

Bahrain, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for one (1) station in an Excel file. NCEI converted this file to a Comma Separated Values (CSV) file to aid in quality control, mapping, and comparison to Normals from other countries.

The original Excel file is provided along with the CSV file.

Excel Files	CSV Files
BahrainInternationalAirport_41150.xlsx	BahrainInternationalAirport_41150.csv

China, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 219 stations in individual Comma Separated Values (CSV) files.

Users are asked to note that NCEI computed Mean Temperature (Parameter 5) annual Normals for Taizhong and Tainan to fill in missing values.

The list of all CSV files is provided below. Additional information is provided by the WMO Member below the table.

Excel Files	CSV Files
N/A	ABAG_QI_53192.csv AKQI_51711.csv ALAR_51730.csv ALTAY_51076.csv ANKANG_57245.csv ANQING_58424.csv ARXAN_50727.csv BACHU_51716.csv BAISE_59211.csv BARKAM_56172.csv BATANG_56247.csv BAYANBULAK_51542.csv BAYAN_MOD_52495.csv BEIHAI_59644.csv BEIJING_54511.csv BENGBU_58221.csv BOXIAN_58102.csv BUGT_50632.csv CHANGCHUN_54161.csv CHANGDE_57662.csv CHANGSHA_57687.csv CHENGDE_54423.csv CHENGSHANTOU_54776.csv CHENZHOU_57972.csv CHIFENG_54218.csv CHONGQING_57516.csv DACHEN_DAO_58666.csv DALI_56751.csv DALIAN_54662.csv DANDONG_54497.csv DA_QAIDAM_52713.csv DARLAG_56046.csv DA_XIAN_57328.csv

DEGE_56144.csv
DELINGHA_52737.csv
DENGQEN_56116.csv
DEQEN_56444.csv
DINGHAI_58477.csv
DINGTAO_54909.csv
DONGFANG_59838.csv
DONGSHENG_53543.csv
DONGTAI_58251.csv
DOULAN_52836.csv
DUOLUN_54208.csv
ENSHI_57447.csv
ERENHOT_53068.csv
FUJIN_50788.csv
FUYANG_58203.csv
FUYUN_51087.csv
FUZHOU_58847.csv
GANGCA_52754.csv
GANYU_58040.csv
GANZHOU_57993.csv
GAOPING_57411.csv
GOLMUD_52818.csv
GUAIZIHU_52378.csv
GUANGNAN_59007.csv
GUANGZHOU_59287.csv
GUILIN_57957.csv
GUIYANG_57816.csv
HAIKOU_59758.csv
HAILS_53231.csv
HAILUN_50756.csv
HALIUT_53336.csv
HAMI_52203.csv
HANGZHOU_58457.csv
HANZHONG_57127.csv
HARBIN_50953.csv
HECHI_59023.csv
HENGCHUN_59559.csv
HEQU_53564.csv
HEYUAN_59293.csv
HEZUO_56080.csv
HOBOKSAR_51156.csv
HOHHOT_53463.csv
HOTAN_51828.csv
HUADE_53391.csv

HUADIAN_54273.csv
HUAIYIN_58141.csv
HUOSHAN_58314.csv
JARTAI_53502.csv
JARUD_QI_54026.csv
JI_AN_54377.csv
JI_AN_57799.csv
JINAN_54823.csv
JINGDEZHEN_58527.csv
JINGHE_51334.csv
JINGHE_57131.csv
JINING_53480.csv
JINZHOU_54337.csv
JIULONG_56462.csv
JIUQUAN_52533.csv
JIXI_50978.csv
KARAMAY_51243.csv
KASHI_51709.csv
KORLA_51656.csv
KUNMING_56778.csv
KUQA_51644.csv
LAN_YU_59567.csv
LAOHEKOU_57265.csv
LENGHU_52602.csv
LETING_54539.csv
LHASA_55591.csv
LIJING_56651.csv
LINCANG_56951.csv
LINDONG_54027.csv
LINGLING_57866.csv
LINHE_53513.csv
LINJIANG_54374.csv
LITANG_56257.csv
LONGKOU_54753.csv
LONGZHOU_59417.csv
LUSHI_57067.csv
LUSI_58265.csv
MADOI_56033.csv
MANDAL_53149.csv
MANGNAI_51886.csv
MAZONG_SHAN_52323.csv
MEI_XIAN_59117.csv
MENGLA_56969.csv
MENGZI_56985.csv

MINQIN_52681.csv
MUDANJIANG_54094.csv
NAGQU_55299.csv
NANCHANG_58606.csv
NANJING_58238.csv
NANNING_59431.csv
NANYANG_57178.csv
NARAN_BULAG_53083.csv
NENJIANG_50557.csv
NYINGCHI_56312.csv
OTOG_QI_53529.csv
PAGRI_55773.csv
PENGJIA_YU_58974.csv
PINGLIANG_53915.csv
POTOU_54618.csv
QAMDO_56137.csv
QIAN_GORLOS_50949.csv
QINGDAO_54857.csv
QIQIHAR_50745.csv
QITAI_51379.csv
QUMARLEB_56021.csv
QU_XIAN_58633.csv
RUIAN_58752.csv
RUO_ERGAI_56079.csv
SANHU_DAO_59985.csv
SANYA_59948.csv
SERTAR_56152.csv
SHACHE_51811.csv
SHANGHAI__BAOSHAN_58362.csv
SHANTOU_59316.csv
SHANWEI_59501.csv
SHAOGUAN_59082.csv
SHAOWU_58725.csv
SHENGSI_58472.csv
SHENYANG_54342.csv
SHEYANG_58150.csv
SHIQUANHE_55228.csv
SHISANJIANFANG_51495.csv
SIMAO_56964.csv
SONGPAN_56182.csv
TACHENG_51133.csv
TAIBEI_58968.csv
TAIDONG_59562.csv
TAINAN_59358.csv

TAIYUAN_53772.csv
TAIZHONG_59158.csv
TAZHONG_51747.csv
TENGCHONG_56739.csv
TIKANLIK_51765.csv
TINGRI_55664.csv
TONGHE_50963.csv
TONGLIAO_54135.csv
TUOTUOHE_56004.csv
TURPAN_51573.csv
ULIASTAI_50915.csv
WEIFANG_54843.csv
WEINING_56691.csv
WENJIANG_56187.csv
WUDAOLIANG_52908.csv
WUDU_56096.csv
WUHAN_57494.csv
WU_LU_MU_QI_51463.csv
WUTAI_SHAN_53588.csv
WUZHOU_59265.csv
XIAMEN_59134.csv
XICHANG_56571.csv
XIGAZE_55578.csv
XILIN_HOT_54102.csv
XIN_BARAG_YOUQI_50603.csv
XINGREN_57902.csv
XINGTAI_53798.csv
XINING_52866.csv
XINYANG_57297.csv
XISHA_DAO_59981.csv
XI_UJIMQIN_QI_54012.csv
XUZHOU_58027.csv
YAN_AN_53845.csv
YANCHI_53723.csv
YANGJIANG_59663.csv
YANJI_54292.csv
YIBIN_56492.csv
YICHANG_57461.csv
YICHUN_50774.csv
YINCHUAN_53614.csv
YINGKOU_54471.csv
YONG_AN_58921.csv
YOUYANG_57633.csv
YULIN_53646.csv

	YUMENZHEN_52436.csv YUNCHENG_53959.csv YUSHU_56029.csv YU_ZHONG_52983.csv ZADOI_56018.csv ZHANGJIAKOU_54401.csv ZHANGWU_54236.csv ZHANGYE_52652.csv ZHENGZHOU_57083.csv ZHIJIANG_57745.csv
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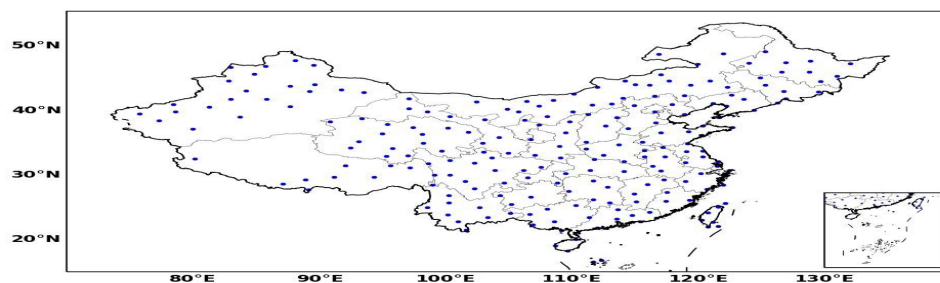
Additional Explanatory Information provided by the WMO Member

Introduction of Chinese Climatological Standard Normals

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1991-2020 surface climate normals dataset of China provides climate background information of 219 stations. The dataset is developed based on the surface observations archived by the National Meteorological Information Centre (Figure 1).



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Figure 1 Locations of the 219 surface stations of Chinese climate normals dataset

1 Calculation methods

Climate normals are calculated from monthly values during the averaging periods. The detailed calculation methods are given in the Chinese national standards for the statistical method of surface climate normals (GB/T 34412-2017) and WMO Guidelines on the Calculation of Climate Normals (WMO No.1203). The calculation includes the following steps: (1) quality control of the observations and metadata; (2) subsection processing applied to relocated stations; (3) calculation of individual monthly values and annual values; (4) calculation of climate normals; (5) quality evaluation of climate normals. The subsection processing of the temperature series is completed based on the homogeneity test results. The climate series of other variables are segmented according to the station location migration information. When the station altitude changes by more than 100 meters or the location change by more than 50km during 1991-2020, the long section of the time series is selected to calculate the climate normals. If two segments are of the same length, the late segment is selected.

2 Climatological Surface Parameters

This dataset contains the mean parameter and sum parameter, extreme parameter, and Count parameter of 8 climate variables, which include temperature, precipitation, air pressure, wind direction and speed, water vapor pressure, snow, sunshine, and hail occurrence days. Parameters in the dataset are listed in Table 1.

Table 1 Climatological Surface Parameters

	Parameter_Name	Units
Principal climatological surface parameters	Precipitation_Total	mm
	Number_of_Days_with_Precipitation_≥_1 mm	count
	Daily_Maximum_Temperature	Deg_C
	Daily_Minimum_Temperature	Deg_C
	Daily_Mean_Temperature	Deg_C
	Mean_Sea_Level_Pressure	hPa

	Mean_Vapor_Pressure	hPa
	Total_Number_of_Hours_of_Sunshine	hours
Secondary climatological surface parameters	Mean_Station-Level_Pressure	hPa
	Boundaries_of_quintiles_of_monthly_precipitation	mm
	Number_of_Days_with_Maximum_Temperature_>=_30_Deg_C	count
	Number_of_Days_with_Minimum_Temperature_<=_10_Deg_C	count
	Number_of_Days_with_Maximum_Temperature_<_0_Deg_C	count
	Number_of_Days_with_Minimum_Temperature_<_0_Deg_C	count
	Number_of_Days_with_Daily_Precipitation_≥_threshold*_m m	count
	Number_of_Days_with_Snow_Depth_>_threshold*_cm	count
	Number_of_Days_with_Wind_Speed_≥_threshold*_m/s	count
	Highest_Value_of_Mean_Daily_Temperature	Deg_C
	Lowest_Value_of_Mean_Daily_Temperature	Deg_C
	Highest_Value_of_Daily_Maximum_Temperature	Deg_C
	Lowest_Value_of_Daily_Minimum_Temperature	Deg_C
	Highest_Value_of_Daily_Precipitation	mm
	Highest_Wind_Gust	m/s
	Mean_Number_of_Days_with_Hail	count

Hong Kong, China, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for seven (7) stations in individual Comma Separated Values (CSV) files.

The list of all CSV files is provided below. Additional information is provided by the WMO Member below the table.

Excel Files	CSV Files
N/A	CheungChau_45044.csv HongKongObservatory_45005.csv KowloonKingSPark_45004.csv ShaTin_45039.csv TaKwuLing_45032.csv WaglanIsland_45045.csv WongChukHang_45043.csv

Additional Explanatory Information provided by the WMO Member

“King’s Park” (0-20008-0-HKO) and “Kowloon” (0-20000-0-45004) are referring to the same station but under two observing networks.

We reported two parameters, namely Total_Number_of_Hours_of_Sunshine and Global_Solar_Radiation, for King’s Park station.

Total_Number_of_Hours_of_Sunshine is registered in OSCAR/Surface with station name “Kowloon” and WIGOS Station Identifier **0-20000-0-45004**. Please refer to the following link:

<https://oscar.wmo.int/surface/#/search/station/stationReportDetails/0-20000-0-45004>

Global_Solar_Radiation is registered in OSCAR under GAW Regional program with station name “King’s Park” and WIGOS Station Identifier **0-20008-0-HKO**. Please refer to the following link:

<https://gawsis.meteoswiss.ch/GAWSIS/index.html#/search/station/stationReportDetails/0-20008-0-HKO>

India, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 401 stations in individual Excel files. NCEI converted these files to Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

Users are advised to note that for high elevation stations in India, the average of the geopotential height of the 850 hPa level are provided rather than Mean Sea Level field (Parameter 6). NCEI changed the Parameter Name and the Parameter number for these stations from '6' to '99' in the CSV files. These stations are identified in bold font.

The original Excel files are provided along with the CSV files produced by NCEI.

Excel Files	CSV Files
ADILABAD_43025.xlsx	ADILABAD_43025.csv
ADIRAMAPATTINAM_43348.xlsx	ADIRAMAPATTINAM_43348.csv
AGARTALA_42724.xlsx	AGARTALA_42724.csv
AGATTI_43266.xlsx	AGATTI_43266.csv
AGRA_42259.xlsx	AGRA_42259.csv
AHMEDABAD_42647.xlsx	AHMEDABAD_42647.csv
AHMEDNAGAR_43009.xlsx	AHMEDNAGAR_43009.csv
AIZAWL_42727.xlsx	AIZAWL_42727.csv
AJMER_42343.xlsx	AJMER_42343.csv
AKOLA_42933.xlsx	AKOLA_42933.csv
ALAPPUZHA_43352.xlsx	ALAPPUZHA_43352.csv
ALIBAG_43058.xlsx	ALIBAG_43058.csv
ALIGARH_42262.xlsx	ALIGARH_42262.csv
ALIRAJPUR_42753.xlsx	ALIRAJPUR_42753.csv
ALWAR_42255.xlsx	ALWAR_42255.csv
AMARAVATI_42937.xlsx	AMARAVATI_42937.csv
AMBALA_42103.xlsx	AMBALA_42103.csv
AMBIKAPUR_42693.xlsx	AMBIKAPUR_42693.csv
AMINIDIVI_43311.xlsx	AMINIDIVI_43311.csv
AMRELI_42834.xlsx	AMRELI_42834.csv
ANANTAPUR_43237.xlsx	ANANTAPUR_43237.csv
ANGUL_42969.xlsx	ANGUL_42969.csv
ARIYALUR_43324.xlsx	ARIYALUR_43324.csv
AROGYAVARAM_43271.xlsx	AROGYAVARAM_43271.csv
ASANSOL_42712.xlsx	ASANSOL_42712.csv
AURANGABAD_CHIKALTHANA_43014.xlsx	AURANGABAD_CHIKALTHANA_43014.csv
BAGALKOT_43160.xlsx	BAGALKOT_43160.csv
BAGATI_42714.xlsx	BAGATI_42714.csv
BAHRAICH_42273.xlsx	BAHRAICH_42273.csv
BALASORE_42895.xlsx	BALASORE_42895.csv

BALEHONNUR_43259.xlsx	BALEHONNUR_43259.csv
BALLIA_MIRDHA_42384.xlsx	BALLIA_MIRDHA_42384.csv
BALURGHAT_42506.xlsx	BALURGHAT_42506.csv
BANDA_42473.xlsx	BANDA_42473.csv
BANIHAL_42045.xlsx	BANIHAL_42045.csv
BANKURA_42706.xlsx	BANKURA_42706.csv
BAPATLA_43220.xlsx	BAPATLA_43220.csv
BARABANKI_42370.xlsx	BARABANKI_42370.csv
BARAMATI_43069.xlsx	BARAMATI_43069.csv
BARAPANI_42512.xlsx	BARAPANI_42512.csv
BAREILLY_42189.xlsx	BAREILLY_42189.csv
BARIPADA_42894.xlsx	BARIPADA_42894.csv
BARMER_42435.xlsx	BARMER_42435.csv
BASTI_42279.xlsx	BASTI_42279.csv
BATOTE_42043.xlsx	BATOTE_42043.csv
BEED_43011.xlsx	BEED_43011.csv
BELGAUM_43197.xlsx	BELGAUM_43197.csv
BELGAUM_AIRPORT_43198.xlsx	BELGAUM_AIRPORT_43198.csv
BENGALURU_43295.xlsx	BENGALURU_43295.csv
BENGALURU_HAL_43296.xlsx	BENGALURU_HAL_43296.csv
BENGALURU_KIA_43293.xlsx	BENGALURU_KIA_43293.csv
BERHAMPORE_42603.xlsx	BERHAMPORE_42603.csv
BETUL_42860.xlsx	BETUL_42860.csv
BHADERWAH_42048.xlsx	BHADERWAH_42048.csv
BHADRACHALAM_KOTHAGUDAM_43136.xlsx	BHADRACHALAM_KOTHAGUDAM_43136.csv
BHAGALPUR_42498.xlsx	BHAGALPUR_42498.csv
BHARATPUR_42258.xlsx	BHARATPUR_42258.csv
BHAVNAGAR_42838.xlsx	BHAVNAGAR_42838.csv
BHAWANIPATNA_43042.xlsx	BHAWANIPATNA_43042.csv
BHILWARA_42447.xlsx	BHILWARA_42447.csv
BHIND_42358.xlsx	BHIND_42358.csv
BHIRA_43062.xlsx	BHIRA_43062.csv
BHOPAL_42667.xlsx	BHOPAL_42667.csv
BHUBANESWAR_42971.xlsx	BHUBANESWAR_42971.csv
BHUJ_42634.xlsx	BHUJ_42634.csv
BHUNTAR_42081.xlsx	BHUNTAR_42081.csv
BIDAR_43125.xlsx	BIDAR_43125.csv
BIJAPUR_43161.xlsx	BIJAPUR_43161.csv
BIKANER_42165.xlsx	BIKANER_42165.csv
BILASPUR_42782.xlsx	BILASPUR_42782.csv
BOLANGIR_42963.xlsx	BOLANGIR_42963.csv
BRAHMAPURI_42946.xlsx	BRAHMAPURI_42946.csv
BULANSHAHAR_42183.xlsx	BULANSHAHAR_42183.csv
BULDHANA_42931.xlsx	BULDHANA_42931.csv

BUNDI_42450.xlsx	BUNDI_42450.csv
BURDWAN_42709.xlsx	BURDWAN_42709.csv
CANNING_42812.xlsx	CANNING_42812.csv
CAR_NICOBAR_43367.xlsx	CAR_NICOBAR_43367.csv
CHAIBASA_42795.xlsx	CHAIBASA_42795.csv
CHANDABALI_42973.xlsx	CHANDABALI_42973.csv
CHANDIGARH_42105.xlsx	CHANDIGARH_42105.csv
CHANDRAPUR_43029.xlsx	CHANDRAPUR_43029.csv
CHAPARMUKH_42414.xlsx	CHAPARMUKH_42414.csv
CHAPRA_42488.xlsx	CHAPRA_42488.csv
CHENNAI_MEENAMBAKKAM_43279.xlsx	CHENNAI_MEENAMBAKKAM_43279.csv
CHENNAI_NUNGAMBAKKAM_43278.xlsx	CHENNAI_NUNGAMBAKKAM_43278.csv
CHERRAPUNJEE_42515.xlsx	CHERRAPUNJEE_42515.csv
CHHINDWARA_42768.xlsx	CHHINDWARA_42768.csv
CHICKMAGALUR_43260.xlsx	CHICKMAGALUR_43260.csv
CHINTAMANI_43272.xlsx	CHINTAMANI_43272.csv
CHITRADURGA_43233.xlsx	CHITRADURGA_43233.csv
CHITTORGARH_42546.xlsx	CHITTORGARH_42546.csv
CHURK_42589.xlsx	CHURK_42589.csv
CHURU_42170.xlsx	CHURU_42170.csv
COIMBATORE_AIRPORT_43321.xlsx	COIMBATORE_AIRPORT_43321.csv
CONTAI_42900.xlsx	CONTAI_42900.csv
COOCH_BEHAR_42403.xlsx	COOCH_BEHAR_42403.csv
COONOOR_43318.xlsx	COONOOR_43318.csv
CUDDALORE_43329.xlsx	CUDDALORE_43329.csv
CUTTACK_42970.xlsx	CUTTACK_42970.csv
DAHANU_43001.xlsx	DAHANU_43001.csv
DALTONGANJ_42587.xlsx	DALTONGANJ_42587.csv
DAMOH_42674.xlsx	DAMOH_42674.csv
DARBHANGA_42391.xlsx	DARBHANGA_42391.csv
DARJEELING_42295.xlsx	DARJEELING_42295.csv
DATIA_42460.xlsx	DATIA_42460.csv
DAVANGERE_43230.xlsx	DAVANGERE_43230.csv
DEESA_42539.xlsx	DEESA_42539.csv
DEHRADUN_42111.xlsx	DEHRADUN_42111.csv
DEHRI_42588.xlsx	DEHRI_42588.csv
DEOMALI_42529.xlsx	DEOMALI_42529.csv
DHAR_42752.xlsx	DHAR_42752.csv
DHARAMSHALA_42062.xlsx	DHARAMSHALA_42062.csv
DHARMAPURI_43301.xlsx	DHARMAPURI_43301.csv
DHARWAD_43200.xlsx	DHARWAD_43200.csv
DHUBRI_42404.xlsx	DHUBRI_42404.csv
DIAMOND_HARBOUR_42811.xlsx	DIAMOND_HARBOUR_42811.csv
DIGHA_42901.xlsx	DIGHA_42901.csv

DIU_42914.xlsx	DIU_42914.csv
DURG_42876.xlsx	DURG_42876.csv
DWARKA_42731.xlsx	DWARKA_42731.csv
ERODE_43338.xlsx	ERODE_43338.csv
ETAWAH_42364.xlsx	ETAWAH_42364.csv
FATEHGARH_FARRUKHABAD_42267.xlsx	FATEHGARH_FARRUKHABAD_42267.csv
FATEHPUR_42471.xlsx	FATEHPUR_42471.csv
FORBESGANJ_42395.xlsx	FORBESGANJ_42395.csv
FURSATGANJ_42372.xlsx	FURSATGANJ_42372.csv
GADAG_43201.xlsx	GADAG_43201.csv
GANDHINAGAR_42654.xlsx	GANDHINAGAR_42654.csv
GANNAVARAM_43181.xlsx	GANNAVARAM_43181.csv
GAYA_42591.xlsx	GAYA_42591.csv
GAZIPUR_42482.xlsx	GAZIPUR_42482.csv
GOALPARA_42407.xlsx	GOALPARA_42407.csv
GOHPUR_42419.xlsx	GOHPUR_42419.csv
GOLAGHAT_42420.xlsx	GOLAGHAT_42420.csv
GONDIA_42871.xlsx	GONDIA_42871.csv
GOPALPUR_43049.xlsx	GOPALPUR_43049.csv
GORAKHPUR_42379.xlsx	GORAKHPUR_42379.csv
GULBARGA_43121.xlsx	GULBARGA_43121.csv
GULMARG_42026.xlsx	GULMARG_42026.csv
GUNA_42559.xlsx	GUNA_42559.csv
GURGAON_42178.xlsx	GURGAON_42178.csv
GUWAHATI_42410.xlsx	GUWAHATI_42410.csv
GWALIOR_42361.xlsx	GWALIOR_42361.csv
HALDIA_42806.xlsx	HALDIA_42806.csv
HAMIRPUR_42469.xlsx	HAMIRPUR_42469.csv
HANAMKONDA_43087.xlsx	HANAMKONDA_43087.csv
HARDOI_42271.xlsx	HARDOI_42271.csv
HARNAI_43109.xlsx	HARNAI_43109.csv
HASSAN_43263.xlsx	HASSAN_43263.csv
HAVERI_43227.xlsx	HAVERI_43227.csv
HIRAKUD_42881.xlsx	HIRAKUD_42881.csv
HISSAR_42131.xlsx	HISSAR_42131.csv
HONAVAR_43226.xlsx	HONAVAR_43226.csv
HOSHANGABAD_42763.xlsx	HOSHANGABAD_42763.csv
HUTBAY_43364.xlsx	HUTBAY_43364.csv
HYDERABAD_43128.xlsx	HYDERABAD_43128.csv
IDAR_42651.xlsx	IDAR_42651.csv
IMPHAL_42623.xlsx	IMPHAL_42623.csv
INDORE_42754.xlsx	INDORE_42754.csv
ITANAGAR_42308.xlsx	ITANAGAR_42308.csv
JABALPUR_42675.xlsx	JABALPUR_42675.csv

JAGDALPUR_43041.xlsx	JAGDALPUR_43041.csv
JAIPUR_42348.xlsx	JAIPUR_42348.csv
JAISALMER_42328.xlsx	JAISALMER_42328.csv
JALGAON_42851.xlsx	JALGAON_42851.csv
JALPAIGURI_42399.xlsx	JALPAIGURI_42399.csv
JAMMU_42056.xlsx	JAMMU_42056.csv
JAMSHEDPUR_42798.xlsx	JAMSHEDPUR_42798.csv
JAMSHEDPUR_CITY_42799.xlsx	JAMSHEDPUR_CITY_42799.csv
JAWAIBANDH_42441.xlsx	JAWAIBANDH_42441.csv
JEUR_43071.xlsx	JEUR_43071.csv
JHANSI_42463.xlsx	JHANSI_42463.csv
JHARSUGUDA_42886.xlsx	JHARSUGUDA_42886.csv
JODHPUR_42339.xlsx	JODHPUR_42339.csv
JORHAT_42423.xlsx	JORHAT_42423.csv
KADAPPA_43241.xlsx	KADAPPA_43241.csv
KAILASHAHAR_42618.xlsx	KAILASHAHAR_42618.csv
KAKINADA_43189.xlsx	KAKINADA_43189.csv
KALIMPONG_42296.xlsx	KALIMPONG_42296.csv
KALINGAPATNAM_43105.xlsx	KALINGAPATNAM_43105.csv
KALPA_42066.xlsx	KALPA_42066.csv
KAMACHIPURAM_15217.xlsx	KAMACHIPURAM_15217.csv
KANDLA_AIRPORT_42638.xlsx	KANDLA_AIRPORT_42638.csv
KANGRA_AIRPORT_42076.xlsx	KANGRA_AIRPORT_42076.csv
KANNUR_43315.xlsx	KANNUR_43315.csv
KANPUR_42366.xlsx	KANPUR_42366.csv
KANYAKUMARI_43377.xlsx	KANYAKUMARI_43377.csv
KARAIKAL_43346.xlsx	KARAIKAL_43346.csv
KARNAL_42137.xlsx	KARNAL_42137.csv
KARUR_PARAMATHI_43342.xlsx	KARUR_PARAMATHI_43342.csv
KARWAR_43225.xlsx	KARWAR_43225.csv
KATRA_42054.xlsx	KATRA_42054.csv
KAVALI_43243.xlsx	KAVALI_43243.csv
KEONJHAR_42891.xlsx	KEONJHAR_42891.csv
KESHOD_42832.xlsx	KESHOD_42832.csv
KHAJURAHU_42567.xlsx	KHAJURAHU_42567.csv
KHAMMAM_43137.xlsx	KHAMMAM_43137.csv
KHANDWA_42855.xlsx	KHANDWA_42855.csv
KHARGONE_42849.xlsx	KHARGONE_42849.csv
KOCHI_CIAL_43336.xlsx	KOCHI_CIAL_43336.csv
KODAIKANAL_43339.xlsx	KODAIKANAL_43339.csv
KOHIMA_42527.xlsx	KOHIMA_42527.csv
KOLHAPUR_43157.xlsx	KOLHAPUR_43157.csv
KOLKATA_ALIPORE_42807.xlsx	KOLKATA_ALIPORE_42807.csv
KOLKATA_DUMDUM_42809.xlsx	KOLKATA_DUMDUM_42809.csv

KOPPAL_43228.xlsx	KOPPAL_43228.csv
KORADACHERI_15212.xlsx	KORADACHERI_15212.csv
KORAPUT_43097.xlsx	KORAPUT_43097.csv
KOTA_42452.xlsx	KOTA_42452.csv
KOTTAYAM_43355.xlsx	KOTTAYAM_43355.csv
KOVILANKULAM_43358.xlsx	KOVILANKULAM_43358.csv
KOZHICODE_43314.xlsx	KOZHICODE_43314.csv
KOZHICODE_AIRPORT_43320.xlsx	KOZHICODE_AIRPORT_43320.csv
KRISHNAGAR_42711.xlsx	KRISHNAGAR_42711.csv
KUKERNAG_42046.xlsx	KUKERNAG_42046.csv
KUPWARA_42031.xlsx	KUPWARA_42031.csv
KURNOOL_43213.xlsx	KURNOOL_43213.csv
LAKHIMPUR_KHERI_42270.xlsx	LAKHIMPUR_KHERI_42270.csv
LEH_42034.xlsx	LEH_42034.csv
LENGPUI_42726.xlsx	LENGPUI_42726.csv
LONG_ISLAND_43310.xlsx	LONG_ISLAND_43310.csv
LUCKNOW_42369.xlsx	LUCKNOW_42369.csv
LUDHIANA_42099.xlsx	LUDHIANA_42099.csv
LUMDING_42523.xlsx	LUMDING_42523.csv
MACHILIPATNAM_43185.xlsx	MACHILIPATNAM_43185.csv
MADURAI_43359.xlsx	MADURAI_43359.csv
MADURAI_AIRPORT_43360.xlsx	MADURAI_AIRPORT_43360.csv
MAHABALESHWAR_43111.xlsx	MAHABALESHWAR_43111.csv
MAHBOOBNAGAR_43168.xlsx	MAHBOOBNAGAR_43168.csv
MAHUVA_42837.xlsx	MAHUVA_42837.csv
MALANJKHAND_42715.xlsx	MALANJKHAND_42715.csv
MALDAH_42503.xlsx	MALDAH_42503.csv
MALEGAON_42925.xlsx	MALEGAON_42925.csv
MANALI_42065.xlsx	MANALI_42065.csv
MANDI_42078.xlsx	MANDI_42078.csv
MANDLA_42776.xlsx	MANDLA_42776.csv
MANDVI_42729.xlsx	MANDVI_42729.csv
MANDYA_43289.xlsx	MANDYA_43289.csv
MANGALORE_BAJPE_AIRPORT_43284.xlsx	MANGALORE_BAJPE_AIRPORT_43284.csv
MANGALORE_PANAMBUR_43285.xlsx	MANGALORE_PANAMBUR_43285.csv
MATHERAN_43060.xlsx	MATHERAN_43060.csv
MATHURA_42257.xlsx	MATHURA_42257.csv
MAYABUNDER_43309.xlsx	MAYABUNDER_43309.csv
MAZBAT_42413.xlsx	MAZBAT_42413.csv
MEDAK_43083.xlsx	MEDAK_43083.csv
MEDNAPUR_42803.xlsx	MEDNAPUR_42803.csv
MEERUT_42139.xlsx	MEERUT_42139.csv
MINICOY_43369.xlsx	MINICOY_43369.csv
MOHANBARI_42314.xlsx	MOHANBARI_42314.csv

MORADABAD_42187.xlsx	MORADABAD_42187.csv
MORMUGAO_43196.xlsx	MORMUGAO_43196.csv
MOUNT_ABU_42540.xlsx	MOUNT_ABU_42540.csv
MUKTESHWAR_42147.xlsx	MUKTESHWAR_42147.csv
MUMBAI_COLABA_43057.xlsx	MUMBAI_COLABA_43057.csv
MUMBAI_SANTACRUZ_43003.xlsx	MUMBAI_SANTACRUZ_43003.csv
MUZAFFARNAGAR_42138.xlsx	MUZAFFARNAGAR_42138.csv
MUZAFFARPUR_42387.xlsx	MUZAFFARPUR_42387.csv
MYSORE_43291.xlsx	MYSORE_43291.csv
NAGAPATTINAM_43347.xlsx	NAGAPATTINAM_43347.csv
NAGPUR_42867.xlsx	NAGPUR_42867.csv
NAHAN_42104.xlsx	NAHAN_42104.csv
NAJIBABAD_42143.xlsx	NAJIBABAD_42143.csv
NALGONDA_43133.xlsx	NALGONDA_43133.csv
NALIYA_42631.xlsx	NALIYA_42631.csv
NANCOWRY_43382.xlsx	NANCOWRY_43382.csv
NANDED_43021.xlsx	NANDED_43021.csv
NANDIGAMA_43182.xlsx	NANDIGAMA_43182.csv
NANDURBAR_42846.xlsx	NANDURBAR_42846.csv
NANDYAL_43212.xlsx	NANDYAL_43212.csv
NARNAUL_42177.xlsx	NARNAUL_42177.csv
NARSAPUR_43187.xlsx	NARSAPUR_43187.csv
NARSINGHPUR_42770.xlsx	NARSINGHPUR_42770.csv
NASHIK_42921.xlsx	NASHIK_42921.csv
NELLORE_43245.xlsx	NELLORE_43245.csv
NEW_DELHI_AYANAGAR_42180.xlsx	NEW_DELHI_AYANAGAR_42180.csv
NEW_DELHI_PALAM_42181.xlsx	NEW_DELHI_PALAM_42181.csv
NEW_DELHI RIDGE_42184.xlsx	NEW_DELHI RIDGE_42184.csv
NEW_DELHI_SAFDARJUNG_42182.xlsx	NEW_DELHI_SAFDARJUNG_42182.csv
NEW_KANDLA_42639.xlsx	NEW_KANDLA_42639.csv
NIZAMABAD_43081.xlsx	NIZAMABAD_43081.csv
NORTH_LAKHIMPUR_42309.xlsx	NORTH_LAKHIMPUR_42309.csv
NOWGONG_42467.xlsx	NOWGONG_42467.csv
OKHA_42730.xlsx	OKHA_42730.csv
ONGOLE_43221.xlsx	ONGOLE_43221.csv
ORAI_42468.xlsx	ORAI_42468.csv
OSMANABAD_43075.xlsx	OSMANABAD_43075.csv
PACHMARHI_42767.xlsx	PACHMARHI_42767.csv
PAHALGAM_42028.xlsx	PAHALGAM_42028.csv
PALAKKAD_43335.xlsx	PALAKKAD_43335.csv
PALAYAMKOTTAI_43376.xlsx	PALAYAMKOTTAI_43376.csv
PAMBAN_43363.xlsx	PAMBAN_43363.csv
PANJIM_43192.xlsx	PANJIM_43192.csv
PANTNAGAR_42148.xlsx	PANTNAGAR_42148.csv

PARADEEP_42976.xlsx	PARADEEP_42976.csv
PARBHANI_43017.xlsx	PARBHANI_43017.csv
PASSIGHAT_42220.xlsx	PASSIGHAT_42220.csv
PATIALA_42101.xlsx	PATIALA_42101.csv
PATNA_42492.xlsx	PATNA_42492.csv
PENDRA_ROAD_42779.xlsx	PENDRA_ROAD_42779.csv
PHALODI_42237.xlsx	PHALODI_42237.csv
PHULBANI_42966.xlsx	PHULBANI_42966.csv
PILANI_42174.xlsx	PILANI_42174.csv
PORBANDAR_AIRPORT_42830.xlsx	PORBANDAR_AIRPORT_42830.csv
PORT_BLAIR_43333.xlsx	PORT_BLAIR_43333.csv
PRAYAGRAJ_ALLAHABAD_42474.xlsx	PRAYAGRAJ_ALLAHABAD_42474.csv
PUDUCHERRY_43331.xlsx	PUDUCHERRY_43331.csv
PUNALUR_43354.xlsx	PUNALUR_43354.csv
PUNE_43063.xlsx	PUNE_43063.csv
PURI_43053.xlsx	PURI_43053.csv
PURNEA_42500.xlsx	PURNEA_42500.csv
PURULIA_42705.xlsx	PURULIA_42705.csv
QAZIGUND_42044.xlsx	QAZIGUND_42044.csv
RAICHUR_43169.xlsx	RAICHUR_43169.csv
RAIPUR_42874.xlsx	RAIPUR_42874.csv
RAIPUR_MANA_42872.xlsx	RAIPUR_MANA_42872.csv
RAISEN_42672.xlsx	RAISEN_42672.csv
RAJGARH_42557.xlsx	RAJGARH_42557.csv
RAJKOT_42737.xlsx	RAJKOT_42737.csv
RAJNANDGAON_42948.xlsx	RAJNANDGAON_42948.csv
RAMAGUNDAM_43086.xlsx	RAMAGUNDAM_43086.csv
RANCHI_42701.xlsx	RANCHI_42701.csv
RANGIA_42408.xlsx	RANGIA_42408.csv
RATLAM_42661.xlsx	RATLAM_42661.csv
RATNAGIRI_43110.xlsx	RATNAGIRI_43110.csv
RENTACHINTALA_43177.xlsx	RENTACHINTALA_43177.csv
REWA_42574.xlsx	REWA_42574.csv
ROHTAK_42176.xlsx	ROHTAK_42176.csv
ROORKEE_42140.xlsx	ROORKEE_42140.csv
SABOUR_42499.xlsx	SABOUR_42499.csv
SAGAR_42671.xlsx	SAGAR_42671.csv
SAGAR_ISLAND_42903.xlsx	SAGAR_ISLAND_42903.csv
SALEM_43325.xlsx	SALEM_43325.csv
SAMBALPUR_42883.xlsx	SAMBALPUR_42883.csv
SANGLI_43158.xlsx	SANGLI_43158.csv
SATARA_43113.xlsx	SATARA_43113.csv
SATNA_42571.xlsx	SATNA_42571.csv
SAWAI_MADHOPUR_42453.xlsx	SAWAI_MADHOPUR_42453.csv

SEONI_42771.xlsx	SEONI_42771.csv
SHAHJAHANPUR_42266.xlsx	SHAHJAHANPUR_42266.csv
SHAJAPUR_42665.xlsx	SHAJAPUR_42665.csv
SHEOPUR_42456.xlsx	SHEOPUR_42456.csv
SHILLONG_42516.xlsx	SHILLONG_42516.csv
SHIMLA_42083.xlsx	SHIMLA_42083.csv
SHIMLA_AIRPORT_42084.xlsx	SHIMLA_AIRPORT_42084.csv
SHIMOGA_43258.xlsx	SHIMOGA_43258.csv
SHIRALI_43229.xlsx	SHIRALI_43229.csv
SHIVPURI_42459.xlsx	SHIVPURI_42459.csv
SIDHI_42577.xlsx	SIDHI_42577.csv
SIKAR_42249.xlsx	SIKAR_42249.csv
SILCHAR_42619.xlsx	SILCHAR_42619.csv
SOLAN_NAUNI_42106.xlsx	SOLAN_NAUNI_42106.csv
SOLAPUR_43117.xlsx	SOLAPUR_43117.csv
SRIGANGANAGAR_42123.xlsx	SRIGANGANAGAR_42123.csv
SRINAGAR_42027.xlsx	SRINAGAR_42027.csv
SRINIKETAN_42708.xlsx	SRINIKETAN_42708.csv
SULTANPUR_42377.xlsx	SULTANPUR_42377.csv
SUNDERGARH_42792.xlsx	SUNDERGARH_42792.csv
SUNDERNAGAR_42079.xlsx	SUNDERNAGAR_42079.csv
SUPAUL_42393.xlsx	SUPAUL_42393.csv
SURAT_42840.xlsx	SURAT_42840.csv
SURENDRANAGAR_42740.xlsx	SURENDRANAGAR_42740.csv
SURI_42710.xlsx	SURI_42710.csv
TANGLA_42409.xlsx	TANGLA_42409.csv
T.B.I.A._43005.xlsx	TBIA_43005.csv
TEHRI_42114.xlsx	TEHRI_42114.csv
TEZPUR_42415.xlsx	TEZPUR_42415.csv
THANJAVUR_43330.xlsx	THANJAVUR_43330.csv
THIRUVANANTHAPURAM_43371.xlsx	THIRUVANANTHAPURAM_43371.csv
THIRUVANANTHAPURAM_AIRPORT_43372.xlsx	THIRUVANANTHAPURAM_AIRPORT_43372.csv
THOOTHUKUDI_NEW_PORT_43379.xlsx	THOOTHUKUDI_NEW_PORT_43379.csv
THRISSUR_VELLANIKKARA_43357.xlsx	THRISSUR_VELLANIKKARA_43357.csv
TIKAMGARH_42562.xlsx	TIKAMGARH_42562.csv
TIRUCHIRAPALLI_AIRPORT_43344.xlsx	TIRUCHIRAPALLI_AIRPORT_43344.csv
TIRUMALA_14223.xlsx	TIRUMALA_14223.csv
TIRUPATI_43275.xlsx	TIRUPATI_43275.csv
TIRUPATTUR_43302.xlsx	TIRUPATTUR_43302.csv
TIRUTTANI_43277.xlsx	TIRUTTANI_43277.csv
TITLAGARH_42961.xlsx	TITLAGARH_42961.csv
TONDI_43361.xlsx	TONDI_43361.csv
TUNI_43147.xlsx	TUNI_43147.csv
UDAGAMANDALAM_43317.xlsx	UDAGAMANDALAM_43317.csv

UDAIPUR_DABOK_AIRPORT_42542.xlsx	UDAIPUR_DABOK_AIRPORT_42542.csv
UDGIR_43076.xlsx	UDGIR_43076.csv
UJJAIN_42662.xlsx	UJJAIN_42662.csv
UMARIA_42679.xlsx	UMARIA_42679.csv
UNA_42077.xlsx	UNA_42077.csv
VADODARA_AIRPORT_42748.xlsx	VADODARA_AIRPORT_42748.csv
VALLABH_VIDYANAGAR_42744.xlsx	VALLABH_VIDYANAGAR_42744.csv
VALPARAI_43341.xlsx	VALPARAI_43341.csv
VALSAD_42915.xlsx	VALSAD_42915.csv
VARANASI_42483.xlsx	VARANASI_42483.csv
VARANASI_BABATPUR_AIRPORT_42479.xlsx	VARANASI_BABATPUR_AIRPORT_42479.csv
VELLORE_43303.xlsx	VELLORE_43303.csv
VENGURLA_43193.xlsx	VENGURLA_43193.csv
VERAVAL_42909.xlsx	VERAVAL_42909.csv
VISAKHAPATNAM_43150.xlsx	VISAKHAPATNAM_43150.csv
VISAKHAPATNAM_AIRPORT_43149.xlsx	VISAKHAPATNAM_AIRPORT_43149.csv
WARDHA_42939.xlsx	WARDHA_42939.csv
WASHIM_42935.xlsx	WASHIM_42935.csv
YAVATMAL_42943.xlsx	YAVATMAL_42943.csv

Iran, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 76 stations in individual Comma Separated Values (CSV) files.

The list of all CSV files is provided below.

Excel Files	CSV Files
N/A	Abadan_40831.csv Abadeh_40818.csv AbumusalIsland_40890.csv Ahar_40704.csv Ahvaz_40811.csv Aligudarz_40783.csv Arak_40769.csv Ardebil_40708.csv Babolsar_40736.csv Baft_40853.csv Bam_40854.csv Bandarabbas_40875.csv BandarAnzali_40718.csv BandarDayyer_40872.csv BandarLengeh_40883.csv Birjand_40809.csv Bojnurd_40723.csv BushehrCoastal_40857.csv Chahbahar_40898.csv Dogonbadan_40835.csv Esfahan_40800.csv Fasa_40859.csv Ferdows_40792.csv Gharakhil_40737.csv Gorgan_40738.csv HamedanAirport_40768.csv Ilam_40780.csv Iranshahr_40879.csv Jask_40893.csv Kahnuj_40877.csv Kashan_40785.csv Kashmar_40763.csv Kerman_40841.csv Kermanshah_40766.csv Khorrarnabad_40782.csv Khoy_40703.csv

	KhurBiabanak_40789.csv KishIsland_40882.csv Mahabad_40726.csv Maku_40701.csv Maragheh_40713.csv Maravehtappeh_40721.csv Mashhad_40745.csv Masjedsoleyman_40812.csv Mianeh_40716.csv Nehbandan_40827.csv Nowshahr_40734.csv OmidiyehAghajari_40833.csv Orumiyeh_40712.csv ParsabadAirport_40700.csv Qazvin_40731.csv Quchan_40740.csv Ramsar_40732.csv Rasht_40719.csv Sabzevar_40743.csv SafiabadDezful_40794.csv Sanandaj_40747.csv Saqez_40727.csv Sarab_40710.csv Sarakhs_40741.csv Saravan_40878.csv Semnan_40757.csv Shahrekord_40798.csv Shahrud_40739.csv Shiraz_40848.csv SirilIsland_40889.csv Sirjan_40851.csv Tabas_40791.csv Tabriz_40706.csv TehranMehrabadAirport_40754.csv TorbatHeydariyeh_40762.csv Yasuj_40836.csv Yazd_40821.csv Zabol_40829.csv Zahedan_40856.csv Zanjan_40729.csv
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Iraq, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided monthly means for each of the 30 years in the 1991-2020 period for 12 stations containing up to 11 Parameters in individual Excel files. No 1991-2020 computed Normals were provided by the Member.

NCEI computed Monthly and Annual Normals for each Parameter provided and obtained metadata for each station via OSCAR Surface. The data and metadata were combined into the standard WMO Normals format for Comma Separated Value files (CSV) and the data are provided in 12 CSV station files. No Climatological Normals were computed for Parameters and Months having less than 24 years of data.

Parameters provided for which NCEI computed 1991-2020 climatological Normals are the following:

Precipitation Total
Daily Maximum Temperature
Daily Minimum Temperature
Daily Mean Temperature
Mean Sea Level Pressure
Wind Speed
Relative Humidity
Number of Days with Rising Sand
Number of Days with Duststorm/Sandstorm
Number of Days with Suspended Dust
Evaporation

The original Excel files containing the data for each of the 30 years in the 1991-2020 period are provided.

The 1991-2020 Normals for Iraq were computed and CSV files are provided as a service to the User Community, however users are advised to note that the Normals values could differ from how the WMO Member would compute the Normals values for their stations.

Excel Files	CSV Files
AL-HAI.xls	AL-HAI_40665.csv
AMARA.xls	AMARA_40680.csv
BAGHDAD.xls	BAGHDAD_40650.csv
BASRA.xls	BASRA_40690.csv
DIWANIYA.xls	DIWANIYA_40672.csv
KERBALLA.xls	KERBALLA_40656.csv
KHANAQIN.xls	KHANAQIN_40637.csv
KIRKUK.xls	KIRKUK_40621.csv
MOSUL.xls	MOSUL_40608.csv
NAJAF.xls	NAJAF_40670.csv
NASIRIYA.xls	NASIRIYA_40676.csv

RUTBAH.xls	RUTBAH_40642.csv
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Japan, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 53 stations in individual Comma Separated Values (CSV) files.

The list of all CSV files is provided below.

Excel Files	CSV Files
N/A	Abashiri_47409.csv Akita_47582.csv Aomori_47575.csv Asahikawa_47407.csv Chichijima_47971.csv Choshi_47648.csv Fukue_47843.csv Fukuoka_47807.csv Hachiojima_47678.csv Hakodate_47430.csv Hiroshima_47765.csv Ishigakijima_47918.csv Izuhara_47800.csv Kagoshima_47827.csv Kanazawa_47605.csv Kochi_47893.csv Kushiro_47418.csv Maebashi_47624.csv Maizuru_47750.csv Matsue_47741.csv Matsuyama_47887.csv Minamidaitojima_47945.csv Minamitorishima_47991.csv Mito_47629.csv Miyakojima_47927.csv Miyazaki_47830.csv Morioka_47584.csv Nagano_47610.csv Nagasaki_47817.csv Nagoya_47636.csv Naha_47936.csv Naze_47909.csv Nemuro_47420.csv Niigata_47604.csv Oita_47815.csv Omaezaki_47655.csv

	Osaka_47772.csv Oshima_47675.csv Saigo_47740.csv Sapporo_47412.csv Sendai_47590.csv Shionomisaki_47778.csv Suttsu_47421.csv Syowa_89532.csv Takamatsu_47891.csv Tokushima_47895.csv Tokyo_47662.csv Tottori_47746.csv Tsu_47651.csv Urakawa_47426.csv Wajima_47600.csv Wakamatsu_47570.csv Wakkanai_47401.csv
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Kazakhstan, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 229 stations in individual Excel files. NCEI converted these files to Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

Users are asked to note that the station file Matai_36772.xls contained the WMO Number 36773 (rather than 36772) within the file. The filename of the csv file is Matai_36773.csv while the original filename of the xls file was left unchanged.

The original Excel files are provided along with the CSV files produced by NCEI.

Excel Files	CSV Files
Achysai_38196.xls	Achysai_38196.csv
Agadyr_35594.xls	Agadyr_35594.csv
Akkol_35085.xls	Akkol_35085.csv
Akkudyk_38232.xls	Akkudyk_38232.csv
Akkum_38191.xls	Akkum_38191.csv
Aksai_35117.xls	Aksai_35117.csv
Aksengir_36874.xls	Aksengir_36874.csv
Aksuat_36643.xls	Aksuat_36643.csv
Aktau_38111.xls	Aktau_38111.csv
Aktobe_35229.xls	Aktobe_35229.csv
Aktogai_36619.xls	AktogaiVKO_36619.csv
Aktogay_29900.xls	Aktogay_29900.csv
Alakol_36803.xls	Alakol_36803.csv
AlmatyKamenskoeplato_36875.xls	AlmatyKamenskoeplato_36875.csv
ALMATYOGMS_36870.xls	ALMATYOGMS_36870.csv
Amangeldy_35361.xls	Amangeldy_35361.csv
Anarkhay_36817.xls	Anarkhay_36817.csv
AqsuAyuly_35498.xls	AqsuAyuly_35498.csv
Aqtogay_36467.xls	Aqtogay_36467.csv
Aqzhar_36658.xls	Aqzhar_36658.csv
Aralkol_35157.xls	Aralkol_35157.csv
Araltenizi_35746.xls	AralTenizi_35746.csv
Arkalyk_35363.xls	Arkalyk_35363.csv
Arshalinsky_28948.xls	Arshalinsky_28948.csv
Arshaly_35283.xls	Arshaly_5087230.csv
Arys_38316.xls	Arys_38316.csv
Assy_36897.xls	Assy_36897.csv
Atbasar_35078.xls	Atbasar_35078.csv
Atyrau_35700.xls	Atyrau_35700.csv
Aul4_36744.xls	Aul4_36744.csv
AulTuraraRyskulova_38334.xls	AulTuraraRyskulova_38334.csv

Ayagoz_36622.xls	Ayagoz_36622.csv
Ayakkum_35739.xls	Ayakkum_35739.csv
Aydarly_36819.xls	Aydarly_36819.csv
BAKANAS_36821.xls	BAKANAS_36821.csv
Bakty_36736.xls	Bakty_36736.csv
Balhash_35796.xls	Balhash_35796.csv
Balkashino_28978.xls	Balkashino_28978.csv
Barshatas_36498.xls	Barshatas_36498.csv
Baskuduk_35345.xls	Baskuduk_35345.csv
Bayanauy_36126.xls	Bayanauy_36126.csv
Bektauata_35699.xls	Bektauata_35699.csv
Besoba_35396.xls	Besoba_35396.csv
Beyneu_35927.xls	Beyneu_35927.csv
Blagoveshchenka_28766.xls	Blagoveshchenka_28766.csv
BorovoeSKFM_28987.xls	BorovoeSKFM_28987.csv
Bulaevo_28687.xls	Bulaevo_28684.csv
Chapaev_35302.xls	Chapaev_35302.csv
Chiganak_35997.xls	Chiganak_35997.csv
Chingirlau_35118.xls	Chingirlau_35118.csv
Chkalovo_28884.xls	Chkalovo_28884.csv
Dievskaya_35055.xls	Dievskaya_35055.csv
Dmitrievka_36183.xls	Dmitrievka_36183.csv
Dzhambeity_35217.xls	Dzhambeity_35217.csv
Egindykol_35179.xls	Egindykol_5116950.csv
Ekibastuz_36001.xls	Ekibastuz_36001.csv
Ekidyn_35368.xls	Ekidyn_35368.csv
Emba_35437.xls	Emba_35437.csv
Ertis_29807.xls	Ertis_29807.csv
Esik_36885.xls	Esik_36885.csv
Esil_35068.xls	Esil_35068.csv
Fedorovka_29808.xls	Fedorovka_29808.csv
FortShevchenko_38001.xls	FortShevchenko_38001.csv
Ganyushkino_34798.xls	Ganyushkino_34798.csv
Golubovka_28993.xls	Golubovka_28993.csv
Ilinsky_35325.xls	Ilinsky_35325.csv
Inderborskiy_35506.xls	Inderborskiy_35506.csv
Irgiz_35542.xls	Irgiz_35542.csv
Kamenka_35107.xls	Kamenka_35107.csv
Kapshagai_36837.xls	Kapshagai_36837.csv
Karabalyk_28843.xls	Karabalyk_28843.csv
Karabau_35514.xls	Karabau_35514.csv
Karabutak_35344.xls	Karabutak_35344.csv
Karaganda_35394.xls	Karaganda_35394.csv
KaragandaSKhOS_35391.xls	KaragandaSKhOS_35391.csv

Karak_38051.xls	Karak_38051.csv
Karamendy_35153.xls	Karamendy_35153.csv
KARASHOKY_36891.xls	KARASHOKY_36891.csv
Karasu_28967.xls	Karasu_28967.csv
Karatyuba_35315.xls	Karatyuba_35315.csv
Karaulkeldy_35522.xls	Karaulkeldy_35522.csv
Karauyl_36501.xls	Karauyl_36501.csv
KatonKaragay_36439.xls	KatonKaragay_36439.csv
Kaynar_36358.xls	Kaynar_36358.csv
Kazaly_35849.xls	Kazaly_35849.csv
Kazygurt_38452.xls	Kazygurt_38452.csv
KEGEN_36907.xls	KEGEN_36907.csv
Kertindy_35386.xls	Kertindy_35386.csv
Khantau_38108.xls	Khantau_38108.csv
Kiima_35163.xls	Kiima_35163.csv
Kishkenekol_28886.xls	Kishkenekol_28886.csv
Kogaly_36846.xls	Kogaly_36846.csv
Kokpekty_36535.xls	Kokpekty_36535.csv
KOKSHETAU_28879.xlsx	KOKSHETAU_28879.csv
Koktobe_36017.xls	Koktobe_36017.csv
Komsomolskoye_35244.xls	Komsomolskoye_35244.csv
Korday_38229.xls	Korday_38229.csv
Korgalzhyn_35284+.xls	Korgalzhyn_35284.csv
Korneevka_35393.xls	Korneevka_35393.csv
Koslstek_35234.xls	Kos-lstek_35234.csv
Kostanay_28952.xls	Kostanay_28952.csv
Krasnoarmeyka_36011.xls	Krasnoarmeyka_36011.csv
KUIGAN_35996.xls	KUIGAN_35996.csv
KULAN_38343.xls	KULAN_38343.csv
Kulsary_35715.xls	Kulsary_35715.csv
Kulzhambay_35656.xls	Kulzhambay_35656.csv
Kurshim_36546.xls	Kurshim_36546.csv
Kushmurun_35053.xls	Kushmurun_35053.csv
KYRGYZSAI_36905.xls	KYRGYZSAI_36905.csv
Kyzan_38002.xls	Kyzan_38002.csv
Kyzylorda_38062.xls	Kyzylorda_38062.csv
Kzyltau_35680.xls	Kzyltau_35680.csv
Kzylzhar_35576.xls	Kzylzhar_35576.csv
LENINOGORSK_36208.xlsx	LENINOGORSK_36208.csv
Lepsi_36796.xls	Lepsi_36796.csv
Lozovaya_29817.xls	Lozovaya_29817.csv
Mahambet_35605.xls	Mahambet_35605.csv
Martuk_35225.xls	Martuk_35225.csv
Matai_36772.xls	Matai_36773.csv

Merke_38344.xls	Merke_38344.csv
Mikhaylovka_28856.xls	Mikhaylovka_28856.csv
Mikhaylovka_29802.xls	Mikhaylovka_29802.csv
Moiynkum_38099.xls	Moiynkum_38099.csv
Mugodzarskaya_35532.xls	Mugodzarskaya_35532.csv
MYNZHILKI_36889.xls	MYNZHILKI_36889.csv
NARYNKOL_36953.xls	NARYNKOL_36953.csv
Novoalekseevka_35321.xls	Novoalekseevka_35321.csv
Novorossiskoe_35331.xls	Novorossiskoe_35331.csv
Nura_35449.xls	Nura_35449.csv
Nurlykent_38330.xls	Nurlykent_38330.csv
Nur-Sultan_35283.xls	Nur-Sultan_5127140.csv
Opornaya_35816.xls	Opornaya_35816.csv
Otar_36865.xls	Otar_36865.csv
Pavlodar_36003.xls	Pavlodar_36003.csv
Peshnoy_35705.xls	Peshnoy_35705.csv
Petropavlovsk_28676.xls	Petropavlovsk_28676.csv
Presnogorkovka_28764.xls	Presnogorkovka_28764.csv
Qyzylqum_38301.xls	Qyzylqum_38301.csv
Rodnikovka_35226.xls	Rodnikovka_35226.csv
Rodnikovskoe_35198.xls	Rodnikovskoe_35198.csv
Rudnyi_28954.xls	Rudnyi_28954.csv
Ruzaevka_28966.xls	Ruzaevka_28966.csv
Sagyz_35519.xls	Sagyz_35519.csv
Sam_35925.xls	Sam_35925.csv
Samarka_36418.xls	Samarka_36418.csv
Sarkand_36786.xls	Sarkand_36786.csv
Sarykol_28867.xls	Sarykol_28867.csv
Saryozek_36839.xls	Saryozek_36839.csv
Saryshagan_35895.xls	Saryshagan_35895.csv
Saudakent_38202.xls	Saudakent_38202.csv
Saumalkol_28877.xls	Saumalkol_28877.csv
Sayak_36598.xls	Sayak_36598.csv
Seleznevka_36415.xls	Seleznevka_36415.csv
Semijarka_36152.xls	Semijarka_36152.csv
Semipalatinsk_36177.xls	Semipalatinsk_36177.csv
Sergeevka_28863.xls	Sergeevka_28863.csv
Shalabay_36392.xls	Shalabay_36392.csv
Shalday_36015.xls	Shalday_36015.csv
Shalkar_35633.xls	Shalkar_35633.csv
Shar_36394.xls	Shar_36394.csv
Sharbakty_36012.xls	Sharbakty_36012.csv
Shardara_38439.xls	Shardara_38439.csv
Shayan_38207.xls	Shayan_38207.csv

Shchuchinsk_28984.xls	Shchuchinsk_28984.csv
SHELEK_36894.xls	SHELEK_36894.csv
Shemonaiha_36186.xls	Shemonaiha_36186.csv
Shieli_38069.xls	Shieli_38069.csv
Shokpar_38223.xls	Shokpar_38223.csv
Sholakkorgan_38201.xls	Sholakkorgan_38201.csv
Shuyldaq_38338.xls	Shuyldaq_38338.csv
Shymkent_38328.xls	Shymkent_38328.csv
ShyrykRabat_38049.xls	ShyrykRabat_38049.csv
Stepnogorsk_35082.xls	Stepnogorsk_35082.csv
Taipak_35406.xls	Taipak_35406.csv
Taiynsha_28873.xls	Taiynsha_28873.csv
Taldykorgan_36778.xls	Taldykorgan_38337.csv
TARAZ_38341.xls	TARAZ_38341.csv
Tasaryk_38337.xls	Tasaryk_38337.csv
Tasty_38081.xls	Tasty_38081.csv
TastyTaldy_35265.xls	TastyTaldy_35265.csv
Tekeli_36843.xls	Tekeli_36843.csv
Temir_35426.xls	Temir_35426.csv
Terekty_36567.xls	Terekty_36567.csv
Timiryazevo_28862.xls	Timiryazevo_28862.csv
Tobol_28957.xls	Tobol_28957.csv
TOLEBI_38222.xls	TOLEBI_38222.csv
TORGAI_35358.xls	TORGAI_35358.csv
Tugyl_36666.xls	Tugyl_36666.csv
Turkestan_38198.xls	Turkestan_38198.csv
Tushchybek_38008.xls	Tushchybek_38008.csv
Uil_35416.xls	Uil_35416.csv
Ulanbel_38094.xls	Ulanbel_38094.csv
UlkenAlmatylake_36879.xls	UlkenAlmatylake_36879.csv
UlkenNaryn_36428.xls	UlkenNaryn_36428.csv
Uralsk_35108.xls	Uralsk_35108.csv
Urda_34581.xls	Urda_34581.csv
Urzhar_36639.xls	Urzhar_36639.csv
Usharal_36729.xls	Usharal_36729.csv
Ushtagan_34691.xls	Ushtagan_34691.csv
Ushtobe_36777.xls	Ushtobe_36777.csv
Uspenka_29906.xls	Uspenka_29906.csv
UstKamenogorsk_36403.xls	UstKamenogorsk_36403.csv
Uyuk_38203.xls	Uyuk_38203.csv
UZYNAGASH_36877.xls	UZYNAGASH_36877.csv
Vozvyshenka_28785.xls	Vozvyshenka_28785.csv
Yanvartsevo_35106.xls	Yanvartsevo_35106.csv
Yavlenka_28775.xls	Yavlenka_28775.csv

Yereymentau_35191.xls	Yereymentau_35191.csv
ZapovednikMarkakol_36566.xls	ZapovednikMarkakol_36566.csv
Zaysan_36665.xlsx	Zaysan_36665.csv
Zhaksy_35069.xls	Zhaksy_35069.csv
Zhalanash_36899.xls	Zhalanash_36899.csv
Zhalanashkol_36806.xls	Zhalanashkol_36806.csv
Zhalgyztobe_36397.xls	Zhalgyztobe_36397.csv
Zhalpaktal_34398.xls	Zhalpaktal_34398.csv
Zhaltyr_35173.xls	Zhaltyr_35173.csv
ZhanaArka_35582.xls	ZhanaArka_35582.csv
Zhangala_35404.xls	Zhangala_35404.csv
Zhanibek_34473.xls	Zhanibek_34473.csv
ZHARKENT_36859.xls	ZHARKENT_36859.csv
Zharyk_35497.xls	Zharyk_35497.csv
Zheleznodorozhny_35064.xls	Zheleznodorozhny_35064.csv
Zhetykonur_35777.xls	Zhetykonur_35777.csv
Zhetysai_38584.xls	Zhetysai_38584.csv
Zhezkazgan_35671.xls	Zhezkazgan_35671.csv
Zhitikara_35042.xls	Zhitikara_35042.csv
Zholboldy_28999.xls	Zholboldy_28999.csv
Zhosaly_35953.xls	Zhosaly_35953.csv
Zlikha_35969.xls	Zlikha_35969.csv

Republic of Korea, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 85 stations in individual Comma Separated Values (CSV) files.

The list of all CSV files is provided below.

Excel Files	CSV Files
N/A	Andong_47136.csv Baengnyeongdo_47102.csv Boeun_47226.csv Bongwhoa_47271.csv Boryeong_47235.csv Buan_47243.csv Busan_47159.csv Buyeo_47236.csv Changwon_47155.csv Cheonan_47232.csv Cheongju_47131.csv Cheongsonggun_47276.csv Cheorwon_47095.csv Chuncheon_47101.csv Chungju_47127.csv Chupungnyeong_47135.csv Daegu_47860.csv Daegwallyeong_47100.csv Daejeon_47133.csv Dongducheon_47098.csv Donghae_47106.csv Ganghwa_47201.csv GangjinGun_47259.csv Gangneung_47105.csv Geochang_47284.csv Geoje_47294.csv Geumsan_47238.csv Gimhaesi_47253.csv Gochang_47172.csv Goheung_47262.csv Gosan_47185.csv Gumi_47279.csv Gunsan_47140.csv Gwangju_47156.csv Gyeongju_47283.csv Haenam_47261.csv

	Hamyanggun_47264.csv Hapcheon_47285.csv Heuksando_47169.csv Hongcheon_47212.csv Icheon_47203.csv Imsil_47244.csv Incheon_47112.csv Inje_47211.csv Jangheung_47260.csv Jangsu_47248.csv Jecheon_47221.csv Jeju_47184.csv Jeongeup_47245.csv JeongseonGun_47217.csv Jeonju_47864.csv Jinju_47192.csv Miryang_47288.csv Mokpo_47165.csv Mungyeong_47273.csv Namhae_47295.csv Namwon_47247.csv Paju_47099.csv Pohang_47138.csv Sancheong_47289.csv Sangju_47137.csv Seogwipo_47189.csv Seongsan_47188.csv Seosan_47129.csv Seoul_47108.csv Sokcho_47090.csv Sunchanggun_47254.csv Suwon_47119.csv Taebaek_47216.csv Tongyeong_47162.csv Uiryeonggun_47263.csv Uiseong_47278.csv Uljin_47130.csv Ulleungdo_47115.csv Ulsan_47152.csv Wando_47170.csv Wonju_47114.csv Yangpyeong_47202.csv Yangsansi_47257.csv Yeongcheon_47281.csv
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	Yeongdeok_47277.csv Yeonggwanggun_47252.csv Yeongju_47272.csv Yeongwol_47121.csv Yeosu_47168.csv
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Kyrgyzstan, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided 1991-2020 Normals for a single element (Monthly Mean Temperature) for 32 stations in a single PDF file in the native language. NCEI converted the filenames to English, obtained metadata from OSCAR for as many stations as possible and placed the data for 25 of the stations into the standard WMO Normals format for CSV files.

The original pdf file containing the data from the Member is provided. In addition the CSV files produced by NCEI are provided. Users are advised to note that errors in translation from the provided pdf file are possible.

PDF File	CSV Files
КЛИНО_Кыргызстан.pdf	Ak-Terek_38476.csv Ala-Archa_38486.csv Balykchy_36927.csv Bishkek_38353.csv Chaek_38482.csv Chatkal_38471.csv Cholpon-Ata_36934.csv Dolon_36963.csv Dzhalal-Aba_38613.csv Isfana_38722.csv Issyk-Ata_36914.csv It-Agar_38349.csv Kara-Suu_38616.csv Kyzyl-Adyr_38342.csv Kyzyl-Suu_36944.csv Naryn_36974.csv Sary-Tash_38871.csv Sususamyr_38358.csv Talas_38345.csv Teo-Ashuu_38359.csv Tian-Shan_36982.csv Tokmak_36911.csv Toktogul_38473.csv Uzgen_38621.csv Zhany-Jer_38228.csv

Lao, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for eight (8) stations in individual Excel files. NCEI converted these files to Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

Users are asked to note that NCEI recomputed the Annual Normal for Mean Maximum and Minimum Temperature (Parameters 3 and 4) for station Pakse (48955) because the original values were inconsistent with the monthly Normals. The recomputed values are included in the CSV file.

The original Excel files are provided along with the CSV files produced by NCEI.

Excel Files	CSV Files
LuangPrabang.xls	Luangprabang_48930.csv
Pakse.xls	Pakse_48955.csv
Salavane.xls	Salavane_48952.csv
Savannakhet.xls	Savannakhet_48947.csv
Seno.xls	Seno_48948.csv
Thakhek.xls	Thakhek_48946.csv
VientianeCapital.xls	VientianeCapital_48940.csv
Xayabouly.xls	Xayabouly_48938.csv

Macau, China, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for one (1) station in one Excel file. NCEI converted the Excel file to a Comma Separated Values (CSV) file to aid in quality control, mapping, and comparison to Normals from other countries.

The original Excel file is provided along with the CSV file produced by NCEI.

Excel Files	CSV Files
TaipaGrande_45011.xls	TaipaGrande_45011.csv

Maldives, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for five (5) stations in individual Comma Separated Values (CSV) files.

The list of CSV files is provided below.

Excel Files	CSV Files
N/A	Gan_43599.csv Hanimaadhoo_43533.csv Hulhule_43555.csv Kaadeddhoo_43588.csv Kadhdhoo_43577.csv

Mongolia, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 59 stations in individual Comma Separated Values (CSV) files.

Users are asked to note that for most monthly and annual normals, the Member provided values to six or more decimal places. NCEI rounded these to a single decimal place for publication.

The list of all CSV files is provided below.

Excel Files	CSV Files
N/A	Altai_44277.csv Arvaikheer_44288.csv Baitag_44265.csv Baruunkharaa_44241.csv Baruunturuun_44213.csv BaruunUrt_44305.csv Bayanbulag_44275.csv Bayandelger_44352.csv Bayankhongor_44287.csv BayanOvoo_44302.csv BayanUul_44221.csv Binder_44257.csv Bogd_44338.csv Bulgan_44239.csv Choibalsan_44259.csv Choir_44298.csv Dadal_44254.csv Dalanzadgad_44373.csv Dashbalbar_44256.csv Durvuljin_44219.csv Erdenemandal_44237.csv Erdenesant_44286.csv Erdenetsagaan_44317.csv Galuut_44284.csv Gurvantes_44374.csv Jinst_44329.csv Khalkhgol_44313.csv Khatgal_44207.csv Khovd_44218.csv Khujirt_44285.csv Khutag_44232.csv Khuvsgul_44386.csv Maanit_44294.csv Mandakh_44348.csv

	Mandalgobi_44341.csv Matad_44314.csv Muren_44231.csv Nogoonnuur_44210.csv OmnoGobiHarUs_44215.csv Orkhon_44242.csv Renchinlkhumbе_44203.csv SaikhanOvoo_44336.csv Sainshand_44354.csv Tarialan_44230.csv Tariat_44229.csv Tonkhil_44266.csv Tooroi_44325.csv Tosontengel_44225.csv TsetsenUul_44224.csv Tsetserleg_44282.csv TsogtOvoo_44347.csv Ulaanbaatar_44292.csv Ulaangom_44212.csv Ulgii_44214.csv Uliastai_44272.csv Underkhaan_44304.csv Yeroo_44243.csv ZamynUud_44358.csv Zavkhan_44216.csv
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Myanmar, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 49 stations in individual Excel files. NCEI converted these files to Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

Users are asked to note:

- 1) 31 stations provided Mean Vapor Pressure. All values were clearly erroneous (possibly computed as station pressure). NCEI set all values to missing in the csv files.
- 2) For station Myeik (48110) NCEI found the annual precipitation to be inaccurate. It appeared to have been computed as an Average of the Monthly totals rather than a sum of the monthly totals in the Excel file. NCEI recomputed the annual Normal and provides it in Myeik_48110.csv.
- 3) NCEI recomputed the Annual Precipitation normals for Hmawbi, Maubin, and Pyay from their monthly Normals and replaced the originally inaccurate values in the respective CSV files.

The original Excel files are provided along with the CSV files produced by NCEI.

Additional information provided by the WMO Member is provided below this table.

Excel Files	CSV Files
48093_Bago.xlsx	Bago_48093.csv
48019_Bhamo.xlsx	Bhamo_48019.csv
48052_Chauk.xlsx	Chauk_48052.csv
48109_CocoIsland.xlsx	CocoIsland_48109.csv
48108_Dawei.xlsx	Dawei_48108.csv
48031_Falam.xlsx	Falam_48031.csv
48085_Gwa.xlsx	GWA_48085.csv
48030_Hakha.xlsx	Hakha_48030.csv
48087_Hinthada.xlsx	Hinthada_48087.csv
48004_Hkamti.xlsx	Hkamti_48004.csv
48092_Hmawbi.xlsx	Hmawbi_48092.csv
48010_Homalin.xlsx	Homalin_48010.csv
48099_Hpa-an.xlsx	Hpaan_48099.csv
48097_Kaba_aye.xlsx	Kabaaye_48097.csv
48025_Kalaywa.xlsx	Kalaywa_48025.csv
48018_Katha.xlsx	Katha_48018.csv
48112_Kawthong.xlsx	Kawthong_48112.csv
48060_Kengtung.xlsx	Kengtung_48060.csv
48051_Kyauktaw.xlsx	Kyaukphyu_48071.csv
48071_Kyaukphyu.xlsx	Kyauktaw_48051.csv
48035_Lashio.xlsx	Lashio_48035.csv
48075_Loikaw.xlsx	Loikaw_48075.csv
48065_Magway.xlsx	Magway_48065.csv

48072_Manauing.xlsx	Manauing_48072.csv
48042_Mandalay.xlsx	Mandalay_48042.csv
48095_Maubin.xlsx	Maubin_48095.csv
48020_Mawlaik.xlsx	Mawlaik_48020.csv
48103_Mawlamyine.xlsx	Mawlamyine_48103.csv
48053_Meiktila.xlsx	Meiktila_48053.csv
48064_Minbu.xlsx	Minbu_48064.csv
48045_Mindat.xlsx	Mindat_48045.csv
48096_Mingaladon.xlsx	Mingaladon_48096.csv
48034_Moekok.xlsx	Moekok_48034.csv
48037_Monywa.xlsx	Monywa_48037.csv
48110_Myeik.xlsx	Myeik_48110.csv
48008_Myitkyina.xlsx	Myitkyina_48008.csv
48048_Nyaungoo.xlsx	NyaungOo_48048.csv
48094_Pathein.xlsx	Pathein_48094.csv
48001_Putao.xlsx	Putao_48001.csv
48077_Pyay.xlsx	Pyay_48077.csv
48074_Pyinmana.xlsx	Pyinmana_48074.csv
48039_Sagaing.xlsx	Sagaing_48039.csv
48033_Shwebo.xlsx	Shwebo_48033.csv
48062_Sittwe.xlsx	Sittwe_48062.csv
48057_Taunggyi.xlsx	Taunggyi_48057.csv
48078_Taungoo.xlsx	Taungoo_48078.csv
48080_Thandwe.xlsx	Thandwe_48080.csv
48098_Thaton.xlsx	Thaton_48098.csv
48107_Yay.xlsx	Yay_48107.csv

Additional Explanatory Information provided by the WMO Member. Those without data for Pressure are indicated with a '*' in the Station Category Field.

	WMO	Station	Location		Elevation	Opened	Station
Sr.No	Index No	Name	Lat(N)	Long(E)	(m)	Date	Category
1	48001	Putao	27°20'	97°25'	409	16.09.1967	MET
2	48004	Hkamti	25°01'	95°42'	146	01.07.1965	MET&HYDRO*
3	48008	Myitkyina	25°22'	97°11'	145	22.06.1966	Aviation
4	48010	Homalin	24°52'	94°55'	130	23.08.1965	MET&HYDRO
5	48018	Katha	24°10'	96°20'	113	01.02.1965	MET&HYDRO
6	48019	Bhamo	24°16'	97°12'	111	27.04.1966	MET&HYDRO
7	48020	Mawlaik	23°38'	94°25'	115	01.04.1965	MET&HYDRO*
8	48025	Kalaywa	23°12'	94°18'	109	02.03.1965	MET&HYDRO
9	48030	Hakha	22°38'	93°35'	1866	8.8.1980	MET*
10	48031	Falam	22°55'	93°41'	1372	31.12.1964	MET*

No

No

No

No

11	48033	Shwebo	22°35'	95°43'	106	05.06.1964	MET*	No
12	48034	Moekok	22°55'	96°30'	1176	7.10.1982	MET*	No
13	48035	Lashio	22°56'	97°45'	747	22.03.1952	MET	
14	48037	Monywa	22°14'	95°14'	81	15.02.1965	MET&HYDRO	
15	48039	Sagaing	21°54'	95°36'	64	20.1.1965	MET&HYDRO*	No
16	48042	Mandalay	21°59'	96°06'	74	15.03.1947	MET	
17	48045	Mindat	22°22'	93°57'	1395	12.05.1965	MET*	No
18	48048	NyaungOo	21°12'	94°54'	61	13.02.1965	MET&HYDRO	
19	48051	Kyauktaw	20°54'	92°59'	3	17.3.1987	MET&HYDRO*	No
20	48052	Chauk	20°54'	94°54'	82	01.01.1968	MET&HYDRO*	No
21	48053	Meiktila	20°53'	95°53'	214	15.09.1956	Aviation	
22	48057	Taunggyi	20°47'	97°03'	1436	13.08.1950	MET*	No
23	48060	Kengtung	21°18'	99°37'	827	14.03.1951	MET	
24	48062	Sittwe	20°08'	92°53'	4	17.06.1947	MET	
25	48064	Minbu	20°10'	94°53'	51	01.02.1964	MET&HYDRO	
26	48065	Magway	20°08'	94°55'	52	10.07.1973	MET&HYDRO*	No
27	48071	Kyaukpyu	19°26'	93°34'	5	03.04.1964	MET	
28	48072	Manaung	18°50'	93°45'	9	1.5.1973	MET	
29	48074	Pyinmana	19°43'	96°13'	101	01.01.1964	MET&HYDRO*	No
30	48075	Loikaw	19°41'	97°13'	895	01.04.1964	MET*	No
31	48077	Pyay	18°48'	95°13'	58	05.06.1965	MET&HYDRO	
32	48078	Taungoo	18°55'	96°28'	47	01.03.1965	MET&HYDRO	
33	48080	Thandwe	18°28'	94°25'	9	20.1.1947	MET&HYDRO	
34	48085	Gwa	17°35'	94°35'	3	30.9.1982	MET*	No
35	48087	Hinthada	17°40'	95°25'	26	13.06.1958	MET&HYDRO*	No
36	48092	Hmawbi	17°06'	96°04'	27	01.09.1953	Aviation	
37	48093	Bago	17°20'	96°30'	15	01.03.1965	MET&HYDRO*	No
38	48094	Pathein	16°46'	94°46'	9	05.02.1947	MET&HYDRO	
39	48095	Maubin	16°44'	95°39'	3	10.08.1953	MET&HYDRO	
40	48096	Mingaladon	16°54'	96°10'	28	01.12.1947	Aviation*	No
41	48097	Kaba-Aye	16°52'	96°11'	20	01.10.1968	MET&HYDRO	
42	48098	Thaton	16°55'	97°22'	17	01.01.1967	MET*	No
43	48099	Hpa-an	16°45'	97°40'	9	05.05.1964	MET&HYDRO	
44	48103	Mawlamyine	16°30'	97°37'	21	10.10.1952	MET&HYDRO	
45	48107	Yay	15°15'	97°11'	3	30.05.1964	MET	
46	48108	Dawei	14°06'	98°13'	16	01.10.1946	MET&HYDRO	
47	48109	Coco Island	14°07'	93°23'	3	26.12.1959	MET	
48	48110	Myeik	12°26'	98°36'	36	23.04.1947	MET	
49	48112	Kawthong	09°58'	98°35'	46	27.04.1947	MET	

Nepal, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 15 stations in individual Comma Separated Values (CSV) files.

The list of CSV files is provided below.

Excel Files	CSV Files
N/A	Bhairahawa_44438.csv Biratnagar_44478.csv Dadeldhura_44404.csv Dang_44429.csv Dhangadhi_44409.csv Dhankuta_44477.csv Dipayal_44406.csv Jumla_44424.csv Kathmandu_44454.csv Nepalgunj_44418.csv Okhaldhunga_44462.csv Pokhara_44434.csv Simara_44449.csv Surkhet_44416.csv Taplejung_44474.csv

Oman, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 11 stations in one Excel file containing multiple spreadsheets. NCEI converted the spreadsheets to 11 individual Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

Users are asked to note that for station Saiq airport (41254) the Mean Sea Level Pressure values do not appear to be reflective of expected mean sea level pressure at this location. NCEI set these to missing in the CSV file.

The original Excel file is provided along with the CSV files produced by NCEI.

Excel Files	CSV Files
Oman_WMO_Normals_9120.xls	Fahud_Airport_41262.csv Khasab_Port_41240.csv Masirah_41288.csv MinaSuQa_41258.csv Muscat_Int_41256.csv Qairoon_Hairiti_41315.csv Saiq_airport_41254.csv Salalah_airport_41316.csv Salalah_port_41312.csv Sohar-Majis_41246.csv Thumrait_41314.csv

Pakistan, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 25 stations in individual Comma Separated Value (CSV) files.

Users are advised to note that for high elevation stations in Pakistan, the average of the geopotential height of the 850 hPa level are provided rather than Mean Sea Level field. NCEI changed the Parameter Name and the Parameter number for these stations from '6' to '99' in the CSV files. These stations are identified in bold font.

Excel Files	CSV Files
N/A	Barkhan_41685.csv Chhor_41768.csv Dalbandin_41712.csv Darosh_41515.csv DIKhan_41624.csv Hyderabad_41764.csv Islamabad_41571.csv Jacobabad_41715.csv Jhelum_41598.csv Jiwani_41756.csv Karachi_41780.csv Khanpur_41718.csv Khuzdar_41744.csv Lahore_41640.csv Multan_41675.csv Nawabshah_41749.csv Nokkundi_41710.csv Panjgur_41739.csv Parachinar_41560.csv Pasni_41759.csv Peshawar_41529.csv Quetta_41660.csv Sarghoda_41594.csv Sialkot_41600.csv Zhob_41620.csv

Russian Federation (In Asia), 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 87 stations in individual Comma Separated Values (CSV) files.

Users are asked to note that for station Petropav Kamchatskij, the annual mean vapor pressure value was originally provided as 65. NCEI recomputed the annual average from the monthly values and confirmed the value should be 6.5. This value replaces the original value in PetropavKamchatskij_32583.csv.

The list of all CSV files is provided below. Additional information is provided by the WMO Member below the table.

Excel Files	CSV Files
N/A	Erbogacen_24817.csv GmolmEKFedorova_20292.csv Habarovsk_31735.csv HantyMansijsk_23933.csv Hatanga_20891.csv HoseddaHard_23219.csv Ica_32411.csv Ilirnej_25248.csv ImPolinyOsipenko_31416.csv Irkutsk_30710.csv Isit_24951.csv Ivdel_23921.csv Izhevsk_28411.csv Jakutsk_24959.csv JuzhnoKurilSk_32165.csv JuzhnoSahalin_32150.csv Kamenskoe_25745.csv Kirensk_30230.csv Kjahta_30925.csv Kljuchi_32389.csv Kolpasevo_29231.csv Korf_25954.csv Krasnojarsk_29570.csv Krasnoufimsk_28434.csv Kurgan_28661.csv Kyra_30949.csv Leusi_28064.csv Magadan_25913.csv MalyeKarmakuly_20744.csv Markovo_25551.csv Minusinsk_29866.csv

Mogocha_30673.csv
MysUelen_25399.csv
NarJanMar_23205.csv
NerchinskijZavod_30879.csv
NikolaevskNaAmure_31369.csv
Nizhneangarsk_30433.csv
Nizhneudinsk_29698.csv
Njaksimvol_23724.csv
Norsk_31388.csv
Ohotsk_31088.csv
Ojmjakon_24688.csv
Olekminsk_24944.csv
Olenek_24125.csv
Omsk_28698.csv
Orenburg_35121.csv
OstrovBeringa_32618.csv
OstrovDikson_20674.csv
OstrovKotelNyj_21432.csv
OstrovVize_20069.csv
OstrovVrangelja_21982.csv
Pechora_23418.csv
PetropavKamchatskij_32583.csv
Pogranichnyj_31915.csv
Poronajsk_32098.csv
Sadrinsk_28552.csv
Salekhard_23330.csv
Samara_28900.csv
Sejmchan_25703.csv
Shelagontsy_24329.csv
Sretensk_30777.csv
Suntar_24738.csv
Syktyvkar_23804.csv
Tara_28493.csv
TarkoSale_23552.csv
Ternej_31909.csv
TobolSk_28275.csv
Tomsk_29430.csv
TroickijPriisk_30555.csv
TroickoPecherskoe_23711.csv
Tura_24507.csv
Turuhansk_23472.csv
UfaDioma_28722.csv
UlanUde_30823.csv
UstBarguzin_30635.csv

	UstCilMa_23405.csv UstKamchatsk_32408.csv UstMajya_24966.csv UstVoyampolka_32252.csv Vanavara_24908.csv Verhojansk_24266.csv Viljujsk_24641.csv Vitim_30054.csv Vladivostok_31960.csv Zhigalovo_30521.csv Zhigansk_24343.csv Zyryanka_25400.csv
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Saudi Arabia, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for 31 stations in one Excel file containing multiple spreadsheets. NCEI converted the spreadsheets to 11 individual Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

Users are asked to note the following.

- 1) The submission of Al-Olaa (40401) did not include location and elevation metadata. NCEI determined the location for this station to be 26°28'53"N 38°6'34"E and 624 meters. NCEI added this metadata to the file Al-Olaa_40401.csv.
- 2) NCEI changed the March Mean Sea Level Pressure for Najran_41128.csv from 1081.3 to 1008.3 based on trends in month to month changes in MSLP for this station.

The original Excel file is provided along with the CSV files produced by NCEI.

Excel Files	CSV Files
SaudiArabia_WMO_Normals_9120.xlsx	Abha_41112.csv Al-Ahsa_40420.csv Al-Baha_41055.csv Al-Jouf_40361.csv Al-Olaa_40401.csv ARAFAT_41032.csv Arar_40357.csv Bisha_41084.csv Dhahran_40416.csv Gassim_40405.csv Gizan_41140.csv Guriat_40360.csv Hafr-Al-Batin_40377.csv Hail_40394.csv Jeddah_KAIA_41024.csv KFIA_40417.csv Khamis-Mushait_41114.csv Madinah_40430.csv Makkah_41030.csv Najran_41128.csv Qaisumah_40373.csv Rafha_40362.csv RiyadhNew_40437.csv RiyadhOld_40438.csv Sharorah_41136.csv Tabuk_40375.csv Taif_41036.csv

	Turaif_40356.csv Wadi-Al-Dawasser_41061.csv Wejh_40400.csv Yenbo_40439.csv
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Sri Lanka, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 20 stations in individual Comma Separated Values (CSV) files.

Users are asked to note the following.

- 1) For most monthly and annual normals, the Member provided values to six or more decimal places. NCEI rounded these to a single decimal place for publication.
- 2) NCEI set the annual values for Parameters 20-23 to missing as they appeared inconsistent with the monthly values.

The list of all CSV files is provided below.

Excel Files	CSV Files
N/A	Anuradhapura_43421.csv Badulla_43479.csv Bandarawela_43476.csv Batticaloa_43436.csv Colombo_43466.csv Galle_43495.csv Hambantota_43497.csv Jaffna_43404.csv Katugastota_43444.csv Katunayaka_43450.csv Kurunegala_43441.csv Mahallupallama_43422.csv Mannar_43413.csv NuwaraEliya_43473.csv Pottuvil_43999.csv Puttalam_43424.csv Rathmalana_43467.csv Ratnapura_43486.csv Trincomalee_43418.csv Vavuniya_43415.csv

Thailand, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 75 stations in individual Comma Separated Values (CSV) files.

The list of CSV files is provided below.

Excel Files	CSV Files
N/A	AranyaPrathet_48462.csv BangkokMetropolis_48455.csv BangkokPortKlongToei_48454.csv BhumibolDam_48377.csv BuaChum_48418.csv Chaiyaphum_48403.csv ChanthaBuri_48480.csv ChiangMai_48327.csv ChiangRai_48303.csv ChokChai_48434.csv ChonBuri_48459.csv Chumphon_48517.csv DonMuangAirport_48456.csv HatYaiAirport_48569.csv HuaHin_48475.csv KabinBuri_48439.csv Kalasin_48390.csv KamphaengPhet_48380.csv KanchanaBuri_48450.csv KhonKaen_48381.csv KoLanta_48566.csv KoSamui_48550.csv KoSichang_48460.csv Lampang_48328.csv Lamphun_48329.csv Loei_48353.csv LomSak_48374.csv LopBuri_48426.csv MaeHongSon_48300.csv MaeSariang_48325.csv MaeSot_48375.csv Maharakham_48382.csv Mukdahan_48383.csv NakhonPhanom_48357.csv NakhonRatchasima_48431.csv NakhonSawan_48400.csv

	NakhonsiThammarat_48552.csv Nan_48331.csv NangRong_48436.csv Narathiwat_48583.csv NongKhai_48352.csv PattaniAirport_48580.csv Phatthaya_48461.csv Phayao_48310.csv Phetchabun_48379.csv PhetchaBuri_48465.csv Phitsanulok_48378.csv Phrae_48330.csv Phuket_48564.csv PhuketAirport_48565.csv PilotStation_48457.csv PrachinBuri_48430.csv PrachuapKhirikhan_48500.csv Ranong_48532.csv Rayong_48478.csv RoiEt_48405.csv SakonNakhon_48356.csv Sattahip_48477.csv Satun_48570.csv Songkhla_48568.csv SuphanBuri_48425.csv SuratThani_48551.csv Surin_48432.csv Tak_48376.csv TakuaPa_48561.csv ThaTum_48416.csv ThaWangPha_48315.csv ThongPhaphum_48421.csv Trad_48501.csv TrangAirport_48567.csv UbonRatchathani_48407.csv UdonThani_48354.csv Umphang_48385.csv Uttaradit_48351.csv WichianBuri_48413.csv
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Turkmenistan, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for nine (9) stations in individual Comma Separated Values (CSV) files.

The list of CSV files is provided below.

Excel Files	CSV Files
N/A	BAGTYYARLYK_38799.csv BAHERDEN_38774.csv Bayramaly_38895.csv BEREKET_38647.csv Erbent_38656 .csv Kerki_38911.csv SARAHS_38974.csv SERHETABAT_38987.csv TEJEN_38886.csv

United Arab Emirates, 1991-2020 Climatological Normals

Explanatory Information

The WMO member provided data for six (6) stations in individual Excel files. NCEI converted these files to Comma Separated Values (CSV) files to aid in quality control, mapping, and comparison to Normals from other countries.

The original Excel files are provided along with the CSV files produced by NCEI. Additional explanatory information provided by the WMO Member is included below this table.

Excel Files	CSV Files
AbuDhabiIntlAirport_41217.xlsx	AbuDhabiIntlAirport_41217.csv
AlAinIntlAirport_41218.xlsx	AlAinIntlAirport_41218.csv
AlFujairahIntlAirport_41198.xlsx	AlFujairahIntlAirport_41198.csv
DubaiIntlAirport_41194.xlsx	DubaiIntlAirport_41194.csv
RasAlKhaimahIntlAirport_41184.xlsx	RasAlKhaimahIntlAirport_41184.csv
SharjahIntlAirport_41196.xlsx	SharjahIntlAirport_41196.csv

Additional Explanatory Information provided by the WMO Member

Please note that all stations cover the period 1991-2020 except Al Ain Airport data which is available from 1995 to 2020.

Uzbekistan, 1991-2020 Climatological Normals

Explanatory Information

The WMO Member provided data for 32 stations in individual Comma Separated Values (CSV) files.

The list of all CSV files is provided below.

Excel Files	CSV Files
N/A	Akbajtal_38178.csv Andizan_38475.csv Angren_38465.csv Ayakagitma_38553.csv Bahmal_38711.csv Baysun_38827.csv Buhara_38683.csv Buzaubaj_38403.csv Chimbaj_38262.csv Chimgan_38706.csv Dalverzin_38594.csv Denau_38829.csv Dzizak_38579.csv Fergana_38618.csv Jaslyk_38141.csv Kamchik_38467.csv Karakapalkija_38023.csv Karshi_38812.csv Kushrabad_38563.csv Minchukur_38816.csv Mubarek_38697.csv Namangan_38611.csv Navoiy_38567.csv Nukus_38264.csv Samarkand_38696.csv Shahrisabz_38699.csv Sirdarya_38583.csv Tamdy_38413.csv Tashkent_38457.csv Termez_38927.csv Urgench_38396.csv Yangiyer_38589.csv