

TECHNICAL EXHIBIT
MODIFICATION TO DTV CONSTRUCTION PERMIT
STATION WHAM-DT
ROCHESTER, NEW YORK
CH 59 996 KW (MAX-DA) 129 M

Technical Narrative

This Technical Exhibit supports an amendment to the pending application for digital television (DTV) station WHAM-DT which is paired with NTSC (analog) channel 13 at Rochester, New York.¹ This application requests a modification of its construction permit (CP) for a digital television operation on channel 59 at Rochester. It is proposed to slightly decrease the radiation center, effective radiated power and modify the antenna for directional operation as referenced to its current construction permit.

Allocation Considerations

The proposed WHAM-DT Channel 59 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing NTSC facilities and DTV allotments and assignments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software developed by du Treil, Lundin & Rackley, Inc. based on the FCC published

¹ See FCC File Number: BPCDT-19991101AGM.

software routines.² Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. The results of the interference analyses for the proposed WHAM-DT facility are summarized herein at Figure 1. As indicated therein, the proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations.³

The proposed facility also satisfies the Commission's protection requirements to a television Class A and Class A eligible facilities.

Canadian Allocation Issue

The nearest point of the common U.S./Canadian border is located 56 kilometers distant. However, this proposed facility's noise-limited contour is wholly contained by the existing WHAM-DT construction permit noise-limited contour. Therefore, since the effective radiated power is not being increased in the direction of Canada, it is believed that this facility is in compliance with the US/Canadian agreement.

2 The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.

3 Interference analysis results reflect the net change in interference to a given station considering the interference predicted to occur from all other stations (i.e. "masking") including the allotment facility for WHAM-DT. This properly reflects the net interference change for determining compliance with the FCC DTV2%/10% *de minimis* standard.

du Treil, Lundin & Rackley, Inc.

Consulting Engineers
Page 3
Rochester, New York

Radiofrequency Electromagnetic Field Exposure

There are many co-located high powered emitters at and nearby to the WHAM transmitter site. Therefore, the licensee will undertake a radiofrequency electromagnetic survey of the area after construction of the herein facility to ensure no personal would be exposed to radiofrequency fields in excess of the appropriate exposure standard.

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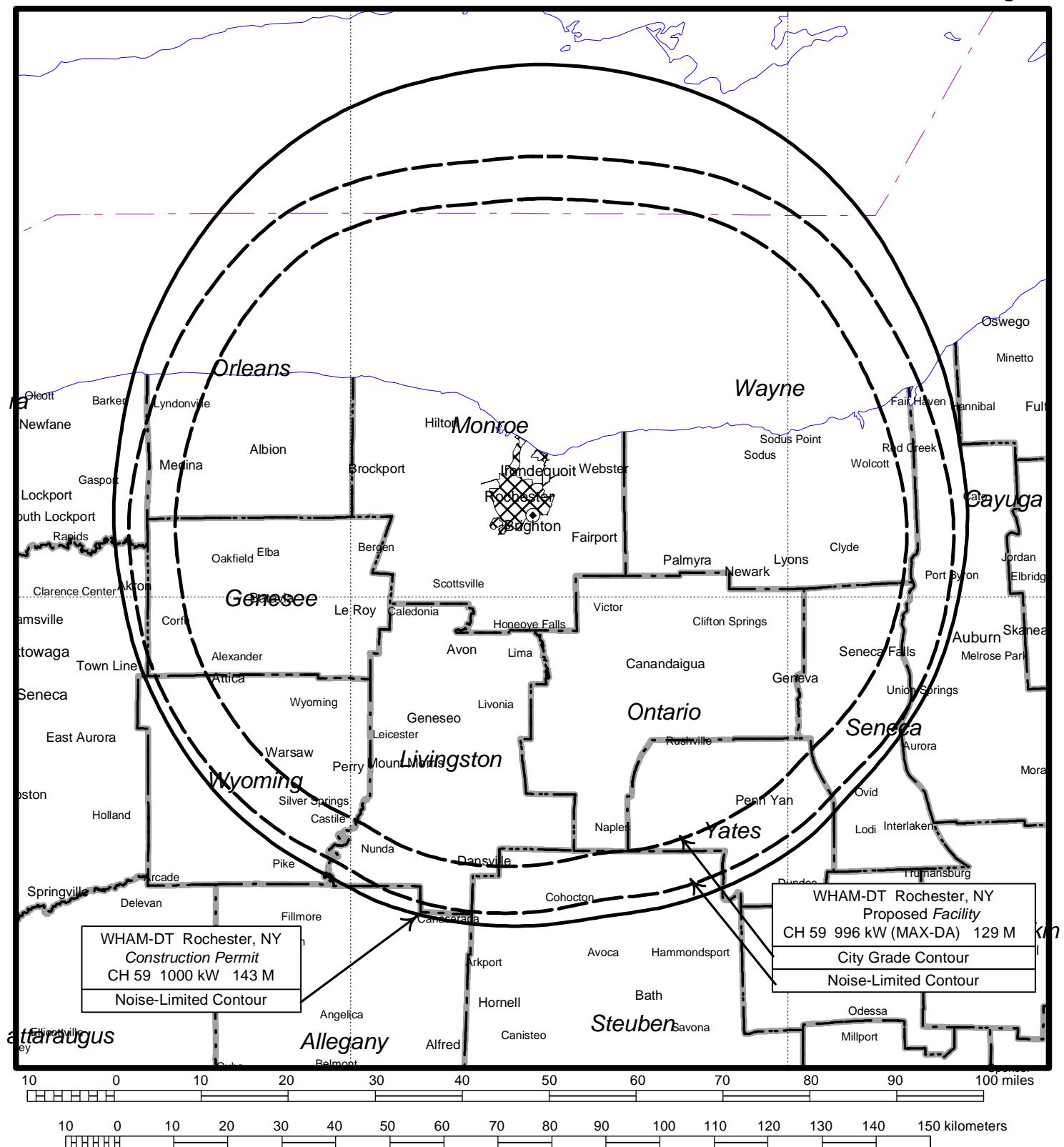
Summary of Allocation Analysis

| Facility | Channel | NTSC or DTV? | Baseline Service Population (1990) | Permissible IX(%) | Net New IX Caused by Proposed (1990) | Percent of Baseline (%) |
|--|---------|--------------|------------------------------------|------------------------------|--------------------------------------|-------------------------|
| WPXJ-TV Batavia, NY <i>BLCT-19990625KF</i> | 51 | NTSC | | No New Interference Created. | | |
| WHSU-CA Syracuse, NY <i>BLTTL-19980821JM</i> | 51 | NTSC | | No New Interference Created. | | |
| WNYI ITHACA NY <i>BLCT-20021209AAA</i> | 52 | NTSC | | No New Interference Created. | | |
| WNYI ITHACA NY <i>BMPCT-20011212AAT</i> | 52 | NTSC | | No New Interference Created. | | |
| WSPX-TV SYRACUSE NY <i>BLCT-19981207KE</i> | 56 | NTSC | | No New Interference Created. | | |
| WHEC-DT ROCHESTER NY <i>DTV Allotment</i> | 58 | DTV | | No New Interference Created. | | |
| 960408KE UTICA NY <i>BPET-19960408KE</i> | 59 | NTSC | | No New Interference Created. | | |
| WVPX AKRON OH <i>BPCDT-19990128KN</i> | 59 | DTV | | No New Interference Created. | | |
| WAKC-DT AKRON OH <i>DTV Allotment</i> | 59 | DTV | | No New Interference Created. | | |

Figure 1
Sheet 2 of 2

| | | | |
|---|----|------|------------------------------|
| WBPH-DT BETHLEHEM PA <i>DTV Allotment</i> | 59 | DTV | No New Interference Created. |
| 960228KF ROCHESTER NY <i>BPET-19960228KF</i> | 61 | NTSC | No New Interference Created. |
| Applications for a New NTSC Station at Arcade, NY | 62 | NTSC | No New Interference Created. |
| WNDS SPRINGVILLE NY <i>BLCT-19970303KE</i> | 67 | NTSC | No New Interference Created. |
| WNDS SPRINGVILLE NY <i>BPCT-20021227ABG</i> | 67 | NTSC | No New Interference Created. |

Figure 2



DTV NOISE-LIMITED COVERAGE CONTOURS

TELEVISION STATION WHAM-DT
ROCHESTER, NEW YORK

du Treil, Lundin & Rackley, Inc., Sarasota, Florida

DIRECTIONAL ANTENNA
INFROMATION

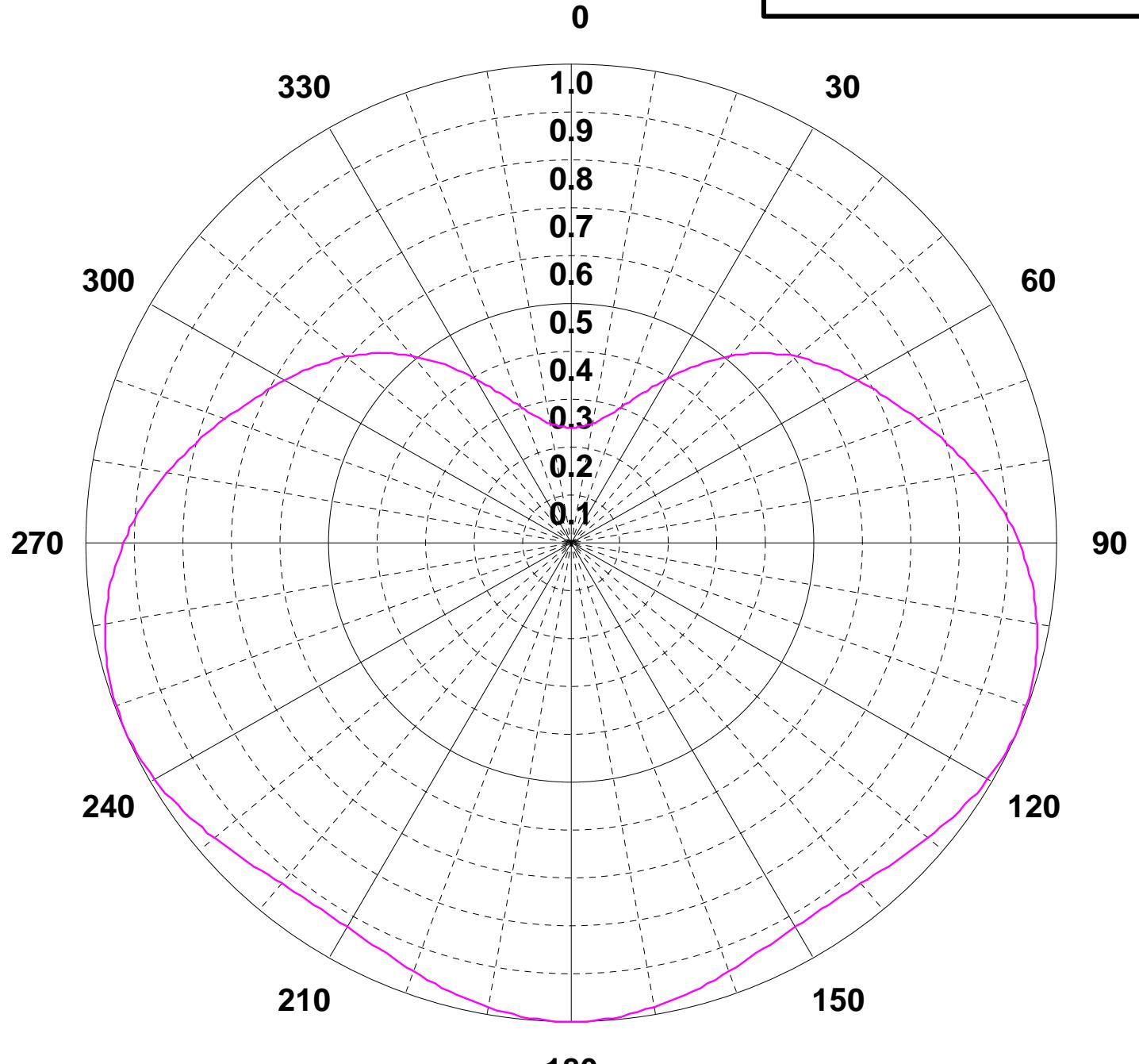


Channel: 59

Type: ALP-W

Gain: 1.56 (1.93 dB)

Polarization: Horizontal



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site:
Proposal Number:

Date: 2/28/2005
Author:

| Angle | Amp | dB | Angle | Amp | dB | Angle | Amp | dB | Angle | Amp | dB | Angle | Amp | dB |
|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 0 | 0.241 | -12.36 | 72 | 0.775 | -2.21 | 144 | 0.923 | -0.70 | 216 | 0.923 | -0.70 | 288 | 0.775 | -2.21 |
| 1 | 0.241 | -12.36 | 73 | 0.784 | -2.11 | 145 | 0.922 | -0.71 | 217 | 0.924 | -0.69 | 289 | 0.767 | -2.30 |
| 2 | 0.241 | -12.36 | 74 | 0.793 | -2.01 | 146 | 0.922 | -0.71 | 218 | 0.925 | -0.68 | 290 | 0.758 | -2.41 |
| 3 | 0.242 | -12.32 | 75 | 0.801 | -1.93 | 147 | 0.923 | -0.70 | 219 | 0.927 | -0.66 | 291 | 0.750 | -2.50 |
| 4 | 0.243 | -12.29 | 76 | 0.810 | -1.83 | 148 | 0.923 | -0.70 | 220 | 0.929 | -0.64 | 292 | 0.742 | -2.59 |
| 5 | 0.244 | -12.25 | 77 | 0.819 | -1.73 | 149 | 0.924 | -0.69 | 221 | 0.931 | -0.62 | 293 | 0.733 | -2.70 |
| 6 | 0.245 | -12.22 | 78 | 0.828 | -1.64 | 150 | 0.925 | -0.68 | 222 | 0.933 | -0.60 | 294 | 0.725 | -2.79 |
| 7 | 0.247 | -12.15 | 79 | 0.836 | -1.56 | 151 | 0.927 | -0.66 | 223 | 0.936 | -0.57 | 295 | 0.718 | -2.88 |
| 8 | 0.248 | -12.11 | 80 | 0.845 | -1.46 | 152 | 0.928 | -0.65 | 224 | 0.939 | -0.55 | 296 | 0.710 | -2.97 |
| 9 | 0.250 | -12.04 | 81 | 0.854 | -1.37 | 153 | 0.931 | -0.62 | 225 | 0.942 | -0.52 | 297 | 0.702 | -3.07 |
| 10 | 0.253 | -11.94 | 82 | 0.862 | -1.29 | 154 | 0.933 | -0.60 | 226 | 0.945 | -0.49 | 298 | 0.695 | -3.16 |
| 11 | 0.256 | -11.84 | 83 | 0.870 | -1.21 | 155 | 0.935 | -0.58 | 227 | 0.949 | -0.45 | 299 | 0.688 | -3.25 |
| 12 | 0.259 | -11.73 | 84 | 0.878 | -1.13 | 156 | 0.938 | -0.56 | 228 | 0.952 | -0.43 | 300 | 0.680 | -3.35 |
| 13 | 0.263 | -11.60 | 85 | 0.886 | -1.05 | 157 | 0.942 | -0.52 | 229 | 0.955 | -0.40 | 301 | 0.673 | -3.44 |
| 14 | 0.267 | -11.47 | 86 | 0.894 | -0.97 | 158 | 0.945 | -0.49 | 230 | 0.959 | -0.36 | 302 | 0.666 | -3.53 |
| 15 | 0.272 | -11.31 | 87 | 0.902 | -0.90 | 159 | 0.948 | -0.46 | 231 | 0.963 | -0.33 | 303 | 0.658 | -3.64 |
| 16 | 0.277 | -11.15 | 88 | 0.909 | -0.83 | 160 | 0.951 | -0.44 | 232 | 0.966 | -0.30 | 304 | 0.651 | -3.73 |
| 17 | 0.282 | -11.00 | 89 | 0.916 | -0.76 | 161 | 0.955 | -0.40 | 233 | 0.969 | -0.27 | 305 | 0.643 | -3.84 |
| 18 | 0.288 | -10.81 | 90 | 0.922 | -0.71 | 162 | 0.959 | -0.36 | 234 | 0.973 | -0.24 | 306 | 0.636 | -3.93 |
| 19 | 0.295 | -10.60 | 91 | 0.929 | -0.64 | 163 | 0.962 | -0.34 | 235 | 0.976 | -0.21 | 307 | 0.628 | -4.04 |
| 20 | 0.302 | -10.40 | 92 | 0.935 | -0.58 | 164 | 0.966 | -0.30 | 236 | 0.979 | -0.18 | 308 | 0.621 | -4.14 |
| 21 | 0.310 | -10.17 | 93 | 0.941 | -0.53 | 165 | 0.969 | -0.27 | 237 | 0.982 | -0.16 | 309 | 0.613 | -4.25 |
| 22 | 0.318 | -9.95 | 94 | 0.947 | -0.47 | 166 | 0.973 | -0.24 | 238 | 0.985 | -0.13 | 310 | 0.605 | -4.36 |
| 23 | 0.326 | -9.74 | 95 | 0.952 | -0.43 | 167 | 0.976 | -0.21 | 239 | 0.988 | -0.10 | 311 | 0.596 | -4.50 |
| 24 | 0.335 | -9.50 | 96 | 0.957 | -0.38 | 168 | 0.979 | -0.18 | 240 | 0.990 | -0.09 | 312 | 0.588 | -4.61 |
| 25 | 0.344 | -9.27 | 97 | 0.961 | -0.35 | 169 | 0.982 | -0.16 | 241 | 0.992 | -0.07 | 313 | 0.579 | -4.75 |
| 26 | 0.354 | -9.02 | 98 | 0.966 | -0.30 | 170 | 0.985 | -0.13 | 242 | 0.994 | -0.05 | 314 | 0.570 | -4.88 |
| 27 | 0.365 | -8.75 | 99 | 0.970 | -0.26 | 171 | 0.987 | -0.11 | 243 | 0.995 | -0.04 | 315 | 0.560 | -5.04 |
| 28 | 0.375 | -8.52 | 100 | 0.975 | -0.22 | 172 | 0.990 | -0.09 | 244 | 0.996 | -0.03 | 316 | 0.551 | -5.18 |
| 29 | 0.386 | -8.27 | 101 | 0.978 | -0.19 | 173 | 0.992 | -0.07 | 245 | 0.997 | -0.03 | 317 | 0.541 | -5.34 |
| 30 | 0.397 | -8.02 | 102 | 0.981 | -0.17 | 174 | 0.994 | -0.05 | 246 | 0.998 | -0.02 | 318 | 0.531 | -5.50 |
| 31 | 0.408 | -7.79 | 103 | 0.984 | -0.14 | 175 | 0.996 | -0.03 | 247 | 0.998 | -0.02 | 319 | 0.521 | -5.66 |
| 32 | 0.419 | -7.56 | 104 | 0.987 | -0.11 | 176 | 0.997 | -0.03 | 248 | 0.998 | -0.02 | 320 | 0.510 | -5.85 |
| 33 | 0.430 | -7.33 | 105 | 0.989 | -0.10 | 177 | 0.998 | -0.02 | 249 | 0.997 | -0.03 | 321 | 0.499 | -6.04 |
| 34 | 0.442 | -7.09 | 106 | 0.992 | -0.07 | 178 | 0.999 | -0.01 | 250 | 0.997 | -0.03 | 322 | 0.488 | -6.23 |
| 35 | 0.453 | -6.88 | 107 | 0.993 | -0.06 | 179 | 1.000 | 0.00 | 251 | 0.996 | -0.03 | 323 | 0.477 | -6.43 |
| 36 | 0.465 | -6.65 | 108 | 0.995 | -0.04 | 180 | 1.000 | 0.00 | 252 | 0.995 | -0.04 | 324 | 0.465 | -6.65 |
| 37 | 0.476 | -6.45 | 109 | 0.996 | -0.03 | 181 | 1.000 | 0.00 | 253 | 0.993 | -0.06 | 325 | 0.454 | -6.86 |
| 38 | 0.488 | -6.23 | 110 | 0.997 | -0.03 | 182 | 0.999 | -0.01 | 254 | 0.992 | -0.07 | 326 | 0.442 | -7.09 |
| 39 | 0.499 | -6.04 | 111 | 0.997 | -0.03 | 183 | 0.998 | -0.02 | 255 | 0.989 | -0.10 | 327 | 0.431 | -7.31 |
| 40 | 0.510 | -5.85 | 112 | 0.998 | -0.02 | 184 | 0.997 | -0.03 | 256 | 0.987 | -0.11 | 328 | 0.419 | -7.56 |
| 41 | 0.520 | -5.68 | 113 | 0.998 | -0.02 | 185 | 0.996 | -0.03 | 257 | 0.984 | -0.14 | 329 | 0.408 | -7.79 |
| 42 | 0.531 | -5.50 | 114 | 0.998 | -0.02 | 186 | 0.994 | -0.05 | 258 | 0.981 | -0.17 | 330 | 0.397 | -8.02 |
| 43 | 0.541 | -5.34 | 115 | 0.997 | -0.03 | 187 | 0.992 | -0.07 | 259 | 0.978 | -0.19 | 331 | 0.386 | -8.27 |
| 44 | 0.551 | -5.18 | 116 | 0.996 | -0.03 | 188 | 0.990 | -0.09 | 260 | 0.975 | -0.22 | 332 | 0.375 | -8.52 |
| 45 | 0.560 | -5.04 | 117 | 0.995 | -0.04 | 189 | 0.988 | -0.10 | 261 | 0.971 | -0.26 | 333 | 0.365 | -8.75 |
| 46 | 0.570 | -4.88 | 118 | 0.994 | -0.05 | 190 | 0.985 | -0.13 | 262 | 0.966 | -0.30 | 334 | 0.354 | -9.02 |
| 47 | 0.579 | -4.75 | 119 | 0.992 | -0.07 | 191 | 0.982 | -0.16 | 263 | 0.962 | -0.34 | 335 | 0.344 | -9.27 |
| 48 | 0.588 | -4.61 | 120 | 0.990 | -0.09 | 192 | 0.979 | -0.18 | 264 | 0.957 | -0.38 | 336 | 0.335 | -9.50 |
| 49 | 0.597 | -4.48 | 121 | 0.988 | -0.10 | 193 | 0.976 | -0.21 | 265 | 0.952 | -0.43 | 337 | 0.326 | -9.74 |
| 50 | 0.605 | -4.36 | 122 | 0.985 | -0.13 | 194 | 0.973 | -0.24 | 266 | 0.947 | -0.47 | 338 | 0.318 | -9.95 |
| 51 | 0.613 | -4.25 | 123 | 0.982 | -0.16 | 195 | 0.970 | -0.26 | 267 | 0.941 | -0.53 | 339 | 0.310 | -10.17 |
| 52 | 0.621 | -4.14 | 124 | 0.979 | -0.18 | 196 | 0.966 | -0.30 | 268 | 0.935 | -0.58 | 340 | 0.302 | -10.40 |
| 53 | 0.628 | -4.04 | 125 | 0.976 | -0.21 | 197 | 0.963 | -0.33 | 269 | 0.928 | -0.65 | 341 | 0.295 | -10.60 |
| 54 | 0.636 | -3.93 | 126 | 0.973 | -0.24 | 198 | 0.959 | -0.36 | 270 | 0.922 | -0.71 | 342 | 0.288 | -10.81 |
| 55 | 0.644 | -3.82 | 127 | 0.969 | -0.27 | 199 | 0.955 | -0.40 | 271 | 0.915 | -0.77 | 343 | 0.283 | -10.96 |
| 56 | 0.651 | -3.73 | 128 | 0.966 | -0.30 | 200 | 0.951 | -0.44 | 272 | 0.909 | -0.83 | 344 | 0.277 | -11.15 |
| 57 | 0.659 | -3.62 | 129 | 0.962 | -0.34 | 201 | 0.948 | -0.46 | 273 | 0.901 | -0.91 | 345 | 0.272 | -11.31 |
| 58 | 0.666 | -3.53 | 130 | 0.959 | -0.36 | 202 | 0.945 | -0.49 | 274 | 0.894 | -0.97 | 346 | 0.267 | -11.47 |
| 59 | 0.673 | -3.44 | 131 | 0.956 | -0.39 | 203 | 0.942 | -0.52 | 275 | 0.886 | -1.05 | 347 | 0.263 | -11.60 |
| 60 | 0.680 | -3.35 | 132 | 0.952 | -0.43 | 204 | 0.938 | -0.56 | 276 | 0.878 | -1.13 | 348 | 0.259 | -11.73 |
| 61 | 0.687 | -3.26 | 133 | 0.949 | -0.45 | 205 | 0.936 | -0.57 | 277 | 0.870 | -1.21 | 349 | 0.256 | -11.84 |
| 62 | 0.695 | -3.16 | 134 | 0.945 | -0.49 | 206 | 0.933 | -0.60 | 278 | 0.862 | -1.29 | 350 | 0.253 | -11.94 |
| 63 | 0.703 | -3.06 | 135 | 0.942 | -0.52 | 207 | 0.930 | -0.63 | 279 | 0.853 | -1.38 | 351 | 0.250 | -12.04 |
| 64 | 0.710 | -2.97 | 136 | 0.939 | -0.55 | 208 | 0.928 | -0.65 | 280 | 0.845 | -1.46 | 352 | 0.248 | -12.11 |
| 65 | 0.717 | -2.89 | 137 | 0.936 | -0.57 | 209 | 0.927 | -0.66 | 281 | 0.836 | -1.56 | 353 | 0.247 | -12.15 |
| 66 | 0.725 | -2.79 | 138 | 0.933 | -0.60 | 210 | 0.925 | -0.68 | 282 | 0.828 | -1.64 | 354 | 0.245 | -12.22 |
| 67 | 0.733 | -2.70 | 139 | 0.931 | -0.62 | 211 | 0.924 | -0.69 | 283 | 0.819 | -1.73 | 355 | 0.244 | -12.25 |
| 68 | 0.742 | -2.59 | 140 | 0.929 | -0.64 | 212 | 0.923 | -0.70 | 284 | 0.810 | -1.83 | 356 | 0.243 | -12.29 |
| 69 | 0.750 | -2.50 | 141 | 0.927 | -0.66 | 213 | 0.923 | -0.70 | 285 | 0.801 | -1.93 | 357 | 0.242 | -12.32 |
| 70 | 0.758 | -2.41 | 142 | 0.925 | -0.68 | 214 | 0.922 | -0.71 | 286 | 0.793 | -2.01 | 358 | 0.241 | -12.36 |
| 71 | 0.766 | -2.32 | 143 | 0.924 | -0.69 | 215 | 0.923 | -0.70 | 287 | 0.784 | -2.11 | 359 | 0.241 | -12.36 |