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NATIONAL WEATHER SERVICE
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TECHNICAL NOTE¹

OCEAN MODELING BRANCH AND THE WEB

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Among NCEP Staff Member

¹OMB CONTRIBUTION No. 187

List of Abstracts, Reports, Articles, etc. by members of the Branch. The numbers are referred to as OPC Contribution Numbers from Number 1 to 110 and as OMB Contribution Numbers from Number 111 and greater.

- No. 1. Burroughs, L. D., 1987: Development of Forecast Guidance for Santa Ana Conditions. National Weather Digest, 12, 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.
- No. 5. Feit, D. M., 1986: Compendium of Marine Meteorological and Oceanographic Products of the Ocean Products Center. NOAA Technical Memorandum NWS/NMC No.68, 93pp.
- No. 6. Auer, S. J., 1986: A Comparison of the LFM, Spectral, and ECMWF Numerical Model Forecasts of Deepening Oceanic Cyclones During One Cool Season. Technical Note/NMC Office Note No. 312, 20pp.
- No. 7. Burroughs, L. D., 1987: Development of Open Fog Forecasting Regions. Technical Note/NMC Office Note, No. 323, 36pp.
- No. 8. Yu, T. W., 1987: A Technique of Deducing Wind Direction from Satellite Measurements of Wind Speed. Monthly Weather Review, 115, 1929-1939.
- No. 9. Auer, S. J., 1987: Five-Year Climatological Survey of the Gulf Stream System and Its Associated Rings. Jour. Geophys. Res., 92, 11, 709-726.
- No. 10. Chao, Y. Y., 1987: Forecasting Wave Conditions Affected by Currents and Bottom Topography. Technical Note, 11pp.
- No. 11. Esteva, D. C., 1987: The Editing and Averaging of Altimeter Wave and Wind Data. Technical Note, 4pp.
- No. 12. Feit, D. M., 1987: Forecasting Superstructure Icing for Alaskan Waters. National Weather Digest, 12, 5-10.
- No. 13. Sanchez, B. V., D. B. Rao, and S. D. Steenrod, 1987: Tidal Estimation in the Atlantic and Indian Oceans. Marine Geodesy, 10, 309-350.
- No. 14. Gemmill, W. H., T. W. Yu, and D. M. Feit 1988: Performance of Techniques Used to Derive Ocean Surface Winds. Technical Note/NMC Office Note No. 330, 34pp.
- No. 15. Gemmill, W. H., T. W. Yu, and D. M. Feit 1987: Performance Statistics of Techniques Used to Determine Ocean Surface Winds. *Conference Preprint, Proc. AES/CMOS 2nd Workshop on Operational Meteorology*, Halifax, Nova Scotia, 234-243.
- No. 16. Yu, T. W., 1988: A Method for Determining Equivalent Depths of the Atmospheric Boundary Layer Over the Oceans. Jour. Geophys. Res., 93, 3655-3661.
- No. 17. Yu, T. W., 1987: Analysis of the Atmospheric Mixed Layer Heights Over the Oceans. *Conference Preprint, Proc. AES/CMOS 2nd Workshop on Operational Meteorology*, Halifax, Nova Scotia, 2, 425-432.
- No. 18. Feit, D. M., 1987: An Operational Forecast System for Superstructure Icing. *Proc. Fourth Conference Meteorology and Oceanography of the Coastal Zone*, 4pp.
- No. 19. Esteva, D. C., 1988: Evaluation of Preliminary Experiments Assimilating Seasat Significant Wave Height into a Spectral Wave Model. Jour. Geophys. Res., 93, 14,099-14,105.
- No. 20. Chao, Y. Y., 1988: Evaluation of Wave Forecast for the Gulf of Mexico. *Proc. Fourth Conference on Meteorology and Oceanography of the Coastal Zone*, 42-49.

Abstract

The Ocean Modeling Branch (OMB) of the Environmental Modeling Center has been on the World Wide Web since October 1995. All Branch operational products are now available on the web site. Since its inception, OMB usage has expanded and the web site has many more users who are making serious use of products available on the WWW and by ftp. This note discusses the history, present status, and future plans for the OMB web site.

1 Introduction

OMB now has four years experience on the web. In that time, we have gone from having a few products available and a few visits per day, to having all operational products and most experimental products available, and receiving thousands of visits per day. Within the NWS, and OMB, the web and ftp distribution of information has shifted from a relatively low to a high priority.

OMB experience has shown that the web is an effective way of providing early prototypes of products to NWS field offices in time for there to be feedback from the field before final implementation. Making products available in this way has brought a large number of outside users to NWS products, who would never have known we were even producing marine products.

Because the web, and our use of it, is changing rapidly, any static document will become dated. Nonetheless, it is useful, to have a snapshot of what our status is at a given time, in a format which can be used away from the web itself. This will be the first of a periodically-updated series each of which will describe the OMB's evolving use of the web. It will also contain annual summaries of our web and ftp usage statistics.

The following sections are: Policy considerations, OMB standards and practices, statistics for fiscal years 1998 and 1999, thoughts towards the future, and conclusions.

2 Policy Considerations

The main policy considerations from NWS headquarters are to:

- 1) Provide access, and restricted access, commensurate with international agreements on data distribution.
- 2) Provide equal access to all commercial entities.
- 3) Clearly inform regarding the priority of web services within the NWS.

Point 1 is addressed in a memo dated 31 May 1996. In brief, it means that we cannot redistribute data from foreign sources that we obtained under a restricted access ourselves. We may, however, display data that we have significantly reprocessed.

Point 2 is a continuing concern of commercial weather services. There are also concerns regarding NWS web pages competing with commercial entities. The OMB, for example, is referred to in the Commercial Weather Services Association legislative agenda: http://weather-industry.org/legislative/Legislative_Agenda.html NWS decision is that model output and graphics may be made available (indeed, should be made available), but it must be generic

output, generic graphics, and cannot be a model or graphic which is tailored to a specific industry or corporation. Letting users produce customized figures, such as the sea ice page, where users may select areas to magnify, with a general tool is acceptable.

On the third item, a Jack Kelly memorandum dated 4 January 1999, requires that NWS servers link to a NWS disclaimer. OMB's web server falls under the 'non-operational' category, so the appropriate disclaimer is <http://www.nws.noaa.gov/disclaimer1.html>. This requirement applies only to the server itself, i.e., the main page on the server. The OMB standard is to link main pages for each product set to the disclaimer as well.

It is NWS policy that Internet information distribution is subject to the same supervisory and organization approval mechanisms and procedures as distribution by other methods. Because of this, approval for additions to web pages should be obtained through webmaster Robert Grumbine (designated reviewer for Internet products by Branch Chief D. B. Rao), the Branch Chief, or as part of the standard approval process for other documents such as TPB's, tech notes, etc.

Regarding what can be made available on the net, NWS regulations state:

" a. No special products should be developed solely for the Internet. Products acceptable for display on the Internet include:

- NWS products that can now or will in the future (see item b. below) be obtained from operational NWS dissemination services (e.g., FOS, NWWS, NOAAPORT, etc.)
- Representations of individual NWS products to which no value has been added. Embellishments such as the use of color, animation, or multiple image display, which are made possible through Internet technology, are not considered adding value to base products.

b. In general, products labeled "experimental", "non-operational" or "prototype" may be displayed on, or accessed via, the Internet if permission is granted at the Office Director, Region Director, or Center Director level with notification to the Industrial Meteorology Staff (W/IM)

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Products that we call 'experimental' are actually under part 'a'. Part b is what we're calling 'developmental' and not making generally available. Our use of 'developmental' is what is typically considered 'Intranet' rather than Internet.

3 Practice: OMB web page standards and tools

For the most part, this section will describe standards we have implemented. Please verify that your pages comply with the standards. A later subsection will note what tools we have available for constructing web pages and carrying out the required practices.

3.1 Standards and Practices

OMB web standards and practices are more restrictive than the NWS limits. Where headquarters has made a requirement, it will be noted as the source. Otherwise, the restriction is a requirement OMB has agreed to ourselves and is subject to reconsideration. There are four categories of items listed: "required", "recommended", "deprecated", and "forbidden". Practices not listed can be considered optional – do them if you like, and we'll decide if this