

# Waves Research: 2007-2009

MONTH	WAVE HT.	PERIOD	DIRECTION	DAY	HOUR
SEPT 2007	4.3 m	11.8 /s	339°	25	20
OCT 2007	3.7 m	11.7 /s	336°	29	22
NOV 2007	4.0 m	11.7 /s	339°	20	8
DEC 2007	9.3 m	15.4 /s	333°	10	1
SEPT 2008	5.7 m	13.3 /s	317°	11	23
OCT 2008	4.2 m	11.1 /s	333°	22	13
DEC 2008	8.2 m	19.9 /s	322°	14	18
SEPT 2009	3.2 m	11.7 /s	307°	2	4

Source:

[http://www.puertos.es/en/oceanografia\\_y\\_meteorologia/redes\\_de\\_medida/index.html](http://www.puertos.es/en/oceanografia_y_meteorologia/redes_de_medida/index.html) →

Maximum Heights

The following time series are from:

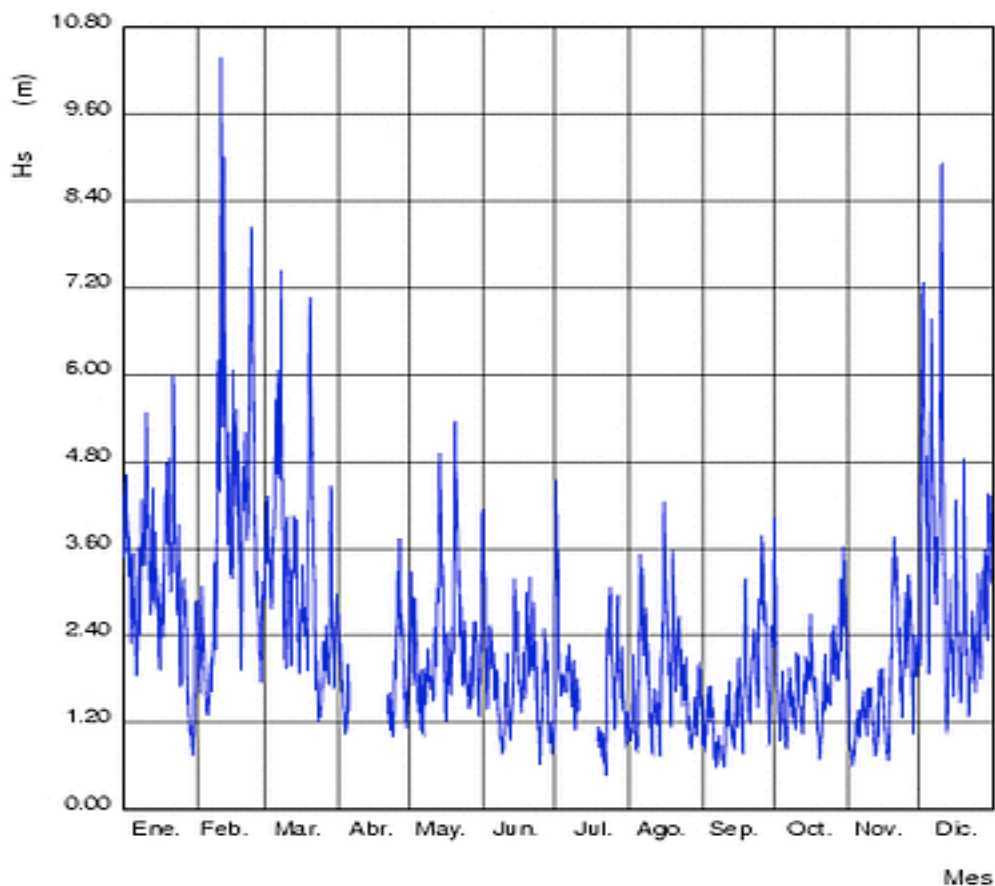
[http://www.puertos.es/en/oceanografia\\_y\\_meteorologia/redes\\_de\\_medida/index.html](http://www.puertos.es/en/oceanografia_y_meteorologia/redes_de_medida/index.html) →

Time series

## TIME SERIES: WAVE HEIGHTS 2007 ALTURA

LUGAR : Silleiro  
T. MUESTREO : 3Hor.

AÑO : 2007  
EFICACIA : 93.22 %

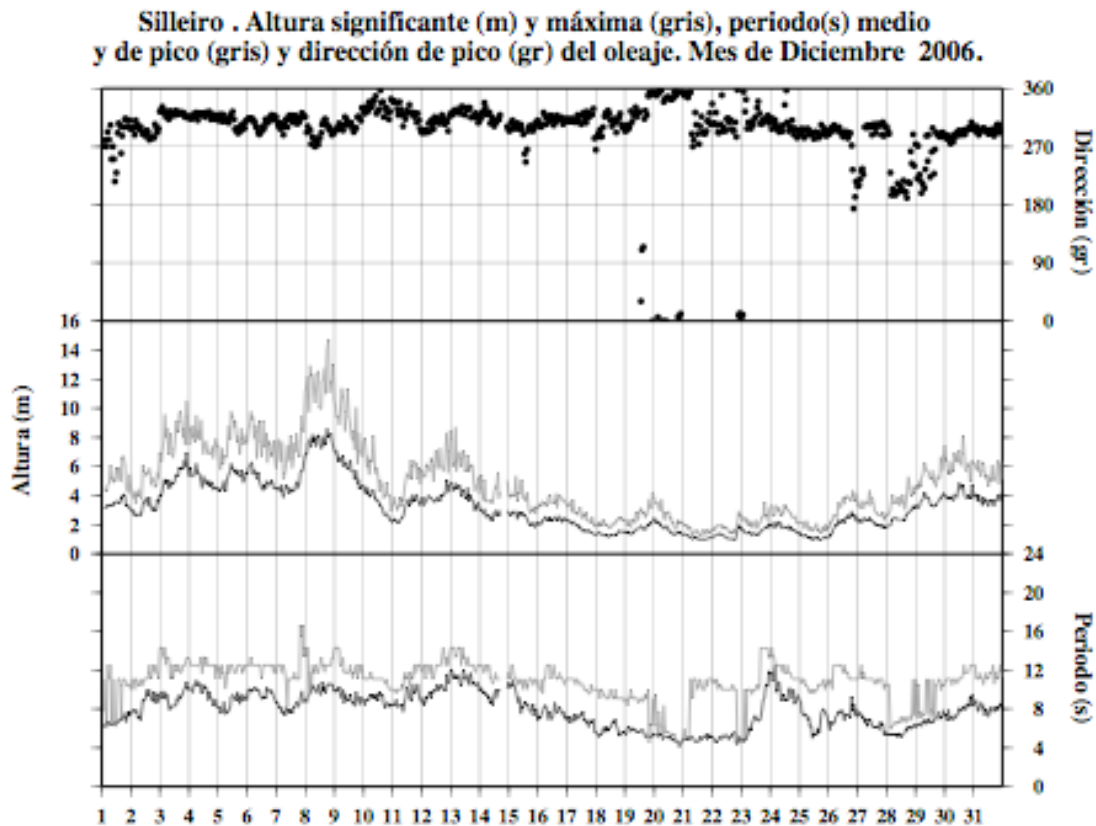


# Waves Research: 2007-2009

Dirección (grados)	Altura significativa (m)							Total
	(00-01]	(01-02]	(02-03]	(03-04]	(04-05]	(05-06]	> 06	
N 0.0	1.881	8.486	1.422	.275	-	-	-	12.064
NNE 22.5	.046	1.101	.321	-	-	-	-	1.468
NE 45.0	-	.138	-	-	-	-	-	.138
ENE 67.5	-	-	-	-	-	-	-	-
E 90.0	-	-	-	-	-	-	-	-
ESE 112.5	.046	-	-	-	-	-	-	.046
SE 135.0	-	-	-	-	-	-	-	-
SSE 157.5	-	-	-	-	-	-	-	-
S 180.0	-	.092	.138	-	-	-	-	.229
SSW 202.5	.046	.046	.688	-	-	-	-	.780
SW 225.0	-	-	.183	-	-	-	-	.183
WSW 247.5	.092	.183	.092	.092	-	-	-	.459
W 270.0	.872	2.752	1.101	.917	.046	-	-	5.688
WNW 292.5	3.761	10.459	1.789	.138	-	-	-	16.147
NW 315.0	4.312	12.569	5.917	.780	-	-	-	23.578
NNW 337.5	5.596	19.358	10.046	4.128	.092	-	-	39.220
<b>Total</b>	16.651	55.183	21.697	6.330	.138	-	-	100 %

The above compares wave propagation and wave height: SEPT-NOV 2007  
Waves Data Report: 2007, page 19

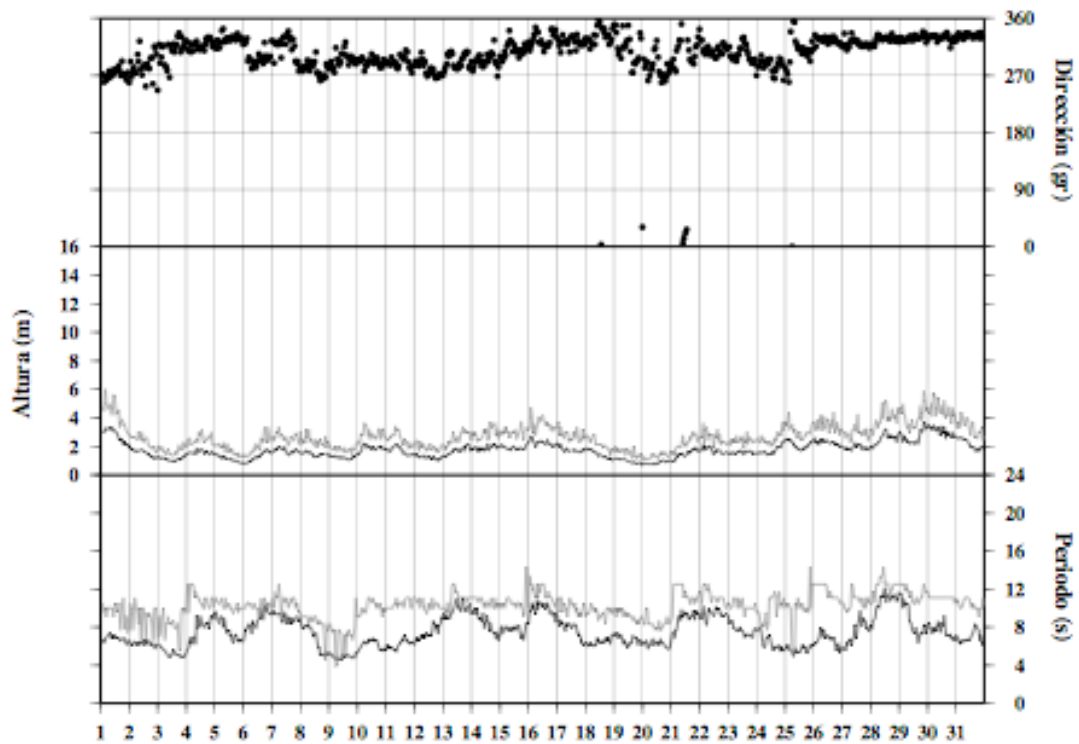
The below are average wave heights of each day (black line) and the maximum wave height (gray line). From Waves Data Report, pages 3 and 4.  
December 2006:



October 2007:

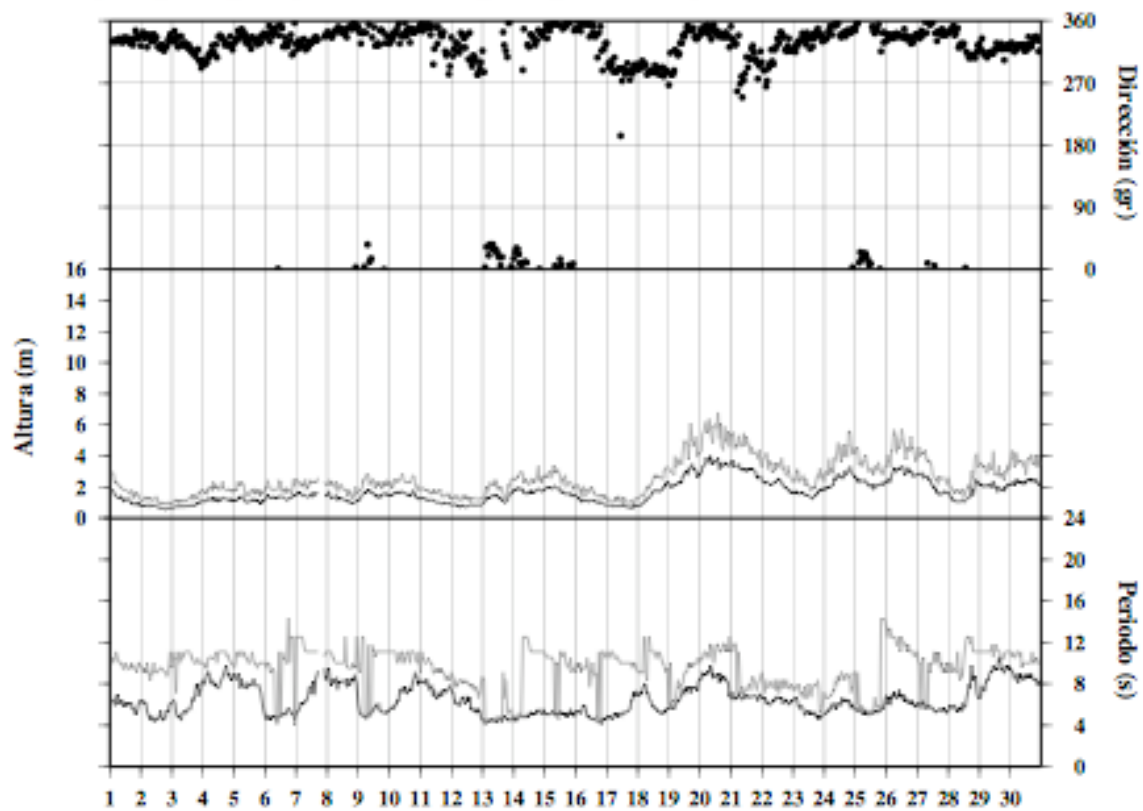
# Waves Research: 2007-2009

Silleiro . Altura significativa (m) y máxima (gris), periodo(s) medio y de pico (gris) y dirección de pico (gr) del oleaje. Mes de Octubre 2007.



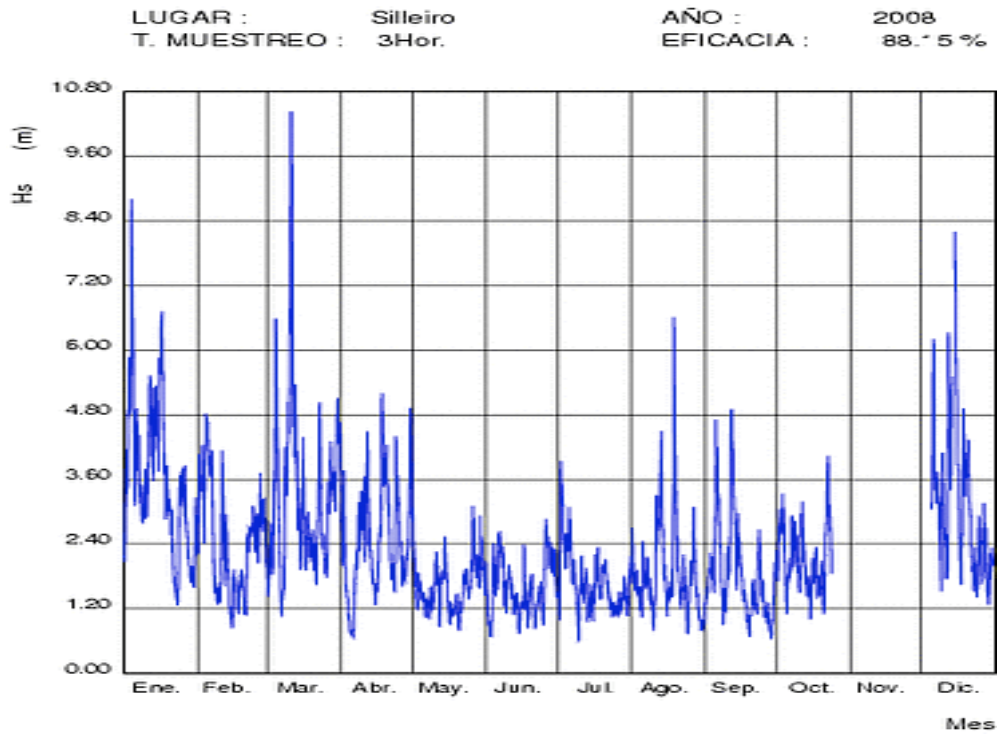
November 2007:

Silleiro . Altura significativa (m) y máxima (gris), periodo(s) medio y de pico (gris) y dirección de pico (gr) del oleaje. Mes de Noviembre 2007.

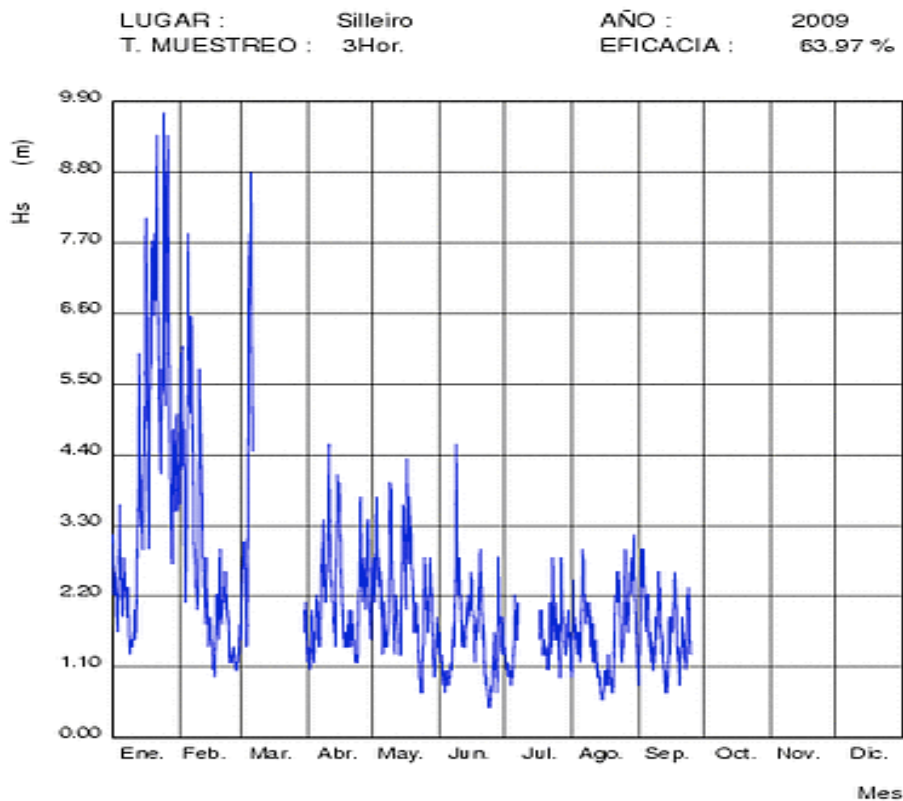


# Waves Research: 2007-2009

TIME SERIES: WAVE HEIGHTS IN 2008  
ALTURA



SERIES: WAVE HEIGHTS IN 2009  
ALTURA



Please note that 2008 and 2009 do NOT have data reports available. Therefore most of the graphs available for 2007 are not available for 2008 and 2009.

# Waves Research: 2007-2009

## WEATHER REPORTS OF MAXIMUM WAVE HEIGHTS (2007-2009)

The following weather reports are from wunderground.com

### SEPTEMBER 25, 2007:

<http://www.wunderground.com/history/airport/LEVX/2007/9/25/DailyHistory.html>

Observations:

1. At 19:30, winds increased from 13.8 mph to 16.1 mph. At 20:00, winds decreased to 12.7 mph.
2. September 24, 2007: Report indicated fog and light rain. Vigo was clear past 04:30
3. There was no record of precipitation at 20:00; all other times either had n/a's or specifics.

### OCTOBER 29, 2007:

<http://www.wunderground.com/history/airport/LEVX/2007/10/29/DailyHistory.html>

Observations:

1. The entire day is mostly cloudy. It rains 0700-0900.
2. Weather clears at 2200, when the wave height is the largest.
3. Wind direction is "variable" at 2000
4. Winds were in the double digits (>10 mph) past 1200.

### NOVEMBER 20, 2007:

<http://www.wunderground.com/history/airport/LEVX/2007/11/20/DailyHistory.html>

Observations:

1. Fog and clouds all day. There was rain at 1530.
2. There was light rain, all day, the day before: 11/19/07.

### DECEMBER 10, 2007:

<http://www.wunderground.com/history/airport/LEVX/2007/12/10/DailyHistory.html>

Observations:

1. It started to rain 0100, when the maximum wave height occurred.
2. Wind speed was 7mph, which was faster than the past few hours.
3. Wind was NW versus NNW; NNW was the most common direction of waves in the morning
4. The day before: light drizzle/rain in morning, clouds in afternoon. Wind speeds were 6.2 mph towards the end of the day

### SEPTEMBER 11, 2008:

<http://www.wunderground.com/history/airport/LEVX/2008/9/11/DailyHistory.html>

Observations:

1. Clear all day
2. The max wave height was at 2300. At 2250, winds were at 9.2 mph, at 2300 they were 4.6
3. Winds between 8-12 mph from 1800-2250.

### OCTOBER 22, 2008:

<http://www.wunderground.com/history/airport/LEVX/2008/10/22/DailyHistory.html>

Observations:

1. Gust speeds were 24-31 mph between 1200 and 2000.
2. At 1300, winds were at 15 mph. Wind gusts a half hour before were 26.5 mph and gusts a half hour later were 29.9 mph.
3. Cloudy and foggy throughout the day

### DECEMBER 14, 2008:

<http://www.wunderground.com/history/airport/LEVX/2008/12/14/DailyHistory.html>

## Waves Research: 2007-2009

Observations:

1. Rain, rain showers and thunderstorms all day: cause of turbulence
2. Wind speed at 8.1 mph on Dec. 14, wind gusts a couple of hours before went up to 35 mph. This day had a large range of wind speeds, which stirs up potential energy in the ocean.

**SEPTEMBER 2, 2009:**

<http://www.wunderground.com/history/airport/LEVX/2009/9/2/DailyHistory.html>

Observations:

1. Partly cloudy/clear conditions...no conditions to explain wave height
2. The maximum wave height was not big—3.2 m. Compared to the other waves, this isn't unusually large