Symbol Dictionary for Topographic Map Production

Four Colour Process

National Mapping Division Geoscience Australia

Symbols are arranged in alphanumeric order by symbol number. The same number may be used for different symbols provided they have different spatial object types.

Hot spots and orientation are given for point symbols. The hot spot is the location on the symbol of the point feature in the database which the symbol represents. Where a value is given for orientation, the example in the symbol dictionary is aligned in that orientation. Where no value is given the orientation is not used for that feature and it is shown in the default orientation of 0.

For chain features the symbol is the length of the feature and centred on the feature unless otherwise stated. Measurements follow these conventions: for Point symbols the measurement will be to the outer boundary of the symbol unless otherwise indicated; for Chains measurements will be from line centre to line centre for spacing ticks etc and from line centre to the edge for tick lengths and verges. Both conventions for chains will be unless otherwise indicated.

Samples of screens referenced are given in the following section.

The statement "Colour: **C** --% **M** - - % **Y** - - % **K** - - %" stands for the percentages of colour used for the symbol creation in order of Cyan, Magenta, Yellow and Black.

When not specifically stated it will be Colour: C 0% M 0% Y 0 % K 100%

Preference will be given to printing NTMS maps derived from the TOPO250K and TOPO100K NTDBs using the stochastic screening method.

PRINTING COLOURS:

Printing colours and densitometer readings are:

Process Blue	blue filter	1.60+/- 0.05
Magenta	red filter	1.20+/- 0.05
Process Yellow	yellow filter	0.80+/- 0.05
Black	black filter	1.90+/-0.05

Sym Number	bol Type	Feature	Description Symbol Colour is Black unless otherwise specified; All measurements are in mm.
10	Polygon	Lake perennial Canal Area Watercourse Area perennial Reservoir Sea	Colour: C 20% M 0% Y 0% K 0%
102	Chain	Mine Boundary Line Populated Place Boundary (WAC ONLY)	0.15
102	Polygon	Mine Area	Outline: Symbol No.102 (Chain) Infill Colour: C 0% M 0% Y 0% K 10%
103	Point	Petroleum Well	0.60mm Hot spot at the centre of the circle
106	Point	Mine Point	90° 0.8 0.15 Hot spot
11	Point	Bore	0.75mm O.15 Hot spot at the centre of the circle Colour: C 100% M 10% Y 0% K 10%
11	Polygon	Lake non-perennial Watercourse Area non-perennial	Pattern: Equivalent to Screen Random Dot 1 Colour: C 100% M 10% Y 0% K 10%
111	Chain	Old Lake Bed Boundary (WAC ONLY)	Colour: C 100% M 10% Y 0% K 10%
113	Point	Petroleum Well (WAC ONLY)	2.9mm 1.0mm 0.15mm lineweight 1.1mm
114	Chain	Waterbody Boundaries (Bounding salt eva- porator & settling pond) Salt Evaporator Internal Line Settling Pond Internal Line	——————————————————————————————————————

Sym Number	bol Type	Feature	Description Symbol Colour is Black unless otherwise specified; All measurements are in mm.
12	Polygon	Flood Irrigation Storage	0.3 mm 1 mm Ordered Stipple Colour: C 65% M 0% Y 0% K 0%
14	Polygon	Land Subject To Inundation	A minimum of two lines will be included in each polygon. Sufficient lines will be included in small polygons to indicate their shape. 0.095 Note: The horizontal line will be broken by a line screen at 45°. 0.08 Pattern: Equivalent to Screen SMW-4 Colour: C 100% M 10% Y 0% K 10%
170	Chain	Rubbish Tip (edge symbology)	0.75 0.25
170	Polygon	Rubbish Tip	No infill
183	Chain	Conveyor	0.75 0.25
2	Polygon	Forest Or Shrub All 250K or Closed (100K)	Colour: C 15% M 0% Y 43% K 0%
20	Chain	Ferry Route Line	0.75 0.25
200	Polygon	Forest Or Shrub Dense	Colour: C 15% M 0% Y 43% K 0% Pattern: Equivalent to Screen:: DW-10
201	Polygon	Forest Or Shrub Sparse	Colour: C 15% M 0% Y 43% K 0% Pattern: Equivalent to Screen: DW-9
205	Chain	Railway and Road Tunnel Line	0.75 0.1 mm lineweight
206	Chain	Railway <i>Single</i>	0.10 0.25 Cross ties at 90° to the line and centred on the line
208	Chain	Railway <i>Light</i>	0.05 0.15 Cross ties at 90° to the line and centred on the line
21	Chain	Ford Line	0.25 0.75 0.10
209	Chain	Railway <i>Abandoned</i>	Cross ties at 90° to the line and centred on the line Gaps centred between cross ties

Sym Number		Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
210	Chain	Railway <i>Multiple</i>	0.10 0.25 0.5 4.0	mm Cross ties at 90° to the line and centred on the line
22	Chain	Foot Track	1.75 0.25	
22	Polygon	Foreshore Flat Sand Area		Colour: C 0% M 59% Y 100% K 18% Pattern: Equivalent to Screen Random Dot 1
222	Point	Railway station	1 mm	Hot spot at the centre of the circle
23	Polygon	Saline Coastal Flat Salt Evaporator Settling Pond Aquaculture Area		Colour: C 100% M 10% Y 0% K 10% Screen: Equivalent to Screen Random Dot 1
24	Polygon	Recreation Area (Feature class)		Colour: C 57% M 0% Y 100% K 0%
242	Chain	Road Minor Sealed in BUA (100k) Secondary Road (WAC Only)	0.2	Colour: C 0% M 100% Y 100% K 0%
243	Chain	Other Road (WAC Only)	0.15	Colour: C 0% M 100% Y 100% K 0%
245	Chain	Railway Causeway Road Causeway	black.	wid is 0.15 or 0.25 the symbol is 0.5 wide and solid For other valid feat_wid values the symbol blus the value of feat_wid wide and the infill is the value of id wide and of Colour: C 0% M 100% Y 100% K 0%. If the symbol colour)
25	Point	Grid (Stock Grid)	0.75 1.50 to centre of crossbar 1.50 0.15	Road Hot spot at centre of square Orientation 0
25	Polygon	Sand Dune		Colour: C 0% M 59% Y 100% K 18% Pattern: Equivalent to Screen Sand Dunes 1
250	Chain	Road Dual carriageway		Digital feature lies halfway between the two lines 6 (width of gap) Gap will have Infill Colour: C 0% M 0% Y 100% K 0% lour: C 0% M 100% Y 100% K 0%
251	Chain	Road Principal sealed (250k)	0.9	Colour: C 0% M 100% Y 100% K 0%
2510	Chain	Road Principal sealed (100K)	0.8	Colour: C 0% M 100% Y 100% K 0%

Sym Number	bol Type	Feature	Description Symbol Co	lour is Black unless otherwise specified; All measurements are in mm.
252	Chain	Road Under construction	0.25 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Colour: C 0% M 100% Y 100% K 0%
253	Chain	Road Minor unsealed	0.25 2.3	Colour: C 0% M 100% Y 100% K 0%
254	Chain	Road Vehicular track	0.25 1.50 0.2	Colour: C 0% M 100% Y 100% K 0%
255	Chain	Arrow (With Arrow)	0.1 30° 1.0mm	Start node End node
256	Chain	Road Secondary sealed	0.6	Colour: C 0% M 100% Y 100% K 0%
257	Chain	Road Minor sealed Road Principal (WAC Only)	0.4	Colour: C 0% M 100% Y 100% K 0%
258	Chain	Road Principal unsealed (250K)	0.9	Colour: C 0% M 100% Y 100% K 0%
2580	Chain	Road Principal unsealed (100K)		Colour: C 0% M 100% Y 100% K 0%
259	Chain	Road Secondary unsealed	0.6	Colour: C 0% M 100% Y 100% K 0%
26	Point	Gate	1.50 Hot spot 0.15 Orientation	Road Fence line
26	Polygon	Building Area Building type: operational		

Sym Number		Feature	Description Symbol Colour is Black unless otherwise specified; All measurements are in mm.
26	Polygon	Building Area Building type: operational	
260	Chain	Railway Bridge Line Road Bridge Line	0.6mm 45° Infill the lineweight of the road or railway symbol. Yellow is not representative of the symbol colour. See below. Where the value of feat_wid is 0.15 or 0.25 the infill will be solid black. Digital feature For the value of feat_wid of 0.9 at 100k
			and 1.0 at 250k only. Infill the lineweight and design of the dual carriageway road symbol. Digital feature 0.2 For other valid feat_wid values the infill Colour: C 0% M 100% Y 100% K 0%.
265	Chain	Pointer	0.1 1.0mm Start node End node
266	Chain	Railway Overpass	0.2mm space on either side of inner rail symbol will mask all rail and road features which cross its path (measurement to be taken from edge of rail line symbol)
267	Chain	Road Overpass	Infill the lineweight of the road. 0.2mm to scale For the value of feat_wid of 0.9 at 100k and 1.0 at 250k only. Digital feature Infill the lineweight and design of the dual carriageway road symbol. O.2 For other valid feat_wid values the infill Colour: C 0% M 100% Y 100% K 0%. 0.2

Sym	bol Type	Feature	Description	Symbol Colour is Black unless otherwise specified All measurements are in mm
268	Chain	Foot Bridge	0.4mm 45° 0.20	Digital feature
27	Point	Road Marker National	0.15 2.5	Route Number in black as annotation feature 1.5 Hot spot 1.2
271	Point	Road Marker National (Oversize)	0.15	Route Number in black as annotation feature 1.75 Hot spot 1.2
28	Point	Road Marker State	2.5	Hot spot A man annotation feature Outline Colour: Solid Black Infill Colour: C 20% M 0% Y 0% K 0%
281	Point	Road Marker State (Oversize)	2.2 4.8	Route Number in black as annotation feature Outline Colour: Solid Black Infill Colour: C 20% M 0% Y 0% K 0%
281	Chain	Pipeline above ground & elevated(not water)	0.19	5
282	Chain	Pipeline underground (not water)	1.75 0.25	5
290	Point	Transition Point On roads and railways	0.15mm line, 180° arc	Hot spot Tunnel Road or railway Orientation 0
30	Chain	Aerial Cableway	0.75	5
31	Chain	Embankment	0.6 0.50 0.20	
33	Chain	Sand Ridge	0.25 line	Colour: C 0% M 35% Y 60% K 11%
4	Polygon	Rainforest		Colour: C 40% M 0% Y 60% K 0%

Sym Number	bol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm
40	Point	Homestead & Building Point (Significant)	0.6	Hot spot at the centre of the square
401	Point	Ambulance Station (Emergency Mapping)	3.0	Colour: C 100% M 0% Y 100% K 0% 'A' is a Zurich Extra Bold 10pt in solid white Centred both vertically and horizontally
404	Point	Fire Station (Emergency Mapping)	3.0	Colour: C 0% M 100% Y 100% K 0% 'F' is a Zurich Extra Bold 10pt in solid white Centred both vertically and horizontally
406	Point	Police Station (Emergency Mapping)	3.0 0.10 Colour: C 95%	Colour: C 95% M 52% Y 0% K 0% Each solid blue square is a 1mmX 1mm area
41	Point	Building Point (ruin)	0.15 0.6mm	Hot spot at the centre of the square
42	Chain	Lock Line & Arrow (without arrow)	0.10	Length as required River Point of Lock faces upstream
420	Point	Populated Place & Place Name		Hot spot at the centre of the circle Colour: C 0% M 100% Y 100% K 0% colour: C 0% M 0% Y 100% K 0%
420	Polygon	Built Up Area		Colour: C 0% M 29% Y 30% K 0%
421	Point	Village or Settlement < 500 people (Wac Only)		Hot spot at the centre of the circle ur: Solid Black Colour: C 0% M 0% Y 100% K 0%
422	Point	Village or Settlement 500 - 1000 people (Wac Only)	0.15 Outline Colo Yellow fill: C	Hot spot at the centre of the circle ur: Solid Black colour: C 0% M 0% Y 100% K 0%
423	Point	Town 1001 - 2000 people (Wac Only)		Hot spot at the centre of the circle our: Solid Black Colour: C 0% M 0% Y 100% K 0%
424	Point	Town 2001 - 5000 people (Wac Only)		Hot spot at the centre of the circle our: Solid Black Colour: C 0% M 0% Y 100% K 0%
425	Polygon	Builtup area > 5000 people (WAC ONLY)		Colour: C 0% M 0% Y 100% K 0%

Sym Number	ibol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
429	Point	Building Building Function: Grain Storage (WAC ONLY)	1.0mm 1.2mm 2.0mm	0.5mm Hot spot 0.5mm all lineweights 0.15mm
430	Point	Building Point (Operational & Abandoned Homestead)	0.4 mm	Hot spot at the centre of the square
433	Point	Yard	1mm 0.1	Hot spot at the centre of square
434	Point	Windpump		Hot spot entre of base line o centre of cross
45	Chain	Dam Wall (coincident with road)	Infill Cold	Colour: Solid Black our: C 0% M 100% Y 100% K 0% endent on road width
451	Point	Cemetery Point	0.75mm	Hot spot at the centre of the circle
497	Point	Vertical Obstruction (chimney)	0.225 mm 0.15 mm Lineweight 1.0 mm	Hot Spot
498	Point	Vertical Obstruction (silo)	0.75mm 0.15 mm Lineweight 1 0.5mm 1.2mm	1.5 mm Hot Spot

Sym Number	bol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
499	Point	Vertical Obstruction (tower)	0.2 mm 0.2 mm Diameter 0.5 mm 0.14 mm 1.5 mm	Hot Spot
5	Polygon	Orchard	1.0 mm	ine centre to line centre Colour: C 0% M 0% Y 40% K 0% with 0.05mm lines at 45 degrees Colour: C100% M 10% Y 0% K 10%
50	Point	Bench Mark	0.5	Hot spot at the centre of the circle
500	Point	Vertical Obstruction (wind turbine generator)	130° 0.	O.1 mm Lineweight 110° 4 mm ameter 4 Hot Spot
501	Point	Vertical Obstruction (other and Landmark Point)	0.75mm	Hot spot at the centre of the circle
502	Point	Microwave Repeater Station (WAC ONLY)	3.0mm	apex of inverted V starts at the centre of 0.8mm diameter dot
503	Point	Obstacle (singular) Lit (WAC ONLY)	tick length 0.7mm linewe 90° 135° 180° 4.2mm 3.0mm lineweight 0.3mm 2.5mm	gap 0.5mm Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0%

Sym Number	bol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
504	Point	Obstacle (group) Lit (WAC ONLY)	tick length 0.7mm gap lineweight 0.15mm 90° 45° 4.2mm 3.0mm lineweight 0.3mm 2.5mm 0.4mm diameter dot 3.4 mm	0.9mm between peaks gap 0.5mm Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0%
505	Point	Obstacle (singular) Unlit (WAC ONLY)	3.0mm lineweight 0.3mm 2.5mm 0.4mm diameter dot C/L	Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0%
506	Point	Obstacle (group) Unlit (WAC ONLY)		.9mm between peaks Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0%
507	Point	Broadcasting Station (singular) Radio or Television with Mast Lit (WAC ONLY)	4.2mm 3.0mm 3.6mm 0.4mm diameter dot C/L	Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0% 2.0mm diameter circle lineweight 0.3mm is tangential with inside of inverted V
508	Point	Broadcasting Station (group) Radio or Television with Mast Lit (WAC ONLY)	lineweight 0.15mm 90° 90° 45° 90° 4.2mm 3.0mm lineweight 0.3mm 2.5mm lineweight 0.3mm 3.4 mm	m between peaks p 0.5mm Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0% m diameter circle eight 0.3mm is sential with inside ter arcs of the two inverted Vs
509	Point	Broadcasting Station (singular) Radio or Television with Mast Unlit (WAC ONLY)	3.6mm 0.4mm diameter dot C/L 2.0mm diameter dot tangential with of inverted V	3mm is ith inside

Sym Number	ibol Type	Feature	Description Symbol	l Colour is Black unless otherwise specified; All measurements are in mm.
51	Point	Horizontal Control Point	0.15 line and dot diameter 1.5	Hot spot at the centre of the dot within the triangle
510	Point	Broadcasting Station (group) Radio or Television with Mast Unlit (WAC ONLY)	gap 0.9mm between per 3.0mm 2.5mm 2.5mm lineweight 0.3mm 2.5mm lineweight 0.4mm diameter dot 3.4 mm of outer arcs	Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0% eter circle .3mm is
511	Point	Broadcasting Station Radio or Television without Mast Air Navigation Beacon without obstruction or aerodrome (WAC ONLY)	2.5mm 0.4mm diameter dot 2.2mm diameter lineweight 0.3mm	Hot Spot at centre of dot Colour: C 79% M 90% Y 0% K 0%
512	Chain	WAC Bounding Box & Lead Line (WAC ONLY)	0.20mm	Colour: C 79% M 90% Y 0% K 0% See Page 19 for more Details
513	Point	Grain Silo (WAC ONLY)	1.8mm	all lineweights 0.15mm
52	Point	Spot Elevation Mountain Place Name & Spot Elevation (Other elevation (WAC Only))	0.375mm	Hot spot at the centre of the circle
520	Point	Spot Elevation Maximum (WAC Only)		Hot spot at the centre of the circle
54	Point	Distance Indicator	0.9mm Orientation 90 2.0mm Hot spot at the end of	Colour: C 0% M 100% Y 100% K 0%
540	Point	Powerline Pylon	0.25 0.16 0.4	Colour: C 100% M 73% Y 0% K 0%

Sym Number	ibol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
541	Chain	Powerline (superceded)	O.	15 Colour: C 100% M 73% Y 0% K 0%
542	Chain	Powerline	0.5mm I	0.2 Colour: C 100% M 73% Y 0% K 0%
543	Chain	Powerline (WAC Only)	0.5mm I .0mm	0.2 Colour: C 79% M 90% Y 0% K 0%
55	Chain	Standard Contour (Index)	/0.2	Colour: C 0% M 59% Y 100% K 18%
553	Polygon	Hypsometric Tint Elevation : 2000m (6560ft) + (WAC Only)		Colour: C 0% M 25% Y 50% K 7%
554	Polygon	Hypsometric Tint Elevation: 1500m (4920ft) - 2000m (6560ft) (WAC Only)		Colour: C 0% M 20% Y 36% K 4%
555	Polygon	Hypsometric Tint Elevation: 1000m (3280ft) - 1500m (4920ft) (WAC Only)		Colour: C 0% M 9% Y 21% K 4%
556	Polygon	Hypsometric Tint Elevation: 500m (1640ft) - 1000m (3280ft) (WAC Only)		Colour: C 0% M 4% Y 15% K 2%
557	Polygon	Hypsometric Tint Elevation: 200m (660ft) - 500m (1640ft) (WAC Only)		Colour: C 0% M 0% Y 10% K 0%
558	Polygon	Hypsometric Tint Elevation: Om (0ft) - 200m (660ft) (WAC Only)		Colour: C 8% M 0% Y 4% K 2%
559	Polygon	Hypsometric Tint Elevation : Below 0m (Below 0ft) (WAC Only)		Colour: C 8% M 0% Y 4% K 8%

Sym Number	ibol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm
56	Chain	Standard Contour (Not index)		.1 Colour: C 0% M 59% Y 100% K 18%
561	Polygon	Bathymetric Tint Depth: 0m (0ft) - 100m (330ft), 100m (330ft) - 200m (660ft) (WAC Only)		Colour: C 10% M 0% Y 0% K 0%
562	Polygon	Bathymetric Tint Depth: 200m (660ft) - 500m (1640ft) (WAC Only)		Colour: C 20% M 0% Y 0% K 0%
563	Polygon	Bathymetric Tint Depth: 500m (1640ft) - 1000m (3280ft) (WAC Only)		Colour: C 30% M 0% Y 0% K 0%
564	Polygon	Bathymetric Tint Depth: 1000m (3280ft) - 3000m (9840ft) (WAC Only)		Colour: C 40% M 5% Y 0% K 5%
565	Polygon	Bathymetric Tint Depth: 3000m + (WAC Only)		Colour: C 55% M 5% Y 0% K 5%
57	Chain	Depression Contour (Index)	0.2 0.2 0.2	Colour: C 0% M 59% Y 100% K 18% tart node End node ticks at 90° to line
573	Chain	Grid line Standard Bathymetric Line Standard		Colour: C 100% M 10% Y 0% K 10%
574	Chain	Grid line 100 000 m @ 250K 10 000m @ 100K		Colour: C 100% M 10% Y 0% K 10%
575	Chain	Graticule line Dam or Weir (Wac Only)		
58	Chain	Depression Contour (Standard)	0.15 0.3 0.1	Colour: C 0% M 59% Y 100% K 18% art node End node ticks at 90° to line

Sym Number		Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
59	Chain	Auxiliary Contour	0.8 4.5 0.1mm Li	Colour: C 0% M 59% Y 100% K 18%
6	Polygon	Plantation All features at 250K & Softwood (100K only)		Colour: C 0% M 0% Y 40% K 0% With Pattern: equivalent to Screen MP-2 Colour: C 100% M 10% Y 0% K 10%
60	Chain	Habitation Boundaries & Cultural Boundaries	0.15	
60	Polygon	Cemetery Area Building Area (Ruin)	No infill Outline: Symbol N	No.60 <i>(Chain)</i>
600	Polygon	Plantation Hardwood (100K only)		Colour: C 0% M 0% Y 40% K 0% With Pattern: equivalent to Screen Hardwood Colour: C 100% M 10% Y 0% K 10%
601	Chain	Open Grass Plain Boundary (WAC ONLY)	0.15	
62	Chain	International Boundary	1.50 6.25	1.5
620	Chain	Boundary - International (WAC ONLY)	5mm long dash 0.75mm gap	neweight
63	Chain	Landmark Area (edge symbology)	0.3	0.1 mm lineweight
63	Polygon	Landmark Area	No infill Outline: Symbol	No.63 (Chain)
64	Chain	Prohibited Area Boundary Line Single boundary	$\frac{1.25}{1.25}$ $\frac{3.75}{1.25}$	
64	Polygon	Defence And Prohibited Area	No infill Outline	e: Symbol No.64 <i>(Chain)</i>
641	Chain	Prohibited Area Boundary Line Dual boundary	1.5 mm 1.25 3.75 Note: black line on the bou	0.3 Line Colour: Solid Black Verge Colour: C 54% M 42% Y 0% K 0% Transparency 40%

Syn Numbe	nbol r Type	Feature	Description	Symbol Colour is B	lack unless otherwise specified All measurements are in mm
65	Chain	Reserve Boundary Line Single boundary	Verge Colour: C 6	0% Y 86% K 0% End 0.75 4% M 0% Y 53% K 0% ensparency 40%	node Start node
65	Polygon	Reserve Area	No in —Out	fill ine: Symbol No.65 <i>(Chain)</i>	
650	Chain	Reserve Boundary Line Single boundary (no spline)		0.75 End 4% M 0% Y 53% K 0% esparency 40%	node Start node
66	Chain	Tropic of Capricorn	$\frac{1}{0.25}$ $\frac{1}{1.75}$ 0.15		
660	Chain	Isogonal Line	gap 1.2mm 2.5mm dash lineweight 0.2mm	Co	lour: C 79% M 90% Y 0% K 0%
68	Chain	Reserve Boundary Line Dual boundary not coincident with a symbolised feature	1.5	Colour: C 40% M 0% Y 34% Transparency 40% 0.25 Line Colour: C 100 undary	
680	Chain	Reserve Boundary Line Dual boundary coincident with edge of perennial feature or sea.	Verge 1.5 Note: solid green line on the bo	Colour: C 40% M 0% Y 34% Transparency 40% Verge centred on linewo	
681	Chain	Reserve Boundary Line Dual boundary coincident with a symbolised feature	0.75 Verge Note: solid green line on the bo	0.25 Line Colour: C 100	olised feature plus 0.15mm
7	Polygon	Mangrove		Со	lour: C 45% M 5% Y 40% K 5%
70	Chain	Jetty	Coast 0.3 x length	to scale	
700	Polygon	Aircraft Facility Area Airport		(Colour: C 30% M 22% Y 0% K 0%
701	Point	Aircraft Facility Point Airport	0.4 5.8		olour: C 100% M 73% Y 0% K 0% Hot spot at the centre of the circle
702	Chain	Aircraft Facility Line	0.15	C	olour: C 100% M 73% Y 0% K 0%
703	Point	Aircraft Facility Point Landing ground	0.3 0.3 x 2.5		Hot spot at the centre of the circle Orientation 0. olour: C 100% M 73% Y 0% K 0%
703	Chain	Aircraft Facility Line Landing ground	Outline Colour: C 100% M 73% Y Outline Width: 0.15 0.75 To Scale	Symb	ol Centred along the line feature

Sym		Feature	Description Symbol Colo	ur is Black unless otherwise specified All measurements are in mm.
704	Point (WAC ONLY)	Helicopter Landing Site	Zurich BT 9 point 3.6mm diameter centered in middle of circle 0.4mm lineweight	Hot spot at centre of the circle Orientation 0 Colour: C 79% M 90% Y 0% K 0%
706	Chain	Runway Centreline		Colour: C 100% M 73% Y 0% K 0%
708	Point	Aircraft Facility Point <i>Heliport</i>	2.9 Line weight for vertical bars of H Line weight for horizontal bar of H Height of H 1.75 mm, Width of H Crossbar halfway up uprights, cercossbar at centre of circle.	H 0.3mm, Orientation 0
709	Chain	Taxiway	0.30	Colour: C 100% M 73% Y 0% K 0%
71	Chain	Sea Wall	0.30	
710	Point	Aerodrome Civilian Unlicensed (WAC ONLY)	3.6mm diameter — — — — — — — — — — — — — — — — — — —	Hot spot at centre of circle Colour: C 79% M 90% Y 0% K 0% of circle
711	Point	Aerodrome Civilian Unusable (WAC ONLY)	3.6mm diameter 3.6mm lineweight Centered in middle of circle	Hot spot at centre of circle Orientation 0 Colour: C 79% M 90% Y 0% K 0%
712	Point	Aerodrome Licensed Civilian with Passenger Facilities (WAC ONLY)	1.2mm tick 0.4mm lineweight 4.6mm diameter 0.4mm lineweight	Hot spot at centre of circle Orientation 0 Colour: C 79% M 90% Y 0% K 0%
713	Point	Aerodrome Licensed Civilian without Passenger Facilities (WAC ONLY)	3.6mm diameter 0.4mm line weight	Hot spot at centre of circle Colour: C 79% M 90% Y 0% K 0%
714	Line	Customs Aerodrome Pecked Line (WAC ONLY)	——————————————————————————————————————	Colour: C 79% M 90% Y 0% K 0%
716	Point	Aerodrome Licensed Joint Civilian and Military (WAC ONLY)	3.7mm diamet 1.2mm tick 0.4mm lineweight 4.6mm diameter 0.4mm lineweight	
717	Point	Aerodrome Licensed Military (WAC ONLY)	4.6mm diameter 3.7mm diameter 0.4mm lineweight 0.15mm lineweight	Hot spot at centre of circle Colour: C 79% M 90% Y 0% K 0%

Sym Number		Feature	Description Symbol Colour is Black unless otherwise specified; All measurements are in mm.
718	Point	Aerodrome Water Civilian Licensed with Passenger Facilities (WAC ONLY)	1.2mm tick 0.4mm lineweight 1.2mm tick 0.4mm lineweight 1.2mm Line 0.3mm lineweight 1.2mm Line 0.3mm lineweight 2.75mm 2.75mm 3.8mm diameter circle with a 0.3mm lineweight 4.6mm diameter 0.4mm lineweight 2.75mm 2.75mm 4.6mm diameter 0.4mm lineweight 2.75mm 2.75mm 4.6mm diameter 0.4mm lineweight 4.6mm diameter 0.4mm lineweight 2.75mm 2.75mm
719	Point	Aerodrome Water Joint Civilian and Military (WAC ONLY)	Hot spot at centre of circle Orientation 0 Colour: C 79% M 90% Y 0% K 0% 1.2mm tick 0.4mm lineweight 0.4mm lineweight 3.7mm diameter 0.4mm lineweight 3.7mm diameter 0.15mm lineweight arc is sectioned from a 3.8mm diameter circle with a 0.3mm lineweight equilateral triangle with 0.6mm sides
72	Point	Lighthouse	1.5 Hot spot at the centre of the circle
720	Point	Aerodrome Water Licensed Military (WAC ONLY)	Hot spot at centre of circle Orientation 0 Colour: C 79% M 90% Y 0% K 0% 0.4mm diameter 0.15mm lineweight 1.2mm Line 0.3mm lineweight with a 0.3mm lineweight 0.3mm lineweight 0.3mm lineweight arc is sectioned from a 3.8mm diameter circle 2.75mm equilateral triangle with 0.6mm sides
721	Point	Aerodrome Water Unlicensed Civilian (WAC ONLY)	Hot spot at centre of circle Orientation 0 Colour: C 79% M 90% Y 0% K 0% 0.4mm diameter 0.15mm lineweight 1.2mm Line 0.3mm lineweight arc is sectioned from a 3.8mm diameter circle with a 0.3mm lineweight equilateral triangle with 0.6mm sides

Sym Number	nbol Type	Feature	Description Symbol Colour is Black unless otherwise specified All measurements are in mm
722	Point	Air Navigation Light (WAC ONLY)	2.8mm Hot spot at centre of star Orientation 0 Colour: C 79% M 90% Y 0% K 0%
728	Point	Marine Light	1.4mm diameter dot Hot Spot at centre of dot
		(WAC ONLY)	Colour: C 79% M 90% Y 0% K 0%
729	Point	Marine Lightship (WAC ONLY)	6 pointed star Jineweight 0.2mm
			1.0mm
			Hot Spot at centre of circle
			2.4mm Orientation 0
			3.6mm Colour: C 79% M 90% Y 0% K 0% lineweight 0.2mm
73	Point	Spring	0.15 Hot spot at the centre of the circle Orientation 0 Colour: C 100% M 10% Y 0% K 10%
751	Chain	Breakwater	0.3
752	Chain	Wharf Line	0.3
753	Point	Dry Dock Point	1.0mm Hot spot Orientation 0
754	Point	Lock	0.15 0.9 Hot spot Point faces upstream Orientation 90
755	Chain	Boat Ramp Line	Coast 0.2
756	Point	Wreck Bare or Tidal	1.5 radius of arc O.10 Hot spot at centre of circle at base of symbol O.6 O.5 Arc for measurement only, not part of symbol
759	Point	Wreck Submerged	0.6mm Hot spot at centre of symbol 0.6mm 0.10 mm lineweight 2.7mm

Sym Number		Feature	Description Symbol Colour is Black unless otherwise specified; All measurements are in mm.
79	Chain	Boundary - State or Territory (WAC ONLY)	5mm long dash 0.75mm gap Verge Colour: C 0% M 35% Y 15% K 0% Line Colour: Solid Black 0.3mm lineweight 1.5mm short dash
80	Chain	State Border	1.50 5.0 0.3
801	Point	Storage Tank	0.75mm Hot spot at centre of circle
802	Point	Rescue Point (Emergency Mapping)	Colour: C 60% M 60% Y 0% K 0% (R' is a Zurich Extra Bold 10pt in solid white Centred both vertically and horizontally
803	Point	Signage (Emergency Mapping)	3.63mm 0.696mm 0.683mm 0.653mm 0.653mm 0.0653mm 0.0653mm 0.062mm Hot spot at centre of base of symbol Red Dimension Markers are not part of symbol Colour: C 0% M 0% Y 0% K 100% Note: Billboard portion will be white not transparent.
804	Point	Communication Device (Emergency Mapping)	0.681, 2.582 0.905, 2.638 0.426, 2.213 1.242, 2.195 1.155, 1.864 1.779, 1.124 2.17, 1.171 2.575, 0.785 2.494, 0.572 Hot spot at centre of symbol 2.101, 0.358 Red Dimension Markers are not part of symbol Colour: C 0% M 0% Y 0% K 100% Note: Handset portion will be white not transparent.
81	Point	Waterhole	Hot spot at centre of circle 0.75mm Colour: C 100% M 10% Y 0% K 10%
82	Point	Waterpoint & Water Access (Emergency Mapping)	O.75mm Hot spot at centre of circle Colour: C 100% M 10% Y 0% K 10%

Sym Number		Feature	Description Symbol Colour is Black unless otherwise specified; All measurements are in mm.
84	Point	Pinnacle	0.5 mm Hot spot at the centre of the circle Hot spot at centre of square 0.10
86	Point	Water Tank	0.75mm Colour: C 100% M 10% Y 0% K 10%
87	Chain	Windbreak	0.3 Colour: C 100% M 0% Y 86% K 0%
881	Chain	Rapid Line On major watercourse chain	90° Down Start node 0.15 45° Start node 1 mm Colour: C 100% M 10% Y 0% K 10% End node
881	Polygon	Rapid Area On perennial watercourse polygon	Colour: C 20% M 0% Y 0% K 0% Pattern: equivalent to Screen Random Dot 1 (negative screen) Waterline
882	Chain	Rapid Line On minor watercourse chain	90° 0.15 Arrows point downstream 0.15 45° 1 mm Colour: C 100% M 10% Y 0% K 10% End node
89	Point	Waterfall	O.25 Colour: C 100% M 10% Y 0% K 10% Hot spot at centre of line Orientation 0 Watercourse beyond the banks of the watercourse Colour: C 100% M 10% Y 0% K 10% Hot spot at centre of line Orientation 0 Watercourse or connector
90	Chain	Physiography Boundaries Bounding a crater & distorted surface	0.75 0.30
90	Polygon	Distorted Surface Outcrop	Colour: C 0% M 9% Y 15% K 3%
900	Polygon	Distorted Surface	Infill: Symbol No.90 (<i>Polygon</i>) Outline: Symbol No.90 (<i>Chain</i>)
901	Polygon	Crater	No infill Outline: Symbol No.90 (Chain)

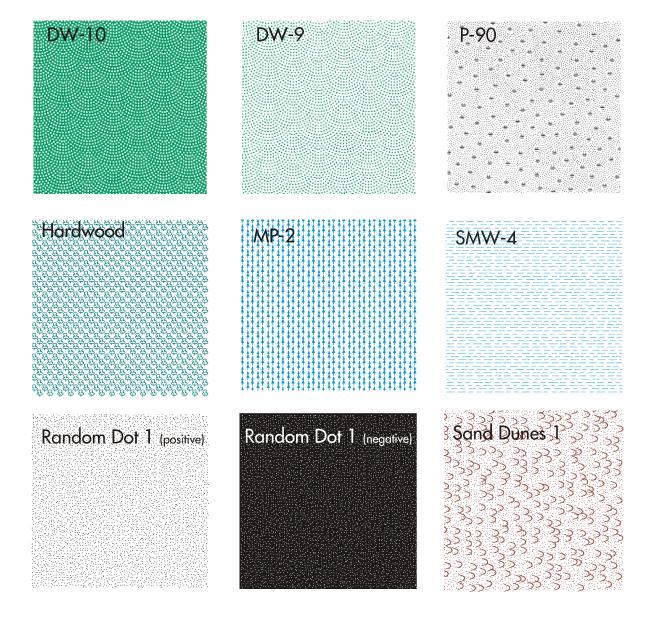
Sym Number		Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
904	Chain	Black Soil Plain Bounding Line	2.5 0.6 0.25	Colour: C 0% M 0% Y 0% K 60%
904	Polygon	Black Soil Plain		Colour: C 0% M 0% Y 20% K 0%
908	Polygon	Swamp Marine Swamp	示 - 未 - 示	Pattern: Equivalent of Screen P-90 Colour: C 100% M 10% Y 0% K 10% At least one grass symbol is to fall in each polygon
91	Chain	Watercourse Hierarchy: Major (100K use only for Non-perennial features)	0.20	Colour: C 100% M 10% Y 0% K 10%
912	Chain	Physiography Boundaries Bounding outcrops	0.75 0.25	10
912	Polygon	Outcrop		ol No.90 (<i>Polygon</i>) ool No.912 <i>(Chain)</i>
92	Chain	Watercourse Hierarchy: Major (250K no flow arrow & 100K use only for Perennial features)	0.20	Colour: C 100% M 10% Y 0% K 10%
920	Chain	Cliff (WAC Only)	0.15 ticks at 90° to 1 mm 0.2	to the line Colour: C 0% M 59% Y 100% K 18% Start node End node
921	Chain	Levee	0.5	cross ticks at 90° to the line and centre on the line
922	Chain	Watercourse Hierarchy: Major with direction of flow	0.20 Arrowhead	Colour: C 100% M 10% Y 0% K 10% Start node End node
923	Chain	Cutting	(including outline)	0.25mm Feature in database 0.20 Start node End node
924	Chain	Cliff	0.15 ticks at 90° to 1 mm 0.2	to the line Start node End node

Sym Number		Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
925	Chain	Dam Wall	0.40	
926	Chain	Spillway	0.3 mm	Colour: C 100% M 10% Y 0% K 10%
927	Chain	Fence	0.10	
929	Chain	Razorback	1 mm 0.15 1 mm 0.2	ticks at 90° to the line
93	Chain	Old Lake Bed Boundary	$\frac{1}{\sqrt{0.5}} - \frac{1}{\sqrt{2.0}} - 0.15$	Colour: C 100% M 10% Y 0% K 10%
94	Chain	Waterbody Boundaries & Shoreline	0.15	Colour: C 100% M 10% Y 0% K 10%
940	Chain	Watercourse Hierarchy: Minor (250K no flow arrow &100K used for Perennial features only.)	0.15	Colour: C 100% M 10% Y 0% K 10%
942	Chain	Watercourse Hierarchy: Minor with direction of flow	O.15 Arrowhead 60° 0.10 1 n	Start node End node mm Colour: C 100% M 10% Y 0% K 10%
944	Chain	Watercourse Hierarchy: Minor (100K use only for Non-perennial features)	0.3 4.0 _\L-0.15	Colour: C 100% M 10% Y 0% K 10%
948	Point	Flow Direction Arrow	60° 150° 0.10 Hot spot	Start node Arrowhead Colour: C 100% M 10% Y 0% K 10%
947	Chain	Canal and Pipeline <i>Water</i>	0.25	Colour: C 100% M 10% Y 0% K 10%
95	Chain	Shoal (edge symbology)	0.25	Colour: C 100% M 10% Y 0% K 10%
95	Polygon	Shoal	No infill Outline: Sy	ymbol No.95 <i>(Chain)</i>
953	Chain	Climatic Graph Grid Lines	0.2	
954	Chain	Climatic Graph Temperature Line	0.3	Colour: C 0% M 100% Y 100% K 0%

Sym Number	ibol Type	Feature	Description	Symbol Colour is Black unless otherwise specified; All measurements are in mm.
955	Chain	Climatic Graph Rainfall Line	0.3	Colour: C 100% M 10% Y 0% K 10%
96	Point	Cave	0.2 0.17 1 mm 0.1	Hot spot 0.46 mm 0.57 mm
97	Polygon	Reef		Colour: C 50% M 5% Y 0% K 5%
98	Point	Offshore Rock Bare and/or Tidal	60° 1 mm	Hot spot
980	Point	Offshore Rock Submerged	90° 1 mm	Hot spot
99	Chain	Cleared line	0.15	

Screens

The following representations of the screens were embedded in this document as a WMF graphic, a clearer view of these may occur through increasing the zoom factor of the document. They are supplied as an indication of the screen only, film or eps copies must be used when building the symbol libraries.



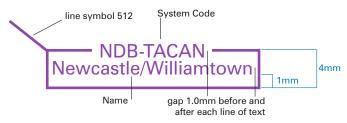
LEAD LINES AND TEXT BOXES

For 1:1 million production of World Aeronautical Charts (WACs) and their associated base data, lead lines and text boxes are required for certain associated text of the features Air Navigation Beacon, Broadcasting Station and Aerodrome used for Customs purposes.

The construction of the text boxes vary according to the feature and are detailed below making use of the symbol 512 and 714 documented in the symbol dictionary. The text font and size are as per the type specifications and are only shown in the diagrams to assist comprehension.

In all cases the text is centred in the box. The length of all boxes will vary depending on the length of the text. The length of lead lines may vary according to requirements

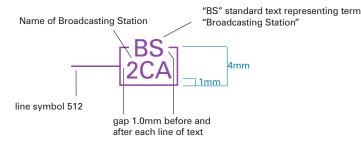
AIR NAVIGATION BEACON



First line of text is centered on the top line of the

Examples Canberra NDB-TACAN OR-DME-NDB-Newcastle/Williamtown Canberra

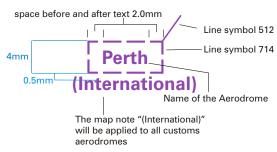
BROADCASTING STATION (radio or television)

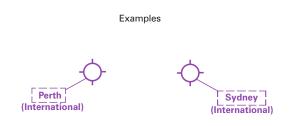


First line of text is centered on the top line of the box.

Examples

CUSTOMS AERODROME





LEAD LINE ORIENTATION

Lead lines should be placed to avoid conflict or confusion with the associated symbol. For example it is not recommended that when using Lead Lines from a customs aerodrome which are licenced with passenger facilities that the lead line be placed so that its orientation is directly north, south, west or east even though these are normally the preferred directions

It is acceptable but not preferable to have changes in direction within lead lines.

Lead lines should connect in preference order to one of the 8 locations shown below wherever possible. Position of the text box and subsequently the lead line will be based on text placement principles.

















Preferred

1st alternative

2nd alternative

3rd alternative

4th alternative 5th alternative

6th alternative 7th alternative