All Fields marked with * are mandatory.

Change Request #:	**365**
Assigned OGC Document #:	**14-117**
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Document Name/Version:	*KML / 2.2.0
OGC Project Document:	*07-147r2

If this is a revision of a previous submission and you have a Change Request Number, then check here: ☐
Enter the CR number here:
Enter the Revsion Number that you are revising here:

Title:	* Enhanced Text Placement
Source:	*Army Common Overlay Working Group
Work item code:	
Category:	* B (Addition of feature)

Reason for change: *

KML has been selected as a common overlay standard across multiple systems, as a means to convey overlay graphics and symbology to coalition partners and foreign governments. Originating systems using both Freehand Graphics and MILSTD 2525 encode and display graphical symbology that is not rendered correctly in KML.

Text rendering and placement in KML 2.2 is insufficient to support representation of MILSTD 2525 A/B/C/D and NATO APP 6C textual modifiers that require multiple, disconnected text to be rendered at specific locations relative to corresponding line rendering. Freehand graphics are drawn with labels located in specific positions relative to graphic overlay.

The placement of multiple text regions in the above symbology standards, and within communities of interest has very specific meaning to experienced consumers of this symbology, relative to accompanying geometry.

Non-optimal yet acceptable workarounds exist for text rendered within a point symbol rendering using raster encoded text, but no acceptable

	workarounds exist for symbols known as â��tactical graphicsâ��. Tactical graphics, as illustrated in MILSTD 2525C, Appendix B, Table B-IV, contain one or more control points with straight or curved lines or polygons drawn in specific patterns relative to the control points, with various text embedded within the tactical graphic at specific locations to convey additional information (known as text modifiers or amplifying text). Representative symbols that illustrate the text placement needs of MILSTD 2525 are provided below. This list is not exhaustive, but provides examples of text placement and proximity to symbol geometry. Text Placement exemplars from MILSTD 2525C Table B-IV include the following representative Symbol Identifiers: TACGRP.TSK.BLK TACGRP.TSK.FIX TACGRP.TSK.FLWASS TACGRP.TSK.RIP TACGRP.C2GM.GNL.LNE.BNDS TACGRP.C2GM.GNL.LNE.LOC TACGRP.C2GM.GNL.LNE.PHELNE TACGRP.C2GM.GNL.LNE.LITLNE
Summary of change:	* Enhance text placement capabilities to support placement and font size/scaling relative to rendered geometries, including: â�¢ One or more text rectangles surrounding a point symbols (known as text modifiers in MILSTD 2525. â�¢ One or more text rectangles within and surrounding a polygon. â�¢ One or more text rectangles within and/or surrounding a line or polyline. Text placement should be specified in display pixel space (vs. ground space) relative to the placemark hotspot.
Consequences if not approved:	Personnel familiar with MILSTD 2525 symbology used in military, meteorological, oceanographic, signals, stability, and emergency management applications have been trained to rely on text modifiers surrounding the symbol with significance, and failure to render symbology label/text consistent with symbology standards could cause serious or fatal injury in mission critical applications.
Clauses affected:	* 12
Additional Documents affected:	MILSTD 2525 DOD/IF Common Warfighting Symbology, Revision A, B, C, D NATO Warfighting Symbolog, APP 6
Supporting Documentation:	
Comments:	The OGC Symbology Encoding standard provides an extensive mechanism for text placement that could be incorporated into KML as a text

	placement extension. Use of SVG as a means to specify text placement should also be considered. Consider specifying text coordinates using a unit square, with the unit square origin corresponding to the center of the placemark, and 1,1 corresponding to the upper right corner of the rendered placemark. Text may be placed within and beyond the four quadrants that overlap the rendered geometry.
Status:	Assigned
Assigned To:	KML SWG
Disposition:	Referred