

9/1/2000

Forecast: 0Z,9/2 upper 50s mostly cloudy  
12Z,9/2 lower 70s mostly cloudy  
0Z,9/3 upper 50s mostly cloudy  
12Z,9/3 lower 70s mostly cloudy

Discussion: The surface wind flow is from the southeast and there is a signature of divergence over the mountainous region where Nairobi is located. The topography promotes some lift and this wind is bringing moist air from the warm waters of the Indian Ocean, thus promoting at least clouds. A jet max is sitting to the east, putting Kenya in a region of converging upper level air. The diverging surface wind, coupled with this upper air pattern, should suppress any rainfall. Temperatures are cool due to the elevation and cloud cover, typical for this time of year in Nairobi.

Verification: 0Z,9/2 52 (degrees F) mostly cloudy  
12Z,9/2 78 scattered clouds  
0Z,9/3 55 mostly cloudy  
12Z,9/3 75 scattered clouds

--Temp range was bigger due to much less cloud cover than anticipated and calm winds, which allowed for rapid cooling at night. Otherwise forecast for no rain but some clouds was correct.

9/8/2000

Forecast: 0Z,9/9 lower 50s partly to mostly cloudy  
12Z,9/9 near 80 partly to mostly cloudy  
0Z,9/10 lower 50s partly to mostly cloudy  
12Z,9/10 upper 70s partly to mostly cloudy

Discussion: Once again, the surface streamline pattern indicates divergence over Kenya with the winds coming from the south and east. This wind flow brings the air over a mountain range to Nairobi's southeast. This means Nairobi is receiving some of this air, which has been dried out as it descended the mountain range. Though some differential heating is causing clouds and storms to the north and west, Nairobi should remain dry due to the drier wind flow. This differential terrain heating during the afternoon will cause some higher wind gusts.

Validation: 0Z,9/9 53 (degrees F) mostly cloudy  
12Z,9/9 80 scattered clouds  
0Z,9/10 52 mostly cloudy  
12Z,9/10 80 scattered clouds

--The forecast validated. The wind gusts during the afternoon were clocked at 17 mph. This is much higher than the 5 mph wind occurring during the rest of the day and occurred only in a short 2-hour range.

9/15/00

9/16 0Z mid 50s,  
9/16 12Z near 80  
9/17 0Z mid 50s  
9/17 12Z near 80

Partly to mostly cloudy throughout the period.

Discussion: Once again, the surface streamline pattern indicates divergence over Nairobi, with no major weather systems in the vicinity. This week, however, the winds are much weaker. As the flow approaches from the southeast, the winds weaken greatly when they hit the mountains. Also, afternoon thunderstorms have been popping up to the north and west of Lake Victoria, thus keeping Nairobi dry on the east side of the lake. There is an active ITCZ off the East African Coast in the Indian Ocean and over time the models are forecasting this area to shift gradually to the west. However, given that the flow is weak and the mountains should disrupt any convergence, Nairobi should remain dry. Winds are expected to remain calm for the most part, with some higher gusts to 15 mph in the afternoon with the heating of the day.

9/25

Observations for the weekend of 9/23/2000

9/23 0Z : 54 degrees, partly cloudy  
9/23 12Z: 74 degrees, mostly cloudy  
9/24 0Z : 56 degrees, scattered clouds  
9/24 12Z: 77 degrees, mostly cloudy

10/2

Observations for the weekend of 9/30/2000

9/30 0Z : 13.9 degrees C, Partly Cloudy  
9/30 12Z : 27.8 degrees C, Mostly Cloudy  
10/1 0Z : 15.5 degrees C, Partly Cloudy  
10/1 12z : 28.3 degrees C, Mostly Cloudy

Events: No rainfall through the period, higher wind gusts in the afternoons to 10 knots, less significant than previous weeks.

Isaac Verification:

Isaac is embedded underneath the subtropical high to its north. A trough is located east of the Winward and Leeward Islands, which would be the next obstacle in Isaac's path. Currently Isaac is at least two or three days from any effects of this trough. This trough is relatively weak when compared to previous troughs which camped out in the same region this hurricane season. This trough should slowly lift northeast and Isaac should have no trouble slipping beneath it. If and when Isaac would interact with this trough, it should be a hurricane, thus lessening any adverse effects on the system. Of more importance in the near future, there is an area directly in Isaac's path of below normal SST. However, this area would still help maintain the strength of the system, rather than weaken it. Therefore, the forecast reads:

12hours 8Z 9-23-00 14.0N, 33.7W  
24hours 20Z 9-23-00 14.6N, 37.0W, winds of 70 knots  
36hours 8Z 9-24-00 15.2N, 40.8W  
48hours 20Z 9-24-00 15.8N, 44.6W winds of 80 knots

Verification: 12 hour: 14.0N 32.8W  
24 hour: 14.8N 34.7W, 85 knots  
36 hour: 15.2N 36.1W  
48 hour: 16.0N 38.3W, 100 knots

10-6-00

Forecast: 10-7 0Z 12-13C chance of rain  
10-7 12Z 21-22C cloudy  
10-8 0Z 12-13C partly cloudy  
10-8 12Z 21-22C mostly cloudy

There has finally been a change in the pattern over Kenya. A series of disturbances propagating westward over the Indian Ocean will increase the chance of widespread rain over Nairobi in the next 12 hours or so. Surface convergence is actually forecast by the models, rather than the previous divergence for the last 2 months or so. If rain does not fall, certainly skies will be cloudy and there will still be the afternoon breezes. 10-8 will see little chance for rain as Kenya will be between systems at this time.

Verification:

10-7 0Z 14C mostly cloudy  
10-7 12Z 22C partly cloudy  
10-8 0Z 15C scattered clouds  
10-8 12Z 22C partly cloudy

Though the observations have not been given every hour, there does not appear to have been any rain reported in Nairobi. Given the fact that the city is high in the mountains, the convective system moving over the area could have broken down. There was some evidence of greater than usual cloud cover during the night, but no evidence of rain. The second half of the period verified as usual, with the increased afternoon winds.

10-13-00  
Forecast:

10/14	0Z	10-12C	mostly cloudy
10/14	12Z	25-27C	mostly cloudy
10/15	0Z	10-12C	mostly cloudy
10/15	12Z	25-27C	mostly cloudy

There is a chance for rain in each period.

Climatology says Nairobi should be entering the second rainy season of the year. This is the shorter rainy season and Nairobi does not receive an abundant amount of rainfall. The NOGAPS and AVN are indicating an increases chance for rainfall in the region with some surface convergence. However, there is no indication that this rain is from systems from the Indian Ocean. Rather, it seems to be from just afternoon heating. Temps shouldn't deviate too far from what they have been.

Verification:

10/14	0Z	14C	mostly cloudy
10/14	12Z	25C	mostly cloudy, rain
10/15	0Z	13C	mostly cloudy
10/15	12Z	24C	Scattered Clouds

Looks like some afternoon thunderstorms and rain popped up the first day. The second day Nairobi was out of the mix with just partly cloudy to scattered clouds. The wind kicked up again to near 20 mph during the afternoon of the 15th. Interestingly enough, the wind during the 14th's rain event was calm. The temperatures were a little cooler during the day and warmer at night than anticipated. This could have something to do with the cloud cover and rainfall. Especially, making it cooler during the day.

10-20-00

10-21	0Z	14C, Partly Cloudy
10-21	12Z	23C, Partly Cloudy
10-22	0Z	15C, Partly Cloudy
10-22	12Z	23C, Scattered Clouds

Although the second rainy season should be beginning at any time, there has not been much rain. Throughout the 36 hours from 10-21 0Z to 10-22 12Z, there was no rain reported. There was however, cumulonimbus reported in the distance. There was a period of rain on 10-20 for about 2 hours. Once again the winds were sustained in the afternoon to 18 mph on the 22nd at about 13Z.

10/27

Forecast:

10-28	0Z	15C	Partly Cloudy
10-28	12Z	27C	Partly Cloudy
10-29	0Z	15C	Partly Cloudy
10-29	12Z	27C	Partly Cloudy

Still waiting on the wet season to begin. A difference this week is temperatures have been in the 80s (27-28C) during previous days for the first time all semester from the weekend forecasts. The 13Z observation on the 27th had a temperature of 81F (27C). Thunderstorm activity over Africa has been well to the west of Kenya. It appears as though Kenya is in some subsidence one between two thunderstorm complexes and thus maybe the slightly warmer temperatures. One complex is to the west, and the other complex is to the east over the Indian Ocean. I don't know the current position on the Madden Julian Oscillation, but this could be a factor in the max over the Indian Ocean. Forecast keeps the pattern dry and warm.

Verification

10-28	0Z	15C	Scattered Clouds
10-28	12Z	26C	Partly Cloudy
10-29	0Z	15C	Scattered Clouds
10-29	12Z	27C	Mostly Cloudy

The temperatures and cloud cover almost match exactly from verification to forecast. Once again the strong afternoon winds kicked up, but the two thunderstorm maxes steered clear of Kenya, and allowed the temperature to get into the low 80s both afternoons.

11/6

11-4	0Z	16C	Partly Cloudy
11-4	12Z	22C	Mostly Cloudy
11-5	0Z	15C	Mostly Cloudy
11-5	12Z	24C	Partly Cloudy

One observation on the 4th reported rain, and both days saw wind gusts up to 16mph, which has been typical for the afternoons. Otherwise, no rain, and just some clouds.