

Barge ID	Barge Number	UOM	Gauge Type	Date Strapped	Strapped By	Comment
MAP	619	BARRELS	INNAGE	10/01/04	INSPECTORATE	BARGE SHOULD BE ON EVEN LEVEL KEEL WHEN GAUGES ARE TAKEN.

Barge ID	Barge Number	Comp	Gauge Height
MAP	619	1 PORT	185.500
MAP	619	1 STAR	185.000
MAP	619	2 PORT	185.750
MAP	619	2 STAR	186.000
MAP	619	3 PORT	185.500
MAP	619	3 STAR	185.750

MAP 619

PORT 1

	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT
0	17.16	340.48	702.80	1,069.42	1,436.05	1,802.67	2,166.29	2,535.92	2,902.54	3,269.17	3,636.79	4,002.41	4,369.04	4,735.66	5,102.29
1/4	22.02	347.81	710.44	1,077.06	1,443.68	1,810.31	2,176.93	2,543.56	2,910.18	3,276.80	3,643.43	4,010.05	4,376.68	4,743.30	5,109.37
1/2	26.87	355.15	718.07	1,084.70	1,451.32	1,817.95	2,184.57	2,551.19	2,917.82	3,284.44	3,651.07	4,017.69	4,384.31	4,750.94	5,116.45
3/4	31.73	362.48	725.71	1,092.34	1,459.00	1,825.58	2,192.21	2,558.83	2,925.46	3,292.08	3,658.70	4,025.33	4,391.95	4,758.58	5,123.53
1	36.59	369.81	733.35	1,099.97	1,466.60	1,833.22	2,199.85	2,566.47	2,933.09	3,299.72	3,666.37	4,032.97	4,399.59	4,766.21	5,130.61
1/4	42.75	377.15	740.99	1,107.61	1,474.24	1,840.86	2,207.48	2,574.11	2,940.73	3,307.36	3,673.98	4,040.60	4,407.23	4,773.85	5,139.45
1/2	48.90	384.48	748.63	1,115.25	1,481.87	1,848.50	2,215.12	2,581.75	2,948.37	3,314.99	3,681.62	4,048.24	4,414.87	4,781.49	5,142.30
3/4	55.49	391.82	756.26	1,122.89	1,489.51	1,859.14	2,222.76	2,589.38	2,956.01	3,322.63	3,689.26	4,055.88	4,422.50	4,789.13	5,148.15
2	62.07	399.15	763.90	1,130.53	1,497.15	1,863.77	2,230.40	2,597.02	2,963.65	3,330.27	3,696.89	4,063.52	4,430.14	4,796.77	5,153.99
1/4	68.78	406.61	771.54	1,138.16	1,504.79	1,871.41	2,238.04	2,604.66	2,971.28	3,337.94	3,704.53	4,071.16	4,437.78	4,804.40	5,158.81
1/2	75.49	414.07	779.18	1,145.87	1,512.43	1,879.05	2,245.67	2,612.30	2,978.92	3,345.55	3,712.17	4,078.79	4,445.42	4,812.04	5,163.62
3/4	82.20	421.52	786.82	1,153.44	1,520.06	1,886.69	2,253.31	2,619.94	2,986.56	3,353.18	3,719.81	4,086.43	4,453.06	4,819.68	5,168.43
3	88.91	428.98	794.45	1,161.08	1,527.70	1,894.33	2,260.95	2,627.57	2,994.20	3,360.82	3,727.45	4,094.07	4,460.69	4,827.32	5,173.24
1/4	95.63	436.44	802.09	1,168.72	1,535.34	1,901.86	2,268.59	2,635.21	3,001.84	3,368.46	3,735.08	4,101.71	4,468.33	4,834.96	5,178.92
1/2	102.34	443.90	809.73	1,176.35	1,542.98	1,909.60	2,276.23	2,642.85	3,009.47	3,376.10	3,742.72	4,109.35	4,475.97	4,842.59	5,180.60
3/4	109.05	451.36	817.37	1,183.99	1,550.62	1,917.24	2,283.86	2,650.49	3,017.11	3,383.74	3,750.36	4,116.98	4,483.61	4,850.23	5,184.28
4	115.76	458.81	825.01	1,191.63	1,558.25	1,924.88	2,291.50	2,658.13	3,024.75	3,391.37	3,758.00	4,124.62	4,491.25	4,857.87	5,187.96
1/4	122.59	466.40	832.64	1,199.29	1,565.89	1,932.52	2,299.14	2,665.76	3,032.39	3,399.01	3,765.64	4,132.26	4,498.88	4,865.51	5,190.51
1/2	129.43	473.98	840.28	1,206.91	1,573.53	1,940.15	2,306.78	2,673.40	3,040.03	3,406.65	3,773.27	4,139.90	4,506.52	4,873.15	5,193.05
3/4	136.26	481.57	847.92	1,214.54	1,581.17	1,947.79	2,314.42	2,681.04	3,047.66	3,414.29	3,780.90	4,147.54	4,514.16	4,880.78	5,195.60
5	143.10	489.15	855.56	1,222.18	1,588.81	1,955.43	2,322.05	2,688.68	3,055.30	3,421.93	3,788.55	4,155.17	4,521.80	4,888.42	5,198.15
1/4	149.93	496.73	863.20	1,229.82	1,596.44	1,963.07	2,329.69	2,696.32	3,062.94	3,429.56	3,796.19	4,162.81	4,529.44	4,896.06	5,199.56
1/2	156.77	504.32	870.83	1,237.46	1,604.07	1,970.71	2,337.33	2,703.95	3,070.58	3,437.20	3,803.83	4,170.45	4,537.07	4,903.70	5,200.98
3/4	163.60	511.90	878.47	1,245.10	1,611.70	1,978.34	2,344.97	2,711.59	3,078.22	3,444.84	3,811.46	4,178.09	4,544.71	4,911.34	5,202.40
6	170.44	519.49	886.11	1,252.73	1,619.36	1,985.98	2,352.61	2,719.23	3,085.85	3,452.48	3,819.10	4,185.73	4,552.35	4,918.97	5,203.81
1/4	177.40	527.12	893.75	1,260.37	1,627.00	1,993.62	2,360.24	2,726.87	3,093.49	3,460.12	3,826.74	4,193.36	4,559.99	4,926.61	5,204.23
1/2	184.36	534.76	901.39	1,268.01	1,634.63	2,001.26	2,367.88	2,734.51	3,101.13	3,467.75	3,834.38	4,201.00	4,567.63	4,934.25	5,204.66
3/4	191.32	542.40	909.02	1,275.65	1,642.27	2,008.90	2,375.52	2,742.14	3,108.77	3,475.39	3,844.84	4,208.64	4,575.26	4,941.89	5,205.08
7	198.28	550.04	916.66	1,283.29	1,649.91	2,016.53	2,383.16	2,749.78	3,116.41	3,483.03	3,849.65	4,216.28	4,582.90	4,949.53	
1/4	205.24	557.68	924.30	1,290.92	1,657.55	2,024.17	2,390.80	2,757.42	3,124.04	3,490.67	3,857.29	4,223.92	4,590.54	4,957.16	
1/2	212.20	565.31	931.94	1,298.56	1,665.19	2,031.20	2,398.43	2,765.06	3,131.68	3,498.31	3,864.93	4,231.55	4,598.18	4,964.80	
3/4	219.17	572.95	939.58	1,306.20	1,672.82	2,039.45	2,406.07	2,772.70	3,139.32	3,505.94	3,872.57	4,239.19	4,605.82	4,972.44	
8	226.13	580.59	947.21	1,313.84	1,680.49	2,047.09	2,413.71	2,780.33	3,146.96	3,513.58	3,880.21	4,246.82	4,613.45	4,980.09	
1/4	233.21	588.23	954.85	1,321.48	1,688.10	2,054.72	2,421.35	2,787.97	3,154.60	3,521.22	3,887.84	4,254.47	4,621.09	4,987.72	
1/2	240.30	595.87	962.49	1,329.11	1,695.75	2,062.36	2,428.99	2,795.61	3,162.23	3,528.85	3,895.48	4,262.11	4,628.73	4,995.35	
3/4	247.38	603.50	970.13	1,336.75	1,703.38	2,070.00	2,436.62	2,803.25	3,169.87	3,536.80	3,903.13	4,269.74	4,636.37	5,002.99	
9	254.47	611.14	977.77	1,344.39	1,711.01	2,077.64	2,444.26	2,810.89	3,177.51	3,544.13	3,910.76	4,277.38	4,644.01	5,010.63	
1/4	261.55	618.78	985.40	1,352.03	1,718.65	2,085.28	2,451.90	2,818.52	3,185.15	3,551.77	3,918.40	4,285.02	4,651.64	5,018.27	
1/2	268.64	626.42	993.04	1,359.67	1,726.29	2,092.91	2,459.54	2,826.16	3,192.79	3,559.41	3,926.03	4,292.66	4,659.28	5,025.91	
3/4	275.72	634.06	1,000.68	1,367.30	1,733.93	2,100.55	2,467.18	2,833.80	3,200.42	3,567.05	3,933.67	4,300.30	4,666.92	5,033.54	
10	282.81	641.69	1,008.32	1,374.94	1,741.57	2,108.19	2,474.81	2,841.44	3,208.06	3,574.69	3,941.61	4,307.93	4,674.56	5,041.18	
1/4	290.02	649.33	1,015.96	1,382.58	1,749.20	2,115.83	2,482.45	2,849.08	3,215.40	3,582.32	3,948.95	4,315.57	4,682.20	5,048.82	
1/2	297.22	656.97	1,023.59	1,390.22	1,756.84	2,123.47	2,491.73	2,856.71	3,223.34	3,589.69	3,956.59	4,323.21	4,689.83	5,056.46	
3/4	304.43	664.61	1,031.23	1,397.60	1,765.49	2,131.10	2,497.73	2,864.35	3,230.98	3,597.60	3,964.22	4,330.85	4,697.47	5,064.10	
11	311.64	672.25	1,038.87	1,405.49	1,772.12	2,137.12	2,505.37	2,871.99	3,238.61	3,605.24	3,971.86	4,338.49	4,705.11	5,071.73	
1/4	318.85	679.88	1,046.51	1,413.13	1,779.76	2,146.38	2,513.00	2,879.63	3,246.25	3,612.88	3,979.50	4,346.12	4,712.75	5,079.37	
1/2	326.06	687.52	1,054.15	1,420.77	1,787.39	2,154.02	2,520.64	2,887.27	3,253.89	3,620.51	3,994.74	4,353.76	4,720.39	5,087.01	
3/4	333.27	695.16	1,061.78	1,428.41	1,795.03	2,161.66	2,528.28	2,894.90	3,261.53	3,628.15	3,994.74	4,361.40	4,728.02	5,094.65	

MAP 619

STAR 1

	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT
0	17.16	340.48	702.80	1,069.42	1,436.05	1,802.67	2,169.29	2,535.92	2,902.54	3,269.17	3,635.79	4,002.41	4,369.04	4,735.66	5,102.29
1/4	22.02	347.81	710.44	1,077.06	1,443.68	1,810.31	2,176.93	2,543.56	2,910.18	3,276.80	3,643.43	4,010.05	4,376.68	4,743.30	5,109.37
1/2	26.87	355.15	718.07	1,084.70	1,451.32	1,817.95	2,184.57	2,551.19	2,917.82	3,284.44	3,651.07	4,017.69	4,384.31	4,750.94	5,116.45
3/4	31.73	362.48	725.71	1,092.34	1,459.00	1,825.58	2,192.21	2,558.83	2,925.46	3,292.08	3,658.70	4,025.33	4,391.95	4,758.58	5,123.53
1	36.59	369.81	733.35	1,099.97	1,466.60	1,833.22	2,199.85	2,566.47	2,933.09	3,299.72	3,666.37	4,032.97	4,399.59	4,766.21	5,130.61
1/4	42.75	377.15	740.99	1,107.61	1,474.24	1,840.86	2,207.48	2,574.11	2,940.73	3,307.36	3,673.98	4,040.60	4,407.23	4,773.85	5,136.45
1/2	48.90	384.48	748.63	1,115.25	1,481.87	1,848.50	2,215.12	2,581.75	2,948.37	3,314.99	3,681.62	4,048.24	4,414.87	4,781.49	5,142.30
3/4	55.49	391.82	756.26	1,122.89	1,489.51	1,856.14	2,222.76	2,589.38	2,956.01	3,322.63	3,689.26	4,055.88	4,422.50	4,789.13	5,148.15
2	62.07	399.15	763.90	1,130.53	1,497.15	1,863.77	2,230.40	2,597.02	2,963.65	3,330.27	3,696.89	4,063.52	4,430.14	4,796.77	5,153.99
1/4	68.78	406.61	771.54	1,138.16	1,504.79	1,871.41	2,238.04	2,604.66	2,971.28	3,337.94	3,704.53	4,071.16	4,437.78	4,804.40	5,158.81
1/2	75.49	414.07	779.18	1,145.87	1,512.43	1,879.05	2,245.67	2,612.30	2,978.92	3,345.55	3,712.17	4,078.79	4,445.42	4,812.04	5,163.62
3/4	82.20	421.52	786.82	1,153.44	1,520.06	1,886.69	2,253.31	2,619.94	2,986.56	3,353.18	3,719.81	4,086.43	4,453.06	4,819.68	5,168.43
3	88.91	428.98	794.45	1,161.08	1,527.70	1,894.33	2,260.95	2,627.57	2,994.20	3,360.82	3,727.45	4,094.07	4,460.69	4,827.32	5,173.24
1/4	95.63	436.44	802.09	1,168.72	1,535.34	1,901.96	2,268.59	2,635.21	3,001.84	3,368.46	3,735.08	4,101.71	4,468.33	4,834.96	5,176.92
1/2	102.34	443.90	809.73	1,176.35	1,542.98	1,909.60	2,276.23	2,642.85	3,009.47	3,376.10	3,742.72	4,109.35	4,475.97	4,842.59	5,180.60
3/4	109.05	451.36	817.37	1,183.99	1,550.62	1,917.24	2,283.86	2,650.49	3,017.11	3,383.74	3,750.36	4,116.98	4,483.61	4,850.23	5,184.28
4	115.76	458.81	825.01	1,191.63	1,558.25	1,924.88	2,291.50	2,658.13	3,024.75	3,391.37	3,758.00	4,124.62	4,491.25	4,857.87	5,187.96
1/4	122.59	466.40	832.64	1,199.29	1,565.89	1,932.52	2,299.14	2,665.76	3,032.39	3,399.01	3,765.64	4,132.26	4,498.88	4,865.51	5,190.51
1/2	129.43	473.98	840.28	1,206.91	1,573.53	1,940.15	2,306.78	2,673.40	3,040.03	3,406.65	3,773.27	4,139.90	4,506.52	4,873.15	5,193.05
3/4	136.26	481.57	847.92	1,214.54	1,581.17	1,947.79	2,314.42	2,681.04	3,047.66	3,414.29	3,780.90	4,147.54	4,514.16	4,880.78	5,195.60
5	143.10	489.15	855.56	1,222.18	1,588.81	1,955.43	2,322.05	2,688.68	3,055.30	3,421.93	3,788.55	4,155.17	4,521.80	4,888.42	5,198.15
1/4	149.93	496.73	863.20	1,229.82	1,596.44	1,963.07	2,329.69	2,696.32	3,062.94	3,429.56	3,796.19	4,162.81	4,529.44	4,896.06	5,199.56
1/2	156.77	504.32	870.83	1,237.46	1,607.04	1,970.71	2,337.33	2,703.95	3,070.58	3,437.97	3,803.83	4,170.45	4,537.07	4,903.70	5,200.98
3/4	163.60	511.90	878.47	1,245.10	1,611.70	1,978.34	2,344.97	2,711.59	3,078.22	3,444.84	3,811.46	4,178.09	4,544.71	4,911.34	5,202.40
6	170.44	519.49	886.11	1,252.73	1,619.36	1,985.98	2,352.61	2,719.23	3,085.85	3,452.48	3,819.10	4,185.73	4,552.35	4,918.97	5,203.81
1/4	177.40	527.12	893.75	1,260.37	1,627.00	1,993.62	2,360.24	2,726.87	3,093.49	3,460.12	3,826.74	4,193.36	4,559.99	4,926.61	5,204.23
1/2	184.36	534.76	901.39	1,268.01	1,634.63	2,001.26	2,367.88	2,734.51	3,101.13	3,467.75	3,834.38	4,201.00	4,567.63	4,934.25	5,204.66
3/4	191.32	542.40	909.02	1,275.65	1,642.27	2,008.90	2,375.52	2,742.14	3,108.77	3,475.39	3,842.02	4,208.64	4,575.26	4,941.89	5,205.08
7	198.28	550.04	916.66	1,283.29	1,649.91	2,016.53	2,383.16	2,749.78	3,116.41	3,483.03	3,849.65	4,216.28	4,582.90	4,949.53	
1/4	205.24	557.68	924.30	1,290.92	1,657.55	2,024.17	2,390.80	2,757.42	3,124.04	3,490.67	3,857.29	4,223.92	4,590.54	4,957.16	
1/2	212.20	565.31	931.94	1,298.56	1,665.19	2,031.20	2,398.43	2,765.06	3,131.68	3,498.31	3,864.93	4,231.55	4,598.18	4,964.80	
3/4	191.32	542.40	909.02	1,275.65	1,642.27	2,008.90	2,375.52	2,742.14	3,108.77	3,475.39	3,842.02	4,208.64	4,575.26	4,941.89	5,205.08
8	226.13	580.59	947.21	1,313.84	1,680.49	2,047.09	2,413.71	2,780.33	3,146.96	3,513.58	3,880.21	4,246.82	4,613.45	4,980.09	
1/4	233.21	588.23	954.85	1,321.48	1,688.10	2,054.72	2,421.35	2,787.97	3,154.60	3,521.22	3,887.84	4,254.47	4,621.09	4,987.72	
1/2	240.30	595.87	962.49	1,329.11	1,695.75	2,062.36	2,428.99	2,795.61	3,162.23	3,528.85	3,895.48	4,262.11	4,628.73	4,995.35	
3/4	219.17	572.95	939.58	1,306.20	1,672.82	2,039.45	2,406.07	2,772.70	3,139.32	3,505.94	3,872.57	4,239.19	4,605.82	4,972.44	
9	226.13	580.59	947.21	1,313.84	1,680.49	2,047.09	2,413.71	2,780.33	3,146.96	3,513.58	3,880.21	4,246.82	4,613.45	4,980.09	
1/4	233.21	588.23	954.85	1,321.48	1,688.10	2,054.72	2,421.35	2,787.97	3,154.60	3,521.22	3,887.84	4,254.47	4,621.09	4,987.72	
1/2	240.30	595.87	962.49	1,329.11	1,695.75	2,062.36	2,428.99	2,795.61	3,162.23	3,528.85	3,895.48	4,262.11	4,628.73	4,995.35	
3/4	219.17	572.95	939.58	1,306.20	1,672.82	2,039.45	2,406.07	2,772.70	3,139.32	3,505.94	3,872.57	4,239.19	4,605.82	4,972.44	
10	282.81	641.69	1,008.32	1,374.94	1,741.57	2,108.19	2,474.81	2,841.44	3,208.06	3,574.69	3,941.61	4,307.93	4,674.56	5,041.18	
1/4	290.02	649.33	1,015.96	1,382.58	1,749.20	2,115.83	2,482.45	2,849.08	3,215.40	3,582.32	3,948.95	4,315.57	4,682.20	5,048.82	
1/2	297.22	656.97	1,023.59	1,390.22	1,756.84	2,123.47	2,490.92	2,856.71	3,223.34	3,589.69	3,956.59	4,323.21	4,689.83	5,056.46	
3/4	304.43	664.61	1,031.23	1,397.60	1,765.49	2,131.10	2,497.73	2,864.35	3,230.98	3,597.60	3,964.22	4,330.85	4,697.47	5,064.10	
11	311.64	672.25	1,038.87	1,405.49	1,772.12	2,138.74	2,505.37	2,871.99	3,238.61	3,595.24	3,971.86	4,338.49	4,705.11	5,071.73	
1/4	318.85	679.88	1,046.51	1,413.13	1,779.76	2,146.38	2,513.00	2,879.63	3,246.25	3,612.88	3,979.50	4,346.12	4,712.75	5,079.37	
1/2	326.06	687.52	1,054.15	1,420.77	1,787.39	2,154.02	2,520.64	2,887.27	3,253.89	3,620.51	3,987.14	4,353.76	4,720.39	5,087.01	
3/4	333.27	695.16	1,061.78	1,428.41	1,795.03	2,161.66	2,528.28	2,894.90	3,261.53	3,628.15	3,994.74	4,361.40	4,728.02	5,094.65	

MAP 619

PORT 2

	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT
0	16.37	351.09	695.01	1,038.93	1,382.85	1,726.77	2,070.69	2,414.61	2,758.53	3,102.45	3,446.37	3,790.29	4,134.21	4,478.13	4,819.93
1/4	21.49	358.25	702.17	1,046.09	1,390.01	1,733.93	2,077.85	2,421.77	2,765.69	3,109.61	3,453.53	3,797.45	4,141.37	4,485.29	4,826.52
1/2	26.61	365.42	709.34	1,053.26	1,397.18	1,741.10	2,085.02	2,428.94	2,772.86	3,116.78	3,460.70	3,804.62	4,148.54	4,492.46	4,833.11
3/4	31.73	372.58	716.50	1,060.42	1,404.34	1,748.26	2,092.18	2,436.10	2,780.02	3,123.94	3,467.86	3,811.78	4,155.70	4,499.58	4,839.70
1	36.84	379.75	723.67	1,067.59	1,411.51	1,755.43	2,099.35	2,443.27	2,787.19	3,131.11	3,475.03	3,818.95	4,162.87	4,506.70	4,846.28
1/4	43.50	386.91	730.83	1,074.75	1,418.67	1,762.59	2,106.51	2,450.43	2,794.35	3,138.27	3,482.19	3,826.11	4,170.03	4,513.81	4,851.86
1/2	50.16	394.08	738.00	1,081.92	1,425.84	1,769.76	2,113.68	2,457.60	2,801.52	3,145.44	3,489.36	3,833.28	4,177.20	4,520.93	4,857.43
3/4	57.32	401.24	745.16	1,089.08	1,433.00	1,776.92	2,120.84	2,464.74	2,808.68	3,152.60	3,496.52	3,840.44	4,184.36	4,528.05	4,863.00
2	64.49	408.41	752.33	1,096.25	1,440.17	1,784.09	2,128.01	2,471.93	2,815.85	3,159.77	3,503.69	3,847.61	4,191.53	4,535.17	4,868.58
1/4	71.65	415.57	759.49	1,103.41	1,447.33	1,791.25	2,135.17	2,479.09	2,823.01	3,166.93	3,510.85	3,854.77	4,198.69	4,542.29	4,873.09
1/2	78.82	422.74	766.66	1,110.58	1,454.50	1,798.42	2,142.34	2,486.26	2,830.19	3,174.10	3,518.02	3,861.94	4,205.86	4,549.41	4,877.60
3/4	85.98	429.90	773.82	1,117.74	1,461.66	1,805.58	2,149.50	2,493.42	2,837.34	3,181.26	3,525.18	3,869.10	4,213.02	4,556.53	4,882.11
3	93.15	437.07	780.99	1,124.91	1,468.83	1,812.75	2,156.67	2,500.59	2,844.51	3,188.43	3,532.35	3,876.27	4,220.19	4,563.65	4,886.62
1/4	100.31	444.23	788.15	1,132.07	1,475.99	1,819.91	2,163.83	2,507.75	2,851.67	3,195.59	3,539.51	3,883.43	4,227.35	4,570.77	4,890.07
1/2	107.48	451.40	795.32	1,139.24	1,483.16	1,827.08	2,171.00	2,514.92	2,858.84	3,202.76	3,546.68	3,890.60	4,234.52	4,577.89	4,893.52
3/4	114.64	458.56	802.48	1,146.40	1,490.32	1,834.24	2,178.16	2,522.09	2,866.00	3,209.92	3,553.84	3,897.76	4,241.69	4,585.00	4,896.97
4	121.81	465.73	809.65	1,153.57	1,497.49	1,841.41	2,185.33	2,529.25	2,873.17	3,217.09	3,561.01	3,904.93	4,248.85	4,592.12	4,900.42
1/4	128.97	472.89	816.81	1,160.73	1,504.65	1,848.57	2,192.49	2,536.41	2,880.33	3,224.25	3,568.17	3,912.09	4,256.01	4,599.24	4,902.81
1/2	136.14	480.06	823.98	1,167.90	1,511.82	1,855.74	2,199.66	2,543.58	2,887.50	3,231.42	3,575.34	3,919.26	4,263.18	4,606.36	4,905.19
3/4	143.30	487.22	831.14	1,175.06	1,518.98	1,862.90	2,206.82	2,550.74	2,894.66	3,238.58	3,582.50	3,926.42	4,271.34	4,613.48	4,907.58
5	150.47	494.39	838.31	1,182.23	1,526.15	1,870.07	2,213.99	2,557.91	2,901.83	3,245.75	3,589.67	3,933.59	4,277.51	4,620.60	4,909.97
1/4	157.63	501.55	845.47	1,189.39	1,533.31	1,877.23	2,221.15	2,565.07	2,908.99	3,252.91	3,596.83	3,940.75	4,284.67	4,627.72	4,911.29
1/2	164.80	508.72	852.64	1,196.56	1,540.48	1,884.40	2,228.32	2,573.24	2,916.16	3,260.08	3,604.00	3,947.92	4,291.84	4,634.84	4,912.62
3/4	171.96	515.88	859.80	1,203.72	1,547.64	1,891.56	2,235.48	2,579.40	2,923.32	3,267.24	3,611.16	3,955.08	4,299.00	4,641.96	4,913.94
6	179.13	523.05	866.97	1,210.89	1,554.81	1,898.73	2,242.65	2,586.57	2,930.49	3,274.41	3,618.33	3,962.25	4,306.17	4,649.08	4,915.26
1/4	186.29	530.21	874.13	1,218.05	1,561.97	1,905.89	2,249.81	2,593.73	2,937.65	3,281.57	3,625.49	3,969.41	4,313.33	4,656.19	4,915.66
1/2	193.46	537.38	881.30	1,225.22	1,569.14	1,913.06	2,256.98	2,600.90	2,944.82	3,288.74	3,632.66	3,976.58	4,320.50	4,663.31	4,916.05
3/4	200.62	544.54	888.46	1,232.38	1,576.30	1,920.22	2,264.14	2,608.06	2,951.98	3,295.90	3,639.82	3,983.74	4,327.66	4,670.43	4,916.45
7	207.79	551.71	895.63	1,239.55	1,583.47	1,927.39	2,271.31	2,615.23	2,959.15	3,303.07	3,646.99	3,990.91	4,334.83	4,677.55	
1/4	214.95	558.87	902.79	1,246.71	1,590.80	1,934.55	2,278.47	2,622.39	2,966.31	3,310.23	3,654.15	3,998.07	4,341.99	4,684.67	
1/2	222.12	566.04	909.96	1,253.88	1,597.80	1,941.22	2,285.64	2,629.56	2,973.48	3,317.40	3,661.32	4,005.24	4,349.16	4,691.79	
3/4	229.28	573.20	917.12	1,261.04	1,604.96	1,948.88	2,292.80	2,636.72	2,980.64	3,324.56	3,668.48	4,012.40	4,356.32	4,698.91	
8	236.45	580.37	924.29	1,268.21	1,612.13	1,956.05	2,299.97	2,643.89	2,987.81	3,331.73	3,675.65	4,019.57	4,363.49	4,706.03	
1/4	243.61	587.53	931.45	1,275.37	1,619.29	1,963.21	2,307.13	2,651.05	2,994.97	3,338.89	3,682.81	4,026.73	4,370.65	4,713.15	
1/2	250.78	594.70	938.62	1,282.54	1,626.46	1,970.38	2,314.30	2,658.22	3,002.14	3,346.06	3,689.98	4,033.90	4,377.82	4,720.27	
3/4	257.94	601.86	945.78	1,289.70	1,632.62	1,977.54	2,321.46	2,665.38	3,009.30	3,353.22	3,697.14	4,041.06	4,384.98	4,727.38	
9	265.11	609.03	952.95	1,296.87	1,640.79	1,984.71	2,328.63	2,672.55	3,016.47	3,360.39	3,704.31	4,048.23	4,392.15	4,734.50	
1/4	272.27	616.19	960.11	1,304.03	1,647.95	1,991.87	2,335.79	2,679.71	3,023.63	3,367.55	3,711.47	4,055.39	4,399.31	4,741.62	
1/2	279.44	623.36	967.28	1,311.20	1,655.12	1,999.04	2,342.96	2,686.88	3,030.80	3,374.72	3,718.64	4,062.56	4,406.48	4,748.74	
3/4	286.60	630.52	974.44	1,318.36	1,662.28	2,006.20	2,350.12	2,694.04	3,037.96	3,381.88	3,725.80	4,069.72	4,413.64	4,755.86	
10	293.77	637.69	981.61	1,325.53	1,669.45	2,013.37	2,357.29	2,701.21	3,045.13	3,389.05	3,732.97	4,076.89	4,420.81	4,762.98	
1/4	300.93	644.85	988.77	1,332.69	1,676.61	2,020.53	2,364.45	2,708.37	3,052.29	3,396.21	3,740.13	4,084.05	4,427.97	4,770.10	
1/2	308.10	652.02	995.94	1,339.86	1,683.79	2,027.70	2,371.62	2,715.54	3,059.46	3,403.38	3,747.30	4,091.22	4,435.14	4,777.22	
3/4	315.26	659.18	1,003.10	1,347.02	1,690.94	2,034.86	2,378.78	2,722.70	3,066.62	3,410.54	3,754.46	4,098.38	4,442.30	4,784.34	
11	322.43	666.35	1,010.27	1,354.19	1,698.11	2,042.03	2,385.95	2,729.87	3,073.79	3,417.71	3,761.63	4,105.55	4,449.47	4,791.46	
1/4	329.59	673.51	1,017.43	1,361.35	1,705.27	2,049.19	2,393.11	2,737.03	3,080.95	3,424.87	3,768.79	4,112.71	4,456.63	4,798.57	
1/2	336.76	680.68	1,024.60	1,368.52	1,712.44	2,056.36	2,400.28	2,744.20	3,088.12	3,432.04	3,775.96	4,119.88	4,463.80	4,805.69	
3/4	343.92	687.84	1,031.76	1,375.68	1,719.60	2,063.52	2,407.44	2,751.36	3,095.28	3,439.20	3,783.12	4,127.04	4,470.96	4,812.81	

MAP 619

STAR 2

	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT
0	16.37	351.09	695.01	1,038.93	1,382.85	1,726.77	2,070.69	2,414.67	2,758.53	3,102.45	3,446.37	3,790.29	4,134.21	4,478.13	4,819.93
1/4	21.49	358.25	702.17	1,046.09	1,390.01	1,733.93	2,077.85	2,421.77	2,765.69	3,109.61	3,453.53	3,797.45	4,141.37	4,485.29	4,826.52
1/2	26.61	365.42	709.34	1,053.26	1,397.18	1,741.10	2,085.02	2,428.94	2,772.86	3,116.78	3,460.70	3,804.62	4,148.54	4,492.46	4,833.11
3/4	31.73	372.58	716.50	1,060.34	1,404.26	1,748.26	2,092.18	2,436.10	2,780.02	3,123.94	3,467.86	3,811.78	4,155.70	4,499.58	4,839.70
1	36.84	379.75	723.63	1,067.59	1,411.51	1,755.43	2,099.35	2,443.27	2,787.19	3,131.11	3,475.03	3,818.95	4,162.87	4,506.70	4,846.28
1/4	43.50	386.91	730.83	1,074.75	1,418.67	1,762.59	2,106.51	2,450.43	2,794.35	3,138.27	3,482.19	3,826.11	4,170.03	4,513.81	4,851.86
1/2	50.16	394.08	738.00	1,081.92	1,425.84	1,769.76	2,113.68	2,457.60	2,801.52	3,145.44	3,489.36	3,833.28	4,177.20	4,520.93	4,857.43
3/4	57.32	401.24	745.16	1,089.08	1,433.00	1,776.92	2,120.84	2,464.74	2,808.68	3,152.60	3,496.52	3,840.44	4,184.36	4,528.05	4,863.00
2	64.49	408.41	752.33	1,096.25	1,440.17	1,784.09	2,128.01	2,471.93	2,815.85	3,159.77	3,503.69	3,847.61	4,191.53	4,535.17	4,868.58
1/4	71.65	415.57	759.49	1,103.41	1,447.33	1,791.25	2,135.17	2,479.09	2,823.01	3,166.93	3,510.85	3,854.77	4,198.69	4,542.29	4,873.09
1/2	78.82	422.74	766.66	1,110.58	1,454.50	1,798.42	2,142.34	2,486.26	2,830.19	3,174.10	3,518.02	3,861.94	4,205.86	4,549.41	4,877.60
3/4	85.98	429.90	773.82	1,117.74	1,461.66	1,805.58	2,149.52	2,493.42	2,837.34	3,181.26	3,525.18	3,869.10	4,213.02	4,556.53	4,882.11
3	93.15	437.07	780.99	1,124.91	1,468.83	1,812.75	2,156.67	2,500.59	2,844.51	3,188.43	3,532.35	3,876.27	4,220.19	4,563.65	4,886.62
1/4	100.31	444.23	788.15	1,132.07	1,475.99	1,819.91	2,163.83	2,507.75	2,851.67	3,195.59	3,539.51	3,883.43	4,227.35	4,570.77	4,890.07
1/2	107.48	451.40	795.32	1,139.24	1,483.16	1,827.08	2,171.00	2,514.92	2,858.84	3,202.76	3,546.68	3,890.60	4,234.52	4,577.89	4,893.52
3/4	114.64	458.56	802.48	1,146.40	1,490.32	1,834.24	2,178.16	2,522.09	2,866.00	3,202.92	3,553.84	3,897.76	4,241.69	4,585.00	4,896.97
4	121.81	465.73	809.65	1,153.57	1,497.49	1,841.41	2,185.33	2,529.25	2,873.17	3,217.09	3,561.01	3,904.93	4,248.85	4,592.12	4,900.42
1/4	128.97	472.89	816.81	1,160.73	1,504.65	1,848.57	2,192.49	2,536.41	2,880.33	3,224.25	3,568.17	3,912.09	4,256.01	4,599.24	4,902.81
1/2	136.14	480.06	823.98	1,167.90	1,511.82	1,855.74	2,199.66	2,543.58	2,887.50	3,231.42	3,575.34	3,919.26	4,263.18	4,606.36	4,905.19
3/4	143.30	487.22	831.14	1,175.06	1,518.98	1,862.90	2,206.82	2,550.74	2,894.66	3,238.58	3,582.50	3,926.42	4,271.34	4,613.48	4,907.58
5	150.47	494.39	838.31	1,182.23	1,526.15	1,870.07	2,213.99	2,557.91	2,901.83	3,245.75	3,589.67	3,933.59	4,277.51	4,620.60	4,909.97
1/4	157.63	501.55	845.47	1,189.39	1,533.31	1,877.23	2,221.15	2,565.07	2,908.99	3,252.91	3,596.83	3,940.75	4,284.67	4,627.72	4,911.29
1/2	164.80	508.72	852.64	1,196.56	1,540.48	1,884.40	2,228.32	2,573.24	2,916.16	3,260.08	3,604.00	3,947.92	4,291.84	4,634.84	4,912.62
3/4	171.96	515.88	859.80	1,203.72	1,547.64	1,891.56	2,235.48	2,579.40	2,923.32	3,267.24	3,611.16	3,955.08	4,299.00	4,641.96	4,913.94
6	179.13	523.05	866.97	1,210.89	1,554.81	1,898.73	2,242.65	2,586.57	2,930.49	3,274.41	3,618.33	3,962.25	4,306.17	4,649.08	4,915.26
1/4	186.29	530.21	874.13	1,218.05	1,561.97	1,905.89	2,249.81	2,593.73	2,937.65	3,281.57	3,625.49	3,969.41	4,313.33	4,656.19	4,915.66
1/2	193.46	537.38	881.30	1,225.22	1,569.14	1,913.06	2,256.98	2,600.90	2,944.82	3,288.74	3,632.66	3,976.58	4,320.50	4,663.31	4,916.05
3/4	200.62	544.54	888.46	1,232.38	1,576.30	1,920.22	2,264.14	2,608.06	2,951.98	3,293.90	3,639.82	3,983.74	4,327.66	4,670.43	4,916.45
7	207.79	551.71	895.63	1,239.55	1,583.47	1,927.39	2,271.31	2,615.23	2,959.15	3,303.07	3,646.99	3,990.91	4,334.83	4,677.55	
1/4	214.95	558.87	902.79	1,246.71	1,590.80	1,934.55	2,278.47	2,622.39	2,966.31	3,310.23	3,654.15	3,998.07	4,341.99	4,684.67	
1/2	222.12	566.04	909.96	1,253.88	1,597.80	1,941.72	2,285.64	2,629.56	2,973.48	3,317.40	3,661.32	4,005.24	4,349.16	4,691.79	
3/4	229.28	573.20	917.12	1,261.04	1,604.96	1,948.88	2,292.80	2,636.72	2,980.64	3,324.56	3,668.48	4,012.40	4,356.32	4,698.91	
8	236.45	580.37	924.29	1,268.21	1,612.13	1,956.05	2,299.97	2,643.89	2,987.81	3,331.73	3,675.65	4,019.57	4,363.49	4,706.03	
1/4	243.61	587.53	931.45	1,275.37	1,619.29	1,963.21	2,307.13	2,651.05	2,994.97	3,338.89	3,682.81	4,026.73	4,370.65	4,713.15	
1/2	250.78	594.70	938.62	1,282.54	1,626.46	1,970.38	2,314.30	2,658.22	3,002.14	3,346.06	3,689.98	4,033.90	4,377.82	4,720.27	
3/4	257.94	601.86	945.78	1,289.70	1,633.62	1,977.54	2,321.46	2,665.38	3,009.30	3,353.22	3,697.14	4,041.06	4,384.98	4,727.38	
9	265.11	609.03	952.95	1,296.87	1,640.79	1,984.71	2,328.63	2,672.55	3,016.47	3,360.39	3,704.31	4,048.23	4,392.15	4,734.50	
1/4	272.27	616.19	960.11	1,304.03	1,647.95	1,991.87	2,335.79	2,679.71	3,023.63	3,367.55	3,711.47	4,055.39	4,399.31	4,741.62	
1/2	279.44	623.36	967.28	1,311.20	1,655.12	1,999.04	2,342.96	2,686.88	3,030.80	3,374.72	3,718.64	4,062.56	4,406.48	4,748.74	
3/4	286.60	630.52	974.44	1,318.36	1,662.28	2,006.20	2,350.12	2,694.04	3,037.96	3,381.88	3,725.80	4,069.72	4,413.64	4,755.86	
10	293.77	637.69	981.61	1,325.53	1,669.45	2,013.37	2,357.29	2,701.21	3,045.13	3,388.05	3,732.97	4,076.89	4,420.81	4,762.98	
1/4	300.93	644.85	988.77	1,332.69	1,676.61	2,020.53	2,364.45	2,708.37	3,052.29	3,396.21	3,740.13	4,084.05	4,427.97	4,770.10	
1/2	308.10	652.02	995.94	1,339.86	1,683.79	2,027.67	2,371.62	2,715.54	3,059.46	3,403.38	3,747.30	4,091.22	4,435.14	4,777.22	
3/4	315.26	659.18	1,003.10	1,347.02	1,690.94	2,034.86	2,378.78	2,722.70	3,066.62	3,410.54	3,754.46	4,098.38	4,442.30	4,784.34	
11	322.43	666.35	1,010.27	1,354.19	1,698.11	2,042.03	2,385.95	2,729.87	3,073.79	3,417.71	3,761.63	4,105.55	4,449.47	4,791.46	
1/4	329.59	673.51	1,017.43	1,361.35	1,705.27	2,049.19	2,393.11	2,737.03	3,080.95	3,424.87	3,768.79	4,112.71	4,456.63	4,798.57	
1/2	336.76	680.68	1,024.60	1,368.52	1,712.44	2,056.36	2,400.28	2,744.20	3,088.12	3,432.04	3,775.96	4,119.88	4,463.80	4,805.69	
3/4	343.92	687.84	1,031.76	1,375.68	1,719.60	2,063.52	2,407.44	2,751.36	3,095.28	3,439.20	3,783.12	4,127.04	4,470.96	4,812.81	

MAP 619

PORT 3

	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT
0	17.37	372.53	737.16	1,100.44	1,465.00	1,829.56	2,194.12	2,558.68	2,923.24	3,287.80	3,652.35	3,913.97	4,190.72	4,467.15	4,743.58
1/4	22.80	380.14	744.72	1,108.03	1,472.59	1,837.15	2,201.71	2,566.27	2,930.83	3,295.39	3,659.95	3,919.84	4,196.48	4,472.91	4,748.90
1/2	28.23	387.74	752.28	1,115.63	1,480.19	1,844.75	2,209.31	2,573.87	2,938.43	3,302.99	3,664.27	3,925.70	4,202.23	4,478.67	4,754.23
3/4	33.66	395.34	759.85	1,123.22	1,487.78	1,852.34	2,216.90	2,581.46	2,946.02	3,310.58	3,670.14	3,931.56	4,207.99	4,484.43	4,759.55
1	39.09	402.95	767.41	1,130.82	1,495.38	1,859.94	2,224.50	2,589.06	2,953.62	3,318.18	3,656.00	3,937.32	4,213.75	4,490.18	4,764.88
1/4	46.15	410.55	774.97	1,138.41	1,502.97	1,867.53	2,232.09	2,596.65	2,961.21	3,325.77	3,661.86	3,943.08	4,219.51	4,495.94	4,769.33
1/2	53.21	418.15	782.54	1,146.01	1,510.57	1,875.13	2,239.69	2,604.25	2,968.81	3,333.37	3,667.73	3,948.84	4,225.57	4,501.70	4,773.79
3/4	60.81	425.76	790.10	1,153.60	1,518.16	1,882.72	2,247.28	2,611.84	2,976.40	3,340.96	3,673.59	3,954.60	4,231.03	4,507.46	4,778.24
2	68.41	433.36	797.66	1,161.20	1,525.76	1,890.32	2,254.88	2,619.40	2,984.00	3,348.56	3,679.45	3,960.36	4,236.79	4,513.22	4,782.70
1/4	76.02	440.96	805.22	1,168.79	1,533.35	1,897.91	2,262.47	2,627.03	2,991.59	3,356.15	3,685.32	3,966.12	4,242.55	4,518.98	4,786.29
1/2	83.62	448.56	812.79	1,176.39	1,540.95	1,905.51	2,270.07	2,634.63	2,999.19	3,363.75	3,691.18	3,971.87	4,248.31	4,524.74	4,789.87
3/4	91.22	456.17	820.35	1,183.98	1,548.54	1,913.10	2,277.66	2,642.22	3,006.78	3,371.37	3,697.04	3,977.63	4,254.07	4,530.50	4,793.46
3	98.83	463.77	827.91	1,191.58	1,556.14	1,920.70	2,285.26	2,649.82	3,014.38	3,378.94	3,702.90	3,983.39	4,259.82	4,536.26	4,797.04
1/4	106.43	471.37	835.48	1,199.17	1,563.73	1,928.29	2,292.85	2,657.41	3,021.97	3,386.53	3,708.77	3,989.15	4,265.58	4,542.02	4,799.76
1/2	114.03	478.98	843.04	1,206.77	1,571.33	1,935.89	2,300.45	2,665.01	3,029.57	3,394.13	3,714.63	3,994.91	4,271.34	4,547.77	4,802.48
3/4	121.64	486.58	850.60	1,214.36	1,578.95	1,943.48	2,308.04	2,672.60	3,037.16	3,401.72	3,720.49	4,000.67	4,277.10	4,553.53	4,805.20
4	129.24	494.18	858.17	1,221.96	1,586.52	1,951.08	2,315.64	2,680.20	3,044.76	3,409.32	3,726.36	4,006.43	4,282.86	4,559.29	4,807.91
1/4	136.84	501.79	865.73	1,229.55	1,594.11	1,958.67	2,323.23	2,687.79	3,052.35	3,416.91	3,732.20	4,012.19	4,288.62	4,565.05	4,809.76
1/2	144.44	509.39	873.29	1,237.15	1,601.71	1,966.27	2,330.83	2,695.39	3,059.95	3,424.51	3,738.08	4,017.95	4,294.38	4,570.81	4,811.61
3/4	152.05	516.99	880.85	1,244.74	1,609.30	1,973.86	2,338.42	2,702.98	3,067.54	3,432.10	3,743.95	4,023.71	4,300.14	4,576.57	4,813.46
5	159.65	524.59	888.42	1,252.34	1,616.90	1,981.46	2,346.02	2,710.58	3,075.14	3,439.70	3,749.81	4,029.46	4,306.90	4,582.33	4,815.30
1/4	167.25	532.20	895.98	1,259.93	1,624.49	1,989.05	2,353.61	2,718.17	3,082.73	3,447.29	3,756.67	4,035.22	4,311.66	4,588.09	4,816.26
1/2	174.86	539.80	903.54	1,267.63	1,632.09	1,996.65	2,361.21	2,725.77	3,090.33	3,454.89	3,761.53	4,040.98	4,317.41	4,593.85	4,817.22
3/4	182.46	547.40	911.11	1,275.12	1,639.68	2,004.24	2,368.80	2,733.36	3,097.92	3,462.48	3,767.40	4,046.74	4,323.17	4,599.61	4,818.18
6	190.06	555.01	918.67	1,282.73	1,647.28	2,011.84	2,376.40	2,740.96	3,105.52	3,469.96	3,773.26	4,052.50	4,328.93	4,605.37	4,819.14
1/4	197.67	562.61	926.23	1,290.31	1,654.87	2,019.43	2,383.99	2,748.55	3,113.11	3,477.43	3,779.12	4,058.26	4,334.69	4,611.12	4,819.36
1/2	205.27	571.21	933.80	1,297.91	1,662.47	2,027.03	2,391.59	2,756.15	3,120.71	3,484.90	3,784.99	4,064.02	4,341.45	4,616.88	4,819.58
3/4	212.87	577.82	941.36	1,305.50	1,670.06	2,034.62	2,399.18	2,763.74	3,128.30	3,492.38	3,790.85	4,069.78	4,346.21	4,622.64	4,819.76
7	220.47	585.42	948.92	1,313.10	1,677.66	2,042.22	2,406.78	2,771.34	3,135.90	3,499.59	3,796.71	4,075.54	4,351.97	4,628.44	
1/4	228.08	593.02	956.48	1,320.69	1,685.25	2,049.81	2,414.37	2,778.93	3,143.49	3,506.81	3,802.58	4,081.30	4,357.73	4,634.16	
1/2	235.69	600.62	964.05	1,328.29	1,692.85	2,057.41	2,421.97	2,786.53	3,151.09	3,514.03	3,808.44	4,087.05	4,363.49	4,639.92	
3/4	243.28	608.23	971.61	1,335.88	1,700.44	2,065.00	2,429.56	2,794.12	3,158.68	3,521.24	3,814.30	4,092.81	4,369.25	4,645.68	
8	250.89	615.83	979.17	1,343.48	1,708.04	2,072.60	2,437.16	2,801.72	3,166.28	3,528.20	3,820.16	4,098.57	4,375.00	4,651.44	
1/4	258.49	623.43	986.74	1,351.07	1,715.63	2,080.19	2,444.75	2,809.31	3,173.87	3,535.16	3,826.03	4,104.33	4,380.76	4,657.20	
1/2	266.09	631.04	994.30	1,358.67	1,723.23	2,087.79	2,452.35	2,816.91	3,181.47	3,542.12	3,831.89	4,110.09	4,386.52	4,662.95	
3/4	273.70	638.64	1,001.86	1,366.26	1,730.82	2,095.38	2,459.94	2,824.50	3,189.06	3,549.08	3,837.75	4,115.85	4,392.28	4,668.71	
9	281.30	646.24	1,009.43	1,373.86	1,738.42	2,102.98	2,467.54	2,832.10	3,196.66	3,555.78	3,843.62	4,121.61	4,398.04	4,674.47	
1/4	288.90	653.84	1,016.99	1,381.45	1,746.01	2,110.57	2,475.13	2,839.69	3,204.25	3,562.48	3,849.48	4,127.37	4,403.80	4,680.23	
1/2	296.50	661.45	1,024.55	1,389.05	1,753.61	2,118.17	2,482.73	2,847.29	3,211.85	3,569.18	3,855.34	4,133.13	4,409.56	4,686.99	
3/4	304.11	669.05	1,032.12	1,396.64	1,761.20	2,125.76	2,490.32	2,854.88	3,219.44	3,575.88	3,861.21	4,138.89	4,415.32	4,691.75	
10	311.71	676.65	1,039.68	1,404.24	1,768.80	2,133.37	2,497.92	2,862.48	3,227.04	3,582.33	3,867.07	4,144.64	4,421.08	4,697.51	
1/4	319.31	684.22	1,047.27	1,411.83	1,776.39	2,140.95	2,505.51	2,870.07	3,234.63	3,588.77	3,872.93	4,150.40	4,426.84	4,703.27	
1/2	326.92	691.78	1,054.87	1,419.43	1,783.99	2,148.55	2,513.11	2,877.67	3,242.23	3,585.21	3,878.79	4,156.16	4,432.59	4,709.03	
3/4	334.52	699.34	1,062.46	1,427.02	1,791.58	2,156.14	2,520.70	2,885.26	3,249.82	3,601.65	3,884.66	4,161.92	4,438.35	4,714.79	
11	342.12	706.91	1,070.06	1,434.62	1,799.18	2,163.76	2,528.30	2,892.86	3,257.42	3,607.84	3,890.52	4,167.68	4,444.11	4,720.54	
1/4	349.73	714.47	1,077.65	1,442.21	1,806.79	2,171.33	2,535.89	2,900.45	3,265.01	3,614.02	3,896.38	4,173.44	4,449.87	4,726.30	
1/2	357.33	722.03	1,085.25	1,449.81	1,814.37	2,178.93	2,543.49	2,908.05	3,272.61	3,620.21	3,902.25	4,179.20	4,455.63	4,732.06	
3/4	364.93	729.59	1,092.84	1,457.40	1,821.96	2,186.52	2,551.08	2,915.64	3,280.20	3,626.39	3,908.11	4,184.96	4,461.39	4,737.82	

MAP 619

STAR 3

	0 FT	1 FT	2 FT	3 FT	4 FT	5 FT	6 FT	7 FT	8 FT	9 FT	10 FT	11 FT	12 FT	13 FT	14 FT
0	17.37	372.53	737.16	1,100.44	1,465.00	1,825.56	2,194.12	2,558.68	2,923.24	3,287.80	3,652.35	3,913.97	4,190.72	4,467.15	4,743.58
1/4	22.80	380.14	744.72	1,108.03	1,472.59	1,837.15	2,201.71	2,566.27	2,930.83	3,295.39	3,659.95	3,919.84	4,196.48	4,472.91	4,748.90
1/2	28.23	387.74	752.28	1,115.63	1,480.19	1,844.75	2,209.31	2,573.87	2,938.43	3,302.99	3,667.55	3,927.70	4,202.23	4,478.67	4,754.23
3/4	33.66	395.34	759.85	1,123.22	1,487.78	1,852.34	2,216.90	2,581.46	2,946.02	3,310.58	3,675.14	3,935.56	4,209.99	4,484.43	4,759.55
1	39.09	402.95	767.41	1,130.82	1,495.38	1,859.94	2,232.50	2,598.06	2,963.62	3,318.18	3,683.00	3,937.32	4,213.75	4,490.18	4,766.88
1/4	46.15	410.55	774.97	1,138.41	1,502.97	1,867.53	2,242.09	2,598.65	2,964.21	3,325.77	3,691.86	3,943.08	4,219.51	4,495.94	4,773.33
1/2	53.21	418.15	782.54	1,146.01	1,510.57	1,875.13	2,233.69	2,604.25	2,968.81	3,333.37	3,697.73	3,948.84	4,225.57	4,501.70	4,773.79
3/4	60.81	425.76	790.10	1,153.60	1,518.16	1,882.72	2,247.28	2,611.84	2,976.40	3,340.96	3,673.59	3,954.60	4,231.03	4,507.46	4,778.24
2	66.41	433.36	797.66	1,161.20	1,525.76	1,890.32	2,254.88	2,619.40	2,984.00	3,348.56	3,679.45	3,960.36	4,236.79	4,513.22	4,782.70
1/4	76.02	440.96	805.22	1,168.79	1,533.35	1,897.91	2,262.47	2,627.03	2,991.59	3,356.15	3,685.32	3,966.12	4,242.55	4,518.98	4,786.29
1/2	83.62	448.56	812.79	1,176.39	1,540.95	1,905.51	2,270.07	2,634.63	2,999.19	3,363.75	3,691.18	3,971.87	4,248.31	4,524.74	4,789.87
3/4	91.22	456.17	820.35	1,183.98	1,548.54	1,913.10	2,277.66	2,642.22	3,006.78	3,371.37	3,697.04	3,977.63	4,254.07	4,530.50	4,793.46
3	98.83	463.77	827.91	1,191.58	1,556.14	1,920.70	2,285.26	2,649.82	3,014.38	3,378.94	3,702.90	3,983.39	4,259.82	4,536.26	4,797.04
1/4	106.43	471.37	835.48	1,199.17	1,563.73	1,928.29	2,292.85	2,657.41	3,021.97	3,386.53	3,708.77	3,989.15	4,265.58	4,542.02	4,799.76
1/2	114.03	478.98	843.04	1,206.77	1,571.33	1,935.89	2,300.45	2,665.01	3,029.57	3,394.13	3,714.63	3,994.91	4,271.34	4,547.77	4,802.48
3/4	121.64	486.58	850.60	1,214.36	1,578.95	1,943.48	2,308.04	2,672.60	3,037.16	3,401.72	3,720.49	4,000.67	4,277.10	4,553.53	4,805.20
4	129.24	494.18	858.17	1,221.96	1,586.52	1,951.08	2,315.64	2,680.20	3,044.76	3,409.32	3,726.36	4,006.43	4,282.86	4,559.29	4,807.91
1/4	136.84	501.79	865.73	1,229.55	1,594.11	1,958.67	2,323.23	2,687.79	3,052.35	3,416.91	3,732.20	4,012.19	4,288.62	4,565.05	4,809.76
1/2	144.44	509.39	873.29	1,237.15	1,601.71	1,966.27	2,330.83	2,695.39	3,059.95	3,424.51	3,738.08	4,017.95	4,294.38	4,570.81	4,811.61
3/4	152.05	516.99	880.85	1,244.74	1,609.30	1,973.86	2,338.42	2,702.98	3,067.54	3,432.10	3,743.95	4,023.71	4,300.14	4,576.57	4,813.46
5	159.65	524.59	888.42	1,252.34	1,616.90	1,981.46	2,346.02	2,710.58	3,075.14	3,439.70	3,749.81	4,029.46	4,305.99	4,582.33	4,815.30
1/4	167.25	532.20	895.98	1,259.93	1,624.49	1,989.05	2,353.61	2,718.17	3,082.73	3,447.29	3,755.67	4,035.22	4,311.66	4,588.08	4,816.26
1/2	174.86	539.80	903.54	1,267.03	1,632.09	1,996.65	2,361.21	2,726.77	3,090.33	3,454.89	3,761.53	4,040.96	4,317.41	4,593.85	4,817.22
3/4	182.46	547.40	911.11	1,275.12	1,639.68	2,004.24	2,368.80	2,733.36	3,097.92	3,462.48	3,767.40	4,046.74	4,323.17	4,599.61	4,818.18
6	190.06	555.01	918.67	1,282.73	1,647.28	2,011.84	2,376.40	2,740.96	3,105.52	3,469.96	3,773.26	4,052.50	4,328.93	4,605.37	4,819.14
1/4	197.67	562.61	926.23	1,290.31	1,654.87	2,019.43	2,383.99	2,748.55	3,113.11	3,477.43	3,779.12	4,058.26	4,334.69	4,611.12	4,819.36
1/2	205.27	571.21	933.80	1,297.91	1,662.47	2,027.03	2,391.59	2,756.15	3,120.71	3,484.90	3,784.99	4,064.02	4,341.45	4,616.88	4,819.58
3/4	212.87	577.82	941.36	1,305.50	1,670.06	2,034.62	2,399.18	2,763.74	3,128.30	3,492.38	3,790.85	4,069.78	4,346.21	4,622.64	4,819.76
7	220.47	585.42	948.92	1,313.10	1,677.66	2,042.22	2,406.78	2,771.34	3,135.90	3,499.59	3,796.71	4,075.54	4,351.97	4,628.44	
1/4	228.08	593.02	956.48	1,320.69	1,685.25	2,049.81	2,414.37	2,778.93	3,143.49	3,506.81	3,802.58	4,081.30	4,357.73	4,634.16	
1/2	235.69	600.62	964.05	1,328.29	1,692.85	2,057.41	2,421.97	2,786.53	3,151.09	3,514.03	3,808.44	4,087.05	4,363.49	4,639.92	
3/4	243.28	608.23	971.61	1,335.88	1,700.44	2,065.00	2,429.56	2,794.12	3,158.68	3,521.24	3,814.30	4,092.81	4,369.25	4,645.68	
8	250.89	615.83	979.17	1,343.48	1,708.04	2,072.60	2,437.16	2,801.72	3,166.28	3,528.20	3,820.16	4,098.57	4,375.00	4,651.44	
1/4	258.49	623.43	986.74	1,351.07	1,715.63	2,080.19	2,444.75	2,809.31	3,173.87	3,535.16	3,826.03	4,104.33	4,380.76	4,657.20	
1/2	266.09	631.04	994.30	1,358.67	1,723.23	2,087.79	2,452.39	2,816.91	3,181.47	3,542.12	3,831.89	4,110.09	4,386.52	4,662.95	
3/4	273.70	638.64	1,001.86	1,366.26	1,730.82	2,095.38	2,459.94	2,824.50	3,189.06	3,549.08	3,837.75	4,115.85	4,382.28	4,668.71	
9	281.30	646.24	1,009.43	1,373.86	1,738.42	2,102.98	2,467.54	2,832.10	3,196.66	3,555.78	3,843.62	4,121.61	4,389.04	4,674.47	
1/4	288.90	653.84	1,016.99	1,381.45	1,746.01	2,110.57	2,475.13	2,839.69	3,204.25	3,562.48	3,849.48	4,127.37	4,403.80	4,680.23	
1/2	296.50	661.45	1,024.55	1,389.05	1,753.61	2,118.17	2,482.73	2,847.29	3,211.85	3,569.18	3,855.34	4,133.13	4,409.56	4,686.99	
3/4	304.11	669.05	1,032.12	1,396.64	1,761.20	2,125.76	2,490.32	2,854.88	3,219.44	3,575.88	3,861.21	4,138.89	4,415.32	4,691.75	
10	311.71	676.65	1,039.68	1,404.24	1,768.80	2,133.37	2,497.92	2,862.48	3,227.04	3,582.33	3,867.07	4,144.64	4,421.08	4,697.51	
1/4	319.31	684.22	1,047.27	1,411.83	1,776.39	2,140.95	2,505.51	2,870.07	3,234.63	3,588.77	3,872.93	4,150.40	4,426.84	4,703.27	
1/2	326.92	691.78	1,054.87	1,419.43	1,783.99	2,148.55	2,513.11	2,877.67	3,242.23	3,595.21	3,878.79	4,156.16	4,432.59	4,709.03	
3/4	334.52	699.34	1,062.46	1,427.02	1,791.58	2,156.14	2,520.70	2,885.26	3,249.82	3,601.65	3,884.66	4,161.92	4,438.35	4,714.79	
11	342.12	706.91	1,070.06	1,434.62	1,799.18	2,163.76	2,528.30	2,892.86	3,257.42	3,607.84	3,890.52	4,167.68	4,444.11	4,720.54	
1/4	349.73	714.47	1,077.65	1,442.21	1,806.79	2,171.33	2,535.89	2,900.45	3,265.01	3,614.02	3,896.38	4,173.44	4,449.87	4,726.30	
1/2	357.33	722.03	1,085.25	1,449.81	1,814.37	2,178.93	2,543.49	2,908.05	3,272.61	3,620.21	3,902.25	4,179.20	4,455.63	4,732.06	
3/4	364.93	729.59	1,092.84	1,457.40	1,821.96	2,186.52	2,551.08	2,915.64	3,280.20	3,626.39	3,908.11	4,184.96	4,461.39	4,737.82	