

VTM Alarms and Events

Pulse	Camera	Time	Category	Comments
99999	KLDT-O5WB	40.37884	UFOs	Blue streak on a couple of frames
99981	KLDT-O5WB	50.97353	UFOs	Very bright white double flash, one frame only. Not visible on PIW cam.
99981	KLDT-O5WB	49.84958	UFOs	Fairly busy pulse with numerous flashes.
99971	KLDT-O5WB	55.871	UFOs	Plenty UFOs during disruption
99965	KLDT-O5WB	53.22096	UFOs	Orange UFO from NBI. Nothing obvious on spectroscopy.
99964	KLDT-O5WB	47.89104	UFOs	UFOs near limiter 4B
99963	KLDT-O5WB	48.66204	UFOs	Bright UFO near NBI duct. Visible on E5WE from 48.56s
99961	KLDT-P5WA	51.86946	UFOs	Spray of UFOs following disruption.
99957	KLDT-O5WB	48.27347	UFOs	Two UFOs fall from top of machine. Frames 255 and 266.
99951	KLDT-P5TB	55.47152	UFOs	UFOs at end of pulse. KLDT-E5WD frame 1329.
99950	KLDT-P5TB	55.74777	UFOs	UFOs in line of sight. Visible on KLDT-E5WD. Do not appear to be near divertor.
99950	KLDT-P5TB	55.74777	UFOs	UFOs breaking off Tile 8
99946	KLDT-P5WA	41.12144	UFOs	UFO near upper sausages
99944	KLDT-O5WB	44.209	UFOs	Bright UFO on the inner upper side of the machine @ frames 154-157.
99941	KLDT-P5TB	48.596	UFOs	UFO starting frame 383. Looks like starting from top of tile 8.
99929	KLDT-O5WB	52.67188	UFOs	Bright spot near outboard midplane
99926	KLDT-O5WB	51.17863	UFOs	Bright white/blue spot
99912	KLDT-O5WB	48.252	UFOs	UFO coming from the beam duct throughout the pulse.
99910	KLDT-E5WD	54.612	UFOs	A lot of particles mOn the termination a lot of UFOs . E5WD seems to be the most sensitive camera showing many UFOs throughout the pulse.
99910	KLDT-E5WD	50.712	UFOs	A lot of particles seen coming from the beam duct area in the pulse. E5WD seems to be the most sensitive camera showing many UFOs throughout the pulse.
99910	KLDT-E5WD	48.287	UFOs	A lot of particles seen coming from the beam duct area in the pulse. E5WD seems to be the most sensitive camera showing many UFOs throughout the pulse.
99910	KLDT-E5WE	48.314	UFOs	A lot of particles seen coming from the beam duct area in the pulse
99910	KLDT-O5WB	48.272	UFOs	A lot of particles seen coming from

				the beam duct area in the pulse
99908	KLDT-E5WD	48.25	UFOs	Many small UFOs throughout most of pulse, staring around 48s and concentrated at the lower inner wall
99908	KLDT-O5WB	48.52114	UFOs	Purple sparks along outer limiters through most of pulse
99906	KLDT-O5WB	52.80296	UFOs	Medium, bright UFO by WOPL
99906	KLDT-O5WB	49.10861	UFOs	small, bright, strand like UFO
99904	KLDT-E5WD	57.475	UFOs	Spectacular cloud of UFOs on inner wall during disruption
99904	KLDT-O5WB	57.3684	UFOs	Cloud of UFOs on inner wall during disruption
99902	KLDT-E5WD	55.0125	UFOs	Multi frame UFO during disruption
99896	KLDT-O5WB	53.24289	UFOs	Frame: 379
99891	KLDT-O5WB	51.38887	UFOs	A cloud of UFOs emanating from the divertor after the disruption. Also seen by P5WA, E5WD and E5WE. Particularly spectacular on E5TA from 51.22s and quite impressive on P5TB.
99887	KLDT-P5WA	53.15887	UFOs	Unusual single frame bullseye hotspot on BEION4, also conspicuous on Ops cam.
99886	KLDT-O5WB	56.21431	UFOs	If you look carefully you can see a cloud of UFOs against the bright plasma background caused by the floppy termination.
99884	KLDT-O5WB	49.01166	UFOs	A blueish UFO seen in two frames.
99883	KLDT-P5TB	45.44484	UFOs	Unusual linear eruption from tile 5 at the bottom edge of the image. Also visible on E5TA as toroidally drifting snow.
99882	KLDT-E5WD	41.5	UFOs	Lengthy sequence of UFOs seen in Be @ 527 nm, lasting until 41.7625. Very unimpressive in Ops cam.
99882	KLDT-O5WB	42.28373	UFOs	Unusual yellowish explosion probably on the outboard side of the divertor.
99880	KLDT-O5WB	61.33549	UFOs	A fast moving UFO leaving a long blue streak across a single frame. Hard to tell where it is coming from - probably outboard wall.
99874	KLDT-E5WD	42.1125	UFOs	Still quite a lot of UFOs in this pulse (here onwards), still MARFE and disruption.
99873	KLDT-P5TB	44.51061	UFOs	This and some later frames - stuff flying around in the divertor leading to MARFE + disruption; divertor is very dirty after M21-09 disruption in 99871.
99869	KLDT-O5WB	48.07249	UFOs	UFOs at the outboard side (near

				NBI)
99868	KLDT-O5WB	52.88182	UFOs	Lots of UFOs at the inboard side during termination
99868	KLDT-O5WB	48.70912	UFOs	Large UFO at the inboard side
99868	KLDT-O5WB	47.94618	UFOs	UFOs at the outboard side (near NBI) for >15 frames
99867	KLDT-O5WB	54.65953	UFOs	UFO at the inboard side at termination
99867	KLDT-O5WB	48.07613	UFOs	UFO in from of ICRH for 2 frames
99867	KLDT-O5WB	47.95571	UFOs	UFOs at the outboard side (near NBI) for 20 frames
99866	KLDT-O5WB	52.65805	UFOs	Flurry of particles at the inboard side during pulse termination
99866	KLDT-O5WB	49.96816	UFOs	Bright UFO at the outboard side
99866	KLDT-O5WB	47.96088	UFOs	UFOs at the outboard side for ~30 frames
99865	KLDT-E5WD	41.575	UFOs	Particles in the divertor for ~15 frames, followed by MARFE
99862	KLDT-O5WB	49.78	UFOs	Debris at the top of the vessel.
99862	KLDT-O5WB	49.78	UFOs	Debris at the top of the vessel.
99817	KLDT-E5WD	52.9875	UFOs	Frame: 1118-1129. Divertor region after disruption
99811	KLDT-E5WD	55.512	UFOs	Frames: 1320-1347 (Inner side during the termination phase)
99808	KLDT-O5WB	59.75154	UFOs	3 frames worth of UFOs from the outer limiter
99802	KLDT-E5WD	47.4125	UFOs	Very bright UFO. Note this camera has Be filter.
99802	KLDT-E5WD	48.0875	UFOs	Very bright UFO falling vertically. Apparently the cause of radiation spike.
99800	KLDT-O5WB	50.02505	UFOs	bright blue/white flash
99799	KLDT-O5WB	41.6995	UFOs	Several insignificant-looking UFOs over several frames that MAY have something to do with the MARFE immediately following.
99797	KLDT-E5WC	51.863	UFOs	A second UFO coming in from the left.
99797	KLDT-E5WC	51.806	UFOs	UFO coming in from the left.
99795	KLDT-O5WB	50.29182	UFOs	Some flash visible on the top (UDPT), very likely Ni
99787	KLDT-P5WA	71.43943	UFOs	UFOs near 4B and 4D limiters at end of pulse.
99784	KLDT-O5WB	42.094	UFOs	It was noted in the last VSO meeting that the last pulse on the 30th November ended in a disruption with some debris. At the start of this pulse there is evidence of this debris with blue flashes in the divertor. This was

				probably the debris from the previous pulse. It didn't affect this pulse too much.
99778	KLDT-E5WD	53.3375	UFOs	Lots UFOs during disruption flying around the vessel (also KLDT-E5WE).
99777	KLDT-O5WB	53.43138	UFOs	Some UFOs during the disruption it seems to come from the limiter and seen also by KLDT-P5WA, KLDT-E5WD and KLDT-E5WE cameras.
99767	KLDT-O5WB	56.14703	UFOs	Flurry of particles coming out of the divertor during termination, for 5 frames
99754	KLDT-O5WB	71.09827	UFOs	Frame: 821. Termination phase. Outer wall
99748	KLDT-E5WD	67.3	UFOs	Frames: 2263-2286. Termination phase, outer wall
99746	KLDT-E5WD	69.8	UFOs	Frames: 2463-2478 Termination Phase, slightly larger sizes than in previous pulses. Outer wall.
99745	KLDT-E5WD	67.63	UFOs	Frames: 2290-2316 in termination phase
99745	KLDT-O5WB	67.74786	UFOs	Frame: 740 UFOs in termination possibly form Reionization plate
99743	KLDT-O5WB	68.14551	UFOs	Frame 750 Inner wall and reionization plate
99738	KLDT-O5WB	69.74358	UFOs	Two sets of UFOs sputtering from the limiter. Obviously, E5WD also see them and more.
99737	KLDT-O5WB	67.12077	UFOs	Floppy termination with release of many UFOs. Also seen by E5WD over many frames.
99736	KLDT-O5WB	71.06843	UFOs	Once more, UFO's that seem to come from the oct 4 duct. Also very visible in E5WD.
99734	KLDT-O5WB	67.794	UFOs	Bright spot on Poloidal Limiter 2D or top left corner of ILA antenna. Also visible in E5WD.
99733	KLDT-O5WB	70.27232	UFOs	2 frames of UFOs coming from oct.4 duct(?) - Also seen by E5WD (Be II)
99727	KLDT-O5WB	70.1499	UFOs	Shower of UFOs around limiters 4B and 4D at end of pulse.
99725	KLDT-E5WD	69.6	UFOs	Lots of UFOs appear near limiter 4B during end of pulse.
99724	KLDT-O5WB	53.6163	UFOs	UFO comes out Oct 4 NBI. Visible on op and sci cameras.
99720	KLDT-O5WB	40.65645	UFOs	Large UFO fragments near the top of the vessel
99697	KLDT-O5WB	53.51	UFOs	Cluster of UFOs on outboard side (this frame +- 2). Very fast even on fast camera - suspect from NBI. Nothing visible on KT2.

99692	KLDT-O5WB	51.03447	UFOs	Small blue flash at the top of the inner wall
99678	KLDT-E5WD	63.12	UFOs	Many small UFOs through end of pulse
99676	KLDT-E5WD	69.74	UFOs	The same UFOs seen from KLDT-E5WD. Hard to tell what they are from spectroscopy. concurrent with an O2 spike
99676	KLDT-O5WB	69.82732	UFOs	streaky blue UFOs for a few frames just before pulse end
99670	KLDT-O5WB	70.53454	UFOs	Cloud of UFOs for 1 frame at end of pulse. More visible on KLDT-E5WD at the same time and prior.
99657	KLDT-O5WB	42.87095	UFOs	Debris in the divertor(probably from the last pulse) caused MARFing behaviour of the plasma. Also visible in KLDT-P5WB
99652	KLDT-P5TB	51.12476	UFOs	UFOs visible in divertor immediately following disruption.
99650	KLDT-P5WA	40.93442	UFOs	Large UFO visible near top of the vessel. Also visible on opcam.
99643	KLDT-E5WD	55.5	UFOs	Clusters of UFOs in the termination phase. Frame 1319-1328
99643	KLDT-O5WB	48.12607	UFOs	Frame 252-257
99640	KLDT-O5WB	46.2	UFOs	Frames: 208-211
99639	KLDT-E5WD	54.1	UFOs	Frames: 1211-1216
99630	KLDT-O5WB	52.31259	UFOs	Several UFOs in divertor
99629	KLDT-E5WC	55.79465	UFOs	UFO is visible dropping from the upper out sausages for about 30 frames before fragmenting at 55.81822s
99629	KLDT-P5TB	55.75758	UFOs	UFOs visible coming from direction of outer wall
99629	KLDT-E5WD	55.825	UFOs	Many UFOs appear to come from above LH antenna. Visible on O5WB
99627	KLDT-O5WB	42.26268	UFOs	Several UFOs in divertor. UFOs visible in divertor on KLDT-E5WD throughout pulse.
99627	KLDT-O5WB	48.24435	UFOs	UFO near REION. Visible on fast camera.
99627	KLDT-O5WB	47.08004	UFOs	UFO near upper outer sausages. Not clearly visible on other cameras.
99617	KLDT-P5TB	49.48007	UFOs	Small UFO appears to come from tile 6
99616	KLDT-O5WB	40.64799	UFOs	Just below the UDP
99608	KLDT-E5WD	52.92	UFOs	Lots of UFOs during the disruption seen also by KLDT-E5WE
99608	KLDT-O5WB	40.30548	UFOs	Some UFOs begin to be seen during breakdown in main chamber, on the WOPL and on the divertor during X-

				point formation at 42.192s (blue light)
99607	KLDT-E5WD	52.96	UFOs	Lots of UFOs seen in the main chamber during disruption, seen also by KLDT-E5WE camera and very slightly by operational camera.
99599	KLDT-E5WD	41.45	UFOs	Continuous stream of UFOs above the divertor after the X-point formation until approximately 42.1 s, likely due to debris released by the disruption of the preceding pulse
99567	KLDT-E5WD	64.875	UFOs	UFO(s) in divertor
99565	KL1-E4WD	48.5375	UFOs	UFO appears to come off limiter 3B over about 10 frames
99544	KLDT-O5WB	50.21376	UFOs	Lots of them, also in KLDT-E5WE@50.1417s
99543	KLDT-E5WE	47.2442	UFOs	At the divertor
99542	KLDT-O5WB	52.19077	UFOs	At the inner wall
99542	KLDT-O5WB	52.27109	UFOs	At the inner wall
99542	KLDT-O5WB	41.7927	UFOs	At the divertor
99542	KLDT-E5WE	52.1933	UFOs	Small UFOs at the inner wall
99542	KLDT-E5WE	47.4083	UFOs	Between 47.4083s to 47.9 small UFOs at the divertor
99541	KLDT-O5WB	50.1664	UFOs	Large UFO near BEION4
99539	KLDT-O5WB	52.83421	UFOs	UFOs near the LH. Visible on fast camera for about 20 frames starting at 52.75250s.
99534	KLDT-O5WB	41.65723	UFOs	UFOs flying in the divertor.
99523	KLDT-O5WB	49.55424	UFOs	Bright flash apparently in the middle of the machine or on the outer wall.
99523	KLDT-P5TB	41.85957	UFOs	Small UFO on divertor
99522	KLDT-P5TB	48.8991	UFOs	Unusual hot UFO (?) wandering slowly over the divertor.
99521	KLDT-O5WB	41.66553	UFOs	Numerous minor UFOs throughout the pulse, visible on Ops Cam.
99520	KLDT-P5TB	52.18903	UFOs	UFOs in the divertor following disruption
99518	KLDT-O5WB	52.81448	UFOs	Bright white flash with plasma trail at top of machine. Visible at frame 442 of P5WA.
99516	KLDT-E5WD	42.2	UFOs	Spray over several frames. This is the same event as logged on the Ops Cam, but for some reason it appears 100 ms earlier.
99516	KLDT-E5WD	42.2	UFOs	Spray over several frames.
99516	KLDT-E5WD	41.7375	UFOs	UFO on frames 217-8. Not visible on Protection camera.
99516	KLDT-O5WB	53.54102	UFOs	Unusual greenish UFO

99516	KLDT-O5WB	42.29949	UFOs	Relatively bright blue flash in divertor zone.
99513	KLDT-E5WD	50.8875	UFOs	Something seems to drop at the top of the LH (but it is not seen in any other cam)
99513	KLDT-P5TB	51.70036	UFOs	Lrge particle moving in the divertor following hte disruption, for 3 frames
99512	KLDT-O5WB	42.00507	UFOs	Multiple UFos in teh divertor and lower part of the main chamber for 7 frames
99511	KLDT-O5WB	46.68408	UFOs	Particles "falling out" of the NBI Oct 4, just before the disruption
99486	KLDT-O5WB	60.15374	UFOs	From outer and inner wall. SC and SL do not think that cleaning pulse is required
99464	KLDT-P5TB	50.7712	UFOs	Shower of particles in the divertor
99462	KLDT-P5TB	51.89613	UFOs	Large UFOs in the divertor ~14 frames
99462	KLDT-P5TB	50.98732	UFOs	Large UFOs in the divertor ~3 frames
99461	KLDT-P5TB	52.72122	UFOs	Particle in the divertor, moving toroidally and then disintegrating ~3 frames
99461	KLDT-P5TB	51.05463	UFOs	A particle moving toroidally in the divertor, apparently ending up immobilized in the gap of tile 6 (?) ~ frames
99457	KLDT-E5WE	49.4191	UFOs	Cleaning pulse
99457	KLDT-E5WE	49.3446	UFOs	Cleaning pulse
99457	KLDT-E5WE	49.116	UFOs	Cleaning pulse
99455	KLDT-O5WB	50.46416	UFOs	Lots and lots of UFOs in the divertor and in the Be Reionization Plate
99453	KLDT-O5WB	47.32892	UFOs	large number of UFOs in the divertor (frame: 232)
99450	KLDT-O5WB	49.50994	UFOs	Plasma too close to inner wall (single frame = 286)
99422	KLDT-E5WD	41.7	UFOs	Strong UFO activity seen throughout the pulse with the Be II filter with two especially active spells during 41.7-43.6 s and 47.1-49.4 s
99409	KLDT-E5WD	47.0	UFOs	Less number of UFOs from the divertor and more mid-plane
99405	KLDT-E5WD	47.0	UFOs	Still there.. Not really much difference with other pulses
99405	KLDT-E5WD	47.0	UFOs	Still there.. Not really much difference with other pulses
99400	KLDT-E5WD	47.0	UFOs	Same as before, starting time has changed because the heating time starting time has changed

99399	KLDT-E5WD	50.51	UFOs	Starting from frame 920. Nothing found by DC Ivor
99398	KLDT-E5WD	50.51	UFOs	Similar to previous pulse. Starting frame: 920
99397	KLDT-E5WD	50.51	UFOs	Lots of UFOs from potentially the inner strike point, DC did not find anything special. Frames:920-1151
99390	KLDT-E5WC	59.424	UFOs	Fast UFO shooting up
99381	KLDT-O5WB	55.52	UFOs	UFOs coming from the outer wall (frames 436-444). Spectroscopy shows Ti.
99380	KLDT-O5WB	50.76	UFOs	UFOs near the inner wall.
99378	KLDT-E5WC	59.44	UFOs	2 UFO coming from the top. Visible also on KLDT-P5WA at 59.48s.
99367	KLDT-E5WE	40.068	UFOs	A couple of teeny UFOs from somewhere in the lower part of the machine, visible on fast camera.
99366	KLDT-O5WB	57.55517	UFOs	Several UFOs on op cam over a few frames
99359	KLDT-O5WB	49.79129	UFOs	A bright spot in the top where titanium is often seen (starts previous frame).
99358	KLDT-E5WD	53.175	UFOs	The same spot is very visible on the experimental cameras.
99358	KLDT-O5WB	53.23417	UFOs	Bright spot seems to rise up from the divertor area.
99351	KLDT-E5WD	51.9625	UFOs	UFO from inner wall
99343	KLDT-E5WC	50.732	UFOs	Ufo from top, possibly iron based on spectroscopy
99341	KLDT-E5WC	47.675	UFOs	ufo from divertor
99341	KLDT-E5WC	56.8375	UFOs	ufo from divertor
99341	KLDT-O5WB	48.40691	UFOs	Same type of small ufos from top
99340	KLDT-O5WB	49.46257	UFOs	multiple small UFOs fall from top of machine during kicks. Larger ones might be Al, based on spectroscopy.
99339	KLDT-E5WD	44.6875	UFOs	UFOs coming from divertor
99339	KLDT-O5WB	48.95513	UFOs	Many small UFOs during kicks. Mostly coming from top. Hard to tell what it is from spectroscopy.
99337	KLDT-O5WB	42.25205	UFOs	Small UFOs close to Divertor tile 7/8. More later in the pulse at 47.95 (frame 247) and up to the end of the pulse. Signs of Titanium during pulse. Do not use standard set, but look for T210/T210 on jetdsp.
99336	KLDT-P5TB	51.19147	UFOs	UFOs from Tile 6.
99336	KLDT-O5WB	48.83119	UFOs	UFOs close to the 4B limiter. Also visible on KLDT-E5WD @48.73750 (Frame 778). More later @51.64. Nothing obvious from spetroscopy.

99335	KLDT-O5WB	48.59999	UFOs	UFOs starting at 48.59 and lasting the whole pulse. Signs of Titanium during pulse. Do not use standard set, but look for T210/T210 on jetdsp.
99333	KLDT-O5WB	41.19643	UFOs	UFO at the top. UFO also seen on KLDT-E5WD, but is seems in a different location.
99331	KLDT-E5WD	41.46	UFOs	Small UFOs on the divertor lasting several frames.
99331	KLDT-O5WB	41.17042	UFOs	UFOs at the top
99330	KLDT-O5WB	42.85596	UFOs	SL thinks that these UFOs stopped the pulse. UFOs also seen on KLDT-E5WD.
99313	KLDT-O5WB	63.773	UFOs	Debris again in the termination phase of the plasma
99312	KLDT-O5WB	66.3	UFOs	SL stated that his was as a result of the thermal quench at the end of the pulse. DC couldn't identify any large peak in the diagnostic traces which would identify what it was.
99287	KL11-P1DB	51.91772	UFOs	High UFO activity in the divertor going into main chamber - KL7-E8WB (50-52s)
99284	KL11-P1DB	51.1179	UFOs	UFO activity during the pulse. Frame 708 is particularly bad during the disruption
99282	KL11-P1DB	50.55784	UFOs	high UFO activity in the divertor
99273	KL2D-P8TB	51.34063	UFOs	Large UFO. 6 frames. Made me think that tile 5 got hot with the disruption.
99273	KL11-P1DB	51.31777	UFOs	Spectacular display! 20 frames
99273	KLDT-O5WB	41.63723	UFOs	UFOs near the divertor shortly after the X-point formation
99269	KL2D-P8TB	51.82062	UFOs	UFO flying away from tile 6 - 4 frames
99269	KL11-P1DB	51.75775	UFOs	Particles coming off Tile 5 (maybe 6) - 7 frames
99267	KLDT-O5WB	51.65	UFOs	frame340-341,379
99262	KL11-P1DB	54.77748	UFOs	A few UFOs during the pulse, such as this one.
99259	KL11-P1DA	52.24135	UFOs	Small UFOs visible on this camera for much of the pulse. Here is a bit of a spray.
99255	KL11-P1DB	52.09768	UFOs	UFO from Tile 7 moving toroidally. More UFOs at the end of the pulse.
99254	KL11-P1DB	52.41765	UFOs	Again UFOs just before disruption. They last for several frames also after the disruption.
99253	KL11-P1DB	52.49765	UFOs	UFOs coming between tile 6 and 7. They last several frames.

99246	KL11-P1DA	50.2	UFOs	Example of UFOs from OSP-tile 7 prior to disruption for this plasma configuration.
99243	KL11-P1DB	51.5777	UFOs	UFOs on the edge of tile 6
99239	KLDT-P5TB	49.382	UFOs	Hot spot on tile
99239	KL11-P1DB	50.4778	UFOs	Again with strike point on tile 7 UFOs can be seen at a number of time points prior to the disruption
99238	KL11-P1DB	50.4178	UFOs	Some UFOs as the strike point moves over tile 7 also at other times
99226	KLDT-E5WE	57.469	UFOs	A number of small blue and white glowing rats can be seen running along the railway tracks on the inboard side.
99226	KL11-P1DB	59.31717	UFOs	And again
99226	KL11-P1DB	57.47731	UFOs	Unusual spray of UFOs from off-screen, landing on tile 5?
99223	KL1-O8WA	45.453	UFOs	Large UFO from top of the machine around octant 2-3 which leads to disruption. Also visible on KL7-E8WB, KL8, and impurity plume seen on KLDT-O5WB and Evolve.
99221	KL11-P1DA	51.22113	UFOs	Several UFOs throughout the pulse, including this doozy.
99217	KL11-P1DA	57.6209	UFOs	One large and a couple of small UFOs. hopefully this has now cleaned the divertor enough
99216	KL11-P1DB	41.5585	UFOs	UFOs from divertor starting at 41.5 in the same place as previous two pulses. all three seem to be nickle
99215	KL11-P1DB	45.37818	UFOs	Fast UFO over divertor. more likely candidate for tungsten appearing in spectroscopy.
99215	KL11-P1DB	47.87802	UFOs	Dirty disruption - lots of UFOs coming from the divertor
99215	KL11-P1DB	41.67849	UFOs	UFO over divertor, may have been the tungsten signal seen seconds later but might be a bit too far apart.
99214	KL11-P1DB	41.59849	UFOs	Large UFO, possibly coming from the divertor
99208	KL11-P1DB	48.97791	UFOs	Several UFOs after the disruption, but still very less than last week.
99206	KLDT-O5WB	47.107	UFOs	UFOs. Also seen on KLDT-E5WD@47.025. No clear from spectroscopy if this is berillium.
99206	KL11-p1db	47.65801	UFOs	UFOs from outer divertor, but nothing compared with last week ones.
99205	KLDT-E5WD	48.76	UFOs	UFOs.No clear from spectroscopy if this is berillium.

99205	KL11-P1DB	48.59797	UFOs	UFOs from outer divertor, but nothing compared with last week ones.
99198	KL11-P1DB	47.897	UFOs	Lots of UFOs at disruption again
99198	KLDT-O5WB	48.029	UFOs	Possible UFO cloud after the disruption near Octant 2?
99197	KL11-P1DB	50.277	UFOs	Lots of UFOs from the divertor surfaces throughout the pulse, leading to MARFES. Particles from bad disruption in 99195.
99195	KLDT-O5WB	46.9	UFOs	Incredibly bad divertor UFOs at disruption. Looks like a very extreme divertor de-conditioning event. Visible on all cameras.
99194	KL11-P1DB	41.6984	UFOs	Lots of UFOs around the divertor at X-point formation. Also visible on wide angle cameras.
99194	KL11-P1DB	49.27793	UFOs	UFOs from around top of divertor at the disruption.
99170	KL11-P1DB	51.797	UFOs	Usual particle shower after disruption
99164	KL11-P1DB	51.87774	UFOs	Flurry of particles in the divertor at the end of the pulse
99163	KL11-P1DB	51.89769	UFOs	Flurry of particles in the divertor at the end of the pulse
99163	KL11-P1DB	42.09842	UFOs	Hotspot on tile 6 on frames 256-439, and then it flies away as a shower of particles
99162	KL11-P1DB	51.61771	UFOs	Flurry of particles in the divertor at the end of the pulse
99161	KL11-P1DB	51.37773	UFOs	Flurry of particles in the divertor at the end of the pulse
99159	KLDT-O5WB	46.60125	UFOs	Outboard side UFOs (Beion/NBI region)
99149	KLDT-O5WB	52.32	UFOs	frame 356-368 a lot of UFOs during the disruption
99112	KL12-P1WA	53.10123	UFOs	UFO near top of machine. UFOs also visible in other frames. Note that this is a camera I don't usually look at.
99106	KLDT-O5WB	66.20267	UFOs	UFOs for many frames. Not clear from spectroscopy data.
99094	KLDT-O5WB	58.61717	UFOs	Location: divertor region outer side. Ivor confirmed that it was Titanium.
99059	KL11-P1DB	55.1175	UFOs	Lots of UFOs from Divertor after the disruption. Reported to SL. Not clear from spectroscopy data what species they are.
99031	KLDT-O5WB	66.6483	UFOs	Frame: 713 - cluster of particles showing on the outer wall. Nothing shown from spectroscopy
99028	KLDT-O5WB	66.95475	UFOs	Few UFOs very likely coming from

				WOPL during floppy disruption
99027	KLDT-O5WB	66.50027	UFOs	Several UFOs during floppy disruption (looks like coming from WOPL)
99026	KLDT-O5WB	66.61983	UFOs	Several UFOs during floppy disruption
99024	KLDT-O5WB	64.76051	UFOs	Several UFOs during disruption seen also on KLDT-E5WD camera
99023	KLDT-O5WB	65.44655	UFOs	Several UFOs during floppy disruption
99022	KLDT-O5WB	66.53946	UFOs	Several UFOs during floppy disruption looks like they coming from WOPL or REION plate (seen also a bit on camera KLDT-P5WA)
99021	KLDT-O5WB	59.69067	UFOs	Cloud of UFOs during the disruption
99019	KL11-P1DB	42.03847	UFOs	Few UFOs flying around the vessel and at 43.718s it looks like some of them coming out from tile 5
99017	KL11-P1DB	41.95848	UFOs	Lots of UFOs flying around the vessel near the divertor seen also on camera KLDT-O5WB
99016	KLDT-O5WB	48.15845	UFOs	Lots of UFOs during the disruption
99016	KL11-P1DA	48.04088	UFOs	Lots of UFOs just after the disruption seen also on camera KL11-P1DB.
99016	KLDT-O5WB	41.93541	UFOs	Lots of UFOs flying around the vessel near the divertor seen also on camera KL11-P1DB
99015	KL11-P1DA	54.32067	UFOs	Lots of UFOs after the disruption, seen also on cameras KL11-P1DB and KLDT-P5TB
98999	KLDT-O5WB	47.819	UFOs	UFO from the top at about the same time as a sharp radiation spike + X-point MARFE. Another form outboard side slightly later.
98995	KLDT-O5WB	41.7717	UFOs	UFO(s) at x-point formation, looks like maybe from tiles 1/3 ?
98992	KL11-P1DA	46.68138	UFOs	It looos like a bigger UFO gets split in 2 and then 3 parts. You can see it flying toroidally on KL11-P1DB. Could be the titanium from the top? There is a small Titanium spick from spectroscopy data at this time.
98992	KLDT-O5WB	223.0	UFOs	From spectroscopy data it looks like it is Titanium. see also frames 232,244,304
98991	KLDT-O5WB	335.0	UFOs	More UFOs at frames 93, 224,240,277,355
98991	KL11-P1DB	51.21	UFOs	Lots of UFOs after the disruption from Tile 8. Reported to SL.
98991	KL11-P1DA	51.2208	UFOs	Lots of UFOs after the disruption. Reported to SL.

98938	KLDT-O5WB	50.092	UFOs	Heavy sprinkling of UFOs from the top, as usual for kick pulses.
98925	KL11-P1DA	53.32116	UFOs	Few UFO's just after disruption
98925	KLDT-O5WB	48.44996	UFOs	Several UFOs from Upper Dumplates and outer wall
98924	KLDT-O5WB	48.51712	UFOs	Several UFOs from Upper Dumplates and outer wall, a large UFOs coming very likely from WOPL at 50.444s and from LH antenna at 52.5319s
98923	KLDT-O5WB	48.89357	UFOs	Confirm by DC that they are Ti (starting frame: 271)
98921	KLDT-O5WB	50.08087	UFOs	Several UFOs from Upper Dumplates and outer wall Time period: 50s-52s. Possibly Ti and Cu?
98921	KLDT-O5WB	50.08087	UFOs	Several UFOs from Upper Dumplates and outer wall Time period: 50s-52s
98895	KLDT-O5WB	48.59859	UFOs	Lots of UFOs from outer wall, inner wall and upper dump plates
98894	KLDT-O5WB	50.14695	UFOs	Large number of UFOs from outer wall and upper dum plates (Frames: 268-315)
98885	KL11-P1DA	48.9818	UFOs	UFO coming from tile 7
98831	KL1-O8WA	58.35707	UFOs	Large event for two frames. Possibly a UFO from Oct 8. Pulse disrupted immediately after event.
98820	KLDT-O5WB	52.57675	UFOs	UFO. 2 frames, fairly large turns from red to blue/white
98795	KLDT-O5WB	52.79986	UFOs	Blue UFO near IWGL 3Z. Possibly corroborated by KLDT-E5WD at 52.71s.
98793	KLDT-O5WB	50.0645	UFOs	Many blue UFOs flying around at the disruption. Corroborated by KLDT-E5WD with the Be II filter.
98791	KL1-O8WA	49.25	UFOs	Curving UFO from NBI8 (2 frames)
98791	KL12-O1WC	49.36	UFOs	Large event coming out of NBI8
98791	KL11-P1DA	48.70141	UFOs	Lots of spectacular UFOs in a cleaning pulse.
98788	KL11-P1DB	48.098	UFOs	Variety of UFOs mostly from the divertor it seems.
98786	KLDT-E5WC	57.453	UFOs	2 consecutive UFOs coming from mushrooms area over 4D outer limiter until 57.547 secs.
98786	KLDT-E5WD	57.45	UFOs	2 consecutive UFOs coming from mushrooms area over 4D outer limiter (9 frames).
98786	KLDT-P5WA	57.49	UFOs	Big UFO near mushrooms over 4D outer limiter (3 frames).
98786	KLDT-O5WB	57.53	UFOs	Big UFO near mushrooms over 4D outer limiter (2 frames).

98769	KL11-P1DA	53.20064	UFOs	Particles coming off the inner divertor for ~7 frames
98759	KL11-P1DB	53.03766	UFOs	More ill-defined UFOs from inner divertor
98756	KL11-P1DB	52.53767	UFOs	Ill-defined UFOs or cloud emanating from the hot region at junction of time 1 and 3.
98755	KL11-P1DB	53.63762	UFOs	UFOs apparently from tile 7.
98755	KL11-P1DB	53.09763	UFOs	More UFOs from hotspot at junction of tile 1 and tile 3.
98755	KL11-P1DB	52.31772	UFOs	Small UFOs from hotspot at junction of tile 1 and tile 3.
98701	KL1-O8WA	52.63	UFOs	UFOs visible on the ops camera
98699	KL2D-P8TB	51.34077	UFOs	Hot smudge probably consisting of UFOs at disruption
98697	KL11-P1DA	48.06076	UFOs	Prolonged outbreak of UFOs on the inboard side starting frame 554.
98693	KL11-P1DA	51.00147	UFOs	Unusually intense double UFO.
98642	KL11-P1DB	51.0	UFOs	Flurry of UFOs starting at ~50.9s from the inner divertor as the strike point moves outwards on T4.
98607	KL11-P1DB	44.99824	UFOs	Large UFO flying through the divertor for 7 frames, followed by a flurry of particles coming out of the corner (possibly the particle visible prior hit the wall as these particles are coming from the part where original UFO disappeared from the field of view)
98586	KLDT-O5WB	55.5349	UFOs	UFO during termination.
98583	KL7-E8WB	53.94	UFOs	Something goes in near the top and explodes around the end of pulse. Ivor says he sees Alumina.
98583	KL1-O8WA	53.946	UFOs	Something looks bright on the outer wall for 3 - 4 frames as the plasma terminates.
98570	KLDT-O5WB	49.322	UFOs	Small blue UFO on the divertor also visible in KLDT-E5WD at frame 818 and 823
98557	KL11-P1DB	47.07	UFOs	Small ufo near T8. More at frame 645
98548	KLDT-E5WB	51.316	UFOs	
98546	KL11-P1DB	53.33	UFOs	UFO event.
98502	KLDT-O5WB	41.47	UFOs	UFO bouncing around the divertor visible on wide angle around x-point formation.
98480	KL11-P1DB	57.517	UFOs	HFS above divertor
98450	KL11-P1DB	44.1391	UFOs	UFO
98449	KL1-O8WA	66.81245	UFOs (?)	Blue circle in the outer wall
98448	KLDT-O5WB	58.6	UFOs	Blue-ish UFO close to 4D limiter. Not

				sure it is a UFO or the plasma. No clear spikes from spectroscopy data.
98424	KL11-P1DB	41.67925	UFOs	UFOs also at 56.41838 from tile 5 stack A. Again, same uncertainty on the nature of the UFOs.
98423	KL11-P1DB	41.59925	UFOs	UFOs from tile stack A also at 41.67924sec. At 48.19887sec particles/hot spots (?) are visible on tile 6 and some of them turn out to be UFOs. A check on plasma impurity concentration has not revealed anything but a few spikes of Ti. those spikes are weak during the pulse, but they appear bigger in magnitude around the soft landing time, at 63 secs.
98407	KL11-P1DB	55.55845	UFOs	Few UFOs coming from tile 6 after disruption
98405	KL11-P1DB	52.8586	UFOs	UFO coming from T5B
98371	KL11-P1DB	42.41915	UFOs	UFOs from divertor between 42 and 43
98371	KL11-P1DB	57.7583	UFOs	UFOs from Tile 1 during disruption
98362	KL11-P1DB	63.77795	UFOs	UFOs seen on the divertor around 63.77s and 65.55s
98361	KL11-P1DB	63.73796	UFOs	UFOs on the divertor
98348	KL11-P1DB	50.77874	UFOs	Massive UFO in the inner divertor for 10 frames
98348	KL11-P1DB	41.93923	UFOs	UFO in the inner divertor for 6 frames
98348	KL11-P1DB	41.61925	UFOs	UFO in the inner divertor for 4 frames
98348	KLDT-O5WB	41.15694	UFOs	Bright flashes in the upper part, for 6 frames
98346	KLDT-O5WB	41.3729	UFOs	Multiple UFOs within the divertor for 6 frames
98346	KLDT-O5WB	41.09182	UFOs	UFO flying off the top of inboard side for two frames
98343	KLDT-O5WB	43.09533	UFOs	Flash at outboard side (probably 4B). Also visible in KLDT-P5WA at frame 198.
98343	KLDT-O5WB	43.09533	UFOs	Flash at outboard side (probably 4B)
98342	KL11-P1DA	42.9614	UFOs	UFO flying out of tile 5, stack D, (visible for 10 following frames) and then separating into several particles. Looks like it originates from the point where in the previous pulses a hotspot was observed - indeed after this UFO event no hotspot seems to be present, so perhaps the particle that created that hotspot was

				ejected.
98341	KLDT-O5WB	41.7774	UFOs	Bright flash at the outboard side (approx tile 8), small UFO seen flying from that location into the divertor for the next 3 frames
98339	KL11-P1DA	42.48151	UFOs	Particle comes off ROI23 at frame 276 and can be seen flying until frame 283
98316	KL11-P1DB	65.05785	UFOs	small UFO near tile 9
98316	KLDT-O5WB	40.26115	UFOs	UFOS on npl B3. More UFOs @45.27 (frame 181) and lots of them @64.86. I cannot see those last ones on protection cameras, but can see on experiment and 1 small ufo on KL11-P1DB as reported.
98315	KLDT-O5WB	58.54056	UFOs	UFOs
98311	KLDT-O5WB	56.7879	UFOs	UFOs close to T1 region. Also seen on KLDT-E5WD at 56.68750 (frame 1414)
98304	KL11-P1DA	47.70148	UFOs	In this frame a UFO seems to strike the unnamed tile between 4 and 5 and then becomes more visible for some reason.
98293	KL11-P1DA	47.12132	UFOs	Something flying that impacts with T5
98291	KLDT-O5WB	45.7611	UFOs	small blue UFO seen around 45.76s and 46.64 s, probably beryllium
98198	KL11-P1DB	51.73874	UFOs	Second clean up pulse: Frame: 738
98197	KLDT-O5WB	52.02428	UFOs	Clean up pulse after SPI last pulse: frame: 349
98190	KLDT-O5WB	50.30672	UFOs	Frames: 306-309. Particles exploding in divertor area
98188	KL11-P1DB	48.37896	UFOs	UFOs seem be coming from outer divertor.
98187	KL11-P1DB	48.55898	UFOs	UFOs from diveror as runaway beam went down. Temperatures look ok.
98186	KLDT-O5WB	45.46594	UFOs	UFOs lasting several frames. Similar to the one in 98184. Visible on protection camera as well and on KLDT-E5WD in frames 509 and 510. It looks like titanium and berillium from spectroscopy data. Very small spicks.
98184	KLDT-O5WB	45.26628	UFOs	UFOs. I think also briefly seen on KLDT-E5WD at 45.18750 and on Protection camera. It looks like titanium and berillium from spectroscopy data.
98181	KL11-P1DB	48.07897	UFOs	UFOs from Tile 8
98165	KL11-P1DB	56.33846	UFOs	small UFO from tile 3 or 4
98160	KL11-P1DB	62.87816	UFOs	small UFO from T4 and another one

				seen at 63.73808
98143	KLDT-E5WE	41.246	UFOs	UFO from BEION during breakdown. Bright flash on visible cameras and breaks into multiple pieces.
98125	KLDT-O5WB	49.52041	UFOs	REs strike top of Tile 1 or HFGC shower of particles confirmed by KLDT-O5WB
98108	KL11-P1DB	50.17889	UFOs	Small UFOs come off the divertor as stike point moves accross it.
98061	KL11-P1DB	50.158	UFOs	frame 659-669,682-718
98059	KLDT-O5WB	48.50607	UFOs	UFOs in cleanup pulse
98059	KL11-P1DB	47.09807	UFOs	UFOs in cleanup pulse
98055	KL1-P4DB	50.56123	UFOs	UFOs from tile 1 due to runaways impact
98055	KL11-P1DB	50.57781	UFOs	UFOs from tile 1 due to runaways impact
98053	KL11-P1DB	50.33783	UFOs	Some UFOs from divertor during monitoring pulse
98052	KLDT-O5WB	40.927	UFOs	Strnage flash during breakdown. Nothing shows up on Spectroscopy
98042	KLDT-O5WB	51.26828	UFOs	Diagnostic coordinator confirmed that it was Titanium. It is observed on the Upper Dump Plates
98040	KLDT-O5WB	51.11119	UFOs	According to Diagnostic Coordinator is Titanium
98026	KLDT-O5WB	50.27398	UFOs	Many UFOs coming from the divertor. Also seen by KLDT-E5WC and KLDT-E5WD (Dbeta filter)
98006	KLDT-O5WB	44.4874	UFOs	Many UFO's flying around on this clean up pulse after a disrupted one. This one wasn't great.
97996	KL11-P1DB	45.8382	UFOs	UFO from outer target.
97988	KLDT-O5WB	50.18	UFOs	Looks like another Ti UFO dropping
97987	KL11-P1DB	49.2979	UFOs	various Small UFOs from tile 5 seem to correspond with a rise in Tungsten on spectroscopy.
97987	KL1-O8WA	50.35969	UFOs	Ti UFO, as seen in spectroscopy
97987	KLDT-O5WB	50.18166	UFOs	Ti UFO, as seen in spectroscopy
97986	KL11-P1DB	46.09814	UFOs	Large UFO in cleanup pulse
97986	KL11-P1DB	44.77824	UFOs	Large UFO coming from the divertor in cleanup pulse
97985	KL11-P1DB	50.89778	UFOs	Many UFOs fly from the divertor during disruption
97982	KL11-P1DA	49.26128	UFOs	Multiple bits flying off Tile 6 and 7 between 49 and 52
97980	KLDT-O5WB	64.57942	UFOs	From spectroscopy data il looks like there is some iron, titanium and molybdenum. Also seen on KLDT-E5WD
97980	KL11-P1DB	49.95788	UFOs	UFOs coming from tile 6. Also seen

				on KL11-P1DA
97977	KLDT-O5WB	48.05095	UFOs	Frames: 250-260 -Lots of UFOs around the beam duct and antennas
97976	KLDT-O5WB	47.89523	UFOs	Frames:245-270 show UFOs interacting with the ICRH antenas and outer guard limiter
97949	KL11-P1DA	53.16066	UFOs	Disruption, followed by a flurry of particles in the frames 810-827
97943	KL11-P1DB	52.79	UFOs	Frame: 792-793. Flurry of particles moving up with the disruption
97943	KL11-P1DB	48.53797	UFOs	Frame: 579
97895	KL11-P1DA	48.7	UFOs	One example of particles emitted from inner divertor at a number of times that might be responsible for radiation spikes.
97893	KLDT-O5WB	48.21869	UFOs	Very bright blue flash on outboard wall.
97889	KL11-P1DA	48.26095	UFOs	UFOs flying out of the divertor, here and in timestamps 53.46112, 53.56113, 56.20123, 56.26122
97888	KL11-P1DA	48.92109	UFOs	UFOs coming out of divertor, tiles 5 and 6. Here and on timestamps 50.82095, 50.88094 (from the same ROI that triggered the alarm), 52.66101
97886	KLDT-O5WB	51.17272	UFOs	An UFO flying off the vicinity of 3B NPL for 5 frames ending with a bright flash at 51.2935 sec; associated with titanium signal.
97875	KL11-P1DB	43.31838	UFOs	UFO from inner hits outer vertical and disintegrates see frames 317-327
97871	KLDT-P5WA	43.21774	UFOs	UFO very visible in KLDT-O5WB
97867	KLDT-P5TB	57.70093	UFOs	UFOs for several frames before and after disruption.
97862	KL11-P1DB	49.45789	UFOs	Prolonged UFO emission from Tile 7.
97853	KLDT-O5WB	48.28547	UFOs	Same as 97844
97852	KLDT-O5WB	48.63909	UFOs	Same as 97844
97851	KLDT-O5WB	49.225	UFOs	Bright flash at the top of the outboard side; associated with a titanium signal in KT2.
97851	KLDT-O5WB	48.02048	UFOs	Same as 97844;
97849	KLDT-O5WB	51.93033	UFOs	Particularly many particles at NBI
97849	KLDT-O5WB	47.91585	UFOs	Same as 97844 - there are lot more particles visible (compared to previous pulses) in the subsequent frames, especially at 48.39768
97849	KLDT-O5WB	47.91585	UFOs	Same as 97844 - there are lot more particles visible (compared to previous pulses) in the subsequent

				frames
97847	KLDT-O5WB	50.89454	UFOs	Bright flash at the top of the chamber (outboard side)
97847	KLDT-O5WB	48.40601	UFOs	Same as 97844
97845	KLDT-O5WB	48.50685	UFOs	Same as 97844
97844	KLDT-O5WB	48.18361	UFOs	Particles on the outboard side, seemingly coming out of NBI, also on a few subsequent frames.
97841	KLDT-O5WB	52.14454	UFOs	2 frame bright purple UFO. Concurrent with titanium spike
97835	KL7-E8WB	52.29	UFOs	Particles falling down
97823	KLDT-E5WD	42.05	UFOs	Almost continuous stream of UFOs flying toroidally above the divertor for roughly 1.5 s, ending with a big one bouncing off from the outer divertor and splitting in several pieces at 43.46 s; last one also seen by KLDT-O5WB and faintly by KLDT-P5WA
97815	KLDT-O5WB	42.93178	UFOs	UFOs coming out of the WoPL. Also seen by KLDT-P5WA and KLDT-E5WD.
97814	KLDT-O5WB	43.21537	UFOs	Slow UFO coming out of the divertor - also seen by KLDT-E5WD with Be II filter
97806	KL11-P1DA	50.72061	UFOs	UFOs emerge from the outer corner of the divertor in the disruption.
97802	KL11-P1DB	51.99772	UFOs	UFO coming off tile 7
97802	KL11-P1DB	43.03839	UFOs	UFO coming off tile 1, quite large "burst"
97799	KLDT-O5WB	0.0	UFOs	I have lost count of all the UFOs I have seen. Last pulse of the session i am going home.
97797	KLDT-O5WB	47.92	UFOs	Frames: 247; 279-281;327-329;331;336;361
97796	KLDT-O5WB	56.76287	UFOs	Frame: 467. Lots of particles above the divertor. I can only see them with this camera.
97794	KLDT-O5WB	42.44588	UFOs	Frame: 42.44s. No heating observed.
97794	KLDT-O5WB	42.44588	UFOs	Frame:368. DC has found Be spikes so probably something touch the wall during the termination and that cause these UFOs
97787	KLDT-O5WB	47.59272	UFOs	Frame:238, Next to OWL. Nothing observed by DC with spectroscopic diagnostics.
97767	KLDT-E5WD	42.45	UFOs	A large continuous fleet of UFOs seen flying toroidally above the divertor with the Be II filter, possibly arising from impact on top part of tile 1 which flashes before

				the UFOs appear (SL suspected deposition of loose dust after several disruptions of the day); also seen by KLDT-O5WB, KL11-P1DB and KLDT-P5TB; another similarish shower of UFOs seen after 45.85 s;
97763	KLDT-O5WB	50.40415	UFOs	Large bright spot on Outer Limiter. May coincide with UFO seen by KLDT-P5WA at 50.34824s
97756	KLDT-O5WB	50.04	UFOs	Bright particle at the top of the vessel. Signal of titanium at the same time
97747	KL11-P1DB	57.99728	UFOs	Unmitigated disruption from 1.7MA generates divertor UFOs
97745	KL11-P1DB	55.08406	UFOs	UFOs following a disruption at 1.5MA
97740	KLDT-O5WB	49.14706	UFOs	Very bright blue UFO on the outer wall
97717	KLDT-E5WC	47.186	UFOs	The same UFO traveling from the right bottom to the outer divertor and then towards the inner wall from 47.18 to 47.28 secs (seeing on KLDT-O5WB at 47.292 secs)
97717	KLDT-O5WB	47.29207	UFOs	Unusual UFO in divertor zone
97696	KLDT-O5WB	52.06186	UFOs	Debris from RF antenna
97696	KL11-P1DB	50.3378	UFOs	
97693	KLDT-O5WB	48.74175	UFOs	Blue flash on outer limiter
97692	KLDT-O5WB	52.82	UFOs	
97680	KLDT-E5TA	48.10056	UFOs	UFO's at 48.10056 and onwards
97679	KLDT-O5WB	48.19502	UFOs	Blue light/particles dropping down from the antenna and few frames later something similar coming from WOPL and REION plate
97678	KLDT-O5WB	48.07117	UFOs	Blue light on the WOPL, very likely Ni again, seen also at 48.51287s on the antenna
97677	KLDT-O5WB	48.5857	UFOs	Probably Ni coming down from REION plate
97676	KL11-P1DB	50.33744	UFOs	Few small UFOs coming from Tile 5
97676	KLDT-O5WB	48.5891	UFOs	Some blue lights seen for almost one second in few places
97675	KLDT-O5WB	48.57458	UFOs	Blue light comes from the WOPL
97670	KLDT-O5WB	51.39	UFOs	Titanium UFO at the upper dump-plates visible in 4 frames
97624	KL12-O1WC	50.81	UFOs	Large UFO flying (possibly) off from the outer wall, coinciding with an impurity event; also seen in single frames by KL7-P8WA (50.85 s) and KL1-O8WA (50.87 s)
97616	KLDT-O5WB	43.92849	UFOs	UFOs for several frames. Reported to SL. Also seen on KLDT-E5WD

				starting at 43.825
97613	KLDT-O5WB	51.60153	UFOs	BLUE UFO going around inner wall
97612	KLDT-O5WB	55.98901	UFOs	Blue light looks like coming from the outer wall and seen also by KLDT-E5WD camera
97594	KL11-P1DB	54.17753	UFOs	Lot's of UFO's seen just after the disruption
97593	KLDT-O5WB	55.64769	UFOs	During the small disruption some material distribution
97592	KLDT-O5WB	56.79882	UFOs	Two blue lights comes from the magnetic probes and then some distribution seen on few next frames.
97590	KLDT-O5WB	42.37374	UFOs	Big flash on the WOPL in 42.37s and then on the next frame looks like something is splashing from this place, seen also on the camera KLDT-E5WD
97588	KLDT-O5WB	42.29	UFOs	Lot's of UFOs seen close to the inner wall and divertor and some on the outer wall close to the antenna
97570	KLDT-O5WB	51.84138	UFOs	Bright UFO on Ops cam - seems to have had an effect on the plasma.
97566	KLDT-P5WA	40.25638	UFOs	This might be the same UFO. In here it looks on the outer wall above ILA.
97566	KLDT-O5WB	40.28211	UFOs	Impressive UFO from outer wall lasting several frames. Also seen on KLDT-E5WD from 40.20 seconds. It looks like Titanium + Iron from spectroscopy. Also checked with DC.
97562	KL11-P1DB	60.89704	UFOs	UFOs moving toroidally. It seems from tile 6. More also at 62.43696. These are also seen from KLDT-E5WD.
97562	KLDT-O5WB	65.54579	UFOs	UFOs close to the 4B limiter. Also seen on KLDT-E5WD @65.43.
97561	KL11-P1DB	60.23	Disruption	UFOs at 60.23. Then at 62.33. These impurities seem to have caused the disruption.
97527	KLDT-O5WB	50.23908	UFOs	Small UFO seems to drop from the top. Checked with DC, it coincides with a Titanium spike
97525	KLDT-O5WB	52.37286	UFOs	Large flash of 4D limiter. Signal of Ti associated with it.
97522	KLDT-O5WB	52.14878	UFOs	UFO at the top of the chamber. There seems to be an increase of W and Ti at this moment.
97522	KLDT-O5WB	50.90418	UFOs	UFOs off D4 limiter for 4 frames, moving downwards along the wall.
97518	KLDT-O5WB	49.48358	UFOs	UFOs off D4 limiter for 4 frames. Seen moving downwards.

97517	KLDT-O5WB	48.60557	UFOs	Multiple UFOs close to 4D limiter, possibly coming out of NBI. Nothing noticeable in spectroscopy.
97511	KLDT-O5WB	51.95	UFOs	UFOs from the top. This is Titanium.
97510	KLDT-E5WD	51.51	UFOs	Several UFOs during the whole pulse. This one looks like on the NPL 3B
97510	KLDT-O5WB	45.67	UFOs	Several UFOs during the whole pulse. Main ones @45.67, @48.80, @50.29, @51.01, @51.61, @52.53. Some of them on the NPL3B (@48.80, @50.29, @51.01, @51.61)
97509	KL11-P1DA	44.18	UFOs	Lots of UFOs starting @44.18 and lasting for few seconds. I think they can also be seen on KLDT-E5WD@44.32
97508	KLDT-O5WB	42.58	UFOs	UFos in the main chamber. also seen on KLDT-O5WD starting @42.43
97508	KL11-P1DB	41.73	UFOs	UFOs seem to be coming from Tile 7. Maybe cause of pulse failing.
97503	KL11-P1DB	48.638	UFOs	Some UFOs liberated from the targets just before disruption.
97501	KLDT-E5WC	49.3	UFOs	Very large number of raining UFOs after disruption starting around 49,3s
97501	KL7-E8WB	49.3	UFOs	Very large number of raining UFOs after disruption starting around 49,3s
97497	KL11-P5DB	54.7306	Comments	UFO stuck between two adjacent tiles #8.
97497	KL11-P1DB	41.57	Comments	UFOs from the divertor inner leg form 41.57 onwards.
97495	KL11-P1DB	47.678	UFOs	Flurry of UFOs seemingly from inner divertor, associated with sharp rise in radiation and plasma becoming very unhappy.
97495	KLDT-O5WB	43.37404	Comments	UFOs all around the Chamber, at first appearing close to the divertor region. Higher concentration of NEON before the disruption, no other anomalies in the impurity concentrations.
97495	KLDT-P5TB	48.52796	Comments	UFOs from tiles #5, #6, #8. lots of impurity species are present in the main chanber after the disruption, therefore it is difficult identifying the dominant species (analysis done together with the DC).
97493	KL11-P1DA	57.00088	UFOs	A handful of UFOs both before and after disruption.
97487	KLDT-E5WD	50.35	UFOs	A spot appears in experimental camera (Be II filter) near top of

				machine for two frames, about 60 ms before disruption.
97473	KL11-P1DA	49.72126	UFOs	Clean-up pulse
97472	KL11-P1DB	58.27726	UFOs	Disruption
97472	KL11-P1DB	49.6779	UFOs	From outside divertor
97469	KL11-P1DB	47.71805	UFOs	Ufos form the inner leg of the divertor. Ufo also from Tile #8 @ 48.65795.
97468	KL11-P1DB	42.15847	UFOs	UFO from tile #1.
97466	KL11-P1DB	49.01	UFOs	UFOs @49.01 from tile #5 - stack D - and @49.057 from tile #4.
97465	KLDT-E5WD	42.0	UFOs	UFOs from the inner divertor (probably departing from tile#3) @42, @42.7, @43.025, and @47.2625.
97465	KL11-P1DA	47.64	UFOs	UFOs from tile#4 @47.64 - onwards.
97463	KLDT-O5WB	47.7176	UFOs	Same as previous pulses
97462	KLDT-O5WB	47.65963	UFOs	Here and in further frames - UFOs/ bright flashes at the outboard side, some at the inboard side as well.
97461	KLDT-O5WB	48.04167	UFOs	UFOs/bright flashes at the outboard side. In the subsequent frames as well.
97461	KLDT-O5WB	44.58888	UFOs	Bright flash at the top inboard part of the chamber.
97460	KLDT-O5WB	48.65051	UFOs	Blue flash at the inboard side at the top of the chamber, close to UIWP; simultaneously UFOs at the outboard side. Other flashes at the inboard side in the following frames.
97460	KLDT-O5WB	48.24909	UFOs	UFOs at the outboard side, in the following frames as well
97459	KLDT-O5WB	47.75035	UFOs	UFOs at the outboard side, in the following frames as well
97458	KLDT-O5WB	47.72409	UFOs	UFOs at the outboard side, in the following frames as well
97457	KLDT-O5WB	47.71262	UFOs	Massive blue flashes close to 4D limiter, possibly coming out of NBI; more flashes and UFOs in the same region in the subsequent frames
97455	KLDT-O5WB	48.34469	UFOs	Small cluster of UFOs flies around the centre of the machine
97455	KLDT-O5WB	47.66222	UFOs	Same kind of UFOs as last few pulses
97453	KLDT-O5WB	47.79203	UFOs	Many small UFOs seem to come off the WOPL in the same location as pulse 97451
97451	KLDT-O5WB	47.63032	UFOs	Blue UFOs for a few seconds. Smaller ones seem to originate at

				the WOPL. larger ones seem to come from the NBI. Nothing showed up in spectroscopy.
97425	KLDT-O5WB	41.88152	UFOs	UFO in one frame in the diverotr
97424	KLDT-O5WB	53.40108	UFOs	UFO in one frame
97422	KLDT-O5WB	54.43882	UFOs	UFO close to 4B limiter, possibly associated with the same hanging piece of debrie as in the previous UFO events
97422	KLDT-O5WB	50.02314	UFOs	UFO at the top of the inner wall for 1 frame
97421	KLDT-O5WB	50.63856	UFOs	UFO in one frame, off 4D limiter; this one and the one at 49.313 seem to be associated with a prticular location, which looks like a hanging debrie ejecting particles occasionally.
97421	KLDT-O5WB	49.31363	UFOs	UFO in one frame, off 4D limiter
97415	KL11-P1DB	48.69	UFOs	UFO
97415	KLDT-O5WB	44.9	UFOs	Lots of UFOs thoughot the pulse. Also seen on KLDT-E5WD.
97414	KL11-P1DB	51.67776	UFOs	UFO flying toroidally. Probably starting from T6. Could be the same seen @50.47 or @50.89.
97412	KLDT-E5WD	40.9625	UFOs	UFOs close to the inner wall. It lasts for several frames. Also less visible in KLDT-O5WD.
97412	KLDT-O5WB	48.75288	UFOs	1 frame very small UFO on NPL 3B. Also seen on KLDT-E5WD @48.66
97411	KLDT-O5WB	55.57133	UFOs	1 frame UFO close to 4B limiter, but also seen on KLDT-E5WD @55.46
97411	KLDT-O5WB	48.42572	UFOs	1 frame UFO near UDP, but also seen on KLDT-E5WD @ 48.32
97409	KLDT-E5WD	44.6125	UFOs	Small UFOs near RFB. It reappears @44.67.
97409	KLDT-E5WD	46.1125	UFOs	Small UFOs near UDP. You can see it moving around.
97409	KLDT-O5WB	46.21298	UFOs	Small UFOs near UDP and ILA. It loooks like it is Berillium. Also seen on KLDT-E5WD.
97406	KLDT-O5WB	51.80345	UFOs	Blue Flash in one single frame: 343
97405	KL11-P1DB	57.77728	UFOs	Flurry of particles, frames: 1040-1042
97393	KL11-P1DB	48.4179	UFOs	Some UFOs which bounce around the divertor a bit and break up. Also seen on W filtered experiment camera.
97349	KLDT-O5WB	61.23725	UFOs	Multiple UFOs observed - frame: 578
97332	KLDT-O5WB	51.25141	UFOs	Small UFO around inner wall
97321	KLDT-O5WB	54.12676	UFOs	Impressive UFO near WOPL 4D also

				seen by KLDT-E5WD @ 54.08s. Low temperatures on PIW and IR cameras.
97321	KLDT-O5WB	53.724	UFOs	UFO near NPL 3B at the same location as Nicoletta reported in #97313. Also seen by KLDT-E5WD @ 53.68 secs
97314	KLDT-E5WD	54.3625	UFOs	They last several frames with scattering from the wall. Also seen on KLDT-O5WB @54.40
97314	KLDT-O5WB	54.40135	UFOs	UFOs again on 3B NPL
97313	KLDT-O5WB	54.3737	UFOs	UFO near 3B NPL. Also seen from KLDT-E5WD @54.33. Nothing on the protection camera KLDT-P5WA
97313	KL11-P1DB	59.097	UFOs	Some UFOs from 59.09717 on tile 8.
97313	KLDT-O5WB	54.3737	UFOs	UFO near 3B NPL. Also seen from KLDT-E5WD @54.33. Nothing on the protection camera KLDT-P5WA
97307	KLDT-O5WB	40.4174	UFOs	UFOs for few frames. Also seen on KLDT-E5WD @40.38. Be??
97262	KL11-P1DA	52.54115	UFOs	Divertor UFOs when plasma seems to slam down onto upper parts of divertor.
97261	KLDT-O5WB	52.34258	UFOs	Numerous spots on outer wall for one frame. Not visible on PIW cameras.
97171	KL11-P1DB	41.738	UFOs	Early X point formation
97121	KLDT-O5WB	54.62493	UFOs	quite big UFO seen also by KLDT-E5WD
97116	KLDT-O5WB	50.36713	UFOs	UFO's coming from WOPL seen also by KLDT-E5WD
97116	KLDT-O5WB	40.27918	UFOs	Small UFO dropping down from npl seen also by KLDT-E5WD
97115	KLDT-O5WB	40.48728	UFOs	Lots of UFO from WOPL seen also by KLDT-P5WA, KL11-P1DB and KLDT-E5WD.
97106	KLDT-O5WB	52.48643	UFOs	UFOs from WOPL. Seen just for one frame on KLDT-E5WD.
97102	KL11-P1DB	48.438	UFOs	A few UFO's from inner divertor.
97096	KLDT-O5WB	46.04209	UFOs	First little particle seems to be coming from NPL 3B. Then lots of UFOs for several frames. Also seen from KLDT-E5WD starting at 46.17500.
97095	KL11-P1DB	49.6779	UFOs	They seem to start from DIV_M08T7A. They last 3 frames.
97094	KLDT-O5WB	49.40835	UFOs	Small particle flying from outer wall close to LH frame.
97060	KLDT-O5WB	47.81597	UFOs	Frame: 245 Dust flying around observed during disruption

97060	KLDT-O5WB	47.81597	UFOs	Dust flying around observed during disruption
97050	KLDT-O5WB	49.01988	UFOs	Splattering from WOPL, first sign at 45.4 s, weakly seen on KLDT-P5WA.
97050	KLDT-O5WB	45.53698	UFOs	Falling (?) piece from the mashroom.
97045	KLDT-O5WB	48.50496	UFOs	Splattering from RFBsh, seen also at KLDT-P5WA and KLDT-E5WD. DC saw nothing at that time.
97044	KLDT-O5WB	42.34682	UFOs	Splattering from IWGL followed by UFO's, seen also on KLDT-E5WD with Be filter. Be?
97025	KL11-P1DB	62.37693	UFOs	Few UFO's coming from T5
97024	KL11-P1DB	64.35681	UFOs	Few UFO's just before disruption
97023	KL11-P1DB	60.4771	UFOs	Few UFO's flying around seen also on KLDT-E5WD
97020	KLDT-O5WB	47.61125	UFOs	Frames:238-240, next to outer limiter 4D and 3B
97018	KLDT-O5WB	47.9178	UFOs	On outer limiter 4D
97011	KL11P1DB	48.87797	UFOs	UFO from tile 9 or 10 dropping into divertor
96996	KL11-P1DB	57.29732	UFOs	Splattering from tiles 8-9.
96994	KLDT-O5WB	60.53743	UFOs	Splattering from WOPL with further W debris from divertor region (seen on KLDT-P5WA at 60.70022s, KLDT-P1DB at 60.73516s, on KLDT-E5WD at 60.61250 s).
96993	KLDT-O5WB	60.32971	UFOs	Yellowish flying objects seen also on KLDT-E5WD. Probably W after heating tiles 8-9 up (UFOs observable on KL11-P1DB, KLDT-P5TB).
96991	KLDT-O5WB	60.47309	UFOs	Flying blue objects (Ti?).
96990	KLDT-O5WB	60.21477	UFOs	Sparks, seen also on KLDT-E5WD. There is also a spike at the same time for almost all the impurities.
96988	KL11-P1DB	57.9973	UFOs	Fireworks following disruption
96985	KLDT-E5WD	58.1125	UFOs	UFO shower for one frame during disruption
96984	KLDT-E5WD	58.2125	UFOs	UFOs throughout vessel during disruption
96984	KL11-P1DA	58.1012	UFOs	Lot's of UFOs from the divertor during disruption
96983	KLDT-E5WD	59.8125	UFOs	Sparks seen during disruption on visible and IR cameras
96981	KLDT-O5WB	51.14943	UFOs	Single frame large UFO at top of machine. Probably Falling Ti.
96958	KLDT-O5WB	49.19039	UFOs	UFO (blue light) coming from WOPL
96957	KL11-P1DB	49.25794	UFOs	UFO coming from T4
96956	KLDT-O5WB	55.5719	UFOs	UFO's during disruption also seen

				by KLD-T-E5WD
96955	KLDT-O5WB	47.51477	UFOs	Small blue light in the vessel flying around
96954	KLDT-O5WB	47.23624	UFOs	Blue light seen flying around the vessel and seen also on the WOPL probably Be
96953	KLDT-O5WB	51.78635	UFOs	Some blue light seen by op camera close to UDPT
96953	KLDT-E5WD	55.55	UFOs	Lots of UFO's seen flying around the vessel at the end of the pulse
96953	KL11-P1DB	55.29751	UFOs	Lots of UFO's seen on divertor at the end of the pulse
96951	KLDT-O5WB	48.7162	UFOs	Some blue light seen near the UIWP
96951	KL11-P1DB	47.89812	UFOs	UFO from T6
96944	KL11-P1DB	48.33	UFOs	UFOs from Tile 6
96944	KLDT-E5WD	54.47	UFOs	Titanium
96943	KLDT-P5TB	47.97101	UFOs	UFOs from the edge of Tile 5.
96942	KL1-O4WB	48.94	UFOs	UFOs
96941	KLDT-O5WB	51.36842	UFOs	Titanium
96941	KLDT-O5WB	50.96813	UFOs	Titanium
96941	KL12-O1WC	50.90431	UFOs	From spectroscopy data it looks like it is titanium.
96939	KLDT-E5WD	49.3	UFOs	Lots of UFOs around the divertor. Not seen on protection cameras.
96939	KLDT-E5WE	49.5873	UFOs	Small UFOs. Also at 49.70080 (Wall) and at 49.75530 (Flying from divertor)
96939	KLDT-O5WB	48.85988	UFOs	UFOs probably coming from NPL 3B, but I could not see them in any other camera.
96928	KLDT-O5WB	48.81	UFOs	Something falling from the upper dump plate at 48.8 s and 51.37 s; also seen by KLDT-E5WD (Be II filter, but could also be titanium which has some spectral lines in the wavelength range of the filter) but not by the protection cameras
96902	KLDT-E5WC	56.935	UFOs	two small ufos circling the vessel after disruption
96901	KL7-E8WB	64.8	UFOs	small UFO skirts lower outer wall after disruption
96896	KLDT-O5WB	49.57324	UFOs	UFO dropping from mushrooms
96893	KL11-P1DB	48.33798	UFOs	Few UFO's seen from 48.33798s
96893	KL11-P1DB	42.11847	UFOs	Few UFO's seen from 42.11847s to 43.23839s
96893	KLDT-O5WB	42.17247	UFOs	Quite big UFO seen on T8
96892	KL11-P1DB	50.43786	UFOs	UFO flying on T4
96892	KLDT-O5WB	48.88287	UFOs	Some UFO's dropping down from mushrooms

96892	KL11-P1DB	48.63799	UFOs	Some UFO's flying on T4 and T5
96891	KL11-P1DB	54.42578	UFOs	Small UFO flying from T8 to T6
96890	KLDT-O5WB	47.91521	UFOs	Quite big UFO dropping down from mushrooms
96889	KL11-P1DB	56.95738	UFOs	Lots of UFO's just after floppy disruption
96888	KLDT-P5TB	57.43891	UFOs	small UFO just before disruption
96885	KL11-P1DB	48.57796	UFOs	Looks like UFO is flying from T4 to T6
96878	KL7-E8WB	51.62	UFOs	Single blob falling from the top starting at this time.
96878	KLDT-E5WC	50.978	UFOs	Single small blob seen falling from the top (play video from this time).
96875	KL1-O4WB	49.30214	UFOs	Bright flash from top of the machine near the mushrooms.
96867	KL7-E8WB	49.72	UFOs	Small UFO from ILA grid middle part
96866	KL1-P4DB	48.45	UFOs	UFOs from the inner divertor Tile 0 seeing also on KL11-E1DF with Be filter
96865	KL7-E8WB	51.3	UFOs	UFO from the upper part of the vessel between 51.3-51.39s
96865	KLDT-E5WC	51.3	UFOs	UFO flying from the outer wall 51.3-51.32s
96861	KLDT-O5WB	50.3143	UFOs	They look like coming from divertor, Impressive ufos also seen on KL11-P1DB.
96861	KL11-P1DB	50.1379	UFOs	Impressive UFOs from Divertor during ohmic DIMPLE clean up pulse.
96860	KLDT-E5WC	49.25	UFOs	Little flying UFOs from the top (UDP, Sausages??). They last until 49.9 seconds.
96860	KL7-E8WB	49.16	UFOs	UFOs soon after disruption probably from limiter 8B. Cloud finishes at 50.02
96860	KL11-P1DB	49.21	UFOs	UFOs soon after disruption
96857	KL7-E8WB	53.76	UFOs	UFO moving from the UDP (?) to the divertor. Not seen on the divertor.
96855	KL11-P1DB	47.69903	UFOs	Lots of UFO's just before and after disruption
96852	KL11-P1DB	48.17901	UFOs	Few UFO's during and after disruption
96851	KL11-P1DB	44.51923	UFOs	small UFO and at 50.3989 seen another one
96850	KLDT-O5WB	48.15905	UFOs	small UFO's seen on divertor seen also on the camera KL11-P1DB at 48.43s
96834	KLDT-O5WB	46.08345	UFOs	Unusual blue flash apparently on inboard.
96824	KLDT-O5WB	53.88198	UFOs	Very bright flash at top of machine.

				Numerous other flashes during the pulse.
96820	KLDT-O5WB	51.57034	UFOs	Bright flash on outer wall. Numerous other hotspots on ops cam during pulse.
96818	KLDT-O5WB	43.74	UFOs	Blue-ish shades and UFOs soon after, just before end of the pulse. Also seen on KLDT-E5WD.
96817	KL11-P1DB	42.73	UFOs	Also seen on KLDT-E5WB
96817	KLDT-E5WD	42.69	UFOs	From outer wall. Probably Berillium.
96817	KLDT-O5WB	42.69	UFOs	From outer wall.
96815	KLDT-E5WD	43.82	UFOs	Impresssive UFOs until the end of the pulse.
96815	KLDT-O5WB	43.82	UFOs	Impresssive UFOs until the end of the pulse.
96815	KL11-P1DB	41.13	UFOs	UFOs starting at 41.13 and lasting until the end of the pulse.
96805	KLDT-O5WB	50.36472	UFOs	frame 308
96799	KLDT-E5WC	50.455	UFOs	Slow-moving UFO of unknown origin right in front of mirror box, BEFORE disruption.
96793	KL11-P1DB	49.458	UFOs	Last heated cleanup pulse - still very large amounts of Be bits but pulse goes through.
96792	KL11-P1DB	50.158	UFOs	Ohmic DiMPLe - still lots of Be bits but the pulse survives.
96791	KL11-P1DB	41.7895	UFOs	Another cleanup pulse - again large amount of Be particles from divertor leading to dosruption.
96789	KL7-E8WB	41.54	UFOs	Huge amount of Be bits flying off the divertor - pulse does not survive long due to this.
96788	KL7-E8WB	50.12	UFOs	Huge cloud of UFOs coming from the outer wall (approx. WOPL 8D)
96788	KLDT-E5WC	50.42	UFOs	Still some UFOs from 4B but fewer than in 96782. UFOs also seen in KL7E8WB.
96783	KLDT-O5WB	46.176	UFOs	Pulse fails early due to particles probably Be from previous disruption. See also KL11-P1DB - lots of UFOs
96782	KLDT-E5WC	50.07	UFOs	Snow of UFOs (some of them very big) after the disruption
96777	KLDT-E5WE	47.0074	UFOs	Bits coming off limiter 4D again, also seen by op cam.
96774	KL11-P1DB	41.698	UFOs	Various divertor UFOs leading to failed plasma.
96773	KL11-P1DB	47.35814	UFOs	UFOs from the divertor
96771	KL11-P1DB	48.87798	UFOs	There is, at t= 48.87798 s, a large UFO from the divertor. This happens just before the disruption.

96769	KL11-P1DB	50.61	UFOs	UFOs from Tile 7.
96767	KLDT-P5TB	45.0	UFOs	Stuck UfO between stack B and C of tile 5, heating up during the pulse duration and eventually disappearing.
96767	KL11-P1DB	46.11	UFOs	Fireworks of UFOs from tile6 at 46.11, 47.29 and 47.41 seconds.
96766	KL11-P1DB	41.5	UFOs	UFOs departing from tile 6 and flying around both the divertor legs. This is probably the cause of flashing lights seen by the SL from the OpCams.
96766	KLDT-P5WA	43.0	UFOs	UFO departing from the outer divertor leg (coming probably from tile 6 as the KL11-P1DB camera shows at 41.57
96766	KLDT-P5TB	41.45	UFOs	UFOs departing from tile 5 stack C and later (at 41.78 sec) from stack D as well.
96765	KL11-P1DB	48.09	UFOs	Few UFOs arising from tile 6.
96756	KL11-P1DA	46.00112	UFOs	Particle flying vertically upwards frame: 452
96749	KLDT-O5WB	49.25449	UFOs	some blue light seen on the top for several frames
96749	KL11-P1DB	52.0577	UFOs	Some UFO's from tile 4 seen also at 49.297
96741	KLDT-O5WB	52.51378	UFOs	UFO - tungsten
96735	KLDT-O5WB	55.10964	UFOs	Spectroscopy suggests 316 stainless steel
96731	KL11-P1DB	49.097	UFOs	Few UFO's from tile 4
96693	KLDT-O5WB	50.69865	UFOs	UFOs possibly from NB4, spectroscopy shows many impurities
96678	KLDT-O5WB	49.02477	UFOs	Outer wall UFO, one frame only
96664	KL11-P1DB	52.91766	UFOs	UFO
96664	KLDT-O5WB	48.76955	UFOs + Ti event	UFO at 48.76955, and Ti event at 51.33.
96655	KLDT-O5WB	58.8755	UFOs	UFO from outer limiter as seen in many high power pulses last year.
96647	KLDT-O5WB	40.30145	UFOs	Single frame UFO also seen on KLDT-E5WD with a Be filter so might be berillium. Temperatures look OK on protection camera KLDT-P5WA
96611	KLDT-O5WB	40.58	UFOs	Bright flash at the top of the vessel; also faintly seen during one frame by KLDT-P5WA
96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame

96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	82.052	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	51.11678	UFOs	Small UFO above the divertor for one frame
96579	KLDT-O5WB	51.11678	UFOs	Small UFO above the divertor for one frame
96559	KLDT-E5WD	41.7125	UFOs	Lots of Be bits flying around early in the pulse.
96542	KLDT-O5WB	49.31	UFOs	Same as 96541
96541	KLDT-O5WB	51.53355	UFOs	Particle influx coming out from near the outer limiter -Ivor could not identify element
96538	KLDT-O5WB	55.00052	UFOs	Bright UFO coming from the top limiter of the RF antenna. Followed by a bright flash on WOPL_4D.
96532	KL11-P1DB	49.91789	UFOs	Large UFO coming from the outer lower part of the machine (divertor?) shortly after some UFOs are seen flying out from oct8 beam duct by KL1-O8WA (at 49.80044s)
96532	KLDT-O5WB	40.84518	UFOs	Very focused Beryllium UFO coming from the outboard side.
96495	KLDT-O5WB	50.95	UFOs	Again lots of UFOs throughout the pulse and lots of Titanim seen at the top of the vessel.
96493	KLDT-O5WB	48.4646	UFOs	UFOs flying from outer wall close to WOPL 4D
96493	KLDT-O5WB	48.45	UFOs	Again lots of UFOs in the main chamber throughout the pulse.
96492	KLDT-O5WB	50.54	UFOs	Massive UFO close to 4D limiter. Many UFOs starting at 48 sec, which is the same time as kiks start.
96491	KLDT-O5WB	48.13	UFOs	Again, lots of UFOs for longer than one second.
96490	KLDT-O5WB	47.52	UFOs / Disruption	UFOs throughout the pulse, mainly from outer wall, until the disruption.
96489	KLDT-O5WB	47.81	UFOs	Lots of UFOs throughout the pulse.
96456	KLDT-O5WB	47.96182	UFOs	Flash on ops cam.
96456	KLDT-O5WB	47.96182	UFOs	Ugly hot flash on ops cam - watch several frames.
96451	KLDT-O5WB	51.08737	UFOs	UFO moving apparently from dump plate

96451	KLDT-O5WB	50.16667	UFOs	Lrge UFO coming out of 4D OPL for 2 frames
96451	KLDT-O5WB	48.92566	UFOs	Lrge UFO coming out of 4D OPL for 7 frames
96450	KLDT-O5WB	50.59624	UFOs	UFO for 3 frames
96450	KLDT-O5WB	49.91578	UFOs	UFO around reionizaation plate Oct 4 for ~7 frames
96444	KLDT-O5WB	54.07855	UFOs	UFO at the left edge of the field of view moving downwards for 5 frames
96444	KLDT-O5WB	51.19607	UFOs	Small UFO coming out of NPL 3B or LHCD antenna, 2 pulses
96442	KLDT-O5WB	53.8185	UFOs	Large UFO making the plasma go purple and quickly disrupt.
96442	KLDT-O5WB	48.7746	UFOs	Another instance of horrible things happening at the edge of antenna B / nPL 3B.
96442	KLDT-O5WB	48.094	UFOs	Very large Ti blob from the top. Several more later in the pulse.
96435	KLDT-O5WB	49.329	UFOs	A series of extremely horrible looking events on the edge of antenna B / nPL 3B; lots of bits seen coming off on high speed, very bright on opcam. Also affects limiter 4D. First event at 48.929s, "main" event at 49.329s.
96432	KLDT-O5WB	50.054	UFOs	Large UFO in main chamber, doesn't seem to affect the plasma at all.
96431	KLDT-O5WB	46.925	UFOs	Series of blue UFOs, look like from outer limiters.
96430	KL1-O4WB	53.46	UFOs / Titanium	UFO lasting several frames. Looks like Titanium.
96430	KLDT-O5WB	53.51	UFOs	UFO lasting several frames. UFOs at the same time seen from KL1-O4WB.
96426	KLDT-O5WB	49.0696	UFOs (Berillium??	UFO near NPL 2D. Also seen from KLDT-E5WD.
96425	KLDT-O5WB	47.72	UFOs	Ufos from octant 4 for 3 frames, more at 48.28 not sure from where. And another one at 49.24 which seems coming from NPL (Berillium, also seen on KLDT-E5WD). And another one at 52.77 which seems coming from NPL (Berillium, also seen on KLDT-E5WD). One more at 54.13.
96425	KL12-O1WC	51.41	UFOs	From VUV spectroscopy it looks like there is Copper and Krypton
96395	KLDT-O5WB	54.5	UFOs	Frame: 413, Droplet of magnesio oxide (ceramic) falling from the top of the antena or the top and falling onto Antena B and causing a

				cascade of droplets
96393	KLDT-O5WB	43.749	UFOs	UFO at tile 8 frames 143-147. Looks like a particle came off the tile, split into 3 and moved upstream out of the field of view
96369	KLDT-O5WB	53.74	UFOs	Localised UFOs from Tile 8 on 2 frames
96363	KLDT-O5WB	48.4	UFOs	UFO coming from the middle of the NPL
96363	KLDT-O5WB	41.23	UFOs	UFO (Be) coming from the upper dump plates close to UIWP
96362	KLDT-O5WB	54.59	UFOs	Big UFO coming from the LH frame lands on NPL and then went down from 54.59 to 54.91s (8 frames)
96361	KLDT-E5WD	54.85	Hotspots	Apparently material coming out of the lower corner of ILA --> Be signal in spectroscopy observed as well
96347	KLDT-O5WB	53.36	UFOs	Another apparently Ti UFO but from the lower outboard side.
96347	KL1-O8WA	47.108	UFOs	Very large Ti UFO near the top around Octant 2. Also seen by KLDT-O5WB.
96344	KLDT-O5WB	50.11599	UFOs	UFO's from WOPL
96343	KLDT-O5WB	52.57129	UFOs	UFO seen on inner wall (probably Cu)
96343	KLDT-O5WB	50.60988	UFOs	UFO from WOPL
96341	KLDT-E5WD	48.94132	UFOs	Ufo from inner wall next to IWGL
96341	KLDT-E5WD	47.53964	UFOs	UFO from WOPL
96341	KLDT-E5WD	47.49963	UFOs	UFO just above ICRH
96341	KLDT-E5WD	46.97947	UFOs	UFO from nPL
96340	KLDT-O5WB	48.79809	UFOs	UFO's from WOPL
96340	KLDT-O5WB	47.23629	UFOs	UFO's from WOPL (2 frames) seen also 47.4770 and by KLDT-E5WD
96340	KLDT-O5WB	46.79652	UFOs	UFO on UDPT
96340	KLDT-O5WB	46.79652	UFOs	Ufo on nPL seen also at 47.71730 and also by KLDT-E5WD
96339	KLDT-O5WB	48.13579	UFOs	UFO from UDPT
96339	KLDT-O5WB	47.21559	UFOs	UFO from WOPL seen also at 47.81605 and 47.735 and seen also by KLDT-E5WD
96339	KLDT-O5WB	46.77531	UFOs	UFO from ICRH seen also at 47.615 and 47.735 and seen also by KLDT-E5WD
96338	KLDT-O5WB	53.02741	UFOs	Big two UFO's from WOPL seen also by KLDT-E5WD
96338	KLDT-O5WB	49.82488	UFOs	UFO from nPL and repeated in 50.02503sec seen also by KLDT-E5WD
96338	KLDT-O5WB	48.4638	UFOs	UFO from nPL seen also by KLDT-

				E5WD
96338	KLDT-O5WB	49.58467	UFOs	UFO from wOPL
96338	KLDT-O5WB	47.50306	UFOs	UFO from WOPL
96338	KLDT-O5WB	47.30292	UFOs	UFO from ICRH B
96338	KL11-P1DB	46.5781	UFOs	UFO from tile 6
96337	KL11-P1DB	43.83833	UFOs	UFO from tile 1?
96335	KL11-P1DB	48.37796	UFOs	UFOs from inner divertor
96334	KL11-P1DB	50.05784	UFOs	UFO Impact with Tile 5
96332	KLDT-O5WB	48.91693	UFOs	Blue UFO circling close to upper inner wall.
96331	KL11-P1DB	53.6376	UFOs	UFO from tile 6 hotspot
96331	KL11-P1DB	51.99773	UFOs	UFO from tile 6 hotspot
96331	KL11-P1DB	51.63775	UFOs	UFO from tile 6 hotspot
96330	KLDT-P5TB	54.11735	UFOs	UFOs from tile 6 hotspots
96330	KL11-P1DB	54.13754	UFOs	UFOs from tile 6 hotspots
96330	KL11-P1DB	52.79767	UFOs	UFOs from tile 6 hotspots
96330	KL11-P1DB	50.59783	UFOs	UFOs from tile 6 hotspots
96330	KL11-P1DB	51.9377	UFOs	UFOs from inner divertor
96327	KLDT-O5WB	50.89604	UFOs	Small UFO near 4D limiter
96325	KLDT-O5WB	53.6765	UFOs	Another UFO from near wOPL_4D
96324	KLDT-O5WB	55.72218	UFOs	A UFO originating behind wOPL_4D. Also seen by KLDT-P5WB, but is very dim.
96318	KLDT-O5WB	60.72886	UFOs	Small UFO seen also at KLDT-E5WD
96318	KL11-P1DB	47.17806	UFOs	UFO (4 frames)
96292	KL11-P1DB	62.21	UFOs	Lots of UFOs all around the divertor for several frames.
96289	KLDT-O5WB	46.83605	UFOs	Green UFO lasting one frame. Berillium maybe?
96272	KL1-O8WA	57.06	UFOs	Another UFO just prior to disruption
96262	KL11-P1DB	45.9182	UFOs	UFOs in Tile 5
96261	KL11-P1DB	45.89	UFOs	UFO from the inner divertor during few milliseconds
96244	KL11-P1DB	62.63695	UFOs	Bunch of UFOs coming from the outer divertor tiles after the disruption.
96234	KLDT-O5WB	55.31827	UFOs	Bright spot at top of machine.
96234	KLDT-O5WB	54.43749	UFOs	Bright UFO from outer wall on Ops cam only. See also 54.83782s, 55.03806s
96229	KLDT-O5WB	43.46468	UFOs	Big cloud of UFOs on Ops cam
96227	KLDT-O5WB	55.84	UFOs	lots of UFOs just before disruption.
96226	KL11-P1DB	43.89	Disruption + UFOs	Lots of UFOs from divertor just before disruption and for several frames after disruption.

96225	KLDT-E5WD	43.125	UFOs	Lots of UFOs at the end of the pulse. Lots of UFOs also seen on KLDT-O5WB.
96225	KLDT-O5WB	43.016	UFOs	Lots of UFOs at the end of the pulse. Lots of UFOs also seen on KLDT-E5WD.
96225	KL11-P1DB	43.21	UFOs	Lots of UFOs on the divertor at the end of the pulse. Lots of UFOs also in the main chamber seen from KLDT-O5WB and KLDT-E5WD.
96224	KL11-P1DB	42.13	UFOs	UFOs for several frames.
96223	KL11-P1DB	42.47	UFOs	Flying UFO from tile 9?
96220	KLDT-O5WB	48.61	UFOs	UFO close to the top of 4D limiter. Spectroscopy show some Titanium at this time. Are there titanium components in that area?
96220	KL11-P1DB	53.15	UFOs	UFOs from tile 6 for several frames. SL also mentioned they can see there is tungsten in the plasma around this time.
96216	KLDT-O5WB	52.7793	UFOs	Mysterious cloud of (glowing orange?) bits just above the divertor after disruption.
96212	KL12-O1WC	48.555	UFOs	Large purple UFO for 1 frame near the top. Followed by a few smaller ones.
96209	KL1-O8WA	49.35808	UFOs	Large UFO, looks like from Oct 8 NBI duct (but spectroscopy doesn't see Cu?). Starts a chain of events which led to disruption.
96207	KL11-P1DB	47.96118	UFOs	UFO from T7
96205	KLDT-E5WD	46.925	UFOs	Lot of UFOs flying around the main chamber
96205	KL11-P1DB	47.39808	UFOs	Big UFO from T9?
96204	KLDT-E5WD	46.9375	UFOs	Lot of UFOs in main chamber spinning around
96202	KL11-P1DB	56.69735	UFOs	UFOs flying around the main chamber
96202	KL11-P1DB	48.09799	UFOs	UFOs from T5
96202	KL11-P1DB	46.99811	UFOs	UFOs spinning around seen also at KLDT-E5WD
96201	KL11-P1DB	53.95759	UFOs	Lot of UFOs after disruption from divertor region
96201	KL11-P1DB	51.49774	UFOs	UFOs from T6
96199	KL11-P1DB	51.05777	UFOs	Fireworks of UFOs from T5 and T6 seen also at KL2D-P8TB
96199	KL11-P1DB	46.91811	UFOs	Few UFOs spinning around and seen also at KLDT-E5WD
96198	KL11-P1DB	46.97807	UFOs	Few UFO's going around and seen at KLDT-E5WD
96197	KL11-P1DB	55.91744	UFOs	UFO from T8 after disruption

96197	KL11-P1DB	50.33782	UFOs	Few UFO's from T5 and T6
96197	KL11-P1DB	48.018	UFOs	UFO on T4?
96197	KL11-P1DB	46.95811	UFOs	Few UFO's going around and seen also at KLDT-E5WD
96194	KL11-P1DB	45.7381	UFOs	UFOs from 45.7381 sec onwards.
96193	KL11-P1DB	46.0	UFOs	UFOs from 46 sec onwards.
96192	KL11-P1DB	45.69817	UFOs	UFOs at 45.69817 sec from Tile 5 stack D.
96181	KL11-P1DB	46.17814	UFOs	Several UFOs in the divertor region, spinning around on KLDT-E5WD, KLDT-E5TA until the disruption.
96180	KLDT-E5WD	46.0375	UFOs	UFOs in the divertor region, seen also on KL11-P1DB.
96179	KL2D-P8TB	48.98132	UFOs	Several UFOs during the NBI heating (divertor tiles 5-6). Seen also on KL9B-E8TA at 49.17464s.
96179	KL11-P1DB	46.19817	UFOs	Several UFOs at the beginning of the pulse and during the NBI heating (divertor tiles 5-6) till the disruption.
96177	KL11-P1DB	47.0781	UFOs	UFO's from T6 seen also at 47.61803
96176	KL11-P1DB	43.15839	UFOs	UFO's -look like it's running around and seen also at the KLDT-E5WD
96176	KL11-P1DB	46.73809	UFOs	Small UFO from T6
96175	KLDT-O5WB	51.42947	UFOs	Two UFO's (two lights seen on REION4?) and also seen at KLDT-P5WA and KLDT-E5WD
96175	KL11-P1DB	52.87767	UFOs	UFO's from T6
96175	KL11-P1DB	50.55784	UFOs	UFO's from T5?
96175	KL11-P1DB	48.77794	UFOs	UFO's from T6
96175	KL11-P1DB	47.89801	UFOs	UFO's from T5
96174	KL11-P1DB	49.95789	UFOs	UFO's from T5 and T6 seen also at the KL2D-P8TB
96173	KL11-P1DB	49.95789	UFOs	UFO's from T6
96172	KLDT-E5WD	47.55	UFOs	UFO
96172	KL11-P1DB	55.09747	UFOs	UFO from T9
96172	KL11-P1DB	48.358	UFOs	UFO from T6
96172	KL11-P1DB	49.95789	UFOs	UFO from T5 and T6
96154	KL12-O1WC	44.96866	UFOs	UFO, lights up many wavelengths.
96125	KLDT-O5WB	63.04422	UFOs	UFOs before disruption frame 625-626
96124	KLDT-O5WB	63.2587	UFOs	UFOs before disruption, frame 630
96122	KLDT-O5WB	63.99437	UFOs	UFOs at frame 649 651-654 and hotspot due to disruption
96122	KL11-P1DB	60.85704	UFOs	UFOs from divertor tile 5, 8
96116	KL11-P1DB	47.41805	UFOs	Lot of UFO's
96114	KL11-P1DB	51.15781	UFOs	UFO from T6 and later at 53.07767

				seen from T5D
96114	KL11-P1DB	48.23803	UFOs	UFO's from T3 also seen at 53.43764
96114	KL11-P1DB	47.49808	UFOs	UFO's from T5D and T6?
96113	KL11-P1DB	46.75814	UFOs	UFO's originating from T5D
96112	KL11-P1DB	47.37806	UFOs	Lot of UFO's starting from time: 47.37806 (also seen at 49.177, 49.657 and 54.957)
96112	KL11-P1DB	46.7781	UFOs	UFO from T5D
96108	KL11-P1DB	56.31742	UFOs	UFO originating from T6
96107	KL11-P1DB	55.29747	UFOs	UFO originating from T6
96104	KL11-P1DB	46.8381	UFOs	UFO's originating from T5
96102	KL11-P1DB	49.47	UFOs	Lots of UFOs from Tile 7 and 8 after disruption.
96101	KLDT-P5WA	48.55	UFOs	Hot spot almost above LH + not sure there is some sort of spraying at the same time visible selecting auto and DL on JuviL.
96099	KL11-P1DB	42.13	UFOs	UFOs again around DIV_M07T7B. One more @42.25.
96098	KL11-P1DB	41.57	UFOs	Lots of UFOs lasting 1, 2 or 3 frames during this pulse. Starting @41.55, then @41.65, @41.73, @47.43 and @52.33
96098	KLDT-O5WB	44.55	UFOs	Small UFO at the bottom of Limiter 4B limiter. It does not seem to be Titanium.
96095	KL12-O1WC	59.89	UFOs	Lots of UFOs at the end of the plasma seen for few frames on this camera. From spectroscopy (T2I0) it looks like titanium.
96095	KLDT-O5WB	59.74	UFOs	Lots of UFOs at the end of the plasma for several frames.
96094	KL11-P1DB	60.05711	UFOs	Lots of UFOs at the end of the pulse from Tile 8. Many 1 or 2 frames UFOs during the pulse @41.87, @42.098, @46.59, @46.85, @58.31, @59.51.
96092	KL11-P1DB	49.73787	UFOs	UFO moving across the divertor from outer divertor to inner divertor. It lasts 2 frames
96076	KL11-P1DB	45.11825	UFOs	UFOs firework from the divertor tile 8 and 9, seen also at the KLDT-O5WB.
96072	KL11-P1DB	56.21739	UFOs	Beginning of fireworks started from the divertor tiles 8 and 9, extending on tiles 4-6 at the disruption.
96070	KL11-P1DB	41.45849	UFOs	Several debris in divertor region at the beginning of the pulse, observable also for pulses 96071-96074.

96070	KL11-P1DB	41.45849	UFOs	Several debris in divertor region at the beginning of the pulse.
96067	KLDT-O5WB	49.96967	UFOs	Ti from pickup coil near UDPT
96064	KL11-P1DB	45.73818	UFOs	The beginning of a nice Divertor firework display
96055	KL11-P1DB	46.11818	UFOs	Lots of debris in Divertor for this and subsequent pulses, during start phase.
96051	KL11-P1DB	41.83849	UFOs	UFOs from divertor T6.
96049	KL11-P1DB	45.9318	UFOs	UFOs from Tile 5 stack C. More UFOs seen from the same camera before disruption.
96048	KL11-P1DB	48.93	UFOs	UFOs coming from divertor for several frames starting from 48.93 until 49.47.
96045	KLDT-O5WB	44.21642	UFOs	UFO falling from ceiling
96045	KL11-P1DB	50.7378	UFOs	Fireworks from tiles B and C
96044	KL7-P8WA	48.57798	UFOs	Big UFO at disruption - 2nd view
96044	KLDT-P5WA	48.58306	UFOs	Big UFO at disruption
96042	KL11-P1DB	51.25776	UFOs	Explosive looking UFOs coming from divertor only one frame
96041	KL11-P1DB	50.41782	UFOs	UFOs come from hotspot, not on an ROI
96040	KL11-P1DB	50.85779	UFOs	fireworks from tiles B and C during disruption
96040	KLDT-O5WB	50.21958	UFOs	UFO drops from ceiling. (2 frames)
96040	KLDT-O5WB	49.25874	UFOs	UFO drops from ceiling. (1 frame)
96040	KLDT-O5WB	47.6575	UFOs	UFO drops from ceiling. (2 frames)
96040	KLDT-O5WB	42.93349	UFOs	UFO at midplane near WOPL (4 frames)
96039	KLDT-O5WB	50.98818	UFOs	Various single frame UFOs. This one lasts a few frames
96039	KLDT-O5WB	48.82657	UFOs	Something falling from ceiling near lower hybrid
96038	KL11-P1DB	51.31779	UFOs	UFOs from tiles 7&8 during disruption
96032	KL11-P1DB	54.65751	UFOs	A bunch of UFOs from tiles 5 and 6 starting at 54.65751s.
96025	KL11-P1DB	47.57803	UFOs	A lot of UFOs during the whole first session pulse.
96021	KLDT-O5WB	49.06431	UFOs	A red UFO falls from the roof, ending in a white flash.
96017	KLDT-O5WB	49.98018	UFOs	Flash mostly on one frame at top of machine. Visible on KLDT-O5WB at 49.946
96017	KLDT-O5WB	49.38594	UFOs	Numerous flashes visible on Ops cam over a long period.
96017	KL11-P1DA	53.12067	UFOs	Heavy UFOs in divertor zone during and after disruption

96012	KLDT-O5WB	48.4448	UFOs	Bright flash - also visible on Bell filter.
96003	KL11-P1DB	57.65728	UFOs	UFOs from the divertor tiles 6-8, seen also on KL2D-P8TB, KLDT-P5TB.
96002	KLDT-O5WB	54.04723	UFOs	A lot of UFOs, seemed to start from WOPL. More details are seen on KLDT-E5WD.
96000	KLDT-E5WD	51.71	UFOs	Record NBI 31.4 MW. Disruption released a lot of particles from the divertor Tile 7
95998	KL11-P1DB	48.5579	UFOs	UFO events on Tiles 1 and 6
95992	KL11-P1DB	59.45	Disruption + UFOs	Ufos from tile 8 and 9 soon after disruption lasting several frames.
95992	KL11-P1DB	51.877	UFOs	Ufos from tile 5 stack C.
95990	KL11-P1DB	49.07795	UFOs	UFOs from tile 5 stack D and tile 6. UFO also seen at 44.37827 sec.
95987	KL11-P1DB	41.47852	UFOs	Lot's of UFO's till frame 258
95986	KL11-P1DB	46.33813	UFOs	A few UFO's from tiles 5 and 6
95985	KL11-P1DB	46.53811	UFOs	UFO originating in T5
95980	KL11-P1DB	45.07825	UFOs	Small one
95974	KL11-P1DB	41.53848	UFOs	Several UFOs throughout the pulse from tiles 6, 7, 8 till 48.557s.
95972	KL11-P1DB	41.45849	UFOs	Some UFOs at the beginning of the pulse.
95971	KL11-P1DB	46.958	UFOs	Several UFOs are splattered from T6, also at 47.198s.
95970	KL11-P1DB	46.6981	UFOs	A few UFOs were observed at 46.6981 (within 1 frame) and later starting from 47.498s.
95964	KLDT-O5WB	49.07229	UFOs	Beryllium particle emanates from the nPL_3B and bursts into the plasma. Also seen by KLDT-E5WD.
95962	KLDT-P5WA	47.97317	UFOs	UFO detaching from nPL_3B and scattering into the plasma, featured in 3 frames of KLDT-O5WB and a few on KLDT-E5WD.
95945	KLDT-O5WB	52.77	UFOs	Frame: 369. They can be seen near on the WOPL
95934	KLDT-P5WA	58.37	UFOs	Falling from the top
95934	KLDT-O5WB	58.47	UFOs	From divertor over two frames
95927	KLDT-O5WB	50.50106	UFOs	Ti from what seems to be Oct 4 Duct. Two more can be seen later.
95913	KL11-P1DB	42.29843	UFOs	Continuous sequence of UFOs lasting from 42 to 45s - better visible on KLDT-E5WD.
95902	KLDT-O5WB	50.87	UFOs	Possibly Titanium, also at 50.63
95899	KLDT-O5WB	52.322	UFOs	also @ 53.36, 53.56 and 54.48, also visible in KLDT-P5WA
95890	KL11-P1DB	47.15809	UFOs	Several UFOs seen till 48.33797s.

95881	KL11-P1DB	46.858	UFOs	A few UFOs were observed starting from 46.858s.
95872	KLDT-O5WB	51.3261	UFOs	Again, some quite impressive purple UFOs at disruption (disruption eventually goes down). Also seen by KLDT-PWA, KLDT-E5WD and KLDT-E5WC.
95867	KLDT-O5WB	51.4672	UFOs	Particularly fun purple UFO at view centre durin disruption. Also seen by KLDT-E5WC.
95852	KLDT-O5WB	46.34	UFOs	Big UFO identified as Ti event at 46.34s
95783	KLDT-O5WB	66.90518	UFOs	UFOs in frame 722, 726-727
95781	KL11-P1DB	64.5004	UFOs	UFOs flies here and there in divertor region in frame 1361-1370
95781	KLDT-O5WB	64.5004	UFOs	UFOs 'rainfall' from upper dump plate in frame 661
95768	KL11-P1DB	48.53	UFOs	Explosive lift-off of UFOs from the divertor after plasma termination
95720	KL11-P1DB	50.43786	UFOs	UFO- small one
95719	KL11-P1DB	49.41791	UFOs	More UFOs in different times: 47.338, 49.637, 50.157
95716	KLDT-O5WB	45.12257	UFOs	Small one.
95713	KLDT-O5WB	43.339	UFOs	UFO seen coming from the divertor in the bottom right part of the image, that corresponds to a increase on radiated light as SL says.
95705	KL11-P1DB	50.93	UFOs	Material raining into the divertor after disruption; judging from the angle, originating from the outer wall
95702	KL11-P1DB	45.69	UFOs	Lots of UFO activity in the divertor for 45.69-46.77 s
95662	KLDT-O5WB	55.69179	UFOs	Sparklies as the plasma terminates
95662	KLDT-O5WB	54.69031	UFOs	Blob of what could be Ti from Oct 4 duct
95660	KL7-P8WA	47.89749	UFOs	Oct8 UFO, possibly the Ti spike seen in spectroscopy.
95660	KLDT-O5WB	48.61479	UFOs	Oct8 NB UFO
95659	KL12-P1WA	52.02093	UFOs	UFO probably from Oct 8 NB, aligns with spectroscopy.
95659	KLDT-O5WB	55.59932	UFOs	UFO probably from Oct 4 NB
95659	KLDT-O5WB	54.23863	UFOs	UFO probably from Oct 4 NB
95659	KLDT-O5WB	48.47402	UFOs	Huge UFO probably from Oct 4 NB, hitting the inner wall.
95659	KLDT-O5WB	48.47402	UFOs	Huge UFO probably from Oct 4 NB, hitting the inner wall.
95659	KLDT-O5WB	48.11373	UFOs	UFO probably from Oct 4 NB
95655	KL11-P1DB	46.018	UFOs	UFOs from the tile 6

95655	KL1-P4DB	45.99	UFOs	huge UFO from the tile 6
95646	KL11-P1DB	46.038	UFOs	
95633	KLDT-O5WB	47.17739	UFOs	Blue flash
95610	KLDT-O5WB	66.66724	UFOs	Long UFO at the outer wall
95592	KL11-P1DB	55.137	UFOs	
95572	KLDT-O5WB	50.75033	UFOs	UFOs from outer wall fly into plasma in frames 318-320
95568	KLDT-O5WB	50.37129	UFOs	UFOs fly out from outer wall in frame 309 and spread inside plasma in frame 310
95553	KLDT-O5WB	52.18827	UFOs	Particles next to Lower Hybrid
95534	KL11-P1DB	49.77787	UFOs	UFO crosses x-point
95531	KL1-O8WA	52.22775	UFOs	Correction. What looks like a tiny amount of Mo from NIB8, can also be seen in the next frame prior the disruption.
95531	KL1-O8WA	52.22775	UFOs	What looks like a tiny amount of Cu from NIB8, can also be seen in the next frame prior the disruption.
95531	KL11-P1DB	52.35771	UFOs	Lot of debris from tile 6 during and after the disruption.
95528	KL11-P1DB	50.11	UFOs	UFOs from Divertor Tile 5 stack C for two frames 657-658
95524	KL11-P1DA	47.7	UFOs	UFO from divertor Tile 4. Seen also from KL11-P1DB
95511	KL11-P1DB	54.03758	UFOs	UFO coming out of Tile 8 and bouncing twice before exploding into the plasma
95499	KLDT-O5WB	56.01	UFOs	Lots of flying debris for one frame
95495	KLDT-E5WD	58.95	UFOs	Very large plume of Be particles from the inner wall during disruption.
95494	KLDT-O5WB	49.3	UFOs	Ti UFO from lower than usual -in front of LH antenna?
95488	KLDT-O5WB	53.975	UFOs	Titanium UFO from the usual place - first one for a while!
95485	KL12-O1WC	49.328	UFOs	Purple and orange UFOs seen on KL12 and KL7 - from Octant 8?
95463	KLDT-O5WB	46.1	UFOs	Frame: 202 . According to Ivor is Copper
95460	KLDT-O5WB	46.57347	UFOs	Frame: 214. According to Ivor the influx is Titanium
95441	KLDT-O5WB	54.59	UFOs	Dump plate again
95435	KLDT-O5WB	52.409	UFOs	Dump plates - causing radiation in plasma
95434	KLDT-O5WB	53.15	UFOs	Dump plate
95431	KLDT-O5WB	52.90857	UFOs	Dump plate
95429	KLDT-O5WB	53.49176	UFOs	Dump plate debris
95428	KLDT-O5WB	55.69659	UFOs	Near the dump plates

95400	KL11-P1DA	58.04086	UFOs	Fireworks during disruption
95383	KLDT-O5WB	51.16754	UFOs	Big UFO at 51.16754s and other smaller at 55.53117s
95380	KLDT-O5WB	50.78	UFOs	UFOs also at 50.902, 51.422, 51.545s
95379	KL11-P1DB	53.43762	UFOs	UFOs on T8 previous to a disruption
95375	KLDT-O5WB	53.35868	UFOs	Constellation of UFOs
95374	KLDT-O5WB	50.81901	UFOs	
95364	KLDT-O5WB	50.88534	UFOs	Shower of UFOs very likely from the limiters. Also visible on the Evolve.
95333	KLDT-O5WB	49.28908	UFOs	Frame: 282, UFO next to the Outer Poloidal Limiter
95319	KLDT-O5WB	48.36104	UFOs	Lot of material coming from inner wall from this point to the disruption.
95314	KLDT-O5WB	47.01321	UFOs	Ni UFO
95310	KL11-P1DB	63.837	UFOs	ufos in divertor
95303	KLDT-O5WB	61.878	UFOs	flake from LH launcher?
95297	KL11-P1DA	58.06121	UFOs	The upper shoulder of tile 8 gets hot for 1 frame. Then small UFOs. The one very longlasting bouncing UFO falls into the divertor. Coincides with tungsten peak.
95275	KL11-P1DB	55.76	UFOs	A UFO enters the divertor, realizes it forgot something and doubles back
95273	KL11-P1DB	50.99	UFOs	Something flies through the divertor after the end of the plasma
95266	KLDT-O5WB	47.8602	UFOs	Cloud of ufos near poloidal limiter during disruption
95206	KLDT-O5WB	52.07208	UFOs	Blue sparks on tile 1, no associated spectroscopy but could be Be
95179	KL11-P1DB	46.038	UFOs	Spray of UFOs from top of the outer divertor during a slow disruption.
95175	KL11-P1DA	48.081	UFOs	Fireworks on the divertor lasting for several frames as the plasma goes down
95163	KL11-P1DA	48.00145	UFOs	A small rocket takes off from the divertor.
95162	KLDT-E5WD	57.525	UFOs	Same again - fireworks on both inner and outer wall in Be-II
95161	KLDT-E5WD	57.05	UFOs	Spectacular views in experimental camera with Be-II filter. Nothing to be seen on protection cameras.
95155	KL11-P1DA	48.92125	UFOs	UFO falls into the divertor from above after the disruption.
95123	KL11-P1DB	48.35	UFOs	UFOs maybe due to inner wall spray.
95106	KL11-P1DB	64.03	UFOs	UFOs launching from the outer divertor

95089	KL11-P1DB	57.13733	UFOs	UFO from dicertor
94981	KL11-P1DB	56.157	UFOs	Some UFOs from top of tile 8 during the disruption.
94980	KLDT-O5WB	51.919	UFOs	Blue thing apparently from just above midplane near or on the antennas?
94964	KLDT-O5WB	41.96688	UFOs	Frames: 99, 384 and 396 they are coming from different locations
94962	KLDT-O5WB	42.087	UFOs	Frame: 102-103. It seems to come out from the saddle coils ("lower sausages")
94949	KLDT-O5WB	47.30597	UFOs	UFOs seem to come from outer wall.
94940	KL11-P1DA	45.56151	UFOs	Repeated UFOs from tile 6
94939	KL11-P1DA	45.50092	UFOs	Severe UFOs from tile 6
94938	KL11-P1DA	46.98077	UFOs	Very severe UFO storm jsut before the disruption, probably coming from Tile 6
94921	KL11-P1DB	44.81823	UFOs	What is this?
94920	KL11-P1DB	45.27823	UFOs	There is a large UFO moving slowly between tiles 5 and 6
94917	KL11-P1DB	41.4	UFOs	At the starting of the discharge, the huge amount of UFO. Taking a look to the video is possible to appreciate that there are some deposits which are heated and go as UFO. After that...disruption happens. The UFO are seen in all the cameras and they are sometimes really big
94913	KLDT-O5WB	56.51011	UFOs	A lot of UFOs! (visible cam)
94913	KLDT-E5WC	56.389	UFOs	A lot of UFOs!
94912	KLDT-O5WB	49.31033	UFOs	
94911	KLDT-O5WB	56.57191	UFOs	UFOs during disruption
94911	KLDT-O5WB	51.08749	UFOs	UFOs in upper part of vessel
94911	KL11-P1DB	56.4374	UFOs	UFOs after disruption
94905	KLDT-O5WB	58.53658	UFOs	Wierd behaviour where UFO's hang in space for several frames, as if frames are overlapping. Frame function left on!
94905	KLDT-O5WB	58.53658	UFOs	Wierd behaviour where UFO's hang in space for several frames, as if frames are overlapping.
94904	KLDT-O5WB	58.14101	UFOs	Firework display throughout drawn out disruption
94896	KL7-P8WA	53.89	UFOs	UFOs flying into the plasma from the outer wall (?), followed by a disruption; seen brighter by KL1-O8WA
94892	KL11-P1DB	59.99	UFOs	Showers of UFOs in the divertor before and after a disruption

94891	KL11-P1DB	53.77	UFOs	Lonely UFO bouncing back and forth in the outer divertor after a disruption
94890	KL11-P1DB	61.43	UFOs	Material falling into the divertor after plasma contact with the outer wall
94889	KL11-P1DB	47.07	UFOs	UFOs entering the divertor at 47.07 s and 47.63 s
94888	KL11-P1DB	55.89	UFOs	A shower of UFOs launching from small hotspots on tile 7; more UFOs in the outer divertor at 59.07
94887	KL11-P1DB	51.25	UFOs	UFO bouncing on tile 8
94885	KLDT-O5WB	41.5562	UFOs	Frame: 88-90 and 117. Seem to originate from Outer limiter
94873	KL1-O8WA	47.24372	UFOs	Large flashes over a large area. Mixed impurities seen in spectroscopy.
94872	KLDT-O5WB	48.3002	UFOs	Very bright flare on one frame, outboard wall
94862	KL11-P1DB	42.498	UFOs	UFO
94860	KL11-P1DB	42.01845	UFOs	
94828	KLDT-O5WB	56.59	UFOs	Large UFO from the top in the usual titanium location.
94800	KLDT-O5WB	47.63704	UFOs	Frame: 240 found near Upper Dump Plate
94800	KLDT-O5WB	47.87722	UFOs	large UFO frame: 246, Identify as Al ₂ O ₃ . It looks as if falling from the top
94798	KL11-P1DA	45.58142	UFOs	Frame: 430 - shower of junk
94797	KLDT-O5WB	49.6775	UFOs	Identified as Ni Frames: 287-293
94797	KLDT-O5WB	49.6775	UFOs	Identified as Ni Frames: 287-293
94796	KLDT-O5WB	46.05712	UFOs	Frame: 201. Related to the gas puffing. According to SL, nothing to worry about
94794	KLDT-O5WB	46.63019	UFOs	on the inner guard limiter. Identified by the KLDT-E5WD as Be
94789	KL11-P1DB	48.53	UFOs	Toroidally symmetric (within the camera field of view) lift-off of explosive UFOs from tile 4; seen also with W I filter on KL11-E1DE
94788	KL11-P1DB	44.2	UFOs	Bright UFO flying through the inner divertor, followed by smaller ones around the divertor
94787	KL11-P1DB	50.27	UFOs	Material raining into the divertor after a disruption; seen also by KL13-P7SA and (possibly) KLDT-P5TB
94783	KL11-P1DB	50.89	UFOs	Shower of UFOs arising from the outer divertor, more UFOs at 49.35 s, 51.15 s, 51.37 s,
94750	KL11-P1DB	52.63769	UFOs	UFO in tiles 0/1

94749	KL11-P1DB	49.0	UFOs	There are a lot of UFOs in this shot
94747	KL11-P1DB	48.37798	UFOs	UFO towards the inner divertor. Then more UFOs during the discharge
94729	KLDT-O5WB	52.08911	UFOs	
94715	KL1-O8WA	53.65428	UFOs	Molybdenum
94658	KL11-P1DA	48.30074	UFOs	UFOs apparently from tile 5
94645	KL11-P1DA	55.72	UFOs	Low current disruption but lots of particles
94637	KLDT-O5WB	47.457	UFOs	Large UFO near Oct 4 beam duct / wOPLs. Another big bright flash at 50.579. The plasma doesn't seem to notice either?
94634	KLDT-O5WB	48.048	UFOs	UFOs near Oct 4 beam duct / limiters. More around 49.6,
94628	KL11-P1DB	54.91751	UFOs	Flying UFOs starting at 54.91751 and lasting several frames.
94623	KL11-P1DB	55.79745	UFOs	UFOs from T9 also visible from KL11-P1DA
94617	KL11-P1DB	48.37	UFOs	UFO activity in the inner divertor between 48.37-49.2 s; one launching from tile 7 at 53.15 s
94615	KLDT-O5WB	49.85	UFOs	UFO at the outer limiter; not seen in the protection cameras
94614	KLDT-O5WB	51.3	UFOs	UFO at upper dump plate; smaller one at 52.78; not seen in protection cameras
94614	KL11-P1DB	53.01	UFOs	UFO in the outer divertor; fireworks during disruption at 55.83
94613	KL11-P1DB	55.79	UFOs	Lots of UFOs in the divertor after disruption, seen also with W I filter on KL11-E1DF
94611	KLDT-E5WD	48.519	UFOs	
94608	KLDT-E5WD	47.6673	UFOs	Pedro was able to spot this (his credit)
94606	KLDT-E5WD	53.1616	UFOs	
94606	KLDT-E5WE	50.3163	UFOs	
94588	KL11-P1DB	56.2148	UFOs	UFOs from divertor after disruption.
94547	KLDT-O5WB	44.41449	UFOs	UFO coming from left for one frame
94532	KL11-P1DB	47.37805	UFOs	Strange UFO, looks like large thing.
94519	KL11-P1DA	51.041	UFOs	UFOs from the top of tile 8 (?) after the disruption.
94515	KL7-E8WB	51.1	UFOs	Cloud of slow-moving particles expelled from the outer wall
94514	KL11-P1DB	46.078	UFOs	UFOs coming from Tile 5 between stack B and C.
94511	KL11-P1DB	51.158	UFOs	UFOs from Tile 5 stack D
94511	KL11-P1DB	48.938	UFOs	UFOs from Tile 5 stack B
94506	KLDT-O5WB	47.773	UFOs	ILA hotspot / particles visible on

				OpCam before the mode lock / disruption.
94489	KL11-P1DA	56.8	UFOs	UFOs in Divertor followed by large W peak and disruption.
94476	KLDT-O5WB	51.485	UFOs	Large mystery UFO from somewhere near the mushrooms? Associated with huge bolometer spike but not much spectroscopy signal.
94476	KL11-P1DA	57.041	UFOs	UFOs liberated from delaminating curve/nose on Tile 7 at disruption.
94473	KL11-P1DB	48.698	UFOs	UFOs at both inner and outer strike points at disruption - UFOs go toroidally in the same direction as the plasma flow to the target!
94460	KL11-P1DA	49.221	UFOs	Similar to previous cleaning pulses: UFOs from tile 6 and a raised temperature limit.
94459	KL11-P1DA	49.0	UFOs	UFOs in later part of cleaning pools, temperature limit at 1200 to be sure to avoid hotspots on tile 6 stack D.
94458	KL11-P1DA	52.1	UFOs	UFOs from tile 6 when strikepoint is on the tile
94453	KL11-P1DB	44.0	UFOs	Many UFOs during clean up puls especially after 49s
94452	KL11-P1DB	52.0	UFOs	Many UFOs triggered by SPI also some earlier in the puls
94451	KL11-P1DB	41.5	UFOs	UFOs until the end of the puls nice fireworks
94448	KL11-P1DB	41.5	UFOs	Fireworks in the divertor (mostly from the low field side) going on until the disruption
94447	KL11-P1DB	51.918	UFOs	UFOs from tile 7 during disruption, more at 52.138 and especially in 52.5 also in kamera KL1-P4DB, KL11-P1DA, KL2D-P8TB
94442	KL7-P8WA	53.017	UFOs	UFO which is at the same time as the peak in Aluminium impurity
94437	KL11-P1DA	48.541	UFOs	Something falling to divertor and then producing UFO? Strange thing
94432	KLDT-O5WB	52.8	UFOs	A lot of UFOs like Christmas lightening
94430	KL11-P1DB	47.118	UFOs	Wc event on Tile 6 at 47.11s frames 507-509 and at 47.27s 515-516, also seeing by KL11-P4DA
94423	KL11-P1DB	53.418	UFOs	Some UFOs fly from the divertor
94422	KLDT-P5WA	52.158	UFOs	cloud of sparks from divertor
94422	KL11-P1DB	52.158	UFOs	UFOs from Tile 8 after disruption
94422	KLDT-O5WB	48.913	UFOs	Small UFOs in top left of frame
94408	KL1-O8WA	48.789	UFOs	Many UFOs probably from NBI 8 just

				before the disruption
94397	KL11-P1DA	52.181	UFOs	Unusual heating on the top of tile 8, seeming to give rise to extensive UFOs, followed by disruption several frames later.
94392	KLDT-O5WB	51.845	UFOs	Again UFOs near UDPT. They reappear regularly until 56.408 Titanium?
94392	KLDT-O5WB	49.923	UFOs	UFO in the outer wall closs to REION4
94387	KL11-P1DA	52.261	UFOs + Disruption	Lot of UFOs from divertor before and after the disruption. Before disruption UFOs seem to be coming from Tile 8
94386	KLDT-O5WB	54.758	UFOs	UFO near UDP lasting 1 frame 418. Titanium?
94386	KLDT-O5WB	54.238	UFOs	UFO near UDP lasting 1 frame 405. Titanium?
94386	KLDT-O5WB	53.917	UFOs	UFO near UDP lasting two frames 397-398. Titanium?
94381	KLDT-O5WB	50.331	UFOs	More Ti events, around ~8-10. Frame: 308
94380	KLDT-O5WB	50.859	UFOs	Identified as Ti, UDPT, Frame: 321 and continues with more events
94379	KLDT-O5WB	50.0157	UFOs	Identified as Ti, UPDT, Frame: 301, there are many more events (around ~10). There is a big one at frame: 341
94378	KLDT-O5WB	53.527	UFOs	Identified as Ti, UDPT, Frame: 387
94378	KLDT-O5WB	52.486	UFOs	Identified as Ti, UDPT, Frame: 361
94378	KLDT-O5WB	50.885	UFOs	Identified as Ti, UDPT, Frame: 321
94377	KLDT-O5WB	53.418	UFOs	Frame: 385, near the ILA?
94377	KLDT-O5WB	54.139	UFOs	Identified as Ti, UPDT, Frame: 403
94376	KLDT-O5WB	51.157	UFOs	Identified as Ti, UPDT, approximately seven events starting from Frame: 328,
94375	KLDT-O5WB	53.291	UFOs	Identified as Ti, UDPT, Frame: 381 and subsequently again at Frame: 406 and then at frame: 462
94374	KL1-O8WA	54.477	UFOs	Identified as Fe, Frame: 413
94374	KLDT-O5WB	50.255	UFOs	Titanium falling from the top Frame: 306-308
94373	KL1-O8WA	52.802	UFOs	Falling down from outer wall Frame: 369
94368	KLDT-O5WB	54.113	UFOs	Frame: 402
94366	KLDT-O5WB	40.259	UFOs	Not sure if UFOs coming from Reionisation tile
94365	KLDT-O5WB	51.4	UFOs	Ni
94363	KL11-P1DB	51.258	UFOs	Shower of UFOs corresponding to W influx.

94358	KL11-P1DB	50.24	UFOs	Alot of UFOs in the puls also at 51.16, 52.88 for this camera
94357	KL11-P1DB	50.538	UFOs	Strange UFO possibly from tile 7
94352	KL11-P1DB	46.2	UFOs	UFOs during the pulse followed by disruption and more UFOs also hotspots before UFOs are formed
94351	KLDT-P5TB	63.7	UFOs	UFOS's from Tile 6 followed by disruption also in KL11-P1DB, KL1-P4DB, KL11-P1DA ...
94350	KLDT-P5TB	64.734	UFOs	Massive cloud of UFO coming from tile 6 (M14T6B) at the moment of the disruption
94347	KL1-P4DB	54.358	UFOs	Visible UFO flying off from the outer divertor
94328	KLDT-O5WB	40.849	UFOs	Cloud of UFOs from inner poloidal limiter
94314	KL11-P1DB	51.658	UFOs	UFO. Also, the temperature in DVWC (tile 6) up to 900 C and also in DVWB. Put attention in the next discharge
94314	KL11-P1DB	51.658	UFOs	UFOs orginated from Tile 6
94292	KLDT-O5WB		UFOs	PLasma interacting with ILA frame, Camera Frame: 61 @40.452s
94292	KLDT-O5WB		UFOs	PLasma interacting with ILA frame, Camera Frame: 61 @40.452s
94251	KL11-P1DB	50.398	UFOs	UFO flying through the divertor
94247	KL11-P1DA	53.002	UFOs	UFOs in t + 52 s. On the other hand, once the SP moves outwards the tiles5 and 6 become hot.
94246	KL11-P1DB	48.478	UFOs	UFOs, very clear (also another one at t _ 48.658)
94232	KLDT-O5WB		UFOs	Ti from the top @ Frame: 103 and temperature peak (775C) on the ILA antenna @ Frame: 109
94219	KL11-P1DB	51.978	UFOs	Very large number of UFOs from top of outer divertor during disruption.
94215	KL11-P1DB	55.497	UFOs	Large number of UFOs from top of the divertor due to disruption - continues until about 57.1s
94214	KL11-P1DB	48.198	UFOs	Several bursts of UFOs from Tile 6 between 48.2 - 48.3s, and one from inner target at 48.2.
94212	KLDT-O5WB		UFOs	Frame: 231, Time: 47.250s
94211	KLDT-O5WB		UFOs	Frame: 221, Time: 46.855s
94211	KLDT-O5WB		UFOs	Frame: 286, Time: 49.457, Ti falling from UDPT
94209	KLDT-O5WB		UFOs	frame: 329; Time: 51.186s; Titanium influx confirmed by spectroscopy
94208	KLDT-O5WB		UFOs	Frames: 277-281, Time: 49.149, UFOs at the UDPT, possibly Ti?

94207	KLDT-O5WB		UFOs	Frame: 337-338, Time: 51.557, UFOs flying near Outer limiter
94206	KLDT-O5WB		UFOs	Frame: 323, material falling from the top
94182	KLDT-O5WB	48.825	UFOs	Ti influx
94181	KLDT-O5WB	49.902	UFOs	Ti influx
94174	KLDT-O5WB	61.14	UFOs	Ti influx
94171	KL11-P1DA	51.401	UFOs	UFO on inner side of image starting frame 721
94161	KLDT-O5WB	48.41	UFOs	Ti to the side of the upper dump plate. Could be KL10
94135	KLDT-O5WB	49.621	UFOs	UFO at top of machine
94131	KL11-P1DA	53.241	UFOs	Giant UFO starting 53.241
94129	KL1-O8WA	53.007	UFOs	Various blurred UFO's until 53.407
94129	KLDT-O5WB	52.865	UFOs	UFO at top.
94129	KLDT-O5WB	48.702	UFOs	Big UFO appears to fall from the top over several frames. Also small UFOs on outboard and inboard)
94098	KL1-O8WA	42.21	UFOs???	Not sure what this is. Starts at 42.210 and lasts for several frames
94098	KL1-O8WA	40.17	UFOs	Starts at 40.170 for two frames (56-57)
94093	KLDT-O5WB	48.979	UFOs	
94089	KLDT-O5WB	51.38	UFOs	Big UFO visible at 51.34, 51.38, 51.42 (also UFOs at 47.97, 49.01, 49.05, 49.73, 49.77, 50.37, 50.93s)
94087	KLDT-O5WB	48.504	UFOs	UFOs mostly at the top near upper dump plates @ 48.50, 51.26, 51.30, 51.98, 52.42, 52.98s
94086	KLDT-O5WB	50.71	UFOs	Nice UFO (also at 50.87, 51.03, 51.31, 52.23, 52.27s)
94085	KLDT-O5WB	50.226	UFOs	UFOs near REION plates in Oct 4 (also in the next frame at 50.266)
94085	KLDT-O5WB	52.348	UFOs	Big UFO at the top (also at 48.50, 48.78, 49.10, 49.38, 49.42, 52.62, 55.19, 55.71, 56.51s)
94048	KLDT-P5TB	44.886	UFOs	Many UFOs from T6 starting at this time. Even the slope on T6 seems to be a disaster area for impurities : (
94045	KLDT-P5TB	50.008	UFOs	Lots of UFOs from extension tile again...conditioning!
94044	KLDT-P5TB	45.797	UFOs	Lots of UFOs liberated from M14T6B (extension tile). Looks like we're cleaning up that tile extension! But it was bad news for the plasma which disrupted.
94043	KL11-P1DB	50.258	UFOs	Spidery exploding UFO at inboard divertor.
94040	KL11-P1DB	46.798	UFOs	Nice bouncing UFOs produced by

				disruption.
94031	KL11-P1DB	49.138	UFOs	Lots of UFOs above tile 1 after 49.138 s and on tile 5 at 52.498 s
94009	KL11-P1DB	49.518	UFOs	UFO for 2 frames
93933	KL11-P1DA	52.181	UFOs	DIVM07T6A hotspot disappears as UFO
93929	KL11-P1DB	47.138	UFOs	UFOs in the divertor at 47.138 s and 51.278 s
93928	KL11-P1DB	51.578	UFOs	UFO lifting off from the outer divertor
93927	KL11-P1DB	52.218	UFOs	Bright UFO lifting off from a hotspot on tile 8
93922	KL11-P1DB	44.918	UFOs	UFOs bouncing on tile 5 at 44.918 s and 46.398 s
93920	KL11-P1DB	43.998	UFOs	UFOs fly into the divertor at 43.998 s, 44.098 s and 44.838 s
93919	KL11-P1DB	51.018	UFOs	Lots of UFOs dancing in the divertor
93916	KL11-P1DB	55.857	UFOs	Firework-like UFOs after disruption
93915	KL11-P1DB	47.378	UFOs	UFO lifting off from tile 8
93913	KLDT-O5WB	56.699	UFOs	UFO taking off vertically from Tile 5
93901	KL11-P1DB	53.778	UFOs	Particularly good bouncing UFO enters the view with a parabolic trajectory before bouncing off tiles 7, 6 and 5.
93831	KL11-P1DB	46.319	UFOs	UFO bouncing from tile 1
93772	KL11-P1DB	54.458	UFOs	Loads of material flying off from outer divertor before disruption
93770	KL11-P1DB	53.178	UFOs	UFO lifting off from outer divertor
93738	KL11-P1DB	53.038	UFOs	Eruption from a spot on tile 8
93738	KLDT-P5TB	48.911	UFOs	UFOs from tile 6
93738	KL11-P1DB	42.778	UFOs	9 frames in divertor zone
93737	KLDT-P5WA	47.576	UFOs	Apparent hotspots left on the inner and outer wall after the disruption (runaways??)
93737	KL13-P7SA	47.621	UFOs	UFOs seen against background of IWGL. 10 frames
93737	KL11-P1DB	47.518	UFOs	UFOs in divertor zone starting just before the divertor flash
93736	KL11-P1DA	57.422	UFOs	Large spray of UFOs in divertor zone
93736	KL11-P1DB	57.417	UFOs	Large spray of UFOs in divertor zone
93727	KLDT-O5WB	50.928	UFOs	UFOs close to LH frame (Frames 322-324)
93714	KLDT-E5WE	52.668	UFOs	Series of UFOs possibly from outer limiters - largest one spectacularly explodes! Also seen on KLDT-O5WB.
93710	KLDT-O5WB	49.711	UFOs	Small UFO near the outboard

				midplane.
93651	KL12-O1WC	41.295	UFOs	Frames = 84-85
93532	KLDT-E5WD	50.522	UFOs	UFO also visible here
93532	KLDT-O5WB	50.5	UFOs	UFO in frames 312 and 313
93531	KLDT-O5WB	45.727	UFOs	UFO appears in frame 193.
93530	KLDT-O5WB	42.178	UFOs	Small white smudge moves around for 3 frames
93446	KL11-P1DB		UFOs	UFO at 51.778s and hotspot outside ROI
93395	KL1-O8WA	49.709	UFOs	Something "flying" from inner wall. It only lasts for two frames (294-295).
93348	KL11-P1DB	45.118	UFOs	UFO bouncing from T8
93315	KL12-O1WC	42.286	UFOs	Not sure what it is on the inner wall.
93305	KLDT-O5WB	44.1	UFOs	UFO bouncing in the divertor; seen also (less clearly) with KLDT-P5WA
93304	KL11-P1DB	47.679	UFOs	Sparky UFOs lifting off from tile 8 during a disruption; also seen with KL11-P1DA
93302	KL11-P1DB	55.419	UFOs	UFO lifting off from tile 4
93283	KL11-P1DB	47.538	UFOs	Bouncing UFO hitting tile 1 @ frame 529
93276	KLDT-O5WB		UFOs	UFOs spotted at frames 67-68 and 71
93273	KLDT-O5WB	40.3	UFOs	Frame 57 UFO spotted at IWGL side and @ frames 65-66 UFOs or dropping particle from the upper side of vessel
93265	KL12-O1WC	73.457	UFOs	Particularly impressive UFO arrives in the view toroidally in the divertor, then bounces off the outer divertor, inner divertor, up the inner wall and up to the top, breaking up on the way.
93234	KLDT-O5WB	52.653	UFOs	First divertor pulse - disrupts generating particles seen in operations cam. Hotspot also visible in WiDy for one frame. Could have been due to slideaway electrons caused by low density.
93211	KL7-P8WA		UFOs	t=56.2s a UFO is seen coming out of the RF antenna - well after the RF power is switched off. Appears as blue UFOs on KLDT-O5WB.
93195	KL11-P1DB	41.95	UFOs	UFO in the divertor
93173	KL11-P1DB		UFOs	UFO at 55.477s
93160	KLDT-O5WB	53.419	UFOs	Big blob of copper from Oct 4 NBI leading to disruption, very clear on KLDT-O5WB.
93138	KL11-P1DB	59.39	UFOs	Explosive UFO lifting off from the corner of tiles 4 and 5

93138	KL11-P1DB	57.3	UFOs	UFO in the divertor
93016		46.2	UFOs	UFOs on the HFS at 46.2 s, 51.6 s and 59.6 s
93015	KL12-O1WC	67.685	UFOs	UFO near upper HFS wall
92845	KL7-P8WA	60.0	UFOs	Blob of Fe radiation (according to spectroscopy) in outboard side octant 1 or 2
92834	KL11-P1DB	50.3	UFOs	Bright UFOs in the divertor during 50.3-51.7 s; occasional weaker ones through the rest of the pulse
92833	KL11-P1DB	50.0	UFOs	Lots of UFOs in the divertor from 50.0 s until the end of pulse
92832	KL11-P1DB	57.0	UFOs	Bright UFOs in divertor; also seen on KL11-P1DA
92812	KL13-P7SA	42.261	UFOs	Impressive UFOs lasting several frames.
92812	KLDT-O5WB	42.212	UFOs	They last for several frames.
92774	KL11-P1DB	46.49	UFOs	UFO traveling from tile 4 to tile 5 (frames 476-478). Inner strike point on tile 4, may have hit bottom edge of tile 3.
92760	KL12-O1WC	44.254	UFOs	Again UFOs in the inner wall as seen before. Mybe reflection??
92758	KL12-O1WC	42.223	UFOs	UFOs on the inner wall
92755	KL12-O1WC	59.112	UFOs	UFOs on the inner wall
92754	KL12-O1WC	58.606	UFOs	UFOs start at 58.606 and continue to end of the pulse at 59.926s.
92749	KL12-O1WC	60.086	UFOs	Usual UFOs
92747	KL12-O1WC	52.2	UFOs	More UFOs on than the previous due to higher upper triangularity
92745	KL12-O1WC	60.625	UFOs	Small UFO as before
92741	KL12-O1WC	41.08	UFOs	More UFOs on high field side, particularly big one early on.
92740	KL12-O1WC	66.9	UFOs	UFO on the HFS
92739	KL12-O1WC	65.0	UFOs	UFOs on the HFS
92738	KL12-O1WC	57.5	UFOs	UFO on the HFS
92736	KL12-O1WC	51.8	UFOs	Two massive UFOs on the HFS
92735	KL12-O1WC	47.5	UFOs	Many UFOs on HFS
92728	KL11-P1DB	54.96	UFOs	UFOs starting frame 899
92723	KL11-P1DB	885.0	UFOs	UFOs at frames 885-6, 1115, 1123, 1147-8
92710	KL12-O1WC	53.718	UFOs	UFO on the outer wall on frames 394-395 and on the inner wall on frames 352, 354, 769.
92709	KL12-O1WC	64.26	UFOs	Big UFO on the inner wall at 64.26s and small UFOs on frames 796-798.
92708	KL11-P1DB	65.46	UFOs	Stack B bouncing UFO creates new hotspot

92462	kl11-p1da	50.141	UFOs	From Frame #658 to #675 (Divertor)
92461	kl7-e8wb		UFOs	Lots of UFOs from frame #963
92458	kl7-e8wb	48.155	UFOs	UFO coming down tangentially from UDP (from 48.155s to 48.259s)
92441	kl11-p1db	49.758	UFOs	UFOs from tile 4
92437	kl11-p1db	54.975	UFOs	Dust shaken loose by disruption.
92410	kl14-p5wa	51.261	UFOs	The temperature of the IWGL increases as well as the UPDT. But it is due to this event
92405	kl11-p1db	50.958	UFOs	Nice UFOs due to sweeping between T5 and T6. Specially large at 51 s.
92394	kl11-p1db	41.9	UFOs	several UFOs
92379	kl14-p5wa	50.301	UFOs	Some UFOs from divertor (tile 6 at 49.91 sec and other UFOs at 50.301 sec)
92377	kl11-p1da	56.14	UFOs	Some UFOs from tile 9 after the disruption
92305	kl11-p1db	46.9	UFOs	UFO ending under tile 5
92270	kl11-p1db	55.478	UFOs	Many UFOs from tile 8-9
92269	kl11-p1db	50.018	UFOs	Many UFOs from tile 8-9 after disruption
92253	kl1-p4da	49.062	UFOs	Several particles from divertor over next few seconds
92246	kl11-p1db	45.398	UFOs	Disruption hit tile 8 and liberated lots of stuff
92239	kl11-p1db	49.498	UFOs	
92239	kl1-p4db	51.101	UFOs	There is an UFO that just before the disruption.
92233	kl14-o5wc	45.7	UFOs	UFO/glow
92230	kl11-p1db	49.5	UFOs	very nice UFOs
92221	kl11-p1db	44.5	UFOs	UFOs at 44.5s
92221	kl11-p1db		UFOs	Source of UFOs possibly hotspot 0
92217	kl11-p1db	47.578	UFOs	A big UFO from tile 6
92216	kl11-p1db	50.538	UFOs	some UFOs from tile 6 between 48.6 and 50.6 s
92215	kl11-p1db	53.798	UFOs	many UFOs after disruption
92214	kl11-p1db	48.998	UFOs	many UFOs from tile 6
92213	kl11-p1db	49.818	UFOs	many UFOs from tile 6 and 7
92208	kl14-p5wa	46.241	UFOs	an event near the outer wall [2 frames]. Same time, also in kl1-p4db something can be seen.
92207	kl11-p1da	50.08	UFOs	event from the divertor (probably impurities) [3 frames]
92207	kl11-p1da	49.74	UFOs	event from the divertor (probably impurities) [3 frames]
92205	kl11-p1da	49.121	UFOs	An event (impurities probably) from

				the divertor (3 frames)
92185	kl11-p1db	43.538	UFOs	Not sure it is UFOs or dust. The event lasts for few frames before the disruption. Reported to the SL.
92183	kl14-o5wc	49.319	UFOs	Not sure it is a UFO or just reflection.
92116	kl11-p1db	49.638	UFOs	Very large number of UFOs, mainly from T5 with some from T6 etc, plenty of Tungsten in the plasma.
92116	kl14-o5wc	47.744	UFOs	Various man chamber UFOs between 47 - 49s, some look like they come from Oct 4 NBI duct but others look like they enter the plasma near the LH antenna. Also saw on KL10-P4LA live display but this camera does not record data.
92066	kl14-o5wc	55.66	UFOs	UFOs starting at 55.45
92050	kl11-p1db	47.718	UFOs	One UFO from tile 8 to tile 1
92049	kl11-p1db	49.738	UFOs	Some UFOs after disruption from tile 6
92049	kl11-p1db	45.158	UFOs	A small UFO from tile 7
92036	kl11-p1db	46.578	UFOs	Multiple UFOs from tile6 and tile 5 (46.578s). Cleaning of tiles.
92035	kl11-p1db	50.278	UFOs	Multiple UFOs from tile5. Cleaning of tiles.
92034	kl11-p1db	52.278	UFOs	Multiple UFOs from tile5. Pulse for cleaning of tiles.
92001	kl11-p1db	53.758	UFOs	UFOs at several times in divertor
91991	kl2d-p8tb	49.222	UFOs	UFOs
91991	kl11-p1db	51.178	UFOs	UFOs *before* disruption
91990	kl2p8tb	53.601	UFOs	Many UFOs after disruption
91990	kl11-p1da	53.5	UFOs	Many divertor UFOs during disruption
91945	kl14-o5wc	47.796	UFOs	Series of 5 UFOs at top of plasma: 47.796s, 48.516s, 50.116s, 51.235s, 51.515s,
91863	kl11-p1db	48.638	UFOs	UFO emerging from under tile 7. Another one at 48.938
91795	kl14-o5wc	55.619	UFOs	"Big" piece of "something" @55.619
91791	kl14-o5wc	55.588	UFOs	Very tiny sparks @55.588
91749	kl14-p5wa	44.621	UFOs	Particularly large Cu blob from Oct 4 NBI, seen by KL14 PIW and Op cams.
91742	kl1-p4db	44.521	UFOs	Copper UFO from Oct. 4 NBI, seen on both KL14 (operation and PIW) and in the foreground on KL1-P4DB.
91715	kl14-o5wc	42.012	UFOs	UFO just above divertor
91714	kl14-o5wc	41.411	UFOs	UFO
91696	kl14-p5wa	57.341	UFOs	Large particle enters top of plasma prior to disruption.

91542	kl11-p1db	50.338	UFOs	UFO found near tile 1
91536	kl11-p1db	53.838	UFOs	UFOs in tile 6
91525	kl11-p1db	55.638	UFOs	UFO from tile 4 to outer divertor, frames 933-941
91512	kl11-p1db	56.477	UFOs	Nice UFO. Added to the "VSO Picture of the Session" wiki page.
91497	kl14-o5wc	52.886	UFOs	Spectacular injection of Cu from Octant 4 NBI causing disruption, also visible on KL1-O4WB and KL14-P5WA.
91452	kl14-p5wa	53.321	UFOs	UFO, probably Cu (seen in spectroscopy)
91443	kl11-p1da	53.021	UFOs	Cu impurity
91380	kl14-o5wc	59.815	UFOs	UFO frame 572 between UDP and IWGL top
91378	kl14-o5wc	58.155	UFOs	UFO frame 530 close to BEIO
91343	kl14-o5wc	44.945	UFOs	Copper from Oct 4 NBI again, smaller than previous pulses. Large UFO just after on KL1 divertor, maybe same thing?
91341	kl14-p5wa	44.721	UFOs	Copper from NBI
91340	kl14-o5wc	44.716	UFOs	Copper from NBI
91334	kl11-p1db	46.958	UFOs	UFO from left of view
91331	kl11-p1da	47.54	UFOs	UFO's flying from Tile#6 upwards (frames 528-533)
90932	KL7-E8WB	59.765	UFOs	Dust events (frames 1292-1298)
90924	kl1-o8wa	60.087	UFOs	UFO event just in front of KL7 endoscope, seen by PIW, Operations and experiment cameras. Coincident with alumina in plasma.
90919	kl14-o5wc	57.026	UFOs	Main chamber UFOs at 57.026, 60.066 and 60.626, the second two correlate with observed Ti events.
90907	kl11-p1db		UFOs	UFOs, camera: kl11-p1db, frames: 1090-1094
90793	kl14-o5wc	51.044	UFOs	Large main chamber UFO on KL14.
90787	kl11-p1db	43.898	UFOs	Large number of UFOs enthusiastically liberated from the top of Tile 8 by the disruption.
90702	KL1-O4WB		UFOs	Particles falling from the upper dump plates towards the divertor? (Time 59.140s and 59.180 s)
90659	KL11-P1DB	49.658	UFOs	Lots of UFOs on KL11-P1DB/KL11/P1DA after disruption
90322	KL11-P1DB	48.558	UFOs	Lot of UFOs at 48.6s after disruption.
90319	KL11-P1DB	51.678	UFOs	Lot of UFOs after disruption (51.6s)
90290	KL11-P1DB	45.858	UFOs	large UFOs from divertor, frames 444-449

90250	KL11-P1DB		UFOs	Lots of UFOs between 48 to 49s
90231	KL11-P1DA	50.981	UFOs	UFOs in divertor
90193	KL11-P1DB	46.238	UFOs	Particle events linked to radiation events.
90190	KL11-P1DB	45.478	UFOs	Particle events linked to radiation events.
90188	KL11-P1DB	45.698	UFOs	Particles emitted from usual place follow ELM at 45.658 W radiation event follows.
90184	KL11-P1DB	47.338	UFOs	Particle might be cause of event....or not?
90170			UFOs	Main chamber UFOs at 44.805s on KL14-O5WC. Some divertor UFOs around 45.478 on KL11-P1DB, correlated with W in plasma.
90168	KL14-O5WC	45.178	UFOs	Big main chamber UFO event visible on KL14 operation and protection cameras. Correlated with impurity event in plasma.
90104	KL11-P1DA	51.1	UFOs	Something liberated from T8 became UFOs.
89975	KL7-P8WA	53.177	UFOs	Cu injected from oct 8 NBI
89871	KL11-P1DB	51.258	UFOs	Bright UFO at the top of the image on KL11. Similar thing dimly visible on KL14-P5WA about 14 frames earlier.
89870	KL7-E8WB	50.628	UFOs	Various UFOs visible on KL7 after disruption.
89701	KL11-P1DB	51.318	UFOs	UFO liberated from Tile 6 on KL11-P1DB
89635	KL11-P1DB	55.338	UFOs	UFO's divertor 55.3s
89607	KL11-P1DA	50.801	UFOs	W event from tile 6; nice after pulse UFOs too
89604	KL11-P1DB	50.761	UFOs	impurity explosion from tile 6
89501	KL2D-P8TB	53.381	UFOs	Various UFOs from Tile 6 starting at this time on KL2D, KL11 and KL1 - pulse stopped on impurity peaking.
89472	KL2D-P8TB	49.0	UFOs	Many UFOs leading to disruption. Looks like some are particles lifted off Til5 ? Mainly KL2D-P8TB from 49s onwards.
89458	KL1-P4DB	46.761	UFOs	Same situation than before (near ROI13). Then plasma disrupts
89457	KL1-P4DB	46.741	UFOs	It seems that something is plucked off from tile 6 and then heats it.
89448	KL11-E1DF	53.147	UFOs	UFO starting at 53.147 s and 53.944 s
89441	KL11-P1DB	57.617	UFOs	UFO from Tile 6 may cause bad termination
89440	KL11-P1DB	59.137	UFOs	DIMPLE: KL11-P1DB sees UFOs at frame 1108 which seem to cause

				disruption.
89325	KL11-P1DA	54.161	UFOs	UFO at 54.161 sec
89317	KL11-P1DB	43.081	UFOs	UFO heats tiles 6 and 7 just before disruption
89266	KL11-P1DA		UFOs	UFO's at frames numbers 543-546. Inner tiles and tile 6
89265	KL11-P1DA		UFOs	UFO's at frame numbers 546- 548 coming from inner vertical tiles
89243	KL11-P1DB	53.779	UFOs	UFO bouncing 3 times toroidally around
89239			UFOs	Tungsten particles from T6 led to disruption.
89239	KL11-P1DB	54.319	UFOs	Tungsten particles from T6
89237	KL11-P1DB	51.479	UFOs	Unusual shape UFO
89132	KL14-P5WA	46.9	UFOs	UFO at 46.9 sec
89127	KL11-P1DB	54.619	UFOs	UFOs during disruption frame 882, originating from B&C tiles
89111	KL1-P4DB	54.061	UFOs	Blobs seemingly originating in the Inner Divertor - related to the disruption? Coincident with Argon event.
89020	KL14-P5WA	57.421	UFOs	Cu from octant 4 NBI
88973	KL14-O5WC	41.813	UFOs	particles falling down at plasma start-up
88891	KL11-P1DA	52.361	UFOs	2 UFOs prouting from Tile 8 on frame 769
88888	KL11-P1DB	52.699	UFOs	UFO flying across tile #5 and hits tile#6 and desintegrate camera (Frames: 786-788) Time:52.699
88846	KL14-P5WA	48.801	UFOs	Cu from octant 4 NBI leading to disruption
88808	KL11-P1DB	53.339	UFOs	Event at 53.34 which ejects particles from Tile 6, also a big UFO coming round the torus in to KL11 FOV.
88759	KL11-P1DB	63.858	Hotspots	Hotspot flies off surface > frame 1340 onwards
88720	KL14-P5WA	50.56	UFOs	iron/alum. blob falling down in oct 4
88719	KL14-P5WA	58.4	UFOs	big copper from oct 4 NBI, but survived
88718	KL11-P1DB	50.22	UFOs	tile 6 dirt exploding
88717	KL11-P1DB	59.16	UFOs	tile 6 dirt exploding
88717	KL11-P1DB	49.72	UFOs	tile 6 dirt exploding
88716	KL11-P1DB	50.7	UFOs	tile 6 dirt exploding
88716	KL11-P1DB	59.16	UFOs	tile 6 dirt exploding
88716	KL11-P1DB	61.22	UFOs	tile 6 dirt exploding
88716	KL11-P1DB	51.96	UFOs	tile 6 dirt exploding
88716	KL11-P1DB	50.7	UFOs	tile 6 dirt exploding

88692	KL1-P4DB	62.0	UFOs	A lot of particles coming out of divertor on KL11 cameras between 62s and disruption at 62.18s
88687	KL11-P1DB	52.259	UFOs	Large UFO shower on KL11 seen at disruption 52.259 - effect not cause
88610	KL14-P5WA	49.781	Comments	particles from oct. 4 NBI cause disruption
104566	KLDT-P5TB	58.62	UFOs	Looks like some sort UFO or an impact on divertor tile, seems to split into multiple objects though there is low detail
104552	KLDT-O5WB	54.0806	UFOs	White UFO seen on outerwall (one frame) and then at 55.88596s some blueish UFOs (3 frames).
104551	KLDT-O5WB	48.69263	UFOs	Some UFOs flying around the vessel during the whole pulse (very likely Be and Ti).
104549	KLDT-O5WB	41.1179	UFOs	Blue UFO seen during the breakdown close to tile 10 also seen by protection camera KLDT-P5WA.
104523	KLDT-O5WB	53.61013	UFOs	UFO on the outerwall close to the WOPL, seen also by KLDT-E5WD
104520	KLDT-O5WB	51.78857	UFOs	UFO seen on outerwall also at 54.27s. During all pulse a few UFOs seen also on UDPT the biggest one at 52.99s.
104518	KLDT-O5WB	49.1504	UFOs	UFO on UDPT (Ti according to JETDSP), also seen by KLDT-E5We camera (few frames) and also one frame by KLDT-E5WD camera.
104513	KLDT-E5WD	42.7	UFOs	Several UFO's observed over ~3 seconds at the start of the pulse. Not visible with the protection camera.
104498	KLDT-O5WB	54.44235	UFOs	Usual flurry of UFOs
104496	KLDT-O5WB	54.57558	UFOs	UFO seen near outer wall
104495	KLDT-O5WB	55.37656	UFOs	The usual light show - a fair few UFOs seen throughout pulse
104494	KLDT-O5WB	54.63905	UFOs	UFO seen near outer wall
104465	KLDT-O5WB	53.65956	UFOs	UFOs spotted b/w frames 390-411 around UPDP
104465	KLDT-O5WB	51.53241	UFOs	There is a big bright blob in frame 337
104464	KLDT-O5WB	41.78479	UFOs	UFO spotted in frames 94 & 127
104462	KLDT-O5WB	54.1327	UFOs	UFOS coming from outerwall during disruption seen also by KLDT-E5WD camera.
104460	KLDT-O5WB	48.52784	UFOs	Yellow UFO on the outboard side over few frames (no information on the spectroscopy about it).
104458	KLDT-O5WB	40.37591	UFOs	Small UFO visible during the

				breakdown but also seen by KLDT-P5WA camera.
104455	KLDT-O5WB	47.74825	UFOs	UFOs appeared on UDPT (Ti).
104454	KLDT-O5WB	50.63962	UFOs	Huge UFO appeared on UDPT but smaller UFOs begun to appear as early as around 48.75s.(very likely Ti according to JETDSP).
104446	KLDT-O5WB	56.64148	UFOs	Release of particles from divertor region. Benign event with no significant heat loads
104417	KLDT-O5WB	49.962	UFOs	Large number of UFOs throughout pulse
104409	KLDT-P5TB	52.28071	UFOs	Debris in the diverter just before disruption.
104409	KLDT-O5WB	50.47418	UFOs	Bright spot on outer wall component.
104406	KLDT-O5WB	48.08302	UFOs	UFO's around reionisation plate and falling from UDPT for the majority of the pulse, as seen in previous session. Probably Ti.
104398	KLDT-O5WB	47.38488	UFOs	Another flurry of Titanium UFOs up until the disruption at 49.39189s.
104397	KLDT-O5WB	47.41223	UFOs	Same flurry of Titanium UFOs due to kicks until the disruption at 51.98817s. Look at tile 9 on frame 347.
104396	KLDT-O5WB	47.44786	UFOs	Flurry of Titanium UFOs lasting until the disruption at 48.41107s
104395	KLDT-O5WB	47.35676	UFOs	Many many Titanium (and a few Berillium)events until the disruption at 56.067s
104392	KLDT-O5WB	50.05964	UFOs	Large UFO's being continuously generated by the UDPT. Similar even observed throughout the session.
104390	KLDT-O5WB	47.63654	UFOs	UFO's falling from the UDPT's for the rest of the pulse.
104389	KLDT-O5WB	51.40242	UFOs	Flakes of Ti around UDPT and UFO's before disruption.
104386	KLDT-O5WB	70.11277	UFOs	Bright spot, disruption and lots of UFO's.
104383	KLDT-O5WB	45.16352	UFOs	A few small UFO's which may have led to the disruption.
104383	KLDT-O5WB	42.03335	UFOs	UFO hits outer diverter creating splash pattern.
104382	KLDT-O5WB	58.30218	UFOs	A couple of UFO's in the diverter for the first pulse of the day.
104336	KLDT-O5WB	53.45166	UFOs	Rather funky looking UFO's cloud flying everywhere for two frames after distrupction in divertor area.
104335	KLDT-O5WB	60.02173	UFOs	Lots of UFO's at end of pulse, frame 544 to 549

104329	KLDT-O5WB	53.51553	UFOs	A few single frame UFO's
104315	KLDT-O5WB	57.57825	UFOs	Many Ti UFOs for half a second
104314	KLDT-E5WE	41.04429	UFOs	Nifty UFO that splits into 3 parts.
104291	KLDT-P5TB	59.03907	UFOs	UFOs in divertor starting just before the disruption.
104289	KLDT-O5WB	46.06	UFOs	Multiple UFOs from upper dump plate 46-48s
104279	KLDT-O5WB	48.07181	UFOs	For over half a second, many UFOs coming from Outer limiters
104275	KLDT-O5WB	47.86936	UFOs	Several UFOs for a second
104262	KLDT-O5WB	51.29	UFOs	Significant UFOs throughout pulse, specifically around outer wall limiters, interesting looking one at specified time
104230	KLDT-O5WB	54.36047	UFOs	Numerous UFOs through out pulse
104229	KLDT-O5WB	51.9415	UFOs	Minor UFOs from Inner wall guard limiter beam
104228	KLDT-O5WB	49.43048	UFOs	Multiple UFO's throughout pulse
104223	KLDT-O5WB	50.67029	UFOs	UFO on frame 315 and near diverter on frames 382 & 384
104217	KLDT-O5WB	49.77208	UFOs	Quite a spectacular showing of UFOs throughout pulse as usual
104216	KLDT-O5WB	48.53615	UFOs	Quite a spectacular show of UFOs seen throughout pulse, especially in divertor region.
104213	KLDT-O5WB	56.35641	UFOs	Another cleaning pulse so a lot of UFOs seen as expected
104211	KLDT-O5WB	53.54128	UFOs	Some more UFOs seen throughout pulse - appear to mostly be seen near upper dump plate.
104210	KLDT-O5WB	40.71585	UFOs	A lot of UFOs seen throughout pulse, which makes sense since it was a cleaning pulse
104206	KLDT-O5WB	47.89729	UFOs	Quite a few UFOs during disruption, possibly coming from the reionization plate
104204	KLDT-O5WB	48.20646	UFOs	Bright Titanium UFO seen falling into plasma - confirmed via spectroscopy
104201	KLDT-O5WB	42.4445	UFOs	Bright UFO near upper dump plate, which then explodes
104199	KLDT-O5WB	50.62439	UFOs	Frame: #314 at the outer wall
104199	KLDT-O5WB	50.42392	UFOs	Frame: #309 at the UDPT
104199	KLDT-O5WB	50.34362	UFOs	Frame: #307
104195	KLDT-O5WB	50.01548	UFOs	UFOS events on the lower field side extending from frames: #298 to #303 but the unusual one takes place at frame number #299
104177	KLDT-O5WB	50.92715	UFOs	UFOs spotted b/w 50.6s- 51.0s
104176	KLDT-O5WB	51.1745	UFOs	several UFOs spotted between

				51.1-53.3s
104174	KLDT-O5WB	50.68639	UFOs	Several UFOs around upper dump plate from 50s-55s
104173	KLDT-O5WB	50.23474	UFOs	several UFOs spotted mainly around UDPL from 50.2-56.7s
104172	KLDT-O5WB	40.23552	UFOs	Weird blue streak at 40.235s and several UFOs spotted b/w 51.9s-54.6s
104143	KLDT-O5WB	51.57829	UFOs	Large sparkle seen near upper dump plate - splits off into multiple UFOs
104143	KLDT-O5WB	51.41776	UFOs	Multiple UFOs seen around reactor
104143	KLDT-O5WB	50.85563	UFOs	UFO seen on inner wall
104137	KLDT-O5WB	46.45	UFOs	bright UFO near upper dump plate
104129	KLDT-O5WB	53.80412	UFOs	Bright yellow UFO from outer wall. Not visible on protection cam.
104128	KLDT-P5TB	50.95177	UFOs	UFO in two frames in divertor
104088	KLDT-P5WA	48.92667	UFOs	Small flash near outer wall. Coincident with a fairly spectacular set of blue streamers on ops cam.
104088	KLDT-O5WB	47.35488	UFOs	Bright white flash. Not visible on protection cam.
104073	KLDT-O5WB	48.55054	UFOs	Particles at the outboard side throughout the pulse
104073	KLDT-O5WB	48.14945	UFOs	Particles falling from the top throughout the pulse
104072	KLDT-O5WB	49.12656	UFOs	Particles falling from the top throughout the pulse
104072	KLDT-O5WB	48.16323	UFOs	Particles at the outboard side throughout the pulse
104071	KLDT-O5WB	48.99824	UFOs	Particles falling from the top throughout the pulse
104071	KLDT-O5WB	48.39603	UFOs	Particles at the outboard side throughout the pulse
104070	KLDT-O5WB	48.89132	UFOs	Lots of UFOs fallign from the top of the vessel from this point until the end of the pulse
104069	KLDT-O5WB	50.58572	UFOs	Lots of particles falling down from the top of the vessel from this point until the end of the pulse
104069	KLDT-P5TB	52.39231	UFOs	Hot particle on the top of tile 8 heating up (starting ~49.665 s) and eventually flying away
104065	KLDT-O5WB	48.82916	UFOs	Lot of UFOs at the top of the vessel, until ~51.87873
104056	KLDT-P5WA	50.98386	UFOs	Large UFO falls into plasma and causes disruption. Can also be seen on KLDT-O5WB falling from upper dump plate.
104055	KLDT-O5WB	41.98616	UFOs	Titanium UFO seen dropping from

				upper dump plate and exploding - clear peak in spectroscopy at this time
104052	KLDT-O5WB	67.39208	UFOs	Quite a few Beryllium UFOs from the outer wall - 2 frames. Another very bright at 68.19443 for 3 frames.
104050	KLDT-O5WB	48.95893	UFOs	More Titanium UFOs @47.99602, 48.79855, 48.95893 (2frames), 49.40066, 49.76191 (2 frames), 51.00629 (also a very cool frame of the start of DMV gas where some tendrils from the cloud are visible)
104048	KLDT-O5WB	48.22376	UFOs	Very bright Ti(?) UFO from UPDT. Blue one at 48.34422. Curious 2 at 48.42452 for 4 frames. Blue jet at 48.62529. Another Ti(?) UFO at 51.75566.
104019	KLDT-O5WB	50.42563	UFOs	UFO spotted in a single frame close to divertor region
104008	KLDT-O5WB	50.88689	UFOs	Bright event visible in the divertor region towards LFS
103985	KLDT-O5WB	57.42228	UFOs	Ufo briefly seen near upper dump plate
103983	KLDT-O5WB	53.00312	UFOs	Another ufo near upper dump plate
103983	KLDT-O5WB	50.67544	UFOs	Ufo appears briefly near upper dump plate
103982	KLDT-O5WB	49.7809	UFOs	UFO appears near outer wall for single frame
103981	KLDT-O5WB	53.69633	UFOs	UFO breaks off from outer wall and moves across to the right in following frames
103981	KLDT-O5WB	51.08846	UFOs	UFO (?) see near upper dump plates. Only appears for a single frame
103980	KLDT-O5WB	41.74925	UFOs	Again we see a number of UFOs appear near divertor towards start of pulse and can be seen for a few frames
103979	KLDT-O5WB	42.034738	UFOs	A number of UFOs appear towards start of pulse near divertor. Visible for a number of frames.
103977	KL11-P1DB	48.33798	UFOs	UFO appears to shoot from tile 1 or 3
103977	KLDT-O5WB	57.96719	UFOs	Bright spot near inner wall
103976	KL11-P1DB	48.33798	UFOs	Numerous UFOs visible as debris is ejected out from the inner diverter region. Probable cause of disruption event ~0.3 seconds after UFOs appeared.
103966	KL11-P1DB	44.63827	UFOs	Several UFOs appear during pulse and disruption on the divertor seen also by KL11-E1DD.

103966	KLDT-O5WB	42.29933	UFOs	UFOs coming during the pulse from tile 7 very likely.
103966	KLDT-O5WB	44.86778	UFOs	Blue UFO visible on innerwall two frames.
103965	KLDT-O5WB	52.97719	UFOs	A pretty big UFO coming down from UDPT.
103961	KL11-P1DB	57.45729	UFOs	UFOs coming from Tile 6/7, as in the previous pulse, seen by all cameras looking at the divertor.
103960	KL11-P1DB	57.05732	UFOs	Many UFOs coming from Tile 6/7 seen also by cameras: KLDT-O5WB, KL2D-P8TB, KLDT-P5TB, KL9B-E8TA, KLDT-E5TA, KL11-E1DD and KLDT-E5WE.
103958	KLDT-O5WB	51.23575	UFOs	UFO appear on the UDPT and on REION4 at 51.23575s.
103955	KLDT-O5WB	52.90433	UFOs	UFOs in the divertor region b/w 371-400 frames
103954	KLDT-O5WB	41.7598	UFOs	UFO in divertor region
103952	KLDT-O5WB	42.02267	UFOs	Several UFOs spotted b/w 41.7-42.6seconds
103950	KLDT-O5WB	54.12695	UFOs	A flurry of UFO's in similar position to previous session pulses.
103948	KL11-P1DB	51.09776	UFOs	Large UFO hit on divertor frame 706.
103948	KLDT-O5WB	50.55536	UFOs	A series of small UFO's in the UDPT region frames 312-320. Similar events seen throughout pulse.
103944	KL11-P1DB	54.87752	UFOs	Is this UFO's released from divertor at point of disruption or just plasma? Frames 895 to 903.
103942	KL11-P1DB	50.63784	UFOs	UFO wizzing around divertor, frames 683-691.
103942	KL11-P1DB	46.29813	UFOs	UFO bouncing and scattering off outer divertor frames 466-487. Also seen on O5BW frames 211-223.
103941	KLDT-O5WB	43.47919	UFOs	UFO in UDPT region frame 136-141 (smaller one visible at frame 128-129). Really clear on KLDT-E5WD frames 353-361 and also on KLDT-P5WA frame 213.
103925	KLDT-O5WB	54.27813	UFOs	Multiple UFOs at different times. The one here is the brightest. Other times: 53.55584s, 53.87705s, 53.99738s, 54.11767s, 54.23807s and 54.59943s)
103923	KLDT-O5WB	52.92538	UFOs	Multiple UFOs at observed at the UDPT, outer wall, and divertor (other times are: 49.07283s, 49.27366s, 52.68486s and 52.64471s)
103918	KLDT-O5WB	55.78395	UFOs	Ti UFO over 7 frames (one frame

				has no UFO)
103913	KLDT-O5WB	49.39117	UFOs	A blue UFO seen on WOPL and a few frames later other, as well a typical UFO appears on UDPT.
103912	KLDT-O5WB	48.43746	UFOs	Blue UFO appear on inner wall (?)
103906	KLDT-O5WB	48.47687	UFOs	A typical UFO has appeared on UDPT.
103889	KLDT-O5WB	44.67246	UFOs	Unusual UFO on the outer bottom for 2 frames.
103888	KLDT-O5WB	43.48447	UFOs	splitting Ti UFO over 4 frames
103885	KLDT-O5WB	45.69006	UFOs	Interestingly shaped Ti UFO
103858	KLDT-O5WB	50.12231	UFOs	UFO appeared on the WOPL and later few UFOs on UDPT (Ti).
103857	KLDT-O5WB	50.31643	UFOs	Another pulse during which a UFO (Ti) appeared on UDPT more than once.
103855	KLDT-O5WB	49.98858	UFOs	A few UFOs (Ti-according to JETDSP) from time to time appeared on UDPT throughout the pulse.
103855	KL11-P1DB	55.41744	UFOs	UFOs probably coming from T6, also visible some UFOs with end of pulse.
103853	KLDT-O5WB	50.91598	UFOs	UFOs (titanium) appear during 5 seconds of the pulse from time to time on UDPT.
103852	KL11-P1DB	56.41741	UFOs	Some UFOs arriving very likely from Tile8 during the disruption and after.
103851	KLDT-O5WB	50.51593	UFOs	Quite a large UFO has appeared on LH antenna and on UDPT also at 51.27s and 54.931s(Ti).
103850	KLDT-O5WB	53.3262	UFOs	Big UFO on UDPT (Ti). Also few UFOs during and after disruption seen on divertor at 56.4374s by KL11-P1DB camera.
103849	KLDT-O5WB	53.88824	UFOs	Some UFOs visible around REION4 and on UDPT at 51.199s few frames.
103849	KL11-P1DB	55.01748	UFOs	A few UFOs coming from divertor during the pulse.
103848	KL11-P1DB	49.23794	UFOs	Large number of UFOs released from divertor after disruption
103838	KLDT-O5WB	48.53278	UFOs	Two titanium UFOs shortly before disruption.
103835	KLDT-O5WB	48.72395	UFOs	3 frame UFO from top. Possibly Ni
103830	KLDT-O5WB	50.91532	UFOs	Large Ti UFO
103816	KLDT-O5WB	47.52139	UFOs	Laarge UFO ffor 3 frames
103816	KLDT-O5WB	46.7988	UFOs	Laarge UFO falling from the top for 2 frames
103814	KLDT-O5WB	41.49121	UFOs	Spectacular "exploding" UFO at

				start up
103809	KLDT-O5WB	51.31883	UFOs	Is that a UFO or some radiation from a recessed are between the top inner sausages and the limiters?
103806	KLDT-O5WB	56.2243	UFOs	Titanium UFO possibly causing the disruption
103802	KLDT-E5WC	55.722	UFOs	Ti UFO (over a few frames) that may have induced the disruption because the plasma was very close to the density limit.
103800	KLDT-O5WB	50.03907	UFOs	Many UFOs throughout the pulse coming from the outer limiters
103763	KLDT-O5WB	55.08022	UFOs	Bright UFO on the outboard side
103716	KLDT-O5WB	61.16792	UFOs	UFO spotted around upper dump plate at 53.78214 and 61.16792s.
103715	KLDT-O5WB	53.03612	UFOs	Couple of UFOs spotted b/w 53 and 58 seconds
103713	KLDT-O5WB	59.57156	UFOs	Couple of UFOs spotted b/w 59 and 61 seconds.
103705	KLDT-O5WB	48.4	UFOs	Many UFOs throughout pulse over entire vessel
103702	KLDT-O5WB	47.48	UFOs	UFO impact on UDPT
103665	KL11-P1DB	48.93793	UFOs	Divertor UFO may have contributed to making plasma unhealthy
103662	KLDT-O5WB	40.77137	UFOs	Large UFO at top of vessel near start of pulse
103660	KLDT-O5WB	46.28214	UFOs	Moving flash above the outer divertor for 2 frames (maybe arc?), then another one in the same location at 46.48296.
103660	KLDT-P5TB	50.53264	UFOs	Large UFO in the divertor for 3 frames
103655	KLDT-O5WB	71.00884	UFOs	Several UFOs during the end of cleaning pulse.
103654	KLDT-O5WB	69.70896	UFOs	During cleaning pulse and disruption some UFOs flaying around the vessel. Also some UFOs seen by KL11-P1DB camera after disruption at 69.5164s.
103652	KL11-P1DB	48.09799	UFOs	Quite many UFOs from Tile1 (seen also by KL11-E1DE camera).
103646	KL11-P1DB	48.07803	UFOs	Some UFOs coming from Tile1 just after runaways elctron.
103637	KLDT-O5WB	49.56151	UFOs	Some light on UDPT also at 52.12997s (very likely Ti, according to JETDSP).
103615	KLDT-O5WD	49.97758	UFOs	UFO falling at the outboard side for 3 frames
103610	KL11-P1DB	49.2179	UFOs	Some UFOs coming from inner-wall.
103605	KLDT-O5WB	59.69384	UFOs	Some UFOs appear during the

				disruption. (seen also by the KLDT-E5WD camera)
103602	KLDT-O5WB	52.48792	UFOs	Plenty of UFOs during the disruption seen also by the KLDT-E5WD camera.
103581	KLDT-O5WB	52.95	UFOs	Some blue (52.950s, 57.285s) and white (53.271s, 56.041s) UFOs appeared next to WOPL and ICRH (54.556s, 55.559s) during the pulse. According to JETDSP very likely beryllium and titanium events.
103580	KLDT-O5WB	53.29987	UFOs	Huge UFO at frame 381-384 which travels from the outer wall to the divertor.
103577	KLDT-O5WB	54.2654	UFOs	Large-ish UFO. Frame 405.
103576	KL11-P1DB	47.578	UFOs	A series of UFO's in the divertor, frame 530-532, 566, 580, 601, 621.
103574	KLDT-O5WB	53.53	UFOs	Large UFO at top of vessel frame 386. Also seen on KLDT-P5WA at frame 543.
103573	KLDT-O5WB	52.79649	UFOs	Mukltiple UFO's frame368-371, 381, 390, 459 due to unsuccessful clean up pulse last session.
103573	KL11-P1DB	54.1576	UFOs	UFO collides with outer divertor frame 859.
103571	KLDT-O5WB	48.13145	UFOs	UFO falling from UDPT very likely Ti event seen also by KL1-O8WA camera.
103570	KL11-P1DB	49.09791	UFOs	Few UFOs right after disruption.
103569	KL11-P1DB	49.13791	UFOs	Quite a few UFOs right after the disruption.
103565	KL11-E1DC	46.11817	UFOs	UFOs at the beginning of the pulse also seen by camera KL11-P1DB and hotspot on tile 8 slightly stronger than during the pulse earlier.
103564	KL11-P1DB	45.93815	UFOs	A lot of UFOs at the beginning and end of the pulse (also seen by the KL11-E1DC camera 49.50488), and the hotspot on plate 8 has returned.
103559	KL7-E8WB	50.22336	UFOs	Bouncing UFO, also something visible on KL7-P8WA camera.
103507	KLDT-O5WB	45.56106	UFOs	Titanium UFO falls from top of vessel and causes disruption. Visible for several frames.
103493	KLDT-O5WB	50.3	UFOs	UFO(s) prior to disruption at ~51s
103483	KLDT-O5WB	53.81711	UFOs	UFO observed at 53.81711s moving across three frames
103480	KLDT-O5WB	46.00015	UFOs	Several UFOs observed between 46-49.9 seconds.
103479	KLDT-O5WB	52.30637	UFOs	Blue hue on upper dump plate at

				52.30637s indicative of a UFO
103478	KLDT-O5WB	54.20768	UFOs	UFO from upper dump plate at 54.20768s
103476	KLDT-O5WB	52.16288	UFOs	UFOs spotted in single frames at 52.16288, 52.80520 & 53.68812s.
103462	KL11-P1DA	50.1437	UFOs	Few UFO's in divertor after disruption
103452	KL11-P1DA	53.50137	UFOs	Slow-moving UFO in divertor. Also visible on KL11-P1DB.
103445	KLDT-O5WB	56.12	UFOs	A couple UFOs on this pulse
103440	KLDT-O5WB	55.64096	UFOs	Observed near the upper Dump plates
103436	KLDT-O5WB	56.64981	UFOs	Outer wall two events and another minor UFO observed at UDPT at a different time
103435	KLDT-O5WB	54.10984	UFOs	Location: upper dump plate, there are more UFOs at the UDPT but the one recored here is the brightest
103434	KLDT-O5WB	50.17479	UFOs	UFOs visible near upper dump plate
103431	KLDT-E5WD	62.0625	UFOs	UFOs at the inner wall guard limiter
103431	KLDT-O5WB	62.2008	UFOs	It looks like falling from the upper dump plates
103422	KL11-P1DB	57.237	UFOs	Reasonable number of UFOs liberated from top of outer divertor at disruption.
103404	KLDT-O5WB	52.44681	UFOs	A number of small UFOs appear
103403	KL11-P1DB	55.87746	UFOs	UFO seen flying upwards
103403	KL11-P1DB	52.89765	UFOs	Another UFO seen flying off from divertor, much like the last one
103403	KL11-P1DB	52.47771	UFOs	UFO flies off from divertor - can be seen for the next few frames
103403	KLDT-O5WB	54.95154	UFOs	UFO seen on outer wall, may be related to small flash near divertor below a few frames earlier
103403	KLDT-O5WB	54.38965	UFOs	UFO seen on lower outer wall
103403	KLDT-O5WB	53.98836	UFOs	UFO appears on outer wall - is seen two frames later below upper dump plate
103402	KL11-P1DB	52.63771	UFOs	UFO can slowly be seen moving across screen in few previous frames - this UFO then hits divertor, causing a splay of materials over next few frames.
103389	KLDT-O5WB	51.48104	UFOs	Large UFO
103389	KLDT-O5WB	51.20015	UFOs	Bright flash in the upper divertor, possibly particle falling down from the top.
103389	KLDT-O5WB	48.35067	UFOs	UFOs on the outboard site near NBI starting here and throughout the pulse

103385	KLDT-O5WB	48.45628	UFOs	A number of UFOs seen for a few frames
103381	KLDT-ORWB	51.98388	UFOs	Another large UFO, followed by some smaller UFOs a short time later.
103379	KLDT-O5WB	48.01146	UFOs	Large number of UFOs from 48s to 49s, and some (but fewer) UFOs seen until around 52s.
103372	KL11-P1DB	56.57737	UFOs	UFO from divertor
103371	KLDT-O5WB	50.93907	UFOs	Ti UFO. as seen on spectroscopy plus another at 57.3 and 58
103370	KL11-P1DB	50.19788	UFOs	UFOs from divertor. strike point seems to be cleaning off deposits
103370	KLDT-O5WB	51.49102	UFOs	small Ti UFO visible on camera and spectroscopy
103370	KLDT-O5WB	50.32634	UFOs	small Ti UFO visible on camera and spectroscopy
103370	KLDT-O5WB	54.25969	UFOs	Falling UFO Causes disruption. Spectroscopy suggests Ti
103367	KLDT-O5WB	51.4968	UFOs	UFO on UDPT frame 292, 323, 329, 336 similar to previous pulse.
103367	KLDT-O5WB	50.97	UFOs	UFO on BEION plate frame 364 similar to previous pulse.
103366	KL11-P1DB	51.3978	UFOs	UFO seen frame 722-723 from outer divertor plate. Increased radiation and Tungsten impurities found at same time on cview.
103366	KLDT-O5WB	51.46	UFOs	UFO's seen frame 335 from BEION plate and frame 336-337 from UDPT. Not seen on other cameras but increased radiation and Tungsten impurities found at same time on cview.
103362	KLDT-O5WB	52.16985	UFOs	Two UFOs next to the NBI duct
103360	KLDT-O5WB	56.72573	UFOs	Location at the Upper Dump Plates
103347	KLDT-O5WB	50.79709	UFOs	Faint hint of a UFO coming from top of the machin
103345	KLDT-O5WB	51.52253	UFOs	Potential UFO at 51.52253s
103343	KLDT-O5WB	62.70539	UFOs	Several UFOs observed at 62.70539 in a single frame
103341	KLDT-O5WB	53.96219	UFOs	UFOs observed between 51.6-54s
103329	KL11-P1DB	59.3572	UFOs	UFOs party! at the divertor region
103314	KL11-P1DA	49.18132	UFOs	Numerous UFOs in divertor zone after disruption.
103314	KLDT-P5TB	49.15135	UFOs	Numerous hotspots visible on tile 8 with a background of plasma light. In the next few frames there are some UFOs.
103295	KLDT-O5WB	52.5617	UFOs	UFT falls from UDPT. Also seen on KLDT-E5WD at frame 674-675.

103290	KLDT-O5WB	55.09	UFOs	UFO at frame 425 and 440. Not seen on other cameras.
103289	KLDT-O5WB	55.075	UFOs	Large cluster of UFO's flying right to left across camera. Seen on KLDT-O5WB at frame 425, KLDT-P5WA at frame 595, KLDT-E5WD at frame 799 and on fast camera at 55.01 sec. Origin and material unknown but in 527nm range.
103284	KLDT-O5WB	52.10559	UFOs	Titanium UFO potentially triggering the disruption.
103283	KLDT-O5WB	51.1442	UFOs	Titanium UFO over 2 frames
103275	KLDT-O5WB	51.83879	UFOs	Potential UFO observed at 51.83879 in a single frame
103271	KLDT-O5WB	56.15219	UFOs	Many Ti UFOs during beams (50-56). biggest visible on op camps, more show up in spectroscopy.
103270	KLDT-O5WB	51.5927	UFOs	Multiple Ti UFOs again. Clear on spectroscopy, many only appearing for one or two frames between 50 and 54
103269	KLDT-O5WB	55.53572	UFOs	Seven Ti spikes on spectroscopy between 50 and 56, the three biggest of which are visible on the opcam. with the last visible for 3 frames.
103266	KL11-P1DB	55.19748	UFOs	many UFOs coming from the divertor during disruption
103263	KLDT-O5WB	51.0502	UFOs	Large Ti spike in spectroscopy, but UFO is not in usual place for Ti UFOs
103262	KLDT-O5WB	50.84816	UFOs	Five titanium UFOs show on spectroscopy and some on camera between 49 and 55
103261	KLDT-O5WB	50.65817	UFOs	Two Titanium UFOs near UDP in quick succession - one at 50.65s, the next at 50.89s. Confirmed by a double peak in Titanium spectroscopy.
103256	KLDT-P5TB	56.71138	UFOs	Large number of UFO's released from divertor after disruption
103247	KLDT-O5WB	50.51432	UFOs	The UFO was not identifiable by the DC (Ivor C.)
103245	KLDT-O5WB	50.00389	UFOs	location at the UDPT
103186	KLDT-O5WB	64.06629	UFOs	UFO during disruption
103185	KLDT-O5WB	50.58846	UFOs	Another TI UFO from top of machine.
103185	KLDT-O5WB	61.46486	UFOs	UFO and strange reflections maybe? Looks like Ti again from spec
103184	KLDT-O5WB	55.47335	UFOs	Large Ti UFO drops in and breaks

				up. Very clear on spectroscopy
103182	KLDT-O5WB	54.02792	UFOs	Ti UFO drops from above
103178	KLDT-O5WB	55.46586	UFOs	UFO from top aligns with clear Ni spike in spectroscopy
103173	KLDT-O5WB	59.33554	UFOs	Small UFO from top. Possibly Ti based on spectroscopy
103159	KL11-P1DB	47.71803	UFOs	UFO in divertor
103159	KL11-P1DB	48.118	UFOs	UFO in divertor
103158	KL11-P1DB	53.73755	UFOs	Repeated UFOs in the divertor in this clean-up pulse, frames 838-900. After that it quietens down.
103156	KL11-P1DB	44.55827	UFOs	UFOs in the divertor, coming directly from a persistent hot spot on the boundary of tiles 5 and 6.
103156	KL11-P1DB	41.4785	UFOs	UFOs in the divertor for 9 frames, followed by further UFOs.
103156	KLDT-P5TB	46.60228	UFOs	UFOs in the divertor for 3 frames - immediately followed by disruption.
103155	KL11-P1DB	48.57794	UFOs	UFOs in divertor zone immediately after disruption - hard to see them clearly.
103155	KL11-P1DB	48.09797	UFOs	UFOs in divertor zone for 4 frames.
103152	KLDT-O5WB	48.00151	UFOs	Large bright spot on UDPT. Frame 249.
103148	KL11-P1DB	53.77	UFOs	Series of UFO's in divertor. Frames 840-860.
103138	KLDT-E5WC	48.16142	UFOs	Observed UFOs on the outer wall guard limiter and travelling towards the divertor region
103137	KLDT-E5WC	48.17309	UFOs	Starting 48.17309s UFOs are seen falling from the Upper Dump Plates, moving across the plasma from the outer wall guard limiter, also travelling around the inner wall guard limiter.
103127	KL7-E8WB	48.905	UFOs	UFO/droplet spotted, dropping across four frames
103123	KL11-P1DA	46.28132	UFOs	Nice little UFO eruption in the vicinity of Tile 4.
103122	KL11-P1DA	52.00129	UFOs	Once again a UFO released by heating in the tile 9 or 10 area. Several frames.
103119	KL11-P1DA	51.90136	UFOs	UFOs diverging from a point on Tile 8.
103119	KL11-P1DA	51.14136	UFOs	UFOs originating just out of shot in the Tile 9 area just before the end of the pulse.
103116	KLDT-O5WB	45.71497	UFOs	Huge blue streak initiated on the inner wall. Maybe very close to the camera? Not visible on KLDT-P5WA.

103115	KL11-P1DB	47.53802	UFOs	Fast-moving javelin UFO in divertor over 3 frames.
103115	KL11-P1DB	42.27844	UFOs	UFO in divertor over 4 frames.
103114	KL11-P1DB	51.15778	UFOs	UFO crosses image over several frames.
103113	KLDT-O5WB	48.09593	UFOs	Particular bright UFO appears on outboard side
103113	KLDT-O5WB	47.73472	UFOs	UFO appears at top of screen - appears for a few frames after
103113	KLDT-O5WB	47.45371	UFOs	Bright UFO appears in outboard side (visible on frame 233)
103113	KLDT-O5WB	47.09228	UFOs	UFO (Likely titanium) appears over a few frames at top of screen
103112	KLDT-O5WB	57.85507	UFOs	Large number of UFOs appear (frame 494)
103112	KLDT-O5WB	47.01762	UFOs	Multiple UFOs occur throughout pulse, tending to appear at upper dump plate. Marked as UFOs tend to appear at same point at multiple times
103111	KLDT-O5WB	47.25684	UFOs	UFO Observed over antennae location
103110	KLDT-O5WB	50.22142	UFOs	Multiple faint UFOs appear on frames 303 and 304
103109	KLDT-O5WB	42.61838	UFOs	UFO visible near inner limiter on frame 115
103108	KLDT-O5WB	49.89452	UFOs	UFO visible by upper dump plates
103108	KLDT-O5WB	48.65	UFOs	UFO appears in top right corner (again)
103108	KLDT-O5WB	48.48963	UFOs	UFO visible in top right corner - does not appear in adjacent frames
103108	KLDT-O5WB	48.12832	UFOs	UFO seen flying from inner wall outwards. Can see UFO appear on previous frame
103088	KLDT-O5WB	55.70618	UFOs	UFO near UDP
103088	KLDT-O5WB	55.70618	UFOs	UFO near UDP
103086	KLDT-O5WB	49.95994	UFOs	UFO at upper dump plate, one frame
103067	KL11-P1DB	45.65	UFOs	Intense UFO activity in the divertor (frames 434-516), possible mobilised Be droplets from previous pulse
103063	KL7-E8WB	48.86963	UFOs	UFOs at 48.86963s & 48.99636s
103063	KL7-E8WB	48.86963	UFOs	UFOs at 48.86963s & 48.99636s
103056	KLDT-O5WB	48.44465	UFOs	Lots of UFOs coming from the outer limiters throughout the heating phase.
103055	KLDT-O5WB	44.57759	UFOs	Two Simultaneous UFOs. One is blue and coming from the nPL so should be Be. The other is white

				and is consistent with the increase in the titanium trace.
103031	KLDT-O5WB	49.54689	UFOs	Multiple events primarily appearing at the UDPT. Other instances were: 48.78454s, 49.26599s, 49.98848s, 50.14904s, 50.30963s, 51.63421s, 51.19639s, 53.36006s
103030	KLDT-O5WB	51.34975	UFOs	Influx of particles falling from the top. There are a number of events for this pulse at also these other times: 51.91157s, 52.6345s, 53.75751s
103021	KLDT-O5WB	50.14165	UFOs	Large particle falling from the top of the vessel for 3 frames
102991	KL11-P1DB	49.09795	UFOs	Large UFO goes down into divertor
102980	KLDT-E5WD	62.35	UFOs	UFOs towards end of pulse
102970	KL11-P1DB	57.83733	UFOs	Lots of dust just after disruption, seen also by KLDT-O5DB and KLDT-E5WD.
102970	KLDT-O5WB	51.35686	UFOs	Titanium event appear around WOPL, also seen by KLDT-P5WA camera.
102958	KL11-P1DA	59.48109	UFOs	UFOs in the divertor starting just before the disruption.
102957	KLDT-O5WB	50.5965	UFOs	Bright white UFO on outboard side. not visible on PIW camera.
102942	KL11-P1DB	52.89766	UFOs	Numerous UFOs visible for a few frames. Some appear to follow helical path around divertor
102938	KLDT-O5WB	49.19364	UFOs	Top location and the event spanned over 3 frames
102935	KLDT-O5WB	48.58036	UFOs	Multiple UFO events until 55s.
102934	KLDT-O5WB	48.14976	UFOs	From 48.14976 to 53s, there are a number of UFOs located at the top. Confirmed to be Titanium.
102932	KLDT-O5WB	50.80014	UFOs	From 50.80014s to ~53.5s, a number of UFOs are visible at the top. Confirmed by spectroscopist to be Titanium.
102931	KLDT-O5WB	49.5915	UFOs	Top, one frame, confirmed by spectroscopist to be Titanium.
102924	KLDT-O5WB	49.538	UFOs	Another Titanium (?) UFO from the top. A few frames later, a white band appears along the UDPT
102923	KLDT-O5WB	53.33774	UFOs	Large Titanium (?) UFO from the top, spanning two frames
102902	KLDT-O5WB	53.3609	UFOs	Something is coming out of the NBI duct and falling.
102899	KLDT-O5WB	52.77337	UFOs	Some UFOs are dropping from UDPT- 2 frames.
102898	KLDT-O5WB	54.71683	UFOs	Some UFOs appear throughout the pulse in different locations of the chamber, according to JETDSP it

				could be titanium. (55.64, 55.8, 56.1616, 56.402, 56.643, 57.405s)
102897	KLDT-O5WB	57.80059	UFOs	Some droplet falls from the UDPT (seen also by Fast Camera Viewer KLDT-E5WE).
102889	KLDT-O5WB	55.52	UFOs	Several UFO's from outer wall during pulse. Eg around frames 431, 436, 445, 455, 462, 466, 472.
102888	KLDT-O5WB	53.996	UFOs	Single frame UFO also seen on KLDT-P5WA.
102888	KL11-P1DB	47.63809	UFOs	Event generated from tile 4
102885	KLDT-O5WB	49.11963	UFOs	Suspected Titanium UFO drops from UDP and explodes - peak in Titanium seen in spectroscopy shortly after. Quite spectacular in fast camera!
102883	KLDT-O5WB	48.16431	UFOs	UFO becomes detached from limiter and flies into plasma. Can see it on KLDT-E5WE from 48.05s onwards.
102879	KLDT-E5WE	47.9852	UFOs	UFOs seem to travel from limiters towards plasma at beginning of disruption
102879	KL11-P1DB	48.05803	UFOs	Large number of UFOs released from Divertor after disruption
102867	KLDT-O5WB	52.66642	UFOs	Some flash coming from UDP according to JETDSP impurities it can be Ti (seen also by fast camera viewer KLDT-E5WE) also at 55.71678 and 56.27857s.
102863	KLDT-O5WB	56.95977	UFOs	Blue UFO coming from outboard wall.
102861	KL11-P1DB	52.13772	UFOs	UFO coming from tile 6/7 (6 frames)
102857	KLDT-O5WB	57.98301	UFOs	UFO falling from Upper Dump Plate, possibly causing disruption. Upper Dump Plate was not hot (~605 deg) at time of UFO and disruption. Frames 497-499.
102854	KL11-P1DB	54.39761	UFOs	Flurry of UFO's from divertor, frame 871-889.
102847	KLDT-O5WB	50.33921	UFOs	Very bright UFO in main chamber. Also visible in KLDT-P5WA.
102844	KLDT-P5TB	57.64746	UFOs	UFO in divertor before disruption for one frame only.
102838	KL11-P1DB	57.27739	UFOs	Few UFOs appeared after disruption in the divertor.
102838	KLDT-O5WB	49.95089	UFOs	Light/drop appeared on UDPT (one frame) seen also by KLDT-E5WD very likely beryllium.
102822	KLDT-O5WB	53.68163	UFOs	UFO near Oct 4 NBI. Coincides with a copper spike
102815	KLDT-O5WB	48.2146	UFOs	Strong signal on this and the

				following frame
102813	KLDT-O5WB	48.67101	UFOs	3 bright spots in same location as previous pulse, still believed to be molybdenum
102812	KLDT-O5WB	53.05262	UFOs	potential molybdenum UFO as noted by spectroscopist
102811	KLDT-O5WB	49.1998	UFOs	Titanium event falling from upper dumpplate, confirmed with spectroscopist
102810	KLDT-O5WB	54.41998	UFOs	Bright flash x2 between 4b and LH antenna. Tungsten peak seem on Impurity signals on xpsedit
102810	KLDT-O5WB	54.41998	UFOs	Bright flash x2 between 4b and LH antenna. Titanium peak seem on Impurity signals on xpsedit
102810	KLDT-O5WB	54.41998	UFOs	Bright flash x2 between 4b and LH antenna
102804	KLDT-O5WB	52.99616	UFOs	UFO falling from UDPs
102797	KLDT-P5WA	59.15423	UFOs	UFOs after disruption on inner wall
102792	KL11-P1DB	59.17719	UFOs	Curly UFOs just before disruption, when plasma hits the divertor
102784	KLDT-E5WD	48.48	UFOs	UFO circulating above the divertor.
102783	KL11-P1DA	54.78136	UFOs	UFOS just after the disruption and they continue for another 10 frames
102781	KL11-P1DA	51.80131	UFOs	UFO's from divertor tile 5 shooting up vertically
102768	KL11-P1DB	56.3374	UFOs	UFOs in the divertor
102768	KLDT-O5WB	56.44799	UFOs	Several blue flashes on the outer wall. Not visible on PIW cam.
102762	KLDT-P5TB	54.51544	UFOs	UFOs in divertor after disruption
102761	KL11-P1DA	53.22137	UFOs	More UFOs after disruption
102760	KL11-P1DB	53.11768	UFOs	Multiple UFOs on Div tiles 5/6
102737	KLDT-O5WB	62.47955	UFOs	UFO dust appears during pulse termination.
102735	KL11-P1DB	51.35783	UFOs	Quite a few UFOs coming from tile 6 during disruption and after (few frames), seen also by KLDT-P5TB camera
102734	KL11-P1DB	50.87787	UFOs	UFOs appear during disruption seen also by KLDT-P5TB (few frames)
102732	KL11-P1DB	54.93755	UFOs	UFO coming from tile 6
102732	KLDT-O5WB	54.4835	UFOs	Three blue lights appear near WOPL also seen through protection camera KLDT-P5WA and experimental KLDT-E5WD..very likely beryllium.
102714	KLDT-O5WB	50.64	UFOs	UFOs in the termination phase
102714	KLDT-O5WB	46.39	UFOs	Possible droplet falling from UDP
102709	KLDT-E5WD	50.67	UFOs	Massive UFO cloud - most likely

				beryllium.
102709	KLDT-O5WB	50.79	UFOs	Massive UFO cloud - most likely beryllium.
102699	KLDT-O5WB	52.37791	UFOs	Lots of particles at pulse termination
102696	KLDT-O5WB	48.286	UFOs	UFOs coming out of NBI
102694	KLDT-O5WB	54.952	UFOs	UFO in the divertor, disruption early in the divertor phase
102692	KLDT-O5WB	50.99735	UFOs	Unusuall UFO on outboard side limiter.
102684	KLDT-O5WB	62.445	UFOs	Bad landing with the plasma hitting the inner wall and sending some UFOs into the vessel. Also seen by KLDT-E5WD.
102672	KL1-O8WA	53.42563	UFOs	UFOs ejected from Oct 8 NBI immediately before disruption
102667	KLDT-O5WB	50.55024	UFOs	Large UFO at the outboard side
102608	KL7-E8WB	48.38537	UFOs	UFO falling over a few frames. Moves too fast for a falling droplet. Probably just dust/debris
102601	KLDT-P5WA	51.82845	UFOs	UFO near inner wall immediately before disruption
102588	KLDT-O5WB	54.90037	UFOs	UFOs in divertor region during the landing
102571	KLDT-P5TB	48.37802	UFOs	One frame only
102569	KLDT-P5WA	50.43863	UFOs	Mystery spots for 2 frames well after the disruption, after the plasma current was zero. (Ops cam image is perfectly black.)
102540	KLDT-O5WB	42.02695	UFOs	Lots of UFOs from the rain that fell after the previous pulse's disruption. Also seen by KLDT-E5TA and KL11s
102539	KLDT-E5WC	48.6	UFOs	Lots of UFOs spanning half a second. Also seen by KLDT-E5TA. Not seen by KL7, suggesting a localization of this event to octant 4 and 5 at least.
102516	KLDT-O5WB	63.07	UFOs	UFO in the termination phase. Overall unusual termination phase (frames 584 onwards)
102510	KLDT-O5WB	54.87	UFOs	Bright flash next to UDP. Reported only the one at 54.87 s. There were three of this kind @ 51.89 and 50.85s. Spectroscopy confirmed it was Titanium in all three flashes.
102497	KL11-P1DB	48.43806	UFOs	UFO appeared just before disruption -one frame.
102496	KL11-P1DB	48.61801	UFOs	Several UFOs seen just after disruption.
102493	KL11-P1DB	52.29773	UFOs	Many UFOs flying around starting when the beams come on. Seems

				to be Nickle from spectroscopy.
102487	KLDT-O5WB	49.68985	UFOs	Large particles falling down from UDP and disintegrating, ~8 frames
102446	KL11-P1DB	45.39835	UFOs	Several UFOs flaying around divertor seen also by KLDT-E5WD.
102442	KLDT-O5WB	44.67815	UFOs	UFOs (blue particles) coming from nPL and also few frames later from WOPL.
102441	KLDT-O5WB	44.51959	UFOs	UFO coming from tile 6 very likely Ni (impurity event seen in this time).
102440	KLDT-O5WB	46.13692	UFOs	Some UFOs/blue lights coming from WOPL/nPL through several frames.
102435	KLDT-O5WB	48.9415	UFOs	Few UFOs seen through several frames.
102434	KLDT-O5WB	45.90921	UFOs	Several UFOs flying around the vessel to the end of the pulse. BEION4 near to the limit ~840 degree (KLDT-P5WA-46.6s), also "sausages" on the bottom inner wall were getting hot~1000deg. SL informed-next pulse repeat with RF to replace part of NBI power.
102433	KLDT-O5WB	49.56297	UFOs	Several UFOs coming probably from WOPL (something also seen by the KLDT-P5WA camera). As well several UFOs seen around divertor just after disruption- KL11-P1DB ~49.538s.
102397	KLDT-O5WB	48.58	UFOs	UFOs in the divertor frames 263-272
102396	KLDT-O5WB	48.07	UFOs	Single frame spark. Too much to say it's an UFO
102382	KL11-P1DB	54.59758	UFOs	Several UFOs apprearing throughout the cleaup pulse
102347	KL11-P1DB	45.71823	UFOs	UFO coming probably from tile6 or 7 and more UFOs few frames later
102308	KLDT-O5WB	47.135	UFOs	Large UFO on the outboard side
102307	KLDT-O5WB	45.27193	UFOs	Flurry of particles on the outboard side
102305	KLDT-O5WB	46.8677	UFOs	Bright UFO, also seen in KLDT-P5WA (at 46.79865)
102305	KLDT-O5WB	45.78408	UFOs	Bright UFO
102305	KLDT-O5WB	44.78109	UFOs	Flurry of particles on the outboard side (seemingly coming out of NBI)
102267	KLDT-O5WB	67.79521	UFOs	UFOs flying out of the divertor for 12 frames
102244	KLDT-O5WB	47.259	UFOs	Inner wall sparks recorded for 4 frames
102235	KLDT-P5WA	49.16668	UFOs	Several UFOs appear near the outer limiter between t=49.16668s and t=49.56825s

102168	KL11-P1DB	56.4	UFOs	Starting at ~56.4s Cu/Md impurity flux, causing a mode lock, magnetic centre of the plasma moves down by 15cm.
102149	KL11-P1DB	49.99798	UFOs	UFOs in Tile 8 region just after disruption. If you look closely you can even see a little black spot in the last frame of the disruption.
102145	KL11-P1DB	42.9185	UFOs	Very bright UFO in divertor zone
102145	KL11-P1DB	41.65856	UFOs	UFOs in divertor zone for several frames.
102145	KL11-P1DB	43.11848	UFOs	UFO in divertor zone. (Small UFOs also in some previous frames)
102141	KLDT-O5WB	51.61641	UFOs	Fairly bright UFO at top of machine - not visible on Ops Cam.
102129	KLDT-E5WD	53.775	UFOs	Still some dust flying around with the end of the pulse.
102101	KLDT-O5WB	54.25567	UFOs	UFO dropping from UDPT similar to during the pulse 102096
102096	KLDT-O5WB	55.69046	UFOs	UFO dropping from UDPT, seen also by KLDT-E5WD camera but not by protection
102081	KLDT-O5WB	49.01416	UFOs	UFOs coming from limiters throughout pulse
102074	KLDT-E5WD	46.449	UFOs	UFOS circling on top of the divertor
102068	KLDT-E5WD	48.23	UFOs	UFOs appear to be produced at the NPL in between the Antenna B and the LH
101957	KL11-P1DB	44.87841	UFOs	UFO visible on this frame (just) and the next entering the field of view.
101950	KLDT-P5WA	50.29495	UFOs	UFO on the outer wall. Also visible on KLDT-O5WB, 50.34306 s.
101939	KLDT-O5WB	54.44	UFOs	Several UFOs in the divertor starting with frame 409
101937	KLDT-O5WB	43.37	UFOs	Brigh UFO in the divertor area
101897	KLDT-E5WD	57.15	UFOs	UFOs seen in the divertor zone -few frames, also seen some UFOs by KL11-P1DB more or less in the same time
101894	KLDT-E5WD	49.8125	UFOs	UFOs flying in the divertor zone (several frames)
101892	KLDT-E5WD	47.375	UFOs	UFO seen on tile 3/4 one frame and then around 53.3875s UFO seen on tile 0/1 one frame
101892	KL11-P1DB	47.45819	UFOs	UFO flaying around divertor and splashing on tile 7
101887	KL11-P1DB	54.8377	UFOs	Flurry of particles from the outer divertor following the disruption
101867	KLDT-O5WB	47.16602	UFOs	Blue flash on limiter 4D.
101846	KL1-P4DA	48.50136	UFOs	Small UFO on tile 8, despite apparent lack of heating.

101845	KL11-P1DB	48.63814	UFOs	Hot UFO shoots up from tile 8
101845	KL11-P1DB	48.39816	UFOs	UFO after impact of runaways
101844	KLDT-O5WB	56.19923	UFOs	Minor UFOs such as this one in the divertor zone, but no more than expected after the last pulse. Not visible on protection cam.
101840	KL11-P1DB	55.43766	UFOs	UFOs visible for 2 frames.
101840	KL11-P1DB	61.63722	UFOs	Very bright UFO
101840	KLDT-O5WB	54.68106	UFOs	Blue streaks in the divertor zone. Also visible on KLDT-P5WA frame 584.
101813	KLDT-O5WB	51.5875	UFOs	Single frame blue UFO
101803	KL11-P1DB	54.7577	UFOs	Christmas is coming!
101800	KL11-P1DB	49.09808	UFOs	
101789	KL11-P1DB	40.6787	UFOs	Quite few UFOs flying around on the begining of the pulse (seen by KLDT-O5WB) and some UFO coming from tile 3 (?)47.35822s.
101775	KLDT-E5WD	41.7	UFOs	UFO from inner divertor/wall
101773	KLDT-O5WB	41.66006	UFOs	UFOs in deivertor just after x formation
101756	KL11-P1DB	45.97	UFOs	Intense UFO activity which seems be be generated from the divertor inner tile(1) initially and bounce to outer divertor (45.6s to 48.03)
101754	KLDT-O5WB	46.07	UFOs	UFOs spotted after X formation on the upper divertor inner side.
101748	KL11-P1DB	41.89857	UFOs	UFO in divertor visible for 3 frames.
101746	KLDT-O5WB	55.3698	UFOs	Attractive tinselly UFO in Ops Cam.
101745	KLDT-O5WB	41.65961	UFOs	Unimpressive UFOs in the divertor zone over several frames.
101741	KLDT-O5WB	72.24633	UFOs	Blue flash on the inboard wall at the very end of the pulse.
101722	KLDT-O5WB	50.64995	UFOs	Diffuse blue spot on outer wall. Also visible on KLDT-E5WD in frame 924.
101721	KL11-P1DA	54.96136	UFOs	UFO from Tile 7.
101721	KL11-P1DB	54.89763	UFOs	UFOs from Tile 7.
101685	KL11-P1DB	51.5578	UFOs	UFO from tile 5 and some UFOs during disruption (53.05771s mostly on tile 8) and after
101640	KLDT-O5WB	48.58887	UFOs	Two ufos at 48.5 and 50
101528	KLDT-O5WB	44.40471	UFOs	Short lived UFO near the inner wall early in the pulse
101522	KLDT-O5WB	66.643	UFOs	Sparkles for several frames.
101521	KLDT-O5WB	66.42246	UFOs	Shower of blue UFOs over several frames. Not visible on KLDT-P5WA.
101520	KLDT-O5WB	41.92327	UFOs	UFO in divertor zone. Also small UFO at 42.72603
101493	KLDT-O5WB	48.98933	UFOs	Bright green flash in front of ILA -

				probably arcing. Spectroscopy shows different signals around the time, notably nickel and chromium, although there is slight time difference - signals in spectroscopy appear at 48.91 s. KL108WA also sees this flash but at 48.93486, closer to where spectroscopy sees it. Is there a delay in KLDT-O5WB time vector?
101490	KLDT-O5WB	66.14122	UFOs	UFOs seen also on cameras KLDT-E5WC and KLDT-E5WD
101489	KLDT-O5WB	40.52466	UFOs	During the breakdown some UFOs coming from the limiter
101489	KLDT-O5WB	66.57543	UFOs	The same issue, end of the pulse UFO's visible also on the cameras KLDT-E5WC, KLDT-E5WD
101488	KLDT-O5WB	66.64966	UFOs	During the end of the pulse lots of UFOs coming from limiter seen also on KLDT-E5WD (slightly visible on protection camera KLDT-P5WA)
101487	KLDT-O5WB	66.50898	UFOs	The same issue with the end of the pulse, more UFOs than in the previous pulse (visible also on the camera KLDT-E5WD, KLDT-E5WC but not on the protection camera)
101486	KLDT-O5WB	67.03695	UFOs	UFOs coming from limiters with the end of pulse, visible on KLDT-E5WD (less than in the previous pulse and almost not visible on the protection camera)
101485	KLDT-O5WB	66.13433	UFOs	UFOs (probably Be) with the end of pulse coming from limiters visible also on cameras KLDT-P5WA, KLDT-E5WD and KLDT-E5WC
101481	KLDT-E5WC	66.276	UFOs	Shower of UFOs from limiter 4D again.
101479	KLDT-E5WC	66.035	UFOs	Significant UFO shower from limiter 4D at end of pulse. EiC observed.
101477	KLDT-P5WA	66.57176	UFOs	UFO appears from outer wall and fragments over a few frames.
101476	KL11-E1DF	48.88779	UFOs	String-like UFO observed. Several frames later (at t=49.02156s) there appears to be some material ejected out the inner divertor leg
101473	KLDT-E5WD	66.1375	UFOs	Several UFOs near the upper poloidal limiters. Also seen with KLDT-O5WB from t=66.2993s
101472	KLDT-O5WB	42.08616	UFOs	small UFOs spotted near the divertor. More seen at t=49.27204s
101470	KLDT-O5WB	66.65661	UFOs	Bright UFO visible for one frame only near outer wall at the beginning of the floppy disruption. Not visible on PIW cam.

101468	KLDT-P5TB	50.06542	UFOs	UFOs in divertor while the divertor is cool.
101467	KLDT-O5WB	48.74013	UFOs	A collection of apparently unconnected UFOs in frames 267, 269 and 273.
101462	KL11-E1DF	48.64281	UFOs	UFOs (probably W) emitted from tile 3 under inner strike point. Possible cause of disruption, though could be RF.
101458	KLDT-O5WB	41.76792	UFOs	Shower of blue UFOs for 5 frames (more if you look carefully). Not visible on KLDT-P5WA.
101452	KL11-P1DB	63.51692	UFOs	Shower of fairly bright UFOs running for several frames during the untidy landing. Also visible on KL11-P1DA. Notified SL.
101452	KL11-P1DB	57.81731	UFOs	UFO in divertor seen against bright plasma background over three frames.
101452	KL11-P1DB	41.59853	UFOs	Bright UFO in divertor
101451	KLDT-O5WB	58.35405	UFOs	Several small blue UFOs at the pulse termination. Not visible on PIW cam. (Visible starting frame 1535 on KLDT-E5WD)
101436	KLDT-O5WB	66.76681	UFOs	Several small UFOs in divertor at pulse termination.
101433	KLDT-E5WD	56.2625	UFOs	Multiple small UFOs in the seconds before disruption. Continues until 56.425
101432	KL8-E8WA	51.699	UFOs	Large flash from UFO, also visible on KL1-08WA
101427	KLDT-O5WB	50.34429	UFOs	UFOs flying near Tile 1, visible also on the camera KL11-P1DB
101425	KLDT-O5WB	59.3229	UFOs	UFOs seen on the outboard side before the disruption 1 frame.
101399	KLDT-O5WB	56.79913	UFOs	It seems some material falling off the Upper Dump plates
101391	KLDT-O5WB	55.58681	UFOs	Flurry of UFOs on the divertor.
101347	KLDT-O5WB	41.84728	UFOs	UFO visible on Ops cam and KLDT-E5WD (frame 219) but not on KLDT-P5WA.
101282	KL7-E8WB	63.87473	UFOs	Large UFO falls from near upper inner sausages
101281	KLDT-P5WA	59.04527	UFOs	UFO starting at the upper outer sausages
101259	KLDT-O5WB	64.30348	UFOs	UFO on O5WB 1 frame
101237	KLDT-O5WB	47.299	UFOs	UFO inner divertor seen for ~ 5 frames
101222	KLDT-O5WB	42.0443	UFOs	UFO in divertor area on Ops cam. Another one in the next frame.
101152	KLDT-O5WB	75.40518	UFOs	Cluster flying off near LH antenna

101135	KLDT-E5WD	50.2875	UFOs	UFOs in divertor zone visible on Bell filter
101122	KLDT-O5WB	54.76762	UFOs	Several UFOs at end of pulse
101101	KLDT-O5WB	63.32157	UFOs	Several UFOs from the outboard side over 3 frames. Setting the Evolve to Be II.
101010	KLDT-P5WA	49.18211	UFOs	Bright UFO on upper inner limiter 4X. Followed by UFO on outer wall several frames later. Visible clearly on KLDT-O5WB.
100961	KLDT-E5WD	64.325	UFOs	Spectacular UFO in Bell light.
100961	KLDT-O5WB	64.34768	UFOs	Blue UFO in outboard - possibly connected to the very bright plasma contact in the previous frame (seen at 64.22694 on KLDT-P5WA). More UFOs in subsequent frames.
100958	KLDT-O5WB	65.76197	UFOs	Blue UFOs on Ops Cam. Also visible on KLDT-E5WD at 65.70
100958	KLDT-P5WA	66.15789	UFOs	Very bright single frame UFO. Visible as a spectacular and highly saturated eruption at 66.13750 on KLDT-E5WD
100957	KLDT-O5WB	65.59896	UFOs	Minor blue UFOs during the floppy phase.
100894	KLDT-E5WD	53.8	UFOs	Series of bright Be UFOs from outboard side during heating in this pulse, mainly between 54 - 56s.
100878	KLDT-P5WA	48.03096	UFOs	Lots of flashes on the outer wall during this pulse
100877	KLDT-P5WA	48.244	UFOs	Self evident
100864	KLDT-P5TB	54.64354	UFOs	UFO on the border of tile 5 and 6.
100861	KLDT-E5WD	50.05	UFOs	Beautiful little beryllium UFO on the inner wall over several frames. Just visible on Ops Cam if you look closely.
100857	KLDT-O5WB	52.11747	UFOs	Large UFOs (6 frames) falling from the UDP region and desintegrating
100856	KLDT-O5WB	49.43437	UFOs	Large UFOs (for 6 frames), falling from the UDP region and desintegrating
100815	KLDT-O5WB	41.46025	UFOs	Beautiful UFO on upper outer wall. (Fireworks throughout this pulse on this camera)
100815	KLDT-P5WA	53.84804	UFOs	Unusual ghost moving across the wall.
100814	KLDT-O5WB	53.32187	UFOs	Many UFOs throughout the heating phase. Some seem to move upwards, towards the camera, or outwards. Some from the top of the machine.
100812	KLDT-O5WB	56.80684	UFOs	UFO falling from the UDP over 3

				frames.
100812	KLDT-O5WB	54.47816	UFOs	Single UFO emanating from nPL 3B, visible over 2 frames.
100811	KLDT-O5WB	52.8971	UFOs	More UFOs from the outer limiters until frame 458.
100810	KLDT-P5WA	53.19994	UFOs	Again, many blue UFOs emanating from the outer limiters. SL says it's from the RF/ILA with lower density.
100809	KLDT-O5WB	52.75181	UFOs	A flurry of UFOs from all the outer limiters starting at frame 367 and on to 415. Camera E5WD with Be II filter sees no UFO, so they are not beryllium(?) or it's fast shutter failed to catch them.
100789	KLDT-O5WB	50.825	UFOs	
100789	KLDT-O5WB	49.29977	UFOs	
100776	KLDT-O5WB	64.7155	UFOs	Multiple UFOs in the divertor and main chamber during termination, for 5 frames
100776	KLDT-O5WB	64.11333	UFOs	Flash at the outboard side moving down for two frames
100770	KLDT-O5WB	52.44911	UFOs	UFO near top of vessel for two frames. Visible on KLDT-E5WD at 52.400s
100745	KLDT-E5WD	41.2625	UFOs	UFO near top of vessel
100745	KLDT-E5WC	42.459	UFOs	UFO near IWGL 4Z. Not visible on other cameras
100709	KLDT-P5TB	56.12785	UFOs	UFOs from outer divertor
100704	KLDT-O5WB	51.6417	UFOs	Something from Antenna B? Also visible on KLDT-E5WE at 51.5683s, seems to be associated with ELM.
100704	KLDT-O5WB	49.554	UFOs	Something from the bottom of the ILA? Not sure if significant; RF pilots informed.
100647	KLDT-E5WE	54.09	UFOs	Bright UFO, maybe from inner wall? Also visible on KLDT-O5WB.
100553	KL11-P1DA	48.18134	UFOs	UFO moving vertically in inboard divertor area
100549	KLDT-O5WB	51.068	UFOs	Big UFO from the lower outboard. Not clear where it came from, fast camera was off. Also seen faintly by E5WD and C.
100526	KL11-P1DB	52.03	UFOs	
100516	KL11-P1DA	53.80134	UFOs	UFOs from Tiles 6 or 7 during disruption.
100476	KLDT-E5WD	57.7	UFOs	Small divertor UFO
100421	KLDT-O5WB	42.80499	UFOs	Tiny UFO, one frame
100416	KLDT-E5WE	41.288	UFOs	A little rat runs along the divertor. Visible as a streak in KLDT-O5WB at 41.34881.

100416	KLDT-E5WE	41.086	UFOs	Tiny UFO appears for several ms.
100395	KLDT-O5WB	54.7	UFOs	UFOs launching first from the top of the vessel (54.7-54.9s) and then from a bit above the outer midplane (55.7 s, 56.38 s, 56.90 s, 57.50 s)
100383	KLDT-O5WB	66.45206	UFOs	UFOs in the main chamber at pulse termination
100372	KLDT-O5WB	54.39	UFOs	UFOs visible by the operational camera
100246	KLDT-E5WC	50.172	UFOs	UFO from out wall visible on both mirrors for ~30 frames
100225	KLDT-E5WD	64.5677	UFOs	UFOs visible at end of pulse. Following these UFOs and inner limiter heating the SL lowered the DMV threshold.
100210	KLDT-E5WD	54.1625	UFOs	Stereographic UFO from IWGL during disruption
100208	KLDT-E5WD	52.5875	UFOs	UFOs from IWGL during disruption. Seem to come from section which briefly exceeded MCHS and panic limit. SL to reduce DMV voltage for following pulse.
100198	KLDT-P5WA	60.15069	UFOs	UFOs from outer limiters at end of pulse. Also visible on E5WD & E5WE.
100186	KLDT-E5WC	57.583	UFOs	Stereographic UFO view after rough landing.
100184	KLDT-P5WA	50.8269	UFOs	2 frames of stuff near the top during the disruption
100184	KL12-O1WC	50.80817	UFOs	Large UFO - something coming from the NBI duct?
100133	KLDT-O5WB	67.49	UFOs	UFOs in the termination phase in the main chamber
100131	KLDT-O5WB	54.30823	UFOs	Similar cloud of small UFOs to last pulse.
100130	KLDT-E5WD	53.8851	UFOs	cloud of UFOs seeming to come from outer limiters during floppy end of pulse
100125	KLDT-E5WE	47.212	UFOs	UFO seems to break off the outer limiter and fall into the machine.
100122	KLDT-P5TB	42.23872	UFOs	Small UFO over Stack D
100120	KLDT-O5WB	48.0833	UFOs	Small UFO near top of vessel. Not visible on other cameras
100103	KLDT-E5WD	55.6	UFOs	Frame:829