

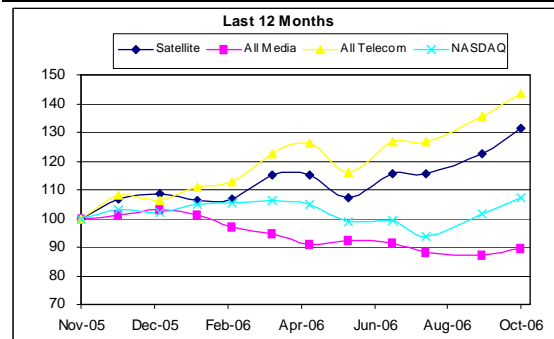
FROM THE GROUND UP

October 2006

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THE WAY WE SEE IT...

Satellite: Loral agrees to issue \$300mm in convertible preferred equity to affiliates of MHR, its largest shareholder. Assuming completion of this offering, combined with their substantial (nearly half a billion dollars) cash resources already in hand, we think Loral is on the hunt for acquisitions and expansion.

Telesat (Canada) filed for a \$400mm IPO in the U.S. and Canada. We think this maneuver may have been intended at least partially to force the hands of interested potential buyers; renewed interest by PE firms and FSS companies could prevent this IPO from ever occurring.

Telcomm: ATT's \$67bb merger with Bell South was approved by the DOJ, which poses the question: is there anything these guys won't approve? Perhaps the folks at DirecTV and EchoStar are listening...The FCC has delayed its decision until next month.

Video: Time Warner Cable filed for an IPO of the 16% stake owned by creditors of Adelphia Communications. Estimated proceeds could be as high as \$6.9bb.

Going the other direction, Cablevision announced that it is going private in a \$7.9bb transaction, financed completely with debt. With most of the capex behind the company, the cash flow to service that debt should be there. We can't help but wonder what the Dolans know that Adelphia's creditors do not...

WiMAX: Airband, a large B2B wireless internet service provider (WISP) acquired California based RedWire – while terms were undisclosed, this continues the trend of larger WISPs consolidating the better run small operators – a trend we expect to accelerate given the advantages to scale in that marketplace.

Towers: Crown Castle announced its acquisition of Global Signal of \$5.8bb in a mostly stock transaction. With Global Tower Partners rumored to be on the block, consolidation of the tower industry is reaching an advanced stage.

New Media: Google snagged YouTube for \$1.6bb – we wonder the extent to which this number is a reflection of Google's valuation instead of YouTube's... Still, not a bad return for 18 months invested by YouTube's founders and VC's. VitalStream agreed to be acquired by Internap Network Services for \$217mm in stock. Combined with the recent \$130mm investment in Limelight Networks, we think this could presage more strategic acquisitions in the sector.

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...the Radio Act of 1927 ... set the parameters of frequency and geography as the chief means to determine who would be allowed to transmit.

Unlicensed transmitters are limited by regulation in the amount of power they use, and use a variety of technologies to “peacefully coexist” with other transmitters in the same spectrum.

WiMAX Deployments - Licensed or Unlicensed Spectrum: What are the options?

Visitors to this month's WiMAX World will go from vendor booth to vendor booth checking out the vendors. “So, what spectrum should we build your WiMAX radios for?” they politely ask. Answering this question often involves questions of its own...

Everything electromagnetic operates on a given frequency we call spectrum. Transmitting on the same frequency as a WiMAX radio will interfere with it, potentially to a point where service is rendered useless. To avoid this, two regulatory approaches are used:

The first is limiting the number of transmitters on a given frequency in a given geographic area. In the US, this was codified by the Radio Act of 1927 which essentially set the parameters of frequency and geography as the chief means to determine who would be allowed to transmit. Implementing spectrum policy focuses on three factors: allocation, assignment and enforcement.

Allocation sets aside spectrum for specific uses such as cell phones at 1.9 GHz, broadcast TV at 500 MHz, etc. Assignment is most widely represented by spectrum auctions such as the recent AWS auction held by the FCC. Enforcement occurs when someone breaks the rules and the federal police show up to arrest the offending radios and take them away to radio jail.

The second way to avoid interference is a combination of technology and regulation: unlicensed spectrum. While the term unlicensed implies there is little regulation, this is not entirely true. Unlicensed transmitters are limited by regulation in the amount of power they use, and use a variety of technologies to “peacefully coexist” with other transmitters in the same spectrum (see below).

Aside from regulatory issues, the physics of propagation also mean that the quantity and frequency of spectrum matter. From a quantity perspective, more spectrum can carry more data at higher speeds, all other factors being equal. This allows a tradeoff between capital expenditures and spectrum - using more spectrum to substitute for fewer towers or vice versa. The frequency of spectrum affects the ability of transmissions to penetrate foliage, walls and around corners – lower frequencies are best, and thus tend to require less expense for deploying equipment.

The various spectrum bands of interest to potential broadband wireless operators are summarized in the following table:

THE CURRENT SPOT-BEAM (cont.)

Table 1: Popular spectrum for WiMAX uses worldwide

Frequency	Amount	Uses
900 mHz	30 mHz	U.S. unlicensed. Superior propagation characteristics due to low frequency.
1.7 and 2.1 GHz	90 mHz	Advanced Wireless Services in US; can be used for WiMax - service rules for this spectrum also permit voice services, making it particularly valuable. Just auctioned for \$13.7 billion.
2.3 GHz	60 mHz	Wireless Communications Services in US; expect incumbent service providers who already hold this spectrum to use it for WiMAX services
2.4 – 2.483 GHz	83 mHz	ISM and FCC Part 15, largely unlicensed, used for WiFi; to be avoided by WiMAX operators on concerns of interference from WiFi
2.5 GHz	195 mHz	BRS/EBS in US; - Projected as being a popular licensed WiMAX spectrum choice in US and for those who could not get 3.5 GHz in other nations, probably the second most popular spectrum vendors will build product for. Largely held by Sprint and ClearWire
3.5 GHz	N/A	Unlicensed in many nations outside the US. Many nations have allocated it as the WiMAX spectrum. Almost all vendors offer WiMAX product for this frequency. Not useable commercially in the U.S. (military use).
3.65 GHz	50 mHz	FCC issued an announcement in 2004 promoting opening spectrum here for quasi-unlicensed use. Has yet to be finalized. Many products made for 3.5 GHz may work well in 3.65 GHz U.S. application
4.9 GHz	50 mHz	aka "Public Safety", in the US, intended for use by First Responders (police, fire, ambulance and other emergency services)
5.4 and 5.8 GHz	125 mHz	U.S. unlicensed; many vendors will offer this as their US unlicensed spectrum offering.

Source: [WiMAX in 50 Pages](#)

...more spectrum can carry more data at higher speeds, all other factors being equal...you can substitute more spectrum for fewer towers or vice versa.

Licensed Spectrum

In the U.S. licensed spectrum can be obtained via auctions (infrequent) or sublease. Subleasing occurs when an operator negotiates a sublease from the primary license holder. In the US, license holders can be identified via the FCC's online database known as the Universal Licensing System (ULS). Contact information for both the license holder and their attorney is listed as well as frequencies and geographic areas covered. The FCC considers subleasing to be an efficient means of distributing spectrum after the auction.

Cantor Fitzgerald also operates the Cantor tower and spectrum exchange – sort of an eBay for spectrum buyers.

THE CURRENT SPOT-BEAM (cont.)

Pricing for licensed spectrum is quoted in the follow units: cents/MHz/POP. That is, X cents per one MHz multiplied by population in the geographic area in question. Recent spectrum transactions in frequencies used for WiMAX range from \$0.15-\$0.55 per MHz-POP. Negotiations to acquire spectrum can take many months or more.

WiMAX operators expecting to use unlicensed spectrum can learn a lot from the experiences of WiFi operators.

Finally, some high frequency spectrum can be obtained from the FCC via a simple application process.

Unlicensed spectrum

Many are the successful WiFi (unlicensed 2.4 GHz) service providers. They have learned to deal with interference from other unlicensed operators via agreements with the other operators, changing channels within the unlicensed bands, changing antenna polarity and other tricks of the trade to mitigate interference on open standards equipment using unlicensed frequencies. WiMAX operators expecting to use unlicensed spectrum can learn a lot from the experiences of WiFi operators.

Service providers using WiMAX on unlicensed frequencies will have more tools than WiFi operators to use in overcoming interference from other operators. Some of those tools are summarized in the table below.

Table 2: Technologies in the WiMAX specs that mitigate interference

Technology	Description
Orthogonal Frequency Division Multiplexing (OFDM)/Multiple Access (OFDMA)	Breaks the signal into multiple subcarriers; up to 2048 smaller signals. If some signals are negated due to interference, other signals get through such that interference may not be discernible to end user
Dynamic Frequency Selection	If interference is occurring on one frequency the transmission dynamically shifts to a different frequency to avoid the interference.
Dynamic Bandwidth Allocation	If interference is detected, more bandwidth is allocated to the transmission to strengthen the link budget and overcome the interference
Adaptive Antenna Systems (beam forming/steering)	Rather than broadcast over a wide geographic range, a narrow beam is formed between base station and subscriber unit, thus avoiding interference via a strong beam
Multiple In/Multiple Out (MIMO) Antennas	Uses multiple antennas at both base station and subscriber unit such that as interference is detected at one frequency, bulk of transmission can shift to another frequency; also boosts throughput via multiple antennas overcoming limitations of a single an
Software Defined Radios (SDR)	Also known as “smart antenna”; computer associated with the antenna dynamically reads the electromagnetic atmosphere and transmit on best available frequency

THE CURRENT SPOT-BEAM (cont.)

These technologies should not be thought of as panaceas or “get out of radio jail free cards” for the unlicensed operator; they may make the difference between acceptable and unacceptable services.

Some very characteristics and general rules of thumb for choosing the respective types of spectrum are summarized below:

Table 3: Comparing applications for licensed vs. unlicensed spectrum use

Licensed spectrum	Unlicensed spectrum
Best for urban markets where potential for interference is	Rural markets: low propensity for collision with other service providers
Best for business subscribers or where QoS (uninterruptible	Best for backhaul using directional antennas as opposed to interference prone point to multipoint configurations
Wherever a high level of security and reliability are	Some residential markets
Requires extensive pre-planning	Rapid time to market
No regulatory limit on power; enables a strong link budget to overcome interference	Limited to 1 watt of power; can limit range, throughput and interference mitigation
Substantial (i.e. millions of dollars) in up front start up costs.	Free spectrum, much lower start up costs.
Less capital expense as network grows	More capital expense as network grows

Providers may use one, the other or even a balanced mix of licensed and unlicensed spectrum to serve their markets.

Conclusion

As evidenced in the text and tables of this article, there are advantages to both licensed and unlicensed operations. Providers may use one, the other or even a balanced mix of licensed and unlicensed spectrum to serve their markets. The service provider must determine via a rigorous site survey as to what potential sources of interference exist in their markets. The service provider will also have to evaluate the trade offs of protected vs. unprotected spectrum when offering service to their customers be they business (very demanding) or residential (equally demanding, they just don’t have an IT director).

By Frank Ohrtman

WiMax.com

WiMax.com is a clearinghouse for WiMAX industry information and a provider of WiMAX training and consulting services. People with questions regarding this article can contact Michael Wollenben at mwollenben@wimax.com.

A Historical Word of Caution?

Drexel Burnham Lambert also contributed positively to the efficiency of capital markets, which in turn improved national wealth in a variety of ways...

Let us begin with a premise: Back in the day, looking past the bad and the ugly, the financing field that was spearheaded by Drexel Burnham Lambert contributed positively to the efficiency of capital markets – which in turn improved national wealth in a variety of ways – with the development of an instrument and financing structure that, when properly used, can unlock large amounts of shareholder value. Some may even argue that beyond the financial engineering aspects of high yield debt and leveraged buyouts, these types of transactions also serve to make industry more productive with built-in management disciplines and pressures to perform. When taken to an excess, like most things, high leverage will have negative repercussions, and in fact did. However, and by way of returning to the original premise, it has been shown that the majority of Drexel-sponsored LBOs yielded positive results for both equity and debt holders. Furthermore, it has also been argued that the downfall of this institution came with its share of negative consequences on capital markets and, as a result, our economy. Let's return to this thought as we elaborate upon another premise below.

As the size and number of alternative investment vehicles has risen almost exponentially in the past several years, there have been rumblings of late, some mild indications, that the booming (Drexel-like, as it were) growth of this sector is to be curtailed. Whether manifest in regulatory commissions looking into alleged collusion among private equity funds, or whether we hear from high ranking officials about the need to regulate hedge funds (in a manner similar perhaps to consumer oriented banks and insurance companies?), one does begin to feel that certain wheels are turning.

...should [alternative investment vehicles] become more limited in their abilities to act, there may be significant negative market and economic ramifications.

Now, the rightness or wrongness of these enormously complex cases is beyond the scope of this article, (or any easy resolution for that matter). We would point out, however, that like Drexel and the high yield market it helped to create, alternative investment vehicles have provided valuable services to the U.S. economy, the diminution of which services (should such vehicles become more limited in their abilities to act) might have significant negative market and economic ramifications. Among many positive contributions of alternative investment vehicles, the more noteworthy include the addition of a major source of liquidity to financial markets, fortunately in time to offset the negative repercussions on public companies from our era's defining regulatory moment, Sarbanes-Oxley. This added liquidity has moreover contributed to capital investments and market efficiency (contrary, in fact, to the collusion argument presented), as the availability of capital sources beyond a handful of banks and large industry consolidators has vastly multiplied.

That privileges are sometimes abused may be true enough, but the question is one of proportion, balance, and the general good, and we hope that the potency of all will not be limited by the (alleged) transgressions of very few. Granted, neither the cause nor the effect of an all-out collapse like Drexel's is anywhere close to manifestation. In the current situation, however, even a minor disruption across the board might have far reaching ripple effects. This, therefore, is strictly a note of early caution, as history does often repeat: regulatory reaction to the Drexel scandal circa 1990 led to a squeeze on leveraged lending and a liquidity

From the Deal Side (cont.)

crunch in debt markets; more recently, regulatory reaction to Enron led to Sarbanes-Oxley, which has hindered the flow of public equity capital on a number of levels. As we continue to hear regulatory rumblings on the heels of Amaranth and other situations, we should be mindful of the capital markets repercussions such rumblings have led to in the past.

By Dan Ramsden

Near Earth LLC

After Years of Circulation Decline, Have Newspapers' Values Finally Followed?

Much has been made about the decline of newspapers over the past decade. The industry has been called a dinosaur, irrelevant, and even proclaimed to be dead. Sure, circulation volume has been on the decline since the 1950s. Competition for advertising dollars has intensified. And everyone knows that younger people just don't read newspapers anymore. All old news, if you pardon the pun. But chances are you still get your daily news fix from newspapers, 53% of Americans still do.

The true assault on newspapers is finally here and the enemy is well armed.

Esteemed investor Warren Buffett once referred to newspapers as the "ultimate bullet-proof franchise." He put his money where his mouth is and bought his first newspaper stock in 1973 and even bought the *Buffalo Evening News* in 1977. This sense of invincibility and the fact that all these dire warnings have yet to come true created a certain complacency for newspaper managers, but we think the real problems for newspapers are just beginning. The true assault on newspapers is finally here and the enemy is well armed.

...journalists, foreign bureaus, printing plants...are all needed to design, write and deliver the paper... but not for a blogger ...

Traditional barriers to entry are now obstacles to compete effectively. Large numbers of journalists, multiple foreign bureaus, massive printing plants, extensive distribution facilities, delivery trucks, and an army of drivers are all needed to design, write and deliver the paper to your doorstep before 7AM. This infrastructure is effective at keeping other newspapers out of your territory, but not at keeping a blogger from stealing your readers. Investments in this infrastructure will limit investments in new media.

Brand equity has faded. Newspapers historically have had strong local brands. Members of the community trusted newspaper reporters. Media kept others honest. Interestingly today, a bias has crept into newspapers and other media. Whether real or perceived, *The New York Times* and Fox News need to contend with this change. Now it seems the bloggers keep the traditional media honest by providing transparency that was once impossible (think of the bloggers breaking the story on CBS' fake National Guard memo). Even worse, print editions are getting 'scooped' not by their cross-town print competitor but from cable news, RSS feeds and the blogosphere.

...print editions are getting 'scooped' not by their cross-town print competitor but from cable news, RSS feeds and the blogosphere.

Natural monopolies are being cracked open to competition. There are few natural monopolies in the business world, but classified advertising was one of them. Advertisers seeking buyers, buyers seeking advertisers created a virtuous cycle, driving operating cash flow margins in classified over 70%. The Internet is making real headway here and the pain will be felt at newspapers across the country.

Classified advertising... represents roughly 30% of revenues at a typical newspaper, but probably 60% of total operating profits.

The erosion of the classified business will cut off the oxygen to the newspapers. Classified advertising is critical to newspapers because it represents roughly 30% of revenues at a typical newspaper, but probably 60% of total operating profits.

- Auto classified has already moved to the Internet never to return (prospective car buyers today show up with a printout from the internet not a copy of their local newspaper).
- A slowing economy and online competition will conspire to sap the growth from help wanted. Recruitment classified is just now rolling over, down five months in a row after being up 10% in 2005 and 12% in 2004. If trends continue 2006 will be down between 3-5%. While 2000 represented the high water mark for help wanted volume, 2006 will likely represent the last year of positive revenue growth for the recruitment category - ever.
- And lastly, the outlook is not much better for real estate classified. Fueled by the housing boom for the past decade, this category will now follow the slowdown of the real estate market.

Expect to see more downsizing at newspapers, or what should be called "rightsizing," as newspapers cut costs to limit losses.

Downsizing, selling assets and buying back stock will not solve the newspaper industry's problems. With the rapid deterioration of fundamentals looming, it is no wonder newspaper companies have roughly \$5B of newspaper assets on the block. However, tax leakage and tepid buyers will keep asset sales from moving the stocks higher. And buying back stock won't help either. Repurchasing shares of a negative growth business at 8.5 times EBITDA won't increase shareholder value. Expect to see more downsizing at newspapers, or what should be called "rightsizing," as newspapers cut costs to limit losses.

Multiples still need to compress. Despite the truly gloomy news, newspaper stocks are still trading at 8.5 times forward EBITDA. This is smack in the middle of the historical range of 7-10 times EBITDA, despite EBITDA growth rates declining from 6-8% in the 1990s to negative 4% today for pure play newspapers. I guess old habits die hard.

Some companies have had success investing in new media efforts...

Some newspapers are registering success in new media investments. Not all the news is gloomy. Some companies have had success investing in new media efforts. Scripps' has invested in online shopping service Shopzilla.com. Dow Jones purchased Marketwatch.com, while The New York Times Company bought About.com. A number of newspapers are collaborating to build online classified businesses from scratch; notable examples include CareerBuilder.com, Cars.com and Apartments.com. Interesting initiatives like the *Washington Times'* recent effort to make audio feeds available for all of their stories is interesting. Thinking longer term, The American Press Institute has undertaken an interesting initiative it dubs "Newspaper Next" to research and test viable new business models for newspapers on the web. While some might criticize these efforts as too little, too late, some newspapers recognize the threats facing the industry and are taking action to protect their franchises. The time to act is now, before newspapers lack the currency to buy new

Guest Corner (cont.)

A few newspaper companies have actively invested outside their core newspaper business, helping to diversify their cash flow and achieve higher growth rates.

media businesses without suffering dilution. And managers need to get a stomach for more aggressive investment in new media before their classified franchise evaporates.

Others have reinvested cash flow from newspapers into high growth business, diversifying their businesses. A few newspaper companies have actively invested outside their core newspaper business, helping to diversify their cash flow and achieve higher growth rates. Scripps' effort in the cable network and new media areas is not able, as is Washington Post's move into education services (Kaplan). These efforts have helped the companies generate the highest operating cash flow growth rates in their peer group.

Warren Buffett frequently advises investors "if business does well, the stock eventually follows." If newspapers don't start to remake their business with some urgency, we wonder why Mr. Buffet won't follow his own advice and sell them.

By James Milton Marsh, Jr.

Hanover Square Capital Management, LLC

James Marsh is a Managing Member and co-founder of Hanover Square Capital Management in New York. His research focus is media and telecommunications. In 2004, James ranked third in stock picking for the broadcasting & entertainment sector in The Wall Street Journal's "Best on the Street" analyst survey, also ranking on the survey for forecasting in 2001 for broadcasting and also in 2000 for publishing. He is also a Chartered Financial Analyst, as well as a Certified Public Accountant. He can be contacted through email at jmm@hanoversquarecap.com.

CONFERENCE ROUND-UP

WIMAX WORLD OCTOBER 10-12, BOSTON MA

...we heard a lot of people discussing what, if anything, is going to be done to give the Direct Broadcast Satellite service companies a return channel.

On the networking side, we have WiNetwork's blended DBS/WiMAX products... On the financial engineering side we have the financial structure of Subway franchises applied to WiMAX.

Attendance at this year's confab in Boston was robust – at over 5000 visitors it was well above recent show attendance. This is particularly impressive considering its juxtaposition against the overlapping Broadband Wireless World at Comptel show – in sunny Orlando no less! Generally speaking, the mood was optimistic, with a wealth of observers noting the potential for mobile WiMAX to offer a faster broadband experience to mobile users than competing technologies.

In the buzz area – we heard a lot of people discussing what, if anything, is going to be done to give the Direct Broadcast Satellite service companies a return channel. Generally speaking, there was consensus that they need *something* to counter the increasing traction of the cable triple play. Most of the voices we heard were saying more specifically – “...they need *US!*” Whether “us” is Clearwire, unlicensed equipment providers, the MSS/ATC companies (see the Near Earth white paper at <http://www.nearearthllc.com/analysis/Whitepapers.asp> for more on this), the clever folks at WiNetworks (see below) or some of the other exhibitors I may have left out remains to be seen.

On the Gee-Whiz offering side, we were particularly impressed with two engineering marvels – one in network engineering and one in financial engineering. On the networking side, we have WiNetwork's blended DBS/WiMAX products. While the idea of hanging a WiMAX antenna off a DBS antenna and sending the signal down the same coax as the DBS signal is nifty enough, the part we really liked was the concept of taking advantage of the relatively high geographic density of DBS dishes and creating a mesh network. For more, visit www.winetworks.com. On the financial engineering side, the folks at Webnet have taken the financial structure of Subway franchises and applied it to WiMAX. Basically, they are deploying a nationwide WiFi mesh network (with WiMAX backhaul) – and financing the rollout by granting (for a fee) exclusive licenses to territories to entrepreneurs who act as resellers. A neat idea to roll out a network using our favorite source of funds – other people's money. The overall structure is somewhat more complex than this –more information is available at www.webnetcwn.com.

By John Stone

John Stone is a Partner at Near Earth LLC. Near Earth LLC senior bankers regularly attend conferences and speaking events. Please go to www.nearearthllc.com or email John@nearearthllc.com to find upcoming events.

NEAR EARTH ANALYSIS: MARKET COMPARABLES

Public Market Valuation Analysis of Selected Companies in the NEAR EARTH TELECOM INDEX

(\$ in millions, except per share data)		Stock Price:		Enterprise Value as a Multiple of:			Price as a Multiple of:		
Company	10/16/06	Market Value of Equity	Enterprise Value (a)	LTM Sales	LTM EBITDA	LTM EBIT	LTM EPS	2006E EPS (b)	2007E EPS (b)
Satellite Capacity Leasing (FSS)									
LORL	Loral Space & Comm (new)	\$ 26.92	\$538.4	\$524.6	0.7x	11.1x	n/m	n/m	n/m
SESG.PA	SES Global S.A. (c)	\$ 15.52	\$10,668.9	\$14,565.4	8.5x	12.3x	22.6x	20.0x	16.5x
				Mean	5.6x	11.7x	26.7x		
Satellite Equipment Manufacturers & Integrators									
GILT	Gilat Satellite Networks	\$ 9.92	\$229.2	\$248.0	1.1x	9.4x	n/m	89.3x	n/m
GCOM	Globecom	\$ 9.21	\$143.7	\$119.2	0.9x	18.7x	35.6x	33.8x	21.9x
VSAT	ViaSat	\$ 27.21	\$808.9	\$762.5	1.6x	14.1x	25.3x	34.3x	22.5x
ORB	Orbital Sciences	\$ 20.04	\$1,196.4	\$1,116.2	1.5x	15.4x	19.1x	36.4x	33.4x
RADN	Radyne Comstream Inc.	\$ 13.02	\$244.3	\$223.7	1.7x	10.0x	11.9x	19.2x	18.6x
CDV	COM DEV International (d)	\$ 5.48	\$330.5	\$317.8	2.6x	14.6x	20.4x	n/m	n/m
				Mean	1.6x	13.7x	22.4x	42.6x	26.8x
Towers									
AMT	American Tower	\$ 38.04	\$16,311.6	\$19,845.5	21.0x	35.8x	n/m	n/m	n/m
CCI	Crown Castle	\$ 34.19	\$7,553.2	\$7,555.8	11.2x	24.9x	n/m	n/m	n/m
SBAC	SBA Communications	\$ 24.60	\$2,262.0	\$2,990.1	10.1x	26.8x	n/m	n/m	n/m
GSL	Global Signal	\$ 55.00	\$3,827.7	\$5,530.3	11.5x	26.6x	n/m	n/m	n/m
				Mean	13.5x	28.5x			
General Telecom									
AT	Alltel	\$ 57.05	\$22,226.7	\$25,552.5	2.5x	6.7x	11.5x	16.6x	18.0x
T	AT&T (new)	\$ 32.99	\$128,133.2	\$154,195.2	2.8x	8.5x	16.9x	20.8x	14.9x
VZ	Verizon Communications, Inc.	\$ 37.04	\$109,453.2	\$175,323.2	2.1x	5.9x	11.5x	15.2x	14.5x
S	Sprint Nextel Corporation	\$ 17.47	\$52,357.6	\$68,147.6	1.6x	5.2x	18.6x	31.1x	13.3x
				Mean	2.2x	6.6x	14.6x	20.9x	15.2x
TELECOM SERVICES INDEX (excludes Towers stocks)									
	High			8.5x	18.7x	35.6x	89.3x	33.4x	28.6x
	Mean			2.2x	11.1x	20.4x	28.8x	16.8x	14.2x
	Low			0.7x	5.2x	11.5x	15.2x	13.3x	12.5x

Public Market Valuation Analysis of Selected Companies in the NEAR EARTH MEDIA INDEX

(\$ in millions, except per share data)		Stock Price:		Enterprise Value as a Multiple of:			Price as a Multiple of:		
Ticker	Company	10/16/06	Market Value of Equity	Enterprise Value (a)	LTM Sales	LTM EBITDA	LTM EBIT	2006E EPS (b)	2007E EPS (b)
Satellite Television (DBS)									
BSY	British Sky Broadcasting (f)	\$ 7.74	\$13,864.44	\$14,846.35	1.9x	6.7x	8.9x	13.1x	12.1x
DISH	EchoStar Communications	\$ 34.19	\$15,478.9	\$18,216.9	2.0x	7.6x	12.8x	21.8x	17.0x
DTV	DirecTV Group Inc.	\$ 21.35	\$27,930.1	\$28,339.0	2.1x	11.7x	18.4x	20.7x	18.1x
				Mean	2.0x	8.7x	13.4x	18.5x	15.7x
Television									
TVL	LIN TV Corp.	\$ 8.23	\$418.9	\$1,407.4	3.4x	11.1x	25.1x	n/m	30.5x
SBGI	Sinclair Broadcast Group	\$ 8.14	\$697.1	\$2,100.4	3.0x	9.4x	12.6x	19.4x	23.3x
UVN	Univision Communications	\$ 34.92	\$11,809.9	\$13,154.5	6.3x	18.4x	21.2x	32.6x	28.6x
YBTVA	Young Broadcasting Inc.	\$ 2.14	\$45.1	\$771.4	3.7x	n/m	n/m	n/m	n/m
				Mean	4.1x	13.0x	19.6x	26.0x	27.5x
Satellite Radio (DARS)									
SIRI	Sirius Satellite Radio	\$ 3.84	\$5,358.9	\$5,859.2	13.8x	n/m	n/m	n/m	n/m
WRSP	Worldspace	\$ 4.18	\$155.0	\$106.6	7.6x	n/m	n/m	n/m	n/m
XMSR	XM Satellite Radio	\$ 12.18	\$3,165.2	\$4,223.0	5.5x	n/m	n/m	n/m	n/m
				Mean	9.0x				
Radio									
CCU	Clear Channel	\$ 30.84	\$15,305.8	\$23,424.0	3.4x	10.6x	14.8x	23.4x	20.3x
CMLS	Cumulus Media Inc.	\$ 10.13	\$614.8	\$1,172.8	3.5x	13.4x	17.4x	48.2x	42.2x
CXR	Cox Radio Inc.	\$ 15.86	\$1,542.7	\$1,951.0	4.5x	12.2x	13.1x	19.8x	19.8x
EMMS	Emmis Communications Corp.	\$ 11.71	\$435.4	\$962.7	2.5x	12.8x	16.2x	n/m	n/m
ETM	Entercom Communications	\$ 26.21	\$1,232.4	\$1,886.4	4.4x	12.0x	13.4x	18.6x	16.9x
ROIA	Radio One Inc.	\$ 6.49	\$640.7	\$1,589.6	4.3x	11.1x	12.7x	n/m	n/m
				Mean	3.8x	12.0x	14.6x	27.5x	24.8x
NewsPrint									
DJ	Dow Jones	\$ 34.37	\$2,873.9	\$3,528.0	1.9x	15.6x	29.3x	30.1x	21.5x
MNI	The McClatchy Company	\$ 43.42	\$2,042.0	\$2,194.3	1.8x	6.8x	8.4x	15.2x	15.4x
NYT	New York Times	\$ 23.45	\$3,404.1	\$4,495.3	1.3x	8.9x	12.6x	14.7x	14.8x
TRB	Tribune	\$ 33.27	\$10,148.9	\$12,424.7	2.2x	8.5x	10.2x	16.4x	14.7x
WPO	Washington Post	\$ 758.50	\$7,289.2	\$7,461.7	2.0x	10.0x	n/m	19.9x	18.8x
				Mean	1.9x	10.0x	15.1x	19.3x	17.1x
MEDIA SERVICES INDEX (excludes Satellite Radio (DARS) stocks)									
	High			6.3x	18.4x	29.3x	48.2x	42.2x	
	Mean			3.0x	11.0x	14.5x	20.9x	22.4x	
	Low			1.3x	6.7x	8.4x	13.1x	12.1x	

(a) Calculated as Market Value of Equity plus total debt, minority interest and preferred stock, less cash & equivalents

(b) EPS estimates from Thompson First Call. Near Earth does not estimate EPS and does not condone or validate these estimates.

(c) Converted to US \$ from Euro at an exchange rate of 1.254 US \$ per Euro

(d) Converted to US \$ from C\$ at an exchange rate of 0.8774 US \$ per C\$

(f) Converted to US \$ from British Pound at an exchange rate of 1.8703 US \$ per British Pound

n/m Not Meaningful

Member of NEAR EARTH SATELLITE INDEX

NEAR EARTH ANALYSIS: M&A TRANSACTIONS

Selected Satellite, Telecom & Media Transactions

(US\$ in millions)

Date Announced	Acquiror	Target	Equity Value (a)	Transaction Value (b)	Transaction Value/	
					LTM Sales	LTM EBITDA
Satellite Operators						
04/21/04	KKR	PanAmSat Corporation	\$3,532.0	\$4,300.0	5.2x	7.7x
06/06/04	Blackstone Group	New Skies Satellites NV	956.0	956.0	4.5x	7.7x
08/17/04	Zeus Holdings	Intelsat Ltd.	3,100.0	5,000.0	5.2x	7.6x
08/29/05	Intelsat Ltd.	PanAmSat Holding Corporation	3,065.0	6,271.1	7.5x	9.7x
12/14/05	SES Global	New Skies Satellites NV	760.0	1,160.0	5.0x	8.0x
				Mean	5.5x	8.1x
Ground Equipment						
12/06/04	SkyTerra / Apollo	HNS (Hughes' VSAT, Broadband)	\$110.0	\$415.0	0.8x	n/d
03/03/05	Radyne Comstream	Xicom Technology	41.0	46.0	1.1x	n/d
08/15/05	Stratos	Xantic	191.0	191.0	1.1x	n/d
09/29/05	International Datacasting	Proflin (c)	4.5	3.9	1.1x	n/d
11/11/05	SkyTerra / Apollo	HNS (Hughes' VSAT, Broadband)	155.0	460.0	0.8x	n/d
11/18/05	Cisco	Scientific Atlanta	6,900.0	5,300.0	2.7x	13.2x
11/21/05	Viasat	Efficient Channel Coding Inc.	25.5	25.5	n/d	n/d
02/08/06	Tandberg Television	Skystream	80.0	80.0	2.6x	n/d
				Mean	1.5x	
Towers						
07/04/04	Global Signal	Lattice Communications	\$115.0	\$115.0	9.4x	n/d
05/04/05	American Tower	Spectrasite	3,100.0	3,800.0	10.2x	17.0x
03/17/06	Crown Castle	Trintel Communications	145.0	145.0	10.1x	n/d
03/17/06	SBA Communications Corp	AAT Communications Corp	1,002.0	1,002.0	12.0x	17.9x
05/08/06	Crown Castle	Mountain Union Telecom LLC		309.0	11.9x	n/d
10/06/06	Crown Castle	Global Signal	4,000.0	5,800.0	12.1x	26.6x
				Mean	10.9x	20.5x
General Telecom (Wireless)						
02/17/04	Cingular	AT&T Wireless	\$40,770.0	\$47,105.0	2.8x	10.7x
12/15/04	Sprint Corp	Nextel Communications Inc	28,449.0	36,200.0	2.7x	7.1x
01/05/05	Alltel	Western Wireless	4,300.0	6,181.0	3.2x	10.7x
07/01/05	Sprint Nextel Corporation	US Unwired, Inc.	1,000.0	1,266.0	2.9x	13.2x
03/06/06	AT&T (new)	Bell South	67,000.0	89,000.0	4.3x	10.7x
				Mean	3.2x	10.5x
Television						
03/31/05	Lin TV Corp.	WNDY-TV, WWHO-TV	\$85.0	\$85.0	4.3x	12.9x
05/10/05	Various Acquirors (d)	Emmis Comm TV Portfolio	1,350.0	1,350.0	5.2x	14.6x
06/30/05	Univision Communications	WLII (2 TV Stations in Puerto Rico)	190.0	190.0	4.0x	16.7x
				Mean	4.5x	14.7x
Radio						
09/29/04	Capital Radio	GWR Group	\$611.0	\$728.0	3.1x	13.4x
06/21/05	Emap PLC	Scottish Radio Holdings	713.0	793.0	4.5x	17.7x
11/01/05	Cumulus Media Inc.	Susquehanna Radio	1,200.0	1,200.0	n/d	15.0x
02/07/06	Citadel Broadcasting	Disney (ABC Radio)	1,500.0	2,700.0	4.7x	13.5x
				Mean	4.1x	14.9x
New Media						
11/14/04	Dow Jones	Market Watch Inc.	\$519.0	\$463.0	5.7x	38.6x
02/17/05	New York Times	About, Inc	410.0	410.0	10.0x	30.0x
03/21/05	IAC	AskJeeves	1,850.0	1,850.0	5.8x	19.0x
06/06/05	E.W.Scripps Co.	Shopzilla Inc.	525.0	525.0	4.0x	15.9x
07/18/05	News Corp.	Intermix (MySpace.com)	580.0	571.0	6.4x	n/m
3/6/2006	NBC Universal	iVillage Inc.	600.0	550.0	6.0x	32.4x
9/12/2006	RealNetworks	WiderThan	350.0	240.0	2.0x	9.5x
				Mean	5.7x	24.2x

(a) When Equity Value was not disclosed, Transaction Value was used

(b) Calculated as Value of Equity plus interest bearing liabilities and preferred stock, less cash & equivalents

(c) Values reflect closing figures. Converted at 1.1757 C\$ per US\$

(d) Transaction includes the divestiture of Emmis' TV portfolio to: Lin TV (\$260M), Journal Comm (\$235M), Gray (\$186M), Blackstone (\$259M)

It also includes estimated transaction value of \$410M for the final sale of 3 TV stations. This is predicted to occur sometime in 2005.

n/d Not Disclosed

n/m Not Meaningful

NEAR EARTH ANNOUNCEMENTS

Hoyt Davidson, CEO of Near Earth LLC, will be a keynote speaker at the Washington Space Business Roundtable on October 19th. Please see www.wsbr.org for more information.

Near Earth LLC recently launched its online industry portal. This portal maintains a comprehensive list of industry information sources including the following:

- Major News Sources
- Industry Statistics
- 3rd Party Reports
- Accounting, Consulting, and Law Firms
- Leading Blogs
- RSS Feeds

This portal can be reached through our website and at www.nearearthllc.com/industry/default.asp.

While we believe these information sources provide useful insight, they do not necessarily reflect the views of Near Earth LLC.

Near Earth LLC professionals will be at the following conferences. If you would like to schedule a meeting during one of these events, please email John Stone at John@nearearthllc.com

October 23-26	NAB New York, New York
November 28th	ISCe Satellite Investment Symposium, New York
November 29-30	SATCON, New York

Near Earth LLC runs an investment club called The Near Earth Investment Club and serves as the Club administrator/organizer as well as the primary sourcer and screener of investment opportunities. The Club periodically offers participations in primarily media, telecom and satellite industry-related, often uniquely structured, investments to its members. It is designed to provide active accredited investors with significant deal flow and issuers with access to "smart" and relatively "fast" capital.


- Diverse pool of Satellite, Media and Telecom-related investment opportunities from seed capital rounds to late stage capital and from restructurings and distressed opportunities to private investments in public companies. Club investment opportunities come from a variety of sources including transactions Near Earth LLC is engaged to complete and opportunities Near Earth or Club members find through their extensive industry contacts.
- Investments are screened by Near Earth LLC professionals and sometimes by Advisory Board or Club members with highly relevant backgrounds, before being presented to the full Club for investment consideration.
- Low minimum investment amounts (typically \$25,000 - \$50,000).
- Each member makes his or her own independent investment decisions on each investment opportunity and holds and votes their own shares.
- Near Earth charges no fund management fees and does not take any percentage of the investment upside. However, Near Earth may charge a 2% sourcing fee in certain cases where it receives no other compensation from the transaction. In no cases, will investors be charged a fee without notification in advance of making an investment decision.

If you would like to be considered for membership in this fund, please contact Dan Ramsden at dan@nearearthllc.com.


ABOUT NEAR EARTH LLC

Near Earth is a specialized Investment Bank which brings the highest quality senior level attention to companies in the greater commercial satellite/space, telecom, media, entertainment, and technology industries.


Near Earth provides a full range of capital raising, advisory and consulting services to companies and their Boards. To enhance its own capabilities, Near Earth is allied with [Thomas Weisel Partners](#) and serves as their exclusive satellite industry investment banking partner. We also work with Thomas Weisel on medium to larger transactions in our other industries of focus. This alliance gives our clients the benefits of Near Earth's unmatched industry expertise, along with the strong execution capabilities of Thomas Weisel Partners for public market transactions, large private placements and M&A deals. We also provide financial advisory services, valuation, structuring, and due diligence support to private equity, hedge and distressed debt funds. Please contact us if you would like our assistance with a contemplated satellite, telecom or media investment or portfolio divestment.



Hughes Network Systems
Valuation of spectrum related assets
Near Earth LLC provided in-depth valuation and analysis





Murray Capital Management
Valuation of two telecom portfolio holdings
Near Earth LLC provided in-depth valuation and industry analysis

\$110,000,000
Pacific Corporate Group LLC
served as the lead investor in

Series B Redeemable Convertible Preferred Stock
Near Earth LLC acted as Financial Advisor to PCG



International Datacasting, Corp.
Acquisition of PROFile B.V.
Near Earth LLC acted as strategic advisor to the acquirer

\$5,400,000

Horse TV
Series A Convertible Preferred Stock
The Near Earth Investment Club financed a portion of the round



SES AMERICOM
Valuation of orbital slot
Near Earth LLC valued assets for expert witness testimony




Intelsat. Ltd.
Private sale of minority block of shares
Near Earth LLC acted as advisor to investor group



Madison Dearborn Partners
Bid to acquire \$450 million minority stake in Inmarsat
Near Earth LLC acted as financial advisor to the bidder



XM Satellite Radio, Inc.
Creation of Canadian joint venture
Near Earth LLC acted as financial advisor to both parties



XM Satellite Radio, Inc.
\$435 million private placement
Near Earth LLC acted as financial advisor to the issuer

For more information about our current transactions or about Near Earth LLC, please visit our website at www.nearearthllc.com or contact us at our location below:

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