Industry Brief

July 5, 2018

Satellite & Space Industry Brief

Chris Quilty
chris@quiltyanalytics.com
+1 (727)-828-7085

Austin Moeller
austin@quiltyanalytics.com
+1 (727)-828-7601

EchoStar Bid for Inmarsat – Are the Fireworks Over or Just Beginning? *(Hint – It's all about the spectrum)*

- On June 8, **Inmarsat** announced that it spurned a takeover bid from **EchoStar**.
- EchoStar has until July 6 (tomorrow) to make a firm bid for Inmarsat or face a mandatory six-month stand-down.
- We expect EchoStar to make a sweetened offer for Inmarsat but given the low probability of a "white knight" bidder, the process could drag on for quite some time.
- Given the minimal operational synergies between the two companies, there can be little doubt that EchoStar's bid is primarily a spectrum play.
- While "spectrum has value," it is not entirely clear how SATS shareholders will directly benefit from Inmarsat's L/S/Ka-band holdings beyond a (nebulous) side deal with **DISH Network**.
- Despite rampant press speculation that Inmarsat could draw a rival bidder(s), we don't see it happening. EchoStar might not be the ideal acquirer, but they're likely the best option on the table. Unless of course they lowball their bid, in which case ISAT should hold out.

The Situation

On June 8, Inmarsat preemptively announced that the company's Board rejected a "highly preliminary" acquisition proposal from EchoStar on the basis that the offer "…very significantly undervalued Inmarsat and its standalone prospects." The announcement validated long-standing acquisition rumors (dating back to 2017) and confirmed our recent speculation that EchoStar's 1Q18 $56 million investment loss was tied to a bid for Inmarsat, **Gogo**, or **Global Eagle**.

On June 14, EchoStar subsequently issued a press release confirming the offer, in accordance with UK regulations that require a potential acquirer to disclose their position upon attaining a 1% equity interest in the target company. As of June 22, EchoStar held 13.7 million shares of ISAT common stock (2.97% of shares outstanding) and $67.4 million of the company's 2023 convertible bonds (10.4% of bonds outstanding).

Pursuant to UK Takeover Panel rules, **EchoStar must make a firm offer to acquire Inmarsat by July 6** or face a mandatory six-month waiting period. Consequently, we expect EchoStar to extend a sweetened offer by tomorrow in order to keep the ball rolling, at a minimum.

What's Going on Here?

At face value, the combination makes very little sense on an operational basis. The two companies have minimal operational crossover and there are numerous market/customer/supplier entanglements that could sabotage any attempt to extract merger synergies. Reasons a merger *doesn't* make sense include:

- **I'm a fish, you're a fowl:** Although traditional industry boundaries are rapidly blurring (more below), the two companies have historically inhabited parallel industry universes. Inmarsat is the industry's long-established leader in mobile satellite services (MSS). EchoStar, on the other hand, is comprised of a traditional wholesale FSS business (EchoStar Satellite Services), a direct-to-consumer broadband business (HughesNet), a sprawling global enterprise VSAT network, and a substantial ground equipment business.
- **Minimal product crossover:** Despite Hughes' ground equipment prowess, the two companies do very little business together. In L-band, Hughes sells a limited number of land terminals to Inmarsat but has no presence in Inmarsat's largest (maritime) or fastest-growing (aero) markets. Meanwhile, Hughes is the industry's highest-volume producer of Ka-band terminals, but Inmarsat sources its Global Express terminals from **iDirect**.
- **Ka, but not ok:** While both companies operate Ka-band HTS satellites, the services and ground equipment are entirely incompatible. While not entirely disqualifying, the history of forklift hardware transitions (think **Sprint/Nextel**) is not pretty.

Hughes 9201 BGAN Terminal

Source: Hughes

- **Aero partners or competitors?** Both companies are targeting the in-flight connectivity (IFC) market as a key future growth opportunity. However, their go-to-market strategies are inherently conflicting, with Inmarsat adopting a direct-to-customer approach and EchoStar choosing a partnership approach (Global Eagle, **SES**, **Thales**).

It's All About the Spectrum

Given the lack of operational synergies between the two companies, there are only two logical rationalizations for EchoStar's bid: (1) Inmarsat is cheap, and (2) spectrum.

Speaking to the former, EchoStar Chairman Charlie Ergen is an accomplished bargain shopper who has a history of buying and selling the securities of his competitors; a practice that DISH and EchoStar regularly engage in on a quarterly basis. While EchoStar could be aiming for a profitable flip of Inmarsat's stock (down by two-thirds from its 2015 high), we suspect that EchoStar's bid is more strategic than tactical. In fact, we are fairly certain that "It's all about the spectrum."

Which spectrum?

- **Ka-band:** Inmarsat's Ka-band spectrum is nice, but nothing special. There are much cheaper options for acquiring Ka-band spectrum.
- **S-band:** In the mid-2000's, European regulators granted both Inmarsat and EchoStar (via acquisition) 2x15 MHz (i.e., 30 MHz) of S-band spectrum for the purpose of deploying a pan-European hybrid MSS service that could both "bridge the digital divide" and support government disaster relief efforts. EchoStar is currently deploying its European MSS service, but eventually hopes to monetize its spectrum via lease or sale to wireless operators seeking to deploy 5G services. Adding Inmarsat's spectrum would

significantly enhance the value of EchoStar's S-band portfolio, except for the fact that Inmarsat has encumbered its spectrum by repurposing it for aviation services (European Aviation Network, or EAN).

- **L-band:** Inmarsat possesses a significant quantity of L-band spectrum, which could be extremely valuable to Charlie Ergen, given his former ownership of wireless operator **Ligado**'s debt. Ligado, which holds a contract to use Inmarsat's terrestrial U.S. L-band spectrum, previously fended off Ergen's attempts to seize their spectrum rights in bankruptcy court. An acquisition of Inmarsat would give Ergen control over the spectrum, potentially shielding his other company, DISH Network, from the threat posed by the dumping of a large quantity of L-band spectrum into the U.S. marketplace.

In summary, Inmarsat's L-band spectrum is undoubtedly the crown jewel being pursued by Charlie Ergen. But how will SATS shareholders benefit from acquiring an asset prized by its sister company, DISH Network? Truthfully, we don't know, and given SATS' share performance since May 1st (down 14% vs. a 2% gain for the S&P 500), investors are apparently equally as confused.

There is, however, some history here, including DISH's mysteriously undisclosed transfer of the Terrestar-2 satellite to EchoStar (now EchoStar 21) and the maddening double-asset swap involving HRG (Hughes Retail Group), five DISH satellites and the EchoStar Technologies set-top box business. Don't ask us to explain it, but it did kind of work out well in the end.

White Knight to the Rescue?

Despite rampant press speculation that Inmarsat could draw a rival bidder(s), we don't see it happening at prices that would work for Inmarsat or its shareholders. Putting aside Inmarsat's recent operational struggles, there are very few industry players that can thread the operational/financial/regulatory needle – and we question the attractiveness of the modeled returns to most PEs, assuming an adequate share premium is paid.

As a starting point, the post-Brexit realities of acquiring a major U.K. enterprise, especially a telecom operator with a de facto monopoly in maritime broadband, could complicate the bidding process. The British government may get cold feet at the prospect of giving away such a substantial national asset, ultimately blocking a transaction from going through.

- **Chinese or APAC:** A sale to a Chinese player is not going to happen, and we think a serious advance from players elsewhere in Asia, for example **SKY Perfect JSAT**, is very unlikely.
- **Middle East:** Conceivable, but most Middle Eastern satellite operators are generally focused on their region, and expansion to a global scale would be viewed as a major bet/move. **Yahsat** (which recently acquired control of **Thuraya** and is backed by **Mubadala**) could express some interest.
- **European:** European bidders could be acceptable, but London and Brussels are currently engaged in open warfare over the fate of the EU Galileo program, and a measure of Brexit revenge could play into the equation.
- **American:** No fundamental issues here other than possible entanglement in the Trump administration's all-out trade war with the rest of the world.

Moving down the list of rival bidders, we're at a loss to identify any obvious other players with motivation to bid aggressively:

- **European telecoms?** While Inmarsat's spectrum has some value, it is largely encumbered and wireless operators are neither familiar with, or fans of, the satellite industry.

- **Eutelsat:** **Eutelsat** is both French and suing to block Inmarsat's EAN network, but nonetheless announced on June 25 that it was interested in making a bid for Inmarsat, then reversing course within 24 hours. Huh?
- **SES:** European but not French, so still possible. However, SES has already committed to its O3b mPOWER constellation and would likely find minimal value in Inmarsat's Global Xpress constellation.
- **Intelsat:** Levered and no spectrum synergies (Ku vs. Ka), though a growing mobility focus.
- **Telesat:** Financing an acquisition would be a stretch, and like SES, **Telesat** is already committed to a competing Ka-band strategy (Telesat LEO…name still pending).
- **ViaSat:** **ViaSat** management views the GX network as garbage and is currently suing to block Inmarsat's EAN deployment. Plus, ViaSat has no obvious way to finance the acquisition (barring massive issuance of equity) in light of its current ViaSat-3 commitment.
- **Private equity:** While private equity firms could see some potential in Inmarsat's extensive asset portfolio and spectrum licenses, the absence of a clear exit strategy (see above) and difficulty achieving acceptable equity returns at a bidding price deemed attractive make a standalone PE bid unlikely. (However, we would note that there was talk earlier this year that a PE had joined forces with a large satellite service provider to evaluate M&A for upstream vertical integration).

Purely for illustrative purposes, the table below outlines the (i) current leverage of select prospective strategic acquirers; (ii) the implied leverage (at various Inmarsat all-cash acquisition bids) assuming that the buyer finances the all-cash acquisition entirely with debt; and (iii) required new equity issuance (as a % of their current market cap) to acquire Inmarsat and maintain certain net leverage levels. While clearly a simplified analysis, it nonetheless highlights the need to raise substantial new equity were Intelsat, Telesat, or ViaSat to bid.

Illustrative Acquisition Net Leverage Scenarios for Select Hypothetical Suitors

	Standalone			Pro Forma	Net Leverage w/o New Equity Issuance			Equity Issued as % of Cur. Market Cap (@ 800 p)		
Acquirer	Net Debt	TTM EBITDA	Net TTM Leverage	TTM EBITDA	@ 600 p	@ 800 p	@ 1000 p	Maintain Cur. Net Leverage	Pro Forma 5x Net Leverage	Pro Forma 8x Net Leverage
EchoStar	$ 0.3	$ 0.8	0.4x	$ 1.5	4.4x	5.2x	6.0x	170%	8%	n.m.
Eutelsat	€ 3.6	€ 1.1	3.3x	€ 1.7	5.2x	5.8x	6.4x	105%	34%	n.m.
Intelsat	$ 13.7	$ 1.7	8.2x	$ 2.4	8.3x	8.8x	9.3x	75%	453%	96%
SES	€ 3.7	€ 1.3	2.7x	€ 2.0	4.6x	5.2x	5.7x	54%	4%	n.m.
Telesat	C$ 3.0	C$ 0.8	4.0x	C$ 1.7	6.6x	7.5x	8.4x	n.a.	n.a.	n.a.
ViaSat	$ 1.0	$ 0.2	4.1x	$ 1.0	7.5x	8.7x	10.0x	120%	96%	19%

Note: Net Debt and EBITDA amounts in billions. n.m. = not meaningful; n.a. = not applicable

Source: Sentieo and Quilty Analytics.

Can a Deal Get Done?

Assuming regulatory and financing hurdles can be overcome, what's the likelihood a deal gets done, and at what price? From a seller's perspective, Inmarsat's Board must be mindful of both the company's future prospects as a standalone company as well as the stock's recent trading history. On this latter point, the stock's volume weighted average price (VWAP) falls in the range of ~450 p on a trailing 12-month basis, but a range of 600-650 p on a trailing 24-month basis.

Generically speaking, acquisition premiums (compared to an unaffected stock price) tend to run in the range of about 30%, but the key question is "A premium based on what price?" That's a question for Inmarsat's Board (and shareholders) to decide, but suffice it to say, a bid below 600-650 p may be hard for Inmarsat to swallow, and a bid above 900 p might be hard to turn down. The answer probably lies somewhere in between.

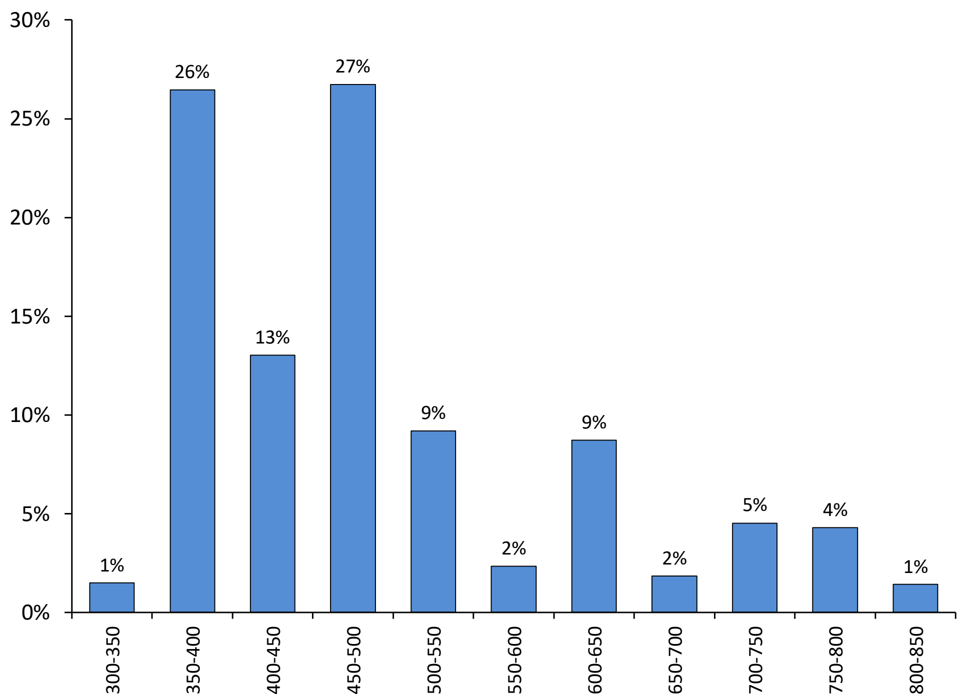
It Takes Two to Tango

DISH/EchoStar Chairman Charlie Ergen is known to be shrewd, frugal, and a consummate dealmaker. These attributes would suggest that EchoStar will be willing to walk away from a merger negotiation and quickly cash out its investment position if the deliberations head south.

That said, DISH has spent billions of dollars over the past 5+ years to acquire a spectrum war chest and DISH recently committed to building out a national network rather than selling its spectrum assets. Barring an FCC waiver, DISH must build out a terrestrial network that reaches 70% of the population within two years.

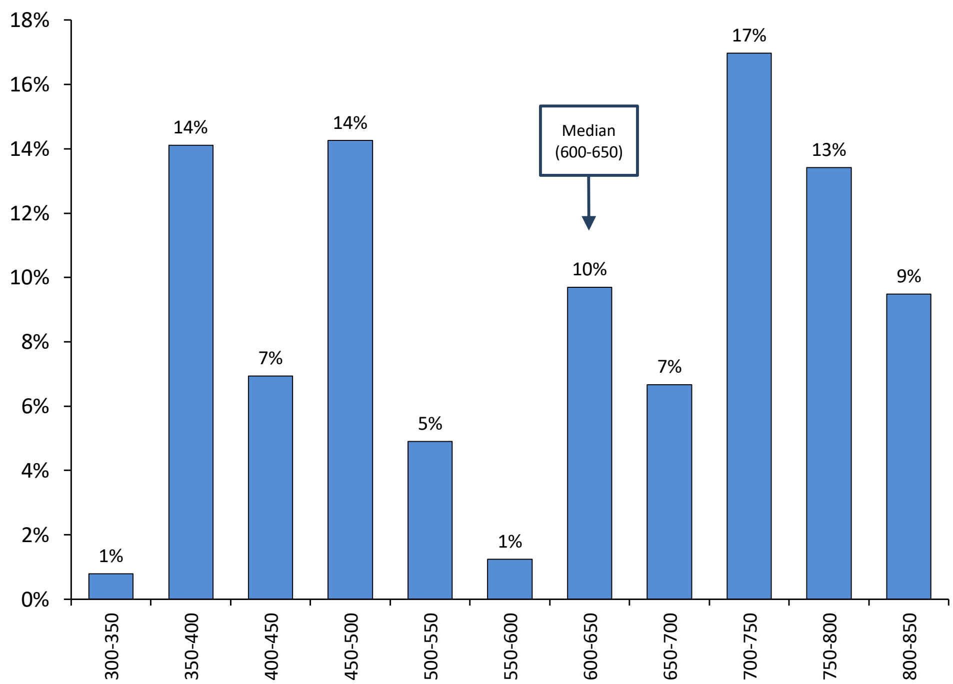
We may soon see how important Inmarsat/Ligado L-band spectrum is to these plans.

Percent of ISAT Trading Volume by Price Range (Trailing 12 months)



Source: Sentieo and Quilty Analytics.

Percent of ISAT Trading Volume by Price Range (Trailing 24 months)



Source: Sentieo and Quilty Analytics.

Quilty Analytics Disclosures

Independent Research
Quilty Analytics is an independent research and consulting company. Quilty Analytics is not a member of FINRA or the SIPC and is not a registered broker or investment advisor. All opinions, views and analyses expressed in these Publication Services are those of Quilty Analytics at the time they were published. Quilty Analytics does not owe any fiduciary obligation to any Covered Company or Subscriber. The opinions expressed in the Publication Services may be short-term in nature and are subject to change. Quilty Analytics takes no obligation to update any forward-looking statement in Publication Services to reflect events or circumstances after the date on which the Publication Service is created, or to reflect the occurrence of unanticipated events.

Limitations of Publication Services and Disclaimer
These Publication Services have been prepared for distribution to Subscribers to Quilty Analytics' services. The information contained herein does not constitute financial, legal, tax or any other advice. All third party data presented herein were obtained from publicly available and third party sources which are believed to be reliable; however, Quilty Analytics makes no warranty, express or implied, concerning the accuracy or completeness of such information. Subscriber agrees and acknowledges that the Publication Services are provided on an “as-is” basis and any representations or warranties, express or implied, including without limitation any representations or warranties of non-infringement, merchantability, correctness, accuracy, or fitness for a particular purpose are specifically disclaimed. Additionally, Quilty Analytics is a financial research publishing company (publisher) and does not provide investment advice to its subscribers or advocate for the purchase or sale of any investment or security and Quilty Analytics and its employees, content providers, and licensors will not be liable to subscriber or any other persons as a result of subscriber’s use of the publications services for consequential, indirect, punitive, special, or exemplary damages, including without limitation, lost profits, whether based on contract. Tort, or other legal theory, in connection with the use of Publication Services.

Intellectual Property, Reproduction and Distribution
These Publication Services and the contents thereof are the intellectual property of Quilty Analytics or its licensors. The Publication Services are provided to Subscriber solely for their internal use. Subscriber shall not, infringe, or enable the infringement of, the intellectual property rights of Quilty Analytics or its licensors in any way, including without limitation by making available internally or externally the Publication Services or any portion thereof without prior written permission of Quilty Analytics.