1. Record Nr. UNISA996466735803316 Autore Reneau Allyson Titolo Moon first and Mars second: a practical approach to human space exploration / / Allyson Reneau Pubbl/distr/stampa Cham, Switzerland: ,: Springer, , [2021] ©2021 **ISBN** 3-030-54230-0 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XVII, 104 p. 36 illus., 31 illus. in color.) Collana SpringerBriefs in space development Disciplina 629.45 Soggetti Manned space flight Astronautics and state - United States Moon Exploration Mars (Planet) Exploration Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Chapter 1: introduction and the importance of Focusing on the Moon -- Chapter 2: Understanding the Options for Human Exploration and Ultimate Colonization -- Chapter 3: The Advantages of the Moon in terms of Transportation, Fuel Expenditures, Access to Water, and Expense -- Chapter 4: The Advantages of the Moon in terms of Telecommunications and IT Services -- Chapter 5: The Advantages of the Moon in the Context of Near Instantaneous Support Services from Earth -- Chapter 6: Financial, Technical, Utility Infrastructure feasibility to creating a Lunar Colony/ Habitat versus doing so on Mars -- Chapter 7: Examining New Capabilities that could be Created and Tested on the Moon before seeking a Permanent Mars Presence -- Chapter 8: Planning for the Future -- Chapter 9: Conclusions and Next Steps --Appendix 1: Key Terms and Concepts -- Appendix 2: Space Policy Directive 1 -- About the Author -- Index. Sommario/riassunto This SpringerBrief explores the technological, economic, physiological,

and psychological comparisons between a journey to the Moon versus a

international perspectives at play. The author spent over six years interviewing leading space experts from around the world to learn why

journey to Mars, taking into consideration the national and

lunar habitats and the creation of a permanent presence on the Moon are an essential next step to human exploration and settlement in space. Practical reasons related to energy, telecommunications and networking, robotic systems, medical and scientific research, material processing, and more show why it must be the Moon First and Mars Second. These findings and recommendations have been adopted by current NASA Administrator Jim Bridenstine, as well as the current U. S. president. The research in this text reflects the author's experiences working internally within NASA Headquarters, the FAA Commercial Spaceflight Office, as well as the International Space University. It is partially based on Reneau's award-winning Harvard thesis in conjunction with her Master's in International Relations.