



*Financial State of the Industry:  
The Continuing Move to Public Markets*

**Hoyt Davidson – Near Earth LLC**

**Sat2007 Conference**

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## *Forward Looking Statements*

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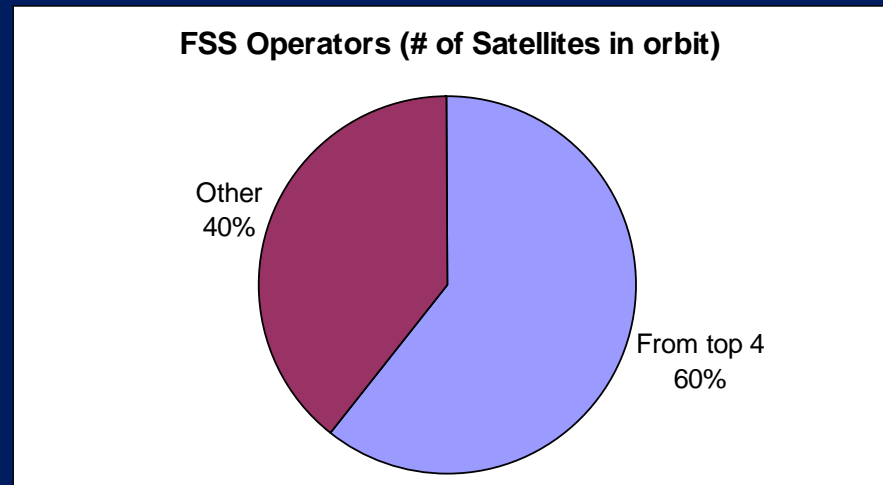


## *Despite Disruption & Convergence the Sky is Not Falling*

- **Legacy satellite voice/data telecom business disappearing**
  - Fiber has decimated long haul satellite market
  - Proliferation of last mile access solutions (fiber, cable, DSL, cellular, WiMax)
  - Satellites left to fill ever shrinking coverage gaps
- **Yet, digital convergence and IP explosion have created new demand**
  - Increased consumer and business demand for broadband
  - Created VSAT and residential growth (e.g. WildBlue and HughesNet)
  - Satellites get smaller share but of rapidly growing market
- **And, satellites still unmatched for point to multipoint**
  - Spot beams, compression and new spectrum are lowering cost per bit
  - Satellite broadcasting/datacasting efficiency holding alternatives at bay
  - Proliferation of content (long tail effect) creating substantial demand
  - Rollout of HD programming further stimulating demand
  - Satellites will survive and thrive as digital content distributors

# FSS

- **Big Issue: Impacts of Private Equity**
  - Shareholders made money, but...
    - Much of value extracted already
    - KKR announces PanAmSat 4/04, announces sell to Intelsat 8/05 (16 mo.)
    - Blackstone announces New Skies 6/04, announces sell to SES 12/05 (18 mo.)
    - Zeus announces Intelsat 8/04, pays dividends of \$504 MM (16 months)
  - Some consolidation achieved, but...
    - It was the easier consolidation
  - Industry more levered, but...
    - Debt is trading well
- **Positive Factors**
  - Better capacity utilization and pricing ahead
  - High free cash flows and low interest rates
  - Plenty of consolidation left to do
  - Increasing government usage
  - HD video and broadband growth
- **Concerns**
  - Continued build-out of fiber and wireless broadband
  - Leverage means higher risk profile to global recession

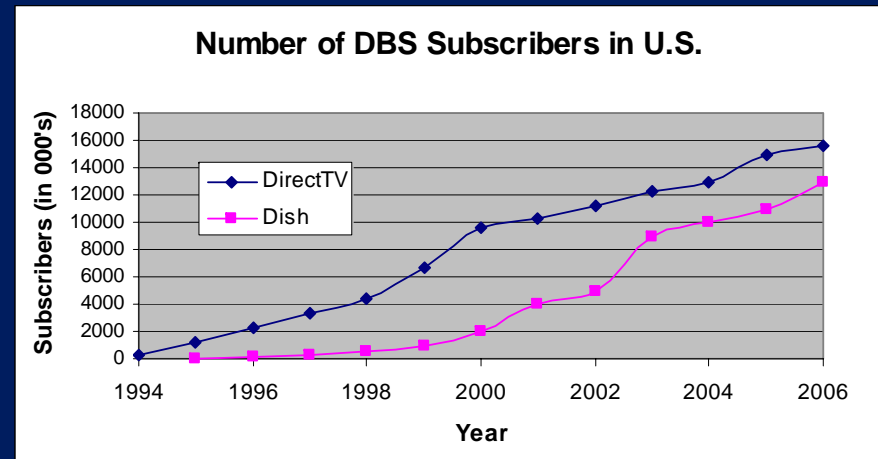


**Global Transponder Supply and Demand (36 MHz Equivalents)**

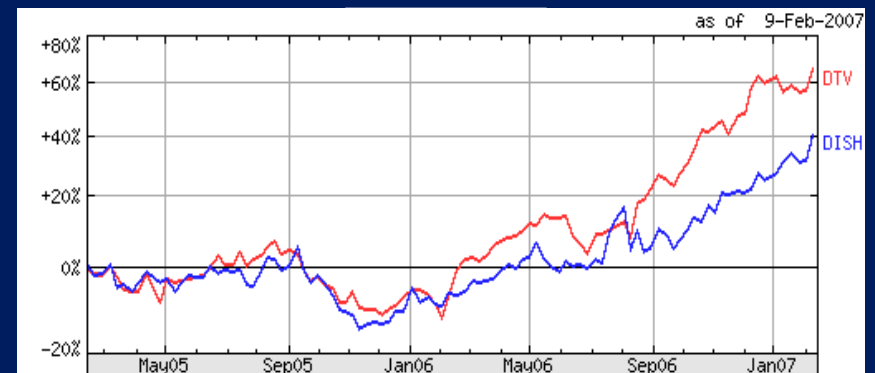
	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>CAGR</u>
<b>Supply (C, Ku,</b>	7,534	7,875	8,100	7,900	7,700	7,300	-0.6%
<b><u>Demand</u></b>							
TV & Video	2,350	2,400	2,525	2,650	2,800	2,900	4.3%
Voice & Data	1,200	1,027	875	746	660	600	-12.9%
Broadband Acc	450	600	750	850	950	1,050	18.5%
Broadband Trui	300	350	400	450	500	550	12.9%
<b>Total</b>	<b>4,300</b>	<b>4,377</b>	<b>4,550</b>	<b>4,696</b>	<b>4,910</b>	<b>5,100</b>	<b>3.5%</b>
Utilization Rate	57%	56%	56%	59%	64%	70%	

# DBS

- **Big Issue: Triple/quadruple play threats**
  - Cable modem service, VOD and VoIP are reinvigorating the well funded MSOs
  - Telecoms laying fiber to home or curb IPTV may re-energize rural cable and telecoms
- **Positive Factors**
  - Still adding subs, ARPU remains high
  - Satellite most efficient point to multi-point
  - Spot beam technology and compression have enabled increases in channel capacity
  - Channel needs keep growing:
    - HDTV, local-to-local, niche content
  - Developing worlds wants more video
- **Concerns**
  - Rising SAC/churn holds down profitability
  - HDTV consuming lots of bandwidth
  - Video evolving away from satellite strengths
    - Time and place shifting
    - Internet streaming
    - Going mobile
    - User created content growing
    - Interactivity

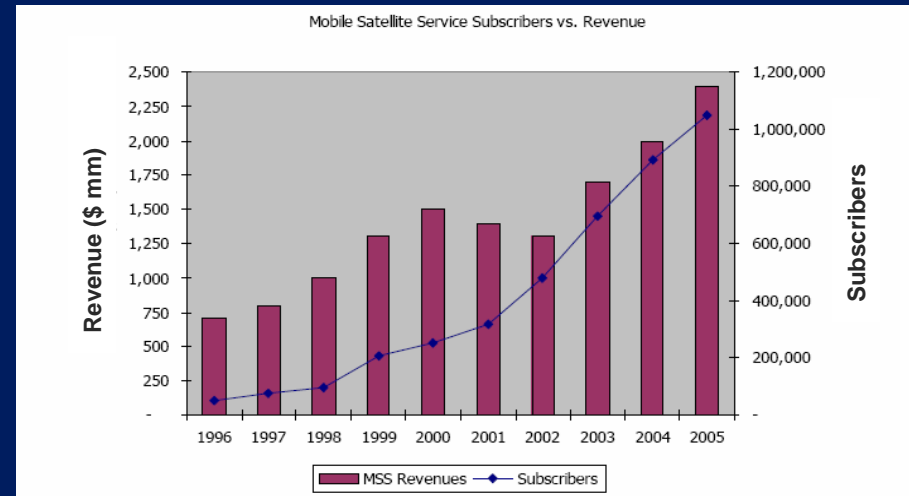


## EchoStar vs. DIRECTV



# MSS

- **Big Issue: Hybrid networks / ATC Value**
  - Each hybrid network could cost billions
  - Not enough major players for the 6 ATC firms seeking strategic partners
- **Positive Factors**
  - Growing enterprise and consumer demands
    - Anything, anywhere, anytime
  - Government focus on ubiquity
    - War fighting, homeland security, FEMA
  - LEOs (GlobalStar, Iridium, ORBCOMM):
    - Adding subscribers at good rate
    - Lower pricing and better handsets
    - New investors benefiting from billions of prior funding
  - GEOs (Inmarsat, MSV, TerreStar, ICO, Thuraya):
    - Not just voice, broadband is important
    - Large antennas and satellite power allow for smaller CPE/handsets
    - Incremental and lower fleet costs
- **Concerns**
  - Potential partners have not invested
  - Paid \$13.7 billion for AWS spectrum
  - Focus is terrestrial competition/ build-out
  - Hybrid networks may be tool for telcos to determine best places for new towers



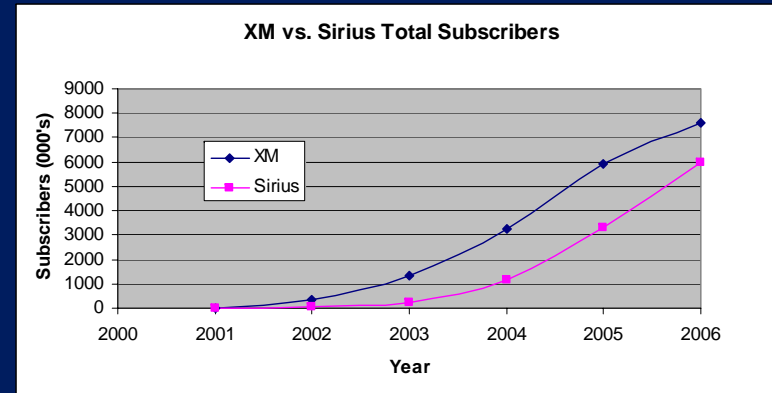
Source: Canaccord

	Globalstar	IRIDIUM	Inmarsat	ICO North America	MSV	TerreStar
Amount of Spectrum (MHz)	27.85	5	28	20	28	20
Global Footprint	✓	✓	✓	✗	✗	✗
Satellites in Orbit	✓	✓	✓	✗	✓	✗
ATC Approved	✓	✗	✗	✗	✓	✗

Source: Wachovia

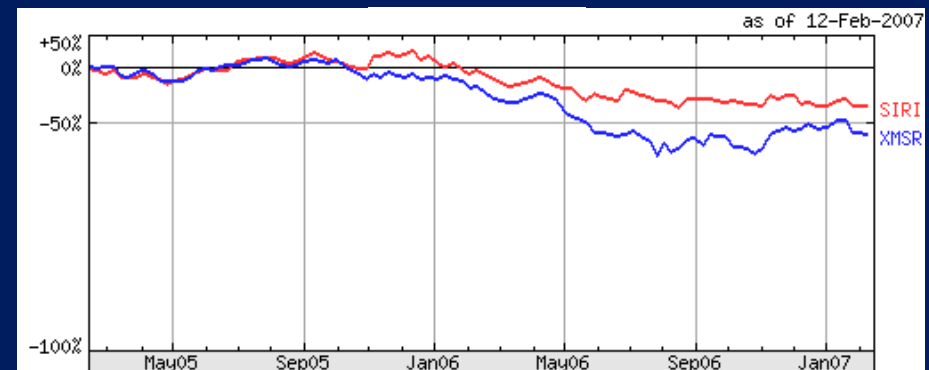
# DARS

- **Big Issue: Survival**
  - Stocks underperforming the market
  - SAC and churn have been climbing
  - Subscriber growth slowing faster than expected (e.g. XM 2006: 3 mm to 1.8 mm)
  - Royalty arbitration panel may add costs
- **Positive factors**
  - Over 13.5 million subs today
  - Subscribers love content, are loyal fans
  - Fewer high cost content buys expected
  - Good consumer price points
  - More OEM factory installs coming
  - Most efficient nationwide mobile audio solution
  - Analysts predict 26-35 million by 2010
  - Only two licensees
  - Cash flow breakeven predicted soon
- **Concerns**
  - iPods, MP3, internet radio, HD Radio, wireless broadband add competition



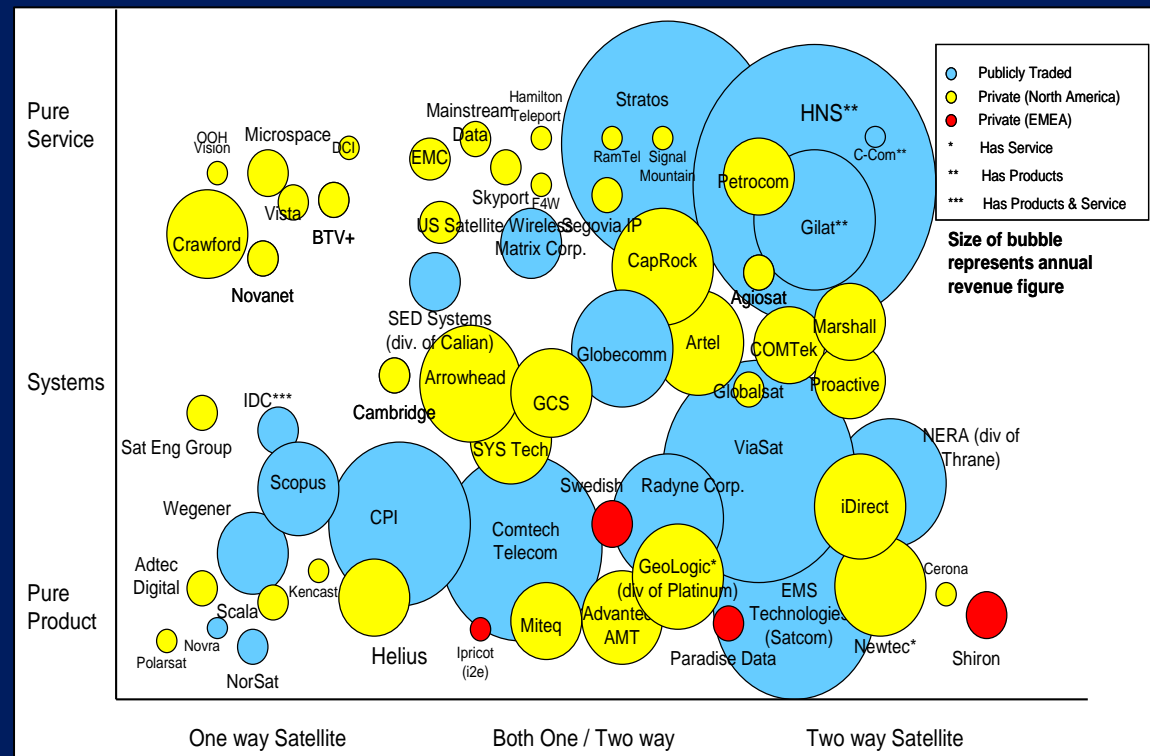
Source: Near Earth LLC Analysis

## XM vs. Sirius



# Satellite Ground Segment

- **Big issue: Fragmented Industry**
  - R&D heavy, light on sales/mkt'ing
  - Little pricing power
  - Narrow product/ service offerings
  - No economies of scale
  - Negative to single digit ROE's
- **Positive Factors**
  - Easy gains through consolidation
    - Need a two stage roll-up to achieve profitability then scale
  - Large Military/Gov't Needs
  - Many high growth applications
  - Emerging markets promise growth
- **Concerns**
  - Digital/IP convergence may blur space / terrestrial niches
    - Who will benefit more?
  - Fiber and wireless build-outs shrink satellite business and consumer niches
  - ROI too low to attract new capital, stock-stock transactions necessary





## *Investor Perception: Space is Hard*

- **Numerous unique risks**
  - Catastrophic risks: Launch or in-orbit failure
  - Higher business interruption / delay risks: launch delay, anomalies
  - Higher back-up costs: expensive in-orbit or ground spares
- **Investor logic:**
  - Hard enough to make money in space without adding competition in space
  - FSS had to start with Intelsat, MSS with Inmarsat
  - Today ---- 2 is a very big #
- **Industry sectors at or near 2:**
  - U.S. DBS: DirecTV & Echostar
  - U.S. DARS: XM Radio & Sirius
  - U.S. Remote Sensing: DigitalGlobe & GeoEye
- **Consolidating**
  - FSS: Intelsat & SES have 44.5% of GEOs
- **Needs to Consolidate**
  - MSS: Six ATC players is too many, need critical mass/spectrum
  - Ground equipment: significantly fragmented
  - Launch services: versus national interests to have capability
  - Satellite manufacturing: versus technology transfer issues



## *Investor Perception: No Longer "Rocket Science"*

- **Historically: space industry has achieved miracles**
  - Landed on the Moon
  - Brought media / telecom to most difficult areas of world
- **Today: Whiz-bang, Gee-Whiz factor is declining**
  - Satcom improved, but still mostly GEO transponders to dishes
  - Launch vehicles getting safer, but still based on same rocket technology
  - Moon was 1969....
  - Shuttle first launch 1981 (in service to 2010)
  - GPS was the mid to late 80s
  - DBS was mid 90s, DARS early 00's
- **Need a new round of innovation to excite investors**
  - Google Earth on steroids
  - New satellite technologies (e.g. small sats, virtual GEOs, lasercom links)
  - Phased array antennas in space and on ground
  - In orbit recovery, refueling and repair
  - Reusable launch vehicles
  - Most of all, industry needs to be relevant to high growth new media/telecom applications