

KIC 008753385

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008753385-01	OBS	No	555.752612	199.316056	256.3	5.692	7.6	5.3	0.97	6067	1.73	0.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008753385-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

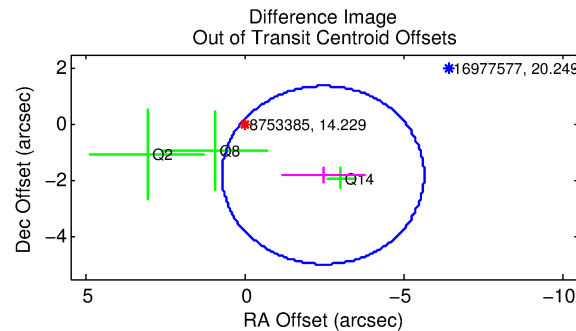
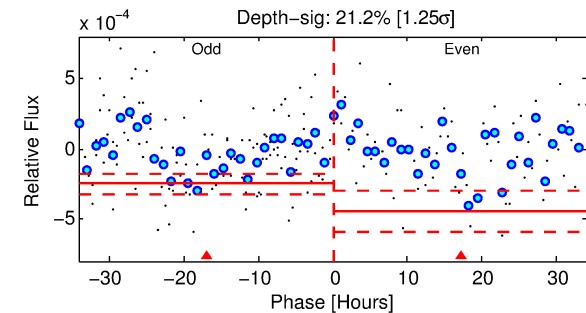
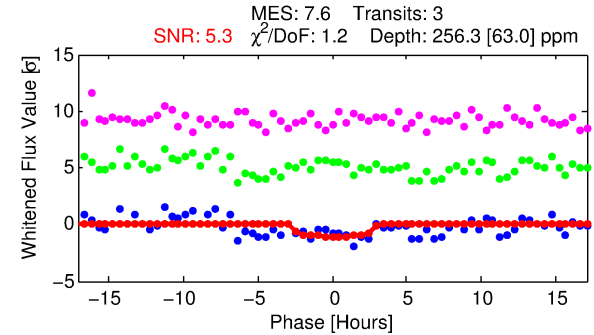
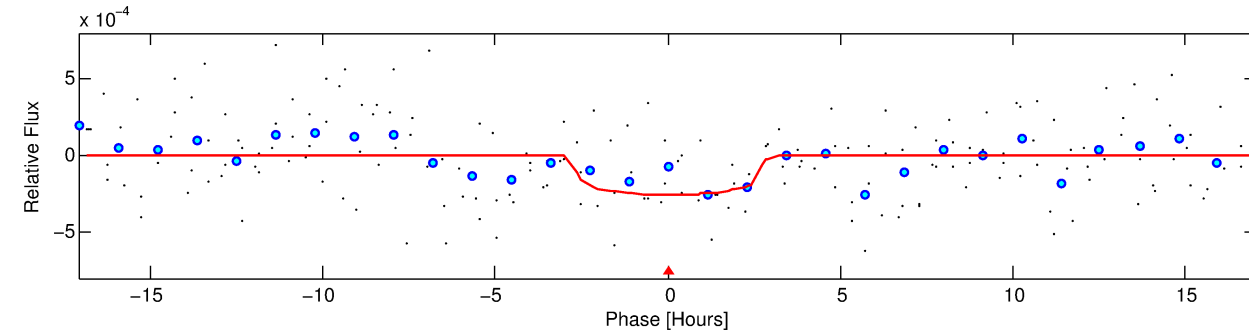
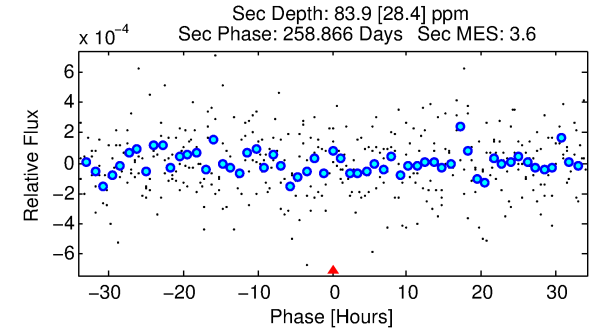
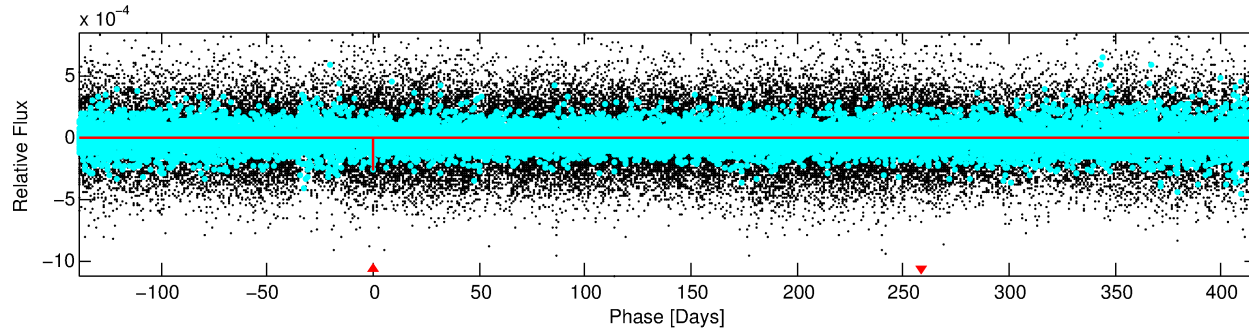
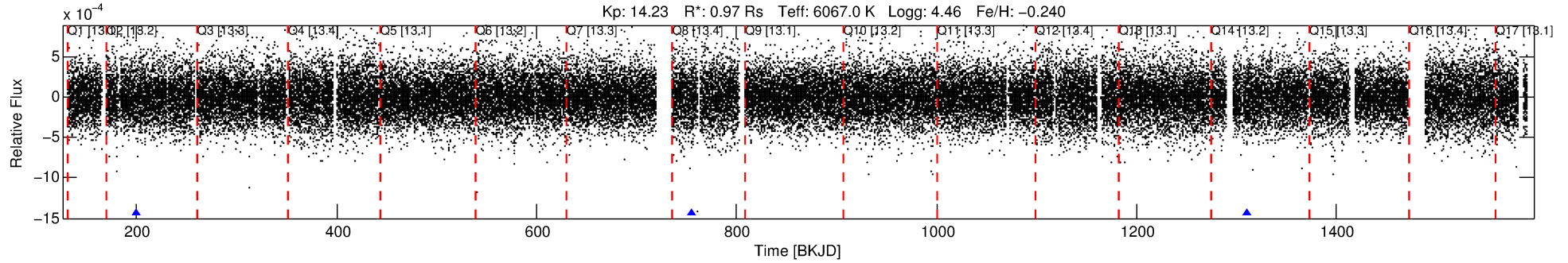
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008753385-01

No Significant Match Found

DV One-Page Summary

KIC: 8753385 Candidate: 1 of 1 Period: 555.753 d



DV Fit Results:

Period = 555.75261 [0.01739] d
Epoch = 199.3161 [0.0244] BKJD
Rp/R* = 0.0164 [0.0207]
a/R* = 447.23 [2852.09]
b = 0.82 [2.57]
Seff = 0.65 [0.27]
Teq = 229 [23] K
Rp = 1.73 [2.25] Re
a = 1.3180 [0.3485] AU
Ag = 26815.29 [69074.81] [0.39σ]
Teffp = 4536 [2892] K [1.49σ]

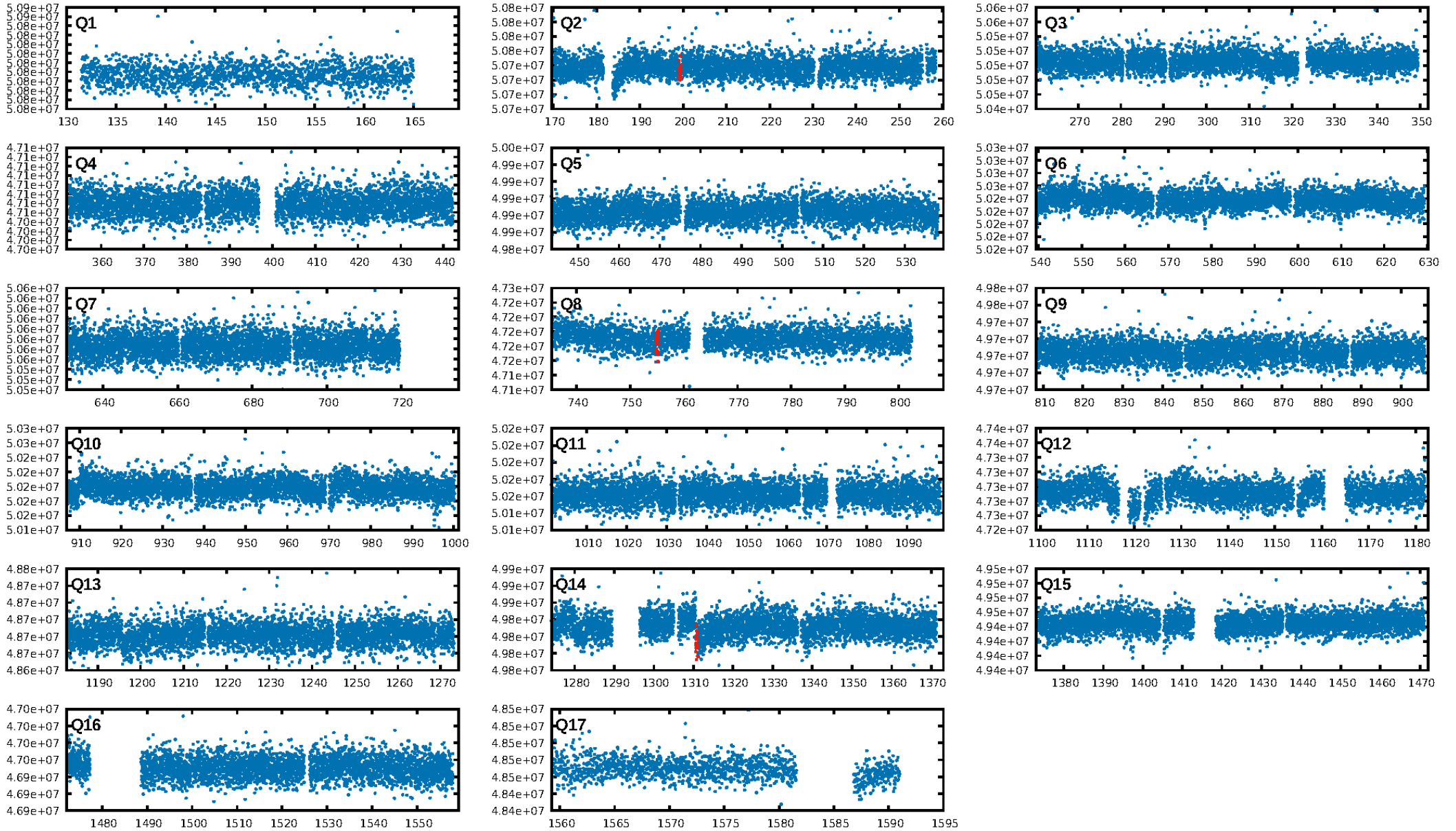
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 67.9%
ModelChiSquareGof-sig: 98.6%
Bootstrap-pfa: 1.50e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.895
Centroid-sig: 10.3%
Centroid-so: 3.570 arcsec [1.38σ]
OotOffset-rm: 3.043 arcsec [2.87σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-rm: 3.121 arcsec [2.93σ]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

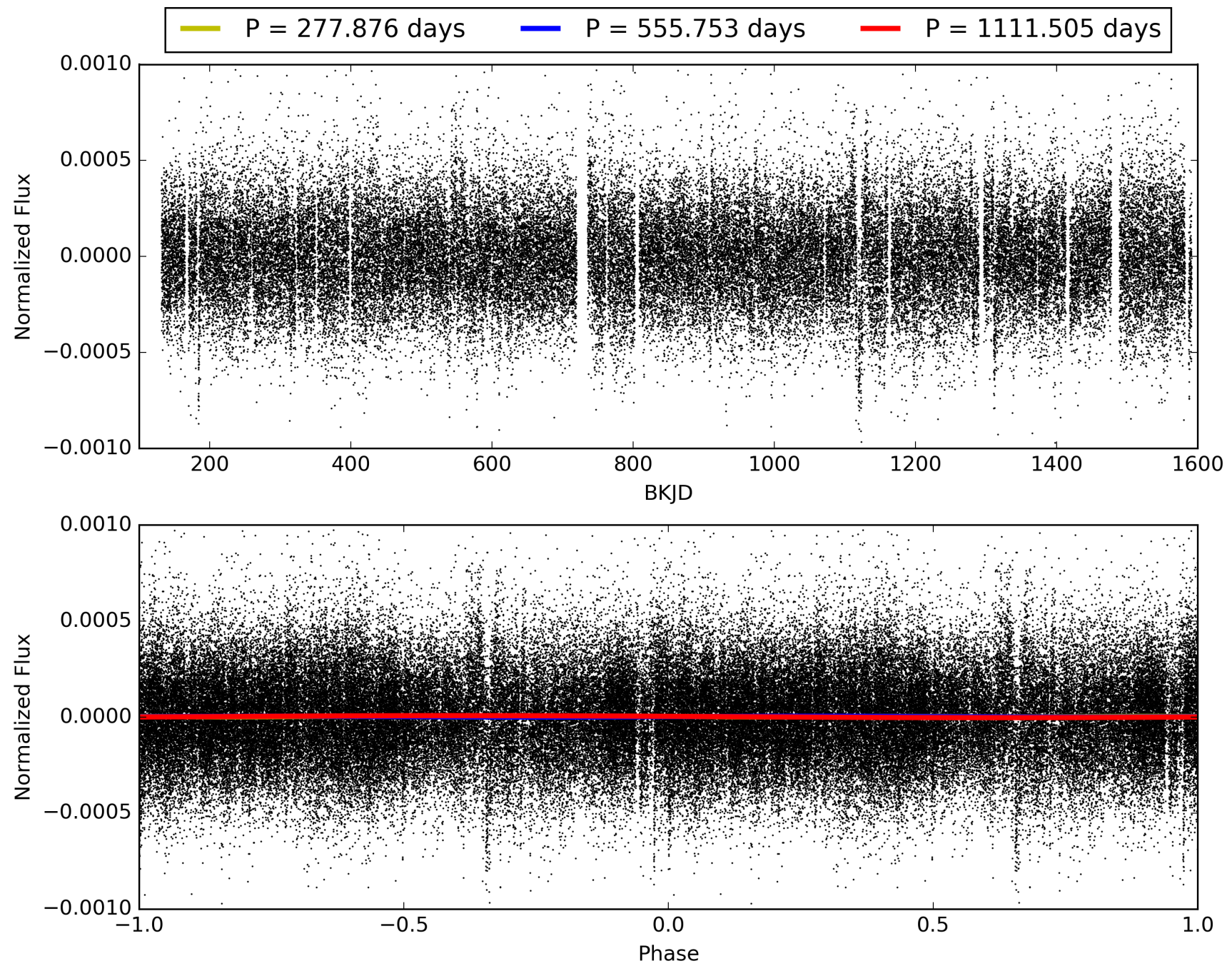
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:03:35 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008753385-01, PDC Light Curves

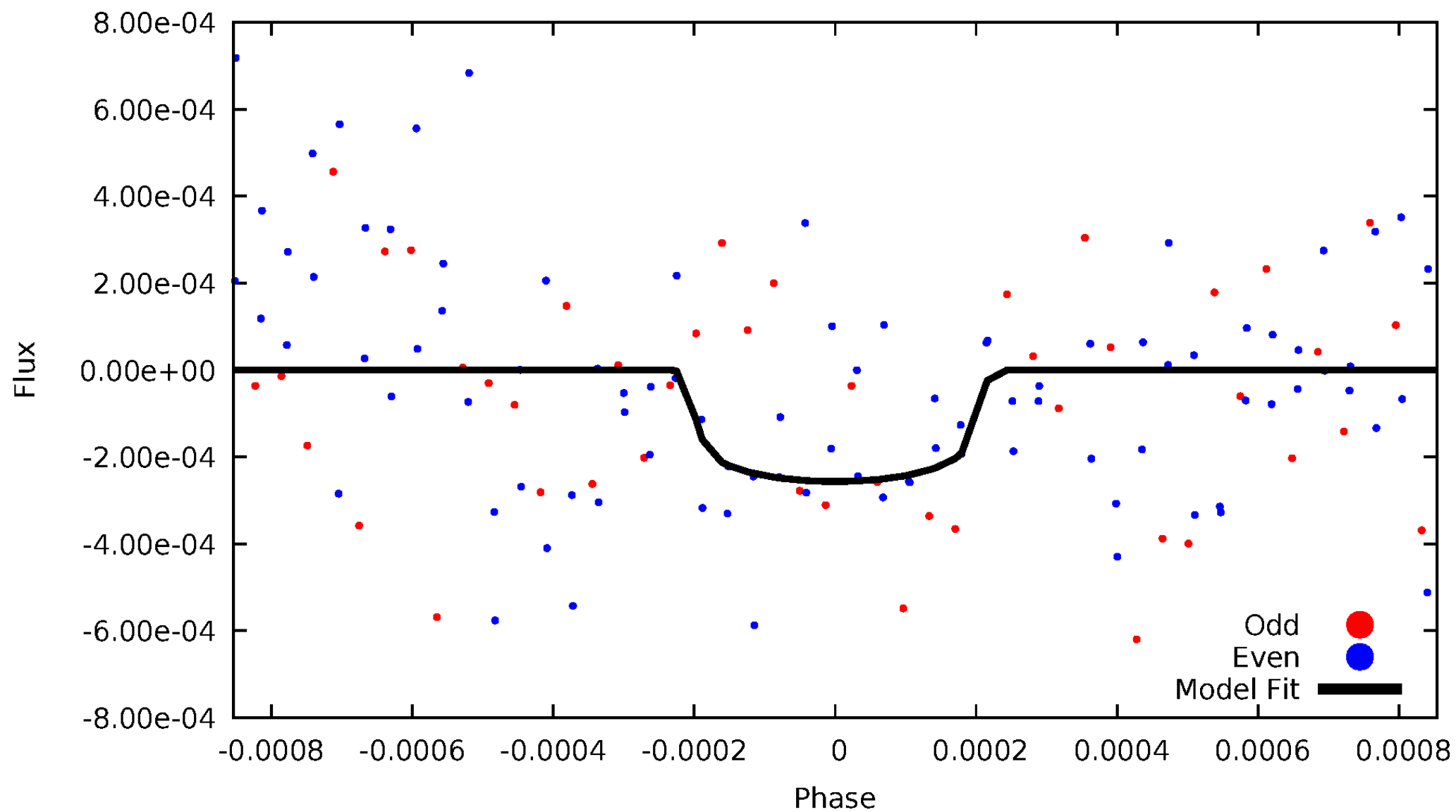


TCE 008753385-01



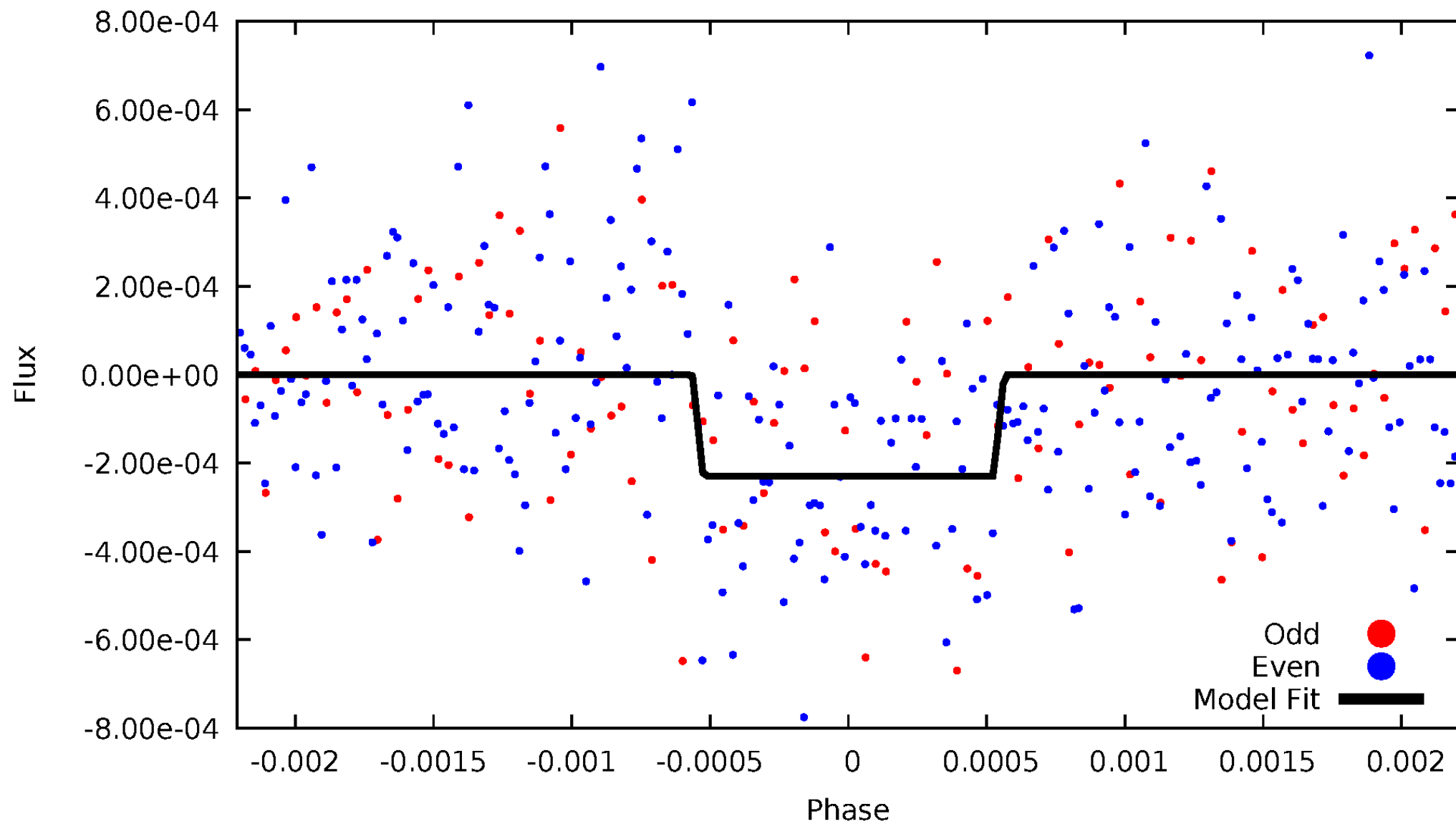
DV Odd/Even

TCE 008753385-01

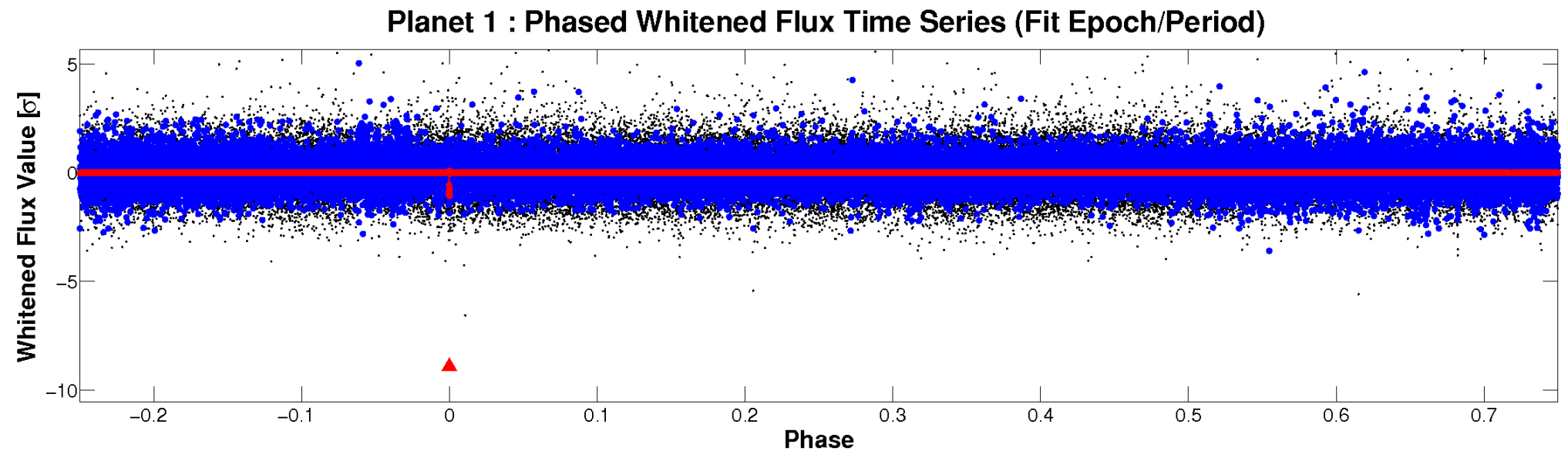
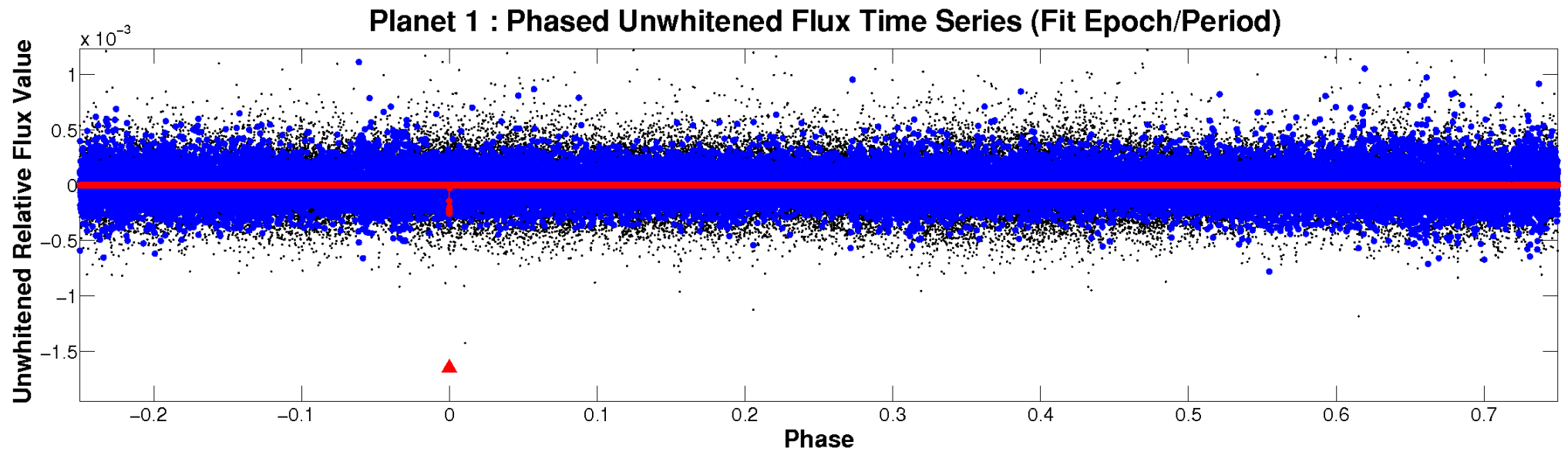


ALT Odd/Even

TCE 008753385-01

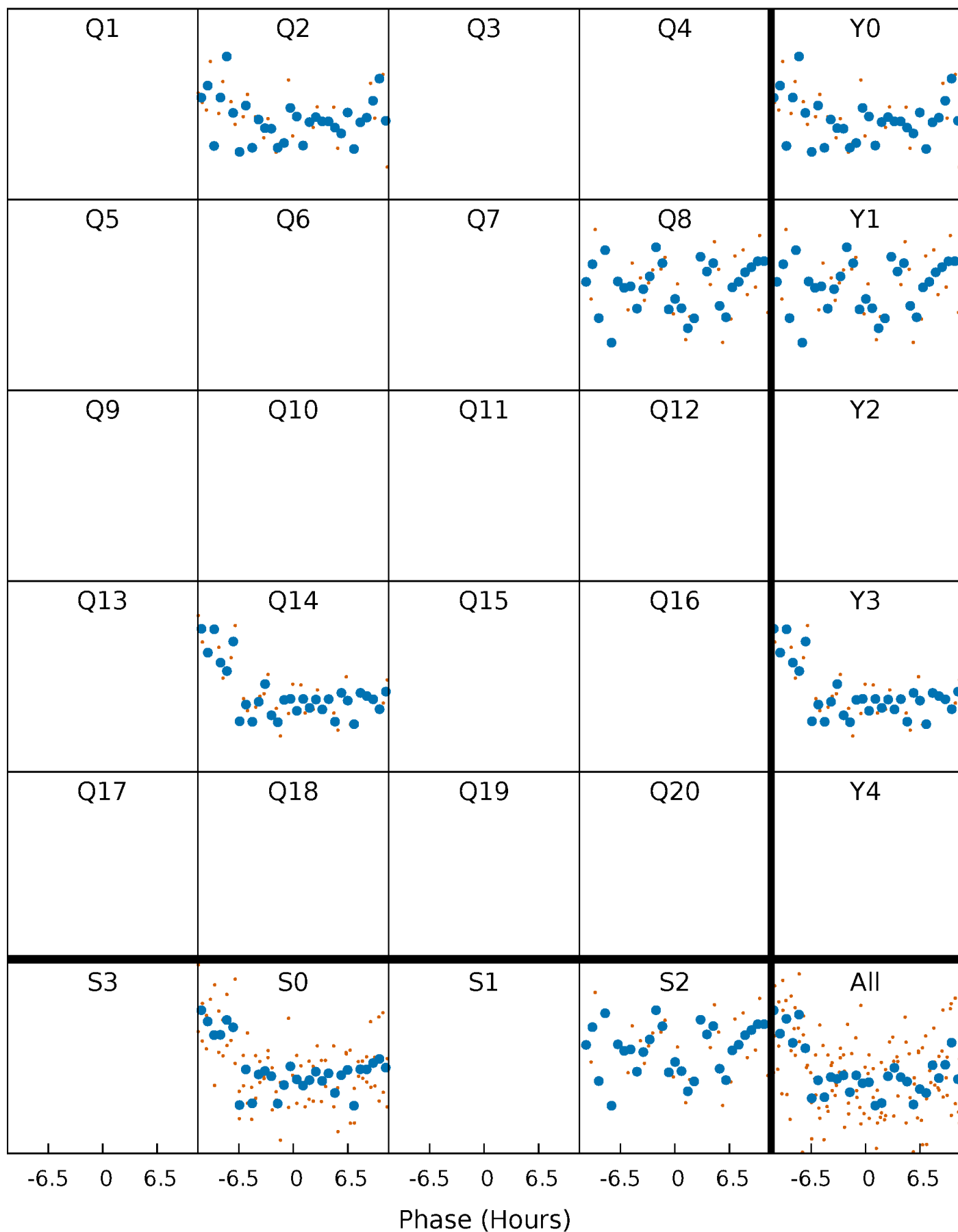


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 008753385-01 P=555.752612 Days $T_0=199.316056$ (BKJD)



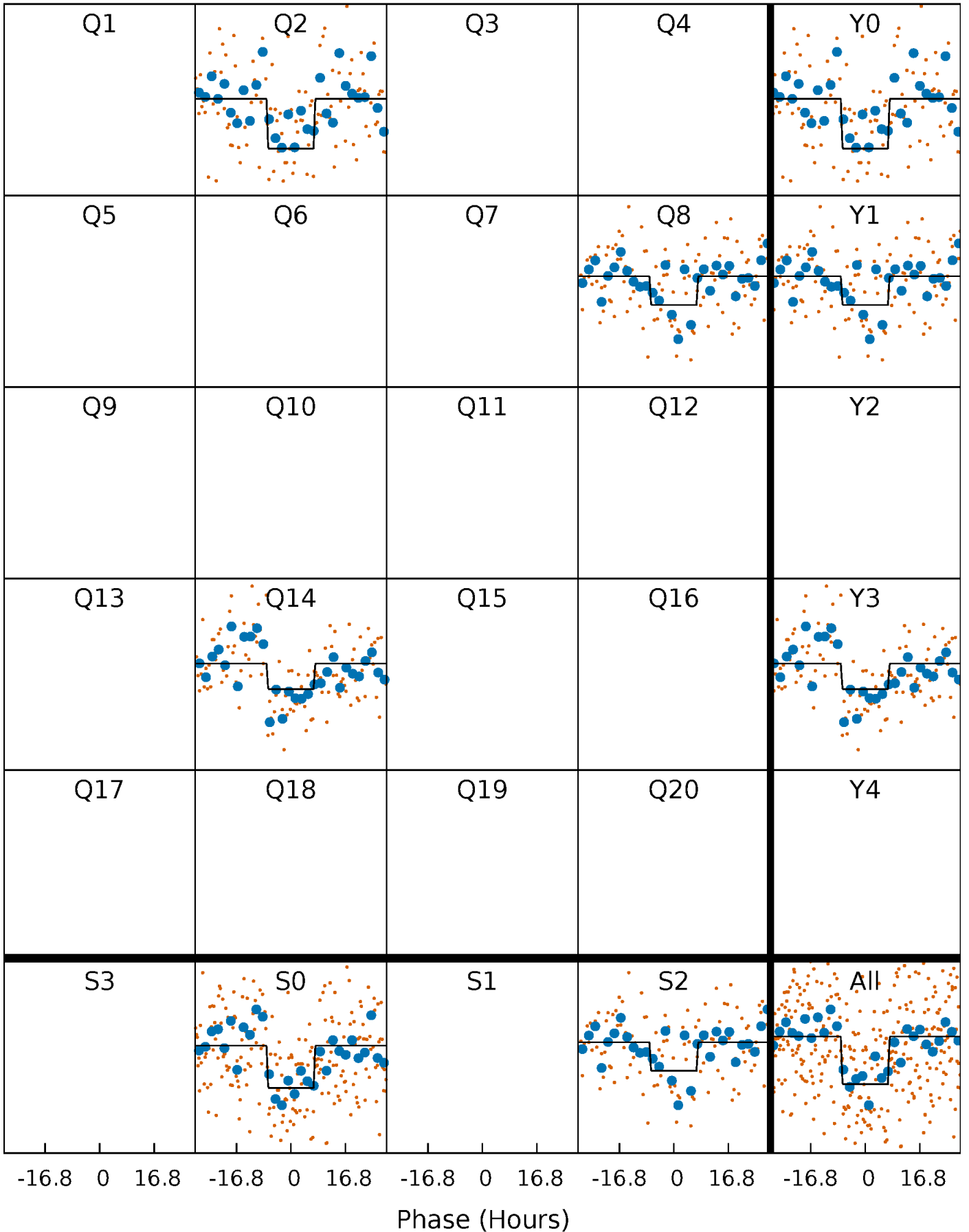
DV Quarter-Phased Transit Curves

TCE 008753385-01 P=555.752612 Days $T_0=199.316056$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

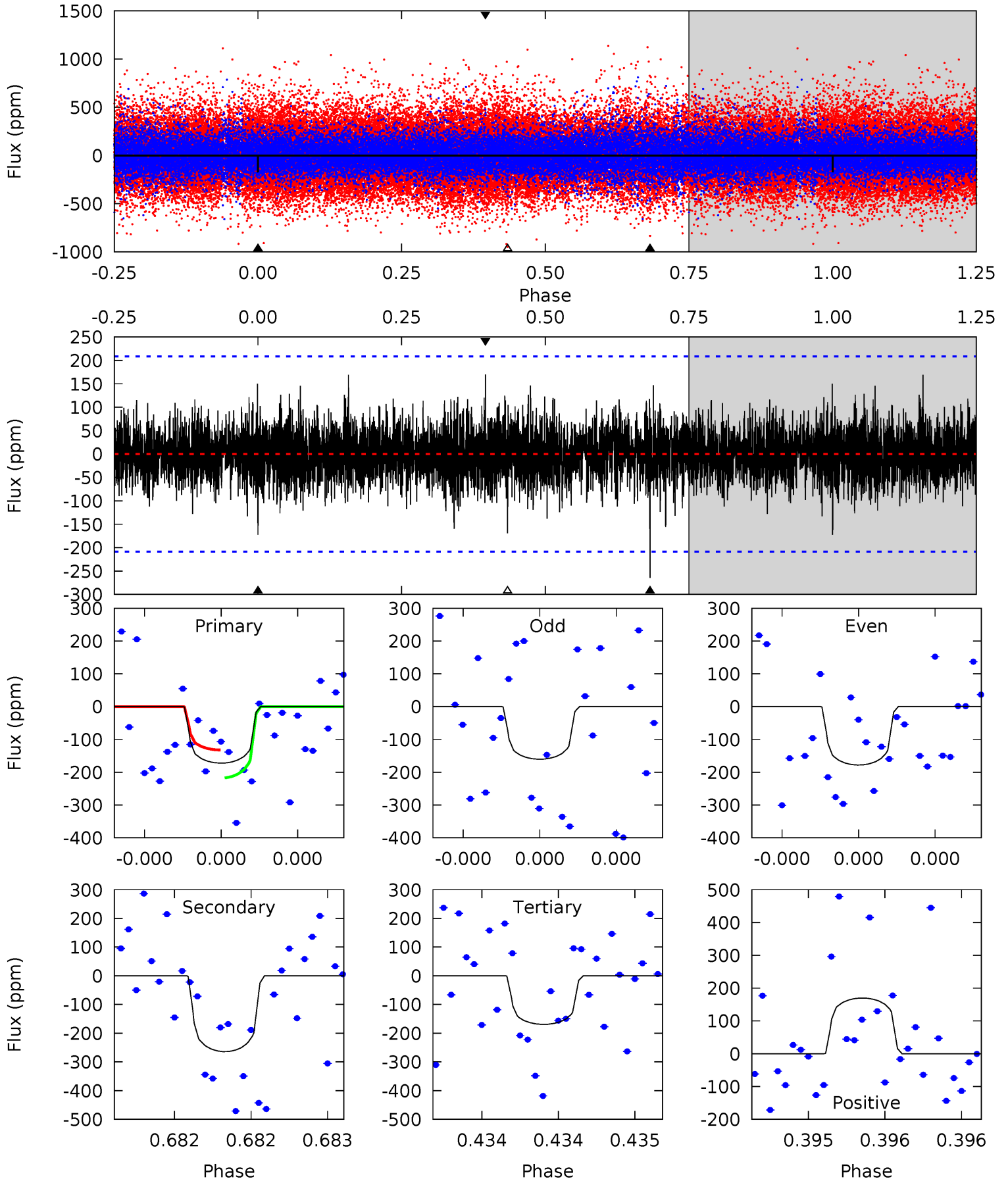
TCE 008753385-01 P=555.758776 Days $T_0=199.328949$ (BKJD)



DV Model-Shift Uniqueness Test

008753385-01, P = 555.752612 Days, E = 199.316056 Days

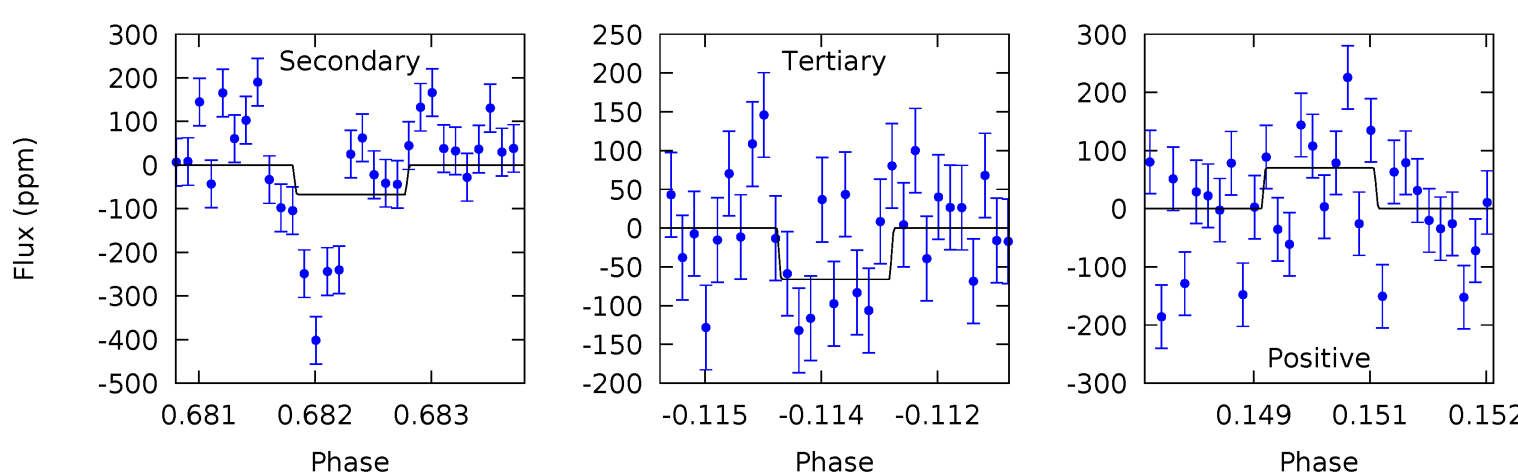
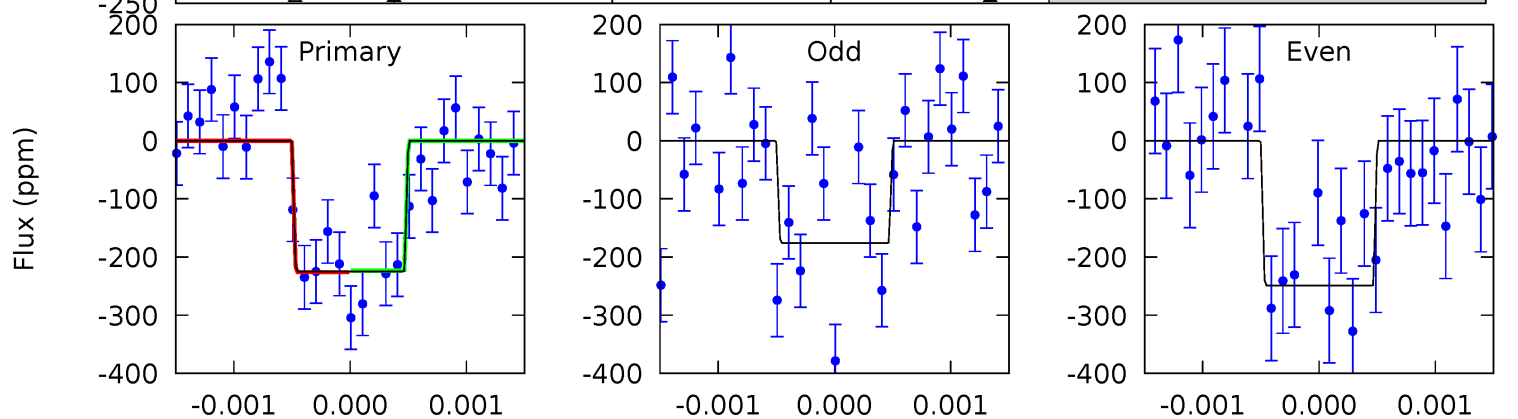
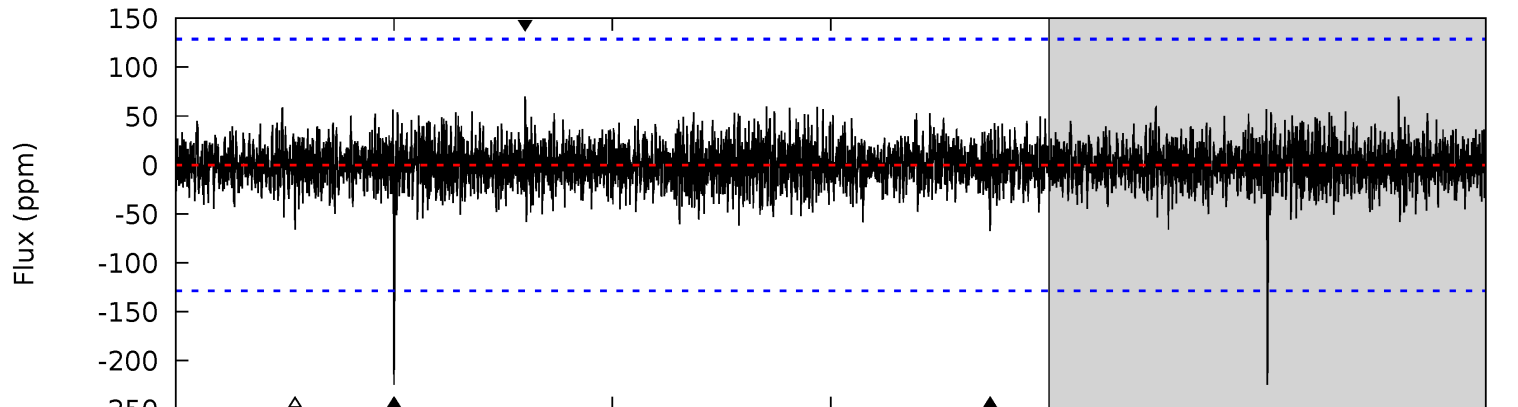
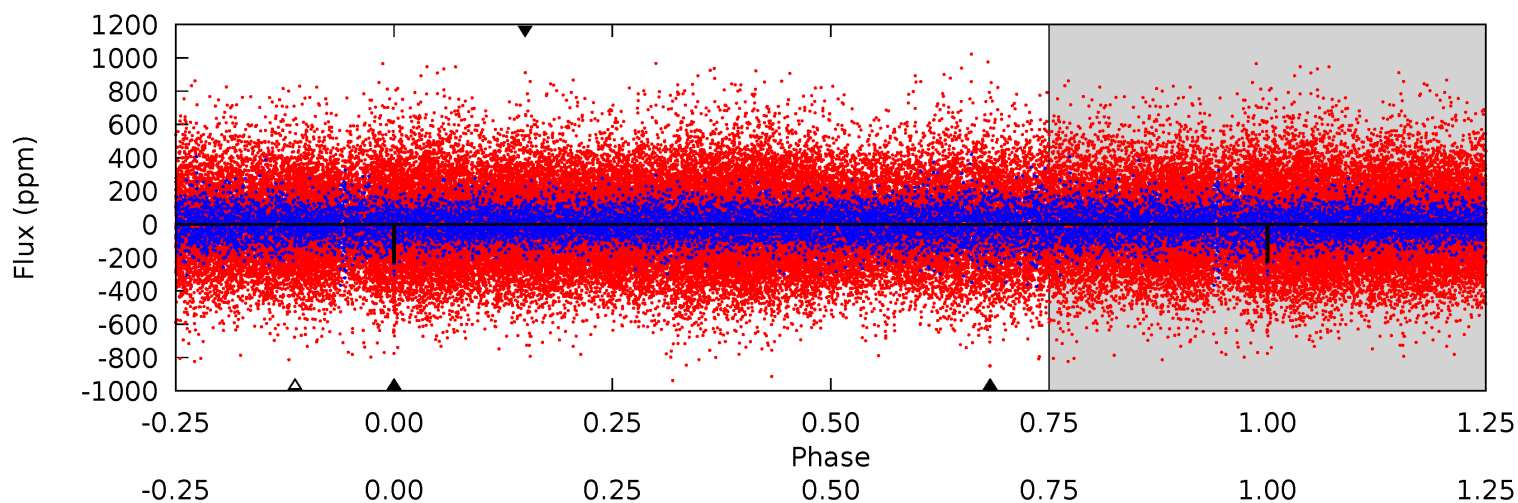
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.61	7.07	4.53	4.54	5.58	3.50	1.08	0.08	0.07	2.54	2.53	0.22	1.07	0.39	1.14



Alt Model-Shift Uniqueness Test

008753385-01, $P = 555.758776$ Days, $E = 199.328949$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.50	2.84	2.79	2.96	5.43	3.26	0.74	6.70	6.53	0.05	-0.12	1.49	1.28	0.24	0.06



Stellar Parameters For KIC 008753385

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6067^{+163}_{-199}	$4.462^{+0.070}_{-0.210}$	$-0.240^{+0.300}_{-0.300}$	$0.967^{+0.304}_{-0.101}$	$0.988^{+0.143}_{-0.117}$	$1.537^{+0.449}_{-0.829}$
	+3%/-3%	+2%/-5%	+125%/-125%	+31%/-10%	+14%/-12%	+29%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008753385-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-264 ± 37	$2.40^{+2.05}_{-1.51}$	324^{+23}_{-15}	5227^{+3950}_{-1108}	$43313^{+287427}_{-30951}$
Alt.	-67 ± 24	$2.39^{+2.02}_{-1.49}$	325^{+24}_{-15}	3977^{+1950}_{-752}	10719^{+65015}_{-8020}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

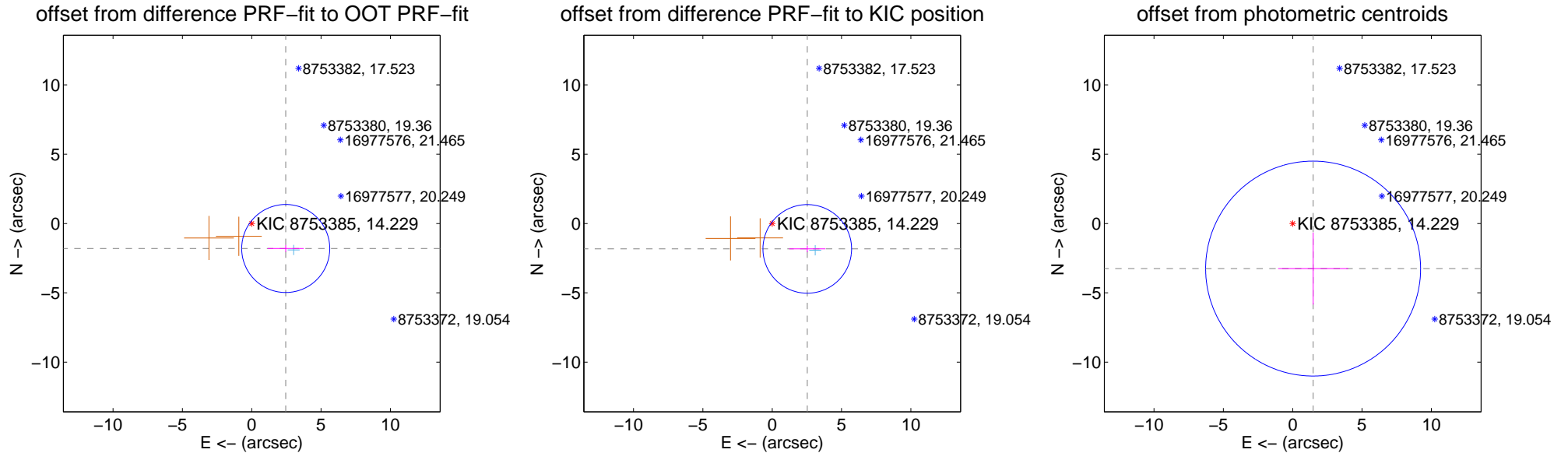
DV Centroid Data

Supplemental centroid analysis for 008753385-01. Kepler magnitude: 14.23. Transit SNR 5.33

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

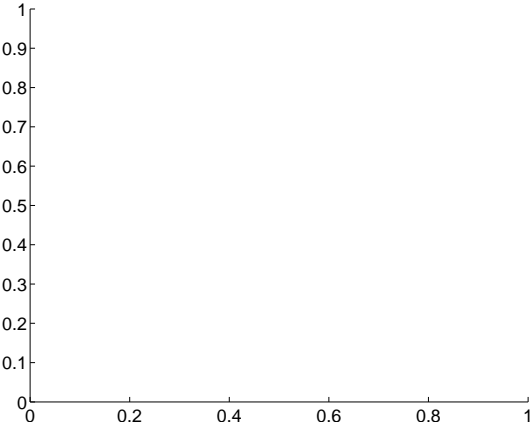
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.043 ± 1.058	2.87	-2.452 ± 1.301	-1.801 ± 0.248
PRF-fit source offset from KIC position	3.121 ± 1.065	2.93	-2.528 ± 1.304	-1.830 ± 0.238
photometric centroid source offset	3.57 ± 2.58	1.38	-1.47 ± 2.53	-3.25 ± 2.60



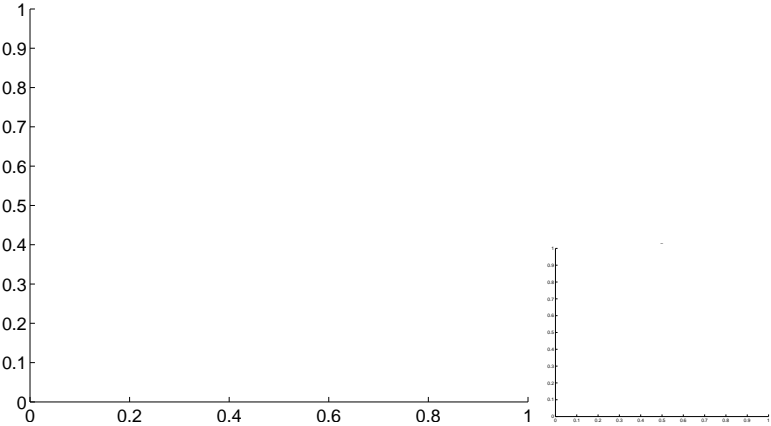
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

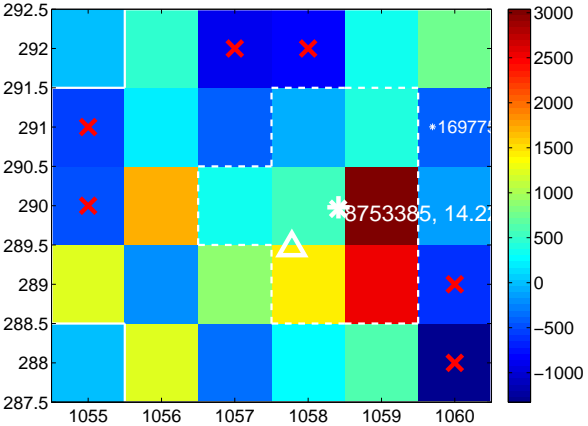
Q1 no difference image



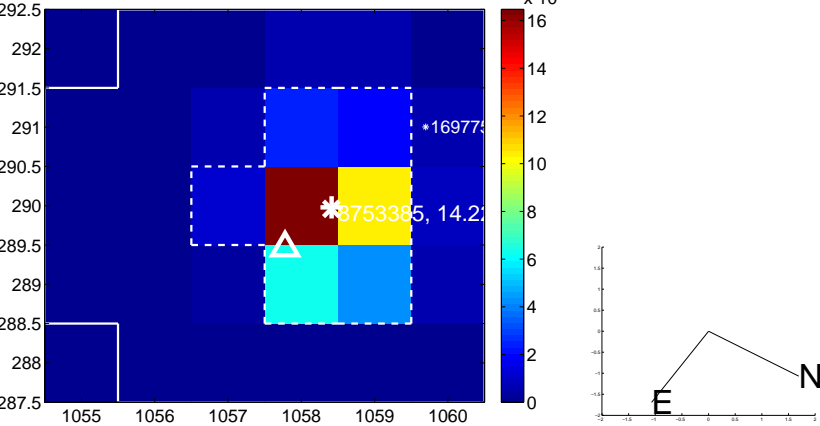
Q1 no OOT image



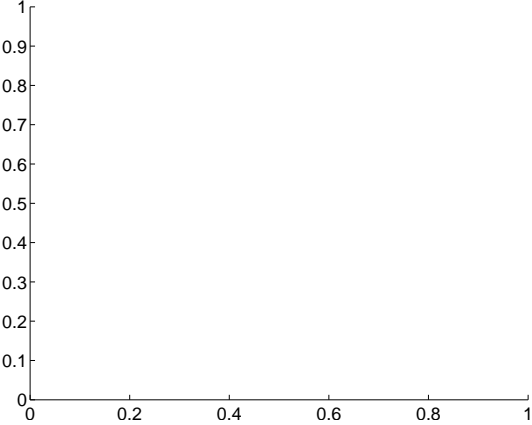
Q2 difference image. Poor Quality



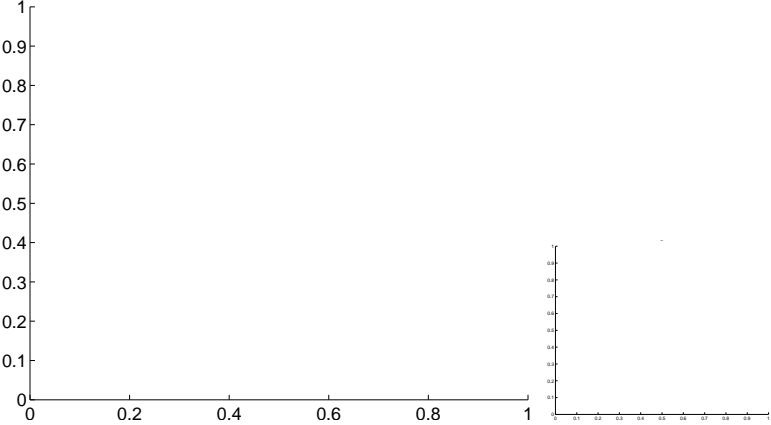
Q2 OOT image



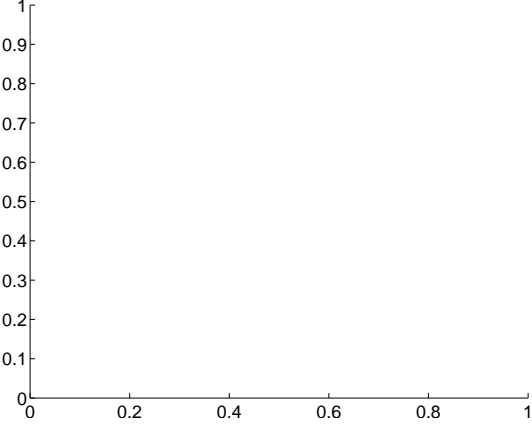
Q3 no difference image



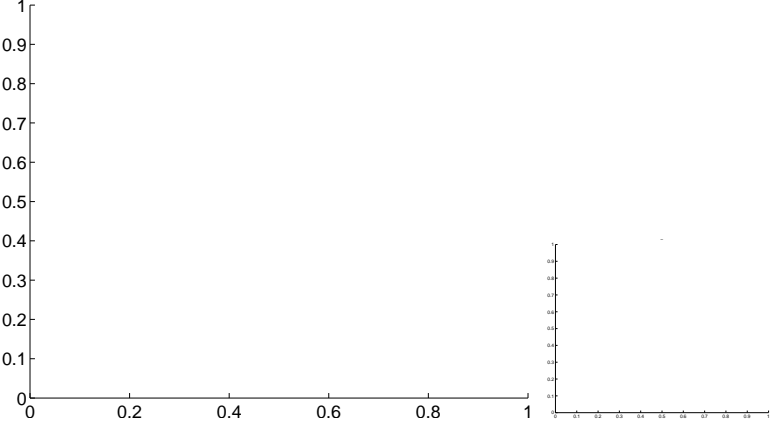
Q3 no OOT image



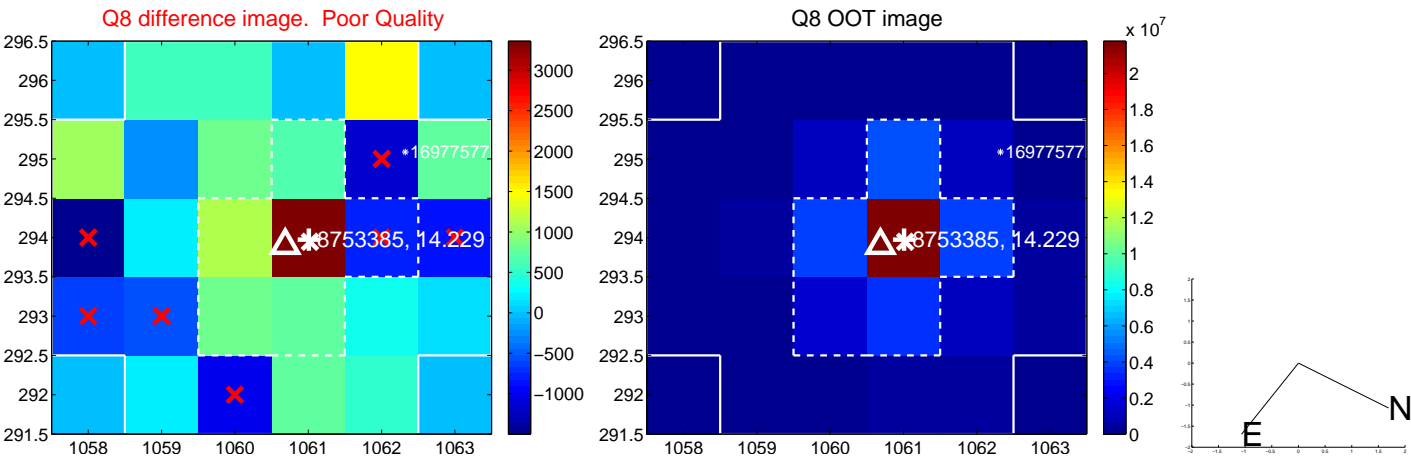
Q4 no difference image



Q4 no OOT image



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

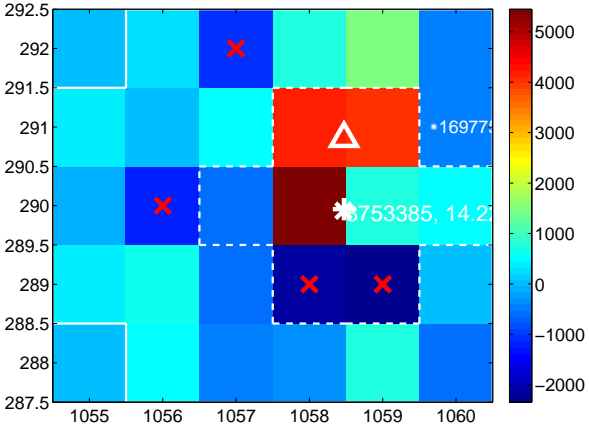
Q13 no difference image



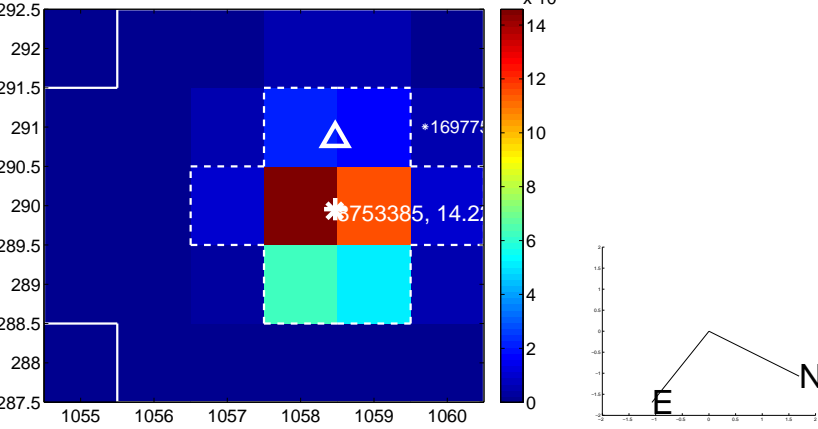
Q13 no OOT image



Q14 difference image



Q14 OOT image



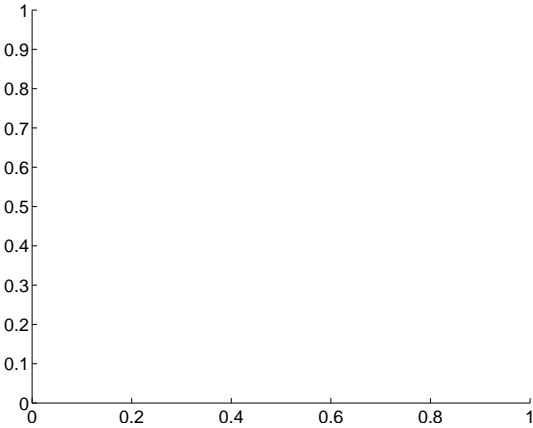
Q15 no difference image



Q15 no OOT image



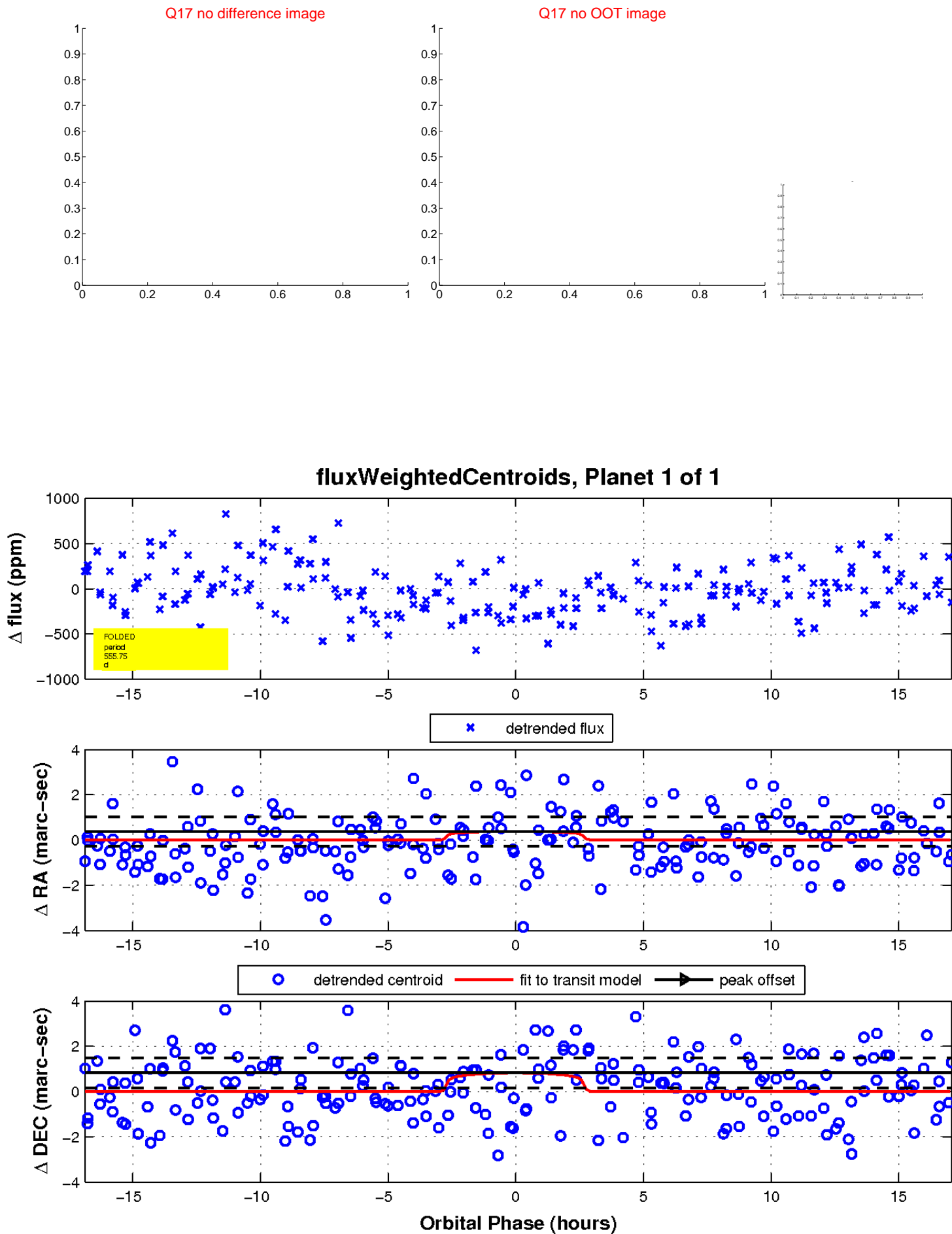
Q16 no difference image



Q16 no OOT image



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

