Daniel N. Baker Laboratory for Atmospheric and Space Physics
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Daniel N. Baker is Director of the Laboratory for Atmospheric and Space Physics at the University of Colorado-Boulder and is Distinguished Professor of Planetary and Space Physics, Professor of Astrophysical and Planetary Sciences, Professor of Aerospace Engineering, and Professor of Physics there. He holds the Moog-Broad Reach Endowed Chair of Space Sciences at CU. His primary research interest is the study of plasma physical and energetic particle phenomena in planetary magnetospheres and in the Earth's vicinity. He conducts research in space instrument design, space physics data analysis, and magnetospheric modeling. Dr. Baker obtained his Ph.D. degree with James A. Van Allen at the University of Iowa. Following postdoctoral work at the California Institute of Technology with Edward C. Stone, he joined the physics research staff at the Los Alamos National Laboratory, and became Leader of the Space Plasma Physics Group at LANL in 1981. From 1987 to 1994, he was the Chief of the Laboratory for Extraterrestrial Physics at NASA's Goddard Space Flight Center. From 1994 to present he has been at the University of Colorado. Dr. Baker has published over 800 papers in the refereed literature and has edited eight books on topics in space physics. He is a Fellow of the American Geophysical Union, the American Institute of Aeronautics and Astronautics (AIAA), and the American Association for the Advancement of Science (AAAS). He is a member of the International Academy of Astronautics and the U.S. National Academy of Engineering. He currently is an investigator on several NASA space missions including the Magnetospheric MultiScale (MMS) mission and the Radiation Belt Storm Probes (Van Allen Probes) mission.

Dr. Baker has won numerous awards for his research efforts and for his management activities including recognition by the Institute for Scientific Information as being "Highly Cited" in space science (2002), being awarded the Mindlin Foundation Lectureship at the University of Washington (2003) and being selected as a National Associate of the U.S. National Academy of Sciences (2004). Dr. Baker was chosen as a 2007 winner of the University of Colorado's Robert L. Stearns Award for outstanding research, service, and teaching. In 2010, he was awarded the University of Colorado's Boulder Faculty Assembly Distinguished Research Lecturer Award. Dr. Baker was the 2010 winner of the American Institute of Aeronautics and Astronautics (AIAA) James A. Van Allen Space Environment Award and Medal. Dr. Baker was the 2015 Kavli Prize Lectureship winner for the American Astronomical Society. He was also the 2015 winner of the Vikram A. Sarabhai Professorship of the Indian Physical Research Laboratory. He received the Colorado Governor's Award in 2016 for High-Impact Research. Dr. Baker recently served on several national and international scientific committees including the Chairmanship of the National Research Council Committee on Solar and Space Physics. Dr. Baker served as President of the Space Physics and Aeronomy section of the American Geophysical Union (2002-2004) and he presently serves on advisory panels of the U.S. Air Force and the National Science Foundation. He was a member of the National Research Council's 2003 Decadal Survey Panel for solar and space physics and he was a member of the 2006 Decadal Review of the U.S. National Space Weather Program. Dr. Baker completed service recently as chair of the National Academies 2013-2022 Decadal Survey in Solar and Space Physics. He is Chair of the Universities Space Research Association (USRA) Council of Institutions and serves on the USRA Board of Trustees.

CURRENT POSITIONS:
Director, Laboratory for Atmospheric and Space Physics, University of Colorado Boulder
Professor, Planetary and Space Physics Department, University of Colorado Boulder
Professor, Astrophysical and Planetary Sciences Department, University of Colorado Boulder
Professor, Aerospace Engineering Department, University of Colorado Boulder
Professor, Physics Department, University of Colorado Boulder

PROFESSIONAL EXPERIENCE:
1975-1977: Research Fellow, Div. of Physics, Mathematics, and Astronomy (California Institute of Technology)
1977-1981: Staff Member, Los Alamos Scientific Laboratory
1981-1987: Group Leader, Space Plasma Physics, Earth and Space Science Division, Los Alamos National Laboratory
1987-1994: Laboratory Chief, Laboratory for Extraterrestrial Physics, Space Sciences Directorate, NASA/Goddard Space Flight Center

Selected PROFESSIONAL ACHIEVEMENTS:
Fellow, AIAA, 2016.
Shen Kuo Medal, International Association Geomagnetism and Aeronomy, 2015
Vikram A. Sarabhai Professor, Indian Physical Research Laboratory, 2015

Kavli Prize Lectureship, American Astronomical Society, 2015
Distinguished Professor, University of Colorado, 2014
AGU Van Allen (Bowie) Lecturer, 2012
American Astronomical Society Popular Writing Award, 2012
University of Colorado Boulder Faculty Distinguished Research Lecturer Award, 2010
AIAA James A. Van Allen Space Environments Medal, 2010
National Academy of Engineering, 2010
Robert L. Stearns Award, University of Colorado, 2007
Fellow of AAAS, 2006

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS, INCLUDING OFFICES HELD:

American Association for the Advancement of Science (AAAS)
- Elected Fellow of AAAS 2006

American Geophysical Union (AGU) 1973
- Elected Fellow of the American Geophysical Union (AGU) 1994
- Governing Council (2002)
- Magnetospheric Secretary of SPA Section (1988-1990)
- National Hazards Panel (1996-2000)
- Nominations Committee (2006-2007)
- President of Space Physics and Aeronomy Section (2002-2004)
- Past President, AGU Space Physics and Aeronomy Section (2004-2006)
- Real Estate Committee (1991-1994)
- Section President (2000)
- Special Session Organizer/Convenor of AGU Meetings (1997-continuing)

American Institute of Aeronautics and Astronautics (AIAA)
- Elected Associate Fellow (2013)
- Elected Fellow (2016)

Committee on Space Research (COSPAR) – Commission D
- Commission D Representative (1986-1992) – Full member (1998)

International Academy of Astronautics (1993)

International Association of Geomagnetism and Aeronomy (IAGA)
- US Delegate to IAGA (1996-2003)

International Union of Geodesy and Geophysics (IUGG)
- US Representative to IUGG (1996-2010)

National Academy of Engineering (2010)

National Academy of Sciences
- Elected National Associate (2004)
- Space Studies Board (1995-2012)

Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)
- Executive Secretary of Solar Terrestrial Energy Program (STEP) (1995-2004)
- Project Scientist of US Solar Terrestrial Energy Program (STEP) (1996-1997)

University of Colorado Research and Innovation Advisory Board (2016)

CONTRIBUTIONS TO THE ADVANCEMENT OF SCIENCE:

Non-print Media:

Developed Space Weather video for NSF (2005)

Featured in article "Satellite 'safe zone' isn't that safe after all" by R.R. Britt, of MSNBC Space.com. 2004.

Featured in article "Space no place for cheap satellites" by Celeste Biever, New Scientist.com news service, December 2004

Featured in article "The Sun's Magnetic Attack" by Robert Irion, Science Magazine, December 16, 2004.

Featured in Science, Discovery.com, News24 (South Africa), New Zealand Herald, The UK Register, USA Today, Colorado Daily, Daily Camera, San Francisco Chronicle, Christian Science Monitor, Boston Herald, Rocky Mountain News, New Scientist, Denver Post, CNN/Space.com, Space Daily, BBC Radio, "Mars Rising" on Discovery Channel, and many other newspapers and magazines. (2003-continuing)

Interviewed for article "'Safe' area in space turns into radiation shooting gallery", by Lee Bowman, published by Scripps Howard News Service, Dec 17, 2004.

Interviewed for article "Satellites in 'safe zone' vulnerable to solar storms" by Jim Erickson, Rocky Mountain News, December 16, 2004.
Interviewed for article “What We Don't Know About the Sun”, by Gregg Easterbrook, The Atlantic, Jan/Feb 2012.
NASA news release: “Earth’s safe zone became hot during legendary sun storms,” December 16, 2004.
New animation of Sun-Earth system developed for NASA (used in news conferences and Space Science Updates (2004)
Space Weather videos for NSF and NASA (2005)
Sun-Earth Connections videos (2004-2008)
Television appearances (e.g., with Nick Carter of Channel 9 Feature; and on Channel 7 concerning space weather) (2004)
Two videos showing "Solar-Magnetospheric Coupling Processes (1996-1997)
Video for NASA "A Synoptic View of the Earth's Radiation Belts: SAMPEX" (1994)
Video for NASA HQ "Yohkou-SAMPEX Comparisons: Relativistic Electrons and Solar Coronal Holes" (1995)

Editorships:
Chapman Conference on Magnetotail Physics (1997-1998)
COSPAR Symposium on Magnetic Reconnection (1997)
Geophysical Research Letters (1976-1979 and 2003-2006)
Journal of Atmospheric and Solar Terrestrial Physics (1998-continuing)
Space Science Review Special Issue (2005)
Space Weather (2003-continuing)
Special Issue of Physics and Chemistry of the Earth (1998)

Referee:
Geophys. Res. Lett. (1976-present)
International Association of Geomagnetism and Aeronomy (IAGA) (1996)
J. Atmos. Terres. Phys. (1990-present)
J. Geophys. Res. (1972-present)
NASA proposals (1980-present)
NSF proposals (1980-present)
Planetary Space Sci. (1980-present)

Consultation:
SAIC, Inc., (1998-2005)
Ball Aerospace (2001-2005)
Science Technology Corp. (STC) (2003-2005)
Los Alamos National Laboratory (2004-continuing)
USRA Issues and Program Committee (2004-continuing)
Command Technologies, Inc. (2005-2007)
Space Coast Intelligent Solutions (2008-continuing)
Booz, Allen, Hamilton (2009-2011)
Titular Advisor to Rebecca Jolitz (2018-)

Committees/Panels:
AGU Panel on Long-Term Observations (1985-1988)
NASA Mission Payload Review Panels (1998-continuing)
AGU Space Station Advisory Panel (2000-2005)
AGU Panel on Atmosphere-Ionosphere-Magnetosphere Interactions (2001-2003)
AGU Panel on Nonlinear Modeling in Geophysics (2002-2003)

Administration:
Chancellor's Federal Relations Advisory Committee (2003-continuing)
Director, Center for Limb Atmospheric Sounding (CLAS) (2001-continuing)

Director, Laboratory for Atmospheric and Space Physics, University of Colorado Boulder, CO (1994-present)
Director/Chair, LASP Executive Committee (1994-present)
External Advisory Board Aerospace Engineering Department (1998-continuing)
LASP strategic planning process (2003-continuing)

Service:
Chair, AGU Electronic Publishing Committee (2002-2004)
Chair, AGU Nominations Committee (2004)
Chair, AGU SPA Nominations Committee (2006)
Chair, Air Force Technical Applications Center (AFTAC) Satellite System Review Panel (1998-continuing)
Chair, Boulder Matrix Space Advisory Group (2003-2004)
Chair, Convenor, Core Technologies Conference (2002)
Chair, Electronic Geophysical Year Steering Committee (2005-2009)
Chair, Electronic Publications Review Panel (AGU) (2002)
Chair, Graduate School/Institute Directors Group (1998)
Chair, Huntsville Conference on Space Physics Organizing Committee (2005)
Chair, IGY+50 Task Force, IAGA (2003-continuing)
Chair, International Heliophysical Year Planning Group (2003); Member, International Heliophysical Year Planning Group (2004-2006)
Chair, Los Alamos National Laboratory NIS External Advisory Council (1996)
Chair, NASA Mercury Orbiter Science Definition Team (1996-2000)
Chair, NAS/NRC Committee on Solar and Space Physics (CSSP) (2004-2012)
Chair, NASA Living With a Star MOWG (2003-2004)
Chair, NRC Workshop Organizing Committee on Solar Systems Radiation Environment and NASA's Vision for Space Exploration (2005-2006)
Chair, Organizing Committee Space Weather Economic Impacts Workshop (NAS) (2007-2009)
Chair, CU Research/Creative Works Task Force (2000)
Chair, Search Committee Atmospheric and Space Physics Department
Chair, Space Studies Board Task Group on "Assessment of Mission Size Trade-offs" (2000)
Chair, STEP Results, Applications and Modeling Phase (S-RAMP) (1997-2004)
Chair, USRA Council Nominating Committee (2000)
Chair and Member, USRA Council on Institutes (1998-continuing)
Vice Chair, Council of Institutions (2016)
Chair, USRA Strategic Planning Steering Committee (2001)
Co-Chair, GEM Summer Workshop (1996-1997)
Co-Chair, Program Committee International Workshop of Plasma Experiments in the Laboratory and in Space (1995-1998)
Co-Chair, SCOSTEP 10th Quadrennial meeting Committee (2000-2003)
Co-Convenor, CDAW-9 (1988-1995)
Co-Convenor, Chapman Conference on Magnetotail Physics (1996)
Co-Convenor, Gordon Conference on Space Plasmas (1994-1996)
Co-Convenor, International Union of Geophysics and Geodesy (IUGG) (1994-1995)
Co-Convenor, International Workshop on Solar-Terrestrial Physics (1997-continuing)
Convenor of American Geophysical Union Front Range Branch Annual Meeting (1996)
Convenor of COSPAR Symposium on Magnetic Reconnection (1996)
Convenor of Special Sessions: American Geophysical Union Annual Meetings (1985-continuing)
Convenor, NATO Advanced Study Institute Summer Meeting (2000)
Vice Chair, Commission 1, International Academy of Astronautics, (2007-2013)
Co-Convenor International Union of Geophysics and Geodesy (1994-1995)
Convenor of American Geophysical Union Front Range Branch Annual Meeting (1996)
Convenor of COSPAR Symposium on Magnetic Reconnection (1996)

Member:
Advisory Group to Graduate Dean Institute/Directors Committee (1994)
AGU Governing Council (2002)
AGU National Hazards Panel (1996-2000)

AGU Nominations Committee (2006-2007)
AGU Real Estate Committee (1991-1994)
Boulder Matrix Space Advisory Group (2005-continuing)
Boulder Solar Alliance (2006-continuing)
Center for Space Physics Advisory Committee (1990-1996)
Chapman Conference on Space Weather Organizing Committee (2000)
Clementine Science Working Team, (1991-1995)
CLUSTER Science Working Team (1999-continuing)
Committee on Data Management and Computation (1986-1987)
Committee on Solar and Space Physics (1984-1986)
Committee on Solar and Space Physics: A Community Assessment and Strategy for the Future (2001-2003)
Committee on the Scientific Context for Space Exploration (2004-2005)
External Review Committee Canadian Network for Space Research (1995-continuing)
Flagship 2030 Steering Committee (2006-2007)
Global Geospace Science Working Team (1999-2005)
Graduate School/Institute Directors Group (2003-continuing)
Huntsville Conference on Space Physics Organizing Committee (2004-2006)
IAGA Bureau (Ex Officio) (2003-2004)
IAGA Executive Committee (2007-continuing)
IAGA National Delegate (1998-2004)
IAGA US Representative of International Association for Geomagnetism and Aeronomy (1997)
IGY+50 Advisory Committee (IUGG) (2002-continuing)
International Conference on Substorms Organizing Committee (2000)
International Space Science Institute Working Group (2003-continuing)
International Space Weather Conference Organizing Committee (2001-2004)
IUGG International Heliophysical Year Planning Group, IGY+50 Advisory Committee 2002-continuing)
IUGG US Representative of International Union of Geophysics and Geodesy (1997)
Joint Action Group (JAG) National Weather Program Assessment (NSWPA) (2004-continuing)
MESSENGER/Mercury Orbiter Science Working Team (2003-continuing)
NAS/Space Studies Board Decadal Survey (2001)
NASA Magnetospheric Multiscale Mission Science Team (1998-continuing)
NASA Space Technology Management Operations Working Group (1998)
National Academy of Sciences/Space Studies Board Atmosphere-Ionosphere-Magnetosphere Coupling Panel (2003)
National Academy of Sciences/Space Studies Board Executive Committee (1997-continuing)
NOAA Strategic Planning Group (External) (2003-continuing)
NRC Committee on an Assessment of Balance in NASA's Science Programs (2006)
NSF Advisory Panel on Faculty Development in Space Sciences (2002-2003)
Organizing Committee for the 8th International Space Physics Subcommittee (1993-1996)
Organizing Committee of 31st ESLAB Symposium (1997)
Organizing Committee, Chapman Conference on Storm-Substorm Relations (2001)
Organizing Committee, ESPRIT Space weather Conference (2003)
Organizing Committee, Workshop on Radiation Belts (2000-continuing)
Polar Science Working Team (1998-2008)
Program Committee of Solar Terrestrial Predictions Workshop (1996-1997)
Project Scientist of POLAR Project (1993-1994)
Project Scientist of SAMPEX Project (1993-1994)
Radiation Belt Storm Probe Science Team (2005-continuing)
SAMPEX Science Working Team (1992-continuing)
Scientist of Grand Tour Cluster Study (1993-1994)
SCOSTEP International Bureau (2000-2002)
SCOSTEP Steering Committee (1996-continuing)
Southwest Research Institute (SwRI) Elected Advisory Trustee (2016)
SPA Nominations Committee, AGU
Space Physics Research Lab (U. of Mich.) Review Committee (2004-2006)
Space Station Advisory panel, AGU (2000-continuing)
Space Studies Board National Academy of Sciences (1995-continuing)

Space Weather Working Group (1996-1998)
Steering Committee for the Workshop on Reducing Space Science Research Mission Costs (1996-1997)
Sun-Earth Connection Roadmap Committee (1996-2000)
Sun-Earth Connections (NASA) Advisory committee (1988-2002)
Symposium on Solar Terrestrial Research, (1994-1995)
University of Colorado Research and Innovation Advisory Board (2016)
University Space Research Association (USRA) Council on Institutes Representative (1998-continuing)
University Space Research Association (USRA), Elected Vice Chair, Council on Institutes (2016)
US Delegation to the 22nd IUGG General Assembly (1999)
US National Committee for the International Union of Geodesy and Geophysics (1996-2003)
US Solar Terrestrial Energy Program (STEP) (1995)
US-Finnish Workshop Organizing Committee (1997)
USRA Astrophysics and Space Physics Council (1998-2003)
USRA Board of Directors (1997)
USRA Board of Trustees (2016-continuing)
USRA Budget Committee (1996-1997)
USRA Strategic Planning Steering Committee (2002)
Vice Chancellor for Research (VCR) Research Cabinet (2004-continuing)
Vision 2010: University without Walls Committee (2002-2004)

AWARDS, HONORS, CITATIONS, AND SPECIAL MENTIONS:

1974: Elected to Sigma Xi
1974: NASA Public Service Group Award
1986 and 2001: Space Studies Board Service Commendation (CSSP)
1986: National Research Council Service Commendation (CODMAC)
1987: Selected to U.S. Senior Executive Service
1989: NASA Group Achievement Award (SPAN)
1992: Senior Executive Excellence Award
1993: Elected to International Academy of Astronautics
1993: GSFC Outstanding Performance Award
1993: NASA Group Achievement Award (SAMPEX Spacecraft Development)
1994: Elected as Fellow of American Geophysical Union
1994: NASA Scientific Group Achievement Award
1996: Honorable Mention Association of American Publishers, Inc. Professional Scholarly Publishing Division
1996: Honorable Mention, Geography and Earth Science
1998: Association of American Publishers Best Professional and Scholarly Book Award
1998: NASA Scientific Group Achievement Awards (2)
1998: Received two NASA "Outstanding Scientific Achievement" awards,
2000: Best book Award for Physics and Astronomy, awarded by the Association of American Publishers for "New Perspectives on the Earth's Magnetotail"
2000: Elected Section President, American Geophysical Union
2000: Elected President of Space Physics and Aeronomy Section of American Geophysical Union
2002-2004: President of Space Physics and Aeronomy Section of American Geophysical Union
2002: Institute of Scientific Information, “Highly Cited” Commendation
2003: Included in Who's Who in Sciences Higher Education
2003: Mindlin Foundation Lectureship and Prize (U. of Washington)
2003: Selected for inclusion in the AcademiKeys Who's Who in Sciences Higher Education (WWSHE)
2004: Chosen National Associate of National Academy of Science
2006: Certificate of Recognition, Western Pacific Geophysics Meeting, Beijing,
2006: Elected as Fellow of the American Association for the Advancement of Science
2007: Robert L. Stearns Award, Alumni Association, U. of Colorado
2008: Certificate of Appreciation: University of Michigan Space Physics Research Lab (SPRL)
2008: Space Studies Board/National Research Council Certificate of Recognition: Commemorating IGY
2010: James A. Van Allen Space Environments Award/Medal (American Institute of Aeronautics and Astronautics
2010: Citation and Award from National Geophysical Research Institute, Hyderabad, India
2010: Membership: National Academy of Engineering
2010: University of Colorado Boulder Faculty Assembly, Distinguished Research Lecturer Award

2010: Distinguished Research Lectureship (Research and Innovation Office, conferred by Research and Innovation Office
2011: Troitskaya-Cole Lecturer, awarded at the International Union of Geodesy and Geophysics Quadrennial meeting
2012: American Astronomical Society (AAS) Popular Writing Award
2012: American Geophysical Union, Van Allen/Bowie Lectureship
2013: Asia Oceania Geophysical Society (AOGS) Distinguished Research Award and Lectureship
2014: Elected as Fellow (Assoc.) of American Institute of Aeronautics and Astronautics
2014: University of Colorado Distinguished Professor Award
2015: American Astronomical Society (AAS) Kavli Prize Lectureship Award
2015: International Association of Geomagnetism and Aeronomy (IAGA), Shen Kuo Medal for Interdisciplinary Achievements
2015: Vikram A. Sarabhai Professorship Award, Indian Physical Research Laboratory
2015: Distinguished Professorship (University of Colorado President), conferred by University of Colorado President, 2015.
2016: Advisory Trustee, Southwest Research Institute
2016: Elected as Fellow of American Institute of Aeronautics and Astronautics (AIAA)
2016: Vice Chair, USRA Council of Institutions
2016: Governor's Award for High-Impact Research (Colorado Leveraging Assets for Better Science), Conferred by Colorado Leveraging Assets for Better Science, 2013.
2017: Appointed Full Professor in ASEN
2017: Elected Chair of Section 12 of National Academy of Engineering
2017: Interviewed by BBC: "Space Weather"
2017: Interviewed by KGNU: "Space Shield for Satellites"
2017: Student Hong Zhao received AGU Scarf Award
2018: Featured in "The Spinning Magnet" by Alanna Mitchell, published by Dutton Press, 2018.

GRANTED US PATENT # 5673366 (SWIFT: SPACE WEATHER FORECAST TOOL)

PUBLICATIONS (2013-present):

2013

1. Baker, D.N., S.G. Kanekal, V.C. Hoxie, M.G. Henderson, X. Li, H.E. Spence, S.R. Elkington, R.H. Friedel, J. Goldstein, M.K. Hudson, G.D. Reeves, R.M. Thorne, C.A. Kletzing, and S.G. Claudepierre, A long-lived relativistic electron storage ring embedded within the Earth's outer Van Allen Radiation Zone, Science, 340, #6129, 186-190, doi:10.1126/science.1233518, 2013. Published online February 28, 2013a.
2. Baker, D.N., et al., The Relativistic Electron-Proton Telescope (REPT) Instrument on Board the Radiation Belt Storm Probes (RBSP) Spacecraft: Characterization of Earth's Radiation Belt High-Energy Particle Populations, Space Science Reviews, 179, 337-381, 2013.
3. Baker, D.N., A. Charo, and T. Zurbuchen, Science for a Technological Society: The 2013-2022 Decadal Survey in Solar and Space Physics, Space Weather, 11, 50-51, doi:10/1002/swe.20022, 2013.
4. Baker, D.N., G. Poh, D. Odstrcil, C.N. Arge, M. Benna, C.L. Johnson, H. Korth, D.J. Gershman, G.C. Ho, W.E. McClintock, T.A. Cassidy, A. Merkel, J.M. Raines, D. Schriver, J.A. Slavin, S.C. Solomon, P.M. Trávníček, R.M. Winslow, and T.H. Zurbuchen, Solar Wind Forcing at Mercury: WSA-ENLIL Model results, J. Geophys. Res., 118, doi:10.1029/2012JA018064, 2013.
5. Baker, D.N., M.K. Hudson, and A. Charo, Professional societies and space weather policy, Space Weather, 11, #8, p. 450, doi:10.1002/swe.v11.8/issuetoc, 2013.
6. Baker, D.N., R.L. McPherron, and J. Birn, Edward Wheeler Hones, Jr., (1922-2012), Eos, Transactions, American Geophysical Union, 2013.
7. Shprits, Y., D.N. Baker, et al., Unusual stable trapping of the ultra-relativistic electrons in the Van Allen Radiation Belts, Nature Physics, 9, 699-703, 2013.
8. Baker, D.N., V. Hoxie, A. Jaynes, A. Kale, S.G. Kanekal, X. Li, G. Reeves, and H.E. Spence, James Van Allen and His Namesake NASA Mission, Eos, 94, #49, 3 December 2013.
9. Baker, D.N., X. Li, A. Pulkkinen, C. Ngwira, L. Mays, A. Galvin, and K. Simunac, A major solar eruptive event in July 2012: Defining extreme space weather scenarios, Space Weather ,v. 11, #10, 585-591, doi:10.1002/swe/20097, 2013.

10. Claudepierre, S.G., Mann, K. Takahashi, J. Fennell, M. Hudson, J. Blake, J. Roeder, J. Clemmons, H. Spence, G. Reeves, D. N. Baker, H. Funsten, R. Friedel, M. Henderson, C. Kletzing, W. Kurth, and J. Wygant, Van Allen Probes observation of localized drift-resonance between poloidal mode ultra-low frequency waves and 60 keV electrons, Geophys. Res. Lett., 40, 4491-4497, doi:10.1002/grl50901, 2013.
11. Dai, Lei, K. Takahashi, J. Wygant, L. Chen, J. Bonnell, C. Cattell, S. Thaller, C. Kletzing, C. Smith, R. MacDowall, D.N. Baker, J. Blake, J. Fennell, S. Claudepierre, H. Funsten, G. Reeves, and H. Spence, Excitation of poloidal standing Alfven waves through drift resonance wave-particle interaction, Geophys. Res. Lett., 40, #16, 4127–4132, 2013.
12. Dai, L., K. Takahashi, J. Wygant, L. Chen, J. Bonnell, C. Cattell, S. Thaller, C. Kletzing, D.N. Baker, J. Blake, J. Fennell, S. Claudepierre, H. Funsten, G. Reeves, and H.E. Spence, Excitation of poloidal standing Alfven waves through the drift resonance wave-particle interaction, Geophys. Res. Lett., 40, #16, 4127-4132, doi:10.1002/grl.50800, 2013.
13. DiBraccio, G.A., J.A. Slavin, S.A. Boardsen, B.J. Anderson, H. Korth, T.H. Zurbuchen, J.M. Raines, D.N. Baker, R.L. McNutt, Jr., and S.C. Solomon, MESSENGER Observations of Magnetopause Structure and Dynamics at Mercury, J. Geophys. Res., 118, #3, doi:10.1002/jrga.50123, 2013.
14. Gershman, D.M., J. Slavin, J. Raines, T. Zurbuchen, B. Anderson, H. Korth, D.N. Baker, and S.C. Solomon, Magnetic flux pile-up and plasma depletion in Mercury's subsolar magnetosheath**,** J. Geophys. Res., 118, #11, doi:10.1002/jgra.v118,11/issuetoc, 7181-7199, 2013.
15. Li, X., D.N. Baker, et al., First results from CSSWE CubeSat: Characteristics of relativistic electrons in the near-Earth environment during the October 2012 magnetic storms, J. Geophys. Res., 118, 1–11, doi:10.1002/2013JA019342, 2013.
16. Mann, I.R., E.A. Lee, S.G. Claudepierre, J.F. Fennell, A. Degeling I.J. Rae, D.N. Baker, G.D. Reeves, H.E. Spence, L.G. Ozeke, R. Rankin, D.K. Milling, A. Kale, R.H. W. Friedel, and F. Honary, Discovery of the action of a geophysical synchrotron in the Earth's Van Allen Radiation Belts, Nature, doi:10.1038/ncomms3795, 2013.
17. Morley, S.K., M.G. Henderson, G.D. Reeves, R.H.W. Friedel, and D.N. Baker, Phase Space Density matching of relativistic electrons using the Van Allen Probes: REPT results, Geophys. Res. Lett., 40, doi:10.1002/grl.50909, 2013.
18. Ngwira, C. A.A. Pulkkinen, M.L. Mays, M.M. Kuznetsova, A. Galvin, K. Simunac, D.N. Baker, X. Li, V. Zheng, and A. Glocer, Simulation of the 23 July 2012 extreme space weather event: what if this extremely rare CME was Earth-directed?, Space Weather, 11., #12, 671-679, doi: 10.1002/2013SW000990, 2013.
19. Raines, J. M., et al., Distribution and compositional variations of plasma ions in Mercury's space environment: The first three Mercury years of MESSENGER observations, J. Geophys. Res., 117, 1604-1619, doi:10.1029/2012JA018073, 2013.
20. Reeves, G.D., H. Spence, M. Henderson, S. Morley, R.H.W. Friedel, H. Funsten, D.N. Baker, S. Kanekal, J. Blake, J. Fennell, S. Claudepierre, R. Thorne, D. Turner, C. Kletzing, W. Kurth, B. Larsen, and J. Niehof, Electron acceleration in the heart of the Van Allen Radiation Belts, Science, Vol. 341, #6149, 991-994, doi: 10.1126/science.1237743, 2013.
21. Shprits, Y.Y., D.N. Baker, et al., Unusual stable trapping of the ultra-relativistic electrons in the Van Allen radiation belts, Nature Physics, 9, #11, doi:10.1038/nphys2760.
22. Spence, H.E., D.N. Baker, et al., Science goals and overview of the Radiation Belt Storm Probes (RBSP) Energetic Particle, composition, and Thermal plasma (EDT) suite on NASA's Van Allen Probes Mission, Space Sci. Rev., doi:10.1007/s11214-013-0007-5, 2013.
23. Thorne, R.M., W. Li, B. Ni, Q. Ma, J. Bortnik, D.N. Baker, H.E. Spence, G.D. Reeves, M.G. Henderson, C.A. Kletzing, W.S. Kurth, G.B. Hospodarsky, D. Turner, and V. Angelopoulos, Evolution and slow decay of an unusual narrow ring of relativistic electrons near L~ 3.2 following the September 2012 magnetic storm, Geophys. Res. Lett., 40, 1-5, doiP10.1002/grl.50627, 2013.
24. Thorne, R.M., W. Li, B. Ni, Q. Ma, J. Bortnik, L. Chen, D.N. Baker, H.E. Spence, G. Reeves, M. Henderson, C. Kletzing, W. Kurth, G. Hospodasky, J. Blake, J. Fennell, S. Claudepierre, and S.G. Kanekal, Rapid local acceleration of relativistic radiation belt electrons by magnetospheric chorus, Nature, 504, 411–414 (19 December 2013) doi:10.1038/nature12889, Received 26 August 2013 Accepted 18 November 2013 Published online 18 December 2013.
25. Thorne, R.M., D.N. Baker, et al., Van Allen Probe evidence of relativistic radiation belt acceleration by magnetospheric chorus, Nature, 504, 411–414, doi:10.1038/nature12889, Published online 18 December 2013
26. Winslow, R.M., et al., Mercury's magnetopause and bow shock from MESSENGER observations, J. Geophys. Res., 118, #5, 2213-2227, doi:10.1002/gra.50217, 2013.

27. Wygant, J.R., D.N. Baker, et al., The Electric Field and Waves (EFW) instruments on the Radiation Belt Storm Probes Mission, Space Science Rev., 179, doi: 10.1007/s1124-013-0013-7, 2013.
28. McPherron, R.L., D.N. Baker, et al., Changes in solar wind–magnetosphere coupling with solar cycle, season, and time relative to stream interfaces, JASTP, vol. 99, 2013.

2014

29. Baker, D.N., New Twists in Earth's radiation belts, American Scientist, 102, #5, 374-381, 2014.
30. Kissinger, J., D.N. Baker, et al., The importance of storm time steady magnetospheric convection indetermining the final relativistic electron flux level, J. Geophys. Res., 119, 2014.
31. Baker, D.N., A.N. Jaynes, V.C. Hoxie, R.M. Thorne, J.C. Foster, X. Li, J.F. Fennell, J.R. Wygant, S.G. Kanekal, P.J. Erickson, W. Kurth, W. Li, Q. Ma, Q. Schiller, L. Blum, D.M. Malaspina, A. Gerrard, and L.J. Lanzerotti, An impenetrable barrier to ultra-relativistic electrons in the Van Allen Radiation Belt, Nature, 515, 531-534, doi:10.1038/nature13956, 2014.
32. Baker D.N., A. Jaynes, X. Li, M.G. Henderson, S.G. Kanekal, G.D. Reeves, H.E. Spence, S.G. Claudepierre, J.F. Fennell, M.K. Hudson, R.M. Thorne, J.C. Foster, P.J. Erickson, D.M. Malaspina, J.R. Wygant, A. Boyd, C.A. Kletzing, A. Drozdov, and Y.Y. Shprits, Gradual diffusion and punctuated phase space density enhancements of highly relativistic electrons: Van Allen Probes Observations, Geophys. Res. Lett., 41, #5, 1351-1358, 16 March 2014, doi:10.1002/2013GL058942, published online 4 March 2014.
33. Baker, D.N., J.M. Jackson, and L.K. Thompson, Predicting and Mitigating Socioeconomic Impacts of Extreme Space Weather: Benefits of Improved Forecasts, in *Extreme Natural Hazards, Disaster Risks and Societal Implications*, Cambridge Univ. Press, April 2014.
34. Boyd, A.J., H.E. Spence, S. Claudepierre, J. Fennell, J. Blake, D.N. Baker, G. Reeves, D. Turner, and H. Funsten, Quantifying the Radiation Belt Seed Population in the March 17, 2013 Electron Acceleration Event, Geophys. Res. Lett., 41, #7, doi:10/1002.grl.v41.7/issuetoc, 2275-2281, 2014.
35. Drozdov, A. Y., Y. Y. Shprits, D. A. Subbotin, A. C. Kellerman, D. N. Baker, J. B. Blake, and H. E. Spence, Comparison of the Van Allen probes observations with the long-term simulations of the dynamics of the radiation belts' evolution with the VERB code, J. Geophys. Res. Space Physics, 120, 3574–3587, doi:10.1002/ 2014JA020637.
36. Drozdov, A., D.N. Baker, et al., New perspectives on Earth's radiation belt regions from the prime mission of the Van Allen Probes, J. Geophys. Res., doi:10.1002/2014JA020637, 2014.
37. Foster, J.C., P.J. Erickson, D.N. Baker, S.G. Claudepierre, C.A. Kletzing, W. Kurth, G.D. Reeves, S.A. Thaller, H.E. Spence, Y.Y. Shprits, and J.R. Wygant, Prompt energization of relativistic and highly relativistic electrons during substorm intervals: Van Allen Probes Observation, Geophys. Res. Lett., 41, 20-25, doi: 10.1002/2013GL058438, 2014.
38. Foster, J.C., D.N. Baker, et al., Prompt energization of relativistic and highly relativistic electrons during a substorm interval: Van Allen Probes observations, Geophys. Res. Lett., 41, #1, 20-25, 2014.
39. Foster, J.C., D.N. Baker, et al., Dual satellite investigation of local acceleration of MeV radiation belt electrons. J. Geophys. Res., doi:10.1002/2014JA020852, 2014.
40. Gershman, D.J., J.A. Slavin, J.M. Raines, T.H. Zurbuchen, B.J. Anderson, H. Korth, D.N. Baker, and S.C. Solomon, Ion kinetic properties in Mercury's pre-midnight plasma sheet, Geophys. Res. Lett., 41(16), 5740-5747, doi:10.1002/2014GL060468, on-line 28 August, 2014.
41. Hudson, M.K., D.N. Baker, J. Goldstein, B.T. Kress, J. Paral, F.R. Toffoletto, and M. Wiltberger, Simulated magnetopause losses and Van Allen probe flux dropouts, Geophys. Res. Lett., 41, 34, 1113-1118, doi: 10.1002/2014GL059222, 2014.
42. Hudson, M.K., D.N. Baker, et al., Modeling CME-shock-driven storms in 2012-2013: MHD test particle simulations, J. Geophys. Res., 120, #2, doi:10.1002/2014ja020833, 2014.
43. Hudson, M.K., D.N. Baker, et al., Simulated magnetopause losses and Van Allen Probe flux dropouts, Geophys. Res. Lett., 41, #14, doi:1002/2014gl059222, 2014.
44. Jaynes, A.N., X. Li, Q Schiller, L. Blum, W. Tu, D. Malaspina, D. Turner, B. Ni, J. Bortnik, D.N. Baker, S.G. Kanekal, J.B. Blake, and J. Wygant, Evolution of relativistic outer belt electrons during extended quiescent period, J. Geophys. Res., 119, #12, doi: 10.1002/2014JA020125, 2014.
45. Li, W., R. M. Thorne, Q. Ma, B. Ni, J. Bortnik, D. N. Baker, H. E. Spence, G. D. Reeves, S. G. Kanekal, J. C. Green, C. A. Kletzing, W. S. Kurth, G. B. Hospodarsky, J. B. Blake, J. F. Fennell, and S. G. Claudepierre, Radiation belt electron acceleration by chorus waves during the 17 March 2013 storm, J. Geophys. Res., 119, #6, 4681-4693, doi:10.1002/2014JA019945, 2014.
46. Li, X., D.N. Baker, et al., Upper limit on the inner radiation belt MeV electron intensity, J. Geophys. Res., 120, #2, doi:10.1002/2014ja020777, 2014.

47. Mauk, B.H., J.B. Blake, D.N. Baker, J.H. Clemmons, G.D. Reeves, H.E. Spence, S.E. Jaskulek, C.E. Schlemm, L.E. Brown, S.A. Cooper, J.V. Craft, J.F. Fennell · R.S. Gurnee, C.M. Hammock, J.R. Hayes, P.A. Hill, G.C. Ho, J.C. Hutcheson, A.D. Jacques, S. Kerem, D.G. Mitchell, K.S. Nelson, N.P. Paschalidis, E. Rossano, M.R. Stokes, J.H. Westlake, The Energetic Particle Detector (EPD) Investigation and the Energetic Ion Spectrometer (EIS) for the Magnetospheric Multiscale (MMS) Mission, Space Science Rev., published online, 2014.
48. O'Brien, T.P., S.G. Claudepierre, J.F. Fennell, J.B. Blake, H.E. Spence, G.D. Reeves, H.O. Funsten, and D.N. Baker, An empirically observed pitch-angle diffusion Eigenmode in the Earth's electron belt near L*=5.0, Geophys. Res. Lett., 41, #2, 251-258, doi: 10.1002/2013GL058713, 2014.
49. Selesnick, R.S., D.N. Baker, A.N. Jaynes, X. Li, S.G. Kanekal, M.K. Hudson, and B.T. Kress, Observations of the inner radiation belt: CRAND and trapped solar protons, J. Geophys. Res., 119, #8, doi:10.1002/2014JA020188, 2014.
50. Shen, C., D.N. Baker, et al., Direct calculation of the ring current distribution and magnetic structure seen by Cluster during geomagnetic storms, J. Geophys. Res., 119(4), 2458-2465, 2014.
51. Slavin, J. A., et al. (2014), MESSENGER observations of Mercury's dayside magnetosphere under extreme solar wind conditions, J. Geophys. Res., Space Physics, 119, doi:10.1002/2014JA020319.
52. Su, Z., H. Zhu, F. Xiao, H. Zheng, G. Wang, Z. He, C. Shen, C. Shen, C. Wang, R. Liu, B. Miao, M. Zhang, S. Wang, C. A. Kletzing, W. S. Kurth, G. B. Hospodarsky, H. E. Spence, G. D. Reeves, H. O. Funsten, J. B. Blake, D. N. Baker, and J. R. Wygant, Intense duskside lower-band chorus waves observed by Van Allen Probes: Generation and potential acceleration effect on radiation belt electrons, J. Geophys. Res., 119, # 6, 4266–4273, June 2014 doi:10.1002/2014JA019919, 2014.
53. Su, Z., D.N. Baker, et al., Quantifying the relative contributions of substorm injections and chorus waves to the rapid outward extension of electron radiation belt, J. Geophys. Res., 119, #12, doi:10.1002/ja020709, 2014.
54. Su, Zhenpeng, et al., Nonstorm-time reformation of electron radiation belt observed by the Van Allen Probes, Geophys. Res. Lett., 41(92), 229-235, doi; 10.1002/2013GL058912, 2014.
55. Su, Z., et al., Nonstorm time dynamics of electron radiation belts observed by the Van Allen Probes,Geophys. Res. Letters ., 41, 229–235,doi:10.1002/2013GL058912, 2014.
56. Tu, Weichao, G. Cunningham, Y. Chen, S. Morley, G. Reeves, J. Blake, D.N. Baker, and H.E. Spence, Event-specific chorus wave and electron seed population models in DREAM3D using the Van Allen Probes, Geophys. Res. Lett., 41, #5, 1359-1366, doi:10.1002/2013GL058819, 2014.
57. Turner, D. L., V. Angelopoulos, S. K. Morley, M. G. Henderson, G. D. Reeves, W. Li, D. N. Baker, S. G. Claudepierre, J. B. Blake, C.-L. Huang, A. J. Boyd, H. E. Spence, and J. V. Rodriguez, On the cause and extent of outer radiation belt losses during the 30 September 2012 dropout event, J. Geophys. Res., 119(3), 1530-1540, doi:10.1002/2013JA019446, 2014.
58. Turner, D. L., V. Angelopoulos, W. Li, J. Bortnik, B. Ni, Q. Ma, R. M. Thorne, S. K. Morley, M. G. Henderson, G. D. Reeves, M. Usanova, I. R. Mann, S. G. Claudepierre, J. B. Blake, D. N. Baker, C. L. Huang, H. Spence, W. Kurth, C. Kletzing, and J. V. Rodriguez, Competing source and loss mechanisms due to wave-particle interactions in Earth's outer radiation belt during the 30 Sep. - 03 Oct. 2012 geomagnetic storm, J. Geophys. Res., 119, #3, 1960-1979, doi:10.1002/2014ja019770, 2014.
59. Usanova, M. E., A. Drozdov, K. Orlova, I. R. Mann, Y. Shprits, M. T. Robertson, D. L. Turner, D. K. Milling, A. Kale, D. N. Baker, S. A. Thaller, G. D. Reeves, H. E. Spence, C. Kletzing, and J. Wygant, Effect of EMIC waves on relativistic and ultra-relativistic electron populations: Ground-based and Van Allen Probes Observations, Geophys. Res. Lett., 41, #5, doi:10.1002/2013gl059024, 2014.
60. Xiao, F., D.N. Baker, et al., Chorus acceleration of radiation belt relativistic electrons during March 2013 geomagnetic storm, J. Geophys. Res., 119, #5, 3325-3332, doi:10.1002/2014JA019822, 2014.
61. Yu, Y., D.N. Baker, et al., Application and testing of the L* neural network with the self-consistent magnetic field model of RAM-SCB, J. Geophys. Res., doi:10.1002/2013ja019350, 2014.
62. Zhao, H., X. Li, J.B. Blake, J.F. Fennell, S.G. Claudepierre, D.N. Baker, A.N. Jaynes, D.M. Malaspina, and S.G. Kanekal, Peculiar pitch angle distribution of relativistic electrons in the inner radiation belt and slot region, Geophys. Res. Lett., 41, 2250-2257, doi:10.1002/2014GL059725, 2014.
63. Zhou, Q., D.N. Baker, et al., Excitation of nightside magnetosonic waves observed by Van Allen Probes, J. Geophys. Res., 119, #11, doi:10.1002/2014ja020481, 2014.
64. Xiao, F., et al., Wave acceleration of radiation belt relativistic electrons during March 2013 geomagnetic storm, Geophys. Res. Lett., 119, #5, 3325-3332, DOI: 10.1002/2014JA019822, May 2014.
65. Zhao, H., D.N. Baker, et al., Characteristics of pitch angle distributions of hundreds of keV electrons in the slot region and inner radiation belt, J. Geophys. Res., 119, #12, 2014.

2015

66. Liu, S., D.N. Baker, et al., Van Allen Probes observations linking radiation belt electrons to chorus waves during 2014 multiple storms, J. Geophys. Res., 120, #2m doi:10.1002/2014ja020781, 2015.
67. Baker, D.N., and Committee on Survey of Surveys: Lessons learned from the Decadal Survey Process, The Space Science Decadal Surveys; Lessons Learned and Best Practices, Space Studies Board, Division on Engineering and Physical Sciences, National Academies Press, www.nap.edu, October, 2015.
68. Baker, D.N., and T.M. Woods, Obituary of Charles A. Barth, 1930-2014, EOS, 98, #20, page 7, November 2015.
69. Baker, D.N., et al., Magnetospheric Multiscale Data Acquisition, Management, and Access, Space Sci. Rev., doi:10.1007/s11214-014-0128-5, February, 2015.
70. Baker, D.N., Making Space Safer, Op-Ed, Space News, December 29, 2015.
71. Cutter, S. L., Ismail-Zadeh, A., Alcantara-Ayala, I., Altan, O., Baker, D. N., Briceno, S., Wu, G. Global Risks: Pool knowledge to stem losses from disasters, Nature, 522(7556), 277-279, 2015.
72. Dai, L., Wang, C., Duan, S., He, Z., Wygant, J. R., Cattell, C. A., Tang, X., Near-Earth injection of MeV electrons associated with intense dipolarization electric fields: Van Allen Probes observations. Geophys. Res. Lett., 42(15), 6170-6179. doi:10.1002/2015GL064955, 2015.
73. Dewey, R. M., D.N. Baker, et al., Improving solar wind modeling at Mercury: Incorporating transient solar phenomena into the WSA-ENLIL model with the Cone extension. J. Geophys. Res., 120(7), 5667-5685. doi:10.1002/2015JA021194, 2015.
74. Drozdov, A. Y., Shprits, Y. Y., Orlova, K. G., Kellerman, A. C., Subbotin, D. A., Baker, D. N., Reeves, G. D., Energetic, relativistic, and ultrarelativistic electrons: Comparison of long-term VERB code simulations with Van Allen Probes measurements. J. Geophys. Res., 120(5), 3574-3587. doi:10.1002/2014JA020637, 2015
75. Engebretson, M. J., Posch, J. L., Wygant, J. R., Kletzing, C. A., Lessard, M. R., Huang, C. -L., Shiokawa, K., Van Allen probes, NOAA, GOES, and ground observations of an intense EMIC wave event extending over 12 h in magnetic local time. J. Geophys. Res., 120(7), 5465-5488. doi:10.1002/2015JA021227, 2015.
76. Feldman, W.C., D.N. Baker, et al., Long duration neutron production by nonflaring transients in the solar corona, J. Geophys. Res., 120, doi:10.1002/2015J021042, October. 2015.
77. Fennell, J.F., S. G. Claudepierre, J. B. Blake, T. P. O'Brien, J. H. Clemmons, D. N. Baker, H. E. Spence and G. D. Reeves, Van Allen Probes show the inner radiation zone contains no MeV electrons: ECT/MagEIS data, Geophys. Res. Lett., 42, #5, 1283-1289, doi: 10.1002/2014GL062874, March 2015.
78. Foster, J.C., D.N. Baker, et al., Shock-induced prompt relativistic electron acceleration in the inner magnetosphere, J. Geophys. Res., 120, #3, 1651-1674, doi:10.1002/2014JA020642, March, 2015.
79. He, Y., Xiao, F., Zhou, Q., Yang, C., Liu, S., Baker, D. N., Blake, J. B. Van Allen Probes observation and modeling of chorus excitation and propagation during weak geomagnetic activities, J. Geophys. Res., 120(8), 6371-6385, 2015. doi:10.1002/2015JA021376, 2015.
80. Hudson, M.K., D.N. Baker, et al., Modeling CME-shock driven storms in 2012-2013: MHD-test particle simulations, Geophys. Res. Lett., 120, #2, 1168-1181, doi: 10.1002/2014JA020833, February, 2015.
81. Ismail-Zade, A., D.N. Baker, et al., Assess disaster risk science to help reduce losses, Nature, 2015.
82. Jakosky, B., et al., MAVEN observations of the response of Mars to an interplanetary coronal mass ejection, Science, 350, #6261, doi: 10.1126/science.aad0210, November, 2015.
83. Jaynes, A.N., D.N. Baker, et al., Source and seed populations for relativistic electrons: Their roles in radiation belt changes, J. Geophys. Res., 120, 39, 7240-7254, doi:10.1002/2015JA021234, September, 2015.
84. Kanekal, S., D.N. Baker, et al., Relativistic electron response to the combined magnetospheric impact of a coronal mass ejection overlapping with a high-speed stream: Van Allen Probes observations, J. Geophys. Res., 120, #9, 7629-7641, doi: 10.1002/2015JA021395, September, 2015.
85. Lawrence, D.J., B.J. Anderson, D.N. Baker, W.C. Feldman, G.C. Ho, H. Korth, R.L. McNutt, Jr., P.N. Peplowski, S.C. Solomon, R.D. Starr, J.D. Vandegriff, and R.M. Winslow, Comprehensive survey of energetic electron events in Mercury's magnetosphere with data from the MESSENGER Gamma Ray and Neutron Spectrometer, J. Geophys. Res.: Space Physics, 120, doi:10.1002/2014JA020792, April, 2015.
86. Li, X., Selesnick, R. S., Baker, D. N., Jaynes, A. N., Kanekal, S. G., Schiller, Q., Blake, J. B., Upper limit on the inner radiation belt MeV electron intensity. J. Geophys. Res., 120(2), 1215-1228. doi:10.1002/2014JA020777, 2015.
87. Lillis, R.J., D.N. Baker, et al., Characterizing atmospheric escape from Mars today and through time, with MAVEN, Space Science Reviews, doi: 10.107/s11214-015-0165-8, published online, September, 2015.

88. Liu, S., D.N. Baker, et al. Van Allen Probes observations linking radiation belt electrons to chorus waves during 2014 multiple storms, J. Geophys. Res., 120(2), 938-948. doi:10.1002/2014JA020781, 2015.
89. Ma, Qianli, W. Li, R. M. Thorne, B. Ni, C. A. Kletzing, W. S. Kurth, G. B. Hospodarsky, G. D. Reeves, M. G. Henderson, H. E. Spence, D. N. Baker, J. B. Blake, J. F. Fennell, S. G. Claudepierre and V. Angelopoulos, Modeling inward diffusion and slow decay of energetic electrons in the Earth's outer radiation belt, Geophys. Res. Lett., 42, #4, doi: 10.1002/2014GL062977, February, 2015.
90. Ni, B., D.N. Baker, et al., Variability of the pitch angle distribution of radiation belt ultra-relativistic electrons during and following intense geomagnetic storms: Van Allen Probes observations, J. Geophys. Res., 120, #6, 4863-4876, doi:10.1002/2015JA021065, June, 2015.
91. O'Brien, T.P., D.N. Baker, et al., On the use of drift echoes to characterize on-orbit sensor discrepancies, Journal of Geophysical Research, 120, #3, 2076-2087, doi:10.1002/2014JA020859, March, 2015.
92. Rong, Z.J., D.N. Baker, et al., Time delay of interplanetary magnetic field penetration into Earth's magnetotail, J. Geophys. Res., 120, #5, 120, 3406-3414, doi:10.1002/2014JA020452, May, 2015.
93. Fennel, J.F., D.N. Baker, et al., Van Allen Probes show that the inner radiation zone contains no MeV electrons: ECT/MagEIS data, Geophys. Res. Lett., 42, #5, 2015.
94. Zhao, H., D.N. Baker, et al., The evolution of ring current ion energy density and energy content during geomagnetic storms based on Van Allen Probes measurements, J. Geophys. Res., 120, #9, 2015.
95. Su, Z., D.N. Baker, et al., Disappearance of plasmaspheric hiss following interplanetary shock, Geophys. Res. Lett., 42, #9, 3129-3140, doi.10.1002/2015GL063906, May, 2015.
96. Sun, Wei-Jie, Q.-C Zong, J. M. Raines, Z. Yao, G.K. Poh, D.J. Gershman, T. Sundberg, B. Anderson, H. Korth, D.N. Baker, and J.A. Slavin, MESSENGER observations of magnetospheric substorm activity in Mercury's near magnetotail, Geophys. Res. Lett., 42, #10, 3692-3699, doi:10.1002/2015GL064052, May, 2015.
97. Xiao, F., D.N. Baker, et al., Wave-driven butterfly distribution of Van Allen belt relativistic electrons, Nature Communications, 6, #8590, doi:10.1039/ncomms9590, October, 2015.
98. Xiao, F., et al., Revealing the generation of extremely low frequency chorus in Van Allen radiation belts, Nature, submitted, 2015.
99. Yu, J., et al., Multiple loss processes of relativistic electrons outside the heart of outer radiation belt during a storm sudden commencement, Geophys. Res. Lett., 120, doi:10.1002/2015JA021460, 2015.
100. Zhu, Hui, Zhenpeng Su, Fuliang Xiao, Huinan Zheng, Yuming Wang, Chao Shen, Tao Xian, Shui Wang, C. A. Kletzing, W. S. Kurth, G. B. Hospodarsky, H. E. Spence, G. D. Reeves, H. O. Funsten, J. B. Blake and D. N. Baker, Plasmatrough exohiss waves observed by Van Allen Probes: Evidence for leakage from plasmasphere and resonant scattering of radiation belt electrons, Geophys. Res. Lett., 42, #4, doi: 10.1002/2014GL062964, 2015.
101. Ni, B., Z, Zou, X. Gu, C. Zhou, R.M. Thorne, J. Bortnik, R. Shi, Z. Zhao, D.N. Baker, S.G. Kaneka, H.E. Spence, G.D. Reeves, and Z. Li, Variability of the pitch angle distribution of radiation belt ultrarelativistic electrons during and following intense geomagnetic storms: Van Allen Probes observations, J. Geophys. Res., 120, #6, doi:10.1002/2015JA021065, 2015.
102. Bougher, S., B. Jakosky, J. Halekas, J. Grebowsky, J. Luhmann, P. Mahaffy, J. Connerney, F. Eparvier, R. Ergun, D. Larson, J. McFadden, D. Mitchell, N. Schneider, R. Zurek, C. Mazelle, L. Andersson, D. Andrews, D. Baird, D.N. Baker, and J.M. Bell, Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability, Science, 350, #6261, doi:10.1126/science.aad0459, 2015.
103. Shprits, Y., A.C. Kellerman, A.Y. Drozdov, H.E. Spence, G.D. Reeves, D.N. Baker, Combined convective and diffusive simulations: VERG-4D comparison with 17 March 2013 Van Allen Probes observations, Geophys. Res. Lett., 42, #22, 2015.
104. Feldman, W.C., D.J. Lawrence, W. T. Vestrand, D.N. Baker, P.N. Peplowski, and D.J. Rodgers, Long-duration neutron production by nonflaring transients in the solar corona, J. Geophys. Res, 120 #10, 2015.
105. Su, J., D.N. Baker, et al., Ultra-low-frequency wave-driven diffusion of radiation belt relativistic electrons, Nature Communications, 6, 2015.
106. Shprits, Y.Y., D.N. Baker, et al., Combined convective and didffusive simulations: VERB-4D comparison with 17 March 2013 Van Allen Probes, Geophys. Res. Lett., 42, 2015.
107. Jaynes, A.N., D.N. Baker, et al., Correlated Pc4–5 ULF waves, whistler-mode chorus, and pulsating aurora observed by the Van Allen Probes and ground-based systems, J. Geophys. Res., 120, 2015.
108. Xiao, F., D.N. Baker, et al., Penetration of magnetosonic waves into the plasmasphere observed by the Van Allen Probes, Geophys. Res. Lett., 42, #18, 2015.
109. Li, W., D.N. Baker, et al., Solar wind conditions leading to efficient radiation belt electron acceleration: A superposed epoch analysis, Geophys. Res. Lett., 42, 317, 2015.

2016

110. Alves, L., D.N. Baker, et al., Outer radiation belt dropout dynamics following the arrival of two interplanetary coronal mass ejections, Geophys. Res. Lett., 43, #3, 978-987, online Feb. 6, 2016, doi:10.1002/2015GL067066, 2016.
111. Baker, D.N., Plasma Physics and the 2013-2022 Decadal Survey in Solar and Space Physics, Plasma Physics and Controlled Fusion, published October 2016.
112. Baker, DN., et al., Intense energetic-electron flux enhancements in Mercury's magnetosphere: An integrated view with high-resolution observations from MESSENGER, Jour. Geophys. Res., 121, #3, 2171-2184, doi:10.1002/2015JA021778, 2016.
113. Baker, D.N., Wave and Particle measurements in Earth's neighborhood: A historical Mission overview, Chapter 1 in Waves, Particles, and Storms in Geospace, A Complex Interplay, G. Balasis, I.A. Daglis, and I.R. Mann, editors, Oxford University Press, ISBN 9780198705246, 2016.
114. Baker, D.N., A.N. Jaynes, S.G. Kanekal, J.C. Foster, P.J. Erickson, J.F. Fennell, J.B. Blake, G.D. Reeves, and H.E. Spence, Highly relativistic radiation belt electron acceleration, transport, and loss: Large solar storm events of March and June, 2015, J. Geophys. Res., 121, #7, 6647-6660, doi:10.1002/2016JA022502, 2016.
115. Baker, D.N., A.N. Jaynes, D.L Turner, R. Nakamura, D. Schmid, B. Mauk, I. Cohen, J.F. Fennell, J.B. Blake, R.J. Strangeway, C.T. Russell R.B. Torbert, J.C. Dorelli, D.J. Gershman, B.L. Giles, and J.L. Burch, A telescopic and microscopic examination of acceleration in the June 2015 geomagnetic storm: Magnetospheric MultiScale and Van Allen Probes study of substorm particle injection, Geophys Res. Lett., 43, #12, 6051-6059, 2016GL069643, 2016.
116. Baker, D.N., A.N. Jaynes, S.G. Kanekal, J.C. Foster, P.J. Erickson, J.F. Fennell, J.B. Blake, H. Zhao, X. Li, S. Elkington, M.G. Henderson, G.D. Reeves, H.E. Spence, C.A. Kletzing, and J.R. Wygant, Highly relativistic radiation belt electron acceleration, transport, and loss: Large solar storm events of March and June 2015, J. Geophys. Res. – Space Physics, 121, #7, 2016.
117. Sigsbee, K., et al., Van Allen Probes, THEMIS, GOES, and Cluster observations of EIC waves, ULF pulsations, and an electron flux dropout, J. Geophys. Res., 121, #3 doi:10.1002/2014JA020877, 2016.
118. Sigsbee, K., et al., Van Allen Probes, THEMIS, GOES, and Cluster observations of EIC waves, ULF pulsations, and an electron flux dropout, J. Geophys. Res., 121, #3 doi:10.1002/2014JA020877, 2016.
119. Baker, D.N. and Louis J. Lanzerotti, Space Weather, American Journal of Physics, 84, 166; published online, February 2016, url: http://scitation.aip.org/content/aapt/journal/ajp/84/3/10.1119/1.4938403?aemail=author, doi: 10.1119/1.4938403.
120. Baker, D.N., and L.J. Lanzerotti, "Resource Letter" for Space Weather, Space Weather, 14, doi:10.1002/2016W001485, 2016.
121. Baker, D.N., R.M. Dewey, D.J. Lawrence, J.O. Goldsten, P.N. Peplowski, H. Korth, J.A. Slavin, S.J. Krimigis, B.J. Anderson, G.C. Ho, R.L. McNutt, J.M. Raines, D. Schriver, and S.C. Solomon, Intense energetic electron flux enhancements in Mercury's magnetosphere: An integrated view with high-resolution observations from MESSENGER, J. Geophys. Res., v. 121, doi:10.1002/2015JA021778, online Jan 2016.
122. Baker, D.N., Becoming a Space Weather-Ready Nation, a Commentary, Space Weather Quarterly, Vol. 13, #4, 2016.
123. Baker, D.N., "Resource Letter" for Space Weather, Space Weather Quarterly, v. 14, #3, 2016.
124. Baker, D.N., et al., Magnetospheric multiscale instrument suite operations and data system, Space Science Reviews, 199, March 2016.
125. Blake, J.B., D.N. Baker, et al., The Fly's Eye Energetic Particle spectrometer (FEEPS) sensors for the magnetospheric multiscale (MMS) mission, Space Science Review, 199, doi:10.1007/s11214-015-0163-x, 2016.
126. Boyd, A.J., et al., Statistical properties of the radiation belt seed population, J. Geophys. Res., 121, 2016.
127. Burch, J.L., D.N. Baker, et al., Electron-scale measurements of magnetic reconnection in Space, Science, 352, #6290, doi:10.1126/science.aaf2939, 2016.
128. Dewey, R.M., D.N. Baker, et al., Continuous solar wind forcing knowledge: Providing continuous conditions at Mars with the WSA-ENLIL + Cone model, J. Geophys. Res.: Space Physics, 121, doi:10.1002/2015JA021941, 2016.
129. Fennell, J.F., et al., Microinjections observed by MMS FEEPS in the dusk to midnight region, Geophys. Res., Lett., 43, 2016.
130. Fisk, L., D.N. Baker, and N. Fox, The space weather forecasting imperative, Commentary in Space News, December, 2016.
131. Foster, J.C., et al., Observations of the impenetrable barrier, the plasmapause, and the VLF bubble during the 17 March 2015 storm, J. Geophys. Res., 121, 2016.

132. Goldstein, J., D.N. Baker, et al., The relationship between the plasmapause and outer belt electrons, J. Geophys. Res., 121, doi:10.1002/2016JA023046, 2016.
133. Hao, Y.X., et al., Electron dropout echoes induced by interplanetary shock: Van Allen Probes Observations, Geophys. Res. Lett., 32, 2016.
134. Ho, G., D.N. Baker, et al., MESSENGER interplanetary magnetic field environment electrons in Mercury's magnetosphere, Geophys. Res. Lett., 43, 550–555, doi:10.1002/2015GL066850, 2016.
135. Jaynes, A.N., et al., Energetic electron acceleration observed by MMS in the vicinity of an X-line crossing, Geophys. Res. Lett., 43, 2016.
136. Kanekal, S.G., et al., Prompt acceleration of magnetospheric electrons to ultrarelativistic energies by the 17 March 2015 interplanetary shock, J. Geophys. Res., 121, 2016.
137. Li, Jinxing, D.A. Baker et al., Ultrarelativistic electron butterfly distributions created by parallel acceleration due to magnetospheric waves, J. Geophys. Res., doi:10.1002/2016JA022370, 2016.
138. Li, W., D.N. Baker et al., Radiation Belt Electron Acceleration During the 17 March 2015 Geomagnetic Storm: Observations and Simulations, J. Geophys. Res., 119, #6, 4681-4693, doi:10.1002/2016JA022370, 2016.
139. Liu, H., et al., Compressional ULF wave modulation of energetic particles in the inner magnetosphere, J. Geophys. Res., 121, 2016.
140. Mann, I.R., D.N. Baker, et al., Explaining the dynamics of the ultra-relativistic third Van Allen radiation belt, Nature Physics, 12, doi:10.1038/nphs3799, 2016.
141. Mauk, B.H., et al., The Energetic Particle Detector (EPD) investigation and the Energetic Ion Spectrometer (IES) for the MMS Mission, Space Science Rev., 199, 2016.
142. Morley, S., J. Sullivan, M. Henderson, J. Blake, and D.N. Baker, The Global Positioning System constellation as a space weather monitor: Comparison of electron measurements with Van Allen Probes data, Space Weather, 14, #2, 76-92, 2016.
143. Selesnick R.S. D.N. Baker, A. N. Jaynes, X. Li, 3, S. G. Kanekal, M. K. Hudson, and B. T. Kress, Inward diffusion and loss of radiation belt protons, J. Geophys. Res., doi: 10.1002/, 121, #3, 1969-1978, 2016.
144. Shprits, Y., D.N. Baker, et al., Wave-induced loss of ultra-relativistic electrons in the Van Allen Radiation Belts, Nature Communications, 7, Published online 2016 Sep 28. doi:10.1038/ncomms12883 2016.
145. Sigsbee, K., et al., Van Allen Probes, THEMIS, GOES, and Cluster observations of EMI waves, ULF pulsations, and an electron flux dropout, J. Geophys. Res., doi:10.1002/2014JA020877, 121, #3, 1990-2008, 2016.
146. Su, Z., et al., Nonstorm tie dropout of radiation belt electron fluxes on 24 September 2013, J. Geophys. Res., 121, 2016.
147. Turner, D.L., et al., Energy limits of electron acceleration in the plasma sheet during substorms: A case study with the Magnetospheric Multiscale (MMS) mission, Geophys. Res. Lett., 43, 2016.
148. Xiao, F., D.N. Baker, et al., Revealing the generation of extremely low frequency chorus in Van Allen radiation belts, Nature, 7, doi:10.1038/ncomms12883, 2016.
149. Yang, C., et al., Rapid flattening of butterfly pitch angle distributions of radiation belt electron by whistler-mode chorus, Geophys. Res. Lett., 43, 2016.
150. Yu, J., et al., The influences of solar wind pressure and interplanetary magnetic field on global magnetic field and outer radiation belt electrons, Geophys. Res. Lett., 43, 2016.
151. Zhang, X-J, et al., Physical mechanism causing rapid changes in ultrarelativistic electron pitch angle distributions right after a shock arrival: Evaluation of an electron dropout event, J. Geophys. Res., 121, 2016.
152. Zhao, H., et al., Ring current electron dynamics during geomagnetic storms based on the Van Allen Probes measurements, J. Geophys. Res., 121, #4, 3333, 2016.
153. Zhou, Q., D.N. Baker, et al., Evolution of chorus emissions into plasmaspheric hiss observed by Van Allen Probes, J. Geophys. Res., 121, 2016.
154. Reeves, G.E., D.N. Baker, et al., Energy-dependent dynamics of keV to MeV electrons in the inner zone, outer zone, and slot regions, J. Geophys. Res., 121, #1, doi: 10.1002/2015JA021569, 2016.
155. Zhang, J., A. Halford, A. Saikin, D.N. Baker, et al., EMIC waves and associated relativistic electron precipitation on 25-26 January 2013: EMIC waves and REP, J. Geophys. Res., 121, doi: 10.1002/2016JA022918, 2016.
156. Li, J., B. Ni, Q. Ma, L. Xie, Z. Pu, S. Fu, R.M. Thorne, J. Bortnik, L. Chen, W. Li, D.N. Baker, C. Kletzing, W. Kurth, G.B. Hospodarsky, J. Fennell, G. D. Reeves, H. Spence, H.O. Funsten, D. Summers, Formation of energetic electron butterfly distributions by magnetosonic waves via Landau resonance, Geophys. Res. Lett., 43, #7, doi:10.1002/2016GL067853, 2016.

157. Tang, C.L., J.-C. Zhang, G.D. Reeves, Z. P. Su, D.N. Baker, H.E. Spence, H.O. Funsten, J.B. Blake, and J.R. Wygant, Prompt enhancement of the Earth's outer radiation belt due to substorm electron injections, J. Geophys. Res., 121, #12, doi:10.1002/2016JA023550, 2016.
158. Ma, Q., D.N. Baker, et al., Simulation of energy-dependent electron diffusion processes in the Earth's outer radiation belt, J. Geophys. Res., 121, #5, 2016.
159. Ma, Q., W. Li, R.M. Thorne, J. Bortnik, G.D. Reeves, C.A. Kletzing, W.S. Kurth, G.B. Hospodarsky, H.E. Spence, D.N. Baker, J.B. Blake, J.F. Fennell, S.G. Claudepierre, and V. Angelopoulos, Characteristic energy range of electron scattering due to plasmaspheric hiss, J. Geophys. Res., 121, #12, 2016.
160. Schiller, Q., et al., Prompt injections of highly relativistic electrons induced by interplanetary shocks: A statistical study of Van Allen Probes observations: Shock induced injections and depletions, Geophys. Res. Lett, 43(24), 2016.
161. Tang, C.L., D.N. Baker, et al., Prompt enhancement of the Earth's outer radiation belt cue to substorm electron injections, J. Geophys. Res., 121, 2016.
162. Baker, D.N., Plasma physics and the 2013-2022 decadal survey in solar and space physics, Plasma Physics and Controlled Fusion, 58, 2016.
163. Zhang, X.-J, D.N. Baker, et al., Direct evidence for EMIC wave scattering of relativistic electrons in space, J. Geophys. Res., 2016.
164. Su, Z., D.N. Baker, et al., Nonstorm time dropout of radiation belt electron fluxes on 24 September 2013, Physics and Astronomy, 121, 2016.
165. Cohen, I.J., D.N. Baker, et al., Observations of energetic particle escape at the magnetopause: Early results from the MMS Energetic Ion Spectrometer (EIS), Physics and Astronomy, 43, 2016.
166. Nakamura, R., D.N. Baker, et al., Transient, small-scale field-aligned currents in the plasma sheet boundary layer during storm time substorms, Geophys. Res. Lett., 2016.
167. Souza, V.M., D.N. Baker, et al., A neural network approach for identifying particle pitch angle distributions in Van Allen Probes data, Space Weather, 14, 2016.
168. Zhao, H., D.N. Baker, et al., Ring current electron dynamics during geomagnetic storms based on the Van Allen Probes measurements, J. Geophys. Res., 121, #4, 2016.
169. Baker, D.N., and L.J. Lanzerotti, Resource Letter SW1: Space Weather, American Journal of Physics, 84(3), 2016.
170. Mauk, B.H., D.N. Baker, et al., The Energetic Particle Detector (EPD) Investigation and the Energetic Ion Spectrometer (EIS) for the Magnetospheric Multiscale (MMS) Mission, Space science Rev., 2016.

2017

171. Foster, J.C., et al., Van Allen Probes observations of prompt MeV radiation belt electron acceleration in non-linear interactions with VLF Chorus, J. Geophys. Res., 122, #1, doi: 10.1002/2016JA023429, 2017.
172. Selesnick, R.S., D.N. Baker, and S.G. Kanekal, Proton straggling in the silicon detector, Nuclear Instruments and Methods in Physics Research, B, vol. 394, 145-152, 2017.
173. Gombosi, T.I., D.N. Baker, et al., Anthropogenic Space Weather, Space Science Reviews, doi:10.1007/s11214-017-0357-5, 2017.
174. Chaston, C.C., J.W. Bonnell, J.R. Wygant, G.D. Reeves, D.N. Baker, D.B. Melrose, and I.H. Cairns, Radial transport of radiation belt electrons in kinetic field-line resonances, Geophys. Res. Lett., 44, #16, doi: 10.1002/2017GL074587, 2017.
175. Cassack, P.A., A.G. Emslie, A.J. Halford, D.N. Baker, H.E. Spence, S.K. Avery, L.A. Fisk, Space Physics and Policy for Contemporary Society, Jour. Geophys. Research, Space Physics, 122, #4, doi: 10.1002/2017JA024219, 2017.
176. Buzulukova, Natalia, editor, Extreme Events in Geospace, 1st edition, Origins, Predictability, and Consequences, Elsevier, ISBN: 9780128127001, December 1, 2017.
177. Baker, D.N., and M.I. Panasyuk, Discovering Earth's radiation belts, Physics Today, 70, #12, 2017.
178. Matsui, H., R.B. Torbert, H.E. Spence, M.R. Argall, L. Alm, C.J. Farrugia, W.S. Kurth, D.N. Baker, J.B. Blake, H.O. Funsten, G.D. Reeves, R.E. Ergun, Y. V. Khotyaintsev, and P.-A Lindqvist, Relativistic Electron Increase During Chorus Wave Activities on the 6–8 March 2016 Geomagnetic Storm, J. Geophys. Res., 122, #11, doi: 1002/2017JA024540, 2017.
179. Li, X., D.N. Baker, R. Selesnick, Q. Schiller, K. Zhang, H. Zhao, and M.A. Temerin, Measurement of electrons from albedo neutron decay and neutron density in near-Earth space, Nature, 552, 382-385, doi:10.1038/nature24642, 2017.

180. Moya, P.S., V.A. Pinto, D.G. Sibeck, S.K. Kanekal, and D.N. Baker, On the effect of geomagnetic storms on relativistic electrons in the outer radiation belt: Van Allen Probes observations, J. Geophys. Res., 122, #11, 2017.
181. Turner, D.L., J.H. Lee, S.G. Claudepierre, J.F. Fennell, J.B. Blake, A.N. Jaynes, D.N. Baker, et al., Examining coherency scales, substructure, and propagation of Whistler mode chorus elements with magnetospheric multiscale (MMS), J. Geophys. Res., 122, #11, 2017.
182. Koskinen, H.E., D.N. Baker, A. Balogh, R. Gombosi, A. Veronig, and R. von Steiger, Achievements and Challenges in the Science of Space Weather, Space Science Reviews, 212, Issue 3–4, pp 1137–1157, 2017.
183. Tang, C.L., Y.X Wang, B. Ni, A.P. Su, G.D. Reeves, J.C. Zhang, and D.N. Baker, The effects of magnetospheric processes on relativistic electron dynamics in the Earth's outer radiation belt, J. Geophys. Res., Space Physics, 122 (10), 9952-9968, 2017.
184. Ma, Q., W. Li, R.M. Thorne, J. Bortnick, G.D. Reeves, H.E. Spence, D.L. Turner, and D.N. Baker, Diffusive Transport of Several Hundred keV Electrons in the Earth's Slot Region, J. Geophys. Res., 122, doi: 10.1002/2017JA024452, 2017.
185. Cohen, I.M., B.H. Mauk, B.J. Anderson, J.Y. Westlake, D.G. Sibeck, D.L. Turner, D.N. Baker, H.E. Spence, G.D. Reeves, B.J. Giles, R.J. Strangway, R.G. Torbert, and J.L. Burch, Statistical analysis of MMS observations of energetic electron escape observed at/beyond the dayside magnetopause, J. Geophys. Res., 122, #9, 9440-0463, doi:10.1002/2017JA024401, 2017.
186. Schiller, Q., S.G. Kanekal, A.J. Boyd, L. Blum, A.D. Jones, D.H. Baker, and J.B. Blake, On the cause of two prompt shock-induced relativistic electron depletion events, J. Atmos. and Solar-Terrestrial Physics, https://doi.org/10.1016/j.jastp.2017.08.017, 2017.
187. Alves, L.R., V.M. Souza, P.R. Jauer, L.A. da Silva, C. Medeiros, C.R. Braga, The Role of solar wind structures in the generation of ULF waves in the inner magnetosphere, Solar Physics, 292, #7, doi: 10.1007/s11207-017-1113-4, 2017.
188. Yang, C., Z. Su, F. Xiao, H. Zheng, Y. Wang, S. Wang H.E. Spence, G.D. Reeves, D.N. Baker, J.B. Blake, and H.O. Funsten, A positive correlation between energetic electron butterfly distributions and magnetosonic waves in the radiation belt slot region, Geophys. Res. Letters, 44, #9, doi:10.1002/2017GLO73116, 2017.
189. Li, X., D.N. Baker, H. Zhao, K. Zhang, A.N. Jaynes, Q. Schiller, S.G. Kanekal, J.B. Blake, and M. Temerin, Radiation belt electron dynamics at low *L* (<4): Van Allen Probes era versus previous two solar cycles, J. Geophys. Res., 122, #5, doi:10.1002/2017JA023924, 2017.
190. Ozeke, L.G., I.R. Mann, K.R. Murphy, D.G. Sibeck, and D.N. Baker, Ultra-relativistic radiation belt extinction and ULF wave radial diffusion: Modeling the September 2014 extended dropout event, Geophys. Res. Lett., 44, #6, doi:10.1002/2017GL072811 2017.
191. Zhao, H., D.N. Baker, A.N. Jaynes, X. Li, S.R. Elkington, S.G. Kanekal, et al., On the relation between radiation belt electrons and solar wind parameters/geomagnetic indices: Dependence on the first adiabatic invariant and L, J. Geophys. Res., 122, #2, doi: 10.1002/2016JA023658, 2017.
192. Liu, N., Z. Su, H. Zheng, Y. Wang, S. Wang, H.E. Spence, G.D. Reeves, D.N. Baker, J.B. Blake, H.O. Funsten, and J.R. Wygant, Simultaneous disappearances of plasmaspheric hiss, exohiss, and chorus waves triggered by a sudden decrease in solar wind dynamic pressure, Geophys. Res. Lett., 44, #1, doi: 10.1002/2016GL071987 2017.
193. Dewey, R.W., J.A. Slavin, J.M. Raines, D.N. Baker, and D.J. Lawrence, Energetic electron acceleration and injection during dipolarization events in Mercury's magnetotail, J. Geophys. Res., doi: 10.1002/2017JA024617, 2017.
194. Zhao, H., D.N. Baker, S. Califf, X. Li, A.N. Jaynes, T. Leonard, S.G. Kanekal, J.B. Blake, J.F. Fennell, S.G. Claudepierre, D.L. Turner, G.D. Reeves, and H.E. Spence, Van Allen Probes Measurements of Energetic Particle Deep Penetration Into the Low L Region (L < 4) During the Storm on 8 April 2016, J. Geophys. Res., doi:10.1002/2017JA024558, 2017.
195. Turner, D.L., J.F. Fennell, J.B. Blake, S. G. Claudepierre, J.H. Clemmons, A.N. Jaynes, T. Leonard, D.N. Baker, I.J. Cohen, M. Gkioulidou, A.Y. Ukhorskiy, B.H. Mauk, C. Gabrielse, V. Angelopoulos, R.J. Strangeway, C.A. Kletzing, O. Le Contel, H.E. Spence, R.B. Torbert, J.L. Burch, and G.D. Reeves, Multipoint Observations of Energetic Particle Injections and Substorm Activity During a Conjunction Between Magnetospheric Multiscale (MMS) and Van Allen Probes, J. Geophys. Res., 122, #11, doi: 10.1002/2017JA024554, 2017.
196. Tang, C.L., Y.X. Wang, B. Ni, J.C. Zhang, G.D. Reeves, Z.P. Su, D.N. Baker, Radiation belt seed population and its association with the relativistic electron dynamics: A statistical study, J. Geophys. Res., 122, #5, doi:10.1002/2017JA023905, 2017.

197. Li, L.Y., J. Yu, J.B. Cao, J.Y. Yang, Z. Li, D.N. Baker, G.D. Reeves, and H. Spence, Roles of whistler mode waves and magnetosonic waves in changing the outer radiation belt and the slot region, J. Geophys. Res., 122, #5, doi: 10.1002/2016JA023634, 2017.
198. Turner, D.L., T.P. O'Brien, J.F. Fennell, S.G. Claudepierre, J.B. Blake, A.N. Jaynes, D.N. Baker, S.G. Kanekal, M. Gkioulidou, M.G. Henderson, and G.D. Reeves, Investigating the source of near-relativistic and relativistic electrons in Earth's inner radiation belt, J. Geophys. Res., 122, #1, doi:10.1002/2016JA023600, 2017.
199. Jones, A.D., S.G. Kanekal, D.N. Baker, B. Klecker, M.D. Looper, J.E. Mazur, SAMPEX observations of the South Atlantic anomaly secular drift during solar cycles 22-24, Space Weather, 15, #1, doi: 10.1002/2016SW001525, 2017.
200. Li, X., R. Selesnick, Q. Schiller, K. Zhang, H. Zhao, D.N. Baker, M.S. Temerin, Measurement of electrons from albedo neutron decay and neutron density in near-Earth space, Nature, 552, #7685, doi:10.1038/nature24542, 2017.
201. Koskinen, H.E.J., D.N. Baker, A. Balogh, T. Gombosi, A. Veronig, and R. von Steiger, Achievements and challenges in the science of Space Weather, Space Science Reviews, 212, #3-4, doi:10.1007/s11214-017-0390-4, 2017.
202. Cohen, I.J., B.H. Mauk, B.J. Anderson, J.H. Westlake, D.G. Sibeck, D.L. Turner, J.F. Fennell, J.B. Blake, A.N. Jaynes, T.W. Leanard, D.N. Baker, H.E. Spence, G.D. Reeves, B.J. Giles, R.J. Strangeway, R.G. Torbert, and J.L. Burch, Statistical analysis of MMS observations of energetic electron escape observed at/beyond the dayside magnetopause, J. Geophys. Res., 122, #9, doi:10.1002/2017JA024401, 2017.
203. Lanzerotti, L.J. and D.N. Baker, Space weather research: Earth's radiation belts, Space Weather – The International Journal of Research and Applications, 14, #3, doi:10.1002/2017SW001654, 2017.
204. Chaston, C., J. Bonnell, J. Wygant, G. Reeves, D.N. Baker, and D. Melrose, Radiation belt "dropouts" and drift-bounce resonances in broadband electromagnetic waves, Geophys. Res. Lett., under review, 2017.
205. Su, Z., Z. Gao, H. Zheng, Y. Wang, S. Wang, H. Spence, G.D. Reeves, D.N. Baker, and J.R. Wygant, Rapid loss of radiation belt relativistic electrons by EMIC waves, J. Geophys. Res., doi:10.1002/2017JA924169, 2017.
206. Xiang, Z, W. Tu, Z. Li, B. Ni, S.K. Morley, and D.N. Baker, Understanding the mechanisms of radiation belt dropouts observed by Van Allen Probes, J. Geophys. Res. 122, #10, doi:10.1002JA024487, 2017.
207. Xiao, F., S. Liu, X. Tao, Z. Su, Q. Z, C. Yang, Z. He, Y. He, Z. Gao, D.N. Baker, H.E. Spence, H.O. Funston, and J.B. Blake, Generation of extremely low frequency chorus in Van Allen radiation belts, J. Geophys. Res., 122, #3, March 2017.
208. Zhou, Q., F. Xiao, C. Yang, S. Liu, Y. He, D.N. Baker, H.E. Spence, G.D. Reeves, and H.O. Funsten, Generation of lower and upper bands of electrostatic electron cyclotron harmonic waves in the Van Allen radiation belts, Geophys. Res. Lett., 44, #11, doi:10.1002/2017GL073051, 2017.
209. Chaston, C., J. Bonnell, J. Wygant, G. Reeves, D.N. Baker, and D. Melrose, Radiation belt "dropouts" and drift-bounce resonances in broadband electromagnetic waves, Geophys. Res. Lett., *under review*, 2017.

2018

210. Selesnick, R.S., D.N. Baker, S.G. Kanekal, V.C. Hoxie, and X. Li, Modeling the proton radiation belt with Van Allen Probes relativistic electron-proton telescope data, J. Geophys. Res., doi:101002/2017JA024661, 2018.
211. Xiang, Z., D.N. Baker, et al., Understanding the mechanisms of radiation belt dropouts observed by Van Allen Probes, J. Geophys. Res., 2018.
212. Riley, P., D.N. Baker, Y.D. Liu P. Verronen, H. Singer, and M. Güdel, Extreme space weather events: From cradle to grave, Space Science Reviews, 214:21, 2018.
213. Baker, D.N., P.J. Erickson, J.F. Fennell, et al., Space Weather Effects in the Earth's radiation belts, Space Sci. Res., (online 2017), 214: 17. doi:10.1007/s11214-017-0452-7, 2018.
214. Xu, Jiyao, Zhaohai He, Daniel N. Baker, Ian Roth, Chi Wang, Lei Dai, Shri Kanekal, and Xiao Liu, Rapid response of inner radiation belt protons (>20MeV) to geomagnetic activities observed by the RBSP spacecraft, Geophys. Res. Lett., under review.
215. Zhao, H., D.N. Baker, X. Li, A.N. Jaynes, and S. Kanekal, The acceleration of ultra-relativistic electrons during a small to moderate storm of 21 April 2017, Geophys. Res. Lett., under review, 2018.
216. Baker, D.N., A.N. Jaynes, P.J. Erickson, J.F. Fennell, J.C. Foster, and P.T. Verronen, Space Weather Effects in the Earth's Radiation Belts, International Space Science Institute (ISSI), Space Science Reviews, 214, 2018.
217. Lentz, C.L., D.N. Baker, AN. Jaynes, R.M. Dewey, C.O. Lee, D.A. Brain, and J.S. Halekas, Modeling the proton radiation belt between WSA-ENLIL+Cone Model and MAVEN in situ observations from November 2014 to March 2016, Space Weather, May, 2018.

218. Nikoukar, Romina, D.J. Lawrence, P.N. Peplowski, R.M. Dewey, H. Korth, D.N. Baker, and R.L. McNutt, Jr., Statistical Study of Mercury's energetic electron events as observed by the Gamma-Ray and Neutron Spectrometer instrumcnt onboard MESSENGER, J. Geophys. Res., May, 2018.
219. Baker, D.N., and A. Chandran, Space, still the final frontier, Science Magazine, Editorial, 361, 6399, 207, doi:10.1126/science.aau7631, 20 July 2018.