

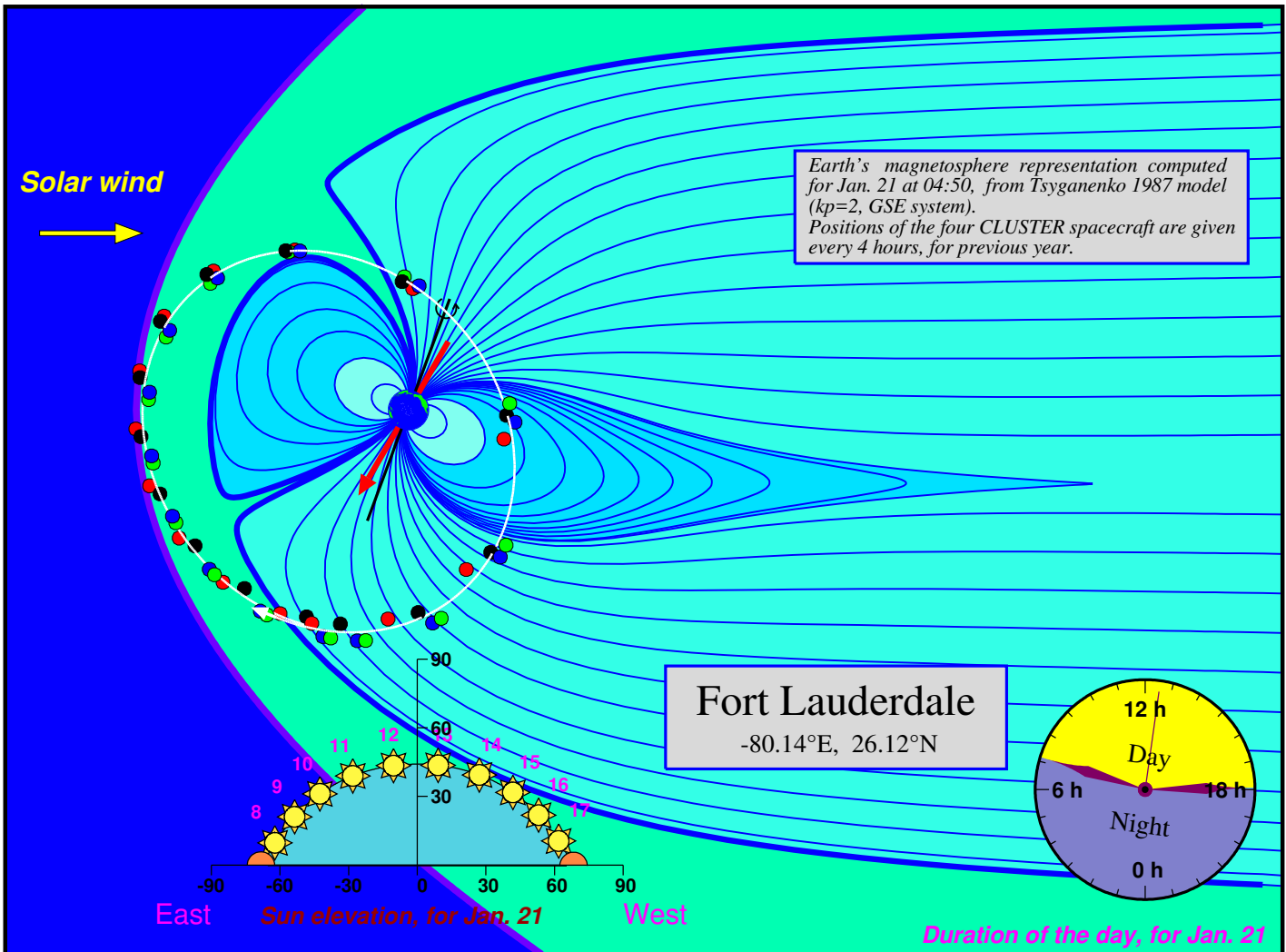


*Here is the classical magnetospheric calendar **2018**,
available for any city across the world,*

English or French version

Happy new year for everybody

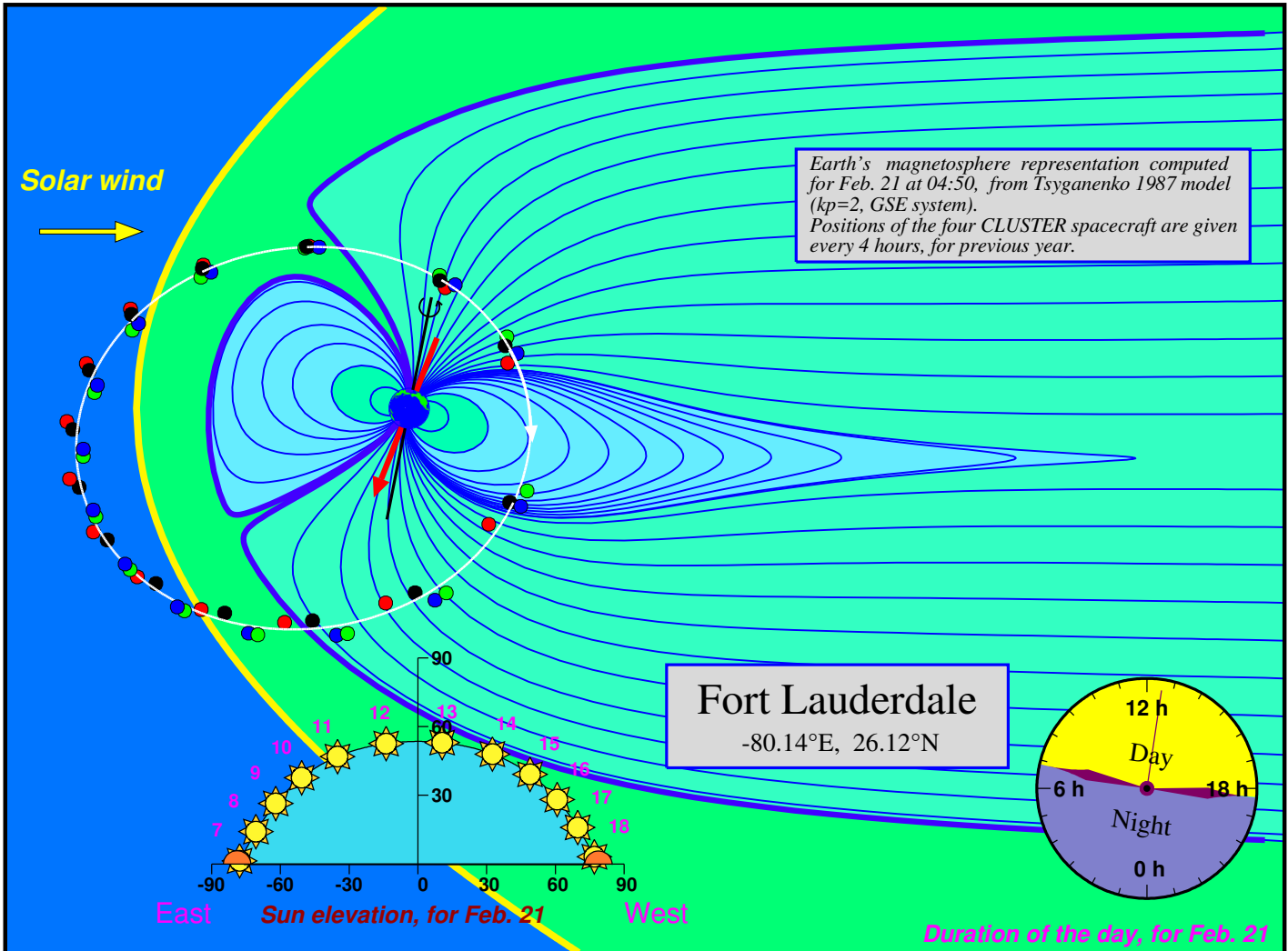
Patrick



January 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

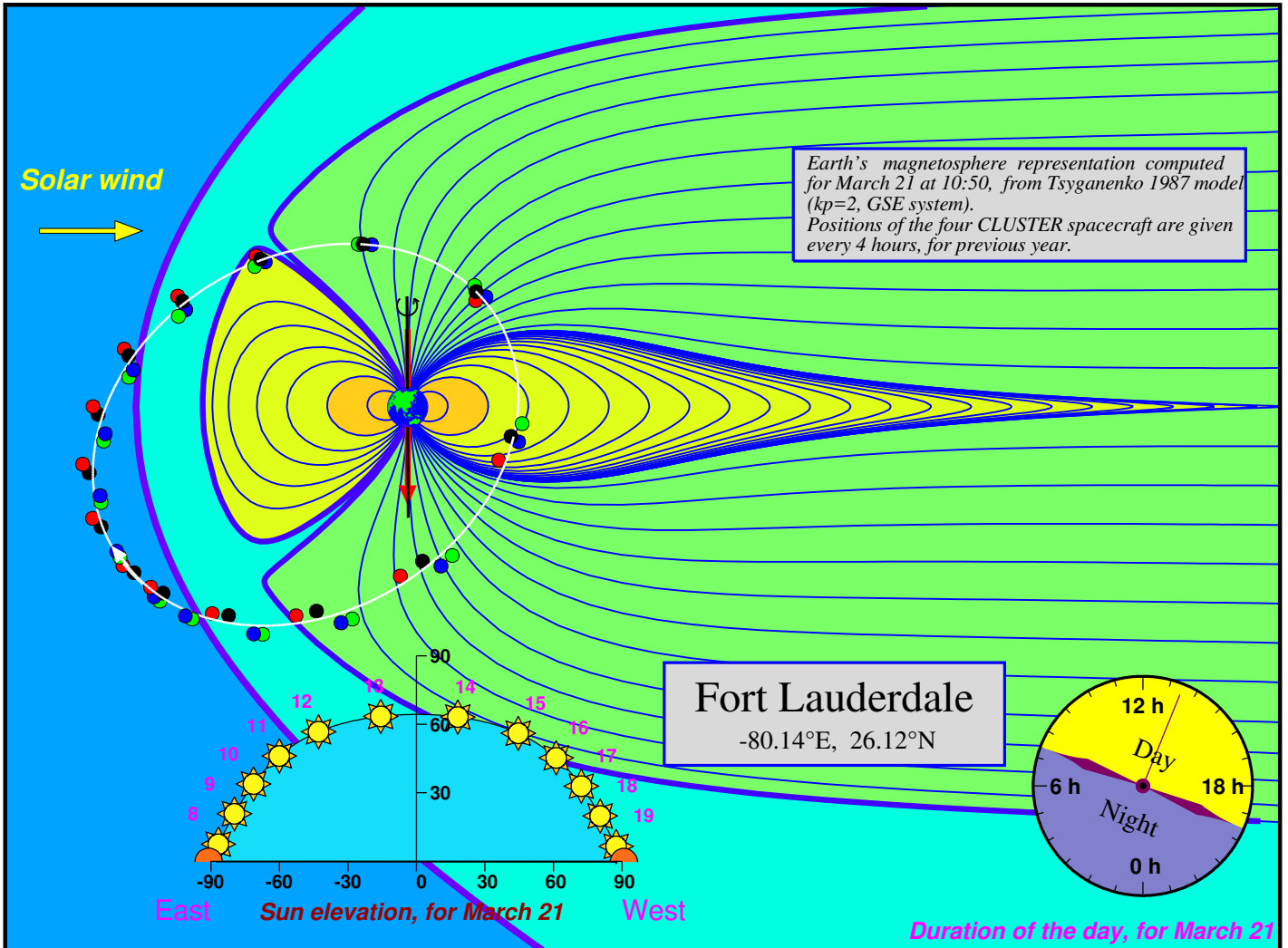
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	1 1 - 364 07:08 - 17:41 10:33 +1 m. 41°	2 2 - 363 07:08 - 17:41 10:33 +0 m. 41°	3 3 - 362 07:09 - 17:42 10:33 +0 m. 41°	4 4 - 361 07:09 - 17:43 10:34 +1 m. 41°	5 5 - 360 07:09 - 17:43 10:34 +0 m. 41°	6 6 - 359 07:09 - 17:44 10:35 +1 m. 41°	7 7 - 358 07:09 - 17:45 10:36 +1 m. 42°
	8 8 - 357 07:10 - 17:46 10:36 +0 m. 42°	9 9 - 356 07:10 - 17:46 10:37 +1 m. 42°	10 10 - 355 07:10 - 17:47 10:37 +0 m. 42°	11 11 - 354 07:10 - 17:48 10:38 +1 m. 42°	12 12 - 353 07:10 - 17:49 10:39 +1 m. 42°	13 13 - 352 07:10 - 17:49 10:40 +1 m. 43°	14 14 - 351 07:10 - 17:50 10:41 +1 m. 43°
	15 15 - 350 07:10 - 17:51 10:41 +0 m. 43°	16 16 - 349 07:10 - 17:52 10:42 +1 m. 43°	17 17 - 348 07:09 - 17:52 10:43 +1 m. 43°	18 18 - 347 07:09 - 17:53 10:44 +1 m. 43°	19 19 - 346 07:09 - 17:54 10:45 +1 m. 44°	20 20 - 345 07:09 - 17:55 10:46 +1 m. 44°	21 21 - 344 07:09 - 17:56 10:47 +1 m. 44°
4	22 22 - 343 07:09 - 17:56 10:48 +1 m. 44°	23 23 - 342 07:08 - 17:57 10:49 +1 m. 45°	24 24 - 341 07:08 - 17:58 10:50 +1 m. 45°	25 25 - 340 07:08 - 17:59 10:51 +1 m. 45°	26 26 - 339 07:07 - 17:59 10:52 +1 m. 45°	27 27 - 338 07:07 - 18:00 10:53 +1 m. 46°	28 28 - 337 07:07 - 18:01 10:54 +1 m. 46°
	29 29 - 336 07:06 - 18:02 10:56 +2 m. 46°	30 30 - 335 07:06 - 18:03 10:57 +1 m. 46°	31 31 - 334 07:05 - 18:03 10:58 +1 m. 47°	1 32 - 333 07:05 - 18:04 10:59 +1 m. 47°	2 33 - 332 07:04 - 18:05 11:00 +1 m. 47°	3 34 - 331 07:04 - 18:05 11:02 +2 m. 48°	4 35 - 330 07:03 - 18:06 11:03 +1 m. 48°



February 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
5	29 29 - 336 07:06 - 18:02 10:56 +2 m. 46°	30 30 - 335 07:06 - 18:03 10:57 +1 m. 46°	31 31 - 334 07:05 - 18:03 10:58 +1 m. 47°	1 32 - 333 07:05 - 18:04 10:59 +1 m. 47°	2 33 - 332 07:04 - 18:05 11:00 +1 m. 47°	3 34 - 331 07:04 - 18:05 11:02 +2 m. 48°	4 35 - 330 07:03 - 18:06 11:03 +1 m. 48°
6	5 36 - 329 07:03 - 18:07 11:04 +1 m. 48°	6 37 - 328 07:02 - 18:08 11:05 +1 m. 48°	7 38 - 327 07:02 - 18:08 11:07 +2 m. 49°	8 39 - 326 07:01 - 18:09 11:08 +1 m. 49°	9 40 - 325 07:00 - 18:10 11:09 +1 m. 49°	10 41 - 324 07:00 - 18:10 11:11 +2 m. 50°	11 42 - 323 06:59 - 18:11 11:12 +1 m. 50°
7	12 43 - 322 06:58 - 18:12 11:13 +1 m. 50°	13 44 - 321 06:58 - 18:12 11:15 +2 m. 51°	14 45 - 320 06:57 - 18:13 11:16 +1 m. 51°	15 46 - 319 06:56 - 18:14 11:18 +2 m. 51°	16 47 - 318 06:55 - 18:14 11:19 +1 m. 52°	17 48 - 317 06:55 - 18:15 11:21 +2 m. 52°	18 49 - 316 06:54 - 18:16 11:22 +1 m. 52°
8	19 50 - 315 06:53 - 18:16 11:23 +1 m. 53°	20 51 - 314 06:52 - 18:17 11:25 +2 m. 53°	21 52 - 313 06:51 - 18:18 11:26 +1 m. 54°	22 53 - 312 06:50 - 18:18 11:28 +2 m. 54°	23 54 - 311 06:50 - 18:19 11:29 +1 m. 54°	24 55 - 310 06:49 - 18:19 11:31 +2 m. 55°	25 56 - 309 06:48 - 18:20 11:32 +1 m. 55°
9	26 57 - 308 06:47 - 18:21 11:34 +2 m. 55°	27 58 - 307 06:46 - 18:21 11:35 +1 m. 56°	28 59 - 306 06:45 - 18:22 11:37 +2 m. 56°	1 60 - 305 06:44 - 18:22 11:38 +1 m. 56°	2 61 - 304 06:43 - 18:23 11:40 +2 m. 57°	3 62 - 303 06:42 - 18:23 11:41 +1 m. 57°	4 63 - 302 06:41 - 18:24 11:43 +2 m. 58°

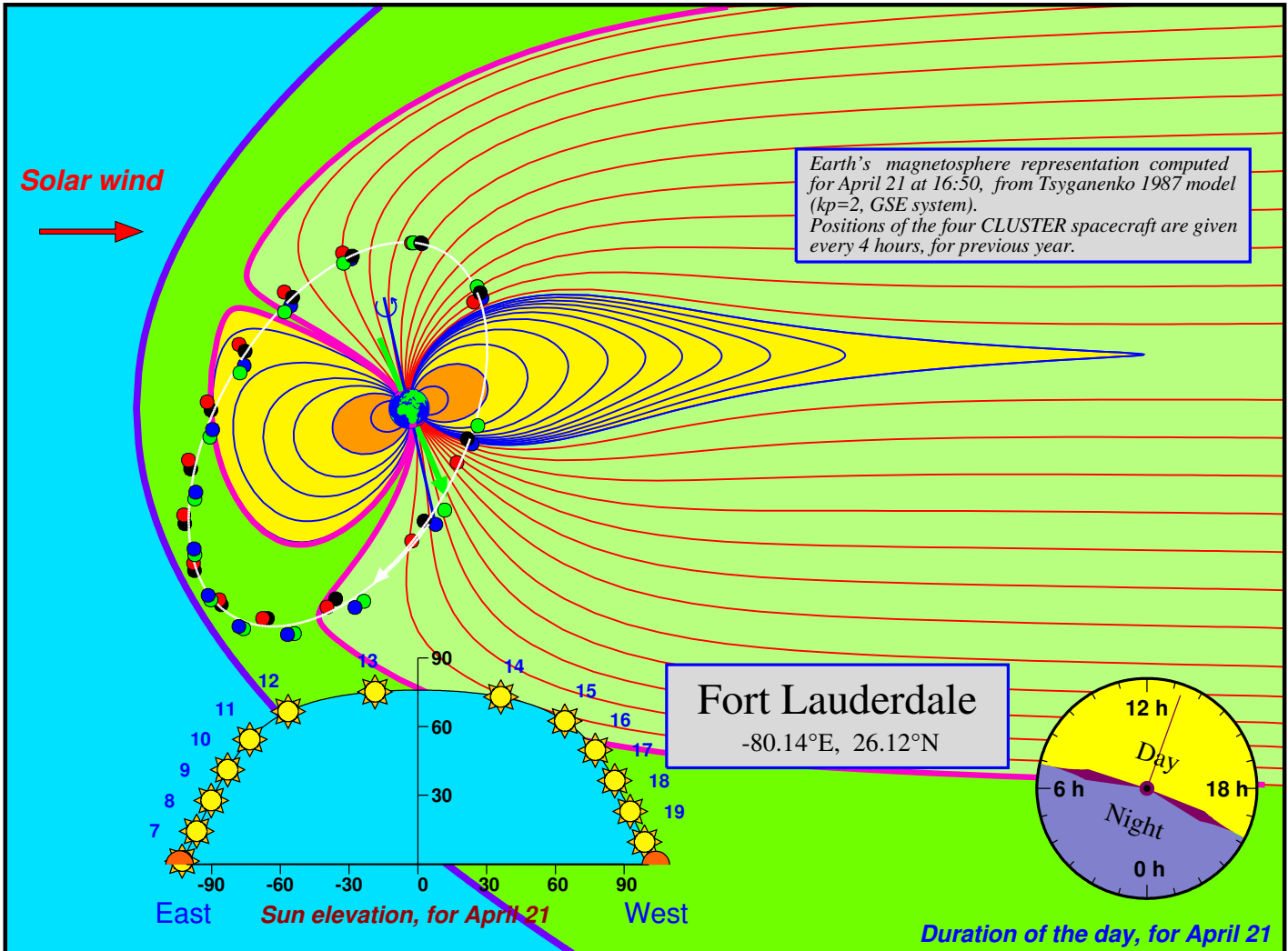


March 2018

Time change
March 11

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

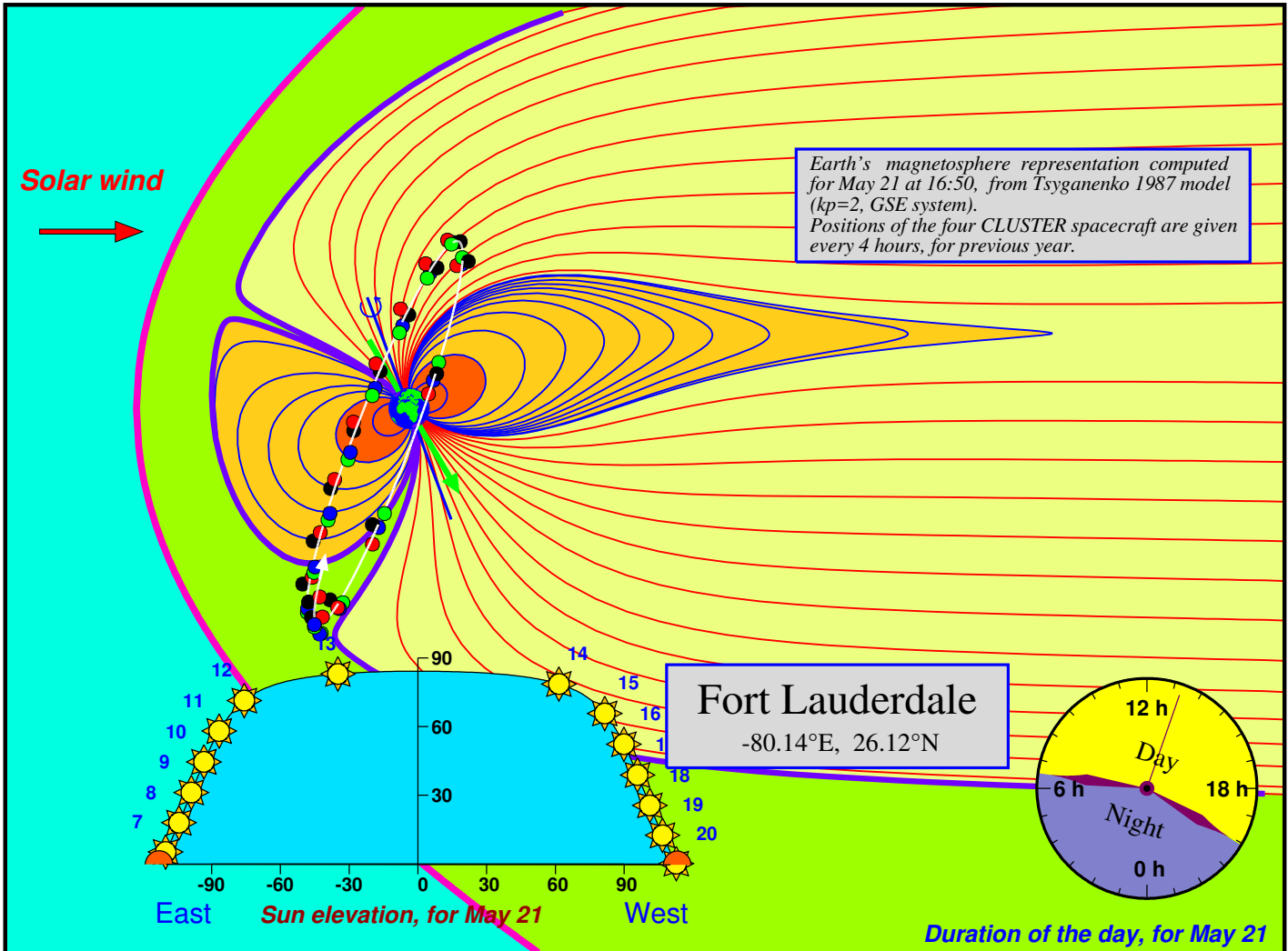
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
9	26 57 - 308 06:47 - 18:21 11:34 +2 m. 55°	27 58 - 307 06:46 - 18:21 11:35 +1 m. 56°	28 59 - 306 06:45 - 18:22 11:37 +2 m. 56°	1 60 - 305 06:44 - 18:22 11:38 +1 m. 56°	2 61 - 304 06:43 - 18:23 11:40 +2 m. 57°	3 62 - 303 06:42 - 18:23 11:41 +1 m. 57°	4 63 - 302 06:41 - 18:24 11:43 +2 m. 58°
10	5 64 - 301 06:40 - 18:24 11:44 +1 m. 58°	6 65 - 300 06:39 - 18:25 11:46 +2 m. 58°	7 66 - 299 06:38 - 18:26 11:47 +1 m. 59°	8 67 - 298 06:37 - 18:26 11:49 +2 m. 59°	9 68 - 297 06:36 - 18:27 11:50 +1 m. 60°	10 69 - 296 06:35 - 18:27 11:52 +2 m. 60°	11 70 - 295 07:34 - 19:28 11:54 +2 m. 60°
11	12 71 - 294 07:33 - 19:28 11:55 +1 m. 61°	13 72 - 293 07:32 - 19:29 11:57 +2 m. 61°	14 73 - 292 07:31 - 19:29 11:58 +1 m. 62°	15 74 - 291 07:30 - 19:30 12:00 +2 m. 62°	16 75 - 290 07:29 - 19:30 12:01 +1 m. 62°	17 76 - 289 07:28 - 19:31 12:03 +2 m. 63°	18 77 - 288 07:27 - 19:31 12:04 +1 m. 63°
12	19 78 - 287 07:26 - 19:32 12:06 +2 m. 64°	20 79 - 286 07:25 - 19:32 12:08 +2 m. 64°	21 80 - 285 07:24 - 19:32 12:09 +1 m. 64°	22 81 - 284 07:23 - 19:33 12:10 +1 m. 65°	23 82 - 283 07:21 - 19:33 12:12 +2 m. 65°	24 83 - 282 07:20 - 19:34 12:14 +2 m. 65°	25 84 - 281 07:19 - 19:34 12:15 +1 m. 66°
13	26 85 - 280 07:18 - 19:35 12:17 +2 m. 66°	27 86 - 279 07:17 - 19:35 12:18 +1 m. 67°	28 87 - 278 07:16 - 19:36 12:20 +2 m. 67°	29 88 - 277 07:15 - 19:36 12:21 +1 m. 67°	30 89 - 276 07:14 - 19:37 12:23 +2 m. 68°	31 90 - 275 07:13 - 19:37 12:24 +1 m. 68°	1 91 - 274 07:12 - 19:38 12:26 +2 m. 69°



April 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

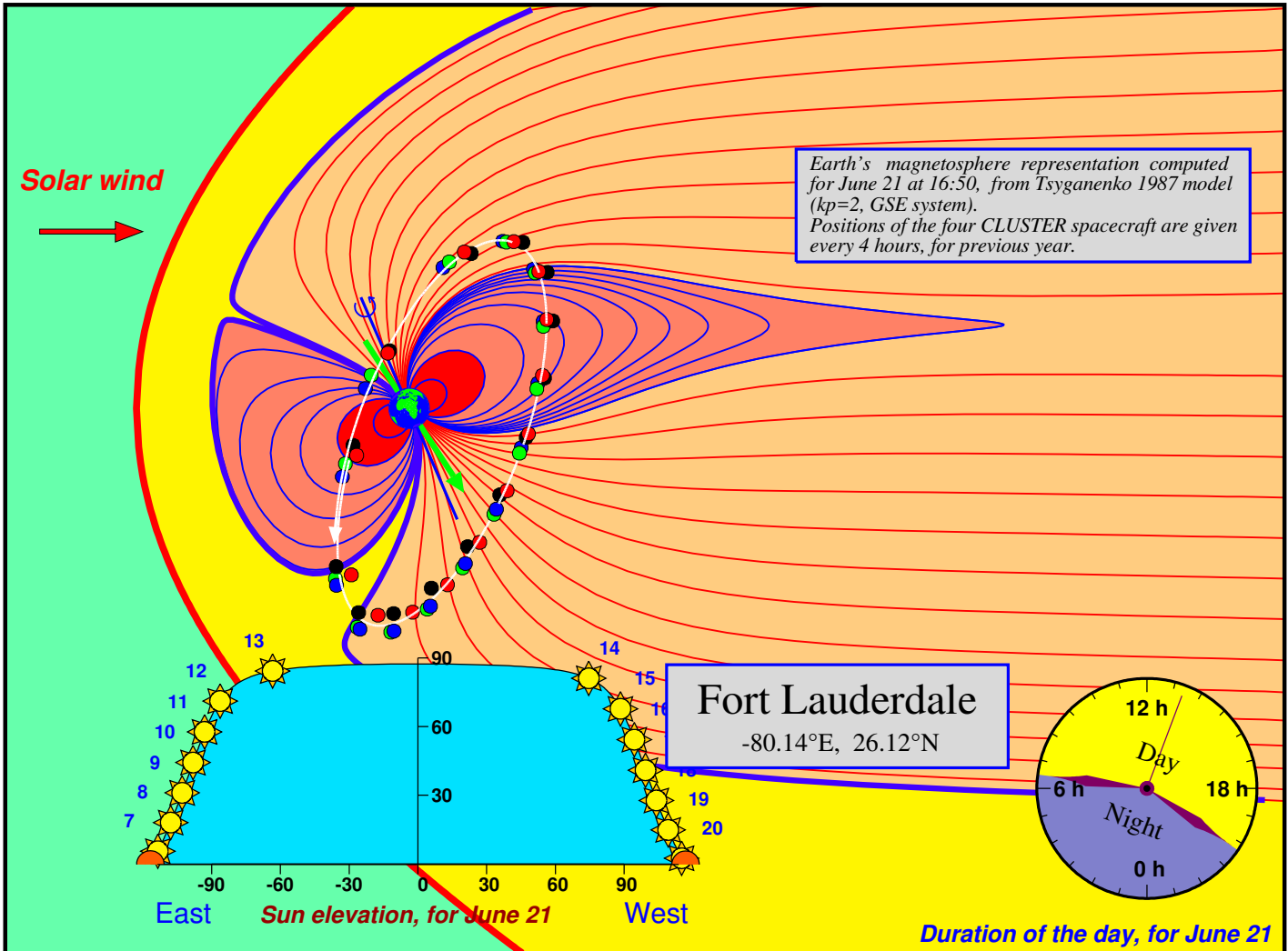
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
13	26 85 - 280 07:18 - 19:35 12:17 +2 m. 66°	27 86 - 279 07:17 - 19:35 12:18 +1 m. 67°	28 87 - 278 07:16 - 19:36 12:20 +2 m. 67°	29 88 - 277 07:15 - 19:36 12:21 +1 m. 67°	30 89 - 276 07:14 - 19:37 12:23 +2 m. 68°	31 90 - 275 07:13 - 19:37 12:24 +1 m. 68°	1 91 - 274 07:12 - 19:38 12:26 +2 m. 69°
14	2 92 - 273 07:11 - 19:38 12:27 +1 m. 69°	3 93 - 272 07:10 - 19:39 12:29 +2 m. 69°	4 94 - 271 07:09 - 19:39 12:31 +2 m. 70°	5 95 - 270 07:08 - 19:40 12:32 +1 m. 70°	6 96 - 269 07:07 - 19:40 12:34 +2 m. 71°	7 97 - 268 07:06 - 19:40 12:35 +1 m. 71°	8 98 - 267 07:04 - 19:41 12:37 +2 m. 71°
15	9 99 - 266 07:03 - 19:41 12:38 +1 m. 72°	10 100 - 265 07:02 - 19:42 12:40 +2 m. 72°	11 101 - 264 07:01 - 19:42 12:41 +1 m. 72°	12 102 - 263 07:00 - 19:43 12:43 +2 m. 73°	13 103 - 262 06:59 - 19:43 12:44 +1 m. 73°	14 104 - 261 06:58 - 19:44 12:46 +2 m. 73°	15 105 - 260 06:57 - 19:44 12:47 +1 m. 74°
16	16 106 - 259 06:57 - 19:45 12:48 +1 m. 74°	17 107 - 258 06:56 - 19:45 12:50 +2 m. 75°	18 108 - 257 06:55 - 19:46 12:51 +1 m. 75°	19 109 - 256 06:54 - 19:46 12:53 +2 m. 75°	20 110 - 255 06:53 - 19:47 12:54 +1 m. 76°	21 111 - 254 06:52 - 19:47 12:55 +1 m. 76°	22 112 - 253 06:51 - 19:48 12:57 +2 m. 76°
17	23 113 - 252 06:50 - 19:48 12:58 +1 m. 77°	24 114 - 251 06:49 - 19:49 13:00 +2 m. 77°	25 115 - 250 06:48 - 19:49 13:01 +1 m. 77°	26 116 - 249 06:47 - 19:50 13:03 +2 m. 78°	27 117 - 248 06:47 - 19:50 13:04 +1 m. 78°	28 118 - 247 06:46 - 19:51 13:05 +1 m. 78°	29 119 - 246 06:45 - 19:51 13:06 +1 m. 78°
18	30 120 - 245 06:44 - 19:52 13:08 +2 m. 79°	1 121 - 244 06:43 - 19:52 13:09 +1 m. 79°	2 122 - 243 06:43 - 19:53 13:10 +1 m. 79°	3 123 - 242 06:42 - 19:54 13:12 +2 m. 80°	4 124 - 241 06:41 - 19:54 13:13 +1 m. 80°	5 125 - 240 06:41 - 19:55 13:14 +1 m. 80°	6 126 - 239 06:40 - 19:55 13:15 +1 m. 81°



May 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

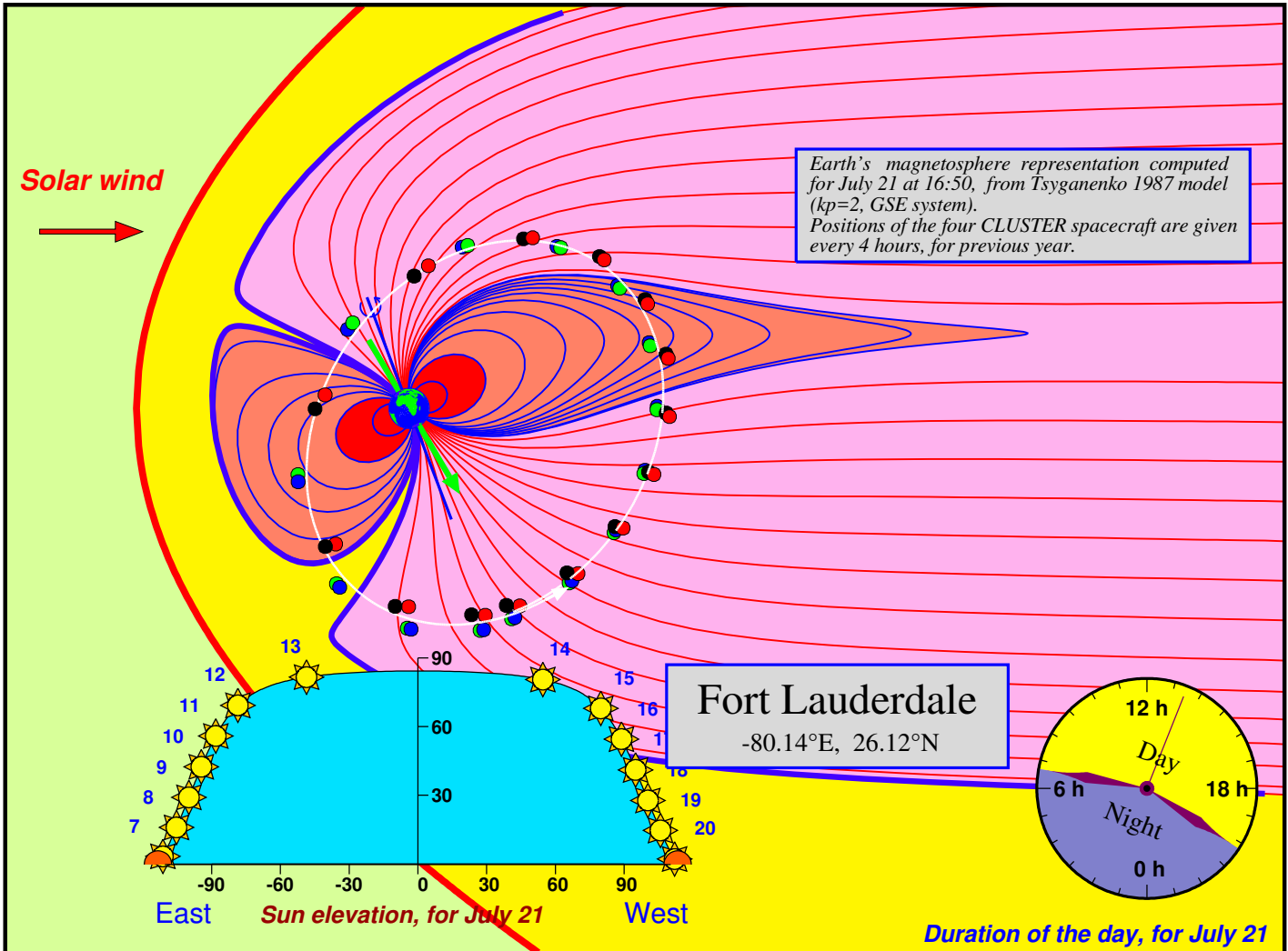
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
18	30 120 - 245 06:44 - 19:52 13:08 +2 m. 79°	1 121 - 244 06:43 - 19:52 13:09 +1 m. 79°	2 122 - 243 06:43 - 19:53 13:10 +1 m. 79°	3 123 - 242 06:42 - 19:54 13:12 +2 m. 80°	4 124 - 241 06:41 - 19:54 13:13 +1 m. 80°	5 125 - 240 06:41 - 19:55 13:14 +1 m. 80°	6 126 - 239 06:40 - 19:55 13:15 +1 m. 81°
19	7 127 - 238 06:39 - 19:56 13:17 +2 m. 81°	8 128 - 237 06:39 - 19:56 13:18 +1 m. 81°	9 129 - 236 06:38 - 19:57 13:19 +1 m. 81°	10 130 - 235 06:37 - 19:57 13:20 +1 m. 82°	11 131 - 234 06:37 - 19:58 13:21 +1 m. 82°	12 132 - 233 06:36 - 19:58 13:22 +1 m. 82°	13 133 - 232 06:35 - 19:59 13:24 +2 m. 82°
20	14 134 - 231 06:35 - 20:00 13:25 +1 m. 83°	15 135 - 230 Day at anytime 24:00-635 m. 83°	16 136 - 229 Day at anytime 24:00 +0 m. 83°	17 137 - 228 06:33 - 20:01 13:27-633 m. 83°	18 138 - 227 06:33 - 20:01 13:28 +1 m. 84°	19 139 - 226 06:33 - 20:02 13:29 +1 m. 84°	20 140 - 225 06:32 - 20:02 13:30 +1 m. 84°
21	21 141 - 224 06:32 - 20:03 13:31 +1 m. 84°	22 142 - 223 06:31 - 20:03 13:32 +1 m. 84°	23 143 - 222 06:31 - 20:04 13:33 +1 m. 85°	24 144 - 221 06:31 - 20:04 13:34 +1 m. 85°	25 145 - 220 06:30 - 20:05 13:35 +1 m. 85°	26 146 - 219 06:30 - 20:05 13:36 +1 m. 85°	27 147 - 218 06:30 - 20:06 13:36 +0 m. 85°
22	28 148 - 217 06:29 - 20:06 13:37 +1 m. 85°	29 149 - 216 06:29 - 20:07 13:38 +1 m. 86°	30 150 - 215 06:29 - 20:07 13:39 +1 m. 86°	31 151 - 214 06:29 - 20:08 13:39 +0 m. 86°	1 152 - 213 06:29 - 20:08 13:40 +1 m. 86°	2 153 - 212 06:28 - 20:09 13:40 +0 m. 86°	3 154 - 211 06:28 - 20:09 13:41 +1 m. 86°



June 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

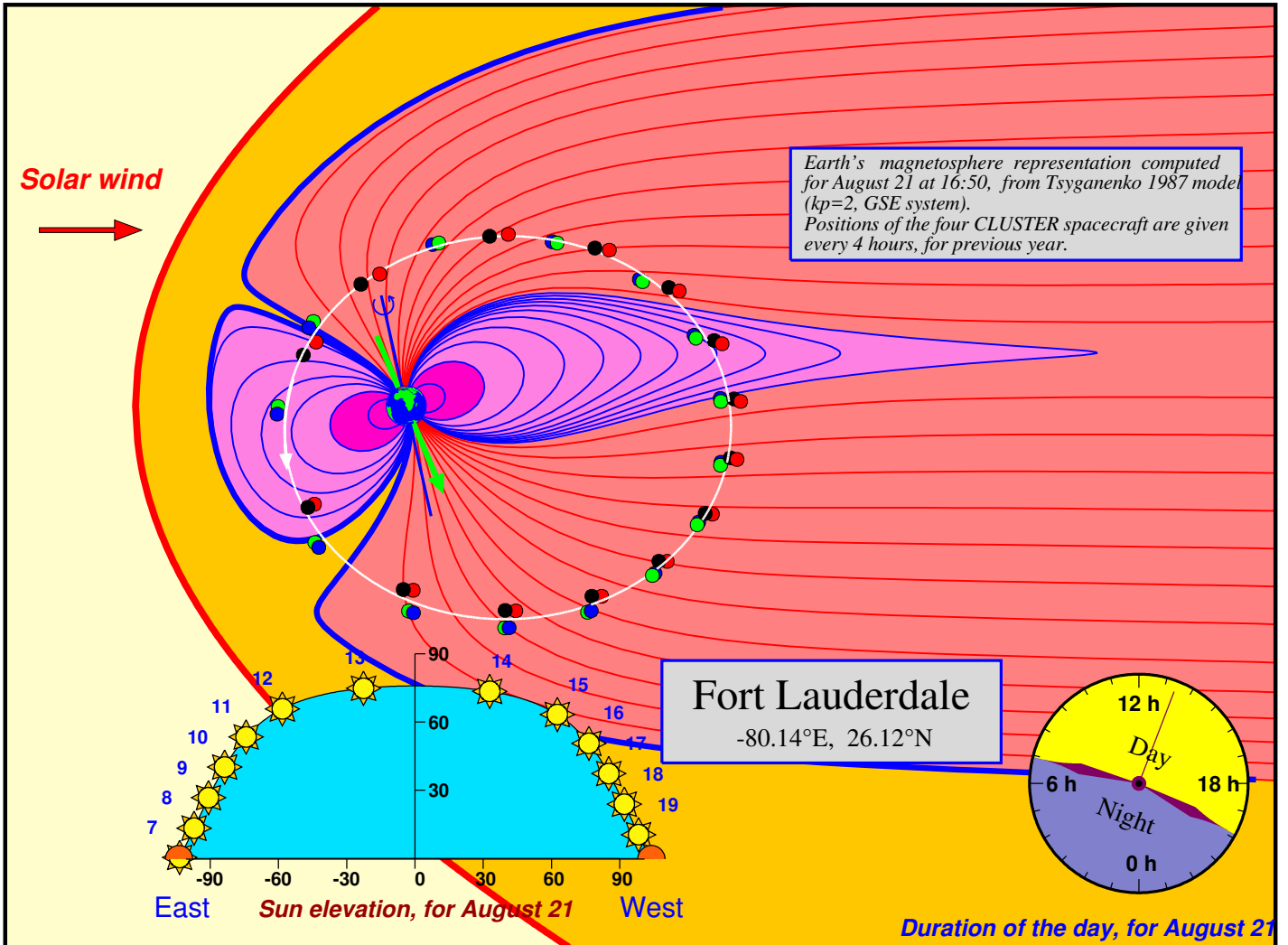
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
22	28 148 - 217 06:29 - 20:06 13:37 +1 m. 85°	29 149 - 216 06:29 - 20:07 13:38 +1 m. 86°	30 150 - 215 06:29 - 20:07 13:39 +1 m. 86°	31 151 - 214 06:29 - 20:08 13:39 +0 m. 86°	1 152 - 213 06:29 - 20:08 13:40 +1 m. 86°	2 153 - 212 06:28 - 20:09 13:40 +0 m. 86°	3 154 - 211 06:28 - 20:09 13:41 +1 m. 86°
23	4 155 - 210 06:28 - 20:10 13:42 +1 m. 86°	5 156 - 209 06:28 - 20:10 13:42 +0 m. 86°	6 157 - 208 06:28 - 20:11 13:43 +1 m. 87°	7 158 - 207 06:28 - 20:11 13:43 +0 m. 87°	8 159 - 206 06:28 - 20:11 13:44 +1 m. 87°	9 160 - 205 06:28 - 20:12 13:44 +0 m. 87°	10 161 - 204 06:28 - 20:12 13:44 +0 m. 87°
24	11 162 - 203 06:28 - 20:13 13:45 +1 m. 87°	12 163 - 202 06:28 - 20:13 13:45 +0 m. 87°	13 164 - 201 06:28 - 20:13 13:45 +0 m. 87°	14 165 - 200 06:28 - 20:14 13:46 +1 m. 87°	15 166 - 199 06:28 - 20:14 13:46 +0 m. 87°	16 167 - 198 06:28 - 20:14 13:46 +0 m. 87°	17 168 - 197 06:29 - 20:15 13:46 +0 m. 87°
25	18 169 - 196 06:29 - 20:15 13:46 +0 m. 87°	19 170 - 195 06:29 - 20:15 13:46 +0 m. 87°	20 171 - 194 06:29 - 20:15 13:46 +0 m. 87°	21 172 - 193 06:29 - 20:16 13:46 +0 m. 87°	22 173 - 192 06:29 - 20:16 13:47 +1 m. 87°	23 174 - 191 06:30 - 20:16 13:46 -1 m. 87°	24 175 - 190 06:30 - 20:16 13:46 +0 m. 87°
26	25 176 - 189 06:30 - 20:16 13:46 +0 m. 87°	26 177 - 188 06:31 - 20:17 13:46 +0 m. 87°	27 178 - 187 06:31 - 20:17 13:46 +0 m. 87°	28 179 - 186 06:31 - 20:17 13:46 +0 m. 87°	29 180 - 185 06:31 - 20:17 13:46 +0 m. 87°	30 181 - 184 06:32 - 20:17 13:45 -1 m. 87°	1 182 - 183 06:32 - 20:17 13:45 +0 m. 87°



July 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

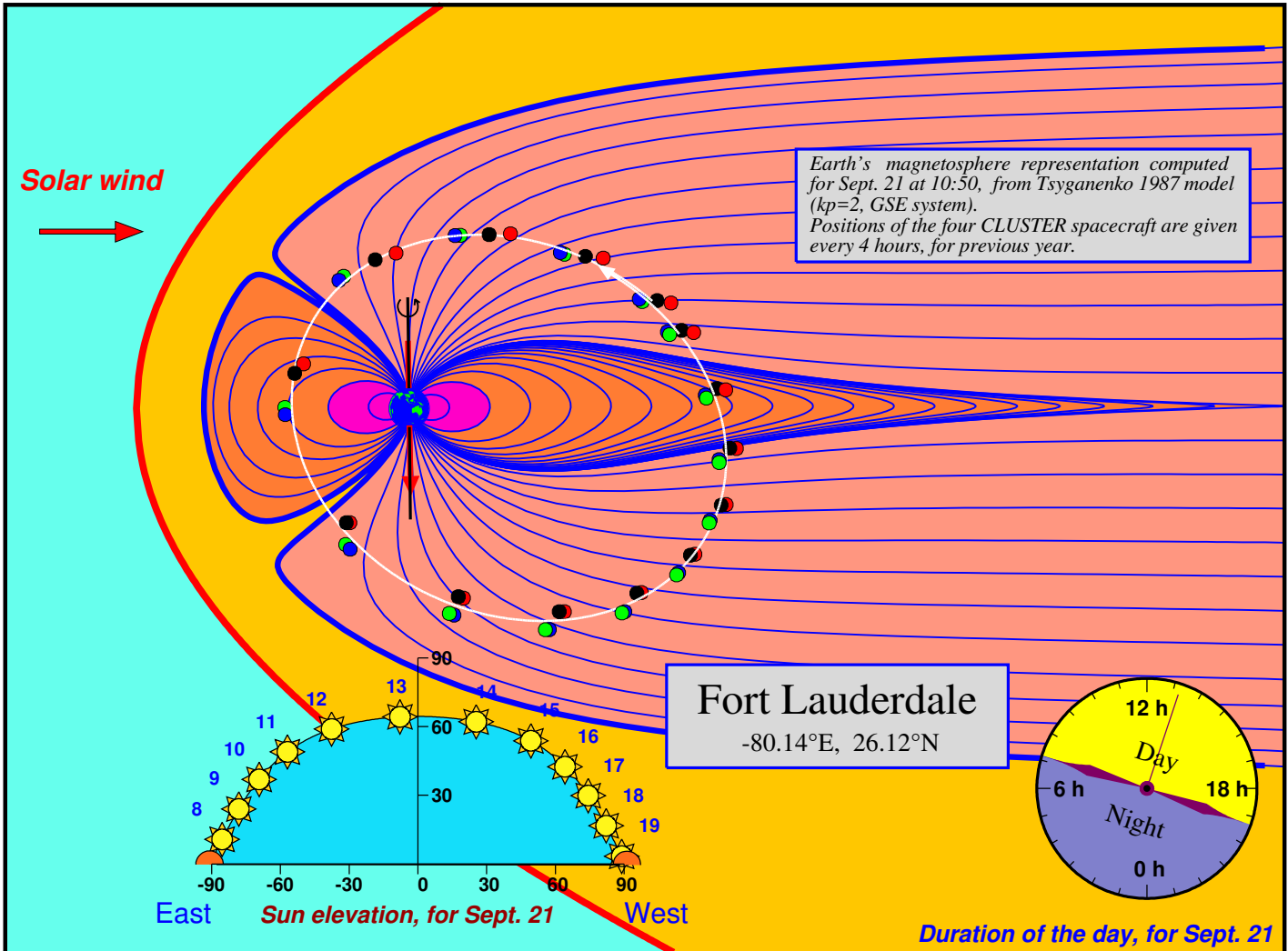
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
26	25 176 - 189 06:30 - 20:16 13:46 +0 m. 87°	26 177 - 188 06:31 - 20:17 13:46 +0 m. 87°	27 178 - 187 06:31 - 20:17 13:46 +0 m. 87°	28 179 - 186 06:31 - 20:17 13:46 +0 m. 87°	29 180 - 185 06:31 - 20:17 13:46 +0 m. 87°	30 181 - 184 06:32 - 20:17 13:45 -1 m. 87°	1 182 - 183 06:32 - 20:17 13:45 +0 m. 87°
27	2 183 - 182 06:33 - 20:17 13:45 +0 m. 87°	3 184 - 181 06:33 - 20:17 13:44 -1 m. 87°	4 185 - 180 06:33 - 20:17 13:44 +0 m. 87°	5 186 - 179 06:34 - 20:17 13:43 -1 m. 87°	6 187 - 178 06:34 - 20:17 13:43 +0 m. 87°	7 188 - 177 06:35 - 20:17 13:42 -1 m. 86°	8 189 - 176 06:35 - 20:17 13:42 +0 m. 86°
28	9 190 - 175 06:35 - 20:17 13:41 -1 m. 86°	10 191 - 174 06:36 - 20:16 13:41 +0 m. 86°	11 192 - 173 06:36 - 20:16 13:40 -1 m. 86°	12 193 - 172 06:37 - 20:16 13:39 -1 m. 86°	13 194 - 171 06:37 - 20:16 13:39 +0 m. 86°	14 195 - 170 06:38 - 20:16 13:38 -1 m. 85°	15 196 - 169 06:38 - 20:15 13:37 -1 m. 85°
29	16 197 - 168 06:39 - 20:15 13:37 +0 m. 85°	17 198 - 167 06:39 - 20:15 13:36 -1 m. 85°	18 199 - 166 06:40 - 20:15 13:35 -1 m. 85°	19 200 - 165 06:40 - 20:14 13:34 -1 m. 85°	20 201 - 164 06:41 - 20:14 13:33 -1 m. 84°	21 202 - 163 06:41 - 20:13 13:32 -1 m. 84°	22 203 - 162 06:42 - 20:13 13:32 +0 m. 84°
30	23 204 - 161 06:42 - 20:13 13:31 -1 m. 84°	24 205 - 160 06:43 - 20:12 13:30 -1 m. 84°	25 206 - 159 06:43 - 20:12 13:29 -1 m. 83°	26 207 - 158 06:44 - 20:11 13:28 -1 m. 83°	27 208 - 157 06:44 - 20:11 13:27 -1 m. 83°	28 209 - 156 06:45 - 20:10 13:26 -1 m. 83°	29 210 - 155 06:45 - 20:10 13:25 -1 m. 83°
31	30 211 - 154 06:46 - 20:09 13:24 -1 m. 82°	31 212 - 153 06:46 - 20:09 13:23 -1 m. 82°	1 213 - 152 06:47 - 20:08 13:21 -2 m. 82°	2 214 - 151 06:47 - 20:07 13:20 -1 m. 82°	3 215 - 150 06:48 - 20:07 13:19 -1 m. 81°	4 216 - 149 06:48 - 20:06 13:18 -1 m. 81°	5 217 - 148 06:49 - 20:05 13:17 -1 m. 81°



August 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

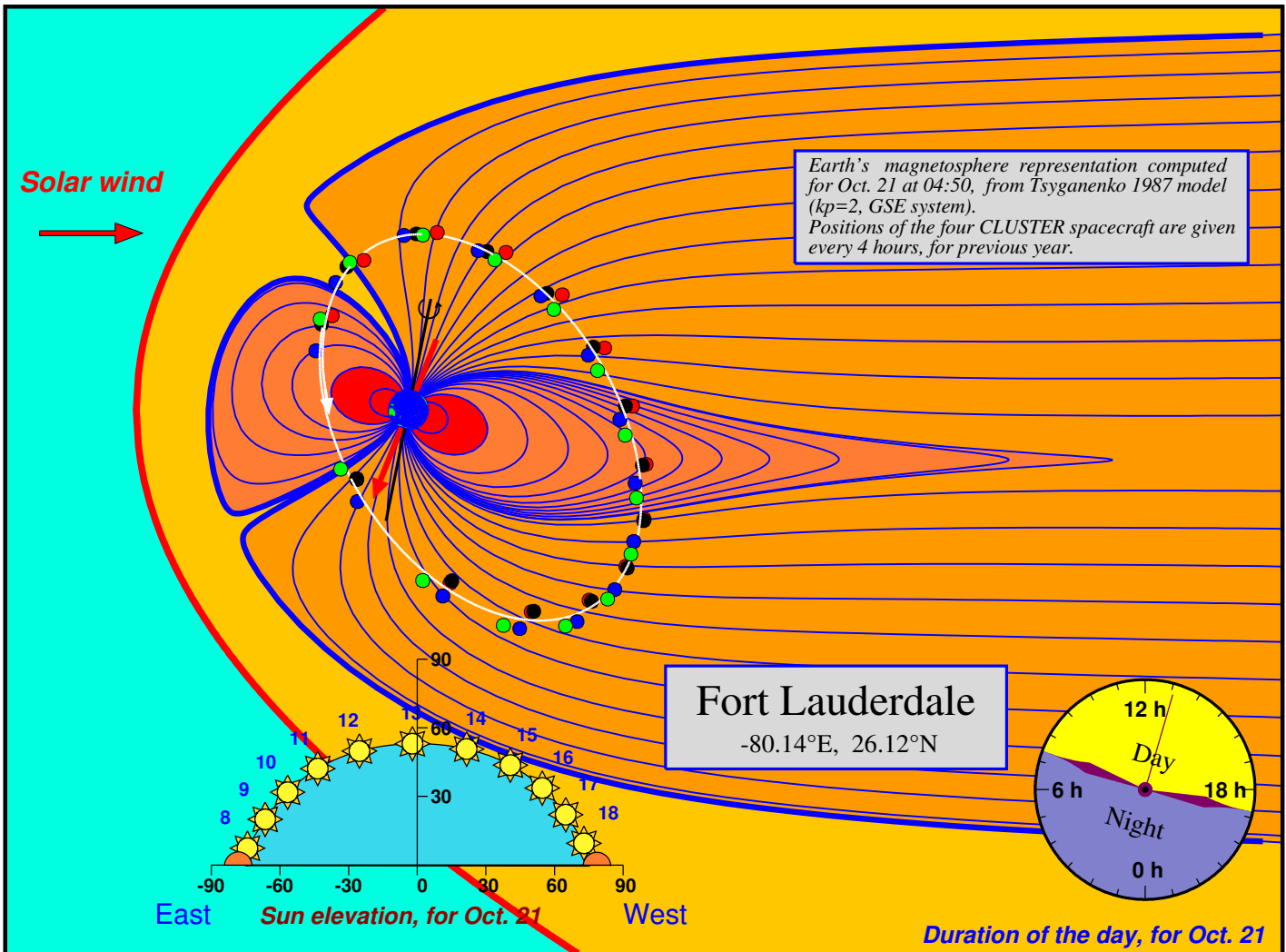
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
31	30 211 - 154 06:46 - 20:09 13:24 -1 m. 82°	31 212 - 153 06:46 - 20:09 13:23 -1 m. 82°	1 213 - 152 06:47 - 20:08 13:21 -2 m. 82°	2 214 - 151 06:47 - 20:07 13:20 -1 m. 82°	3 215 - 150 06:48 - 20:07 13:19 -1 m. 81°	4 216 - 149 06:48 - 20:06 13:18 -1 m. 81°	5 217 - 148 06:49 - 20:05 13:17 -1 m. 81°
32	6 218 - 147 06:49 - 20:05 13:16 -1 m. 80°	7 219 - 146 06:49 - 20:04 13:15 -1 m. 80°	8 220 - 145 06:50 - 20:03 13:13 -2 m. 80°	9 221 - 144 06:50 - 20:02 13:12 -1 m. 80°	10 222 - 143 06:51 - 20:02 13:11 -1 m. 79°	11 223 - 142 06:51 - 20:01 13:10 -1 m. 79°	12 224 - 141 06:52 - 19:59 13:07 -3 m. 79°
33	13 225 - 140 06:52 - 19:58 13:06 -1 m. 78°	14 226 - 139 06:53 - 19:58 13:05 -1 m. 78°	15 227 - 138 06:53 - 19:57 13:04 -1 m. 78°	16 228 - 137 06:54 - 19:56 13:02 -2 m. 77°	17 229 - 136 06:54 - 19:55 13:01 -1 m. 77°	18 230 - 135 06:55 - 19:54 12:59 -2 m. 77°	19 231 - 134 06:55 - 19:53 12:58 -1 m. 77°
34	20 232 - 133 06:56 - 19:52 12:57 -1 m. 76°	21 233 - 132 06:56 - 19:51 12:55 -2 m. 76°	22 234 - 131 06:56 - 19:50 12:54 -1 m. 76°	23 235 - 130 06:57 - 19:49 12:52 -2 m. 75°	24 236 - 129 06:57 - 19:48 12:51 -1 m. 75°	25 237 - 128 06:58 - 19:47 12:50 -1 m. 74°	26 238 - 127 06:58 - 19:46 12:48 -2 m. 74°
35	27 239 - 126 06:59 - 19:45 12:47 -1 m. 74°	28 240 - 125 06:59 - 19:44 12:45 -2 m. 73°	29 241 - 124 07:00 - 19:43 12:44 -1 m. 73°	30 242 - 123 07:00 - 19:42 12:42 -2 m. 73°	31 243 - 122 07:00 - 19:41 12:41 -1 m. 72°	1 244 - 121 07:01 - 19:40 12:40 -1 m. 72°	2 245 - 120 07:01 - 19:39 12:38 -2 m. 72°



September 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

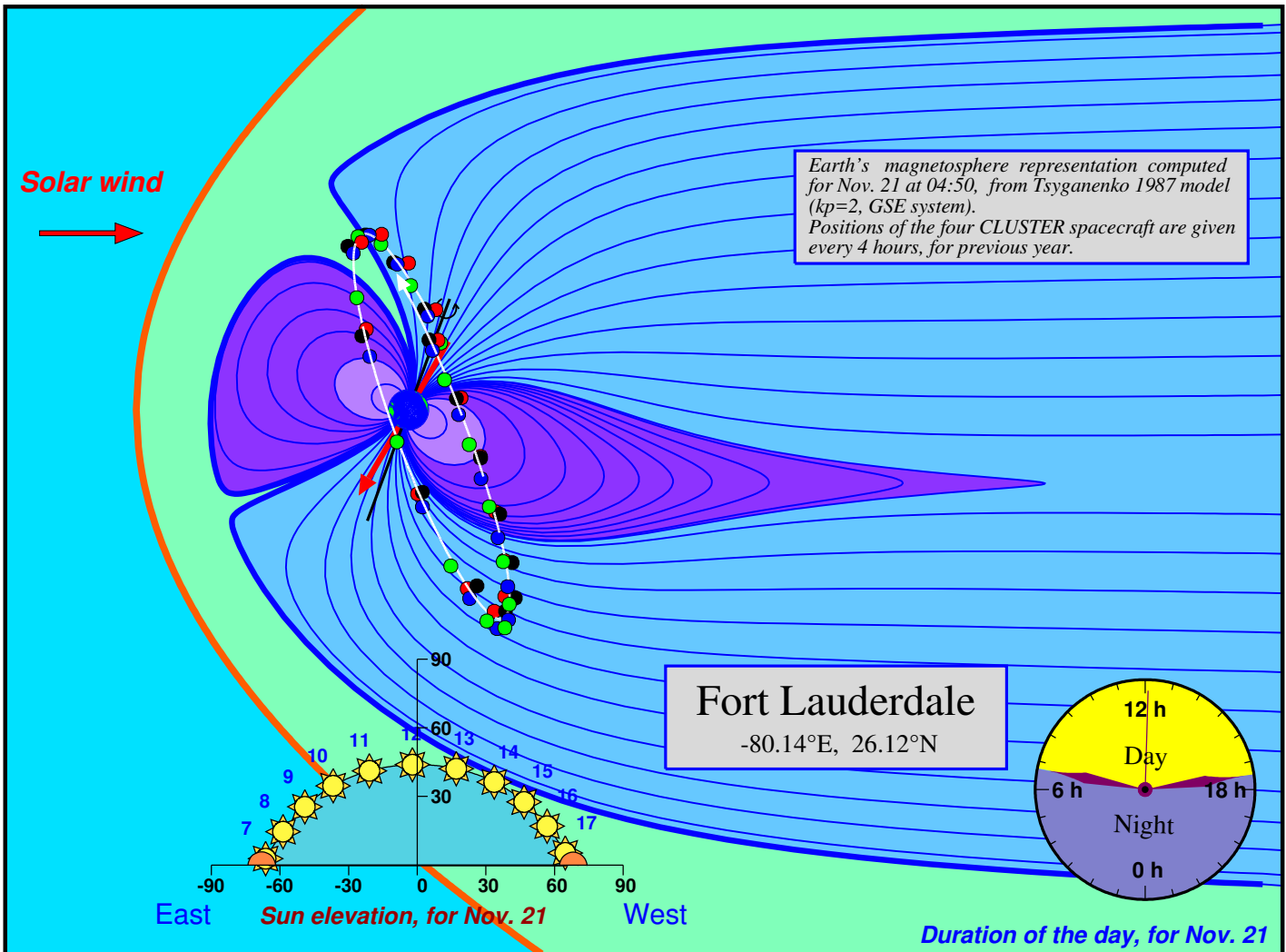
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
35	27 239 - 126 06:59 - 19:45 12:47 -1 m. 74°	28 240 - 125 06:59 - 19:44 12:45 -2 m. 73°	29 241 - 124 07:00 - 19:43 12:44 -1 m. 73°	30 242 - 123 07:00 - 19:42 12:42 -2 m. 73°	31 243 - 122 07:00 - 19:41 12:41 -1 m. 72°	1 244 - 121 07:01 - 19:40 12:40 -1 m. 72°	2 245 - 120 07:01 - 19:39 12:38 -2 m. 72°
36	3 246 - 119 07:02 - 19:38 12:37 -1 m. 71°	4 247 - 118 07:02 - 19:37 12:35 -2 m. 71°	5 248 - 117 07:02 - 19:36 12:34 -1 m. 71°	6 249 - 116 07:03 - 19:35 12:32 -2 m. 70°	7 250 - 115 07:03 - 19:34 12:31 -1 m. 70°	8 251 - 114 07:04 - 19:33 12:29 -2 m. 69°	9 252 - 113 07:04 - 19:32 12:28 -1 m. 69°
37	10 253 - 112 07:04 - 19:30 12:26 -2 m. 69°	11 254 - 111 07:05 - 19:29 12:25 -1 m. 68°	12 255 - 110 07:05 - 19:28 12:23 -2 m. 68°	13 256 - 109 07:06 - 19:27 12:22 -1 m. 68°	14 257 - 108 07:06 - 19:26 12:20 -2 m. 67°	15 258 - 107 07:06 - 19:25 12:19 -1 m. 67°	16 259 - 106 07:07 - 19:24 12:17 -2 m. 66°
38	17 260 - 105 07:07 - 19:23 12:15 -2 m. 66°	18 261 - 104 07:08 - 19:22 12:14 -1 m. 66°	19 262 - 103 07:08 - 19:20 12:12 -2 m. 65°	20 263 - 102 07:08 - 19:19 12:11 -1 m. 65°	21 264 - 101 07:09 - 19:18 12:09 -2 m. 64°	22 265 - 100 07:09 - 19:17 12:08 -1 m. 64°	23 266 - 99 07:10 - 19:16 12:06 -2 m. 64°
39	24 267 - 98 07:10 - 19:15 12:05 -1 m. 63°	25 268 - 97 07:11 - 19:14 12:03 -2 m. 63°	26 269 - 96 07:11 - 19:13 12:02 -1 m. 62°	27 270 - 95 07:11 - 19:12 12:00 -2 m. 62°	28 271 - 94 07:12 - 19:10 11:59 -1 m. 62°	29 272 - 93 07:12 - 19:09 11:57 -2 m. 61°	30 273 - 92 07:13 - 19:08 11:56 -1 m. 61°



October 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
40	1 274 - 91 07:13 - 19:07 11:54 -2 m. 61°	2 275 - 90 07:14 - 19:06 11:53 -1 m. 60°	3 276 - 89 07:14 - 19:05 11:51 -2 m. 60°	4 277 - 88 07:14 - 19:04 11:50 -1 m. 59°	5 278 - 87 07:15 - 19:03 11:48 -2 m. 59°	6 279 - 86 07:15 - 19:02 11:47 -1 m. 59°	7 280 - 85 07:16 - 19:01 11:45 -2 m. 58°
41	8 281 - 84 07:16 - 19:00 11:44 -1 m. 58°	9 282 - 83 07:17 - 18:59 11:42 -2 m. 57°	10 283 - 82 07:17 - 18:58 11:41 -1 m. 57°	11 284 - 81 07:18 - 18:57 11:39 -2 m. 57°	12 285 - 80 07:18 - 18:56 11:38 -1 m. 56°	13 286 - 79 07:19 - 18:55 11:36 -2 m. 56°	14 287 - 78 07:19 - 18:54 11:35 -1 m. 56°
42	15 288 - 77 07:20 - 18:53 11:33 -2 m. 55°	16 289 - 76 07:20 - 18:52 11:32 -1 m. 55°	17 290 - 75 07:21 - 18:51 11:30 -2 m. 54°	18 291 - 74 07:21 - 18:50 11:29 -1 m. 54°	19 292 - 73 07:22 - 18:49 11:27 -2 m. 54°	20 293 - 72 07:22 - 18:48 11:26 -1 m. 53°	21 294 - 71 07:23 - 18:47 11:25 -1 m. 53°
43	22 295 - 70 07:24 - 18:46 11:23 -2 m. 53°	23 296 - 69 07:24 - 18:46 11:22 -1 m. 52°	24 297 - 68 07:25 - 18:45 11:20 -2 m. 52°	25 298 - 67 07:25 - 18:44 11:19 -1 m. 52°	26 299 - 66 07:26 - 18:43 11:17 -2 m. 51°	27 300 - 65 07:26 - 18:42 11:16 -1 m. 51°	28 301 - 64 07:27 - 18:42 11:15 -1 m. 51°
44	29 302 - 63 07:28 - 18:41 11:13 -2 m. 50°	30 303 - 62 07:28 - 18:40 11:12 -1 m. 50°	31 304 - 61 07:29 - 18:39 11:11 -1 m. 50°	1 305 - 60 07:30 - 18:39 11:09 -2 m. 49°	2 306 - 59 07:30 - 18:38 11:08 -1 m. 49°	3 307 - 58 07:31 - 18:37 11:07 -1 m. 49°	4 308 - 57 06:32 - 17:37 11:05 -2 m. 48°

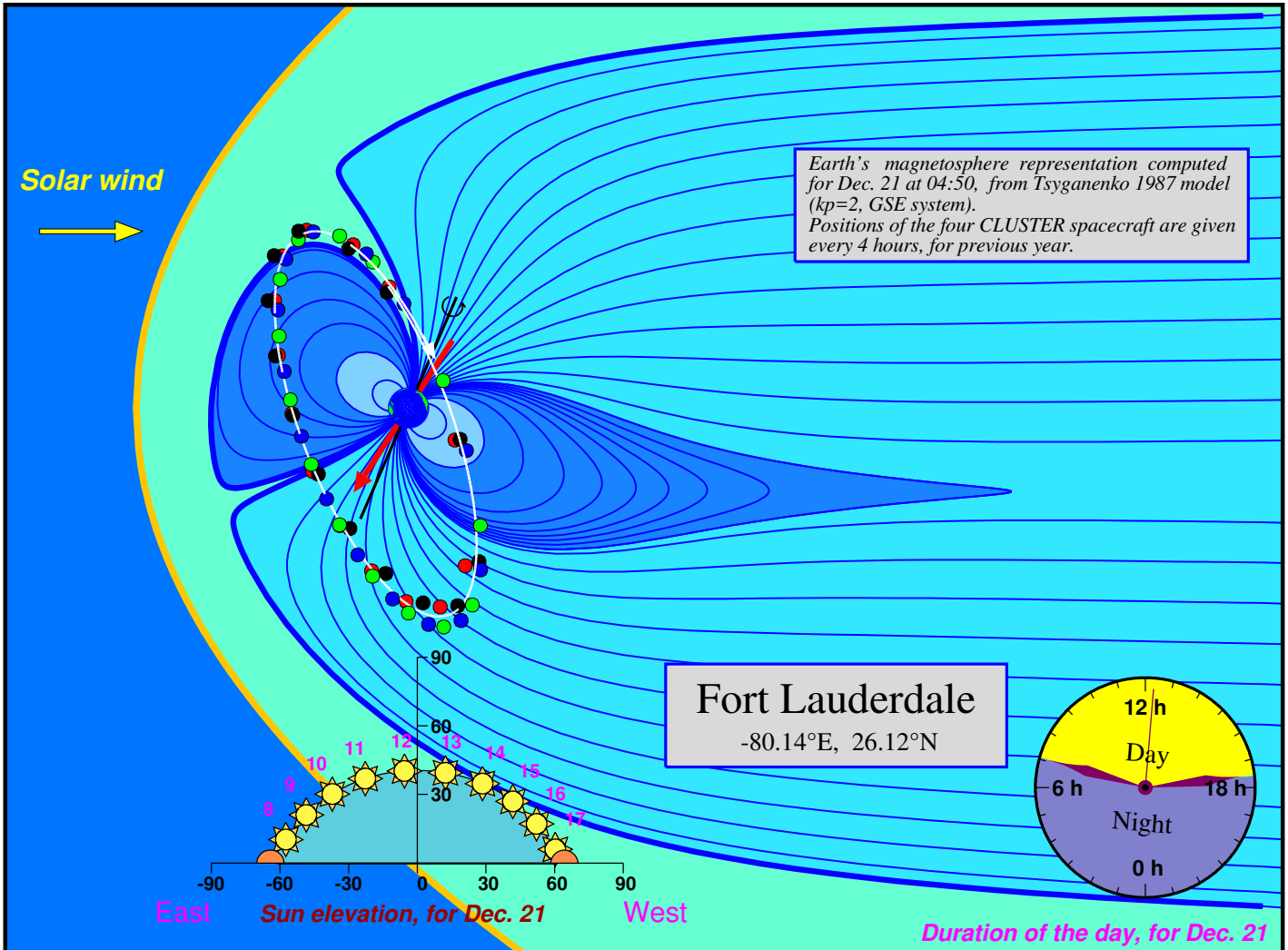


November 2018

Time change
Nov. 4

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
44	29 302 - 63 07:28 - 18:41 11:13 -2 m. 50°	30 303 - 62 07:28 - 18:40 11:12 -1 m. 50°	31 304 - 61 07:29 - 18:39 11:11 -1 m. 50°	1 305 - 60 07:30 - 18:39 11:09 -2 m. 49°	2 306 - 59 07:30 - 18:38 11:08 -1 m. 49°	3 307 - 58 07:31 - 18:37 11:07 -1 m. 49°	4 308 - 57 06:32 - 17:37 11:05 -2 m. 48°
45	5 309 - 56 06:32 - 17:36 11:04 -1 m. 48°	6 310 - 55 06:33 - 17:36 11:03 -1 m. 48°	7 311 - 54 06:34 - 17:35 11:01 -2 m. 47°	8 312 - 53 06:34 - 17:34 11:00 -1 m. 47°	9 313 - 52 06:35 - 17:34 10:59 -1 m. 47°	10 314 - 51 06:36 - 17:33 10:58 -1 m. 47°	11 315 - 50 06:36 - 17:33 10:57 -1 m. 46°
46	12 316 - 49 06:37 - 17:32 10:55 -2 m. 46°	13 317 - 48 06:38 - 17:32 10:54 -1 m. 46°	14 318 - 47 06:38 - 17:32 10:53 -1 m. 46°	15 319 - 46 06:39 - 17:31 10:52 -1 m. 45°	16 320 - 45 06:40 - 17:31 10:51 -1 m. 45°	17 321 - 44 06:41 - 17:31 10:50 -1 m. 45°	18 322 - 43 06:41 - 17:30 10:49 -1 m. 45°
47	19 323 - 42 06:42 - 17:30 10:48 -1 m. 44°	20 324 - 41 06:43 - 17:30 10:47 -1 m. 44°	21 325 - 40 06:44 - 17:29 10:46 -1 m. 44°	22 326 - 39 06:44 - 17:29 10:45 -1 m. 44°	23 327 - 38 06:45 - 17:29 10:44 -1 m. 43°	24 328 - 37 06:46 - 17:29 10:43 -1 m. 43°	25 329 - 36 06:47 - 17:29 10:42 -1 m. 43°
48	26 330 - 35 06:47 - 17:29 10:41 -1 m. 43°	27 331 - 34 06:48 - 17:29 10:41 +0 m. 43°	28 332 - 33 06:49 - 17:29 10:40 -1 m. 43°	29 333 - 32 06:50 - 17:28 10:39 -1 m. 42°	30 334 - 31 06:50 - 17:28 10:38 -1 m. 42°	1 335 - 30 06:51 - 17:29 10:38 +0 m. 42°	2 336 - 29 06:52 - 17:29 10:37 -1 m. 42°



December 2018

Sunrise and Sunset at Fort Lauderdale (TL ± 1 mn)
Duration of the day - Variation - Sun maximal elevation (°)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
48	26 330 - 35 06:47 - 17:29 10:41 -1 m. 43°	27 331 - 34 06:48 - 17:29 10:41 +0 m. 43°	28 332 - 33 06:49 - 17:29 10:40 -1 m. 43°	29 333 - 32 06:50 - 17:28 10:39 -1 m. 42°	30 334 - 31 06:50 - 17:28 10:38 -1 m. 42°	1 335 - 30 06:51 - 17:29 10:38 +0 m. 42°	2 336 - 29 06:52 - 17:29 10:37 -1 m. 42°
49	3 337 - 28 06:52 - 17:29 10:36 -1 m. 42°	4 338 - 27 06:53 - 17:29 10:36 +0 m. 42°	5 339 - 26 06:54 - 17:29 10:35 -1 m. 41°	6 340 - 25 06:55 - 17:29 10:34 -1 m. 41°	7 341 - 24 06:55 - 17:29 10:34 +0 m. 41°	8 342 - 23 06:56 - 17:29 10:34 +0 m. 41°	9 343 - 22 06:57 - 17:30 10:33 -1 m. 41°
50	10 344 - 21 06:57 - 17:30 10:33 +0 m. 41°	11 345 - 20 06:58 - 17:30 10:32 -1 m. 41°	12 346 - 19 06:59 - 17:30 10:32 +0 m. 41°	13 347 - 18 06:59 - 17:31 10:32 +0 m. 41°	14 348 - 17 07:00 - 17:31 10:31 -1 m. 41°	15 349 - 16 07:00 - 17:31 10:31 +0 m. 41°	16 350 - 15 07:01 - 17:32 10:31 +0 m. 41°
51	17 351 - 14 07:02 - 17:32 10:31 +0 m. 41°	18 352 - 13 07:02 - 17:33 10:31 +0 m. 41°	19 353 - 12 07:03 - 17:33 10:30 -1 m. 40°	20 354 - 11 07:03 - 17:34 10:30 +0 m. 40°	21 355 - 10 07:04 - 17:34 10:30 +0 m. 40°	22 356 - 9 07:04 - 17:35 10:30 +0 m. 40°	23 357 - 8 07:05 - 17:35 10:30 +0 m. 40°
52	24 358 - 7 07:05 - 17:36 10:30 +0 m. 40°	25 359 - 6 07:06 - 17:36 10:31 +1 m. 41°	26 360 - 5 07:06 - 17:37 10:31 +0 m. 41°	27 361 - 4 07:06 - 17:37 10:31 +0 m. 41°	28 362 - 3 07:07 - 17:38 10:31 +0 m. 41°	29 363 - 2 07:07 - 17:39 10:32 +1 m. 41°	30 364 - 1 07:08 - 17:39 10:32 +0 m. 41°
53	31 365 - 0 07:08 - 17:40 10:32 +0 m. 41°						

Visualisation of magnetic field lines of the Earth

Model: Tsyganenko 87 version exshor ikp=4 (kp= 2+) Date/Time: 16 janvier 2001 02:00 Coordinates: GSM

P. Robert, 1996



Illustration : Visualization of magnetic field lines of the Earth, showing the magnetosphere.

The magnetic Earth's field lines, due to the internal field, initially dipolar and symmetric around the axis of the magnetic dipole, are deformed by the solar wind, which create a closed cavity, named magnetosphere, and a shock wave upstream of this cavity. The various regions are artificially colored. The color choice, here as well as from one season to another for the calendar, is purely esthetical.

The magnetic field model used is the one of Tsyganenko 1987. The computation of the magnetosphere geometries, from the magnetic field model, is done from a specific library developed, the "Comagnetolib". All the graphical is produced by an own library, the "Rogralib".

Calendar:

The sunrise and sunset time, the computation of the maximal elevation of the Sun at the local noon, the duration of the day, are computed thanks to a coordinate system library, developed initially for the CLUSTER mission in 1992, the "Rocotlib", then completed by all the routines allowing calendar and time conversions. Sunrise, sunset and local noon time are now available for polar zones in the last version of this library.

Computations are done assuming a spherical Earth, and for a constant value of the indices of refraction of the air at the horizon. Computations have been checked with the ephemerid values delivered by the "Institut de Mécanique Céleste" in Paris. The accuracy is around one minute in time and a few minutes in angles. Sunrise and sunset are defined when the apparent upper edge of the sun reach the local horizon.

This calendar can be automatically produced for any city in the world, including polar zones, and for all years between 1901 and 2099.

For any more information, contact Patrickjf.Robert@gmail.com

Many calendar examples computed for various places in the world are available here : <http://www.scientidev.fr>