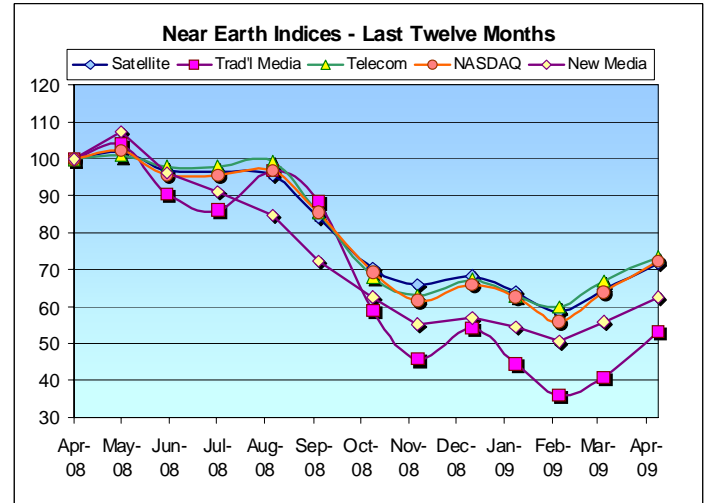


FROM THE GROUND UP

May 2009

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THE WAY WE SEE IT...

Satellite:

Partly reflecting turmoil in the auto industry, **Sirius XM** released results showing a net subscriber loss of 400,000 in the first quarter. The better news is that the company's profitability and cash flow improved as a result of post-merger synergies. In a separate announcement from the satellite radio operator's new affiliate, **DirectTV** plans to merge with **Liberty Entertainment**. This will dilute John Malone's controlling interest, although he will remain the single most influential shareholder, and will be the first time DirectTV will not have a controlling parent company. Some analysts see this as a precursor to the sale of DirectTV to a phone company. We believe this will eventually make sense, but would not be surprised to see DirectTV look to buy other assets. **Rockwell Collins**, better known for their aircraft communications products, announced that it is acquiring privately held **Datapath** for \$130 million in cash – a far cry from the \$475 million valuation implied by their September 2006 IPO filing.

Telecom:

Apple downloaded the one billionth app for its **iPhone** from its app store after nine months in business. **Research In Motion** launched its own BlackBerry App World, and may reach that same billion mark before too long, given the BlackBerry product's continuing market share lead. Rumors about a new and improved BlackBerry "Tour" are circulating, to be available only at **Verizon Wireless** starting this summer, and there is speculation that the iPhone will expand its distribution base beyond **AT&T Wireless** once exclusivity with the carrier expires next year.

Media:

Amazon has introduced a new Kindle product, with a much larger screen for newspaper readership and greater memory that is well suited for textbooks. In concert with the roll-out, three textbook publishers – **Cengage**, **Pearson**, and **John Wiley** – which account for 60% of the market, announced plans to offer textbooks through the Kindle Store beginning this summer, and select universities will provide Kindle devices to students free of charge. **The New York Times** and **The Washington Post** plan to offer the Kindle product to subscribers at subsidized prices. While the traditional media sector is thus transitioning, the new media sector has been abuzz with **Twitter**'s spectacular growth, estimated to have recently surpassed 25 million users. Rumors of acquisitions by **Google** and then **Apple** have both been dismissed, while the company continues to focus on perfecting its offering, including its highly praised search functionality. Lastly, a special nod to Knicks fans: **Cablevision** has announced its intent to spin off the **Madison Square Garden** businesses! Some value the entity at about \$1.5 billion... The value of Knicks independence: priceless.

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A new Venture Capital model, much like the old

The VC model does not scale... early stage finance is not an unlimited universe of opportunity.

When talking about venture capital deployed into early stage projects, the value is option value – especially in an environment as fragmented and rapidly evolving as technology and its related VC targets.

It is perhaps no coincidence that in the last few months, and as the Venture Capital segment looks deeply at itself to figure out solutions, we hear increasingly about “seed” investing.

There has been a great deal of banter lately about the deteriorating state of Venture Capital, with a chorus of voices that ranges from economists to entrepreneurs to venture capitalists themselves. An interesting summary of the state of affairs was posted last week on the popular blog of Union Square Ventures partner, Fred Wilson <http://tinyurl.com/cu95ob>. In short, the venture capital segment has been the recipient of too much liquidity, which, given the nature of the venture investment model, has made the deployment of funds at an adequate risk/return balance more and more challenging. The VC model “does not scale”, is the conclusion, which stands to reason and we probably should not have required almost two decades of sub-standard segment returns to realize that early stage finance is not an unlimited universe of opportunity. And there is still another interesting aspect to the venture capital conundrum, which is that by stripping away, say, the top 10% of the venture deals executed, or even the top 10% echelon of venture firms, or, for that matter, just taking Google out of the equation, overall industry returns crater. Below are a few thoughts about the state of affairs, leading to one path in particular that Venture Capital and the entrepreneurs seeking it could be forced to follow.

The concept of one successful deal covering up four failures and five mediocrities is an extreme of portfolio theory that probably points to option value more than to equity investing. Indeed, when talking about venture capital deployed into early stage projects, the value probably is exactly that – option value – especially in an environment as fragmented and rapidly evolving as technology and its related venture capital targets. In Venture Capital, it is commonly understood that the first institutional round comes with at least two or three follow-on opportunities, which is itself suggestive of that initial round representing something like an option. And yet, the valuations associated with such investments, even if sometimes painful to entrepreneurs, have really been at equity value, reflecting the full value of the enterprise at the stage that the investment is made, based on a competitive market dynamic.

It is perhaps no coincidence that in the last few months, and as the Venture Capital segment looks deeply at itself to figure out solutions, we hear increasingly about “seed” investing. As distinct from Series A rounds, seed investing has recently been the purview of angels, and typically comprise tens, sometimes hundreds, of thousands of dollars – amounts that are too small to pursue for a VC with \$100-\$3,000 million under management. But recently, Sequoia Capital raised some eyebrows with a roughly \$2 million infusion into west coast seed investor/incubator Y-Combinator; Boston VC Spark Capital announced its own seed-stage initiative called Start@Spark; and other prominent firms have been seen dabbling in the seed-stage even if with less fanfare.

A new Venture Capital model (cont.)

The extent to which such a system is adopted carries its own set of unknowns... and challenges abound. When managing a sizable fund, for example, it is not an ideal model to have to monitor several dozen small positions.

From the entrepreneur's perspective, raising seed capital from a VC is akin to selling exclusivity. If that VC chooses not to fund the subsequent Series A, the opportunity to take the deal elsewhere is seriously hurt.

From an optionality perspective, this is indeed more like it. Granted, the stage of investment is even earlier than would be a Series A, but it should be well worth the higher risk to spend \$100,000 in order to determine if the subsequent \$3 million round makes sense (or doesn't). In isolation, that same \$3 million investment reduces the fund's "research" opportunity by the equivalent of 30 option purchases (in our example). If the same 10% success ratio applies, (i.e. to which VCs have become accustomed), there are three "hit" opportunities embedded in that \$3 million, and 27 misses. Thus, the subsequent \$3 million, invested in the actual Series A, comes with a significantly lower risk and substantially higher return profile.

Although time will as always tell, it seems that this staged approach would materially and positively impact Venture Capital returns. The extent to which such a system is adopted, however, carries its own set of unknowns... and challenges abound. When managing a sizable fund, for example, it is not an ideal model to have to monitor several dozen small positions. From the entrepreneur's perspective, moreover, raising seed capital from a VC is almost akin to selling exclusivity. If that VC chooses not to fund the subsequent Series A, the entrepreneur's opportunity to take the deal elsewhere is seriously hurt. Even to the extent that the obvious question is addressed, (i.e., why the institution that knows the business best has decided to pass), there still remains the problem of an existing venture investor at the table, whose agenda may or may not coincide with that of any new institution joining the group. The potential conflicts that these issues trigger are not immaterial, and may be the biggest impediment to wide scale seed-stage investments by venture firms.

Still, the VC model needs fixing, and entrepreneurs need venture capital to develop their business projects. And since each side stands to benefit from the other's cooperation, perhaps the two will meet somewhere along the middle path with compromise. Which is to say, maybe after the inevitable shakeout in Venture Capital has occurred and dust has settled on the reduced number of participants that will survive it, the model evolves such that the typical fund size is reduced to the realm of \$100 million, tops, and the \$3 billion funds no matter how prominent are rightly categorized as something else, not Venture Capital. With a smaller capital base, both in the aggregate and individually, the appetite of venture firms to become involved with more fragmented seed-stage investing should rise, and, given the business rationale previously laid out, could even become a standard mode of operation. Entrepreneurs will then be faced with the alternative of accepting the risks behind seed capital from a VC, or seeking the seed capital elsewhere.

As always, market forces should prevail, and perhaps the answer will be seed-stage/developmental venture rounds that are more than tens of thousands, but less than millions, thus offering entrepreneurs higher value

A new Venture Capital model (cont.)

for the sale of options. And perhaps even in such circumstances, some entrepreneurs will still choose to fund their formative stages independently, or with non-VC affiliated groups. Regardless, a smaller industry with more modest targets and more focused footprint will be a constructive formula for investors, the entrepreneurs who need them, and the economy that needs both in order to grow. Not accidentally, the Venture Capital model described is something like what Venture Capital used to be, before several bubbles and a capital markets shakeup have now forced the segment to consider “reinvention.” Boy, those ancients really knew a thing or two!

By Dan Ramsden
Near Earth LLC

Rural broadband stimulus: virtual water for the parched deserts

... It is as if a multitude of parched citizens have finally been offered life saving water ... and the only question left is who gets to delivery the H₂O (and charge for it)

We hear there are now well over 10,000 inquiries of interest for a piece of the \$7.2 billion allocated for rural broadband under the Obama stimulus package. Practically every telephone, wireless, cable, fiber and satellite company capable of making any kind of case at all has now lawyered up and hired their lobbyists to compete for this pile of dough. It is as if a multitude of parched citizens have finally been offered life saving water for their arid wastelands and the only question left is who gets to delivery the H₂O (and charge for it).

Do we dig a massive maze of canals and pipes to the virtual sinks of each rural household? If so, how big a pipe to each household? Isn't laying pipes and digging canals expensive? Does every household get the same amount of water regardless of how deep into the desert they live and how much it costs to get them the water? Or do we limit the canals and pipes to the edges of the semi-dry regions and offer those living further out into the really dry regions cisterns to catch the already gently falling rain that now just runs off the hard baked ground unabsorbed. And, if enough of these water challenged dwellers had adequate cisterns would it be possible to do some judicious cloud seeding to increase the rainfall by a factor of 10, or even a 100?

Satellite broadband proponents will easily recognize the merits of this water analogy, but unfortunately many in Washington, D.C. do not. If broadband decisions are left up to Federal and local government agencies, we will undoubtedly end up with a bureaucratic hodge-podge of cost inefficient broadband solutions chosen largely for political reasons. This is a problem begging for a market solution. Why not let the consumers decide what they need?

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If we assume roughly 15% of households qualify as "rural", we are talking about approximately 15 million homes with perhaps 45 million citizens. An equal allocation of the \$7.2 billion would be \$460 per household or \$160 per capita. After administrative expenses, perhaps it is only \$450 per household or \$150 per capita. Give every household a broadband coupon or tax credit for \$200 plus an extra \$100 per co-habitant or dependent to use as they choose. Let the service providers compete for these households and the government subsidies.

You could even make receipt of the coupons or tax credits contingent upon filling out the 2010 census forms. Bet that would make counting rural populations a lot easier. I also bet a great deal of rural households offered a \$200 - \$500 subsidy on satellite broadband reception equipment (the cisterns for catching rain water) would readily choose to get DSL quality satellite broadband tomorrow (the gently falling rain) with the

Rural broadband stimulus: virtual water for the parched deserts

promise of cable modem quality broadband rates in the near future from Viasat-1 type platforms (the cloud seeding) versus waiting years for billions of dollars of new cable, fiber or wireless infrastructure to make it out to their homes (the canals and pipes). If U.S. charities have chosen to provide Kenyans cisterns based on this same economic rationale, why not apply the concept to rural broadband. The gentle broadband rain is already falling from the satellites.

By Hoyt Davidson
Near Earth LLC

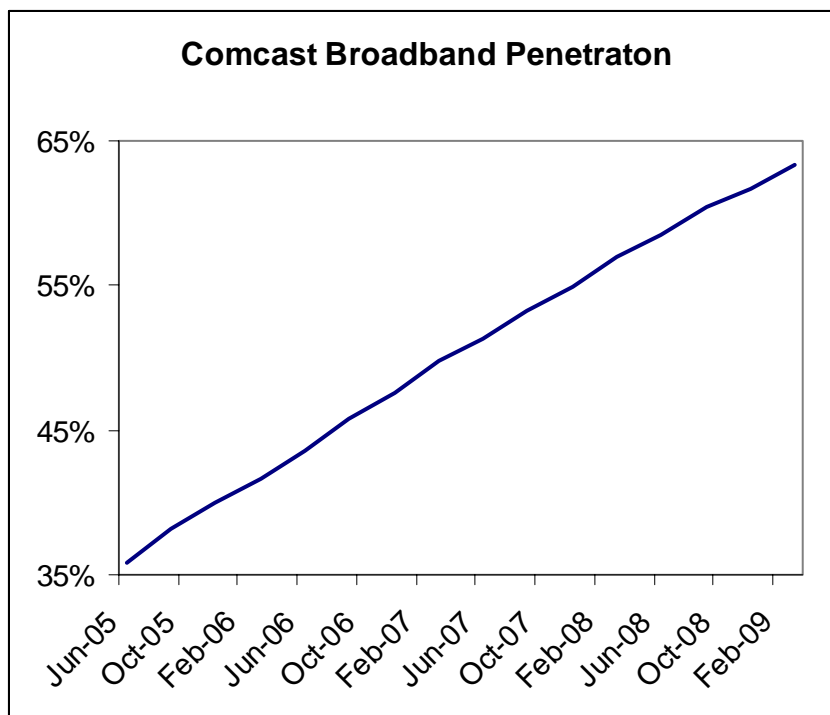
Cable TV – These are the good old days

... Broadband growth, while very strong so far, is increasingly running into headwinds as the overall percentage of video customers getting broadband reaches penetration in the mid 60's.

With recent strong operational and financial results at Comcast, Time Warner Cable and others, the cable industry looks to be sitting pretty. Driven by strong broadband growth, digital tier upgrades, increasing voice penetration and even a one-time boost from the broadcasting analog to digital conversion, the cable industry has done an admirable job of weathering the stormy economic downturn.

But from our perspective, this could just be cable's high water mark. Consider where those strong cash flows are coming from.

Broadband growth, while very strong so far, is increasingly running into headwinds as the overall percentage of video customers getting broadband reaches penetration in the mid 60's. After all, and unlike video, the cable company gets no additional revenues from having more computers in the household – so once you sign up a customer for broadband, that's pretty much it. With two thirds of their customers already getting broadband, the penetration "S" curve is destined to roll over (for example, see Comcast's data below.)



Competition in broadband is also heating up at the high end, with Cox and Cablevision rolling out DOCSIS 3.0 offerings to compete with Verizon's FiOS – a development that could ignite a new war of capital expenditures.

Likewise, while the cable firms have done an admirable job of stealing the phone company's bread and butter voice lines, with consumers increasingly abandoning voice lines completely in favor of wireless, this is a game of getting a bigger slice of a rapidly shrinking pie. While such a strategy produces impressive growth when the slice is small and the pie is large, it is unsustainable once the slice gets to be a decent chunk of the pie.

... in a case of turnabout being fair play, the phone companies are coming after the cable companies' bread and butter – delivering video programming

And, speaking of bread and butter, in a case of turnabout being fair play, the phone companies are coming after the cable companies' bread and butter – delivering video programming. While the impact varies from one cable company to the next, AT&T's and Verizon's fiber based triple plays are available in about 10% of cable homes, and that number is growing rapidly. (For example, Verizon's FiOS is now available in nearly 10 million homes – and 2.2 million of them have already signed up.) While the margins on voice and data services are higher than video, the biggest portion of triple play revenues goes to video, so losing video customers hurts – and competing for them leads to poor margins for everyone.

And it's not just the telco guys who are threatening the video golden goose – it's Hulu, YouTube and other online video offerings. Not only do they compete for viewers' time and attention, but perhaps more importantly they are a mortal threat to the bundled programming tiers that have served the cable companies and content owners so well. By disintermediating the programming tier capabilities of the cable company, these services nullify the ability of cable firms to charge tolls to programmers seeking carriage while compelling viewers who want ESPN to take the ABC Family Channel too.

So, even as our economy begins to emerge from this economic recession, I suspect the cable firms will indeed look back on these days as the good old days.

By John Stone
Near Earth LLC

Guest column: High Throughput Satellites (HTS) are pushing open the satellite market door

... it has essentially become an industry mantra ... that Ka-band satellites can dramatically lower the cost per bit of delivering a satellite service

Anyone in the satellite industry more than six months has probably heard of Ka-band satellites. Anyone (like most of us) who has been in the industry a bit longer knows that the benefits and advantages of Ka-band spotbeam satellites have been endlessly discussed in conferences, meetings, and an uncountable number of other industry events for well over a decade. Most often cited, to the point that it has essentially become an industry mantra, is that Ka-band satellites can dramatically lower the cost per bit of delivering a satellite service. This has developed along the lines of other mantras in our industry like “satellites can deliver services anywhere” and “satellites are the single best technology for point-to-multipoint content delivery”.

NSR does not dispute these claims, nor does it ignore the fact that most in our industry know that Ka-band satellites are in fact here and active in the market. One needs only to point out the Ka-band spotbeam payload on Anik-F2 or the WildBlue-1 and Spaceway-3 satellites. The majority also know that new satellites with even greater throughput are on their way including ViaSat-1 and KaSat. However, while NSR accepts that most in the satellite sector are cognizant that these new satellites are finally here and part of the market, NSR would contend that only a small minority have truly grasped the long-term significance of these satellites and how they have the potential to change every aspect of the market. Just as the move from C-band to Ku-band in the 1980s brought profound (and many unforeseen) shifts in the satellite market, so too will these “high throughput satellites”.

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Before moving on, it is important to define what NSR considers to be a “high throughput satellite” or “HTS”. NSR recognizes that most such satellites will use Ka-band frequencies, but in reality this is not a defining criterion. The Thaicom-4 satellite uses Ku-band frequencies on the user terminal side of their service, and this satellite, with about 45 Gbps of throughput and currently the most throughput by far of any single satellite on orbit, certainly qualifies as an HTS.

Further, other frequencies in the future could be used. At the recently Satellite 2009 conference, ViaSat’s Mark Dankberg speculated that the first V-band HTS could be launched as soon as five years from now. Spot beams are certainly an important element of creating an HTS as well as frequency reuse. However, spot beams have long been used on classic FSS satellites and frequency reuse, again in the FSS world, is a familiar concept (think transponder polarization). To qualify as a high throughput satellite (or payload such as the case of Anik-F2), NSR sets the minimum requirement as having at least twice, though usually many times more, the

Guest column: High Throughput Satellites (cont.)

total throughput as a classic FSS satellite for the same amount of allocated orbital spectrum.

... Single site satellite broadband services can go a long way to meeting that goal [of filling up a satellite], but there is no reason to stop at this market.

People familiar with our industry would typically say that HTS are for satellite broadband Internet access services like HughesNet or WildBlue. At a stretch, some will also recall that they are being used for local-into-local TV broadcasting (a la DIRECTV). Many would claim that these are relatively specialized uses, and NSR would certainly agree that the driving market that has always been associated with high throughput satellites is what we term single site satellite broadband Internet access services such as the above noted HughesNet and WildBlue examples. Further, those who did think of DIRECTV would normally be quick to point out that local-into-local broadcasting is a uniquely U.S. phenomena driven by regulatory issues and, therefore, specific only to this market and not likely to occur elsewhere in the world.

It is certainly likely that in instances where satellite operators are considering launching an HTS, the key underlying market will be some kind of consumer satellite broadband service. However, when developing a business plan for any new satellite, the goal is to usually fill up the satellite as fast as possible with profitable clients. Single site satellite broadband services can go a long way to meeting that goal, but there is no reason to stop at this market. Hughes originally developed the Spaceway satellites for the enterprise VSAT market. When HughesNet consumer class services took off in North America, the business plan for Spaceway was changed to reflect this market development. Yet, Hughes has certainly not forgotten the enterprise VSAT market and is already working hard to develop it in parallel to the consumer-class single site satellite broadband Internet access market. In the case of Yahsat, few would expect that consumer-class broadband subscribers in the Middle East and Africa would be sufficient to justify the YahClick project. Yahsat understands this as well, which is why one of its key targets will be various types of business-class Internet access and VSAT services targeting both commercial enterprises as well as governments that may be considering social inclusion or educational VSAT networking projects in the Middle East and Africa.

... OUTV and SNG services could readily and easily be implemented over an HTS in parallel to consumer single site satellite broadband Internet access

Opening the door even wider, HTS could also have interesting (and potentially dramatic) impact in the broadcasting sector, which is often justifiably considered the core of the classic FSS market. As a first instance, consider classic occasional use and satellite news gathering (SNG) services. Little more than a fixed or mobile VSAT terminal specialized for the broadcast of video content, OUTV and SNG services could readily and easily be implemented over an HTS in parallel to consumer single site satellite broadband Internet access services, especially when one moves to the larger classes of HTS that have many tens, if not over 100, Gbps of total throughput.

Guest column: High Throughput Satellites (cont.)

... A judicious targeting of clients that value the high return link throughput, such as OUTV and SNG, can help a satellite operator better balance the loading of HTS in order to optimize its usage

The benefits of moving the OUTV and SNG services to HTS are several. First, the cost of offering an OUTV or SNG service on a HTS is lower than using classic FSS capacity. So, a lower price (say half that compared to using typical FSS capacity) could be charged to the end client for OUTV/SNG services, while at the same time higher margins are possible because the cost of capacity to the satellite operator on an HTS may be 10% of that on an equivalent FSS satellite. Second, if the OUTV/SNG client has been using capacity on a key video broadcasting satellite that carries a high proportion of broadcasting clients for DTH, cable headend, or free-to-air distribution, this frees up valuable capacity on the FSS satellite to be resold to these high value, long term broadcasting clients. Third, HTS satellites are typically designed with an asymmetry of use in mind with higher total capacity on the forward link (satellite to end user) than the return link (end user to satellite). A judicious targeting of clients that value the high return link throughput, such as OUTV and SNG, can help a satellite operator better balance the loading of HTS in order to optimize its usage.

... one can even imagine “micro-broadcasting” scenarios where very specific and localized content can be provided to city-sized or region/department sized markets

Pushing the door open even further, HTS in certain instances can be very competitive with FSS satellites when it comes to the classic broadcasting markets and, again, make even more profit for a satellite operator if used intelligently. In the case where a country or region is entirely covered by just one, two or three spot beams on an HTS, the possibility of using these beams for purely broadcasting services can become very persuasive compared to using more classic FSS capacity. In the instance of South Korea, which is covered by just one beam from the Thaicom-4 satellite, or countries like Ireland, Bulgaria, Switzerland or Albania that will be covered by two or three beams on the future Ka-Sat, a satellite operator can begin to consider offering very cost effective IPTV, DTH or video distribution service over these relatively small markets. Again, margins can be much higher compared to using equivalent FSS capacity, and the FSS capacity that is not used for such a small market can be effectively repurposed to geographically larger markets (e.g. Poland, Germany, France, Ukraine) where the FSS satellite truly does offer a cost advantage over the HTS because of the wider area covered by its footprint.

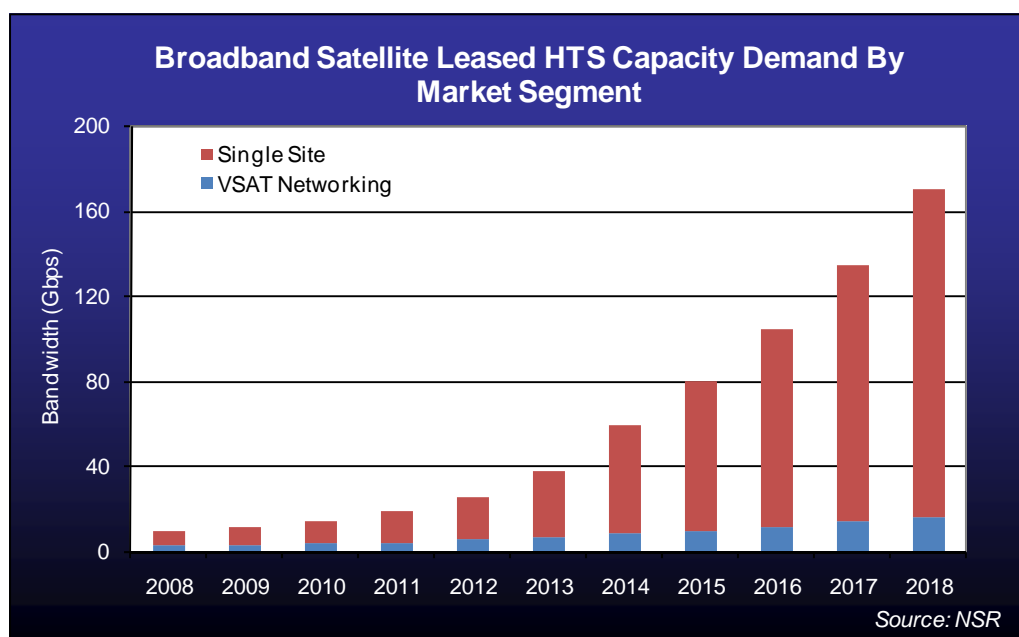
Going a step farther, as HTS become more popular and audiences begin to build up, one can even imagine “micro-broadcasting” scenarios where very specific and localized content can be provided to city-sized or region/department sized markets. Again, it is not a very big step for a company like Orange offering IPTV services in France via both DSL and satellite to be able to offer major cities or specific French departments the ability to offer TV channels to very targeted audiences. The city of Paris could easily afford the few thousand Euros a month it would cost to deliver one SD channel over the Ile de France just as local cable companies in the USA used to offer spare (and at the time unused) capacity on cable networks at low cost to community channels. Many of these community

Guest column: High Throughput Satellites (cont.)

... The fact that community channels were so popular despite their poor... quality shows just how much potential there is in the micro-broadcasting market

channels have disappeared in North America as cable companies have recuperated the valuable capacity on their networks for digital and HD programming as well as broadband services, but the demand for truly local content has not gone away in any market in the world. The fact that community channels were so popular despite their poor, even laughable, production quality shows just how much potential there is in the micro-broadcasting market once a means to cost effectively tap demand is available.

The above paragraphs illustrate just a few of the initial ideas of how “high throughput satellites” have the potential to create a paradigm shift within the satellite industry. Just as the move to Ku-band led to enormous new markets in the 1980s, the gradual introduction of HTS has the potential to profoundly reshape the satellite market in the coming decade. In preparation for these developments, NSR has begun the process of segmenting out and forecasting demand trends between classic FSS C-band and Ku-band services and those satellite applications that will use HTS capacity. The initial effort in this area is NSR’s recently release *Broadband Satellite Markets, 8th Edition* study that for the first time (to the knowledge of NSR of any publically available forecast study for the satellite industry) makes this kind of segmentation. The chart below illustrates NSR’s global prediction for lease of commercially provided “high throughput satellite” capacity within the broadband satellite markets through 2018. An almost twenty times increase in leased commercial HTS capacity is forecasted with single site satellite broadband services driving the market demand, but broadband VSAT networking services for corporate and governmental clients is an important secondary market.



Guest column: High Throughput Satellites (cont.)

In future editions of NSR studies, most notably the next edition of the *Global Assessment of Satellite Demand* report, NSR will apply the segmentation of demand trends between classic FSS satellites and the new class of HTS a step further and apply it to all commercial satellite applications for forecasting purposes.

... The general lines of the market development can be seen, but it is likely that some unsuspected applications and uses are just waiting in the shadows

It is true that the industry is in the early days of adoption of “high throughput satellites” and future trends, just as they were for Ku-band services in the early 1980s, are still crystallizing. The general lines of the market development can be seen, but it is likely that some unsuspected applications and uses are just waiting in the shadows and will only become evident as the industry moves forward with the launch of ever greater numbers of HTS. At times in the coming years the market development for high throughput satellites will be challenging, and there will be some failures (how many remember the original business plan for Satellite Business System, the first company to offer commercial Ku-band services?), but if there is one thing that NSR believes, it is that “high throughput satellites” will force the industry to move beyond its basic mantras and completely re-examine how it serves its clients. In some cases this may lead to seeming competition between FSS and HTS satellites (especially when it is two different operators going after the same client), but in more cases than not it will mean offering the best technology to serve the client and expanding the overall market base by opening the door to many new business opportunities that will now be within the grasp of the industry.

By Patrick M. French
NSR, LLC

Patrick French is a Senior Analyst and Head of the Singapore office at NSR, LLC

NEAR EARTH ANALYSIS: MARKET COMPARABLES

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

		Stock Price:		Enterprise Value as a Multiple of:			Price as a Multiple of:			
		5/6/09	Market Value of Equity	Enterprise Value (a)	LTM Sales	LTM EBITDA	LTM EBIT	LTM EPS	Trailing EPS (b)	Forward EPS (b)
Satellite Broadcast (DBS and DARS)										
BSY.L	British Sky Broadcasting (f)	£ 4.90	\$12,987.01	\$16,231.75	2.0x	9.6x	12.7x	30.2x	28.1x	22.9x
DISH	Dish Network Corp	\$ 15.12	\$6,764.69	\$11,213.31	1.0x	3.7x	5.5x	7.5x	7.0x	7.1x
DTV	DirecTV Group Inc.	\$ 24.33	\$24,918.30	\$28,849.30	1.5x	5.8x	10.7x	16.4x	14.8x	11.2x
SIRI	Sirius XM Radio	\$ 0.53	\$1,918.27	\$4,789.32	2.9x	n/m	n/m	n/m	n/m	n/m
	Mean				1.8x	6.3x	9.6x	18.0x	16.6x	13.7x
Cable Television										
CMCSA	Comcast Corporation	\$ 16.00	\$46,090.24	\$76,481.24	2.2x	5.6x	10.4x	16.3x	15.7x	13.9x
MCCC	Mediacom Communications Corp.	\$ 5.75	\$545.04	\$3,810.76	2.7x	7.5x	13.7x	n/m	25.0x	14.7x
TWC	Time Warner Cable Inc.	\$ 33.71	\$10,978.00	\$34,040.00	2.0x	5.4x	10.5x	4.8x	11.5x	9.6x
CVC	Cablevision Systems Corp	\$ 18.33	\$5,446.39	\$17,143.55	2.4x	9.3x	23.2x	n/m	18.1x	13.6x
	Mean				2.3x	6.9x	14.4x	10.5x	17.6x	13.0x
Television										
TVL	LIN TV Corp.	\$ 1.89	\$97.20	\$767.86	2.0x	5.7x	9.7x	n/m	7.9x	3.7x
SBGI	Sinclair Broadcast Group	\$ 1.46	\$118.26	\$1,494.19	2.0x	4.7x	8.7x	2.2x	n/m	18.3x
HTV	Hearst-Argyle Television, Inc	\$ 4.52	\$423.30	\$1,219.06	1.8x	4.9x	10.3x	6.3x	n/m	13.3x
FSCI	Fisher Communications Inc	\$ 11.66	\$101.91	\$165.89	1.0x	5.3x	n/m	1.1x	n/m	n/a
	Mean				1.7x	5.1x	9.6x	3.2x	7.9x	11.8x
Radio										
CMLS	Cumulus Media Inc.	\$ 1.17	\$48.44	\$691.44	2.2x	7.8x	9.1x	n/m	7.8x	n/a
CXR	Cox Radio Inc.	\$ 4.80	\$386.30	\$785.75	1.9x	6.0x	6.5x	4.7x	11.2x	11.2x
ETM	Entercom Communications	\$ 2.85	\$107.90	\$978.82	2.2x	7.2x	8.5x	5.5x	4.0x	3.2x
	Mean				2.1x	7.0x	8.0x	5.1x	7.6x	7.2x
NewsPrint										
MNI	The McClatchy Company	\$ 0.84	\$69.35	\$2,102.13	1.2x	6.8x	12.4x	n/m	n/m	n/m
NYT	New York Times	\$ 6.31	\$907.38	\$2,173.38	0.8x	9.0x	21.5x	n/m	n/m	n/m
WPO	Washington Post	\$ 344.72	\$3,230.03	\$3,047.83	0.7x	5.5x	12.1x	38.4x	12.7x	11.5x
	Mean				0.9x	7.1x	15.3x	38.4x	12.7x	11.5x
New Media										
MSFT	Microsoft Corporation	\$ 19.79	\$175,913.31	\$152,572.31	2.5x	6.2x	6.8x	9.8x	11.6x	10.9x
AAPL	Apple Inc.	\$ 132.50	\$117,979.33	\$92,966.33	2.8x	12.8x	14.0x	23.7x	24.2x	21.6x
YHOO	Yahoo! Inc.	\$ 14.85	\$20,664.67	\$17,238.18	2.5x	12.6x	30.0x	n/m	n/m	35.4x
GOOG	Google Inc.	\$ 403.47	\$126,253.83	\$108,468.90	4.9x	14.6x	16.4x	30.6x	19.2x	16.8x
IACI	Interactive Corporation	\$ 15.97	\$2,245.54	\$332.06	0.2x	7.8x	n/m	18.9x	37.1x	24.2x
ERTS	Electronic Arts Inc.	\$ 20.32	\$6,520.28	\$4,259.28	1.2x	n/m	n/m	n/m	21.4x	15.5x
	Mean				2.3x	10.8x	16.8x	20.8x	22.7x	20.7x
MEDIA SERVICES INDEX										
	High				4.9x	14.6x	30.0x	38.4x	37.1x	35.4x
	Mean				1.9x	7.1x	11.5x	11.4x	13.9x	13.3x
	Low				0.2x	3.7x	5.5x	1.1x	4.0x	3.2x

(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 1.3243 US \$ per Euro.

(d) Converted to US \$ from C\$ at an exchange rate of 0.7941 US \$ per C\$.

(f) Converted to US \$ from British Pound at an exchange rate of 1.4463 US \$ per British Pound.

n/m Not Meaningful.

n/a Not Available

Member of NEAR EARTH SATELLITE INDEX

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:			
		5/6/09	Market Value of Equity	Enterprise Value (a)	LTM Sales	LTM EBITDA	LTM EBIT	LTM EPS	Trailing EPS (b)	Forward EPS (b)
Satellite Capacity										
ETL.PA	Eutelsat Communications (c)	€	17.17	\$5,027.41	\$8,329.30	6.9x	8.5x	19.7x	30.0x	22.4x
SESG.PA	SES Global S.A. (c)	€	13.69	\$7,292.43	\$11,937.21	5.5x	8.1x	14.3x	14.1x	14.8x
ISAT.L	Inmarsat (f)	£	5.50	\$3,819.14	\$5,307.74	5.3x	10.0x	16.8x	10.7x	17.0x
				Mean		5.9x	8.9x	17.0x	18.3x	20.5x
Satellite Ground Segment										
CMTL	Comtech Telecommunications	\$	28.83	\$715.27	\$587.72	1.0x	5.2x	5.2x	9.2x	16.2x
GCOM	Globecom Systems Inc.	\$	6.30	\$129.65	\$73.06	0.4x	5.0x	7.9x	13.1x	17.5x
GILT	Gilat Satellite Networks	\$	3.53	\$140.85	\$45.07	0.2x	2.7x	13.2x	38.4x	n/a
HUGH	Hughes Communications, Inc.	\$	19.26	\$414.28	\$797.01	0.8x	6.5x	12.4x	n/m	23.5x
ISYS	Integral Systems Inc.	\$	8.04	\$138.69	\$133.17	0.8x	5.6x	6.3x	9.8x	14.6x
VSAT	ViaSat Inc.	\$	23.03	\$712.78	\$652.89	1.1x	9.4x	15.2x	19.4x	13.5x
				Mean		0.7x	5.7x	10.0x	18.0x	19.4x
Satellite Space Segment										
ORB	Orbital Sciences	\$	16.13	\$927.48	\$719.56	0.6x	7.6x	9.5x	17.0x	14.8x
CDV.TO	COM DEV International (d)	\$	3.69	\$215.77	\$232.60	1.2x	9.6x	15.4x	16.4x	n/a
MDA.TO	McDonald Dettwiler and Associates (d)	\$	30.90	\$1,247.74	\$1,632.72	1.6x	10.0x	12.4x	19.7x	n/a
OHB.DE	OHB Technologies (c)	€	7.85	\$155.51	\$104.81	0.3x	3.3x	4.2x	13.0x	12.5x
				Mean		0.9x	7.6x	10.4x	16.5x	17.4x
Towers										
AMT	American Tower	\$	31.11	\$12,350.05	\$16,378.58	10.1x	15.9x	26.3x	n/m	35.8x
CCI	Crown Castle	\$	24.43	\$7,047.08	\$13,254.41	8.5x	15.2x	38.9x	n/m	n/m
SBAC	SBA Communications	\$	25.45	\$2,991.14	\$5,255.26	10.5x	19.0x	n/m	n/m	n/m
				Mean		9.7x	16.7x	32.6x	n/m	35.8x
General Telecom										
S	Sprint Nextel Corporation	\$	5.36	\$15,313.52	\$32,398.52	0.9x	4.4x	n/m	n/m	n/m
T	AT&T	\$	26.69	\$157,284.44	\$228,226.44	1.8x	5.3x	9.8x	12.2x	13.0x
VZ	Verizon Communications, Inc.	\$	30.76	\$87,374.40	\$190,859.40	1.9x	5.6x	10.9x	13.1x	11.5x
				Mean		1.6x	5.1x	10.3x	12.7x	11.8x
TELECOM SERVICES INDEX (excludes Towers stocks)										
				High		6.9x	10.0x	19.7x	38.4x	30.0x
				Mean		1.8x	5.9x	11.6x	15.7x	18.3x
				Low		0.2x	2.7x	4.2x	9.2x	12.2x

(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 1.3243 US \$ per Euro.

(d) Converted to US \$ from CS at an exchange rate of 0.7941 US \$ per CS.

(f) Converted to US \$ from British Pound at an exchange rate of 1.4463 US \$ per British Pound.

n/m Not Meaningful.

n/a Not Available

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	
12/05/06	Abertis Telecom	EutelSat (32% share)	1,000.0	1,838.0	7.3x	9.7x	
12/18/06	Telesat (new)	Telesat (old)	2,800.0	2,940.0	7.1x	12.0x	
12/18/06	Telesat (new)	Loral Skynet	691.0	1,050.0	7.1x	19.6x	
12/18/06	Telesat (new)	Telesat/Skynet Combined	3,491.0	3,990.0	7.1x	13.4x	
06/19/07	BC Partners	Intelsat	5,000.0	16,400.0	7.7x	11.3x	
08/02/07	Abertis Telecom	Hispasat (28.4% share)	199.0	199.0	5.8x	7.9x	
				Mean	6.3x	10.4x	
Ground Equipment & Systems Integrators							
11/11/05	SkyTerra / Apollo	HNS (Hughes' VSAT, Broadband)	155.0	460.0	0.8x	n/d	
08/03/06	Thrane & Thrane	Nera's Mobile Satellite Communications	89.6	89.6	1.1x	n/d	
03/19/07	CIP Canada Investment Inc.	Stratos Global Corporation	293.3	621.5	1.2x	2.9x	
05/12/08	Comtech	Radyne	201.9	223.6	1.5x	16.0x	
07/10/08	Nokia	Navteq	7,719.0	8,100.0	8.8x	29.5x	
				Mean	1.1x	9.4x	
Aerospace and Defense							
04/23/07	Kratos	SYS Technologies	49.3	49.3	0.6x	n/m	
05/03/07	Globecom	GlobalSat	18.4	18.4	0.9x	n/d	
07/31/07	LMI Aerospace, Inc.	D3 Technologies, Inc.	65.0	65.0	1.0x	7.2x	
11/29/07	Finmeccanica SPA	VEGA Group PLC	59.2	56.2	0.9x	9.6x	
05/12/08	Finmeccanica SPA	DRS Technologies Inc	3,358.0	4,930.0	1.4x	11.0x	
05/13/08	Cobham plc	M/A-COM	425.0	425.0	0.9x	6.8x	
06/04/08	Cobham plc	Sparta Inc	416.0	416.0	1.4x	12.1x	
12/16/08	Sierra Nevada Corporation	SpaceDev, Inc.	31.7	26.6	0.7x	23.3x	
				Mean	1.0x	11.7x	
Video Distribution							
11/18/05	Cisco	Scientific Atlanta	6,900.0	5,300.0	2.7x	13.2x	
02/08/06	Tandberg Television	Skystream	80.0	80.0	2.6x	n/d	
12/21/06	Motorola	Tut Systems	39.0	39.0	1.0x	n/d	
04/23/07	Motorola	Terayon Communication Systems Inc.	139.7	127.2	1.9x	n/m	
12/07/07	Macrovision Corp	Gemstar-TV Guide Intl Inc	2,842.1	2,325.1	3.7x	21.9x	
03/12/09	Harmonic	Scopus Video Networks	78.3	47.6	0.8x	n/m	
				Mean	2.1x	13.2x	
Towers							
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	309.0	11.9x	n/d	
10/06/06	Crown Castle	Global Signal	4,000.0	5,800.0	12.1x	26.6x	
07/21/08	SBA Communications Corp	Optasite Towers	253.2	428.2	14.8x	n/m	
				Mean	11.2x	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	
01/18/07	Citadel Investment Group LLC	ION Media Networks Inc	98.8	1,654.3	7.1x	16.9x	
03/29/07	Umbrella Holdings LLC	Univision Communications	12,300.0	13,700.0	6.3x	18.1x	
				Mean	5.4x	15.8x	
Radio							
02/07/06	Citadel Broadcasting	Disney (ABC Radio)	1,500.0	2,700.0	4.7x	13.5x	
07/29/08	Sirius Satellite Radio Inc.	XM Satellite Radio Holdings Inc.	2,301.7	3,957.7	3.4x	n/m	
07/30/08	Bain Capital	Clear Channel	17,923.8	23,724.1	3.5x	10.8x	
				Mean	3.8x	12.2x	
New Media							
03/06/06	NBC Universal	iVillage Inc.	600.0	550.0	6.0x	32.4x	
03/15/07	Cisco	WebEx	2,900.0	2,900.0	7.6	29.3	
01/31/08	Amazon.com	Audible	280.7	257.0	2.4x	n/m	
02/11/08	Microsoft	Danger	-	500.0	8.9x	n/m	
03/04/08	Demand Media	Pluck	-	75.0	7.5x	n/d	
03/11/08	Google	DoubleClick	3,100.0	3,100.0	10.3x	62.0x	
05/28/08	comScore	M:Metrics	-	44.3	4.0x	n/d	
05/15/08	CBS	CNET	1,800.0	1,800.0	4.4x	n/m	
07/02/08	Hellman & Friedman LLC	Getty Images Inc.	2,028.1	1,977.1	2.3x	7.0x	
				Mean	5.9x	33.3x	

(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

n/d Not Disclosed

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

n/m Not Meaningful

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

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