David Alan Oesper
Dodgeville, Wisconsin 53533

Education

Iowa State University - Ames, Iowa: **B.S. in Space Science   (1980)**
Teacher Education (2000-2002)
Admitted to Graduate School (non-degree), Iowa State University, January 2002
Admitted to M.S. degree program, Math Education, ISU, December 2002
Admitted to Interdisciplinary Graduate Studies M.S. degree program in
　　Astronomy Education (individualized program) at ISU in October 2003
Swinburne Astronomy Online (earned six graduate credits in astronomy), December 2010
36 graduate credits earned in total

Employment

Lands' End, Dodgeville, Wisconsin (September 2015-present)
Quantitative Analyst II – SAS, SQL (Marketing)

The University of Texas Health Science Center, Houston, Texas
(June 2014-August 2015) Data Management Analyst - SAS, SQL
Children's Learning Institute, Texas School Ready!

Sul Ross State University, Alpine, Texas (December 2012-May 2014)
Technology Support Specialist II / Data Analyst, Title V Post-Baccalaureate Project
(60%) and Institutional Research & Effectiveness (40%)
*Graduate student, graduate faculty & staff technology support; SAS programming for
data analysis, data quality improvement, and reporting needs university-wide.*

McDonald Observatory, Fort Davis, Texas (February 2013-May 2014)
Hosting Special Viewing Nights on the 36-inch Research Telescope (monthly)
https://mcdonaldobservatory.org/visitors/programs/36-viewing-night

Mountain Trails Lodge & Outdoor Learning Center
Fort Davis, Texas (April 2013-May 2014)
Hosting star parties for special groups and guests (monthly)
http://www.mountaintrailslodge.com/

Lands' End, Dodgeville, Wisconsin
(August 2010-March 2012; May 2012-December 2012)   20 hours/wk
SAS Programmer II, Marketing—Business Analytics (telecommute position)
*SAS programming, SQL, Netezza; data mining & analytics to answer business questions
and support marketing initiatives.*

Sul Ross State University, Alpine, Texas (May 2012-December 2012)   20 hours/wk
Research Analyst, Advancement & University Relations
Development of an improved alumni contact database. Tools used: SAS

Sul Ross State University, Alpine, Texas (March 2012-May   2012)   40 hours/wk
Physics Instructor: Physics 1402 & 2402
Taught last eight weeks of the semester due to illness of the physics professor.

Employment
(continued)

Sul Ross State University, Alpine, Texas (January 2011-March 2012)   20 hours/wk
IT Specialist, Office of Information Technology
New Windows 7 computer installations and campuswide user support (Jan-Jun 2011)
Sungard Banner support, Oracle SQL queries, Toad, Argos (Jul 2011-Mar 2012)

Sul Ross State University, Alpine, Texas (March 2010-August 2010)
Learning Community Support Specialist
Setting up "smart" classrooms, both hardware and software, providing technology
training to faculty, and helping them to integrate this technology into their courses.

Lands' End, 5 Lands' End Lane, Dodgeville, Wisconsin (2005-2010)
SAS Programmer II, Integrated Marketing—Business Analytics
Extensive SAS data mining and reporting experience, including extensive PROC SQL and
SAS Macro language, on a zOS mainframe, under Sun Solaris Unix, and Windows. In
late 2007 and early 2008, was instrumental in helping all Lands' End SAS users transition
from the mainframe to Unix Sun Solaris and have developed a basic Unix proficiency. In
2008-2009, worked extensively on web analytics, including the characterization of web
behaviors, and assisted with e-mail marketing activities. Developed advanced SQL and
data mining expertise to address business questions and inform marketing strategies.

Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa (1984-2005)
Full Time: Programmer/Analyst (1984); Systems Analyst (1988);
Information Technology Specialist 4 (1997); Information Technology Specialist 5 (1997);
Computer programming and systems design, primarily the Pavement Management
Information System, an engineering database of pavement condition & history data;
I have been programming in the SAS language continuously since 1985.
3/4 Time: Executive Officer 2 (2000), Office of Materials, Special Investigations
New position created for me to allow my return to school to get a teaching license;
programming and data processing for the Pavement Management Information System

Iowa State University, Physics Department, Ames, Iowa (1980-1981; 1983-1984)
Laboratory Supervisor I - Astrophysics Lab - Prof. Willet Beavers
Computer programming, data reduction and analysis, and astronomical observation;
supervised several undergraduates employed for data reduction

Technicolor Government Services, EROS Data Center, Sioux Falls, South Dakota
(1981-1983); *Computer programmer working on a number of projects in the field of*
digital image processing of Landsat imagery

Secondary
Employment

Outdoor Lighting Associates, Inc., 1208 Wilson Ave., Ames, Iowa (1994-2005)
Environmentally-friendly outdoor lighting mail order sales and consulting firm

Celestial Software, P.O. Box 95, Dell Rapids, South Dakota   (1982-1983)
Mail-order software business selling astronomical software for the Apple computer

Teaching Experience	**Classical Music for Music Lovers II**, Museum of the Big Bend, Alpine, TX (1900-2014) January-February 2014; 14 contact hours; 8 students

Introduction to Astronomy I, Museum of the Big Bend, Alpine, TX, September-October 2013; The Sky and the Solar System: 12 contact hours + observing sessions; 9 students

Observational Astronomy, Museum of the Big Bend, Alpine, TX
Chihuahuan Desert Nature Center; March-April 2013
12 contact hours + extra observing session; 13 students

Classical Music for Music Lovers I, Museum of the Big Bend, Alpine, TX (1713-1914) January-March 2013; 14 contact hours; 7 students

Introduction to Astronomy II, Museum of the Big Bend, Alpine, TX
Stars, Galaxies, and Cosmology; September-October 2012
12 contact hours + observing sessions; 15 students

Physics 2402 - Calculus-Based Physics II & Physics 1402 - General Physics II
Sul Ross State University, Alpine, TX, March-May 2012
Taught last eight weeks of the semester due to illness of the physics professor.

Introduction to Astronomy I, Desert Academy, Alpine, TX, January-March 2012
The Sky and the Solar System: 12 contact hours + observing sessions; 6 students

Observational Astronomy, Taliesin, June - August 2008
Developed and taught this 35-hour course for high school students and adults.

Observational Astronomy, Friendship Center Camp, June - August 2007
Developed and taught this 42-hour course for high school students and adults.

Observational Astronomy, Taliesin, June - July 2007
Developed and taught this 21-hour course for architecture students and the general public.

Observational Astronomy, Blackhawk Lake Recreation Area, June - August 2006
Developed and taught this 42-hour course for high school students and adults.

Introduction to Astronomy, Dodgeville High School, January - March 2006; January - March 2007
Developed and taught this 18-hour course for high school students and adults.

Topics in Mathematical Astronomy, Dodgeville High School, January - March 2008
Developed and taught this 18-hour course for high school students and adults.

Teaching	**Iowa State University**, Department of Physics & Astronomy, Teaching Assistant
Experience	Fall 2000: Astro 150, *Stars, Galaxies, and Cosmology* - Dr. Steve Kawaler
(continued)	Spring 2001: Astro 120, *The Sky and the Solar System* - Dr. Phil Appleton

Spring 2004: Astro 120, *The Sky and the Solar System* -
    Drs. Guillermo Gonzalez & Charles Kerton
Fall 2001: Physics 112, *General Physics II* - Dr. David Meltzer
Spring 2002, Fall 2002, Spring 2003, Spring 2005:
    Astro 125L, *Observational Astronomy Laboratory* - Dr. Lee Anne Willson
Fall 2003, Spring 2004:
    Astro 125L, *Observational Astronomy Laboratory* - Dr. Guillermo Gonzalez
    (I revised the course workbook in Summer 2003.)
Fall 2004: Astro 344L, *Observational Astronomy Laboratory!* - Dr. Guillermo Gonzalez
    (for physical science and engineering majors)

Iowa State University, Office of Precollegiate Programs, Instructor & Course Developer
Summer 2004: Explorations! Short Course, *Introduction to Astronomy*
Summer 2004: Adventures! Short Course, *Stars, Planets, and Space Exploration*

Story County Conservation Center, McFarland Park Observatory
Developed and taught *Observational Astronomy*, June-August 2002, June-August 2003

Iowa Department of Transportation, Developed & taught *Fundamentals of SAS Programming* class 9/97, 3/98, 4/98, 12/98, 5/99, and 2/01

Ames Public Library, 515 Douglas Ave., Ames, Iowa - **Adult Education**
Developed & taught an astronomy course, *Introduction to Astronomy*, in 1990 & 1991

Accomplishments   **Ames Area Amateur Astronomers (AAAA)** (1979-2005)
President 1984-1985, 1988-1991, 1993; Vice President 1981, 1983; Educational Outreach
Coordinator 1994-2000; Newsletter Editor 1983-1989, interim 1992 and 1997-1998;
Publicity Secretary 1992; Dark-Sky Preservation Coordinator 2002-2004

Ames International Orchestra Festival Association (AIOFA)
Board member 1997-2004; President 2000-2001, 2003-2004; Vice President 1999-2000

Big Bend Astronomers (Jan 2011-present): founder and coordinator / facilitator

Educational Astronomy Activities (1979-present)
Provided telescopic viewing and constellation identification activities for the public,
school, and community groups; slide shows, Powerpoint presentations; many
presentations to elementary and secondary students; television, radio, and newspaper
interviews: astronomy, outdoor lighting, and dark-sky issues; featured on *Living in Iowa*
on Iowa Public Television (February 1998)

Garst Farm Resorts / Whiterock Conservancy, Coon Rapids, Iowa (1997-2005)
Provided astronomy programs to bed & breakfast guests, and others, two weekends each
month at a dark-sky site near Coon Rapids, Iowa.

Accomplishments *(continued)*	**International Dark-Sky Association (IDA)** (1994-2000) Board member 1994-2000; Information Sheet Editor 1996-1999; awarded an Executive Director's Award in 2000; see http://www.darksky.org for more information

Other Awards

o   1999 Conservation Award by the Iowa Division of the Isaac Walton League for my dark-sky preservation efforts

o   2011 Region Award, North Central Region of the Astronomical League (NCRAL)

Outdoor Lighting Code (1994-1999)

I was on the committee that developed Iowa's first outdoor lighting code; approved by the Ames City Council in July 1999.

Planetarium (1978-1980)

Developed and produced multimedia astronomy presentations for VEISHEA and other groups at the ISU Planetarium

Sioux Valley Astronomers   (1981-1984)

Founded this astronomy club in Sioux Falls, South Dakota; President 1981-1983; Newsletter Editor 1981-1983

The Sky This Week (1998-2005+)

Weekly astronomy newspaper column published in the *Coon Rapids Enterprise*, Coon Rapids, Iowa; + Now on the web at http://www.skythisweek.info

Recent Observing Experience

Received an "A" in Astro 510, *Observational Astrophysics* at ISU Fall semester 2002. Instructor: Prof. Guillermo Gonzalez

In that course, and afterwards, I had extensive experience using the 24-inch research telescope at ISU's Erwin W. Fick Observatory to do CCD photometry and imaging, using the IRAF software package to process the CCD images. Since 2005, I have been doing CCD photometry transformed to the standard magnitude system for the AAVSO, asteroid occultation timings, and astroimaging, especially comets and near-Earth asteroids, from my backyard observatory.

Currently, I have a roll-off-roof observatory in my backyard in Alpine, TX housing an equatorial fork-mounted Meade 12-inch LX200/GPS telescope. Primary research project is to observe all asteroid occultation events of stars down to 12th magnitude for IOTA where my observatory is in the predicted shadow zone or 1! zone. Secondary project is observing lunar occultations of close and suspected double stars, again for IOTA.

Publications   Beavers, W.I., Eitter, J.J., Ketelsen, D.A., & Oesper, D.A. (1979). Radial-Velocity
        Standard Stars, *PASP*, 91, 698-701.
     Beavers, W.I., Oesper, D.A., & Pierce, J.N. (1979). Photometric Observations of
        Eclipses and Flare-Ups in V471 Tauri, *ApJ*, 230, L187-189.
     Birney, Gonzalez, & Oesper (2006). *Observational Astronomy, 2nd ed.*
        Cambridge University Press.
     Oesper, D. (1993). A Roll-Down Roof Observatory. *Sky & Telescope*, 85(5), 90-93.
     Oesper, D. (1996). The Vanishing Night Sky. *Iowa Environmental Council Journal*, 2(1).
     Oesper, D. (1997). Lost in the Stars. *Lighting Design & Application*, 27(12), 36-39.

I am presently writing a three-volume observational astronomy field guide covering the entire sky. As of October 2009, I have completed 180 charts for the project and have begun writing text.

Research Interests   Exoplanet search, discovery, and follow up using the radial velocity technique
Exoplanet search, discovery, and follow up using the photometric transit technique
Spectral classification of stars with undetermined spectral type & luminosity class
Developing software to automatically classify digital stellar spectral data
Stellar radial velocity measurements
Trigonometric parallax determination for stars
Near-Earth asteroid search & discovery, astrometry, and orbit determination
Measurement of asteroid rotation parameters & spectrophotometric studies
Comet astrometry and photometry
Meteor studies