Table S1: Summary of instrument differences relevant to CLIMCAPS retrievals.

	Aqua	SNPP, JPSS+	Notes
IR Instrument type	AIRS is a grating spectrometer[1]	CrIS is an interferometer[2]	[1](Aumann et al., 2003; Pagano et al., 2003) [2](Glumb et al., 2002; Strow et al., 2013)8/8/24 7:34:00 AM
Retrieval field-of-regard (FOR) (324,000 per day)	FOR = 3 x 3 IR FOVs acquired one at a time, and 1 x MW FOV	FOR = 3 x 3 IR FOVs acquired simultaneously, and 3 x 3 MW FOVs the size of an IR FOV	FOV = field of view MW = microwave instrument, AMSU on Aqua and ATMS on SNPP, JPSS+
FOR alignment	Equally sized along each scanning track	Rotated ~45˚ at edge of scan (EoS)	SNPP CrIS: EoS corner FOVs of FOR become side FORs and overlap adjacent FORs
Spectral sampling	ν/2400	0.625 cm^{-1}	= 0.5/L
Unapodized resolution	n/a	0.75 cm^{-1}	SNPP CrIS: FWHM of sinc() = 0.6034/L
Apodized resolution	$\nu/1200$	1.135 cm^{-1}	SNPP CrIS: Hamming = 0.9076/L
700 cm^{-1}: FWHM, NEdT(250 K)	0.58 cm^{-1}, 0.23 K	1.135 cm^{-1}, 0.05 K	FWHM: full width half maximum SNPP CrIS: Apodized
1400 cm^{-1}: FWHM, NEdT(250 K)	1.17 cm^{-1}, 0.08 K	1.135 cm^{-1}, 0.07 K	SNPP CrIS: Apodized
2400 cm^{-1}: FWHM, NEdT(250 K)	2.00 cm^{-1}, 0.14 K	1.135 cm^{-1}, 0.50 K	SNPP CrIS: Apodized
Spectral noise correlation	AIRS has 17 detector arrays: each cluster of ~130 channels are correlated by ~50% (see below). Future work should focus on adding this spectral correlation to the measurement error covariance matrix for a more accurate depiction.	Apodization correlates adjacent (+/-1) channels by 62.51%, +/-2 channels by 13.31% and reduces random noise by 1.586[3]	[3](Barnet et al., 2000)
Spatial correlation between FOVs in a cloud clearing FOR	Adjacent FOVs are formed by binning and they overlap by ~9% along scan[4].	FOVs are independent	(Pagano et al., 2015)

Channel spatial co-registration	Parameter called “Cij” quantifies this error in AIRS. We avoid selecting channels where Cij < 0.9, but in the future may consider using overlapping channels by ignoring only those FOV’s impacted by Cij errors.	Parameter called encircled energy quantifies this error in CrIS. Centroid of 3 bands should be within 1.4%. This is a systematic (or ~230 microradians) error. Note: all channels in a band have the same displacement.	This estimate quantifies whether channels see same scene on Earth. Its impact on the IR measurements is zero for a uniform scene but is a strong function of sub-pixel structure - especially when high, cold clouds are present. Cij is a random error in AIRS CrIS channel errors are not random.
SARTA forward model[5]	Based on HITRAN[6] 2008 with frequency interpolation across 3 RTA's with different assumed offsets between entrance filter and detector instrument-line-functions	Based on HITRAN[7] 2012	CrIS frequencies are calibrated by internal metrology laser. AIRS has spectral drifts but are corrected by a lookup table. Both still have a small, uncorrected Doppler shift error. [5]Standalone AIRS Radiative Transfer Algorithm (Strow et al., 2003) [6]High-resolution transmission molecular absorption database (Rothman et al., 2009) [7](Rothman et al., 2013)
SARTA tuning	1) Transmittance tuning with respect to dedicated radiosondes and built into a SARTA delivery 2) Residual radiance tuning with respect to dedicated radiosondes (typically this is very small).	Radiance tuning with respect to ECMWF[8]	Transmittance tuning is tedious work and requires experienced staff, but this work is rarely funded or prioritized nowadays. This means that upgrades to SARTA tuning often lag behind retrieval system upgrades. [8]European Centre for Medium-Range Weather Forecasts reanalysis model (e.g., Bonavita et al., 2016; Molteni et al., 1996; Rabier et al., 2007)
Radiance error as a function of spectroscopy as well as SARTA fitting errors	Residual with respect to dedicated radiosondes, collocated ECMWF and (~0.05K)	V2: SDV (obs-ECM), ~0.5K V3: set to zero	A combined estimate of the HITRAN spectroscopy error and SARTA fitting error. The latter is derived empirically from a comparison of calculated and measured radiances. Ideally, this error estimate should also include systematic instrument errors, but historically not provided by the Level-1 teams.

Table S2: CLIMCAPS V2 channel subsets for CrIS and AIRS.

	CrIS FSR	AIRS
	Channel wavenumbers [cm^{-1}] for all CLIMCAPS retrieval parameters	
air_temp Temperature [air_temp] is retrieved in two steps (once before and once after water vapor [h2o_vap_mol_lay]); freqtemp2 is added to freqtemp after the h2o_vap_mol_lay retrieval. Subsets from **LW + MW + SW** IR bands	nchtemp = 105 freqtemp = [666.250, 667.500, 668.750, 669.375, 670.000, 672.500, 681.250, 687.500, 688.750, 689.375, 690.000, 691.250, 692.500, 693.750, 695.000, 696.250, 697.500, 698.750, 699.375, 700.000, 701.250, 702.500, 703.750, 704.375, 706.250, 707.500, 708.750, 710.000, 711.250, 712.500, 715.625, 717.500, 718.130, 718.750, 720.000, 721.250, 721.875, 723.130, 723.750, 724.380, 726.250, 726.875, 727.500, 728.125, 731.875, 734.375, 735.000, 738.125, 740.000, 741.875, 743.125, 745.625, 747.500, 749.380, 2198.750, 2201.875, 2207.500, 2220.000, 2222.500, 2224.375, 2255.000, 2260.000, 2263.750, 2266.250, 2270.000, 2272.500, 2277.500, 2280.000, 2282.500, 2285.000, 2287.500, 2292.500, 2293.750, 2295.625, 2297.500, 2303.125, 2305.000, 2307.500, 2312.500, 2316.875, 2380.000, 2380.625, 2381.250, 2381.875, 2382.500, 2383.125, 2383.750, 2384.375, 2385.000, 2385.630, 2386.250, 2386.875, 2387.500, 2388.125, 2388.750, 2389.375, 2390.000, 2390.625, 2391.250, 2391.875, 2392.500, 2393.125, 2393.750, 2405.000, 2412.500] nchtemp2 = 26 freqtemp2 = [779.380, 784.380, 794.375, 796.880, 798.130, 799.375, 800.625, 803.750, 815.000, 816.250, 826.875, 928.750, 945.000, 952.500, 1398.750, 1406.250, 1471.880, 1476.250, 1498.130, 1555.630, 1559.380, 1700.000, 1730.000, 1732.500, 1733.750, 1736.250]	nchtemp = 134 freqtemp = [664.510, 666.270, 666.770, 667.280, 668.540, 668.790, 669.050, 669.560, 669.810, 670.070, 670.570, 672.110, 681.470, 689.490, 689.760, 691.120, 691.390, 692.760, 693.030, 694.400, 694.670, 696.050, 697.710, 698.820, 699.100, 699.660, 700.780, 701.060, 702.460, 702.740, 703.870, 704.440, 706.140, 706.990, 707.850, 708.710, 709.570, 711.000, 711.290, 712.740, 713.030, 714.190, 714.480, 715.650, 717.410, 717.990, 718.290, 718.580, 718.880, 719.170, 719.470, 719.760, 720.060, 720.350, 720.650, 720.950, 721.540, 721.804, 723.030, 723.330, 724.520, 2199.750, 2202.510, 2207.140, 2220.180, 2222.060, 2224.880, 2255.390, 2260.230, 2262.180, 2267.050, 2269.980, 2272.920, 2277.830, 2279.810, 2282.770, 2284.750, 2287.730, 2292.700, 2294.700, 2297.700, 2302.510, 2305.240, 2307.760, 2312.530, 2317.110, 2322.640, 2325.060, 2330.040, 2332.830, 2337.500, 2342.180, 2347.830, 2357.300, 2358.260, 2359.210, 2360.160, 2361.120, 2362.070, 2363.030, 2363.980, 2364.940, 2365.900, 2366.860, 2367.820, 2368.780, 2369.740, 2370.700, 2371.660, 2372.630, 2373.590, 2374.560, 2375.520, 2376.490, 2377.460, 2378.430, 2379.390, 2382.310, 2383.280, 2384.250, 2385.230, 2386.200, 2387.180, 2388.150, 2389.130, 2390.110, 2391.090, 2392.070, 2393.050, 2394.030, 2395.010, 2397.960, 2404.880, 2412.830] nchtemp2 = 12 freqtemp2 = [1330.370, 1335.210, 1340.200, 1367.250, 1376.890, 1381.210, 1397.130, 1407.770, 1468.830, 1479.360, 1502.170, 1551.300]
h2o_vap Water vapor [h2o_vap_mol_lay] subset from **LW + MW** IR bands	nchwatr = 66 freqwatr = [779.380, 784.380, 794.375, 796.880, 798.130, 799.375, 800.625, 803.750, 815.000, 816.250, 826.875, 928.750, 945.000, 952.500, 1091.250, 1213.130, 1310.000, 1315.000, 1320.000, 1330.630, 1335.000, 1345.000, 1357.500, 1367.500, 1381.880, 1384.380, 1386.880, 1393.750, 1395.000, 1397.500, 1398.750, 1400.000, 1401.250, 1403.130, 1406.250, 1407.500, 1410.000,	nchwatr = 46 freqwatr = [753.700, 755.000, 768.880, 769.900, 776.360, 778.080, 779.110, 793.890, 795.680, 798.920, 803.650, 839.920, 849.570, 948.180, 1121.000, 1135.540, 1218.500, 1225.140, 1310.180, 1315.470, 1324.970, 1367.250, 1376.890, 1381.210, 1392.150, 1397.130, 1407.770, 1410.600, 1422.030, 1427.230, 1432.470, 1441.890, 1462.090, 1468.830, 1479.360, 1483.740, 1493.210,

	1412.500, 1415.000, 1416.250, 1417.500, 1421.880,1424.380, 1426.250, 1427.500, 1428.750, 1430.000, 1435.000, 1438.130, 1442.500, 1468.130, 1471.880, 1476.250, 1498.130, 1555.630, 1559.380, 1575.000, 1585.630, 1605.000, 1685.630, 1700.000, 1730.000, 1732.500, 1733.750, 1736.250, 1745.000]	1502.170, 1513.830, 1547.200, 1551.300, 1572.090, 1586.260, 1592.710, 1598.490, 1605.050]
O_3 Ozone [o3_mol_lay] subset from **LW** IR band	nchozon = 77 freqozon = [996.875, 997.500, 998.125, 999.380, 1000.000,1000.630, 1001.880, 1002.500, 1003.130, 1005.000, 1005.630, 1007.500, 1008.130, 1010.000, 1011.880, 1012.500, 1013.130, 1014.380, 1015.000, 1015.630, 1016.250, 1016.880, 1018.130, 1018.750, 1019.380, 1020.000, 1020.630, 1021.250, 1021.880, 1022.500, 1023.130, 1023.750, 1024.380, 1025.000, 1025.630, 1026.250, 1026.880, 1028.750, 1031.250, 1031.880, 1032.500, 1033.130, 1033.750, 1034.380, 1035.000, 1035.630, 1036.250, 1036.880, 1037.500, 1038.130, 1038.750, 1040.630, 1041.250, 1041.880, 1045.630, 1047.500, 1048.130, 1049.380, 1050.000, 1050.630, 1051.250, 1051.880, 1053.130, 1053.750, 1054.380, 1055.630, 1056.250, 1056.880, 1057.500, 1058.130, 1058.750, 1060.000, 1060.630, 1061.250, 1063.750, 1066.250, 1068.130]	nchozon = 40 freqozon = [997.11, 998.39, 999.67, 1001.38, 1003.54, 1005.26, 1006.56, 1008.30, 1010.48, 1011.79, 1013.11, 1014.87, 1016.64, 1018.41, 1020.63, 1021.97, 1023.31, 1024.21, 1024.66, 1025.11, 1025.56, 1026.46, 1026.91, 1027.36, 1028.26, 1028.71, 1029.62, 1030.07, 1030.53, 1030.98, 1031.44, 1061.33, 1061.81, 1062.29, 1063.26, 1064.22, 1064.70, 1065.19, 1068.58, 1069.07]
CH_4 Methane [ch4_mol_lay] subset from **MW** IR band	nchch4 = 84 freqch4 = [1220.000, 1228.750, 1229.380, 1230.000, 1236.250, 1237.500, 1238.750, 1241.250, 1242.500, 1245.630, 1246.250, 1246.880, 1247.500, 1250.000, 1252.500, 1253.130, 1253.750, 1255.000, 1256.250, 1260.000, 1261.250, 1261.880, 1262.500, 1263.130, 1263.750, 1265.000, 1265.630, 1267.500, 1268.130, 1268.750, 1269.380, 1270.000, 1271.250, 1275.000, 1275.630, 1276.250, 1276.880, 1277.500, 1281.250, 1281.880, 1282.500, 1283.130, 1283.750, 1287.500, 1288.130, 1288.750, 1290.000, 1292.500, 1294.380, 1295.000, 1296.250, 1297.500, 1300.000, 1301.250, 1301.880, 1302.500, 1303.130, 1303.750, 1304.380, 1305.000, 1305.630, 1306.250, 1307.500, 1311.250, 1312.500, 1316.880, 1317.500, 1321.250, 1321.880, 1322.500, 1327.500, 1328.750, 1332.500, 1337.500, 1341.250, 1342.500, 1346.250, 1346.880, 1347.500, 1351.250, 1355.630, 1356.250, 1360.630, 1365.630]	nchch4 = 65 freqch4 = [1220.020, 1228.230, 1229.780, 1236.020, 1236.540, 1237.060, 1237.590, 1238.110, 1238.630, 1240.740, 1241.260, 1241.790, 1242.320, 1242.850, 1244.960, 1245.490, 1246.020, 1247.090, 1247.620, 1248.150, 1249.750, 1252.970, 1253.500, 1254.040, 1254.580, 1255.120, 1256.730, 1259.440, 1261.070, 1261.610, 1262.160, 1267.630, 1268.180, 1268.730, 1270.930, 1271.480, 1287.740, 1288.300, 1288.870, 1294.560, 1296.850, 1297.430, 1298.000, 1299.730, 1302.040, 1302.610, 1303.190, 1303.770, 1304.350, 1306.100, 1306.680, 1321.990, 1322.580, 1326.770, 1327.370, 1332.180, 1341.220, 1341.730, 1342.240, 1342.750, 1346.340, 1347.370, 1355.150, 1355.670, 1356.190]
CO	nchco = 35	nchco = 36

Carbon monoxide [co_mol_lay] subset from **SW** IR band	freqco = [2155.000, 2157.500, 2158.130, 2158.750, 2159.380, 2160.000, 2161.880, 2162.500, 2164.380, 2165.000, 2165.630, 2166.250, 2167.500, 2168.750, 2169.380, 2170.000, 2170.630, 2172.500, 2173.130, 2174.380, 2175.000, 2176.250, 2176.880, 2177.500, 2178.130, 2179.380, 2180.000, 2182.500, 2183.130, 2185.000, 2186.880, 2187.500, 2188.750, 2190.000, 2191.250]	freqco = [2181.490, 2182.400, 2183.310, 2184.210, 2185.120, 2186.030, 2186.940, 2187.850, 2188.760, 2189.670, 2190.580, 2191.500, 2192.410, 2193.330, 2194.240, 2195.160, 2196.070, 2196.990, 2197.910, 2198.830, 2199.750, 2200.670, 2201.590, 2202.510, 2203.440, 2204.360, 2205.290, 2206.210, 2207.140, 2208.990, 2212.710, 2213.640, 2214.570, 2215.500, 2216.440, 2221.120]
CO_2 Carbon dioxide [co2_vmr] subset from **LW+MW** IR bands	nchco2 = 54 [96] freqco2 = [666.250, 667.500, 668.750, 669.375, 670.000, 672.500, 681.250, 687.500, 688.750, 689.375, 690.000, 691.250, 692.500, 693.750, 695.000, 696.250, 697.500, 698.750, 699.375, 700.000, 701.250, 702.500, 703.750, 704.375, 706.250, 707.500, 708.750, 710.000, 711.250, 712.450, 715.625, 717.500, 718.130, 718.750, 720.000, 721.250, 721.875, 723.130, 723.750, 724.380, 726.250, 726.875, 727.500, 728.125, 731.875, 734.375, 735.000, 738.125, 740.000, 741.875, 743.125, 745.625, 747.500, 749.380]	nchco2 = 61 freqco2 = [712.450, 712.740, 714.190, 714.480, 715.650, 715.940, 716.230, 717.410, 721.840, 722.140, 722.430, 724.220, 724.520, 724.820, 725.120, 725.720, 726.020, 726.330, 726.630, 727.530, 727.830, 728.960, 729.270, 729.570, 730.480, 730.790, 731.090, 731.390, 732.310, 732.620, 733.540, 733.840, 735.070, 735.380, 736.930, 737.550, 738.170, 738.480, 738.790, 740.040, 742.860, 743.480, 744.750, 745.060, 745.700, 746.330, 747.600, 749.200, 749.520, 749.840, 750.480, 750.800, 751.770, 752.730, 753.060, 754.350, 755.980, 757.610, 791.750, 792.100, 2385.230]
N_2O Nitrous oxide [n2o_mol_lay] subset from **LW+SW** IR bands	nchn2o = 21 freqn2o = [1274.380, 1275.000, 1275.630, 1276.250, 1276.880, 1277.500, 1278.130, 1278.750, 1279.380, 1281.880, 1282.500, 1285.000, 1285.630, 1291.880, 1292.500, 1295.630, 1296.250, 1298.130, 1298.750, 1299.380, 1300.630]	nchn2o = 58 freqn2o = [1291.140, 1291.710, 1292.280, 1292.850, 1293.420, 1293.990, 1295.710, 1298.580, 1299.150, 1300.880, 2181.490, 2182.400, 2183.310, 2184.210, 2185.120, 2186.030, 2186.940, 2187.850, 2188.760, 2189.670, 2190.580, 2191.500, 2192.410, 2193.330, 2194.240, 2195.160, 2196.070, 2196.990, 2197.910, 2198.830, 2199.750, 2200.670, 2201.590, 2202.510, 2203.440, 2204.360, 2205.290, 2206.210, 2207.140, 2208.060, 2208.990, 2209.920, 2210.850, 2211.780, 2212.710, 2213.640, 2214.570, 2215.500, 2216.440, 2217.370, 2218.310, 2219.240, 2220.180, 2221.120, 2222.060, 2223.000, 2223.940, 2224.880]
HNO_3 Nitric acid [hno3_mol_lay] subset from **LW+MW** bands	nchhno3 = 30 freqhno3 = [846.250, 847.500, 851.250, 855.625, 857.500, 858.125, 860.625, 861.875, 862.500, 867.500, 869.375, 873.125, 875.000, 876.875, 880.000, 881.875, 885.625, 893.125, 894.375, 895.625, 898.750, 900.000, 901.250, 902.500, 904.375, 907.500, 911.250, 912.500, 920.000, 923.125]	nchhno3 = 14 freqhno3 = [762.870, 878.440, 878.770, 879.090, 885.050, 887.380, 888.390, 888.730, 895.500, 895.840, 896.530, 1324.970, 1325.570, 1326.17]
SO_2 so2_mol_lay] **W** band	nchso2 = 31 freqso2 = [1345.000, 1350.000, 1352.500, 1354.380, 1357.500, 1358.750, 1359.380, 1360.000, 1360.630, 1361.250, 1361.880,	nchso2 = 60 freqso2 = [1343.260, 1343.770, 1344.290, 1344.800, 1345.310,1345.830, 1346.850, 1347.370, 1347.890,1348.400, 1348.920,

	1362.500, 1367.500, 1370.000, 1370.630, 1371.250, 1371.880, 1372.500, 1374.380, 1375.000, 1375.630, 1376.250, 1376.880, 1377.500, 1379.380, 1380.000, 1381.880, 1382.500, 1383.750, 1384.380, 1385.00]	1349.430, 1349.950, 1350.470, 1350.990, 1351.510, 1352.540, 1353.060, 1353.580, 1354.100, 1354.620, 1356.190, 1356.710, 1357.240, 1357.760, 1358.280, 1358.810, 1359.330, 1359.860, 1360.380, 1361.430, 1361.960, 1366.720, 1367.250, 1367.780, 1368.320, 1368.850, 1369.380, 1369.910, 1370.450, 1370.980, 1371.520, 1372.050, 1372.590, 1373.120, 1373.660, 1374.200, 1374.730, 1375.270, 1375.810, 1376.350, 1376.890, 1377.430, 1377.970, 1378.510, 1379.050, 1379.590, 1380.130, 1380.670, 1381.210]
Surface temperature	`nchsurf` = 66 `freqsurf` = [789.375, 790.625, 823.750, 833.750, 843.750, 845.000, 899.375, 901.875, 904.375, 907.500, 911.250, 912.500, 916.250, 920.000, 927.500, 933.750, 935.625, 937.500, 939.375, 943.125, 946.250, 951.875, 956.250, 957.500, 962.500, 968.750, 980.000, 985.000, 1093.130, 1095.000, 1231.250, 1234.380, 2461.880, 2463.130, 2464.380, 2465.000, 2470.630, 2472.500, 2476.250, 2481.250, 2485.000, 2486.880, 2488.750, 2490.630, 2492.500, 2495.000, 2496.880, 2498.130, 2499.380, 2501.250, 2503.750, 2505.630, 2507.500, 2510.000, 2513.750, 2516.880, 2518.750, 2521.250, 2523.130, 2525.000, 2527.500, 2531.880, 2535.630, 2540.000, 2541.880, 2543.130]	`nchsurf` = 54 `freqsurf` = [759.570, 801.100, 810.670, 811.780, 817.800, 820.830, 830.080, 833.990, 843.910, 847.140, 857.360, 861.110, 863.630, 869.040, 872.580, 877.460, 880.410, 885.380, 890.750, 895.500, 899.620, 903.080, 913.010, 917.310, 918.750, 927.860, 939.420, 963.840, 972.670, 986.160, 997.530, 1003.970, 1071.020, 1092.420,1103.170, 1114.640, 1122.600, 1131.200, 1227.190,1234.450, 2400.920, 2410.840, 2420.840, 2449.270, 2456.480, 2464.760, 2472.060, 2482.560, 2492.080, 2500.600, 2510.260, 2522.160, 2527.600, 2555.180]
Surface reflectance	`nchrhoset` = 33 `freqrhoset` = [2395.000, 2397.500, 2400.000, 2402.500, 2405.000, 2407.500, 2410.000, 2412.500, 2415.000, 2417.500, 2420.000, 2422.500, 2425.000, 2427.500, 2447.500, 2450.000, 2455.000, 2465.000, 2472.500, 2475.000, 2482.500, 2492.500, 2497.500, 2500.000, 2502.500, 2505.000, 2510.000, 2517.500, 2520.000, 2522.500, 2527.500, 2542.500, 2547.500]	`nchrhoset` = 20 `freqrhoset` = [2400.920, 2410.840, 2420.840, 2449.270, 2456.480, 2464.760, 2472.060, 2482.560, 2492.080, 2500.600, 2510.260, 2522.160, 2527.600, 2555.180, 2568.290, 2583.770, 2595.250, 2603.660, 2616.380, 2622.790]
Cloud clearing	`nchcld` = 61 `freqcld` = [701.250, 702.500, 703.750, 704.375, 706.250, 706.880, 707.500, 708.750, 709.380, 711.250, 712.500, 714.380, 715.630, 717.500, 718.130, 718.750, 719.380, 721.250, 721.880, 723.130, 723.750, 724.380, 726.250, 732.500, 734.380, 738.130, 740.000, 741.250, 741.880, 742.500, 746.250, 747.500, 749.380, 750.000, 752.500, 753.130, 755.000, 758.130, 773.130, 790.000, 801.250, 804.380, 806.880, 810.630, 820.630, 847.500, 880.000, 917.500, 937.500, 979.380, 1072.50, 1216.250, 1227.500,2207.500, 2220.000, 2222.500,	`nchcld` = 62 `freqcld` = [701.340, 702.460, 703.870, 704.440, 706.140, 706.990, 707.560, 708.710, 709.280, 711.290, 712.450, 714.480, 715.650, 717.410, 717.990, 718.880, 719.470, 721.240, 721.840, 723.030, 723.630, 724.520, 726.330, 732.620, 733.840, 738.170, 740.040, 741.290, 741.910, 742.540, 746.330, 747.600, 749.520, 750.160, 753.060, 755.000, 758.260, 773.280, 789.970, 801.100, 804.390, 810.670, 820.450, 847.540, 880.080, 917.670, 939.420, 978.720, 1072.490, 1216.970, 1227.710, 2207.140, 2220.180, 2222.060, 2332.830, 2385.230, 2390.110,

	2332.500, 2385.000, 2390.000, 2395.000, 2405.000]	2395.010, 2397.960, 2404.880, 2412.830, 2420.840]
Cloud top pressure	`nchcldhgt` = 53 `freqcldhgt` = [701.250, 702.500, 703.750, 704.380, 706.250, 706.880, 707.500, 708.750, 709.380, 711.250, 712.500, 714.380, 715.630, 717.500, 718.130, 718.750, 719.380, 721.250, 721.880, 723.130, 723.750, 724.380, 726.250, 732.500, 734.380, 738.130, 740.000, 741.250, 741.880, 742.500, 746.250, 747.500, 749.380, 750.000, 752.500, 753.130, 755.000, 758.130, 773.130, 790.000, 801.250, 804.380, 806.880, 810.630, 820.630, 847.500, 880.000, 917.500, 937.500, 979.380, 1072.500, 1216.250, 1227.500]	`nchcldhgt` = 51 `freqcldhgt` = [701.340, 702.460, 703.870, 704.440, 706.140, 706.990, 707.560, 708.710, 709.280, 711.290, 712.450, 714.480, 715.650, 717.410, 717.990, 718.880, 719.470, 721.240, 721.840, 723.030, 723.630, 724.520, 726.330, 732.620, 733.840, 738.170, 740.040, 741.290, 741.910, 742.540, 746.330, 747.600, 749.520, 750.160, 753.060, 755.000, 758.260, 773.280, 789.970, 801.100, 804.390, 810.670, 820.450, 847.540, 880.080, 917.670, 939.420, 978.720, 1072.490, 1216.970, 1227.710]