

Gary P. Ellrod - Publications

Refereed Journals:

Ellrod, G. P., J. A. Knox, P. F. Lester, and L. J. Ehernberger, 2014: Clear Air Turbulence in: *Encyclopedia of Atmospheric Science*, 2nd Edition, Academic Press, Elsevier, Inc., In press.

Ellrod, G. P., A. R. Lupo, P. Roohr, K. Lavin, and S. W. Harned, 2012: [National Weather Digest: More Than Three Decades of Service to the Meteorological Community](#). National Weather Digest, 36, 163-168.

_____, and J. A. Knox, 2010: [Improvements to an Operational Clear-Air Turbulence Diagnostic Index by Addition of a Divergence Trend Term](#). Weather and Forecasting, 25, 789-798.

_____, and I. Gultepe, 2007: Inferring low cloud base heights at night for aviation using satellite infrared and surface temperature data. *J. Pure Appl. Geophys.* Special issue on fog, edited by I. Gultepe. **164**, 1193-1205.

_____ and S. A. Lindstrom, 2006: [Performance of Satellite Fog Detection Techniques with Major, Fog-related Highway Accidents](#). *NWA Electronic Journal, of Operational Meteorology*, **3**.

_____, G. P. and A. A. Bailey, 2006: [Assessment of aircraft icing potential and maximum icing altitude from geostationary meteorological satellite data](#). Weather and Forecasting, 22, 160-174.

_____ and A. J. Schreiner, 2004: [Volcanic ash detection and cloud top height estimates from the GOES-12 Imager: Coping without a 12 micrometer infrared band](#), Geophysical Res. Letters, 31, August 11, 2004.

Pryor, K. L. and G. P. Ellrod, 2004: [Recent Improvements to the GOES Microburst Products](#). Weather and Forecasting, 19, 582-594.

Ellrod, G. P., 2004: [Impact on Volcanic Ash Detection Caused by the Loss of the 12.0 micrometer "Split Window" Band on GOES Imagers, in: Volcanic Observations from Space: New Results from the EOS Satellite Instruments](#), Journal of Volcanology and Geothermal Research, 135 (1-2), 91-103, Elsevier Press, Amsterdam.

Underwood, J., G. P. Ellrod and A. Kuhnert, 2004: [A Multiple Case Analysis of Nocturnal Radiation Fog Development in the Central Valley of California Utilizing the Night Time Fog Product](#). J. Applied Meteor., 43, 297-311.

Ellrod, G. P., 2003: [Estimation of Low Cloud Base Heights at Night Using GOES Infrared and Surface Temperature Data](#). National Weather Digest, 26 (1-2), 39-44.

_____, B. H. Connell, and D. W. Hillger, 2003: [Improved Detection of Airborne Volcanic Ash Using Multispectral Infrared Satellite Data](#), J. Geophys. Res -Atmosphere, 108, No. D12, 4356.

Hillger, D. W. and G. P. Ellrod, 2003: [Detection of Important Atmospheric and Surface Features by Employing Principal Component Image Transformation of GOES Imager](#). J. Appl. Meteor, 42, 611-629.

Ellrod, G. P., P. F. Lester, and L. J. Ehernberger, 2002: Clear Air Turbulence in: Encyclopedia of Atmospheric Science, Academic Press, Elsevier, Inc., 11 pp.

_____, J. P. Nelson,, M. R. Witiw, L. Bottos, W. P. Roeder, 2000: [Experimental GOES Sounder Products for the Assessment of Downburst Potential](#). Weather and Forecasting: 15, 527-542.

_____, 2000: [Satellite Images Provide Valuable Information Supplement to the Aviation Meteorologist](#). ICAO Journal, 55, No. 2 (March), 6-10, 27.

_____, 1999: [The use of GOES Sounder Imagery for the Detection of Hazardous Volcanic Ash Plumes](#). National Weather Digest, 22, No. 4, National Weather Association, Montgomery, Alabama, 3-9.

_____, R.V. Achutuni, J. M. Daniels, E. M. Prins, and J. P. Nelson, III, 1998: [An Assessment of GOES-8 Imager Data Quality](#). Bulletin of Amer. Meteor. Soc., 79, 2509-2526.

_____, 1995: [Advances in the Detection and Analysis of Fog at Night Using GOES Multispectral Infrared Imagery](#). Weather and Forecasting: 10, 606-619.

A. J. Schreiner, D. A. Unger, W. P. Menzel, G. P. Ellrod, K. I. Strabala and J. L. Pellet. 1993: A [Comparison of Ground and Satellite Observations of Cloud Cover](#). Bulletin of the Amer. Meteor. Soc: 74, 1851-1861.

Ellrod, G. P. and D. I. Knapp. 1992: [An Objective Clear-Air Turbulence Forecasting Technique: Verification and Operational Use](#). Weather and Forecasting: 7, 150-165.

_____, 1990: [A water vapor image feature related to severe thunderstorms](#). National Weather Digest, 10, 21-29.

Ellrod. 1989: [Environmental Conditions Associated with the Dallas Microburst Storm Determined from Satellite Soundings](#). Weather and Forecasting: 4, 469-484.

Technical Reports:

Ellrod, G. P., R. Helz, and G. Wadge, 2001: Volcanic Hazard Assessment, CEOS Disaster Management Support Group, Final Report. NOAA/NESDIS.

_____, 1994: Detection and analysis of fog at night using GOES multispectral infrared imagery. NOAA Tech. Report NESDIS 75, U. S. Dept. of Commerce, Washington, DC, 22 pp.

_____, 1990: [The Use of Water Vapor Imagery to Identify Clear Air Turbulence](#). Satellite Applications Information Note 90/8, U.S. Dept. Of Commerce, 9 pp.

_____, 1989: A decision tree approach to clear air turbulence analysis using satellite and upper air data. NOAA Tech. Memo. NESDIS 23, U. S. Dept. of Commerce, Washington, DC, 20 pp.

_____, 1985: Detection of high level turbulence using satellite imagery and upper air data. NOAA Tech. Memo. NESDIS 10, U. S. Dept. of Commerce, Washington, DC, 30 pp.

Newsletter Articles

[Remote Sensing of Mt. Redoubt Eruptions](#), National Weather Association newsletter, May 2009.

[Satellite Remote Sensing of Fog and Low Clouds](#), National Weather Association newsletter, March 2007.

Selected Conference Papers:

Ellrod, G. P., 2013: [Use of the NOAA HYSPLIT Trajectory Model for the Short Range Prediction of Stratus and Fog](#). *38th National Weather Association Annual Meeting*, 13-17 Oct. 2013, Charleston, SC.

Knox, J. A., G. P. Ellrod, S. Silberberg, and E. Wilson, 2011: [Performance of the Ellrod-Knox and Lighthill-Ford-Knox clear air turbulence algorithms at the Aviation Weather Center](#). *15th AMS Conference on Aviation, Range, and Aerospace Meteorology*, 31 July - 4 August, 2011, Los Angeles, CA.

Knox, J. A., G. P. Ellrod, and P. D. Williams, 2006: [Improved clear air turbulence diagnostics based on adjustment dynamics](#). *12th AMS Conf. On Aviation, Range, and Aerospace Meteorology*, 30 Jan. - 2 Feb. 2006, Atlanta, GA.

Ellrod, G. P., 2006: [Evaluation of Moderate-Resolution Imaging Spectroradiometer \(MODIS\) Shortwave Infrared Bands for Optimum Nighttime Fog Detection](#). *14th AMS Conference on Satellite Meteorology and Oceanography*, 30 Jan. - 2 Feb. 2006, Atlanta, GA.

_____, 2004: [Detection of Hazardous Fog at Night Using Data From Meteorological Satellites and Surface Reporting Stations](#). *National Highway Visibility Conference*, 18-19 May 2004, Madison, WI.

_____ and A. Schreiner, 2004: [A first look at volcanic ash detection in the GOES-12 era](#). *11th AMS Conf. On Aviation, Range and Aerospace Meteorology*, 4-8 Oct. 2004, Hyannis, MA.

_____ and A. Bailey, 2004: ['ICECAP': A GOES image product depicting aircraft icing potential and maximum icing altitude](#). *11th AMS Conf. On Aviation, Range and Aerospace Meteorology*, 4-8 Oct. 2004, Hyannis, MA.

A. Schreiner, T. J. Schmit, G. P. Ellrod, and F. Prata, 2004: [Can upper level SO2 be monitored using the GOES Sounder?](#) *2nd Int'l. Conf. On Volcanic Ash and Aviation Safety*, 21-24 June 2004, Alexandria, VA.

Ellrod, G. P. and S. Bachmeier, 2003: [Inter-comparison of GOES and MODIS imagery in the analysis of fog and stratus](#). *12th Conf. On Satellite Meteor. And Oceanography*, 10-13 Feb. 2003, Long Beach, CA.

_____, and J. S. Im, 2003: [Development of volcanic ash image products using MODIS multi-spectral data](#). *12th Conf. On Satellite Meteor. And Oceanography*, 10-13 Feb. 2003, Long Beach, CA.

_____, 2000: [Global climatology of clear air turbulence activity deduced from a numerical model index](#). *9th AMS Conf. On Aviation, Range, and Aerospace Meteor.*, 11-15 Sept. 2000, Orlando, FL.