

KIC 008323753

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
008323753-01	OBS	0175.01	6.714237	134.318426	264.0	3.189	41.4	42.1	2.62	6093	5.34	1419.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008323753-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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 008323753-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
008323753-01	8323753	3767.01	8323764	1:1	7.7	-2	0	17.38	13.49	153.98	Direct-PRF	0	0.09	0.07

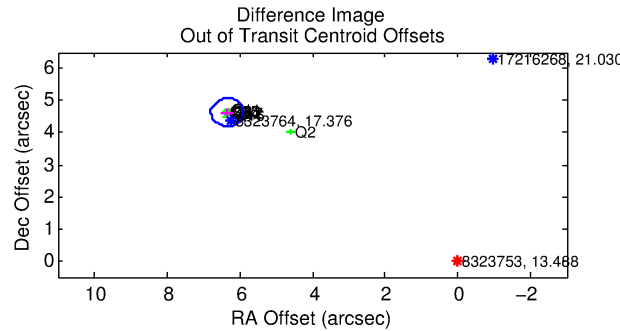
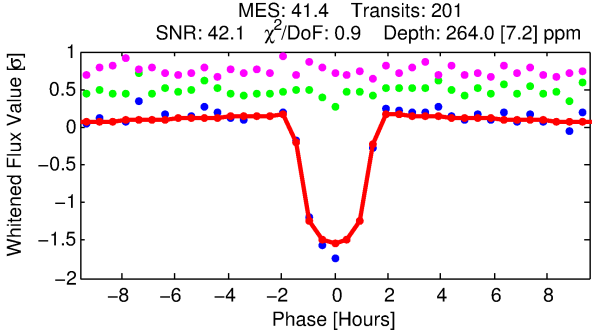
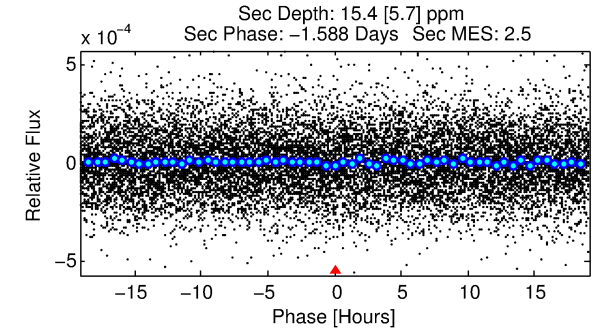
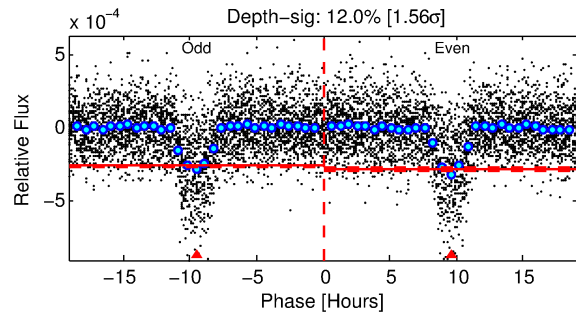
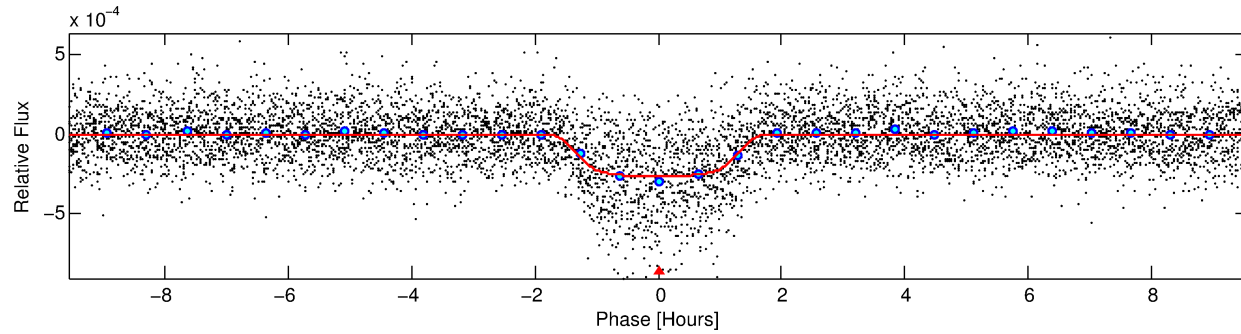
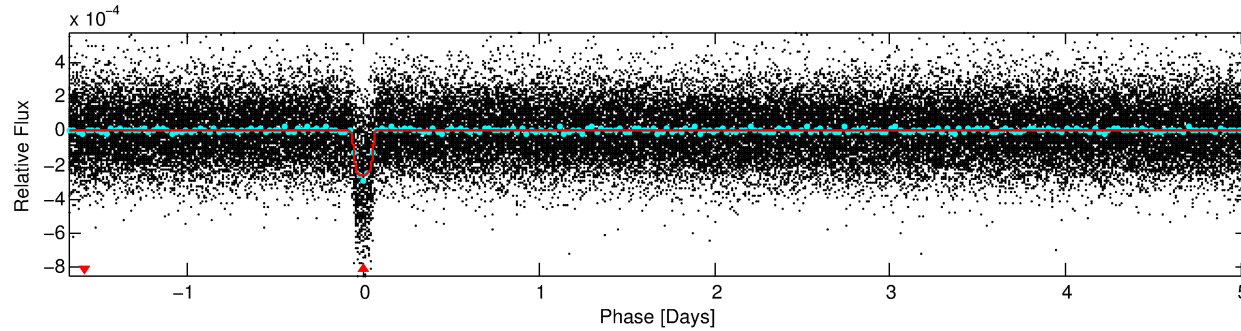
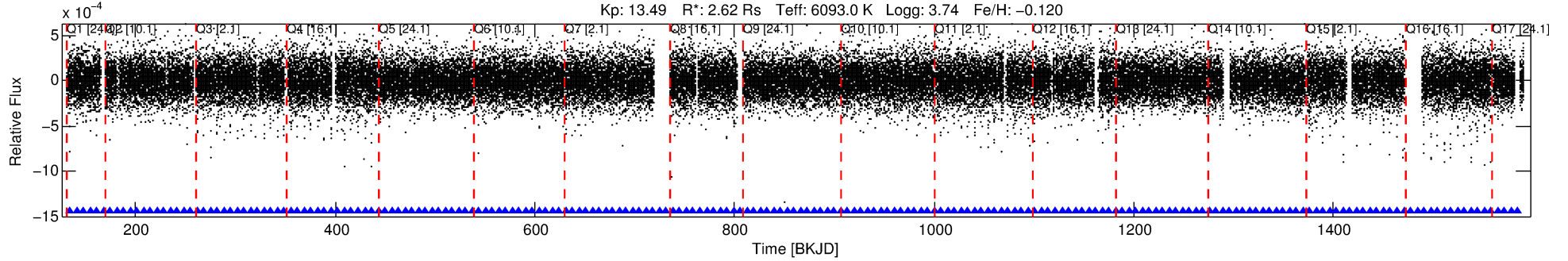
Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant σ_P < 5.0 and σ_T < 5.0. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8323753 Candidate: 1 of 1 Period: 6.714 d

KOI: K00175.01 Corr: 0.979

Kp: 13.49 R*: 2.62 Rs Teff: 6093.0 K Logg: 3.74 Fe/H: -0.120



DV Fit Results:

Period = 6.71424 [0.00001] d
Epoch = 134.3184 [0.0015] BKJD
Rp/R* = 0.0186 [0.0007]
a/R* = 5.94 [0.97]
b = 0.95 [0.02]
Seff = 1419.35 [760.76]
Teq = 1565 [210] K
Rp = 5.34 [1.98] Re
a = 0.0774 [0.0261] AU
Ag = 1.78 [1.15] [0.68σ]
Teffp = 2796 [278] K [3.53σ]

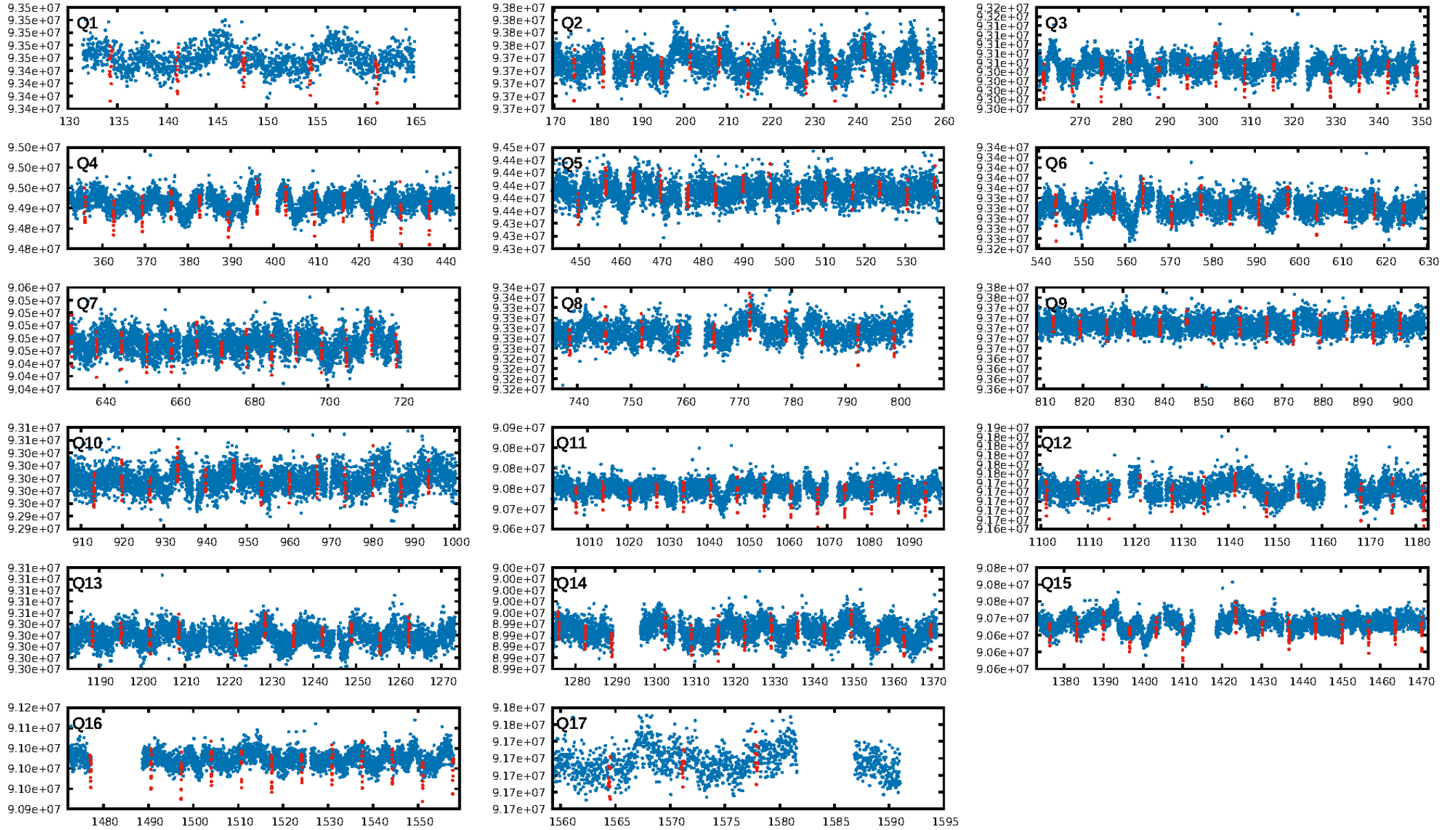
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [193/193]
GhostDiagnostic-chr: -0.02704
Centroid-sig: 0.0%
Centroid-so: 16.985 arcsec [52.07σ]
OotOffset-rm: 7.860 arcsec [54.13σ]
KicOffset-rm: 7.769 arcsec [59.66σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

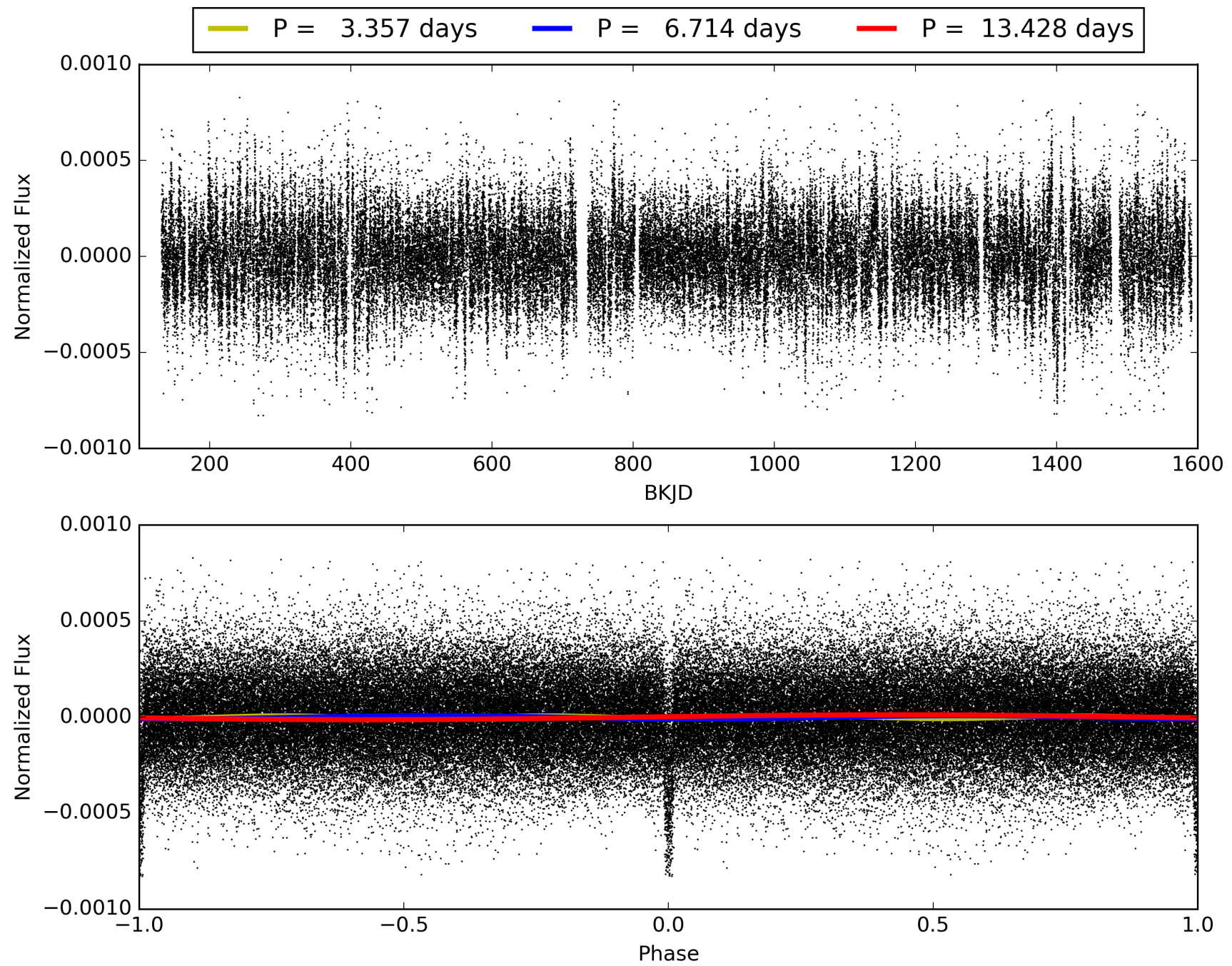
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:39:38 Z

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

TCE 008323753-01, PDC Light Curves

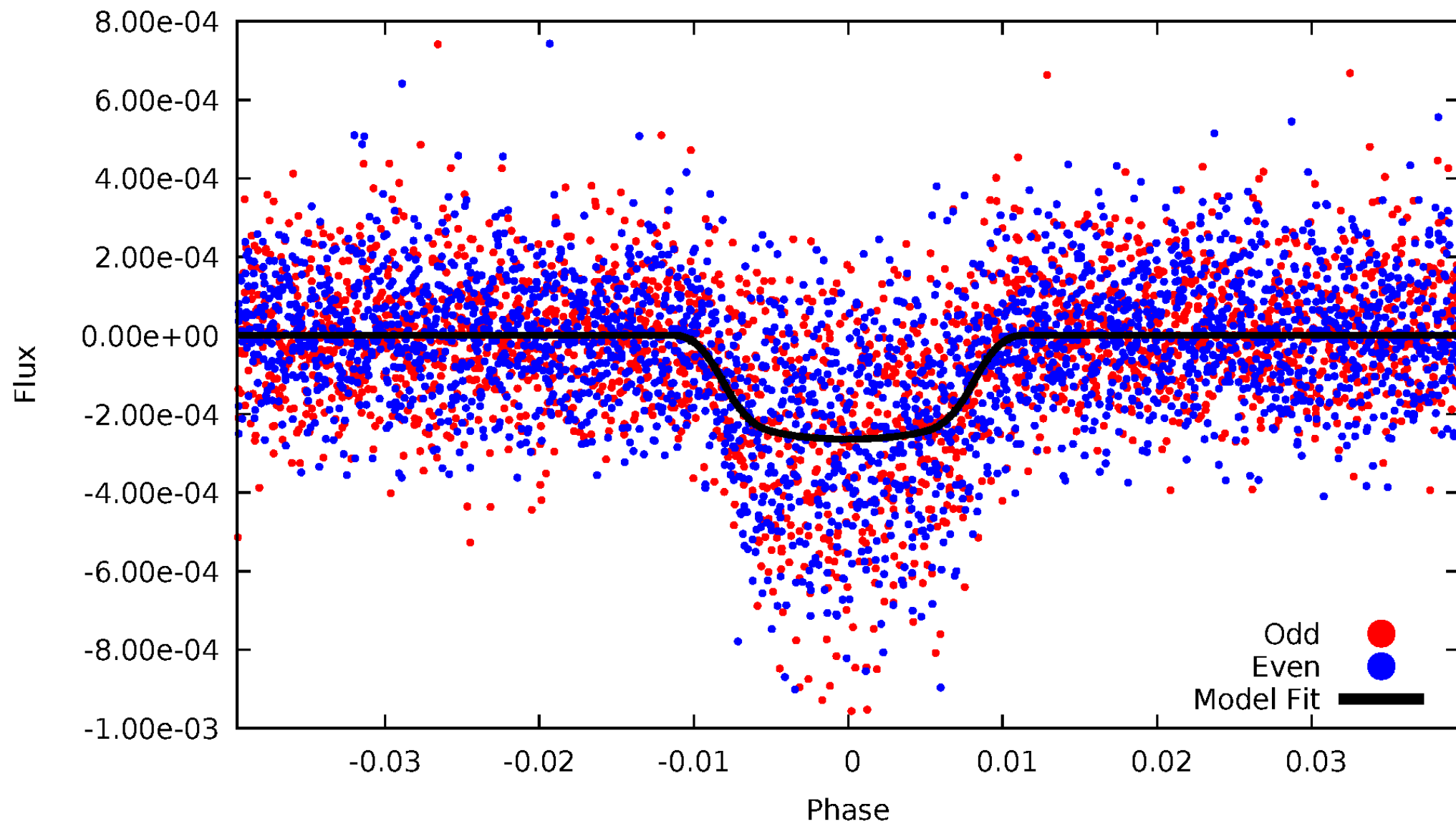


TCE 008323753-01



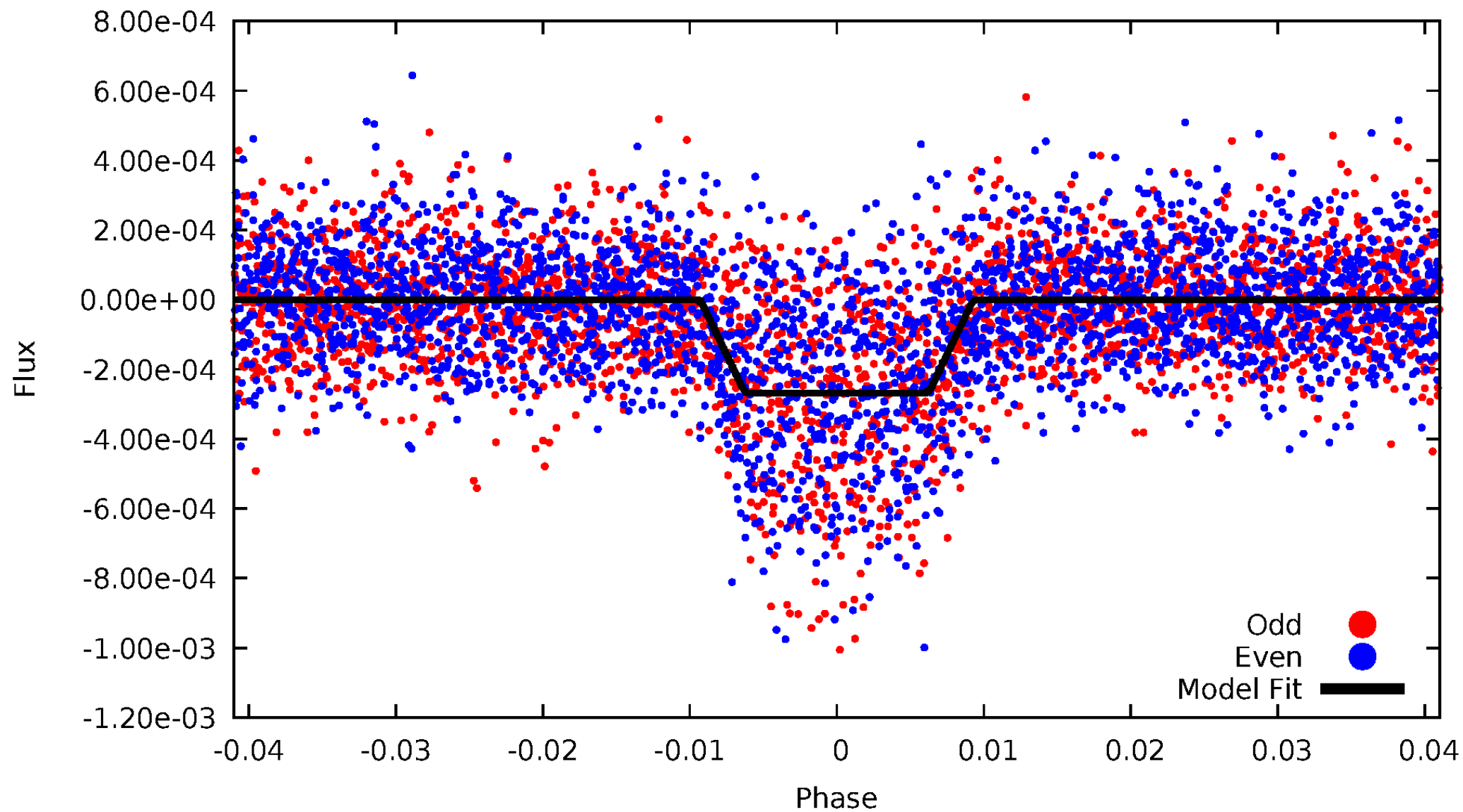
DV Odd/Even

TCE 008323753-01



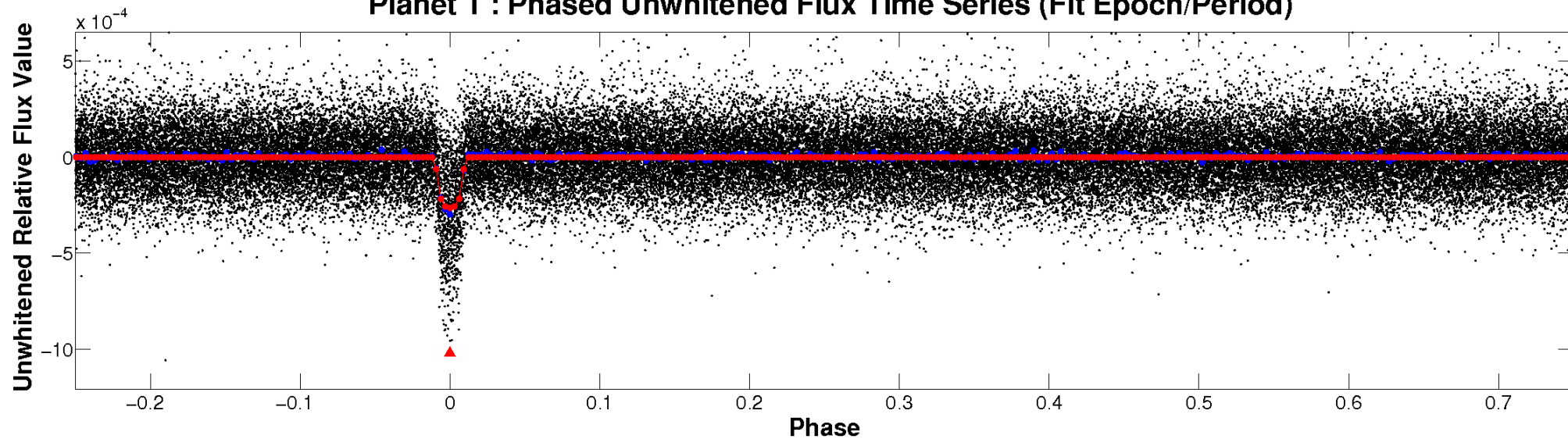
ALT Odd/Even

TCE 008323753-01

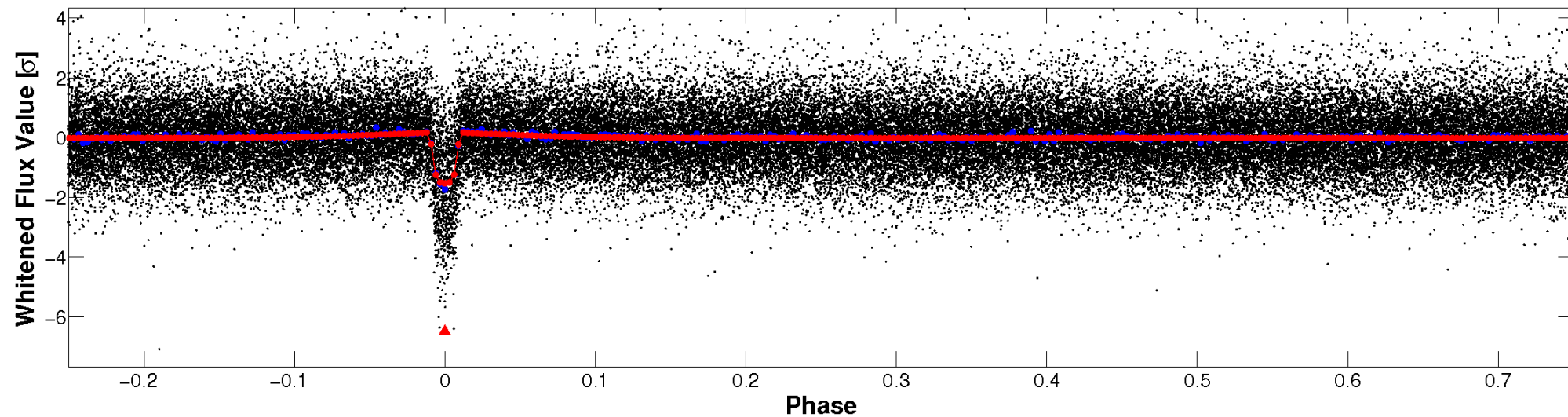


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

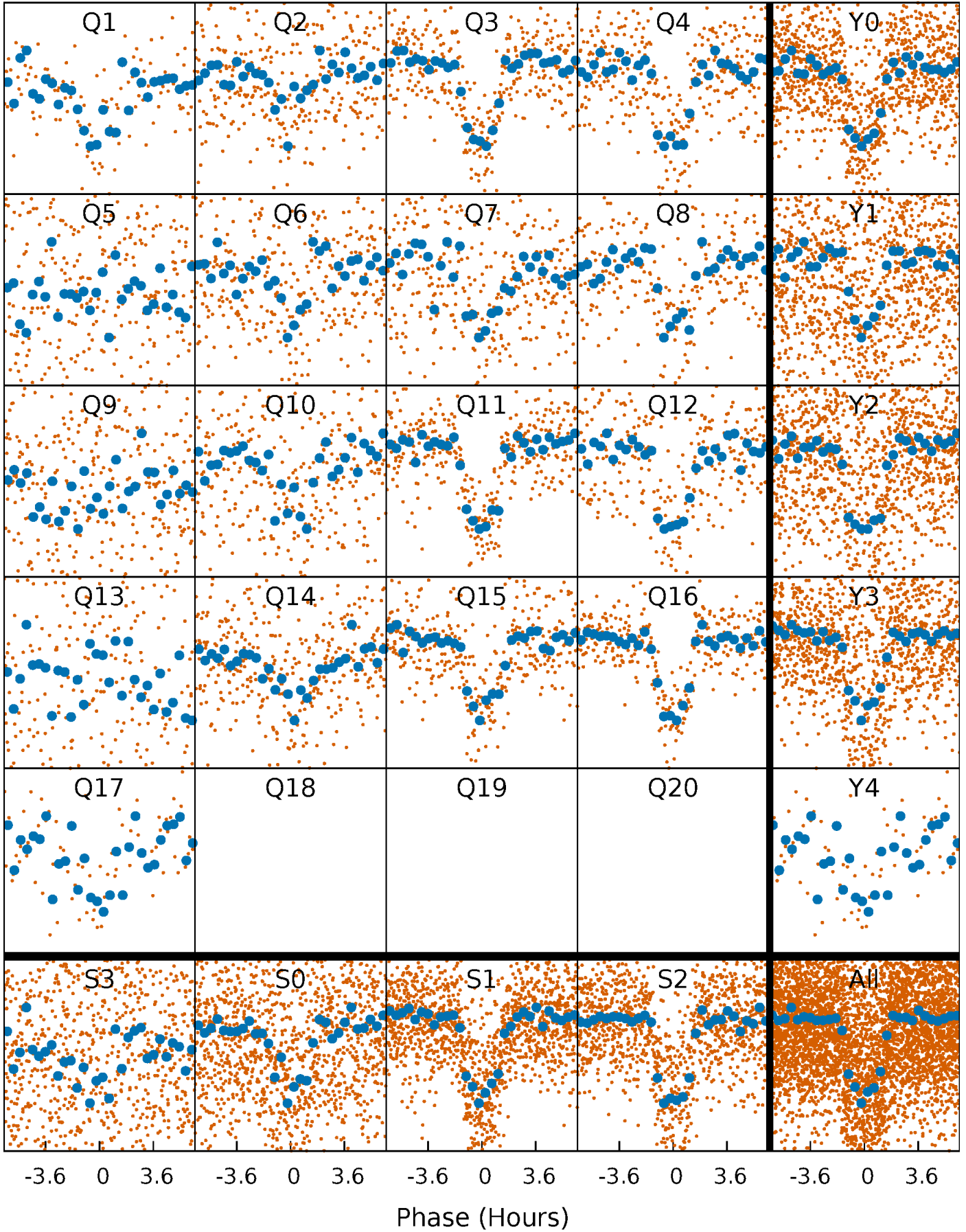


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



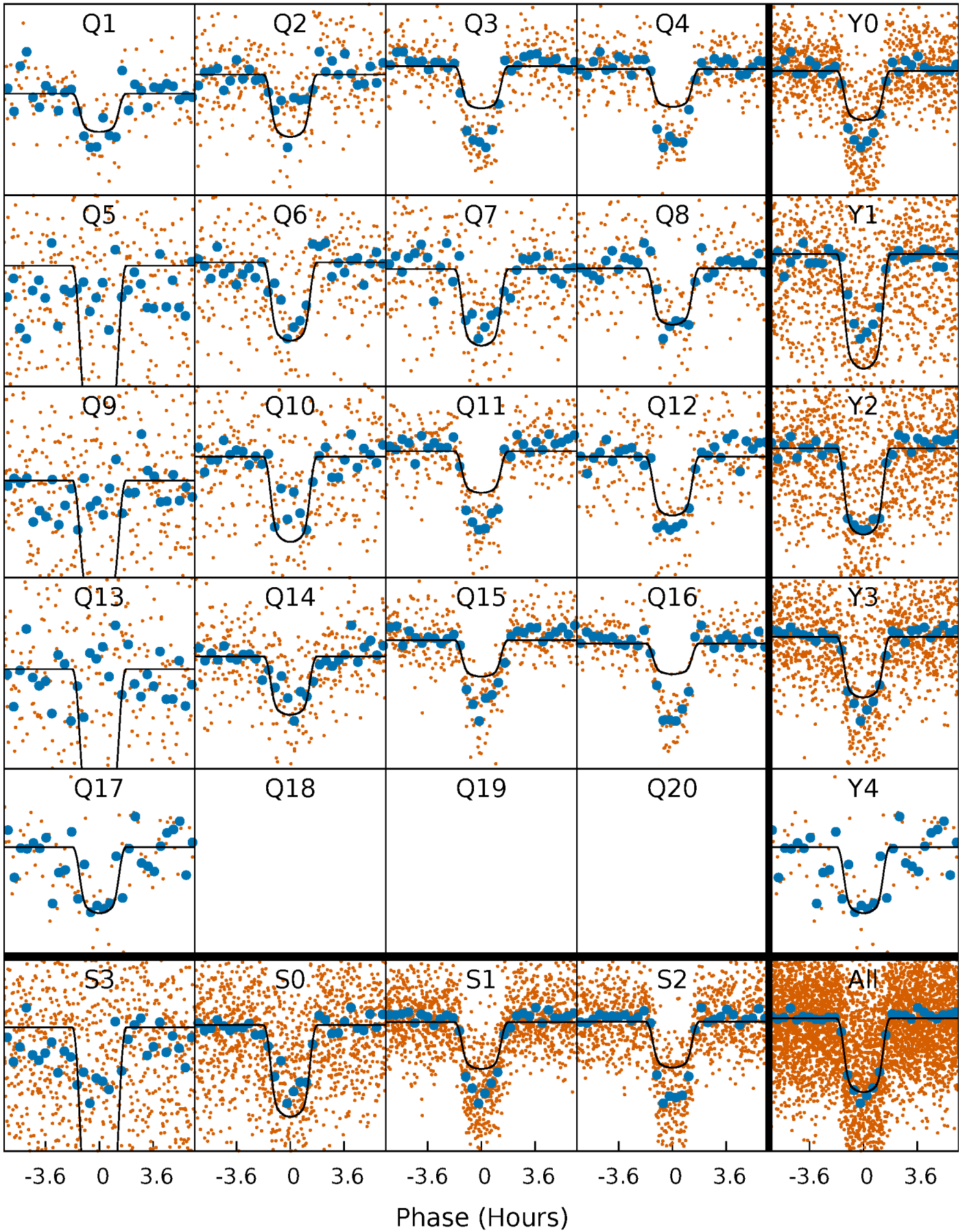
PDC Quarter-Phased Transit Curves

TCE 008323753-01 P= 6.714237 Days $T_0=134.318426$ (BKJD)



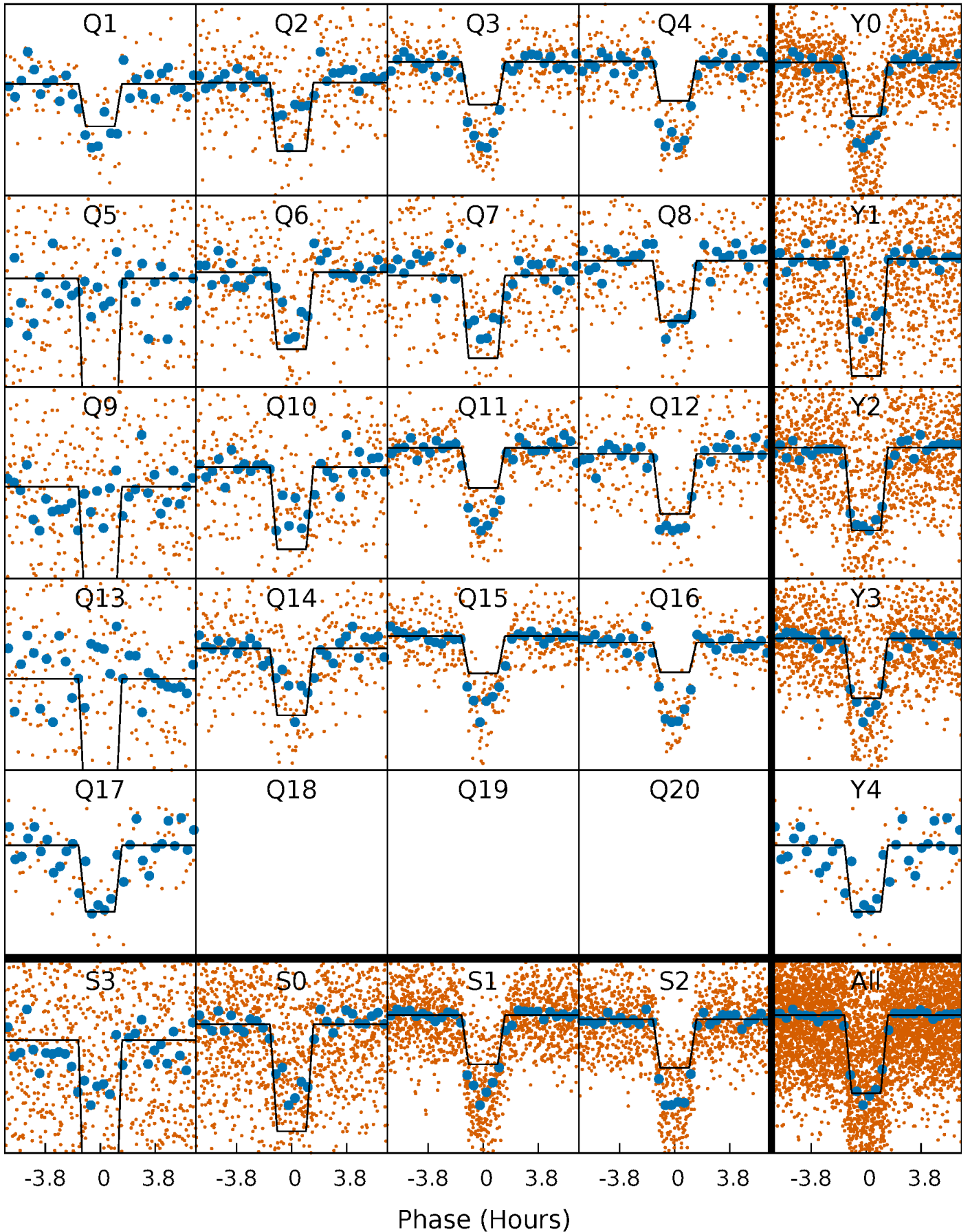
DV Quarter-Phased Transit Curves

TCE 008323753-01 P= 6.714237 Days $T_0=134.318426$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

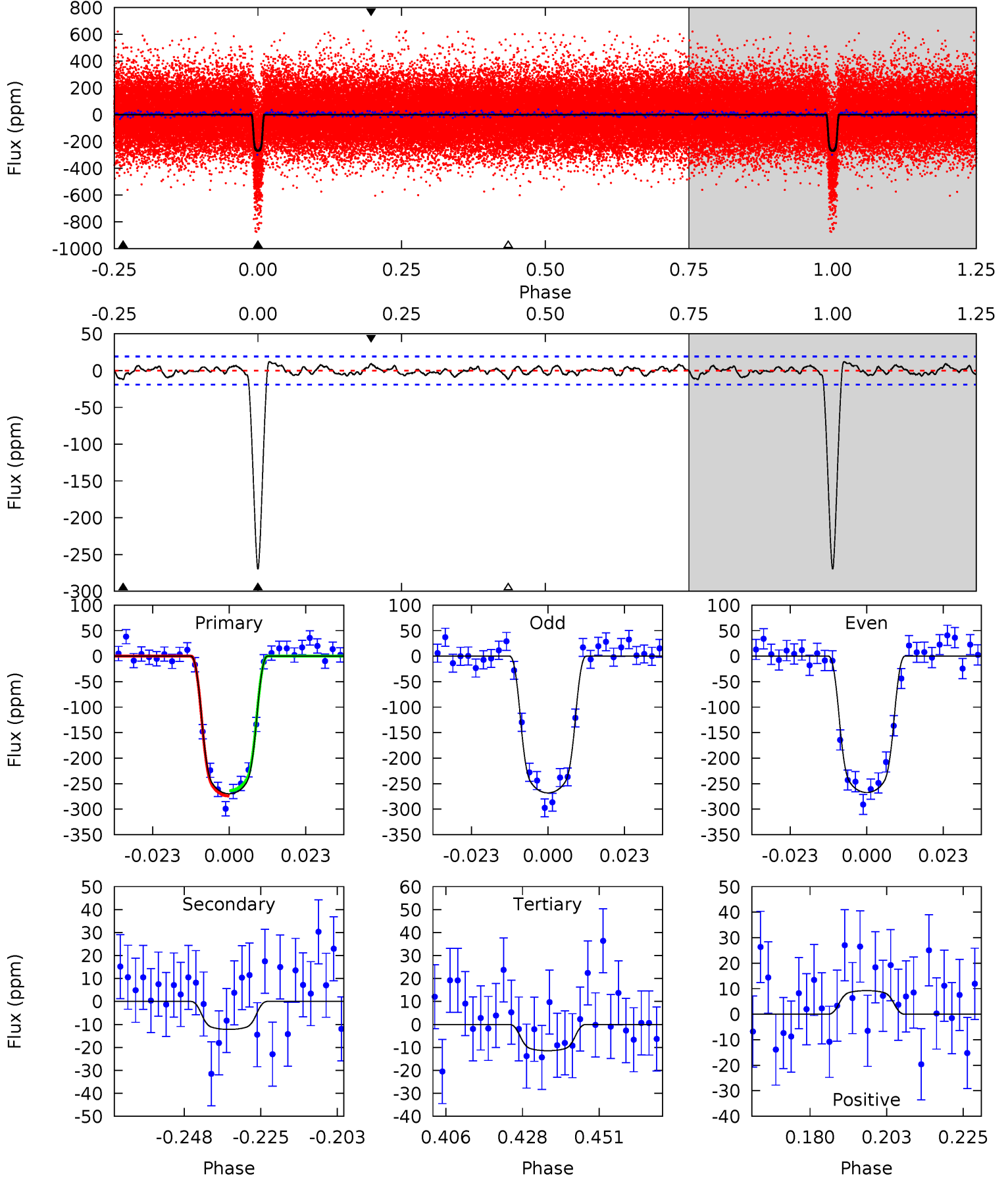
TCE 008323753-01 P= 6.714239 Days $T_0=134.318288$ (BKJD)



DV Model-Shift Uniqueness Test

008323753-01, P = 6.714237 Days, E = 127.604189 Days

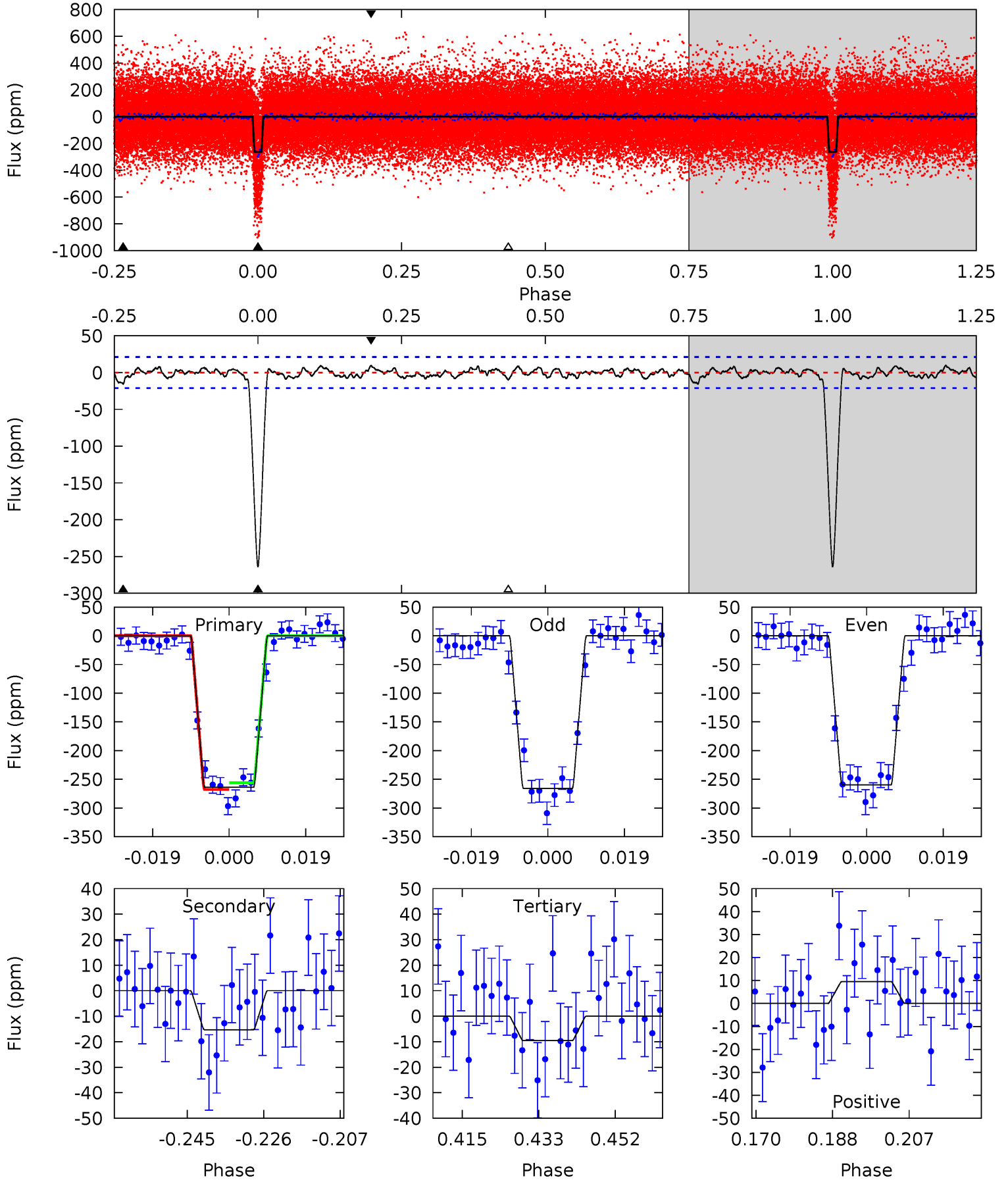
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.8	3.11	2.92	2.36	4.87	2.28	1.04	65.9	66.5	0.19	0.75	0.09	1.13	0.04	1.33



Alt Model-Shift Uniqueness Test

008323753-01, P = 6.714239 Days, E = 127.604049 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
61.4	3.56	2.22	2.22	4.90	2.35	0.97	59.1	59.2	1.34	1.34	0.71	1.16	0.03	1.33



Stellar Parameters For KIC 008323753

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6093^{+183}_{-183}	$3.737^{+0.300}_{-0.100}$	$-0.120^{+0.350}_{-0.300}$	$2.623^{+0.416}_{-0.970}$	$1.372^{+0.228}_{-0.304}$	$0.107^{+0.240}_{-0.035}$
	+3%/-3%	+8%/-3%	+292%/-250%	+16%/-37%	+17%/-22%	+225%/-33%
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 008323753-01 / KOI 0175.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-12 ± 4	$5.20^{+0.71}_{-0.93}$	2152^{+135}_{-187}	3118^{+164}_{-235}	$1.499^{+0.790}_{-0.559}$
Alt.	-15 ± 4	$4.63^{+0.53}_{-0.87}$	2151^{+131}_{-165}	3390^{+181}_{-177}	$2.446^{+1.138}_{-0.750}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

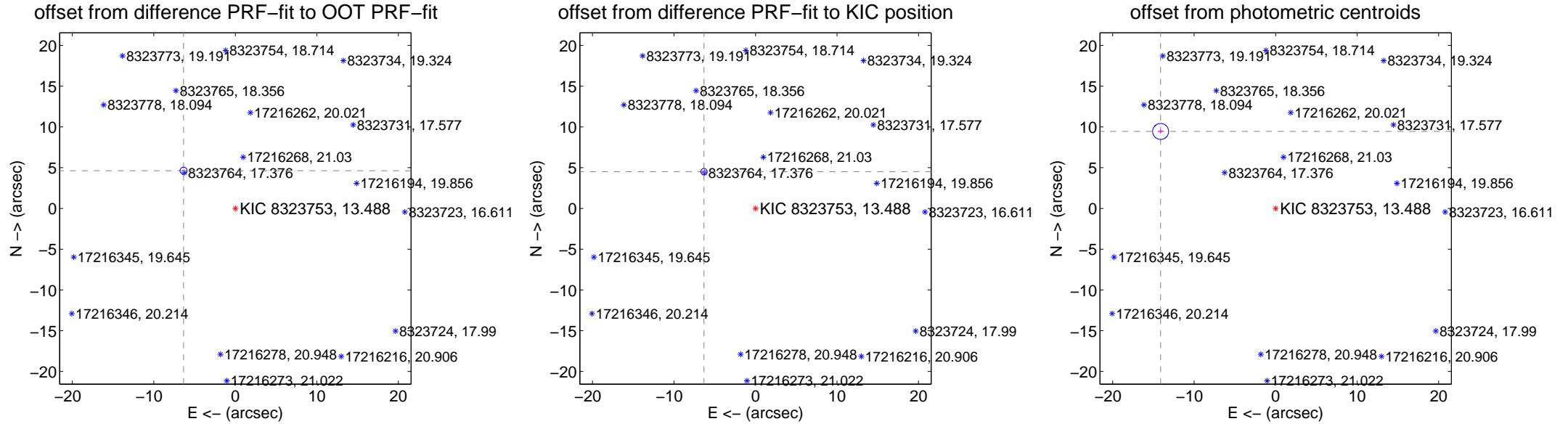
DV Centroid Data

Supplemental centroid analysis for 008323753-01. Kepler magnitude: 13.49. Transit SNR 42.08

There are 14 quarters with good PRF difference image offsets

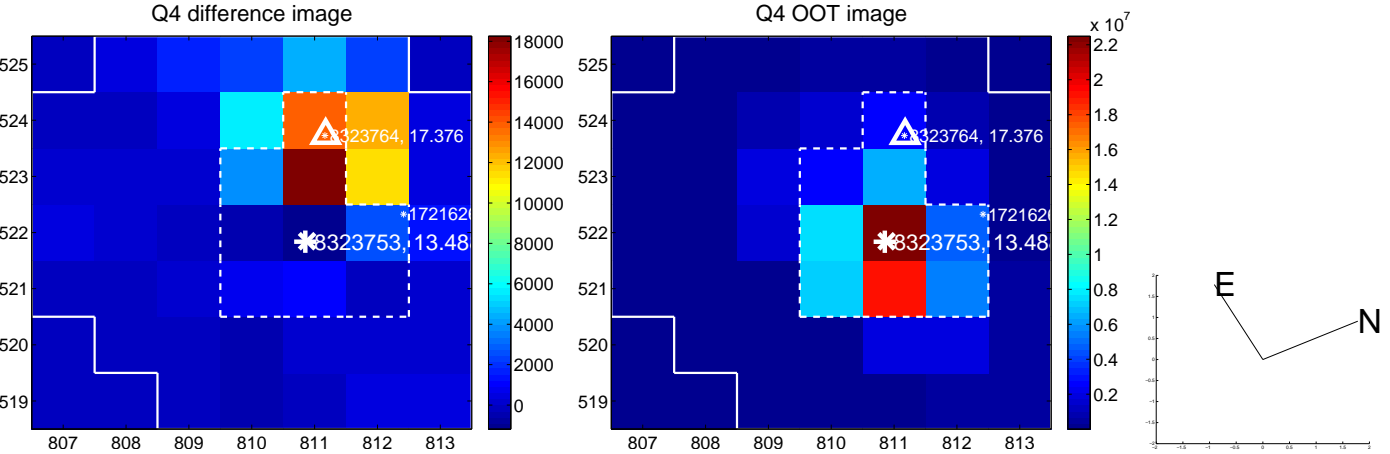
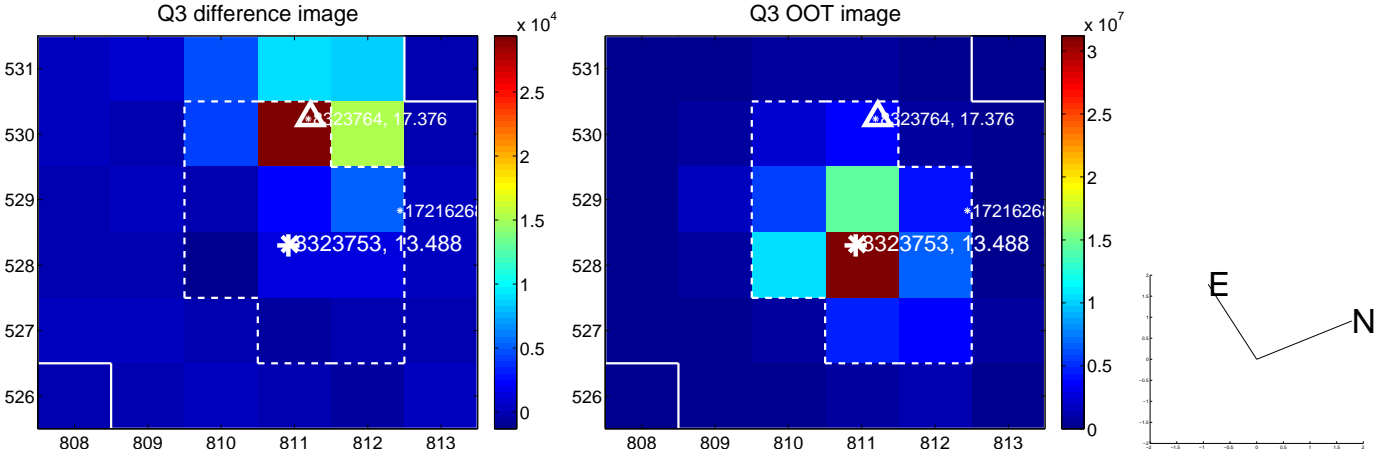
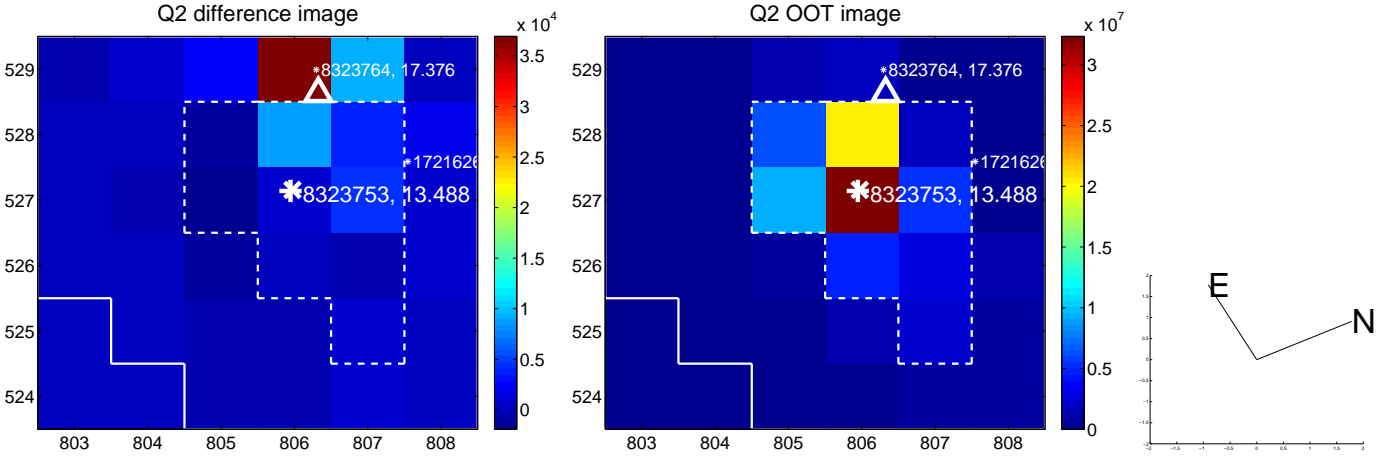
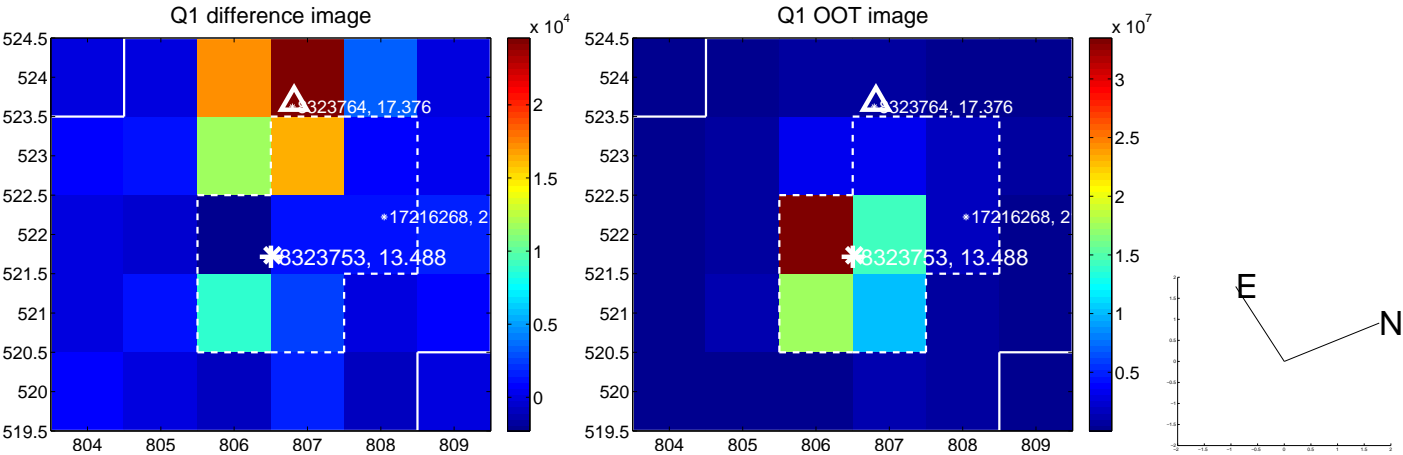
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.860 \pm 0.145	54.13	6.352 \pm 0.144	4.629 \pm 0.080
PRF-fit source offset from KIC position	7.769 \pm 0.130	59.66	6.324 \pm 0.129	4.513 \pm 0.078
photometric centroid source offset	16.98 \pm 0.33	52.07	14.11 \pm 0.35	9.45 \pm 0.27

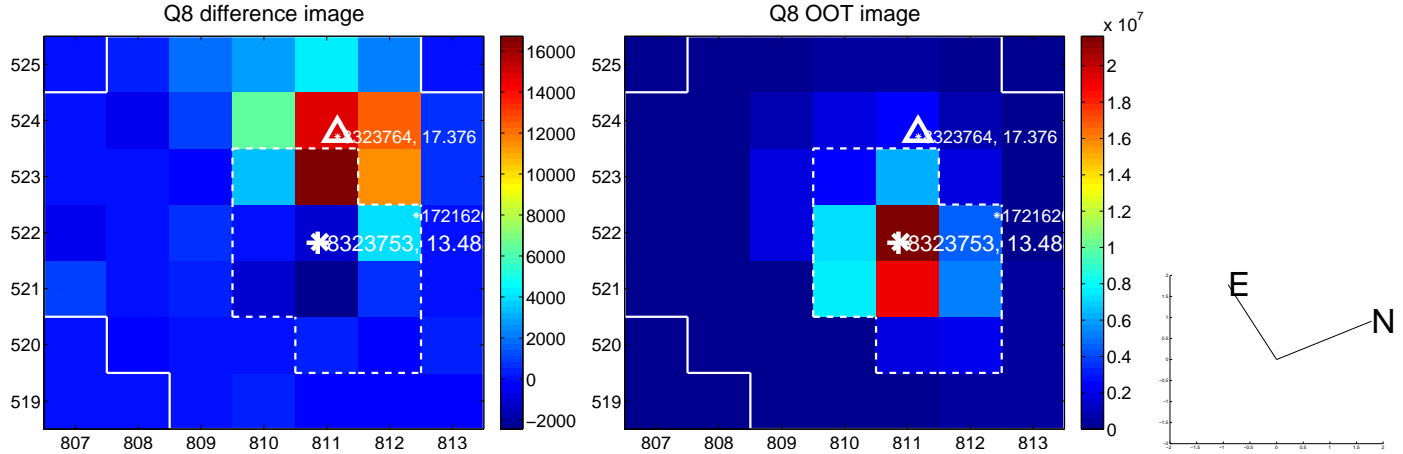
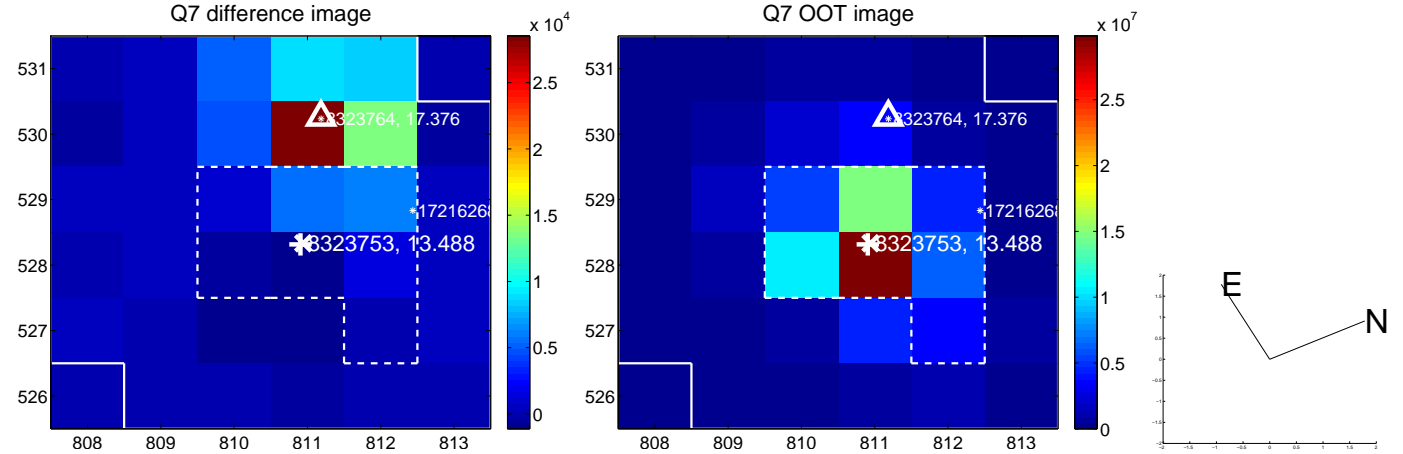
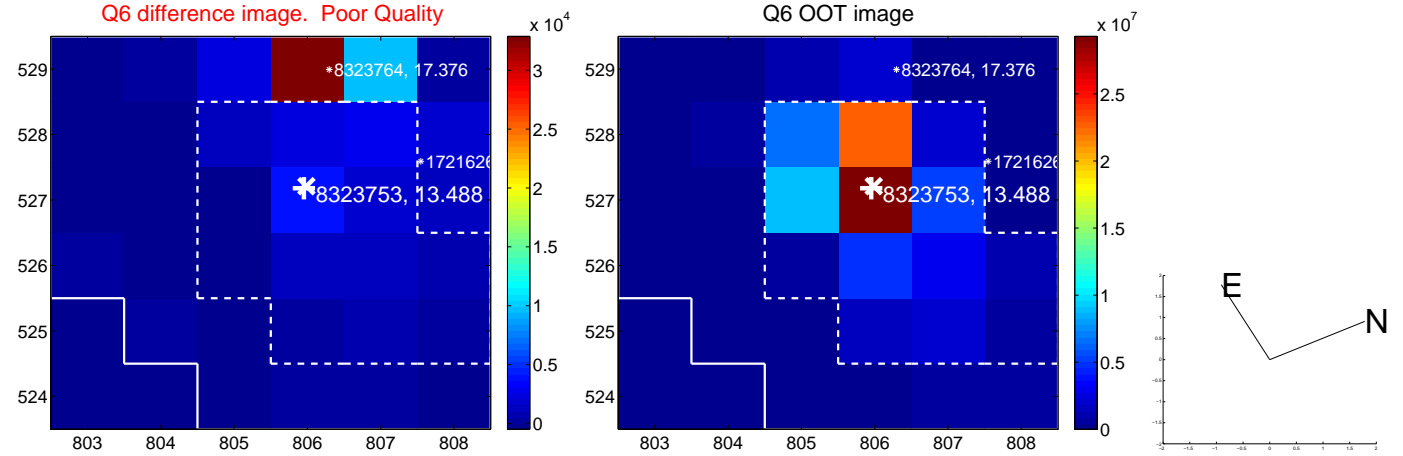
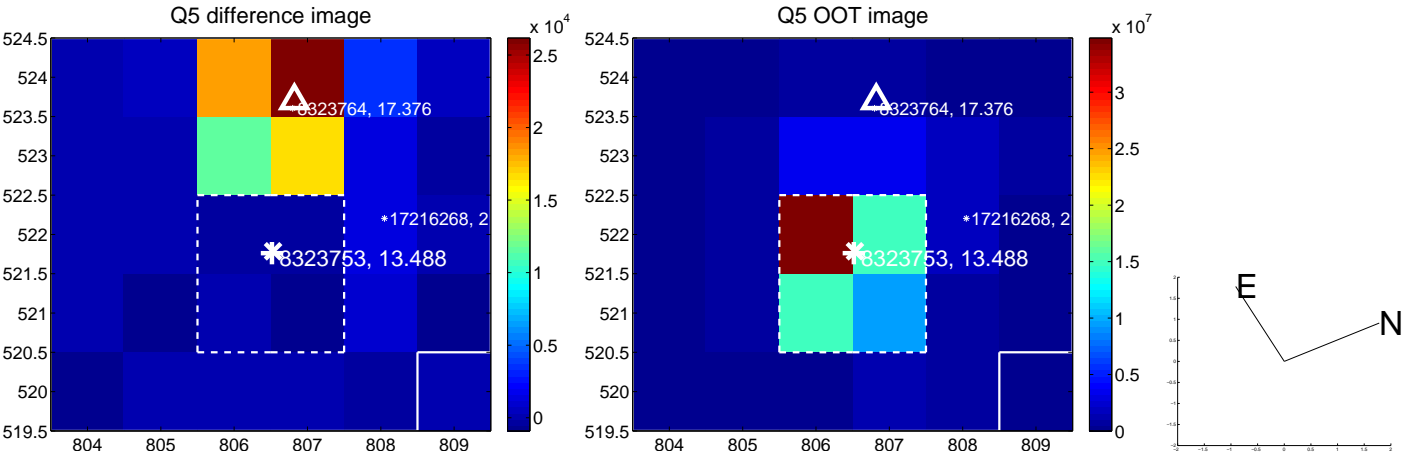


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

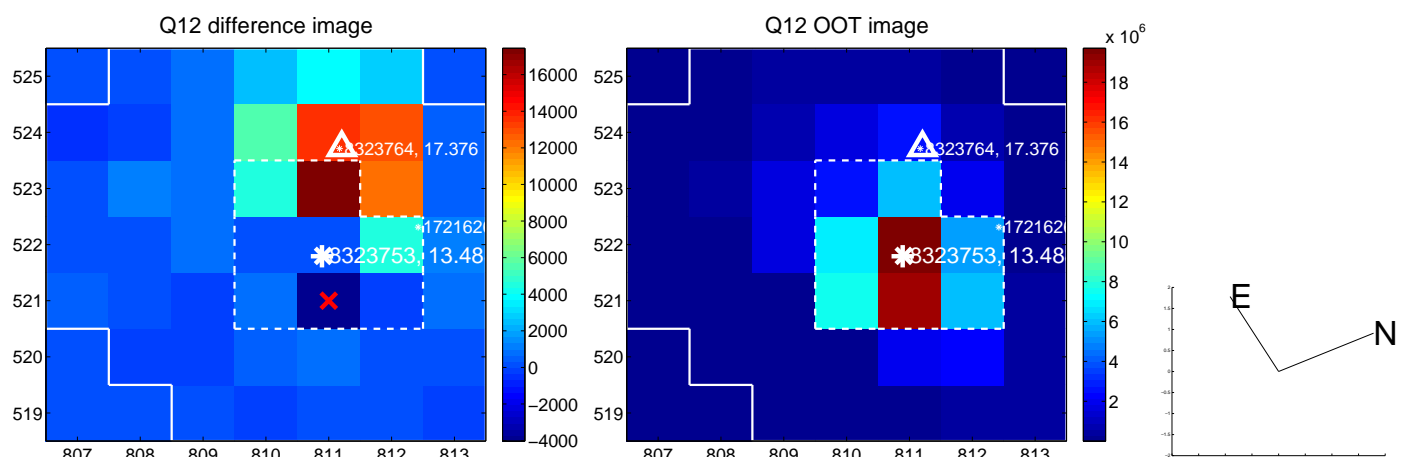
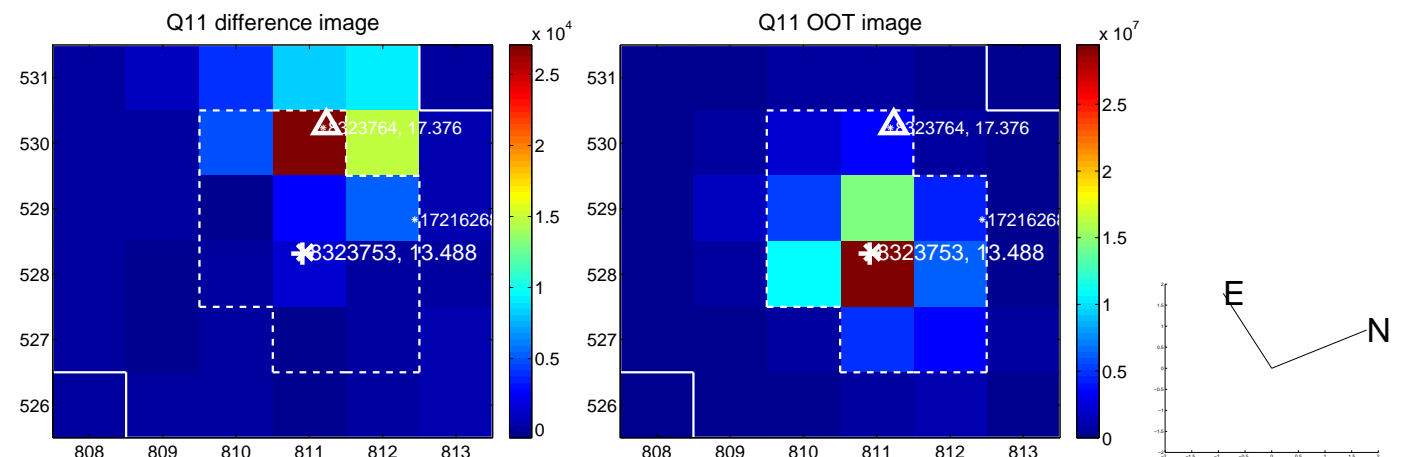
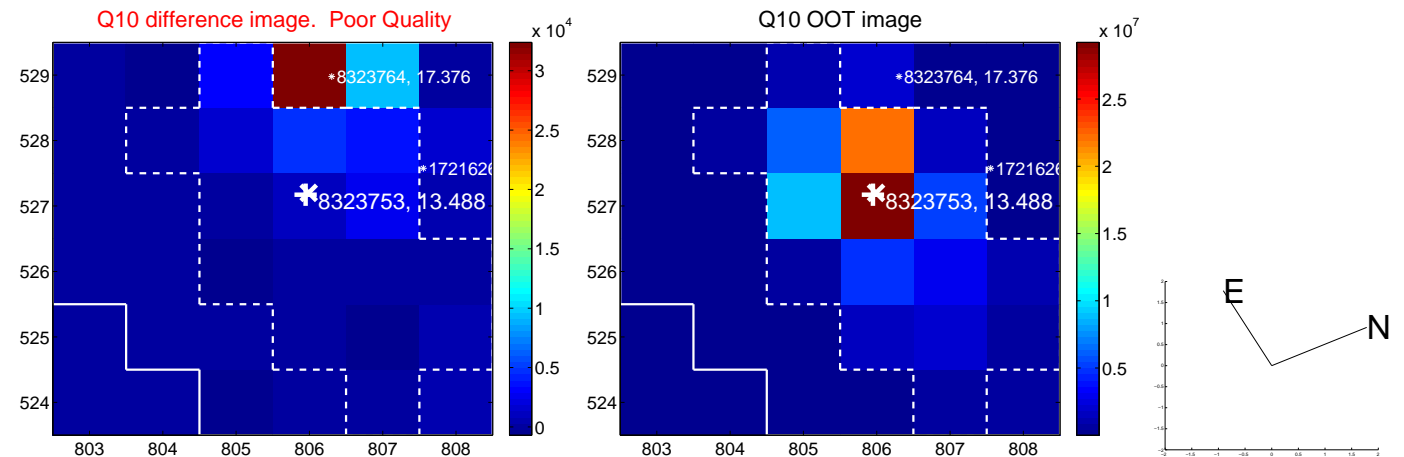
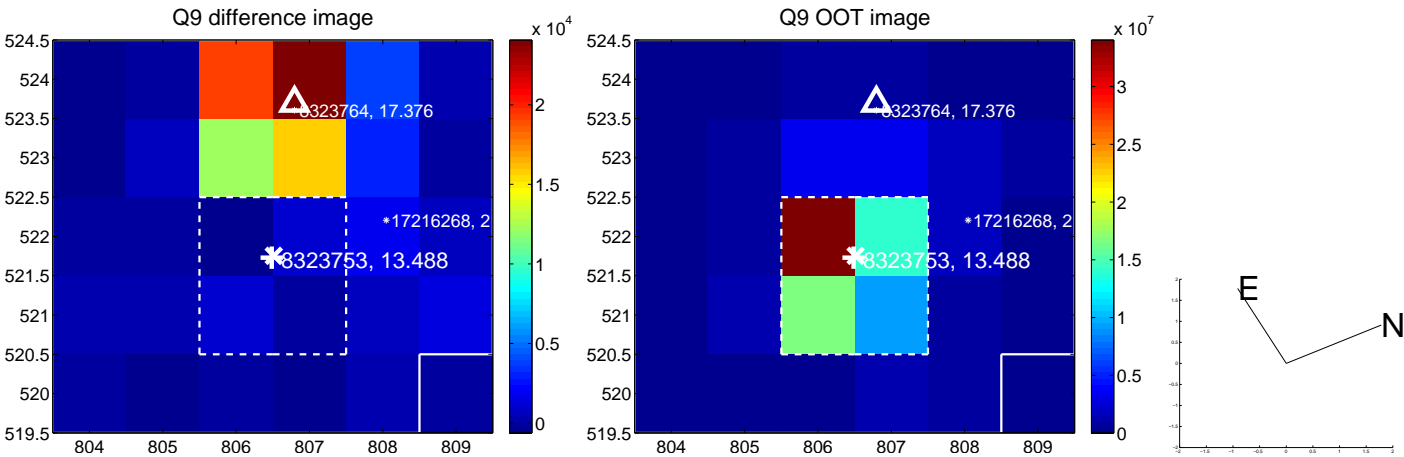
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



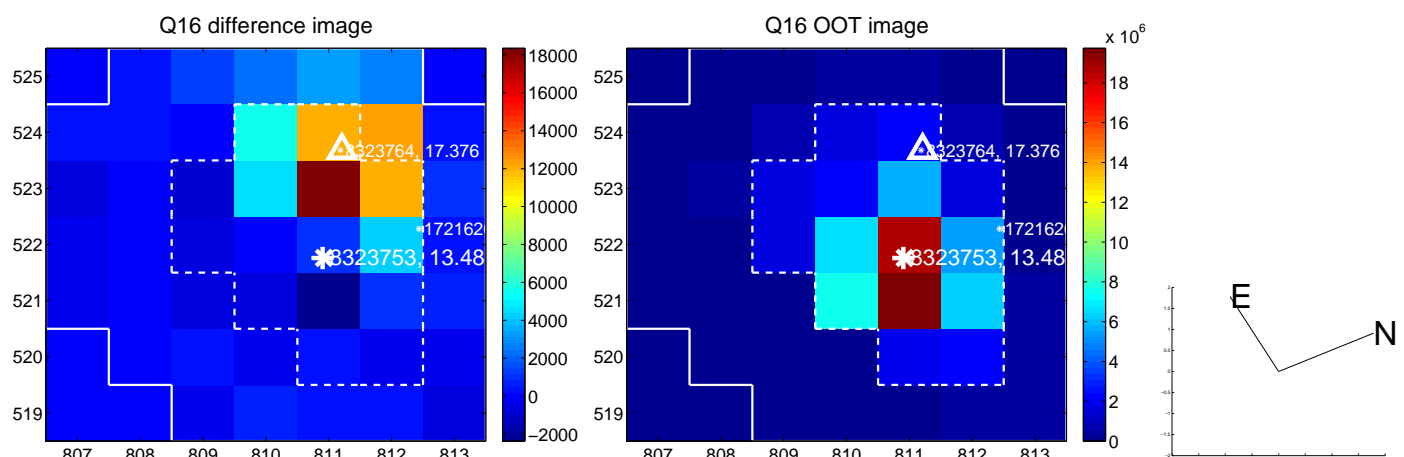
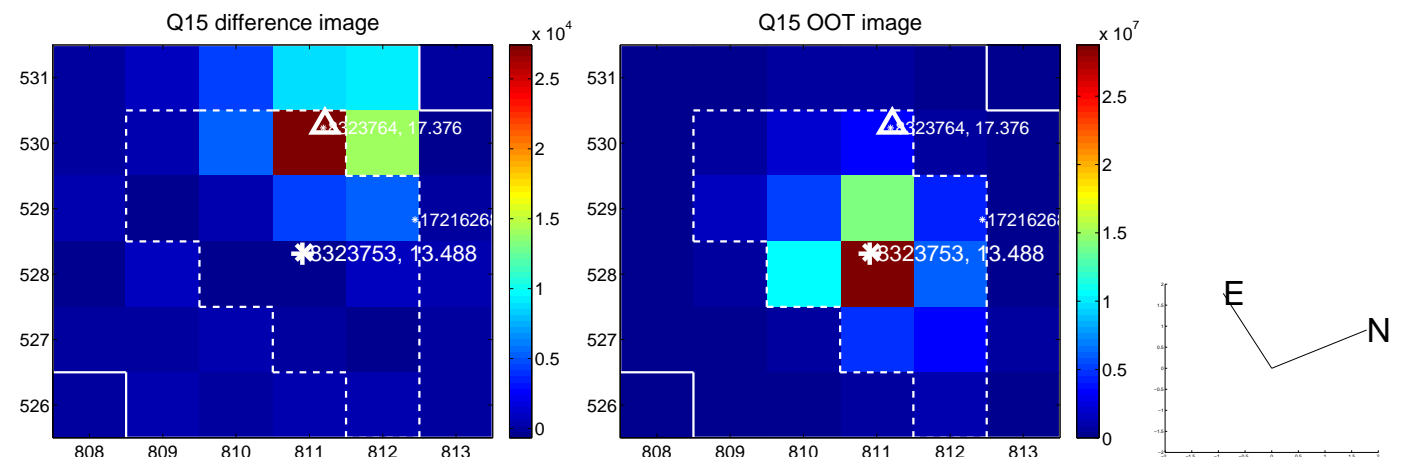
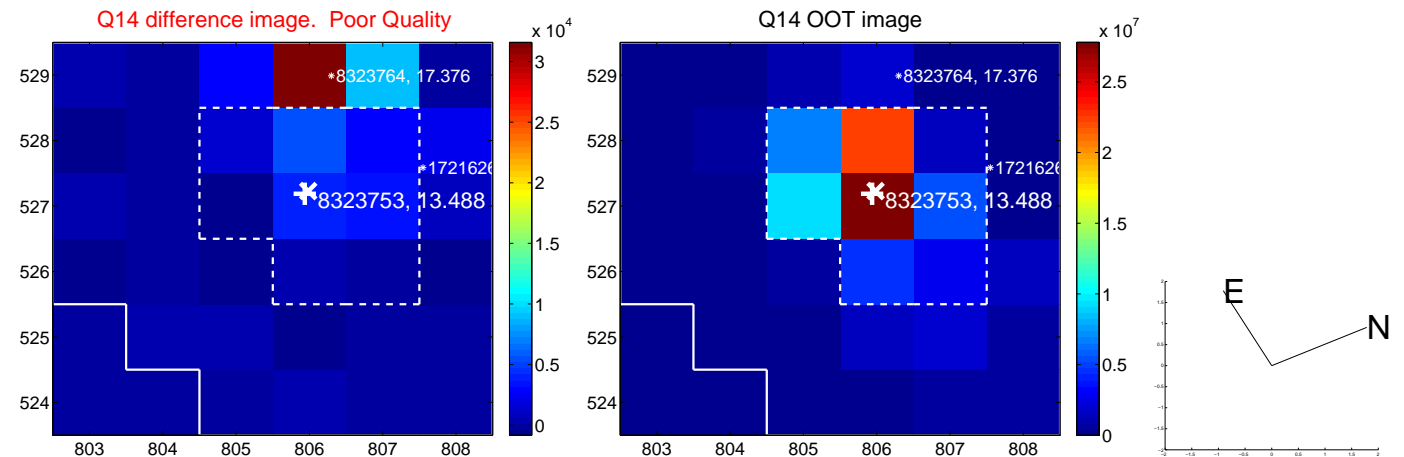
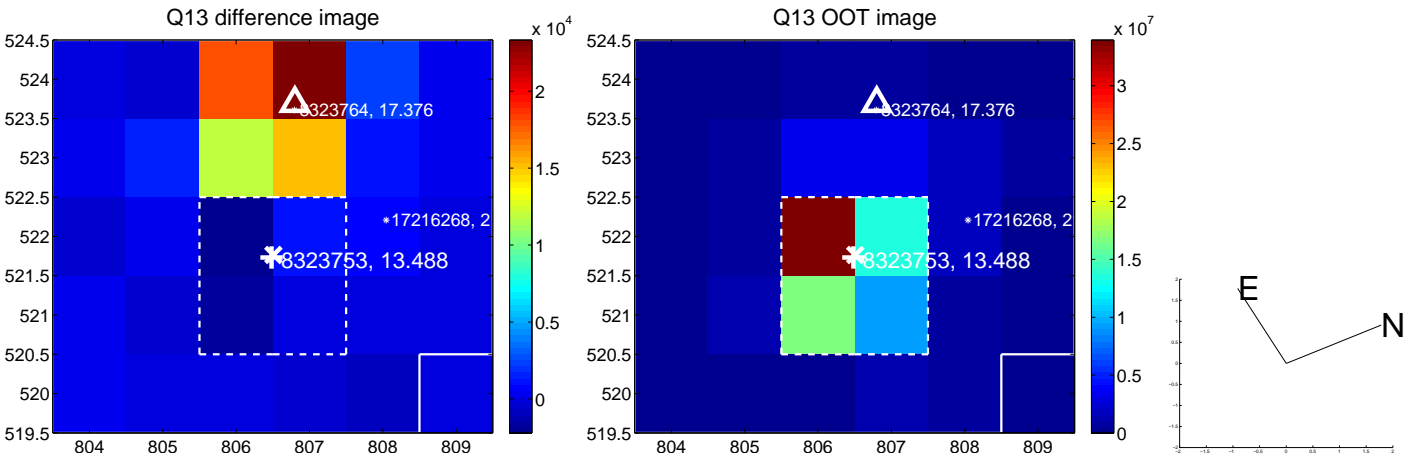
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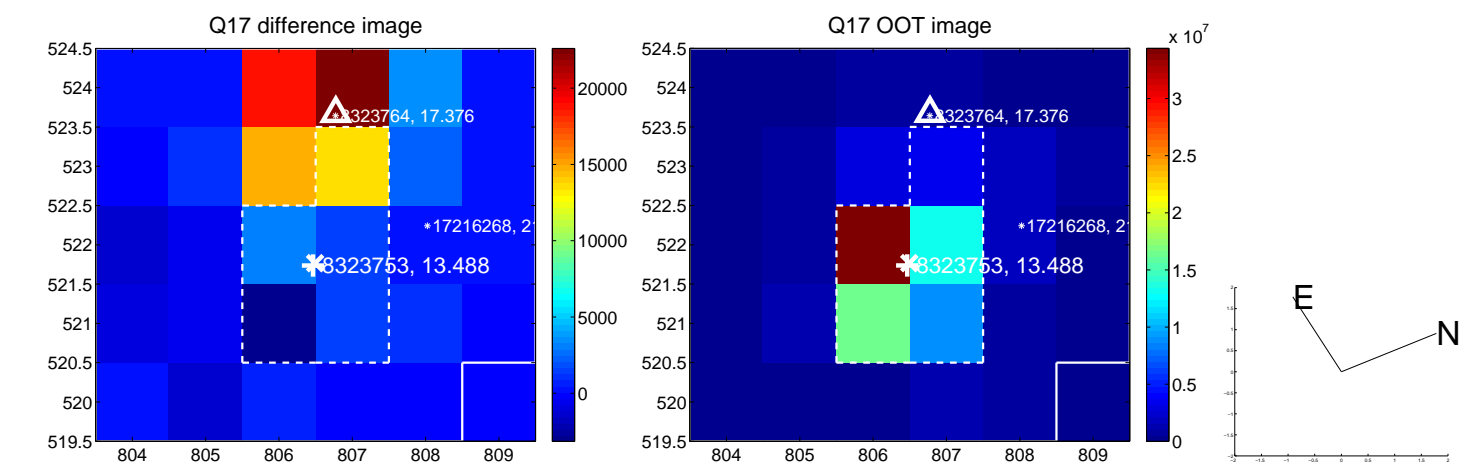
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



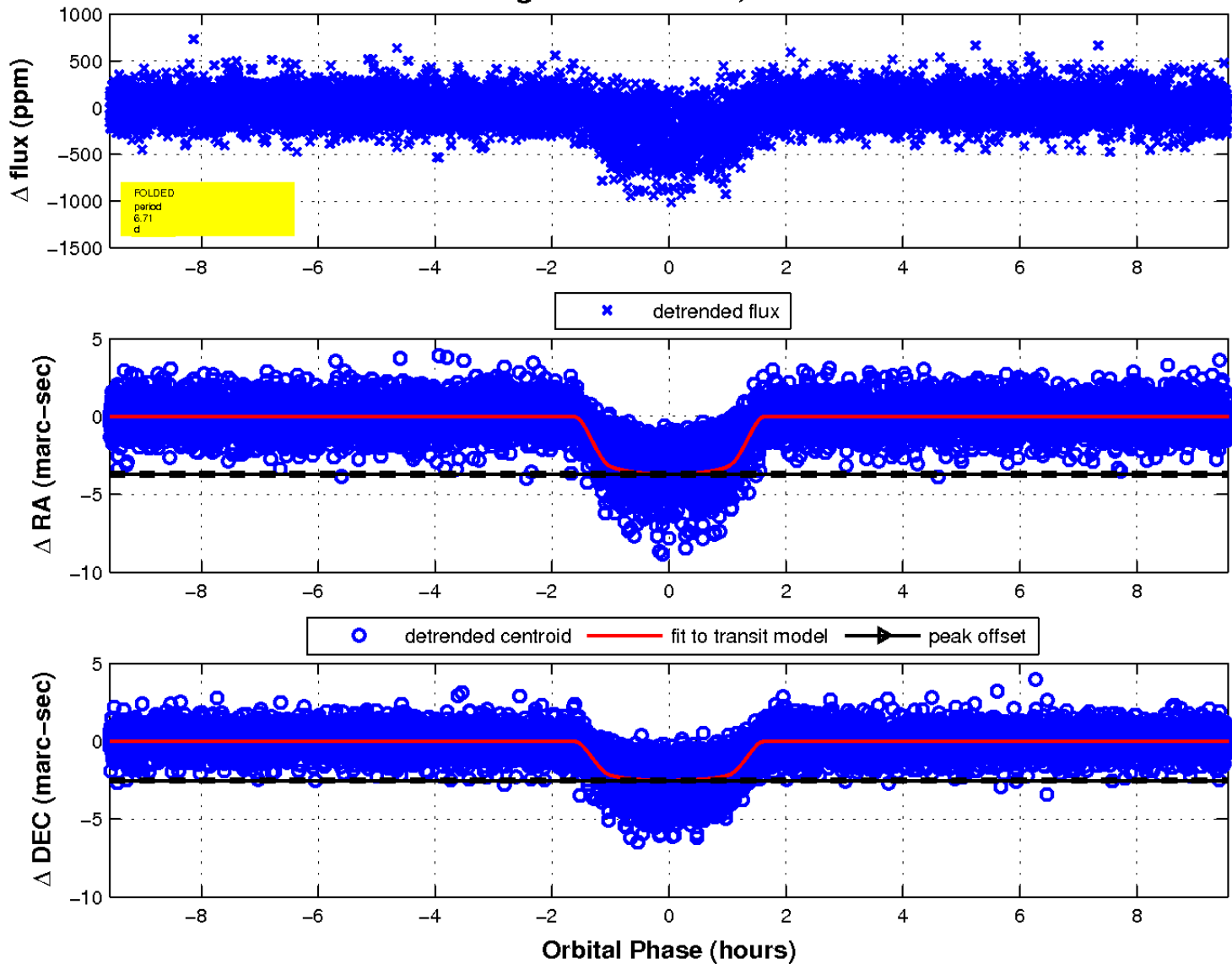
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

