

Appendix A: Summary tables

Table A1. Water level stations metadata and conversion factors (see Eq. 3) in the Saguenay Fjord and St. Lawrence Estuary.

Location	ID/ Sensor	Latitude (° N)	Longitude (° E)	Start Date	End Date	Density corr.	H_{L1} to H_{CGVD28} (m)	Survey height error (no. pts) (m)	Spline-fit error (m)	$N_{HTV2.0}$ (m)	Δh_{TRX} (m)	Δh_{pd} (m)	N_{SWOT} (m)
Saguenay Fjord													
Chicoutimi	3480_chs	48.4308	-71.0548	2023-01-01	2025-02-02	y	-1.945	<0.015	-	-29.194	-0.896	-0.0410	-29.9162
Port-Alfred	3460_chs	48.3339	-70.869267	2023-01-01	2025-02-02	y	-2.66	<0.015	-	-28.400	-0.907	-0.0407	-29.1361
Anse-Saint-Jean	3440_chs	48.2450	-70.179667	2023-06-07	2023-09-26	y	-2.99	<0.025	-	-26.634	-0.933	-0.0404	-27.3971
Anse-Saint-Jean	3440_chs_ott	48.2450	-70.179667	2023-06-08	2023-09-25	y	-2.99	<0.025	-	-26.634	-0.933	-0.0404	-27.3971
Petit-Saguenay	plsg_sol	48.238844	-70.102064	2023-05-18	2023-09-29	n	-2.3232	0.0450 (12)	-	-26.606	-0.936	-0.0404	-27.3717
Petit-Saguenay	plsg_ct2x	48.238844	-70.102064	2023-05-18	2023-06-14	y	-11.1741	0.0683 (6)	-	-26.606	-0.936	-0.0404	-27.3717
Baie-Sainte-Catherine	3424_chs	48.126333	-69.729750	2023-01-01	2025-02-02	-	-2.38	<0.025	-	-26.752	-0.952	-0.0400	-27.4391
St. Lawrence Estuary													
Vieux-Québec	3248_chs	46.811111	-71.201750	2023-01-01	2025-02-02	-	-1.98	<0.015	-	-28.127	-0.999	-0.0359	-28.8986
Vieux-Québec	3248_gnssir	46.811165	-71.201823	2023-03-20	2024-05-10	-	6.5916-(rh+ahgt)*	0.0174 (6)	0.123	-28.127	-0.999	-0.0359	-28.8986
Orléans Isl. Bridge	plto_gnssir	46.880230	-71.138298	2023-03-17	2024-05-22	-	32.4592-(rh+ahgt)	0.0142 (4)	0.151	-27.858	-0.996	-0.0361	-28.5870
Château-Richer	chrl_gnssir	46.967250	-71.019858	2023-03-15	2024-05-22	-	8.7508-(rh+ahgt)	0.0211 (7)	0.127	-27.490	-0.992	-0.0364	-28.2074
Saint-Laurent I.O.	3110_chs	46.858167	-71.003333	2023-01-01	2025-02-02	-	-2.07	<0.015	-	-27.951	-1.000	-0.0360	-28.6912
Saint-Laurent I.O.	3110_gnssir	46.858194	-71.003886	2023-03-17	2024-05-22	-	6.6893-(rh+ahgt)	0.0135 (4)	0.073	-27.951	-1.000	-0.0360	-28.6912
Sainte-Anne-de-Beaupré	sabl_gnssir	47.018362	-70.925684	2023-03-18	2023-10-03	-	8.2273-(rh+ahgt)	0.0100 (3)	0.100	-27.337	-0.990	-0.0365	-28.0526
Sainte-Anne-de-Beaupré	sabl_gnssir	47.018362	-70.925684	2023-10-05	2024-05-22	-	8.1375-(rh+ahgt)	0.0147 (4)	0.063	-27.337	-0.990	-0.0365	-28.0526
Saint-Jean I.O.	sjo_gnssir	46.915536	-70.896196	2023-03-17	2024-05-22	-	8.7131-(rh+ahgt)	0.0213 (7)	0.070	-27.799	-0.999	-0.0362	-28.5282
Saint-François I.O.	3100_chs	46.996500	-70.808167	2023-01-01	2025-02-02	y	-2.5	<0.015	-	-27.561	-0.994	-0.0365	-28.3320
Berthier-sur-Mer	brsm_gnssir	46.935213	-70.735887	2023-05-22	2023-10-03	-	7.5673-(rh+ahgt)	0.0134 (10)	0.080	-27.750	-1.001	-0.0363	-28.5121
Banc du Cap Brûlé	3075_chs	47.089500	-70.710833	2023-03-13	2024-12-02	y	-2.55	<0.015	-	-27.252	-0.991	-0.0367	-27.9765
Grosse-Île	3190_chs	47.019500	-70.670833	2023-05-09	2023-08-30	y	-2.41	<0.025	-	-27.579	-0.996	-0.0365	-28.3422
Petite-Rivière-St-François	prsf_gnssir	47.303910	-70.561450	2023-04-28	2024-05-22	-	7.6659-(rh+ahgt)	0.0277 (10)	0.084	-26.596	-0.980	-0.0374	-27.2986
Isle-aux-Grues	ilag_gnssir	47.055331	-70.532282	2023-04-27	2024-05-21	-	7.6156-(rh+ahgt)	0.0168 (14)	0.112	-27.559	-0.997	-0.0366	-28.3191
Islet-sur-Mer	ilsm_gnssir	47.134067	-70.370164	2023-03-17	2024-05-20	-	8.4474-(rh+ahgt)	0.0209 (6)	0.097	-27.429	-0.996	-0.0369	-28.1828
Saint-Joseph-de-la-Rive	3057_chs	47.448833	-70.365500	2023-01-01	2025-02-02	y	-3.34	<0.015	-	-26.750	-0.975	-0.0379	-27.4349
Saint-Jean-Port-Joli	3170_chs	47.216167	-70.274667	2023-05-04	2023-09-20	y	-2.69	<0.025	-	-27.342	-0.993	-0.0371	-28.0913
Cap-aux-Oies	cpao_sol	47.494346	-70.228827	2023-05-24	2023-10-01	n	-2.5529	0.0409 (8)	-	-26.871	-0.976	-0.0380	-27.5845
Cap-aux-Oies	cpao_ct2x	47.494346	-70.228827	2023-05-24	2023-08-05	y	-2.5455	0.0409 (8)	-	-26.871	-0.976	-0.0380	-27.5845
St-Roch-des-Aulnaies	srda_sol	47.317108	-70.171739	2023-05-16	2023-10-02	n	-2.0150	0.0262 (20)	-	-27.257	-0.990	-0.0375	-28.0050
St-Roch-des-Aulnaies	srda_ct2x	47.317108	-70.171739	2023-05-16	2023-07-02	y	-2.3918	0.0268 (8)	-	-27.257	-0.990	-0.0375	-28.0050
Pointe-aux-Orignaux	pior_sol	47.465967	-70.036457	2023-05-17	2023-10-02	n	-2.4445	0.0378 (31)	-	-27.131	-0.985	-0.0379	-27.8780
Pointe-aux-Orignaux	pior_ct2x	47.465967	-70.036457	2023-05-17	2023-08-05	y	-2.5563	0.0296 (15)	-	-27.131	-0.985	-0.0379	-27.8780
Rivière-du-Loup	3130_chs	47.846833	-69.571833	2023-05-08	2023-09-24	y	-2.61	<0.025	-	-26.805	-0.975	-0.0391	-27.5636
Grandes-Bergeronnes	gbr_gnssir	48.227974	-69.554389	2023-05-24	2023-11-30	-	5.1942-(rh+ahgt)	0.0286 (10)	0.051	-26.853	-0.950	-0.0403	-27.5529
Isle-Verte N	ilvn_sol	48.052872	-69.423245	2023-05-23	2023-10-03	n	-1.9845	0.0175 (21)	-	-26.853	-0.964	-0.0398	-27.6305
Isle-Verte S	ilvs_gnssir	48.039621	-69.406307	2023-05-23	2023-12-20	-	6.1887-(rh+ahgt)	0.0199 (13)	0.065	-26.817	-0.966	-0.0397	-27.6002
Trois-Pistoles	trps_gnssir	48.169958	-69.132676	2023-05-22	2023-11-17	-	8.3495-(rh+ahgt)	0.0504 (18)	0.087	-26.494	-0.964	-0.0401	-27.3371
Rimouski	2985_chs	48.478333	-68.513667	2023-01-01	2025-02-02	y	-2.29	<0.015	-	-25.874	-0.953	-0.0411	-26.6808

* Definitions of rh and ahgt variables can be found in Table A2.

Table A3. St. Lawrence Estuary wave buoys. The ID given in column 3 is dependent on the buoy type and its assigned number or name. The geoposition corresponds to the water depth, longitude and latitude at the centroid of the buoy's operating area, expressed in decimal degrees, using the WSG84 geodetic datum. Start and end dates correspond to deploying and dismantling dates, respectively. ~~Information about AZMP IML 4 is duplicated for 2023 and 2024.~~

Location	Buoy type	ID	Longitude (° E)	Latitude (° N)	Water depth (m)	Start date (UTC)	End date (UTC)
Rimouski	AZMP platform	azmp-impl4	-68.5821	48.6672	335	2023-05-12 13:00:00	2023-10-23 05:30:00
Rimouski	AZMP platform	azmp-impl4	-68.5811	48.6666	335	2024-06-17 12:30:00	2024-11-02 19:30:00
Trois-Pistoles	Spotter	spot-0572	-69.2487	48.1535	4	2023-05-30 00:00:00	2023-08-17 19:30:00
Les Escoumins	Spotter	spot-1082	-69.2780	48.4211	200	2023-06-06 00:00:00	2023-06-09 21:30:00