

Table S2: GUAN stations*, periods of record for humidity, elapsed days and counts of humidity observations**

(*) Underlined WMO numbers denote current/2018 GRUAN sites. (**) Between 1st day of 'Begin Date' and 31 Dec of ending year of 'Hum POR' (until 2016).

Region	WMO #	Station Name, Country	Begin Date	Hum POR	# Days	Hum Obs 00Z	Hum Obs 12Z	Hum Obs OTH
			(in GUAN)			(23Z-01Z)	(11Z-13Z)	(other hours)
1	<u>60018</u>	TENERIFE-GUIMAR, SPAIN	Dec 2002	2002-2016	5145	4895	4893	66
1	60680	TAMANRASSET, ALGERIA	Oct 2001	2001-2016	5571	5367	5155	263
1	61052	NIAMEY-AERO, NIGER	Oct 2001	2001-2016	5571	4878	4928	610
1	61641	DAKAR/YOFF, SENEGAL	Oct 2001	2001-2016	5571	5078	5130	23
1	61901	ST. HELENA ISLAND, ST. HELENA	Oct 2001	2001-2016	5571	0	4392	1
1	61980	SAINT-DENIS/GILLOT, REUNION	Jul 2012	2012-2016	1645	1	1633	7
1	61995	VACOAS, MAURITIUS	Oct 2001	2001-2015	5205	1257	850	380
1	61998	PORT-AUX-FRANCAIS, TAAF	Oct 2001	2001-2016	5571	3	5186	10
1	62414	ASSWAN, EGYPT	Oct 2001	2001-2016	5571	4386	1770	24
1	62721	KHARTOUM, SUDAN	Jan 2013	2013-2014	730	0	224	4
1	63450	ADDIS ABABA, ETHIOPIA	Oct 2001	2002-2004	1096	0	203	2
				2006-2016	4018	1	1837	14
1	63741	NAIROBI/DAGORETTI, KENYA	Oct 2001	2001-2016	5571	4254	167	19
1	63894	DAR ES SALAAM, TANZANIA	Jan 2005	2005-2006	730	0	267	0
				2009-2013	1826	4	503	4
1	63985	SEYCHELLES IAP, SHEYCHELLES	Oct 2001	2001-2016	5571	3559	2950	175
1	64910	DOUALA OBS, CAMEROON	Oct 2001	2001-2016	5571	2962	3211	10
1	65578	ABIDJAN, COTE D'IVOIRE	Oct 2001	2006-2016	4018	2638	2706	352
1	67083	ANTANANARIVO/IVATO, MADAGASCAR	Jan 2006	2006-2016	4018	2682	2671	9
1	67774	HARARE, ZIMBABWE	Oct 2001	2002-2012	4018	659	2	55
				2015-2015	365	215	0	0
1	68110	WINDHOEK, NAMIBIA	Oct 2001	2006-2016	4018	0	2281	75
1	68592	LA MERCY, SOUTH AFRICA	Nov 2010	2010-2016	2253	2041	1974	1
1	68816	CAPE TOWN AP, SOUTH AFRICA	Oct 2001	2001-2016	5571	4856	4093	448
1	68906	GOUGH IS., SOUTH AFRICA	Oct 2001	2001-2016	5571	4295	4068	152
1	68994	MARION IS., SOUTH AFRICA	Oct 2001	2001-2014	4840	3506	3002	224
				2016-2016	366	243	220	128
2	20674	OSTROV DIKSON, RUSS FED	Oct 2001	2001-2016	5571	4433	4298	9
2	23472	TURUHANSK, RUSS FED	Oct 2001	2001-2016	5571	5346	5182	1
2	23921	IVDEL, RUSS FED	Jan 2005	2005-2016	4383	4331	4245	1
2	24266	VERHOJANSK, RUSS FED	Oct 2001	2001-2016	5571	5366	5334	24
2	27459	NIZHNIJ NOVGOROD, RUSS FED	Jan 2005	2005-2016	4383	3866	3784	0
2	28698	OMSK, RUSS FED	Oct 2001	2001-2016	5571	5056	5321	10
2	29862	HAKASSKAYA, RUSS FED	Jan 2005	2005-2016	4383	4279	3836	5
2	30230	KIRENSK, RUSS FED	Oct 2001	2001-2016	5571	5155	4962	1
2	31088	OHOTSK, RUSS FED	Jan 2005	2005-2016	4383	4218	4329	0
2	32540	PETROPAVLOVSK, RUSS FED	Oct 2001	2001-2016	5571	5210	5368	47
2	35121	ORENBURG, RUSS FED	Oct 2001	2001-2016	5571	4427	5337	1
2	40745	MASHHAD, IRAN	Jan 2005	2005-2016	4383	4036	2705	2
2	41112	ABHA, SAUDI ARABIA	Dec 2002	2002-2016	5145	4353	4479	99
2	41217	ABU DHABI INT'L AP, UAE	Oct 2001	2001-2016	5571	5075	4240	9
2	41780	KARACHI, PAKISTAN	Nov 2010	2010-2012	792	253	0	3
2	42182	NEW DELHI, INDIA	Jun 2017	n/a	n/a	n/a	n/a	n/a

2	42410	GUWAHATI, INDIA	Jun 2017	n/a	n/a	n/a	n/a	n/a
2	42809	KOLKATA, INDIA	Jun 2017	n/a	n/a	n/a	n/a	n/a
2	42867	NAGPUR, INDIA	Jun 2017	n/a	n/a	n/a	n/a	n/a
2	43003	MUMBAI, INDIA	Jun 2017	n/a	n/a	n/a	n/a	n/a
2	43279	CHENNAI, INDIA	Jun 2017	n/a	n/a	n/a	n/a	n/a
2	43599	GAN, MALDIVES	Jan 2005	2005-2016	4383	285	2186	939
2	45004	KING'S PARK, HONG KONG	Oct 2001	2001-2016	5571	5564	5565	9
2	47138	POHANG,KOREA	Dec 2002	2002-2016	5145	5098	5099	241
2	47412	SAPPORO, JAPAN	Oct 2001	2001-2016	5571	5570	5567	51
2	47646	TATENO, JAPAN	Oct 2001	2001-2016	5571	5569	5566	153
2	47827	KAGOSHIMA, JAPAN	Oct 2001	2001-2016	5571	5562	5568	221
2	47918	ISHIGAKIJIMA, JAPAN	Feb 2008	2008-2016	3257	3235	3212	104
2	47971	CHICHIJIMA, JAPAN	Oct 2001	2001-2016	5571	5557	5556	31
2	47991	MINAMITORISHIMA, JAPAN	Oct 2001	2001-2016	5571	5517	5494	21
2	48327	CHIANG MAI, THAILAND	Nov 2010	2010-2016	2253	1397	0	2
2	48453	BANGNA, THAILAND	Nov 2010	2010-2016	2253	1405	8	12
2	50527	HAILAR, CHINA	Oct 2001	2001-2016	5571	5561	5564	0
2	51709	KASHI, CHINA	Oct 2001	2001-2016	5571	5569	5568	1
2	52681	MINQIN, CHINA	Oct 2001	2001-2016	5571	5569	5568	0
2	53068	ERENHOT, CHINA	Oct 2001	2001-2016	5571	5559	5563	0
2	55299	NAGQU, CHINA	Oct 2001	2001-2016	5571	5560	5551	0
2	56778	KUNMING, CHINA	Oct 2001	2001-2016	5571	5568	5567	2
2	57461	YICHANG, CHINA	Oct 2001	2001-2016	5571	5568	5570	0
3	80222	BOGOTA/EL DORADO, COLOMBIA	Oct 2001	2001-2016	5571	57	4474	40
3	81405	CAYENNE/ROCHAMBEAU, F. GUIANA	Oct 2001	2001-2016	5571	5419	5452	196
3	82193	BELEM, BRAZIL	Oct 2001	2001-2016	5571	4090	4638	1
3	82332	MANAUS, BRAZIL	Oct 2001	2001-2016	5571	4215	4638	1
3	82397	FORTALEZA, BRAZIL	Oct 2001	2001-2016	5571	28	4554	0
3	83378	BRASILIA AEROPORTO, BRAZIL	Oct 2001	2001-2016	5571	4285	5027	2
3	83779	MARTE, BRAZIL	Oct 2001	2001-2016	5571	4938	5286	2
3	84008	SAN CRISTOBAL, ECUADOR	Oct 2001	2002-2016	5479	50	1932	62
3	84628	LIMA-CALLAO/CHAVEZ, PERU	Oct 2001	2001-2005	1553	5	623	146
				2009-2014	2191	5	1087	31
				2016-2016	366	0	44	5
3	85442	ANTOFAGASTA, CHILE	Oct 2001	2001-2016	5571	31	5315	5
3	85469	ISLA DE PASCUA, CHILE	Oct 2001	2001-2016	5571	4848	2	1
3	85586	SANTO DOMINGO, CHILE	Dec 2002	2002-2016	5145	3839	4959	3
3	85799	PUERTO MONTT, CHILE	Oct 2001	2001-2016	5571	0	5246	0
3	85934	PUNTA ARENAS, CHILE	Oct 2001	2001-2016	5571	2	5203	3
3	87155	RESISTENCIA AERO, ARGENTINA	Jan 2005	2005-2016	4383	594	3470	1
3	87576	BUENO AIRES, ARGENTINA	Dec 2002	2002-2016	5145	721	4827	2
3	87860	COMODORO RIVADAVIA, ARGENTINA	Oct 2001	2001-2001	92	0	22	0
				2004-2016	4749	271	4094	0
3	88889	MOUNT PLEASANT AP, FALKLAND IS.	Oct 2001	2001-2016	5571	5175	2795	222
4	70026	BARROW, AK, USA	Oct 2001	2001-2016	5571	5530	5524	16
4	70308	ST. PAUL IS., AK, USA	Oct 2001	2001-2016	5571	5513	5521	6
4	70398	ANNETTE IS., AK, USA	Oct 2001	2001-2016	5571	5503	5486	4
4	71082	ALERT, N.W.T., CANADA	Oct 2001	2001-2016	5571	5478	5467	450

4	71816	GOOSE BAY, CANADA	Oct 2001	2001-2016	5571	5533	5536	52
4	71836	MOOSONEE, CANADA	Oct 2001	2001-2016	5571	5539	5524	3
4	71925	CAMBRIDGE BAY A, CANADA	Jan 2005	2005-2016	4383	4357	4339	2
4	71934	FORT SMITH, CANADA	Oct 2001	2001-2016	5571	5546	5530	2
4	72201	KEY WEST, FL, USA	Oct 2001	2001-2016	5571	5506	5502	284
4	72250	BROWNSVILLE, TX, USA	Sep 2004	2004-2016	4505	4466	4473	147
4	72293	SAN DIEGO, CA, USA	Oct 2001	2001-2016	5571	5535	5533	49
4	72451	DODGE CITY, KS, USA	Sep 2004	2004-2016	4505	4471	4473	108
4	72520	PITTSBURGH, PA, USA	Sep 2004	2004-2016	4505	4465	4463	114
4	72597	MEDFORD, OR, USA	Oct 2001	2001-2016	5571	5551	5551	28
4	72776	GREAT FALLS, MT, USA	Sep 2004	2004-2016	4505	4458	4453	74
4	76654	MANZANILLO, MEXICO	Oct 2001	2001-2016	5571	1914	4427	6
4	78016	BERMUDA NAS KINDLEY, BERMUDA	Oct 2001	2001-2016	5571	4024	5475	80
4	78397	KINGSTON, JAMAICA	Oct 2001	2001-2012	4110	795	3329	88
				2014-2016	1096	269	697	11
4	78526	SAN JUAN, PUERTO RICO	Oct 2001	2001-2016	5571	5526	5529	122
4	78583	BELIZE/PHILLIP GOLDSTON, BELIZE	Oct 2001	2001-2016	5571	1232	4359	47
4	78762	SAN JOSE/EL COCO, COSTA RICA	Oct 2001	2003-2008	2192	306	1285	557
				2012-2016	1827	0	1031	0
4	78954	GRANTLEY ADAMS IAP, BARBADOS	Oct 2001	2001-2016	5571	1196	4561	17
4	78988	HATO AIRPORT, CURACAO	Jan 2005	2005-2016	4383	773	3095	16
4	80001	SAN ANDRES ISLAND, COLOMBIA	Nov 2010	2010-2016	2253	357	1453	5
5	48698	SINGAPORE/CHANGI AP, SINGAPORE	Oct 2001	2001-2016	5571	5539	4913	469
5	91212	AGANA, GUAM	Dec 2002	2002-2016	5145	5001	5002	176
5	91285	HILO/LYMAN, HAWAII, USA	Oct 2001	2001-2016	5571	5544	5534	110
5	91334	CHUUK, MICRONESIA	Oct 2001	2001-2016	5571	5471	5422	97
5	91376	MAJURO ATOLL, MARSHALL IS.	Oct 2001	2001-2016	5571	5501	5482	14
5	91408	KOROR, PALAU	Oct 2001	2001-2016	5571	5524	5522	561
5	91517	HONIARA, SOLOMON IS.	Oct 2001	2007-2011	1826	879	0	0
5	91557	BAUERFIELD, VANUATU	Oct 2001	2006-2009	1461	603	0	0
				2013-2016	1461	405	0	0
5	91592	TONTOUTA, NEW CALEDONIA	Oct 2001	2001-2016	5571	5452	4993	580
5	91610	TARAWA, KIRIBATI	Oct 2001	2001-2016	5571	4063	11	14
5	91643	FUNAFUTI, TUVALU	Oct 2001	2001-2016	5571	4343	11	23
5	91680	NADI, FIJI	Jan 2006	2006-2016	4018	3860	1405	1
5	91765	PAGO PAGO, AM. SAMOA	Oct 2001	2001-2016	5571	5418	5285	30
5	91843	RAROTONGA, COOK IS.	Jan 2006	2009-2016	2922	2457	0	0
5	91925	ATUONA, F. POLINESIA	Oct 2001	2001-2016	5571	5451	1196	18
5	91938	TAHITI-FAAA, F. POLINESIA	Oct 2001	2001-2016	5571	5532	5504	72
5	91958	RAPA, AUSTRAL IS.	Oct 2001	2001-2016	5571	2732	605	2724
5	92035	PORT MORESBY, PAPUA	Oct 2001	2002-2008	2557	478	0	1
				2010-2013	1461	632	0	2
5	93417	PARAPARAUMU, NEW ZEALAND	Oct 2001	2001-2016	5571	5314	5269	474
5	93844	INVERCARGILL, NEW ZEALAND	Oct 2001	2001-2016	5571	5231	5221	610
5	93997	RAOUL/KERMADEC IS., NEW ZEALAND	Oct 2001	2001-2016	5571	3832	1	1310
5	<u>94120</u>	DARWIN, AUSTRALIA	Oct 2001	2001-2016	5571	5485	5466	0
5	94203	BROOME AP, AUSTRALIA	Oct 2001	2001-2016	5571	5522	496	0
5	94294	TOWNSVILLE, AUSTRALIA	Oct 2001	2001-2016	5571	5517	505	1

5	94299	WILLIS ISLAND, AUSTRALIA	Jan 2007	2007-2016	3653	3351	577	0
5	94302	LEARMONTH AP, AUSTRALIA	Oct 2001	2001-2016	5571	5173	5123	0
5	94461	GILES, AUSTRALIA	Oct 2001	2001-2016	5571	5510	144	0
5	94510	CHARLEVILLE, AUSTRALIA	Oct 2001	2001-2016	5571	5292	1634	0
5	94610	PERTH AP, AUSTRALIA	Oct 2001	2001-2016	5571	5503	5503	1
5	94659	WOOMERA, AUSTRALIA	Oct 2001	2001-2016	5571	5387	1530	1
5	94975	HOBART AP, AUSTRALIA	Oct 2001	2001-2016	5571	5548	5490	9
5	94995	LORD HOWE IS., AUSTRALIA	Oct 2001	2001-2016	5571	5402	343	0
5	94996	NORFOLK IS., AUSTRALIA	Oct 2001	2001-2016	5571	5377	4	0
5	94998	MACQUARIE IS., AUSTRALIA	Oct 2001	2001-2016	5571	5457	5321	0
5	96315	BRUNEI AP, BRUNEI	Oct 2001	2001-2016	5571	4862	4264	4
5	96935	SURABAJA, INDONESIA	Oct 2001	2001-2016	5571	4150	3482	0
5	96996	COCOS ISLAND, AUSTRALIA	Oct 2001	2001-2016	5571	5074	1179	0
5	98223	LAOAG, PHILLIPINES	Oct 2001	2001-2016	5571	3775	1800	36
6	01001	JAN MAYEN, NORWAY	Oct 2001	2001-2016	5571	5491	5490	2803
6	02836	SODANKYLA, FINLAND	Oct 2001	2001-2016	5571	5487	5523	138
6	03005	LERWICK, UNITED KINGDOM	Oct 2001	2001-2016	5571	5553	5557	616
6	03808	CAMBORNE, UNITED KINGDOM	Oct 2001	2001-2016	5571	5539	5546	881
6	03953	VALENTIA OBSERVATORY, IRELAND	Oct 2001	2001-2016	5571	5556	5547	7663
6	04018	KEFLAVIKUR-FLUGVOLLUR, ICELAND	Oct 2001	2001-2016	5571	5227	5232	149
6	04270	NARSARUAQM, GREENLAND	Oct 2001	2001-2016	5571	5462	5490	75
6	06610	PAYERNE, SWITZERLAND	Feb 2008	2008-2016	3257	3232	3254	119
6	08001	LA CORUNA, SPAIN	Nov 2010	2010-2016	2253	2168	2179	27
6	08430	MURCIA, SPAIN	Jan 2013	2013-2016	1461	1434	1449	0
6	08508	LAJES/SANTA RITA, AZ, PORTUGAL	Oct 2001	2001-2016	5571	793	4891	87
6	10393	LINDENBERG, GERMANY	Jan 2005	2005-2016	4383	4371	4374	8749
6	11035	WIEN/HOHE WARTE, AUSTRIA	Dec 2002	2002-2016	5145	5125	5131	573
6	14430	ZADAR, CROATIA	Nov 2010	2010-2016	2253	2148	2070	7
6	15420	BUCHAREST-BANEASA, ROMANIA	Sep 2013	2013-2016	1218	1213	1217	1
6	15614	SOFIA, BULGARIA	Nov 2010	2010-2016	2253	0	2233	1
6	16245	PARTICA DI MARE, ITALY	Oct 2001	2001-2016	5571	5451	5405	3374
6	17130	ANKARA/CENTRAL, TURKEY	Oct 2001	2001-2016	5571	5564	5532	2
6	17607	ATHALASSA, CYPRUS	Nov 2010	2010-2016	2253	0	1762	1855
6	22543	ARHANGEL'SK, RUSSIA	Nov 2010	2010-2016	2253	2222	2151	0
6	27459	NIZHNIJ NOVGOROD, RUSSIA	Nov 2010	2010-2016	2253	2229	2135	0
6	33345	KYIV, RUSS FED	Oct 2001	2001-2016	5571	5200	4226	2
6	37789	YEREVAN, ARMENIA	Dec 2002	2002-2009	2588	1434	2	4
				2012-2015	1461	1088	0	0
6	40265	MAFRAQ, JORDAN	Nov 2010	2010-2016	2253	1999	26	3
7	89002	VAN NEUMAYER, ANTARCTICA	Oct 2001	2001-2016	5571	148	5060	278
7	89009	AMUNDSEN-SCOTT, ANTARCTICA	Oct 2001	2001-2016	5571	5357	2464	46
7	89022	HALLEY BAY, ANTARCTICA	Oct 2001	2001-2016	5571	1	4990	6
7	89055	MARAMBIO, ANTARCTICA	Oct 2001	2001-2016	5571	7	1371	18
7	89512	NOVOLAZARAVSKAJA, ANTARCTICA	Oct 2001	2001-2016	5571	5436	843	0
7	89532	SYOWA, ANTARCTICA	Oct 2001	2001-2016	5571	4832	4847	12
7	89564	MAWSON BASE, ANTARCTICA	Oct 2001	2001-2016	5571	2282	4170	2
7	89571	DAVIS BASE, ANTARCTICA	Oct 2001	2001-2016	5571	5134	3663	6
7	89592	MIRNYJ, ANTARCTICA	Oct 2001	2001-2016	5571	5369	826	0

7	89611	CASEY, ANTARCTICA	Oct 2001	2001-2016	5571	5260	4635	3
7	89642	DUMONT D'URVILLE, ANTARCTICA	Oct 2001	2001-2016	5571	5453	104	222
7	89664	MCMURDO, ANTARCTICA	Oct 2001	2001-2016	5571	4542	2423	21