The project "Investigation of the Interaction of Mars and Comets with the Solar Wind" NAGW-2349 was funded from 12/1/90 to 5/31/92. During that period we were extremely active giving 4 invited reviews on this topic, contributing another 4 papers and publishing 14 papers in journals and books. These papers are listed in the attached bibliography. These papers covered the mechanisms for the diversion of the solar wind, the formation of the bow shock, the generation of upstream waves and the formation of magnetotails. These papers helped put a new upper limit on the magnetic moment of Mars.

Bibliography (NAGW-2349)

Invited Papers

1. C. T. Russell, T.-L. Zhang, J. G. Luhmann, K. Schwingenschuh and W. Riedler, Observational evidence for mass loading at Venus and Mars, presented at XXth General Assembly of IUGG, Vienna, August 1991.

2. C. T. Russell, K. Schwingenschuh and J. A. Slavin, The Venus and Mars bow shocks, presented at XXth General Assembly of IUGG, Vienna, August 1991.

3. C. T. Russell, G. Le, K. Schwingenschuh and W. Riedler, VEGA observations of ULF waves at comet Halley, presented at XXth General Assembly of IUGG, Vienna, August 1991.

4. C. T. Russell, Magnetotails, presented at XXth General Assembly of IUGG, Vienna, August 1991.

Contributed Papers

1. T. -L. Zhang, K. Schwingenschuh, W. Riedler, C. T. Russell and J. G. Luhmann, An asymmetry in the bow shock location at Venus and Mars, presented at the Fall National AGU meeting (abstreact), EOS, 71, 1521, 1990.

2. K. Schwingenschuh, T. -L. Zhang, H. Lichtenegger, W. Reidler, G. Gevai, H. Rosenbauer, C. T. Russell and J. G. Luhmann, Mars and Venus bow shock: effect of solar wind dynamic pressure presented at the Spring National AGU meeting (abstract), EOS, 72, 186, 1991.

3. C. T. Russell, J. G. Luhmann, T. -L. Zhang, K. Schwingenschuh, W. Riedler and Ye. Yeroshenko, The upper limit to the Martian magnetic moment, presented at the 23rd Annual Meeting of the Division for Planetary Sciences of the American Astronomical Society, Palo Alto, November 1991.

4. T. -L. Zhang and C. T. Russell, Unusually distant bow shock encounters at times of very low Mach number, presented at the Spring AGU meeting (abstract) EOS, 73(14), Spring Meeting Supplement p. 241, 1992.

Published Papers

1. T. -L. Zhang, K. Schwingenschuh, C. T. Russell and J. G. Luhmann, Asymmetries in the location of the Venus and Mars bow shock, Geophys. Res. Lett., 18, 127-129, 1991.

2. E. Dubinin, R. Lundin, W. Riedler, K. Schwingenschuh, J. G. Luhmann, C. T. Russell and L. H. Brace, Comparison of observed plasma and magnetic field structures in the wakes of Mars and Venus, J. Geophys. Res., 96, 11,189-11,197, 1991.

3. J. G. Luhmann, C. T. Russell, K. Schwingenschuh and Ye. Yeroshenko, A comparison of induced magnetotails of planetary bodies: Venus, Mars and Titan, J. Geophys. Res., 96, 11,199-11,208, 1991.

4. T. -L. Zhang, K. Schwingenschuh, H. Lichtenegger, W. Riedler, C. T. Russell and J. G.Luhmann, Interplanetary magnetic field control of the Mars bow shock: Evidence for Venus like interaction, J. Geophysical Res., 96, 11,265-11,269, 1991.

5. C. T. Russell, G. Le, K. Schwingenschuh, W. Riedler and Ye. Yeroshenko, Mirror mode waves at comet Halley, Cometary Plasma Processes, 161-169, American Geophysical Union, Washington, DC, 1991.

6. G. Le, C. T. Russell, K. Schwingenschuh and W. Riedler, The magnetic field turbulence at comet Halley observed by Vega 1 and 2, Cometary Plasma Processes, 273-276, American Geophysical Union, Washington, DC, 1991.

7. C. T. Russell, G. Le, J. G. Luhmann and J. A. Fedder, A parametric study of the solar wind interraction with comets, Cometary Plasma Processes, 65-72, American Geophysical Union, Washington, DC, 1991.

8. W. Riedler, K. Schwingenschuh, H. Lichtenegger, D. Mohlmann, J. Rustenbach, Ye. Yeroshenko, J. Achache, J. Slavin, J. G. Luhmann and C. T. Russell, Interaction of the solar wind with the planet Mars: Phobos 2 magnetic field observations, Planet. Space Sci., 39, 75-81, 1991.

9. S. Barabash, E. Dubinin, N. Pissarenko, R. Lundin and C. T. Russell, Picked-up protons near Mars: Phobos observations, Geophys. Res. Lett., 18, 1805-1808, 1991.

10. C. T. Russell, J. G. Luhmann, K. Schwingenschuh, W. Riedler and Ye. Yeroshenko, Upstream waves at Mars, Adv. Space Res., 12, (9)251-(9)254, 1992.

11. C. T. Russell, M. Ong, J. G. Luhmann, K. Schwingenschuh, W. Riedler and Ye. Yeroshenko, Bow shocks and magnetotails of Venus and Mars: A comparison, Adv. Space Res., 12, (9)163-(9)167, 1992.

12. K. Schwingenschuh, W. Riedler, T. -L. Zhang, H. Lichtenegger, H. Rosenbauer, S. Livi, G. Gevai, K. Gringauz, M. Verigin, Ye. Yeroshenko, D. Möhlmann, Th. Roatsch, R. Lundin, C. T. Russell and J. G. Luhmann, The martian magnetic field environment: Induced or dominated by an intrinsic magnetic field? Adv. Space Res., 12, (9)213-(9)219, 1992.

13. C. T. Russell, J. G. Luhmann and K. Schwingenschuh, Limitations of spectral analysis of the PHOBOS magnetometer data in the search for an intrinsic martian magnetic field, Planet. Space Sci., 40, 707-710, 1992.

14. J. G. Luhmann, C. T. Russell, L. H. Brace and O. L. Vaisberg, The intrinsic magnetic field and solar-wind interaction of Mars, in Mars (edited by H. H. Kieffer, B. M. Jakosky, C. W. Snyder and M. S. Matthews) pp. 1090-1134, University of Arizona Press, 1992.