



Christopher Burr, Hugh Cobb, Robert Berg, Mark Willis and Martin Nelson
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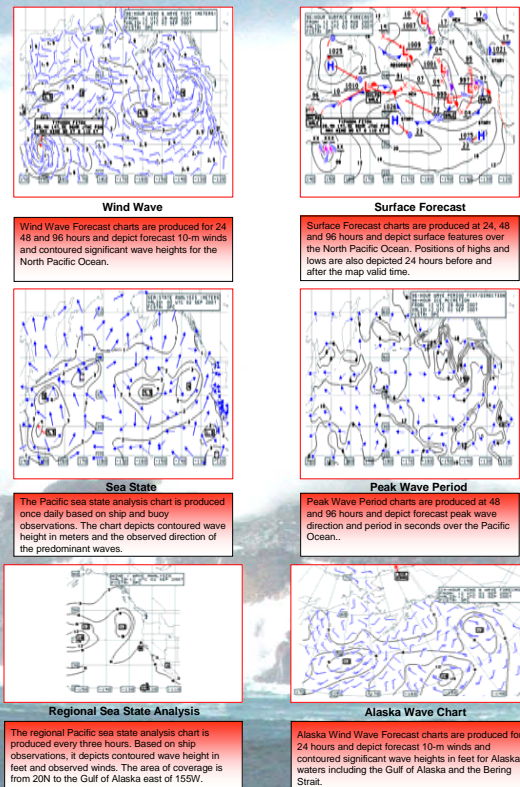
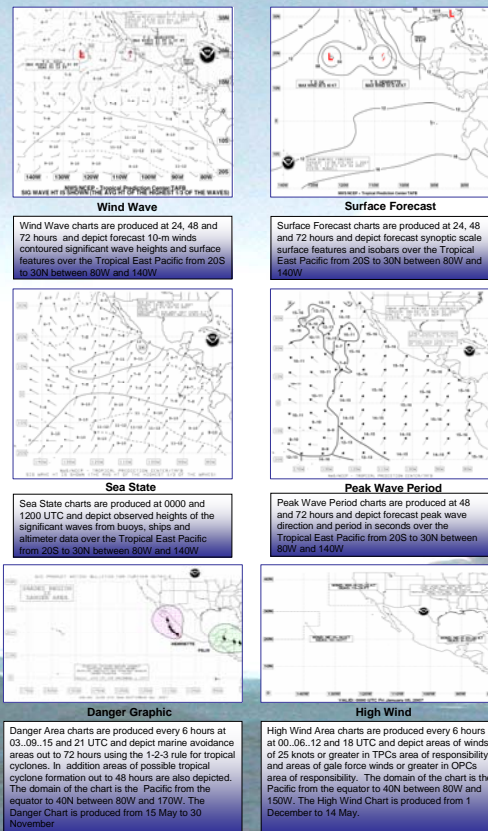
David Feit, David Mills and Scott Prosis
NOAA/NWS/Ocean Prediction Center

Nearly Forty (40) operational marine forecasters working at the National Weather Service's Ocean Prediction Center and the National Hurricane Center issue approximately 250 graphical and text marine products per day. The combined area of responsibility covers nearly all of the open oceanic waters of the Atlantic (including the Gulf of Mexico and Caribbean) north of the equator and a vast area over the Pacific. These products include

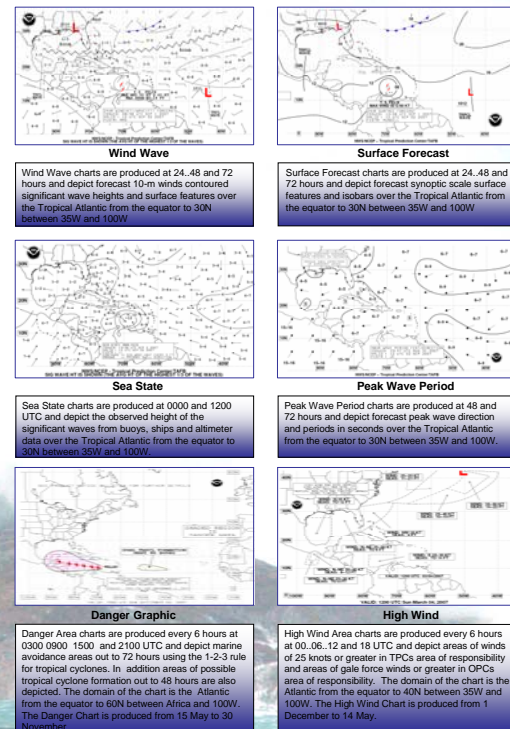
- **Text Forecasts**
 - High Seas
 - Offshore Waters
- **Graphical Products**
 - Surface Analysis
 - Surface Forecast
 - Sea State Analysis
 - Wind/Wave Forecasts
 - Peak Wave Period
 - Tropical Cyclone Danger Avoidance Area

The customers are diverse and include the US Coast Guard, commercial fishing, cruise ships, recreational boaters, and trans-oceanic vessels. This poster highlights some of the products the two centers issue, the enhanced synergy at both centers, tools and techniques used by the forecasters and plans for future products and services including high resolution gridded marine forecasts.

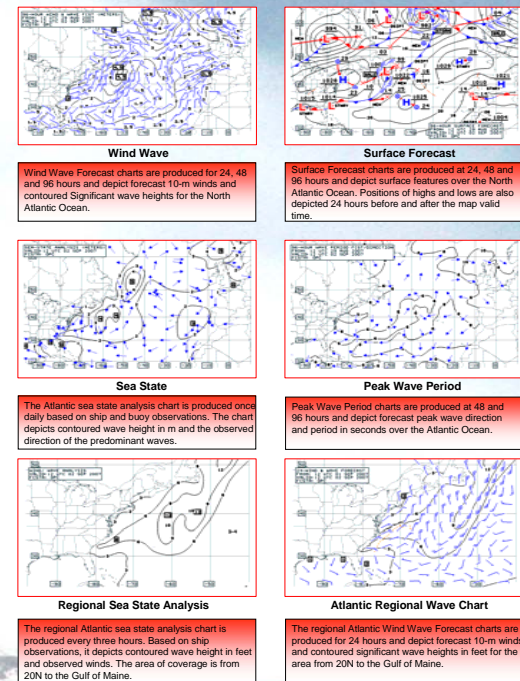
OPC Pacific Marine Graphics



TAFB Atlantic Marine Graphics

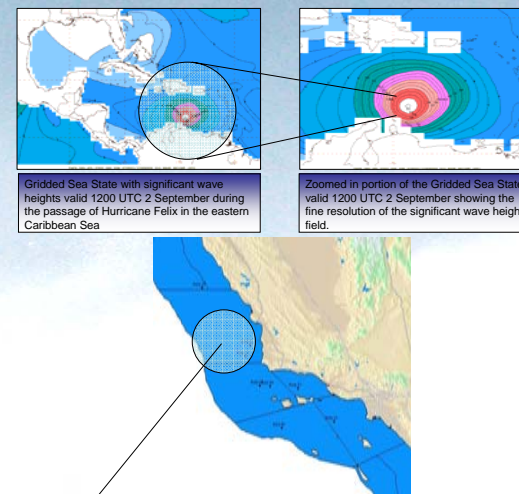


OPC Atlantic Marine Graphics



Future Marine Products

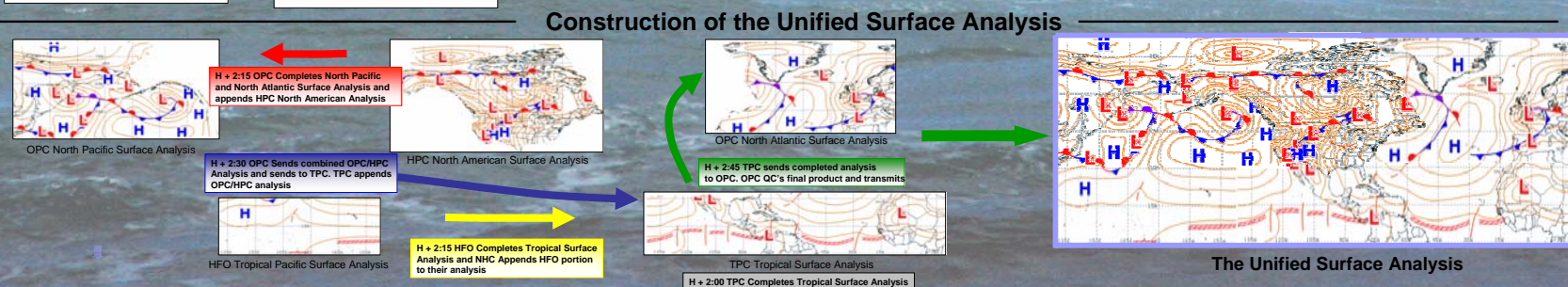
OPC and TPC are entering the era of gridded marine forecasting. Many of our marine customers are equipped with software packages to download gridded binary data (GRIB and GRIB 2) to display various marine weather parameters. Since June 2006, the OPC and TPC have been creating gridded significant wave height fields at the 00-, 24 and 48-hour time periods as a first step toward creating other gridded marine weather products needed by our customers. These are value added products which are an improvement over receiving packaged model forecast data. Future marine grids are likely to include 10-m winds, primary and secondary swell groups, visibility, obstructions to visibility, and tropical cyclone wind fields. Text forecasters could then be utilized to pull data from gridded fields and generate text, point and route forecasts for vessels at sea out to 7 days.



Forecast prepared by WFO LDC																															
34.871N -120.671W GFT																															
6000 PM PT Wed Oct 13 2007																															
DATE		Wed 10/23/07					Thurs 10/24/07					Fri 10/25/07																			
UTL 3MRLY		10	13	16	18	22	01	04	07	10	13	16	18	22	01	04	07	10	13	16	18	22	01	04	07	10	13	16	18	22	01
PTL 3MRLY		10	13	16	18	22	01	04	07	10	13	16	18	22	01	04	07	10	13	16	18	22	01	04	07	10	13	16	18	22	01
WIND DIR		NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW		
WIND SPD		8	8	8	15	15	21	21	23	23	17	17	19	19	19	25	25	18	18	18	18	21	21	21	21	21	21	21	21		
WIND GUST		8	8	8	15	15	27	30	30	30	22	22	25	25	35	33	33	23	23	23	23	27	27	27	27	27	27	27	27		
WIND CHL		CL	CL	CL	CL	CL	CL	CL	CL	CL	OV	OV	OV	SC	SC	SC	SC	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL		
WIND PRB		5	5	5	5	5	5	5	5	5	100	100	100	100	100	100	100	43	43	43	43	10	10	10	10	10	10	10	10		
QPF 12HR																															
SWELL HGT					0.0	0.0				8	9	9	9				9	9	9	9					10	10	10	10	10		
SWELL PERIOD					12	12				12	12	12	12				12	12	12	12					12	12	12	12	12		
SWELL DIR					12	12				12	12	12	12				12	12	12	12					12	12	12	12	12		
SWELL PERIOD					4	4				4	4	4	4				4	4	4	4					3	3	3	3	3		
SWELL DIR					4	4				4	4	4	4				4	4	4	4					3	3	3	3	3		

The Unified Surface Analysis

The unified surface analysis (USA) is a collaborative effort by the Hydrometeorological Prediction Center (HPC), the Ocean Prediction Center (OPC), the Tropical Prediction Center (TPC) and the Weather Forecast Office (WFO) in Honolulu. The USA was implemented in 2001 (with the Honolulu WFO joining in 2003) to minimize redundancy in surface analyses. Each center of expertise is tasked to analyze synoptic scale features in their area of interest. The pieces of the analysis puzzle are then stitched together through a series of vector graphic format file exchanges (VGF) described to the right.



The Unified Surface Analysis

Acknowledgements

The authors would like to thank Steve Businger, University of Hawaii for the use of the background photo.