

Global Change Data Encyclopedia

Greenland, Kingdom of Denmark

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The Greenland of Kingdom of Denmark^[1] is geo-located at 59°44'42"N–83°39'46"N, 73°15'13"W–11°20'11"W. It is in the northeast of North America, between the Arctic and Atlantic oceans, east of the Canadian Arctic Archipelago. The Greenland is the world's largest island, and three-quarters of Greenland is covered by the ice-snow (Figure 1).

The main island is the Greenland, its area is 2,112,448.97 km² and its coastline is 49,200.82 km^[2]. Besides the mainland of Greenland, there are 27,388 small islands, isles and independent rocks of Greenland with area bigger than 24 m². The main islands include the following islands (Table 1): Disko Island, Arve-prinsens Ejland, Ubekendt Ejland, Itilleq, Ile De France, Nunarssit, Tingmiarmit, Ikeq, Agpat, Qutdlakorssuit/Qu Ilikorsuit Island, Kekertarmiut, Karasuk, Ikamiuk, Sermitsiak, Iluiteq, Maniitsoq, Kangeq, Uvtorsiutit, Simiutak, Kulusuk, Aluk-tunordleq, Sanerata Time, Kitak, Kigataq, Savissivik, Diskofjord Qeqertaq, Milait, Sujunikajik, Aumat, Nanortalik, Kullorsuaq, Tukungassoq, Aasiaat, Uummannaq, Agto, Maligissat, Timerdlit, Angissorssuaq, Kitsigsut,

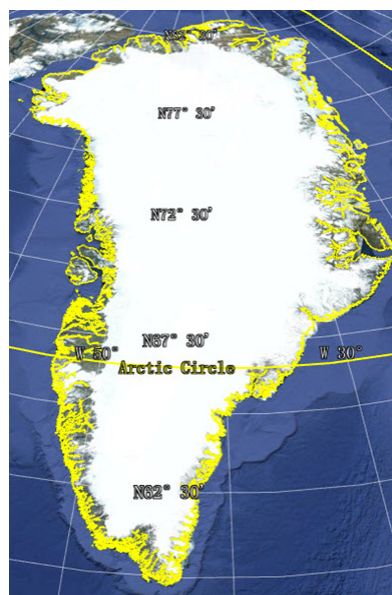


Figure 1 Map of Greenland in .kmz data format (Google Earth image)

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[2] Liu, C., Zhang, Y. H., Shen, Y., *et al.* Greenland [DB/OL]. Global Change Research Data Publishing & Repository, 2019. DOI: 10.3974/geodb.2019.03.03.V1.

Qeqertarssuaq, Ikermiut, Kangilineq, Qeqertaq, Avigait, Aliuarssik, Jakobsholm, Umanat, Umanak, Takissog, Sagdliaruseq, Valkyrierne, Tugtulik, Tikivigpik, Qassimiut, Koklapperne, Ritenbenk, Grundene, Ungorsivik, Hans Island, VesterEjland, Isortoq, Conical Rock, Napasoq, Dunholm, Ingsugtusok, and Arfit^[3].

The total area of the Greenland, including small islands, isles and independent rocks around is 2,162,184.19 km², and the coastline length is 92,990.05 km^[2].

Table 1 Geolocation, area and coastline of main islands of Greenland

Name of island	Geolocation	Center of the island	Area (km ²)	Coastline (km)
Greenland	59°58'25"N–83°39'46"N, 73°1'34"W–11°20'11"W	74°46'39"N, 41°20'1"W	2,112,448.97	49,200.82
Disko Island	69°13'50"N–70°19'49"N, 54°58'49"W–51°50'56"W	69°46'56"N, 53°32'45"W	8,554.06	704.86
Arve–prinsens Ejland	69°30'24"N–69°55'46"N, 51°23'23"W–50°40'52"W	69°44'24"N, 51°4'58"W	628.90	210.59
Ubekendt Ejland	71°1'38"N–71°18'57"N, 54°0'27"W–53°24'5"W	71°8'54"N, 53°41'8"W	417.52	83.36
Itilleq	59°46'24"N–59°58'30"N, 44°8'5"W–43°38'41"W	59°52'25"N, 43°54'56"W	309.53	178.17
Qeqertaq Island	72°8'58"N–72°23'27"N, 55°41'17"W–54°58'18"W	72°15'49"N, 55°19'46"W	255.54	127.86
Ile De France	77°35'53"N–77°51'40"N, 18°8'36"W–17°27'4"W	77°43'11"N, 17°45'44"W	255.13	78.80
Nunarssit	60°41'49"N–60°49'46"N, 48°15'5"W–47°39'50"W	60°45'35"N, 47°57'32"W	244.68	299.93
Tingmiarmit	62°39'48"N–62°48'15"N, 42°27'1"W–41°51'5"W	62°44'8"N, 42°12'59"W	229.24	185.10
Ikeq	59°51'25"N–60°0'57"N, 44°24'2"W–44°0'2"W	59°56'30"N, 44°11'50"W	195.21	101.00
Agpat	70°50'23"N–70°59'0"N, 52°11'0"W–51°34'8"W	70°54'28"N, 51°55'8"W	182.44	72.21
Qullikorsuit Island	73°46'54"N–73°55'33"N, 56°44'15"W–55°55'13"W	73°51'16"N, 56°20'13"W	177.35	111.13
Kekertarmiut	65°31'13"N–65°38'56"N, 53°14'39"W–52°49'28"W	65°35'26"N, 53°1'48"W	172.61	91.14
Karasuk	64°21'26"N–64°33'26"N, 51°31'17"W–51°5'46"W	64°27'2"N, 51°17'22"W	168.33	89.58
Kiatassuaq Island	74°28'11"N–74°33'33"N, 57°30'53"W–56°23'41"W	74°30'25"N, 56°54'26"W	160.50	105.81
Qaarsorsuaq Island	72°38'54"N–72°46'58"N, 56°11'4"W–55°38'46"W	72°42'59"N, 55°54'25"W	132.75	90.99
Ikamiuk	68°33'36"N–68°39'12"N, 52°26'50"W–51°49'18"W	68°36'21"N, 52°9'7"W	124.32	159.51
Tuttorqortoq Island	73°36'44"N–73°42'29"N, 56°56'51"W–56°18'20"W	73°39'28"N, 56°37'24"W	91.00	85.48
Sermitsiak	64°14'18"N–64°21'6"N, 51°37'4"W–51°18'46"W	64°17'33"N, 51°27'24"W	82.17	58.45
Anarusuk Island	73°22'43"N–73°31'31"N, 55°53'48"W–55°26'57"W	73°27'28"N, 55°39'3"W	72.37	106.46
Iluiteq	60°50'34"N–60°54'11"N, 42°58'47"W–42°37'48"W	60°52'29"N, 42°47'59"W	70.42	58.56
Maniitsoq	65°24'7"N–65°31'13"N, 53°5'5"W–52°52'4"W	65°27'59"N, 52°57'30"W	68.23	118.78
Puugutaa Island	72°57'7"N–73°2'41"N, 55°39'49"W–55°19'16"W	72°59'50"N, 55°29'1"W	68.03	47.26

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Name of island	Geolocation	Center of the island	Area (km ²)	Coastline (km)
Tasiusaq Island	73°17'24"N–73°24'44"N, 56°8'20"W–55°48'34"W	73°20'55"N, 55°57'54"W	66.77	90.11
Kangeq	67°39'8"N–67°46'47"N, 53°47'44"W–53°34'36"W	67°43'4"N, 53°41'19"W	66.05	92.62
Akuliaruseq Island	72°31'18"N–72°35'47"N, 55°22'54"W–54°59'32"W	72°33'24"N, 55°9'25"W	65.71	43.95
Uvtorsiuutit	62°27'58"N–62°34'23"N, 42°20'3"W–42°7'29"W	62°31'15"N, 42°13'10"W	65.57	105.75
Maniitsoq Island	72°55'17"N–73°1'18"N, 55°20'17"W–55°2'18"W	72°57'59"N, 55°12'5"W	63.26	52.83
Qallunaat Island	73°32'28"N–73°39'44"N, 56°32'2"W–56°9'49"W	73°35'37"N, 56°21'27"W	60.80	85.39
Uilortussoq Island	72°44'53"N–72°49'13"N, 54°54'49"W–54°28'38"W	72°46'59"N, 54°41'41"W	60.45	88.91
Sanningassoq Island	72°41'7"N–72°46'22"N, 55°3'9"W–54°46'20"W	72°43'34"N, 54°54'23"W	55.48	39.61
Simiutak	66°1'20"N–66°5'24"N, 53°40'47"W–53°24'10"W	66°3'46"N, 53°33'19"W	54.28	68.58
Amarortalik Island	72°30'40"N–72°36'23"N, 54°59'25"W–54°46'1"W	72°33'16"N, 54°52'38"W	53.18	34.44
Aappilattoq Island	72°48'43"N–72°53'38"N, 55°36'6"W–55°19'33"W	72°51'13"N, 55°27'51"W	41.43	56.40
Kulusuk	65°31'5"N–65°35'9"N, 37°13'34"W–37°1'17"W	65°33'11"N, 37°7'47"W	39.61	58.23
Aappilattoq Island	73°24'50"N–73°28'46"N, 56°3'32"W–55°44'25"W	73°27'7"N, 55°53'6"W	38.89	38.81
Aluk-tunordleq	60°8'6"N–60°12'29"N, 43°13'14"W–43°2'3"W	60°10'12"N, 43°8'22"W	37.47	70.35
Sanerata Time	63°27'15"N–63°31'11"N, 51°22'13"W–51°10'44"W	63°29'15"N, 51°17'2"W	35.87	66.20
Saqqarlersuaq Island	74°32'50"N–74°36'51"N, 57°5'6"W–56°49'2"W	74°34'45"N, 56°56'28"W	35.61	31.12
Kitak	65°29'50"N–65°35'3"N, 38°53'6"W–38°41'4"W	65°32'21"N, 38°46'19"W	35.54	71.57
Kigataq	72°4'9"N–72°8'10"N, 55°56'50"W–55°42'19"W	72°5'52"N, 55°49'8"W	34.69	25.57
Savissivik	76°0'21"N–76°4'53"N, 65°10'43"W–64°52'53"W	76°2'33"N, 65°1'41"W	32.58	27.53
Diskofjord Qeqertaq	69°29'26"N–69°32'16"N, 54°20'37"W–54°4'48"W	69°30'48"N, 54°12'11"W	32.21	24.99
Qeqertarsuatsiaat	62°59'51"N–63°5'27"N, 50°45'24"W–50°37'51"W	63°2'59"N, 50°41'31"W	30.69	74.11
Innaarsuit Island	73°7'47"N–73°12'27"N, 56°5'41"W–55°52'31"W	73°10'6"N, 55°59'2"W	26.20	58.31
Milait	67°8'33"N–67°13'6"N, 33°32'18"W–33°22'27"W	67°11'2"N, 33°28'0"W	26.17	30.51
Kiataussaq Island	74°42'6"N–74°44'58"N, 57°42'42"W–57°25'1"W	74°43'25"N, 57°32'43"W	24.98	33.27
Sujunikajik	65°27'20"N–65°31'15"N, 39°18'43"W–39°9'42"W	65°29'31"N, 39°14'5"W	24.70	41.46
Aumat	68°30'1"N–68°34'9"N, 53°7'55"W–52°55'21"W	68°32'50"N, 52°58'30"W	21.12	40.95
Atilissuaq Island	72°46'14"N–72°49'28"N, 55°58'51"W–55°47'3"W	72°47'56"N, 55°53'5"W	21.07	32.05

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Name of island	Geolocation	Center of the island	Area (km ²)	Coastline (km)
Nanortalik	60°7'5"N–60°11'6"N, 45°19'14"W–45°13'10"W	60°9'1"N, 45°16'40"W	20.05	35.44
Iperaq Island	72°29'1"N–72°32'17"N, 55°47'8"W–55°36'6"W	72°30'44"N, 55°41'5"W	19.04	25.13
Illunnguit Island	73°16'39"N–73°19'30"N, 56°24'48"W–56°14'11"W	73°18'3"N, 56°19'33"W	18.48	19.77
Apparsuit Island	73°46'53"N–73°49'37"N, 56°50'5"W–56°37'26"W	73°48'2"N, 56°43'52"W	18.10	19.33
Kullorsuaq Island	74°34'35"N–74°37'51"N, 57°14'38"W–57°2'25"W	74°36'18"N, 57°7'54"W	17.70	23.93
Akia Island	72°44'4"N–72°47'13"N, 56°13'3"W–56°2'18"W	72°45'32"N, 56°6'50"W	16.25	26.86
Tukingassaq Island	72°7'40"N–72°11'54"N, 56°2'29"W–55°46'52"W	72°9'48"N, 55°53'48"W	14.71	29.80
Karrat Island	72°49'17"N–72°51'54"N, 56°10'45"W–56°0'22"W	72°50'42"N, 56°5'32"W	14.64	28.41
Aasiaat	68°41'12"N–68°43'39"N, 52°53'44"W–52°42'51"W	68°42'29"N, 52°48'32"W	14.25	34.40
Uummanaq	70°40'18"N–70°44'4"N, 52°11'28"W–52°5'51"W	70°42'15"N, 52°8'17"W	14.03	17.89
Mattaangassut Island	73°32'11"N–73°34'32"N, 56°51'35"W–56°37'23"W	73°33'19"N, 56°44'16"W	13.94	39.59
Amitsorsuaq Island	73°54'42"N–73°57'43"N, 56°10'57"W–55°56'17"W	73°56'17"N, 56°4'32"W	13.67	26.41
Qasse Island	72°53'26"N–72°55'44"N, 56°4'49"W–55°53'26"W	72°54'38"N, 55°59'23"W	13.25	29.14
Agto	67°55'4"N–67°57'18"N, 53°37'57"W–53°30'53"W	67°56'8"N, 53°34'36"W	12.32	24.17
Maligissat	62°14'48"N–62°17'25"N, 42°9'2"W–42°2'59"W	62°16'13"N, 42°6'12"W	11.72	33.87
Taartoq Island	72°55'48"N–72°57'23"N, 56°2'52"W–55°50'51"W	72°56'33"N, 55°56'47"W	11.14	27.63
Uigorlersuaq Island	73°23'49"N–73°25'47"N, 56°16'21"W–56°7'54"W	73°24'44"N, 56°11'55"W	10.99	14.34
Timerdlit	65°49'13"N–65°52'21"N, 53°21'21"W–53°17'5"W	65°50'32"N, 53°19'5"W	10.74	18.67
Qaneq Island	73°1'30"N–73°4'11"N, 55°59'52"W–55°47'46"W	73°2'4"N, 55°56'50"W	10.69	30.61
Angissorssuaq	63°54'43"N–63°58'42"N, 51°46'15"W–51°43'11"W	63°56'43"N, 51°44'35"W	10.23	31.46
Kitsigsut	59°57'54"N–59°59'58"N, 45°12'36"W–45°8'37"W	59°59'4"N, 45°10'56"W	7.61	24.54
Qeqertarsuaq	63°32'13"N–63°34'4"N, 40°43'16"W–40°38'54"W	63°33'14"N, 40°40'54"W	7.60	13.76
Itissaalik Island	74°3'16"N–74°5'44"N, 56°46'51"W–56°40'17"W	74°3'46"N, 56°45'13"W	7.30	21.70
Ikermitut	62°17'30"N–62°19'58"N, 49°59'45"W–49°57'0"W	62°18'39"N, 49°58'25"W	7.11	13.90
Kangilineq	61°56'42"N–61°57'45"N, 49°34'8"W–49°26'52"W	61°57'14"N, 49°30'13"W	6.83	19.92
Qeqertaq	69°59'42"N–70°2'30"N, 51°19'6"W–51°13'18"W	70°1'25"N, 51°15'49"W	6.74	15.61
Avigait	62°13'18"N–62°14'33"N, 49°53'12"W–49°47'38"W	62°14'1"N, 49°50'14"W	6.68	17.82

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Name of island	Geolocation	Center of the island	Area (km ²)	Coastline (km)
Aliuarssik	66°53'40"N–66°56'27"N, 33°53'15"W–33°49'11"W	66°55'14"N, 33°51'28"W	6.47	14.02
Jakobsholm	68°52'5"N–68°53'54"N, 51°17'51"W–51°13'18"W	68°53'0"N, 51°15'32"W	6.45	12.88
Umanat	65°51'3"N–65°52'37"N, 53°26'58"W–53°21'31"W	65°51'55"N, 53°24'11"W	6.06	17.46
Timilersua Island	74°0'30"N–74°1'53"N, 56°55'33"W–56°47'17"W	74°1'15"N, 56°51'0"W	5.36	11.78
Kangaarsuk Island	73°15'12"N–73°16'17"N, 56°12'9"W–56°3'31"W	73°15'44"N, 56°7'4"W	5.14	13.12
Kingittorsuaq Island	72°56'50"N–72°58'40"N, 56°15'33"W–56°10'40"W	72°57'56"N, 56°13'12"W	4.78	15.01
Umanak	64°28'40"N–64°30'24"N, 50°48'10"W–50°45'34"W	64°29'33"N, 50°46'43"W	4.64	8.74
Takissog	61°35'4"N–61°36'30"N, 42°19'9"W–42°15'11"W	61°35'48"N, 42°17'4"W	4.36	12.05
Sagdliaruseq	63°37'35"N–63°38'52"N, 40°38'34"W–40°35'27"W	63°38'16"N, 40°36'59"W	3.66	11.30
Saarlia Island	74°32'21"N–74°33'41"N, 57°21'21"W–57°16'29"W	74°32'55"N, 57°18'53"W	3.15	9.88
Valkyrierne	63°15'37"N–63°17'49"N, 41°2'59"W–41°0'48"W	63°16'46"N, 41°1'50"W	3.05	9.47
Saattorsuaq Island	73°30'7"N–73°31'21"N, 56°9'29"W–56°4'19"W	73°30'46"N, 56°6'50"W	2.89	11.29
Upernavik Island	72°46'45"N–72°48'21"N, 56°9'33"W–56°5'27"W	72°47'33"N, 56°7'33"W	2.83	11.50
Horse Head Island	73°37'20"N–73°38'16"N, 57°3'23"W–56°58'6"W	73°37'50"N, 57°0'5"W	2.49	7.73
Tugtulik	68°4'18"N–68°5'41"N, 53°43'9"W–53°40'1"W	68°5'3"N, 53°41'29"W	2.36	10.80
Tikivigpik	65°54'34"N–65°55'29"N, 36°2'51"W–36°0'2"W	65°55'1"N, 36°1'26"W	2.31	7.22
Qassimiut	60°46'21"N–60°47'16"N, 47°10'31"W–47°7'37"W	60°46'52"N, 47°8'52"W	2.04	11.92
Koklapperne	64°57'6"N–64°58'15"N, 39°50'19"W–39°47'35"W	64°57'40"N, 39°48'51"W	1.98	11.26
Ritenbenk	69°45'33"N–69°46'38"N, 51°19'32"W–51°17'17"W	69°46'9"N, 51°18'20"W	1.91	5.81
Ikermiut Island	74°19'47"N–74°20'44"N, 57°0'24"W–56°57'10"W	74°20'15"N, 56°58'45"W	1.70	6.52
Tussaaq Island	73°2'49"N–73°3'52"N, 56°11'38"W–56°9'12"W	73°3'19"N, 56°10'23"W	1.59	6.91
Grundene	66°17'33"N–66°18'31"N, 53°45'15"W–53°43'37"W	66°18'1"N, 53°44'31"W	1.55	5.45
Ungorsivik	65°55'49"N–65°56'45"N, 53°30'47"W–53°28'51"W	65°56'15"N, 53°29'51"W	1.54	7.56
Hans Island	80°49'14"N–80°49'53"N, 66°29'24"W–66°24'54"W	80°49'33"N, 66°27'12"W	1.18	3.97
Sugar Loaf Island	74°0'36"N–74°1'14"N, 56°59'41"W–56°56'38"W	74°0'54"N, 56°58'13"W	1.01	4.31
Qeqertarsuaq Island	73°51'45"N–73°52'21"N, 55°50'43"W–55°48'41"W	73°52'3"N, 55°49'43"W	0.84	3.53
Vester Ejland	68°37'3"N–68°37'38"N, 53°33'3"W–53°30'22"W	68°37'9"N, 53°31'42"W	0.82	9.89

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Name of island	Geolocation	Center of the island	Area (km ²)	Coastline (km)
Isortoq	65°32'13"N–65°33'0"N, 38°59'12"W–38°58'19"W	65°32'40"N, 38°58'46"W	0.51	3.67
Conical Rock	76°4'31"N–76°5'10"N, 68°42'18"W–68°38'59"W	76°4'51"N, 68°40'43"W	0.46	4.95
Napasoq	65°2'42"N–65°3'19"N, 52°23'31"W–52°22'23"W	65°2'57"N, 52°22'57"W	0.46	3.88
Dunholm	69°54'41"N–69°55'12"N, 22°39'12"W–22°38'16"W	69°54'59"N, 22°38'43"W	0.27	2.46
Ingsugtusok	66°24'29"N–66°24'47"N, 53°41'21"W–53°40'56"W	66°24'36"N, 53°41'8"W	0.10	1.54
Arfit	67°39'50"N–67°40'18"N, 53°44'48"W–53°44'25"W	67°40'5"N, 53°44'37"W	0.07	1.85
Other islands			35,504.67	38,196.75
Total	59°44'42"N–83°39'46"N, 73°15'13"W–11°20'11"W		2,162,184.19	92,990.05
Total number of islands				27,388

From June 1888 to April 1889, Dr. Fridtjof Wedel-Jarlsberg Nansen (1861.10.10–1930.05.13), a well-known Norwegian polar expert and geographer, successfully crossed the Greenland, and he was the first one who crossed Greenland and studied the Eskimo people in the world^[4].

The dataset was developed based on the Google Earth and related maps and references. The dataset consists of 15 data files and is archived in the .kmz and .shp^[5] data formats with the data size of 418 MB (Compressed to 175 MB in two files).

References

[1] Encyclopedia Britannica [OL]. <https://academic.eb.com/levels/collegiate/article/Greenland/37977>.
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[3] GeoNames [OL]. <http://www.geonames.org/>.
[4] Wikipedia. Greenland [OL]. <https://en.wikipedia.org/wiki/Greenland>.

Data Computing Environment

[5] ESRI. ArcGIS campus license of Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.

URL for Data Downloading

<http://www.geodoi.ac.cn/WebEn/doi.aspx?Id=1213>.
Or search through: <http://www.geodoi.ac.cn>.