost parity. OPC recommends that the Commission wait for actual data, not estimates which OPC maintains have been invariably wrong.

Southern Bell asserts that it has recently signed multi-year contracts with Raynet and Reliance Corporation which provide for price parity between fiber and copper in the distribution system in 1992. This price parity exists now for first office applications. However, the Company acknowledges that this event does not mean that fiber is the choice every distribution application. The Company estimates general deployment to begin in the 1993-1994 time frame.

OPC recommends that Southern Bell be required to furnish comparative cost data on fiber installations versus their copper alternatives for all early deployments. In addition, OPC believes

that Southern Bell should be required to provide documentation regarding its methodologies and assumptions used in the study.

We believe that future deployment of fiber, particularly in the distribution area, should be based on economics. As discussed earlier in this Order, we expect each fiber project to continue to be cost justified on an individual basis using standard engineering economic analysis tools and techniques. We will continue to review the recommendations Southern Bell makes in its guidelines as part of the normal depreciation study review process.

Finally, an issue was raised as to the projected time periods for the retirement of existing metallic distribution, feeder, and interoffice facilities. This issue was included for informational purposes only. Accordingly, we decline to make a determination on this issue. We believe it would be inappropriate to make such a decision which would be based purely on conjecture.

# VIII. <u>APPROPRIATE LIVES, NET SALVAGES, RESERVES & DEPRECIATION</u> RATES\_

The appropriate lives, net salvages, reserves and resultant depreciation rates for each account are shown on Attachment A, attached hereto. FCTA adopts the position of OPC, while MCI took no position on the issue. There are several accounts for which all parties taking a position are in agreement as to life and salvage components. Those accounts are as follows: Motor Vehicles -Light, Special Purpose Vehicles, all categories of Buildings, the General Support Assets being amortized under Rule 25-4.0178; Poles; Submarine Cable - Fiber; Intrabuilding Cable - Fiber; and, Aerial Wire.

# A. Accounts not Subject to Technological Impact

The accounts discussed below represent those not seriously threatened by technological impact but were contested by the parties. For the reasons explained below, the depreciation rates shown on Attachment A are prescribed for these accounts.

- 1. Motor Vehicles - Other: Effective January 1, 1991, the Company began purchasing, rather than leasing, these vehicles. OPC asserts that the appropriate average service life for new vehicles is about 26 years, while the Company contends that 15 years is

proper. While both are somewhat longer than might be expected, we find that the Company's proposal is more reasonable.

2. Public Telephone: This investment is accounted for on a "location life" basis. In this case, the service life represents the period of time the investment is in service at one location. OPC suggests a net salvage of 60% with an average service life of 9.9 years. These factors appear optimistic for a location life account, particularly since the universe of "pay stations" is encountering a degree of competition and introduction of new However, we have concerns with the salvage activity features. being experienced in the account. Cost of removal has been averaging about 2% which is abnormally low for location life since more time is generally spent removing the equipment so it can be used at another location. This type of data is more representative of what would be expected from a cradle-to-grave account. On the other hand, gross salvage has historically average 62% which is high even for a location life account. With these inconsistencies, we believe that this data is not reliable for basing projections. We believe that data producing life and salvage factors that are clearly not in line with what is typically expected from the equipment should not be relied on simply because that is what is being booked. For this reason, we find that the Company's position with a net salvage of 20% relating to an average service life of 6.8 years is reasonable.

3. <u>Information Originating/Terminating Equipment</u>: Southern Bell and OPC differ in their recommendations for the appropriate net salvage in this account. OPC recommends a salvage factor based on the experience of this account, but the experience is only four years. We do not believe that this data is sufficiently reliable for projections. Thus, we find no convincing reason to change the projected future net salvage underlying current rates as proposed by Southern Bell.

4. <u>Conduit</u>: The Company agrees that the 98.5% survival rate of these assets does not reflect major retirements. OPC's witness points out minimal retirements experienced in this account which are just over one percent total over the period since 1966, and the relationship between these minor retirements and future retirements of the bulk of the plant. Based on those factors, OPC asserts that the Company's proposed negative 30% net salvage is unreasonable, and proposes a net salvage of negative 5%. Additionally, the Company's current net salvage is negative 5%. We find that OPC's

position regarding net salvage is more reasonable, and decline to change the net salvage.

### B. Accounts Subject to Technological Impact

The accounts discussed below are those threatened by technological impact and those where significant disagreement between the parties exists. It is important to note that OPC's life proposals for these technologically threatened accounts are based on the same projection life assumptions as agreed to by the Company and the Federal Communications Commission (FCC) during the recent three-way meetings. OPC's witness stated that reliance on the FCC negotiations was not the only source of input relied upon in determining the proposals; however, he was unable to provide any additional specific support for the proposed projection lives. We must stress that the FCC agreements, which were the product of intense negotiations between the parties and the FCC, are not a part of this proceeding, and shall not be used as the basis for any decision we make.

1. <u>Analog-ESS</u>: Although Southern Bell used Fisher-Pry analysis in determining the remaining life for this account, OPC finds no objection to the proposal. The only disagreement between the parties is the appropriate net salvage. The Company has proposed to maintain the currently prescribed 6% net salvage factor while OPC has recommended using 7%.

OPC's witness proposes a salvage factor based on the recent salvage experience of the account. Historical salvage for this account has averaged over 19% with the 1989-1991 period averaging 15%. OPC's proposal is based on using the future gross salvage of 9% as proposed by Southern Bell in its 1986 and 1992 FCC studies and a 2% cost of removal which is in line with the last five years of data presented in the 1992 Study. But, Analog-ESS is in the final stages of its useful life with reduced opportunity for salvage in the future. As the universe of Analog-ESS decreases, the potential for reuse diminishes. Although there is little difference between the Company's 7% net salvage proposal and OPC's 6% proposal, we have not been presented with any evidence that persuades us to change the currently prescribed 6% net salvage.

2. <u>Digital-ESS</u>: The life proposal presented by the Company for this category considered two separate components: Analog Line Equipment (ALE), representing 55% of the investment; and, Other, representing 45% of the investment. The life proposal for ALE is

correlated with the removal of copper feeder facilities and the deployment of Integrated Digital Loop Carrier (IDLC). The Company used a life of 7.5 years for this portion. The remaining life for Other is retention of the account's currently prescribed remaining life of 12.9. The Company then composited these two components' remaining lives to develop a remaining life of 9.9 years for the category.

OPC's proposed remaining life of 14.9 years is based on the projection life of 17 years agreed to by Southern Bell and the FCC during the recent three-way meeting. The results of the FCC decision and the related depreciation study are not part of this proceeding. Although the OPC witness testified that the FCC negotiations were not the only source relied upon in determining his proposal, OPC was unable to provide any additional specific support for the proposed projection lives.

OPC appears to be concerned that Southern Bell's life proposal is based on the assumption that most of the digital ESS switching investment will be retired to make way for the broadband switching However, as the Study indicates, this will be an fabric. evolutionary process through the addition of new software programs and modular hardware components. With the rapid changes in technology, the modules comprising the digital switches are expected to be upgraded and/or retrofitted in order to provide service more efficiently and economically. We believe that the Company's proposed remaining life of 7.5 years for ALE is appropriate because it ties in to the expected phase-out of metallic feeder cable. However, based on the Company's estimates of the percent of investment associated with the remaining equipment expected to be changed out (processors and switching fabrics) over the life of the switch and that portion not expected to be replaced until the switch itself retires, we find that a 14.6 year life is reasonable. Accordingly, the appropriate average remaining life for this account is 10.7 years.

OPC's proposal for a 20% future salvage is based on the assumption that the salvage realized in the Analog-ESS account is representative of the future for Digital-ESS. The Company's proposal is to maintain the currently prescribed salvage of zero. We cannot assume that the salvage realized in Analog-ESS is necessarily an appropriate measure of what the future will be in Digital-ESS. We therefore find that the future salvage shall remain at 0%.

3. <u>Circuit-Analog</u>: The Company proposal for this subaccount considers that this equipment is reaching the end of its useful life. The Study notes that these assets are being rapidly retired and, lessened vendor support for this technology encourages its removal. This is supported by the activity shown on the Company's 1989, 1990 and 1991 Annual Status Reports which indicate a decrease in this subaccount's investment by approximately 24% with booked retirements of over \$74.5 million during this period.

OPC's life analysis is based on historical data submitted to the FCC for the combined analog, digital and optical circuit account. The Company's projection life proposals for each category were then computed by directly weighting the investment and lives to obtain the total account composite life, with a factor of 1.16606001 applied to each of the Company's projection lives. These projections were further reduced recognizing that this account is more subject to rapid change and therefore less certain in terms of projections.

We must reiterate that the results of the FCC decision and the related depreciation study are not part of this proceeding. We believe that the correct compositing for projection lives is to inversely weight the investment with the lives of each category, not directly weight as OPC 's witness did. We are also unable to find support for OPC's adjustment factor.

We also believe that it is inappropriate to base future salvage projections entirely on the past as OFC did. While making a good point that there is salvage being realized in circuit, OPC's proposed 10% future net salvage for this subaccount is not reasonable because it is a dying technology with a limited future for salvage or sale value. We therefore find that the Company's life and salvage proposal for this account is appropriate.

4. <u>Circuit-Digital</u>: This subaccount consists of digital circuit and the analog-to-digital and digital-to-analog conversion equipment. The Study separated this equipment into two different groups and developed a remaining life for each and then composited for an average remaining life for the subaccount. The Study indicates that the digital circuit equipment will remain in service after conversion from analog to digital switching and will be functional in a SONET environment. This equipment is expected to experience continued growth with retirements following the historical trends. On the other hand, the need for the equipment group which includes the analog-to-digital and digital-to-analog

conversion equipment will virtually disappear as the Company moves to an all digital switching environment. In addition, no change in the salvage factor for this subaccount has been proposed by the Company.

OPC's proposal is based on combined historical data for the entire Circuit-Other account that was submitted to the FCC. While there is little difference in the remaining life as proposed by OPC and that proposed by Southern Bell, we find that the Company's proposal is more appropriate since it considers the factors working on the life of the components of the individual subaccount and not the category's whole historical life indications.

Southern Bell asserts that the correct salvage for this account is the current factor of 3%. OPC proposes to use 10% based on the combined historical salvage for the total circuit account. OPC has pointed out that salvage is being realized for this equipment which the Company has ignored in its proposal. While we agree that a salvage potential exists for the digital circuit equipment, we find that the appropriate amount is 2%.

5. <u>Circuit-Optical</u>: Southern Bell proposes moving from a whole life to a remaining life rate, with its proposed remaining life based on Company planning and Fisher-Pry Substitution Analysis. The Company proposed future net salvage factor is zero.

OPC's proposal is also for a remaining life rate, with its proposed remaining life based on the combined historical data that was submitted to the FCC for the combined circuit account. As discussed above for analog circuit, the results of the FCC decision and the related depreciation study are not part of this proceeding. In addition, we believe that appropriate and specific rates should be prescribed for each homogeneous account or subaccount. Accordingly, we find no support for OPC's position of using the life indicator for the entire Circuit-Other account to develop lives for three separate subaccounts.

We agree with both Southern Bell and OPC that a remaining life rate is appropriate for this subaccount. We recognize that this account will be affected by SONET. As the Study states, the demise of asynchronous fiber technologies will coincide with full deployment of SONET. We find that the Company's proposed remaining life for this category is reasonable and appropriate.

OPC proposes a 10% future net salvage which is based on the combined historical salvage realized for all three sub-categories of circuit. We do not believe it is appropriate to base projections for this subaccount on the activity of the combined accounts. We also conclude that the salvage data submitted for this subaccount is suspect and should not be relied upon to project the future. However, recognizing that there is a reuse potential in the near term decreasing in the long term as asynchronous fiber technology is removed and SONET is deployed, we hereby approve a 2% net salvage.

6. <u>Metallic Cables</u>: The metallic cable accounts are the outside plant assets subject to the most disagreement regarding the degree of the impact of technology, the timing of that impact, and the appropriate depreciation expense. Southern Bell acknowledges that in its last study, the demise of distribution metallic cable was overestimated; however, interoffice and feeder metallic can now be expected to retire faster than previously projected. Southern Bell's remaining life proposals indicate that complete fiber deployment and copper displacement in the interoffice will occur by year-end 1998, in feeder by year-end 2005, and in distribution by year-end 2013.

The Company cites that the rate of increase in the price of copper and decrease in the price of fiber have not met the expectations of the last represcription. Also, in the last study initial deployment of fiber in the distribution was expected to be about 1990, while now it is seen as being late 1992.

OPC submits that the Company is still overestimating the impact of fiber on the life of metallic. OPC's witnesses advocate an historical approach, maintaining that recent historical data includes significant replacements due to modernization, and therefore, is appropriate to apply the experience to projections. Southern Bell's witnesses assert that analysis of history alone will not predict the future for assets affected by technological changes, and ignores the rapid rate of technological advancement.

There are also differences in position regarding discrepancies in numbers in the Study. OPC's witness claims that actual metallic cable retirements were much lower than forecasted by Fisher-Pry analysis. Southern Bell disputes the accuracy of OPC's analysis. Additionally, projected metallic cable retirements in the depreciation study are higher than those shown in the Company budgets. The Company witness explained that the budget figures

relate to actual retirements of cable, while the depreciation study relates to "stranded" pairs - pairs no longer used and useful within a cable whose function has been displaced by fiber.

Upon review, we prescribe the following remaining lives for each Metallic Cable subaccount: (1) Aerial and Buried Cable - 9.7 years and 9.0 years, respectively, as proposed by Southern Bell and Staff; (2) Underground - 6.0 years, as proposed by Southern Bell (3) Submarine - 9.0 years, as proposed by Southern Bell and Staff; (4) Intrabuilding - 9.7 years, as proposed by Southern Bell and Staff.

7. <u>Fiber Cables</u>: Southern Bell's remaining life proposals for these subaccounts are based on continued use of the average service lives which this Commission has been using for these assets. All parties agree on the life parameters for the Submarine and Intrabuilding cable subaccounts.

For the Aerial, Underground, and Buried Cable subaccounts, OPC advocates longer service lives, proposing the same lives as agreed on in negotiations between the Company and the FCC. As previously stated, we are unwilling to adopt lives agreed upon through negotiations between the Company and the FCC.

Considering that the service life of earlier installations of new technologies is often overestimated, we find it appropriate to maintain the existing basic service lives underlying current rates, and the resulting remaining lives as calculated by the Company for the fiber cable subaccounts. The 20 year projected life is currently in general use in this State. We believe that as fiber becomes the facility in general use, more information as to its potential life will become available.

### IX. FISHER-PRY ANALYSIS

OPC insisted on the inclusion of three issues regarding the use of Fisher-Pry analysis in this proceeding. First, we have been asked to determine whether Fisher-Pry substitution analysis is appropriate for use in establishing estimated lives for publicly regulated utility investments.

Southern Bell maintains that studies of technological substitution confirm that substitutions of new technologies in the telephone industry follow the Fisher-Pry pattern. Its basic

principle, that the adoption rate of a new technology is proportional to the fraction of the old technology still in use, is equally applicable to regulated and non-regulated industries.

OPC asserts that Fisher-Pry substitution analysis, or any other legitimate data, properly presented, may be helpful in determining the future life of existing assets of a utility. FCTA adopts the position of the Office of Public Counsel on this issue, and the analysis and argument in support thereof. MCI took no position.

We believe that the positions of the parties indicate basic agreement that the formula can prove helpful. Thus, we find that as an adjunct to the depreciation process, use of the Fisher-Pry formula, along with engineering plans and other projection techniques, may be helpful in estimating the prospective life of existing assets of a regulated utility.

Next, we must determine whether Fisher-Pry substitution analysis is appropriate for use in estimating lives for outside plant cable accounts, circuit accounts and central office switching accounts.

Southern Bell asserts that these accounts are directly affected by technological obsolescence, and that national studies have been performed which indicate that Fisher-Pry is appropriate in estimating lives for cable, circuit, and central office switching equipment. Southern Bell's own life cycle analysis is consistent with these national studies.

OPC contends that Fisher-Pry analysis is not appropriate for establishing remaining lives for outside plant cable accounts, circuit accounts and central office switching accounts. FCTA adopts the position of the Office of Public Counsel on this issue, and the analysis and argument in support thereof. MCI took no position on this issue.

OPC's witness suggests that Fisher-Pry analysis should be given whatever weight it deserves when presented by a company. However, the witness recommended that the Commission take no formal position regarding the validity of Fisher-Pry analysis for establishing depreciation lives. In response to being asked whether Fisher-Pry is appropriate for use in estimating lives for outside plant cable accounts, circuit accounts and central office switching accounts, the OPC witness responded that any consistent,

studious analysis of data should be considered. OPC insisted that issues regarding Fisher-Pry analysis be included in this proceeding. OPC's position is inconsistent with that of its witness.

We believe that Fisher-Pry is a forecasting tool that when used in conjunction with engineering plans and other projection techniques, can be helpful in estimating the future life expectancy of existing assets.

Finally, we must determine whether Southern Bell properly applied Fisher-Pry substitution analysis in establishing its proposed depreciation rates.

Southern Bell contends that its application of Fisher-Pry substitution analysis is consistent with the procedures surrounding the Fisher-Pry concept. The adaptations used by Southern Bell to the initial and final stages of substitution as well as the use of near-term deployment plans are valid. Southern Bell believes that its analysis is a reasonable application of Fisher-Pry.

In referring to the predictions made using Fisher-Pry in the last study, Southern Bell's witness pointed out that the rate of increase in the price of copper and decrease in the price of fiber have not met the expectations of the last represcription. In addition, the Company witness maintained that changes from the last study are due to slowdown in the economy and vendors that did not deliver the expected equipment at the expected prices.

OPC maintains that Bell South has improperly utilized Fisher-Pry analysis to project remaining lives in this docket. OPC's witness suggested that forecasting is not an exact science, and any attempt to project the future is inherently subjective. The witness also asserted that some analysts rely on Fisher-Pry because the results are subjective and lend themselves to interpretation through data selection.

While both the Company and OPC take strong, and opposite, stands, both acknowledge that forecasting is subjective. There is no evidence in meaningful support of either extreme. Any analysis can produce different results by changing input variables. Thus, Fisher-Pry is no more subjective than the OPC analysis. While the Company appears to have used Fisher-Pry in a fashion acceptable to users of the formula, the results cannot be considered as guarantees of the future. We find that the Company has made the

calculations in a standard fashion, though the results of the calculations can be subjective, and not necessarily useful categoric fact.

In addition, OPC argues that Southern Bell's use of Fisher-Pry substitution analysis in the development of its proposed remaining lives is a deviation from accepted depreciation methodologies as set forth in Rule 25-4.0175. OPC contends that the rule requires the Company to use historical trends. Accepted depreciation methodologies required in the Rule are whole life and remaining We reiterate that Fisher-Pry is not a depreciation life. methodology but simply a forecasting tool that can be used in determining the remaining life just as historical data can be used. The Rule requires the submission of the specific factors used in the developing the depreciation parameters, such as company planning, growth, technology, physical conditions and trends. Any statistical or mathematical methods of analysis or calculations used are also submitted. The Rule does not require a given type of analysis that should be use in determining the remaining life. The offered Fisher-Pry analysis as support and Company has justification for its proposed remaining lives. We find that the use of any analysis whether that may be historical life analysis, Fisher-Pry analysis or some other analysis does not constitute a deviation from Rule 25-4.0175.

# X. CAPITAL RECOVERY AND AMORTIZATION SCHEDULES

Southern Bell has proposed capital recovery schedules for Operator Systems-Analog, Operator Systems-Crossbar, and Analog-ESS. We find these investments as well as the digital switching investment planned for retirement during 1992-1994 to be appropriate. The Company's proposed recovery schedule for Analog-ESS uses a zero net salvage factor that is consistent with the currently prescribed recovery schedule for this account. Southern Bell maintains that this is a dying technology and the opportunity for reuse is small as fewer and fewer analog offices remain in operation. Further, there is no market for selling this equipment as this technology is no longer state of the art.

The only recovery schedule addressed by OPC's witnesses was Analog-ESS. OPC proposes use of a 25% net salvage. There is nothing in the record regarding any opposition that OPC is taking with the other two recovery schedules proposed by Southern Bell.

The Company provided data showing that three switches in the Digital-ESS account are planned for near term retirement in the 1992-1994 period. These locations will not be fully recovered at the time of retirement; thus, we believe it is appropriate to place these switches on a recovery schedule. The Company indicated that there is reuse salvage involved with each of these planned retirements but could not quantify the amount. However, the historical gross salvage for this account has ranged from 54% in 1984 to 11% in 1991 with a total for the category of around 20%. The historical cost of removal does not represent an accurate picture because the data submitted shows that the Company has reversed more cost of removal than it previously booked. We believe that 20% is a reasonable estimate of what can be expected from these switches, and have used a 20% net salvage value in calculating the recovery schedule for this account.

MCI has taken no position on this issue. FCTA has adopted the position of the Office of Public Counsel and the analysis and argument in support thereof.

Upon review, we approve the capital recovery schedules as shown on Attachment B. We are approving the schedules proposed by Staff, except that we are assigning a 5% net salvage value to Analog-ESS. While we agree that some reuse salvage is likely to be realized from this retiring equipment, we do not agree with OPC and the Staff that reuse will be as high as 25%. This is a dying technology, and the opportunity for reuse decreases as fewer analog offices remain in operation. The monthly expense for each recovery schedule shall be calculated by dividing the net amount to be recovered by the months remaining for recovery. This will take care of additions and interim retirements, as well as actual salvage experienced, and any shifts in retirement dates. All activity relating to these schedules shall be recorded to these schedules and not to another depreciation category or account.

The appropriate amortization schedules are covered under Rule 25-4.0178, Florida Administrative Code, and are recovered over a predetermined time period as specified in that rule. The accounts involved are: Garage Work Equipment, Other Work Equipment, Furniture, Office Support Equipment, Official Communication Equipment, and General Purpose Computers.

All parties advocate a three year period for recovery schedules. The Company and OPC agree that a three-year recovery period is appropriate for Analog-ESS. MCI Telecommunications

Corporation (MCI) has taken no position on this issue. Florida Cable Television Association (FCTA) stated in its brief that it adopts the position of the Office of Public Counsel on this issue, and the analysis and argument in support thereof.

However, there is disagreement on what basis should be used spread the expense. The Company supports the concept that the recovery of capital should be achieved over the period during which the assets associated with that capital will be in service. OPC's witness agreed with this in his testimony. Indeed, the recovery schedule calculations illustrated by OPC's witness uses the same methodology that is proposed by the Company. This methodology will provide recovery of the 1992 retirements during 1992, the 1993 retirements during 1992 and 1993, and the 1994 retirements are during 1992, 1993 and 1994. This matches expense to consumption.

OPC supports reducing the impact of the capital recovery schedules by amortizing the total amount of all the installations equally over the three year period. This method conflicts with the concept of recovering the capital over its useful life as testified to by OPC's witness. OPC's position would have the Company recovering the capital for locations after they have been retired and no longer serving the public. In addition, OPC's position for Operator Systems-Crossbar and Operator Systems-Analog uses the Company's proposed recovery schedule figures.

Upon review, we find that the appropriate time period for a schedule recovering retiring assets is the remaining period that a given asset is to be in service to the public.

### XI. FINDINGS OF FACT

FCTA has submitted proposed findings of fact to this proceeding pursuant to Rule 25-22.056(2).

### A. First Proposed Finding of Fact

FCTA proposes the following:

The Commission finds that Southern Bell makes no distinction in its network planning between monopoly services and services offered by other providers in competition with Southern Bell.

We reject this proposed finding. First, this docket was opened for the purpose of setting depreciation rates. This finding is not relevant to the subject matter of this docket. We also do not believe that this finding, as stated, reflects current conditions. Southern Bell's witness Gray stated, "if the services are under the regulatory jurisdiction of this Commission, i.e., they're regulated services, then whether they're competitive or not, from my standpoint as a network planner, doesn't matter." It appears that FCTA is attempting to use this statement to get to the broader issue of the requirements of Chapter 364 regarding crosssubsidization. Those matters are properly at issue in Docket No. 920260-TL, Southern Bell's pending rate case, and Docket No. 910757-TP, the cross-subsidization docket. Our concern is the possibility that this specific finding could be used to imply a much broader meaning than intended by this Commission.

### B. Second Proposed Finding of Fact

FCTA proposes the following:

The Commission finds that Southern Bell is currently offering monopoly telecommunications services and telecommunications services which are offered by other telecommunications services providers in competition with Southern Bell.

We reject this proposed finding. As support for this finding, FCTA cites transcript references where Southern Bell's witness testifies that Southern Bell operates in a competitive environment and that competition is one reason for depreciation rate changes. We believe that it does not necessarily follow from this testimony that Southern Bell is currently offering monopoly services and services which are offered by other providers in competition with Fundamentally, it appears that FCTA is again Southern Bell. attempting to establish the existence of a legal distinction -competitive versus telecommunications services monopoly That distinction is provided in telecommunications services. Sections 364.02(3) and 364.338, and is also appropriately the subject matter of other dockets currently before this Commission. Additionally, no cross-examination of any of the witnesses addressed competition-related matters from regulatory a perspective. It is inappropriate to manipulate the record in this proceeding to accommodate a finding that is not relevant to the outcome of this proceeding, which is establishing the appropriate depreciation rates for Southern Bell.

#### XII. IMPLEMENTATION DATE

There is no dispute among the parties who have taken a position on this issue that January 1, 1992 should be the implementation date for new depreciation rates and capital recovery schedules. Pursuant to Rule 25-4.0175 (6), all data and calculations have been made matching this date. Accordingly, we find that the appropriate implementation date is January 1, 1992. In addition, 1992 earnings changes resulting from changes in depreciation rates will be included as exogenous factors as previously decided by the Commission in Docket No. 880069-TL.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that each finding set forth herein is approved in every respect. It is further

ORDERED that BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company's currently prescribed depreciation lives, salvage values, reserves, depreciation rates and recovery schedules are hereby revised. It is further

ORDERED that the depreciation lives salvage values, reserves, and depreciation rates shown on Attachment A to this Order are hereby prescribed for BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company for the three-year period beginning January 1, 1992. It is further

ORDERED that the recovery schedules shown on Attachment B to this Order are hereby prescribed for BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company. It is further

ORDERED that the monthly expense for each recovery schedule shall be calculated by dividing the net amount to be recovered by the months remaining for recovery. All activity relating to these schedules shall be recorded to these schedules and not to another depreciation category or account. It is further

ORDERED that the reserve allocation shown on Attachment C to this Order is hereby prescribed for BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company. It is further

ORDERED that BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company's network plans for the 1992-1994 period, including switching retirements, copper retirements, future switching plans, and future outside plant plans, as set forth in Section V of this Order, are hereby found to be reasonable. It is further

ORDERED that the proposed findings of fact submitted by the Florida Cable Television Association are hereby rejected for the reasons set forth within the body of this Order.

By ORDER of the Florida Public Service Commission, this 25th day of <u>March</u>, <u>1993</u>.

Division of Records and Reporting

(SEAL)

PAK

Chairman Deason dissented from the Commission's decision approving the reserve transfer between the Operator Systems-Digital and Circuit-Digital accounts.

Chairman Deason also dissented from the Commission's decision regarding the appropriate depreciation rates for the Digital-ESS and Underground Cable-Metallic accounts.

Chairman Deason also dissented from the Commission's decision to approve a 5% salvage value for Analog-ESS on the capital recovery and amortization schedule.

### NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water or sewer utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, The pursuant to Rule 9.110, Florida Rules of Civil Procedure. notice of appeal must be in the form specified in Rule 9.900 (a), Florida Rules of Appellate Procedure.

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# SOUTHERN BELL TEL. AND TEL. CO. 1992 STUDY COMMISSION APPROVED RATES

ACCOUNT		AVERAGE REMAINING LIFE (YRS.)	NET SALVAGE (%)	RESERVE (%)	REMAINING LIFE RATE (%)
area from a f	SUPPORT ASSETS ·			0.200.0	10.5
GENERAL	Motor VehLight	3.9	14.0	45.14	10.5
	Motor VehOther	2.6	14.0	71.36 87.70	2.5
	Special Purpose Vehicles	5.0	0.0	19.36	2.1
	Bldgs, -Large Adm's & DPC's	36.0	3.0	18.25	2.4
	Buildings - Large Cent. Ofcs.	33.0 42.0	3.0	19.25	1.9
	Buildings - Local Cent. Ofcs.	23.0	6.0	15.48	3.4
	Buildings - Misc.	23.0	7 Year Amortization		
	Garage Work Equipment		7 Year Amortization		
	Other Work Equip. Furniture		10 Year Amortization		
	Office Support Equip.		7 Year Amortization		
	Official Comm. Equip.		5 Year Amortization 5 Year Amortization		
	Gen. Purpose Computers		5 Year Amortization		
	Building Computers		J Test Theorem		
OF NTP AL	OFFICE ASSETS		6.0	53.87	5.9
CENTRAL	Analog ESS	6.8	0.0	19.80	7.5
	Digital ESS	10.7	0.0	2.90 **	7.1
	Operator Systems - Digital	13.6 3.0	(3.0)	82.89	6.7
	Radio-Non-Cellular	9.8	(3.0)	10.90	9.4
	Radio, Microwave & Other	2.2	3.0	36.58	27.5 27.5
	Circuit-Analog Circuit-Analog Cap. Rec. Sch.	2.2	3.0	36.58 40.61 **	7.5
	Circuit – Digital	7.7	2.0 2.0	40.61 **	7.5
	Circuit-Digital Cap. Rec. Sch. Circuit - Optical Eqpt.	7.7 6.2	2.0	23.39	12.0
DECODI()	TION ORIGINATION/TERMINATI	ON	20.0	59.79	6.7
INFORMA	Public Telephone	5.0	20.0	46.75	7.8
	Info Orig. Term.	5.7	9.0	107.00.00	
CARLES	WIRE FACILITIES			33.67	3.5
CADEE a	Poles	34.0	(51.0)		6.9
	Aerial Cable - Metallic	9.7	(9.0)	42.41	5.3
	Aerial Cable - Fiber	17.7	0.0	6.06	9.0
	Undgd. Cable - Metallic	6.0	0.0	45.96	4.5
	Undgd. Cable - Fiber	16.5	2.0	23.69	6.9
	Buried Cable - Metallic	9.0	(4.0)	42.10	4.7
	Buried Cable - Fiber	16.9	3.0	17.11	4.7
	Submarine Cable - Metallic	9.0	(2.0)	52.55	4.4
	Submarine Cable - Fiber	16.7	0.0	27.07	
	Intrabuilding Cable - Metallic	9.7	(9.0)	50.80	6.0
	Intrabuilding Cable - Fiber	18.6	(5.0)	39.29	3.5
	Intrabuilding Cable - Fiber	6.5	(35.0)	68.80	10.2
	Aerial Wire	43.0	(5.0)	21.10	2.0
	Conduit	45.0			

\*\* Denotes restated reserve

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## SOUTHERN BELL TEL. AND TEL. CO. 1992 STUDY SUMMARY OF APPROVED CAPITAL RECOVERY SCHEDULES

1.9	1-1-92 INVESTMENT (000)	1-1-92 RESERVE (000)	EST. ADDS. (000)	EXPECTED SALVAGE (000)	NET TO BE RECOVERED (000)
Analog-ESS				2 172	22,558
1992 Rets.	69,462	43,543	112	3,473	35,494
1993 Rets.	101150	86,397	1,572	6,333 3,623	22,249
1994 Rets.	72,451	47,451	872	3,023	80,301
Tota		177,391	2,556	13,429	00,001
Digital-ESS		121	0	379	1,141
1993 Rets	1,896	376	0	543	1,633
1994 Rets		537	0	922	2,774
Tota	4,609	913	0	922	
Operator Systems-Analog			0	0	10,629
1993 Rets	1 15,117	4,488	0	0	10,629
Tota	15,117	4,488	0	0	10,000
Operator Systems-Crossbar	1	2.045	0	0	1,889
1993 Rets	4,954	3,065	0	0	1,889
Tota	4,954	3,065	0	0	
TOTAL	s 293,245	185,857	2,556	14,351	95,593

The monthly expense for each recovery schedule shall be calculated by dividing the net amount to be recovered by the months remaining for recovery. This will take care of additions and interim retirements, as well as actual salvage experienced, and any shifts in retirement dates. All activity relating to these schedules shall be recorded to these schedules and not to another depreciation category or account.

# ATTACHMENT C

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# SOUTHERN BELL TEL. AND TEL. CO. 1992 STUDY APPROVED RESERVE ALLOCATION

