

WIND SPEED (m/s) statistics by YEAR at PARANAL

Night only (00:00 to 10:00 UT)

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2000	1.20	1.80	6.05	6.78	9.53	14.88	4.34	209419
2001	1.20	1.88	8.10	6.69	9.28	14.50	4.09	213473
2002	1.25	1.93	5.93	6.73	9.50	14.60	4.14	214593
2003	1.14	1.73	5.38	5.96	9.23	12.85	3.66	214801
2004	1.35	2.03	6.00	6.79	9.32	14.78	4.20	215251
2005	1.10	1.70	5.83	6.42	9.15	13.82	4.02	210736
2006	1.30	1.95	5.70	6.38	8.63	14.07	3.91	215660
2007	1.43	2.23	7.05	7.36	10.05	14.78	4.11	215129
2008	1.15	1.88	5.95	6.63	9.03	14.30	4.13	216906
2009	1.13	1.83	5.43	6.10	8.30	13.40	3.76	214687
2010	1.33	2.08	6.58	7.38	10.15	16.58	4.70	215690
2011	1.27	2.00	6.40	7.22	9.93	15.95	4.60	215723
2012	1.23	1.88	6.00	6.75	9.30	14.80	4.30	217726
2013	1.23	1.93	5.83	6.38	8.63	13.32	3.77	210325
2014	1.40	2.08	6.22	7.00	9.70	14.90	4.37	217012
2015	1.27	1.90	5.83	6.66	8.95	15.38	4.29	213377
2016	1.33	2.03	6.30	6.77	9.07	14.43	4.00	216239

FREQUENCY of the WIND DIRECTION (%) by YEARS

Night only (00:00 to 10:00 UT)

The bins are: North= 337.5 to 22.5 deg., NE= 22.5 to 67.5 deg., East=67.5 to 112.5 deg.
SE=112.5 to 157.5 deg, South=157.5 to 202.5 deg., SW=202.5 to 247.5 deg., West=247.5 to
292.5 deg. and NW=292.5 to 337.5 deg.

	NORTH	NE	EAST	SE	SOUTH	SW	WEST	NW
2000	43	23	6	10	7	1	2	8
2001	43	20	8	11	6	1	2	9
2002	44	23	6	8	5	1	2	9
2003	36	19	7	14	11	2	2	9
2004	41	23	8	10	8	1	2	7
2005	38	18	6	13	11	2	2	9
2006	34	25	8	12	10	2	2	7
2007	44	26	5	6	9	2	1	7
2008	43	25	6	7	7	2	3	7
2009	32	22	7	14	11	2	3	9
2010	43	27	6	8	6	1	2	7
2011	40	26	6	10	8	2	1	7
2012	37	24	8	11	10	1	2	7
2013	36	26	7	10	9	2	2	8
2014	38	29	8	8	7	1	2	7
2015	37	23	6	10	8	2	3	11
2016	40	27	7	9	7	1	1	8

WIND SPEED (m/s) statistics by season at PARANAL

Night only (00:00 to 10:00 UT)

Q1= Jan to March, Q2=April to June, Q3= July to Sept. and Q4= Oct. to Dec.

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2000 Q1	1.13	1.79	5.25	5.57	7.72	11.28	3.21	47524
2000 Q2	1.90	2.83	9.78	8.76	11.50	16.52	4.60	53015
2000 Q3	1.10	1.80	6.50	7.59	11.10	16.83	4.96	54312
2000 Q4	1.00	1.48	4.58	5.11	7.15	11.05	3.14	54568

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2001 Q1	1.15	1.77	5.30	5.57	7.58	11.03	3.06	52236
2001 Q2	1.52	2.30	7.18	7.77	10.78	16.60	4.60	54214
2001 Q3	1.52	2.45	7.47	7.83	10.57	15.88	4.31	52835
2001 Q4	0.85	1.43	5.03	5.56	7.83	12.55	3.57	54188

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2002 Q1	1.30	1.90	4.93	5.40	6.95	11.05	3.10	52151
2002 Q2	1.93	2.88	8.95	8.87	12.15	16.80	4.62	54018
2002 Q3	1.15	1.90	6.50	6.72	9.65	13.00	3.73	53744
2002 Q4	0.93	1.50	4.88	5.89	8.13	14.21	4.06	54680

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2003 Q1	1.08	1.68	5.38	5.83	7.83	12.60	3.63	52904
2003 Q2	1.18	1.73	5.72	6.37	9.13	13.20	3.86	53091
2003 Q3	1.55	2.17	6.45	6.89	9.43	14.10	3.82	54722
2003 Q4	0.93	1.43	4.33	4.74	6.43	10.38	2.86	54084

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2004 Q1	1.33	1.90	5.33	5.76	7.53	12.70	3.37	53923
2004 Q2	1.27	2.06	7.18	7.58	10.63	15.28	4.47	53939
2004 Q3	1.98	2.78	7.78	8.43	11.98	16.68	4.80	52754
2004 Q4	1.05	1.68	4.90	5.44	7.45	11.55	3.21	54635

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2005 Q1	1.35	1.93	5.58	6.12	8.13	13.20	3.74	53424
2005 Q2	0.78	1.30	5.97	6.34	9.48	13.10	4.11	49786
2005 Q3	1.65	2.28	7.25	7.62	10.66	15.20	4.24	53633
2005 Q4	0.95	1.45	4.93	5.59	7.90	12.41	3.67	53893

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2006 Q1	1.20	1.85	5.43	5.86	7.72	12.28	3.38	52942
2006 Q2	1.55	2.25	6.30	6.67	8.85	13.38	3.56	54217
2006 Q3	1.40	2.03	6.28	7.23	10.23	15.90	4.64	53787
2006 Q4	1.08	1.73	4.97	5.76	7.80	12.95	3.73	54714

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2007 Q1	1.13	1.88	5.60	5.97	8.07	12.30	3.40	52673
2007 Q2	2.92	3.83	8.88	9.27	12.20	16.60	4.20	53217
2007 Q3	1.30	2.15	7.58	7.46	10.07	14.18	3.92	54432
2007 Q4	1.20	1.80	6.10	6.72	9.57	14.07	4.13	54807

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2008 Q1	1.27	2.00	5.53	5.77	7.60	11.40	3.00	54064
2008 Q2	1.50	2.42	7.18	7.63	10.38	15.05	4.19	54255
2008 Q3	1.10	1.73	5.65	6.66	9.60	15.13	4.53	53851
2008 Q4	0.90	1.58	5.72	6.45	8.78	14.75	4.39	54736

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2009 Q1	0.85	1.45	4.65	5.15	7.05	10.98	3.10	51798
2009 Q2	1.15	1.88	5.38	6.18	8.53	13.90	3.90	54028
2009 Q3	1.52	2.40	6.47	7.04	9.53	14.25	3.94	54806
2009 Q4	1.15	1.80	5.25	5.98	7.83	13.65	3.79	54055

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2010 Q1	1.08	1.70	4.72	5.43	7.38	11.43	3.35	52980
2010 Q2	1.55	2.60	8.73	9.01	12.32	18.00	5.00	53478
2010 Q3	1.38	2.08	6.68	7.50	10.50	16.65	4.81	54605
2010 Q4	1.48	2.30	6.75	7.57	9.82	17.48	4.74	54627

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2011 Q1	1.37	2.08	5.72	6.25	8.35	13.35	3.62	53545
2011 Q2	1.27	1.98	7.43	8.06	11.35	17.52	5.15	53873
2011 Q3	1.20	2.05	7.18	7.75	10.98	16.50	4.74	54769
2011 Q4	1.27	1.90	5.95	6.80	9.03	15.45	4.49	53536

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2012 Q1	1.23	1.85	5.13	5.45	7.20	10.98	3.01	53895
2012 Q2	1.68	2.50	7.47	8.24	11.38	17.73	4.90	54035
2012 Q3	1.45	2.15	7.53	7.96	11.35	15.73	4.58	54756
2012 Q4	0.85	1.38	4.70	5.35	7.38	12.30	3.55	54606

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2013 Q1	1.23	1.88	5.22	5.60	7.38	11.43	3.12	53301
2013 Q2	1.73	2.58	7.05	7.34	9.78	14.20	3.84	48306
2013 Q3	1.00	1.68	6.08	6.76	9.45	14.43	4.24	53998
2013 Q4	1.15	1.80	5.35	5.90	7.97	12.85	3.56	54459

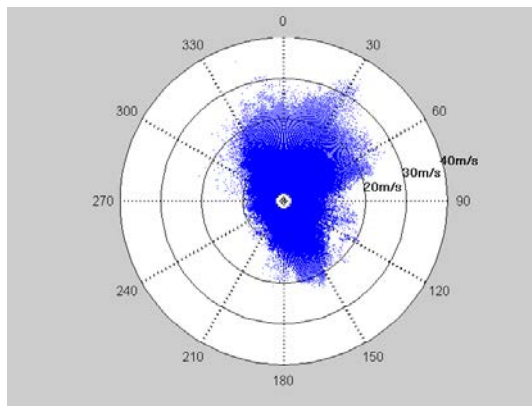
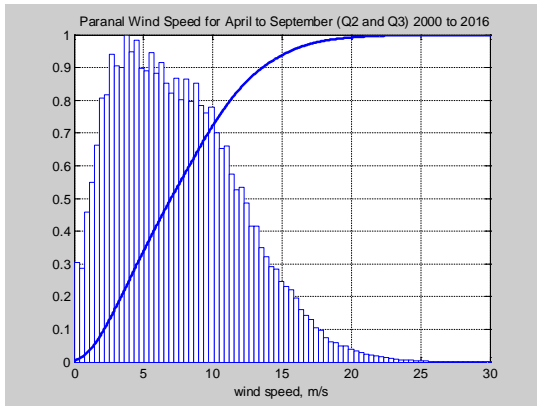
	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2014 Q1	1.38	2.08	5.90	6.58	8.48	14.35	4.06	53314
2014 Q2	1.33	2.10	7.55	7.74	10.73	15.63	4.48	53567
2014 Q3	1.55	2.33	6.80	7.61	10.55	15.75	4.84	54573
2014 Q4	1.33	1.90	5.45	6.10	8.28	13.50	3.82	54834

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2015 Q1	1.20	1.73	5.08	6.10	8.03	15.43	4.20	53455
2015 Q2	1.08	1.75	5.60	6.23	8.35	14.21	4.09	52942
2015 Q3	1.48	2.30	7.50	7.80	10.75	15.73	4.44	54527
2015 Q4	1.43	1.95	5.63	6.46	8.50	15.23	4.22	51757

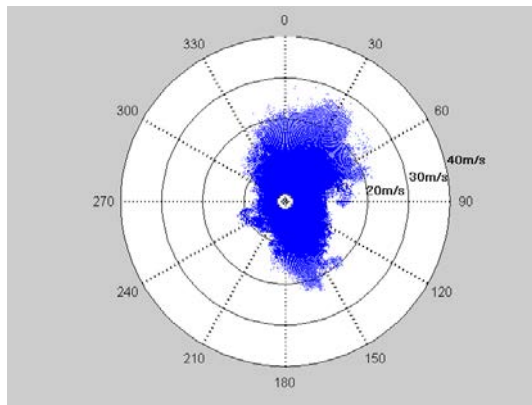
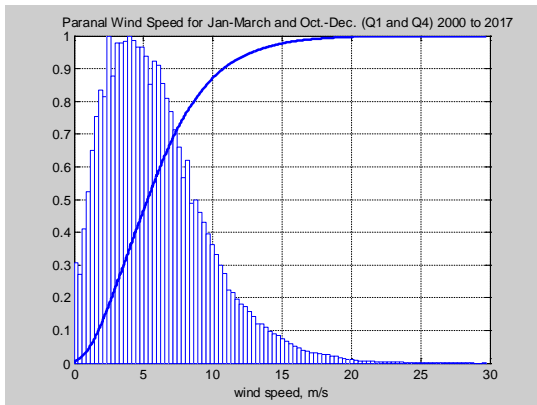
	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2016 Q1	0.93	1.55	5.53	5.85	8.03	12.73	3.59	54020
2016 Q2	1.93	2.75	8.07	8.32	11.10	15.88	4.24	53440
2016 Q3	1.27	1.85	5.9	6.34	8.60	13.28	3.80	54519
2016 Q4	1.55	2.25	9.85	6.58	8.70	14.13	3.92	53750

	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2017 Q1	1.15	1.77	5.33	5.47	7.25	10.6	2.89	53753
2017 Q2								
2017 Q3								
2017 Q4								

Wind (Histogram and wind rose) at Paranal by Semester. Night Only



Q2 & Q3	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2000-2016	1.25	1.93	6.00	6.69	9.92	14.55	4.16	1823944



Q1 & Q4	5 perc.	10 perc.	Median	Average	75 perc.	95 perc	Std. dev	Samples
2000-2016	1.13	1.75	5.30	5.88	7.88	12.89	3.67	1873830