

## GRIB2 - GRIB1

### Local Parameter Conversion Table

The following table contains a list of GRIB1 locally defined NCEP parameters and their GRIB2 equivalent.

| GRIB2              |                 |                  | Parameter Name                      | GRIB1             |                  |
|--------------------|-----------------|------------------|-------------------------------------|-------------------|------------------|
| Product Discipline | Category        | Parameter number |                                     | Parameter Table # | Parameter number |
| Sect 0 Octet 7     | Sect 4 Octet 10 | Sect 4 Octet 11  |                                     | Sect 1 Octet 4    | Sect 1 Octet 9   |
| 0                  | 0               | 192              | Snow Phase Change Heat Flux         | 2                 | 229              |
| 0                  | 1               | 22               | Cloud Water Mixing Ratio            | 2                 | 153              |
| 0                  | 1               | 24               | Rain Water Mixing Ratio             | 2                 | 170              |
| 0                  | 1               | 25               | Snow Water Mixing Ratio             | 2                 | 171              |
| 0                  | 1               | 192              | Categorical Rain                    | 2                 | 140              |
| 0                  | 1               | 193              | Categorical Freezing Rain           | 2                 | 141              |
| 0                  | 1               | 194              | Categorical Ice Pellets             | 2                 | 142              |
| 0                  | 1               | 195              | Categorical Snow                    | 2                 | 143              |
| 0                  | 1               | 196              | Convective Precipitation Rate       | 2                 | 214              |
| 0                  | 1               | 197              | Horizontal Moisture Divergence      | 2                 | 135              |
| 0                  | 1               | 198              | Percent Frozen Precipitation        | 2                 | 194              |
| 0                  | 1               | 199              | Potential Evaporation               | 2                 | 228              |
| 0                  | 1               | 200              | Potential Evaporation Rate          | 2                 | 145              |
| 0                  | 1               | 201              | Snow Cover                          | 2                 | 238              |
| 0                  | 1               | 202              | Rain Fraction of Total Liquid Water | 129               | 131              |
| 0                  | 1               | 203              | Rime Factor                         | 129               | 133              |

|   |   |     |  |     |     |
|---|---|-----|--|-----|-----|
| 0 | 1 | 204 | Total Column Integrated Rain           | 129 | 138 |
| 0 | 1 | 205 | Total Column Integrated Snow           | 129 | 139 |
| 0 | 2 | 192 | Vertical speed sheer                   | 2   | 136 |
| 0 | 2 | 193 | Horizontal Momentum Flux               | 2   | 172 |
| 0 | 2 | 194 | U-Component Storm Motion               | 2   | 196 |
| 0 | 2 | 195 | V-Component Storm Motion               | 2   | 197 |
| 0 | 2 | 196 | Drag Coefficient                       | 2   | 252 |
| 0 | 2 | 197 | Frictional Velocity                    | 2   | 253 |
| 0 | 3 | 192 | MSLP ( Eta Reduction)                  | 2   | 130 |
| 0 | 3 | 193 | 5-Wave Geopotential Height             | 2   | 222 |
| 0 | 3 | 194 | Zonal Flux of Gravity Wave Stress      | 2   | 147 |
| 0 | 3 | 195 | Meridional Flux of Gravity Wave Stress | 2   | 148 |
| 0 | 3 | 196 | Planetary Boundary Layer Height        | 2   | 221 |
| 0 | 3 | 197 | 5-Wave Geopotential Height Anomaly     | 2   | 230 |
| 0 | 4 | 192 | Downward Short-Wave Rad. Flux          | 2   | 204 |
| 0 | 4 | 193 | Upward Short-Wave Rad. Flux            | 2   | 211 |
| 0 | 5 | 192 | Downward Long-Wave Rad. Flux           | 2   | 205 |
| 0 | 5 | 193 | Upward Long-Wave Rad. Flux             | 2   | 212 |
| 0 | 6 | 192 | Non-Convective Cloud Cover             | 2   | 213 |
| 0 | 6 | 193 | Cloud Work Function                    | 2   | 146 |
| 0 | 6 | 194 | Convective Cloud Efficiency            | 129 | 134 |
| 0 | 6 | 195 | Total Condensate                       | 129 | 135 |
| 0 | 6 | 196 | Total Column-Integrated Cloud Water    | 129 | 136 |
| 0 | 6 | 197 | Total Column-Integrated Cloud Ice      | 129 | 137 |

|   |     |     |                                       |     |     |
|---|-----|-----|---------------------------------------|-----|-----|
| 0 | 6   | 198 | Total Column-Integrated Condensate    | 129 | 140 |
| 0 | 6   | 199 | Ice fraction of total condensate      | 129 | 132 |
| 0 | 7   | 6   | Convective Available Potential Energy | 2   | 157 |
| 0 | 7   | 7   | Convective Inhibition                 | 2   | 156 |
| 0 | 7   | 8   | Storm Relative Helicity               | 2   | 190 |
| 0 | 7   | 192 | Surface Lifted Index                  | 2   | 131 |
| 0 | 7   | 193 | Best (4 layer) Lifted Index           | 2   | 132 |
| 0 | 7   | 194 | Richardson Number                     | 2   | 254 |
| 0 | 14  | 192 | Ozone Mixing Ratio                    | 2   | 154 |
| 0 | 19  | 11  | Turbulent Kinetic Energy              | 2   | 158 |
| 0 | 19  | 192 | Maximum Snow Albedo                   | 130 | 159 |
| 0 | 19  | 193 | Snow-Free Albedo                      | 130 | 170 |
| 0 | 191 | 192 | Latitude (-90 to +90)                 | 2   | 176 |
| 0 | 191 | 193 | East Longitude (0 - 360)              | 2   | 177 |
| 1 | 0   | 192 | Baseflow-Groundwater Runoff           | 2   | 234 |
| 1 | 0   | 193 | Storm Surface Runoff                  | 2   | 235 |
| 2 | 0   | 192 | Volumetric Soil Moisture Content      | 2   | 144 |
| 2 | 0   | 193 | Ground Heat Flux                      | 2   | 155 |
| 2 | 0   | 194 | Moisture Availability                 | 2   | 207 |
| 2 | 0   | 195 | Exchange Coefficient                  | 2   | 208 |
| 2 | 0   | 196 | Plant Canopy Surface Water            | 2   | 223 |
| 2 | 0   | 197 | Blackadar's Mixing Length Scale       | 2   | 226 |
| 2 | 0   | 198 | Vegetation Type                       | 2   | 225 |
| 2 | 0   | 199 | Canopy Conductance                    | 130 | 181 |
| 2 | 0   | 200 | Minimal Stomatal Resistance           | 130 | 203 |
| 2 | 0   | 201 | Wilting Point                         | 130 | 219 |

|   |   |     |   |     |     |
|---|---|-----|---|-----|-----|
| 2 | 0 | 202 | Solar parameter in canopy conductance         | 130 | 246 |
| 2 | 0 | 203 | Temperature parameter in canopy conductance   | 130 | 247 |
| 2 | 0 | 204 | Humidity parameter in canopy conductance      | 130 | 248 |
| 2 | 0 | 205 | Soil moisture parameter in canopy conductance | 130 | 249 |
| 2 | 3 | 0   | Soil Type (as in Zobler)                      | 2   | 224 |
| 2 | 3 | 192 | Liquid Volumetric Soil Moisture               | 130 | 160 |
| 2 | 3 | 193 | Number of Soil Layers in Root Zone            | 130 | 171 |
| 2 | 3 | 194 | Surface Slope Type                            | 130 | 222 |
| 2 | 3 | 195 | Transpiration Stress-onset (soil moisture)    | 130 | 230 |
| 2 | 3 | 196 | Direct Evaporation Cease (soil moisture)      | 130 | 231 |
| 2 | 3 | 197 | Soil Porosity                                 | 130 | 240 |