

*SCAR Working Group on Geodesy and Geographic Information***GEOGRAPHIC INFORMATION PROGRAMME****MAP AND DATA STANDARDS PROJECT
SUMMARY OF FEATURE CODES FOR USE ON MAPS
AND IN DATABASES, AND DATA DICTIONARY****NOTES**

A list of the features that are likely to be found on maps of Antarctica at scales of 1:2000 to 1:20,000,000 is shown below. A system of feature codes is also proposed. It is hoped that sufficient flexibility has been built into the feature code system to allow for additional features, and sub-sets of features, to be included at a later date, should the need arise.

Features. The list of features has been developed from the SCAR *Standard symbols for use on maps of Antarctica*, to meet the needs of large-scale map production and the creation of databases. The features listed have been divided into distinct categories: oceanic, coastal and terrestrial, human-related, fauna and flora, and projection details. Related features, for example coastal ones such as ice-free coastline and ice-covered coastline, are grouped together in the table for ease of reference, and they have consecutive feature code numbers. Definitions of the terms used are included in the table.

Feature codes. A six-digit code provides the following information about a feature:

- a) the first number indicates the feature category: 1, oceanic; 2, coastal; 3, terrestrial; 4, human-related; 5, fauna (birds); 6, fauna (animals); 7, flora; and 8, projection details,
- b) 2nd to 3rd digit (1–99), feature*,
- c) 4th digit (0–9), subset of feature,
- d) 5th digit, class of feature: 0, class not known; 1, point or mark; 2, line; 3, polygon; 4, annotation,
- e) 6th digit, whether text is associated with the feature: 0, without text; 1, with text.

Specification. The complete list provides a look-up table for replication of the required symbology. Standards for line weight, colour, screens and patterns for area fill, size and shape of graphical symbols, style of annotation, etc. are based on a number of different sources, including the original 1980 SCAR document. This column of the table is incomplete at present but several of the proposed symbols are available in digital form from the Australian Antarctic Division at: http://www-aadc.antdiv.gov.au/mapping/symbols/Standard_Symbols.pdf.

Acknowledgements: These draft documents have built on the solid work undertaken by Norsk Polarinstitutt in preparing the “Map specification standards recommended for use on topographic maps of Antarctica”, tabled at XXIV SCAR in 1996. Cheryl Hallam and Jerry Mullins, US Geological Survey, and Paul Cooper, British Antarctic Survey, have contributed greatly to the development of the feature code system proposed herein.

* Note that the term “undifferentiated” means that the subset of the feature is not known.

<u>Oceanic features</u>	<u>100-113</u>	<u>Aircraft</u>	<u>410-416</u>
Permanent	100-105	Aerodrome, undifferentiated	410
Sea	100	Aerodrome, wheeled aircraft	411
Bathymetric contours	101	Aerodrome, ski-equipped aircraft only	412
Isolated bathymetric depression	102	Aerodrome, helicopter	413
Sounding	103	Water aerodrome	414
Offshore rocks	104	Landing strip	415
Continental shelf	105	Aircraft wreckage	416
Transient	110-113	Ships and boats	420-422
Antarctic Convergence	110	Anchorage/landing place for vessels, undifferentiated	420
Sea-ice extension	111	Shipwreck	421
Fast or bay ice	112	Beacon	422
Stranded iceberg	113	Constructions	430-440
<u>Coastal features</u>	<u>200-210</u>	Buildings	430
Coastline, undifferentiated	200	Scientific station	431
Ice-free coastline, undifferentiated	201	Refuge	432
Ice-free coastline against open sea	202	Storage facilities	433
Ice-free coastline against ice shelf	203	Radio mast	434
Ice-covered coastline, undifferentiated	204	Pipe line	435
Ice-covered coastline (ice wall) against open sea	205	Power line	436
Ice-covered coastline against ice shelf (grounding line)	206	Automatic weather station	437
Ice shelf features	207	Signpost	438
Ice front	208	Disturbed ground	439
Ice tongues	209	Burial site	440
Tidal zones	210	Environmental	450-454
<u>Terrestrial features</u>	<u>300-346</u>	Historic site or monument	450
Inland, ice-covered	300-304	Antarctic Specially Protected Area	451
Ice-covered area, undifferentiated	300	Antarctic Specially Managed Area	452
Disturbed ice features	301	Site of Special Scientific Interest	453
Elevated features	302	Environmental zone	454
Depression area	303	<u>Fauna: birds</u>	<u>500-508</u>
Blue ice	304	Bird colony, undifferentiated	500
Inland, ice-free	310-311	Albatross	501
Ice-free areas	310	Cormorant	502
Ice-free elevated features	311	Petrel	503
Inland, drainage	320-324	Penguin rookery, undifferentiated	504
Glacier	320	Adélie rookery	505
Stream/river	321	Chinstrap rookery	506
Alluvial fan	322	Emperor rookery	507
Swamp/marsh/flooded area	323	Gentoo rookery	508
Lake	324	<u>Fauna: animals</u>	<u>600-601</u>
Inland, elevation	330-337	Animal colony, undifferentiated	600
Contours, undifferentiated	330	Seal colony	601
Contours, ice-covered ground	331	<u>Flora</u>	<u>700-704</u>
Depression contour on ice-covered ground	332	Vegetation, undifferentiated	700
Elevation point on ice-covered ground	333	Moss bank	701
Ice thickness	334	Lichen colony	702
Contours on ice-free ground	335	Grass patch	703
Depression contour on ice-free ground	336	Algae	704
Elevation point on ice-free ground	337	<u>Projection-related features</u>	<u>800-806</u>
Survey	340-346	Isogones	800
Control point, undifferentiated	340	Magnetic declination	801
Astronomical control point	341	Magnetic pole	802
Gravimetric control point	342	Geographical pole	803
Geodetic control point	343	Antarctic circle	804
Geodetic satellite control point	344	Geographical graticule	805
Bench mark	345	Non-geographical grid	806
Tide gauge	346		
<u>Human-related features</u>	<u>400-453</u>		
Tracks	400-403		
Tracks, undifferentiated	400		
Oversnow route	401		
Permanent tractor track	402		
Road	403		

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<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
100,000 100,001 100,100 100,200 100,200	Oceanic features, permanent 100-105 <u>Sea</u> , undifferentiated Sea, undifferentiated, with text Ice-free sea Ice-covered sea , undifferentiated Uncharted waters, undifferentiated	A large body of salt water, smaller than an ocean; type of sea surface undefined - Open sea Sea covered by ice of any type - seasonal (fast or bay ice) or permanent Boundary of area of uncharted waters	<i>Ross Sea</i>	Screen: 5% cyan Univers italic, 100% cyan Screen: 10% cyan Screen: 10% cyan + 5% black 0.15 mm line, 100% black
101,020 101,120 101,220 101,320 101,420 101,520	<u>Bathymetric contours</u> , undifferentiated Definite Definite index Indefinite Indefinite index Conjectural	Lines connecting points of equal depth of water (isobath) Data points are closely spaced and contour position is well defined Well defined contours, at specific intervals of 500, 1000 m, etc. Data points are widely spaced and contour position is approximate Approximate contours, at specific intervals of 500, 1000 m, etc. Data points are scattered and contour position is poorly constrained		0.15 mm line, 100% cyan 0.1 mm line, 6 pt Univers italic, 100% cyan; text orientation reads towards deeper water 0.2 mm line, 6 pt Univers italic, 100% cyan 0.1 mm line, 5mm dash, 1 mm space 6 pt Univers italic, 100% cyan 0.2 mm line, 5 mm dash, 1 mm space 6 pt Univers italic, 100% cyan 0.1 mm line, 2 mm dash, 0.5 mm space, 0.2 mm dash, 0.5 mm space, 100% cyan
102,020 102,120 102,220 102,320 102,420	<u>Isolated bathymetric depression</u> , undifferentiated Definite Definite index Indefinite Indefinite index	An isolated area of the sea floor lying deeper than its surroundings and defined by a closed contour, with hachures on the downslope side Depression defined by contour at known depth Depression defined by contour at known specific depth interval Depression defined by contour at approximately known depth Depression defined by contour at approximately known specific depth interval		0.15 mm line, 0.7 mm ticks at 5 mm spacing, 90% cyan 0.1 mm line, 0.7 mm ticks at 5 mm spacing, 6 pt Univers italic, 90% cyan 0.2 mm line, 0.7 mm ticks at 5 mm spacing, 6 pt Univers italic 90% cyan 0.1 mm line, 5 mm dash, 1 mm space 0.7 mm ticks at 5 mm spacing 6 pt Univers italic, 90% cyan 0.2 mm line, 5 mm dash, 1 mm space 0.7 mm ticks at 5 mm spacing 6 pt Univers italic, 90% cyan
			270	

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103.010 103,110	<u>Sounding</u> , undifferentiated Digital	A measured water depth/known spot depth which has been reduced to a chart datum A water depth obtained by digital recording process	<u>190</u>	6 pt Univers italic, 100% cyan 6 pt Univers italic, underlined, 100% cyan
104.000 104,110 104,210 104,330 104,420 104,510	<u>Offshore rocks</u> , undifferentiated Rock awash Rock submerged Dangerous area Limiting danger line Dangerous area markers	Rocks located between the tidal area and the seaward edge of the continental shelf A rock awash at any state of the tide, between mean sea level and the sounding datum, or awash at these levels A rock submerged at any stage of the tide, and near enough to the surface of the sea to be a danger to navigation An area with rocks or underwater objects that are a danger to navigation Boundary of area of dangerous rocks Markers around boundary of area of dangerous rocks	+ + + + + +	0.1 mm line, 1.3 mm cross, 100% black 0.1 mm line, 1.3 mm cross, 0.25 mm dots, 100% black 0.1 mm line, 1.3 mm cross, 0.25 mm dots encircling, 100% black 0.1 mm line, 1.3 mm crosses surrounded by line of 0.25 mm dots, 100% black 0.25 mm dots at 0.9 mm spacing, 100% black
105.030 105,120	<u>Continental shelf</u> Edge of continental shelf	Area of sea floor around the continent covered by shallow water, typically less than 1000 m in depth A line representing the transition from the gentle gradient (typically 1°) of the continental shelf to the steeper continental slope (typically 2-5°)		Screen: 5% cyan 0.1 mm line, 100% cyan, 0.6 mm ticks at 1.5 mm spacing

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
110,020	Oceanic features, transient 110-113 <u>Antarctic Convergence</u>	The confluence of sub-Antarctic and sub-tropical surface waters at about 50°S, i.e. the point where colder polar waters and warmer waters meet and conditions of air temperature, and marine life change drastically		2.5 mm line, 50% black
110,021	Antarctic Convergence, with text	-		
111,020	<u>Sea-ice (pack ice) extension</u> , undifferentiated	The limit of frozen seawater, as distinguished from glacier ice or other land ice, which is free-floating (i.e. not fast ice) and has been driven together into a more or less solid mass		Screen
111,120	Minimum sea-ice extension	Sea-ice limit at the height of the austral summer, when ice cover is at a minimum		0.1 mm line, 8 mm dash, 1 mm space, 100% cyan
111,121	Minimum sea-ice extension, with date	Minimum sea-ice limit, with date in days, month, and year	02/02/1992	As above, 6 pt Univers italic
111,220	Maximum sea-ice extension	Sea-ice limit during the austral winter, when ice cover is at a maximum		0.1 mm line, 10 mm dash, 1 mm space, 100% cyan
111,221	Maximum sea-ice extension, with date	Maximum sea-ice limit, with date in days, month, and year	02/08/1992	As above, 6 pt Univers italic
112,000	<u>Fast or bay ice</u>	An unbroken sheet of sea ice that is attached to the coast or ice shelf at the place where it formed originally. Fast ice may be more than one year old, and when its surface level becomes higher than about 2 m a.s.l., it is called an ice shelf		Screen
112,120	Limit of fast or bay ice	Boundary of fast or bay ice		0.1 mm line, 5 mm dash, 1 mm space, 100% cyan
112,121	Limit of fast or bay ice, with date	Boundary of fast or bay ice, with date in days, month, and year	02/02/1995	As above + 6 pt Univers italic
112,200	Hummocked ice in fast or bay ice	Random, isolated hummocky areas of pressure ice in fast ice		0.1 mm line, at angle to 0.15 mm line, 1 mm in length, 100% cyan, random distribution of symbol
112,320	Pressure ridge in fast or bay ice	Ridge of ice formed by shifting and deformation of the pack ice		As above, symbols in a line
113,010	<u>Stranded iceberg</u>	A large mass of floating ice, broken away from a glacier or the ice shelf, and stranded either by drifting subsequently on to the sea bed or by becoming grounded directly after calving from a glacier into shallow water		0.1 mm line + 0.2 mm lines of 1 mm vertical ticks at 0.7 mm spaces, 100% cyan
113,011	Stranded iceberg, with date	Grounded iceberg, with date of grounding in days, month and year	05/10/1992	As above, + 6 pt Univers italic

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<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
200,020	Coastal features <u>Coastline, undifferentiated</u>	Line defining the boundary between land and the sea at a chosen sea level (usually mean sea level). The nature of the land (whether it is ice free or ice covered) is not known		0.15 mm line, 100% black
200,021	Coastline, undifferentiated, with text	-		
201,020	<u>Ice-free coastline, undifferentiated</u>	Line defining the boundary between ice-free land and the sea at a chosen sea level (usually mean sea level). The nature of the sea (whether it is open water or covered by a permanent ice shelf) is not known, nor is the quality of the coastline information		0.15 mm line, brown
201,120	Definite	Position of ice-free coastline is well defined		0.2 mm line, brown
201,220	Indefinite	Position of ice-free coastline is known approximately		0.1 mm line, 5 mm dash, 1 mm space, brown
201,320	Conjectural	Position of ice-free coastline is inferred from sparse data		0.1 mm line, 2 mm dash, 0.5 mm space, 0.2 mm dash, 0.5 mm space, brown
201,420	Cliff, undifferentiated	Rock cliff forming the boundary between ice-free land and sea; quality of line information is not known		0.2 mm line with 0.6 mm ticks at 1.8 mm spacing, brown
201,520	Cliff, definite	Position and extent of rock cliff is well defined		0.3 mm line, as above
201,620	Cliff, indefinite	Position and extent of rock cliff is known approximately		0.3 mm line, 2 mm dash, 0.5 mm space with 0.6 mm ticks at 1.8 mm spacing, brown
201,720	Cliff, conjectural	Position and extent of rock cliff is inferred from sparse data		As above but with 2 mm dash, 0.5 mm space, 0.2 mm line, 0.5 mm space, brown
202,020	<u>Ice-free coastline against open sea, undifferentiated</u>	Line defining the boundary between ice-free land and the open sea at a chosen sea level (usually mean sea level); the quality of the line information is not known		0.15 mm line, brown
202,120	Definite	Position of ice-free coastline against open sea is well defined		0.2 mm line, brown
202,220	Indefinite	Position of ice-free coastline against open sea is known approximately		0.1 mm line, 5 mm dash, 1 mm space, brown
202,320	Conjectural	Position of ice-free coastline against open sea is inferred from sparse data		0.1 mm line, 2 mm dash, 0.5 mm space, 0.2 mm dash, 0.5 mm space, brown
202,420	Cliff, undifferentiated	Rock cliff forming the boundary between ice-free land and the open sea; quality of line information is not known		0.2 mm line with 0.6 mm ticks at 1.8 mm spacing, brown
202,520	Cliff, definite	Position and extent of rock cliff is well defined		0.3 mm line, as above
202,620	Cliff, indefinite	Position and extent of rock cliff is known approximately		0.3 mm line, 2 mm dash, 0.5 mm

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202,720	Cliff, conjectural	Position and extent of rock cliff is inferred from sparse data		space with 0.6 mm ticks at 1.8 mm spacing, brown As above but with 2 mm dash, 0.5 mm space, 0.2 mm dash, 0.5 mm space, brown
203,020	<u>Ice-free coastline against ice shelf, undifferentiated</u>	Line defining the boundary between ice-free land and a sea covered by permanent ice shelf; the sea is at a chosen sea level (usually mean sea level)		0.15 mm line, brown
203,120		Position of ice-free coastline against ice shelf is well defined		0.2 mm line, brown
203,220	Definite	Position of ice-free coastline against ice shelf is known approximately		0.1 mm line, 5 mm dash, 1 mm space, brown
	Indefinite			0.1 mm line, 2 mm dash, 0.5 mm space, brown
203,320	Conjectural	Position of ice-free coastline against ice shelf is inferred from sparse data		0.2 mm line with 0.6 mm ticks at 1.8 mm spacing, brown
203,420	Cliff, undifferentiated	Rock cliff forming the boundary between ice-free land and the ice shelf; quality of line information is not known		0.3 mm line, as above
203,520		Position and extent of rock cliff is well defined		0.3 mm line, 2 mm dash, 0.5 mm space with 0.6 mm ticks at 1.8 mm spacing, brown
203,620	Cliff, definite	Position and extent of rock cliff is known approximately		As above but with 2 mm dash, 0.5 mm space, 0.2 mm dash, 0.5 mm space, brown
	Cliff, indefinite			
203,720	Cliff, conjectural	Position and extent of rock cliff is inferred from sparse data		
204,020	<u>Ice-covered coastline, undifferentiated</u>	Line defining the boundary between ice-covered land and the sea at a chosen sea level (usually mean sea level). The nature of the sea (whether it is open water or covered by a permanent ice shelf) is not known, nor is the quality of the coastline information		0.15 mm line, 100% cyan
204,120	Definite	Position of ice-covered coastline is well defined		0.2 mm line, 100% cyan
204,220	Indefinite	Position of ice-covered coastline is known approximately		0.1 mm line, 5 mm dash, 1 mm space, 100% cyan
204,320	Conjectural	Position of ice-covered coastline is inferred from sparse data		0.1 mm line, 2mm dash, 0.5 mm space, 0.2 mm dash, 0.5 mm space, 100% cyan
205,020	<u>Ice-covered coastline (ice wall) against open sea, undifferentiated</u>	Vertical ice cliff forming the seaward margin of a grounded ice sheet (inland ice sheet, glacier, ice piedmont or ice rise). The line represents the base of the cliff against the sea at a chosen sea level (usually mean sea level)		0.15 mm line, 100% cyan
205,120	Definite	Position of ice wall against open sea is well defined		0.2 mm line, 100% cyan
205,220	Indefinite	Position of ice wall against open sea is known approximately		0.1 mm line, 5 mm dash, 1 mm space, 100% cyan
205,320	Conjectural	Position of ice wall against open sea is inferred from sparse data		0.1 mm line, 2 mm dash, 0.5 mm

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205,420	Strand ice wall, definite	Ice cliff forming the boundary between ice-covered land and the sea where the rock basement is at sea level; position and extent of ice wall is well defined		space, 0.2 mm dash, 0.5 mm space, 100% cyan
205,520	Strand ice wall, indefinite	Position and extent of strand ice wall is known approximately		0.2 mm line with 0.6 mm ticks at 1.8 mm spacing, 100% cyan
205,620	Tide crack	Fissure developed at the boundary between a grounded ice wall and fast ice, the position of the latter fluctuating with the rise and fall of the tide		0.1 mm line, 5 mm dash, 1 mm space, 100% cyan
206,020	<u>Ice-covered coastline against ice shelf (grounding line)</u> , undifferentiated	Line defining the boundary between an inland ice sheet and sea covered by permanent ice shelf. The grounding line is the line along which the inland ice sheet, ice piedmont or ice rise ceases to be grounded on bedrock and becomes permanent floating ice (=ice shelf); the inland boundary of an ice shelf. This line does not correspond to mean sea level (zero contour), representing the surface reflection (above sea level) of a feature on the bed of the ice sheet below sea level; quality of line information is not known		
206,120	Definite	Position and extent of grounding line is well defined		
206,220	Indefinite	Position and extent of grounding line is known approximately		
206,320	Cliff, undifferentiated	Position and extent of ice cliff at grounding line; quality of line information is not known		
206,420	Cliff, definite	Position and extent of ice cliff at grounding line is well defined		
206,520	Cliff, indefinite	Position and extent of ice cliff at grounding line is known approximately		
206,620	Strand crack	Fissure at the junction between an inland ice sheet, ice piedmont or ice rise and a permanent ice shelf, the latter being subjected to the rise and fall of the tide		0.1 mm line, 5 mm dash, 1 mm space, 100% cyan
206,700	Ice rise	A part of the ice shelf, usually of limited area, which is grounded on shoals within or at the seaward edge of the shelf; bounded by grounding line or, against the sea, by an ice wall. Ice movement pattern is independent of that on the ice shelf.		
207,000	<u>Ice shelf</u> , undifferentiated	Floating ice sheet of considerable thickness and usually great horizontal extent attached to a coast, and nourished by the annual accumulation of snow and commonly by the seaward extension of land glaciers. The ice shelf rises and falls with the tides. Limited areas may be grounded to form ice rises		Screen
207,100	Ice shelf features, undifferentiated	Any ice features present in an ice shelf		
207,200	Ice rumpled, distinct	Locally grounded area within the ice shelf distinguished by a characteristic crevasse pattern and a rise in the surface level of the ice. Ice movement on the shelf is deflected by the ice rumpled		
207,300	Indistinct	-		
207,420	Ice doline/ice caldera	Large oval-shaped depressions in ice shelves		
207,520	Flowlines	Lines showing the direction of ice flow on the ice shelf, usually downstream from a major inland glacier or ice stream		0.1 mm lines, 100% cyan
207,620	Rift	A long narrow fissure, usually extending parallel to the ice front; a line of weakness in an ice shelf		
207,720	Crevasse	A fissure, commonly wide and deep, in the surface of the ice shelf, resulting from		0.2 mm line

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207,820	Shear zone	stresses caused by differential ice movement. A linear zone (narrow compared to its length) where there is evidence of shear stress in the form of many parallel fractures in the ice, usually at the margins of major ice streams		
208,020 208,121 208,220	<u>Ice front</u> , undifferentiated Definite, with date Indefinite	The seaward edge of an ice shelf, commonly a high steep ice cliff up to 50 m above sea level; date of position shown not given Position of ice front is well defined, and its date is known Position of ice front is known approximately	1998	0.2 mm vertical lines, 1 mm high, 0.7 mm space, 100% cyan As above, 6 pt Univers italic
209,000 209,120 209,121 209,200 209,320 209,321 209,420 209,500 209,620 209,621 209,720	<u>Ice tongues</u> , undifferentiated Glacier tongue With date Floating glacier tongue, undifferentiated Definite Definite, with date Indefinite Iceberg tongue, undifferentiated Definite Definite, with date Indefinite	Long narrow extensions of inland ice projecting from the coast, caused by wind and current Seaward extension of a single inland glacier Position and extent of glacier tongue known for a given date A glacier tongue extending so far into the sea that its lower end is afloat Position and extent of glacier tongue is well known Position and extent of glacier tongue is well known, with date in days, month and year Position and extent of glacier tongue is known approximately A major accumulation of icebergs projecting from the coast, and held in place by grounding and joined together by fast ice Position and extent of iceberg tongue is well known Position and extent of iceberg tongue is well known, with date in days, month and year Position and extent of iceberg tongue is known approximately		0.1 mm line, 100% cyan
210,000 210,100 210,220 210,300 210,400 210,500 210,600 210,700 210,800	<u>Tidal zones</u> , undifferentiated Drying area, undifferentiated Limit of drying area Wave-cut platform Mud flats Beach, undifferentiated Pebble beach Gravel beach Sand beach	Low-lying land along coast, usually flooded at high tide That part of the sea floor which becomes exposed at low water; rock ledges or an extensive area of drying rock Boundary of the area of the sea floor exposed at low water A gently sloping erosional surface or ledge carved by wave erosion that extends some distance from the base of a wave-cut cliff into the sea A relatively level sandy or silty strip along a shore Gently sloping zone of unconsolidated material along a shore, ranging from low water line inland to a break in slope/cliff face Unconsolidated beach material, usually round water-worn rock fragments ranging from 4–64 mm in diameter Unconsolidated beach material, usually rounded rock fragments ranging from 2–4 mm in diameter Unconsolidated rounded rock and crystal fragments ranging from 0.05–2 mm in diameter		Rounded shapes of approx. 0.3 mm and 0.5 mm diam., brown

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
	Terrestrial features			
	Inland, ice-covered 300-304			
300,000	<u>Ice-covered area, undifferentiated</u>	An area of land where the ice and snow cover is permanent throughout the year		
300,001	Ice-covered area, undifferentiated, with text	-		
300,100	Boundary of ice-covered area	Boundary of an area of permanent ice or snow cover		
301,000	<u>Disturbed ice</u> , undifferentiated (on small-scale maps)	An area of ice where seracs and a network of crevasses are so numerous that it is difficult to distinguish the different features realistically on small-scale maps		0.1 mm line, 1.5 mm dash, 1 mm space, 100% cyan
301,001	Disturbed ice, undifferentiated, with text	-		As above, 6 pt Univers italic
301,100	Disturbed ice, undifferentiated (on large-scale maps)	As above; a more representative pattern of features can be shown on larger-scale maps		0.1 mm line, 1 mm long in random pattern
301,220	Crevasse (on small-scale maps)	A fissure, commonly wide and deep, in the surface of a glacier, resulting from stresses caused by differential ice movement; linear feature		0.2 mm line, orientated, 100% cyan
301,330	Crevasse (on large-scale maps)	Individual crevasses on large-scale maps		0.1 mm line, 1.5 mm dash, 1 mm space, 100% cyan
301,420	Crevasse field, outline	A network of crevasses, commonly extensive; boundary of field		As above, with screen
301,530	Crevasse field, area (on small-scale maps)	Area within which there is a network of crevasses; represented on small-scale maps by a random pattern		As above, with orientated screen
301,630	Crevasse field, area (on large-scale maps)	A network of crevasses represented by a more orientated pattern on large-scale maps		0.2 mm line, V-shaped symbol 1.2 mm high, 1 mm width, repeated, 100% cyan
301,730	Sastrugi field	An area of irregular snow ridges formed by wind erosion on a nearly level snow surface, aligned parallel to the wind direction and with steep concave surfaces facing the wind		As above, 6 pt Univers italic
301,731	Sastrugi field (with height annotation)	-		
302,000	<u>Elevated feature</u> , undifferentiated	-		
302,120	Ridge line on snow or ice	A line marking the length of a ridge on permanent snow or ice		0.3 mm line, 0.75 mm ticks at 3.6 mm spacing, 100% cyan
302,220	Steep slope on snow or ice	The position of a steeply inclined surface on permanent snow or ice		0.3 mm line, 0.6 mm ticks at 1.8 mm spacing, 100% cyan
302,320	Inland ice cliff or escarpment	A vertical or near-vertical inland wall of ice		0.2 mm line, radiating 1.4 mm ticks, overall diameter 3.6 mm, 100% cyan
302,400	Ice hillock/dome	A rounded, gently sloping elevation in the surface of an inland ice sheet, with no precise margins		
302,500	Plateau/mesa	Flat-topped hill or tableland rising steeply from a surrounding plain		

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303,000	<u>Depression area on ice or snow</u>	A poorly defined depressed area, not indicated by contours		0.1 mm line, 0.5 mm ticks at 0.8 mm spacing, 100% cyan
304,000 304,120	<u>Blue ice field</u> Blue ice field, outline	An area of bare glacier ice on the Antarctic ice sheet, caused by wind erosion Boundary of area of bare glacier ice		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
	Terrestrial features			
	Inland, ice-free 310-311			
310,000	<u>Ice-free areas</u> , undifferentiated	An area where the ice and snow cover melts during the austral summer		Screen
310,001	Ice-free areas, undifferentiated, with text	-		
310,120	Exposed rock area, boundary	Mapped limit of an exposed area of bedrock		0.1 mm line, brown
310,220	Scree area	An area of rock fragmented by mechanical weathering processes, usually accumulated at the foot of a cliff or mountain slope		Round shapes of approx. 0.3 mm & 0.5 mm diameter, brown
310,300	Moraine	A mound, ridge or other distinct accumulation of unsorted, unstratified glacial drift deposited by direct action of glacier ice, in a variety of topographic landforms		Circles of 0.15 mm lines + above shapes, brown
310,400	Outwash plain	A broad, extensive, flat or gently sloping sheet of glacial outwash formed in front of or beyond the terminal moraine of a glacier by the merging of outwash fans		
310,500	Dry valley	Deglaciated valley in Antarctica, specifically on the mainland near Ross Island, in which extensive sections of bedrock are exposed		
310,600	Oasis	In the arid terrain of Antarctica, an area where plant-life is especially abundant		
310,700	Patterned ground	A periglacial feature, characterized by well defined circles, polygons, steps and stripes, produced by intensive frost action		
310,800	Felsenmeer/stone field	A relatively thin but extensive area, usually level or of only gentle slope, which is covered with moderate-sized or large angular blocks of rock. Characteristic of rock erosion in lofty mountainous regions		
310,900	Permanent snowfield	An extensive expanse of snow cover in essentially ice-free mountainous areas that persists throughout the year; an accumulation of perennial ice and snow that is too small to be defined as a glacier		
311,000	<u>Ice-free elevated features</u> , undifferentiated	An undesignated positive feature in ice-free areas		
311,100	Nunatak (undefined by contours)	An isolated hill, knob, peak or ridge of bedrock that projects prominently above the surface of the ice sheet or glacier; it is completely surrounded by ice		0.2 mm line, radiating 1.4 mm ticks, overall diameter 3.6 mm, brown
311,220	Ridge line	A line defining the crest of a ridge of exposed rock		
311,320	Steep slope	An inclined surface of exposed rock/ice-free feature		0.3 mm line, 0.75 mm ticks at 3.6 mm spacing, brown
311,420	Rock cliff (inland) or escarpment	A steep, vertical or overhanging face of rock		0.3 mm line, 0.6 mm ticks at 1.8 mm spacing, brown
311,500	Mesa	Flat-topped hill or tableland rising steeply from a surrounding plain		
311,600	Mount, mountain (uncontoured)	A mountain (or hill) of exposed rock projecting above the ice surface that is less than the vertical interval used on a map, and is therefore uncontoured		Screen

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
320,000	Terrestrial features Inland, drainage 320-324 <u>Glacier</u> , undifferentiated	An extensive body of perennial land ice, formed by the compaction and recrystallization of snow, which flows slowly down slope or outward in all directions under its own weight. Normally a valley glacier but includes hanging glaciers, ice streams and ice sheets		
320,001	Glacier, undifferentiated, with text	-		
320,100	Glacier margin	Line depicting the boundary of a glacier on a map		0.1 mm line, 1 mm dash, 0.5 mm space, 100% cyan
320,220				
320,320	Glacier flow lines	Lines on a glacier interpreted from imagery, showing the direction of flow of a glacier		0.1 mm line, 5 mm dash, 1 mm space, 8 mm dash with 0.4 mm ticks, 100% cyan
320,420				
320,500	Glacier shear zone			
320,620	Hanging glacier	A linear zone at the margin of a glacier characterized by numerous parallel fractures in the ice		
320,720	Ice stream/channel glacier	A tributary glacier whose mouth hangs above the surface of the main valley glacier		
320,820	Ice stream/channel glacier margin	A channel in an ice sheet where the ice moves faster than the adjacent ice; not constrained by exposed rock		0.1 mm line, 100% cyan
	Ice stream/channel glacier flow lines	Line depicting the boundary of an ice stream on a map		
	Ice stream/channel glacier shear zone	Lines on an ice stream showing the direction of flow of the ice		
		A linear zone at the margin of an ice stream characterized by numerous parallel fractures in the ice		
321,020	<u>Stream/river</u> , undifferentiated	A small or large watercourse fed by meltwater		
321,120	Stream/river, permanent	A watercourse that flows all year		
321,220	Stream/river, seasonal	A watercourse that flows only during the austral summer		0.1 mm line, 5 mm dash, 1.5 mm space, 100% cyan
321,320	Stream/river, bank, single	Single line depicting a watercourse on a map		
321,420	Stream/river, bank, double	Double lines depicting the shapes of both banks of a watercourse (on large-scale maps)		
321,520	Braided river	A river with many interlacing, branching and reuniting channels separated by low-lying islands		
322,000	<u>Alluvial fan</u>	Relatively flat or gently sloping fan- or cone-shaped mass of loose rock material deposited where a stream changes its gradient, especially when it descends into a valley or on to a plain		

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<u>323</u> ,030	<u>Swamp/marsh/flooded area</u>	An area around a lake which is regularly flooded by meltwater		
<u>324</u> ,000	<u>Lake, undifferentiated</u>	A body of freshwater (meltwater) surrounded by ice or ice-free ground		Screen
324,100	Lake, permanently covered with ice	Permanent lake that is covered by ice all year		
324,200	Lake with open water in summer	Permanent lake that is partially or completely ice free in summer		
324,300	Lake, permanent	Lake that exists all year; frozen in winter		
324,400	Lake, seasonal	Meltwater lake that only forms during the summer months		
324,500	Lake, on ice	Meltwater lake with margin against ice sheet		
324,600	Lake, on rock	Lake with margin against rock		
324,700	Lake, on moraine	Lake with margin against moraine		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
330,020	Terrestrial features Inland, elevation 330-337 <u>Contours, undifferentiated</u>	Lines drawn on a map or chart connecting points inland with the same elevation above a defined datum (usually sea level); ice-free or ice-covered terrain is not distinguished		0.15 mm line, black
330,021	Undifferentiated, with text			As above, 6 pt Univers
330,120	Definite	-		0.1 mm line, black
330,220	Definite index	Elevation points are closely spaced and contour position is well defined		0.2 mm line, black
330,320	Indefinite	Well defined contours, at specific height intervals of 500, 1000 m etc.		0.1 mm line, 5 mm dash, 1 mm space, black
330,420	Indefinite index	Elevation points are widely spaced and contour position is approximate		0.2 mm line, 5 mm dash, 1 mm space, black
330,520	Conjectural	Approximate contours, at specific height intervals of 500, 1000 m etc. Elevation points are scattered and contour position is poorly constrained		0.1 mm line, 1 mm dash, 1 mm space, black
331,020	<u>Contours on ice-covered ground, undifferentiated</u>	Lines drawn on a map or chart connecting points on ice-covered ground with the same elevation above a defined datum (usually sea level); the quality of the line information is not known		0.15 mm line, 100% cyan
331,120	Definite	Elevation points are closely spaced and contour position is well defined		0.1 mm line, 6 pt Univers, 100% cyan
331,220	Definite index	Well defined contours, at specific height intervals of 500, 1000 m etc.		0.2 mm line, 100% cyan
331,320	Indefinite	Elevation points are widely spaced and contour position is approximate		0.1 mm line, 5 mm dash, 1 mm space, 100% cyan
331,420	Indefinite index	Approximate contours, at specific height intervals of 500, 1000 m etc.		0.2 mm line, 5 mm dash, 1 mm space, 100% cyan
331,520	Conjectural	Elevation points are scattered and contour position is poorly constrained		0.1 mm line, 1 mm dash, 1 mm space, 100% cyan
332,020	<u>Depression contour on ice-covered ground, undifferentiated</u>	A closed contour indicating that ice-covered land inside the contour is at a lower elevation than that outside; the quality of the line information is not known		0.15 mm line, 0.7 mm ticks at 5 mm spacing, 100% cyan
332,120	Definite	Elevation points are closely spaced and contour position is well defined		0.1 mm line, as above
332,220	Definite index	Well defined contours, at specific height intervals of 500, 1000 m etc.		0.2 mm line, as above
332,320	Indefinite	Elevation points are widely spaced and contour position is approximate		
332,420	Indefinite index	Approximate contours, at specific height intervals of 500, 1000 m etc.		
332,520	Conjectural	Elevation points are scattered and contour position is poorly constrained		
332,600	Depression area on ice-covered ground not defined by contours	Boundary of depression area on ice-covered land that cannot be represented by existing contour interval; distinguished on a map from other contours by hachures marked on the downslope side		

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333,010	<u>Elevation point on ice-covered ground</u> , undifferentiated	An unmarked point on ice-covered ground, specifying elevation; method of measurement unspecified		
333,110		Elevation measured by differential levelling, trigonometrical	. 391	0.5 mm dot, 6 pt Univers medium, black
333,210	Trigonometric			
333,310	Barometric	Elevation measured by airborne altimetric or surface barometric methods	. 391	0.5 mm dot, 6 pt Univers italic, black
333,410	Doppler	Elevation measured by doppler		
333,510	GPS	Elevation measured by Global Positioning System receivers		
	Photogrammetric	Elevation measured by photogrammetric methods		
334.001	<u>Ice thickness</u>	A point with measured ice thickness	<u>1660</u>	6 pt Univers italic, underlined, 100% cyan
334.101	With surface height	A point with measured ice thickness, with surface height	3685 <u>1660</u>	As above
335,020	<u>Contours on ice-free ground</u> , undifferentiated	Lines drawn on a map or chart connecting points on ice-free ground with the same elevation above a defined datum (usually sea level); the quality of the line information is not known		0.15 mm line, brown
335,120	Definite	Elevation points are closely spaced and contour position is well defined		0.1 mm line, 6 pt Univers, brown
335,220	Definite (index)	Well defined contours, at specific height intervals of 500, 1000 m etc.		0.2 mm line, brown
335,320	Indefinite	Elevation points are widely spaced and contour position is approximate		0.1 mm line, 5 mm dash, 1 mm space, brown
335,420	Indefinite (index)	Approximate contours, at specific height intervals of 500, 1000 m etc.		0.2 mm line, 5 mm dash, 1 mm space, brown
335,520	Conjectural	Elevation points are scattered and contour position is poorly constrained		0.1 mm line, 1 mm dash, 1 mm space, brown
336,020	<u>Depression contour on ice-free ground</u> , undifferentiated	A closed contour indicating that ice-free ground inside the contour is at a lower elevation than that outside; the quality of the line information is not known		0.15 mm line, 0.7 mm ticks at 5 mm spacing, brown
336,120	Definite	Elevation points are closely spaced and contour position is well defined		0.1 mm line, as above
336,220	Definite index	Well defined contours, at specific height intervals of 500, 1000 m etc.		0.2 mm line, as above
336,320	Indefinite	Elevation points are widely spaced and contour position is approximate		
336,420	Indefinite index	Approximate contours, at specific height intervals of 500, 1000 m etc.		
336,520	Conjectural	Elevation points are scattered and contour position is poorly constrained		
336,620	Depression area on ice-free ground not defined by contours	Boundary of depression area on ice-free ground that cannot be represented by existing contour interval		
336,720	Crater	Boundary of steep-walled depression around the vent of a volcano		
337,010	<u>Elevation point on ice-free ground</u> , undifferentiated	An unmarked point on ice-covered ground, specifying elevation; method of measurement unspecified		
337,110	Trigonometric	Elevation measured by differential levelling, trigonometrical	. 391	0.5 mm dot, 6 pt Univers medium, black

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337,210	Barometric	Elevation measured by airborne altimetric or surface barometric methods	. 391	0.5 mm dot, 6 pt Univers italic, black
337,310	Doppler	Elevation measured by doppler		
337,410	GPS	Elevation measured by Global Positioning System receivers		
337,510	Photogrammetric	Elevation measured by photogrammetric methods		

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<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
340 ,010 340,011	Terrestrial features, survey 340-346 <u>Control point, undifferentiated</u> Undifferentiated, with text	An identifiable point on a photograph or satellite image for georeferencing data -		
341 ,010 341,110	<u>Astronomical control point</u> , monumented Astronomical, unmonumented	A marked survey point whose co-ordinates are fixed by astronomical methods; site identifiable on the ground for reoccupation Unmarked survey point fixed by astronomical methods		
342 ,010 342,110	<u>Gravimetric control point</u> , monumented Gravimetric, unmonumented	A marked survey point whose co-ordinates are fixed by gravimetric methods Unmarked survey point fixed by gravimetric methods		
343 ,010 343,110	<u>Geodetic control point</u> , monumented Geodetic, unmonumented	A marked survey point whose co-ordinates are fixed by triangulation, trilateration or traversing Unmarked survey point fixed by triangulation, trilateration or traversing		
344 ,010 344,110 344,210 344,310 344,410	<u>Geodetic satellite control point</u> , undifferentiated Doppler control point, monumented Doppler control point, unmonumented GPS control point, monumented GPS control point, unmonumented	A survey point whose co-ordinates are fixed by satellite observations; method unspecified Marked survey point fixed using Doppler techniques Unmarked survey point fixed using Doppler techniques Marked survey point fixed using Global Positioning Systems Unmarked survey point fixed using Global Positioning Systems		
345 ,011	<u>Bench mark</u> (with elevation)	A fixed reference point whose elevation is known above the map or chart datum, usually mean sea level		
346 ,010	<u>Tide gauge</u>	An instrument used to measure the level of the tide, for calculating mean sea level as a datum for mapping and charting		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
	Human-related features, tracks 400-403			
400,020	<u>Tracks, undifferentiated</u>	Man-made tracks of any type on either ice-covered or ice-free land		
400,021	Tracks, undifferentiated, with text	-		
401,021	<u>Oversnow route</u> , marked (with date)	A route across snow, in use regularly or only occasionally and marked by stakes/flags; date of use in month and year		0.25 mm line, 2.6 mm dash, 0.25 mm space, 6 pt Univers, black
401,120	Oversnow route, unmarked (with date)	An unmarked route across snow, used by past expeditions and/or in regular use; date of use in month and year		0.25 mm line, 0.55 mm dash, 0.25 mm space, 6 pt Univers, black
401,210	Drum	Used as a way-marker; may be tagged in the field with way-point number or field-tag number		
401,310	Cane/stake	Used as a way-marker, usually with flag attached; may be tagged in the field with way-point number or field-tag number		
401,411	Way-point number/field-tag number	Number assigned to way-point marker	WP160/BR48	6 pt Univers light, black
402,020	<u>Permanent tractor track</u>	A permanent track used by tractor sledge trains		0.25 mm line, 3.5 mm dash, 0.25 mm space, black
403,020	<u>Road</u> , undifferentiated	A road on ice-free ground suitable for wheeled vehicles		0.2 mm line, 5 mm dash, 0.25 mm space, 100% magenta
403,120	Road, single line	The centre of a road, represented on a map by a single line		0.2 mm line, 100% magenta
403,220	Road, double line	Both edges of a road, represented on a large-scale map by a double line		Double 0.2 mm line, 100% magenta
403,300	Ramp in road	Inclined surface construction, commonly leading from a road to a construction facility		
403,400	Bridge	A structure that carries a road or pedestrian route across an obstacle such as a stream or a pipe line		

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<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
410,000	Human-related features, aircraft 410-416 <u>Aerodrome, undifferentiated</u>	A defined area, including buildings, installations and equipment, prepared for landing and take-off of aircraft, and their accommodation; type of aircraft and facilities available not specified		
410,001	Undifferentiated, with text	-		
411,000	<u>Aerodrome suitable for wheeled aircraft, undifferentiated</u>	Air field suitable for wheeled aircraft; whether facilities available not specified		
411,100	With facilities	Air field with facilities and suitable for wheeled aircraft		
411,200	Without facilities	Air field without facilities but suitable for wheeled aircraft		
412,000	<u>Aerodrome suitable for ski-equipped aircraft only, undifferentiated</u>	Air field suitable for ski-equipped aircraft only; whether facilities available not specified		
412,100	With facilities	Air field with facilities suitable for ski-equipped aircraft only		
412,200	Without facilities	Air field without facilities and suitable for ski-equipped aircraft only		
413,000	<u>Aerodrome for helicopter, undifferentiated</u>	Landing area suitable for use by helicopters; whether facilities available not specified		
413,100	With facilities	Landing area with facilities suitable for helicopters		
413,200	Without facilities	Landing area without facilities but suitable for helicopters		
414,000	<u>Water aerodrome, undifferentiated</u>	Designated area of water suitable for landing planes equipped with floats; whether facilities available not specified		
414,100	With facilities	Water (usually sea) with facilities suitable for landing sea planes		
414,200	Without facilities	Water (usually sea) without facilities but suitable for landing sea planes		
415,000	<u>Landing strip, undifferentiated</u>	An area known to be suitable for landing and take-off of aircraft but without any kind of support		
415,120	Runway, undifferentiated, single line	Central line of a prepared and marked area for landing and take-off of aircraft, types unspecified		
415,220	Runway, undifferentiated, double line	Border of designated runways for landing and take-off of aircraft (types unspecified)		
416,001	<u>Aircraft wreckage (with date of wreck)</u>	Visible wreckage of an aircraft (date of crash in days, month and year)		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
420,000	Human-related features Ships and boats 420-422 <u>Anchorage/landing place for vessels, undifferentiated</u>	An area used by a vessel to anchor or come alongside land for off-loading goods		
420,001	Undifferentiated, with text	-		
420,100	Ship anchorage	An area of relatively shallow, sheltered water where ships may anchor safely		
420,200	Moorings, undifferentiated	Permanent place where a vessel can be secured to a buoy or other construction		
420,300	Jetty	A small wharf or landing pier		
420,400	Wharf	A ship's berth lying parallel to the waterfront		
420,500	Buoy	A floating, anchored object used to secure vessels offshore		
420,600	Landing place for small boats	A known safe place for access to land for small boats		
420,700	Campsite accessible from sea ice	A known site suitable for setting up a camp on land or on shelf ice, where it is possible to transport equipment over the sea ice to the camp site		
421,001	<u>Shipwreck</u> (with date of wreck)	Visible or submerged wreck of a vessel (with date of wreck)		
422,000	<u>Beacon</u>	A fixed, usually elevated device, emitting a signal warning of its position, such as a flashing light or radar pulse, to aid navigation		
422,100	Navigation landmark	A conspicuous object on land that can be used as an unofficial navigational aid		

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<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
430.000	Human-related features			
	Constructions 430-440			
430,000	<u>Buildings</u> , undifferentiated	A group of walled and roofed constructions, built for human occupancy or use		
430,001	Undifferentiated, with text	-		
430,100	Single permanent building	Permanent walled and roofed construction unit; true shape of building should be shown on large-scale maps	■	1.3 mm square, black
430,200	Abandoned building, site of	Former building used for human occupancy but now abandoned	□	0.3 mm line, 1.8 mm square, black
431.000	<u>Scientific station</u> , undifferentiated	Group of permanent buildings and constructions used to support scientific research; annual period of use not specified		
431,001	Undifferentiated, with text	As above; name and nationality of station should be shown		
431,110	Permanent station	Scientific station occupied all year	■	0.3 mm line, 1.8 mm square, black outline, black infill
431,210	Summer-only station	Scientific station occupied during summer months only	□	0.3 mm line, 1.8 mm square, black outline, red infill
432.010	<u>Refuge</u> , undifferentiated	A simple building to provide temporary shelter in emergencies, status unknown		
432,110	Usable refuge	A refuge known to be in usable condition		
432,210	Depot, undifferentiated	A marked supply of food and fuel, date and status unknown		
432,310	Depot, in use	A marked supply of food and fuel, of known quality and date		
432,410	Proven camp site	Camp site accessible from the sea		
433.000	<u>Storage facilities</u> , undifferentiated	Buildings and tanks used for storing a range of products		
433,100	Storage area/yard	A general area on a station set aside for storing equipment and supplies		
433,200	Concrete hard standing	Area of concrete used for storing equipment and supplies		
433,310	Tank, undifferentiated	A large container used for storing liquid or gas; usage unspecified		
433,410	Oil tank, undifferentiated	A large container used for storing oil; status of use unspecified		
433,510	Oil tank, in use	Oil tank in current use		1.3 mm solid circle, black
433,610	Oil tank, disused	Oil tank no longer in use		1.3 mm open circle, black
433,710	Water tank, undifferentiated	A large container used for storing water; status of use unspecified		
433,810	Water tank, in use	Water tank in current use		1.3 mm solid circle, 100% cyan
433,910	Water tank, disused	Water tank no longer in use		1.3 mm open circle, 100% cyan
434.000	<u>Radio mast</u> , undifferentiated	A mast, tower, pole or other structure for elevating an antenna; number unspecified		
434,110	Single	Single radio mast		
434,200	Multiple	Multiple set of radio masts distributed over an area		
434,320	Communication line	Above-ground communication wires (radio and telegraphic)		

434,410	Pole	Single poles used to support communication lines		
434,510	Tower	Metal tower constructions used to support communication lines		
435,020	<u>Pipe line, undifferentiated</u>	A hollow tube above ground with pumping or compressing machinery for conveying a fluid; use unspecified		
435,120	Gas	Pipeline carrying gas		
435,220	Oil	Pipeline carrying oil		
435,320	Water	Pipeline carrying water		
435,420	Sewer	Pipeline carrying sewage		
436,020	<u>Power line</u>	A system of above-ground wires for conducting electric power from one location to another		
436,110	Pole	Single poles used to support power lines		
436,210	Tower	Metal tower constructions used to support power lines		
436,310	Wind turbine	A wind-driven machine, with blades set on a revolving shaft, used to produce electrical power		
436,410	Solar panel	A blackened metal plate used to convert radiation emitted by the sun into electrical power		
437,000	<u>Automatic weather station</u>	A permanent installation of meteorological instruments which transmits data automatically and at regular intervals by radio signals (normally by satellite)		
437,100	Meteorological tower	Metal tower used to support meteorological instruments		
438,010	<u>Post</u>	Post, use unspecified		
438,110	Signpost	Post bearing a place name or direction to a locality		
438,210	Memorial cross	Post bearing a cross and, usually a sign, commemorating an individual or an historic event		
438,310	Hazard light	Post or pole carrying lights to alert people of potential hazard, e.g. traffic lights		
439,000	<u>Disturbed ground/crushed rock area</u>	An area around man-made constructions where the ground has been levelled by quarrying or transported to or from another place		
439,100	Earthwork	A man-made ditch or bank; a bund		
440,000	<u>Burial site, undifferentiated</u>	An area of ground set aside for burying the dead		
440,110	Grave	Excavation for single burial, may be monumented		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>		
450,000	Human-related features Environmental 450-454 <u>Historic Site or Monument, undifferentiated</u>	Site or monument of recognized historical value which has been listed according to Article 8, Annex V to the Protocol on Environmental Protection to the Antarctic Treaty; symbol		
450,001	Undifferentiated, with text	As above, with designated site number		
450,120	Boundary of site	Line marking border of site		
450,230	Area of site	Polygon defining site		
451,031	<u>Antarctic Specially Protected Area, undifferentiated</u> , with text	An area designated as an Antarctic Specially Protected Area according to Annex V to the Protocol on Environmental Protection to the Antarctic Treaty; symbol and designated site number		
451,120	Boundary of site	Line marking border of site		
451,230	Area of site	Polygon defining site		
452,031	<u>Antarctic Specially Managed Area, undifferentiated</u> , with text	An area designated as an Antarctic Specially Managed Area according to Annex V to the Protocol on Environmental Protection to the Antarctic Treaty; symbol and designated site number		
452,120	Boundary of site	Line marking border of site		
452,230	Area of site	Polygon defining site		
453,031	<u>Site of Special Scientific Interest, undifferentiated</u> , with text	An area designated as a Site of Special Scientific Interest under the provisions of the Antarctic Treaty; symbol and designated site number		
453,120	Boundary of site	Line marking border of site		
453,230	Area of site	Polygon defining site		
454,030	<u>Envrinomental zone, undifferentiated</u>	An area designated to be of environmental significance but not adopted under the provisions of the Antarctic Treaty		
454,130	Quiet zone	An area designated for the protection of sensitive instrumentation		
454,230	Radiation zone	An area where there is potential for harmful emissions		
454,330	Environmental sensitivity zone	An area set aside for limited access due to the fragility of the environment		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>		
500.000	Fauna: birds 500-508 <u>Bird colony, undifferentiated</u>	Location of a bird colony, species unspecified; symbol		
500,001	Undifferentiated, with text	As above, with date of observaiton.		
500,120	Boundary of colony	Line marking known boundary of colony		
500,230	Area of colony	Polygon defining site of bird colony		
501.000	<u>Albatross colony, undifferentiated</u>	Location of albatross colony; symbol		
501,120	Boundary of colony	Line marking known boundary of albatross colony		
501,230	Area of colony	Polygon defining site of albatross colony		
502.000	<u>Cormorant colony, undifferentiated</u>	Location of cormorant colony; symbol		
502,120	Boundary of colony	Line marking known boundary of albatross colony		
502,230	Area of colony	Polygon defining site of albatross colony		
503.000	<u>Petrel colony, undifferentiated</u>	Location of petrel colony; symbol		
503,120	Boundary of colony	Line marking known boundary of petrel colony		
503,230	Area of colony	Polygon defining site of petrel colony		
504.000	<u>Penguin rookery, undifferentiated</u>	Penguin rookery, species unspecified; symbol		
504,120	Boundary of colony	Line marking known boundary of penguin rookery		
504,230	Area of colony	Polygon defining site of penguin rookery		
505.000	<u>Adélie penguin rookery</u>	Adélie penguin rookery; symbol		
505,120	Adélie rookery, boundary of	Line marking known boundary of Adélie penguin rookery		
505,230	Adélie rookery, area	Polygon defining site of Adélie penguin rookery		
506.000	<u>Chinstrap penguin rookery</u>	Chinstrap penguin rookery; symbol		
506,120	Chinstrap rookery, boundary of	Line marking known boundary of Chinstrap penguin rookery		
506,230	Chinstrap rookery, area	Polygon defining site of Chinstrap penguin rookery		
507.000	<u>Emperor penguin rookery</u>	Emperor penguin rookery; symbol		
507,120	Emperor rookery, boundary of	Line marking known boundary of Emperor penguin rookery		
507,230	Emperor rookery, area	Polygon defining site of Emperor penguin rookery		
508.000	<u>Gentoo penguin rookery</u>	Gentoo penguin rookery; symbol		
508,120	Gentoo rookery, boundary of	Line marking known boundary of Gentoo penguin rookery		
508,230	Gentoo rookery, area	Polygon defining site of Gentoo penguin rookery		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
600,000 600,001 600,120 600,230	Fauna: animals 600-601 <u>Animal colony, undifferentiated</u> Undifferentiated, with text Boundary of colony Area of colony	Location of animal colony, species unspecified; symbol As above, with date of observation Line marking known boundary of animal colony Polygon defining site of animal colony		
601,000 601,120 601,230	<u>Seal colony, undifferentiated</u> Boundary of colony Area of colony	Location of seal colony, species unspecified; symbol Line marking known boundary of seal colony Polygon defining site of seal colony		

<i>Feature code</i>	<i>Feature</i>	<i>Definition</i>	<i>Symbol</i>	<i>Specification</i>
700,000 700,001 700,120 700,230 700,300	Flora 700-704 <u>Vegetation, undifferentiated</u> Undifferentiated, with text Boundary of colony Area of colony Fell-field	Location of vegetation site, species unspecified; symbol As above, with date of observation Limit marking known boundary of vegetation site Polygon defining vegetation site A community of widely scattered vegetation (species unspecified) that grows in barren land, usually above the timber line in low-latitude locations		
701,000 701,120 701,230	<u>Moss bank</u> Boundary of bank Area of bank	Location of moss bank, species unspecified; symbol Limit marking known boundary of moss site Polygon defining site of moss bank		
702,000 702,120 702,230	<u>Lichen colony</u> Boundary of colony Area of colony	Location of lichen colony, species unspecified; symbol Limit marking known boundary of lichen colony Polygon defining site of lichen colony		
703,000 703,120 703,230	<u>Grass patch</u> Boundary of patch Area of patch	Location of grasses, species unspecified; symbol Limit marking known boundary of grass patch Polygon defining site of grass patch		
704,000 704,120 704,230	<u>Algae</u> Boundary of algal colony Area of algal colony	Location of algal colony, species unspecified; symbol Limit marking known boundary of algal colony Polygon defining site of algal colony		

Feature code	Feature	Definition	Symbols	Specification
800,000 800,001	Projection-related features 800-806 <u>Isogones</u> Isogones, with text	Lines plotted on a map joining points with equal magnetic variation or declination -		
801,010 801,120 801,230	<u>Irregular magnetic declination, point of</u> Area of irregular magnetic declination, boundary of Area of irregular magnetic declination	Point where the difference between magnetic north and true north varies irregularly Boundary of area where the difference between magnetic north and true north varies irregularly Polygon defining the above area		
802,010	<u>Magnetic pole</u>	Either of two points on the earth's surface at which the magnetic dip is exactly 90° where the meridians join, i.e. where the magnetic field is vertical		
803,010	<u>Geographical pole</u>	The southernmost or northernmost point on the earth's surface, at either latitude 90°S or 90°N; the points through which the earth's axis rotates		
804,020	<u>Antarctic circle</u>	The parallel of latitude that represents the maximum extension of the midnight sun; usually drawn on a map at 66° 33'S		
805,020 805,120	<u>Geographical graticule, latitude</u> Geographical graticule, longitude	Network of lines on a map representing the earth's parallels of latitude Network of lines on a map representing the earth's meridians of longitude		
806,020 806,120 806,200	<u>Grid</u> Grid line Grid north	A network of squares made of north-south lines showing distance east of an arbitrary origin, and east-west lines showing distance north of the same reference point. The distance between grid lines is measured in 1000, 5000 or 10 000 yards or metres, depending on the scale of the map One of the lines in a grid system; a line used to divide a map into squares The upward (northward) direction of the arbitrary meridian or vertical grid lines (north-south grid lines) used for navigation on maps		

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