

KIC 005392702

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})
005392702-01	OBS	2510.01	12.214216	141.372148	482.8	9.135	18.7	19.3	0.82	5435	2.44	51.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005392702-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

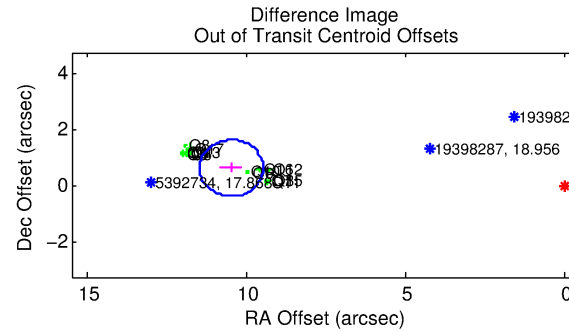
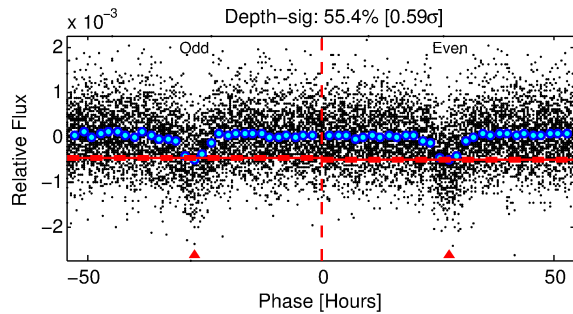
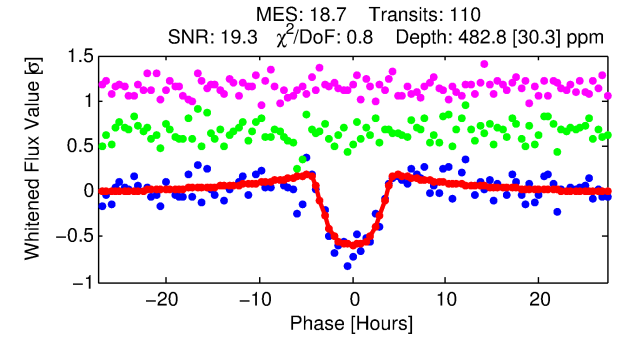
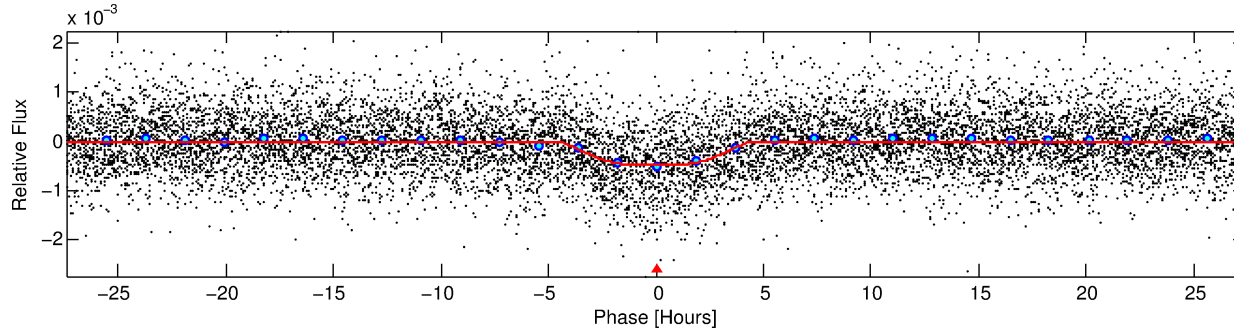
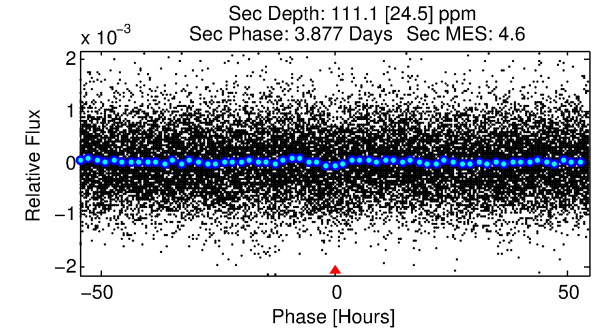
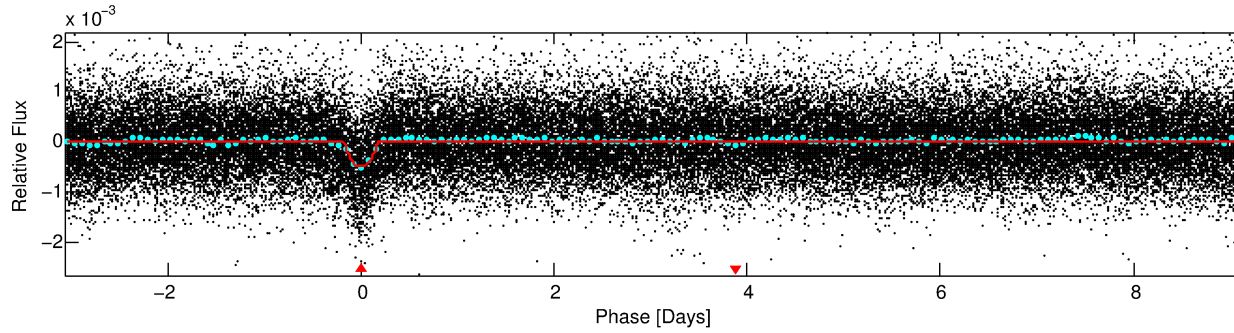
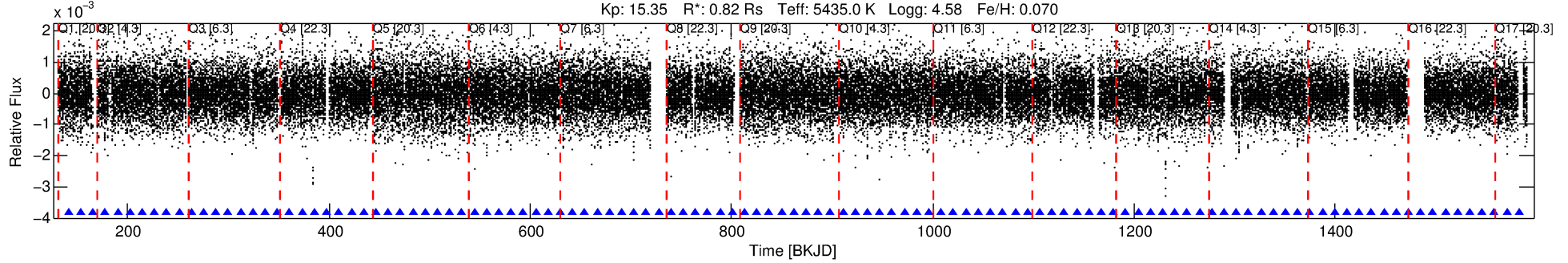
Ephemeris Match Information For 005392702-01

No Significant Match Found

DV One-Page Summary

KIC: 5392702 Candidate: 1 of 1 Period: 12.214 d
KOI: K02510.01 Corr: 0.944

Kp: 15.35 R*: 0.82 Rs Teff: 5435.0 K Logg: 4.58 Fe/H: 0.070



DV Fit Results:

Period = 12.21422 [0.00013] d
Epoch = 141.3721 [0.0093] BKJD
Rp/R* = 0.0272 [0.0012]
a/R* = 3.68 [0.31]
b = 0.97 [0.01]
Seff = 51.42 [14.55]
Teq = 683 [48] K
Rp = 2.44 [0.48] Re
a = 0.1016 [0.0168] AU
Ag = 105.81 [36.17] [2.90σ]
Teff = 3386 [235] K [11.27σ]

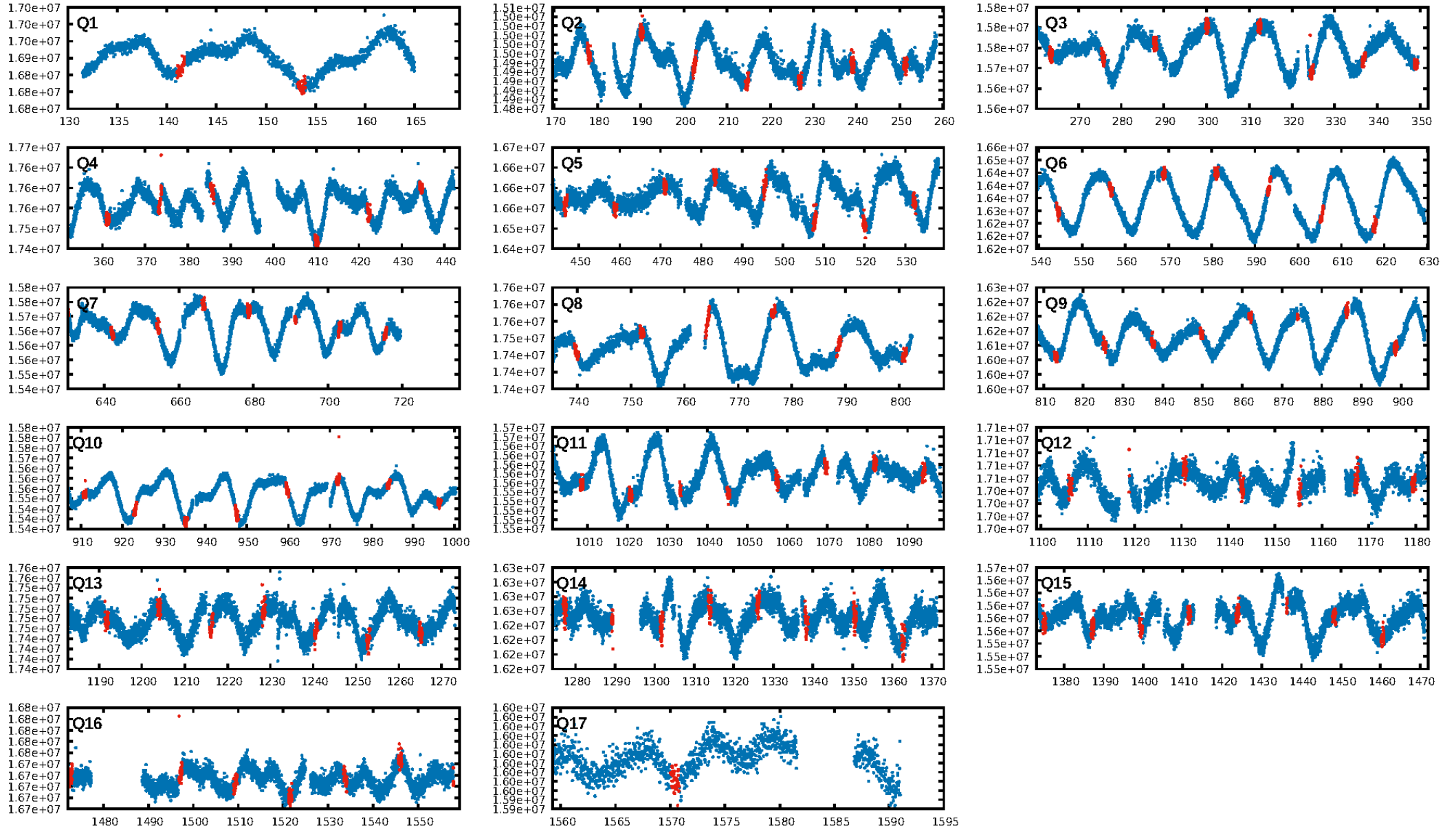
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 3.86e-76
RollingBand-fgt: 1.00 [107/107]
GhostDiagnostic-chr: -0.2267
Centroid-sig: 0.0%
Centroid-so: 20.079 arcsec [28.62σ]
OotOffset-rm: 10.502 arcsec [31.40σ]
KicOffset-rm: 10.366 arcsec [30.47σ]
OotOffset-st: 2/4/4/5 [15]
KicOffset-st: 2/4/4/5 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 1.00 [17/17]

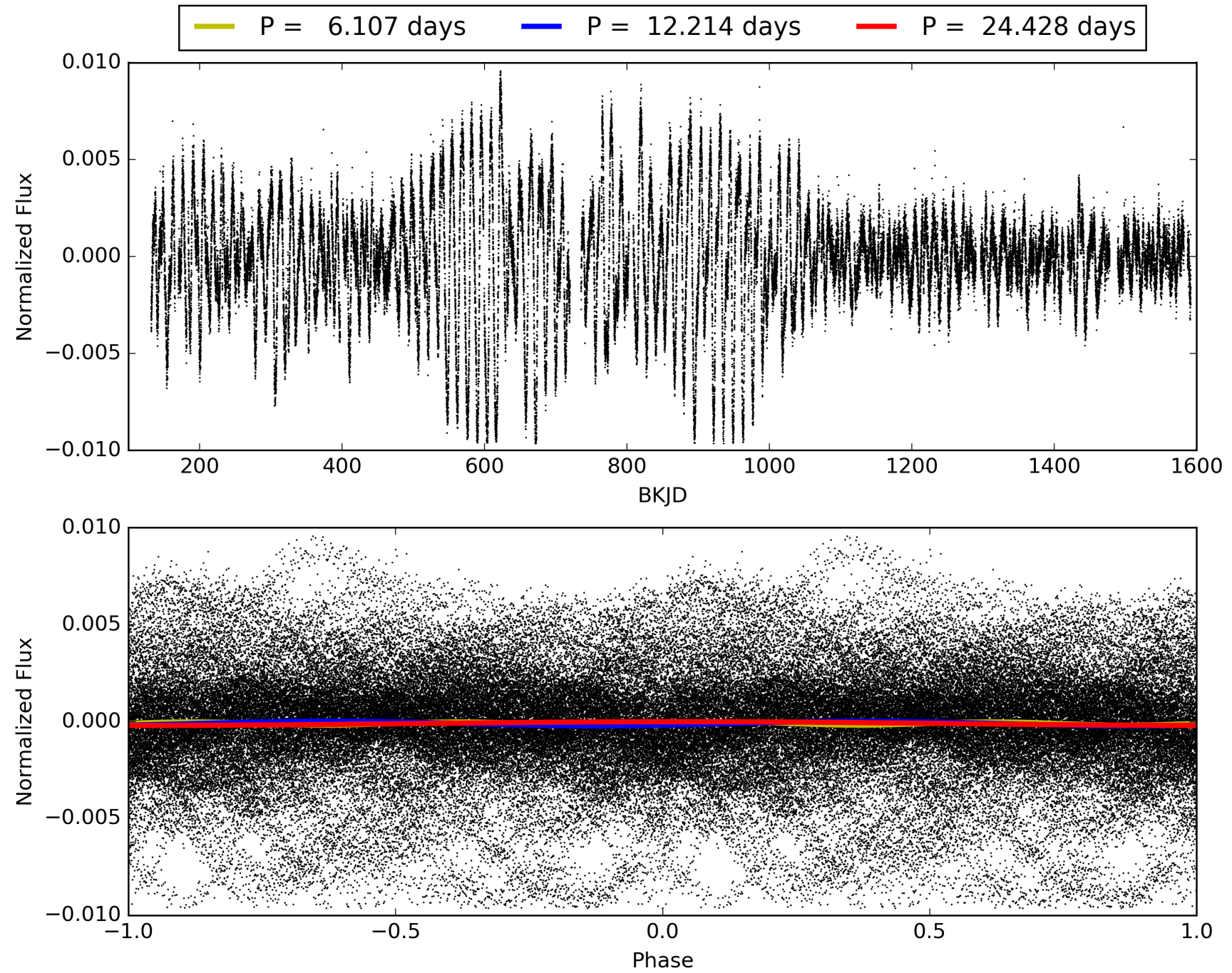
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:57:08 Z

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

TCE 005392702-01, PDC Light Curves

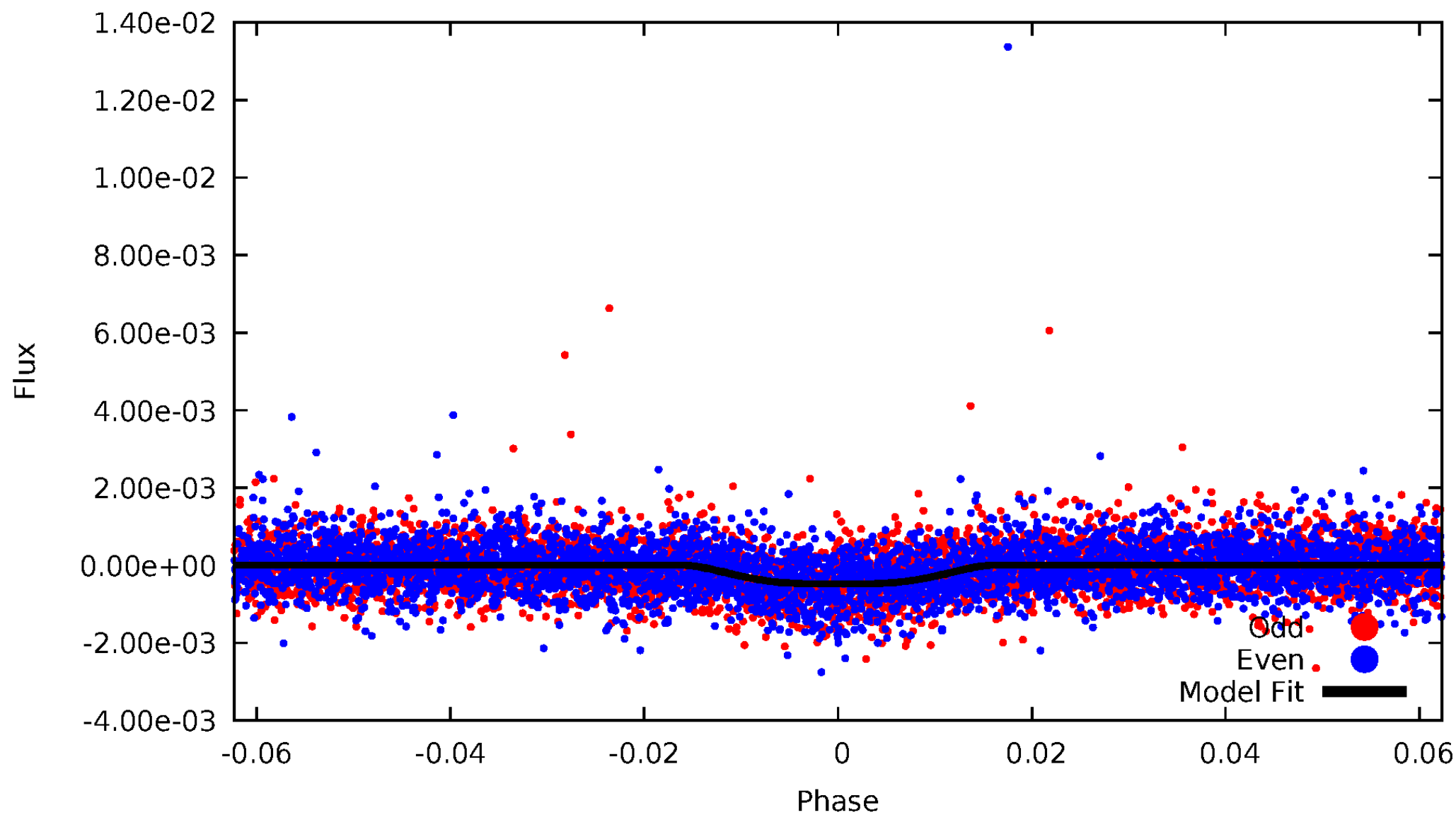


TCE 005392702-01



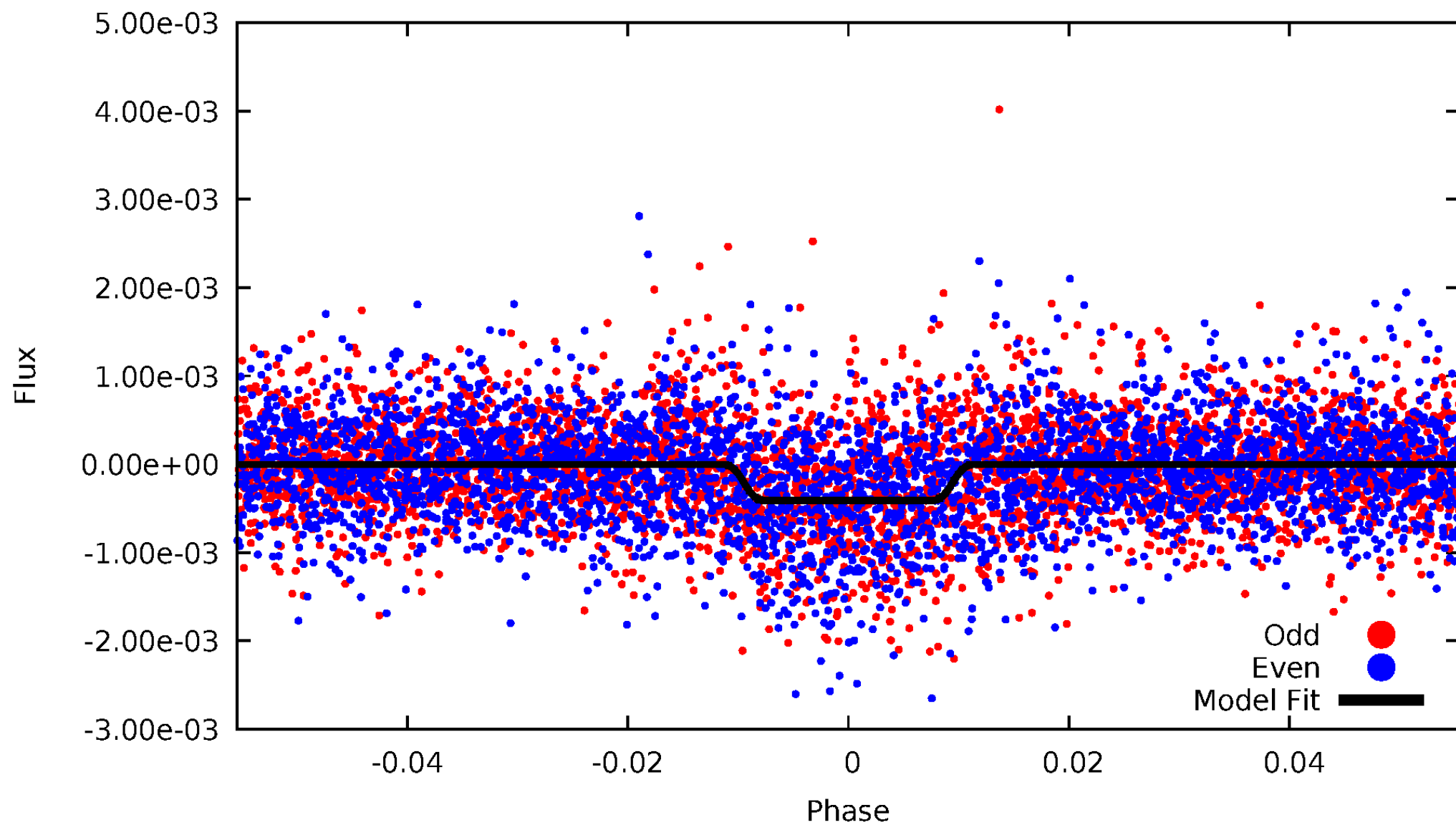
DV Odd/Even

TCE 005392702-01

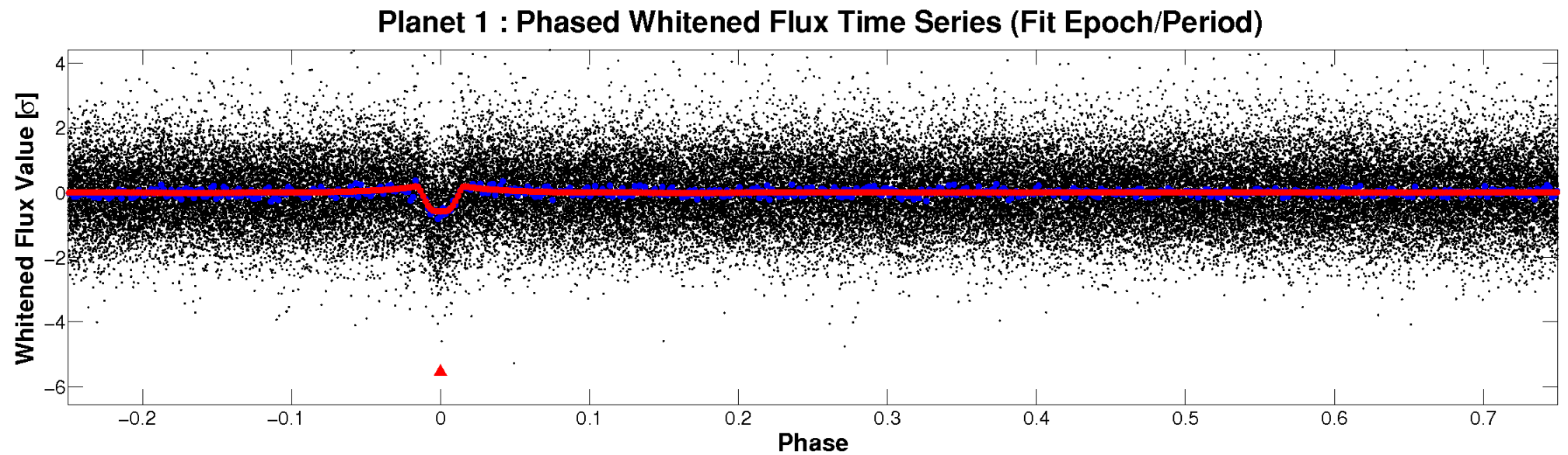
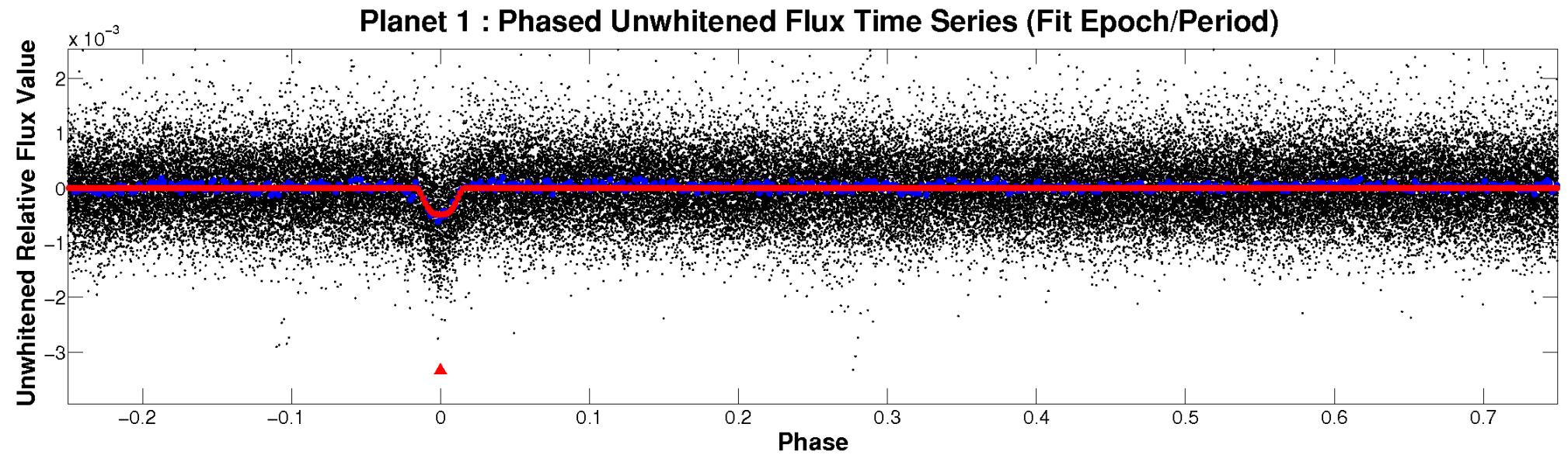


ALT Odd/Even

TCE 005392702-01

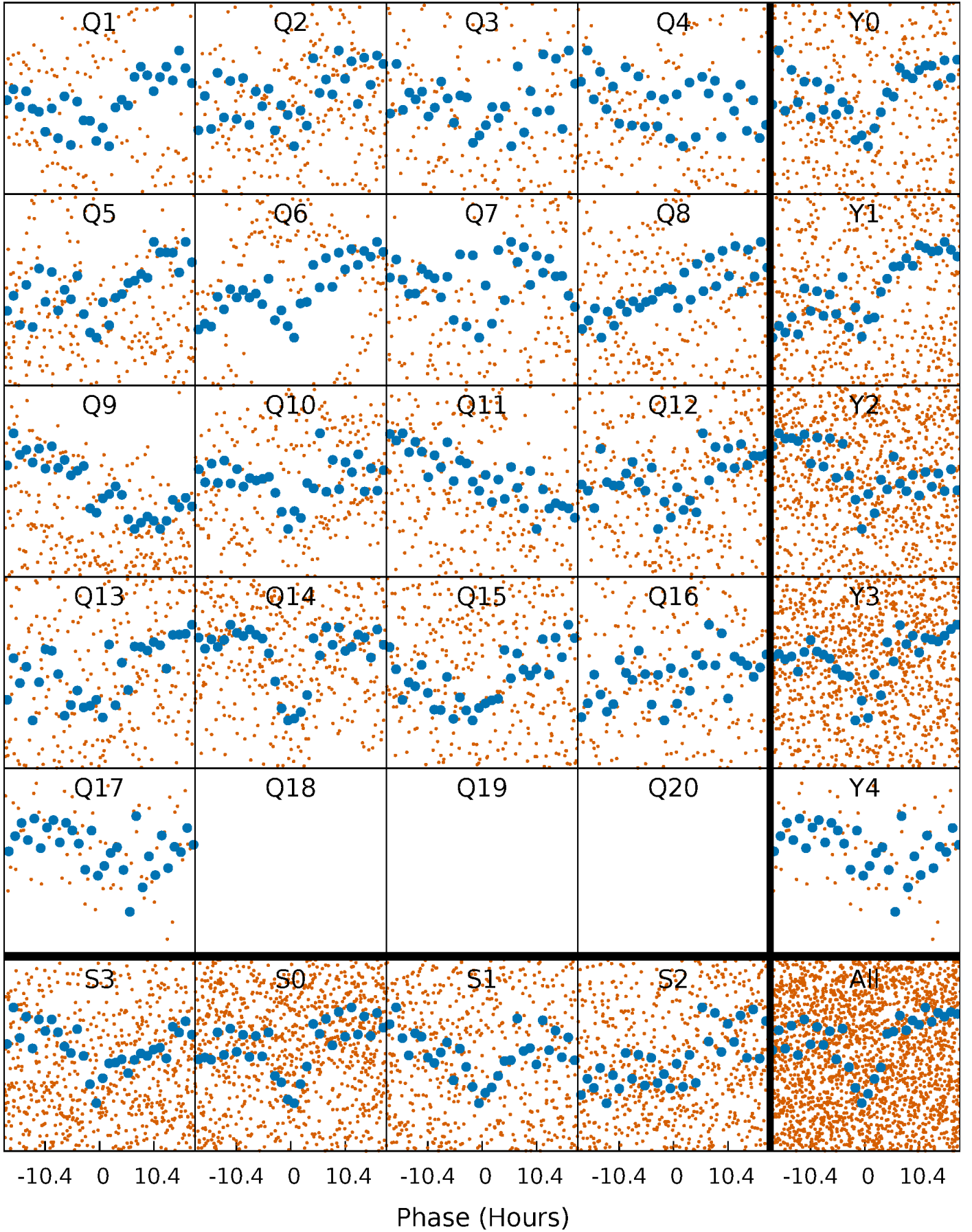


Non-Whitened Vs. Whitened Light Curve



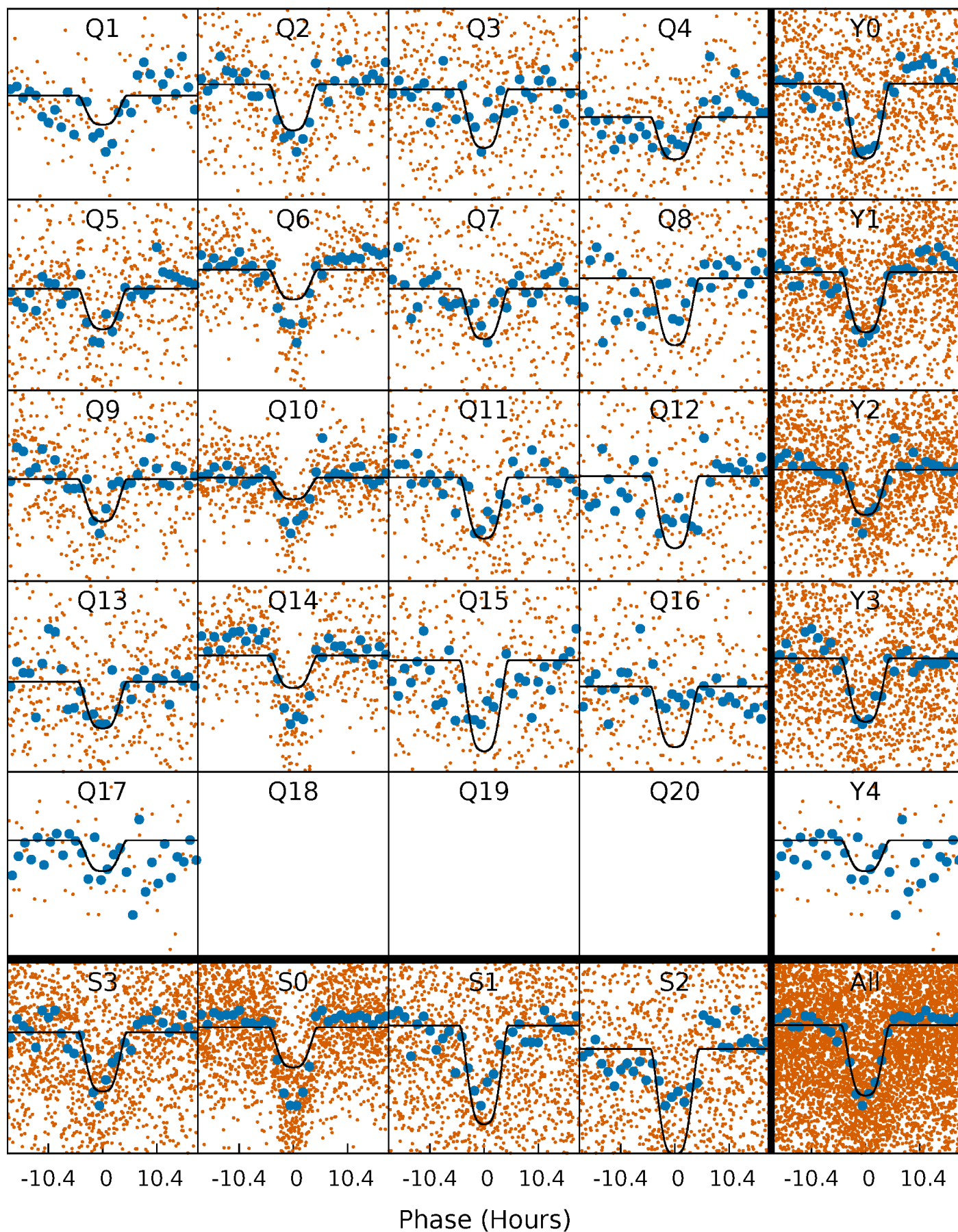
PDC Quarter-Phased Transit Curves

TCE 005392702-01 P= 12.214216 Days $T_0=141.372148$ (BKJD)



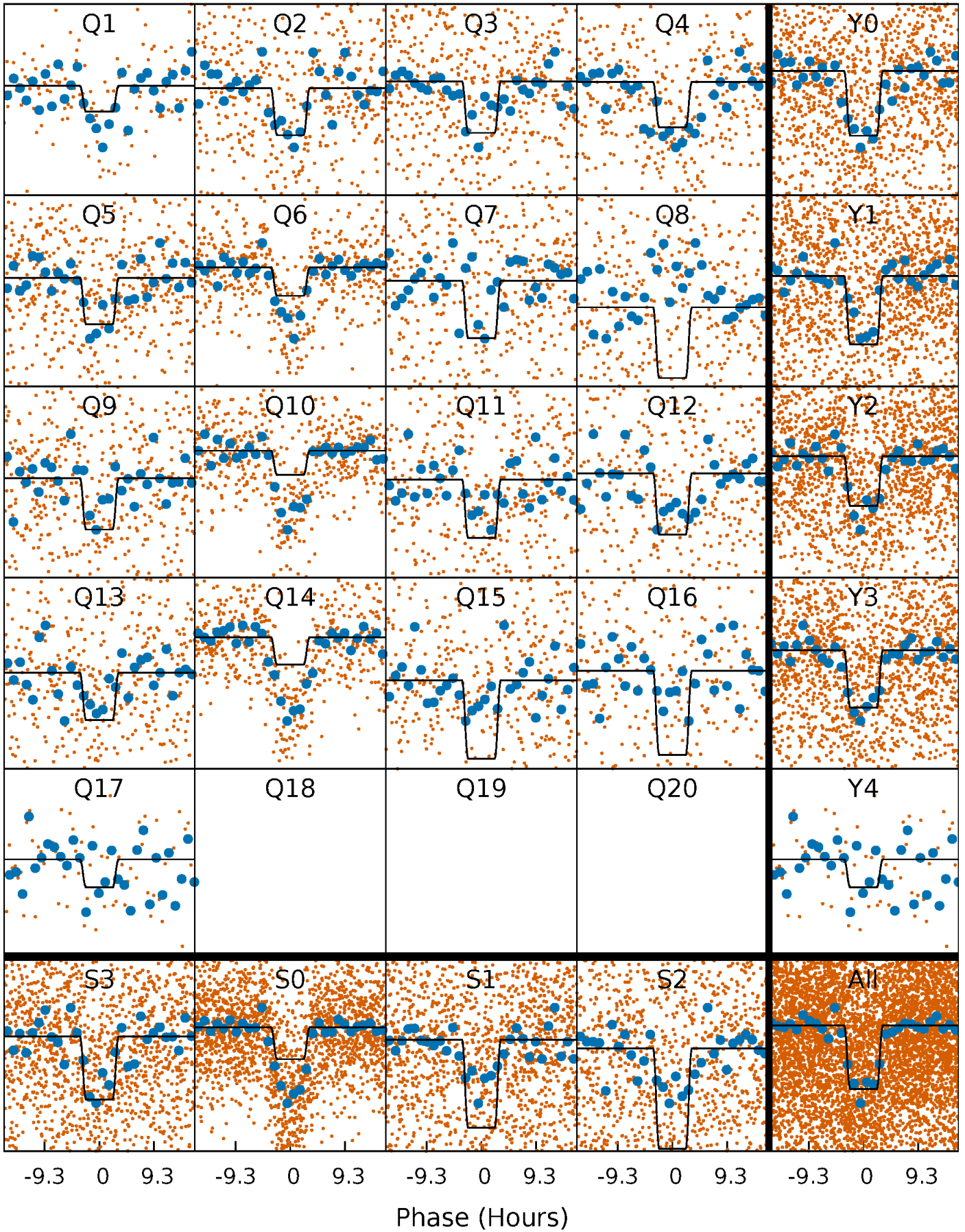
DV Quarter-Phased Transit Curves

TCE 005392702-01 P= 12.214216 Days $T_0=141.372148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

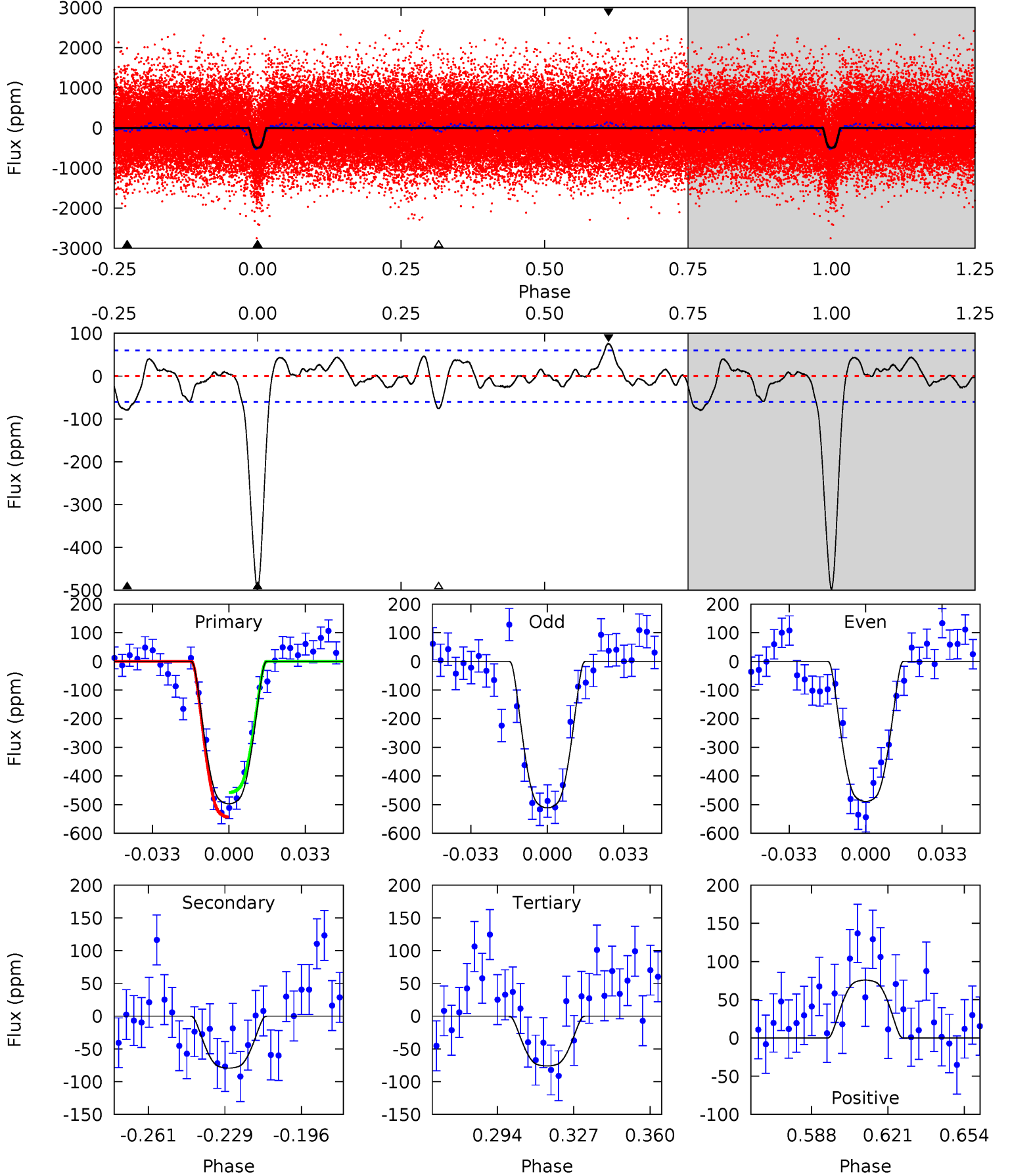
TCE 005392702-01 P= 12.214054 Days $T_0=141.382343$ (BKJD)



DV Model-Shift Uniqueness Test

005392702-01, P = 12.214216 Days, E = 129.157932 Days

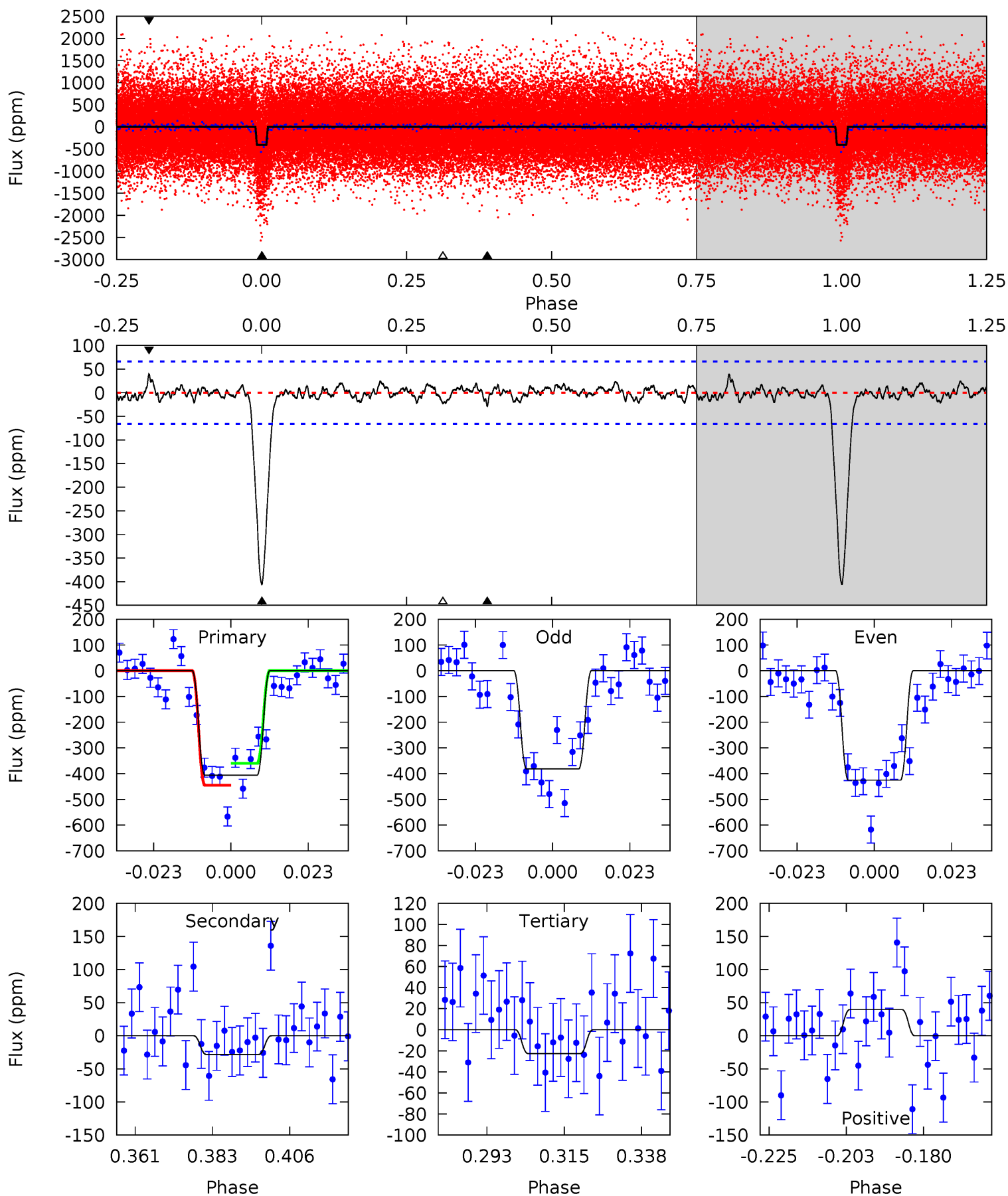
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.6	6.33	6.07	6.03	4.79	2.14	1.94	33.6	33.6	0.26	0.29	0.88	0.96	0.13	3.43



Alt Model-Shift Uniqueness Test

005392702-01, $P = 12.214054$ Days, $E = 129.168289$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.9	2.09	1.67	2.91	4.87	2.28	0.73	28.2	26.9	0.42	-0.82	1.61	1.22	0.09	3.13



Stellar Parameters For KIC 005392702

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5435^{+193}_{-193}	$4.578^{+0.025}_{-0.136}$	$0.070^{+0.250}_{-0.300}$	$0.824^{+0.158}_{-0.068}$	$0.937^{+0.072}_{-0.108}$	$2.358^{+0.411}_{-0.901}$
	+4%/-4%	+1%/-3%	+357%/-429%	+19%/-8%	+8%/-12%	+17%/-38%
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 005392702-01 / KOI 2510.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-79 ± 13	$2.53^{+0.26}_{-0.21}$	976^{+51}_{-43}	3554^{+137}_{-139}	69^{+16}_{-15}
Alt.	-28 ± 14	$1.89^{+0.20}_{-0.17}$	976^{+50}_{-46}	3301^{+227}_{-289}	42^{+24}_{-20}

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

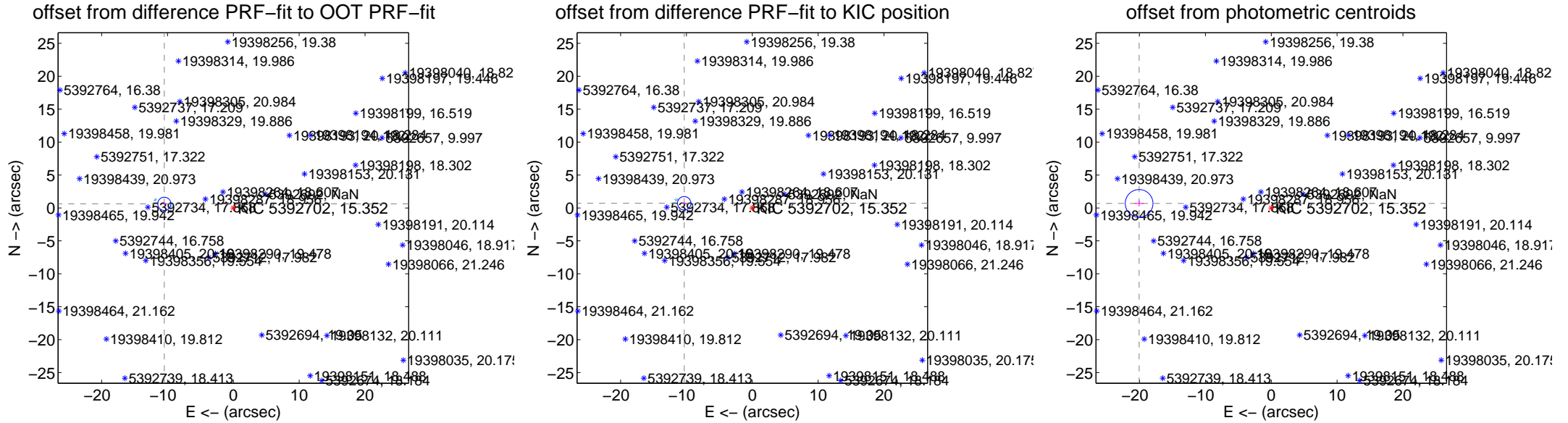
DV Centroid Data

Supplemental centroid analysis for 005392702-01. Kepler magnitude: 15.35. Transit SNR 19.32

There are 15 quarters with good PRF difference image offsets

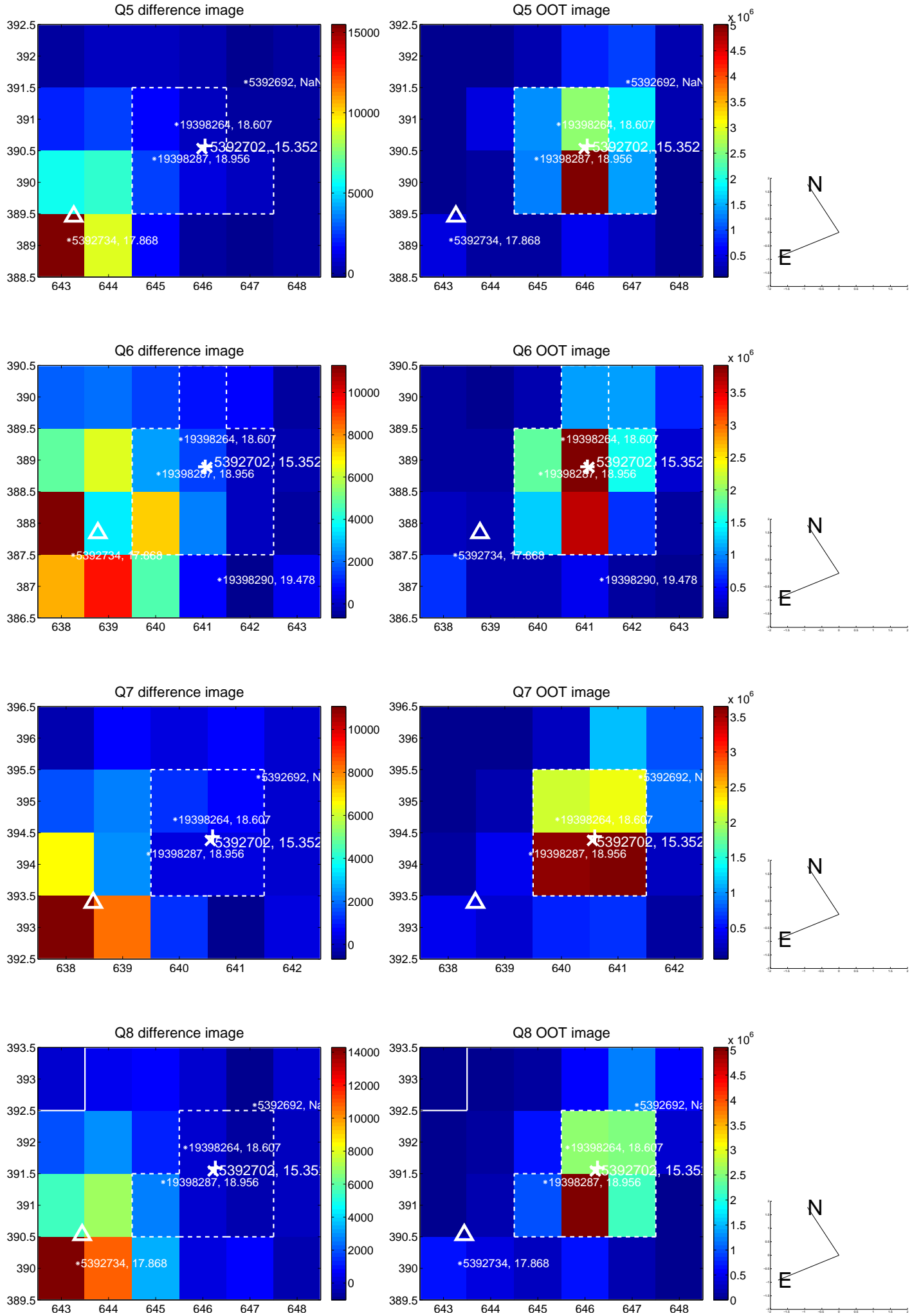
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.502 \pm 0.334	31.40	10.484 \pm 0.335	0.628 \pm 0.138
PRF-fit source offset from KIC position	10.366 \pm 0.340	30.47	10.341 \pm 0.334	0.712 \pm 0.133
photometric centroid source offset	20.08 \pm 0.70	28.62	20.07 \pm 0.70	0.69 \pm 0.47

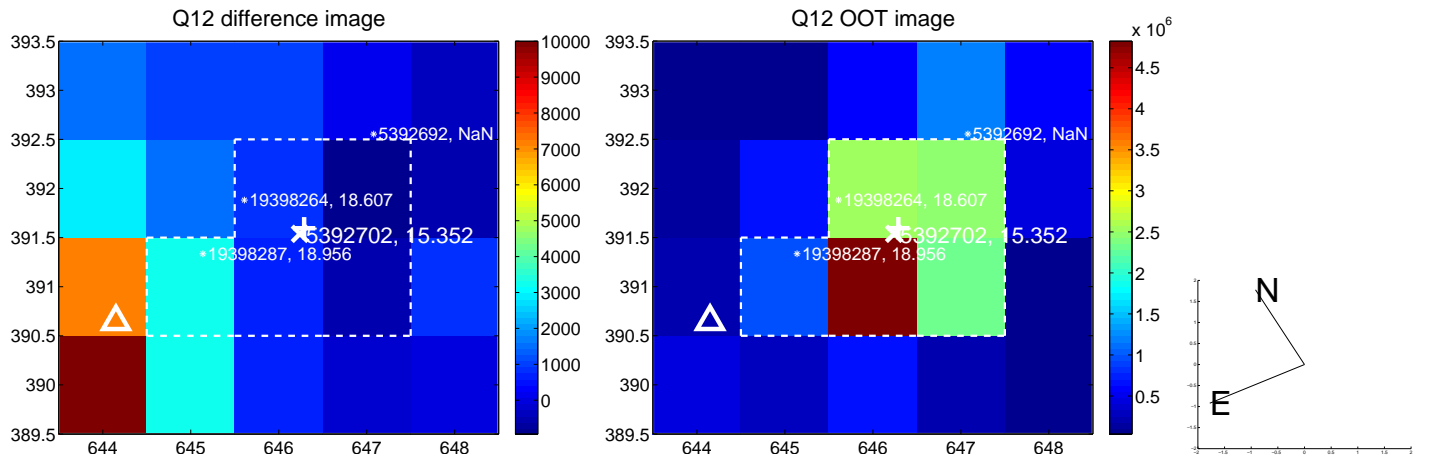
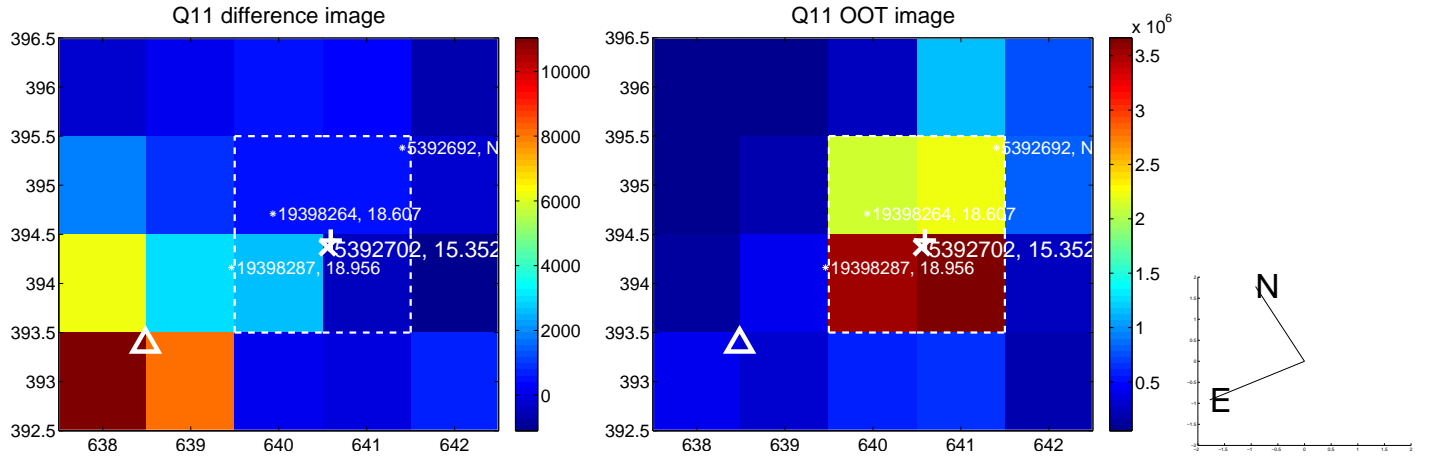
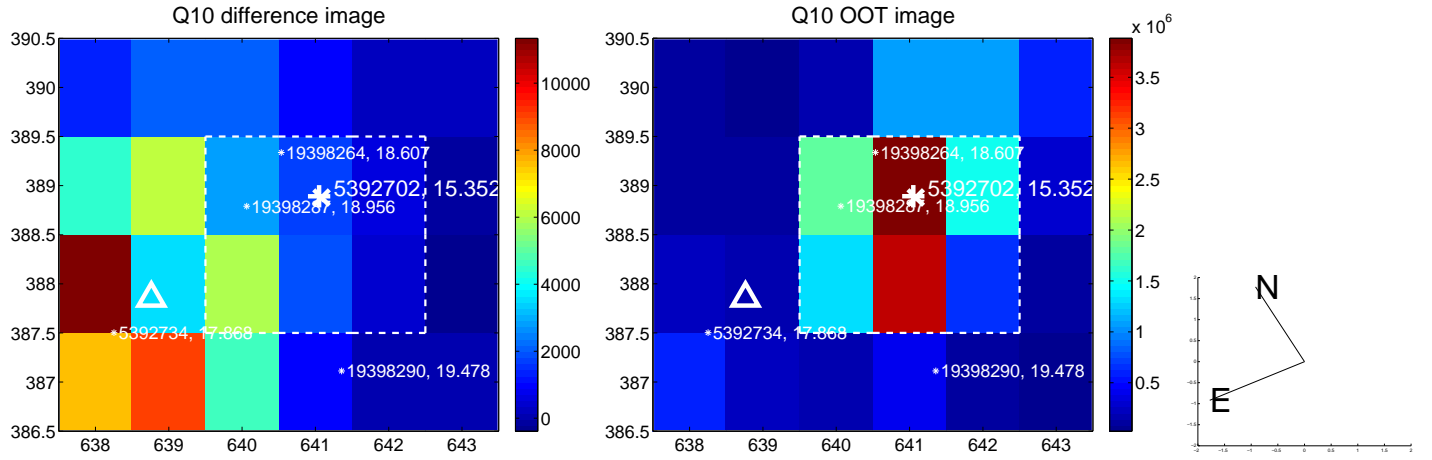
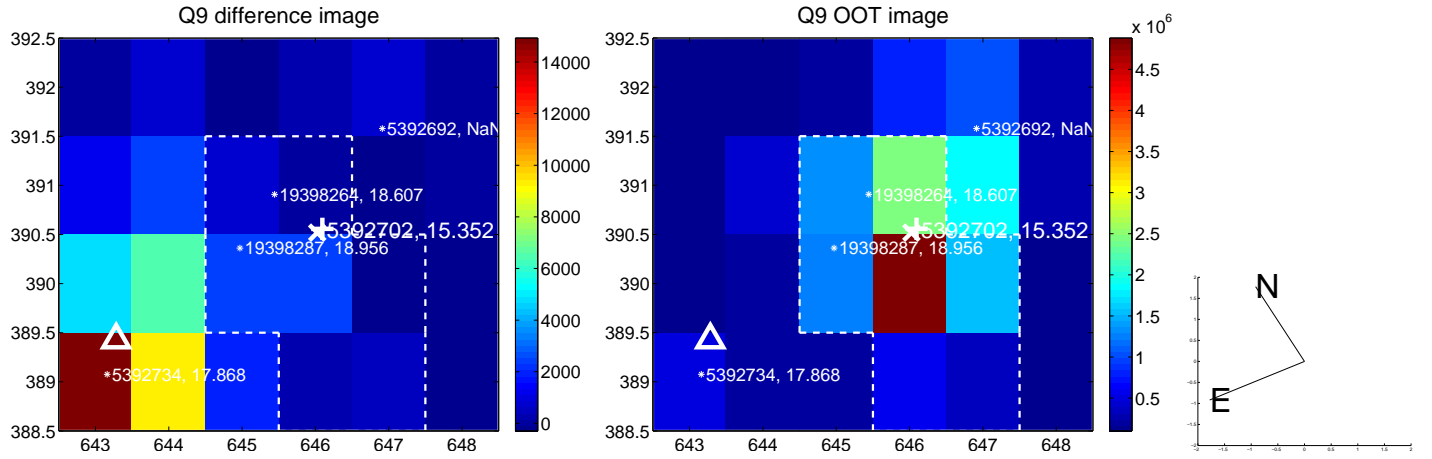


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

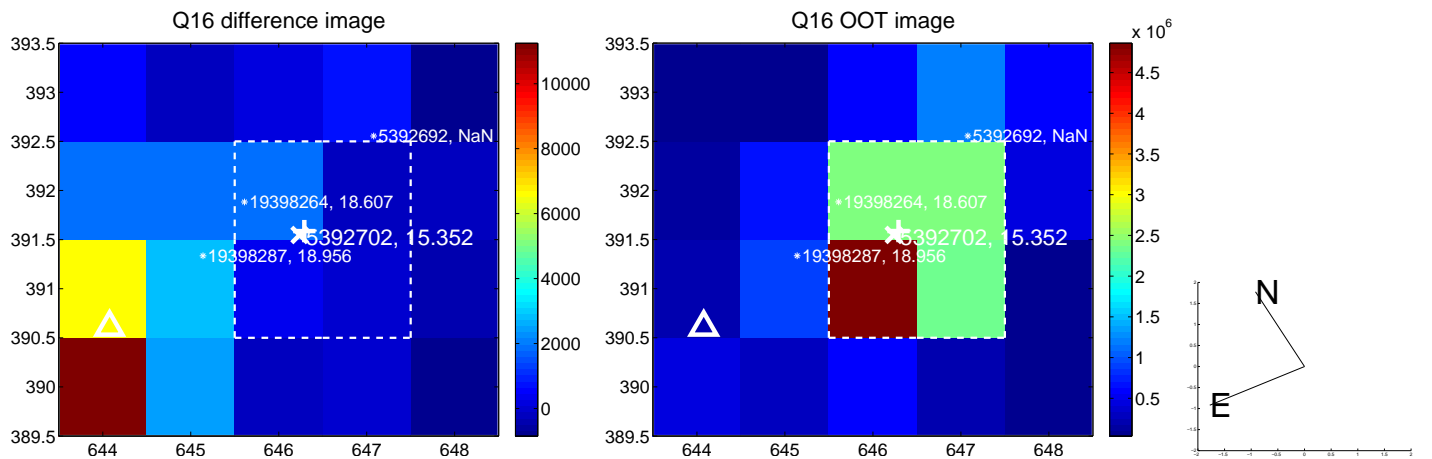
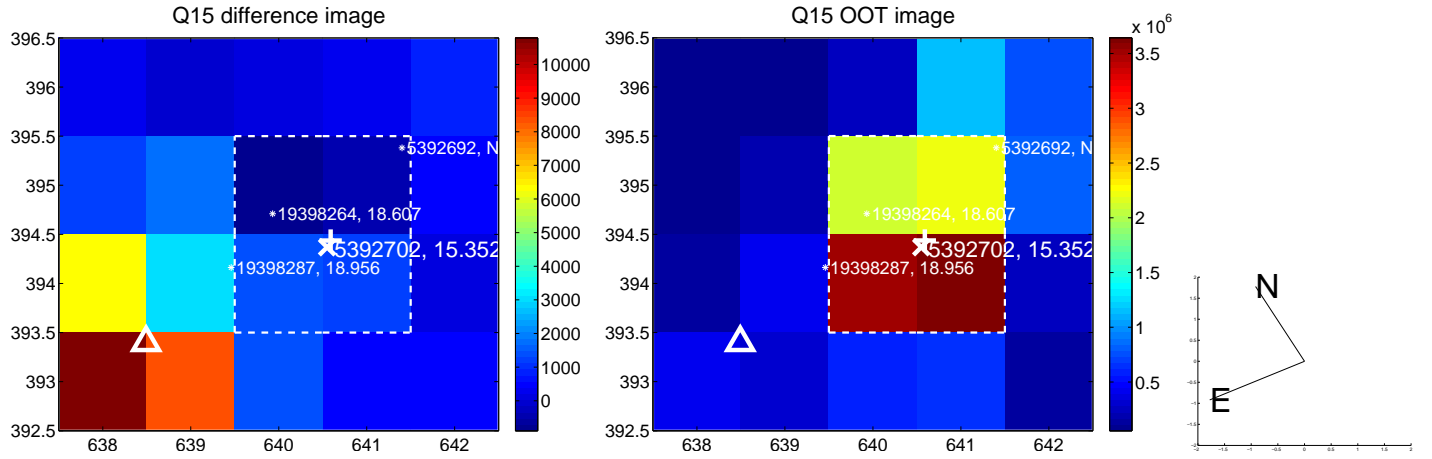
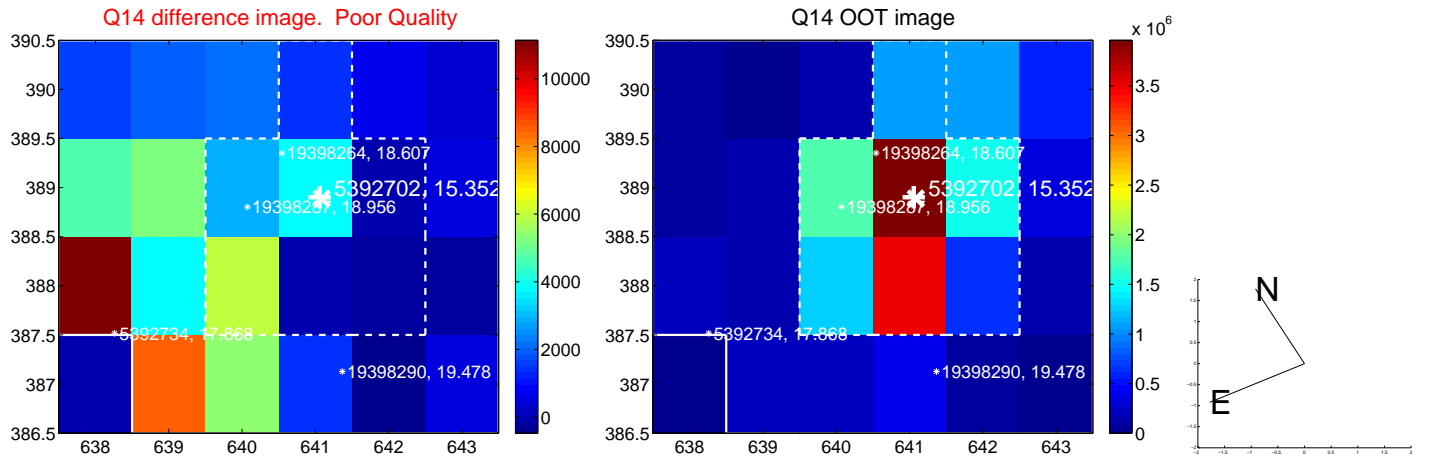
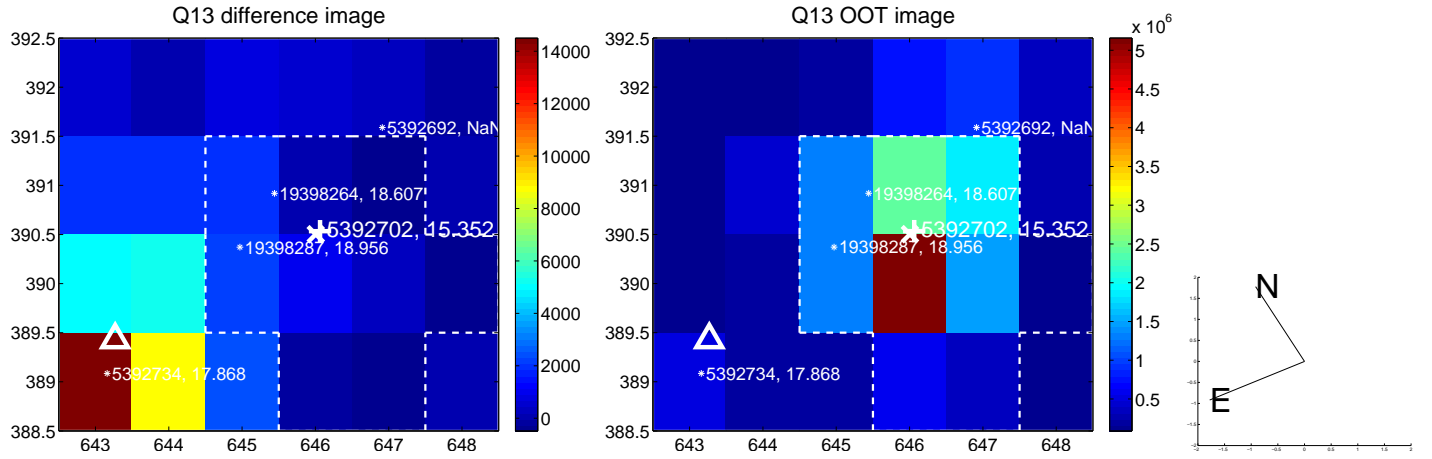
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



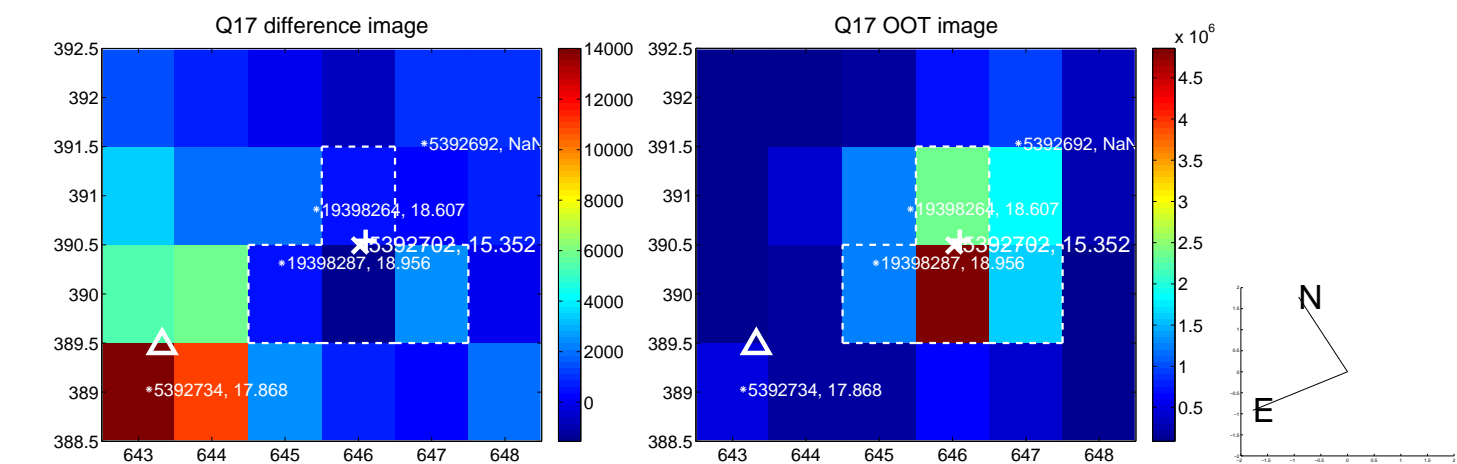
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



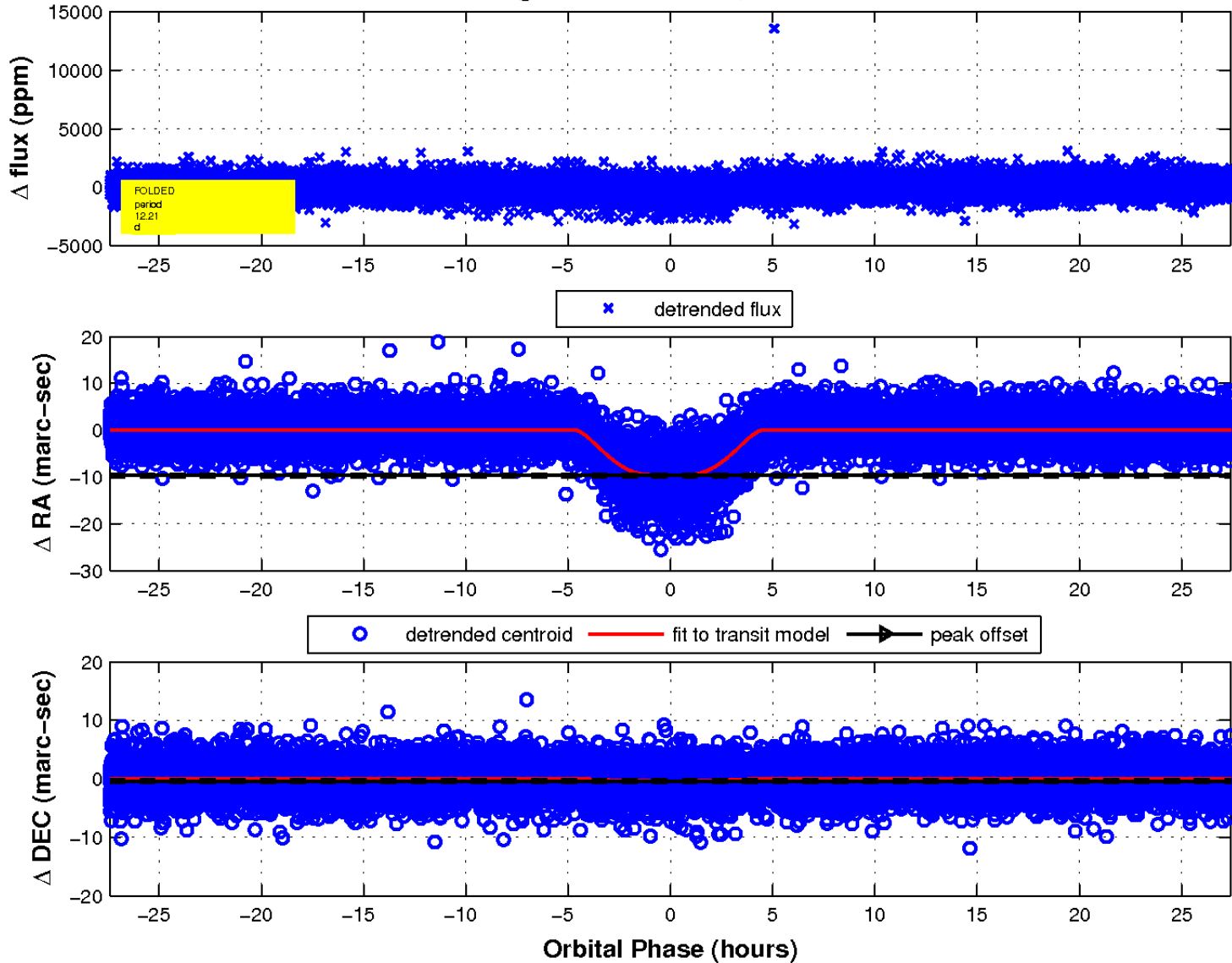
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

