

RESEARCH UPDATE

PCS WIRELESS INC. (PCS, VSE - \$1.60)

RECOMMENDATION: *Speculative Buy*

JOINT VENTURE DEAL WITH ADC TELECOM INC:

After months of speculation and rumors, PCS Wireless Inc. ("PCS Wireless") has finally delivered on its promise to find a strategic partner with a significant international presence. This alliance gives the Company instant credibility, manufacturing capacity, marketing power and the potential for significant future revenues through an OEM and licensing arrangement. Management believes that this alliance is critical to the Company's future since their customers (major international telecom equipment suppliers) are not comfortable dealing with smaller companies where no alternate source of supply is readily available. As a result of this deal, we believe the Company has significantly improved their chances of becoming the preferred worldwide supplier of Remote Antenna Driver/Remote Antenna Signal Processor (RAD/RASPs). We are reiterating our original Speculative Buy rating (PCS - \$1.05, Oct. 5/95) with a price target of \$5.00 within 12 to 18 months.

The following points outline and summarize the terms of the joint venture agreement between PCS Wireless and *ADC Telecom* which was signed on December 12, 1995.

- **ADC has agreed to subscribe for 5,000,000 common shares (representing 15.1% of the issued share capital) of PCS Wireless. An appointee of ADC will join the board of PCS Wireless.**

ADC will make their investment in three equal separate tranches of 1,666,667 shares each. The first tranche will occur by the end of January, 1996 at a price of \$1.28 per share. The second tranche will be purchased at market prices following the Company's receipt of a RAD (GSM or CDMA) contract. The third tranche will also be purchased at market prices following an initial delivery to ADC of the Company's Cellmex product (expected date: March 1996).

- **PCS Wireless and ADC will create a new joint venture company equally owned by both parties. The joint venture will initially be capitalized at US \$5 million and will involve a significant transfer of employees from PCS Wireless who will continue to carry out the R&D functions of the RAD/RASP products.**

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Elvis Pervan
(416) 361-6053

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ADC will cover 2/3 of the operating costs (within the first year and 50% thereafter) and will provide the joint venture with access to its manufacturing, sales and marketing. PCS Wireless will record 50% of the joint venture revenues and profits from the sale of RAD/RASPs worldwide. In sacrificing half of future RAD/RASP revenues to ADC, operating expenses will be significantly lower than the current run rate since ADC will cover the majority of the joint venture's expenses in the first year. The Company's cash expenses (between \$450,000-\$500,000/month) will drop by **almost 50%** to approximately **\$250,000/month**. As a result, we are expecting a significant net margin expansion in fiscal 1997.

- **PCS Wireless has entered into an OEM agreement to supply ADC with Frequency Division Duplex (Cellmex), PCS Microcell Extender (MEX) and Base Station Extender (BEX) products. Under a licensing arrangement, the Company will grant ADC the right to manufacture these products on a non-exclusive basis.**

As a result of this agreement, PCS Wireless has an obligation to supply ADC with an initial delivery of the *Cellmex* product once FCC approval is received. When ADC decides to manufacture these products on their own, they will have to pay PCS Wireless a significant amount of cash plus an undisclosed royalty on each unit produced. Management does not yet know how many units ADC wishes to OEM or eventually manufacture.

ADC Telecommunications Inc. (ADCT - NASDAQ) is a leading supplier of transmission and networking systems to deliver voice, data and video services. Actual revenues for fiscal 1995 (year ended October 1995) were **US \$586 million**. ADC has ambitious plans to expand into the Personal Communication Services ("PCS") equipment supply market and PCS Wireless' product line will undoubtedly represent an important addition to the Company's portfolio of access products.

RAD/RASP Opportunity:

A RAD is a small antenna/transmitter box connected to a CATV strand on a telephone pole. It acts like a cell-site tower (macrocell) but only has a radius range of up to 0.5 miles vs. 10 miles for a cell-site. The utilization of RADs vs. cell-site towers is dependent on factors such as population density, availability and quality of the CATV network, cell-site zoning restrictions and RAD equipment cost. In an urban environment, the RAD model is an economically superior option, particularly to a PCS license holder that owns a cable network. The partners in the *Sprint TV* cable consortium (North America's largest PCS license holder) will start to build a PCS network in early 1996 using a combination RAD/RASP and cell-site network.

Conservative estimates of U.S. RAD purchases over the next two years amount to at least 40,000 RADs (depending on the timing of the buildout). *Cox Communications*, the PCS license holder for the San Diego-Los Angeles Major Trading Area (MTA), estimates that 10,000 RADs may be required for this region alone. Initial estimates for pricing are US \$5,500 per RAD for Cox. Although estimates are premature at this stage, industry analysts are talking about a US \$400 million RAD market by 1998. Whatever the ultimate number becomes, we believe that the worldwide market demand for RAD/RASPs will explode by 1997. Large international companies such as *Northern Telecom*, *Ericsson*, *Motorola*, *AT&T*, *Allen Telecom* and others recognize this potential and are very interested in including it in their product portfolio.

FUTURE CONTRACTS:

PCS Wireless is a leading company in PCS RAD/RASP and in-building fibre/coax technology. The only other competitor for RAD products is *Lockheed-Sanders* (a division of the *Lockheed-Martin Corp.*). Both companies have submitted their RADs for field testing to AT&T during October. Although results of the testing were not made public, industry representatives from *Cox Communications*, *Motorola* and ADC have told us that the trials for both companies went well. In addition, they expect both PCS Wireless and *Lockheed-Sanders* to receive significant contracts over the next two years. Industry representatives believe it is important to maintain a second supplier source for a component which is a critical element of *Sprint's* PCS plans. Given PCS Wireless' long-term expertise in RAD technology, alliance with ADC, and relationship with AT&T, we are compelled to believe that *Lockheed Sanders* may be the secondary source of supply. No other companies have seriously indicated an interest in developing a RAD. The large telecom equipment suppliers currently intend to either OEM or license the RAD technology rather than develop it internally.

Once the Sprint cable consortium awards AT&T a contract (est. value: at least US \$1.5 billion) to build their PCS network, AT&T will follow by selecting a RAD/RASP supplier for an initial contract in the Los Angeles-San Diego MTA. For the first part of this MTA buildout, AT&T will require approximately 3,500 RADs with a total value of about US \$19 million. The timing of the Sprint award to AT&T will be the first half of January 1996 and the timing of the initial CDMA RAD/RASP contract should follow within two to three weeks of this date. After this initial contract, *Cox* and *TCI* will likely order significantly more RADs in the second half of 1996. PCS Wireless should in all likelihood be a beneficiary of this business in 1996.

After speaking to management at PCS Wireless and *Cox*, we have learned that AT&T continues to work intensively with PCS Wireless's engineers in order to develop a more complex RAD suitable to *Cox's* cable network. Although it is unknown what level of favour AT&T has for *Lockheed-Sanders*, we have been told by industry representatives that the RAD from *Lockheed-Sanders* is probably more expensive. We have also been

informed that *Lockheed-Sanders* is partnered with *Qualcomm* (a rival of *AT&T*) and is trying to work directly with *Cox* and around *AT&T*. Although we cannot verify the accuracy of these reports, we feel that *PCS Wireless'* close working relationship with *AT&T* is a definite positive for the Company. **In addition, the alliance with ADC should alleviate any concerns that AT&T may have with PCS Wireless' ability to deliver volume orders in the near-term.**

Despite the favourable reviews and comments we have received for *PCS Wireless'* technology, we cannot guarantee or even assume that the Company will win the first major RAD contract from *AT&T* over the next few weeks. In the event that *Lockheed-Sanders* wins this contract, the shares of *PCS Wireless* will likely face significant selling pressure. However, we firmly believe that the Company has the products, technology and industry alliance to attract significant future sales orders. In addition, other large telecom companies are expressing an interest in forming an alliance or taking an investment position in *PCS Wireless*. If *PCS Wireless* wins this first RAD contract, the shares will likely open at a significantly higher price. Prior to this announcement, we recommend purchase of *PCS Wireless* as a speculative investment suitable for investors with high risk tolerance. Regardless of the outcome over the next few weeks, we remain bullish on the Company's long-term prospects and maintain that **both RAD suppliers will ultimately receive significant market share.**

BEX/MEX and CellMEX OPPORTUNITY

While potential RAD/RASP contracts are at the forefront of investor concerns, it is important to remember that the Company also has some very good in-building and local-loop wireless access products. *ADC Telecom* will be the first company to OEM and eventually license this technology. Asian countries are trial testing the Company's products in an effort to avoid expensive wireline infrastructure costs. As greater interest in PCS indoor coverage and the bypass of wireline local-loop emerges, we believe the Company has an even greater revenue potential than in the RAD/RASP market. This is precisely why *ADC* tried (yet failed) to get exclusive rights to *PCS Wireless'* technology. Depending on the success of *ADC's* selling efforts and the pace of wireless network construction in developing countries, we could begin to see significant revenues from this product line by the end of 1996. The US \$70 billion local-loop market will soon be open for competition and wireless communications will ultimately be a part of it.

SHARE PRICE VALUATION?

After rising and falling on rumours and possible contract announcements, trading in the shares of *PCS Wireless* have proven to be event driven as opposed to earnings related. Since the Company's shares fell from a high of \$4.25 last May, investors have lost their

trust in management and become increasingly concerned with the Company's viability. However, we have always maintained that the cancelled *Ericsson* contract was not the fault of PCS Wireless and that the Company still had a strong chance of receiving orders for CDMA RADs in 1996. This was the exact basis for our earlier speculative buy report in October of 1995. At that time, the Company had approximately \$0.45 per share in cash and the remaining \$0.60 per share valuation could be compared to a warrant based on future business potential.

After speaking with industry representatives of the major telecom equipment suppliers, cable operators and a major cable testing laboratory, we have confirmed that the products from PCS Wireless are first rate in technology and engineering design. In addition, we do not expect any other competitors (except for *Lockheed-Sanders*) to build their own RAD/RASPs in the near future. Given the high number of existing patents and expertise that PCS Wireless has already achieved, *AT&T* and other potential customers are more interested in buying RAD/RASP products through an OEM or licensing arrangement than building it internally. We expect pricing will be competitive which should provide a barrier to entry for newcomers. As a result, we believe that PCS Wireless will be a large participant in the emerging RAD/RASP market.

Based on a share price of \$1.60, the Company currently has a market capitalization of approximately \$35 million (net of \$10 million cash) and sales of under \$4 million for F1996 (ending February 1996). Based on only current operating results and the Company's cash burn rate of \$450,000 per month (before the joint venture formation), the shares are clearly overvalued. However, the Company's proven technology and alliance with ADC virtually guarantees its participation in the upcoming multi-billion dollar PCS network buildout.

For the fiscal year ending February 1997, we expect the RAD/RASP market to reach US \$80 million. If the Company wins half of this market (with *Lockheed-Sanders* winning the other half), then US \$20 million of revenues will be recorded. The remaining US \$20 million in revenues will be recognized by ADC. This estimate does not include sales of RADs outside the U.S. or of the Company's in-building fibre/coax products which may eventually be very significant. Considering all revenue sources, we come up with a F1997 sales target of \$40 million, net income (untaxed) of \$9.1 million and estimated EPS of \$0.25. The Company has approximately \$10 million in tax loss carryforwards. Since no direct or close comparables exist for PCS Wireless, we will assume that a technology company experiencing strong growth in an emerging market should trade at 30X earnings (20X untaxed) or at 4-5X sales. On this basis, our 12-18 month price target is \$5.00.

PCS WIRELESS INC.

Consolidated Statements of Operations and Deficit
 February 28th fiscal year end
 (Cdn. \$000's)

	1994	1995	FORECAST	
			1996	1997*
Sales	\$318	\$1,702	\$3,500	\$40,000
Cost of Sales	161	1,067	2,100	24,000
Gross Profit	157	635	1,400	16,000
Gross margin	49.4%	37%	40%	40%
Expenses				
General and administrative	645	1,040	1,300	1,800
Research and development	214	1,008	2,600	2,000
Selling and marketing	271	719	1,300	2,300
Amortization	138	579	700	750
Writedown of inventory	0	411	0	0
Income/(loss) from operations	(\$1,111)	(\$3,122)	(\$4,500)	\$9,150
Operating margin	-349%	-183%	-129%	23%
Discontinued operations	(\$657)	0	0	0
Pre-tax income	(\$1,767)	(\$3,122)	(\$4,500)	\$9,150
Tax	\$0	\$0	\$0	(\$72)
Net Income	(\$1,767)	(\$3,122)	(\$4,500)	\$9,078
Net margin	-556%	-183%	-129%	23%
Earnings per share				
Basic	(\$0.17)	(\$0.17)	(\$0.16)	\$0.27
Fully-diluted			(\$0.14)	\$0.25
Shares Outstanding				
Basic	10,328	18,363	28,000	33,500
Fully-diluted			32,000	36,000
Cash Flow from Operations:				
Net income	(\$1,767)	(\$3,122)	(\$4,500)	\$9,078
Depreciation and amortization	\$138	\$579	\$700	\$750
Gross cash flow	(\$1,629)	(\$2,543)	(\$3,800)	\$9,828
Cash flow per share				
- basic	(\$0.16)	(\$0.14)	(\$0.14)	\$0.29
- fully diluted			(\$0.12)	\$0.27

* Total sales include \$27 million of US RADs, \$2 million in international RADs, \$3 million in CellMEX/BEX/MEX shipments (excl. ADC) and \$6 million in CellMEX/BEX/MEX sales to ADC.

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 Elvis Pervan
 (416) 361-6053

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PCS Wireless Inc.

Consolidated Balance Sheet
 February 28th fiscal year end
 Cdn. \$000's

Assets	1994	1995	FORECAST	
			1996E	1997E
Current Assets:				
Cash	\$47	\$116	\$11,137	\$31,650
Accounts Receivable	205	493	900	7,000
Due from related parties	55	47	60	75
Inventories	158	530	750	2,000
Prepaid expenses	29	32	35	100
	494	1,218	12,882	40,825
Capital Assets	2,643	2,777	3,100	4,400
	\$3,138	\$3,995	\$15,982	\$45,225
Liabilities				
Current Liabilities:				
Accounts payable and accrued liabilities	\$1,039	\$1,507	\$2,100	5,000
Deferred revenue	103	471	800	7,500
Current portion of obligations under capital leases	50	90	110	175
	1,193	2,067	\$3,010	\$12,675
Obligations under capital leases	=	56	65	110
	1,193	2,122	3,075	12,785
Shareholders' Equity:				
Share capital	10,733	13,783	29,383	39,883
Deficit	(8,789)	(11,911)	(16,411)	(7,333)
	1,945	1,872	12,972	32,550
	\$3,138	\$3,995	\$15,982	\$45,225
Weighted average shares outstanding (000's)	10,328	18,363	28,000	33,500
Book value per share	\$0.19	\$0.10	\$0.46	\$0.97
Current share price	\$1.60			
Price to Book value	8.5	16.7	3.5	1.6