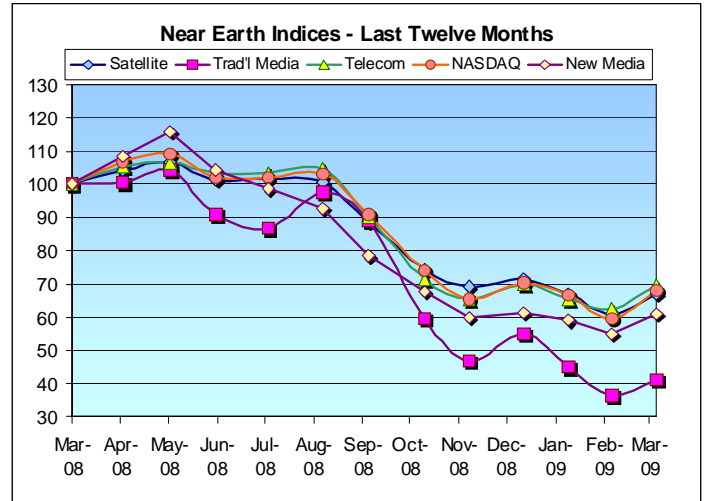


FROM THE GROUND UP

April 2009

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THE WAY WE SEE IT...

Satellite:

Echostar announced a Ka band satellite capacity leasing deal with **WildBlue**, putting an end to speculation about whether they might launch their own satellite broadband service, and raising the possibility that the respective firms may get closer yet in the future. **Globalstar** pulled out a surprise financing deal where **Coface**, the French export agency, agreed to guarantee \$574 million in bank financing. We believe this reflects the fact that French satellite manufacturer **Thales** was more than a little bit pregnant with the **Globalstar 2** contract, and is not indicative of future deals under similar terms with other MSS players. Satellite radio pioneer **Worldspace's** assets were purchased out of bankruptcy for \$23.5 million by its founder and The **Yenura** group, its largest secured creditor. With the subscription radio business model nascent at **Worldspace** and under pressure in the U.S., it will be interesting to see if a clean balance sheet can attract fresh capital to the firm.

Telecom:

According to unconfirmed market reports, **Qwest Communications** is looking to sell its long-haul telecom network to buyers willing to pay \$2-3 billion. Potential bidders according to reports would include **AT&T**, **Verizon**, and **Level 3 Communications**. In addition to the cash infusion to the seller, which could be used to reduce debt, such a transaction would allow **Qwest** to focus more narrowly on its 14-state consumer oriented ILEC business, in which competition from cable MSOs and others has been mounting.

Media:

Facebook's Chief Financial Officer has left to pursue other endeavors as the company seeks to fill his role with a new CFO with "public company experience", according to reports. Considering that the last twelve months have seen one (1) VC-backed IPO – **Rackspace**, currently trading some 40% below the IPO price – it isn't clear if **Facebook** knows something the rest of the market does not, but let's hope this is a leading indicator. In indirectly related news, the VC-backed digital jukebox company, **TouchTunes**, has agreed to be acquired by special purpose acquisition company (SPAC), **Victory Acquisition Corp.**, in a stock transaction valued at up to \$370 million. As such SPAC deals are often a substitute for traditional IPO exits, it will be interesting to see if the transaction obtains shareholder approval (as is required in any SPAC deal) as a foreshadowing of potential improvements in the institutional marketplace.

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After the ship's deck-chairs are rearranged, it must still become an airplane to fly

High profile bankruptcy filings in media and communications have been on the rise (Charter Communications, Young Broadcasting, Tribune Co.), and so too has talk of pending and almost restructurings (New York Times, Sirius XM). In an industry that has long depended on financial leverage to enhance equity returns, and is now facing a deteriorating economy and defunct credit markets, these financial troubles are not surprising. What may be lost, however, within the noise and chatter surrounding these and other financial maneuvers in the media sector, is the likelihood that financial reorganization is only the most immediate and superficial change that will take place. While it is true that the underlying business models had even before the economic meltdown been under pressure to become more efficient, and in the case of newspapers change outright, the current financial pressures may expedite and perhaps even magnify the transformation. If so, more important for the long term of the sector and its variety of participants than any balance sheet give-and-take on the right-hand capitalization side, will be the changes taking places on the left, the asset base and its operating business, and the associated strategy and directional shifts that go along. Here are some article-size brushstrokes while we wait for the finer outlines and complex details to emerge. The themes: hyper-localization and community building, redirection of content towards its most efficient distribution channel, and repurposing of infrastructure for optimized value. The result: a landscape that may soon and for a long time to come be vastly different from what we have gotten used to, even after the last few years of frantic change.

... a landscape that may soon and for a long time to come be vastly different from what we have gotten used to, even after the last few years of frantic change.

- *Print Media:* Where to even begin. The variety of news sources – all of which online, ranging from extensive blogs to 140-character tweets, available instantly and ubiquitously in text, audio, or video formats – have made the newsstand visit a rapidly fading habit, and perennial newspaper titles such as the Christian Science Monitor and the Seattle Post-Intelligencer are actually terminating paper circulation completely. Despite such transformations, which are really not a new development as news sources like The New York Times and The Wall Street Journal have had prominent online presences for years, industry observers remain skeptical about prospects. How, after all, can any single news source, even online, compete with the breadth of Google Reader or other RSS feeds that collect content on a customized basis from any variety of sources that a consumer desires? And how can even such RSS feeds compete with the immediacy of news tweets that instantly track their followers to any mobile device? In this narrow context, traditional newspapers, even online editions, could very well be done... but breadth and speed alone are not the only ways to measure the value of news. There is, on another level, a local community and social content aspect to a newspaper franchise,

After the ship's deck-chairs (cont.)

which can translate to a sustainable long term business model, especially if this is redesigned to embrace rather than compete with emerging web-based applications. We look for print media companies to increasingly work with blogs and advertisers at the local level, and to use social networking applications to build local communities and brand value, much like emerging outlets such as Huffington Post have done to build communities centered on areas of shared subject interest.

... hyper-localization and community building...

- *Cable & Broadcast:* We speak to the prospects of traditional satellite television in a subsequent tab below, but cable operators should not be resting on their laurels (and many indeed have not been). Traditional distribution mechanisms that have brought video content to television sets are increasingly challenged by the likes of YouTube, Hulu, and now also the Netflix instant-play digital product, in an environment in which the TV set can be easily replaced by a computer monitor or connected to the Internet in a flexible and highly customizable home network. Cable MSOs have largely adapted to this evolution by transforming themselves into broadband connections, (and telcos are making progress towards the same). The bigger question, however, is regarding the future of broadcast and other programming networks. As consumers increasingly gain control over scheduling and content delivery, broadcast television and the likes of HBO, A&E, etc., may prove to have little scope outside of proprietary content that these outlets produce. As this occurs, we may see these networks become more like production studios, which will in turn test the mettle of television broadcast stations that have for a long time relied on network affiliation and cable must-carry rules for their content and distribution strategies. These operators may soon enough feel pressured to redefine, much in the way that newspaper companies (see above) or radio operators (see below) are likely to... which is to say, by implementing a hyper-local multi-media strategy focused on video content, to leverage their core market presence and remaining competitive edge.

... redirection of content towards its most efficient distribution channel ...

- *Radio:* The competitive threats to the traditional radio model, not only from satellite radio but more dangerously from free-of-charge and customizable Internet platforms, are now well documented. For a long time we have heard about radio's response via HD roll-outs, but very few of us are still holding our breath for news on that front. Nevertheless, there is value in local content and all that communities signify – local news, local talk, even local music – and this is an aspect of radio that will be difficult for either satellite (limited bandwidth) or Internet (diluted global reach) alternatives to adequately replicate. After the financial difficulties of highly leveraged radio operators are resolved, and perhaps even before

After the ship's deck-chairs (cont.)

...repurposing of infrastructure for optimized value...

then, we expect radio strategies to increasingly focus on unique high-quality programming, with emphasis on local subjects and local personalities. Like newspapers and other traditional media, these operators have already begun to roll out multi-media platforms, which will no doubt expand. We would also not be surprised to see radio station owners – especially as the emphasis on quality and proprietary content escalates – to de-emphasize the ownership of non-core assets, such as towers, while seeking to monetize valuable spectrum in creative ways. These infrastructure holdings have for a long time been underutilized by the sector, and it could make sense to segregate the valuable content from the commoditized infrastructure sides of the business. (More on this subject in the Satellite Entertainment paragraph below.)

- *Satellite Entertainment:* A consumer *subscription* service for radio content – in light of so much that is free of charge in the segment, and especially in the current economically challenged environment, with consumer economic prospects that don't point towards a boom anytime soon, and automotive industry issues to which Sirius XM is inevitably linked – seems like an increasingly dubious proposition. We won't speculate on Liberty Media's intention for its long term investment in the satellite radio operator, although this is undoubtedly related to Liberty's satellite television business, DirecTV. While satellite television at least through the medium term maintains a competitive edge in HD video capabilities, it isn't clear that its long-term growth prospects are substantial, and in the case of satellite radio even near-term prospects may be less than compelling. In light of wired and wireless broadband proliferation in most geographies, it may be that the mobile nature of the Sirius XM platform is in fact where the long-term opportunity for both it and DirecTV lies. Brought to the consumer in one central hub, there may be real value in the ubiquity and reliability of satellite distribution for a variety of mobile applications. Such services could include navigation services, telematics, automated weather and traffic information and many other practical applications. For that matter, there may even be third-party entertainment content that would be enhanced by ubiquitous and mobile digital reach. A case can probably be made, in fact, for satellite radio to become like the cable company or the phone company and open up its pipe to content providers that could be better and more innovative in their niche, allowing Sirius XM to extract optimal value from its core asset base – a satellite fleet, infrastructure, and spectrum that would cost billions to replicate.

While [traditional media] is being pushed by market forces to become increasingly dynamic and nimble and “new”, [new media] is being pushed to become, for lack of a better term, “traditional”.

By way of conclusion, a few words on the Internet and the “new media” segment that has been the driving force behind nearly all of the past and prospective changes described. By no means immune to economic

After the ship's deck-chairs (cont.)

As the two sides of media thus migrate towards one another, the resulting environment will be a completely new ocean...

evolution and the need to transform, the path of “new media” is in a sense directly contrary to that of traditional media. While the latter is being pushed by market forces to become increasingly dynamic and nimble and “new”, the former is being pushed to become, for lack of a better term, “traditional”. In other words, applications such as Twitter that have thrived on audience and booming popularity, are being pushed for a revenue model, which in the world of media – whether new or old – primarily means advertising (or advertising related): think Madison Avenue rather than Silicon Valley. As the two sides of media – the traditional and the new – thus migrate towards one another, the resulting environment will be a completely new ocean, from the surface of which the boats that have transformed to airplanes will either fly swiftly up and away... or sink.

By Dan Ramsden
Near Earth LLC

Guest column: Positive opportunities in communications during turbulent economic times

... Most organizations ... are proceeding cautiously in 2009 and managing their businesses based on the key performance indicators

The financial results are in for the year 2008 and they are very positive! The global FSS (Fixed Satellite Services) operators all reported annual revenue growth in the 8%-12% range and EBITDA margins from 78%-82%. Certainly, this is good news for the operators and it should trickle down to some extent to the larger integrators such as Caprock, Artel, Globecom and others. Smaller integrators however, are struggling under the pressure of tight credit, high capacity utilization, and costs associated with creating support infrastructure. New satellites have been launched successfully and there are more under construction. Overall, 2008 was a good year in the industry.

Most organizations in the industry are proceeding cautiously in 2009 and managing their businesses based on the key performance indicators of revenue, EBITDA, capacity utilization, new sales contracts and contract renewals. Increasing productivity per employee, responding effectively to regional trends, as well as understanding key 'demand drivers' will be essential to continuing industry health. The global economy is presenting a challenging environment and will require solid management analysis, evaluation and actions. The FSS industry's financial performance has historically lagged recoveries from economic downturns.

... The industry's greatest challenge will be to dig below the high level indicators... and provide a foundation that will grow regardless of the global economic climate

The industry's greatest challenge will be to dig below the high level indicators and exercise strategies that can change some of the underlying dynamics in the industry and provide a foundation that will grow regardless of the global economic climate. Improving the underpinnings of the business rather than simply sustaining the improved operating efficiencies created over the past decade means 2009 can be the year when the industry drives its performance and energizes the global economy.

The current economic climate creates an opportunity for companies that can focus on action and implementing strategies for change while others are focusing on 'maintaining the status quo' in these difficult conditions. An outline of differentiating strategies are listed and several critical differentiators for sustained success could include:

- Energize the industry by taking stock of the benefits and advantages of the services you offer and actively promoting those solutions to target markets that are looking to improve efficiencies:
 - Broadband solutions can provide a positive impetus to the global economy
 - "Sell what is in the wagon"- The Satellite Industry owns assets that have been paid for and operate at less than 80% capacity utilization-

Guest column: Positive opportunities (cont.)

... coming out of this global economic downturn, fresh and interesting applications will give ... an immediate advantage over competitors ...

- ❖ 20% underutilized capacity equals sales opportunity without significant capital costs
- ❖ The unutilized capacity is not always in the most attractive areas, but still presents opportunities
- ❖ New satellite construction has NOT been stopped. Business plans and projections have to have NEW perspectives
- ❖ Ground segment is significantly underutilized and overbuilt providing opportunities for cost-effective solutions
- Develop and provide applications that will make a difference. Innovation has always been important, but coming out of this global economic downturn, fresh and interesting applications will give you an immediate advantage over competitors that spent the last few years “hunkered down”. Now is not the time to eliminate new product planning and development.
 - Opportunities to drive the advantages of reach, speed, and cost
 - Technology solutions for security, IP
 - Market analysis
 - ❖ Distance learning is now a concept that is 20 years old and still very limited in actual usage
 - ❖ Business continuity has been discussed but nothing new has been introduced
 - ❖ Emergency response and management interoperability still have few accepted standards
- Improve the Industry employment demographics
 - Average age of Industry employees is near 50 years of age
 - ❖ Need to draw more energetic, ‘new Idea’ engineers right out of college to be mentored by the excellent veteran engineers in the industry
 - ❖ Attract newcomers to sales with high activity thresholds
 - ‘If all you do is what you’ve done, all you’ll get is what you’ve got,’
- Improve the relationship between Operators and Integrators
 - Integrators and service providers should be viewed as partners
 - ❖ a distribution channel for the operators rather than as customers
 - Operators should partially share the enormous margins they receive by reducing the capacity cost.
 - ❖ This would result in greater capacity utilization, a more motivated distribution channel, and more hard dollar profit with a slightly lower % of profit over revenue.
- Develop a mix between Commercial and Government customer targets

... If all you do is what you’ve done, all you’ll get is what you’ve got,’

Guest column: Positive opportunities (cont.)

... operational plans that can step outside of “the way it has always been done” will position the industry ... with credible growth strategies

- ❖ Fortune 1000 accounts are multinational, require security, desire control of communications, and
- ❖ Government has requirements in the areas of Defense (military), Diplomacy (State), and Trade(commerce). Knowledge of contracting process required

The news for 2008 was very positive and the outlook for 2009 is solid, but there are opportunities for those who seize the moment to drive the industry to new levels of excellence in the years ahead. The development and execution of operational plans that can step outside of “the way it has always been done” will position the industry to come out of the global economic downturn with credible growth strategies in place. These companies will not only avoid that lag and grow throughout the downturn but excel as the recession recedes.

By Patrick K. Brant

Patrick K. Brant formerly served as President and CEO of Loral Skynet

Guest column: It was the best of times...

... Performance of all the operators has been excellent. [The] industry is a lagging indicator, [and] the hopes and expectations are that it will not suffer a major downturn

The Satellite 2009 conference was held at the Washington Convention Center from 24 to 27 March. Concurrently the Mobile Satellite User's Association provided MSUA-7. There were more than 9,000 attendees, an all time record. This is in marked contrast to reports from the consumer electronics show and National Association of Broadcasters conference that reported weaker turnouts.

- The mood was almost uniformly upbeat. **FSS operators** are operating with high fill factors and revenue growth also is strong in Satellite Broadcasting and Mobile Satellite Service. Performance of all the operators has been excellent and there are no signs of economic recession. Although many recognize that this industry is a lagging indicator, the hopes and expectations are that it will not suffer a major downturn. FSS companies believe that large backlogs will protect them from the economic downturn as long as the recession does not extend into 2010.
- **INTELSAT** is attempting to de-lever its debt structure and has reduced debt by about \$61 million in 2008. Debt remains \$15.2 billion compared to annual revenues of \$2.365 billion in 2008. Backlog of revenues is almost \$9 billion and the business seems stable.
- **SES** is a somewhat more conservative operator with excellent financial performance. **Eutelsat** is somewhat more aggressive in pursuing broadband Ka-band services. Europe is expected to issue S-band licenses to Solaris (a JV of SES & Eutelsat) and to Inmarsat by mid-year. Some people have high expectations for consumer acceptance of mobile TV.
- Satellite operators and manufacturers are unhappy about **ITAR restrictions** that place American companies at a disadvantage. Operators would like to see the ITAR rules relaxed so that they can launch satellites on cheap Communist Chinese boosters. There is hope that the Obama administration will revise regulations to make it easier to export satellites. Telesat thinks that the underlying reason for US opposition to Chinese launches is to reduce the number of Chinese practice missile launches.
- FSS operators are already looking beyond HDTV to Ultra-HDTV with 4096 by 2160 pixels. There is also great interest in 3D TV that would need about the same resolution and bandwidth.
- The biggest surprise of the conference was the **Globalstar Bailout** announcement. Thales Alenia Space had issued a stop-work order on the Globalstar 2 construction at the end of January and

... Operators would like to see the ITAR rules relaxed so that they can launch satellites on cheap Communist Chinese boosters

Guest column: It was the best of times... (cont.)

... biggest surprise was the Globalstar bailout announcement... Globalstar has secured \$574 million of guaranteed loans from the French COFACE export organization

... appropriate to remember that the MSS industry has never operated under free market conditions. It appears that it will be some time before it achieves anything like a level playing field.

Globalstar told its subscribers that service could terminate as early as next month. Globalstar has secured \$574 million of guaranteed loans from the French COFACE export organization. The loan is subject to the condition that the equity holders contribute an additional \$100 million. The interest rate is only 6.3%, far lower than any of the other MSS companies can obtain or have obtained for loans. This is because of the French government guarantee. Now work will be restarted. The first launch of a Globalstar 2 satellite will be at the end of 2009, probably because of delays associated with restarting the program. The announcement did not mention loan collateral or recourse for the debt. Is Thales Alenia liable for any of the debt since it is the main beneficiary? What is the asset value of Globalstar satellites? The author believes the Globalstar bailout by the French banks was foolish and the lenders will pay a heavy price in the years to come.

- So it is clear that the French government has tilted the playing field in favor of Globalstar. Many of the MSS competitors were expecting that Globalstar would go bankrupt and reduce the number of competitors for the tiny MSS market. In a sense that would have been a better outcome for the industry. Now all of the competitors will divide that micro niche market and we expect that every MSS company will suffer from more limited income. FSS companies are not concerned that government stimulus money will be used to bolster marginal operators.
- This is not the first unexpected twist in the road of MSS industry. Inmarsat was created as a monopoly by about 45 nations 30 years ago. When Iridium filed for bankruptcy it was about to de-orbit its satellite when the US government intervened to provide anchor-tenant funding that provided the basis for a small investment in the failed company. Since that time **Iridium Satellite** has built up its business income to 50% of the Inmarsat revenues. It would be appropriate to remember that the MSS industry has never operated under free market conditions. It appears that it will be some time before it achieves anything like a level playing field.
- It is not clear if COFACE will extend the same financing to Iridium, even if Thales Alenia Space were awarded the contract for Iridium Next. The competition between Thales Alenia Space and Lockheed Martin is expected to be awarded by mid-year but may be slipping. It is not known if GHQ investors will complete the purchase of Iridium. The amount of funding in the deal might be renegotiated and end up being less than previously expected.
- **MSS capacity over North America** is increasing rapidly. ICO has launched a geostationary satellite, Terrastar expects to launch a

Guest column: It was the best of times... (cont.)

satellite soon, and Skyterra is also funded to launch satellites within the next year. All are funded to provide space-segment capacity but none of these “wholesale capacity provider” companies have strategic partners that will lease capacity and provide the terrestrial component. This is a high-risk business model that reminds me of Worldspace.

... A broadband initiative has been proposed that would favor terrestrial installations of fiber or wireless facilities

- **Government stimulus packages** were another topic of interest. The current economic crisis is leading to a number of unexpected and unintended consequences of government intervention in the marketplace. A broadband initiative has been proposed that would favor terrestrial installations of fiber or wireless facilities. Almost every report on broadband delivery shows that the cost of satellite broadband is higher and that the quality of service is lower than terrestrial alternatives. Operators are working with the government to obtain a more level playing field and better sell satellite’s competitive advantages. FSS companies also are concerned that broadband stimulus funds (digital divide) will be given preferentially to terrestrial projects.
- **Economic conditions** were the major conference preoccupation. After absorbing numerous opinions, I think that it is clear that the satellite industry is NOT immune to the turndown. There will be impacts, but they will not be severe. Some operators, like DISH, will suffer more than others because its business depends on low-income consumers. The lower end of Mobile Satellite service, like Globalstar and Orbcomm’s asset tracking business, will feel it too. Satellite manufacturers will see a dip in orders in 2009 and 2010. The larger FSS and MSS companies will see a decline in growth for a few years. There were fears that military spending under the Obama administration will be reduced in favor of civil spending. From our perspective as a consulting company (a leading indicator) we are seeing lower revenues and start-up activity is down. Some of the shaky prospective satellite operators will cancel satellite contracts.
- The latest new reports indicate that **Boeing Space Systems** will win a multiple satellite contract from INTELSAT worth \$400 to \$550 million. This is the first BSS win from Intelsat since 1982. This is good news for Boeing which has lost a number of government contracts to Lockheed Martin over the past few years. Space Systems/Loral and Orbital have been major suppliers in recent years. However, SS/L has a huge backlog due to aggressive pricing and has been delivering many satellites late. The INTELSAT decision to pick BSS would keep the supplier base alive. It would also avoid the congestion delays at SS/L. INTELSAT has 52 satellites in orbit, but 8 of these are out of fuel and maintained in

... There were fears that military spending under the Obama administration will be reduced in favor of civil spending

Guest column: It was the best of times... (cont.)

inclined orbit. Furthermore, INTELSAT has a number of older satellites with anomalies and urgently needs to replace them to maintain high network reliability.

- IPTV is a new video service that is having some impact on the satellite transmission business. Viewers don't want to be bound by a TV set. There is a trend to watching TV on PC and other devices. Broadcast television is less than 50% of the business. In cable television every MSO lost customers in 2008. The new term is "cable-cutters" this is a term for customers leaving multi-channel television. The losses to traditional TV could eventually lead to a loss of satellite TV.
 - There are 23 million IPTV subscribers worldwide now.
 - Forecasts are for 89 million subscribers by 2012. The US would be only 17% of the subscribers but 45% of the revenue based on an MRG report dated October 2008.
- The table below shows a financial comparison of the four largest FSS and two largest MSS companies. The relatively low margins for Iridium demonstrate the high cost of operations for LEO satellite constellations like Iridium and Globalstar.

Company	Satellites in service	Sats to be launched	Transponders	Utilization	Backlog	EBITDA	EBITDA Margin	2008 Revenues	Relative	Enterprise Value	EBITDA Multiple	Debt, M	Debt / EBITDA
Intelsat	52	10	2,125	78%	\$8,800	\$1,845	78.0%	\$2,364.9	up 8%			\$15,200	8.24X
SES	40	8	1084	79%	\$8,200	€ 1,100	67.5%	€ 1,630	up 6%	€ 11,550	10.5X	€ 3,476	3.2X
Eutelsat	24	5	501	93.4%	\$4,900	€ 357	79.3%	€ 450	up 7.9%	€ 5,930	8.2X	€ 2,413	3.5X
Telesat	13	1	501	83%	\$4,207	\$436	63.6%	\$685	up 6%			C\$3,536	8.1X
Inmarsat	11	0	N/A	N/A	N/A	\$432	69.0%	\$634.7	up 13.9%			\$1,444	2.6X
Iridium	65	0	N/A	N/A	N/A	\$86	27.0%	\$321	up 23%	\$590	6.8X	\$135	1.57X

By Roger Rusch
President, TelAstra, Inc.

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... the NTIA and RUS have the monumental task of quickly dispersing funds for ... providing access or improved access to unserved areas

Unless you have been out of the country, you can't help but hear about the American Recovery and Reinvestment Act of 2009 (Recovery Act). It is the benchmark of President Obama's economic stimulus plan and it contains a Broadband Initiative that instructs the National Telecommunications and Information Administration (NTIA) and the Rural Utilities Service (RUS) to make grants and loans for the deployment and construction of broadband systems. The Recovery Act established a Broadband Technology Opportunities Program (BTOP) to disperse \$7.2 Billion (\$4.7 Billion NTIA/ \$2.5 Billion RUS) of funds in the form of grants and loans through the NTIA and RUS.

With the legislation now enacted, the NTIA and RUS have the monumental task of quickly dispersing funds for the stated purposes of providing access or improved access to unserved areas, providing broadband awareness education, providing access to public entities and stimulating broadband demand, economic growth and job creation. In addition, there will be a national broadband mapping program. The catch is that these funds must be distributed by the RUS by September 2009 and the NTIA by September 2010. They are anticipating in excess of 10,000 applications for funds. Wow!

The NTIA conducted a series of public meetings to discuss how applicants would be qualified, how funds will be dispersed, how companies will be held accountable, who will implement the broadband plan and a number of pertinent issues that will need to be decided by the NTIA. For detailed information and transcripts of the meeting go to the BTOP website at www.ntia.doc.gov/broadbandgrants/index.

... Perhaps the most used phrase in the BTOP meetings was the cliché "getting the most bang for the buck."

For the most part the BTOP meetings were informative, but punctuated too often by respective industries positioning themselves as the broadband saviors of underserved America. During these meetings, informative, useful insights and great thought went into defining the unserved/underserved, the respective roles of the states and what exactly is broadband. Perhaps the most used phrase in the BTOP meetings was the cliché "getting the most bang for the buck." (Note to the fiber guys, the idea of running fiber optic cable to every home in America isn't the way to do it).

So, given that President Obama has made it a mandate that every person should have the ability to acquire high speed broadband, and that satellite is an ideal platform for delivering broadband to rural, remote areas, will the satellite industry be part of this program? As the parameters of the entity qualifications are better defined it will be extremely important that satellite is not strategically removed from the rural broadband equation.

Guest editorial: BTOP and satellite (cont.)

Satellite Broadband, vintage 2009 is different from prior generations. End-users can now experience DSL levels of service, service prices are affordable and CPE costs have dropped drastically. Technology advancements (and the sheer scale of the operators) have brought down operating costs and increased efficiencies. Satellite must be part of the Broadband Initiative that bridges the “Digital Divide” and both service providers and satellite providers should partner in this bridging.

... Satellite must be part of the Broadband Initiative that bridges the “Digital Divide”

As the NTIA and RUS move toward determining what entities/industries will qualify for funding it will be extremely important to understand the uniqueness of satellite. Some issues that need to be considered are:

- Satellite needs a separate approval process that does not involve separate state approval of funds. Since footprints are CONUS each state might have to approve the application. Getting timely approval of each state will be difficult and specific states may be politically adverse to funds going to an entity not domiciled in their respective states. It could only take one state to tie up funding.
- The threshold broadband speed should be gauged on actual speeds received by the end-user as opposed to possible speeds a system could provide. Too often an industry boasts of providing greater speeds than the actual speed a user receives. Satellite could provide 100 mbps service, but it isn't cost effective nor needed by every consumer.
- A separate set of standards should be developed based on end-user needs for broadband. The rancher in Wyoming is not going to get 100 mbps service in the near future and that should be realized in the grading process. Likewise, a hospital in Barnum, WY has a different need than the rancher 50 miles away.
- Satellite characteristics need to be taken in to consideration. Under the previous underwriting standards for RUS, Broadband Loans eligible applicants could not offer a competing service in a geographic area where the RUS funded a project and the service could not be available in areas that were urban or suburban. Satellite, by nature, is a potentially large region or CONUS footprint which covers these areas. That characteristic alone eliminated qualifying for funds. While satellite could theoretically be received in Manhattan, in the real world would it? The demand satellite broadband in Manhattan will probably mirror tractor sales in Manhattan. Satellite is a rural product and the regulations should recognize this.
- New companies should not be excluded or considered later for funding. There is a push to fund only companies that have received

... The demand satellite broadband in Manhattan will probably mirror tractor sales in Manhattan. Satellite is a rural product and the regulations should recognize this.

Guest editorial: BTOP and satellite (cont.)

RUS funding in the past or are presently licensed by the FCC. That is wrong. New companies should be accepted for funding. New concepts and new technology should not be ignored. Insanity is doing the same over and over again, and expecting different results. New, innovative companies should not be discouraged from receiving funds.

... Too often there is a conception that terrestrial fiber systems and satellite systems compete with each other for broadband service customers. They do not.

Satellite is the perfect solution to bridging the geographic digital divide and needs to be included in the Broadband Initiative. Too often there is a conception that terrestrial fiber systems and satellite systems compete with each other for broadband service customers. They do not. Cable is superior in pricing and performance where population density is great, but satellites can offer affordable service anywhere in the country. Satellite is scalable, doesn't require costly terrestrial build-outs and is a cost effective option for providing rural America broadband service.

Before any satellite company can receive Recovery Act funds they have to be in the race. The NTIA and RUS are in the process of deciding the qualifications of systems and companies for funding. You may submit a comment to the NTIA before April 13th at www.ntia.doc.gov/broadbandgrants/index supporting the inclusion of satellite and the special characteristics of satellite in the application process. Satellite needs to be part of the Broadband Initiative bridging the "Digital Divide."

By David Hazzard
Net Access System Technologies, Inc.

David Hazzard is the CEO of Net Access System Technologies, Inc.

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:			
		4/1/09	Market Value of Equity	Enterprise Value (a)	Value as a Multiple of:			Price as a Multiple of:			
					LTM Sales	LTM EBITDA	LTM EBIT	LTM EPS	2008E EPS (b)	2009E EPS (b)	
Satellite Broadcast (DBS and DARS)											
BSY.L	British Sky Broadcasting (f)	£	4.33	\$10,971.79	\$14,074.10	2.0x	10.0x	13.4x	33.0x	22.4x	19.4x
DISH	Dish Network Corp	\$	11.54	\$5,163.00	\$9,611.62	0.8x	3.1x	4.7x	5.7x	5.5x	5.4x
DTV	DirecTV Group Inc.	\$	23.46	\$24,027.26	\$27,958.26	1.4x	5.6x	10.4x	15.9x	14.5x	10.9x
SIRI	Sirius XM Radio	\$	0.35	\$1,259.86	\$4,130.91	2.5x	n/m	n/m	n/m	n/m	n/m
	Mean					1.7x	6.3x	9.5x	18.2x	14.1x	11.9x
Cable Television											
CMCSA	Comcast Corporation	\$	13.92	\$40,098.51	\$71,597.51	2.1x	5.3x	10.1x	14.4x	14.2x	12.4x
MCCC	Mediacom Communications Corp.	\$	4.20	\$398.12	\$3,663.84	2.6x	7.2x	13.1x	n/m	n/m	16.8x
TWC	Time Warner Cable Inc.	\$	24.57	\$8,001.47	\$21,689.47	1.3x	3.5x	7.0x	3.4x	8.4x	7.5x
CVC	Cablevision Systems Corp	\$	13.40	\$3,981.54	\$15,678.70	2.2x	8.5x	21.2x	n/m	12.8x	9.9x
	Mean					2.0x	6.1x	12.8x	8.9x	11.8x	11.6x
Television											
TVL	LIN TV Corp.	\$	1.21	\$62.23	\$785.47	2.0x	5.4x	8.6x	n/m	9.3x	2.5x
SBGI	Sinclair Broadcast Group	\$	1.05	\$85.05	\$1,460.98	1.9x	4.6x	8.5x	1.6x	n/m	5.3x
HTV	Hearst-Argyle Television, Inc	\$	4.34	\$406.44	\$1,190.51	1.7x	4.4x	8.5x	5.2x	n/m	18.1x
FSCI	Fisher Communications Inc	\$	10.07	\$88.01	\$146.48	0.8x	3.8x	23.9x	0.9x	34.7x	n/a
	Mean					1.6x	4.5x	12.4x	2.6x	22.0x	8.6x
Radio											
CMLS	Cumulus Media Inc.	\$	1.05	\$43.47	\$686.47	2.2x	7.8x	9.1x	n/m	3.8x	n/a
CXR	Cox Radio Inc.	\$	4.12	\$331.58	\$731.03	1.8x	5.5x	6.0x	4.0x	9.6x	9.6x
ETM	Entercom Communications	\$	1.25	\$47.33	\$918.25	2.1x	6.8x	8.0x	2.4x	1.7x	1.4x
	Mean					2.0x	6.7x	7.7x	3.2x	5.0x	5.5x
NewsPrint											
MNI	The McClatchy Company	\$	0.59	\$48.71	\$2,081.49	1.1x	5.7x	9.4x	2.2x	19.7x	n/m
NYT	New York Times	\$	4.56	\$655.73	\$1,661.40	0.6x	5.5x	10.6x	10.5x	11.1x	16.3x
WPO	Washington Post	\$	361.04	\$3,382.94	\$3,200.74	0.7x	5.3x	10.0x	25.8x	15.7x	12.0x
	Mean					0.8x	5.5x	10.0x	12.8x	15.5x	14.2x
New Media											
RNWK	Real Network Inc.	\$	2.39	\$321.10	(\$37.59)	n/m	n/m	n/m	n/m	n/m	n/m
MSFT	Microsoft Corporation	\$	19.31	\$171,646.59	\$152,931.59	2.5x	5.8x	6.3x	8.9x	11.1x	10.1x
AAPL	Apple Inc.	\$	108.69	\$96,778.66	\$71,131.66	2.2x	10.4x	11.3x	20.1x	21.1x	18.5x
YHOO	Yahoo! Inc.	\$	12.75	\$17,742.39	\$14,308.42	2.0x	10.2x	23.6x	22.3x	34.5x	29.7x
GOOG	Google Inc.	\$	354.09	\$110,801.84	\$94,956.07	4.4x	11.7x	14.3x	22.1x	17.0x	14.7x
IACI	Interactive Corporation	\$	15.65	\$2,200.55	\$448.57	0.3x	6.9x	n/m	15.2x	26.1x	20.6x
ERTS	Electronic Arts Inc.	\$	18.39	\$5,900.98	\$3,639.98	1.0x	n/m	n/m	n/m	n/m	19.6x
	Mean					2.1x	9.0x	13.9x	17.7x	21.9x	18.9x
MEDIA SERVICES INDEX											
	High					4.4x	11.7x	23.9x	33.0x	34.7x	29.7x
	Mean					1.7x	6.2x	10.8x	11.2x	14.6x	12.4x
	Low					0.3x	3.1x	4.7x	0.9x	1.7x	1.4x

(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: MARKET COMPARABLES

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

		Stock Price:		Enterprise Value as a Multiple of:			Price as a Multiple of:			
				LTM Sales	LTM EBITDA	LTM EBIT	LTM EPS	2008E EPS (b)	2009E EPS (b)	
	4/1/09	Market Value of Equity	Enterprise Value (a)							
Satellite Capacity										
ETL.PA	Eutelsat Communications (c)	€ 16.12	\$4,688.81	\$4,968.37	4.1x	6.0x	11.9x	28.2x	22.7x	21.1x
LORL	Loral Space & Comm. Inc.	\$ 21.82	\$650.02	\$587.47	0.7x	29.8x	n/m	n/m	n/a	n/a
SESG.PA	SES Global S.A. (c)	€ 14.50	\$7,672.91	\$12,287.04	5.7x	8.4x	14.9x	14.9x	16.7x	15.2x
ISAT.L	Inmarsat (f)	£ 4.76	\$3,160.21	\$4,648.81	4.7x	8.8x	14.7x	8.9x	14.0x	10.6x
ORBC	Orbcomm	\$ 1.50	\$63.15	(\$9.53)	n/m	3.6x	1.6x	n/m	n/m	25.0x
	Mean				3.8x	11.3x	10.8x	17.3x	17.8x	18.0x
Satellite Ground Segment										
CMTL	Comtech Telecommunications	\$ 25.14	\$623.72	\$496.17	0.8x	4.4x	4.4x	8.0x	13.9x	11.4x
GCOM	Globecom Systems Inc.	\$ 5.96	\$122.66	\$66.07	0.4x	4.5x	7.2x	12.4x	28.4x	16.6x
GILT	Gilat Satellite Networks	\$ 3.56	\$142.04	\$46.26	0.2x	2.8x	13.6x	38.7x	14.8x	n/a
HUGH	Hughes Communications, Inc.	\$ 12.31	\$264.79	\$647.52	0.6x	5.3x	10.1x	29.4x	11.7x	4.7x
ISYS	Integral Systems Inc.	\$ 9.00	\$155.25	\$149.73	0.9x	6.3x	7.1x	11.0x	8.9x	7.8x
VSAT	ViaSat Inc.	\$ 21.07	\$652.12	\$592.23	1.0x	8.5x	13.8x	17.8x	13.4x	12.4x
	Mean				0.6x	5.3x	9.3x	19.5x	15.2x	10.6x
Satellite Space Segment										
ORB	Orbital Sciences	\$ 11.90	\$684.25	\$499.69	0.4x	4.8x	5.9x	12.0x	14.5x	10.9x
CDV.TO	COM DEV International (d)	\$ 3.35	\$181.53	\$197.13	1.1x	8.7x	14.1x	14.9x	n/a	n/a
MDA.TO	McDonald Dettwiler and Associates (d)	\$ 26.68	\$1,077.34	\$1,434.10	1.5x	9.5x	11.7x	17.0x	n/a	n/a
OHB.DE	OHB Technologies (c)	€ 6.94	\$136.57	\$86.21	0.3x	2.8x	3.5x	11.5x	13.5x	11.9x
	Mean				0.8x	6.5x	8.8x	13.8x	14.0x	11.4x
Towers										
AMT	American Tower	\$ 31.54	\$12,520.75	\$16,708.79	10.5x	16.3x	27.0x	n/m	n/m	38.9x
CCI	Crown Castle	\$ 21.09	\$6,083.62	\$12,339.88	8.1x	14.7x	39.6x	n/m	n/m	n/m
SBAC	SBA Communications	\$ 24.38	\$2,865.38	\$5,341.02	11.2x	20.7x	n/m	n/m	n/m	n/m
	Mean				9.9x	17.2x	33.3x	n/m	n/m	38.9x
General Telecom										
S	Sprint Nextel Corporation	\$ 3.97	\$11,342.29	\$29,261.29	0.8x	3.8x	n/m	n/m	n/m	n/m
T	AT&T	\$ 25.92	\$152,746.82	\$225,945.82	1.8x	5.2x	9.6x	11.6x	13.0x	11.6x
VZ	Verizon Communications, Inc.	\$ 31.22	\$88,681.03	\$167,541.03	1.7x	5.1x	9.7x	13.3x	12.5x	11.8x
	Mean				1.5x	4.7x	9.7x	12.5x	12.7x	11.7x
TELECOM SERVICES INDEX (excludes Towers stocks)										
	High				5.7x	29.8x	14.9x	38.7x	28.4x	25.0x
	Mean				1.6x	7.1x	10.2x	16.6x	15.2x	14.2x
	Low				0.2x	2.8x	1.6x	8.0x	8.9x	4.7x

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

n/m Not Meaningful.

(c) Converted to US \$ from Euro at an exchange rate of 1.3243 US \$ per Euro.

n/a Not Available

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

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	Trintell 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

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

(d) 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

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. 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.

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

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