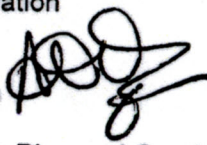




**UNITED STATES DEPARTMENT OF COMMERCE**  
**Office of the General Counsel**  
Washington, D.C. 20230

MAY 07 2012

MEMORANDUM FOR: Kelly L. Quickle  
Director, Office of Decision Coordination and Executive Secretariat  
National Oceanic and Atmospheric Administration

FROM: Barbara S. Fredericks  
Assistant General Counsel for Administration 

SUBJECT: MOA between NOAA/NWS and CariCOOS to Plan and Conduct  
Cooperative Forecasting Efforts (# 12-023407)

This provides clearance for the attached agreement between the National Weather Service (NWS) and the Caribbean Integrated Coastal Ocean Observing System (CariCOOS) to establish procedures for planning and conducting cooperative forecasting efforts.

CariCOOS is the observation branch of the Caribbean Regional Association for Coastal Ocean Observing (CaRA), one of eleven regional associations (RAs) devoted to coastal ocean observing throughout the United States coastal oceans and the Great Lakes. CariCOOS, with CaRA guidance, operates a network of observing assets (including data buoys, coastal meteorological stations, radars, and vessels) to provide the public with data on coastal inundation, ocean currents, waves, and winds and provide near-term forecasts for coastal ocean conditions in the Caribbean.


The subject agreement (in effect from the date of last signature through September 30, 2016) acts as an umbrella agreement establishing a formal working relationship between NWS and CariCOOS to assist each other with more effective forecasting of regional currents, waves, and winds and enhancing the temporal and spatial resolutions of their forecasts. To further those efforts, the parties agree to, among other things, (1) assist each other with optimizing model forecasts through experiments and validating the experiments with data from operational CariCOOS assets and or specialized instrument deployments; (2) collaborate in the development of outreach and education materials; (3) explore the potential of emerging models and assimilation schemes for operational implementation and improved marine forecasting; and (4) provide mechanisms for scientist and forecaster visits to enhance mutual understanding of capabilities and needs and enhance collaboration. As an umbrella, the subject agreement does not authorize the expenditure of funds or commit the parties to engage in specific activities. Any funds expenditures and/or programmatic commitments shall be covered by sub-agreements to the subject umbrella agreement requiring formal review and clearance from this office.

NWS and CariCOOS may agree to collaborate in future forecasting efforts pursuant to 15 U.S.C. § 313, charging the Secretary with forecasting weather, issuing storm warnings, displaying weather and flood signals for the benefit of agriculture, commerce, and navigation, distributing meteorological information in the interests of agriculture and commerce, and taking such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential to collect and disseminate weather and climate observations for the protection of life and property. The parties may also cooperate pursuant to 33 U.S.C. § 3601-3610, establishing a national integrated system of ocean, coastal, and Great Lakes observing systems.

Feel free to contact Hector Benitez of my staff at 202-482-4724 with any questions on this matter.

Attachment

**Folder**

Tracking ID	12-023407- 
Category	NOAANNWS
To/Owner	NOAA/ES (Group)
From	<input checked="" type="radio"/> NWS
Addressed To	DOC OGC
Folder Types	Agreement Joint Project MOA
Mail Type	Action Items
Subject	Requesting OGC clearance on MOA between NWS San Juan Weather Forecast Office and the Caribbean Integrated Coastal Ocean Observing System (CarICOOS). Purpose is to establish procedures for planning and conducting cooperative efforts including provision of observational data.
Keyword Summary	San Juan Puerto Rico Caribbean Integrated Coastal Ocean Observing System (CarICOOS)
DOC Control Number	
Signature*	General Counsel
Clearance Status (ExecSec Only)	100-01 PUBLICATIONS
NOAA File List	None
Date Due for LO	
Date of Document	03/16/2012
Date Received	03/16/2012
Date Due	04/30/2012
Date Closed	
Created By	03/16/2012 12:12:03 Skoda, John
Modified By	03/16/2012 12:35:26 Skoda, John

**Attachments**

Type	Description	Document Status	Category	Owner	Created Modified
Word Document 2003 .DOC	MOA for OGC Clearance		NOAA/NWS	Skoda, John	03/16/2012 03/16/2012
Word Protected Document 2007 .DOCX	Points of Contact		NOAA/NWS	Skoda, John	03/16/2012 03/16/2012

**Assignments  
NOAA Workflow**

Action	Assigned By	Assigned To	Status	Work Sequence	Date Assigned	Date Due	Closed
Appropriate Action	Skoda, John	NOAA/ES (Group)	Read		03/16/2012	04/30/2012	

**Requested Activity:** Please forward attached MOA to DOC OGC for clearance

**Response Notes:** Forwarded to DOC/GC 3/19/12

- WebDocFlow 4.7 - Monday, March 19, 2012 - 9:17:20 AM -





**A MEMORANDUM OF AGREEMENT**

**PURSUANT TO  
THE INTEGRATED COASTAL AND  
OCEAN OBSERVATION SYSTEM ACT OF 2009 (33 U.S.C. § 3601-3610)**

**BETWEEN THE**

**CARIBBEAN INTEGRATED COASTAL OCEAN OBSERVING SYSTEM**

**AND THE**

**U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL WEATHER SERVICE  
WEATHER FORECAST OFFICE  
SAN JUAN, PUERTO RICO**

## **I. Parties and Purpose**

- A. This Memorandum of Agreement (MOA) is between the San Juan, Puerto Rico Weather Forecast Office (WFO), National Weather Service (NWS), National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce (DOC) and the Caribbean Integrated Coastal Ocean Observing System (CarICOOS).
- B. The purpose of this Agreement is to establish procedures for planning and conducting cooperative efforts including provision of observational data from CarICOOS and partners to the NWS-SJ-WFO with specialized model output to assist with more effective forecasting of regional winds, waves and currents, and enhancing temporal and spatial resolution of forecasts.

## **II. Background**

- A. The mission of CarICOOS is to provide for stakeholder information and data needs identified by the Caribbean Regional Association for Coastal Observing (CaRA) with the purpose of enhancing the economy, improving safety and protecting the environment. To this end, CarICOOS operates a regional observing system and implements numerical models necessary for forecasting marine conditions in the region. In response to expressed stakeholder needs, CarICOOS observations and models focus initially on winds, waves, currents, water quality and coastal inundation.

## **III. Authorities**

The authorities for this MOA are:

- A. The Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. § 3601-3610) establishes a national integrated system of ocean, coastal and Great Lakes observing systems, comprised of Federal and non-Federal components at the national level by the National Ocean Research Leadership Council and at the regional level by a network of regional information coordination entities.
- B. The Weather Service Organic Act (15 U.S.C. § 313), which authorizes Secretary of Commerce to have charge of the forecasting of weather, the issue of storm warnings, the display of weather and flood signals for the benefit of agriculture, commerce, and navigation, the gauging and reporting of rivers, the maintenance and operation of seacoast telegraph lines and the collection and transmission of marine intelligence for the benefit of commerce and navigation, the reporting of temperature and rain-fall conditions for the cotton interests, the display of frost and cold-wave signals, the distribution of meteorological information in the interests of agriculture and commerce, and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential for the proper execution of the foregoing duties NOAA to collect and disseminate weather and climate observations for the protection of life and property.

#### **IV. Terms and Conditions**

- A. To foster collaboration and the cooperation of efforts between NWS-SJ-WFO and CarICOOS, activities envisioned under this agreement may include, but are not limited to:
- Providing CarICOOS observational data to NWS-SJ-WFO and consultation regarding the need for further observational data streams.
  - Providing NWS-SJ-WFO with specialized data products and expert advice as requested.
  - Providing redundancy to models, including SWAN and WRF, run operationally by NWS-SJ-WFO and CarICOOS.
  - Providing access to CarICOOS computational resources to NWS-SJ-WFO forecasters for the implementation of experimental model runs in support of improved long-term and special event forecasts.
  - Providing assistance in optimizing model forecast through experiments and validating these with data from operational CarICOOS assets and or specialized instrument deployments.
  - Exploring the potential of emerging models and assimilation schemes for operational implementation and improved marine forecasting.
  - Assuring that CarICOOS data meets operational requirements and is transmitted to the National Data Buoy Center
  - Exploring collaboration with NOAA-NCEP-Marine Prediction Center.
  - Collaborate in the development of outreach and education materials.
  - Providing a mechanism for scientist and forecaster visits to enhance mutual understanding of capabilities, needs and enhance collaboration
  - Providing specialized CarICOOS weather-related products such as beach hazard rip current products and forecast – skill assessments

#### **V. Funding Arrangements**

- A. This Agreement does not authorize funding transfers; neither does it constitute any financial obligation that could serve as the basis for expenditures.
- B. Expenditures of funds, human resources, equipment, supplies, facilities, training and technical expertise will be provided by each Party to the extent required to support the activities envisioned in this Agreement.
- C. This Agreement does not restrict the Parties from participating in similar activities or arrangements with other public or private agencies, organizations or individuals.

#### **VII. Duration of the Annex, Modification or Termination**

- A. This Agreement will become effective upon the date of the last signature and shall remain in effect until September 30, 2016.
- B. This Agreement may be amended at any time and prior to its expiration by mutual written consent of the parties.

- C. Either Party may terminate this Agreement by providing 60 days written notice to the signatory of the other Party.
- D. The parties will meet, initially, at least once every three months to review the activities undertaken in accordance with this Agreement at a mutually agreed upon venue. Other informal communications will be held as required.

#### **VIII. Resolution of Disagreement**

- A. Should disagreement arise on the interpretation of the provisions of this Agreement, or Amendments and/or revisions thereto, that cannot be resolved at the operating level, the area(s) of disagreement shall be stated in writing by each Party and presented to the other Party for consideration. If agreement on interpretation is not reached within thirty days, the Parties shall forward the written presentation of the disagreement to respective higher officials for appropriate resolution.

#### **IX. Contacts**

- A. The points of contact for activities under this Agreement are:

**Gary Votaw – Acting Meteorologist in  
Charge  
National Weather Service, Weather  
Forecast Office, San Juan, Puerto Rico**

**Julio M. Morell – Executive Director  
Caribbean Integrated Coastal Ocean  
Observing System  
PO Box 3446  
Lajas PR 00667**

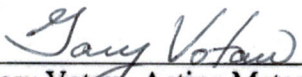
**Tel: 787-899-2564  
Email: [julio.morell@upr.edu](mailto:julio.morell@upr.edu)**

- B. The Parties agree that if there is a change regarding the information in this section, the Party making the change will notify the other Party in writing of such change



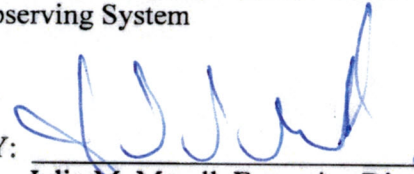
**X. Signatures**

Accepted and Approved for the National  
Weather Service, Weather Forecast Office,  
San Juan, Puerto Rico

BY:   
Gary Votaw, Acting Meteorologist in Charge,  
National Weather Service, Weather  
Forecast Office, San Juan

DATE: 5/11/2012

Accepted and Approved for the  
Caribbean Integrated Coastal Ocean  
Observing System

BY:   
Julio M. Morell, Executive Director,  
Caribbean Regional Association/  
Caribbean Integrated Coastal Ocean  
Observing System

DATE: 5/14/2012