TPY_0 (#0340): Total of **82** orbits. $\lambda_O = 249.4°$, $\lambda_g–\lambda_O = 262.0°$, $\beta_g = –39.1°$, $\Delta r = 3°$, $\Delta\lambda_O = 5°$. TPY in the SD contains clearly two showers. Here we consider TPY0, TPY1 and TPY2 in the SD as TPY_0 and TPY3 as TPY_3 in *Tables 1~3*.
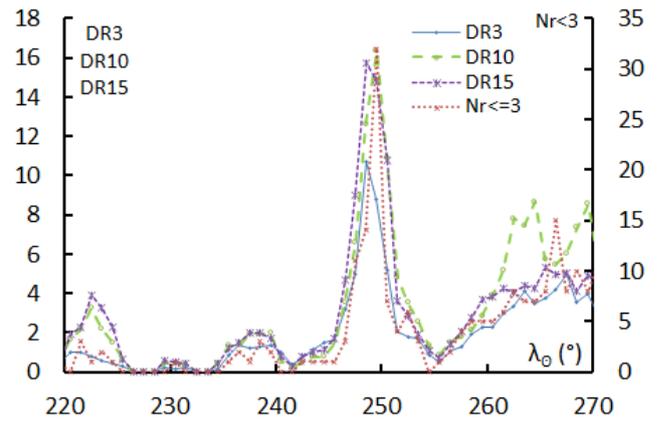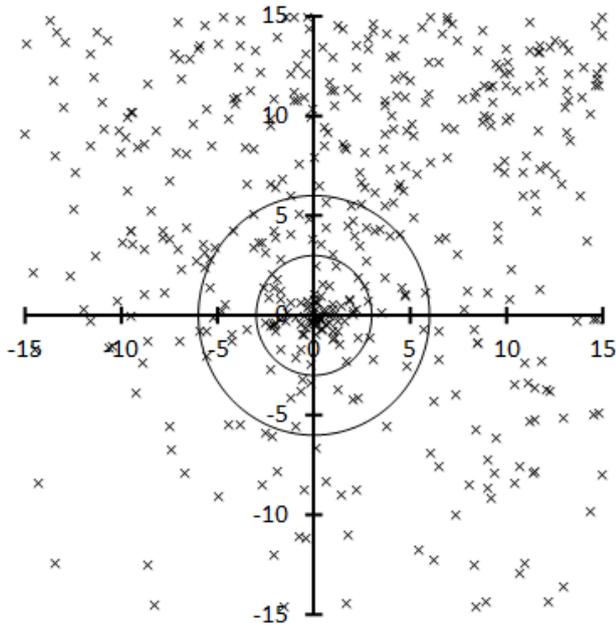

Table 1 – Number per year.

Year	N	Year	N
2007	12	2013	11
2008	12	2014	2
2009	8	2015	7
2010	9	2016	6
2011	2	2017	3
2012	5	2018	5

Table 2 – Activity profiles.

	λ_O	Max
Nr<=3	249.5	32
DR3	248.5	10.7
DR10	249.5	16.3
DR15	248.5	15.7
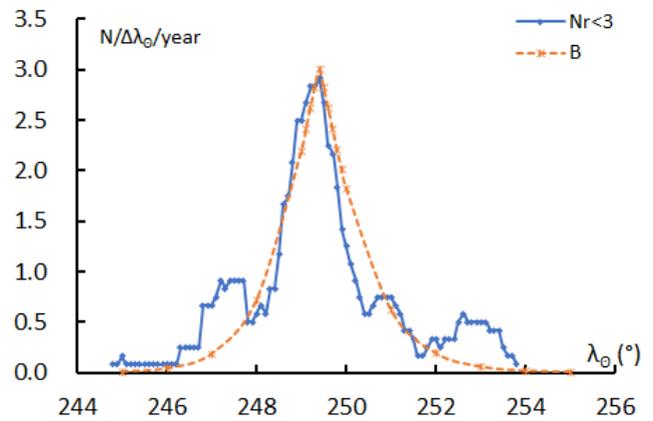
Table 3 – Evolution of the orbital parameters during the activity period.

λ_O	$\lambda_g–\lambda_O$	β_g	α_g	δ_g	v_g	e	q	i	ω	Ω	λ_Π	β_Π	a
245	262.6	–40.7	135.3	–25.9	57.9	0.827	0.963	109.5	18.8	65.0	58.5	17.7	5.56
246	262.4	–40.4	136.1	–25.8	58.3	0.846	0.962	110.1	19.1	66.0	59.2	17.9	6.26
247	262.2	–40.1	136.9	–25.8	58.7	0.866	0.960	110.8	19.4	67.0	59.9	18.1	7.18
248	262.0	–39.7	137.6	–25.7	59.1	0.886	0.959	111.4	19.7	68.0	60.5	18.3	8.43
249	261.8	–39.4	138.4	–25.6	59.5	0.907	0.958	112.0	20.0	69.0	61.2	18.5	10.25
249.1	261.8	–39.4	138.5	–25.6	59.6	0.909	0.958	112.1	20.0	69.1	61.3	18.5	10.47
249.2	261.8	–39.4	138.6	–25.6	59.6	0.911	0.957	112.2	20.1	69.2	61.4	18.5	10.71
249.3	261.7	–39.3	138.6	–25.6	59.7	0.913	0.957	112.2	20.1	69.3	61.4	18.5	10.96
249.4	261.7	–39.3	138.7	–25.6	59.7	0.915	0.957	112.3	20.1	69.4	61.5	18.6	11.23
249.5	261.7	–39.3	138.8	–25.6	59.7	0.917	0.957	112.4	20.1	69.5	61.6	18.6	11.50
249.6	261.7	–39.2	138.9	–25.6	59.8	0.919	0.957	112.4	20.2	69.6	61.6	18.6	11.79
249.7	261.7	–39.2	139.0	–25.6	59.8	0.921	0.957	112.5	20.2	69.7	61.7	18.6	12.10
249.8	261.7	–39.2	139.0	–25.6	59.9	0.923	0.957	112.6	20.2	69.8	61.8	18.6	12.42
249.9	261.6	–39.1	139.1	–25.6	59.9	0.925	0.957	112.6	20.3	69.9	61.8	18.6	12.76
250	261.6	–39.1	139.2	–25.6	59.9	0.927	0.956	112.7	20.3	70.0	61.9	18.7	13.12
251	261.4	–38.8	140.0	–25.6	60.4	0.948	0.955	113.3	20.6	71.0	62.6	18.8	18.33
252	261.3	–38.5	140.8	–25.5	60.8	0.969	0.954	114.0	20.8	72.0	63.2	19.0	30.74
253	261.1	–38.2	141.6	–25.5	61.2	0.990	0.953	114.6	21.1	73.0	63.9	19.1	98.16
254	260.9	–37.9	142.4	–25.5	61.6	1.012	0.951	115.2	21.4	74.0	64.5	19.2	–80.0
255	260.7	–37.5	143.2	–25.4	62.0	1.034	0.950	115.9	21.6	75.0	65.2	19.4	–28.2