

## CURRICULUM VITAE

**NAME**                      **Coerte V. Voorhies**                      (born 1956; married, two children)

**POSITION**                      **Geophysicist**  
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**RESEARCH AREA & EXPERIENCE**                      Geophysics, geomagnetism and planetary magnetism; core flow estimation, core dynamics, statistical MHD; magneto-spectral analysis and magnetic probing of planetary geodynamics; plasma physics, gamma-ray spectroscopy, meteorology.

**EDUCATION**                      1984 - Ph.D. University of Colorado; Department of Astrophysical,  
   Planetary & Atmospheric Sciences  
   *Thesis: Magnetic Location of Earth's Core-Mantle Boundary and Estimates of the Adjacent Fluid Motion*  
   1978 - B.S. Harvey Mudd College; Physics (astrophysics & geophysics)

**PREVIOUS POSITIONS**                      1984-1986 NRC Resident Research Associate at GSFC  
   1980-1984 Research Assistant, Geomagnetism, University of Colorado  
   1978-1980 Teaching Assistant, Earth Sciences, University of Colorado  
   1977                      Research Assistant, Plasma Physics, Harvey Mudd College  
   1974-1975 Technical Assistant, Gamma Ray Spectroscopy, JPL  
   1973                      Summer Assistant, Department of Meteorology, UCLA

**NOTABLES**                      Associate Editor: Journal of Geophysical Research-Solid Earth, 1993-1996.  
   Member: American Geophysical Union, Ørsted International Science Team,  
   Inter. Assoc. of Geomag. and Aeron., Sci. Res. Soc. of N. America.  
   Awards: 2002, 2001, 2000, 1999, 1995, 1994 NASA Performance Awards; 1993  
   NASA Special Act Group Award; 1990 NASA Special Service Award;  
   1974-1978 Southern California Edison Scholar, 1974 NMS and CGS.

## **PEER-REVIEWED PUBLICATIONS**

Voorhies, C.V., Thickness of the magnetic crust of Mars, to appear in *J. Geophys. Res.*, 2008.  
Voorhies, C.V., A geomagnetic estimate of mean paleointensity, *J. Geophys. Res.*, *111*, B11105, doi:10.1029/2005JB003874, 2006.

- Voorhies, C.V., Narrow-scale flow and a weak field by the top of Earth's core: Evidence from Ørsted, Magsat, and secular variation, *J. Geophys. Res.*, *109*, B03106, doi:10.1029/2003 JB002833, 2004.
- Voorhies, C.V., Correction to Ibid, *JGR*, *109*, B03106, doi:10.1029/2004JB003289, 2004.
- Voorhies, C.V., T.J. Sabaka, and M. Purucker, On magnetic spectra of Earth and Mars, *J. Geophys. Res.*, doi:10.1029/2001/JE001534, 04 June 2002.
- Olsen, N., & 25 co-authors, Ørsted initial field model, *Geophys. Res. Lett.*, *27*, 3607-3610, 2000.
- Purucker, M., D. Ravat, H. Frey, C. Voorhies, T. Sabaka, and M. Acuna, An altitude-normalized magnetic map of Mars, *Geophys. Res. Lett.*, *27*, 2449-2452, 2000.
- Voorhies, C.V., Inner core rotation from geomagnetic westwards drift and a stationary spherical vortex in Earth's core, *Phys. Earth Planet. Inter.*, *112*, 111-123, 1999.
- Voorhies, C.V., Time-varying fluid flow at the top of Earth's core derived from Definitive Geomagnetic Reference Field models, *J. Geophys. Res.*, *100*, 10,029-10,039, 1995.
- Voorhies, C.V., and M. Nishihama, Simultaneous solution for core magnetic field and fluid flow beneath an electrically conducting mantle, *J. Geophys. Res.*, *99*, 6685-6693, 1994.
- Voorhies, C.V., Geomagnetic estimates of steady surficial core flow and flux diffusion: unexpected geodynamo experiments, in Dynamics of Earth's Deep Interior and Earth Rotation, *Geophys. Monogr. Ser.*, *72*, edited by J.-L. LeMouél, D. E. Smylie, and T. Herring, pp. 113-125, AGU, Washington, D. C., 1993.
- Hide, R., R.W. Clayton, B.H. Hager, M.A. Speith, and C.V. Voorhies, Topographic core-mantle coupling and fluctuations in Earth's rotation, in Relating Geophysical Structures and Processes: The Jefferys Volume, *Geophys. Monogr. Ser.*, *76*, edited by K. Aki and R. Dmowska, pp. 107-120, AGU, Washington, D. C., 1993.
- Voorhies, C.V., Coupling an inviscid core to an electrically insulating mantle, *J. Geomagn. Geoelectr.*, *43*, 131-156, 1991.
- Benton, E.R., and C.V. Voorhies, Testing recent geomagnetic field models via magnetic flux conservation at the core-mantle boundary, *Phys. Earth Planet. Inter.*, *48*, 350-357, 1987.
- Voorhies, C.V., The time-varying geomagnetic field, *Rev. Geophys.*, *25*, 929-938, 1987.
- Voorhies, C.V., Steady surficial core motions: an alternate method, *Geophys. Res. Lett.*, *13*, 1537-1540, 1986b.
- Voorhies, C.V., Steady flows at the top of Earth's core derived from geomagnetic field models, *J. Geophys. Res.*, *91*, 12,444-12,466, 1986a.
- Voorhies, C.V., and G. E. Backus, Steady flows at the top of Earth's core from geomagnetic field models: the steady motions theorem, *Geophys. Astrophys. Fluid Dyn.*, *32*, 163-173, 1985.
- Voorhies, C.V., "Magnetic Location of Earth's Core-Mantle Boundary and Estimates of the Adjacent Fluid Motion", Ph.D. thesis, University of Colorado, 348 pages, 1984.
- Voorhies, C.V., and E. R. Benton, Pole strength of the earth from Magsat and magnetic determination of the core radius, *Geophys. Res. Lett.*, *9*, 258-261, 1982.

### NASA TECHNICAL PUBLICATIONS

- Voorhies, C., Elementary Theoretical Forms for the Spatial Power Spectrum of Earth's Crustal Magnetic Field, NASA Tech. Paper 1998-208608, 38 pp, Dec. 1998.

- Voorhies, C.V., and J. Conrad, Accurate Predictions of Mean Geomagnetic Dipole Excursion and Reversal Frequencies, Mean Paleomagnetic Field Intensity, and the Radius of Earth's Core Using McLeod's Rule, NASA Tech. Memo. 104634, 35 pp, April 1996.
- Voorhies, C.V., Steady Induction Effects in Geomagnetism Part IC: Geomagnetic Estimation of Steady Surficial Core Motions - Application to the Definitive Geomagnetic Reference Field Models, NASA Tech. Paper 3272, Part IC, 25 pp, Oct. 1993.
- Voorhies, C.V., and M. Nishihama, Simultaneous Solution for Core Magnetic Field and Fluid Flow Beneath and Electrically Conducting Mantle, NASA Tech. Memo. 4536, 13 pp, Sept. 1993.
- Voorhies, C.V., Steady Induction Effects in Geomagnetism Part IB: Geomagnetic Estimation of Steady Surficial Core Motions - A Non-Linear Inverse Problem, NASA Tech. Paper 3272, Part IB, 22 pp, April 1993.
- Voorhies, C.V., Steady Induction Effects in Geomagnetism Part IA: Steady Motional Induction of Geomagnetic Chaos, NASA Tech. Paper 3272, Part IA, 28 pp, Sept. 1992.
- Voorhies, C.V., R.A. Langel, J. Slavin, E.R. Lancaster, and S. Jones, Preliminary Calibration Plan for the Advanced Particle and Fields Observatory (APAF) Magnetometer Experiment, NASA Tech. Memo. 104545, 78pp, July 1991.
- Voorhies, C.V., On the Joint Inversion of Geophysical Data for Models of the Coupled Core Mantle System, NASA Tech. Memo 104536, 24pp, Mar. 1991.

### **OTHER MAJOR PUBLICATION**

- Voorhies, C.V., Narrow Scale, Weak Field Flow by the Top of Earth's Core: Evidence from Oersted, Magsat and Secular Variation (SV); OIST-4 Proceedings, 4'Oersted International Science Team Conference, Copenhagen 23-27 September, 2002, P. Stauning et al., Editor; ISSN 0905-3262, ISBN 87-7478-484-6 (on line ISSN 1399-1949); Narayana Press, Danish Meteorological Institute, Lyngbyvej 100, DK-2100, 2003.

### **ADDITIONAL INFORMATION**

#### **Sample of Scientific Symposia Convened and/or Chaired**

- Convenor: Observation and Analysis of Secular Variation on Time Scales of Up to 100 Years (GA1.1), International Union of Geodesy and Geophysics (IUGG) XIX General Assembly (Vancouver, BC, Canada), 1987.
- Convenor: Core Properties, Processes, and Core-Mantle Interactions (U21B), American Geophysical Union (AGU) Spring Meeting (Baltimore, MD), 1989.
- Convenor: Observational Constraints on Planetary Dynamo Theories (GA1.5), IAGA Sixth Scientific Assembly (Exeter, UK), 1989.
- Presiding: SEDI Time-Variations and Spatial Variations (GP51A), AGU Spring Meeting (Baltimore, MD), 1991.
- Convenor: Analysis of Satellite Scalar Magnetic Data (GAM 5.15), IUGG XX General Assembly (Vienna, Austria), 1991.
- Convenor: Geomagnetic Secular Variation Analysis, Interpretation and Origin (joint GA1.2 & 5.15, IAGA Seventh Scientific Assembly (Buenos Aires, Argentina - unable to attend), 1993.

Convenor: Geomagnetic Field and Paleovariations (GP11A), AGU Spring Meeting (Baltimore, MD), 1994.

Convenor: Space Age Geomagnetism: A Tribute to Dr. Robert A. Langel (GP22A,GP31A), AGU Spring Meeting (Baltimore, MD), 1997.

Convenor: Combined Sessions GD2 “The Geodynamo, Core-Mantle Interactions and the Evolution of the Earth” and GD10 “Geomagnetic Testing of Core Geodynamic Hypotheses”, Joint EGS-AGU-EGU Assembly (Nice, France), Spring 2003.

Convenor: Geodynamics and Statistical Properties of Terrestrial and Planetary Magnetic Fields I and II (GP23A & GP33A; Co-Sponsors: Geomagnetism & Paleomagnetism, Planetary Sciences & Study of Earth’s Deep Interior). AGU Fall Meeting (San Francisco, CA), 2007.

### **Invited Presentations (needs update)**

Voorhies, C.V., On the validity of the dual source-free mantle - frozen-flux core approximation (invited), *Trans. Am. Geophys. Un.*, 67, 263, 1986.

Voorhies, C.V., Some non-linear aspects of geomagnetic secular variation and topographic core-mantle coupling (invited), Non-linear Dynamics of Rotating Magnetic Systems Conference, University of California at Los Angeles, August 4-8, 1987.

Voorhies, C.V., A review of the use of satellite data in magnetic field modeling and the uses of those models (invited), *Ibid.*, 688, 1987.

Voorhies, C.V., Magnetic probing of planetary core motions? Steady induction theorems for giant planets (invited), *Trans. Am. Geophys. Un.*, 71, 490, 1990.

Voorhies, C.V., Induction Effects in Terrestrial Magnetism Revisited (invited), *Trans. Am. Geophys. Un.*, 75, No. 16 Supp., 72, 1994.

Voorhies, C.V., Time-varying flows at the top of Earth’s core derived from Definitive Geomagnetic Reference Field models (invited), Fourth SEDI Symposium (Whistler Mountain, BC) Abstract Book, 121, 1994.

Invited to address the session “Magnetic Lithospheres of Earth and Mars” at the Spring 2003 EGS-AGU-EUG Joint Assembly in Nice, France, but unable to attend.

### **Scientific Research Proposals To NASA Headquarters**

CoI, Core Fluid Motions/Magnetic Field Modeling; 1987; selected & funded, FY 1988-1991.

PI, Geomagnetic Modeling of Core Fluid Motions, 1991; selected & funded 1992-1994.

PI, Geomagnetic Investigation of Core Fluid Dynamics, 1994; selected & funded 1995-1997.

PI, Analysis & Interpretation of Satellite Magnetic Data, 1997; selected & funded FY 1998-2001.

PI, Magnetic Spectrum of Mars: Analysis & Interpretation, 2001; selected & funded FY 2001.

PI, Magnetic Spectrum of Mars: Analysis & Interpretation, 2002; funded FY2003.

PI, Geomagnetic Probing of Core Geodynamic Processes, 2002; funded FY2004.

PI, Magnetic Spectrum of Mars: Analysis & Interpretation, 2003; selected & funded FY2004-05.

Magnetic Probing of Core Geodynamics, 2005; Magneto-Spectral Analysis and Geophysical Interpretation of Mars Magnetic Data, 2005; Expectation Magnetic Spectra for Mercury and Jupiter, 2006; Origins of the Magnetic Crust of Mars, 2007; Planetary Magnetic Spectra for Mercury and Jupiter, 2007; Magnetic Probing of Core Geodynamics, 2007.

### **Mission Proposals, Studies and Science**

Oersted, launched 2/23/99 (Member Oersted International Science Team, 1995 - present)  
CHAMP, launched 7/15/00 (Selected CHAMP Co-Investigator, 2001- )  
Mars Orbit and Near Surface Gradiometer, 2001 (Active Participant)  
Gravity and Magnetic Earthprobe Studies, 1992-1994 (Active Participant)  
Advance Particles and Fields Observatory, 1990-1991 (Co-Investigator)  
Geomagnetic Observing System Experiment, 1988-1991 (Co-Investigator)  
Tethered Equatorial Magnetometer, 1988 (Co-Investigator)  
Electric and Magnetic Field Small Explorer Mission, 1988-1989 (Co-Investigator)  
Magnetic Field Explorer/MAGNOLIA, 1986-1988 (Active Participant)

### **PUBLISHED ABSTRACTS OF PRESENTATIONS**

#### **1983-1986**

Benton, E.R., and C.V. Voorhies, Evaluation of geomagnetic field models based on the absence of flux diffusion in the core and conduction in the mantle, *Trans. Am. Geophys. Un.*, 64, 213, 1983.  
Voorhies, C.V., and E.R. Benton, Steady flows at the top of Earth's core derived from geomagnetic field models, *Ibid.*, 1983.  
Voorhies, C.V., Magnetic estimates of the fluid velocity at the top of Earth's core, *Trans. Am. Geophys. Un.*, 65, 870, 1984.  
Voorhies, C.V., Some anticipated contributions to core fluid dynamics from GRM, Geopotential Research Mission Science Conference Abstracts, University of Maryland, 1984.  
Voorhies, C.V., On understanding secular variation, *Trans. Am. Geophys. Un.*, 66, 253, 1985.  
Benton, E.R., and C.V. Voorhies, Assessment of IGRF candidate models from the viewpoint of magnetic flux conservation, IAGA Fifth General Assembly (Prague, CZ) Programme and Abstracts, 1, 156, 1985.  
Voorhies, C.V., and E.R. Benton, Steady velocity fields at the core-mantle boundary from geomagnetic field models, *Ibid.*, 157, 1985.  
Voorhies, C.V., On the validity of the dual source-free mantle - frozen-flux core approximation (*invited*), *Trans. Am. Geophys. Un.*, 67, 263, 1986.  
Voorhies, C.V., Steady pseudo-geostrophic flows at the top of earth's core, *Ibid.*, 1986.  
Speith, M.A., R. Hide, R.W. Clayton, B.H. Hager, and C.V. Voorhies, Topographic coupling of core and mantle and changes in the length of day, *Trans. Am. Geophys. Un.*, 67, 908, 1986.

#### **1987-1990**

Voorhies, C.V., Topographic core-mantle coupling and changes in the geomagnetic axial dipole and the length of the day, *Trans. Am. Geophys. Un.*, 68, 293, 1987.  
Voorhies, C.V., Some non-linear aspects of geomagnetic secular variation and topographic core-mantle coupling (*invited*), Non-linear Dynamics of Rotating Magnetic Systems Conference, University of California at Los Angeles, August 4-8, 1987.  
Voorhies, C.V., Separating steady flux diffusion from steady motional induction: a kinematic corollary to the steady motions theorem, IUGG XIX General Assembly (Vancouver, BC) Abstracts 2, 436, 1987.  
Voorhies, C.V., Steady surficial core motions: a non-linear inverse problem, *Ibid.*, 437, 1987.

- Voorhies, C.V., A review of the use of satellite data in magnetic field modeling and the uses of those models (*invited*), *Ibid.*, 688, 1987.
- Voorhies, C.V., Geomagnetism, the electrical conductivity of the D", and tangentially geostrophic, pseudo-steady surficial core motions, *Trans. Am. Geophys. Un.*, 68, 1482, 1987.
- Voorhies, C.V., Probing core surface motions with DGRF models, *Trans. Am. Geophys. Un.*, 69, 336, 1988.
- Voorhies, C.V., Steady and piecewise steady geostrophic surficial core motions from Definitive Geomagnetic Reference Field models, First Study of Earth's Deep Interior (SEDI) Symposium (Blanes, Spain) Program and Abstracts, 38, 1988.
- Voorhies, C.V., Joint inversion of geophysical data (MERGES), *Ibid.*, 39, 1988.
- Voorhies, C.V., Some effects of a persistent core surface flow, *Trans. Am. Geophys. Un.*, 69, 1163, 1988.
- Voorhies, C.V., Observable effects of core-mantle interactions, *Ibid.*, 1404, 1988.
- Voorhies, C.V., Steady motional induction of geomagnetic chaos, *Trans. Am. Geophys. Un. 1988 Fall Meeting Program*, 155, 1988.
- Voorhies, C.V., Steady Induction Effects in Geomagnetism, *Trans. Am. Geophys. Un.*, 70, 313, 1989.
- Voorhies, C.V., Weights, biases, error estimates, and self-consistent separations of core and crustal geomagnetic fields, IAGA Bulletin No. 53, 6th Scientific Assembly (Exeter) Part B, 125, 1989.
- Voorhies, C.V., Uses and abuses of geomagnetic field models as core probes, *Ibid.*, 128, 1989.
- Voorhies, C.V., Coupling an inviscid core to an electrically insulating mantle, *Ibid.*, 139, 1989.
- Voorhies, C.V., Magnetic probing of planetary core motions? Steady induction theorems for giant planets (*invited*), *Trans. Am. Geophys. Un.*, 71, 490, 1990.
- Voorhies, C.V., Steady induction effects in geomagnetism: steady surficial core flows at finite magnetic Reynolds number, Second SEDI Symposium on Reversals, Secular Variation and Dynamo Theory (Santa Fe, NM) Abstracts, 1990.

#### **1991-1994**

- Voorhies, C.V., Steady induction effects in geomagnetism: some experimental evidence for a core geodynamo, *Trans. Am. Geophys. Un.*, 72, No. 17 Supp., 102, 1991
- Voorhies, C.V. Implications of decade fluctuations in the length of the day for geomagnetic estimation of core surface flow and geodynamo experiments, IUGG XX General Assemble (Vienna, Austria) Union Program and Abstracts, 76, 1991.
- Voorhies, C.V., On the information about secular variation contained in the Definitive Geomagnetic Reference Field models, IUGG XX General Assembly (Vienna, Austria) IAGA Program and Abstracts, 6, 1991.
- Voorhies, C.V., and M. Nishihama, Steady motional induction vs. steady magnetic flux diffusion, *Ibid.*, 28, 1991.
- Sabaka, T.J., R.T. Baldwin, C.V. Voorhies, and R.A. Langel, Simultaneous estimation of core flow and magnetic field initial conditions from direct magnetic measurements, *Trans. Am. Geophys. Un.*, 73, No. 14 Supp., 98, 1992.

- Voorhies, C.V., Effects of various deep mantle conductivity profiles of steady core flow estimates and simultaneous solution for core field and flow, *Trans. Am. Geophys. Un.*, 74, No. 16 Supp., 51, 1993.
- Voorhies, C.V., Induction Effects in Terrestrial Magnetism Revisited (invited), *Trans. Am. Geophys. Un.*, 75, No. 16 Supp., 72, 1994.
- Voorhies, C.V., Time-varying flows at the top of Earth's core derived from Definitive Geomagnetic Reference Field models, *Ibid.*, 120, 1994.
- Voorhies, C.V., Time-varying flows at the top of Earth's core derived from Definitive Geomagnetic Reference Field models (invited), Fourth SEDI Symposium (Whistler Mountain, BC) Abstract Book, 121, 1994.

### **1995-1998**

- Voorhies, C.V., Striking properties of core surface field and flow models: challenges or keys to core geodynamical theory? IUGG XXI General Assembly (Boulder) Abstracts, A85, 1995.
- Voorhies, C.V., Co-estimating broad-scale core surface field and flow: problems with surficial geostrophy?, *Ibid.*, A130, 1995.
- Voorhies, C.V., Analysis and interpretation of satellite geomagnetic data: magnetic location of Earth's core from spatial geomagnetic power spectra?, *Ibid.*, B87, 1995.
- Voorhies, C.V., Accurate Prediction of Geomagnetic Dipole Excursion Frequency and Location of the Core-Mantle Boundary Using McLeod's Rule, *Trans. Am. Geophys. Un.* 76, No. 46, Supp., F165, 1995.
- Voorhies, C.V., Accurate Prediction of Geomagnetic Mean Geomagnetic Dipole Excursion and Reversal Frequencies, Mean Paleomagnetic Field Intensity, and the Radius of Earth's Core using McLeod's Rule, *Trans. Am. Geophys. Un.* 77, No. 17, Supp., S84, 1996.
- Voorhies, C.V., Some geophysical applications of Gauss coefficients a la Langel, *Trans. Am. Geophys. Un.*, 78, No. 17 Supp., S113, 1997.
- Voorhies, C.V., Superchrons and stable stratification of the Uppermost Core, IAGA Eighth Scientific Assembly (Uppsala) Abstracts, 8, 1997.
- Voorhies, C.V., On geo-paleomagnetic secular variation, *Ibid.*, 11, 1997.
- Voorhies, C.V., and T.J. Sabaka, Supplementing IGRF and DGRF models with a 'CGRFC', *Ibid.*, 479, 1997.
- Voorhies, C.V., Recent signs of a core geodynamo, *Trans. Am. Geophys. Un.*, 79, No. 17 Supp., S61, 1998.
- Voorhies, C.V., Geomagnetism, Paleomagnetism and the diffusive core-mantle boundary layer, Sixth SEDI Symposium (Tours, FR) Program and Abstracts, 71, 1998.

### **1999-2002**

- Voorhies, C.V., Inner core rotation from geomagnetic westward drift and a stationary spherical vortex in Earth's core, IUGG XXII General Assembly (Birmingham, UK) Abstracts, A27, 1999.
- Voorhies, C.V., Backus effects and perpendicular errors in harmonic models of real vs. synthetic data, *Ibid.*, B388, 1999.
- Purucker, M.E., D. Ravat, H. Frey, C. Voorhies, T. Sabaka, and M. Acuna, Inverse problems: Magsat to Mars, *Trans. Am. Geophys. Un.*, 81, No. 19 Supp., S171, 2000.

- Voorhies, C.V., Anisotropic diffusivities by the core-mantle boundary and statistical kinematics of the core-source field, *Ibid.*, S175, 2000.
- Voorhies, C.V., The radius of Earth's core from Oersted, Magsat, or SV, *Trans. Am. Geophys. Un.*, 81, No. 48 Supp., F346, 2000.
- Voorhies, C. V., T. J. Sabaka, and M. Purucker, On magnetic spectra of Earth and Mars, in Lunar and Planetary Science Conference XXXIII, Abstract #1924, Lunar and Planetary Science Institute, Houston, TX (CD-ROM LPI #1109, ISSN No. 0161-5297), 2002.
- Voorhies, C.V., T.J. Sabaka, and M. Purucker, On magnetic spectra of Earth and Mars, *Trans. Am. Geophys. Un.*, 83, No. 19 Supp., S318, 2002.
- Voorhies, C.V., Narrow Scale, Weak Field Flow by the top of Earth's Core: Evidence from Oersted, Magsat, and Secular Variation, 4th Oersted International Science Conference (Copenhagen, DK), Submitted Abstracts, p5, 2002.

### 2003-2006

- Voorhies, C.V. (2003), Stable stratification of the uppermost core during superchrons? EGS-AGU-EUG Joint Assembly, Nice, EAE03-A-07482, P0049 Symposium GD1.
- Voorhies, C.V. (2003), Narrow scale flow across a weak field by the top of Earth's core: evidence from Magsat, Oersted, and SV. EGS-AGU-EUG Joint Assembly, Nice, EAE03-A-02363, P0047 Symposium GD1.
- Voorhies, C.V. (2003), More on magnetic spectra of Earth and Mars. EGS-AGU-EUG Joint Assembly, Nice, EAE03-A-02987, P0107 Symposium GD8.
- Voorhies, C.V. (2004), GP33A-06: Magnetic Probing of Core Geodynamics, *EOS, Trans. AGU*, 85, (17), Joint Assembly Suppl., GP33A-06, JA172.
- Voorhies, C.V. (2004), Crustal Magnetic Spectra from Correlated Sources on Mars, *EOS, Trans. AGU*, 85, (17), Joint Assembly Suppl., P33A-03, JA312.
- Voorhies, C. V. (2004), A Geomagnetic Estimate of Mean Paleointensity, *EOS, Trans. AGU*, 85, (47), Fall Meeting Suppl. GP11C-0843, F635-6.
- Voorhies, C.V. (2005), More on Magnetic Spectra from correlated crustal sources on Mars, in Lunar and Planetary Science Conference XXXVI, Abstract #1490, Lunar and Planetary Science Institute, Houston, TX (CD-ROM LPI #1234, ISSN No. 1540-7845).
- Voorhies, C.V. (2006), Thickness of the magnetic crust of Mars from magneto-spectral analysis, in Lunar and Planetary Science Conference XXXVII, Abstract #1426, Lunar and Planetary Science Institute, Houston, TX (CD-ROM LPI #1303, ISSN No. 1540-7845).
- Voorhies, C.V., G.A. Glatzmaier, and T.J. Sabaka (2006), An Inter-Comparison Between Dynamo Simulated, Observational and Expectation Magnetic Spectra, *EOS Trans. AGU*, 87(36), Jt. Assem. Suppl., Abstract DI51A-03.
- Voorhies, C.V. (2006), A Geomagnetic View of Paleointensity Fluctuations, *EOS Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract GP21A-1296.

### 2007-

- Voorhies, C.V. (2007), Geomagnetic Estimates of the Mean Rates of Paleomagnetic Dipole Power Excursions and Reversals, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract GP23A-02.