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Solar radiation, Gloucester Point, Virginia : [1960-1963]

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SOLAR RADIATION, GLOUCESTER POINT, VIRGINIA
Virginia Fisheries Laboratory Special Scientific Report No. 17
1960

		gcal/cm ²						
Date	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1		691.2	259.6	503.4	488.6	449.8	110.6	279.0
2		448.2	668.8	615.4	456.0	461.0	331.0	303.8
3		426.8	641.2	614.8	551.0	423.2	313.6	278.4
4		371.0	676.6	596.8	545.6	166.6	321.4	291.8
5		528.8	470.4	549.4	460.4	210.6	215.0	268.2
6		619.6	577.8	424.8	409.0	332.6	281.8	258.0
7		594.2	536.4	467.0	580.4	418.4	106.6	265.0
8		554.6	627.2	605.4	207.8	88.0	335.8	261.0
9		745.0	610.0	553.6	464.2	73.2	249.4	304.4
10		682.6	331.6	427.2	446.4	430.8	59.4	284.4
11		703.6	324.2	329.6	211.6	439.6	261.4	24.8
12		361.2	520.6	312.6	159.0**	403.8	317.2	78.6
13		610.6	542.2	520.8	531.6	393.0	313.0	300.8
14		647.8	353.8	430.6	568.4	383.2	299.8	271.8
15		525.8	585.8	433.2	347.6	250.8	269.0	100.0
16		698.8	712.4	493.4	471.8	334.0	227.6	137.6
17		616.2	687.8	289.0	380.8	321.8	213.2	278.4
18		539.6	669.4	158.0	350.4	409.4	129.6	274.4
19		689.4	627.2	605.4	429.0	250.6	280.8	224.8
20		410.0	598.2	526.0	464.4	122.0	272.0	199.6
21		572.6	679.2	557.8	256.6	393.2	286.0	28.8
22		498.4	678.6	253.4	220.0	413.4	281.0	287.0
23		491.2	627.8	265.0	524.6	275.2	47.0	283.8
24		608.8*	636.4	213.4	515.2	387.4	206.4	106.0
25		567.6	567.0	488.6	295.2	417.8	170.8	263.6
26		324.4	593.2	78.0	271.4	288.0	268.8	265.6
27		750.0	367.2	516.6	158.0	104.8	227.2	269.8
28	316.8	757.0	542.0	565.2	242.2	26.8	263.4	240.0
29	486.2	623.2	114.8	572.6	121.0	91.6	171.6	121.2
30	566.8	588.2	510.8	490.0	285.2	142.8	299.6	138.4
31	671.0		417.0	374.6		106.6		276.6
Monthly Tot.	17246.4	16755.2	13831.6	11413.4	9010.0	7130.6	6965.6	
Daily Mean		574.9	544.9	446.2	380.45	290.32	237.68	224.69
Daily Maxima		757.0	712.4	615.4	580.4	461.0	331.0	304.4
Daily Minima		324.4	114.8	78.0	121.0	26.8	47.0	24.8

* Power failure, about 2½ hours; uncorrected.

** Power failure, 6 hours, Hurricane Donna; uncorrected.

SOLAR RADIATION, GLOUCESTER POINT, VIRGINIA
Virginia Fisheries Laboratory Special Scientific Report No. 17
1961*

gcal/cm²

Date	Jan	Feb	Mar	Apr	May	Jun
1	174.0	275.4	126.0	319.0	272.4	628.4
2	235.6	108.2	469.2	636.4	630.8	695.2
3	135.0	31.8	466.6	305.4	721.2	549.6
4	273.2	326.0	386.2	241.0	709.6	720.8
5	262.4	373.2	284.8	526.2	653.2	725.6
6	271.4	305.8	276.4	574.0	76.0	480.2
7	215.6	126.6	340.6	482.6	465.6	681.0
8	271.8	32.0	63.6	654.8	634.2	671.4
9	296.8	345.8	263.8	136.8	646.6	635.8
10	294.2	339.8	536.4	378.4	344.0	608.2
11	288.0	248.6	523.4	630.6	120.6	714.8
12	267.8	242.8	495.4	86.4	429.6	721.2
13	263.6	200.4	456.8	263.2	577.8	646.0
14	82.4	264.6	223.6	661.6	596.2	654.6
15	34.6	307.4	399.6	389.0	605.2	83.6
16	49.0	388.6	341.0	612.2	288.8	577.8
17	297.4	349.4	588.4	669.2	717.6	733.4
18	242.8	102.6	257.8	470.4	664.2	770.8
19	61.2	323.6	415.4	330.2	651.0	753.4
20	324.2	190.8	572.8	438.8	726.2	726.2
21	125.4	65.8	328.8	520.8	438.6	147.0
22	339.6	162.4	48.8	587.4	651.2	372.8
23	137.0	111.8	326.8	575.4	515.0	700.0
24	299.8	342.2	89.6	279.2	759.2	483.4
25	364.6	136.6	584.6	613.4	729.2	313.2
26	44.6	461.2	582.8	391.0	362.4	213.0
27	289.4	459.2	524.0	178.0	567.0	139.0
28	341.6	178.4	485.4	586.2	770.4	118.0
29	342.0		574.8	585.8	608.0	307.6
30	323.8		330.0	694.2	768.8	689.8
31	300.2		77.6		711.4	
Monthly Total:	7249.0	6801.0	11396.0	13817.6	17412.0	16261.8
**Cor. Factor:	0.0	0.0	-155.0	0.0	-233.0	-270.0
Cor. Total:	<u>7249.0</u>	<u>6801.0</u>	<u>11241.0</u>	<u>13817.6</u>	<u>17179.0</u>	<u>15991.8</u>
Cor. Daily Mean:	233.80	242.89	362.60	460.59	554.16	533.06
Cor. Daily Max.:	364.6	461.2	583.4	694.2	762.9	761.8
Cor. Daily Min.:	34.6	31.8	43.8	86.4	68.5	74.6
***Cor. Factor:	0.0	0.0	-5.0	0.0	-7.5	-9.0

* Annual supplement.

** Correction for faulty demand meter readings, monthly.

*** Correction for faulty demand meter readings, daily.

gcal/cm²

Date	Jul	Aug	Sep	Oct	Nov	Dec
1	662.6	573.8	525.6	389.8	356.6	265.8
2	683.4	636.2	512.8	73.2	227.8	203.4
3	617.8	444.8	477.8	103.0	301.8	279.2
4	747.0	371.8	525.2	390.4	302.0	242.0
5	338.6	259.0	506.8	493.8	346.0	129.2
6	163.6	551.0	529.6	485.6	228.8	195.0
7	463.2	610.8	428.4	465.6	153.4	220.2
8	590.2	562.2	408.4	438.6	78.4	304.4
9	705.6	610.2	530.6	442.2	329.2	74.2
10	744.4	628.8	526.8	431.0	352.8	33.4
11	655.8	574.2	493.0	423.8	338.4	64.4
12	351.4	509.4	496.8	395.2	234.0	65.0
13	625.8	566.0	524.0	415.2	225.0	129.4
14	668.6	616.0	133.6	131.2	162.2	228.2
15	662.2	662.2	103.6	451.2	194.6	220.2
16	685.8	637.0	501.2	452.2	145.2	162.6
17	679.2	418.6	331.6	428.4	259.8	112.4
18	586.4	555.6	65.8	425.4	230.2	84.4
19	600.4	245.2	135.6	405.8	109.4	53.6
20	609.8	116.4	106.4	86.6	156.8	213.4
21	660.8	381.8	518.0	312.0	294.2	257.8
22	660.4	333.4	513.2	80.6	313.0	230.4
23	602.0	430.8	474.8	326.6	208.6	88.8
24	526.0	557.6	488.4	386.8	263.4	72.0
25	560.8	410.2	419.4	373.4	315.4	253.8
26	658.8	338.2	444.4	307.8	249.4	236.2
27	626.0	573.6	144.2	408.8	149.0	292.2
28	645.0	502.8	479.0	305.4	325.8	52.8
29	561.0	568.0	519.0	389.8	321.8	192.2
30	648.6	588.8	518.2	360.4	298.4	290.6
31	476.2	573.2		310.8		269.8
Monthly Total:	18467.4	15407.6	12382.2	10890.6	7471.40	7052.8
**Cor. Factor:	-279.0	-279.0	-270.0	-310.0	-330.0	-372.0
Cor. Total:	<u>18188.4</u>	<u>15128.6</u>	<u>12112.2</u>	<u>10580.6</u>	<u>7141.4</u>	<u>6680.8</u>
Cor. Daily Mean:	586.72	488.02	403.74	341.31	238.04	218.74
Cor. Daily Max.:	738.0	653.2	521.6	483.8	345.6	292.4
Cor. Daily Min.:	154.6	107.4	56.8	63.2	67.4	21.4
***Cor. Factor:	-9.0	-9.0	-9.0	-10.0	-11.0	-12.0

PLANKTOLOGY RESEARCH SECTION

W. Eayrs
 C. Rutherford
 D. Young

SOLAR RADIATION, GLOUCESTER POINT, VIRGINIA
Virginia Institute of Marine Science Special Scientific Report No. 17
1962*

gcal/cm²

Date	Jan	Feb	Mar	Apr	May	June	Jul	Aug
1	14.8	199.6	459.4	305.0	598.2	546.8	631.6	573.6
2	237.4	61.2	385.2	456.6	198.8	479.2	515.2	592.0
3	234.0	228.6	507.4	450.4	682.6	137.4	96.0	242.4
4	260.0	335.6	463.0	588.6	643.6	120.4	153.6	543.0
5	233.2	268.6	92.6	564.6	704.4	358.4	596.2	492.4
6	16.0	382.2	113.6	437.8	675.6	454.2	558.8	429.0
7	256.4	379.2	257.4	279.0	544.8	676.6	661.4	504.4
8	155.4	149.2	361.4	244.2	578.0	702.6	668.8	647.0
9	183.2	31.6	137.0	522.4	172.2	741.0	499.0	468.0
10	52.2	370.6	181.8	533.8	686.6	699.2	741.0	411.6
11	259.8	403.0	243.8	86.8	187.4	703.2	715.6	377.6
12	65.6	73.0	341.8	108.2	684.6	147.6	508.0	617.4
13	319.4	325.4	287.0	410.8	273.4	152.8	662.2	657.0
14	153.6	272.0	342.8	616.6	502.4	163.4	384.0	381.8
15	64.0	367.2	209.2	210.4	727.0	619.8	441.2	580.8
16	306.4	55.2	417.6	671.6	444.4	722.0	327.0	506.6
17	329.8	408.4	549.4	638.2	375.0	709.0	335.2	511.4
18	165.0	340.6	576.0	575.6	636.0	709.4	513.4	540.4
19	68.4	185.8	372.2	458.4	637.0	657.0	670.8	619.6
20	184.0	292.6	525.6	335.6	632.4	343.4	648.8	590.4
21	233.6	61.6	84.8	670.2	590.2	668.8	549.0	477.6
22	110.0	131.2	210.0	651.6	628.8	589.8	605.4	539.2
23	210.4	69.2	596.4	428.0	543.8	590.6	615.0	433.8
24	83.6	362.2	562.2	693.0	518.2	626.6	696.6	537.6
25	218.6	123.4	575.0	657.8	696.2	638.0	105.0	635.0
26	58.4	66.0	586.6	646.0	697.2	310.2	619.2	615.6
27	58.4	155.8	662.0	653.8	369.2	524.2	717.4	155.8
28	31.8	205.6	599.4	594.6	243.6	680.8	649.6	358.4
29	317.6		586.4	410.2	105.6	328.8	121.8	596.6
30	210.2		471.6	497.6	468.0	92.8	597.0	586.0
31	370.4		398.8		584.4		321.0	563.2

Monthly Total:

5461.6 6304.6 12,157.4 14,397.4 16,028.6 14,899.0 15,924.8 15,785.2

Daily Means:

176.18 225.16 392.2 479.9 517.06 496.63 513.7 509.2

Daily Maxima:

370.4 408.4 662.0 657.8 727.0 741.0 741.0 657.0

Daily Minima:

14.8 31.6 84.8 86.8 105.6 92.8 96.0 155.8

*Annual Supplement

Date	Sep	Oct	Nov	Dec
1	564.6	467.2	367.8	155.6
2	541.8	343.6	228.0	248.4
3	37.4	179.8	71.8	34.8
4	83.2	125.0	227.8	56.0
5	270.0	395.4	78.0	263.4
6	400.4	385.4	353.2	90.4
7	181.2	416.0	338.8	232.6
8	549.0	389.4	245.4	180.6
9	485.4	224.6	28.8	174.4
10	502.2	432.6	103.8	275.8
11	483.6	433.2	279.0	60.2
12	554.0	427.2	339.6	273.2
13	543.0	389.8	131.8	285.8
14	486.0	394.2	319.4	273.6
15	412.8	320.8	318.0	223.2
16	97.4	305.0	217.0	82.0
17	107.0	279.0	184.2	215.4
18	518.0	238.2	14.0	236.4
19	509.2	415.0	241.4	150.0
20	232.8	415.4	81.0	78.4
21	468.6	203.6	42.6	16.8
22	186.6	379.8	92.6	130.0
23	193.8	348.8	312.8	268.6
24	505.8	404.6	289.2	237.2
25	361.4	197.8	82.4	15.0
26	176.0	367.4	74.2	165.2
27	86.4	403.6	125.6	188.2
28	**	372.6	60.4	249.6
29	336.2	250.8	228.4	21.2
30	324.8	142.2	272.4	290.4
31		98.0		298.4

Monthly total

	10,198.6	10,255.0	5,749.2	5,470.8
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Daily means	390.34	330.81	191.64	176.48
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Daily maxima	564.6	467.2	367.8	298.4
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Daily minima	37.4	98.0	14.0	15.0
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**Mechanical difficulty
(mean for 29 days)

PLANKTOLOGY RESEARCH SECTION

R. Stone
D. Young
C. Rutherford

SOLAR RADIATION, GLOUCESTER POINT, VIRGINIA
Virginia Institute of Marine Science Special Scientific Report No. 17
1963*

gcal/cm²

Date	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.
1	294.8	53.0	122.2	246.8	-**	571.0	600.6	558.2
2	272.8	72.0	155.2	364.6	-	71.8	598.6	668.8
3	81.2	198.0	472.2	548.8	-	185.4	589.4	530.2
4	116.4	238.0	385.6	548.6	-	663.0	763.6	346.6
5	202.2	190.0	70.0	597.0	-	499.4	734.8	681.0
6	61.8	158.0	309.0	342.2	-	640.4	623.0	557.8
7	150.6	267.6	493.2	168.2	-	615.4	714.8	355.6
8	101.8	377.6	456.0	586.2	-	128.0	618.0	468.6
9	202.2	267.0	328.8	198.8	-	559.8	266.4	531.6
10	197.6	292.0	496.6	635.8	-	661.4	640.0	250.0
11	140.6	255.4	67.6	623.6	279.8	467.6	639.8	423.2
12	173.4	25.2	72.0	642.4	365.0	656.2	612.6	551.2
13	27.2	304.2	461.8	556.0	549.2	680.4	617.4	211.0
14	113.0	337.4	287.2	640.2	469.0	473.0	139.0	651.4
15	156.2	422.2	547.2	625.8	695.4	725.0	591.8	649.4
16	258.8	429.6	41.0	627.2	92.0	278.0	655.6	639.6
17	211.2	435.2	321.4	294.6	312.4	411.0	473.8	616.8
18	17.4	420.0	529.4	362.6	533.2	492.6	605.2	530.2
19	41.2	41.2	38.6	584.8	342.4	691.8	586.2	291.4
20	91.8	407.6	391.2	575.0	330.0	528.2	488.6	398.2
21	247.6	93.6	293.0	640.2	227.8	194.6	626.4	331.4
22	251.8	460.2	552.0	535.6	512.5	690.8	637.0	462.0
23	228.8	448.8	564.6	478.4	557.4	575.2	530.8	547.2
24	274.4	60.6	537.4	637.8	685.0	739.2	554.6	550.2
25	277.4	425.4	509.4	679.8	661.8	655.6	674.0	617.0
26	40.8	50.8	430.2	572.8	364.6	682.8	574.0	587.8
27	215.4	494.4	555.4	641.0	441.6	711.8	621.4	483.4
28	290.0	484.8	560.0	725.0	511.8	540.0	289.2	578.8
29	282.8		559.4	312.2	282.6	666.0	602.6	437.8
30	30.6		507.2	234.8	483.0	470.2	394.4	295.8
31	149.4		345.2		681.2		489.4	479.0

Monthly Total:

5201.2 7709.8 11460.0 15226.9 9377.7+ 15925.7 17553.0 15281.2

Daily Means:

167.78 275.35 369.68 507.56 446.56+ 530.86 566.23 492.94

Daily Maxima:

294.8 494.4 564.6 725.0 695.4 725.0 763.6 681.0

Daily Minima:

17.4 25.2 38.6 168.2 92.0 71.8 139.0 211.0

*Annual Supplement

**Mechanical difficulty May 1-10

+ 21 days

Date	Sep.	Oct.	Nov.	Dec.
1	525.6	461.2	241.8	243.0
2	564.6	453.2	284.4	217.6
3	481.2	444.8	368.6	16.4
4	251.6	318.0+	255.4	217.8
5	79.2	489.8	149.2	56.2
6	164.8	478.8	14.0	241.2
7	517.6	471.8	37.6	249.6
8	527.0	426.2	180.6	189.0
9	522.2	452.6	319.2	171.6
10	513.0	440.4	309.2	242.4
11	486.6	437.6	312.2	66.0
12	457.8	405.8	326.6	46.2
13	77.0	444.6	196.8	110.0
14	87.6	430.8	307.6	12.0
15	48.4	435.8	315.2	275.8
16	142.4	410.0	305.0	275.0
17	226.4	382.6	267.0	274.0
18	176.4	361.6	275.4	75.6
19	504.0	310.0	275.0	253.2
20	497.8	156.8	140.8	274.0
21	301.6	257.8	195.4	274.0
22	463.2	20.6	209.6	252.4
23	543.2	68.0	88.2	10.0
24	503.6	280.8	293.8	244.4
25	531.4	151.0	303.4	261.8
26	508.8	268.4	165.4	262.8
27	423.4	294.0	216.6	218.2
28	262.6	250.4	224.8	214.2
29	238.6	111.4	35.0	210.0
30	503.4	385.0	269.2	226.0
31		349.0		153.0

Monthly Totals:

11131.0	10330.8+	6927.2	5833.8
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Daily Means:

371.03	344.36+	230.91	188.91
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Daily Maxima:

564.6	489.8	368.6	275.8
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Daily Minima:

48.4	20.6	14.0	10.0
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+Power failure; total and mean for 30 days only