

**David A. Senske**

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***EDUCATION:***

Ph.D., Geological Sciences, 1993, Brown University, Thesis "Geology and Mechanisms for the Origin of Volcanic Rises in the Equatorial Region of Venus," 351 pp.

Sc.M., Geological Sciences, 1989, Brown University, Thesis "Geology of the Equatorial Region of Venus: A Comparison of Volcanic and Tectonic Styles Between the Equatorial Region and Northern High Latitudes," 164pp.

B.S., Geological Sciences, 1984, University of Arizona.

***PROFESSIONAL EXPERIENCE:***

Over 25 years of experience in geologic mapping and the interpretation of remote sensing image data of Venus, Ganymede, and Europa. Served as a science coordinator on the Galileo Solid State Imager (SSI), planning the acquisition of and the analysis of data from the Jupiter System. Managed science teams as a co-lead of numerous NASA Science Definition Teams and as NASA Program Manager and Deputy Project Scientist on the Mars Odyssey and Europa Clipper Missions.

- 2014-present **Deputy Project Scientist, Europa Mission.** In conjunction with the Project Scientist, ensure that the science objectives of the mission are defined. Interface with the engineering part of the project to generate mission scenarios, observation, and science system concepts. During formulation phase, generate Level-1 and Level-2 requirements for the selected payload. Serve as a member of Project Science Group. Manage and coordinate activities of Investigation Scientists. Provide briefings to members of Congress, their staff, NASA and JPL management. Present science and mission science reports at professional conferences.
- 2008-2014 **Deputy Study/Project Scientist, Jupiter Europa Orbiter (NASA component of the Joint NASA-ESA Europa Jupiter System Mission) and follow-on Europa Clipper mission study.** In conjunction with the Study/Project Scientist, ensure that the science objectives of the mission are defined. Serve as Deputy Study Scientist for the Europa Jupiter System Mission Science Definition Team. Interface with the technical part of the project to generate mission scenarios and observation concepts. Serve as an interface with the ESA Jupiter Ganymede Orbiter (JGO) science and technical teams. Participate in the generation of material in support of the NASA Announcement of Opportunity. Provide briefings to members of Congress, their staff, NASA and JPL management. Present science and mission science reports at professional conferences.
- 2003-2017 **Deputy Project Scientist, Mars Odyssey.** In conjunction with the Project Scientist, manage the science teams and activities associated with the Mars Odyssey Mission. Co-convene Project Science Group meetings, participate in investigation team meetings, and present science results at professional conferences. Co-lead the generation of extended mission proposals (1<sup>st</sup> through 5<sup>th</sup> extended missions). Present science results at NASA monthly and quarterly reviews.
- 2002-2014 **Program Manager for Science Research & Analysis.** Manage the development of planetary science research proposals in response to NASA Research Announcements (NRAs). Manage funds for awarded proposals. Support development of advanced mission concepts. Manage and provide oversight of JPL activities associated with the PDS Engineering, Imaging, and NAIF Nodes.
- 2000-2002 **Discipline Scientist, Planetary Geology & Geophysics Program.** Manage ~\$13 million Research and Analysis program funding a diverse array of investigations (Planetary Geophysics, Remotes Sensing--Mars, Venus, Moon, Mercury, Outer Planet Satellites, Small Bodies, Volcanology, Solar

System Dynamics). Generate solicitation for proposals included in the yearly NASA Research Announcement (NRA). Assemble and lead review panels for science and cartographic proposals. Lead proposal review process, generate recommendations for selection and funding. Implement distribution of funds to awardees.

- 2000-2002 **Program Scientist, Mars Reconnaissance Orbiter (MRO).** In cooperation with the Mars Program Lead Scientist, assemble Science Definition Team to define basic mission science requirements and associated instrumentation. Generate NASA Announcement of Opportunity to solicit science investigations. Participate in proposal Technical Management and Science Reviews and generate investigation selection material for Mars Program Lead Scientist. In cooperation with the MRO Project, generate Level-1 science requirements and Mission Success Criteria. Work with project/program executives, engineers, and investigators to ensure that mission design characteristics meet mission science requirements.
- 1994- **Science Data Analysis.** Funded investigator through the NASA Planetary Geology and Geophysics (PGG) and Jupiter System Data Analysis (JSDAP) Programs. Analysis concentrating on assessing the relation between volcanism and rifting on Venus. Geologic mapping and structural analysis of Ganymede and Europa. Presentation of science results at professional meetings, to the media, and the general public. Member of JPL/Arizona State University PIDDP science and engineering design team for a Venus aerobot imaging system. Participation in Discovery Mission proposals as a science Co- investigator.
- 1999-2000 **JPL Mission Science Support.** *Experiment Representative for the Mars Volatiles and Climate Surveyor (MVACS) experiment on the Mars '98 Polar Lander:* Ensure that the mission science objectives are met by providing a link between the science team and Project management. Assist in the development of instrument commanding sequences. *Science representative to the Marsnet Project;* Interact with the science community and engineers designing a constellation of telecommunication satellites. Define science requirements for navigational determination of surface assets and data downlink. *Science Support for Team-X:* Tasks include, (1) Meet with customers to establish science goals and priorities: (2) Generate tools to evaluate trades between spacecraft and telecommunication resources and science objectives, and (3) Interact with representatives for the other spacecraft sub-systems to ensure that the science goals are met.
- 1994-1999 **Science Coordinator, Galileo Solid State Imaging (SSI) System, Sterling Software/Jet Propulsion Laboratory.** Responsible for science observation sequence design and development for imaging Jupiter and its satellites. Tasks include, (1) interaction with investigators on the SSI team and with Science Coordinators for other instruments to negotiate observing time, (2) assemble spacecraft instrument observations designs and commands, (3) construct databases to account for spacecraft resources, and (4) perform computer modeling of SSI performance and data compression. Present science results to Project management.
- 1992-1994 **National Research Council Resident Research Associate, Jet Propulsion Laboratory,** advisor, Dr. R. S. Saunders. Research concentrating on geologic mapping of Venus to establish global-scale units, stratigraphy, and assess of the relationship between areas of mantle upwelling and global geologic patterns. Analysis of Magellan gravity data and geophysical modeling; comparison of the geophysical characteristics of hotspots on the Earth and Venus. Presentation of science results to the general public.
- 1986-1992 **Research and Teaching Assistant, Department of Geological Sciences, Brown University.** Analysis and geologic interpretation of radar data of Venus collected by the Arecibo, Pioneer Venus, Soviet Venera 15/16, and Magellan radar systems. Geologic mapping from radar images, concentrating on volcanic and rift structures; analysis of altimetry, surface roughness, reflectivity data, and analytical modeling of Magellan topography data and Pioneer Venus Line-of-sight (LOS) gravity data using the orbit simulation software, ORBSIM. Participate in Magellan mission planning including presentations to the Radar Investigators Group (RADIG). Presentation of lectures to introductory planetary geology and remote sensing classes. Teaching Assistant for introductory geology course, *Earth, Moon, and Mars.*

- 1989      **NASA/Goddard Space Flight Center Graduate Student Research Fellow.** Analysis of the geology of the equatorial region of Venus using Pioneer Venus radar data.
- 1988      **Visiting Scientist, National Astronomy and Ionosphere Center, Arecibo Observatory, Arecibo Puerto Rico.** Participate in the collection, processing, and interpretation of radar image data of Venus.
- 1985-1986      **Research Assistant, Woods Hole Oceanographic Institution, Woods Hole, MA.** Analysis of seismic reflection and refraction data; analytical modeling of seismic reflection profiles. Member of scientific crew on Ocean Drilling Program Leg 102 at a Deep Sea Drilling Project (DSDP) site southwest of Bermuda to collect seismic reflection, refraction, bathymetry, and borehole seismic data.
- 1985      **Geologic Field Assistant, USGS, Office of Marine Geology, Woods Hole, MA.** Responsible for the analysis and digitizing of marine seismic reflection data.

***NASA COMMITTEES:***

- 2015-2018      Co-chair Venera-D Science Definition Team
- 2010-2014      Deputy Study Scientist and Member of NASA's Europa Clipper Science Definition Team
- 2008-2010      Deputy Study Scientist and Member of NASA's Jupiter Europa Orbiter (JEO)/Europa Jupiter System Mission Science Definition Team
- 2008-2009      Co-Chair of NASA's Venus Flagship Science and Technology Definition Team
- 2007      Co-Chair of NASA's Jupiter System Observer (JSO) Science Definition Team
- 2002-2004      Member-NASA Jupiter Icy Moons Orbiter (JIMO) Science Definition Team
- 2001      NASA Mars Reconnaissance Orbiter (MRO) Science Definition Team
- 1998-2000      NASA Planetary Geology Management Operations Working Group (MOWG)
- 1997-1999      NASA Planetary Geology Planetary Cartography and Mapping Working Group (PCMWG)
- 1998-2000      NASA Planetary Geologic Mapping Committee (GEMS)
- 1997-1999      NASA Planetary Geology and Geophysics Review Panel, Group Chief of Venus Volcanology and Remote Sensing sub-panel

***HONORS AND AWARDS:***

- 2019      NASA Group Achievement Award, Europa Global Geologic Mapping Team
- 2015      NASA Group Achievement Award, Mars Odyssey Comet Siding Spring Operations Team
- 2013      NASA Group Achievement Award, MSL Relay Operations Team
- 2005      NASA Group Achievement Award, Jupiter Icy Moons Orbiter
- 2004      NASA Group Achievement Award, Mars Odyssey
- 1998-2000      Principal Investigator, NASA Jupiter System Data Analysis Program
- 1998      JPL, TAP Office Achievement Award, Babylonian Productions Affiliate Program
- 1998      NASA Group Achievement Award: Galileo Project Team
- 1997      NASA Group Achievement Award: Galileo Orbital Operations Recovery Team
- 1997      Co-Investigator, Exploration of Volcanoes and Atmosphere (VEVA) Discovery mission proposal
- 1997      Co-Investigator, Venus Environmental Satellite (VESAT) Discovery mission proposal
- 1994      NASA Group Achievement Award, Magellan Project, Gravity data collection.
- 1993      Editors' Citation for Excellence in Refereeing, JGR-Planets.
- 1992      NASA Group Achievement Award, Magellan Project.

***PROFESSIONAL ACTIVITIES:***

- 2015      Co-convener & session co-chairperson, AbSciCon, "The Habitability of Icy Worlds."
- Co-convener & session co-chairperson, AGU Session, "Scientific Investigations and Synergies in the Exploration of Europa" (oral and poster sessions)
- 2014      Meeting Co-convener, "The Habitability of Icy Worlds" Workshop.
- 2012      Mars Trace Gas Orbiter, HiSCI PDR Board member
- 2010      Convener & session co-chairperson, American Geophysical Union, "Science from Multispacecraft Observations: the Moon, Mars, and Jupiter."
- 2009      Convener, "Giant planet systems and interactions with the environments," European Planetary Science

- Congress,
- 2006 Session co-chairperson, "Exploration of the Frontier," ISTS Meeting
- 2006 Convener & session co-chairperson, "Odyssey: A New View of the Mars Surface," 37<sup>th</sup> Lunar and Planetary Science Conference
- 2006 Lunar and Planetary Science Conference Program Committee
- 2005 Convener, "Advances in Planetary Exploration," IAA Asia-Pacific Regional Conference
- 2004 Convener, American Geophysical Union, "New View of Mars and its Environment"
- 2003 Co-convener of the sessions, "Science Rationale for the Jupiter Icy Moons Orbiter Mission" and "Latest Results from Mars Odyssey," American Geophysical Union Meeting
- 1996-98 Lunar and Planetary Science Conference Program Committee
- 1998 Co-convener, 27<sup>th</sup> Vernadsky-Brown Microsymposium workshop on Venus Geological Mapping
- 1997 Session co-chairperson, "Galileo Mission Results: Overview and Io", 28<sup>th</sup> LPSC
- 1996 Session co-chairperson, "Venus Volcanism and Tectonism", 27<sup>th</sup> Lunar and Planetary Science Conference.
- 1995 Session co-chairperson, "Asteroids and Moons", 22<sup>nd</sup> Vernadsky/Brown Microsymposium, Moscow, Russia.
- 1993 Session Chairperson, "Planetary Surfaces", American Geophysical Union Fall meeting.
- 1992 Session Chairperson, "Mars and the Moon", American Geophysical Union Fall meeting.
- 1992 Session co-chairperson, "Problems in Lunar Studies and Petrogenesis", 16<sup>th</sup> Vernadsky/Brown Microsymposium, Moscow, Russia.
- 1991 Presentation of Magellan science results on "Magellan at Venus", NASA-Select Television.
- 1986- Member, American Geophysical Union.

#### ***INVITED LECTURES:***

- 2015 "Formation of Tessera terrain: Insight from the study of Tellus Regio," Moscow Solar System Symposium, Moscow, Russia
- 2014 "Advancing the understanding of the geology of Venus: An overview of key targets and observations," Venus Targets Workshop, Houston, TX.  
"Overview of the Europa Clipper Science Definition Team Meeting Invited Advisory Session on Potential Plume Measurements" and "The Europa Clipper (Science and Mission Overview)," Europa Plume Workshop, Ames Research Center
- 2006 "Results from the Mars Odyssey Mission," Presentation & Panel discussion, Moscow Institute of Physics Summer School, Moscow, Russia.
- 2006 "Mars: The Adventure of Exploring the Red Planet," Cal State Northridge, Northridge, CA
- 2006 "The Worlds of the Outer Solar System: Icy Moons of the Giant Planets," CSUN, Northridge, CA
- 2004 "Results from the Mars Odyssey Science Mission," Pardee Lecture, GSA meeting
- 1998 "Results from the Magellan Mission to Venus", Physics Colloquium, Cal. State Univ., Los Angeles, CA,
- 1997 "The Galileo Mission to Jupiter: Results from the first year of Orbital Operations," Physics Seminar, University of Oregon, Eugene, OR,
- 1996 "Europa! Water Discovered! Interplanetary Water Resources Evaluations for the Next Millennium...Are You Ready?" Keynote Speaker, 5<sup>th</sup> annual meeting of the Groundwater Resources Association, Costa Mesa, CA.
- 1995 "The Magellan Mission to Venus", Teachers Touch the Sky workshop, JPL, Pasadena, CA  
"Geology of Venus," Venus Unveiled Educator Conference, JPL, Pasadena, CA
- 1994 "Rifting, Volcanism, and Sites of Mantle Upwelling on Venus", Geology Colloquium, UCLA
- 1993 "The Magellan Mission to Venus: Results from Imaging and Gravity data", Martin Marietta Corp., Denver, CO
- 1993 "Results from the Magellan Mission to Venus", Ball Aerospace, Boulder, CO

#### ***FUNDED RESEARCH PROPOSALS:***

- 2003 "Geologic Studies of Venus and Jovian System Satellites," Planetary Geology and Geophysics Program
- 1999 "Geologic Mapping of Europa: Evaluation of Global and Regional-scale Stratigraphy and Structure," Jupiter System Data Analysis Program
- 1997 "Geology of the Tellus and Phoebe Regions, Venus: Stratigraphy and Characterization of Plains, Tessera and a Zone of Rifting and Extension," Planetary Geology and Geophysics Program
- 1997 "Volcanic and tectonic processes on the Icy Galilean Satellites: Geologic mapping and evaluation of stratigraphic relations on Europa", Jupiter System Data Analysis Program

1995 "Geologic Mapping of the Juno Dorsum Region (V-47), Venus," Planetary Geology and Geophysics Program

**PUBLICATION LIST FOR DAVID A. SENSKE**

**MAJOR NASA DOCUMENTS AND REPORTS***(Lead author or co-author):*

**2019**

Venera-D: Expanding our Horizon of Terrestrial Planet Climate and Geology through the Comprehensive Exploration of Venus: Phase II Report, 31 January 2019, 174 pages.

**2017**

Venera-D: Expanding our Horizon of Terrestrial Planet Climate and Geology through the Comprehensive Exploration of Venus, 31 January 2017, Senske, D. A., Zasova, L., et al., 93 pages.

**2012**

Europa Study 2012 Report, Europa Orbiter Mission, 1 May 2012, JPL D-71990 Task Order NMO711062 Outer Planets Flagship Mission, 174 pages.

Europa Study 2012 Report, Europa Multiple Flyby Mission, 1 May 2012, JPL D-71990 Task Order NMO711062 Outer Planets Flagship Mission, 215 pages.

Europa Study 2012 Report, Europa Lander Mission, 1 May 2012, JPL D-71990 Task Order NMO711062 Outer Planets Flagship Mission, 287 pages.

**2010**

Europa Jupiter System Mission (EJSM) Exploring the emergence of habitable worlds around gas giants, JPL D-67959, Task Order NMO711062, 15 November 2010, 261 pages.

**2009**

Venus Flagship Mission Study, final report of the Venus Science and Technology Definition Team, 292 pages, 2009.

**2007**

Jupiter System Observer. Mission Study: FINAL REPORT. Task Order # NMO710851. 01 November 2007. D-41284, 170 pages.

*Extend Mission Proposals (Proposal Lead and Lead editor):*

**2012**

2001 Mars Odyssey Fifth Extended Mission, Providing New Insight into the Composition and Dynamic Environment of Mars Prepared for the National Aeronautics and Space Administration, May 2012, 58 pages.

**2010**

2001 Mars Odyssey Fourth Extended Mission, *Prepared for the National Aeronautics and Space Administration*, February 2010, 66 pages.

**2008**

2001 Mars Odyssey Third Extended Mission, *Prepared for the National Aeronautics and Space Administration*, February 2008, 116 pages.

**2006**

2001 Mars Odyssey Second Extended Mission, *Prepared for the National Aeronautics and Space Administration*, April 2006, 104 pages.

*Reports*

**2014**

Cable, M. L., Beauchamp, P. M., Senske, D., Understanding Icy Worlds to Maximize Science Return on Future Missions, *Eos, Transactions American Geophysical Union*, Volume 95, Issue 28, pp. 256-256.

## **JOURNAL ARTICLES:**

**2021**

Leonard, E., Patthoff, D. A., **Senske, D.** Global Geologic Map of Europa, USGS, *in press* 2021.

Resor, P. G., M. S. Gilmore, B. Straley, **D. A. Senske**, et al., Felsic Tesserae on Venus Permitted by Lithospheric Deformation Models, *J. Geophys. Res.*, 10.1029/2020JE006642, 2021.

**2020**

Byrne, P. K., R. C. Ghail, M. S. Gilmore, A.M. Celâl Şengör, C. Klimczak, **D. A. Senske**, et al., Venus tesserae feature layered, folded, and eroded rocks, *Geology*, <https://doi.org/10.1130/G47940.1>, 2020.

**2013**

Pappalardo, R. T.; Vance, S.; Bagenal, F.; Bills, B. G.; Blaney, D. L.; Blankenship, D. D.; Brinckerhoff, W. B.; Connerney, J. E. P.; Hand, K. P.; Hoehler, T. M, Leisner, J. S., Kurth, W. S., McGrath, M. A., Mellon, M. T., Moore, J. M., Patterson, G. W., Prockter, L., **Senske, D. A.**, Schmidt, B. E., Shock, E. L., Smith, D. E., Soderlund, K. M., Science Potential from a Europa Lander, *Astrobiology*, vol. 13, issue 8, pp. 740-773, 2013.

**2006**

**Senske, D. A.**, J. J. Plaut, and the Mars Odyssey Team, Two Mars years of Science Operations: Results from the Mars Odyssey Mission, *Proceedings of the 25<sup>th</sup> ISTS*, 2006.

**2001**

Moore, J. M., Asphaug, E., Belton, M. J. S., Bierhaus, B., Breneman, H. H., Brooks, S. M., Chapman, C. R., Chuang, F. C., Collins, G. C., Giese, B., Greeley, R., Head, J. W., Kadel, S., Klaasen, K. P., Klemaszewski, J. E., Magee, K. P., Moreau, J. Morrison, D., Neukum, G., Pappalardo, R. T., Phillips, C. B., Schenk, P. M., **Senske, D. A.**, Sullivan, R. J., Turtle, E. P., Williams, K. K., Impact Features on Europa: Results of the Galileo Europa Mission (GEM), *Icarus*, 151, 93-111, 2001.

**2000**

Greeley, R., Collins, G. C., Spaun, N. A., Sullivan, R. J., Moore, J. M., **Senske, D. A.**, Tufts, B. R., Johnson, T. V., Belton, M. J. S., Tanaka, K. L., Geologic mapping of Europa, *JGR*, 105, 22559-22578, 2000.

Gierasch, P. J., Ingersoll, A. P., Banfield, D., Ewald, S. P., Helfenstein, P., Simon-Miller, A., Vasavada, A., Breneman, H. H., **Senske, D. A.**, Galileo Imaging Team, Observation of moist convection in Jupiter's atmosphere, *Nature*, 403, 628-630, 2000.

**1999**

Rages, K., R. Beebe, and **D. Senske**, Jovian Stratospheric Hazes: The High Phase Angle View from Galileo, 139, 211-226, *Icarus*, 1999.

Little, B., C. D. Anger, A. P. Ingersoll, A. R. Vasavada, **D. A. Senske**, H. H. Breneman, and W. J. Borucki, Galileo Images of Lightning on Jupiter, *Icarus*, 1999.

Klaasen, K. P., H. H. Breneman, W. F. Cunningham, J. M. Kaufman, J. E. Klemaszewski, K. P. Magee, A. S. McEwen, H. B. Mortensen, R. T. Pappalardo, **D. A. Senske**, R. J. Sullivan, A. R. Vasavada, Calibration and performance of the Galileo solid-state imaging system in Jupiter orbit, *Optical Engineering*, 38, 1178-1199, 1999.

**1998**

L. M. Prockter, J. W. Head, **D. A. Senske**, R. T. Pappalardo, G. Neukum, R. Wagner, U. Wolf, J. Oberst, B. Giese, J. Moore, C. R. Chapman, P. Helfenstein, R. Greeley, H. H. Breneman, and M. J. S. Belton, Dark Terrain on Ganymede: Geological Mapping of Galileo Regio at High Resolution, *Icarus*, 135, 317-344, 1998.

Simonelli, D. P., J. Veverka, D. A. Senske, F. P. Fanale, G. Schubert, M. J. S. Belton, Galileo Search for SO<sub>2</sub>-Frost Condensation on Io's Nightside, *Icarus*, 135, 166-174, 1998.

McEwen, L. Keszthelyi, P. Geissler, D. P. Simonelli, M. H. Carr, T. V. Johnson, K. P. Klaasen, H. H. Breneman, T. J. Jones, J. M. Kaufman, K. P. Magee, **D. A. Senske**, M. J. S. Belton, and G. Schubert, Active Volcanism on Io as Seen by Galileo SSI, *Icarus*, 135, 181-219, 1998.

Pappalardo, R. T., J. W. Head, G. C. Collins, R. L. Kirk, G. Neukum, J. Oberst, B. Giese, R. Greeley, C. R. Chapman, P. Helfenstein, J. M. Moore, A. McEwen, B. R. Tufts, **D. A. Senske**, H. H. Breneman, and K. Klaasen, Grooved Terrain on Ganymede: First Results from Galileo High-Resolution Imaging, *Icarus*, 135, 276-302, 1998.

Vasavada, A. R., A. P. Ingersoll, D. Banfield, M. Bell, P. J. Gierasch, M. J. S. Belton, G. S. Orton, K. P. Klaasen, E. DeJong, H. H. Breneman, T. J. Jones, J. M. Kaufman, K. P. Magee, and **D. A. Senske**, Galileo Imaging of Jupiter's Atmosphere: The Great Red Spot, Equatorial Region, and White Ovals, *Icarus*, 135, 265-275, 1998.

#### 1997

McEwen, A. S., D. P. Simonelli, **D. A. Senske**, K. P. Klaasen, L. Keszthelyi, T. V. Johnson, P. E. Geissler, M. H. Carr and M. J. S. Belton, High-Temperature Hot Spots on Io as seen by the Galileo Solid State Imaging (SSI) Experiment, *Geophys. Res. Lett.*, 1997.

Bender, K. C., **D. A. Senske**, and R. Greeley, Geologic Map of the Carson Quadrangle, Venus, USGS, 1997.

Tanaka, K. L., **D. A. Senske**, M. Price, and R. Kirk, Physiography, Geomorphic/Geologic Mapping and Stratigraphy of Venus, in press, *Venus II*, R. J. Phillips et al., eds., 1997.

Crumpler, L. S., J. C. Aubele, **D. A. Senske**, S. T. Keddie, K. P. Magee, and J. W. Head, Volcanoes and Centers of Volcanism on Venus, in press, *Venus II*, R. J. Phillips et al., eds., 1997.

#### 1996

Belton, M.J.S., J. W. Head, A. P. Ingersoll, R. Greeley, A. S. McEwen, K. P. Klaasen, **D. Senske**, R. Pappalardo, G. Collins, A. R. Vasavada, R. Sullivan, D. Sionelli, P. Geissler, M. H. Carr, M. E. Davies, J. Veverka, P. J. Gierasch, D. Banfield, M. Bell, C. R. Chapman, C. Anger, R. Greenberg, G. Neukum, C. B. Pilcher, R. F. Beebe, J. A. Burns, F. Fanale, W. Ip, T. V. Johnson, D. Morrison, J. Moore, G. S. Orton, P. Thomas, R. A. West, Galileo's First Images of Jupiter and the Galilean Satellites, *Science*, 377-385, 274, 1996.

#### 1995

Stofan, E. R., S. E. Smrekar, D. L. Bindschadler, and **D. A. Senske**, Large Topographic Rises on Venus: Implications for Mantle Upwelling, *Journal of Geophysical Research*, 100,2317-2327, 1995.

**Senske, D. A.**, Tectonism, in L. E. Roth and S. D. Wall ed., The Face of Venus The Magellan Radar Mapping Mission, NASA SP-520, 100-115, 1995.

#### 1993

**Senske, D. A** and E. R. Stofan, "Geologic Mapping on Venus", in J. P. Ford ed., *Guide to Magellan Image Interpretation*, JPL Publication 93-24, 135-140, 1993.

Stofan, E. R., **D. A. Senske**, and G. Michaels, "Tectonic Features" in J. P. Ford ed., *Guide to Magellan Image Interpretation*, JPL Publication 93-24, 93-108, 1993.

#### 1992

**Senske, D. A.**, G. G. Schaber, E. R. Stofan, Regional Topographic Rises on Venus: Geology of Western Eistla Regio and Comparison to Beta Regio and Atla Regio, *Journal of Geophysical Research*, 97, 13395-13420, 1992.

#### 1991

**Senske, D.**, D. Campbell, J. Head, P. Fisher, A. Hine, A. deCharon, S. Frank, S. Keddie, K. Roberts, E. Stofan, J. Aubele, L. Crumpler, and N. Stacy, Geology and Tectonics of the Themis Regio-Lavinia Planitia-Alpha Regio Area, Venus: Results from Arecibo Image Data, *Earth, Moon, and Planets*, 55, 97-161, 1991.



**Senske, D. A.**, D. B. Campbell, E. R. Stofan, P. C. Fisher, J. W. Head, N. Stacy, J. C. Aubele, A. A. Hine, and J. K. Harmon, Geology and Tectonics of Beta Regio, Guinevere Planitia, Sedna Planitia, and Western Eistla Regio, Venus: Results From Arecibo Image Data, *Earth, Moon and Planets*, 55, 163-214, 1991.

**Senske, D. A.**, J. W. Head, E. R. Stofan, and D. B. Campbell, Geology and Structure of Beta Regio, Venus: Results From Arecibo Radar Imaging, *Geophys. Research Letters*, 18, 1159-1162, 1991.

Campbell, D. B., **D. A. Senske**, J. W. Head, A. A. Hine, and P. C. Fisher, Venus Southern Hemisphere: Geologic Character and Age of Terrains in the Themis-Alpha-Lada Region, *Science*, 251, 180-183, 1991.

#### **1990**

**Senske, D. A.**, Geology of the Venus Equatorial Region From Pioneer Venus Radar Imaging, *Earth, Moon, and Planets*, 50/51, 305-327, 1990.

Ford, P. G. and **D. A. Senske**, The Radar Scattering Characteristics of Venus Landforms, *Geophys. Res. Lett.*, 17, 1361-1364, 1990.

#### **1989**

**Senske, D. A.** and R. A. Stephen, A Seismic Reflection Survey of DSDP Sites 417 and 418, in Salisbury, M. H., Scott, J. H., *et al.*, *Proceedings of the Ocean Drilling Program*, *Scientific Results*, 102: College Station, TX (Ocean Drilling Program), 3-17, 1989.

Sotin, C., **D. A. Senske**, J. W. Head, and E. M. Parmentier, Terrestrial Spreading Centers Under Venus Conditions: Application to Western Aphrodite Terra, *Earth and Planet. Sci. Lett.*, 95, 321-333, 1989.

Campbell, D. B., J. W. Head, A. A. Hine, J. K. Harmon, **D. A. Senske**, and P. C. Fisher, Styles of Volcanism on Venus: New Arecibo High Resolution Radar Data, *Science*, 246, 373-377, 1989.

## **ABSTRACTS:**

### **2021**

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