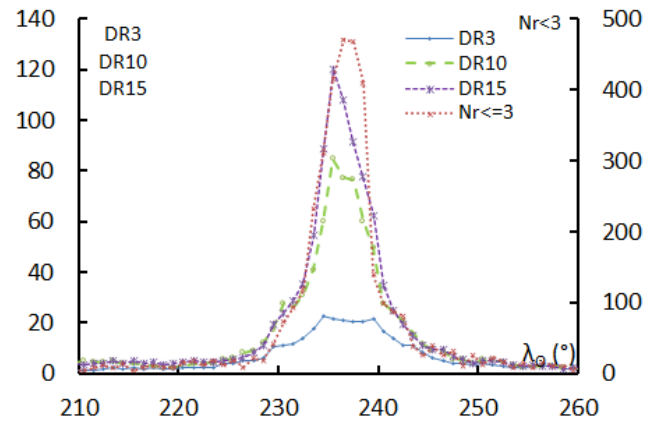
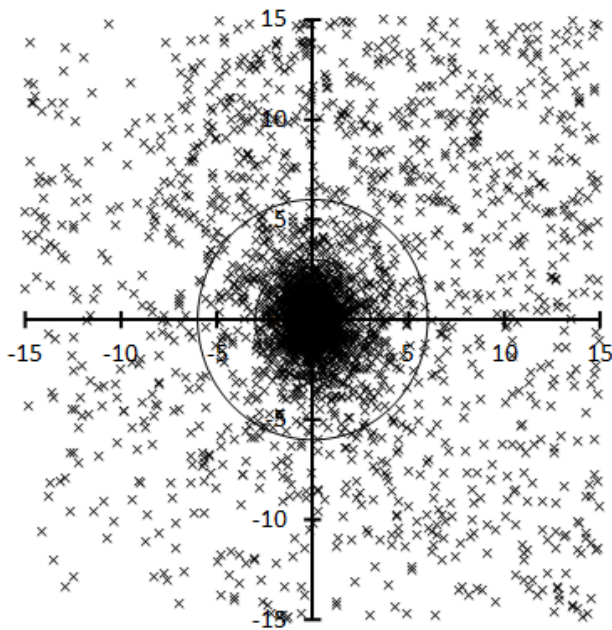


**LEO (#0013):** Total of 2784 orbits.  $\lambda_o = 235.4^\circ$ ,  $\lambda_g - \lambda_o = 272.3^\circ$ ,  $\beta_g = 10.2^\circ$ ,  $\Delta r = 3^\circ$ ,  $\Delta \lambda_o = 5^\circ$ . It is well known that the activity of LEO has a periodicity of 33 years. The presented results represent only the period from 2007 to 2018; we can witness the descent.

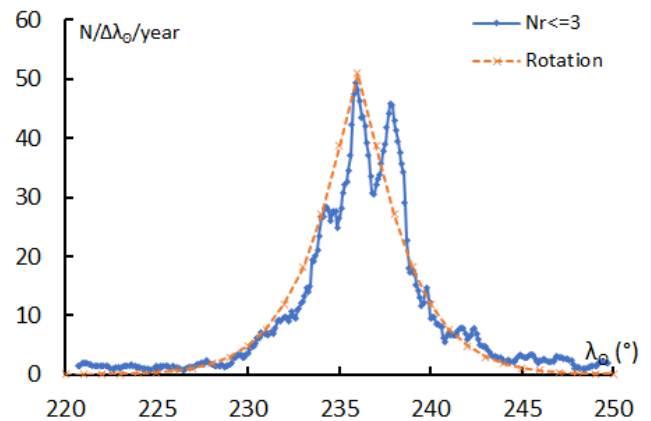


**Table 1 – Number per year.**

Year	N	Year	N
2007	390	2013	278
2008	225	2014	266
2009	165	2015	72
2010	314	2016	184
2011	144	2017	286
2012	191	2018	269

**Table 2 – Activity profiles.**

	$\lambda_o$	Max
Nr<=3	236.5	471
DR3	234.5	22.4
DR10	235.5	84.8
DR15	235.5	120.4



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

$\lambda_o$	$\lambda_g - \lambda_o$	$\beta_g$	$\alpha_g$	$\delta_g$	$\nu_g$	$e$	$q$	$i$	$\omega$	$\Omega$	$\lambda_{\Pi}$	$\beta_{\Pi}$	$a$
210	280.7	14.7	137.8	31.7	68.3	0.880	0.906	153.6	144.0	210.0	63.0	15.1	7.56
211	280.4	14.5	138.5	31.3	68.4	0.877	0.911	154.0	145.0	211.0	63.1	14.6	7.40
212	280.0	14.4	139.1	30.9	68.4	0.874	0.915	154.3	146.1	212.0	63.2	14.0	7.26
213	279.7	14.2	139.8	30.6	68.5	0.871	0.920	154.6	147.1	213.0	63.3	13.4	7.13
214	279.4	14.0	140.4	30.2	68.6	0.868	0.924	155.0	148.1	214.0	63.4	12.9	7.02
215	279.1	13.9	141.1	29.8	68.6	0.866	0.928	155.3	149.2	215.0	63.5	12.3	6.92
216	278.7	13.7	141.7	29.5	68.7	0.863	0.933	155.7	150.3	216.0	63.5	11.8	6.83
217	278.4	13.5	142.4	29.1	68.8	0.861	0.937	156.0	151.3	217.0	63.5	11.3	6.74
218	278.1	13.4	143.0	28.7	68.8	0.859	0.941	156.3	152.4	218.0	63.6	10.7	6.67
219	277.7	13.2	143.7	28.3	68.9	0.857	0.944	156.7	153.5	219.0	63.6	10.2	6.61
220	277.4	13.0	144.3	28.0	69.0	0.855	0.948	157.0	154.6	220.0	63.6	9.7	6.56
221	277.1	12.9	145.0	27.6	69.0	0.854	0.951	157.3	155.7	221.0	63.6	9.1	6.51
222	276.8	12.7	145.6	27.2	69.1	0.853	0.955	157.7	156.8	222.0	63.6	8.6	6.47
223	276.5	12.5	146.2	26.8	69.2	0.851	0.958	158.0	157.9	223.0	63.6	8.1	6.44
224	276.1	12.3	146.9	26.4	69.2	0.850	0.961	158.3	159.0	224.0	63.6	7.6	6.42
225	275.8	12.2	147.5	26.0	69.3	0.850	0.964	158.7	160.2	225.0	63.6	7.1	6.41
226	275.5	12.0	148.1	25.7	69.4	0.849	0.967	159.0	161.3	226.0	63.5	6.6	6.40
227	275.2	11.8	148.7	25.3	69.4	0.849	0.969	159.3	162.4	227.0	63.5	6.1	6.40
228	274.8	11.6	149.3	24.9	69.5	0.848	0.972	159.6	163.6	228.0	63.5	5.7	6.41
229	274.5	11.5	150.0	24.5	69.6	0.848	0.974	160.0	164.7	229.0	63.4	5.2	6.43

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

$\lambda_{\theta}$	$\lambda_g - \lambda_{\theta}$	$\beta_g$	$\alpha_g$	$\delta_g$	$v_g$	$e$	$q$	$i$	$\omega$	$\Omega$	$\lambda_{\Pi}$	$\beta_{\Pi}$	$a$
230	274.2	11.3	150.6	24.1	69.6	0.849	0.976	160.3	165.9	230.0	63.3	4.7	6.45
231	273.9	11.1	151.2	23.7	69.7	0.849	0.978	160.6	167.0	231.0	63.3	4.3	6.48
232	273.6	10.9	151.8	23.3	69.8	0.850	0.980	160.9	168.2	232.0	63.2	3.8	6.53
233	273.2	10.8	152.4	22.9	69.8	0.851	0.981	161.2	169.3	233.0	63.1	3.4	6.57
234	272.9	10.6	153.0	22.5	69.9	0.852	0.983	161.6	170.5	234.0	63.1	3.0	6.63
235	272.6	10.4	153.6	22.1	70.0	0.853	0.984	161.9	171.6	235.0	63.0	2.6	6.70
236	272.3	10.2	154.2	21.6	70.0	0.855	0.985	162.2	172.8	236.0	62.9	2.2	6.78
237	272.0	10.1	154.8	21.2	70.1	0.856	0.986	162.5	173.9	237.0	62.8	1.8	6.87
238	271.6	9.9	155.4	20.8	70.2	0.858	0.986	162.8	175.1	238.0	62.7	1.5	6.97
239	271.3	9.7	156.0	20.4	70.2	0.861	0.987	163.1	176.2	239.0	62.6	1.1	7.08
240	271.0	9.5	156.6	20.0	70.3	0.863	0.987	163.5	177.4	240.0	62.5	0.8	7.21
241	270.7	9.3	157.2	19.6	70.4	0.866	0.987	163.8	178.5	241.0	62.4	0.4	7.35
242	270.4	9.2	157.8	19.2	70.4	0.869	0.987	164.1	179.6	242.0	62.3	0.1	7.51
243	270.0	9.0	158.4	18.7	70.5	0.872	0.987	164.4	180.8	243.0	62.3	-0.2	7.69
244	269.7	8.8	159.0	18.3	70.6	0.875	0.987	164.7	181.9	244.0	62.2	-0.5	7.89
245	269.4	8.6	159.6	17.9	70.6	0.878	0.986	165.0	183.0	245.0	62.1	-0.8	8.11
246	269.1	8.4	160.2	17.5	70.7	0.882	0.985	165.4	184.2	246.0	62.0	-1.0	8.36
247	268.8	8.3	160.7	17.1	70.8	0.886	0.984	165.7	185.3	247.0	61.9	-1.3	8.64
248	268.5	8.1	161.3	16.6	70.9	0.890	0.983	166.0	186.4	248.0	61.8	-1.5	8.96
249	268.2	7.9	161.9	16.2	70.9	0.895	0.982	166.3	187.5	249.0	61.7	-1.8	9.31
250	267.8	7.7	162.5	15.8	71.0	0.899	0.981	166.6	188.6	250.0	61.7	-2.0	9.72
251	267.5	7.5	163.1	15.4	71.1	0.904	0.979	166.9	189.6	251.0	61.6	-2.2	10.18
252	267.2	7.4	163.7	14.9	71.1	0.909	0.977	167.2	190.7	252.0	61.5	-2.4	10.71
253	266.9	7.2	164.2	14.5	71.2	0.914	0.976	167.5	191.8	253.0	61.5	-2.5	11.33
254	266.6	7.0	164.8	14.1	71.3	0.919	0.973	167.9	192.9	254.0	61.4	-2.7	12.06
255	266.3	6.8	165.4	13.6	71.3	0.925	0.971	168.2	193.9	255.0	61.4	-2.8	12.91
256	266.0	6.6	166.0	13.2	71.4	0.931	0.969	168.5	194.9	256.0	61.3	-3.0	13.94
257	265.6	6.5	166.5	12.8	71.5	0.936	0.967	168.8	196.0	257.0	61.3	-3.1	15.20
258	265.3	6.3	167.1	12.3	71.5	0.942	0.964	169.1	197.0	258.0	61.3	-3.2	16.76
259	265.0	6.1	167.7	11.9	71.6	0.949	0.961	169.4	198.0	259.0	61.3	-3.3	18.75
260	264.7	5.9	168.2	11.5	71.7	0.955	0.958	169.7	199.0	260.0	61.3	-3.3	21.37