

KIC 006125481

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})
006125481-01	OBS	0659.01	23.205800	134.351213	337.9	4.458	35.2	39.1	3.23	5460	6.76	238.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006125481-01	OBS	PC	0.98	0	0	0	0	NO_COMMENT

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

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

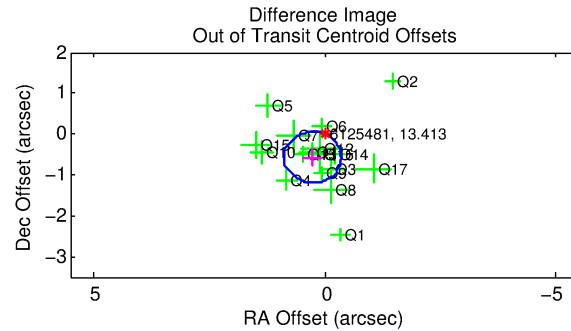
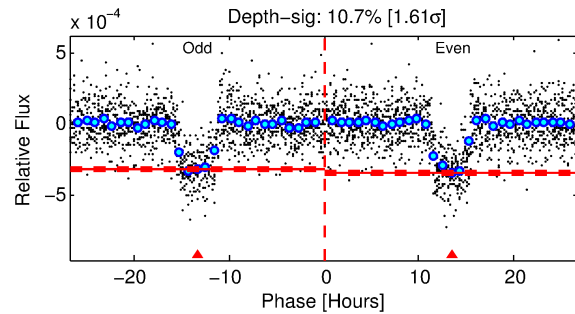
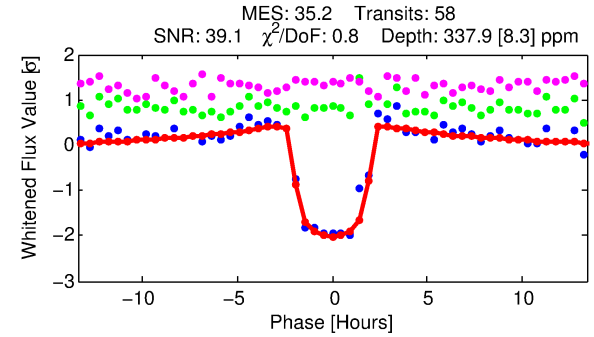
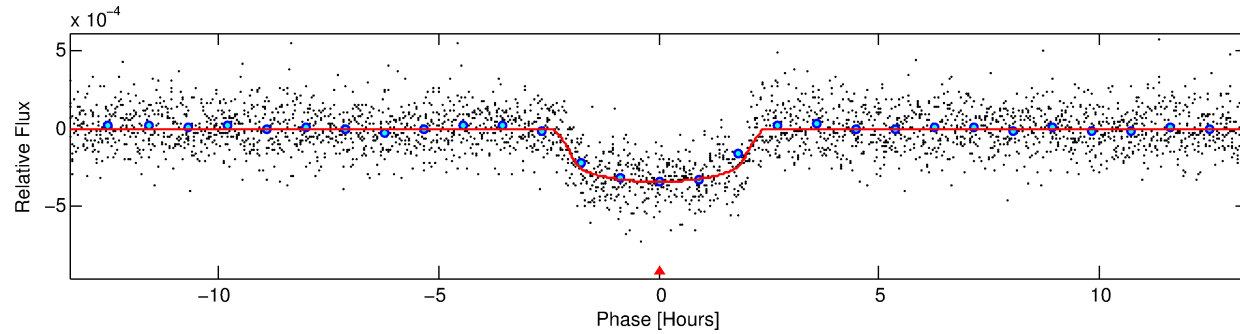
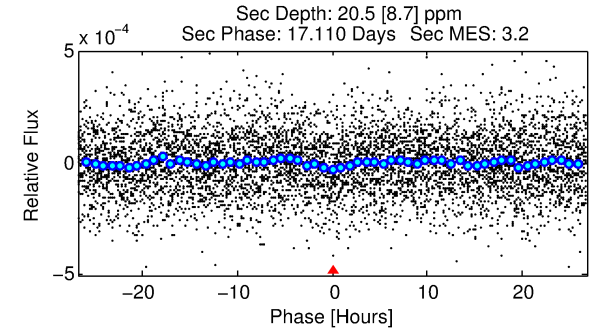
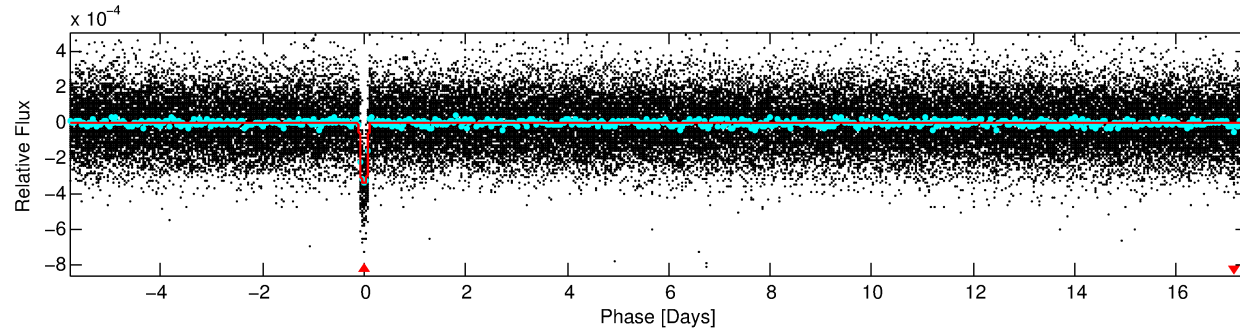
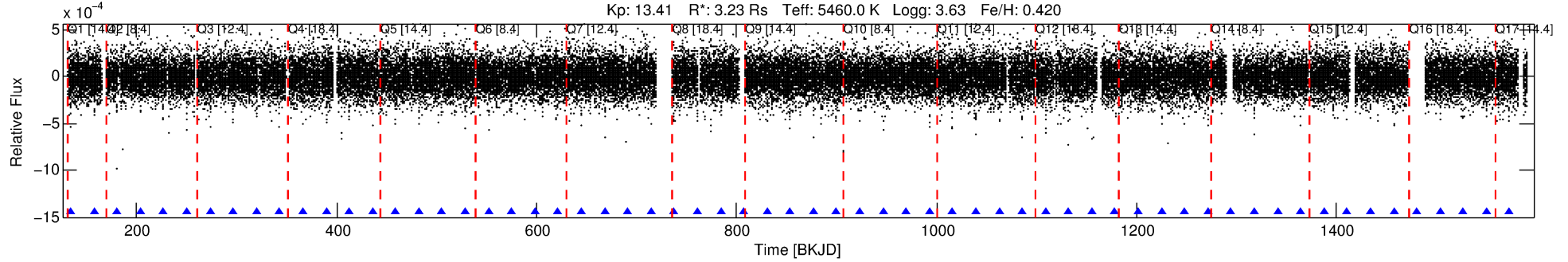
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006125481-01

No Significant Match Found

DV One-Page Summary

KIC: 6125481 Candidate: 1 of 1 Period: 23.206 d
KOI: K00659.01 Corr: 0.982



DV Fit Results:

Period = 23.20580 [0.00006] d
Epoch = 134.3512 [0.0021] BKJD
Rp/R* = 0.0192 [0.0029]
a/R* = 23.38 [14.24]
b = 0.83 [0.23]
Seff = 238.65 [120.16]
Teff = 1002 [126] K
Rp = 6.76 [2.76] Re
a = 0.1866 [0.0617] AU
Ag = 8.59 [6.17] [1.23σ]
Teffp = 2652 [350] K [4.43σ]

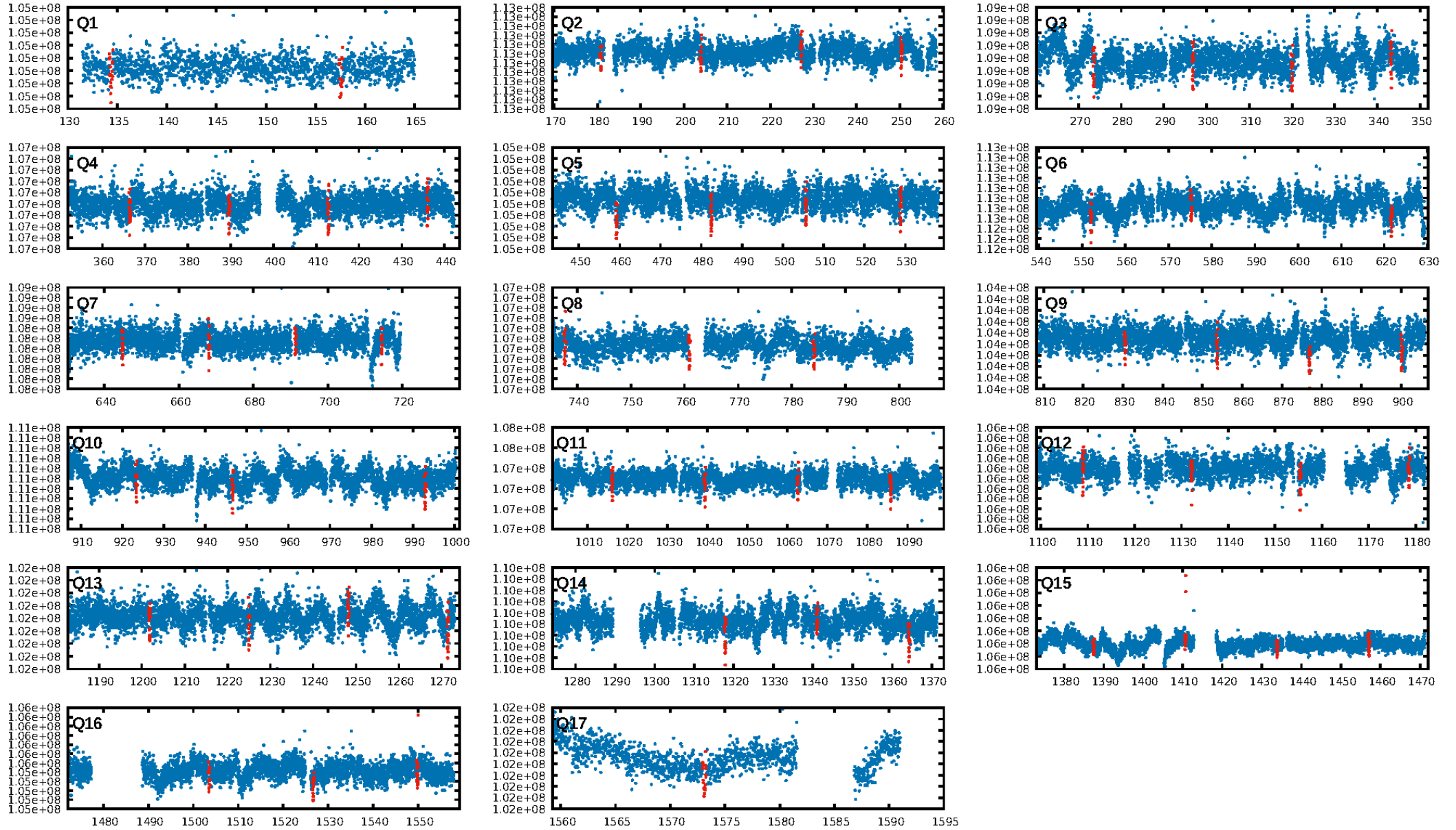
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.84e-264
RollingBand-fgt: 1.00 [55/55]
GhostDiagnostic-chr: 23.93
Centroid-sig: 38.1%
Centroid-so: 0.822 arcsec [2.72σ]
OotOffset-rm: 0.626 arcsec [3.01σ]
KicOffset-rm: 0.362 arcsec [1.83σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

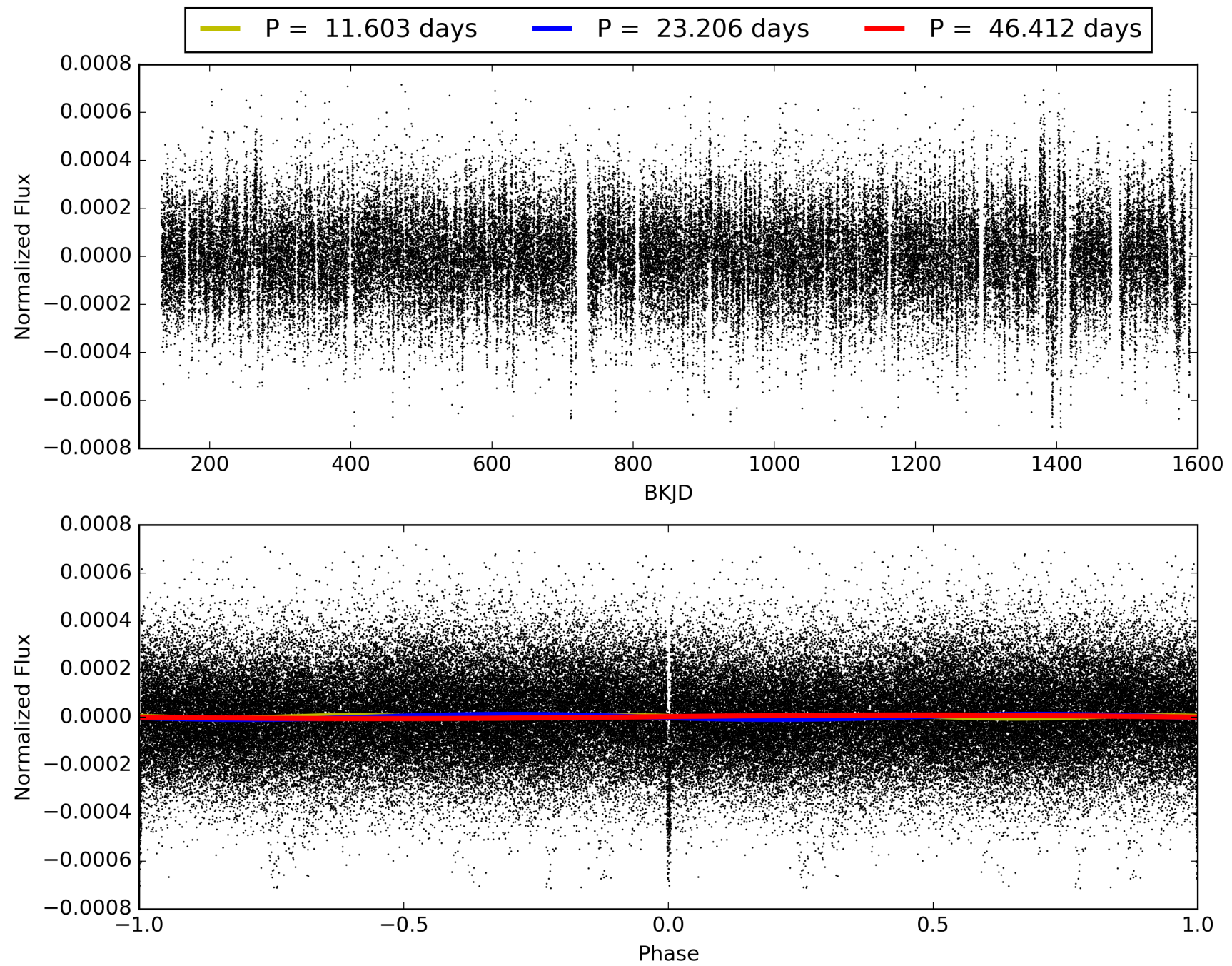
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:41:27 Z

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

TCE 006125481-01, PDC Light Curves

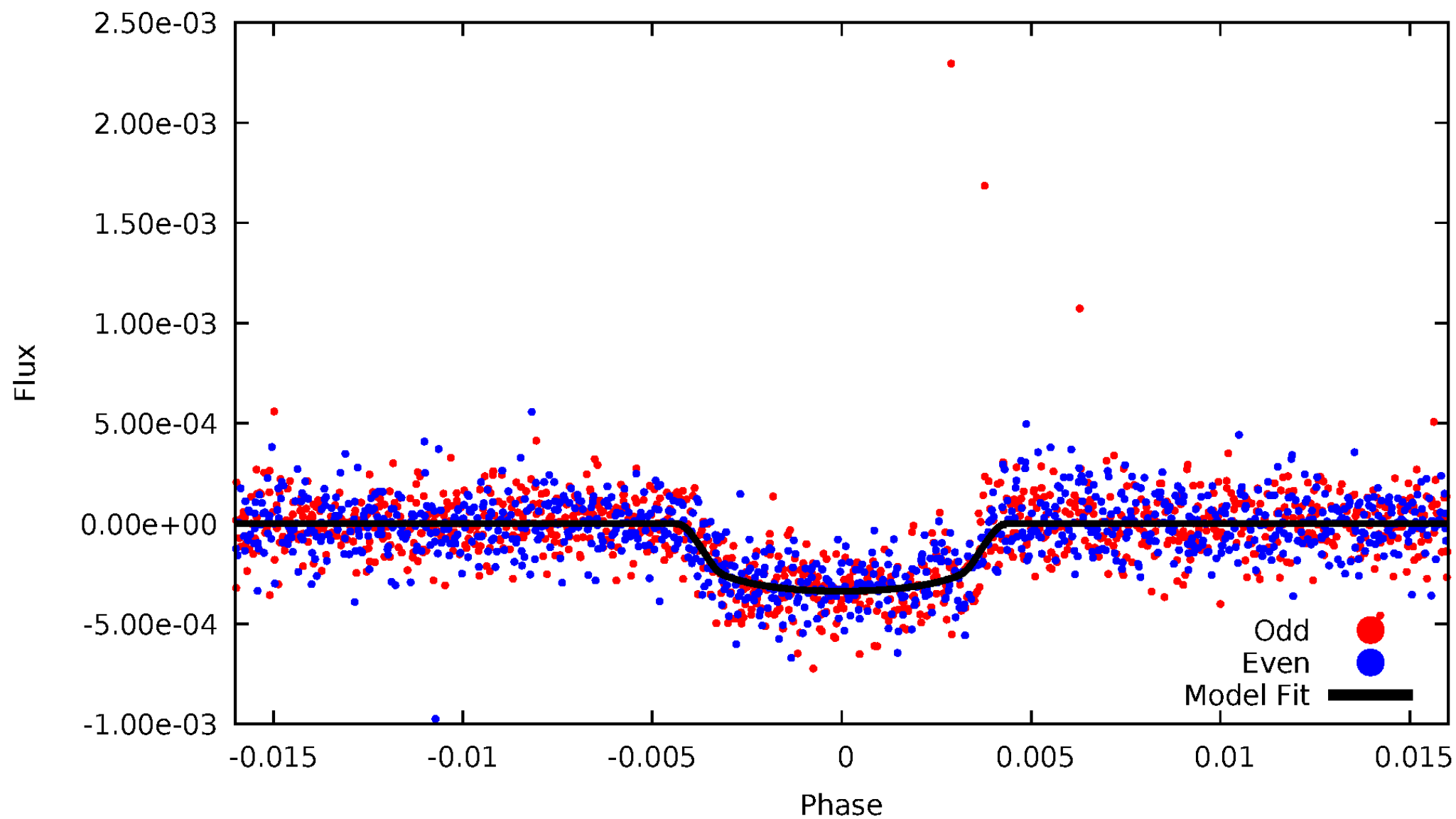


TCE 006125481-01



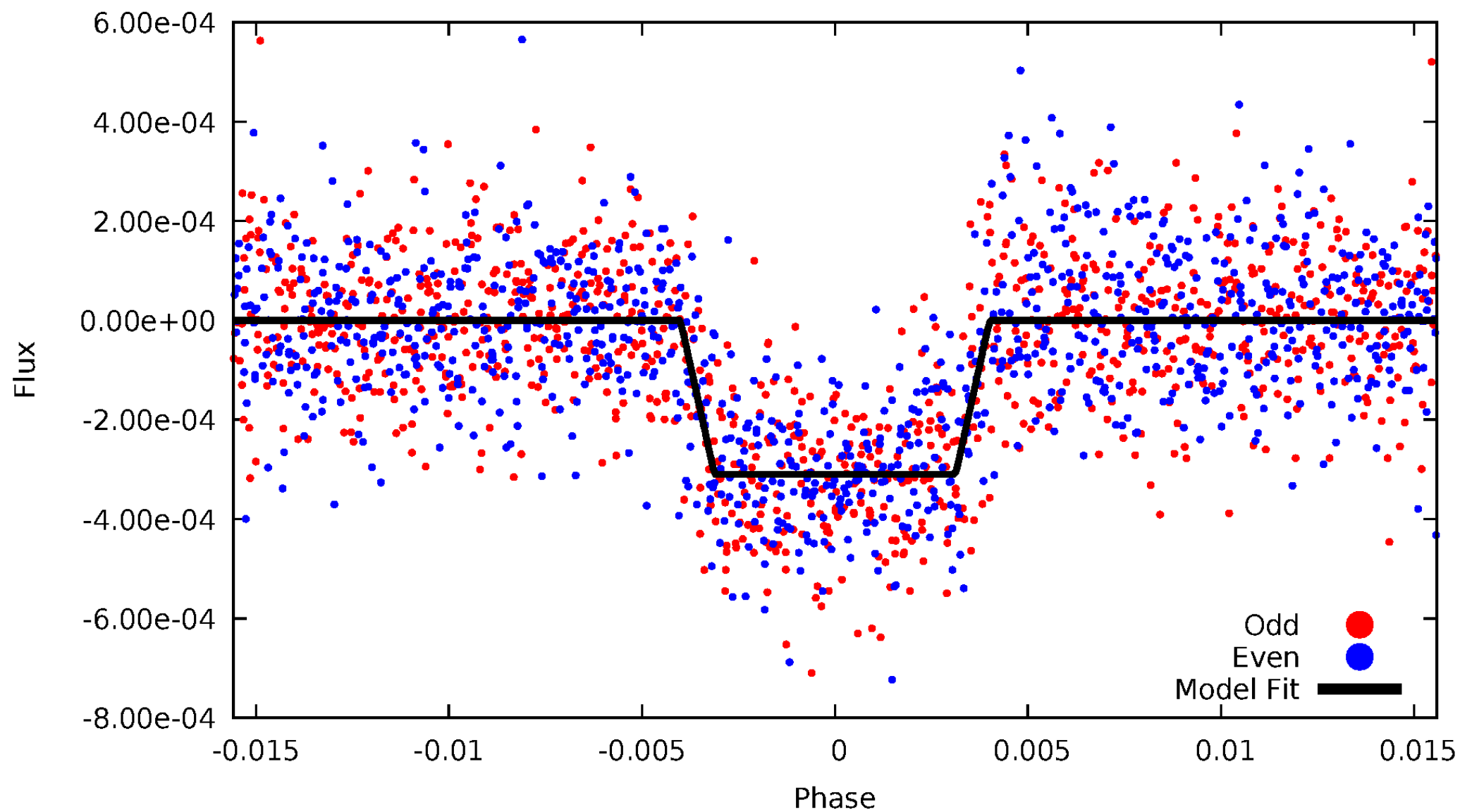
DV Odd/Even

TCE 006125481-01

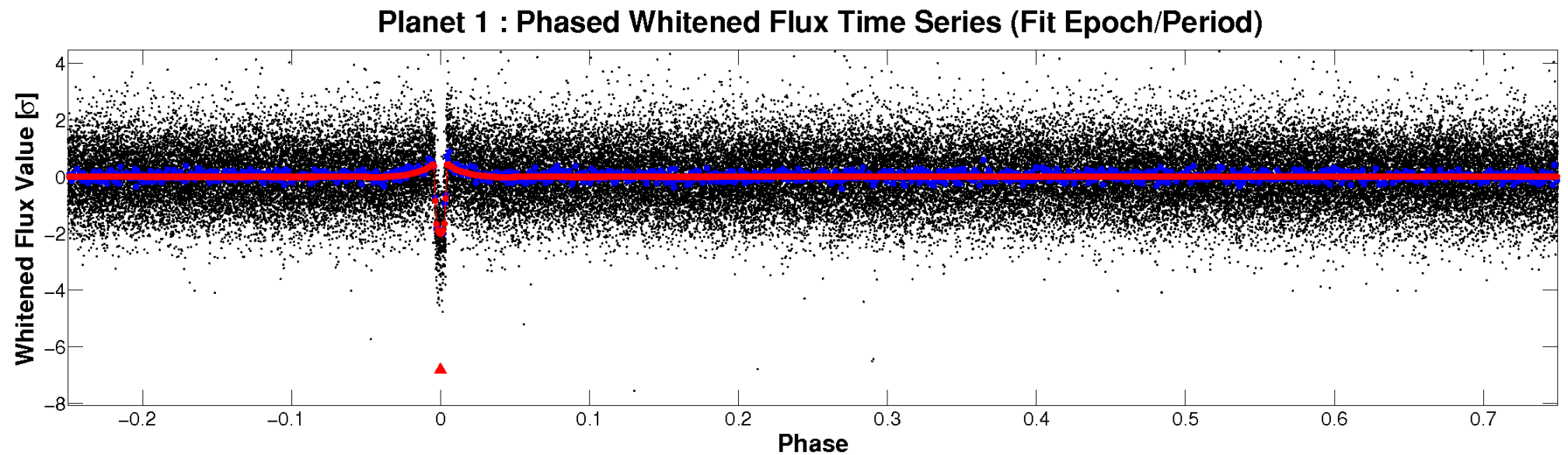
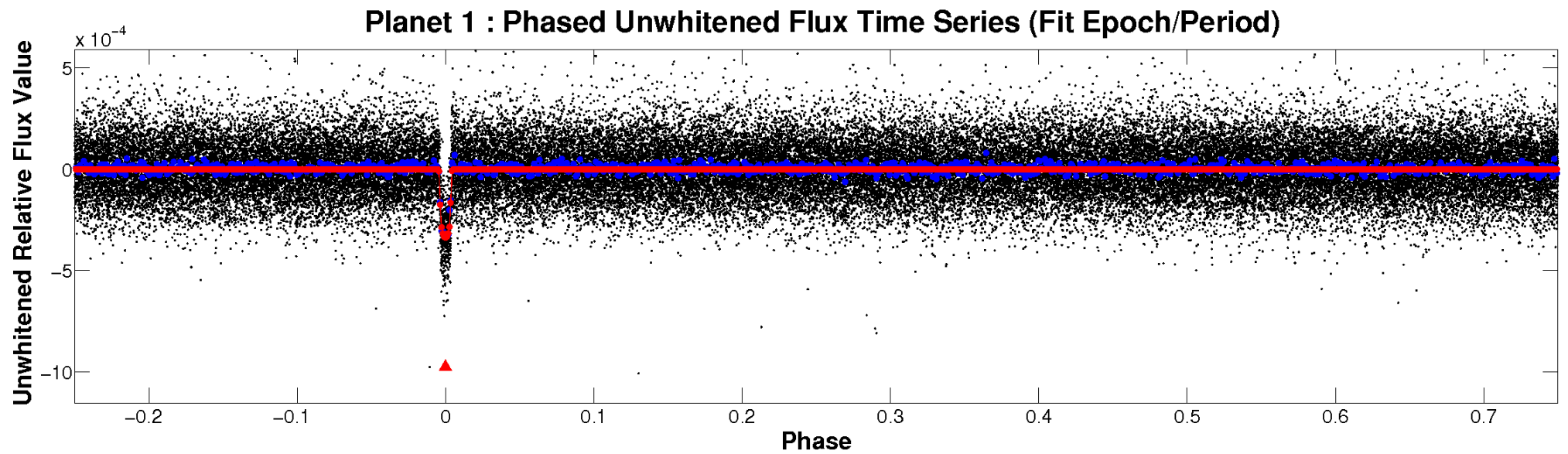


ALT Odd/Even

TCE 006125481-01

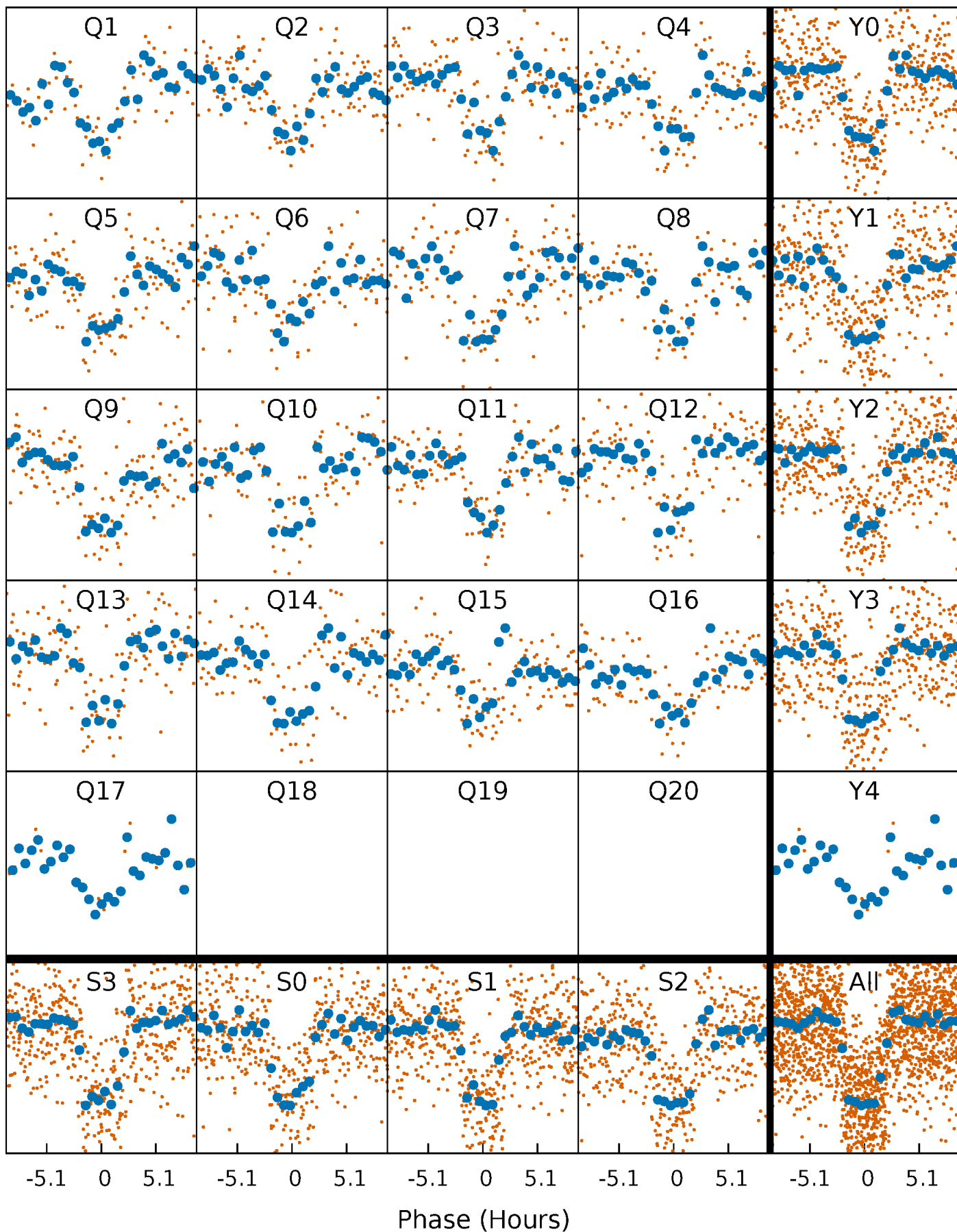


Non-Whitened Vs. Whitened Light Curve



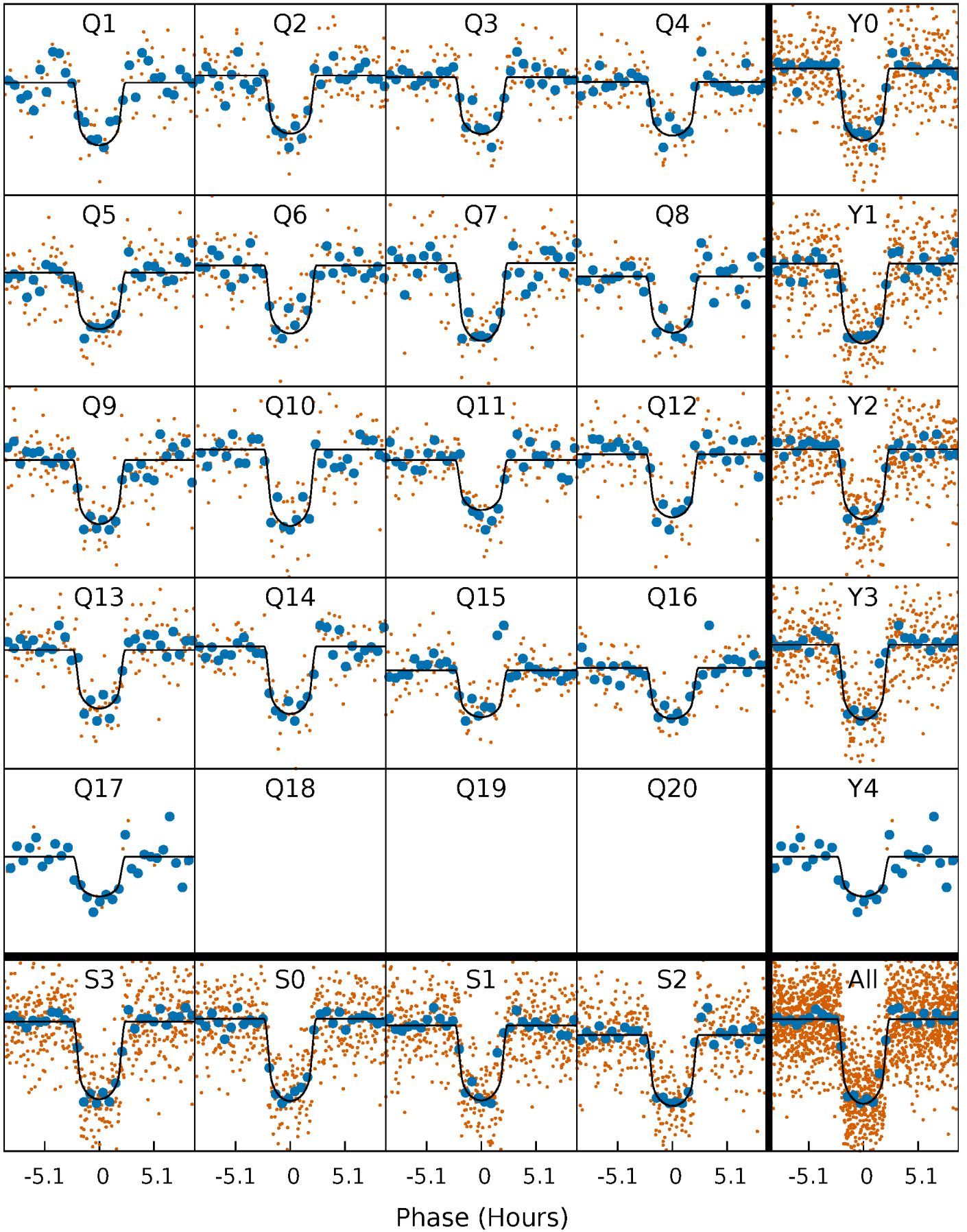
PDC Quarter-Phased Transit Curves

TCE 006125481-01 P= 23.205800 Days $T_0=134.351213$ (BKJD)



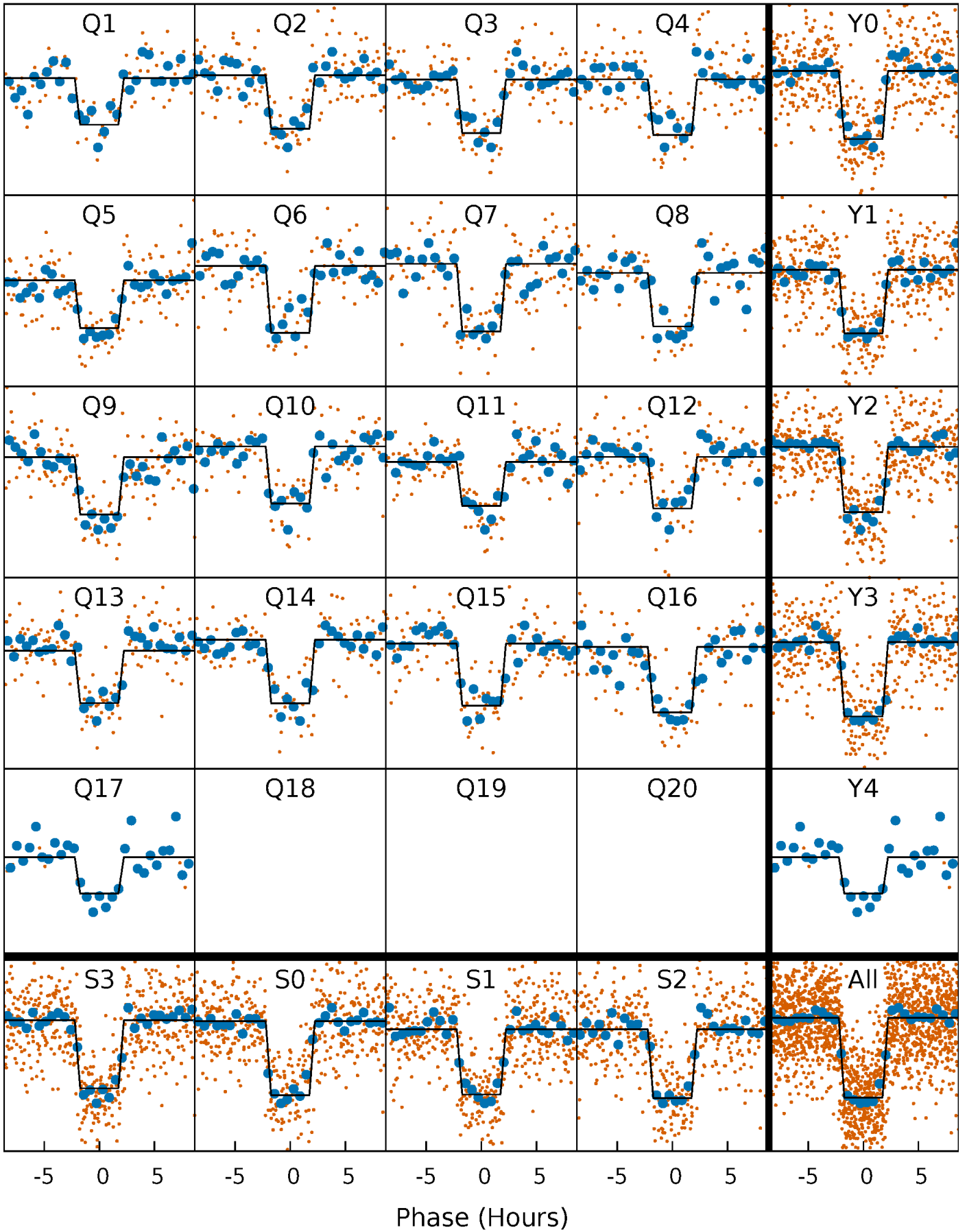
DV Quarter-Phased Transit Curves

TCE 006125481-01 P= 23.205800 Days $T_0=134.351213$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

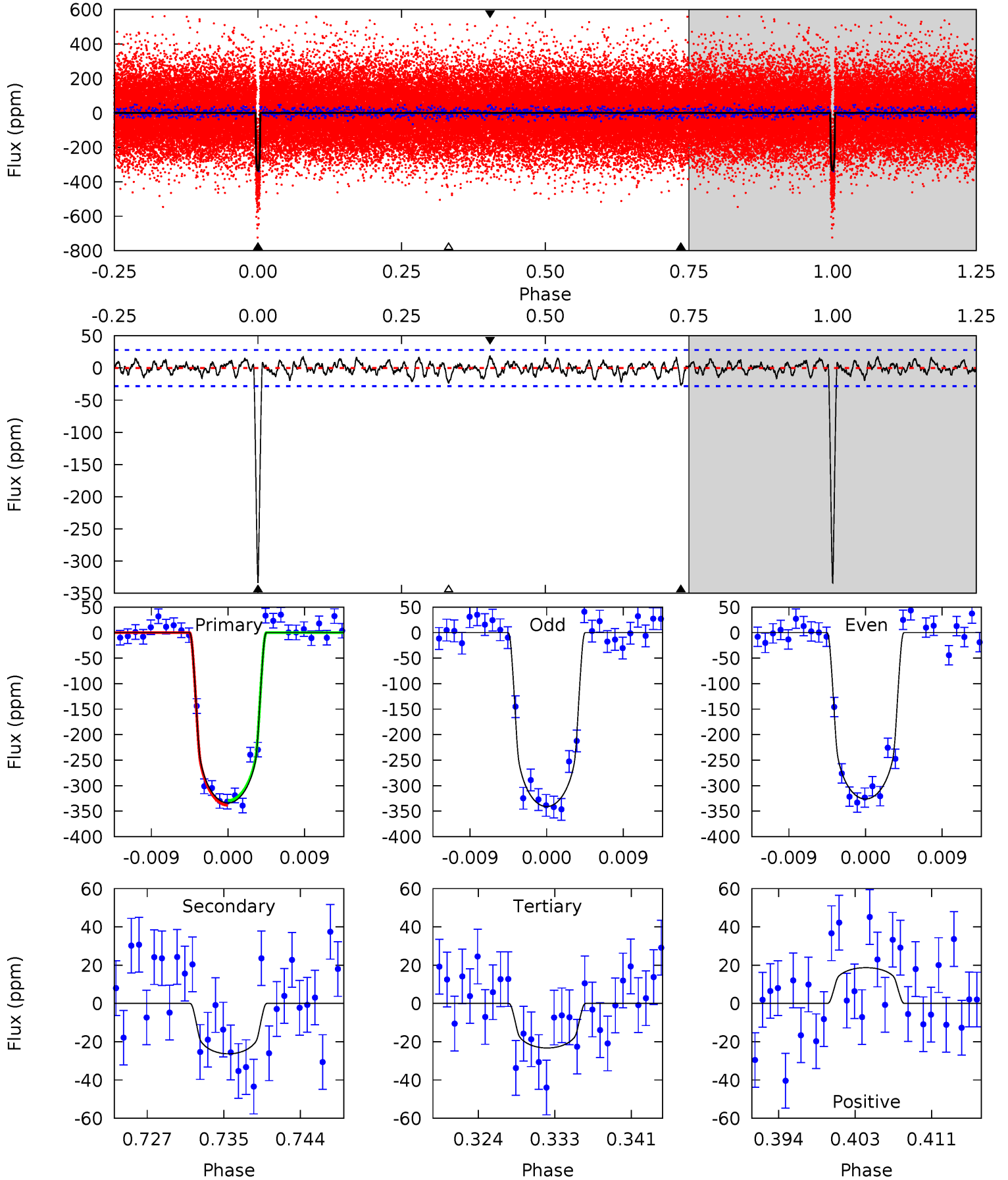
TCE 006125481-01 P= 23.205514 Days $T_0=134.360248$ (BKJD)



DV Model-Shift Uniqueness Test

006125481-01, P = 23.205800 Days, E = 111.145413 Days

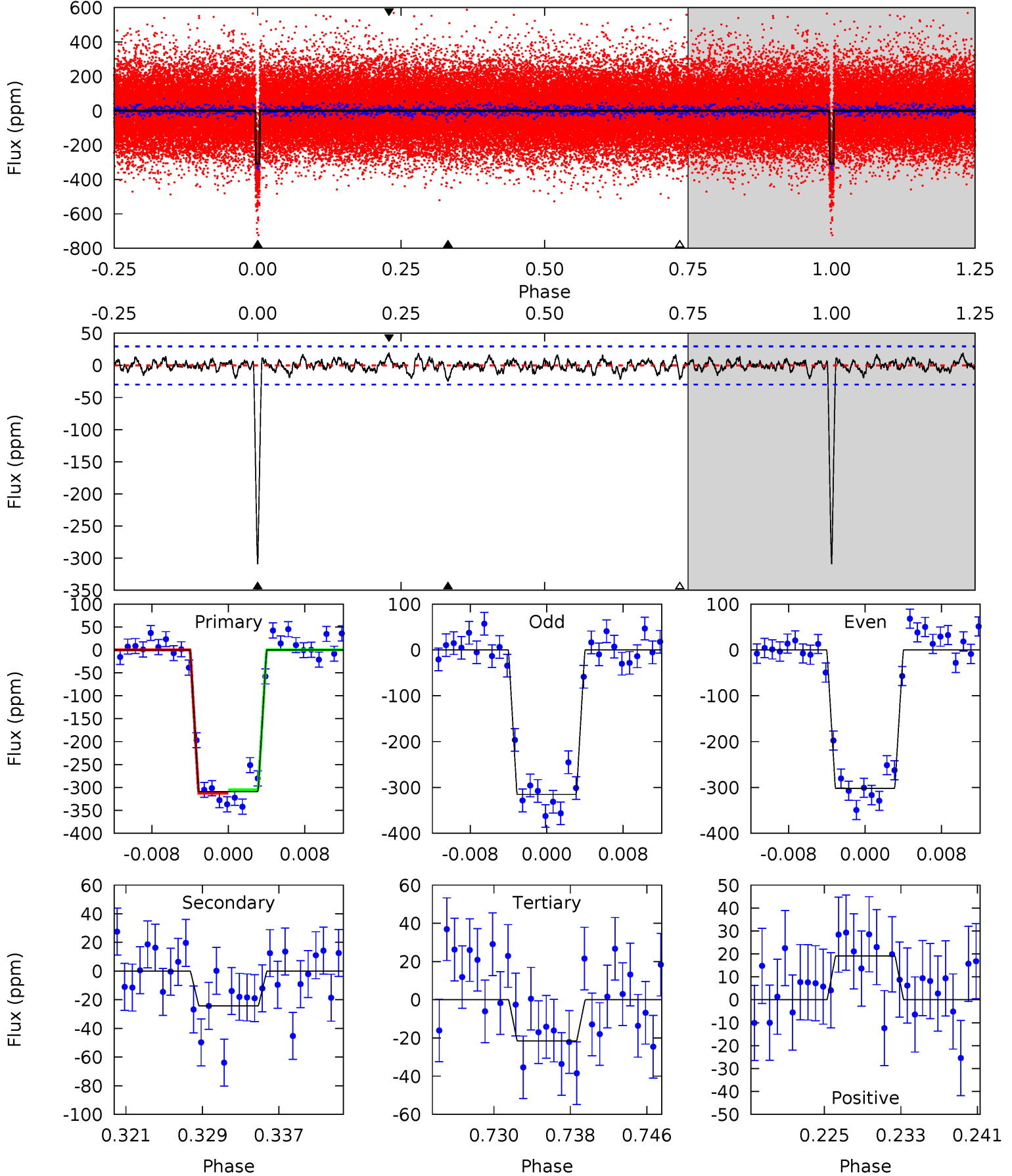
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.0	4.74	4.19	3.37	5.05	2.62	1.32	55.9	56.7	0.55	1.37	1.33	0.97	0.05	0.82



Alt Model-Shift Uniqueness Test

006125481-01, P = 23.205514 Days, E = 111.154734 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.7	4.14	3.68	3.26	5.07	2.65	1.16	49.0	49.4	0.45	0.88	1.13	0.99	0.06	0.67



Stellar Parameters For KIC 006125481

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5460^{+119}_{-108}	$3.626^{+0.278}_{-0.111}$	$0.420^{+0.050}_{-0.150}$	$3.231^{+0.659}_{-1.224}$	$1.609^{+0.158}_{-0.421}$	$0.067^{+0.134}_{-0.024}$
	+2%/-2%	+8%/-3%	+12%/-36%	+20%/-38%	+10%/-26%	+200%/-35%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 006125481-01 / KOI 0659.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-26 ± 6	$6.43^{+1.40}_{-1.53}$	1384^{+74}_{-133}	3335^{+226}_{-186}	12^{+8}_{-4}
Alt.	-24 ± 6	$5.90^{+1.31}_{-1.39}$	1382^{+82}_{-113}	3394^{+249}_{-214}	13^{+10}_{-5}

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 $A_{\text{obs}} \gg 1.0$

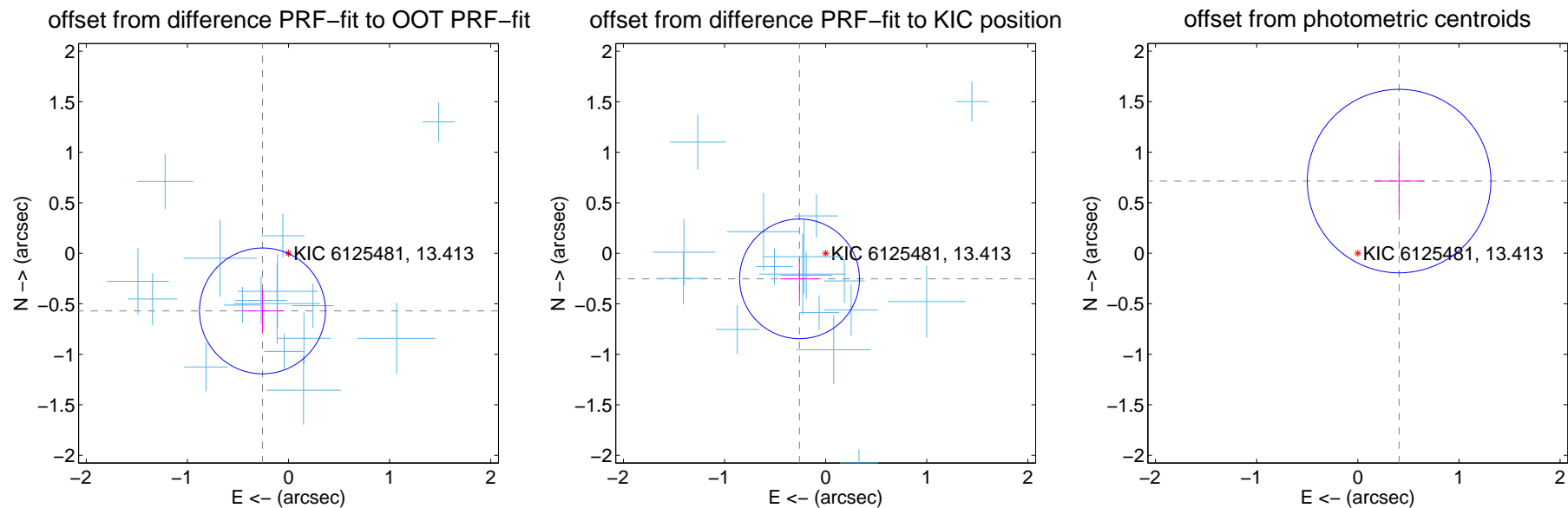
DV Centroid Data

Supplemental centroid analysis for 006125481-01. Kepler magnitude: 13.41. Transit SNR 39.06

There are 17 quarters with good PRF difference image offsets

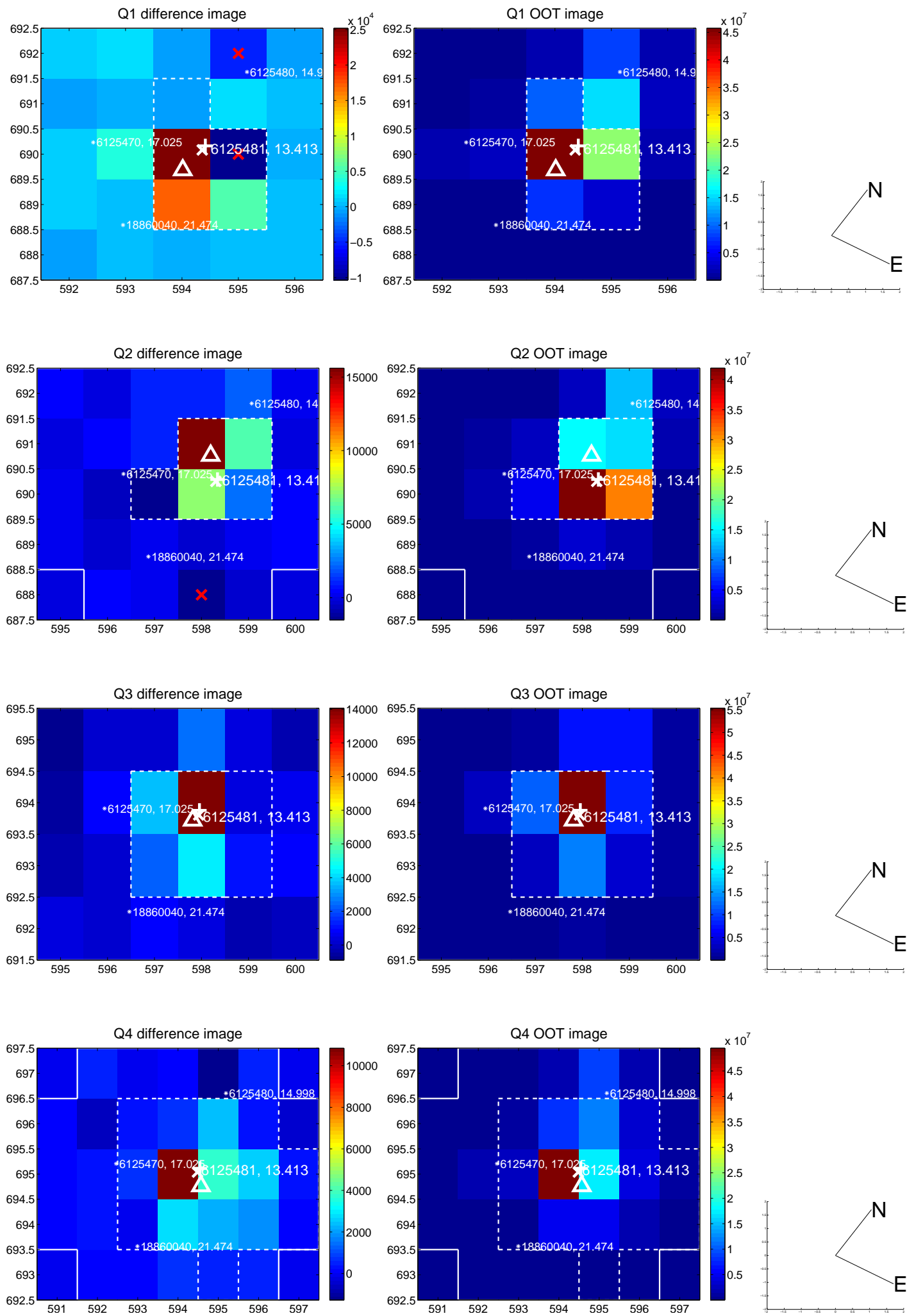
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.626 \pm 0.208	3.01	0.257 \pm 0.206	-0.570 \pm 0.205
PRF-fit source offset from KIC position	0.362 \pm 0.197	1.83	0.258 \pm 0.191	-0.253 \pm 0.201
photometric centroid source offset	0.82 \pm 0.30	2.72	-0.41 \pm 0.25	0.71 \pm 0.32

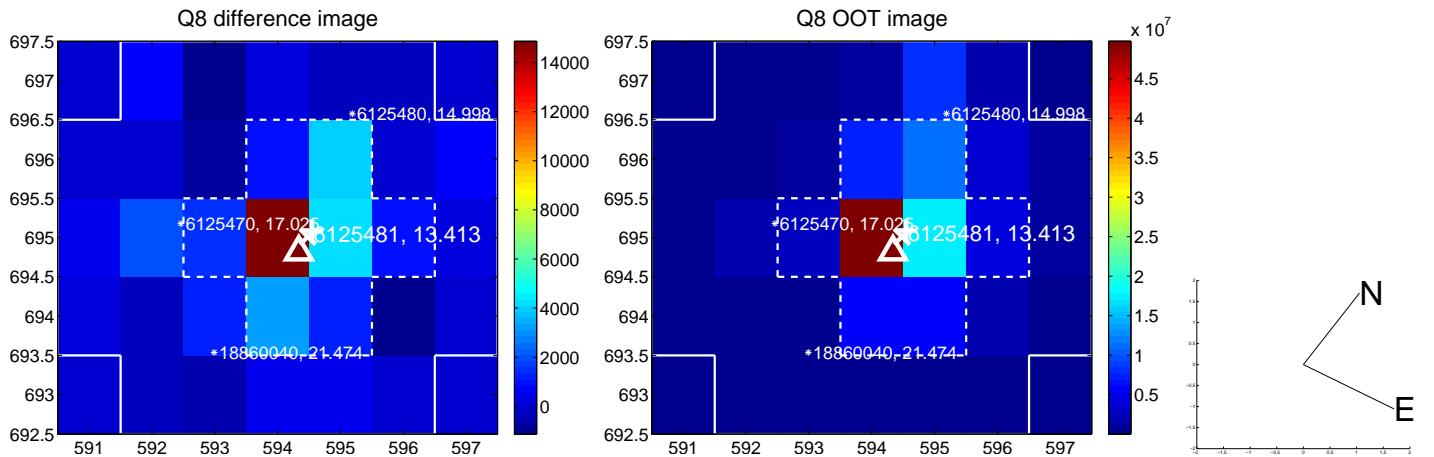
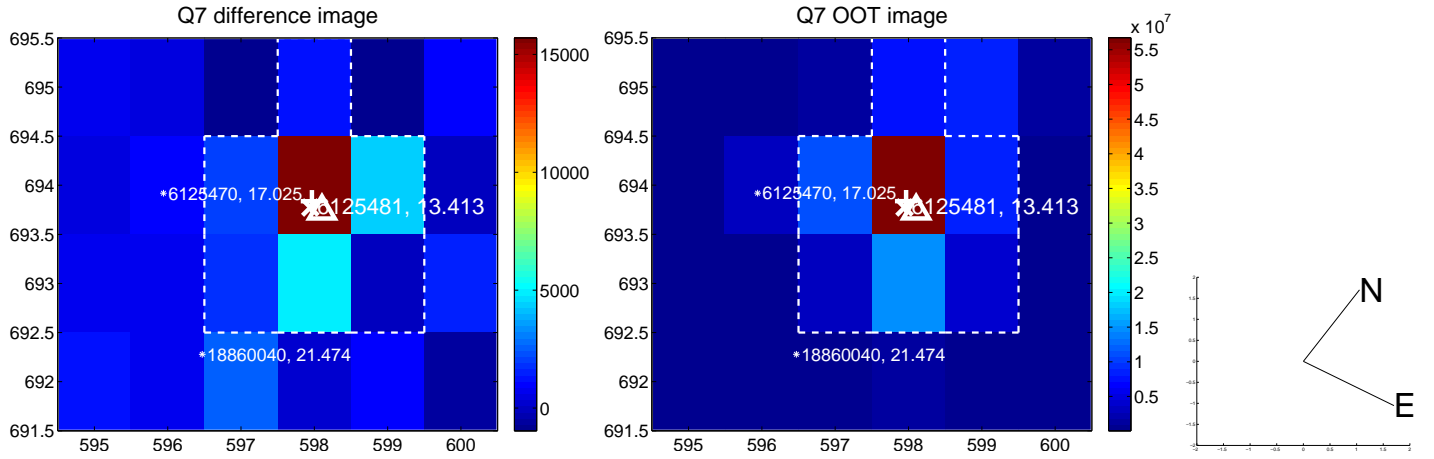
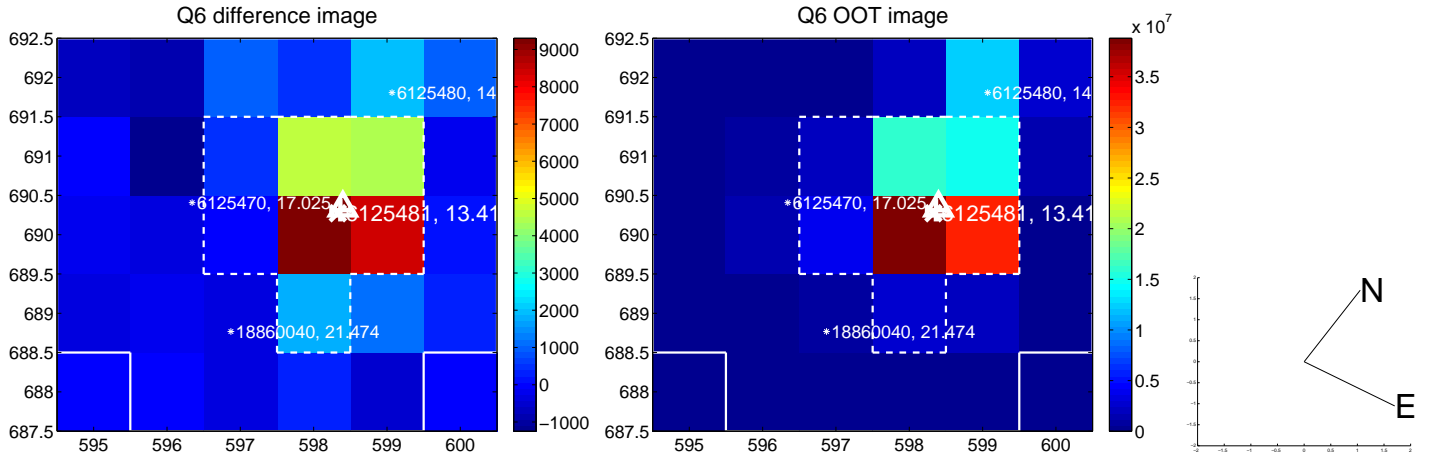
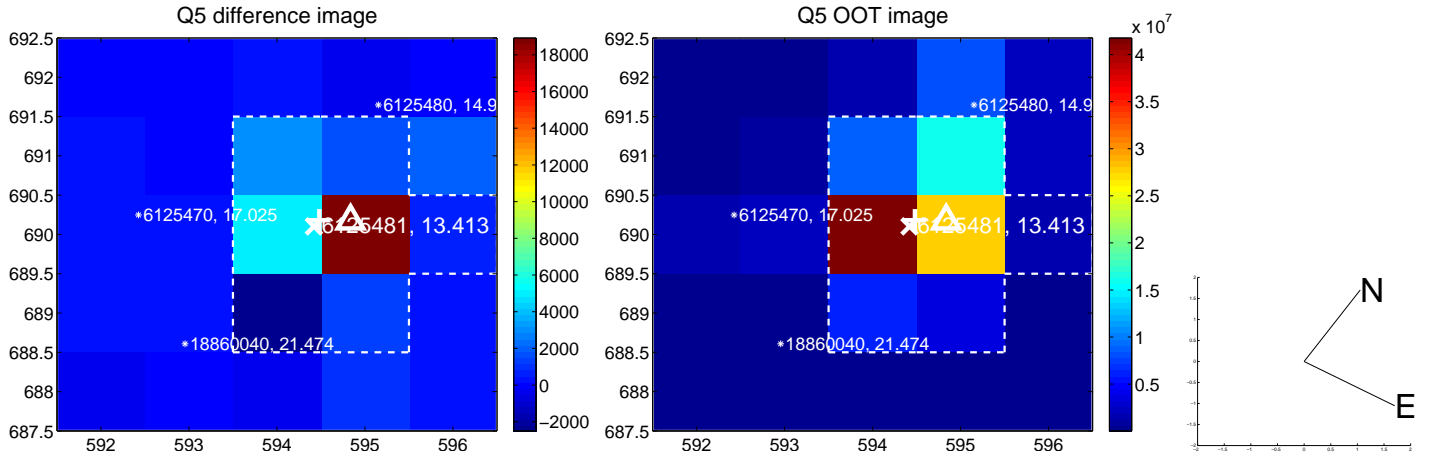


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

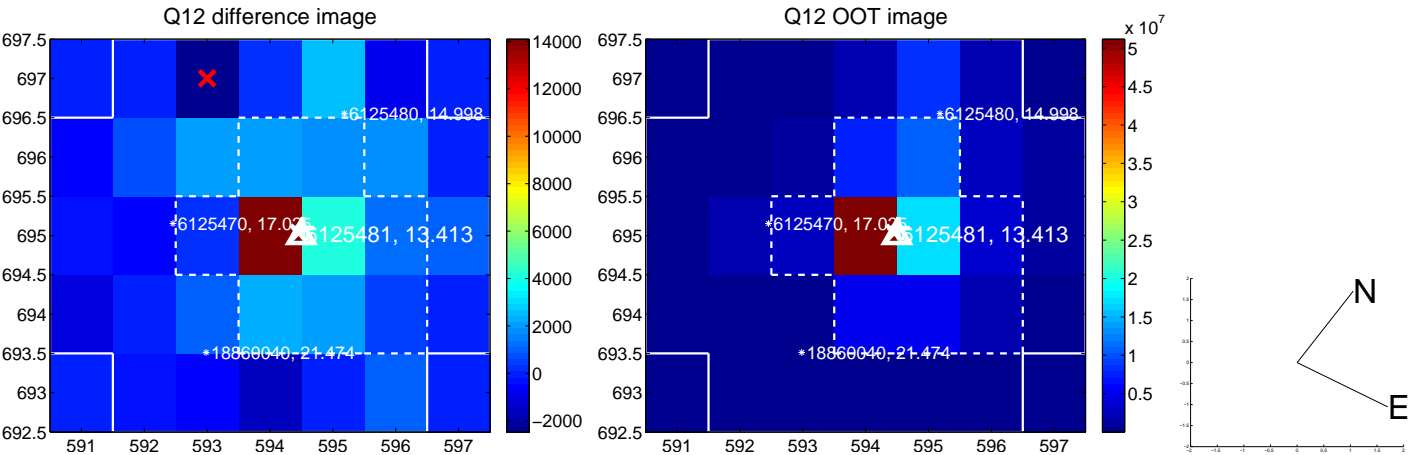
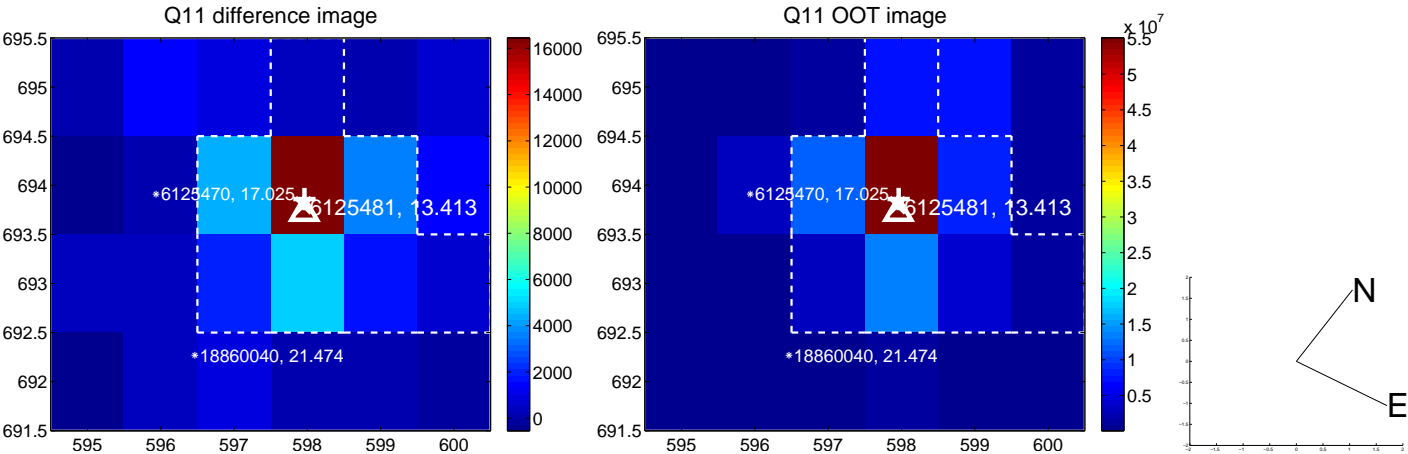
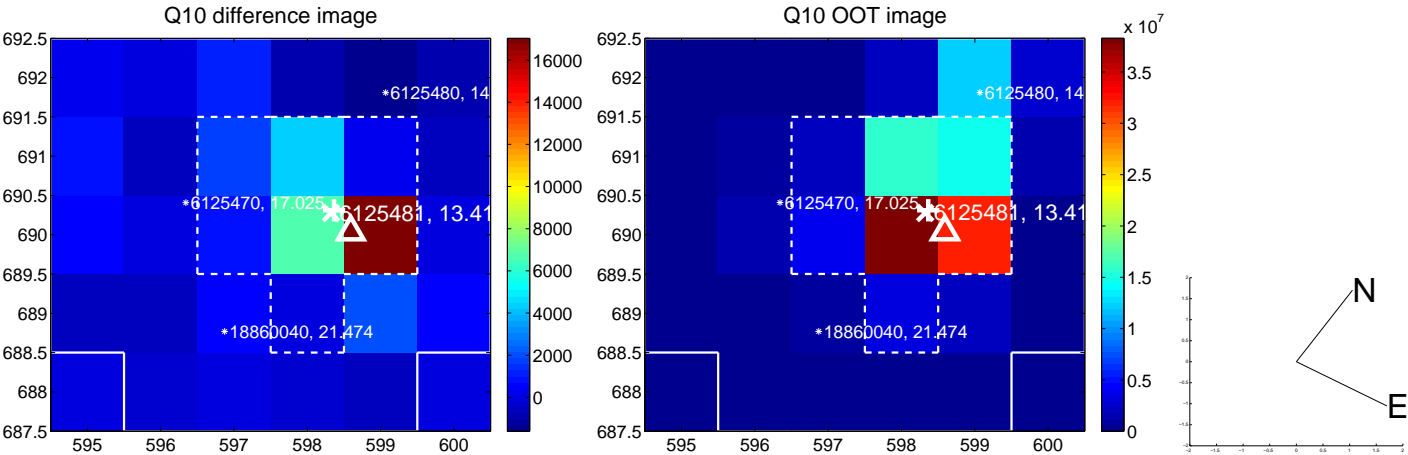
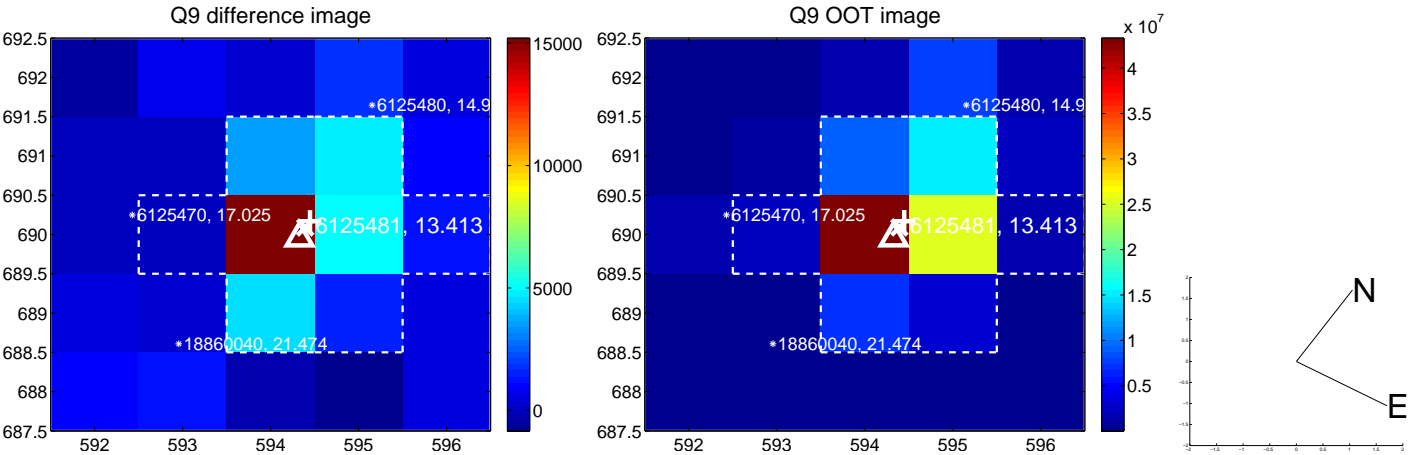
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



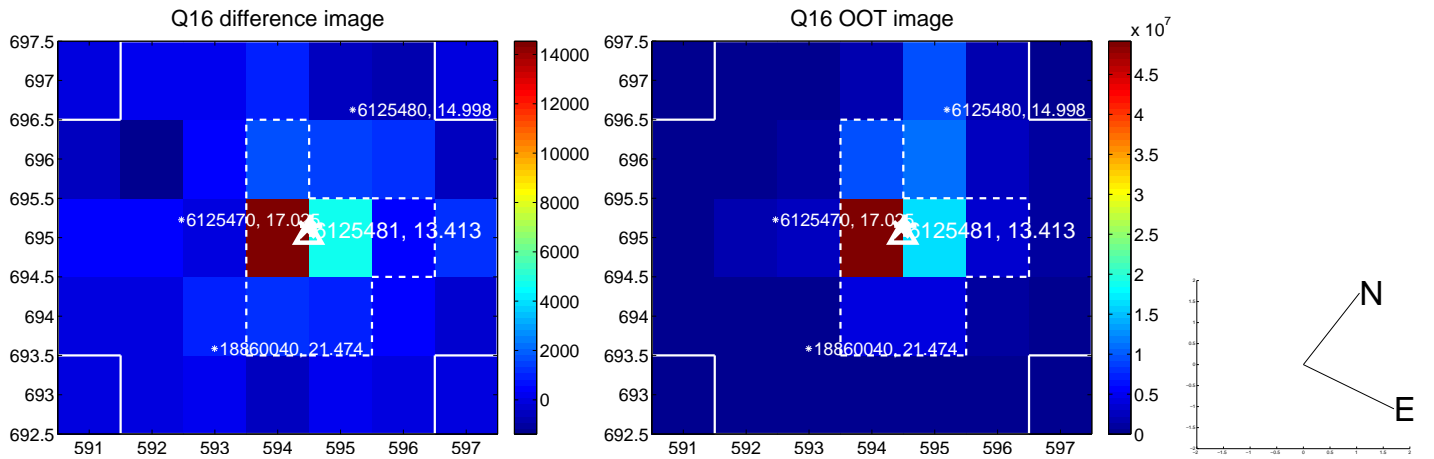
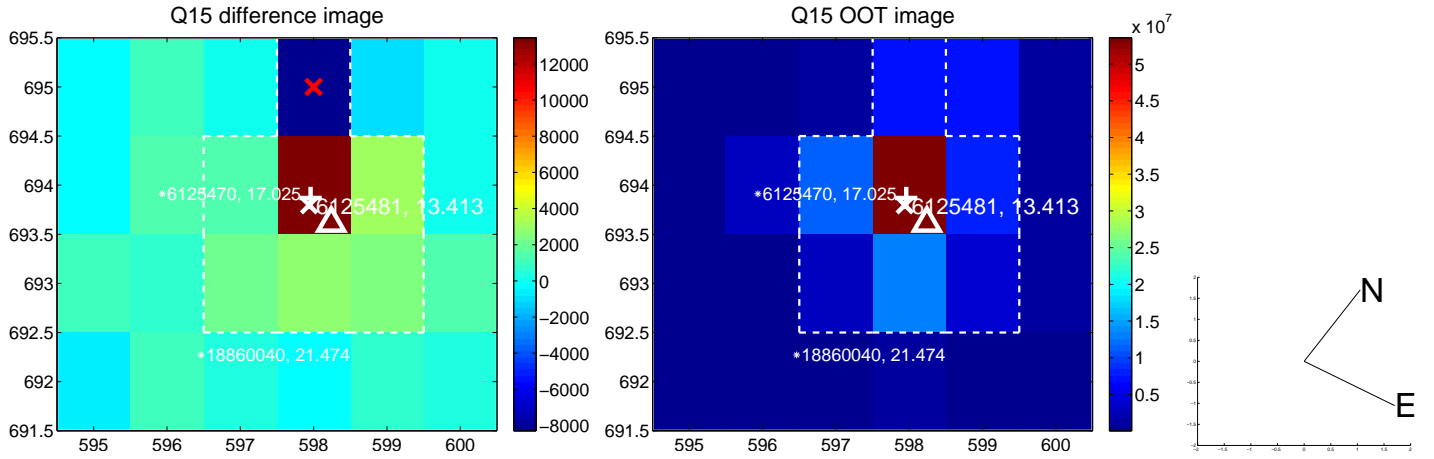
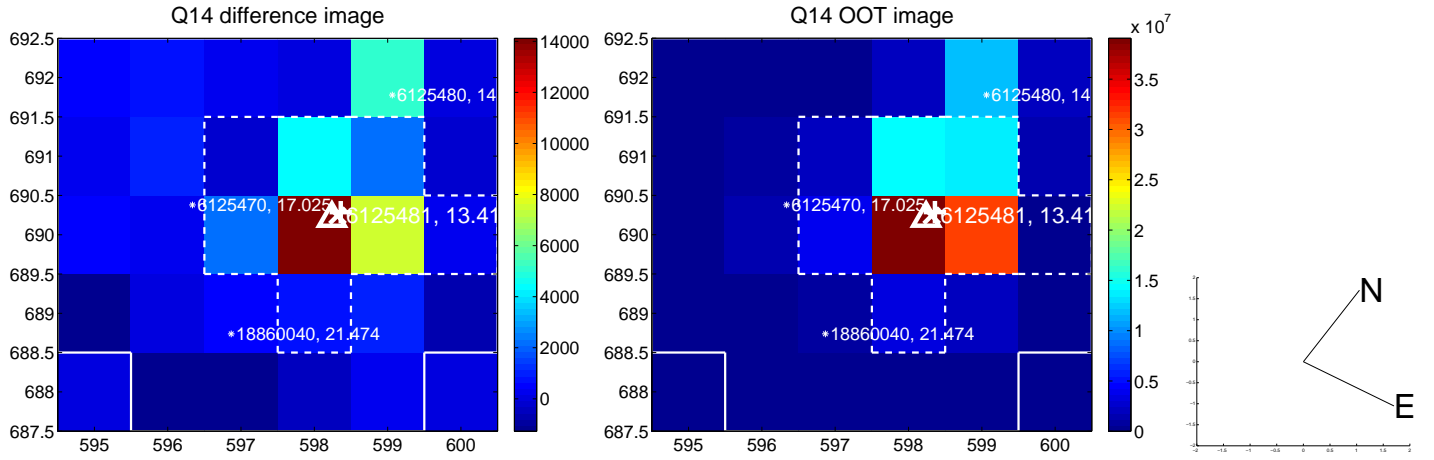
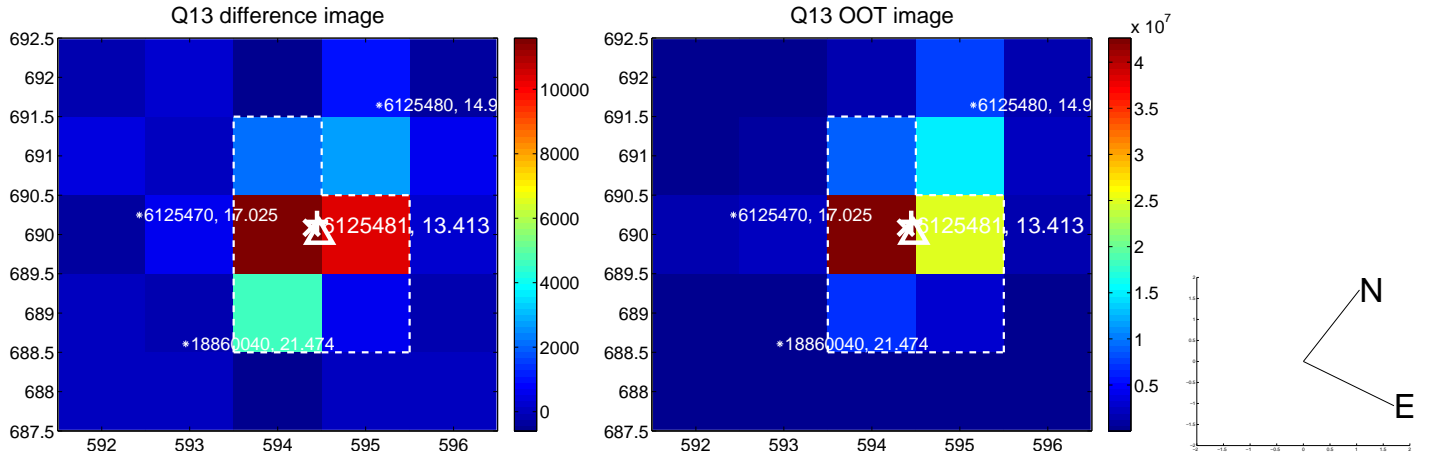
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



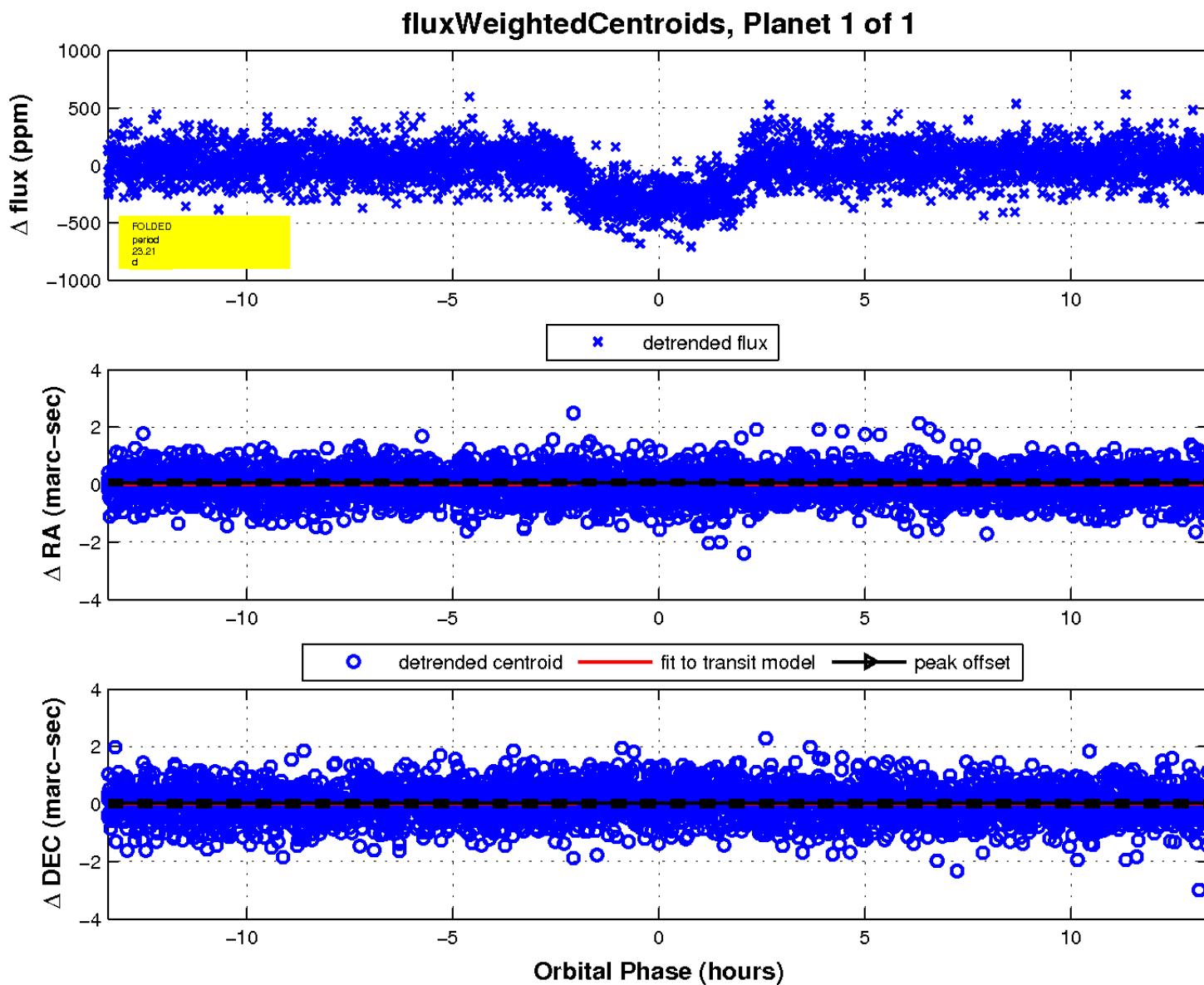
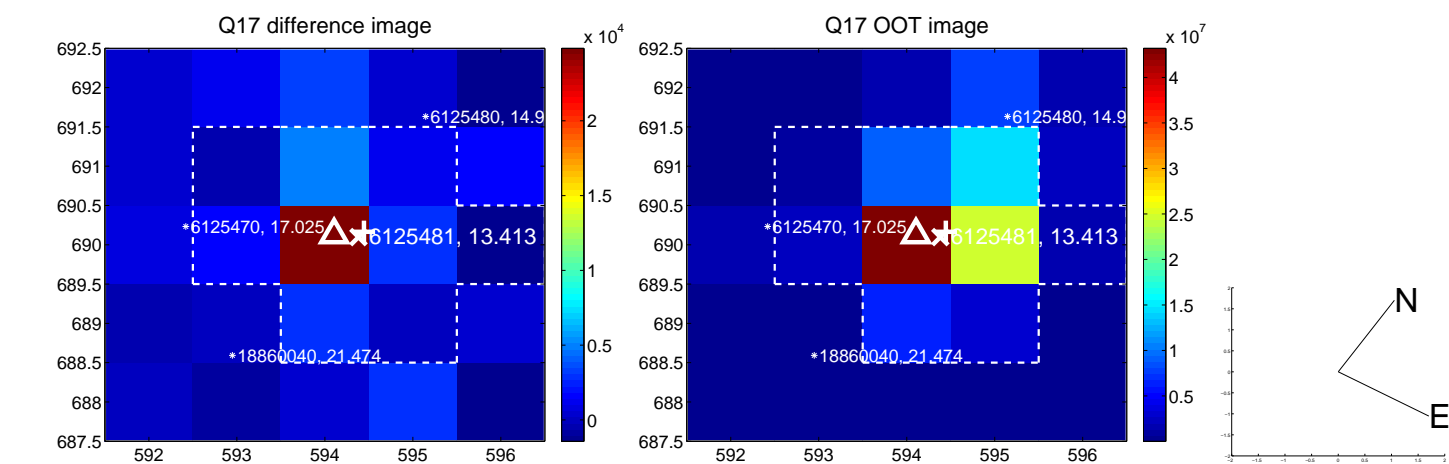
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

