



BAB I GEOGRAFIS

Indonesia sebagai negara tropis, oleh karena itu kelembaban udaranya sangat tinggi yaitu sekitar 70 – 90% (tergantung lokasi-lokasi nya). Sedangkan, menurut ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning Engineers), kelembaban dalam ruangan ideal adalah tidak lewat dari 60%. Jika melihat kelembaban udara Surabaya, rerata kelembaban udaranya dalam satu bulan masih memenuhi kisaran kelembaban Indonesia pada umumnya, walau antara bulan Juli hingga Oktober kelembaban udara rata-ratanya di bawah 70% namun tetap di atas 60%.

Kelembaban, Tekanan udara dan temperatur di Surabaya diukur dari tiga lokasi, yaitu Perak I, Perak II dan Juanda. Ketiga lokasi tersebut dianggap mewakili kondisi suhu udara di kota Surabaya. Dari keseluruhan data kelembaban udara di Kota Surabaya dalam tahun 2012, antara Perak I dan Perak II tidak jauh berbeda. Ini dikarenakan lokasi yang tidak terlalu jauh letaknya, namun rata-rata tingkat kelembaban udara cenderung lebih tinggi di wilayah Perak I. Ini menandakan Perak I memiliki kelembaban udara yang lebih tinggi dibandingkan dengan Perak II.

Jika melihat dari interval antara kelembaban udara minimal dan maksimal di Perak I dan II, maka terlihat bahwa interval kelembaban udara Perak II cukup jauh. Oleh sebab itu, wilayah Surabaya yang masuk dalam jangkauan pantau Perak II memiliki peluang

CHAPTER I GEOGRAPHICAL CONDITIONS

Indonesia as a tropical country, therefore it is very high humidity is around 70-90% (depending on their locations). Meanwhile, according to ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning-Engineers), the ideal indoor humidity is not over 60%. If you look at Surabaya air humidity, mean air humidity in a month still meet the range of moisture Indonesia in general, although between July and October the average humidity is below 70% but remained above 60%.

Humidity, air pressure and temperature in Surabaya measured from three locations, namely Perak I, Perak II and Juanda. Three locations are considered to represent the condition of the air temperature in the city of Surabaya. Of overall air humidity data in the city of Surabaya in 2012, between Perak I and Perak II is not much different. This is because the location is not too far away, but the average humidity levels tend to be higher in Perak region I. This marks the Perak I has a higher humidity than the Perak II.

If you view from the interval between the minimum and maximum humidity in Perak I and II, it is seen that the humidity interval Perak II so far enough. Therefore, Surabaya areas that fall into the range of monitored Perak II has a chance to be dry (less humid) when compared to Perak I. Only in May, September, October and of December only Perak region II has a moisture content of air is



bersifat kering (kurang lembab) jika dibandingkan dengan Perak I. Hanya pada bulan Mei, September, Oktober dan Desember saja wilayah Perak II memiliki kadar kelembaban udara yang lebih baik daripada Perak I.

Lebih lanjut lagi, jika memperhatikan tingkat kelembaban udara di Perak dan Juanda, interval kelembaban udara di Juanda sedikit lebih kecil dibandingkan di kawasan Perak. Batas terbawah dan teratas kelembaban udara di kawasan Juanda lebih rendah bila dibanding Perak yang mencapai hingga angka 98 dimana Juanda memiliki kelembaban udara maksimal 97 dan kelembaban udara minimal 37. Namun demikian, rerata kelembaban udara setiap bulan di wilayah pantauan Juanda lebih tinggi jika dibandingkan dengan Perak. Ini menunjukkan bahwa suhu udara di kawasan ini cenderung lebih rendah dibandingkan wilayah pantauan Perak (lihat di tabel bagian suhu udara).

Melihat tekanan udaranya, Surabaya memiliki tekanan udara yang masih dibawah tekanan udara normal yaitu 1031mb. Dari ketiga wilayah pantauan, rerata tekanan udara di Surabaya selama tahun 2012 cenderung tidak melebihi 1013mb. Hanya pada wilayah pantauan Perak I dan Perak II di Bulan September dan Oktober sedikit melebihi 1013mb. Ini menunjukkan bahwa secara umum Surabaya tidak memiliki potensi angin yang berlebihan.

Berdasarkan hari hujan, wilayah pantauan Perak II memiliki jumlah rerata hari hujan yang lebih banyak jika dibandingkan

better than Perak I.

Furthermore, if you pay attention to the humidity level in Perak and Juanda, humidity interval at Juanda slightly smaller than in the area of Perak. Bottom and top limits of air humidity in the region Juanda lower when compared to Perak which reached up to number 98 where Juanda has a maximum relative humidity of at least 97 and the humidity is 37. However, the mean monthly relative humidity in the area of monitoring Juanda higher when compared to Perak. This shows that the air temperature in this region tend to be lower than in the watchlist Perak (see table section air temperature).

Looking at the air pressure, air pressure Surabaya has still below normal air pressure that is 1031mb. The third area of observation, the average air pressure at Surabaya during the year 2012 are not likely to exceed 1013mb. Only in the area of monitoring and Perak I Perak II in the month of September and October, little more than 1013mb. This shows that in general does not have the potential Surabaya excessive wind.

Based on a rainy day, Perak observation region II has an average number of rainy days is much more when compared with the other two observation areas. Similarly, the high rainfall measured at the observation area average is quite high when compared to the other two observation areas.

From the direction of the wind, of the three regions showed that the average wind observation in Surabaya to the east. While the speed of the wind, in two areas ranged Perak



dengan dua wilayah pantauan lainnya. Demikian pula dengan tingginya curah hujan yang terukur di wilayah pantauan tersebut reratanya cukup tinggi jika dibandingkan dua wilayah pantauan lainnya.

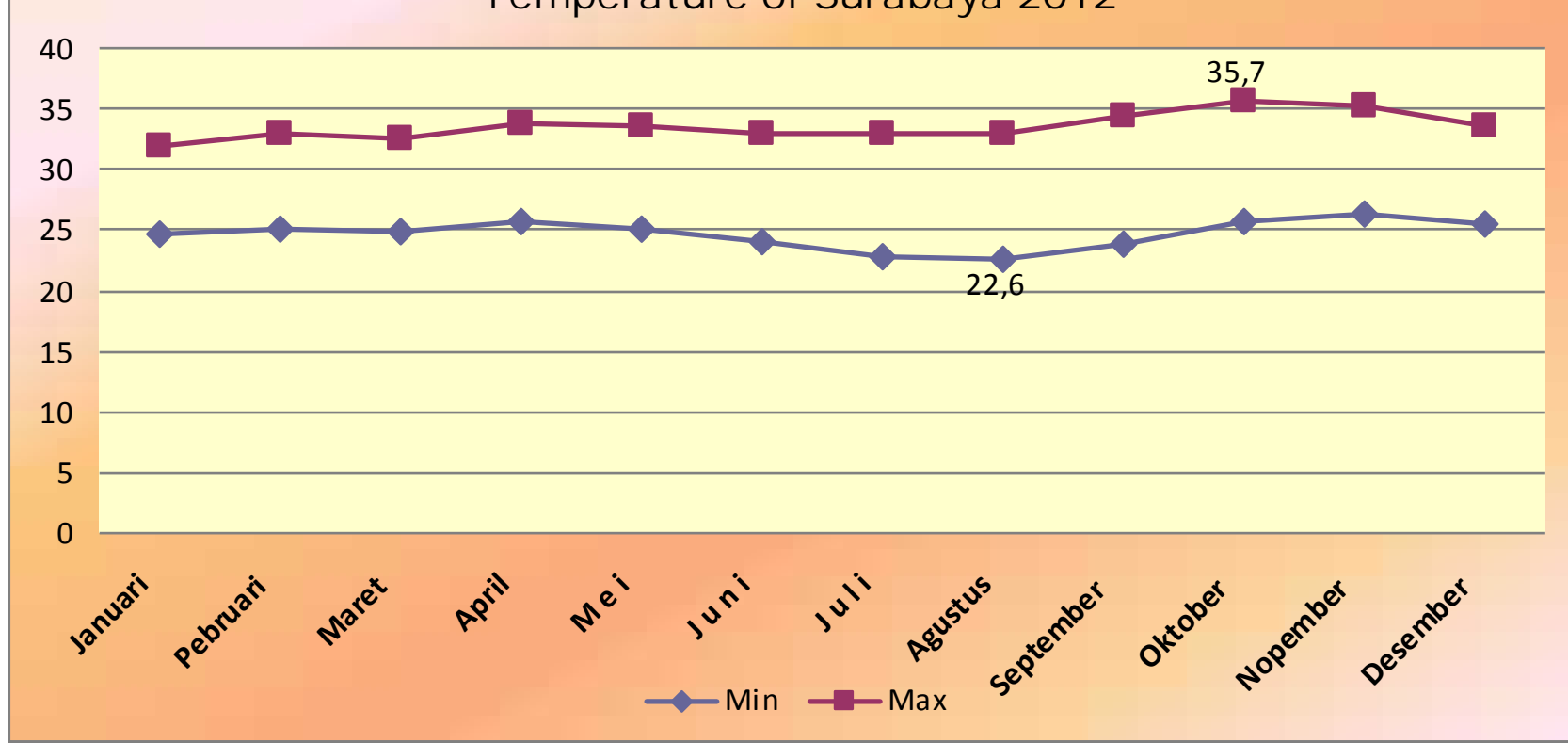
Dari arah anginnya, dari tiga wilayah pantauan menunjukkan bahwa rerata angin di Surabaya mengarah ke Timur. Sementara kecepatan anginnya, di dua wilayah pantauan Perak berkisar di 6 knot, dan di Juanda 7 knot. Sementara untuk arah angin dan kecepatan maksimalnya, wilayah pantauan Juanda memiliki hasil rerata yang masih dibawah rerata wilayah pantauan Perak I maupun Perak II. Ini menunjukkan wilayah Juanda memiliki pergerakan angin yang cukup stabil.

watchlist in 6 knots, and at Juanda 7 knots. As for wind direction and maximum speed, observation areas Juanda had average results are still below the average area watchlist Perak I and II. It shows the area Juanda had a pretty steady wind movement.



I. GEOGRAFIS/GEOGRAPHICAL

Gambar 1.1
Temperatur Kota Surabaya
Temperature of Surabaya 2012

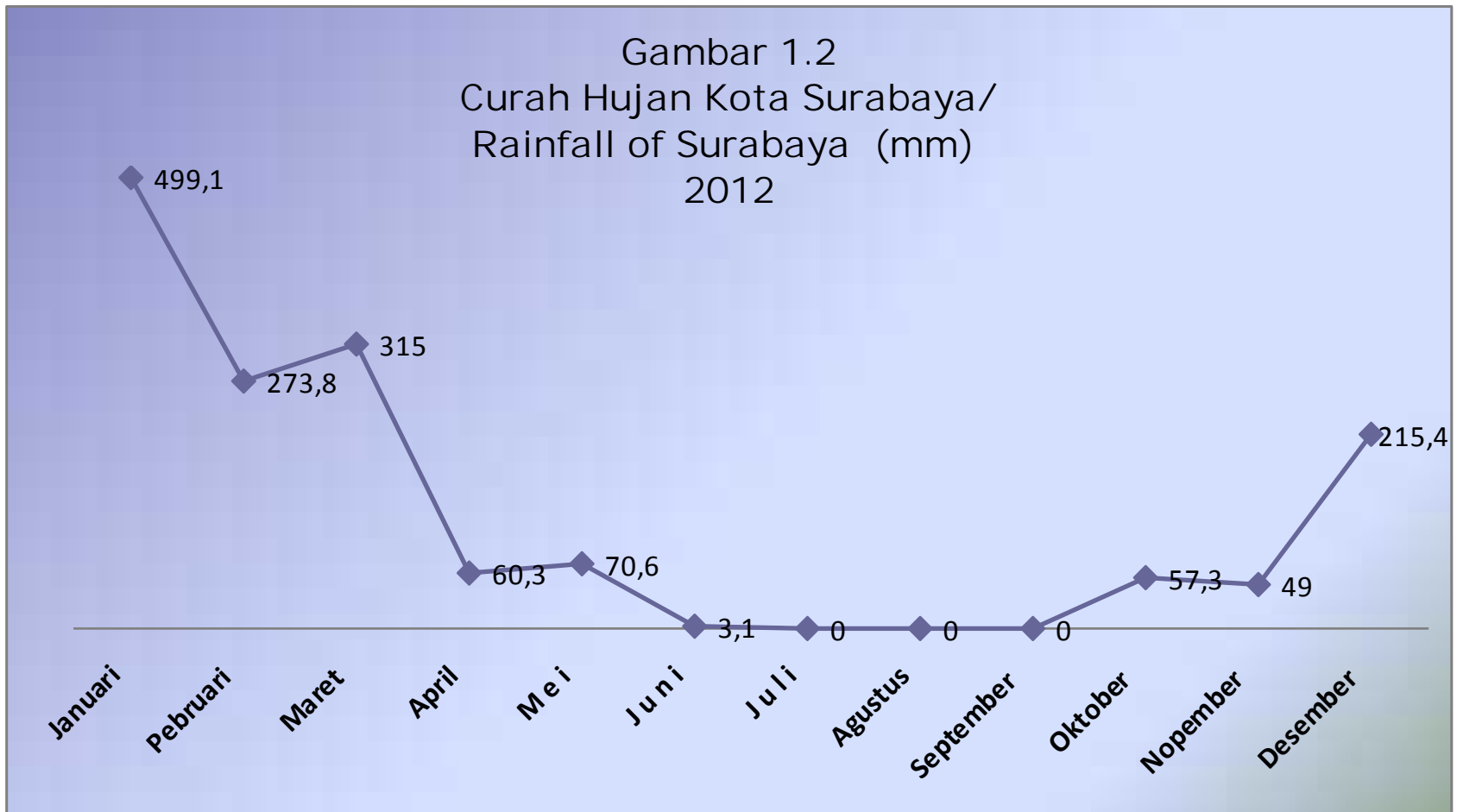


Sumber : Stasiun Meteorologi Perak I Surabaya
Source : Stasiun Meteorologi Perak I Surabaya



I. GEOGRAFIS/GEOGRAPHICAL

Gambar 1.2
Curah Hujan Kota Surabaya/
Rainfall of Surabaya (mm)
2012

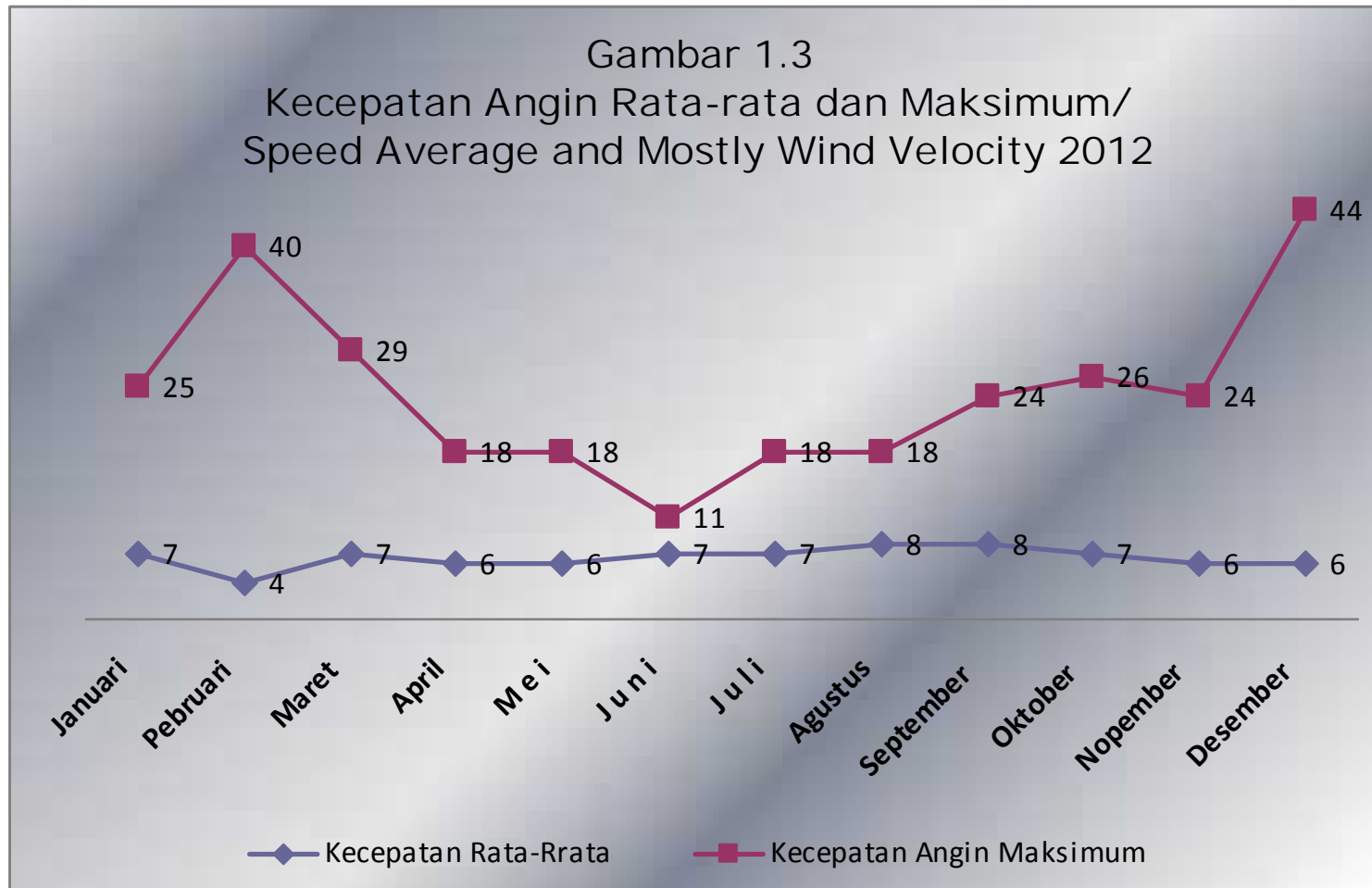


Sumber : Stasiun Meteorologi Perak I Surabaya
Source : Stasiun Meteorologi Perak I Surabaya



I. GEOGRAFIS/GEOGRAPHICAL

Gambar 1.3
Kecepatan Angin Rata-rata dan Maksimum/
Speed Average and Mostly Wind Velocity 2012



Sumber : Stasiun Meteorologi Perak I Surabaya
Source : Stasiun Meteorologi Perak I Surabaya



Tabel 1.

Kelembaban, Tekanan Udara dan Temperatur Maksimum dan Minimum di Perak I

Table

1.

Relative Humidity, Atmospher Pressure and Temperature at Perak I 2012

| BULAN / Month | Kelembaban Udara/ Relative Humidity (%) | | | Tekanan Udara/ Atmospher Pressure (Mbs) | | | Temperatur/ Temperature (C) | | |
|-------------------------|--|-----|-----|--|--------|--------|--------------------------------|------|------|
| | Rata ² / Average | Max | Min | Rata ² / Average | Max | Min | Rata ² / Average | Max | Min |
| | % | % | % | mb | mb | mb | ° C | ° C | ° C |
| Januari/ January | 83 | 97 | 58 | 1009,1 | 1012,3 | 1003,8 | 27,4 | 32,0 | 24,6 |
| Pebruari/ February | 79 | 98 | 51 | 1009,5 | 1012,6 | 1004,0 | 28,1 | 33,0 | 25,0 |
| Maret/ March | 80 | 95 | 51 | 1009,2 | 1013,3 | 1002,7 | 27,9 | 32,5 | 24,8 |
| April/ April | 74 | 92 | 46 | 1011,4 | 1015,6 | 1005,5 | 29,1 | 33,7 | 25,7 |
| M e i/ May | 71 | 95 | 41 | 1010,8 | 1013,0 | 1005,7 | 28,9 | 33,5 | 25,0 |
| J u n i/ June | 71 | 93 | 40 | 1012,0 | 1014,8 | 1005,9 | 28,4 | 33,0 | 24,1 |
| J u l i/ July | 68 | 95 | 35 | 1012,0 | 1015,1 | 1006,3 | 27,7 | 32,9 | 22,7 |
| Agustus/ August | 66 | 85 | 36 | 1013,4 | 1015,5 | 1008,2 | 27,7 | 33,0 | 22,6 |
| September/ September | 62 | 83 | 30 | 1013,2 | 1015,2 | 1006,5 | 28,8 | 34,4 | 23,8 |
| Oktober/ October | 64 | 89 | 31 | 1011,8 | 1015,7 | 1005,5 | 30,2 | 35,7 | 25,8 |
| Nopember/ November | 77 | 88 | 37 | 1010,7 | 1012,3 | 1005,3 | 30,0 | 35,3 | 26,4 |
| Desember/ December | 74 | 94 | 49 | 1009,4 | 1012,5 | 1003,1 | 28,5 | 33,5 | 25,4 |

Sumber : Stasiun Meteorologi Perak I Surabaya

Source : Stasiun Meteorologi Perak I Surabaya



Tabel 1. Kelembaban, Tekanan Udara dan Temperatur Maksimum dan Minimum di Perak II
Table 2. Relative Humidity, Atmospheric Pressure and Maximum and Minimum at Perak II 2012

| BULAN / Month | Kelembaban Udara/ Relative Humidity (%) | | | Tekanan Udara/ Atmospheric Pressure (Mbs) | | | Temperatur/ Temperature (C) | | |
|-------------------------|--|-----|-----|--|--------|--------|--------------------------------|------|------|
| | Rata ² / Average | Max | Min | Rata ² / Average | Max | Min | Rata ² / Average | Max | Min |
| | % | % | % | mb | mb | mb | ° C | ° C | ° C |
| Januari/ January | 80,4 | 98 | 52 | 1009,0 | 1012,1 | 1003,6 | 27,9 | 35,1 | 22,8 |
| Pebruari/ February | 78,3 | 95 | 43 | 1009,5 | 1012,3 | 1003,4 | 28,6 | 35,2 | 24,1 |
| Maret/ March | 78,1 | 96 | 49 | 1009,1 | 1013,2 | 1002,0 | 28,3 | 35,2 | 24,5 |
| April/ April | 74,0 | 93 | 45 | 1011,3 | 1015,4 | 1005,6 | 28,3 | 35,2 | 24,5 |
| Mei/ May | 72,8 | 94 | 39 | 1010,7 | 1012,7 | 1005,3 | 29,1 | 35,2 | 23,8 |
| Juni/ June | 70,3 | 93 | 45 | 1012,0 | 1014,9 | 1006,1 | 28,7 | 35,6 | 22,6 |
| Juli/ July | 67,4 | 85 | 38 | 1011,9 | 1015,1 | 1006,5 | 28,4 | 34,4 | 22,4 |
| Agustus/ August | 64,7 | 87 | 36 | 1013,2 | 1015,5 | 1008,2 | 28,1 | 34,8 | 22,2 |
| September/ September | 63,4 | 85 | 28 | 1013,1 | 1015,3 | 1006,6 | 29,0 | 35,0 | 22,6 |
| Oktober/ October | 66,5 | 90 | 33 | 1011,8 | 1015,7 | 1005,0 | 30,3 | 36,6 | 24,2 |
| November/ November | 71,4 | 92 | 37 | 1010,6 | 1012,4 | 1005,1 | 29,9 | 36,1 | 25,0 |
| Desember/ December | 78,9 | 97 | 52 | 1009,3 | 1012,5 | 1002,4 | 28,6 | 35,4 | 23,7 |

Sumber : Stasiun Meteorologi Perak II Surabaya
Source : Stasiun Meteorologi Perak II Surabaya



Tabel 1. Kelembaban, Tekanan Udara dan Temperatur Maksimum dan Minimum di Juanda
 3. Table Relative Humidity, Atmospher Pressure and Maximum and Minimum at Juanda 2012

| BULAN / Month | Kelembaban Udara/ Relative Humidity (%) | | | Tekanan Udara/ Atmospher Pressure (Mbs) | | | Temperatur/ Temperature (C) | | |
|-------------------------|--|-----|-----|--|--------|--------|--------------------------------|------|------|
| | Rata ² / Average | Max | Min | Rata ² / Average | Max | Min | Rata ² / Average | Max | Min |
| | % | % | % | mb | mb | mb | ° C | ° C | ° C |
| Januari/ January | 83 | 96 | 54 | 1008,4 | 1010,9 | 1005,6 | 27,1 | 34,6 | 23,5 |
| Pebruari/ February | 82 | 95 | 53 | 1008,9 | 1011,2 | 1006,1 | 27,5 | 33,6 | 23,1 |
| Maret/ March | 81 | 92 | 51 | 1008,6 | 1012,2 | 1004,8 | 27,4 | 32,7 | 22,8 |
| April/ April | 78 | 95 | 53 | 1010,8 | 1013,9 | 1008,2 | 28,4 | 33,4 | 24,1 |
| Mei/ May | 78 | 93 | 48 | 1010,2 | 1011,9 | 1008,4 | 27,8 | 32,7 | 22,7 |
| Juni/ June | 78 | 96 | 48 | 1011,4 | 1013,7 | 1008,5 | 27,0 | 32 | 21,5 |
| Juli/ July | 84 | 90 | 48 | 1012,0 | 1013,7 | 1008,9 | 26,3 | 32,4 | 20,6 |
| Agustus/ August | 71 | 95 | 42 | 1012,0 | 1014,2 | 1011,6 | 26,3 | 33,1 | 20,6 |
| September/ September | 69 | 88 | 37 | 1012,8 | 1014,3 | 1010,9 | 26,6 | 33,4 | 20,6 |
| Oktober/ October | 68 | 83 | 37 | 1011,4 | 1015,3 | 1008,6 | 29,5 | 35,1 | 23,5 |
| Nopember/ November | 72 | 91 | 40 | 1010,2 | 1011,4 | 1008,9 | 27,9 | 35,4 | 24,6 |
| Desember/ December | 82 | 97 | 56 | 1008,7 | 1011,0 | 1006,1 | 28,1 | 34,3 | 22,4 |

Sumber : Stasiun Meteorologi Juanda Surabaya
 Source : Stasiun Meteorologi Juanda Surabaya



Tabel 1. Banyaknya Hari Hujan dan Curah Hujan di Perak I per Bulan

4. Number of Rainy Days and Rainfall at Perak I by Month
Table 2009 - 2012

| BULAN/ Month | Hari Hujan (hari)/ Rainy Days (days) | | | | Curah Hujan (mm)/ Rainfall (mm) | | | |
|-------------------------|---|------|------|------|------------------------------------|------|------|-------|
| | 2009 | 2010 | 2011 | 2012 | 2009 | 2010 | 2011 | 2012 |
| Januari/ January | 23 | 25 | 23 | 28 | 376 | 298 | 123 | 499,1 |
| Pebruari/ February | 25 | 25 | 23 | 22 | 371 | 434 | 174 | 273,8 |
| Maret/ March | 18 | 25 | 23 | 22 | 216 | 322 | 461 | 315 |
| April/ April | 14 | 22 | 22 | 12 | 122 | 94 | 275 | 60,3 |
| Mei/ May | 16 | 23 | 14 | 9 | 58 | 147 | 70 | 70,6 |
| Juni/ June | 7 | 15 | 3 | 4 | 50 | 58 | 28 | 3,1 |
| Juli/ July | 1 | 12 | 3 | 1 | 0 | 66 | 0 | 0 |
| Agustus/ August | 1 | 7 | 1 | - | 0 | 30 | 0 | - |
| September/ September | 0 | 22 | 0 | - | 0 | 156 | 0 | - |
| Oktober/ October | 0 | 21 | 5 | 5 | 0 | 252 | 23 | 57,3 |
| Nopember/ November | 10 | 22 | 26 | 13 | 128 | 94 | 205 | 49 |
| Desember/ December | 21 | 28 | 23 | 28 | 22 | 312 | 356 | 215,4 |
| Rata-rata/ Average | 11 | 21 | 14 | 15 | 112 | 189 | 143 | 154 |

Sumber : Stasiun Meteorologi Perak I Surabaya

Source : Stasiun Meteorologi Perak I Surabaya



Tabel 1. Banyaknya Hari Hujan dan Curah Hujan di Perak II per Bulan
5. Number of Rainy Days and Rainfall at Perak II by Month
Table 2009 - 2012

| BULAN/ Month | Hari Hujan (hari)/ Rainy Days (days) | | | | Curah Hujan (mm)/ Rainfall (mm) | | | |
|-------------------------|---|------|------|------|------------------------------------|-------|-------|-------|
| | 2009 | 2010 | 2011 | 2012 | 2009 | 2010 | 2011 | 2012 |
| Januari/ January | 23 | 26 | 24 | 28 | 334.7 | 303.2 | 174.5 | 312,1 |
| Pebruari/ February | 25 | 19 | 21 | 23 | 458.5 | 402.8 | 172.4 | 212,5 |
| Maret/ March | 15 | 19 | 21 | 22 | 160.8 | 216.2 | 375 | 311,4 |
| April/ April | 11 | 23 | 22 | 13 | 98.4 | 320.5 | 252.3 | 43,4 |
| M e i/ May | 16 | 20 | 14 | 8 | 87.4 | 129.7 | 78.9 | 75 |
| J u n i/ June | 5 | 15 | 2 | 3 | 96.0 | 53.2 | 21.3 | 4,3 |
| J u l i/ July | - | 7 | 2 | 0 | - | 39.7 | 1.6 | 0 |
| Agustus/ August | 1 | 8 | - | 0 | 3.2 | 48.5 | - | 0 |
| September/ September | - | 18 | - | 0 | - | 88.4 | - | 0 |
| Oktober/ October | 2 | 21 | 6 | 5 | - | 238.8 | 28 | 49,8 |
| Nopember/ November | 9 | 17 | 20 | 15 | 78.2 | 73.0 | 181.5 | 82,9 |
| Desember/ December | 18 | 28 | 24 | 23 | 152.6 | 286.2 | 510.2 | 317,9 |
| Rata-rata/ Average | 13 | 18 | 16 | 28 | 163.3 | 183.4 | 174.1 | 312,1 |

Sumber : Stasiun Meteorologi Perak II Surabaya
Source : Stasiun Meteorologi Perak II Surabaya





Tabel 1. Banyaknya Hari Hujan dan Curah Hujan di Juanda per Bulan
6. Number of Rainy Days and Rainfall at Juanda by Month
Table 2009 - 2012

| BULAN/ Month | Arah Terbanyak/ Mostly Directional | | | | Curah Hujan (mm)/ Rainfall (mm) | | | |
|-------------------------|---------------------------------------|------|------|------|------------------------------------|-------|-------|-------|
| | 2009 | 2010 | 2011 | 2012 | 2009 | 2010 | 2011 | 2012 |
| Januari/ January | 18 | 24 | 22 | 26 | 404.9 | 581.7 | 230.5 | 445.9 |
| Pebruari/ February | 27 | 21 | 21 | 17 | 652.5 | 487.6 | 212.8 | 179.1 |
| Maret/ March | 18 | 25 | 26 | 21 | 120.8 | 313.5 | 398.5 | 210.9 |
| April/ April | 13 | 29 | 23 | 14 | 140.8 | 140.8 | 140.8 | 140.8 |
| Mei/ May | 19 | 23 | 13 | 10 | 360.1 | 373.8 | 156.8 | 114.0 |
| Juni/ June | 9 | 17 | 3 | 6 | 109.6 | 91.9 | 31.3 | 67.7 |
| Juli/ July | 1 | 14 | 4 | - | 0.6 | 135.8 | 30.7 | - |
| Agustus/ August | - | 6 | - | - | - | 16 | - | - |
| September/ September | - | 15 | - | - | - | 129 | - | - |
| Oktober/ October | - | 17 | 2 | 2 | - | 269.2 | 9.7 | 2.1 |
| Nopember/ November | 4 | 17 | 14 | 7 | 26.7 | 140.8 | 260.9 | 58.0 |
| Desember/ December | 16 | 27 | 16 | 24 | 711.0 | 214.9 | 317.1 | 171.0 |
| Rata-rata/ Average | 10 | 19.6 | 14.4 | 14.1 | 93 | 241.2 | 178.9 | 154.3 |

Sumber : Stasiun Meteorologi Juanda Surabaya
Source : Stasiun Meteorologi Juanda Surabaya



Tabel 1. Arah Terbanyak, Kecepatan Rata-rata dan Kecepatan Maksimum Angin di Perak I per Bulan
7.  7. 
Table Mostly Directional, Speed Averages and Mostly Wind Velocity at Perak I by Month 2012

| BULAN/ Month | Arah Terbanyak/ Mostly Directional | Kecepatan Rata-rata/ Speed Average | Kecepatan Angin Maksimum/ Mostly Wind Velocity | |
|-------------------------|---------------------------------------|---------------------------------------|--|------------------------|
| | | | Arah/ Direction | Kecepatan/ Velocity |
| | () | (Knot) | () | (Knot) |
| Januari/ January | Barat | 7 | 280 | 25 |
| Pebruari/ February | Barat | 4 | 340 | 40 |
| Maret/ March | Barat | 7 | 290 | 29 |
| April/ April | Timur | 6 | 090 | 18 |
| Mei/ May | Timur | 6 | 100 | 18 |
| Juni/ June | Timur | 7 | 100 | 11 |
| Juli/ July | Timur | 7 | 100 | 18 |
| Agustus/ August | Timur | 8 | 100 | 18 |
| September/ September | Timur | 8 | 110 | 24 |
| Oktober/ October | Timur | 7 | 100 | 26 |
| Nopember/ November | Timur | 6 | 090 | 24 |
| Desember/ December | Barat | 6 | 220 | 44 |
| Rata-rata/ Average | Timur | 6 | 174 | 24 |

Sumber : Stasiun Meteorologi Perak I Surabaya
Source : Stasiun Meteorologi Perak I Surabaya



Tabel 1. Arah Terbanyak, Kecepatan Rata-rata dan Kecepatan Maksimum Angin di Perak II per Bulan
 8. Mostly Directional, Speed Averages and Mostly Wind Velocity at Perak II by Month 2012

| BULAN/ Month | Arah Terbanyak/ Mostly Directional () | Kecepatan Rata-rata/ Speed Average (Knot) | Kecepatan Angin Maksimum/ Mostly Wind Velocity | |
|-------------------------|--|---|--|----------------------------------|
| | | | Arah/ Direction () | Kecepatan/ Velocity (Knot) |
| Januari/ January | Barat Laut | 7 | 320 | 27 |
| Pebruari/ February | Barat Laut | 5 | 130 | 28 |
| Maret/ March | Barat Laut | 6 | 160 | 30 |
| April/ April | Timur | 6 | 110 | 18 |
| M e i/ May | Timur | 7 | 020 | 30 |
| J u n i/ June | Timur | 7 | 090 | 24 |
| J u l i/ July | Timur | 7 | 120 | 19 |
| Agustus/ August | Tenggara | 8 | 120 | 21 |
| September/ September | Timur | 8 | 110 | 24 |
| Oktober/ October | Tenggara | 8 | 120 | 25 |
| Nopember/ November | VRB | 6 | 360 | 25 |
| Desember/ December | Utara | 5 | 080 | 24 |
| Rata-rata/ Average | Timur | 6 | 150 | 24 |

Sumber : Stasiun Meteorologi Perak II Surabaya
 Source : Stasiun Meteorologi Perak II Surabaya



Tabel 1. 9. Arah Terbanyak, Kecepatan Rata-rata dan Kecepatan Maksimum Angin di Juanda per Bulan
 Table Mostly Directional, Speed Averages and Mostly Wind Velocity at Perak II by Month 2012

| BULAN/ Month | Arah Terbanyak/ Mostly Directional () | Kecepatan Rata-rata/ Speed Average (Knot) | Kecepatan Angin Maksimum/ Mostly Wind Velocity | |
|-------------------------|--|---|--|----------------------------------|
| | | | Arah/ Direction () | Kecepatan/ Velocity (Knot) |
| Januari/ January | Barat | 8,3 | 310 | 25G35 |
| Pebruari/ February | Barat | 6,3 | 150 | 18 |
| Maret/ March | Barat | 9 | 360 | 17 |
| April/ April | Timur | 6,5 | 90 | 15 |
| M e i/ May | Timur | 6,7 | 110 | 15 |
| J u n i/ June | Timur | 7 | 90 | 18 |
| J u l i/ July | Timur | 7 | 80 | 15 |
| Agustus/ August | Timur | 7,5 | 90 | 16 |
| September/ September | Timur | 7,8 | 100 | 18 |
| Oktober/ October | Timur | 7,7 | 110 | 19 |
| Nopember/ November | Timur | 7 | 90 | 16 |
| Desember/ December | Barat | 6,5 | 200 | 16 |
| Rata-rata/ Average | Timur | 7 | 148 | 17 |

Sumber : Stasiun Meteorologi Juanda Surabaya
 Source : Stasiun Meteorologi Juanda Surabaya