AD-A141 351 TABULATIONS OF AMBIENT OZONE DATA OBTAINED BY GASP (GLOBAL AIR SAMPLING P..(U) NATIONAL AERONAUTICS AND SPACE ADMINISTRATION CLEVELAND OH LE..

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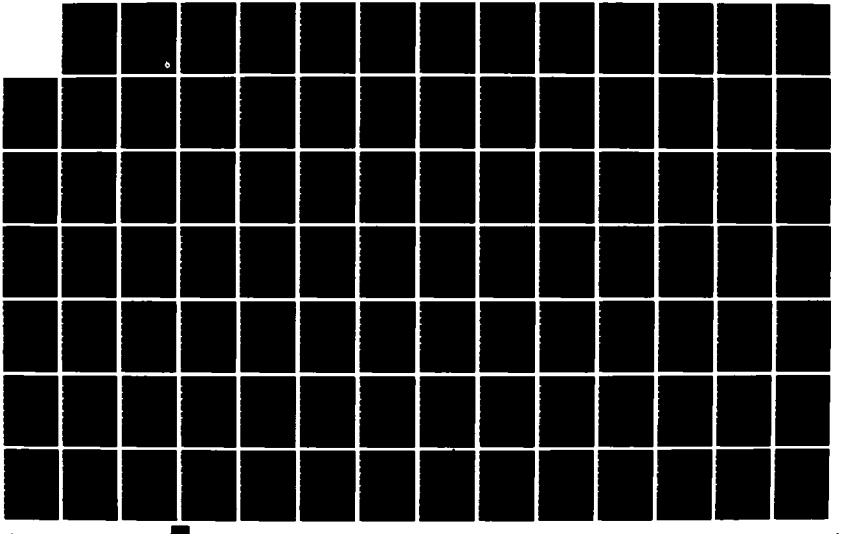

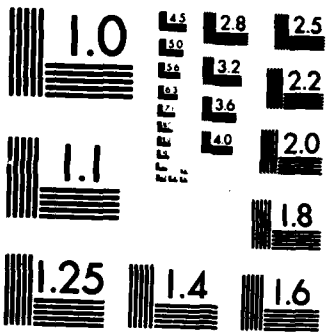

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Tabulations of Ambient Ozone Data Obtained by GASP Airliners; March 1975 to July 1979

William H. Jasperson
Control Data Corporation
Minneapolis, Minnesota

and

James D. Holdeman
Lewis Research Center
Cleveland, Ohio

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NASA

PREFACE

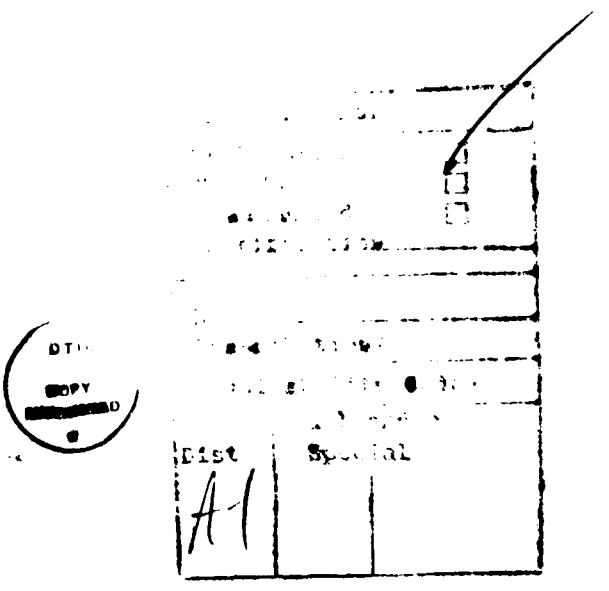
This report contains part of the data, either obtained by the Global Air Sampling Program (GASP) or analyzed from existing ozonesonde measurements since the publication of Federal Aviation Administration (FAA) Report Number FAA-EQ-78-03, "Guidelines for Flight Planning During Periods of High Ozone Occurrence," in 1978.

The FAA has published Advisory Circular 120-38, "Transport Category Airplanes Cabin Ozone Concentrations" dated October 10, 1980. (Copies of this advisory circular may be obtained free of charge from the United States Department of Transportation, Publications Section M-443.1, Washington, D.C. 20590.) In this advisory circular, examples are presented for acceptable (but not the only) means for an air carrier to demonstrate compliance with the maximum permissible cabin ozone concentrations established by Section 121.578 of the Federal Aviation Regulations (FAR). In paragraph 6 and Appendix 2 of the advisory circular, it is stated that any ozone data set used to show compliance must have, as a minium, a resolution on a monthly basis of 2,000 feet in altitude and 5 degrees in latitude.

The data in this report have not been statistically compared with those published in the FAA Report Number FAA-EQ-78-03 to determine whether they are comparable. Hence, use of the data tabulated in this report, to show compliance with Section 121.578 of the FAR, is not acceptable.

Since the data sets have been compiled, however, the FAA would like to disseminate them at this time as information to the scientific community and other interested groups.

John E. Wesler
Director of Environment and Energy
Federal Aviation Administration



TABULATIONS OF AMBIENT OZONE DATA OBTAINED BY GASP AIRLINERS: MARCH 1975 TO JULY 1979

William H. Jasperson
Control Data Corporation
Minneapolis, Minnesota

and

James D. Holdeman
National Aeronautics and Space Administration
Lewis Research Center
Cleveland, Ohio

SUMMARY

Tabulations are given of GASP ambient ozone mean, standard deviation, median, 84th percentile, and 98th percentile values, by month, flight level, and geographical region. These data are tabulated to conform to the temporal and spatial resolution required by FAA Advisory Circular 120-38 (monthly by 2000 ft in altitude by 5° in latitude) for climatological data used to show compliance with cabin ozone regulations. In addition seasonal x 10° latitude tabulations are included which are directly comparable to and supersede the interim GASP ambient ozone tabulations given in appendix B of FAA-EE-80-43. Selected probability variations are highlighted to illustrate the spatial and temporal variability of ambient ozone and to compare results from the coarse and fine grid analyses.

INTRODUCTION

From March 1975 to July 1979, the NASA Global Atmospheric Sampling Program (GASP) obtained atmospheric trace-constituents data in the upper troposphere and lower stratosphere using fully automated sampling systems on several Boeing 747 airplanes in routine commercial service (ref. 1). GASP systems were operated on a United Airlines B747, two Pan American World Airways B747's, and a Qantas Airways of Australia B747. Data from the United airliner were over the contiguous United States and between the U.S. West Coast and Hawaii. Global coverage was provided by the Pan American and Qantas airliners on routes between U.S.A. and Europe, U.S.A. and South America, U.S.A. and Japan, U.S.A. and Australia, Australia and Africa, and Australia and Europe. The complete GASP dataset consists of 667 385 trace constituent and/or meteorological observations made on 6945 flights of these airliners between March 11, 1975, and July 12, 1979.

In response to government and public concern because of reports attributing illness of some people on long duration flights to excessive ozone exposure, measurements of ozone concentration in the cabins of two GASP-equipped B747's were made from March 1977 to June 1979. Results from these measurements are reported in references 2 to 7.

In addition to the simultaneous cabin and ambient ozone measurements, GASP acquired over 160 000 ambient ozone observations around the world at airliner cruise altitudes from March 1975 to June 1979. These have added considerably to the climatological data base over what was previously available from ozonesondes, and have provided data in geographical regions where none were previously extant.

Early GASP ambient ozone tabulations and ozonesonde ambient ozone tabulations were published in 1978 (ref. 8). Considerably expanded, but still interim

GASP ambient ozone tabulations were published in reference 9. This report includes all available GASP ambient ozone data, tabulated to conform to the temporal and spatial resolution specified in reference 10, for climatological data used to show compliance with cabin ozone regulations. In addition, tabulations are included for a coarser temporal and spatial grid; these data are directly comparable to and supercede the interim tables in appendix B of reference 9.

INSTRUMENTATION

Ozone was measured on all aircraft by commercially available ultraviolet absorption photometers modified and repackaged to operate in the airborne environment (ref. 11). Readings are continuous, updating every 20 seconds, with data recorded nominally eight times per hour. The instrument range is from 0.003 to 20 ppmv (parts per million by volume). Operational procedures, set up to insure the integrity of the data, included in-flight instrument health checks, instrument calibration techniques, measurement of ozone loss in the GASP air sample inlet line and pressurization system and periodic instrument maintenance.

All flight instruments were calibrated before installation in the aircraft and periodically thereafter using a secondary transfer standard. This standard is a laboratory-type ultraviolet (UV) photometer which was initially calibrated using a 1 percent neutral buffered potassium iodide (KI) method. Later in the GASP program, the standard was calibrated at the NASA Jet Propulsion Laboratory (JPL). This calibration is traceable to the JPL 5-meter UV photometer described in reference 12. The KI calibration was found to be 9 percent higher than the UV photometer calibration. Thus, all published GASP ozone data are 9 percent higher than the JPL calibrations. This is a systematic difference and the tabulated data can be easily corrected if the KI method is determined to be incorrect and another method, such as the UV photometer, is adopted as the standard.

The random error of the GASP ozone measuring system was found to be less than 4 percent of reading or 0.003 ppmv, whichever is greater. A complete description of the ozone measurement system is given in reference 11.

PRESENTATION OF DATA

Availability

All GASP data are available to the public on magnetic computer tape from the National Climatic Center, Federal Building, Asheville, North Carolina 28801. The data tabulated here are from GASP tapes VL0001 to VL0031. These tapes include all data obtained by GASP-equipped aircraft (March 11, 1975, to July 12, 1979). Flight routes and dates, instrumentation, data processing procedures, data tape specifications, and selected analysis are reported in references 13 to 24.

Explanation of Data Tables

In this report ozone amounts are expressed as a volumetric mixing ratio, parts per million by volume (ppmv). Since ozone levels in the literature may be expressed in any of several commonly used units, the inter-relationship among these is given in appendix A (p. 103). Note that several of these relations require that temperature and/or pressure be known or assumed and that the conversion of averaged values will be an approximation because of the non-linearity of the conversion.

The GASP data are summarized by month for 2000-ft altitude increments (from FL290 to FL430) in geographical regions of 5° latitude by 45° longitude in tables I to XII (pp. 4 to 99). The geographical grid used is shown in figure 1 (p. 100). This grid was selected so that regions, or combinations of adjacent regions, coincide with major flight routes as nearly as possible (e.g., contiguous States = 27.5° to 47.5° N, 75° to 120° W; and U.S.A. to Europe = 37.5° to 57.5° N, 15° E to 75° W). For each region the tabulation includes mean, standard deviation, median (50th percentile), 84th percentile, and 98th percentile ozone amounts, in addition to the number of observations. For applications in which a coarser spatial and temporal grid is acceptable, seasonal x 10° latitude tabulations are provided in appendix B (p. 104). Note that, because the number of observations in the tabulated regions is greater here than in tables I to XII, the statistical confidence level is greater in most intervals.

Selected Graphical Presentations

It is well known that ozone levels increase with latitude and altitude, that they are maximum in the spring, and that the probability of encountering high ozone levels follows the same trends (e.g., refs. 2, 6, and 9). These variations are quantified in the tables herein, with selected empirical probability variations highlighted in figures 2 to 5 (pp. 101 and 102). These figures are examples of the types of curves that can readily be plotted from, and that might be appropriate in specific analyses of, the tabulated data.

In figure 2 the variation of the mean ozone mixing ratio with latitude is shown for low, medium, and high cruise altitudes in the spring (part (a)), and for each spring month at flight level 370 (part (b)). The seasonal variation in mean ambient ozone near 45° N is shown in figure 3 for flight levels 370 and 410.

In figure 4 four-point cumulative frequency distributions (cfd's) for the spring have been plotted from the tabulated data for Northern Hemisphere latitudes at flight level 370 (part (a)) and for flight levels 290 to 430 at 40° to 50° N latitude (part (b)). These curves show the fraction of observations (on the ordinate) in which the ozone level exceeded any given ozone level (on the abscissa). For example, at flight level 370 and 40° to 50° N latitude, the probability of encountering ambient ozone greater than 0.3 ppmv would be about 37 percent.

Figure 5 shows the zonal latitude-flight level cross section of the 84th percentile ozone values for spring. The constant mixing ratio contours define regions where the probability is greater than 16 percent that the ozone will exceed the contour value on any independent observation; that is, the probability of encountering ozone above, say 0.2 ppmv, is greater than 16 percent in all regions where the 84th percentile value is greater than 0.2 ppmv. In figure 6, the same data used in figure 5 are crossplotted to show the vertical distributions of the 84th percentile values at selected latitudes.

CONCLUDING REMARKS

Tabulations are given of GASP ambient ozone mean, standard deviation, median, 84th percentile, and 98th percentile values, by month, flight level, and geographical region. These data are tabulated to conform to the temporal and spatial resolution specified in FAA-AC-120-38, and supersede those in appendix B of FAA-EQ-78-03 (ref. 8) and appendix B of FAA-EE-80-45 (ref. 9). Selected probability variations are shown herein to highlight the spatial and temporal variability of ambient ozone and to illustrate and compare the results from the coarse and fine grid analyses.

TABLE I. - GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JANUARY
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55								.077 .049 6 .061 .099 .171	.077 .049 6 .061 .099 171	55
50						.043 .010 3 .038 .061 .056		.073 .055 18 .056 .091 .214	.066 .052 21 .055 .066 .212	50
45	.084 .039 28 .071 .106 .182				.041 1	.047 .020 10 .042 .045 .093	.054 .018 3 .060 .067 .071	.108 .058 5 .072 .177 .179	.076 .042 47 .064 .104 .191	45
40	.073 .038 14 .067 .123 .145				.026 .024 4 .027 .050 .062	.101 .088 9 .062 .197 .276	.048 .036 4 .036 .076 .103		.071 .061 31 .052 .111 .257	40
35	.062 .018 19 .056 .061 .102		.154 .099 2 .154 .221 .248		.036 .019 5 .035 .060 .071	.045 .016 20 .042 .046 .088			.056 .035 46 .041 .073 .120	35
30	.067 .015 18 .062 .067 .087	.041 1							.058 .015 17 .061 .067 .086	30
25	.043 .016 18 .045 .066 .072	.048 .001 2 .048 .049 .048	.027 1		.032 .010 9 .037 .040 .043				.039 .015 30 .034 .053 .067	25
20		.055 .011 9 .051 .059 .060	.061 1		.052 .034 11 .038 .083 .123				.053 .026 21 .050 .067 .119	20
15		.059 .019 11 .057 .068 .069			.025 .007 20 .024 .032 .039	.041 1			.037 .020 32 .031 .067 .069	15
10		.061 .012 9 .056 .057 .073		.029 .002 2 .029 .030 .031		.042 .011 4 .039 .062 .059			.052 .016 15 .050 .066 .072	10
5		.029 .007 2 .029 .034 .036							.029 .007 2 .029 .034 .036	5
0		.032 1	.026 .005 2 .026 .029 .031						.028 .005 3 .031 .032 .032	0
5			.029 .007 7 .028 .031 .044						.029 .007 7 .028 .031 .044	5
10			.039 .003 7 .039 .041 .043						.039 .003 7 .039 .041 .043	10
15			.060 1	.010 .005 2 .010 .013 .014					.026 .024 3 .014 .045 .058	15
20				.006 1					.006 1	20
25	.081 1			.042 .003 4 .043 .045 .048					.046 .008 5 .043 .051 .060	25
30			.039 1	.038 .011 12 .038 .048 .068					.038 .010 13 .038 .047 .056	30
35			.042 1	.040 .013 7 .040 .063 .056					.041 .012 8 .040 .063 .056	35
40										40
45S										45S

LONGITUDE

TABLE I. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(b) Flight level 310

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JANUARY
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55								.081 .062 22 .062 .140 .190		.081 .062 22 .062 .140 .190
50					.145 .167 .088 .240 11 .276			.071 .039 .071 .156 26 .242		.093 .047 .082 .192 37 .285
45	.127 .101 .066 .142 7 .285				.073 .030 .077 .139 18 .249	.095 .069 .087 .149 28 .287	.073 .036 .069 .175 24 .210	.075 .033 .086 .105 20 .322		.084 .054 .075 .159 97 .290
40	.086 .093 .038 .123 25 .159				.071 .026 .093 .112 13 .302	.077 .047 .063 .127 38 .251	.083 .064 .064 .124 6 .207			.079 .047 .063 .123 82 .263
35	.080 .079 .033 .122 31 .137		.088 .086 .035 .103 19 .145		.040 .032 .026 .047 34 .134	.084 .048 .068 .057 22 .270				.062 .037 .044 .100 106 .153
30	.061 .052 .035 .081 38 .156	.038 .040 .007 .046 10 .050	.042 .016 .037 .064 20 .106		.032 .028 .013 .045 30 .085	.041 .041 .005 .044 2 .046				.046 .040 .031 .073 101 .127
25	.086 .075 .032 .114 17 .156	.060 .054 .025 .061 12 .124	.019 .012 .013 .038 18 .040		.033 .032 .010 .037 13 .056					.050 .040 .035 .074 58 .146
20		.043 .043 .011 .051 31 .064	.018 .017 .009 .026 13 .037	.052 .060 .012 .061 18 .077	.045 .043 .018 .053 23 .097	.046 1				.042 .026 .017 .053 80 .083
15		.046 .046 .017 .064 23 .071	.022 .021 .005 .027 6 .028		.018 .016 .009 .023 12 .033	.059 1				.034 .030 .020 .058 42 .071
10				.028 .029 .004 .031 18 .033	.020 .019 .006 .027 6 .029	.045 .045 .005 .048 2 .049	.040 .040 .005 .044 6 .048			.030 .029 .009 .040 29 .048
5		.039 .042 .017 .060 13 .064		.018 .018 .006 .023 28 .033						.025 .020 .014 .038 42 .061
0				.014 .014 .003 .017 21 .018						.014 .014 .003 .017 21 .018
5				.012 .012 .002 .014 15 .016						.012 .012 .002 .014 15 .016
10				.020 .018 .006 .026 7 .032						.020 .018 .006 .026 7 .032
15			.041 .041 .005 .049 6 .048				.049 .048 .003 .082 5 .053			.044 .046 .006 .049 11 .053
20	.011 1	.088 1	.100 1	.017 .022 .010 .028 5 .029			.031 .039 .013 .040 3 .041			.031 .023 .026 .047 11 .091
25	.048 .041 .024 .078 15 .093	.070 .070 .012 .083 6 .084		.042 1						.056 .044 .023 .084 24 .092
30			.064 .065 .021 .062 27 .096	.025 .022 .009 .032 3 .036						.060 .061 .023 .081 30 .096
35			.132 .081 .099 .275 12 .288	.038 .031 .010 .043 4 .082						.108 .076 .095 .257 16 .287
40										
45S										

LONGITUDE

TABLE I. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JANUARY
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60							.282 .304 .098 .381 .25 .422	.163 .163 .055 .220 .20 .241		.229 .199 .101 .352 .45 .404	60
55				.302 .283 .061 .384 .41 .452	.243 .239 .085 .317 .25 .366		.192 .215 .110 .287 .60 .417	.098 .079 .063 .164 .60 .253		.193 .161 .116 .311 .166 .425	55
50				.298 .318 .056 .346 .27 .390	.092 .038 .091 .198 .14 .272	.233 .226 .164 .421 .12 .517	.126 .099 .097 .228 .48 .341	.075 .032 .086 .215 .38 .290		.151 .115 .126 .303 .139 .395	50
45	.137 .099 .090 .212 .4 .278		.268 .188 .118 .393 .7 .424	.358 .374 .091 .418 .17 .524	.041 .036 .010 .049 .7 .059	.191 .145 .112 .321 .9 .380	.069 .041 .054 .154 .51 .181	.084 .030 .091 .193 .20 .293		.137 .064 .133 .309 .115 .428	45
40	.104 .068 .077 .185 .34 .281		.196 .227 .096 .272 .21 .389	.087 .087 .061 .115 .11 .232	.087 .052 .062 .084 .10 .213	.144 .136 .119 .289 .45 .403	.043 .036 .034 .043 .23 .152			.117 .060 .101 .230 .144 .370	40
35	.101 .084 .034 .136 .17 .163		.128 .096 .094 .191 .26 .341	.111 .088 .067 .181 .17 .255	.065 .045 .053 .124 .87 .210	.139 .105 .115 .259 .17 .389				.091 .059 .076 .141 .164 .315	35
30	.096 .076 .056 .105 .10 .233	.095 .088 .029 .131 .6 .135	.051 .053 .011 .062 .9 .064		.050 .043 .026 .072 .92 .128	.070 .065 .030 .096 .23 .140				.059 .048 .034 .082 .140 .152	30
25	.044 .1	.074 .062 .042 .072 .7 .161	.026 .029 .004 .031 .7 .034		.042 .036 .023 .058 .66 .113	.052 .049 .015 .066 .24 .089				.046 .041 .024 .062 .105 .114	25
20		.065 .056 .025 .080 .5 .103	.011 .1	.039 .026 .025 .068 .27 .066	.055 .041 .036 .072 .16 .155	.043 .041 .010 .053 .24 .063				.045 .040 .027 .066 .73 .118	20
15		.057 .060 .011 .065 .9 .073				.047 .045 .012 .055 .17 .068				.050 .049 .013 .063 .26 .072	15
10		.074 .069 .008 .082 .11 .088				.038 .038 .018 .049 .2 .054	.029 .029 .004 .031 .2 .032			.063 .069 .020 .080 .15 .087	10
5		.047 .047 .018 .071 .22 .078				.013 .1	.019 .018 .007 .027 .11 .028			.037 .034 .021 .058 .34 .077	5
0		.027 .029 .007 .032 .13 .038					.018 .018 .003 .019 .7 .023			.024 .022 .007 .032 .20 .037	0
5		.027 .028 .006 .031 .14 .035		.012 .012 .002 .013 .14 .015						.019 .016 .008 .028 .28 .034	5
10		.032 .030 .014 .049 .18 .061		.014 .013 .005 .021 .28 .025						.021 .016 .013 .031 .46 .082	10
15		.042 .040 .010 .052 .17 .063		.020 .013 .013 .034 .15 .037						.032 .034 .016 .046 .32 .060	15
20	.071 .079 .017 .066 .8 .069	.042 .041 .003 .045 .10 .046	.056 .062 .014 .069 .8 .077	.031 .031 .009 .041 .38 .045			.044 .1			.041 .038 .018 .057 .65 .085	20
25	.087 .089 .023 .096 .13 .107	.106 .106 .020 .122 .3 .128	.056 .059 .018 .068 .18 .096	.042 .033 .021 .063 .47 .093						.051 .038 .025 .077 .82 .111	25
30		.061 .059 .020 .083 .20 .096	.069 .073 .029 .094 .21 .123	.042 .034 .025 .069 .67 .101						.051 .038 .027 .078 .108 .113	30
35			.091 .104 .078 .122 .7 .230	.026 .023 .017 .039 .20 .067						.042 .027 .050 .078 .27 .178	35
40			.041 .1	.039 .036 .011 .049 .25 .063						.039 .036 .011 .049 .26 .063	40
45S											45S

LONGITUDE

TABLE I. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(d) Flight level 350

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JANUARY
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					.360 .108 39 .369 .456 .577	.312 .131 13 .304 .366 .600				.347 .117 48 .335 .483 .614	65
60						.305 .103 49 .310 .371 .563	.176 .078 10 .148 .262 .312	.294 .087 6 .313 .350 .393		.264 .108 65 .306 .383 .460	60
55				.370 .018 3 .367 .385 .393	.348 .054 5 .371 .387 .411	.273 .142 69 .259 .423 .537	.315 .129 65 .319 .444 .631	.084 .096 28 .042 .137 .353		.252 .152 170 .159 .422 .536	55
50				.332 .099 14 .314 .430 .611	.395 .024 7 .387 .417 .434	.258 .169 59 .230 .412 .652	.175 .193 25 .049 .462 .523	.183 .152 76 .134 .366 .509		.226 .168 181 .209 .414 .530	50
45	.230 .117 74 .224 .340 .450			.309 .181 16 .441 .474 .540	.156 .097 33 .166 .260 .371	.223 .112 113 .233 .329 .468	.087 .108 82 .048 .158 .480	.191 .124 9 .128 .340 .380		.187 .132 326 .119 .324 .478	45
40	.147 .098 91 .111 .270 .382		.284 .222 14 .390 .509 .583	.277 .092 8 .299 .345 .374	.135 .116 56 .090 .298 .387	.207 .160 76 .187 .369 .659	.161 .185 16 .072 .313 .615			.176 .144 264 .111 .342 .545	40
35	.157 .124 34 .097 .282 .450		.134 .097 14 .106 .171 .378	.127 .090 14 .084 .213 .347	.120 .128 209 .068 .219 .464	.082 .080 31 .062 .113 .329				.121 .122 302 .071 .244 .458	35
30	.097 .090 27 .059 .227 .303	.038 .016 23 .033 .064 .073	.050 .010 4 .050 .059 .063	.040 .013 26 .036 .055 .070	.092 .095 260 .053 .171 .404	.047 .010 20 .047 .052 .069				.083 .060 359 .049 .144 .343	30
25	.066 .028 10 .073 .081 .102	.051 .028 32 .042 .066 .128	.022 1	.034 .010 37 .034 .046 .052	.054 .031 276 .047 .080 .149	.037 .009 24 .037 .045 .051				.051 .029 360 .042 .074 .134	25
20	.079 .008 4 .003 .085 .085	.054 .025 41 .055 .080 .092		.013 .002 2 .013 .014 .014	.039 .014 60 .037 .050 .074	.045 .023 28 .035 .074 .084				.046 .021 135 .039 .074 .088	20
15		.044 .016 17 .048 .056 .067			.035 .013 21 .029 .054 .060	.038 .008 26 .040 .046 .049	.048 .007 7 .043 .055 .058			.039 .013 71 .040 .054 .062	15
10		.052 .018 18 .050 .062 .092		.011 .001 4 .011 .012 .012	.026 .011 23 .024 .035 .054	.039 .006 4 .039 .045 .046	.040 .009 7 .034 .050 .052			.036 .018 56 .033 .051 .064	10
5		.060 .021 16 .067 .078 .082		.009 .004 7 .007 .013 .015	.032 1		.039 .013 10 .038 .052 .058			.042 .025 34 .031 .074 .081	5
0		.032 .015 6 .030 .041 .060	.035 .016 10 .043 .047 .050	.012 .005 12 .011 .017 .020			.029 .015 9 .032 .044 .050			.026 .016 37 .028 .044 .054	0
5		.029 .004 2 .029 .031 .032	.031 .013 14 .030 .042 .056	.011 .010 12 .006 .018 .033			.033 .006 13 .034 .038 .042			.025 .014 41 .026 .038 .051	5
10			.032 .021 14 .032 .050 .074	.013 .005 20 .012 .017 .024			.042 .013 14 .039 .055 .066			.027 .018 48 .017 .046 .070	10
15		.042 .017 2 .042 .053 .057	.047 .016 15 .043 .065 .066	.017 .007 34 .015 .026 .032			.050 .008 9 .046 .057 .064			.031 .019 60 .022 .056 .065	15
20		.055 .005 5 .054 .059 .063	.055 .017 25 .050 .066 .089	.032 .023 46 .028 .039 .104						.041 .023 76 .035 .058 .103	20
25			.068 .020 22 .070 .085 .104	.037 .030 52 .035 .047 .114						.046 .030 74 .041 .075 .114	25
30			.076 .023 8 .081 .088 .115	.044 .022 56 .037 .068 .095						.048 .024 64 .039 .078 .106	30
35			.089 .039 40 .063 .106 .150	.037 .016 36 .034 .055 .071						.053 .034 76 .032 .091 .125	35
40				.029 .011 16 .027 .036 .051						.028 .011 15 .027 .036 .051	40
45S											45S

LONGITUDE

TABLE I. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JANUARY
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					329 171 11 211 524 847					.325 .171 11 .211 524 .547	65
60				.263 .185 5 .143 .433 572	305 134 66 343 436 526	280 089 12 290 365 402				299 133 83 319 426 537	60
55				422 164 63 396 545 862	416 131 31 442 556 617	430 118 7 422 473 668	294 142 17 300 385 .610	.301 .159 36 .335 .446 .591		379 163 154 305 320 784	55
50				.511 135 35 .512 661 764	176 092 27 147 276 383	374 063 7 359 455 477	112 125 115 053 222 434	279 164 115 250 437 720		235 190 299 192 437 683	50
45	199 085 13 174 261 372		.479 .022 3 .485 .497 .501	.378 210 45 .445 579 700	140 100 46 104 229 417	246 097 17 219 367 416	160 129 79 118 295 481	.175 .117 34 .197 .300 .387		212 165 237 161 409 606	45
40	187 027 4 183 213 222		.414 .188 21 .385 .638 .772	.306 115 34 .301 409 635	162 112 58 156 268 428	233 162 644 224 419 577	137 104 31 149 211 399	159 128 15 083 316 375		230 161 807 211 408 579	40
35	066 030 8 063 089 116		.189 099 32 194 311 324	.186 176 75 086 378 590	169 101 432 157 278 383	193 132 222 189 338 511				177 120 760 158 307 495	35
30	051 039 10 029 105 .117		045 .017 30 040 .063 085	.057 008 17 .080 062 .067	100 070 581 090 177 263	028 1				095 069 639 083 173 257	30
25	049 030 8 029 076 105	.055 015 9 062 067 074	027 005 15 027 029 039		070 036 406 062 100 168					068 036 438 061 098 162	25
20		022 020 18 016 040 068			050 023 28 044 076 093	078 029 4 065 101 124				042 028 50 034 072 090	20
15					020 008 14 019 023 034	049 015 17 052 061 074				036 018 31 029 059 072	15
10				.014 008 6 009 024 027	015 009 12 012 020 034	046 007 11 048 052 053	042 005 6 044 045 047			029 017 35 030 048 053	10
5				.010 003 22 010 013 016	019 007 29 018 026 034					015 008 51 013 024 034	5
0				.012 006 25 010 017 024	026 009 21 023 033 045		023 009 7 025 027 034			019 010 53 017 027 040	0
5				.015 006 33 012 022 028	024 009 9 021 029 043		019 004 13 018 023 025			017 007 55 015 023 031	5
10				.021 013 26 019 034 049	023 004 2 023 026 027		018 007 10 017 025 027			020 011 38 017 027 049	10
15				.026 014 27 023 031 060			026 012 12 027 036 044			026 014 39 023 037 060	15
20				.026 005 14 026 029 036			034 023 10 034 060 061			029 016 24 023 054 061	20
25				.026 003 19 025 029 030						026 003 19 025 029 030	25
30				.027 004 8 025 030 034						027 004 8 025 030 034	30
35			.101 .069 46 .089 .203 .245	.051 1						099 069 47 088 202 245	35
40			.056 011 2 056 063 069	.033 008 6 035 038 039						039 013 8 037 046 066	40
45S											45S

LONGITUDE

TABLE I. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JANUARY
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65				.556 .064 5 .536 .620 .654	.497 .200 80 .486 .652 .936					.501 .195 85 .492 .653 .933	65
60				.458 .125 58 .432 .583 .750	.416 .136 30 .381 .570 .642	.440 1	.432 .040 8 .426 .471 .498	.467 .072 12 .446 .537 .623		.446 .122 107 .431 .573 .700	60
55				.868 .251 71 .497 .884 1.066	.423 .112 17 .424 .549 .581		.449 .137 16 .435 .583 .712	.417 .195 26 .422 .655 .718		.504 .225 130 .376 .736 1.050	55
50				.401 .090 7 .353 .523 .654	.366 .126 19 .376 .486 .585		.328 .166 26 .378 .512 .564	.317 .061 29 .318 .387 .415		.339 .133 81 .351 .461 .563	50
45	.090 1			.255 .118 27 .304 .342 .479	.086 .049 12 .065 .116 .197	.439 .235 102 .425 .573 1.185	.187 .205 50 .078 .430 .625	.364 .164 23 .357 .535 .566		.328 .236 215 .333 .549 .919	45
40			.455 .036 5 .468 .478 .487	.212 .096 15 .147 .357 .365	.144 .131 7 .085 .231 .406	.321 .181 462 .310 .510 .719	.180 .125 11 .240 .295 .360			.313 .180 500 .307 .500 .716	40
35			.237 .055 8 .213 .310 .329	.188 .138 61 .130 .316 .568	.169 .082 140 .179 .214 .342	.189 .128 97 .141 .319 .492				.181 .111 306 .162 .267 .510	35
30				.037 .016 12 .032 .041 .077	.142 .098 124 .115 .265 .354	.197 .082 21 .228 .262 .308				.141 .099 157 .114 .262 .351	30
25	.104 1			.029 .002 3 .029 .031 .032	.098 .105 47 .069 .142 .474	.023 .003 9 .023 .024 .029				.083 .097 60 .049 .126 .445	25
20			.015 .014 3 .005 .025 .034		.054 .028 18 .053 .085 .090	.026 .005 4 .025 .030 .033				.015 .029 25 .040 .083 .090	20
15			.009 .003 7 .008 .012 .014		.049 .022 20 .051 .074 .076					.039 .026 27 .048 .073 .076	15
10		.009 .003 9 .007 .012 .018	.015 .002 7 .015 .018 .018	.038 .012 6 .035 .053 .055	.045 .016 23 .049 .057 .078					.032 .020 45 .026 .054 .075	10
5		.020 1		.019 .008 8 .020 .026 .029	.038 .006 8 .038 .042 .047					.028 .011 17 .030 .040 .046	5
0			.037 .007 3 .036 .043 .046	.023 .005 4 .024 .026 .028	.045 .011 8 .051 .053 .055					.038 .013 15 .036 .053 .054	0
5			.032 .014 7 .037 .040 .044		.035 .015 23 .033 .053 .062					.035 .015 30 .032 .051 .060	5
10			.014 1	.022 .007 15 .020 .029 .033	.025 .008 9 .028 .031 .032					.022 .008 25 .024 .030 .033	10
15				.022 .007 20 .019 .026 .037						.022 .007 20 .019 .026 .037	15
20				.019 .005 20 .019 .024 .026						.019 .005 20 .019 .024 .026	20
25				.034 .020 18 .028 .043 .087						.034 .020 18 .028 .043 .087	25
30				.080 .040 15 .062 .107 .178						.080 .040 15 .062 .107 .178	30
35				.074 .034 20 .056 .108 .150						.074 .034 20 .056 .108 .150	35
40				.033 .001 3 .034 .034 .034						.033 .001 3 .034 .034 .034	40
45S											45S

LONGITUDE

TABLE I. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(g) Flight level 410

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JANUARY
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60				530 108 2 530 .603 .634	420 115 13 443 534 .562	.550 140 14 568 657 752	.472 079 6 479 523 .592			.487 134 35 485 638 729
55				.907 300 74 926 1.221 1.421	624 1	.582 230 39 502 865 1.040	619 042 7 609 617 .706			.783 310 121 805 1.133 1.388
50				.742 301 85 726 1.073 1.289	380 209 17 309 680 .730	561 172 39 518 738 .887	045 017 18 039 066 082	331 220 11 469 545 565		.564 333 170 379 809 1.237
45			.613 148 20 620 .717 .889	841 251 91 617 .855 1.254	448 236 86 416 557 1.160	475 183 37 436 639 .904	069 018 15 066 093 097			.513 263 249 498 734 1.177
40	296 193 9 240 544 629		.485 173 67 473 661 .897	.388 144 20 346 456 780	335 175 132 318 517 701	476 283 60 422 693 1.273	042 1 042 1			.401 214 239 394 594 905
35	282 178 23 284 465 590		.099 022 6 092 116 .141	.408 200 26 398 675 .785	143 088 44 132 207 .406	139 040 9 124 138 .233				.234 181 108 156 449 .740
30	139 069 17 109 160 418		.046 013 9 042 039 070		145 125 42 103 245 .510					.131 115 68 077 203 499
25	085 021 6 077 092 127	074 008 3 070 081 085	.032 003 9 032 035 .037		068 015 31 067 084 101					.064 022 49 067 082 110
20		058 017 17 066 073 078	027 004 4 027 031 032		081 023 20 077 107 117					.066 026 41 065 099 114
15			.025 004 6 026 028 029		059 012 7 053 071 081					.043 019 13 048 060 079
10			.025 004 5 025 028 031		041 013 7 049 052 .054					.034 013 12 026 051 054
5			.029 009 5 026 038 042		039 002 2 039 040 .041					.032 009 7 035 041 043
0										
5										
10				.025 003 2 025 026 027						.025 003 2 025 026 027
15				.022 003 7 022 026 027						.022 003 7 022 026 027
20				.029 005 4 029 034 034						.029 005 4 029 034 034
25				.134 076 5 183 199 210						.134 076 5 183 199 210
30				.152 014 4 149 165 .174						.152 014 4 149 165 174
35				.190 067 7 225 243 246						.190 067 7 225 243 246
40										
45S										

LONGITUDE

TABLE I. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR JANUARY

(h) Flight level 430

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JANUARY
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55							.644 1			.644 1	55
50				.927 .370 2 .927 1.178 1.281			.368 .249 9 .324 .687 .752			.469 .350 11 .331 .747 1.188	50
45			.381 .174 4 .300 .511 .655	.764 .446 10 .712 1.307 1.426			.500 .196 17 .456 .678 .918			.570 .330 31 .481 .909 1.414	45
40			.377 .093 13 .346 .425 .589		.529 .101 24 .536 .632 .662	.140 .027 3 .131 .162 .175	.568 .251 2 .568 .739 .809			.456 .156 42 .464 .616 .733	40
35			.424 .148 2 .424 .525 .566		.266 .049 8 .250 .331 .345	.106 .053 9 .086 .088 .229				.207 .126 19 .230 .284 .491	35
30											30
25	.104 .048 25 .085 .143 .242	.071 .008 7 .070 .077 .083								.097 .045 32 .083 .139 .236	25
20		.063 .013 27 .056 .074 .083								.063 .013 27 .066 .074 .083	20
15											15
10											10
5											5
0											0
5											5
10											10
15											15
20											20
25											25
30											30
35				.112 .062 53 .101 .186 .264						.112 .062 53 .101 .186 .264	35
40											40
45S											45S

LONGITUDE

TABLE II. - GASP AMBIENT OZONE DATA BY LATUTUDE FOR FEBRUARY

(a) Flight level 290

CODE:	MEAN	ST. DEV.	N
	50%	44%	98%

FEBRUARY
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55						059 016 6 051 068 091		052 004 3 054 055 055		056 014 9 051 059 069	55
50					052 1	057 004 2 057 060 061		078 1		061 010 4 057 070 077	50
45						224 1				224 1	45
40	053 014 3 050 064 070					014 045 10 036 106 [illegible]	071 035 4 054 096 127			058 039 17 050 104 137	40
35	047 [illegible] 2 047 [illegible] 046		06 [illegible] 6 068 [illegible] 245		032 087 8 060 139 281	049 014 8 050 064 [illegible]				078 066 24 044 101 282	35
30		061 1				092 1				077 016 2 077 087 091	30
25	[illegible] 5 [illegible] 160		051 1		048 014 17 053 051 071					063 038 23 054 075 172	25
20		[illegible] 1	[illegible] 7 035 [illegible] 069		032 016 16 025 050 064					036 016 21 029 052 068	20
15					030 009 22 030 037 049					030 009 22 029 037 049	15
10		[illegible] 005 3 [illegible] 025 028	040 1	078 006 2 078 062 084	056 1					045 023 7 040 072 083	10
5		026 002 6 025 027 031								026 002 6 025 027 031	5
0		026 1								026 1	0
5			014 008 3 018 020 021							014 008 3 018 020 021	5
10			019 003 6 020 021 023							019 003 6 019 021 023	10
15			025 011 7 022 033 045	024 004 2 024 026 027						024 010 9 022 031 045	15
20			027 004 3 026 030 033							027 004 3 025 030 033	20
25				031 1						031 1	25
30		054 1	054 017 6 054 064 082	058 009 10 056 068 076						056 013 17 055 067 082	30
35			035 030 2 035 055 064	063 020 16 061 083 105						060 023 18 061 079 104	35
40			152 1							152 1	40
45S											45S

LONGITUDE

TABLE II. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(b) Flight level 310

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

FEBRUARY
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60							.053 .007 10 .052 .055 .068	.056 .006 10 .059 .060 .067		.055 .007 20 .048 .060 .070
55							.176 .099 8 .145 .293 .323	.056 .006 12 .059 .061 .064		.104 .086 20 .081 .153 .316
50								.069 .044 23 .049 .097 .194		.069 .044 23 .049 .097 .194
45	.077 .023 10 .073 .101 .118				.117 1	.151 .068 24 .149 .218 .305		.085 .028 10 .079 .114 .139		.119 .063 45 .102 .163 .268
40	.073 .007 3 .074 .079 .081			.072 .020 9 .066 .086 .102	.094 .082 7 .050 .153 .255	.089 .068 33 .070 .130 .269	.119 .092 8 .081 .253 .269			.090 .069 60 .054 .132 .270
35	.066 .010 2 .066 .072 .079		.112 .095 13 .092 .173 .338	.078 .025 3 .064 .098 .112	.058 .039 37 .044 .067 .189	.069 .072 15 .056 .080 .256				.071 .063 70 .049 .095 .281
30		.084 .034 14 .078 .100 .187			.097 .093 56 .062 .144 .387	.047 1				.094 .084 71 .067 .125 .384
25	.069 .022 19 .070 .075 .128	.074 .036 33 .063 .078 .173	.057 .018 5 .056 .072 .083	.075 .002 2 .076 .076 .078	.060 .025 36 .060 .078 .124					.067 .029 95 .063 .076 .169
20		.040 .012 31 .041 .051 .061	.030 .008 13 .029 .038 .043		.036 .027 25 .031 .064 .097					.037 .019 69 .038 .051 .074
15		.030 .012 18 .037 .041 .043	.030 .015 8 .036 .042 .042		.041 .023 40 .031 .056 .084					.037 .020 66 .027 .064 .082
10				.028 .020 34 .021 .049 .079	.035 .014 8 .031 .051 .059					.029 .019 42 .022 .053 .076
5		.020 1		.027 .018 47 .024 .037 .060						.027 .018 48 .022 .036 .060
0		.019 1	.067 1	.023 .015 41 .017 .036 .062						.023 .016 43 .018 .037 .062
5			.031 .005 3 .030 .035 .038	.021 .011 34 .018 .035 .041						.022 .011 37 .022 .036 .041
10			.037 .010 8 .032 .044 .066	.030 .015 19 .031 .048 .060						.032 .014 25 .032 .048 .054
15			.028 .013 3 .021 .038 .045	.018 .011 22 .016 .025 .036						.017 .012 25 .016 .026 .044
20	.044 .014 5 .041 .056 .069	.049 1	.044 .011 5 .041 .060 .083	.019 .010 13 .023 .027 .036						.031 .017 24 .027 .044 .062
25	.047 .022 15 .038 .056 .102		.085 .018 6 .090 .098 .107	.032 .004 3 .030 .035 .036						.055 .026 24 .042 .088 .111
30		.087 .015 10 .081 .102 .106	.084 .019 12 .069 .099 .107	.030 .021 9 .024 .040 .077						.069 .031 31 .063 .098 .106
35			.070 .028 6 .059 .101 .116	.061 .021 27 .060 .074 .094						.054 .024 33 .051 .077 .106
40			.075 .040 3 .052 .106 .129							.075 .040 3 .052 .106 .129
45S										

LONGITUDE

TABLE II. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

FEBRUARY
FL 330

LAT	15E–60E	60E–105E	105E–150E	150E–165W	165W–120W	120W–75W	75W–30W	30W–15E	MEAN	LAT
70N						.273 032 2 .273 294 .303	130 116 18 .092 .314 342		.162 116 20 .125 311 .341	70N
65						151 045 8 143 199 236	.116 .039 6 .117 169 166	.188 .041 6 178 240 241	.151 .051 20 123 205 211	65
60						105 041 6 101 143 169		.185 .056 5 .217 .236 .241	141 063 11 125 223 240	60
55				475 319 2 475 437 492				106 .035 8 .094 .140 175	180 151 10 096 335 486	55
50				327 132 9 361 [illegible] 467			201 072 10 .236 255 286	162 143 56 .081 335 421	187 144 75 [illegible] 362 466	50
45	095 [illegible] 21 080 [illegible] 164			217 112 16 167 362 410		199 .083 3 212 267 .290	189 .151 77 189 .312 563	085 072 6 .053 136 221	[illegible] 133 123 [illegible] 300 559	45
40	088 072 14 049 [illegible] 252		232 [illegible] 16 280 332 379	110 055 48 107 145 261	066 026 29 054 090 122	114 095 33 068 257 317	.181 .089 16 209 264 305		110 083 156 067 211 327	40
35	104 061 24 079 178 227		112 [illegible] 12 069 160 360	072 003 4 072 075 075	079 078 115 051 123 318	.101 .093 32 .067 .176 374	.317 1		069 063 166 054 151 351	35
30	094 021 8 106 114 114	057 011 19 055 070 071		068 036 25 050 116 142	052 026 96 047 076 .127	085 060 2 085 125 142			058 029 150 047 082 142	30
25	034 036 13 031 115 153	073 030 17 058 125 133	034 [illegible] 12 031 [illegible] 055	087 055 9 052 [illegible] 187	032 026 105 [illegible] 051 091				045 037 162 036 076 157	25
20		040 012 35 [illegible] 049 072	039 [illegible] 12 [illegible] [illegible] 106		[illegible] 042 31 055 116 134				048 032 76 025 081 122	20
15		038 006 15 031 044 048	[illegible] [illegible] 6 021 [illegible] 023						032 009 21 036 042 037	15
10			025 [illegible] 10 [illegible] [illegible] 040						025 008 10 [illegible] [illegible] [illegible]	10
5		[illegible] 1	025 [illegible] 11 023 029 035	016 1					030 [illegible] [illegible] 023 033 097	5
0			020 010 14 020 025 052						020 013 14 020 025 032	0
5			030 009 16 031 039 045	029 008 5 034 035 035					030 009 21 032 038 044	5
10			030 017 17 024 016 064	022 009 17 024 028 039					026 014 34 019 038 063	10
15			040 007 8 .041 048 049	026 014 19 026 042 055					030 014 27 028 045 [illegible]	15
20	075 1		034 002 4 033 036 .037	026 020 41 020 039 080					028 020 46 022 039 079	20
25	048 013 14 .046 066 070		038 009 7 .036 039 .056	.048 034 62 .042 094 110					047 030 83 042 .076 109	25
30		077 017 8 .083 .089 095	.074 008 3 .075 078 080	062 .027 88 .062 085 118					064 026 99 066 .085 115	30
35			.080 .025 10 074 .107 125	077 .030 68 .076 .109 .123					077 029 78 072 .106 126	35
40			044 1	081 .038 34 .077 .120 .162					080 038 35 076 117 162	40
45S										45S

LONGITUDE

TABLE II. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

FEBRUARY
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.391 1	.211 .085 13 .236 .263 361			.219 .086 14 .237 .260 372	70N
65					.419 .067 8 .439 .481 .498	.336 .141 16 .280 .470 .631				.383 .126 24 .340 .475 .613	65
60					.200 .112 13 .182 .266 .457	.406 .150 78 .434 .536 .656				.377 .162 88 .397 .508 .655	60
55				.383 .070 22 .350 .429 .490	.396 .078 33 .390 .496 .563	.372 .152 100 .404 .501 .650	.422 .044 3 .437 .458 .467	.178 1		.375 .130 159 .396 .490 .606	55
50				.442 .169 33 .476 .605 .716	.301 .133 47 .337 .415 .501	.393 .169 84 .423 .559 .682	.267 .098 25 .275 .367 .412	.178 .150 41 .123 .354 .481		.329 .176 230 .316 .510 .677	50
45	.260 .104 35 .271 .342 .385		.442 .042 7 .453 .465 .497	.289 .213 24 .173 .497 .660	.185 .136 56 .107 .289 .529	.337 .163 78 .380 .504 .566	.128 .104 47 .070 .275 .336	.194 .067 4 .194 .261 .271		.240 .169 251 .238 .433 .560	45
40	.273 .131 62 .292 .405 .463		.105 .087 13 .063 .244 .268	.248 .126 19 .281 .376 .423	.201 .157 74 .196 .387 .451	.151 .120 207 .101 .285 .436	.135 .144 8 .069 .155 .454	.065 .012 2 .065 .072 .076		.183 .139 303 .142 .382 .453	40
35	.159 .100 71 .120 .276 .367		.133 .095 33 .082 .253 .329	.143 .084 44 .140 .254 .273	.093 .100 232 .060 .139 .421	.096 .075 43 .067 .171 .272	.227 .168 8 .158 .427 .545			.115 .103 432 .068 .205 .303	35
30	.079 .046 79 .084 .103 .250	.057 .017 19 .054 .073 .098	.061 .011 18 .058 .075 .090	.111 .041 12 .104 .168 .184	.077 .060 403 .063 .108 .286					.077 .056 531 .063 .106 .279	30
25	.060 .012 17 .059 .072 .083	.056 .013 23 .050 .067 .078	.039 .009 23 .036 .043 .081	.065 .001 7 .065 .066 .066	.063 .043 361 .064 .098 .171					.062 .040 431 .064 .093 .169	25
20		.050 .016 16 .042 .066 .077	.048 .017 14 .043 .063 .069	.050 .010 10 .056 .069 .080	.042 .024 67 .041 .067 .092					.044 .022 127 .043 .066 .085	20
15		.042 .005 11 .042 .046 .047	.030 .019 11 .040 .046 .048	.012 .015 39 .003 .032 .039	.027 .020 82 .020 .057 .083					.022 .019 83 .021 .044 .061	15
10		.026 .007 12 .024 .033 .039	.020 .005 9 .018 .025 .029	.030 .007 3 .027 .036 .038	.028 .014 16 .028 .038 .064					.026 .011 40 .020 .036 .064	10
5		.022 .006 4 .020 .028 .033	.020 .003 9 .019 .023 .028	.034 .023 14 .029 .041 .066	.032 .014 14 .037 .048 .050					.029 .017 41 .026 .040 .063	5
0			.024 .019 22 .019 .038 .069	.044 .033 29 .029 .103 .112	.038 .008 4 .038 .042 .043					.036 .028 55 .028 .047 .110	0
5			.022 .009 29 .025 .030 .035	.026 .006 24 .026 .031 .037						.024 .008 53 .025 .031 .038	5
10			.018 .008 19 .018 .022 .033	.021 .008 47 .023 .027 .031						.020 .008 62 .020 .026 .035	10
15			.033 .011 22 .031 .047 .064	.023 .012 75 .021 .033 .066						.026 .012 97 .024 .036 .058	15
20		.028 1	.036 .010 38 .035 .048 .064	.042 .026 80 .034 .072 .103						.040 .022 119 .035 .059 .098	20
25		.027 .008 12 .029 .032 .035	.056 .023 37 .045 .082 .106	.048 .021 88 .049 .064 .089						.049 .022 137 .045 .068 .101	25
30		.031 1	.072 .017 27 .069 .090 .102	.070 .030 77 .072 .089 .124						.070 .027 105 .069 .095 .119	30
35			.080 .038 41 .077 .099 .157	.092 .047 58 .080 .140 .217						.087 .044 99 .080 .121 .222	35
40			.168 .092 11 .108 .278 .306	.080 .031 83 .076 .112 .139						.093 .055 74 .082 .115 .279	40
45S											45S

LONGITUDE

TABLE II. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(e) Flight level 370

CODE	MEAN	ST. DEV.	N
	50%	84%	98%

FEBRUARY
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N							.311 1			.311 1	70N
65					.576 .571 .100 .649 62 786	.546 .530 .091 .632 13 725	.360 .360 .004 .362 2 363	.330 .321 .019 .339 5 .364		.551 .555 .115 .646 62 .736	65
60				.291 .295 .115 .430 17 .468	.530 .544 .141 .672 72 746	.482 .525 .213 .703 38 745		.186 .155 .106 .310 8 332		.466 .507 .191 .668 138 742	60
55				.360 .339 .182 .543 111 710	.401 .404 .193 .566 51 .650	.410 .401 .125 .556 20 607	.460 .467 .029 .490 16 495	.520 .576 .168 .660 69 .702		.419 .449 .183 .610 267 712	55
50				.464 .475 .238 .678 60 .907	.426 .442 .168 .550 46 .637	.439 .426 .084 .498 15 608	.063 .034 .096 .037 112 444	.340 .298 .217 .605 126 .775		.290 .246 .241 .566 359 .602	50
45	.388		.218 .214 .006 .223 3 .226	.411 .377 .156 .623 59 .686	.406 .390 .218 .654 68 822	.373 .441 .143 .481 11 503	.078 .050 .107 .062 126 506	.259 .311 .174 .436 92 517		.252 .133 .212 .476 360 .699	45
40	.338 .344 .042 .353 49 .398		.343 .287 .159 .577 28 .618	.401 .359 .138 .535 40 664	.239 .232 .163 .443 48 .518	.264 .251 .152 .441 .634 548	.132 .038 .151 .342 64 469	.328 .364 .161 .481 46 .559		.269 .264 .158 .445 909 .576	40
35	.254 .274 .152 .440 65 .456		.266 .279 .074 .324 89 .394	.169 .147 .117 .293 191 478	.137 .062 .131 .308 280 .487	.162 .147 .120 .246 213 .514	.548 .524 .052 .587 11 664			.178 .134 .136 .319 849 .509	35
30	.066 .060 .020 .090 36 .119	.049 .048 .007 .056 23 .065	.101 .057 .095 .211 35 .345	.101 .078 .065 .153 287 250	.174 .115 .133 .351 479 .424	.029 .029 .001 .029 2 029				.139 .065 .115 .301 862 .406	30
25	.074 1	.060 .057 .007 .069 58 .076	.061 .059 .008 .063 18 .077	.117 .087 .052 .201 108 226	.095 .092 .064 .155 397 .271					.095 .073 .059 .151 582 .250	25
20		.044 .046 .017 .059 30 .069	.084 .040 .090 .123 5 .246		.084 .078 .063 .129 58 .242	.044 .044 .021 .057 2 .063				.071 .055 .058 .104 95 .243	20
15		.027 .026 .005 .031 17 .035	.011 .005 .014 .029 22 .042		.030 .024 .022 .049 61 .095					.025 .019 .020 .038 100 .093	15
10		.017 .011 .011 .026 3 .032	.016 1	.018 .017 .006 .024 25 .031	.024 .021 .015 .033 40 .069					.022 .020 .012 .031 69 .064	10
5		.019 .015 .005 .025 5 .026		.021 .020 .011 .030 52 .051	.046 .038 .015 .061 5 .070					.023 .020 .013 .032 62 .055	5
0				.020 .020 .010 .028 55 .038	.032 .029 .013 .036 6 .056					.021 .023 .011 .031 63 .039	0
5				.022 .022 .012 .032 61 .045	.038 .039 .008 .044 6 .048					.023 .024 .012 .034 67 .048	5
10			.023 .022 .007 .031 6 .036	.020 .015 .012 .030 41 .046	.054 .052 .014 .067 4 .073					.023 .022 .015 .036 53 .059	10
15			.031 .031 .012 .039 13 .055	.028 .025 .014 .046 17 .052	.085 1					.031 .027 .016 .048 31 .068	15
20	.034 .035 .005 .038 6 .040	.024 .024 .005 .028 3 .030	.049 .047 .013 .059 18 .079	.075 .075 .016 .085 2 .089						.044 .041 .016 .056 31 .086	20
25		.030 .030 .005 .034 18 .042	.047 .048 .010 .054 14 .061	.048 .044 .010 .058 6 .067						.039 .029 .012 .053 38 .063	25
30		.046 .042 .016 .045 9 .085	.091 .095 .049 .148 17 .166	.040 .042 .003 .043 7 .043						.066 .043 .043 .124 33 .160	30
35			.068 .084 .029 .118 32 .153	.097 .075 .055 .116 9 .222						.090 .084 .037 .122 41 .193	35
40			.126 .126 .032 .148 2 .157	.107 .102 .027 .129 3 .140						.118 .102 .030 .148 5 .157	40
45S											45S

LONGITUDE

TABLE II. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

FEBRUARY
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65				.646 .646 .310 .856 2 .943	.630 .618 .184 .796 .105 1.016	.597 .597 .024 .612 2 .619				.630 .618 .186 .797 .109 1.015
60				.624 .623 .190 .829 100 .923	.545 .516 .182 .716 69 .920		.516 .526 .025 .535 4 .535	.462 .465 .055 .514 17 .521		.578 .445 .185 .784 190 .926
55				.608 .594 .227 .829 144 1.114	.565 .551 .172 .715 36 .866		.509 .534 .096 .603 13 .624	.472 .458 .082 .536 23 .654		.580 .460 .207 .799 216 1.046
50				.708 .784 .270 1.004 57 1.096	.497 .385 .312 .833 40 1.241		.474 .526 .171 .614 18 .692	.364 .448 .213 .573 78 .727		.504 .463 .280 .817 193 1.102
45	.524 .549 .061 .601 78 .657		.791 .850 .213 .973 14 1.040	.509 .427 .269 .794 73 1.161	.366 .351 .185 .841 59 .821	.366 .339 .102 .474 17 .571	.686 .639 .256 .990 18 1.088	.427 .423 .054 .488 14 .498		.493 .458 .224 .693 271 1.054
40	.499 .514 .089 .572 79 .592		.664 .730 .212 .840 44 .967	.585 .507 .320 .762 226 1.343	.186 .096 .173 .343 25 .626	.274 .219 .198 .473 352 .739	.596 1	.349 .347 .037 .385 14 .424		.409 .386 .275 .634 741 1.296
35			.387 .364 .160 .442 36 .782	.182 .140 .119 .316 138 .465	.147 .090 .133 .273 98 .478	.302 .217 .259 .653 177 .758				.236 .140 .207 .437 445 .741
30			.106 .078 .047 .166 21 .182	.062 .057 .013 .065 9 .092	.129 .091 .103 .218 166 .372	.052 .052 .001 .053 2 .053				.122 .062 .097 .209 198 .367
25			.051 .059 .018 .065 7 .070	.110 .096 .046 .167 16 .188	.081 .079 .062 .140 107 .187					.083 .076 .051 .142 130 .189
20			.017 .016 .013 .035 22 .043		.056 .052 .039 .092 24 .138					.037 .016 .036 .081 46 .135
15			.016 .012 .013 .037 31 .043		.024 .021 .016 .034 7 .053					.017 .011 .014 .037 38 .049
10			.040 .042 .006 .046 16 .048		.059 .058 .002 .060 2 .061					.043 .043 .008 .048 17 .060
5		.040 .038 .011 .049 4 .057	.037 .036 .011 .048 6 .050		.002 .001 .002 .003 4 .006					.028 .018 .019 .047 14 .056
0		.039 1			.040 1					.040 .040 .001 .040 2 .040
5		.030 1	.024 .023 .004 .026 5 .030	.038 .039 .007 .044 4 .047	.031 .031 .009 .040 4 .040					.030 .026 .008 .040 14 .045
10			.012 .010 .007 .018 5 .023	.084 .084 .003 .088 2 .087	.029 .026 .008 .034 6 .045					.026 .024 .016 .047 13 .056
15			.016 .016 .006 .020 2 .022		.058 .057 .010 .065 11 .078					.051 .053 .016 .064 13 .078
20				0.000 1	.057 .053 .014 .072 15 .083					.054 .051 .019 .072 16 .082
25				.013 .008 .018 .014 7 .051	.039 .041 .015 .062 16 .069					.031 .033 .020 .052 23 .058
30		.058 .044 .024 .089 11 .093	.093 .095 .005 .098 5 .098	.091 .084 .054 .112 16 .226	.063 1					.079 .084 .044 .096 33 .203
35			.086 .076 .027 .109 32 .182	.107 .093 .058 .174 32 .228						.096 .071 .047 .141 64 .204
40			.122 1							.122 1
45S										

LONGITUDE

TABLE II. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

FEBRUARY
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.760 .693 .316 1.174 11 1.288	.747 .752 .015 .759 3 .783				.757 .676 .292 1.116 14 1.284
60				.562 1	.722 .699 .229 .929 20 1.154	.700 .752 .166 .769 22 1.037	.724 .743 .069 .773 6 .816			.709 .746 .186 .866 49 1.145
55				.775 .807 .256 .997 65 1.315		.684 .658 .184 .805 52 1.054	.784 .804 .118 .887 10 .970			.730 .722 .221 .938 127 1.214
50				.847 .610 .244 .907 117 1.148	.494 .476 .087 .567 5 .616	.783 .761 .221 .938 57 1.254	.755 .695 .243 .872 30 1.475	.480 .466 .149 .569 17 .794		.675 .484 .244 .888 226 1.247
45			.589 .606 .172 .749 17 .837	.633 .638 .305 .900 81 1.492	.418 .426 .234 .650 51 .849	.546 .599 .278 .804 95 1.015	.697 .665 .315 .919 19 1.387	.564 .564 .041 .592 2 .603		.556 .573 .285 .805 245 1.167
40	.378 .307 .178 .648 13 .716		.419 .406 .195 .599 91 .828	.411 .514 .197 .583 66 .692	.453 .466 .196 .630 121 .833	.364 .259 .248 .633 61 .955	.286 .266 .065 .329 2 .347	.426 .362 .112 .569 9 .603		.418 .447 .205 .607 363 .840
35	.349 .385 .184 .606 64 .792		.283 .300 .115 .369 72 .541	.157 .154 .027 .188 9 .197	.272 .165 .206 .519 40 .706	.163 .163 .006 .167 2 .169				.300 .297 .167 .459 186 .702
30	.103 .084 .069 .109 30 .336		.102 .082 .060 .142 5 .206		.061 .044 .068 .122 28 .215	.098 1				.086 .078 .070 .121 61 .322
25	.063 .063 .008 .068 2 .071				.035 .046 .025 .060 18 .082	.092 .092 .008 .097 5 .100				.049 .055 .031 .086 25 .098
20			.048 .044 .026 .063 9 .091		.014 .006 .015 .036 12 .038					.027 .012 .025 .050 20 .083
15			.035 .033 .020 .050 12 .071		.018 .016 .012 .032 8 .035					.028 .018 .019 .060 20 .067
10	.050 1		.039 .041 .018 .051 11 .068		.008 .008 .002 .010 5 .010					.030 .029 .019 .049 17 .066
5		.042 .042 .008 .048 2 .047	.033 .032 .006 .037 7 .042							.035 .036 .006 .041 9 .046
0										
5										
10										
15										
20										
25										
30				.074 .056 .038 .105 8 .164	.074 1					.074 .065 .036 .100 10 .153
35				.183 .190 .058 .211 27 .236						.183 .190 .058 .211 27 .236
40										
45S										

LONGITUDE

TABLE II. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR FEBRUARY

(h) Flight level 430

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

FEBRUARY
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55										
50				1.009 .354 6 1.170 1.330 1.339			735 .117 7 764 .839 .644			662 290 13 625 1 276 1 337
45			.798 .278 10 .904 .993 1.191	.751 .353 30 .736 1.195 1.377			.742 .059 6 .746 .791 .831			.760 .315 46 .724 1.035 1 376
40			.591 .195 53 .573 .812 .927		.213 .188 12 .157 .215 .698					.521 .243 65 .553 .805 .916
35			.578 .305 7 .447 .684 1.187		.594 .066 10 .566 .666 .710					.587 .202 17 .563 .665 1 086
30			.052 .017 24 .044 .074 .081		.311 .103 8 .309 .402 .460					.117 .124 32 .057 .262 .429
25			.040 .017 29 .031 .061 .070							.040 .017 29 .031 .061 .070
20			.028 .013 6 .025 .038 .050							.028 .013 6 .025 .038 .050
15			.020 .007 2 .020 .024 .026							.020 .007 2 .020 .024 .026
10			.023 .006 6 .024 .029 .030							.023 .006 6 .024 .029 .030
5			.031 .002 7 .031 .032 .038							.031 .002 7 .031 .032 .035
0										
5										
10										
15										
20										
25										
30										
35				.188 .028 10 .186 .199 .201						.188 .028 10 .186 .199 .201
40										
45S										

LONGITUDE

TABLE III. - GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60						.162 .053 11 .156 .216 .245	.254 .107 29 .266 .336 .501	.286 .112 11 .340 .372 .391		.241 .108 51 .250 .347 .487	60
55						.156 .103 6 .150 .264 .271		.202 .090 22 .215 .269 .303		.192 .085 28 .213 .269 .381	55
50						.056 .013 14 .056 .063 .083	.099 .053 17 .073 .153 .210	.101 .100 26 .073 .117 .438		.089 .076 57 .064 .117 .402	50
45	.055 .011 4 .050 .062 .072				.137 1	.008 1	.176 .101 8 .160 .271 .350	.053 1		.122 .097 15 .085 .212 .339	45
40	.070 .022 21 .057 .096 .109		.060 .020 6 .050 .074 .088	.049 1	.003 1	.079 .086 17 .055 .078 .324	.136 .106 12 .076 .282 .344	.043 1		.083 .074 59 .057 .099 .348	40
35	.095 .064 15 .082 .171 .229		.114 .082 12 .063 .185 .269	.172 1	.050 .021 13 .043 .057 .103	.114 .096 10 .076 .187 .333	.090 .102 7 .041 .105 .306			.092 .078 56 .054 .166 .331	35
30	.058 .006 4 .059 .064 .069	.058 .006 4 .057 .063 .066	.081 .016 12 .057 .070 .097		.071 .030 13 .063 .093 .134	.084 .068 10 .058 .173 .231	.036 .001 3 .036 .037 .038			.070 .041 46 .056 .092 .166	30
25		.052 .002 3 .051 .053 .054	.026 .014 14 .022 .046 .060		.084 .030 13 .087 .102 .140	.037 .006 7 .036 .038 .048	.040 .000 3 .040 .041 .041			.050 .031 40 .042 .087 .114	25
20			.030 .005 3 .026 .033 .037		.057 .019 9 .056 .069 .094	.026 .007 4 .023 .031 .036				.044 .021 16 .033 .059 .090	20
15		.062 1	.059 .017 5 .069 .073 .073							.059 .015 6 .050 .073 .073	15
10											10
5						.036 1				.035 1	5
0											0
5											5
10											10
15											15
20	.013 1	.027 1					.017 1			.019 .006 3 .017 .024 .027	20
25	.043 1									.043 1	25
30			.025 1							.025 1	30
35			.039 .005 6 .038 .043 .047	.066 1						.041 .007 7 .040 .048 .054	35
40											40
45S											45S

LONGITUDE

TABLE III. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(b) Flight level 310

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N								.216 .121 6 .278 .316 .364		.216 .121 6 .278 .316 .364	70N
65								.168 .074 12 .173 .248 .260		.168 .074 12 .173 .248 .260	65
60								.152 .069 12 .166 .225 .237		.152 .069 12 .166 .225 .237	60
55						.387 .052 4 .378 .431 .461		.146 .125 16 .102 .303 .417		.194 .149 20 .118 .374 .454	55
50					.341 .137 8 .405 .440 .444	.145 .100 4 .103 .226 .301		.190 .139 26 .126 .410 .441		.217 .150 38 .170 .413 .445	50
45	.107 .038 2 .107 .132 .143			.114 .029 6 .120 .144 .145	.095 .118 10 .073 .097 .377	.173 .129 27 .116 .326 .433	.239 .193 18 .166 .465 .534			.173 .152 62 .098 .409 .491	45
40	.090 .063 6 .054 .134 .211		.186 .005 2 .186 .188 .171	.207 .072 11 .186 .284 .333	.084 .137 10 .030 .162 .416	.074 .085 83 .061 .089 .419	.130 .131 8 .074 .195 .414			.094 .100 120 .055 .166 .445	40
35	.137 .122 8 .061 .266 .348		.119 .105 14 .079 .159 .391	.203 .021 2 .203 .217 .223	.140 .177 13 .066 .220 .561	.103 .103 7 .061 .215 .295				.129 .133 42 .044 .226 .479	35
30		.060 .003 3 .049 .052 .054	.086 .010 10 .090 .094 .099		.040 1	.028 .018 7 .020 .023 .064				.058 .030 21 .070 .093 .096	30
25		.058 .009 2 .058 .064 .067	.072 .021 9 .060 .084 .108		.082 .069 17 .064 .137 .238	.055 1				.077 .055 29 .060 .094 .232	25
20		.049 .011 3 .047 .059 .063	.048 .019 11 .038 .066 .083		.068 .022 13 .059 .095 .107	.011 .002 9 .011 .013 .013				.046 .028 36 .030 .073 .104	20
15		.032 .013 10 .027 .038 .062	.038 .018 10 .035 .058 .070			.049 .022 4 .061 .063 .064				.037 .018 24 .026 .062 .069	15
10							.038 .005 2 .038 .041 .043			.038 .005 2 .038 .041 .043	10
5											5
0											0
5											5
10											10
15											15
20	.033 .009 8 .035 .039 .043						.065 1			.037 .014 7 .036 .044 .062	20
25	.050 .008 16 .051 .058 .060									.050 .008 16 .051 .058 .060	25
30											30
35			.050 1	.058 .017 10 .057 .069 .094						.058 .017 11 .057 .067 .094	35
40			.034 1							.034 1	40
45S											45S

LONGITUDE

TABLE III. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N							.116 1	.247 .136 8 .224 .386 .428		.233 .135 9 .182 .382 .427
65						.287 .086 8 .255 .360 .447	.494 .045 15 .496 .535 .563	.402 .049 4 .422 .442 .442		.419 .110 27 .465 .529 .551
60						.417 .109 29 .433 .627 .569	.304 .223 16 .226 .577 .629	.310 .146 23 .340 .471 .500		.354 .162 68 .313 .519 .604
55					.456 .066 7 .473 .513 .517	.339 .150 23 .374 .609 .573	.215 .155 63 .178 .381 .567	.169 .151 60 .084 .351 .508		.220 .167 173 .169 .419 .573
50				.079 .046 10 .062 .109 .185	.266 .161 15 .226 .451 .544	.244 .141 9 .182 .429 .447	.128 .131 123 .076 .217 .493	.186 .180 121 .104 .423 .634		.167 .161 278 .065 .364 .588
45	.234 .105 7 .179 .354 .386			.131 .119 37 .083 .323 .362	.276 .211 14 .150 .525 .591	.219 .125 18 .230 .305 .459	.123 .119 155 .064 .210 .484	.139 .073 18 .131 .221 .281		.143 .131 246 .075 .265 .496
40	.182 .077 22 .147 .224 .356		.053 .005 8 .053 .067 .080	.186 .136 21 .106 .248 .470	.096 .072 20 .074 .094 .309	.123 .101 84 .073 .244 .352	.250 .172 36 .241 .444 .643	.114 1		.150 .127 188 .079 .275 .490
35	.178 .119 28 .203 .327 .361		.206 .186 15 .097 .411 .583	.827 1	.111 .119 91 .074 .191 .532	.128 .116 93 .081 .166 .478				.137 .130 168 .078 .248 .567
30	.097 .061 10 .069 .127 .242	.067 .018 17 .066 .071 .106	.182 .012 3 .164 .172 .176		.074 .034 71 .059 .100 .172	.051 .015 22 .049 .069 .076	.213 .053 2 .213 .249 .264			.075 .041 125 .061 .100 .185
25		.074 .014 3 .070 .066 .091			.081 .063 53 .064 .132 .261	.037 .010 14 .036 .046 .057	.060 .026 5 .044 .091 .093			.071 .057 78 .055 .099 .233
20		.056 .015 2 .056 .066 .070	.036 .017 8 .041 .049 .067	.065 .029 30 .061 .088 .134	.073 .040 29 .069 .110 .162	.041 .016 18 .040 .055 .066				.060 .033 87 .054 .084 .150
15		.012 .002 4 .012 .014 .014	.036 .018 19 .043 .051 .063	.039 .018 26 .034 .061 .070	.035 .002 6 .035 .036 .037	.043 .024 16 .044 .064 .065	.046 .004 3 .046 .049 .051			.037 .019 74 .035 .059 .077
10		.045 .002 4 .046 .047 .047	.040 .012 11 .038 .054 .060	.031 .000 4 .031 .032 .032	.031 .002 3 .031 .032 .033		.050 .004 6 .049 .054 .057			.041 .010 28 .034 .051 .059
5			.027 .002 4 .027 .029 .030	.031 .003 4 .031 .034 .036		.034 .003 2 .034 .035 .036	.040 .008 9 .039 .046 .055			.035 .006 19 .032 .043 .053
0			.029 .002 7 .028 .032 .032	.027 .003 6 .027 .029 .030			.023 .012 8 .024 .032 .043			.026 .008 21 .027 .032 .040
5			.038 .005 8 .036 .044 .048	.026 .007 7 .024 .028 .038			.026 .004 3 .026 .029 .030			.030 .008 15 .028 .038 .044
10			.043 .018 2 .043 .055 .060	.025 .010 5 .024 .032 .042						.030 .015 7 .025 .045 .059
15				.033 .005 5 .031 .037 .040						.033 .005 5 .031 .037 .040
20	.023 .016 6 .018 .046 .049	.046 .009 2 .046 .081 .084		.026 .002 6 .026 .027 .027						.026 .013 14 .023 .044 .053
25	.015 .006 10 .017 .023 .026	.042 .007 14 .044 .047 .064		.041 .016 8 .035 .062 .068						.033 .016 32 .030 .046 .067
30		.045 .008 21 .044 .050 .064	.046 .012 4 .045 .055 .062	.072 1						.046 .010 26 .044 .052 .071
35			.051 .010 3 .057 .059 .060	.119 .046 25 .123 .174 .188						.112 .050 26 .115 .172 .188
40			.046 .006 2 .046 .050 .053	.062 .063 7 .051 .112 .213						.074 .056 9 .051 .095 .208
45S										

LONGITUDE

TABLE III. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(d) Flight level 350

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

MARCH
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.597 .056 13 .593 .649 .686				.597 .056 13 .593 .649 .686
65					.516 .035 8 .516 .554 .563	.570 .074 18 .570 .655 .661	.481 .021 7 .474 .512 .514			.536 .068 31 .521 .600 .659
60				.177 .111 4 .166 .265 .319		.476 .131 42 .503 .599 .675	.345 .146 15 .377 .485 .536	.298 .109 17 .266 .415 .456		.396 .158 78 .372 .568 .666
55				.378 .189 35 .392 .557 .683	.641 .062 25 .643 .706 .761	.396 .211 38 .463 .637 .680	.304 .226 24 .198 .638 .714	.280 .228 72 .216 .624 .744		.372 .234 195 .395 .642 .730
50				.488 .149 32 .473 .621 .644	.298 .102 14 .279 .407 .462	.289 .194 44 .211 .509 .606	.125 .126 58 .058 .252 .485	.158 .141 39 .087 .284 .568		.247 .201 187 .192 .479 .671
45	.271 .156 16 .288 .416 .492		.549 .009 2 .549 .554 .557	.327 .223 44 .318 .591 .718	.208 .191 33 .113 .442 .644	.369 .195 84 .396 .596 .677	.211 .195 54 .100 .483 .551	.388 .149 5 .420 .536 .581		.296 .210 238 .166 .520 .665
40	.230 .178 23 .148 .429 .526		.544 .119 27 .575 .644 .727	.286 .207 20 .236 .555 .585	.115 .082 102 .078 .224 .278	.166 .141 236 .103 .288 .545	.240 .193 3 .158 .395 .492	.263 .047 4 .244 .303 .335		.190 .169 415 .113 .380 .619
35	.244 .137 33 .183 .387 .452		.243 .203 18 .150 .457 .638	.150 .056 3 .160 .195 .210	.180 .159 223 .094 .273 .618	.146 .119 23 .100 .205 .501				.173 .156 300 .107 .354 .620
30	.157 .064 21 .147 .209 .299	.098 .066 42 .087 .171 .262	.050 .031 17 .033 .069 .099	.055 .012 11 .054 .066 .070	.105 .068 281 .085 .158 .272	.036 .026 18 .033 .069 .075				.100 .067 390 .079 .159 .271
25		.064 .016 40 .083 .071 .090	.060 .005 2 .060 .063 .065	.068 .007 5 .068 .072 .073	.091 .047 189 .084 .132 .207	.035 .017 18 .042 .048 .056	.032 .001 3 .032 .033 .033			.080 .045 257 .072 .121 .200
20		.055 .017 20 .055 .069 .086	.032 .003 4 .032 .035 .037	.077 .018 4 .070 .069 .106	.087 .056 33 .070 .182 .201	.027 .014 9 .024 .043 .046				.066 .046 70 .049 .093 .196
15		.014 .015 4 .009 .027 .036	.034 .020 43 .029 .056 .066	.054 .034 45 .043 .108 .111		.039 .009 12 .037 .051 .054				.042 .026 104 .035 .059 .110
10		.041 .002 5 .041 .042 .044	.033 .003 8 .033 .035 .038			.032 .005 12 .032 .038 .040	.037 .008 8 .039 .045 .047			.035 .006 33 .035 .041 .046
5			•				.036 .004 6 .035 .041 .042			.036 .004 6 .035 .041 .042
0							.040 .005 5 .038 .044 .048			.040 .005 5 .038 .044 .048
5							.031 .006 8 .030 .036 .040			.031 .006 8 .030 .036 .040
10							.032 .013 14 .035 .042 .054			.032 .013 14 .035 .042 .054
15							.050 .009 14 .049 .088 .067			.050 .009 14 .049 .088 .067
20			.066 1				.047 .022 5 .042 .066 .083			.051 .021 6 .048 .070 .084
25		.043 .028 9 .041 .059 .096	.066 .005 5 .066 .072 .076							.052 .026 14 .047 .069 .096
30		.183 1	.091 .011 6 .092 .103 .106							.100 .024 7 .094 .106 .147
35			.065 .050 10 .045 .084 .164							.065 .050 10 .045 .084 .164
40			.029 .001 2 .029 .030 .030	.251 .031 11 .256 .281 .294						.217 .065 13 .251 .275 .294
45S										

LONGITUDE

TABLE III. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.693 .066 2 .693 .739 .758				.693 .066 2 .693 .739 .758	70N
65				.288 .097 3 .275 .366 .407	.565 .088 58 .574 .636 .701	.628 .114 17 .645 .696 .803	.627 .007 2 .627 .631 .633			.569 .113 80 .576 .659 .717	65
60				.355 .213 11 .351 .617 .697	.543 .123 52 .566 .658 .722	.576 .135 45 .586 .682 .864	.377 .191 22 .339 .566 .618	.447 .130 17 .490 .577 .636		.503 .168 147 .546 .652 .766	60
55				.518 .150 68 .523 .661 .810	.649 .091 26 .673 .726 .781	.546 .156 32 .597 .686 .764	.378 .205 28 .307 .611 .695	.380 .210 73 .413 .550 .705		.468 .201 226 .373 .683 .775	55
50				.466 .243 35 .427 .710 .919	.420 .194 57 .481 .634 .719	.527 .167 20 .564 .653 .761	.196 .230 138 .061 .503 .825	.333 .202 357 .350 .560 .757		.324 .226 607 .310 .580 .766	50
45	.518 .113 24 .505 .623 .760		.610 .055 2 .610 .647 .683	.457 .225 30 .453 .660 .729	.359 .248 83 .333 .643 .760	.409 .229 47 .384 .674 .890	.095 .148 95 .042 .078 .585	.586 .279 17 .635 .712 1.169		.320 .265 298 .153 .635 .803	45
40	.543 .094 7 .528 .644 .661		.493 .137 14 .500 .650 .684	.334 .224 80 .308 .604 .680	.249 .185 79 .183 .446 .644	.348 .191 685 .370 .549 .680	.090 .095 24 .039 .215 .316	.493 .033 3 .505 .520 .526		.335 .198 872 .346 .548 .673	40
35	.389 .135 11 .447 .480 .490		.345 .188 29 .308 .572 .695	.237 .198 43 .154 .534 .683	.193 .203 225 .097 .339 .788	.294 .182 384 .268 .510 .652				.261 .197 692 .159 .501 .710	35
30	.181 .131 11 .130 .226 .501	.068 .020 87 .056 .095 .119	.118 .024 8 .111 .145 .154	.076 .020 13 .074 .099 .108	.122 .103 603 .096 .178 .468	.104 .090 32 .073 .148 .315				.116 .099 732 .091 .155 .462	30
25		.073 .016 63 .071 .085 .105	.091 .015 7 .095 .100 .103	.078 .016 5 .079 .089 .100	.092 .058 436 .084 .116 .274	.065 .002 19 .064 .067 .069	.041 1			.088 .054 533 .080 .109 .262	25
20		.048 .027 79 .045 .060 .092	.029 .021 8 .026 .051 .069	.048 .028 19 .032 .085 .089	.086 .034 52 .090 .116 .120	.052 .009 2 .052 .057 .060	.034 .005 2 .034 .037 .038			.059 .035 162 .057 .091 .118	20
15		.022 .014 22 .023 .030 .056	.046 .022 25 .055 .066 .080	.029 .005 17 .029 .034 .036		.032 .004 2 .032 .034 .035				.033 .019 66 .028 .059 .075	15
10						.033 .006 14 .032 .039 .042	.030 .008 7 .030 .037 .043			.032 .007 21 .032 .039 .043	10
5											5
0							.026 .005 5 .025 .030 .035			.026 .005 5 .025 .030 .035	0
5							.042 .013 11 .035 .058 .062			.042 .013 11 .035 .058 .062	5
10			.046 .011 8 .051 .052 .055				.043 .010 13 .039 .050 .063			.043 .011 18 .043 .052 .063	10
15			.054 .006 13 .056 .060 .063				.048 .015 11 .040 .067 .069			.052 .012 24 .050 .062 .069	15
20			.051 .012 11 .053 .060 .062				.042 .012 6 .038 .054 .062			.048 .013 17 .052 .060 .063	20
25			.062 .002 5 .062 .064 .065							.062 .002 5 .062 .064 .065	25
30		.073 .030 19 .083 .108 .127	.070 .028 10 .058 .091 .129							.072 .029 29 .062 .107 .134	30
35			.065 .024 17 .058 .086 .117							.065 .024 17 .058 .086 .117	35
40			.096 .019 2 .095 .108 .113							.095 .019 2 .095 .108 .113	40
45S											45S

LONGITUDE

TABLE III. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65				.844 .844 .000 .844 2 .844	.711 .741 .125 .826 52 .910					.716 .744 .126 .836 54 .909	65
60				.695 .703 .124 .805 66 .900	.651 .630 .169 .800 59 1.099	.644 .699 .154 .781 32 .885	.377 .371 .025 .396 21 .437			.634 .643 .170 .795 178 .933	60
55				.632 .633 .152 .785 119 .935	.599 .635 .143 .729 39 .791	.614 .563 .124 .771 33 .860	.361 .333 .098 .473 70 .601	.541 .520 .098 .656 27 .748		.551 .543 .172 .719 288 .873	55
50				.571 .610 .255 .776 122 1.041	.461 .404 .263 .721 42 .984	.674 .560 .202 .947 18 1.016	.178 .136 .185 .250 106 .826	.382 .396 .108 .519 45 .551		.412 .407 .279 .716 333 .992	50
45	.184 .225 .105 .278 14 .329		.644 .716 .198 .792 21 .923	.543 .613 .227 .753 95 .843	.383 .446 .209 .597 59 .683	.680 .682 .193 .868 68 1.004	.159 .137 .133 .222 190 .597	.293 1		.369 .212 .276 .689 456 .922	45
40	.079 .074 .048 .088 23 .210		.472 .457 .256 .756 93 .873	.402 .450 .236 .631 43 .798	.209 .105 .196 .462 55 .649	.432 .468 .202 .616 687 .786	.128 .030 .191 .509 26 .532			.404 .455 .226 .624 927 .802	40
35	.063 .063 .005 .066 2 .067		.110 .065 .102 .127 9 .350	.156 .146 .061 .225 15 .243	.328 .326 .202 .531 96 .684	.357 .312 .241 .655 354 .734				.339 .226 .233 .629 476 .729	35
30			.015 .014 .004 .019 4 .021		.171 .131 .136 .262 359 .599	.206 .076 .230 .631 47 .652				.174 .124 .150 .277 410 .650	30
25	.157 1		.023 .014 .016 .048 20 .054		.099 .084 .062 .180 286 .268	.078 .076 .039 .094 26 .191				.093 .081 .062 .157 333 .264	25
20			.037 .026 .023 .073 14 .076	.092 .092 .003 .094 5 .097	.088 .091 .018 .105 25 .109	.075 .094 .033 .099 16 .102				.073 .074 .031 .099 60 .106	20
15			.049 .045 .018 .070 10 .079	.032 .032 .003 .036 8 .037						.041 .033 .016 .060 18 .078	15
10			.036 .035 .006 .040 3 .045			.032 1				.035 .034 .005 .038 6 .045	10
5			.028 .028 .002 .029 6 .029			.043 .043 .003 .045 2 .046	.034 .033 .005 .036 6 .044			.032 .030 .006 .039 14 .046	5
0			.030 .029 .005 .033 6 .039				.049 .044 .014 .063 8 .074			.041 .035 .014 .054 14 .073	0
5			.044 .049 .008 .049 4 .049				.058 .060 .012 .067 6 .075			.053 .045 .012 .063 10 .074	5
10			.040 .040 .001 .041 2 .041							.040 .040 .001 .041 2 .041	10
15											15
20											20
25											25
30											30
35			.060 .058 .008 .067 7 .075							.060 .058 .008 .067 7 .075	35
40											40
45S											45S

LONGITUDE

TABLE III. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60					.560 1	.838 .261 9 .794 1.133 1.329		.961 .106 6 .966 1.074 1.086		.868 .227 16 .737 1.061 1.316
55				.737 .132 6 .729 .883 .936		.729 .174 15 .726 .912 1.011	.616 .127 11 .585 .720 .884	.964 .136 9 .939 1.126 1.157		.751 .190 43 .740 .940 1.140
50				.679 .235 11 .647 .930 .953		.719 .126 15 .759 .856 .883	.411 .085 9 .445 .489 .519			.627 .206 35 .607 .864 .940
45	.325 .086 7 .323 .411 .441		.660 .333 2 .660 .886 .978	.676 .054 5 .656 .706 .773		.636 .126 17 .622 .771 .815	.405 .049 3 .422 .444 .453	.561 .181 6 .583 .733 .801		.559 .187 42 .522 .741 .849
40	.437 .315 12 .300 .805 .835		1.039 .443 5 1.348 1.404 1.476		.234 .181 20 .165 .369 .636	.468 .201 130 .445 .697 .795		.814 .198 8 .859 .977 1.009		.471 .261 175 .431 .722 .999
35	.580 .260 6 .627 .783 .932		.667 .071 2 .667 .735 .755		.698 1	.264 .211 36 .152 .550 .673				.334 .255 45 .232 .615 .786
30	.184 .078 6 .145 .267 .318					.090 .016 3 .085 .103 .110				.153 .078 9 .129 .224 .313
25										
20										
15										
10										
5										
0										
5										
10										
15										
20										
25										
30										
35										
40										
45S										

LONGITUDE

TABLE III. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR MARCH

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MARCH
FL 430

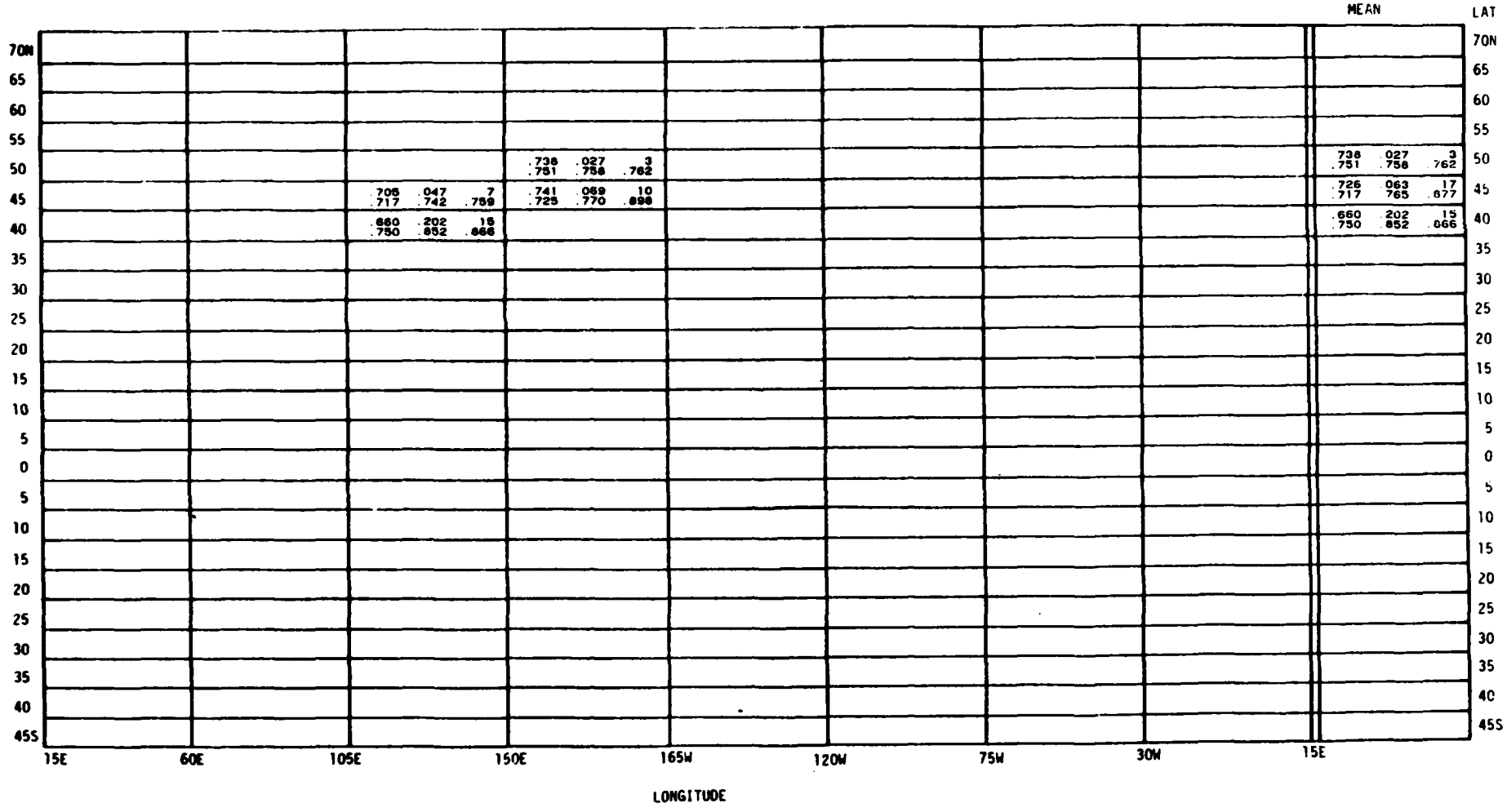


TABLE IV. - GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(a) Flight level 290

CONE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.112 1					.112 1
60										
55								.191 .107 7 .224 .319 .324		.191 .107 7 .224 .319 .324
50						.150 .059 2 .180 .190 .207	.093 .081 13 .060 .108 .297	.089 .077 27 .081 .094 .336		.093 .078 42 .061 103 .327
45	.110 .112 17 .045 .269 .331				.128 .095 12 .080 .249 .310	.463 1	.122 .078 17 .089 .183 .317	.054 .005 4 .053 .059 .061		.121 .105 51 .079 .231 .376
40	.096 .063 35 .065 .182 .243			.041 .002 2 .041 .042 .043	.071 .053 19 .083 .072 .218	.083 .105 29 .087 .088 .457	.092 .020 11 .074 .104 .122			.085 .074 95 .064 .109 .301
35	.071 .030 9 .062 .088 .138		.050 .026 26 .087 .062 .107	.017 .003 2 .017 .018 .019	.065 .030 23 .071 .090 .121	.103 .054 6 .080 .170 .181				.062 .035 66 .036 .090 .161
30	.057 .017 6 .060 .078 .063				.059 .021 21 .067 .077 .065	.076 .006 8 .075 .082 .067				.063 .019 35 .071 .077 .089
25		.048 1			.071 .013 17 .073 .082 .090	.075 .008 4 .071 .081 .088				.070 .013 22 .070 .084 .090
20		.042 .011 7 .041 .049 .060			.072 .036 24 .071 .098 .154					.065 .037 31 .061 .095 151
15		.067 .033 4 .056 .081 .100	.011 .005 5 .010 .016 .019		.030 .021 12 .016 .062 .067	.041 1				.031 .026 22 .015 .060 .066
10		.025 .007 3 .023 .030 .034		.016 .002 5 .017 .017 .018	.014 .003 3 .013 .016 .018		.064 .033 2 .064 .088 .096			.025 .022 13 .018 .031 .082
5		.024 .003 4 .023 .026 .028		.019 0.000 2 .019 .019 .019		.061 .005 2 .061 .054 .056	.032 .002 5 .032 .034 .036			.030 .010 13 .030 .037 .053
0			.021 0.000 2 .021 .021 .021							.021 0.000 2 .021 .021 .021
5			.022 .004 7 .021 .026 .029							.022 .004 7 .021 .026 .029
10			.025 .005 6 .025 .031 .033							.025 .005 6 .025 .031 .033
15			.027 .001 6 .027 .027 .028	.008 1						.024 .007 7 .026 .027 .028
20			.026 .004 7 .027 .031 .034	.023 .009 6 .021 .026 .039			.031 1			.026 .007 14 .025 .031 .039
25			.037 .006 6 .036 .040 .047	.042 .013 19 .042 .058 .062						.041 .012 25 .038 .054 .062
30			.035 1	.036 .010 38 .037 .045 .056						.036 .010 39 .037 .045 .056
35			.033 1	.047 .051 8 .027 .041 .167						.046 .049 10 .030 .040 164
40				.026 1						.025 1
45S										

LONGITUDE

TABLE IV. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(b) Flight level 310

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 310

LAT	15E			60E			105E			150E			165W			120W			75W			30W			15E			MEAN			LAT
70N																															70N
65																															65
60										.142	.009	7	.113		1							.066	.008	4	.114	.036	12				60
										.139	.142	.169											.064	.072	.076	.136	.141	.157				
55										.131	.035	7	.146	.131	18	.074	.010	4				.156	.126	14	.140	.113	41				55
										.128	.170	.184	.113	.354	.366	.078	.080	.082				.066	.326	.404	.097	.302	.379				
50										.106	.016	8	.132	.128	27	.145	.027	2	.292	.008	2	.149	.128	8	.138	.114	47				50
										.104	.124	.132	.082	.335	.357	.145	.163	.170	.292	.297	.300	.072	.318	.373	.093	.317	.364				
45	.050	.006	2				.023	.002	4	.074	.043	3	.084	.056	36	.097	.041	24	.274	.181	8				.099	.088	75				45
	.050	.054	.056				.024	.025	.025	.049	.107	.131	.083	.114	.260	.086	.116	.204	.228	.393	.603				.084	.124	.305				
40	.153	.063	10				.030	.007	7				.046	.030	22	.122	.105	73	.095	.067	8				.104	.094	118				40
	.159	.221	.223				.029	.031	.045				.035	.076	.103	.084	.215	.447	.070	.126	.226				.077	.190	.397				
35	.118	.074	13				.056	.054	23	.020		1	.076	.047	28	.097	.078	6							.078	.062	70				35
	.091	.212	.266				.046	.079	.208				.070	.094	.201	.065	.140	.239							.040	.105	.272				
30	.049	.010	13	.069	.024	18							.079	.011	15	.109	.014	8							.073	.025	52				30
	.049	.059	.067	.068	.081	.125							.075	.092	.094	.110	.125	.126							.060	.095	.126				
25	.041	.009	14	.066	.033	14	.067	.039	3				.070	.021	15										.060	.027	46				25
	.039	.041	.063	.047	.112	.129	.080	.096	.099				.076	.093	.096										.044	.093	.121				
20				.038	.011	21	.052	.010	3	.024	.028	8	.069	.042	36										.054	.037	68				20
				.040	.048	.058	.060	.060	.064	.014	.015	.087	.064	.104	.151										.030	.087	.114				
15				.040	.010	15	.037	.023	7				.037	.015	18	.038	.002	3							.038	.015	43				15
				.042	.047	.067	.051	.059	.062				.042	.053	.055	.039	.040	.040							.042	.053	.059				
10				.029	.007	11	.053	.006	8	.017	.002	12	.020	.006	3				.027	.005	4				.027	.013	35				10
				.027	.036	.039	.052	.059	.062	.017	.018	.020	.018	.025	.028				.029	.030	.031				.025	.039	.059				
5				.023	.009	10	.052	.001	2	.016	.005	13							.031		1				.022	.012	26				5
				.022	.031	.041	.052	.053	.053	.016	.020	.021													.018	.031	.052				
0							.027	.005	3	.015	.006	16							.033	.004	5				.020	.009	24				0
							.025	.030	.033	.016	.019	.021							.032	.036	.039				.017	.031	.037				
5							.026	.006	16	.017	.005	12							.031	.005	5				.023	.007	33				5
							.024	.031	.035	.017	.023	.026							.032	.034	.037				.022	.031	.036				
10							.027	.004	14	.017	.007	11							.033	.004	6				.025	.008	31				10
							.029	.032	.032	.016	.024	.027							.033	.035	.039				.026	.032	.036				
15							.037	.007	8	.017	.005	12							.031	.003	7				.025	.010	24				15
							.037	.043	.046	.016	.023	.024							.031	.032	.036				.021	.034	.044				
20							.035	.006	2	.019		1							.039		1				.032	.009	4				20
							.036	.038	.040																.034	.040	.040				
25							.032	.005	15																.032	.005	15				25
							.032	.036	.041																.032	.035	.041				
30							.036	.006	15	.039	.017	10													.037	.012	25				30
							.034	.044	.047	.047	.053	.053													.035	.048	.053				
35							.031	.012	26	.032	.010	15													.032	.011	41				35
							.030	.039	.061	.031	.046	.051													.030	.044	.055				
40							.026	0.000	2	.029	.006	10													.029	.004	12				40
							.026	.026	.026	.029	.034	.038													.027	.033	.038				
45S																															45S

LONGITUDE

TABLE IV. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65						.434 1	.211 .139 .337 12 .481	.120 .108 .182 10 .228		.181 .120 .298 23 .473
60						.223 .223 .322 17 .440	.307 .276 .371 9 .489	.160 .116 .273 28 .400		.204 .139 .342 54 .454
55				.320 .217 .582 22 .823	.089 .023 .088 10 .500	.384 .365 .572 18 .600	.090 .076 .094 18 .285	.2um .103 .460 58 .978		.223 .099 .483 126 .605
50				.498 .613 .659 9 .680		.178 .108 .323 14 .336	.231 .113 .455 29 .533	.121 .083 .186 21 .440		.222 .107 .454 73 .655
45	.070 .041 .048 8 .252			.047 .029 .064 22 .158	.176 .076 .443 17 .490	.297 .238 .484 23 .656	.251 .143 .550 46 .703	.131 .091 .195 3 .241		.189 .096 .438 119 .665
40	.168 .100 .303 28 .437		.068 .068 .085 14 .113	.083 .056 .121 36 .173	.132 .083 .245 30 .346	.233 .112 .513 61 .649	.137 .102 .185 12 .394			.152 .084 .280 183 .631
35	.073 .049 .105 35 .185		.092 .073 .106 24 .346	.083 .069 .087 25 .104	.093 .074 .134 131 .324	.126 .078 .168 17 .430				.089 .067 .115 232 .330
30	.051 .034 .056 13 .059	.054 .046 .017 .072 24 .088	.077 .077 .080 3 .091	.075 .071 .083 7 .094	.087 .066 .089 141 .112	.102 .091 .047 .142 28 .211				.070 .065 .030 .090 216 .145
25	.045 .045 .004 .048 3 .050	.050 .046 .014 .057 16 .063	.069 .075 .010 .077 8 .078	.103 .096 .125 8 .131	.074 .074 .038 .097 120 .169	.054 .048 .022 .064 39 .088				.069 .064 .034 .094 194 .162
20		.042 .044 .009 .049 10 .054	.066 .062 .011 .064 3 .069	.039 .015 .049 .064 40 .185	.079 .069 .051 .122 28 .213	.044 .045 .011 .050 19 .065	.049 .049 .005 .052 2 .053			.052 .025 .044 .066 102 .185
15		.040 .050 .018 .066 7 .057	.019 .019 .009 .025 2 .026	.014 .014 .008 .022 14 .026	.021 .014 .015 .037 7 .080	.050 .050 .005 .064 5 .057	.046 .046 .007 .064 4 .058			.028 .022 .018 .051 39 .057
10		.026 .026 .005 .032 17 .034		.014 .014 .001 .015 3 .016	.013 .013 .001 .014 4 .014	.043 1	.035 .036 .004 .039 5 .042			.025 .024 .009 .033 30 .042
5		.032 .030 .009 .043 20 .051		.019 .020 .004 .022 13 .025	0.000 1		.024 .024 .004 .029 8 .031			.026 .022 .010 .034 42 .047
0		.025 .021 .010 .037 10 .041	.026 .027 .004 .032 3 .034	.016 .016 .003 .019 18 .022			.037 .036 .010 .046 8 .054			.024 .021 .011 .035 37 .051
5		.028 .027 .004 .031 4 .036		.010 .012 .006 .015 21 .021			.049 .040 .013 .062 9 .069			.023 .013 .019 .039 34 .065
10		.038 .038 .001 .038 6 .038		.018 .015 .008 .026 31 .032			.048 .049 .008 .055 7 .058			.025 .020 .014 .036 44 .055
15		.037 .038 .004 .039 6 .041	.032 .032 .004 .035 2 .036	.022 .024 .008 .029 24 .034			.052 1			.026 .025 .010 .036 33 .045
20		.036 .031 .008 .043 8 .046	.033 .035 .004 .036 9 .038	.023 .022 .006 .031 31 .033			.038 1			.026 .025 .008 .035 46 .042
25			.034 1	.025 .023 .013 .037 44 .068						.025 .023 .013 .037 45 .057
30			.030 1	.033 .032 .014 .046 62 .069						.033 .032 .014 .046 63 .059
35			.038 .033 .009 .044 16 .061	.041 .034 .021 .068 24 .078						.039 .029 .018 .057 40 .076
40			.036 .035 .004 .038 2 .039	.035 .033 .008 .045 11 .047						.035 .033 .008 .045 13 .047
45S										

LONGITUDE

TABLE IV. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.616 .080 4 .633 .686 .702	.547 .106 31 .560 .657 .690			.555 .106 35 .563 .663 .698	70N
65					.299 .226 52 .172 .561 .995	.504 .169 43 .572 .643 .683	.340 .161 36 .370 .507 .590	.258 .144 10 .189 .435 .449		.369 .207 141 .388 .589 .682	65
60				.150 .130 10 .087 .270 .412	.378 .295 17 .123 .733 .795	.454 .178 100 .499 .632 .709		.166 .051 3 .167 .208 .225		.414 .213 130 .466 .632 .761	60
55				.498 .206 49 .557 .662 .766	.249 .176 25 .178 .422 .567	.377 .191 129 .415 .564 .664	.412 .216 19 .448 .611 .656	.270 .220 30 .120 .577 .633		.378 .212 252 .404 .603 .708	55
50				.459 .193 87 .512 .629 .741	.282 .225 36 .187 .574 .663	.303 .225 119 .209 .568 .713	.328 .230 98 .307 .622 .722	.147 .109 63 .102 .246 .467		.306 .225 373 .225 .589 .723	50
45	.251 .149 23 .209 .415 .464		.153 .137 4 .122 .285 .338	.329 .228 66 .361 .599 .702	.270 .244 86 .160 .616 .757	.253 .179 153 .240 .430 .709	.418 .211 30 .505 .619 .684	.181 .136 17 .116 .291 .462		.278 .209 359 .245 .513 .709	45
40	.237 .143 34 .227 .360 .480		.136 .170 32 .064 .328 .572	.186 .133 38 .182 .343 .538	.195 .206 70 .084 .506 .675	.211 .183 205 .143 .458 .634	.263 .158 13 .210 .450 .671			.204 .180 392 .094 .420 .633	40
35	.082 .059 38 .065 .093 .290		.084 .082 13 .072 .122 .203		.090 .073 282 .074 .118 .384	.184 .160 30 .118 .321 .640	.275 .102 3 .252 .358 .403			.098 .087 366 .075 .125 .408	35
30	.049 .013 17 .047 .062 .072			.090 .023 25 .094 .109 .121	.086 .050 354 .075 .123 .236	.077 .040 2 .077 .104 .115	.165 .069 6 .170 .222 .262			.086 .050 404 .076 .122 .236	30
25			.066 .008 4 .065 .073 .077	.090 .033 33 .067 .121 .184	.095 .056 259 .085 .131 .271	.093 .029 18 .095 .127 .145	.044 .006 5 .042 .048 .053			.093 .052 316 .085 .126 .249	25
20			.061 .007 2 .061 .066 .068	.053 .043 61 .042 .091 .165	.090 .057 66 .082 .143 .230	.047 .019 21 .039 .069 .094	.058 .002 4 .058 .060 .060			.068 .051 154 .030 .112 .206	20
15		.029 1	.023 .025 33 .008 .058 .071	.022 .013 60 .021 .033 .063	.019 .009 12 .019 .026 .036	.050 .016 23 .046 .068 .096				.027 .020 129 .025 .047 .071	15
10		.016 .004 10 .016 .020 .022		.010 .001 4 .010 .011 .011	.023 .006 7 .026 .026 .029	.050 .007 15 .051 .056 .062	.043 .009 9 .045 .051 .053			.033 .017 45 .035 .052 .061	10
5		.025 .009 12 .022 .037 .039		.015 .005 6 .015 .020 .021	.026 .002 5 .027 .026 .026	.052 .005 2 .052 .055 .056	.033 .005 16 .031 .038 .044			.028 .010 41 .028 .038 .049	5
0		.031 .007 7 .031 .036 .040	.018 .006 8 .017 .021 .031	.019 .004 10 .019 .022 .026			.034 .005 14 .036 .039 .041			.026 .009 40 .023 .036 .041	0
5		.026 .008 8 .026 .033 .034	.013 .002 2 .013 .014 .015	.017 .006 17 .015 .023 .029			.031 .005 13 .032 .035 .039			.023 .009 41 .023 .032 .038	5
10		.023 .002 5 .022 .025 .025		.017 .005 19 .017 .022 .023			.043 .008 13 .043 .048 .059			.027 .014 37 .022 .043 .056	10
15		.024 .003 5 .022 .027 .029	.018 .003 8 .018 .020 .022	.016 .007 17 .014 .023 .026			.038 .015 15 .042 .048 .051			.025 .014 43 .022 .042 .049	15
20			.017 .002 7 .016 .020 .021	.023 .017 45 .020 .026 .075			.051 .005 2 .051 .054 .055			.023 .017 54 .018 .027 .075	20
25			.027 .003 7 .026 .030 .033	.022 .018 47 .016 .046 .062						.023 .017 54 .019 .042 .062	25
30			.043 .004 7 .045 .047 .047	.042 .027 36 .043 .065 .097						.042 .025 43 .045 .065 .092	30
35			.031 .017 5 .028 .041 .059	.070 .021 25 .073 .089 .101						.063 .025 30 .070 .087 .100	35
40											40
45S											45S

LONGITUDE

TABLE IV. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.585 .092 8 .585 .614 .776	.616 .065 12 .611 .698 .709			.603 .079 20 .585 .694 .767
65					.485 .227 61 .542 .712 .782	.631 .078 29 .637 .690 .777	.434 .118 20 .443 .559 .606	.518 .090 6 .553 .589 .597		.510 .198 136 .381 .695 .782
60				.408 .223 21 .378 .631 .827	.513 .234 125 .561 .780 .853	.496 .155 77 .531 .648 .714	.579 .153 28 .606 .716 .807	.388 .180 24 .436 .539 .599		.496 .206 275 .537 .688 .839
55				.579 .173 66 .581 .767 .884	.448 .197 80 .485 .648 .746	.413 .202 37 .429 .616 .788	.317 .239 11 .203 .586 .760	.352 .224 72 .347 .586 .768		.449 .221 248 .281 .676 .826
50				.477 .262 46 .565 .727 .827	.278 .199 72 .204 .602 .698	.435 .248 28 .581 .645 .703	.386 .125 50 .402 .505 .626	.278 .179 69 .298 .441 .633		.352 .217 266 .235 .597 .740
45	.387 .074 10 .387 .421 .486		.884 .036 2 .884 .676 .868	.281 .218 111 .141 .547 .999	.230 .230 93 .144 .550 .700	.404 .257 72 .450 .664 .822	.240 .196 64 .153 .497 .633	.320 .163 31 .369 .449 .603		.286 .230 383 .191 .594 .753
40	.482 .018 2 .482 .480 .484		.178 .130 34 .116 .263 .986	.231 .199 151 .156 .471 .719	.230 .205 142 .137 .430 .696	.248 .201 984 .167 .474 .783	.161 .170 11 .092 .263 .536	.389 .072 5 .361 .423 .423		.239 .199 939 .152 .465 .747
35	.078 .002 4 .076 .077 .077		.184 .145 88 .107 .308 .601	.347 .199 37 .287 .606 .733	.182 .153 499 .096 .348 .606	.237 .213 78 .146 .528 .755				.184 .189 664 .103 .374 .678
30	.127 .030 5 .131 .189 .158	.101 .007 4 .104 .107 .107	.102 .048 29 .080 .128 .236		.110 .078 515 .089 .138 .330					.110 .076 553 .090 .138 .329
25		.097 .031 17 .103 .111 .124	.061 .028 18 .058 .080 .106		.106 .050 396 .098 .146 .228					.103 .050 434 .098 .138 .223
20		.040 .012 6 .039 .060 .069	.006 .004 7 .005 .007 .013	.031 .034 46 .012 .078 .118	.082 .062 61 .078 .108 .275	.053 .015 20 .049 .067 .089				.055 .052 140 .030 .096 .187
15		.029 .004 4 .029 .034 .036	.022 .023 36 .009 .062 .063		.023 .015 34 .019 .037 .062	.060 .021 38 .059 .079 .101				.035 .027 112 .027 .061 .094
10		.042 .002 4 .043 .046 .048		.015 .007 10 .013 .019 .030	.018 .011 28 .013 .032 .039	.059 .013 26 .060 .072 .084	.054 .013 26 .056 .067 .074			.040 .022 96 .043 .064 .075
5				.011 .004 28 .011 .013 .018	.028 .004 8 .028 .029 .036		.027 .005 13 .026 .031 .032			.018 .009 49 .014 .026 .032
0			.033 .002 3 .032 .035 .036	.016 .015 17 .012 .017 .057	.033 .006 18 .032 .037 .042		.035 .011 16 .034 .042 .060			.028 .014 51 .030 .038 .061
5			.022 .004 8 .022 .024 .026	.017 .011 27 .016 .026 .040	.028 .003 11 .028 .029 .034		.046 .026 17 .040 .060 .117			.028 .020 63 .026 .040 .061
10			.026 .007 7 .024 .033 .036	.013 .009 25 .017 .020 .024	.024 .004 3 .022 .027 .029		.037 .003 15 .037 .042 .043			.023 .013 50 .014 .037 .042
15		.026 1		.014 .009 17 .018 .022 .026			.039 .008 18 .039 .046 .055			.027 .015 36 .015 .043 .054
20		.045 .008 4 .047 .051 .053		.010 .004 6 .012 .012 .013			.041 .013 12 .042 .053 .062			.033 .016 22 .030 .052 .061
25			.042 .002 5 .041 .044 .046	.017 .007 7 .013 .020 .031						.027 .013 12 .026 .042 .045
30			.038 1							.035 1
35			.028 .008 4 .030 .032 .034							.026 .008 4 .030 .032 .034
40										
45S										

LONGITUDE

TABLE IV. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65				.619 .624 .684 4 .715	.588 .596 .129 .712 130 .810	.611 1				.589 .601 .126 .713 135 .809	65
60				.626 .665 .177 .802 135 .888	.491 .427 .310 .838 64 .960	.571 .630 .170 .731 14 .790	.590 .605 .068 .634 13 .693	.607 .624 .140 .683 30 .690		.585 .461 .219 .797 256 .914	60
55				.656 .668 .195 .821 143 1.116	.591 .638 .186 .712 40 .906	.622 .670 .128 .725 17 .793	.584 .497 .172 .713 55 .936	.497 .479 .151 .635 70 .866		.565 .612 .189 .778 325 .965	55
50				.643 .656 .170 .819 68 .916	.311 .268 .189 .487 43 .726	.367 .406 .232 .601 32 .738	.506 .499 .175 .656 36 .837	.443 .419 .192 .608 19 .614		.482 .344 .230 .715 198 .877	50
45	.513 .566 .068 .578 3 .583		.576 .637 .283 .883 14 .892	.422 .432 .239 .723 138 .858	.374 .352 .232 .636 110 .818	.436 .384 .322 .805 129 .995	.436 .412 .164 .640 47 .666			.421 .416 .262 .730 441 .927	45
40			.397 .395 .270 .701 46 .857	.375 .414 .234 .600 80 .793	.386 .401 .238 .636 176 .789	.282 .201 .212 .661 545 .832	.461 .393 .136 .542 6 .724			.320 .220 .228 .594 853 .821	40
35			.298 .283 .187 .506 11 .577	.342 .326 .171 .443 8 .679	.189 .152 .114 .274 129 .550	.245 .192 .182 .393 121 .617				.223 .184 .156 .355 269 .729	35
30			.087 .083 .009 .072 5 .083	.119 .109 .031 .154 22 .184	.135 .115 .064 .211 129 .270	.120 .124 .031 .150 16 .171				.129 .110 .059 .198 172 .266	30
25	.049 1		.076 .076 .007 .083 17 .097		.167 .145 .100 .251 112 .445	.081 .092 .031 .116 14 .116				.147 .116 .097 .238 144 .417	25
20			.083 .073 .015 .100 7 .106	.083 .084 .007 .086 4 .091	.147 .141 .058 .213 22 .251	.100 .107 .022 .114 8 .115	.051 .053 .007 .056 5 .058			.113 .099 .055 .170 46 .245	20
15		.047 .047 .013 .056 2 .059				.062 .041 .017 .066 3 .076	.052 .051 .002 .054 5 .056			.051 .046 .012 .056 10 .074	15
10					.045 .045 .006 .048 10 .055		.044 .049 .008 .050 3 .050			.045 .045 .006 .049 13 .055	10
5		.017 1		.038 .037 .007 .047 7 .048	.037 .035 .010 .048 5 .051		.038 .038 .006 .042 6 .049			.037 .037 .009 .047 19 .051	5
0				.050 .048 .007 .055 3 .059	.024 .023 .001 .024 3 .025		.035 .035 .003 .038 7 .040			.036 .035 .010 .042 13 .056	0
5					.066 .062 .026 .085 7 .086		.043 .044 .002 .045 4 .045			.058 .045 .024 .083 11 .086	5
10				.072 .073 .004 .074 5 .075	.051 .037 .026 .082 9 .086		.041 .043 .003 .043 6 .045			.054 .041 .019 .075 16 .084	10
15				.069 .066 .004 .072 5 .075	.038 .036 .011 .047 5 .054		.036 .036 .003 .037 2 .038			.050 .049 .017 .066 12 .074	15
20		.049 .049 .004 .052 2 .053			.025 .025 .002 .027 8 .028					.030 .026 .010 .038 10 .052	20
25			.045 1	.019 .019 .004 .021 6 .026	.024 .024 .003 .026 2 .027					.023 .019 .009 .027 9 .042	25
30			.040 .040 .001 .040 2 .040	.018 .018 .002 .020 4 .021						.025 .020 .010 .039 6 .040	30
35				.056 .040 .051 .114 22 .141						.056 .040 .051 .114 22 .141	35
40											40
45S											45S

LONGITUDE

TABLE IV. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

APRIL
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65				.418 1	.480 .040 8 .480 .466 .497					.446 .038 3 .420 .474 .496	65
60				.696 .154 13 .764 .836 .916		.461 .130 6 .456 .661 .675				.823 .184 19 .648 .803 .909	60
55				.690 .170 80 .669 .866 1.016		.342 .205 18 .193 .586 .636	.455 .086 14 .419 .515 .669	.416 .043 11 .424 .456 .472		.594 .211 120 .601 .772 1.002	55
50				.765 .192 123 .776 .967 1.098		.666 .283 22 .630 .899 1.230	.361 .130 29 .382 .471 .662	.549 .221 41 .536 .784 .996		.859 .246 215 .840 .936 1.100	50
45	.604 .100 7 .675 .677 .686		.814 .193 33 .602 .749 1.079	.676 .209 106 .645 .866 1.121	.387 .201 104 .433 .687 .736	.442 .258 107 .363 .741 1.006	.416 .141 42 .415 .520 .730	.471 .073 16 .464 .537 .600		.503 .240 405 .516 .723 1.035	45
40	.576 .080 10 .593 .620 .681		.448 .251 101 .438 .729 .824	.466 .045 9 .458 .496 .565	.436 .247 117 .440 .644 1.036	.342 .181 101 .326 .499 .769	.280 .115 3 .365 .363 .367			.401 .223 421 .397 .619 .821	40
35	.375 .191 21 .411 .609 .650		.188 .181 29 .096 .405 .632		.443 .333 7 .309 .702 1.107	.346 .282 12 .191 .626 .860				.298 .240 69 .203 .547 .654	35
30	.085 .020 14 .080 .098 .132		.103 .011 18 .106 .108 .116		.141 .034 22 .131 .173 .222					.114 .034 54 .106 .135 .201	30
25	.061 1		.074 .019 20 .073 .086 .118		.150 .043 24 .138 .182 .256					.114 .051 45 .108 .167 .255	25
20		.109 .016 8 .104 .122 .145	.071 .024 13 .063 .089 .120		.096 .008 9 .086 .106 .107					.089 .025 30 .078 .107 .135	20
15		.060 .013 4 .056 .073 .078	.045 .013 12 .041 .059 .071		.053 .022 7 .047 .068 .092					.060 .017 23 .047 .066 .088	15
10			.032 .010 7 .030 .041 .050		.040 .007 9 .038 .046 .060					.035 .010 10 .032 .046 .061	10
5		.017 1	.018 .003 2 .018 .019 .020							.017 .002 3 .017 .019 .020	5
0											0
5											5
10											10
15				.060 1						.060 1	15
20				.036 .005 6 .036 .041 .041						.036 .005 6 .036 .041 .041	20
25				.028 .004 2 .026 .026 .029	.052 .022 7 .046 .079 .086					.046 .022 9 .034 .074 .085	25
30				.079 .012 9 .074 .095 .096	.078 1					.079 .011 10 .076 .095 .096	30
35				.126 .048 31 .108 .193 .199						.126 .048 31 .108 .193 .199	35
40											40
45S											45S

LONGITUDE

TABLE IV. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR APRIL

(h) Flight level 430

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

APRIL
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55				.530 .515 .099 .577 9 .734						.530 .515 .099 .577 9 .734	55
50				.695 .667 .114 .803 13 .901			.379 .345 .074 .430 4 .497			.620 .633 .171 .786 17 .900	50
45			.675 .630 .127 .612 15 .906	.704 .715 .153 .831 15 .976		.384 .401 .105 .486 42 .562	.294 .308 .038 .326 9 .340			.487 .469 .195 .718 81 .906	45
40			.490 .511 .138 .654 41 .765		.409 .438 .063 .459 10 .482	.260 .236 .127 .404 45 .543	.356 1			.373 .347 .174 .553 97 .709	40
35			.289 .248 .127 .374 5 .506		.270 .267 .067 .332 4 .358					.280 .248 .105 .345 9 .493	35
30					.315 .295 .097 .434 10 .461					.315 .295 .097 .434 10 .461	30
25					.190 .190 .011 .197 2 .201					.190 .190 .011 .197 2 .201	25
20			.072 .068 .006 .076 3 .080							.072 .068 .006 .076 3 .080	20
15		.081 .080 .002 .082 4 .083	.076 .077 .006 .081 4 .082							.078 .080 .005 .082 8 .083	15
10											10
5											5
0											0
5											5
10											10
15											15
20											20
25				.073 1						.073 1	25
30											30
35				.184 .218 .061 .236 24 .250						.184 .218 .061 .236 24 .250	35
40											40
45S											45S

LONGITUDE

TABLE V. - GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MAY
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55								.068 .048 .047 .064 8 .173		.068 .048 .047 .064 8 .173	55
50								.050 .058 .021 .068 22 .084		.050 .055 .021 .068 22 .084	50
45	.077 .080 .040 .108 21 .170				.024 1	.070 1	.095 1	.072 .089 .025 .084 8 .096		.075 .059 .036 .102 32 .148	45
40	.058 .038 .038 .100 35 .138				.042 .056 .028 .061 3 .082	.100 .078 .058 .194 16 .198	.054 .049 .043 .062 12 .160			.065 .037 .048 .101 56 .198	40
35	.045 .041 .023 .068 12 .065		.062 .066 .020 .079 3 .098		.073 .077 .036 .112 8 .126	.071 .065 .031 .096 3 .113	.062 .066 .011 .073 7 .076			.059 .055 .028 .081 33 .120	35
30						.074 .071 .027 .067 3 .107	.063 .067 .012 .072 3 .078			.069 .057 .022 .082 6 .106	30
25		.036 1	.041 .037 .009 .049 3 .053		.056 .056 .017 .069 3 .069	.064 1	.047 .047 .006 .062 4 .063			.049 .047 .013 .065 12 .069	25
20		.036 1	.076 .061 .012 .065 3 .097		.062 .048 .023 .074 21 .090					.055 .053 .023 .078 25 .097	20
15		.048 .048 .003 .018 4 .048	.045 .060 .010 .082 11 .088			.023 1				.044 .046 .010 .062 16 .055	15
10		.027 .032 .010 .038 6 .048	.026 .050 .003 .028 8 .031			.027 .027 .001 .026 2 .028	.036 .021 .021 .061 5 .064			.029 .025 .013 .037 18 .062	10
5			.018 .018 .004 .021 4 .028			.017 1				.018 .016 .004 .020 5 .025	5
0			.014 .013 .003 .018 7 .019							.014 .013 .003 .015 7 .019	0
5			.024 .019 .007 .031 8 .034							.024 .019 .007 .031 5 .034	5
10			.029 .028 .002 .031 3 .032							.029 .028 .002 .031 3 .032	10
15				.031 .031 .003 .033 2 .034	.001 1					.021 .028 .014 .032 3 .034	15
20				.034 .034 .009 .040 2 .043			.022 1			.030 .025 .009 .037 3 .042	20
25							.010 .010 .000 .010 2 .010			.010 .010 .000 .010 2 .010	25
30			.017 1							.017 1	30
35			.022 .022 .002 .023 2 .043	.035 .028 .011 .030 4 .039						.024 .015 .009 .034 6 .036	35
40											40
45S											45S

LONGITUDE

TABLE V. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(b) Flight level 310

CODE: | MEAN | ST. DEV. | N |
|---|---|---|
| 50% | 84% | 98% |

MAY
FL 310

Latitude	15E–60E	60E–105E	105E–150E	150E–165W	165W–120W	120W–75W	75W–30W	30W–15E	MEAN	Latitude
70N										70N
65					.199 1				.199 1	65
60							.021 .003 9 .019 .023 .027	.064 .040 10 .045 .119 .126	.044 .037 13 .024 .083 .125	60
55							.028 .016 6 .019 .042 .058	.153 .188 28 .053 .401 .456	.131 .160 34 .030 .398 .453	55
50					.121 .109 2 .121 .195 .226		.170 .086 12 .185 .251 .305	.079 .045 33 .072 .104 .198	.104 .073 47 .074 .166 .279	50
45					.016 .002 3 .015 .018 .019	.092 .019 2 .092 .105 .110	.105 .039 12 .097 .143 .177	.097 .007 4 .094 .102 .108	.089 .043 21 .093 .111 .174	45
40	.082 .025 15 .076 .106 .132				.021 .026 16 .016 .023 .092	.088 .063 51 .076 .133 .277	.077 .043 5 .070 .102 .147		.074 .057 87 .068 .099 .235	40
35	.055 .022 16 .057 .078 .089		.111 .030 8 .103 .133 .170	.116 .053 3 .087 .158 .187	.052 .046 44 .043 .074 .193	.091 .063 4 .063 .137 .190			.064 .047 75 .055 .087 .195	35
30	.047 .018 11 .044 .061 .085	.075 .023 18 .071 .101 .115			.056 .026 27 .061 .080 .096	.039 .011 3 .038 .048 .052			.059 .025 59 .055 .084 .112	30
25	.043 .003 7 .044 .045 .048	.042 .009 8 .042 .052 .054		.052 .026 19 .045 .055 .127	.047 .016 19 .050 .059 .078		.036 1		.047 .019 54 .043 .055 .105	25
20			.073 1		.047 .023 28 .050 .073 .091		.035 .001 2 .035 .036 .036		.047 .023 31 .049 .073 .090	20
15		.043 1	.043 .014 19 .045 .055 .068		.031 .015 20 .030 .044 .068	.024 .016 12 .021 .044 .053			.034 .017 52 .035 .051 .072	15
10		.041 .001 4 .041 .042 .042		.009 .008 3 .008 .016 .020	.020 .003 3 .021 .022 .023	.020 .005 7 .019 .025 .029	.017 .008 12 .020 .023 .025		.021 .011 29 .020 .027 .042	10
5		.020 .012 3 .014 .029 .035		.019 .013 3 .027 .028 .029		.008 1			.018 .012 7 .014 .029 .035	5
0										0
5		.037 .005 4 .035 .041 .045							.037 .005 4 .035 .041 .045	5
10		.032 .004 5 .032 .036 .037					.021 .005 4 .021 .024 .027		.027 .007 9 .027 .034 .037	10
15		.029 .011 6 .027 .032 .050		.034 .004 2 .034 .036 .037	.030 .002 2 .030 .031 .032		.023 .005 6 .023 .026 .027		.027 .008 16 .026 .031 .040	15
20		.040 .006 5 .040 .047 .050	.027 .002 7 .028 .030 .031				.018 .005 2 .018 .021 .022		.031 .009 14 .029 .040 .049	20
25			.033 .008 21 .032 .039 .044						.033 .006 21 .032 .039 .044	25
30			.039 .012 16 .041 .052 .057	.027 .006 5 .026 .031 .036					.036 .012 21 .037 .047 .057	30
35			.036 .032 29 .027 .034 .143	.064 .058 27 .035 .136 .185			.036 1		.049 .048 57 .029 .078 .180	35
40			.027 1						.027 1	40
45S										45S

LONGITUDE

TABLE V. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MAY
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.265 1					.265 1
60										
55						.536 .842 .024 .557 4 .559	.211 .108 .174 .392 41 .568	.358 .388 .185 .553 37 .592		.293 .165 .197 .531 82 .584
50					.063 .020 .089 .123 10 .259	.485 .470 .055 .555 6 .558	.063 .055 .032 .107 32 .130	.088 .081 .029 .089 42 .154		.093 .042 .113 .116 90 .506
45	.053 .047 .018 .068 4 .080			.036 .030 .023 .049 8 .086	.079 .067 .085 .129 24 .304	.290 .138 .172 .492 15 .525	.115 .070 .111 .186 92 .404			.117 .074 .122 .207 143 .496
40	.106 .101 .041 .150 27 .187			.176 .131 .114 .326 42 .426	.106 .045 .144 .196 18 .463	.130 .097 .112 .188 44 .494	.113 .082 .092 .196 23 .331			.133 .074 .109 .191 154 .491
35	.084 .089 .039 .126 12 .132		.063 .068 .031 .091 15 .096	.060 .022 .037 .092 31 .104	.081 .061 .079 .093 94 .387	.084 .066 .065 .103 22 .240	.088 .085 .024 .108 8 .132			.075 .061 .065 .098 182 .341
30	.042 .033 .017 .064 6 .068	.082 .058 .018 .063 24 .094	.057 .052 .018 .076 15 .081		.071 .073 .038 .101 99 .145	.094 .077 .078 .121 37 .365	.042 .032 .015 .054 3 .063			.071 .054 .047 .101 186 .188
25		.095 1	.067 .065 .010 .076 21 .088	.058 .055 .006 .062 17 .075	.073 .057 .094 .093 99 .249	.056 .048 .028 .090 26 .114	.031 .031 .001 .032 2 .032			.067 .057 .074 .089 165 .180
20		.130 .130 .010 .137 2 .140	.075 1	.061 .052 .025 .094 49 .107	.056 .054 .025 .075 26 .111	.048 .030 .036 .076 13 .133	.050 .045 .019 .071 9 .075			.059 .033 .028 .090 96 .130
15			.036 .037 .019 .053 39 .071	.040 .034 .023 .066 86 .092		.027 .031 .007 .031 4 .031	.030 .028 .006 .036 8 .040			.038 .032 .021 .059 117 .087
10		.014 1			.025 1	.038 .038 .002 .039 2 .039	.040 .035 .014 .046 5 .065			.035 .036 .013 .038 9 .063
5		.017 .017 .003 .020 5 .021		.033 1		.014 0.000 .014 .014 2 .014	.024 .024 .003 .026 5 .029			.021 .020 .006 .027 13 .032
0		.023 .024 .004 .026 6 .027					.026 1			.024 .024 .004 .027 7 .028
5		.034 1								.034 1
10		.017 1								.017 1
15			.038 .042 .007 .044 6 .045	.033 .033 .004 .035 2 .036	.030 .030 .005 .034 14 .036					.032 .031 .007 .040 22 .045
20			.036 .042 .010 .046 5 .060	.032 .024 .017 .056 8 .060			.014 .013 .009 .021 4 .026			.029 .025 .016 .047 17 .060
25			.027 1	.036 .036 .012 .051 24 .057						.037 .037 .012 .051 25 .057
30			.022 .022 0.000 .022 2 .022	.050 .043 .029 .067 35 .125						.048 .042 .025 .063 37 .125
35			.047 .044 .008 .054 3 .057	.073 .038 .065 .145 28 .230						.070 .039 .062 .144 29 .227
40										
45S										

LONGITUDE

TABLE V. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(d) Flight level 350

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

MAY
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N								.604 .038 6 .605 .643 .655		.604 .038 6 .605 .643 .635
65					.584 .009 4 .585 .592 .594	.636 .010 2 .636 .643 .646		.626 .014 4 .630 .638 .641		.611 .026 10 .615 .638 .645
60					.552 .185 9 .646 .673 .690	.500 .110 19 .485 .627 .658		.623 .070 8 .634 .690 .695		.540 .136 36 .535 .663 .694
55				.299 .167 21 .303 .509 .577	.331 .246 55 .260 .649 .661	.337 .195 18 .465 .504 .543	.282 .164 55 .248 .484 .611	.229 .192 100 .125 .530 .631		.277 .203 249 .213 .553 .653
50					.267 .225 38 .253 .541 .636	.193 .162 23 .126 .374 .577	.174 .131 122 .118 .290 .655	.206 .172 86 .138 .414 .575		.199 .174 269 .129 .357 .625
45	.031 .018 19 .038 .043 .065			.101 .097 10 .062 .146 .323	.263 .213 45 .182 .534 .669	.129 .097 33 .087 .249 .364	.213 .168 69 .128 .400 .601	.337 .249 13 .429 .613 .616		.196 .186 191 .098 .407 .631
40	.073 .064 37 .053 .131 .238		.315 .004 3 .340 .384 .451	.212 .176 13 .128 .325 .596	.087 .048 60 .080 .102 .262	.152 .137 218 .095 .229 .592	.150 .111 6 .078 .293 .323	.113 .022 2 .113 .127 .133		.136 .126 339 .088 .202 .565
35	.059 .045 16 .041 .115 .148		.066 .011 2 .066 .073 .076	.055 .036 11 .082 .089 .096	.078 .061 150 .058 .119 .259	.139 .109 36 .088 .252 .433	.116 .015 4 .115 .130 .136			.086 .073 219 .064 .124 .339
30	.075 .051 16 .067 .128 .161	.033 .021 33 .019 .061 .074		.033 .025 8 .021 .056 .079	.080 .050 234 .077 .102 .261	.090 .005 2 .090 .093 .094				.074 .049 293 .069 .101 .245
25		.008 .005 19 .006 .014 .017		.059 .024 89 .057 .067 .100	.072 .034 201 .071 .103 .148	.037 .005 10 .038 .041 .044				.065 .033 310 .058 .097 .132
20		.006 .002 3 .005 .006 .009	.057 .008 7 .058 .064 .065	.050 .024 94 .048 .072 .103	.067 .033 61 .060 .104 .133	.045 .013 10 .040 .058 .072	.027 1			.055 .028 176 .041 .080 .129
15		.042 .011 6 .041 .054 .056	.050 .026 57 .052 .064 .113	.046 .026 40 .044 .076 .101	.032 .016 19 .027 .035 .078	.016 .011 24 .013 .027 .042	.027 .003 8 .028 .030 .032			.040 .025 154 .034 .059 .112
10		.024 .008 5 .028 .031 .032	.025 .004 4 .026 .029 .030	.015 .000 3 .015 .015 .015	.026 .008 23 .027 .032 .043	.012 .006 16 .015 .017 .021	.020 .015 12 .014 .023 .058			.021 .011 63 .019 .029 .043
5		.016 .001 6 .015 .016 .018	.018 .002 5 .017 .019 .022	.017 .005 5 .016 .022 .023	.027 .012 16 .023 .036 .054		.013 .006 6 .014 .017 .019			.020 .010 38 .016 .026 .047
0		.018 .007 10 .017 .021 .034	.014 .001 4 .015 .016 .016	.026 .010 18 .027 .036 .044	.035 .001 2 .035 .036 .036		.015 .004 6 .014 .016 .022			.022 .010 40 .015 .034 .042
5		.025 .005 8 .023 .030 .033	.022 .005 9 .020 .029 .029	.026 .011 16 .031 .038 .039	.046 .003 2 .046 .048 .049		.021 .008 8 .022 .030 .031			.025 .010 43 .025 .035 .044
10		.024 .004 6 .024 .027 .029	.028 .005 14 .026 .030 .038	.024 .012 16 .024 .033 .048	.040 .006 6 .041 .044 .049		.022 .010 16 .018 .031 .040			.026 .010 58 .025 .034 .049
15		.027 .005 6 .028 .031 .031	.032 .007 12 .031 .039 .046	.024 .011 12 .022 .035 .042	.046 0 .000 2 .046 .046 .046		.017 .008 15 .015 .027 .029			.025 .011 47 .026 .034 .046
20		.031 .005 7 .029 .037 .040	.044 .005 11 .044 .049 .051	.030 .019 20 .025 .035 .078			.013 .008 9 .015 .021 .025			.030 .017 47 .027 .045 .077
25			.029 .008 8 .028 .033 .042	.033 .017 27 .032 .048 .071						.032 .016 35 .030 .044 .068
30			.025 .005 4 .024 .029 .032	.036 .015 25 .032 .045 .075						.035 .015 29 .031 .043 .074
35			.033 .010 8 .032 .039 .053	.102 .095 6 .053 .197 .268			.053 1			.062 .069 15 .033 .071 .250
40										
45S										

LONGITUDE

TABLE V. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MAY
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					.383 .037 2 .383 .418 .429	.653 .021 5 .659 .669 .684	.504 .122 6 .550 .566 .678	.596 .080 6 .639 .662 .669		.555 .118 21 .569 .660 .690	65
60				.589 .112 17 .591 .717 .740	.499 .148 55 .514 .638 .665	.522 .212 9 .636 .692 .720	.365 .205 19 .362 .624 .677	.615 .050 16 .619 .644 .700		.508 .170 116 .502 .650 .727	60
55				.400 .275 54 .482 .680 .766	.503 .247 31 .604 .715 .854	.493 .183 24 .546 .694 .725	.289 .120 50 .266 .357 .632	.216 .156 43 .151 .336 .563		.360 .232 202 .246 .638 .768	55
50				.382 .293 25 .347 .676 .665	.461 .250 18 .612 .685 .718	.454 .190 13 .583 .603 .641	.232 .131 96 .223 .384 .570	.274 .178 114 .240 .449 .642		.291 .198 266 .183 .560 .679	50
45	.182 .161 15 .125 .376 .465			.267 .271 36 .089 .713 .795	.324 .219 30 .303 .637 .664	.290 .213 34 .186 .599 .671	.257 .175 61 .200 .406 .702	.236 .192 21 .091 .484 .564		.267 .212 196 .176 .513 .739	45
40	.183 .118 23 .156 .278 .466		.079 .020 15 .080 .100 .104	.211 .224 64 .092 .504 .771	.103 .110 59 .069 .163 .465	.211 .180 361 .129 .431 .667	.398 .206 17 .464 .606 .661			.201 .184 539 .120 .419 .673	40
35	.085 .025 12 .093 .105 .117		.110 .069 48 .090 .177 .206	.141 .081 8 .111 .225 .248	.119 .091 218 .093 .169 .391	.133 .095 86 .114 .190 .445	.058 .014 7 .055 .067 .085			.119 .087 359 .094 .170 .385	35
30	.042 .020 15 .042 .065 .071	.043 .012 15 .045 .053 .058	.143 .080 23 .165 .219 .274	.071 .032 34 .068 .095 .122	.092 .083 350 .071 .109 .368	.109 .100 17 .089 .133 .361				.091 .080 454 .069 .111 .361	30
25	.078 1	.063 .021 24 .054 .080 .108	.093 .039 18 .090 .109 .196	.043 .039 11 .016 .081 .117	.068 .028 272 .063 .088 .124	.025 .018 26 .026 .035 .069	.085 .013 2 .085 .094 .097			.065 .031 354 .061 .097 .124	25
20		.065 .014 18 .064 .080 .092	.053 .024 13 .062 .077 .088	.065 .034 37 .061 .099 .138	.066 .032 64 .063 .086 .143	.038 .041 44 .030 .048 .143	.092 .005 4 .092 .097 .098			.059 .035 180 .044 .085 .141	20
15		.063 .006 21 .064 .070 .075	.046 .020 34 .034 .070 .080	.077 .031 14 .076 .104 .133	.051 .033 26 .033 .089 .107	.033 .016 61 .034 .048 .057	.062 .021 3 .061 .079 .087			.048 .026 149 .043 .071 .104	15
10					.043 .027 40 .027 .078 .097	.026 .016 22 .021 .043 .050	.038 .020 24 .047 .054 .065			.037 .023 86 .026 .054 .096	10
5					.033 .016 46 .030 .042 .089	.011 .003 2 .011 .012 .013	.016 .014 35 .013 .029 .053			.026 .017 83 .025 .036 .069	5
0				.027 .004 4 .026 .030 .032	.031 .006 34 .031 .035 .048		.010 .009 48 .008 .019 .032			.019 .013 86 .021 .032 .044	0
5				.035 .017 12 .032 .048 .068	.036 .010 28 .034 .048 .059		.015 .009 32 .014 .024 .036			.026 .015 70 .026 .043 .060	5
10				.041 .019 22 .038 .063 .070	.022 .024 10 .018 .042 .069		.016 .009 30 .019 .026 .037			.027 .019 62 .011 .045 .070	10
15				.033 .014 29 .028 .044 .070	.019 .008 14 .023 .024 .026		.023 .012 27 .020 .037 .041			.026 .013 70 .024 .037 .064	15
20				.037 .019 19 .029 .058 .077			.024 .014 26 .027 .037 .047			.030 .017 44 .022 .045 .071	20
25			.027 .005 3 .023 .030 .034	.030 .005 7 .028 .032 .040			.040 .002 8 .040 .042 .048			.033 .007 15 .032 .040 .044	25
30			.028 .004 8 .028 .031 .038	.045 .012 7 .048 .051 .065			.037 .008 4 .038 .045 .047			.037 .012 16 .033 .048 .062	30
35			.044 .029 19 .030 .058 .120	.096 .030 8 .093 .130 .131						.055 .036 24 .038 .087 .136	35
40			.135 .003 2 .135 .137 .138							.135 .003 2 .135 .137 .138	40
45S											45S

LONGITUDE

TABLE V. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MAY
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.724 .934 6 .727 .767 .766				.724 .934 6 .727 .767 .766	70N
65				.560 1	.706 .066 13 .726 .768 .842	.624 .041 11 .621 .654 .704	.596 .107 27 .631 .710 .751	.502 1		.626 .102 53 .632 .727 .783	65
60				.020 .119 24 .634 .749 .819	.594 .148 38 .617 .706 .765	.672 .099 16 .630 .793 .674	.412 .054 4 .416 .457 .479	.483 .082 8 .500 .523 .599		.596 .139 92 .601 .721 .837	60
55				.647 .096 63 .649 .754 .809	.256 .084 6 .248 .341 .363	.644 .018 6 .642 .660 .673	.444 .104 43 .456 .548 .586	.569 .146 28 .591 .695 .750		.556 .152 146 .520 .686 .769	55
50				.485 .173 53 .537 .660 .708	.345 .019 4 .345 .359 .369	.626 1	.341 .154 61 .328 .519 .622	.566 .133 21 .621 .666 .702		.432 .179 140 .400 .628 .697	50
45	.110 .079 5 .060 .186 .239		.311 .225 16 .329 .581 .651	.342 .227 106 .339 .620 .708	.386 .233 80 .388 .627 .711	.385 .203 103 .404 .618 .754	.253 .213 71 .141 .533 .649	.425 .197 13 .408 .641 .654		.345 .225 394 .220 .614 .738	45
40			.126 .126 26 .085 .269 .458	.127 .118 39 .067 .295 .413	.249 .235 30 .137 .627 .702	.286 .181 270 .223 .505 .683	.114 .148 17 .067 .091 .526			.248 .188 382 .183 .488 .680	40
35			.126 .094 15 .096 .143 .371	.074 .019 18 .082 .089 .102	.143 .094 40 .102 .237 .376	.182 .103 98 .150 .295 .473	.164 .047 2 .164 .195 .200			.157 .100 173 .117 .244 .444	35
30			.081 .036 8 .067 .101 .144	.078 .027 6 .083 .107 .128	.128 .115 142 .093 .191 .528	.147 .122 49 .094 .264 .479	.066 .041 6 .061 .104 .129			.128 .114 208 .082 .192 .505	30
25			.069 .027 3 .082 .089 .093		.097 .062 91 .085 .163 .261	.042 .030 38 .043 .059 .101	.025 .012 3 .032 .035 .036			.079 .060 135 .067 .135 .239	25
20			.041 .024 25 .030 .060 .106		.053 .033 23 .039 .087 .127	.028 .019 33 .028 .050 .070	.029 .016 9 .026 .026 .065			.038 .026 90 .031 .062 .103	20
15			.029 .011 8 .033 .039 .046	.036 .009 8 .038 .043 .047	.033 .012 24 .031 .037 .067	.027 .009 10 .026 .034 .043	.057 .031 6 .050 .096 .098			.034 .017 57 .031 .043 .092	15
10					.029 .008 29 .030 .038 .044		.035 .025 16 .026 .065 .085			.031 .017 45 .029 .040 .078	10
5		.030 1		.084 .009 2 .054 .059 .062	.033 .012 26 .032 .046 .053		.018 .019 28 .009 .048 .057			.026 .018 57 .027 .047 .060	5
0				.022 .015 5 .018 .033 .044	.031 .010 28 .030 .037 .053		.011 .010 28 .008 .024 .032			.021 .014 61 .022 .033 .046	0
5				.062 1	.035 .016 38 .031 .049 .078		.014 .013 20 .010 .034 .039			.028 .018 59 .028 .044 .076	5
10				.037 .010 31 .035 .044 .062	.031 .007 17 .028 .038 .044		.023 .012 14 .020 .038 .047			.032 .011 62 .027 .044 .059	10
15				.040 .018 34 .035 .060 .072	.040 .006 6 .044 .046 .048		.023 .012 13 .016 .031 .047			.036 .018 53 .033 .053 .070	15
20				.048 .017 31 .081 .064 .085	.047 .004 6 .049 .049 .061		.015 .006 6 .018 .020 .021			.043 .018 43 .046 .059 .082	20
25				.056 .052 43 .037 .086 .203	.061 .005 4 .058 .064 .068		.025 1			.055 .049 48 .039 .080 .191	25
30				.084 .072 49 .058 .124 .308						.084 .072 49 .058 .124 .308	30
35				.133 .100 81 .095 .231 .397						.133 .100 81 .095 .231 .397	35
40											40
45S											45S

LONGITUDE

TABLE V. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MAY
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65								.577 1		.577 1
60					.598 .095 4 .595 .690 .716	.535 .281 5 .452 .681 .883	.680 .060 16 .700 .724 .756	.706 .149 15 .718 .836 .930		.663 .153 40 .668 .804 .915
55				.640 .044 4 .632 .675 .706		.660 .163 25 .725 .781 .834	.486 .098 24 .476 .555 .717	.654 .190 23 .673 .855 .939		.603 .170 76 .584 .779 .924
50				.527 .200 35 .562 .685 .782	.319 .192 16 .241 .550 .606	.666 .171 17 .670 .867 .977	.474 .087 8 .477 .520 .622	.499 .039 11 .505 .536 .560		.511 .206 87 .535 .684 .958
45			.405 .226 11 .500 .633 .689	.512 .202 46 .560 .656 .820	.399 .234 67 .348 .704 .847	.388 .175 46 .390 .578 .698	.482 .176 16 .561 .589 .726			.431 .213 188 .382 .646 .806
40	.333 .027 6 .323 .363 .375		.372 .217 41 .417 .590 .666	.069 .009 5 .056 .065 .075	.368 .235 44 .304 .647 .816	.361 .176 82 .320 .584 .652	.328 .083 2 .328 .384 .407	.326 1		.355 .202 181 .323 .587 .758
35	.226 .049 9 .231 .248 .322		.202 .134 23 .137 .307 .503		.530 .273 26 .617 .800 .846	.274 .171 75 .213 .525 .643	.218 .060 7 .218 .277 .287			.304 .213 140 .197 .596 .821
30	.208 .055 6 .218 .263 .268		.130 .087 21 .118 .196 .231		.234 .176 59 .150 .420 .622	.278 .069 6 .269 .320 .402	.107 .004 4 .107 .111 .112			.207 .150 96 .122 .386 .612
25			.079 .015 17 .079 .092 .112		.130 .069 46 .113 .194 .318		.091 .013 6 .098 .101 .106			.115 .061 71 .097 .171 .291
20			.068 .014 11 .072 .081 .086		.078 .036 29 .072 .107 .143		.088 .013 7 .095 .098 .099			.076 .030 47 .078 .104 .136
15			.054 .010 11 .061 .064 .075		.047 .025 24 .038 .076 .101		.100 1			.050 .023 36 .039 .076 .102
10			.039 .010 14 .040 .061 .083		.039 .021 27 .033 .064 .079					.039 .018 41 .035 .052 .079
5			.036 .009 3 .030 .042 .047		.030 .014 21 .029 .040 .056					.030 .013 24 .029 .043 .057
0				.032 .013 16 .034 .042 .061	.043 .008 4 .040 .049 .064					.034 .013 20 .035 .044 .055
5				.031 .010 13 .031 .039 .047						.031 .010 13 .031 .039 .047
10				.032 .010 14 .032 .036 .064						.032 .010 14 .032 .036 .054
15				.030 .011 4 .028 .039 .046	.031 .007 24 .030 .036 .048					.031 .008 28 .029 .036 .050
20				.023 .005 6 .024 .026 .027						.023 .005 6 .024 .026 .027
25				.037 .019 6 .033 .049 .070			.053 .028 5 .045 .081 .094			.045 .025 10 .027 .073 .092
30				.113 .038 6 .104 .159 .166			.066 .016 6 .064 .106 .113			.101 .031 12 .081 .127 .165
35				.163 .074 52 .145 .251 .293						.163 .074 52 .145 .251 .293
40										
45S										

LONGITUDE

TABLE V. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR MAY

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

MAY
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55							.463 1			.463 1	55
50						.954 .055 5 .976 1.005 1.011	.388 .085 10 .339 .459 .555			.577 .277 15 .444 .960 1.009	50
45			.527 .032 2 .527 .549 .556	.499 .027 7 .496 .517 .550	.241 .073 6 .249 .285 .359	.575 .107 12 .562 .673 .724	.491 .116 9 .503 .611 .640			.481 .145 36 .449 .619 .710	45
40			.589 .065 7 .571 .682 .690		.193 .131 17 .129 .311 .515	.367 .212 50 .309 .594 .980				.348 .214 74 .285 .580 .907	40
35			.539 1		.316 .124 12 .298 .358 .602	.299 .129 30 .277 .404 .604				.309 .131 43 .295 .403 .660	35
30			.084 .012 5 .053 .066 .066		.217 .021 12 .222 .233 .251					.159 .077 17 .203 .230 .249	30
25			.084 .004 8 .055 .057 .059		.137 .032 10 .131 .171 .193					.100 .048 18 .100 .152 .191	25
20			.065 .009 4 .065 .072 .077		.039 .019 3 .031 .054 .064					.054 .019 7 .064 .066 .076	20
15			.049 .017 8 .046 .068 .078		.027 .003 3 .025 .029 .031					.043 .017 11 .037 .060 .077	15
10			.040 .008 14 .040 .050 .053							.040 .008 14 .040 .050 .053	10
5		.048 .001 3 .049 .049 .049	.047 .005 5 .045 .051 .054							.047 .004 8 .045 .050 .053	5
0				.032 1						.032 1	0
5				.023 .017 3 .031 .036 .038						.023 .017 3 .031 .036 .038	5
10				.042 .017 5 .030 .063 .065						.042 .017 5 .030 .063 .065	10
15				.038 .008 8 .039 .044 .048	.043 .022 30 .037 .061 .102					.042 .020 38 .036 .051 .102	15
20											20
25											25
30											30
35				.187 .068 22 .154 .269 .332						.187 .068 22 .154 .269 .332	35
40											40
45S											45S

LONGITUDE

TABLE VI. - GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JUNE
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55								.072 .077 12 .077 .085 .090		.072 .077 12 .077 .085 .090
50					.079 1	.001 1		.104 .066 19 .092 .152 .346		.098 .068 21 .090 .144 .346
45	.066 .081 13 .021 .089 .109			.050 .046 6 .010 .063 .064		.080 .062 5 .006 .065 .066	.075 .079 8 .019 .095 .096	.088 .060 7 .050 .109 .157		.058 .062 30 .028 .092 .121
40	.118 .112 21 .041 .153 .207		.082 .071 6 .037 .106 .150	.075 .067 6 .040 .106 .141	.065 .046 5 .037 .092 .128	.090 .079 15 .068 .139 .243	.080 .076 9 .035 .088 .098			.091 .068 62 .052 .135 .222
35	.103 .095 11 .050 .160 .178		.083 .072 18 .045 .096 .198		.063 .056 6 .020 .081 .097	.059 .056 13 .019 .074 .102				.078 .066 47 .041 .106 .183
30	.083 .069 11 .016 .097 .109	.079 .090 10 .014 .092 .096	.050 .053 7 .004 .053 .054							.073 .063 28 .019 .095 .103
25	.057 .055 7 .011 .066 .074	.059 .055 6 .028 .089 .102	.056 .052 12 .016 .073 .079		.050 .060 6 .018 .065 .070					.056 .049 32 .019 .073 .097
20		.041 .038 12 .010 .045 .064	.069 .069 4 .026 .080 .082		.042 .037 17 .017 .055 .061					.044 .038 33 .017 .059 .086
15		.024 1							.024 1	
10		.026 .026 7 .001 .027 .028							.026 .026 7 .001 .027 .028	
5		.025 .026 6 .002 .027 .027							.025 .026 6 .002 .027 .027	
0		.026 1	.009 1						.018 .018 2 .009 .023 .026	
5			.019 1						.019 1	
10				.026 .026 2 .006 .029 .031					.026 .026 2 .006 .029 .031	
15				.034 .034 2 .005 .037 .039					.034 .034 2 .005 .037 .039	
20		.029 .029 4 .006 .033 .037	.038 .038 2 .001 .039 .039	.035 1					.032 .035 7 .006 .037 .039	
25			.036 .036 7 .002 .038 .039	.045 1					.037 .036 8 .003 .039 .044	
30			.047 .049 4 .007 .053 .056	.047 .044 10 .011 .058 .067					.047 .044 14 .010 .056 .067	
35			.064 .043 21 .025 .072 .118	.039 .041 4 .006 .043 .043					.051 .042 25 .024 .071 .117	
40										
45S										

LONGITUDE

TABLE VI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(b) Flight level 310

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JUNE
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.536 .004 2 .536 .539 .540	.261 .188 7 .176 .532 .536			.322 .202 9 .304 .537 .540	70N
65						.424 .098 5 .483 .501 .501	.104 .117 9 .043 .191 .361	.064 .020 3 .076 .078 .080		.191 .181 17 .076 .428 .501	65
60							.218 .170 11 .087 .433 .507	.252 .222 28 .102 .526 .596		.242 .209 39 .097 .495 .594	60
55						.242 .043 4 .243 .262 .297	.075 .009 17 .073 .084 .090	.124 .117 42 .082 .256 .431		.118 .104 63 .082 .225 .416	55
50					.047 .009 2 .047 .080 .082	.345 .124 7 .377 .486 .490	.085 .037 41 .078 .125 .166	.184 .127 46 .105 .260 .458		.136 .119 96 .071 .247 .486	50
45	.114 .052 22 .100 .181 .220				.108 .067 16 .075 .187 .246	.111 .080 43 .079 .191 .306	.068 .011 7 .071 .078 .086	.146 .186 24 .094 .372 .516		.116 .100 112 .081 .197 .444	45
40	.101 .047 42 .089 .119 .256				.133 .106 22 .100 .214 .406	.077 .064 50 .060 .092 .287	.111 .083 17 .083 .130 .333			.099 .074 131 .080 .126 .320	40
35	.080 .027 24 .082 .113 .120		.048 .027 20 .035 .080 .099	.033 .004 3 .032 .037 .039	.069 .043 41 .060 .094 .184	.108 .095 16 .086 .249 .285				.072 .053 104 .059 .103 .276	35
30	.056 .024 15 .065 .070 .090	.053 .041 27 .071 .093 .106		.046 .019 30 .039 .068 .084	.070 .051 40 .060 .098 .204	.063 1				.058 .040 113 .056 .084 .184	30
25	.063 .006 7 .066 .068 .069	.068 .011 8 .068 .082 .085	.087 .026 3 .074 .088 .094	.050 .018 20 .048 .064 .090	.056 .031 34 .043 .098 .118					.057 .025 73 .053 .084 .106	25
20		.061 .011 8 .064 .068 .073	.074 .027 4 .067 .099 .112		.051 .023 32 .045 .074 .106					.055 .023 44 .050 .075 .110	20
15		.064 1	.035 .006 14 .035 .039 .049	.028 1	.035 .005 6 .035 .039 .041					.036 .007 22 .034 .040 .063	15
10		.030 .004 7 .031 .036 .035	.032 .009 15 .034 .041 .047	.024 .003 8 .025 .025 .026	.029 .006 3 .026 .034 .038					.029 .008 33 .026 .036 .045	10
5		.022 .005 6 .021 .024 .029		.025 .004 6 .026 .029 .031						.023 .005 12 .019 .026 .031	5
0		.023 .006 5 .019 .026 .032		.027 .002 2 .027 .026 .026						.024 .005 7 .025 .026 .032	0
5			.024 1	.026 .005 8 .023 .032 .033						.026 .005 6 .024 .031 .033	5
10											10
15				.036 .016 5 .036 .047 .062						.036 .016 5 .036 .047 .062	15
20	.053 1			.039 1						.046 .007 2 .046 .051 .053	20
25			.047 .004 5 .046 .052 .053	.059 1						.049 .006 6 .049 .054 .056	25
30			.052 .016 8 .048 .051 .087	.079 .030 5 .058 .110 .127						.062 .026 13 .051 .093 .122	30
35			.056 .046 10 .048 .061 .164	.053 .028 9 .043 .064 .117						.056 .039 19 .043 .067 .164	35
40			.063 1							.063 1	40
45S											45S

LONGITUDE

TABLE VI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(c) Flight level 330

CONE:

MEAN	ST. DEV.	N
50%	84%	98%

JUNE
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					.486 1	.327 1	.490 .113 22 .521 .575 .583			.483 .113 24 .516 .575 .583	65
60				.310 .239 8 .216 .600 .606	.324 .148 10 .407 .448 .463	.420 .087 12 .433 .486 .494	.456 .037 7 .467 .486 .506			.377 .153 37 .434 .489 .602	60
55				.200 .206 9 .092 .410 .618	.482 .187 9 .444 .611 .628	.299 .131 7 .307 .397 .484	.069 .014 15 .068 .084 .091	.172 .132 35 .152 .262 .558		.202 .176 75 .103 .414 .628	55
50				.151 .071 18 .123 .212 .296	.071 .042 18 .067 .123 .138	.068 .075 9 .038 .112 .233	.103 .092 71 .074 .139 .453	.136 .139 68 .087 .166 .567		.115 .109 184 .071 .164 .511	50
45	.144 .054 8 .118 .189 .254			.119 .077 35 .098 .183 .318	.071 .037 29 .069 .104 .155	.084 .060 13 .064 .107 .221	.132 .148 60 .072 .255 .539	.048 .005 7 .048 .053 .054		.113 .113 172 .069 .158 .507	45
40	.103 .065 30 .091 .151 .280		.053 .015 20 .050 .072 .078	.059 .025 12 .064 .083 .095	.059 .047 17 .051 .068 .183	.123 .117 32 .072 .229 .406	.100 .100 16 .060 .221 .300	.085 .021 2 .085 .099 .105		.090 .082 129 .064 .134 .375	40
35	.075 .034 33 .061 .113 .155		.072 .067 29 .057 .084 .250	.071 .032 20 .070 .082 .158	.074 .043 66 .061 .105 .202	.065 .035 29 .064 .088 .152				.073 .044 197 .061 .093 .192	35
30	.066 .026 18 .054 .106 .110	.069 .018 34 .066 .089 .108	.074 .009 8 .076 .082 .088	.184 1	.087 .081 135 .068 .106 .286	.044 .015 7 .037 .047 .075				.081 .063 203 .066 .103 .280	30
25	.054 .004 6 .051 .059 .059	.064 .018 31 .050 .061 .109	.075 .017 33 .077 .093 .098		.057 .031 120 .050 .083 .109	.077 .017 6 .072 .086 .102				.060 .028 195 .056 .064 .108	25
20		.058 .014 21 .062 .072 .076	.059 .019 4 .062 .077 .079	.037 .010 17 .039 .047 .049	.058 .026 23 .062 .075 .117					.052 .021 65 .050 .073 .082	20
15		.042 .015 15 .032 .061 .070	.050 1	.048 .006 6 .046 .051 .051	.048 .015 12 .040 .064 .078					.045 .014 34 .040 .051 .075	15
10		.031 .005 9 .032 .035 .038			.027 .018 3 .016 .041 .052					.030 .010 12 .032 .035 .049	10
5		.026 .010 9 .030 .040 .043		.022 .001 4 .022 .023 .024						.026 .009 13 .024 .033 .043	5
0		.020 1	.014 1	.026 .003 6 .027 .028 .029						.024 .005 7 .027 .028 .029	0
5		.032 .007 7 .030 .041 .042	.023 .005 6 .022 .029 .032	.025 .007 22 .027 .032 .038						.026 .008 35 .027 .034 .041	5
10		.025 .006 6 .025 .029 .033	.032 .009 11 .029 .039 .051	.032 .009 25 .036 .042 .044						.031 .009 42 .025 .041 .046	10
15		.031 .006 7 .034 .035 .035	.047 .004 7 .047 .048 .053	.028 .006 17 .028 .033 .036						.033 .009 31 .032 .043 .050	15
20			.048 .016 2 .048 .060 .065	.034 .012 25 .030 .040 .065						.035 .013 27 .030 .043 .066	20
25			.048 .020 15 .040 .051 .102	.039 .018 34 .034 .059 .068						.042 .018 49 .040 .058 .070	25
30			.084 .009 6 .086 .092 .093	.068 .045 42 .056 .065 .205						.070 .043 48 .058 .090 .205	30
35			.086 .033 10 .062 .090 .133	.064 .032 35 .063 .090 .142						.064 .032 45 .054 .080 .145	35
40											40
45S											45S

LONGITUDE

TABLE VI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JUNE
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N							.587 .017 6 .563 .598 .614	.602 .015 4 .597 .615 .625		.593 .016 9 .588 .613 .624
65					.412 .114 20 .381 .537 .573	.566 .033 12 .566 .593 .607	.598 1	.564 .103 14 .595 .655 .673		.600 .122 47 .545 .603 .670
60				.390 1	.304 .184 26 .272 .547 .618	.479 .134 50 .486 .607 .656		.933 .202 23 .270 .604 .622		.399 .184 100 .449 .604 .632
55				.409 .211 11 .546 .585 .622	.373 .189 51 .413 .566 .646	.356 .173 34 .407 .535 .617	.084 .043 14 .067 .120 .184	.181 .114 65 .116 .263 .449		.270 .192 175 .216 .531 .624
50				.232 .182 56 .126 .490 .610	.223 .178 89 .120 .436 .595	.218 .160 49 .113 .414 .564	.151 .147 112 .081 .317 .523	.194 .164 93 .114 .358 .637		.195 .167 379 .110 .390 585
45	.128 .035 25 .114 .170 .201			.081 .059 29 .056 .160 .216	.155 .170 57 .065 .384 .586	.201 .164 92 .111 .446 .529	.153 .130 65 .134 .225 .543	.165 .088 3 .110 .224 .271		.160 .146 271 .105 .294 .561
40	.221 .138 47 .173 .356 .527		.046 .021 33 .039 .072 .090	.066 .034 14 .048 .069 .136	.128 .123 128 .075 .266 .480	.103 .090 282 .077 .145 .415	.124 .074 6 .105 .163 .267	.311 .222 19 .172 .598 .672		.123 .116 531 .079 .197 511
35	.168 .118 39 .119 .278 .443		.090 .094 37 .053 .139 .414	.105 .066 42 .064 .191 .316	.090 .085 190 .065 .110 .462	.089 .040 60 .087 .125 .181				.100 .088 368 .067 .140 .420
30	.064 .014 12 .063 .076 .069	.073 .012 19 .076 .083 .090	.094 .047 24 .073 .150 .186	.052 .030 36 .044 .068 .136	.070 .046 299 .069 .093 .186	.068 1				.070 .044 391 .060 .093 .181
25	.053 .005 4 .053 .058 .059	.077 .018 31 .081 .090 .102	.061 .022 18 .064 .085 .093	.031 .014 27 .026 .047 .083	.057 .034 249 .061 .082 .159	.072 1				.057 .032 329 .052 .085 .141
20		.052 .020 32 .046 .072 .091	.069 .008 7 .070 .072 .080	.033 1	.051 .026 43 .050 .068 .105					.053 .022 83 .050 .072 .097
15		.063 .021 25 .046 .077 .090	.081 .009 6 .082 .089 .091		.038 .007 27 .038 .045 .060					.048 .020 58 .037 .077 .091
10		.034 .010 18 .030 .046 .050		.043 .017 6 .044 .061 .065	.031 .016 17 .029 .046 .061					.034 .014 41 .030 .046 .064
5		.025 .004 2 .025 .026 .029		.035 .014 26 .031 .051 .058	.020 .009 10 .019 .028 .036					.031 .014 38 .026 .050 .058
0		.024 .002 3 .025 .026 .027		.026 .010 42 .023 .037 .060	.010 1					.026 .010 46 .023 .037 .050
5		.018 .001 3 .019 .019 .019	.026 .011 24 .025 .030 .057	.026 .015 30 .023 .029 .063						.026 .013 57 .024 .030 .070
10		.021 .002 6 .021 .023 .026	.036 .010 11 .032 .045 .066	.029 .011 47 .025 .041 .067						.029 .011 64 .026 .041 .059
15		.027 .003 6 .027 .030 .032	.049 .010 13 .046 .059 .068	.034 .012 48 .029 .047 .058						.036 .013 67 .032 .030 .060
20	.054 .010 7 .056 .061 .065	.032 .008 4 .036 .037 .037	.044 .010 23 .040 .064 .081	.035 .021 33 .030 .049 .066						.040 .017 67 .037 .057 .078
25	.072 .015 8 .071 .081 .097		.046 .018 22 .037 .062 .083	.066 .023 41 .066 .088 .107						.060 .023 71 .061 .084 .106
30			.069 .013 10 .065 .083 .092	.084 .035 48 .078 .106 .176						.081 .033 58 .073 .105 .168
35			.110 .066 14 .114 .173 .196	.065 .027 26 .058 .102 .123						.081 .049 40 .061 .137 .183
40										
45S										

LONGITUDE

TABLE VI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(e) Flight level 370

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JUNE
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.660 1	.597 .103 18 .629 .662 .668	.566 .014 6 .560 .581 .590		.592 .089 25 .613 .660 .668	70N
65					.493 .101 50 .525 .592 .614	.595 .068 31 .613 .649 .670	.486 .134 19 .553 .628 .634	.455 .175 24 .538 .599 .670		.510 .126 124 .502 .623 .667	65
60				.501 .079 18 .523 .568 .581	.382 .184 80 .440 .568 .646	.375 .210 69 .482 .580 .627	.501 .102 33 .504 .606 .671	.242 .193 46 .194 .545 .564		.379 .197 246 .250 .569 .648	60
55				.447 .156 96 .461 .593 .652	.401 .187 80 .452 .583 .660	.341 .138 110 .365 .491 .589	.378 .143 21 .382 .532 .592	.234 .179 38 .220 .459 .564		.372 .171 315 .366 .557 .638	55
50				.266 .159 42 .289 .405 .527	.355 .111 132 .389 .416 .514	.229 .154 82 .177 .406 .518	.164 .143 79 .093 .318 .512	.226 .202 57 .131 .537 .605		.262 .165 392 .192 .413 .572	50
45	.162 .036 2 .162 .186 .196		.460 .079 2 .460 .514 .536	.370 .134 146 .396 .487 .545	.192 .136 83 .148 .363 .509	.133 .101 113 .088 .239 .404	.252 .210 45 .191 .559 .651	.345 .238 16 .288 .656 .706		.253 .174 407 .214 .457 .637	45
40	.064 .034 15 .042 .105 .119		.173 .125 19 .104 .344 .366	.129 .100 103 .091 .205 .451	.144 .152 135 .071 .309 .597	.167 .149 909 .104 .333 .600	.124 .096 7 .096 .135 .324	.214 .199 17 .133 .409 .679		.161 .147 1205 .100 .310 .599	40
35	.038 .002 2 .038 .039 .039		.107 .068 28 .078 .140 .266	.085 .076 49 .068 .105 .309	.109 .108 408 .077 .132 .525	.095 .074 129 .071 .128 .343				.104 .098 616 .074 .133 .514	35
30			.140 .088 34 .109 .184 .383	.102 .075 37 .074 .178 .324	.081 .062 677 .064 .119 .266					.085 .065 748 .065 .125 .302	30
25		.037 .004 3 .039 .040 .041	.060 .015 7 .048 .078 .079	.046 .019 34 .045 .054 .092	.063 .031 511 .057 .083 .157	.051 .001 2 .051 .052 .052				.062 .031 557 .056 .082 .146	25
20		.035 .012 16 .035 .046 .054	.047 .017 17 .050 .062 .074	.049 .013 11 .047 .063 .070	.055 .024 80 .047 .079 112	.044 .004 5 .042 .048 .050				.050 .022 129 .045 .072 111	20
15		.041 .011 12 .040 .051 .058	.036 .010 13 .034 .048 .059		.038 .020 44 .035 .051 .091	.029 .009 6 .033 .037 .037				.038 .017 74 .031 .050 079	15
10		.032 .009 22 .034 .040 .047	.042 .005 15 .042 .048 .051	.022 .002 7 .022 .024 .026	.034 .010 45 .034 .040 .056					.034 .010 89 .034 .043 .056	10
5		.023 .003 5 .023 .025 .026		.030 .015 21 .022 .053 .059	.031 .011 41 .035 .042 .047					.030 .012 67 .028 .043 058	5
0				.033 .013 24 .032 .046 .059	.035 .009 22 .034 .044 .050					.034 .011 46 .026 .046 054	0
5				.026 .012 25 .025 .037 .049	.036 .008 20 .035 .046 .060					.031 .012 45 .029 .043 050	5
10				.030 .014 21 .026 .043 .056	.047 .013 6 .050 .058 .058					.034 .015 27 .032 .052 .058	10
15		.030 .003 2 .030 .031 .032		.029 .012 16 .027 .043 .051						.029 .012 18 .027 .038 051	15
20				.030 .011 29 .030 .041 .051						.030 .011 29 .030 .041 051	20
25				.022 .015 32 .021 .034 .059						.022 .015 32 .021 .034 059	25
30		.044 .004 8 .044 .047 .050	.066 .016 13 .072 .082 .088	.082 .032 21 .086 .109 .148						.071 .029 42 .054 .093 144	30
35			.097 .052 31 .086 .143 .220	.106 .053 11 .101 .140 .212						.100 .053 42 .077 .146 .229	35
40			.267 1							.257 1	40
45S											45S

LONGITUDE

TABLE VI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(f) Flight level 390

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JUNE
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.590 .628 .094 .667 40 .683	.562 .603 .114 .656 97 .691	.477 .521 .103 .568 6 .568		.566 .601 .111 .659 143 .691
65				.603 .598 .162 .739 8 .746	.549 .531 .064 .623 109 .724	.556 .577 .092 .638 109 .697	.552 .571 .094 .636 111 .682	.431 .493 .152 .581 46 .606		.539 .549 .106 .630 379 .708
60				.533 .523 .106 .684 47 .699	.582 .587 .082 .630 89 .681	.535 .550 .113 .643 137 .691	.529 .545 .117 .637 56 .673	.381 .434 .161 .541 69 .614		.513 .519 .133 .636 398 .686
55				.432 .464 .216 .650 52 .699	.299 .306 .134 .476 22 .494	.529 .579 .124 .633 104 .669	.484 .626 .224 .647 3 .656	.434 .450 .108 .523 43 .611		.465 .426 .167 .626 224 .689
50				.463 .532 .191 .675 33 .729	.177 .181 .104 .284 41 .397	.365 .381 .168 .544 55 .620	.110 .105 .040 .145 16 .184	.425 .465 .131 .550 12 .594		.315 .290 .194 .546 157 .690
45			.445 .492 .177 .590 8 .647	.335 .343 .163 .515 67 .633	.328 .328 .198 .526 89 .648	.270 .224 .159 .410 70 .592	.092 .075 .039 .100 28 .198	.117 .113 .035 .144 20 .194		.276 .174 .183 .503 262 .644
40			.294 .326 .176 .439 28 .577	.136 .068 .130 .243 78 .491	.330 .395 .167 .497 80 .592	.196 .118 .171 .359 127 .667	.172 .125 .112 .256 5 .367	.458 .458 .047 .490 2 .503		.203 .121 .173 .411 684 .659
35			.108 .062 .127 .146 28 .486	.062 .066 .028 .085 31 .116	.082 .061 .073 .096 61 .307	.112 .066 .078 .187 284 .295				.103 .076 .078 .159 404 .310
30			.074 .079 .021 .094 6 .096	.042 .036 .023 .054 55 .116	.106 .075 .117 .156 96 .458	.051 .049 .007 .057 7 .061				.083 .038 .096 .096 164 .451
25			.078 .075 .004 .061 7 .086	.021 .020 .008 .026 4 .031	.084 .058 .078 .126 82 .366	.051 .051 .006 .056 7 .060				.078 .057 .070 .118 100 .355
20		.006 .004 .006 .011 3 .015	.084 .085 .002 .066 3 .086		.084 .081 .042 .134 22 .183	.024 .026 .007 .029 6 .034				.067 .056 .045 .108 34 .182
15		.070 1			.041 .037 .017 .064 26 .073	.012 .012 .005 .015 2 .016				.040 .037 .019 .065 29 .073
10				.037 .037 .002 .039 3 .040	.030 .026 .009 .039 31 .048					.030 .029 .009 .039 34 .048
5				.039 1	.037 .037 .014 .045 26 .069					.037 .038 .014 .045 27 .068
0				.019 .018 .005 .023 3 .026	.031 .029 .013 .043 29 .055					.030 .027 .013 .042 32 .055
5				.029 1	.039 .040 .011 .049 22 .058					.038 .039 .010 .049 23 .057
10				.029 .027 .012 .037 27 .060	.031 .030 .006 .036 7 .039					.030 .027 .011 .037 34 .056
15		.031 .031 .004 .034 5 .037		.036 .032 .013 .047 37 .069						.035 .032 .013 .045 42 .069
20	.030 1	.027 .027 .001 .028 2 .028		.049 .049 .015 .062 21 .079						.047 .047 .016 .061 24 .079
25				.067 .055 .010 .056 8 .076						.067 .055 .010 .056 8 .076
30				.064 .058 .022 .086 10 .106						.064 .058 .022 .086 10 .106
35			.131 .132 .025 .156 4 .159	.174 .186 .086 .280 79 .381						.172 .176 .084 .248 83 .380
40										
45S										

LONGITUDE

TABLE VI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JUNE
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.536 .809 .108 .634 11 .740	.620 .660 .140 .735 17 .778			.593 .627 .136 .729 28 .771
65						.523 .577 .136 .661 21 .667	.471 .465 .185 .607 68 .705	.434 .498 .177 .620 27 .645		.472 .494 .177 .653 116 .703
60				.561 .528 .098 .700 30 .758		.536 .564 .127 .664 41 .723	.486 .491 .183 .667 76 .731	.440 .436 .162 .632 127 .696		.480 .386 .158 .644 274 .731
55				.476 .488 .173 .651 43 .743		.463 .515 .147 .624 63 .670	.629 1	.445 .465 .112 .570 78 .626		.466 .474 .142 .617 185 .699
50				.503 .513 .122 .611 47 .708	.429 .407 .050 .493 18 .528	.401 .400 .144 .570 132 .659	.525 .573 .144 .683 13 .705	.242 .242 .074 .291 2 .312		.432 .425 .142 .581 212 .700
45	.561 .578 .068 .534 8 .639		.096 .069 .059 .156 9 .213	.272 .217 .186 .533 32 .626	.219 .170 .122 .369 51 .467	.369 .376 .149 .537 133 .623	.335 .334 .141 .473 4 .505	.421 .421 .021 .434 2 .440		.320 .346 .169 .506 239 .632
40	.601 .604 .091 .674 12 .686		.148 .061 .186 .313 36 .624	.198 .063 .181 .411 15 .471	.303 .316 .177 .498 53 .563	.290 .282 .167 .506 97 .643				.281 .265 .203 .517 223 .650
35	.124 .101 .078 .113 7 .288		.259 .231 .193 .467 36 .567	.078 1	.099 .101 .051 .149 10 .156	.243 .178 .190 .485 14 .564				.215 .111 .180 .460 68 .573
30	.057 .055 .006 .062 4 .065		.210 .180 .180 .426 21 .636		.085 .087 .043 .120 32 .171					.129 .098 .130 .185 57 .601
25			.090 .097 .022 .119 22 .119		.062 .042 .066 .131 42 .360					.085 .054 .072 .119 64 .303
20		.015 .014 .004 .019 4 .022	.086 .090 .013 .096 9 .102		.046 .042 .018 .055 18 .091					.054 .047 .028 .090 31 .102
15		.023 .023 .005 .027 11 .033	.079 .079 .008 .084 2 .066		.030 .028 .008 .031 7 .041					.031 .023 .017 .034 20 .080
10					.027 1					.027 1
5										
0										
5										
10										
15										
20				.063 .061 .008 .070 3 .073						.063 .061 .008 .070 3 .073
25				.073 .071 .015 .090 15 .093						.073 .071 .015 .090 15 .093
30				.123 .111 .039 .119 10 .218						.123 .111 .039 .119 10 .218
35				.264 .252 .111 .385 45 .463						.264 .252 .111 .385 45 .463
40										
45S										

LONGITUDE

TABLE VI. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR JUNE

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JUNE
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60						.813 .841 .104 .710 23 .791	.643 .643 .004 .646 2 .647			.815 .841 .100 .705 25 .790
55				.454 .472 .075 .505 31 .509		.405 .455 .159 .666 15 .663				.438 .457 .112 .507 46 .621
50				.375 .431 .111 .459 45 .471	.434 .408 .147 .596 8 .617	.345 .254 .196 .614 6 .618				.380 .425 .129 .462 59 .617
45			.213 .096 .174 .442 17 .558	.200 .118 .151 .338 44 .569		.322 .236 .179 .544 13 .677	.476 .476 .105 .583 8 .605			.249 .140 .179 .456 82 .622
40			.164 .079 .176 .468 57 .539	.105 .100 .007 .115 9 .116	.213 .215 .095 .300 4 .334	.256 .238 .110 .356 27 .466	.139 .139 .006 .142 2 .144			.185 .098 .154 .351 99 .541
35			.101 .082 .047 .094 13 .227	.094 1	.059 .059 .003 .082 6 .064	.122 .129 .049 .171 11 .185				.101 .074 .046 .154 30 .214
30					.188 .187 .110 .211 13 .440	.475 1				.209 .171 .129 .393 14 .469
25										
20			.094 .094 .002 .095 2 .096							.094 .094 .002 .095 2 .096
15		.074 1	.078 .075 .010 .085 8 .097							.078 .074 .009 .084 9 .097
10										
5										
0										
5										
10										
15										
20										
25				.096 1						.096 1
30				.101 .103 .012 .109 7 .118						.101 .103 .012 .109 7 .118
35				.115 .108 .012 .124 3 .131						.115 .108 .012 .124 3 .131
40										
45S										

LONGITUDE

TABLE VII. - GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(a) Flight level 290

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

JULY
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.097 1		.086 .018 6 .080 .093 .116	.082 .015 4 .078 .095 .103		.085 .015 11 .080 .100 116
60							.130 .013 2 .130 .138 .142	.068 .004 3 .066 .071 .073		.092 .031 5 .073 .126 140
55								.095 .022 4 .093 .116 .126		.095 .022 4 .093 .116 126
50								.093 .089 18 .072 .089 .344		.093 .089 18 .072 .089 344
45	.078 .026 20 .080 .095 .132				.055 .029 4 .042 .076 .101	.079 .006 2 .079 .083 .085	.110 .004 2 .110 .112 .113	.074 .016 8 .070 .082 .104		.076 .025 36 .066 .103 123
40	.082 .030 15 .067 .122 .135				.082 .028 4 .094 .100 .105	.079 .018 13 .076 .095 . 13	.083 .043 6 .103 .114 .126			.081 .029 38 .056 .111 131
35	.061 .030 37 .054 .067 .144		.061 1		.058 .018 8 .059 .076 .082	.077 .035 11 .066 .120 .136				.064 .030 57 .055 .076 .136
30	.068 .004 4 .067 .072 .075									.068 .004 4 .067 .072 .075
25	.056 .019 7 .046 .076 089	.045 .013 2 .045 .053 .057	.056 .005 3 .055 .060 .063		.040 .013 7 .042 .054 .058					.049 .017 19 .050 .056 085
20		.033 .008 19 .032 .041 .044			.042 .014 12 .044 .056 .063					.037 .012 31 .039 .046 060
15		.022 .003 4 .022 .025 025	.040 .006 10 .041 .044 .050	.027 1		.019 1				.033 .010 16 .036 .043 049
10		.028 .006 9 .027 .032 .040	.026 .012 7 .033 .040 .040							.027 .009 16 .027 .037 041
5		.023 .004 6 .025 .025 .027	.013 .001 6 .013 .014 .014							.018 .006 12 .015 .025 027
0		.029 1	.013 .003 8 .012 .016 .017							.014 .006 9 .012 .017 027
5			.016 .002 18 .017 .018 .020							.016 .002 18 .017 .018 020
10			.018 .004 8 .018 .023 .026							.019 .004 8 .018 .023 026
15			.027 .004 7 .026 .026 .036	.019 1						.026 .005 8 .024 .026 035
20										
25			.052 .007 13 .052 .060 .063							.052 .007 13 .052 .060 063
30			.048 .019 12 .049 .053 .092							.048 .019 12 .049 .053 092
35			.045 .009 2 .045 .051 .054	.076 .019 4 .083 .091 .093						.065 .022 6 .061 .089 .093
40										
45S										

LONGITUDE

TABLE VII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(b) Flight level 310

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65							.088 .088 2 .094	.090 .091 .015 .104 8 .108		.089 .088 .014 .103 10 .108
60							.107 .103 .014 .122 5 .128	.099 .102 .020 .114 15 .137		.101 .095 .019 .118 20 .137
55						.057 .057 .004 .061 5 .062	.089 .096 .011 .097 3 .098	.126 .102 .077 .175 35 .324		.115 .096 .073 .148 43 .322
50					.079 .083 .022 .098 8 .105	.075 .056 .030 .088 3 .116	.127 .117 .063 .184 14 .228	.089 .086 .026 .113 32 .146		.096 .084 .042 .123 57 .219
45	.212 .252 .091 .283 3 .296				.052 .051 .008 .060 4 .063	.094 .083 .033 .127 48 .169	.063 .069 .031 .089 20 .110	.084 .084 .003 .086 2 .087		.088 .079 .045 .114 77 .221
40	.086 .081 .030 .098 9 .146				.099 .099 .010 .105 2 .108	.073 .074 .028 .103 75 .128	.086 .086 .047 .101 7 .162	.070 .070 .003 .072 2 .073		.075 .075 .030 .103 95 .140
35	.056 .052 .021 .065 38 .108		.058 .054 .028 .089 10 .102		.085 .081 .029 .093 27 .123	.092 1				.060 .044 .025 .079 76 .123
30	.058 .058 .008 .065 25 .070	.051 .051 .013 .060 32 .078			.048 .042 .019 .072 20 .085					.052 .051 .014 .064 77 .084
25	.056 .058 .012 .065 15 .080	.043 .035 .027 .065 26 .119		.052 .052 .007 .061 8 .064	.042 .036 .018 .051 27 .092					.046 .035 .021 .061 76 .092
20		.034 .032 .010 .039 17 .058	.013 1	.054 .051 .017 .073 45 .091	.038 .035 .012 .062 29 .087					.045 .039 .017 .064 92 .079
15			.022 .021 .011 .030 7 .041	.022 1	.017 .019 .003 .018 6 .020	.053 1				.022 .019 .012 .028 15 .050
10		.029 1	.009 1		.021 .021 .001 .021 2 .021					.020 .015 .007 .025 4 .029
5										
0		.024 .024 .002 .025 3 .026					.028 .028 .003 .030 4 .032			.026 .026 .003 .026 7 .032
5		.025 .025 .004 .026 6 .031	.026 .023 .005 .029 4 .033				.033 .033 .001 .033 2 .033			.026 .023 .005 .032 12 .034
10		.026 .027 .004 .030 10 .033	.021 .022 .003 .024 6 .026							.024 .021 .005 .028 18 .033
15		.036 .037 .008 .043 13 .048	.024 .024 .005 .029 18 .034							.029 .029 .008 .037 31 .046
20		.047 .045 .012 .062 12 .067	.030 .030 .005 .035 37 .041	.024 .024 .005 .027 5 .030						.033 .031 .011 .040 54 .063
25			.042 .036 .021 .061 47 .092	.025 .024 .002 .026 7 .028						.040 .034 .020 .058 54 .087
30			.063 .059 .023 .092 40 .110	.049 .034 .025 .069 8 .094						.060 .055 .024 .090 48 .108
35			.087 .067 .061 .151 20 .238	.044 .059 .022 .060 3 .060						.081 .057 .059 .146 23 .234
40			.095 1							.095 1
45S										

LONGITUDE

TABLE VII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N							.417 .504 163 .564 9 .590			.417 .504 163 .564 9 .590	70N
65							.196 .107 153 .314 3 .400	.188 .188 015 .198 2 .202		.193 .173 119 .278 5 .395	65
60						.150 .135 061 .182 11 .289	.220 .214 056 .276 8 .317	.147 .089 105 .237 19 .392		.163 .132 090 .232 38 .375	60
55				.193 .077 165 .314 3 .412	.082 1	.056 .056 001 .056 2 .056	.211 .150 130 .397 40 .467	.239 .134 170 .464 60 .568		.222 .109 156 .422 106 .546	55
50				.088 .077 025 .106 14 .147		.088 .092 013 .100 5 .105	.160 .118 109 .225 75 .433	.193 .148 118 .346 44 .427		.161 .112 109 .311 138 .432	50
45	.092 1			.110 .087 065 .174 26 .263	.071 .058 022 .100 8 .105	.090 .083 039 .102 24 .197	.129 .127 029 .153 36 .188			.110 .101 048 .146 93 .249	45
40	.093 .083 048 .130 31 .216		.070 .065 039 .089 28 .175	.090 .084 062 .174 8 .199	.123 .112 040 .169 9 .183	.090 .081 046 .113 34 .197	.102 .098 018 .117 10 .140	.073 1		.090 .082 046 .125 121 .213	40
35	.060 .054 025 .061 28 .125		.089 .062 043 .112 14 .164	.115 .115 020 .129 2 .134	.067 .056 042 .095 99 .162	.077 .078 034 .105 14 .145				.067 .056 039 .099 157 .161	35
30	.057 .055 010 .064 23 .072	.065 .066 011 .062 43 .078			.056 .044 039 .089 145 .166	.121 .127 021 .136 14 .152				.061 .053 035 .090 228 .159	30
25		.040 .038 009 .050 39 .056		.064 1	.051 .042 033 .078 120 .141	.109 .107 017 .125 14 .144				.053 .041 033 .089 174 .142	25
20		.037 .036 005 .040 10 .042	.030 .018 030 .043 5 .064	.035 .029 021 .055 48 .098	.049 .050 018 .062 17 .074	.100 .102 016 .114 8 .124				.043 .030 027 .065 88 .111	20
15		.030 .030 006 .034 7 .041	.025 .026 009 .033 11 .043	.038 .030 023 .054 41 .100		.063 .060 012 .071 5 .082				.037 .026 021 .056 84 .094	15
10		.025 .025 006 .029 17 .037	.018 .017 001 .018 3 .019				.041 1			.025 .024 007 .030 21 .041	10
5		.027 .028 006 .033 6 .034	.019 .019 005 .024 5 .027							.024 .026 007 .029 13 .034	5
0		.025 .025 007 .033 13 .034	.017 .017 002 .019 10 .021	.024 .024 008 .029 4 .031						.022 .019 006 .030 27 .034	0
5		.029 .025 006 .036 7 .036	.022 .019 004 .026 9 .026	.018 .019 002 .019 8 .019						.023 .019 006 .026 24 .037	5
10		.029 .029 005 .032 9 .035	.024 .025 005 .030 12 .033	.024 .021 008 .034 10 .037						.025 .026 007 .032 31 .036	10
15		.028 .029 004 .031 5 .033	.026 .023 005 .031 6 .034	.028 .031 005 .031 5 .032						.027 .027 005 .031 16 .034	15
20		.031 .033 007 .038 12 .041	.038 .036 014 .055 18 .066	.030 .024 009 .041 8 .044						.034 .029 012 .042 36 .063	20
25			.056 .056 022 .068 26 .111	.050 .051 017 .069 15 .078						.053 .053 020 .070 41 .109	25
30			.076 .072 019 .096 24 .114	.069 .067 029 .102 25 .131						.072 .066 025 .101 49 .122	30
35			.071 .062 027 .097 32 .138	.148 .081 148 .220 8 .464						.087 .059 077 .106 40 .288	35
40			.091 .091 026 .109 2 .116							.091 .091 025 .109 2 .116	40
45S											45S

LONGITUDE

TABLE VII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N							.559 .051 11 .555 .626 .637			.559 .051 11 .555 .626 .637
65				.117 1	.388 .094 28 .413 .451 .461	.309 .182 13 .422 .490 .501	.306 .133 14 .348 .428 .481	.317 .192 13 .424 .509 .548		.339 .150 69 .411 .466 .522
60				.377 .145 12 .375 .533 .576	.075 .008 6 .073 .083 .088	.385 .183 62 .454 .561 .600	.212 .080 8 .222 .278 .315	.231 .159 63 .158 .396 .608		.300 .165 149 .266 .529 .604
55				.173 .076 15 .140 .261 .326	.219 .195 17 .101 .458 .567	.323 .156 72 .297 .614 .589	.297 .177 22 .404 .453 .490	.136 .101 75 .101 .185 .497		.230 .168 201 .154 .464 .561
50				.071 .067 14 .050 .126 .234	.260 .178 12 .232 .523 .532	.176 .145 73 .103 .380 .489	.225 .156 84 .139 .448 .610	.206 .156 93 .143 .429 .554		.200 .156 276 .118 .428 .546
45	.157 .129 60 .097 .294 .535			.068 .054 38 .047 .097 .206	.203 .176 22 .137 .445 .536	.106 .061 78 .081 .148 .357	.136 .083 47 .114 .144 .472	.299 .160 6 .318 .456 .468		.131 .115 251 .091 .200 .505
40	.098 .058 93 .083 .137 .278		.061 .017 13 .057 .076 .094	.126 .084 11 .083 .225 .278	.123 .092 99 .095 .185 .423	.086 .053 152 .077 .113 .231	.117 .047 11 .103 .144 .219			.099 .069 379 .081 .141 .319
35	.054 .017 43 .050 .074 .087		.075 .034 10 .067 .104 .123	.058 .007 9 .051 .083 .068	.079 .050 198 .068 .120 .233	.076 .097 39 .064 .115 .147				.075 .045 299 .063 .113 .223
30	.074 .016 13 .071 .089 .107	.062 .013 9 .057 .075 .086	.091 .002 6 .091 .093 .094	.076 .026 15 .072 .111 .122	.055 .038 311 .047 .081 .184					.058 .037 356 .052 .085 .181
25	.038 .003 5 .037 .041 .043	.080 .008 9 .081 .088 .092	.073 .026 12 .077 .093 .108	.068 .037 24 .062 .106 .151	.050 .030 265 .044 .077 .115	.131 .011 6 .128 .137 .150				.055 .032 321 .047 .087 .131
20		.034 .018 16 .026 .046 .076	.042 .036 7 .026 .093 .100	.044 .020 60 .039 .067 .084	.040 .020 62 .032 .056 .098	.088 .033 10 .105 .119 .121				.044 .025 155 .036 .067 .118
15		.031 .007 26 .030 .036 .044	.034 .013 62 .036 .045 .062	.029 .009 34 .028 .042 .046	.042 .020 22 .037 .056 .092	.049 .007 19 .048 .057 .064				.035 .014 163 .034 .047 .068
10		.026 .006 22 .026 .031 .042	.022 .007 11 .021 .030 .034	.018 .002 3 .018 .020 .021	.033 .004 11 .033 .036 .043	.052 .006 8 .053 .058 .060	.045 .016 10 .044 .066 .079			.032 .013 65 .030 .046 .059
5		.026 .004 21 .027 .029 .032	.023 .003 9 .023 .025 .028	.019 .002 4 .019 .020 .021	.056 .017 7 .064 .069 .072		.024 .002 4 .024 .026 .028			.029 .014 45 .025 .031 .069
0		.027 .008 18 .027 .032 .048	.020 .007 19 .018 .030 .033	.019 .002 7 .020 .020 .021	.029 .008 7 .029 .036 .039		.026 .004 3 .024 .029 .031			.024 .008 54 .021 .031 .040
5		.022 .006 21 .023 .026 .034	.015 .003 22 .016 .019 .021	.018 .003 8 .018 .020 .022	.030 .004 2 .030 .033 .034					.019 .006 51 .018 .025 .034
10		.021 .003 12 .021 .023 .027	.018 .004 26 .017 .022 .026	.021 .000 3 .021 .021 .021						.019 .004 41 .019 .022 .028
15		.028 .008 16 .026 .032 .047	.027 .006 29 .028 .033 .034	.048 .028 12 .048 .067 .084						.031 .016 57 .028 .035 .091
20		.033 .006 14 .033 .035 .047	.033 .013 17 .028 .044 .065	.059 .037 17 .057 .084 .131						.042 .026 48 .031 .062 .116
25			.062 .015 20 .063 .066 .079	.046 .030 28 .047 .083 .107						.049 .025 46 .031 .068 .103
30			.097 .042 17 .090 .135 .199	.081 .064 41 .078 .145 .230						.086 .059 58 .062 .142 .229
35			.098 .062 73 .085 .130 .391	.172 .094 21 .141 .306 .336						.114 .091 94 .069 .189 .385
40			.111 .025 3 .114 .132 .140							.111 .025 3 .114 .132 .140
45S										

LONGITUDE

TABLE VII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.507 .102 17 .533 .681 .612	.426 .144 28 .463 .585 .636			.456 .135 45 .507 .586 .630
65					.322 .167 55 .320 .522 .573	.528 .086 21 .545 .696 .620	.362 .129 43 .406 .513 .582	.322 .164 30 .315 .516 .551		.368 .163 149 .377 .534 .604
60				.394 .153 20 .465 .509 .620	.353 .166 70 .369 .532 .570	.452 .106 33 .476 .564 .614	.374 .145 33 .433 .502 .549	.305 .192 33 .314 .490 .616		.370 .165 189 .414 .531 .613
55				.262 .167 59 .247 .460 .535	.176 .149 26 .105 .381 .469	.454 .111 45 .494 .627 .572	.369 .143 67 .433 .519 .554	.302 .139 45 .292 .460 .522		.331 .169 242 .254 .516 .555
50				.205 .160 75 .129 .373 .564	.249 .201 49 .137 .511 .616	.196 .137 44 .167 .311 .534	.268 .153 46 .211 .466 .527	.197 .106 24 .225 .316 .327		.224 .162 238 .112 .432 .564
45			.090 1	.178 .135 79 .109 .426 .517	.168 .157 29 .096 .382 .493	.144 .081 73 .116 .228 .343	.159 .121 68 .127 .247 .526	.112 .022 8 .118 .123 .143		.160 .127 256 .094 .269 .510
40	.128 .069 12 .096 .194 .262	.047 1	.070 .032 37 .069 .099 .139	.130 .102 27 .096 .163 .407	.097 .081 52 .071 .136 .340	.092 .064 395 .083 .121 .300	.142 .099 14 .109 .185 .402			.095 .069 538 .081 .124 .339
35	.088 .029 5 .105 .112 .116		.117 .064 17 .114 .158 .283	.077 .025 12 .074 .103 .122	.072 .044 238 .066 .100 .178	.088 .068 57 .092 .142 .266				.080 .051 329 .071 .113 .270
30	.081 .006 5 .079 .087 .088	.071 .007 3 .070 .077 .080		.086 .031 16 .082 .076 .146	.085 .047 447 .053 .090 .235	.050 .017 3 .047 .065 .072				.085 .046 474 .054 .086 .228
25		.043 .012 14 .047 .053 .057	.049 .012 4 .047 .061 .064	.084 .059 12 .059 .175 .191	.048 .030 387 .040 .075 .129					.048 .031 417 .041 .074 .146
20		.037 .016 19 .036 .048 .077	.042 .006 15 .042 .049 .060	.089 .037 84 .080 .097 .139	.048 .028 66 .044 .071 .098	.082 .022 5 .068 .102 .119				.054 .032 159 .048 .081 .122
15		.026 .007 7 .024 .034 .038	.039 .012 39 .038 .050 .066	.041 .016 4 .034 .053 .067	.034 .014 13 .042 .047 .056	.055 .010 18 .054 .065 .075	.030 .007 3 .030 .036 .039			.040 .014 84 .033 .055 .070
10		.016 1		.023 .007 3 .022 .029 .032	.025 .013 28 .027 .037 .051	.066 .013 11 .062 .077 .093	.063 .022 14 .060 .083 .106			.043 .025 54 .023 .067 .096
5		.021 .002 13 .021 .023 .024		.027 .008 13 .022 .034 .041	.043 .019 24 .041 .057 .082					.033 .017 50 .023 .051 .068
0				.032 .008 6 .037 .038 .041	.048 .016 15 .040 .066 .077					.043 .016 21 .037 .065 .077
5				.034 .004 6 .036 .037 .040	.028 .012 26 .028 .036 .055					.029 .012 32 .029 .036 .054
10				.042 .014 21 .048 .055 .058	.038 .013 7 .042 .053 .055					.041 .014 28 .041 .054 .058
15				.039 .012 17 .043 .046 .061						.039 .012 17 .043 .048 .061
20			.025 .003 2 .025 .027 .028	.042 .008 11 .045 .049 .063						.040 .010 13 .043 .047 .053
25			.025 .004 6 .024 .027 .032	.051 .004 6 .051 .054 .056						.038 .013 12 .034 .051 .058
30			.063 .030 6 .053 .094 .113	.158 1						.077 .043 7 .054 .118 .153
35			.139 .063 64 .127 .204 .281	.264 .186 40 .184 .337 .720						.187 .140 104 .116 .270 .695
40			.103 .042 4 .082 .132 .170							.103 .042 4 .082 .132 .170
45S										

LONGITUDE

TABLE VII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.577 .093 9 .578 .674 .679	.574 .074 12 .564 .652 .665			.575 .083 21 .561 .664 .678	70N
65				.414 .016 3 .416 .426 .431	.399 .165 95 .469 .549 .602	.540 .106 41 .564 .626 .680	.441 .171 29 .517 .601 .629	.593 .004 3 .593 .596 .598		.444 .163 171 .503 .589 .664	65
60				.419 .148 82 .460 .555 .620	.386 .155 85 .338 .534 .608	.509 .103 62 .504 .602 .686	.476 .129 69 .503 .614 .670	.370 .174 30 .342 .562 .610		.434 .150 338 .407 .578 .657	60
55				.364 .155 66 .366 .534 .614	.315 .115 36 .311 .417 .557	.448 .156 81 .629 .585 .641	.326 .163 49 .315 .526 .633	.260 .107 100 .292 .373 .465		.348 .156 332 .325 .536 .630	55
50				.256 .186 128 .180 .494 .562	.333 .192 98 .348 .540 .594	.315 .165 45 .287 .545 .588	.182 .126 51 .153 .316 .517	.292 .111 48 .315 .403 .443		.277 .176 367 .254 .506 .577	50
45			.089 .021 4 .104 .118 .121	.184 .145 96 .115 .378 .538	.197 .135 52 .157 .340 .476	.252 .190 14 .135 .491 .554	.163 .120 62 .127 .226 .542	.389 .095 6 .396 .482 .534		.191 .144 236 .124 .381 .543	45
40	.062 .009 10 .084 .087 .078		.065 .024 17 .083 .114 .118	.108 .063 55 .089 .178 .268	.140 .101 24 .077 .253 .313	.124 .060 167 .097 .160 .370	.154 .048 5 .137 .211 .213			.118 .077 278 .089 .167 .339	40
35	.092 .011 4 .086 .100 .110		.096 .068 19 .086 .107 .262	.082 .086 28 .069 .081 .290	.082 .034 23 .061 .128 .136	.087 .052 82 .065 .156 .225	.119 .023 6 .127 .136 .145			.093 .060 142 .063 .126 .226	35
30	.085 .011 3 .081 .094 .099	.066 .017 5 .057 .079 .094			.107 .093 67 .078 .179 .411	.129 .016 14 .127 .143 .169	.078 .002 3 .078 .079 .080			.107 .083 112 .077 .165 .395	30
25		.051 .005 8 .051 .052 .061	.045 .008 8 .046 .046 .061		.073 .089 46 .052 .076 .436	.133 .008 6 .134 .139 .144				.074 .076 70 .060 .127 .341	25
20		.067 .002 2 .067 .068 .069	.042 .008 18 .041 .050 .067		.031 .018 11 .018 .052 .060	.117 1				.042 .021 30 .036 .056 .089	20
15			.030 .006 8 .029 .037 .040		.055 .022 15 .064 .084 .103					.047 .022 23 .043 .063 .095	15
10					.041 .011 23 .038 .049 .068					.041 .011 23 .038 .049 .066	10
5					.049 .010 25 .049 .056 .070					.049 .010 25 .049 .056 .070	5
0					.035 .028 31 .027 .052 .080					.035 .026 31 .027 .052 .090	0
5					.035 .018 26 .042 .050 .063					.035 .016 26 .042 .050 .063	5
10				.026 .017 23 .026 .045 .083	.038 .020 5 .049 .056 .068					.028 .016 28 .027 .049 .056	10
15				.026 .015 17 .028 .035 .066						.026 .015 17 .028 .035 .058	15
20				.046 .036 12 .031 .066 .125						.046 .036 12 .031 .066 .125	20
25				.061 .070 11 .011 .151 .161						.061 .070 11 .011 .151 .161	25
30			.139 .027 16 .144 .162 .176	.045 .027 7 .060 .069 .109						.110 .053 23 .137 .153 .175	30
35			.210 .119 6 .147 .350 .403	.116 .091 22 .096 .231 .262						.136 .105 28 .091 .235 .370	35
40											40
45S											45S

LONGITUDE

TABLE VII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.188 .107 6 .131 .256 .394	.502 1				.233 .148 7 .140 .418 .491
60				.386 .077 2 .386 .438 .459		.428 .137 14 .422 .570 .623	.487 .117 50 .511 .605 .684	.358 .128 25 .345 .491 .595		.441 .134 91 .457 .571 .679
55				.311 .182 36 .316 .520 .558		.483 .108 36 .520 .567 .601	.413 .140 48 .507 .576 .607	.460 .145 63 .511 .574 .646		.430 .157 103 .501 .566 .642
50				.228 .098 66 .228 .320 .456	.183 .140 8 .133 .179 .494	.309 .183 111 .270 .560 .602	.283 .188 24 .246 .434 .598	.341 .091 16 .348 .400 .541		.280 .159 224 .170 .481 .598
45	.350 .112 7 .337 .464 .508		.152 .094 14 .118 .239 .374	.209 .110 78 .207 .288 .475	.267 .155 79 .231 .477 .561	.207 .118 96 .166 .316 .533	.362 .110 2 .362 .436 .467	.091 .007 8 .090 .093 .106		.223 .132 284 .160 .357 .540
40	.209 .135 11 .167 .312 .499		.100 .041 56 .069 .116 .248	.266 .190 14 .223 .504 .810	.193 .117 82 .166 .274 .494	.189 .103 80 .130 .244 .451	.314 1			.162 .115 214 .101 .250 .507
35	.058 .009 6 .056 .069 .071		.079 .021 14 .063 .099 .110		.076 .035 11 .060 .114 .132	.127 .079 23 .093 .170 .338				.096 .061 54 .067 .128 .277
30	.053 .004 6 .051 .057 .069				.066 .022 31 .059 .090 .117					.063 .020 37 .057 .085 .116
25					.065 .020 29 .061 .089 .106					.065 .020 29 .061 .089 .106
20					.059 .023 27 .064 .077 .105					.059 .023 27 .064 .077 .105
15					.034 .016 14 .039 .054 .068					.036 .016 14 .037 .054 .068
10					.037 .003 4 .036 .039 .041					.037 .003 4 .036 .039 .041
5										
0										
5										
10										
15				.036 .009 4 .040 .047 .049						.038 .009 4 .040 .047 .049
20				.048 .022 8 .061 .083 .078						.048 .022 8 .061 .083 .078
25				.088 .034 16 .077 .098 .176						.086 .034 16 .076 .098 .175
30				.138 .083 15 .121 .189 .203						.135 .053 15 .121 .189 .203
35				.211 .108 32 .187 .265 .474						.211 .108 32 .187 .265 .474
40										
45S										

LONGITUDE

TABLE VII. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR JULY

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

JULY
FL 430

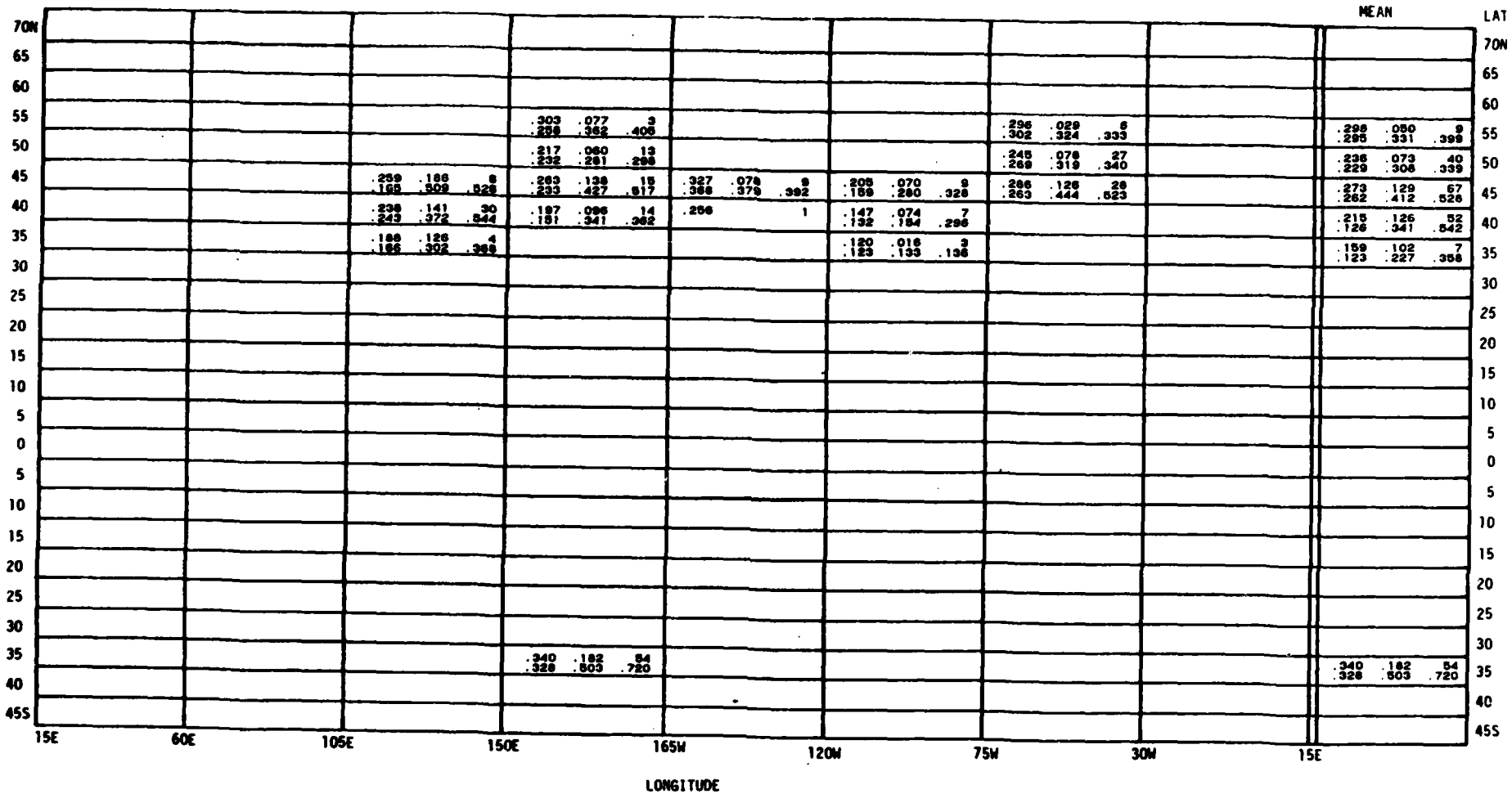


TABLE VIII. - GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55								.071 1		.071 1	55
50				.037 .002 2 .037 .036 .039	.067 .025 10 .075 .050 .099		.081 .010 18 .082 .069 .099	.078 .020 47 .076 .091 .115		.076 .020 77 .077 .090 .110	50
45	.082 .013 20 .080 .093 .106			.046 .008 6 .046 .053 .056	.060 .009 7 .065 .067 .068	.054 .002 3 .055 .056 .056	.064 .005 10 .064 .069 .072	.083 .003 3 .081 .085 .087		.069 .016 49 .067 .085 .101	45
40	.099 .038 26 .092 .118 .193		.049 .011 5 .051 .058 .063	.056 .005 2 .058 .061 .062	.073 .017 4 .076 .089 .089	.071 .035 7 .081 .107 .110	.067 .015 11 .061 .077 .101			.081 .035 55 .076 .111 .127	40
35	.067 .015 54 .069 .083 .096		.042 .009 5 .043 .051 .051		.064 .036 8 .048 .086 .137	.066 .016 6 .063 .075 .096	.079 .012 5 .062 .089 .096			.066 .020 30 .060 .083 .106	35
30	.067 .028 34 .058 .082 .160	.062 .013 26 .065 .072 .090	.060 1			.058 .002 2 .058 .059 .059	.087 .013 4 .094 .096 .096			.066 .023 67 .059 .081 .136	30
25	.072 .028 5 .052 .101 .114	.024 .013 14 .022 .030 .055	.047 .002 3 .047 .049 .050		.031 1	.104 1				.040 .028 24 .026 .056 .110	25
20		.034 .010 20 .034 .040 .052	.039 .009 4 .039 .046 .060		.035 .012 10 .041 .047 .049	.063 1				.036 .011 35 .037 .047 .056	20
15		.022 .010 18 .024 .034 .036	.022 .008 3 .017 .026 .032		.025 1	.060 1				.024 .012 23 .025 .034 .051	15
10		.029 .007 17 .031 .035 .040	.013 1			.044 1				.029 .008 19 .031 .035 .043	10
5		.026 .007 23 .025 .032 .041				.041 1				.027 .008 24 .025 .034 .042	5
0		.032 .009 10 .036 .040 .041	.019 .004 6 .018 .021 .025							.027 .010 16 .024 .040 .041	0
5			.018 .003 6 .017 .022 .023							.018 .003 6 .017 .022 .023	5
10			.025 .006 2 .025 .026 .030	.018 1						.022 .005 3 .019 .026 .030	10
15		.072 .014 5 .073 .085 .093	.018 1	.027 .003 5 .025 .030 .031						.047 .025 11 .031 .076 .091	15
20		.047 .008 6 .043 .054 .061	.040 1	.019 1			.048 .014 2 .048 .057 .060			.043 .012 10 .042 .057 .062	20
25			.063 .024 11 .049 .067 .104	.025 .001 4 .025 .026 .027						.053 .027 15 .042 .081 .103	25
30			.065 .028 15 .056 .092 .112							.065 .028 15 .056 .092 .112	30
35			.054 .017 7 .056 .067 .079	.080 .010 8 .065 .059 .091						.052 .014 15 .057 .064 .077	35
40											40
45S											45S

LONGITUDE

TABLE VIII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(b) Flight level 310

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

AUGUST
FL 310

LAT	15E			60E			105E			150E			165W			120W			75W			30W			15E	MEAN		
70N																												
65																												
60																												
55													.134 .113	.050 .202	9 .204				.097 .090	.034 .108	14 .177	.096 .084	.040 .102	14 .204	.106 .088	.044 .135	37 .211	55
50										.044		1	.196 .166	.033 .232	10 .266				.076 .076	.002 .076	3 .079	.084 .074	.043 .092	54 .265	.100 .078	.057 .166	66 .260	50
45	.075 .072	.018 .089	17 .116													.046 .046	.005 .062	3 .055				.083 .085	.018 .101	10 .107	.075 .066	.020 .087	30 .114	45
40	.069 .064	.017 .084	75 .116				.053 .056	.007 .059	3 .060	.045 .046	.006 .061	6 .052	.072 .074	.028 .081	7 .117	.063 .066	.021 .080	14 .095	.085 .091	.013 .096	7 .098	.085 .082	.010 .093	3 .097	.068 .065	.019 .089	115 .118	40
35	.064 .052	.017 .079	32 .100				.056 .053	.016 .065	13 .090				.067 .061	.036 .103	32 .143	.057 .057	.010 .067	4 .070							.064 .060	.026 .084	81 .131	35
30	.066 .069	.013 .075	21 .091	.047 .048	.010 .064	80 .073	.052 .052	.004 .055	3 .057				.065 .072	.026 .092	8 .098	.066		1							.054 .049	.016 .070	84 .092	30
25	.047 .047	.008 .053	15 .065	.034 .034	.009 .041	28 .050	.043 .041	.005 .052	8 .055	.042 .042	.002 .044	4 .044	.041 .041	.004 .044	2 .045										.040 .039	.010 .050	55 .061	25
20				.027 .028	.006 .031	31 .038	.041 .042	.003 .043	5 .046	.038 .037	.009 .044	12 .067	.032 .035	.012 .037	14 .048										.031 .020	.010 .037	62 .052	20
15				.026 .024	.009 .032	35 .045	.020 .018	.008 .025	7 .035	.017 .016	.009 .018	13 .038	.026 .026	.007 .034	18 .035	.067		1							.024 .022	.010 .032	74 .045	15
10				.030 .027	.006 .039	27 .043				.022		1	.019 .019	.003 .019	6 .023	.041 .041	.010 .047	2 .050	.042		1				.028 .026	.008 .039	39 .046	10
5				.025 .023	.007 .036	21 .038				.014 .013	.006 .019	6 .024													.023 .021	.009 .035	27 .037	5
0				.041 .041	.003 .044	7 .044	.031 .029	.008 .034	8 .047										.066		1				.038 .031	.010 .044	16 .061	0
5				.034 .034	.005 .039	10 .041	.024 .023	.006 .028	22 .037										.062 .063	.002 .064	4 .064				.031 .027	.013 .039	36 .064	5
10				.033 .038	.008 .042	11 .046	.023 .020	.006 .029	25 .034	.036		1							.071 .070	.002 .073	4 .074				.031 .027	.015 .039	41 .072	10
15							.027 .027	.006 .031	16 .036	.032		1							.066 .065	.001 .067	5 .068				.038 .027	.017 .065	22 .067	15
20				.042		1	.028 .028	.004 .031	19 .038	.066		1							.067 .055	.005 .080	7 .066				.037 .029	.014 .055	28 .063	20
25							.042 .037	.022 .066	40 .090	.027		1							.061		1				.042 .037	.022 .064	42 .090	25
30							.069 .059	.022 .060	35 .106																.069 .059	.022 .060	35 .106	30
35							.099 .070	.066 .108	8 .294	.085 .083	.031 .102	8 .144													.092 .080	.066 .108	16 .272	35
40																												40
45S																												45S

LONGITUDE

TABLE VIII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60				.086 .024 6 .077 .117 .118	.115 1	.153 .090 5 .086 .262 .267	.369 .040 5 .354 .404 .434			.191 .130 17 .117 .346 .421
55				.072 .018 11 .070 .096 .099	.130 .023 6 .132 .143 .163	.142 .072 11 .113 .198 .296	.211 .129 18 .239 .343 .414	.112 .093 57 .080 .126 .369		.129 .099 103 .084 .230 .398
50				.084 .020 18 .086 .094 .135		.070 .010 4 .071 .079 .082	.142 .084 37 .109 .242 .333	.093 .036 48 .085 .117 .142		.107 .061 107 .091 .121 .324
45	.094 .031 32 .082 .132 .165			.083 .035 12 .072 .116 .199		.088 .021 13 .087 .092 .101	.096 .027 70 .094 .119 .167	.076 .010 6 .072 .085 .095		.091 .029 133 .086 .116 .172
40	.100 .053 77 .083 .143 .262		.089 .038 5 .096 .127 .134	.063 .037 20 .048 .097 .146	.094 1	.060 .024 18 .056 .086 .107	.078 .021 14 .079 .092 .117	.056 .013 2 .056 .064 .068		.086 .047 137 .078 .117 .231
35	.062 .015 75 .051 .078 .090		.049 .018 26 .046 .068 .090		.070 .040 44 .061 .086 .217	.091 .034 8 .097 .111 .137				.063 .028 153 .059 .081 .134
30	.068 .018 22 .067 .095 .097	.053 .012 38 .048 .065 .079	.040 .018 32 .040 .052 .079		.046 .015 85 .042 .057 .083	.051 .020 21 .043 .076 .094	.060 1			.049 .018 199 .046 .066 .090
25	.042 .004 20 .043 .046 .047	.043 .013 68 .041 .058 .070	.043 .015 40 .044 .057 .070	.078 .024 12 .063 .101 .117	.043 .018 48 .042 .063 .078	.070 .021 14 .073 .089 .103	.076 .014 5 .069 .067 .100			.048 .019 207 .044 .066 .101
20		.032 .008 77 .030 .040 .049	.031 .010 10 .030 .038 .050	.032 .011 22 .035 .041 .047	.026 .013 12 .019 .038 .054	.068 .007 4 .060 .064 .066	.054 .013 5 .056 .066 .069			.033 .012 130 .028 .043 .063
15		.030 .008 39 .028 .038 .045	.024 .007 15 .025 .029 .034	.031 .002 6 .031 .033 .035	.025 .002 3 .023 .026 .028	.068 .013 13 .071 .081 .083	.026 .015 5 .024 .043 .044			.034 .017 81 .029 .045 .081
10		.026 .005 15 .026 .030 .039	.018 .001 4 .018 .019 .019		.030 .013 5 .024 .045 .046		.046 .006 8 .045 .047 .056			.031 .012 32 .023 .045 .052
5		.032 .014 17 .027 .050 .068	.017 .003 5 .017 .020 .023			.042 .009 7 .038 .049 .060	.039 .007 17 .039 .047 .050			.035 .012 46 .030 .048 .059
0		.027 .006 11 .026 .033 .036	.018 .005 19 .019 .022 .027				.053 .012 17 .052 .062 .078			.033 .018 47 .028 .053 .071
5		.041 .006 8 .043 .044 .045	.019 .006 23 .019 .022 .033				.048 .005 7 .046 .052 .056			.028 .014 36 .021 .044 .054
10		.040 .005 8 .038 .043 .049	.023 .007 27 .022 .031 .033	.028 .003 5 .027 .031 .033			.046 .004 5 .048 .049 .050			.029 .010 43 .030 .039 .050
15		.038 .004 8 .039 .041 .044	.027 .008 34 .028 .038 .041	.026 .005 9 .027 .029 .032	.042 .010 14 .044 .051 .053		.058 .002 5 .058 .059 .062			.034 .013 73 .031 .048 .059
20		.055 .014 7 .050 .073 .073	.036 .014 52 .034 .043 .071	.036 .011 17 .032 .048 .061			.055 .000 2 .055 .055 .055			.038 .014 78 .034 .050 .073
25			.073 .052 32 .064 .082 .227	.060 .040 51 .044 .096 .187						.065 .045 83 .053 .094 .223
30			.077 .024 22 .068 .112 .126	.101 .067 68 .082 .154 .278						.095 .052 87 .075 .132 .266
35			.094 .076 38 .079 .112 .333	.138 .071 21 .121 .218 .289						.109 .077 59 .088 .171 .324
40				.183 .101 8 .130 .305 .375						.183 .101 8 .130 .305 .375
45S				.372 1						.372 1

LONGITUDE

TABLE VIII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.060 .010 4 .045 .067 .066	.061 .012 4 .062 .073 .076	.207 .066 10 .210 .276 .313	.212 .092 9 .229 .263 .376		.164 .097 27 .137 .262 .358
60					.296 .074 11 .314 .335 .384	.276 .118 67 .298 .392 .480		.132 .095 24 .097 .225 .337		.243 .123 102 .266 .369 .463
55				.119 1		.221 .114 52 .212 .340 .437	.229 .136 28 .202 .381 .427	.161 .094 65 .131 .256 .400		.195 .115 146 .137 .331 .425
50				.113 .066 48 .085 .171 .303	.047 .009 10 .050 .054 .069	.161 .115 50 .111 .277 .400	.111 .082 114 .079 .171 .373	.119 .075 132 .088 .185 .358		.119 .084 354 .080 .191 .375
45	.132 .067 32 .105 .201 .301		.178 .049 3 .149 .216 .243	.096 .065 81 .063 .145 .284	.072 .044 39 .055 .102 .192	.101 .070 77 .077 .146 .315	.147 .102 55 .091 .296 .365	.118 .045 8 .100 .127 .219		.109 .076 295 .086 .164 .356
40	.143 .078 35 .124 .226 .314		.060 .017 36 .061 .072 .096	.060 .041 34 .068 .125 .183	.077 .048 245 .068 .106 .189	.075 .045 150 .068 .099 .217	.089 .010 10 .090 .095 .108	.118 .042 3 .101 .152 .173		.080 .049 513 .070 .109 .228
35	.082 .023 137 .057 .077 .122		.065 .019 12 .069 .077 .100	.067 .027 8 .060 .076 .118	.064 .037 113 .058 .091 .177	.058 .034 8 .062 .101 .102				.063 .029 274 .042 .067 .130
30	.050 .016 64 .051 .068 .084	.039 .018 35 .034 .069 .076			.057 .032 185 .054 .080 .144	.067 .010 10 .066 .075 .083				.054 .028 294 .047 .073 .121
25	.042 .007 37 .042 .049 .063	.038 .008 15 .034 .045 .063	.030 1	.058 .010 7 .067 .066 .075	.046 .021 182 .042 .066 .095	.061 .011 18 .063 .070 .081				.046 .018 240 .040 .064 .093
20		.038 .009 38 .036 .047 .061	.026 .009 8 .023 .029 .044	.044 .017 60 .038 .064 .079	.052 .034 52 .048 .068 .187	.072 .016 15 .078 .081 .101				.047 .024 171 .039 .065 .102
15		.031 .009 18 .031 .037 .049	.026 .006 27 .025 .032 .036	.029 .010 10 .026 .042 .044	.030 .012 27 .027 .036 .062	.060 .006 11 .062 .066 .067				.032 .014 93 .028 .044 .067
10		.025 .015 32 .021 .041 .062	.016 .003 4 .017 .018 .019	.026 .004 5 .024 .030 .030	.025 .006 21 .023 .032 .042	.062 .012 17 .061 .070 .088	.050 .016 9 .042 .085 .073			.034 .020 88 .024 .060 .076
5		.024 .012 23 .019 .040 .045	.015 .002 7 .015 .017 .018	.027 .004 9 .025 .031 .031	.027 .014 26 .021 .042 .056	.043 .001 3 .043 .044 .045	.052 .010 15 .052 .060 .072			.030 .016 83 .023 .047 .063
0		.028 .011 21 .028 .040 .046	.020 .007 28 .020 .027 .032	.021 .010 39 .019 .034 .041	.029 .018 6 .019 .052 .056		.056 .009 18 .055 .065 .075			.026 .016 112 .019 .046 .066
5		.028 .004 8 .028 .030 .033	.022 .007 39 .020 .027 .037	.021 .008 34 .020 .026 .040			.063 .011 21 .059 .074 .083			.030 .018 102 .022 .052 .075
10		.026 .000 4 .026 .027 .027	.024 .008 35 .022 .030 .040	.026 .008 36 .026 .032 .045			.077 .015 20 .076 .093 .101			.036 .023 95 .026 .068 .095
15		.028 .004 13 .026 .034 .036	.028 .007 38 .026 .034 .038	.025 .007 25 .027 .032 .036	.032 .004 12 .033 .034 .039		.072 .017 18 .074 .084 .101			.035 .019 106 .029 .042 .085
20		.033 .005 12 .033 .039 .041	.029 .010 35 .026 .042 .047	.037 .011 37 .034 .050 .058			.071 .016 6 .065 .084 .101			.036 .015 90 .025 .048 .058
25			.060 .061 34 .048 .091 .191	.059 .033 46 .049 .086 .178			.090 .042 3 .066 .123 .147			.061 .042 83 .049 .088 .177
30			.071 .026 42 .064 .101 .130	.090 .046 64 .078 .141 .198			.302 .038 7 .306 .384 .398			.099 .076 113 .068 .142 .306
35			.128 .056 44 .123 .190 .266	.173 .093 32 .159 .227 .305			.157 .046 3 .147 .195 .215			.147 .076 79 .139 .217 .282
40				.179 .058 11 .158 .233 .301						.179 .058 11 .158 .233 .301
45S										

LONGITUDE

TABLE VIII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N							.437 .476 11 .486			.437 .476 11 .486
65				.118 .105 .060 .187 13 .230	.194 .134 .137 .376 77 .487	.307 .295 .147 .444 7 .506	.412 .477 .122 .511 11 .519	.117 .110 .024 .135 6 .166		.208 .130 .147 .392 116 .514
60				.244 .219 .121 .367 34 .451	.254 .264 .113 .366 46 .460	.242 .210 .075 .320 17 .386	.296 .309 .115 .405 13 .470	.159 .130 .073 .219 6 .294		.247 .244 .112 .374 117 .467
55				.258 .255 .119 .392 58 .433	.208 .187 .081 .283 12 .367	.197 .182 .121 .290 35 .511	.270 .225 .170 .467 36 .529	.220 .159 .136 .411 39 .456		.237 .170 .136 .402 180 .503
50				.118 .071 .108 .214 82 .401	.192 .200 .134 .331 118 .470	.143 .123 .108 .285 34 .333	.194 .130 .121 .365 88 .421	.130 .126 .048 .174 76 .244		.181 .070 .116 .290 398 .448
45	.186 .151 .060 .244 24 .280		.247 .247 .007 .252 2 .254	.130 .087 .109 .250 182 .408	.127 .089 .104 .250 67 .357	.109 .084 .069 .170 47 .316	.097 .091 .050 .121 69 .203	.134 .121 .050 .178 31 .236		.128 .056 .092 .209 422 .379
40	.094 .073 .061 .146 22 .241		.061 .058 .026 .092 53 .128	.081 .056 .078 .107 110 .420	.087 .067 .064 .113 84 .313	.069 .062 .035 .098 240 .163	.096 .092 .016 .107 14 .135			.074 .061 .052 .098 503 .252
35	.055 .055 .011 .061 15 .078		.049 .047 .015 .061 53 .094	.056 .053 .022 .066 28 .116	.066 .060 .034 .090 78 .142	.081 .067 .026 .101 49 .129	.099 .101 .011 .108 5 .114			.064 .058 .029 .090 223 .127
30	.072 .075 .014 .085 17 .094	.054 .053 .019 .078 18 .085	.034 .040 .014 .046 14 .051		.065 .049 .027 .079 203 .117	.067 .066 .002 .066 3 .066	.112 .125 .025 .131 3 .134			.056 .050 .027 .082 256 .124
25	.042 1	.067 .065 .013 .082 14 .083	.061 .061 .009 .064 11 .080		.047 .042 .018 .066 179 .083	.065 .062 .010 .074 3 .078	.092 .092 .026 .118 6 .122			.050 .048 .020 .068 214 .089
20		.038 .037 .013 .057 18 .062	.044 .043 .016 .060 19 .077	.044 .041 .011 .053 9 .062	.037 .035 .014 .052 38 .064	.073 .077 .010 .081 7 .083	.077 .072 .012 .065 4 .096			.043 .039 .018 .063 95 .081
15		.026 .027 .011 .038 34 .043	.028 .026 .007 .030 18 .035		.027 .024 .014 .037 33 .063	.066 .069 .012 .074 7 .083	.065 .064 .005 .068 4 .072			.031 .025 .017 .043 90 .072
10		.028 .028 .004 .031 16 .036	.021 .021 .005 .027 15 .028	.021 .014 .011 .037 11 .041	.025 .021 .011 .036 43 .063	.067 .070 .014 .078 15 .089	.060 .059 .005 .065 4 .068			.032 .021 .019 .053 104 .079
5		.025 .026 .007 .030 12 .038		.021 .016 .012 .031 38 .050	.026 .024 .012 .036 38 .052		.067 1			.024 .023 .012 .033 89 .055
0		.039 1		.022 .022 .009 .029 39 .044	.029 .032 .007 .034 17 .041		.064 .069 .011 .075 8 .078			.029 .025 .016 .041 65 .075
5				.026 .025 .011 .035 51 .054	.056 .060 .010 .062 7 .071		.074 .082 .016 .085 21 .098			.043 .032 .024 .076 79 .086
10			.017 .017 .003 .019 10 .021	.029 .027 .009 .035 42 .051	.066 1		.070 .066 .014 .088 21 .096			.039 .028 .022 .061 74 .089
15			.027 .028 .006 .033 4 .034	.034 .029 .014 .047 34 .069			.067 .063 .012 .079 16 .096			.043 .032 .020 .063 54 .089
20			.020 .016 .007 .022 6 .034	.039 .039 .011 .049 17 .056			.059 .058 .010 .068 11 .074			.042 .039 .017 .056 34 .071
25			.039 .036 .012 .052 16 .061	.106 1			.218 .218 .125 .302 2 .337			.061 .037 .070 .067 19 .257
30			.132 .062 .129 .337 33 .433	.124 .110 .033 .148 10 .198			.483 .484 .023 .502 4 .512			.160 .100 .147 .354 47 .490
35			.172 .138 .111 .310 70 .473	.178 .159 .077 .262 18 .313			.223 1			.173 .153 .105 .294 87 .456
40										
45S										

LONGITUDE

TABLE VIII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.529 .536 .016 .541 6 .546	.513 .513 .047 .545 2 .566			.526 .538 .028 .548 6 .558
65					.270 .282 .118 .393 96 .455	.380 .377 .106 .489 38 .521	.462 .483 .093 .540 19 .569			.321 .340 .132 .462 153 .539
60				.291 .306 .115 .397 84 .476	.294 .323 .129 .432 76 .481	.384 .391 .105 .501 41 .563	.432 .433 .033 .467 19 .490	.297 .360 .120 .408 27 .433		.323 .360 .125 .414 217 .516
55				.304 .302 .097 .384 59 .483	.328 .273 .133 .466 19 .500	.373 .400 .112 .466 26 .526	.340 .406 .120 .447 28 .470	.298 .300 .070 .371 38 .431		.322 .316 .106 .440 170 .507
50				.194 .144 .140 .382 148 .498	.172 .142 .116 .287 111 .456	.234 .184 .113 .342 28 .485	.300 .282 .092 .398 20 .418	.137 .129 .055 .190 38 .272		.190 .133 .127 .351 342 .488
45	.213 .171 .088 .329 8 .348		.102 .102 .004 .105 2 .106	.125 .078 .110 .210 126 .444	.207 .156 .146 .421 61 .515	.106 .094 .063 .137 45 .305	.134 .106 .080 .212 45 .370	.171 .157 .063 .215 27 .340		.145 .091 .111 .239 314 .471
40	.060 .060 .009 .067 13 .076		.113 .093 .051 .140 13 .244	.060 .044 .090 .110 107 .330	.106 .096 .036 .181 27 .184	.084 .077 .038 .123 236 .180	.107 .108 .005 .111 10 .114			.085 .083 .057 .121 406 .278
35	.037 .037 .003 .039 2 .040		.065 .066 .032 .097 38 .121	.056 .056 .019 .070 78 .105	.081 .078 .043 .118 19 .173	.078 .078 .027 .093 47 .139				.066 .056 .029 .093 182 .135
30			.057 .055 .024 .073 62 .112	.061 .061 .007 .066 14 .076	.082 .086 .027 .109 28 .135	.127 .127 .013 .135 7 .147				.068 .063 .030 .096 111 .133
25	.071 .088 .009 .083 7 .096	.078 1	.043 .037 .019 .068 30 .081		.067 .078 .025 .092 26 .101	.065 .072 .024 .118 6 .119				.059 .044 .020 .083 70 .112
20		.053 .055 .008 .060 9 .064	.060 .065 .024 .087 14 .096		.029 .027 .015 .046 24 .055					.043 .048 .023 .064 47 .091
15			.027 .028 .014 .036 18 .067		.029 .030 .015 .045 28 .060					.028 .023 .015 .039 44 .061
10		.017 .019 .008 .025 18 .029	.018 .015 .006 .025 15 .027	.030 .028 .009 .037 4 .044	.030 .029 .017 .047 31 .070					.024 .018 .014 .034 66 .057
5		.020 .022 .004 .023 9 .024		.035 .035 .005 .039 3 .041	.013 .010 .010 .025 9 .030	.047 .048 .011 .056 3 .060	.079 .084 .011 .086 4 .087			.030 .017 .024 .056 28 .086
0		.023 1	.024 1		.038 .035 .016 .052 24 .062		.078 .078 .003 .081 4 .083			.040 .036 .021 .061 30 .080
5					.032 .029 .015 .052 24 .061					.032 .029 .015 .052 24 .061
10				.027 .023 .010 .038 23 .060	.031 .028 .005 .035 4 .039					.026 .024 .009 .039 27 .049
15			.016 .017 .002 .018 8 .020	.035 .035 .013 .041 14 .062						.030 .026 .014 .041 19 .061
20			.016 .017 .002 .020 8 .020	.031 .037 .009 .039 5 .040						.023 .019 .009 .037 13 .040
25			.022 .022 .002 .023 7 .026							.022 .022 .002 .023 7 .025
30			.050 .064 .021 .067 12 .070							.050 .045 .021 .067 12 .070
35			.176 .200 .034 .203 3 .204	.285 .276 .140 .424 43 .547						.259 .242 .137 .422 46 .546
40										
45S										

LONGITUDE

TABLE VIII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65						.489 1				.489 1	65
60				.366 .062 7 .398 .406 .452	.396 .035 8 .404 .423 .438	.370 .082 19 .402 .456 .493	.451 .100 30 .444 .548 .599	.448 .079 15 .442 .536 .578		.418 .093 77 .422 .519 .561	60
55				.381 .100 39 .403 .470 .510		.317 .113 41 .299 .451 .504	.367 .125 47 .407 .461 .536	.363 .114 95 .375 .493 .528		.358 .116 222 .376 .478 .530	55
50				.232 .125 65 .208 .377 .452	.157 .074 46 .174 .226 .294	.300 .124 77 .301 .431 .484	.303 .130 54 .281 .464 .492	.235 .167 14 .146 .483 .498		.254 .133 256 .176 .423 .489	50
45	.173 .022 10 .177 .192 .199		.142 .087 8 .106 .256 .296	.142 .076 56 .113 .221 .316	.194 .144 125 .155 .353 .569	.223 .112 102 .212 .370 .445	.139 .056 47 .119 .169 .268	.361 .071 12 .347 .450 .465		.191 .120 360 .105 .314 .474	45
40	.092 .033 23 .081 .122 .178		.088 .046 29 .097 .108 .204	.071 .014 12 .069 .085 .101	.157 .094 98 .133 .261 .401	.086 .062 78 .066 .120 .278	.138 .052 13 .118 .159 .272			.116 .079 253 .091 .171 .369	40
35	.085 .006 12 .085 .091 .100		.059 .025 12 .053 .096 .103		.072 .025 22 .068 .096 .121	.134 .057 16 .117 .204 .243				.088 .045 62 .072 .114 .217	35
30	.080 .018 11 .084 .100 .107				.062 .020 22 .064 .081 .097					.068 .021 33 .067 .089 .106	30
25		.114 .018 2 .114 .126 .131	.011 .019 9 .004 .011 .055		.050 .017 21 .044 .065 .082					.043 .030 32 .039 .065 .110	25
20		.075 .012 8 .077 .065 .069	.042 .021 13 .032 .066 .086		.036 .008 7 .036 .045 .047					.050 .023 28 .040 .080 .089	20
15			.020 .006 26 .020 .026 .031		.018 .008 8 .019 .023 .031					.020 .006 34 .019 .026 .031	15
10		.020 .003 6 .019 .021 .025	.020 .004 27 .020 .023 .029		.034 1					.020 .005 34 .020 .025 .031	10
5		.027 .004 2 .027 .029 .030	.022 .010 8 .021 .028 .039							.023 .009 10 .021 .029 .039	5
0											0
5											5
10				.026 .000 5 .026 .026 .026						.026 .000 5 .026 .026 .026	10
15				.032 .006 7 .030 .038 .041						.032 .006 7 .030 .038 .041	15
20				.037 .010 12 .035 .045 .058						.037 .010 12 .035 .045 .058	20
25				.054 .019 24 .047 .066 .105						.054 .019 24 .047 .066 .105	25
30				.144 .080 25 .121 .252 .317						.144 .080 25 .121 .252 .317	30
35				.270 .142 15 .267 .421 .546						.270 .142 15 .267 .421 .546	35
40											40
45S											45S

LONGITUDE

TABLE VIII. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR AUGUST

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

AUGUST
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60											60
55				.170 .003 2 .170 .172 .175				.277 .070 8 .240 .388 .403		.256 .076 10 .225 .337 .402	55
50				.178 .048 12 .167 .210 .219		.245 .149 6 .216 .331 .507	.190 .018 4 .191 .206 .212			.195 .087 21 .191 .215 .408	50
45			.110 .083 10 .096 .144 .293	.138 .089 23 .133 .202 .273		.142 .087 24 .118 .268 .321	.297 .056 9 .285 .357 .396			.157 .085 66 .088 .270 .359	45
40			.076 .043 43 .066 .118 .168	.084 .019 15 .078 .093 .133		.118 .029 11 .114 .148 .167	.313 1			.088 .048 70 .062 .126 .222	40
35			.071 .009 6 .070 .082 .086		.156 .036 7 .144 .200 .217	.111 .029 4 .101 .135 .184				.115 .046 17 .111 .151 .213	35
30					.104 .019 8 .096 .124 .142					.104 .019 8 .096 .124 .142	30
25			.042 .009 6 .039 .054 .056							.042 .009 6 .039 .054 .056	25
20			.048 .014 7 .044 .061 .065							.048 .014 7 .044 .061 .065	20
15			.032 .014 18 .032 .044 .056							.032 .014 18 .032 .044 .056	15
10			.027 .015 19 .026 .037 .055							.027 .015 19 .026 .037 .055	10
5	.018 .004 4 .018 .022 .022		.021 .007 8 .021 .027 .031							.020 .006 12 .018 .027 .031	5
0											0
5											5
10											10
15											15
20											20
25											25
30											30
35				.209 .025 7 .202 .242 .248						.208 .026 7 .202 .242 .248	35
40											40
45S											45S

LONGITUDE

TABLE IX. - GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	96%

SEPTEMBER
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55								.074 .074 .084 .087 2		.074 .074 .084 .087 2
50								.080 .073 .089 .189 25		.080 .073 .089 .189 25
45	.065 .081 .107 .127 20						.040 .039 .043 .045 3	.088 .087 .100 .102 6		.081 .080 .102 .125 29
40	.084 .080 .103 .152 21				.038 .038 .045 .049 2	.046 .039 .068 .081 13	.050 .046 .062 .081 20			.062 .055 .085 .141 56
35	.053 .050 .065 .069 7		.034 .024 .050 .070 6		.030 .031 .037 .046 13	.023 .020 .033 .038 3				.036 .032 .049 .071 28
30	.055 .053 .065 .068 3	.065 .064 .071 .075 13			.043 .042 .054 .056 9					.056 .056 .069 .074 25
25	.073 1		.070 .070 .073 .075 2		.027 .031 .040 .042 6					.041 .039 .070 .075 9
20		.042 .040 .046 .053 8	.048 .049 .070 .074 6		.017 .018 .024 .041 7					.035 .039 .052 .072 21
15		.031 .030 .032 .033 3				.029 .030 .031 .032 3				.030 .030 .032 .033 6
10		.029 .029 .031 .036 6				.041 1				.030 .030 .035 .040 7
5		.028 1								.028 1
0			.026 .027 .029 .030 3							.026 .027 .029 .030 3
5			.021 .021 .022 .024 7							.021 .021 .022 .024 7
10			.022 .022 .022 .022 6							.022 .022 .022 .022 6
15			.018 .019 .019 .019 2	.012 .012 .020 .024 2						.015 .019 .009 .022 .024 4
20		.078 1		.013 .012 .006 .013 .027 6						.020 .013 .020 .023 .069 10
25			.083 .082 .007 .086 .094 6	.037 .036 .013 .050 .052 4			.077 1			.066 .077 .024 .084 .090 11
30			.092 .092 .011 .099 .103 2	.082 .077 .021 .103 .119 11						.084 .080 .020 .103 .118 13
35			.082 .066 .037 .091 .164 6	.084 .048 .092 .149 .229 4						.083 .064 .061 .113 .226 12
40			.121 1							.121 1
45S										

LONGITUDE

TABLE IX. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(b) Flight level 310

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60							.083 .039 15 .068 .102 .179	.088 .049 18 .080 .101 .215		.086 .045 31 .072 .103 .202
55							.167 .101 26 .158 .286 .365	.070 .032 46 .061 .099 .147		.112 .067 72 .080 .194 .356
50							.068 .023 38 .060 .094 .104	.069 .029 49 .056 .094 .183		.089 .026 85 .056 .085 .136
45					.103 .052 6 .089 .145 .196	.119 .021 2 .118 .192 .136	.065 .020 39 .061 .085 .107	.079 .021 13 .088 .098 .106		.073 .029 60 .062 .097 .137
40	.111 .015 2 .111 .121 .125		.032 .002 3 .033 .034 .034	.081 .039 11 .071 .122 .166	.059 .020 7 .053 .088 .069	.061 .027 41 .060 .077 .104	.087 .019 11 .058 .087 .104			.059 .030 75 .052 .090 .134
35	.078 .016 12 .073 .095 .114		.047 .020 20 .043 .081 .089	.116 .016 8 .116 .128 .133	.034 .018 12 .030 .055 .062	.043 .018 9 .042 .063 .069				.053 .027 85 .052 .072 .118
30	.056 .012 13 .054 .066 .086	.021 1								.056 .015 14 .054 .066 .086
25	.045 .005 2 .045 .048 .050				.020 .001 2 .020 .021 .021					.032 .013 4 .030 .045 .049
20			.054 .014 4 .052 .065 .075		.014 .006 3 .014 .016 .020					.037 .023 7 .036 .055 .073
15			.019 1		.009 .006 8 .007 .014 .018	.044 1				.014 .011 10 .007 .019 .040
10			.013 1	.010 .015 8 .006 .010 .044	.016 .013 5 .006 .026 .037		.035 1			.014 .015 15 .007 .032 .046
5		.030 1		.009 .003 16 .010 .012 .013						.010 .005 17 .010 .012 .025
0		0.000 1		.011 .002 14 .012 .013 .016						.011 .004 15 .012 .013 .015
5				.009 .001 9 .010 .010 .011						.009 .001 9 .010 .010 .011
10										
15			.019 1	.008 .011 9 0.000 .016 .022						.011 .011 4 .010 .021 .023
20			.023 .001 4 .023 .024 .024	.056 .008 2 .056 .061 .064			.063 1			.037 .016 7 .024 .053 .063
25			.030 .011 5 .023 .044 .046	.067 .010 5 .063 .072 .084						.049 .021 10 .040 .064 .082
30			.061 .014 5 .059 .075 .082	.086 .019 8 .083 .099 .124						.077 .021 13 .076 .087 .122
35				.088 .019 8 .086 .105 .106			.046 1			.082 .023 7 .089 .105 .106
40										
45S										

LONGITUDE

TABLE IX. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65						.369 1	.179 .067 17 .155 .199 .351	.240 .029 5 .222 .272 .279		.201 .073 23 .174 .273 .361	65
60				.107 .034 6 .092 .124 .173	.120 1	.198 .132 14 .210 .371 .383	.160 .032 6 .173 .187 .191	.112 .098 15 .063 .244 .311		.147 .106 42 .076 .263 .379	60
55				.123 .086 8 .096 .200 .227	.096 .047 14 .063 .147 .178	.084 .036 11 .073 .114 .157	.107 .071 20 .062 .194 .205	.100 .066 55 .069 .211 .248		.101 .063 108 .045 .188 .246	55
50				.097 .023 25 .096 .122 .133	.221 .015 10 .226 .232 .237	.076 .017 7 .084 .090 .093	.086 .070 129 .053 .180 .269	.080 .040 94 .086 .109 .162		.090 .061 265 .064 .152 .236	50
45			.086 .004 3 .092 .096 .061	.100 .059 24 .065 .183 .206	.064 .020 9 .067 .079 .088	.056 .034 25 .060 .078 .133	.086 .069 93 .057 .125 .324	.077 .045 24 .054 .145 .163		.081 .060 178 .055 .126 .268	45
40	.092 .018 11 .083 .112 .118		.053 .016 21 .061 .069 .087	.150 .095 18 .146 .194 .272	.042 .012 7 .037 .050 .066	.053 .030 34 .045 .079 .131	.061 .021 16 .055 .091 .102			.074 .048 107 .056 .117 .199	40
35	.071 .021 13 .068 .084 .114		.046 .016 19 .047 .061 .089		.033 .015 34 .032 .042 .073	.068 .039 11 .049 .107 .134	.079 .008 6 .062 .064 .084			.050 .027 83 .043 .060 .113	35
30	.053 .012 9 .047 .066 .078	.062 .011 15 .086 .072 .079	.043 .018 16 .039 .063 .073		.043 .013 24 .045 .056 .082	.050 .016 7 .047 .069 .075	.092 .006 3 .088 .096 .100			.051 .018 74 .038 .068 .088	30
25		.038 .007 9 .041 .042 .049	.055 .017 23 .063 .066 .078		.023 .012 21 .025 .034 .043	.050 .015 8 .055 .059 .066	.058 .009 7 .058 .067 .070			.042 .020 68 .038 .065 .076	25
20		.032 .003 7 .033 .036 .036	.041 .020 6 .040 .053 .075		.027 .005 4 .028 .031 .033	.066 .005 6 .066 .070 .071	.051 .008 2 .051 .056 .058			.043 .018 25 .036 .066 .075	20
15		.032 .005 9 .034 .037 .041	.026 .009 6 .029 .035 .036			.062 .003 4 .063 .064 .065				.037 .015 19 .034 .059 .064	15
10		.030 .006 16 .028 .036 .040	.029 .003 8 .030 .032 .033							.029 .005 24 .028 .032 .040	10
5		.025 .002 12 .025 .026 .030	.012 .010 5 .016 .020 .024	.038 1						.022 .009 18 .025 .028 .033	5
0		.027 .003 10 .027 .031 .031	.017 .018 6 .012 .036 .043	.019 .009 4 .018 .028 .032						.023 .012 20 .024 .031 .040	0
5		.028 .002 10 .028 .028 .028	.039 .004 6 .039 .042 .045	.020 .010 15 .024 .029 .030						.025 .010 31 .027 .032 .043	5
10		.032 .004 6 .030 .037 .039	.040 .005 2 .040 .043 .044	.016 .009 20 .015 .024 .034						.021 .011 28 .019 .033 .041	10
15		.041 .003 8 .040 .043 .045	.018 .001 11 .018 .020 .021	.012 .008 8 .014 .022 .024			.059 .010 4 .055 .066 .075			.027 .017 29 .019 .044 .065	15
20		.060 .005 5 .060 .055 .056	.024 .004 3 .021 .027 .030	.020 .013 10 .018 .029 .046			.078 .011 5 .079 .084 .088			.039 .025 23 .033 .065 .085	20
25				.041 .022 14 .036 .059 .081			.064 .025 4 .062 .088 .092			.046 .024 18 .036 .077 .089	25
30			.161 1	.062 .035 18 .056 .101 .112			.043 .012 5 .041 .053 .060			.062 .038 24 .054 .101 .141	30
35			.136 .071 9 .117 .152 .294	.101 .034 2 .101 .124 .134						.130 .067 11 .117 .150 .288	35
40											40
45S											45S

LONGITUDE

TABLE IX. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					.285 .006 2 .285 .290 .293		.286 .017 2 .286 .297 .301	.205 .125 15 .196 .368 .382		.222 .116 19 .264 .347 .382	65
60					.169 .109 9 .161 .303 .311	.148 .094 62 .120 .249 .339		.152 .151 17 .059 .359 .386		.151 .109 87 .106 .278 .375	60
55					.315 .016 4 .321 .329 .332	.124 .084 82 .085 .244 .313	.103 .064 114 .077 .171 .310	.108 .067 161 .085 .156 .302		.112 .074 361 .085 .179 .317	55
50				.058 .031 13 .045 .068 .127	.163 .102 36 .141 .306 .368	.128 .096 78 .076 .239 .333	.097 .068 189 .062 .171 .266	.102 .047 106 .084 .162 .203		.109 .076 424 .075 .177 .329	50
45	.117 .045 14 .101 .175 .200			.069 .038 56 .058 .107 .127	.106 .094 36 .072 .163 .342	.075 .038 95 .061 .096 .204	.079 .042 86 .062 .101 .214	.058 .017 19 .057 .073 .087		.080 .051 306 .062 .105 .223	45
40	.087 .037 43 .078 .117 .183		.043 .011 20 .047 .049 .066	.157 .059 13 .159 .219 .229	.070 .066 83 .046 .096 .323	.067 .057 96 .047 .089 .267	.064 .031 24 .054 .099 .126	.099 .010 5 .100 .108 .111		.073 .067 284 .044 .112 .267	40
35	.064 .022 9 .051 .065 .100		.050 .012 15 .050 .061 .070	.053 .020 8 .045 .074 .093	.058 .024 199 .057 .077 .109	.085 .064 4 .059 .138 .184				.058 .025 235 .056 .078 .110	35
30	.042 .006 3 .046 .049 .050	.041 .006 11 .042 .048 .056	.047 1	.060 .011 18 .060 .070 .082	.036 .019 97 .039 .054 .072					.040 .019 130 .041 .060 .073	30
25		.046 .009 12 .044 .050 .069	.079 1		.032 .018 66 .030 .050 .074	.054 .001 3 .054 .056 .056				.035 .019 102 .034 .053 .075	25
20		.040 .005 6 .042 .044 .047	.060 .024 2 .060 .075 .082		.024 .011 25 .025 .035 .042	.050 .006 7 .062 .063 .071				.035 .018 42 .030 .052 .074	20
15		.027 .008 7 .033 .033 .033	.020 .002 5 .021 .022 .022		.027 .009 6 .027 .031 .032	.046 .007 12 .046 .055 .056				.034 .012 30 .030 .046 .057	15
10		.031 .006 5 .028 .034 .041	.014 .001 4 .014 .015 .015			.048 .007 8 .046 .053 .054				.034 .014 17 .031 .048 .054	10
5		.028 .003 6 .028 .031 .033	.014 .002 5 .013 .015 .017	.029 .007 6 .026 .034 .041						.024 .008 16 .020 .030 .039	5
0		.022 1	.015 .000 4 .015 .016 .016	.034 .005 6 .037 .037 .039						.026 .010 11 .024 .037 .039	0
5		.031 .006 4 .031 .035 .036	.018 .002 3 .019 .020 .020	.022 .015 6 .025 .036 .038			.044 .005 6 .043 .050 .051			.029 .014 21 .036 .042 .051	5
10		.030 .003 6 .029 .033 .038	.019 .001 7 .019 .021 .021	.015 .012 18 .009 .030 .039			.051 .006 13 .050 .057 .060			.028 .016 44 .019 .050 .059	10
15		.035 .014 6 .029 .037 .061	.022 0.000 2 .022 .022 .022	.006 .003 14 .006 .007 .009			.052 .002 6 .053 .055 .055			.022 .021 28 .014 .051 .060	15
20		.061 .005 7 .053 .065 .066	.022 .001 6 .022 .023 .025	.016 .016 15 .009 .028 .049			.050 1			.034 .029 29 .022 .078 .085	20
25			.046 .027 12 .026 .050 .063	.032 .019 10 .029 .048 .066						.039 .025 22 .024 .074 .083	25
30			.076 .045 11 .063 .136 .147	.034 1						.072 .044 12 .061 .133 .147	30
35			.096 .026 18 .092 .112 .169							.098 .026 15 .092 .112 .159	35
40			.169 1							.169 1	40
45S											45S

LONGITUDE

TABLE IX. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N							.400 .031 12 .392 .432 .443			.400 .031 12 .392 .432 .443	70N
65					.238 .097 60 .238 .349 .374	.336 .043 6 .364 .366 .383	.308 .067 24 .294 .412 .489	.342 .063 13 .383 .381 .444		.273 .098 103 .269 .370 .455	65
60				.197 .101 14 .219 .292 .336	.260 .091 48 .276 .352 .375	.256 .107 55 .293 .367 .396	.256 .124 30 .206 .390 .424	.198 .096 26 .219 .301 .335		.244 .107 172 .205 .352 .404	60
55				.249 .100 82 .264 .343 .378	.336 .054 21 .350 .384 .395	.156 .098 44 .125 .266 .369	.207 .126 80 .188 .352 .423	.157 .098 87 .141 .235 .413		.206 .115 314 .136 .343 .412	55
50				.083 .082 118 .085 .139 .366	.257 .104 57 .289 .367 .390	.178 .085 64 .173 .261 .356	.111 .086 87 .069 .205 .323	.091 .048 78 .090 .149 .193		.134 .101 384 .087 .244 .379	50
45				.087 .085 157 .085 .152 .306	.086 .064 53 .077 .149 .214	.082 .054 43 .070 .131 .204	.080 .050 134 .063 .120 .230	.080 .020 19 .062 .078 .100		.083 .056 406 .053 .129 .255	45
40	.104 .009 6 .102 .109 .120		.049 .044 78 .036 .059 .212	.083 .057 114 .065 .120 .260	.075 .055 74 .061 .125 .246	.075 .050 227 .065 .111 .216	.069 .023 23 .064 .098 .105	.120 .048 16 .126 .160 .219		.075 .052 538 .043 .112 .240	40
35	.146 .008 2 .146 .151 .153		.048 .022 82 .047 .063 .105	.043 .018 3 .048 .058 .061	.056 .032 170 .049 .065 .132	.069 .036 26 .068 .112 .116				.056 .032 263 .049 .087 .133	35
30		.071 .011 4 .073 .081 .082	.062 .014 10 .063 .072 .082	.056 .036 10 .046 .062 .138	.038 .022 181 .033 .056 .092	.067 1				.041 .024 206 .035 .066 .095	30
25		.083 .009 14 .084 .081 .086			.026 .014 121 .024 .042 .056	.043 1				.029 .016 136 .027 .043 .063	25
20		.045 .009 18 .044 .054 .061	.038 .004 4 .038 .042 .045		.025 .016 15 .026 .046 .054		.083 .006 2 .083 .087 .089			.038 .018 37 .037 .053 .080	20
15		.038 .006 11 .038 .044 .047	.030 .003 6 .029 .033 .035		.016 .009 21 .014 .021 .039		.079 .011 5 .062 .086 .093			.031 .021 43 .028 .044 .086	15
10		.037 .001 7 .037 .038 .038	.036 .003 7 .036 .038 .040	.017 .009 8 .020 .025 .027	.018 .010 17 .018 .023 .041	.086 .005 3 .087 .060 .062	.056 .007 11 .058 .063 .067			.033 .018 53 .035 .054 .065	10
5				.017 .009 17 .018 .026 .031	.025 .002 2 .025 .026 .027		.054 .007 10 .056 .060 .061			.030 .019 29 .024 .056 .060	5
0				.022 .006 12 .024 .028 .030			.061 .008 9 .059 .065 .078			.039 .020 21 .028 .060 .075	0
5				.017 .004 6 .019 .020 .021			.061 .004 11 .061 .064 .070			.046 .021 17 .038 .063 .060	5
10				.034 .005 4 .036 .038 .039			.046 .008 6 .042 .057 .060			.042 .009 10 .039 .051 .059	10
15			.020 .003 2 .020 .022 .023	.023 .002 5 .024 .024 .025			.047 .006 7 .050 .052 .053			.035 .013 14 .029 .051 .053	15
20			.018 .003 4 .020 .021 .021	.029 .012 6 .030 .039 .046			.052 .005 5 .052 .057 .058			.034 .016 15 .035 .052 .058	20
25			.016 .003 4 .016 .018 .019	.073 .034 13 .061 .106 .146						.060 .038 17 .058 .097 .142	25
30			.054 .032 6 .047 .075 .114	.129 .047 9 .144 .168 .193						.099 .056 15 .090 .163 .189	30
35			.243 .120 9 .267 .387 .424	.285 .090 3 .301 .323 .333						.246 .113 12 .208 .354 .423	35
40			.212 1							.212 1	40
45S											45S

LONGITUDE

TABLE IX. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.434 .013 3 .427 .444 .461	.367 .024 3 .369 .387 .395			.401 .038 6 .409 .432 .450	70N
65				.394 .038 5 .374 .431 .456	.288 .094 126 .320 .366 .416	.384 .064 11 .424 .442 .456	.391 .026 6 .398 .416 .422			.304 .097 150 .322 .390 .450	65
60				.320 .087 82 .336 .404 .461	.283 .101 182 .289 .366 .428	.265 .092 39 .279 .348 .369	.357 .111 51 .406 .451 .489	.339 .077 43 .385 .415 .476		.296 .103 397 .312 .389 .460	60
55				.293 .103 102 .292 .385 .483	.262 .115 51 .316 .360 .390	.236 .098 40 .241 .331 .442	.244 .147 53 .183 .451 .509	.225 .109 79 .215 .366 .403		.256 .117 325 .250 .385 .465	55
50				.206 .129 104 .176 .374 .430	.210 .103 112 .182 .342 .389	.138 .047 40 .134 .175 .246	.126 .080 59 .101 .206 .329	.223 .119 8 .182 .364 .373		.185 .110 323 .155 .326 .410	50
45			.139 .018 6 .135 .158 .166	.162 .097 127 .143 .285 .382	.159 .117 55 .113 .334 .391	.103 .059 45 .086 .145 .246	.102 .064 69 .068 .155 .269	.064 .011 19 .063 .073 .087		.134 .092 321 .114 .229 .372	45
40	.069 .015 14 .064 .079 .105		.121 .024 14 .123 .146 .156	.090 .067 93 .072 .171 .262	.083 .048 62 .075 .109 .159	.089 .035 191 .083 .100 .154	.093 .056 6 .073 .137 .191			.079 .048 382 .052 .116 .210	40
35	.056 .003 6 .057 .059 .059		.042 .022 10 .027 .061 .086	.078 .014 10 .077 .083 .089	.083 .028 19 .071 .086 .108	.082 .040 48 .078 .112 .173	.063 .012 6 .066 .070 .074			.071 .034 99 .066 .103 .158	35
30	.060 .017 4 .059 .072 .083	.087 .009 5 .082 .093 .104	.062 .028 8 .035 .086 .095	.048 .021 39 .044 .071 .090	.049 .030 52 .043 .065 .137	.079 .011 10 .078 .085 .101	.081 .012 6 .079 .095 .097			.055 .027 124 .036 .082 .111	30
25	.086 1	.086 .010 4 .068 .078 .079	.044 .015 39 .040 .056 .061	.040 .013 30 .037 .050 .067	.046 .021 28 .043 .072 .091	.044 .012 5 .044 .052 .061	.062 .006 4 .060 .066 .069			.045 .017 111 .043 .063 .083	25
20			.054 .019 19 .057 .065 .083				.051 .011 8 .055 .061 .063			.053 .017 25 .057 .063 .083	20
15		.054 1	.026 .016 12 .026 .043 .060				.053 .010 5 .051 .062 .067			.036 .016 18 .031 .056 .066	15
10		.029 .010 11 .030 .039 .042	.027 .005 14 .025 .032 .037				.048 .002 5 .049 .050 .051			.031 .010 30 .029 .043 .050	10
5		.030 .009 2 .030 .035 .036			.044 .006 6 .047 .048 .049		.059 .013 6 .065 .069 .070			.048 .014 14 .044 .067 .070	5
0		.013 1			.046 .006 12 .047 .062 .067		.047 .011 12 .041 .067 .071			.045 .011 25 .043 .052 .070	0
5					.044 .002 6 .043 .047 .049		.051 .010 6 .054 .059 .064			.048 .008 16 .043 .058 .063	5
10					.044 1		.042 .005 4 .040 .046 .050			.042 .005 5 .040 .047 .050	10
15											15
20											20
25											25
30											30
35				.212 .127 18 .168 .371 .390						.212 .127 12 .168 .371 .390	35
40											40
45S											45S

LONGITUDE

TABLE IX. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					.250 .024 9 .241 .278 .282	.294 1				.254 .026 10 .254 .281 .292	65
60				.366 .043 27 .369 .414 .440	.335 .071 38 .333 .411 .484	.249 .065 30 .231 .318 .377	.259 .156 21 .242 .442 .518	.159 .066 13 .134 .277 .319		.291 .106 129 .298 .401 .488	60
55				.279 .112 97 .286 .390 .470	.113 .036 15 .108 .146 .177	.271 .099 63 .279 .365 .450	.292 .096 56 .286 .416 .459	.269 .096 65 .304 .380 .437		.273 .108 296 .270 .382 .459	55
50				.261 .128 133 .241 .403 .516	.135 .096 61 .121 .181 .414	.228 .109 104 .205 .352 .429	.221 .104 89 .160 .357 .418	.247 .113 39 .232 .378 .453		.221 .120 446 .139 .365 .475	50
45	.182 .058 8 .190 .236 .265		.227 .110 16 .225 .336 .426	.180 .115 167 .150 .297 .456	.169 .087 139 .157 .264 .377	.171 .104 70 .127 .274 .411	.163 .090 37 .119 .250 .375	.165 .037 4 .163 .196 .216		.176 .102 441 .186 .282 .427	45
40	.124 .033 12 .115 .130 .208		.113 .065 70 .102 .174 .274	.107 .089 90 .076 .236 .327	.173 .105 100 .134 .269 .441	.132 .063 55 .096 .210 .342	.183 .090 5 .134 .290 .301			.134 .092 332 .065 .223 .412	40
35	.039 .005 6 .061 .062 .065		.079 .027 38 .088 .102 .114	.086 .011 3 .080 .095 .101	.083 .043 17 .088 .124 .169	.064 .024 19 .056 .075 .126				.077 .031 83 .077 .102 .144	35
30	.062 .004 5 .063 .065 .067		.102 .006 7 .103 .106 .108		.070 .009 6 .069 .080 .083					.079 .018 20 .077 .103 .107	30
25	.062 .007 7 .060 .067 .078	.090 .006 2 .090 .093 .096	.040 .030 45 .029 .069 .107	.036 .011 4 .040 .046 .047	.063 .017 15 .064 .071 .100					.048 .028 73 .053 .072 .108	25
20		.075 .003 8 .076 .078 .079	.052 .024 30 .047 .082 .100		.026 .002 6 .024 .027 .030					.053 .024 43 .047 .078 .099	20
15			.027 .015 25 .022 .048 .052		.023 .005 6 .022 .025 .031					.026 .014 31 .022 .046 .052	15
10		.020 .012 5 .017 .032 .036	.022 .006 25 .023 .026 .035		.029 .006 5 .026 .034 .037					.023 .008 35 .023 .030 .037	10
5		.031 .016 5 .037 .044 .048	.032 .014 8 .028 .043 .055		.049 .002 6 .050 .050 .051					.036 .015 18 .036 .050 .055	5
0											0
5					.046 1					.046 1	5
10				.032 .005 6 .031 .036 .040	.040 1					.034 .005 6 .033 .040 .040	10
15				.031 .002 7 .032 .033 .033						.031 .002 7 .032 .033 .033	15
20				.035 .003 6 .036 .038 .038						.035 .003 6 .036 .038 .038	20
25				.062 .024 5 .063 .090 .092						.062 .024 5 .063 .090 .092	25
30				.159 .040 4 .163 .191 .208						.159 .040 4 .163 .191 .208	30
35				.154 .082 17 .112 .252 .316						.154 .082 17 .112 .252 .316	35
40											40
45S											45S

LONGITUDE

TABLE IX. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR SEPTEMBER

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SEPTEMBER
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60				.300 .286 .073 .366 4 .404						.300 .286 .073 .366 4 .404	60
55				.375 .420 .114 .479 10 .498		.282 .324 .081 .347 6 .363	.443 .439 .044 .484 7 .491			.372 .406 .109 .478 23 .498	55
50				.258 .281 .127 .373 16 .485	.134 1	.122 .137 .035 .150 16 .166	.370 .371 .105 .461 14 .525			.243 .187 .139 .393 47 .518	50
45			.116 .081 .079 .223 12 .270	.195 .190 .118 .311 33 .411	.198 .186 .070 .265 19 .322	.137 .130 .040 .157 51 .220	.142 .122 .047 .208 25 .242			.158 .129 .080 .250 140 .378	45
40			.091 .084 .085 .130 85 .216	.042 .030 .020 .068 28 .082	.152 .107 .092 .301 22 .327	.092 .092 .018 .106 30 .129	.074 1			.090 .082 .062 .121 137 .309	40
35			.067 .058 .024 .074 30 .107	.074 .075 .014 .084 8 .092	.115 .089 .068 .170 3 .203					.064 .066 .032 .078 41 .156	35
30											30
25	.090 .088 .009 .099 8 .108	.084 .084 .006 .088 2 .090								.089 .088 .009 .096 10 .107	25
20		.042 .039 .006 .049 8 .052	.037 .039 .019 .066 8 .099							.040 .039 .013 .052 14 .058	20
15			.016 .017 .009 .021 17 .035							.016 .017 .009 .021 17 .035	15
10			.026 .024 .011 .034 20 .050							.026 .024 .011 .034 20 .050	10
5		.018 .016 .003 .020 8 .024	.017 .018 .004 .020 8 .025							.017 .018 .004 .020 11 .026	5
0											0
5											5
10											10
15											15
20											20
25											25
30											30
35											35
40											40
45S											45S

LONGITUDE

TABLE X. - GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(a) Flight level 290

CONE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55								.111 .087 9 .076 .146 .310		.111 .087 9 .076 .146 .310
50					.027 1	.079 1		.050 .010 24 .047 .082 .073		.050 .012 26 .047 .064 .076
45	.046 .006 8 .038 .051 .065				.030 1	.056 .008 3 .053 .063 .066	.056 .025 11 .047 .076 .116	.043 .010 7 .040 .045 .063		.050 .018 30 .042 .060 .097
40	.064 .018 17 .067 .077 .097				.046 .010 7 .045 .048 .066	.060 .032 13 .070 .086 .117	.061 .026 4 .050 .061 .102			.059 .024 41 .061 .081 .109
35	.047 .012 6 .046 .052 .067		.041 .014 7 .040 .056 .065		.042 .016 5 .032 .055 .070	.047 .017 6 .046 .061 .073				.044 .015 24 .037 .060 .074
30	.042 .003 7 .041 .046 .047	.042 .011 13 .044 .047 .056			.098 .008 2 .096 .101 .103					.047 .018 22 .041 .051 .096
25	.048 .017 3 .057 .060 .062				.033 .003 3 .033 .035 .038					.040 .014 6 .030 .058 .062
20			.041 1		.031 .019 10 .031 .040 .071					.032 .018 11 .033 .041 .070
15				.012 1	.012 .002 2 .012 .013 .013					.012 .001 3 .012 .013 .013
10										
5										
0			.023 1						.023 1	
5										
10										
15										
20				.073 1					.079 1	
25										
30			.053 1	.058 .011 7 .060 .070 .072					.057 .011 8 .054 .070 .072	
35				.054 .018 4 .060 .066 .069					.054 .018 4 .060 .066 .069	
40										
45S										

LONGITUDE

TABLE X. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(b) Flight level 310

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N						.228 .003 3 .229 .231 .232	.156 .091 10 .166 .252 .261			.172 .085 13 .229 .243 .261	70N
65						.257 .028 4 .266 .260 .260	.056 .009 12 .056 .071 .072	.127 .051 9 .123 .188 .202		.115 .077 25 .072 .203 .280	65
60							.048 .002 4 .049 .049 .049	.090 .059 21 .060 .169 .212		.083 .056 25 .056 .164 .209	60
55					.056 .017 9 .044 .074 .088		.166 .066 11 .201 .210 .224	.074 .045 35 .057 .101 .208		.089 .061 55 .068 .192 .226	55
50					.072 .043 4 .053 .107 .139	.213 .024 4 .213 .235 .241	.109 .023 8 .118 .130 .134	.064 .029 49 .052 .079 .154		.078 .047 62 .055 .120 .221	50
45	.052 .005 8 .053 .057 .057			.038 .005 5 .040 .041 .044	.051 .017 23 .049 .062 .092	.078 .049 28 .059 .112 .215	.072 .035 3 .078 .100 .110	.054 1		.062 .036 68 .042 .092 .173	45
40	.100 .047 10 .092 .148 .181		.047 .003 5 .046 .051 .051	.044 .010 12 .042 .054 .060	.066 .040 23 .056 .094 .169	.082 .066 31 .047 .156 .246	.061 .032 11 .054 .072 .137	.047 .002 3 .048 .049 .050		.070 .050 95 .051 .111 .218	40
35	.049 .015 5 .053 .061 .070		.063 .029 10 .055 .093 .118		.044 .036 19 .033 .057 .145	.035 .014 10 .036 .049 .057				.047 .030 44 .039 .062 .126	35
30	.054 .011 11 .059 .062 .070			.100 .042 9 .126 .140 .147	.025 .006 18 .026 .029 .036					.051 .037 38 .034 .068 .144	30
25	.044 .002 3 .044 .046 .047			.050 .011 10 .050 .062 .067	.033 .013 15 .032 .046 .056					.040 .014 28 .031 .055 .066	25
20		.053 1	.026 .005 7 .029 .031 .032		.037 .016 18 .039 .049 .069					.035 .015 26 .033 .047 .068	20
15		.060 .060 6 .031 .079 .179	.027 .011 15 .033 .036 .040		.015 .001 7 .015 .018 .016					.031 .033 28 .015 .036 .116	15
10		.041 .002 5 .042 .043 .044	.041 .003 6 .040 .045 .045	.015 .001 7 .014 .016 .017	.014 .004 2 .014 .017 .018					.029 .013 20 .027 .043 .045	10
5				.016 .004 7 .015 .017 .023						.016 .004 7 .015 .017 .023	5
0				.019 .005 6 .021 .021 .022						.019 .005 6 .021 .021 .022	0
5											5
10											10
15				.016 .016 2 .018 .027 .031						.016 .016 2 .016 .027 .031	15
20			.073 .023 9 .083 .089 .091	.123 1						.078 .026 10 .086 .091 .117	20
25			.091 .017 6 .086 .112 .116							.091 .017 6 .086 .112 .116	25
30			.074 .022 15 .083 .098 .102							.074 .022 15 .083 .098 .102	30
35	.028 0.000 2 .028 .028 .028		.057 .026 6 .062 .082 .101	.071 .060 9 .058 .076 .208						.061 .049 17 .057 .078 .190	35
40				.064 1						.064 1	40
45S											45S

LONGITUDE

TABLE X. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.325 1	.152 .130 .096 .261 17 .303			.161 .141 .102 .283 18 .320
65						.181 .088 .128 .333 17 .345	.137 .087 .112 .303 26 .331	.108 .061 .085 .249 19 .288		.132 .087 .111 .293 62 .340
60					.300 1	.146 .127 .100 .296 23 .322	.287 .296 .027 .312 17 .320	.160 .149 .093 .263 27 .308		.189 .218 .103 .303 68 .322
55				.113 .107 .035 .156 10 .188	.238 .260 .087 .281 8 .284	.092 .065 .047 .164 17 .183	.163 .149 .095 .283 46 .320	.100 .072 .065 .187 88 .256		.122 .086 .080 .221 167 .293
50				.085 .062 .062 .166 15 .196	.121 .084 .088 .213 22 .336	.121 .123 .082 .127 11 .235	.084 .009 .040 .112 87 .196	.091 .067 .042 .102 45 .207		.090 .072 .053 .127 180 .237
45				.089 .081 .029 .101 14 .116	.041 .039 .008 .047 6 .053	.106 .044 .092 .193 5 .257	.092 .071 .035 .119 77 .164	.094 .091 .038 .122 5 .157		.079 .066 .040 .118 107 .173
40	.086 .072 .041 .122 12 .165		.091 .074 .034 .123 12 .126	.078 .066 .036 .120 8 .123	.049 .039 .017 .069 14 .074	.086 .064 .030 .086 40 .153	.070 .069 .021 .078 10 .116			.069 .064 .032 .107 93 .153
35	.060 .056 .026 .067 26 .125		.037 .034 .020 .052 15 .080		.062 .051 .034 .080 91 .156	.056 .032 .054 .103 5 .148				.057 .049 .033 .082 97 .154
30	.045 .044 .003 .046 7 .050	.083 .063 .002 .064 2 .065			.046 .044 .027 .072 67 .088	.079 .079 .006 .083 2 .085				.047 .045 .026 .072 76 .096
25	.067 .066 .004 .071 5 .074	.066 .066 0.000 .066 2 .066	.035 1	.033 .033 .008 .036 14 .042	.040 .036 .026 .053 58 .134					.041 .036 .024 .062 80 .117
20		.067 .057 .016 .068 11 .084	.040 .037 .009 .048 4 .062		.038 .029 .025 .043 10 .092					.045 .042 .022 .065 25 .096
15		.027 .028 .003 .030 6 .032	.047 .047 .002 .048 2 .048							.032 .029 .009 .043 8 .048
10			.043 1							.043 1
5		.025 1	.019 .021 .004 .022 6 .022							.019 .021 .004 .022 7 .025
0			.014 .011 .007 .013 6 .028							.014 .011 .007 .013 8 .029
5			.027 .026 .014 .036 17 .055	.021 .020 .008 .027 14 .030						.024 .025 .011 .030 31 .053
10			.031 .026 .008 .036 16 .042	.022 .022 .009 .030 14 .036						.027 .026 .009 .036 30 .042
15			.028 .029 .012 .039 8 .044	.028 .022 .008 .035 7 .040						.027 .027 .011 .039 15 .044
20		.067 .072 .013 .077 6 .082	.069 .062 .022 .079 22 .099	.020 .017 .013 .037 10 .042						.050 .046 .026 .076 38 .099
25			.084 .084 .024 .100 30 .133	.078 .074 .048 .096 25 .202						.081 .083 .037 .100 55 .175
30			.074 .079 .018 .065 12 .088	.104 .091 .058 .149 42 .262						.097 .084 .053 .130 54 .255
35	.036 .035 .005 .040 4 .042			.094 .071 .081 .103 18 .321						.084 .063 .076 .097 22 .300
40										
45S										

LONGITUDE

TABLE X. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.326 .025 13 .327 .353 .366	.167 .089 23 .217 .277 .300	.284 .025 6 .279 .312 .321		.244 .093 42 .267 .326 .360
65					.227 .065 39 .244 .286 .310	.268 .071 37 .274 .335 .354	.281 .062 13 .314 .335 .379	.295 .007 6 .295 .299 .307		.256 .070 95 .257 .325 .358
60				.284 .067 17 .273 .360 .366	.279 .079 12 .317 .333 .348	.164 .087 60 .210 .262 .330	.163 .076 21 .177 .232 .256	.120 .112 27 .058 .286 .320		.189 .102 157 .213 .300 .378
55				.263 .066 32 .261 .328 .383	.232 .055 14 .254 .286 .296	.127 .082 75 .117 .226 .294	.103 .077 25 .094 .111 .308	.107 .086 66 .057 .222 .292		.145 .096 212 .086 .267 .336
50				.169 .122 20 .173 .336 .367	.176 .043 20 .186 .201 .210	.096 .070 52 .071 .185 .254	.116 .071 100 .093 .193 .294	.072 .034 89 .059 .102 .161		.108 .075 281 .077 .189 .302
45	.055 .011 15 .053 .059 .079		.080 .012 2 .080 .088 .092	.110 .090 25 .084 .165 .318	.134 .087 49 .156 .224 .239	.102 .090 82 .057 .227 .297	.095 .066 79 .080 .118 .347	.037 .003 9 .038 .039 .040		.101 .081 261 .072 .206 .306
40	.065 .025 36 .059 .082 .126		.063 .017 14 .069 .074 .096	.102 .048 6 .117 .145 .163	.064 .041 71 .046 .116 .142	.073 .071 155 .041 .135 .293	.084 .019 8 .061 .106 .108	.049 .018 4 .050 .067 .070		.070 .057 294 .038 .116 .280
35	.057 .021 44 .054 .082 .101		.056 .049 44 .044 .086 .194	.080 .015 15 .043 .062 .084	.086 .031 143 .048 .079 .150	.056 .040 27 .066 .073 .175		.066 .024 17 .058 .087 .117		.057 .033 290 .043 .079 .152
30	.059 .018 18 .056 .075 .093	.088 .020 7 .091 .107 .108	.043 .034 26 .036 .044 .145	.053 .019 40 .063 .071 .091	.053 .043 201 .041 .070 .193	.079 1		.051 .011 34 .052 .063 .073		.053 .037 327 .043 .072 .180
25	.072 .023 12 .083 .095 .097	.067 .018 37 .082 .078 .093	.040 .012 31 .040 .053 .069	.032 .011 10 .033 .039 .048	.037 .025 191 .034 .055 .101			.052 .005 27 .051 .057 .061		.042 .024 308 .039 .056 .097
20		.047 .015 40 .042 .066 .087	.047 .012 5 .043 .060 .065		.027 .018 95 .026 .045 .073			.054 .003 9 .052 .056 .060		.035 .020 149 .033 .056 .074
15		.031 .006 24 .032 .035 .041	.048 .011 12 .049 .057 .066	.017 .005 3 .019 .022 .023	.013 .008 51 .015 .019 .029					.022 .015 90 .019 .035 .057
10		.027 .009 17 .025 .032 .046	.027 .013 9 .022 .040 .052	.010 .008 11 .010 .016 .023	.013 .009 20 .012 .016 .034					.019 .012 57 .017 .029 .047
5		.027 .004 6 .029 .030 .032	.015 .002 5 .015 .017 .018	.010 .009 17 .010 .018 .026	.007 .003 7 .008 .009 .012					.013 .010 35 .013 .025 .031
0			.014 .010 14 .017 .021 .032	.016 .010 19 .019 .026 .027	.013 .004 8 .013 .017 .019					.015 .010 39 .017 .025 .029
5			.014 .018 18 .008 .025 .049	.019 .003 11 .018 .020 .027						.016 .013 27 .017 .025 .047
10			.026 .021 18 .029 .050 .058	.019 .005 13 .019 .025 .037						.023 .016 29 .019 .040 .055
15			.033 .020 16 .030 .044 .078	.025 .012 20 .023 .039 .061						.028 .015 44 .026 .042 .059
20			.036 .026 22 .030 .061 .084	.041 .029 40 .037 .066 .117						.040 .028 62 .032 .064 .112
25			.064 .034 16 .064 .096 .107	.091 .070 72 .084 .141 .300						.087 .066 88 .078 .117 .292
30			.184 .111 4 .112 .250 .340	.126 .089 52 .102 .229 .349						.129 .092 56 .102 .230 .353
35			.080 .066 19 .055 .116 .263	.114 .111 45 .070 .136 .456						.104 .101 64 .066 .128 .440
40	.045 .011 31 .041 .056 .071		.056 0.000 2 .055 .088 .055	.094 1						.047 .014 34 .043 .056 .089
45S	.051 .007 22 .050 .058 .062									.051 .007 22 .050 .058 .062

LONGITUDE

TABLE X. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(e) Flight level 370

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

OCTOBER
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N					.298 .287 .039 .339 23 .367		.227 .227 .012 .235 2 .239			.292 .286 .042 .337 25 .367
65					.256 .262 .059 .299 86 .386	.223 .247 .060 .261 16 .266	.197 .184 .043 .250 12 .262	.238 .252 .022 .256 5 .259		.245 .237 .059 .295 118 .364
60				.246 .246 .100 .313 2 .341	.246 .247 .050 .271 41 .369	.158 .148 .089 .277 29 .327	.217 .186 .076 .319 9 .328	.189 .210 .093 .263 7 .267		.211 .217 .082 .285 88 .351
55				.287 .294 .077 .377 40 .393	.219 .236 .041 .256 46 .263	.184 .197 .089 .276 37 .317	.252 .246 .086 .337 22 .381	.129 .112 .070 .185 33 .295		.215 .207 .091 .303 178 .386
50				.209 .201 .091 .319 84 .368	.116 .107 .082 .209 82 .361	.132 .087 .082 .233 29 .304	.171 .148 .112 .326 120 .394	.128 .117 .082 .219 116 .305		.151 .136 .100 .255 411 .371
45	.028 .029 .002 .029 8 .030		.218 .196 .047 .251 4 .293	.148 .118 .107 .284 104 .366	.074 .059 .050 .129 37 .194	.090 .084 .060 .136 93 .260	.121 .094 .079 .195 150 .327	.106 .119 .033 .133 34 .135		.115 .071 .083 .193 430 .347
40	.129 .126 .036 .163 11 .195		.134 .122 .064 .220 32 .275	.082 .060 .052 .142 97 .220	.061 .052 .038 .093 78 .168	.106 .083 .070 .179 558 .276	.161 .125 .080 .260 17 .316	.143 .147 .012 .156 26 .163		.103 .082 .066 .173 819 .274
35	.093 .077 .030 .112 4 .141		.049 .041 .022 .066 28 .107	.061 .067 .023 .086 38 .094	.064 .055 .037 .080 418 .160	.071 .057 .052 .113 84 .205		.139 .139 .008 .147 7 .151		.065 .065 .039 .094 575 .176
30	.100 .110 .022 .120 9 .123		.040 1	.039 .037 .012 .050 32 .065	.056 .046 .037 .079 481 .166	.091 .095 .017 .105 3 .108				.055 .047 .036 .079 526 .175
25		.115 1		.031 .032 .003 .032 7 .034	.040 .035 .022 .056 283 .091					.040 .035 .023 .058 291 .092
20		.071 .094 .030 .096 7 .101		.074 .069 .020 .098 11 .104	.041 .026 .045 .082 25 .174			.049 .049 .002 .050 2 .051		.054 .041 .040 .094 45 .141
15		.035 .028 .016 .041 6 .071	.022 1		.015 .016 .008 .023 20 .026					.020 .018 .014 .028 27 .053
10		.032 .035 .014 .042 7 .044		.019 .018 .009 .029 8 .031	.013 .017 .010 .022 34 .027					.017 .018 .012 .029 49 .042
5		.011 .001 .020 .026 9 .056		.022 .022 .008 .024 23 .037	.010 .013 .009 .018 25 .026					.015 .016 .012 .024 57 .039
0				.022 .022 .008 .026 24 .031	.007 .002 .010 .018 23 .032					.015 .019 .011 .025 47 .032
5				.020 .020 .007 .024 21 .035	.012 .008 .011 .028 34 .034					.015 .017 .011 .026 55 .037
10				.019 .019 .010 .026 60 .048	.011 .007 .012 .019 11 .038					.018 .016 .011 .027 61 .047
15			.044 .047 .013 .057 5 .061	.018 .018 .008 .025 71 .040	.047 1					.020 .015 .011 .029 77 .051
20			.069 .073 .011 .078 3 .081	.030 .016 .024 .062 61 .086						.032 .016 .025 .062 64 .086
25			.082 .103 .046 .113 4 .121	.059 .018 .057 .129 39 .192						.062 .019 .057 .125 42 .190
30			.236 .160 .151 .420 10 .423	.118 .113 .031 .156 39 .165						.142 .113 .088 .160 49 .421
35			.269 .277 .122 .419 12 .445	.154 .136 .086 .239 21 .349						.203 .165 .120 .344 33 .444
40				.267 1						.267 1
45S										

LONGITUDE

TABLE X. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.353 .077 12 .365 .436 .452	.357 .052 10 .372 .404 .435			.355 .067 22 .324 .426 .450
65				.401 .111 6 .435 .470 .488	.296 .098 74 .288 .401 .477	.318 .050 13 .316 .380 .404				.305 .097 93 .316 .413 .483
60				.292 .080 79 .310 .359 .428	.346 .089 35 .350 .430 .506	.300 .087 22 .307 .387 .425	.160 .092 27 .142 .259 .326	.281 .066 17 .283 .355 .372		.263 .100 180 .172 .376 .467
55				.262 .092 114 .256 .367 .423	.308 .105 30 .366 .398 .434	.235 .060 30 .220 .327 .377	.293 .096 66 .312 .383 .433	.220 .069 143 .219 .315 .384		.255 .097 405 .259 .367 .416
50				.254 .082 29 .260 .340 .424	.214 .096 56 .189 .331 .383	.172 .079 30 .166 .265 .306	.192 .119 59 .179 .345 .375	.202 .125 33 .141 .330 .450		.206 .107 209 .187 .328 .410
45	.090 .016 9 .087 .110 .118		.130 .021 8 .123 .149 .168	.154 .078 87 .145 .219 .353	.105 .062 31 .070 .155 .236	.164 .065 124 .159 .228 .297	.140 .073 66 .116 .200 .334	.119 .059 29 .105 .194 .207		.145 .070 326 .113 .219 .316
40	.139 .022 4 .141 .159 .163		.079 .064 34 .062 .147 .230	.115 .042 50 .118 .163 .178	.078 .041 41 .096 .113 .155	.110 .075 674 .083 .179 .320	.088 .026 7 .069 .117 .123	.047 .012 2 .047 .055 .059		.107 .072 812 .083 .167 .314
35			.029 .021 12 .022 .041 .078	.030 .019 34 .027 .037 .061	.084 .021 7 .076 .105 .117	.088 .043 141 .076 .127 .196				.074 .046 194 .068 .116 .196
30				.228 .051 8 .235 .282 .286	.036 .021 16 .033 .041 .093	.089 .018 9 .097 .105 .108				.097 .083 33 .070 .216 .285
25	.070 .013 2 .070 .079 .082			.106 .021 3 .104 .124 .132	.071 .034 29 .075 .109 .129					.074 .094 34 .074 .114 .131
20					.047 .044 5 .020 .076 .125			.047 .001 16 .048 .048 .049		.047 .021 21 .047 .048 .099
15		.016 1			.018 .017 18 .013 .031 .054			.050 .001 21 .050 .051 .053		.035 .019 40 .049 .050 .065
10		.034 .016 4 .039 .047 .050	.043 1		.011 .011 27 .007 .024 .030			.054 .004 28 .054 .058 .060		.033 .022 60 .022 .055 .060
5					.011 .014 39 .007 .026 .043			.047 .009 29 .047 .058 .060		.027 .021 68 .015 .048 .060
0					.015 .013 59 .015 .025 .048			.050 .006 33 .050 .053 .055		.028 .020 92 .012 .051 .054
5				.001 .001 6 .001 .002 .004	.017 .009 68 .016 .026 .035			.048 .001 19 .048 .048 .048		.022 .016 93 .016 .047 .048
10				.020 .011 61 .016 .032 .040	.019 .007 25 .018 .026 .032			.046 .001 14 .046 .046 .048		.023 .013 100 .016 .040 .047
15				.022 .012 40 .024 .032 .043	.036 .009 4 .037 .043 .046					.023 .012 44 .024 .036 .045
20				.029 .025 27 .021 .048 .092						.029 .025 27 .021 .048 .092
25				.067 .040 24 .074 .102 .147						.067 .040 24 .074 .102 .147
30	.151 1			.136 .073 23 .106 .223 .275						.139 .072 24 .110 .220 .272
35			.143 .081 31 .097 .230 .338	.215 .107 49 .197 .330 .478						.187 .104 80 .147 .282 .472
40				.324 1						.324 1
45S										

LONGITUDE

TABLE X. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N								.522 .562 24 .624		.522 .556 24 .624	70N
65								.395 .397 26 .452		.395 .397 26 .452	65
60				.530 .517 6 .646	.255 .277 14 .365	.234 .226 3 .306	.273 .256 51 .484	.216 .201 56 .374		.257 .206 132 .557	60
55				.309 .303 50 .504	.234 .265 9 .333	.202 .177 20 .331	.275 .202 67 .610	.145 .123 34 .340		.250 .184 180 .573	55
50				.264 .248 100 .465	.103 .092 24 .308	.192 .163 84 .469	.231 .204 128 .469	.247 .221 116 .500		.228 .197 452 .492	50
45	.071 .061 8 .147		.180 .160 13 .411	.167 .166 86 .320	.166 .146 74 .376	.142 .133 99 .415	.245 .277 41 .547	.030 .029 4 .036		.166 .128 322 .427	45
40	.122 .114 27 .227		.109 .092 45 .272	.144 .126 21 .340	.111 .104 87 .300	.207 .187 239 .387	.076 1			.170 .108 394 .390	40
35	.076 .068 11 .126		.102 .093 17 .184	.059 .053 9 .097	.113 .116 67 .196	.146 .125 31 .280				.112 .112 135 .247	35
30	.055 .054 14 .063				.076 .061 118 .234	.134 .119 4 .203				.075 .061 136 .229	30
25	.053 .058 13 .083	.018 .019 6 .038			.080 .055 98 .187					.057 .054 115 .149	25
20		.012 .011 19 .032			.060 .055 77 .084					.042 .045 96 .082	20
15					.028 .026 57 .051					.026 .026 57 .051	15
10				.020 .020 5 .022	.017 .019 41 .023					.017 .020 46 .023	10
5					.017 .017 37 .022					.017 .017 37 .022	5
0					.025 .023 26 .035					.025 .023 26 .035	0
5											5
10								.062 .062 2 .076		.062 .062 2 .076	10
15				.056 .057 5 .100						.056 .057 5 .100	15
20				.053 .026 20 .149						.053 .026 20 .149	20
25				.041 .026 22 .116						.041 .025 22 .116	25
30	.138 1			.083 .093 18 .123						.086 .100 19 .134	30
35			.342 .342 2 .364	.263 .222 78 .659						.264 .233 81 .650	35
40											40
45S				.573 .573 2 .601						.573 .573 2 .601	45S

LONGITUDE

TABLE X. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR OCTOBER

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

OCTOBER
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60							.759 1	.366 .039 6 .363 .385 .385		.422 .142 7 .384 .400 .714	60
55							.391 .125 23 .384 .495 .679	.380 .041 39 .380 .388 .450		.372 .084 62 .358 .411 .568	55
50				.361 .056 3 .360 .407 .426			.310 .157 48 .231 .473 .675			.313 .153 51 .254 .473 .672	50
45			.256 .103 8 .252 .332 .422	.278 .069 17 .271 .333 .388	.282 .077 7 .229 .350 .351	.329 .144 7 .348 .388 .507	.191 .139 51 .144 .388 .502			.230 .131 90 .137 .377 .507	45
40			.135 .057 47 .121 .196 .238		.141 .045 23 .122 .185 .244	.077 .121 7 .016 .133 .330	.089 .028 5 .072 .116 .133			.129 .064 82 .097 .190 .268	40
35			.056 1		.078 .012 12 .081 .085 .095	.003 .002 3 .002 .004 .005				.063 .031 16 .076 .085 .094	35
30											30
25	.029 .023 13 .021 .060 .071	.009 .005 5 .011 .012 .013								.023 .022 18 .013 .051 .070	25
20		.020 .009 15 .019 .028 .038								.020 .009 15 .019 .028 .038	20
15											15
10											10
5											5
0											0
5											5
10								.086 .002 6 .087 .088 .089		.086 .002 6 .087 .088 .089	10
15								.076 .015 28 .084 .088 .089		.076 .015 28 .083 .088 .089	15
20								.055 .005 26 .054 .056 .067		.055 .005 26 .054 .056 .067	20
25				.077 1				.074 .010 24 .074 .087 .090		.074 .010 25 .075 .086 .090	25
30	.093 .012 20 .093 .104 .119			.088 .022 4 .099 .118 .124						.094 .014 24 .090 .111 .124	30
35				.307 .184 38 .291 .507 .578						.307 .184 38 .291 .507 .578	35
40				.326 .095 22 .306 .436 .507						.326 .095 22 .306 .436 .507	40
45S				.398 .186 22 .343 .551 .648						.398 .186 22 .343 .551 .648	45S

LONGITUDE

TABLE XI. - GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(a) Flight level 290

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 290

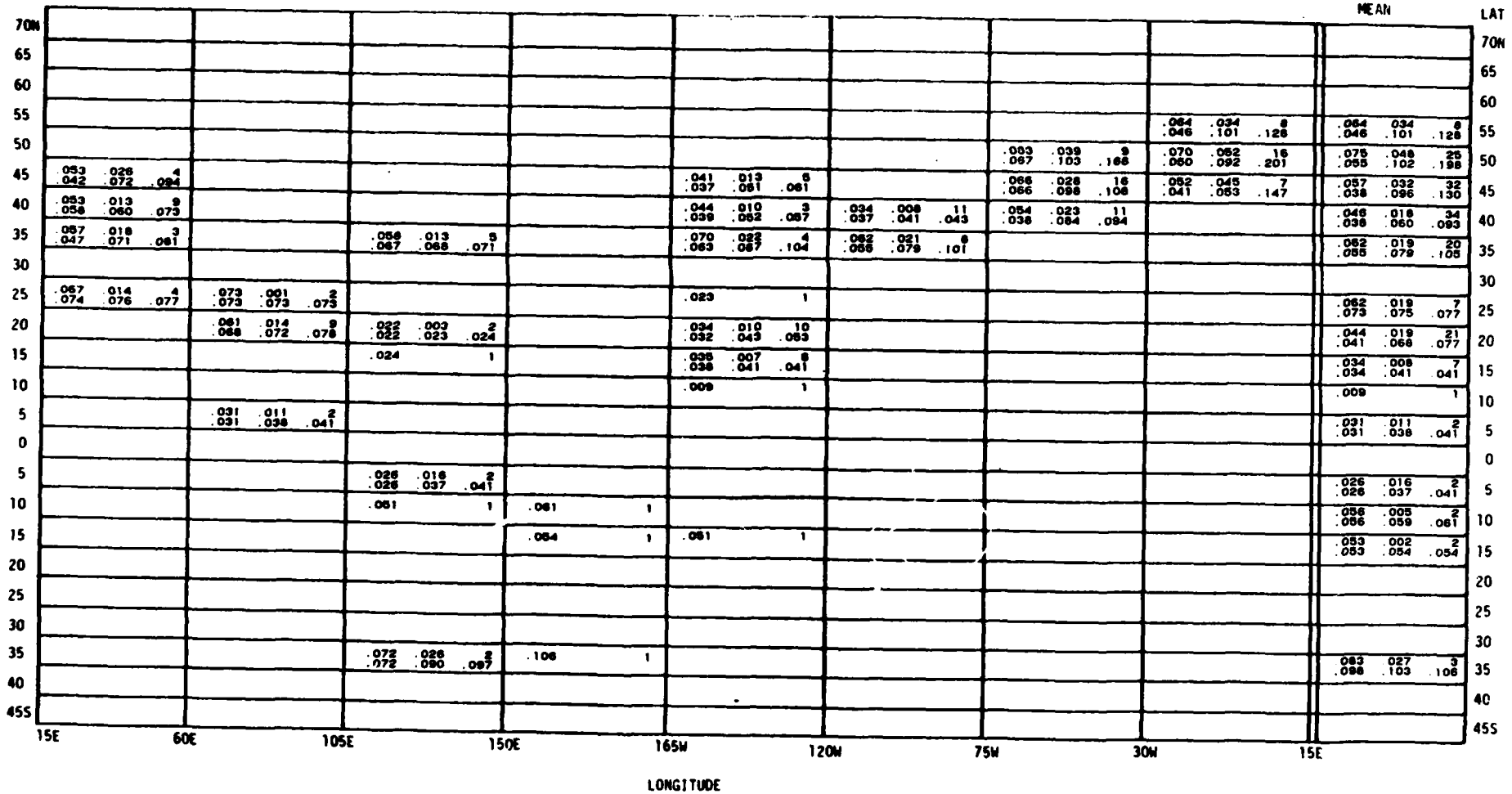


TABLE XI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(b) Flight level 310

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

NOVEMBER
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60							.212 .083 13 .257 .270 .277	.070 .036 13 .056 .091 .161		.141 .096 26 .073 .266 .276	60
55							.192 .093 53 .233 .280 .315	.049 .039 54 .045 .055 .164		.120 .101 107 .055 .264 .310	55
50					.024 .007 7 .026 .032 .034		.118 .105 28 .053 .249 .319	.061 .042 36 .048 .063 .213		.080 .080 71 .047 .170 .299	50
45	.083 .030 10 .080 .117 .132				.030 .008 9 .032 .035 .037		.091 .073 15 .073 .111 .279	.093 .056 24 .089 .139 .235		.087 .059 52 .056 .132 .253	45
40	.059 .027 21 .048 .096 .119		.112 .023 3 .125 .129 .131	.116 .001 2 .116 .116 .116	.047 .007 10 .048 .081 .088	.060 .051 14 .041 .090 .193	.059 .041 13 .046 .094 .148			.061 .038 63 .047 .099 .145	40
35	.068 .034 12 .061 .091 .138		.089 .034 9 .087 .077 .144		.056 .022 14 .050 .077 .096	.054 .031 4 .043 .079 .102				.062 .030 39 .057 .090 .152	35
30	.047 .010 8 .046 .049 .069				.077 .018 12 .081 .090 .097					.065 .020 20 .064 .085 .096	30
25	.049 .014 8 .045 .066 .072	.068 .018 3 .075 .080 .083			.042 .017 8 .039 .069 .068					.050 .018 17 .046 .071 .080	25
20		.047 .015 10 .055 .060 .064	.017 1		.073 .076 7 .038 .087 .233					.055 .051 18 .041 .062 .195	20
15		.034 .013 10 .031 .037 .083			.026 .013 16 .022 .038 .064					.029 .013 26 .022 .038 .063	15
10		.026 .005 10 .026 .030 .038			.016 .007 12 .016 .021 .030					.021 .008 22 .015 .028 .035	10
5		.036 .005 6 .036 .038 .043			.016 .005 10 .016 .021 .022					.023 .011 16 .020 .036 .042	5
0											0
5											5
10			.062 1							.062 1	10
15				.004 1						.004 1	15
20				.043 .033 10 .028 .073 .114						.043 .033 10 .028 .073 .114	20
25			.088 .005 7 .088 .102 .104	.084 .018 9 .080 .071 .075						.073 .026 16 .074 .100 .103	25
30			.075 .014 8 .079 .090 .099				.054 1			.075 .015 9 .076 .089 .099	30
35			.082 .024 15 .088 .103 .122	.082 .082 5 .088 .111 .178						.082 .033 20 .078 .105 .162	35
40			.087 1							.057 1	40
45S				.079 1						.079 1	45S

LONGITUDE

TABLE XI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N							.271 .056 10 .297 .312 .321	.277 1		.271 .054 11 .291 .312 .320	70N
65							.217 .036 3 .237 .244 .247	.280 .042 15 .291 .316 .331		.269 .047 18 .278 .317 .331	65
60				.287 .044 7 .256 .324 .341			.116 .106 19 .053 .274 .294	.230 .086 13 .274 .310 .320		.182 .111 39 .226 .296 .328	60
55					.223 .082 12 .236 .315 .322	.276 .026 6 .287 .292 .294	.194 .103 27 .256 .278 .315	.136 .077 18 .136 .226 .238		.194 .096 65 .227 .285 .318	55
50				.057 .002 2 .057 .056 .059	.039 1	.136 .112 17 .064 .302 .331	.183 .106 57 .198 .306 .357	.086 .045 78 .043 .065 .226		.111 .100 156 .044 .238 .350	50
45	.097 .048 11 .074 .133 .206			.119 .026 7 .132 .138 .143	.041 .001 2 .041 .042 .042	.071 .045 35 .053 .101 .180	.064 .066 86 .064 .116 .281	.069 .033 12 .066 .096 .136		.082 .059 153 .065 .119 .273	45
40	.062 .018 34 .052 .072 .085		.063 .012 3 .062 .074 .078	.067 .040 11 .063 .107 .140	.039 .011 14 .038 .043 .066	.078 .049 46 .056 .106 .203	.068 .053 15 .045 .067 .196			.062 .041 125 .053 .077 .201	40
35	.064 .020 18 .057 .067 .105		.079 .026 26 .076 .102 .138	.081 .007 4 .089 .096 .101	.047 .023 22 .042 .069 .096	.075 .050 15 .067 .098 .187				.067 .032 85 .066 .096 .152	35
30	.061 .015 12 .058 .081 .086	.049 .007 11 .053 .057 .058	.081 .020 7 .065 .069 .101	.094 1	.063 .030 40 .061 .073 .139	.058 1				.061 .025 72 .048 .072 .123	30
25			.034 .014 6 .034 .043 .067		.053 .034 33 .043 .077 .132					.049 .032 41 .042 .073 .116	25
20		.033 .006 2 .033 .037 .038	.020 .006 3 .019 .024 .027		.058 .026 6 .060 .078 .096		.056 1			.044 .025 12 .035 .071 .094	20
15		.028 .011 9 .027 .037 .041	.026 .003 2 .026 .027 .028				.037 .004 5 .039 .039 .040			.029 .010 16 .024 .039 .041	15
10		.021 .005 12 .021 .027 .028					.037 .001 4 .037 .038 .038			.025 .008 16 .023 .036 .038	10
5		.026 .007 6 .023 .035 .038	.003 .002 2 .003 .004 .004		.030 .007 2 .030 .035 .037		.034 .005 2 .034 .037 .039			.024 .011 14 .022 .037 .039	5
0			.015 .004 5 .013 .019 .020		.041 .011 17 .038 .048 .071					.035 .015 22 .036 .045 .069	0
5			.026 .008 4 .027 .029 .030	.047 .037 11 .046 .067 .130	.052 .025 8 .050 .071 .089					.044 .032 20 .029 .065 .124	5
10			.056 .026 7 .045 .092 .096	.037 .026 14 .036 .061 .093			.024 .004 4 .024 .027 .029			.041 .027 25 .032 .069 .099	10
15			.087 .031 13 .065 .101 .111	.056 .030 4 .044 .079 .108	.032 .011 13 .030 .045 .048		.041 .024 5 .041 .057 .078			.049 .029 35 .041 .068 .111	15
20			.060 .023 10 .056 .076 .082	.038 .001 6 .038 .038 .040			.066 .020 4 .067 .080 .091			.054 .022 20 .039 .075 .089	20
25			.106 1	.059 .017 14 .057 .077 .084			.062 .028 5 .071 .088 .097			.062 .023 20 .061 .083 .104	25
30				.117 .049 17 .110 .159 .229			.078 .012 3 .070 .086 .093			.112 .049 20 .108 .134 .226	30
35			.064 .002 2 .064 .065 .065	.135 .081 30 .087 .238 .311			.050 1			.128 .080 33 .095 .222 .305	35
40				.131 .106 4 .141 .235 .241						.131 .106 4 .141 .235 .241	40
45S				.069 .002 2 .069 .070 .071						.069 .002 2 .069 .070 .071	45S

LONGITUDE

TABLE XI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.260 .051 13 .297 .312 .321	.270 .046 10 .266 .319 .331			.284 .049 23 .266 .315 .328
65					.219 .041 20 .217 .283 .282	.243 .047 21 .240 .283 .310				.232 .046 41 .223 .283 .307
60				.329 1	.172 .055 6 .191 .224 .235	.185 .084 66 .202 .261 .341	.235 .026 11 .229 .259 .283	.271 .039 7 .256 .307 .342		.198 .080 93 .215 .266 .347
55				.181 .061 26 .184 .251 .302	.208 .019 7 .209 .225 .231	.196 .090 65 .219 .271 .358	.146 .113 53 .107 .277 .371	.126 .076 56 .127 .198 .308		.163 .094 206 .102 .254 .366
50				.131 .086 38 .111 .237 .338	.092 .070 15 .066 .091 .266	.159 .088 62 .165 .244 .356	.145 .099 96 .123 .258 .339	.072 .061 78 .051 .127 .277		.124 .091 289 .096 .236 .339
45	.059 .054 23 .050 .064 .212		.265 .023 2 .265 .280 .286	.121 .091 34 .093 .162 .345	.023 .006 8 .025 .029 .030	.174 .089 65 .189 .266 .337	.086 .057 63 .068 .154 .199	.051 .031 7 .044 .089 .090		.115 .088 202 .087 .222 .327
40	.080 .035 62 .078 .122 .138		.132 .091 24 .094 .212 .346	.093 .064 23 .067 .139 .283	.072 .106 18 .030 .085 .355	.070 .082 67 .038 .083 .299	.082 .031 6 .050 .080 .120			.083 .074 196 .044 .125 .309
35	.083 .025 23 .083 .112 .128		.063 .041 9 .092 .114 .149	.030 .008 12 .030 .037 .046	.044 .030 89 .036 .053 .166	.046 .020 15 .041 .057 .094				.053 .033 128 .038 .084 .142
30	.033 .011 19 .032 .045 .055			.048 .019 20 .047 .064 .086	.043 .024 130 .036 .061 .113					.042 .023 169 .036 .060 .108
25	.056 .009 2 .056 .064 .067			.039 .011 18 .037 .047 .065	.037 .018 110 .031 .058 .080					.037 .018 130 .032 .057 .079
20		.032 .008 2 .032 .037 .039	.021 1	.040 1	.049 .057 22 .037 .063 .202					.046 .053 26 .033 .056 .184
15					.038 .014 8 .042 .052 .062					.038 .014 8 .042 .052 .052
10					.053 .008 4 .051 .059 .065					.053 .008 4 .051 .059 .065
5			.032 .003 2 .032 .034 .035		.041 .012 8 .048 .049 .049		.021 .004 5 .023 .024 .024			.032 .012 13 .029 .048 .049
0			.045 .018 9 .038 .068 .071	.022 .011 18 .017 .038 .043	.019 .010 3 .012 .026 .032		.024 .003 5 .022 .027 .029			.028 .016 36 .021 .041 .068
5			.051 .018 12 .052 .071 .082	.024 .013 18 .024 .040 .047			.018 .001 4 .016 .017 .018			.033 .020 34 .026 .053 .077
10			.088 .025 11 .056 .095 .100	.031 .011 15 .032 .039 .062			.013 1			.045 .026 27 .038 .064 .098
15			.062 .018 13 .061 .074 .100	.029 .022 7 .021 .027 .078	.052 1					.051 .024 21 .051 .072 .097
20			.078 .029 12 .066 .118 .127	.054 .044 6 .027 .088 .131			.100 1			.071 .035 18 .056 .118 .134
25			.080 .032 7 .068 .112 .128	.102 .013 14 .104 .111 .118						.094 .024 21 .102 .111 .126
30			.091 .014 7 .086 .107 .112	.091 .029 39 .098 .122 .138						.081 .027 46 .086 .120 .137
35			.187 .008 2 .187 .192 .194	.100 .029 28 .103 .137 .148						.107 .035 26 .104 .142 .186
40			.088 .028 2 .088 .108 .114							.088 .028 2 .088 .108 .114
45S			.065 .005 8 .067 .068 .072							.065 .005 8 .064 .068 .072

LONGITUDE

TABLE XI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.249 .261 .108 .364 45 .426					.249 .261 .108 .364 45 .426
60				.199 .168 .064 .249 10 .316	.227 .228 .079 .308 51 .416	.199 .202 .097 .309 29 .370		.408 .418 .043 .439 5 .460		.224 .213 .094 .315 95 .429
55				.235 .246 .088 .336 50 .358	.221 .250 .095 .304 17 .353	.251 .266 .109 .353 29 .463	.224 .196 .146 .377 30 .526	.120 .107 .079 .189 65 .292		.196 .169 .118 .312 191 .445
50				.185 .179 .085 .277 58 .339	.194 .188 .084 .285 33 .382	.324 .307 .094 .398 19 .505	.134 .123 .109 .252 71 .399	.067 .045 .058 .112 94 .179		.143 .119 .110 .265 285 .403
45	.105 .063 .099 .242 36 .320		.096 .087 .017 .111 4 .118	.120 .110 .077 .181 62 .326	.076 .063 .066 .119 72 .260	.112 .090 .066 .191 154 .273	.126 .080 .103 .263 79 .351	.145 .098 .133 .252 30 .444		.111 .076 .085 .207 437 .327
40	.098 .080 .069 .135 43 .331		.077 .066 .061 .102 32 .209	.100 .078 .067 .174 36 .259	.063 .041 .040 .112 33 .184	.070 .044 .064 .114 104 .290	.126 .111 .070 .185 13 .286	.086 .083 .028 .113 14 .142		.082 .063 .063 .131 275 .308
35	.160 .172 .031 .183 13 .196		.043 .043 .033 .063 19 .124	.070 .063 .033 .095 18 .185	.046 .044 .019 .063 93 .088	.191 .127 .089 .209 39 .336	.031 .032 .009 .040 20 .045			.070 .044 .061 .126 202 .223
30	.082 .072 .031 .109 9 .138	.089 .084 .019 .094 8 .100	.023 .016 .013 .040 6 .046		.048 .045 .021 .067 99 .080	.067 .060 .016 .080 3 .088	.029 .037 .015 .042 15 .044			.048 .043 .026 .069 140 .104
25	.053 .060 .019 .068 3 .072	.084 .087 .020 .104 19 .117	.017 .018 .004 .019 7 .021		.051 .051 .031 .078 99 .122		.027 .030 .009 .033 22 .042			.060 .043 .031 .076 146 .119
20		.089 .087 .029 .098 9 .120	.037 .037 .004 .040 4 .043		.048 .036 .033 .085 15 .101		.027 .027 .013 .038 19 .048			.042 .036 .029 .074 47 .106
15		.041 .041 .000 .041 8 .041	.039 .038 .008 .046 6 .062		.025 .022 .013 .034 6 .049		.037 .023 .028 .059 14 .093			.036 .037 .021 .051 31 .092
10				.017 .017 .002 .018 2 .018	.026 .024 .008 .032 12 .043		.042 .049 .025 .065 14 .076			.033 .022 .020 .054 28 .075
5			.002 1	.029 .027 .004 .034 6 .036	.031 .037 .015 .046 10 .048		.049 .045 .030 .065 12 .086			.037 .026 .024 .069 26 .087
0				.033 .035 .006 .037 5 .038	.043 .047 .010 .052 7 .056		.050 .043 .030 .065 6 .089			.042 .032 .020 .058 18 .087
5				.016 .016 .001 .017 3 .018	.047 .048 .005 .051 6 .053		.023 .025 .007 .029 6 .031			.031 .028 .014 .049 15 .052
10					.046 .045 .003 .048 5 .050		.020 1			.041 .044 .010 .048 6 .050
15					.052 1					.052 1
20			.028 .024 .011 .035 4 .041	.082 .082 .015 .092 2 .096			.046 .037 .022 .063 4 .080			.045 .033 .027 .076 10 .094
25			.036 .016 .036 .056 5 .069	.092 .086 .014 .107 9 .119						.072 .063 .036 .104 14 .118
30			.076 .080 .017 .088 6 .097	.083 .083 .017 .094 2 .096						.078 .080 .017 .096 8 .099
35			.165 .168 .018 .186 28 .193							.165 .168 .018 .186 28 .193
40			.257 .265 .017 .268 4 .271							.257 .265 .017 .268 4 .271
45S			.182 .182 .015 .192 2 .196	.291 .279 .061 .360 11 .381					.274 .264 .069 .346 13 .391	

LONGITUDE —

TABLE XI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65				.308 .084 10 .280 .409 .478	.279 .101 104 .266 .355 .515	.164 .026 2 .164 .181 .188				.280 .101 116 .265 .355 .513
60				.357 .114 51 .388 .465 .521	.348 .133 58 .387 .510 .579	.355 .079 9 .336 .420 .509				.353 .122 118 .318 .496 .565
55				.337 .106 91 .344 .458 .503	.303 .064 25 .311 .384 .445	.316 .136 18 .323 .490 .529	.286 .099 10 .257 .388 .478	.152 .137 23 .080 .326 .418		.302 .127 167 .309 .441 .524
50				.173 .087 29 .160 .256 .366	.240 .107 44 .210 .353 .486	.241 .101 16 .236 .262 .486	.141 .092 27 .137 .242 .273	.069 .071 18 .048 .062 .272		.183 .112 134 .153 .276 .481
45	.319 .124 12 .290 .504 .528			.191 .114 48 .142 .330 .388	.193 .120 22 .197 .328 .376	.281 .153 16 .316 .433 .496	.166 .093 17 .103 .279 .313	.012 1		.213 .131 118 .123 .347 .506
40	.102 .033 9 .093 .110 .168		.056 1	.102 .047 37 .090 .157 .220	.085 .014 8 .087 .078 .079	.119 .085 191 .100 .189 .381	.063 .051 8 .047 .048 .175			.112 .078 254 .088 .178 .346
35	.146 .085 5 .119 .194 .295		.048 .011 8 .045 .047 .072	.068 .004 7 .068 .069 .076	.055 .021 29 .055 .079 .088	.191 .143 113 .159 .406 .445	.022 .012 7 .015 .032 .047			.148 .135 169 .086 .351 .441
30	.091 .044 10 .086 .131 .169	.088 1	.053 .009 4 .067 .059 .069	.040 .008 19 .040 .050 .063	.064 .017 48 .060 .085 .099	.066 .011 4 .062 .073 .083	.076 .019 8 .072 .096 .108			.062 .025 92 .053 .086 .127
25	.055 .022 17 .055 .076 .088	.088 .008 3 .065 .078 .078		.041 .011 17 .043 .051 .062	.055 .022 61 .059 .072 .102		.020 .005 4 .018 .024 .028			.052 .021 102 .061 .072 .092
20		.064 .013 20 .064 .078 .088	.032 .008 8 .029 .039 .044		.085 .043 18 .076 .122 .191		.026 .003 12 .026 .029 .031			.060 .035 55 .054 .082 .151
15			.033 .010 4 .031 .042 .047		.045 .024 14 .034 .072 .092		.038 .014 17 .039 .047 .087			.040 .019 35 .037 .053 .089
10			.025 .011 4 .030 .033 .034		.021 1		.047 .014 26 .043 .065 .078			.044 .016 31 .041 .063 .076
5			.023 .006 3 .021 .026 .031				.064 .014 19 .067 .077 .092			.059 .020 22 .062 .076 .091
0							.075 .019 21 .075 .093 .106			.075 .019 21 .075 .093 .106
5							.063 .018 16 .068 .079 .088			.063 .018 16 .068 .079 .088
10							.054 .016 26 .056 .068 .081			.054 .016 26 .056 .068 .081
15				.060 .028 10 .043 .081 .102			.052 .013 26 .056 .064 .073			.062 .019 36 .054 .066 .096
20				.086 1			.047 .013 13 .046 .059 .071			.050 .016 14 .048 .065 .082
25							.068 .012 4 .067 .078 .085			.068 .012 4 .067 .078 .085
30				.028 1			.148 .043 5 .136 .192 .209			.128 .060 6 .127 .188 .208
35				.155 .014 4 .158 .167 .173						.155 .014 4 .158 .167 .173
40			.196 .045 6 .210 .226 .234							.196 .045 6 .210 .226 .234
45S				.231 .024 2 .231 .247 .254						.231 .024 2 .231 .247 .254

LONGITUDE

TABLE XI. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65					.388 .426 .091 .482 13 .496	.136 1				.378 .424 .111 .480 14 .496	65
60				.395 .385 .121 .514 27 .580	.304 .232 .192 .544 40 .653	.309 .257 .146 .479 38 .606				.329 .306 .165 .532 105 .647	60
55				.408 .380 .116 .524 66 .632	.528 .521 .090 .627 11 .666	.362 .337 .105 .504 33 .642	.290 .319 .069 .348 7 .367			.398 .385 .120 .531 117 .652	55
50				.340 .344 .137 .493 88 .603	.192 .191 .116 .238 32 .552	.203 .187 .117 .364 40 .448	.317 .373 .089 .384 9 .398	.118 .080 .049 .158 10 .217		.269 .234 .145 .424 179 .589	50
45			.211 .161 .124 .367 7 .412	.259 .236 .105 .379 38 .480	.162 .112 .142 .268 49 .596	.246 .171 .152 .430 64 .578	.046 .013 .075 .096 21 .251	.040 .032 .014 .054 7 .064		.195 .093 .149 .365 186 .572	45
40	.081 .072 .029 .092 17 .159		.146 .118 .097 .249 38 .382	.339 .333 .170 .495 10 .621	.102 .050 .121 .196 66 .410	.133 .089 .104 .280 43 .374				.143 .089 .133 .270 179 .521	40
35	.110 .106 .050 .144 13 .213		.064 .054 .032 .081 19 .144	.091 .072 .022 .093 10 .132	.040 .036 .020 .060 4 .068	.031 1				.078 .069 .042 .107 47 .206	35
30	.034 .032 .010 .043 12 .052		.044 .042 .012 .056 10 .063		.072 .073 .008 .079 6 .084		.024 1			.045 .040 .016 .064 29 .080	30
25	.050 .053 .022 .072 11 .080	.050 .055 .018 .083 5 .067	.059 .069 .006 .065 4 .066		.066 .066 .006 .069 2 .071		.032 .030 .007 .039 5 .042			.049 .053 .019 .068 27 .079	25
20		.053 .056 .009 .060 15 .065	.009 1				.054 .051 .019 .079 8 .084			.051 .052 .016 .061 24 .083	20
15							.106 .104 .011 .111 6 .127			.106 .104 .011 .111 6 .127	15
10							.065 .065 .020 .078 2 .083			.065 .065 .020 .078 2 .083	10
5		.013 1	.011 1				.062 .063 .012 .074 7 .075			.051 .063 .023 .072 9 .075	5
0							.077 .070 .019 .101 12 .108			.077 .070 .019 .101 12 .108	0
5							.074 .073 .017 .093 18 .101			.074 .073 .017 .093 18 .101	5
10							.069 .055 .013 .072 17 .081			.069 .055 .013 .072 17 .081	10
15							.054 .051 .015 .070 16 .079			.054 .051 .015 .070 16 .079	15
20							.065 .065 .016 .082 15 .096			.065 .065 .016 .082 15 .096	20
25											25
30											30
35											35
40											40
45S											45S

LONGITUDE

TABLE XI. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR NOVEMBER

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

NOVEMBER
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60				.291 1						.291 1	60
55				.675 1		.373 .017 5 .372 .366 .397				.424 .113 6 .375 .454 .647	55
50				.507 .208 18 .426 .680 .940		.321 .132 23 .314 .481 .523	.138 .091 15 .169 .211 .297			.332 .208 56 .296 .505 .859	50
45			.274 .132 21 .287 .364 .570	.431 .162 36 .403 .563 .868		.264 .166 54 .206 .518 .636	.218 .088 26 .249 .307 .328			.308 .167 137 .289 .516 .652	45
40			.251 .174 68 .200 .448 .649		.025 .002 6 .025 .027 .029	.327 .083 8 .315 .392 .464	.232 .128 9 .212 .308 .482			.241 .109 91 .206 .433 .641	40
35			.106 .068 4 .091 .161 .186		.037 .002 2 .037 .038 .039		.079 .036 22 .080 .119 .144			.080 .041 28 .080 .126 .168	35
30							.050 .014 20 .052 .061 .076			.050 .014 20 .052 .061 .076	30
25	.045 .019 8 .036 .060 .080	.067 1					.047 .013 16 .044 .061 .067			.046 .015 28 .042 .060 .076	25
20		.043 .001 2 .043 .044 .044	.010 .002 2 .010 .011 .011				.041 .012 7 .044 .053 .054			.035 .015 11 .041 .051 .054	20
15			.010 .009 6 .008 .015 .026				.040 .009 2 .040 .046 .049			.017 .016 8 .009 .031 .046	15
10			.002 .002 7 0.000 .003 .006							.002 .002 7 0.000 .003 .006	10
5		.037 .030 2 .037 .057 .066	.002 .002 2 .002 .003 .003							.019 .028 4 .005 .038 .063	5
0											0
5											5
10											10
15											15
20											20
25											25
30											30
35											35
40											40
45S											45S

LONGITUDE

TABLE XII. - GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(a) Flight level 290

CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

DECEMBER
FL 290

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60								.084 .086 .031 .127 7 .139		.084 .086 .031 .127 7 .139
55								.071 .083 .034 .116 8 .127		.071 .083 .034 .116 8 .127
50	.062 .044 .036 .115 18 .132					.176 .176 .029 .186 2 .203	.035 .034 .010 .047 7 .048	.088 .085 .055 .141 16 .206		.080 .080 .058 .146 24 .209
45	.042 .037 .019 .058 36 .079					.033 .032 .003 .036 8 .039	.096 .064 .081 .221 43 .274	.083 .086 .023 .118 16 .142		.085 .086 .066 .117 82 .200
40	.043 .044 .014 .056 10 .064		.062 1		.037 1	.087 .062 .022 .070 10 .108	.070 .067 .037 .130 12 .134			.050 .044 .027 .065 59 .132
35	.038 .039 .006 .043 6 .044	.056 .056 .007 .062 12 .064			.048 .036 .027 .070 3 .085	.053 .047 .025 .078 11 .093				.049 .045 .021 .073 25 .091
30	.030 .030 .001 .032 4 .032	.030 .030 .003 .031 2 .032			.086 1					.050 .054 .011 .060 19 .064
25			.055 .059 .021 .071 4 .081	.055 .062 .027 .073 7 .118	.064 1					.035 .031 .012 .033 7 .060
20		.026 .029 .008 .030 3 .031	.038 .036 .025 .061 6 .078		.055 .056 .008 .061 9 .068					.059 .061 .020 .071 20 .109
15		.037 .038 .010 .060 6 .062			.032 1					.034 .018 .020 .051 10 .073
10										.037 .035 .010 .060 6 .052
5										
0										
5										
10										
15				.063 1	.029 .028 .008 .033 2 .035					.037 .036 .012 .047 3 .052
20										
25			.044 .061 .013 .064 6 .067							.044 .051 .013 .054 8 .057
30			.021 .021 .006 .024 2 .026							.021 .021 .006 .024 2 .026
35			.032 .032 .003 .034 2 .036	.088 .107 .039 .118 3 .124						.068 .058 .041 .113 5 .124
40			.022 1	.027 1						.025 .025 .003 .026 2 .027
45S										

LONGITUDE

TABLE XII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(b) Flight level 310

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 310

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60								.183 .186 .011 .192 4 .195		.183 .186 .011 .192 4 .195
55				.048 .060 .027 .074 4 .076			.205 .209 .043 .237 6 .273	.127 .091 .081 .219 42 .264		.130 .095 .082 .225 52 .275
50				.084 .088 .041 .123 13 .182	.075 1		.119 .066 .089 .237 14 .265	.060 .045 .029 .092 13 .112		.088 .068 .064 .132 41 .261
45	.035 .031 .014 .044 15 .072			.111 .060 .083 .216 23 .261	.074 .074 .009 .080 2 .083	.056 .034 .066 .037 8 .203	.110 .091 .064 .194 20 .226	.096 .094 .055 .127 13 .209		.088 .057 .070 .157 81 .274
40	.043 .050 .010 .051 7 .052		.059 .052 .021 .063 12 .112	.110 .113 .042 .149 9 .169	.035 .033 .011 .045 13 .053	.091 .055 .070 .167 50 .267	.075 .059 .043 .117 17 .163			.076 .039 .057 .124 106 .253
35	.044 .043 .019 .051 10 .066		.078 .077 .021 .100 9 .109		.045 .038 .033 .060 37 .128	.068 .059 .044 .069 23 .198	.037 .034 .008 .046 13 .052			.053 .035 .034 .070 92 .136
30	.039 .042 .008 .046 5 .047				.055 .045 .037 .082 35 .155		.039 .040 .002 .041 3 .041	.022 .019 .009 .033 9 .037		.047 .038 .033 .060 52 .132
25	.050 .046 .031 .066 6 .106		.045 .046 .004 .047 5 .048		.045 .042 .017 .051 30 .094					.046 .043 .019 .052 41 .111
20			.031 .031 .011 .040 18 .084	.049 .053 .009 .056 18 .069	.047 .048 .018 .067 20 .083					.042 .030 .016 .056 54 .080
15		.058 1	.024 .022 .008 .030 11 .041		.028 .026 .007 .031 11 .041					.027 .025 .010 .036 23 .051
10				.024 .024 .005 .027 2 .028	.030 .029 .007 .037 6 .041					.028 .025 .007 .035 8 .041
5				.028 .031 .008 .033 5 .034						.028 .031 .008 .033 5 .034
0				.023 .024 .003 .025 3 .026						.023 .024 .003 .025 3 .026
5		.006 1		.025 .025 .003 .026 5 .032						.023 .025 .007 .027 6 .031
10		.014 .015 .001 .015 4 .018		.025 .025 .002 .027 5 .028						.020 .023 .006 .026 9 .028
15		.013 .011 .004 .016 3 .018		.029 .032 .009 .036 4 .039						.022 .018 .011 .036 7 .039
20			.009 1	.048 .048 .001 .049 2 .049						.035 .047 .018 .048 3 .049
25			.031 .031 .010 .038 2 .041							.031 .031 .010 .038 2 .041
30										
35				.078 .072 .022 .105 6 .109						.078 .072 .022 .105 6 .109
40				.041 .039 .019 .057 3 .065						.041 .039 .019 .057 3 .065
45S				.044 .043 .010 .053 4 .058						.044 .043 .010 .053 4 .058

LONGITUDE

TABLE XII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(c) Flight level 330

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 330

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N							.215 .214 .022 .233 3 .241			.215 .214 .022 .233 3 .241	70N
65					.312 1		.092 .106 .038 .129 5 .132	.159 .142 .054 .227 12 .249		.149 .121 .069 .227 18 .291	65
60						.236 .242 .043 .260 20 .291	.224 .230 .095 .297 41 .456	.312 1		.229 .225 .082 .291 62 .414	60
55				.190 1		.226 .229 .045 .274 14 .287	.119 .061 .093 .247 35 .315	.167 .186 .099 .274 60 .349		.160 .108 .097 .269 110 .345	55
50				.206 .210 .037 .235 7 .254	.181 1	.269 .296 .051 .313 15 .347	.276 .298 .105 .377 20 .428	.125 .107 .076 .196 46 .321		.190 .188 .105 .307 89 .408	50
45	.044 .049 .013 .056 11 .069			.055 .056 .007 .062 11 .066	.046 .034 .027 .056 13 .112	.109 .083 .066 .156 33 .287	.112 .067 .086 .205 50 .317	.119 .089 .072 .216 9 .234		.094 .062 .073 .160 127 .297	45
40	.077 .077 .024 .092 2 .099		.134 .126 .059 .188 6 .218	.126 .102 .058 .196 24 .226	.042 .034 .023 .049 8 .087	.062 .062 .065 .109 69 .321	.044 .038 .023 .054 14 .101			.087 .064 .064 .134 121 .227	40
35	.030 .031 .008 .035 7 .046		.075 .051 .050 .117 21 .198	.047 .041 .011 .055 3 .061	.054 .047 .031 .066 40 .129	.065 .060 .027 .079 22 .139				.059 .048 .036 .079 93 .173	35
30	.039 .026 .031 .047 6 .099	.022 .022 .002 .024 3 .026			.064 .055 .034 .106 40 .139	.050 1				.058 .048 .034 .103 50 .135	30
25	.072 1	.028 .024 .016 .029 10 .065	.045 .058 .020 .062 5 .066		.056 .044 .027 .082 35 .124					.050 .041 .027 .073 51 .123	25
20		.039 .024 .027 .060 3 .075	.063 .065 .032 .094 7 .098	.075 .074 .015 .090 24 .105	.041 .037 .011 .055 11 .058					.062 .062 .024 .089 45 .102	20
15		.040 1	.032 .031 .015 .044 23 .069	.080 .079 .011 .091 12 .096						.048 .031 .027 .077 36 .097	15
10											10
5		.033 .033 .001 .034 7 .036			.032 1					.033 .033 .001 .034 8 .035	5
0		.028 .027 .010 .039 6 .041								.028 .027 .010 .039 6 .041	0
5		.007 .007 .003 .010 4 .011		.021 .021 .001 .022 4 .023						.014 .012 .007 .021 8 .023	5
10				.027 .020 .012 .043 9 .048						.027 .020 .012 .043 9 .048	10
15				.024 .021 .010 .033 3 .037	.034 .033 .018 .066 13 .087					.032 .027 .016 .052 16 .057	15
20				.072 .072 .006 .076 5 .079						.072 .072 .006 .076 5 .079	20
25				.070 .079 .025 .096 16 .098						.070 .079 .025 .096 16 .098	25
30				.102 .097 .032 .123 37 .193						.102 .097 .032 .123 37 .193	30
35			.056 1	.104 .096 .044 .137 12 .198						.101 .095 .044 .126 13 .198	35
40			.048 1							.048 1	40
45S											45S

LONGITUDE

AD-A141 351 TABULATIONS OF AMBIENT OZONE DATA OBTAINED BY GASP (GLOBAL AIR SAMPLING P..(U) NATIONAL AERONAUTICS AND SPACE ADMINISTRATION CLEVELAND OH LE.. 2/2

UNCLASSIFIED W H JASPERSON ET AL. JAN 84 NASA-TM-82742 F/G 4/1 NL

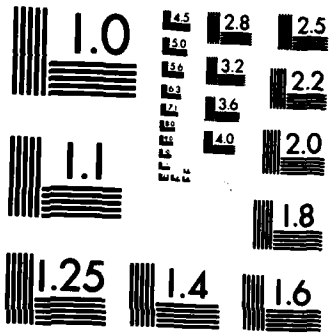


TABLE XII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(d) Flight level 350

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 350

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N						.299 .064 8 .295 .361 .385	.285 .067 23 .290 .347 .406			.289 .064 31 .290 .357 .406
65					.288 .035 18 .252 .280 .336	.163 .007 2 .163 .166 .170	.193 1			.244 .046 18 .243 .273 .335
60				.146 1	.202 .075 10 .214 .264 .296	.160 .082 32 .126 .280 .302				.169 .081 43 .146 .261 .301
55				.077 .045 15 .071 .099 .186	.185 .053 28 .189 .239 .276	.175 .093 54 .172 .282 .337	.252 .123 16 .289 .365 .431	.170 .063 9 .193 .217 .256		.175 .095 122 .127 .269 .381
50				.054 .031 9 .063 .085 .104	.144 .102 34 .105 .202 .276	.187 .113 44 .189 .314 .379	.176 .130 31 .137 .353 .380	.136 .079 46 .112 .217 .283		.155 .108 164 .084 .293 .376
45	.103 .054 42 .097 .160 .236			.110 .059 22 .102 .132 .267	.145 .089 59 .116 .251 .336	.233 .102 140 .239 .335 .396	.144 .109 65 .102 .276 .360	.108 .094 23 .054 .247 .279		.170 .108 351 .156 .298 .382
40	.093 .051 64 .071 .141 .217		.115 .095 13 .065 .189 .327	.176 .101 24 .202 .289 .334	.088 .080 88 .062 .154 .328	.090 .060 248 .066 .149 .244	.183 .184 19 .074 .402 .495			.099 .080 456 .058 .163 .355
35	.081 .053 38 .068 .106 .262		.075 .056 5 .052 .102 .179	.062 .031 21 .049 .105 .126	.079 .056 189 .065 .136 .244	.100 .064 67 .085 .143 .241				.082 .056 310 .059 .133 .249
30	.064 .028 51 .060 .089 .132	.096 .030 4 .081 .116 .144	.049 .004 3 .050 .052 .083		.063 .041 232 .051 .087 .220	.066 .006 7 .064 .066 .078				.064 .038 297 .053 .087 .215
25		.071 .015 13 .070 .077 .104	.069 1		.051 .022 219 .045 .069 .113					.052 .022 233 .047 .071 .112
20		.065 1	.018 .002 6 .018 .019 .021	.065 .019 21 .061 .064 .103	.044 .019 88 .039 .064 .089					.047 .022 86 .040 .069 .096
15		.033 .004 3 .031 .036 .039	.049 .017 5 .047 .066 .070	.064 .020 23 .055 .074 .083	.049 .015 18 .045 .065 .078					.050 .018 49 .046 .071 .034
10		.045 .004 5 .045 .048 .050			.037 .012 8 .034 .051 .053					.040 .010 13 .045 .050 .053
5		.035 .008 7 .034 .042 .047			.019 .004 4 .019 .022 .026					.029 .010 11 .027 .040 .047
0		.034 .003 7 .035 .036 .038		.021 .000 3 .021 .022 .022	.024 .008 2 .024 .029 .031					.029 .007 12 .031 .036 .038
5		.019 .006 5 .017 .023 .026		.024 .004 3 .025 .027 .028						.021 .006 8 .017 .026 .029
10		.021 .008 4 .018 .027 .034		.026 .009 6 .027 .034 .043						.025 .009 10 .021 .034 .042
15		.046 .004 6 .045 .049 .052			.041 .017 2 .041 .053 .057					.045 .009 8 .045 .052 .057
20				.044 .014 9 .042 .047 .074						.044 .014 9 .042 .047 .074
25				.073 .025 20 .062 .095 .101	.019 1					.071 .027 21 .078 .095 .101
30				.064 .029 29 .073 .064 .119	.023 1					.062 .030 30 .073 .083 .116
35			.049 .012 18 .054 .060 .061	.077 .038 12 .081 .114 .139						.060 .029 30 .048 .087 .135
40			.063 1							.063 1
45S										

LONGITUDE

TABLE XII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(e) Flight level 370

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 370

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65					.204 .174 .069 .288 .18 .336	.288 .267 .080 .383 .20 .393				.237 .199 .082 .312 .38 .380
60				.211 .240 .162 .383 .18 .416	.159 .140 .082 .252 .46 .382	.248 .302 .117 .382 .33 .396				.198 .181 .122 .349 .99 .400
55				.224 .230 .130 .309 .86 .513	.173 .164 .071 .206 .40 .415	.276 .238 .156 .444 .18 .541	.317 .324 .069 .390 .17 .410	.317 .354 .128 .430 .17 .464		.238 .221 .125 .387 .147 .802
50				.358 .299 .183 .536 .35 .662	.139 .109 .065 .266 .33 .315	.213 .213 .152 .316 .2 .356	.280 .294 .101 .407 .22 .458	.234 .286 .160 .409 .36 .519		.282 .159 .156 .409 .128 .584
45				.155 .144 .095 .297 .61 .369	.132 .148 .101 .216 .33 .329	.165 .179 .100 .273 .26 .340	.202 .097 .166 .479 .36 .981	.171 .149 .125 .300 .75 .423		.166 .094 .125 .290 .234 .483
40	.117 .107 .026 .139 .13 .165		.102 .103 .056 .185 .9 .196	.152 .159 .084 .243 .36 .283	.088 .088 .062 .163 .81 .220	.135 .100 .104 .206 .574 .447	.282 .255 .142 .397 .4 .492	.219 .281 .109 .331 .18 .368		.125 .103 .101 .205 .733 .431
35	.102 .082 .038 .132 .3 .182		.056 .045 .031 .087 .24 .128	.132 .121 .038 .157 .24 .234	.090 .082 .067 .186 .293 .270	.151 .150 .084 .227 .114 .243				.105 .069 .070 .192 .458 .246
30	.148 .191 .065 .205 .7 .219	.118 .093 .058 .203 .7 .206	.064 .041 .035 .097 .42 .127	.115 .115 .002 .116 .3 .117	.073 .088 .054 .101 .222 .243					.073 .080 .054 .109 .261 .210
25	.044 .032 .029 .079 .10 .096	.067 .071 .027 .084 .12 .114	.036 .046 .017 .056 .27 .061	.043 .041 .011 .059 .30 .064	.088 .087 .033 .098 .186 .145					.081 .059 .032 .092 .267 .144
20		.047 .062 .020 .071 .17 .080	.039 .036 .006 .041 .7 .052	.083 .083 .016 .077 .24 .089	.053 .040 .027 .086 .38 .120					.054 .048 .023 .077 .86 .106
15		.085 .084 .001 .085 .3 .066	.034 .030 .016 .050 .13 .063	.044 .042 .007 .049 .11 .068	.032 .031 .010 .040 .40 .067					.036 .033 .013 .049 .67 .065
10				.028 .1	.029 .031 .007 .034 .43 .044					.029 .031 .007 .034 .44 .044
5		.026 .1		.030 .031 .007 .036 .12 .040	.029 .029 .008 .032 .34 .039					.029 .029 .006 .034 .47 .040
0				.024 .025 .006 .026 .13 .033	.029 .028 .008 .036 .27 .039					.027 .026 .007 .033 .40 .039
5				.022 .023 .007 .027 .12 .026	.032 .033 .007 .040 .28 .040					.029 .026 .008 .039 .40 .040
10				.031 .027 .011 .043 .29 .061	.031 .033 .009 .037 .14 .060					.031 .026 .011 .041 .43 .051
15				.041 .036 .014 .064 .34 .072	.023 .021 .002 .024 .3 .026					.039 .037 .015 .053 .37 .071
20				.061 .048 .025 .087 .28 .120	.020 .020 .008 .021 .7 .029					.044 .044 .026 .057 .33 .116
25				.061 .056 .022 .083 .11 .106	.014 .013 .003 .017 .7 .016					.043 .043 .029 .066 .18 .104
30				.118 .121 .014 .126 .4 .128						.116 .121 .014 .126 .4 .129
35			.149 .154 .007 .154 .3 .154	.193 .101 .112 .337 .15 .360						.177 .124 .103 .329 .18 .359
40			.042 .036 .016 .058 .6 .067							.042 .036 .016 .058 .6 .067
45S			.129 .136 .032 .154 .6 .154							.129 .136 .032 .154 .6 .154

LONGITUDE

TABLE XII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(f) Flight level 390

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 390

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65				.179 1	.286 .149 86 .241 .461 .540					.284 .149 57 .217 .460 .540	65
60				.418 .151 92 .436 .587 .632	.290 .130 68 .281 .422 .569	.121 .024 11 .121 .133 .179	.277 .075 12 .262 .333 .427	.282 .156 32 .286 .450 .517		.315 .156 173 .303 .485 .607	60
55				.283 .169 93 .246 .484 .702	.307 .142 17 .269 .488 .544	.279 .105 4 .230 .361 .444	.267 .162 41 .255 .438 .653	.216 .145 40 .193 .385 .480		.268 .172 195 .236 .450 .674	55
50				.297 .116 80 .287 .393 .656	.213 .136 34 .196 .339 .470	.234 .031 3 .216 .287 .276	.390 .103 10 .393 .601 .643	.125 .063 12 .126 .186 .224		.267 .132 139 .264 .369 .550	50
45	.182 .035 6 .173 .210 .243		.219 .086 7 .162 .333 .359	.243 .145 101 .242 .393 .489	.121 .107 59 .106 .210 .360	.217 .151 124 .184 .363 .570	.469 1			.207 .146 298 .132 .358 .518	45
40			.207 .115 21 .170 .313 .492	.147 .102 40 .113 .241 .381	.122 .096 58 .096 .229 .380	.148 .091 327 .132 .256 .332	.113 1	.210 .158 24 .259 .375 .425		.150 .101 471 .132 .261 .403	40
35	.192 1		.187 .100 23 .172 .267 .393	.126 .059 17 .100 .192 .239	.091 .046 149 .080 .126 .218	.161 .136 83 .126 .247 .846		.001 1		.123 .096 274 .086 .181 .450	35
30			.095 .044 16 .069 .151 .177	.054 .027 9 .036 .090 .102	.079 .042 173 .067 .104 .227			.031 1		.079 .042 199 .066 .106 .220	30
25	.025 .024 10 .023 .031 .080	.015 1	.050 .012 4 .052 .059 .064	.024 .008 3 .028 .029 .030	.063 .029 108 .060 .080 .126					.059 .030 126 .056 .089 .125	25
20		.025 .008 9 .025 .034 .036	.041 .012 5 .046 .046 .052		.059 .021 26 .059 .082 .092					.049 .023 41 .047 .072 .091	20
15			.044 .016 4 .039 .056 .066		.036 .015 33 .033 .047 .075					.037 .015 37 .033 .047 .074	15
10			.027 .005 7 .026 .028 .037		.029 .008 44 .030 .036 .047					.028 .007 51 .028 .036 .046	10
5		.015 .009 5 .014 .024 .026	.028 .004 2 .028 .030 .031		.028 .008 64 .027 .036 .042					.027 .009 71 .027 .034 .042	5
0				.036 .011 8 .036 .048 .061	.028 .008 52 .028 .035 .044					.029 .009 60 .029 .037 .048	0
5				.038 .010 9 .037 .047 .056	.027 .006 35 .027 .031 .044					.029 .008 44 .027 .036 .051	5
10				.027 .006 23 .027 .031 .039	.026 .006 18 .026 .031 .033					.026 .006 41 .027 .031 .038	10
15				.031 .015 22 .028 .048 .067	.026 .012 17 .022 .040 .050					.029 .014 39 .024 .046 .056	15
20				.044 .022 11 .056 .066 .070						.044 .022 11 .056 .066 .070	20
25				.094 .002 7 .094 .095 .098						.094 .002 7 .094 .095 .098	25
30				.096 .006 5 .095 .103 .104						.096 .006 5 .095 .103 .104	30
35			.100 .044 10 .074 .150 .173	.148 .070 48 .128 .231 .274						.140 .068 56 .115 .227 .271	35
40											40
45S											45S

LONGITUDE

TABLE XII. - Continued. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(g) Flight level 410

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 410

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN	LAT
70N											70N
65											65
60				.453 .492 .103 .533 7 .540	.256 .224 .175 .485 16 .492	.467 .467 .019 .480 2 .485				.331 .336 .178 .492 24 .537	60
55				.447 .487 .193 .610 43 .834	.287 .286 .188 .423 16 .637	.499 .522 .172 .646 43 .927	.478 .509 .076 .545 5 .570			.445 .477 .189 .602 107 .840	55
50				.364 .372 .227 .573 83 .866	.202 .177 .103 .323 30 .384	.428 .407 .179 .607 58 .755	.332 .273 .177 .467 9 .713			.356 .330 .207 .577 180 .841	50
45			.236 .186 .189 .292 16 .732	.369 .314 .225 .633 40 .846	.131 .089 .098 .248 47 .361	.381 .325 .248 .644 93 .844	.155 .145 .025 .189 5 .201			.303 .229 .235 .579 201 .359	45
40	.172 .179 .049 .218 10 .241		.163 .114 .134 .264 56 .541		.156 .160 .084 .226 31 .309	.268 .226 .209 .429 95 .858	.150 1	.280 .241 .114 .327 6 .499		.216 .123 .175 .333 .98 .744	40
35	.124 .119 .050 .167 60 .252		.124 .112 .096 .174 19 .368	.079 .079 .003 .081 2 .082	.129 .107 .084 .186 90 .376	.271 .236 .185 .389 20 .747				.145 .114 .107 .189 151 .417	35
30	.050 .041 .039 .084 34 .143		.049 .049 .004 .092 6 .094		.184 .184 .089 .214 77 .481					.125 .113 .092 .201 117 .432	30
25	.075 .075 .012 .086 18 .095	.081 .080 .007 .089 8 .073	.081 1	0.000 0.000 0.000 0.000 0.000 8	.098 .090 .087 .181 87 .266					.083 .073 .054 .119 101 .205	25
20		.081 .056 .013 .062 22 .069	.027 .022 .013 .043 12 .060	.000 0.000 .001 .001 2 .002	.068 .040 .049 .111 36 .187					.049 .038 .041 .087 79 .169	20
15			.016 .011 .011 .031 28 .039	.004 .003 .006 .007 10 .018	.046 .041 .023 .083 41 .100					.030 .026 .025 .054 79 .098	15
10			.014 .012 .010 .026 27 .034		.029 .027 .006 .033 30 .044					.021 .024 .011 .030 57 .042	10
5		.010 .009 .006 .016 3 .020	.014 .012 .006 .023 11 .026		.026 .024 .007 .031 19 .039					.020 .022 .010 .030 33 .039	5
0				.026 .026 .009 .036 17 .057	.034 .036 .010 .042 8 .046					.027 .026 .010 .037 22 .043	0
5				.033 .034 .014 .047 18 .066	.027 .027 .008 .033 9 .036					.031 .026 .012 .044 28 .056	5
10				.031 .032 .014 .047 27 .061	.035 .036 .002 .038 2 .037					.031 .033 .013 .046 29 .061	10
15				.038 .032 .017 .050 21 .066	.045 .037 .028 .087 31 .097					.042 .030 .023 .066 52 .096	15
20				.051 .054 .022 .062 23 .110						.051 .054 .022 .062 23 .110	20
25				.078 .042 .066 .140 24 .169						.078 .042 .066 .140 24 .169	25
30				.112 .126 .056 .159 18 .213						.112 .124 .056 .159 18 .213	30
35				.184 .166 .082 .278 56 .322						.184 .166 .082 .278 56 .322	35
40											40
45S											45S

LONGITUDE

TABLE XII. - Concluded. GASP AMBIENT OZONE DATA BY LATITUDE FOR DECEMBER

(h) Flight level 430

CODE:

MEAN	ST. DEV.	N
50%	84%	98%

DECEMBER
FL 430

LAT	15E	60E	105E	150E	165W	120W	75W	30W	15E	MEAN
70N										
65										
60										
55				.478 .487 .490 4 .492			.575 .540 .716 4 .777			.527 .469 .623 6 .766
50				.502 .542 .779 20 .956		.651 .643 .716 3 .747	.477 .439 .669 16 .732			.555 .541 .738 39 .896
45			.372 .411 .474 11 .514	.484 .466 .501 17 .520		.838 .882 .885 7 .884	.204 .136 .475 22 .554			.389 .422 .527 57 .603
40			.277 .231 .420 38 .552			.106 .101 .154 41 .249	.360 .360 .514 2 .575			.192 .148 .307 81 .605
35			.073 .031 .077 .134 9 .241		.184 .180 .041 .211 21 .256	.093 .110 .042 .129 21 .138				.119 .126 .063 .159 51 .256
30			.017 .018 .008 .021 8 .026		.103 .106 .048 .157 21 .167					.077 .070 .057 .144 30 .185
25	.069 .070 .010 .080 21 .086	.073 .075 .010 .080 8 .086	.034 .018 .024 .066 14 .071		.033 .032 .004 .037 10 .040					.054 .061 .023 .075 53 .089
20		.083 .082 .011 .084 28 .086	.044 .047 .024 .067 14 .077		.059 .057 .006 .064 3 .067					.050 .054 .017 .065 43 .074
15			.022 .021 .008 .031 13 .036		.024 .024 .003 .027 5 .026					.022 .020 .007 .029 18 .036
10			.011 .011 .012 .016 20 .041							.011 .011 .012 .016 20 .041
5		.018 .010 .015 .030 8 .049	.008 .009 .005 .012 10 .014		.020 .020 .002 .021 5 .023					.014 .012 .011 .020 24 .043
0				.028 .026 .004 .029 5 .030	.019 1					.024 .023 .004 .026 6 .030
5				.028 .026 .001 .026 4 .026						.025 .025 .001 .026 4 .026
10				.023 .024 .003 .025 5 .026						.023 .024 .003 .025 5 .025
15				.037 .027 .022 .065 14 .076	.044 .037 .022 .065 52 .086					.042 .035 .022 .065 66 .085
20										
25				.111 .109 .008 .118 4 .124						.111 .109 .008 .118 4 .124
30				.111 .111 .006 .114 2 .116						.111 .111 .006 .114 2 .116
35				.187 .148 .099 .323 49 .433						.187 .148 .099 .323 49 .433
40										
45S										

LONGITUDE

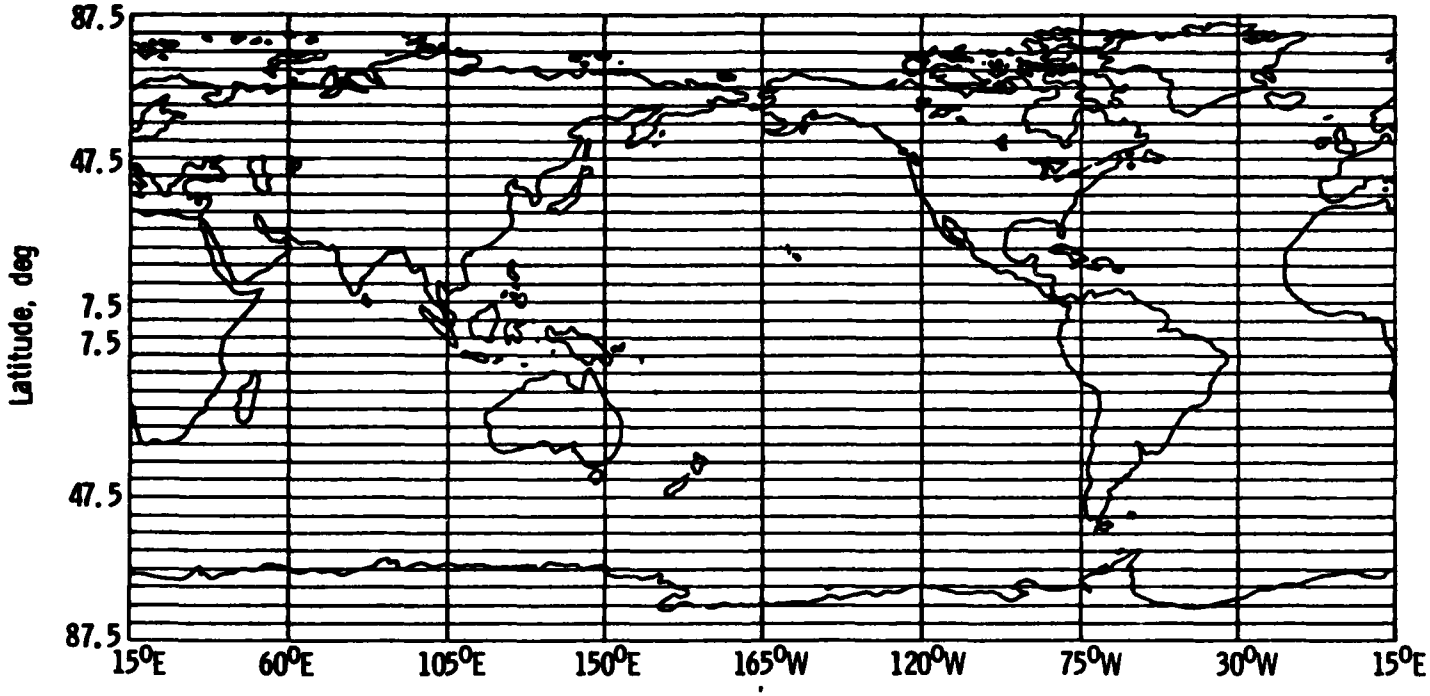
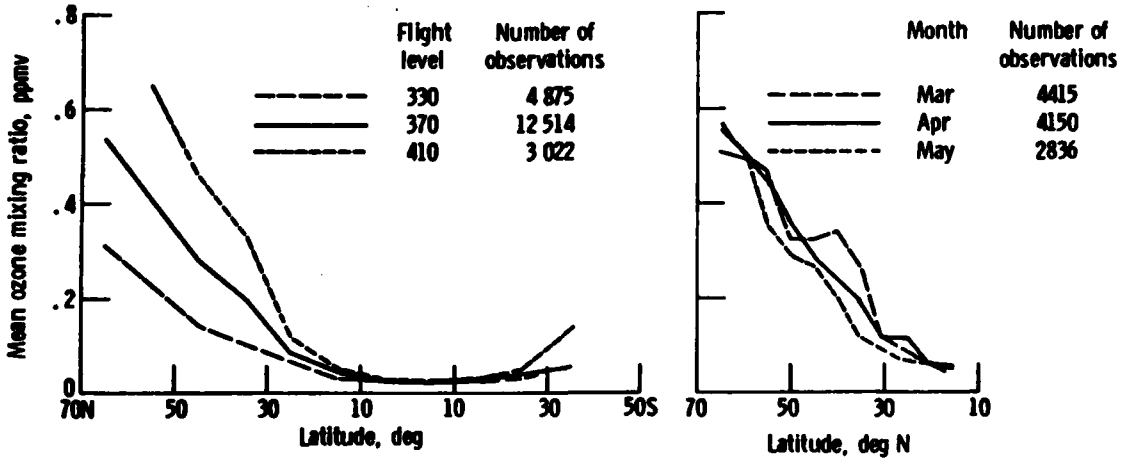


Figure 1. - Geographical grid for ozone tabulations in tables I to XII.



(a) By flight level.

(b) By month at FL 370.

Figure 2. - Variation of mean ambient ozone with latitude in the spring (M-A-M).

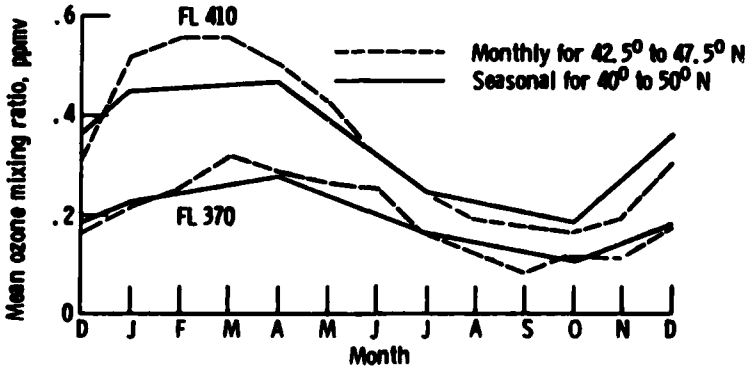
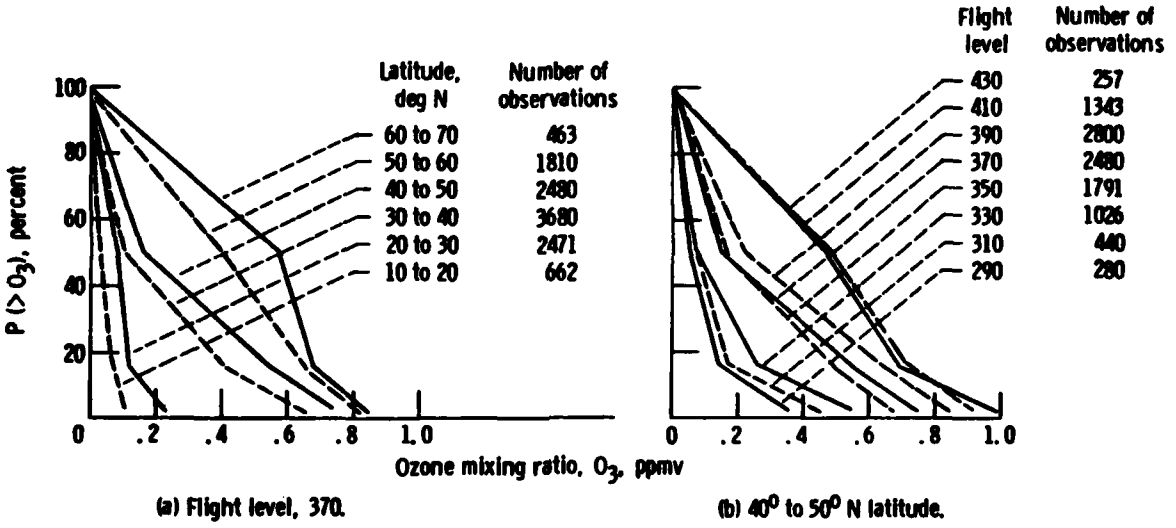


Figure 3. - Seasonal variation of mean ambient ozone near 45° N for flight levels 370 and 410.



(a) Flight level, 370.

(b) 40° to 50° N latitude.

Figure 4. - Ambient ozone cumulative frequency distributions for spring (M-A-M).

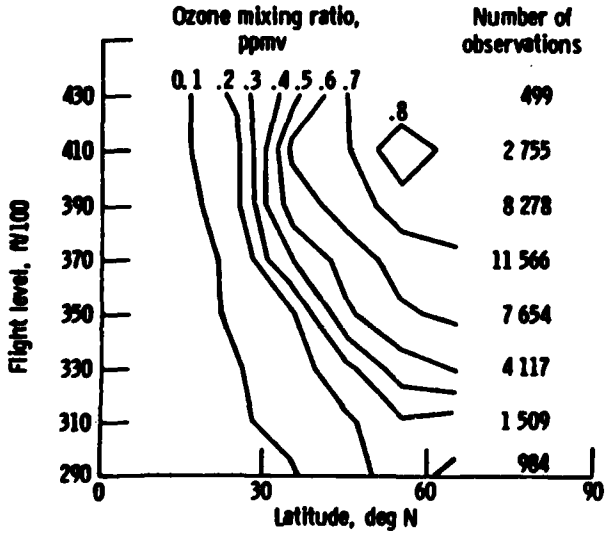


Figure 5. - Northern Hemisphere latitude - flight level cross sections of zonal 84th percentile ozone mixing ratios in the spring.

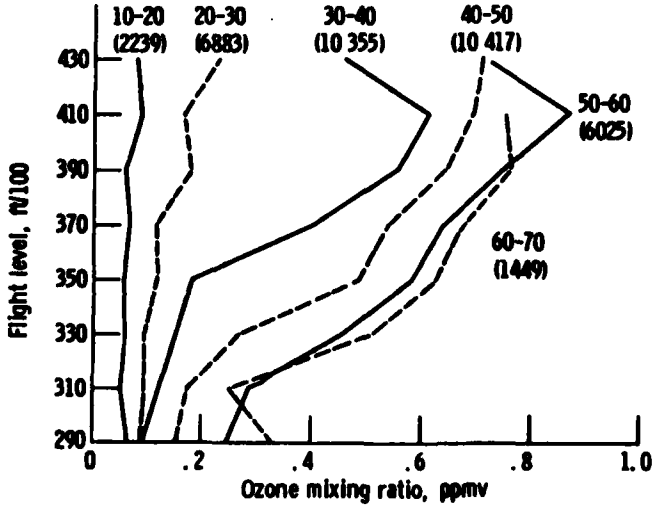


Figure 6. - Vertical profiles of zonal 84th percentile ozone mixing ratios for selected latitudes (deg N). Number of observations for each latitude is given in parentheses.

APPENDIX A

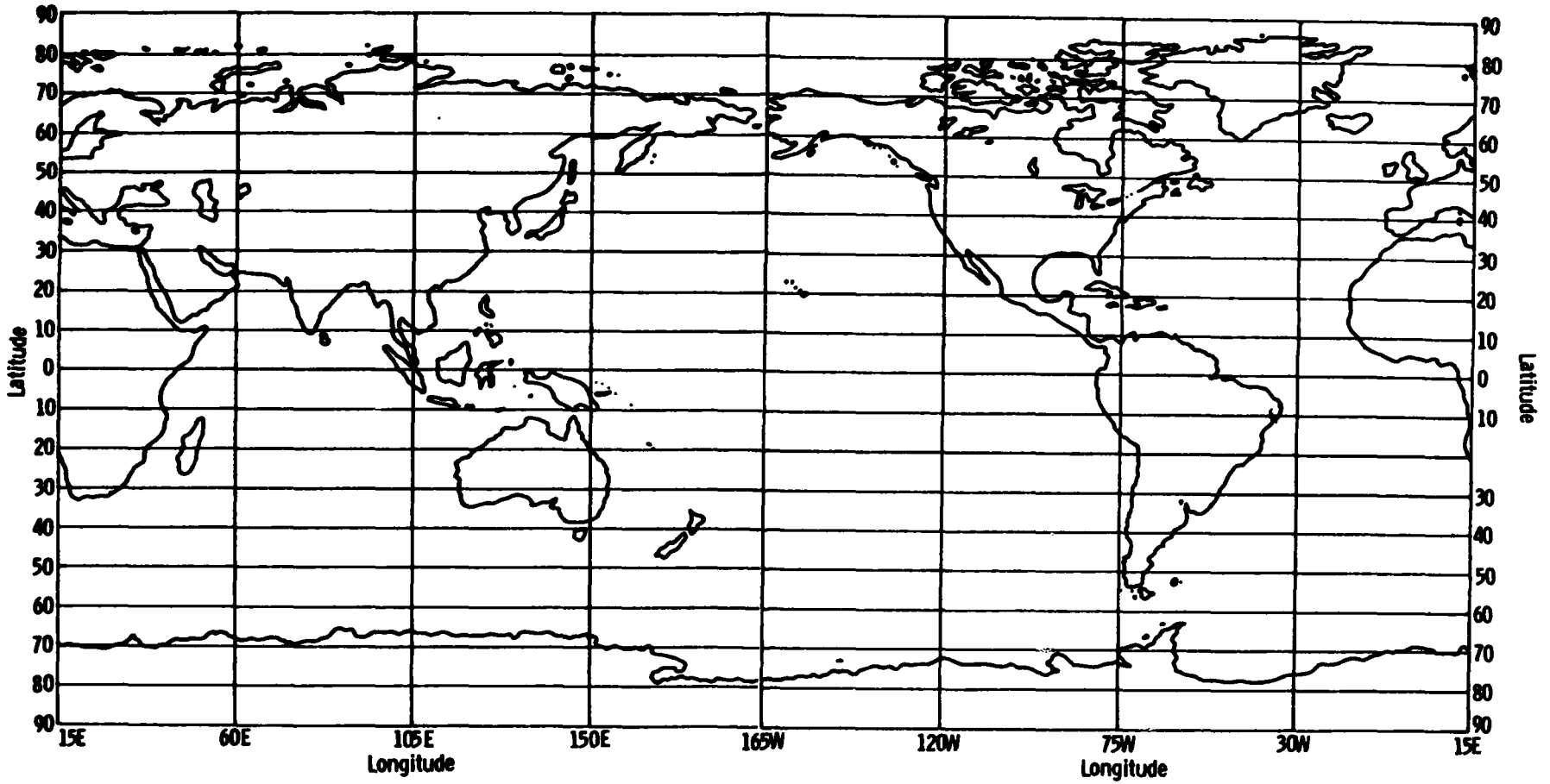
OZONE UNIT CONVERSION FACTORS

[Multiply "From" units by this factor to get "To" units. All temperatures are in K and all pressures in hectopascals (hPa).]

From	To						
	$\mu g/m^3$	10^{-3} cm SPT/km	mol/cm^3	hPa	$\mu g/g$	ppm v	ppm v SLE
$\mu g/m^3$	1	0.0467	1.26×10^{10}	1.73×10^{-3} T/P	2.87×10^{-3} T/P	1.73×10^{-3} T/P	5.09×10^{-4}
10^{-3} cm STP/km	21.4	1	2.69×10^{11}	0.037 QT	0.614 T/P	0.0370 T/P	0.0109
Molecules	7.97×10^{-11}	3.72×10^{-12}	1	1.38×10^{-13}	2.29×10^{-13} T/P	1.38×10^{-13} T/P	4.06×10^{-14}
$\mu g/g$ (ppmw)	348 P/T	16.3 P/T	4.37×10^{12} P/T	0.603 P	1	0.603	0.177 P/T
Partial pressure, hPa (mbar)	578/T	27.0/T	7.25×10^{12} P/T	1	1.66/P	1/P	0.294/T
Parts per million by volume (ppmv)	578 P/T	27.0 P/T	7.25×10^{12} P/T	P	1.66	1	0.294 P/T
Parts per million by volume, sea level equivalent (ppmv SLE)	1.96×10^3	91.8	2.46×10^{13}	3.40T	5.64 T/P	340 T/P	1

APPENDIX B

TABULATIONS OF GASP AMBIENT OZONE DATA BY SEASON AND LATITUDE FOR 2000-FOOT ALTITUDE INTERVALS

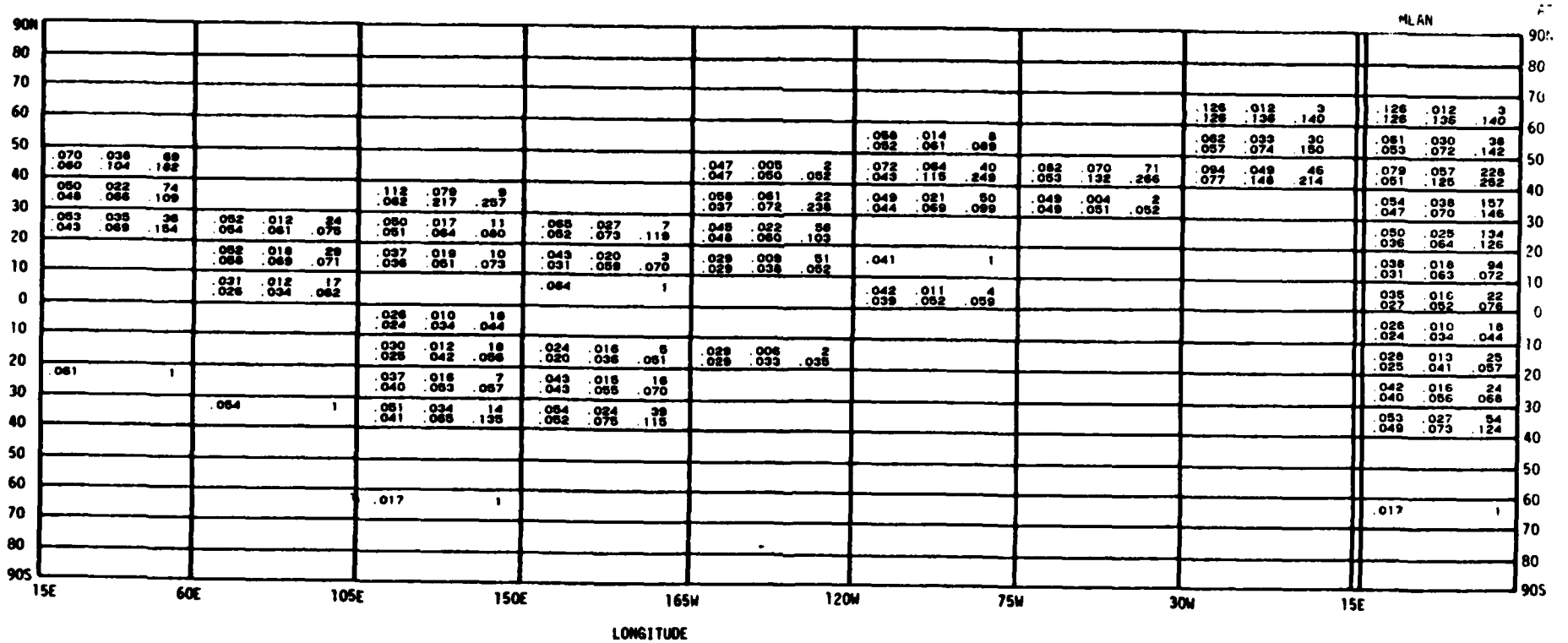


Geographical grid used for appendix B ozone tabulations.

CODE:

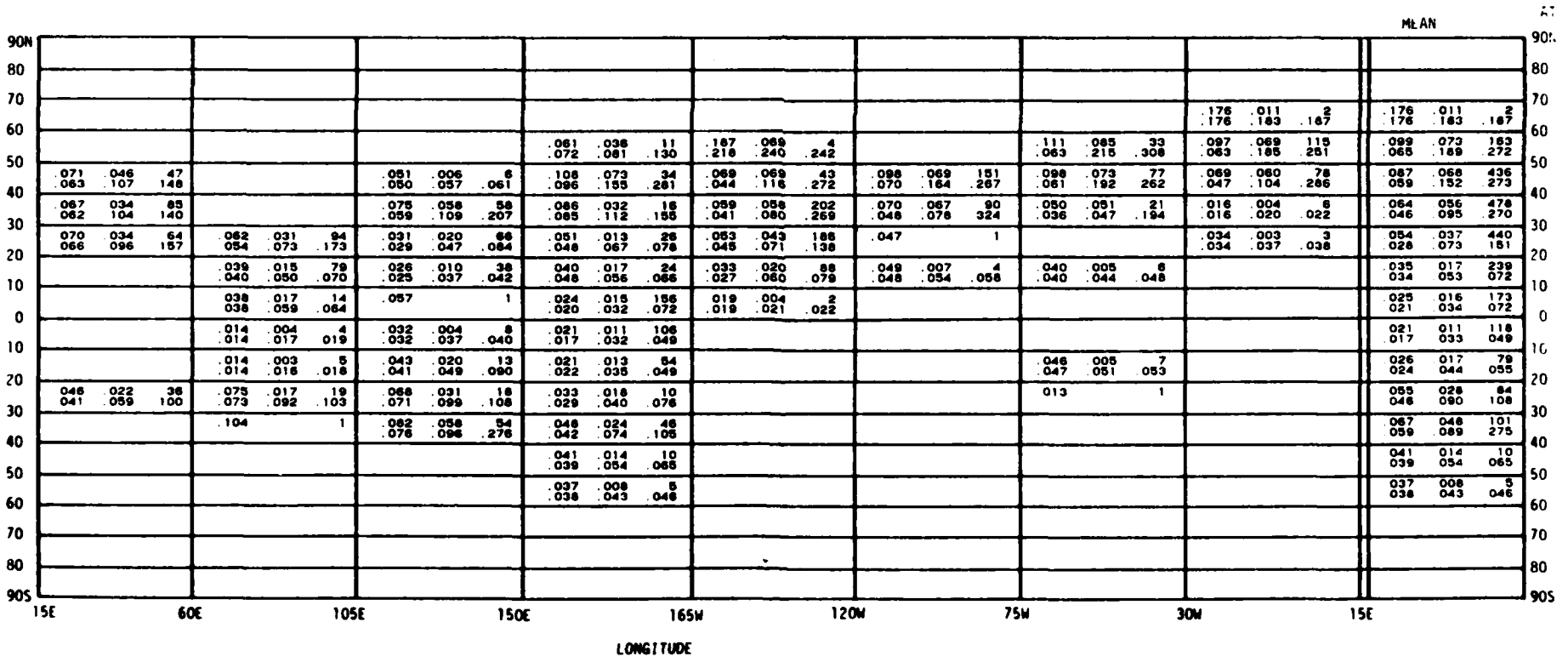
MEAN	ST. DEV.	N
50%	84%	98%

WINTER
FL 290



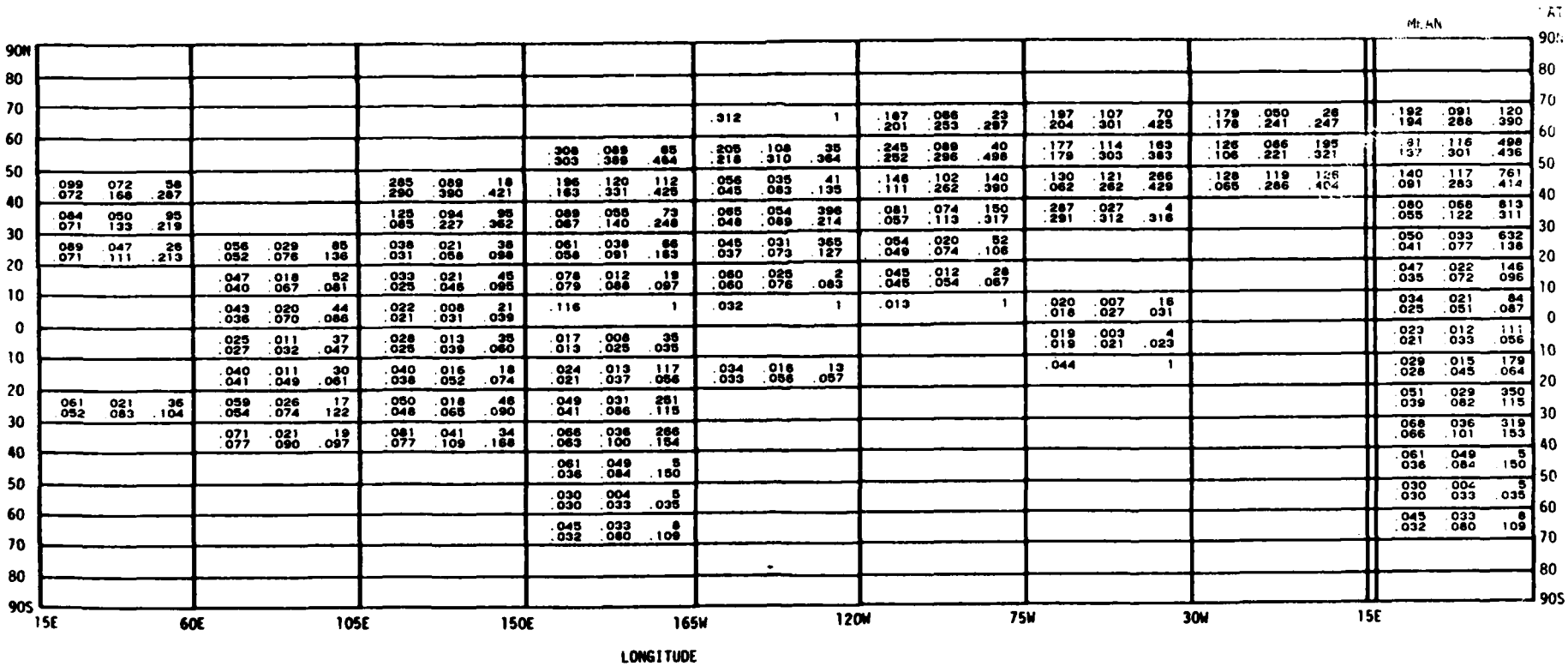
CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

WINTER
FL 310



CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

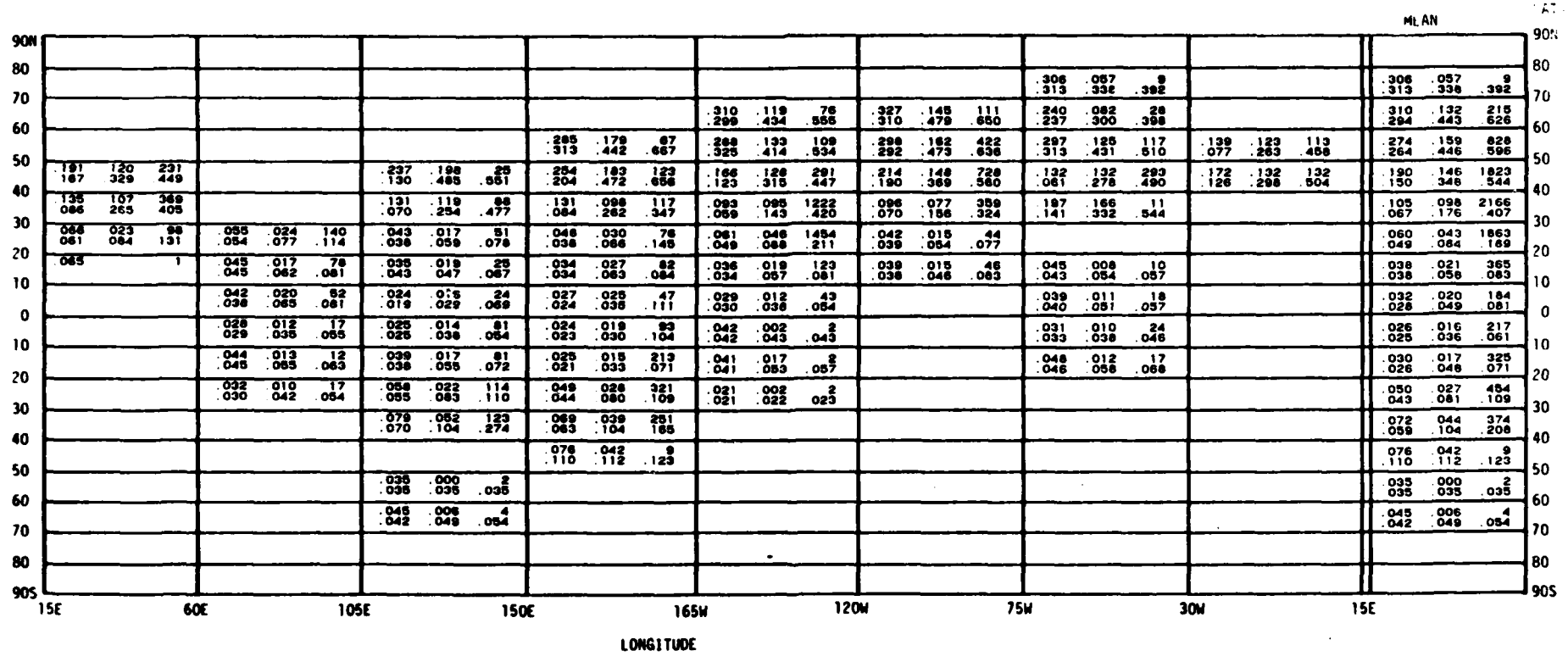
WINTER
FL 330



CODE:

MEAN	ST. DEV.	N
50%	84%	98%

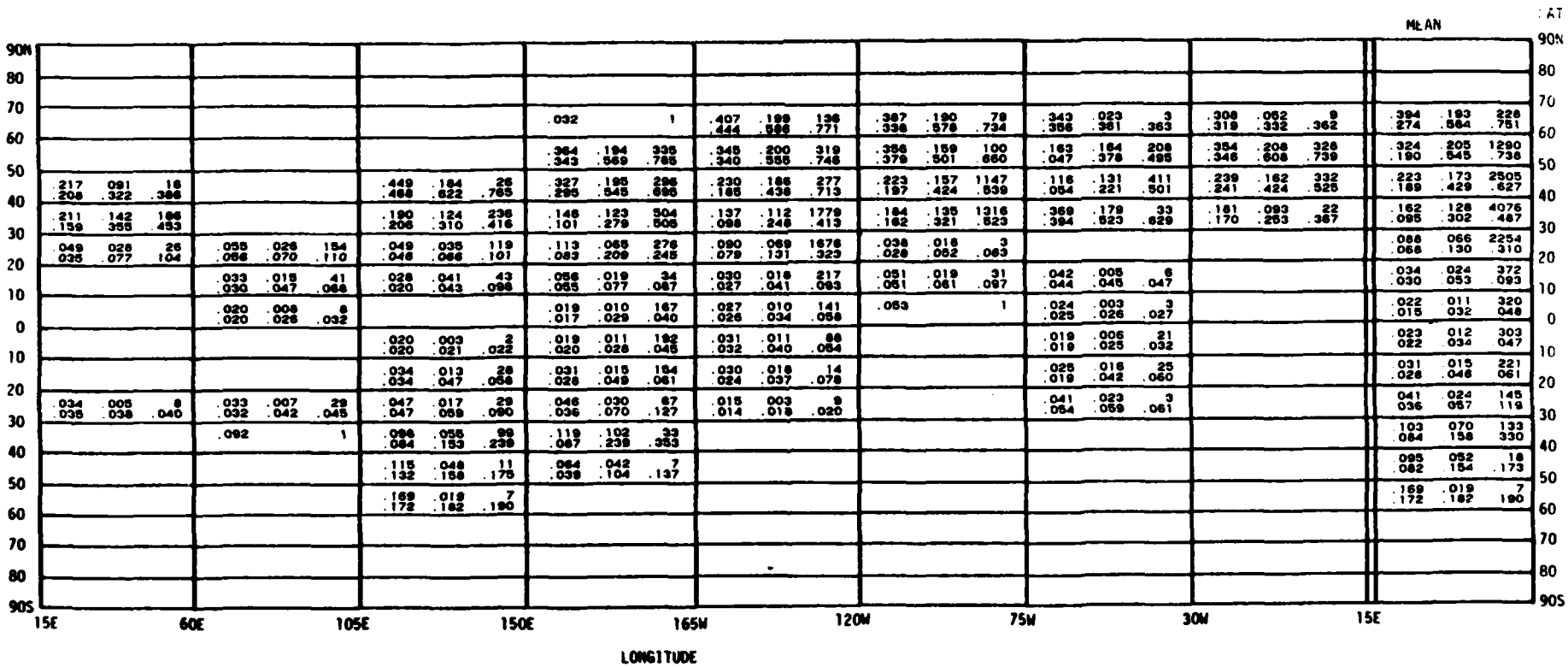
WINTER
FL 350



CODE:

MEAN	ST. DEV.	N
50%	84%	98%

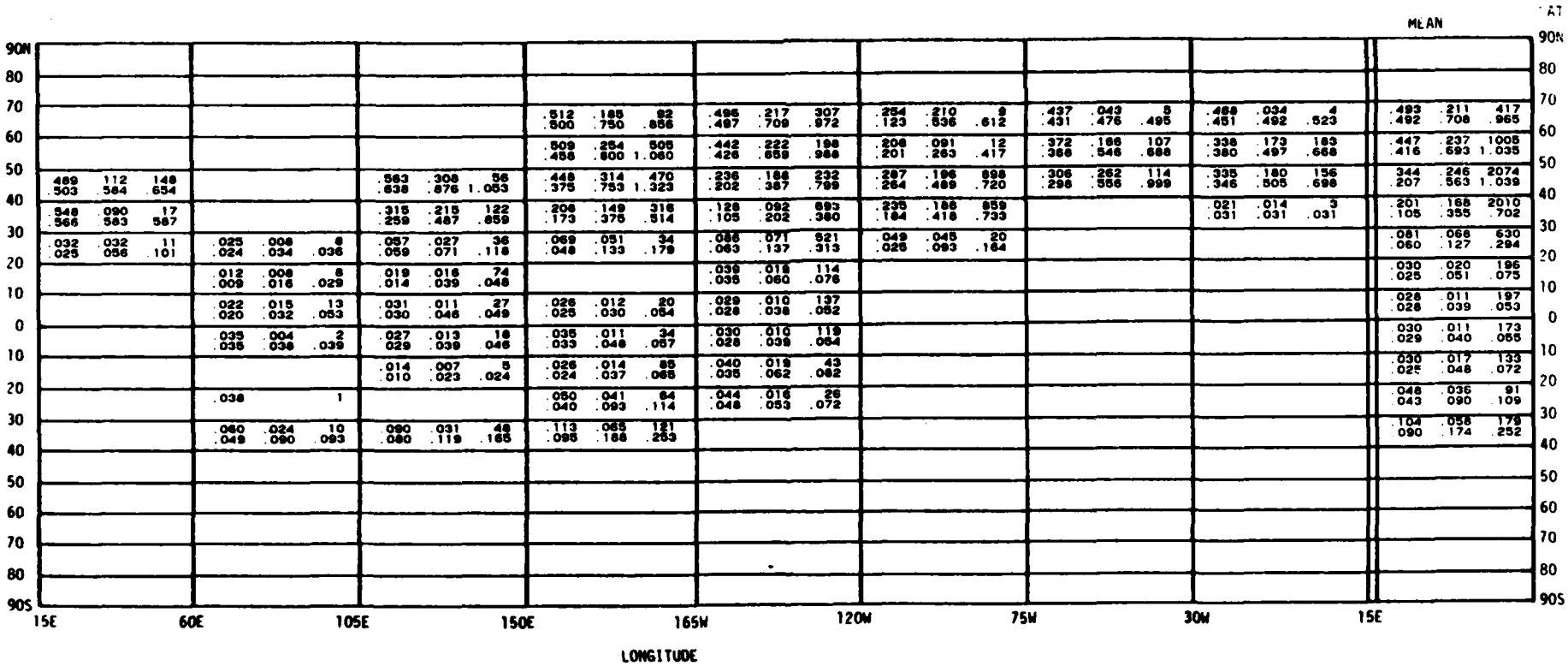
WINTER
FL 370



CODE:

MEAN	ST. DEV.	N
50%	84%	98%

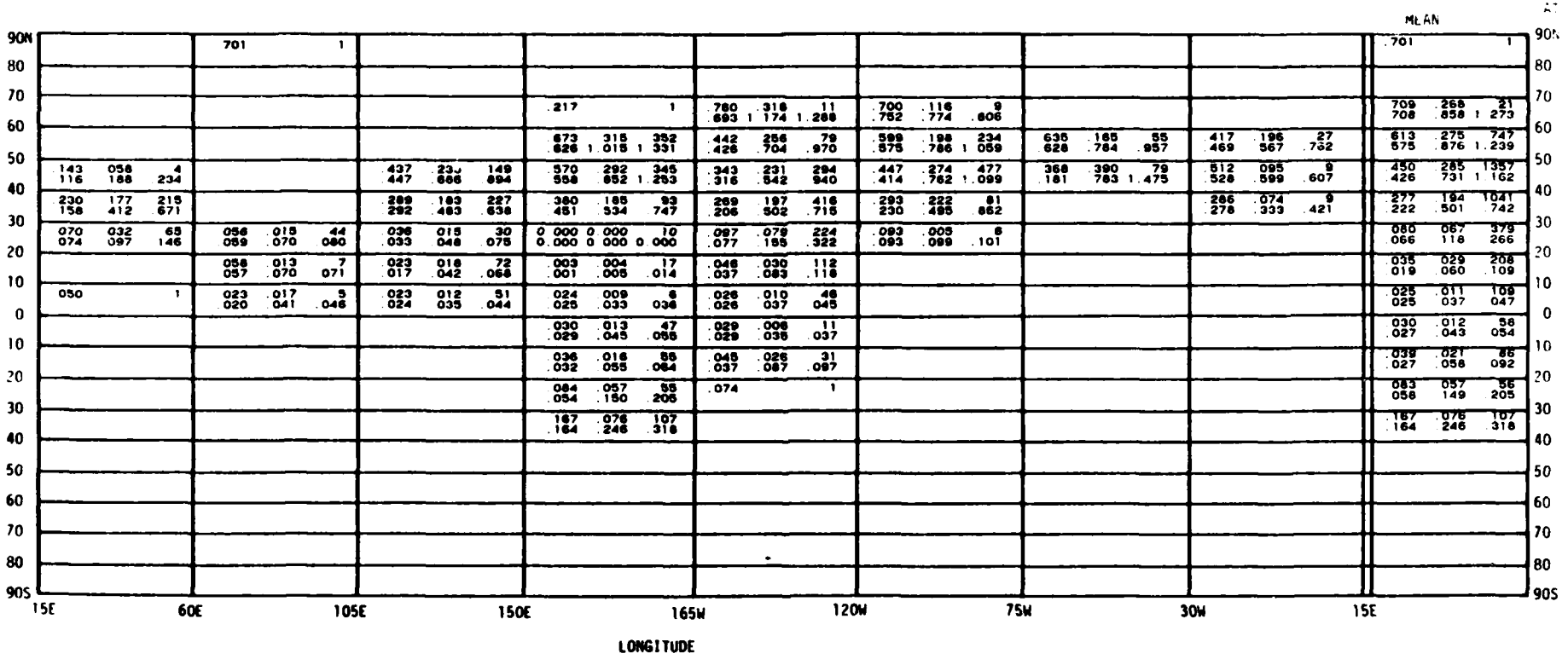
WINTER
FL 390



CODE:

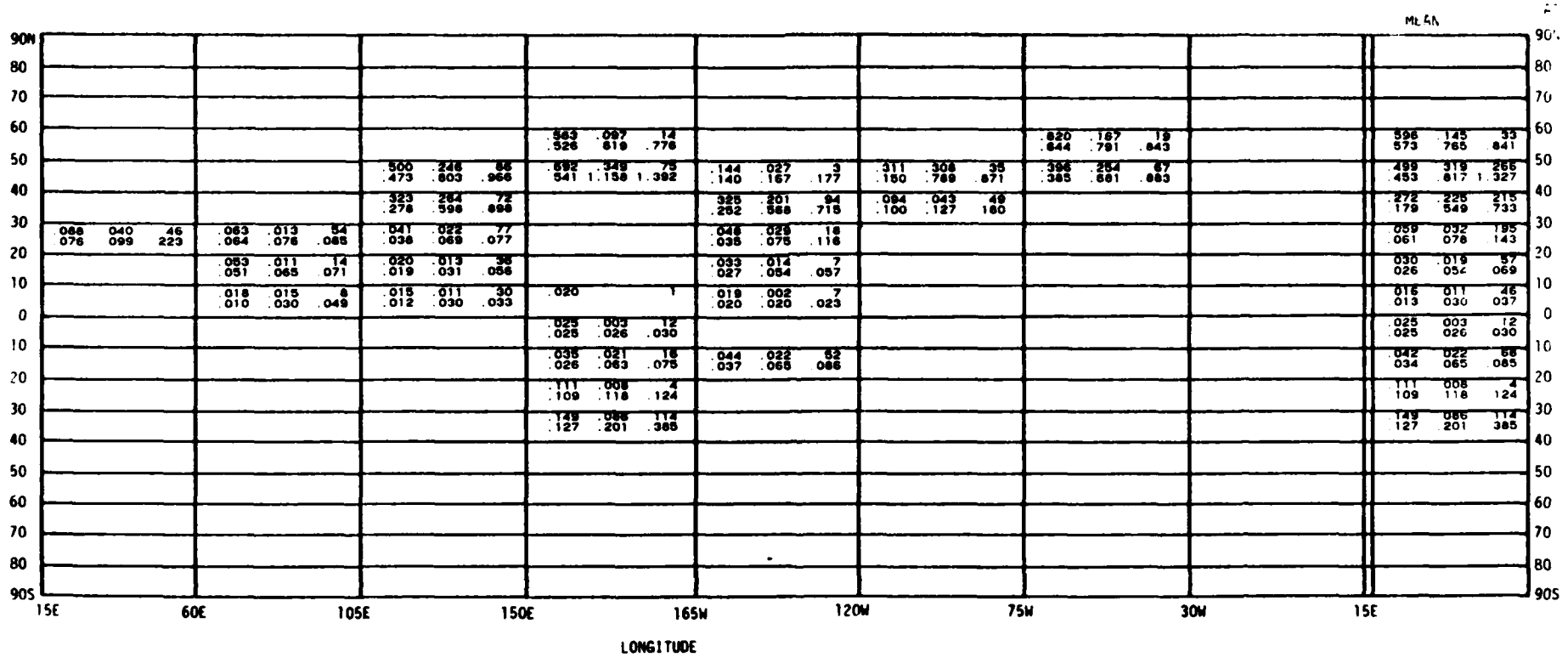
MEAN	ST. DEV.	N
50%	84%	98%

WINTER
FL 410



CODE:	MEAN	ST. DEV.	N
	50%	84%	98%

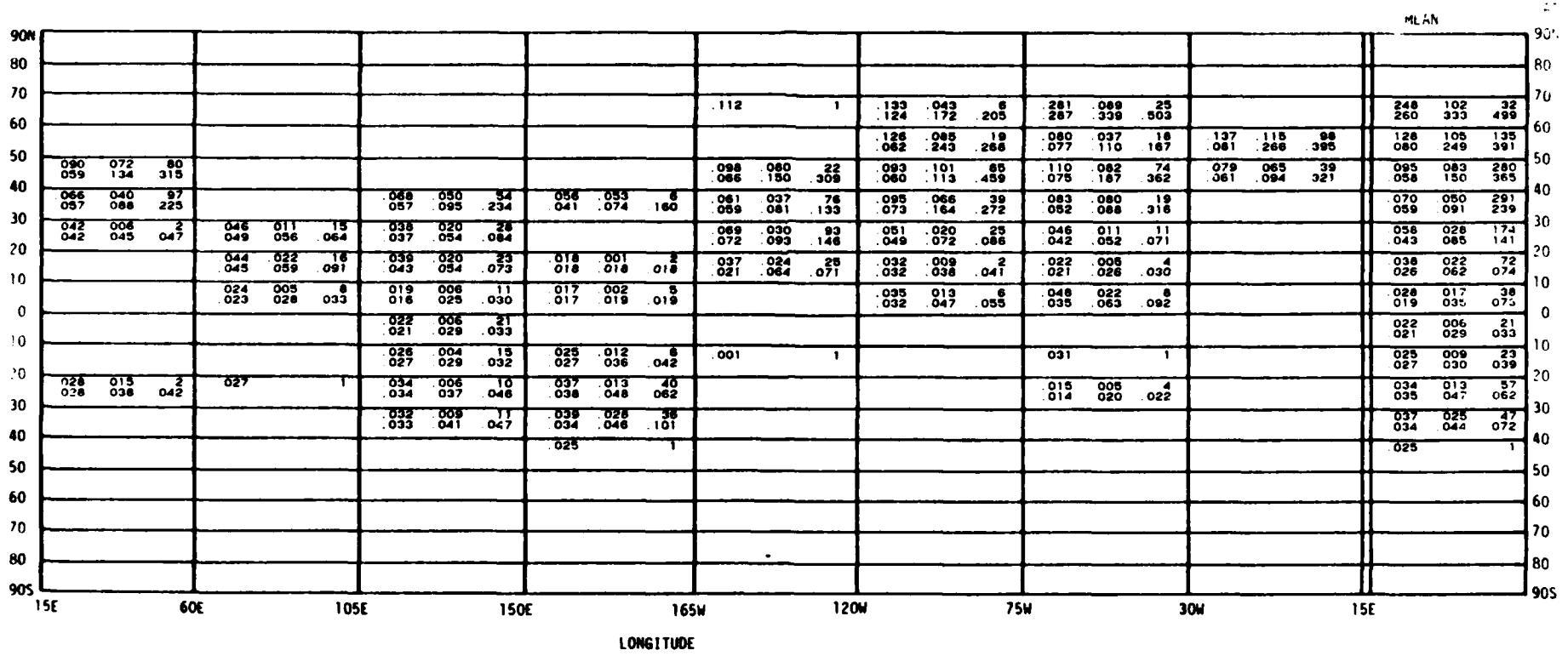
WINTER
FL 430



CODE:

MEAN	ST. DEV.	N
50°	84°	98°

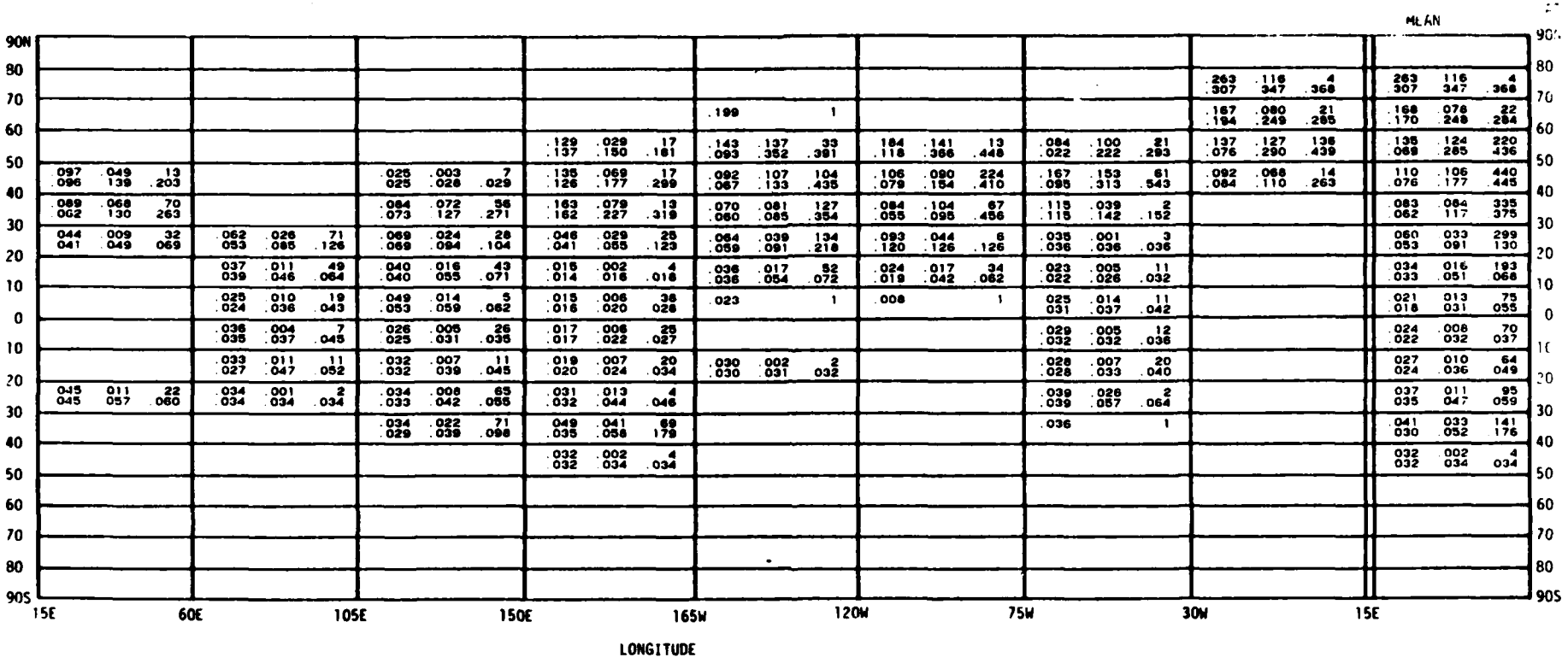
SPRING
FL 290



CODE:

MEAN	ST. DEV.	N
50%	84%	98%

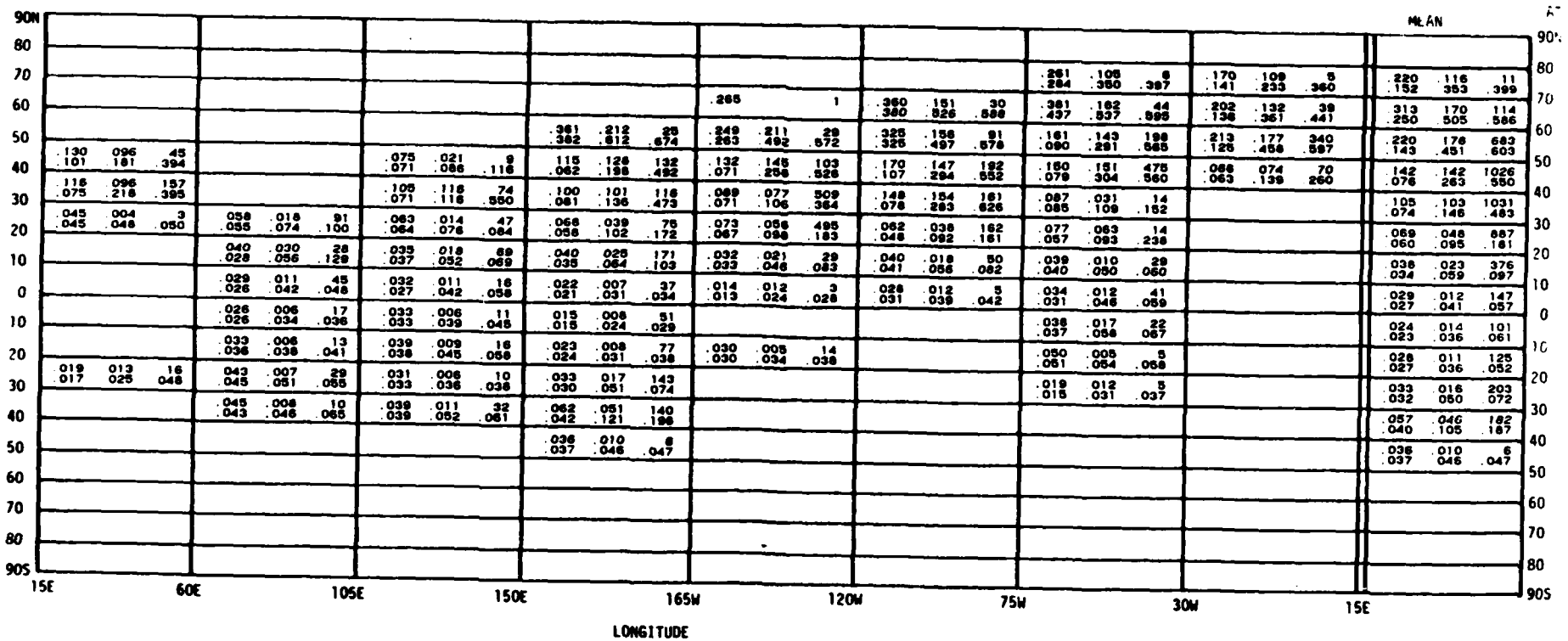
SPRING
FL 310



CODE:

MEAN	ST. DEV.	N
50%	84%	98%

SPRING
FL 330



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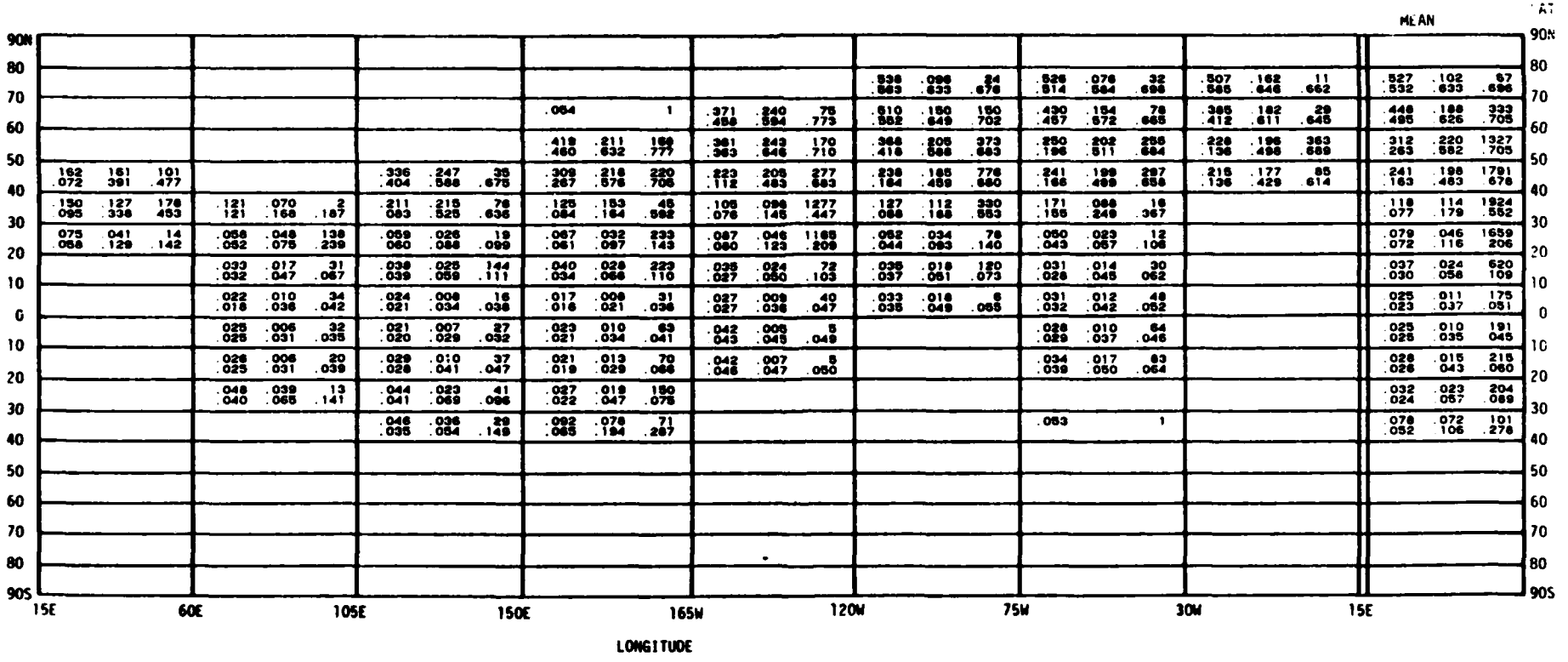

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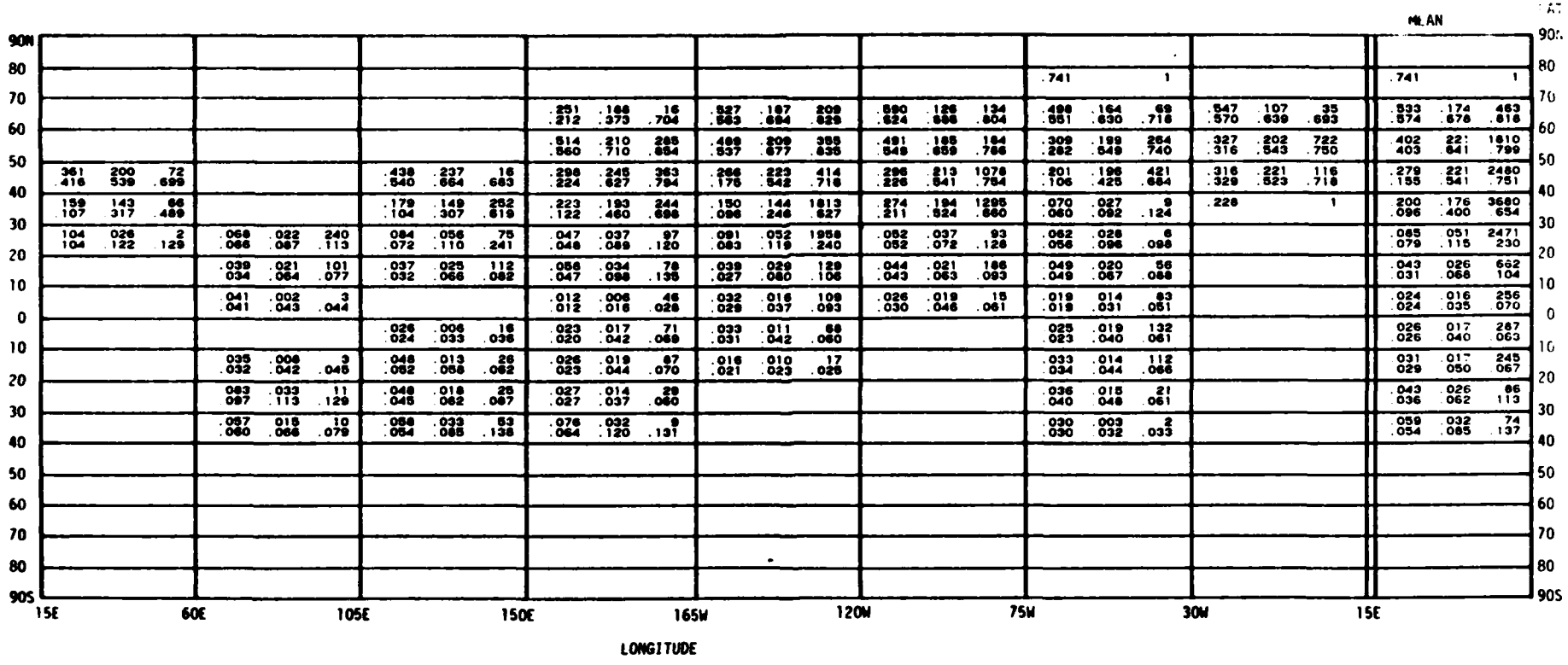

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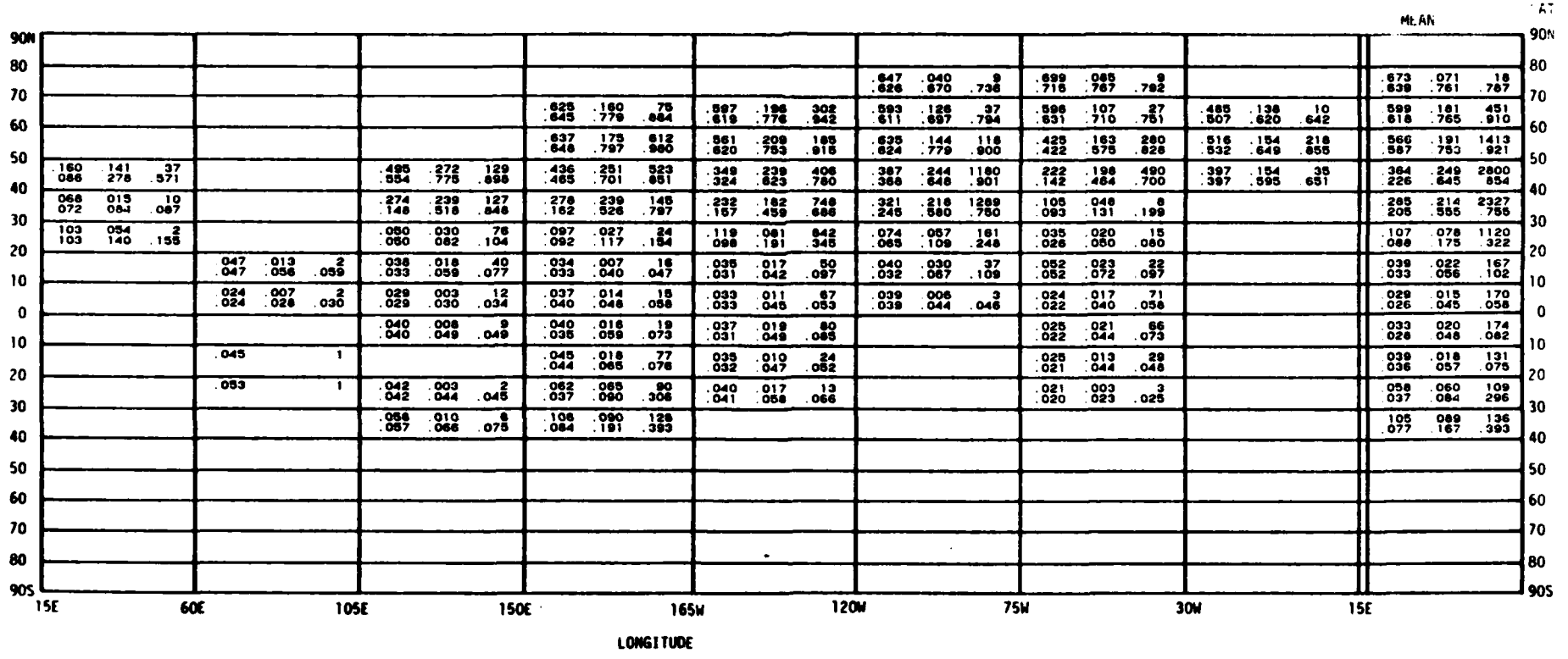

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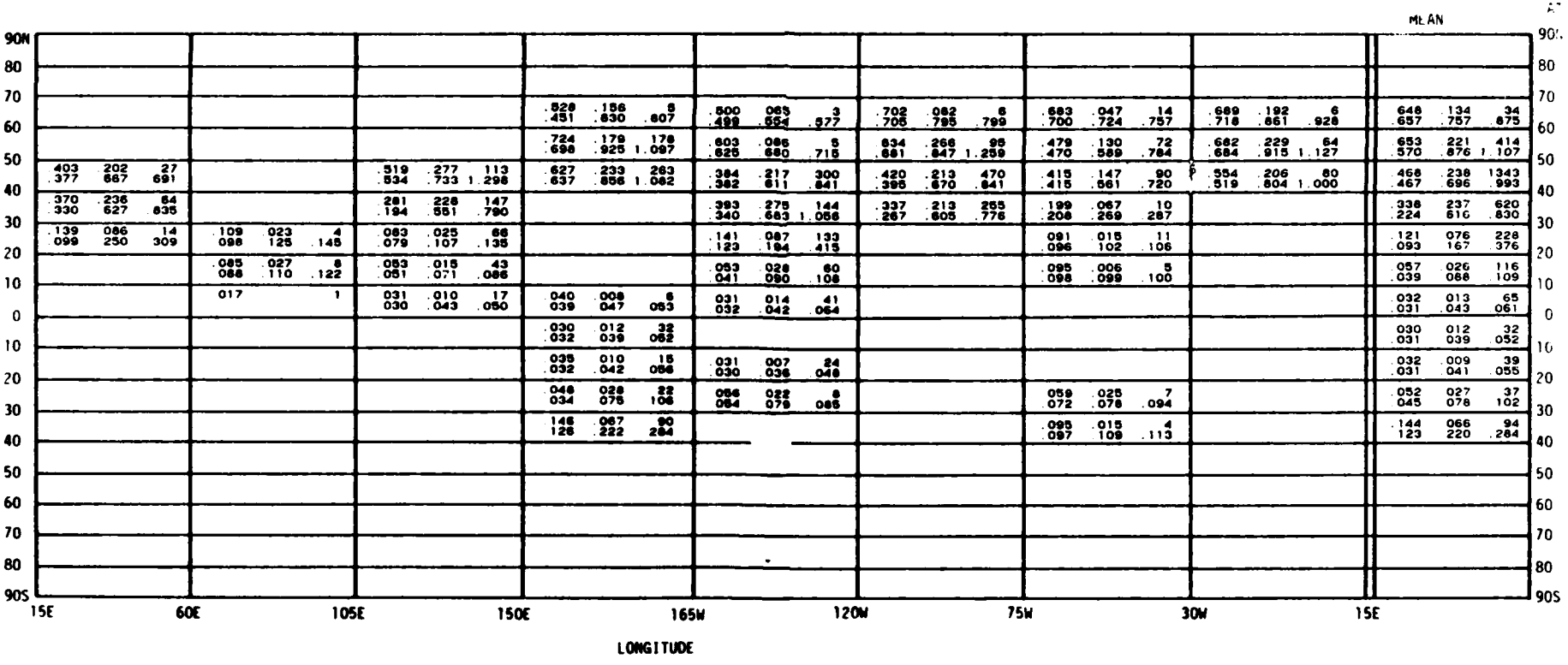

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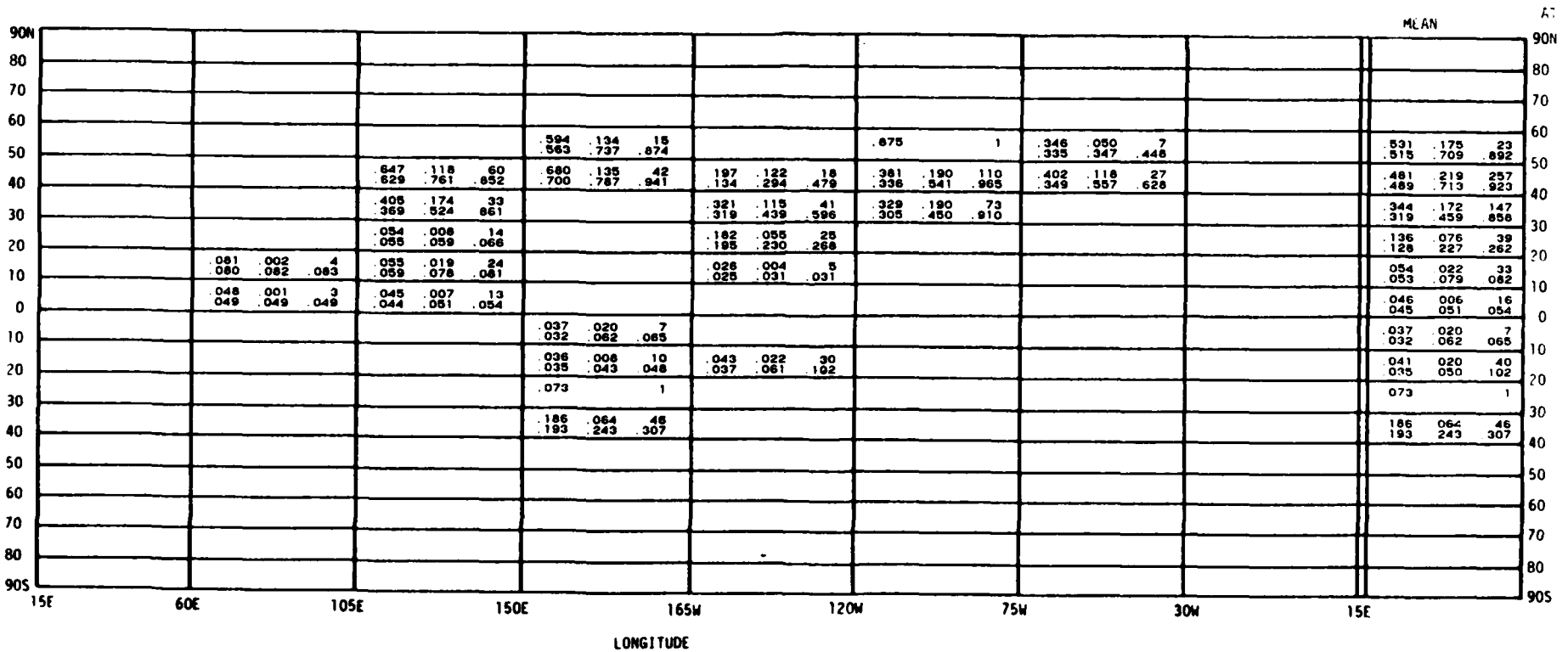

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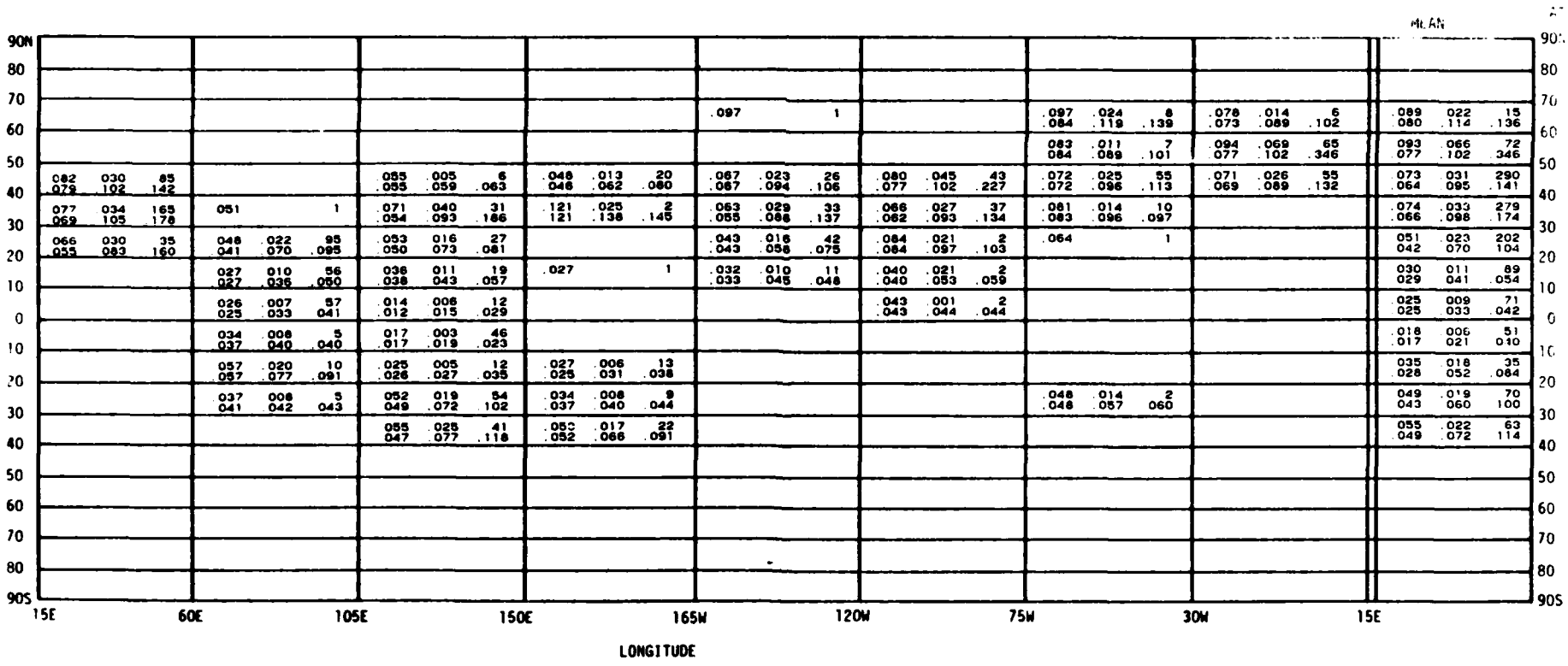

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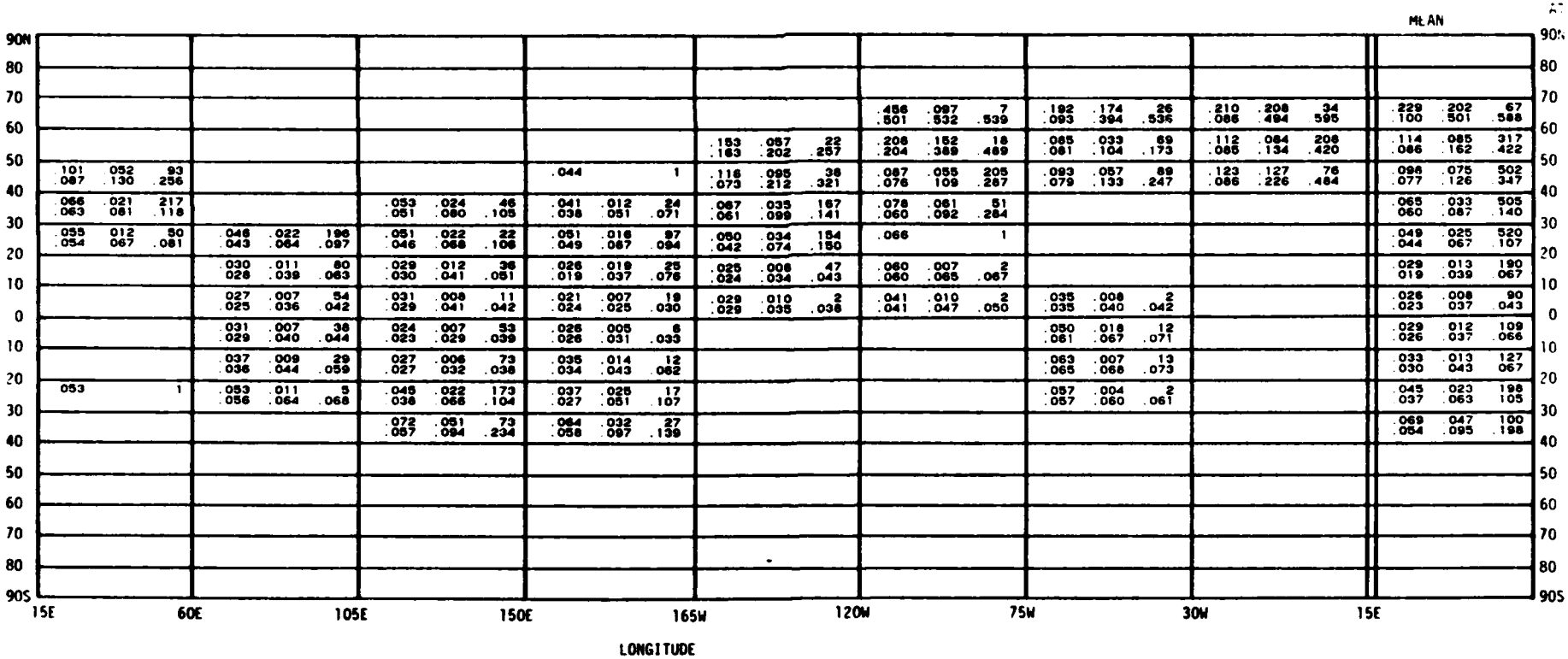

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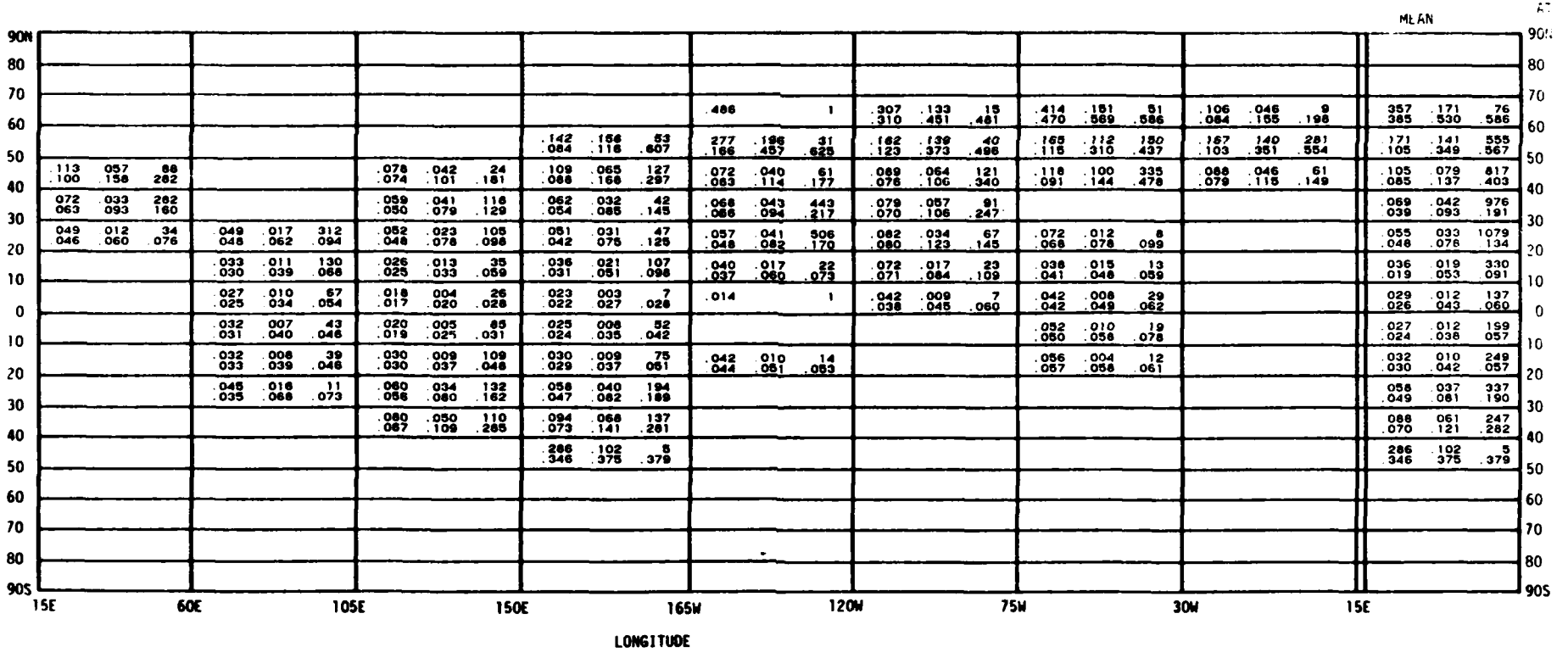

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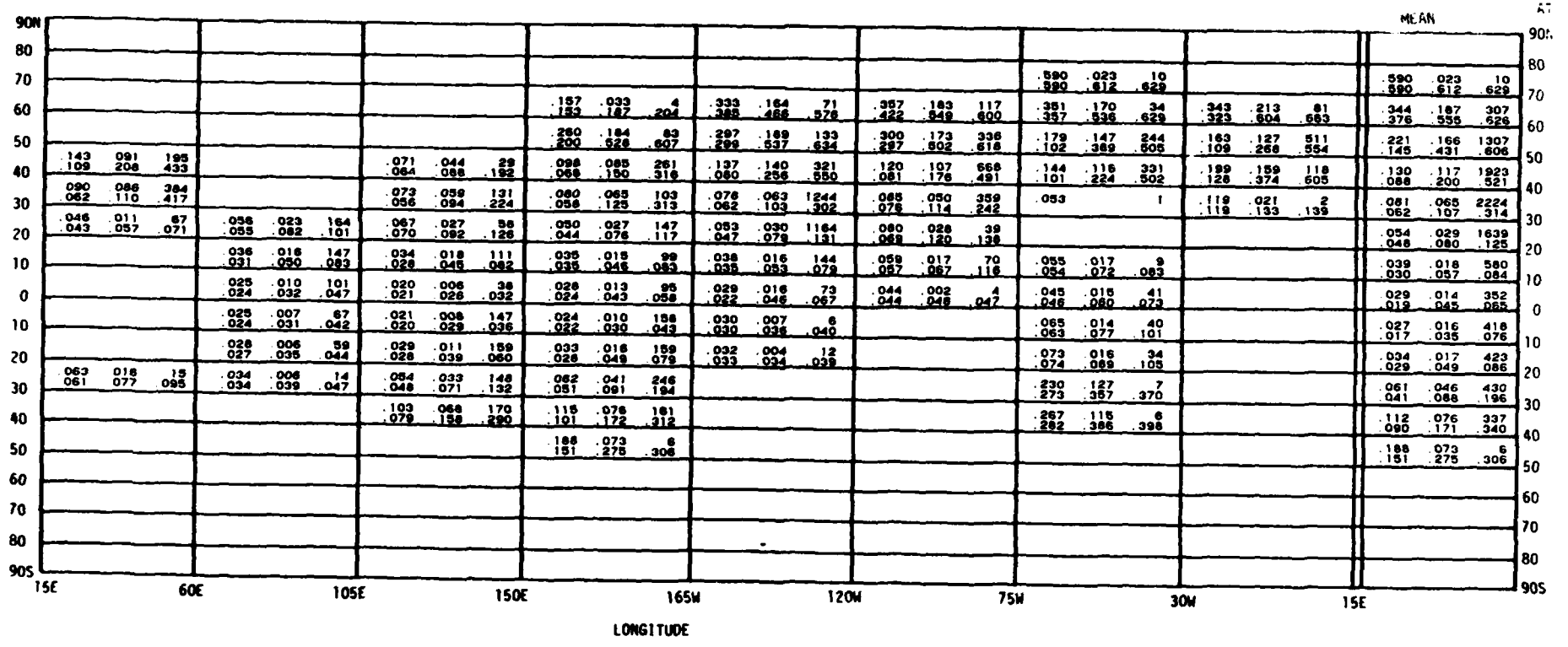

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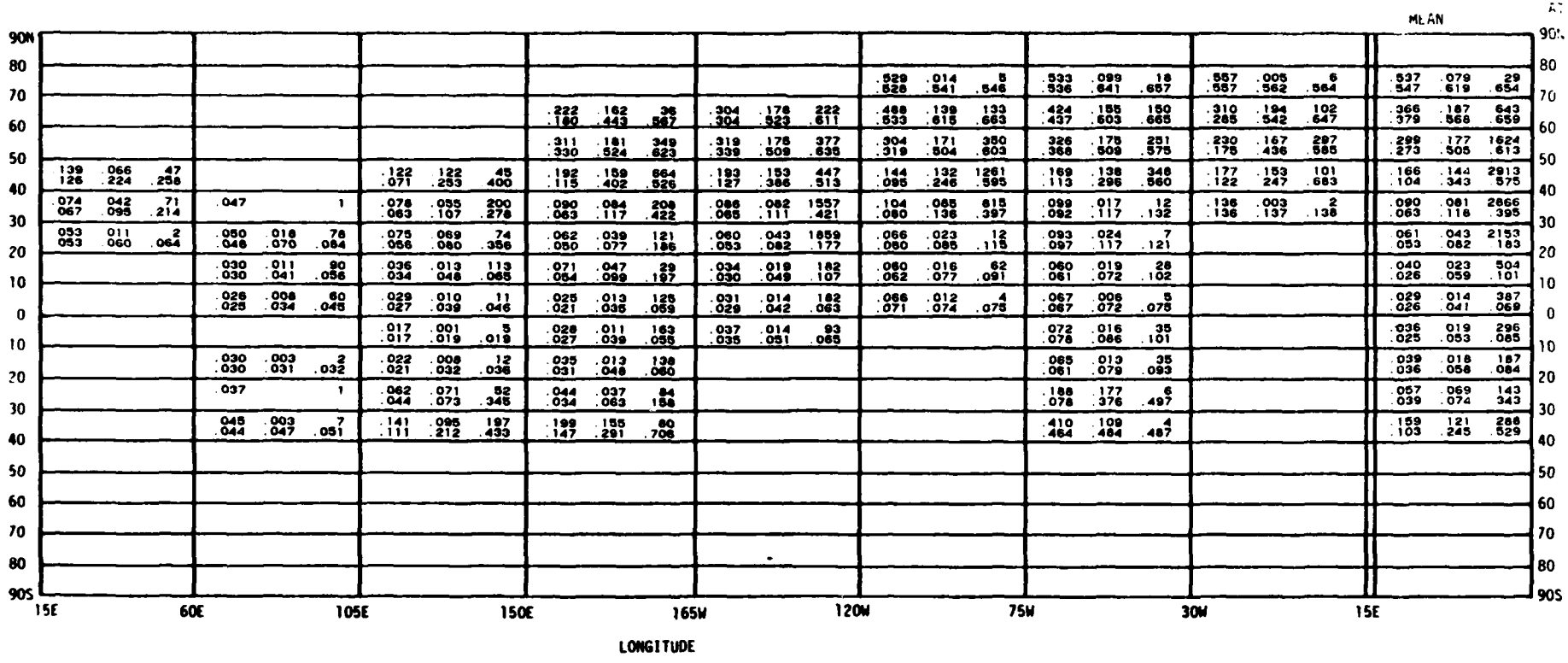

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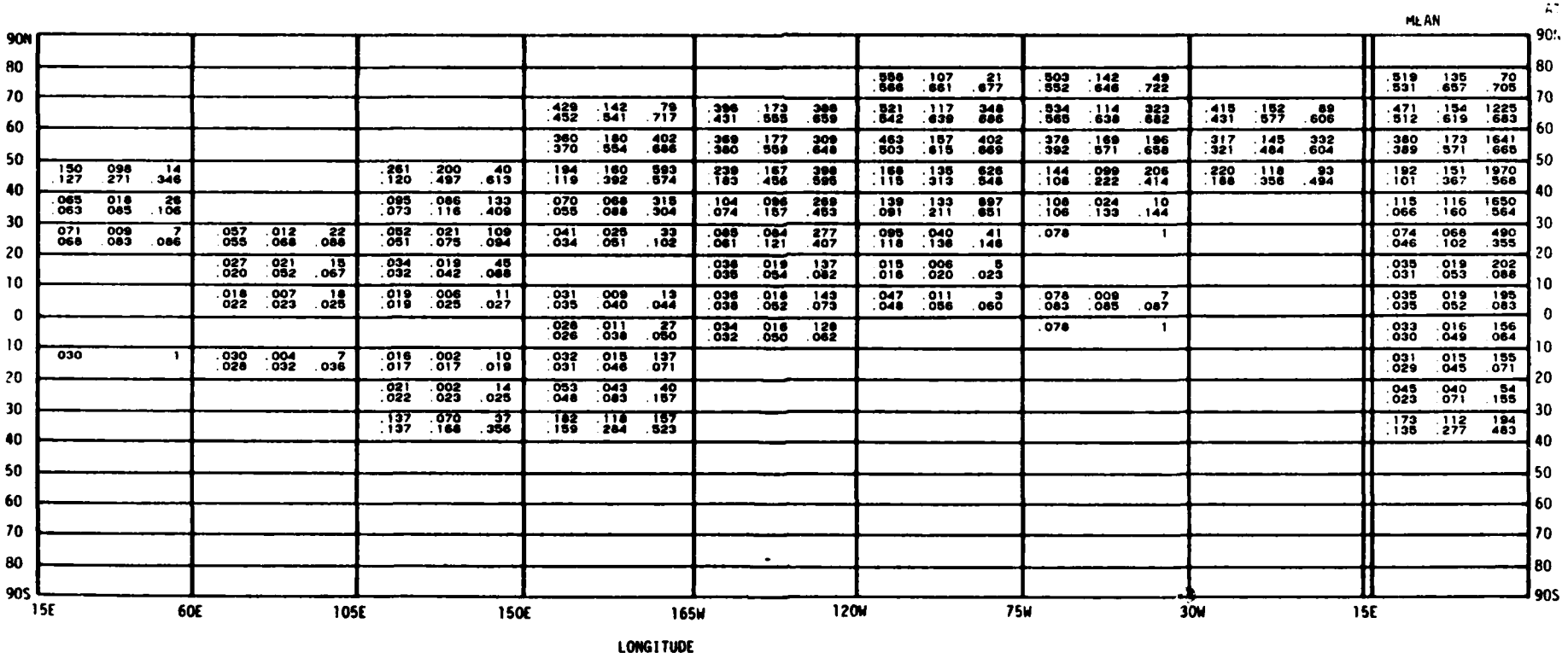

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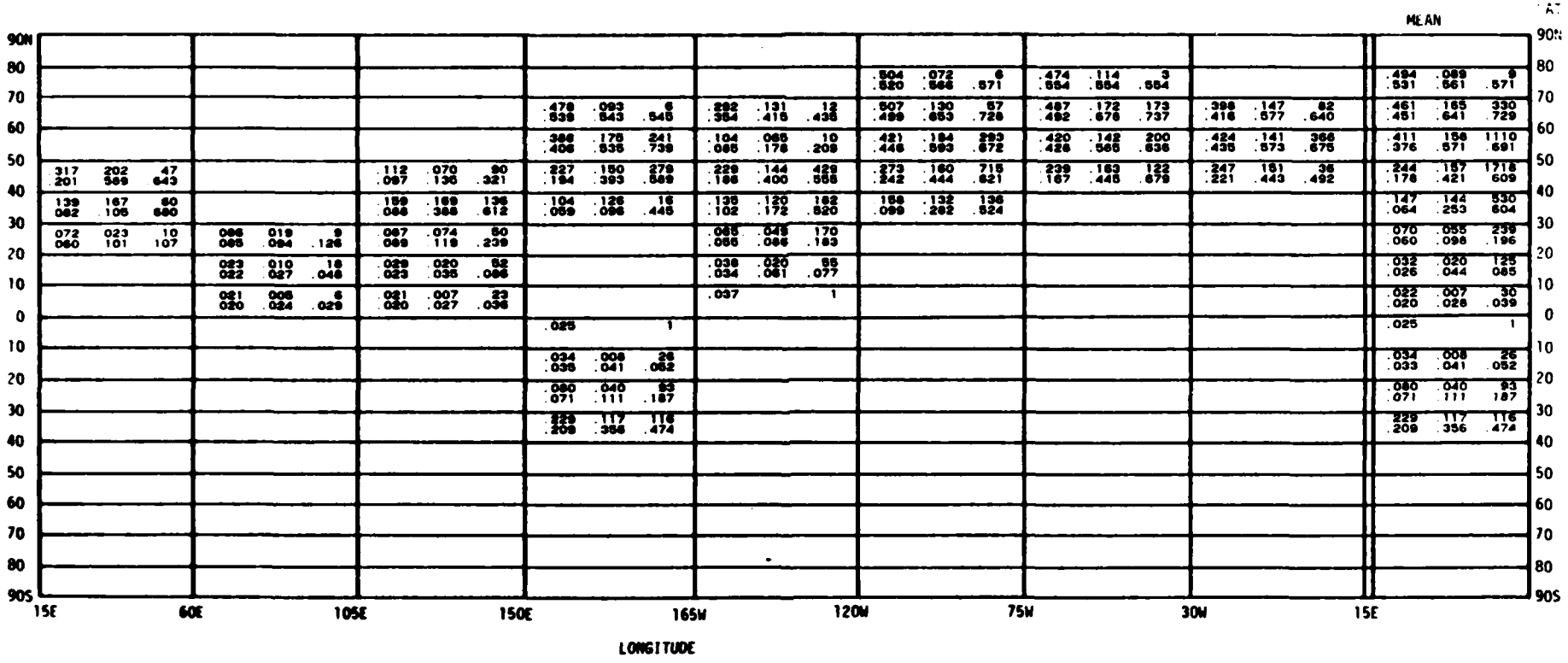

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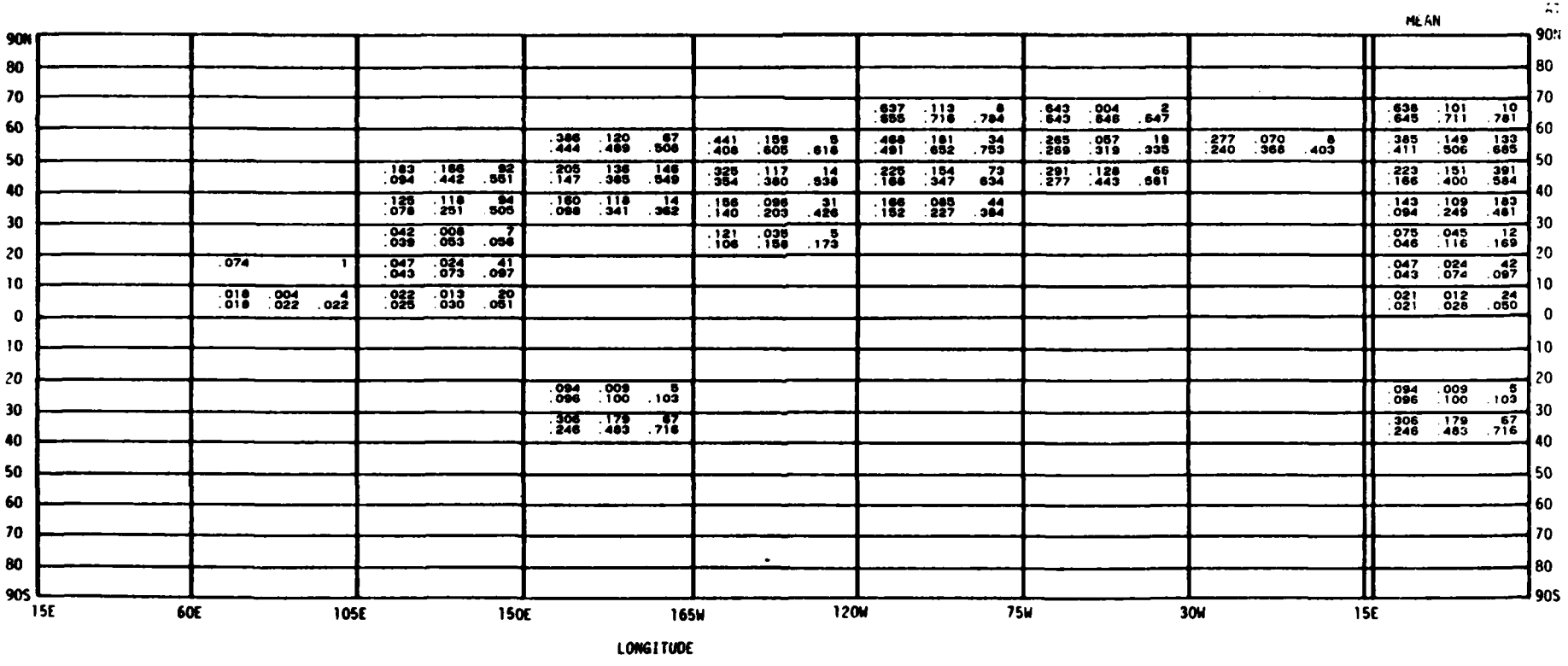

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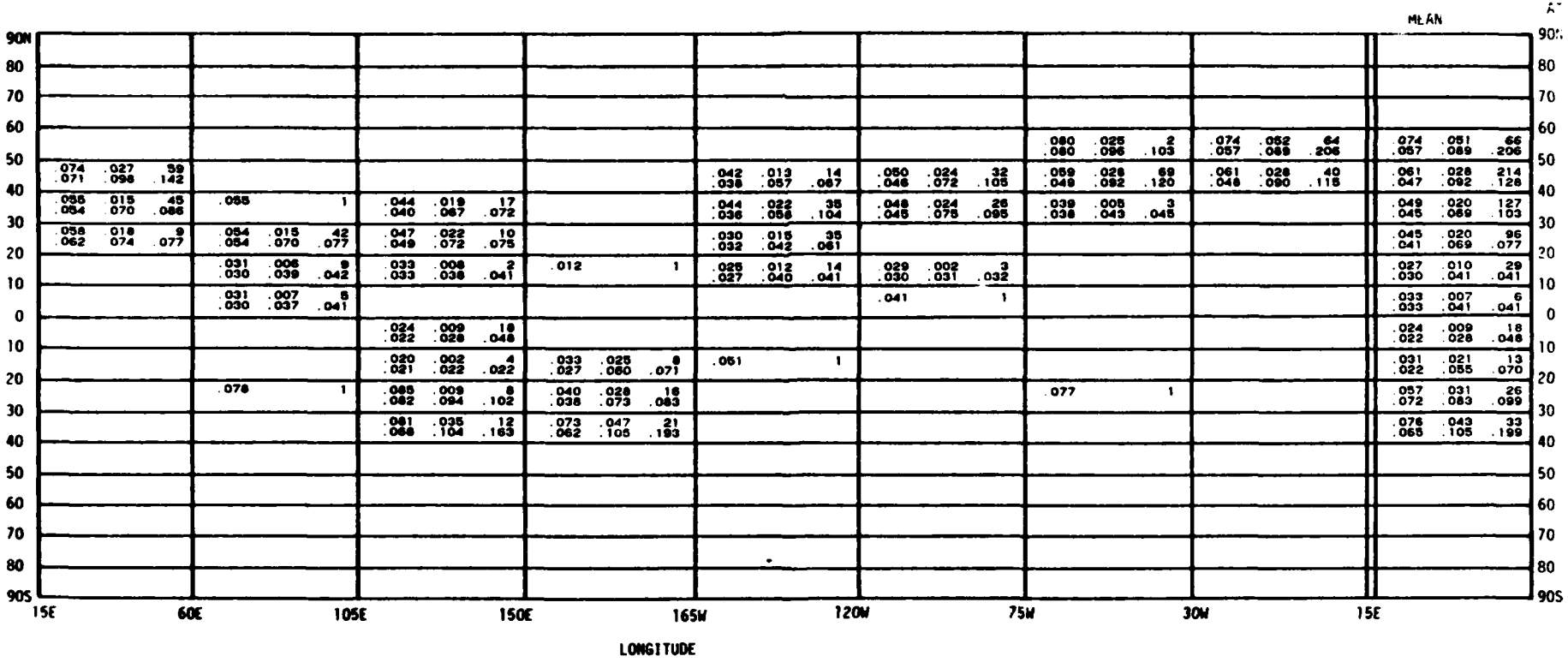

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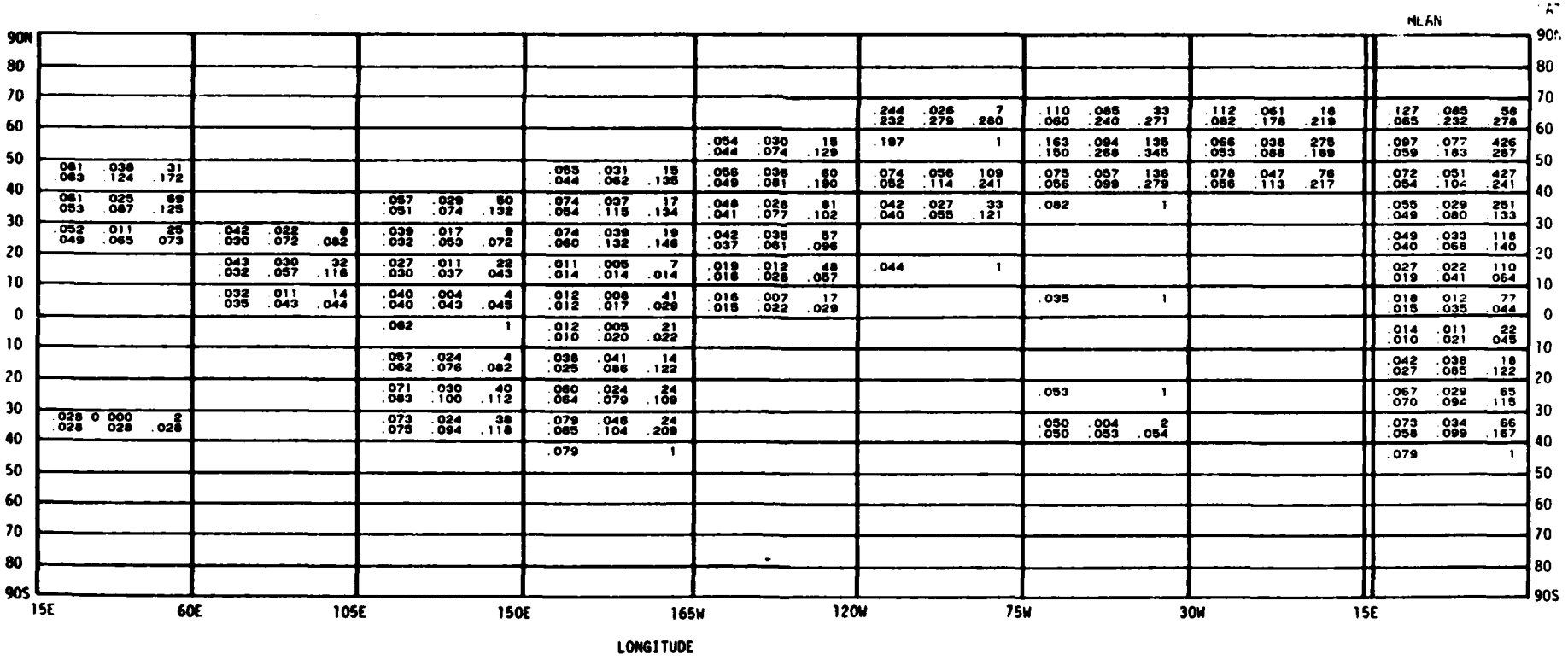

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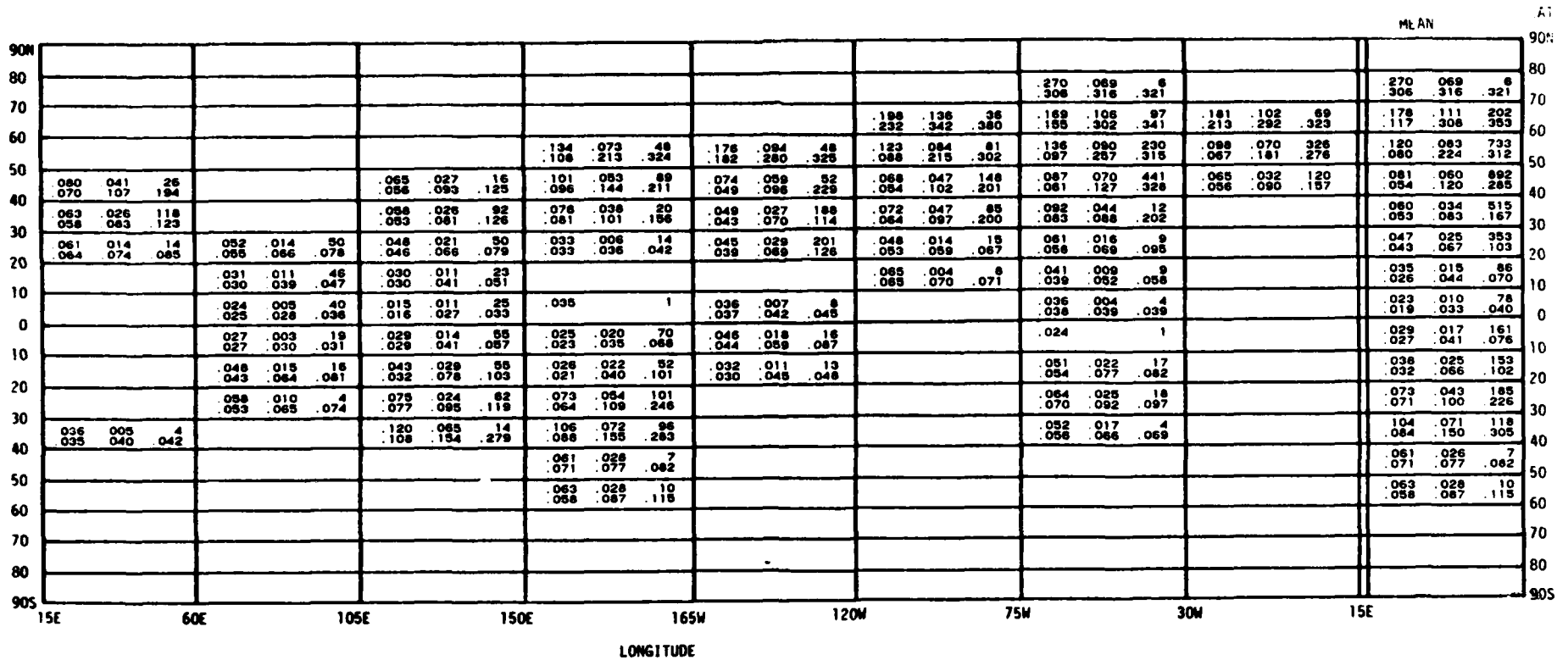

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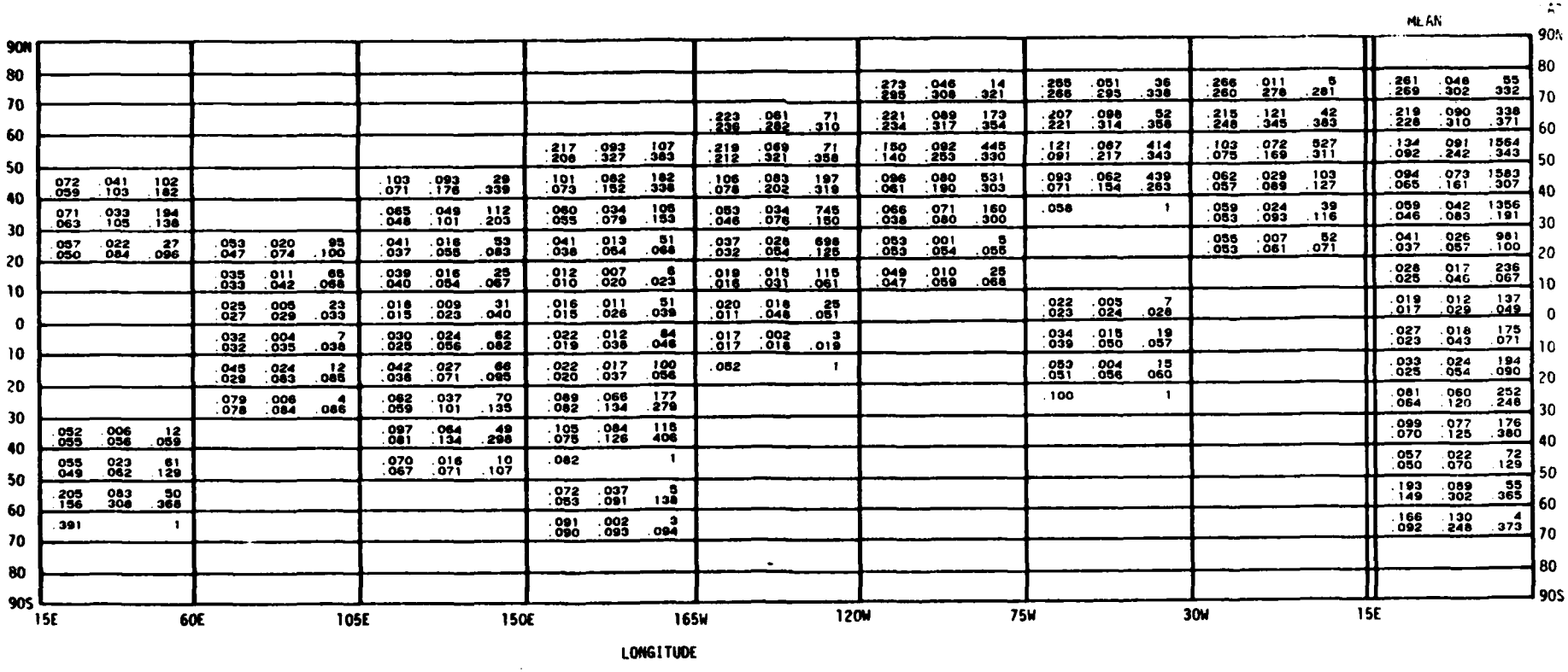

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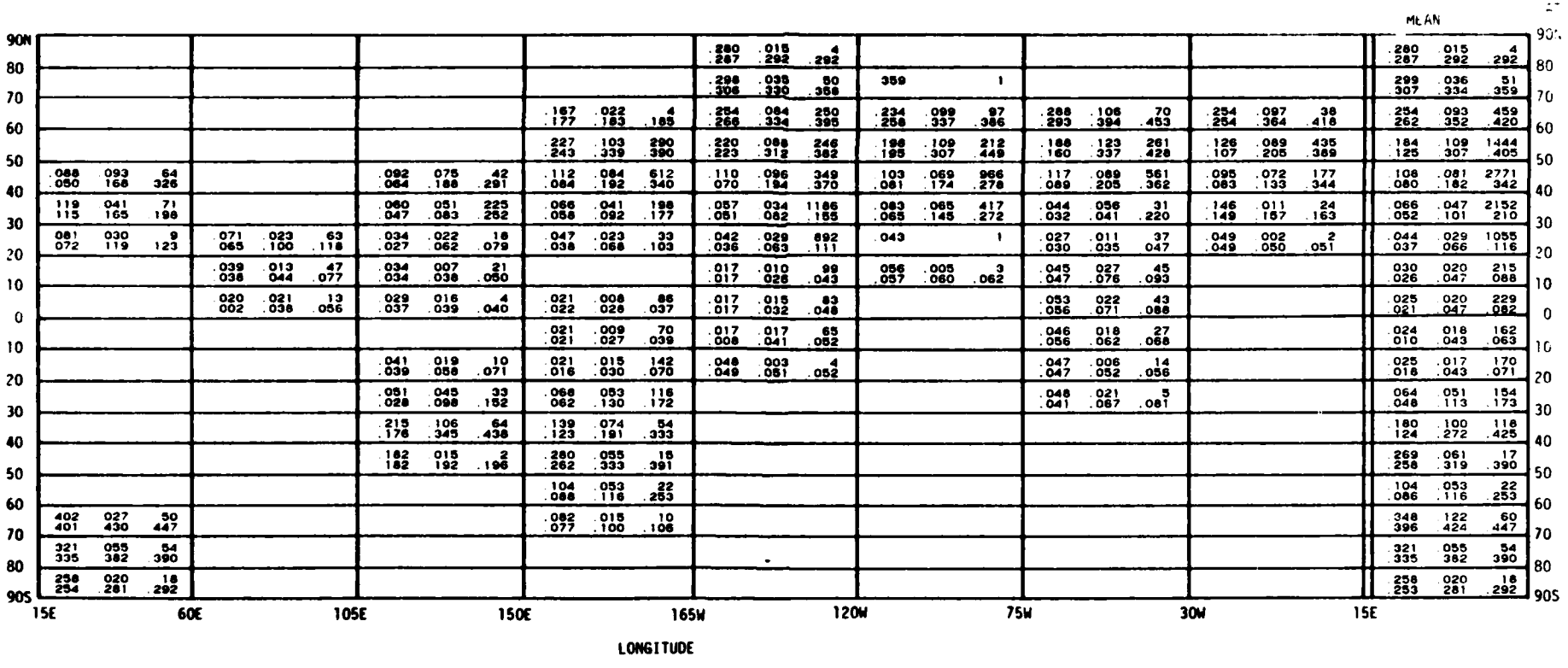

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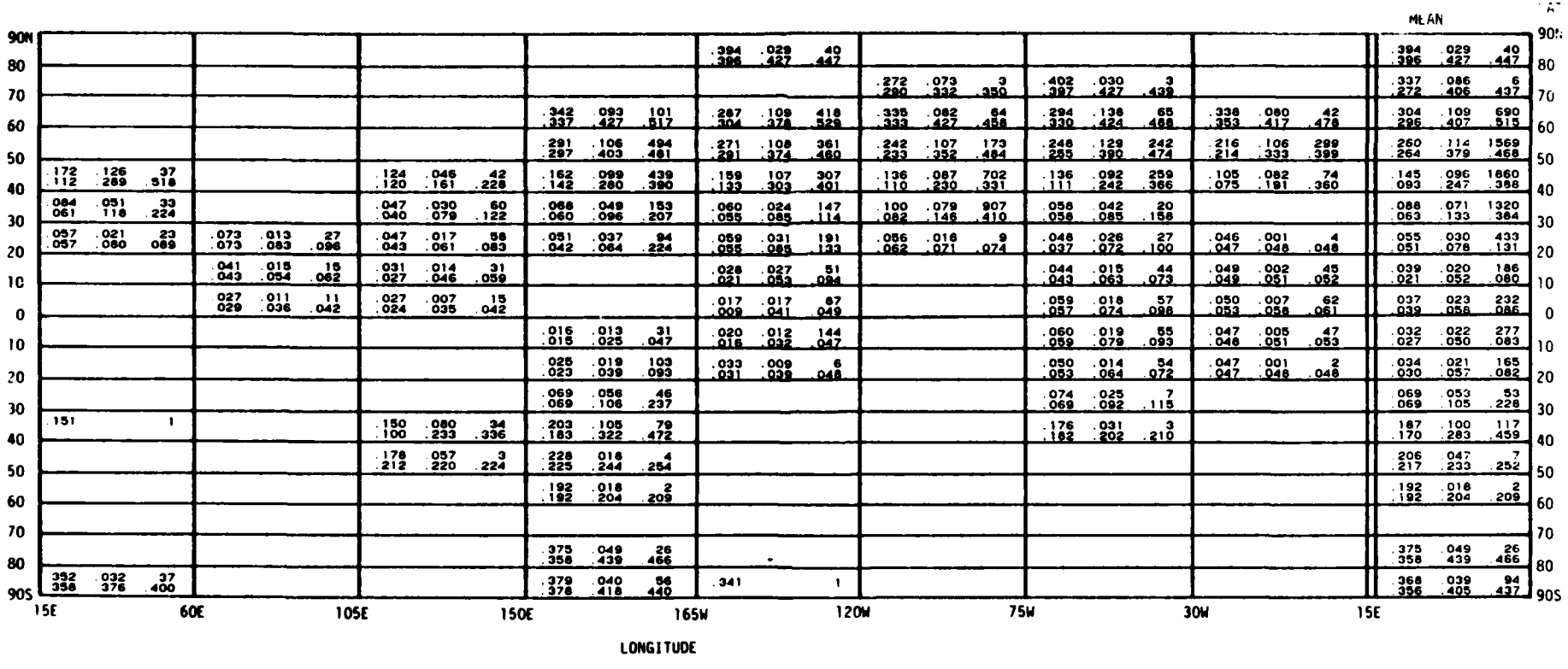

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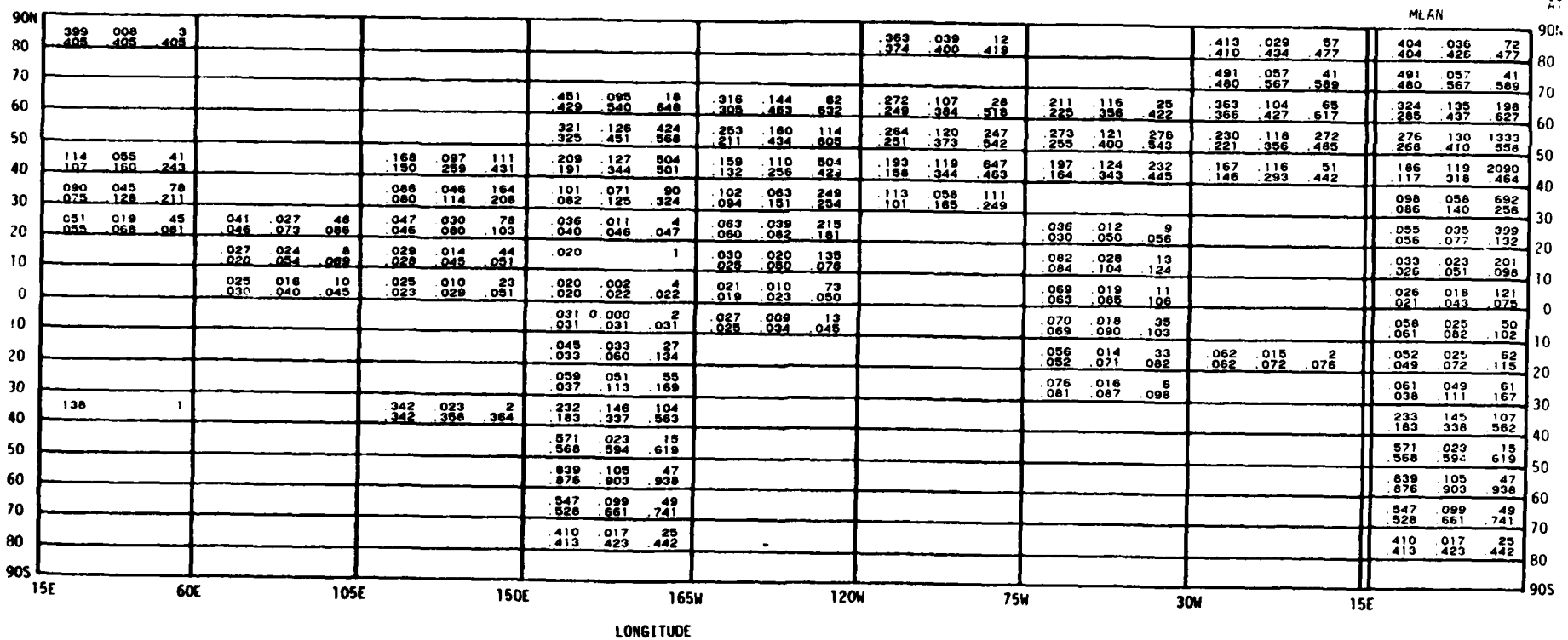

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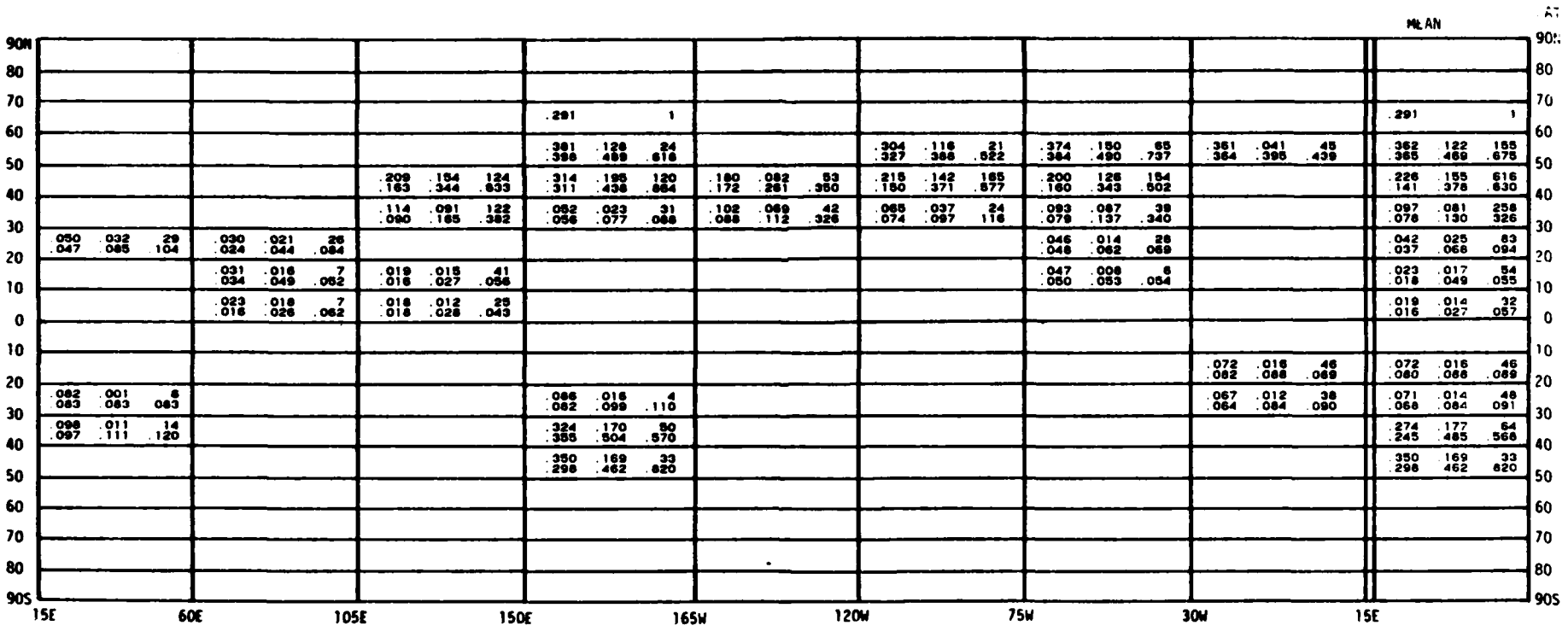

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1. Report No. NASA TM-82742 FAA-EE-83-12	2. Government Accession No.	3. Recipient's Catalog No.

4. Title and Subtitle	5. Report Date
Tabulations of Ambient Ozone Data Obtained by GASP Airliners: March 1975 to July 1979	January 1984
	6. Performing Organization Code 505-44-22
7. Author(s) William H. Jasperson and James D. Holdeman	8. Performing Organization Report No E-1055
	10. Work Unit No.
9. Performing Organization Name and Address National Aeronautics and Space Administration Lewis Research Center Cleveland, Ohio 44135	11. Contract or Grant No.
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12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D.C. 20546	14. Sponsoring Agency Code

15. Supplementary Notes

William H. Jasperson, Control Data Corp., Minneapolis, Minnesota; James D. Holdeman, Lewis Research Center; work partly supported by FAA through interagency agreement DOT-FA78WAI-893.

16. Abstract

Tabulations are given of GASP ambient ozone mean, standard deviation, median, 84th percentile, and 98th percentile values, by month, flight level, and geographical region. These data are tabulated to conform to the temporal and spatial resolution required by FAA Advisory Circular 120-38 (monthly by 2000 ft in altitude by 5^{o} in latitude) for climatological data used to show compliance with cabin ozone regulations. In addition seasonal x 10^{o} latitude tabulations are included which are directly comparable to and supersede the interim GASP ambient ozone tabulations given in appendix B of FAA-EE-80-43 (NASA TM-81528). Selected probability variations are highlighted to illustrate the spatial and temporal variability of ambient ozone and to compare results from the coarse and fine grid analyses.

17. Key Words (Suggested by Author(s))	18. Distribution Statement
Ambient ozone Aircraft measurements GASP Cabin ozone	Unclassified - unlimited STAR Category 47

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of pages	22. Price*
Unclassified	Unclassified		

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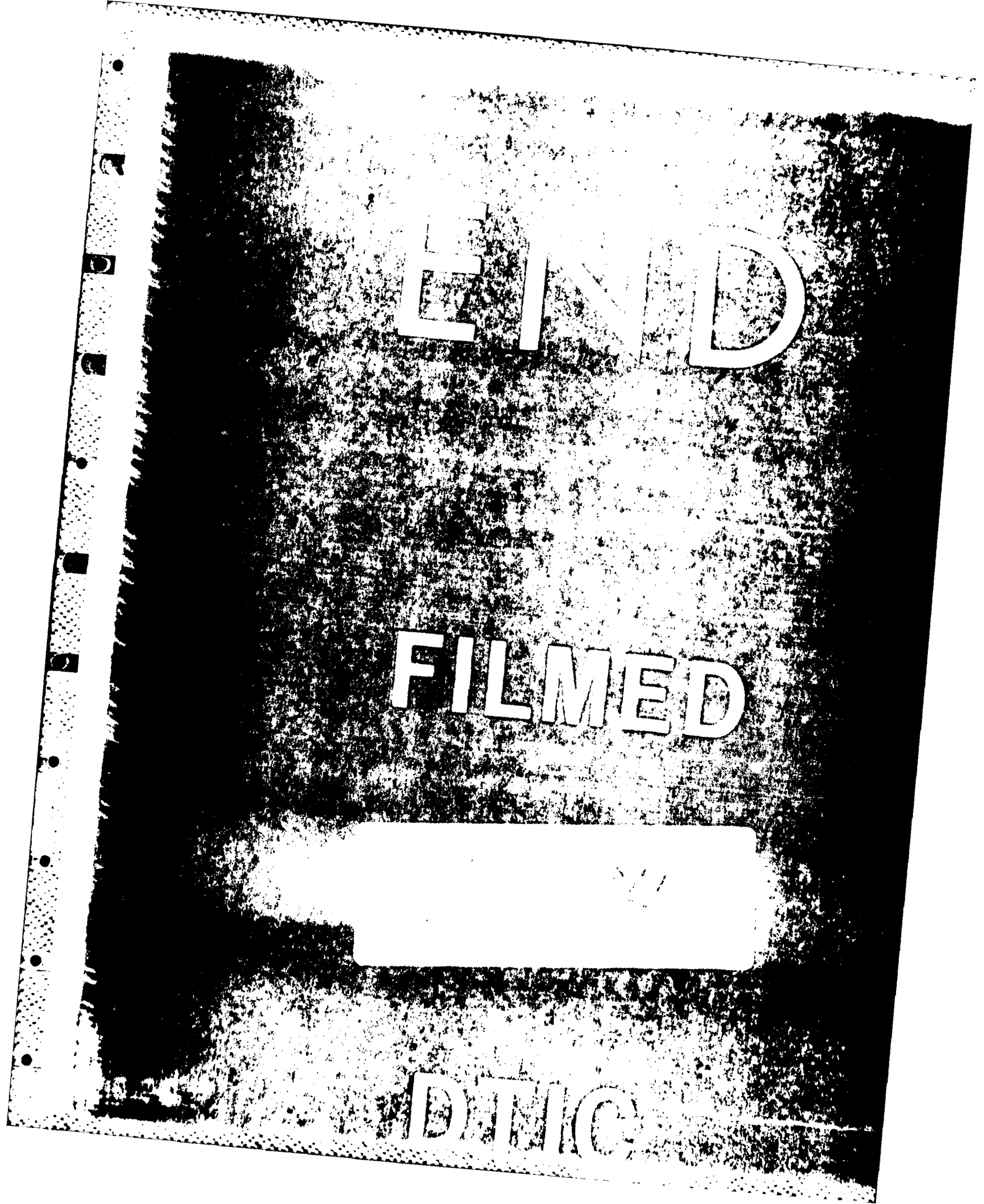
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