

## Appendix G: Symbology Audit – Responses to Final Draft Report – March 2007

This Appendix summarises the responses to the All-Hazards Symbology Project report which was circulated for comment in April 2007.

This feedback was discussed by Emergency Management Spatial Information Network Australia (EMSINA) in a meeting in Hobart 16 May 2007. As a result of these discussions it was agreed that:

- A number of items would be included in the report – and the final version (May 2007) would be published on the ICSM WEB site.
- The remaining items would be 'carried over' for consideration in the next phase of the project. These items are summarised in this Appendix.

The full text of each feedback is contained in a companion publication: '*All-Hazards Symbology Project –Feedback*'. This to will also be published on the ICSM WEB site

## GENERAL COMMENTS

id #	who	comment
11	Fire NZ	<p>The current project report fails to convince us that we should be doing something different to ANSI Standard ICTS/ANSI 415. The relationship between what is proposed and ICTS/ANSI 415 is not addressed and we feel that it must be. It is not clear from the report that the writers have entered into dialog with the developers and custodians of ANSI Standard ICTS/ANSI 415 as planned developments by Homeland Security extend into areas covered in the report.</p> <p>There is an overwhelming focus on wildfire response in this document, and no clear vision of how to progress the symbology set forward to include other future needs.</p> <p>What is being proposed here is actually the beginnings of a strategic journey for all emergency responders and we would like to see an endorsement by AFAC for fire related symbology and a similar endorsement from management of other emergency responders and projects such as the critical infrastructure projects on both sides of the Tasman that their future needs will be catered for by the direction set in this report. Currently there is no such endorsement.</p> <p>We believe that key principles are missing around the development of this symbology set and for taking the set forward. These include:</p> <ul style="list-style-type: none"> <li>• The role of symbology from ANSI Standard ICTS/ANSI 415 and other standards</li> <li>• The role of symbology from other datasets</li> <li>• What happens when an external symbol that has been adopted is deprecated by its custodian</li> <li>• Are pictograms desired for all or certain symbology types</li> <li>• When can alphabetic characters be used</li> <li>• The integration of other symbology sets.</li> </ul> <p>The role of symbology extends beyond that of mapping, it has found a very useful place in a wide range of reporting such as current status of appliance and incident reporting. If the symbology does not have a day to day use within an organisation its usefulness will be diminished. In the NZFS the symbology is often used very effectively in reports and screens that contain no spatial context.</p> <p>We would welcome a process that sets overall standards including look and feel then delivers sequentially a range of symbology that meet user needs. Wildfire symbology could be the first delivery.</p>
14	DEC WA	<p>Symbols need to be:</p> <ul style="list-style-type: none"> <li>• simple (too many complex symbols proposed)</li> <li>• colour independent (for hand drawing and photocopying)</li> <li>• system and hand drawn the same</li> <li>• need additional polygon symbols (eg aerial ignition)</li> </ul>

## SPECIFIC COMMENTS

id #	who	page	comment
11	Fire NZ	Exec. Summ.	<p>Scope of symbology in this report - This is as stated in 5.7 an initial set of symbols for '<i>EM wildfire response</i>'. This needs to be stated right up front as it does not meet the needs of other emergency responders or even fire response in a non wildfire setting.</p> <p>You report a high willingness to adopt consistent approach to mapping whereas it had been described in the reverse way to us as '<i>agencies indicated that unless the AHS symbols were not kept that they would not adopt the standard symbology</i>'. If the later is the case and we believe it to be then there is a willingness for consistency based upon current practices and little willingness for consistency based upon a move away from current practices to new symbology. This can only be resolved by management intervention.</p> <p>Way forward is alluded to but is missing.</p> <ul style="list-style-type: none"> <li>• Standards for symbology development</li> <li>• Pictograms vs letters</li> <li>• Adoption of other standards in whole or in part</li> </ul> <p>Required or we risk getting eclectic collections of symbols.</p>
11	Fire NZ	25	<p>Table 7</p> <p>Prefer:</p> <p style="text-align: center;"><b>Infrastructure</b> instead of <b>Operations</b> and <b>Operations</b> instead of <b>Assets</b></p>
15	Forestry Qld	26	NATO and American, British Canadian and Australian military symbology. Diamonds are the threat and are red, Own forces are rectangles and are blue while logistics bases are circles and can be red, blue or green (neutral).
4	Nicholas Cundell SA and Fire NZ	27	<p>Table 9</p> <p>Combine column 1 and 2 for point symbols</p>
11	Fire NZ	27	<p>Table 9</p> <p>Use same line symbol – ie create a third polygon symbol using the double lines</p>

11	Fire NZ	30	4.4 – Item 3 Suggested symbology set does not follow this principle for the following symbols in Appendix D:  2.7-2.9 3.21 3.22 3.35-3.39 3.43.
11	Fire NZ	30	4.4 – Item 10 Solid fill should be allowed
11	Fire NZ	30	4.4 – Item 11 ANSI Standard ICTS/ANSI 415 may federally mandate a change to this usage. GISSOP indicate that safety features should be diamonds and filled orange (though all examples in the GISSOP are filled yellow).
5	Tim Groves SA	32	Table 12 – Operations Add: Backburn (polygon), Point Fire Status, Sentinel Hotspots, Retardant Drops (point and line)
1	Elliott Simmons NSW	32  84 & 85	Table 12 Added Animal Shelter and Evacuation Route  Appendix D Added Animal Shelter and Evacuation Route, but other attributes/information not added
4	Nicholas Cundell SA	34	Figure 5 Close vertical hachures obscure the grid – use slanted close hachures
11	Fire NZ	42	6.2 – Further Descriptions Too heavy an emphasis on AIIMS – needs to be broadened into other hazards – eg ANSI
11	Fire NZ	App B (47-52)	Not a fair representative of NZ symbols – only some of NZFS symbols are shown and no other agencies (NRFA 48 symbols, MCDEM 81 symbols and NZFS 117 symbols)
5	Tim Groves SA	App D (81-87)	How will lines and polygons be identified as Incident/Operational/Asset? If text is used then the map will become very messy
5	Tim Groves SA	App D (81-87)	Proposed features should be labelled as proposed – to avoid confusion
8	Dept Conservation NZ	App D (81-87)	To avoid confusion, the hand drawn symbol should be the same as the System Symbol

8	Dept Conservation NZ	App D (81-87)	<p>Add:</p> <ul style="list-style-type: none"> <li>Logistics <b>L</b> in a square or circle frame</li> <li>Catering Unit Food symbol attached</li> <li>Communications Unit Telecom symbol attached</li> <li>Ground Support Unit <b>GS</b> in a square or circle frame</li> <li>Situations Unit <b>SU</b> in a square or circle frame</li> <li>Crew Crew symbol attached (for use with real time GPS tracking)</li> <li>Dozer Dozer symbol attached</li> <li>Water Tanker Tanker symbol attached</li> <li>Fuel Dump Fuel can symbol attached</li> <li>Hazard (with description) <b>!</b> in a diamond hazard frame</li> <li>Locked (Key required) Lock symbol attached</li> <li>Triage HSWG Triage symbol but with a <b>+</b></li> <li>Check Point HSWG Check Point symbol attached</li> <li>Boat Ramp Boat ramp symbol attached</li> <li>Safe Forward Point <b>SF</b> in a circle frame</li> <li>Safety Zone <b>SZ</b> in a circle frame</li> <li>Drop Point Spot symbol attached with text <b>DP#</b></li> <li>Sling Spot Spot in a circle symbol attached with text <b>SS#</b></li> <li>Lookout Binocular symbol attached</li> </ul>
9	Bureau of Meteorology Aust	App D (81-87)	<p>Add:</p> <ul style="list-style-type: none"> <li>Volcano</li> <li>Tornado</li> <li>Dust storm/Sand storm</li> <li>Lightning Strike</li> </ul>
8	Dept Conservation NZ	App D (81-87)	<p>Add:</p> <ul style="list-style-type: none"> <li>Volcanic Eruption</li> <li>Volcanic Threat</li> <li>Avalanche</li> </ul>
4	Nicholas Cundell SA	App D (81-87)	<p>Add:</p> <p>SA CFS symbols for Fire Station, Police Station and Ambulance Station</p>
2	Tony Callan Aust	App D (81-87)	<p>Agricultural symbols included are indicative only. Replacements to be supplied at a later date.– for discussion at a later date</p> <p>Especially 1.4 (Insect Plague), 1.5 (Animal Health) and 1.6 (Plant Health)</p>

14	DEC WA	App D (81-87)	<p>Suggested alternate symbols for:</p> <ul style="list-style-type: none"> <li>1.8 Fire Origin</li> <li>1.9 Fire Hot Spot</li> <li>1.10 Spot Fire</li> <li>1.11 Burnt Area</li> <li>1.12 Fire Perimeter/ Boundary</li> <li>1.13 Fire Edge (Predicted, Active &amp; Contained)</li> <li>2.1 Asset (Generic)</li> <li>2.2 Indigenous Site</li> <li>2.7 Fire Sensitive Asset</li> <li>2.9 Threatened Asset</li> <li>3.5 Control Area</li> <li>3.6 Control / Operations Point</li> <li>3.8 Escape Route</li> <li>3.10 Evacuation Area</li> <li>3.11 Evacuation Centre</li> <li>3.13 Incident Command/ Control Centre</li> <li>3.15 Division Point</li> <li>3.16 Sector Boundary</li> <li>3.17 Sector Point</li> <li>3.23 Aerial Ignition</li> <li>3.25 Machine Cut Track</li> <li>3.26 Fire Control Line</li> <li>3.27 Fire Engine/ Vehicle</li> <li>3.32 Police Vehicle</li> <li>3.33 Ambulance Location</li> <li>4.40 Airbase</li> <li>4.41 Helibase</li> <li>4.42 Helipad</li> </ul>
4	Nicholas Cundell SA	81	Symbol 1.2 (Bomb Threat) Needs to be clearer
4	Nicholas Cundell SA and Fire NZ	81	Symbol 1.2 (Bomb Threat) and 1.3 (Bomb) Combine and add status Possible and Probable
11	Fire NZ	81	Symbol 1.4 (Insect Plague), 1.8 (Fire Hot Spot) and 1.9 (Spot Fire) Use ANSI symbol
3	Nicholas Cundell SA	81	Symbols 1.9 (Fire Hot Spot), 1.10 (Spot Fire) and 1.11 (Burnt Area) – symbols too large
4	Nicholas Cundell SA	81	Symbol 1.11 (Burnt Area) – use slanted hachures
8	Dept Conservation NZ	81	Symbol 1.11 (Burnt Area) Use a transparent shading
11	Fire NZ	81	Symbol 1.11 (Burnt Area) inconsistent with Table 9 (page 27) (horizontal vs vertical hachuring)

8	Dept Conservation NZ	81	Symbol 1.12 (Fire Perimeter / Boundary) and 1.13 (Fire Edge) How do these relate to each other – are they the same?
8	Dept Conservation NZ	81	Symbol and 1.13 (Fire Edge) Use a double black line to identify a Fire Edge which has been extinguished
4	Nicholas Cundell SA	82	Symbol 1.15 (Oil Spill) Remove 'white spot' on symbol
9	Bureau of Meteorology Aust	82	Symbol 1.18 (Cyclone) Needs an indicator of severity
9	Bureau of Meteorology Aust and Fire NZ	82	Symbol 1.20 (Flood) The symbol is not intuitive, should emulate ANSI and be blue Needs an indicator of severity/type
8	Dept Conservation NZ	81, 82 & 84	Symbol 1.11 (Burnt Area) 1.21 (Flood Area), 3.2 (Area of Interest) and 3.5 (Control Area) Use a transparent shading
9	Bureau of Meteorology Aust	82	Symbol 1.23 (Thunderstorm) Correct definition and replace with symbol something more generic
9	Bureau of Meteorology Aust	82	Symbol 1.24 (Storm Surge) Symbol (using a wave) is not appropriate for Storm Surge
11	Fire NZ	83	Symbol 2.4 (Historic Site) Symbol looks like a homestead – a more generic one should be identified.
11	Fire NZ	83	Symbol 2.7 (Fire Sensitive Asset), 2.8 (Machine Sensitive Asset) and 2.9 (Threatened Asset) Would prefer a status box and remove the yellow
8 13	Dept Conservation NZ and Rural Fire NSW	84	Symbol 3.9 (Escape Route) Escape Route as a line needs a direction arrow
8	Dept Conservation NZ	85	Symbol 3:15 (Incident Command / Control Centre) Hand drawn symbol should be the same as the System Symbol
8	Dept Conservation NZ	77	Symbol 3.21 (Portable Weather Station) This symbol is currently being used by HSWG as a school

11	Fire NZ	85	Symbol 3.19 (Mobile Weather Station) Change symbol (this is the ESRI symbol for School)
8	Dept Conservation NZ	85	Symbol 3.25 (Aerial Ignition) A line symbol is also needed. It needs directional arrowheads and induction of planned or completed
8	Dept Conservation NZ	85	Add New symbol needed for Ground Ignition (a line symbol is needed and it needs directional arrowheads and induction of planned or completed)
8	Dept Conservation NZ	86	Symbol 3.28 (Fire Control Line) Need information about types of control  Dozer Line              Retardant Line    ooooooo Hand Line        ^^^^^ Natural Break    >>>>> <del>Line through symbols for completed</del>
11	Fire NZ	86	Symbol 3.37 (Potential Victim), 3.38 (Victim Location Confirmed), 3.39 (Victim Location Dead), 3.40 (Victim Extracted Alive) and 3.41 (Victim Extracted Dead)  Use of these symbols is contrary to an UN agreement – see International Search & Rescue Advisory Group (INSARAG).

## Responders

1 NSW	<b>Elliott Simmons</b> Manager Geographic Information Systems NSW State Emergency Service
2 Aust	<b>Tony Callan</b> Emergency Preparedness Manager Dept of Agriculture, Fisheries and Forestry
3 SA	<b>Nicholas Cundell</b> Operations Planning Officer - Policy Country Fire Service
4 SA	<b>Nicholas Cundell</b> Operations Planning Officer - Policy Country Fire Service
5 SA	<b>Tim Groves</b> Mapping Support Team Department for Environment & Heritage
6 SA	<b>Charlotte Morgan</b> Fire Management Branch Department for Environment & Heritage.
7 WA	<b>Ron Vincent</b> Manager Geographic Services Landgate
8 NZ	<b>Dean Strachan</b> , GIS Analyst <b>Trevor Mitchell</b> , Senior Fire Control Officer <b>Department of Conservation</b>
9 Aust	<b>Bureau of Meteorology</b> (Kathleen Hirst)
10 WA	<b>Brendan Power</b> Manager GIS Fire & Emergency Services Authority of WA
11 NZ	<b>Malcolm Macfarlane</b> Engineering, Information, Research and Strategic Analysis New Zealand Fire Service
12 WA	<b>Brett Harrison</b> SLIP Emergency Management Program Fire & Emergency Services Authority of WA
13 NSW	<b>NSW Rural Fire Service</b> (Megan Stanley)
14 WA	<b>Department of Environment and Conservation</b> (Craig Carpenter)
15 Qld	<b>Mark Allen</b> Ingham Forest Management Area Department of Primary Industries
16 SA	<b>Anthony Griffith</b> Fire & Emergency Dept Sustainability and Environment