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Cover : Several activities involving the Meteorological Service in 2007

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The Joint Winners of the Nobel Price Award in 2007

On October 12, 2007, the Norwegian Nobel Committee announced that they have chosen the Intergovernmental Panel on Climate Change (IPCC) and Al Gore, former Vice-President of the USA and environmental campaigner to be the winners of the Nobel Peace Prize Award in 2007. They were chosen for "their efforts to build up and disseminate greater knowledge about man-made climate change and to lay the foundations for the measures that are needed to counteract such change".

The award ceremony took place at Oslo City Hall, Norway on 10 December 2007 in the presence of the King and Queen of Norway.

The Chairman of the IPCC, Rajendra Pachauri, received the award on behalf of the Panel and gave a speech, in which he paid tribute to the thousands of experts and scientists who have contributed to the work of the Panel over almost two decades of evolution and service to humanity. He also expressed his gratitude to the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), the co-sponsors of IPCC, for their support. Inspiration and leadership provided by the late Prof. G.O.P. Obasi, former Secretary-General of WMO and Dr. Tolba culminated in the establishment of the IPCC by the two Organizations in 1988. The IPCC Secretariat is hosted at the WMO Headquarters in Geneva, Switzerland.

The Secretary-General of the WMO, Mr. Michel Jarraud, welcomed the presentation of the Nobel Peace Prize to the IPCC and Mr. Al Gore, saying that the honor reinforces the need to integrate science and its findings on climate change into the political decision-making process with respect to global warming. WMO is the United Nations' authoritative voice on weather, climate and water. It hosts the IPCC, and supports and co-sponsors it along with the United Nations Environment Programme. WMO supports the IPCC process in many ways, particularly through the creation of the mechanisms and standards to monitor the Earth's climate, such as WMO's co-sponsored World Climate Research Programme (WCRP). Most of the research supporting IPCC is carried out under the umbrella of WCRP. IPCC's work is mainly based on the scientific knowledge produced by the WMO network of National Meteorological and Hydrological Services of its 188 Members.

WMO also strongly supports the development of climate change adaptation measures of the IPCC. These include disaster risk reduction, proper management of fresh water resources and food security, all of which are highly sensitive to weather, water and climate.

The work of the IPCC has shown how vital it is for the scientific evidence on climate change—and mankind's role therein—to be used as the basis for moving forward the political process on curbing climate change. The integration of reliable information in socio-economic decision-making is a prerequisite for sustainable development.

The Secretary-General with some of the past and present experts participating in the IPCC and members of the IPCC Secretariat

Climate Report 2007

Globally

For 2007, the global average land and ocean surface temperature combined was +0.55°C above the 20th century average, ranking as the 5th warmest in the period of record. The global land surface temperature was the warmest on record while the global ocean temperature was the 9th warmest since records began. Seven of the eight warmest years on record have occurred since 2001 and the ten warmest years have all occurred since 1995. The global average surface temperature has risen between 0.6°C and 0.7°C since the start of the 20th century, and the rate of increase since 1976 has been approximately three times faster than the century-scale trend.

The greatest warming has taken place in high latitude regions of the Northern Hemisphere. This has contributed to the lowest Arctic sea ice extent since satellite records began in 1979, surpassing the previous record low set in 2005 by a remarkable 23 percent according to the US National Snow and Ice Data Center. Notable temperature extremes in 2007 include heat waves that affected western and central parts of Russia as well as the southeastern Europe and the United States during May and June-July and August respectively. The warm conditions contributed to over 130 fires and over 500 fatalities in Europe and 50 in portions of the U.S.A.

On the other hand in South Africa, a cold front which affected much of the country led to 21 fatalities. Argentina, in the last week of May experienced unseasonably cold temperatures which led to electricity and natural gas shortages. In April, a devastating cold wave affected much of the central Plains, Midwest, and the Southeast region of the contiguous U.S. Temperatures dipped well below freezing in many areas prompting nearly 1,240 broken daily minimum temperature records and producing significant crop damages.

Global precipitation in 2007 was above the 1961-1990 average. Precipitation throughout the year was variable in many areas. During January-February, heavy rain fell in Bolivia producing floods that affected nearly 200,000 people and 70,000 hectares (173,000 acres) of cropland. In early May, Uruguay was hit by the worst flooding since 1959 which affected more than 110,000 people and severely damaged crops and buildings. In Costa Rica, heavy rain that fell during October 10-11 caused widespread floods that washed away over 800 homes and prompted a deadly mudslide on the 11th. The mudslide, according to reports, is the worst weather disaster for Costa Rica in years, claiming 14 lives and burying hundreds of homes in the town of Atenas.

ENSO

The year 2007 began with a weak warm phase (El Niño) ENSO which had developed during late 2006, but immediately began its transition to a neutral phase during February 2007. During August, sea surface temperatures (SST) anomalies were cooler-than-average in the Niño 1+2 and 3 regions indicating the first signs of a developing cold event (La Niña).By October, La Niña conditions strengthened when SST anomalies continued to decrease in the Niño 3.4. By the end of December, moderate-strength La Niña conditions were present across the equatorial Pacific Ocean. This La Niña event is likely to persist into summer 2008, according to the latest information from NOAA's Climate Prediction Center. For more information on the state of ENSO during 2007, please see the ENSO monitoring annual summary.

Netherlands Antilles & Aruba

Worth mentioning in this section of the climate report 2007 are two gust fronts **(16 June and 10 July)** and the hurricanes *Dean* and *Felix*. The strong winds, which came along with the two gust front events, influenced all the ABC Islands and reached wind velocities beyond tropical storm force. The maximum wind gusts for 2007 for Curaçao and Bonaire were recorded on June 16 and for Aruba on July 10. In the latter case a vessel occupied by tourists turned over just off the coast of this island due to a combination of strong winds and rough seas. Fortunately, everybody on board survived this ordeal.

The center of hurricane *Dean* passed at a safe distance of about 350 kilometers south of the SSS Islands during the early afternoon of August 17. Nevertheless, strong gusts up to about 95 km/h were still observed in these islands. The center of Hurricane *Felix* passed at about 85 kilometers north of the ABC Islands and this system became a Category 5 hurricane just northwest of Aruba. Fortunately, the hurricane and tropical storm winds did not influence the islands. It was still a very close call. With the exception of St. Eustatius, rainfall in the islands was average to above average.

Rainfall Outlook 2008

Above average rainfall and tropical cyclone activity is expected for the ABC and SSS Islands. Warmer than normal sea surface temperatures (SST) in the southern Atlantic Ocean and the Caribbean Sea and cooler than normal sea surface temperatures in the central and eastern Pacific Ocean, La Niña conditions, are forecasted to persist into the 2008 hurricane and rainfall season. This will enhance cloud formation and produce more active tropical waves over the SSS and ABC Islands. Therefore, the total rainfall for each of the islands of the Netherlands Antilles & Aruba for 2008 is forecast to be normal to above normal.

29th Session of the Regional Association IV Hurricane Committee (RA-IV)

Within the framework of the membership of the Netherlands Antilles and Aruba with the World Meteorological Organization (WMO), the 29th session of the WMO RA-IV Hurricane Committee was successfully held in Curacao from 27 March through 3 April 2007. The WMO is a specialized agency of the United Nations and is the international authority on all matters concerning weather, climate and water. The activities of the Hurricane Committee are considered among the most important activities of the WMO RA-IV. The session was attended by delegates of almost all the Members of WMO RA-IV (Canada, USA, Mexico, the Central American countries, the Caribbean countries, Colombia and Venezuela), as well as representatives of several international and local organizations. The activities were attended by several high-ranking dignitaries, among which were the prime-minister and the Minister of Transport and Communications. Also the Secretary-General of WMO, Mr. Michel Jarraud, attended part of the sessions. He paid separate visits to the Governor of the Netherlands Antilles, Mr. Frits Goedgedrag, and to the Prime Minister and the then Minister of Transport and Communications, respectively Mrs. Emily de Jongh-Elhage and Mrs. Omayra Leeflang. In this context he had the opportunity to exchange views with them on matters of interest regarding the delivery of meteorological and related services in the benefit of the communities of the Region and in particular of the Netherlands and Antilles and Aruba. He also gave several press interviews and participated in a press conference.

Aside of the standard work of the Committee, also two workshops were successfully conducted on the relationships of tropical cyclones with the tourist industry and the insurance industry.

In a separate farewell ceremony the WMO RA-IV Hurricane Committee took the opportunity to thank Mr. Max Mayfield (past-director of the National Hurricane Center and chairman of the Hurricane Committee for many years), for his dedication and support during many years to all the countries of WMO RA-IV and in particular to the National Meteorological Services in the Region.

Renovated building Meteorological Service

In 1976 the construction of a government building was completed at Seru Mahuma, Curaçao, for the housing of three governmental departments . Namely, the Department of Civil Aviation, the Air Traffic Control Center and the Meteorological Service. All these three entities were previously housed in the airport building.
Over the years the quality of the government building at Seru Mahuma gradually deteriorated considerably and a large-scale renovation became necessary. The first initiatives for this large-scale renovation were taken in the year 2000 by the then Minister of Transport and Communications, Mr. Maurice Adriaens.
Afterwards it took several years to eventually get the related political decisions and find the necessary financial means for the renovations. The planning and supervision of the works became a responsibility of the local firm “Associated Architects Curacao N.V.” and the execution of the works was done by “Betonbouw N.V.”.
With the exception of the foundations and the outer walls, everything was replaced by new parts (inner walls, floors, toilets, ceilings, airconditioning system, lighting, water tubing, telecommunication system, etc.). The results of this exercise are an almost brand new building with all possible modern facilities. This building now houses three important government departments: the Directorate of Civil Aviation, the Directorate of Shipping and Maritime Affairs and the Meteorological Service. The Air Traffic Control Center is housed in a separate new building on the same premises.
The official inauguration of the renovated building was made by Minister of Transport and Communications, Mr. Maurice Adriaens, on 30 November 2007 in the presence of a large number of invitees and dignitaries, among which were also present the acting Governor of the Netherlands Antilles, the Prime Minister, the Minister of Health and Education and the Minister of Finance.

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Hurricane Season 2007

The 2007 hurricane season produced fifteen named storms of which six became hurricanes with two of the hurricanes reaching major hurricane (category three or higher on the Saffir-Simpson hurricane scale) status. In addition, two other tropical depressions formed during the year. The numbers of hurricanes and major hurricanes were near the long-term averages for a season but the number of named storms was slightly above average. In terms of the NOAA Accumulated Cyclone Energy (ACE) Index, which measures the collective strength and duration of named storms and hurricanes, the season had about 82 percent of the 1951-2000 average activity, the lowest observed since 2002. Despite the near-average overall activity, two category five hurricanes, *Dean* and *Felix*, made landfall during this season. These two hurricanes also affected respectively the weather in the SSS and ABC Islands. *Felix* in fact was the first major hurricane in written history to have its center pass within 100 kilometers of Bonaire, Curaçao and Aruba. Only minor damage was caused in some localities on these islands though. Hurricane *Dean* caused wind gusts up to tropical storm force in St. Maarten, Saba and St. Eustatius but there were no reports of significant damage.

Early Start

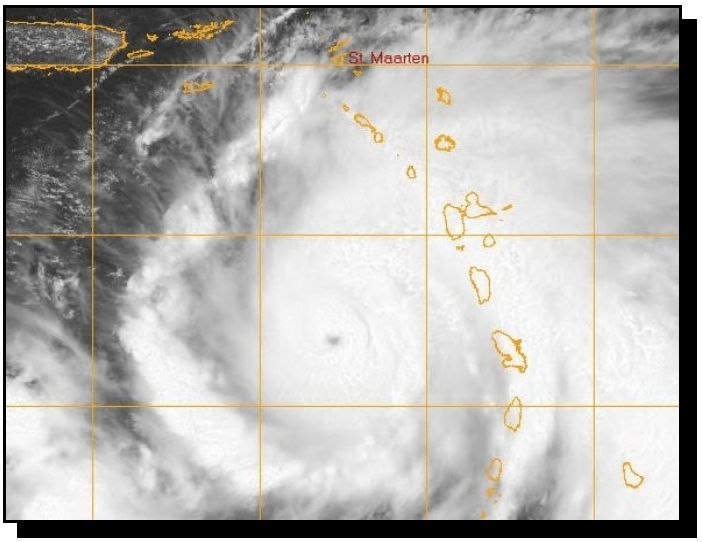
Andrea originated from a strong extratropical low pressure system that had formed off the coast of the Carolinas in the U.S.A. on May 6 and gradually acquired some tropical characteristics over the next few days. It became a subtropical storm while centered about 280 kilometers east of Jacksonville Florida during the early morning of May 9. Northerly wind shear and dry air caused the system to weaken below storm strength during the morning of May 10 and to degenerate into a remnant low early on the next day. The remnant low later was absorbed by a front on May 14.

Tropical storm ***Barry*** formed from a tropical wave that spawned a broad area of low pressure near the eastern coast of the Yucatan peninsula on May 30. The low moved north-northeastward on the next day and thunderstorm activity gradually became more concentrated near the center early on June 1. The organization continued to improve and a tropical depression formed that same morning, just northwest of the western tip of Cuba. Six hours later, the depression strengthened into a tropical storm. *Barry* reached a peak intensity of 95 km/h during that same evening while centered about 240 kilometers west-southwest of the Dry Tortugas near Florida. Thereafter, strong upper level southwesterly winds resulted in weakening and *Barry* made landfall in the Tampa Bay area as a tropical depression during the early afternoon of June 2. The system quickly lost tropical characteristics and became an extratropical area of low pressure while located over eastern Georgia early on the next day. The extratropical low intensified and moved northeastward along the east coast of the United States and was absorbed by a larger extratropical system near the St. Lawrence River on June 5. There were no reports of deaths or significant damage associated with *Barry*.

After a quiet period of almost two months, ***Chantal*** formed from a low pressure system of non-tropical origin about 385 kilometers northwest of Bermuda early on July 31. It moved in a northerly direction at an increasing forward speed and reached its peak intensity of 80 km/h later that day.
Chantal was short-lived and it lost its tropical characteristics early on August 1 as it approached southeastern Newfoundland. After passing over southeastern Newfoundland, accompanied by very heavy rains, the extratropical cyclone strengthened to near hurricane force over the North Atlantic. The system merged with another extratropical cyclone to the east of Iceland and lost its identity on August 5.

Dangerous Category Five *Dean*

***Dean*,** which made landfall as a category five hurricane on the east coast of the Yucatan peninsula near Costa Maya, Mexico, formed from a tropical wave in the far eastern Atlantic on August 13. The cyclone became a tropical storm the next day about 2400 kilometers east of the Eastern Caribbean island chain and continued to strengthen as it moved just north of due west. A Tropical Storm Watch was issued during the late evening of August 15 for the SSS Islands and even a Hurricane Watch went into effect for Saba and St. Eustatius. *Dean* became a hurricane on August 16 about 800 kilometers east of Barbados and continued to strengthen as it moved closer to the Eastern Caribbean island chain. A Tropical Storm Warning was issued during the late morning of that same day for all three SSS Islands. The center of *Dean* passed between St. Lucia and Martinique during the morning of August 17 with the northern eyewall passing over Martinique with category two sustained winds of about 160 km/h. After moving away from these islands, and also the SSS Islands which were affected with tropical storm force gusts, *Dean* became a major hurricane later that day and its strongest sustained winds reached 240 km/h early the next day about 1120 kilometers southeast of Jamaica. In the meantime, all warnings for the SSS Islands were discontinued during the late afternoon of the 17th. Continuing on a track just north of due west, the center of the hurricane passed about 40 kilometers south of the south coast of Jamaica on August 19. At that time, *Dean* was a category four hurricane with maximum winds of 230 km/h although these strongest winds likely remained just offshore.



The center of Dean passed well south of the SSS Islands during the early afternoon of August 17 (Image courtesy NRL Marine Meteorology)

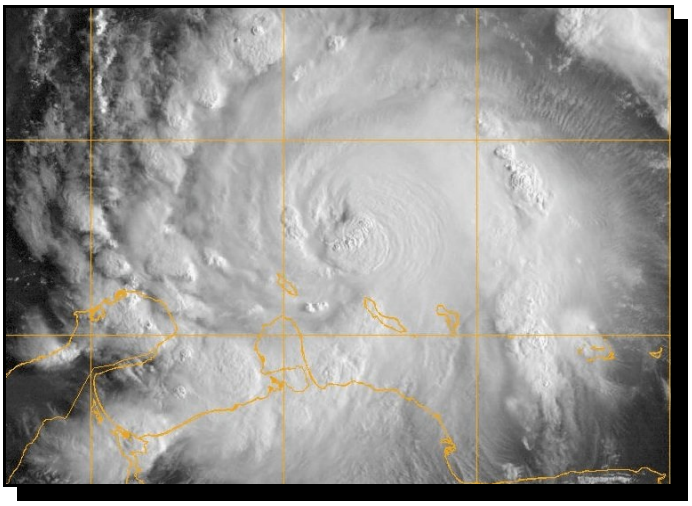
Dean's heading remained remarkably constant and it continued over the deep warm waters of the northwestern Caribbean. It became a category five hurricane very early on August 21 about 320 kilometers east of Chetumal, Mexico and reached its peak intensity of 265 km/h with a minimum pressure of 906 hPa, just before landfall near Costa Maya on the Yucatan peninsula. *Dean* weakened to a category one hurricane during its traverse of this peninsula and emerged into the Bay of Campeche late on August 21. It strengthened to a category two hurricane with winds of about 160 km/h just before making its final landfall near midday on August 22 about 60 kilometers south of Tuxpan, Mexico. The cyclone dissipated early on August 23 over the high terrain of central Mexico. Reports from various media sources indicate that *Dean* is responsible for roughly 40 deaths across the Caribbean with the largest tolls in Mexico and Haiti.

Erin formed in association with a tropical wave early on August 15 over the Gulf of Mexico about 720 kilometers southeast of Brownsville, Texas. Moving northwestward, the cyclone became a tropical storm with maximum winds of 65 km/h later that day while centered about 320 kilometers east of Brownsville. *Erin* however did not strengthen any further over the Gulf. The center of circulation made landfall near Lamar, Texas on the morning of August 16 and by that time the system had weakened to a tropical depression with maximum winds of 55 km/h. The depression continued northwestward and inland during August 16 and 17 and turned northward over west Texas on the next day. Surviving remarkably over land, the cyclone entered southwestern Oklahoma very early on August 19. While moving northeastward over Oklahoma that morning, *Erin* produced

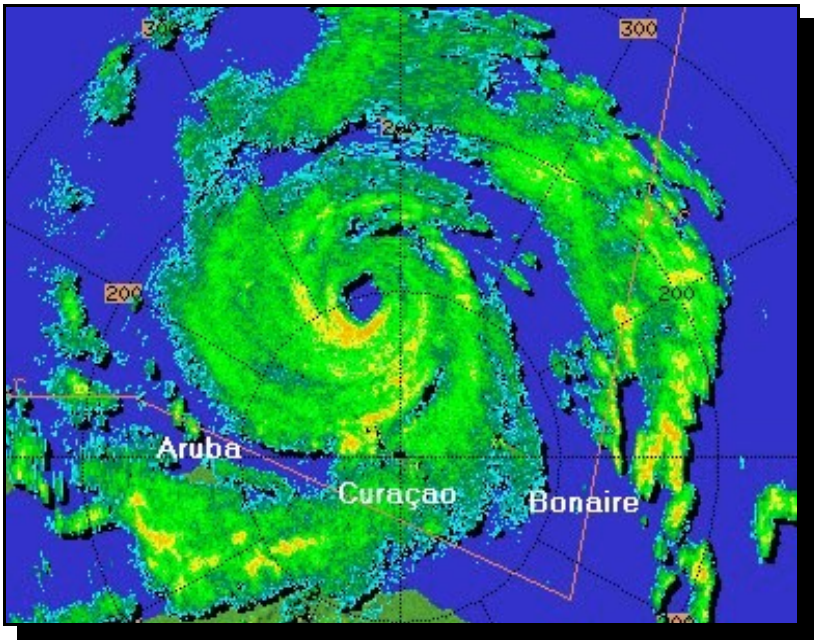
sustained winds of tropical storm force and gusts to hurricane force in isolated locations. Post-storm analysis of this unusual event is ongoing to determine the strength and status of Erin over Oklahoma. The cyclone dissipated later on August 19 over northeastern Oklahoma but remnant moisture continued northeastward into Missouri. Overall, *Erin* and its remnants brought heavy rains to portions of southeastern, south-central and western Texas, Oklahoma and southern Missouri. Storm-total rainfall amounts of 75 to 175 mm were common in many of these areas with some locations receiving more than 250 mm. Media reports indicate at least 16 fatalities associated with *Erin* or its remnants, mostly due to inland flooding.

Close Call of *Felix*

Felix formed from a tropical wave that moved westward from the coast of Africa on August 24. The associated shower activity began showing signs of organization four days later and the system developed into a tropical depression on August 31 at about 160 kilometers southeast of Barbados. The depression intensified into a tropical storm as it passed near Grenada and the Grenadines early on September 1. As this system became a threat to the ABC Islands, a **Tropical Storm Warning** was issued during the early morning of that same day. *Felix* moved westward and intensified to a hurricane later that day over the southeastern Caribbean Sea. A **Hurricane Watch** was added to the Tropical Storm Warning but the field with damaging winds of this system never reached our islands. It was however close enough to justify both the warning and watch. The hurricane brought significant amounts of rain on all three islands during the morning of September 2 while the constantly shifting winds at times reached intensities close to gale force. As its center was moving past the ABC Islands at an average distance of about 85 kilometers, it was undergoing rapid intensification and *Felix* even became a category five hurricane later that same day about 345 kilometers northwest of Aruba. After hurricanes *Ivan* in September 2004 and hurricane *Emily* in July 2005, Felix was the third



Hurricane Felix as it was located just north of the ABC Islands during the morning of September 2 (Image courtesy NRL Marine Meteorology)



Curaçao weather radar image taken on September 2 at 7:30 A.M. local time. The heaviest rain appears in orange while the concentric circles drawn every 100 kilometers, show the distance from Hato Airport in Curaçao .

major hurricane in four years to make a close call to the ABC Islands.
The hurricane weakened to category three on the next day as it underwent an eyewall replacement cycle. It then re-intensified to category five status just before landfall on September 4 near Punta Gorda, Nicaragua. *Felix* weakened quickly after landfall and became a broad area of low pressure over Central America on September 5. The remnants of Felix moved into the Pacific Ocean where they dissipated on September 9.

Media reports indicate that *Felix* was responsible for 130 deaths in Nicaragua and Honduras. The hurricane caused major damage in the landfall area in northeastern Nicaragua with numerous buildings damaged or destroyed along the coast near and north of Puerto Cabezas. Additional damages occurred due to inland flooding over portions of Central America. *Felix* also produced minor damage on Grenada, the Grenadines and St. Vincent. As mentioned above, minor damage was also caused in the ABC Islands.

A Few Minor Systems

Gabrielle developed from a non-tropical low pressure area that formed on September 3. During the next several days this low moved slowly eastward between the southeast coast of the United States and Bermuda. The low became better defined late on September 7 and became a subtropical storm early on the next day about 665 kilometers southeast of Cape Hatteras, North Carolina. As *Gabrielle* moved northwestward, it continued to acquire tropical characteristics and became a tropical storm later that day. Gabrielle strengthened early on September 9 and reached a peak intensity of 95 km/h while located just southeast of Cape Lookout, North Carolina. A few hours later, the tropical storm made landfall along the Cape Lookout national seashore. After landfall, the storm turned northeastward and weakened due to land interaction and northerly wind shear. *Gabrielle* moved back over the Atlantic waters, exiting the North Carolina coast near Kill Devil Hills early on September 10 and then weakened to a tropical depression a few hours later. The next day the circulation became ill-defined and the depression dissipated about 480 kilometers south of Nova Scotia, Canada. Heavy rainfall associated with *Gabrielle* was confined to a rather small area near Cape Lookout and overall the impacts from this system in eastern North Carolina were minimal.

Humberto formed from the remnants of a frontal trough that moved offshore of South Florida on September 5. The western end of the trough moved slowly westward for the next several days, occasionally producing disorganized thunderstorm activity and was located in the northwestern Gulf of Mexico on September 11. Early the next day, thunderstorms rapidly increased near the trough and a tropical depression formed about 190 kilometers south of Galveston, Texas. The depression became a tropical storm a few hours later as it was moving slowly northward. *Humberto* turned slightly to the north-northeast and continued to rapidly intensify, strengthening into a hurricane about 50 kilometers south of High Island, Texas early on September 13. The hurricane made landfall just east of High Island early that day at its peak intensity of 145 km/h.
Humberto moved over extreme southeastern Texas and southwestern Louisiana and weakened to a tropical storm later on September 13 about 120 kilometers west-northwest of Lafayette, Louisiana. The storm soon became a tropical depression near Alexandria, Louisiana and dissipated over central Mississippi on the next day. One fatality is directly attributable to *Humberto* and damage is estimated at about 50 million U.S. dollars.

Ingrid developed from a large tropical wave that exited the coast of Africa on September 6. At that time, strong easterly shear was inhibiting development over the eastern Atlantic and it was not until September 9 that a broad area of low pressure developed along the wave axis about midway between Africa and the Eastern Caribbean islands.
Environmental conditions gradually became more favorable for development during the next several days and thunderstorm activity became persistent near the low center on September 11. By the early

morning of the next day, when the low was centered about 1800 kilometers east of the Lesser Antilles, the system finally acquired sufficient organization to be designated as a tropical depression. The depression moved on a general west-northwestward track within weak steering flow along the southern periphery of a mid-tropospheric ridge. Despite moderate westerly wind shear, the cyclone became a tropical storm early on September 13 while centered about 1340 kilometers east of the Eastern Caribbean islands and reached its maximum intensity of 70 km/h late that day. During the morning of September 14, the shear increased and *Ingrid* weakened to a tropical depression during the early afternoon of the next day. The strong shear persisted and *Ingrid* degenerated to a broad remnant low early on September 17 about 325 kilometers east of St. Maarten.

Tropical depression ***Ten*** formed in part from a decaying frontal boundary that became stationary off the southeastern U.S. coast on September 17. On the next day, an upper-level low formed over Florida and the eastern Gulf of Mexico and a westward-moving tropical wave was moving over the Bahamas. These features combined to produce a weak area of low pressure over the western Bahamas later that day. The system moved slowly westward over Florida and into the eastern Gulf during September 19 and 20. On September 21, thunderstorm activity increased near the surface low and a subtropical depression formed that day about 70 kilometers southwest of Apalachicola, Florida. The system gained tropical characteristics later that day and became a tropical depression as it moved northwestward. Its maximum winds however never exceeded 55 km/h. The depression made landfall during the early evening on September 22 near Fort Walton Beach, Florida and it dissipated about six hours later. Impacts in the areas along the path of the depression were minimal.

Jerry formed from a non-tropical low over the north-central Atlantic about 1700 kilometers west of the Azores early on September 23. It began as a subtropical depression since the cyclone was interacting with an upper-level low. Moving slowly northward, the system strengthened slightly later that day, becoming a subtropical storm with maximum winds of 65 km/h. The system acquired tropical characteristics very early on the next day as thunderstorm activity increased near the center but it never gained any more strength.
Jerry weakened back to a depression later that day as it accelerated toward the northeast ahead of an approaching cold front and it dissipated near the end of that day when it lost its closed circulation. By then the system was about 1280 kilometers northwest of the Azores.

Karen formed early on September 25 over the eastern tropical Atlantic from a large area of disturbed weather associated with a tropical wave that moved off the coast of Africa on September 25. After formation, the cyclone quickly strengthened into a tropical storm. *Karen* moved mostly northwestward over the tropical Atlantic and strengthened to hurricane intensity on the next day while centered about 1920 kilometers east of the southeastern Caribbean islands. A little later that day, however, southwesterly vertical wind shear associated with a sharp upper-level trough caused *Karen* to begin weakening. As the shear increased over the next couple of days, the cyclone continued to become less organized. *Karen* eventually weakened to a depression on September 29 and dissipated later that day about 800 kilometers east of the Northeastern Caribbean islands. A remnant area of showers and squalls lingered near and east of these islands for a few more days. Although *Karen* was designated as a strong tropical storm operationally, it was upgraded to a hurricane in the post-storm analysis of aircraft and satellite data.

Lorenzo formed from a tropical wave, developing into a tropical depression on September 25 about 280 kilometers northeast of Tuxpan, Mexico. The depression meandered in the western Gulf of Mexico without development the next day but abruptly strengthened on September 27, becoming a tropical storm about 240 kilometers east of Tuxpan and even a hurricane later that day.

Trop. Depr. Nr.	Name	Period	Min. air pressure	Maximum wind
1	S.T.S. Allison	May 9 - 11	1002 hPa	75 km/hr
2	T.S. Barry	June 1 - 2	997 hPa	85 km/hr
3	T.S. Chantal	July 31 - August 1	994 hPa	85 km/hr
4	Hurricane Dean	August 14 - 23	918 hPa	270 km/hr
5	T.S. Erin	August 15 - 16	1003 hPa	65 km/hr
6	Hurricane Felix	September 1 - 5	929 hPa	270 km/hr
7	T.S. Gabrielle	September 8 - 10	1004 hPa	85 km/hr
9	Hurricane Humberto	September 12 - 13	986 hPa	140 km/hr
8	T.S. Ingrid	September 14 - 15	1002 hPa	75 km/hr
11	T.S. Jerry	September 23 - 24	1004 hPa	80 km/hr
12	Hurricane Karen	September 25 - 29	990 hPa	120 km/hr
13	Hurricane Lorenzo	September 27 - 28	990 hPa	140 km/hr
14	T.S. Melissa	September 29 - 30	1003 hPa	75 km/hr
16	Hurricane Noel	October 28 - November 6	981 hPa	140 km/hr
17	T.S. Olga	December 10 - 12	1003 hPa	95 km/hr

Lorenzo's peak winds reached 125 km/h before weakening slightly just prior to making landfall with 120 km/h winds early on September 28 near Tecolutla, Mexico, about 65 kilometers southeast of Tuxpan. *Lorenzo* weakened rapidly and dissipated later that day. The government of Mexico indicated that six deaths were attributable to this system.

Melissa formed from a tropical wave that left the coast of Africa on September 26. An area of low pressure formed the next day in association with the wave near the Cape Verde Islands. Thunderstorm activity with the low abruptly increased early on September 28, and the system became a tropical depression later that day about 185 kilometers west-southwest of the southernmost Cape Verde Islands.
The depression strengthened slightly while inching westward and it became tropical storm *Melissa* early on September 29, maintaining tropical storm strength for about a day. The storm weakened to a depression on the next day within an environment of increasing westerly wind shear while moving a little faster toward the west-northwest. Thunderstorm activity then became intermittent and later that day the depression degenerated to a remnant low about 870 kilometers west of the Cape Verde Islands.

Tropical depression ***Fifteen*** formed from an area of disturbed weather to the north of Puerto Rico and Hispaniola on October 4. The area remained nearly stationary for several days with a low pressure system forming on October 8. The low began to move northeastward on the next day with the associated convection gradually becoming better organized. The system became a tropical depression on October 11 about 1185 kilometers east-southeast of Bermuda. Strong northerly vertical wind shear caused the depression to weaken to a remnant area of low pressure the next day about 1455 kilometers east of Bermuda. The low moved northwestward on October 13, then turned northeastward and merged with a frontal system on the next day. It became an extratropical gale on October 16 about 455 kilometers west-northwest of the Azores Islands. The low was absorbed by a larger low pressure system late the next day about 1120 kilometers north of the Azores.

Not Strong but Still Deadly

Noel formed from a tropical wave that departed the west coast of Africa on October 16. As this wave approached the Lesser Antilles, interactions with an upper-level trough and a surface trough lying just north of the Northeastern Caribbean Area led to the formation of a broad surface low pressure area late on October 13, about 240 kilometers east-northeast of the SSS Islands. The low moved slowly westward to west-southwestward during the next couple of days. The strong upper-level westerly winds near the low decreased on the October 27, resulting in the formation of a tropical depression early on October 28 about 360 kilometers south of Port-au-Prince, Haiti. The depression turned northwestward and strengthened to a tropical storm shortly thereafter. *Noel* made landfall along the south coast of Haiti early on the next day. The low-level circulation became disrupted over Haiti and the center reformed near the northwestern coast of Hispaniola a few hours later. After the center reformed, Noel moved westward and made another landfall in eastern Cuba early on October 30. Noel spent a little more than 24 hours over eastern Cuba before emerging over the Atlantic waters on the next day. It meandered along the north coast of Cuba for about 12 hours before turning northeastward. *Noel* began to strengthen as it moved across the northwestern Bahamas on November 1 and reached hurricane strength that evening as it exited the northwestern Bahamas. *Noel* continued to accelerate northeastward and became an extratropical low about 24 hours later about 440 kilometers southeast of Cape Hatteras North Carolina. The extratropical low strengthened a little before weakening slightly and passing about 135 kilometers southeast of Nantucket Island, Massachusetts late on November 3. The cyclone made landfall near Yarmouth, Nova Scotia during the early morning of November 4 with maximum winds of 120 kilometers. The low gradually weakened as it moved across eastern Canada and merged with another extratropical low near the coast of Greenland early on November 6.

Media reports indicate that heavy rainfall from *Noel* produced significant flooding and mudslides in the Dominican Republic, Haiti, eastern Cuba and the Bahamas. Noel was responsible for at least 147 deaths across the Caribbean (particularly in the Dominican Republic and Haiti) and the Bahamas with an additional 42 persons missing. The extratropical low produced hurricane force winds in portions of the northeastern United States and southeastern Canada. These winds downed trees and power lines that caused widespread power outages. The low also produced significant coastal flooding and wave action that washed out coastal roads in portions of Nova Scotia.

Late *Olga*

The hurricane season ended officially on November 30 but one more system would develop ten days later. That was ***Olga*** which developed from an upper-level area of low pressure and an associated low level trough into a subtropical storm just east of Puerto Rico during the evening of December 10. It moved in over Puerto Rico and as it was approaching Hispaniola, it became a tropical storm. The system peaked in intensity as it reached the eastern Dominican Republic although the strongest sustained winds were observed well away of the center under the heaviest showers. It maintained this peak intensity for quite a while despite moving over mountainous terrain. *Olga* continued to move toward the west and weakened to a tropical depression after it left western Haiti. It became a remnant area of low pressure north of Jamaica during the afternoon of December 12. This weak low pressure system continued to move through the central and northwestern Caribbean Area in a westerly and then northwesterly direction. During the morning of December 16, the remnants of *Olga* were finally absorbed by a cold front over the eastern Gulf of Mexico near the west coast of central Florida.

The primary impact of *Olga* was the heavy rainfall that affected portions of Puerto Rico and Hispaniola. Maximum rainfall totals across the region ranged from around 280 mm in central Puerto Rico to even more than 380 mm in portions of the Dominican Republic. Due primarily to torrential rainfall, mud slides and flooding of the Yaque River in the Dominican Republic, at least 37 deaths are directly associated with Olga in that country. In addition, two deaths in Haiti and one

death in Puerto Rico were reported in association with this system. *Olga's* impact was unusually severe due to the grounds having been previously saturated from the passage of tropical storm *Noel* at the end of October. News reports indicate that almost 12,000 homes were damaged, including 370 that were completely destroyed, which caused more than 60,000 people to be displaced. During the time when *Olga's* remnants moved rapidly across Florida, a tornado touched down in central Florida in Pasco County causing damage to several buildings.

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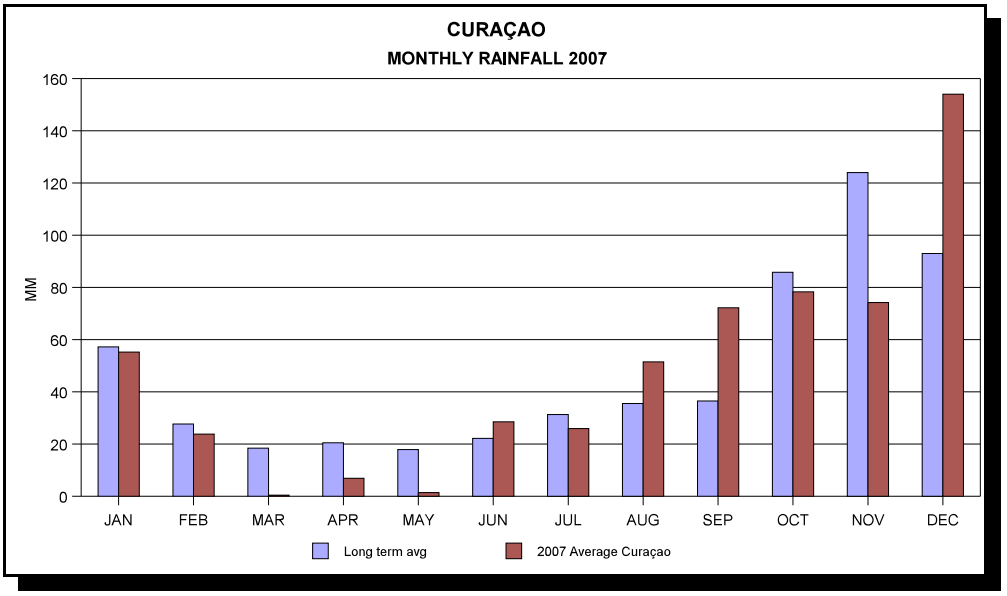
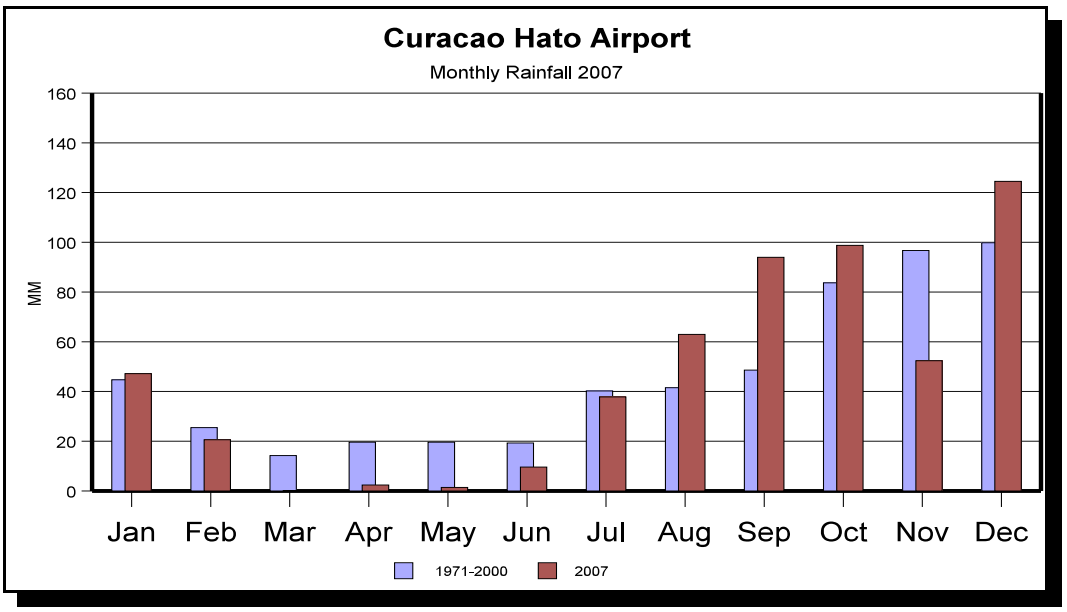
ABC-Islands
Curaçao
PRECIPITATION
The island average rainfall in 2007 was 572.2 mm. This is almost equal to the long-term average of 570.4 mm. When analyzing the individual data from the rain gauge network, the rainfall station at *Kas Di Orashon "Emaus"* received the highest annual total of 864.0 mm during 2007. The maximum 24-hour rainfall total for Curaçao was 67.1 mm and was measured at rainfall station Kas Di Orashon "Emaus" on September 2. The highest monthly total for 2007 was 234.4mm, measured in December at rainfall station *Kas Di Orashon "Emaus"*.
The highest sum of rain days (days with rainfall greater than or equal to 1.0 mm) for 2007 was 87 days and was observed at rainfall station San Juan.



Rainfall data from Hato rainfall station
The annual rainfall total for Hato in 2007 was 551.9 mm; almost equal to the 30-year average of 1971-2000 (553.4 mm). The wettest month of 2007 was December with a monthly total of 124.5 mm and the driest was March with 0.2 mm.
The 24-hour maximum of 54.4 mm was recorded on September 2 and was caused by the passage of hurricane *Felix*.
Hurricane *Dean's* passage resulted in the one-hour maximum for the year of 34.0 mm and that was recorded on August 18 between 21:00 and 22:00 hours.
The maximum intensity per minute of 2.8 mm was also recorded on August 18. The maximum rainfall duration in minutes was 109 minutes, recorded on October 9.
The number of days with rainfall greater or equal to 1.0 mm was 73 days (normal 70).
The number of hours with rainfall for 2007, recorded at Hato International Airport, was 202.
The number of days with thunder was 37 (normal 23 days).



TEMPERATURE

The average air temperature as recorded at Hato International Airport in the year 2007 was 28.0°C (normal 27.8°- standard deviation 0.8°). August was the warmest month with a daily average temperature of **29.0**°C (normal: 28.9°C). June had the highest average maximum temperature of **33.1**°C (normal: 31.9°C).

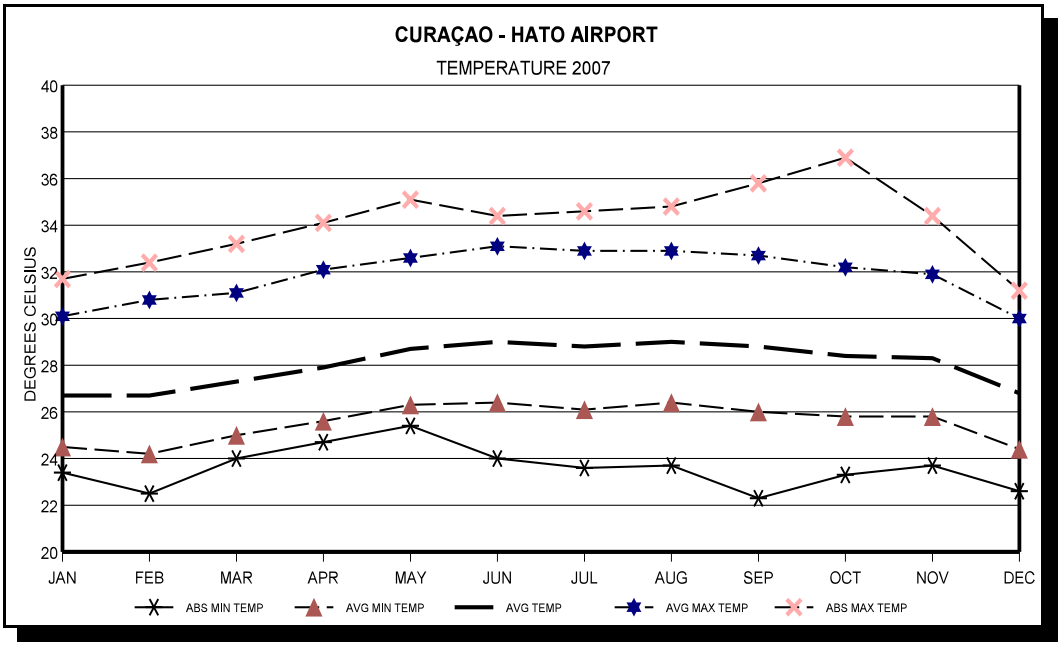
The absolute maximum temperature was **36.9**°C and was recorded on October 1 at 13:44 hours (Absolute maximum record of 38.3°C was established in September 1996). The hottest day of 2007 was also October 1 with a 24 hour average temperature of 30.2°C.

January and February were the coolest months with a daily average temperature of **26.7**°C.

February was the month with the lowest average minimum temperature of **24.2**°C .

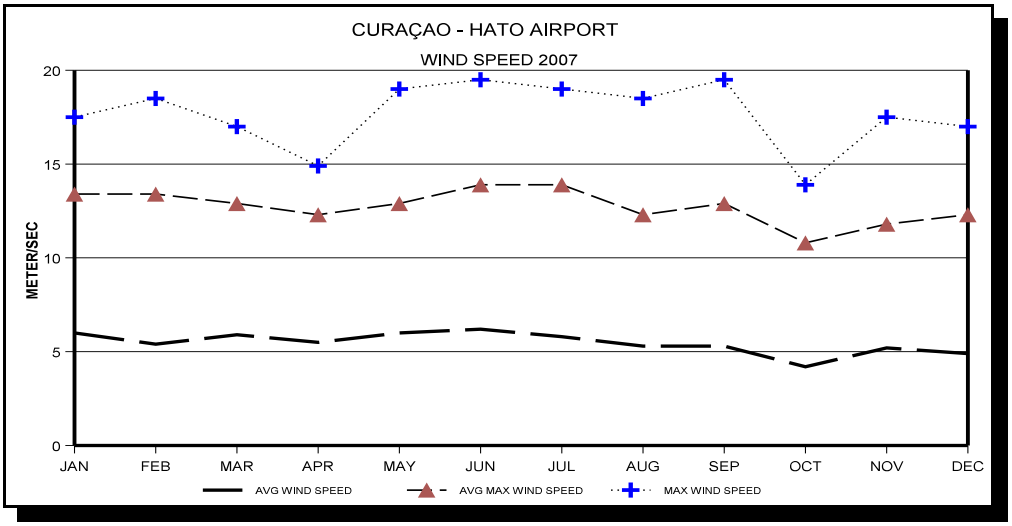
The absolute minimum temperature of **22.3**°C was recorded on September 12, 2006 at 13:34 hours.

The coolest day of the year was February 20 with a 24-hour average temperature of **25.2**°C.



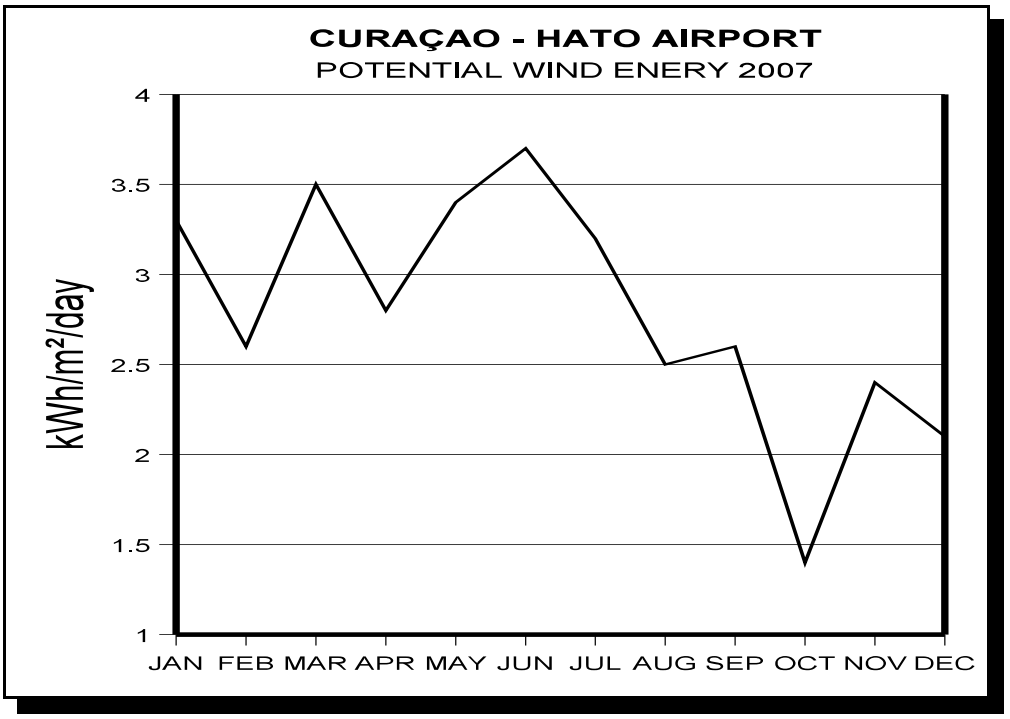
WIND

The average wind speed for the year 2007 was 5.5 m/sec (20.2 km/hr) (normal 6.6 m/sec - 23.8 km/hr) at a height of 10m above surface level and the average wind direction was 94°.
June had the highest monthly average wind speed of 6.2 m/sec (22.3 km/hr) and October had the lowest monthly average wind speed 4.2 m/sec (15.1 km/hr).
The highest wind gust 19.5 m/sec (70.2 km/hr) was recorded on June 16 at 17:47 hours due to the passage of a gust front and on September 12 at 10:12 hours.



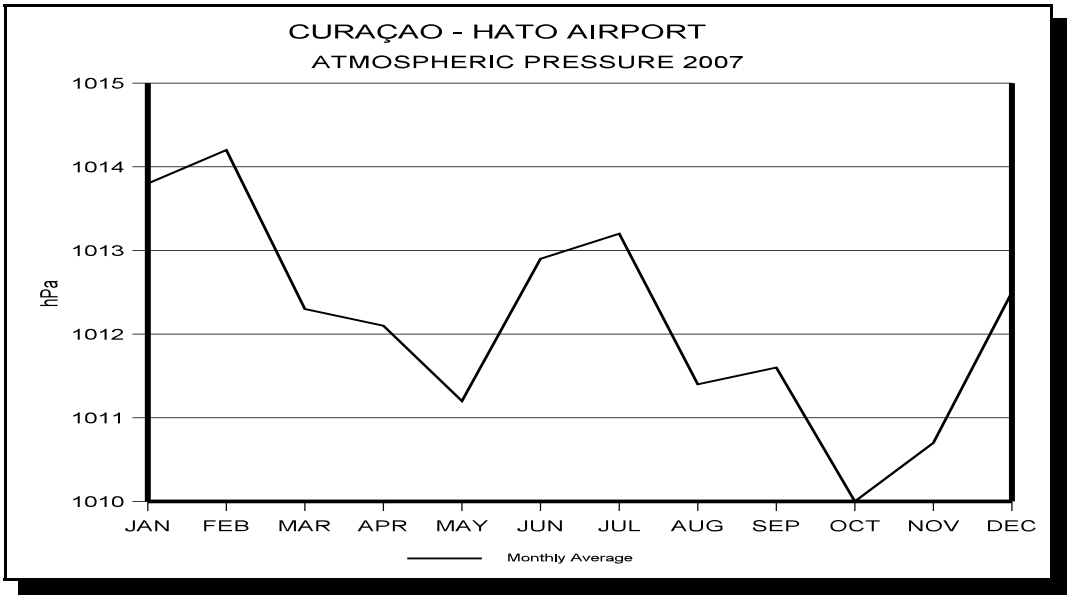
POTENTIAL WIND ENERGY

The total potential wind energy (at 10m height and wind speeds ≥4 m/sec) for the year 2007 was 1014 kWh/m^2. The daily average for 2007 was 2.8 kWh/m^2/day.



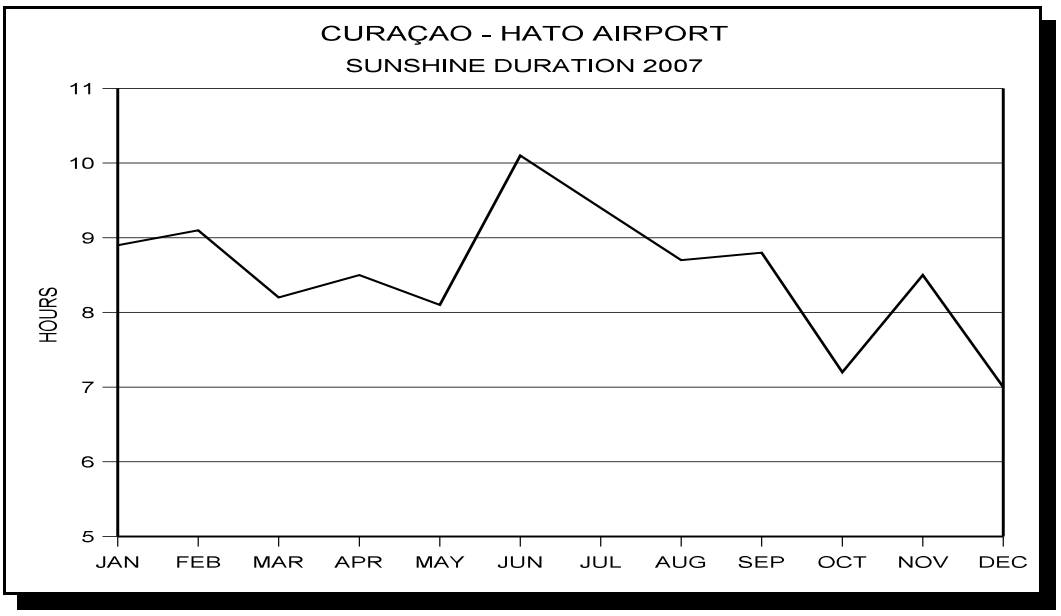
ATMOSPHERIC PRESSURE

The average atmospheric pressure recorded at Hato Airport in the year 2007 was 1012.2 hPa. The maximum atmospheric pressure of 1018.1 hPa was recorded on February 3, 2007 while the minimum 1004.9 hPa was recorded on October 27.



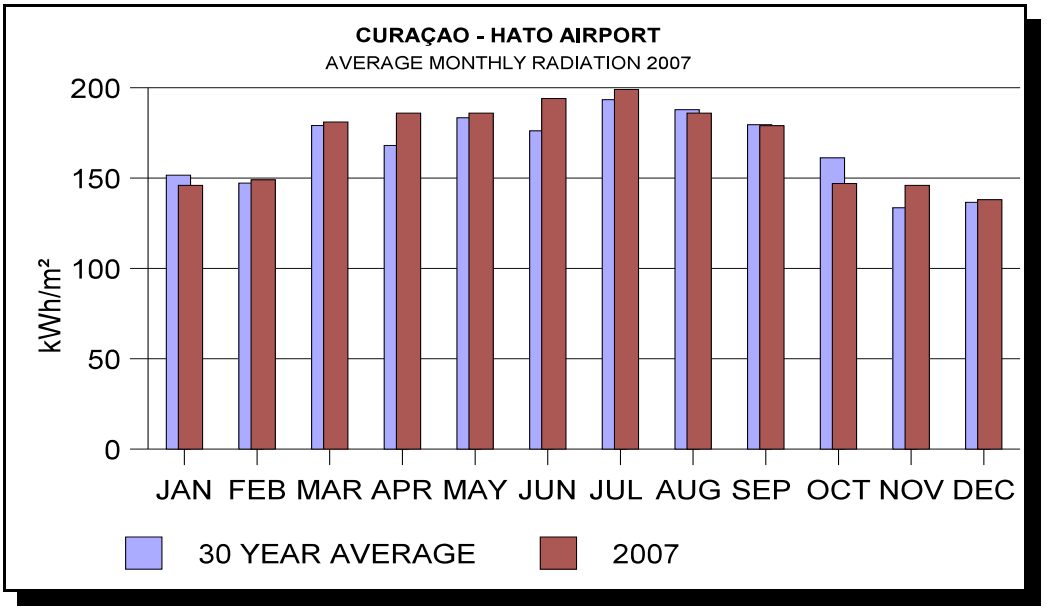
SUNSHINE DURATION

The total sunshine duration for the year 2007 was 3104.9 hours, 70.1% of the maximum possible duration (4428 hrs). The average daily sunshine duration was 8 hours and 30 minutes. The sunniest month was June with a daily average sunshine duration of 10 hours and 6 minutes while the month with the least sunshine was December with a daily average of 7 hours. The day with the maximum sunshine duration, 11 hours and 54 minutes, was July 30, 2007.



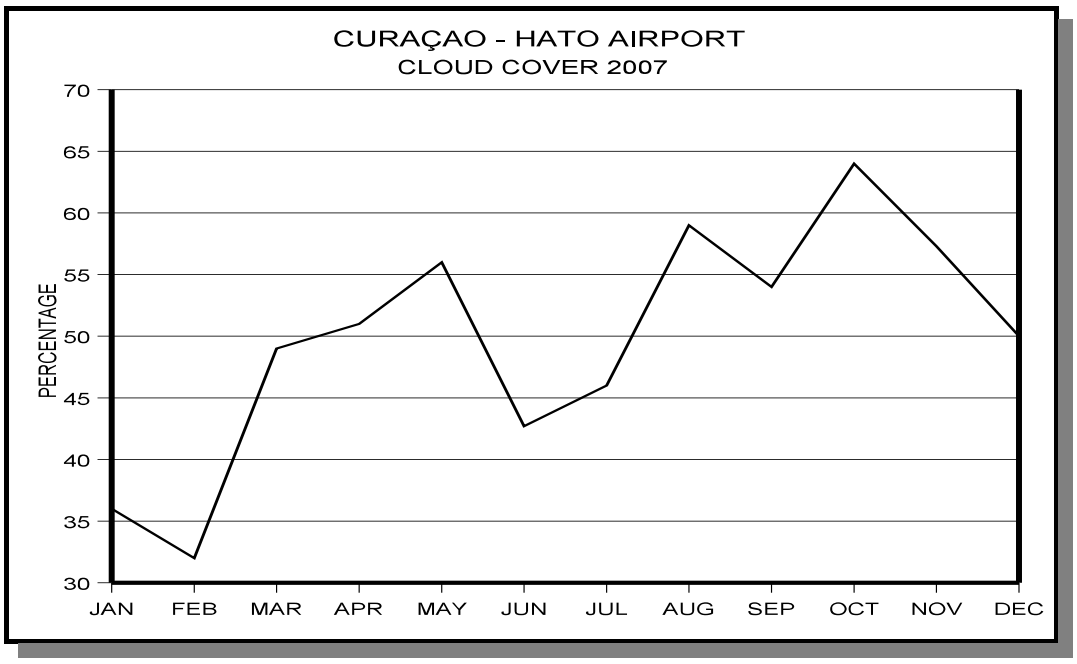
GLOBAL RADIATION

The total annual global radiation for 2007 as recorded at Hato Airport was 2037 kWh/m^2 about 2% above the long term annual average (1997.5 kWh/m^2). June was the month with the highest monthly total radiation (199 kWh/m^2).



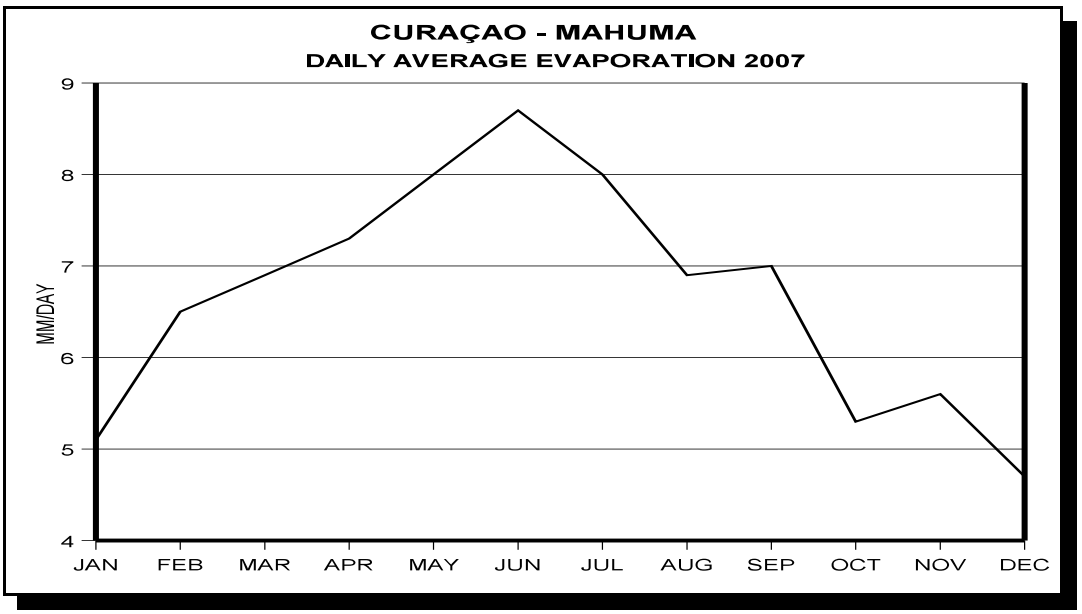
CLOUD COVERAGE

The average cloud cover for the year 2007 was 48.2%. The highest total cloud coverage per month, 64% was observed in October and the lowest total cloud coverage for 2007, 32%, was observed in February.



EVAPORATION

The site of the evaporation pan is located at the Meteorological Service at Seru Mahuma. The daily average evaporation for the year 2007 was 6.7 mm per day. June had the highest daily average evaporation of 8.7 mm/day while December had the lowest daily average evaporation value of 2007 with 4.7 mm/day.



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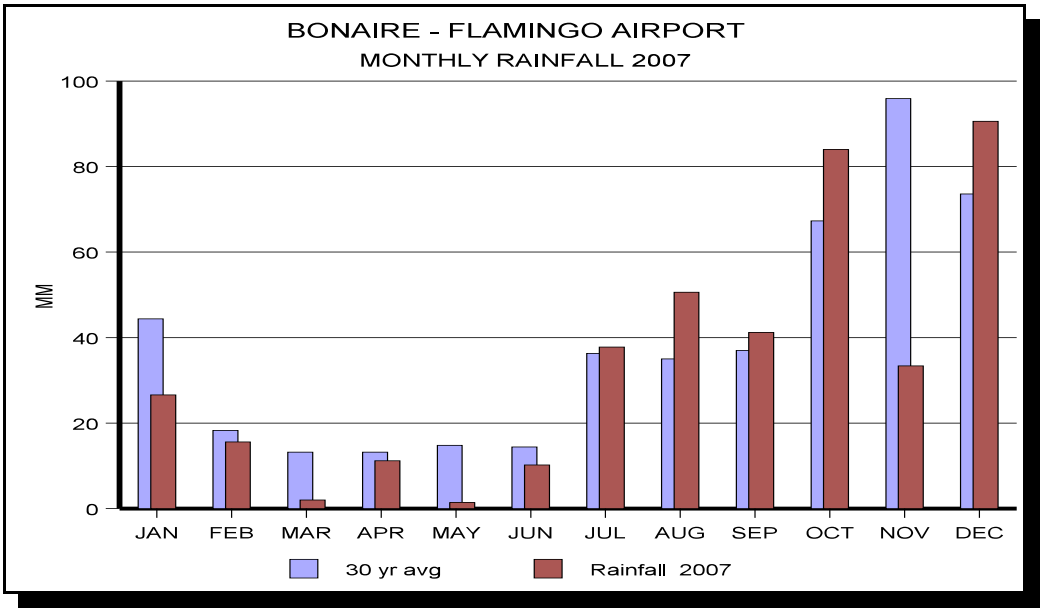
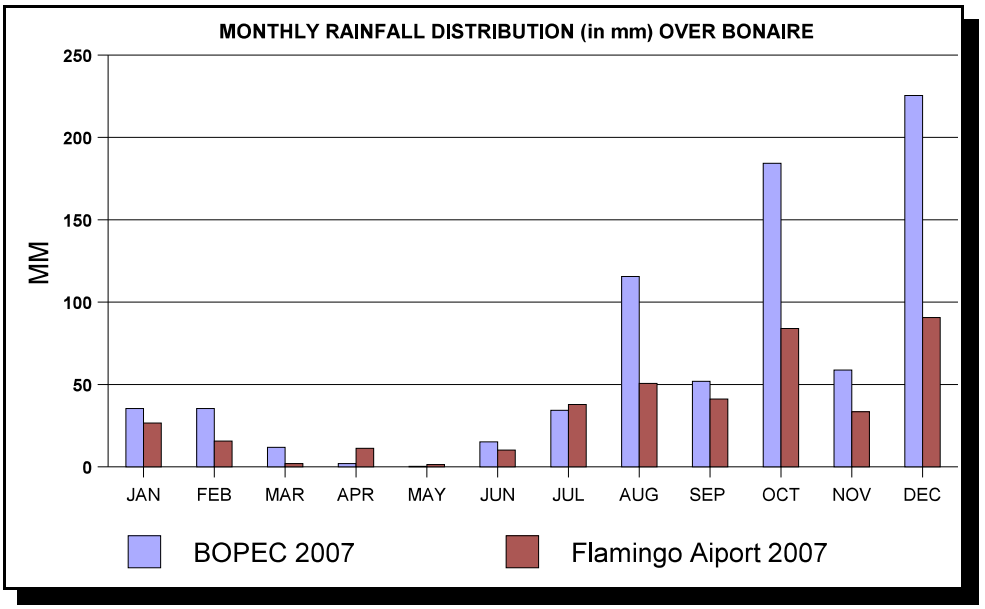
Bonaire

RAINFALL

The rainfall total, over the year 2007, as recorded at the Flamingo Airport of Bonaire was 404.6 mm, 12.7% below normal (normal 1971-2000 is 463.3 mm).
December was the wettest month of the year with a total of 90.6 mm while March was the driest month with 2.0 mm.
The 24-hour maximum was 22.4 mm recorded on September 2, 2007. The number of days with precipitation greater than or equal to 1.0 mm totaled 75, 11% above normal (67 days)

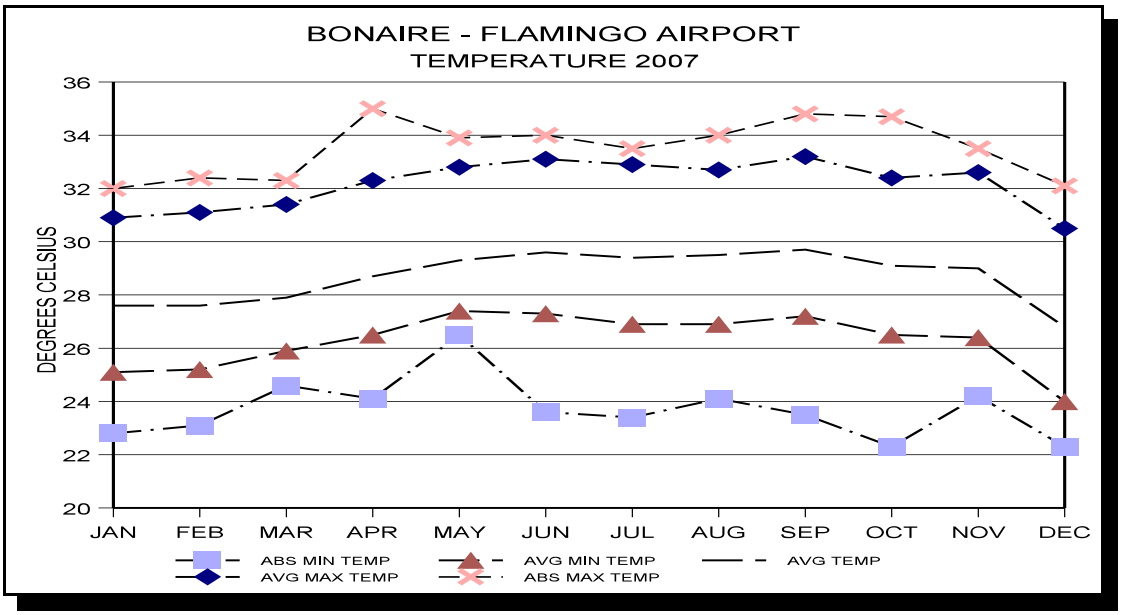


That the distribution of rainfall over a specific area can be very unequal is illustrated by the following example: the year total for the rainfall station at the BOPEC was 770.5 mm versus the Flamingo Airport's 404.6 mm.



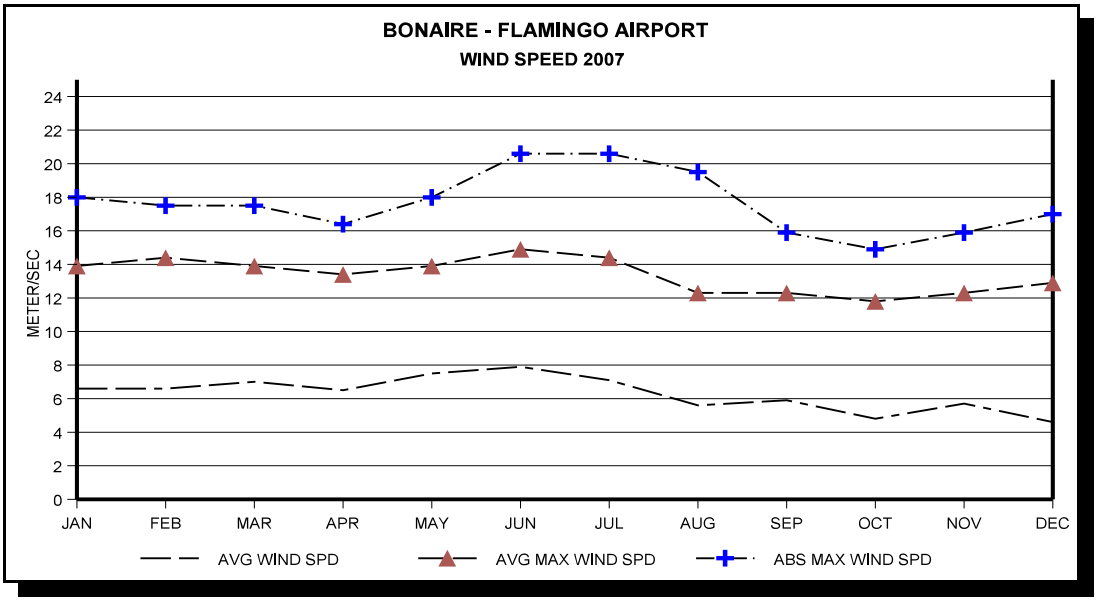
TEMPERATURE

The average air temperature recorded at the Flamingo Airport of Bonaire in the year 2007 was **28.7**°C (normal 28.0). The month of September was the warmest month with an average temperature of **29.7**°C. September had the highest value for the average maximum temperature of **33.2**°C. The absolute maximum temperature of the year was **35.0**°C and was recorded on April 21 at 12:23 hours. The warmest day of 2007 was October 1 with a 24-hour average temperature of **31.0**°C.
The lowest monthly average temperature and the lowest average minimum temperature for 2007, were both recorded in December.
The absolute minimum temperature of **22.3**°C was recorded on October 22 at 04:36 and on December 29 at 07:05 local time.
The lowest 24-hour average temperature 25.1°C was recorded on December 9.



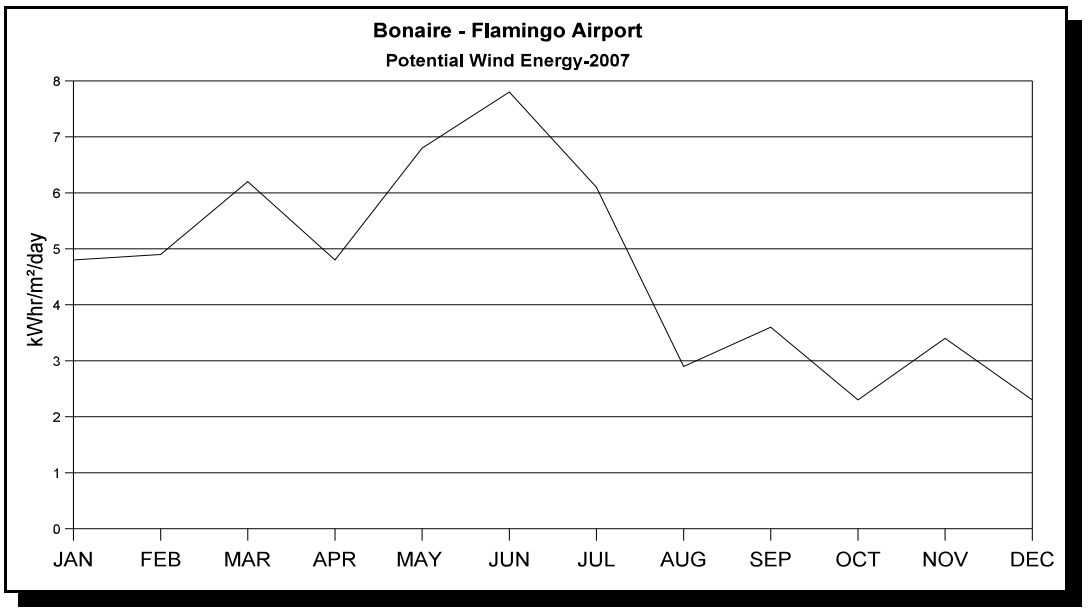
WIND

The average wind speed of 2007 recorded at the Flamingo Airport was 6.3 m/sec (22.7 km/hr) at 10 meter height above surface level.
The highest monthly average wind speed, 7.9 m/sec (28.4 km/hr), was recorded in June.
December had the lowest monthly average wind speed of 4.6 m/sec (16.6 km/hr).
The highest wind gust 20.6 m/sec (74 km/hr) was recorded on June 16 at 16:55 and July 10 at 11:10 local time.



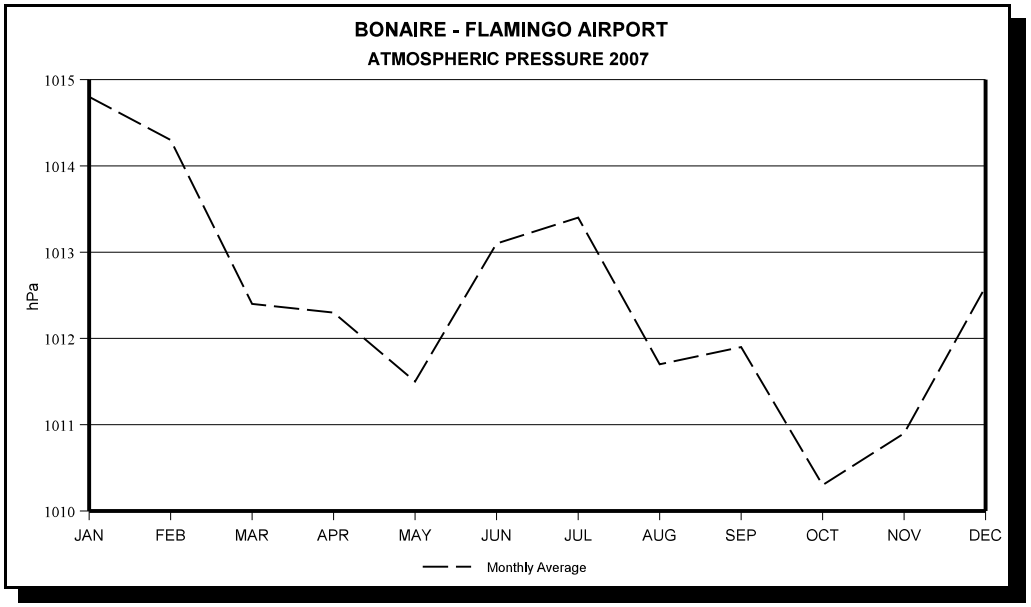
POTENTIAL WIND ENERGY

The total potential wind energy (at 10m height and wind speeds ≥4 m/sec) for the year 2007 was 1694 kWh/m^2. The daily average for 2007 was 4.6 kWh/m^2/day.



ATMOSPHERIC PRESSURE

The average atmospheric pressure recorded at Flamingo Airport over the year 2007 was 1012.4 hPa. The maximum atmospheric pressure of 1018.3 hPa was observed on January 4 while the minimum atmospheric pressure of 1005.5 hPa was recorded on October 27.



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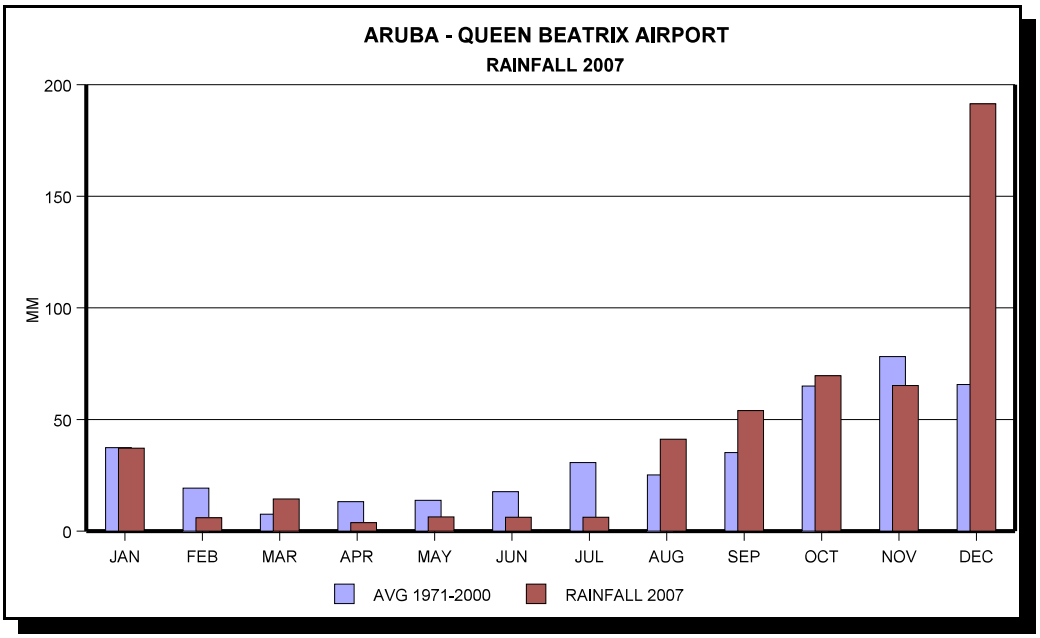
ARUBA

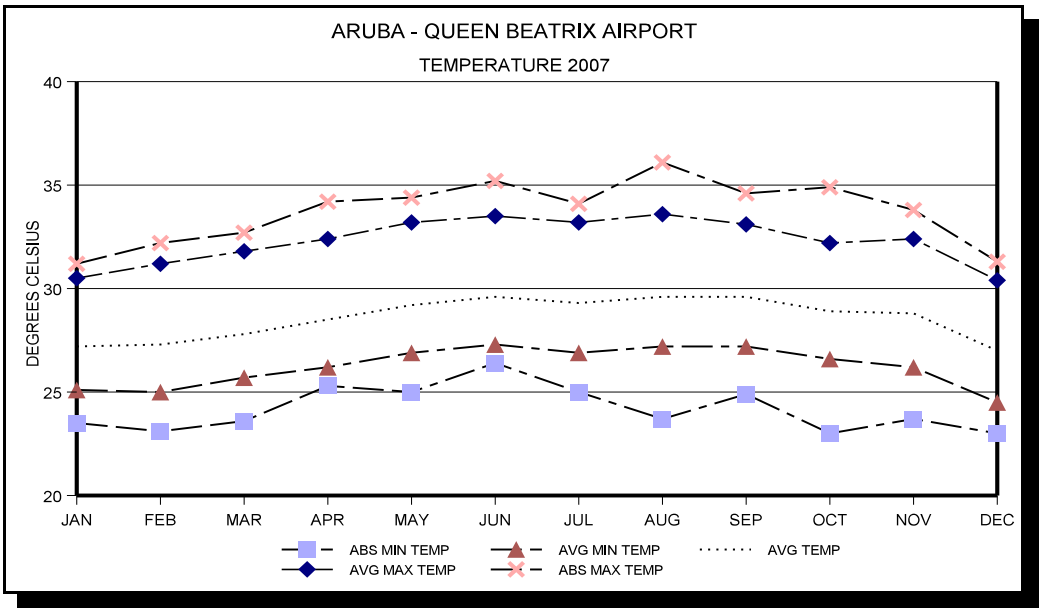
RAINFALL

The total rainfall, recorded at the Queen Beatrix Airport, for the year 2007 was, with 501.6 mm, 23% above average (409 mm). The wettest month was December with a total rainfall of 191.4 mm.
The 24-hour maximum rainfall of 38.8 mm, was recorded on December 5.
The number of days with precipitation greater than or equal to 1.0 mm was 60 days (normal 62).



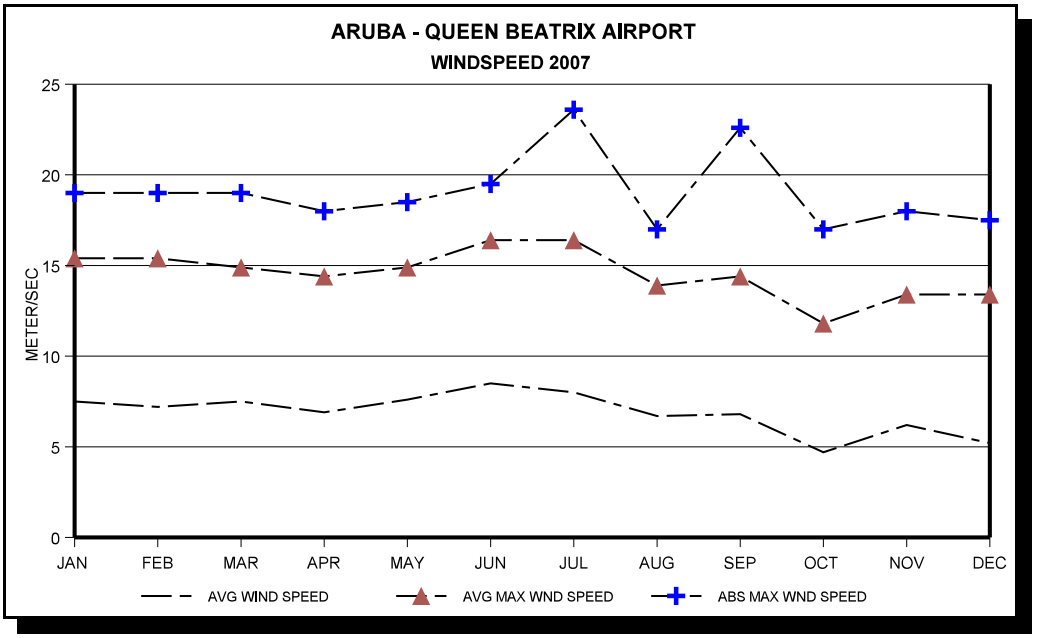
TEMPERATURE

The average air temperature as recorded at Queen Beatrix Airport in the year 2007 was **28.6**°C (normal 27.8°). The highest monthly average temperature of **29.6**°C was recorded three times during 2007 respectively June, August and September. The highest monthly average maximum temperature of **33.6**°C was recorded in August.
The hottest day of 2007 was 3 October with an average temperature of 30.6 °C.
The absolute maximum temperature of **36.1**°C was recorded on August 22, 2007 at 15:14 hours.
December was the coolest month with an average temperature of **27.0**°C and it was also the month with the lowest monthly average minimum temperature of **24.5**°C. The coolest day of 2007 was December 5 with an average temperature of 25.9°C.
The absolute minimum temperature was **23.0**°C and was recorded twice during 2007 respectively on October 6 at 06:22 and on December 1 at 07:03 hours.



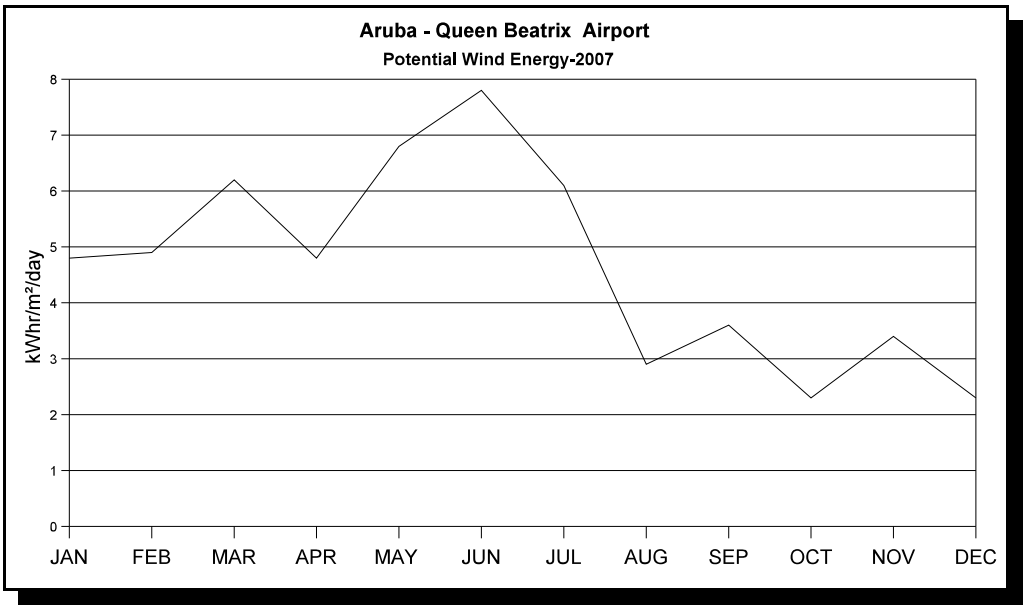
WIND

The average wind speed, at 10 m of height, for the year 2007, as recorded at Queen Beatrix Airport, was 6.9 m/sec (24.8 km/hr).
June was the month with the highest average wind speed of 8.5 m/sec (30.6 km/hr) and October had the lowest average wind speed 4.7 m/sec (16.9 km/hr).
The highest wind gust of 23.6 m/sec (85 km/hr) was recorded on July 10 at 13:28 local time.



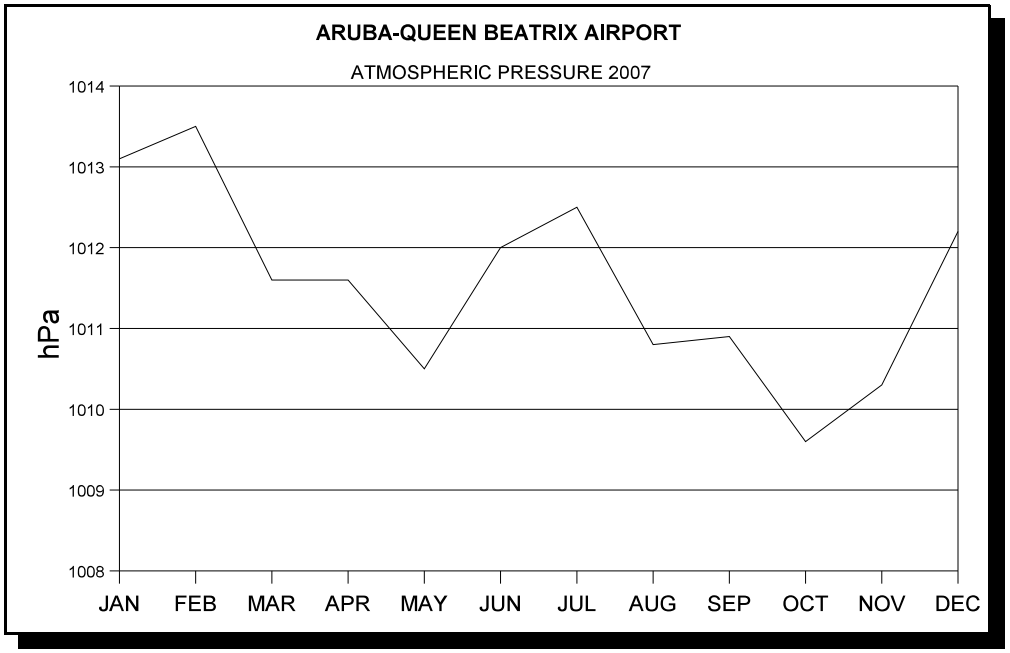
POTENTIAL WIND ENERGY

The total potential wind energy (at 10m height and wind speeds ≥4 m/sec) for the year 2007 was 2192 kWh/m^2. The daily average for 2007 was 6.0 kWh/m^2/day.



ATMOSPHERIC PRESSURE

The average atmospheric pressure recorded at Queen Beatrix Airport over the year 2007 was 1011.6 hPa. The maximum atmospheric pressure of 1017.4 hPa was observed on February 19 while the minimum atmospheric pressure of 1004.5 hPa was recorded on October 27.



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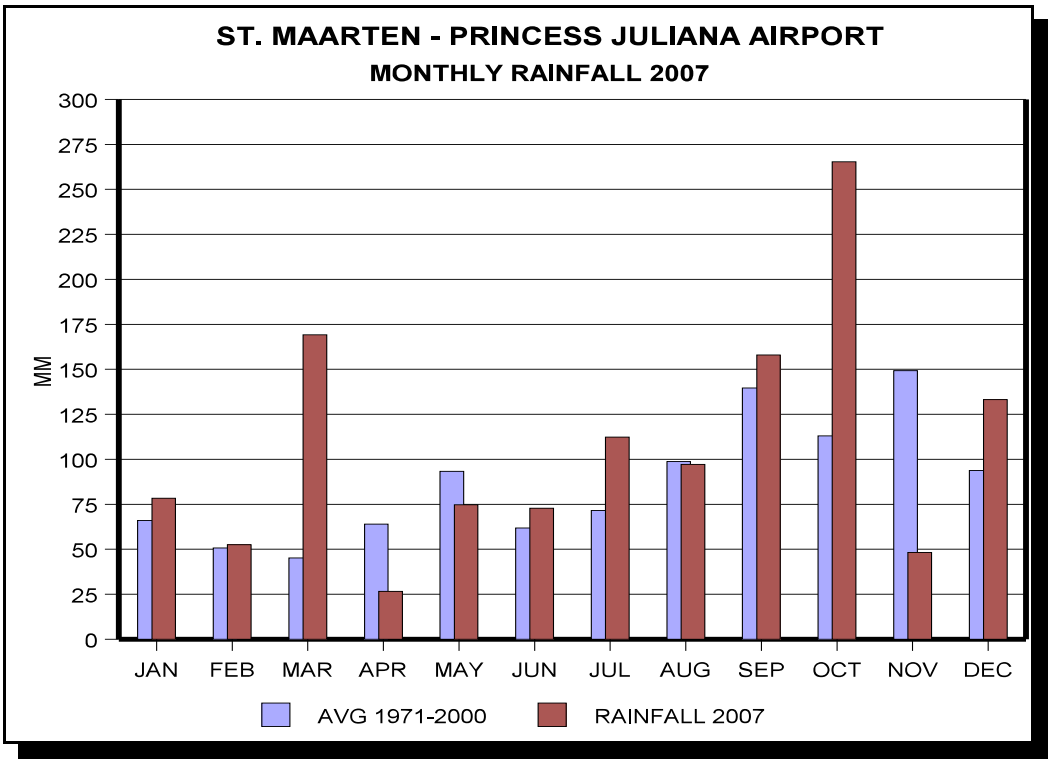
SSS ISLANDS

St. Maarten

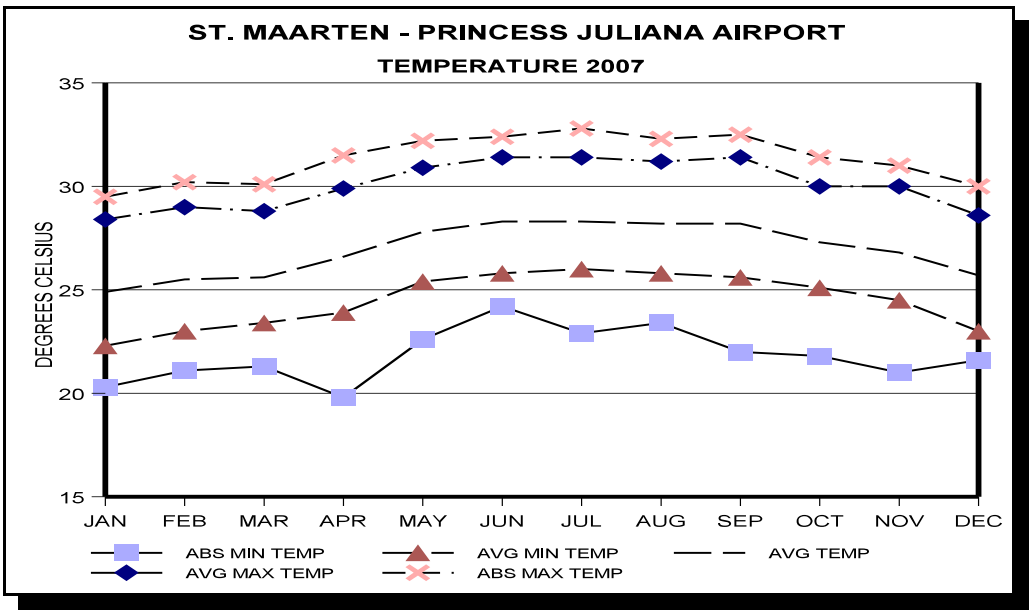
RAINFALL

The total rainfall for 2007, as recorded at the Princess Juliana Airport was 1288.8 mm about 23% above normal (1971-2000 of 1047.1 mm). October was the wettest month with a monthly total of 265.4 mm. The 24-hour maximum was 76.6 mm and occurred on October 26, 2007. The number of days with precipitation greater than or equal to 1.0 mm was 145 (normal 142).



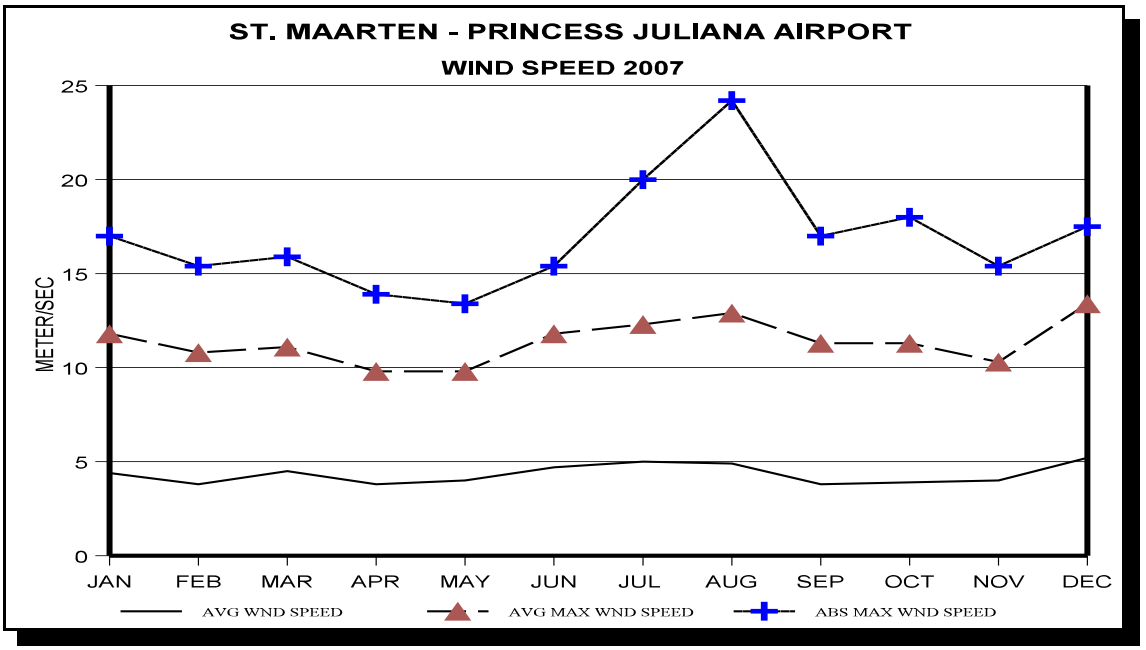
TEMPERATURE

The average air temperature as recorded at Princess Juliana Airport over the year 2007 was **26.9**°C (normal 27.2°). With 28.3°C June and July were the warmest months and with September they also were the months with the highest monthly average maximum temperature of **31.4**°C.
The absolute maximum temperature was **32.8**°C and was recorded on July 13 at 13:01 local time.
The hottest day of 2007 was recorded on July 13 with a 24-hour average temperature of **29.1**°C.
January was the month with the lowest monthly average temperature of **24.9**°C and was also the month with the lowest average minimum temperature of **22.3**°C for 2007.
The absolute minimum temperature **19.8**°C was recorded on January 16 at 02:14 local time.
With a temperature of 23.8°C, January 25 and March 15 were the coolest days of 2007.



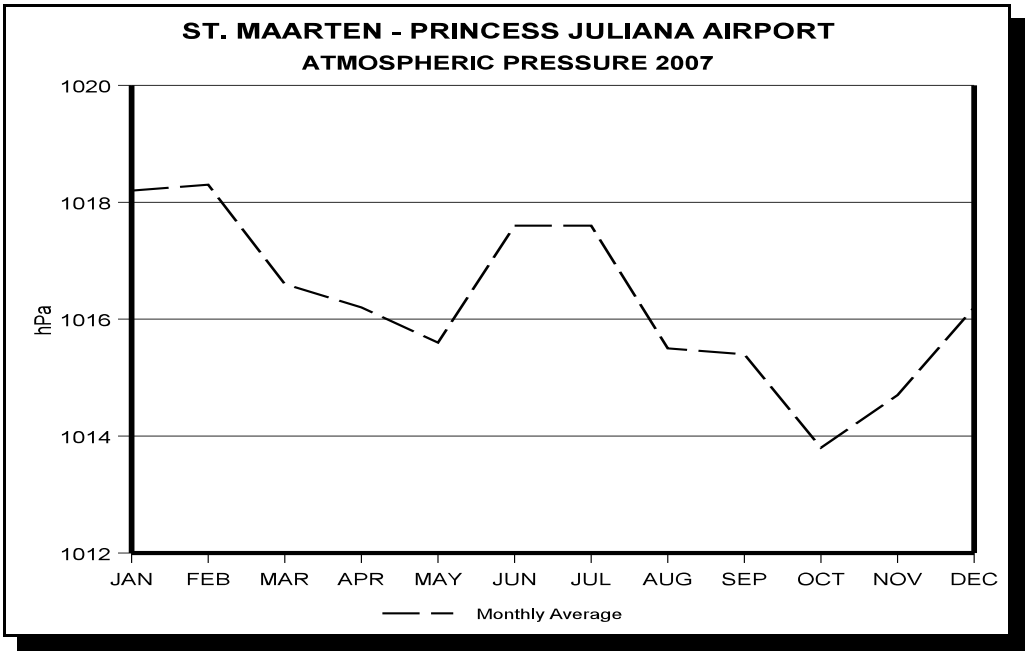
WIND

The average wind speed of 2007 as recorded at the Princess Juliana airport, was 4.3 m/sec (15.5 km/hr) at 10 m height above surface level. July had the highest average wind speed of 5.0 m/sec (18.0 km/hr). The lowest monthly average wind speed of 3.8 m/sec (13.7 km/hr) was recorded in February, April and September 2007.
The passage of hurricane *Dean* caused the highest recorded wind gust of 24.2 m/sec (86.8 km/hr) on August 17 at 11:16 hours.



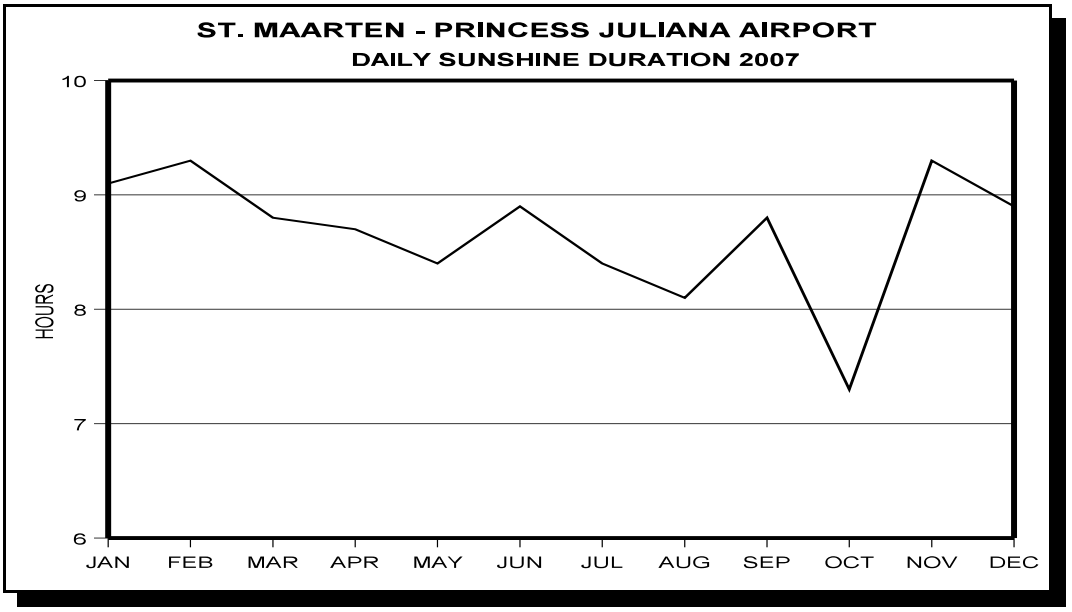
ATMOSPHERIC PRESSURE

The average atmospheric pressure, recorded at Princess Juliana Airport, during the year 2007 was 1016.3 hPa. The maximum atmospheric pressure of 1022.6 hPa was recorded on July 6, while the minimum atmospheric pressure of 1007.9 hPa was recorded on October 19.



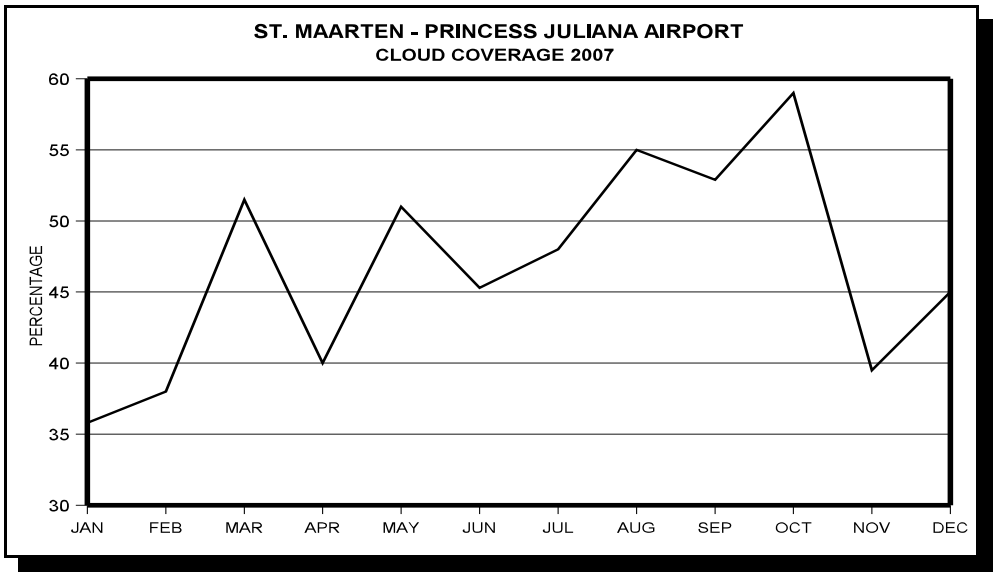
SUNSHINE

The total sunshine duration for 2007 as recorded at the Princess Juliana Airport was 3126.2 hrs, about normal (3009 hrs) and 70.6% of the maximum annual possible duration (4431.3 hrs). The daily average sunshine duration in 2007 was 8 hours and 42 minutes just above the long-term daily average sunshine duration (8 hours and 16 minutes). The sunniest month was November with a daily average sunshine duration of 9 hours and 18 minutes. The month with least sunshine during 2007 was October with a daily average of 7 hours and 18 minutes. The maximum daily sunshine duration for the past year was 11 hours and 18 minutes recorded on April 26, 2007.



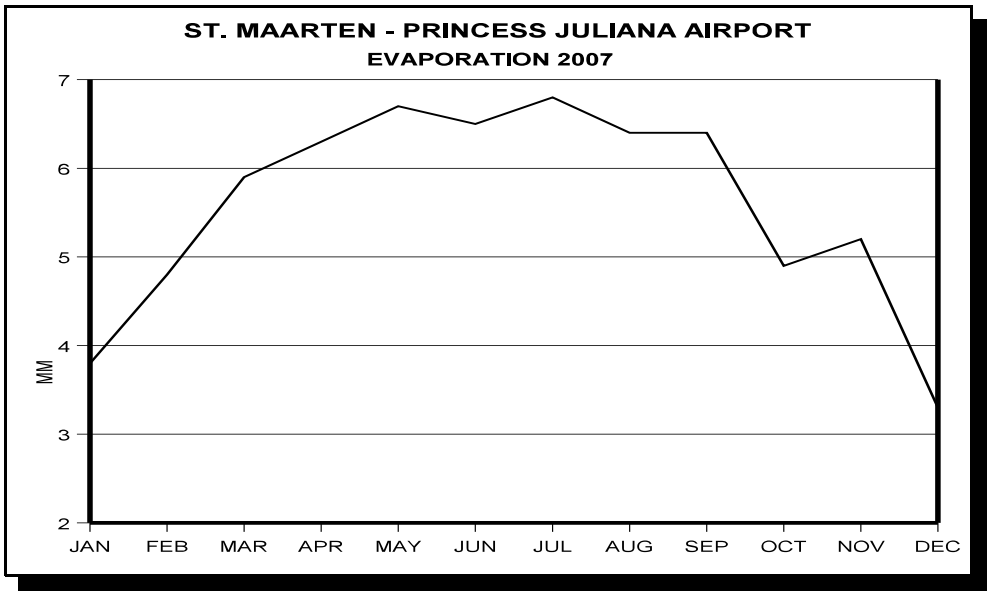
CLOUD COVER

The daily average cloud coverage for St. Maarten over the year 2007 as recorded at Princess Juliana Airport was 42.3%. The highest monthly average cloud cover of 59% was observed in October while January had the lowest cloud coverage value of 35.8%.



EVAPORATION

The average daily evaporation, measured at the Princess Juliana Airport, in the year 2007 was 5.6 mm per day. July had the maximum average evaporation value for 2007 of 6.8 mm per day while December had the lowest value of 3.3 mm per day.



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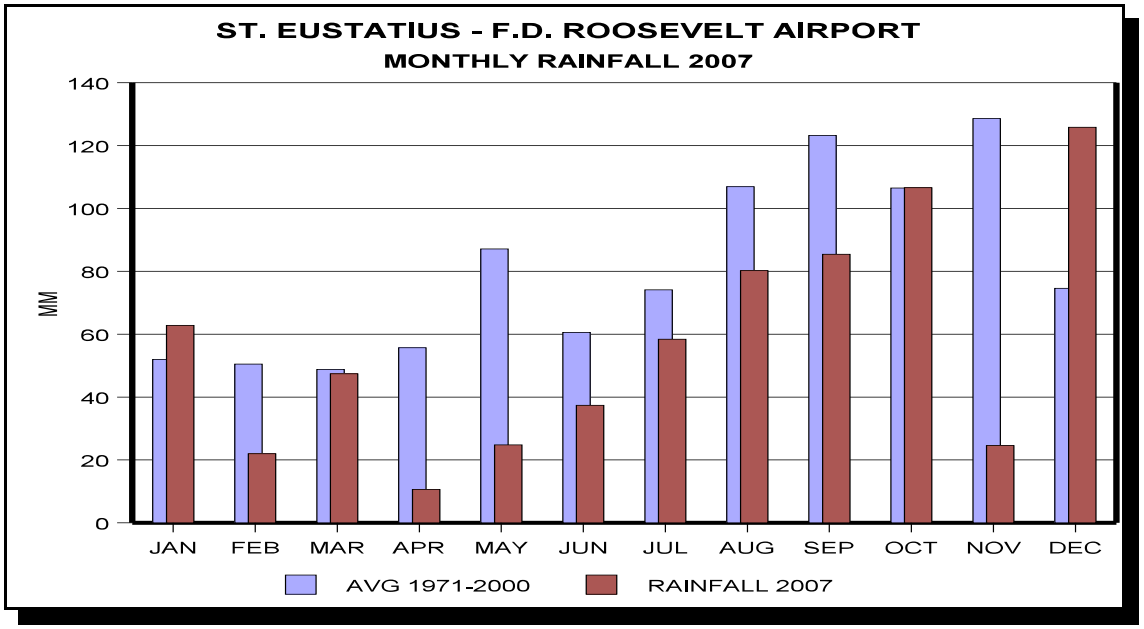
Saint Eustatius

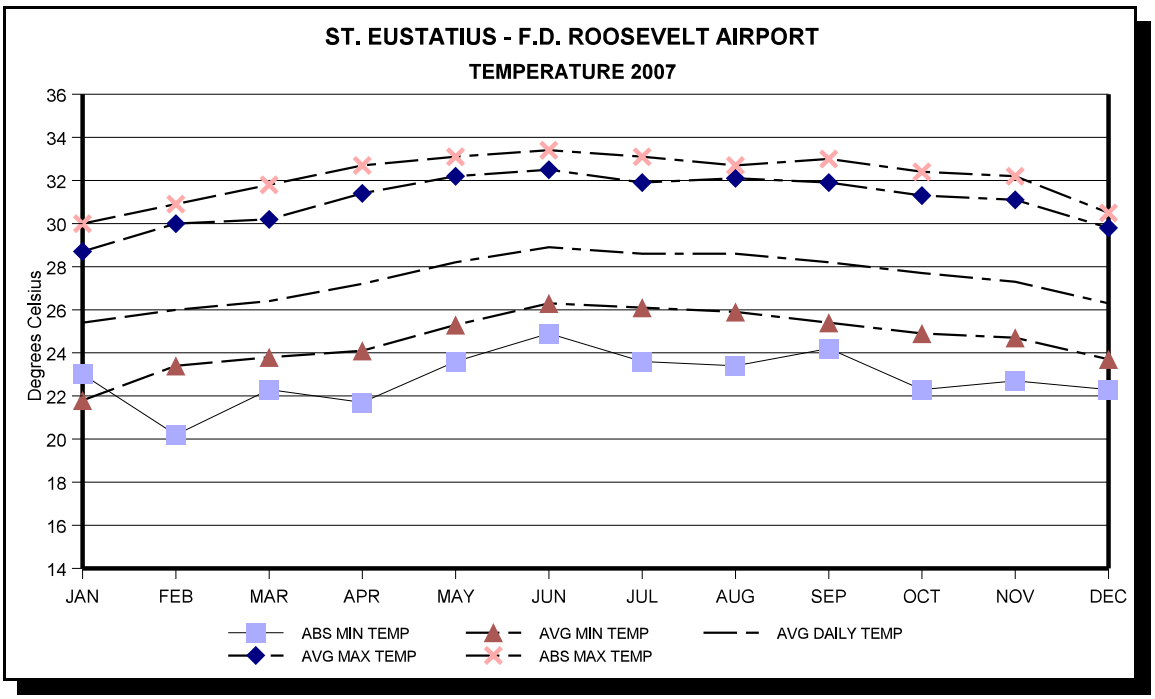
RAINFALL

The total rainfall amount, recorded at the Roosevelt Airport, for 2007 was 686.0 mm. This amount is 30.4% below the 30-year average (1971-2000) which is 968.6 mm. The wettest month was December with 125.8 mm. The driest month of 2007 was April with 10.6 mm. The 24-hour maximum rainfall 38.8 mm was recorded on October 26.
The number of days with precipitation greater than or equal to 1.0 mm was 102 (normal 125).



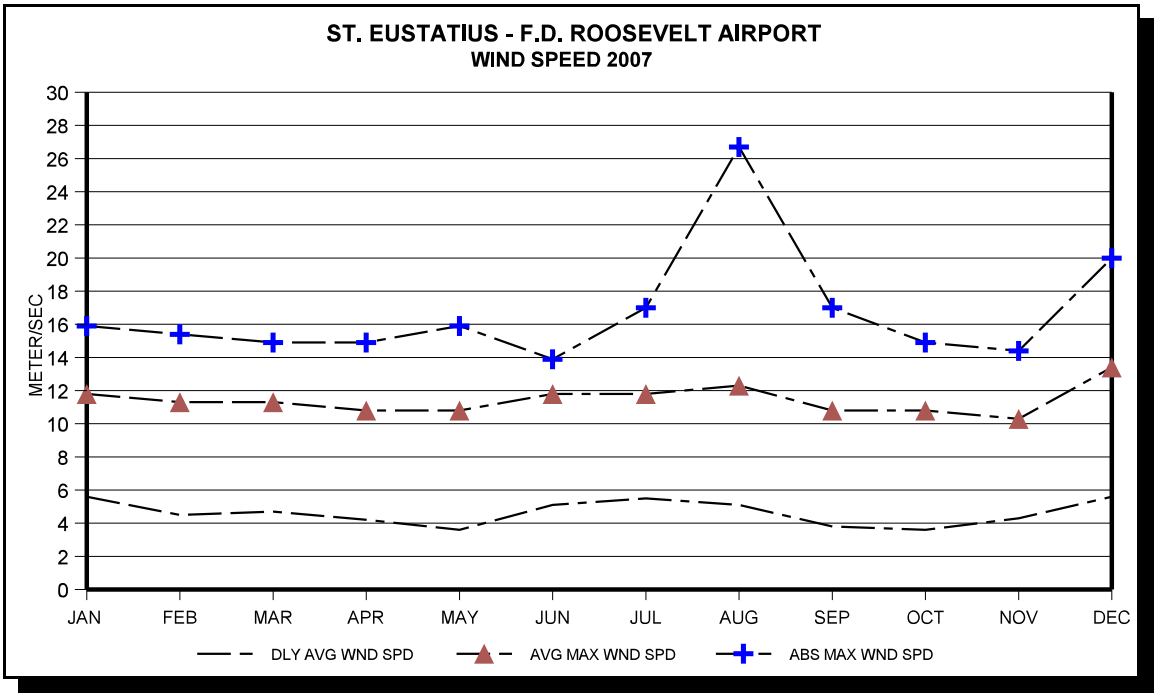
TEMPERATURE

The average air temperature as recorded at Roosevelt Airport over the year 2007 was **27.4**°C (normal 26.9°). This is the fourth warmest year since 1961 which is the year that recordings began. The warmest year being 1961 had an average temperature of 27.8°C. June was the warmest month with an average temperature of **28.9**°C and June had also the highest average maximum temperature of **32.5**°C. The absolute maximum temperature, **33.4**°C, was recorded on June 25 at 13:45 hours. The value of 29.5°C was recorded twice for the hottest day of 2007: on June 22 and again on July 1. January was the coolest month with an average temperature of **25.4**°C and January had also the lowest monthly average minimum temperature of **21.8**°C. The absolute minimum temperature was **202**°C and was recorded on February 19 at 06:30 hours local time.
The coolest day of 2007 was January 23 with an average temperature of **24.4**°C.



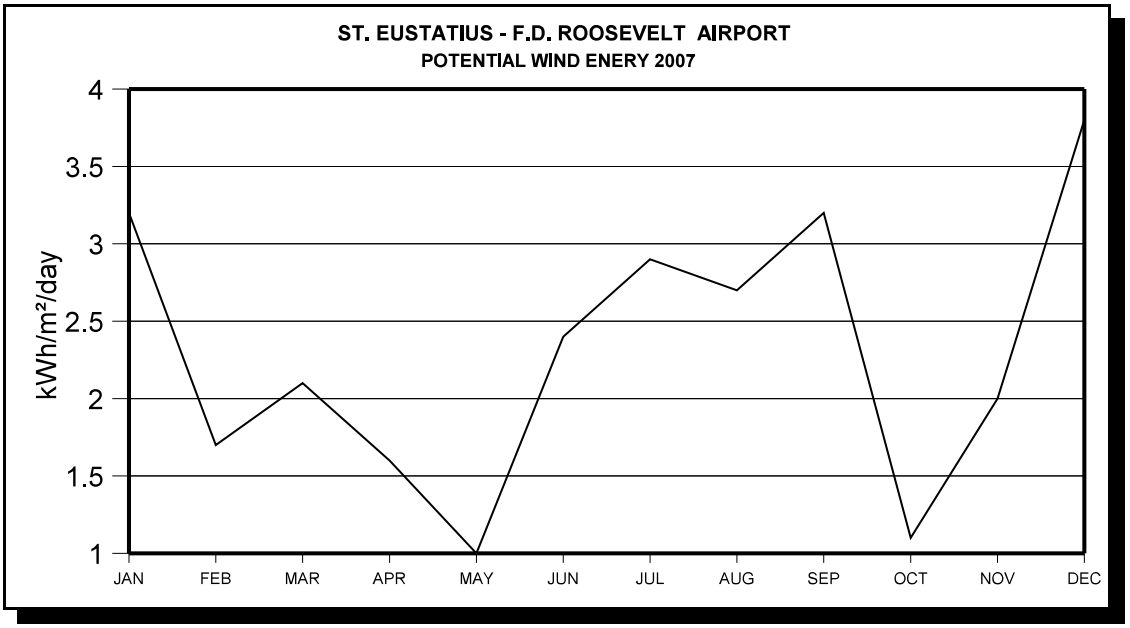
WIND

The average wind speed for 2007, at 10 m of height, recorded at the Roosevelt Airport was 4.6 m/sec (18.9 km/hr). January was the month with the highest average wind speed 5.6 m/sec (20.2 km/hr). May and October had the lowest average wind speed of 3.6 m/sec (13.0 km/hr).
The highest wind gust 26.7 m/sec (96.1 km/hr) was recorded on August 17 at 11:42 hours and here too, it was caused by the passage of hurricane *Dean*.



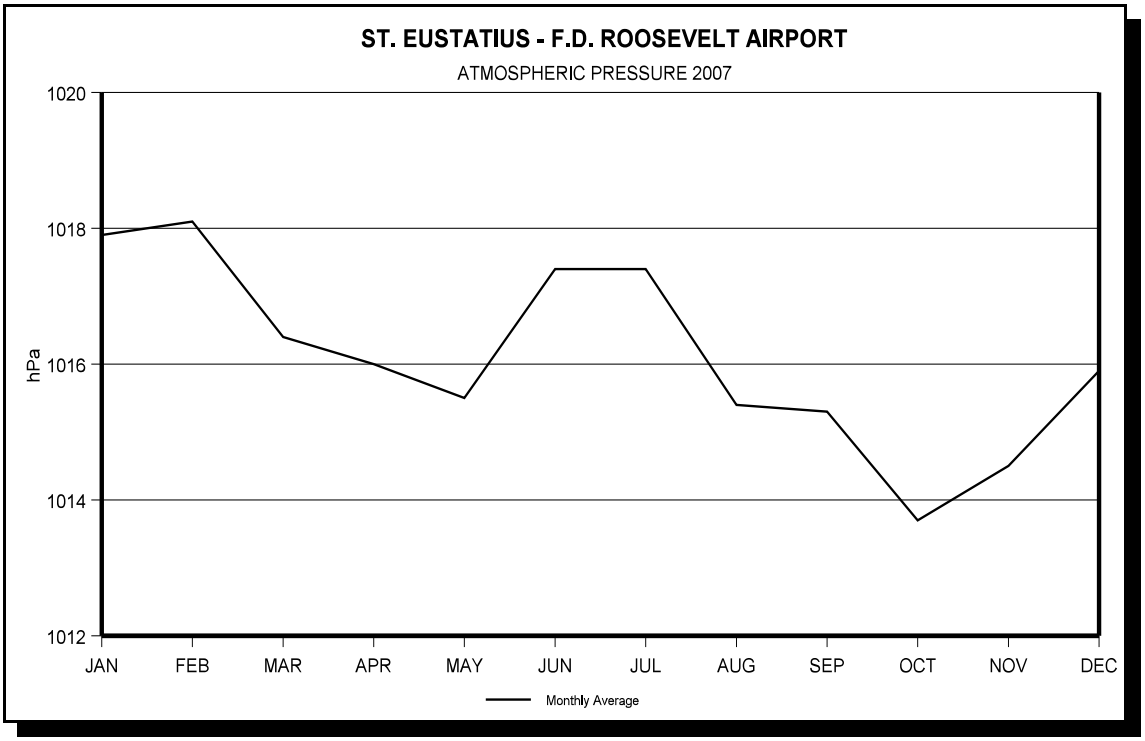
POTENTIAL WIND ENERGY

The total potential wind energy (at 10m height and wind speeds ≥4 m/sec) for the year 2007 was 1014 kWh/m^2 The daily average for 2007 was 2.8 kWh/m^2/day.



ATMOSPHERIC PRESSURE

The average atmospheric pressure recorded at Roosevelt Airport the year 2007 was 1016.1 hPa. The maximum atmospheric pressure of 1022.6 hPa was recorded on the February 3 while the minimum atmospheric pressure of 1007.2 hPa was recorded on October 25.



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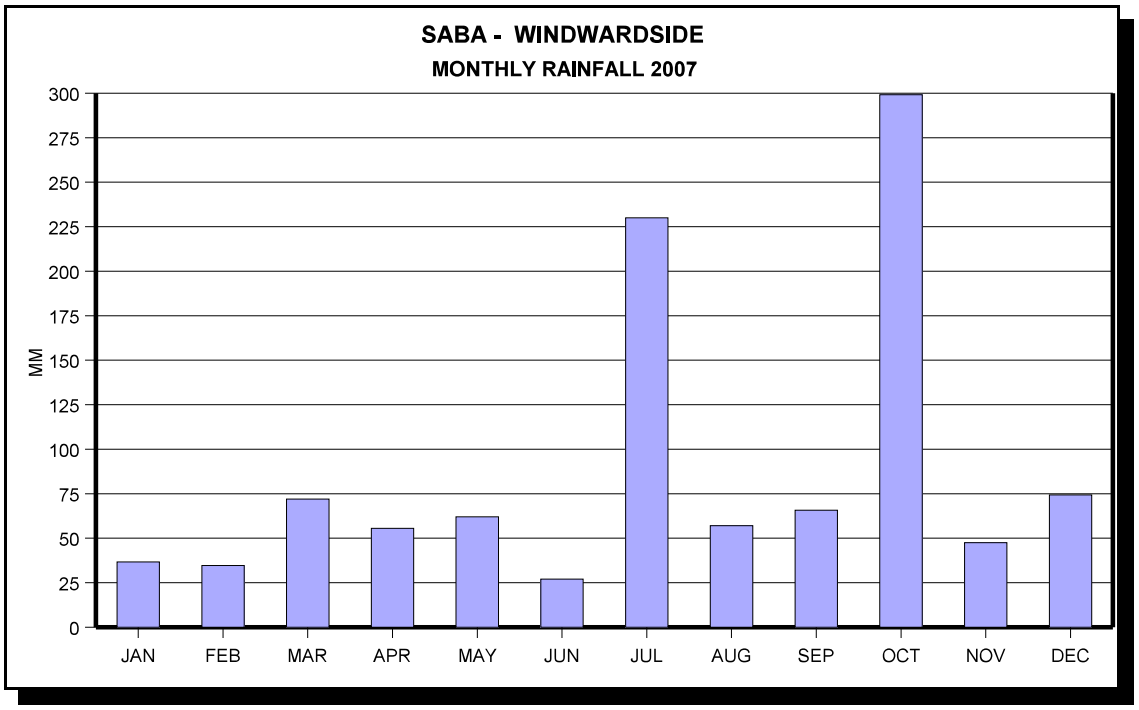
Saba

RAINFALL

The total rainfall for the year 2007 measured at Windwardside, Saba was 1061.8 mm; just above the long-term average of 1050.4 mm.
October was the wettest month with a total of 299.2 mm while June was the driest month with a total of 27.0 mm. The 24-hour maximum for 2007 was 191.0 mm measured on July 20.
The number of days with rainfall 1.0 mm or more was 51.



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METEOROLOGICAL SERVICE NETHERLANDS ANTILLES & ARUBA
CLIMATOLOGICAL DATA 2007

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	Total Rainfall (in mm)											
Curaçao	47.2	20.6	0.2	2.4	1.4	9.6	37.8	63.0	94.0	98.8	52.4	124.5
St. Maarten	78.4	52.6	169.2	26.6	74.8	72.8	112.4	97.2	158.0	265.4	48.2	133.2
Aruba	37.2	6.0	14.4	3.8	6.4	6.2	6.2	41.2	54.0	69.6	65.2	191.4
Bonaire	26.6	15.6	2.0	11.2	1.4	10.2	37.8	50.6	41.2	84.0	33.4	90.6
St. Eustatius	62.8	22.0	47.4	10.6	24.8	37.4	58.4	80.2	85.4	106.6	24.6	125.8
Saba	36.7	34.7	72.0	55.6	62.0	27.0	230.0	57.1	65.7	299.2	47.5	74.3
	Absolute Minimum Temperature (in ° Celsius)											
Curaçao	23.4	22.5	24.0	24.7	25.4	24.0	23.6	23.7	22.3	23.3	23.7	22.6
St. Maarten	20.3	21.1	21.3	19.8	22.6	24.2	22.9	23.4	22.0	21.8	21.0	21.6
Aruba	23.5	23.1	23.6	25.3	25.0	26.4	25.0	23.7	24.9	23.0	23.7	23.0
Bonaire	22.8	23.1	24.6	24.1	26.5	23.6	23.4	24.1	23.5	22.3	24.2	22.3
St. Eustatius	23.0	20.2	22.3	21.7	23.6	24.9	23.6	23.4	24.2	22.3	22.7	22.3
	Average Minimum Temperature (in ° Celsius)											
Curaçao	24.5	24.2	25.0	25.6	26.3	26.4	26.1	26.4	26.0	25.8	25.8	24.4
St. Maarten	22.3	23.0	23.4	23.9	25.4	25.8	26.0	25.8	25.6	25.1	24.5	23.0
Aruba	25.1	25.0	25.7	26.2	26.9	27.3	26.9	27.2	27.2	26.6	26.2	24.5
Bonaire	25.1	25.2	25.9	26.5	27.4	27.3	26.9	26.9	27.2	26.5	26.4	24.0
St. Eustatius	21.8	23.4	23.8	24.1	25.3	26.3	26.1	25.9	25.4	24.9	24.7	23.7
	Average Temperature in ° Celsius											
Curaçao	26.7	26.7	27.3	27.9	28.7	29.0	28.8	29.0	28.8	28.4	28.3	26.8
St. Maarten	24.9	25.5	25.6	26.6	27.8	28.3	28.3	28.2	28.2	27.3	26.8	25.7
Aruba	27.2	27.3	27.8	28.5	29.2	29.6	29.3	29.6	29.6	28.9	28.8	27.0
Bonaire	27.6	27.6	27.9	28.7	29.3	29.6	29.4	29.5	29.7	29.1	29.0	26.8
St. Eustatius	25.4	26.0	26.4	27.2	28.2	28.9	28.6	28.6	28.2	27.7	27.3	26.3
	Average Maximum Temperature (in ° Celsius)											
Curaçao	30.1	30.8	31.1	32.1	32.6	33.1	32.9	32.9	32.7	32.2	31.9	30.0
St. Maarten	28.4	29.0	28.8	29.9	30.9	31.4	31.4	31.2	31.4	30.0	30.0	28.6
Aruba	30.5	31.2	31.8	32.4	33.2	33.5	33.2	33.6	33.1	32.2	32.4	30.4
Bonaire	30.9	31.1	31.4	32.3	32.8	33.1	32.9	32.7	33.2	32.4	32.6	30.5
St. Eustatius	28.7	30.0	30.2	31.4	32.2	32.5	31.9	32.1	31.9	31.3	31.1	29.8
	Absolute Maximum Temperature in ° Celsius											
Curaçao	31.7	32.4	33.2	34.1	35.1	34.4	34.6	34.8	35.8	36.9	34.4	31.2
St. Maarten	29.5	30.2	30.1	31.5	32.2	32.4	32.8	32.3	32.5	31.4	31.0	30.0
Aruba	31.2	32.2	32.7	34.2	34.4	35.2	34.1	36.1	34.6	34.9	33.8	31.3
Bonaire	32.0	32.4	32.3	35.0	33.9	34.0	33.5	34.0	34.8	34.7	33.5	32.1
St. Eustatius	30.0	30.9	31.8	32.7	33.1	33.4	33.1	32.7	33.0	32.4	32.2	30.5

METEOROLOGICAL SERVICE NETHERLANDS ANTILLES & ARUBA

CLIMATOLOGICAL DATA 2007

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Average Wind Speed in (m/sec)												
Curaçao	6.0	5.4	5.9	5.5	6.0	6.2	5.8	5.3	5.3	4.2	5.2	4.9
St. Maarten	4.4	3.8	4.5	3.8	4.0	4.7	5.0	4.9	3.8	3.9	4.0	5.2
Aruba	7.5	7.2	7.5	6.9	7.6	8.5	8.0	6.7	6.8	4.7	6.2	5.2
Bonaire	6.6	6.6	7.0	6.5	7.5	7.9	7.1	5.6	5.9	4.8	5.7	4.6
St. Eustatius	5.6	4.5	4.7	4.2	3.6	5.1	5.5	5.1	3.8	3.6	4.3	5.6
Average Maximum Wind Speed (in m/sec)												
Curaçao	13.4	13.4	12.9	12.3	12.9	13.9	13.9	12.3	12.9	10.8	11.8	12.3
St. Maarten	11.8	10.8	11.1	9.8	9.8	11.8	12.3	12.9	11.3	11.3	10.3	13.4
Aruba	15.4	15.4	14.9	14.4	14.9	16.4	16.4	13.9	14.4	11.8	13.4	13.4
Bonaire	13.9	14.4	13.9	13.4	13.9	14.9	14.4	12.3	12.3	11.8	12.3	12.9
St. Eustatius	11.8	11.3	11.3	10.8	10.8	11.8	11.8	12.3	10.8	10.8	10.3	13.4
Absolute Maximum Wind Speed (in m/sec)												
Curaçao	17.5	18.5	17.0	14.9	19.0	19.5	19.0	18.5	19.5	13.9	17.5	17.0
St. Maarten	17.0	15.4	15.9	13.9	13.4	15.4	20.0	24.2	17.0	18.0	15.4	17.5
Aruba	19.0	19.0	19.0	18.0	18.5	19.5	23.6	17.0	22.6	17.0	18.0	17.5
Bonaire	18.0	17.5	17.5	16.4	18.0	20.6	20.6	19.5	15.9	14.9	15.9	17.0
St. Eustatius	15.9	15.4	14.9	14.9	15.9	13.9	17.0	26.7	17.0	14.9	14.4	20.0
Average Potential Wind Energy (in kWh/m²)												
Curaçao	3.3	2.6	3.5	2.8	3.4	3.7	3.2	2.5	2.6	1.4	2.4	2.1
Aruba	4.8	4.9	6.2	4.8	6.8	7.8	6.1	2.9	3.6	2.3	3.4	2.3
Bonaire	4.8	4.9	6.2	4.8	6.8	7.8	6.1	2.9	3.6	2.3	3.4	2.3
St. Eustatius	3.2	1.7	2.1	1.6	1.0	2.4	2.9	2.7	3.2	1.1	2.0	3.8
Average Air Pressure (in hPa)												
Curaçao	1013.8	1014.2	1012.3	1012.1	1011.2	1012.9	1013.2	1011.4	1011.6	1010	1010.7	1012.5
St. Maarten	1018.2	1018.3	1016.6	1016.2	1015.6	1017.6	1017.6	1015.5	1015.4	1013.8	1014.7	1016.2
Aruba	1013.1	1013.5	1011.6	1011.6	1010.5	1012.0	1012.5	1010.8	1010.9	1009.6	1010.3	1012.2
Bonaire	1014.8	1014.3	1012.4	1012.3	1011.5	1013.1	1013.4	1011.7	1011.9	1010.3	1010.9	1012.6
St. Eustatius	1017.9	1018.1	1016.4	1016.0	1015.5	1017.4	1017.4	1015.4	1015.3	1013.7	1014.5	1015.9
Sunshine Duration (in hours)												
Curaçao	8.9	9.1	8.2	8.5	8.1	10.1	9.4	8.7	8.8	7.2	8.5	7.0
St. Maarten	9.1	9.3	8.8	8.7	8.4	8.9	8.4	8.1	8.8	7.3	9.3	8.9
Cloud Coverage (in %)												
Curaçao	36.0	32.0	49.0	51.0	56.0	42.7	46.0	59.0	54.0	64.0	57.3	50.0
St. Maarten	35.8	38.0	51.5	40.0	51.0	45.3	48.0	55.0	52.9	59.0	39.5	45.0
Average Evaporation (in mm)												
Curaçao	5.1	6.5	6.9	7.3	8.0	8.7	8.0	6.9	7.0	5.3	5.6	4.7
St. Maarten	3.8	4.8	5.9	6.3	6.7	6.5	6.8	6.4	6.4	4.9	5.2	3.3
Average Global Radiation (in kWh/m²)												
Curaçao	146.0	149.0	181.0	186.0	186.0	194.0	199.0	186.0	179.0	147.0	146.0	138.0

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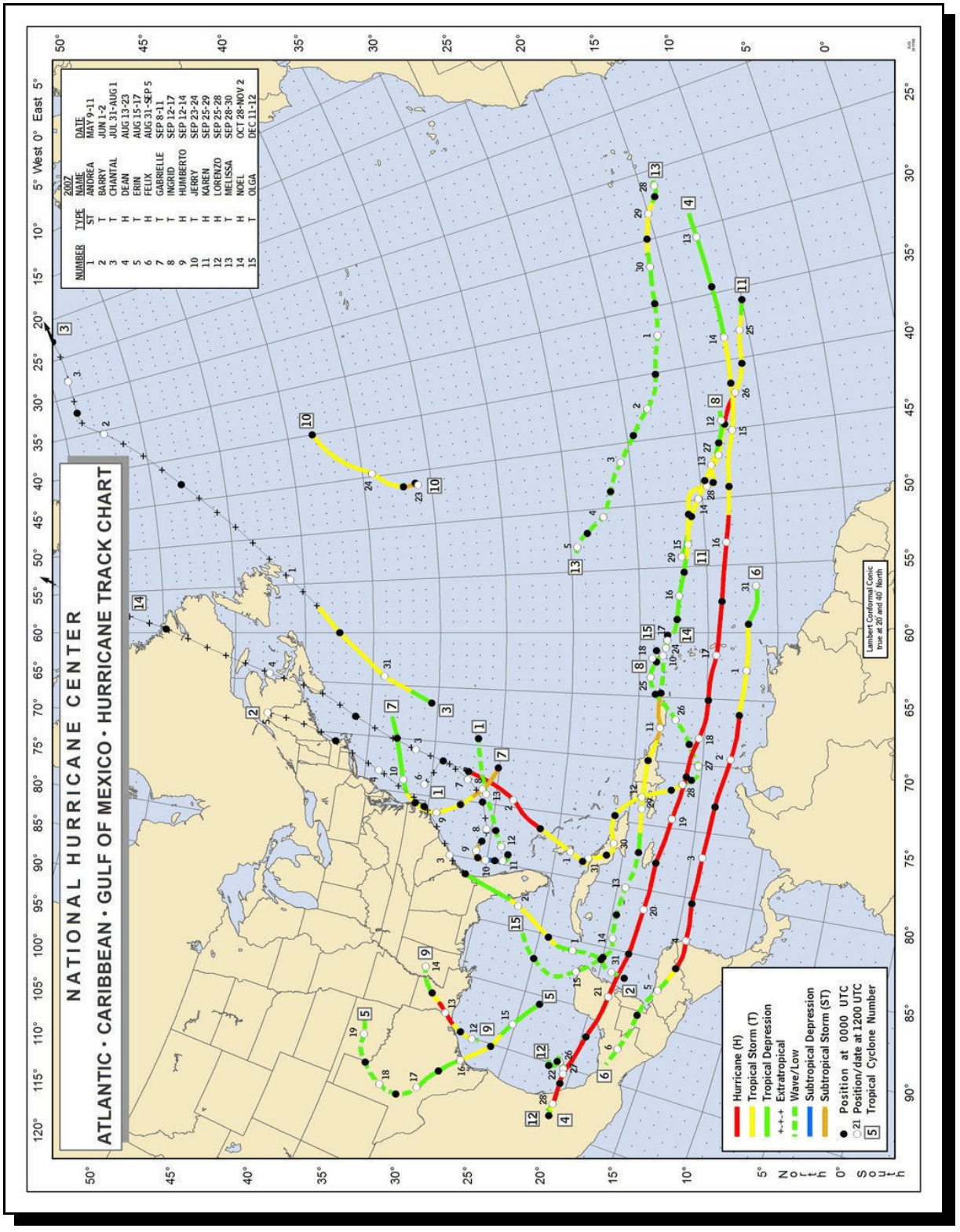
Track Map of 2007 Atlantic Tropical Cyclones



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