

## *Curriculum Vitae*

### **JOHN W. "JACK" HOLT**

University of Texas Institute for Geophysics  
John A. and Katherine G. Jackson School of Geosciences  
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#### **EDUCATION**

1997      Ph.D., Geology, California Institute of Technology  
            *Advisers: Joseph Kirschvink, Joann Stock*  
1993      M.S., Geology, California Institute of Technology  
1988      B.S., Electrical Engineering, Rice University

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#### **PROFESSIONAL POSITIONS**

2006 – pres    **Research Scientist**, Institute for Geophysics, University of Texas at Austin  
2008          **Lecturer**, Department of Geological Sciences, University of Texas at Austin  
April, 2008    **Visiting Professor**, Deep Springs College, CA  
2000 - 2006    **Research Associate**, Institute for Geophysics, University of Texas at Austin  
July, 2004      **Visiting Scholar**, University of Paris, Orsay  
2003          **Herbert J. Reich Professor of Natural Sciences**, Deep Springs College, CA  
1998 - 2000    **Research Scientist/Associate V**, Institute for Geophysics, Univ. of Texas  
1997 - 1998    **Postdoctoral Scholar**, Jet Propulsion Laboratory, Pasadena, CA  
1988 - 1990    **Member Technical Staff**, Jet Propulsion Laboratory, Pasadena, CA

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#### **FIELD EXPERIENCE**

2009 - 10      Antarctica: East Antarctic Ice Sheet and Dry Valleys, Expedition Co-Leader.  
2008 - 09      Antarctica: East Antarctic Ice Sheet, Expedition Co-Leader; airborne geophysics.  
2004 - 05      Antarctica: Amundsen Sea Embayment, Expedition Leader, airborne geophysics.  
2001 - 02      Antarctica: Dry Valleys, Ice Stream D, South Pole; airborne radar development.  
2000 - 01      Antarctica: Vostok; Expedition Leader, airborne geophysics.  
1999 - 00      Antarctica: Dome C, Ross Embayment; Expedition Leader, airborne geophysics.  
1998 - 99      Antarctica: Marie Byrd Land, S. Pole; Expedition Leader, airborne geophysics.  
1998          Amazon Basin, Brazil, airborne optical measurements for satellite calibration.  
1995 - 98      Baja California, Mexico, thesis research, class field trips.  
1990 - 97      Death Valley and Mojave Desert, thesis research, class field trips.  
1993          South Africa and Namibia, thesis research.  
1990          Belize, airborne SAR calibration deployment.  
1989          Scotland, airborne SAR calibration deployment.

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#### **AWARDS**

2009          NASA Group Achievement Award, SHARAD Radar Sounder Team  
2008          UT Jackson School of Geosciences Outstanding Research Award for 2008  
2001          Antarctic Service Medal  
1997 - 98      Caltech Post-Doctoral Scholar at JPL  
1992          Koons Field Research Fellowship, California Institute of Technology

*January, 2010*

1992	NASA Technical Achievement Award
1990	NASA Technical Achievement Award
1984 - 88	President's Honor Roll, Rice University
1984 - 88	National Merit Scholar

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## STUDENT SUPERVISION

Isaac Smith	Ph.D., Geophysics, supervisor, 2008 – present
Charles Brothers	Ph.D., Geophysics, co-supervisor, 2008 – present
Hunter Danque	M.S., Geophysics, co-supervisor, 2004-07.
Prateek Choudhary	Undergraduate Physics/EE Honors Thesis, 2008 – present
Sarah Christian	Undergraduate Honors Thesis, Bryn Mawr College, 2008 - present
Nanna Karlsson	Ph.D., Geology, visiting student from Hull University, 2009
Katherine Dlubac	Undergraduate Geophysics Honors Thesis, 2006-07.
Erick Leuro	Ph.D., Geophysics, member of thesis committee, 2005 – present
Irina Filina	Ph.D., Geophysics, member of thesis committee, 2004-08.
Kevin Carver	Undergraduate, Geology, research project, 2007.
Stephanie Mills	Undergraduate, Geology, research project, 2007.
Natasha Putman	Undergraduate (Huston-Tillotson), outreach project, 2006-07.
Tomoko Iwata	Undergraduate, Computer Science, Web outreach project, 2005-06.
Jeremy Krimmel	Undergraduate, Geology, Web outreach project, 2005-06.
Holden Hanna	Undergraduate, Geology, Web outreach project, 2004.
Brandon Johnson	Undergraduate, Geology, research project, 2003.

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## SERVICE

2009	Co-convener of the first University of Texas Planetary Science Symposium, October 2, 2009. 26 oral presentations, 54 participants.
2008	Taught Geology short-course at Deep Springs College, California, an underserved educational institution.
2007	Co-convener of international workshop: West Antarctic Links to Sea-level Estimation (WALSE), hosted by the Jackson School of Geosciences and the UK Consulate, March 25-28, 2007.  Co-chaired Planetary Radar Sounding session at Fall AGU meeting.  Member of NASA review panel, Planetary Instrument Development and Definition Program.
2004 – 2007	Developed physics and earth science high school educational materials with undergraduate education students and graduate geoscience students.
2003	Taught science courses to undergraduate students at Deep Springs College, an underserved educational institution, engaging them in field-based research

projects and exposing them to major research facilities (Owens Valley Radio Observatory, Jet Propulsion Laboratory, Caltech Paleomagnetism Laboratory.)

1998 - 2002 Project Manager of Support Office for Aerogeophysical Research (SOAR), an NSF facility. Managed the acquisition, reduction, and distribution of 100,000 line-km of airborne radar, laser altimetry, gravity, and magnetism data from Antarctica for 15 investigators at 10 institutions. Spent 10 months in Antarctica in support of these activities.

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## OUTREACH

2009 Public lecture at UT to over 500 people, "Icy Mysteries of Mars Revealed."  
2009 Lecture on Mars science to TXESS Revolution course (teacher training)  
2009 Leading role in ABC (Australia) documentary on Antarctic Science  
2009 Webcast video interview with San Francisco Exploratorium  
2008 Radio interview with Planetary Society  
2008 Numerous print articles on Mars glacier findings, including New York Times, Science News, London Times, Telegraph, Discover, etc.  
2003 - 07 NASA-funded Education and Public Outreach Project  
2006 Presentations to Matthews Elementary, Austin, TX; 3<sup>rd</sup> grade and kindergarten  
2005 BBC news article, *Antarctica's ice bottom exposed*, Dec. 6, 2005.  
2005 Guardian news article, *I'm a scientist, get me out of here*, Feb. 24, 2005  
2005 AAAS press conference, Feb. 18, 2005, Washington D.C.  
2004 Interview for Antarctic Sun article, published Dec. 26, 2004.  
2002 Classroom visit and talk, Martin Jr. High, Austin, Texas (8th grade).  
2001 - 02 Email dialogue from Antarctica with 6th grade class, Martin Jr. High.  
2001 Interview with Australian National Public Radio (Lake Vostok survey).

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## PROFESSIONAL SOCIETIES

American Geophysical Union  
International Airborne Geophysics Safety Association  
Aircraft Owners and Pilots Association

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## PUBLICATIONS (STUDENT AUTHORS UNDERLINED)

### In preparation

Choudhary, P., **J.W. Holt**, D.A Young, and S.D. Kempf, Modeling and analysis of surface topographic effects on the orbital radar sounding of Mars, in preparation for *IEEE Geoscience and Remote Sensing Letters*.

Christian, S., **J.W. Holt**, K. Fishbaugh, and P. Choudhary, The correlation of radar and optical stratigraphy in the northern polar layered deposits, Mars, in preparation for *Geophysical Research Letters*.

Karlsson, N.B., **J.W. Holt**, R.C.A. Hindmarsh, A test of past flow in the north polar layered deposits on Mars using internal radar stratigraphy, in preparation for *Geophysical Research Letters*.

**In review**

Quidelleur, X., **J.W. Holt**, T. Salvany, and H. Bouquerel, The double structure of the Réunion geomagnetic event based on new K-Ar ages from the type locality, massif de la Montagne, Réunion Island (Indian Ocean), *Geophysical Journal International*, in review.

**Published or In-Press**

**Holt, J.W.**, K.E. Fishbaugh, S. Byrne, S. Christian, K. Tanaka, P. Russell, K. Herkenhoff, A. Safaeinili, N. Putzig and R. Phillips, The Construction of Chasma Boreale on Mars, *Nature*, in press.

Smith, I.B. and **J.W. Holt**, Onset and migration of spiral troughs on Mars revealed by orbital radar, *Nature*, in press.

Nunes, C.N., S.E. Smrekar, A. Safaeinili, **J.W. Holt**, R.J. Phillips, R. Seu, Examination of Gully Sites on Mars with the Shallow Radar, *Journal of Geophysical Research*, doi:10.1029/2009JE003509, in press.

Carter, L., B.A. Campbell, **J.W. Holt**, R.J. Phillips, N.E. Putzig, S. Mattei, R. Seu, C.H. Okubo, A. Egan, Dielectric properties of lava flows west of Ascræus Mons, Mars, *Geophysical Research Letters*, *Geophys. Res. Lett.*, 36, L23204, doi:10.1029/2009GL041234, 2009.

Carter, S.P., D.D. Blankenship, D.A. Young, and **J.W. Holt**, Identifying the distribution and sources of subglacial water in radar-sounding data: Application to Dome C, East Antarctica, *Journal of Glaciology*, 55, 1025-1040, doi:10.3189/002214309790794931, 2009.

Jordan, T.A., F. Ferraccioli, D.G. Vaughan, **J.W. Holt**, H. Corr, D.D. Blankenship, T.M. Diehl, Aerogravity evidence for major crustal thinning under the Pine Island Glacier region (west Antarctica), *GSA Bulletin*, Vol. 122 (5/6), pp. 714-726; doi: 10.1130/B26417.1, 2010.

Joughin, I., S. Tulaczyk, J.L. Bamber, D. Blankenship, **J.W. Holt**, T. Scambos, D.G. Vaughan, Basal Conditions for Pine Island and Thwaites Glaciers Determined using Satellite and Airborne Data, *Journal of Glaciology*, 55, 245-257, doi:10.3189/002214309788608705, 2009.

Putzig, N.E., R.J. Phillips, B.A. Campbell, **J.W. Holt**, J.J. Plaut, L.M. Carter, A.F. Egan, F. Bernardini, A. Safaeinili, and R. Seu, Subsurface structure of Planum Boreum from Mars Reconnaissance Orbiter Shallow Radar soundings, *Icarus*, 204, 443-457, doi: 10.1016/j.icarus.2009.07.034, 2009

Carter, S.P., D.D. Blankenship, D.A. Young, M.E. Peters, **J.W. Holt**, and M.J. Siegert, Dynamic distributed drainage implied by the flow evolution of the 1996-1998 Adventure Subglacial Trench subglacial lake discharge, *Earth and Planetary Science Letters*, 283, doi: 10.1016/j.epsl.2009.03.019, 2009.

Plaut, J.J., A. Safaeinili, **J.W. Holt**, R.J. Phillips, J.W. Head, III, R. Seu, N.E. Putzig, and A. Frigeri, Radar evidence for ice in lobate debris aprons in the mid-northern latitudes of Mars, *Geophysical Research Letters*, 36, L02203, doi:10.1029/2008GL036379, 2009.

**Holt, J.W.**, A. Safaeinili, J.J. Plaut, J.W. Head, R.J. Phillips, R. Seu, S.D. Kempf, P. Choudhary, D. A. Young, N. Putzig, D. Biccari, Y. Gim, Radar sounding evidence for buried glaciers in the southern mid-latitudes of Mars, *Science*, Vol. 322 (5905), pp. 125-1238, doi: 10.1126/science.1164246, 2008.

Phillips, R.J., M.T. Zuber, S.E. Smrekar, ..., **J.W. Holt**, et al. (27 authors), Mars North Polar Deposits: Stratigraphy, Age, and Geodynamical Response, *Science*, Vol. 320, pp. 1182-1185, doi: 10.1126/science.1157546, 2008.

Young, D. A., S. D. Kempf, D. D. Blankenship, **J.W. Holt**, and D. L. Morse, New airborne laser altimetry over the Thwaites Glacier catchment, West Antarctica, *Geochemistry, Geophysics, Geosystems*, 9, Q06006, 2008.

Diehl, T. M., **J.W. Holt**, D. D. Blankenship, D. A. Young, T. A. Jordan, and F. Ferraccioli, First airborne gravity results over the Thwaites Glacier catchment, West Antarctica, *Geochemistry, Geophysics, Geosystems*, 9, Q0401, 2008.

Kirschvink, J. L., R. E. Kopp, T. D. Raub, C. T. Baumgartner, and **J.W. Holt**, Rapid, precise, and High-sensitivity acquisition of paleomagnetic and rock-Magnetic data: Development of a low-noise automatic sample changing system for superconducting rock magnetometers, *Geochemistry, Geophysics, Geosystems*, 9, Q05Y01, 2008.

Seu, R, R. J. Phillips, ..., **J.W. Holt**, et al. (52 authors), Accumulation and erosion of Mars south polar layered deposits from subsurface radar sounding, *Science*, 317 (5845), pp. 1715 - 1718, doi: 10.1126/science.1144120, 2007.

Carter, S.P., D.D. Blankenship, M.E. Peters, D.A. Young, **J.W. Holt**, and D.L. Morse, Radar-based subglacial lake classification in Antarctica, *Geochemistry, Geophysics, Geosystems*, 8, Q03016, doi:10.1029/2006GC001408, 2007.

Peters, M.E., D.D. Blankenship, S.P. Carter, D.A. Young, S.D. Kempf and **J.W. Holt**, Along-Track Focusing of Airborne Radar Sounding Data From West Antarctica for Improving Basal Reflection Analysis and Layer Detection, *IEEE Transactions On Geoscience and Remote Sensing*, 45(9), pp. 2725-2736, doi: 10.1109/TGRS.2007.897416, 2007

Peters, M.E., D.D. Blankenship, D.E. Smith, **J.W. Holt** and S.D. Kempf, The Distribution and Classification of Bottom Crevasses from Radar Sounding of a Large Tabular Iceberg, *IEEE Geoscience and Remote Sensing Letters*, 4 (1), p. 142-146, doi:10.1109/LGRS.2006.887057, 2007

**Holt, J.W.**, M.E. Peters, S.D. Kempf, D.L. Morse, and D.D. Blankenship, Echo Source Discrimination in Single-Pass Airborne Radar Sounding Data from the Dry Valleys, Antarctica: Implications for Orbital Sounding of Mars. *Journal of Geophysical Research*, 111, E06S24, doi:10.1029/2005JE002525, 2006.

**Holt, J.W.**, D.D. Blankenship, D.L. Morse, D.A. Young, M.E. Peters, S.D. Kempf, T.G. Richter, D.G. Vaughan, and H.F.J. Corr, New Boundary Conditions for the West Antarctic Ice Sheet: Subglacial Topography of the Thwaites and Smith Glacier Catchments. *Geophysical Research Letters*, 33, L09502, doi:10.1029/2005GL025561, 2006.

**Holt, J.W.**, T.G. Richter, S.D. Kempf, D.L. Morse, and D.D. Blankenship, Airborne gravity over Lake Vostok and adjacent highlands, East Antarctica, *Geochemistry, Geophysics, Geosystems*, 7, Q11012, doi:10.1029/2005GC001177, 2006.

**Holt, J.W.**, M.E. Peters, D.L. Morse, D.D. Blankenship, L.E. Lindzey, J.L. Kavanaugh, and K.M. Cuffey, Identifying and Characterizing Subsurface Echoes in Airborne Radar Sounding Data From a High-Clutter Environment in Taylor Valley, Antarctica, *Eleventh International Conference on Ground Penetrating Radar, 19-22 June, 2006, Columbus, Ohio*, 5 pp., 2006.

Vaughan, D.G., H.F.J. Corr, F. Ferraccioli, N. Frearson, A. O'Hare, D. Mach, **J.W. Holt**, D.D. Blankenship, D.L. Morse, and D.A. Young, New boundary conditions for the West Antarctic ice sheet: Subglacial topography beneath Pine Island Glacier, *Geophysical Research Letters*, 33, L09501, doi:10.1029/2005GL025588, 2006.

Filina, I.Y., D.D. Blankenship, L. Roy, M.K. Sen, T.G. Richter and **J.W. Holt**, Acquisition and analysis of airborne gravity data over subglacial lakes in East Antarctica, in: Futterer, D.K., D. Damaske, G. Kleinschmidt, H. Miller, F. Tessensohn, eds., *Antarctica: Contributions to Global Earth Sciences*, Springer Publishing House, Berlin Heidelberg New York, pp. 129-134, 2006.

Studinger, M., R.E. Bell, G.D. Karner, A.A. Tikku, **J.W. Holt**, D.L. Morse, T.G. Richter, S.D. Kempf, M.E. Peters, D.D. Blankenship, Ice cover, landscape setting, and geological framework of Lake Vostok, East Antarctica. *Earth and Planetary Science Letters*, 205(3-4): pp. 195-210, 2003.

Hess, L. L., E. M. L. M. Novo, D. M. Slaymaker, **J. Holt**, C. Steffen, D. M. Valeriano, L. A. K. Mertes, et al. 2002. Geocoded digital videography for validation of land cover mapping in the Amazon basin. *International Journal of Remote Sensing* 23, no. 7 (4): 1527-1555. doi:10.1080/01431160110092687.

Richter, T.G., **J.W. Holt**, and D.D. Blankenship, Airborne Gravimetry Over The Antarctic Ice Sheet, in *Proceedings of the International Symposium on Kinematic Systems in Geodesy, Geomatics and Navigation*, Banff, Canada, 2001.

**Holt, J.W.**, E.W. Holt, and J.M. Stock, An age constraint on Gulf of California rifting from the Boleo Copper District, Baja California Sur, Mexico, *GSA Bulletin*, v. 112(4), pp. 540-549, 2000.

Saatchi, S.S., B. Nelson, E. Podest, and **J. Holt**. 1999. Mapping land cover types in Amazon basin using 1 km JERS-1 mosaic. In *Geoscience and Remote Sensing Symposium, 1999. IGARSS '99 Proceedings. IEEE 1999 International*, 2:934-936 vol.2. doi:10.1109/IGARSS.1999.774490.

**Holt, J.W.**, J.L. Kirschvink and F. Garnier, Geomagnetic field inclinations for the past 400 kyr from the 1 km core of the Hawaii Scientific Drilling Project, *Journal of Geophysical Research*, 101 (B5), pp. 11,655-11,663, 1996.

**Holt, J.W.** and J.L. Kirschvink, The upper Olduvai reversal from Death Valley, California: A fold test of transitional directions, *Earth and Planetary Science Letters*, 133, pp. 475-491, 1995.

Quidelleur, X., **J. Holt**, and J.P. Valet, Confounding influence of magnetic fabric on sedimentary records of a field reversal, *Nature*, 374, pp. 246-249, 1995.

Kwok, R., E.J.M. Rignot, J. Way, A. Freeman and **J. Holt**, Polarization signatures of frozen and thawed forests of varying environmental state, *IEEE Transactions on Geoscience and Remote Sensing*, 32 (2), pp. 371-381, 1994.

**Abstracts and Other Non-Refereed Publications**

**(Note: Does not include all co-authored abstracts)**

Smith, I. B., J. W. Holt, and R. J. Phillips, New Insights into Spiral Trough Migration on the Northern Polar Layered Deposits from SHARAD Observations, *Eos. Trans. AGU*, Fall Meeting, Abstract P13B-1278, 2009.

**Holt, J. W.**, A. Safaeinili, Northern Polar Layered Deposits, Mars: Structural Relationships between Gemina Lingula, the Main Lobe and Chasma Boreale from SHARAD Radar Stratigraphy, *40<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 1721, 2009.

**Holt, J. W.**, T. G. Richter, D. A. Young, D. D. Blankenship, S. D. Kempf, D. M. Schroeder, J. M. Greenbaum, I. B. Smith, M. A. Siegert, A.P. Wright and T. van Ommen, Back to the Future: Mapping East Antarctica with the new UTIG-ICECAP long-range aerogeophysical platform, *Exploring Frontier Regions in East Antarctica During IPY and Beyond*, Cambridge, UK, March 19-20, 2009.

**Holt, J. W.**, Deciphering the Linked Histories of Gemina Lingula and Chasma Boreale with SHARAD Stratigraphy, *International Space Science Institute workshop "Are the Martian Polar Deposits a Rosetta Stone for Climate?"*, Bern, Switzerland, May 18 – 20, 2009.

Smith, I. B., J. W. Holt, S. W. Christian, A. Safaeinili, Evidence for Spiral Trough Migration and Evolution From SHARAD Radar Observations of Stratigraphy within the Northern Polar Layered Deposits, Mars, *40<sup>th</sup> Lunar and Planetary Science Conference*, Abstract 1423, 2009.

Chaudhary, K., J.M. Sharp, J.W. Holt, M.M. Al-Johar, T. Swanson, J. Greenbaum, J. Nowinski, V. Smith, and T. Brothers, Multiple Geophysical Methods for Identifying and Mapping Caves in the Recharge Zone of the Edwards Aquifer, Texas, *Geological Society of America South-Central Section 43rd Annual Meeting*, Paper No. 5-12, March 16-17, 2009.

Safaeinili, A., **J. Holt**, J. J. Plaut, L. Posiolova, R. Phillips, J. W. Head, R. Seu, New Radar Evidence for Glaciers in Mars Phlegra Montes Region, *40th Lunar and Planetary Science Conference*, Abstract 1988, 2009.

Plaut, J.J., **J.W. Holt**, A. Safaeinili, J.W. Head, R.J. Phillips, R. Seu, Radar evidence for ice in lobate debris aprons in the mid- latitudes of Mars, *Eos Trans. AGU*, 89(53), Abstract P44C-03 (Invited), 2008.

Carter, L. M., B. A. Campbell, **J. W. Holt**, R. J. Phillips, N. E. Putzig, C. H. Okubo, R. Seu, D. Biccari, SHARAD Observations of Lava Flow Fields West of Ascraeus Mons, *40th Lunar and Planetary Science Conference*, Abstract 1954, 2009.

Phillips, R.J., N. E. Putzig, J. W. Head, A. F. Egan, J. J. Plaut, A. Safaeinili, S. E. Smrekar, S. M. Milkovich, D. C. Nunes, B. A. Campbell, L. M. Carter, **J.W. Holt**, R. Seu, R. Orosei, Subsurface Structure of the South Polar Layered Deposits, Mars, *40th Lunar and Planetary Science Conference*, Abstract 2007, 2009.

Safaeinili, A., R. Phillips, N. Putzig, J. Plaut, R. Seu, D. Biccari, **J. Holt**, S. Smrekar, D. Nunes, Radar Detection of a Subsurface Horizon at the Phoenix Landing Site, *Eos Trans. AGU*, 89(53), Abstract P32B-06, 2008.

Putzig, N.E., R.J. Phillips, R. Seu, D. Biccari, A. Safaeiniil, **J.W. Holt**, J.J. Plaut, A.F. Egan, and the SHARAD Team, Subsurface Structure of Planum Boreum on Mars from Shallow Radar (SHARAD) Soundings, *Eos Trans. AGU*, 89(53), Abstract P41B-1374, 2008.

**Holt, J.W.**, A. Safaeinili, J. J. Plaut, D. A. Young, J.W. Head III, R. J. Phillips, B. A. Campbell, L. M. Carter, Y. Gim, R. Seu, SHARAD Team, Radar Sounding Evidence for Ice within Lobate Debris Aprons Near Hellas Basin, Mid-Southern Latitudes of Mars, *39th Lunar and Planetary Science Conference*, Abstract #2441, 2008.

Plaut, J.J., A. Safaeinili, **J.W. Holt**, R. J. Phillips, B. A. Campbell, L. M. Carter, C. Leuschen, Y. Gim, R. Seu, SHARAD Team, Radar Evidence for Ice in Lobate Debris Aprons in the Mid-Northern Latitudes of Mars, *39th Lunar and Planetary Science Conference*, Abstract #2290, 2008.

Orosei, R., M. Cartacci, A. Cicchetti, C. Federico, E. Flamini, A. Frigeri, **J.W. Holt**, L. Marinangeli, R. Noschese, E. Pettinelli, R. J. Phillips, G. Picardi, J. J. Plaut, A. Safaeinili, R. Seu, Radar Subsurface Sounding Over the Putative Frozen Sea in Cerberus Palus, Mars, *39th Lunar and Planetary Science Conference*, Abstract #1866, 2008.

Putzig, N.E., R. J. Phillips, **J. W. Holt**, A. Safaeinili, J. J. Plaut, S. E. Smrekar, R. Seu, D. Biccari, B. A. Campbell, L. M. Carter, A. F. Egan, E. Giacomoni, F. Russo, M. Cutigni, O. Fuga, SHARAD Team, Stratigraphic Mapping of the North Polar Layered Deposits on Mars from Radar Soundings, *39th Lunar and Planetary Science Conference*, Abstract #2355, 2008.

Phillips, R.J., M. T. Zuber, S. E. Smrekar, P. S. Mohit, N. E. Putzig, M. T. Mellon, R. Seu, D. Biccari, B. A. Campbell, J. J. Plaut, A. Safaeinili, L. M. Carter, **J. W. Holt**, SHARAD Team, The Geodynamical End Game for Mars: Sounding Radar Constraints on the Present Thermal State, *39th Lunar and Planetary Science Conference*, Abstract #1493, 2008.

Carter, L.M., B. A. Campbell, T. R. Watters, R. Seu, R. J. Phillips, D. Biccari, **J. W. Holt**, C. Leuschen, J. J. Plaut, A. Safaeinili, R. Orosei, S. E. Smrekar, N. E. Putzig, A. F. Egan, F. Bernardini, SHARAD Team, SHARAD Sounding Radar Observations of the Medusae Fossae Formation, Mars, *39th Lunar and Planetary Science Conference*, Abstract #1721, 2008.

Nunes, D.C., S. E. Smrekar, R. Seu, R. J. Phillips, D. Biccari, B. A. Campbell, **J. W. Holt**, C. Leuschen, J. J. Plaut, A. Safaeinili, R. Orosei, N. E. Putzig, A. Egan, Probing the Ismenius Region of the Martian Dichotomy Boundary with SHARAD, *39th Lunar and Planetary Science Conference*, Abstract #2518, 2008.

**Holt, J.W.**, Geophysics on Ice: Antarctica, *FastTIMES: News for the Near-Surface Geophysical Sciences*, Environmental & Engineering Geophysical Society, Vol. 12 (4), 27-32, December 2007.

Holt, J.W., A. Safaeinili, N. Putzig, R. Phillips, K. Carver, P. Choudhary, S. Mills, J.J. Plaut, S. Byrne, D. Biccari, New Insights into Gemina Lingula of the Northern Polar Layered Deposits, Mars from SHARAD Observations, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract P42A-08 (Invited), 2007.

Holt, J.W., D.D. Blankenship, H.F. Corr, J.J. Plaut, A. Safaeinili, Radar Stratigraphy of Ice on Earth and Mars: What are we Missing? An Evaluation of Multiple Radars and Processing Techniques, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract P11B-0547, 2007.

Winebrenner, D.P., J.W. Holt, A. Safaeinili, M.R. Koutnik, E.D. Waddington, A.V. Pathare, S. Byrne, B.M. Murray, A Test for Past Ice Flow in the Martian North Polar Layered Deposits Based on Observed Radar Stratigraphy, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract P33A-1012, 2007.

Dlubac, K.I., J. Holt, and M. Peters, A ground-penetrating radar survey over Flint Ridge Cave, Austin, Texas for karst aquifer recharge studies, *Geological Society of America Abstracts with Programs*, Vol. 39, No. 3, p. 58, 2007.

Holt, J.W., D.D. Blankenship, F. Ferraccioli, D.G. Vaughan, D.A. Young, S.D. Kempf, and, T.M. Diehl, *New Aeromagnetic Results from the Thwaites Glacier Catchment, West Antarctica*, Extended Abstract 153, in *Antarctica: A Keystone in a Changing World—Online Proceedings for the Tenth International Symposium on Antarctic Earth Sciences Santa Barbara, California, U.S.A.—August 26 to September 1, 2007* Edited by Alan Cooper, Carol Raymond, and the ISAES Editorial Team, DOI: 10.3133/of2007-1047, <http://pubs.usgs.gov/of/2007/1047/ea/of2007-1047ea153.pdf>, 2007.

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