DADOS OBSERVACIONAIS

December 28, 2020

TODOS OS DADOS ESTAO EM HORA ZULU

0.1 FASE DA LUA

2020-12-21 quadratura

 $\mathbf{2020\text{-}12\text{-}29} \ \mathrm{sizigia}$

 $\mathbf{2021}\text{-}\mathbf{1}\text{-}\mathbf{6} \ \mathrm{sizigia}$

0.2 Rio Grande do Sul

Praias WAVECHECK

ano	mes	dia	estado	nome	lat	lon	altura(m)	direcao
2020	12	28	Rio Grande do Sul	Pier	-30.0058	-50.127	0.5	Nordeste
2020	12	28	Rio Grande do Sul	Meio	-30.0018	-50.1264	0.5	Nordeste
2020	12	28	Rio Grande do Sul	Backdoor	-30.005	-50.129	0.5	Nordeste

Simcosta

mes	dia	hora	min	boia	vvel(nós)	rajada(nós)	vdir	t_ar(°C)	t_ag(°C)	Hs(m)	Hmax(m)	Tp(s)	dirmed
12	28	20	51	RS4	14.8	17.5	85.43	22.9	24.72	1.14	1.88	9.5	104.03
12	28	20	21	RS4	15.0	18.7	89.43	22.9	24.85	1.22	2.14	9.1	102.83
12	28	19	51	RS4	15.0	17.9	98.43	22.9	24.91	1.25	2.21	9.5	103.03
12	28	19	21	RS4	14.0	17.5	91.43	23.0	25.01	1.17	1.74	9.5	101.13
12	28	18	51	RS4	14.0	17.3	91.43	23.0	25.06	1.21	2.11	9.5	102.23
12	28	18	21	RS4	13.6	16.1	90.43	23.0	25.02	1.17	2.02	9.1	102.03
12	28	17	51	RS4	14.4	17.1	90.43	23.0	24.96	1.12	1.8	10.0	101.33
12	28	17	21	RS4	13.6	16.1	85.43	23.0	24.96	1.21	1.82	9.5	100.43
12	28	16	51	RS4	13.4	16.1	83.43	23.1	24.9	1.15	1.86	10.0	102.83
12	28	16	21	RS4	13.8	16.1	85.43	22.9	24.74	1.24	1.85	8.7	99.13
12	28	15	51	RS4	14.0	16.3	79.43	23.0	24.78	1.21	1.99	9.1	101.43
12	28	15	21	RS4	12.6	15.6	78.43	22.9	24.73	1.13	1.59	9.1	102.33
12	28	20	51	RS2	14.2	17.3	88.38	23.1	25.46	0.18	0.35	2.8	208.07
12	28	20	21	RS2	13.8	17.5	97.38	23.2	25.61	0.14	0.23	2.9	192.68
12	28	19	51	RS2	14.2	17.1	103.38	23.2	25.62	0.13	0.22	2.8	184.97
12	28	19	21	RS2	14.8	17.3	105.38	23.2	25.45	0.13	0.24	2.4	189.28
12	28	18	51	RS2	13.6	18.1	89.38	23.3	25.46	0.11	0.17	2.6	190.97
12	28	18	21	RS2	14.0	17.9	98.38	23.3	25.45	0.12	0.21	2.0	188.47
12	28	17	51	RS2	14.2	17.7	91.38	23.4	25.42	0.13	0.22	2.0	193.47
12	28	17	21	RS2	14.4	17.5	97.38	23.3	25.39	0.13	0.31	1.9	201.97
12	28	16	51	RS2	13.2	16.5	89.38	23.5	25.25	0.12	0.18	1.9	197.68
12	28	16	21	RS2	13.6	16.7	95.38	23.3	25.2	0.13	0.27	2.1	210.28
12	28	15	51	RS2	13.4	17.5	87.38	23.3	25.15	0.13	0.34	2.3	204.78
12	28	15	21	RS2	12.6	17.9	94.38	23.3	25.17	0.13	0.21	5.0	193.28

0.3 Santa Catarina

Praias WAVECHECK

ano	mes	dia	estado	nome	lat	lon	altura(m)	direcao
2020	12	28	Santa Catarina	Ingleses	-27.4632	-48.3761	0.75	Sudeste
2020	12	28	Santa Catarina	Santinho	-27.4632	-48.3761	1.0	Sudeste
2020	12	28	Santa Catarina	Mocambique	-27.4942	-48.3898	1.0	Sudeste
2020	12	28	Santa Catarina	Barra da Lagoa	-27.5728	-48.4235	0.75	Sudeste
2020	12	28	Santa Catarina	Camping da Barra	-27.5672	-48.4273	1.0	Sudeste
2020	12	28	Santa Catarina	Mole	-27.6089	-48.4226	1.0	Sudeste
2020	12	28	Santa Catarina	Mole Gravata	-27.6077	-48.4341	1.0	Sudeste
2020	12	28	Santa Catarina	Joaquina	-27.6329	-48.4467	1.0	Sudeste
2020	12	28	Santa Catarina	Rosa Norte	-28.1245	-48.6368	0.75	Sudeste
2020	12	28	Santa Catarina	Rosa Sul	-28.1343	-48.6407	0.75	Sudeste

0.4 Parana

0.5 Sao Paulo

Praias WAVECHECK

ano	mes	dia	estado	nome	lat	lon	altura(m)	direcao
2020	12	28	Sao Paulo	Maresias	-23.7979	-45.5791	0.5	Sudeste
2020	12	28	Sao Paulo	Maresias Canto	-23.7931	-45.5836	0.5	Sudeste
2020	12	28	Sao Paulo	Camburi	-23.781	-45.651	0.5	Sul
2020	12	28	Sao Paulo	Baleia	-23.777	-45.674	0.5	Sudeste
2020	12	28	Sao Paulo	Juquei	-23.769	-45.751	0.5	Não informado
2020	12	28	Sao Paulo	Quebra-Mar	-23.9731	-46.3486	0.25	Sudeste
2020	12	28	Sao Paulo	Divisa	-23.9725	-46.3552	0.25	Sudeste

0.6 Rio de Janeiro

Praias RICO SURF

ano	mes	dia	nome	lat	lon	altura(m)	periodo(s)	tsm(°C)	direcao
2020	12	28	Ipanema - Posto 8	-22.9881	-43.1971	0.4	8.0	21.0	Leste Sudeste
2020	12	28	Figueira de Arraial do Cabo	-22.9466	-42.1609	0.4	8.0	19.0	Leste Sudeste
2020	12	28	Prainha - Canto Direito	-23.0423	-43.5072	0.8	8.0	21.0	Sudeste
2020	12	28	Copacabana - Posto 6	-22.985	-43.1887	0.1	8.0	21.0	Leste Sudeste
2020	12	28	Cabo Frio - Praia do Forte	-22.8885	-42.0191	0.5	8.0	19.0	Leste Sudeste
2020	12	28	Macumba - CCB	-23.0316	-43.4761	0.7	8.0	21.0	Sudeste
2020	12	28	Leblon - Canto	-22.9881	-43.2233	0.5	8.0	21.0	Leste Sudeste
2020	12	28	Saquarema - Praia da Vila	-22.9336	-42.5177	0.4	8.0	21.0	Leste Sudeste
2020	12	28	Recreio - Canto	-23.0299	-43.4673	0.5	8.0	21.0	Leste Sudeste
2020	12	28	Arpoador	-22.9895	-43.1919	0.1	8.0	21.0	Leste Sudeste
2020	12	28	Cabo Frio - Praia do Peró	-22.8585	-41.9862	0.2	8.0	19.0	Leste Sudeste
2020	12	28	Prainha	-23.0408	-43.5048	0.9	8.0	21.0	Sudeste
2020	12	28	Copacabana - Posto 5	-22.9806	-43.1888	0.5	8.0	21.0	Leste Sudeste
2020	12	28	Macumba - Rico Pointao vivo	-23.0315	-43.4761	0.7	8.0	21.0	Sudeste
2020	12	28	Praia do Diabo	-22.9886	-43.1896	0.5	8.0	21.0	Leste Sudeste
2020	12	28	Macumba - Secreto	-23.0369	-43.4954	0.7	8.0	21.0	Sudeste
2020	12	28	Praia do Leme	-22.9648	-43.1688	0.5	8.0	21.0	Leste Sudeste
2020	12	28	Itacoatiara - Pampo	-22.9746	-43.0364	0.3	7.0	21.0	Sudeste
2020	12	28	Recreio - Posto 10	-23.0262	-43.4579	0.9	8.0	21.0	Leste Sudeste
2020	12	28	Itacoatiara - Meio	-22.9748	-43.0336	0.5	7.0	21.0	Sudeste

${\bf Simcosta}$

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mes	dia	hora	min	boia	vvel(nós)	rajada(nós)	vdir	t_ar(°C)	t_ag(°C)	Hs(m)	Hmax(m)	Tp(s)	dirmed
12	28	20	51	RJ3	1.9	3.5	97.12	48.1	23.03	0.74	1.11	7.1	131.12
12	28	20	21	RJ3	3.9	4.9	228.12	48.5	23.57	0.79	1.26	7.4	126.12
12	28	19	51	RJ3	3.7	4.7	235.12	48.9	23.76	0.76	1.07	15.4	135.12
12	28	19	21	RJ3	3.9	4.7	270.12	49.1	23.36	0.8	1.28	6.5	129.12
12	28	18	51	RJ3	2.3	4.5	228.12	49.2	23.01	0.78	1.19	7.1	128.12
12	28	18	21	RJ3	2.9	3.5	216.12	49.4	22.83	0.78	1.54	7.7	129.12
12	28	17	51	RJ3	3.3	4.1	210.12	49.5	23.55	0.79	1.18	14.3	130.12
12	28	17	21	RJ3	2.7	3.3	213.12	49.5	23.0	0.78	1.38	7.1	123.12
12	28	16	51	RJ3	1.0	2.3	210.12	49.8	22.95	0.77	1.09	15.4	130.12
12	28	16	21	RJ3	2.1	3.9	139.12	50.5	23.61	0.74	1.2	7.7	128.12
12	28	15	51	RJ3	3.1	4.5	143.12	50.6	23.05	0.75	1.13	6.9	126.12
12	28	15	21	RJ3	5.6	7.4	155.12	49.9	22.84	0.72	1.23	6.9	129.12

0.7 Espirito Santo

Boias

										1
mes	$_{ m dia}$	hora	min	vvel(nos)	vdir	$t_ag(^{\circ}C)$	t_ar(°C)	Hs(m)	Tp(s)	dirmed
12	28	21	0	None	None	None	None	None	None	None
12	28	20	0	None	None	None	None	None	7.4	None
12	28	19	0	None	None	None	24.5	0.94	None	108
12	28	18	0	None	None	None	None	None	6.9	None
12	28	17	0	None	None	None	None	None	6.9	None
12	28	16	0	None	None	None	None	None	6.9	None
12	28	15	0	None	None	None	None	None	6.7	None
12	28	14	0	None	None	None	None	None	6.9	None
12	28	13	0	None	None	None	None	None	6.9	None

0.8 Bahia

Praias WAVECHECK

ano	mes	dia	estado	nome	lat	lon	altura(m)	direcao
2020	12	28	Bahia	Tiririca	-14.289	-38.983	1.0	Leste

${\bf Simcosta}$

mes	dia	hora	min	boia	vvel(nós)	rajada(nós)	vdir	$t_ar(^{\circ}C)$	$t_ag(^{\circ}C)$	Hs(m)	Hmax(m)	Tp(s)	dirmed
12	28	20	51	BA1	7.6	15.2	122.72	27.3	26.87	0.29	0.47	9.5	193.12
12	28	20	21	BA1	10.1	15.6	116.72	27.4	26.67	0.29	0.47	7.7	174.12
12	28	19	51	BA1	9.3	13.4	129.72	27.4	26.56	0.27	0.44	9.1	170.42
12	28	19	21	BA1	9.7	13.8	141.72	27.5	26.53	0.25	0.5	10.0	157.82
12	28	18	51	BA1	8.9	12.2	134.72	27.4	26.46	0.25	0.47	7.1	187.32
12	28	18	21	BA1	9.9	14.4	120.72	27.4	26.39	0.31	0.57	10.0	190.32
12	28	17	51	BA1	12.2	16.3	141.72	27.3	26.49	0.32	0.57	9.1	199.02
12	28	17	21	BA1	13.0	15.9	144.72	27.2	26.4	0.3	0.48	9.5	194.92
12	28	16	51	BA1	12.1	15.7	142.72	27.2	25.94	0.36	0.71	10.0	203.52
12	28	15	51	BA1	12.2	16.7	139.72	27.3	26.25	0.33	0.52	10.0	196.62
12	28	15	21	BA1	13.0	19.2	138.72	27.4	26.24	0.32	0.55	9.1	190.72

0.9 Sergipe

Boias

mes	dia	hora	minuto	Onda_dirmed	Hs(m)	vvel(nos)	rajada(nos)
12	28	21	10	114	1.5	9.9	10.5
12	28	21	0	114	1.51	10.5	11.5
12	28	20	50	113	1.5	10.5	11.7
12	28	20	40	112	1.5	9.1	10.5
12	28	20	30	113	1.48	11.1	11.7
12	28	20	20	115	1.51	7.4	8.2
12	28	20	10	115	1.5	7.8	8.2
12	28	20	0	115	1.43	9.1	9.7
12	28	19	30	115	1.48	9.1	9.7
12	28	19	20	116	1.47	8.2	9.9
12	28	19	10	115	1.43	9.7	10.3
12	28	19	0	115	1.43	9.3	10.3

0.10 Alagoas

0.11 Pernambuco

Boias

mes	dia	hora	minuto	Onda_dirmed	Hs(m)	vvel(nos)	rajada(nos)
12	28	21	0	125	1.87	11.5	15.2
12	28	20	50	124	1.85	11.5	14.4
12	28	20	40	124	1.81	11.3	14.0
12	28	20	30	124	1.85	11.3	15.7
12	28	20	20	127	1.8	12.1	16.3
12	28	20	10	125	1.84	11.3	14.6
12	28	20	0	121	1.95	11.3	15.6
12	28	19	50	118	1.99	12.4	15.0

0.12 Paraiba

0.13 Rio Grande do Norte

0.14 Ceara

0.15 Piaui

Praias WAVECHECK

ano	mes	dia	estado	nome	lat	lon	altura(m)	direcao
2020	12	28	Piaui	Atalaia	-2.78584	-41.5679	0.5	Nordeste

0.16 Maranhao

0.17 Belem

0.18 NDBC e ALTIMETRO

mes	dia	hora	lat	lon	Hs(m)	Tp(s)	$onda_dirmed$
12	28	18	-15.2	-32.4	3.0	6.0	None
12	28	16	-15.5	-31.7	3.0	6.0	None

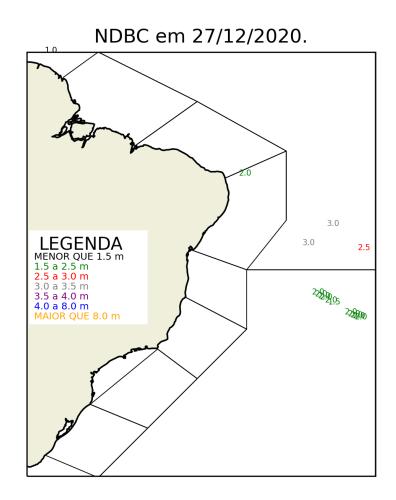


Figure 0.1: Altura de onda em metros

NDBC em 28/12/2020.

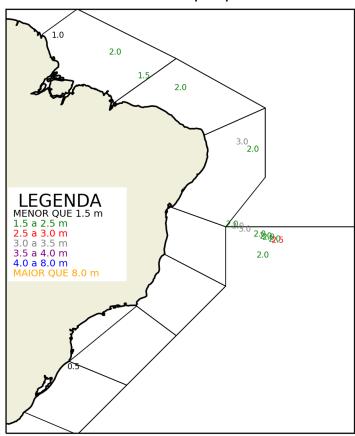


Figure 0.2: Altura de onda em metros

Ondas Altimetro METAREA V entre 25/12 21:00 e 26/12 21:00.

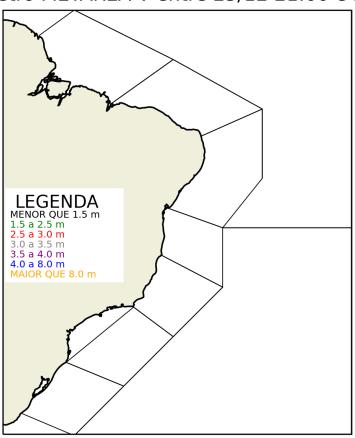


Figure 0.3: Altura de onda em metros

Ondas Altimetro METAREA V entre 26/12 21:00 e 27/12 21:00.

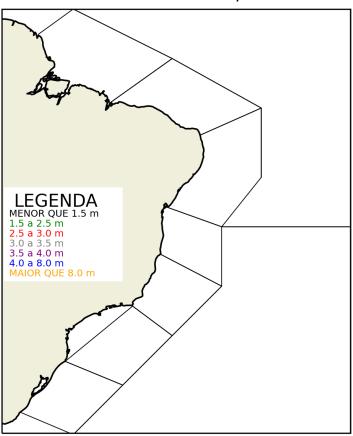


Figure 0.4: Altura de onda em metros

Ondas Altimetro METAREA V entre 27/12 21:00 e 28/12 21:00.

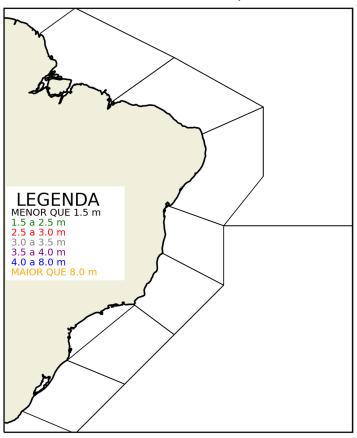


Figure 0.5: Altura de onda em metros

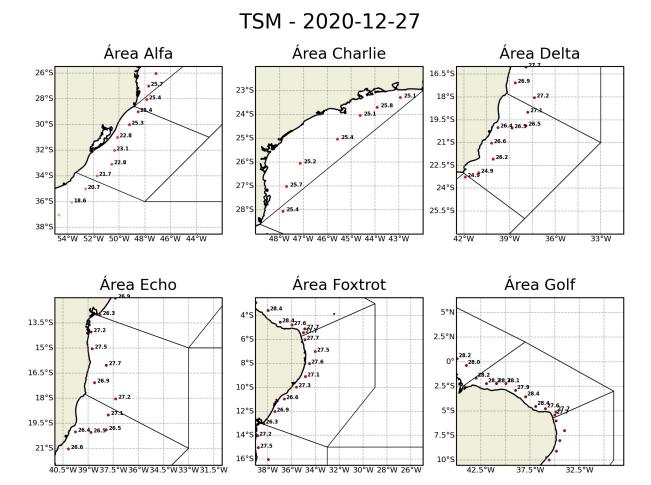


Figure 0.6: Temperatura da Superficie do mar em °C

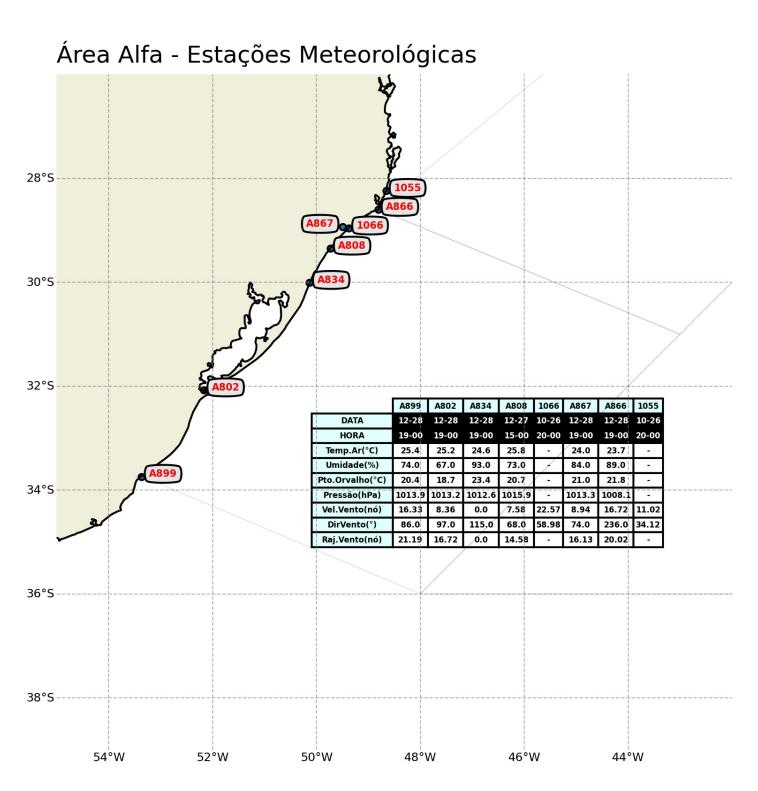


Figure 0.7: Dados das estacoes meteorologicas na area Alfa.

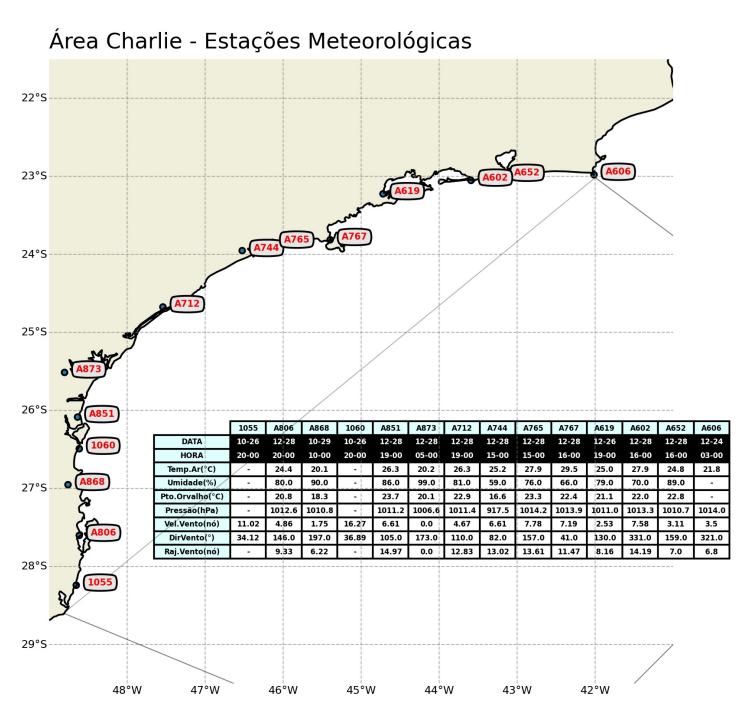


Figure 0.8: Dados das estacoes meteorologicas na area Charlie.

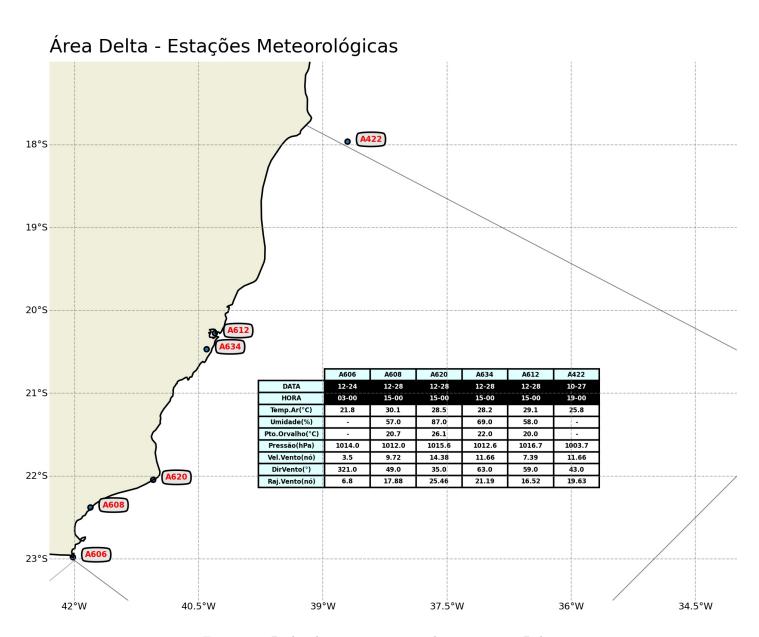


Figure 0.9: Dados das estacoes meteorologicas na area Delta.

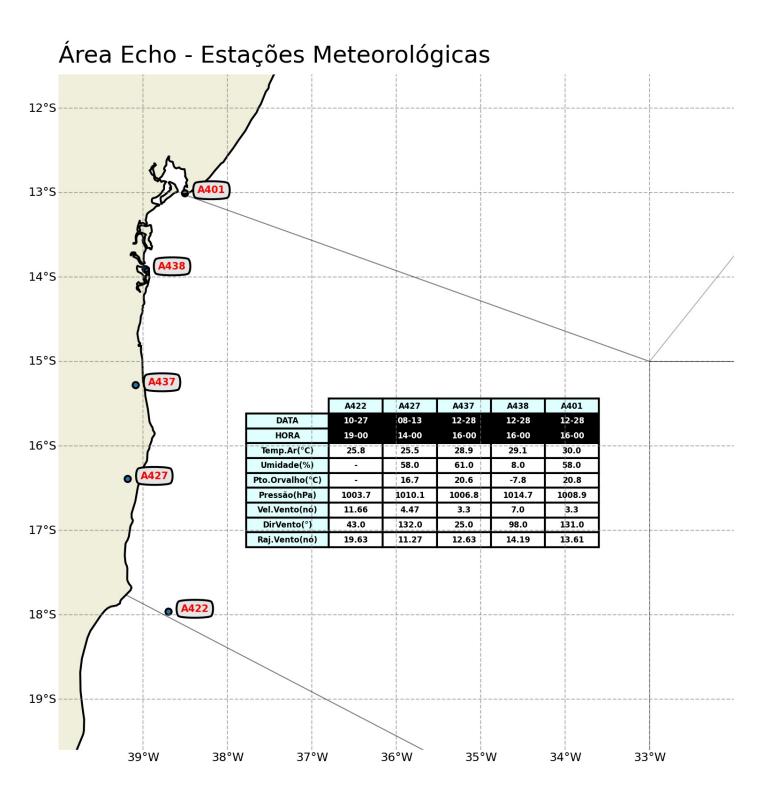


Figure 0.10: Dados das estacoes meteorologicas na area Echo.

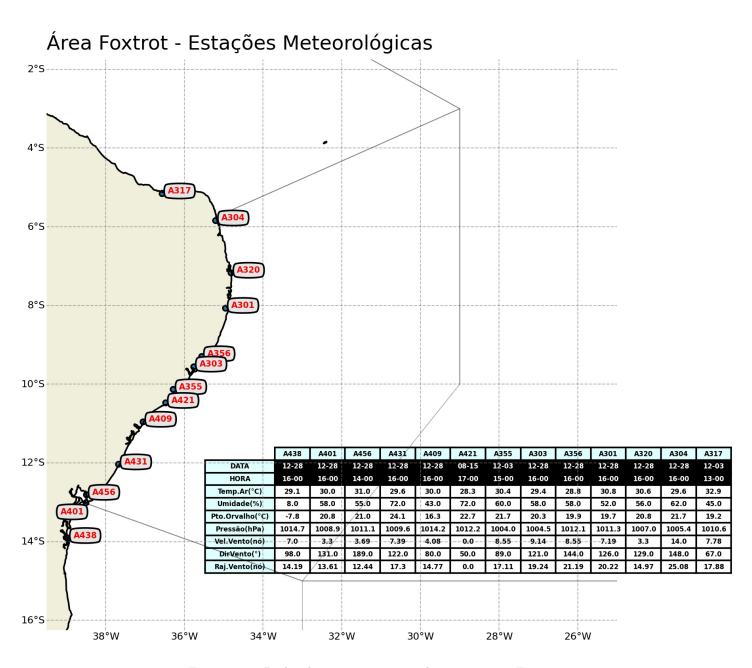


Figure 0.11: Dados das estacoes meteorologicas na area Foxtrot.

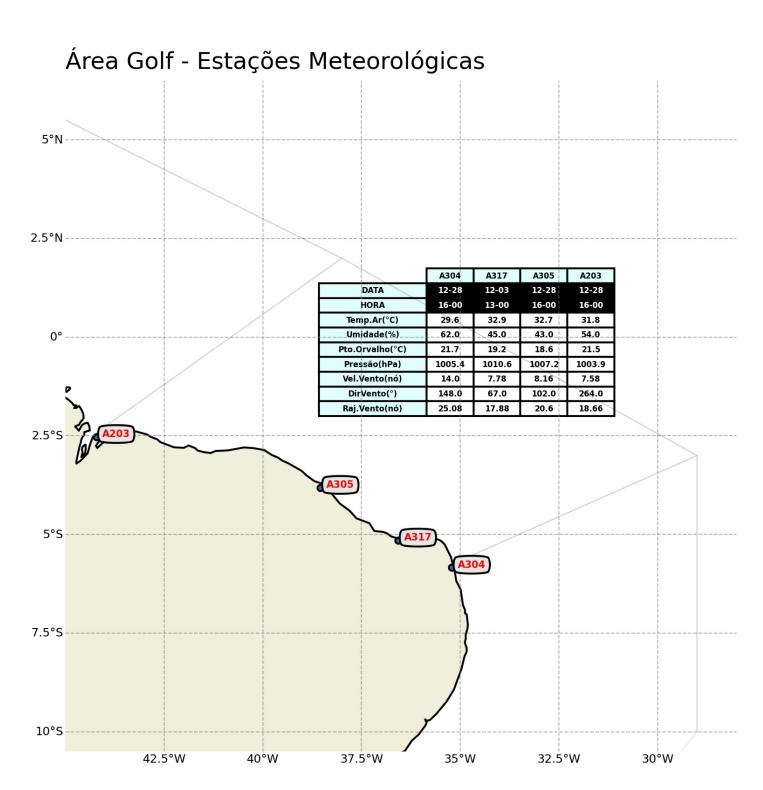


Figure 0.12: Dados das estacoes meteorologicas na area Golf.

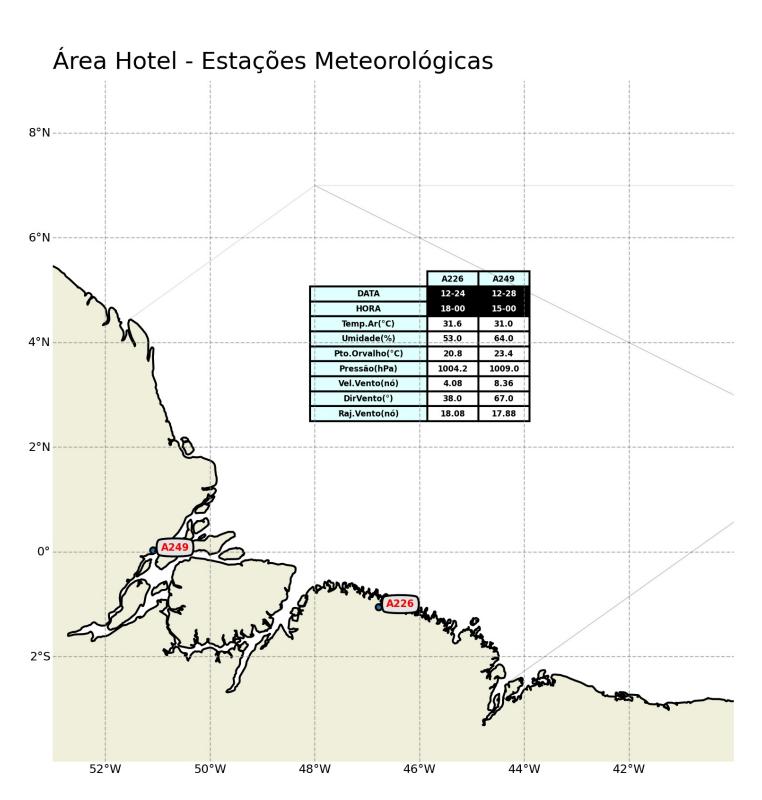


Figure 0.13: Dados das estacoes meteorologicas na area Hotel.