

APÉNDICE B

**DATOS DE LAS MARÍAS GENERADOS A PARTIR DE LOS DATOS
METEOROLÓGICOS DE GAMBOA Y CUADROS CON LOS FACTORES DE
RELACIÓN MENSUAL ENTRE AMBAS ESTACIONES PARA CADA
PARÁMETRO**

GAMBOA															
PROMEDIO															
Velocidad del viento (km/hr)															
AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	PROM	AÑO	
1985	6.5	9.0	9.1	7.9	5.5	4.2	4.9	4.4	4.1	3.8	5.5	7.0	6.0	1985	
1986	9.1	7.9	9.5	7.8	6.3	5.1	6.7	5.7	4.8	3.5	4.6	7.2	6.5	1986	
1987	8.2	9.7	7.9	8.2	5.8	4.5	4.8	5.5	4.3	4.8	5.2	6.4	6.3	1987	
1988	7.4	9.1	10.3	7.1	5.0	3.7	4.2	3.2	3.7	3.6	4.0	5.6	5.6	1988	
1989	8.2	11.6	8.7	9.0	5.8	4.1	5.2	4.5	4.1	4.6	4.4	5.4	6.3	1989	
1990	7.9	8.8	9.5	8.4	5.5	5.4	5.2	5.0	4.4	3.7	4.3	5.8	6.1	1990	
1991	7.2	10.2	8.3	7.3	5.0	4.9	5.4	5.4	5.0	4.2	5.7	7.1	6.3	1991	
1992	7.8	9.0	9.8	7.6	6.4	4.1	4.4	5.3	4.0	4.6	4.0	5.6	6.0	1992	
1993	7.2	8.2	8.2	6.0	4.3	4.3	4.9	4.3	3.8	3.5	4.3	6.3	5.4	1993	
1994	7.1	8.7	8.7	7.7	5.0	4.8	5.0	4.5	5.0	3.2	4.3	5.1	5.8	1994	
1995	7.4	8.0	7.4	5.3	4.0	3.6	3.7	3.2	3.0	3.3	4.2	5.6	4.9	1995	
1996	6.3	7.7	7.7	6.2	3.6	3.7	3.9	3.7	3.2	3.4	4.2	4.6	4.9	1996	
1997	5.7	7.6	8.4	6.6	5.3	3.5	4.5	5.4	3.9	3.0	3.2	4.8	5.2	1997	
1998	6.0	5.6	7.5	6.5	4.4	3.2	3.6	3.3	2.5	3.0	2.8	4.1	4.4	1998	
1999	4.4	6.0	6.5	5.3	3.2	2.7	3.9	2.6	2.2	2.6	3.1	3.9	3.9	1999	
2000	5.0	5.1	5.1	4.9	3.5	3.4	4.1	3.3	2.8	4.3	3.8	5.0	4.2	2000	
2001	4.8	7.0	7.4	6.6	5.2	4.0	4.1	4.4	3.2	3.2	4.6	4.9	5.0	2001	
2002	5.2	6.2	6.0	6.3	4.9	3.3	4.2	4.4	2.7	3.1	3.7	4.7	4.6	2002	
2003	6.5	7.8	7.1	5.9	4.0	3.0	3.7	4.3	3.0	2.6	3.8	4.4	4.7	2003	
2004	5.4	7.3	8.9	6.1	4.4	4.2	4.2	4.0	2.9	2.2	3.4	4.3	4.8	2004	
2005	5.5	7.8	5.9	5.9	3.4	2.4	2.6	3.1	2.9	2.6	3.8	3.5	4.1	2005	
2006	4.4	6.5	6.7	5.1	3.1	2.5	2.7	2.7	2.2	2.0	2.3	2.3	3.5	2006	
2007	3.2	3.8	4.4	2.8	2.0	1.7	1.8	1.5	1.5	2.0	2.2	1.8	2.4	2007	
2008	2.1	2.9	3.1	2.9	1.7	1.3	1.3	1.2	1.2	1.3	1.7	1.5	1.8	2008	
2009	3.1	3.5	4.8	3.5	2.0	1.5	2.2	2.2	2.9	1.4	1.5	4.3	2.7	2009	
2010	4.9	6.3	7.5	4.4	3.1	2.1	2.1	2.3	2.8	2.7	3.2	5.0	3.9	2010	
2011	5.0	5.0	6.1	4.8	2.8	2.7	2.7	2.0	2.1	2.0	3.8	4.1	3.6	2011	
2012	4.5	6.7	8.3	4.4	2.5	2.6	4.0	2.2	2.6	2.4	4.6	4.4	4.1	2012	
2013	3.7	6.1	7.2	5.8	3.6	3.0	3.3	3.2	1.8	2.2	2.5	3.1	3.8	2013	
2014	4.9	6.3	6.7	6.2	4.0	4.0	4.3	3.4	2.7	2.9	3.5	4.7	4.5	2014	
2015	5.5	8.2	9.2	7.0	5.5	4.8	6.3	6.0	4.9	3.9	3.7	4.8	5.8	2015	
2016	6.2	9.1	8.4	6.6	4.8	4.4	5.3	4.7	3.8	3.4	3.6	4.8		2016	

Datos resaltados en amarillo: Período con mal funcionamiento del anemómetro.

Datos en color rojo fueron estimados

Estación Año ENE FEB MAR ABR MAY JUN JUL AGO SEP OCT NOV DIC

Las														
Marías	2006	1.23	1.54	1.59	1.09	0.78	0.88	0.75	0.80	0.66	0.96	0.91	0.96	
Gamboa	2006	4.38	6.46	6.67	5.09	3.07	2.46	2.65	2.66	2.21	2.02	2.32	2.33	
F.R.		0.28	0.24	0.24	0.21	0.26	0.36	0.28	0.30	0.30	0.47	0.39	0.41	

*F.R.: Factor de relación mensual entre Las Marías y Gamboa.

LAS MARÍAS

**PROMEDIO
Velocidad del viento (km/hr)**

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	PROM	AÑO
1986	2.5	1.9	2.3	1.7	1.6	1.8	1.9	1.7	1.4	1.7	1.8	3.0	1.9	1986
1987	2.3	2.3	1.9	1.8	1.5	1.6	1.4	1.6	1.3	2.3	2.0	2.6	1.9	1987
1988	2.1	2.2	2.5	1.5	1.3	1.3	1.2	1.0	1.1	1.7	1.6	2.3	1.6	1988
1989	2.3	2.8	2.1	1.9	1.5	1.5	1.5	1.4	1.2	2.2	1.7	2.2	1.8	1989
1990	2.2	2.1	2.3	1.8	1.4	1.9	1.5	1.5	1.3	1.7	1.7	2.4	1.8	1990
1991	2.0	2.4	2.0	1.6	1.3	1.7	1.5	1.6	1.5	2.0	2.2	2.9	1.9	1991
1992	2.2	2.1	2.3	1.6	1.6	1.4	1.2	1.6	1.2	2.2	1.6	2.3	1.8	1992
1993	2.0	2.0	2.0	1.3	1.1	1.5	1.4	1.3	1.1	1.7	1.7	2.6	1.6	1993
1994	2.0	2.1	2.1	1.6	1.3	1.7	1.4	1.3	1.5	1.5	1.7	2.1	1.7	1994
1995	2.1	1.9	1.8	1.1	1.0	1.3	1.0	1.0	0.9	1.5	1.6	2.3	1.5	1995
1996	1.8	1.9	1.8	1.3	0.9	1.3	1.1	1.1	1.0	1.6	1.6	1.9	1.4	1996
1997	1.6	1.8	2.0	1.4	1.3	1.2	1.3	1.6	1.2	1.4	1.2	2.0	1.5	1997
1998	1.7	1.3	1.8	1.4	1.1	1.2	1.0	1.0	0.7	1.4	1.1	1.7	1.3	1998
1999	1.2	1.4	1.5	1.1	0.8	1.0	1.1	0.8	0.7	1.2	1.2	1.6	1.1	1999
2000	1.4	1.2	1.2	1.0	0.9	1.2	1.2	1.0	0.8	2.1	1.5	2.0	1.3	2000
2001	1.4	1.7	1.8	1.4	1.3	1.4	1.2	1.3	0.9	1.5	1.8	2.0	1.5	2001
2002	1.5	1.5	1.4	1.4	1.2	1.2	1.2	1.3	0.8	1.5	1.4	1.9	1.4	2002
2003	1.8	1.9	1.7	1.3	1.0	1.1	1.0	1.3	0.9	1.2	1.5	1.8	1.4	2003
2004	1.5	1.7	2.1	1.3	1.1	1.5	1.2	1.2	0.9	1.1	1.3	1.8	1.4	2004
2005	1.6	1.9	1.4	1.3	0.9	0.9	0.7	0.9	0.9	1.2	1.5	1.4	1.2	2005
2006	1.2	1.5	1.6	1.1	0.8	0.9	0.8	0.8	0.7	1.0	0.9	1.0	1.0	2006
2007	0.9	0.9	1.1	0.6	0.5	0.6	0.5	0.4	0.5	1.0	0.8	0.7	0.7	2007
2008	0.6	0.7	0.7	0.6	0.4	0.5	0.4	0.4	0.3	0.6	0.7	0.6	0.5	2008
2009	0.9	0.8	1.1	0.7	0.5	0.5	0.6	0.7	0.9	0.7	0.6	1.8	0.8	2009
2010	1.4	1.5	1.8	1.0	0.8	0.8	0.6	0.7	0.8	1.3	1.2	2.1	1.2	2010
2011	1.4	1.2	1.5	1.0	0.7	1.0	0.8	0.6	0.6	1.0	1.5	1.7	1.1	2011
2012	1.3	1.6	2.0	0.9	0.6	0.9	1.1	0.7	0.8	1.1	1.8	1.8	1.2	2012
2013	1.0	1.5	1.7	1.2	0.9	1.1	0.9	1.0	0.5	1.0	1.0	1.3	1.1	2013
2014	1.4	1.5	1.6	1.3	1.0	1.4	1.2	1.0	0.8	1.4	1.4	1.9	1.3	2014
2015	1.6	1.9	2.2	1.5	1.4	1.7	1.8	1.8	1.5	1.8	1.5	2.0	1.7	2015
2016	1.7	2.2	2.0	1.4	1.2	1.6	1.5	1.4	1.1	1.6	1.4	2.0	1.6	2016
WSPromMax	2.5	11.6	10.3	9.0	6.4	5.4	6.7	6.0	5.0	4.8	5.7	7.2	7.9	
WSPromMin	0.6	2.9	3.1	2.8	1.7	1.3	1.3	1.2	1.2	1.3	1.5	1.5	1.8	
WsPromProm	1.6	7.3	7.5	6.1	4.2	3.5	4.0	3.7	3.2	3.1	3.7	4.8	4.7	

GAMBOA

PROMEDIO
TEMPERATURA del AIRE (deg C)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	PROM	AÑO
1985	24.7	25.6	25.5	26.0	26.2	25.7	25.3	25.4	25.1	25.3	25.4	25.2	25.4	1985
1986	25.3	25.0	25.8	26.3	26.4	26.2	26.2	26.0	25.5	24.7	25.6	25.8	25.8	1986
1987	25.9	26.4	26.8	26.8	26.4	26.4	26.2	26.2	25.9	25.5	25.8	26.4	26.2	1987
1988	26.2	26.4	26.5	26.9	26.6	26.2	25.9	25.9	26.0	25.4	25.6	25.8	26.1	1988
1989	26.2	25.9	25.7	27.1	26.8	26.4	26.1	25.7	25.9	25.6	25.9	25.8	26.1	1989
1990	26.4	25.7	26.4	26.9	26.7	26.9	26.4	26.3	26.3	26.2	26.8	27.0	26.5	1990
1991	27.0	27.2	27.7	28.3	27.8	27.7	27.6	27.5	27.7	26.9	27.1	27.0	27.5	1991
1992	27.2	27.7	28.2	28.6	28.1	27.5	27.0	27.3	26.9	25.8	25.3	25.6	27.1	1992
1993	25.4	25.6	26.4	26.6	26.7	26.3	26.4	26.2	25.7	25.8	24.9	25.6	26.0	1993
1994	25.3	25.5	25.8	26.6	26.2	25.6	25.9	25.5	25.6	25.1	24.9	25.5	25.6	1994
1995	25.6	25.5	26.1	26.7	26.3	26.4	25.6	25.8	26.0	25.6	25.5	25.7	25.9	1995
1996	25.4	25.8	26.2	26.7	26.4	26.0	25.5	25.5	25.5	25.6	25.1	25.7	25.8	1996
1997	25.5	26.7	26.2	27.0	27.5	26.9	27.2	27.3	26.3	26.6	26.2	26.9	26.7	1997
1998	27.0	27.3	27.7	28.0	27.5	26.8	26.3	26.0	26.1	26.2	25.7	25.7	26.7	1998
1999	26.2	25.8	26.3	26.7	26.4	25.6	25.9	25.6	25.4	25.4	25.2	24.7	25.8	1999
2000	25.6	26.1	26.3	26.8	26.2	25.7	25.7	25.9	25.3	25.3	25.8	25.5	25.8	2000
2001	25.2	25.7	25.8	26.9	26.5	26.5	25.7	26.7	25.9	26.4	26.0	26.1	26.1	2001
2002	26.9	26.9	27.2	27.4	28.0	26.7	26.6	26.3	26.2	26.0	26.1	26.7	26.8	2002
2003	26.9	27.1	27.4	27.3	26.7	26.2	25.1	25.1	24.8	24.7	24.6	24.9	25.9	2003
2004	24.8	25.7	26.4	26.1	25.7	26.6	26.3	26.2	26.2	26.1	26.1	26.6	26.1	2004
2005	26.8	26.7	27.4	27.8	26.7	27.0	26.8	26.6	26.2	26.1	25.7	26.4	26.7	2005
2006	26.9	26.8	27.3	26.8	26.6	26.5	26.5	26.5	26.1	26.1	25.8	26.5	26.5	2006
2007	27.1	26.5	27.5	27.1	26.5	26.5	26.3	25.9	26.0	25.8	25.8	25.8	26.4	2007
2008	26.1	26.4	26.8	27.4	26.7	26.6	25.8	26.0	26.5	26.2	25.3	26.3	26.3	2008
2009	26.6	26.7	26.7	27.5	26.9	26.5	26.5	26.4	26.7	26.2	25.8	26.7	26.6	2009
2010	26.6	27.4	27.6	28.0	27.5	26.6	26.1	26.2	26.1	25.6	25.1	24.5	26.3	2010
2011	25.7	26.3	26.4	26.7	27.2	26.6	26.1	26.4	26.0	25.5	25.4	25.4	26.1	2011
2012	26.1	26.1	26.8	26.6	26.6	26.6	26.5	26.0	26.1	25.7	25.8	26.2	26.3	2012
2013	26.7	26.6	26.9	27.4	26.7	26.6	26.4	26.1	26.1	25.8	26.2	26.7		2013
2014	26.6	26.5	26.7	27.5	26.9	26.9	27.5	26.8	26.1	26.1	26.3	26.4		2014
2015	26.5	26.6	26.8	27.5	26.9	28.0	26.9	26.9	26.4	26.3	26.1	27.2		2015
2016	26.3	26.8	27.0	27.4	26.8	26.7	27.0	26.4	26.1	25.9	26.3	26.6		2016

ATPromMax 27.2 27.7 28.2 28.6 28.1 28.0 27.6 27.5 27.7 26.9 27.1 27.2 27.5
ATPromMin 24.7 25.0 25.5 26.0 25.7 25.6 25.1 25.1 24.8 24.7 24.6 24.5 25.4
ATPromProm 26.1 26.3 26.7 27.1 26.8 26.5 26.3 26.2 26.0 25.8 25.7 26.0 26.3

Estación	Año	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC
Las Marías	2006	24.78	24.90	25.39	25.25	25.35	25.59	25.59	25.59	25.44	25.54	24.86	25.72
Gamboa	2006	26.89	26.75	27.35	26.82	26.62	26.52	26.47	26.45	26.14	26.09	25.80	26.53
F.R.		0.92	0.93	0.93	0.94	0.95	0.97	0.97	0.97	0.97	0.98	0.96	0.97

*F.R.: Factor de relación mensual entre Las Marías y Gamboa.

LAS MARÍAS

PROMEDIO
TEMPERATURA del AIRE (deg C)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	PROM	AÑO
1985	22.8	23.8	23.7	24.5	24.9	24.8	24.5	24.5	24.4	24.8	24.5	24.5	24.3	1985
1986	23.3	23.3	24.0	24.8	25.1	25.3	25.3	25.2	24.8	24.2	24.7	25.1	24.6	1986
1987	23.9	24.6	24.9	25.3	25.1	25.5	25.4	25.4	25.2	24.9	24.9	25.6	25.0	1987
1988	24.2	24.5	24.6	25.3	25.3	25.2	25.1	25.0	25.3	24.9	24.6	25.0	24.9	1988
1989	24.2	24.1	23.8	25.5	25.5	25.5	25.2	24.9	25.2	25.1	24.9	25.0	24.9	1989
1990	24.3	23.9	24.5	25.3	25.5	25.9	25.5	25.5	25.6	25.6	25.8	26.2	25.3	1990
1991	24.9	25.3	25.7	26.6	26.5	26.7	26.7	26.6	26.9	26.3	26.1	26.2	26.2	1991
1992	25.1	25.8	26.1	26.9	26.7	26.6	26.1	26.4	26.2	25.3	24.4	24.9	25.9	1992
1993	23.4	23.8	24.5	25.0	25.4	25.3	25.5	25.4	25.1	25.3	24.0	24.8	24.8	1993
1994	23.3	23.7	24.0	25.0	24.9	24.7	25.1	24.7	24.9	24.6	24.0	24.7	24.5	1994
1995	23.6	23.7	24.2	25.1	25.1	25.5	24.7	25.0	25.4	25.0	24.5	24.9	24.7	1995
1996	23.4	24.0	24.4	25.1	25.1	25.1	24.6	24.7	24.9	25.1	24.2	24.9	24.6	1996
1997	23.5	24.8	24.3	25.4	26.2	25.9	26.3	26.4	25.6	26.0	25.3	26.0	25.5	1997
1998	24.9	25.4	25.7	26.3	26.2	25.9	25.4	25.1	25.4	25.7	24.8	24.9	25.5	1998
1999	24.2	24.0	24.4	25.1	25.2	24.7	25.1	24.8	24.7	24.8	24.2	24.0	24.6	1999
2000	23.6	24.3	24.5	25.2	24.9	24.8	24.9	25.0	24.7	24.8	24.8	24.7	24.7	2000
2001	23.3	23.9	24.0	25.3	25.3	25.5	24.9	25.9	25.2	25.8	25.0	25.3	24.9	2001
2002	24.8	25.1	25.2	25.8	26.7	25.8	25.7	25.5	25.5	25.5	25.1	25.9	25.6	2002
2003	24.8	25.2	25.4	25.7	25.4	25.2	24.3	24.3	24.2	24.2	23.7	24.1	24.7	2003
2004	22.9	23.9	24.5	24.6	24.5	25.7	25.4	25.3	25.5	25.6	25.1	25.8	24.9	2004
2005	24.7	24.8	25.4	26.2	25.4	26.0	26.0	25.8	25.5	25.6	24.7	25.6	25.5	2005
2006	24.8	24.9	25.4	25.2	25.3	25.6	25.6	25.6	25.4	25.5	24.9	25.7	25.3	2006
2007	25.0	24.7	25.5	25.5	25.2	25.6	25.4	25.0	25.2	25.5	24.8	25.0	25.2	2007
2008	24.0	24.5	24.8	25.7	25.5	25.7	24.9	25.2	25.8	25.6	24.3	25.5	25.1	2008
2009	24.5	24.9	24.8	25.9	25.6	25.6	25.6	25.5	26.0	25.6	24.8	25.9	25.4	2009
2010	24.5	25.5	25.6	26.4	26.2	25.6	25.3	25.4	25.4	25.1	24.2	23.7	25.2	2010
2011	23.7	24.5	24.5	25.1	25.9	25.6	25.2	25.5	25.3	25.0	24.4	24.6	25.0	2011
2012	24.0	24.3	24.9	25.0	25.3	25.7	25.6	25.2	25.4	25.2	24.9	25.4	25.1	2012
2013	24.6	24.8	25.0	25.7	25.5	25.7	25.6	25.3	25.4	25.2	25.2	25.9	25.3	2013
2014	24.5	24.7	24.8	25.9	25.6	26.0	26.6	25.9	25.4	25.5	25.3	25.6	25.5	2014
2015	24.4	24.8	24.9	25.9	25.6	27.0	26.0	26.0	25.7	25.7	25.1	26.3	25.6	2015
2016	24.3	24.9	25.1	25.8	25.5	25.8	26.1	25.6	25.4	25.4	25.3	25.8	25.4	2016

ATPromMax 25.1 25.8 26.1 26.9 26.7 27.0 26.7 26.6 26.9 26.3 26.1 26.3 26.2
ATPromMin 22.9 23.7 23.8 24.6 24.5 24.7 24.3 24.3 24.2 24.2 23.7 23.7 24.5
ATPromProm 24.2 24.6 24.9 25.6 25.5 25.6 25.5 25.4 25.4 25.3 24.8 25.3 25.2

GAMBOA

EXTREMA
TEMPERATURA MAXIMA del AIRE (deg C)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	Ano Max	AÑO
1985	31.3	31.3	31.6	34.3	33.4	34.0	33.1	32.8	33.9	32.2	31.4	31.7	34.3	1985
1986	30.9	31.3	33.9	32.2	33.8	34.2	32.6	32.6	33.2	32.8	35.2	33.1	35.2	1986
1987	33.7	34.4	38.1	35.6	35.8	35.4	35.1	36.1	36.5	36.8	37.4	36.0	38.1	1987
1988	36.1	34.8	34.1	36.2	35.9	36.1	35.4	35.2	35.4	34.6	34.6	34.9	36.2	1988
1989	35.1	34.6	35.2	36.8	36.2	36.2	35.8	36.4	35.9	35.9	34.7	34.9	36.8	1989
1990	34.8	32.9	37.6	37.3	35.4	35.6	34.6	35.2	36.6	35.7	35.8	35.2	37.6	1990
1991	35.2	35.1	37.4	37.2	36.6	38.5	35.7	36.6	36.6	35.7	35.2	33.4	38.5	1991
1992	33.9	35.8	36.7	36.7	36.1	37.7	35.8	35.3	35.9	34.4	33.5	32.8	37.7	1992
1993	32.1	32.2	33.5	36.6	35.8	34.7	34.4	34.3	34.4	33.8	33.7	33.2	36.6	1993
1994	32.2	33.1	33.9	34.8	34.7	33.9	34.4	34.1	33.3	34.8	33.8	33.6	34.8	1994
1995	32.7	33.2	35.1	35.7	36.4	36.6	36.0	35.4	36.2	36.2	34.3	34.3	36.6	1995
1996	34.2	33.4	34.7	35.6	35.7	36.5	33.8	33.8	36.3	34.8	34.0	33.9	36.5	1996
1997	32.8	33.5	35.0	37.0	36.1	37.3	36.1	36.1	35.3	37.1	36.7	34.7	37.3	1997
1998	35.7	37.9	37.3	38.4	39.5	37.8	37.2	36.1	37.5	38.3	35.4	36.1	39.5	1998
1999	35.3	34.7	35.2	36.4	37.1	36.1	37.0	37.4	37.4	36.1	35.0	34.8	37.4	1999
2000	34.4	36.1	36.8	37.6	37.4	37.1	37.3	36.1	34.4	35.0	34.6	35.0	37.6	2000
2001	34.2	33.3	34.4	36.1	36.1	36.2	35.6	35.0	35.4	36.4	35.9	36.9	36.9	2001
2002	36.2	36.3	35.6	37.2	38.3	36.3	36.4	36.4	35.2	36.7	36.7	35.7	38.3	2002
2003	35.9	36.1	36.7	36.7	35.6	33.9	34.1	32.8	32.8	32.2	31.6	32.5	36.7	2003
2004	32.8	33.4	35.2	35.3	34.7	35.0	36.1	36.3	35.2	35.6	36.1	35.8	36.3	2004
2005	35.8	35.6	36.7	37.4	36.3	35.9	36.7	35.6	35.4	33.9	35.6	36.1	37.4	2005
2006	36.1	35.6	37.2	36.5	35.0	35.8	35.2	35.6	35.6	35.0	35.6	35.0	37.2	2006
2007	36.1	36.1	38.3	37.8	35.0	36.1	36.7	33.3	35.0	34.4	33.9	34.4	38.3	2007
2008	34.4	35.6	37.8	37.8	35.0	34.4	33.9	33.9	35.0	34.4	32.3	34.2	37.8	2008
2009	34.6	35.7	37.5	38.7	34.9	34.7	35.3	33.7	33.5	33.2	32.1	35.0	38.7	2009
2010	34.4	35.0	35.0	36.1	34.4	35.6	33.3	33.9	34.1	32.2	32.8	31.7	36.1	2010
2011	33.9	35.6	35.0	35.6	37.2	34.4	34.4	35.6	35.6	33.3	33.3	33.3	37.2	2011
2012	33.3	33.3	35.0	36.1	34.4	33.9	33.9	33.3	32.8	32.8	33.9	33.9	36.1	2012
2013	34.4	35.0	34.4	36.1	34.4	33.3	34.4	33.3	33.9	32.8	33.9	34.4	36.1	2013
2014	34.4	34.4	35.6	36.1	35.0	34.4	35.0	35.6	34.4	33.3	34.4	33.9	36.1	2014
2015	34.0	34.0	35.2	36.1	34.9	33.8	33.9	34.0	33.3	33.8	33.6	33.7	36.5	2015
2016	33.5	33.6	34.9	36.1	34.7	33.9	34.7	34.4	34.2	33.1	34.2	34.2	36.1	2016

ATExtMaxMax 36.2 37.9 38.3 38.7 39.5 38.5 37.3 37.4 37.5 38.3 37.4 36.9 39.5

ATExtMaxMin 30.9 31.3 31.6 32.2 33.4 33.3 32.6 32.6 32.8 32.2 31.4 31.7 34.3

ATExtMaxProm 34.2 34.5 35.7 36.4 35.7 35.5 35.1 34.9 35.0 34.6 34.4 34.3 37.0

Estación Año ENE FEB MAR ABR MAY JUN JUL AGO SEP OCT NOV DIC

Las Marías	2006	26.56	26.00	26.50	27.44	26.37	27.72	28.17	27.30	26.87	26.71	26.50	26.93
Gamboa	2006	36.11	35.56	37.22	36.50	35.00	35.78	35.22	35.56	35.56	35.00	35.56	35.00
F.R.		0.74	0.73	0.71	0.75	0.75	0.77	0.80	0.77	0.76	0.76	0.75	0.77

*F.R.: Factor de relación mensual entre Las Marías y Gamboa.

LAS MARÍAS

EXTREMA
TEMPERATURA MAXIMA del AIRE (deg C)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	Ano Max	AÑO
1985	31.3	31.3	31.6	34.3	33.4	34.0	33.1	32.8	33.9	32.2	31.4	31.7	34.3	1985
1986	30.9	31.3	33.9	32.2	33.8	34.2	32.6	32.6	33.2	32.8	35.2	33.1	35.2	1986
1987	33.7	34.4	38.1	35.6	35.8	35.4	35.1	36.1	36.5	36.8	37.4	36.0	38.1	1987
1988	36.1	34.8	34.1	36.2	35.9	36.1	35.4	35.2	35.4	34.6	34.6	34.9	36.2	1988
1989	35.1	34.6	35.2	36.8	36.2	36.2	35.8	36.4	35.9	35.9	34.7	34.9	36.8	1989
1990	34.8	32.9	37.6	37.3	35.4	35.6	34.6	35.2	36.6	35.7	35.8	35.2	37.6	1990
1991	35.2	35.1	37.4	37.2	36.6	38.5	35.7	36.6	36.6	35.7	35.2	33.4	38.5	1991
1992	33.9	35.8	36.7	36.7	36.1	37.7	35.8	35.3	35.9	34.4	33.5	32.8	37.7	1992
1993	32.1	32.2	33.5	36.6	35.8	34.7	34.4	34.3	34.4	33.8	33.7	33.2	36.6	1993
1994	32.2	33.1	33.9	34.8	34.7	33.9	34.4	34.1	33.3	34.8	33.8	33.6	34.8	1994
1995	32.7	33.2	35.1	35.7	36.4	36.6	36.0	35.4	36.2	36.2	34.3	34.3	36.6	1995
1996	34.2	33.4	34.7	35.6	35.7	36.5	33.8	33.8	36.3	34.8	34.0	33.9	36.5	1996
1997	32.8	33.5	35.0	37.0	36.1	37.3	36.1	36.1	35.3	37.1	36.7	34.7	37.3	1997
1998	35.7	37.9	37.3	38.4	39.5	37.8	37.2	36.1	37.5	38.3	35.4	36.1	39.5	1998
1999	35.3	34.7	35.2	36.4	37.1	36.1	37.0	37.4	37.4	36.1	35.0	34.8	37.4	1999
2000	34.4	36.1	36.8	37.6	37.4	37.1	37.3	36.1	34.4	35.0	34.6	35.0	37.6	2000
2001	34.2	33.3	34.4	36.1	36.1	36.2	35.6	35.0	35.4	36.4	35.9	36.9	36.9	2001
2002	36.2	36.3	35.6	37.2	38.3	36.3	36.4	36.4	35.2	36.7	36.7	35.7	38.3	2002
2003	35.9	36.1	36.7	36.7	35.6	33.9	34.1	32.8	32.8	32.2	31.6	32.5	36.7	2003
2004	32.8	33.4	35.2	35.3	34.7	35.0	36.1	36.3	35.2	35.6	36.1	35.8	36.3	2004
2005	35.8	35.6	36.7	37.4	36.3	35.9	36.7	35.6	35.4	33.9	35.6	36.1	37.4	2005
2006	36.1	35.6	37.2	36.5	35.0	35.8	35.2	35.6	35.6	35.0	35.6	35.0	37.2	2006
2007	36.1	36.1	38.3	37.8	35.0	36.1	36.7	33.3	35.0	34.4	33.9	34.4	38.3	2007
2008	34.4	35.6	37.8	37.8	35.0	34.4	33.9	33.9	35.0	34.4	32.3	34.2	37.8	2008
2009	34.6	35.7	37.5	38.7	34.9	34.7	35.3	33.7	33.5	33.2	32.1	35.0	38.7	2009
2010	34.4	35.0	35.0	36.1	34.4	35.6	33.3	33.9	34.1	32.2	32.8	31.7	36.1	2010
2011	33.9	35.6	35.0	35.6	37.2	34.4	34.4	35.6	35.6	33.3	33.3	33.3	37.2	2011
2012	33.3	33.3	35.0	36.1	34.4	33.9	33.9	33.3	32.8	32.8	33.9	33.9	36.1	2012
2013	34.4	35.0	34.4	36.1	34.4	33.3	34.4	33.3	33.9	32.8	33.9	34.4	36.1	2013
2014	34.4	34.4	35.6	36.1	35.0	34.4	35.0	35.6	34.4	33.3	34.4	33.9	36.1	2014
2015	34.0	34.0	35.2	36.1	34.9	33.8	33.9	34.0	33.3	33.8	33.6	33.7	36.1	2015
2016	33.5	33.6	34.9	36.1	34.7	33.9	34.7	34.4	34.2	33.1	34.2	34.2	36.1	2016

ATExtMaxMax 36.2 37.9 38.3 38.7 39.5 38.5 37.3 37.4 37.5 38.3 37.4 36.9 39.5
ATExtMaxMin 32.1 32.2 33.5 34.8 34.4 33.3 33.3 32.8 32.8 32.2 31.6 31.7 34.8
ATExtMaxProm 34.4 34.7 35.8 36.6 35.8 35.6 35.3 35.0 35.1 34.7 34.5 34.5 37.1

GAMBOA

EXTREMA
TEMPERATURA MÍNIMA del AIRE (deg C)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	AÑO
1985	19.4	20.8	19.7	20.6	20.6	22.0	20.7	21.6	21.7	22.1	21.1	21.0	1985
1986	20.6	19.4	19.2	20.5	21.3	22.5	21.7	21.3	21.5	21.1	20.6	18.9	1986
1987	19.1	20.4	19.4	20.9	22.4	21.6	21.8	21.1	21.8	21.5	21.8	21.3	1987
1988	19.3	21.1	20.2	21.1	22.4	22.2	22.1	22.4	22.1	22.6	22.6	20.6	1988
1989	20.2	19.9	18.9	19.8	21.9	21.7	21.3	21.2	22.3	20.3	21.8	20.9	1989
1990	21.0	19.2	20.2	21.3	22.7	22.4	22.0	22.3	20.5	23.0	22.5	21.9	1990
1991	20.6	20.9	21.8	21.1	23.1	23.1	22.8	23.4	23.6	22.7	22.9	22.1	1991
1992	21.9	22.1	22.2	22.5	24.2	22.8	22.8	22.8	23.4	21.6	21.9	19.4	1992
1993	20.7	20.1	21.2	21.8	22.8	21.8	22.1	21.7	21.4	22.4	21.4	20.8	1993
1994	19.1	20.0	19.7	20.7	21.9	21.6	21.3	21.3	21.5	20.9	21.6	20.1	1994
1995	19.7	19.7	19.3	21.2	22.4	22.4	21.6	22.3	22.4	21.9	22.0	21.3	1995
1996	20.1	20.2	19.1	20.9	21.7	22.0	21.4	21.8	21.8	22.2	21.4	21.2	1996
1997	20.8	20.3	19.0	20.5	23.2	22.3	21.5	21.7	21.6	22.2	22.1	21.1	1997
1998	21.4	19.7	21.6	20.9	23.1	23.1	22.7	21.4	21.6	22.0	21.8	22.2	1998
1999	20.1	13.9	19.6	21.8	20.3	21.5	21.4	21.4	21.6	21.3	20.8	20.8	1999
2000	19.4	19.3	18.7	19.2	21.7	21.1	20.7	21.1	21.7	22.2	21.7	20.6	2000
2001	20.0	20.0	18.9	20.6	22.2	21.7	21.6	22.2	21.7	22.2	21.7	20.0	2001
2002	21.7	20.6	20.6	20.6	22.8	22.2	21.1	22.2	21.7	22.2	21.7	21.7	2002
2003	21.1	20.6	20.0	21.1	22.8	21.7	21.1	21.4	20.9	21.0	20.9	20.0	2003
2004	19.4	20.0	20.4	21.1	21.1	21.7	22.6	21.7	22.2	20.8	21.1	19.2	2004
2005	21.1	21.1	21.7	21.7	22.2	22.8	22.8	22.2	20.8	22.2	20.6	20.6	2005
2006	21.1	21.1	21.1	21.1	21.7	22.7	22.7	22.8	22.2	21.7	22.8	21.7	2006
2007	21.1	20.0	21.7	22.2	22.8	22.2	22.8	22.2	21.7	22.2	22.2	21.7	2007
2008	20.0	20.0	20.0	21.1	22.2	22.8	22.2	22.2	22.8	22.2	22.4	21.5	2008
2009	21.5	20.5	20.5	21.5	22.7	21.8	22.6	21.6	23.1	22.5	23.0	22.2	2009
2010	21.1	22.8	22.8	23.9	23.3	22.8	22.8	22.8	22.2	22.2	21.7	20.0	2010
2011	20.6	21.1	20.6	20.6	21.7	22.2	21.7	22.8	22.8	21.1	22.8	22.2	2011
2012	21.1	20.0	21.7	21.1	22.8	22.8	20.6	21.7	22.2	21.7	22.2	22.2	2012
2013	21.1	21.1	21.7	22.2	23.3	21.7	21.7	22.2	22.2	22.2	21.7	22.8	2013
2014	21.7	21.1	21.6	22.8	22.8	23.9	22.2	22.8	22.2	21.7	22.2	22.8	2014
2015	21.3	21.0	21.5	22.6	22.9	24.1	23.7	22.1	22.1	22.8	23.1	22.8	2015
2016	21.0	20.8	21.3	22.5	23.1	22.8	21.9	22.5	22.2	21.9	21.9	22.8	2016

ATExtMinMax 21.9 22.8 22.8 23.9 24.2 24.1 23.7 23.4 23.6 23.0 23.1 22.8

ATExtMinMin 19.1 13.9 18.7 19.2 20.3 21.1 20.6 21.1 20.5 20.3 20.6 18.9

ATExtMinProm 20.5 20.2 20.4 21.2 22.3 22.3 21.9 22.0 22.0 21.9 21.9 21.1

Datos en color rojo fueron estimados, el valor de 13.9 no fue tomado en cuenta en el análisis.

Estación Año ENE FEB MAR ABR MAY JUN JUL AGO SEP OCT NOV DIC

Las Marías	2006	22.54	23.69	23.67	23.36	23.51	23.40	23.87	23.51	23.80	24.08	22.77	24.22
Gamboa	2006	21.11	21.11	21.11	21.11	21.67	22.72	22.72	22.78	22.22	21.67	22.78	21.67
F.R.		1.07	1.12	1.12	1.11	1.09	1.03	1.05	1.03	1.07	1.11	1.00	1.12

*F.R.: Factor de relación mensual entre Las Marías y Gamboa.

LAS MARÍAS

EXTREMA
TEMPERATURA MÍNIMA del AIRE (deg C)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	AÑO
1985	20.7	23.3	22.0	22.8	22.4	22.7	21.8	22.3	23.3	24.5	21.1	23.5	1985
1986	22.0	21.8	21.5	22.7	23.1	23.2	22.8	22.0	23.0	23.5	20.6	21.1	1986
1987	20.3	22.9	21.8	23.1	24.3	22.3	22.9	21.8	23.4	23.9	21.8	23.8	1987
1988	20.6	23.6	22.6	23.3	24.3	22.8	23.2	23.1	23.7	25.1	22.6	23.0	1988
1989	21.5	22.3	21.2	21.9	23.8	22.4	22.4	21.9	23.9	22.6	21.8	23.4	1989
1990	22.4	21.6	22.7	23.5	24.6	23.1	23.1	23.1	22.0	25.6	22.5	24.5	1990
1991	22.0	23.4	24.5	23.3	25.0	23.8	23.9	24.2	25.2	25.2	22.9	24.7	1991
1992	23.4	24.8	24.8	24.9	26.3	23.5	24.0	23.5	25.1	24.0	21.9	21.7	1992
1993	22.1	22.6	23.7	24.1	24.7	22.5	23.2	22.4	23.0	24.9	21.4	23.2	1993
1994	20.4	22.4	22.0	22.9	23.8	22.3	22.4	22.0	23.0	23.2	21.6	22.4	1994
1995	21.0	22.1	21.7	23.4	24.3	23.1	22.7	23.0	24.0	24.4	22.0	23.8	1995
1996	21.4	22.6	21.4	23.2	23.6	22.7	22.5	22.5	23.4	24.6	21.4	23.7	1996
1997	22.2	22.8	21.3	22.7	25.1	22.9	22.6	22.4	23.1	24.6	22.1	23.5	1997
1998	22.8	22.1	24.2	23.1	25.1	23.7	23.9	22.1	23.1	24.5	21.8	24.8	1998
1999	21.5	15.7	21.9	24.2	22.0	22.1	22.5	22.1	23.1	23.7	20.8	23.2	1999
2000	20.8	21.7	20.9	21.3	23.6	21.7	21.8	21.8	23.2	24.7	21.7	23.0	2000
2001	21.4	22.4	21.2	22.7	24.1	22.3	22.6	22.9	23.2	24.7	21.7	22.4	2001
2002	23.1	23.1	23.0	22.7	24.7	22.9	22.2	22.9	23.2	24.7	21.7	24.2	2002
2003	22.5	23.1	22.4	23.4	24.7	22.3	22.2	22.1	22.4	23.3	20.9	22.4	2003
2004	20.8	22.4	22.9	23.4	22.9	22.3	23.8	22.4	23.8	23.2	21.1	21.4	2004
2005	22.5	23.7	24.3	24.0	24.1	23.5	23.9	22.9	22.3	24.7	20.5	23.0	2005
2006	22.5	23.7	23.7	23.4	23.5	23.4	23.9	23.5	23.8	24.1	22.8	24.2	2006
2007	22.5	22.4	24.3	24.6	24.7	22.9	23.9	22.9	23.2	24.7	22.2	24.2	2007
2008	21.4	22.4	22.4	23.4	24.1	23.5	23.3	22.9	24.4	24.7	22.4	24.0	2008
2009	23.0	23.0	23.0	23.8	24.7	22.4	23.8	22.3	24.8	25.0	23.0	24.8	2009
2010	22.5	25.6	25.5	26.4	25.3	23.5	23.9	23.5	23.8	24.7	21.7	22.4	2010
2011	22.0	23.7	23.0	22.7	23.5	22.9	22.8	23.5	24.4	23.5	22.8	24.8	2011
2012	22.5	22.4	24.3	23.4	24.7	23.5	21.6	22.4	23.8	24.1	22.2	24.8	2012
2013	22.5	23.7	24.3	24.6	25.3	22.3	22.8	22.9	23.8	24.7	21.7	25.5	2013
2014	23.1	23.7	24.2	25.2	24.7	24.6	23.3	23.5	23.8	24.1	22.2	25.5	2014
2015	22.8	23.5	24.0	25.0	24.9	24.8	24.9	22.8	23.7	25.3	23.1	25.5	2015
2016	22.4	23.3	23.9	24.9	25.0	23.5	23.1	23.2	23.8	24.4	21.9	25.5	2016

ATExtMinMax 23.4 25.6 25.5 26.4 26.3 24.8 24.9 24.2 25.2 25.6 23.1 25.5**ATExtMinMin** 20.3 15.7 20.9 21.3 22.0 21.7 21.6 21.8 22.0 22.6 20.5 21.4**ATExtMinProm** 22.0 22.8 23.0 23.6 24.4 23.0 23.1 22.8 23.6 24.4 21.9 23.8

GAMBOA

EVAPORACIÓN (mm)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	TOTAL	AÑO
1985														1985
1986	118.8	109.5	127.4	105.9	116.3	81.2	88.2	83.6	77.4	65.1	75.0	88.1	1136.6	1986
1987	116.2	109.9	116.2	89.5	83.0	61.9	63.1	76.3	67.3	68.8	69.9	99.4	1021.4	1987
1988	123.2	109.1	132.7	110.2	74.5	76.1	61.9	76.5	79.5	60.8	60.2	80.6	1045.5	1988
1989	108.0	97.8	80.7	116.1	100.0	67.9	77.1	71.3	73.0	69.3	59.1	75.8	996.0	1989
1990	84.3	85.0	108.4	105.1	74.3	68.0	69.5	67.1	67.1	63.8	68.0	82.8	943.4	1990
1991	97.6	106.8	128.7	119.4	84.7	76.2	88.0	81.8	88.3	84.2	79.0	96.9	1131.6	1991
1992	111.0	123.8	127.5	114.3	102.8	87.9	75.6	80.0	71.4	67.2	58.5	83.0	1103.1	1992
1993	86.9	110.1	119.1	103.6	94.2	68.6	80.4	74.1	68.5	58.2	50.4	74.0	988.2	1993
1994	92.1	92.4	86.7	95.8	55.7	47.6	53.0	44.2	44.8	36.4	30.8	47.5	726.8	1994
1995	76.5	80.3	93.0	79.8	59.8	53.4	34.2	50.1	54.8	51.3	42.5	52.7	728.5	1995
1996	61.1	72.5	89.7	74.3	61.0	54.7	55.8	66.5	70.3	74.6	52.8	66.4	799.6	1996
1997	89.2	88.9	123.5	110.1	83.8	75.8	81.3	86.8	71.9	71.4	60.6	91.8	1035.1	1997
1998	96.8	92.9	123.1	113.9	91.2	66.7	70.0	67.5	78.1	75.0	62.4	58.6	996.2	1998
1999	93.0	85.6	108.4	95.5	71.5	53.8	63.4	65.6	64.3	68.4	59.2	51.7	880.4	1999
2000	76.5	88.1	101.2	85.4	54.3	44.5	53.9	57.8	56.6	55.2	59.3	56.3	789.3	2000
2001	69.4	88.3	103.0	86.8	70.9	59.8	53.5	61.2	63.1	72.9	58.0	66.1	853.2	2001
2002	107.7	105.0	109.6	99.3	95.5	55.0	59.4	62.0	61.3	61.0	54.6	83.3	953.7	2002
2003	92.9	92.3	112.3	89.7	55.8	50.9	49.3	51.8	54.6	46.2	70.4	56.4	822.7	2003
2004	59.3	79.7	94.0	75.3	55.2	49.0	44.1	41.6	58.4	59.5	46.6	71.2	733.9	2004
2005	69.9	76.0	80.0	82.6	50.7	49.0	39.2	40.1	38.2	52.3	44.5	64.8	687.2	2005
2006	64.1	78.1	95.7	79.3	44.6	44.9	43.4	48.0	30.6	39.6	45.4	68.1	681.7	2006
2007	89.1	85.6	103.3	80.5	64.2	53.2	49.3	32.3	37.3	40.3	29.0	34.9	698.9	2007
2008	52.7	53.9	64.8	58.7	42.4	46.1	28.6	52.0	75.0	66.8	45.2	76.4	662.6	2008
2009	64.4	49.3	62.9	55.3	37.0	33.7	27.5	12.9	24.0	32.8	29.0	33.3	462.1	2009
2010	52.5	45.9	43.5	55.6	36.4	42.2	51.8	65.5	63.5	39.3	19.3	31.8	547.2	2010
2011	67.0	84.2	101.4	81.4	73.7	44.2	40.2	58.7	69.2	53.1	32.2	54.1	407.7	2011
2012	59.8	69.1	83.1	70.0	58.0	45.1	34.4	55.4	72.1	59.9	38.7	65.3		2012
2013	52.7	53.9	64.8	58.7	42.4	46.1	28.6	52.0	75.0	66.8	45.2	76.4		2013
2014	64.4	49.3	62.9	55.3	37.0	33.7	27.5	12.9	24.0	32.8	29.0	33.3		2014
2015	89.2	88.9	123.5	110.1	83.8	75.8	81.3	86.8	71.9	71.4	60.6	91.8		2015
2016	96.8	92.9	123.1	113.9	91.2	66.7	70.0	67.5	78.1	75.0	62.4	58.6		2016

EvapProm 85.4 88.1 101.4 90.9 70.5 58.7 58.5 60.7 61.6 59.2 53.2 67.7 839.7 EvapProm

Estación	Año	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC
Las Marías	2006	57.41	63.31	76.24	67.85	54.74	58.19	54.04	59.91	52.68	59.17	42.11	52.10
Gamboa	2006	64.08	78.08	95.73	79.25	44.60	44.87	43.44	47.97	30.64	39.57	45.40	68.11
F.R.		0.90	0.81	0.80	0.86	1.23	1.30	1.24	1.25	1.72	1.50	0.93	0.76

*F.R.: Factor de relación mensual entre Las Marías y Gamboa.

LAS MARÍAS

EVAPORACIÓN (mm)

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	TOTAL	AÑO
1985														1985
1986	106.4	88.8	101.5	90.7	142.7	105.4	109.7	104.5	133.0	97.4	69.6	67.4	1217.1	1986
1987	104.1	89.1	92.5	76.6	101.9	80.3	78.5	95.2	115.7	102.8	64.8	76.0	1077.7	1987
1988	110.4	88.5	105.7	94.4	91.4	98.7	77.1	95.5	136.6	91.0	55.9	61.7	1106.7	1988
1989	96.7	79.3	64.3	99.4	122.7	88.0	95.9	89.0	125.6	103.6	54.8	58.0	1077.3	1989
1990	75.5	68.9	86.3	90.0	91.2	88.2	86.4	83.8	115.4	95.4	63.1	63.3	1007.6	1990
1991	87.4	86.6	102.5	102.2	104.0	98.8	109.4	102.1	151.8	125.9	73.3	74.1	1218.2	1991
1992	99.5	100.3	101.6	97.9	126.2	114.0	94.1	99.9	122.7	100.5	54.2	63.5	1174.5	1992
1993	77.9	89.3	94.9	88.7	115.6	89.0	100.0	92.5	117.8	87.1	46.7	56.6	1056.1	1993
1994	82.5	74.9	69.0	82.0	68.3	61.8	66.0	55.1	77.1	54.4	28.6	36.3	756.0	1994
1995	68.6	65.1	74.1	68.4	73.5	69.3	42.5	62.6	94.1	76.8	39.4	40.3	774.6	1995
1996	54.8	58.8	71.4	63.6	74.9	70.9	69.4	83.1	120.8	111.5	49.0	50.8	878.9	1996
1997	79.9	72.1	98.3	94.3	102.8	98.3	101.2	108.4	123.6	106.8	56.2	70.2	1112.1	1997
1998	86.7	75.3	98.1	97.5	111.9	86.5	87.1	84.3	134.2	112.2	57.9	44.8	1076.5	1998
1999	83.3	69.4	86.3	81.7	87.8	69.8	78.9	81.9	110.6	102.3	54.9	39.6	946.5	1999
2000	68.6	71.5	80.6	73.1	66.7	57.7	67.1	72.2	97.4	82.6	55.0	43.1	835.4	2000
2001	62.2	71.6	82.1	74.3	87.1	77.6	66.6	76.5	108.5	109.1	53.8	50.6	919.8	2001
2002	96.5	85.1	87.3	85.1	117.3	71.3	73.9	77.4	105.3	91.3	50.6	63.7	1004.7	2002
2003	83.3	74.8	89.5	76.8	68.4	66.0	61.3	64.7	93.9	69.1	65.3	43.1	856.3	2003
2004	53.1	64.6	74.8	64.5	67.8	63.5	54.8	52.0	100.4	88.9	43.3	54.5	782.2	2004
2005	62.6	61.6	63.7	70.7	62.2	63.5	48.8	50.1	65.6	78.3	41.3	49.6	717.9	2005
2006	57.4	63.3	76.2	67.9	54.7	58.2	54.0	59.9	52.7	59.2	42.1	52.1	697.8	2006
2007	79.8	69.4	82.2	68.9	78.8	68.9	61.3	40.4	64.1	60.2	26.9	26.7	727.8	2007
2008	47.2	43.7	51.6	50.3	52.0	59.8	35.6	64.9	128.9	99.9	41.9	58.4	734.3	2008
2009	57.7	40.0	50.1	47.4	45.4	43.8	34.2	16.1	41.3	49.0	26.9	25.5	477.2	2009
2010	47.1	37.2	34.6	47.6	44.7	54.7	64.5	81.8	109.2	58.7	17.9	24.3	622.2	2010
2011	60.0	68.3	80.8	69.7	90.5	57.3	50.0	73.4	119.0	79.3	29.9	41.4	819.5	2011
2012	53.6	56.0	66.2	60.0	71.2	58.5	42.8	69.2	124.0	89.6	35.9	49.9	776.9	2012
2013	47.2	43.7	51.6	50.3	52.0	59.8	35.6	64.9	128.9	99.9	41.9	58.4	734.3	2013
2014	57.7	40.0	50.1	47.4	45.4	43.8	34.2	16.1	41.3	49.0	26.9	25.5	477.2	2014
2015	79.9	72.1	98.3	94.3	102.8	98.3	101.2	108.4	123.6	106.8	56.2	70.2	1112.1	2015
2016	86.7	75.3	98.1	97.5	111.9	86.5	87.1	84.3	134.2	112.2	57.9	44.8	1076.5	2016

EvapProm 73.6 68.5 78.8 76.1 83.0 73.4 68.6 73.5 106.1 88.5 47.1 50.6 887.8 EvapProm

GAMBOA

PROMEDIO
HUMEDAD PROMEDIO (%)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	PROM	ANO
1985													1985	
1986	70.4	70.3	68.9	73.1	73.4	78.1	76.1	74.5	75.5	82.9	79.3	72.0	74.6	1986
1987	66.9	69.4	78.1	78.4	82.8	82.9	83.4	82.8	81.3	83.6	81.7	77.3	79.0	1987
1988	72.5	73.7	70.8	72.2	80.9	83.6	86.5	85.3	84.3	86.0	85.5	79.5	80.1	1988
1989	73.8	72.0	70.6	69.4	76.9	81.1	81.1	81.6	80.6	81.2	81.6	77.1	77.3	1989
1990	78.6	81.4	72.0	70.8	77.6	78.0	78.9	79.6	80.0	80.7	81.8	77.0	78.0	1990
1991	73.9	69.8	70.6	71.4	78.2	79.4	78.8	78.2	73.2	74.2	73.8	68.8	74.2	1991
1992	66.3	65.3	65.8	65.2	70.4	73.8	75.7	75.2	82.2	83.1	81.9	75.7	73.4	1992
1993	75.1	70.0	70.5	73.8	76.8	79.4	77.9	77.8	77.4	79.5	78.2	70.9	75.6	1993
1994	67.1	66.6	66.4	66.9	79.6	81.7	79.3	79.5	79.4	76.3	79.9	79.4	75.2	1994
1995	76.8	73.3	73.6	76.2	83.9	83.9	85.7	84.5	84.9	85.4	86.8	83.9	81.6	1995
1996	82.1	78.6	76.1	78.0	79.9	82.2	83.3	84.8	84.8	78.3	84.7	81.0	81.1	1996
1997	78.5	73.9	68.0	68.6	77.3	82.7	81.0	81.6	81.1	80.3	80.5	73.4	77.2	1997
1998	70.2	69.0	65.7	68.7	74.5	77.0	76.8	76.5	74.1	73.2	74.4	84.8	73.7	1998
1999	76.1	71.6	70.6	72.5	78.5	86.8	79.3	76.6	74.9	73.1	72.9	75.7	75.7	1999
2000	84.8	78.0	73.7	77.7	86.0	88.4	86.0	77.1	85.3	86.2	84.5	84.6	82.7	2000
2001	81.6	78.6	79.2	77.8	82.1	84.4	85.8	84.3	82.9	82.5	82.0	82.5	82.0	2001
2002	78.0	74.8	75.2	76.0	77.4	82.0	82.5	82.7	82.4	82.4	82.4	78.1	79.5	2002
2003	75.2	74.5	73.5	76.7	82.1	82.1	84.3	84.3	84.4	94.0	85.5	83.7	81.7	2003
2004	88.1	84.9	82.8	87.0	91.1	91.6	94.4	96.3	97.1	97.0	95.9	95.5	91.8	2004
2005	86.3	83.1	85.3	86.2	91.4	91.1	91.6	91.5	92.5	96.6	97.4	95.4	90.7	2005
2006	86.6	84.3	83.4	87.6	91.7	92.1	92.2	92.1	92.4	91.4	95.8	95.9	90.5	2006
2007	84.5	84.3	81.5	87.1	91.3	91.4	91.8	92.2	92.0	91.5	92.8	91.3	89.3	2007
2008	86.2	83.0	83.1	84.1	90.1	92.7	93.6	91.5	90.2	85.2	86.1	81.0	87.2	2008
2009	84.5	83.7	82.6	83.4	89.3	90.4	91.4	90.7	90.0	90.9	93.0	89.1	88.2	2009
2010	85.7	85.3	85.1	85.5	89.7	92.4	95.4	95.5	96.3	98.7	93.5	97.7	91.7	2010
2011	93.2	89.1	87.2	89.5	91.4	92.5	95.0	94.5	94.8	95.3	91.4	93.6	92.3	2011
2012	89.7	86.0	85.2	86.8	90.8	92.6	94.5	93.5	93.2	91.9	89.8	89.4	90.3	2012
2013	86.2	83.0	83.1	84.1	90.1	92.7	93.6	91.5	90.2	85.2	86.1	81.0	87.2	2013
2014	84.5	83.7	82.6	83.4	89.3	90.4	91.4	90.7	90.0	90.9	93.0	89.1	88.2	2014
2015	78.5	73.9	68.0	68.6	77.3	84.0	87.8	88.2	91.6	91.1	91.3	86.5	82.2	2015
2016	81.7	77.0	77.7	68.7	74.5	77.0	76.8	76.5	74.1	73.2	74.4	84.8	76.4	2016

RHProm 78.6 76.5 75.4 77.1 82.5 84.4 84.5 83.9 84.0 84.6 84.1 82.1 81.3

Estación	Año	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC
Las Marías	2006	90.65	88.98	88.69	89.57	91.91	91.48	92.34	91.89	92.58	91.59	93.66	91.68
Gamboa	2006	86.60	84.30	83.40	87.60	91.70	92.10	92.20	92.10	92.40	91.40	95.80	95.90
F.R.		1.05	1.06	1.06	1.02	1.00	0.99	1.00	1.00	1.00	1.00	0.98	0.96

*F.R.: Factor de relación mensual entre Las Marías y Gamboa.

LAS MARÍAS

PROMEDIO
HUMEDAD PROMEDIO (%)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	PROM	ANO
1985													1985	
1986	73.6	74.2	73.2	74.8	73.6	77.6	76.2	74.4	75.7	83.1	77.6	68.9	75.2	1986
1987	70.0	73.2	83.0	80.2	82.9	82.4	83.5	82.6	81.5	83.8	79.9	73.9	79.7	1987
1988	75.8	77.8	75.3	73.9	81.1	83.0	86.6	85.1	84.5	86.2	83.6	76.0	80.7	1988
1989	77.3	76.0	75.0	70.9	77.0	80.5	81.3	81.4	80.8	81.4	79.8	73.7	77.9	1989
1990	82.3	86.0	76.6	72.4	77.7	77.5	79.0	79.4	80.2	80.8	80.0	73.6	78.8	1990
1991	77.3	73.7	75.1	73.0	78.4	78.8	78.9	78.0	73.4	74.4	72.1	65.8	74.9	1991
1992	69.4	69.0	69.9	66.6	70.6	73.3	75.8	75.1	82.4	83.3	80.1	72.4	74.0	1992
1993	78.6	73.9	75.0	75.4	76.9	78.9	78.0	77.7	77.5	79.6	76.5	67.8	76.3	1993
1994	70.2	70.3	70.6	68.4	79.8	81.2	79.5	79.4	79.6	76.4	78.1	75.9	75.8	1994
1995	80.4	77.3	78.2	77.9	84.0	83.3	85.8	84.3	85.0	85.5	84.9	80.2	82.2	1995
1996	85.9	82.9	80.9	79.7	80.1	81.6	83.5	84.6	85.0	78.5	82.8	77.4	81.9	1996
1997	82.1	78.0	72.3	70.2	77.5	82.1	81.1	81.4	81.3	80.5	78.7	70.1	77.9	1997
1998	73.5	72.8	69.9	70.2	74.7	76.5	77.0	76.4	74.2	73.3	72.8	81.0	74.4	1998
1999	79.7	75.6	75.1	74.1	78.7	86.2	79.4	76.4	75.0	73.3	71.3	72.4	76.4	1999
2000	88.8	82.3	78.4	79.4	86.2	87.8	86.1	76.9	85.5	86.4	82.6	80.9	83.4	2000
2001	85.4	83.0	84.2	79.6	82.3	83.8	85.9	84.1	83.1	82.7	80.2	78.9	82.8	2001
2002	81.6	79.0	80.0	77.7	77.6	81.5	82.6	82.5	82.6	82.6	80.6	74.7	80.2	2002
2003	78.7	78.6	78.2	78.4	82.3	81.5	84.4	84.1	84.6	94.2	83.6	80.0	82.4	2003
2004	92.2	89.6	88.0	89.0	91.3	91.0	94.5	96.1	97.3	97.2	93.8	91.3	92.6	2004
2005	90.3	87.7	90.7	88.1	91.6	90.5	91.7	91.3	92.7	96.8	95.2	91.2	91.5	2005
2006	90.6	89.0	88.7	89.6	91.9	91.5	92.3	91.9	92.6	91.6	93.7	91.7	91.3	2006
2007	88.4	89.0	86.7	89.1	91.5	90.8	91.9	92.0	92.2	91.7	90.7	87.3	90.1	2007
2008	90.2	87.6	88.4	86.0	90.3	92.1	93.7	91.3	90.4	85.4	84.2	77.4	88.1	2008
2009	88.4	88.4	87.9	85.3	89.5	89.8	91.5	90.5	90.2	91.0	90.9	85.2	89.0	2009
2010	89.7	90.0	90.5	87.4	89.9	91.8	95.6	95.3	96.5	98.9	91.4	93.4	92.5	2010
2011	97.5	94.0	92.7	91.5	91.6	91.9	95.1	94.3	95.0	95.5	89.3	89.4	93.2	2011
2012	93.9	90.8	90.6	88.8	91.0	91.9	94.7	93.3	93.4	92.1	87.8	85.4	91.1	2012
2013	90.2	87.6	88.4	86.0	90.3	92.1	93.7	91.3	90.4	85.4	84.2	77.4	88.1	2013
2014	88.4	88.4	87.9	85.3	89.5	89.8	91.5	90.5	90.2	91.0	90.9	85.2	89.0	2014
2015	82.1	78.0	72.3	70.2	77.5	83.4	88.0	88.0	91.8	91.3	89.3	82.7	82.9	2015
2016	85.5	81.3	82.6	70.2	74.7	76.5	77.0	76.4	74.2	73.3	72.8	81.0	77.1	2016

RHProm 83.5 81.7 81.1 79.1 83.3 84.8 86.0 85.1 85.4 85.5 83.4 79.8 83.2