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February 18, 1994

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FEB 18 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, NW  
Washington, DC 20054

Re: Personal Communications Services - GEN Dkt No. 90-314  
Competitive Bidding - PP Dkt. No. 93-253

Dear Mr. Caton:

This is to confirm pursuant to Section 1.1206 of the Commission's Rules that Leroy T. Carlson, Jr., President of Telephone and Data Systems, Inc. ("TDS"), Bernard Koteen, and I met with Chairman Reed Hundt and members of his staff, Commissioner James H. Quello and members of his staff, Byron Marchant, Legal Advisor to Commissioner Andrew C. Barrett, and Donald Gips, Office of Plans and Policy. The topics of discussion included positions previously presented in the Petitions, Comments and Reply Comments of TDS and its subsidiary, American Paging, Inc. in the above-referenced dockets and the attached materials.

An original and one copy of this letter with attachments are submitted herewith. Copies of this letter and the attachments are being provided to Chairman Hundt, Commissioner Quello and the other Commission staff members involved.

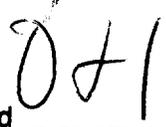
In the event there are any questions concerning this matter, please communicate with the undersigned.

Very truly yours,

  
George Y. Wheeler

Enclosure

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February 17, 1994

**TELEPHONE AND DATA SYSTEMS, INC.**

**Competitive Bidding/Broadband PCS Reconsideration Proceedings  
PP Docket No. 93-253/GEN Docket No. 90-314**

**Outline**

1. **Opposition to Nationwide Licensing**
  - a. **Nationwide licensing of broadband PCS creates potential for non-competitive or anti-competitive market conditions, will retard technological innovation, will lessen incentives to develop interoperability standards, will diminish opportunities for rapid development in rural areas and will limit the benefits from diverse and broadly competitive industry development.**
2. **Expanded Competitive Opportunities in Broadband PCS**
  - a. **Modification of the "20/10" cellular eligibility threshold to "30-35/40" threshold will expand opportunities for mid-sized and smaller bidders. TDS is currently restricted in 25 MTA markets and would remain restricted in 4 MTA markets under the "30-35/40" threshold.**
3. **Benefits of Rural Telephone Participation in Broadband PCS Deployment**
4. **Need for Open Ascending Sequential/Simultaneous Bidding for PCS Licenses**
  - a. **Information Flows from Open Bidding are crucial for mid-sized and smaller companies.**
  - b. **Conceptually simple auctioneer-led real-time bidding should be adopted to be readily understandable to all potential bidders.**
  - c. **Auction Sequencing with the largest markets first recognizes the importance in developing the bidding**

**strategies of mid-sized and smaller bidders of the valuations and identities of the winning bidders in large markets.**

- d. Limiting the number of licenses auctioned at one time and taking no more than one or two days to complete the selection of winning bidders will foster predictable schedules for bidding on specific licenses and avoid information overload**

**5. Technical Changes for Deployment of Broadband PCS**

- a. Modify Channel Plan - all 20's or two 30's and three 20's**
- b. Accelerate Development of Standards to Support High-Tier Interoperability**

**\* \* \***

**MTA Markets Where TDS Would Be  
Restricted Under FCC "20/10" Rule**

<u>MTA Market</u>	<u>Total Attributed Cellular POPs</u>	<u>% of Total MTA POPs</u>	<u>Total RSA Attributed POPs</u>	<u>% of Total MTA POPs</u>	<u>Total MSA Attributed POPs</u>	<u>% of Total MTA POPs</u>
Boston, MA	1,956,000	20.7	822,000	8.7	1,134,000	12.0
Charlotte, NC	2,340,000	24.0	2,148,000	22.0	192,000	2.0
Columbus, OH	274,000	12.8	274,000	12.8	-0-	-0-
Honolulu, HI	120,000	10.9	120,000	10.9	-0-	-0-
Jacksonville, FL	795,000	34.9	591,000	26.0	204,000	8.9
Kansas City, MO	374,000	12.8	239,000	8.2	135,000	4.6
Little Rock, AR	321,000	15.6	102,000	4.9	219,000	10.7
Louisville, KY	560,000	15.7	473,000	13.3	87,000	2.4
Milwaukee, WI	491,000	10.8	279,000	6.1	213,000	4.7
Minneapolis, MN	675,000	11.3	241,000	4.0	435,000	7.3
New Orleans, LA	931,000	18.9	80,000	1.6	851,000	17.3
Oklahoma City, OK	576,000	30.7	519,000	27.7	57,000	3.0
Phoenix, AZ	944,000	26.9	277,000	7.9	667,000	19.0
Pittsburgh, PA	646,000	15.7	646,000	15.7	-0-	-0-
Portland, OR	634,000	20.7	488,000	15.9	146,000	4.8
Richmond, VA	483,000	12.6	483,000	12.6	-0-	-0-
St. Louis, MO	767,000	16.4	655,000	14.0	112,000	2.4
Salt Lake City, UT	404,000	15.7	404,000	15.7	-0-	-0-
San Antonio, TX	989,000	33.1	472,000	15.8	517,000	17.3
Seattle, WA	537,000	14.0	348,000	9.1	189,000	4.9
Spokane, WA	362,000	19.5	212,000	11.4	150,000	8.1

**NOTE: The twenty-one MTA Markets listed here include those for which TDS has less than a 40% and more than 10% cellular POPs overlap. TDS is also restricted in the following additional MTA markets: Tulsa, OK; Nashville, TN; Des Moines, IA and Knoxville, TN.**

## PROPOSAL FOR SEQUENCING BROADBAND PCS AUCTIONS

### TELEPHONE AND DATA SYSTEMS, INC.

We propose the auctions for broadband PCS be sequenced as follows:

- Channel Blocks A and B:

The MTA markets should be sequenced from largest to smallest (in terms of population coverage). The two 30 MHz licenses in each MTA market should be licensed together using simultaneous ascending-bid auctions.

- Channel Blocks C and D:

A natural grouping would consist of all BTAs contained within a single MTA. We propose that the aggregation of the two channel blocks within each BTA in the group be offered as an item for bid as well as the individual channel blocks. Firms would be allowed to bid simultaneously on licenses in all of the listed BTAs. Thus, firms would be allowed to bid for any or all of the individual BTA licenses within the MTA and/or for the any or all of the aggregation of pairs of licenses within each BTA.

- Channel Blocks E through G:

We propose that the same procedure be used here as was proposed for the auction of the C and D blocks. The only change is that more possibilities for aggregation of blocks within a BTA will exist. Two levels of detail are worthy of consideration. At the greater level of detail, all seven subsets (E,F,G,EF,EG,FG, and EFG) can be listed for each BTA. At a lesser level of detail, four subsets (E,F,G and EFG) can be listed for each BTA. We prefer this lesser level of detail until the Commission gains more experience with auctions.

\* \* \*

## PROPOSED AUCTION SEQUENCE FOR NARROWBAND PCS

<b>GEOGRAPHIC AREA</b>	<b>LICENSE CATEGORY</b>	<b>GROUPINGS FOR SIMULTANEOUS BIDDING</b>
Nationwide	50 KHz - 50 KHz paired	5 Channels
	50 KHz - 12.5 KHz paired	3 Channels
	50 KHz unpaired	3 Channels
MTA's in descending order of population	50 KHz - 50 KHz paired	4 Channels
	50 KHz - 12.5 KHz paired	7 Channels
	50 KHz unpaired	2 Channels
All BTA's within each MTA in descending order based on MTA population	50 KHz - 12.5 KHz unpaired	2 Channels bid simultaneously for all of the BTA's within each MTA
"Regional Systems"	12.5 KHz unpaired	8 Channels

# News Release



Corporate Office  
30 North LaSalle Street  
Suite 4000  
Chicago, Illinois 60602-2507

Amex Symbol: TDS  
Newspaper Listing: TelDta

## Telephone and Data Systems, Inc.

For Release: Immediate

### TELEPHONE AND DATA SYSTEMS, INC. REPORTS STRONG FOURTH QUARTER AND YEAR-END RESULTS

February 9, 1994, Chicago, Illinois - Telephone and Data Systems, Inc. ("TDS") reported that strong growth in cellular and paging customers fueled rapid increases in revenues, operating cash flow, operating income and earnings during the fourth quarter of 1993 and for the year ended December 31, 1993. Consolidated customer units served increased 35.7% to 1,078,000 at year-end 1993, reflecting gains of 73.1% in cellular customers, 43.0% in paging customers and 10.7% in telephone customers. Fourth quarter 1993 revenues climbed 27.1% to a record \$160.6 million, operating cash flow rose 23.2% to \$44.5 million while, operating income increased 16.6% to \$12.5 million, all as compared to the fourth quarter of 1992. On a comparable basis, excluding nonrecurring and unusual items, fourth quarter 1993 net income available to common increased 66.1% to \$5.6 million from \$3.4 million and earnings per share rose 37.5% to \$.11 from \$.08, both as compared to the fourth quarter of 1992.

LeRoy T. Carlson, Jr., President and Chief Executive Officer, commented, "Our financial performance reflects TDS's strong commitment to wireless telecommunications services. Our cellular and paging operations are both rapidly adding customers and revenues while steadily improving their contributions to consolidated cash flow and earnings. The major gains in cash flow posted during 1993 reflect our focus on improving the quality of our services while reducing our operating costs as well as our strong emphasis on improving market penetration."

**Fourth Quarter Results** Consolidated operating revenues increased 27.1% to \$160.6 million from \$126.4 million in 1992. Cellular operations contributed 70.0% of this \$34.2 million increase, with telephone and paging contributing 16.4% and 13.6%, respectively. Operating cash flow increased 23.2% to \$44.5 million on strong gains by the cellular and paging businesses. Operating income increased

Change - Fourth Quarter 1993 compared to Fourth Quarter 1992				
\$ Millions	TDS Telecom	U.S. Cellular	American Paging	Consolidated
Customers (12/31)	34,500 ↑ 10.7%	110,200 ↑ 73.1%	138,700 ↑ 43.0%	283,400 ↑ 35.7%
Operating Revenues	\$5.6 ↑ 9.0%	\$24.0 ↑ 49.9%	\$4.7 ↑ 29.8%	\$34.2 ↑ 27.1%
Operating Cash Flow	\$0.3 ↑ 0.9%	\$5.0 ↑ 276.0%	\$3.1 ↑ 201.3%	\$8.4 ↑ 23.2%
Operating Income	\$0.9 ↓ 4.8%	\$0.5 ↑ 8.2%	\$2.1 ↑ 200.4%	\$1.8 ↑ 16.6%
Investment and Other Income				\$11.0 ↓ 57.7%
Interest Expense				\$1.1 ↑ 13.0%
Income Taxes				\$4.9 ↓ 50.7%
Net Income Available to Common				\$4.8 ↓ 45.8%
Earnings Per Common Share				\$.13 ↓ 54.2%

16.6% to \$12.5 million, due mainly to a \$2.1 million increase in paging operating income, partially offset by an \$875,000 decline in telephone operating results. Interest expense increased 13.0% to \$9.6 million due to higher levels of debt incurred through TDS's Medium-Term Note program and additional long-term debt borrowings by TDS Telecom to finance its construction programs. Income tax expense decreased 50.7% to \$4.7 million due to changes in pretax income. The effective annual income tax rate increased slightly to 43.9% in 1993 from 43.6% in 1992. Net income decreased 43.2% to \$6.2 million. Earnings per common share decreased 54.2% to \$.11 per share in 1993 from \$.24 per share in 1992, reflecting the change in income and a 23.2% increase in weighted average common shares. On a comparable basis, excluding nonrecurring and unusual items, net income available to common increased 66.1% to \$5.6 million and earnings per share rose 37.5% to \$.11.

**Year-End Results** Consolidated operating revenues increased 29.3% to \$590.7 million. Cellular telephone operations contributed 62.2% of this \$133.8 million increase with telephone and radio paging operations contributing 22.4% and 15.4%, respectively. Operating cash flow increased 28.5% to \$187.7 million, while operating income increased 29.0% to \$69.7 million. Investment and Other Income declined 39.9% to \$28.1 million, primarily due to a \$31.4 million pretax gain on sale of cellular interests reported in 1992, as discussed below. Interest expense increased 14.9% to \$37.5 million. Income tax expense decreased 11.0% to \$26.5 million due primarily to the change in pretax income as well as the change in the effective tax rate. Income before the cumulative effect of accounting changes and extraordinary item decreased 12.0% to \$33.9 million. Earnings per common share before the cumulative effect of accounting changes and extraordinary item was \$.67 in 1993 as compared to \$.91 in 1992, reflecting both changes in income and a 21.0% increase in weighted average common shares. On a comparable basis, excluding nonrecurring and unusual items, net income available to common increased 44.5% to \$29.8 million and earnings per share rose 18.9% to \$.63.

**Nonrecurring and Unusual Items**

During the third quarter of 1993, United States Cellular Corporation (AMEX symbol "USM") reported a \$4.9 million pretax gain on the sale of two minority cellular interests. TDS's share of the gain (after income taxes and minority shareholders' share) was \$2.3 million. In June 1993, API elected to cease national retailer distribution of pagers through its wholly owned American Paging Network ("APN"). The decision to cease operations at APN resulted in a pretax charge of \$1.0 million. TDS adopted Statement of Financial Accounting Standards No. 109 ("SFAS 109") to account for income taxes in the first quarter of 1993. The adoption of SFAS 109 did not have a material effect on reported net income or earnings per share. Results for 1992 were increased substantially by net gains totalling \$14.7 million (after income taxes and minority shareholders' share) from the sale of a

Net Income Available to Common For the Twelve Months Ended December 31,		
Dollars in millions, except per share amounts	1993	1992
As Reported	\$31.5	\$28.6
Nonrecurring and Unusual Items (estimated net of tax):		
Provision for discontinuance of national retailer distribution of pagers through APN	.6	—
Cumulative effect of accounting changes	—	6.9
Gain on sales or exchanges of cellular interests (net of USM minority share)	(2.3)	(14.7)
TDS Telecom directory revenue settlement	—	(1.0)
Extraordinary loss on extinguishment of debt	—	.8
Excluding Nonrecurring and Unusual Items	\$29.8	\$20.6
Earnings Per Share, excluding Nonrecurring and Unusual Items	\$.63	\$.53

majority-owned and managed market and from the exchange of interests in four cellular markets and the sale of a minority interest in another market. As a result of these gains, USM reported \$31.4 million of additional pretax income for 1992. TDS included the gains but also recorded \$5.4 million of this amount as USM's minority shareholders' interest in such income. Also in 1992, TDS adopted a new accounting rule for postretirement benefits which reduced both net income and earnings per share. The cumulative effect on years prior to 1992 reduced 1992 earnings by \$6.9 million, or \$.17 per share. Additionally, TDS Telecom realized a \$1.8 million directory pretax revenue settlement in the first quarter of 1992.

**TDS Telecommunications Corporation's** ("TDS Telecom") results reflect excellent growth in customers served and strong growth in access minutes together with relatively stable prices and ongoing cost reduction programs. TDS Telecom has added four telephone companies and two additional exchanges serving 20,100 access lines since December 31, 1992. Internal growth has added 14,400 additional access lines in the past 12 months. TDS Telecom currently operates 94 telephone companies serving 356,200 access lines in 29 states. With the completion of two pending acquisitions, TDS Telecom will serve nearly 374,000 access lines. TDS Telecom is focused on upgrading and continuously improving the quality of all of its services.

Operating revenues for the year ended December 31, 1993 continued to grow steadily, increasing 12.6% to \$268.1 million in 1993 from \$238.1 million in 1992. Operating cash flow increased 11.7% to \$138.7 million from \$124.2 million in 1992. Telephone operating income increased 9.5% to \$79.1 million from \$72.2 million in 1992. TDS Telecom's operating income margin has decreased slightly over the comparative twelve months to 29.5% from 30.3% due mainly to increased marketing expense and more aggressive depreciation rates. The newly acquired telephone companies increased telephone operating revenues \$11.7 million (4.9%), operating cash flow \$5.5 million (4.4%) and operating income \$2.8 million (3.8%).

**United States Cellular Corporation's** strong performance reflects primarily continuing expansion, rapid growth in units in service and slightly higher prices offset by a modest decrease in minutes of use per customer. USM, TDS's 85.1%-owned subsidiary, owns or has the right to acquire interests in cellular telephone markets representing approximately 23.7 million population equivalents in 205 markets at December 31, 1993, making USM the seventh largest cellular company in the United States in terms of population equivalents. USM has grown its consolidated customer base 73.1% by adding 110,200 consolidated cellular telephones since December 31, 1992. USM added 25 markets to its consolidated operations since December 31, 1992.

USM's revenues for the year ended December 31, 1993 grew 50.7% to \$247.3 million from \$164.1 million in 1992. The increase is primarily due to USM's 73.1% growth in consolidated cellular telephones in service, strong growth in roaming revenues and the effects of acquisitions and start-ups of new markets. Operating cash flow totalled \$36.4 million for the year ended December 31, 1993, representing 15.4% of service revenues, compared to \$16.9 million in the year ended December 31, 1992, representing 10.9% of service revenues. Cellular operating loss decreased to \$8.7 million from \$12.7 million in 1992, primarily reflecting the maturing of markets, offset somewhat by the effects of adding 25 new markets to operations. Operating income margin improved to a negative 3.5% from a negative 7.7% in 1992.

**American Paging, Inc.** ("API") served 460,900 pagers through 17 operations centers at December 31, 1993, an increase of 43.0% in pagers served since the previous year. Internal net customer growth generated 128,000 new paging customers, a 39.7% increase from the prior year. American Paging also acquired 10,700 pagers through the purchase of a paging company in the Tampa/Fort Myers market in

the second quarter. API's management team is focused on improving the quality, productivity and profitability of all of its messaging activities.

1993 operating results reflect robust growth in customers and revenues, offset somewhat by an 8.6% decline in average monthly revenue per customer. Paging revenues increased 37.7% to \$75.4 million for the year ended December 31, 1993 from \$54.7 million for the comparable period in 1992.

Operating cash flow increased 155.2% to \$12.7 million from \$5.0 million in 1992. API's operating loss improved 86.8% to \$721,000 from \$5.4 million in 1992. Operating income margin improved greatly to a negative 1.0% in 1993 from a negative 10.0% in 1992.

**Financing** In recent years, TDS has acquired cellular licenses and telephone and radio paging operations that have substantially enhanced its long-term growth opportunities and has greatly strengthened its financial position by issuing equity securities to finance most of these acquisitions. TDS had a total of 43.5 million Common and 6.9 million Series A Common Shares issued and outstanding at December 31, 1993. At that date, TDS had reserved approximately 3.5 million Common Shares in connection with definitive and pending acquisitions for cellular interests representing 1.2 million population equivalents and two telephone companies. In addition, TDS has registered approximately 4.2 million Common Shares for future use in connection with its acquisition activities.

<b>Common and Series A Common Shares</b>	
<b>(Shares in thousands)</b>	
Shares outstanding December 31, 1993	50,385
Shares issuable	304
Shares to be issued in the future pursuant to definitive acquisition agreements	<u>3,540</u>
Total shares outstanding and to be issued	<u>54,229</u>
Unissued shares previously registered for acquisitions, excluding 2,472 shares reserved under definitive agreements	4,234

USM completed a rights offering on November 15, 1993. The rights offering enabled all USM shareholders to participate in a transaction that greatly de-leveraged USM's balance sheet and thereby better positioned the company to continue its expansion and development activities. Recently, TDS announced the filing of a registration statement for potential issuance of new shares in the American Paging subsidiary. These recent financing activities support TDS's objective to position each of its business units to pursue new technologies and market opportunities, including new frequency allocations.

TDS is a Chicago-based telecommunications company with established local telephone, cellular telephone and radio paging operations. TDS strives to build value for its shareholders by providing excellent communications services in attractive, closely related segments of the telecommunications industry.

Tomorrow, at 10:00 a.m. Central Standard Time, TDS and USM will hold a joint news conference by phone to discuss fourth quarter and year-end 1993 results of operations. The news conference is available by calling (800) 935-0893. For further information, please contact Murray L. Swanson, Executive Vice President-Finance at (312) 630-1900. Out of town media, please call collect.

**TELEPHONE AND DATA SYSTEMS, INC.  
SUMMARY OPERATING DATA**

	Quarter Ended				
	Dec. 31, 1993	Sept. 30, 1993	June 30, 1993	March 31, 1993	Dec. 31, 1992
<b>Telephone:</b>					
Companies	94	92	92	92	90
Access lines	356,200	350,600	344,600	341,100	321,700
Growth in access lines from prior quarter-end:					
Acquisitions	2,100	1,700	—	16,300	2,000
Internal growth	3,500	4,300	3,500	3,100	2,800
Average monthly revenue per access line	\$64	\$67	\$66	\$62	\$65
<b>Cellular:</b>					
Total population equivalents (owned and acquirable, in thousands)	23,731	23,422	22,699	22,154	21,565
TDS's proportionate share	18,869	18,403	17,619	16,653	16,001
<b>Total Managed Markets:</b>					
Customers	293,000	254,900	221,100	202,300	182,500
Market penetration	1.33%	1.20%	1.08%	1.00%	.97%
Markets in operation	136	132	128	123	116
<b>Majority-Owned, Managed and Consolidated Markets:</b>					
Population equivalents	18,212	17,682	17,004	16,217	14,268
Total population (000s)	19,383	18,290	17,553	17,338	15,014
Customers	261,000	225,400	189,100	173,800	150,800
Market penetration	1.35%	1.23%	1.08%	1.00%	1.00%
Markets in operation	116	111	107	101	92
Cell sites in service	522	444	393	362	320
Average monthly revenue per customer	\$95	\$106	\$102	\$92	\$106
Churn rate per month	2.5%	2.5%	2.0%	2.1%	2.5%
Marketing cost per net customer addition	\$708	\$626	\$607	\$798	\$759
<b>Paging</b>					
Pagers in service	460,900	432,900	398,800	350,900	322,200
Average monthly revenue per customer	\$12.96	\$13.50	\$13.86	\$14.48	\$14.72
Transmitters in service	685	625	546	533	532
Disconnect rate per month	2.8%	3.0%	3.0%	2.8%	3.0%
Marketing cost per net customer addition	\$97	\$79	\$62	\$94	\$95

**TELEPHONE AND DATA SYSTEMS, INC.**  
**FINANCIAL HIGHLIGHTS**  
**Three Months Ended December 31, 1993 and 1992**

<i>(Unaudited)</i>			<u>Increase (Decrease)</u>	
<i>(Dollars in thousands, except per share amounts)</i>	<u>1993</u>	<u>1992</u>	<u>Amount</u>	<u>Percent</u>
<b>Operating Revenues</b>				
TDS Telecom	\$ 68,279	\$ 62,666	\$ 5,613	9.0%
USM	72,051	48,079	23,972	49.9%
API	<u>20,281</u>	<u>15,621*</u>	<u>4,660</u>	29.8%
	<u>160,611</u>	<u>126,366</u>	<u>34,245</u>	27.1%
<b>Operating Expenses Before Depreciation and Amortization</b>				
TDS Telecom	35,276	29,943	5,333	17.8%
USM	65,220	46,262	18,958	41.0%
API	<u>15,654</u>	<u>14,086*</u>	<u>1,568</u>	11.1%
	<u>116,150</u>	<u>90,291</u>	<u>25,859</u>	28.6%
<b>Operating Cash Flow (Operating Income Plus Depreciation and Amortization)</b>				
TDS Telecom	33,003	32,723	280	0.9%
USM	6,831	1,817	5,014	276.0%
API	<u>4,627</u>	<u>1,535</u>	<u>3,092</u>	201.3%
	<u>44,461</u>	<u>36,075</u>	<u>8,386</u>	23.2%
<b>Depreciation and Amortization**</b>				
TDS Telecom	15,536	14,381	1,155	8.0%
USM	12,895	8,424	4,471	53.1%
API	<u>3,570</u>	<u>2,587</u>	<u>983</u>	38.0%
	<u>32,001</u>	<u>25,392</u>	<u>6,609</u>	26.0%
<b>Operating Income</b>				
TDS Telecom	17,467	18,342	(875)	(4.8)%
USM	(6,064)	(6,607)	543	8.2%
API	<u>1,057</u>	<u>(1,052)</u>	<u>2,109</u>	200.4%
	<u>12,460</u>	<u>10,683</u>	<u>1,777</u>	16.6%
<b>Investment and Other Income</b>				
Interest and Dividend Income	2,419	2,071	348	16.8%
Minority Share of Income	636	(1,698)	2,334	137.5%
Cellular Investment Income, Net	5,109	2,442	2,667	109.2%
Gain on Sale of Cellular Interests	—	17,065	(17,065)	(100.0)%
Other Income, Net	<u>(84)</u>	<u>(770)</u>	<u>686</u>	89.1%
	<u>8,080</u>	<u>19,110</u>	<u>(11,030)</u>	(57.7)%
<b>Interest Expense</b>	9,585	8,482	1,103	13.0%
<b>Income Tax Expense</b>	<u>4,716</u>	<u>9,568</u>	<u>(4,852)</u>	(50.7)%
<b>Income Before Extraordinary Item</b>	6,239	11,743	(5,504)	(46.9)%
<b>Extraordinary Item</b>	—	<u>(769)</u>	<u>769</u>	100.0%
<b>Net Income</b>	6,239	10,974	(4,735)	(43.2)%
<b>Preferred Dividend Requirement</b>	<u>(597)</u>	<u>(558)</u>	<u>(39)</u>	(6.7)%
<b>Net Income Available to Common</b>	<u>\$ 5,642</u>	<u>\$ 10,416</u>	<u>\$ (4,774)</u>	(45.8)%
<b>Weighted Average Common Shares (000s)</b>	50,045	40,637	9,408	23.2%
<b>Earnings Per Common Share:</b>				
Before Extraordinary Item	\$ .11	\$ .26	\$ (.15)	(57.7)%
Extraordinary item	—	<u>(.02)</u>	<u>.02</u>	100.0%
Net Income	<u>\$ .11</u>	<u>\$ .24</u>	<u>\$ (.13)</u>	(54.2)%

\* Certain 1992 amounts have been reclassified to conform to current year presentation.

**TELEPHONE AND DATA SYSTEMS, INC.**  
**FINANCIAL HIGHLIGHTS**  
Year Ended December 31, 1993 and 1992

<i>(Dollars in thousands, except per share amounts)</i>	<u>1993</u>	<u>1992</u>	<u>Increase (Decrease)</u>	
			<u>Amount</u>	<u>Percent</u>
<b>Operating Revenues</b>				
TDS Telecom	\$268,122	\$238,095	\$ 30,027	12.6%
USM	247,259	164,085	83,174	50.7%
API	75,363	54,716*	20,647	37.7%
	<u>590,744</u>	<u>456,896</u>	<u>133,848</u>	29.3%
<b>Operating Expenses Before Depreciation and Amortization</b>				
TDS Telecom	129,450	113,931	15,519	13.6%
USM	210,888	147,151	63,737	43.3%
API	62,692	49,752*	12,940	26.0%
	<u>403,030</u>	<u>310,834</u>	<u>92,196</u>	29.7%
<b>Operating Cash Flow (Operating Income Plus Depreciation and Amortization)</b>				
TDS Telecom	138,672	124,164	14,508	11.7%
USM	36,371	16,934	19,437	114.8%
API	12,671	4,964	7,707	155.2%
	<u>187,714</u>	<u>146,062</u>	<u>41,652</u>	28.5%
<b>Depreciation and Amortization**</b>				
TDS Telecom	59,562	51,946	7,616	14.7%
USM	45,027	29,639	15,388	51.9%
API	13,392	10,412	2,980	28.6%
**includes amortization of 25,110 and 17,226, respectively	<u>117,981</u>	<u>91,997</u>	<u>25,984</u>	28.2%
<b>Operating Income</b>				
TDS Telecom	79,110	72,218	6,892	9.5%
USM	(8,656)	(12,705)	4,049	31.9%
API	(721)	(5,448)	4,727	86.8%
	<u>69,733</u>	<u>54,065</u>	<u>15,668</u>	29.0%
<b>Investment and Other Income</b>				
Interest and Dividend Income	8,082	7,708	374	4.9%
Minority Share of Income	(475)	(3,703)	3,228	87.2%
Cellular Investment Income, Net	15,704	9,224	6,480	70.3%
Gain on Sale of Cellular Interests	4,970	31,396	(26,426)	(84.2)%
Other Income, Net	(155)	2,207	(2,362)	(107.0)%
	<u>28,126</u>	<u>46,832</u>	<u>(18,706)</u>	(39.9)%
Interest Expense	37,466	32,610	4,856	14.9%
Income Tax Expense	26,497	29,767	(3,270)	(11.0)%
<b>Income Before Extraordinary Item and Cumulative</b>				
Effect of Accounting Changes	33,896	38,520	(4,624)	(12.0)%
Extraordinary Item	—	(769)	769	100.0%
Cumulative Effect of Accounting Changes	—	(6,866)	6,866	100.0%
<b>Net Income</b>	<u>33,896</u>	<u>30,885</u>	<u>3,011</u>	9.7%
Preferred Dividend Requirement	(2,386)	(2,237)	(149)	(6.6)%
<b>Net Income Available to Common</b>	<u>\$ 31,510</u>	<u>\$ 28,648</u>	<u>\$ 2,862</u>	10.0%
<b>Weighted Average Common Shares (000s)</b>	47,266	39,074	8,192	21.0%
<b>Earnings Per Common Share:</b>				
Before Cumulative Effect of Accounting Changes	\$ .67	\$ .91	\$ (.24)	(26.4)%
Extraordinary Item	—	(.02)	.02	100.0%
Cumulative Effect of Accounting Changes	—	(.17)	.17	100.0%
<b>Net Income</b>	<u>\$ .67</u>	<u>\$ .72</u>	<u>\$ (.05)</u>	(6.9)%

\*Certain 1992 amounts have been reclassified to conform to current year presentation.

## **Information Flows in Broadband PCS Auctions**

Subsequent to the Annenberg conference, the Telocator forum, a meeting at the FCC, and the demonstration at CalTech, I'd like to re-emphasize the need to select a broadband PCS auction procedure which brings important valuation information into the public domain in a timely manner.

Throughout the comment and reply rounds, and the various January meetings, no-one has disputed the following three facts:

**(1) Knowledge of the identities of the holders of the 30 MHz licenses on large-population MTAs is important in order for applicants to determine the value of the 30 MHz licenses on contiguous smaller-population MTAs.** Those who have successfully bid for licenses on the large-population MTAs will be better able to evaluate the likely pattern of nationwide competition, and to see where the greatest economies of scale in development and marketing will exist. Those who have not acquired licenses on the large-population MTAs (perhaps due to resource constraints) will be able to identify opportunities for providing tailored service to smaller markets, and to see where opportunities for strategic partnerships will exist.

**(2) Knowledge of the identities of the holders of the 30 MHz licenses in any single MTA is important in order for applicants to determine the value of the BTA licenses within that MTA.** The MTA-wide services that the winners are expected to offer will have substantial impact on the value of services prospective BTA licensees intend to offer. (Furthermore, the experience in cellular competition has shown that some large-scale providers respond to competition for niche markets very differently than others.)

**(3) More-accurate valuations increase the likelihood of an economically-efficient allocation of licenses.** An efficient allocation of licenses can be expected to generate both the delivery of high-value services to consumers, and high auction revenues.

For these reasons, it is clear that the selected procedure for the auctioning of broadband PCS licenses should ensure that the sale of the 30 MHz licenses on the large-population MTAs closes before bidders are forced to make commitments on any other licenses. Similarly, the selected procedure should close the sale of the 30 MHz licenses in each MTA before bidders are forced to make commitments on licenses covering BTAs within that MTA.

What distinguishes a large MTA from a small one? While the choice must be somewhat arbitrary, an examination of the map suggests calling the largest 11 MTAs "large". This set includes the primary candidates for regional "hubs", and covers approximately half of the nation's population.

I have long been on record as a supporter the idea that simultaneous-ascending-bid auctions are a practical and time-efficient method for allocating the large number of licenses which will be offered. At the same time, I have consistently emphasized the need for a proper flow of information to the bidders to aid in the processes of valuation and strategic decision-making.

In an attempt to keep the auction administratively simple, I initially proposed (in the TDS comments and reply comments) that the 30 MHz MTA licenses be sold in a sequence of 51 two-license simultaneous- ascending-bid auctions, with the MTAs sequenced in descending order by population. Each auction would be simple enough to be carried out "live", and short enough to be held in accordance with a pre-announced schedule.

Certainly, however, my primary concern — that the proper information flows occur as the allocation of licenses unfolds — would also be met if the MTA licenses were sold in fewer than 51 rounds, with more than two licenses offered through simultaneous-ascending-bid sales in each round. At the minimum, two successive auctions might suffice, with the first offering the 30 MHz licenses on the largest 11 (or so) MTAs, and the second offering the remaining MTA licenses.

[Perhaps an aside is in order here. Supporters of the "sell-everything-at-once" philosophy have argued that appropriate "activity requirements" will yield the correct information flows in one large sale. What little experimental evidence is available — for example, the simulation conducted at the Annenberg conference — fails to support this argument. It seems foolish to merely *hope* that the right flows occur, when a simple division of the MTA-level auction into two stages can *ensure* (at least in coarse terms) that they do.]

The first round of a two-round MTA-level auction will involve a restricted set of bidders, since many potential PCS licensees will be seeking only licenses on smaller MTAs, or on BTAs. Therefore, two administrative advantages will be reaped: There will be an opportunity to refine the details of the auction rules before larger numbers of licenses are offered in sales involving larger numbers of bidders, and smaller firms will have an opportunity to observe the first round, becoming familiar with the process before having to enter the fray against firms with substantial human-resource advantages.

[Another aside: It is not surprising that individual applicants seek the adoption of procedures which work to their advantage. Larger firms benefit from rules which swamp smaller competitors with informational, strategic, and administrative complexities, all of which must be dealt with in a limited time frame. Just so, smaller firms can benefit from rules which subject the larger firms to strategic "guessing games" which increase the likelihood of inefficient license allocations. So one should not be surprised that it is some of the larger applicants which have proposed selling everything at once,

and some of the smaller applicants which have recently proposed selling BTA-level licenses within the smallest MTAs first (forcing larger applicants to guess whether they will succeed in acquiring MTA-wide licenses, and should therefore perhaps hold back in the BTA-level auction). **I believe that the *public* interest will be best served if the FCC chooses the appropriate "middle path", leveling the playing field (subject to policy concerning diversity) and seeking a procedure likely to yield an efficient allocation of licenses.]**

If the MTA licenses are offered in a small number of rounds, each round will involve too many licenses to be conducted by a live auctioneer. The two proposals on record are to conduct the auctions in real-time (electronically), or in discrete bid-submission stages (electronically or manually). Either proposal requires the use of some type of "activity requirement" to ensure that the auctions proceed at an acceptable pace; both seem workable.

At the BTA level, I find myself slightly favoring real-time electronic bidding over discrete-time bid submissions, in order to simplify logistics. The presentations at CalTech demonstrated the feasibility of such an approach. I also favor a graduated scale of bid-withdrawal penalties, topping out at "full responsibility for making up the difference between the withdrawn bid and the eventual winning bid". (By using a graduated scale, bidders will have the ability to withdraw at low cost a small number of bids entered as a result of human error.)

Robert J. Weber  
February 10, 1994