

ARE YOU OVERLOOKING EMERGING MARKETS THAT CAN BE A NEW SOURCE OF REVENUE?

Sample Of NewSpace Sector Companies:

Destinations in Space



Bigelow Aerospace spent \$100 million through 2007 developing commercial space stations.

Transportation to Orbit



SpaceX spent \$100 million through 2007 to manufacture launch vehicles and crew and cargo capsules for commercial delivery to orbital destinations.

Sub-orbital Space Travel



VIRGINGALACTIC
ACCREDITED SPACE AGENT

Virgin Galactic is spending \$250 million through 2010 to become the world's first commercial spaceline.

TECHNOLOGIES REQUIRED FOR THE NEWSPACE SECTOR: WHICH WILL YOUR COMPANY PROVIDE?

1. Affordable heavy lift
2. Advanced structures
3. High acceleration, high life cycle, reusable in space main engine
4. Advanced power and propulsion
5. Cryogenic fluid management
6. Large aperture systems
7. Formation flying
8. High bandwidth communications
9. Entry, descent, and landing
10. Closed-loop life support and habitability
11. Extravehicular activity systems
12. Autonomous systems and robotics
13. Scientific data collection and analysis
14. Biomedical risk mitigation
15. Commercial spaceport technologies
16. Automated rendezvous and docking
17. In situ resource utilization

(Adapted From "The President's Commission on Implementation of United States Space Exploration Policy")

IS YOUR COMPANY GETTING ITS SHARE OF THE NEWSPACE SECTOR MARKET?

Distribution of Economic Activity, Earnings, and Jobs throughout Major U.S. Industry Sectors Generated by Commercial Space Transportation and Enabled Industries.

Industry Group	Economic Activity (\$000)	Earnings (\$000)	Jobs
Communications	\$ 23,904,287	\$ 3,587,617	55,465
Electronic and other electric equipment	\$ 19,407,938	\$ 4,739,384	79,487
Business services	\$ 6,352,940	\$ 2,811,196	73,522
Real estate	\$ 5,722,463	\$ 236,329	9,692
Wholesale trade	\$ 3,999,461	\$ 1,304,134	26,986
Hotels and other lodging places, amusement and recreation services, and motion pictures	\$ 3,506,159	\$ 1,251,642	38,285
Depository and nondepository institutions & security & commodity brokers	\$ 3,013,769	\$ 1,027,440	19,238
Health services	\$ 2,846,998	\$ 1,330,529	34,061
Retail trade	\$ 2,780,160	\$ 1,003,029	47,091
Miscellaneous services	\$ 2,380,062	\$ 783,694	33,206
Transportation	\$ 2,204,847	\$ 789,850	21,571
Construction	\$ 2,004,413	\$ 677,842	18,104
Chemicals and allied products and petroleum and coal products	\$ 1,626,372	\$ 261,283	3,171
Food and kindred products and tobacco products	\$ 1,558,981	\$ 186,990	4,992
Fabricated metal products	\$ 1,416,256	\$ 438,325	11,611
Insurance	\$ 1,286,692	\$ 428,097	9,370
Electric, gas, and sanitary services	\$ 1,252,636	\$ 205,268	2,510
Eating and drinking places	\$ 1,169,572	\$ 404,024	29,500
Printing and publishing	\$ 1,139,969	\$ 356,515	8,553
Primary metal industries	\$ 984,118	\$ 183,004	3,646
Industrial machinery and equipment	\$ 899,680	\$ 215,453	4,163
Rubber and miscellaneous plastic products and leather & leather products	\$ 789,545	\$ 178,824	4,882
Farm products and agricultural, forestry, and fishing services	\$ 746,102	\$ 195,139	9,906
Paper and allied products	\$ 636,540	\$ 122,617	2,601
Motor vehicles and equipment	\$ 574,429	\$ 77,535	1,236
Personal services	\$ 492,690	\$ 212,182	11,373
Other transportation equipment	\$ 409,776	\$ 94,281	1,551
Lumber and wood products and furniture and fixtures	\$ 388,580	\$ 83,693	2,712
Oil and gas extraction	\$ 338,791	\$ 47,365	535
Instruments and related products	\$ 308,475	\$ 83,848	1,292
Apparel and other textile products	\$ 205,943	\$ 47,486	1,937
Stone, clay, and glass products	\$ 187,423	\$ 46,347	1,040
Textile and mill products	\$ 176,875	\$ 32,659	1,039
Miscellaneous manufacturing industries	\$ 153,497	\$ 47,619	1,514
Coal mining	\$ 75,238	\$ 19,611	235
Metal mining and nonmetallic minerals, except fuels	\$ 54,211	\$ 13,564	273
Forestry and fishing products	\$ 29,857	\$ 3,327	98
Total	\$ 95,025,746	\$ 23,527,744	576,448

Source: FAA 2004



WANT TO KNOW HOW TO SELL TO THIS NEWSPACE MARKETPLACE?

Case Study: **New Jobs**
At Non-Space Companies



Environmental Tectonics Corporation (ETC) opened the National Aerospace Training and Research (NASTAR) Center in October 2007 to provide space flight training for the commercial space travel industry.

NASTAR will also support the training and research needs of the military and civil aviation communities.

ETC product lines include biomedical systems, entertainment technology, information systems, high performance composites, and more.

Case Study: **New Markets**
For Non-Space Companies



Masten Space Systems Spent
\$250,000 On Suppliers In 2007:

- Metals Superstore
- Orchard Supply and Hardware
- Flometrics
(fluid & thermodynamics engineering)
- Summit Racing
(high-performance auto parts)
- McMaster & Carr
(industrial supplier)
- Mfgquote.com
(The Global Manufacturing Marketplace)

SERVICES

- Review of NewSpace Sector
- Sell To The NewSpace Market
- Generate Leads
- Develop Opportunities
- Create Proposals
- Custom Research
- Custom Reports

ENDORSEMENTS

"Jeff has identified new markets for North Carolina companies, and he is a recognized expert at understanding the emerging commercial/defense space industry and how it will create new jobs and promote economic opportunities."

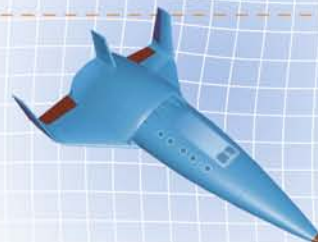
– *Dick Dell, Executive Director,
Advanced Vehicle Research Center*

"While Executive Director of the Space Frontier Foundation, Jeff developed extensive connections throughout the Federal, State, and business space communities, and he knows 90% of the NewSpace company CEO's."

– *Bob Werb, Chairman,
Space Frontier Foundation*

"Throughout my work on national aerospace programs, I've cited Jeff's excellent work in analyzing state industry clusters and comparing them to national economic data on commercial space transportation enabled industries. Jeff's results show that the space market extends far beyond the narrowly defined aerospace industry to include every sector of the economy. If you represent a non-space company and don't know how to approach this market, I strongly encourage you to talk with Jeff."

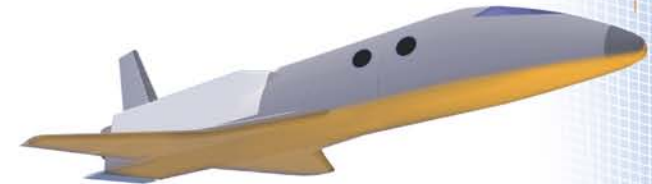
– *Troy Thrash, Executive Director,
National Aerospace Development Center*



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JEFF KRUKIN

NEWSPACE BUSINESS DEVELOPMENT



NewSpace Sector Business Opportunities

Is Your Company Getting Its Share?

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