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APPLICATIONS OF THE MOS TECHNIQUE: A BIBLIOGRAPHY--No. 4

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1. INTRODUCTION

For more than 10 years, the National Weather Service has provided its field forecasters and various other users of weather information with objective weather guidance based on the Model Output Statistics (MOS) technique. Surface wind (direction and speed) for several stations in the eastern United States was the first weather element for which MOS forecasts were provided on an operational basis. This guidance, first issued in 1968, relied primarily on output from the Techniques Development Laboratory's (TDL's) Subsynoptic Advection Model (SAM). Later, probability of precipitation and precipitation type forecasts were added to the SAM guidance package. In 1972, probability of precipitation guidance based on output from the National Meteorological Center's six-layer coarse mesh Primitive Equation (PE) model was provided for many locations throughout the conterminous United States. Later, as indicated in Table 1, many other elements were added, and the Limited-area Fine Mesh (LFM) model became the main source of input for the MOS prediction equations.

Table 1. Approximate month and year of operational implementation for various types of MOS guidance for locations throughout the conterminous United States.

Weather Element	PE-based Guidance	LFM-based Guidance
Probability of Precipitation	January 1972	February 1976
Precipitation Amount	October 1977	October 1977
Precipitation Type	November 1972	February 1976
Snow Amount	--	October 1977
Thunderstorm/Severe Local Storms		
Short-range	--	April 1974
Medium-range	May 1973	April 1978
Maximum/Minimum Temperature	August 1973	February 1976
3-hourly Temperature	--	June 1978
3-hourly Dew Point	--	April 1980
Surface Wind	May 1973	February 1976
Cloud Amount	December 1974	February 1976
Ceiling/Visibility	October 1974	February 1976
Obstructions to Vision	--	April 1980
Solar Energy	--	October 1981
Sunshine	--	October 1983

This bibliography is an attempt to document applications of the MOS technique to weather forecasting. The entries have been arranged by broad categories such as general reference articles and verification reports or according to the type of weather element. No article is referenced more than once. Within each subsection, the entries are arranged in alphabetical order by last name of the (first) author, and for each author, the entries are in chronological order. The double asterisk denotes the most current and comprehensive references in each particular subsection.

The vast majority of the authors are (or were) members of TDL. The listing for TDL authors is nearly exhaustive. The last section is devoted specifically to non-TDL applications.

We plan to revise and update the bibliography on a biannual basis.

2. BIBLIOGRAPHY

A. General Reference

Carter, G. M., E. L. Chiang, and K. P. Hlywiak, 1984: The use of satellite moisture bogus data in MOS prediction equations. TDL Office Note 84-5, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

Dallavalle, J. P., and W. D. Bonner, 1983: Statistical methods in the U.S. National Weather Service for the interpretation of NWP products. Paper presented at the WMO Technical Conference on Operational Weather Forecasting, Peking, China, World Meteor. Org., 8 pp. [Available on request from Techniques Development Laboratory, National Weather Service Headquarters, Silver Spring, Md.]**

Glahn, H. R., and D. A. Lowry, 1968: Experiments in the use of statistics as related to a dynamical prediction model. Paper presented at the First National Conference on Statistical Meteorology, Hartford, Amer. Meteor. Soc., 27 pp. [Available on request from Techniques Development Laboratory, National Weather Service Headquarters, Silver Spring, Md.]

_____, D. A. Lowry, and G. W. Hollenbaugh, 1971: Statistics of numerical prediction models. Preprints International Symposium on Probability and Statistics in the Atmospheric Sciences, Honolulu, Amer. Meteor. Soc., 15-20.

_____, and D. A. Lowry, 1972: The use of Model Output Statistics (MOS) in objective weather forecasting. J. Appl. Meteor., 11, 1203-1211.

_____, 1973: The TDL MOS development system CDC 6600 version. TDL Office Note 73-5, National Weather Service, NOAA, U.S. Department of Commerce, 71 pp.

_____, 1974: The TDL MOS development system IBM 360/195 version. TDL Office Note 74-14, National Weather Service, NOAA, U.S. Department of Commerce, 150 pp.

_____, 1975: Making probability forecasts by objective methods. Aerospace Sciences Review No. 75-3, 13-23.

_____, and W. H. Klein, 1975: Present status of statistical weather forecasting. Preprints Fourth Conference on Probability and Statistics in Atmospheric Sciences, Tallahassee, Amer. Meteor. Soc., 1-6.

_____, 1976a: Numerical-statistical forecasting in the National Weather Service. Weather forecasting and weather forecasts: Models, systems, and users--Vol. II. Proceedings National Center for Atmospheric Research Colloquium, Boulder, Nat. Center for Atmos. Res., 448-552.

_____, 1976b: Automated forecasts of surface weather elements. Proceedings Seventh Technical Exchange Conference, El Paso, U.S. Department of the Army, 29-36.

_____, 1976c: Progress in the automation of public weather forecasts. Mon. Wea. Rev., 104, 1505-1512.

_____, 1980: Methods and accuracy of statistical weather forecasting in the United States. Preprints International Symposium on Probability and Statistical Methods in Weather Forecasting, Nice, France, World Meteor. Org., 387-395.

_____, 1982: Statistical weather forecasting. Preprints Seminar/Workshop 1982: Interpretation of Numerical Weather Prediction Products, Bracnell, United Kingdom, European Centre for Medium Range Weather Forecasts, 263-310.

_____, 1983: MOS support for military locations from the Techniques Development Laboratory. TDL Office Note 83-9, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

_____, 1985: Statistical weather forecasting. Probability, Statistics, and Decision Making in the Atmospheric Sciences, A. H. Murphy and R. W. Katz, Editors, Westview Press, Boulder, 289-335.**

Godfrey, R. A., 1982: MOS forecasts for U.S. Navy and Marine Corps CONUS locations. NAVENVPREDRSCHFAC Document No. 7W0513 UM-07, Naval Environmental Prediction Research Facility, U.S. Department of the Navy, 18 pp.

Klein, W. H., 1969a: The computer's role in weather forecasting. Proceedings Fifth AWS Technical Exchange Conference, Tech. Rep. 217, Colorado Springs, U.S. Department of the Air Force, 144-153.

_____, 1969b: The computer's role in weather forecasting. Weatherwise, 22, 195-218.

_____, 1970: The forecast research program of the Techniques Development Laboratory. Bull. Amer. Meteor. Soc., 51, 133-142.

_____, and H. R. Glahn, 1974: Forecasting local weather by means of Model Output Statistics. Bull. Amer. Meteor. Soc., 55, 1217-1227.

_____, 1976: Statistical forecasting of local weather from numerical prognoses. Preprints WMO Symposium on the Interpretation of Broad-Scale NWP Products for Local Forecasting Purposes, Warsaw, Poland, World Meteor. Org., 8 pp.

_____, 1978a: Model Output Statistics in the western United States. National Weather Digest, 3, 28-36.

_____, 1978b: Objective forecasts of local weather by means of Model Output Statistics. Preprints Seminars 1978: The Interpretation and Use of Large-Scale Numerical Forecast Products, Bracnell, United Kingdom, European Centre for Medium Range Weather Forecasts, 186-220.

Lowry, D. A., 1980: How to use and not use MOS guidance. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 11-12.

National Weather Service, 1978a: Stations in FOUS bulletins. NWS Technical Procedures Bulletin No. 241, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1978b: The FOUS12 (FO12) bulletin. NWS Technical Procedures Bulletin No. 247, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.

_____, 1978c: The FOUS22 (FO22) bulletin. NWS Technical Procedures Bulletin No. 248, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1979a: Stations with specific guidance forecasts. NWS Technical Procedures Bulletin No. 251, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1979b: Samples of messages with guidance forecasts. NWS Technical Procedures Bulletin No. 252, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1979c: The FOUS12 (FO12) bulletin. NWS Technical Procedures Bulletin No. 270, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 9 pp.

_____, 1979d: Seasonal MOS equation changes. NWS Technical Procedures Bulletin No. 277, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1980: The FOUS12 (FO12) bulletin. NWS Technical Procedures Bulletin No. 293, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 9 pp.

_____, 1981: The FOUS22 (FO22) bulletin. NWS Technical Procedures Bulletin No. 297, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1982: The FOUS12 (FO12) bulletin. NWS Technical Procedures Bulletin No. 320, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1983a: The FOUS12 (FO12) bulletin. NWS Technical Procedures Bulletin No. 325, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.**

_____, 1983b: The FOUS21 message (FTP). NWS Technical Procedures Bulletin No. 326, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.**

_____, 1983c: The FOUS22 (FO22) message. NWS Technical Procedures Bulletin No. 327, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.**

Schwartz, B. E., 1984: Typical warm season MOS guidance errors. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 50-56.

_____, and E. L. Chiang, 1984: Testing of objective guidance for Hawaii. TDL Office Note 84-10, National Weather Service, NOAA, U.S. Department of Commerce, 21 pp.

B. Verification

Bermowitz, R. J., and E. A. Zurndorfer, 1977a: Verification of warm season PoPA categorical forecasts of precipitation amount. TDL Office Note 77-2, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

_____, and E. A. Zurndorfer, 1977b: Verification of PoPA categorical forecasts of precipitation amount--cool season. TDL Office Note 77-21, National Weather Service, NOAA, U.S. Department of Commerce, 4 pp.

Bocchieri, J. R., H. R. Glahn, and G. W. Hollenbaugh, 1974: Comparative verification of guidance and local forecasts of precipitation type. TDL Office Note 74-11, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

_____, G. M. Carter, R. L. Crisci, D. B. Gilhousen, K. F. Hebenstreit, G. W. Hollenbaugh, and D. J. Vercelli, 1977: Comparative verification of guidance and local aviation/public weather forecasts--No. 3 (October 1976-March 1977). TDL Office Note 77-14, National Weather Service, NOAA, U.S. Department of Commerce, 49 pp.

_____, 1978: Verification of MOS heavy snow forecasts for the 1977-78 winter season. TDL Office Note 78-11, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, J. P. Dallavalle, K. F. Hebenstreit, G. W. Hollenbaugh, D. J. Vercelli, and E. A. Zurndorfer, 1981: Comparative verification of guidance and local aviation/public weather forecasts--No. 9 (October 1979-March 1980). TDL Office Note 81-3, National Weather Service, NOAA, U.S. Department of Commerce, 78 pp.

Carter, G. M., H. R. Glahn, and G. W. Hollenbaugh, 1974: Comparative verification of local and guidance surface wind forecasts--No. 1. TDL Office Note 74-12, National Weather Service, NOAA, U.S. Department of Commerce, 8 pp.

_____, H. R. Glahn, and G. W. Hollenbaugh, 1975: Comparative verification of local and guidance surface wind forecasts--No. 2. TDL Office Note 75-1, National Weather Service, NOAA, U.S. Department of Commerce, 7 pp.

_____, 1975: Comparative verification of local and guidance cloud amount forecasts--No. 1. TDL Office Note 75-7, National Weather Service, NOAA, U.S. Department of Commerce, 8 pp.

_____, and G. W. Hollenbaugh, 1975: Comparative verification of local and guidance surface wind forecasts--No. 3. TDL Office Note 75-9, National Weather Service, NOAA, U.S. Department of Commerce, 13 pp.

_____, and G. W. Hollenbaugh, 1976: Comparative verification of local and guidance surface wind forecasts--No. 4. TDL Office Note 76-7, National Weather Service, NOAA, U.S. Department of Commerce, 18 pp.

_____, 1976: Comparative verification of local and guidance cloud amount forecasts--No. 2. TDL Office Note 76-8, National Weather Service, NOAA, U.S. Department of Commerce, 13 pp.

_____, J. R. Bocchieri, R. L. Crisci, and G. W. Hollenbaugh, 1976: Comparative verification of guidance and local aviation/public weather forecasts--No. 1 (October 1975-March 1976). TDL Office Note 76-13, National Weather Service, NOAA, U.S. Department of Commerce, 32 pp.

_____, J. R. Bocchieri, J. P. Dallavalle, G. W. Hollenbaugh, G. J. Maglaras, and B. E. Schwartz, 1982a: Comparative verification of guidance and local aviation/public weather forecasts--No. 12 (April 1981-September 1981). TDL Office Note 82-8, National Weather Service, NOAA, U.S. Department of Commerce, 69 pp.

_____, J. R. Bocchieri, J. P. Dallavalle, G. W. Hollenbaugh, G. J. Maglaras, and B. E. Schwartz, 1982b: Comparative verification of guidance and local aviation/public weather forecasts--No. 13 (October 1981-March 1982). TDL Office Note 82-11, National Weather Service, NOAA, U.S. Department of Commerce, 75 pp.

_____, H. R. Glahn, and D. S. Cooley, 1982: Quality and trends in National Weather Service forecasts. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 89-93.

_____, J. P. Dallavalle, G. W. Hollenbaugh, G. J. Maglaras, and B. E. Schwartz, 1983a: Comparative verification of guidance and local aviation/public weather forecasts--No. 14 (April 1982-September 1982). TDL Office Note 83-7, National Weather Service, NOAA, U.S. Department of Commerce, 70 pp.

_____, J. P. Dallavalle, G. W. Hollenbaugh, G. J. Maglaras, and B. E. Schwartz, 1983b: Comparative verification of guidance and local aviation/public weather forecasts--No. 15 (October 1982-March 1983). TDL Office Note 83-16, National Weather Service, NOAA, U.S. Department of Commerce, 76 pp.

_____, V. J. Dagostaro, J. P. Dallavalle, G. W. Hollenbaugh, and G. J. Maglaras, 1984: AFOS-era verification of guidance and local aviation/public weather forecasts--No. 1 (October 1983-March 1984). TDL Office Note 84-15, National Weather Service, NOAA, U.S. Department of Commerce, 58 pp.

_____, V. J. Dagostaro, J. P. Dallavalle, N. S. Foat, J. T. Hawes, G. W. Hollenbaugh, and G. J. Maglaras, 1985a: AFOS-era verification of guidance and local avaition/public weather forecasts--No. 2 (April 1984-September 1984). TDL Office Note 85-2, National Weather Service, NOAA, U.S. Department of Commerce, 54 pp.**

_____, V. J. Dagostaro, J. P. Dallavalle, N. S. Foat, G. W. Hollenbaugh, and G. J. Maglaras, 1985b: AFOS-era verification of guidance and local aviation/public weather forecasts--No. 3 (October 1984-March 1985). TDL Office Note 85-10, National Weather Service, NOAA, U.S. Department of Commerce, 67 pp.**

Charba, J. P., and S. M. Burnham, 1978a: Comparative verification of operational two to six hour objective forecasts and official NWS watches of severe local storms. TDL Office Note 78-6, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

_____, and S. M. Burnham, 1978b: A comparative verification of operational two to six hour objective forecasts and official NWS watches of severe local storms. Preprints Conference on Weather Forecasting and Analysis and Aviation Meteorology, Silver Spring, Amer. Meteor. Soc., 21-26.

_____, and S. M. Burnham, 1979: Comparative verification of operational two to six hour objective forecasts and official NWS watches of severe local storms: An update. TDL Office Note 79-1, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

_____, and W. H. Klein, 1980a: Trends in precipitation forecasting skill in the National Weather Service. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 391-396.

_____, and W. H. Klein, 1980b: Skill in precipitation forecasting in the National Weather Service. Bull. Amer. Meteor. Soc., 61, 1546-1555.**

Cooley, D. S., F. S. Zbar, D. F. Dubofsky, and A. K. Campbell, 1981: National Weather Service public forecast verification summary--April 1973 to March 1978. NOAA Technical Memorandum NWS FCST-25, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 136 pp.

Crisci, R. L., G. W. Hollenbaugh, and D. J. Vercelli, 1976: Comparative verification of guidance, local, and persistence forecasts of ceiling and visibility--No. 1. TDL Office Note 76-11, National Weather Service, NOAA, U.S. Department of Commerce, 8 pp.

_____, G. M. Carter, and G. W. Hollenbaugh, 1977: Comparative verification of guidance and local aviation/public weather forecasts--No. 2 (April-September 1976). TDL Office Note 77-5, National Weather Service, NOAA, U.S. Department of Commerce, 49 pp.

Dagostaro, V. J., 1985: The national AFOS-era verification data processing system. TDL Office Note 85-9, National Weather Service, NOAA, U.S. Department of Commerce, 49 pp.

Dallavalle, J. P., W. H. Klein, and G. A. Hammons, 1977: Verification of the National Weather Service's objective maximum/minimum temperature guidance. Preprints Fifth Conference on Probability and Statistics in Atmospheric Sciences, Las Vegas, Amer. Meteor. Soc., 53-56.

_____, G. M. Carter, D. B. Gilhousen, K. F. Hebenstreit, G. W. Hollenbaugh, J. E. Janowiak, and D. J. Vercelli, 1979: Comparative verification of guidance and local aviation/public weather forecasts--No. 6 (April-September 1978). TDL Office Note 79-11, National Weather Service, NOAA, U.S. Department of Commerce, 61 pp.

Foster, D. S., and R. M. Reap, 1976a: Verification of thunderstorm probability forecasts for the summer of 1975. TDL Office Note 76-5, National Weather Service, NOAA, U.S. Department of Commerce, 26 pp.

_____, and R. M. Reap, 1976b: Verification of severe local storm conditional probability forecasts for 1975. TDL Office Note 76-9, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

_____, and R. M. Reap, 1978a: Comparative verification of the operational 24-hr convective outlooks with the objective severe local storm guidance based on Model Output Statistics. TDL Office Note 78-7, National Weather Service, NOAA, U.S. Department of Commerce, 17 pp.

_____, and R. M. Reap, 1978b: Verification of forecasts made from the thunderstorm probability nomogram for Washington, D.C. TDL Office Note 78-8, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

Gilhousen, D. B., J. R. Bocchieri, G. M. Carter, J. P. Dallavalle, K. F. Hebenstreit, G. W. Hollenbaugh, J. E. Janowiak, and D. J. Vercelli, 1979: Comparative verification of guidance and local aviation/public weather forecasts--No. 5 (October 1977-March 1978). TDL Office Note 79-2, National Weather Service, NOAA, U.S. Department of Commerce, 73 pp.

Glahn, H. R., 1974: Problems in the use of probability forecasts. Preprints Fifth Conference on Weather Forecasting and Analysis, St. Louis, Amer. Meteor. Soc., 32-35.

_____, 1976: Forecast evaluation at Techniques Development Laboratory. Weather forecasting and weather forecasts: Models, systems, and users--Vol. II. Proceedings National Center for Atmospheric Research Colloquium, Boulder, Nat. Center for Atmos. Res., 831-838.

_____, E. A. Zurndorfer, J. R. Bocchieri, G. M. Carter, D. J. Vercelli, K. F. Hebenstreit, D. B. Gilhousen, and J. P. Dallavalle, 1978: The role of statistical weather forecasts in the National Weather Service's operational systems. Preprints Conference on Weather Forecasting and Analysis and Aviation Meteorology, Silver Spring, Amer. Meteor. Soc., 382-389.

_____, 1979: Statistical weather forecasting in the National Weather Service. Preprints Sixth Conference on Probability and Statistics in Atmospheric Sciences, Banff, Alberta, Amer. Meteor. Soc., 139-147.

Hebenstreit, K. F., J. R. Bocchieri, G. M. Carter, J. P. Dallavalle, D. B. Gilhousen, G. W. Hollenbaugh, J. E. Janowiak, and D. J. Vercelli, 1979: Comparative verification of guidance and local aviation/public weather forecasts--No. 7 (October 1978-March 1979). TDL Office Note 79-17, National Weather Service, NOAA, U.S. Department of Commerce, 85 pp.

_____, and K. A. Peterson, 1982: Verification of MOS guidance for cloud amount, ceiling, and visibility. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 356-363.**

Klein, W. H., and J. P. Dallavalle, 1980: The evolution of MOS and perfect prog methods of forecasting max/min surface temperatures in the United States. Preprints International Symposium on Probabilistic and Statistical Methods in Weather Forecasting, World Meteor. Org., Nice, France, 431-438.

Maglaras, G. J., J. P. Dallavalle, K. F. Hebenstreit, G. H. Hollenbaugh, B. E. Schwartz, and D. J. Vercelli, 1981: Comparative verification of guidance and local aviation/public weather forecasts--No. 10 (April 1980-September 1980). TDL Office Note 81-7, National Weather Service, NOAA, U.S. Department of Commerce, 61 pp.

_____, 1984: Verification of objective snow amount guidance (October 1982-March 1983). TDL Office Note 84-3, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

_____, G. M. Carter, J. P. Dallavalle, G. W. Hollenbaugh, and B. E. Schwartz, 1984: Comparative verification of guidance and local aviation/public weather forecasts--No. 16 (April 1983-September 1983). TDL Office Note 84-4, National Weather Service, NOAA, U.S. Department of Commerce, 69 pp.

_____, 1985: Verification of objective snow amount guidance (October 1983-March 1984). TDL Office Note 85-1, National Weather Service, U.S. Department of Commerce, 8 pp.**

Perrone, T. J., and R. G. Miller, 1983: A comparative verification of GEM and MOS. TDL Office Note 83-10, National Weather Service, NOAA, U.S. Department of Commerce, 68 pp.

_____, and R. G. Miller, 1985: Generalized Exponential Markov and Model Output Statistics: A comparative verification. Mon. Wea. Rev., 113, 1524-1541.

Polger, P. D., 1983: National Weather Service public forecast verification summary April 1978 to March 1982. NOAA Technical Memorandum NWS FCST 28, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 112 pp.

_____, R. M. Thompson, and G. M. Carter, 1985: NWS precipitation forecast verification: A new look. Preprints Ninth Conference on Probability and Statistics in Atmospheric Sciences, Virginia Beach, Amer. Meteor. Soc., 90-95.

Sadowski, A. F., and G. F. Cobb, 1974: April 1972 to March 1973 public forecast verification summary. NOAA Technical Memorandum NWS FCST-21, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 64 pp.

Schwartz, B. E., J. R. Bocchieri, G. M. Carter, J. P. Dallavalle, G. H. Hollenbaugh, G. J. Maglaras, and D. J. Vercelli, 1981: Comparative verification of guidance and local aviation/public weather forecasts--No. 11 (October 1980-March 1981). TDL Office Note 81-10, National Weather Service, NOAA, U.S. Department of Commerce, 77 pp.

Vercelli, D. J., J. P. Dallavalle, D. B. Gilhousen, K. F. Hebenstreit, G. W. Hollenbaugh, and J. E. Janowiak, 1980: Comparative verification of guidance and local aviation/public weather forecasts--No. 8 (April 1979-September 1979). TDL Office Note 80-8, National Weather Service, NOAA, U.S. Department of Commerce, 68 pp.

Zurndorfer, E. A., and H. R. Glahn, 1977: Significance testing of regression equations developed by screening regression. Preprints Fifth Conference on Probability and Statistics in the Atmospheric Sciences, Las Vegas, Amer. Meteor. Soc., 95-100.

_____, G. M. Carter, J. P. Dallavalle, D. B. Gilhousen, K. F. Hebenstreit, G. W. Hollenbaugh, J. E. Janowiak, and D. J. Vercelli, 1978: Comparative verification of guidance and local aviation/public weather forecasts-- No. 4 (April-September 1977). TDL Office Note 78-3, National Weather Service, NOAA, U.S. Department of Commerce, 49 pp.

_____, J. R. Bocchieri, G. M. Carter, J. P. Dallavalle, D. B. Gilhousen, K. F. Hebenstreit, and D. J. Vercelli, 1979: Trends in comparative verification scores for guidance and local aviation/public weather forecasts. Mon. Wea. Rev., 107, 799-811.

_____, 1980a: A comparative evaluation of PE, LFM, and probability of precipitation amount quantitative precipitation forecasts for the period 1975-1979. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 19-22.

_____, 1980b: Verification of MOS, PE, and LFM quantitative precipitation forecasts for the 1979-80 cool season. TDL Office Note 80-9, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

C. Temperature

Annett, J. R., H. R. Glahn, and D. A. Lowry, 1972: The use of Model Output Statistics (MOS) to estimate daily maximum temperatures. NOAA Technical Memorandum NWS TDL-45, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

Bermowitz, R. J., E. A. Zurndorfer, J. P. Dallavalle, and G. A. Hammons, 1976a: Development of warm season precipitation and temperature equations for the Columbia River Basin. Final Report, Phase I, to Bonneville Power Administration, U.S. Department of Interior. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 21 pp.

_____, E. A. Zurndorfer, J. P. Dallavalle, and G. A. Hammons, 1976b: Development of cool season precipitation and temperature equations for the Columbia River Basin. Final Report, Phase II, to Bonneville Power Administration, U.S. Department of Interior. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 18 pp.

_____, E. A. Zurndorfer, and J. P. Dallavalle, 1977a: Development of updated warm season precipitation and temperature equations for the Columbia River Basin. Final Report, Phase III, to Bonneville Power Administration, U.S. Department of Interior. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 17 pp.

_____, E. A. Zurndorfer, and J. P. Dallavalle, 1977b: Development of updated cool season precipitation and temperature equations for the Columbia River Basin. Final Report, Phase IV, to Bonneville Power Administration, U.S. Department of Interior. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

Carter, G. M., A. L. Forst, W. H. Klein, and J. P. Dallavalle, 1978: Improved automated forecasts of maximum/minimum and 3-hourly temperatures. Preprints Conference on Weather Forecasting and Analysis and Aviation Meteorology, Silver Spring, Amer. Meteor. Soc., 171-178.

_____, J. P. Dallavalle, A. L. Forst, and W. H. Klein, 1979: Improved automated surface temperature guidance. Mon. Wea. Rev., 107, 1263-1274.

Dallavalle, J. P., and G. A. Hammons, 1976: Use of LFM data in PE-based max/min forecast equations. TDL Office Note 76-14, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

_____, and G. A. Hammons, 1977a: Testing and implementation of MOS max/min forecast equations derived from extended range PE fields. TDL Office Note 77-4, National Weather Service, NOAA, U.S. Department of Commerce, 12 pp.

_____, and G. A. Hammons, 1977b: Tests on various predictor lists used in development of maximum/minimum forecast equations. TDL Office Note 77-19, National Weather Service, NOAA, U.S. Department of Commerce, 16 pp.

_____, 1977a: Development of 0000 GMT cycle statistical 3-hr temperature forecast equations for the fall season. TDL Office Note 77-20, National Weather Service, NOAA, U.S. Department of Commerce, 7 pp.

_____, 1977b: Development of objective 72-hr 0000 GMT cycle maximum temperature prediction equations for the summer and fall seasons. TDL Office Note 77-22, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

_____, and T. H. Grayson, 1978: Development and operational use of 3-hr temperature guidance. TDL Office Note 78-2, National Weather Service, NOAA, U.S. Department of Commerce, 24 pp.

_____, G. M. Carter, and A. L. Forst, 1979: Development of LFM max/min and 3-hourly temperature equations for the cool season. TDL Office Note 79-3, National Weather Service, NOAA, U.S. Department of Commerce, 27 pp.

_____, and G. M. Carter, 1979: An objective scheme for including observed snow cover in the MOS temperature guidance. TDL Office Note 79-4, National Weather Service, NOAA, U.S. Department of Commerce, 16 pp.

_____, J. S. Jensenius, Jr., and W. H. Klein, 1980: Improved surface temperature guidance from the limited-area fine mesh model. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 1-8.

_____, and R. J. Bermowitz, 1981: Development of precipitation, surface temperature, and upper-air temperature forecast equations for the Columbia River Basin. Final Report, Phase V, to Bonneville Power Administration, U.S. Department of Interior. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 32 pp.

_____, and V. J. Dagostaro, 1982: Objectively predicting temperature in the low and middle troposphere. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 344-350.

_____, 1984: Objective forecasts of some record-breaking minimum temperatures during December 1983. TDL Office Note 84-11, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

_____,and J. S. Jensenius, Jr., 1985: Objective prediction of temperature and precipitation for medium-range projections. Preprints Ninth Conference on Probability and Statistics in Atmospheric Sciences, Virginia Beach, Amer. Meteor. Soc., 137-143.**

Grayson, T. H., and J. P. Dallavalle, 1977: Development and operational use of 3-hr objective temperature forecasts. Preprints Fifth Conference on Probability and Statistics in Atmospheric Sciences, Las Vegas, Amer. Meteor. Soc., 53-56.

Hammons, G. A., and W. H. Klein, 1974: Operational temperature forecasting by means of Model Output Statistics. TDL Office Note 74-4, National Weather Service, NOAA, U.S. Department of Commerce, 6 pp.

_____, 1974: New MOS temperature forecast equations based on winter 1969-1974 data. TDL Office Note 74-13, National Weather Service, NOAA, U.S. Department of Commerce, 16 pp.

_____, J. P. Dallavalle, and W. H. Klein, 1976a: MOS temperature forecast equations based on 3-month seasons. Preprints Sixth Conference on Weather Forecasting and Analysis, Albany, Amer. Meteor. Soc., 50-55.

_____, J. P. Dallavalle, and W. H. Klein, 1976b: Automated temperature guidance based on 3-month seasons. Mon. Wea. Rev., 103, 796-806.

Hlywiak, K. P., and J. P. Dallavalle, 1984: Two case studies of MOS temperature forecast inconsistencies at Brownsville, Texas during the winter of 1983-1984. TDL Office Note 84-14, National Weather Service, NOAA, U.S. Department of Commerce, 20 pp.

Jensenius, J. S., Jr., and J. P. Dallavalle, 1981: Automated forecasts of surface temperature and dew point at 3-h intervals. Preprints Fifteenth Conference on Agriculture and Forest Meteorology, Anaheim, Amer. Meteor. Soc., 190-193.

Kemper, J. E., P. E. Long, Jr., W. A. Shaffer, and M. McDonald, 1981: Application of output from the Techniques Development Laboratory's boundary layer model to MOS forecasts of temperature, dewpoint, and precipitation type. Preprints Seventh Conference on Probability and Statistics in Atmospheric Sciences, Monterey, Amer. Meteor. Soc., 90-93.

Klein, W. H., and G. A. Hammons, 1973: Use of Model Output Statistics for automated prediction of max/min temperatures. TDL Office Note 73-3, National Weather Service, NOAA, U.S. Department of Commerce, 11 pp.

_____, and G. A. Hammons, 1975: Maximum/minimum temperature forecasts based on Model Output Statistics. Mon. Wea. Rev., 103, 796-806.

_____, 1978: Statistical forecasts of surface temperature from numerical weather predictions. Symposium on the Interpretation and Use of Large-Scale Numerical Forecast Products, Bracnell, United Kingdom, European Centre for Medium Range Forecasts, 221-272.

Murphy, M. C., and J. P. Dallavalle, 1984: An investigation of MOS minimum temperature errors in North and South Dakota during December 1982. TDL Office Note 84-16, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

National Weather Service, 1973a: Maximum/minimum temperature forecasts based on Model Output Statistics--No. 1. NWS Technical Procedures Bulletin No. 94, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1973b: Maximum/minimum temperature forecasts based on Model Output Statistics--No. 2. NWS Technical Procedures Bulletin No. 96, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1973c: Maximum/minimum temperature forecasts based on Model Output Statistics--No. 3. NWS Technical Procedures Bulletin No. 100, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 3 pp.

_____, 1973d: Maximum/minimum temperature forecasts based on Model Output Statistics--No. 4. NWS Technical Procedures Bulletin No. 104, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1974: Maximum/minimum temperature forecast equations--No. 5. NWS Technical Procedures Bulletin No. 123, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1975a: Maximum/minimum temperature forecasts based on three-month seasons--No. 6. NWS Technical Procedures Bulletin No. 144, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1975b: Maximum/minimum temperature forecasts based on three-month seasons--No. 7. NWS Technical Procedures Bulletin No. 145, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1975c: Maximum/minimum temperature forecasts based on three-month seasons--No. 8. NWS Technical Procedures Bulletin No. 148, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1976a: Maximum/minimum temperature forecasts based on three-month seasons--No. 9. NWS Technical Procedures Bulletin No. 155, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1976b: MOS maximum/minimum temperature forecast equations applied to LFM model output. NWS Technical Procedures Bulletin No. 166, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1976c: 72-hr maximum temperature forecasts based on Model Output Statistics. NWS Technical Procedures Bulletin No. 181, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1978: Automated maximum/minimum and 3-hourly surface temperature guidance. NWS Technical Procedures Bulletin No. 238, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1980: Automated maximum/minimum temperature, 3-hourly surface temperature, and 3-hourly surface dew point guidance. NWS Technical Procedures Bulletin No. 285, National Oceanic and Atmospheric Adminstration, U.S. Department of Commerce, 16 pp.

_____, 1984: Automated maximum/minimum temperature, 3-hourly surface temperature, and 3-hourly surface dew point guidance. NWS Technical Procedures Bulletin No. 344, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1985: Automated daytime maximum, nighttime minimum, 3-hourly surface temperature, and 3-hourly surface dew point guidance. NWS Technical Procedures Bulletin No. 356, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.**

Palko, J. M., J. S. Jensenius, Jr., and J. P. Dallavalle, 1985: Development of medium range forecast equations for maximum/minimum temperature and probability of precipitation. TDL Office Note 85-7, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

Schwartz, B. E., and J. P. Dallavalle, 1982: An evaluation of MOS maximum/minimum temperature forecasts for the eastern United States during two Arctic outbreaks. TDL Office Note 82-6, National Weather Service, NOAA, U.S. Department of Commerce, 18 pp.

D. Precipitation

1. Probability of Precipitation

Bocchieri, J. R., 1974: A comparison between the single station and generalized operator techniques for automated prediction of precipitation probability. NOAA Technical Memorandum NWS TDL-53, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 20 pp.

Gilhousen, D. B., 1976a: Improving short-range precipitation guidance during the summer months. NOAA Technical Memorandum NWS ER-61, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 20 pp.

_____, 1976b: Testing the LFM for PoP forecasting - summer season. TDL Office Note 76-6, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

_____, 1979: Testing the logit model for probability of precipitation forecasting. Preprints Sixth Conference on Probability and Statistics in Atmospheric Sciences, Banff, Alberta, Amer. Meteor. Soc., 46-48.

Glahn, H. R., D. A. Lowry, and G. W. Hollenbaugh, 1969: An operational subsynoptic advection model. ESSA Technical Memorandum WBTM TDL-23, Environmental Science Services Administration, U.S. Department of Commerce, 26 pp.

_____, and D. A. Lowry, 1969: An operational method for objectively forecasting probability of precipitation. ESSA Technical Memorandum WBTM TDL-27, Environmental Science Services Administration, U.S. Department of Commerce, 24 pp.

_____, and J. R. Bocchieri, 1975: Testing the LFM for PoP forecasting. TDL Office Note 75-3, National Weather Service, NOAA, U.S. Department of Commerce, 13 pp.

_____, and J. R. Bocchieri, 1976: Testing the limited area fine mesh model for probability of precipitation forecasting. Mon. Wea. Rev., 104, 127-132.

Lowry, D. A., and H. R. Glahn, 1976: An operational model for forecasting probability of precipitation-PEATMOS PoP. Mon. Wea. Rev., 104, 221-232.

_____, 1981: The physical relationships contained within the Model Output Statistics precipitation model. Preprints Fourth Conference on Hydrometeorology, Reno, Amer. Meteor. Soc., 88-93.

Maglaras, G. J., F. Lewis, and H. R. Glahn, 1985a: Development of an experimental system to forecast precipitation using empirical orthogonal functions. TDL Office Note 85-4, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

_____, F. Lewis, H. R. Glahn, and K. A. Hocker, 1985b: Experiments using empirical orthogonal functions to forecast the probability of precipitation. Preprints Ninth Conference on Probability and Statistics in Atmospheric Sciences, Virginia Beach, Amer. Meteor. Soc., 31-36.**

National Weather Service, 1968a: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 1. NWS Technical Procedures Bulletin No. 14, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 19 pp.

_____, 1968b: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 2. NWS Technical Procedures Bulletin No. 18, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1969a: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 3. NWS Technical Procedures Bulletin No. 21, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1969b: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 4. NWS Technical Procedures Bulletin No. 23, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1969c: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 5. NWS Technical Procedures Bulletin No. 35, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 2 pp.

_____, 1970a: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 6. NWS Technical Procedures Bulletin No. 38, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1970b: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 7. NWS Technical Procedures Bulletin No. 44, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1970c: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 8. NWS Technical Procedures Bulletin No. 50, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1970d: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 9. NWS Technical Procedures Bulletin No. 53, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1970e: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 10. NWS Technical Procedures Bulletin No. 56, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 2 pp.

_____, 1971a: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 11. NWS Technical Procedures Bulletin No. 60, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1971b: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 12. NWS Technical Procedures Bulletin No. 66, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1971c: Operational forecasts derived from Primitive Equation and Trajectory Model Output Statistics (PEATMOS)--No. 1. NWS Technical Procedures Bulletin No. 68, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1972a: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 13. NWS Technical Procedures Bulletin No. 72, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1972b: Operational forecasts derived from Primitive Equation and Trajectory Model Output Statistics (PEATMOS)--No. 2. NWS Technical Procedures Bulletin No. 73, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1972c: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 14. NWS Technical Procedures Bulletin No. 77, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1972d: Operational forecasts derived from Primitive Equation and Trajectory Model Output Statistics (PEATMOS)--No. 3. NWS Technical Procedures Bulletin No. 78, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1973a: Operational forecasts derived from Primitive Equation and Trajectory Model Output Statistics (PEATMOS)--No. 4. NWS Technical Procedures Bulletin No. 83, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1973b: Operational forecasts with the Subsynoptic Advection Model (SAM)--No. 15. NWS Technical Procedures Bulletin No. 84, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1973c: Operational forecasts derived from Primitive Equation and Trajectory Model Output Statistics (PEATMOS)--No. 5. NWS Technical Procedures Bulletin No. 88, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1973d: Operational probability of precipitation forecasts based on Model Output Statistics--No. 6. NWS Technical Procedures Bulletin No. 99, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1974a: Operational probability of precipitation forecasts based on Model Output Statistics--No. 7. NWS Technical Procedures Bulletin No. 109, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1974b: Operational probability of precipitation forecasts based on Model Output Statistics--No. 8. NWS Technical Procedures Bulletin No. 112, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1974c: Operational probability of precipitation forecasts based on Model Output Statistics--No. 9. NWS Technical Procedures Bulletin No. 119, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1975a: Operational probability of precipitation forecasts based on Model Output Statistics--No. 10. NWS Technical Procedures Bulletin No. 136, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1975b: Operational probability of precipitation forecasts based on Model Output Statistics--No. 11. NWS Technical Procedures Bulletin No. 147, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1976a: Operational probability of precipitation forecasts based on Model Output Statistics--No. 12. NWS Technical Procedures Bulletin No. 163, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1976b: Operational probability of precipitation forecasts based on Model Output Statistics--No. 13. NWS Technical Procedures Bulletin No. 171, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 9 pp.

_____, 1977: The use of Model Output Statistics for predicting probability of precipitation. NWS Technical Procedures Bulletin No. 196, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1978a: The use of Model Output Statistics for predicting probability of precipitation. NWS Technical Procedures Bulletin No. 233, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1978b: The use of Model Output Statistics for predicting probability of precipitation. NWS Technical Procedures Bulletin No. 244, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1980: The use of Model Output Statistics for predicting probability of precipitation (winter season). NWS Technical Procedures Bulletin No. 289, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.**

_____, 1981: The use of Model Output Statistics for predicting probability of precipitation (summer season). NWS Technical Procedures Bulletin No. 299, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.**

2. Precipitation Amount

Bermowitz, R. J., 1974: Forecasting quantitative precipitation with use of Model Output Statistics. Preprints Fifth Conference on Forecasting and Analysis, St. Louis, Amer. Meteor. Soc., 75-78.

_____, 1975: An application of Model Output Statistics to forecasting quantitative precipitation. Mon. Wea. Rev., 103, 149-153.

_____, and E. A. Zurndorfer, 1975: Current status of probability of precipitation amount (PoPA) forecasting. TDL Office Note 75-10, National Weather Service, NOAA, U.S. Department of Commerce, 6 pp.

_____, 1976a: An on-station method for forecasting precipitation amount. TDL Office Note 76-3, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

_____, 1976b: Reply to comments on: An application of Model Output Statistics to forecasting quantitative precipitation. Mon. Wea. Rev., 104, 1183-1184.

_____, and E. A. Zurndorfer, 1978a: On the use of LFM predictors in PE-based PoPA equations. TDL Office Note 78-4, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, and E. A. Zurndorfer, 1978b: On the use of LFM predictors in PE-based probability of precipitation amount equations. National Weather Digest, 3, 45-47.

_____, and E. A. Zurndorfer, 1979: Automated guidance for predicting quantitative precipitation. Mon. Wea. Rev., 107, 122-128.**

Charba, J. P., 1983: Experiments in 0-9 hour objective quantitative precipitation forecasting. Preprints Fifth Conference on Hydrometeorology, Tulsa, Amer. Meteor Soc., 269-278.**

National Weather Service, 1977: The use of Model Output Statistics for predicting probability of precipitation amount and precipitation amount categories. NWS Technical Procedures Bulletin No. 210, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1978: The use of Model Output Statistics for predicting probability of precipitation amount and precipitation amount categories. NWS Technical Procedures Bulletin No. 227, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1980: The use of Model Output Statistics for predicting the probability of precipitation amount and precipitation amount categories. NWS Technical Procedures Bulletin No. 283, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.**

Zurndorfer, E. A., and R. J. Bermowitz, 1976: Determination of an optimum number of predictors for probability of precipitation amount forecasting. TDL Office Note 76-17, National Weather Service, NOAA, U.S. Department of Commerce, 7 pp.

_____, 1979: A comparison of conditional and unconditional forecasts of the probability of the precipitation amount. TDL Office Note 79-19, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, and S. F. Corfidi, 1980: The use of a multivariate logit model for predicting quantitative precipitation. TDL Office Note 80-4, National Weather Service, NOAA, U.S. Department of Commerce, 12 pp.

3. Precipitation Type

Bocchieri, J. R., and H. R. Glahn, 1973: Computer prediction of the probability of snow. Weatherwise, 26, 264-269.

_____, and H. R. Glahn, 1976a: Verification and further development of an operational model for forecasting the probability of frozen precipitation. Mon. Wea. Rev., 104, 691-701.

_____, and H. R. Glahn, 1976b: Reply to comments on: Verification and further development of an operational model for forecasting the probability of frozen precipitation. Mon. Wea. Rev., 104, 1446-1448.

_____, 1977a: Two cases of inaccurate probability of frozen precipitation (PoF) forecasts. TDL Office Note 77-3, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

_____, 1977b: Experiments to improve the conditional probability of frozen precipitation (PoF) forecasts for the Eastern Region of the National Weather Service. TDL Office Note 77-16, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, 1977c: A graphical aid for forecasting the conditional probability of freezing rain. TDL Office Note 77-17, National Weather Service, NOAA, U.S. Department of Commerce, 7 pp.

_____, 1978: A new automated system for forecasting precipitation type. Preprints Conference on Weather Forecasting and Analysis and Aviation Meteorology, Silver Spring, Amer. Meteor. Soc., 355-362.

_____, 1979a: An improved use of the logit model to transform predictors for precipitation type forecasting. TDL Office Note 79-7, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

_____, 1979b: Experiments in the use of local surface and upper-air observations to update MOS precipitation type guidance. TDL Office Note 79-14, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

_____, 1979c: A new operational system for forecasting precipitation type. Mon. Wea. Rev., 107, 637-649.

_____, 1979d: Use of the logit model to transform predictors for precipitation type forecasting. Preprints Sixth Conference on Probability and Statistics in Atmospheric Sciences, Banff, Alberta, Amer. Meteor. Soc., 49-54.

_____, and G. J. Maglaras, 1982: Recent improvements in an automated system for forecasting precipitation type. TDL Office Note 82-3, National Weather Service, NOAA, U.S. Department of Commerce, 38 pp.

_____, and G. J. Maglaras, 1983: An improved operational system for forecasting precipitation type. Mon. Wea. Rev., 111, 405-419.**

Carter, G. M., 1974: Automated prediction of thunderstorms, drizzle, rain, and showers. TDL Office Note 74-7, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, 1975: Automated prediction of thunderstorms, drizzle, rain, and showers--No. 2. TDL Office Note 75-4, National Weather Service, NOAA, U.S. Department of Commerce, 4 pp.

Gilhousen, D. B., 1979: Improved prediction of liquid precipitation type. TDL Office Note 79-8, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

Glahn, H. R., J. R. Bocchieri, and R. H. Jones, 1973: Forecasting the conditional probability of frozen precipitation. Preprints Third Conference on Probability and Statistics, Boulder, Amer. Meteor. Soc., 47-54.

_____, and J. R. Bocchieri, 1974: Predicting the conditional probability of frozen precipitation. NOAA Technical Memorandum NWS TDL-51, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 33 pp.

_____, and J. R. Bocchieri, 1975: Objective estimation of the conditional probability of frozen precipitation. Mon. Wea. Rev., 103, 3-15.

Maglaras, G. J., and E. L. Chiang, 1985: Development of an improved automated system for forecasting the probability of liquid precipitation type. TDL Office Note 85-3, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.**

National Weather Service, 1974: MOS, PoP, PoFP(P), and max/min temperature bulletin. NWS Technical Procedures Bulletin No. 128, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1975: Operational probability of frozen precipitation (PoF) forecasts based on Model Output Statistics. NWS Technical Procedures Bulletin No. 146, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1976: Operational probability of frozen (PoF) forecasts based on Model Output Statistics. NWS Technical Procedures Bulletin No. 170, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1978: Operational probability of precipitation type forecasts based on Model Output Statistics. NWS Technical Procedures Bulletin No. 243, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1982: Operational probability of precipitation type forecasts based on Model Output Statistics. NWS Technical Procedures Bulletin No. 319, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.**

4. Snow Amount

Bocchieri, J. R., 1977: The use of Model Output Statistics (MOS) for predicting the probability of heavy snow. TDL Office Note 77-18, National Weather Service, NOAA, U.S. Department of Commerce, 21 pp.

_____, 1979: The use of LFM output for automated prediction of heavy snow. Preprints Fourth Conference on Numerical Weather Prediction, Silver Spring, Amer. Meteor. Soc., 77-81.

_____, 1982a: Recent experiments in the use of Model Output Statistics for forecasting snow amounts. TDL Office Note 82-2, National Weather Service, NOAA, U.S. Department of Commerce, 20 pp.

_____, 1982b: Further development and testing of an automated system to forecast snow amounts. TDL Office Note 82-7, National Weather Service, NOAA, U.S. Department of Commerce, 19 pp.

_____, 1983: Automated guidance for forecasting snow amount. Mon. Wea. Rev., 111, 2097-2109.**

Maglaras, G. J., 1985: The performance of MOS snow amount guidance during two heavy snow events. Preprints Sixth Conference on Hydrometeorology, Indianapolis, Amer. Meteor. Soc., 324-330.**

National Weather Service, 1977: The use of Model Output Statistics for predicting the probability of heavy snow (PoSH). NWS Technical Procedures Bulletin No. 209, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.

_____, 1978: The use of Model Output Statistics for predicting the probability of heavy snow. NWS Technical Procedures Bulletin No. 246, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.

_____, 1982: The use of Model Output Statistics for predicting snow amount. NWS Technical Procedures Bulletin No. 318, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.**

E. Thunderstorms/Severe Local Storms

1. Short-range

Alaka, M. A., W. D. Bonner, J. P. Charba, R. L. Crisci, R. C. Elvander, and R. M. Reap, 1973: Objective techniques for forecasting thunderstorms and severe weather. Final Report No. FAA-RD-73-117 to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 97 pp.

_____, J. P. Charba, and R. C. Elvander, 1975: Short-range thunderstorm forecasting for aviation. Interim Report No. FAA-RD-75-220 to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 24 pp.

_____, J. P. Charba, and R. M. Reap, 1976: Automated operational prediction of thunderstorms and severe storms. Proceedings Seventh Technical Exchange Conference, El Paso, U.S. Department of the Army, 137-144.

_____, J. P. Charba, and R. C. Elvander, 1977: Thunderstorm prediction for use in air traffic control (0-6 hour time range). Final Report No. FAA-RD-77-40 to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 32 pp.

Charba, J. P., and M. L. Livingston, 1973: Preliminary results on short-range forecasting of severe storms from surface predictors. Preprints Eighth Conference on Severe Local Storms, Denver, Amer. Meteor. Soc., 226-231.

_____, 1974: Objective forecasts of severe thunderstorms from observed surface predictors. TDL Office Note 74-1, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

_____, 1975: Operational scheme for short-range forecasts of severe local weather. Preprints Ninth Conference on Severe Local Storms, Norman, Amer. Meteor. Soc., 51-57.

_____, 1977a: Operational system for predicting thunderstorms two to six hours in advance. NOAA Technical Memorandum NWS TDL-64, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 24 pp.

_____, 1977b: Operational system for predicting severe local storms two to six hours in advance. NOAA Technical Memorandum NWS TDL-65, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 36 pp.

_____, 1977c: Features of a 2-6 hr forecasting system of thunderstorms and severe storms as revealed by individual predictor-predictand relationships. Preprints Tenth Conference on Severe Local Storms, Omaha, Amer. Meteor. Soc., 344-351.

_____, 1979a: Two-to-six hour severe local storm probabilities: An operational forecasting system. Mon. Wea. Rev., 107, 268-282.**

_____, 1979b: Recent performance of operational two-to-six hour objective forecasts of severe local storms on outbreak days. Preprints Eleventh Conference on Severe Local Storms, Kansas City, Amer. Meteor. Soc., 600-607.

National Weather Service, 1975: Short-range objective severe weather guidance. NWS Technical Procedures Bulletin No. 135, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1976: Two-to-six hour probabilities of severe weather and general thunderstorms. NWS Technical Procedures Bulletin No. 159, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 15 pp.

_____, 1977: Two-to-six hour probabilities of thunderstorms and severe weather. NWS Technical Procedures Bulletin No. 194, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1978: Two-to-six hour probabilities of thunderstorms and severe local storms. NWS Technical Procedures Bulletin No. 228, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1979: Two-to-six hour probabilities of thunderstorms and severe local storms. NWS Technical Procedures Bulletin No. 261, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1981: Two-to-six hour probabilities of thunderstorms and severe local storms. NWS Technical Procedures Bulletin No. 295, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1984: Two-to-six hour probabilities of thunderstorms and severe local storms. NWS Technical Procedures Bulletin No. 342, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.**

2. Medium-range

Bonner, W. D., R. M. Reap, and J. E. Kemper, 1971: Preliminary results on severe storm prediction by screening regression using forecast predictors. Preprints Seventh Conference Severe Local Storms, Kansas City, Amer. Meteor. Soc., 36-41.

Foster, D. S., 1976a: Severe local storm relative frequency distributions for use in deriving severe thunderstorm forecast equations. TDL Office Note 76-1, National Weather Service, NOAA, U.S. Department of Commerce, 3 pp.

_____, 1976b: Thunderstorm relative frequency distributions for use in deriving thunderstorm forecast equations. TDL Office Note 76-2, National Weather Service, NOAA, U.S. Department of Commerce, 18 pp.

_____, and R. M. Reap, 1977: Thunderstorm probability nomogram. TDL Office Note 77-6, National Weather Service, NOAA, U.S. Department of Commerce, 4 pp.

Kitzmiller, D. H., 1985: The application of cumulus models to MOS forecasts of convective weather. NOAA Technical Memorandum NWS TDL-76, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 50 pp.

National Weather Service, 1973a: Thunderstorm and severe weather probabilities based on Model Output Statistics--No. 1. NWS Technical Procedures Bulletin No. 89, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.

_____, 1973b: Thunderstorm and severe weather probabilities based on Model Output Statistics--No. 2. NWS Technical Procedures Bulletin No. 92, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 3 pp.

_____, 1975: Thunderstorm and severe weather probabilities based on Model Output Statistics--No. 3. NWS Technical Procedures Bulletin No. 138, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1976: Thunderstorm and severe weather probabilities based on Model Output Statistics--No. 4. NWS Technical Procedures Bulletin No. 156, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1977: Thunderstorm and severe weather probabilities based on Model Output Statistics--No. 5. NWS Technical Procedures Bulletin No. 199, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1978: FOUS12 MOS thunderstorm probability forecasts. NWS Technical Procedures Bulletin No. 235, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1979: FOUS12 MOS thunderstorm probability forecasts. NWS Technical Procedures Bulletin No. 260, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1980: Thunderstorm and severe weather probabilities based on Model Output Statistics--No. 6. NWS Technical Procedures Bulletin No. 281, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.**

_____, 1983: FOUS12 MOS thunderstorm probability forecasts. NWS Technical Procedures Bulletin No. 331, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.**

Reap, R. M., 1974: Thunderstorm and severe weather probabilities based on Model Output Statistics. Preprints Fifth Conference on Forecasting and Analysis, St. Louis, Amer. Meteor. Soc., 266-269.

_____, and D. S. Foster, 1975: New operational thunderstorm and severe storm probability forecasts based on Model Output Statistics (MOS). Preprints Ninth Conference on Severe Local Storms, Norman, Amer. Meteor. Soc., 58-63.

_____, 1977: Operational thunderstorm and severe local storm probability forecasts based on Model Output Statistics. Preprints Tenth Conference on Severe Local Storms, Omaha, Amer. Meteor. Soc., 376-381.

_____, and D. S. Foster, 1977a: Automated prediction of thunderstorms and severe local storms. NOAA Technical Memorandum NWS TDL-62, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 20 pp.

_____, and D. S. Foster, 1977b: Operational probability forecasts for major outbreaks of severe local storms. Preprints Fifth Conference on Probability and Statistics in Atmospheric Sciences, Las Vegas, Amer. Meteor. Soc., 41-46.

_____, and D. S. Foster, 1979: Automated 12-36 hour probability forecasts of thunderstorms and severe local storms. J. Appl. Meteor., 18, 1304-1315.

_____, D. S. Foster, and S. J. Weiss, 1981: The experimental convective outlook (AC) chart: comparative verification and preliminary evaluation. TDL Office Note 81-5, National Weather Service, NOAA, U.S. Department of Commerce, 24 pp.

_____, D. S. Foster, and S. J. Weiss, 1982: Development and evaluation of an automated convective outlook (AC) chart. Preprints Twelfth Conference on Severe Local Storms, San Antonio, Amer. Meteor. Soc., 110-115.

_____, 1983: Preliminary evaluation of 1982-83 cool season forecasts from an automated convective outlook (AC) chart. Preprints Thirteenth Conference on Severe Local Storms, Tulsa, Amer. Meteor. Soc., 47-50.

_____, 1984: Evaluation of MOS probability forecasts for major tornado outbreaks. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 521-524.**

Weiss, S. J., and R. M. Reap, 1984: Performance characteristics of the TDL automated severe storm outlook: A statistical evaluation. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 181-188.**

F. Wind

1. Aviation/Public Weather Surface Winds

Best, D. L., 1980: Surface wind forecasting using generalized operator Model Output Statistics. TDL Office Note 80-2, National Weather Service, NOAA, U.S. Department of Commerce, 13 pp.

Carter, G. M., 1973: Use of Model Output Statistics in automated prediction of surface winds. TDL Office Note 73-4, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, 1974: Use of Model Output Statistics in automated prediction of surface winds--No. 2, TDL Office Note 74-3, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, 1975a: Forecasting surface wind direction using deviations from the PE boundary layer wind. TDL Office Note 75-5, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, 1975b: Automated prediction of surface wind from numerical model output. Mon. Wea. Rev., 103, 866-873.

Glahn, H. R., 1970a: A method for predicting surface winds. ESSA Technical Memorandum WBTM TDL-29, Environmental Sciences Services Administration, U. S. Department of Commerce, 18 pp.

_____, 1970b: Regression estimation of surface winds. Interim Report No. FAA-RD-70-43 to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 6 pp.

Janowiak, J. E., 1981: The usefulness of LFM boundary layer forecasts as predictors in objective surface wind forecasting. TDL Office Note 81-6, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

National Weather Service, 1973a: Surface wind forecasts based on Model Output Statistics (MOS)--No. 1. NWS Technical Procedures Bulletin No. 86, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1973b: Surface wind forecasts based on Model Output Statistics (MOS)--No. 2. NWS Technical Procedures Bulletin No. 93, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1973c: Surface wind forecasts based on Model Output Statistics (MOS)--No. 3. NWS Technical Procedures Bulletin No. 98, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1973d: Surface wind forecasts based on Model Output Statistics (MOS)--No. 4. NWS Technical Procedures Bulletin No. 102, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1975a: Warm season surface wind forecasts based on MOS--No. 4. NWS Technical Procedures Bulletin No. 137, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1975b: MOS surface wind, cloud amount, and 3-category flight weather forecasts. NWS Technical Procedures Bulletin No. 139, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 9 pp.

_____, 1976a: Surface wind forecasts based on Model Output Statistics (MOS)--No. 6. NWS Technical Procedures Bulletin No. 152, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1976b: Surface wind forecasts based on Model Output Statistics (MOS)--No. 7. NWS Technical Procedures Bulletin No. 161, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1977: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 191, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1978: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 229, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1979: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 271, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1980: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 288, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1982: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 316, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1983: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 335, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1985: The use of Model Output Statistics for predicting surface wind. NWS Technical Procedures Bulletin No. 347, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.**

Schwartz, B. E., and G. M. Carter, 1982: An evaluation of a modified speed enhancement technique for objective surface wind forecasting. TDL Office Note 82-1, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

2. Marine Winds

Barrientos, C. S., 1970: An objective method for forecasting winds over Lake Erie and Lake Ontario. ESSA Technical Memorandum WBTM TDL-34, Environmental Science Services Administration, U.S. Department of Commerce, 20 pp.

_____, 1971: An objective method for forecasting winds over Lake Erie and Lake Ontario. Proceedings Fourteenth Conference Great Lakes Research, Toronto, Ontario, Int. Assoc. Great Lakes Res., 401-411.

Burroughs, L. D., 1979: Verification of Great Lakes MOS wind forecasts. TDL Office Note 79-9, National Weather Service, NOAA, U.S. Department of Commerce, 16 pp.

_____, 1982: Coastal wind forecasts based on Model Output Statistics. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 351-355.

_____, 1984a: Development of forecast guidance for Santa Ana conditions. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 450-454.**

_____, 1984b: Great Lakes nearshore wind predictions from Great Lakes MOS wind guidance. NOAA Technical Memorandum NWS TDL 74, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 21 pp.**

Feit, D. M., and C. S. Barrientos, 1974: Great Lakes wind forecasts based on Model Output Statistics. Proceedings Seventeenth Conference Great Lakes Research, Hamilton, Ontario, Int. Assoc. Great Lakes Res., 725-732.

_____, 1976: Single station marine wind forecasts based on Model Output Statistics. Preprints Conference on Coastal Meteorology, Virginia Beach, Amer. Meteor. Soc., 83-87.

_____, and N. A. Pore, 1978: Objective wind forecasting and verification on the Great Lakes. J. Great Lakes Res., 4, 10-18.

National Weather Service, 1973: Great Lakes wind forecasts based on Model Output Statistics (MOS). NWS Technical Procedures Bulletin No. 91, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1974: Coastal wind forecasts for light stations. NWS Technical Procedures Bulletin No. 118, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 9 pp.

_____, 1976: West Coast wind forecasts. NWS Technical Procedures Bulletin No. 158, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1978: Wind forecasts over the Great Lakes. NWS Technical Procedures Bulletin No. 237, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 15 pp.

_____, 1979a: Wind forecasts over the Great Lakes. NWS Technical Procedures Bulletin No. 263, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1979b: Coastal wind forecasts for East Coast and Chesapeake Bay stations. NWS Technical Procedures Bulletin No. 274, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1979c: MOS West Coast wind forecasts. NWS Technical Procedures Bulletin No. 276, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.

_____, 1979d: East Coast marine guidance package. NWS Technical Procedures Bulletin No. 278, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.**

_____, 1980: MOS wind forecasts over the Great Lakes. NWS Technical Procedures Bulletin No. 286, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1981: Coastal wind forecasts for East Coast, West Coast, Gulf Coast, and Chesapeake Bay shore. NWS Technical Procedures Bulletin No. 309, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 15 pp.

_____, 1982: Coastal and offshore wind forecasts along and near the East Coast, West Coast, Gulf Coast, and Chesapeake Bay shore. NWS Technical Procedures Bulletin No. 321, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1983a: Coastal and offshore wind forecasts along and near conterminous United States Coast and Alaskan Coast. NWS Technical Procedures Bulletin No. 328, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1983b: MOS wind forecasts over the Great Lakes. NWS Technical Procedures Bulletin No. 330, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

_____, 1983c: MOS wind forecasts over the Great Lakes. NWS Technical Procedures Bulletin No. 332, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.**

_____, 1984a: Coastal and off-shore wind guidance along and near the conterminous United States Coast and Alaska Coast. NWS Technical Procedures Bulletin No. 339, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 13 pp.

_____, 1984b: Chesapeake Bay wind and wave forecast guidance. NWS Technical Procedures Bulletin No. 340, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.**

_____, 1985a: Coastal and off-shore wind guidance along and near the conterminous United States Coast and Alaska Coast. NWS Technical Procedures Bulletin No. 352, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.**

_____, 1985b: Forecast guidance for Santa Ana conditions. NWS Technical Procedures Bulletin No. 353, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.**

Pore, N. A., 1979: Automated wave forecasting for the Great Lakes. Mon. Wea. Rev., 107, 1275-1286.

3. Gusts

Carter, G. M., 1974: A brief study of wind gust factors. TDL Office Note 74-2, National Weather Service, NOAA, U.S. Department of Commerce, 6 pp.

_____, and T. H. Grayson, 1977: Experimental forecasts of convective gust potential. TDL Office Note 77-9, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

_____, 1979: Experimental forecasts of convective gust potential--phase II. TDL Office Note 79-10, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

_____, and V. J. Dagostaro, 1985: Testing MOS surface wind gust prediction equations. TDL Office Note 85-6, National Weather Service, NOAA, U.S. Department of Commerce, 11 pp.

Grayson, T. H., G. M. Carter, S. Brown, and A. MacDonald, 1978: Forecasting high-level convection and gusty surface winds--an interactive man-machine experiment. Preprints Conference on Weather Forecasting and Analysis and Aviation Meteorology, Silver Spring, Amer. Meteor. Soc., 313-319.

National Weather Service, 1974: Surface wind gusts. NWS Technical Procedures Bulletin No. 114, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1979: Automated forecasts of convective gust potential. NWS Technical Procedures Bulletin No. 264, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.**

4. Special Wind Applications

Carter, G. M., and D. B. Gilhousen, 1979: The potential impact of automated wind guidance on wind energy conversion operations. Preprints Conference on Wind Characteristics and Wind Energy Siting, Portland, U.S. Department of Energy and Amer. Meteor. Soc., 191-203.

Gilhousen, D. B., 1979: Automated prediction of boundary layer winds and turbulence for the Savannah River Laboratory. Final Report No. EY-77-A-09-1007 to Savannah River Laboratory, U.S. Department of Energy. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 24 pp.

_____, 1980: Development and testing of Model Output Statistics for wind forecasts at wind turbine generator sites. Final Report No. DOE-RL-10046-1 to Battelle Pacific Northwest Laboratories, U.S. Department of Energy. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 24 pp.

_____, and M. M. Pendergast, 1980: Automated prediction of tower winds and turbulence for the Savannah River Nuclear Facility. Proceedings Second Joint Conference in Applications of Air Pollution Meteorology, New Orleans, Amer. Meteor. Soc. and Air Poll. Control Assoc., 792-796.

Wegley, H. L., 1982: The development and evaluation of wind forecasts for wind energy application. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 120-127.**

G. Aviation Applications

Bocchieri, J. R., and H. R. Glahn, 1972: Use of Model Output Statistics for predicting ceiling height. Mon. Wea. Rev., 100, 869-879.

_____, H. R. Glahn, and F. T. Globokar, 1973: An application of Model Output Statistics to the prediction of ceiling and visibility. Final Report No. FAA-RD-73-14, Phase I, to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 47 pp.

_____, R. L. Crisci, H. R. Glahn, F. Lewis, and F. T. Globokar, 1974: Recent developments in automated prediction of ceiling and visibility. J. Appl. Meteor., 13, 277-288.

Carter, G. M., and K. F. Hebenstreit, 1976: Testing LFM-based statistical cloud prediction equations for the cool season. TDL Office Note 76-12, National Weather Service, NOAA, U.S. Department of Commerce, 3 pp.

_____, 1976a: Automated prediction of cloud amount from numerical model output. Preprints Sixth Conference on Weather Forecasting and Analysis, Albany, Amer. Meteor. Soc., 62-66.

_____, 1976b: Testing LFM- and PE-based statistical cloud prediction for the cool season. TDL Office Note 76-18, National Weather Service, NOAA, U.S. Department of Commerce, 11 pp.

_____, and H. R. Glahn, 1976: Objective prediction of cloud amount based on Model Output Statistics. Mon. Wea. Rev., 104, 1565-1572.

Crisci, R. L., and F. Lewis, 1973: Automated probability forecasts of ceiling and visibility based on single station data. Final Report No. FAA-RD-73-13 to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 16 pp.

_____, 1973: Automated ceiling and visibility forecasts: An evaluation of an operational test. Final Report No. FAA-RD-73-182, Phase III, to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.

_____, 1974: A development plan to improve short-range aviation weather forecasts. Preprints Sixth Conference on Aerospace and Aeronautical Meteorology, El Paso, Amer. Meteor. Soc., 14 pp.

_____, 1976: Improving the bias in MOS ceiling and visibility forecasts. TDL Office Note 76-4, National Weather Service, NOAA, U.S. Department of Commerce, 8 pp.

_____, 1978: A plan for improved short-range aviation weather forecasts. Final Report No. FAA-RD-78-73 to Federal Aviation Administration, U.S. Department of Transportation. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 38 pp.

Glahn, H. R., and R. A. Allen, 1970: Preliminary results of a program for the automation of terminal forecasts. Proceedings Sixth AWS Technical Exchange Conference, Tech. Rep. 242, Annapolis, U.S. Department of the Air Force, 169-176.

_____, 1973: An objective cloud forecasting system. TDL Office Note 73-1, National Weather Service, NOAA, U.S. Department of Commerce, 3 pp.

_____, 1974: An objective cloud forecasting system. Preprints Fifth Conference on Forecasting and Analysis, St. Louis, Amer. Meteor. Soc., 79-80.

_____, and K. F. Hebenstreit, 1978: Design study for the development and use of Model Output Statistics in automated aviation weather forecasting. Final Report No. AFGL-TR-79-0002 to Air Force Geophysical Laboratory, U.S. Department of the Air Force. Techniques Development Laboratory, National Weather Service, NOAA, U.S. Department of Commerce, 37 pp.

Globokar, F. T., 1974: Computerized ceiling and visibility forecasts. Preprints Fifth Conference on Forecasting and Analysis, St. Louis, Amer. Meteor. Soc., 228-233.

Klein, W. H., and R. L. Crisci, 1974: Objective forecasting of ceiling and visibility. Preprints Sixth Conference on Aerospace and Aeronautical Meteorology, El Paso, Amer. Meteor. Soc., 472-477.

National Weather Service, 1974a: The use of Model Output Statistics for predicting ceiling and visibility. NWS Technical Procedures Bulletin No. 120, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

_____, 1974b: Cloud amount forecasts based on Model Output Statistics (MOS). NWS Technical Procedures Bulletin No. 124, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 10 pp.

_____, 1974c: Cloud amount forecasts based on Model Output Statistics (MOS)--No. 2. NWS Technical Procedures Bulletin No. 125, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1975a: Warm season cloud amount forecasts based on Model Output Statistics--No. 3. NWS Technical Procedures Bulletin No. 133, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1975b: Cloud amount forecasts based on Model Output Statistics--No. 4. NWS Technical Procedures Bulletin No. 141, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1976: Cloud amount forecasts based on Model Output Statistics--No. 5. NWS Technical Procedures Bulletin No. 164, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.

_____, 1977a: The use of Model Output Statistics for predicting ceiling, visibility, and cloud amount. NWS Technical Procedures Bulletin No. 180, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 15 pp.

_____, 1977b: The use of Model Output Statistics for predicting ceiling, visibility, and cloud amount. NWS Technical Procedures Bulletin No. 193, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 15 pp.

_____, 1978: The use of Model Output Statistics for predicting ceiling, visibility, and cloud amount. NWS Technical Procedures Bulletin No. 234, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1980: The use of Model Output Statistics for predicting probability of nonprecipitating obstructions to vision. NWS Technical Procedures Bulletin No. 284, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1981: The use of Model Output Statistics for predicting ceiling, visibility, cloud amount, and obstructions to vision. NWS Technical Procedures Bulletin No. 303, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 11 pp.**

H. Agricultural Applications

1. Specialized Guidance

Carter, G. M., and J. S. Jensenius, Jr., 1977: Experimental rate of pan evaporation forecasts. TDL Office Note 77-13, National Weather Service, NOAA, U.S. Department of Commerce, 10 pp.

Jensenius, J. S., Jr., E. A. Zurndorfer, and G. M. Carter, 1978: Specialized agricultural forecast guidance for Michigan and Indiana. TDL Office Note 78-9, National Weather Service, NOAA, U.S. Department of Commerce, 12 pp.**

_____, and G. M. Carter, 1978a: Experimental rate of pan evaporation forecasts--phase II. TDL Office Note 78-10, National Weather Service, NOAA, U.S. Department of Commerce, 13 pp.

_____, and G. M. Carter, 1978b: Ground condensation guidance for Indiana and Michigan. TDL Office Note 78-12, National Weather Service, NOAA, U.S. Department of Commerce, 13 pp.**

_____, and G. M. Carter, 1979a: Automated forecasts of agricultural weather elements. Preprints Fourteenth Conference on Agriculture and Forest Meteorology, Minneapolis, Amer. Meteor. Soc., 42-44.

_____, and G. M. Carter, 1979b: Specialized agricultural weather guidance for South Carolina. TDL Office Note 79-15, National Weather Service, NOAA, U.S. Department of Commerce, 16 pp.**

_____, and V. J. Dagostaro, 1980: Specialized agricultural weather guidance for Kentucky. TDL Office Note 80-5, National Weather Service, NOAA, U.S. Department of Commerce, 8 pp.**

2. Sunshine and Solar Energy

Jensenius, J. S., Jr., and G. F. Cotton, 1981: The development and testing of automated solar energy forecasts based on the Model Output Statistics (MOS) technique. Proceedings First Workshop on Terrestrial Solar Resource Forecasting and on Use of Satellites for Terrestrial Solar Resource Assessment, Washington, Amer. Sect. Int. Solar Energy Soc., 22-29.

_____, 1983: Automated forecasts of daily global solar energy. Preprints Annual Meeting of the Solar Energy Society, Minneapolis, Amer. Solar Energy Soc., 859-864.**

_____, 1984: Automated forecasts of percent of possible sunshine. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 69-77.

_____, 1985a: Objective sunshine forecasts produced by the National Weather Service. Paper presented at the 15th Conference on Broadcast Meteorology, Honolulu, Amer. Meteor. Soc., 9 pp. [Available on request from Techniques Development Laboratory, National Weather Service Headquarters, Silver Spring, Md.]

_____, 1985b: The accuracy of objective sunshine forecasts produced by the National Weather Service. Preprints Seventeenth Conference on Agriculture and Forest Meteorology, Phoenix, Amer. Meteor. Soc., 105-108.**

National Weather Service, 1981: Solar energy guidance. NWS Technical Procedures Bulletin No. 304, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1982a: Solar energy guidance. NWS Technical Procedures Bulletin No. 313, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1982b: Solar energy guidance. NWS Technical Procedures Bulletin No. 323, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1983: Sunshine and solar energy guidance. NWS Technical Procedures Bulletin No. 334, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.**

I. Alaskan Guidance

Baker, J. M., 1984: Model Output Statistics (MOS) forecast guidance for U.S. Air Force locations in Alaska. TDL Office Note 84-7, National Weather Service, NOAA, U.S. Department of Commerce, 15 pp.**

Carter, G. M., 1976: Automated prediction of surface winds in Alaska--No. 1. TDL Office Note 76-15, National Weather Service, NOAA, U.S. Department of Commerce, 11 pp.

_____, 1977a: Automated prediction of surface winds in Alaska--No. 2. TDL Office Note 77-1, National Weather Service, NOAA, U.S. Department of Commerce, 11 pp.

_____, 1977b: Automated prediction of surface winds in Alaska--No. 3. TDL Office Note 77-7, National Weather Service, NOAA, U.S. Department of Commerce, 12 pp.

_____, 1977c: Automated prediction of surface winds in Alaska--No. 4. TDL Office Note 77-15, National Weather Service, NOAA, U.S. Department of Commerce, 5 pp.

Dallavalle, J. P., 1979: Development of objective maximum/minimum temperature forecast equations for Alaska. TDL Office Note 79-16, National Weather Service, NOAA, U.S. Department of Commerce, 28 pp.

_____, and M. C. Murphy, 1983: Development of LFM-based MOS temperature forecast equations for Alaska. TDL Office Note 83-14, National Weather Service, NOAA, U.S. Department of Commerce, 27 pp.**

Gilhousen, D. B., 1977a: Automated prediction of probability of precipitation (PoP) in Alaska--summer season. TDL Office Note 77-8, National Weather Service, NOAA, U.S. Department of Commerce, 11 pp.

_____, 1977b: Automated prediction of probability of precipitation (PoP) in Alaska--fall season. TDL Office Note 77-11, National Weather Service, NOAA, U.S. Department of Commerce, 6 pp.

_____, 1977c: Automated prediction of the conditional probability of frozen precipitation for Alaska. TDL Office Note 77-12, National Weather Service, NOAA, U.S. Department of Commerce, 9 pp.

Hanas, R. L., 1975: The MOS approach to automated Alaskan temperature prediction. Weather Service Forecast Office, Anchorage, Alaska, 14 pp. [Available on request from Techniques Development Laboratory, National Weather Service Headquarters, Silver Spring, Md.]

Maglaras, G. J., 1982: Development of an improved automated system for forecasting the probability of precipitation in Alaska. TDL Office Note 82-9, National Weather Service, NOAA, U.S. Department of Commerce, 17 pp.**

_____, 1983a: Development of an improved automated system for forecasting the probability of frozen precipitation in Alaska. TDL Office Note 83-6, National Weather Service, NOAA, U.S. Department of Commerce, 25 pp.**

_____, 1983b: Development of an improved automated system for forecasting cloud amount, ceiling height, visibility, and obstructions to vision in Alaska. TDL Office Note 83-10, National Weather Service, NOAA, U.S. Department of Commerce, 20 pp.**

National Weather Service, 1977a: Alaskan maximum/minimum temperature and surface wind forecasts, FMAK1 bulletin. NWS Technical Procedures Bulletin No. 192, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

_____, 1977b: Alaskan maximum/minimum temperatures, surface wind, and probability of precipitation, FMAK1 bulletin. NWS Technical Procedures Bulletin No. 202, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1977c: Alaskan maximum/minimum temperatures, surface wind, probability of precipitation, and conditional probability of frozen precipitation (PoF), FMAK1 bulletin. NWS Technical Procedures Bulletin No. 208, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 5 pp.

_____, 1979: Alaskan maximum/minimum temperatures, surface wind, probability of precipitation, conditional probability of frozen precipitation, ceiling, visibility, and cloud amount--FMAK1 bulletin. NWS Technical Procedures Bulletin No. 262, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.

_____, 1981: The use of Model Output Statistics for predicting probability of nonprecipitating obstructions to vision in Alaska. NWS Technical Procedures Bulletin No. 296, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 6 pp.

_____, 1982: Alaskan temperature, surface wind, probability of precipitation, conditional probability of frozen precipitation, and cloud amount guidance (FMAK1 bulletin). NWS Technical Procedures Bulletin No. 317, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

_____, 1983: Alaskan temperature, surface wind, probability of precipitation, conditional probability of frozen precipitation, and cloud amount guidance (FMAK1 bulletin). NWS Technical Procedures Bulletin No. 329, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 16 pp.**

_____, 1984: Alaskan ceiling height, visibility, and obstructions to vision guidance (FMAK2 bulletin). NWS Technical Procedures Bulletin No. 338, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 7 pp.**

Schwartz, B. E., 1983: Development of a new automated system for forecasting surface winds in Alaska. TDL Office Note 83-5, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.**

J. Local AFOS MOS Program (LAMP)

Bocchieri, J. R., and A. L. Forst, 1984a: Experiments in the use of the Local AFOS MOS Program (LAMP) for forecasting precipitation type in the Washington, D.C. WSFO forecast area. TDL Office Note 84-1, National Weather Service, NOAA, U.S. Department of Commerce, 14 pp.

_____, and A. L. Forst, 1984b: Some results from the Local AFOS MOS Program (LAMP) for forecasting precipitation type in the Washington, D.C. WSFO forecast area. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 278-285.

Glahn, H. R., 1980: Plans for the development of a Local AFOS MOS Program (LAMP). Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 391-396.

_____, and D. A. Unger, 1982: Some results from the Local AFOS MOS Program (LAMP). Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 364-371.

_____, 1984a: Experimental wind forecasts from the Local AFOS MOS Program. NOAA Technical Memorandum NWS TDL 72, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 60 pp.**

_____, 1984b: Comparison of LAMP and GEM wind forecasts. TDL Office Note 84-2, National Weather Service, NOAA, U.S. Department of Commerce, 29 pp.

_____, 1984c: Surface wind forecasts from the Local AFOS MOS Program (LAMP). Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 78-86.

K. Non-TDL Applications

Aldinger, W. T., 1979: Experiments on estimating open ocean visibilities using Model Output Statistics. M.S. Dissertation, Naval Postgraduate School, 81 pp.

Baker, D. G., and G. Weber, 1979: Development of techniques for objective maximum/minimum guidance for zone forecasts. Final Report No. 0501-7199-3536 to Department of Commerce, National Weather Service. Department of Atmospheric and Oceanic Science, College of Engineering, University of Michigan, 127 pp.

_____, 1982: Synoptic-scale and mesoscale contributions to objective maximum-minimum temperature forecast errors. Mon. Wea. Rev., 110, 163-169.

Best, D. L., and S. P. Pryor, 1983: Air Weather Service Model Output Statistics system. Report No. AFGWC/PR-83/001, Air Force Global Weather Central, Air Weather Service, U.S. Department of the Air Force, Offutt AFB, 85 pp.

Brenner, I. S., 1976: Map types as aids in using MOS PoPs in western United States. NOAA Technical Memorandum NWS WR-107, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

Burrows, W. R., 1985: Production of surface wind forecasts with the time-offset Model Output Statistics method. Preprints Ninth Conference on Probability and Statistics in Atmospheric Sciences, Virginia Beach, Amer. Meteor. Soc., 37-41.

Cope, A. M., and L. F. Bosart, 1982: A percentage of possible sunshine forecasting experiment at Albany, New York. J. Appl. Meteor., 21, 1217-1227.

Crowley, C., 1981: MOS minimum temperature error relative to wind speed. National Weather Digest, 6, 18-22.

Curtis, J. C., 1983: Statistical surface wind forecasting at Goodnoe Hills, Washington. SCIL Report 83-1 (DE-AC79-81BP25593,M004), Statistics and Climatic Impacts Laboratory, Department of Atmospheric Sciences, Oregon State University, Corvallis, 162 pp.

Daan, H., and A. H. Murphy, 1982: Subjective probability forecasting in The Netherlands: Some operational and experimental results. Meteor. Rdschr., 35, 99-112.

Darrah, R. P., 1983: Verification of numerically produced flight weather products. Preprints Ninth Conference on Aerospace and Aeronautical Meteorology, Omaha, Amer. Meteor. Soc., 18-21.

David, C. L., 1974: Objective probabilities of severe thunderstorms using predictors from FOUS and observed surface data. NOAA Technical Memorandum NWS CR-54, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 14 pp.

Dewey, K. F., 1977: Daily maximum and minimum temperature forecasts and the influence of snow cover. Mon. Wea. Rev., 105, 1594-1597.

Diunizio, M., 1984: An evaluation of discretized conditional probability and linear regression threshold techniques in Model Output Statistics forecasting of visibility over the North Atlantic Ocean. M.S. Dissertation, Naval Postgraduate School, 227 pp.

Fritsch, J. M., and C. R. Chelius, 1982: Forecast consistency: An important factor to forecast credibility. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 178-183.

Garrett, A. J., 1981: Comparison of observed mixed-layer depths to model estimates using observed temperatures and winds, and MOS forecasts. J. Appl. Meteor., 20, 1277-1283.

Godfrey, R. A., and P. R. Lowe, 1979: An application of Model Output Statistics to forecasting the occurrence of the Levante wind. Preprints Sixth Conference on Probability and Statistics in Atmospheric Sciences, Banff, Alberta, Amer. Meteor. Soc., 83-86.

_____, 1982: An application of Model Output Statistics to the development of a local wind regime forecast procedure. J. Appl. Meteor., 21, 1786-1791.

Jacks, E., and S. T. Rao, 1985: An examination of the MOS objective temperature prediction model. Mon. Wea. Rev., 113, 134-148.

Jones, J. E., Jr., 1984: Verifying temperature and probability of precipitation in Western Pennsylvania. National Weather Digest, 9, 34-43.

Karl, M. L., 1984: Experiments in forecasting atmospheric marine horizontal visibility using Model Output Statistics with conditional probabilities of discretized parameters. M.S. Dissertation, Naval Postgraduate School, 165 pp.

Karl, T. R., 1979: Potential application of Model Output Statistics (MOS) to forecasts of surface ozone concentrations. J. Appl. Meteor., 18, 254-265.

Klein, W. H., 1981: Design of a MOS system for the Navy. Final Report, NEPRF Contract No. N00228-80-C-LV22 to Naval Environmental Prediction Research Facility, U.S. Department of the Navy. Intercon Weather Consultants Inc., Camp Springs, 42 pp.

Koziara, M. C., R. J. Renard, and W. J. Thompson, 1983: Estimating marine fog probability using a Model Output Statistics scheme. Mon. Wea. Rev., 111, 2333-2340.

Kruizinga, S., 1983: Statistical medium range forecasting of the probability of precipitation in the Netherlands. Preprints Eighth Conference on Probability and Statistics in Atmospheric Sciences, Hot Springs, Amer. Meteor Soc., 181-185.

_____, 1985: Development of guidance forecasts at KNMI. 3. Probability of thunderstorm activity. KNMI Technical Report T.R.-54, Koninklijk Nederlands Meteorologisch Instituut, DeBilt, 18 pp.

Lange, A., 1973: Statistical surface wind prediction in Finland. Tech. Rep. No. 6, Finnish Meteorological Institute, Helsinki, 23 pp.

Langseth, D. E., 1980: Empirical temperature forecasting: Extensions of the Model Output Statistics method. M.S. Dissertation, Massachusetts Institute of Technology, 191 pp.

Lemcke, C., and S. Kruizinga, 1984: Development of guidance forecasts at KNMI. 1. General information. KNMI Technical Report T.R.-54, Koninklijk Nederlands Meteorologsch Instituut, DeBilt, 28 pp.

_____, 1984: Development of guidance forecasts at KNMI. 2. Extreme wind-speed IJmuiden. KNMI Technical Report T.R.-54, Koninklijk Nederlands Meteorologisch Instituut, DeBilt, 21 pp.

MacDonald, A. E., 1977: The MAN/MOS program. NOAA Technical Memorandum NWS WR-112, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 21 pp.

Maddox, R. A., and B. E. Heckman, 1982: The impact of mesoscale convective weather systems upon MOS temperature guidance. Preprints Ninth Conference on Weather Forecasting and Analysis, Seattle, Amer. Meteor. Soc., 214-218.

Mass, C., and A. Robock, 1982: The short-term influence of Mount St. Helens volcanic eruption on surface temperature in the northwest United States. Mon. Wea. Rev., 110, 614-622.

McCarthy, D. H., 1984: The 1980 and 1983 heat waves in Missouri temperature and rainfall patterns and temperature forecasts. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 75-77.

Michaels, P. J., and S. J. Colucci, 1984: Modification of MOS-derived thunderstorm probabilities over complex terrain with continental-scale upper air data. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Metor. Soc., 160-164.

Moore, P. L., and D. L. Smith, 1972: Updating of numerical precipitation guidance. NOAA Technical Memorandum NWS SR-64, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 16 pp.

Muench, H. S., 1984: Objective short-range weather forecast experiments using meso-scale analyses and upper-level steering. Preprints Tenth Conference on Weather Forecasting and Analysis, Clearwater Beach, Amer. Meteor. Soc., 241-248.

Murphy, A. H., and G. M. Carter, 1980: On the comparative evaluation of objective and subjective precipitation probability forecasts in terms of economic value. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 478-487.

_____, and B. G. Brown, 1984: A comparative evaluation of objective and subjective weather forecasts in the United States. J. of Forecasting, 3, 369-393.

_____, and R. L. Winkler, 1984: Probability forecasting in meteorology. J. Amer. Stat. Assn., 79, 489-500.

_____, and T. E. Sabin, 1985: Trends in the quality of objective and subjective weather forecasts: Some preliminary results. Preprints Ninth Conference on Probability and Statistics, Virginia Beach, Amer. Meteor. Soc., 80-89.

Nelson, T. S., 1972: Numerical-statistical prediction of visibility at sea. M.S. Dissertation, Naval Postgraduate School, 33 pp.

Oster, T. W., 1981: Analysis of temperature forecasts at Milwaukee, Wisconsin over a one-year period. National Weather Digest, 6, 10-18.

Ouzts, S. O., and R. J. Renard, 1979: Refinement of a statistical diagnostic model of marine fog using FNWC model output parameters. NPS Technical Report 63-79-002, Department of Meteorology, Naval Postgraduate School, 87 pp.

Plankinton, J. C., Jr., 1976: Use of MOS parameters in temperature forecasting. NOAA Technical Memorandum NWS WR-106, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 4 pp.

Preisendorfer, R. W., 1983: Proposed studies of some basic marine atmospheric visibility prediction schemes using Model Output Statistics. Unpublished manuscript, Naval Postgraduate School, 28 pp.

Quinn, P. F., 1978: Further development of a statistical diagnostic model of marine fog using FNWC model output parameters. M.S. Dissertation, Naval Postgraduate School, 73 pp.

Renard R. J., M. C. Koziara, and W. J. Thompson, 1980: Development of a statistical model to specify marine fog probability using numerically-derived model output parameters. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 13-18.

_____, and W. J. Thompson, 1984: Estimating visibility over the North Pacific Ocean using Model Output Statistics. National Weather Digest, 9, 18-25.

Ronco, J. A., Jr., 1972: A procedure for improving National Meteorological Center objective precipitation forecasts. NOAA Technical Memorandum NWS ER-49, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 9 pp.

_____, 1973: A procedure for improving National Meteorological Center objective precipitation forecasts--winter season. NOAA Technical Memorandum NWS ER-54, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 8 pp.

Selsor, H. D., 1980: Further experiments using a Model Output Statistics method in estimating open ocean visibility. M.S. Dissertation, Naval Postgraduate School, 121 pp.

Snellman, L. W., 1977: Operational forecasting using automated guidance. Bull. Amer. Meteor. Soc., 58, 1036-1044.

Staver, A. E., 1980: More light on MOS. Preprints Eighth Conference on Weather Forecasting and Analysis, Denver, Amer. Meteor. Soc., 9-10.

Van Orman, B. L., and R. J. Renard, 1977: Statistical diagnostic modeling of marine fog using model output parameters. NPS Technical Report 63Rd77061, Department of Meteorology, Naval Postgraduate School, 94 pp.

Walts, D. S., and L. O. Pochop, 1977: Operational objective temperature forecasts for non-MOS stations. Mon. Wea. Rev., 105, 3-8.

Wassall, R. B., 1977: A study of the significance of forecaster changes to MOS temperature guidance. National Weather Digest, 2, 27-30.

Wasserman, S. E., 1970a: Objective forecasts of precipitation using PE model output. ESSA Technical Memorandum WBTM ER-35, Environmental Science Services Administration, U.S. Department of Commerce, 13 pp.

_____, 1970b: Use of primitive equation model output to forecast winter precipitation in the northeast coastal sections of the United States. NOAA Technical Memorandum NWS ER-38, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 22 pp.

_____, 1972: PEATMOS probability of precipitation forecasts as an aid in predicting precipitation amounts. NOAA Technical Memorandum NWS ER-50, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 12 pp.

Webb, M. S., 1979: The BART experiment. NOAA Technical Memorandum NWS WR-146, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, 36 pp.

Wilson, L. J., 1985a: Application of statistical methods to short range operational weather forecasting. Preprints Ninth Conference on Probability and Statistics in Atmospheric Sciences, Virginia Beach, Amer. Meteor. Soc., 1-10.**

_____, 1985b: A new comparison of MOS and perfect prog methods applied to surface wind forecasting. Preprints Ninth Conference on Probability and Statistics in Atmospheric Sciences, Virginia Beach, Amer. Meteor. Soc., 44-47.

Wooster, M. H., 1984: An evaluation of discretized conditional probability and linear regression threshold techniques in Model Output Statistics forecasting of cloud amount and ceiling over the North Atlantic Ocean. M.S. Dissertation, Naval Postgraduate School, 187 pp.

Yavorsky, P. G., 1980: Experiments concerning categorical forecasts of open-ocean visibility using Model Output Statistics. M.S. Dissertation, Naval Postgraduate School, 87 pp.

_____, and R. J. Renard, 1980: Experiments concerning categorical forecasts of open-ocean visibility using Model Output Statistics. NPS Technical Report 63-80-002, Department of Meteorology, Naval Postgraduate School, 87 pp.

3. ACKNOWLEDGEMENTS

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