

## PUBLICATIONS

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1. Garcia, R.R. and J.E. Geisler, 1974: Vertical structure of stationary planetary waves in the presence of altitude-dependent zonal wind and dissipation. *J. Geophys. Res.*, *79*, 5613-5623.
2. Geisler, J.E. and R.R. Garcia, 1977: Baroclinic instability at long wavelengths on a beta plane. *J. Atmos. Sci.*, *34*, 311-321.
3. Hartmann, D.L. and R. R. Garcia, 1979: A mechanistic model of ozone transport by planetary waves in the stratosphere. *J. Atmos. Sci.*, *36*, 350-364.
4. Garcia, R.R. and D.L. Hartmann, 1980: The role of planetary waves in the maintenance of the zonally-averaged ozone distribution of the upper stratosphere. *J. Atmos. Sci.*, *37*, 2248-2264.
5. Katz, R.W. and R.R. Garcia, 1980: Statistical relationships between hailfall and damage to wheat. *Agric. Meteor.*, *24*, 29-43.
6. Garcia, R.R. and J.E. Geisler, 1981: Stochastic forcing of small-amplitude oscillations in the stratosphere. *J. Atmos. Sci.*, *38*, 2187-2197.
7. Garcia, R.R. and S. Solomon, 1983: A numerical model of the zonally-averaged structure of the middle atmosphere. *J. Geophys. Res.*, *88*, 1379-1400.
8. Solomon, S. and R.R. Garcia, 1983: On the distribution of nitrogen dioxide in the high latitude stratosphere. *J. Geophys. Res.*, *88*, 5229-5239.
9. Solomon, S. and R.R. Garcia, 1983: Simulation of NO<sub>x</sub> partitioning along isobaric parcel trajectories. *J. Geophys. Res.*, *88*, 5497-5501.
10. Garcia, R.R., S.Solomon, R. Roble and D.W. Rusch, 1983: A numerical study of the response of the atmosphere to changing solar activity. In *Weather and Climate Responses to Solar Variations*, B.M. McCormac (ed.), Colorado Associated University Press, Boulder, Colorado, pp. 197-202.
11. Garcia, R.R., S. Solomon, R. Roble and D.W. Rusch, 1984: A numerical study of the response of the middle atmosphere to the 11-year solar cycle. *Planet. Space Sci.*, *32*, 411-423.
12. Solomon, S. and R.R. Garcia, 1984: Transport of thermospheric NO to the upper stratosphere? *Planet. Space Sci.*, *32*, 399-409.
13. Hamilton, K. and R.R. Garcia, 1984: Long period variations in the solar semidiurnal atmospheric tide. *J. Geophys. Res.*, *89*, 11705-11710.
14. Solomon, S. and R.R. Garcia, 1984: On the distribution of long lived tracers and chlorine species in the middle atmosphere. *J. Geophys. Res.*, *89*, 11633-11644.
15. Garcia, R.R. and S. Solomon, 1985: The effect of breaking gravity waves on the dynamics and chemical composition of the mesosphere and lower thermosphere. *J. Geophys. Res.*, *90*, 3850-3868.
16. Solomon, S., R.R. Garcia, J.J. Olivero, R.M. Bevilacqua, P.R. Schwartz, R.T. Clancy and D.O. Muhleman, 1985: Photochemistry and transport of carbon monoxide in the middle atmosphere. *J. Atmos. Sci.*, *42*, 1072-1083.

17. Austin, J., R.R. Garcia, J.M. Russell, S. Solomon and A.F. Tuck, 1985: On the atmospheric photochemistry of nitric acid. *J. Geophys. Res.*, *91*, 5477-5484.
18. Solomon, S., R.R. Garcia and F. Stordal, 1985: Transport processes and ozone perturbations. *J. Geophys. Res.*, *90*, 12981-12989.
19. Solomon, S., J.T. Kiehl, R.R. Garcia and W. Grose, 1986: Tracer transport by the diabatic circulation deduced from satellite observations. *J. Atmos. Sci.*, *43*, 1603-1617.
20. Hamilton, K. and R.R. Garcia, 1986: El Niño/Southern Oscillation events and their associated midlatitude teleconnections 1531-1841. *Bull. Am. Meteor. Soc.*, *67*, 1354-1361.
21. Hamilton, K. and R.R. Garcia, 1986: Theory and observations of the short period normal mode oscillations of the atmosphere. *J. Geophys. Res.*, *91*, 11867-11875.
22. Solomon, S., R.R. Garcia, F.S. Rowland, and D. Wuebbles, 1986: On the depletion of Antarctic ozone. *Nature*, *321*, 755-758.
23. Salby, M.L. and R.R. Garcia, 1987: Transient response to localized episodic heating in the tropics. Part I: Excitation and short-time, near-field response. *J. Atmos. Sci.*, *44*, 458-498.
24. Garcia, R. R. and M.L. Salby, 1987: Transient response to localized episodic heating in the tropics. Part II: Far-field behavior. *J. Atmos. Sci.*, *44*, 499-530.
25. Garcia, R.R., S. Solomon, S.K. Avery and G.C. Reid, 1987: Transport of nitric oxide and the D-region winter anomaly. *J. Geophys. Res.*, *92*, 977-994.
26. Roble, R.G., B.A. Emery, T.L. Killeen, G.C. Reid, S. Solomon, R.R. Garcia, D.S. Evans, P.B. Hays, G.R. Carignan, R.A. Heelis, W.B. Hanson, D.J. Wingham, N.W. Spencer and L.H. Brace, 1987: Joule heating in the mesosphere and lower thermosphere during the July 13, 1982, solar proton event. *J. Geophys. Res.*, *92*, 6083-6090
27. Bjarnason, G., S. Solomon and R.R. Garcia, 1987: Tidal influences on vertical diffusion and diurnal variability of ozone in the mesosphere. *J. Geophys. Res.*, *92*, 5609-5620.
28. Salby, M.L. and R.R. Garcia, 1987: Vacillations induced by interference of stationary and traveling planetary waves. *J. Atmos. Sci.*, *44*, 2679-2711.
29. Garcia, R.R. and S. Solomon, 1987: A possible relationship between interannual variability in Antarctic ozone and the quasi-biennial oscillation. *Geophys. Res. Lett.*, *14*, 848-851.
30. Le Texier, H., S. Solomon and R.R. Garcia, 1987: Seasonal variability of the OH Meinel bands. *Planet. Space Sci.*, *35*, 977-989.
31. Garcia, R.R., 1987: On the mean meridional circulation of the middle atmosphere. *J. Atmos. Sci.*, *44*, 3599-3609.
32. Solomon, S. and R.R. Garcia, 1987: Current understanding of mesospheric transport processes. *Phil. Trans. Royal Soc.*, *A323*, 655-666.
33. Stordal, F. and R.R. Garcia, 1987: Sensitivity studies and a simple ozone perturbation experiment with a truncated 2-D model of the stratosphere. *J. Geophys. Res.*, *92*, 11909-11918.

34. Visconti, G. and R.R. Garcia (eds.), 1987: **Transport Processes in the Middle Atmosphere**, *NATO Advanced Study Institutes Series, C 213*, D. Reidel Publishing Company, Dordrecht, 485pp.
35. Le Texier, H., S. Solomon and R.R. Garcia, 1988: The role of molecular hydrogen and methane oxidation in the water vapour budget of the stratosphere. *Quart. J. Royal Meteor. Soc.*, *114*, 281-295.
36. LeTexier, H., S. Solomon, R.J. Thomas and R.R. Garcia, 1988: OH\*(7-5) Meinel band airglow measured by the SME limb scanning near infrared spectrometer: Comparison of the simulated seasonal variability with two-dimensional model simulations. *Ann. Geophys.*, *7*, 365-374.
37. Garcia, R.R., 1989: Dynamics, radiation, and photochemistry in the mesosphere: Implications for the formation of noctilucent clouds. *J. Geophys. Res.*, *94*, 14605-14615.
38. Salby, M.L., R.R. Garcia, D. O'Sullivan, and J. Tribbia, 1990: Global transport calculations with an equivalent barotropic system. *J. Atmos. Sci.*, *47*, 188-214.
39. Salby, M.L. and R.R. Garcia, 1990: Dynamical perturbations to the ozone layer. *Physics Today*, *43*, 38-46.
40. Salby, M.L., R.R. Garcia, D. O'Sullivan, and J. Tribbia, 1990: Global transport calculations with an equivalent barotropic system. *J. Atmos. Sci.*, *47*, 188-214.
41. Salby, M.L., D. O'Sullivan, R.R. Garcia, and P. Callaghan, 1990: Air motions accompanying the development of a planetary wave critical layer. *J. Atmos. Sci.*, *47*, 1179-1204.
42. Salby, M.L., R.R. Garcia, D. O'Sullivan, and P. Callaghan, 1990: The interaction of horizontal eddy transport and thermal drive in the stratosphere. *J. Atmos. Sci.*, *47*, 1647-1665.
43. Garcia, R.R. and R.T. Clancy, 1990: Seasonal variation in equatorial mesospheric temperatures observed by SME. *J. Atmos. Sci.*, *47*, 1666-1673.
44. Salby, M.L., P. Callaghan, S. Solomon, and R.R. Garcia, 1990: Chemical fluctuations associated with vertically-propagating equatorial Kelvin waves. *J. Geophys. Res.*, *95*, 20491-20506.
45. Garcia, R.R., 1991: Parameterization of planetary wave breaking in the middle atmosphere. *J. Atmos. Sci.*, *48*, 1405-1419.
46. Reid, G.C., S. Solomon and R.R. Garcia, 1991: Response of the middle atmosphere to the solar proton events of August-December, 1989. *Geophys. Res. Lett.*, *18*, 1019-1022.
47. Garcia, R.R., 1992: Transport of thermospheric NO<sub>x</sub> to the stratosphere and mesosphere. *Adv. Space Res.*, *12*, (10)57-(10)-66.
48. Garcia, R.R., 1992: Middle atmosphere cooling. *Nature*, *357*, 18.
49. Adams, J., R.R. Garcia, B. Gross, J. Hack, D. Haidvogel and V. Pizzo, 1992: Applications of multigrid software in the Atmospheric Sciences. *Mon. Wea. Review*, *120*, 1447-1458.

50. Garcia, R.R., F. Stordal, S. Solomon and J. Kiehl, 1992: A new numerical model of the middle atmosphere. I. Dynamics and transport of tropospheric source gases. *J. Geophys. Res.*, *97*, 12967-12991.
51. Garcia, R.R., 1993: Modeling the effects of planetary wave breaking in the stratosphere. In **Coupling Processes in the Lower and Middle Atmosphere**, E.V. Thrane, T.A. Blix, and D.C. Fritts, eds., 77-94, Kluwer Academic Publishers, Netherlands.
52. Sassi, F., R.R. Garcia, and B.A. Boville, 1993: The stratopause semiannual oscillation in the NCAR Community Climate Model. *J. Atmos. Sci.*, *50*, 3608-3624.
53. Solomon, S., R.W. Sanders, R.R. Garcia, and J.G. Keys, 1993: Enhanced chlorine dioxide and ozone depletion in Antarctica due to volcanic aerosols. *Nature*, *363* 245-248.
54. Solomon, S., R.W. Sanders, R.O. Jakoubek, K. Arpag, S.L. Stephens, J.G. Keys, and R.R. Garcia, 1994: Visible and near-ultraviolet spectroscopy at McMurdo Station, Antarctica 10. Reductions of stratospheric NO<sub>2</sub> due to Pinatubo aerosols. *J. Geophys. Res.*, *99*, 3509-3516.
55. Randel, W.J. and R.R. Garcia, 1994: Comparison of planetary wave breaking parameterization with stratospheric circulation statistics. *J. Atmos. Sci.*, *51*, 1157-1168.
56. Garcia, R.R. and B.A. Boville, 1994: "Downward control" of the mean meridional circulation and temperature distribution of the polar winter stratosphere. *J. Atmos. Sci.*, *51*, 2238-2245.
57. Salby, M.L., R.R. Garcia, and H.H. Hendon, 1994: Planetary circulations in the presence of climatological and wave-induced heating. *J. Atmos. Sci.*, *51*, 2344-2367.
58. Garcia, R.R. and S. Solomon, 1994: A new numerical model of the middle atmosphere. II. Ozone and related species. *J. Geophys. Res.*, *99*, 12937-12951.
59. Solomon, S., R.R. Garcia and A.R. Ravishankara, 1994: On the role of iodine in ozone depletion. *J. Geophys. Res.*, *99*, 20491-20499.
60. Solomon, S., J.B. Burkholder, A.R. Ravishankara and R.R. Garcia, 1994: On the ozone depletion and global warming potentials of CF<sub>3</sub>I. *J. Geophys. Res.*, *99*, 20929-20935.
61. Sassi, F. and R.R. Garcia, 1994: A One-dimensional model of the semiannual oscillation driven by convectively-forced gravity waves. *J. Atmos. Sci.*, *51*, 3167-3182.
62. Garcia, R.R., 1994: Causes of ozone depletion. *Phys. World*, *7*, no. 4, 49-55.
63. R.W. Portmann, G.E. Thomas, S.Solomon and R.R. Garcia, 1995: The importance of dynamical feedbacks on doubled CO<sub>2</sub>-induced changes in the thermal structure of the mesosphere. *Geophys. Res. Lett.*, *22*, 1733-1736.
64. Solomon, S., R.W. Portmann, R.R. Garcia, L.W. Thomason, L.R. Poole, and M.P. McCormick, 1996: The role of aerosol variations in anthropogenic ozone depletion at northern mid-latitudes. *J. Geophys. Res.*, *101*, 6713-6727.
65. R.W. Portmann, S.Solomon, R.R. Garcia, L.W. Thomason, L.R. Poole, and M.P. McCormick, 1996: The role of aerosol variations in anthropogenic ozone depletion in the polar regions. *J. Geophys. Res.*, *101*, 22991-23006.

66. Prusa, J.M., P.K. Smolarkiewicz, and R.R. Garcia, 1996: On the propagation and breaking at high altitudes of gravity waves excited by tropospheric forcing. *J. Atmos. Sci.*, *53*, 2186-2216.
67. Garcia, R.R. and J.M. Prusa, 1996: The propagation and breaking of gravity waves excited by forcing in the troposphere. In **Gravity Wave Processes and Their Parameterizations in Global Climate Models**, ed. K. Hamilton, *NATO ASI Series I, vol. 50*, 169-186, Springer.
68. Sassi, F. and R.R. Garcia, 1997: The role of equatorial waves forced by convection in the tropical semiannual oscillation. *J. Atmos. Sci.*, *54*, 1925-1942.
69. Solomon, S., S. Bormann, R.R. Garcia, R. Portmann, L. Thomason, L.R. Poole, D. Winker and M.P. McCormick, 1997: Heterogeneous chlorine chemistry in the tropopause region. *J. Geophys. Res.*, *102*, 21411-21429.
70. Garcia, R.R., T.J. Dunkerton, R.S. Lieberman and R.A. Vincent, 1997: Climatology of the semiannual oscillation of the tropical middle atmosphere. *J. Geophys. Res.*, *102*, 26019-26032.
71. Solomon, S., R. Portmann, R.R. Garcia, W. Randel, F. Wu, R. Nagatani, J. Gleason, L. Thomason, L.R. Poole, and M.P. McCormick, 1998: Ozone depletion at midlatitudes: Coupling of volcanic aerosols and temperature variability to anthropogenic chlorine. *Geophys. Res. Lett.*, *25*, 1871-1874.
72. Plane, J.C., C.S. Gardner, J. Yu, C.Y. She, R.R. Garcia and H.C. Pumphrey, 1999: The mesospheric Na layer at 40° N: Modeling and observations. *J. Geophys. Res.*, *104*, 3773-3788.
73. Mertens, C.J., M.G. Mlynczak, R.R. Garcia and R.W. Portman, 1999: A detailed evaluation of the stratospheric heat budget. I. Radiative Transfer. *J. Geophys. Res.*, *104*, 6021-6038.
74. Mlynczak, M., C. Mertens, R.R. Garcia and R.W. Portmann, 1999: A detailed evaluation of the stratospheric heat budget. II. Global radiation balance and diabatic circulations. *J. Geophys. Res.*, *104*, 6039-6066.
75. Garcia, R.R. and F. Sassi, 1999: Modulation of the semiannual oscillation by the quasibiennial oscillation. *Earth, Planets and Space*, *51*, 563-570.
76. Garcia, R.R., P. Hess, and A.K. Smith, 1999: Atmospheric dynamics and transport. In **Atmospheric Chemistry and Global Change**, ed. G.P. Brasseur, J.J. Orlando and G.S. Tyndall , Ch. 2, 23-84, Oxford, 654pp.
77. Daniels J.S., S. Solomon, R.W. Portmann, and R.R. Garcia, 1999: Stratospheric ozone destruction: The importance of bromine relative to chlorine. *J. Geophys. Res.*, *19*, 23871-23880.
78. Mlynczak, M.G., R.R. Garcia, R.G. Roble, and M. Hagan, 2000: Solar energy deposition rates in the mesosphere derived from airglow measurements: Implications for the ozone model deficit problem. *J. Geophys. Res.*, *105*, 17527-17538.
79. Ricciardulli, L. and R.R. Garcia, 2000: The excitation of equatorial waves by deep convection in the NCAR Community Climate Model (CCM3). *J. Atmos. Sci.*, *57*, 3461-3487.

80. Garcia, R.R., 2000: The role of equatorial waves in the semiannual oscillation of the middle atmosphere. In **Atmospheric Science Across the Stratopause**, ed. D.E. Siskind, S.D. Eckermann, and M.E. Summers, *Meteor. Monogr.*, 123, 161-176.
81. López Puertas, M., M.A. López Valverde, R.R. Garcia, and R.G. Roble, 2000: A review of CO and CO<sub>2</sub> abundances in the mesosphere and lower thermosphere. In **Atmospheric Science Across the Stratopause**, ed. D.E. Siskind, S.D. Eckermann, and M.E. Summers, *Meteor. Monogr.*, 123, 83-100.
82. Garcia, R.R. et al., 2001: Atmospheric circulation changes in the tropical Pacific inferred from the voyages of the Manila galleons in the 16th-18th centuries. *Bull. Am. Meteor. Soc.*, 82, 2435-3456.
83. Garcia, R.R., 2002: Stratospheric Meteorology. In **Encyclopedia of Physical Science and Technology**, 9, 603-627. ed. R.A. Meyers, Academic Press.
84. Randel, W.J., R.R. Garcia, and F. Wu, 2002: Time-dependent upwelling in the tropical lower stratosphere estimated from the zonal-mean momentum budget. *J. Atmos. Sci.* 59, 2141-2152.
85. Sassi, F., R.R. Garcia, B. Boville, and H. Liu, 2002: On temperature inversions and the mesospheric surf zone. *J. Geophys. Res.*, 107 (D19), 4380, doi:10.1029/2001JD001525.
86. Forkman, P. P. Eriksson, A. Winnberg, R.R. Garcia, and D. Kinnison, 2003: Longest continuous ground-based measurements of mesospheric CO. *Geophys. Res. Lett.*, 30 (10), 1532, doi: 10.1029/2003GL016931.
87. Garcia-Herrera, R., R.R. Garca, M.R. Prieto, E. Hernandez, L. Gimeno and H.F. Diaz, 2003: The use of Spanish historical archives to reconstruct climate variability. *Bull. Am. Meteor. Soc.*, 84, 1025-1035.
88. Sassi, F., D.Kinnison, B. A. Boville, R.R. Garcia and R.G. Roble, 2004: The effect of ENSO on the dynamical, thermal and chemical structure of the middle atmosphere. *J. Geophys. Res.*, 109, D17108, doi:10.1029/2003JD004434.
89. Park, M., W.J. Randel, D.E. Kinnison, R.R. Garcia, W. Choi, 2004: Seasonal variations of methane, water vapor and nitrogen oxides near the tropopause: Satellite observations and model simulations. *J. Geophys. Res.*, 109, D03302, doi:10.1029/2003JD003706.
90. Sassi, F., D.Kinnison, B. A. Boville, R.R. Garcia and R.G. Roble, 2004: The effect of ENSO on the dynamical, thermal and chemical structure of the middle atmosphere. *J. Geophys. Res.*, 109, D17108, doi:10.1029/2003JD004434.
91. Calvo Fernández, N., R.R. Garcia, R. Garcia Herrera, D, Gallego Puyol, L. Gimeno Presa, E. Hernandez Martin, and P. Ribera Rodriguez, 2004: Analysis of the ENSO signal in tropospheric and stratospheric temperatures observed by MSU, 1979-2000. *J. Climate.*, 17, 3934-3946.
92. Beres, J.H., R.R. Garcia, B.A. Boville and F. Sassi, 2005: Implementation of a gravity wave source spectrum parameterization dependent on the properties of convection in the Whole Atmosphere Community Climate Model (WACCM). *J. Geophys. Res.*, 110, D10108, doi:10.1029/2004JD005504.
93. Sassi, F., B.A. Boville, D. Kinnison, and R.R. Garcia, 2005: The effects of interactive ozone chemistry on simulations of the middle atmosphere. *Geophys. Res. Lett.*, 32, L07811, doi:10.1029/2004GL022131, 2005.

94. Offerman, D., M. Jarisch, M. Donner, J. Oberheide, I. Wohltmann, R. Garcia, D. Marsh, B. Naujokat, and P. Winkler, 2005: Middle atmosphere summer duration as an indicator of long-term circulation changes. *Adv. Space Res.*, 35, 1416-1422.
95. Garcia, R.R., R. Lieberman, J.M. Russell and M.G. Mlynczak, 2005: Large-scale waves in the mesosphere and lower thermosphere observed by SABER, *J. Atmos. Sci.*, 62, 4384-4399.
96. Richter, J. and R.R. Garcia, 2006: On the forcing of the mesospheric semi-annual oscillation in the Whole Atmosphere Community Climate Model, *Geophys. Res. Lett.*, 33, L01806, doi:10.1029/2005GL024378.
97. Garcia-Herrera, R., N. Calvo, R. R. Garcia, and M. A. Giorgetta, 2006: Propagation of ENSO temperature signals into the middle atmosphere: A comparison of two general circulation models and ERA-40 reanalysis data, *J. Geophys. Res.*, 111, D06101, doi: 10.1029/2005JD006061.
98. Lieberman, R.S., D.M. Riggin, R.R. Garcia, Q. Wu, and E.E. Remsberg, 2006: Observations of intermediate-scale diurnal waves in the equatorial mesosphere and lower thermosphere, *J. Geophys. Res.*, 111, A10S11, doi:10.1029/2005JA011498.
99. Eyring, V., et al., 2006: Assessment of temperature, trace species, and ozone in chemistry climate model simulations of the recent past, *J. Geophys. Res.*, 111, D22308, doi:10.1029/2006JD007327.
100. Garcia, R.R., D.R. Marsh, D.E. Kinnison, B.A. Boville, and F. Sassi, 2007: Simulation of secular trends in the middle atmosphere, 1950-2003, *J. Geophys. Res.*, 112, D09301, doi:10.1029/2006JD007485.
101. Pan, L.L. , J.C. Wei, D.E. Kinnison, R.R. Garcia, D.J. Wuebbles, and G.P. Brasseur, 2007: A set of diagnostics for evaluating chemistry-climate models in the extratropical tropopause region, *J. Geophys. Res.*, 112, D09316, doi:10.1029/ 2006JD007792.
102. Tilmes, S., D.E. Kinnison, R.R. Garcia, R. Mller, F. Sassi, D.R. Marsh, and B.A. Boville, 2007: Evaluation of heterogeneous processes in the polar lower stratosphere in the Whole Atmosphere Community Climate Model, *J. Geophys. Res.*, 112, D24301, doi:10.1029/2006JD008334.
103. Kinnison, D.E., G.P. Brasseur, S. Walters, R.R. Garcia, D.R. Marsh, F. Sassi, B.A. Boville, V.L. Harvey, C.E. Randall, L. Emmons, J.F. Lamarque1, P. Hess, J.J. Orlando, X.X. Tie, W. Randel, L. L. Pan, A. Gettelman, C. Granier, T. Diehl, U. Niemeier, and A.J. Simmons, 2007: Sensitivity of chemical tracers to meteorological parameters in the MOZART-3 chemical transport model, *J. Geophys. Res.*, 112, D20302, doi:10.1029/2006JD007879.
104. Marsh, D.R. and R.R. Garcia, 2007: Attribution of decadal variability in lower-stratospheric tropical ozone, *Geophys. Res. Lett.*, 34, L21807, doi:10.1029/2007GL030935.
105. Marsh, D.R., R.R. Garcia, D.E. Kinnison, B.A. Boville, F. Sassi, and S.C. Solomon, 2007: Modeling the whole atmosphere response to solar cycle changes in radiative and geomagnetic forcing, *J. Geophys. Res.*, 112, D23306, doi:10.1029/2006JD008306.
106. Eyring, V., et al., 2007: Multimodel projections of stratospheric ozone in the 21st century, *J. Geophys. Res.*, 112, D16303, doi:10.1029/2006JD008332.

107. Song, I.-S., H.-Y. Chun, R.R. Garcia and B.A. Boville, 2007: Momentum flux spectrum of convectively forced internal gravity waves and its application to gravity wave drag parameterization. Part II: Impacts in a GCM (WACCM), *J. Atmos. Sci.*, *64*, 2286-2308.
108. Jackman, C.H., D.R. Marsh, F.M. Vitt, R.R. Garcia, E.L. Fleming, G.J. Labow, C.E. Randall, M. López-Puertas, B. Funke, T. von Clarmann, and G. P. Stiller, 2008: Short- and medium-term atmospheric constituent effects of very large solar proton events, *Atmos. Chem. Phys.*, *8*, 765-785.
109. Mills, M.J., O.B. Toon, R.P. Turco, D.E. Kinnison, and R.R.Garcia, 2008: Massive global ozone loss predicted following regional nuclear conflict, *Proc. Nat. Acad. Sci.*, *105*, 5307-5312.
110. Richter, J., F. Sassi, R.R. Garcia, K. Matthes, and C.A. Fischer, 2008: Dynamics of the middle atmosphere as simulated by the Whole Atmosphere Community Climate Model, version 3 (WACCM3), *J. Geophys. Res.*, *133*, D08101, doi:10.1029/2007JD009269.
111. Garcia-Herrera, R., H.F. Diaz, R.R. Garcia, M.R. Prieto, D. Barriopedro, R. Moyano, and E. Hernández, 2008: A chronology of El Niño events from primary documentary sources in Northern Peru, *J.Climate*, *21*, 1948-1962.
112. Garcia, R.R. and W.J. Randel, 2008: Acceleration of the Brewer-Dobson circulation due to increases in greenhouse gases, *J. Atmos. Sci.*, *65*, 2731-2739.
113. Son, S.-W., L. M. Polvani, D. W. Waugh, H. Akiyoshi, R. Garcia, D. Kinnison, S. Pawson, E. Rozanov, T. G. Shepherd, and K. Shibata, 2008: The impact of stratospheric ozone recovery on the Southern Hemisphere westerly jet, *Science*, *320*, 1486-1489, DOI: 10.1126/science.1155939.
114. Merkel, A.W., R.R. Garcia, S.M. Bailey, J.M. Russell III, 2008: Observational studies of planetary waves in PMCs and mesospheric temperature measured by SNOE and SABER, *J. Geophys. Res.*, *113*, D14202, doi:10.1029/2007JD009396.
115. Peña-Ortiz, C., P. Ribera, R. Garcia-Herrera, M.A. Giorgetta and R.R. Garcia, 2008: Forcing mechanism of the seasonally asymmetric QBO secondary circulation in ERA-40 and MAECHAM5, *J. Geophys. Res.*, *113*, D16103, doi:10.1029/2007JD009288.
116. Randel, W.J., R.R. Garcia and F. Wu, 2008: Dynamical balances and tropical stratospheric upwelling, *J. Atmos. Sci.*, *65*, 3584-3595.
117. Son, S.-W., L. M. Polvani, D.W. Waugh, T. Birner, H. Akiyoshi, R.R. Garcia, A. Gettelman, D.A. Plummer, and E. Rozanov, 2009: The impact of ozone recovery on tropopause height trends, *J. Climate*, *22*, 429-445, doi:10.1175/2008JCLI2215.1.
118. Liu, H.-L., F. Sassi, and R.R. Garcia, 2009: Error growth in a whole atmosphere climate model, *J. Atmos. Sci.*, *66*, 173-186, doi: 10.1175/2008JAS2825.1.
119. Jackman, C.H., D.R. Marsh, F.M. Vitt, R.R. Garcia, C.E. Randall, E.L. Fleming, and S.M. Frith, 2009: Long-term middle atmospheric influence of very large solar proton events, *J. Geophys. Res.*, *114*, D11304, doi:10.1029/2008JD011425.
120. Tilmes, S., R.R. Garcia, D. E. Kinnison, A. Gettelman, and P. J. Rasch, 2009: Impact of geoengineered aerosols on the troposphere and stratosphere, *J. Geophys. Res.*, *114*, D12305, doi:10.1029/2008JD011420.

121. Randel, W., R.R. Garcia, N. Calvo and D. Marsh, 2009: ENSO influence on zonal mean temperature and ozone in the tropical lower stratosphere, *Geophys. Res. Lett.*, *36*, L15822, doi:10.1029/2009GL039343.
122. Calvo, N. and R.R. Garcia, 2009: Wave forcing of the tropical upwelling in the lower stratosphere under increasing concentrations of greenhouse gases, *J. Atmos. Sci.*, *66*, 3184-3196.
123. Richter, J., F. Sassi., and R.R. Garcia, 2010: Towards a physically based gravity wave source parameterization in a general circulation model, *J. Atmos. Sci.*, *67*, 136-156.
124. Calvo, N., R.R. Garcia, W.J. Randel, and D.R. Marsh, 2010: Dynamical mechanism for the increase in tropical upwelling in the lowermost stratosphere during warm ENSO events, *J. Atmos. Sci.*, *67*, 2331-2340, DOI: 10.1175/2010JAS3433.1.
125. Gerber, E.P., M.P. Baldwin, H. Akiyoshi, J. Austin, S. Bekki, P. Braesicke, N. Butchart, M. Chipperfield, M. Dameris, S. Dhomse, S.M. Frith, R.R. Garcia, H. Garny, A. Gettelman, S.C. Hardiman, M. Marchand, O. Morgenstern, J.E. Nielsen, S. Pawson, T. Peter, D.A. Plummer, J.A. Pyle, E. Rozanov, J.F. Scinocca, T.G. Shepherd, and D. Smale, 2010: Stratosphere-Troposphere Coupling and Annular Mode Variability in Chemistry-Climate Models, *J. Geophys. Res.*, *115*, D00M06, doi:10.1029/2009JD013770.
126. Morgenstern, O., H. Akiyoshi, S. Bekki, P. Braesicke, N. Butchart, M. P. Chipperfield, D. Cugnet, M. Deushi, S. S. Dhomse, R.R. Garcia, A. Gettelman, N. P. Gillett, S. C. Hardiman, J. Jumelet, D. E. Kinnison, J.-F. Lamarque, F. Lott, M. Marchand, M. Michou, T. Nakamura, D. Olivié, T. Peter, D. Plummer, J.A. Pyle, E. Rozanov, D. Saint-Martin, J. F. Scinocca, K. Shibata, M. Sigmond, D. Smale, H. Teyssèdre, W. Tian, A. Voldoire, Y. Yamashita, 2010: Anthropogenic forcing of the Northern Annular Mode in CCMVal-2 models, *J. Geophys. Res.*, *115*, D00M03, doi:10.1029/2009JD013347.
127. Sassi, F., R.R. Garcia, D.R. Marsh and K.W. Hoppel, 2010: The role of the middle atmosphere in simulations of the troposphere during Northern Hemisphere Winter: Differences between high- and low-top models. *J. Atmos. Sci.*, *67*, 3048-3064, DOI: 10.1175/2010JAS3255.1.
128. Matthes, K., D.R. Marsh, R.R. Garcia, D.E. Kinnison, F. Sassi, and S. Walters, 2010: Role of the QBO in modulating the influence of the 11 year solar cycle on the atmosphere using constant forcings, *J. Geophys. Res.*, *115*, D18110, doi:10.1029/2009JD013020.
129. A.J. Charlton-Perez, E. Hawkins, V. Eyring, I. Cionni, G.E. Bodeker, D.E. Kinnison, H. Akiyoshi, S.M. Frith, R. Garcia, A. Gettelman, J.F. Lamarque, T. Nakamura, S. Pawson, Y. Yamashita, S. Bekki, P. Braesicke, M. P. Chipperfield, S. Dhomse, M. Marchand, E. Mancini, O. Morgenstern, G. Pitari, D. Plummer, J.A. Pyle, E. Rozanov, J. Scinocca, K. Shibata, T.G. Shepherd, W. Tian, and D.W. Waugh, 2010: The potential to narrow uncertainty in projections of stratospheric ozone over the 21st century, *Atm. Chem. Phys.*, *10*, 9473-9486, doi:10.5194/acp-10-9473-2010.
130. Garcia, R.R., 2010: Solar surprise?, *Nature*, *467*, 668-669.
131. Smith, A.K., R.R. Garcia, D.R. Marsh, D.E. Kinnison and J.H. Richter, 2010: Simulations of the response of mesospheric circulation and temperature to the Antarctic ozone hole, *Geophys. Res. Lett.*, *37*, L22803, doi:10.1029/2010GL045255.

132. Pierazzo, E., R.R. Garcia, D.E. Kinnison, D.R. Marsh, J. Lee-Taylor, and P.J. Crutzen, 2010: Ozone perturbation from medium-size asteroid impacts in the ocean, *Earth Planet. Sci. Lett.*, 299, 263-272.
133. Liu, H.-L., B. Foster, M.E. Hagan, J. McInerney, A. Maute, L. Qian, A. D. Richmond, R.G. Roble, S.C. Solomon, R.R. Garcia, D. Kinnison, D.R. Marsh, A.K. Smith, J. Richter, F. Sassi, and J. Oberheide, 2010: Thermosphere extension of the Whole Atmosphere Community Climate Model, *J. Geophys. Res.*, 115, A12302, doi:10.1029/2010JA015586.
134. Garcia, R.R., W.J. Randel, and D.E. Kinnison, 2011: On the determination of age of air trends from atmospheric trace species, *J. Atmos. Sci.*, 68, 139-154.
135. Chandran, A., R.L. Collins, R.R. Garcia, and D.R. Marsh, 2011: A case study of an elevated stratopause generated in the Whole Atmosphere Community Climate Model, *Geophys. Res. Lett.*, in press.