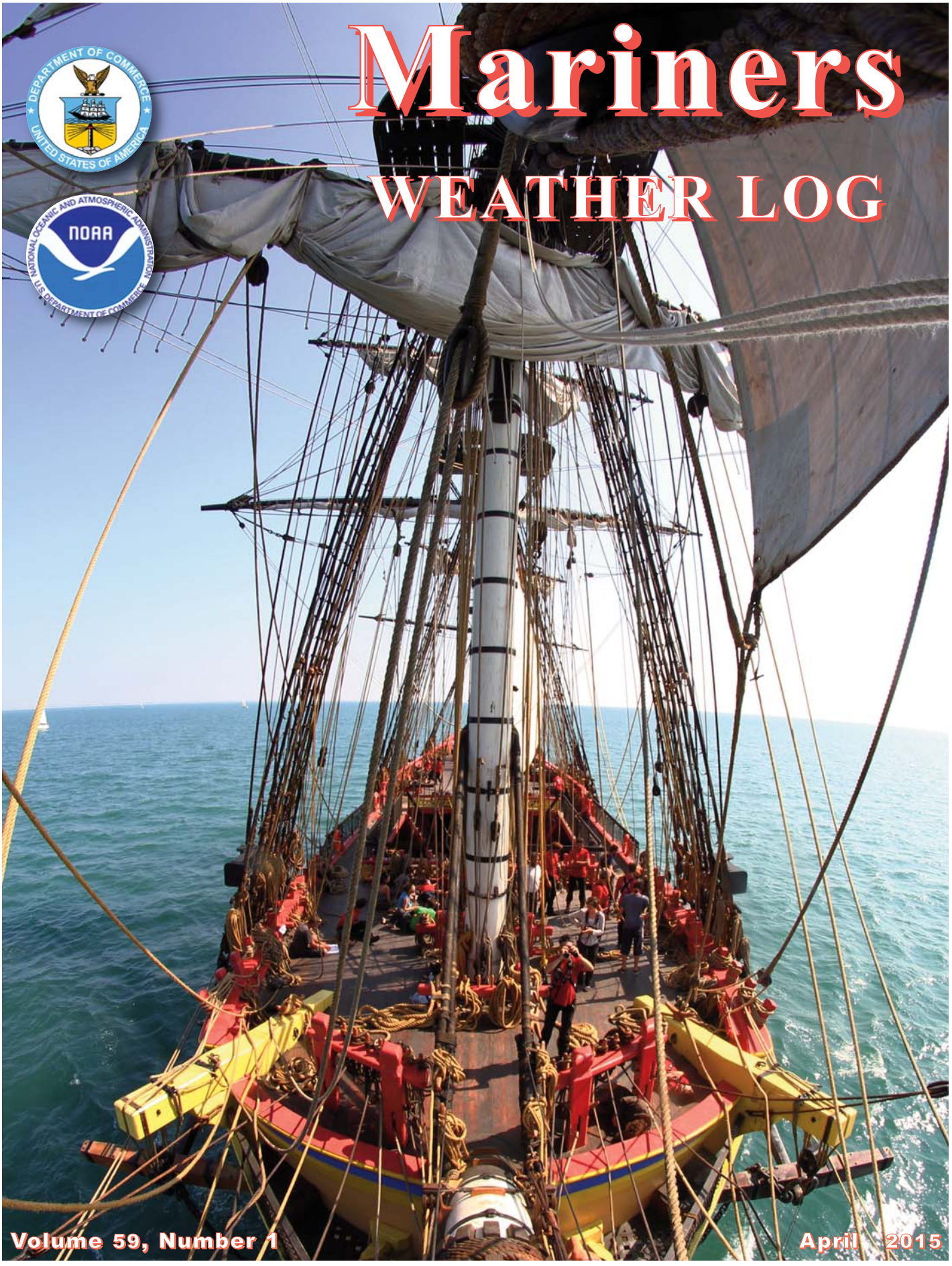

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SOME IMPORTANT WEB PAGE ADDRESSES

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http://www.noaa.gov

National Weather Service
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National Data Buoy Center
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AMVER Program
http://www.amver.com

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http://www.vos.noaa.gov

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http://www.nws.noaa.gov/om/marine/home.htm

TURBOWIN e-logbook software
http://www.knmi.nl/turbowin

U.S. Coast Guard Navigation Center
http://www.navcen.uscg.gov/marcomms/

See these Web pages for further links.

From the Editor

What a great issue this is! Along with our regular contributors, we have a couple of articles that I know you will really enjoy. One is from our PMO located in Miami Florida, David Dellinger. David submitted an article on a strange phenomenon "fall streak holes". I myself have never seen this particular type phenomenon nor did I know it existed. Rarely does it occur so far south in the Miami area, so as you can imagine, Dave and emergency managers received quite a few phone calls. Recently, (within the past couple of weeks) I was invited to a local art show by a friend. In this art show were such creations as water color, sculpture and fine photography. Well there it was, among ravens and landscapes, a photograph of a "fall streak". As luck would have it, because of my new found knowledge I was able to discuss the photograph because of the article, thanks Dave!

Another article I know you will thoroughly enjoy; Lafayette's **Hermione** (her-my-oh-Knee) Voyage 2015. The article will not only give you a history lesson, it describes the concept and effort of reconstructing an exact replica of General Lafayette 18th century ship called the **Hermione**. This month, April, the French frigate will set sail for the USA; a 3,819 mile voyage across the Atlantic to replicate the route of the original voyage. The transatlantic crossing is expected to take 27 days in total before making landfall at Yorktown, Virginia. This article will be the first of three about the voyage. Readers will be encouraged to become a "virtual participant" by using innovative online formats and other media; Twitter, Facebook, blogging, email, Instagram (there's an APP!), and video….you name it, it is available. This adventure is a huge outreach and educational endeavor for all ages. During the voyage, environmental data collection will be part of the curriculum. Considering the history and objectives of the voyage, the meaning of the **Hermione's** name is very appropriate; "messenger, earthly". ***Vive la France!***

As always, I would like to take this time to thank all of our contributors and to encourage submissions; articles or photographs. The Mariners Weather Log is an international magazine for our Voluntary Observing Ship participants, Ship Observations Team and mariners around the world. We try to incorporate information on new technology, changes in standard practices, climatological analysis and most of all, interesting articles and great photographs. We recognize your dedication in our constant quest for quality environmental data collection, thank you all so much for your participation. Only YOU know the weather, Got Weather? Report It!

Cheers!

Paula

On the Cover: HERMIONE Photo: Courtesy of Association Hermione-LaFayette

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Lafayette's HERMIONE VOYAGE 2015

Paula Rychtar – MWL Editorial Supervisor

It is with great enthusiasm that I write this article for the Mariners Weather Log and share this extraordinary opportunity, inviting our readers, to be a part of history. It is not very often that such a historical event can be recreated in such a way that it will forever touch so many lives and offer unequaled opportunity for engagement and hands on participation. I am referring to a handcrafted replica of the **HERMIONE**, the 18th century frigate that brought the young Marquis de Lafayette with French troops back to General Washington. The **HERMIONE** Voyage 2015 will replicate the route of a historic voyage that in 1780 changed the course in our quest for independence and re-affirming the historic relationship between the United States and France.

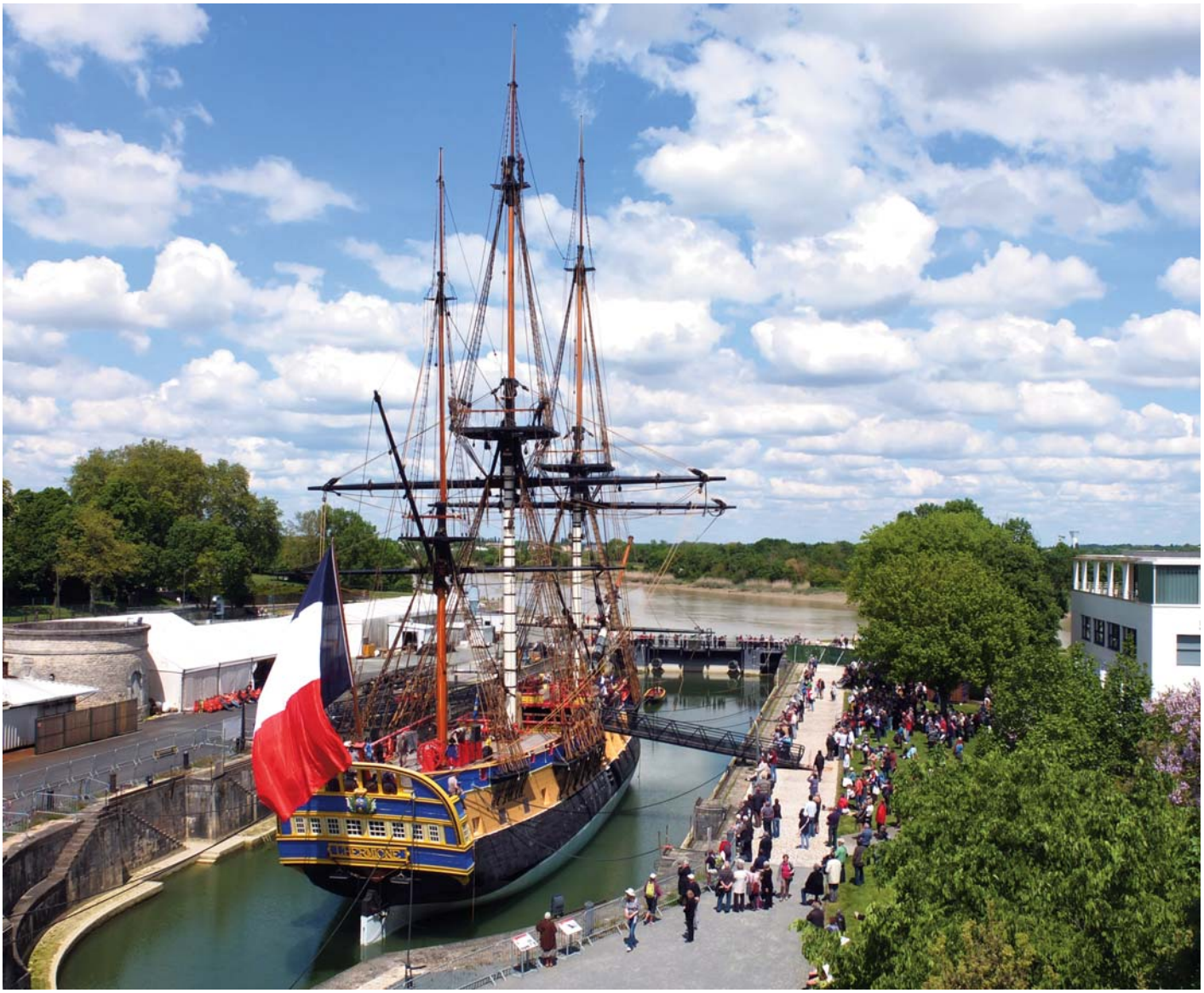


Photo: Courtesy of Association Hermione-La Fayette

Twenty years ago a small group of visionaries met, under the leadership of Rochefort's then Mayor Jean-Louis Frot, and imagined reconstructing an exact replica of the **Hermione**, the French frigate that returned Lafayette to General Washington, pledging full French support for America's cause. With a unanimous vote of the municipal council and the creation of the Association Hermione-La Fayette, work began…The conception of this undertaking for those without vision was seemingly insurmountable; but today shows proof that the words and guiding spirit of Lafayette still ring true, nothing is ever impossible; "Cur non? " (Why not?)

Photo: Courtesy of Association Hermione-La Fayette

Not only does the project reaffirm a deep and long friendship between the United States and France, it also acknowledges the continued commitment that our two countries have with one another. Our First President of the United States of America, President George Washington, gave these words, *"The alliance and friendship between the two countries will be established in such a way as will last forever."*

The **HERMIONE** voyage will offer a full program of educational initiatives. One of the initiatives is to provide a vehicle for the students, crew, historians and scientists to be fully engaged in the environmental data collection processes; meteorology, oceanography and climatology. In fact, one of the core lesson plans for participants is obtaining a predefined level of knowledge in these areas in order to be awarded a *"Weather Badge"*. In early January, I was initially contacted by Catherine Marzin, an ecologist from NOAA's Office of National Marine Sanctuaries. Catherine was given my name by one of my colleagues, Scott Woodruff (NOAA/OAR), who is familiar with the U.S. Voluntary Observing Ship Program (VOS) that I co-manage alongside with Steven Pritchett. Catherine explained that there was an initiative towards placing instrumentation on the **HERMIONE** so that during their voyage, the students and scientists would be able to collect environmental data; meteorology and oceanography. This hands on "whole concept" methodology of learning will demonstrate how environmental data and the ability to analyze the data is essential to the successful planning and sailing of the vessel as well as safety at sea.

Photos: Courtesy of Association Hermione-La Fayette

The students will learn how the collection of water temperature and salinity is instrumental in our working knowledge and continued analysis on the health and well being of our planet. Students will also be releasing drifting buoys to study ocean currents. Instruction will be offered on how and why there is a need to provide proper marine weather observations, placing the data into a software program called TurboWin (Royal Netherlands Meteorological Institute, KMI) and then transmit this data real-time into the Global Telecommunications System (GTS) for ingesting into forecast models; transforming raw data into useable forecasts and analysis. Students will be comparing the modern day procedures of data gathering with the historical methods used and documented in the logbooks of the original **HERMIONE** voyage. Meteorological history will most certainly be discussed and evaluated. Coming in the midst of the American Revolutionary War, the hurricanes of 1780 caused heavy losses to European fleets fighting for control of the New World's Atlantic coast. A fleet of 40 French ships capsized off Martinique during the Great Hurricane, drowning approximately 4,000 soldiers. On St. Lucia, rough waves and a strong storm surge destroyed the British Fleet of Admiral Rodney at Port Castries. Much of the British fleet was decimated by the three storms, and the English presence in the western North Atlantic was greatly reduced thereafter.[1]

NOAA's National Weather Service's VOS program is an international program comprising member countries of the World Meteorological Organization (WMO) that recruit ships to take, record and transmit weather observations while at sea. The VOS Program is a core observing program within the Ship Observations Team (SOT) in the Observations Program Area of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) and Météo France is part of this international organization. I contacted my colleagues at Météo France, Jean-Baptiste Cohuet (VOS Focal Point for Météo France) and Pierre Blouch (E-SURFMAR Operational Service Manager, Météo France) to establish a direct contact between Météo France and Marc Jensen, Director of Maritime Operations, Friends of Hermione-Lafayette in America to build a bridge for successful project planning.

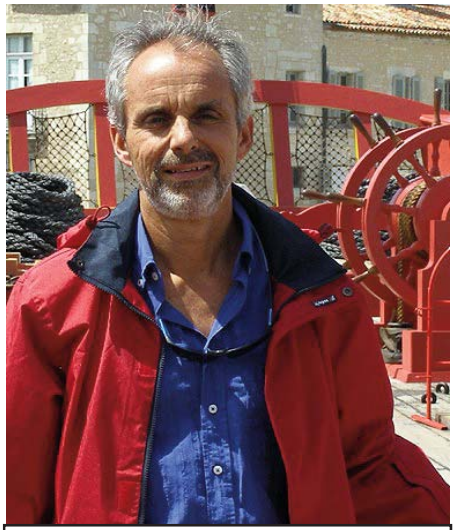


Photo: Courtesy of Mark Jensen

You can Blog Marc and be a part of this project! You are invited aboard the **HERMIONE**: Marc Jensen's Log Notes, here you can read his posts and share in this event. You will be able to not only ask questions, but you will get continuous updates on all things **HERMIONE!**

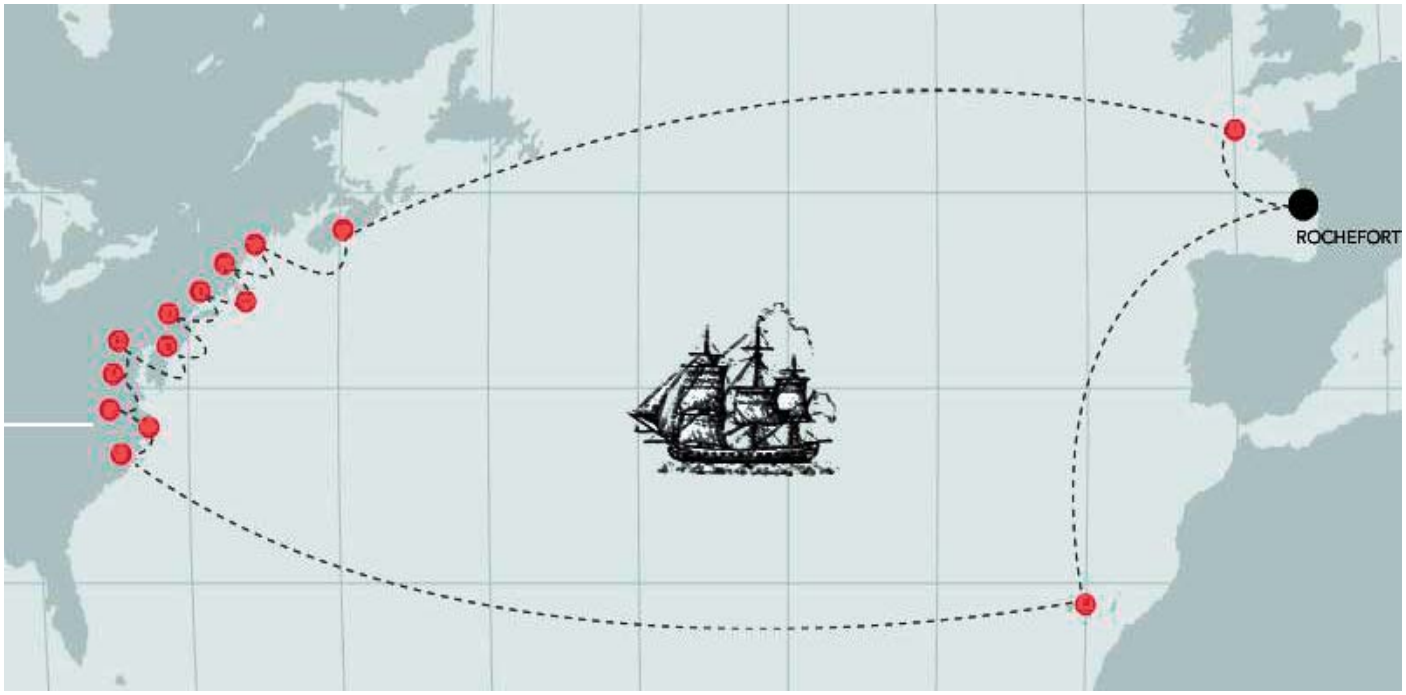
http://hermione2015.com/blog/aboard-hermione-marc-jensens-log-notes/

With the coordinated efforts between Météo France and Marc, Jean-Baptiste and Pierre Blouch were able to fully support this project. Marc Jensen is planning 4 webinars during the crossing from France to the United States. One of which is a webinar on *Environment and Climate*. The webinar for Environment and Climate will take place during the **L'HERMIONE** crossing from Rochefort, France to Yorktown, VA. The crew will be releasing 5 of the 10 drifters (data buoys) that are being provided by JCOMM (Joint Commission for Oceanography and Marine Meteorology) thanks to the request made by Pierre Blouch [The other 5 will be released during the return trip]. The drifters will be managed in coordination with DBCP (Data Buoy Cooperation Panel). Jean-Baptiste gladly supported this project and equips **L'HERMIONE** with the necessary software and meteorological measuring devices to allow this program to take place.

[1]"The Great Hurricane of 1780" In: Library of Natural Disasters-Hurricanes, Typhoons, and other Tropical Cyclones. 2008. Editor in Chief, Paul A. Kobasa. World Book. Chicago. Pp 14-15.

In addition, along the route the crew will be taking water samples to measure levels of dissolved plastics in the ocean's surface waters and upload daily weather data; humidity, temperature, wind speed/direction, barometric pressure, etc…

The goal of the program is to engage students on both shores of the Atlantic to tune into the ship's voyage and learn about maritime meteorology, the condition of the health of our oceans, and how to be better stewards of this precious resource. To engage students 12-18 years of age, they will be invited to join a webinar that will be held on Earth Day, April 22nd; activities will be explained and the students will be afforded the opportunity to ask the experts, both aboard and ashore, about what can be expected to be learned from the data and the voyage.



Track the *HERMIONE* in REAL TIME! Go to: http://michael-blocher.squarespace.com/pics-videos/

Hermione Voyage 2015 Itinerary:
April 2015: Depart from Rochefort, France
April 2015: Las Palmas, Gran Canaries
5–7 June: Yorktown, VA
9 June: Mt. Vernon, VA
15–17 June: Annapolis, MD
19–21 June: Baltimore, MD
25–28 June: Philadelphia, PA
2–4 July: New York, NY
6–7 July: Greenport, NY
8–9 July: Newport, NJ
10–11 June: Alexandria, VA/Washington, DC
11–12 July: Boston, MA
14–15 July: Castine, ME
18 July: Lunenburg, Nova Scotia
August 2015: Brest, France
August 2015: Return to Rochefort, France

In April 2015, after all the sea trials and training that was done in 2014, the **HERMIONE** will set sail for the USA. The Journey will start from the mouth of the River Charente, in Port des Barques, where Lafayette boarded on March 10th, 1780. The transatlantic crossing is expected to take 27 days, before making landfall at Yorktown, Virginia.

As the **HERMIONE** moves up the Eastern seaboard, it will be accompanied by a range of pier side activities. These include (in some ports) a traveling exhibition and a heritage village that will be accessible to the public. **HERMIONE** Voyage 2015 is part of an expansive outreach program with cultural events, exhibitions and educational programs that celebrate the trip and mark its progress. A robust digital activation for the voyage expands the reach of the project to millions of people. To get the APP, go to:

https://instagram.com/hermionevoyage/

The dedication to this project is not only to the members of the Association Hermione - Lafayette, INC. but it extends to the many volunteers who have worked so hard training and learning how to sail a tall ship. The all voluntary 72 member crew (one-third women) whose average age is 27, and most of who gave up their "real life" to become steeped in the history of the vessel that changed the course of America's war of independence. The crew has been training under the Captain Yann Cariou, a 30-year veteran of the French Navy and his second in command, Charlene Giquel, 29, a former Navy Lieutenant over the past year. Training consists of old world sailing practices, one of which includes climbing the rigging to maneuver the yards and sails by hand. Marc Jensen, remarks "One quickly takes on the rhythm of ship-life, working 4 hours, on call for the next 4 and then resting for 4 before starting again. The work is hard and often draining, but the friendships developing will last a lifetime. The 21 sailors who are on watch at any given time learn to trust one another and watch out for each other in a remarkably deep way. They are your family." There are so many facets to this story that one article for the **HERMIONE** just won't be possible. I could write an entire article on just the construction of this tall ship. Many challenges that were faced in the ambition to reconstruct the original frigate more than 200 ft long, carrying three masts and a sail surface of 16,000 square ft, with a hull entirely make of oak…all this as authentically as possible, while having to take into account modern statutory constraints concerning seaworthiness. For a time lapse of the entire effort, you can go to these links below:

Photo: Courtesy of Association Hermione-La Fayette- Crew of the HERMIONE

http://www.hermione2015.com/history.html#images

https://www.youtube.com/watch?v=QoOd1w0NjWI

https://www.youtube.com/watch?v=a5jmS9LgJIA

I want to thank Deborah Berger, Coordinator and PR Consultant for the Friends of Hermione-Lafayette in America. She and a host of people under her charge gave me permission to use their photographs and press releases, and the information contained in them in the efforts of producing this and future articles. There will be future articles! We will follow their journey and provide you with more photographs while the **HERMIONE** is at sea and visiting their port of calls. The continued energy towards outreach and education will be cataloged and I look forward to their submissions for the next issue of the Mariners Weather Log in August.

For more information concerning **HERMIONE'S** upcoming voyage and itinerary of ports of call, please visit: www.hermione2015.com

PMO Corner:
Fallstreaks Over Miami

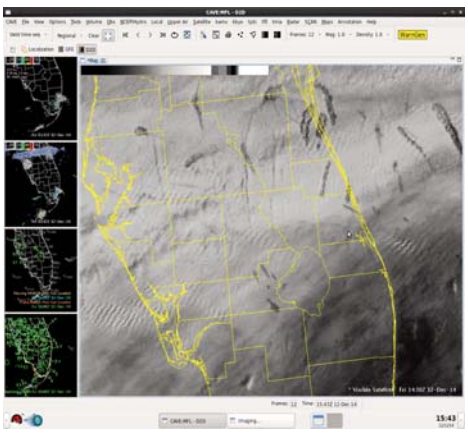
David Dellinger
Port Meteorological Officer - South Florida
NOAA/NWSFO, Miami Florida

On December 12th, 2014, Florida National Weather Service Forecast Offices, Television Meteorologists and local Law Enforcement Officials fielded calls and posts to social media sites from concerned citizens about strange and unusual cloud formations appearing from the Florida Keys to Central Florida. The cloud formations, called “Fallstreaks” started appearing in the morning and continued throughout the day.

Photo at right shows two “Fallstreaks” as seen from Port Everglades-Fort Lauderdale, FL. The image below is an enlargement from that photograph. Lower right as seen via satellite forming across Florida on December 12th, 2014

What is a Fallstreak?
La Crosse, WI. National Weather Service Forecast Office Web Site defines it as: a hole (also known as a “hole punch cloud") or a large circular or elliptical gap that can appear in cirrocumulus or altocumulus clouds.

How They Form: High to mid-level clouds, such as altocumulus, are often composed of tiny water droplets that are much colder than freezing, but have yet to freeze. These "supercooled" water droplets need a "reason" to freeze, which usually comes in the form of ice crystals. Aircraft passing through the cloud layer can carry these ice crystals. Once the ice crystals are introduced, the water droplets quickly freeze, grow and start to fall. A hole is left behind, which will start to expand outward as neighboring droplets start to freeze. Navigate to the La Crosse WFO’s web site link to see more pictures of Fallstreaks: http://www.crh.noaa.gov/arx/?n=fallstreaks.



The event in Florida is fairly rare as these environmental conditions are better suited for high latitude locations. The Fallstreaks over Florida were most certainly caused by aircraft descending through the cloud layer, on approach to local airports. The entire cloud formation continued to move eastward as the day progressed. Because of the rarity of the phenomena and the odd shapes these Punch Holes make when they form, they are often mistaken or attributed to unidentified flying objects or worse. However, rest assured; this is just another cool trick of nature.

Shipwreck: NISBET GRAMMER

By Skip Gillham

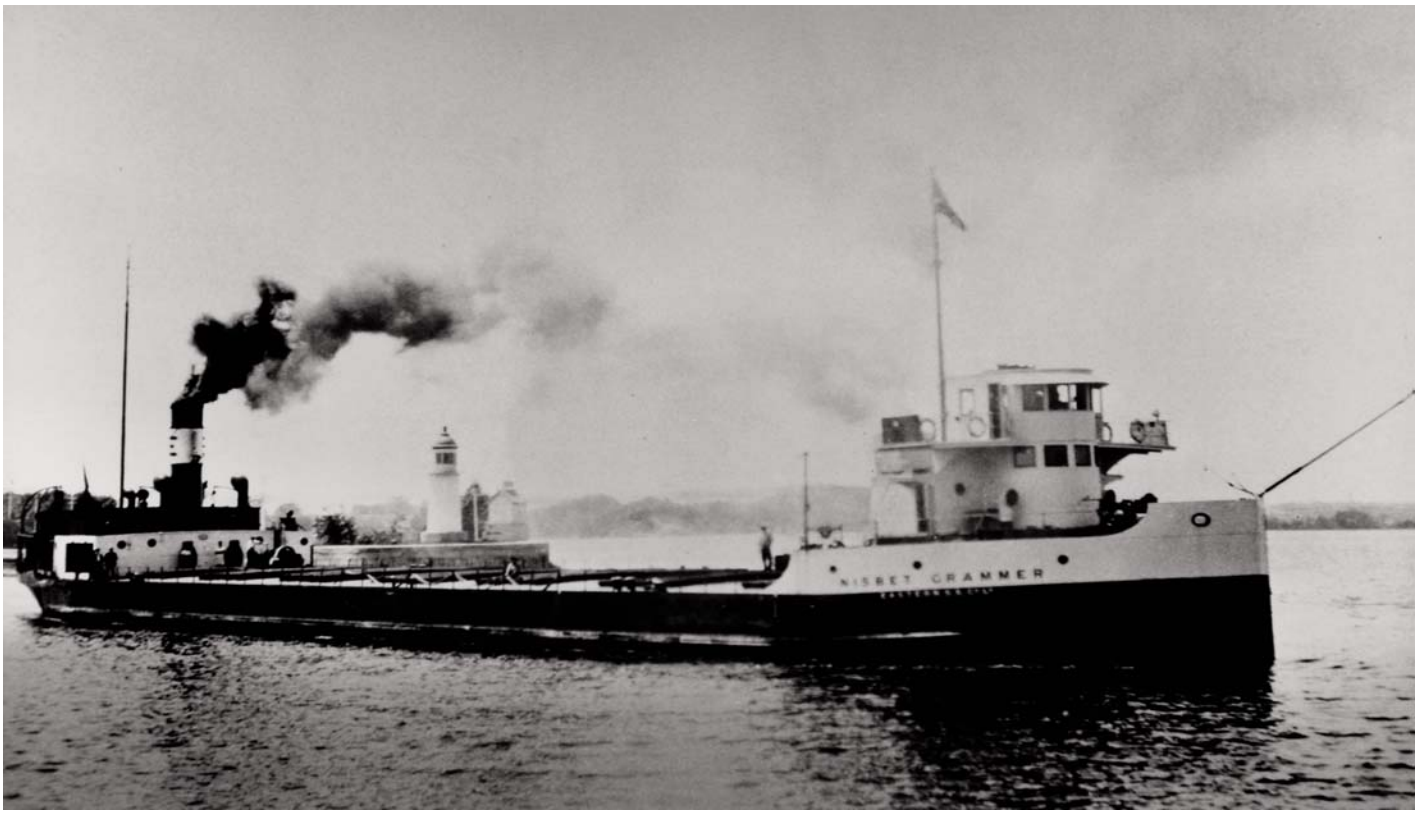


Photo: Nisbet Grammer – credit collection of Alfred Sagon-King

To this date, the bulk carrier **Nisbet Grammer** has been the largest steel ship to be lost in Lake Ontario. The 261 ft long freighter sank following a collision on May 31, 1926. The final location of the wreck was not known for 88 years. The remains were discovered last August using a grid search pattern and a sonar detector. The wreck hunters criss-crossed a general area when the outline of a freighter resting on the bottom was detected. A remote camera was sent to the location and confirmed that this was indeed the remains of the long sought **Nisbet Grammer**. The vessel was discovered between 7 and 8 miles off Somerset, NY and about 40 miles west of Rochester. It rests on the bottom in about 500 ft of water.

The three-year old **Nisbet Grammer** sank following a collision, in fog, with the Canadian steamer **Dalwarnic**. The former was on a voyage with grain from Port Colborne, ON, at the southern end of the Welland Canal, to Montreal, Quebec. **Dalwarnic** struck the soon to be doomed vessel at #6 hatch and it plunged to the bottom in fifteen minutes. Thankfully, all of the crew on board **Nisbet Grammer** were rescued.

The sunken ship had been built at Birkenhead, England, and launched on April 14, 1923. It was ordered by an American firm, the Eastern Steamship Co. and designed to carry grain, and occasionally coal, from the Great Lakes ports to the St. Lawrence. It crossed the Atlantic with a cargo of Welsh coal for Great Lakes delivery and then settled in on its planned route. The ship's size was determined by the size of the locks of the Third Welland Canal and those of the St. Lawrence canal system. Small ships such as **Nisbet Grammer** were numerous in that era and were employed to bring western grain to the St. Lawrence and hence access to larger ships and the markets of the world.

The Eastern Steamship Co. had built a number of similar ships for this work and more were added in 1926. But, with the economic impact of the Depression, many of their vessels were tied up at Port Dalhousie, ON for long periods of time.

Finally, in 1936, these ships were sold to the newly developed Upper Lakes & St. Lawrence Transportation Co. and entered service in their fleet. Most continued until the opening of the Seaway in 1959 so had it not been for the accident of 89 years ago this fall, the **Nisbet Grammer** might have had a much longer career.

Its Lake Ontario foe of many years ago was a Canadian owned steamer. It had been built at Port Arthur, ON, now part of Thunder Bay, in 1921, and first sailed as **Canadian Harvest**. It was sold and renamed **Dalwarnic** just prior to the May 31, 1926, accident and was later converted to a package freight carrier. **Dalwarnic** was requisitioned for saltwater service in 1940 and was used to carry supplies from St. Lawrence ports to Newfoundland as well as some coal along the east coast. It was resold in 1948 becoming the **Selcuk** and sailed first under the flag of Panama and finally as a Turkish vessel. Following a sale for scrap, the ship arrived at Istanbul, Turkey, on March 23, 1967, and was broken up.

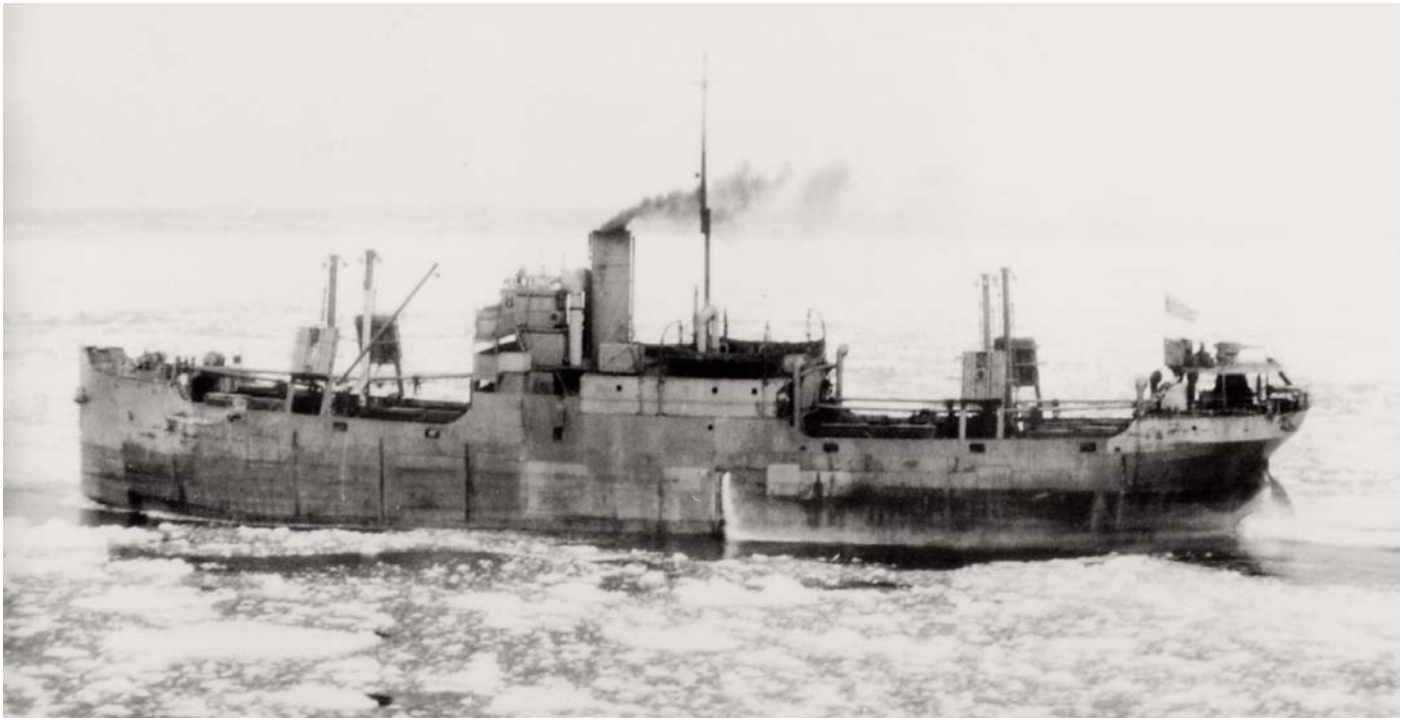


Photo: Dalwarnic – in wartime gray – Canadian Forces Photo

Relating Overwater Visibility to Air Pressure or Dew Point Depression: A Case Study during Hurricane Isaac in 2012

S. A. Hsu, Coastal Studies Institute, Louisiana State University
email: sahsu@lsu.edu

Abstract: Overwater visibility measurements during Hurricane Isaac show that the visibility decreases almost linearly from 10 miles at approximately 1016hPa to 0.25 miles around 990hPa. The visibility remains at 0.25 miles when the air pressure is below 990hPa. It is found that between 990 and 1016hPa, the visibility is linearly related to the air pressure or dew point depression. For operational applications, formulas are provided for estimating the visibility from air pressure or dew point depression measurements.

According to the *Glossary of Weather and Climate* (see Geer, 1996), the visibility is the greatest distance from an observer that a permanent object of known characteristics can be seen and identified by unaided, normal eyes. Most often refers to horizontal visibility. According to the User's Guide to the Automated Surface Observing System (ASOS) (see http://www.nws.noaa.gov/asos/pdfs/aum-toc.pdf), visibility remains one of the most difficult elements to automate. Sensors can successfully measure atmospheric elements relating to visibility, but it is very difficult to relate these elements to the characteristics of human vision. The physical limitations of human eye and human subjectivity are greatly impacted by precipitation, day and night vision adaptation, contrast, physical obstructions, and perspective. This situation is particularly true during storms at sea because of additional effects by winds, waves, and currents on a moving vessel. Since visibility is not measured commonly as compared to atmospheric pressure or dew point depression (i.e. the difference between the air temperature and the dew point), it is the purpose this brief note to relate overwater visibility to air pressure or dew point depression.

According to Robbie Berg at the National Hurricane Center (see http://www.nhc.noaa.gov/data/tcr/AL092012_Isaac.pdf), Hurricane Isaac in 2012 was a tropical cyclone that spent most of its life as a tropical storm but became a category 1 hurricane (on the Saffir-Simpson Hurricane Wind Scale) a few hours before making landfall in southeastern Louisiana. During Isaac measurements of visibility, air pressure, and dew point depression are available at an oil platform located at Main Pass 140B (KMIS or MIS, for location see: http://www.ndbc.noaa.gov/station_page.php?station=KMIS). The data are provided online at http://mesonet.agron.iastate.edu/sites/site.php?station=MIS&network=MS_ASOS.
The period used in this analysis is from 2055UTC on 26 thru 1715UTC on 28 in August 2012.

Our results are presented in **Figures 1** thru **Figure 4**. **Figure 1** shows that the visibility decreases almost linearly from 10 miles at approximately 1016hPa to 0.25 miles around 990hPa. Since the visibility remains at 0.25 miles when the air pressure is below 990hPa, the measurements higher than 990hPa is analyzed in **Figure 2**, which shows that:

Visibility in miles = 0.45*Air Pressure in hPa–447 (1)

With the coefficient of determination (R^2) = 0.91, meaning 91 per cent of the variation in visibility can be explain by Equation 1.

Visibility can also be estimated by the dew point depression as illustrated in **Figures 3** and **Figure 4**. From **Figure 3**, we have

Visibility in miles = 0.63* (T_{air} - T_{dew}) in degrees F - 1.15 (2)

With $R^2 = 0.76$, and

Visibility in miles = 1.13 * ($T_{air} - T_{dew}$) in degrees C - 1.15 (3)

With $R^2 = 0.76$. Note that T_{air} and T_{dew} are air and dew point temperatures, respectively.

On the basis of aforementioned analysis, it is concluded that:

(1) Overwater visibility decreases almost linearly from 10 miles at approximately 1016pHa to 0.25 miles around 990hPa;

(2) The visibility remains at 0.25 miles when the air pressure is below 990hPa;

(3) Between 990 and 1016hPa, the visibility is linearly related to the air pressure as shown in Equation 1 and to dew point depression in degrees Fahrenheit in Equation 2 and in Celsius in Equation 3, respectively.

References:

Geer, I. W., Editor, 1996, *Glossary of Weather and Climate*, American Meteorological Society, Boston, MA.

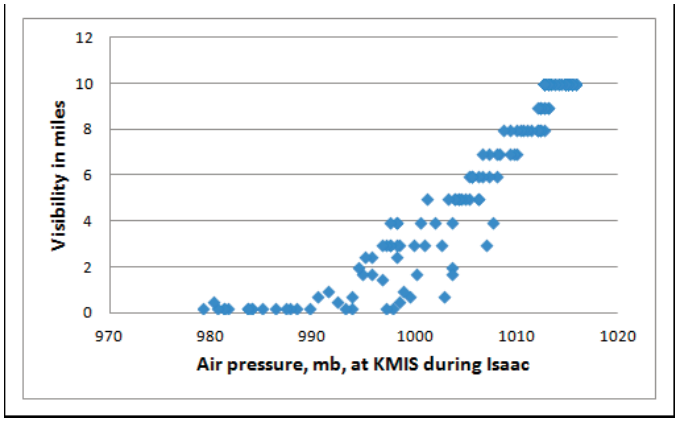


Figure1. Relationship between visibility and air pressure at KMIS during Isaac.

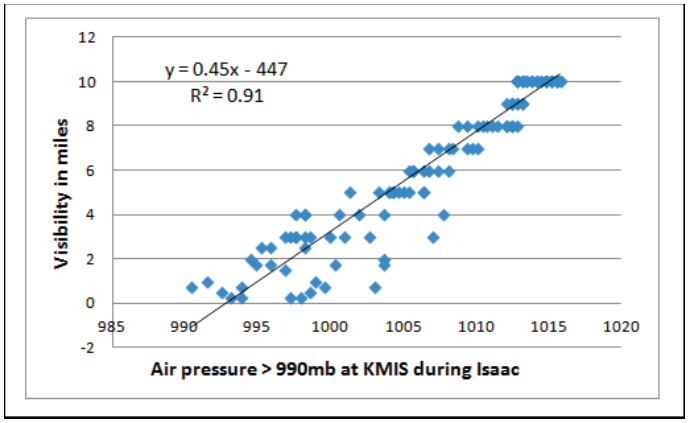


Figure 2. A linear relationship between visibility and air pressure at KMIS during Hurricane Isaac.

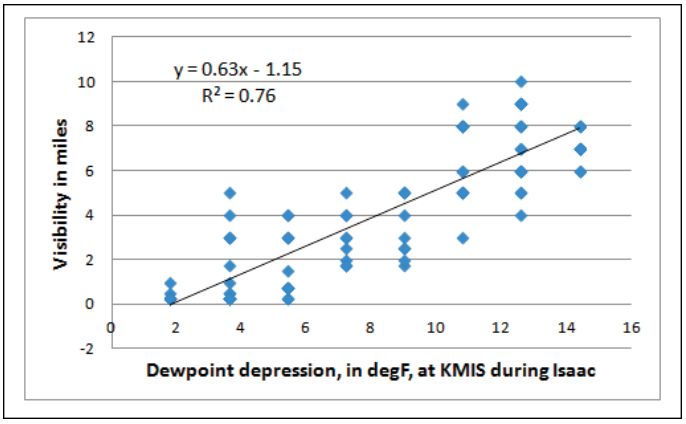


Figure 3. A linear relationship between visibility and dew point depression (in degrees Fahrenheit) at KMIS during Isaac.

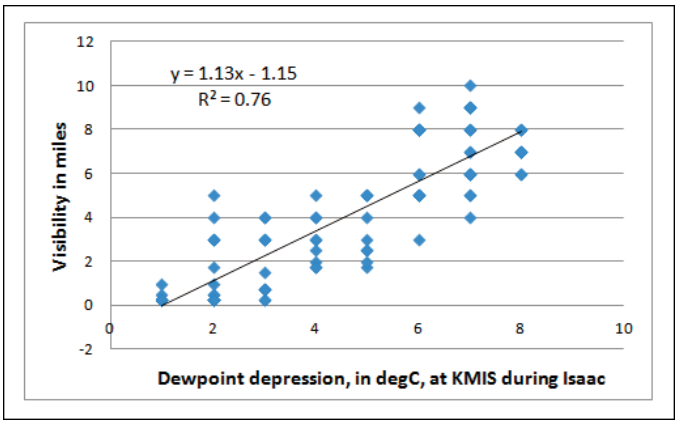


Figure 4. A linear relationship between visibility and dew point depression (in degrees Celsius) at KMIS during Isaac.

Mean Circulation Highlights and Climate Anomalies

September through December 2014

Anthony Artusa, Meteorologist, Operations Branch,
Climate Prediction Center NCEP/NWS/NOAA

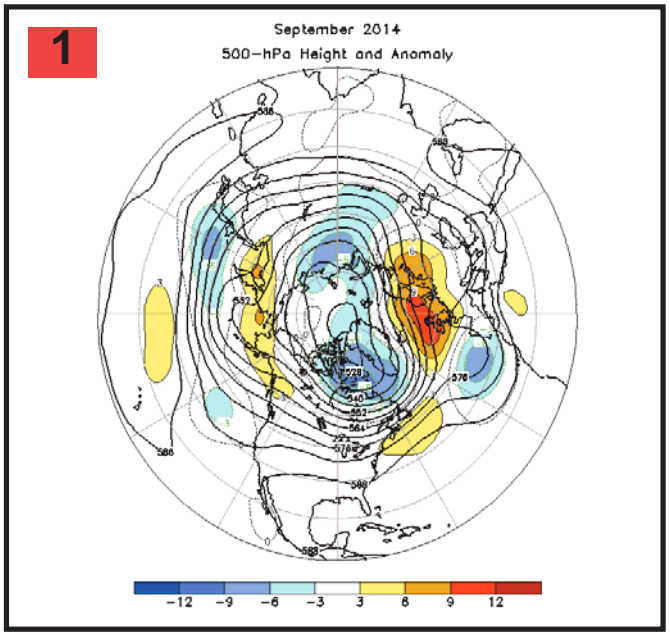
All anomalies reflect departures from the 1981-2010 base period.

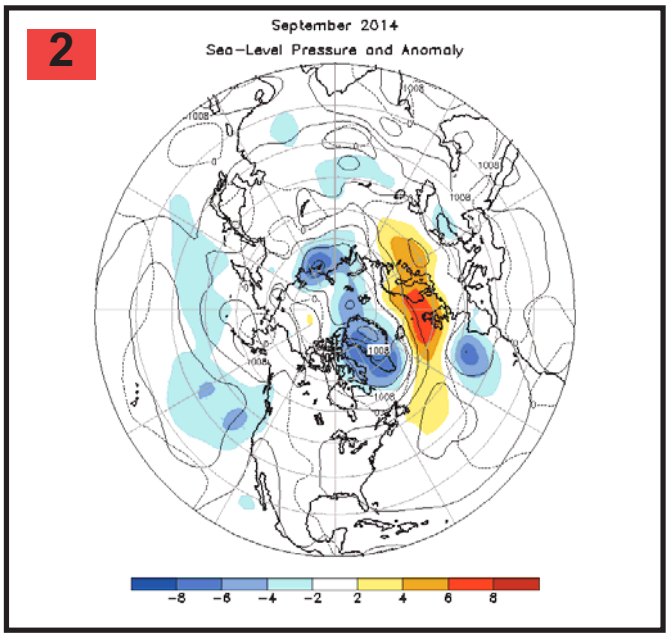
September-October 2014

The mid-tropospheric flow pattern during September featured above-average 500-hPa heights from the high latitudes of the North Atlantic to western Russia, and across eastern Siberia and southern Alaska. It also featured below-average heights over northern Canada and Greenland, central Russia, the east-central North Atlantic, and across the high latitudes of the western North Pacific **Figure 1**. The sea-level pressure (SLP) pattern mirrored the more pronounced features of the circulation pattern **Figure 2**.

The October 500-hPa circulation featured a zonal wave-4 pattern of height anomalies across the Northern Hemisphere **Figure 3**. This pattern included above-average heights over west-central North America, eastern Canada, northern and western Europe, the Bering Sea, and most of the polar basin. Below-average heights were noted over the eastern North Pacific, the eastern contiguous U.S., the eastern North Atlantic, and much of Russia. The SLP pattern for October mirrored the 500-hPa height anomaly pattern **Figure 4**.

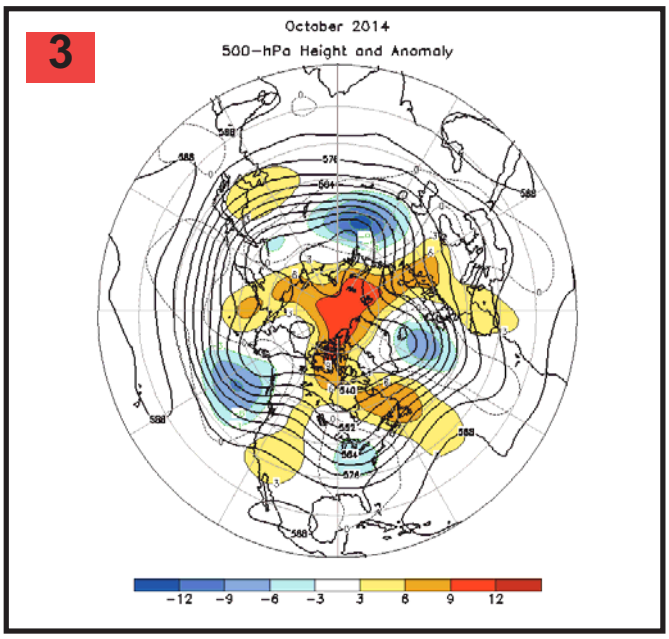
One highlight during the two-month period included heavy rain (8.4 cm) falling at the Phoenix Sky Harbor Airport on September 8, making it the wettest calendar day on record for the city since records began in 1895, **Reference 1**. Some locations outside the city received over 15 cm of rain, due to a moisture plume associated with the remnants of Hurricane Norbert.

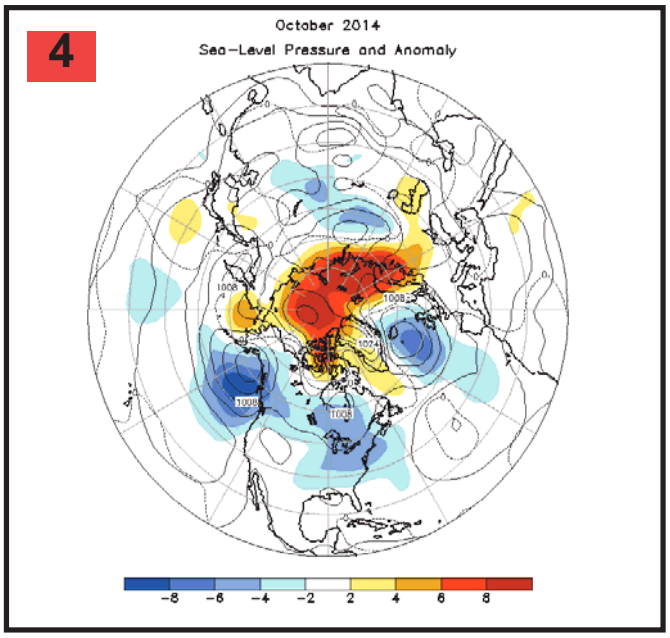




Caption for 500 hPa Heights and Anomalies: Figures 1,3,5,7
Northern Hemisphere mean and anomalous 500-hPa geopotential height (CDAS/Reanalysis). Mean heights are denoted by solid contours drawn at an interval of 6 dam. Anomaly contour interval is indicated by shading. Anomalies are calculated as departures from the 1981-2010 base period monthly means.

Caption for Sea-Level Pressure and Anomaly: Figures 2,4,6,8 Northern Hemisphere mean and anomalous sea level pressure (CDAS/Reanalysis). Mean values are denoted by solid contours drawn at an interval of 4 hPa. Anomaly contour interval is indicated by shading. Anomalies are calculated as departures from the 1981-2010 base period monthly means.





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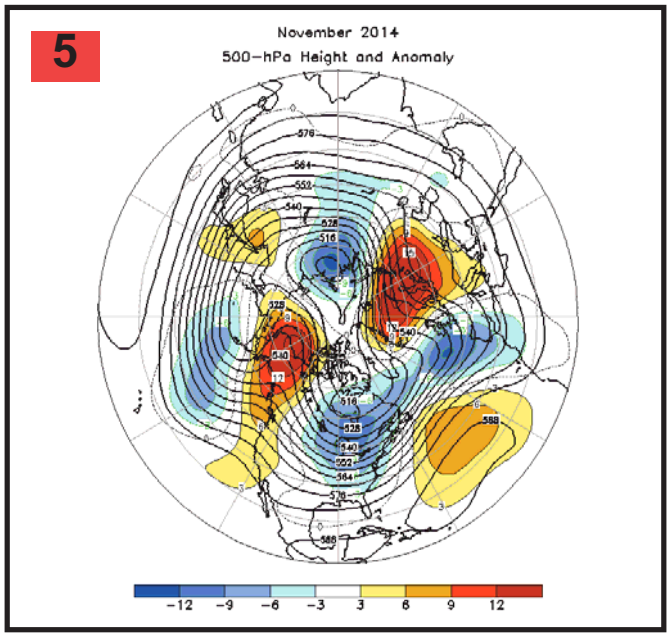
The Tropics

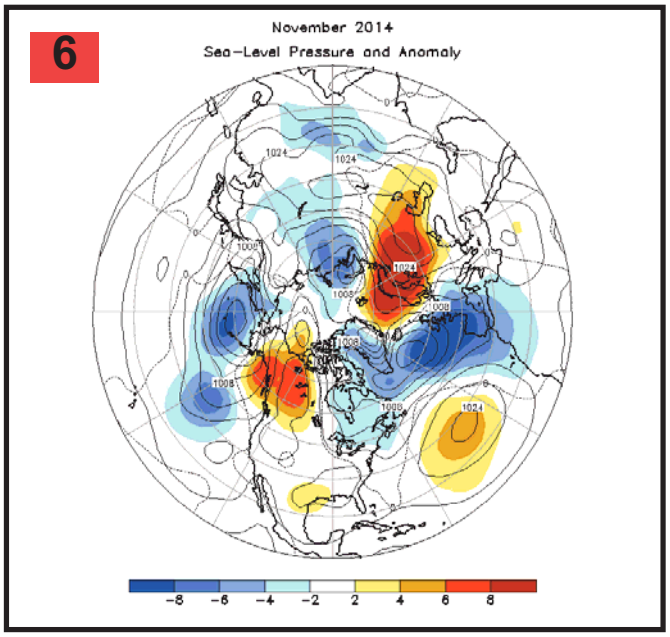
Sea surface temperatures (SST) were above-average across the equatorial Pacific during both September and October, and the monthly Nino 3.4 index was +0.5C for both months. The depth of the 20C isotherm (oceanic thermocline) remained above-average across much of the equatorial Pacific in September, with corresponding subsurface temperatures 1-3C above-average in the eastern equatorial Pacific. During October, the depth of the thermocline was close to the long-term average. The low-level easterly trade winds remained near-average across the equatorial Pacific (September and October). Deep tropical cumuliform clouds and thunderstorm activity was enhanced over the western equatorial Pacific in September, and suppressed over Indonesia in October. These oceanic and atmospheric anomalies collectively reflect a continuation of ENSO-neutral conditions.

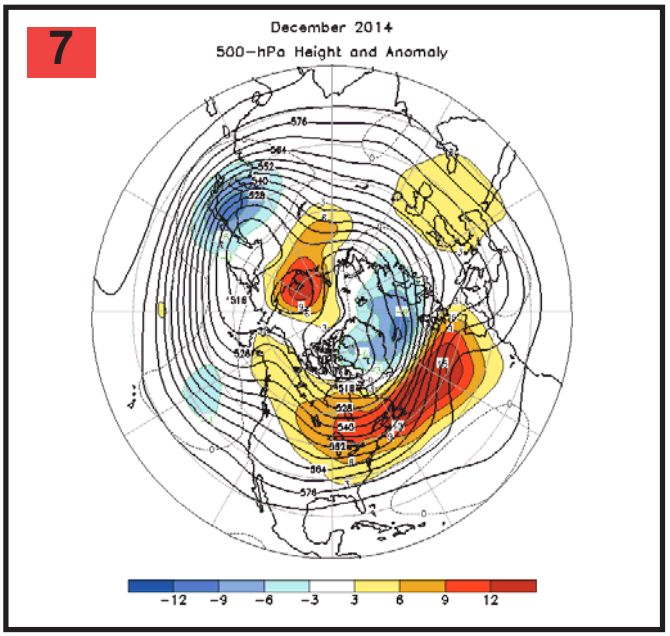
November-December 2014

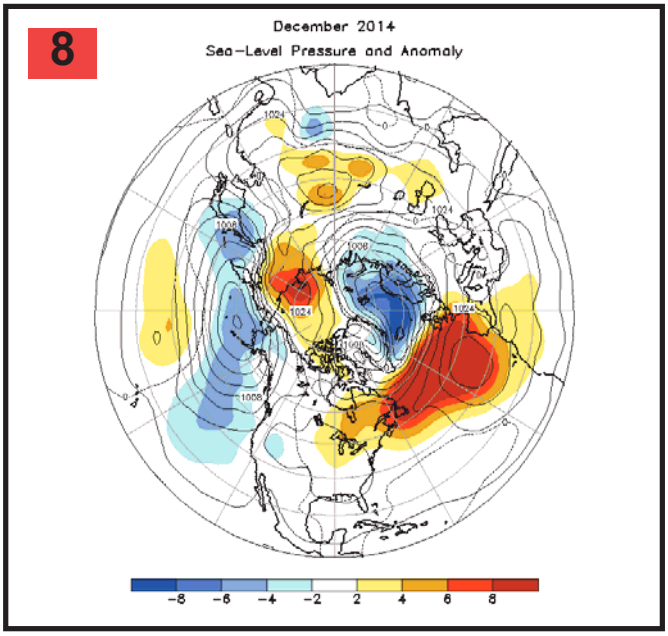
The 500-hPa circulation during November was very amplified and featured below-average heights from central and eastern North America eastward across the higher latitudes of the North Atlantic to western Europe, central Russia, and the central North Pacific **Figure 5**. Above-average heights were noted over western North America (in particular, Alaska), the central North Atlantic, central and eastern Europe, and over far east Asia. The sea-level pressure and anomaly map (**Figure 6**) generally mirrors the 500-hPa pattern.

During December, the 500-hPa circulation pattern featured above-average heights across Alaska, Canada, the eastern contiguous U.S., and the central North Atlantic. Below-average heights were noted over the east-central North Pacific, the high latitudes of the North Atlantic, and east Asia **Figure 7**. Above-average SLP was observed from eastern Canada eastward across the central North Atlantic to western Europe, and portions of eastern Siberia. Below-average SLP was noted from far east Asia across the Bering Sea to the eastern North Pacific, and over the European half of the Arctic Ocean **Figure 8**.









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A major lake-enhanced snowfall event occurred in, and south of, the Buffalo, NY, area from November 17-21, from back-to-back storm systems. Very cold arctic air swept over the still relatively warm waters of the Great Lakes, resulting in extreme convective overturning of the lower atmosphere. Up to 224 cm of snow fell just south of Buffalo, making it one of the area's largest snowfall events in history. Extreme snowfall rates of up to 13 cm/hr occurred. The National Weather Service Forecast Office in Buffalo, NY, provides in-depth write-ups of these historic back-to-back lake-effect events at **References 2, 3**.

The Tropics

ENSO-neutral conditions continued during November and December 2014. Sea surface temperatures (SST) were above-average across the equatorial Pacific during both months, although the positive SST anomalies

decreased over the central and eastern equatorial Pacific during December. The latest monthly Nino 3.4 indices were +0.9 (Nov) and +0.8 (Dec). The depth of the 20C isotherm (oceanic thermocline) was above-average over the eastern equatorial Pacific, and the corresponding subsurface temps ranged from 1-4C above-average in that region. Equatorial low-level easterly trade winds remained near-average across much of the Pacific during the two-month period. Suppressed tropical convection was observed over Indonesia and near the Date Line (Nov), and enhanced over Indonesia and suppressed near the Date Line (Dec).

References:

1. http://www.ncdc.noaa.gov/sotc/national/2014/9

2. http://www.weather.gov/buf/lake1415_stormb.html

3. http://www.weather.gov/buf/lake1415_stormc.html

Caption for 500 hPa Heights and Anomalies: Figures 1,3,5,7 Northern Hemisphere mean and anomalous 500-hPa geopotential height (CDAS/Reanalysis). Mean heights are denoted by solid contours drawn at an interval of 6 dam. Anomaly contour interval is indicated by shading. Anomalies are calculated as departures from the 1981-2010 base period monthly means.

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Much of the information used in this article originates from the Climate Diagnostics Bulletin archive:

(http://www.cpc.ncep.noaa.gov/products/CDB/CDB_Archive_html/CDB_archive.shtml)

Tropical Atlantic and Tropical East Pacific Areas

September through December 2014

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Tropical Analysis and Forecast Branch,
National Hurricane Center, Miami, Florida
NOAA National Center for Environmental Prediction

North Atlantic Ocean to 31N and Eastward to 35W, including Caribbean Sea and the Gulf of Mexico

Atlantic Highlights

The autumn period of September through December 2014 was moderately active in terms of gale conditions across the TAFB Area of Responsibility (AOR). The 16 non-tropical warnings issued for the Tropical North Atlantic during this period were nearly average for this season, based on the recent 8-year seasonal average of 17 warnings.

Table 1. Non-tropical Warnings issued for the Atlantic Basin between 01 Sept 2014 and 31 Dec 2014.

Outset	Region	PWS	G/S	Forcing
1800 UTC 14 Oct	Gulf of Mexico	40kt	18hr	Cold Front
0000 UTC 25 Oct	SW North Atlantic	40kt	30hr	Low along Cold Front
0000 UTC 01 Nov	Gulf of Mexico	35kt	12hr	Cold Front
1800 UTC 01 Nov	SW North Atlantic	40kt	18hr	Cold Front
0600 UTC 13 Nov	Gulf of Mexico	45kt	42hr	Cold Front
0600 UTC 17 Nov	Gulf of Mexico	40kt	30hr	Cold Front
0600 UTC 23 Nov	Gulf of Mexico	40kt	18hr	Squall Line
0000 UTC 26 Nov	Gulf of Mexico	35kt	12hr	Cold Front
1200 UTC 26 Nov	SW North Atlantic	35kt	06hr	Cold Front
0600 UTC 27 Nov	Caribbean	35kt	24hr	Cold Front
1800 UTC 06 Dec	Central North Atlantic	35kt	48hr	Low Pressure & Trough
0600 UTC 20 Dec	Central North Atlantic	35kt	18hr	Low Pressure
0000 UTC 24 Dec	Gulf of Mexico	40kt	24hr	Cold Front
0000 UTC 26 Dec	Caribbean	35kt	36hr	Pressure Gradient
1200 UTC 28 Dec	Northeast Altantic	35kt	06hr	Low Pressure
0600 UTC 31 Dec	Caribbean	35kt	12hr	Pressure Gradient

Peak Wind Speed: PWS
GALE / STORM Duration: G/S

Table 1 above shows the non-tropical warning events that occurred across the Tropical Atlantic, Gulf of Mexico, and Caribbean Sea during this period. While only 2 warning events occurred in October, November and December provided active periods, with 8 and 6 events occurring, respectively. The upper atmospheric pattern strongly influenced gale frequency during that time, with a series of 4 gale warnings issued during a 4-day span in late November, and 4 gale warnings issued during the last 6 days of December.

The upper atmospheric pattern spanning North America and the adjacent ocean basins transitioned in September and October with the development of a persistent middle to upper level trough across the eastern third of the U.S. This pattern supported a cold front entering northwest portions of the Gulf of Mexico during the late afternoon hours of 13 Oct. This front was reinforced by a secondary front and a strong northerly wind surge as high pressure moved southward from western Texas into southeastern Mexico on 14 Oct. This northerly surge produced the first gale event of the season, across portions of the southwestern Gulf of Mexico.

This pattern evolution would repeat itself several times throughout the season. A high amplitude middle to upper level flow pattern across North America and the north Atlantic further evolved during November, with the low pressure across the eastern U.S. expanding and deepening, producing a broad trough prevailing from the Hudson Bay southward across the Great Lakes region and into the southeastern U.S., **Figure 1**. This upper atmospheric pattern maximized in intensity during the second half of November, bringing extremely cold arctic air into the central and eastern U.S., and a series of strong cold fronts with northerly gales across the Gulf of Mexico.

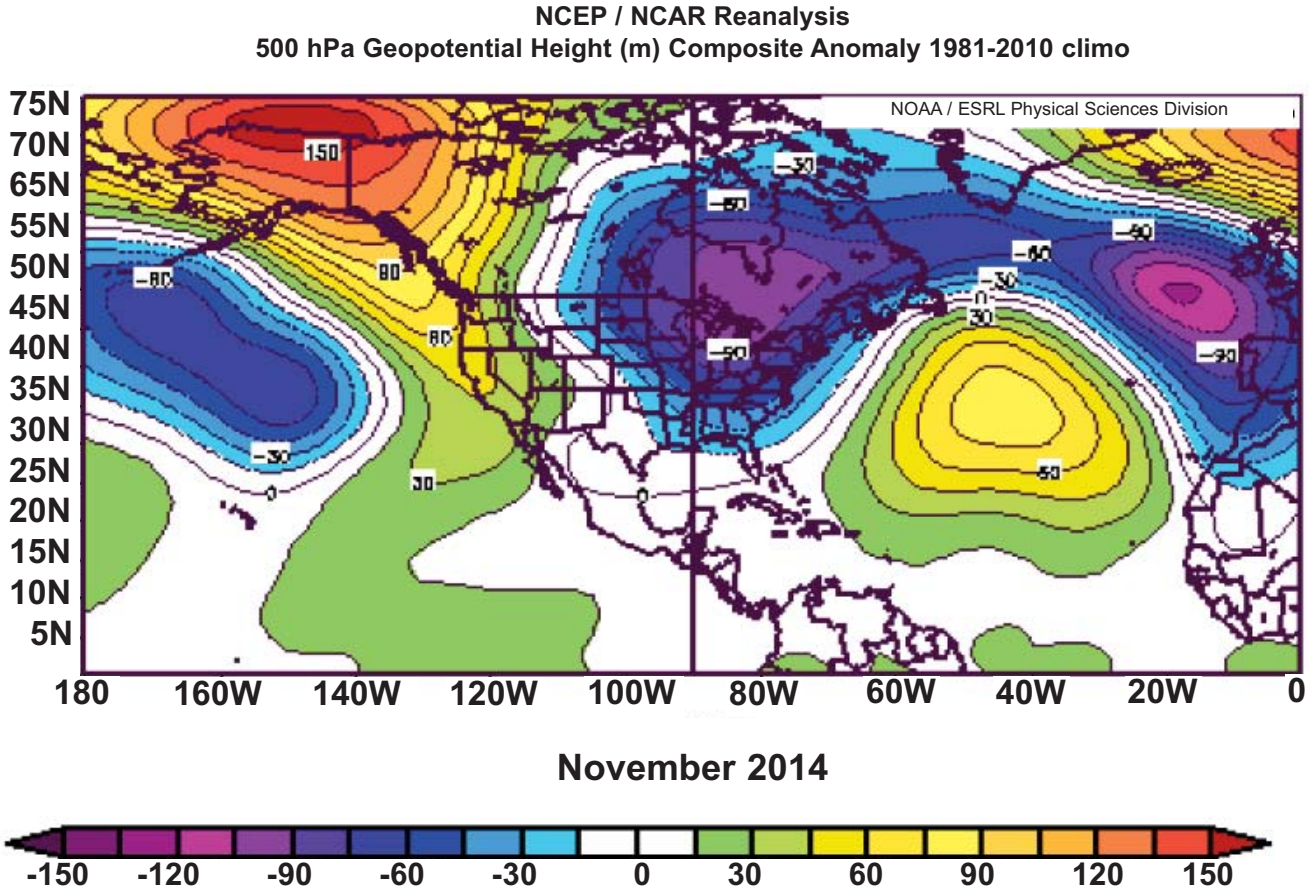

Figure 1. NOAA ESRL Reanalysis plot of mean 500 HPa height anomalies for Nov 2014, where warm colors represent above normal heights and cool colors below normal heights. Note the strong high pressure ridge prevailing across the central Atlantic, and low pressure to the east and west. This high amplitude pattern allowed for several pulses of energy to move southward from northern Canada and the Arctic region into the central U.S., transporting surface cold fronts and very cold artic air.

The first of these strong Gulf of Mexico cold fronts initiated northerly gales on 13 Nov, followed by another cold front producing northerly gales on 17 Nov, followed later in the month by a strong cold front sweeping southeastward across much of the region 26 through 27 Nov. Gale force winds developed behind this third front in the northerly flow across southwest portions of the Gulf of Mexico, and ahead of the front across the western Atlantic on the 26th, and then behind the front in cold northerly flow as the front moved across the northwestern Caribbean Sea on the 27th. This third front penetrated most of Central America and reached the eastern Tropical Pacific, with strong high pressure behind the front acting as the main forcing mechanism for a storm force wind event through the Gulf of Tehuantepec.

13-14 November Gulf of Mexico Gale

The strongest and longest duration gale event occurred 13-14 Nov, when northerly gales developed across the western Gulf of Mexico behind a cold front, then spread southward across southwest portions of the Gulf, where gales persisted through 14 Nov, before finally ending by 00 UTC 15 Nov. This frontal system was supported by the deep upper level trough prevailing across the Great Lakes Region digging south and southwestward into the central U.S., which was common for most of November as shown in **Figure 1**. On 13 Nov, a 1045 HPa surface high shifted from western Canada southeastward and into the Great Plains, then built southward across Texas and was funneled between the cold front and the eastern slopes of the Sierra Madre Occidentales of northern Mexico.

This drove the cold front quickly south and southeastward across the Gulf of Mexico, while bringing extremely dry and cold arctic air across much of the central U.S., **Figure 2**. This initiated northerly gales across the Gulf of Mexico west of the cold front beginning 0600 UTC 13 Nov that spread southward into western portions of the Bay of Campeche from 1200 to 1800 UTC 13 Nov. Some of the first confirmation of this gale event came at 1200 UTC when the tanker **British Robin (MGSH7)** reported NW gales to 37 kts behind the front across the northwest gulf, while the cargo vessel **Cap Jervis (A8VL7)** also reported N gales to 35 kts in the western Bay of Campeche. This narrow southward building ridge, trapped between the eastern slopes of the mountainous terrain of interior Mexico and the cold front across the Gulf of Mexico is depicted in **Figure 3**, and occurred several times during the period, typically leading to gale force wind events in either the western Gulf of Mexico, or through the Gulf of Tehuantepec in the eastern Pacific. During the late morning and afternoon hours of 13 Nov, very cold and dense air drove quickly southward behind the front and across the western Gulf and into the western Bay of Campeche, with winds there increasing to 40 to 45 kts southward of 26N, as depicted by a 1642 UTC ASCAT pass, **Figure 4**.

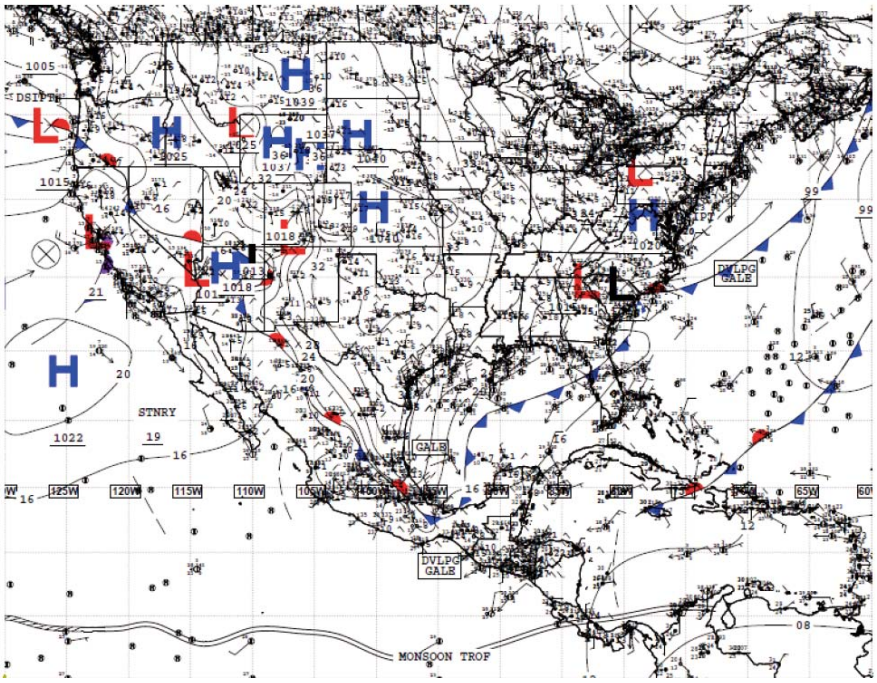

Figure 2. NWS Unified Surface Analysis for 1800 UTC 13 Nov showing a cold front stretching from Atlantic waters offshore of Georgia and north Florida across the Gulf of Mexico to the central Bay of Campeche, then dammed up along the eastern slopes of the Sierra Madre Occidentales of Mexico. Strong high pressure centered over the Great Plains can be seen nosing southward in a narrow ridge through south Texas and into north Mexico, promoting a strong pressure gradient. Northerly gale force winds occurred west of the cold front across both the Texas and Mexican near and offshore waters. Gale symbol label indicates general areas of NHC Gale Warnings.

By 1200 UTC 14 Nov the strong high center across the U.S. shifted eastward into the Missouri Valley and had pushed the cold front southeastward, reaching from central Florida to the central Bay of Campeche. This weakened modestly both the pressure gradient behind the front and the strong cold air advection across western portions of the Gulf, and allowed winds to diminish to around 35 kt. The high pressure then shifted eastward into the Ohio Valley and weakened to 1032 HPa by 00 UTC 15 Nov, nudging the cold front into extreme south Florida, with gales ending across the southwest Gulf of Mexico. **Figure 5** shows the wind and seas observed by PEMEX buoy BMO across the southwestern Gulf of Mexico behind this front, as well as for two additional gale events occurring in November. The time series of wind speed and Significant Wave Height (SHW) show winds peaking at 20 m/s (40 kts) during the 13-14 Nov event, and SWH near 6m (19.7 ft) with maximum wave heights near 11m (36 ft). Very few ship observation were available during this gale event and the associated marine conditions observed at BMO for this event are certainly a good reason to avoid this area when gales spread across the full length of the Gulf.

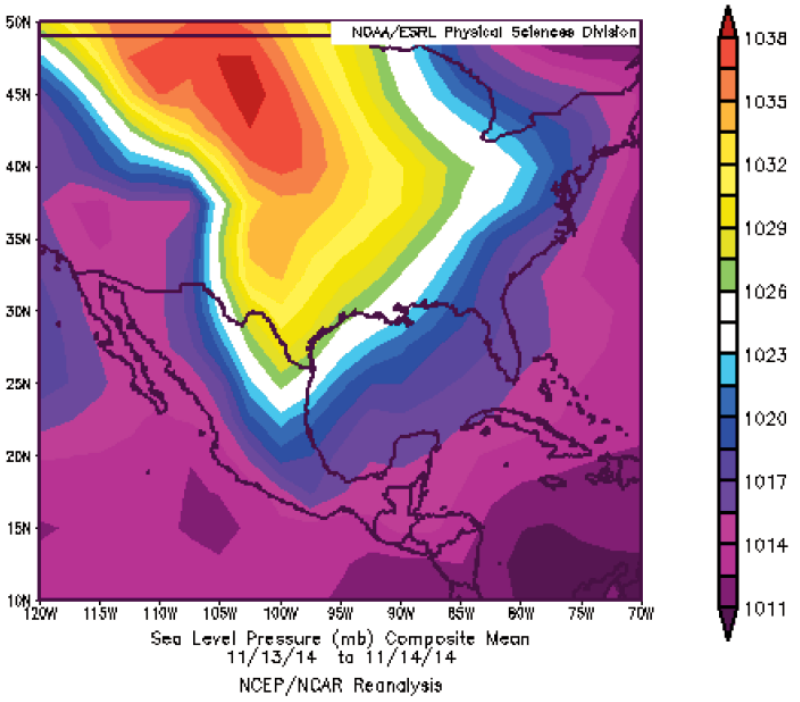

Figure 3. NOAA ESRL Reanalysis plot of mean sea level pressure for the period 13 Nov through 14 Nov, where warm colors represent high pressure and cool colors lower pressure. Note the strong high pressure centered across the Northern Plains of the U.S. extending southward into west Texas, then continuing southward along the eastern slopes of the Sierra Madre Occidentales of Mexico to southeastern Mexico. The high pressure ridge is forced to funnel southward between a cold front across the Gulf of Mexico and the higher elevations of Mexico's mountains.

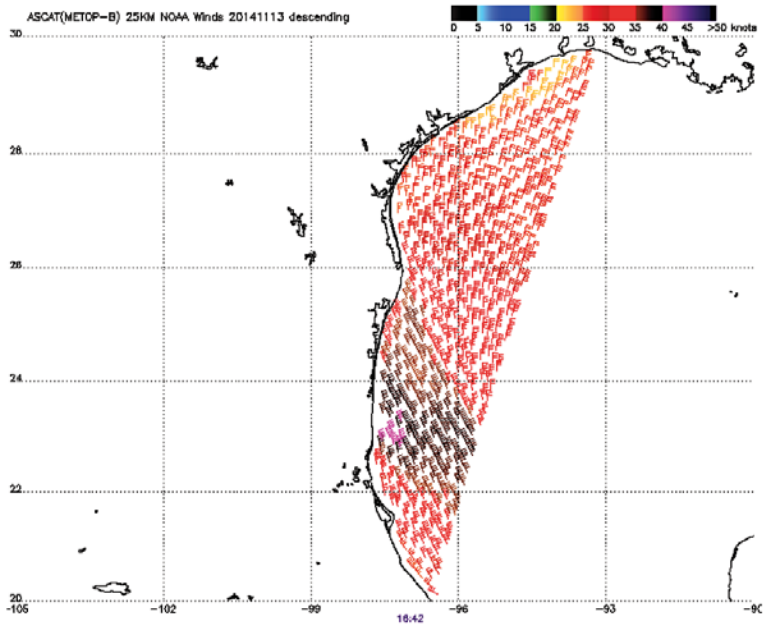

Figure 4. NESDIS wind vector analysis of ASCAT METOP-B 1642 UTC 13 Nov pass across the western Gulf of Mexico. Scatterometer wind vectors are depicted as multi colored wind barbs, with legend at top right (kts), and reveal NW to N gales 35 to 45 kts in the brown and magenta colors occurring south of 26N.

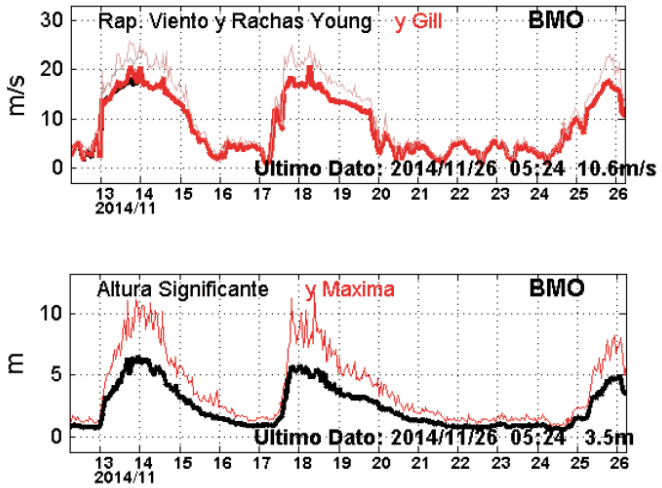

Figure 5. Time series for PEMEX-CICESE (Petróleos Mexicanos- Centro de Investigación Científica y de Educación Superior de Ensenada, B.C.) buoy BMO, located in the southwest Gulf of Mexico offshore of Veracruz, near 19.5N 95W, where wind speed above (m/s) appears in red line and gusts in brown. SWH (m) appears in time series below in black line, with maximum wave heights in red. The date appears at the bottom of each time series, spanning from 12 Nov to 26 Nov. Three separate gale events are documented in the time series showing SWH reaching 5 m during each event

Eastern North Pacific Ocean South of 30N and East of 140W

Pacific Highlights

The fall and winter months are an active time for gale and storm events in this portion of the Eastern Pacific. The majority of the events typically occur in the Gulf of Tehuantepec. Thus far in the 2014-2015 season, there were Fourteen (14) Gulf of Tehuantepec gale and storm events, three (3) Gulf of California gale events, and two (2) other Eastern Pacific gale events.

Table 2. Non-tropical cyclone Warnings issued for the Pacific Basin between 01 September 2014 and 31 December 2014

Outset	Region	PWS	G/S
0600 UTC 15 Oct	Gulf of Tehuantepec	40kt	60hr
1800 UTC 24 Oct	Eastern Pacific 10N 104W	35kt	48hr
0600 UTC 01 Nov	Gulf of Tehuantepec	40kt	60hr
1800 UTC 03 Nov	Gulf of Tehuantepec	35kt	12hr
0600 UTC 04 Nov	Gulf of Tehuantepec	35kt	18hr
1200 UTC 07 Nov	Gulf of Tehuantepec	35kt	06hr
1800 UTC 09 Nov	Gulf of California	35kt	30hr
0000 UTC 13 Nov	Eastern Pacific 30N 137W	40kt	42hr
0600 UTC 17 Nov	Gulf of California	35kt	12hr
1200 UTC 17 Nov	Gulf of Tehuantepec	35kt	12hr
1200 UTC 17 Nov	Gulf of Tehuantepec	35kt	12hr
0600 UTC 18 Nov	Gulf of California	45kt	66hr
1200 UTC 24 Nov	Gulf of Tehuantepec	35kt	06hr
1200 UTC 25 Nov	Gulf of Tehuantepec	35kt	12hr
0600 UTC 26 Nov	Gulf of Tehuantepec	60kt	90/54
0600 UTC 03 Dec	Gulf of Tehuantepec	40kt	66hr
1200 UTC 07 Dec	Gulf of Tehuantepec	40kt	84hr
1200 UTC 13 Dec	Gulf of Tehuantepec	35kt	12hr
0600 UTC 25 Dec	Gulf of Tehuantepec	40kt	18hr

Peak Wind Speed: PWS
GALE / STORM Duration: G/S

The Gulf of Tehuantepec wind events are usually driven by mid-latitude cold frontal passages through the narrow Chivela Pass in the Isthmus of Tehuantepec between the Sierra Madre de Oaxaca Mountains on the west and the Sierra Madre de Chiapas Mountains on the east. The northerly winds from the southwest Gulf of Mexico funnel through the pass delivering stronger winds into the Gulf of Tehuantepec. The events are of various duration with the longer events associated with reinforcing secondary cold fronts in the Gulf of Mexico. The events are usually void of precipitation in the Gulf of Tehuantepec, thus scatterometer passes are not rain contaminated and wind retrievals are of the highest quality. The gale and storm events this season totaled 606 hours, a 6% decrease from last season's 642 hours. The 2011-12 and 2012-13 seasons each had 492 hours.

The strongest event of the season thus far occurred in the period 26-30 Nov 2014. Strong northerly winds in the Gulf of Mexico behind a cold front on 26 Nov 2014 funneled through the Chivela Pass resulting in a storm event in the Gulf of Tehuantepec. (**Figure 4, next page**). Note that the 1026 hPa High over the western Gulf of Mexico significantly increased the surface pressure gradient over the Isthmus of Tehuantepec. This wind event commenced at 0600 UTC 26 Nov 2014 as a gale. Winds increased to storm force twelve hours later and lasted until 29 Nov 0000 UTC when winds once again decreased to gale force. The event ended on 30 Nov 0000 UTC 2014 and lasted a total of 90 hours, the longest duration event of the season to date.

Table 3. Ship reports that verified gale events over the Gulf of Tehuantepec between 01 Sep 2014 and 31 Dec 2014.

TIME / DATE	SHIP	LOCATION	Wind Speed / Seas
0300 UTC 17 Oct	Norwegian Sun (C6RN3)	15.3N 94.8W	36 kts 13 ft (4 m)
1800 UTC 17 Oct	CMB BIWA (ONED)	14.5N 98.4W	37 kts
0900 UTC 03 Nov	Andromeda Voyager (C6FZ6)	14.2N 95.0W	35 kts
1000 UTC 03 Nov	Veendam (PHEO)	15.7N 95.3W	50 kts
0300 UTC 09 Nov	Statendam (PHSG)	15.3N 94.8W	45 kts 10 ft (3 m)
0000 UTC 16 Nov	Island Princess (ZCDG4)	15.2N 95.4W	37 kts 7 ft (2 m)
1600 UTC 26 Nov	MOL Sunrise (A8JK4)	15.6N 96.0W	35 kts 13 ft (4 m)
1900 UTC 27 Nov	Statendam (PHSG)	15.3N 93.6W	35 kts 7 ft (2 m)
2200 UTC 27 Nov	Statendam (PHSG)	15.8N 94.2W	55 kts 13 ft (4 m)
0200 UTC 28 Nov	Statendam (PHSG)	15.8N 95.1W	64 kts 13 ft (4 m)
1800 UTC 02 Dec	Bremen Express (DHBN)	14.5N 96.1W	43 kts 10 ft (3 m)
1800 UTC 03 Dec	Undine (SHJC)	13.7N 94.7W	41 kts
0100 UTC 08 Dec	Golden Princess (ZCDA9)	14.4N 95.3W	62 kts 10 ft (3 m)
2300 UTC 13 Dec	Amsterdam (PBAD)	15.3N 95.4W	40 kts
1200 UTC 17 Dec	Mignon (SJCD)	14.3N 95.9W	35 kts
1800 UTC 26 Dec	Maersk Semarang (LXSR)	11.4N 89.5W	36 kts

Ship reports received through the Voluntary Observing Ship (VOS) program are a vital source of data in verifying gale and storm events. Some select ship reports that directly verified some of this season's gales are enumerated in Table 3.

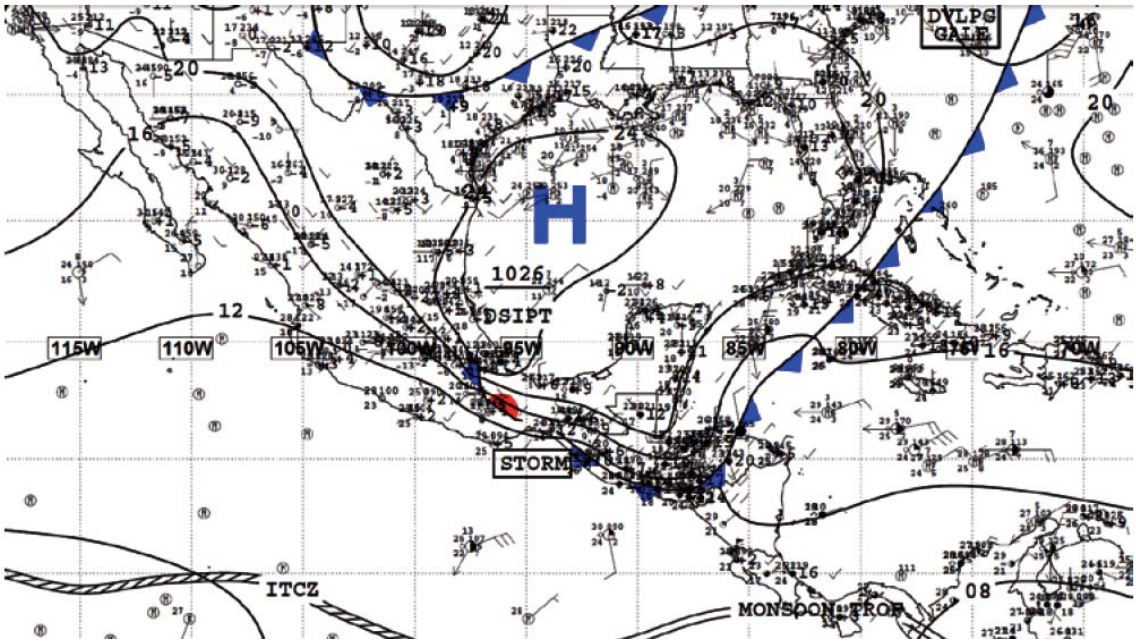

Figure 4. National Weather Service Unified Surface Analysis valid 0000 UTC 27 November 2014.

A European Advanced Scatterometer (ASCAT) pass captured the event in both the Bay of Campeche and the Gulf of Tehuantepec. (**Figure 5**). An isolated storm force wind barb was depicted over the Gulf of Tehuantepec within a larger area of 45 kt winds. Gale force winds extended southward to 14N between 94W and 96W, while 20 kt winds extended as far south as 10N between 95W and 99W. The **Statendam (PHSG)** traversed both the gale and storm areas while sailing WNW on 27 Nov 2014.

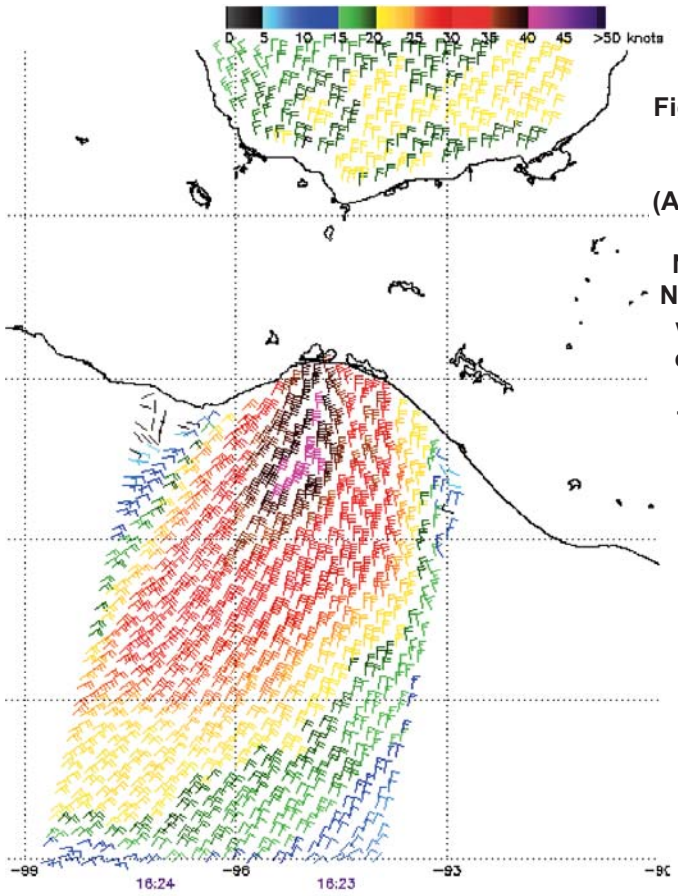

Figure 5. European Advanced Scatterometer (ASCAT) pass valid at 1624 UTC 26 November 2014. Note the 40-45 kts wind barbs that extend south of the Gulf of Tehuantepec to 14N96W.

A new scatterometer instrument, NASA's International Space Station Rapid Scat-terometer (ISS-RapidScat), also captured the event in the Gulf of Tehuantepec on 28 Nov 2014. (**Figure 6**). The pass showed several 50 kt wind barbs.

The RapidScat's scatterometer hardware consists of 1990's warehoused QuikScat test equipment, a new reflector antenna, and a new nadir adaptor mounting device.

The instrument was delivered by the SpaceX's cargo resupply spacecraft in 2014, and was integrated into the International Space Station's equipment. The scatterometer requires no interaction from Space Station astronauts. The Space Station's orbit has also proven better in sampling the earth's tropics than the other sun-synchronous satellites. This is expected to be a highly valuable operational data source for TAFB marine forecasters.

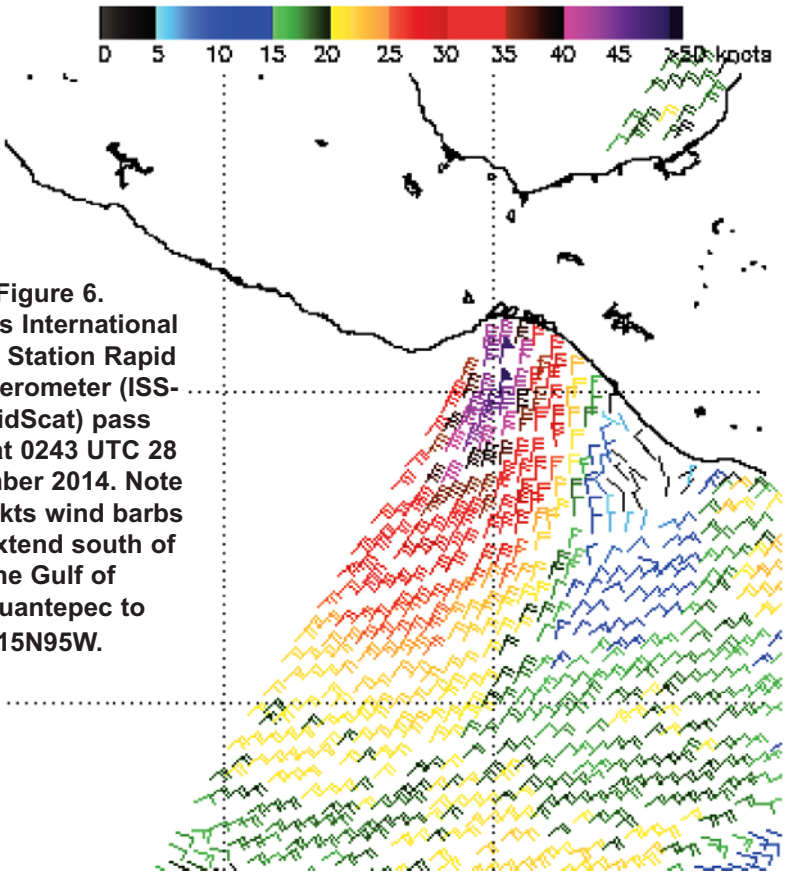

Figure 6. NASA's International Space Station Rapid Scat¬terometer (ISS-RapidScat) pass valid at 0243 UTC 28 November 2014. Note the 50 kts wind barbs that extend south of the Gulf of Tehuantepec to 15N95W.

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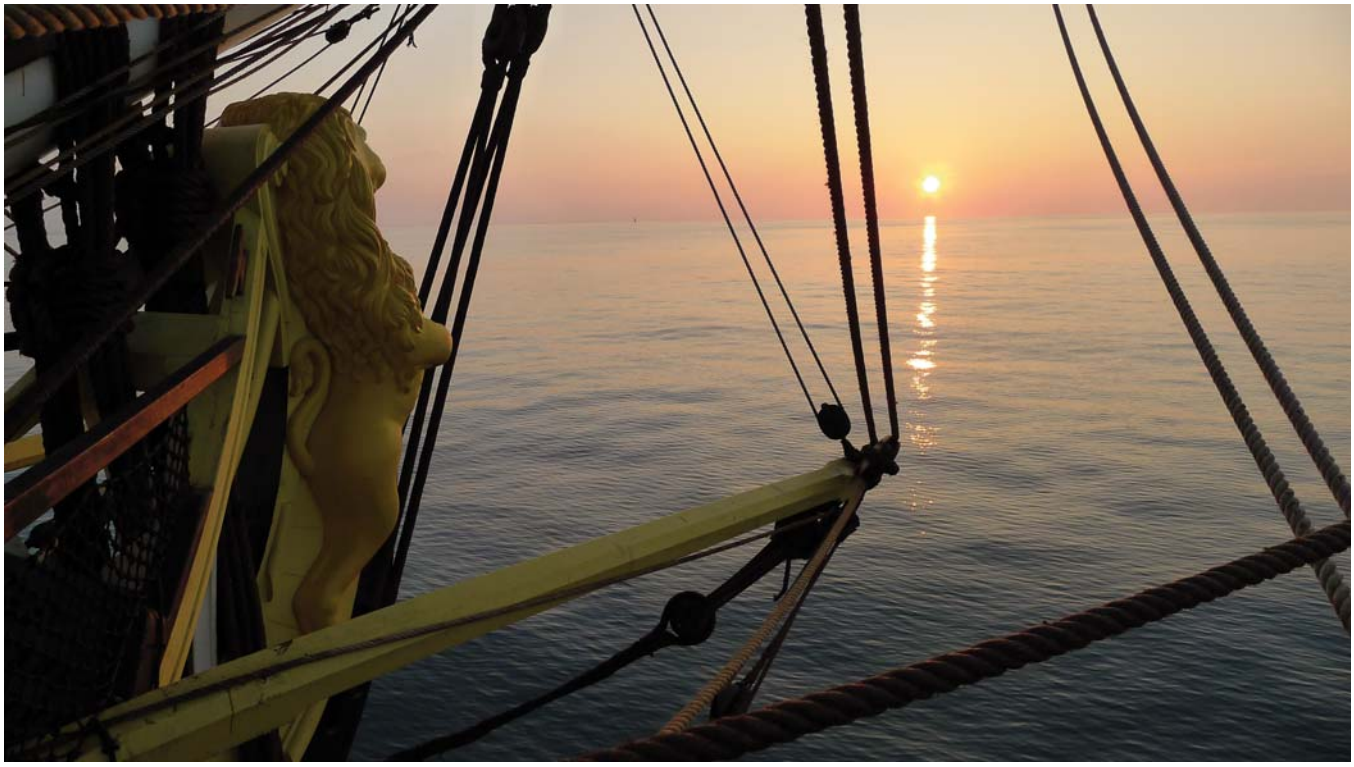

HERMIONE Photos: Courtesy of Association Hermione-LaFayette

VOS Program
Cooperative Ship Report:
January 1 through December 31, 2014

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
A. P. MOLLER	OVYQ2	A	Seattle	28	17	23	0	66	27	19	23	39	0	0	0	243
ADAM E. CORNELIUS	WCY9870	A	Chicago	0	0	0	0	0	0	0	0	0	17	23	19	59
ADRIAN MAERSK	OXLD2	A	New York City	1	0	0	3	40	14	14	27	0	42	3	50	194
ADVANTAGE	WPPO	A	Norfolk	0	39	16	33	0	27	48	33	3	0	0	0	199
ADVENTURE OF THE SEAS	C6SA3	A	Miami	0	0	27	1	0	1	0	0	0	10	0	0	39
ADVENTURER	WBN3015	A	Jacksonville	0	0	0	0	0	0	0	0	0	0	0	0	0
AL HUWAILA	C6VG2	A	Anchorage	22	26	7	0	0	0	0	0	0	0	0	0	55
ALASKA MARINER	WSM5364	A	Kodiak	27	15	5	6	0	8	37	53	32	40	1	0	224
ALASKA TITAN	WDE4789	A	Kodiak	8	0	0	3	7	1	4	0	3	6	5	9	46
ALASKAN EXPLORER	WDB9918	A	Anchorage	72	47	80	96	99	58	35	0	0	105	85	44	721
ALASKAN FRONTIER	WDB7815	A	Anchorage	38	48	86	164	89	84	67	72	21	33	49	52	803
ALASKAN LEGEND	WDD2074	A	Anchorage	29	53	42	46	39	85	64	84	58	32	13	9	554
ALASKAN NAVIGATOR	WDC6644	A	Anchorage	260	132	109	244	151	169	126	114	84	40	8	89	1526
ALBEMARLE ISLAND	C6LU3	A	Miami	21	20	0	29	14	0	0	0	0	0	0	1	85
ALBERT MAERSK	OUOW2	A	New York City	38	1	22	30	14	12	13	0	32	1	75	39	277
ALERT	WCZ7335	A	Kodiak	16	11	18	12	0	4	0	5	1	0	0	0	67
ALGOLAKE	VCPX	A	Chicago	1	0	0	0	0	0	9	4	18	15	1	1	49
ALGOMA GUARDIAN	CFK9698	A	Chicago	0	0	0	5	1	1	21	1	15	10	15	7	76
ALGOMA MARINER	CFN5517	A	Chicago	0	0	1	0	18	25	21	6	5	3	5	13	97
ALGOMA NAVIGATOR	VGMV	A	Chicago	0	0	0	0	12	4	5	50	1	38	52	27	189
ALGOMA PROGRESS	VDRV	A	Chicago	0	0	0	0	0	0	9	6	3	10	1	0	29
ALGOMA SPIRIT	CFN4309	A	Chicago	0	0	0	0	2	0	0	12	1	2	3	0	20
ALGORAIL	VYNG	A	Chicago	2	0	0	10	38	29	28	2	0	29	15	23	176
ALGOSOO	VGJD	A	Chicago	0	0	0	0	0	4	14	3	0	0	0	0	21
ALGOSTEEL	VDJB	A	Chicago	0	0	0	0	0	0	2	8	24	1	16	23	74
ALGOWAY	VDFP	A	Chicago	0	0	0	2	23	2	1	5	2	0	8	8	51
ALLIANCE FAIRFAX	WLMQ	A	Jacksonville	8	22	37	34	49	16	5	34	39	42	44	33	363
ALLIANCE NORFOLK	WGAH	A	Jacksonville	0	10	10	10	0	0	11	13	13	19	0	9	95
ALLIANCE ST LOUIS	WGAE	A	Charleston	29	23	0	42	34	0	42	3	16	21	0	12	222
ALLURE OF THE SEAS	C6XS8	A	Miami	26	10	13	45	61	42	48	22	17	21	0	12	377
ALPENA	WAV4647	A	Chicago	0	0	0	17	1	0	6	5	126	125	145	25	450
ALTAIR VOYAGER	C6OK	A	Baltimore	8	1	0	0	53	26	55	42	49	22	5	0	261
AM HAMBURG	V7ZZ5	A	Anchorage	47	12	14	5	0	0	0	0	11	15	22	16	142
AMAVISTI	V2CR5	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
AMERICAN CENTURY	WDD2876	A	Chicago	8	0	1	110	234	273	110	29	116	296	276	293	1746
AMERICAN COURAGE	WDD2879	A	Chicago	0	0	0	3	19	8	11	10	0	0	1	0	52
AMERICAN INTEGRITY	WDD2875	A	Chicago	0	0	0	0	0	6	17	13	1	0	0	0	37
AMERICAN MARINER	WQZ7791	A	Chicago	0	0	0	12	17	20	3	4	1	0	40	53	150
AMERICAN SPIRIT	WCX2417	A	Chicago	2	0	0	1	0	20	64	45	62	60	9	46	309

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
AMSTERDAM	PBAD	A	Anchorage	19	18	104	85	44	64	232	104	128	88	177	152	1215
ANDROMEDA VOYAGER	C6FZ6	A	Anchorage	38	17	44	38	19	98	85	60	125	33	33	20	610
ANNA MAERSK	OXBA2	A	New York City	0	0	0	0	0	8	5	10	8	29	7	22	89
ANTONIS I. ANGELICOUSSIS	C6FP5	A	Anchorage	41	46	49	24	27	32	16	7	4	0	0	0	246
ANTWERPEN	VRBK6	A	Anchorage	21	1	0	0	0	0	0	0	0	0	0	0	22
APL AGATE	WDE8265	A	Charleston	17	31	12	19	23	34	67	54	60	67	46	56	486
APL ANTWERP	3FRT9	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
APL BELGIUM	WDG8555	A	New York City	56	38	32	62	60	41	41	57	47	47	40	65	586
APL CHINA	WDB3161	A	Los Angeles	36	79	41	60	61	40	52	50	66	53	62	41	641
APL CORAL	WDF6832	A	Charleston	4	0	30	20	24	18	8	4	0	59	69	75	311
APL CYPRINE	WDE8293	A	Charleston	1	0	0	23	20	37	42	66	67	57	51	35	399
APL ENGLAND	9VDD2	A	Anchorage	0	0	0	0	0	0	3	0	0	0	0	0	3
APL HOLLAND	9VKQ2	A	Los Angeles	34	38	26	25	0	11	30	2	0	1	0	0	167
APL HONG KONG	A8AM6	A	Seattle	0	0	0	0	0	0	0	0	0	0	0	1	1
APL JAPAN	9V2165	A	Charleston	35	41	22	50	0	10	49	30	36	22	31	11	337
APL KOREA	WCX8883	A	Los Angeles	19	22	28	45	60	39	60	96	107	83	52	61	672
APL OMAN	9VMJ4	A	New York City	0	0	0	11	3	9	4	3	5	6	8	2	51
APL PEARL	WDE8264	A	Charleston	38	26	61	60	60	75	58	13	36	17	57	34	535
APL PHILIPPINES	WCX8884	A	Los Angeles	46	32	66	48	65	61	38	54	48	53	38	55	604
APL QATAR	9VMJ5	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
APL SAVANNAH	9V9919	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
APL SCOTLAND	9VDD3	A	New York City	1	2	2	6	18	32	38	33	28	15	0	15	190
APL SHANGHAI	A8SN5	A	New York City	64	75	170	87	1	64	69	72	101	101	87	68	959
APL SINGAPORE	WCX8812	A	Los Angeles	41	36	40	40	37	81	35	59	39	45	52	3	508
APL THAILAND	WCX8882	A	Los Angeles	28	35	29	24	21	19	33	48	29	27	33	22	348
APL TOURMALINE	9VVP	A	Charleston	0	13	20	25	48	18	34	16	3	0	2	0	179
APL TURQUOISE	9V9241	A	New York City	11	1	10	21	33	20	6	4	0	0	0	2	108
APL WASHINGTON	VRFD6	A	Los Angeles	17	28	0	0	1	1	0	0	0	14	24	0	85
AQUARIUS VOYAGER	C6UC3	A	Jacksonville	0	0	0	0	0	6	1	0	0	7	13	1	28
ARCTIC BEAR	WBP3396	A	Kodiak	0	0	0	0	13	6	3	11	22	6	0	1	62
ARCTIC TITAN	WDG2803	A	Kodiak	4	3	11	12	4	3	11	6	7	13	0	13	87
ARCTURUS VOYAGER	C6YA7	A	Anchorage	47	45	43	54	59	56	39	13	59	75	29	36	555
ARI CRUZ	WDG9588	A	Kodiak	0	0	0	0	1	2	0	0	1	1	0	0	5
ARIES VOYAGER	C6UK7	A	Anchorage	49	46	5	22	35	12	22	25	35	61	41	2	355
ARNOLD MAERSK	OXES2	A	Seattle	57	0	73	0	47	8	27	16	33	29	18	22	330
ARTHUR M. ANDERSON	WDG7087	A	Chicago	8	0	4	33	51	10	34	38	63	18	92	122	473
ARTHUR MAERSK	OXJH2	A	New York City	4	0	0	0	0	1	0	0	0	0	0	0	5
ASIAN KING	3FYS8	A	Charleston	0	0	0	0	0	0	0	0	0	0	42	76	118
ATLANTIC BREEZE	VRDC6	A	Anchorage	24	13	6	0	22	8	35	12	15	0	0	0	135
ATLANTIC CARTIER	SCKB	A	Norfolk	38	19	37	43	31	34	32	19	33	36	38	21	381
ATLANTIC EXPLORER (AWS)	WDC9417	A	Anchorage	0	0	0	268	458	346	124	424	238	538	168	98	2662
ATLANTIC GEMINI	VRDO9	A	Anchorage	0	0	6	0	0	0	0	0	0	0	0	0	6
ATLANTIC GRACE	VRDT7	A	Anchorage	44	11	0	0	14	53	33	55	20	0	34	57	321
ATLANTIC ROSE	VREF7	A	Anchorage	0	0	3	0	0	1	0	0	0	0	0	0	4

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ATLANTIS (AWS)	KAQP	A	Anchorage	742	478	418	720	702	683	744	742	719	330	0	197	6475
ATTENTIVE	WCZ7337	A	Kodiak	18	2	0	15	0	5	0	1	0	0	7	3	51
AURORA	WYM9567	A	Anchorage	554	469	320	289	199	413	338	206	326	247	43	108	3512
AURORA LEO	9VAK8	A	Anchorage	250	187	52	0	0	3	0	0	0	0	0	0	492
AURORA TAURUS	V7EX3	A	Anchorage	9	18	9	11	0	0	0	0	0	0	0	0	47
AVIK	WDB7888	A	Kodiak	0	0	0	0	1	0	5	3	2	1	0	0	12
AWARE	WCZ7336	A	Kodiak	14	1	0	2	0	2	1	3	0	0	0	3	26
AXEL MAERSK	OUUY2	A	New York City	0	0	0	0	0	0	0	0	0	0	0	0	0
AZAMARA QUEST	9HOM8	A	Anchorage	0	25	5	0	0	0	11	1	0	0	0	0	42
BADGER	WBD4889	A	Chicago	0	0	0	0	0	7	34	88	23	25	0	0	177
BALTIC COVE	A8VG9	A	Anchorage	0	0	0	0	1	12	5	9	15	16	17	6	81
BALTIC WOLF	V7QX8	A	Anchorage	3	0	0	0	0	0	0	0	0	0	0	0	3
BANSUI	3FMI5	A	Los Angeles	0	0	0	0	0	0	0	0	0	0	0	0	0
BARBARA ANDRIE	WTC9407	A	Chicago	11	0	2	11	1	0	0	0	0	0	0	0	25
BARBARA FOSS	WYL4318	A	Anchorage	0	0	3	12	8	4	8	1	9	11	1	17	74
BARRINGTON ISLAND	C6QK	A	Miami	42	30	0	0	0	0	0	0	0	0	0	25	97
BBC TASMANIA	V2CZ2	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
BELL M. SHIMADA (AWS)	WTED	A	Seattle	220	131	0	173	201	3	264	481	405	56	0	0	1934
BERGE NANTONG	VRBU6	A	Anchorage	0	1	0	27	2	0	0	0	1	2	1	8	42
BERGE NINGBO	VRBQ2	A	Anchorage	0	1	7	29	78	30	21	13	40	10	50	5	284
BERLIAN EKUATOR	HPYK	A	Anchorage	0	0	0	0	0	0	25	15	18	18	13	0	89
BERNARDO QUINTANA A.	C6KJ5	A	New Orleans	67	57	66	51	52	60	89	69	46	69	71	76	773
BISMARCK SEA	WDE5016	A	Kodiak	0	0	0	1	3	2	0	2	3	4	0	0	15
BLS ABILITY	ELXX8	A	Anchorage	25	22	29	4	0	9	23	7	11	19	45	167	361
BLS LIWA	VREF5	A	Anchorage	17	22	30	13	16	17	21	25	23	18	12	18	232
BLUEFIN	WDC7379	A	Seattle	0	0	58	89	71	56	76	76	75	28	0	0	529
BOMAR QUEST	V7JX5	A	Anchorage	5	23	1	0	5	24	87	121	118	83	23	11	501
BRILLIANCE OF THE SEAS	C6SJ5	A	Miami	0	0	14	0	20	0	0	0	0	0	0	0	34
BUCCANEER	WYW5588	A	Kodiak	0	0	0	1	0	1	1	2	0	4	3	0	12
BUFFALO	WXS6134	A	Chicago	5	0	0	10	40	39	13	21	16	8	38	33	223
BULK SPAIN	A8VL9	A	Baltimore	0	0	0	0	0	0	0	0	0	0	1	0	1
BULWARK	WBN4113	A	Kodiak	92	125	132	11	87	126	143	92	53	101	40	5	1007
BUNGA KELANA 3	9MCY6	A	Anchorage	45	17	5	3	2	5	0	0	0	0	0	0	77
BURNS HARBOR	WDC6027	A	Chicago	7	0	1	9	33	43	51	38	12	42	29	13	278
CAFER DEDE	V7PR8	A	New York City	0	0	39	29	2	10	17	29	35	41	32	47	281
CALIFORNIA VOYAGER	WDE5381	A	New Orleans	40	57	43	20	26	36	0	25	50	15	28	12	352
CALUMET	WDE3568	A	Chicago	19	0	0	0	1	10	14	18	33	6	5	27	133
CAPRICORN VOYAGER	C6UZ5	A	Anchorage	49	24	28	20	26	24	30	28	25	26	12	8	300
CAPT. HENRY JACKMAN	VCTV	A	Chicago	1	0	0	0	2	1	8	5	4	24	9	0	54
CAPT. STEVEN L. BENNETT	KAXO	A	Houston	0	0	0	0	39	27	13	41	1	0	0	0	121
CARNIVAL BREEZE	3FZO8	A	Miami	5	11	49	32	21	9	11	7	8	3	27	54	237
CARNIVAL CONQUEST	3FPQ9	A	Miami	13	19	62	34	53	42	44	18	3	9	23	11	331
CARNIVAL DREAM	3ETA7	A	Jacksonville	118	89	241	106	17	2	7	42	18	15	3	25	683
CARNIVAL ECSTASY	H3GR	A	Miami	8	13	52	34	32	11	17	2	2	1	45	34	251

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CARNIVAL ELATION	3FOC5	A	New Orleans	10	5	0	10	26	17	1	0	0	0	0	0	69
CARNIVAL FANTASY	H3GS	A	Charleston	23	12	10	5	18	44	53	28	11	11	12	13	240
CARNIVAL FASCINATION	C6FM9	A	Jacksonville	26	14	8	30	7	2	41	23	13	3	1	28	196
CARNIVAL FREEDOM	3EBL5	A	Miami	59	17	24	12	10	15	28	14	0	0	0	0	179
CARNIVAL GLORY	3FPS9	A	Miami	63	106	27	63	106	89	50	23	0	0	0	56	583
CARNIVAL IMAGINATION	C6FN2	A	Miami	15		614	3	0	3	2	12	18	15	10	121	219
CARNIVAL INSPIRATION	C6FM5	A	Los Angeles	27	3	0	0	0	12	7	8	66	159	67	58	407
CARNIVAL LEGEND	H3VT	A	Miami	38	9	53	36	68	40	35	23	13	0	0	0	315
CARNIVAL LIBERTY	HPYE	A	Jacksonville	40	12	46	13	58	55	39	40	48	58	30	19	467
CARNIVAL MAGIC	3ETA8	A	Houston	126	148	162	336	122	43	33	43	23	15	7	76	1134
CARNIVAL MIRACLE	H3VS	A	Seattle	2	53	97	120	89	56	15	0	22	70	7	0	531
CARNIVAL PARADISE	3FOB5	A	Miami	30	4	6	0	7	36	44	39	40	41	47	28	322
CARNIVAL PRIDE	H3VU	A	Jacksonville	35	16	5	1	11	11	5	14	2	0	0	55	155
CARNIVAL SENSATION	C6FM8	A	Jacksonville	7	1	0	0	16	1	4	0	0	0	8	43	80
CARNIVAL SPLENDOR	3EUS	A	Anchorage	35	12	53	49	51	66	81	46	41	22	20	16	492
CARNIVAL SUNSHINE	C6FN4	A	Jacksonville	32	27	22	21	17	18	36	21	3	103	19	0	319
CARNIVAL TRIUMPH	C6FN5	A	Houston	17	4	0	21	21	0	1	6	0	2	0	0	72
CARNIVAL VALOR	H3VR	A	Miami	10	16	13	9	5	12	8	13	0	11	11	9	117
CARNIVAL VICTORY	3FFL8	A	Miami	0	1	2	36	35	13	39	49	71	117	32	44	439
CAROLINE MAERSK	OZWA2	A	Seattle	7	53	4	51	69	19	26	34	48	25	44	3	383
CASON J. CALLAWAY	WDG7085	A	Chicago	0	0	0	84	65	39	46	6	36	71	35	46	428
CASTOR VOYAGER	C6UZ6	A	Anchorage	27	24	1	43	8	16	11	0	14	35	27	21	227
CELEBRITY CENTURY	9HJI9	A	Seattle	26	57	128	89	117	50	4	13	15	0	17	60	576
CELEBRITY CONSTELLATION	9HJB9	A	Miami	406	383	343	336	230	291	456	268	78	54	160	99	3104
CELEBRITY ECLIPSE	9HXC9	A	Miami	74	133	132	138	75	76	165	259	176	111	112	130	1581
CELEBRITY EQUINOX	9HXD9	A	Miami	137	82	12	70	69	24	0	0	0	0	0	0	394
CELEBRITY INFINITY	9HJD9	A	Miami	171	96	111	66	4	8	5	21	140	29	11	158	820
CELEBRITY MILLENNIUM	9HJF9	A	Anchorage	83	8	116	34	35	19	187	196	83	79	109	102	1051
CELEBRITY REFLECTION	9HA3047	A	Miami	122	78	70	80	60	48	97	114	63	34	67	92	925
CELEBRITY SILHOUETTE	9HA2583	A	Miami	161	231	250	296	162	153	120	114	135	148	147	137	2054
CELEBRITY SOLSTICE	9HRJ9	A	Seattle	165	181	213	225	175	85	275	434	288	185	289	309	2824
CELEBRITY SUMMIT	9HJC9	A	Miami	255	292	194	56	147	171	156	136	87	81	90	102	1767
CENTURION	WBN3022	A	Jacksonville	0	0	0	0	0	0	0	0	0	0	0	0	0
CHARLES ISLAND	C6JT	A	Miami	63	25	49	26	0	0	0	0	0	0	0	0	163
CHARLESTON EXPRESS	WDD6126	A	Houston	37	19	82	120	90	51	26	149	150	138	114	140	1116
CHEMICAL PIONEER	KAFO	A	New York City	4	0	0	0	8	2	3	2	15	6	0	0	40
CHENEGA	WDC3997	A	Kodiak	0	0	0	2	9	3	1	2	2	8	0	0	27
CLIPPER TRITON	3FSC3	A	Anchorage	39	8	49	2	44	0	0	0	0	0	0	0	142
CMB BIWA	ONED	A	Anchorage	0	0	0	0	0	0	0	0	50	216	0	10	276
CMB MAXIME	VRHM4	A	Anchorage	28	22	24	29	15	25	12	0	11	15	20	0	201
COASTAL NOMAD	WDC6439	A	Anchorage	0	0	0	5	14	3	4	1	0	0	0	1	28
COASTAL PROGRESS	WDC6363	A	Anchorage	0	0	0	6	9	12	7	1	9	4	0	3	51
COASTAL TRADER	WSL8560	A	Anchorage	0	0	0	5	14	28	10	8	12	3	3	0	83
COLUMBIA	WYR2092	A	Kodiak	0	0	0	0	0	0	1	1	0	0	0	0	2

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
CORWITH CRAMER	WTF3319	A	Anchorage	0	0	0	0	0	0	0	0	0	0	0	0	0
COSCO DEVELOPMENT	VRIZ9	A	Anchorage	0	0	0	0	0	56	68	70	52	34	28	43	351
COSTA ATLANTICA	IBLQ	A	Miami	0	0	0	0	0	0	0	0	0	0	0	0	0
COSTA FASCINOSA	ICPO	A	Anchorage	48	3	0	0	3	142	138	62	13	0	0	0	409
COSTA FORTUNA	IBNY	A	Miami	23	85	80	42	2	0	0	58	97	58	21	0	466
COSTA LUMINOSA	ICGU	A	Miami	104	126	19	0	0	0	0	0	0	0	0	25	274
COSTA MAGICA	IBQQ	A	Anchorage	0	0	0	2	0	0	0	0	0	0	0	0	2
COSTA MEDITERRANEA	IBCF	A	Anchorage	0	0	0	2	0	0	0	0	0	0	0	0	2
COURAGE	WDC6907	A	Baltimore	15	4	6	3	8	32	18	16	12	7	9	5	135
CROSS POINT	WDA3423	A	Kodiak	0	0	0	1	2	1	3	2	1	0	0	0	10
CROWNED EAGLE	V7QP4	A	Anchorage	0	24	21	2	0	0	0	0	0	0	0	0	47
CRYSTAL MARINE	9VIC4	A	Anchorage	16	5	3	0	0	0	0	0	5	0	12	45	86
CRYSTAL SUNRISE	9V2024	A	Anchorage	69	11	20	1	8	0	1	0	0	0	0	0	110
CSAV LONCOMILLA	VRFB3	A	Charleston	0	0	0	0	0	0	0	4	37	35	4	7	87
CSAV LUMACO	VRFB5	A	Charleston	0	0	0	0	0	0	6	30	29	8	34	5	112
CSCL MANZANILLO	VRFO2	A	Anchorage	0	0	0	0	0	0	29	38	0	140	160	133	500
CSCL MELBOURNE	VRBI8	A	Anchorage	0	0	0	0	0	0	0	14	18	31	4	7	74
CSCL NEW YORK	VRBH7	A	Norfolk	0	0	0	0	0	0	0	38	90	139	89	57	413
CYGNUS VOYAGER	C6OB	A	San Francisco	0	0	0	0	0	0	0	0	0	0	0	0	0
DARYA MA	VRJH5	A	Anchorage	23	11	0	0	0	0	0	0	0	0	0	0	34
DARYA SHREE	VRZZ2	A	Anchorage	0	11	11	18	11	8	8	1	0	0	0	0	68
DARYA TARA	VRWS5	A	Anchorage	1	0	24	1	0	48	39	48	34	18	0	0	213
DEEPWATER CHAMPION	YJVM9	A	Houston	64	45	36	74	81	67	80	97	93	70	85	88	880
DEEPWATER MILLENNIUM	V7HD2	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
DEFENDER	WBN3016	A	Jacksonville	0	4	4	14	20	6	8	1	2	0	2	9	70
DELIVERANCE	WDE2632	A	Kodiak	0	0	0	3	1	0	0	0	0	1	0	0	5
DEPENDABLE	V7DI6	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
DIANE H	WUR7250	A	Kodiak	0	0	0	17	0	5	0	11	9	7	0	0	49
DISCOVERER CLEAR LEADER	V7MO2	A	Houston	0	0	0	106	123	120	115	103	56	119	63	120	925
DISCOVERER DEEP SEAS	V7HC6	A	Houston	69	121	154	104	77	205	219	190	131	161	115	83	1629
DISCOVERER ENTERPRISE	V7HD3	A	Houston	7	1	0	16	12	5	11	0	0	0	0	0	52
DISCOVERER INSPIRATION	V7MO3	A	Houston	0	1	48	24	21	49	28	23	28	112	104	120	558
DISCOVERER SPIRIT	V7HC8	A	Houston	13	63	66	53	81	97	90	30	35	26	28	28	610
DISNEY DREAM	C6YR6	A	Jacksonville	9	26	56	24	38	55	11	8	1	36	34	16	314
DISNEY FANTASY	C6ZL6	A	Jacksonville	0	3	20	3	0	34	37	29	9	0	18	5	158
DISNEY MAGIC	C6PT7	A	Jacksonville	31	3	10	7	24	1	16	3	41	27	15	6	184
DISNEY WONDER	C6QM8	A	Miami	119	241	121	15	16	19	19	5	0	30	47	50	682
DOMINATOR	WBZ4106	A	Anchorage	8	51	44	0	0	27	53	5	0	0	0	0	188
DUNCAN ISLAND	C6JS	A	Miami	43	44	56	33	0	0	0	0	0	0	0	1	177
DUSK	WDE6955	A	Kodiak	0	0	0	0	0	1	0	0	0	0	0	0	1
EAGLE ANAHEIM	S6TF	A	Houston	68	39	29	3	49	91	0	0	0	0	0	0	279
EAGLE ATLANTA	S6TE	A	Houston	60	88	69	9	0	0	0	0	0	0	0	0	226
EAGLE AUSTIN	S6TB	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
EAGLE BALTIMORE	9VHG	A	New York City	7	104	40	155	169	150	99	73	2	22	71	117	1009

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
EAGLE BIRMINGHAM	S6LO	A	New York City	0	0	0	0	0	0	0	0	0	0	0	1	1
EAGLE BOSTON	9VHI	A	New York City	0	0	0	0	0	0	0	0	0	0	0	0	0
EAGLE FORD	KQXZ	A	Anchorage	36	6	7	9	2	0	0	0	0	0	0	0	60
EAGLE KANGAR	9V8472	A	Houston	5	34	28	0	0	0	0	0	0	0	0	0	67
EAGLE KINABALU	9V8779	A	Houston	0	0	0	0	0	52	76	48	48	58	42	6	330
EAGLE KINARUT	9V8908	A	Houston	18	14	26	24	11	11	7	1	0	0	0	0	112
EAGLE KLANG	9V8640	A	Houston	22	0	0	0	20	38	33	51	16	0	0	0	180
EAGLE KUANTAN	9V8376	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
EAGLE KUCHING	9V8132	A	Houston	0	0	0	0	0	0	21	97	91	23	1	0	233
EAGLE MILAN	3FBJ6	A	Anchorage	18	13	6	0	6	1	1	0	0	0	0	1	46
EAGLE OTOME	S6FM	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
EAGLE PHOENIX	9VKH2	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
EAGLE SIBU	9VIJ3	A	New Orleans	31	71	41	30	33	7	0	0	0	0	0	0	213
EAGLE STAVANGER	3FNZ5	A	Houston	0	0	0	0	0	0	19	64	60	64	46	62	315
EAGLE SYDNEY	3FUU	A	Norfolk	148	188	122	184	0	0	0	0	0	0	0	0	642
EAGLE TACOMA	S6NK2	A	Houston	0	0	0	12	20	17	16	20	21	22	20	21	169
EAGLE TAMPA	S6NK6	A	Houston	9	14	9	0	34	32	8	10	6	0	0	0	122
EAGLE TOLEDO	S6NK3	A	Houston	0	2	47	63	138	71	0	0	0	0	0	0	321
EAGLE TORRANCE	9VMG5	A	Houston	0	0	0	0	0	0	5	33	50	39	66	64	257
EAGLE TURIN	9VMG6	A	Houston	1	0	0	0	0	0	0	0	0	5	19	16	41
EDGAR B. SPEER	WDG7083	A	Chicago	0	0	0	8	9	88	123	153	96	36	17	0	530
EDWIN H. GOTT	WDG7082	A	Chicago	8	0	0	32	5	122	36	58	76	93	6	119	555
EL FARO	WFJK	A	Jacksonville	0	0	1	0	2	0	48	11	18	37	10	10	137
EL YUNQUE	WGJT	A	Jacksonville	45	42	26	55	74	77	82	92	86	77	33	8	696
EMPIRE STATE	KKFW	A	New YorkCity	0	0	0	0	83	138	169	70	0	0	0	0	460
ENCHANTMENT OF THE SEAS	C6FZ7	A	Jacksonvillw	0	0	0	0	0	0	1	0	0	0	0	0	1
ENDEAVOR (AWS)	WCE5063	A	New York City	456	329	215	696	539	551	546	741	689	430	487	731	6410
ENDURANCE	WDE9586	A	Houston	49	49	71	21	34	19	28	18	11	45	35	79	459
ENDURANCE	WDF7523	A	Kodiak	28	15	5	7	14	12	0	14	15	20	18	23	171
ENSIGN	WBN3012	A	Jacksonville	6	3	0	0	0	8	0	8	3	8	0	0	36
EOT SPAR	WDE9193	A	Miami	10	26	20	23	49	20	16	23	34	42	41	40	344
ERNEST N	A8PQ6	A	Anchorage	0	0	0	1	21	3	0	25	7	39	9	14	119
ESHIPS FALCON	A8VG7	A	ANchorage	0	0	0	1	5	19	12	12	12	8	8	0	77
EURODAM	PHOS	A	Miami	99	47	28	47	35	19	8	124	70	40	80	61	658
EURUS LIMA	A8MH9	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
EURUS LISBON	A8MI2	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
EURUS LONDON	A8MH7	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
EVER DAINTY	9V7951	A	Baltimore	0	0	0	0	10	28	34	9	12	16	7	0	126
EVER DECENT	9V7952	A	New York City	40	29	49	36	52	29	20	18	20	19	3	5	320
EVER DELIGH	3FCB8	A	New York City	12	0	0	0	9	5	8	2	5	0	2	9	52
EVER DELUXE	9V7953	A	New York City	1	1	5	2	0	0	0	0	0	0	0	5	14
EVER DIADEM	9V7955	A	New York City	0	0	0	0	0	8	39	0	0	0	0	19	66
EVER DIAMOND	3FQS8	A	New York City	49	97	192	71	90	23	0	23	9	0	8	12	574
EVER DIVINE	9V7956	A	Norfolk	29	12	23	39	21	0	0	0	0	0	0	0	124

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
EVER DYNAMIC	3FUB8	A	New York City	33	9	5	10	3	0	2	0	0	22	0	16	100
EVER EAGLE	ZNZH6	A	Seattle	0	0	0	0	0	0	0	8	0	22	18	21	69
EVER ELITE	VSJG7	A	Los Angeles	0	0	0	0	0	0	11	18	0	0	17	8	54
EVER ETHIC	VQFS4	A	Seattle	0	43	40	22	44	23	34	63	47	39	1	10	366
EVER EXCEL	VSXV3	A	Los Angeles	0	0	0	0	0	0	0	0	0	1	0	0	1
EVER LEADING	2FRK8	A	Norfolk	0	0	0	0	0	0	34	76	36	95	47	47	335
EVER LEGACY	9V9290	A	New York City	0	0	0	0	0	0	0	10	1	11	0	0	22
EVER LEGEND	9V9724	A	New York City	0	0	4	8	0	2	0	33	0	15	12	4	78
EVER LISSOME	2HDG3	A	New York City	0	0	0	0	0	4	48	0	12	0	14	2	80
EVER LIVEN	BKIE	A	New York City	0	0	0	0	0	0	12	0	34	63	5	1	115
EVER LIVING	9V9791	A	New York City	0	0	0	0	0	0	0	0	0	0	34	43	77
EVER RADIANT	3FFR4	A	Los Angeles	13	29	49	39	1	0	0	0	0	0	0	0	131
EVER SAFETY	3EMQ4	A	Anchorage	0	0	0	35	42	66	43	51	24	42	57	12	372
EVER SALUTE	3ENU5	A	Anchorage	0	2	5	0	3	3	4	0	0	0	0	1	18
EVER SHINE	MJKZ4	A	Anchorage	16	16	10	5	9	0	8	0	2	2	0	2	70
EVER SIGMA	MKKZ7	A	Seattle	41	11	14	45	34	49	51	25	40	0	0	11	321
EVER STEADY	3EHT6	A	Anchorage	0	0	0	0	0	0	0	0	0	0	0	3	3
EVER STRONG	3EJG3	A	Seattle	0	0	0	0	0	0	0	0	0	0	0	4	4
EVER SUMMIT	3EKU3	A	Anchorage	5	10	20	11	40	8	20	2	5	5	0	6	132
EVER SUPERB	3EGL5	A	Anchorage	0	0	0	0	0	0	0	0	1	16	9	4	30
EVER ULYSSES	9V7962	A	Anchorage	88	103	71	0	1	29	0	0	0	0	2	7	301
EVER UNIFIC	9V7961	A	Anchorage	0	0	0	0	0	0	1	0	0	0	1	0	2
EVER UNIQUE	9V7959	A	Seattle	0	8	0	0	0	0	0	0	0	0	0	0	8
EVER URBAN	3FXN9	A	Seattle	0	4	0	1	8	0	0	3	2	1	0	0	19
EVER URSULA	3FCB9	A	Seattle	0	0	6	0	0	0	0	0	0	0	0	0	6
EVER USEFUL	3FCC9	A	Anchorage	22	0	10	7	6	5	8	11	13	4	5	5	96
EVER UTILE	3FZA9	A	Seattle	0	0	0	0	0	0	28	0	0	10	13	8	59
EVEREST SPIRIT	C6FY8	A	Anchorage	137	179	151	16	35	27	0	0	0	11	2	1	559
EVERGREEN STATE	WDE4430	A	San Francisco	40	21	58	63	55	53	25	16	22	1	0	0	354
EXCALIBUR	ONCE	A	Houston	95	67	66	79	60	45	60	57	33	43	5	30	640
EXCEL	ONAI	A	Houston	14	26	14	45	40	57	41	34	39	18	31	38	397
EXCELERATE	ONDY	A	Houston	42	57	65	44	56	81	66	55	83	82	70	39	740
EXCELLENCE	ONBG	A	Houston	0	0	0	0	0	0	0	0	65	96	83	98	342
EXCELSIOR	ONCD	A	Houston	31	34	66	44	33	59	65	45	70	93	90	51	681
EXPEDIENT	ONFY	A	Houston	50	15	71	36	47	5	33	57	0	0	0	0	314
EXPLORER	ONFE	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
EXPLORER	WBN7618	A	Jacksonville	3	11	19	2	9	0	0	0	0	0	0	0	44
EXPLORER OF THE SEAS	C6SE4	A	Jacksonville	9	10	15	14	28	3	13	13	4	5	16	27	157
EXQUISITE	ONFX	A	Houston	0	0	0	0	0	0	0	0	17	47	57	77	198
FAIRCHEM FILLY	3EJM9	A	Anchorage	0	0	0	1	0	0	0	0	0	1	3	22	27
FAIRCHEM FRIESIAN	V7PU7	A	Anchorage	0	1	0	0	0	1	0	19	5	28	0	1	55
FAIRCHEM MAVERICK	V7EP2	A	Anchorage	49	14	33	55	28	111	299	221	249	0	0	0	1059
FAIRCHEM MUSTANG	HPOW	A	Anchorage	0	0	0	0	0	0	0	0	0	7	32	50	89
FAIRCHEM STEED	3EBR5	A	Anchorage	0	0	0	0	5	13	5	9	2	12	0	1	47

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
FAIRWEATHER	WDB5604	A	Anchorage	0	0	0	0	1	7	0	0	0	12	0	2	22
FAIRWEATHER (AWS)	WTEB	A	Seattle	0	0	9	3	180	263	79	0	0	0	0	0	534
FEDERAL KIVALINA	VRWK5	A	Anchorage	0	9	29	6	0	0	0	0	0	0	0	0	44
FEDERAL SCHELDE	8POF	A	Anchorage	0	0	0	0	0	19	38	20	9	11	7	0	104
FEDERAL SETO	VRZT5	A	Anchorage	26	0	77	36	31	25	94	64	14	16	29	3	415
FEDERAL SEVERN	V7WS8	A	Anchorage	36	7	43	4	3	0	1	8	76	230	574	22	1004
FEDERAL TAMBO	V7YW3	A	Anchorage	75	108	201	285	215	177	579	92	0	1	0	0	1733
FEDERAL TIBER	V7YW2	A	Anchorage	27	26	17	13	1	3	0	0	0	0	0	0	87
FEDERAL YUKINA	VRHN7	A	Anchorage	0	0	0	30	0	0	1	3	9	7	5	10	65
FERDINAND R. HASSLER	WTEK	A	Norfolk	0	0	0	0	0	0	0	0	0	0	0	0	0
FISH HAWK	WRB5085	A	Kodiak	0	0	0	0	16	20	10	15	14	17	5	6	103
FLORIDA VOYAGER	WDF4764	A	Baltimore	3	0	0	0	0	0	13	49	27	0	2	49	143
FREEDOM	WDB5483	A	Jacksonville	22	12	13	24	37	20	2	0	0	26	34	48	238
FREEDOM OF THE SEAS	C6UZ7	A	Jacksonville	0	16	23	13	8	5	23	15	24	9	8	1	145
FRITZI N	A8PQ4	A	Anchorage	0	0	0	15	29	24	27	15	7	1	0	6	124
G. L. OSTRANDER	WCV7620	A	Chicago	33	0	0	149	281	312	69	196	280	81	165	152	1718
GARDEN CITY RIVER	S6AJ8	A	Anchorage	42	49	60	3	0	0	0	0	0	0	0	0	144
GENCO AUGUSTUS	VRDD2	A	Anchorage	35	3	5	0	0	0	0	0	0	0	0	0	43
GENCO CLAUDIUS	V7SY6	A	Anchorage	0	0	0	0	0	0	0	0	0	8	0	0	8
GENCO CONSTANTINE	VRDR8	A	Anchorage	124	31	55	13	6	0	0	0	0	15	14	9	267
GENCO HADRIAN	V7QN8	A	Anchorage	77	106	19	21	21	18	7	5	0	32	30	1	337
GENCO THUNDER	V7LZ4	A	Anchorage	13	20	38	0	0	0	38	1	11	33	1	3	158
GENCO TIBERIUS	VRDD3	A	Anchorage	22	88	62	44	35	47	52	17	54	27	14	22	484
GENCO TITUS	VRDI7	A	Anchorage	0	0	0	0	10	1	0	0	0	0	0	0	11
GENE DUNLAP	WAS2433	A	Kodiak	0	0	0	2	0	1	1	0	0	0	0	1	5
GENERAL RUDDER	WTAU	A	Houston	0	6	0	2	8	70	36	0	0	0	0	0	122
GEORGE N	A8PQ5	A	Anchorage	0	0	0	2	46	66	66	141	93	43	25	29	511
GLEN CANYON BRIDGE	3EFD9	A	Norfolk	29	13	8	46	0	41	41	3	73	19	0	81	354
GOLDEN BEAR	NMRY	A	San Francisco	0	0	0	0	49	29	63	18	0	0	0	0	159
GORDON GUNTER (AWS)	WTEO	A	New Orleans	0	20	158	308	49	151	426	191	330	18	295	27	1943
GORDON JENSEN	WDG3440	A	Kodiak	0	0	0	1	0	0	0	1	0	0	0	0	2
GRANDEUR OF THE SEAS	C6SE3	A	Miami	19	140	75	38	21	67	71	57	26	42	68	67	691
GREAT HAPPY	VRVF7	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
GREAT REPUBLIC	WDF7994	A	Chicago	8	0	0	4	66	100	59	68	22	64	103	189	683
GREEN BAY	WDD9433	A	Seattle	17	33	8	13	0	1	25	4	1	12	14	1	129
GREEN COVE	WDG5660	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
GREEN LAKE	WDDI	A	Jacksonville	15	8	21	0	41	34	27	37	2	0	0	0	185
GREEN POINT	WCY4148	A	Seattle	33	26	11	3	0	1	29	28	23	5	10	8	177
GREEN RIDGE	WZZF	A	Jacksonville	18	17	20	33	24	15	44	38	24	30	40	26	329
GRETA	WDF3298	A	Anchorage	0	0	0	2	0	3	0	0	0	0	0	0	5
GRETCHEN H	WDC9138	A	Kodiak	5	6	16	3	2	34	50	23	29	0	0	0	168
GSF DEVLPMT DRILLER I	YJSW5	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
GSF GRAND BANKS	YJUF7	A	Houston	0	0	0	0	0	9	71	37	179	168	173	181	818
GUANG DONG BRIDGE	3EFI	A	New York City	0	0	0	0	0	0	0	0	0	0	0	0	0

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
GUARD	WCY2823	A	Kodiak	0	0	0	2	0	0	0	0	0	0	0	0	2
GUARDIAN	WBO2511	A	Kodiak	13	8	13	10	20	11	15	2	0	23	16	0	131
GUARDSMAN	WBN5978	A	Kodiak	0	0	0	0	0	0	1	0	7	38	1	0	47
GULF TITAN	WDA5598	A	Kodiak	11	3	0	0	0	12	5	19	3	13	1	44	111
GUTHORM MAERSK	OUJN2	A	Los Angeles	0	17	19	0	0	0	0	0	0	0	0	1	37
H A SKLENAR	C6CL6	A	Houston	122	98	99	101	124	127	153	139	115	142	100	92	1412
H. LEE WHITE	WZD2465	A	Chicago	4	0	0	34	35	38	32	21	23	30	45	52	314
HALLE FOSS	WCF3930	A	Kodiak	0	0	0	0	0	0	0	0	0	0	0	0	0
HANJIN AMI	VRNF8	A	Los Angeles	0	0	0	0	0	0	0	5	31	59	29	37	161
HANJIN MILANO	V7SG8	A	New York City	0	0	0	0	0	0	0	23	0	0	0	42	65
HELENKA B	WAH5520	A	Anchorage	0	0	0	0	0	0	2	0	0	0	0	0	2
HENRY B. BIGELOW (AWS)	WTDF	A	New York City	0	0	4	60	0	263	127	235	354	495	248	0	1786
HENRY BRUSCO	WDC9691	A	Kodiak	0	0	0	1	1	0	0	0	4	0	0	0	6
HENRY GOODRICH	YJQN7	A	Houston	121	130	159	185	196	215	131	18	114	98	134	132	1633
HERBERT C. JACKSON	WL3972	A	Chicago	111	0	0	0	509	710	711	661	650	696	687	664	5399
HI'IALAKAI (AWS)	WTEY	A	Honolulu	0	0	320	192	249	369	546	581	87	0	0	0	2344
HOEGH CHIBA	LAVD7	A	Jacksonville	23	35	23	39	38	58	56	50	37	36	55	0	450
HOEGH MASAN	S6HK	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
HON. JAMES L. OBERSTAR	WL3108	A	Chicago	134	0	0	2	543	713	688	590	626	653	680	678	5307
HONOR	WDC6923	A	Baltimore	38	17	17	48	23	36	27	24	19	23	27	23	322
HOOD ISLAND	C6LU4	A	Miami	54	25	22	16	5	0	0	0	0	0	0	0	122
HORIZON ANCHORAGE	KGTX	A	Anchorage	102	109	53	87	73	47	138	141	77	147	163	66	1203
HORIZON CONSUMER	WCHF	A	Seattle	21	23	36	45	74	59	0	0	0	0	0	0	258
HORIZON DISCOVERY	WZJD	A	Jacksonville	0	26	82	180	96	112	131	121	110	137	0	0	995
HORIZON ENTERPRISE	KRGB	A	Seattle	44	45	57	57	72	67	59	72	56	58	63	70	720
HORIZON KODIAK	KGTZ	A	Anchorage	33	14	12	21	27	45	37	11	19	70	65	50	404
HORIZON NAVIGATOR	WPGK	A	Jacksonville	78	68	79	77	56	78	81	35	37	73	57	42	761
HORIZON PACIFIC	WSRL	A	Seattle	40	36	42	39	0	26	26	35	31	59	48	48	430
HORIZON RELIANCE	WFLH	A	Los Angeles	66	73	87	80	76	78	82	74	71	49	81	72	889
HORIZON SPIRIT	WFLG	A	Los Angeles	62	64	73	72	66	69	77	70	67	65	74	92	851
HORIZON TACOMA	KGTY	A	Anchorage	43	0	16	92	101	97	65	45	78	104	427	56	1124
HORIZON TRADER	KIRH	A	Jacksonville	64	64	71	101	93	58	55	62	45	74	12	46	745
HOS ACHIEVER	YJVG4	A	Houston	0	0	0	0	0	51	71	80	30	60	43	57	392
HOUSTON	KCDK	A	Miami	20	19	46	35	31	39	70	41	0	2	0	0	303
HUNTER	WBN3744	A	Kodiak	5	0	4	12	6	0	2	18	15	0	6	20	88
HYDRA VOYAGER	C6AB8	A	Anchorage	42	61	60	42	43	16	49	64	71	78	35	17	578
IBRAHIM DEDE	V7QW6	A	New York City	0	1	7	3	40	9	29	25	28	48	5	0	195
INCENTIVE	WCW9879	A	Kodiak	0	0	1	0	0	0	15	5	0	0	0	0	21
INDEPENDENCE II	WGAX	A	Baltimore	34	15	20	8	31	29	35	42	23	22	0	0	259
INDEPENDENCE SEAS	C6WW4	A	Miami	0	8	6	4	20	0	0	0	10	5	0	0	53
INDIANA HARBOR	WXN3191	A	Chicago	0	0	0	2	1	23	33	34	28	8	0	0	129
INTEGRITY	WDC6925	A	Baltimore	16	28	37	42	67	39	33	48	40	37	37	15	439
INTEGRITY	WDD7905	A	Anchorage	69	44	31	82	24	120	24	107	49	73	14	0	637
ISLAND SCOUT	WDC6588	A	Kodiak	0	1	2	9	2	0	0	0	0	0	0	0	14

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
IVER FOSS	WYE6442	A	Kodiak	0	0	0	0	0	15	37	2	4	10	0	0	68
JAMES L. KUBER	WDF7020	A	Chicago	95	0	0	52	115	123	102	68	99	119	38	60	871
JAMES R. BARKER	WYP8657	A	Chicago	273	0	0	4	529	716	743	742	701	722	694	666	5790
JEAN ANNE	WDC3786	A	Los Angeles	20	32	39	38	15	26	13	23	10	11	35	24	286
JENNY N	A8PQ7	A	Anchorage	18	14	37	30	32	8	1	0	38	48	58	48	332
JEWEL OF THE SEAS	C6FW9	A	Miami	34	19	26	17	13	15	13	5	6	25	4	19	196
JOHN B. AIRD	VCYP	A	Chicago	0	0	0	21	41	35	31	33	10	0	2	0	173
JOHN BRIX	WDD9277	A	Kodiak	0	0	0	0	0	0	0	0	0	1	0	0	1
JOHN G. MUNSON	WDG7084	A	Chicago	0	0	0	6	23	3	10	0	70	52	36	28	228
JOHN J. BOLAND	WZE4539	A	Chicago	0	0	0	0	0	2	9	3	3	6	0	0	23
JOSEPH L. BLOCK	WXY6216	A	Chicago	159	0	485	710	738	574	697	620	604	607	714	667	6575
JUSTINE FOSS	WYL4978	A	Kodiak	0	0	0	0	0	0	1	4	0	6	0	0	11
KAAN KALKAVAN	TCTX2	A	New York City	13	8	0	21	6	18	2	0	19	42	52	56	237
KAETHE C. RICKMERS	V7MB9	A	Norfolk	0	0	0	0	0	0	0	0	0	0	0	0	0
KAREN ANDRIE	WBS5272	A	Chicago	65	22	12	0	31	2	0	0	0	8	5	13	158
KAROLINE N	A8PQ8	A	Anchorage	0	0	50	30	22	3	0	0	0	0	0	0	105
KATRINA EM	WTK2245	A	Kodiak	0	1	0	0	0	0	0	0	0	0	0	0	1
KAUAI	WSRH	A	San Francisco	0	0	0	3	12	0	0	0	0	0	0	0	15
KAYE E. BARKER	WCF3012	A	Chicago	226	0	0	0	367	619	741	732	715	705	666	733	5504
KENNICOTT	WCY2920	A	Kodiak	0	0	1	4	2	2	6	35	4	0	0	0	54
KESWICK	C6XE5	A	Anchorage	8	0	0	12	9	1	1	11	2	0	0	0	44
KILO MOANA	WDA7827	A	Honolulu	10	16	26	49	105	34	18	15	41	41	53	18	426
KNORR (AWS)	KCEJ	A	New York City	0	0	0	420	699	669	743	738	712	743	718	739	6181
KOTA HARUM	9VFF8	A	Anchorage	35	9	10	28	24	52	17	12	64	0	3	0	254
KOTA JATI	VRWJ7	A	Anchorage	160	99	81	0	33	8	8	30	27	26	0	0	472
LAHORE EXPRESS	VRBY8	A	Anchorage	0	0	0	0	0	0	0	0	0	0	0	20	20
LAURENCE M. GOULD (AWS)	WCX7445	A	Seattle	117	559	525	471	319	58	312	689	608	448	514	364	4984
LAVENDER PASSAGE	3FJY6	A	Anchorage	76	16	3	10	8	3	37	6	3	0	2	1	165
LECONTE	WZE4270	A	Anchorage	0	0	0	4	3	2	0	0	0	2	0	0	11
LEE A. TREGURTHA	WUR8857	A	Chicago	253	0	38	7	422	703	648	604	696	711	689	723	5494
LIBERTY DESIRE	V7AB6	A	Anchorage	60	15	37	0	16	13	11	7	13	0	0	0	172
LIBERTY EAGLE	WHIA	A	Houston	0	22	9	0	35	1	3	1	24	11	22	15	143
LIBERTY GLORY	WADP	A	Houston	3	49	6	12	19	0	11	14	13	61	52	38	278
LIBERTY GRACE	WADN	A	Houston	9	1	0	12	64	14	16	27	5	0	21	10	179
LIBERTY OF THE SEAS	C6VQ8	A	Miami	0	0	0	0	0	0	0	0	0	0	11	3	14
LIBERTY PRIDE	KRAU	A	Charleston	52	40	14	81	17	6	24	41	57	43	89	52	516
LIBERTY PROMISE	WWMZ	A	Jacksonville	0	0	3	12	10	21	0	1	5	12	25	42	131
LION CITY RIVER	9VJC5	A	Anchorage	18	4	3	11	17	4	0	0	0	0	1	3	61
LIVORNO EXPRESS	ZCDV9	A	Houston	66	18	16	19	0	0	0	0	0	0	0	0	119
LNG GEMINI	V7BW9	A	Anchorage	0	0	0	1	0	0	0	0	0	0	0	0	1
LNG JUPITER	C6XQ5	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
LOIS H	WTD4576	A	Kodiak	0	0	0	0	6	8	8	9	6	0	0	2	39
LOWLANDS ORCHID	ONFP	A	Anchorage	0	0	1	0	0	72	87	29	8	73	41	12	323
LOWLANDS PHOENIX	9HIY9	A	Anchorage	92	52	73	57	62	42	54	41	33	34	0	0	540

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LYLA	V7QK3	A	Anchorage	39	64	54	33	6	2	3	1	2	2	24	13	243
MAASDAM	PFRO	A	Miami	19	26	81	80	65	41	13	373	392	342	345	457	2234
MADRID SPIRIT	ECFM	A	Anchorage	5	43	0	0	0	0	0	0	0	0	0	0	48
MAERSK ATLANTA	WNTL	A	Charleston	54	69	75	57	0	7	18	10	12	29	68	83	483
MAERSK CAROLINA	WBDS	A	Charleston	12	31	18	0	15	4	16	7	6	46	35	32	222
MAERSK CERES	D5DG4	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
MAERSK CHICAGO	WMCS	A	Norfolk	18	33	17	34	4	0	0	4	51	62	56	38	317
MAERSK COLUMBUS	WMCU	A	Norfolk	0	0	0	0	0	0	0	0	0	0	0	0	0
MAERSK DENVER	WMDQ	A	New York City	2	62	31	35	35	41	52	42	47	65	28	27	467
MAERSK DETROIT	WMDK	A	Norfolk	43	39	45	50	50	42	46	32	52	36	29	22	486
MAERSK HARTFORD	WMHA	A	New York City	26	11	38	45	35	28	93	195	101	28	37	35	672
MAERSK HEIWA	9V9746	A	Anchorage	62	90	112	124	192	74	47	22	44	67	23	6	863
MAERSK IDAHO	WKPM	A	New York City	6	33	37	33	66	60	75	53	37	85	71	29	585
MAERSK IOWA	KABL	A	Norfolk	61	54	34	24	56	62	67	77	76	47	11	59	628
MAERSK JAUN	HBDD	A	Charleston	0	0	0	0	0	0	0	0	0	0	0	0	0
MAERSK KENSINGTON	2AEC7	A	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
MAERSK KENTUCKY	WKPY	A	New York City	60	55	37	41	38	40	90	74	55	37	46	16	589
MAERSK MEMPHIS	WMMK	A	Charleston	57	38	40	62	69	93	41	50	73	64	40	54	681
MAERSK MISSOURI	WAHV	A	Norfolk	30	45	55	47	21	32	41	34	40	52	59	46	502
MAERSK MONTANA	WCDP	A	New York City	56	34	54	49	57	39	31	52	53	48	36	23	532
MAERSK NIAGARA	VREO9	A	Anchorage	36	0	0	0	0	0	0	0	11	22	22	6	97
MAERSK OHIO	KABP	A	New York City	108	69	70	51	64	85	100	72	59	54	53	100	885
MAERSK PEARY	WHKM	A	Houston	80	82	17	20	34	38	24	65	51	46	43	27	527
MAERSK PITTSBURGH	WMPP	A	New York City	99	76	23	48	68	38	7	91	90	31	17	61	649
MAERSK UTAH	WKAB	A	Norfolk	82	60	94	71	77	77	78	85	84	52	57	84	901
MAERSK WISCONSIN	WKPN	A	New York City	2	0	7	55	61	68	25	43	19	57	61	52	450
MAHIMAHI	WHRN	A	Los Angeles	0	0	0	0	0	0	0	0	0	0	0	0	0
MAIA H	WYX2079	A	Kodiak	0	0	0	0	0	0	30	12	12	5	7	0	66
MAJESTY OF THE SEAS	C6FZ8	A	Miami	19	17	12	8	16	1	0	33	40	91	83	60	380
MALASPINA	WI6803	A	Anchorage	0	0	0	0	1	2	3	0	1	0	0	0	7
MALOLO	WYH6327	A	Kodiak	0	0	0	4	15	5	2	3	1	1	0	1	32
MANISTEE	WDB6831	A	Chicago	2	0	0	0	61	152	150	100	98	89	183	209	1044
MANITOWOC	WDE3569	A	Chicago	11	0	0	6	1	76	46	57	25	47	28	6	303
MANOA	KDBG	A	San Francisco	51	42	39	39	24	9	2	17	24	37	13	21	318
MANUKAI	WRGD	A	Los Angeles	24	55	39	26	22	23	19	1	13	4	5	9	240
MANULANI	WECH	A	Los Angeles	56	39	42	32	3	17	15	5	21	25	43	25	323
MARCHEN MAERSK	OUIY2	A	Seattle	1	9	0	0	12	5	0	0	13	6	0	0	46
MARCUS G. LANGSETH (AWS)	WDC6698	A	Anchorage	0	12	0	0	0	4	18	10	15	24	2	0	85
MARVELLOUS	VRJI2	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
MATANUSK	WN4201	A	Kodiak	0	0	0	3	2	0	0	0	1	0	0	0	6
MATHILDE MAERSK SKAGEN	OUJS2	A	Los Angeles	0	0	0	0	0	61	4	0	14	33	0	0	112
MATSONIA	KHRC	A	Los Angeles	0	0	0	4	10	6	0	0	0	0	0	0	20
MAUNALEI	KFMV	A	Baltimore	15	7	0	0	1	0	0	0	0	0	0	22	45
MAUNAWILI	WGEB	A	Los Angeles	0	0	0	0	0	0	0	0	0	40	16	20	76

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
MEIN SCHIFF 2	9HJG9	A	Miami	68	45	0	0	0	0	0	0	0	0	0	0	113
MELVILLE (AWS)	WECB	A	Los Angeles	381	672	336	97	590	702	739	743	696	731	719	743	7051
MESABI MINER	WYQ4356	A	Chicago	287	0	31	0	493	677	463	744	641	685	678	672	5371
METTE MAERSK	OUJK2	A	Los Angeles	18	0	0	1	0	0	0	0	0	0	1	0	20
MIDNIGHT SUN	WAHG	A	Seattle	18	36	56	28	59	59	25	36	39	30	22	17	425
MIKE O'LEARY	WDC3665	A	Kodiak	0	0	0	1	0	0	20	0	0	0	0	0	21
MINERAL BEIJING	ONAR	A	Anchorage	45	0	30	57	77	48	155	9	44	44	52	80	641
MINERAL BELGIUM	VRKF5	A	Anchorage	6	68	43	18	49	58	23	6	24	15	9	26	345
MINERAL DALIAN	ONFW	A	Anchorage	53	49	55	45	28	47	17	46	30	24	9	13	416
MINERAL FAITH	VRKS4	A	Anchorage	11	26	7	0	0	0	27	38	30	15	8	40	202
MINERAL KYOTO	ONFI	A	Anchorage	32	15	14	23	5	31	39	62	23	11	19	25	299
MINERAL NEW YORK	ONGI	A	Anchorage	5	8	2	0	7	27	4	2	0	1	29	37	122
MINERAL NINGBO	ONGA	A	Anchorage	96	72	88	0	28	0	12	9	1	0	103	219	628
MINERAL NOBLE	ONAN	A	Anchorage	21	0	1	16	25	20	26	21	12	35	35	31	243
MINERAL TIANJIN	ONBF	A	Anchorage	46	30	21	26	48	9	31	35	28	13	2	0	289
MISS ROXANNE	WCX4992	A	Kodiak	0	0	0	0	1	0	0	0	0	0	0	0	1
MISSISSIPPI VOYAGER	WDD7294	A	San Francisco	25	0	0	0	20	33	27	24	22	0	5	17	173
MOKIHANA	WNRD	A	San Francisco	44	44	61	59	36	46	54	35	47	48	49	64	587
MOKU PAHU	WBWK	A	San Francisco	0	0	0	24	0	17	23	25	14	9	0	1	113
MOL EXPERIENCE	3ELI7	A	Charleston	0	0	0	0	0	0	0	0	0	1	0	0	1
MOL MAJESTY	V7SV4	A	Los Angeles	0	0	0	0	0	0	0	0	0	0	0	0	00
MOL PARADISE	9V3118	A	Anchorage	0	0	0	0	0	0	0	1	0	37	94	30	162
MONITOR	WCX9104	A	Jacksonville	7	15	9	7	0	0	1	16	12	13	10	0	90
MONTREALAIS	VDWC	A	Chicago	0	0	0	0	0	0	2	23	27	9	32	37	130
MORNING HARUKA	A8GK7	A	Anchorage	13	6	16	10	0	4	1	2	17	0	45	25	139
MSC POESIA	3EPL4	A	Miami	0	0	0	0	0	0	0	0	0	0	0	0	0
NACHIK	WDE7904	A	Kodiak	0	0	0	0	0	0	24	63	1	0	0	0	88
NANCY FOSTER (AWS)	WTER	A	Charleston	0	0	70	86	83	41	0	0	70	0	34	0	384
NANUQ	WDF2026	A	Kodiak	0	0	0	1	3	1	1	0	0	0	0	0	6
NATHANIEL B. PALMER (AWS)	WBP3210	A	Seattle	211	225	287	319	326	162	338	318	317	167	305	328	3303
NATIONAL GLORY	WDD4207	A	Houston	74	49	30	19	38	48	31	31	35	36	19	25	435
NAVIGATOR	WBO3345	A	Jacksonville	0	0	0	8	2	0	0	0	0	0	0	0	10
NAVIGATOR OF THE SEAS	C6FU4	A	Houston	1	7	4	0	0	0	0	15	3	0	0	12	42
NEPTUNE VOYAGER	C6FU7	A	New Orleans	2	18	6	3	2	0	18	16	5	0	62	32	164
NEVZAT KALKAVAN	TCMO2	A	New York City	0	0	0	0	0	0	0	0	0	0	9	28	37
NEW DELHI EXPRESS	VRBK5	A	Charleston	18	0	0	0	0	0	0	0	0	0	0	0	18
NEW HORIZON (AWS)	WAWB	A	Los Angeles	211	89	740	669	629	587	739	744	720	742	718	744	7332
NIEUW AMSTERDAM	PBWQ	A	Miami	9	64	110	81	44	34	21	79	90	135	221	375	1263
NOKEA	WDD6946	A	Kodiak	0	0	0	0	5	2	4	3	0	2	0	0	16
NOORDAM	PHET	A	Miami	162	179	112	15	48	13	36	136	250	93	50	94	1188
NORTH STAR	KIYI	A	Seattle	41	46	73	95	50	50	47	71	90	52	34	37	686
NORTHERN VICTOR	WCZ6534	A	Kodiak	3	0	0	6	0	4	0	0	0	0	0	0	13
NORTHWEST SWAN	ZCDJ9	A	Anchorage	71	39	69	5	35	4	12	71	80	36	42	54	518
NORWEGIAN BREAKAWAY	C6ZJ3	A	New York City	0	0	0	0	0	87	115	151	99	79	77	81	689

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
NORWEGIAN DAWN	C6FT7	A	Miami	275	248	148	50	41	117	76	19	25	6	0	212	1217
NORWEGIAN EPIC	C6XP7	A	Miami	34	17	51	35	44	44	35	46	33	37	74	76	526
NORWEGIAN GEM	C6VG8	A	Jacksonville	39	46	12	11	9	76	115	57	49	42	53	36	545
NORWEGIAN GETAWAY	C6ZJ4	A	Miami	0	49	19	61	100	73	103	87	69	139	80	62	842
NORWEGIAN JADE	C6WK7	A	Anchorage	411	602	585	398	14	12	229	233	220	349	281	252	3586
NORWEGIAN JEWEL	C6TX6	A	Jacksonville	63	25	0	75	59	67	34	24	224	124	58	190	943
NORWEGIAN PEARL	C6VG7	A	Anchorage	594	484	529	632	654	620	369	305	425	348	406	437	5803
NORWEGIAN SKY	C6PZ8	A	Miami	26	29	63	20	51	36	84	83	27	34	32	28	513
NORWEGIAN SPIRIT	C6TQ6	A	New Orleans	236	179	214	82	0	84	38	31	68	58	31	339	1360
NORWEGIAN STAR	C6FR3	A	Anchorage	191	122	163	107	79	97	102	49	13	31	15	196	1165
NORWEGIAN SUN	C6RN3	A	Miami	177	219	72	127	190	121	45	42	98	252	234	315	1892
NOVA STAR	C6AZ4	A	New York City	0	0	0	0	78	132	111	114	97	5	0	0	537
NUNANIQ	WRC2049	A	Kodiak	0	0	0	0	7	10	0	2	0	2	2	0	23
NYK DIANA	3EOS4	A	New York City	11	13	13	10	4	0	0	1	5	5	8	42	112
NYK FUSHIMI	9V8741	A	Anchorage	24	32	38	10	0	0	0	0	0	0	0	0	104
NYK LIBRA	HOJY	A	Los Angeles	0	46	17	0	0	0	0	0	0	0	0	0	63
NYK ROSA	3FJM9	A	Los Angeles	53	44	43	33	20	14	68	0	0	0	0	0	275
NYK RUMINA	9V7645	A	New York City	9	14	10	5	2	0	1	0	0	0	0	0	41
NYK TRITON	3FUL2	A	New York City	40	12	48	29	39	38	18	1	35	39	85	44	428
NYK VERONICA	3EYJ5	A	Anchorage	45	35	63	47	19	43	29	0	17	0	0	0	298
OASIS OF THE SEAS	C6XS7	A	Miami	39	50	6	9	4	7	2	5	0	0	26	22	170
OCEAN ATLAS	WDHL	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
OCEAN CHARGER	WDE9698	A	Houston	0	0	0	0	0	0	0	0	0	0	0	0	0
OCEAN CRESCENT	WDF4929	A	Houston	9	13	9	30	40	17	17	5	9	14	56	43	262
OCEAN EAGLE	WDG8082	A	Kodiak	0	0	0	2	28	17	0	10	8	3	0	0	68
OCEAN GIANT	WDG4379	A	Jacksonville	83	46	33	0	0	0	0	0	0	28	41	32	263
OCEAN HOPE 3	WDF2354	A	Kodiak	6	8	9	5	0	16	0	0	3	2	0	0	49
OCEAN MARINER	WCF3990	A	Kodiak	0	0	0	0	17	15	14	4	3	7	0	0	60
OCEAN RANGER	WAM7635	A	Kodiak	0	0	1	0	2	5	0	5	0	0	0	7	20
OCEAN TITAN	WDB9647	A	Kodiak	0	0	0	2	0	0	4	19	0	3	24	0	52
OCEAN WAVE	WDG3180	A	Kodiak	0	0	0	0	0	0	0	2	46	12	0	0	60
OCEANUS	WXAQ	A	Seattle	9	0	0	48	79	92	93	60	68	31	157	90	727
OJIBWAY	CFN4292	A	Chicago	0	0	0	0	0	15	6	0	14	1	2	0	38
OKEANOS EXPLORER (AWS)	WTDH	A	New York City	0	42	256	153	70	0	0	97	86	90	0	0	794
OLEANDER	V7SX3	A	New York City	29	21	35	34	25	16	24	27	31	33	30	17	322
OLIVE L. MOORE	WDF7019	A	Chicago	3	0	0	74	192	352	279	368	287	330	270	249	2404
OOCL AMERICA	VRWE8	A	Seattle	0	0	0	0	0	0	0	5	13	15	37	10	80
OOCL HALIFAX	VQUQ4	A	New York City	0	0	0	0	0	0	0	0	0	0	0	0	0
OOCL VANCOUVER	3EBG2	A	New York City	26	27	0	30	0	20	18	13	20	9	35	0	198
OOSTERDAM	PBKH	A	Anchorage	82	193	165	166	97	213	357	340	291	221	326	407	2856
ORANGE BLOSSOM	ELEI6	A	New York City	71	29	6	0	0	0	0	0	0	0	0	0	106
ORANGE BLOSSOM 2	D5DS3	A	New York City	0	0	0	0	0	0	0	0	0	2	7	24	33
ORANGE OCEAN	D5DS2	A	New York City	0	0	0	0	0	0	0	0	0	0	0	29	29
ORANGE SUN	A8HY8	A	New York City	6	7	6	8	12	12	11	4	2	17	16	4	105

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ORANGE WAVE	ELPX7	A	New York City	0	0	0	7	24	30	8	13	1	0	18	24	125
ORE DONGJIAKOU	9V9116	A	Anchorage	42	36	18	103	190	217	192	84	99	79	21	72	1153
ORE ITALIA	9V9129	A	Anchorage	25	74	64	148	73	3	15	6	0	10	1	8	427
OREGON II (AWS)	WTDO	A	New Orleans	1	0	0	0	341	187	134	387	469	113	251	266	2149
OREGON VOYAGER	WDF2960	A	San Francisco	39	52	0	74	11	11	3	1	0	10	13	3	217
ORIENTAL QUEEN	VRAC9	A	Anchorage	0	0	4	0	19	27	0	0	0	0	0	2	52
ORION LEADER	3FSG9	A	Seattle	0	0	0	0	0	0	0	0	0	0	0	0	0
ORION VOYAGER	C6MC5	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
OSCAR DYSON (AWS)	WTEP	A	Kodiak	0	399	447	623	549	619	555	645	514	325	1	0	4677
OSCAR ELTON SETTE (AWS)	WTEE	A	Honolulu	0	6	122	189	77	605	549	479	558	639	0	0	3224
OSHIMANA	9VAH9	A	Anchorage	111	105	146	74	79	100	54	100	15	3	9	0	796
OURO DO BRASIL	ELPP9	A	Baltimore	0	0	26	56	6	0	0	0	0	0	0	0	88
OVERSEAS ANACORTES	KCHV	A	Miami	7	15	41	30	29	20	6	20	19	22	24	9	242
OVERSEAS ANDROMAR	V7HP4	A	Los Angeles	27	31	25	0	0	0	0	0	0	0	0	0	83
OVERSEAS BOSTON	WJBU	A	Anchorage	22	65	70	58	58	80	75	90	46	48	26	101	739
OVERSEAS CASCADE	WOAG	A	Miami	41	12	25	13	39	38	4	2	12	17	39	21	263
OVERSEAS CHINOOK	WNFQ	A	Houston	4	2	1	12	0	3	0	1	0	14	50	14	101
OVERSEAS HOUSTON	WWAA	A	Miami	0	8	4	0	0	4	1	0	0	0	4	2	23
OVERSEAS LONG BEACH	WAAT	A	Houston	26	5	9	15	4	123	6	0	43	9	6	3	249
OVERSEAS LOS ANGELES	WABS	A	Seattle	199	171	120	83	120	119	217	139	90	120	289	118	1785
OVERSEAS LUXMAR	WDC7070	A	Miami	0	0	0	0	0	0	0	0	0	0	0	0	0
OVERSEAS MARTINEZ	WPAJ	A	Anchorage	11	21	12	23	20	22	25	20	4	3	7	19	187
OVERSEAS NIKISKI	WDBH	A	Anchorage	15	14	27	25	22	49	11	1	17	19	8	6	214
OVERSEAS SANTORINI	WOSI	A	Houston	47	27	29	24	52	32	28	7	3	20	11	17	297
OVERSEAS TAMPA	WOTA	A	Baltimore	22	9	3	2	4	15	0	14	8	2	0	0	79
OVERSEAS TEXAS CITY	WHED	A	New York City	74	18	38	51	30	9	36	20	15	23	21	16	351
PACIFIC CHALLENGER	WDD9281	A	Kodiak	0	0	0	2	1	2	10	0	0	3	1	3	22
PACIFIC FREEDOM	WDD9283	A	Kodiak	0	0	0	0	7	0	0	0	0	0	0	4	11
PACIFIC RAVEN	WDD9278	A	Kodiak	0	0	0	1	26	25	20	16	31	22	1	4	146
PACIFIC STAR	WDD3686	A	Kodiak	1	2	1	1	0	0	0	0	0	0	0	0	5
PACIFIC WOLF	WDD9286	A	Kodiak	0	0	0	1	5	0	0	3	1	3	2	0	15
PAGO	A8TE5	A	New York City	24	0	14	19	39	34	26	54	38	40	10	24	322
PANDALUS	WAV7611	A	Anchorage	0	0	0	0	4	48	44	29	14	0	0	0	139
PARADISE ACE	H9CL	A	Jacksonville	0	0	0	0	0	0	0	0	0	0	0	0	0
PARAGON	WDD9285	A	Kodiak	0	0	0	2	0	0	0	0	0	12	0	0	14
PARTICI	A8UF9	A	New York City	43	0	56	3	23	36	10	0	0	9	9	5	194
PATRIARCH	WBN3014	A	Jacksonville	0	1	0	4	0	0	20	9	0	1	0	0	35
PATRIOT	WQVY	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
PAUL GAUGUIN	C6TH9	A	Anchorage	43	30	65	76	63	27	3	8	10	51	8	27	411
PAUL R. TREGURTHA	WYR4481	A	Chicago	181	0	61	52	533	695	744	693	695	693	694	719	5730
PELICAN STATE	WDE4433	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
PERSEVERANCE	WDE5328	A	Anchorage	98	45	94	85	66	87	35	92	14	61	10	144	831
PHILADELPHIA EXPRESS	WDC6736	A	Houston	74	84	106	93	223	105	68	104	161	168	51	67	1304
PHILIP R. CLARKE	WDG7086	A	Chicago	2	12	0	0	0	0	31	29	29	0	17	7	127

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
PILOT	WBN3011	A	Jacksonville	0	0	0	0	0	0	0	0	0	0	0	0	0
PISCES (AWS)	WTDL	A	New Orleans	0	0	23	0	7	11	0	0	205	273	417	0	936
POINT SUR	WSC2276	A	Anchorage	0	0	0	0	0	18	96	24	0	0	0	0	138
POLAR ADVENTURE	WAZV	A	Seattle	28	45	18	22	26	56	27	31	18	6	28	29	334
POLAR CLOUD	WDF5296	A	Kodiak	0	0	11	10	3	2	3	2	11	0	0	0	42
POLAR DISCOVERY	WACW	A	Seattle	130	20	15	38	8	6	7	16	58	87	17	0	402
POLAR ENDEAVOUR	WCAJ	A	Seattle	30	20	51	27	0	6	27	27	3	3	48	44	286
POLAR ENDURANCE	WDG2085	A	Kodiak	0	0	0	0	0	3	4	6	0	0	4	0	17
POLAR ENTERPRISE	WRTF	A	Seattle	12	26	36	23	39	30	18	10	30	20	4	20	270
POLAR KING	WDC7562	A	Kodiak	0	0	0	0	4	0	0	0	0	0	0	0	4
POLAR RANGER	WDC8652	A	Kodiak	0	0	0	0	6	9	7	7	3	4	1	0	37
POLAR RESOLUTION	WDJK	A	Seattle	216	117	23	108	149	134	35	215	190	257	13	130	1587
POLAR STORM	WDE8347	A	Kodiak	0	0	0	2	3	3	1	3	3	0	0	2	17
POLAR VIKING	WDD6494	A	Kodiak	0	0	0	1	9	14	2	6	5	4	0	0	41
PRAIA	A8TT4	A	New York City	0	0	0	0	0	0	0	12	16	4	19	3	54
PREMIUM DO BRASIL	A8BL4	A	Baltimore	0	0	17	32	17	23	36	9	5	25	9	3	176
PRESQUE ISLE	WDG7081	A	Chicago	7	0	1	26	46	108	53	46	60	77	13	37	474
PRESTIGE NEW YORK	KDUE	A	Jacksonville	0	0	0	9	0	0	0	0	0	0	0	0	09
PRIDE OF AMERICA	WNBE	A	Anchorage	13	5	0	0	7	34	18	5	0	0	0	10	92
PRIDE OF BALTIMORE II	WUW2120	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
PRINSENDAM	PBGH	A	Miami	26	22	124	125	95	63	21	41	50	105	172	94	938
PROSPEROUS	VRIA3	A	Anchorage	18	41	24	0	0	65	65	36	19	6	0	0	274
PSU EIGHTH	9V6346	A	Anchorage	90	106	102	51	57	103	66	107	439	395	486	327	2329
PT. THOMPSON	WBM5092	A	Kodiak	0	0	0	0	0	0	0	0	60	36	0	0	96
QUANTUM OF SEAS	C6BH8	A	New York City	0	0	0	0	0	0	0	0	0	0	0	35	35
R. J. PFEIFFER	WRJP	A	Los Angeles	54	28	48	29	37	43	19	21	31	37	20	22	389
R/V AULT	AULT	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
R/V KIYI	KAO107	A	Chicago	0	0	0	0	12	45	18	11	7	0	3	0	96
RADIANCE OF THE SEAS	C6SE7	A	Anchorage	196	249	211	20	9	82	55	23	83	67	13	48	1058
RAINIER (AWS)	NWS0011	A	Seattle	0	0	0	0	0	0	0	0	0	0	0	0	0
RAINIER (AWS)	WTEF	A	Seattle	0	0	0	134	366	248	226	65	112	191	194	0	1536
RANGER	WBN5979	A	Jacksonville	0	0	0	0	0	1	4	1	9	0	0	0	15
REBECCA LYNN	WCW7977	A	Chicago	0	0	0	0	4	1	4	0	0	0	0	0	9
REDOUBT	WDD2451	A	Kodiak	0	0	0	0	0	0	0	0	0	0	0	0	0
RESOLVE	WCZ5535	A	Baltimore	12	0	0	3	15	23	47	12	0	3	35	7	157
RHAPSODY OF THE SEAS	C6UA2	A	Anchorage	83	23	18	40	60	37	11	9	48	27	25	36	417
ROBERT C. SEAMANS	WDA4486	A	Anchorage	0	0	0	28	0	0	30	16	0	1	2	6	83
ROBERT G. SPROUL (AWS)	WSQ2674	A	Los Angeles	742	471	0	0	93	91	0	0	0	0	0	0	1397
ROBERT S. PIERSON	CFN4934	A	Chicago	0	0	0	0	3	6	2	0	0	0	0	0	11
ROGER BLOUGH	WDG7080	A	Chicago	52	0	230	454	311	200	243	193	240	294	270	397	2884
ROGER REVELLE (AWS)	KAOU	A	Los Angeles	740	670	687	0	0	16	382	34	581	256	720	744	4830
RONALD H. BROWN (AWS)	WTEC	A	Charleston	92	135	33	28	0	2	0	278	371	222	34	0	1195
RONALD N	A8PQ3	A	Anchorage	29	8	4	0	0	0	5	10	0	12	6	2	76
RTM DHAMBUL	9V2783	A	Anchorage	36	68	45	43	25	15	9	5	1	0	0	0	247

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
RYNDAM	PHFV	A	Miami	55	63	81	128	33	41	26	44	146	88	66	44	815
S/R AMERICAN PROGRESS	KAWM	A	Miami	3	0	27	14	12	5	31	11	4	1	0	0	108
SAGA ADVENTURE	VRBL4	A	Anchorage	68	0	0	0	0	0	1	0	0	0	0	0	69
SAGA ANDORINHA	VRMV6	A	Anchorage	17	0	0	0	0	0	0	0	0	0	0	0	17
SAGA DISCOVERY	VRBR8	A	Seattle	0	20	3	0	0	0	0	0	0	0	42	16	81
SAGA FRONTIER	VRCP2	A	Anchorage	0	0	14	26	36	54	0	0	0	0	0	88	218
SAGA FUTURE	VRKX8	A	Anchorage	24	16	0	0	0	0	0	0	1	22	153	108	324
SAGA MONAL	VRZQ9	A	Anchorage	0	0	38	42	46	51	9	20	41	34	16	0	297
SAGA NAVIGATOR	VRDA4	A	Anchorage	0	1	22	16	0	7	10	2	13	39	14	13	137
SAGA PIONEER	VRED4	A	Anchorage	413	425	446	587	553	275	376	69	159	225	332	517	4377
SAGA SPRAY	VRWW5	A	Anchorage	42	135	84	0	88	66	73	71	73	108	64	61	865
SAGA VIKING	VRZXO6	A	Anchorage	12	26	6	5	30	8	0	0	0	0	0	0	87
SAIGON EXPRESS	VRBT7	A	New York City	0	0	0	0	0	0	0	0	0	0	0	13	13
SAIPEM 7000	C6NO5	A	Anchorage	0	0	0	16	93	42	63	48	0	0	0	0	262
SALLY MAERSK	OZHS2	A	Seattle	107	39	48	13	41	46	56	61	31	0	2	9	453
SAM B	WDD5741	A	Kodiak	0	0	0	0	0	0	0	0	0	0	0	0	0
SAM LAUD	WZC7602	A	Chicago	1	0	0	21	65	60	81	73	104	79	93	121	698
SAMSON MARINER	WCN3586	A	Kodiak	0	1	0	0	0	0	0	0	0	0	4	0	5
SAMUEL DE CHAMPLAIN	WDC8307	A	Chicago	1	0	21	33	1	8	43	6	21	3	0	0	126
SAN SABA	V7UT8	A	Anchorage	38	45	51	30	43	35	30	2	37	40	38	29	419
SANDRA FOSS	WYL4908	A	Kodiak	0	0	0	0	0	50	10	13	11	58	0	0	142
SEA HAWK	WDD9287	A	Kodiak	0	0	0	0	1	0	0	0	0	0	0	0	1
SEA VOYAGER	WCX9106	A	Kodiak	0	30	35	35	61	33	49	36	36	53	41	43	452
SEA-LAND CHARGER	WDB9948	A	Los Angeles	37	72	40	3	4	53	50	52	73	47	45	31	507
SEA-LAND COMET	WDB9950	A	Los Angeles	3	4	16	19	3	32	113	62	37	9	17	5	320
SEA-LAND INTREPID	WDB9949	A	Los Angeles	3	15	33	27	33	18	12	11	25	8	29	32	246
SEA-LAND LIGHTNING	WDB9986	A	Los Angeles	13	28	21	18	14	33	27	7	0	13	15	28	217
SEABOURN LEGEND	C6FR6	A	Anchorage	139	115	64	64	5	3	31	43	29	13	25	107	638
SEABOURN ODYSSEY	C6XC6	A	Anchorage	33	26	71	33	0	0	11	27	42	20	2	2	267
SEABOURN SPIRIT	C6FR4	A	Anchorage	0	2	0	0	31	61	44	36	30	10	40	0	254
SEABULK ARCTIC	WCY7054	A	Miami	35	18	15	22	26	18	35	5	2	13	31	41	261
SEABULK TRADER	KNJK	A	Miami	37	17	19	30	17	15	55	27	24	24	15	11	291
SENTINEL	WBN6510	A	Jacksonville	0	0	0	0	0	0	0	0	0	0	0	0	0
SENTRY	WBN3013	A	Jacksonville	15	9	0	3	0	42	0	0	5	0	18	0	92
SERENADE OF THE SEAS	C6FV8	A	Miami	0	0	0	0	0	0	0	0	0	0	0	0	0
SESOK	WDE7899	A	Kodiak	0	0	0	0	6	1	4	5	0	0	0	0	16
SEVEN SEAS MARINER	C6VV8	A	Anchorage	62	345	237	135	218	222	134	65	58	112	174	267	2029
SEVEN SEAS NAVIGATOR	C6ZI9	A	Anchorage	101	166	57	29	40	41	25	10	49	97	59	49	723
SEVEN SEAS VOYAGER	C6SW3	A	Anchorage	107	89	50	70	13	0	0	13	8	25	17	43	435
SHANDONG DA CHENG	9V9131	A	Anchorage	59	2	78	90	56	150	172	57	33	16	1	41	755
SHANDONG DA DE	9V9128	A	Anchorage	95	7	43	92	79	75	0	0	45	138	124	68	766
SHEILA MCDEVITT	WDE2542	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
SIANGTAN	9V9832	A	Seattle	0	0	0	0	31	44	34	26	26	37	21	3	222
SIDNEY FOSS	WYL5445	A	Kodiak	0	0	0	0	0	13	0	7	0	1	24	44	89

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SIERRA	WSNB	A	Seattle	32	19	16	6	10	0	20	4	7	4	0	4	122
SIGAS SILVIA	S6ES6	A	Anchorage	120	369	458	399	208	236	261	381	345	409	300	333	3819
SIKU	WCQ6174	A	Kodiak	0	0	0	29	33	85	53	71	34	33	0	0	338
SILVER SHADOW	C6FN6	A	Anchorage	0	0	0	0	4	2	2	1	1	0	0	0	10
SIRIUS	WDD9272	A	Kodiak	0	0	0	0	3	1	3	3	3	10	0	0	23
SIRIUS VOYAGER	C6FG9	A	Anchorage	0	0	0	0	0	2	0	0	0	0	0	0	2
SOL DO BRASIL	ELQQ4	A	Baltimore	0	0	0	12	3	0	0	0	0	2	0	0	17
SOVEREIGN MAERSK	OYGA2	A	Seattle	0	54	13	10	16	12	6	22	12	7	4	1	157
SPAR	NJAR	A	Kodiak	0	0	5	0	13	6	20	0	0	4	0	0	48
SPLENDOUR OF THE SEAS	C6TZ9	A	Anchorage	241	186	208	265	395	292	128	379	271	254	200	173	2992
SS MAUI	WSLH	A	Seattle	19	17	7	0	0	1	54	50	40	38	32	35	293
ST LOUIS EXPRESS	WDD3825	A	Houston	397	350	294	253	258	118	175	180	113	167	237	102	2644
ST. CLAIR	WZA4027	A	Chicago	2	0	0	4	3	7	17	17	13	26	31	21	141
STACEY FOSS	WYL4909	A	Kodiak	0	0	0	0	0	12	0	0	1	16	0	0	29
STAR ALABAMA	LAVU4	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
STAR ATLANTIC	LAYG5	A	Anchorage	1	25	16	33	31	22	16	33	24	39	41	5	286
STAR DIEPPE	LEQZ3	A	Anchorage	0	0	0	0	1	1	36	58	28	31	60	25	240
STAR EAGLE	LAWO2	A	New Orleans	26	9	8	1	0	4	0	35	0	15	0	0	98
STAR EVVIVA	LAHE2	A	Seattle	0	0	0	0	0	0	24	17	43	35	21	32	172
STAR FLORIDA	LAVW4	A	Jacksonville	22	9	35	48	32	17	6	0	0	0	0	0	169
STAR FRASER	LAVY4	A	Seattle	0	3	1	1	0	0	0	31	14	7	13	40	110
STAR FUJI	LAVX4	A	Seattle	0	0	0	0	0	0	0	0	0	0	4	79	83
STAR GRIP	LADQ4	A	Charleston	4	13	7	0	0	15	25	0	0	0	0	0	64
STAR HANSA	LAXP4	A	Jacksonville	13	11	0	0	0	36	3	42	40	47	0	0	192
STAR HARMONIA	LAGB5	A	Baltimore	33	0	24	49	80	41	42	37	20	11	0	0	337
STAR HERDLA	LAVD4	A	New Orleans	25	32	4	0	11	12	1	24	36	29	6	34	214
STAR HIDRA	LAVN4	A	Baltimore	1	1	0	0	0	0	0	0	0	0	7	0	9
STAR ISFJORD	LAOX5	A	New Orleans	0	0	0	0	0	0	0	0	0	0	0	0	0
STAR ISMENE	LANT5	A	Baltimore	16	16	0	31	32	38	27	7	33	32	38	24	294
STAR ISTIND	LAMP5	A	Seattle	35	15	23	18	7	0	0	0	24	16	27	17	182
STAR JAPAN	LAZV5	A	Houston	31	30	29	9	0	13	0	22	2	18	15	8	177
STAR JAVA	LAJS6	A	Baltimore	1	16	0	0	0	0	0	0	12	8	0	0	37
STAR JUVENTAS	LAZU5	A	Baltimore	15	0	0	0	0	0	0	0	0	0	0	0	15
STAR KILIMANJARO	LAIG7	A	Anchorage	13	10	6	3	1	0	2	0	5	0	0	0	40
STAR KINN	LAJF7	A	Anchorage	6	5	0	0	0	0	0	0	0	0	0	2	13
STAR KIRKENES	LAHR7	A	New Orleans	49	0	5	0	0	0	0	14	1	0	2	1	72
STAR KVARVEN	LAJK7	A	Seattle	9	1	3	0	0	5	0	19	18	44	27	10	136
STAR LIMA	LAPE7	A	Jacksonville	0	0	0	0	0	0	5	0	0	0	0	0	5
STAR LINDESNES	LAQJ7	A	Jacksonville	33	42	20	26	34	43	72	33	28	66	72	75	544
STAR PRIDE	C6FR5	A	Anchorage	322	268	266	131	0	0	0	0	0	0	0	0	987
STATE OF MAINE	WCAH	A	New York City	0	0	0	0	43	50	2	0	0	0	0	0	95
STATENDAM	PHSG	A	Miami	231	164	117	42	52	21	101	67	59	108	219	103	1284
STEWART J. CORT	WDC6055	A	Chicago	198	0	1	39	574	664	623	660	712	662	654	702	5489
STIKINE	WDC8583	A	Anchorage	13	8	0	1	13	14	9	11	12	9	4	8	102

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SUNSHINE STATE	WDE4432	A	Miami	18	2	9	24	20	11	19	6	4	4	0	3	120
SUPERSTAR LIBRA	C6DM2	A	Anchorage	120	111	123	115	123	115	117	118	117	119	117	121	1416
SYLVIE	VRCQ2	A	Anchorage	0	0	0	20	40	20	35	33	14	4	11	1	178
TAKU	WI9491	A	Anchorage	0	0	0	1	2	0	1	1	3	0	0	2	10
TALISMAN	LAOW5	A	Jacksonville	0	10	5	16	15	16	6	47	15	36	16	44	226
TAN'ERLIQ	WDF2025	A	Kodiak	0	0	0	0	12	1	0	0	1	0	0	0	14
TANGGUH HIRI	C6XC2	A	Anchorage	66	65	61	100	106	63	81	59	38	27	39	44	749
TAURUS	WDF4091	A	Kodiak	0	0	0	0	0	0	1	1	1	0	0	0	3
TEXAS	VRFH2	A	Seattle	0	0	0	0	0	0	0	0	20	9	22	1	52
TEXAS ENTERPRISE	KSDF	A	Houston	2	19	23	4	0	0	0	0	1	0	0	23	72
THOMAS G. THOMPSON	KTDQ	A	Seattle	73	55	50	8	14	17	31	48	34	0	0	0	330
THOMAS JEFFERSON (AWS)	WTEA	A	Norfolk	37	0	73	69	124	49	0	490	506	378	256	0	1982
TIGLAX	WZ3423	A	Anchorage	0	0	0	0	0	0	1	0	4	0	0	0	5
TIM S. DOOL	VGPY	A	Chicago	1	0	0	34	39	32	12	18	27	49	9	22	243
TRIUMPH	WDC9555	A	Kodiak	0	0	0	0	3	3	3	0	0	0	0	0	9
TROPIC CARIB	J8PE3	A	Miami	29	27	41	33	18	2	1	63	77	68	56	71	486
TROPIC EXPRESS	J8QB8	A	Miami	9	8	0	3	15	14	18	8	18	21	77	60	251
TROPIC JADE	J8NY	A	Miami	17	33	32	41	12	34	37	40	32	32	21	21	352
TROPIC LURE	J8PD	A	Miami	33	29	37	18	30	37	55	58	45	23	45	30	440
TROPIC MIST	J8NZ	A	Miami	0	0	0	0	19	25	32	33	16	39	49	31	244
TROPIC NIGHT	J8NX	A	Miami	62	34	35	20	8	35	34	37	42	17	26	28	378
TROPIC OPAL	J8NW	A	Miami	0	0	0	0	28	31	13	28	33	31	18	7	189
TROPIC PALM	J8PB	A	Miami	77	37	36	25	0	20	30	21	15	27	27	27	342
TROPIC SUN	J8AZ2	A	Miami	84	92	65	117	114	124	70	116	113	129	119	104	1247
TROPIC TIDE	J8AZ3	A	Miami	69	67	56	5	52	45	37	40	33	40	37	31	512
TROPIC UNITY	J8PE4	A	Miami	80	85	105	109	82	140	99	56	42	32	15	0	845
TS KENNEDY	KVMU	A	New York City	45	61	0	0	0	0	0	0	0	0	0	0	106
TUG DEFIANCE	WDG2047	A	Chicago	0	0	0	0	50	35	57	40	36	25	50	36	329
TUG DOROTHY ANN	WDE8761	A	Chicago	0	0	0	0	0	0	0	0	0	0	0	0	0
TUG MICHIGAN	WDF5344	A	Chicago	66	0	0	7	11	5	35	54	38	9	57	34	316
TUG SPARTAN	WDF5483	A	Chicago	0	0	1	11	12	17	5	10	0	3	3	2	64
TUSTUMENA	WNGW	A	Kodiak	142	102	44	32	106	126	85	70	61	68	71	72	979
TYCO DECISIVE	V7DI7	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
TYCO DURABLE	V7DI8	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
TYCO RESPONDER	V7CY9	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
TYCOM RELIANCE	V7CZ2	A	Baltimore	0	0	0	0	0	0	0	0	0	0	0	0	0
UBC SAIKI	P3GY9	A	Seattle	8	15	2	8	18	10	6	18	12	9	30	32	168
UBC SANTA MARTA	5BDK2	A	New Orleans	13	6	18	20	26	28	36	36	21	16	8	4	232
UMANG	A8PF6	A	Anchorage	0	0	0	0	3	61	41	13	2	0	0	0	120
UNIQUE BRILLIANCE	VRXK4	A	Anchorage	0	0	0	0	0	0	0	0	0	1	0	0	1
UNIQUE EXPLORER	VRGT8	A	Anchorage	17	6	2	8	3	7	0	6	1	0	0	140	190
USCGC BRISTOL BAY	NRLY	A	Chicago	51	34	29	8	6	0	1	3	0	20	23	16	191
USCGC MACKINAW	NBGB	A	Chicago	43	10	16	19	2	2	0	0	0	0	2	0	94
VALDEZ RESEARCH (AWS)	WXJ63	A	Anchorage	172	133	156	720	714	720	714	718	690	713	718	744	6912

SHIP NAME	CALL	Status	PMO	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
VANCOUVER BRIDGE	H8FE	A	New York City	0	0	0	0	0	0	0	0	0	42	25	0	67
VEENDAM	PHEO	A	Miami	412	434	313	177	223	171	202	90	199	96	161	130	2608
VEGA VOYAGER	C6FV3	A	Anchorage	29	22	5	32	71	11	0	0	0	0	0	0	170
VISION OF THE SEAS	C6SE8	A	Miami	12	19	24	35	32	40	46	28	24	28	17	38	343
VOLENDAM	PCHM	A	Anchorage	82	80	231	103	179	319	149	164	207	324	198	79	2115
VOYAGER OF THE SEAS	C6SE5	A	Miami	0	0	0	6	1	4	7	0	0	0	0	0	18
W. H. BLOUNT	C6JT8	A	New Orleans	56	35	38	35	26	48	62	61	47	54	45	52	559
WALTER J. MCCARTHY JR.	WXU3434	A	Chicago	7	0	0	3	21	39	23	45	62	22	13	36	271
WASHINGTON EXPRESS	WDD3826	A	Houston	38	60	86	92	64	59	50	57	36	14	34	96	686
WEST VELA	3FNX5	A	Houston	94	70	58	41	57	49	32	27	34	3	0	0	465
WESTERDAM	PINX	A	Miami	36	8	83	38	41	91	126	135	126	101	55	18	858
WESTERN NAVIGATOR	WDE6616	A	Kodiak	0	0	0	1	1	0	0	0	0	0	0	0	2
WESTERN RANGER	WBN3009	A	Kodiak	0	0	0	0	1	1	0	0	0	0	0	0	2
WESTWOOD CASCADE	ELWZ5	A	Seattle	27	25	39	26	125	109	145	6	61	57	48	57	725
WESTWOOD COLUMBIA	C6SI4	A	Seattle	0	32	24	32	41	29	45	30	40	31	26	17	336
WESTWOOD OLYMPIA	C6UB2	A	Seattle	29	39	24	33	30	34	24	27	27	13	48	28	356
WESTWOOD RAINIER	C6SI3	A	Seattle	0	14	23	38	31	43	34	11	0	0	0	0	194
WHITTIER RESEARCH (AWS)	KXI29	A	Anchorage	0	0	0	719	715	719	715	743	720	744	720	744	6539
WILFRED SYKES	WC5932	A	Chicago	43	0	174	497	0	0	0	0	0	0	0	0	714
WOLSTAD	WCY2270	A	Kodiak	1	0	4	0	0	8	28	0	0	0	0	0	41
XPEDITION	HC2083	A	Anchorage	13	1	0	19	28	0	0	1	0	0	0	20	41
YACHT EXPRESS	PJVV	A	Miami	0	0	0	0	0	0	0	0	0	0	0	0	0
YM ANTWERP	VRET5	A	Anchorage	0	1	4	0	0	0	0	0	0	0	0	0	5
YORKTOWN EXPRESS	WDD6127	A	Houston	19	12	29	31	32	48	35	38	33	28	19	34	358
YUHSAN	H9TE	A	Anchorage	27	36	51	39	32	5	0	0	0	0	0	0	190
YUYO SPIRITS	3FNF4	A	Anchorage	0	0	0	0	0	0	0	0	0	10	20	4	34
ZAANDAM	PDAN	A	Anchorage	27	24	160	82	69	357	346	371	218	127	141	368	2290
ZIM DJIBOUTI	A8SI4	A	Seattle	0	0	4	0	0	0	0	31	57	45	16	29	182
ZIM SHANGHAI	VRGA6	A	New York City	9	11	17	3	14	13	20	20	0	17	14	23	161
ZIM TEXAS	V7VE3	A	New York City	0	0	0	0	0	13	17	6	0	0	0	3	39
ZIM YOKOHAMA	A8MY4	A	Charleston	0	0	0	9	2	1	0	9	0	6	3	0	30
ZUIDERDAM	PBIG	A	Anchorage	125	177	151	111	110	163	139	119	128	117	60	126	1526

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(1) 162.550 mHz
(2) 162.400 mHz
(3) 162.475 mHz
(4) 162.425 mHz
(5) 162.450 mHz
(6) 162.500 mHz
(7) 162.525 mHz

Channel numbers, e.g. (WX1, WX2) etc. have no special significance but are often designated this way in consumer equipment. Other channel numbering schemes are also prevalent.

The NOAA Weather Radio network provides voice broadcasts of local and coastal marine forecasts on a continuous cycle. The forecasts are produced by local National Weather Service Forecast Offices.

Coastal stations also broadcast predicted tides and real time observations from buoys and coastal meteorological stations operated by NOAA's National Data Buoy Center. Based on user demand, and where feasible, Offshore and Open Lake forecasts are broadcast as well.

The NOAA Weather Radio network provides near continuous coverage of the coastal U.S, Great Lakes, Hawaii, and populated Alaska coastline. Typical coverage is 25 nautical miles offshore, but may extend much further in certain areas.

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