

KIC 007799540

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})
007799540-01	OBS	No	72.750145	159.758652	389.5	133.006	8.7	27.5	3.01	5351	12.13	47.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007799540-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

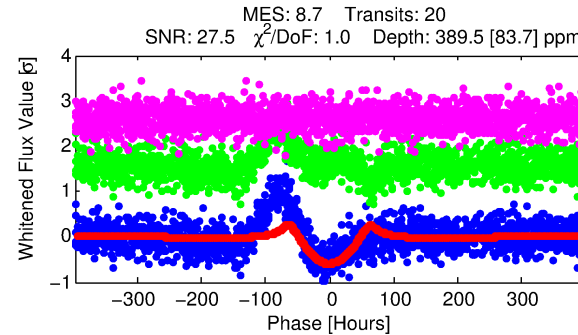
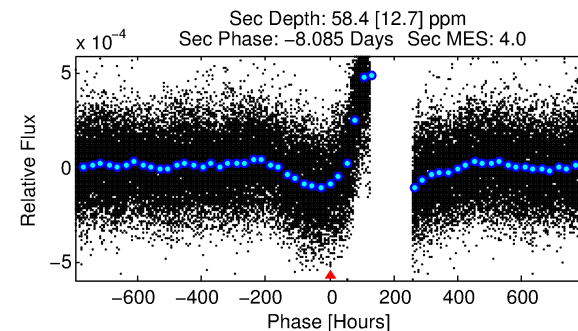
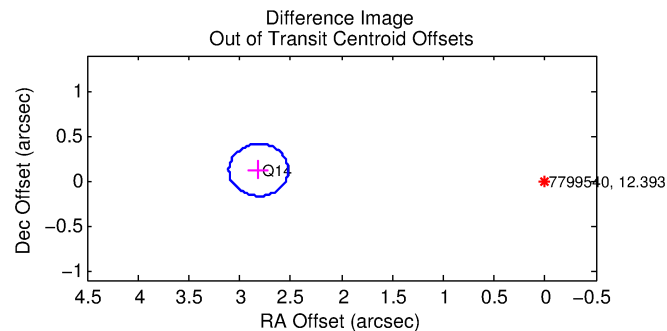
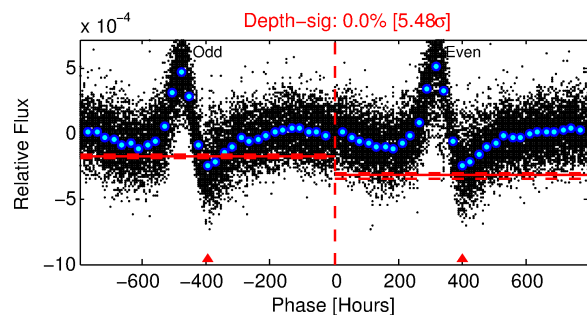
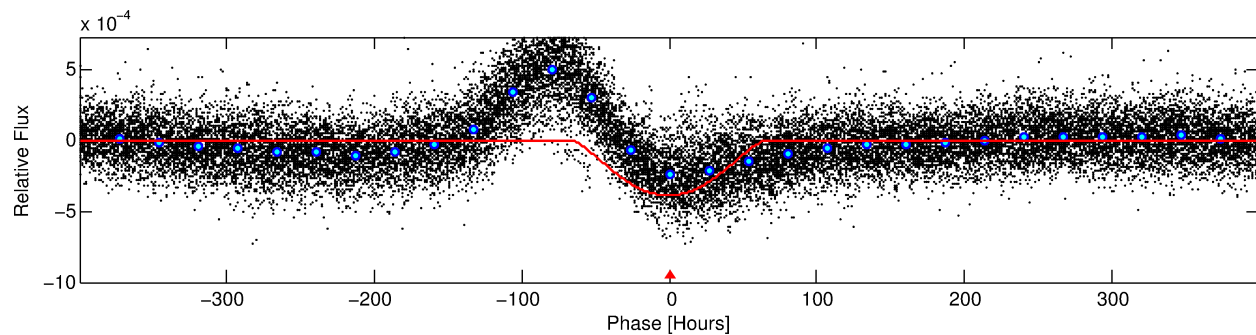
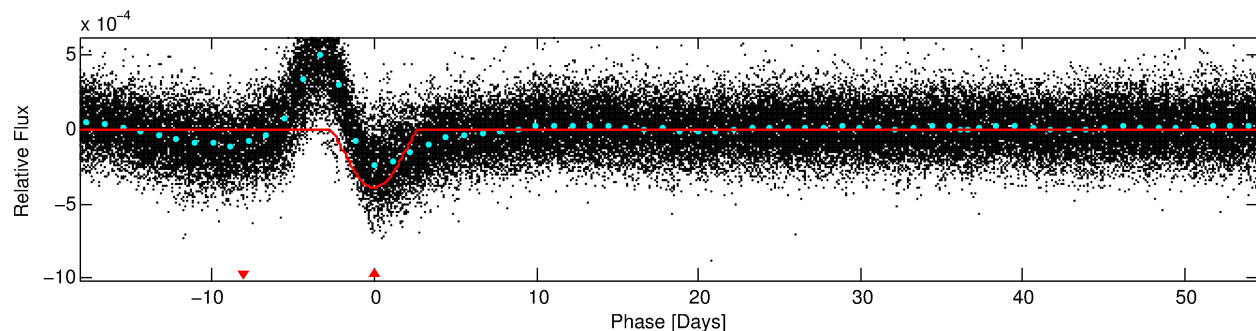
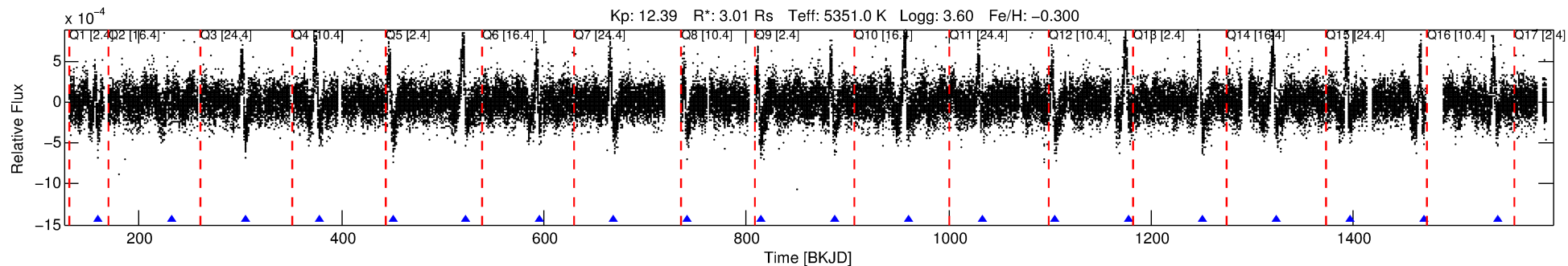
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007799540-01

No Significant Match Found

DV One-Page Summary

KIC: 7799540 Candidate: 1 of 1 Period: 72.750 d



DV Fit Results:

Period = 72.75014 [0.00702] d
Epoch = 159.7587 [0.0789] BKJD
Rp/R* = 0.0369 [0.0209]
a/R* = 1.53 [0.10]
b = 1.00 [0.02]
Seff = 47.34 [18.27]
Teq = 669 [65] K
Rp = 12.13 [7.70] Re
a = 0.3749 [0.0932] AU
Ag = 30.72 [37.09] [0.80 σ]
Teffp = 2435 [704] K [2.50 σ]

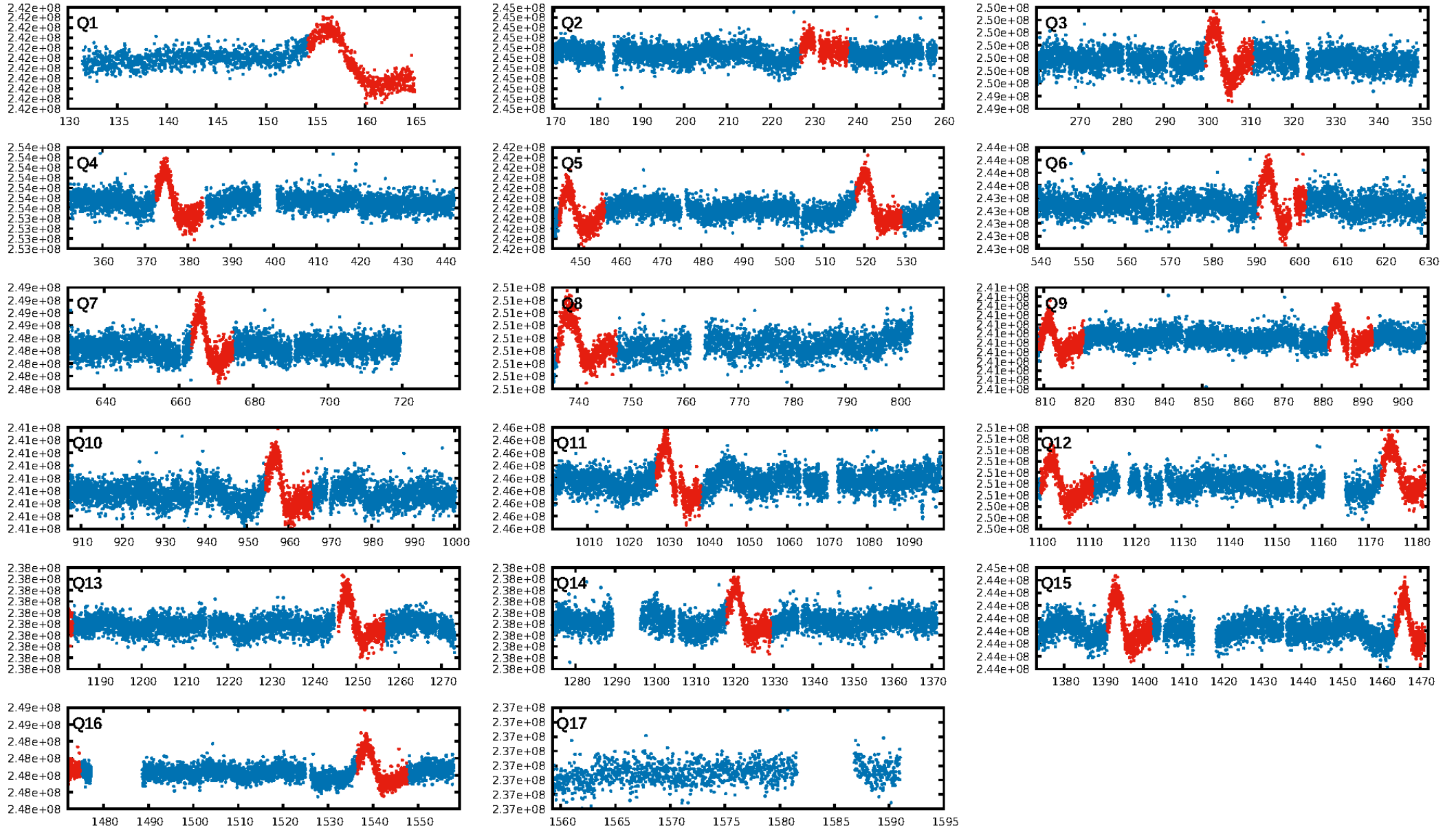
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.75e-17
RollingBand-fgt: 1.00 [19/19]
GhostDiagnostic-chr: 2.555
Centroid-sig: 0.0%
Centroid-so: 0.218 arcsec [2.07 σ]
OotOffset-rm: 2.818 arcsec [29.18 σ]
KicOffset-rm: 2.846 arcsec [29.47 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

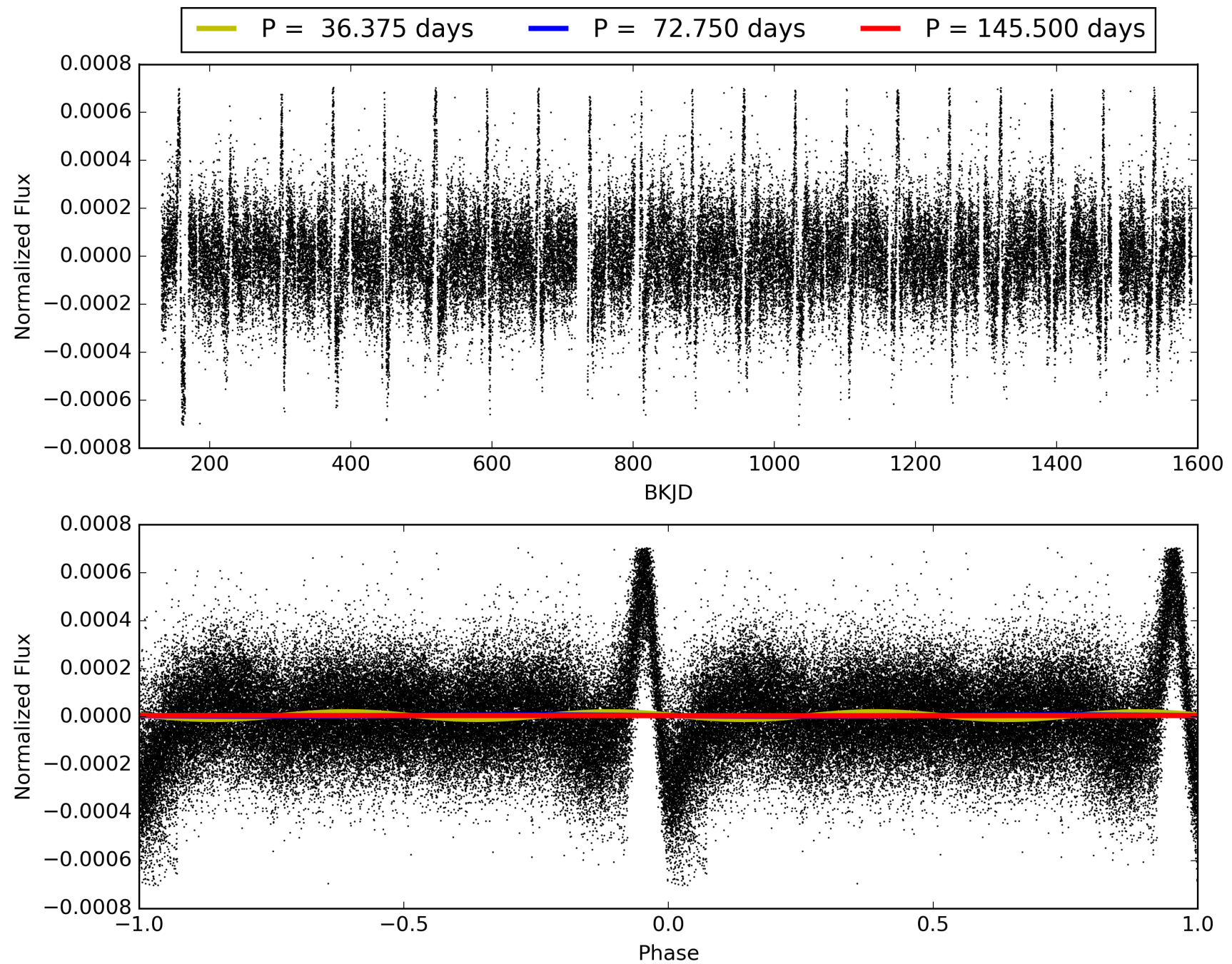
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:34:35 Z

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

TCE 007799540-01, PDC Light Curves

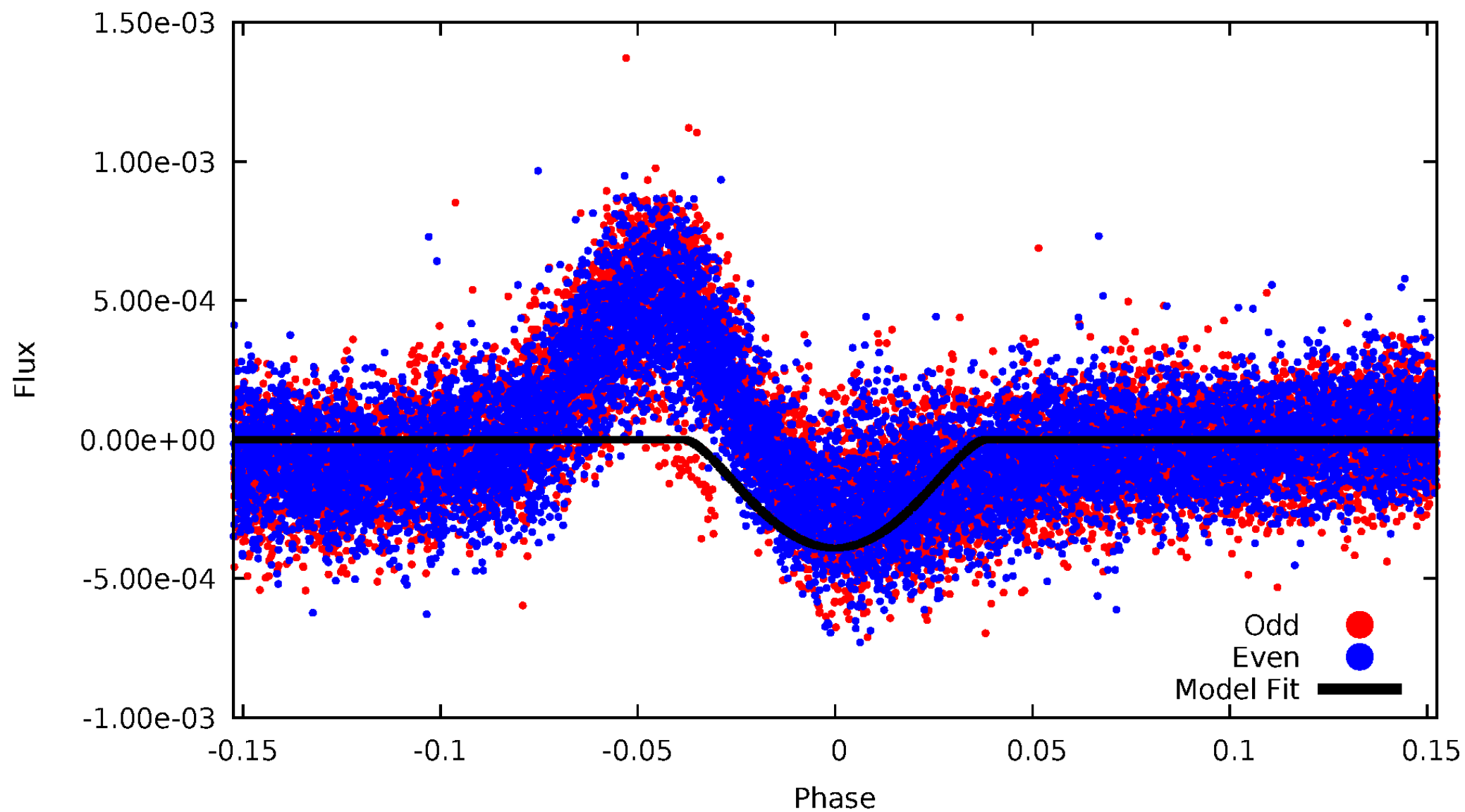


TCE 007799540-01



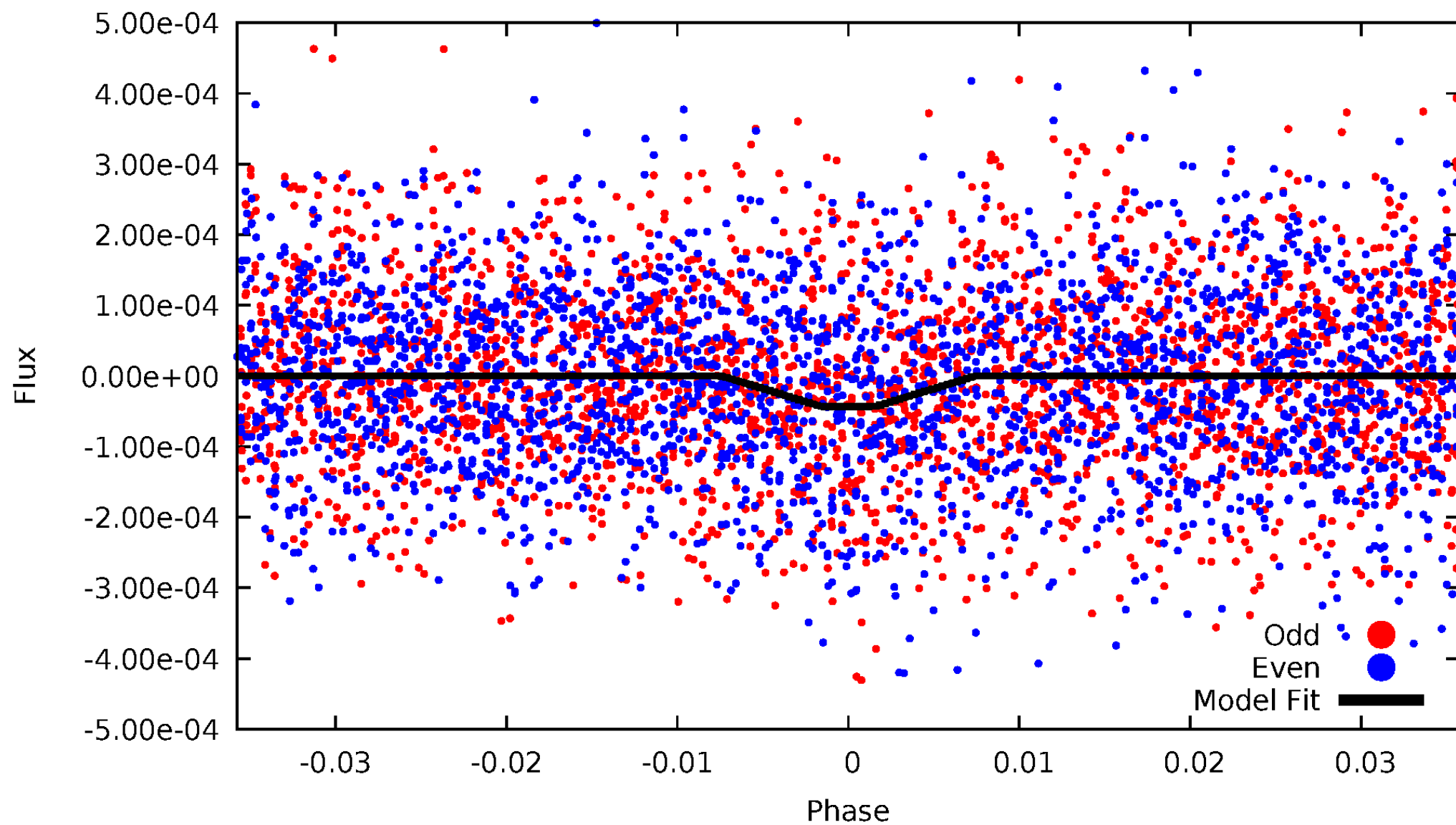
DV Odd/Even

TCE 007799540-01

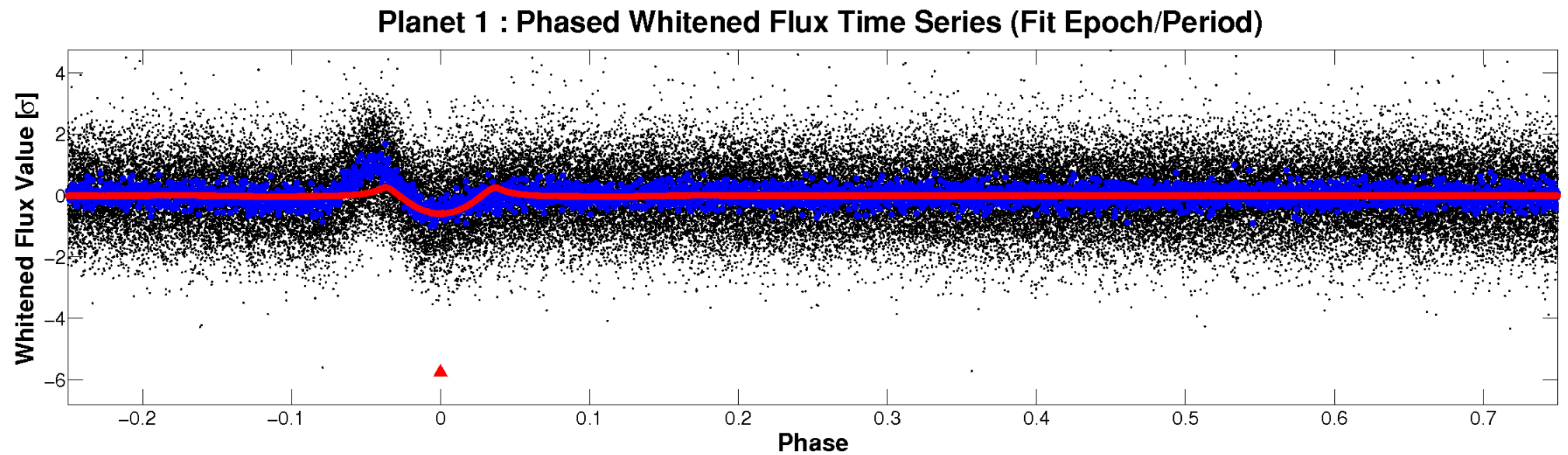
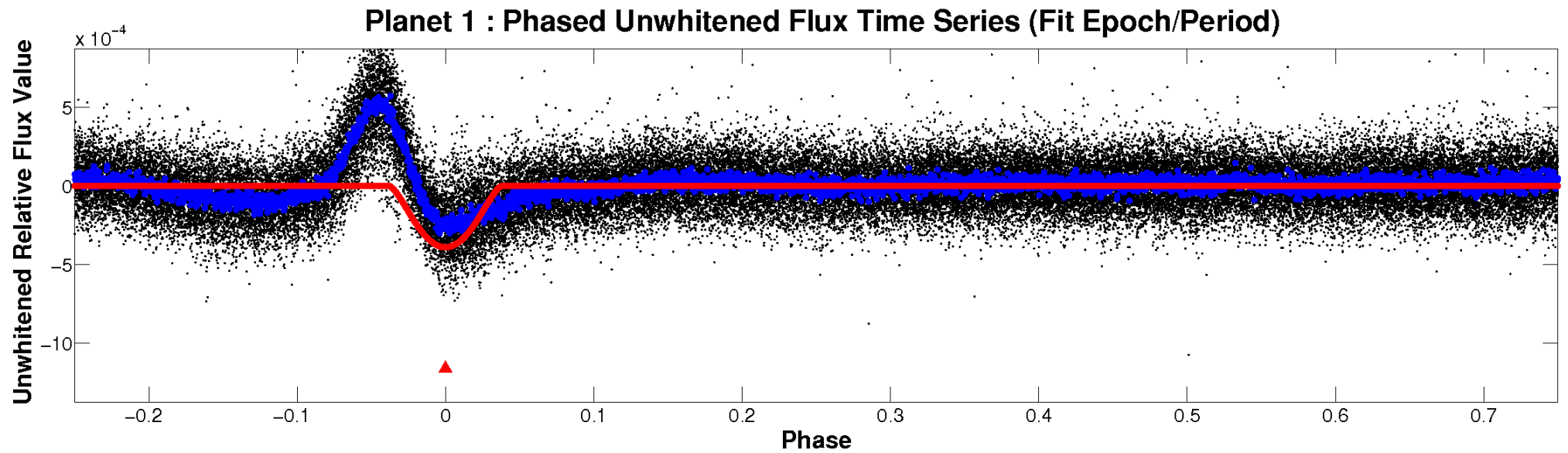


ALT Odd/Even

TCE 007799540-01

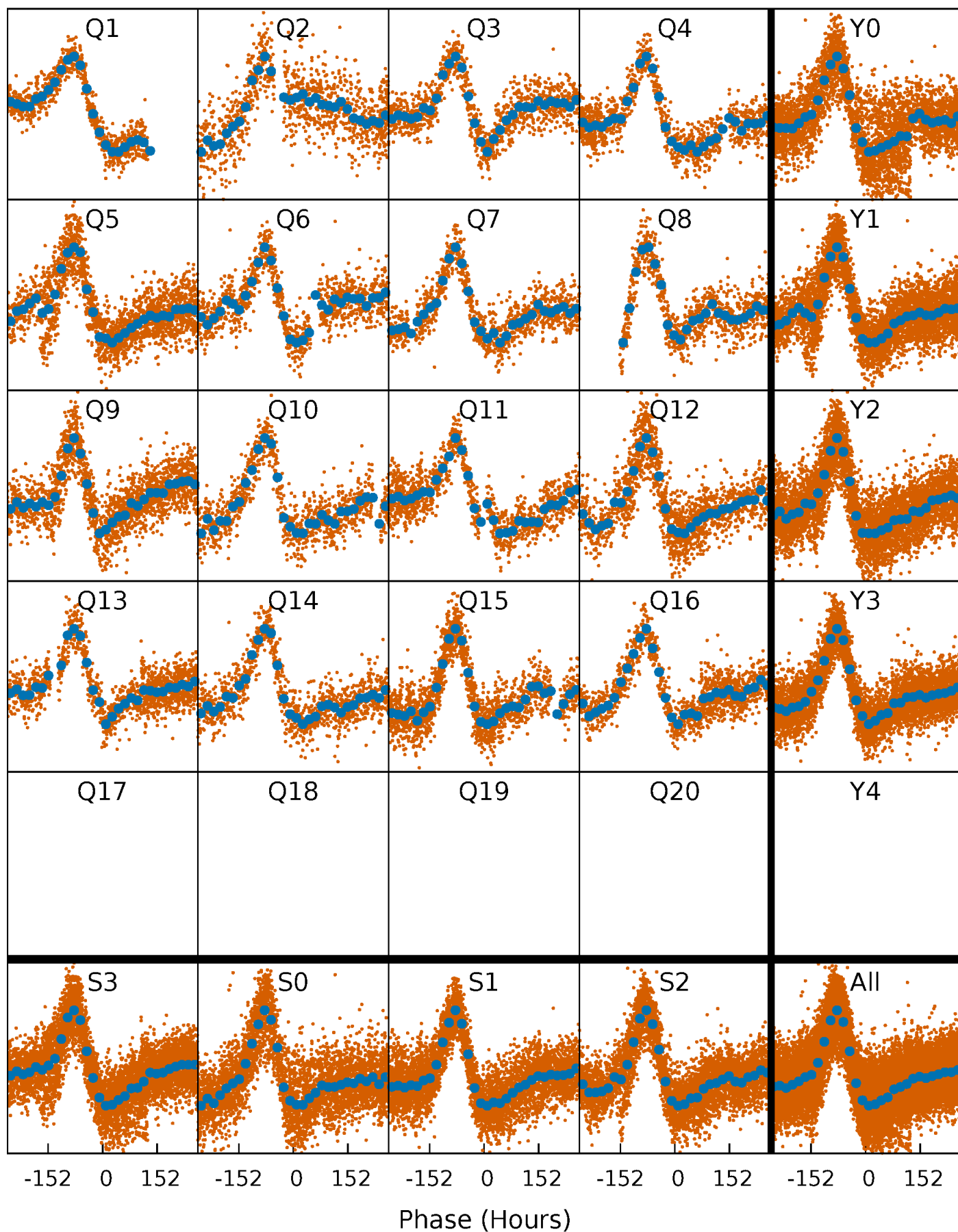


Non-Whitened Vs. Whitened Light Curve



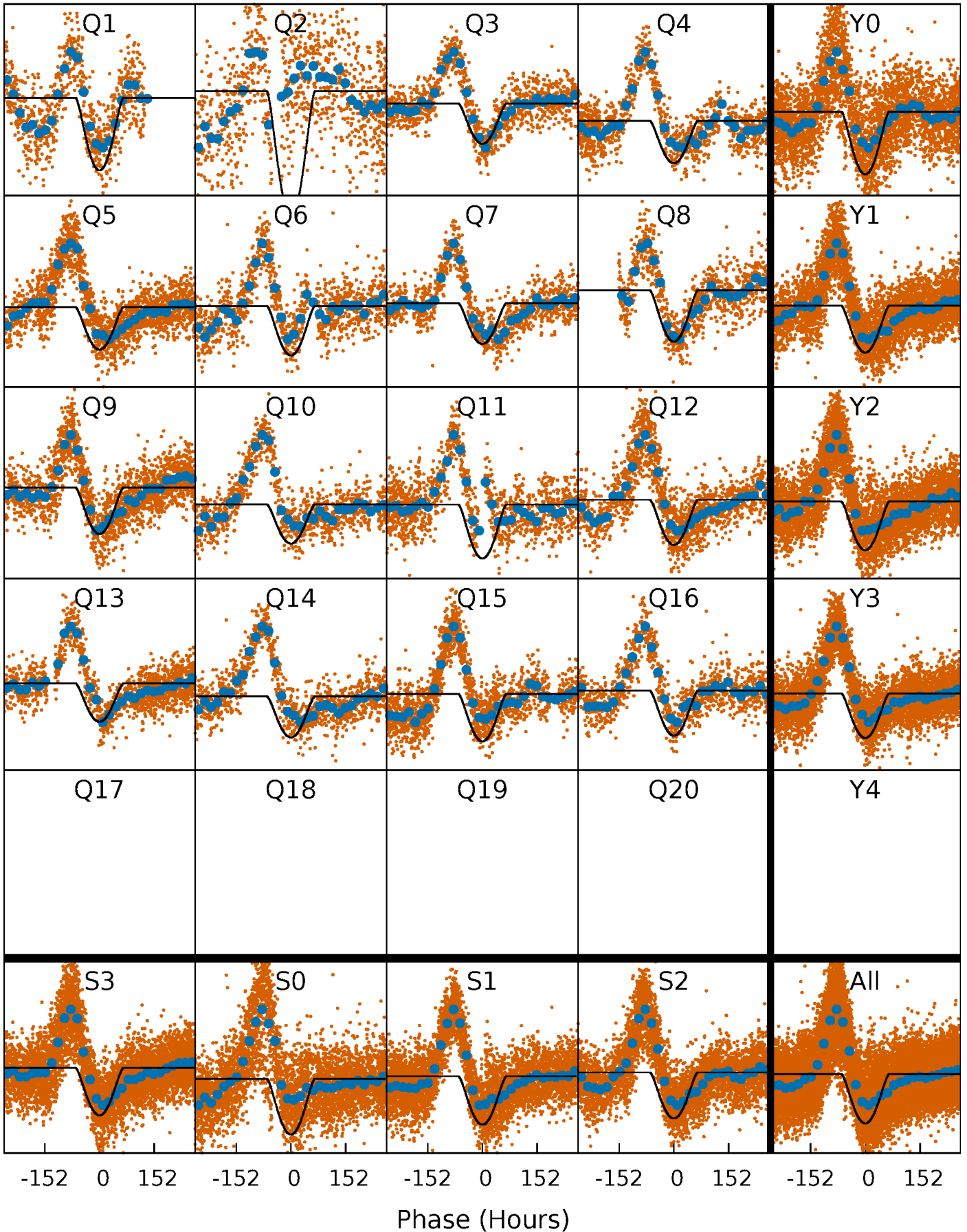
PDC Quarter-Phased Transit Curves

TCE 007799540-01 P= 72.750145 Days $T_0=159.758652$ (BKJD)



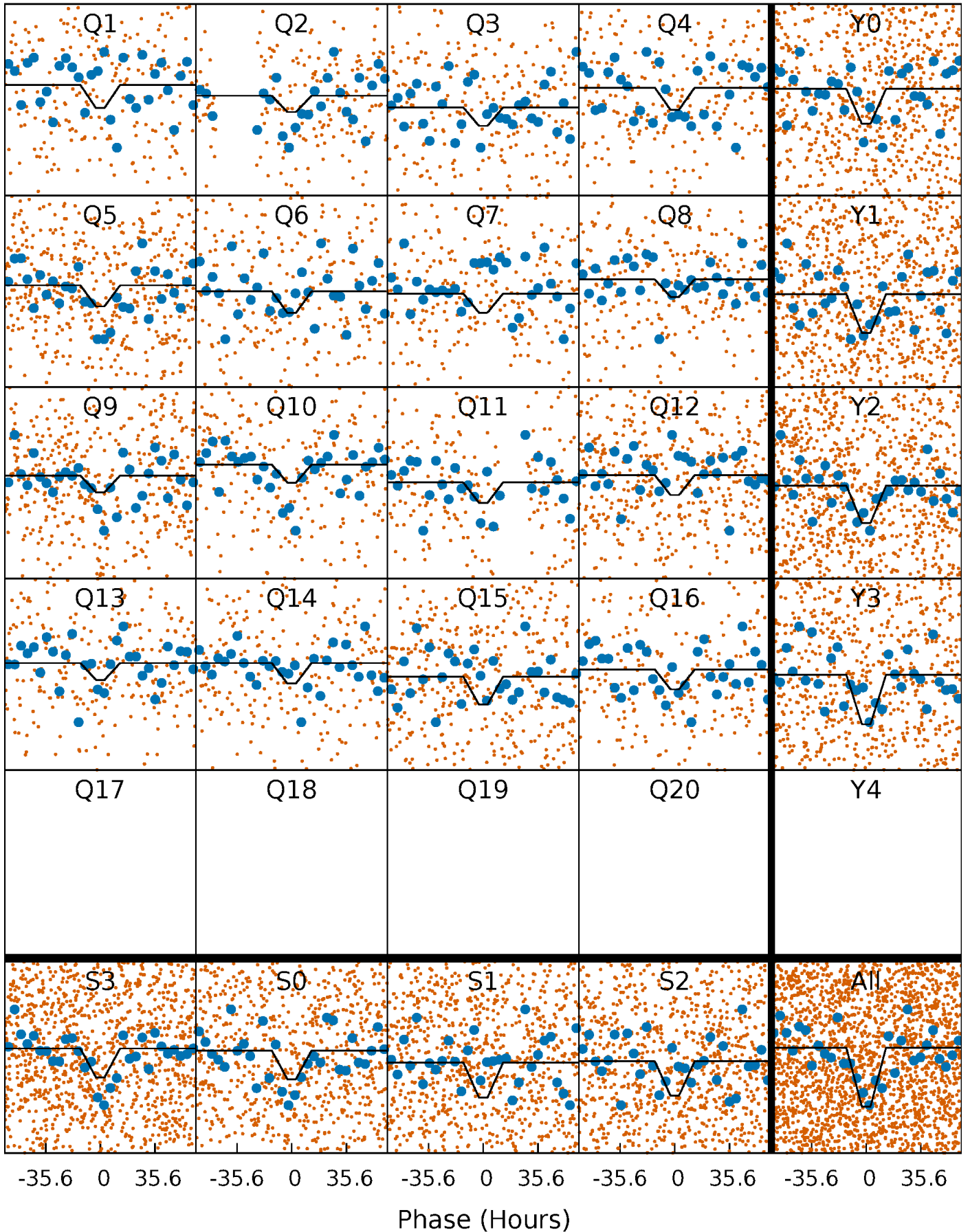
DV Quarter-Phased Transit Curves

TCE 007799540-01 P= 72.750145 Days $T_0=159.758652$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

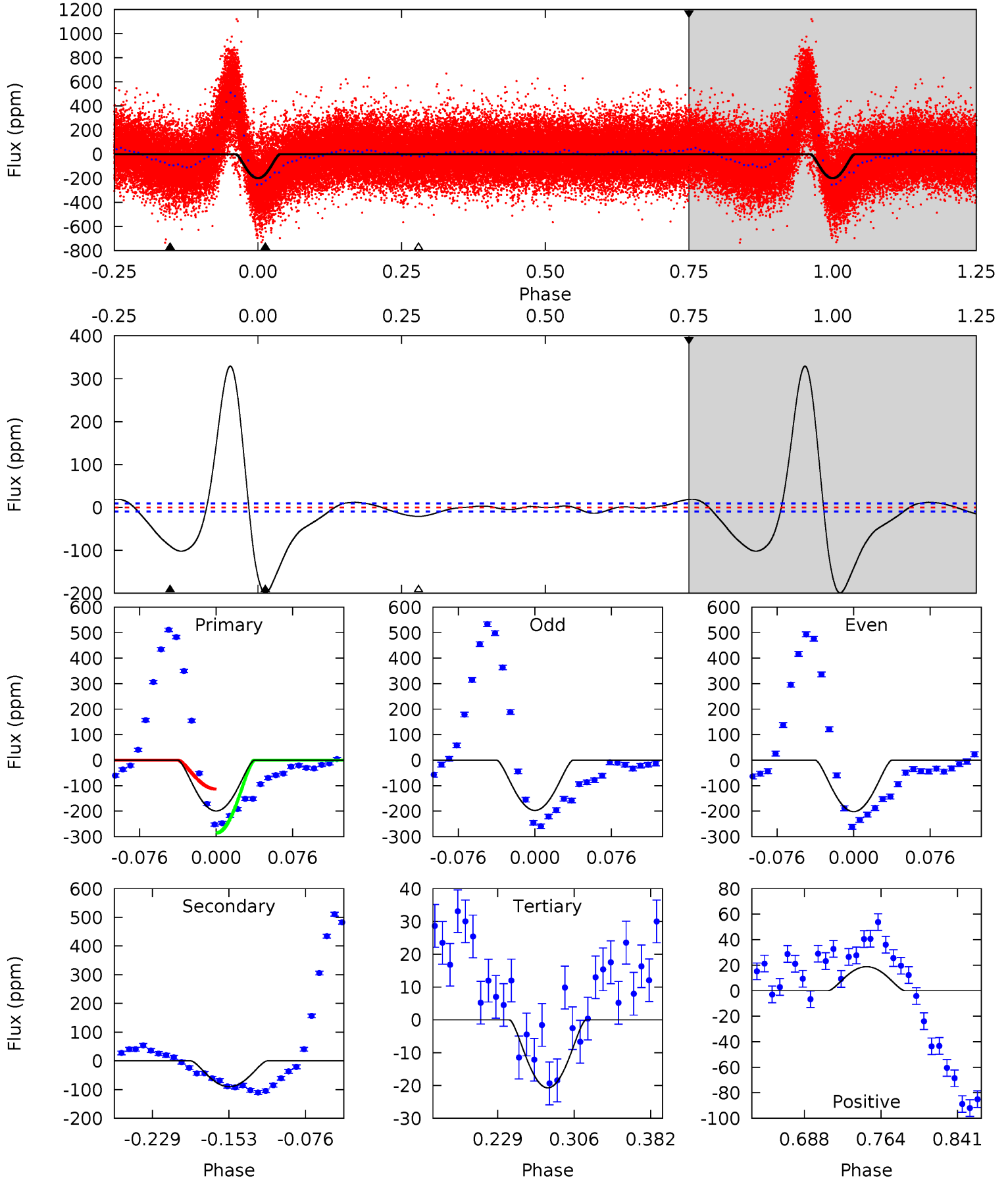
TCE 007799540-01 P= 72.682231 Days $T_0=159.677258$ (BKJD)



DV Model-Shift Uniqueness Test

007799540-01, P = 72.750145 Days, E = 87.008507 Days

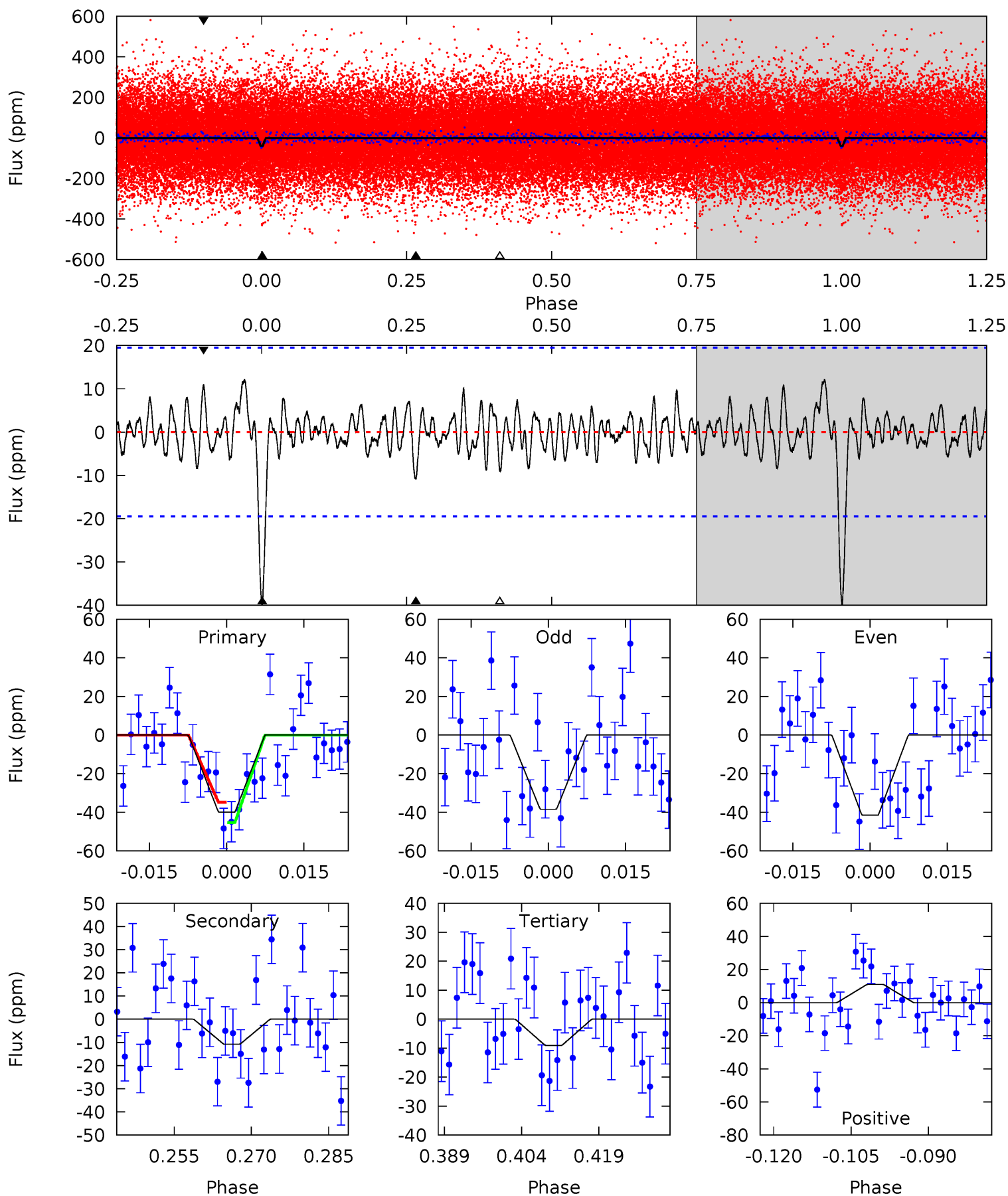
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
100.2	45.2	10.4	9.47	4.62	1.77	13.7	89.8	90.7	34.8	35.7	1.18	1.05	0.62	41.2



Alt Model-Shift Uniqueness Test

007799540-01, P = 72.682231 Days, E = 86.995027 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	2.73	2.31	2.79	4.95	2.43	0.97	7.83	7.35	0.43	-0.06	0.39	0.85	0.23	1.34



Stellar Parameters For KIC 007799540

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5351^{+144}_{-160}	$3.604^{+0.203}_{-0.166}$	$-0.300^{+0.250}_{-0.300}$	$3.010^{+0.583}_{-0.875}$	$1.328^{+0.156}_{-0.363}$	$0.069^{+0.082}_{-0.028}$
	+3%/-3%	+6%/-5%	+83%/-100%	+19%/-29%	+12%/-27%	+120%/-40%
Source	PHO1	FLK73	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 007799540-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-90 ± 2	$11.99^{+7.40}_{-6.42}$	938^{+67}_{-72}	3255^{+858}_{-396}	48^{+154}_{-30}
Alt.	-11 ± 4	$4.84^{+5.43}_{-3.14}$	935^{+63}_{-64}	3091^{+1325}_{-593}	33^{+246}_{-27}

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 $A_{obs} \gg 1.0$

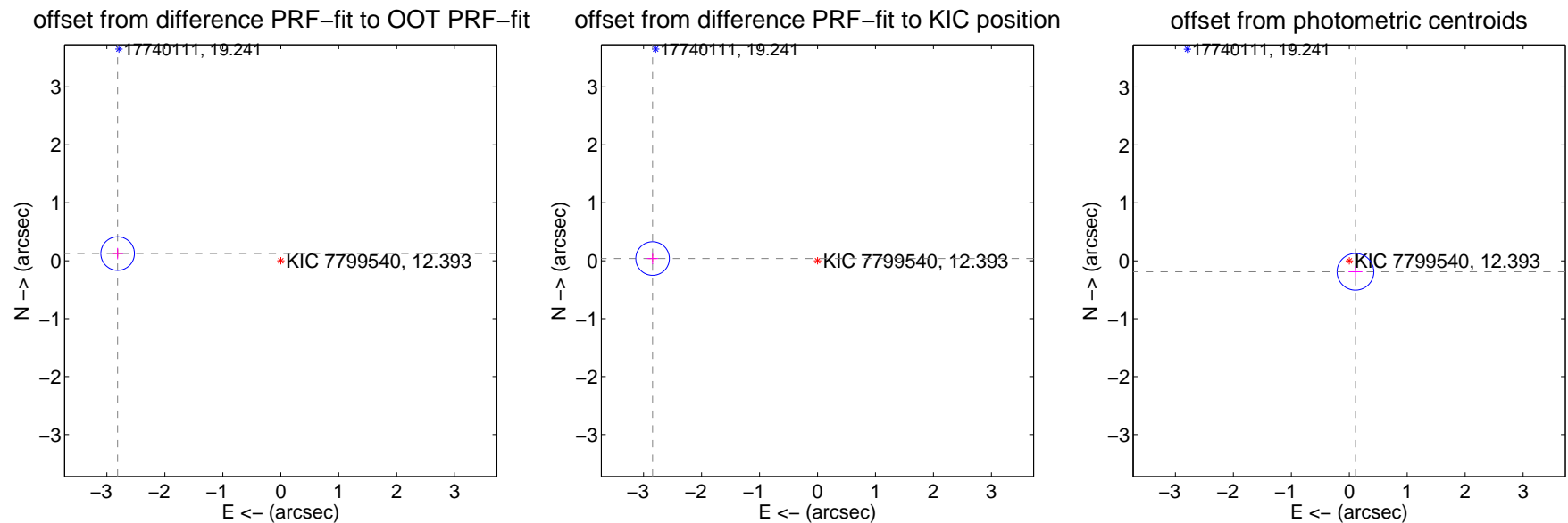
DV Centroid Data

Supplemental centroid analysis for 007799540-01. Kepler magnitude: 12.39. Transit SNR 27.54

There are 0 quarters with good PRF difference image offsets

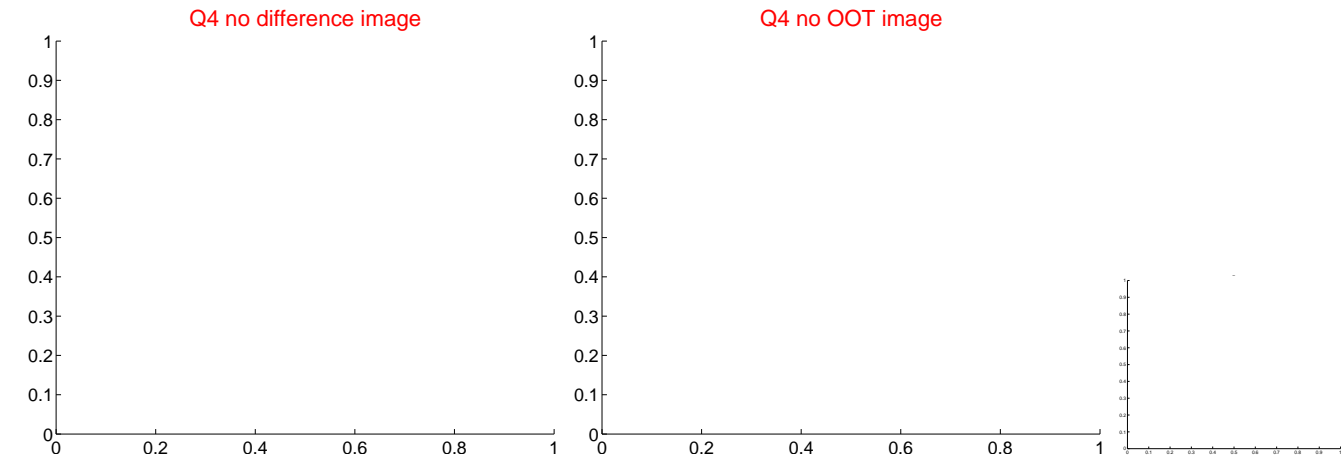
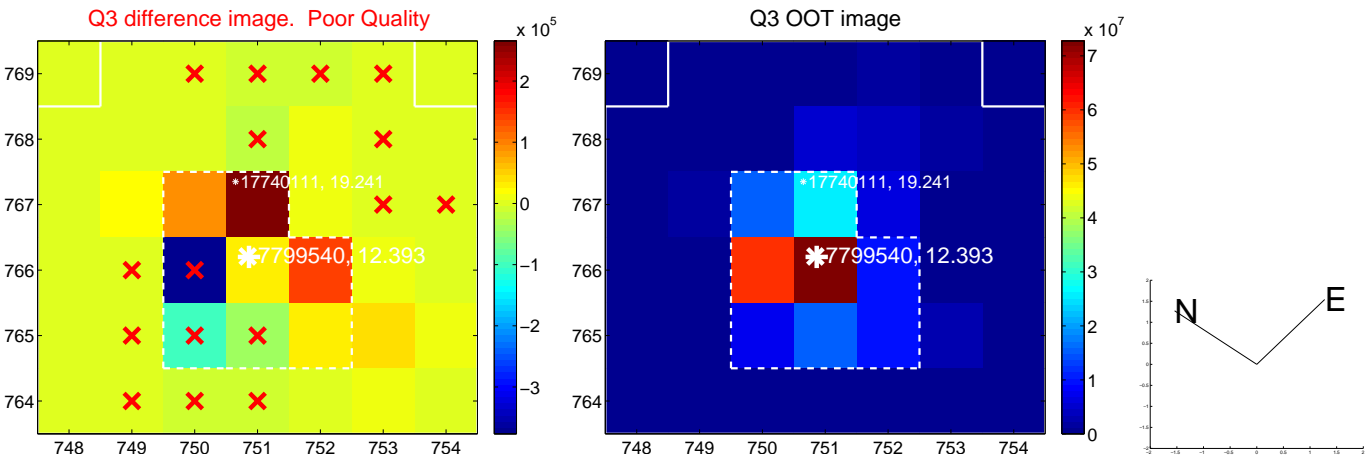
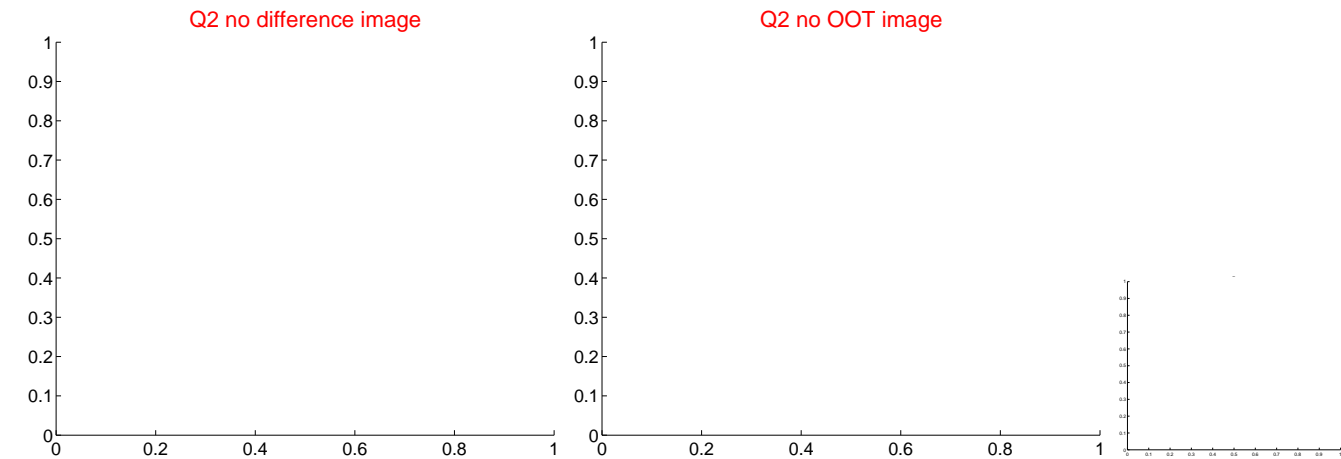
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.818 ± 0.097	29.18	2.815 ± 0.097	0.124 ± 0.097
PRF-fit source offset from KIC position	2.846 ± 0.097	29.47	2.845 ± 0.097	0.038 ± 0.097
photometric centroid source offset	0.22 ± 0.11	2.07	-0.11 ± 0.12	-0.19 ± 0.10

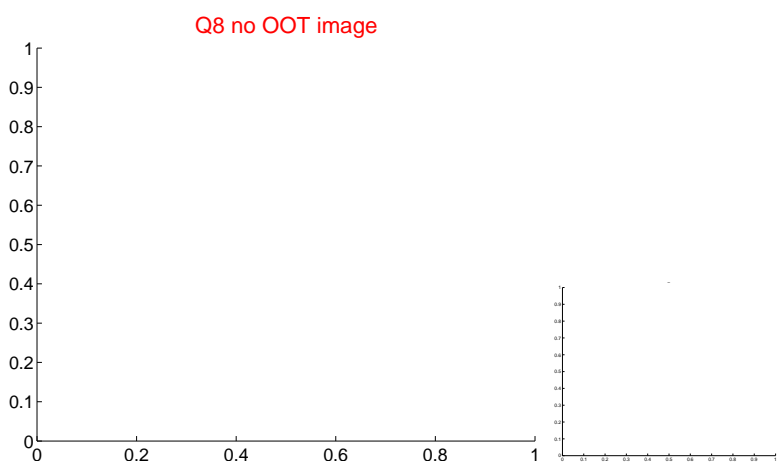
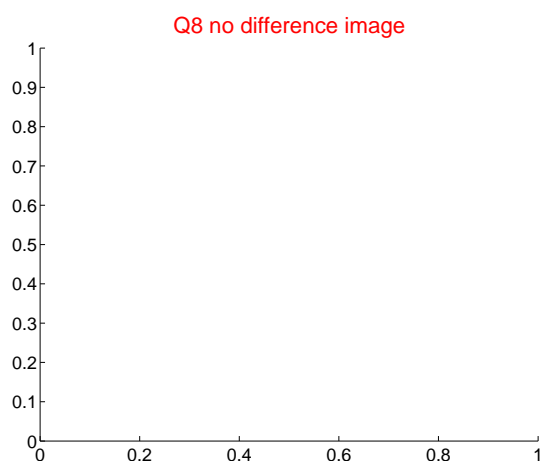
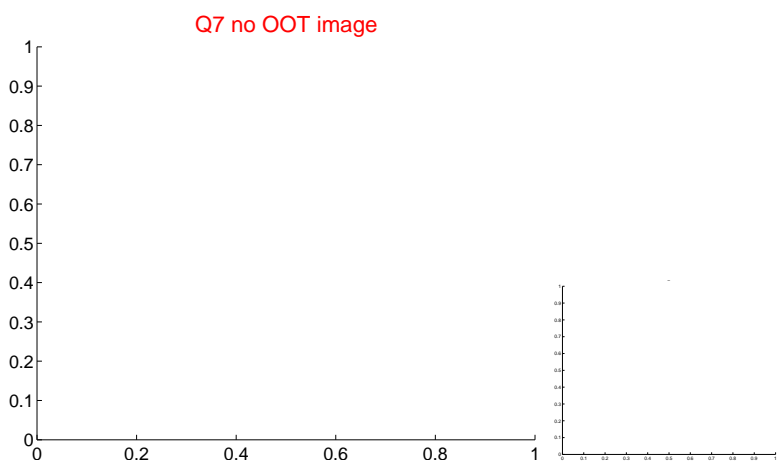
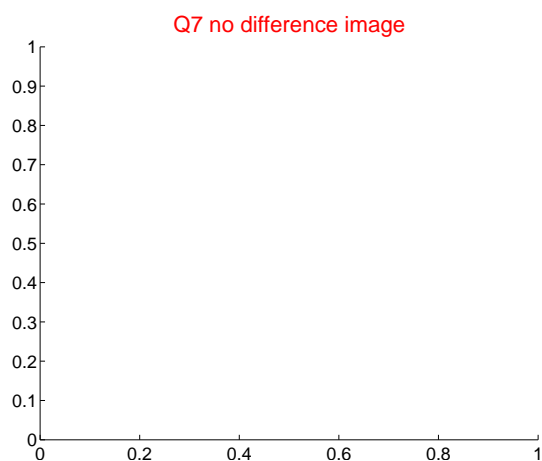
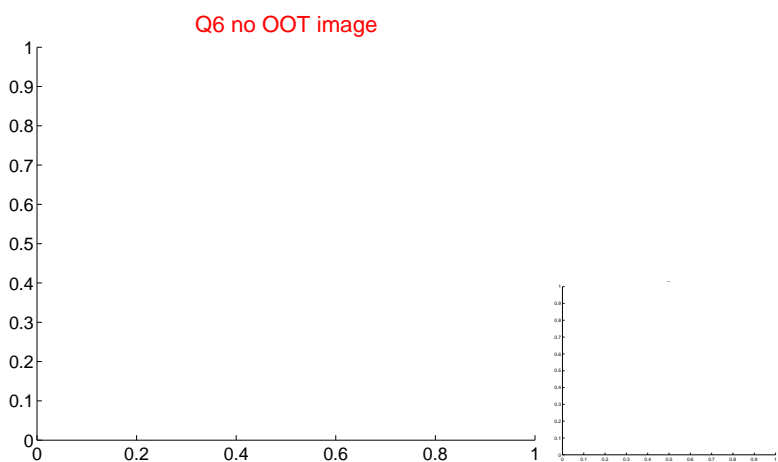
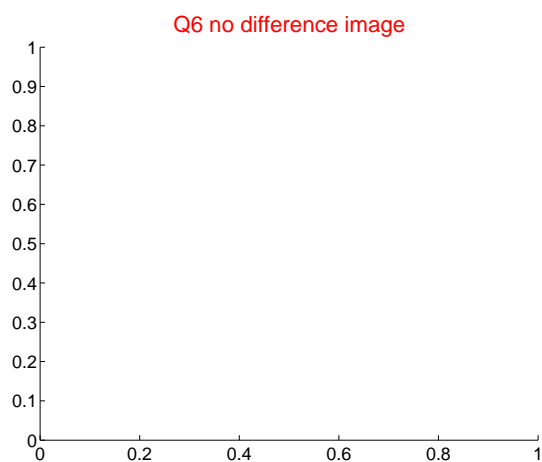
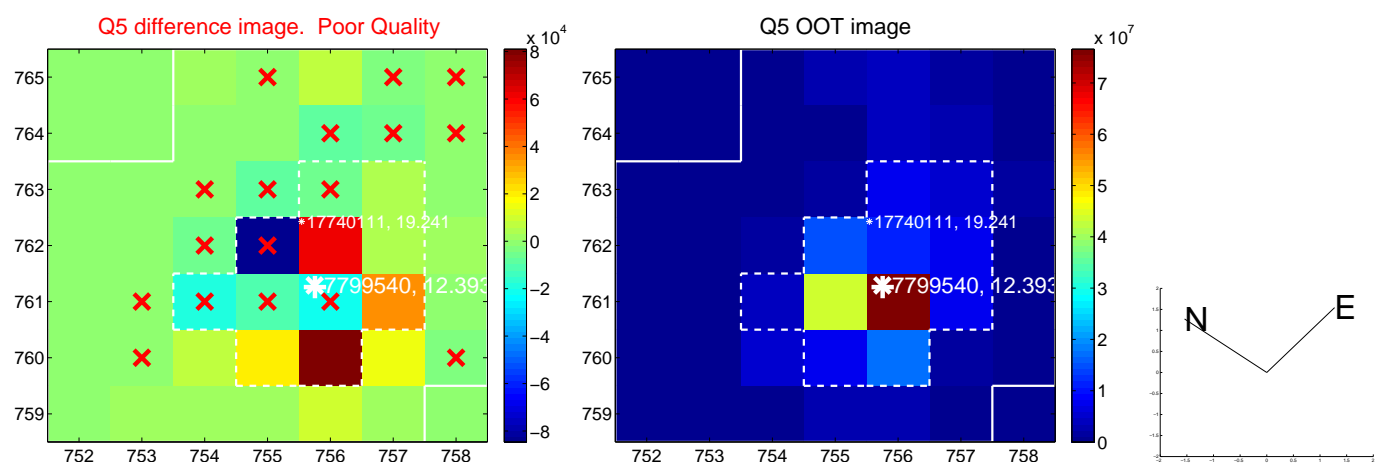


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.



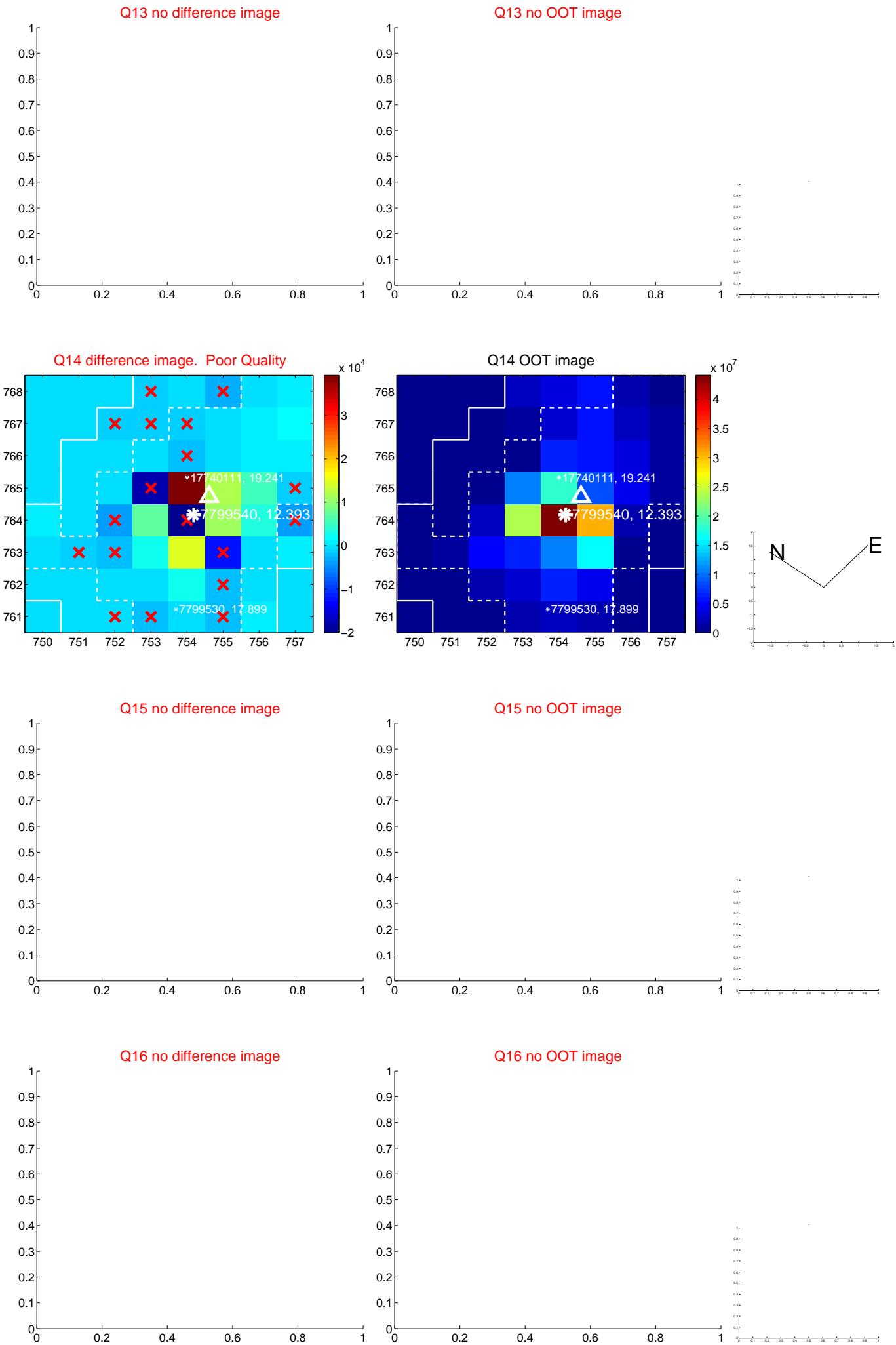
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



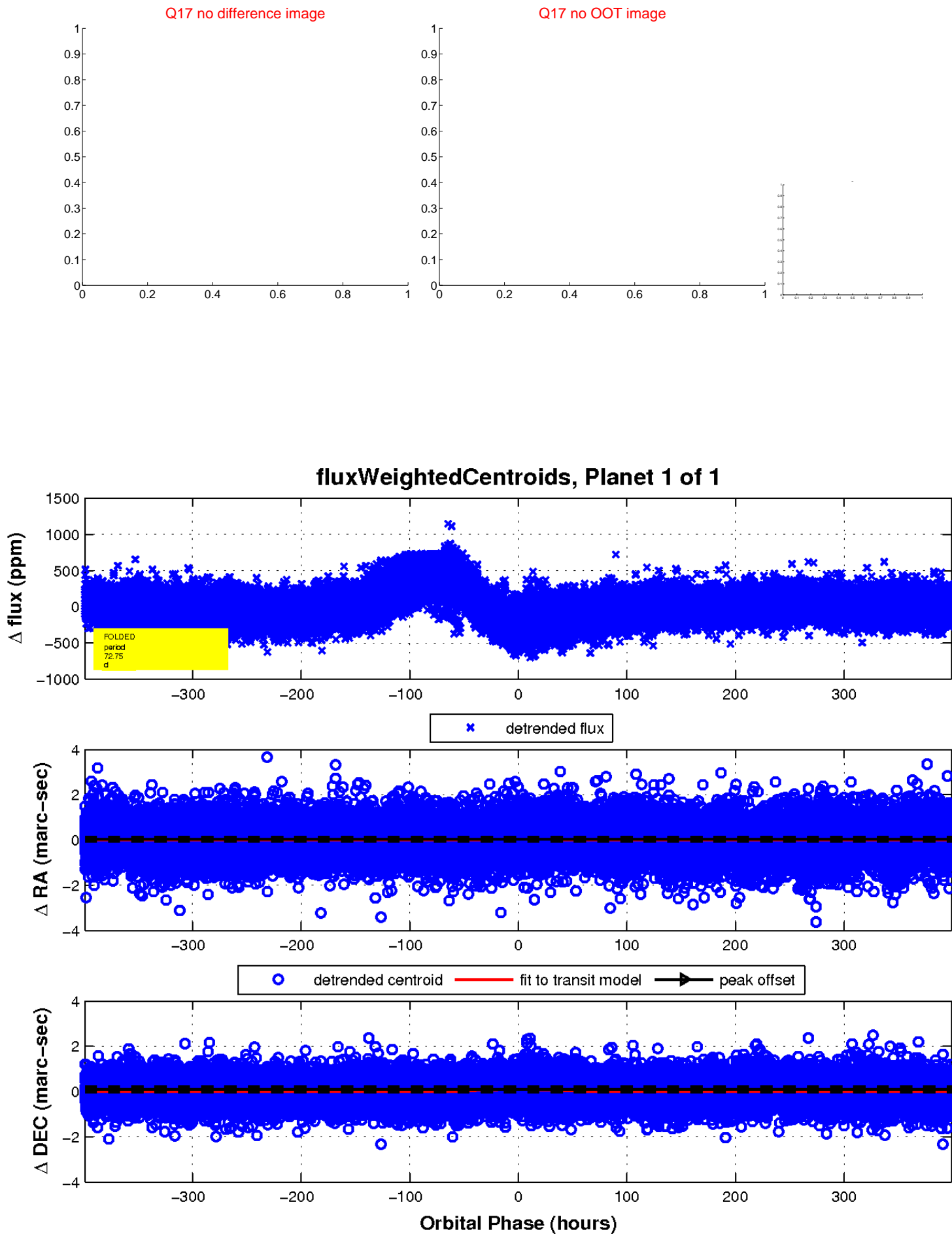
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

