

U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEAN AND ATMOSPHERIC ADMINISTRATION  
NATIONAL WEATHER SERVICE  
NATIONAL CENTERS FOR ENVIRONMENTAL PREDICTION

TECHNICAL NOTE

COASTAL OCEAN FORECASTING SYSTEM (COFS)  
SYSTEM DESCRIPTION AND USER GUIDES

LECH LOBOCKI  
OCEAN MODELING BRANCH

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THIS IS AN UNREVIEWED MANUSCRIPT, PRIMARILY INTENDED FOR INFORMAL  
EXCHANGE OF INFORMATION AMONG THE NCEP STAFF MEMBERS

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\*OMB CONTRIBUTION NO. 127

## OPC CONTRIBUTIONS

- No. 1. Burroughs, L. D., 1987: Development of Forecast Guidance for Santa Ana Conditions. National Weather Digest, Vol. 12 No. 1, 7pp.
- No. 2. Richardson, W. S., D. J. Schwab, Y. Y. Chao, and D. M. Wright, 1986: Lake Erie Wave Height Forecasts Generated by Empirical and Dynamical Methods -- Comparison and Verification. Technical Note, 23pp.
- No. 3. Auer, S. J., 1986: Determination of Errors in LFM Forecasts Surface Lows Over the Northwest Atlantic Ocean. Technical Note/NMC Office Note No. 313, 17pp.
- No. 4. Rao, D. B., S. D. Steenrod, and B. V. Sanchez, 1987: A Method of Calculating the Total Flow from A Given Sea Surface Topography. NASA Technical Memorandum 87799, 19pp.
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- No. 8. Yu, T. W., 1987: A Technique of Deducing Wind Direction from Satellite Measurements of Wind Speed. Monthly Weather Review, 115, 1929-1939.
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Coastal Ocean Forecasting System  
(COFS)

*Design and Operation of the Model  
Execution Suite*

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## *Abstract*

This note consists of five documents, assembled to provide comprehensive documentation for the Coastal Ocean Forecasting System (COFS), running at the National Centers for Environmental Prediction:

The *COFS Design and Operation of the Model Execution Suite*, by L. Loboeki, documents the data management and model execution system that provides the model with continuous atmospheric forcing.

The *COFS input archive*, by L. Loboeki, describes the structure and operation of the input archive, which contains selected forecast fields obtained with the atmospheric forecast model.

*A Description of a Three-Dimensional Coastal Ocean Circulation Model*, by A.F. Blumberg and G.L. Mellor, presents the foundations of the model.

The *User's Guide for a Three-Dimensional, Primitive Equation, Numerical Ocean Model*, by G.L. Mellor, contains a model description along with documentation of major code modules.

*A User's Manual for the Princeton Numerical Ocean Model* by W.P. O'Connor contains a detailed documentation of the model code.