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ATLANTIC TROPICAL CYCLONE STRIKE PROBABILITIES
(For Selected Stations and the Month of September)

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16. ABSTRACT This report presents tropical cyclone strike probabilities for selected stations during the several specified seasons and time intervals. The selected stations are Cape Kennedy, Florida; Mississippi Test Facility, Bay St. Louis, Mississippi; Wallops Island, Virginia; and Houston, Texas. The seasons are June-July, August, September, October, and November-May, and the time intervals are 12-, 24-, 36-, 48-, 72- and 96-hours. In addition, September strike probabilities are shown for 24- and 48-hour time periods for the five-degree latitude-longitude squares in the North Atlantic, Caribbean and Gulf of Mexico.			
The strike probabilities are given for circles having radii of one, two and three degrees of latitude and centered on either the selected station or the centers of the five-degree latitude-longitude squares. These probabilities are computed from the statistical climatologies of tropical cyclone movements presented by Crutcher (1971), published as NASA CR 61355. The model employed is the bivariate normal distribution.			
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FOREWORD

This work, a follow-on project to NASA CR 61355, was undertaken to provide tropical cyclone strike probabilities for sites of special interest to the National Aeronautics and Space Administration. The sites -- Cape Kennedy, Houston, Bay St. Louis, and Wallops Island -- were chosen because of their geographical locations relative to the tropical storm tracks.

From these statistical data and the current location of a tropical cyclone, one may assess the probability of the storm moving to within a specified distance of the NASA site.

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Introduction

In a previous report, NASA CR-61355, Crutcher (1971) presents Atlantic tropical cyclone bivariate normal distribution statistics by season and by time periods ranging from 12 to 96 hours. The seasons were June-July, August, September, October, and November-May. That paper provides, as an accompanying publication, the necessary statistical tables to compute strike probabilities (Groenewoud and others, 1967). In addition, for those who have computer facilities available, a Fortran IV electronic computer program was included, thereby bypassing the manual use of the tables.

In this report the term "strike probability" is defined as the probability that the center of an existing tropical cyclone will be within a selected area after a specified time interval. The user should note that the probability of the storm passing through the selected area during the same time interval will, in general, be somewhat greater than the probabilities presented here.

Strike probabilities have been computed for four locations of prime interest to the National Aeronautics and Space Administration, namely, Cape Kennedy, Florida, the Mississippi Test Facility, Bay St. Louis, Mississippi, Wallops Island, Virginia, and Houston, Texas. The time periods for these land locations range from 12- to 96-hours and all seasons are treated. In addition, for more general use, strike probabilities for target areas located at the center of five-degree latitude-longitude squares have been computed for 24- and 48-hour time intervals during September.

If other location strike probabilities are required, they may be computed from the tables furnished with the previous paper (NASA CR-61355) or the electronic computer program may be used. The bivariate normal statistics for use with the computer program can be obtained also from the prior paper or on magnetic tape at cost from the Director, National Climatic Center.

Data Source

The statistics presented here are based on data taken from the NOAA, EDS, National Climatic Center's Card Deck 993 (Tropical Cyclone Deck). The preparation of this deck was funded by the Commander, Naval Weather Service Command, Washington, D. C. The data are, for the most part, taken from the charts of North Atlantic Tropical Cyclones presented by Cry and others (1959) and Cry (1965). A complete description of this deck is available in a reference manual available at the National Climatic Center. The period of record used here is 1899-1969. This deck contains the latitude and longitude positions (in degrees to tenths) of storm centers at 00Z and 12Z. All movement vectors were calculated using the positions at these times. Only storms classified as a "tropical storm" or "hurricane" and originating in the North Atlantic Ocean were treated. These will be referred to as "tropical cyclones." Movements for the periods when these storms were classified as a "tropical depression" or "extratropical" are not included.

Procedures

The computations and grid system used in computing the bivariate statistics are described by Crutcher (op. cit.).

The strike probability values were computed systematically by employing certain restraints and assumptions. First, the bivariate statistics are valid for movements within a five-degree latitude-longitude square where all movements are considered to originate from the center of the square. Second, the targets were specified in all cases as circular areas with radii of one, two, and three degrees latitude (approximately 110, 220 and 330 kilometers). The squares are identified by a four digit number which gives the coordinates of the southwest corner (see Figure 1). The last two digits, when multiplied by five, give the longitude (degrees), while the first two digits give the latitude (degrees). For example, the square which has the four digit identifier 2010 is the square whose southern boundary is 20°N latitude and whose western boundary is 50°W longitude.

Figure 2 schematically illustrates the use of the bivariate normal distribution to obtain strike probabilities. The intersection of the X,Y coordinates locates the center of the origin square. The intersection of the major and minor axes of the ellipse represents the centroid of the distribution of tropical cyclone movements. In other words, it is the most probable position for a cyclone moving from the center of the square. However, the circular area with a radius R is the target area for which the strike probability is needed. The parameters H and K are the distances along the axes of the ellipse which locate the center of the circle relative to the elliptical distribution. $M(s_a)$ and $M(s_b)$ are the lengths of semi-major and semi-minor axes where s_a and s_b are the component standard deviations and M is a coefficient that has a numeric value

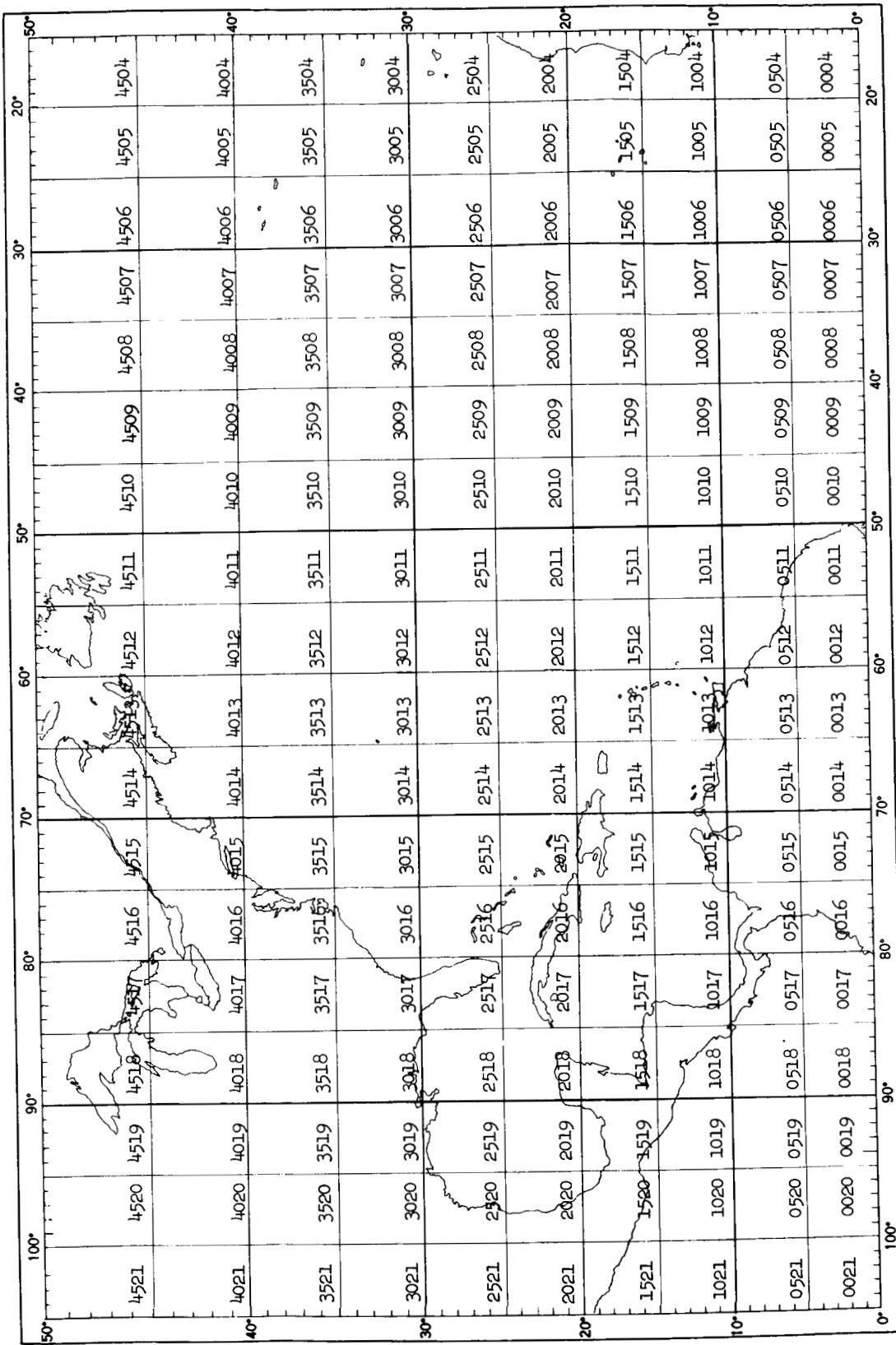


Figure 1 Mercator projection of the tropical North Atlantic and adjacent areas showing the positions and identification scheme for the five degree latitude by five degree longitude "squares".

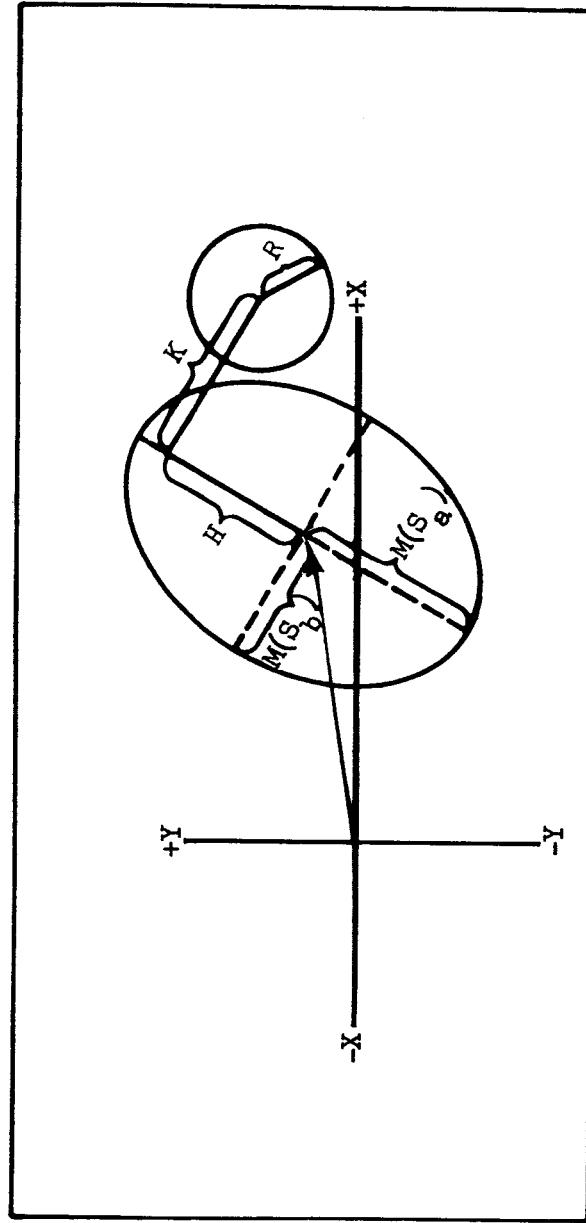


Figure 2 Generalized bivariate normal distribution in X, Y coordinates illustrating the parameters which define and locate the size and position of an offset circle.

dependent on the probability level of the ellipse. The probability value enclosed by the target circle is specified completely by the parameters, H, K, R, s_a and s_b .

Figure 3 illustrates the problem more specifically. During the month of September for Square 2017, all tropical cyclone movements are considered to originate from its center, i.e., from the point located at 22.5N and 82.5W. The target area is located at the center of Square 2517. The probabilities that any tropical cyclone now at 22.5N latitude and 82.5W longitude will, by the end of 48 hours, be within circles with radii of one, two, and three degrees latitude centered at 27.5N latitude and 82.5W longitude are, respectively, 0.029, 0.149, and 0.377. That is, there are about three chances in eight that the tropical cyclone will be found somewhere within the largest circle shown. A situation such as described here would be of special concern to residences and businesses in the Tampa - St. Petersburg areas.

Selected Location Strike Probabilities

Appendix I lists the probabilities by separate five-degree squares of storms (initially located at the center of these squares) moving to locations within target areas centered at Cape Kennedy, Florida; Mississippi Test Facility, Mississippi; Houston, Texas; and Wallops Island, Virginia. The probabilities are given to three decimal places. Those squares for which all the probability values are less than .001 for all three radii are not included. An asterisk indicates that the probability is less

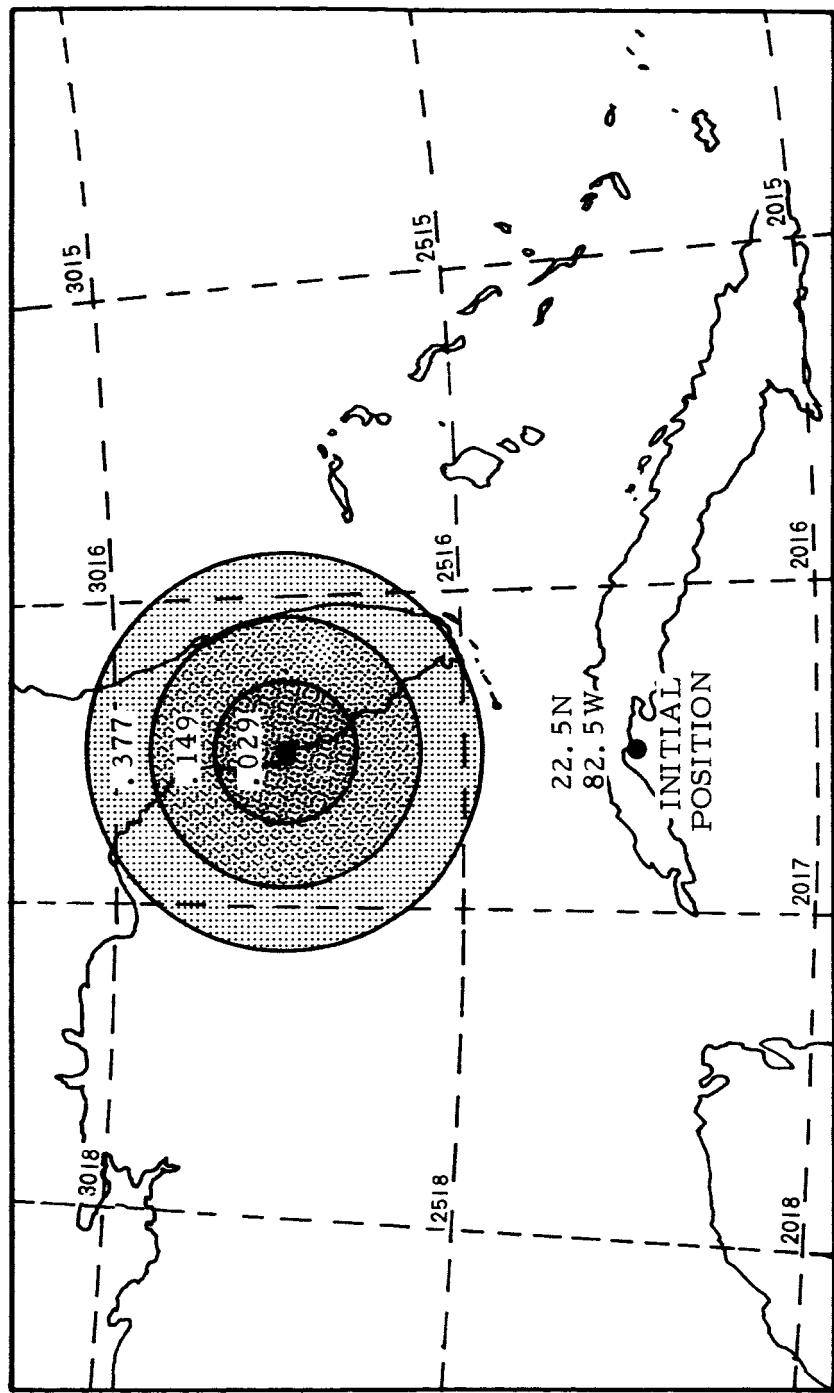


Figure 3: Probabilities of tropical cyclones (initially located at 22.5N, 82.5W) moving in 48 hours to a position within one, two and three degrees of latitude 27.5N and 82.5W. during the month of September.

than .001. Probabilities are not given for squares which have a data sample less than ten. Values are given for five seasons (June-July, August, September, October, November-May) and six time intervals (12, 24, 36, 48, 72, and 96 hours).

Figure 4 illustrates the tabulation of strike probabilities in Appendix I for a specific location. Here, the target location is the Mississippi Test Facility (MTF) near Bay St. Louis, Mississippi. The time period is 72 hours.

For example, look at Square 2017 for August. The center of the square is located at 22.5 degrees north latitude and 82.5 degrees west longitude, about 1100 kilometers southeast of the target area. The strike probabilities are 0.039, 0.145, and 0.297, respectively, for circular areas centered on the MTF with radii of one, two, and three degrees of latitude. These may be interpreted, respectively, as four chances in 100, fifteen chances in 100, and three in 10 that at the end of 72 hours a storm at the center of Square 2017 will be within the specified range of the target.

General Strike Probabilities

Obviously, the actual position of a tropical cyclone may be anywhere in the five-degree latitude-longitude squares. If the present position of a cyclone is known, simply use the probabilities for that square displaced by an equal amount from the center of the target square. Linear interpolation may be employed to provide approximate answers for needed target locations.

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= MISSISSIPPI TEST FACILITY LAT= 30.37N LON= 89.65W
 INTERVAL = 72 HOURS

SQUARE 1514	JUNE-JULY * .001 .004	SQUARE 1514	AUGUST * .001	SQUARE 1516	SEPTEMBER .001 .004 .013	SQUARE 1515	OCTOBER * * .001	SQUARE 1517	NOVEMBER-MAY .001 .005 .012
1516	.003 .013 .034	1515	.003 .011 .029	1517	.003 .012 .034	1516	* * .001	2016	* * .001
1517	.007 .034 .099	1516	.002 .009 .026	1518	.014 .052 .109	1517	* .001 .003	2516	.001 .005 .012
1518	.001 .005 .013	1517	.002 .009 .026	2014	*	1518	.003 .015 .043		
2015	*	2014	*	2015	*	1519	.005 .023 .058		
2016	*	2015	*	2016	.005 .022 .057	2014	*		
2017	.014 .055 .120	2016	.010 .045 .115	2017	.015 .059 .126	2015	.001 .002 .005		
2018	.019 .074 .158	2017	.039 .145 .297	2018	.020 .077 .163	2017	.003 .012 .028		
2019	.027 .102 .213	2018	.017 .065 .141	2019	.023 .088 .186	2018	.010 .038 .084		
2515	.004 .016 .034	2514	*	2514	*	2019	.019 .075 .160		
2516	.012 .046 .100	2515	.001 .003 .007	2515	*	2515	*		
2517	.017 .062 .125	2516	.005 .020 .044	2516	.004 .017 .038	2516	.001 .005 .011		
2518	.015 .059 .127	2517	.021 .079 .160	2517	.007 .029 .063	2517	*		
2519	.002 .010 .032	2518	.018 .071 .159	2518	.011 .043 .094	2518	.009 .035 .075		
2520	.002 .010 .029	2519	.001 .007 .034	2519	.014 .054 .117	2519	.015 .056 .119		
3015	*	3014	.001 .003 .006	3017	*	3013	*		
		3015	.001 .002 .006			3015	*		
		3016	.001 .005 .010			3016	*		

Figure 4 Example of the format used in the presentation of the probabilities for the selected stations.

In order to permit orderly interpolation of data, the strike probabilities are arranged for a given origin square against all squares including the origin square. This last is necessary because the tropical cyclone may not move outside a target area centered at the origin square by the end of the specified time period. Appendix II contains the probabilities by separate five-degree squares of storms (initially located at the center of a given square) moving to a position such that the center of the storm will be within target areas located at the centers of the initial and surrounding squares. Here, only values for September with time intervals of 24 and 48 hours are given. Origin squares with data samples less than ten are not included. The square containing the initial storm position (and the actual coordinates of the initial position) are indicated in the heading of each page. The probability values for the three target areas are printed at the respective location of the squares. The origin square is enclosed to make it easier to compare the listed probabilities.

Figure 5 illustrates the presentation of tropical cyclone strike probabilities for the squares. The target areas are circles with radii of one, two, and three degrees of latitude. The period is 48 hours. Here, a tropical cyclone whose position now is at 22.5 degrees north latitude and 47.5 degrees west longitude threatens all squares shown. The vertical scale shows the square centers in terms of latitude, while the horizontal scale shows the centers in terms of longitude. An asterisk indicates that the probabilities are less than .001. Here, it is seen that there are about five chances in one thousand that the tropical

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE									
SEASON - SEPTEMBER		TIME INTERVAL - 48 HOURS		INITIAL POSITION = 22.5 N 047.5 W		NUMBER OF OBS = 14			
SDEG ID = 2010		LATITUDE		LONGITUDE					
42.5	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5
	57.5	62.5	67.5	72.5	77.5	82.5	87.5	92.5	97.5
37.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009
32.5	#	#	#	#	#	#	#	#	#
	.001	.002	.003	.004	.005	.006	.007	.008	.009
27.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009
22.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009
17.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009
12.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009
07.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009
02.5	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.004	.005	.006	.007	.008	.009

Figure 5 Example of the format used in the presentation of the probabilities for the five degree latitude longitude "squares".

cyclone will still be within three degrees of latitude of its present position at the end of 48 hours. However, the probability is much higher two squares north and one square west. There the target probability is about eighteen chances in one hundred or thirty-five times as great. The chances are about eight in one hundred or one in twelve that the tropical cyclone will be within two degrees latitude of the center of the square at 32.5 degrees north and 52.5 degrees west.

Acknowledgments

The probabilities presented in this paper were computed using a computer program developed by Dr. S. Kaufman and Mr. C. Groenewoud of Cornell Aeronautical Laboratory, Inc. This program uses a variable increment numerical integration method to compute probabilities enclosed by offset circles under the bivariate normal distribution.

Acknowledgment is made to Mr. Ray Hoxit for coordinating much of this work and to Messrs. Glenn O'Kelley and Frank Quinlan for providing programming assistance. Appreciation is expressed to Mr. Robert Ford for drafting the figures and to Mrs. Margaret Larabee for preparing the typescript.

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APPENDIX I

Probabilities for the Four Selected Locations (Five Seasons and Six Time Intervals).

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 12 HOURS

SQUARE 2516	JUNE-JULY .059 .305 .633	SQUARE 2516	AUGUST .065 .382 .804	SQUARE 2516	SEPTEMBER .072 .300 .607	SQUARE 2016	OCTOBER ● ● .001	SQUARE 2017	NOVEMBER-MAY ● .008 .096
2517	.194 .546 .809	2517	.027 .223 .639	2517	.123 .430 .720	2017	* * .014	2516	.001 .033 .268
3016	.001 .006 .031	3015	*	3016	*	2515	*	2516	.035 .141 .320
				3017	*	2516	.2517	.2517	.201 .593 .866
						2518	.001 .010 .047	3016	.004 .020 .065
						3017	*	3017	.001 .014

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 24 HOURS

SQUARE 2015	JUNE-JULY ● * .004	SQUARE 2015	AUGUST * *.004	SQUARE 2015	SEPTEMBER * *.002	SQUARE 2015	OCTOBER .001 .005 .027	SQUARE 1517	NOVEMBER-MAY * .001 .003
2017	.011 .056 .166	2016	.001 .027 .241	2016	*	2016	.005 .028 .092	2015	.001 .006 .017
2515	.001 .005 .026	2017	.001 .010 .048	2017	.004 .029 .107	2017	.018 .100 .278	2016	*
2516	.083 .284 .509	2514	*	2018	*	2018	.001 .003 .012	2514	*
2517	.041 .190 .431	2515	.002 .015 .055	2515	.001 .008 .026	2019	*	2515	*
2518	.002 .015 .062	2516	.092 .338 .625	2516	.057 .204 .390	2515	.004 .018 .044	2516	.021 .092 .217
3016	.003 .015 .041	2517	.013 .091 .292	2517	.027 .127 .314	2516	.022 .083 .178		
3017	*	3015	.003 .012 .005	2518	.007 .033 .089	2517	.045 .174 .358		
		3016	.001 .005 .018	3015	*	2518	.008 .035 .092		
				3016	.001 .004 .012	2519	*		
				3017	*	3014	*		
					.003		.001	3015	.002 .009 .025
								3016	.009 .035 .079
								3017	.003 .018 .061

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 36 HOURS

SQUARE 1514	JUNE-JULY *	SQUARE 2014	AUGUST *.001 .003	SQUARE 1516	SEPTEMBER *.001 *.002	SQUARE 1517	OCTOBER *.001 *.002	SQUARE 1517	NOVEMBER-MAY .004 .017 .040
1517	* .001 .003	2015	.004 .026 .096	1517	* *.002	1518	* *.001	2015	.003 .014 .036
2015	.003 .029 .126	2016	.077 .335 .667	2014	* *.002	2014	* *.001	2016	.002 .013 .042
2016	.003 .037 .188	2017	.011 .046 .114	2015	.002 .017 .069	2015	.015 .058 .122	2514	*
2017	.034 .131 .275	2514	.002 .008 .021	2016	.012 .073 .220	2016	.016 .068 .157	2515	*
2018	*	2515	.011 .045 .105	2017	.033 .120 .242	2017	.042 .160 .327	2516	.020 .077 .163
2515	.006 .025 .062	2516	.040 .159 .343	2018	.001 .003 .011	2018	.009 .037 .084		
2516	.071 .253 .479	2517	.002 .014 .070	2019	* .001 .004	2019	*		
2517	.008 .048 .156	3014	*	2514	.001 .004 .011	2514	*		
2518	.002 .012 .047	3015	.004 .017 .036	2515	.005 .022 .053	2515	.003 .014 .033		
3016	.003 .011 .026	3016	.001 .004 .014	2516	.028 .104 .214	2516	.012 .046 .101		
3017	.001 .006 .018	3017	*	2517	.010 .045 .118	2517	.017 .069 .153		
				2518	.008 .032 .079	2518	.010 .041 .095		
				2519	*	2519	.001 .005 .015		
				3014	*	3013	*		
				3015	*	3014	.001 .002 .005		
				3016	.001 .004 .010	3015	.005 .021 .047		
				3017	*	3016	.009 .034 .074		
				3018	*	3017	.009 .038 .086		
				3514	*				
				3515	*				
				3516	*				
					.002				
					.001				
					.003				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 48 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
	1514	1514	*	1516	.001	1515	*	1517	.009
	.002		.001		.004		.001		.035
	.010		*		.009		.001		.078
	.026		.004		.014		.003		
1516	*	1515	*	1517	.002	1516	*	2015	.004
	*		*		.009		.001		.018
	.002		.002		.025		.005		.043
1517	.004	1516	*	1518	*	1517	.001	2016	.005
	.016		*		.001		.005		.024
	.043		.001		.003		.018		.061
2015	.022	2014	.002	2013	*	1518	.003	2514	.001
	.103		.008		.001		.014		.004
	.259		.024		.003		.033		.010
2016	.045	2015	.023	2014	.002	2014	.001	2516	.018
	.206		.099		.008		.004		.071
	.457		.240		.024		.011		.149
2017	.034	2016	.143	2015	.015	2015	.010		
	.129		.446		.067		.039		
	.264		.715		.164		.084		
2018	.003	2017	.011	2016	.042	2016	.016		
	.014		.044		.160		.063		
	.034		.101		.324		.141		
2019	*	2513	*	2017	.031	2017	.033		
	*		.001		.114		.124		
	.002		.002		.230		.251		
2515	.006	2514	.004	2018	.002	2018	.013		
	.026		.016		.007		.052		
	.064		.036		.020		.116		
2516	.045	2515	.013	2019	.002	2019	*		
	.170		.051		.008		.002		
	.344		.105		.020		.006		
2517	.002	2516	.017	2512	*	2513	*		
	.014		.072		*		*		
	.057		.171		.001		.001		
2518	*	2517	.001	2513	*	2514	*		
	.002		.005		*		.001		
	.014		.024		.001		.003		
3015	*	3014	.001	2514	.003	2515	.001		
	*		.002		.014		.005		
	.002		.005		.031		.013		
3016	.001	3015	.003	2515	.007	2516	.008		
	.005		.010		.026		.033		
	.011		.023		.057		.072		
3017	.003	3016	.001	2516	.015	2517	.008		
	.012		.004		.060		.034		
	.027		.012		.128		.077		
		3017	.001	2517	.005	2518	.009		
			.005		.023		.036		
			.015		.058		.083		
				2519	.005	2519	.004		
					.021		.017		
					.051		.046		
				2519	*	3013	.001		
					.002		.004		
					.007		.009		
				3014	.001	3014	.001		
					.003		.005		
					.007		.012		
				3015	*	3015	.006		
					.001		.023		
					.003		.050		
				3016	*	3016	.007		
					*		.027		
					.001		.059		
				3017	*	3017	.004		
					.001		.016		
					.002		.038		
				3018	*				
					.001				
					.002				
				3513	*				
					*				
					.001				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 48 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE 3514	SEPTEMBER *	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
					.002				
					.004				
				3515	*				
					*				
					.001				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 72 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
1017	.001	1512	.001	1016	*	1513	*	1017	*
	.003		.003		.001		.001		.001
	.008		.008		.004		.003		.004
1513	.007	1513	.004	1513	*	1514	.003	1516	*
	.028		.015		*		.011		*
	.070		.036		.002		.028		.001
1514	.011	1514	.006	1514	.001	1515	.006	1517	.011
	.042		.025		.007		.023		.043
	.095		.065		.020		.052		.094
1516	.009	1515	.002	1515	.001	1516	.006	2016	.006
	.035		.011		.004		.024		.024
	.078		.030		.013		.057		.055
1517	.015	1516	.001	1516	.011	1517	.016	2516	.010
	.057		.005		.042		.063		.039
	.120		.014		.090		.140		.083
1518	*	1517	*	1517	.015	1518	.015		
	*		*		.058		.059		
	.001		.001		.120		.126		
2015	.041	2013	.001	1518	*	2013	.002		
	.145		.003		.001		.009		
	.276		.008		.002		.021		
2016	.069	2014	.009	2012	*	2014	.002		
	.242		.035		.001		.009		
	.427		.079		.002		.020		
2017	.020	2015	.046	2013	.003	2015	.002		
	.079		.171		.014		.009		
	.169		.340		.031		.021		
2018	.008	2016	.031	2014	.008	2016	.009		
	.032		.128		.032		.037		
	.070		.292		.072		.085		
2019	.001	2017	.003	2015	.019	2017	.015		
	.005		.014		.073		.058		
	.015		.036		.154		.123		
2515	.001	2018	*	2016	.026	2018	.009		
	.005		*		.098		.038		
	.017		.001		.204		.084		
2516	.015	2513	.003	2017	.010	2019	.002		
	.060		.010		.041		.011		
	.136		.023		.093		.026		
2517	*	2514	.004	2018	.003	2513	*		
	.003		.016		.013		.001		
	.012		.036		.032		.002		
2518	*	2515	.007	2019	.003	2514	*		
	.001		.027		.012		*		
	.005		.060		.028		.001		
3015	.001	2516	.003	2511	*	2515	.001		
	.003		.015		*		.005		
	.007		.040		.001		.011		
				2517	*	2512	*	2516	.006
					*		*		.024
					.009		.001		.053
				2518	*	2513	*	2517	.002
					*		.001		.007
					.003		.004		.017
				3014	*	2514	.004	2518	.005
					*		.016		.022
					.001		.035		.049

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 72 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
		3015	.001 .004 .010	2515	.005 .021 .045	2519	.002 .009 .028		
		3016	.001 .005 .012	2516	.007 .029 .065	3013	.002 .008 .018		
				2517	.002 .007 .018	3014	*	.001 .002	
				2518	.003 .013 .031	3015	.005 .018 .040		
				2519	.001 .006 .014	3016	.002 .008 .019		
				3013	*				
					*				
					.001				
				3014	*				
					.002				
					.004				
				3015	*				
					*				
					.002				
				3017	*				
					.001				
					.002				
				3513	*				
					.001				
					.002				
				3514	.001				
					.005				
					.011				
				3515	*				
					*				
					.001				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 96 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
		1010	*	1010	*	1013	*	1016	*
			.001 .003 .008		*		*		*
					*		*		*
					.001		.001		.001
1017	.005 .021 .049	1011	.001 .006 .015	1015	*	1016	.001 .005 .013	1017	.001 .004 .010
1513	.016 .062 .135	1012	*	1016	.005 .021 .047	1017	.001 .004 .015	1516	*
1514	.016 .062 .133	1013	*	1511	*	1513	.001 .004 .009	1517	.009 .036 .078
1517	.007 .031 .073	1014	*	1512	.001 .005 .014	1515	.007 .027 .059	2016	.007 .028 .062
1518	.001 .004 .010	1510	*	1513	.005 .019 .047	1516	.010 .040 .089		
2015	.013 .054 .121	1511	*	1514	.007 .030 .069	1517	.019 .073 .154		
2017	.010 .040 .089	1512	.004 .017 .039	1515	.006 .025 .059	1518	.012 .048 .105		
2018	.006 .025 .062	1513	.012 .050 .113	1516	.013 .051 .109	1519	*	.001 .005	

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= CAPE KENNEDY, FLORIDA LAT=28.48N LON= 80.55W
 INTERVAL = 96 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2019	.002 .007 .020	1514	.015 .060 .130	1517	.011 .045 .098	2013	.002 .006 .014		
2515	.001 .003 .009	1515	.005 .021 .049	2011	*	2014	.001 .002 .006		
2516	.006 .025 .058	1516	.002 .069 .022	2012	.002 .010 .023	2015	.002 .006 .014		
2517	*	2013	.003 .012 .028	2013	.005 .018 .040	2016	.008 .030 .066		
		2014	.012 .047 .100	2014	.008 .032 .068	2017	.007 .028 .061		
		2015	.020 .076 .161	2015	.011 .044 .094	2018	.005 .021 .046		
		2016	.005 .025 .073	2016	.006 .025 .058	2019	.003 .013 .034		
		2017	.001 .004 .012	2017	.005 .021 .047	2514	*		
		2513	.002 .007 .016	2018	.001 .004 .011	2515	.001 .005 .012		
		2514	.004 .015 .032	2019	.012 .045 .097	2516	.004 .018 .038		
		2515	.003 .011 .027	2511	*	2517	.001 .005 .012		
		2516	.002 .007 .018	2512	*	3015	.004 .017 .036		
		2517	*	2513	.001 .003 .007	3016	.001 .005 .011		
		2518	*	2514	.003 .010 .022				
		3016	.002 .008 .018	2515	.003 .013 .029				
				2516	.004 .018 .040				
				2517	*				
					*				
					.001				
				2518	.002 .010 .023				
				2519	.001 .004 .010				
				3013	.001 .003 .007				
				3014	*				
					*				
					.002				
				3513	.001 .003 .006				
				3514	.002 .009 .021				
				3515	*				
					.001 .003				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= MISSISSIPPI TEST FACILITY LAT= 30.37N LON= 89.65W
 INTERVAL = 12 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2518	.010	2518	.027	2517	*	2518	.024		
	.166		.333		*		.139		
	.607		.937		.005		.387		
2519	.003	2519	*	2518	.041	2519	.039		
	.040		*		.242		.177		
	.202		.011		.593		.421		
3017	*			2519	.021	3017	*		
	*				.130		.002		
	.003				.383		.008		
				3017	*				
					.001				
					.005				
				3018	.001				
					.022				
					.177				
				3019	*				
					.001				
					.014				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= MISSISSIPPI TEST FACILITY LAT= 30.37N LON= 89.65W
 INTERVAL = 24 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2017	*	2017	*	2018	.002	2018	*		
	*		*		.012		*		
	.001		.003		.052		.004		
2018	.001	2018	*	2019	*	2019	.005		
	.007		.001		.002		.028		
	.032		.008		.013		.085		
2019	*	2517	.002	2516	*	2516	*		
	*		.023		*		*		
	.002		.106		.001		.002		
2517	.004	2518	.167	2517	.008	2517	.002		
	.023		.514		.042		.009		
	.075		.794		.114		.026		
2518	.070	2519	*	2518	.067	2518	.031		
	.257		.002		.238		.121		
	.485		.024		.448		.256		
2519	.019	3017	.001	2519	.057	2519	.068		
	.089		.004		.209		.242		
	.225		.013		.406		.455		
3017	.001			2520	*	3017	.001		
	.006				.001		.006		
	.017				.007		.018		
				3016	*				
					*				
					.001				
				3017	.003				
					.013				
					.032				
				3018	.004				
					.026				
					.090				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= MISSISSIPPI TEST FACILITY LAT= 30.37N LON= 89.65W
 INTERVAL = 36 HOURS

SQUARE 2017	JUNE-JULY .002 .009 .030	SQUARE 2017	AUGUST .006 .031 .090	SQUARE 2017	SEPTEMBER * .002 .013	SQUARE 2015	OCTOBER * .001	SQUARE 1517	NOVEMBER-MAY * .002
2018	.010 .045 .116	2018	.002 .610 .040	2018	.019 .079 .176	2017	*		
2019	.004 .020 .056	2516	*	2019	.008 .038 .097	2018	.001 .008 .036		
2516	*	2517	.023 .106 .265	2516	.001 .003 .010	2019	.031 .117 .234		
2517	.015 .061 .138	2518	.096 .329 .581	2517	.019 .072 .153	2515	*		
2518	.059 .202 .365	2519	*	2518	.038 .141 .286	2516	.001 .003 .007		
2519	.013 .062 .157	3015	*	2519	.034 .131 .272	2517	.003 .012 .029		
3016	*	3016	*	2520	*	2518	.022 .086 .163		
3017	.002 .009 .022	3017	.003 .011 .025	3017	.004 .017 .039	2519	.043 .162 .376		
				3018	.002 .011 .035	3016	*		
						3017	.001 .003 .008		

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = MISSISSIPPI TEST FACILITY LAT= 30.37N LDN= 89.65W
 INTERVAL = 48 HOURS

SQUARE 1517	JUNE-JULY * * .002	SQUARE 1517	AUGUST * * .001	SQUARE 1517	SEPTEMBER * * .001	SQUARE 1518	OCTOBER * * .002	SQUARE 1517	NOVEMBER-MAY * .001 .004
1518	* .001 .004	2016	* * .001	1518	.001 .005 .013	2015	.001 .004 .009	2516	* .002 .005
2017	.007 .031 .079	2017	.025 .099 .217	2016	* * .002	2016	*		
2018	.018 .074 .165	2018	.007 .030 .081	2017	.006 .028 .081	2017	*		
2019	.017 .069 .151	2019	*	2018	.026 .098 .205	2018	.006 .028 .079		
2515	*	2516	.001 .007 .001	2019	.020 .078 .167	2019	.029 .199 .226		
2516	.002 .009 .026	2517	.039 .144 .289	2515	*	2515	*		
2517	.024 .085 .166	2518	.047 .180 .370	2516	.002 .009 .022	2516	.001 .004 .009		
2518	.039 .137 .256	2519	*	2517	.015 .056 .119	2517	.003 .012 .026		
2519	.008 .037 .096	3015	*	2518	.020 .077 .164	2518	.014 .054 .117		
2520	*	3016	.001 .003 .001	2519	.027 .102 .216	2519	.037 .139 .254		
3016	*	3017	.001 .006 .001	3015	*	3013	*		
3017	.002 .009 .021			3017	.004 .016 .035	3016	*		
				3018	*				
					*				
					.001				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = MISSISSIPPI TEST FACILITY LAT= 30.37N LON= 89.65W
 INTERVAL = 72 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
	*	1514	*	1516	.001	1515	*	1517	.001
1514	* .001 .004		*		.004 .013 .029		*		.005 .005 .012
1516	.003 .013 .034	1515	.003 .011 .029	1517	.003 .012 .034	1516	*	2016	*
1517	.007 .034 .099	1516	.002 .009 .026	1518	.014 .052 .109	1517	*	2516	.001 .005 .012
1518	.001 .005 .013	1517	.002 .009 .026	2014	*	1518	.003 .015 .043		
2015	*	2014	*	2015	*	1519	.005 .023 .058		
2016	* .001 .010	2015	*	2016	.005 .022 .057	2014	*		
2017	.014 .055 .120	2016	.010 .045 .115	2017	.015 .059 .128	2015	.001 .002 .005		
2018	.019 .074 .158	2017	.039 .145 .297	2018	.020 .077 .163	2017	.003 .012 .028		
2019	.027 .102 .213	2018	.017 .065 .141	2019	.023 .088 .186	2018	.010 .038 .084		
2515	.004 .016 .034	2514	*	2514	*	2019	.019 .075 .160		
2516	.012 .046 .100	2515	.001 .003 .007	2515	*	2515	*		
2517	.017 .062 .125	2516	.005 .020 .044	2516	.004 .017 .038	2516	.001 .005 .011		
2518	.015 .059 .127	2517	.021 .079 .160	2517	.007 .029 .063	2517	*		
2519	.002 .010 .032	2518	.018 .071 .159	2518	.011 .043 .094	2518	.009 .035 .075		
2520	.002 .010 .029	2519	.001 .007 .034	2519	.014 .054 .117	2519	.015 .056 .119		
3015	*	3014	.001 .003 .002	3017	*	3013	*		
			.006		.001		.002 .004		
		3015	.001 .002 .006			3015	*		
		3016	.001 .005 .010			3016	*		
							.001		

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= MISSISSIPPI TEST FACILITY LAT= 30.37N LON= 89.65W
 INTERVAL = 96 HOURS

SQUARE 1013	JUNE-JULY *	SQUARE 1013	AUGUST *	SQUARE 1016	SEPTEMBER *	SQUARE 1515	OCTOBER .001	SQUARE 1517	NOVEMBER-MAY .001
	*		.002		.001		.006		.003
	.001		.004		.003		.014		.008
1017	.002	1014	.001	1514	*	1516	*	2016	*
	.011		.003		*		.001		.001
	.034		.008		.001		.003		.003
1513	*	1513	*	1515	.001	1517	.002		
	.001		.001		.004		.008		
	.003		.003		.012		.022		
1514	.002	1514	.003	1516	.005	1518	.007		
	.008		.011		.022		.030		
	.019		.027		.053		.067		
1517	.024	1515	.008	1517	.012	1519	.041		
	.093		.034		.048		.152		
	.193		.078		.106		.310		
1518	.005	1516	.011	2013	.001	2013	*		
	.021		.043		.003		.001		
	.049		.098		.007		.002		
2015	.002	1517	.005	2014	*	2014	*		
	.011		.021		.001		*		
	.030		.053		.002		.001		
2017	.013	2014	*	2015	.001	2015	*		
	.050		.002		.005		.001		
	.106		.003		.013		.003		
2018	.023	2015	.004	2016	.010	2016	*		
	.087		.016		.030		.001		
	.183		.039		.083		.002		
2019	.023	2016	.018	2017	.008	2017	.004		
	.089		.069		.032		.015		
	.185		.148		.069		.033		
2515	.006	2017	.028	2018	.015	2018	.007		
	.022		.107		.060		.027		
	.047		.224		.130		.059		
2516	.008	2018	.015	2019	.028	2019	.015		
	.033		.073		.105		.057		
	.071		.186		.217		.122		
2517	.012	2513	.001	2514	*	2515	*		
	.046		.003		.002		.001		
	.095		.007		.004		.002		
2514	*		.001	2515	.001	2516	.001		
	.001				.004		.005		
					.010		.011		
2515	.001		.001	2516	.004	2517	*		
	.006				.017		*		
	.014				.037		.001		
2516	.004		.015	2517	.003	3015	*		
	.015		.073		.014		*		
	.033				.032		.002		
2517	.014		.053	2518	.006	3016	*		
	.053		.110		.024		*		
	.110				.053		.001		
2518	.007		.028	2519	.008				
	.028		.066		.036				
	.066				.077				
2519	.006		.025	3513	*				
	.025		.063		*				
	.063				.001				
3016	.001		.003	3514	*				
	.003		.007		*				
	.007				.001				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = HOUSTON, TEXAS LAT = 29.65N LON = 95.28W
 INTERVAL = 12 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2519	.040 .421 .891	2519	.102 .469 .830	2519	.020 .206 .618	2518	*		
2520	.014 .137 .478	2520	.001 .032 .299	2520	.011 .122 .460	2519	.016 .133 .443		
				3019	.003 .021 .083				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = HOUSTON, TEXAS LAT = 29.65N LON = 95.28W
 INTERVAL = 24 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2018	*	2020	*	2018	*	2019	*		
	.001 .006		.003		.001		.002 .019		
2019	.001 .007 .039	2518	.001 .009 .055	2019	*	2518	.002 .009 .027		
2020	*	2519	.196 .556 .809	2517	*	2519	.029 .122 .281		
2517	*	2520	.013 .101 .340	2516	.005 .023 .060				
2518	.002 .017 .059			2519	.064 .237 .461				
2519	.117 .380 .635			2520	.056 .220 .453				
2520	.032 .181 .473			3017	*				
				3018	.001 .004 .014				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = HOUSTON, TEXAS LAT = 29.65N LON = 95.28W
 INTERVAL = 36 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2018	.006 .026 .072	2017	* .003 .010	2018	.002 .009 .034	2019	.010 .045 .121		
2019	.019 .082 .196	2018	.005 .026 .083	2019	.005 .028 .090	2517	*		
2020	.005 .031 .109	2019	.002 .013 .048	2517	.001 .006 .016	2518	.004 .018 .043		
2517	*	2517	*	2518	.009 .038 .085	2519	.020 .060 .175		
2518	.015 .060 .134	2518	.014 .070 .188	2519	.037 .138 .282				
2519	.048 .174 .331	2519	.132 .421 .686	2520	.045 .167 .335				
2520	.016 .142 .450	2520	.015 .125 .379	3017	.001 .004 .009				
3017	*			3018	.001 .004 .011				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = HOUSTON, TEXAS LAT = 29.65N LON = 95.28W
 INTERVAL = 48 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
1518	*	2017	.005 .023 .058	1518	*	1519	*		
2017	*	2018	.020 .083 .194	2017	*	2015	*		
2018	.014 .056 .128	2019	.013 .053 .125	2018	.010 .041 .099	2018	*		
2019	.031 .120 .254	2517	.001 .004 .016	2019	.016 .066 .152	2019	.021 .083 .181		
2020	.024 .165 .360	2518	.031 .122 .258	2516	*	2516	*		
2517	.002 .010 .027	2519	.093 .314 .553	2517	.003 .012 .028	2517	*		
2518	.023 .083 .162	2520	.020 .106 .281	2518	.009 .036 .079	2518	.003 .012 .030		
2519	.022 .086 .181			2519	.024 .093 .196	2519	.010 .041 .093		
2520	.024 .107 .260			3017	.002 .008 .017				
3017	.001 .002 .006								

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = HOUSTON, TEXAS LAT = 29.65N LON = 95.28W
 INTERVAL = 72 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
1516	.001 .004 .013	1515	.001 .004 .011	1516	* * .002	1518	* * .002	1517	*
1517	* .002 .012	1516	.001 .003 .009	1517	* .001 .005	1519	.009 .038 .094	2516	*
1518	.003 .013 .033	1517	.003 .013 .038	1518	.010 .041 .094	2015	*		
2017	.003 .012 .029	2016	*	2016	*	2017	*		
2018	.012 .047 .105	2017	.017 .066 .147	2017	.005 .019 .044	2018	.002 .011 .027		
2019	.018 .069 .151	2018	.035 .131 .268	2018	.015 .058 .125	2019	.012 .047 .104		
2515	* .002 .004	2516	*	2019	.017 .066 .144	2516	*		
2516	.002 .009 .021	2517	.004 .018 .045	2516	.001 .004 .010	2518	.004 .016 .037		
2517	.006 .023 .050	2518	.022 .084 .172	2517	.004 .017 .037	2519	.001 .004 .014		
2518	.017 .063 .124	2519	.070 .244 .443	2518	.007 .026 .058	3013	*		
2519	.004 .017 .043	3014	*	2519	.011 .044 .096				
2520	.007 .033 .086	3015	*						
		3016	*						
			*						
			.001						

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = HOUSTON, TEXAS LAT = 29.65N LON = 95.28W
 INTERVAL = 96 HOURS

SQUARE 1013	JUNE-JULY *	SQUARE 1013	AUGUST *	SQUARE 1515	SEPTEMBER *	SQUARE 1515	OCTOBER *	SQUARE 1517	NOVEMBER-MAY *
	*		*		.001		.001		*
	*		*		.002		.003		.001
1017	*	1014	.001	1516	*	1517	*		
	.001		.004		.002		.001		
	.003		.009		.008		.002		
1514	*	1514	*	1517	.005	1518	.002		
	.001		.002		.021		.010		
	.003		.006		.048		.024		
1517	.010	1515	.005	2013	*	1519	.017		
	.040		.021		*		.072		
	.094		.050		.001		.168		
1518	.006	1516	.004	2015	*	2017	.001		
	.026		.019		*		.004		
	.061		.049		.001		.009		
2015	*	1517	.027	2016	.003	2018	.004		
	*		.101		.013		.016		
	.001		.207		.031		.036		
2017	.006	2015	*	2017	.004	2019	.005		
	.023		.001		.016		.018		
	.050		.002		.037		.043		
2018	.007	2016	.002	2018	.014	2516	*		
	.030		.007		.054		.001		
	.070		.017		.117		.002		
2019	.014	2017	.019	2019	.019				
	.056		.075		.074				
	.120		.160		.155				
2515	.002	2018	.055	2515	*				
	.008		.187		*				
	.019		.340		.001				
2516	.003	2513	*	2516	.001				
	.010		*		.006				
	.023		.002		.014				
2517	.007	2515	*	2517	.005				
	.026		*		.018				
	.056		.001		.039				
		2516	.001	2518	.004				
			.005		.016				
			.012		.036				
		2517	.006	2519	.005				
			.024		.020				
			.054		.044				
		2518	.009						
			.034						
			.076						
		2519	.028						
			.106						
			.217						
		3016	*						
			*						
			.001						

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = WOLLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 12 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
3016	.003 .039 .187	3015	*	3015	*	3015	*	3015	
			.002 .038		*		*		.006
					.011				
3017	*	3016	.005 .051 .209	3016	.017 .116 .343	3016	.013 .066 .180		
3515	.007 .056 .210	3515	.001 .007 .040	3017	*	3017	*	3017	
					.004 .022		.003 .016		
		3516	.088 .378 .731	3514	*	3514	*	3514	
					.001 .006		*		
							.001		
								3515	
									.014 .071 .191
								3516	
									.078 .284 .534

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = WOLLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 24 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2516	*	3014	*	2515	*	2515	*	2515	.002
	*		.001 .006		.001 .004		*		.009
	.001						.002		.023
3015	.001 .014 .082	3015	.011 .056 .154	2516	*	2516	.001 .004 .014	2516	.004 .019 .049
					.001 .005				
3016	.034 .137 .297	3016	.075 .265 .487	2517	*	2517	*	2517	
									.002 .008
3017	.027 .106 .231	3017	.022 .088 .192	3014	*	2518	.001 .003 .007		
					.001 .006				
3515	.006 .030 .084	3515	.001 .004 .013	3015	.010 .056 .165	3013	*		
									.001 .002
		3516	.011 .064 .196	3016	.054 .196 .380	3014	.001 .005 .016		
								3017	
									.034 .124 .243
								3018	
									.001 .007 .019
								3513	
									*
									*
									.001
								3514	
									*
									*
								3515	
									.008 .034 .076
								3516	
									.019 .075 .158

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= WALEPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 36 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
2515	*	2014	*	2514	*	2019	*	2514	*
	.004		*		*		*		.001
	.024		.001		.001		.001		.005
2516	*	2514	*	2515	.004	2513	*	2515	.003
	.001		.002		.020		*		.012
	.003		.009		.051		.001		.030
2517	*	2515	.001	2516	.005	2514	.001	2516	.010
	.002		.008		.023		.003		.038
	.013		.031		.056		.008		.087
2518	*	2516	*	2517	.004	2515	.004		
	.001		.002		.019		.015		
	.003		.010		.046		.037		
2519	*	2517	*	2518	*	2516	.007		
	.001		*		.002		.028		
	.003		.001		.006		.065		
3015	.010	3014	.002	2519	*	2517	.006		
	.045		.011		*		.027		
	.108		.029		.001		.067		
3016	.030	3015	.018	3012	*	2518	.003		
	.113		.069		*		.011		
	.237		.148		.001		.026		
3017	.026	3016	.048	3014	.002	2519	*		
	.100		.174		.009		*		
	.208		.335		.024		.001		
3515	.003	3017	.029	3015	.021	3013	.001		
	.013		.115		.083		.005		
	.033		.249		.177		.012		
		3515	*	3016	.019	3014	.002		
			.002		.072		.010		
			.005		.153		.025		
		3516	.001	3017	.031	3015	.005		
			.011		.116		.023		
			.045		.234		.060		
				3018	.011	3016	.019		
					.041		.075		
					.090		.161		
				3513	*	3017	.030		
					*		.114		
					.002		.233		
				3514	.003	3513	.001		
					.014		.003		
					.031		.007		
				3515	.004	3514	*		
					.016		.001		
					.037		.003		
				3516	.009				
					.034				
					.071				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET = WALLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 48 HOURS

SQUARE 2015	JUNE-JULY *	SQUARE 2013	AUGUST *	SQUARE 2017	SEPTEMBER *	SQUARE 2014	OCTOBER *	SQUARE 1517	NOVEMBER-MAY *
	*		*		*		.001		*
	*		*		*		.004		*
	.002		.001		.001				.001
2017	*	2014	.001	2018	*	2015	.003	2016	*
	*		.003		*		.012		*
	.001		.009		.001		.030		.001
2515	.007	2514	.002	2512	*	2016	*	2514	.001
	.037		.010		.001		.001		.005
	.107		.026		.002		.005		.013
2516	.001	2515	.007	2513	*	2017	*	2516	.008
	.005		.035		.001		.001		.033
	.015		.092		.002		.005		.074
2517	.004	2516	.008	2514	.001	2018	*		
	.020		.034		.005		.002		
	.060		.089		.014		.006		
2518	.002	2517	.003	2515	.008	2019	*		
	.012		.011		.033		*		
	.035		.025		.077		.001		
2519	.003	3014	.006	2516	.010	2513	*		
	.011		.023		.040		.001		
	.024		.051		.088		.004		
3015	.007	3015	.012	2517	.013	2514	.001		
	.029		.047		.050		.005		
	.066		.100		.107		.013		
3016	.019	3016	.025	2518	.005	2515	.006		
	.076		.097		.019		.024		
	.162		.197		.042		.054		
3017	.013	3017	.020	2519	*	2516	.008		
	.051		.077		.001		.033		
	.110		.168		.003		.073		
3515	*		.001	3012	*	2517	.012		
			.002		.001		.048		
					.002		.107		
				3014	.004	2518	.007		
					.014		.028		
					.033		.062		
				3015	.015	2519	.001		
					.058		.004		
					.123		.010		
				3016	.004	3013	.002		
					.016		.010		
					.036		.022		
				3017	.016	3014	.003		
					.062		.013		
					.133		.029		
				3018	.010	3015	.005		
					.043		.022		
					.101		.053		
				3513	.001	3016	.013		
					.002		.052		
					.006		.114		
				3514	.003	3017	.016		
					.013		.065		
					.030		.143		
				3515	.001	3513	*		
					.005		.001		
					.013		.002		
				3514	*		*		
							.001		

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= WALLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 72 HOURS

SQUARE 1513	JUNE-JULY * .001 .002	SQUARE 2013	AUGUST .002 .010 .026	SQUARE 1516	SEPTEMBER * .001	SQUARE 1513	OCTOBER * .002	SQUARE 1517	NOVEMBER-MAY .001 .006 .014	
1514	* .001 .003	2014	.003 .013 .033	1517	*	1514	.002 .010 .026	2016	.001 .004 .010	
2015	.001 .008 .029	2015	.001 .003 .009	2012	*	1515	.001 .006 .014	2516	.007 .030 .066	
2017	.002 .009 .022	2016	*	2013	.001 .003 .009	1518	.001 .004 .009			
2018	.001 .004 .009	2017	*	2014	.003 .012 .028	2013	*			
2019	.001 .003 .007	2513	.003 .011 .027	2015	.001 .005 .016	2014	.003 .013 .032			
2515	.021 .083 .176	2514	.006 .023 .052	2016	.001 .006 .017	2015	.007 .028 .063			
2516	.005 .022 .053	2515	.014 .057 .125	2017	.005 .020 .044	2016	.001 .005 .015			
2517	.020 .074 .150	2516	.023 .085 .176	2018	.002 .007 .017	2017	.004 .018 .042			
2518	.011 .044 .093	2517	.008 .031 .071	2019	*	2018	.004 .015 .034			
2519	.020 .074 .147	2518	.003 .010 .023	2511	*	2019	.002 .009 .021			
3015	.004 .044 .096	3014	.004 .016 .037	2512	*	2513	.001 .003 .007			
3016	.008 .031 .069	3015	.006 .022 .049	2513	.001 .005 .013	2514	.001 .002 .006			
	3016	.009 .037 .079	2514	.006 .023 .053	2515	.007 .030 .066	2516	.005 .020 .044		
			2515	.007 .030 .066	2516	.007 .027 .059				
			2516	.010 .038 .082	2517	.006 .025 .057				
			2517	.010 .038 .082	2518	.008 .030 .064				
			2518	.008 .033 .072	2519	.016 .061 .128				
			2519	.003 .011 .025	3013	.003 .011 .025				
			3012	*	3014	.001 .004 .009				
			3013	*	3015	.004 .018 .040				
			3014	.002 .009 .020	3016	.005 .019 .042				
			3015	.005 .018 .039						
			3017	.010 .036 .069						

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= WALLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 72 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
		3513		.002 .007 .017					
				3514	.003 .011 .025				
					3515	.001 .004 .008			

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= WALLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 96 HOURS

SQUARE	JUNE-JULY	SQUARE	AUGUST	SQUARE	SEPTEMBER	SQUARE	OCTOBER	SQUARE	NOVEMBER-MAY
1513	.002 .010 .024	1011	*	1511	*	1016	*	1516	*
1514	.001 .006 .015	1510	*	1512	*	1513	*	1517	.003 .013 .030
1517	.001 .005 .014	1511	*	1513	*	1515	.005 .018 .040	2016	.001 .004 .009
2015	.005 .024 .064	1512	.001 .003 .008	1514	*	1516	*		.002 .004
2017	.006 .023 .052	1513	*	1516	.002 .010 .023	1517	.001 .006 .014		
2018	.004 .017 .037	1514	*	1517	.002 .009 .020	1518	.003 .013 .029		
2019	.005 .018 .039	2012	*	2011	*	2013	.002 .009 .019		
2515	.014 .054 .113	2013	.003 .013 .031	2012	.003 .013 .029	2014	.004 .015 .033		
2516	.012 .047 .102	2014	.006 .024 .055	2013	.005 .019 .043	2015	.004 .016 .036		
2517	.016 .061 .127	2015	.008 .031 .069	2014	.004 .017 .041	2016	.004 .015 .035		
3016	.002 .008 .019	2016	.004 .017 .043	2015	.005 .022 .050	2017	.007 .028 .062		
		2017	.001 .003 .008	2016	.009 .036 .079	2018	.006 .022 .049		
		2018	*	2017	.008 .030 .067	2019	.009 .036 .078		
		2513	.005 .018 .040	2018	.003 .010 .024	2513	*		
		2514	.008 .029 .064	2019	*	2514	.001 .004 .010		
		2515	.014 .054 .112	2511	.001 .002 .005	2515	.005 .018 .040		
		2516	.010 .040 .085	2512	.001 .003 .007	2516	.005 .018 .041		
		2517	.004 .016 .040	2513	.002 .009 .021	2517	.004 .015 .033		

TROPICAL CYCLONE STRIKE PROBABILITIES FOR OFFSET CIRCLES WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 TARGET= WOLLOPS ISLAND, VIRGINIA LAT= 37.85N LON= 75.48W
 INTERVAL = 96 HOURS

SQUARE	JUNE-JULY	SQUARE 2518	AUGUST	SQUARE 2514	SEPTEMBER	SQUARE 3014	OCTOBER	SQUARE	NOVEMBER-MAY
		.010		.006		*			
		.037		.022		.001			
		.079		.049		.002			
3016		.006	2515	.007	3015	.003			
		.024		.029		.014			
		.052		.063		.032			
			2516	.008	3016	.002			
				.031		.009			
				.067		.020			
			2517	.006					
				.024					
				.055					
			2518	.008					
				.032					
				.071					
			2519	.004					
				.017					
				.040					
			3012	*					
				*					
				.001					
			3013	.001					
				.004					
				.010					
			3014	.002					
				.007					
				.017					
			3015	*					
				.002					
				.004					
			3513	.002					
				.007					
				.016					
			3514	.003					
				.013					
				.029					
			3515	.001					
				.005					
				.011					

APPENDIX II

Probabilities for Five-Degree Latitude-Longitude Squares (24- and 48-Hour Time Intervals for September).

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 1006 INITIAL POSITION = 12.5 N 027.5 W NUMBER OF OBS = 15

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

* *
* .003
.013 .038

12.5

* .164 .015 *
.002 .461 .130 *
.014 .711 .386 .001

07.5

02.5

SDEG ID = 1007 INITIAL POSITION = 12.5 N 032.5 W NUMBER OF OBS = 13

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

.011 *
.063 *
.197 .001

12.5

.177 *
.610 .002
.890 .050

07.5

*
.001
.012

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1008 INITIAL POSITION = 12.5 N 037.5 W NUMBER OF OBS = 18

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

* .004 .001
* .038 .007
.002 .174 .038

12.5

.001 .124 .006
.006 .436 .042
.032 .790 .160

07.5

*
*
.001

02.5

5DEG ID = 1009 INITIAL POSITION = 12.5 N 042.5 W NUMBER OF OBS = 19

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

* .003 *
* .043 .001
.005 .229 .018

12.5

* .075 .005
.002 .375 .036
.020 .757 .148

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1010 INITIAL POSITION = 12.5 N 047.5 W NUMBER OF OBS = 22

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

.004 .017 *
.019 .131 .001
.058 .401 .013

12.5

* .023 .016
* .192 .069
.009 .555 .174

07.5

02.5

5DEG ID = 1011 INITIAL POSITION = 12.5 N 052.5 W NUMBER OF OBS = 15

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

* .010 *
.003 .073 .003
.019 .264 .022

12.5

.001 .089 .005
.008 .365 .034
.044 .704 .120

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 1012 INITIAL POSITION = 12.5 N 057.5 W NUMBER OF OBS = 22

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5 .002 *
.022 *
.121 .003
12.5 * .245 *
* .681 .006
.008 .928 .062

07.5

02.5

SDEG ID = 1013 INITIAL POSITION = 12.5 N 062.5 W NUMBER OF OBS = 27

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5 *
*
.011
12.5 * .210 .007
.005 .684 .048
.033 .919 .176

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1014 INITIAL POSITION = 12.5 N 067.5 W NUMBER OF OBS = 17

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

*

*

.007

12.5

* .303 .001
* .821 .019
.006 .978 .127

07.5

02.5

5DEG ID = 1015 INITIAL POSITION = 12.5 N 072.5 W NUMBER OF OBS = 15

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

.285 .004
.735 .052
.948 .262

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

50DEG ID = 1016 INITIAL POSITION = 12.5 N 077.5 W NUMBER OF OBS = 17

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5 * *
* .005 .006
* .051 .040

12.5 * .143 .012
* .454 .093
.005 .744 .319

07.5 * *
* .004

02.5

50DEG ID = 1017 INITIAL POSITION = 12.5 N 082.5 W NUMBER OF OBS = 11

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5 * .010 *
* .015 .069 *
* .140 .217 .001

12.5 * .058 .002
.001 .242 .039
.005 .500 .245

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1506 INITIAL POSITION = 17.5 N 027.5 W NUMBER OF OBS = 10

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5

27.5

22.5

*	*	*
*	*	*
.001	.014	.001

17.5

.005	.084	.010	*
.019	.370	.226	.004
.050	.591	.486	.020

12.5

07.5

02.5

5DEG ID = 1507 INITIAL POSITION = 17.5 N 032.5 W NUMBER OF OBS = 15

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5

27.5

22.5

.003	.034	.001
.036	.126	.006
.180	.252	.018

17.5

.004	.082	.001
.026	.291	.019
.081	.521	.121

12.5

*	*
.001	*
.006	.002

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1508 INITIAL POSITION = 17.5 N 097.5 W NUMBER OF OBS = 21
LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5
42.5
37.5
32.5
27.5
22.5 .002 *
.041 .004
.246 .028
17.5 * .117 *
.006 .484 .002
.044 .828 .037
12.5
07.5
02.5

5DEG ID = 1509 INITIAL POSITION = 17.5 N 042.5 W NUMBER OF OBS = 30
LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5
42.5
37.5
32.5
27.5
22.5 * .006 .001
.001 .054 .007
.009 .233 .037
17.5 .003 .101 .002
.022 .398 .020
.083 .736 .094
12.5
07.5
02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 1510 INITIAL POSITION = 17.5 N 047.5 W NUMBER OF OBS = 67

LATITUDE	LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5	
42.5	* .019 .004 * .111 .029 .004 .323 .106
37.5	
32.5	
27.5	
22.5	* .078 .004 .003 .303 .033 .018 .596 .144
17.5	*
12.5	*
07.5	.001
02.5	

SDEG ID = 1511 INITIAL POSITION = 17.5 N 052.5 W NUMBER OF OBS = 57

LATITUDE	LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5	
42.5	
37.5	
32.5	
27.5	
22.5	* .012 .004 * .075 .027 .004 .239 .098
17.5	* .091 .010 .004 .332 .062 .021 .620 .207
12.5	*
07.5	*
02.5	.003

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1512 INITIAL POSITION = 17.5 N 057.5 W NUMBER OF OBS = 68

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5 * .001 .002
* .027 .022
.001 .178 .106

17.5 .001 .068 .006
.005 .311 .059
.025 .628 .237

12.5

07.5

02.5

5DEG ID = 1513 INITIAL POSITION = 17.5 N 062.5 W NUMBER OF OBS = 61

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5 * .004 .001
* .050 .011
.001 .246 .056

17.5 * .112 .001
.003 .422 .013
.021 .749 .099

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 1514 INITIAL POSITION = 17.5 N 067.5 W NUMBER OF OBS = 94

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5 * .003
.011 .027
.126 .102

17.5 * .131 .001
.003 .438 .019
.023 .717 .157

12.5

07.5

02.5

SDEG ID = 1515 INITIAL POSITION = 17.5 N 072.5 W NUMBER OF OBS = 36

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5 * .001 *
.018 .001
.002 .116 .012

17.5 * .170 .005
.005 .550 .042
.033 .852 .164

12.5 *
*
.001

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1516 INITIAL POSITION = 17.5 N 077.5 W NUMBER OF OBS = 45

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5 * .003 .003
* .035 .021
.002 .166 .085

17.5 .001 .106 .009
.008 .377 .065
.034 .672 .223

12.5 *
*
.001

07.5

02.5

5DEG ID = 1517 INITIAL POSITION = 17.5 N 082.5 W NUMBER OF OBS = 56

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5 .002 .012 *
.026 .069 .001
.133 .204 .004

17.5 * .066 .017 *
.001 .245 .115 *
.008 .483 .354 .001

12.5 *
*
.002

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 1518 INITIAL POSITION = 17.5 N 087.5 W NUMBER OF OBS = 31

LATITUDE	LONGITUDE														
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5															

42.5

37.5

32.5

27.5

22.5	*	.002	.004	*
	*	.025	.029	*
	.001	.123	.122	.002

17.5	*	.070	.093	*
	.003	.268	.162	.001
	.013	.529	.397	.005

12.5	*	*	*
	*	*	*
	.001		

07.5

02.5

5DEG ID = 1519 INITIAL POSITION = 17.5 N 092.5 W NUMBER OF OBS = 10

LATITUDE	LONGITUDE														
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5															

42.5

37.5

32.5

27.5	*	*	*	*
	*	*	*	*
	.001	.002		

22.5	*	.009	.013	.001
	.001	.042	.055	.004
	.006	.112	.136	.012

17.5	.001	.054	.051	.001
	.008	.199	.193	.008
	.027	.396	.390	.026

12.5	*	.003	.001	*
	.001	.014	.010	*
	.003	.048	.036	.001

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2010 INITIAL POSITION = 22.5 N 047.5 W NUMBER OF OBS = 16

LATITUDE 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

375

32.5		* .002	.004	.001
		.001	.011	.019
		.003	.036	.054
				.011
27.5		* .003	.054	.052
		* .017	.200	.192
		.001	.051	.398
			.378	.050
				.001
22.5		.002	.015	.006
		.010	.064	.030
		.029	.159	.092
				.006

17.5 *
.001

12,5

07.5

92.5

SDEG ID = 2011 INITIAL POSITION = 22.5 N 052.5 W NUMBER OF OBS = 34

LATITUDE 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42, 5

37, 3

		*	*	*
32.5		.001	.003	*
		.007	.012	.001
27.5		.001	.042	.046 .002
		.006	.169	.172 .008
		.026	.367	.348 .027
22.5		.002	.028	.010 *
		.009	.118	.054 .001
		.030	.271	.161 .005
17.5		*	*	

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 2012 INITIAL POSITION = 22.5 N 057.5 W NUMBER OF OBS = 47

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5 * *
.001 .002

27.5 * .021 .033 .001
.001 .106 .133 .004
.008 .287 .294 .014

22.5 * .046 .012 *
.007 .182 .072 *
.026 .386 .224 -.003

17.5 *
.002

12.5

07.5

02.5

SDEG ID = 2013 INITIAL POSITION = 22.5 N 062.5 W NUMBER OF OBS = 73

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5 *
.001

27.5 * .019 .036 *
.001 .110 .151 .003
.005 .318 .344 .012

22.5 * .029 .008 *
.003 .135 .058 *
.013 .335 .216 .002

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2014 INITIAL POSITION = 22.5 N 067.5 W NUMBER OF OBS = 80

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5	*	.013	.024	*
	*	.081	.114	.001
	.002	.261	.292	.005
22.5	*	.037	.014	*
	.001	.163	.091	*
	.007	.383	.290	.002

17.5

12.5

07.5

02.5

5DEG ID = 2015 INITIAL POSITION = 22.5 N 072.5 W NUMBER OF OBS = 68

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5	.005	.030	*
	.046	.136	.001
	.208	.327	.006
22.5	*	.042	.008
	*	.175	.073
	.004	.392	.292

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 2016 INITIAL POSITION = 22.5 N 077.5 W NUMBER OF OBS = 39

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5 * .004 *
.006 .046 .003
.068 .197 .013
22.5 .001 .072 .015 *
.006 .264 .135 .001
.022 .490 .430 .008

17.5

12.5

07.5

02.5

SDEG ID = 2017 INITIAL POSITION = 22.5 N 082.5 W NUMBER OF OBS = 52

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5 .002 .029 .001
.021 .149 .008
.120 .377 .029
22.5 * .031 .015 *
.001 .133 .118 *
.004 .307 .394 .006

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

50EG ID = 2018 INITIAL POSITION = 22.5 N 087.5 W NUMBER OF OBS = 54

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5	*	*																		
	.001	*																		
	.006	.001																		
27.5	.005	.051	*																	
	.040	.184	.003																	
	.162	.359	.015																	
22.5	*	.052	.014	*																
	*	.193	.094	*																
	.004	.384	.302	.001																
17.5	*	*																		
	.002	*																		
	.012	.001																		

12.5

07.5

02.5

50EG ID = 2019 INITIAL POSITION = 22.5 N 092.5 W NUMBER OF OBS = 45

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5

27.5	.001	.025	.004																
	.012	.122	.021																
	.063	.311	.060																
22.5	*	.034	.047	*															
	.001	.131	.216	.005															
	.005	.278	.493	.031															
17.5	*	*																	
	.003	.001																	

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 2020 INITIAL POSITION = 22.5 N 097.5 W NUMBER OF OBS = 14

LATITUDE

LONGITUDE

107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

	.011	*
27.5	.043	.002
	.111	.029
	.004	.088
22.5	.070	.388
	.355	.699
	.003	*
17.5	.024	*
	.084	.001

12.5

07.5

02.5

SDEG ID = 2507 INITIAL POSITION = 27.5 N 032.5 W NUMBER OF OBS = 10

LATITUDE

LONGITUDE

107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

	*	.001	.006	.002	*	
	*	.008	.037	.013	*	
	.001	.038	.128	.046	.002	
27.5		.001	.043	.090	.013	*
		.006	.157	.316	.058	.001
		.019	.309	.575	.147	.004
		*	*	*	*	
22.5		*	.002	.001	*	
		.001	.010	.010	.001	

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2509 INITIAL POSITION = 27.5 N 042.5 W NUMBER OF OBS = 14

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	*	.002	.001	*	
	*	.002	.008	.007	.002	
	.001	.010	.025	.017	.004	
32.5	*	.005	.031	.028	.005	*
	.001	.026	.121	.101	.021	.002
	.003	.078	.256	.200	.050	.005
27.5	*	.004	.034	.027	.003	*
	*	.017	.124	.109	.017	.001
	.001	.045	.242	.245	.056	.003
22.5	*	.003	.002	*		
	.001	.010	.011	.001		
	.002	.024	.035	.006		

17.5	*	*				
	.	.				
	.001					

12.5

07.5

02.5

5DEG ID = 2510 INITIAL POSITION = 27.5 N 047.5 W NUMBER OF OBS = 15

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	*	*																	
	.001	.003	.001																	
	.004	.011	.003																	
32.5	*	.010	.046	.010	*															
	.001	.046	.175	.047	.001															
	.004	.117	.361	.125	.004															
27.5	*	.007	.051	.015	*															
	*	.035	.195	.064	.001															
	.002	.099	.399	.156	.005															
22.5	*	*	*																	
	*	.003	.001																	
	.002	.012	.005																	

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2511 INITIAL POSITION = 27.5 N 052.5 W NUMBER OF OBS = 32

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	.001	.001	*	
	*	.006	.007	.001	
	.002	.027	.022	.002	
32.5	*	.014	.085	.014	*
	*	.070	.292	.061	.001
	.003	.199	.526	.148	.004
27.5	*	.021	.011	*	
	.003	.082	.061	.001	
	.011	.181	.187	.010	
22.5	*	*	*	*	
				.002	

17.5

12.5

07.5

02.5

5DEG ID = 2512 INITIAL POSITION = 27.5 N 057.5 W NUMBER OF OBS = 30

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

	*	*				
	*	*				
	.001	.001				
37.5	*	.001	.005	.004	.001	
	*	.006	.024	.019	.003	
	.001	.020	.064	.046	.009	
32.5	.001	.025	.053	.016	.001	
	.007	.101	.193	.065	.005	
	.024	.224	.378	.146	.014	
27.5	*	.003	.021	.014	.001	*
	*	.013	.080	.061	.007	*
	.001	.034	.173	.154	.026	.001
22.5	*	*	*	*	*	*
		.001	.002	*	*	*
		.003	.008	.002		

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2513 INITIAL POSITION = 27.5 N 062.5 W NUMBER OF OBS = 39

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
37.5																					
32.5																					
27.5																					
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

5DEG ID = 2514 INITIAL POSITION = 27.5 N 067.5 W NUMBER OF OBS = 75

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
37.5																					
32.5																					
27.5																					
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2515 INITIAL POSITION = 27.5 N 072.5 W NUMBER OF OBS = 73

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	.001	.001	*	
	*	.005	.005	*	
	.002	.019	.017	.002	
32.5	*	.007	.061	.021	*
	*	.035	.226	.085	.002
	.001	.106	.443	.189	.008
27.5	*	.014	.035	.002	*
	.001	.059	.143	.016	*
	.004	.140	.318	.058	.001
22.5	*	*			
	.001	.001			
	.005	.004			

17.5

12.5

07.5

02.5

5DEG ID = 2516 INITIAL POSITION = 27.5 N 077.5 W NUMBER OF OBS = 71

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	*	*	*	
	*	.001	.002	.001	
	.001	.006	.008	.002	
32.5	*	.004	.032	.019	.001
	*	.024	.129	.074	.006
	.002	.077	.283	.159	.017
27.5	.001	.029	.047	.006	*
	.005	.111	.181	.030	.001
	.017	.229	.375	.090	.003
22.5	*	.001	*	*	
	.001	.006	.002	*	
	.003	.021	.011	.001	

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 2517 INITIAL POSITION = 27.5 N 082.5 W NUMBER OF OBS = 50

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

	*	*
37.5	*	*
	.002	.003
32.5	*	.007 .048 .019 .001
	*	.042 .192 .075 .003
	.003	.137 .405 .163 .010
27.5	*	.001 .026 .022 .001 *
	*	.006 .103 .111 .010 *
	.019	.222 .296 .046 .001

22.5

17.5

12.5

07.5

02.5

5DEG ID = 2518 INITIAL POSITION = 27.5 N 087.5 W NUMBER OF OBS = 73

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

	*	*	*
37.5	*	*	*
	.001	.003	.002
32.5	*	.008 .037 .020 .001	
	.001	.038 .153 .080 .006	
	.005	.108 .337 .183 .018	
27.5	*	.001 .016 .036 .010 *	
	.003	.066 .151 .048 .002	
	.011	.154 .340 .132 .009	
22.5	*	*	
	.002	.002	

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 2519 INITIAL POSITION = 27.5 N 092.5 W NUMBER OF OBS = 66

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

	*	*
37.5	* .001	
	.003 .003	
32.5	.002 .037 .015 *	
	.016 .150 .060 .001	
	.063 .334 .139 .005	
27.5	* .022 .058 .003 *	
	.001 .088 .224 .021 *	
	.004 .198 .457 .078 .001	
22.5	* *	
	.002 .001	
	.010 .007	

17.5

12.5

07.5

02.5

SDEG ID = 2520 INITIAL POSITION = 27.5 N 097.5 W NUMBER OF OBS = 14

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

	*	*
37.5	* .002	
	.008 .008	
32.5	.001 .046 .008 *	
	.007 .177 .040 *	
	.039 .362 .108 .001	
27.5	.010 .077 .001	
	.056 .279 .008	
	.153 .523 .043	
22.5	.001 .001	
	.006 .005	
	.019 .024	

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

50DEG ID = 3009 INITIAL POSITION = 32.5 N 042.5 W NUMBER OF OBS = 21

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5 * .008 .015 .002 *
.002 .051 .069 .009 *
.015 .170 .182 .027 .001

32.5 * .013 .078 .025 .001
.001 .053 .278 .117 .005
.003 .126 .517 .294 .020

27.5 * * *
.001 .001 *
.004 .007 .001

22.5

17.5

12.5

07.5

02.5

50DEG ID = 3010 INITIAL POSITION = 32.5 N 047.5 W NUMBER OF OBS = 12

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5 * .006 .014 .003 *
.003 .051 .077 .017 .001
.024 .194 .209 .047 .003

32.5 * .028 .047 .010 * *
.005 .097 .206 .067 .004 *
.015 .190 .442 .218 .023 .001

27.5 * *
* *
.001 .001

22.5

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 3011 INITIAL POSITION = 32.5 N 052.5 W NUMBER OF OBS = 13

5DEG ID = 3012 INITIAL POSITION = 32.5 N 057.5 W NUMBER OF OBS = 30

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

50DEG ID = 3013 INITIAL POSITION = 32.5 N 062.5 W NUMBER OF OBS = 48

LATITUDE	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5									*	.004	.005	.001	*							
									.002	.018	.022	.006	*							
									.010	.053	.050	.013	.001							
37.5									.001	.026	.050	.009	*							
									.006	.109	.178	.041	.002							
									.025	.250	.337	.101	.007							
32.5									*	.011	.038	.006	*							
									.001	.046	.141	.034	.001							
									.003	.106	.281	.108	.005							
27.5									*	.002	*	*								
									.001	.010	.004	*								
									.003	.025	.016	.001								
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

50DEG ID = 3014 INITIAL POSITION = 32.5 N 067.5 W NUMBER OF OBS = 72

LATITUDE	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5									*	.001	.002	.002	.001	*						
									*.	.003	.013	.011	.002	*						
									.001	.014	.040	.030	.007	.001						
37.5									*	.003	.034	.051	.014	.001						
									*.	.017	.135	.186	.057	.005						
									.001	.052	.290	.359	.126	.014						
32.5									*	.010	.036	.008	*	*						
									.002	.040	.102	.042	.004	*						
									.006	.090	.223	.121	.015	.001						
27.5									*	*	*	*	*							
									*.	.002	.001	*								
									.001	.006	.005	.001								
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 3015 INITIAL POSITION = 32.5 N 072.5 W NUMBER OF OBS = 54

LATITUDE	LONGITUDE											
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5
42.5	*	*	*	*								
	.001	.004	.002	*								
	.006	.018	.009	.001								
37.5	*	.003	.050	.056	.007	*						
	*	.022	.196	.195	.031	.001						
	.001	.077	.409	.364	.074	.003						
32.5	*	.002	.014	.019	.002	*						
	.002	.054	.091	.016	*							
	.008	.119	.235	.071	.003							
27.5	*	*	*									
		.002										
22.5												
17.5												
12.5												
07.5												
02.5												

5DEG ID = 3016 INITIAL POSITION = 32.5 N 077.5 W NUMBER OF OBS = 59

LATITUDE	LONGITUDE											
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5
42.5	*	.002	.011	.010	.002	*						
	.001	.013	.048	.040	.009	.001						
	.003	.042	.117	.088	.023	.002						
37.5	*	.004	.041	.050	.011	.001						
	*	.021	.154	.183	.047	.003						
	.002	.060	.312	.359	.115	.011						
32.5	*	.007	.015	.003	*							
	.001	.030	.062	.018	.001							
	.005	.067	.143	.060	.005							
27.5	*	*	*									
	*	.001	.001									
	.001	.005	.003									
22.5												
17.5												
12.5												
07.5												
02.5												

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 3017 INITIAL POSITION = 32.5 N 082.5 W NUMBER OF OBS = 22

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	*	*																	
	*	.002	.002	.001																	
	.003	.011	.009	.002																	
37.5	*	.003	.032	.050	.015	.001	*														
	*	.017	.134	.180	.058	.006	*														
	.002	.060	.302	.343	.120	.014	.001														
32.5	.001	.017	.024	.005	*																
	.005	.065	.105	.032	.002																
	.015	.135	.247	.109	.013																
27.5	*	*	*																		
	*	.001	*																		
	.002	.004	.001																		
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

SDEG ID = 3018 INITIAL POSITION = 32.5 N 087.5 W NUMBER OF OBS = 24

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	*																		
	*	*	*																		
	.001	.002	.001																		
37.5	*	.002	.024	.030	.006	*															
	*	.015	.114	.119	.023	.001															
	.001	.059	.284	.258	.056	.003															
32.5	.001	.020	.037	.010	*																
	.004	.075	.157	.055	.004																
	.013	.159	.352	.167	.017																
27.5	*	*	*																		
	*	*	*																		
	.001	.002	.001																		
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 3509 INITIAL POSITION = 37.5 N 042.5 W NUMBER OF OBS = 11

LATITUDE	LONGITUDE											
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5
42.5	*	.001	.008	.006	.001	*						
	*	.011	.046	.029	.004							
	.002	.052	.141	.077	.011							
37.5	*	.007	.072	.062	.008	*						
	*	.035	.244	.233	.040	.002						
	.002	.090	.438	.457	.114	.007						
32.5	*	.001	.001	*								
	*	.005	.006	.001								
	.001	.017	.029	.007								
27.5												
22.5												
17.5												
12.5												
07.5												
02.5												

5DEG ID = 3510 INITIAL POSITION = 37.5 N 047.5 W NUMBER OF OBS = 10

LATITUDE	LONGITUDE											
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5
42.5	*	.003	.010	.016	.012	.004	.001	*				
	.002	.013	.044	.069	.051	.019	.003	*				
	.005	.037	.110	.160	.119	.046	.009	.001				
37.5	*	.003	.014	.032	.034	.020	.007	.001	*			
	.001	.011	.055	.119	.130	.078	.027	.005	.001			
	.002	.026	.115	.242	.271	.170	.061	.013	.001			
32.5	*	*	.001	.001	.001	*	*					
	*	.002	.004	.005	.003	.002	*					
	.001	.005	.014	.018	.014	.007	.002					
27.5												
22.5												
17.5												
12.5												
07.5												
02.5												

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 3511 INITIAL POSITION = 37.5 N 052.5 W NUMBER OF OBS = 18

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.002	.017	.036	.026	.007	.001	*												
	*	.011	.068	.135	.098	.030	.004	0												
	.002	.031	.155	.275	.203	.069	.012	.001												
37.5	*	.007	.023	.020	.005	.001	*													
	.002	.028	.087	.079	.024	.003	*													
	.006	.064	.182	.176	.066	.010	.001													
32.5	*	.002	.002	*	*															
	.001	.007	.009	.003	*															
	.003	.017	.025	.010	.001															
27.5																				
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

5DEG ID = 3512 INITIAL POSITION = 37.5 N 057.5 W NUMBER OF OBS = 34

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.001	.016	.042	.028	.005	*													
	*	.007	.065	.156	.106	.023	.002													
	.001	.020	.149	.315	.223	.058	.006													
37.5	*	.003	.017	.021	.005	*														
	*	.011	.067	.082	.024	.002														
	.001	.030	.144	.181	.066	.007														
32.5		.001	.002	.001	*															
	.002	.008	.004	*																
	.007	.020	.012	.002																
27.5																				
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

5DEG ID = 3513 INITIAL POSITION = 37.5 N 062.5 W NUMBER OF OBS = 38

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.001	.014	.037	.026	.006	.001	*													
	*	.006	.060	.137	.097	.026	.003	*													
	.001	.021	.145	.277	.197	.061	.009	.001													
37.5	*	.010	.032	.019	.003	*															
	.002	.039	.117	.079	.015	.001															
	.007	.089	.234	.183	.048	.005															
32.5	.001	.003	.002	*																	
	.003	.014	.010	.001																	
	.007	.032	.030	.006																	
27.5	*	*	*																		
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

5DEG ID = 3514 INITIAL POSITION = 37.5 N 067.5 W NUMBER OF OBS = 34

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.004	.019	.035	.025	.008	.002	*													
	.001	.016	.077	.132	.096	.034	.007	.001													
	.004	.043	.168	.268	.201	.079	.018	.002													
37.5	.001	.008	.018	.013	.003	*	*														
	.004	.032	.070	.053	.017	.003	*														
	.011	.070	.149	.126	.047	.009	.001														
32.5	*	.001	.001	*	*																
	.002	.006	.005	.001	*																
	.005	.015	.015	.005	.001																
27.5																					
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

50DEG ID = 3515 INITIAL POSITION = 37.5 N 072.5 W NUMBER OF OBS = 34

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.003	.020	.036	.021	.005	*														
	.001	.015	.079	.134	.082	.020	.002														
	.003	.039	.172	.275	.177	.050	.006														
37.5	*	.004	.015	.014	.004	*															
	.001	.016	.057	.055	.017	.002															
	.004	.039	.122	.125	.046	.006															
32.5	*	.001	.001	.001	*																
	*.	.003	.007	.003	*																
	.001	.008	.017	.010	.002																
27.5																					
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

50DEG ID = 3516 INITIAL POSITION = 37.5 N 077.5 W NUMBER OF OBS = 12

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.001	.011	.033	.036	.017	.004	*	*												
	*	.005	.046	.126	.135	.065	.016	.002	*												
	.001	.016	.108	.260	.273	.140	.039	.006	.001												
37.5	*	.003	.014	.017	.007	.001	*														
	.001	.014	.055	.067	.031	.006	.001														
	.003	.033	.117	.151	.082	.021	.003														
32.5	*	.001	.001	*	*																
	*	.003	.004	.002	*																
	.001	.007	.012	.006	.001																
27.5																					
22.5																					
17.5																					
12.5																					
07.5																					
02.5																					

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 24 HOURS

SDEG ID = 4011 INITIAL POSITION = 42.5 N 052.5 W NUMBER OF OBS = 11

LATITUDE	LONGITUDE																		
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5
42.5	*	.001	.006	.012	.009	.003	.001	*	*	.024	.046	.037	.013	.003	*	*			
37.5																			
32.5																			
27.5																			
22.5																			
17.5																			
12.5																			
07.5																			
02.5																			

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 1006 INITIAL POSITION = 12.5 N 027.5 W NUMBER OF OBS = 15

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

* * *
 .001 .001 *
 .004 .004 .001

17.5

* .006 .031 .013 .001
 .001 .034 .126 .052 .003
 .004 .103 .273 .111 .009

12.5

.003 .039 .028 .002 *
 .014 .142 .122 .013 *
 .037 .278 .284 .044 .001

07.5

* * *
 .002 .002 *
 .005 .012 .003

02.5

5DEG ID = 1007 INITIAL POSITION = 12.5 N 032.5 W NUMBER OF OBS = 13

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

* *
 * *
 .001 .001

22.5

* .003 .003 *
 * .012 .014 *
 .001 .034 .036 .002

17.5

* .031 .023 *
 .002 .121 .092 .001
 .009 .261 .207 .005

12.5

* .043 .017 *
 .003 .184 .076 *
 .013 .333 .192 .002

07.5

* .005 .001
 * .022 .006
 .002 .036 .021

02.5

* *
 .001

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 1008 INITIAL POSITION = 12.5 N 037.5 W NUMBER OF OBS = 18
 LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

*	*	*	*
*	.002	.003	.001
.001	.009	.012	.003

17.5

*	.004	.034	.034	.005	*
*	.020	.135	.130	.020	.001
.001	.054	.289	.270	.048	.002

12.5

*	.006	.025	.013	*
.001	.027	.104	.062	.006
.003	.065	.238	.158	.020

07.5

*	*	*
*	*	*
.001	.003	.001

02.5

SDEG ID = 1009 INITIAL POSITION = 12.5 N 042.5 W NUMBER OF OBS = 19
 LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

*	.003	.003	*
.002	.015	.013	.001
.007	.044	.039	.005

17.5

*	.005	.047	.043	.004	*
*	.021	.174	.161	.016	*
.001	.053	.348	.327	.043	.001

12.5

.001	.012	.013	.001
.005	.055	.055	.006
.018	.139	.138	.017

07.5

*	*
*	*
.001	.002

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 1010 INITIAL POSITION = 12.5 N 047.5 W NUMBER OF OBS = 22

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

	*	*	
27.5	*	*	
	.001	.001	
22.5	*	.004 .008 .002 *	
	.001 .016 .034 .012 .001	.004 .040 .087 .036 .002	
17.5	*	.010 .052 .034 .002	
	.002 .043 .190 .130 .011	.005 .100 .373 .270 .031	
12.5	*	.006 .011 .002 *	
	.003 .030 .047 .009 *	.011 .086 .113 .023 .001	
07.5	*	*	
	* * .002 .001		

02.5

SDEG ID = 1011 INITIAL POSITION = 12.5 N 052.5 W NUMBER OF OBS = 14

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

	*	.001	*	
22.5	*	.005	.002	
	.001	.020	.011	
17.5	*	.006 .058 .033 .001		
	* .027 .211 .131 .006	.001 .068 .413 .281 .019		
12.5	*	.014 .012 .001		
	.006 .087 .057 .003	.021 .180 .149 .012		
07.5	*	*		
	* * .001 .001			

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 1012 INITIAL POSITION = 12.5 N 057.5 W NUMBER OF OBS = 19

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5	*	*		
	.001	* .		
	.004	.001		
17.5	.001	.038	.008	*
	.005	.151	.041	*
	.022	.392	.120	.001
12.5	.001	.063	.013	*
	.006	.238	.064	*
	.028	.475	.175	.001
07.5	*	*		
	.002	*		
	.010	.003		

02.5

SDEG ID = 1013 INITIAL POSITION = 12.5 N 062.5 W NUMBER OF OBS = 26

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5	*	.010	.010	*	
	.002	.060	.054	.002	
	.012	.196	.161	.008	
12.5	.004	.052	.023	*	
	.018	.211	.112	.003	
	.051	.443	.282	.012	
07.5	*	*			
	.001				

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 1014 INITIAL POSITION = 12.5 N 067.5 W NUMBER OF OBS = 17

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

.001 * *
.006 .012 *
.024 .131 .001

* .041 .061 *
.001 .311 .191 *
.017 .675 .353 .002

*
*
.001

02.5

5DEG ID = 1015 INITIAL POSITION = 12.5 N 072.5 W NUMBER OF OBS = 14

LATITUDE LONGITUDE
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

* .012 .003 *
.002 .058 .023 *
.009 .158 .088 .001

* .045 .067 *
.002 .187 .240 .003
.010 .410 .455 .015

* * *
* .003 *
.005 .018 .001

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 1016 INITIAL POSITION = 12.5 N 077.5 W NUMBER OF OBS = 17

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5

27.5

	*	*	*	*	
22.5	*	.002	.002	*	
	.001	.009	.006	.001	
17.5	*	.011	.039	.010	*
	.001	.050	.150	.041	.001
	.005	.137	.310	.091	.004
12.5	*	.002	.036	.025	.001
	.010	.133	.111	.008	
	.029	.268	.263	.030	
07.5	*	*	*	*	
	.001	.003	*	*	
	.003	.012	.003		

02.5

5DEG ID = 1017 INITIAL POSITION = 12.5 N 082.5 W NUMBER OF OBS = 10

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5

27.5

	*	*	*		
22.5	*	.001	.004	.001	
	.009	.018	.003		
17.5	*	.009	.084	.024	.001
	*	.054	.284	.092	.003
	.002	.166	.503	.188	.010
12.5	*	.001	.014	.002	*
	.006	.065	.022	*	
	.017	.153	.106	.004	

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 1507 INITIAL POSITION = 17.5 N 032.5 W NUMBER OF OBS = 14

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

12.5

07.5

02.5

SDEG ID = 1508 INITIAL POSITION = 17.5 N 037.5 W NUMBER OF OBS = 21

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

27.5

22.5

17.5

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 1509 INITIAL POSITION = 17.5 N 042.5 W NUMBER OF OBS = 29

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5	*	*				
	*	*				
	.001	.001				
27.5	*	.001	.005	.005	.001	
	*	.005	.024	.021	.003	
	.001	.014	.062	.052	.009	
22.5	*	.011	.048	.027	.002	*
	.002	.047	.178	.103	.010	*
	.005	.110	.397	.217	.026	.001
17.5	*	.008	.020	.006	*	
	.001	.032	.083	.029	.002	
	.005	.076	.187	.078	.006	
12.5	*	*	*			
	.001	.002	*			
	.004	.006	.001			

07.5

02.5

5DEG ID = 1510 INITIAL POSITION = 17.5 N 047.5 W NUMBER OF OBS = 46

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5

32.5	*	*	*			
	*	.001	*			
	.001	.002	.001			
27.5	*	.004	.010	.002	*	
	.001	.018	.042	.009	*	
	.002	.050	.099	.024	.001	
22.5	*	.001	.037	.050	.004	*
	.007	.142	.187	.018	*	
	.022	.299	.372	.051	.001	
17.5	*	.001	.017	.009	*	
	.005	.067	.044	.002		
	.016	.133	.116	.007		
12.5	*	*	*			
	*	.001	*			
	.001	.005	.002			

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 1511 INITIAL POSITION = 17.5 N 052.5 W NUMBER OF OBS = 55

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

	*	*
32.5	*	*
	.002	.001
27.5	*	.
	.009	.028
	.001	.012
	.027	.068
	.029	.003
22.5	*	.
	.001	.028
	.008	.042
	.110	.007
	.028	.001
	.024	.238
	.316	.070
	.003	
17.5	*	.
	.003	.026
	.015	.013
	.001	.012
	.038	.146
	.013	
12.5	*	.
	.001	
	.002	.005
	.005	.001
	.016	.004

07.5

02.5

SDEG ID = 1512 INITIAL POSITION = 17.5 N 057.5 W NUMBER OF OBS = 66

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

	*	.001	.001	*	
27.5	.002	.008	.005	.001	
	.008	.028	.017	.002	
22.5	.002	.034	.058	.015	.001
	.011	.133	.207	.057	.003
	.036	.284	.392	.123	.009
17.5	*	.005	.014	.005	*
	.001	.019	.063	.029	.003
	.002	.046	.157	.098	.013
12.5	*	*	*	*	
	.001	.001			

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 1513 INITIAL POSITION = 17.5 N 062.5 W NUMBER OF OBS = 60

LATITUDE	LONGITUDE														
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5															

42.5

37.5

32.5

27.5	*	.002	.001			
	.002	.012	.003			
	.011	.038	.010			
22.5	*	.037	.052	.002		
	.004	.152	.188	.011		
	.017	.336	.364	.035		
17.5	*	.003	.030	.005	*	
	.013	.120	.029	*		
	.039	.258	.101	.002		
12.5	*	*				
	*	.001				
	.002	.004				

07.5

02.5

SDEG ID = 1514 INITIAL POSITION = 17.5 N 067.5 W NUMBER OF OBS = 49

LATITUDE	LONGITUDE														
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5															

42.5

37.5

32.5

27.5	*	.001	.002	*		
	*	.008	.009	.001		
	.003	.029	.024	.002		
22.5	*	.016	.061	.008	*	
	.001	.077	.216	.037	.001	
	.005	.201	.403	.091	.002	
17.5	*	.002	.034	.008	*	
	.011	.127	.046	.001		
	.033	.255	.146	.005		
12.5	*	*				
	.001	.001				
	.004	.007				

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

50DEG ID = 1515 INITIAL POSITION = 17.5 N 072.5 W NUMBER OF OBS = 33

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

	*	*	
27.5	*	*	
	.001	.001	
	.001	.022	.015 *
22.5	.009	.100	.070 .003
	.030	.248	.181 .011
17.5	.004	.045	.028 .001
	.017	.179	.118 .005
	.051	.383	.272 .017
	*	*	
12.5	*	*	
	.003	.002	

07.5

02.5

50DEG ID = 1516 INITIAL POSITION = 17.5 N 077.5 W NUMBER OF OBS = 45

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5

32.5

	*	.002	.001	*
27.5	.002	.009	.007	.001
	.008	.030	.020	.003
	.001	.022	.048	.013 .001
22.5	.005	.091	.177	.050 .003
	.018	.210	.347	.111 .008
17.5	*	.004	.027	.014 .001
	*	.018	.103	.063 .005
	.001	.044	.217	.164 .021
	*	*	*	
12.5	.001	.002	*	
	.004	.007	.001	

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 1517 INITIAL POSITION = 17.5 N 082.5 W NUMBER OF OBS = 50

LATITUDE	LONGITUDE																		
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5																			

42.5

37.5

32.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

	.001	.003	.005	.002	*															
27.5	.001	.015	.024	.007	*															
	.006	.045	.060	.018	.001															
22.5	*	.011	.053	.029	.003	*														
	.001	.048	.194	.112	.012	*														
	.005	.118	.379	.230	.091	.001														
17.5	.001	.013	.014	.002	*															
	.004	.051	.063	.010	*															
	.011	.111	.157	.037	.002															
12.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		
	.001	.004	.002																	

07.5

02.5

5DEG ID = 1518 INITIAL POSITION = 17.5 N 087.5 W NUMBER OF OBS = 24

LATITUDE	LONGITUDE																		
107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5																			

42.5

37.5

32.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	*	
	.001	.001	.001	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
27.5	.001	.006	.006	.001	*														
	.004	.026	.025	.005	*														
	.014	.056	.058	.012	.001														
22.5	*	.014	.046	.018	.001														
	.002	.058	.170	.072	.005														
	.008	.137	.339	.158	.015														
17.5	.001	.017	.020	.002	*														
	.005	.066	.081	.012	*														
	.013	.142	.185	.039	.001														
12.5	*	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		
	.001	.004	.002	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	.003	.013	.007																

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2010 INITIAL POSITION = 22.5 N 047.5 W NUMBER OF OBS = 14

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	*	.001	.001	*	*														
	.001	.002	.003	.003	.001	.001														
	.002	.005	.007	.007	.007	.004	.001													
37.5	*	.001	.001	.003	.006	.008	.005	.002	.001	*	*									
	.002	.002	.011	.025	.030	.022	.010	.003	.001											
	.001	.007	.027	.058	.068	.049	.022	.007	.001											
32.5	.001	.004	.013	.022	.018	.009	.003	.001	*											
	.002	.017	.053	.083	.070	.035	.011	.002	*											
	.006	.040	.116	.175	.149	.077	.026	.006	.001											
27.5	*	.001	.007	.014	.013	.007	.002	*	*											
	.006	.027	.053	.052	.027	.009	.002	*	*											
	.001	.013	.058	.115	.115	.065	.023	.005	.001											
22.5	*	.001	.002	.002	.001	*	*													
	*	.003	.008	.009	.005	.001	*													
	.001	.007	.019	.023	.013	.005	.001													
17.5	*	*	*	*	*	*														
	.001	.001	.001																	
12.5																				
07.5																				
02.5																				

5DEG ID = 2011 INITIAL POSITION = 22.5 N 052.5 W NUMBER OF OBS = 34

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	*	*	*	*	*	*	*	*	*	*									
	*	.001	.001	.001																
	.001	.003	.003	.002																
37.5	*	.002	.004	.003	.001	*														
	.002	.010	.018	.013	.004	.001														
	.005	.025	.043	.029	.009	.001														
32.5	*	.005	.019	.020	.007	.001	*													
	.002	.021	.073	.076	.027	.004	*													
	.005	.053	.159	.159	.061	.010	.001													
27.5	*	.002	.016	.029	.013	.002	*													
	*	.008	.062	.112	.054	.008	*													
	.001	.020	.135	.232	.123	.023	.002													
22.5	*	.002	.009	.006	.001	*	*													
	*.	.008	.035	.028	.005	*	*													
	.001	.021	.077	.068	.016	.001														
17.5	*	.001	*	*	*	*	*													
	.002	.003	.001																	
	.004	.008	.003																	
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2012 INITIAL POSITION = 22.5 N 057.5 W NUMBER OF OBS = 46

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	.001	.002	.001	*	
	*	.003	.007	.005	.001	
	.001	.009	.018	.012	.003	
32.5	*	.003	.015	.017	.005	*
	*	.013	.062	.066	.020	.002
	.002	.038	.141	.140	.045	.005
27.5	.001	.020	.039	.013	.001	*
	.007	.080	.147	.055	.005	*
	.020	.174	.296	.130	.017	.001
22.5	*	.003	.013	.006	*	
	*	.012	.049	.028	.003	
	.001	.028	.107	.075	.011	
17.5	*	*	*			
	.002	.002	*			
	.005	.007	.001			

12.5

07.5

02.5

5DEG ID = 2013 INITIAL POSITION = 22.5 N 062.5 W NUMBER OF OBS = 71

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5

42.5

37.5	*	*	*	*			
	.001	.002	.002	.001			
	.003	.007	.006	.002			
32.5	*	.002	.011	.016	.008	.001	*
	.001	.010	.046	.062	.030	.006	.001
	.002	.030	.111	.137	.066	.014	.001
27.5	*	.002	.019	.040	.024	.005	*
	*	.009	.073	.149	.093	.021	.002
	.001	.024	.157	.298	.200	.053	.006
22.5	*	.002	.007	.004	.001	*	
	.001	.009	.028	.021	.005	*	
	.002	.021	.066	.059	.018	.002	
17.5	*	*					
	*	*					
	.001	.002					

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2014 INITIAL POSITION = 22.5 N 067.5 W NUMBER OF OBS = 79

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5	*	*	*	*		
	*	.001	.001	*		
	.002	.005	.003	.001		
32.5	*	.001	.008	.014	.005	.001
	*	.005	.036	.055	.021	.002
	.001	.017	.093	.123	.047	.006
27.5	*	.014	.048	.029	.004	*
	.003	.056	.176	.110	.017	.001
	.009	.128	.347	.234	.044	.003
22.5	.001	.008	.009	.001	*	
	.004	.033	.039	.008	*	
	.011	.076	.099	.028	.002	
17.5	*	*	*			
	*	.001	*			
	.001	.003	.001			

12.5

07.5

02.5

5DEG ID = 2015 INITIAL POSITION = 22.5 N 072.5 W NUMBER OF OBS = 66

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

37.5	*	*	*			
	*	*	*			
	.001	.002	.001			
32.5	*	.003	.010	.006	.001	
	.001	.015	.041	.022	.003	
	.004	.048	.099	.049	.008	
27.5	*	.009	.053	.033	.003	*
	.001	.042	.191	.124	.016	.001
	.004	.108	.368	.258	.046	.002
22.5	.001	.014	.009	.001	*	
	.006	.053	.045	.005	*	
	.015	.112	.121	.021	.001	
17.5	*	*	*			
	.001	.001	*			
	.002	.005	.001			

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2016 INITIAL POSITION = 22.5 N 077.5 W NUMBER OF OBS = 39

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
37.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
32.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
27.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

5DEG ID = 2017 INITIAL POSITION = 22.5 N 082.5 W NUMBER OF OBS = 52

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
37.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
32.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
27.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

50DEG ID = 2018 INITIAL POSITION = 22.5 N 087.5 W NUMBER OF OBS = 51

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

	*	.001	.001	*		
37.5	.001	.004	.004	.001		
	.004	.012	.009	.002		
	.001	.007	.013	.005	.001	
32.5	.004	.032	.053	.021	.002	
	.012	.077	.115	.048	.006	
	*	.007	.035	.026	.004	*
27.5	.001	.029	.131	.102	.016	.001
	.003	.073	.269	.215	.043	.002
	*	.010	.021	.005	*	
22.5	.002	.039	.082	.025	.001	
	.007	.088	.176	.066	.005	
	*	.002	.001	*		
17.5	.001	.007	.006	.001		
	.002	.018	.017	.002		

12.5

07.5

02.5

50DEG ID = 2019 INITIAL POSITION = 22.5 N 092.5 W NUMBER OF OBS = 36

LATITUDE LONGITUDE
 107.5 102.5 97.5 92.5 87.5 82.5 77.5 72.5 67.5 62.5 57.5 52.5 47.5 42.5 37.5 32.5 27.5 22.5 17.5 12.5

42.5

	*	*	*				
37.5	*	.001	.001				
	.001	.002	.002				
	*	.001	.006	.007	.003	*	
32.5	*	.006	.025	.029	.012	.002	
	.001	.019	.053	.069	.028	.005	
	*	.002	.020	.040	.021	.004	*
27.5	*	.010	.080	.147	.079	.015	.001
	.001	.029	.176	.296	.168	.037	.004
	*	.006	.017	.011	.002	*	
22.5	.001	.022	.068	.047	.009	.001	
	.004	.050	.146	.117	.030	.003	
	*	.001	*	*			
17.5	*	.003	.003	*			
	.001	.008	.009	.002			

12.5

07.5

02.5

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2509 INITIAL POSITION = 27.5 N 042.5 W NUMBER OF OBS = 14

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5													*	*	.001	.002	.003	.002	.001	.001	
													*	*	.002	.006	.010	.011	.008	.005	
													.001	.006	.015	.024	.025	.019	.011	.005	
37.5													*	.002	.006	.010	.010	.007	.003	.001	*
													.001	.007	.024	.040	.040	.027	.013	.005	.002
													.003	.019	.035	.088	.086	.057	.029	.012	.004
32.5													*	.002	.010	.017	.014	.007	.002	.001	*
													.001	.010	.038	.064	.055	.028	.010	.003	.001
													.003	.024	.085	.136	.117	.063	.024	.007	.002
27.5													*	.001	.007	.013	.008	.003	.001	*	*
													*	.005	.027	.048	.034	.012	.003	*	*
													.001	.013	.060	.102	.078	.031	.008	.001	*
22.5													*	.002	.005	.003	.001	*	*	*	*
													.001	.009	.019	.012	.003	*	*	*	*
													.002	.019	.040	.029	.009	.001	*	*	*
17.5													*	.001	.001	.001	*	*	*	*	*
													.001	.004	.002	*	*	*	*	*	*
													.003	.008	.007	.002	*	*	*	*	*
12.5													*	*	*	*	*	*	*	*	*
													*	*	*	*	*	*	*	*	*
07.5													*	*	*	*	*	*	*	*	*
02.5													*	*	*	*	*	*	*	*	*

5DEG ID = 2510 INITIAL POSITION = 27.5 N 047.5 W NUMBER OF OBS = 12

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5													*	*	*	*	*	*	*	*	*
													.001	.002	.002	.001	*	*	*	*	*
													.002	.005	.006	.003	.001	*	*	*	*
37.5													*	.001	.004	.008	.009	.004	.001	*	*
													*	.003	.016	.035	.036	.018	.004	.001	*
													.001	.009	.039	.081	.083	.042	.011	.001	*
32.5													*	.003	.015	.029	.026	.011	.002	*	*
													.001	.013	.058	.112	.100	.042	.009	.001	*
													.003	.031	.126	.234	.209	.093	.021	.002	*
27.5													*	.002	.007	.012	.008	.003	*	*	*
													*	.001	.008	.029	.047	.035	.012	.002	*
													.002	.019	.068	.109	.083	.031	.006	.001	*
22.5													*	*	*	*	*	*	*	*	*
													*	*	*	*	*	*	*	*	*
17.5													*	*	*	*	*	*	*	*	*
12.5													*	*	*	*	*	*	*	*	*
07.5													*	*	*	*	*	*	*	*	*
02.5													*	*	*	*	*	*	*	*	*

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

50DEG ID = 2511 INITIAL POSITION = 27.5 N 052.5 W NUMBER OF OBS = 29

LATITUDE	LONGITUDE																								
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5					
42.5	*	.002	.005	.007	.004	.002	*	*	.001	.008	.021	.026	.018	.007	.002	*	*	.004	.021	.049	.059	.039	.016	.004	.001
37.5	*	.003	.014	.023	.017	.006	.001	*	.001	.014	.056	.088	.064	.024	.005	.001	.	.004	.036	.124	.186	.136	.055	.013	.002
32.5	*	.001	.010	.021	.017	.005	.001	*	*	.006	.038	.081	.066	.023	.004	*	.	.001	.015	.084	.171	.144	.058	.012	.002
27.5	*	.001	.005	.005	.001	*	.	.	*	.006	.020	.020	.007	.001	.	.	.	.001	.014	.044	.048	.019	.004	.	.
22.5	*	*	*001	.002	.001	.	.	.	.	.	.003	.005	.002	.	.	.	.	.
17.5	*	*	*
12.5	*	*	*
07.5	*	*	*
02.5	*	*	*

50DEG ID = 2512 INITIAL POSITION = 27.5 N 057.5 W NUMBER OF OBS = 28

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.001	.003	.005	.006	.005	.002	.001	*	*	.	.	.	.	.	.	.	.	.	.
37.5	*	.001	.004	.012	.022	.025	.019	.010	.004	.001	*	.	.	.	.	.	.	.	.	.
32.5	*	.001	.003	.016	.041	.059	.050	.027	.010	.003	.001	*	.	.	.	.	.	.	.	.
27.5	*	.002	.007	.030	.057	.056	.032	.012	.003	*	.	.	.	.	.	.	.	.	.	.
22.5	*	.001	.007	.018	.066	.122	.123	.073	.028	.007	.001	*	.	.	.	.	.	.	.	.
17.5	*	*	*
12.5	*	*	*
07.5	*	*	*
02.5	*	*	*

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

50EG ID = 2513 INITIAL POSITION = 27.5 N 062.5 W NUMBER OF OBS = 35

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	*	.001	.002	.002	.001	*													
	* .001	.006	.009	.007	.003	.001														
	.001 .005	.016	.024	.018	.008	.002														
37.5	*	.001	.007	.017	.017	.008	.002	*												
	* .004	.028	.066	.065	.031	.008	.001													
	.001 .013	.068	.144	.138	.067	.018	.003													
32.5	*	.006	.022	.028	.014	.003	*													
	.002 .023	.085	.108	.086	.014	.002														
	.006 .055	.178	.224	.126	.035	.005														
27.5	.001	.005	.009	.005	.001	*														
	.003 .019	.035	.020	.005	.001															
	.008 .043	.079	.052	.015	.002															
22.5	*	*	*	*																
	.001 .002	.001	*																	
	.002 .006	.005	.001																	
17.5																				
12.5																				
07.5																				
02.5																				

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	*	.001	.001	.001	.001	*	*												
	* .002	.005	.006	.004	.002	.001														
	.001 .007	.014	.016	.010	.004	.001														
37.5	*	.004	.012	.017	.011	.004	.001	*												
	.002 .017	.051	.066	.044	.018	.005	.001													
	.007 .046	.116	.140	.093	.038	.010	.002													
32.5	*	.006	.022	.027	.015	.004	.001	*												
	.002 .024	.082	.104	.060	.019	.004	.001													
	.007 .058	.171	.214	.134	.048	.011	.002													
27.5	*	.002	.007	.007	.003	*	*													
	* .006	.026	.031	.014	.003	*														
	.001 .015	.057	.073	.039	.010	.002														
22.5	*	*	*	*																
	* .002	.002	.001																	
	.001 .005	.006	.003																	
17.5																				
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2515 INITIAL POSITION = 27.5 N 072.5 W NUMBER OF OBS = 69

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.001	.002	.004	.004	.002	.001	*	*	.003	.010	.018	.017	.009	.003	.001					
	.001	.008	.026	.042	.038	.020	.007	.002													
37.5	*	.001	.006	.015	.017	.010	.003	.001	*	*	.004	.023	.057	.066	.039	.013	.003	*			
	.001	.011	.055	.125	.140	.084	.030	.007	.001												
32.5	*	.003	.014	.022	.015	.005	.001	*	*	.001	.014	.055	.085	.058	.019	.004	*				
	.001	.014	.055	.119	.180	.127	.047	.010	.001												
27.5	*	.003	.009	.007	.002	*	*	*	*	.002	.014	.034	.029	.010	.002	*					
	.002	.014	.034	.075	.068	.027	.005	.001													
22.5	*	.001	.001	*	*	*	*	*	*	.001	.004	.005	.002	*	*	*					
	.001	.004	.005	.002	*	*	*	*	*	.002	.009	.012	.006	.001							
17.5	*	*	*	*	*	*	*	*	*	.001											
12.5																					
07.5																					
02.5																					

5DEG ID = 2516 INITIAL POSITION = 27.5 N 077.5 W NUMBER OF OBS = 67

LATITUDE	LONGITUDE																					
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5		
42.5	*	*	.001	.003	.003	.003	.002	.001	*	*	*	.001	.005	.011	.012	.008	.004	.001	*	*		
	.001	.004	.014	.025	.027	.019	.009	.003	.001													
37.5	*	.001	.003	.009	.012	.009	.004	.001	*	*	.002	.014	.036	.047	.033	.015	.004	.001				
	.001	.007	.034	.081	.101	.072	.033	.010	.002													
32.5	*	.003	.012	.019	.014	.005	.001	*	*	.001	.013	.048	.075	.055	.022	.005	.001					
	.001	.013	.048	.075	.055	.022	.005	.001			.004	.032	.106	.159	.120	.051	.014	.003				
27.5	*	.001	.006	.013	.010	.003	.001	*	*	*	.004	.024	.051	.041	.015	.003	*					
	.001	.009	.053	.108	.092	.037	.008	.001														
22.5	*	.001	.003	.003	.001	*	*	*	*	.001	.004	.013	.014	.005	.001	*						
	.001	.009	.030	.032	.013	.002																
17.5	*	*	*	*	*	*	*	*	*	.001	.002	.001	.003	.005	.002							
12.5																						
07.5																						
02.5																						

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 2517 INITIAL POSITION = 27.5 N 082.5 W NUMBER OF OBS = 48

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	.001	.002	.002	.001	*	*													
	* .002	.006	.011	.010	.005	.002	*														
	.001	.005	.016	.026	.023	.012	.004	.001													
37.5	*	.001	.006	.015	.016	.009	.003	.001	*												
	* .004	.025	.058	.062	.034	.011	.002	*													
	.001	.012	.060	.127	.131	.074	.025	.006	.001												
32.5	.001	.006	.020	.025	.013	.004	.001	*													
	* .002	.024	.076	.095	.053	.015	.003	*													
	.007	.055	.161	.198	.118	.038	.008	.001													
27.5	*	.001	.006	.010	.005	.001	*														
	* .005	.025	.038	.021	.005	.001															
	.001	.012	.054	.085	.054	.016	.002														
22.5	*	.001	*	*																	
	* .002	.004	.002	*																	
	.004	.010	.007	.002																	
17.5																					
12.5																					
07.5																					
02.5																					

SDEG ID = 2518 INITIAL POSITION = 27.5 N 087.5 W NUMBER OF OBS = 55

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	*	.001	.001	.001	*	*														
	*	.001	.004	.005	.004	.002	.001														
	.001	.004	.010	.014	.011	.005	.001														
37.5	*	.001	.005	.010	.012	.007	.003	.001	*												
	* .005	.020	.042	.046	.028	.010	.002	*													
	.001	.012	.047	.094	.101	.063	.024	.006	.001												
32.5	.001	.005	.016	.025	.020	.009	.002	*													
	* .003	.019	.061	.095	.076	.034	.009	.002													
	.007	.044	.132	.199	.162	.076	.022	.004													
27.5	*	.001	.004	.009	.009	.005	.001	*													
	* .003	.016	.036	.037	.020	.006	.001														
	.001	.008	.037	.080	.086	.049	.017	.003													
22.5	*	.001	.001	*	*																
	* .001	.002	.003	.002	.001																
	.002	.006	.009	.006	.002																
17.5																					
12.5																					
07.5																					
02.5																					

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 2519 INITIAL POSITION = 27.5 N 092.5 W NUMBER OF OBS = 43

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.001	.001	.001	*																
	* .002	.005	.003	.001																	
	.002	.007	.012	.008	.003																
37.5	*	.002	.008	.010	.005	.001	*														
	.001	.009	.033	.041	.018	.003	*														
	.002	.024	.077	.091	.042	.008	.001														
32.5	.001	.011	.030	.022	.005	*															
	.004	.044	.113	.084	.021	.002															
	.013	.101	.235	.180	.050	.005															
27.5	*	.002	.013	.021	.008	.001	*														
	*	.007	.052	.081	.033	.004	*														
	.001	.019	.113	.175	.079	.012	.001														
22.5	.001	.003	.002	*																	
	.003	.012	.010	.002																	
	.007	.029	.027	.006																	
17.5	*	*	*																		
	*	*	*																		
	.001	.001	.001																		
12.5																					
07.5																					
02.5																					

5DEG ID = 3009 INITIAL POSITION = 32.5 N 042.5 W NUMBER OF OBS = 21

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.001	.005	.006	.003	.001	*														
	.001	.008	.022	.023	.012	.003	.001														
	.004	.027	.058	.053	.026	.007	.001														
37.5	.001	.013	.036	.028	.009	.001	*														
	.005	.054	.132	.105	.035	.007	.001														
	.018	.132	.263	.209	.081	.018	.003														
32.5	.001	.011	.025	.010	.001	*															
	.003	.043	.093	.047	.008	.001															
	.010	.092	.188	.122	.029	.003															
27.5	*	.001	.003	.001	*																
	*	.005	.011	.003	*																
	.001	.012	.028	.013	.001																
22.5	*	*	*																		
17.5																					
12.5																					
07.5																					
02.5																					

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 3010 INITIAL POSITION = 32.5 N 047.5 W NUMBER OF OBS = 11

LATITUDE	LONGITUDE											
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5
42.5										*	*	.001
										* .002	.007	.013
										.001 .008	.024	.037
										.033 .019	.008	.002
37.5										*	.001	.006
										* .003	.028	.081
										.001 .012	.072	.173
										.173 .214	.168	.094
										.116 .057	.019	.006
32.5										*	.001	.009
										* .005	.035	.066
										.001 .014	.073	.134
										.116 .057	.019	.002
27.5										*	.002	.002
										* .001	.007	.008
										.003 .016	.021	.009
22.5										*	*	*
										* .001	.001	
17.5												
12.5												
07.5												
02.5												

5DEG ID = 3011 INITIAL POSITION = 32.5 N 052.5 W NUMBER OF OBS = 10

LATITUDE	LONGITUDE											
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5
42.5										*	*	.002
										* .002	.007	.018
										.001 .005	.017	.042
										.071 .082	.082	.068
										.040 .017	.017	.006
37.5										*	.001	.003
										* .001	.014	.034
										.001 .008	.031	.074
										.116 .121	.087	.044
32.5										*	.001	.003
										* .003	.012	.028
										.001 .008	.028	.062
										.062 .086	.078	.047
										.020 .020	.020	.006
27.5										*	.001	.002
										* .001	.003	.011
										.001 .003	.022	.026
										.026 .020	.020	.010
22.5										*	*	*
										* .001	.001	.001
										.001 .002	.003	.003
										.002 .002	.002	.001
17.5												
12.5												
07.5												
02.5												

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 3012 INITIAL POSITION = 32.5 N 057.5 W NUMBER OF OBS = 28

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	*	.002	.006	.012	.014	.012	.007	.002	.001	*									
	*	.002	.009	.025	.046	.057	.047	.026	.010	.002	*									
	.001	.005	.021	.056	.101	.123	.102	.058	.023	.006	.001									
37.5	*	.001	.003	.008	.015	.017	.014	.007	.002	.001	*									
	*	.003	.011	.031	.057	.068	.059	.028	.010	.002	*									
	.001	.006	.026	.070	.123	.146	.116	.063	.023	.006	.001									
32.5	*	.001	.003	.005	.006	.004	.002	.001	*											
	.001	.004	.012	.020	.023	.017	.008	.003	.001											
	.003	.010	.027	.047	.053	.040	.021	.007	.002											
27.5	*	*	*	*	*	*	*	*	*	*	*									
	*	.001	.002	.002	.001	.001	.001	.001	.001	*										
	.001	.003	.005	.005	.005	.004	.002	.002	.001	*										
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

5DEG ID = 3013 INITIAL POSITION = 32.5 N 062.5 W NUMBER OF OBS = 44

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.001	.004	.011	.014	.009	.003	.001	*											
	*	.003	.017	.045	.054	.035	.014	.004	.001											
	.001	.008	.042	.098	.115	.076	.032	.010	.002											
37.5	*	.003	.014	.018	.009	.002	*	*	*											
	.001	.015	.054	.069	.037	.010	.002	*												
	.004	.037	.116	.145	.084	.026	.005	.001												
32.5	*	.001	.008	.014	.006	.001	*													
	*	.005	.032	.052	.026	.005	*													
	.001	.013	.070	.111	.063	.015	.002													
27.5	*	.002	.006	.003	*															
	*	.008	.023	.014	.002															
	.001	.018	.048	.033	.007															
22.5	*	.001	.001	*																
	.001	.005	.005	.001																
	.002	.010	.011	.003																
17.5	*	*	*	*																
	*	.001	*	*																
	.001	.002	.001																	
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 3014 INITIAL POSITION = 32.5 N 067.5 W NUMBER OF DBS = 59

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	*	.003	.008	.014	.015	.010	.005	.002	.001	*	*								
			.002	.012	.033	.055	.057	.040	.021	.008	.003	.001	*							
			.001	.006	.028	.075	.119	.121	.086	.045	.019	.007	.002	.001						
37.5	*	.002	.008	.015	.015	.009	.004	.001	*	*										
		.001	.008	.030	.057	.058	.037	.016	.005	.001	*									
		.003	.019	.067	.121	.126	.083	.039	.014	.004	.001									
32.5	*	.003	.006	.007	.004	.001	*	*												
		.002	.011	.025	.026	.015	.005	.001	*											
		.005	.024	.054	.060	.036	.014	.004	.001											
27.5	*	.001	.005	.006	.003	.001														
		.003	.011	.013	.008	.002														
22.5	*	*	*																	
		*	.001	*																
		.001	.001	.001																
17.5																				
12.5																				
07.5																				
02.5																				

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.003	.012	.021	.021	.012	.005	.001	*											
	.002	.015	.049	.083	.079	.047	.018	.005	.001											
	.006	.037	.110	.176	.166	.099	.040	.012	.002											
37.5	*	.002	.010	.020	.019	.011	.004	.001	*											
	.001	.009	.040	.077	.076	.043	.016	.004	.001											
	.002	.022	.087	.161	.184	.100	.040	.012	.003											
32.5	*	.002	.003	.003	.001	*	*	*												
	.001	.006	.013	.012	.006	.002	*													
	.003	.014	.031	.032	.018	.006	.001													
27.5	*	*	*																	
	*	*	*																	
	.001	.001	.001																	
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

50EG ID = 3016 INITIAL POSITION = 32.5 N 077.5 W NUMBER OF OBS = 24

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.002	.008	.016	.016	.008	.002	*	*											
	.001	.008	.032	.062	.062	.033	.010	.002	*											
	.003	.020	.072	.134	.133	.074	.025	.005	.001											
37.5	*	.002	.007	.011	.007	.002	*	*												
	.001	.008	.029	.044	.030	.010	.002	*												
	.003	.020	.064	.095	.067	.025	.005	.001												
32.5	*	.001	.003	.003	.001	*														
	.001	.004	.013	.013	.006	.001														
	.001	.010	.028	.031	.014	.003														
27.5	*	.001	*	*																
	.001	.002	.002	*																
	.003	.006	.004	.001																
22.5																				
17.5																				
12.5																				
07.5																				
02.5																				

50EG ID = 3017 INITIAL POSITION = 32.5 N 082.5 W NUMBER OF OBS = 20

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.001	.005	.011	.016	.015	.010	.005	.003	.001	*	*								
	*	.005	.020	.046	.061	.056	.038	.021	.010	.004	.002	.001								
	.002	.013	.050	.102	.130	.116	.080	.045	.022	.010	.004	.001								
37.5	*	.002	.008	.017	.017	.010	.005	.002	.001	*	*	*								
	.001	.007	.033	.065	.066	.042	.020	.008	.003	.001	*	*								
	.002	.019	.073	.134	.139	.096	.049	.022	.009	.004	.001	.001								
32.5	*	.001	.005	.007	.005	.001	*	*												
	*	.003	.018	.029	.020	.007	.002	*												
	.001	.009	.037	.062	.048	.021	.006	.002												
27.5	*	.001	.005	.007	.005	.001	*	*												
	.001	.004	.005	.002	*															
	.001	.008	.013	.007	.002															
22.5	*	*	*																	
	*	.001	*																	
	.001	.001	.001																	
17.5																				
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

SDEG ID = 3018 INITIAL POSITION = 32.5 N 087.5 W NUMBER OF OBS = 11

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.005	.020	.023	.007	*															
	.002	.020	.077	.092	.031	.003															
	.005	.048	.166	.202	.079	.009															
37.5	*	.003	.022	.046	.022	.002	*														
	.001	.012	.086	.172	.086	.010	*														
	.002	.034	.193	.345	.186	.027	.001														
32.5	*	.001	.004	.004	.001																
	*	.005	.020	.017	.003																
	.002	.018	.055	.044	.008																
27.5	*																				
22.5		*																			
17.5			*																		
12.5				*																	
07.5					*																
02.5						*															

SDEG ID = 3511 INITIAL POSITION = 37.5 N 052.5 W NUMBER OF OBS = 11

LATITUDE	LONGITUDE																				
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	
42.5	*	.002	.016	.022	.006	*															
	*	.010	.064	.085	.026	.002															
	.001	.028	.139	.178	.066	.007															
37.5	*	.002	.012	.007	.001																
	*	.010	.046	.030	.003																
	.001	.027	.096	.071	.011	.011															
32.5	*	.001	.003	.001	*																
	*	.005	.014	.004	*																
	.001	.013	.030	.011	.001																
27.5	*	*	*	*	*																
22.5		.001	.002	*																	
17.5			.003	.004	.001																
12.5				*																	
07.5					*																
02.5						*															

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 3512 INITIAL POSITION = 37.5 N 057.5 W NUMBER OF OBS = 25

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.001	.003	.009	.014	.013	.007	.002	.001	*	*	*	*	*	*	*	*	*	*	*
	* .002	.012	.035	.055	.050	.028	.010	.003	.001											
	.001	.006	.029	.078	.118	.108	.063	.025	.007	.002										
37.5	*	.001	.003	.008	.009	.005	.002	*	*	*	*	*	*	*	*	*	*	*	*	*
	* .003	.013	.031	.036	.022	.008	.002	*	*											
	.001	.007	.030	.067	.078	.051	.020	.005	.001											
32.5	*	.002	.003	.003	.001	.004	.001	*	*	*	*	*	*	*	*	*	*	*	*	*
	.002	.007	.013	.011	.004	.001	*	*	*											
	.004	.017	.030	.025	.010	.002														
27.5	*	*	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.001	*	*	*	*	*											
	.001	.005	.006	.003	.001															
22.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.001																		
17.5																				
12.5																				
07.5																				
02.5																				

5DEG ID = 3513 INITIAL POSITION = 37.5 N 062.5 W NUMBER OF OBS = 32

LATITUDE	LONGITUDE																			
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5
42.5	*	.001	.004	.009	.013	.012	.008	.004	.002	.001	*	*	*	*	*	*	*	*	*	*
	* .003	.015	.035	.051	.047	.031	.015	.006	.002	.001	*	*	*	*	*	*	*	*	*	*
	.001	.008	.034	.078	.109	.102	.069	.036	.015	.006	.002	.001								
37.5	*	.002	.006	.009	.008	.004	.002	*	*	*	*	*	*	*	*	*	*	*	*	*
	* .001	.007	.022	.036	.033	.018	.007	.002	.001											
	.003	.016	.049	.078	.072	.043	.018	.006	.002											
32.5	*	.002	.004	.003	.002	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.007	.015	.014	.007	.002	*	*	*											
	.003	.016	.032	.032	.017	.006	.001													
27.5	*	.001	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.003	.004	.002	*	*	*	*	*											
	.002	.007	.009	.005	.001															
22.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.001	*	*	*	*	*	*	*											
17.5																				
12.5																				
07.5																				
02.5																				

TROPICAL CYCLONE STRIKE PROBABILITIES FOR CIRCULAR AREAS WITH RADII OF ONE, TWO, AND THREE DEGREES LATITUDE
 SEASON - SEPTEMBER TIME INTERVAL - 48 HOURS

5DEG ID = 3514 INITIAL POSITION = 37.5 N 067.5 W NUMBER OF OBS = 29

LATITUDE	LONGITUDE																						
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5			
42.5	*	.001	.004	.010	.013	.011	.006	.003	.001	*	*	*	*	*	*	*	*	*	*	*	*		
	*	.004	.018	.040	.051	.042	.025	.011	.004	.002	.001	*	*	*	*	*	*	*	*	*	*	*	
	.001	.010	.041	.086	.110	.093	.057	.027	.011	.004	.002	.001	*	*	*	*	*	*	*	*	*	*	
37.5	*	.002	.006	.007	.005	.002	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	.001	.008	.022	.028	.019	.008	.003	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	.003	.019	.047	.061	.045	.021	.007	.002	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	
32.5	*	.002	.002	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.002	.006	.009	.005	.002	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.004	.014	.020	.014	.005	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
27.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.002	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.002	.004	.003	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

5DEG ID = 3515 INITIAL POSITION = 37.5 N 072.5 W NUMBER OF OBS = 23

LATITUDE	LONGITUDE																							
	107.5	102.5	97.5	92.5	87.5	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5				
42.5	*	.003	.009	.014	.012	.006	.002	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	.002	.012	.035	.055	.047	.024	.008	.002	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	.005	.028	.078	.118	.103	.055	.019	.005	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
37.5	*	.001	.003	.008	.009	.004	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	.001	.013	.031	.034	.018	.005	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
	.001	.006	.031	.068	.074	.042	.014	.003	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
32.5	*	.002	.003	.002	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.002	.008	.014	.009	.003	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.004	.018	.030	.021	.007	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
27.5	*	.001	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.001	.002	.003	.001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	.002	.006	.006	.003	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*