Supplementary Material

Figures
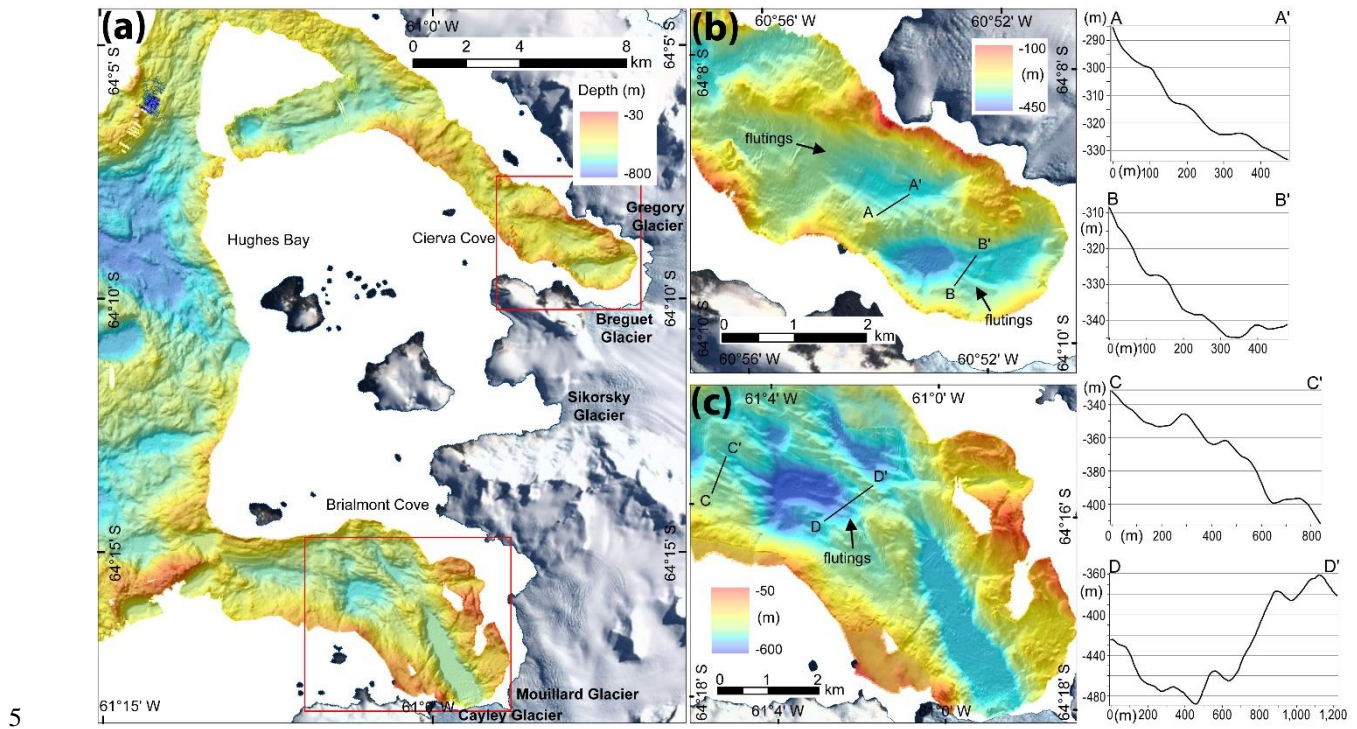
Figure 1: Hughes Bay, showing Cierva Cove (b) and Brialmont Cove (c).
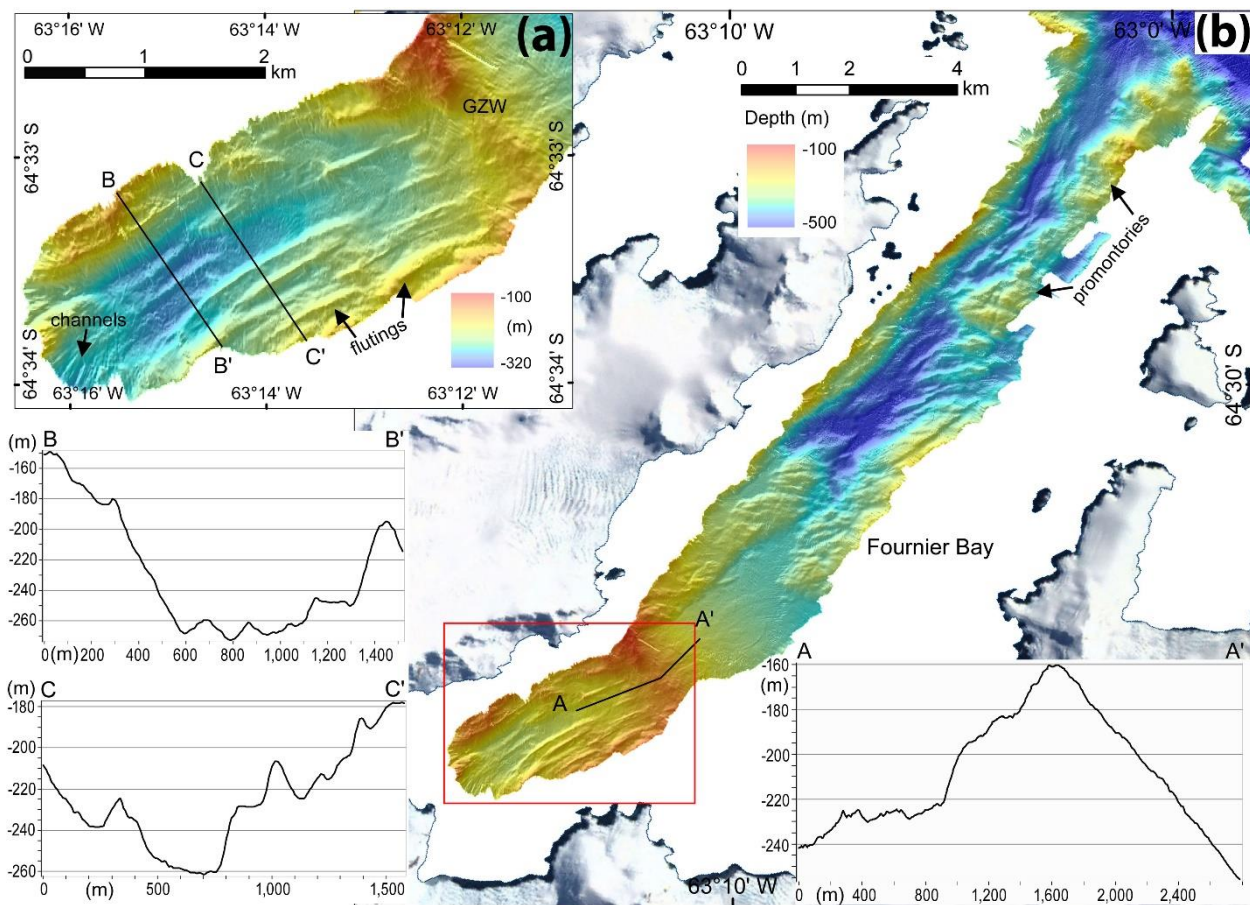
Figure 2: Fournier Bay.
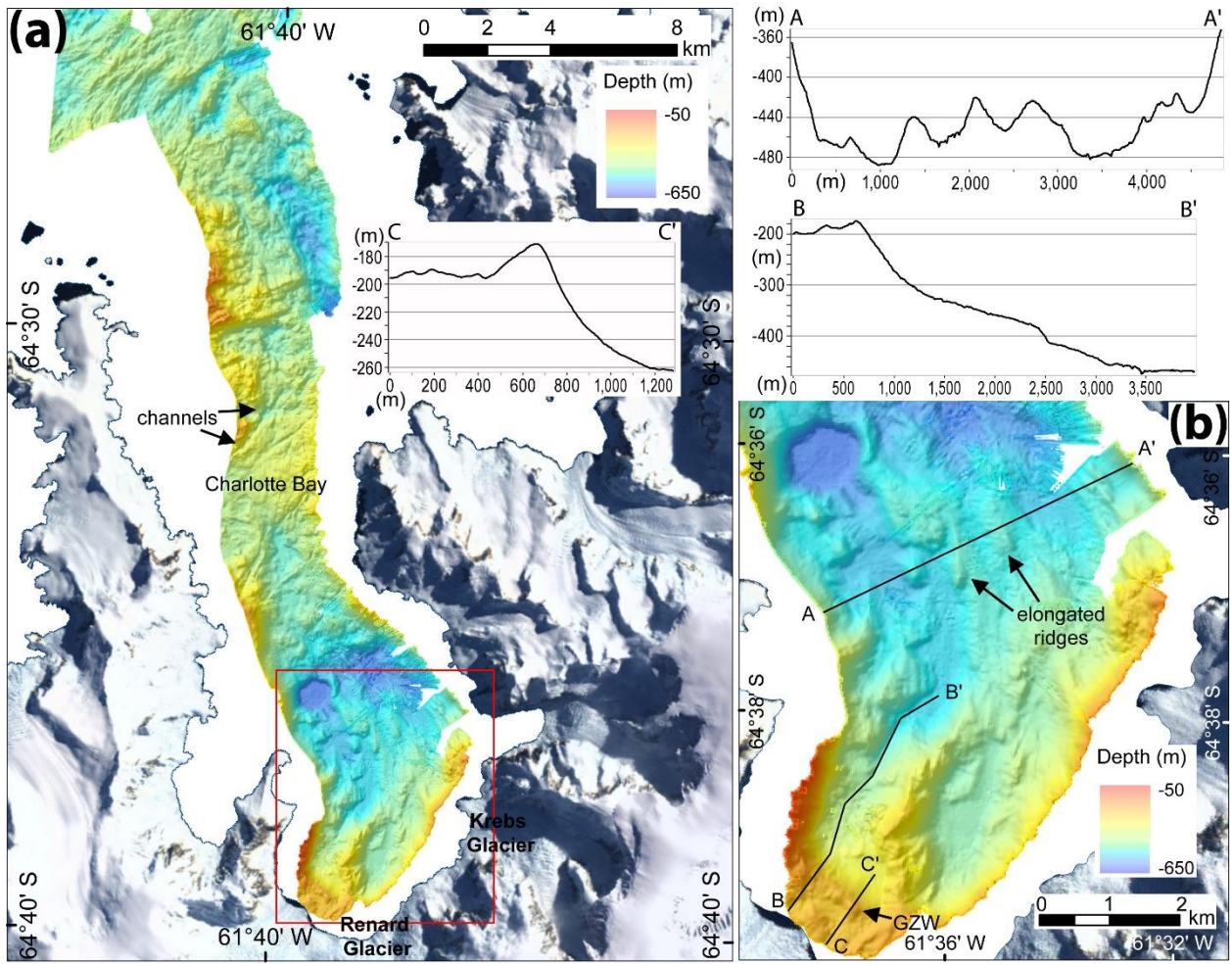
Figure 3: Charlotte Bay.
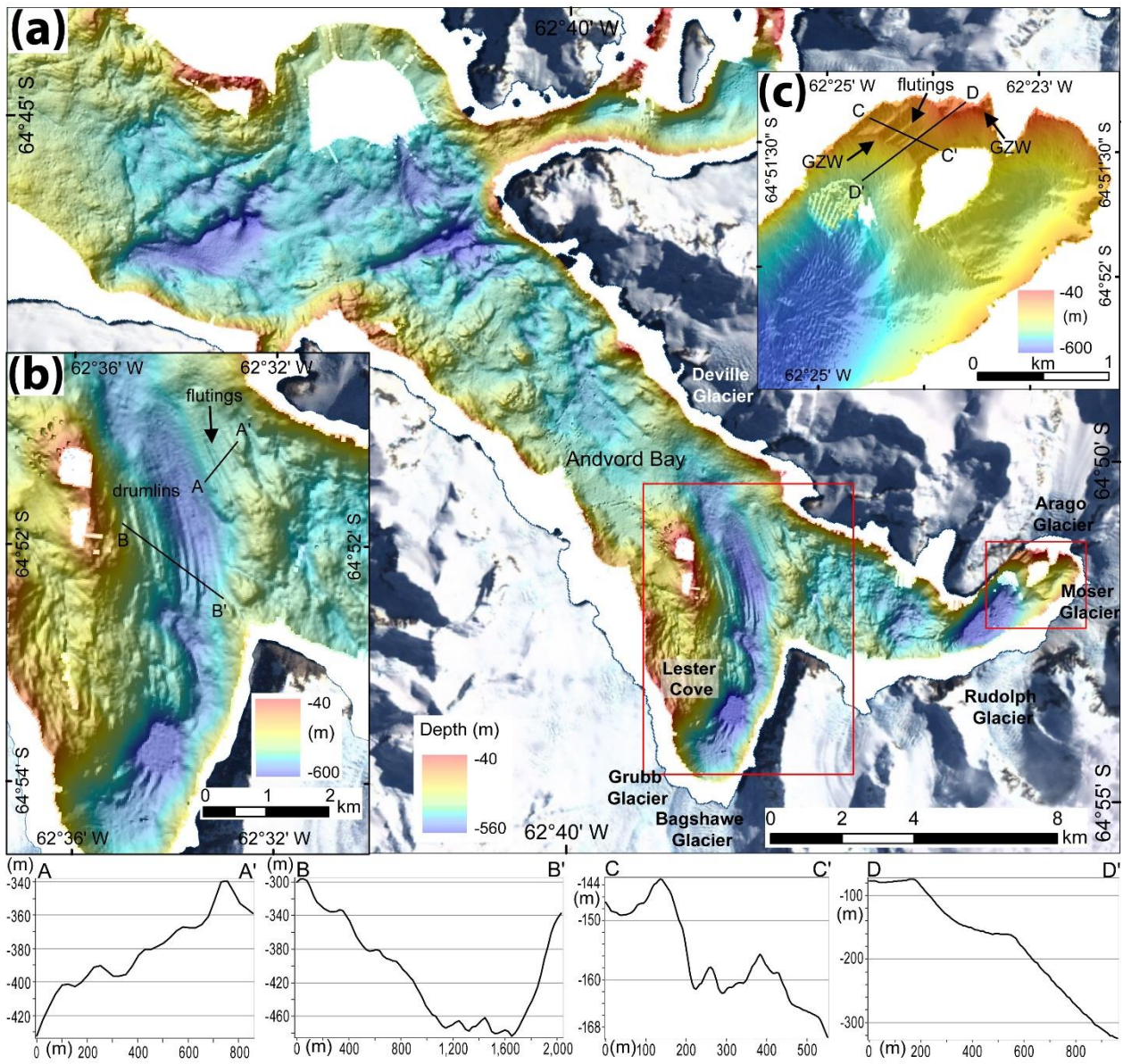
Figure 4: Andvord Bay, also showing Lester Cove (b) and Moser Glacier Cove (c).
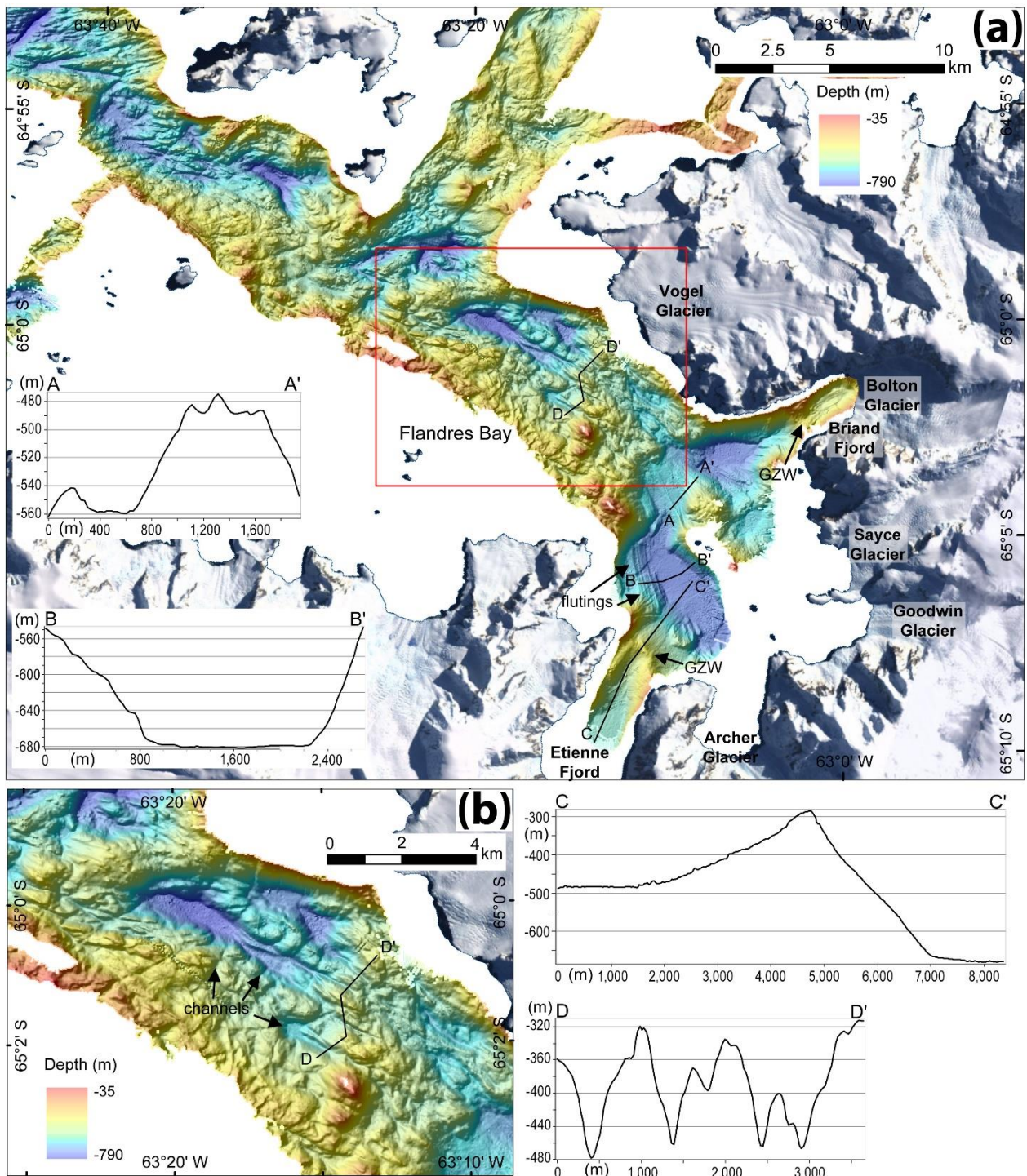
Figure 5: Flandres Bay, also showing Briand Fjord and Etienne Fjord.
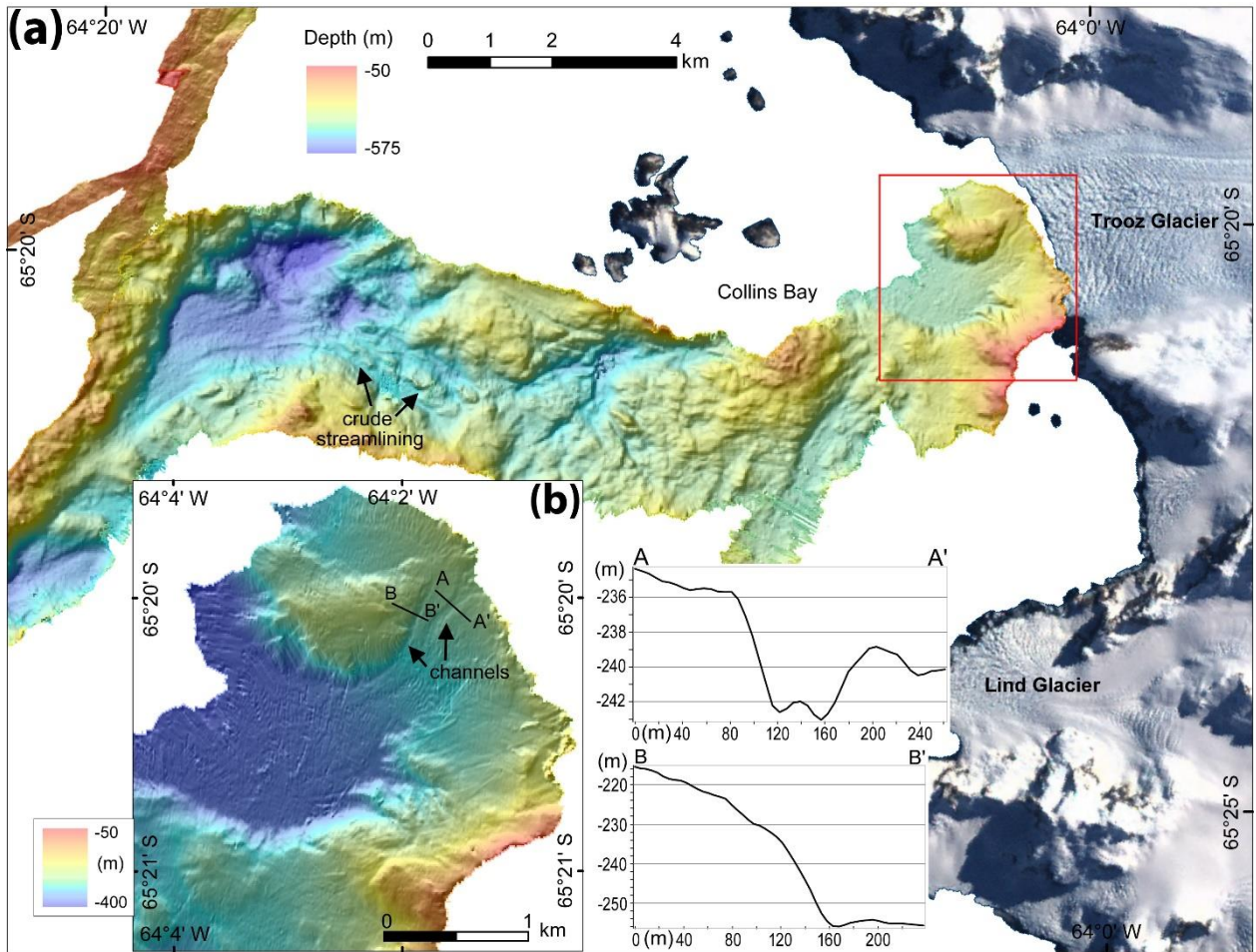
Figure 6: Collins Bay.

Table 1. Measurements of western Antarctic Peninsula bays

Bay Name	Longitude	Latitude	Bay Length (km)	Bay Width (km)	Ratio length/width	Bay Geometry	Number of Glaciers in Total	Total Glacier Catchment Area (km^2)	Bay Area (km^2)
Maxwell-Marian Cove	-58.769	-62.213	3.8	1.2	3.2	narrow	1	14.99	4.868
Maxwell-Potter Cove	-58.687	-62.232	4.3	1.6	2.7	narrow	1	20.26	7.093
Hope Bay	-57.046	-63.407	5.8	2	2.9	narrow	4	27.36	11.448
Lapeyrere's unnamed	-63.286	-64.37	4.6	1.8	2.6	narrow	2	60.05	7.959
Lapeyrere Bay	-63.284	-64.421	11	2.6	4.2	narrow	7	271.06	32.496
Fournier Bay	-63.178	-64.546	16	5.3	3.0	narrow	12	169.27	89.906
Charlotte Bay	-61.611	-64.614	15	7.5	2.0	narrow	13	238.14	103.153
Advord Bay	-62.566	-64.857	15	6	2.5	narrow	8	78.83	79.785
Andvord-Moser Gl. cove	-62.425	-64.872	9	3.5	2.6	narrow	6	161.14	26.027
Flandres-Briand Fjord	-63.021	-65.035	4.2	2	2.1	narrow	4	81.26	8.931
Flandres-Etienne Fjord	-63.234	-65.171	8	3.2	2.5	narrow	7	244.5	24.587
Beascochea-Lever Gl. cove	-63.723	-65.512	5.3	2.5	2.1	narrow	4	190.72	16.000
Beascochea Bay	-63.87	-65.515	24	10	2.4	narrow	17	155.02	235.377
Beascochea-Funk Gl. cove	-63.756	-65.58	4	2	2.0	narrow	2	157.77	7.874
Flandres Bay	-63.148	-65.072	30	16	1.9	broad	23	774.64	453.073
Hughes-Cierva Cove	-60.87	-64.155	5	3	1.7	broad	2	256.36	14.056
Hughes-Brialmont Cove	-60.987	-64.281	11	7.5	1.5	broad	5	842.53	85.500
Beascochea-Cadman Gl. cove	-63.812	-65.612	3	3	1.0	broad	1	307.04	8.915
Andvord-Lester Gl. cove	-62.58	-64.901	5	3.8	1.3	broad	2	276.33	16.997
Maxwell Bay	-58.848	-62.229	15	10.4	1.4	broad	4	92.14	140.666
Collins Bay	-64.054	-65.346	5.6	9.5	0.6	open	4	614.11	52.430

5   Table 2. Seafloor features mapped in western Antarctic Peninsula bays

Bay Name	Drumlins	GZW	Moraines	Basins	Streamlined Features	Flutings	Slope Failures	Meltwater Channels	Total Features per Bay
Maxwell-Marian Cove	0	1	4	3	0	5	10	7	30
Maxwell-Potter Cove	0	1	11	1	0	0	0	0	13
Hope Bay	0	2	10	2	0	0	0	5	19
Lapeyrere's unnamed	0	1	0	1	0	0	10	5	17
Lapeyrere Bay	0	1	0	2	3	7	40	23	76
Fournier Bay	0	1	0	1	5	20	0	27	54
Charlotte Bay	0	2	0	2	15	0	0	16	35
Andvord Bay	8	1	0	3	0	13	0	25	50
Andvord-Moser Gl. cove	0	2	0	2	0	4	0	5	13
Flandres-Briand Fjord	0	2	0	1	0	3	0	9	15
Flandres-Etienne Fjord	0	1	0	1	0	0	0	4	6
Beascochea-Lever Gl. cove	0	2	0	1	0	25	0	0	28
Beascochea Bay	6	2	0	4	23	13	30	90	168
Beascochea-Funk Gl. cove	0	1	0	1	0	17	0	33	52
Flandres Bay	0	2	0	5	12	17	20	83	139
Hughes-Cierva Cove	0	2	0	3	0	13	0	6	24
Hughes-Brialmont Cove	0	0	0	4	0	8	0	24	36
Beascochea-Cadman Gl. cove	0	1	0	1	0	0	20	8	30
Andvord-Lester Gl. cove	0	0	0	2	3	5	0	19	29
Maxwell Bay	0	0	0	1	7	0	30	7	45
Collins Bay	0	0	0	2	5	0	0	21	28
Total Features per Type:	14	25	25	43	73	150	160	417	907