

TELECOMMUNICATIONS REGIONAL HOLDING COMPANY OVERVIEW  
Comparative Valuation Tables  
(in millions, except for per-share data & ratios)

DIVIDEND RISK MEASURES:

|                   |     | Cal. 1993E<br>FCF (4) | Cal. 1993E<br>FCF/Rev. | Cal. 1993E<br>Cap. Ex. | Cal. 1993E<br>Cap.Ex./Rev. | Cal. 1993E<br>Gross Div. | Cal. 1993E<br>Div./Rev. | Cal. 1993E<br>Dep. & Am. | Cal. 1993E<br>D&A/Rev. | Cal. 1993E<br>EBITDA | Cal. 1993E<br>EBITDA/Rev. | Cal. 1993E<br>Inc.Cap.Ex. (7) | Cal. 1993E<br>ICE/FCF |
|-------------------|-----|-----------------------|------------------------|------------------------|----------------------------|--------------------------|-------------------------|--------------------------|------------------------|----------------------|---------------------------|-------------------------------|-----------------------|
| Ameritech         | AIT | \$179                 | 1.6%                   | \$2,350                | 20.4%                      | \$991                    | 8.6%                    | \$2,100                  | 18.2%                  | \$4,521              | 39.2%                     | \$522                         | 290.8%                |
| Bell Atlantic     | BEL | \$435                 | 3.3%                   | \$2,500                | 18.9%                      | \$1,160                  | 8.8%                    | \$2,600                  | 19.7%                  | \$5,350              | 40.5%                     | \$1,098                       | 252.4%                |
| BellSouth         | BLS | \$273                 | 1.7%                   | \$3,350                | 21.0%                      | \$1,362                  | 8.5%                    | \$3,200                  | 20.0%                  | \$6,520              | 40.8%                     | \$1,440                       | 528.3%                |
| NYNEX             | NYN | \$312                 | 2.4%                   | \$2,750                | 20.8%                      | \$973                    | 7.3%                    | \$2,650                  | 20.0%                  | \$5,271              | 39.8%                     | \$477                         | 153.0%                |
| Pacific Telesis   | PAC | \$108                 | 1.1%                   | \$2,075                | 20.7%                      | \$882                    | 8.8%                    | \$1,875                  | 18.7%                  | \$4,075              | 40.6%                     | \$694                         | 640.0%                |
| Southwestern Bell | SBC | \$275                 | 2.7%                   | \$2,150                | 20.9%                      | \$905                    | 8.8%                    | \$1,900                  | 18.5%                  | \$4,260              | 41.4%                     | \$833                         | 302.9%                |
| US West           | USW | \$170                 | 1.6%                   | \$2,225                | 21.0%                      | \$885                    | 8.3%                    | \$1,950                  | 18.4%                  | \$4,480              | 42.3%                     | \$416                         | 244.2%                |
| GTE               | GTE | \$131                 | 0.6%                   | \$3,800                | 18.5%                      | \$1,694                  | 8.2%                    | \$3,575                  | 17.4%                  | \$8,250              | 40.1%                     | \$1,272                       | 970.4%                |

Note 3: Adjusted Market Cap. = Market Cap. + Debt-Cash

Note 4: Free Cash Flow = Net Income + Depreciation & Amortization - Net Cap. Exp. - Dividends

Note 5: Implied Growth Rate = Return on Equity (ROE) x (1 - Dividend Payout)

Note 6: Excludes Extraordinary Items. & One-time Adj.

Note 7: Estimated Incremental Capital Expenditures over current spending plans needed to offer interactive broadband capability to 30% of households by 1998.

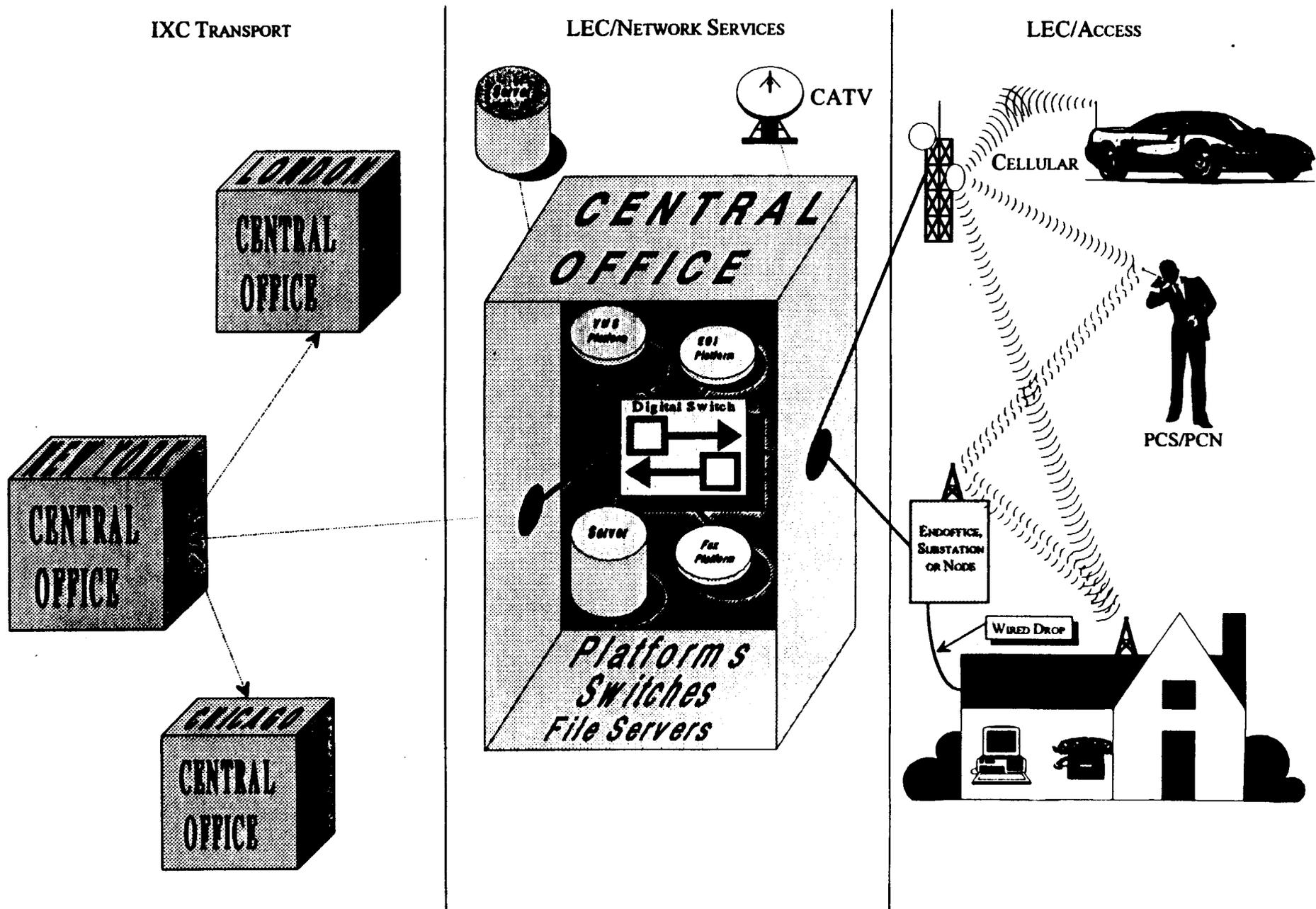
Source: Alex. Brown & Sons

**Regional Telecommunications Holding Companies**  
**April 8, 1993**

**Alex. Brown & Sons**  
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**APPENDIX C**

# TELECOMMUNICATION NETWORK INFRASTRUCTURE

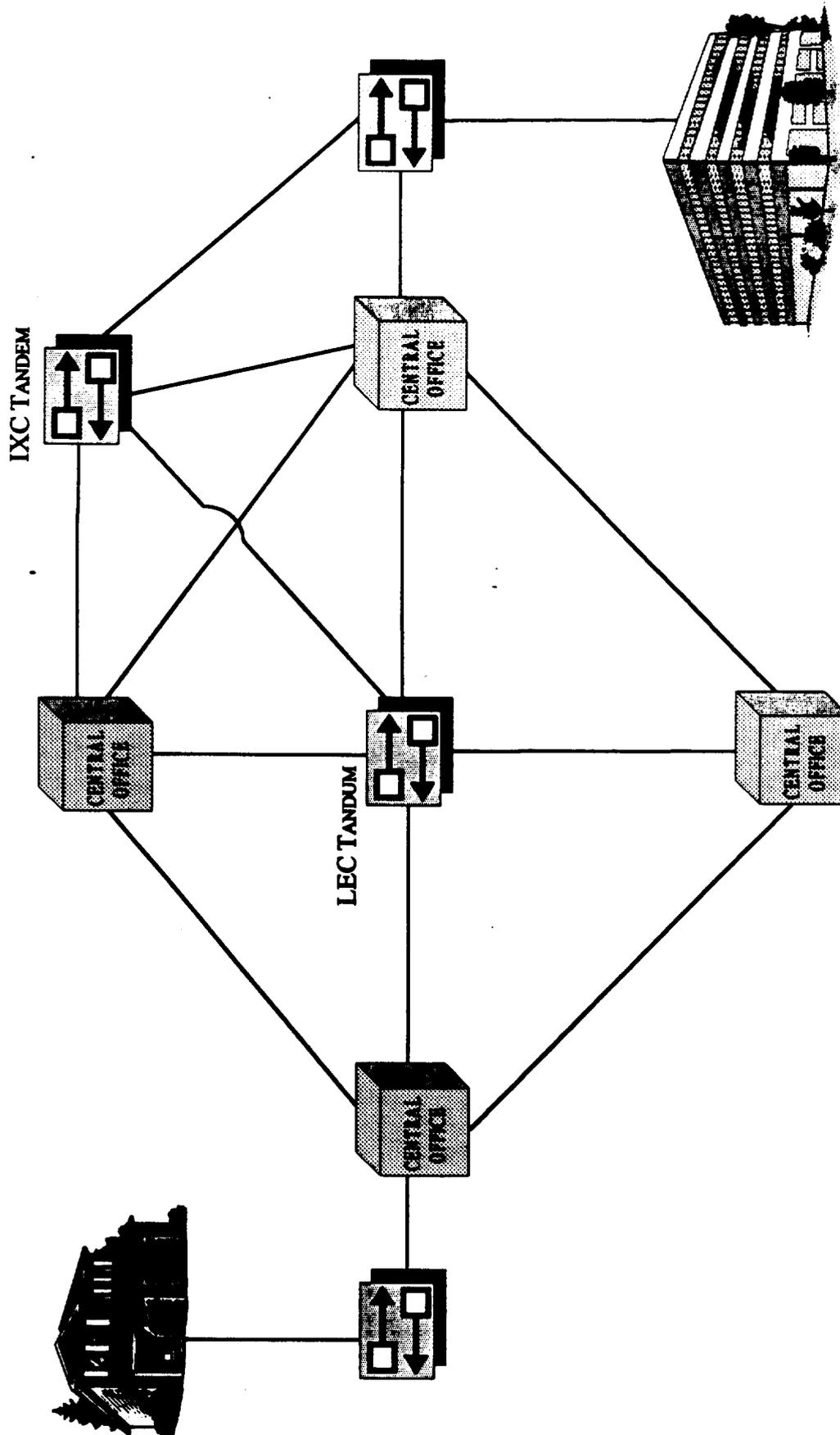


Regional Telecommunications Holding Companies  
April 8, 1993

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SWITCHED/TRUNKED NETWORK



Source: Alex. Brown & Sons

*Additional Information Available Upon Request*

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February 22, 1994

**PACIFIC TELESIS CORPORATION**  
(NYSE: PAC)

*Premier Investment In Wireless Telecommunications Services*

| Price<br>2/22/94                                 | Analyst<br>Stock Rating | 52-Week<br>Price Range | EPS (FY: Dec.) |        |                                      | Cal. Yr. P/E |       | Indicated |       |
|--|-------------------------|------------------------|----------------|--------|--------------------------------------|--------------|-------|-----------|-------|
|  |                         |                        | 1993A          | 1994E  | 1995E                                | 1994E        | 1995E | Dividend  | Yield |
| 55 3/8   | 1                       | 59 - 45                | \$2.59         | \$2.60 | \$2.70                               | 21.3x        | 20.5x | \$2.18    | 3.9%  |
| <b>Shares Outstanding: 423.1 million</b>         |                         |                        |                |        | <b>DJIA: 3887.46</b>                 |              |       |           |       |
| <b>Market Value of Common: \$23.4 billion</b>    |                         |                        |                |        | <b>S&amp;P 500: 467.69</b>           |              |       |           |       |
| <b>Average Daily Volume: 1.02 million shares</b> |                         |                        |                |        | <b>Est. 3-5 Year Growth Rate: 6%</b> |              |       |           |       |
| <b>Estimated Float: NA</b>                       |                         |                        |                |        | <b>HQ: San Francisco, CA</b>         |              |       |           |       |

**INVESTMENT CONCLUSION: STRONG BUY**

We recently raised our investment rating on Pacific Telesis (PAC) to "strong buy" from "neutral" because we believe Pacific Telesis is the premier way to invest in Wireless Telecommunications Services for investors seeking a balance of moderate risk and total return. Pacific Telesis is dramatically undervalued relative to the other Regional Telecommunications Holding Companies (RHCs) and is well-positioned to be a premier provider of new wireless Personal Communications Services (PCS) because we doubt that any company can deploy PCS faster or at a lower cost than can Pacific Telesis.

- **Superior position to benefit from PCS--**We believe that Pacific Telesis will be the likely winner of a 30 MHz Major Trading Area (MTA) license in all of its region when the PCS Spectrum Auctions are conducted later this year by the FCC. A license for a large amount of spectrum throughout the Company's region may uniquely position it to offer low-cost wireless services faster and more efficiently than can any of its potential in-region competitors. Few other potential winners of these new licenses appear similarly positioned.
- **Aggressive strategy to maintain market share--**Pacific Telesis is well-positioned to compete in its region because of its well-articulated strategy to defend market share and add new sources of revenue. These goals can be achieved by aggressively deploying new "full service" networks that integrate interactive video-to-the-home, wireless PCS and high-speed business data applications, and by cutting costs.
- **Very attractive valuation--**Despite these opportunities, the shares trade at a substantial discount to the RHC group on a basis of dividend yield and earnings before interest taxes, depreciation and amortization (EBITDA) multiple (see Table 1 on page 5). We suspect some investors may have overlooked the value of Pacific Telesis shares while focusing on Airtouch Communications (Pacific Telesis' wireless spin-out).



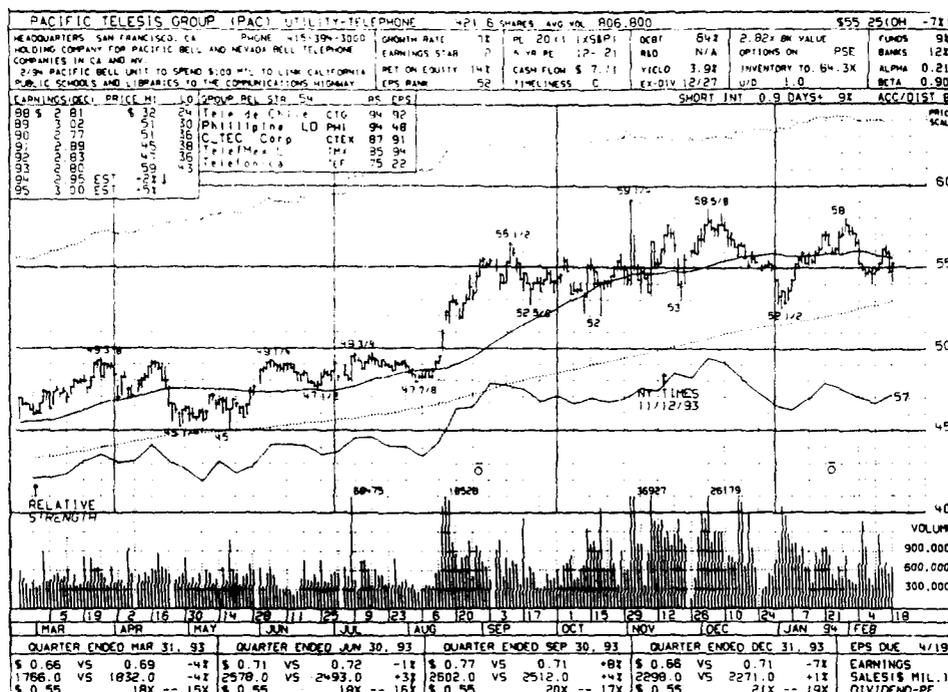


Chart Courtesy of William O'Neil & Co.  
February 18, 1994

**PACIFIC TELESIS CORPORATION**

**EARNINGS PER SHARE (FY: DEC.)**

|    | 1991A  | YY CHG | 1992A  | YY CHG | 1993A  | YY CHG | 1994E  | YY CHG | 1995E  | YY CHG |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1Q | 0.64   | NA     | 0.68   | 6%     | \$0.65 | -4%    | \$0.65 | 0%     | NE     | NM     |
| 2Q | 0.80   | NA     | 0.71   | -11%   | 0.71   | 0%     | 0.71   | 0%     | NE     | NM     |
| 3Q | 0.70   | NA     | 0.71   | 1%     | 0.77   | 8%     | 0.77   | 0%     | NE     | NM     |
| 4Q | 0.40   | NA     | 0.71   | 78%    | 0.51   | -28%   | 0.51   | 0%     | NE     | NM     |
| FY | \$2.54 | NA     | \$2.82 | 11%    | \$2.59 | -8%    | \$2.60 | 0%     | \$2.70 | 4%     |

**ANNUAL FINANCIAL DATA**  
(\$ millions)

|                       | 1991A     | 1992A     | 1993A         | 1994E       | 1995E     |
|-----------------------|-----------|-----------|---------------|-------------|-----------|
| Net Revenues          | \$9,895.0 | \$9,935.0 | \$9,244.0     | \$9,427.0   | \$9,586.0 |
| Net Income            | \$1,015.0 | \$1,142.0 | (\$1,504.0) * | \$1,100.0 * | \$1,162.0 |
| Cash Flow             | \$2,659.0 | \$3,053.0 | \$4,084.0     | \$4,168.0   | \$4,385.0 |
| Pretax Margin         | 16.6%     | 17.7%     | NM            | 17.9%       | 18.7%     |
| Return on Avg. Equity | 13.2%     | 14.2%     | NM            | 17.1%       | 21.5%     |
| Return on Avg. Assets | 4.7%      | 5.2%      | NM            | 4.9%        | 5.4%      |

\* Includes Restructuring Charges of \$1,431 million and Effect of Accounting Changes

**FINANCIAL POSITION AS OF 12/31/93**  
(\$ millions)

|                         |            |
|-------------------------|------------|
| Total Assets            | \$23,437.0 |
| Working Capital         | (\$762.0)  |
| Long-Term Debt (LTD)    | \$5,129.0  |
| LTD/Tot. Capitalization | 40%        |
| Cash Flow/LTD           | 80%        |
| Current Ratio           | 0.8:1.0    |
| Shareholders' Equity    | \$7,786.0  |

**SOURCES OF REVENUE**

|                  | 1993A  | 1994E  |
|------------------|--------|--------|
| Local Service    | 37.6%  | 38.4%  |
| Net Acc - Inter  | 17.5%  | 17.7%  |
| Net Acc - Intra  | 7.4%   | 7.5%   |
| Toll Service     | 22.3%  | 21.5%  |
| Other Businesses | 15.2%  | 15.0%  |
| Total            | 100.0% | 100.0% |

**MEASURES OF VALUE**

|  |          |
|--|----------|
| Book Value Per Share (12/31/93)        | \$19.83  |
| Price-to-Book Value                    | 2.8x     |
| P/E CY 1994E/3-5 Yr. Est. Growth Rate  | 350%     |
| Market Cap./FY 1994 Est. Revenue       | 2.5x     |
| P/E-to-S&P 500 P/E Calendar Year 1994E | 1.3x     |
| P/E-to-S&P 500 P/E Calendar Year 1995E | 1.3x     |
| 4-Year P/E Ratio Range                 | 21 - 12x |

**INSTITUTIONAL HOLDINGS**

|                          |       |
|--------------------------|-------|
| Common Shrs Held (mil.): | 169.4 |
| % Total Outstanding:     | 40.0% |

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## SUMMARY

We recently raised our investment rating on Pacific Telesis (PAC) shares to "strong buy" from "neutral" because we believe Pacific Telesis is the premier way to invest in Wireless Telecommunications Services for investors seeking a balance of moderate risk and total return. Pacific Telesis consists mainly of the wireline telephone and other operations of Pacific and Nevada Bell, and currently holds about an 86% ownership in Airtouch Communications (PTW) which is expected to be spun out to shareholders by Pacific Telesis in the next few months. Current investors in Pacific Telesis will receive one share of Airtouch Communications (PTW) when the expected spinout to shareholders occurs. Airtouch Communications, currently trading at 24, is one of the largest global suppliers of wireless telecommunications services. We believe that Pacific Telesis is dramatically undervalued relative to the other RHCs and is well-positioned to be a premier provider of new wireless Personal Communications Services (PCS) because we doubt that any company can deploy PCS faster or at a lower cost than can Pacific Telesis. Conservative investors in Pacific Telesis concerned about a potential decline in the value of Airtouch Communications shares prior to the spinout may want to hedge by selling PTW shares "against the box."

- **Superior position to benefit from PCS--**We believe that Pacific Telesis will be the likely winner of a 30 MHz<sub>2</sub> MTA license in all of its region when the PCS Spectrum Auctions are conducted later this year by the FCC. A license for a large amount of spectrum throughout the Company's region may uniquely position it to offer low-cost wireless services faster and more efficiently than can any of its potential in-region competitors. Few other potential winners of these new licenses appear similarly positioned.
- **Aggressive strategy to maintain market share--**Pacific Telesis is well-positioned to compete in its region because of its well-articulated strategy to defend market share and add new sources of revenue. These goals can be achieved by aggressively deploying new "full service" networks that integrate interactive video-to-the-home, wireless PCS and high-speed business data applications, and by cutting costs.
- **Very attractive valuation--**Despite these opportunities, the shares trade at a substantial discount to the RHC group on the bases of dividend yield and EBITDA multiple (see Table 1). We suspect some investors may have overlooked the value of Pacific Telesis shares while focusing on Airtouch Communications (PTW). Pacific Telesis shares currently trade at about 4.6 times EBITDA, at the low end of the range for the group and much lower than for stocks of Cable TV and cellular companies, which are often valued at 10-20 times EBITDA. Multiple expansion may be enhanced if investors in wireless cellular, Specialized

Mobile Radio (SMR) and paging begin to view Pacific Telesis as the premier wireless company we believe it will be.

Table 1

| <b>PACIFIC TELESIS GROUP</b>                                 |            |                  |                       |                     |                           |
|--|------------|------------------|-----------------------|---------------------|---------------------------|
| <b>Comparative Valuation Tables</b>                          |            |                  |                       |                     |                           |
| <i>(in millions, except for per-share data &amp; ratios)</i> |            |                  |                       |                     |                           |
|  |            | 2/21/94<br>Price | Cal. 1994E<br>Div.P/S | Cal. 1994E<br>Yield | Cal. 1994E<br>EBITD Mult. |
| Ameritech  | AIT        | \$41.25          | \$1.92                | 4.7%                | 5.5 x                     |
| Bell Atlantic  | BEL        | \$52.50          | \$2.68                | 5.1%                | 6.0                       |
| BellSouth  | BLS        | \$53.75          | \$2.76                | 5.1%                | 5.0                       |
| NYNEX  | NYN        | \$37.25          | \$2.36                | 6.3%                | 4.0                       |
| <b>Pacific Telesis (Note 2)</b>                              | <b>PAC</b> | <b>\$31.38</b>   | <b>\$2.18</b>         | <b>6.9%</b>         | <b>4.6</b>                |
| Southwestern Bell  | SBC        | \$38.50          | \$1.51                | 3.9%                | 6.0                       |
| US West  | USW        | \$39.88          | \$2.14                | 5.4%                | 4.9                       |
| GTE  | GTE        | \$32.00          | \$1.88                | 5.9%                | 5.2                       |

*Note 1: Excludes Extraordinary Items, & One-time Adj.*

*Note 2: Less the value of the Airtouch Communications (PTW) shares expected to be spun-out to shareholders, recently valued at \$24 per share.*

*Source: Alex. Brown & Sons*

## INVESTMENT THESIS

We believe Pacific Telesis shares are the best way to invest in the future of wireless PCS because few service companies are in a position to benefit as much from the deployment of PCS as is Pacific Telesis. As investors begin to focus on the Company's opportunity in PCS, we would not be surprised to see the shares trade at a premium to the group over time as:

- the Company's shares become viewed as comparables of the stocks of cellular, SMR and paging companies, which trade at higher multiples of cash flow; and
- the Company's strategy for market share retention and its opportunities to add new sources of revenue become more visible.

### **The Potential Low-Cost Provider Of Personal Communications Services (PCS)**

No one can afford to bid more in the PCS spectrum auctions (expected to be held by the FCC later this year) for one of the important "A" or "B" 30 MHz Major Trading Area (MTA) licenses (see Table 2) throughout the California and Nevada region than Pacific Telesis. Because of the spinoff of Airtouch Communications and the FCC restrictions on the accumulation of more than 40 MHz of spectrum, Pacific Telesis appears to be one of the very few telephone companies that can integrate significant PCS spectrum directly into its wireline network. This should allow Pacific Telesis to be one of the lowest-cost deployers of PCS and allow it to bid higher than any potential rival for those PCS licenses. Winning a significant amount of this new spectrum should position Pacific Telesis to be the premier provider of wireless services in its region.

- Pacific Telesis will be the only RHC without any cellular licenses overlapping its telephone network territories. Most of the other RHCs have almost a 100% overlap of cellular and telephone territories that will restrict those companies to bidding for only an additional 10 MHz of spectrum in the "E," "F" and "G" Basic Trading Area (BTA) license blocks because existing cellular licensees have 25 MHz of spectrum (see Table 2). We expect the 10 MHz BTA licenses will be much more difficult and time-consuming to build-out. Consequently, we would expect Pacific Telesis to have among the lowest cost per subscriber deployments of PCS.
- PCS network deployment can be leveraged off of an existing wireline backbone network built for some other purpose, which substantially reduces the cost per subscriber of deployment. The FCC restricts the ability of cellular service providers from doing this through "structural separation" (discussed later in our report) rules. We estimate Pacific Telesis' deployment cost of PCS per subscriber is perhaps as low as \$250 versus a current deployment cost per subscriber for cellular of perhaps \$1,200. Consequently, we would expect Pacific Telesis to have a much lower cost per subscriber than do the existing cellular service providers in its region, while offering similar services and capabilities.
- Pacific Telesis' wireless PCS services benefit from an in-place distribution network and a well-established brand name. A major advantage that incumbent cellular service providers have over new PCS entrants in most regions of the country is a well-established distribution network. Pacific Telesis is one of the best positioned potential new PCS entrants to quickly enter the market and offer new wireless services, including full mobility cellular-like service.

Table 2

| PACIFIC TELESIS GROUP<br>FCC Proposed PCS Licencing |                       |       |                     |
|---|-----------------------|-------|---------------------|
| Frequency (MHz)                                     | Bandwidth<br>(in MHz) | Block | Service<br>Area (1) |
| 1850-1865 & 1930-1945                               | 30                    | A     | MTA                 |
| 1865-1880 & 1945-1960                               | 30                    | B     | MTA                 |
| 1880-1890 & 1960-1970                               | 20                    | C (2) | BTA                 |
| 2130-2135 & 2180-2185                               | 10                    | D (2) | BTA                 |
| 2135-2140 & 2185-2190                               | 10                    | E     | BTA                 |
| 2140-2145 & 2190-2195                               | 10                    | F     | BTA                 |
| 2145-2150 & 2195-2200                               | 10                    | G     | BTA                 |

Note 1: MTA (Major Trading Area) and BTA (Basic Trading Area), generally as defined by the Rand McNally Atlas. There are 51 MTA and 492 BTA service areas in the FCC plan.

Note 2: Rules propose preferences for small business, rural telephone companies, minority and women-owned businesses.

Source: FCC

### One Of The Most Aggressive Deployers Of The "Full Service Network"

Pacific Telesis has developed a well-articulated strategy for protecting its in-region market share from erosion and for adding new sources of revenue to replace revenue from traditional sources that inevitably will be lost. The Company is among the most aggressive in deploying new "full service networks" that integrate voice, two-way interactive video and data services (see Table 3 & Figure 1). We believe that rapid deployment of these new networks will be essential for maintaining market share, adding new sources of revenue and cutting costs.

- The Company plans to have more than 1.5 million customers on the new network by year-end 1996 and over 5 million connected by year-end 2000. This appears to place Pacific Telesis among the most aggressive in deploying these new networks (see Table 3).
- The "full service network" will reduce network operating costs, which will be critical if price competition for traditional and new services becomes intense, as we expect. Management believes that the reduced operating costs of the new network alone can pay for the deployment cost in less than 10 years. The network is called a Star-bus Hybrid Fiber/Coaxial Network (see Figure 1) and will be supplied mainly by AT&T. In the new network, fiber will run into the neighborhood to a node that will serve less than 500 homes. This type of architecture is no more expensive to deploy than traditional twisted-pair copper but benefits from much higher levels of bandwidth, inter-activity and reliability at much lower maintenance costs.

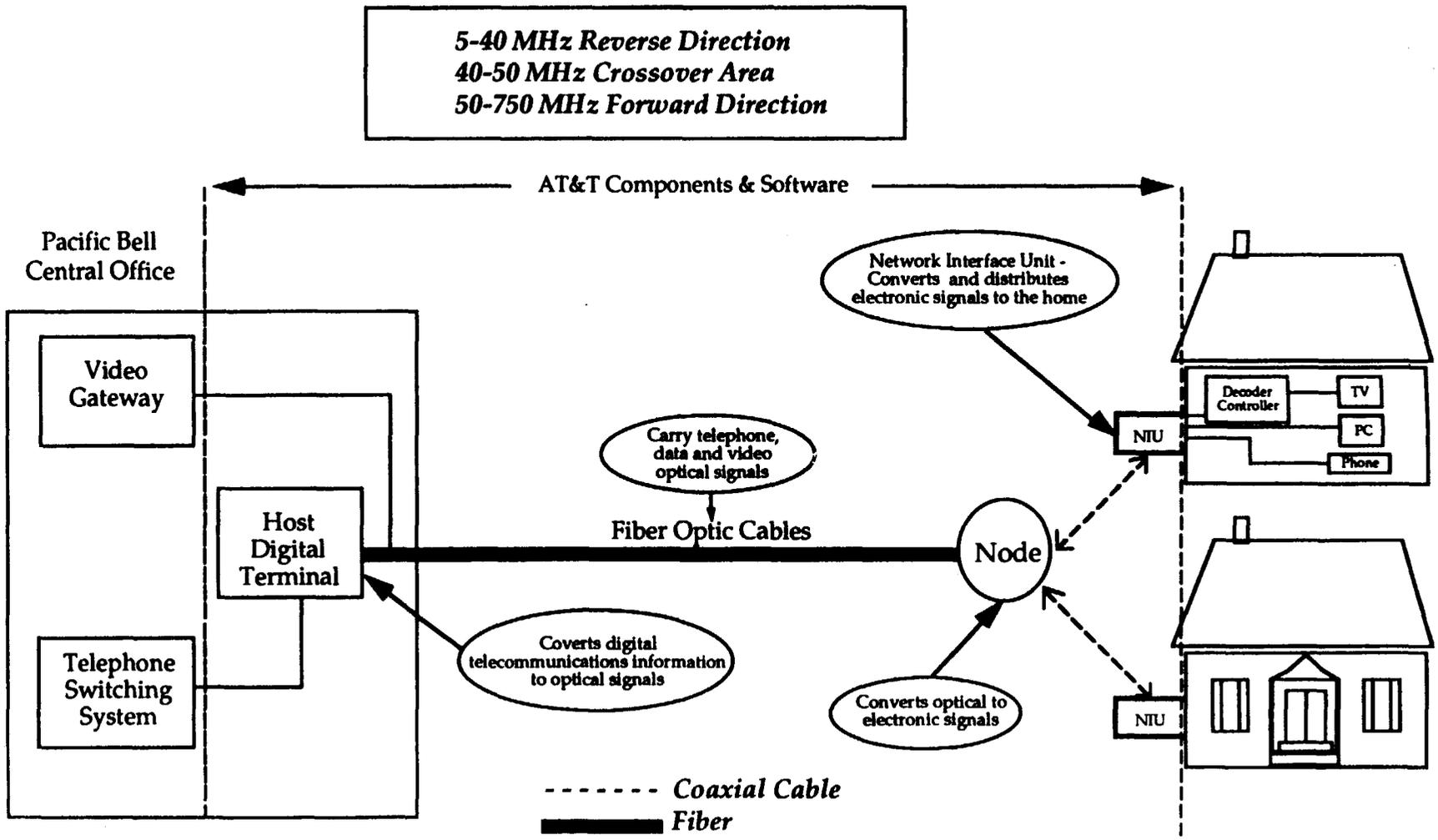
- The "full service network" will substantially reduce the deployment costs of a PCS network because the fiber rings in downtown business corridors and the neighborhood nodes roughly correspond to the cell sites needed to efficiently deploy PCS.

Table 3

| PACIFIC TELESIS GROUP<br>"Full Service Network" Deployment Comparison |     |                              |                                   |
|---|-----|------------------------------|-----------------------------------|
| Company Announced:  |     | Lines<br>Deployed<br>by 2000 | Percent of<br>Total<br>Res. Lines |
| Bell Atlantic   | BEL | 8.8                          | 72.9%                             |
| Pacific Telesis   | PAC | 5.0                          | 52.8%                             |
| Ameritech   | AIT | 6.0                          | 51.7%                             |
| U S WEST  | USW | 4.9                          | 48.8%                             |
| GTE   | GTE | 7.0                          | 44.6%                             |
| NYNEX   | NYN | 1.2                          | 11.1%                             |
| BellSouth   | BLS | 0.0                          | 0.0%                              |
| Southwestern Bell   | SBC | 0.0                          | 0.0%                              |

*Source: Alex. Brown & Sons*

# Star-bus Hybrid Fiber/Coaxial Network



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Figure 1

Source: Pacific Telesis

### **An Aggressive Strategy For In-Region Market-Share Retention**

Pacific Telesis is well-positioned to defend its in-region market share. We believe in-region market-share retention will be critical to the Company's future success. As local video/telephony markets become more competitive, all of the traditional local service providers--telcos, CATV and cellular service--face the loss of traditional market share. Density and leverage of existing infrastructure will be critical to maintaining low costs and cash flow margins.

- Pacific Telesis may have lower capital investment requirements over time by focusing in-region, which could raise the likelihood of continued dividend payments, even in a fiercely competitive environment (see Table 4).
- Competitive Access Providers (CAPs) have not made the significant in-roads into the Company's markets to the degree that they have penetrated some of the other RHCs' markets (see Table 5). CAPs provide private and leased line services, which are the first visible competitive telecommunications markets after the deregulation of long-distance. Thus far management appears to have been effective in dealing with the first competitive threat.
- Pacific Telesis' region may be more expensive and difficult for new competitors to enter than expected. We believe adjacent geographic areas are the least expensive for new competitors to enter because contiguous areas allow the best leverage of fixed network overhead costs. Pacific Telesis appears well-protected from competition from adjacent RHCs because of its geographic position: the Pacific Ocean to the west, Mexico to the south and very sparsely populated areas on the North and East (see Figure 2).

Table 4

| PACIFIC TELESIS GROUP  |                            |                   |                        |                    |                    |                    |
|--|----------------------------|-------------------|------------------------|--------------------|--------------------|--------------------|
| Estimated Free Cash Flow   |                            |                   |                        |                    |                    |                    |
| <i>(in millions)</i>   |                            |                   |                        |                    |                    |                    |
|  | Avg. Network Customers (1) | Cumulative EBITDA | Investment Out of Reg. | Required Cap. Exp. | Free Cash Flow     |                    |
|  | 1994-2000E                 | 1994-2000E        | 1994-2000E             | 1994-2000E         | 1994-2000E         | 1994-2000E         |
| <b>OUT OF REGION STRATEGIES:</b>   |                            |                   |                        |                    |                    |                    |
| U S WEST   | USW                        | 14.4              | \$35,000               | (\$2,500)          | (\$14,800)         | \$17,700           |
| Bell Atlantic  | BEL                        | 27.9              | \$65,000               | (\$21,400)         | (\$27,900)         | \$15,700           |
| <b>IN-REGION STRATEGY:</b>   |                            |                   |                        |                    |                    |                    |
| Pacific Telesis  | PAC                        | 14.0              | \$35,600               | \$0                | (\$15,800)         | \$19,800           |
| <b>AVERAGE PER NETWORK CUSTOMER:</b>   |                            |                   |                        |                    |                    |                    |
| <b>OUT OF REGION STRATEGIES:</b>   |                            |                   |                        |                    |                    |                    |
|  |                            |                   | <i>(actual \$)</i>     | <i>(actual \$)</i> | <i>(actual \$)</i> | <i>(actual \$)</i> |
| U S WEST   | USW                        | 14.4              | \$2,438                | (\$174)            | (\$1,031)          | \$1,233            |
| Bell Atlantic  | BEL                        | 27.9              | \$2,334                | (\$768)            | (\$1,002)          | \$564              |
| <b>IN-REGION STRATEGY:</b>   |                            |                   |                        |                    |                    |                    |
| Pacific Telesis  | PAC                        | 14.0              | \$2,534                | \$0                | (\$1,125)          | \$1,409            |
| <b>Note 1: Includes expected pro rata portion of out-of-region investments.</b>        |                            |                   |                        |                    |                    |                    |
| <b>Assumptions:</b>  |                            |                   |                        |                    |                    |                    |
| (1) 40% share loss of traditional telephony business by incumbents to new competitors. |                            |                   |                        |                    |                    |                    |
| (2) 50% share loss of traditional video business by incumbents to In-region telco.     |                            |                   |                        |                    |                    |                    |
| (3) 60% penetration of wireless telephony, both cellular and PCS.                      |                            |                   |                        |                    |                    |                    |
| <b>Source: Alex. Brown &amp; Sons</b>  |                            |                   |                        |                    |                    |                    |

Table 5

| PACIFIC TELESIS GROUP               |     |                 |                       |
|-------------------------------------|-----|-----------------|-----------------------|
| Competitive Access Providers (CAPs) |     |                 |                       |
| <i>(access lines in millions)</i>   |     |                 |                       |
| <i>(as of 3Q1993)</i>               |     | Access<br>Lines | # of CAPs<br>Licenced |
| U S WEST                            | USW | 12.8            | 6                     |
| Pacific Telesis                     | PAC | 14.1            | 7                     |
| NYNEX                               | NYN | 15.0            | 10                    |
| Southwestern Bell                   | SBC | 12.2            | 11                    |
| BellSouth                           | BLS | 18.1            | 14                    |
| Bell Atlantic                       | BEL | 17.5            | 15                    |
| Ameritech                           | AIT | 16.3            | 16                    |
| GTE                                 | GTE | 13.2            | 17                    |

*Source: Telecom Publishing Group & GTE*

Figure 2



**VALUATION**

Pacific Telesis shares appear to be valued at a substantial discount to the stocks of other RHCs on the basis of dividend yield, EBITDA multiple and projected future free cash flows. We believe the value of the Company's shares may be underappreciated because investors in telecommunications may be focusing on RHC investments in higher-growth segments such as cellular and international. Airtouch Communications owns all of the former cellular, paging and international operations of Pacific Telesis. However, as Pacific Telesis' opportunity in PCS becomes more widely appreciated, we would expect the shares to trade at a premium valuation, which could push the price up 30-40% relative to the group if Pacific Telesis

begins to trade at a premium similar to that of Southwestern Bell (SBC) (see Table 1).

- **The Most Attractive Dividend Yield**--Pacific Telesis shares trade at a substantially higher yield relative to the group when adjusted for the value of the Airtouch Communications spinout (see Table 1). Management has set expectations that there will be no dividend increases in the foreseeable future, so the risk of disappointment in future dividend growth is low.
- **Potentially Lower Risk to Future Free Cash Flows**--Pacific Telesis' strategy of focusing on in-region market-share retention and investment appears to be a lower-risk strategy if markets become more competitive than is generally expected and may generate superior free cash flows compared to the group (see Table 4). We believe investors should begin to value the RHCs more on cash flow than on traditional earnings because expected changes in depreciation rates and numerous one-time charges may dramatically distort reported earnings. Much of the existing telephony plant is going to be obsolete over the next several years and the RHCs are likely to take divergent approaches for depreciating the obsolete plant and take significant one-time writeoffs of existing plant, which are likely to distort comparability of reported earnings. We believe investor returns are more likely to be determined by rates of return on investments in new networks.
- **Discount Valuation on EBITDA Multiple**--Pacific Telesis shares trade at a discount to the group on a multiple of estimated EBITDA (see Table 1).

We expect multiples to expand in response to surprisingly good financial results and a growing proportion of higher-multiple business such as PCS and video services to the home in the revenue mix over the next 5-10 years.

- Our model assumes a loss of 40% of the Company's traditional market share and telephony prices falling about 40% over the decade (which is at the high end of industry expectations), even though we believe the Company may be able to hold traditional market-share losses to as low as 20%. However, even using these conservative assumptions we believe Pacific Telesis shares could produce an adequate total return to investors if the Company aggressively deploys PCS and video-to-the-home. (See Table 6.)
- We believe Pacific Telesis shares may trade at 12-13 times cash flow over the next decade as the mix of revenues change from traditional telephony to video services and wireless communications.

Table 6

**PACIFIC TELESIS**  
**Summary Long-Term Valuation at 40% Traditional Share Loss**  
*(in millions, except per share data and ratios)*

|                              | 1993           | 1994E          | 1995E          | 1997E          | 2000E          | 2003E          |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>SUMMARY</b>               |                |                |                |                |                |                |
| TOTAL REVENUE                | \$9,244        | \$9,341        | \$9,576        | \$10,191       | \$8,573        | \$9,307        |
| EBITDA                       | \$3,829        | \$4,090        | \$4,184        | \$4,435        | \$3,563        | \$3,708        |
| EBITDA MARGIN                | 41.4%          | 43.8%          | 43.7%          | 43.5%          | 41.6%          | 39.8%          |
| Interest Expense             | (\$509)        | (\$499)        | (\$535)        | (\$566)        | (\$633)        | (\$729)        |
| Income Taxes                 | (\$10)         | (\$620)        | (\$628)        | (\$663)        | (\$441)        | (\$406)        |
| EST. NET CASH FLOW           | \$4,348        | \$5,210        | \$5,347        | \$5,664        | \$4,638        | \$4,843        |
| PER SHARE                    | \$10.50        | \$12.31        | \$12.64        | \$13.39        | \$10.96        | \$11.45        |
| NET CAPITAL EXPEND. (E)      | (\$2,056)      | (\$2,519)      | (\$2,473)      | (\$2,239)      | (\$1,864)      | (\$2,150)      |
| <b>NET FREE CASH FLOW</b>    | <b>\$2,292</b> | <b>\$2,691</b> | <b>\$2,874</b> | <b>\$3,425</b> | <b>\$2,774</b> | <b>\$2,693</b> |
| DIVIDEND REQUIREMENTS        | (\$903)        | (\$922)        | (\$922)        | (\$922)        | (\$922)        | (\$922)        |
| <b>FREE CASH FLOW / DIV.</b> | <b>2.5</b>     | <b>2.9</b>     | <b>3.1</b>     | <b>3.7</b>     | <b>3.0</b>     | <b>2.9</b>     |
| <b>SEGMENT ASSUMPTIONS</b>   |                |                |                |                |                |                |
| POPULATION                   | 20.0           | 20.0           | 20.0           | 20.0           | 20.0           | 20.0           |
| TOTAL ACCESS LINES           | 14.9           | 15.2           | 15.5           | 16.2           | 17.3           | 18.5           |
| % Growth:                    | 2.2%           | 2.2%           | 2.2%           | 2.2%           | 2.2%           | 2.2%           |
| <b>TRADITIONAL TELEPHONY</b> |                |                |                |                |                |                |
| # of Access Subscribers      | 14.9           | 15.2           | 15.5           | 15.9           | 11.6           | 4.4            |
| Avg. Revenue Per Sub.        | \$527.13       | \$522.08       | \$505.81       | \$485.62       | \$382.40       | \$314.67       |
| <b>Trad. Telephony Rev.</b>  | <b>\$7,840</b> | <b>\$7,937</b> | <b>\$7,860</b> | <b>\$7,713</b> | <b>\$4,444</b> | <b>\$1,398</b> |
| <b>BROADBAND AND VIDEO</b>   |                |                |                |                |                |                |
| # of Access Subscribers      | 0.0            | 0.0            | 0.8            | 2.3            | 5.1            | 7.8            |
| Avg. Revenue Per Sub.        | NM             | NM             | \$400.00       | \$400.00       | \$400.00       | \$400.00       |
| <b>Broadband Video Rev.</b>  | <b>\$0</b>     | <b>\$0</b>     | <b>\$312</b>   | <b>\$936</b>   | <b>\$2,032</b> | <b>\$3,110</b> |
| <b>WIRELESS TELEPHONY</b>    |                |                |                |                |                |                |
| # of Access Subscribers      | 1.0            | 0.0            | 0.0            | 0.2            | 1.2            | 6.7            |
| Avg. Revenue Per Sub.        | \$850.86       | NM             | ERR            | \$693.03       | \$594.19       | \$509.44       |
| <b>Wireless PCS Rev.</b>     | <b>\$890</b>   | <b>\$0</b>     | <b>\$0</b>     | <b>\$139</b>   | <b>\$693</b>   | <b>\$3,395</b> |

Source: Alex. Brown & Sons

## **MAJOR UNCERTAINTIES THAT MAY AFFECT SHARE PERFORMANCE**

### **Uncertain Outcome Of The PCS Spectrum Auctions**

We do not believe that any potential bidder for the 30 MHz "A" or "B" MTA licenses could afford to bid more than Pacific Telesis in its region because of the Company's strategic position and its access to large amounts of low cost capital (AA debt rating). However, we expect a large number of well-financed communications companies to actively bid for these licenses. Additionally, one of the 30 MHz MTA licenses for southern California appears to have been given away by the FCC to Cox Communications in a controversial Pioneer Preference Ruling. If Pacific Telesis does not win a 30 MHz license in most of its region in the bidding process, the share price may be weak. However, regardless of the outcome of the auctions we expect Pacific Telesis to do what is necessary to acquire enough spectrum to offer competitive PCS services because it is so central to the Company's strategy.

### **Possible Regulatory Changes That May Affect The PCS Opportunity**

Under current regulations by both the FCC and the State of California (CPUC), Pacific Telesis can directly integrate a 30 MHz PCS network into its existing wireline infrastructure. This is a unique advantage over most new PCS entrants and existing cellular service providers who will be limited by either the amount of spectrum that they have or by "structural separation" rules, as in the case of existing cellular service providers. Consequently, Pacific Telesis should be able to build-out its PCS infrastructure much faster and at lower costs, resulting in faster, more meaningful competition in the California market for services such as cellular. However, these advantages could be substantially negated if--

- The CPUC imposes "structural separation" rules on PCS, which would require a stand-alone infrastructure separate from the existing wireline backbone. This would result in dramatically higher deployment costs and a much longer build-out. Management is optimistic that the CPUC will not impose such a requirement.
- The FCC lifts the currently required "structural separation" of incumbent cellular service providers. We have no reason to believe that the FCC is considering changing its policy, however, if cellular service providers were allowed to integrate their networks into an existing backbone like an IXC Point-of-Presence (POP), CATV network or, a CAP network, the substantial advantage that Pacific Telesis has over potential wireless competitors such as Pactel Corporation and AT&T/McCaw may be reduced.

### **Negative Near-Term Earnings Impact Of Competition**

Legislation pending in both the U.S. House and Senate may dramatically affect the timing and visibility of competition in Pacific Telesis' markets. We believe significant telecommunications legislation will pass Congress and be signed by the President this year. Any new regulations are likely to specify how quickly new competitors can enter the local loop as well as the timing of when traditional local exchange companies can begin to enter new businesses like interLATA toll. We believe that new competitors will eventually be allowed to enter Pacific Telesis' market for some time period before Pacific Telesis can react to this new threat of competition. Because of this, we believe there is a chance of near-term earnings disappointments, which may cause some investors to react negatively to the stock.

### **Interest Rates Are Unlikely To Go Much Lower**

There has been a high correlation between the performance of RHC shares and the direction of interest rates. Dividend yields tend to rise as interest rates rise, causing the share prices to underperform. If yield-oriented investors begin to believe that interest rates are starting to rise, then share prices may underperform for the whole group.

## **COMPANY BACKGROUND**

Pacific Telesis is a widely diversified telecommunications company formed in 1984 as part of the MFJ (Modified Final Judgement) which broke up the monopoly AT&T. The company consists of :

- Pacific Bell and Nevada Bell, with about 57,000 employees serving about 20 million customers, and 15 million access lines mostly in California and Reno, Nevada;
- About 86% of Pactel Corporation (now renamed Airtouch Communications) which went public in late 1993. Pacific Telesis' remaining interest in PTW is expected to be distributed to shareholders over the next several months at an anticipated rate of one PTW share for each Pacific Telesis share held. Airtouch Communications is a wireless telecommunications company supplying cellular and paging services mainly in the U.S., Germany and Japan. Airtouch serves a potential market of 34.7 million in the U.S. and 40.4 million internationally. Two of the main reasons Pacific Telesis decided to spin off its wireless and international operations was to:
  - increase its opportunities to obtain new PCS spectrum--a strategy which appears to have proven well-founded, and

-- allow its cellular, paging, and international operations to be less exposed to the heavy Regional Bell Operating Company (RBOC) regulations and MFJ restrictions.

- After the spinoff, Pacific Telesis will consist of mainly the wireline telephony infrastructures of Pacific Bell and Nevada Bell.

Philip J. Quigley will be the Chairman and CEO of Pacific Telesis after the spinout. Sam Ginn, the current Chairman and CEO of Pacific Telesis will be leaving to be the CEO of Pactel Corporation. A good deal of media attention has focused on the number of top managers leaving Pacific Telesis to go to Pactel. We believe the strength of Phil Quigley and his management team may have been somewhat overlooked. Philip Quigley, for example, has extensive wireless experience and was in charge of the build-out and start-up of cellular operations in Los Angeles and in the Midwest.

## INDUSTRY OVERVIEW

We believe competition in the "local loop" is going to become intense over the coming decade and dramatically change the structure of the industry that has been largely intact since the MFJ that broke up the monopoly AT&T in 1984. This competition will result in market share losses for the regional telecommunications companies. We expect the changes in the industry to be driven largely by the following.

- Personal Communications Services (PCS)--the move from wired to wireless telephony will be critical in bringing down the infrastructure costs of telecommunications networks. New technologies such as CDMA digital radio allow wireless telephony networks to be deployed at lower costs and faster than do traditional copper wired networks. Low-cost wireless networks make it possible for new competitors to enter the market and economically overbuild what used to be considered natural monopoly networks. Increasingly affordable wireless networks are important to meet consumers' demonstrated desire for mobility and to put competitive pressure on cellular service providers to improve service and reduce high air-time prices.
- New broadband fiber/coaxial networks--which can transport higher bandwidth video, data and voice at lower costs and higher reliability than today's copper plant because of the rapid advances in digital compression, switching and processing (see Figure 1). These new networks are the catalyst that will allow CATV networks to begin offering inter-activity and telephony and traditional telcos to begin offering advanced interactive video services.

- Governmental regulations--which will seek to introduce competition for telecommunications, CATV, broadcasting and cellular communications as a better way of
  - lowering prices and improving service to consumers, and
  - improving national competitiveness in a global economy.

### **Personal Communications Services (PCS)**

The Omnibus Budget Reconciliation Act of 1993 authorized the FCC to auction off 120 MHz of radio spectrum in the 2 GHz band and make an additional 40 MHz available on an unlicensed basis for the purpose of providing new wireless telephony services. The purpose of these auctions is to:

- provide revenues to the Treasury--estimated by the Congressional Budget Office to be about \$10.7 billion;
- introduce competition for cellular and other local telephony services that previously have not been competitive; and
- allow consumers to have access to new and innovative services and technologies.

The FCC has designated licenses and license areas as presented in figure 2. There are 2 30 MHz blocks of spectrum covering each of the 51 Rand McNally Major Trading Areas (MTAs) and there are 3 10 MHz blocks of spectrum covering each of the 491 Rand McNally Basic Trading Areas (BTAs). The "C" and "D" licenses are set aside for specially designated small businesses, women and minority owned businesses and rural telephone companies. The FCC is expected to issue final rules for the auction of these licenses in March 1994 and the auctions are expected to be conducted later in 1994.

The proposed qualifications to bid for the auctions are complex and controversial. The significant restriction on bidding is a rule that no service provider may accumulate more than 40 MHz of combined spectrum in any given geographic area. Generally speaking, since the cellular service providers have 25 MHz of spectrum, they will only be eligible to bid for an additional 10 MHz in areas where they currently have cellular ownership.

We expect interest and bidding for these licenses to be intense. The most intense bidding and highest prices will likely be paid for the "A" and "B" 30 MHz MTA licenses because the greater amount of spectrum and geographic footprint should allow for much more efficient deployment of new wireless systems. Likely bidders for many of these licenses are: Pacific Telesis, AT&T, MCI, GTE, U S WEST/Time Warner and Bell Atlantic/TCI.

### **New Broadband Fiber/Coaxial Networks**

A dramatic convergence has begun over the last year between the telecommunications and Cable Television industries. The alliances that have occurred--Southwestern Bell (SBC)/Cox/Hauser, U S WEST/Time Warner and Bell Atlantic/TCI--have all been precipitated by the availability of low-cost fiber/coaxial networks capable of combining voice, video and data traffic and the need to pay for the deployment of these new networks. These new "fiber-to-the-node" or "fiber-to-the-curb" architectures will likely be the network of choice for local loop deployments over the decade because:

- They have lower operating and maintenance costs while improving reliability over today's copper telephony networks.
- They are well-suited to be the backbone for new PCS networks.
- Both CATV service providers and telcos have concluded that incremental demand from consumers can be driven only off of a highly interactive video network.
- Both CATV service providers and telcos realize the need to deploy these new networks as a defensive strategy against inroads by new competitors.

### **Governmental Regulation**

The telecommunications industry is highly regulated at both the federal and state levels. The theme of telecommunication regulation for many decades has been governmental restriction on service provider pricing and return-on-investment in return for monopoly status. However, the direction of regulation is changing toward market solutions as policymakers focus on the benefits of competition as the regulator of service, price and return on investment. We expect the current trend toward competition to accelerate and put increasing pressure on company managements to change their culture from that of a regulated public utility to a competitive provider of services.

- Modified Final Judgement--The MFJ broke up the monopoly AT&T in 1984. The significant remaining prohibitions under the MFJ are:
  - (1) RBOC offering of interLATA services;
  - (2) AT&T offering of local access services; and
  - (3) RBOC engaging in manufacturing.
- Pending Bills in the House and Senate--Both the House and Senate have legislation pending that may supersede much of the federal and state regulation of telecommunications. Examples of the type of legislative changes that are possible are contained in