

KIC 003952651

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})
003952651-01	OBS	1912.01	32.904509	141.292736	516.8	4.622	21.1	16.1	1.00	5780	3.07	24.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003952651-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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.

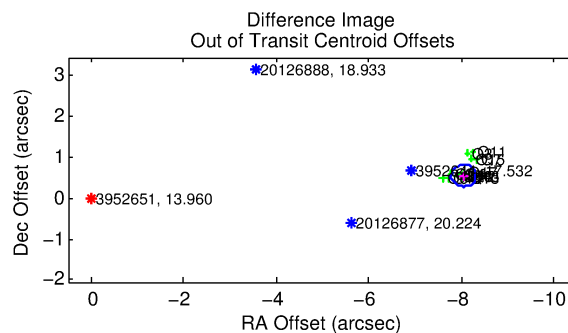
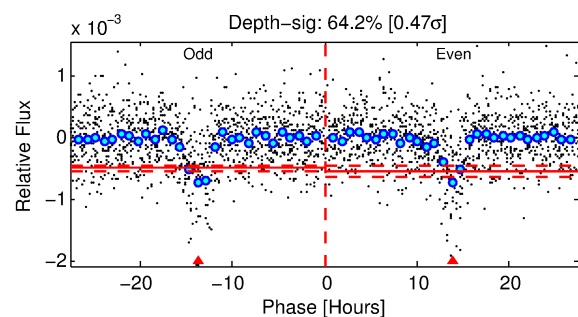
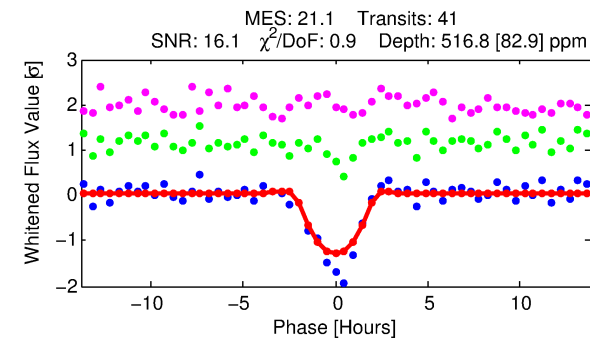
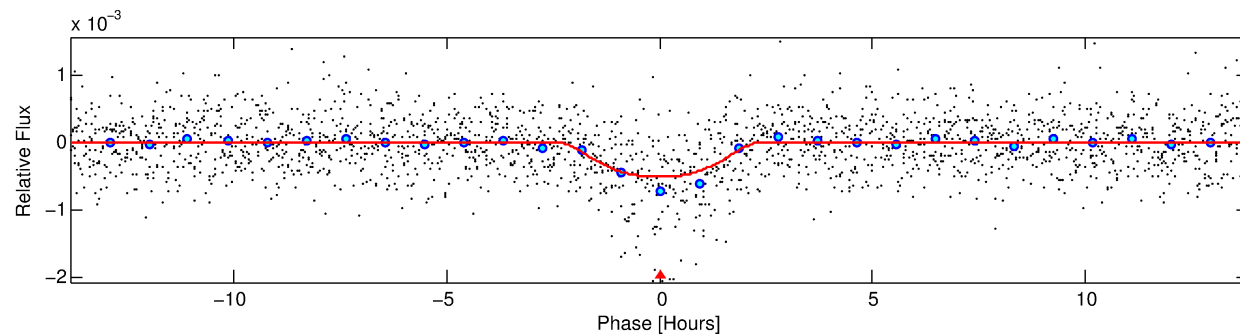
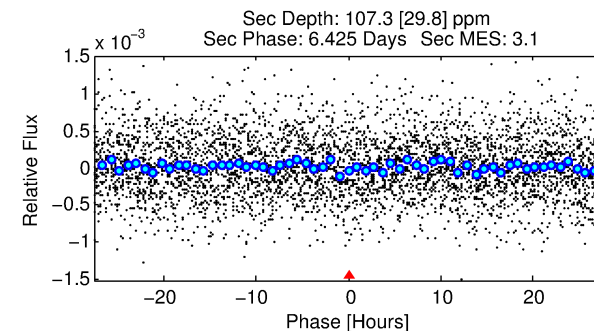
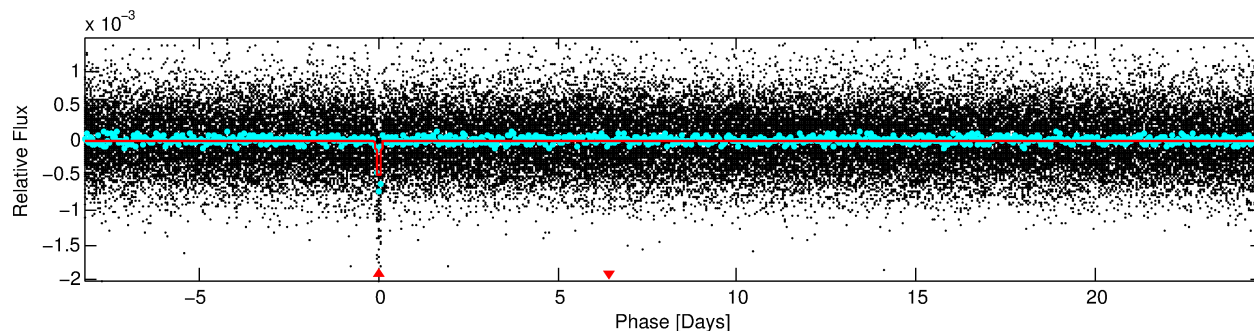
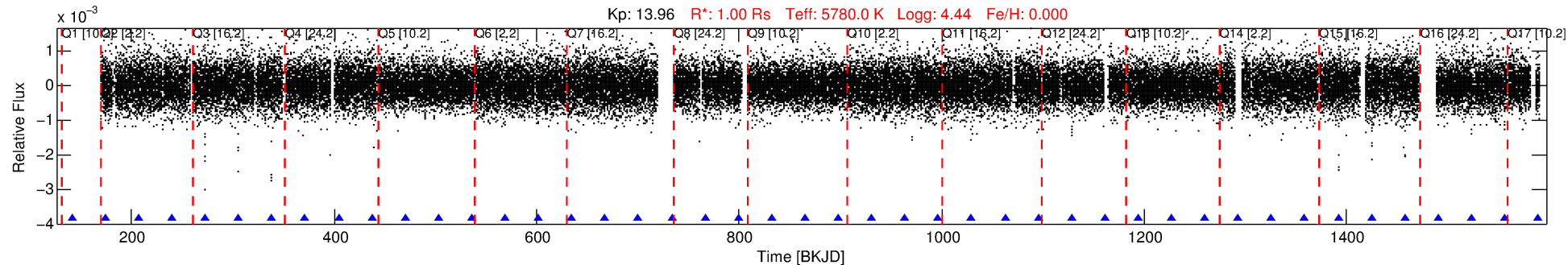
Ephemeris Match Information For 003952651-01

No Significant Match Found

DV One-Page Summary

KIC: 3952651 Candidate: 1 of 1 Period: 32.905 d
KOI: K01912.01 Corr: 0.916

Kp: 13.96 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 32.90451 [0.00026] d
Epoch = 141.2927 [0.0069] BKJD
Rp/R* = 0.0282 [0.0039]
a/R* = 18.17 [2.92]
b = 0.97 [0.01]
Seff = 24.75 [0.00]
Teq = 569 [0] K
Rp = 3.07 [0.43] Re
a = 0.2010 [0.0000] AU
Ag = 252.30 [99.30] [2.53σ]
Teffp = 3505 [345] K [8.51σ]

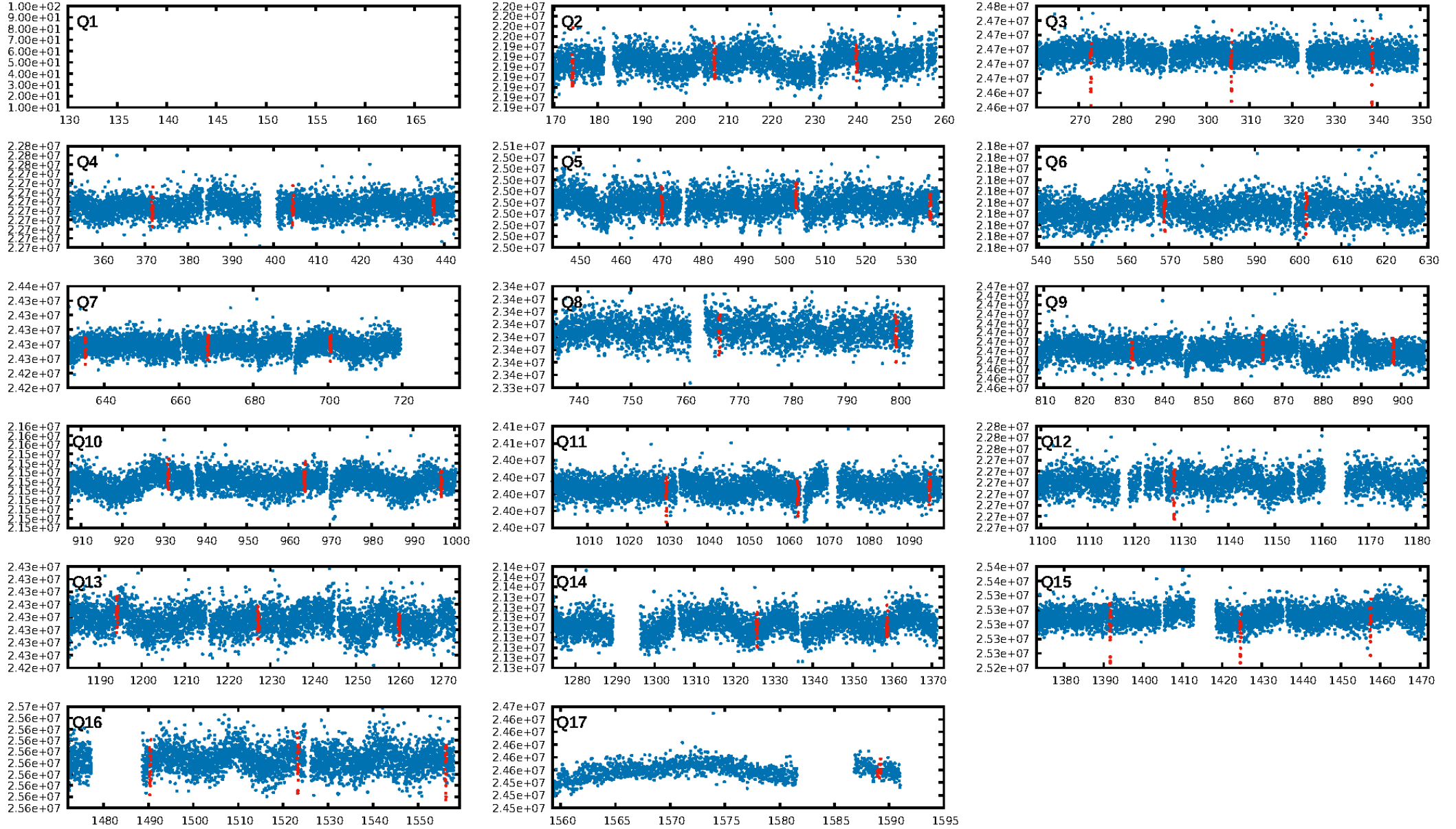
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.21e-93
RollingBand-fgt: 1.00 [40/40]
GhostDiagnostic-chr: -0.3327
Centroid-sig: 0.0%
Centroid-so: 37.660 arcsec [50.07σ]
OotOffset-rm: 8.069 arcsec [91.52σ]
KicOffset-rm: 7.802 arcsec [104.58σ]
OotOffset-st: 4/4/4/2 [14]
KicOffset-st: 4/4/4/2 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [16/16]

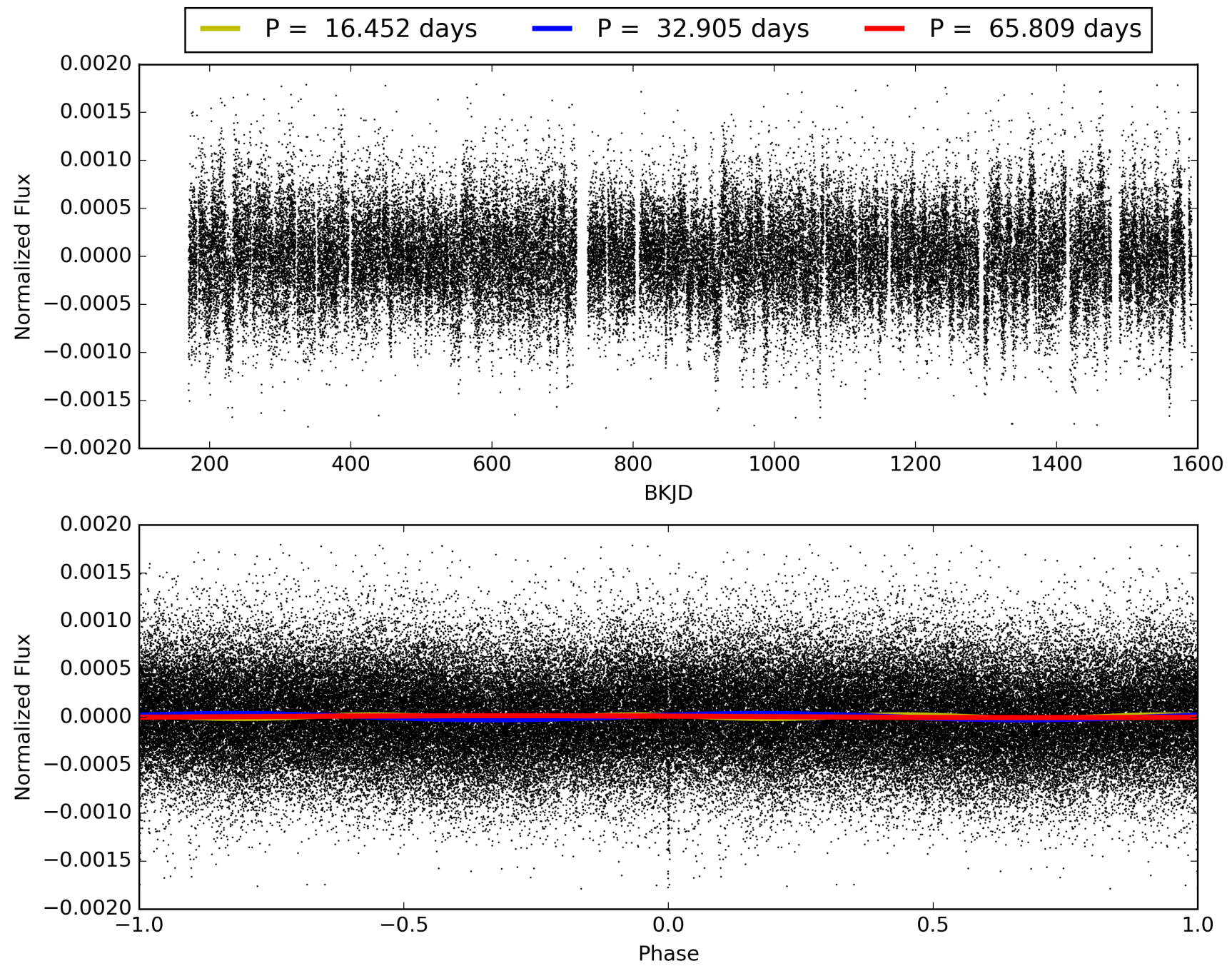
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:54:04 Z

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

TCE 003952651-01, PDC Light Curves

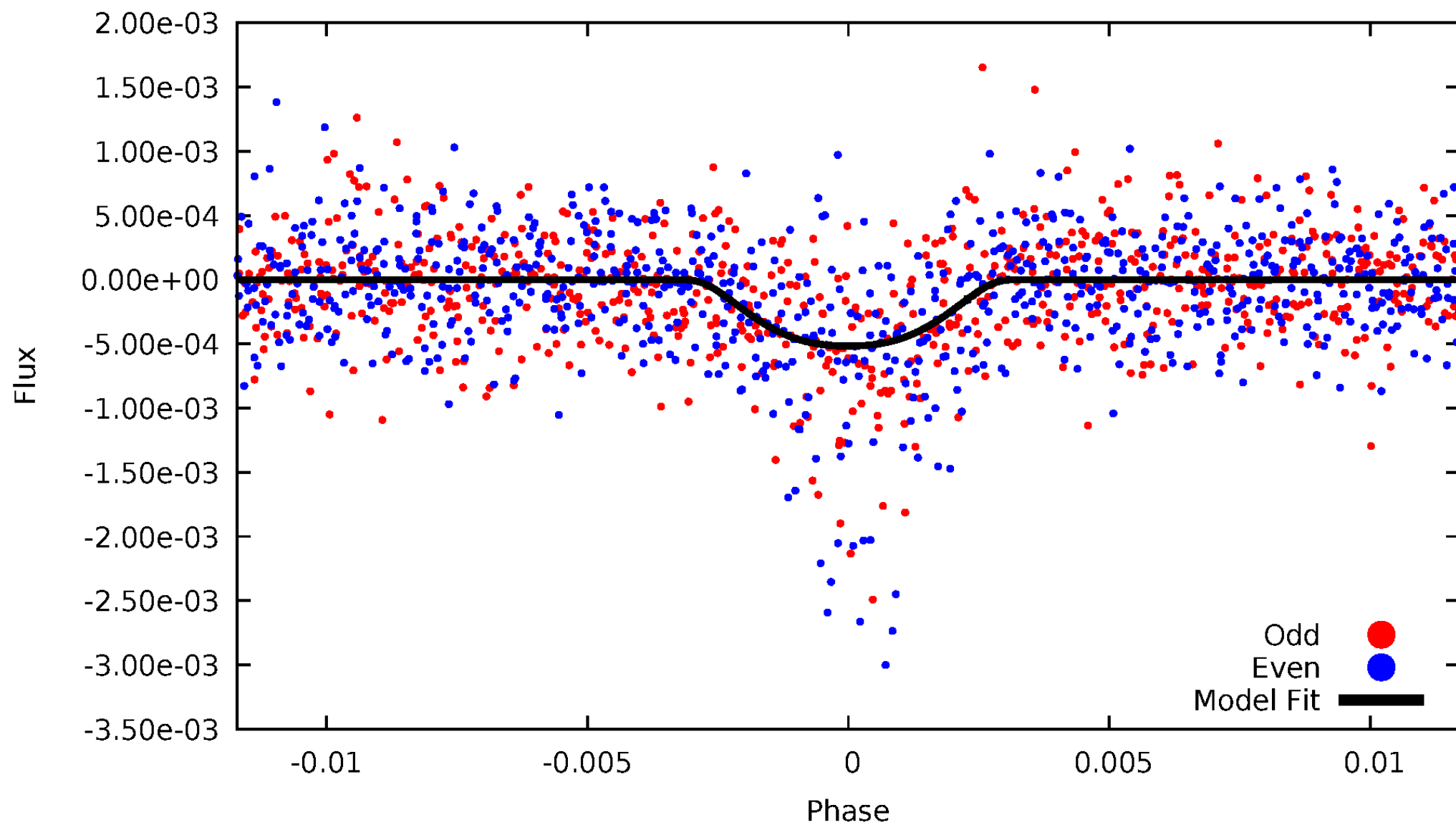


TCE 003952651-01



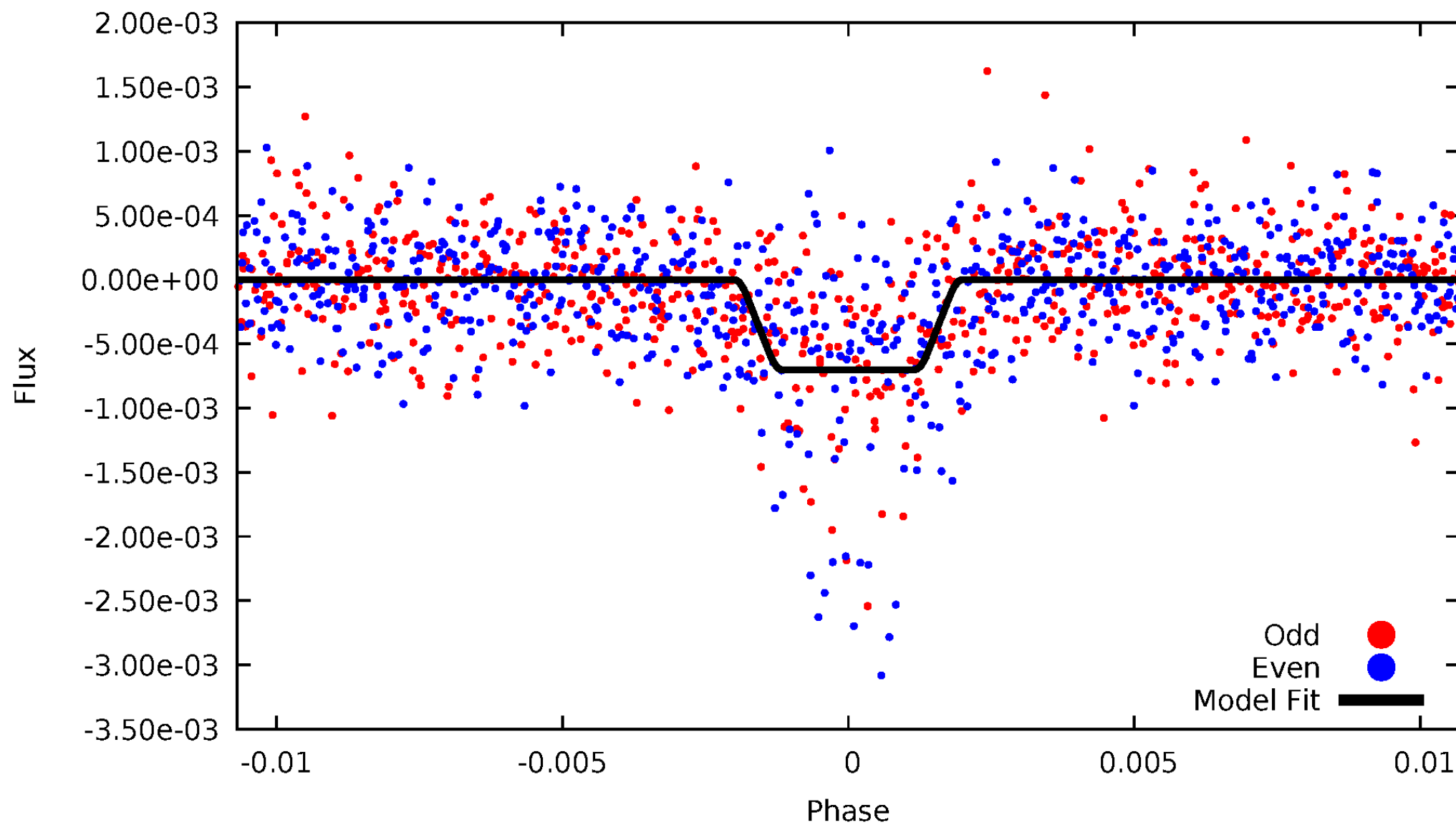
DV Odd/Even

TCE 003952651-01



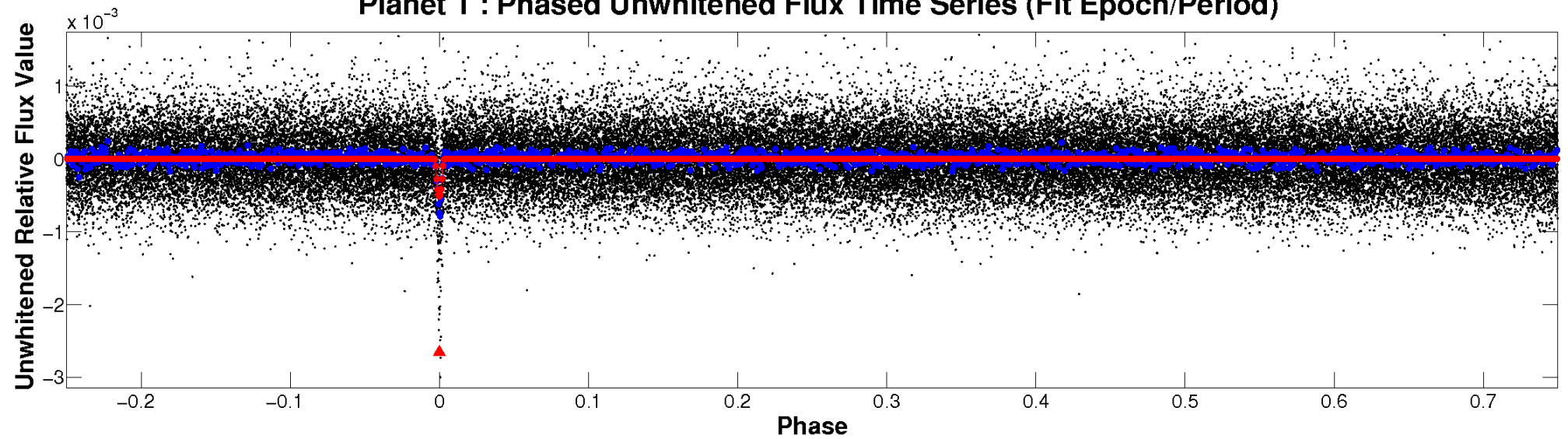
ALT Odd/Even

TCE 003952651-01

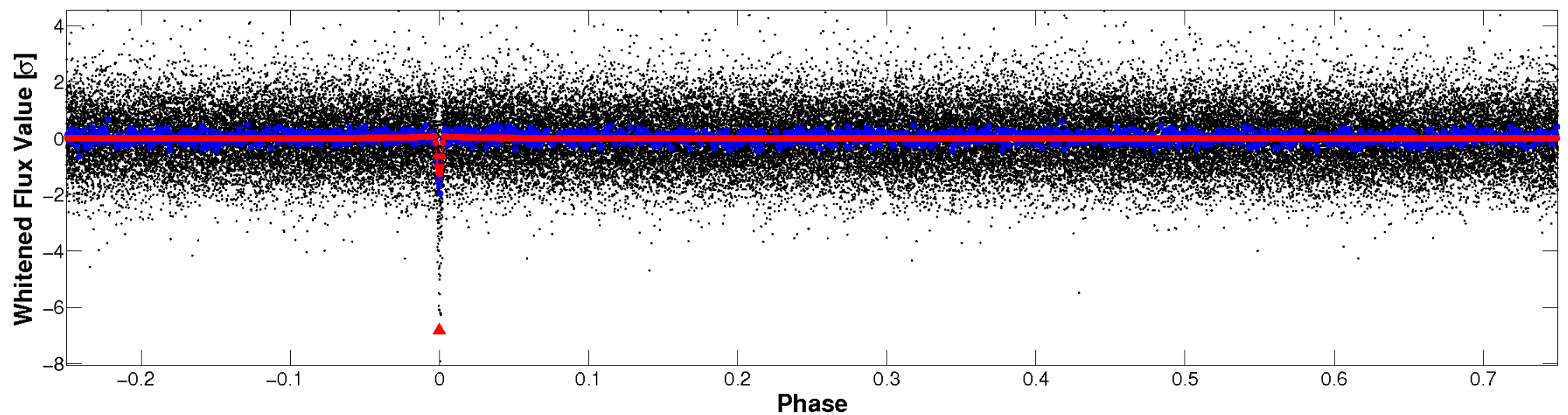


Non-Whitened Vs. Whitened Light Curve

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

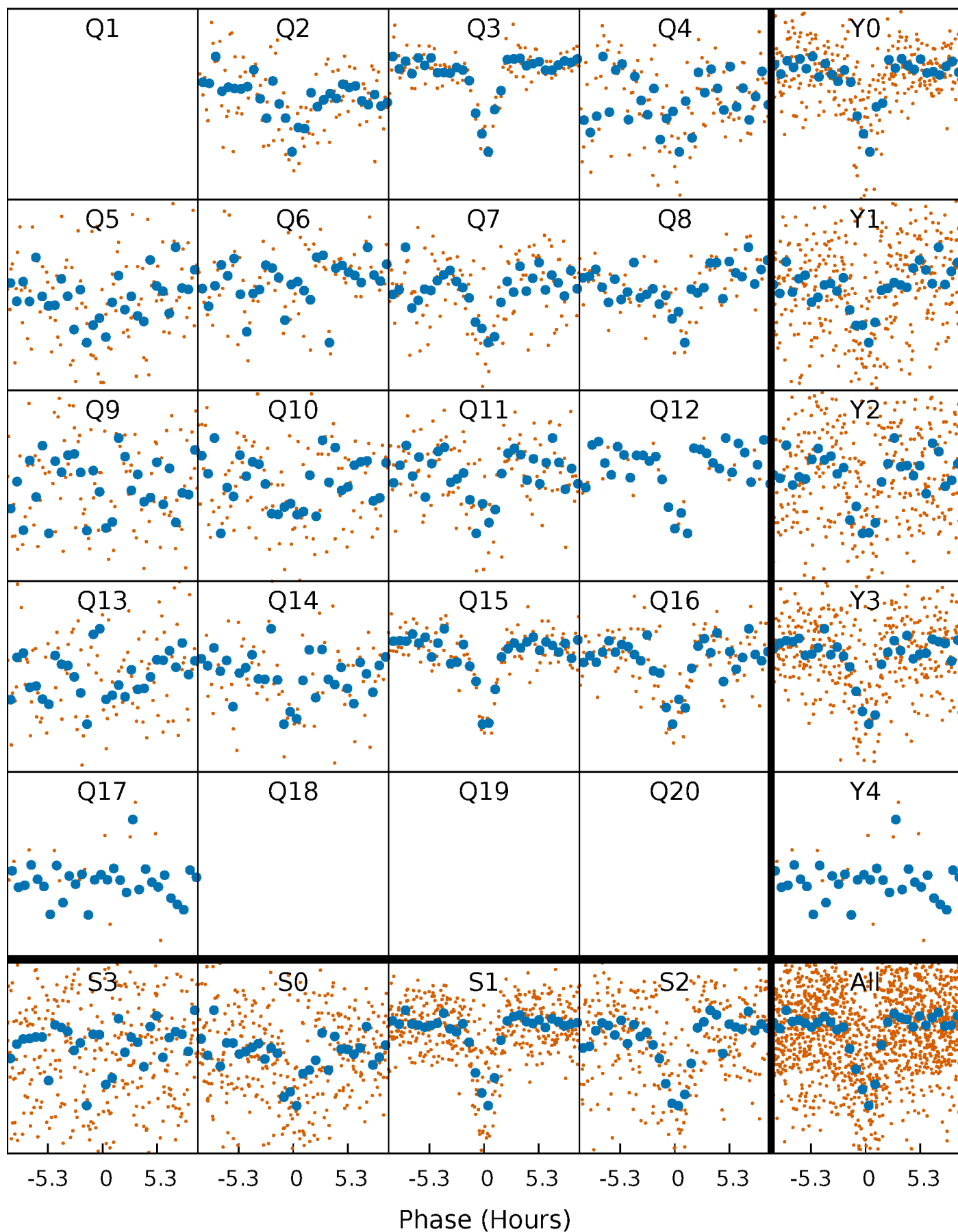


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



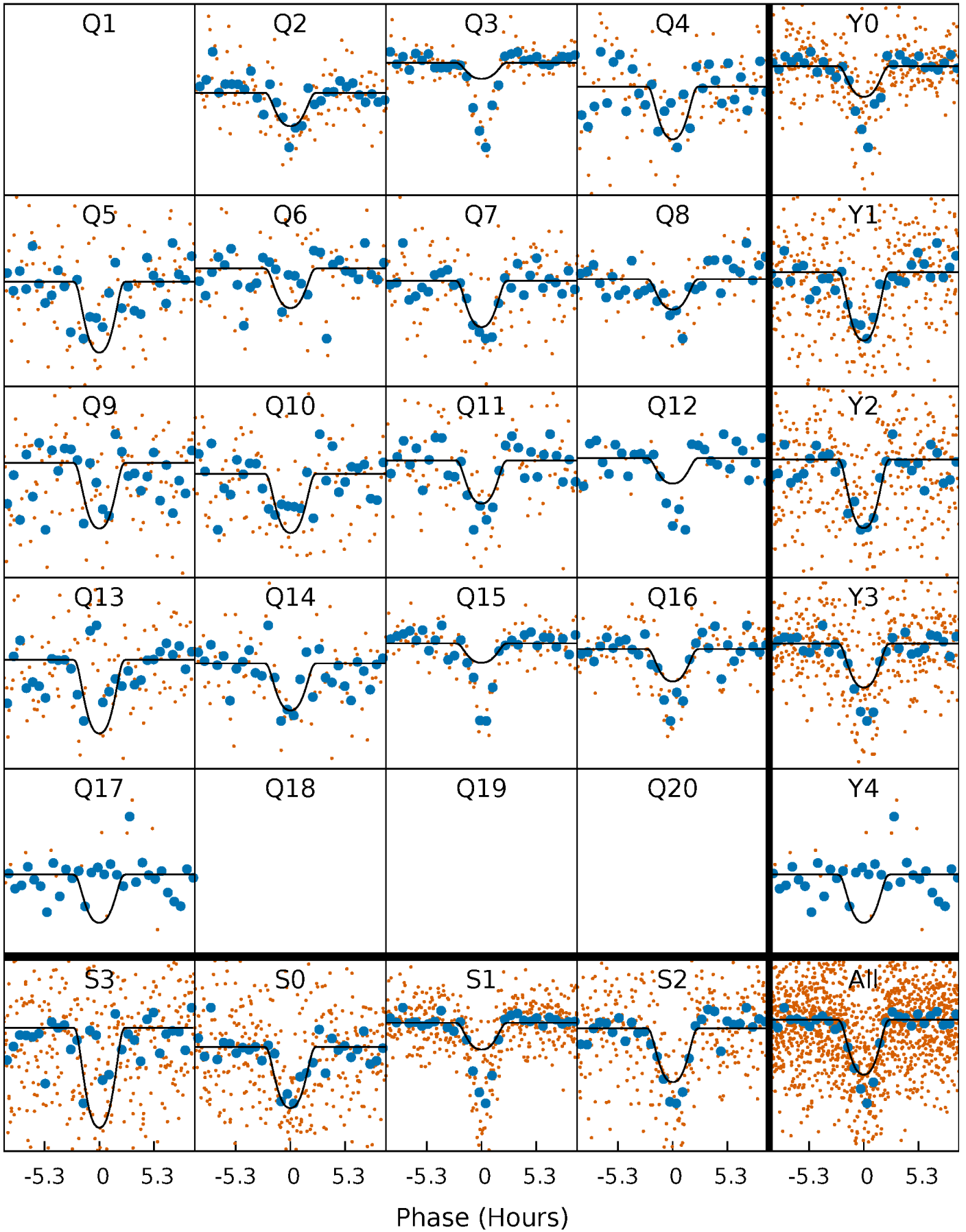
PDC Quarter-Phased Transit Curves

TCE 003952651-01 P= 32.904509 Days $T_0=141.292736$ (BKJD)



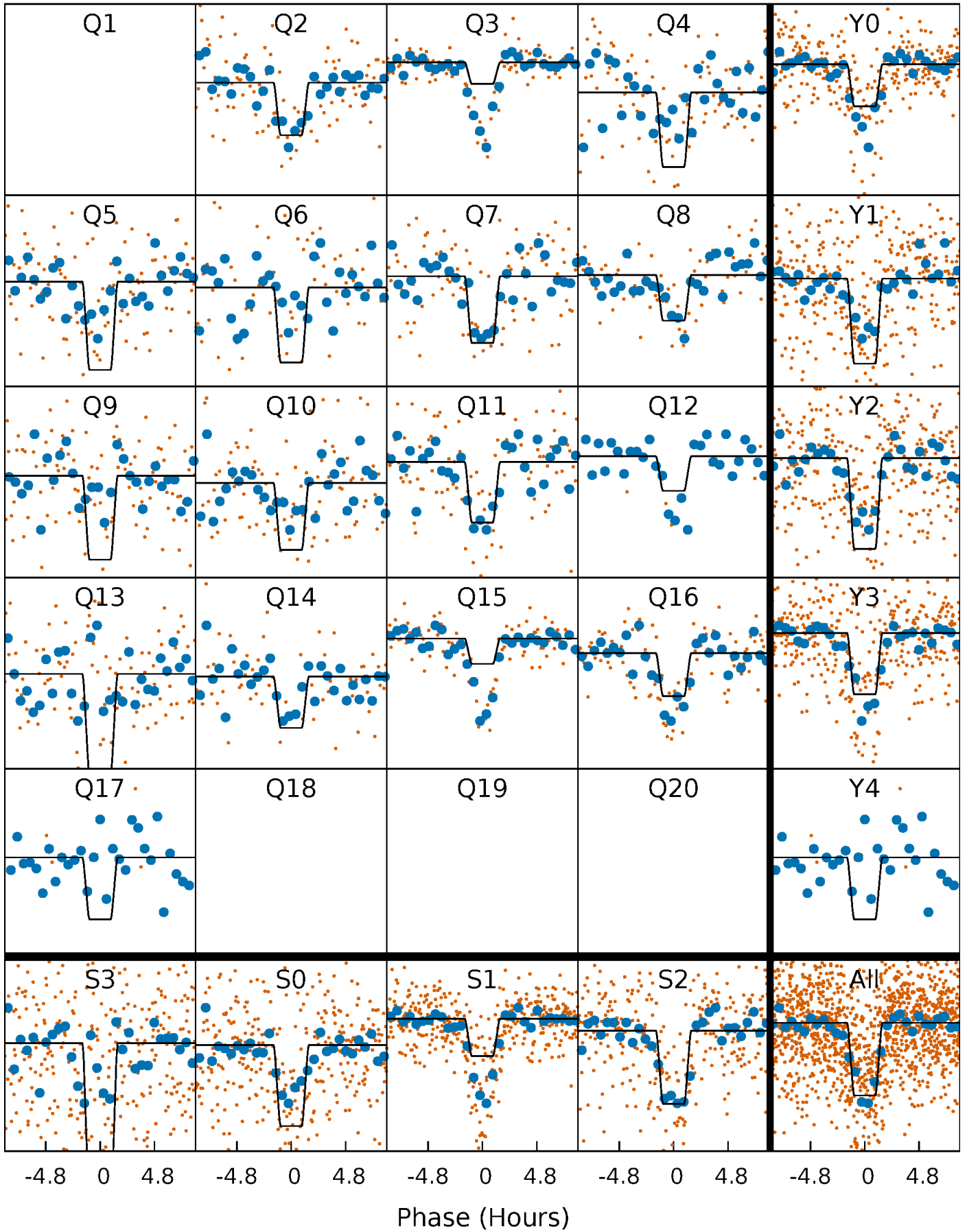
DV Quarter-Phased Transit Curves

TCE 003952651-01 P= 32.904509 Days $T_0=141.292736$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

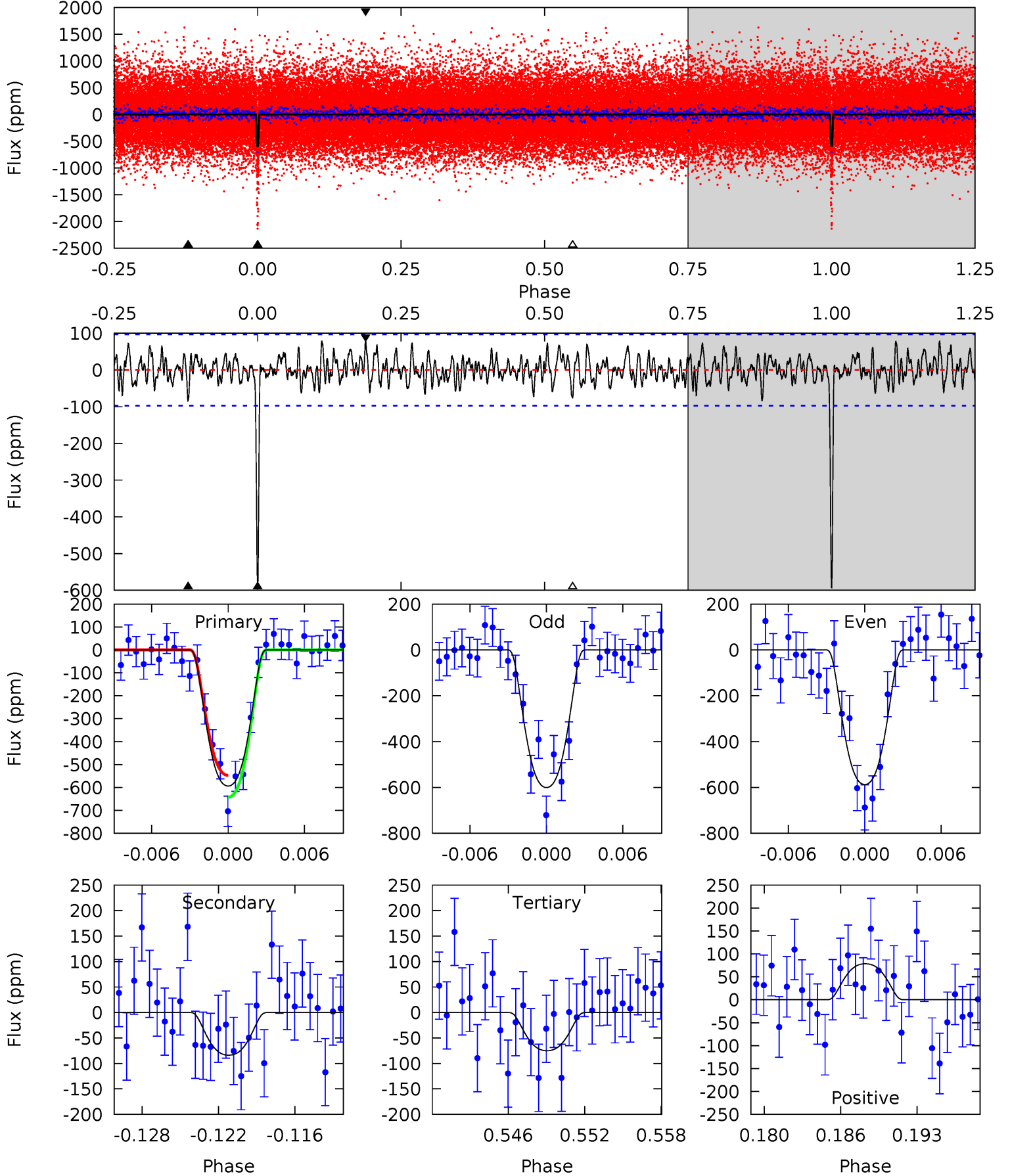
TCE 003952651-01 P= 32.904457 Days $T_0=141.297327$ (BKJD)



DV Model-Shift Uniqueness Test

003952651-01, $P = 32.904509$ Days, $E = 141.292736$ Days

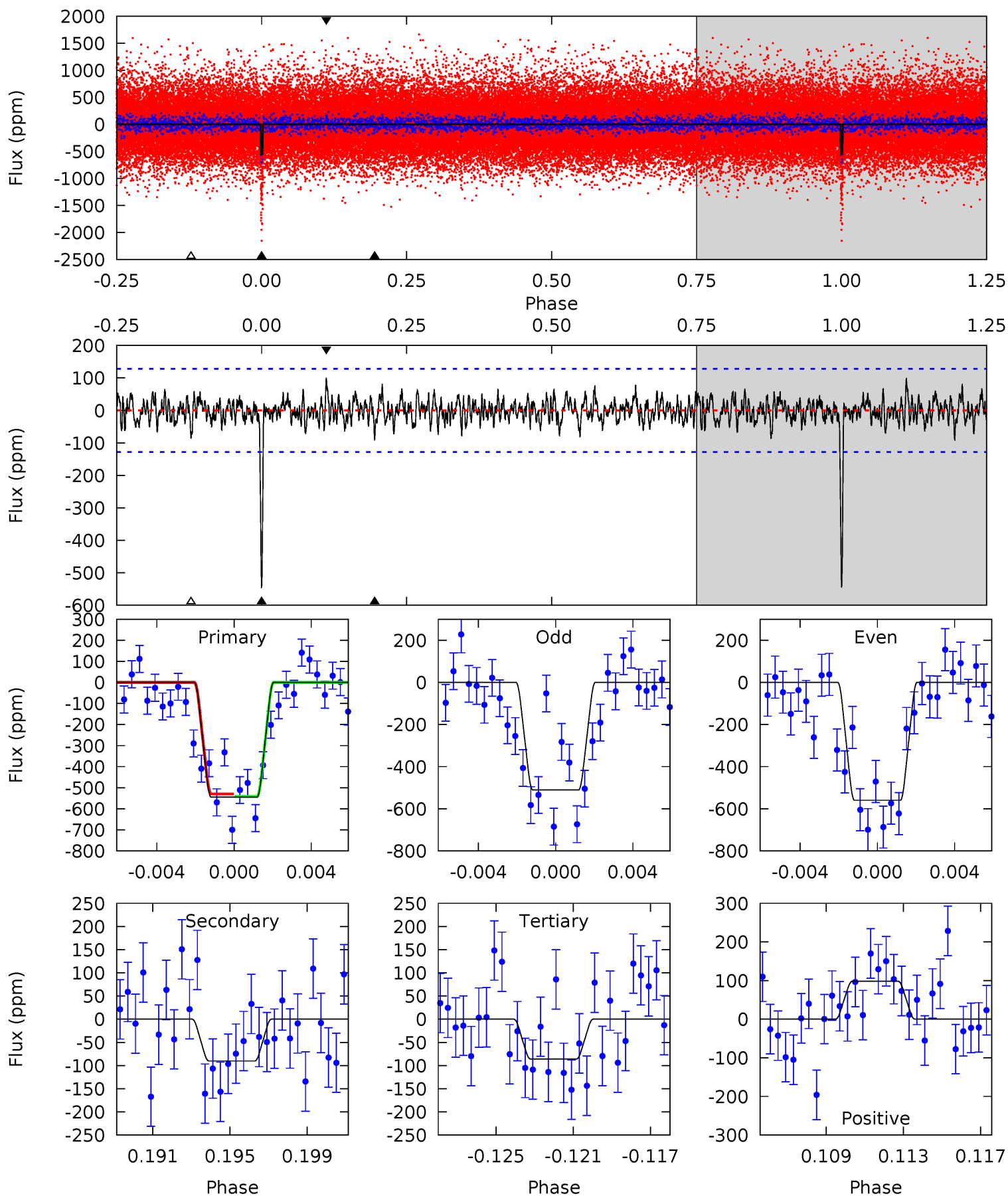
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.2	4.40	3.94	4.13	5.11	2.73	1.47	27.3	27.1	0.46	0.28	0.35	1.33	0.12	2.50



Alt Model-Shift Uniqueness Test

003952651-01, $P = 32.904457$ Days, $E = 141.297327$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	3.66	3.50	3.99	5.20	2.89	1.13	18.6	18.1	0.17	-0.32	1.00	1.42	0.15	0.24



Stellar Parameters For KIC 003952651

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 003952651-01 / KOI 1912.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-84 ± 19	$3.10^{+0.49}_{-0.49}$	798^{+36}_{-37}	3693^{+257}_{-222}	194^{+86}_{-65}
Alt.	-90 ± 25	$2.85^{+0.49}_{-0.46}$	794^{+38}_{-38}	3833^{+322}_{-288}	244^{+134}_{-89}

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 $A_{obs} \gg 1.0$

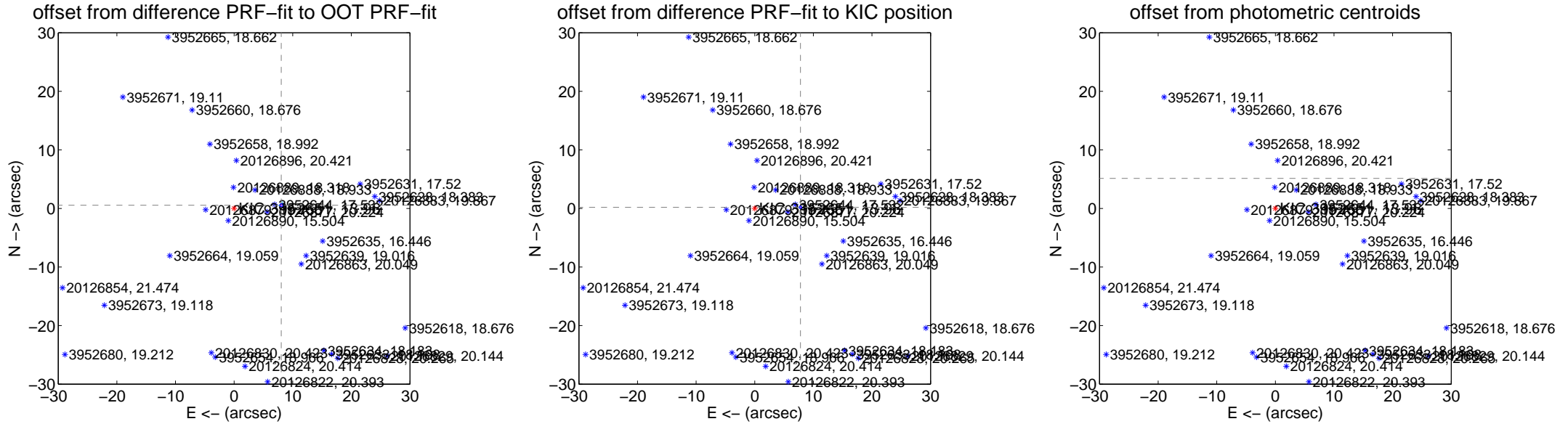
DV Centroid Data

Supplemental centroid analysis for 003952651-01. Kepler magnitude: 13.96. Transit SNR 16.10

There are 14 quarters with good PRF difference image offsets

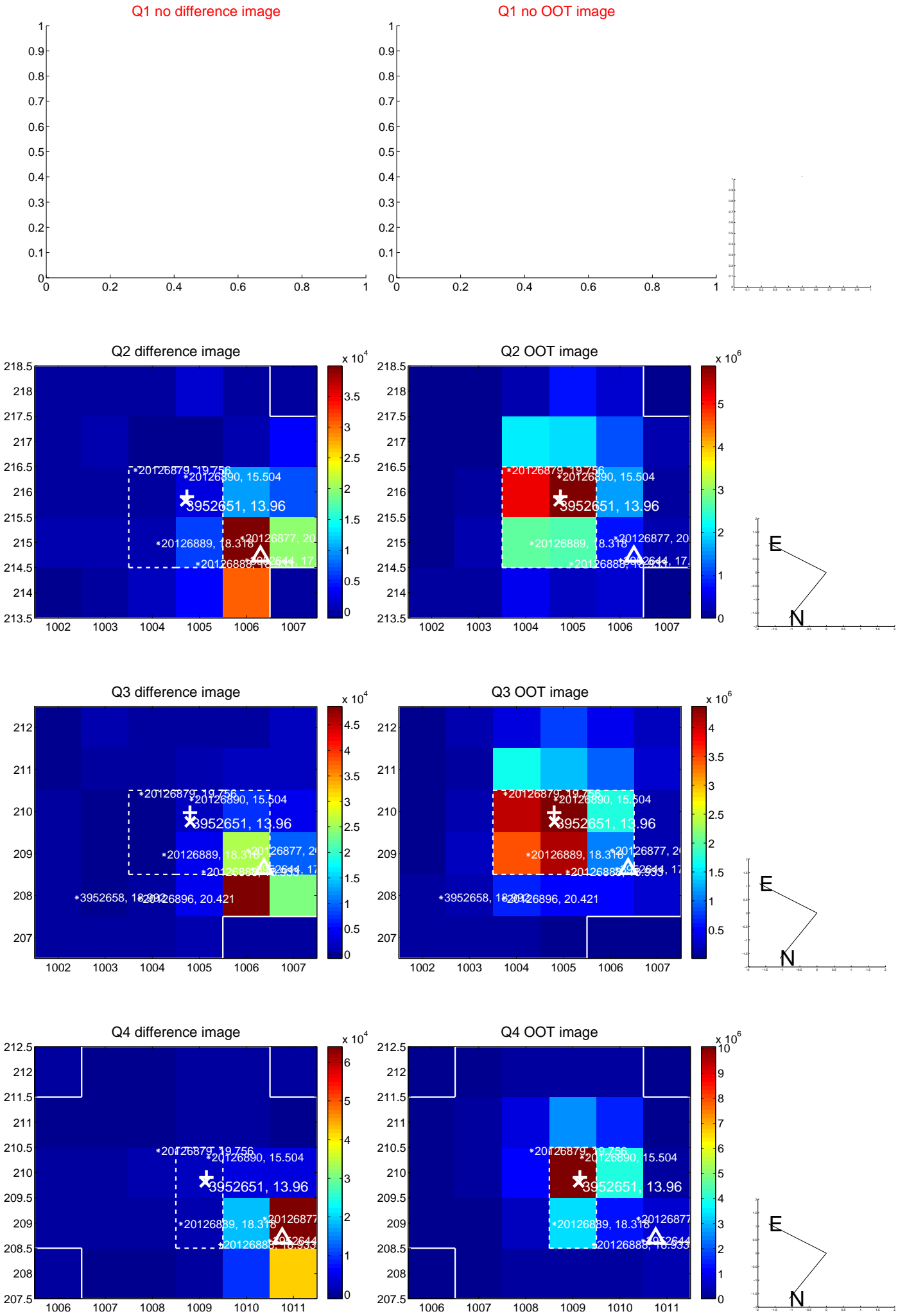
The direct PRF centroid is offset from the target star catalog position by about 0.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.069 \pm 0.088	91.52	-8.050 \pm 0.086	0.551 \pm 0.095
PRF-fit source offset from KIC position	7.802 \pm 0.075	104.58	-7.800 \pm 0.075	0.194 \pm 0.071
photometric centroid source offset	37.66 \pm 0.75	50.07	-37.31 \pm 0.75	5.13 \pm 0.84

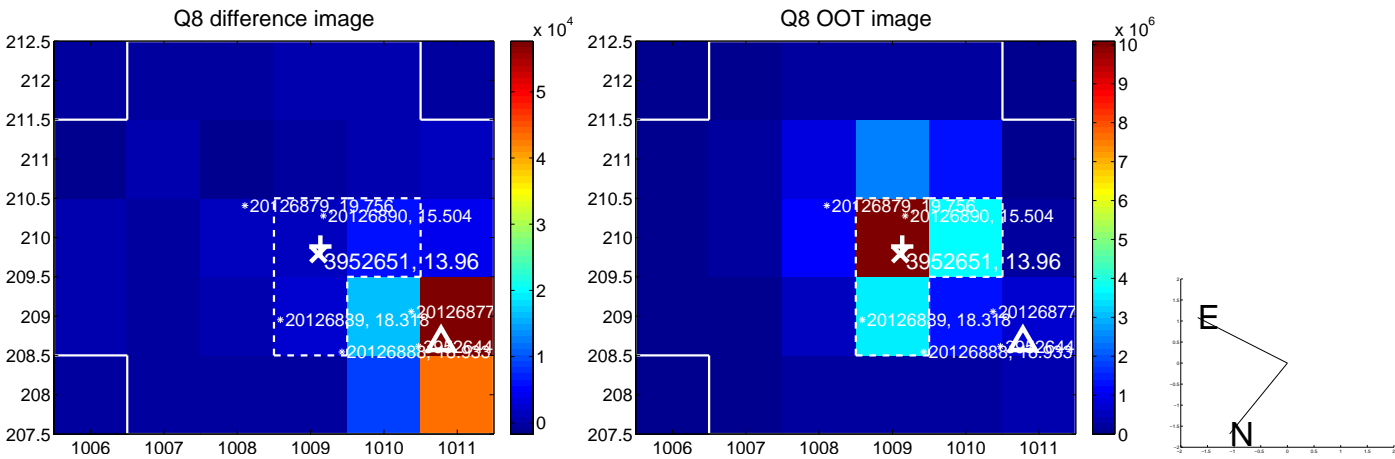
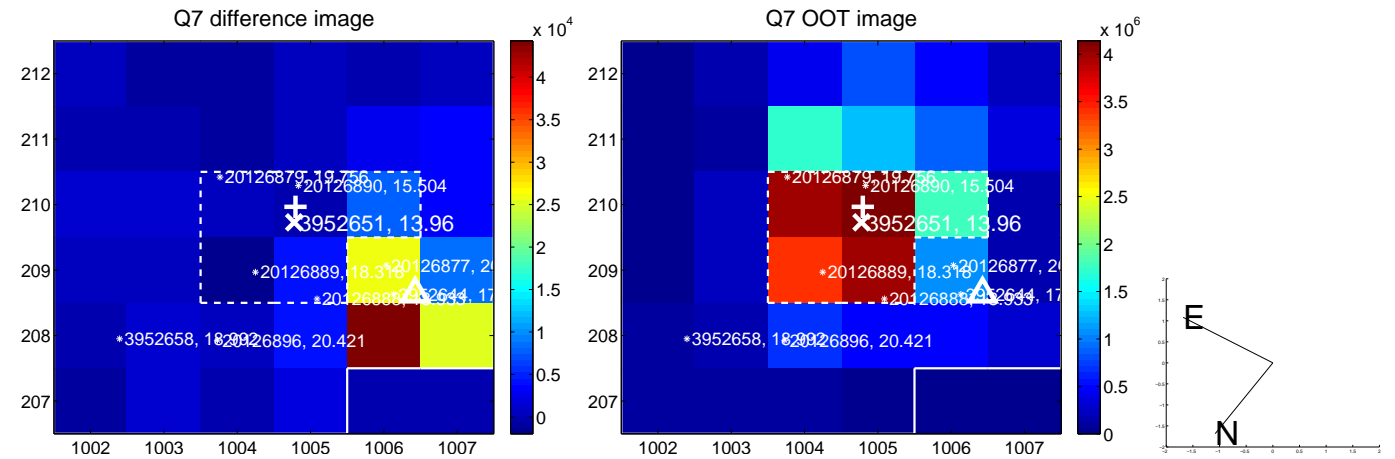
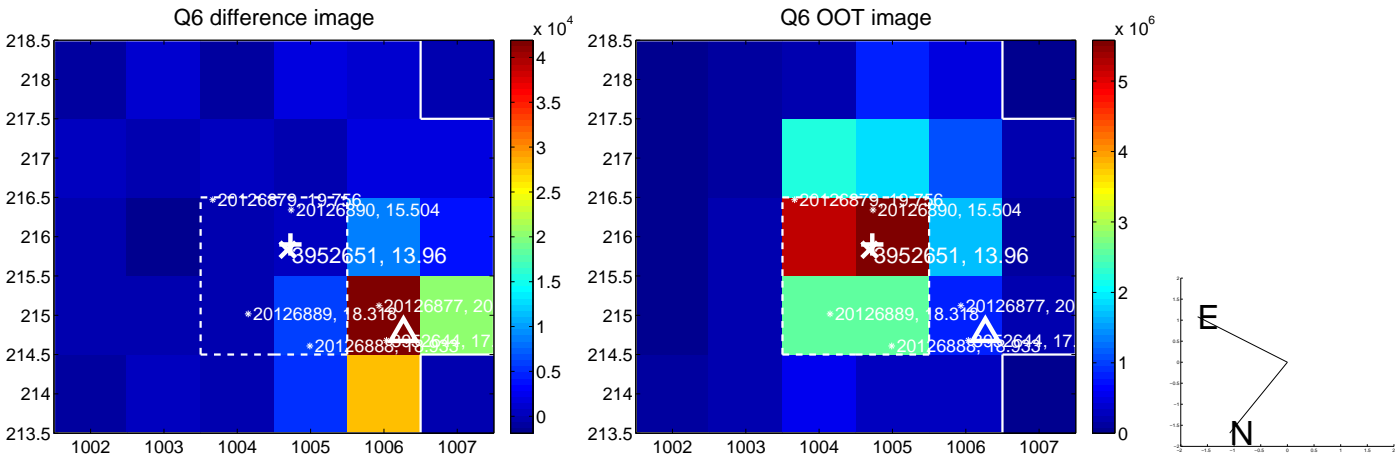
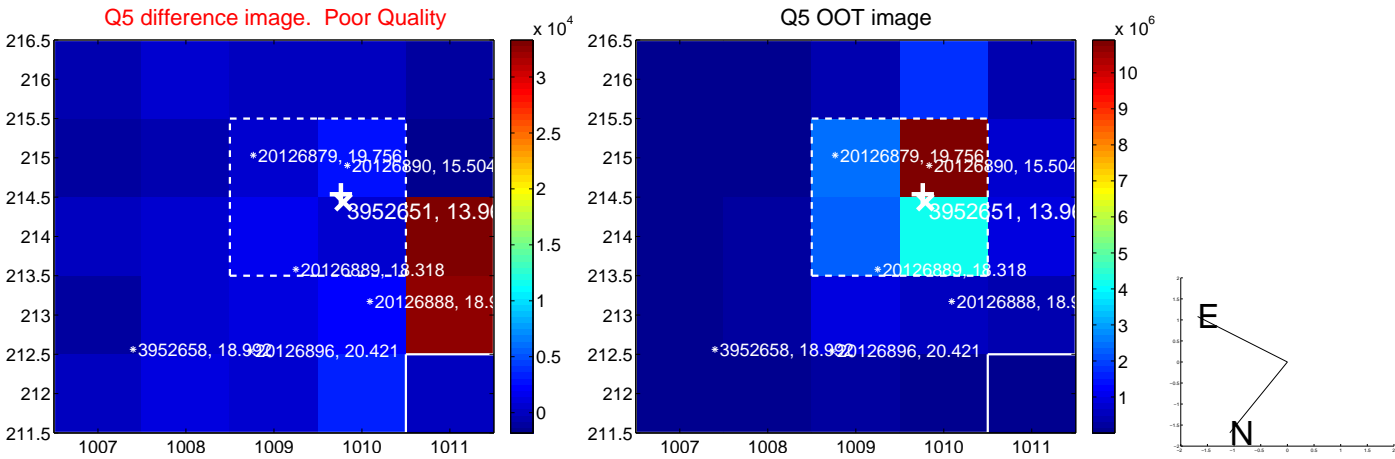


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

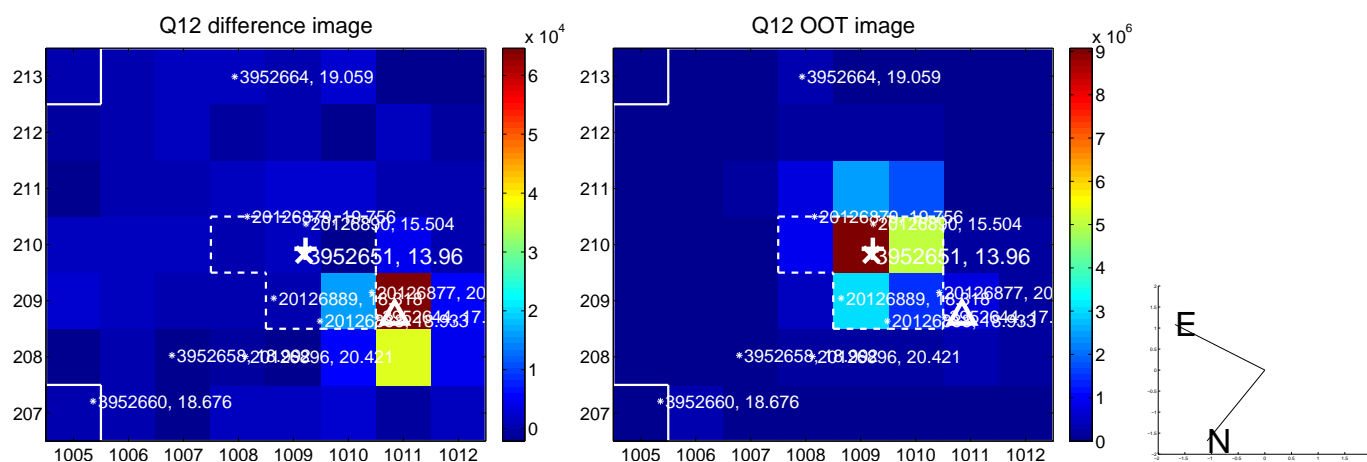
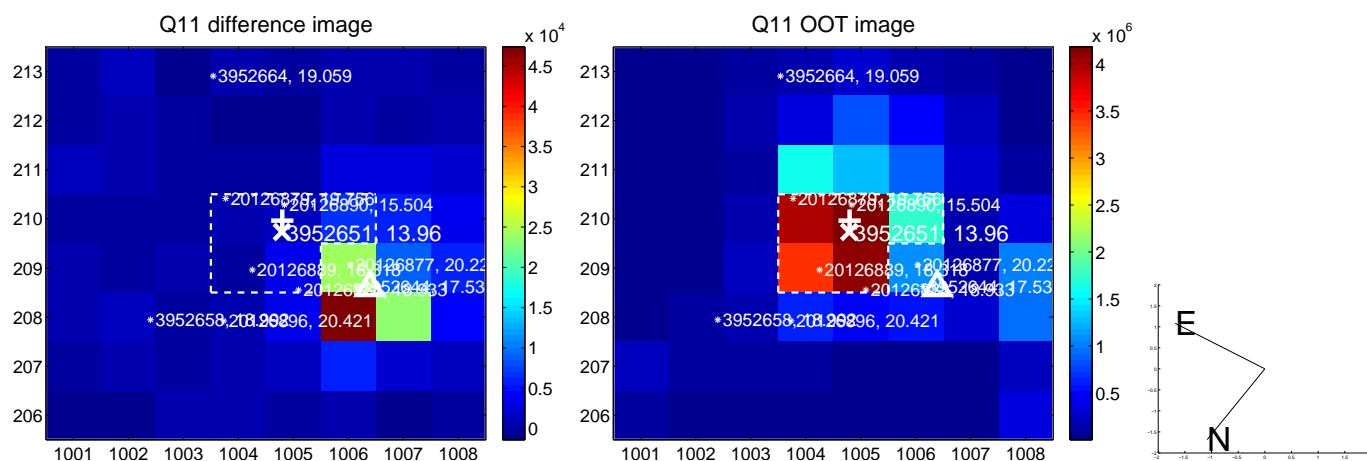
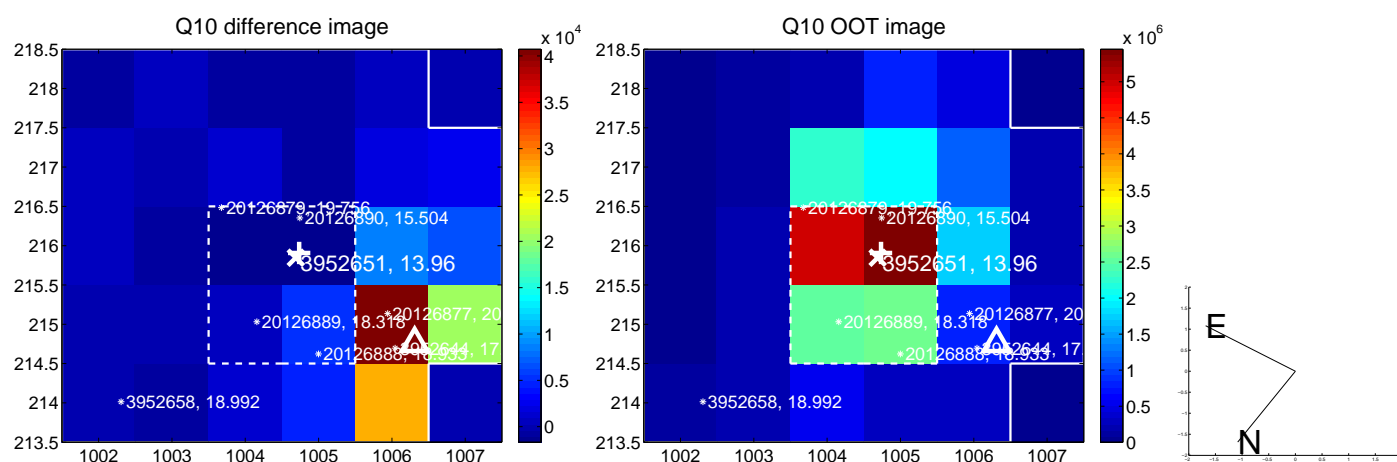
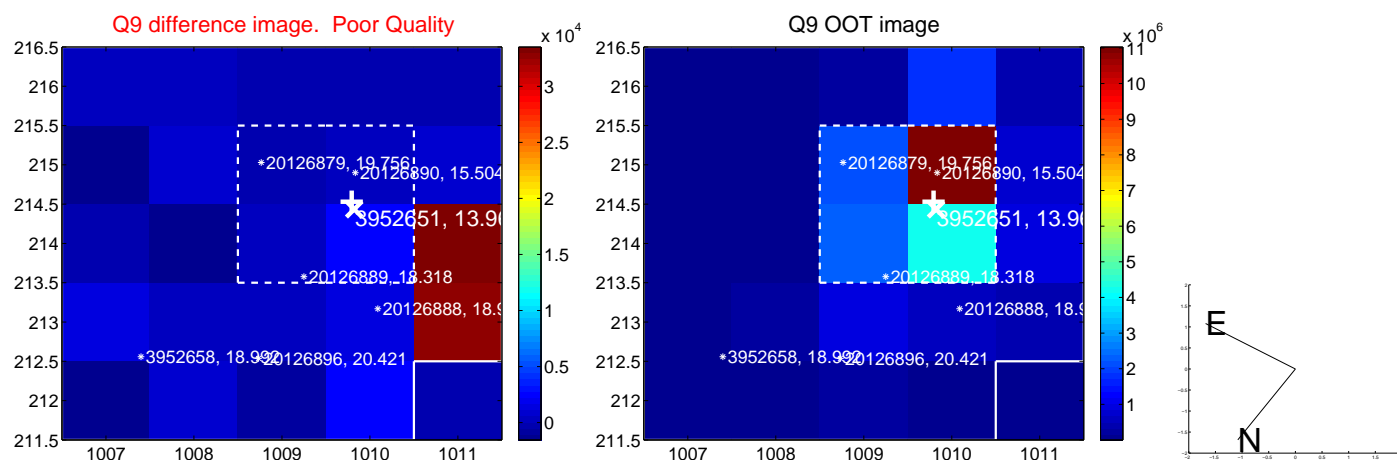
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



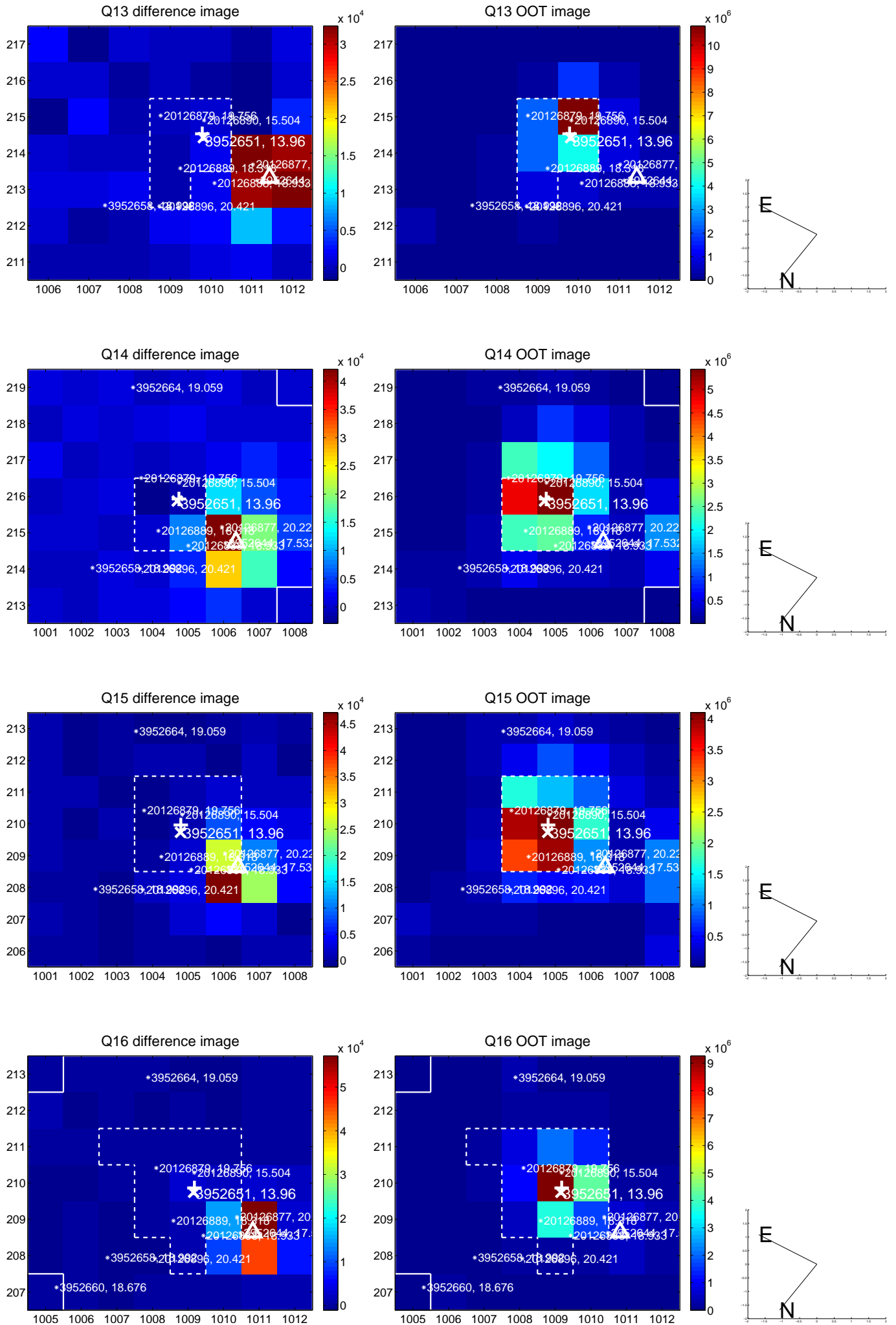
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



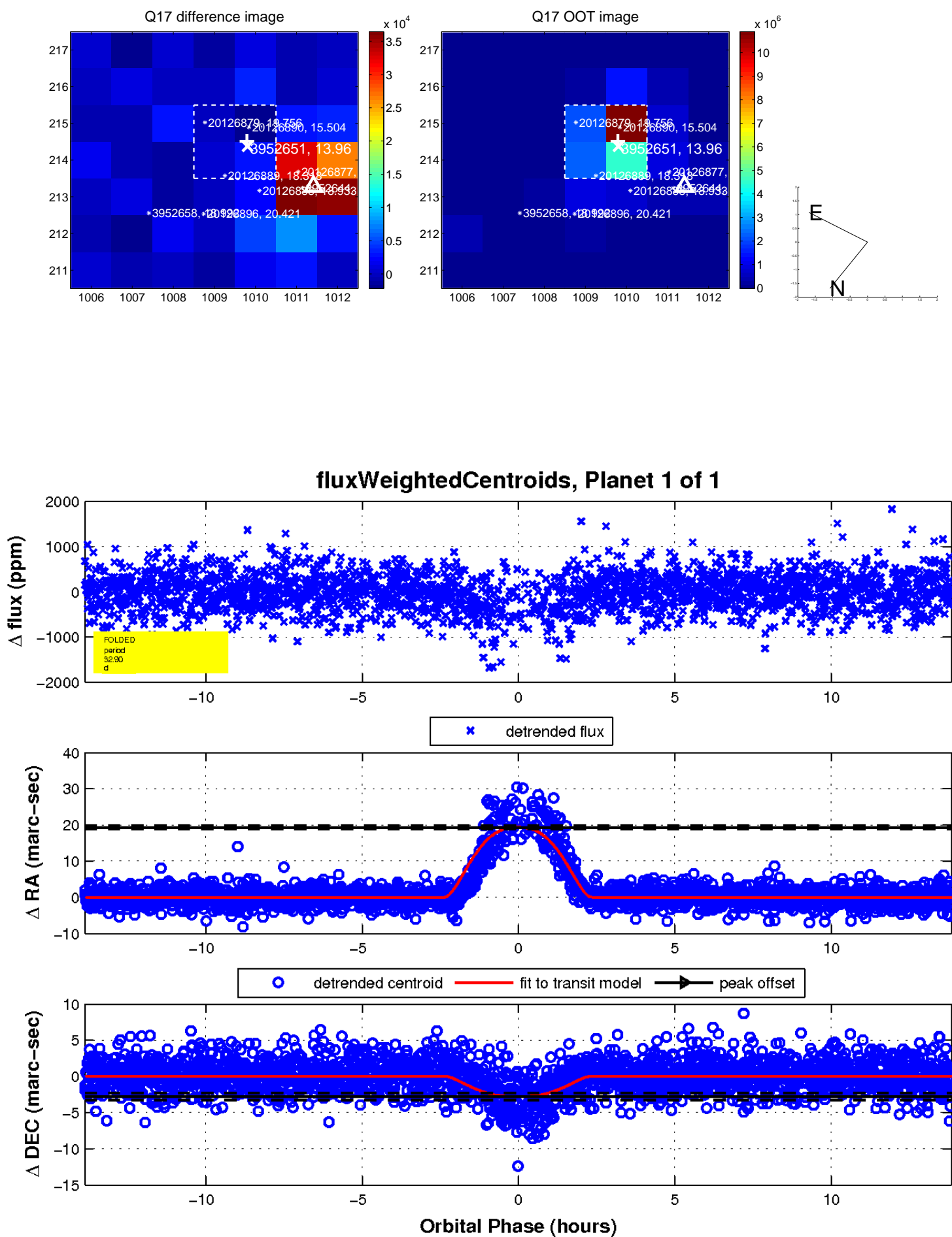
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

