

CHARLES EDWARD MAYER

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EDUCATION:

1983 Ph.D. Electrical Engineering, The University of Texas at Austin
1981 M.S.E. Electrical Engineering, The University of Texas at Austin
1978 B.S.E.E. Electrical Engineering, The University of Texas at Austin

PROFESSIONAL EXPERIENCE:

1998-present Professor of Electrical and Computer Engineering, University of Alaska Fairbanks, Department Chair (2001-2003), (2005 – present)

1993-1998 Associate Professor of Electrical Engineering, University of Alaska Fairbanks

1989-1993 Assistant Professor of Electrical Engineering, University of Alaska Fairbanks

1986-1988 Millimeter Wave Observatory Site Manager and Research Engineer, Electrical Engineering Research Laboratory, The University of Texas at Austin.

1984-1985 Research Engineering Associate, Electrical Engineering Research Laboratory, The University of Texas at Austin.

1984 Lecturer, Department of Electrical and Computer Engineering, The University of Texas at Austin, one-half time appointment.

PROFESSIONAL ORGANIZATIONS:

URSI—International Union of Radio Science
Commission F (Wave Propagation and Remote Sensing) member—since 1992
Commission J (Radio Astronomy) member—since 1986
IEEE—Institute of Electrical and Electronics Engineers

Senior Member—since 1991
Member—1983
Student Member—1979
IEEE NW Area Student Activities Chair—2005 – present
IEEE Alaska Section PACE (Professional Activities Committee for Engineers)
Chairman—1989 - present
IEEE Alaska Section State Executive Committee Member—1989 – present
IEEE University of Alaska Fairbanks Student Branch Counselor—1991 – present
IEEE Fairbanks Subsection PACE Chairman—1990 – 1991
IEEE Antennas and Propagation Society—Senior Member
IEEE Communications Society—Senior Member
Eta Kappa Nu
Phi Eta Sigma

AWARDS AND HONORS:

1993 IEEE Alaska Section Engineer of the Year Award
1993 IEEE NW Area Individual Achievement Award
1993 IEEE Region 6 Individual Achievement Award
1997-98 Outstanding EE Faculty, voted by EE students
1998 IEEE Outstanding Branch Counselor and Advisor Award
2000 IEEE Third Millennium Medal
2002 IEEE Alaska Section Engineer of the Year Award
2002 Who's Who Among America's Teachers
2003 IEEE NW Area Individual Achievement Award
2004 Who's Who in Sciences Higher Education
2004 Who's Who Among America's Teachers
2004 Who's Who of Professionals

BOOK ARTICLE:

Mayer, C.E., J.H. Davis, W.L. Peters III, and W.J. Vogel. A holographic surface measurement of the Texas 4.9-m antenna at 86 GHz. In P.F. Goldsmith (ed.), *Instrumentation and Techniques for Radio Astronomy*. New York: IEEE Press. 1988. pp. 207-214.

REFEREED JOURNAL ARTICLES:

Mayer, C.E., B.E. Jaeger, R.K. Crane, and X. Wang. Ka-band scintillations: measurements and model predictions. *IEEE Proceedings*, Vol. 85, No. 6, June 1997. pp. 936-945.

- Helmken, H., R.E. Henning, J. Feil, L.J. Ippolito, Jr., and C.E. Mayer. A three-site comparison of fade-duration measurements. *IEEE Proceedings*, Vol. 85, No. 6, June 1997. pp. 917-925.
- Feil, J., L.J. Ippolito, Jr., H. Helmken, C.E. Mayer, S. Horan, and R.E. Henning. Fade slope analysis for Alaska, Florida, and New Mexico ACTS propagation data at 20 and 27.5 GHz. *IEEE Proceedings*, Vol. 85, No. 6, June 1997. pp. 926-935.
- Mayer, C.E., D.T. Emerson, and J.H. Davis. Design and implementation of an error compensating subreflector for the NRAO 12-m antenna. *IEEE Proceedings*, Vol. 82, No. 5, May 1994. pp. 756-762.
- Aspnes, J.D., C.E. Mayer, and B.D. Spell. Future directions in electric power engineering education. *The International Journal of Engineering Education*, Vol. 7, No. 6, 1992. pp. 454-458. (Invited paper).
- Morris, D., J.H. Davis, and C.E. Mayer. An experimental assessment of phase retrieval radio holography of a radiotelescope. *IEE Proceedings - H*, Vol. 138, No. 3, June 1991. pp. 243-247.
- Mayer, C.E., J.H. Davis, and H.D. Foltz. Texas 5-m antenna aperture efficiency doubled from 230-300 GHz with error compensating subreflector. *IEEE Transactions on Antennas and Propagation*, Vol. AP-39, No. 3, Mar 1991. pp. 309-317.
- Vogel, W.J., J.H. Davis, and C.E. Mayer. Line-of-sight observations at 86 GHz with a very large and a small antenna. *IEEE Transactions on Antennas and Propagation*, Vol. AP-32, No. 2, Feb 1984. pp. 113-118.
- Mayer, C.E., J.H. Davis, W.L. Peters III, and W.J. Vogel. A holographic surface measurement of the Texas 4.9-m antenna at 86 GHz. *IEEE Transactions on Instrumentation and Measurement*, Vol. IM-32, No. 1. March 1983. pp. 102-109. (Invited paper).

REFEREED CONFERENCE PROCEEDINGS AND ABSTRACTS:

- Sonwalkar, V. S., A. Venkatasubramanian, J. G. Hawkins, B. Satavalekar, B. Johnson, and C. E. Mayer. Dependence of multipath propagation effects on UWB pulse characteristics: implications for communication and navigation. 2006 International Waveform Diversity & Design Conference. Jan 22 - 27, 2006. Lihue, HI. pp.
- Mayer, C.E. and Dae Hong Kim. Frequency dependence of scintillation at K and Ka-bands. Sixth International Symposium on Antennas, Propagation and Electromagnetic Theory (ISAPE 2003). Oct 28 – 30, 2003. Beijing, China. pp. B04-02-1 – B04-02-4.

- Mayer, C.E. Evaluation of eight scintillation models. URSI XXVth General Assembly Abstracts. Aug 17 - 24, 2002. Maastricht, Netherlands. pp. FP0141-1 – FP0141-4.
- Mayer, C.E. Scintillation Model Comparison. Proceedings of the Asia-Pacific Radio Science Conference. Aug 1 – 4, 2001. Tokyo, Japan. p. 152. (Invited paper).
- Mayer, C.E. and B.E. Jaeger. Rain attenuation modelling. Proceedings of the Sixth Ka-Band Utilization Conference. May 31 – Jun 2, 2000. Cleveland, OH. pp. 53-68. (Invited paper).
- Mayer, C.E. and B.E. Jaeger. Rain attenuation model comparison and validation. Proceedings of the Advanced Communications Technology Satellite (ACTS) Conference 2000. NASA/CP-2000-210530. May 31 – Jun 2, 2000. Cleveland, OH. pp. 215-221. (Invited paper).
- Mayer, C.E., B.E. Jaeger, and D. Kim. Five years of ACTS propagation studies in Alaska. Proceedings of the Twenty-third NASA Propagation Experimenters Meeting (NAPEX XXIII), N. Golshan, ed., JPL Publication 99-16. Jun 2 - 4, 1999. Washington, D.C. pp. 11-31. (Invited paper).
- Jaeger, B.E., D. Hopkins, D. Kim, and C.E. Mayer. Model comparison and verification for scintillation, fade duration, and cloud effects. Proceedings of the Eleventh ACTS Propagation Studies Workshop (APSW XI), N. Golshan, ed., JPL Publication 98-13. Oct 22 - 23, 1998. Oklahoma City, OK. pp. 15-34. (Invited paper).
- Mayer, C.E. and B.E. Jaeger. Four years of Ka-band scintillation measurements and predictions on a low elevation angle link. Wave Propagation and Remote Sensing Proceedings of the 8th URSI Commission F Triennial Open Symposium, University de Aveiro, Portugal, ed. and pub. Sep 22 - 25, 1998. Aveiro, Portugal. pp. 280-283.
- Jaeger, B.E., D. Hopkins, and C.E. Mayer. Fade predictions including scintillation effects. Proceedings of the Tenth ACTS Propagation Studies Workshop (APSW X), N. Golshan, ed., JPL Publication 98-3. Nov 18 - 19, 1997. Boca Raton, FL. pp. 30-47. (Invited paper).
- Helmken, H., J. Feil, R. Henning, L. Ippolito, and C. Mayer. Filter influence on ACTS fade duration and fade slope statistics. Third Ka-band Utilization Conference Proceedings. Sep 15 - 18, 1997. Sorrento, Italy. pp. 137-144.
- Mayer, C.E. Ka-band scintillations on a low elevation angle link. IEEE Antennas and Propagation Society International Symposium & URSI North American Radio Science Meeting. Jul 13 - 18, 1997. Montreal, Quebec, Canada. p. 456.

- Feil, J., L. Ippolito, H. Helmken, C. Mayer, S. Horan, and R. Henning. Fade slope analysis for Alaska, Florida, and New Mexico ACTS propagation data. Proceedings of the Twenty-first NASA Propagation Experimenters Meeting (NAPEX XXI) and Tenth ACTS Propagation Workshop, N. Golshan, ed., JPL Publication 97-13. Jun 11 - 13, 1997. El Segundo, CA. pp. 263-272.
- Jaeger, B.E., D.L. Hopkins and C.E.Mayer. Three years of ACTS propagation studies in Alaska. Proceedings of the Twenty-first NASA Propagation Experimenters Meeting (NAPEX XXI) and Tenth ACTS Propagation Workshop, N. Golshan, ed., JPL Publication 97-13. Jun 11 - 13, 1997. El Segundo, CA. pp. 5-32. (Invited paper).
- Mayer, C.E. and B.E. Jaeger. Electromagnetic waves and water on a surface: parameters and results. Proceedings of the Ninth ACTS Propagation Studies Workshop (APSW IX), N. Golshan, ed., JPL Publication 97-3. Nov 19 - 20, 1996. Herndon, VA. pp. 25-44. (Invited paper).
- Mayer, C.E. Mobile experimental measurements and analysis of Ka-band low elevation angle multipathing effects. URSI XXVth General Assembly Abstracts. Aug 28 - Sept 5, 1996. Lille, France. p. 331.
- Mayer, C.E. Multipathing effects on a low elevation angle mobile experiment at Ka-band. IEEE Antennas and Propagation Society International Symposium & URSI Radio Science Meeting. Jul 21 - 26, 1996. Baltimore, MD. p. 232.
- Mayer, C.E. and B.E. Jaeger. Two years of ACTS propagation studies in Alaska. Proceedings of the Twentieth NASA Propagation Experimenters Meeting (NAPEX XX), N. Golshan, ed., JPL Publication 96-20. Jun 4 - 6, 1996. Fairbanks, AK. pp. 41 - 66. (Invited paper).
- Mayer, C. Ka-band radiowave propagation in the arctic. United States-Japan Workshop on Arctic Research Proceedings. Feb 6 - 8, 1996. Fairbanks, AK. p. 159 - 163.
- Mayer, C.E. and B.E. Jaeger. On the analysis of fade slope and predictions of scintillations. Proceedings of the Eighth ACTS Propagation Studies Workshop (APSW VIII), F. Davarian, ed., JPL Publication D-13157. Nov 15 - 16, 1995. Norman, OK. pp. 47 - 57. (Invited paper).
- Mayer, C.E. and B.E. Jaeger. On the analysis of fade duration and summer scintillations. Proceedings of the Nineteenth NASA Propagation Experimenters Meeting (NAPEX XIX) and the Seventh ACTS Propagation Studies Workshop (APSW VII), F. Davarian, ed., JPL Publication 95-15. Jun 14 - 16, 1995. Ft. Collins, CO. pp. 283 - 299. (Invited paper).

- Mayer, C.E. and B.E. Jaeger. On the analysis of attenuation ratio and scintillation intensity. Proceedings of the Sixth ACTS Propagation Studies Workshop (APSW VI), F. Davarian, ed., JPL Publication D-12350. Nov 28 - 30, 1994. Clearwater Beach, FL. pp. 65 - 76. (Invited paper).
- Jaeger, B.E. and C.E. Mayer. Alaska ACTS propagation terminal: data analysis procedure, system status and results. Proceedings of the Eighteenth NASA Propagation Experimenters Meeting (NAPEX XVIII), F. Davarian, ed., JPL Publication 94-19. June 16-17, 1994. Vancouver, B.C., Canada. pp. 297 - 321. (Invited paper).
- Mayer, C.E. Alaska ACTS propagation terminal: successes, problems and plans. Proceedings of the Fifth ACTS Propagation Studies Workshop (APSW V), A. Cha and F. Davarian, ed., JPL Publication D-11366. Nov 29 - Dec 1, 1993. Las Cruces, NM. pp. 53 - 60. (Invited paper).
- Mayer, C.E., D.T. Emerson, and P.R. Jewel. An analysis of noise in antenna metrology measurements. URSI XXIVth General Assembly Abstracts. Aug 25 - Sept 2, 1993. Kyoto, Japan. p. 549. (Invited paper).
- Mayer, C.E. Propagation measurements in the Arctic. Proceedings of the Fourth ACTS Propagation Studies Workshop (APSW IV), F. Davarian, ed., JPL Publication D-10393. Dec 1-2, 1992. Santa Monica, California. pp. 127-142. (Invited paper).
- Mayer, C.E. Propagation measurements in Alaska using ACTS beacons. Proceedings of the Fifteenth NASA Propagation Experimenters Meeting (NAPEX XV), F. Davarian, ed., JPL Publication 91-31. June 28-29, 1991. London, Ontario, Canada. pp. 55-60. (Invited paper).
- Mayer, C.E., E.L. Lopez-Tello, and W.J. Vogel. Fade prediction and simulation for a low elevation angle Ku-band satellite link. URSI - North American Radio Science Meeting Abstracts. June 24-28, 1991. London, Ontario, Canada. p. 443.
- Lopez-Tello, E.L., and C.E. Mayer. Fade prediction in satellite communications. 42nd Arctic Science Conference Proceedings. May 14-15, 1991. Fairbanks, Alaska. p. 16.
- Mayer, C.E., J.H. Davis, and H.D. Foltz. Passive and active subreflector compensation for radio telescopes. URSI XXIIIrd General Assembly Abstracts. Aug 28 - Sept 5, 1990. Prague, Czechoslovakia. p. 724. (Invited paper).
- Aspnes, J.D., B.D. Spell, and C.E. Mayer. Electric power engineering 2000. Frontiers in Education Conference Proceedings. IEEE Education Society. July 2-5, 1990. Vienna, Austria. pp. 116-118.

- Mayer, C.E., J.H. Davis, and H.D. Foltz. Integrated systems manufacture of error compensating subreflector for NRAO 12-m radio telescope. URSI-National Radio Science Meeting Abstracts. Jan 3-5, 1990. Boulder, CO. p. 268.
- Mayer, C.E. Measurement of the Kitt Peak 12-m reflector antenna and secondary compensation to improve gain. Arctic Science Conference Proceedings. Sept 14-16, 1989. Fairbanks, Alaska. p. 33.
- Mayer, C.E. and J.H. Davis. Measurement and correction of the surface tolerance of a large reflector antenna. URSI XXIIInd General Assembly Abstracts. Aug 25 - Sept 2, 1987. Tel Aviv, Israel. p. 51.
- Mayer, C.E. and J.H. Davis. Measurement and correction of antenna surface tolerance errors. URSI-National Radio Science Meeting Abstracts. Jan 12-15, 1987. Boulder, CO. p. 215.
- Mayer, C.E. Alignment and transmission measurements of quasi-optical millimeter wave systems. URSI - 1986 National Radio Science Meeting Abstracts. June 8-13, 1986. Philadelphia, PA. p. 288.
- Ulich, B.L., C.K. Walker, C.E. Philips-Walker, W.B. Davison, J.H. Davis, and C.E. Mayer. A new surface measuring technique using phase retrieval by amplitude interferometry. Proceedings of SPIE - The International Society of Optical Engineering, Vol. 608, Optical Alignment III. Jan 1986. pp. 55-62.
- Mayer, C.E. Texas 5-m antenna efficiency doubled at 230-290 GHz with error correcting secondary optics. URSI-National Radio Science Meeting Abstracts. Jan 13-16, 1986. Boulder, CO. p. 87.
- Vogel, W.J., J.H. Davis and C.E. Mayer. Line-of-sight observations at 86 GHz with a very large and a small antenna. URSI Abstracts. Commission F meeting. Aug 31 - Sept 1, 1983. San Francisco, California.
- Mayer, C.E. Millimeter wave holographic measurements of large reflector antennas. IEEE 1983 International Symposium Digest, Antennas and Propagation, IEEE No. 83CH18606. May 23-26, 1983. Houston, Texas. pp. 410-413.
- Mayer, C.E., J.H. Davis, W.L. Peters, and W.J. Vogel. Near field measurements of large reflector antennas. Conference on Precision Electromagnetic Measurements Digest, IEEE Cat. No. 82CH1737-6. June 28 - July 1, 1982. Boulder, Colorado. pp. 14-16.
- Mayer, C.E. and J.H. Davis. Measurement of the reflector shape of the 5 meter Texas telescope by the holographic method. URSI XXth General Assembly Abstracts. Aug 10-19, 1981. Washington, D.C. p. 64.

RESEARCH REPORTS AND OTHER PUBLICATIONS:

- Hawkins, J., Bruce Johnson, Charles Mayer, Vikas Sonwalkar, Arun Venkatasubramanian. Anechoic Chamber Instrumentation and Calibration Results. Subcontractor Report to Kachemak Research Development Inc., Prime Contract N00164-05-D06653, U.S. Navy. August 10, 2005.
- Mayer, C.E., B.E. Jaeger. Rain attenuation model comparison and validation, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. May 2000.
- Mayer, C.E., B.E. Jaeger, and D. Kim. Final Report (5 years of analyzed data—1994 - 1998), ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. May 1999. 202 pages.
- Mayer, C.E. Quarterly progress report #19, Long-Term ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Sept 1998.
- Mayer, C.E. Quarterly progress report #18, Long-Term ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. June 1998.
- Mayer, C.E. Quarterly progress report #17, Long-Term ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Mar 1998.
- Mayer, C.E. Quarterly progress report #16, Long-Term ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Dec 1997.
- Mayer, C.E. Quarterly progress report #15, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Sept 1997.
- Mayer, C.E. Quarterly progress report #14, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. June 1997.
- Mayer, C.E. Quarterly progress report #13, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Mar 1997.

- Mayer, C.E. Quarterly progress report #12, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Dec 1996.
- Mayer, C.E. Quarterly progress report #11, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Sept 1996.
- Mayer, C.E. Interim 2 year report, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. June 1996.
- Mayer, C.E. Quarterly progress report #10, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Mar 1996.
- Mayer, C.E. Quarterly progress report #9, Extended ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Dec 1995.
- Mayer, C.E. Quarterly progress report #8, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. May 1995.
- Mayer, C.E. Quarterly progress report #7, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Feb 1995.
- Mayer, C.E. Quarterly progress report #6, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Nov 1994.
- Mayer, C.E. Quarterly progress report #5, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Aug 1994.
- Mayer, C.E. Quarterly progress report #4, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. May 1994.
- Mayer, C.E. Quarterly progress report #3, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Feb 1994.

- Mayer, C.E. Quarterly progress report #2, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Dec 1993.
- Mayer, C.E. Quarterly progress report #1, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Sep 1993.
- Mayer, C.E. Contract milestone #1 report--ACTS propagation terminal set up, ACTS propagation experiments in Alaska. Report to NASA-Lewis Research Center, Cleveland, OH. Contract No. NAS3-26401. Sep 1993.
- Mayer, C.E. and J. Harikumar. Satellite propagation research. Final report to Alaska Space Grant Program, UAF, Fairbanks, AK. Aug 1992. 35 pages.
- Mayer, C.E. and C.G. Foldenauer. Evaluation of HF radio communications in the arctic. Final report to PICO (Polar Ice Coring Office), UAF, Fairbanks, AK. June 1992. 29 pages.
- Mayer, C.E. NRAO 12-m 1990 data analysis and acquisition report. Final report to National Radio Astronomy Observatory, Tucson, AZ. Contract No. AUI-2-TUC. July 1990. 62 pages.
- Mayer, C.E. Kitt Peak error correcting subreflector. Final report to National Radio Astronomy Observatory, Tucson, AZ. May 1989. 17 pages.
- Mayer, C.E. Microwave antenna metrology by holographic means. Elec. Engr. Res. Lab., The University of Texas at Austin. Tech. Report 83-2. Dec 1983. 195 pages.
- Mayer, C.E., J.H. Davis, W.L. Peters, and W.J. Vogel. Electromagnetic measurements of large reflector antennas. Elec. Engr. Res. Lab., The University of Texas at Austin. Tech. Report. Mar 1982. 30 pages.
- Mayer, C.E. A methodical approach to a large microwave system design. Elec. Engr. Res. Lab., The University of Texas at Austin. Tech. Report AST-7920966-81-1. May 1981. 80 pages.

OTHER CONFERENCE PARTICIPATION:

IEEE Topical Conference on Wireless Communication Technology and NSF Wireless Grantees Workshop. Oct. 15 – 17, 2003. Honolulu, HI.

ICC2003 (International Conference on Communications). May 11 – 15, 2003. Anchorage, AK.

ECEDHA (Electrical and Computer Engineering Department Heads Association) Annual National Meeting. March 14 – 18, 2003. Oahu, HI.

Academic Chairpersons Conference – Visions of Department Leadership. February 5 – 7, 2003. Orlando, FL.

ECEDHA NanoEngineering Education Workshop. January 27 – 28, 2003. Santa Clara, CA.

International Symposium on Wireless, Personal, Multimedia Communications (WPMC '02). Oct 27 – 30, 2002. Honolulu, HI.

Alaska Engineering Education Conference. Sep 14, 2002. Anchorage, AK.

IEEE Antennas and Propagation International Symposium and URSI National Meeting. Jun 16-21, 2002. San Antonio, TX.

ACE (American Council on Education) Chairing the Academic Department Workshop. Feb 20 – 23, 2002. San Diego, CA.

International Workshop on Space Weather Effects on Communication and Navigation Satellite Signals. Jun 7-8, 2001. Boston, MA.

URSI International Beacon Satellite Symposium. Jun 3-6, 2001. Boston, MA.

IEEE Antennas and Propagation International Symposium and URSI National Meeting. Jul 16-20, 2000. Salt Lake City, UT.

AP2000—Millennium Conference on Antennas and Propagation. Apr 9-14, 2000. Davos, Switzerland. Technical committee member.

URSI XXVith General Assembly. Aug 14-21, 1999. Toronto, Canada.

PTC (Pacific Telecommunications Council) Conference. Jun 15-17, 1998. Girdwood, AK.

Conference on Wireless Communications. Mar 9-11, 1998. San Diego, CA.

International Workshop on Satellite Communications in the Global Information Infrastructure. Jun 19, 1997. Pasadena, CA.

International Mobile Satellite Conference 1997. Jun 16-18, 1997. Pasadena, CA.

RESEARCH PROJECTS DIRECTED BY DR. CHARLES E. MAYER:

<u>DATES</u>	<u>TITLE</u>	<u>AGENCY</u>	<u>AMOUNT</u>
1/1/06- 1/1/08	Microelectronics Packaging Research Facility	Murdock	617,500. ^a
09/05/05- 12/10/05	Design and Analysis of Low-Cost Passive Radio Frequency Identification Tags	OEM/DMEA	8,500.
05/23/04- 05/21/05	Analysis of Antennas for Wireless Sensor Networks	CNT/DMEA	36,000.
05/23/04- 05/21/05	Self-Localization Algorithm for Wireless Sensor Networks	CNT/DMEA	36,000.
07/01/02- 05/25/04	Communicating with Nanosensors	CNT/DMEA	247,528.
05/20/01- 02/14/03	Ionospheric Scintillation Measurements	UPOS	106,236.
10/01/97- 09/31/00	Long-term ACTS Propagation Measurements in Alaska	NASA/JPL	321,486.
08/01/95- 09/31/97	Extended ACTS Propagation Measurements in Alaska	NASA/JPL	332,997.
05/01/93- 07/31/95	ACTS Propagation Measurements in Alaska	NASA/JPL	286,379.
08/31/92	Satellite Propagation Measurements	PSPF	2,500.
04/15/92- 09/30/94	Advanced Design Laboratory for Digital Communication Systems at Microwave Frequencies	NSF/ILI	193,338. ^b
03/15/92- 08/30/92	Evaluation of HF Radio Communications in the Arctic	PICO	5,875.
08/01/91- 07/31/92	Satellite Propagation Research	ASGP	10,000.

^awith Denise Thorsen, Dept. of Electrical and Computer Engineering.

^bwith Joseph G. Hawkins, Dept. of Electrical and Computer Engineering.

Agencies

ASGP—Alaska Space Grant Program at UAF

CNT—Center for Nanosensor Technology at UAF, through DMEA of DoD

DMEA—Defense MicroElectronics Agency

JPL—Jet Propulsion Laboratory

Murdock—M.J. Murdock Charitable Trust

NASA—National Aeronautics and Space Administration

NSF/ILI—National Science Foundation/Instrumentation and Laboratory Improvement

OEM—Office of Electronics Miniaturization at UAF, through DMEA of DoD

PICO—Polar Ice Coring Office, a NSF Program at UAF

PSPF—President's Special Project Fund, UA Foundation

UPOS—University Partnering for Operational Support