

AMERICAN METEOROLOGICAL SOCIETY

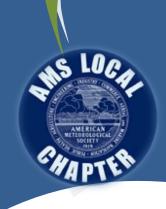
UNIVERSITY OF PUERTO RICO AT

MAYAGÜEZ STUDENT CHAPTER

2010-2011 ANNUAL REPORT

&

CHAPTER OF THE YEAR APPLICATION



Local Chapter of the Year Award **Application Form**



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Student Chapter

Pre-College Chapter

Applications for the Local Chapter of the Year Award must be completed by an officer or member of the local chapter seeking the award. Keep in mind that no one knows your chapter's accomplishments as well as you, so it is up to you to make sure this application is as thorough and complete as possible. The award will be given for chapter activities conducted during a 12-month period from 1 May through 30 April of the year the application is submitted. Two awards will be given, one to a student chapter, and one to a regular chapter. The complete application package must be received by 1 May of the same year, to:

American Meteorological Society Local Chapter of the Year Selection Committee 45 Beacon Street Boston, MA 02108-3693

If you have any questions, contact Kelly Savoie at 617-227-2426 ext 215; e-mail: ksavoie@ametsoc.org.

Basic Chapter Information

The chapter must be in good standing and must meet the minimum requirements outlined in the Local Chapter Officers' Handbook to be considered for this award.

- 1) President/Chair must be a member of the national AMS.
- 2) The chapter must have reported election results during the period.
- 3) Applicants must have submitted their meeting minutes for publication in the Bulletin or on the Chapter section of the AMS Web site in a regular and timely fashion during the evaluation period.

Name of Chapter: University of Puerto Rico at Mayagüez (UPRM)

Person responsible for completion of this application

Name: Rosimar Rios-Berrios and Diamilet Pérez-Betancourt

Address: Physics Department, University of Puerto Rico at Mayagüez

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Phone: E-mail: rosimar.rios@upr.edu

Chapter officers:

Other Officers President or Chair: Rosimar Rios-Berrios Historian: Diamilet Pérez-Betancourt Vice President or Vice Chair: Ismarí Ramos-Medina Webmaster: Juan P. Ramos Secretary: Suheily López-Belén

Treasurer: Melanie Luna-Rivera

Magazine: Alina del Mar Nieves

Number of active (dues paying) members in the chapter during the evaluation period: 58 Number of meetings of the chapter during the evaluation period: 10





2010-2011 Report and Chapter of the Year Award Application

I. In the past year, what has your chapter done for your members?

Inspired by the national AMS' guidance to fulfill its objectives, we decided to organize our endeavors in four main categories: *opportunities, professional development, education,* and *community outreach*. The ultimate goal of the first two categories was the fostering of team spirit and the development of members' individual skills

The *opportunities* category was fulfilled through meetings and activities such as:

- Monthly meetings we held 7 meetings to discuss our finances, lessons learned from past activities, new ideas and events (average participation: 34 members) (see Pic. 1).
- **Special meetings** we held 3 meetings to coordinate logistics for special events (average participation: 28 members).
- Website updates- we posted new member names to foster a sense of belonging, updated the photo gallery to share memories, uploaded new editions of our magazine, "Juracán," and chapter news, and kept a public calendar to help members remember upcoming events (see Pic. 2).
- **Increased use of social networks** a very effective avenue for communications with members (see Pic. 3).
- Research plans- we established communications with the Center for Collaborative Adaptive Sensing of the Atmosphere for possible future research opportunities. Members were frequently encouraged to apply to internships and scholarships.
- Juracán TV's live transmissions- for the first time ever, our Weather Channel had a live stream of some of our activities, so that those who could not attend could also enjoy them (see Pic. 4).
- **Sales** we held 12 food sales for fundraising purposes (see Pics. 5-6).





- 5th Initiation Ceremony- 32 new members were initiated to our Chapter (see Pic. 7).
- Beach Day and Ice-Skating Night- fun events to socialize with the members and improve interactions (see Pics. 8-9).
- Movie Nights- to watch and discuss weather-related movies (see Pic. 10-11).
- **Pre-Halloween Party** social event as a fundraising activity (see Pic. 12).
- "Meteorology Through a Lens"- friendly competition of weather-related pictures taken by chapter members (see Pic. 13).
- Christmas Dinner- included karaoke and a gift exchange (see Pic. 14).
- "Love is in the air" Pizza Party- included music, an exciting game, and the exhibition of our award-winning chapter poster (see Pic. 15).
- "Weather goes Irish"- social event to establish bonds with 11 visiting students from Purdue University who came to Mayagüez on a research expedition (see Pic. 16).

The *professional development* category's activities fulfilled our mission to help members develop skills that are not addressed in the classroom. These events included:

- "CaRA-CariCOOS: An interactive tutorial" seminar offered by UPRM graduate student Carlos Anselmi-Molina (see Pic. 17).
- "Global warming, climate change, and hurricanes"- offered by National Weather Service meteorologist Jesús Figueroa (see Pic. 18).
- Undergraduate Research Opportunities in Geosciences- orientation offered by six undergraduate students based on their prior experiences (see Pic. 19).
- Visit to the NWS in San Juan and Univisión PR TV station- to let members learn about operational and broadcast meteorology (see Pics. 20-21).





- Weather Today: Poster presentations- posted previous summer's research projects to motivate members to participate in research (see Pic. 22).
- Visit to the PR Seismic Network- to help members broaden their scientific knowledge (see Pic. 23).

All together, we used the skills developed in the above-mentioned activities to promote meteorological education in the community-at-large, and carry out community work through the events described next.

II. In the past year, what has your chapter done for your community?

One of our objectives as a student chapter is to promote general knowledge in the atmospheric sciences among precollege students, teachers, and the general public. Last year, that objective was accomplished through the activities of our *education* category:

- School visits students and teachers received information about meteorology through demonstrations and hands-on participatory activities (see Pic. 24).
- Teachers' visit to the UPRM K-12 teachers received training related to various hands-on activities they can use in their classrooms to explain atmospheric phenomena (see Pic. 25).
- Exhibition at UPRM students center meteorology-related demonstrations were shown to new UPRM students (see Pic. 26).
- Presentation about climate change and hurricanes the UPRM community was invited to participate of this talk given by NWS meteorologist Jesús Figueroa.
- Forum: "Human impact on climate change" became part of the Earth Week celebration at UPRM.
- Weather Festival more than 1,500 students of different ages and from many schools attended this multitudinous event, which included





exhibitions of research posters, presentations from weather-related companies, and various other student organizations. We set up 10 separate booths, each dedicated to explaining a different atmospheric phenomenon though hands-on activities (see Pics. 27-30).

In order to impact and educate the general community, we also participated in joint activities organized by various agencies. Our role at those events was to promote learning about atmospheric phenomena and how to protect their lives and households from the devastating effects of severe events. The activities were:

- "Huracanes y casa segura" ("Hurricanes and safe homes") organized by meteorologist Ada Monzón and architect Astrid Díaz, both from Univisión PR TV (see Pic. 31).
- 9th Annual Open House of the UPRM Earth Science Week planned by the Department of Geology at UPRM (see Pic. 32).
- "Centro Residencial de Oportunidades Educativas de Mayagüez"
 Career Day organized by the boarding high school, CROEM, which has an educational focus in science and mathematics (see Pic. 33).
- "Hurricanes Hunter" aircraft visit carried out by the Emergency Management Agency of Puerto Rico (see Pic. 34-35).
- **Digital planet week** planned by meteorologist Ada Monzón and architect Astrid Díaz (see Pic. 36).

In community outreach and charitable work we participated in:

- **Breast cancer awareness** organized Chapter members' acquisition of t-shirts sold by the American Cancer Society (see Pic. 37).
- Blood drive more than 40 people, including members and nonmembers of our chapter, gave a Christmas gift by donating blood to the "Banco de Sangre de Auxilios Mutuos." Each donation, a pint, could help save at least 4 lives, thus giving a total of more than 160 lives being saved by our donations (see Pic.38)!





• "Eco-feria" – some local artisans were invited to sell their eco friendly products at UPRM during the Earth Week celebration.

In addition, a group of 6 active members of our Chapter started an activity called UPRM Meteorological Laboratory with the purpose of giving daily weather briefings to UPRM students and making these available online (<u>www.youtube.com/metlab2010</u>). These included weather forecasts for the residents of western PR.

III. In the past year, what has your chapter done for the national AMS?

The election of new officers was conducted electronically in June of 2010 (due to a student protest that kept our campus closed from May until June). Four new chapter officers, with updated AMS memberships, were elected, and elections were immediately reported to the AMS. One of the main goals for the new officers was to increase Chapter membership, and as a consequence, increase the number of Puerto Ricans who are members of the national AMS. A General Meeting was celebrated with some 60 students interested in joining our Chapter (see Pic. 39). In that occasion, we talked about the AMS, its objectives, and the opportunities it offers to members. As a result, 32 people joined us as new members of the AMS (see Pic. 40)!

During the past years, many of our Chapter members attended the AMS annual meeting. This year we announced the 91st AMS Annual Meeting as early as possible to encourage student attendance. More than 20 students in total represented our Chapter (see Pic. 41). Those students received funding from different sponsors, namely: the Atmospheric Science and Meteorology Program at UPRM, the National Center for Atmospheric Science (NCAS), the Puerto Rico Space Grant (with the help of meteorologist Ada Monzón), and other scholarship programs. Also, the AMS Student Assistantship Program was announced during our monthly meetings, and two members got accepted. All of the students attending the Conference asked their sponsors to include the 10th Student





Conference (SC) in their travel agenda. Consequently, 16 students attended and enjoyed this year's SC. Some of those students presented their research projects at the SC poster session, and the Chapter itself presented a poster at the Local Chapters posters exhibition. We are very proud to report that our poster won the first prize among the student chapters (see Pic. 42). Also at the annual meeting, the chapter President attended the meeting of the AMS Board on Women and Minorities, and was elected to be a member of the 2012 SC Planning Committee.

Once we were back in our Island, many people wanted to celebrate our achievements from the annual meeting. Local media, including UPRM's news organization (see Pic. 43) and Univisión PR TV interviewed Chapter officers. During the interviews we talked about the AMS, the 91st Annual Meeting and our Chapter achievements. Our Chapter educational, professional and outreach activities have continued at a fast pace. We are still informing Chapter members about AMS scholarships, opportunities and travel grant programs, and other activities. This is achieved by regular postings to our magazine "Juracán," electronic posting of links on our website, and through direct announcements in our monthly meetings.

More details about all of our activities can be found in our minutes, which our Historian prepared each month, and are currently available at the following website: http://www.ametsoc.org/amschaps/news.html or in our chapter's website: http://academic.uprm.edu/ams/ChapterNews.html.

IV. Appendix with pictures

"May, 2010- April, 2011: a year when the AMS UPRM Student Chapter members combined *education, professional development,* and *community outreach* to increase their *opportunities* in the field of meteorology."





A. Opportunities



Picture 1. Our Chapter President speaks during the February monthly meeting.



Picture 2. Our website, which had been updated with new information, can be accessed at <u>www.sometpr.com</u>.





Picture 3. As part of their memberships, our members are invited to join our private Facebook group, where we post important information about our Chapter.





Picture 4. Our weather channel students incorporated a live streaming section in their website (<u>www.juracantv.webs.com</u>), where they transmit our activities.



Picture 5. This year we increased the number of sales, and replaced our famous "Hot dogs sales" with other fun sales. For example, the Chapter officers baked brownies with Nutella, strawberries and Kisses chocolates, and the members sold the brownies during our "Valentine's Day sale".





Picture 6. We also added Krispy Kreme doughnuts to our sales' menu. Our members worked hard during the sales, having in mind that the money being fundraised was used for the organization and development of our Chapter's activities.



Picture 7. Our new 32 members took an oath during the 5th Initiation Ceremony to commit to the Chapter endeavors. This was the largest group that joined our Chapter since the 1st Initiation Ceremony when 39 members were initiated.





Picture 8. Before the fall semester started, our Chapter members enjoyed their last day of vacations at a beach located at the southwest coast of Puerto Rico.



Picture 9. Christmas time means cold weather for many people, but it does not necessarily mean the same for people who live in the Tropics. However, our members experienced a cold Christmas night when they went ice-skating at PR's only ice rink.





Picture 10. Do you remember the famous movie "Twister"? Some of our members and professors had not seen the movie until we had our first movie night.



Picture 11. A second movie night was held to give our members the opportunity of watching and discussing the movie "The day after tomorrow."





Picture 12. In 2010, our members started their Halloween celebration a week earlier by choosing their best costumes and having fun at our Pre-Halloween Party. This activity was not only a social event, but also a fundraising night since we sold tickets for the party.



Picture 13. We believe that every weather amateur has always a camera ready to take pictures of every single weather-related event they experience. This hypothesis was proven in our friendly competition "Meteorology through a lens," where students exhibited their pictures of clouds, sunsets, floods, waterspouts and many other phenomena.







Picture 14. Christmas time in PR means family get together, share a lot of food, sing many Christmas-themed Puerto Rican songs, dress with "Santa Claus" hats, and exchange gifts. Our AMS family had the wonderful opportunity of doing all of the aforementioned activities during our Christmas dinner.



Picture 15. Love, friendship and a 1st prize were celebrated at our "Love is in the air" pizza party. During the party, we exchanged chocolates and exhibited our Chapter poster that won the 1st prize at the 91st AMS Annual Meeting Local Chapters poster competition.







Picture 16. A group of 11 visiting students from Purdue University joined us to celebrate St. Patrick's Day at our "Weather goes Irish" party.



B. Professional development

Picture 17. The first workshop we organized this year was entitled: "CaRA-CariCOOS: An interactive tutorial." The attendees were informed about accessible weather data from CaRA-CariCOOS stations (<u>www.caricoos.org</u>) and available research and development opportunities with the field of marine science.







Picture 18. More than 30 people who wanted to listen to an expert speaking about climate change and hurricanes attended this talk at the Marine Science Department at UPRM. The speaker, NWS meteorologist Jesús Figueroa, also had one-on-one conversations with AMS members about his career as a meteorologist.



Picture 19. Idamis Del Valle, an active AMS member, speaks about her experience as a participant of the Center for Multiscale Modeling of Atmospheric Processes (CMMAP) Summer Undergraduate Research Opportunities. Other 4 students also gave a talk about their experiences at different programs and provided information for those who wanted to apply to any of those internship programs.





Picture 20. We visited the NWS Weather Forecast Office in San Juan, PR to learn about operational meteorology and job opportunities with the federal government.



Picture 21. During the same day of the NWS visit, we also went to Univisión PR TV studios to learn about broadcast meteorology and watch a live afternoon news edition.







Picture 22. Patricia Sánchez-Rodríguez, an active AMS member, presents her research poster to other AMS members. During this informal poster session that was organized by the Weather Today committee, other members also presented their research posters to encourage students to participate in research and to present their findings at technical meetings.



Picture 23. The active seismic regions surrounding the island of PR are of great important for PR residents. Our members were encouraged to learn about those regions, and also about earthquakes, tsunamis, and other seismic-related events by visiting PR's Seismic Network. During the talk, the speaker also talked about the procedures to follow in case of a strong earthquake or tsunami event.



C. Education



Picture 24. Visiting K-12 schools, even during vacations, was an excellent technique used to promote education in the atmospheric science arena. In this picture, two active AMS members were dressed as scientific people to motivate students to learn about atmospheric science through the hands-on activities.



Picture 25. K-12 teachers visited the UPRM as part of the "Alianza para el Fortalecimiento del Aprendizaje en las Ciencias" (AFAMac) workshop series. AFAMac, a joint program between the UPRM and the Department of Education, brings support and resources to science teachers to improve the quality of science education in elementary and middle school. Our Chapter helped the teachers with demonstrations and hands-on activities about meteorology.





Picture 26. During the last week of August, new UPRM freshmen students started learning about meteorology through an exhibition our Chapter had at the student center. In the picture, an active member explains a demonstration about atmospheric pressure.



Picture 27. Chapter members work in the decoration of the UPRM's Coliseum in preparation for the 4th Weather Festival.





Picture 28. The 4th Weather Festival included 10 stations with information and demonstrations about atmospheric topics or phenomena. In the picture we can see a booth about storm surge.



Picture 29. More than 1,500 students attended this year's Weather Festival.







Picture 30. Weather Festival attendees learn about pressure throughout a demonstration given by the Society of Physics Students, UPRM Student Chapter, one of the many student organizations that were invited to our festival.



Picture 31. "Huracanes y casa segura" is an annual activity celebrated by meteorologist Ada Monzón and architect Astrid Díaz, both from Univisión PR TV, at Puerto Rico's largest mall. During the activity, our Chapter members helped to disseminate information concerning hurricanes and getting prepared for the devastating effects of severe events.







Picture 32. Understanding our planet Earth is not only a task to be done by a specific field, but it is a collaboration of all kind of Science. This message was transmitted to high school students who attended the 9th Annual Open House of the UPRM Earth Science Week. Our Chapter members represented the field of atmospheric science.



Picture 33. The students of CROEM, a boarding school with educational focus on science and mathematics, had a Career Day to learn about different science careers that may be of their interest. We were surprised to find out that many of them are interested in pursuing a career in Meteorology, thus we started educating them with demonstrations about tornadoes, pressure, and many other weather-related topics.







Picture 34. The US Air Force WC130-J aircraft, its crew, and personnel of the National Hurricane Center (NHC) visited Puerto Rico on March 26, as part of the 2011 Caribbean Hurricane Awareness Tour. The activity also included exhibitions from different government and non-government agencies. Our Chapter was invited to educate the community through an exhibition at the hangar where Univisión PR TV received the public.



Picture 35. Our Chapter members were privileged to receive a talk about the 2010 hurricane season that was given by the Director of the National Hurricane Center. After the talk, the students worked in the exhibitions and then received a private tour of the WC130-J aircraft.







Picture 36. Ada Monzón and Astrid Díaz hosted another activity at PR's largest mall, but this time their purpose was to educate the community about our Planet Earth and it main components: water, air, and land. Our Chapter members collaborated in this activity, entitled "Digital planet week," by educating the public about water resources.

D. Community outreach



Picture 37. Raising money for good causes was a new initiative our Chapter had this year. One of the causes we supported was breast cancer. We encouraged our members to buy t-shirts to the American Cancer Society to help those affected by breast cancer.







Picture 38. We organized a blood drive encouraging people to give a special Christmas gift during the month of December. We received more than 40 people to donate a pint of blood, thus helping to save at least 160 lives. In this picture, a former Chapter President, closed his eyes, but did not close his heart by donating part of his blood.



E. Our contribution to the National AMS

Picture 39. About 60 UPRM students received information about the AMS.







Picture 40. This year, 32 Puerto Rican students joined the AMS through our student Chapter, thus increasing the number of minority students who are part of the AMS.



Picture 41. More than 20 UPRM students participated of the 91st AMS Annual Meeting. From that group, about 16 junior and senior students attended the Tenth Student Conference.







Picture 42. Our Chapter submitted an abstract and exhibited a poster at the 91st AMS Annual Meeting. This year, for the first time in our 5 years of existence, our Chapter won the first prize. In this picture we can see the secret faces leading our Chapter to the success: our Chapter officers.



Picture 43. Also for the first time in 5 years, our Chapter appeared in the front page of the UPRM's main website. The article entitled "With hurricane force UPRM meteorology students won a competition" highlighted the importance of the AMS, the AMS Annual Meeting, and the poster award in the professional and academic development of our Chapter members.





V. Summary

All things being considered, we can summarize our 2010-2011 year by comparing our Chapter with a hurricane, which we named "Hurricane AMS UPRM Student Chapter". The details of this hurricane were the following:

- A. A category-4 hurricane
- Cat. 1: Education
- Cat. 2: Professional development
- Cat. 3: Community Outreach

Cat. 4: Opportunities

- B. Maximum sustained winds of **32 new members.**
- C. Peak wind gusts of approximately 60 total members.
- D. Destroyed the 91st AMS Annual meeting Local Chapter Posters competition by winning the **1st prize**!
- E. Made landfall at UPRM news as well as in "Las Noticias" Univisión TV.
- F. Currently strengthening; about to reach and celebrate cat. 5 years of history!
- G. Which were the factors aiming the formation of this hurricane?
 - 1. Open seas with hot SST: enthusiastic members
 - 2. No shear, but unidirectional flow: **7 chapter officers with the same** goals and desire to work
 - 3. No land, no dry air, no cold water, but only favorable conditions:

professors, meteorologists, and other supporters.

- H. Track forecast: it is moving towards **success**.
- I. Intensity forecast: much more activities will continue to be organized to help develop **many well-prepared meteorologists**.