

## Cape Ann Circumnavigation Way Points

	Leg #	Start WP	Starting Lat/Lon	End WP	Ending Lat/Lon	Dist.	Dist. Sum	Bearing	Min Dur	Hr Dur	Time Sum
Rockport Harbor	1	Start	N/A	1	42° 39.590' N 070° 36.892' W						8:00 AM
Rockport Light	2	1	42° 39.590' N 07	2	42° 39.692' N 070° 36.706' W	0.17	0.17	69.25	3.4	0.06	8:03 AM
Rockport Boat Ramp	3	2	42° 39.692' N 07	3	42° 40.023' N 070° 37.200' W	0.49	0.66	328.28	13.2	0.22	8:13 AM
Andrews Point	4	3	42° 40.023' N 07	4	42° 41.275' N 070° 37.109' W	1.25	1.91	19.04	38.2	0.64	8:38 AM
Halibut Point	5	4	42° 41.275' N 07	5	42° 41.673' N 070° 37.855' W	0.68	2.59	321.97	51.8	0.86	8:51 AM
Folly Point	6	5	42° 41.673' N 07	6	42° 41.437' N 070° 38.678' W	0.65	3.24	264.63	64.8	1.08	9:04 AM
Plum Cove	7	6	42° 41.437' N 07	7	42° 40.508' N 070° 40.116' W	1.41	4.65	244.67	93	1.55	9:33 AM
Annisquam Light	8	7	42° 40.508' N 07	8	42° 39.703' N 070° 40.972' W	1.02	5.67	233.96	113.4	1.89	9:53 AM
Babson Pt/Wingaersheek	9	8	42° 39.703' N 07	9	42° 39.206' N 070° 41.034' W	0.5	6.17	201.19	123.4	2.06	10:03 AM
Lobster/Goose Coves	10	9	42° 39.206' N 07	10	42° 38.963' N 070° 40.684' W	0.35	6.52	149.24	130.4	2.17	10:10 AM
Rust Island	11	10	42° 38.963' N 07	11	42° 37.789' N 070° 41.470' W	1.31	7.83	222.16	156.6	2.61	10:36 AM
Rust Island	12	11	42° 37.789' N 07	12	42° 37.258' N 070° 41.302' W	0.55	8.38	182.83	167.6	2.79	10:47 AM
Bascule Bridge	13	12	42° 37.258' N 07	13	42° 37.141' N 070° 40.792' W	0.39	8.77	123.19	175.4	2.92	10:55 AM
Start Blyman Canal	14	13	42° 37.141' N 07	14	42° 36.734' N 070° 40.659' W	0.42	9.19	182.37	183.8	3.06	11:03 AM
End Blyman Canal	15	14	42° 36.734' N 07	15	42° 36.577' N 070° 40.288' W	0.31	9.5	135.78	190	3.17	11:10 AM
Dog Bar	16	15	42° 36.577' N 07	16	42° 34.959' N 070° 40.392' W	1.62	11.12	198.65	222.4	3.71	11:42 AM
Eastern Point	17	16	42° 34.959' N 07	17	42° 34.709' N 070° 39.544' W	0.67	11.79	127.71	235.8	3.93	11:55 AM
Brace Rock	18	17	42° 34.709' N 07	18	42° 35.193' N 070° 38.778' W	0.74	12.53	65.34	250.6	4.18	12:10 PM
Good Harbor Beach	19	18	42° 35.193' N 07	19	42° 36.228' N 070° 37.824' W	1.25	13.78	50.08	275.6	4.59	12:35 PM
Salt Island	20	19	42° 36.228' N 07	20	42° 37.220' N 070° 37.271' W	1.07	14.85	38.28	297	4.95	12:57 PM
Emerson Point	21	20	42° 37.220' N 07	21	42° 38.213' N 070° 35.350' W	1.73	16.58	70.87	331.6	5.53	1:31 PM
Straightsmouth	22	21	42° 38.213' N 07	22	42° 39.503' N 070° 35.628' W	1.31	17.89	6.95	357.8	5.96	1:57 PM
Straightsmouth	23	22	42° 39.503' N 07	23	42° 39.748' N 070° 35.743' W	0.26	18.15	357.04	363	6.05	2:03 PM
Entrance Rockport	24	23	42° 39.748' N 07	24	42° 39.663' N 070° 36.621' W	0.65	18.8	278.51	376	6.27	2:16 PM
Takeout	25	24	42° 39.663' N 07	25	42° 39.599' N 070° 36.871' W	0.19	18.99	266.79	379.8	6.33	2:19 PM

**Distances and timing (at ~3 knots/hr)**

<b>Dist.</b>	<b>Dist. Sum</b>	<b>Bearing</b>	<b>Min Dur</b>	<b>Hr Dur</b>	<b>Time Sum</b>
					8:00:00 AM 0.33333333
0.17	0.17	69.25	3.4	0.06	8:03 AM
0.49	0.66	328.28	13.2	0.22	8:13 AM
1.25	1.91	19.04	38.2	0.64	8:38 AM
0.68	2.59	321.97	51.8	0.86	8:51 AM
0.65	3.24	264.63	64.8	1.08	9:04 AM
1.41	4.65	244.67	93	1.55	9:33 AM
1.02	5.67	233.96	113.4	1.89	9:53 AM
0.5	6.17	201.19	123.4	2.06	10:03 AM
0.35	6.52	149.24	130.4	2.17	10:10 AM
1.31	7.83	222.16	156.6	2.61	10:36 AM
0.55	8.38	182.83	167.6	2.79	10:47 AM
0.39	8.77	123.19	175.4	2.92	10:55 AM
0.42	9.19	182.37	183.8	3.06	11:03 AM
0.31	9.5	135.78	190	3.17	11:10 AM
1.62	11.12	198.65	222.4	3.71	11:42 AM
0.67	11.79	127.71	235.8	3.93	11:55 AM
0.74	12.53	65.34	250.6	4.18	12:10 PM
1.25	13.78	50.08	275.6	4.59	12:35 PM
1.07	14.85	38.28	297	4.95	12:57 PM
1.73	16.58	70.87	331.6	5.53	1:31 PM
1.31	17.89	6.95	357.8	5.96	1:57 PM
0.26	18.15	357.04	363	6.05	2:03 PM
0.65	18.8	278.51	376	6.27	2:16 PM
0.19	18.99	266.79	379.8	6.33	2:19 PM