

# ISO 16698:2013-05 (E)

## Space environment (natural and artificial) - Methods for estimation of future geomagnetic activity

---

Contents	Page
<b>Foreword .....</b>	<b>iv</b>
<b>Introduction .....</b>	<b>v</b>
<b>1 Scope .....</b>	<b>1</b>
<b>2 Symbols and abbreviated terms .....</b>	<b>1</b>
<b>3 General parameters .....</b>	<b>1</b>
<b>3.1 Geomagnetic field variations .....</b>	<b>1</b>
<b>3.2 Quiet level and disturbance fields .....</b>	<b>2</b>
<b>3.3 K index (local 3 h range index) .....</b>	<b>2</b>
<b>3.4 K<sub>p</sub>, K<sub>p</sub>, a<sub>p</sub>, and A<sub>p</sub> indices (planetary indices) .....</b>	<b>2</b>
<b>3.5 aa index (antipodal amplitude index) .....</b>	<b>4</b>
<b>3.6 Dst index (storm time disturbance index) .....</b>	<b>4</b>
<b>3.7 ASY and SYM indices (mid-latitude disturbance indices) .....</b>	<b>5</b>
<b>3.8 AU, AL, AE, and AO indices (auroral electrojet indices) .....</b>	<b>5</b>
<b>3.9 Time lag in the derivation and temporal resolution (sampling) .....</b>	<b>6</b>
<b>4 Classification of prediction .....</b>	<b>6</b>
<b>4.1 Short-term prediction .....</b>	<b>6</b>
<b>4.2 Middle-term prediction .....</b>	<b>8</b>
<b>4.3 Long-term prediction .....</b>	<b>8</b>
<b>5 Methods of prediction .....</b>	<b>9</b>
<b>5.1 Prediction based on statistical models .....</b>	<b>9</b>
<b>5.2 Prediction based on physical principle .....</b>	<b>9</b>
<b>6 Evaluation of prediction efficiency .....</b>	<b>9</b>
<b>6.1 Definition of prediction error .....</b>	<b>9</b>
<b>6.2 Methods of evaluation .....</b>	<b>9</b>
<b>7 Compliance criteria .....</b>	<b>10</b>
<b>7.1 Rationale .....</b>	<b>10</b>
<b>7.2 Reporting .....</b>	<b>10</b>
<b>7.3 Documenting .....</b>	<b>10</b>
<b>7.4 Publishing .....</b>	<b>10</b>
<b>7.5 Archiving .....</b>	<b>10</b>
<b>Annex A (informative) Websites where geomagnetic indices are available .....</b>	<b>11</b>
<b>Annex B (informative) Websites where the space weather predictions and/or "now casting" are presented .....</b>	<b>12</b>
<b>Annex C (informative) Definition of various skill scores .....</b>	<b>13</b>
<b>Bibliography .....</b>	<b>14</b>