

Contents

Acknowledgments	vii
About the Author	xi
Acronyms	xii
Author Note	xv
Foreword	xvii
1 Robert T. Bigelow, Orbital Real Estate Mogul	1
Bigelow: From Budget Suites to BEAM	1
The UFO Connection	3
Bigelow Aerospace	8
Space Ambitions	11
Can a Real Estate Guy Actually Do This?	15
2 Expandable Module Technologies	17
Inflatable Space Stations	18
Satelloons	20
Inflatable Space Stations: The Satelloon Legacy	22
Birth of TransHab	26
The Russian and European Inflatable Experience	32
TransHab: A Primer	35
3 TransHab Up Close	41
TransHab Nuts and Bolts	42
TransHab Level by Level	55
Testing	59
4 Genesis I and II	67
Genesis I	70
Genesis II	79
Towards Larger Modules	81

5	Bigelow Expandable Activity Module	87
	Advanced Exploration Systems	89
	Inflatable Spaceships.....	90
	BEAM.....	93
6	The Space Taxi Race	99
	Commercial Crew Concept.....	99
	Commercial Crew Programs	102
	Commercial Crew Programs Stalled.....	102
	Commercial Crew Options.....	107
	Boeing	109
	SpaceX	113
	Winning the Space Taxi Race	120
7	Bigelow’s Space Station	121
	Transforming Space	122
	BA-330 and Beyond.....	124
	Life Support	129
	Propulsion and Avionics.....	133
	Purposes	133
	Bigelow’s Business Case: It’s Not About Space Hotels!	134
	Looking After the Customers.....	136
	Waypoint 2 Space.....	138
	American Astronautics Institute.....	139
8	The Man Who Sold the Moon	141
	The Surface Endoskeletal Inflatable Module	143
	Lunar Base	148
	Asteroid Mission.....	150
	Mars Mission	151
	Epilog	155
	Appendix I	157
	Appendix II.....	163
	Index.....	179

Bigelow Aerospace

Colonizing Space One Module at a Time

Seedhouse, E.

2015, XIX, 182 p. 66 illus., 59 illus. in color., Softcover

ISBN: 978-3-319-05196-3