MONTHLY WEATHER BULLETIN

NO. 353
OCTOBER 2015



Cows graze on the grass in a field near Clonakilty, Co Cork during the early morning mist during mid-October. (Picture courtesy Irish Examiner)

DRY EVERYWHERE; MILD AND DULL IN MOST PLACES

Most stations reported on or above Long-term Average (LTA) mean air temperatures, with a few scattered stations in the Midlands, East and West reporting just slightly below their LTAs. Differences from LTA ranged from -0.7°C at Markree, Co Sligo (the month's lowest mean air temperature of 9.5°C) to 0.8°C at four stations located in Cork, Offaly and Donegal. The month's highest mean air temperature was reported at Sherkin Island, Co Cork with 12.4°C (difference from LTA 0.4°C). The majority of the month's highest maxima were recorded on the on the 1st, 6th and 8th with the month's highest temperature reported at Glengariff (Ilnacullin)

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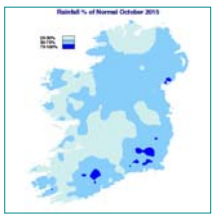
INSIDE



BELOW AVERAGE RAINFALL
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on the 1st with 19.8°C. Almost all of the month's lowest minima were recorded between the 13th and 17th. The lowest air temperature was reported at Markree on the 17th with -2.0°C while the lowest grass temperature was reported at Castleconnell, Co Limerick on the 14th with -6.5°C. The number of days with air and ground frost ranged from zero at numerous locations to four at Markree (air frost) and 13 at both Straide, Co Mayo and Ashford (Cronykeery), Co Wicklow (ground frost).

All rainfall totals were below LTA, with nearly all stations reporting three-quarters or below or their normal rainfall. A few stations in parts of Northwest, Southwest, Midlands and East reported a 'dry spell' of varying lengths between the 1st and 24th. Percentage of LTA rainfall values ranged from 30% at Newcastle West (Castle Demesne), Co Limerick with a monthly rainfall of 38.2 mm to 83% at a gauge in the Moanbane Mountains, Co Wicklow with a monthly total of 132.0 mm. Monthly rainfall totals in low-lying areas (regions below 200 m) ranged from 30.9 mm at Dublin (Ringsend) to 186.4 mm at Glenvickee (Caragh River area), Co Kerry. The highest monthly rainfall was at a gauge in the Cummeragh Mountains, Co Kerry with 236.9 mm. The month's wettest days were mainly the 23rd and between the 26th and 29th with the highest daily rainfall at Kylemore Abbey Gardens, Co Galway on the 23rd with 48.6 mm. All stations reported a below average number of wet days *(days with 1 mm or more)* with the number of days ranging from four at solitary stations in Donegal, Westmeath and Tipperary to 17 at Keenagh Beg, Co Mayo.

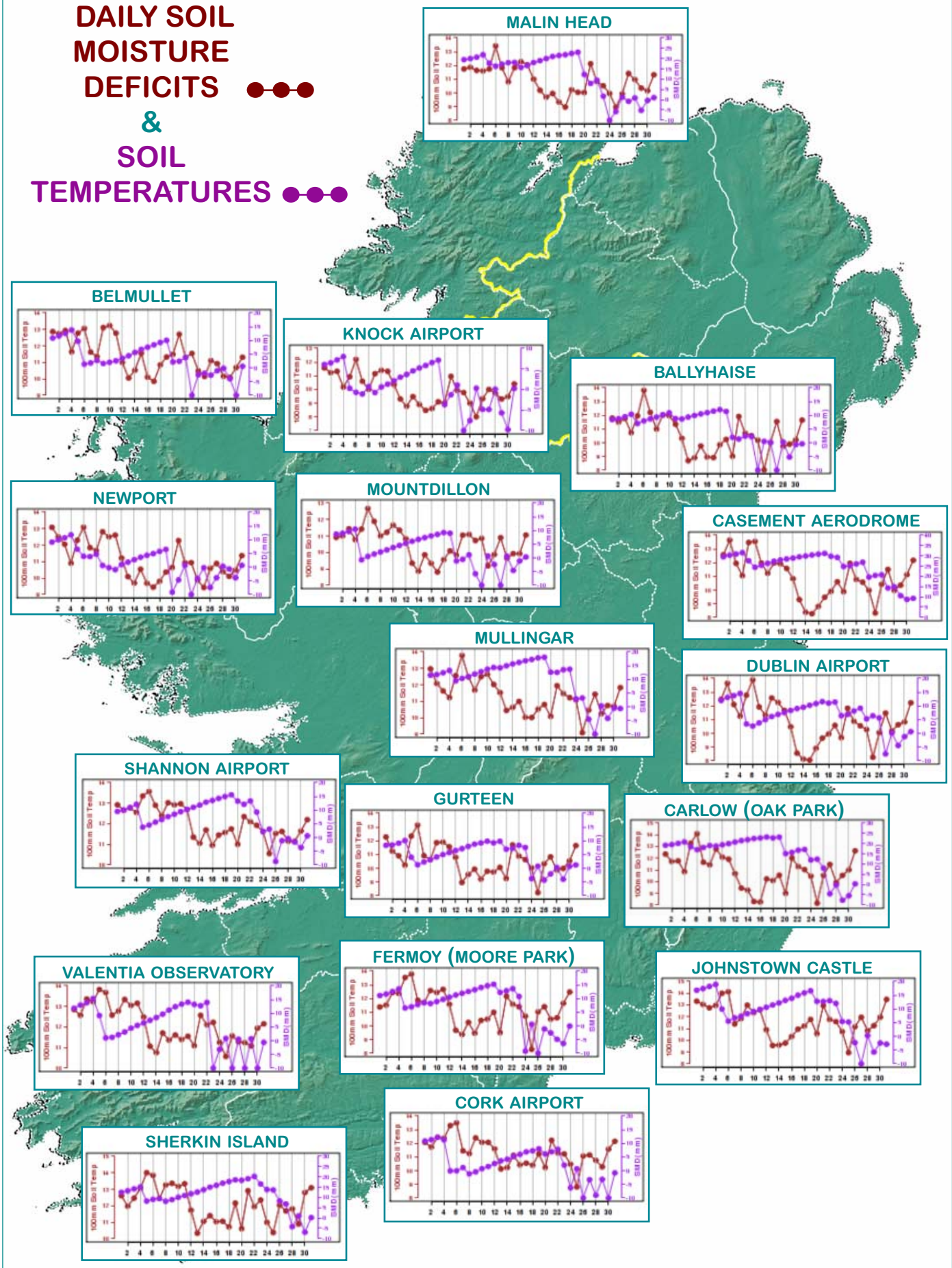
Monthly sunshine totals ranged from 72.5 hours at Knock Airport, Co Mayo (87% of LTA) to 108.4 hours at Belmullet, Co Mayo. Percentage of LTAs ranged from 78% in the Southeast at Dungarvan (Carriglea), Co Waterford and at JFK Park, Co Wexford to 117 % at Ballyshannon (Cathleen's Fall), Co Donegal. The number of dull days *(days with less than 0.5 hours of sun)* ranged from seven at Casement Aerodrome, Co Dublin to 13 at Straide, Co Mayo.

Wind and elements: Monthly mean wind speeds ranged from 4.9 knots *(9.1 km/h)* at Fermoy (Moore Park), Co Cork to 12.4 knots *(23.0 km/h)* at Mace Head, Co Galway. Gale force winds were reported on the 6th, 21st, 22nd and 26th all in Atlantic coastal areas. Malin Head reported both the month's highest gust and highest 10-minute mean wind speed on the 22nd with 55 knots *(102 km/h)* and 40 knots *(74km/h)*, respectively.



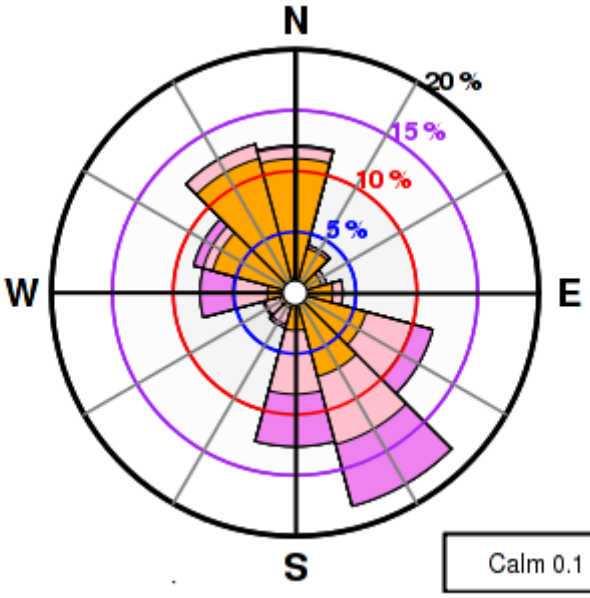
Rowers await the start of their individual time trials at the Skibbereen Head, held on the River Lee, Cork on Saturday 17th October. Overall it was cloudy in Cork with between 0.1 hours of sunshine recorded at Ballincurrig (Peafield) and 0.7 hours at Cork Airport. Nearly all stations in Cork reported no rainfall on the 17th with exception of Carrigline (Kilnagleary) which recorded 0.1 mm. Temperatures across the county ranged from 4.7°C at Mallow (Hazelwood) to 13.2°C at Cloyne (Lisanley). (Picture courtesy Irish Examiner, photographer Larry Cummins)

DAILY SOIL MOISTURE DEFICITS & SOIL TEMPERATURES



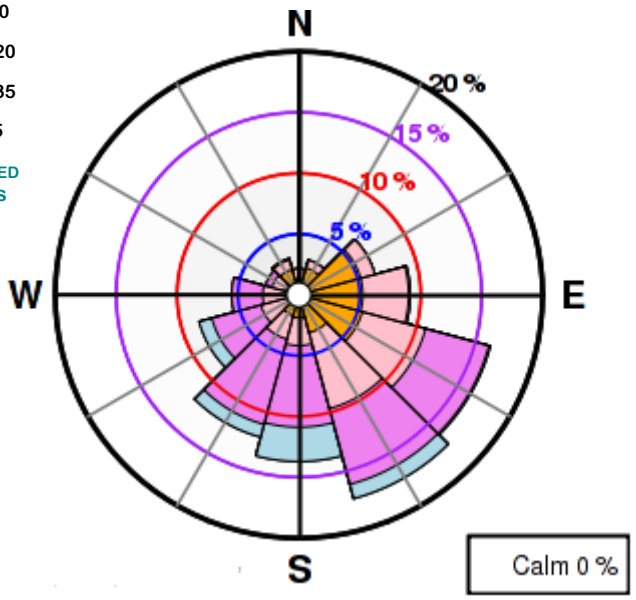
COUNTY / STATION	WIND (knots) MEAN SPEED	MAX. 10-MIN. DIR.	MAX. 10-MIN. SPEED	MEAN DATE/HOUR	MAX. GUST DIR.	MAX. GUST SPEED	MAX. GUST DATE/TIME	DAYS WITH GALES	DAYS WITH GUST ≥ 34KNOTS	HOURS WITH GUST ≥ 34KNOTS	ELEMENTS (no.of days) SNOW	SNOW LYING	HAIL	THUNDER	FOG
CO CARLOW															
OAK PARK	5.6	220°	22	29/ 3	220°	31	29/0337	0	0	0					
					160°	31	30/2231								
CO CAVAN															
BALLYHAISE	5.0	250°	18	21/21	270°	35	21/2244	0	1	1					
		120°	18	26/12											
CO CLARE															
SHANNON AIRPORT	7.3	130°	26	26/ 3	140°	38	26/0233	0	1	1	0	0	0	0	5
CO CORK															
FERMOY (MOORE PARK)	4.9	150°	20	26/ 2	130°	33	26/ 616	0	0	0					
SHERKIN ISLAND	11.4	150°	29	26/ 3	150°	40	25/2341	0	7	18					
					150°	40	26/ 229								
ROCHE'S POINT	10.4	310°	34	6/15	140°	43	26/1608	1	7	24					
CORK AIRPORT	8.3	140°	29	26/ 8	150°	39	26/0751	0	3	15	0	0	0	0	6
CO DONEGAL															
MALIN HEAD	12.3	250°	40	22/ 1	250°	55	22/ 123	3	9	65					
FINNER	8.2	260°	31	22/ 1	240°	43	21/2305	0	5	23					
CO DUBLIN															
DUBLIN AIRPORT	8.6	260°	29	24/ 5	260°	41	21/2343	0	3	10	0	0	0	0	4
CASEMENT AERODROME	7.0	260°	27	22/ 1	260°	40	22/0000	0	5	7	0	0	0	0	5
CO GALWAY															
MACE HEAD	12.4	240°	34	21/20	240°	50	21/2025	2	9	41					
		260°	34	22/ 1											
ATHENRY	5.7	310°	20	6/14	240°	36	21/2048	0	1	1					
		240°	20	21/20											
CO KERRY															
VALENTIA OBSERVATORY	7.5	250°	23	21/22	140°	43	26/0228	0	2	7					
CO MAYO															
CLAREMORRIS	6.5	260°	23	22/ 1	260°	35	22/0108	0	1	1					
BELMULLET	9.5	180°	31	31/ 1	170°	42	31/0104	0	10	38					
NEWPORT	7.8	280°	26	21/22	300°	43	22/0247	0	5	13					
		280°	26	22/ 1											
KNOCK AIRPORT	7.7	260°	29	21/22	260°	44	21/2128	0	5	13	0				10
CO MEATH															
DUNSANY (GRANGE)	5.9	270°	26	21/23	260°	38	21/2319	0	1	1					
CO ROSCOMMON															
MOUNTDILLON	5.3	130°	20	26/13	130°	30	26/1308	0	0	0					
					260°	30	29/0253								
CO TIPPERARY															
GURTEEN (AG COLLEGE)	6.6	260°	23	21/22	260°	35	21/2240	0	1	1					
CO WESTMEATH															
MULLINGAR	5.2	140°	19	26/12	130°	30	26/0551	0	0	0					
		140°	19	30/19											
CO WEXFORD															
JOHNSTOWN CASTLE	7.2	150°	22	26/ 3	160°	34	29/0244	0	1	1					
					160°	22	29/02								

CARLOW (OAK PARK)



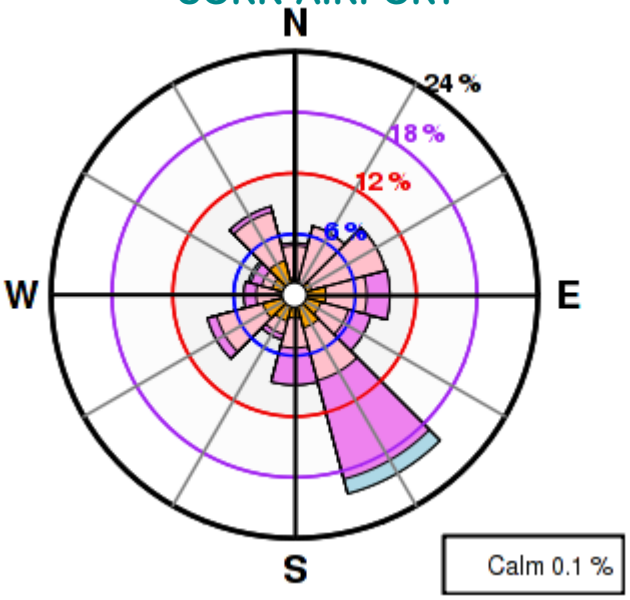


BELMULLET

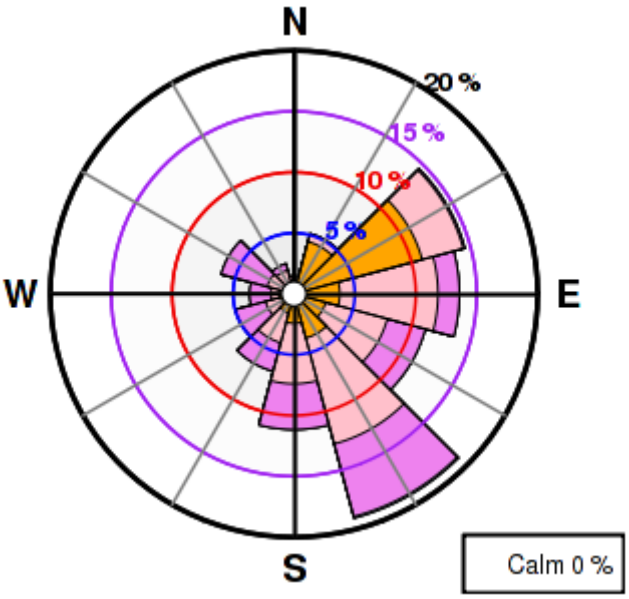


PERCENTAGE FREQUENCY OF WIND DIRECTION

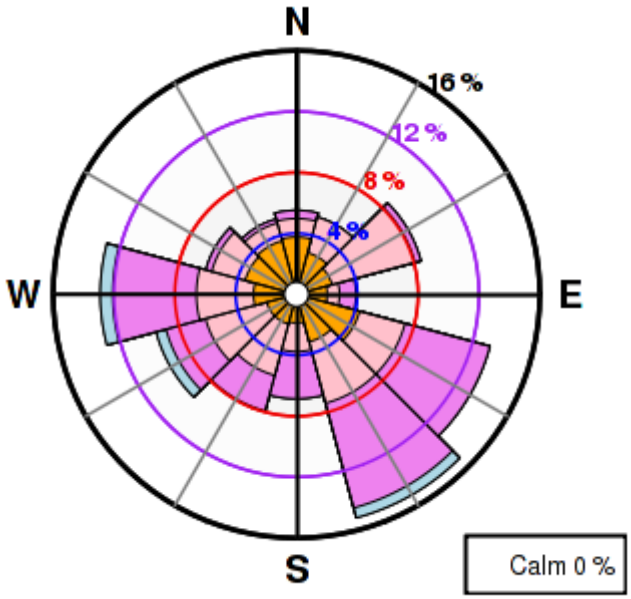
CORK AIRPORT



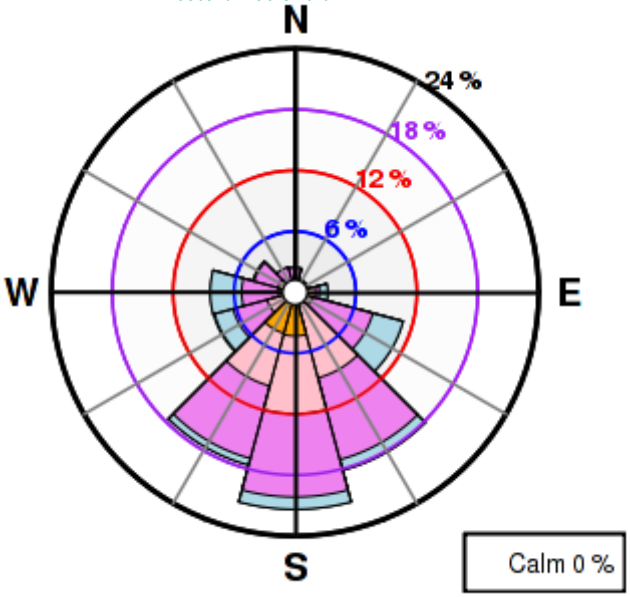
VALENTIA OBSERVATORY



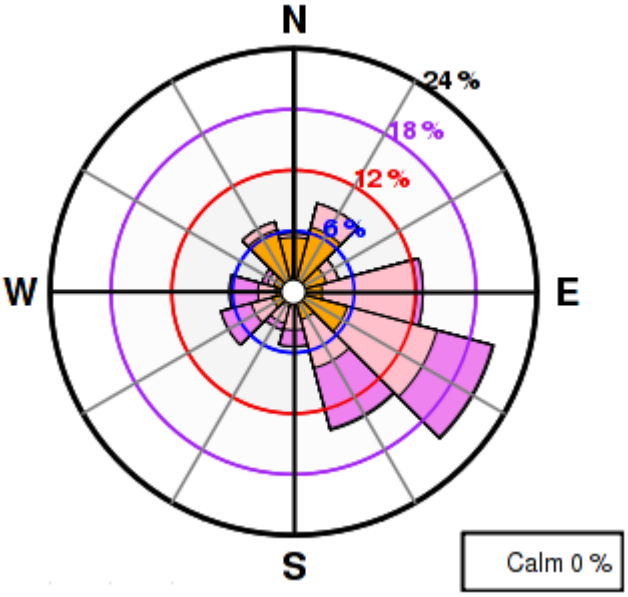
DUBLIN AIRPORT



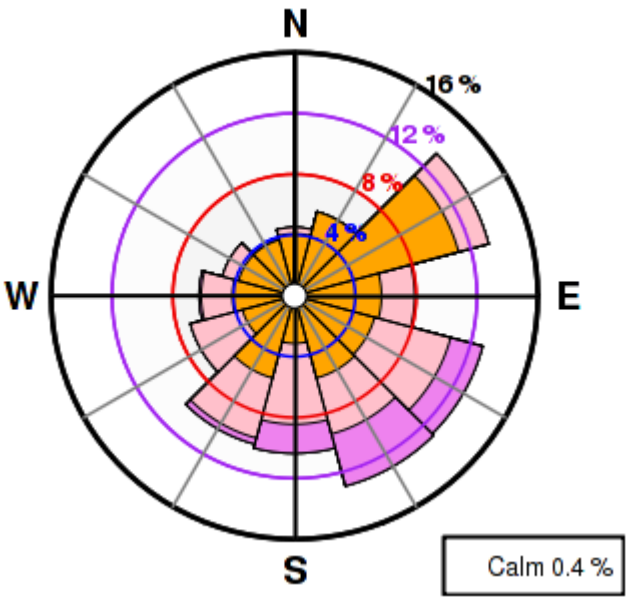
MALIN HEAD



SHANNON AIRPORT



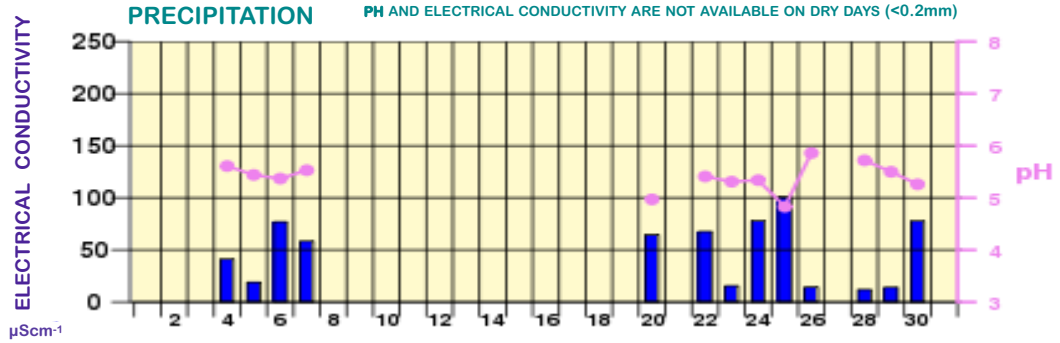
MULLINGAR



CHEMICAL ANALYSIS OF PRECIPITATION AND AIR SAMPLES AT VALENTIA OBSERVATORY

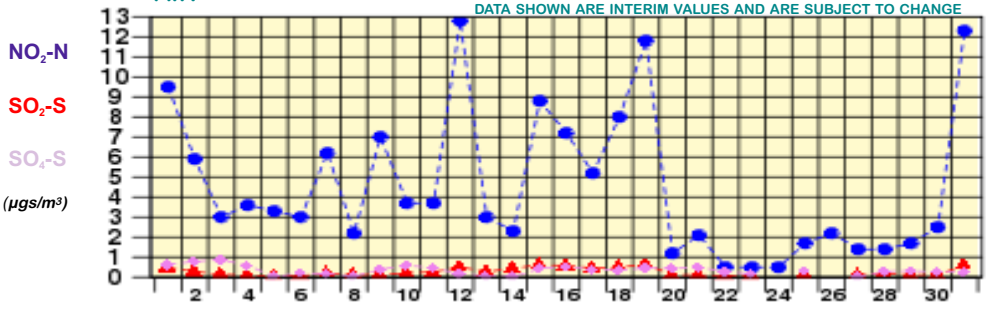
PRECIPITATION

PH AND ELECTRICAL CONDUCTIVITY ARE NOT AVAILABLE ON DRY DAYS (<0.2mm)



AIR

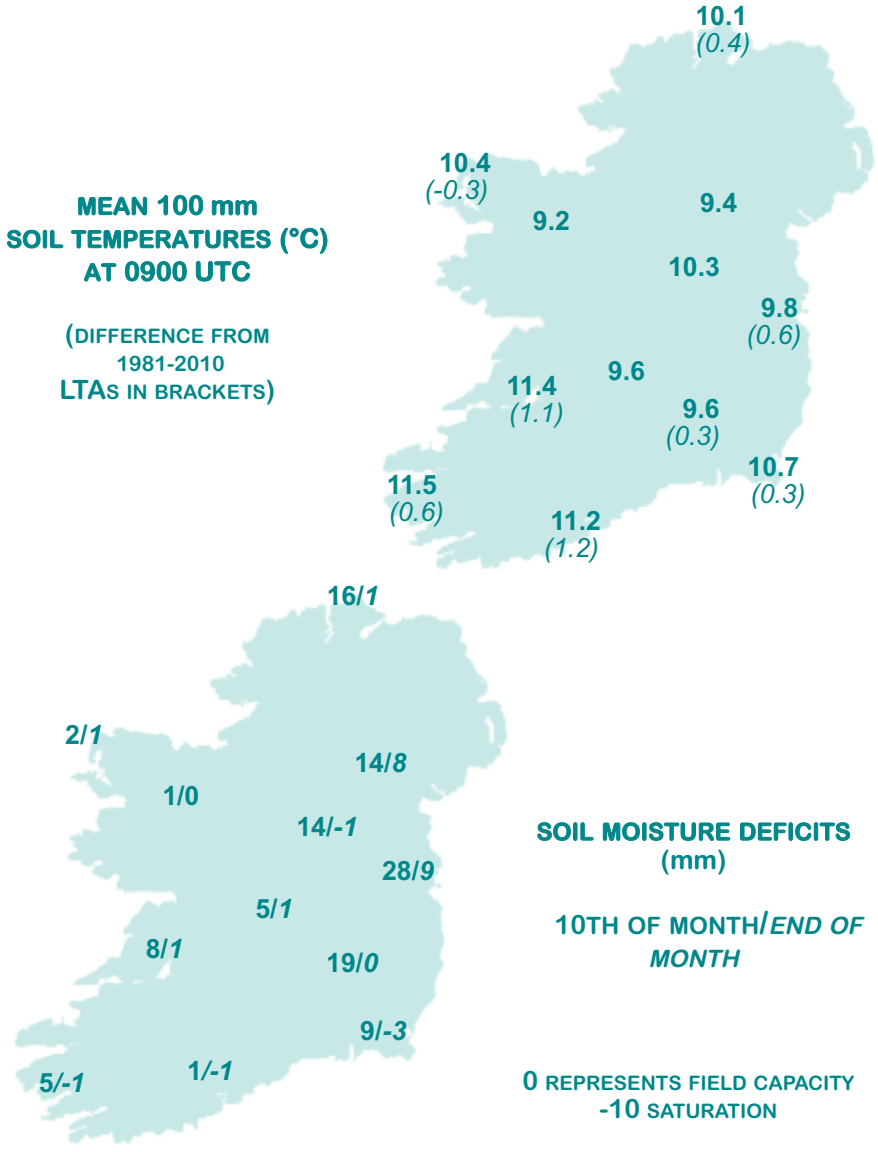
DATA SHOWN ARE INTERIM VALUES AND ARE SUBJECT TO CHANGE



Acid rain occurs when pollutants combine with moisture in the air to form sulphuric or nitric acid. pH is the simplest way of measuring the acidity of precipitation. Usually pH of 7.00 is considered neutral but this is not the case in rainfall samples. Pure water in the atmosphere has an equilibrium pH value of 5.65 at 20°C owing to carbon dioxide in the air dissolving to form carbonic acid. Any value below pH 5.65 is considered acid while any value above is considered alkaline.

Conductivity measures the total ion activity in the rainfall, i.e. the higher the conductivity the greater the number of ions.

Sulphur dioxide and sulphate in air contribute to the formation of sulphuric acid; nitrate in air contributes to the formation of nitric acid.



MEAN SOIL TEMPERATURES (°C) AT 0900 UTC

COUNTY/STATION	100 mm	200 mm	300 mm
CO CARLOW			
CARLOW (OAK PARK)	9.6	10.5	10.8
CO. CAVAN			
BALLYHAISE	9.4	10.4	11.5
CO CLARE			
SHANNON AIRPORT	11.4	12.0	12.9
CARRON	10.5		11.4
CO CORK			
ROCHE'S POINT	10.9	11.6	11.9
FERMOY (MOORE PARK)	10.2	10.8	11.4
CORK AIRPORT	10.5	11.5	12.3
SHERKIN ISLAND	11.2	11.8	12.9
BALLINCURRIG (PEAFIELD)	10.7	11.1	11.5
CO DONEGAL			
MALIN HEAD	10.1	10.7	11.6
CO DUBLIN			
PHOENIX PARK	9.9	11.2	11.5
DUBLIN AIRPORT	9.7	10.6	11.3
CASEMENT AERODROME	9.8	10.6	11.3
CO KERRY			
VALENTIA OBSERVATORY	11.5	12.1	12.5
CO LIMERICK			
MOUNTRUSSELL	10.0	10.9	
CO MAYO			
BELMULLET	10.4	11.5	12.2
NEWPORT (FURNACE)	10.0	10.7	11.1
STRAIDE	9.9		
KNOCK AIRPORT	9.2	9.8	10.2
CO MEATH			
WARRENSTOWN	9.7	11.2	12.0
DUNSANY (GRANGE)	9.3	10.9	11.3
CO TIPPERARY			
GURTEEN (AG COLLEGE)	9.6	10.3	10.7
FETHARD (PARSONSHILL)	10.5	11.2	
CO WATERFORD			
DUNGARVAN (CARRIGLEA)		11.4	12.2
CO WESTMEATH			
MULLINGAR	10.3	11.2	12.0
CO. WEXFORD			
JOHNSTOWN CASTLE	10.7	11.3	11.6
JFK PARK	11.3	12.0	13.6
CLONROCHE	10.8	11.4	11.9
CO WICKLOW			
ASHFORD (CRONYKEERY)	10.8	11.4	12.4

10-DAY VALUES FOR SELECTED AGROMETEOROLOGICAL STATIONS

STATION	PERIOD	RAINFALL (mm) AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	TEMPERATURE (°C) MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFF. FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS > 4.4°C	DEGREE DAYS > 10.0°C	LOWEST "GRASS-MIN."	DATE	DAYS WITH GROUND FROST	MEAN 10CM AT 0900H	MEAN 30CM AT 0900H	SUNSHINE (hours) TOTAL NO. OF HOURS	% OF AVERAGE
CO CORK	1-10	17.8		5	4	15.0	8.8	11.9		6.1	7	0	75	23	5.0	7	0	11.6	12.6	25.9	
BALLINCURRIG	11-20	3.3		1	1	13.5	6.6	10.1		3.9	13	0	57	12	3.0	13	0	9.7	11.0	30.2	
(PEAFIELD)	21-END	72.2		10	7	13.7	7.7	10.7		3.9	25	0	69	16	2.5	25	0	10.8	11.2	19.6	
	MONTH	**93.3**	**64**	**16**	**12**	**14.1**	**7.7**	**10.9**	**0.8**	**3.9**	**13**	**0**	**201**	**51**	**2.5**	**25**	**0**	**10.7**	**11.5**	**75.7**	**81**
CO DONEGAL	1-10	14.4		5	5	15.2	6.5	10.9		3.2	1	0	65	19	-0.7	8	2	-	-	-	
GLENTIES HATCHERY	11-20	21.7		2	2	14.0	4.2	9.1		0.2	13	0	50	12	-2.6	13	5	-	-	-	
	21-END	67.8		8	7	13.5	8.8	11.2		5.8	24	0	74	18	2.2	25	0	-	-	-	
	MONTH	**103.9**	**58**	**15**	**14**	**14.2**	**6.5**	**10.4**	**0.4**	**0.2**	**13**	**0**	**190**	**49**	**-2.6**	**13**	**7**	**-**	**-**	**-**	
CO KERRY	1-10	8.0		6	2	15.7	7.3	11.5		4.1	3	0	71	23	2.6	3	0	-	-	-	
ARDFERT	11-20	1.4		2	0	14.2	5.8	10.0		2.6	13	0	57	13	0.7	13	0	-	-	-	
(LISCAHANE)	21-END	58.6		8	7	14.4	8.7	11.5		6.5	25	0	79	21	5.4	25	0	-	-	-	
	MONTH	**68.0**	**51**	**16**	**9**	**14.7**	**7.3**	**11.0**	**0.0**	**2.6**	**13**	**0**	**207**	**57**	**0.7**	**13**	**0**	**-**	**-**	**-**	
CO MONAGHAN	1-10	11.0		3	2	15.3	6.0	10.7		2.4	4	0	63	19	-	-	-	-	-	-	
CARRICKMACROSS	11-20	10.2		4	2	13.6	4.0	8.8		0.4	15	0	47	10	-	-	-	-	-	-	
	21-END	33.5		8	5	13.7	7.4	10.6		2.0	25	0	68	16	-	-	-	-	-	-	
	MONTH	**54.7**	**58**	**15***	**9***	**14.2**	**5.8**	**10.0**	**0.3**	**0.4**	**15**	**0**	**179**	**45**	**-**	**-**	**-**	**-**	**-**	**-**	
CO WATERFORD	1-10	16.1		4	4	16.7	7.3	12.0		4.3	2	0	76	28	1.1	8	0	-	13.3	28.7	
DUNGARVAN	11-20	3.0		1	1	14.8	5.4	10.1		1.2	15	0	59	16	-2.9	15	3	-	11.5	23.8	
(CARRIGLEA)	21-END	60.2		8	7	15.0	7.5	11.3		0.5	25	0	77	23	-2.0	25	1	-	11.8	23.6	
	MONTH	**79.3**	**58**	**13**	**12**	**15.5**	**6.8**	**11.1**	**0.1**	**0.5**	**25**	**0**	**212**	**67**	**-2.9**	**15**	**4**	**-**	**12.2**	**76.1**	**78**
CO WEXFORD	1-10	24.3		4	3	15.5	7.9	11.7		3.6	2	0	73	23	1.8	2	0	12.2	14.7	32.6	
JFK PARK	11-20	5.2		1	1	14.2	6.5	10.4		3.1	14	0	60	16	-0.5	15	2	10.4	13.4	26.0	
	21-END	69.5		8	6	13.9	7.9	10.9		3.8	25	0	72	17	1.0	30	0	11.2	12.8	18.4	
	MONTH	**99.0**	**80**	**13**	**10**	**14.5**	**7.4**	**11.0**	**0.3**	**3.1**	**14**	**0**	**205**	**56**	**-0.5**	**15**	**2**	**11.3**	**13.6**	**77.0**	**78**
CO WICKLOW	1-10	10.7		3	2	15.6	6.9	11.3		2.2	2	0	70	24	-4.0	2	5	11.3	13.1	33.8	
ASHFORD	11-20	11.2		2	2	14.5	6.1	10.3		1.6	15	0	61	16	-5.3	15	5	10.1	12.1	28.0	
(CRONYKEERY)	21-END	47.2		8	6	14.8	8.0	11.4		3.2	25	0	77	23	-2.0	25	3	11.0	12.1	24.0	
	MONTH	**69.1**	**64**	**13**	**10**	**14.9**	**7.1**	**11.0**	**0.2**	**1.6**	**15**	**0**	**208**	**63**	**-5.3**	**15**	**13**	**10.8**	**12.4**	**85.8**	**85**

P.E. (PENMAN)

STATION /COUNTY	TOTAL (mm)
CO CARLOW	
CARLOW (OAK PARK)	25
CO CAVAN	
BALLYHAISE	23
CO CLARE	
SHANNON AIRPORT	28
CO CORK	
CORK AIRPORT	24
CO DONEGAL	
MALIN HEAD	34
CO DUBLIN	
DUBLIN AIRPORT	27
CASEMENT AERODROME	26
CO KERRY	
VALENTIA OBS.	35
CO MAYO	
BELMULLET	32
KNOCK AIRPORT	22
CO TIPPERARY	
GURTEEN (AG.COLLEGE)	24
CO WESTMEATH	
MULLINGAR	24
CO WEXFORD	
JOHNSTOWN CASTLE	27

GLOBAL SOLAR RADIATION (MJ/m²)

STATION /COUNTY	1ST-10TH	11TH-20TH	21ST-END	TOTAL
CO CARLOW				
CARLOW (OAK PARK)*	68.52	49.57	43.90	161.99
CO CAVAN				
BALLYHAISE*	71.06	66.06	44.22	181.34
CO CORK				
ROCHE'S POINT*	75.97	62.64	49.03	187.64
CO DONEGAL				
MALIN HEAD*	70.64	66.65	41.29	178.58
CO DUBLIN				
DUBLIN AIRPORT*	76.31	53.94	43.17	173.42
CO KERRY				
VALENTIA OBS.*	69.69	68.36	45.80	183.85
CO MAYO				
BELMULLET*	65.88	68.60	42.76	177.24
CO TIPPERARY				
GURTEEN (AG.COLLEGE)*	67.40	57.65	44.14	169.19
CO WESTMEATH				
MULLINGAR*	68.04	63.30	44.75	176.09
CO WEXFORD				
JOHNSTOWN CASTLE*	75.01	61.11	43.89	180.01

MONTHLY EVAPORATION (mm) FROM CLASS A PAN

COUNTY/ STATION	MONTHLY RAINFALL (mm)	MONTHLY EVAPORATION (mm)
CO KERRY		
VALENTIA OBSERVATORY	96.1	58.3*
CO KERRY		
NORTH KERRY LANDFILL	N/A	N/A
CO MAYO		
NEWPORT (FURNACE)	85.3	N/A
CO OFFALY		
DERRYGREENAGH	55.0	19.7
CO WATERFORD		
DUNGARVAN (CARRIGLEA)	79.3	27.1
CO WEXFORD		
JFK PARK	99.0	32.4

GLOBAL SOLAR RADIATION VALUES FOR STATIONS MARKED

** ARE PROVISIONAL*

** ARE FROM AUTOSOL INSTRUMENTS*

*RAINFALL VALUES MARKED * ARE ESTIMATED.*

Thursday 1st: Fog slowly cleared during the morning to give a dry sunny day. After a chilly start conditions became milder. Winds were light, variable in direction.
Rainfall: Nil at numerous locations to 0.6 mm at Macroom (Renaniree)
Temperature: Lowest max. 14.9°C at Knock Apt, highest max. 19.8°C at Glengarriff (Ilnacullin). Lowest min. 1.4°C at Markree, highest min. 10.5°C at Arklow (Ballyrichard Hse)
Sunshine: 4.8 hours at Straide to 11.0 hours at Belmullet

Friday 2nd: There was widespread fog during the early hours. Overall the daytime was cloudy and as a result temperatures only reached the mid-teens. Winds were very light, variable in direction.
Rainfall: Nil at numerous locations to 0.4 mm at Ballymote (Lavagh)
Temperature: Lowest max. 10.5°C at Gurteen, Derrygreenagh, Edenderry (Ballinla), highest max. 18.5°C at Glengarriff (Ilnacullin). Lowest min. 2.0°C at Clonroche (Knoxtown), highest min. 9.3°C at Dublin (Merrion Square)
Sunshine: Nil at Shannon Airport to 7.2 hours at Sherkin Island

Saturday 3rd: Dry countrywide, cloudy and misty overnight, mostly cloudy through the day, but some pleasant sunshine in the South. Winds were light, variable in direction.
Rainfall: Nil at numerous locations to 3.0 mm at Lough Gill
Temperature: Lowest max. 10.3°C at Carron, highest max. 16.3°C at Glengarriff (Ilnacullin). Lowest min. 3.1°C at Listowel (Gurtocloghane), highest min. 9.6°C at Ballyshannon (Cathleen's Fall)
Sunshine: Nil at numerous locations to 3.5 hours at Shannon Airport

Sunday 4th: Dry overnight, it turned in parts of the north where breaks in the cloud resulted in sub-zero grass temperatures. A mostly dry day but patchy light rain began to push into the South and Southwest in the late afternoon. A sunny day in the North. The winds were light, southeasterly.
Rainfall: Nil at numerous locations to 15.9 mm at Ballyedmonduff House
Temperature: Lowest max. 12.0°C at Cavan (Drumconnick), highest max. 17.0°C at Dooks. Lowest min. 0.0°C at Mt Dillon, highest min. 11.5°C at Sherkin Island
Sunshine: 0.2 hours at Cork Apt to 4.9 hours at Belmullet

Monday 5th: Rain spread northwards from the South overnight and through the morning, clearing the north coast around noon. Further bands of showery rain followed through the afternoon and evening. It was mild for early October, mostly cloudy with a few sunny breaks in some places. Winds were light to moderate, south to southeast.
Rainfall: Nil at numerous locations to 31.7 mm at Drimoleagh (Angram)
Temperature: Lowest max. 13.9°C at Knock Apt, highest max. 18.1°C at Casement. Lowest min. 3.4°C at Dundalk (Annaskeagh WW), highest min. 12.9°C at Roches Pt
Sunshine: Nil at numerous locations to 1.6 hours at Dublin (Glasnevin)

Tuesday 6th: Showers in places during the morning, with some sunny periods also. Rain continued in places during the afternoon, heaviest in eastern areas. The rain continued in the East for the evening and early night, but dry elsewhere with some clear periods. Winds were light to moderate, variable in direction.
Rainfall: Nil at numerous locations to 18.1 mm at Fenor (Islandtarsney)
Temperature: Lowest max. 13.5°C at Killarney (Muckross Hse), highest max. 19.5°C at Ballyshannon (Cathleen's Fall). Lowest min. 8.0°C at Killarney (Muckross Hse), highest min. 14.2°C at Dungarvan (Carriglea)
Sunshine: Nil at numerous locations to 3.7 hours at Ballyshannon (Cathleen's Fall), Cork Apt

Wednesday 7th: Conditions were mostly dry, with some showers in western counties. Also some good spells of sunshine, the best of these in eastern counties. Further showers in the West moved eastwards during the late afternoon and evening but began to die out towards nightfall. Winds were light to moderate, southwest to west.
Rainfall: Nil at numerous locations to 3.6 mm at Delphi Lodge
Temperature: Lowest max. 13.4°C at Slieve Bloom Mtns (Nealstown), highest max. 18.0°C at Dungarvan (Carriglea). Lowest min. 2.6°C at Horseleap, Kilkenny (Greenshill), highest min. 10.8°C at Mace Head
Sunshine: 2.3 hours at Knock Apt to 7.5 hours at Arklow (Ballyrichard Hse), Dublin Apt

Thursday 8th: Fog in parts of the Northwest during the morning, but overall a dry morning with good sunshine and just the odd light shower along the south coast. The afternoon was dry and bright, but again some light showers along the south coast. The evening and night were sunny/clear with just some drizzle along southern coasts. Winds were light to moderate, southwesterly.
Rainfall: Nil at numerous locations to 7.7 mm at Dungloe
Temperature: Lowest max. 14.2°C at Malin Head, Knock Apt, highest max. 17.7°C at Dublin (Glasnevin). Lowest min. 1.3°C at Mullingar, highest min. 10.9°C at Mace Head
Sunshine: 2.7 hours at Knock Apt to 7.1 hours at Dublin (Glasnevin), Sherkin Island

Friday 9th: Light rain progressed eastwards through the afternoon, but the eastern half of the country remained dry throughout. Some sunny breaks in the East but it was generally cloudy. Afternoon conditions were mild for October. Winds were light to moderate, southerly.
Rainfall: Nil at numerous locations to 7.6 mm at Murrisk
Temperature: Lowest max. 13.9°C at Cork Apt, highest max. 17.7°C at Dublin (Glasnevin). Lowest min. 5.5°C at Ardee (Boharnamoe), highest min. 13.3°C at Sherkin Island
Sunshine: Nil at numerous locations to 5.7 hours at Arklow (Ballyrichard Hse)

Saturday 10th: West and northwestern areas had patchy rain and drizzle, particularly in the early hours. The day remained overcast practically everywhere. Winds were light, southeasterly.
Rainfall: Nil at numerous locations to 3.5 mm at Carrigans (Kildrum)
Temperature: Lowest max. 13.2°C at Ballincurrig (Peafield), highest max. 17.0°C at Dungarvan (Carriglea). Lowest min. 7.5°C at Dungarvan (Carriglea), highest min. 13.7°C at Sherkin Island
Sunshine: Nil at numerous locations to 1.6 hours at Belmullet

Sunday 11th: Dry everywhere for most of the day, a narrow band of light rain crossed Ulster during the evening. There was sunshine in the Southwest and West and it was cloudier further East. Afternoon conditions were especially mild in the western half of the country. Winds were light and variable in direction.
Rainfall: Nil at numerous locations to 6.4 mm at Kilclooney More
Temperature: Lowest max. 14.0°C at Glenealy (Kilmacurragh Park), highest max. 18.9°C at Glengarriff (Ilnacullin). Lowest min. 6.8°C at Markree, highest min. 12.0°C at Johnstown Castle
Sunshine: 0.1 hours at Dublin (Glasnevin) to 4.5 hours at Shannon Airport

Monday 12th: A narrow band of rain through east Ulster and the north Midlands tracked south-eastwards during the early hours, clearing into the Irish Sea before dawn. The rest of the day was dry with sunny breaks everywhere. After a cool start with ground frost, afternoon temperatures were alot milder. Winds were light, northwesterly.
Rainfall: Nil at numerous locations to 1.3 mm at Granard (Ballymore)
Temperature: Lowest max. 12.0°C at Belderrig, highest max. 16.5°C at Glengarriff (Ilnacullin). Lowest min. 1.5°C at Glenties Hatchery, highest min. 10.1°C at Malin Head
Sunshine: 1.9 hours at Sherkin Island to 8.7 hours at Ballyshannon (Cathleen's Fall), Ballincurrig (Peafield)

Tuesday 13th: Dry and cold overnight with widespread ground frost and some air frost and fog inland. Prolonged sunshine throughout most of the country, however it became cloudy around the middle of the day in the East. After a cold start afternoon temperatures recovered to around normal for October. Winds were light, variable in direction.
Rainfall: Nil at numerous locations to 0.5 mm at Elphin
Temperature: Lowest max. 12.2°C at Glenealy (Kilmacurragh Park), highest max. 16.1°C at Glengarriff (Ilnacullin). Lowest min. -1.4°C at Mt Dillon, highest min. 6.4°C at Belderrig
Sunshine: 2.6 hours at Dublin (Glasnevin) to 9.4 hours at Cork Apt

Wednesday 14th: Patches of mist and fog in places overnight, also some air frost and a widespread ground frost. The day was dry with a good deal of cloud over the East, but good sunshine over the rest of the country. The evening and night continued dry with clear periods and ground frost returning. Winds were light to moderate, variable in direction.
Rainfall: Nil at numerous locations to 0.4 mm at Parknahown (Cullahill)
Temperature: Lowest max. 11.6°C at Dublin Apt, highest max. 15.7°C at Waterford (Tycor). Lowest min. -1.6°C at Castleconnell, highest min. 7.6°C at Mace Head
Sunshine: Nil at numerous locations to 8.2 hours at Belmullet

Thursday 15th: Cool overnight with air temperatures below zero at eastern stations. There were some fog patches inland. It was a cloudy day to start, but there were some good spells of sunshine in the East, North and South during the afternoon. Rainfall amounts were small. It once again became cool during the evening with clear skies and dry conditions into the night. Winds were light, variable in direction.
Rainfall: Nil at numerous locations to 0.3 mm at Derryhillagh
Temperature: Lowest max. 11.5°C at Edenderry (Ballinla), highest max. 16.0°C at Cahore (Kilmichael Hse). Lowest min. -0.6°C at Kilkenny (Greenshill), highest min. 11.1°C at Valentia Obs
Sunshine: 0.8 hours at Dungarvan (Carriglea) to 6.9 hours at Arklow (Ballyrichard Hse)

Friday 16th: Mist and fog patches in places overnight. The day was mostly dry, with good sunshine in the Midlands and West. More cloud further east, and even the odd light shower along eastern coasts as well. The evening and night continued dry with bright/clear periods. Winds were light, variable in direction.
Rainfall: Nil at numerous locations to 0.9 mm at Glenmacnass
Temperature: Lowest max. 11.1°C at Oak Park, highest max. 16.1°C at Ardtarmon. Lowest min. -1.3°C at Markree, highest min. 9.3°C at Valentia Obs
Sunshine: 0.6 hours at Dungarvan (Carriglea) to 8.7 hours at Belmullet

Saturday 17th: Some overnight fog and frost particularly in the Midlands and Northwest which cleared early. Clouds and mist in many parts but some good spells of sunshine in places. The odd light shower in the West and Southwest. Winds were light, northeasterly.
Rainfall: Nil at numerous locations to 1.5 mm at Celbridge (Ardrass House)
Temperature: Lowest max. 11.5°C at Mace Head, Cork Apt, Ballincurrig (Peafield), highest max. 16.1°C at Belmullet. Lowest min. -2.0°C at Markree, highest min. 11.2°C at Valentia Obs
Sunshine: 0.1 hours at Ballincurrig (Peafield), Shannon Airport to 9.1 hours at Belmullet

Sunday 18th: It was an overcast day in most areas apart from the extreme northern fringes. There was patchy rain and drizzle at times in the early afternoon and in the evening which mostly affected the southern half of the country. Temperatures were a little lower than average. Winds were light, northeasterly.
Rainfall: Nil at numerous locations to 6.5 mm at Glenasmole(Supt's Lodge)
Temperature: Lowest max. 10.2°C at Slieve Bloom Mtns (Nealstown), highest max. 14.4°C at Dungarvan (Carriglea). Lowest min. 1.5°C at Straide, highest min. 10.2°C at Glengarriff (Ilnacullin), Dun Laoghaire
Sunshine: Nil at numerous locations to 0.7 hours at Ballyshannon (Cathleen's Fall)

Monday 19th: It was cloudy for most of the day in the eastern half of the country but there were good spells of sunshine further west. Rain in parts. Winds were light, northerly.
Rainfall: Nil at numerous locations to 10.3 mm at Mulrany (Doughbeg)
Temperature: Lowest max. 11.8°C at Ballyhaise, highest max. 16.9°C at Cloyne (Lisanley). Lowest min. 4.2°C at Markree, highest min. 10.9°C at Dublin (Glasnevin)
Sunshine: Nil at numerous locations to 5.9 hours at Sherkin Island

Tuesday 20th: Rain arrived on the west coast in the late morning and finally reached parts of the east coast as darkness fell. It was persistent in places. Temperatures rose as the fronts passed through. Winds were light to moderate, southwest to northwest.
Rainfall: Nil at numerous locations to 46.9 mm at Ardnawark (Barnesmore)
Temperature: Lowest max. 12.7°C at Slieve Bloom Mtns (Nealstown), highest max. 16.0°C at Cahore (Kilmichael Hse). Lowest min. 1.2°C at Kilkenny (Greenshill), highest min. 10.6°C at Belmullet
Sunshine: Nil at numerous locations to 4.0 hours at Dungarvan (Carriglea)

Wednesday 21st: It was a mostly dry day until late evening when narrow bands of light rain and drizzle crossed the country from the West. It was mild for late October. There was a little sunshine in the South but it was mainly cloudy. Winds were fresh to strong, southwesterly.
Rainfall: Nil at numerous locations to 9.2 mm at Roundstone
Temperature: Lowest max. 13.0°C at Knock Apt, Belderrig, highest max. 16.8°C at Glengarriff (Ilnacullin). Lowest min. 4.5°C at Kilkenny (Greenshill), highest min. 12.6°C at Mace Head
Sunshine: Nil at numerous locations to 1.6 hours at Ballincurrig (Peafield)

Thursday 22nd: Scattered showers continued overnight but died out shortly after dawn. Dry for much of the day, patchy light rain began to affect the Southwest in the late evening. It was mild for October. Winds were fresh to strong, southwest to northwest.
Rainfall: Nil at numerous locations to 8.3 mm at Dereen
Temperature: Lowest max. 12.4°C at Knock Apt, highest max. 16.0°C at Waterford (Tycor). Lowest min. 6.6°C at Dundalk (Annaskeagh WW), Clonroche (Knoxtown), highest min. 12.1°C at Sherkin Island
Sunshine: 0.4 hours at Sherkin Island to 7.5 hours at Arklow (Ballyrichard Hse)

Friday 23rd: Mostly dry overnight and into the morning. Rain moved in from the Atlantic around midday and pushed eastwards across the country, mainly affecting the West and North during the afternoon. The evening saw further rain move in affecting all counties by midnight. Winds were moderate to fresh, southwesterly.
Rainfall: Nil at Fairyhouse Racecourse to 48.6 mm at Kylemore Abbey Gardens
Temperature: Lowest max. 11.5°C at Mullagh (Carrowlagan), highest max. 15.3°C at Shannon Airport. Lowest min. 6.9°C at Casement, highest min. 10.9°C at Sherkin Island
Sunshine: Nil at numerous locations to 7.1 hours at Sherkin Island

Saturday 24th: Some heavy and persistent rain overnight affecting all parts of the country, clearing to quite scattered showers mainly in the West. Cool and clear in other parts towards nightfall with some fog and mist patches and light frost. Winds were moderate to fresh, southwest to northwest.
Rainfall: Nil at numerous locations to 10.6 mm at Malin Head
Temperature: Lowest max. 9.8°C at Knock Apt, highest max. 14.0°C at Mullagh (Carrowlagan). Lowest min. 4.1°C at Ballina Golf Club, highest min. 9.6°C at Sherkin Island
Sunshine: 4.6 hours at Newport (Furnace) to 8.1 hours at Cork Apt

Sunday 25th: Some fog, mist and frost patches overnight in the East and Midlands. Patchy rain and drizzle mainly affecting the West and Northwest, became more persistent in the South towards nightfall. Apart from this, it was quite dry and overall a mostly cloudy day with mild conditions. Winds were moderate to fresh, south to southwest.
Rainfall: Nil at numerous locations to 28.1 mm at Lombardstown (Drompeach)
Temperature: Lowest max. 10.5°C at Knock Apt, highest max. 15.0°C at Valentia Obs, Dooks. Lowest min. 0.5°C at Dungarvan(Carriglea), highest min. 9.9°C at Ballycroy (Knockmoyleen)
Sunshine: Nil at numerous locations to 1.9 hours at Dungarvan (Carriglea)

Monday 26th: Rain in the South and Southwest in the morning, heavy in places, spreading countrywide by afternoon but clearing to more isolated showers in most parts by evening. Winds were fresh to strong, southeasterly.
Rainfall: Nil at Greencastle to 41.1 mm at Glenmacnass
Temperature: Lowest max. 12.4°C at Knock Apt, Ballinamore, highest max. 16.5°C at Dungarvan (Carriglea). Lowest min. 4.5°C at Raphoe (Tops), Adare Manor, highest min. 11.5°C at Sherkin Island, Maam Valley
Sunshine: Nil at numerous locations to 1.9 hours at Belmullet

Tuesday 27th: There was persistent rain early in the morning, however the rain moved northeastwards and dissipated later in the day. The weather was quite mild due to the direction of the wind and the southwest had the best of the sunshine, staying mostly cloudy elsewhere. Winds were light to moderate, southeasterly.
Rainfall: Nil at numerous locations to 21.2 mm at Cloone Lake (Caragh River Area)
Temperature: Lowest max. 11.3°C at Slieve Bloom Mtns (Nealstown), highest max. 15.1°C at Dungarvan (Carriglea), Listowel (Gurtocloghane). Lowest min. 8.0°C at Ballycroy (Knockmoyleen), highest min. 12.7°C at Casement
Sunshine: Nil at numerous locations to 5.7 hours at Sherkin Island

Wednesday 28th: Dry in some areas in the morning with some patches of mist or fog. There were showers in Munster and the eastern half of Leinster. These continued through the day. Ulster was largely dry with sunny spells. Winds were light to moderate, southeasterly.
Rainfall: 1.7 mm at Castlebar (Burren), Crossmolina(Castlehill), Cashel (Ballydoyle Hse) to 25.6 mm at Glenvickee (Caragh River Area)
Temperature: Lowest max. 12.0°C at Cavan (Drumconnick), highest max. 16.5°C at Castleconnell. Lowest min. 1.2°C at Mt Dillon, highest min. 11.5°C at Valentia Obs, Sherkin Island
Sunshine: 1.7 hours at Arklow (Ballyrichard Hse) to 6.9 hours at Belmullet

Thursday 29th: Heavy rain spread eastwards overnight with strong and gusty winds. The rain cleared the east coast by early morning. The afternoon was mainly dry with just the odd shower in southern parts. The evening and night continued dry, with some cloud and light drizzle in some southern areas. Winds were moderate to fresh, southeast to southwest.
Rainfall: Nil at numerous locations to 47.8 mm at Glenvickee (Caragh River Area)
Temperature: Lowest max. 11.4°C at Belderrig, highest max. 15.8°C at Mallow (Spa House). Lowest min. 3.8°C at Markree, highest min. 10.6°C at Sherkin Island
Sunshine: 1.5 hours at Sherkin Island to 7.0 hours at Ballyshannon (Cathleen's Fall)

Friday 30th: Rain over the South during the night, but dry over the northern half of country. Rain and drizzle spread northwards during the morning, with a clearance to the south. Patchy rain and drizzle for the rest of the day with some sunny breaks also. Winds were moderate to fresh, southeasterly.
Rainfall: Nil at numerous locations to 24.9 mm at Kenmare (Dereen)
Temperature: Lowest max. 13.8°C at Slieve Bloom Mtns (Nealstown), highest max. 17.0°C at Shannon Airport. Lowest min. 4.9°C at Slieve Bloom Mtns (Nealstown), highest min. 11.0°C at Sherkin Island
Sunshine: Nil at numerous locations to 3.0 hours at Casement

Saturday 31st: Overnight rain in the South and East moved northeastwards and cleared by midday. The afternoon and evening were mostly dry, with some mist and fog patches developing after dusk. Winds were light to moderate, southeast to southwest.
Rainfall: Nil at numerous locations to 4.5 mm at Castlebar (Burren)
Temperature: Lowest max. 13.0°C at Belderrig, highest max. 17.8°C at Dublin (Glasnevin). Lowest min. 9.0°C at Ballycroy (Knockmoyleen), highest min. 12.8°C at Sherkin Island
Sunshine: Nil at Arklow (Ballyrichard Hse) to 7.1 hours at Belmullet

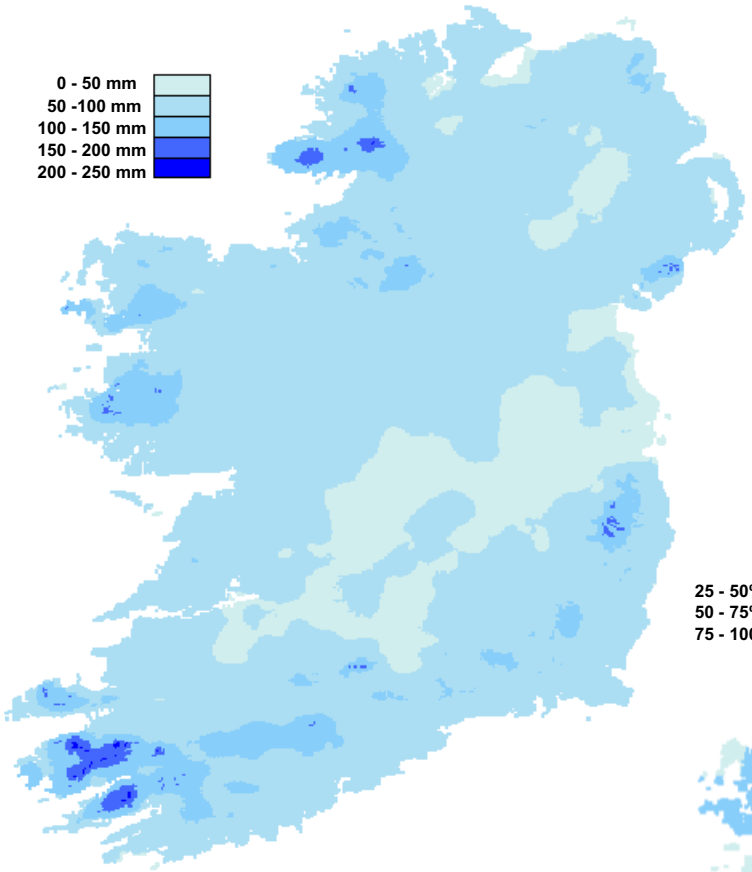
BELOW LTA RAINFALL EVERYWHERE

All stations across the country reported below Long-Term Average (LTA) rainfall for October. Scattered isolated stations in Cork, Donegal, Kerry, Kilkenny, Limerick, Westmeath and Wicklow reported a dry spell *(a period of 15 or more consecutive days to none of which is credited 1.0 mm)* of varying lengths between the 1st and 24th. The longest 'dry spell' was reported at Devlin Castle, Co Limerick with 19 days between the 1st and 19th, attributing to its driest October since 2007 with a monthly total of 47.4 mm. Percentage of LTA values were lowest at Newcastle West (Castle Demesne), Co Limerick with 30% with a monthly rainfall accumulation of 38.2 mm, its driest October since the station opened in 1992. Nearly half of stations reported drier October conditions in 2007 and 2010, with a few isolated stations the Southwest reporting their driest October in at least 30 years. The longest series of observations exceeded was at Castlemahon (Water Works), Co Limerick with its driest October since the station opened in 1982 with a monthly total of 38.7 mm (34% of LTA). The month's highest percentage of LTA was at a gauge in the Moanbane Mountains, Co Wicklow with 83% of LTA with a monthly total of 132.0 mm. Monthly rainfall totals in low-lying areas (regions below 200 m) ranged from 30.9 mm at Dublin (Ringsend), its lowest for October since 2007 to 186.4 mm (73% of LTA) at Glenvickee (Caragh River area), Co Kerry. The highest monthly rainfall accumulation was at a gauge in the Cummeragh Mountains, Co Kerry with 236.9 mm (67% of LTA), its driest October since 2007. The month's wettest day was reported on the 23rd at Kylemore Abbey Gardens, Co Galway with 48.6 mm.

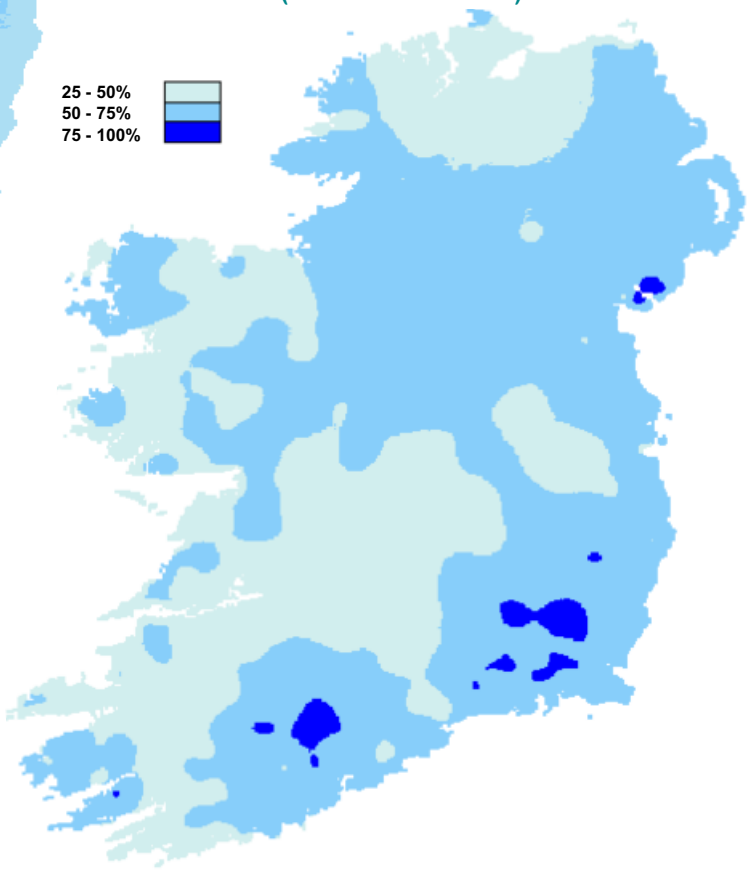
COUNTY/ STATION	TOTAL AMOUNT (mm)	% OF 1981-2010 AVERAGE	MOST IN A DAY / DATE		NUMBER OF RAINDAYS (≥0.2mm)	NUMBER OF WETDAYS (≥1mm)
CO CARLOW						
CARLOW (OAK PARK)	56.7	61	14.9	26	15	10
CO CAVAN						
BALLYHAISE	64.8	62	16.1	23	18	10
CO CLARE						
CARRON	84.5	48	21.1	23	15	10
SHANNON AIRPORT	49.8	47	12.3	26	11	9
CO CORK						
BALLINCURRIG (PEAFIELD)	93.3	64	18.7	23	16	12
CORK AIRPORT	82.6	60	14.6	23	17	11
FERMOY (MOORE PARK)	70.1	62	23.5	23	14	11
ROCHE'S POINT	55.1	51	11.5	23	17	10
SHERKIN ISLAND	52.8	41	11.9	28	18	9
CO DONEGAL						
BALLYSHANNON(CATHLEEN'S FALL)	86.2	68	20.4	20	15	11
GLENTIES HATCHERY	103.9	58	33.7	23	15	14
MALIN HEAD	71.7	59	20.2*	23	14*	10*
CO DUBLIN						
CASEMENT AERODROME	39.4	48	7.7	23	12	9
DUBLIN (MERRION SQUARE)	40.8	55	7.6	26	11	10
DUBLIN AIRPORT	49.0	62	11.7	4	11	9
DUBLIN (PHOENIX PARK)	45.8	58	10.8	4	11	10
CO GALWAY						
MAAM VALLEY	110.8	38	33.5	23	16	15
CO KERRY						
ARDFERT (LISCAHANE)	68.0	51	27.2	23	16	9
VALENTIA OBSERVATORY	96.1	54	27.6	23	15	11
CO KILKENNY						
THOMASTOWN	----------not available----------					
CO LIMERICK						
MOUNT RUSSELL	100.9	70	23.6	23	15	12
CO MAYO						
BELMULLET	76.2	52	19.8	23	18	12
DELPHI LODGE	116.9		41.2	23	17	15
KNOCK AIRPORT	78.6	56	19.5	23	19	13
STRAIDE	56.6	41	19.1	23	14	11
CO MEATH						
WARRENSTOWN	49.5	54	10.0	27	13	10
CO MONAGHAN						
CARRICKMACROSS (DUNOGE)	54.7	58	10.6*	27	15*	9*
CO OFFALY						
DERRYGREENAGH	55.0	55	20.1	26	13	9
CO ROSCOMMON						
MOUNTDILLON	71.4	64	21.0	23	15	9
CO SLIGO						
ARDTARMON	70.2	60	21.0	23	14	11
CO TIPPERARY						
FETHARD (PARSONSHILL)	50.0	46	10.2	23	15	13
GURTEEN (AG.COLLEGE)	43.7	42	13.4*	23	13*	9*
CO WATERFORD						
DUNGARVAN (CARRIGLEA)	79.3	58	19.2	23	13	12
WATERFORD (TYCOR)	77.5	67	19.5	26	14	11
CO WESTMEATH						
MULLINGAR	57.3	55	20.2*	26	16*	8*
CO WEXFORD						
CLONROCHE (KNOXTOWN)	84.1		24.3	26	16	13
JOHNSTOWN CASTLE	71.8	59	20.0	26	18	11
CO WICKLOW						
ASHFORD (CRONYKEERY)	69.1	64	22.2	26	13	10

* ESTIMATED DATA USED IN CALCULATION. TABLE REPRESENTS DATA FROM A SMALL SELECTION OF RAINFALL STATIONS. ALL DATA IS 09-09 HR

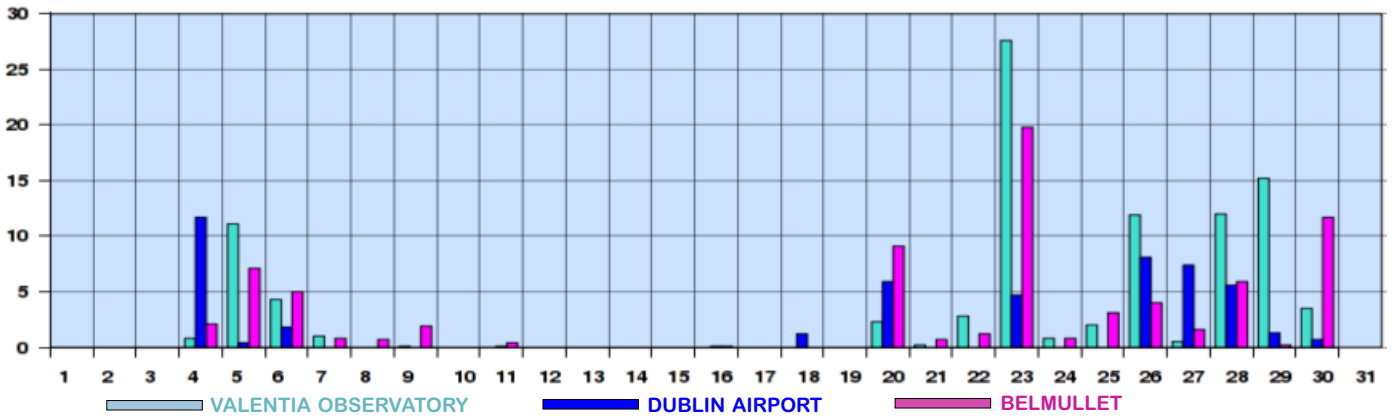
TOTAL RAINFALL (mm)



PERCENTAGE OF NORMAL RAINFALL (1981-2010 NORMALS)



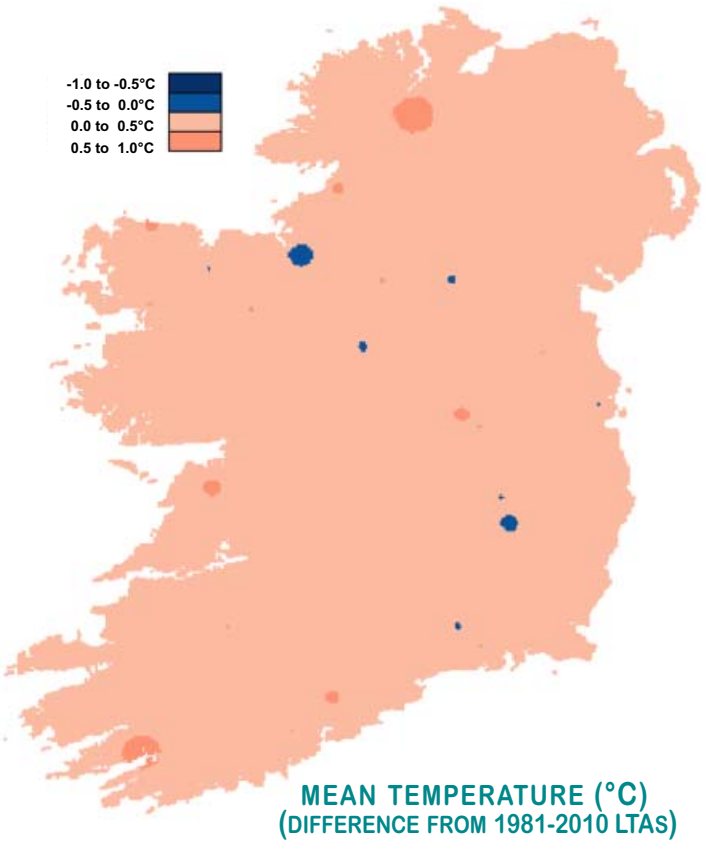
DAILY 0901-0900hr RAINFALL VALUES (mm)



MAINLY ABOVE LTA

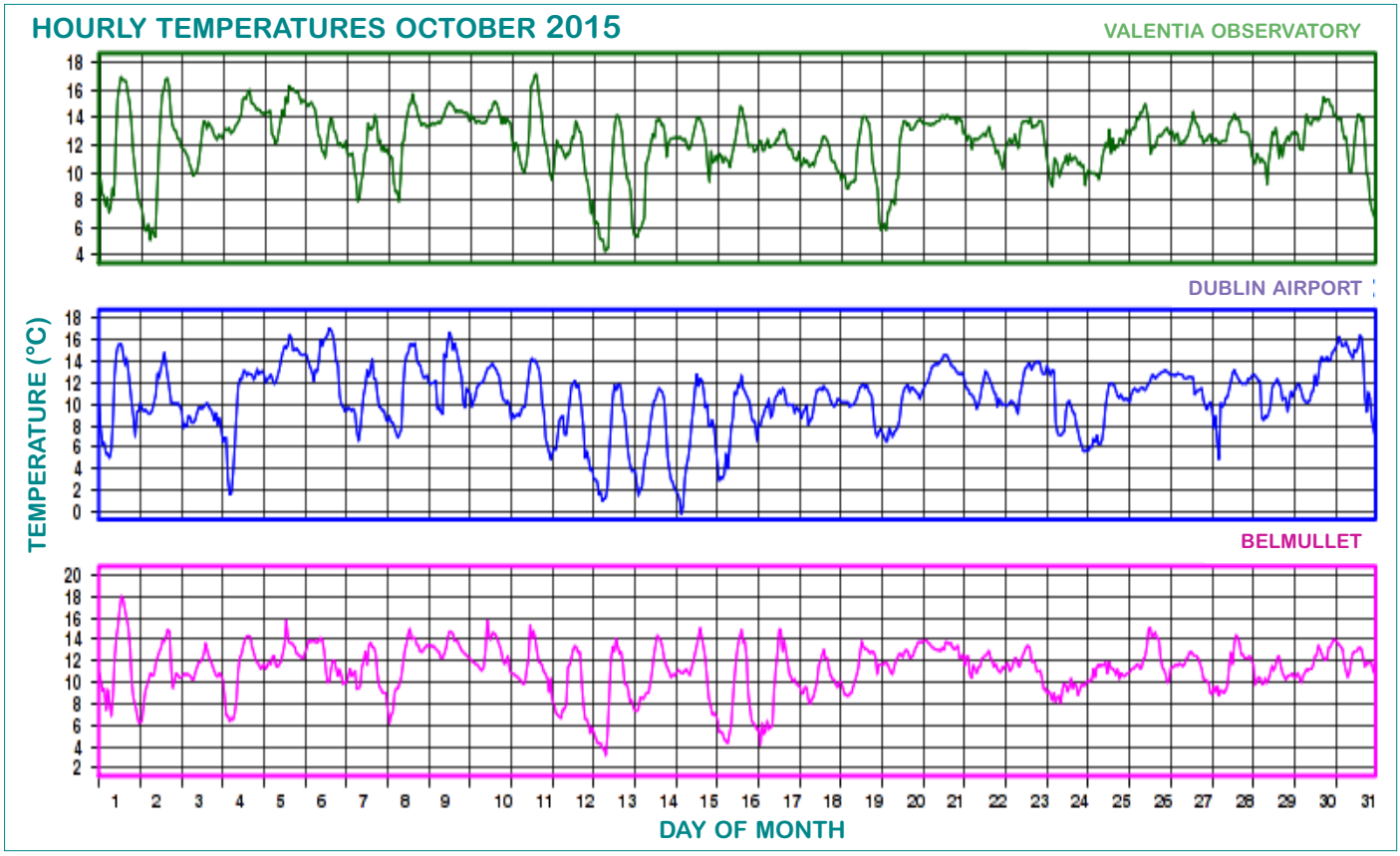
MEAN AIR TEMPERATURES

The majority of stations reported above Long-Term Average (LTA) mean air temperatures for October, with scattered isolated stations reporting below LTA values. Deviations below LTA were largest at Markree, Co Sligo with -0.7°C where the month's lowest mean temperature of 9.5°C was also recorded. The largest deviation above LTA was 0.8°C recorded at four different stations; Glengariff (Ilnacullin), Co Cork (mean temperature of 12.0°C), Ballincurrig (Peafield), Co Cork (mean temperature of 10.9°C), Derrygreenagh, Co Offaly (mean temperature of 10.4°C) and Ballyshannon (Cathleen's Fall), Co Donegal (mean temperature of 11.1°C). The month's highest monthly mean air temperature was reported at Sherkin Island Co Cork with 12.4°C (0.4°C from LTA). Nearly all stations with reported warmer October conditions in 2013 and 2014.



MEAN TEMPERATURE (°C)
(DIFFERENCE FROM 1981-2010 LTAS)

The majority of highest maxima recorded at stations were reported at the start of the month with most highest maxima reported on the 1st, 6th and 8th. Highest maxima ranged from 15.5°C at Johnstown Castle, Co Wexford on the 21st to 19.8°C at Glengariff (Ilnacullin) on the 1st, its highest October temperature in five years. Most lowest air and grass minimum temperatures were reported between the 13th and the 17th. Lowest minimum air temperatures ranged from -2.0°C at Markree on the 17th to 6.1°C at Roche's Point Co Cork, on the 13th its highest minima since 2009. Lowest grass minima ranged from -6.5°C on the 14th at Castleconnell, Co Limerick to 3.4°C on the 8th at Ballycroy (Knockmoyleen), Co Mayo.



COUNTY/ STATION	MEAN MAX.	MEAN MIN.	DIFFERENCE FROM 1981-2010 MEAN	DIFFERENCE FROM 1981-2010 AVERAGE	HIGHEST MAX./DATE		LOWEST MIN./DATE		LOWEST GRASS MIN./DATE		DAYS WITH FROST AIR	DAYS WITH FROST GROUND
CO CARLOW												
CARLOW (OAK PARK)	14.2	6.4	10.3	-0.3	19.1	1	0.3	15	-5.1	15	0	11
CO CAVAN												
BALLYHAISE	13.7	6.1	9.9	-0.3	18.4	6	-0.7	13	-2.1	13	1	5
CO CLARE												
CARRON	13.5	7.8	10.6	0.7	16.1	6	4.2	25	1.6	4	0	0
SHANNON AIRPORT	14.6	7.9	11.3	0.1	17.0	30	2.2	14	0.0	14	0	0
CO CORK												
BALLINCURRIG (PEAFIELD)	14.1	7.7	10.9	0.8	17.8	1	3.9	13, 25	2.5	25	0	0
CORK AIRPORT	13.7	8.4	11.0	0.5	16.4	6	3.5	25	-1.4	25	0	1
FERMOY (MOORE PARK)	14.4	6.7	10.5	0.2	17.3	1	0.2	14	-1.8	14	0	4
ROCHE'S POINT	14.3	9.9	12.1	0.5	16.3	1	6.1	13	1.0	14	0	0
SHERKIN ISLAND	14.5	10.3	12.4	0.4	16.3	1	6.0	13	2.1	20	0	0
CO DONEGAL												
BALLYSHANNON(CATHLEEN'S FALL)	14.3	7.8	11.1	0.8	19.5	6	2.5	13			0	
GLENTIES HATCHERY	14.2	6.5	10.4	0.4	18.8	1	0.2	13	-2.6	13	0	7
MALIN HEAD	13.9	8.4	11.1	0.3	18.8	6	4.7	17	-1.2	14	0	2
CO DUBLIN												
CASEMENT AERODROME	14.1	7.0	10.5	0.2	18.1	5	-0.4	15	-3.1	13	2	6
DUBLIN (MERRION SQUARE)	14.1	8.4	11.3	-0.1	17.2	31	4.1	15			0	
DUBLIN AIRPORT	14.0	6.7	10.3	-0.2	17.7	6	-0.3	15	-3.9	15	1	5
DUBLIN (PHOENIX PARK)	14.6	7.2	10.9	0.5	18.1	6	1.5	15	-2.8	13	0	7
CO GALWAY												
MAAM VALLEY	14.5	7.7	11.1	0.4	17.3	11	2.4	14	0.7	2	0	0
CO KERRY												
ARDFERT (LISCAHANE)	14.7	7.3	11.0	0.0	18.0	1	2.6	13	0.7	13	0	0
VALENTIA OBSERVATORY	14.8	9.4	12.1	0.4	17.6	1	3.8	13	-0.3	13	0	1
CO LIMERICK												
MOUNTRUSSELL	13.6	7.5	10.6	0.4	17.0	1	3.3	13	-1.2	13	0	3
CO MAYO												
BELMULLET	14.5	8.6	11.5	0.4	18.6	1	3.0	13	-0.5	13	0	1
DELPHI LODGE	14.6	8.1	11.4	0.4	18.3	1	2.8	4			0	
KNOCK AIRPORT	12.7	6.7	9.7	0.6	16.2	6	2.7	14	1.3	12	0	0
STRAIDE	14.5	6.1	10.3	0.3	17.5	6	-0.6	17	-4.4	16	3	13
CO MEATH												
WARRENSTOWN	14.4	6.6	10.5	0.4	18.7	1	-0.4	15	-1.8	13	1	4
CO MONAGHAN												
CARRICKMACROSS (DUNOGE)	14.2	5.8	10.0	0.3	19.1	6	0.4	15	-0.5*	25	0	
CO OFFALY												
DERRYGREENAGH	14.3	6.5	10.4	0.8	18.2	6	1.1	14	0.3	13	0	0
CO ROSCOMMON												
MOUNTDILLON	14.2	5.5	9.8	-0.2	18.3	6	-1.4	13	-4.8	13	3	11
CO SLIGO												
ARDTARMON	14.7	8.0	11.3	0.5	18.9	1	3.4	13			0	
CO TIPPERARY												
FETHARD (PARSONSHILL)	13.6	7.0	10.3	0.6	17.2	1	2.9	13	-0.4	13	0	1
GURTEEN (AG.COLLEGE)	13.8	7.0	10.4	0.2	17.6	6	-0.2	13	-3.3	13	1	6
CO WATERFORD												
DUNGARVAN (CARRIGLEA)	15.5	6.8	11.1	0.1	18.5	6	0.5	25	-2.9	15	0	4
WATERFORD (TYCOR)	14.9	8.3	11.6	0.6	18.3	1	4.2	14			0	
CO WESTMEATH												
MULLINGAR	13.9	5.9	9.9	0.2	18.5	6	0.6	14	-2.5	14	0	9
CO WEXFORD												
CLONROCHE (KNOXTOWN)	14.0	6.4	10.2	0.3	17.0	1	1.0	15	-2.0	15	0	4
JOHNSTOWN CASTLE	13.9	8.9	11.4	0.3	15.5	21	5.1	15 25	0.7	15	0	0
CO WICKLOW												
ASHFORD (CRONYKEERY)	14.9	7.1	11.0	0.2	18.8	21	1.6	15	-5.3	15	0	13

* PARTIAL DATA USED IN CALCULATION. TABLE REPRESENTS DATA FROM A SMALL SELECTION OF STATIONS. ALL DATA IS 09-09 HR

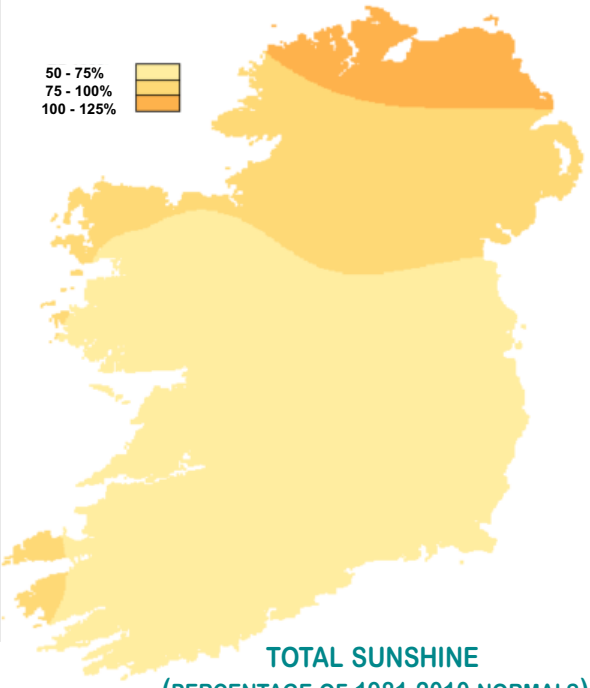
COUNTY/ STATION	DAILY MEAN (HOURS/DAY)	% OF 1981-2010 LTA	DULL DAYS (<0.5 HRS)	MOST IN A DAY/DATE	
CO CLARE					
SHANNON AIRPORT	2.54	87	8	7.5	13
CO CORK					
BALLINCURRIG (PEAFIELD)	2.44	81	9	9.7	1
CORK AIRPORT	2.64	86	9	9.4	13
SHERKIN ISLAND	2.95	90	9	9.0	13
CO DONEGAL					
BALLYSHANNON (CATHLEEN'S FALL)	3.01	117	12	8.7	1,12
CO DUBLIN					
CASEMENT AERODROME	3.07	94	7	10.2	1
DUBLIN (GLASNEVIN)	2.67	79	9	7.9	1
DUBLIN AIRPORT	2.85	85	11	10.0	1
CO KERRY					
ARDFERT (LISCAHANE)	----------not available----------				
VALENTIA OBSERVATORY*	2.82		12	9.9	1
CO MAYO					
BELMULLET*	3.50		10	11.0	1
KNOCK AIRPORT	2.34	87	12	8.5	13
NEWPORT (FURNACE)	2.39	96	11	7.3	13
STRAIDE	2.69	96	13	8.0	13
CO WATERFORD					
DUNGARVAN (CARRIGLEA)	2.45	78	11	8.6	1
CO WEXFORD					
CLONROCHE (KNOXTOWN)	2.62	87	12	9.8	1
JFK PARK	2.48	78	11	9.7	1
WEXFORD WILDFOWL RESERVE	2.74	88	12	10.3	1
CO WICKLOW					
ARKLOW (BALLYRICHARD HSE)	2.79		11	10.5	1
ASHFORD (CRONYKEERY)	2.77	85	11	9.9	1

* PARTIAL DATA USED IN CALCULATION
* SUNSHINE DURATION DERIVED FROM AUTOSOL INSTRUMENTS. LONG-TERM AVERAGE COMPARISONS ARE NOT USED WITH AUTOSOL READINGS.

MAINLY BELOW LTA SUNSHINE EXCEPT IN THE NORTH

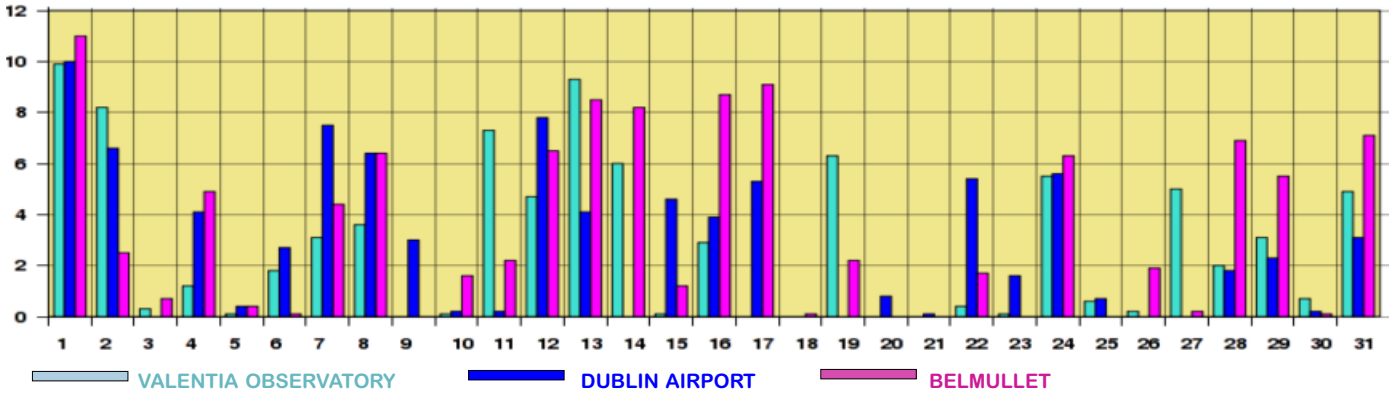
Percentage of Long-Term Average (LTA) sunshine values were nearly all below normal. The lowest percentage of LTA values was 78% at Dungarvan (Carriglea), Co Waterford (monthly total 76.1 hours, its dullest since 2005) and at JFK Park, Co Wexford (monthly total 77.0 hours, its dullest since 1996). The month's lowest sunshine total was reported at Knock Airport, Co Mayo with 72.5 hours (87% of LTA).The highest percentage of LTA was at Ballyshannon (Cathleen's Fall), Co Donegal with 117% (monthly total of 93.4 hours). The highest daily sunshine was 11.0 hours on the 1st at Belmullet, Co Mayo with the station also reporting the October's highest monthly sunshine total with 108.4 hours.

Percentage of global solar radiation LTA values were all above LTA ranging from 102% at Valentia Observatory, Co Kerry to 116% at Malin Head, Co Donegal.

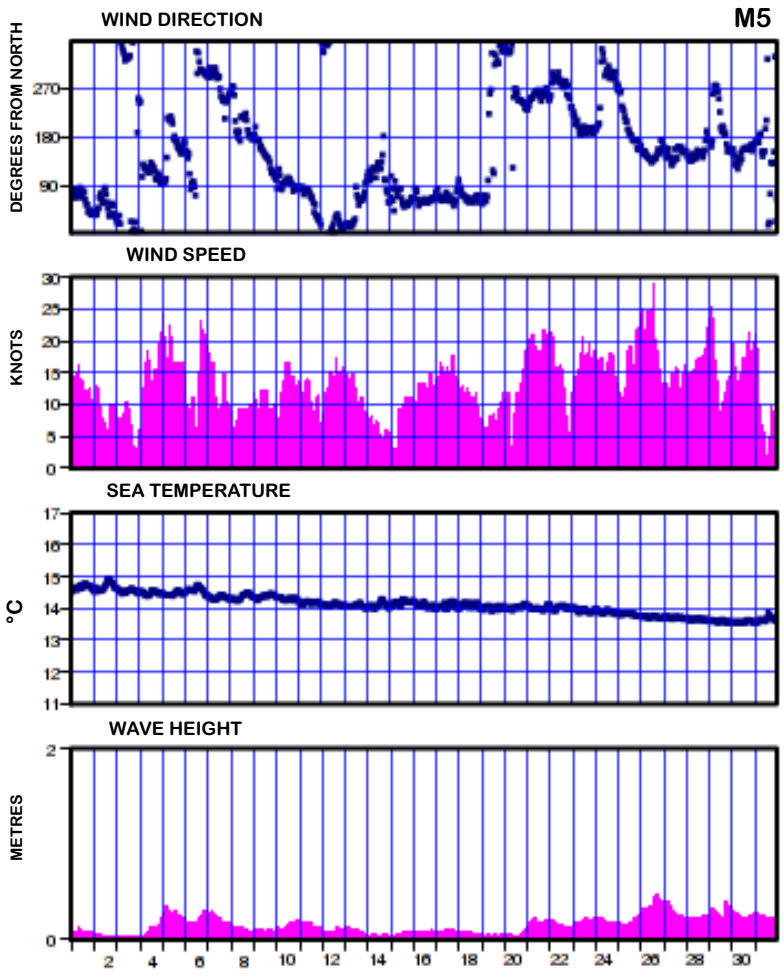


TOTAL SUNSHINE
(PERCENTAGE OF 1981-2010 NORMALS)

DAILY SUNSHINE VALUES (HOURS)



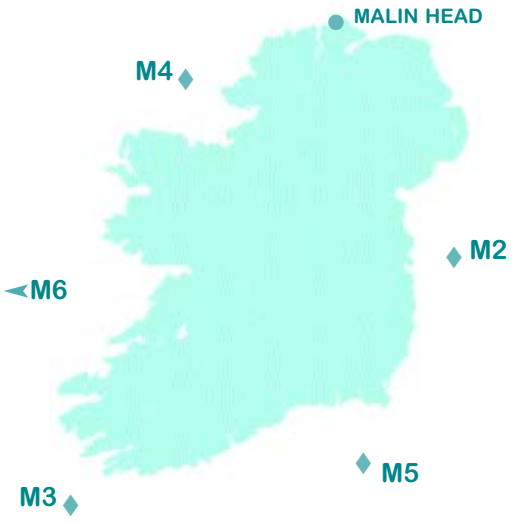
MARINE OBSERVATIONS FROM IRISH MARINE DATA BUOY NETWORK



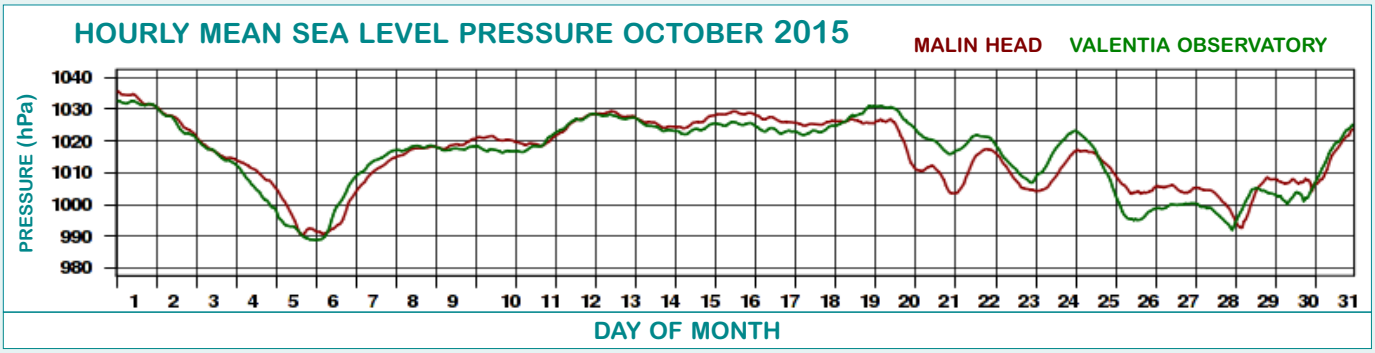
HOURLY SEA TEMPERATURE AND WAVE CONDITIONS AT M5 51° 41' 24" N 6° 42' 16" W

BUOY	SEA SURFACE TEMP. (°C)	MEAN WIND SPEED (knots)	MAX 10-MIN WIND (knots)	MEAN SIGNIFICANT WAVE HEIGHT (m)	MAX SIGNIFICANT WAVE HEIGHT (m)
M2	14.0	12.4	30.6	0.9	3.1
M3	n/a	13.2	28.6	2.7	7.3
M4	13.3	14.3	29.6	n/a	n/a
M5	14.1	12.3	29.0	1.5	4.8
M6	13.7	16.7	39.0	3.2	9.1
MALIN HEAD	13.0	* PARTIAL DATA			

SUMMARY OF MEAN MONTHLY VALUES

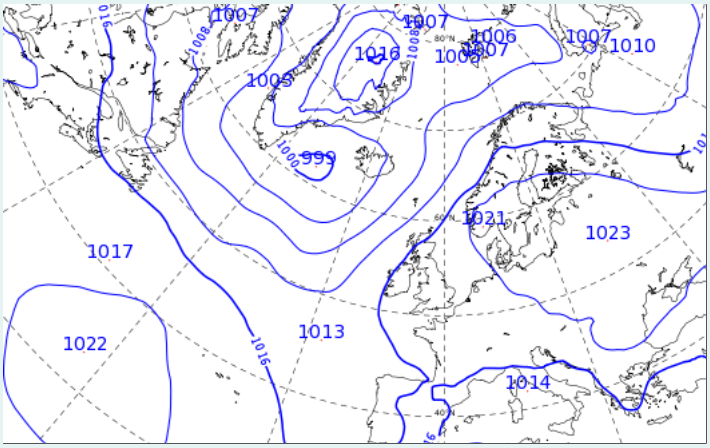


HOURLY MEAN SEA LEVEL PRESSURE OCTOBER 2015



ATMOSPHERIC PRESSURE

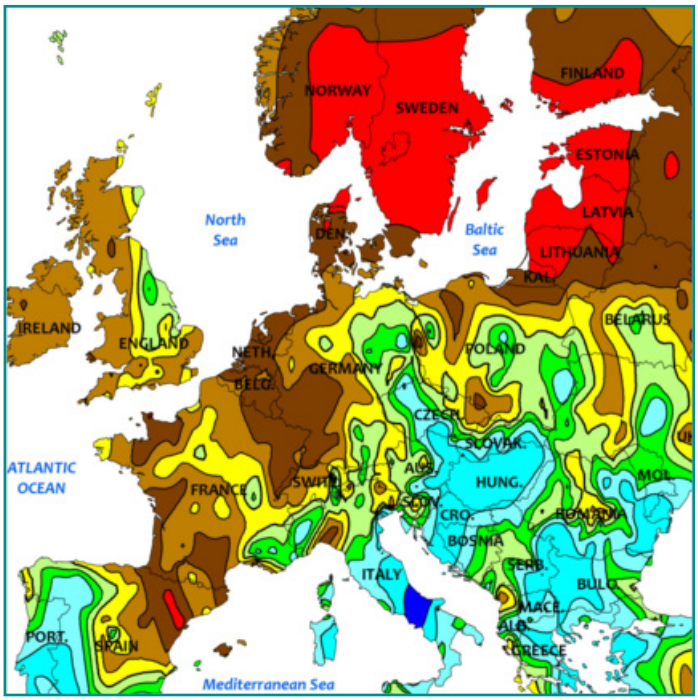
Monthly mean sea level pressure values ranged from just below 1015 hPa in the West to just above 1017 hPa in the East. The month's lowest pressure value of 988.7 hPa was recorded at Mace Head, Co Galway on the 6th as a large low pressure centre of 987 hPa was near the western half of Ireland. The month's highest pressure value was 1035.6 hPa recorded at Donegal stations of Malin Head and Finner and at Knock Airport, Co Mayo on the 1st as a anticyclone of 1038 hPa parts of the UK and the North Sea.

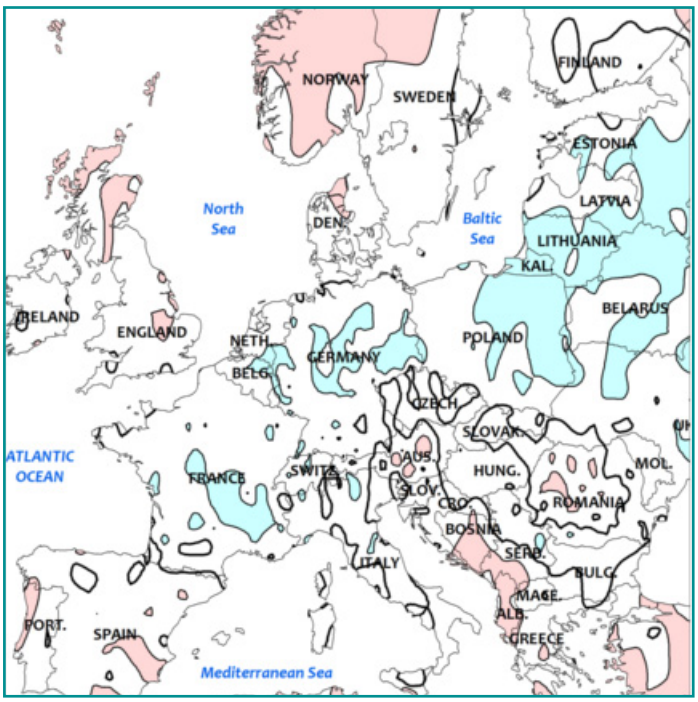


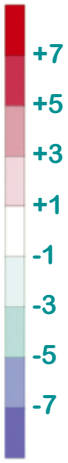
MONTHLY MEAN MSL PRESSURE, BASED ON 1200 UTC VALUES

OCTOBER RAINFALL
(PERCENTAGE OF 1961-1990 NORMAL)









OCTOBER MEAN TEMPERATURE
(DIFFERENCE FROM 1961-1990 NORMAL)

MAPS SUPPLIED BY **NOAA** CLIMATE PREDICTION CENTRE, **US** DEPARTMENT OF COMMERCE. GLOBAL WEATHER HIGHLIGHTS SUPPLIED BY AON BENFIELD

GLOBAL WEATHER SUMMARY

The remnants of Hurricane Patricia along with an area of low pressure brought extremely heavy rainfall to parts of Texas, Louisiana and the rest of the Gulf Coast between the 24th and 26th. Flash flooding reported and some rivers burst their banks. Torrential rain and severe thunderstorms killed at least six people.

Parts of Italy and the Balkan countries were hit by major storms from the 14th to the 16th; that brought heavy rainfall and caused flash floods. Five deaths were reported in Italy due to damage to residential homes and vehicles. Flooding was also reported in parts of Croatia as rivers overflowed their banks.

Super Typhoon Koppu made landfall in the Philippines as a strong category 4 typhoon on the 18th. The storm brought tremendous rainfall and flooding causing the deaths of 62 people.

Hurricane Patricia became the strongest tropical cyclone ever recorded in the Western Hemisphere when its maximum sustained wind speeds reached 175 knots *(325 km/h)* and its central pressure dropped to 879 hPa. The storm made landfall on October 23rd as a Category 5 hurricane near Cuixmala, Mexico. At least 14 fatalities were attributed to the storm, but this would have been substantially worse had the storm tracked to the north or south.

Southwestern Algeria was affected by heavy rainfall and flooding between the 16th and 25th causing widespread devastation. At least 25,000 people lost their homes and there was huge damage to properties, public buildings and agriculture.

A series of supercell thunderstorms led to widespread damage in multiple communities in southeastern Queensland on the 27th and 28th. The towns of Fernvale and Chinchilla were worst affected as high winds, hail, and flooding rains accompanied the storms. Hail accumulated up to 7.5 cm in some isolated locations.