Abbreviated Biographical Sketch of Robert Scott McMillan 2020 Feb 17

Prof. McMillan leads the SPACEWATCH® Project which recovers and makes astrometric observations of Near-Earth Objects (NEOs). He is also a Co-Investigator on the Science Team of the NEO Wide-field Infrared Survey Explorer (NEOWISE) spacecraft mission that surveys the sky in the near-infrared. The Spacewatch Project's role for that mission is follow-up observations of asteroids and comets detected by that spacecraft. Spacewatch contributes the majority of the recovery observations of NEOs recently discovered by WISE.

McMillan's career has included studies of variable stars, statistics of stellar populations, interstellar dust, interstellar magnetic fields, planetary atmospheres, Doppler shift spectroscopy of stars, astronomical instrumentation, and surveys of asteroids. He has worked in the last four disciplines from 1979 to the present while at the Lunar and Planetary Laboratory at the University of Arizona. Some of McMillan's peer-reviewed first-author papers from the 1970s were still being cited and used as many as 40 years later.

McMillan's group at LPL was the first to publish stellar Doppler shift (radial velocity; RV) measurements better than +/-20 meters per second (m/s) in a refereed journal. They also made the first reliable detection of p-mode oscillations in a star other than the Sun (Arcturus), discovered the spectroscopic binary of then-longest known period, and established a new upper limit on the RV stability of the Sun observed as a point source. That limit was published in 1993, has been widely cited, and has been confirmed independently as recently as 2016 by other unaffiliated investigators. McMillan also further investigated techniques to measure the RVs of stars in ways that minimize confusion of Doppler shift measurements by effects intrinsic to stellar atmospheres. He returned to the field in 2007 as a collaborator with a group who used a prototype of a newly designed dispersed Fourier Transform Spectrometer to measure the RVs of binary stars with the 2.3-meter Bok Telescope of the Steward Observatory.

As Co-Investigator, Deputy Principal Investigator, Project Scientist, and Project Manager of Prof. Tom Gehrels' Spacewatch Project from 1980-1997, McMillan guided the physical realization of CCD surveying as a productive method of exploring the solar system for asteroids and comets. McMillan became the Principal Investigator of Spacewatch in mid-1997. In 2000 McMillan discovered large Trans-Neptunian Object 2000 WR106, now known as Minor Planet (20000) Varuna. On 2005 Dec 28 he discovered minor planet 2005 YU55, a 300-meter diameter Earth-crossing asteroid that made a close approach to Earth on 2011 Nov 8. The 1.8-m telescope was completed in 2002 and the 0.9-m telescope was completely rebuilt with all new optics and detectors under McMillan's leadership. The 0.9-m telescope was fully automated in 2006. The 1.8-m telescope received a new imaging camera in 2011 October, which has increased the rate of observations by 50% and improved astrometric accuracy by a factor of 2. In 2015 October, the Spacewatch Project further boosted its rate of observations with a new CCD camera at the cassegrain focus of the Bok 2.3-meter telescope of the Steward Observatory and converting the operation of the Spacewatch 0.9-meter telescope from surveying to targeted followup observations.

Education:

B.S. in Astronomy with High Honors, Case Institute of Technology, Cleveland, OH, June 1972.
Senior Thesis Title: *Absolute Magnitudes Determined from the Catalogue of Bright Stars.*

M.A. in Astronomy 1974, University of Texas at Austin.
M. A. Thesis Title: *Intracluster Dust and the Wavelength Dependence of Interstellar Polarization.*

Ph.D. in Astronomy December 1977, University of Texas at Austin.
Ph.D. Dissertation Title: *New Constraints on the Composition of Interstellar Grains from Observations of Extinction and Polarization.*

Position Presently Held:
Research Professor, Lunar & Planetary Laboratory and Steward Observatory, 2020.

Past Positions:
Associate Research Scientist & earlier titles, Lunar and Planetary Laboratory, 1979-2019.
Associate Research Scientist (joint appointment), Steward Observatory, 1998-2019.
NAS- NRC Research Associate, NASA/Marshall Space Flight Center, 1977-79;
Teaching Assistant, Dept. of Astronomy, Univ. of Texas at Austin, 1973-77;
Research Assistant, McDonald Observatory, 1972-73;
Research Assistant, Warner & Swasey Observatory, Case Institute of Technology, Summer 1972;
Planetarium Lecturer, Ralph Mueller Planetarium, Cleveland Museum of Natural History, Summer 1972;
Research Assistant, National Radio Astronomy Observatory, Summer 1971;
Research Assistant, Kitt Peak National Observatory, Summer 1970;
Tutor, Math Dept., Case Western Reserve University, 1969-70;
Volunteer Assistant, Ralph Mueller Planetarium, Cleveland Museum of Natural History, 1968-69.

Doctoral Dissertation Student: William J. Merline, whose dissertation title is: *Observations of Small-Amplitude Oscillations in the Radial Velocity of Arcturus.* © 1995, The University of Arizona.

Memberships: AAS since 1971, AAS/DPS; IAU since 1988 (Formerly Commissions 20 & 30, presently Divisions A and F); SPIE since 1984.

Honors & Awards: Shared NASA Group Achievement Awards for the Wide-field Infrared Survey Explorer mission and the Near-Earth Object Observation Team.

Professional Service on:
NASA Task Force for the Scientific Use of the Space Station (1984-1986).
NASA Proposal for an orbiting Astrometric Imaging Telescope for detection of extrasolar planets (1984-1992).
NASA Working Group: Towards Other Planetary Systems (1992).
NASA proposal review panels (1992-2001).

NASA/JPL Team to develop Road Map to Detect Terrestrial Extrasolar Planets, 1995.
NASA Study to Determine the Feasibility of Extending the Search for Near-Earth Objects to Smaller Limiting Diameters (2002-2003).
Team for Phase B of the U. S. Naval Observatory's proposed mission entitled " Origins Billions-Star Survey: Galactic Explorer", 2004-2006.

Mail–in reviews of proposals to NASA and NSF for funding, 1984-present.
Refereed papers submitted to *Astrophysical Journal, Astrophysical Journal Letters, Astronomical Journal, Icarus, Journal of the Optical Society of America,* and *Monthly Notices of the Royal Astronomical Society.*
Served on Lunar & Planetary Laboratory committees for Library, Computing, Strategic Planning, and Recruitment.
Served on Steward Observatory committee for Strategic Planning for Small Ground-based Telescopes (2019).
Served on Telescope Allocation Committees of Steward and Keck Observatories.
Served on NASA panel reviewing the Minor Planet Center of the International Astronomical Union (2015).

Selected Publications with RSM as major contributor, in chronological order:

"Near-Infrared Photometry of Selected IRC Objects", 1971, G. W. Lockwood and RSM, *Late-Type Stars, Proceedings of a Conference held in Tucson, AZ, October, 1970.* Ed. G. W. Lockwood and H. M. Dyck. Kitt Peak National Observatory, Contribution No. 554, 1971, p.171.

"Mean Absolute Magnitudes of Selected Spectral Groups", 1973, S. W. McCuskey and RSM, *AJ* **78,** 73: http://adsabs.harvard.edu/abs/1973AJ.....78...73M

"A Survey for Small-Amplitude Variability Among Population II Stars", 1976, RSM, M. Breger, G. J. Ferland, and G. L. Loumos, *PASP* **88,** 495: http://adsabs.harvard.edu/abs/1976PASP...88..495M

"Interstellar Polarization in Front of the Young Cluster NGC 7380", 1976, RSM, *AJ* **81,** 970: http://adsabs.harvard.edu/abs/1976AJ.....81..970M

"The Wavelength Dependence of Polarization in the Cygnus OB2 Association: A New Determination of Interstellar Birefringence", 1977, RSM and S. Tapia, *ApJ* **212,** 714: http://adsabs.harvard.edu/abs/1977ApJ...212..714M

"Walker No. 67 in NGC 2264: A Candidate for Strong Interstellar Circular Polarization", 1977, RSM, *ApJLett* **216,** L41: http://adsabs.harvard.edu/abs/1977ApJ...216L..41M

"Are Long Wavelengths of Maximum Interstellar Polarization Due to Water Ice Mantles on Grains?" 1978, RSM, *ApJ* **225,** 417: http://adsabs.harvard.edu/abs/1978ApJ...225..417M

"Predicted Color Excess Ratios Versus Interstellar Grain Size", 1978, RSM, *ApJ* **225,** 880: http://adsabs.harvard.edu/abs/1978ApJ...225..880M

"Discovery of Polarized Light Scattered by Dust Around Alpha Orionis", 1978, RSM and S.Tapia, *ApJLett* **226,** L87: http://adsabs.harvard.edu/abs/1978ApJ...226L..87M

"An Upper Limit on Ultraviolet Shot Noise from Cygnus X-1", 1979, J. G. Duthie and RSM, *ApJ* **232,** 255: http://adsabs.harvard.edu/abs/1979ApJ...232..255D

"Photometry of Saturn at Large Phase Angles", 1980, M. G. Tomasko, L. R. Doose, N. D. Castillo, RSM, and J. P. Dilley, *J. Geophys. Res.* **85,** 5891.

"Software Simulations of the Detection of Rapidly Moving Asteroids by a Charge- Coupled Device", 1982, RSM and C. P. Stoll, *Proc. SPIE* **331,** 104-112.

"A CCD System for Photometry of Direct and Spectroscopic Images", 1984, J. E. Frecker, T. Gehrels, RSM, W. J. Merline, M. L. Perry, J. V. Scotti, and P. H. Smith, in *Proc. of the Workshop on Improvements in Photometry,* ed. W. J. Borucki and A. Young, NASA CP-2350, pp. 137-151.

"The LPL Radial Accelerometer," 1985, R. S. McMillan, P. H. Smith, J. E. Frecker, W. J. Merline, and M. L. Perry, in *Proc. of IAU Colloq. No. 88, Stellar Radial Velocities,* A. G. Davis Philip and D. W. Latham, eds. (New York: L. Davis Press), pp. 63-86.

"A Fabry-Perot Interferometer for Accurate Measurement of Temporal Changes in Stellar Doppler Shift", 1986, RSM, P. H. Smith, J. E. Frecker, W. J. Merline, and M. L. Perry, in *Proc. SPIE* **627,** *Instrumentation in Astronomy-VI,* ed. D. L. Crawford, pp. 2-19.

"Use of a Scanning CCD to Discriminate Asteroid Images Moving in a Field of Stars", 1986, RSM, J. V. Scotti, J. E. Frecker, T. Gehrels, and M. L. Perry, in *Proc. SPIE 627, Instrumentation in Astronomy- VI,* ed. D. L. Crawford, pp. 141-154.

"Astrometry with a Scanning CCD", 1986, T. Gehrels, B. G. Marsden, RSM, and J. V. Scotti, *AJ* **91,** 1242: http://adsabs.harvard.edu/abs/1986AJ.....91.1242G .

"Evidence for Periodic Radial Velocity Variations in Arcturus", 1987, P. H. Smith, RSM, and W. J. Merline, *ApJLett* **317,** L79: http://adsabs.harvard.edu/abs/1987ApJ...317L..79S .

"Non- variability of the Radial Velocity of Eta Cas A," 1987, RSM and P. H. Smith, *PASP* **99,** 849: http://adsabs.harvard.edu/abs/1987PASP...99..849M .

"Differential CCD Photometry of Faint Asteroids in Crowded Star Fields and Non- photometric Sky Conditions", 1987, W. Z. Wisniewski and RSM, *AJ* **93,** 1264-1267.

"The Optical Fiber Feed of the LPL Radial Velocity Spectrometer", 1988, RSM, M. L. Perry, P. H. Smith, and W. J. Merline, *A. S. P. Conf. Ser.* **3,** *Fiber Optics in Astronomy,* ed. S. C. Barden, (San Francisco: A. S. P.), 237-246.

"A Survey for Doppler-Shift Oscillations in K Giants", 1988, P. H. Smith, R. S. McMillan, and W. J. Merline, in *Proc. IAU Symp.* **123,** *Helio- and Astero-seismology* Dordrecht: Reidel), 277-280: http://adsabs.harvard.edu/abs/1988IAUS..123..277S .

"Short Period Oscillations in Alpha Boo, Beta Gem, and Alpha Tau", 1988, P. H. Smith and R. S. McMillan, in *Proc. IAU Symp.* **132:** *The Impact of Very High S/N Spectroscopy on Stellar Physics* (Dordrecht: Reidel), 291-294: http://adsabs.harvard.edu/abs/1988IAUS..132..291S .

"Long-Term Stability of a Fabry-Perot Interferometer Used for Measurement of Stellar Doppler Shift", 1990, RSM, P. H. Smith, M. L. Perry, T. L. Moore, and W. J. Merline, in *Instrumentation in Astronomy VII, Proc. SPIE* **1235,** ed. D. L. Crawford, 601-609: http://adsabs.harvard.edu/abs/1990SPIE.1235..601M .

"Variation of the Radial Velocity of Epsilon Cygni A", 1992, RSM, P. H. Smith, T. L. Moore, and M. L. Perry, *PASP* **104,** 1173: http://adsabs.harvard.edu/abs/1992PASP..104.1173M .

"Discussion of Thermal Specs of Ronchi Rulings", 1992, by R. S. McMillan, in *Astrometric Imaging Telescope 1991 Final Report,* JPL D-9651 (Pasadena: JPL/Cal Tech), ed. S. H. Pravdo, 129-133.

"Overview of Temperature Specs on CCD used as a Metric for AIT", 1993, by R. S. McMillan, in *Astrometric Imaging Telescope 1992 Final Report,* JPL D-10760 (Pasadena: JPL/Cal Tech), ed. S. H. Pravdo, 377.

"Radial Velocity Observations of the Sun at Night", 1993, RSM, T. L. Moore, M. L. Perry, and P. H. Smith, *ApJ* **403,** 801-809: http://adsabs.harvard.edu/abs/1993ApJ...403..801M .

"Long, Accurate Time Series Measurements of Radial Velocities of Solar-Type Stars", 1994, RSM, T. L. Moore, M. L. Perry, & P. H. Smith, *Astrophys. & Space Sci.,* **212,** 271-280: http://adsabs.harvard.edu/abs/1994Ap%26SS.212..271M .

"Charge-coupled Devices", 1997, by RSM, in *Encyclopedia of Planetary Science,* J. H. Shirley & R. W. Fairbridge, Eds. London: Chapman and Hall, 98-102.

"The Multichannel Astrometric Photometer with Spectrograph: A New Instrument for the Characterization of Extrasolar Planetary Systems", 1997, by G. D. Gatewood, D. Snyder Hale, W. T. Persinger, RSM, J. L. Montani, T. L. Moore, M. L. Perry, in

Planets Beyond the Solar System and the Next Generation of Space Missions, ed. D. Soderblom, (San Francisco: A. S. P.), 119, 41-52.

"Extrasolar Planets", 1997, by RSM, in *The Encyclopedia of Planetary Science,* J. H. Shirley & R. W. Fairbridge, Eds. (London: Chapman and Hall), 588-590.

"Photoelectric Observations of 125 Asteroids", 1997, W. Z. Wisniewski, T. M. Michalowski, A. W. Harris, and RSM, *Icarus,* **126,** 395-449.

"The 1.8m Spacewatch telescope motion control system", 1998, M. L. Perry, T. H. Bressi, RSM, A. F. Tubbiolo, and L. D. Barr *Proc. SPIE 3351, Telescope Control Systems III,* 450-465: http://adsabs.harvard.edu/abs/1998SPIE.3351..450P .

"Exploration of Asteroid and Comet Populations", 1998, RSM, *SSI Update - The High Frontier Newsletter,* (Princeton, NJ: Space Studies Institute), 23, issue 5, pp1-2, 5-6.

"The Value of Fabry-Perot Interferometry in Studying Long-Term Convective Line Shifts", 1999, by RSM, in *IAU Colloquium 170: Precise Stellar Radial Velocities,* ASP Conf. Series 185, 278-285: http://adsabs.harvard.edu/abs/1999ASPC..185..278M .

"The Spacewatch search for material resources near Earth", 1999, RSM, *In Space Manufacturing 12: Challenges and Opportunities in Space: Proceedings of the Fourteenth Space Studies Institute's Princeton Conference on Space Manufacturing,* May 6-9, 1999, B. Greber, Ed. (SSI Publishing, Princeton, NJ), 72-75.

"Discovery and Confirmation of Asteroid (719) Albert = 2000 JW8", 2000, by J. A. Larsen, RSM, J. V. Scotti, M. Hicks, R. Fevig, and G. V. Williams, *IAU Circ.* 7420: http://adsabs.harvard.edu/abs/2000IAUC.7420....1L .

"Discovery of Trans-Neptunian Object 2000 WR_{106}", 2000, by RSM and J. A. Larsen, *Minor Planet Electronic Circ.* 2000-X02: http://adsabs.harvard.edu/abs/2000MPEC....X...02M .

"The Spacewatch wide area survey for bright Centaurs and Transneptunian objects", 2001, by J. A. Larsen, A. E. Gleason, N. M. Danzl, A. S. Descour, RSM, T. Gehrels, R. Jedicke, J. L. Montani, and J. V. Scotti, *AJ* **121,** 562-579: http://adsabs.harvard.edu/abs/2001AJ....121..562L .

"A Study to Determine the Feasibility of Extending the Search for Near-Earth Objects to Smaller Limiting Diameters@, 2003, G. H. Stokes, D. K. Yeomans, W. F. Bottke Jr., S. R. Chesley, J. B. Evans, R. E. Gold, A. W. Harris, D. Jewitt, T. S. Kelso, RSM, T. B. Spahr, and S. P. Worden. *Report of the Near-Earth Object Science Definition Team, http://neo.jpl.nasa.gov/neo/neoreport030825.pdf* .

"Review of book entitled *Mitigation of Hazardous Comets and Asteroids*", 2005, R. S.

McMillan, *Meteoritics and Planetary Science,* **40,** 509: http://adsabs.harvard.edu/abs/2005M%26PS...40..509M .

"The Spacewatch Volunteer Search for Fast- Moving Objects", 2005, by RSM, M. Block, and A. S. Descour. The ALPO's *Minor Planet Bulletin,* **32,** No. 3, page 53: http://adsabs.harvard.edu/abs/2005MPBu...32...53M .

"The Origins Billions Star Survey: Galactic Explorer", 2006, by K. J. Johnston *et al.* including RSM. *PASP* **118,** 1428-1442.

"The Search for Distant Objects in the Solar System using Spacewatch", 2007, by J. A. Larsen *et al.* including RSM, *AJ,* **133,** 1247-1270: http://adsabs.harvard.edu/abs/2007AJ....133.1247L

"Spacewatch Preparations for the Era of Deep All-sky Surveys", 2007, by RSM and the Spacewatch Team. In *Proc. IAU Symp. 236: Near Earth Objects, our Celestial Neighbors –Opportunity and Risk,* A. Milani, G. Valsecchi, and D. Vokrouhlicky, Eds. (Cambridge U. Press), pp 329-340: http://adsabs.harvard.edu/abs/2007IAUS..236..329M .

"Initial Results from the USNO Dispersed Fourier Transform Spectrograph", 2007, by Hajian, A.R., and 17 co-authors including RSM. *ApJ* **661,** 616-633.

"Discovery Observations of Comet P/2008 U1 (McMillan)", 2008, by RSM. *IAU Circ.* 8997: http://adsabs.harvard.edu/abs/2008IAUC.8997....1M .

"Discovery Observations of Comet P/2008 U1 (McMillan)", 2008, by RSM. *Minor Planet Electronic Circ.* 2008-U29: http://www.cfa.harvard.edu/mpec/K08/K08U29.html .

"Stellar Astrophysics with a Dispersed Fourier Transform Spectrograph. I. Instrument Description and Orbits of Single-lined Spectroscopic Binaries", 2009, by Behr, B. B., and six other authors including RSM. *ApJ,* **705,** 543-553: http://adsabs.harvard.edu/abs/2009ApJ...705..543B .

"The Wide-field Infrared Survey Explorer (WISE): Mission Description and Initial On-orbit Performance", 2010, by Wright, E. L., and 33 co-authors including RSM. *AJ* **140,** 1868-1881: http://adsabs.harvard.edu/abs/2010AJ....140.1868W .

"Preliminary Results from NEOWISE: An Enhancement to the Wide-field Infrared Survey Explorer for Solar System Science", 2011, by Mainzer, A. and 34 co-authors including RSM. *ApJ* **731,** Issue 1, article id. 53: http://adsabs.harvard.edu/abs/2011ApJ...731...53M .

"Stellar Astrophysics with a Dispersed Fourier Transform Spectrograph. II. Orbits of Double-lined Spectroscopic Binaries", 2011, by Behr, B. B., and 6 co-authors including RSM. *AJ* **142,** Issue 1, article id. 6: http://adsabs.harvard.edu/abs/2011AJ....142....6B .

"NEOWISE Observations of Near-Earth Objects: Preliminary Results", 2011, by Mainzer, A. K., and 36 co-authors including RSM. *ApJ* **743,** Issue 2, article id. 156: http://adsabs.harvard.edu/abs/2011ApJ...743..156M .

"The Lightcurve of 3753 Cruithne", 2014, by Larsen, J. A.; McMillan, R. S.; Bressi, T. H.; and Scotti, J. V. *The Minor Planet Bulletin* (ISSN 1052-8091). Bulletin of the Minor Planets Section of the Association of Lunar and Planetary Observers, **41,** No. 2, pp. 68-69: http://adsabs.harvard.edu/abs/2014MPBu...41...68L .

"Comet P/2013 TW_5 (Spacewatch)", 2013, by Bressi, T. H.; McMillan, R. S.; Sato, H.; and Williams, G. V. *Central Bureau Electronic Telegrams,* 3669 and 3670, Ed. Green, D. W. E. http://adsabs.harvard.edu/abs/2013CBET.3670....2B .

"Comet C/2017 E1 (Borisov)", 2017, by McMillan, R. S.; Guido, E.; Sato, H.; Mattiazzo, M.; Hug, G.; Kadota, K.; Jacques, C.; Pimentel, E.; Barros, J.; Yoshida, S. *Central Bureau Electronic Telegrams,* 4369, 1 (2017). Ed. Green, D. W. E. http://adsabs.harvard.edu/abs/2017CBET.4369....1M .

"Near-Earth asteroid 2012 TC4 observing campaign: Results from a global planetary defense exercise", 2019, by Reddy, V. *et al.* including RSM. *Icarus,* **326,** pp. 133-150.

Selected Abstracts:

McMillan, R. S. 1999. Spacewatch discovery and study of accessible asteroids. Abstract of paper presented at the First Space Resources Roundtable at the Colorado School of Mines in Golden, CO: Lunar & Planetary Institute (Houston) Contrib. No. 988 and http://www.isruinfo.com/index.php?page=srr_1 .

McMillan, R. S., M. L. Perry, T. H. Bressi, J. L. Montani, A. F. Tubbiolo, M. T. Read. 2000. Progress on the Spacewatch 1.8-m telescope and upgrade of the Spacewatch 0.9-m telescope. *BAAS* **32,** 1042-1043: http://adsabs.harvard.edu/abs/2000DPS....32.2612M .

Larsen, J. A., and the Spacewatch Team. 2005. The size distribution of small near-Earth asteroids from the Spacewatch Survey. *BAAS* **37,** No. 4, abstract 4.09: http://aas.org/archives/BAAS/v37n4/aas207/1500.htm .

Roe, E. A, J. A. Larsen, and the Spacewatch Team. 2005. Search for the tenth planet: Testing inferences from the ``Kuiper cliff''. *BAAS* **37,** No. 4, abstract 4.07: http://aas.org/archives/BAAS/v37n4/aas207/1308.htm .

McMillan, R. S., A. K. Mainzer, R. G. Walker, E. L. Wright, P. R. Eisenhardt, R. M. Cutri, T. Grav, and the WISE Science Team. 2009. NEOWISE: Proposed Discovery of Near-Earth Objects in the Infrared by the WISE Mission. Talk 459.06: abstract, and poster: *BAAS* **41,** 364: http://adsabs.harvard.edu/abs/2009AAS...21345906M .

McMillan, R. S., and the WISE Team. 2009. Abstract of WISE Solar System Science, talk presented at 214th meeting of the AAS, No. 217.02, and slides. BAAS **41**,724: http://adsabs.harvard.edu/abs/2009AAS...21421702M .

McMillan, R. S., *et al.* 2010. Spacewatch Observations of Asteroids and Comets with Emphasis on Discoveries by WISE. AAS/DPS meeting #42, #13.22; BAAS **42,** 1057: http://spacewatch.lpl.arizona.edu/Spacewatch_DPS_2010_Poster.pdf .

McMillan, R. S., and the WISE Team. 2011. Solar System Science with WISE. AAS Meeting 217, #301.03; BAAS **43:** http://adsabs.harvard.edu/abs/2011AAS...21730103M .

McMillan, R. S., *et al.* 2012. Spacewatch Observations of Near-Earth Objects. AAS/DPS meeting #44, #210.14: http://adsabs.harvard.edu/abs/2012DPS....4421014M .

Grav, Tommy; Mainzer, A. K.; Bauer, J. M.; Masiero, J. R.; Stevenson, R.; Carolyn, N.; McMillan, R. S.; Walker, R. G.; Spahr, T. B.; Wright, E. L.; WISE Team; NEOWISE Team. 2013. The WISE Survey of the Near-Earth Asteroids (NEOWISE). AAS Mtg #222, #402.01: http://adsabs.harvard.edu/abs/2013AAS...22240201G .

Scotti, James V.; McMillan, Robert S.; Larsen, Jeffrey A. 2014. Spacewatch Astrometry of

Asteroids and Comets with the Bok 2.3-m and Mayall 4-m Telescopes. AAS DPS Mtg #46, #414.17: http://adsabs.harvard.edu/abs/2014DPS....4641417S .

McMillan, Robert S.; Bressi, Terrence H.; Scotti, James V.; Larsen, Jeffrey A.; Mastaler, Ronald A. 2014. Spacewatch Observations of Asteroids and Comets Supporting the Large-Scale Surveys. AAS DPS Mtg #46, #414.11: http://adsabs.harvard.edu/abs/2014DPS....4641411M .

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Larsen, J. A.; McMillan, R. S.; Bressi, T. H.; Mastaler, R. A.; Scotti, J. V.; Tubbiolo, A. F. 2015. Public Archiving and Curation of Spacewatch Data. AAS/DPS Mtg #47, id.308.14: http://adsabs.harvard.edu/abs/2015DPS....4730814L .

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As of 2020 Feb 13, the Spacewatch Project under McMillan's leadership had contributed to 8,806

Minor Planet Electronic Circulars (MPECs) and 620 *Minor Planet Circulars (MPCs)* describing discoveries and followup astrometry of minor planets and comets. Spacewatch has also contributed to approximately 2,377 additional *MPECs* in *Daily Orbital Updates* from the Minor Planet Center without explicit author attribution. Spacewatch has also contributed to 176 *IAU Circulars* and 160 *Central Bureau Electronic Telegrams.* McMillan personally has also contributed to dozens of other astronomical publications not listed above since 1971.