

**AED (#0450):** Total of **54** orbits.  $\lambda_o = 20.2^\circ$ ,  $\lambda_g - \lambda_o = 292.8^\circ$ ,  $\beta_g = 29.9^\circ$ ,  $\Delta r = 3^\circ$ ,  $\Delta \lambda_o = 5^\circ$ .

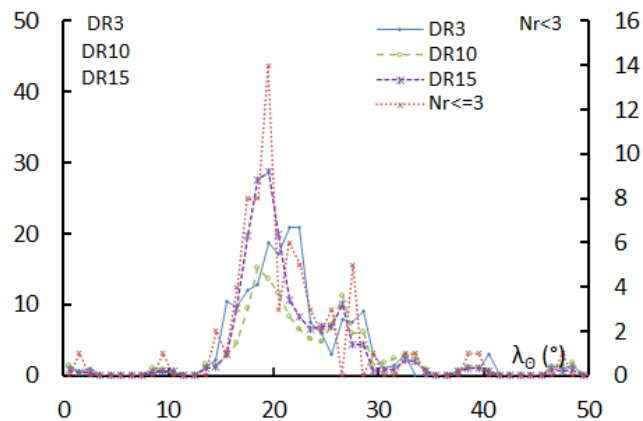
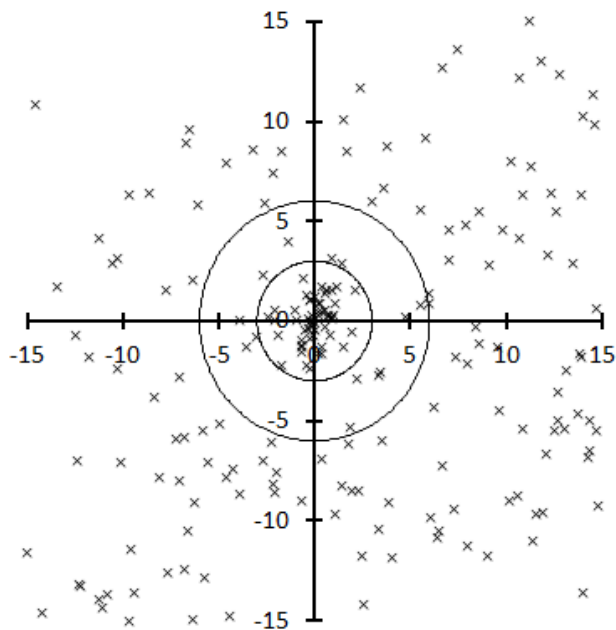


Table 1 – Number per year.

| Year | N | Year | N  |
|------|---|------|----|
| 2007 | 1 | 2013 | 5  |
| 2008 | 0 | 2014 | 10 |
| 2009 | 9 | 2015 | 2  |
| 2010 | 3 | 2016 | 5  |
| 2011 | 5 | 2017 | 4  |
| 2012 | 3 | 2018 | 7  |

Table 2 – Activity profiles.

|       | $\lambda_o$ | Max  |
|-------|-------------|------|
| Nr<=3 | 19.5        | 14   |
| DR3   | 21.5        | 21.0 |
| DR10  | 18.5        | 15.2 |
| DR15  | 19.5        | 28.7 |

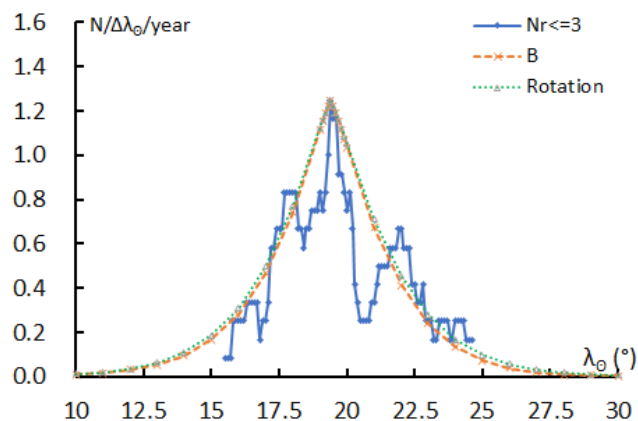


Table 3 – Evolution of the orbital parameters during the activity period.

| $\lambda_o$ | $\lambda_g - \lambda_o$ | $\beta_g$ | $\alpha_g$ | $\delta_g$ | $v_g$ | $e$   | $q$   | $i$   | $\omega$ | $\Omega$ | $\lambda_\pi$ | $\beta_\pi$ | $a$   |
|-------------|-------------------------|-----------|------------|------------|-------|-------|-------|-------|----------|----------|---------------|-------------|-------|
| 10          | 292.2                   | 26.3      | 298.7      | 6.0        | 61.0  | 0.872 | 0.701 | 127.6 | 111.1    | 10.0     | 247.7         | 47.6        | 5.48  |
| 11          | 292.3                   | 26.7      | 299.6      | 6.6        | 61.0  | 0.879 | 0.703 | 127.0 | 111.5    | 11.0     | 247.8         | 48.0        | 5.82  |
| 12          | 292.5                   | 27.0      | 300.5      | 7.1        | 60.9  | 0.886 | 0.705 | 126.4 | 111.9    | 12.0     | 247.9         | 48.3        | 6.21  |
| 13          | 292.6                   | 27.3      | 301.5      | 7.7        | 60.9  | 0.894 | 0.707 | 125.8 | 112.3    | 13.0     | 248.0         | 48.7        | 6.66  |
| 14          | 292.8                   | 27.7      | 302.4      | 8.3        | 60.8  | 0.901 | 0.709 | 125.2 | 112.7    | 14.0     | 248.1         | 49.0        | 7.18  |
| 15          | 292.9                   | 28.0      | 303.3      | 8.8        | 60.8  | 0.909 | 0.710 | 124.6 | 113.0    | 15.0     | 248.1         | 49.3        | 7.80  |
| 16          | 293.1                   | 28.3      | 304.2      | 9.4        | 60.7  | 0.917 | 0.712 | 123.9 | 113.4    | 16.0     | 248.2         | 49.6        | 8.54  |
| 17          | 293.2                   | 28.7      | 305.1      | 10.0       | 60.7  | 0.924 | 0.714 | 123.3 | 113.8    | 17.0     | 248.2         | 49.8        | 9.45  |
| 18          | 293.4                   | 29.0      | 306.0      | 10.6       | 60.6  | 0.932 | 0.716 | 122.8 | 114.2    | 18.0     | 248.3         | 50.1        | 10.59 |
| 19          | 293.5                   | 29.4      | 306.9      | 11.2       | 60.6  | 0.940 | 0.718 | 122.2 | 114.6    | 19.0     | 248.3         | 50.3        | 12.05 |
| 19.1        | 293.5                   | 29.4      | 307.0      | 11.3       | 60.6  | 0.941 | 0.718 | 122.1 | 114.6    | 19.1     | 248.3         | 50.4        | 12.22 |
| 19.2        | 293.5                   | 29.4      | 307.1      | 11.3       | 60.6  | 0.942 | 0.719 | 122.0 | 114.7    | 19.2     | 248.3         | 50.4        | 12.39 |
| 19.3        | 293.6                   | 29.5      | 307.2      | 11.4       | 60.6  | 0.943 | 0.719 | 122.0 | 114.7    | 19.3     | 248.3         | 50.4        | 12.57 |
| 19.4        | 293.6                   | 29.5      | 307.3      | 11.4       | 60.6  | 0.944 | 0.719 | 121.9 | 114.8    | 19.4     | 248.3         | 50.4        | 12.76 |
| 19.5        | 293.6                   | 29.5      | 307.3      | 11.5       | 60.6  | 0.944 | 0.719 | 121.9 | 114.8    | 19.5     | 248.3         | 50.4        | 12.95 |
| 19.6        | 293.6                   | 29.6      | 307.4      | 11.6       | 60.5  | 0.945 | 0.719 | 121.8 | 114.8    | 19.6     | 248.3         | 50.5        | 13.14 |
| 19.7        | 293.6                   | 29.6      | 307.5      | 11.6       | 60.5  | 0.946 | 0.720 | 121.7 | 114.9    | 19.7     | 248.3         | 50.5        | 13.35 |
| 19.8        | 293.6                   | 29.6      | 307.6      | 11.7       | 60.5  | 0.947 | 0.720 | 121.7 | 114.9    | 19.8     | 248.3         | 50.5        | 13.56 |
| 19.9        | 293.7                   | 29.7      | 307.7      | 11.7       | 60.5  | 0.948 | 0.720 | 121.6 | 115.0    | 19.9     | 248.3         | 50.5        | 13.77 |

Table 3 – Continued, evolution of the orbital parameters during the activity period.

| $\lambda_{\varrho}$ | $\lambda_g - \lambda_{\varrho}$ | $\beta_g$ | $\alpha_g$ | $\delta_g$ | $v_g$ | $e$   | $q$   | $i$   | $\omega$ | $\Omega$ | $\lambda_{\Pi}$ | $\beta_{\Pi}$ | $a$   |
|---------------------|---------------------------------|-----------|------------|------------|-------|-------|-------|-------|----------|----------|-----------------|---------------|-------|
| 20                  | 293.7                           | 29.7      | 307.8      | 11.8       | 60.5  | 0.949 | 0.720 | 121.6 | 115.0    | 20.0     | 248.3           | 50.6          | 14.00 |
| 21                  | 293.8                           | 30.0      | 308.7      | 12.4       | 60.5  | 0.957 | 0.722 | 121.0 | 115.4    | 21.0     | 248.3           | 50.8          | 16.72 |
| 22                  | 294.0                           | 30.4      | 309.6      | 13.0       | 60.4  | 0.965 | 0.724 | 120.4 | 115.8    | 22.0     | 248.3           | 51.0          | 20.79 |
| 23                  | 294.1                           | 30.7      | 310.4      | 13.6       | 60.4  | 0.974 | 0.726 | 119.8 | 116.2    | 23.0     | 248.3           | 51.1          | 27.57 |
| 24                  | 294.3                           | 31.1      | 311.3      | 14.3       | 60.3  | 0.982 | 0.728 | 119.2 | 116.6    | 24.0     | 248.3           | 51.3          | 41.03 |
| 25                  | 294.5                           | 31.4      | 312.2      | 14.9       | 60.3  | 0.991 | 0.731 | 118.7 | 117.0    | 25.0     | 248.3           | 51.4          | 80.74 |
| 26                  | 294.6                           | 31.7      | 313.0      | 15.5       | 60.2  | 1.000 | 0.733 | 118.1 | 117.4    | 26.0     | 248.3           | 51.6          | 3203  |
| 27                  | 294.8                           | 32.1      | 313.9      | 16.2       | 60.2  | 1.009 | 0.735 | 117.5 | 117.8    | 27.0     | 248.2           | 51.7          | -84.4 |
| 28                  | 294.9                           | 32.4      | 314.7      | 16.8       | 60.1  | 1.018 | 0.737 | 117.0 | 118.2    | 28.0     | 248.2           | 51.8          | -41.5 |
| 29                  | 295.1                           | 32.7      | 315.6      | 17.5       | 60.1  | 1.027 | 0.739 | 116.4 | 118.6    | 29.0     | 248.2           | 51.9          | -27.4 |
| 30                  | 295.3                           | 33.1      | 316.4      | 18.1       | 60.0  | 1.036 | 0.741 | 115.8 | 119.0    | 30.0     | 248.2           | 51.9          | -20.4 |