

KIC 003849155

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})
003849155-01	OBS	0390.01	1.168304	132.051678	234.6	1.424	48.8	55.1	0.86	5509	1.58	1464.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003849155-01	OBS	FP	0.00	0	1	1	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—CENT_UNRESOLVED_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 003849155-01

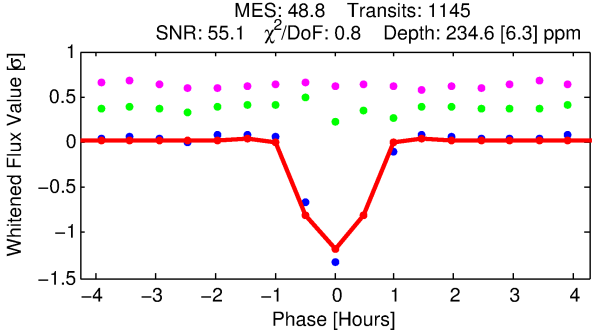
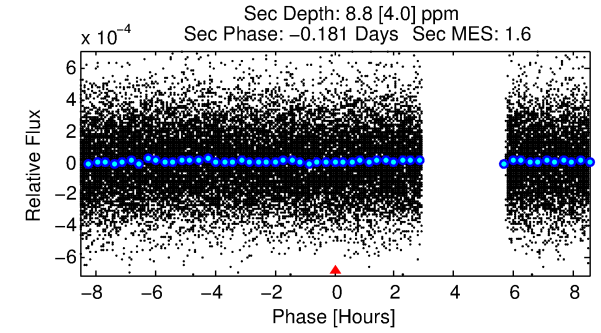
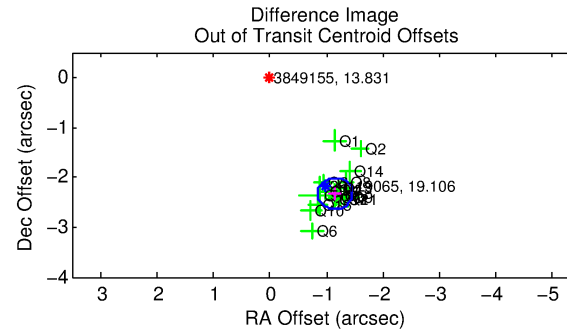
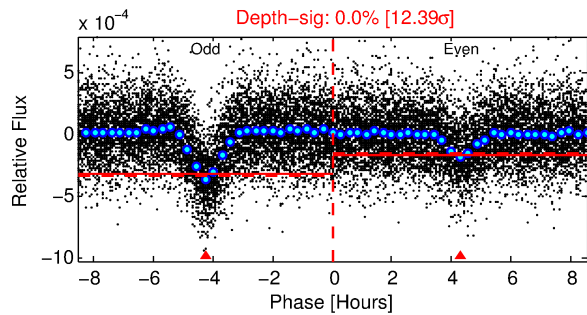
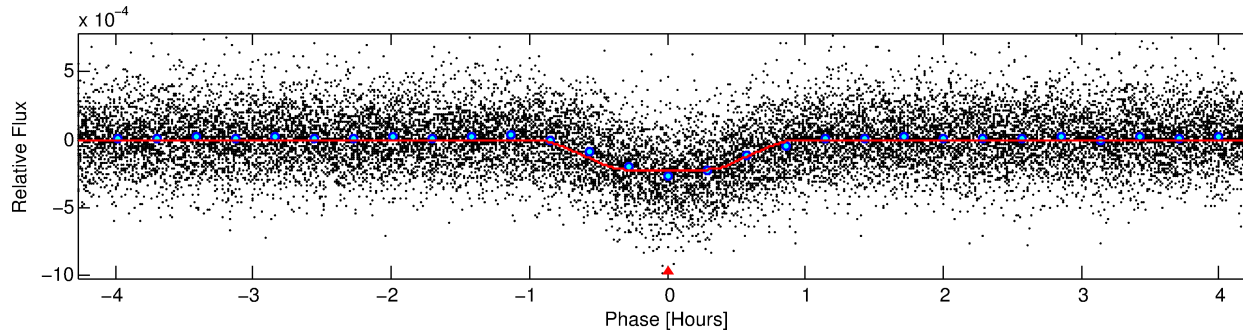
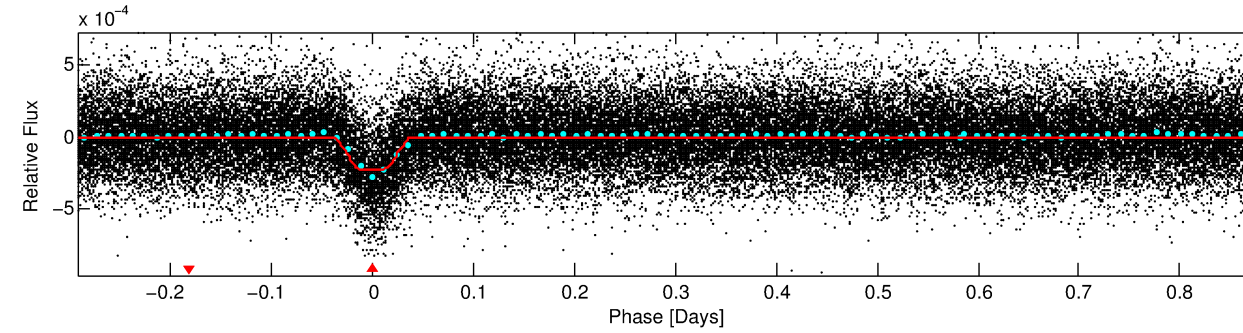
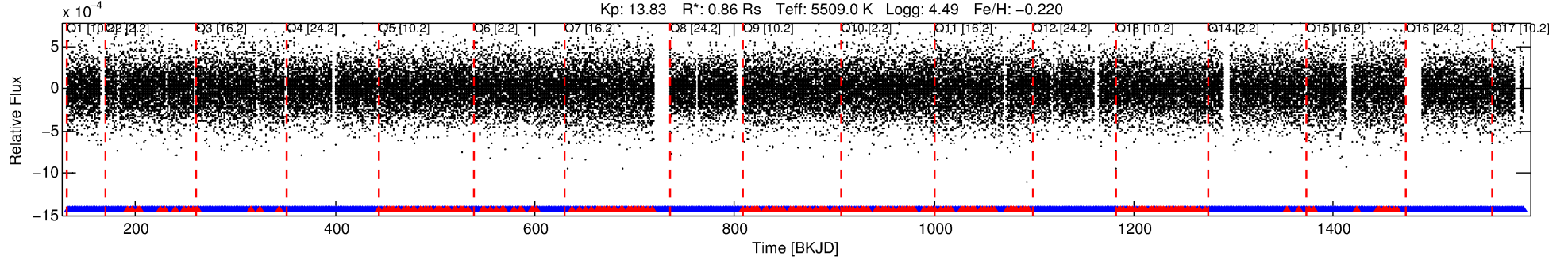
No Significant Match Found

DV One-Page Summary

KIC: 3849155 Candidate: 1 of 1 Period: 1.168 d

KOI: K00390.01 Corr: 0.943

Kp: 13.83 R*: 0.86 Rs Teff: 5509.0 K Logg: 4.49 Fe/H: -0.220



DV Fit Results:

Period = 1.16830 [0.00000] d
Epoch = 132.0517 [0.0004] BKJD
Rp/R* = 0.0169 [0.0030]
a/R* = 3.10 [2.22]
b = 0.90 [0.17]
Seff = 1464.75 [414.59]
Teq = 1577 [112] K
Rp = 1.58 [0.44] Re
a = 0.0203 [0.0036] AU
Ag = 0.80 [0.51] [-0.39σ]
Teffp = 2309 [340] K [2.05σ]

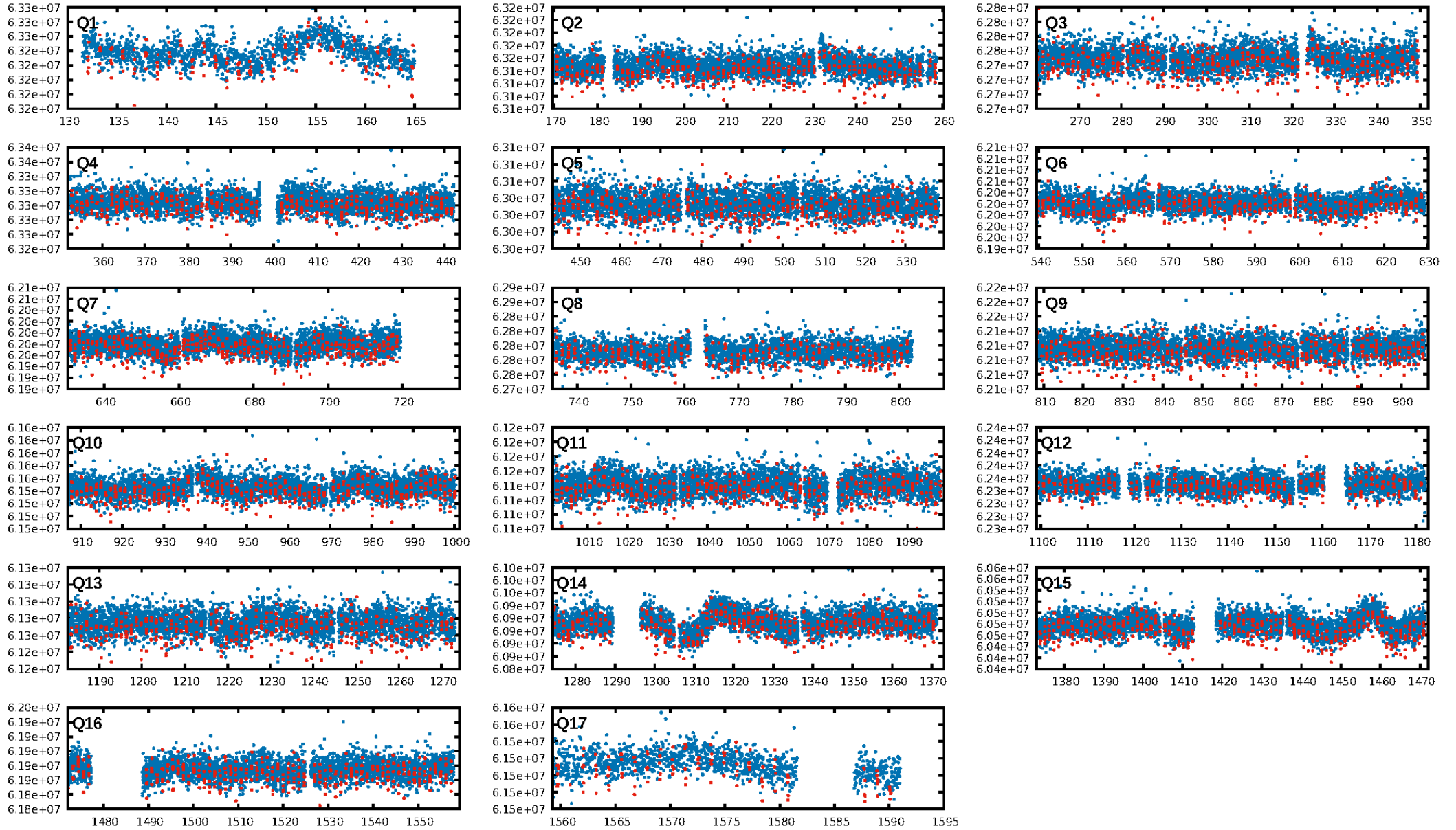
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.79 [861/1095]
GhostDiagnostic-chr: 2.681
Centroid-sig: 0.0%
Centroid-so: 3.239 arcsec [12.60σ]
OotOffset-rm: 2.592 arcsec [24.97σ]
KicOffset-rm: 2.545 arcsec [25.42σ]
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]

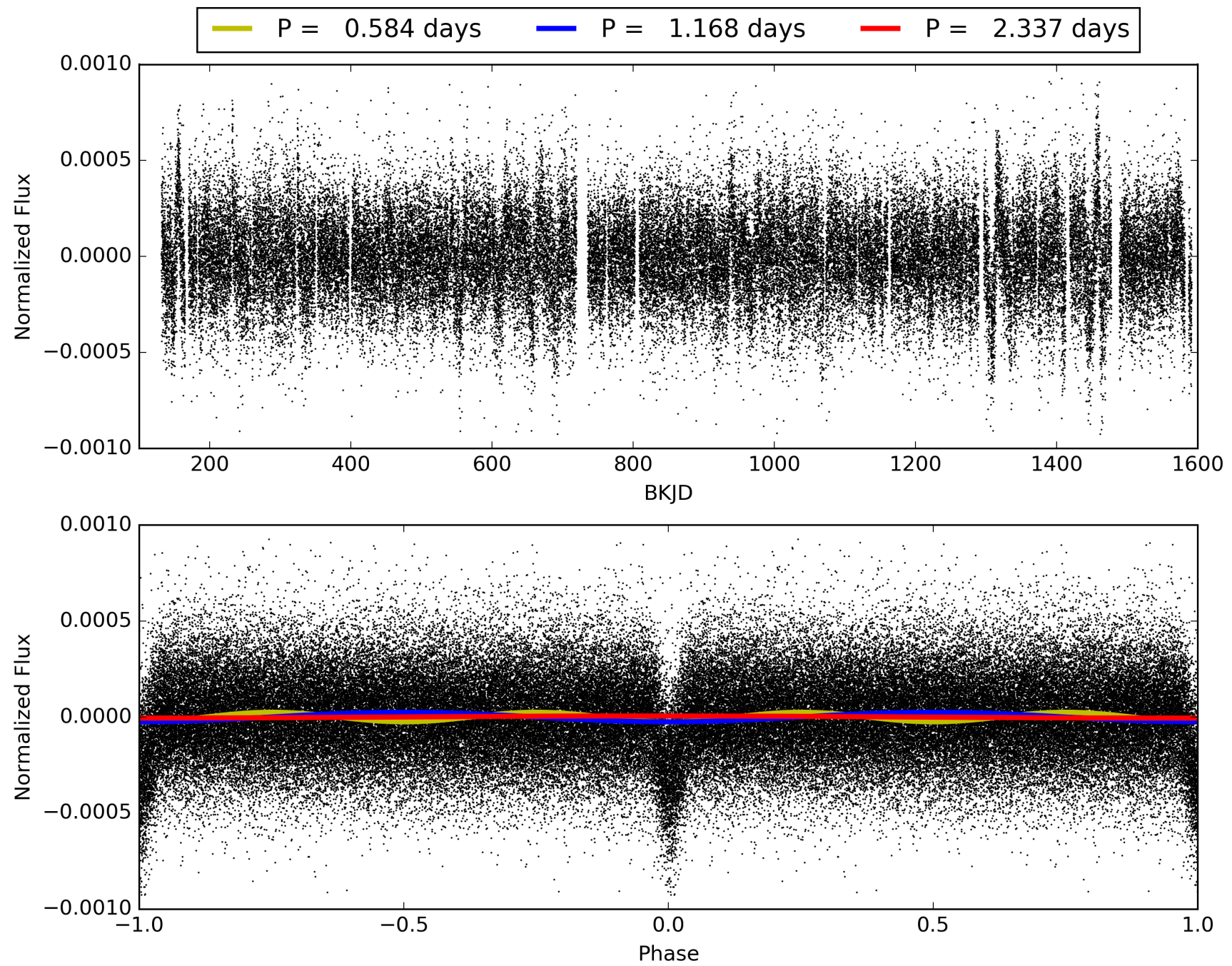
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:05:56 Z

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

TCE 003849155-01, PDC Light Curves

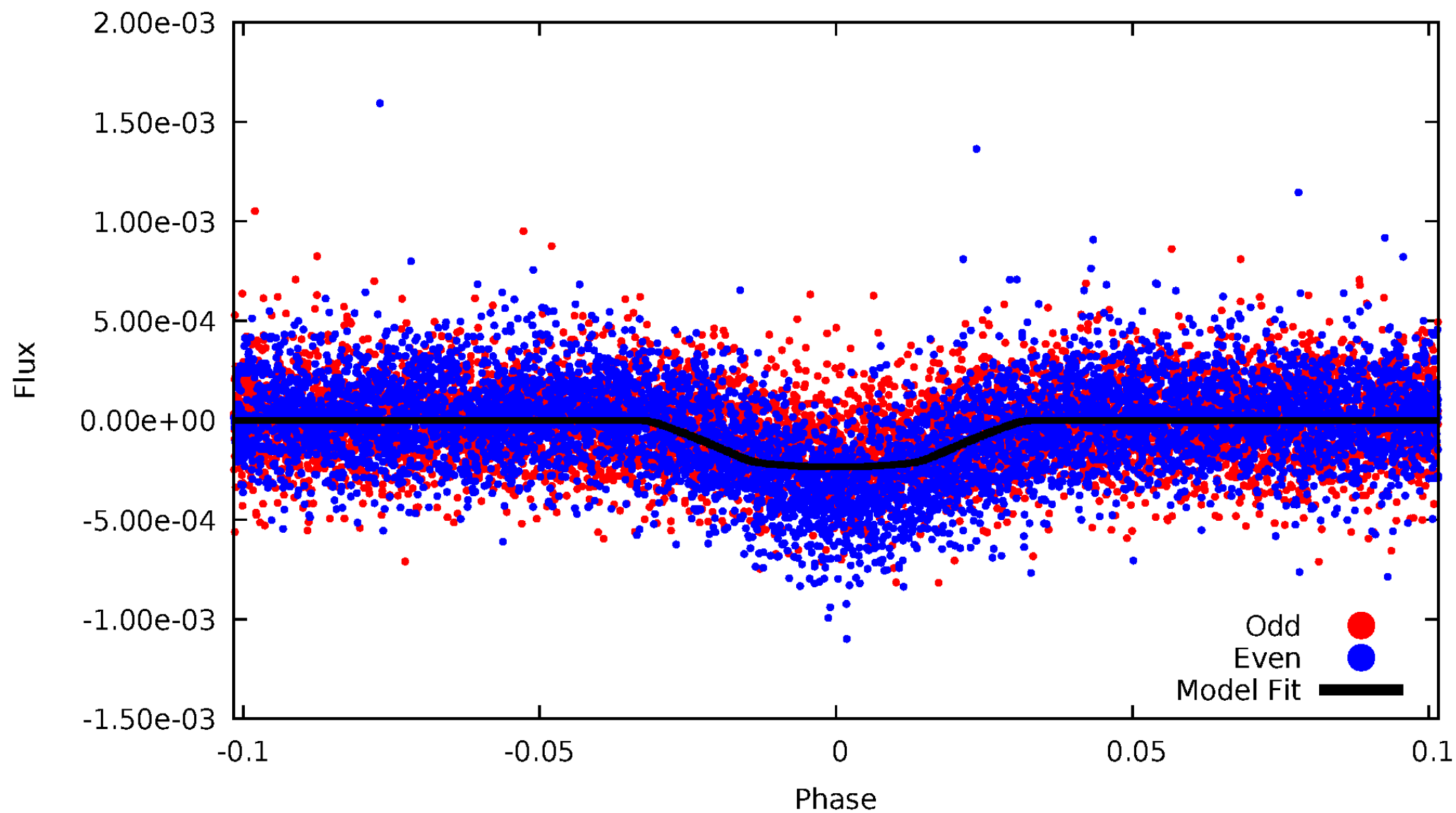


TCE 003849155-01



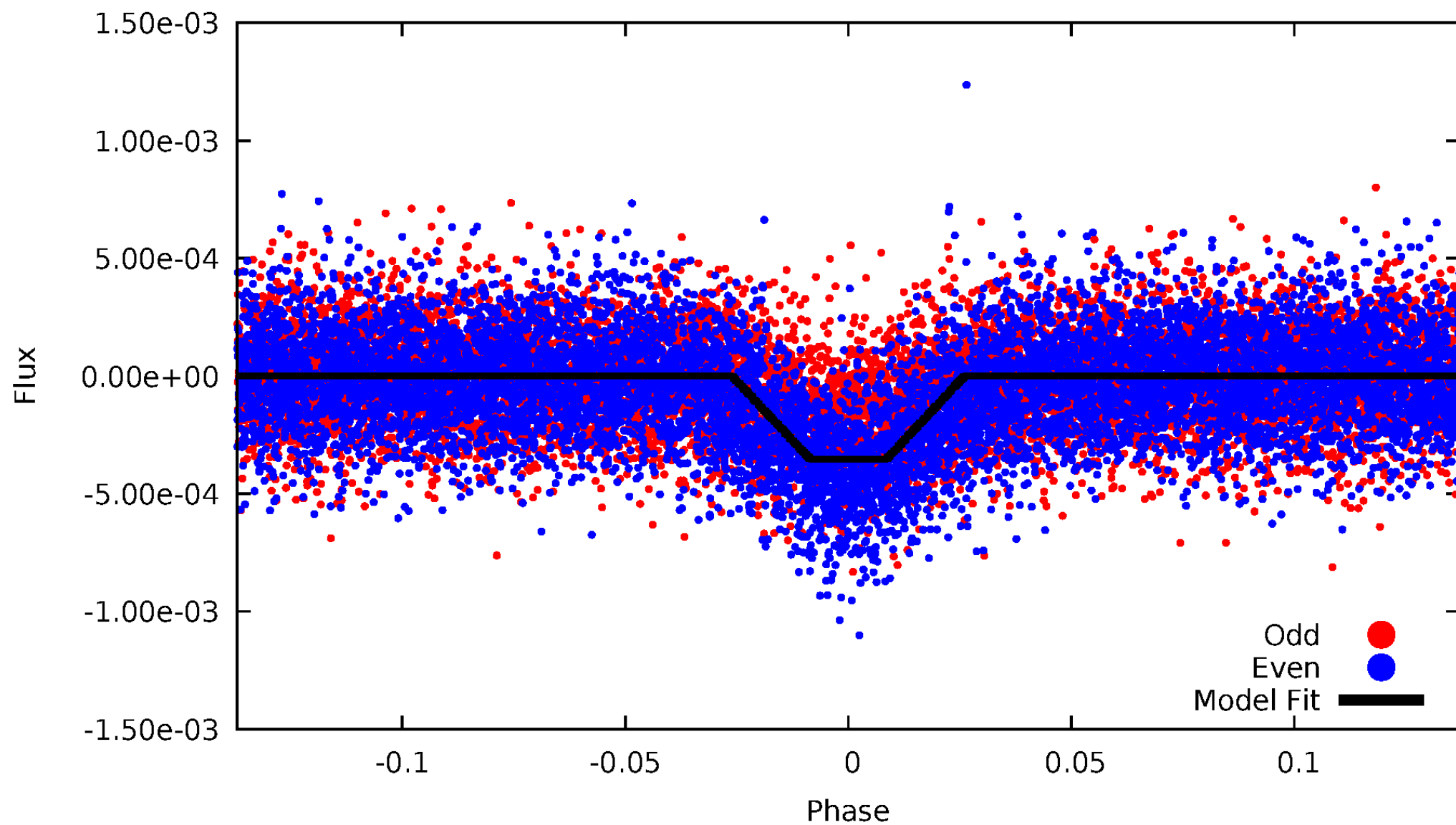
DV Odd/Even

TCE 003849155-01

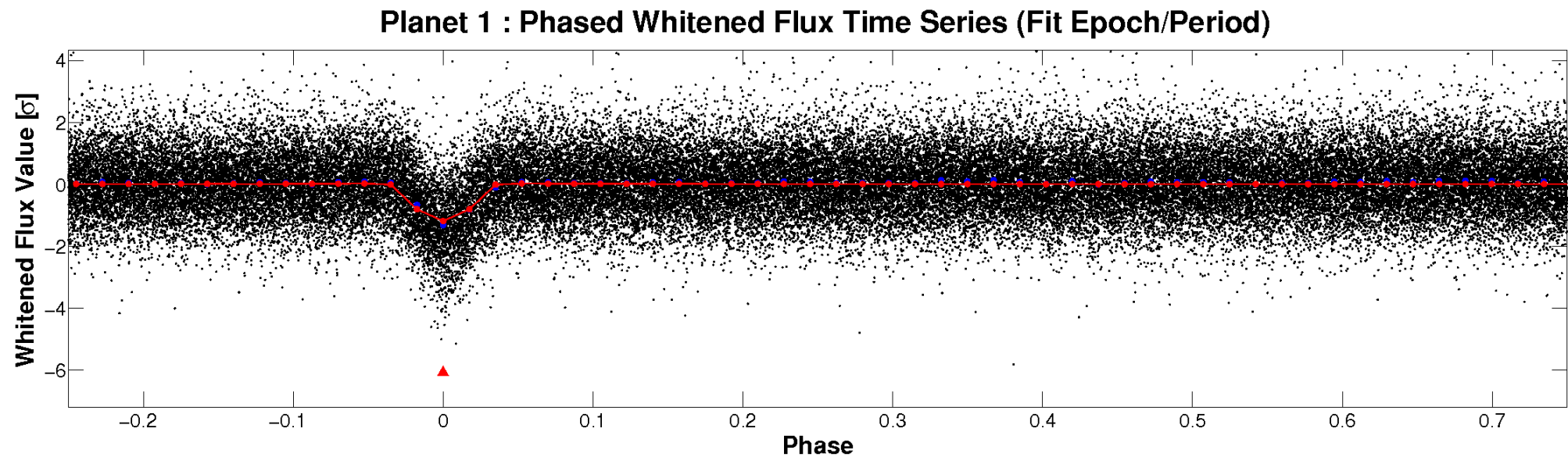
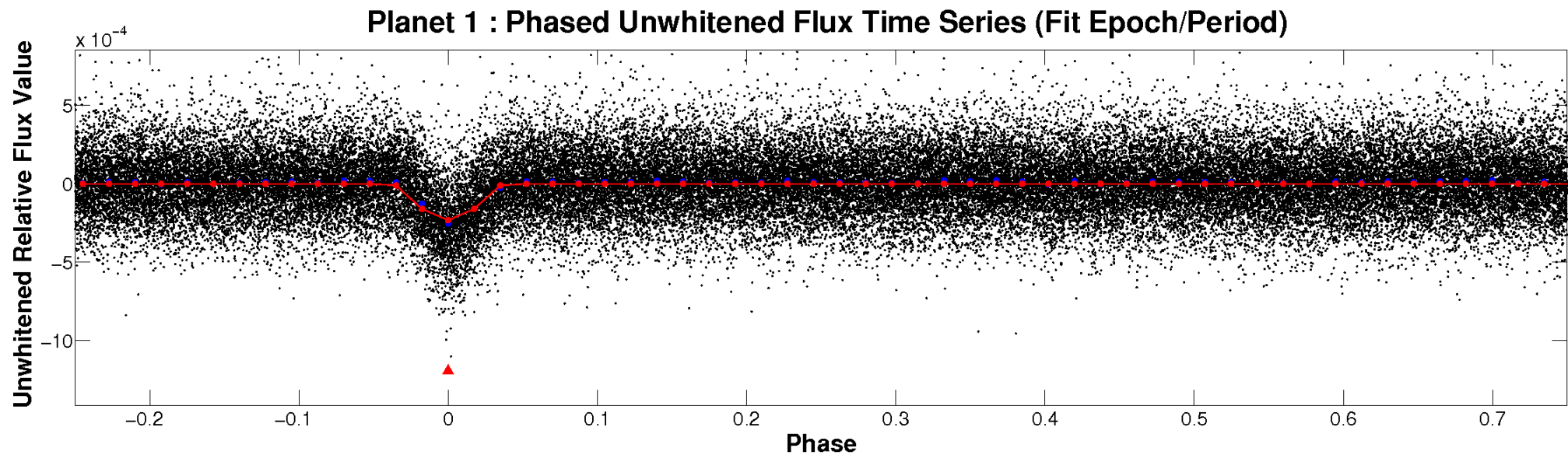


ALT Odd/Even

TCE 003849155-01

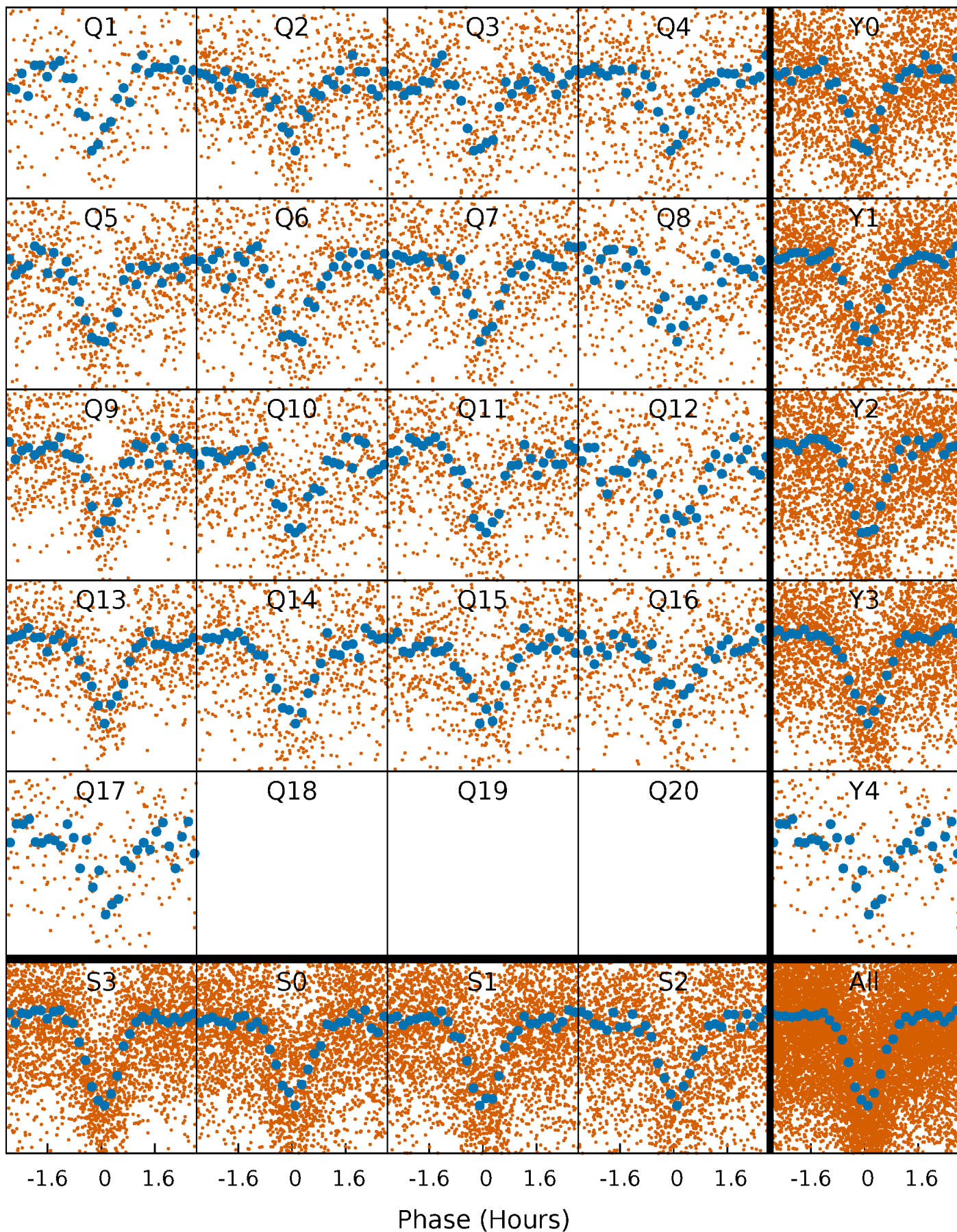


Non-Whitened Vs. Whitened Light Curve



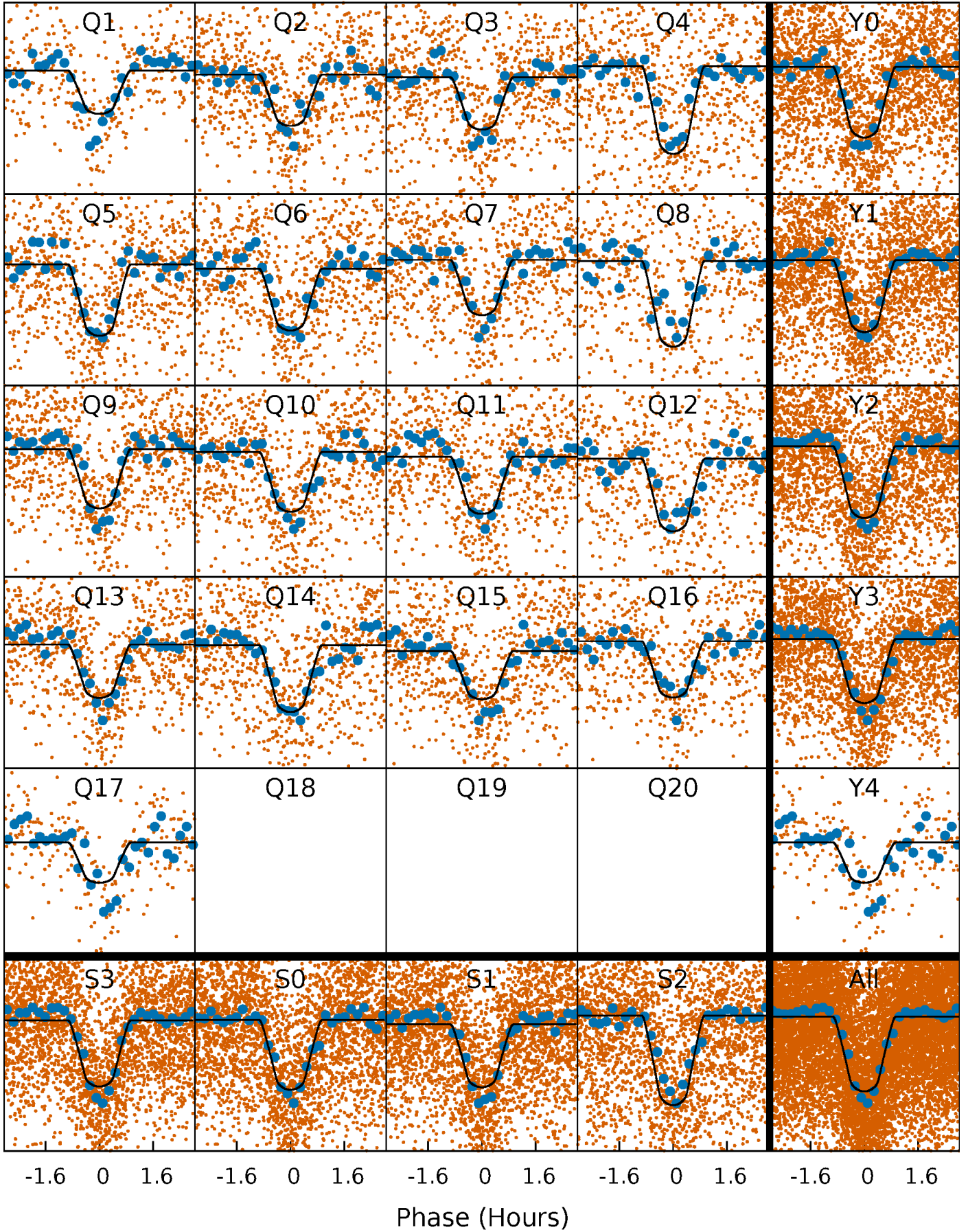
PDC Quarter-Phased Transit Curves

TCE 003849155-01 P= 1.168304 Days $T_0=132.051678$ (BKJD)



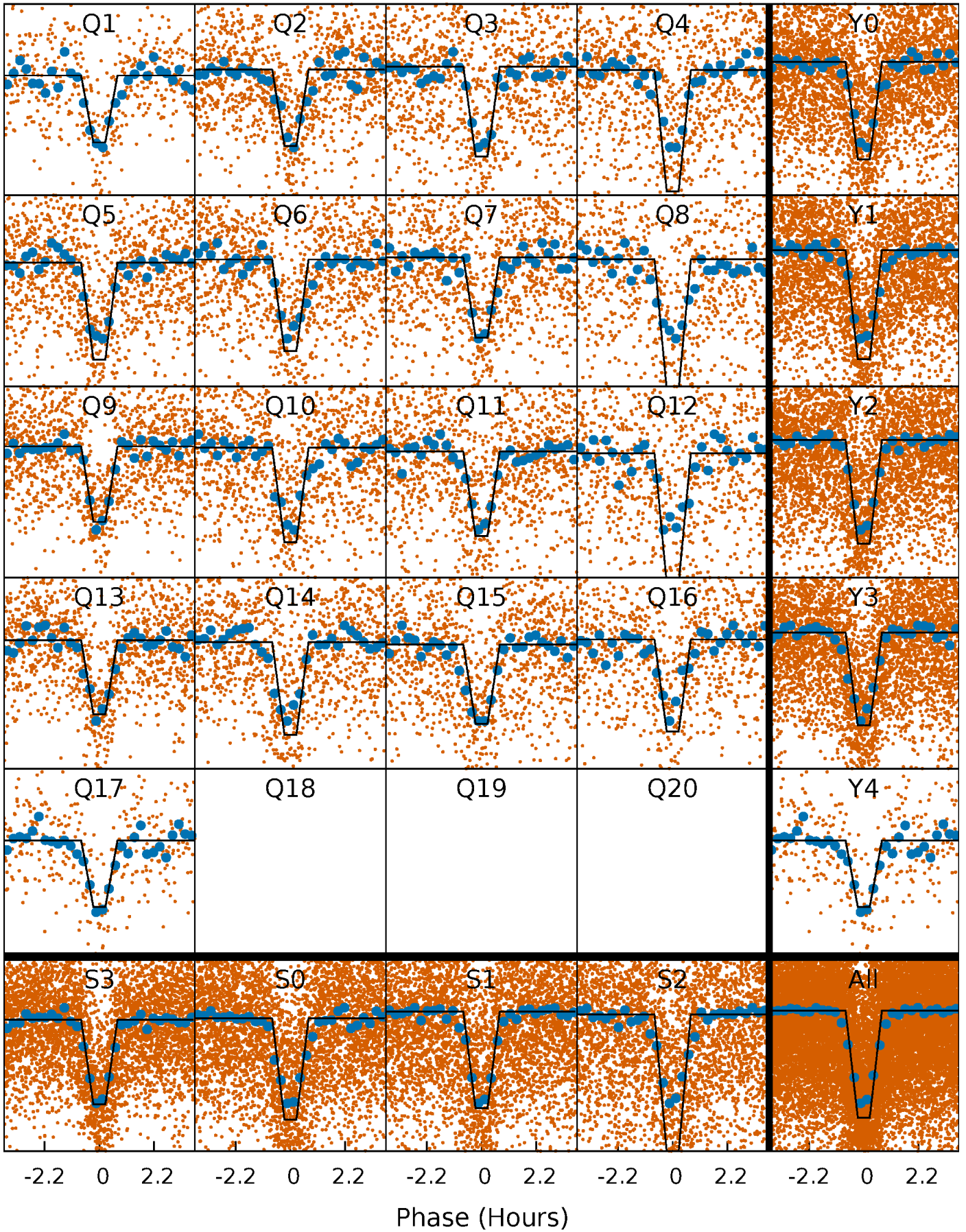
DV Quarter-Phased Transit Curves

TCE 003849155-01 P= 1.168304 Days $T_0=132.051678$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

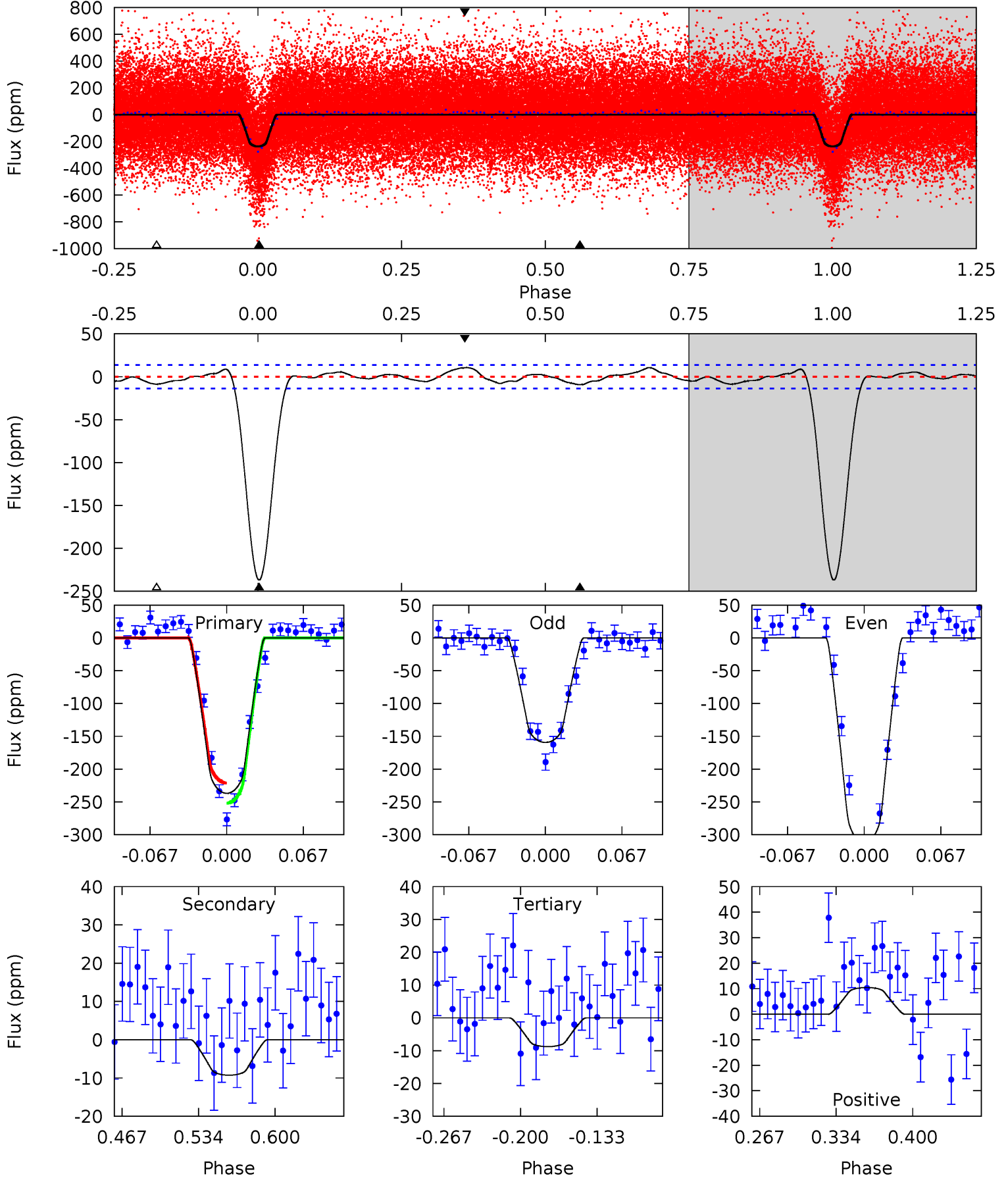
TCE 003849155-01 P= 1.168315 Days $T_0=132.047218$ (BKJD)



DV Model-Shift Uniqueness Test

003849155-01, P = 1.168304 Days, E = 130.883374 Days

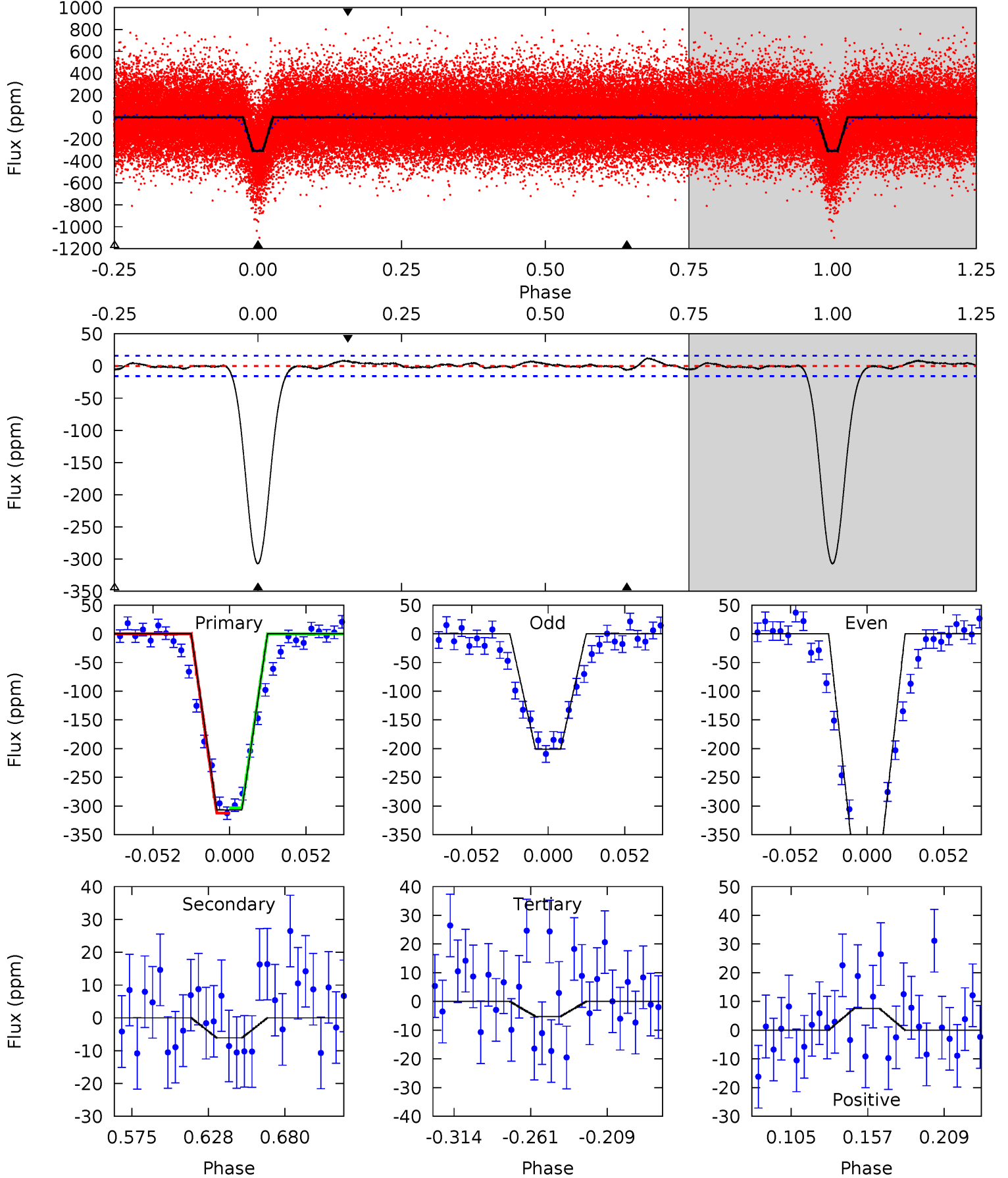
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
80.3	3.14	2.98	3.55	4.65	1.83	1.60	77.3	76.8	0.17	-0.41	26.0	1.02	0.04	5.22



Alt Model-Shift Uniqueness Test

003849155-01, P = 1.168315 Days, E = 130.878903 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
91.4	1.81	1.55	2.26	4.70	1.94	0.90	89.8	89.1	0.26	-0.44	31.0	1.01	0.04	1.35



Stellar Parameters For KIC 003849155

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5509^{+166}_{-149}	$4.487^{+0.092}_{-0.138}$	$-0.220^{+0.300}_{-0.300}$	$0.857^{+0.185}_{-0.114}$	$0.821^{+0.102}_{-0.074}$	$1.839^{+0.716}_{-0.714}$
	+3%/-3%	+2%/-3%	+136%/-136%	+22%/-13%	+12%/-9%	+39%/-39%
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 003849155-01 / KOI 0390.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 3	$1.61^{+0.30}_{-0.31}$	2229^{+124}_{-104}	2815^{+287}_{-325}	$0.814^{+0.511}_{-0.318}$
Alt.	-6 ± 3	$1.78^{+0.36}_{-0.32}$	2219^{+128}_{-102}	2374^{+395}_{-4773}	$0.435^{+0.339}_{-0.269}$

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 $A_{obs} \gg 1.0$

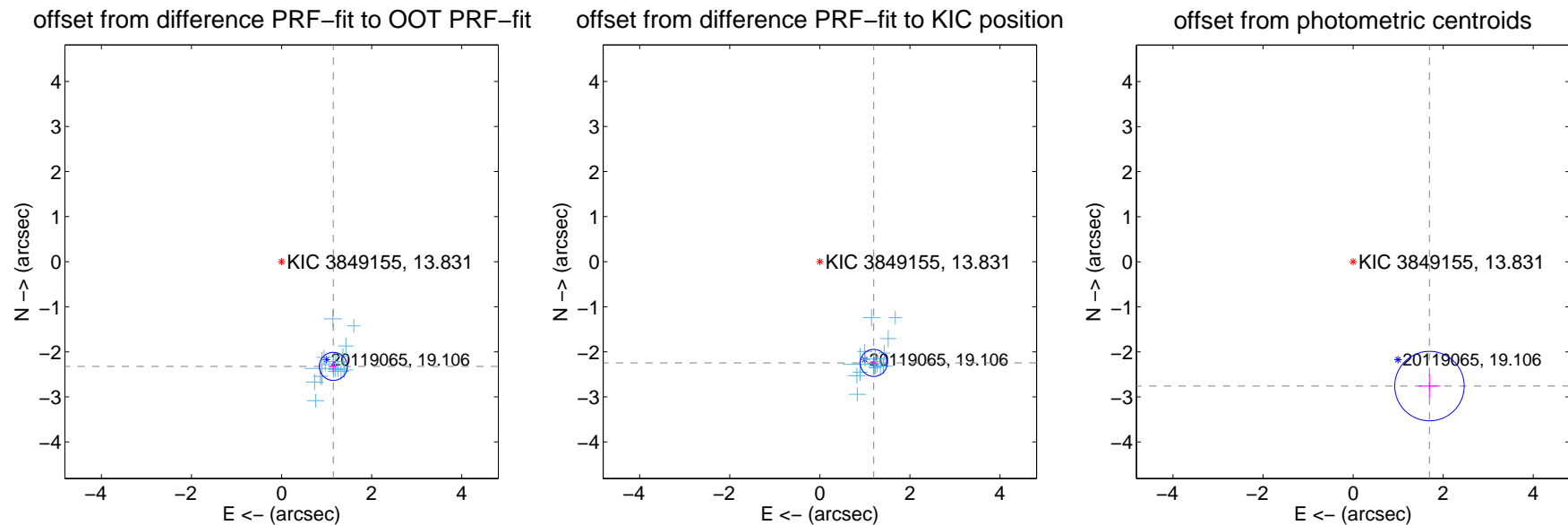
DV Centroid Data

Supplemental centroid analysis for 003849155-01. Kepler magnitude: 13.83. Transit SNR 55.14

There are 17 quarters with good PRF difference image offsets

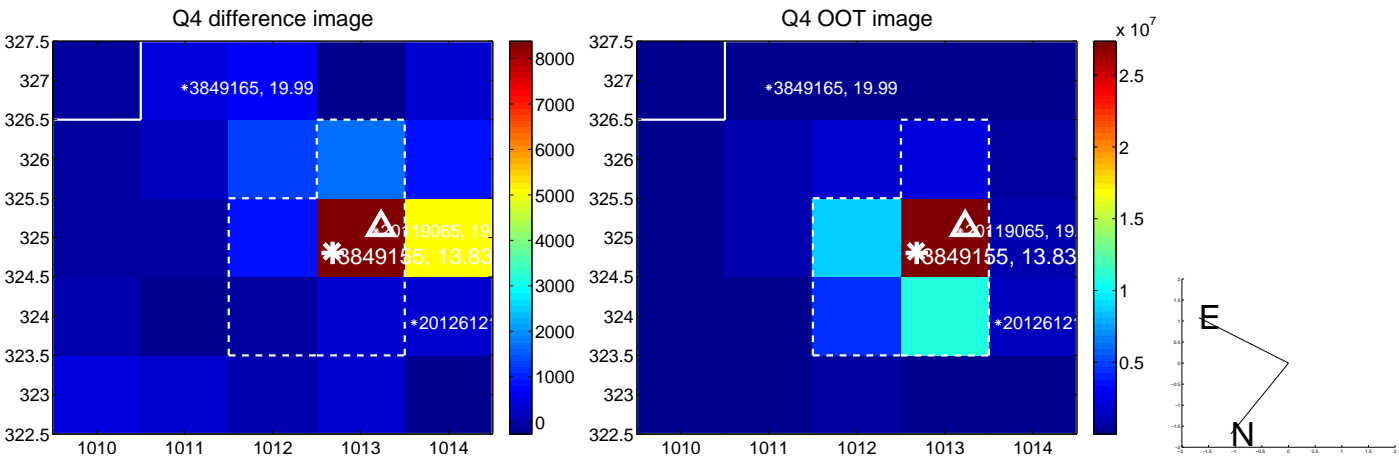
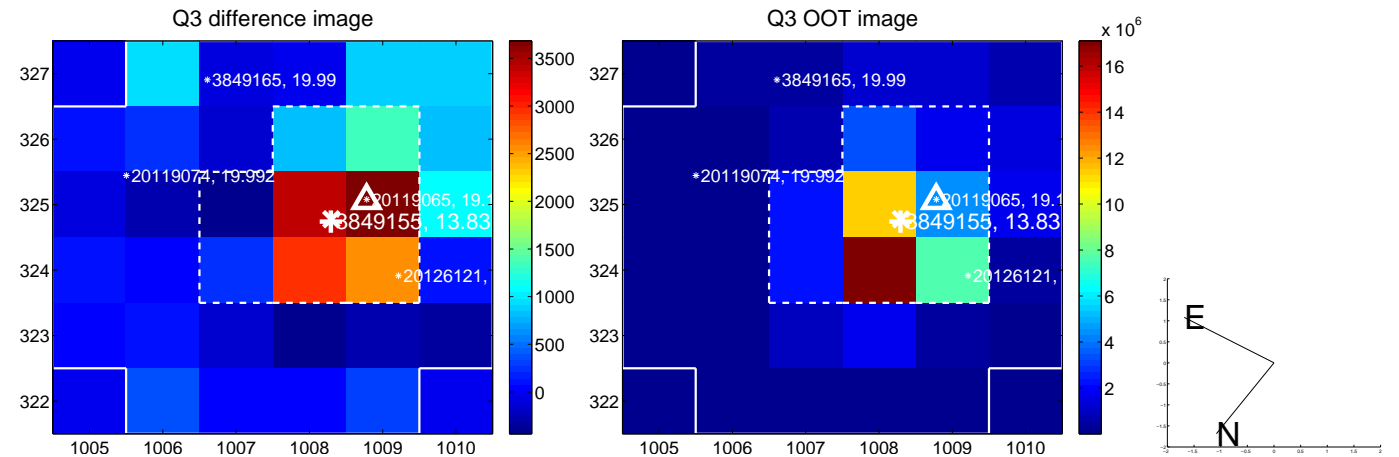
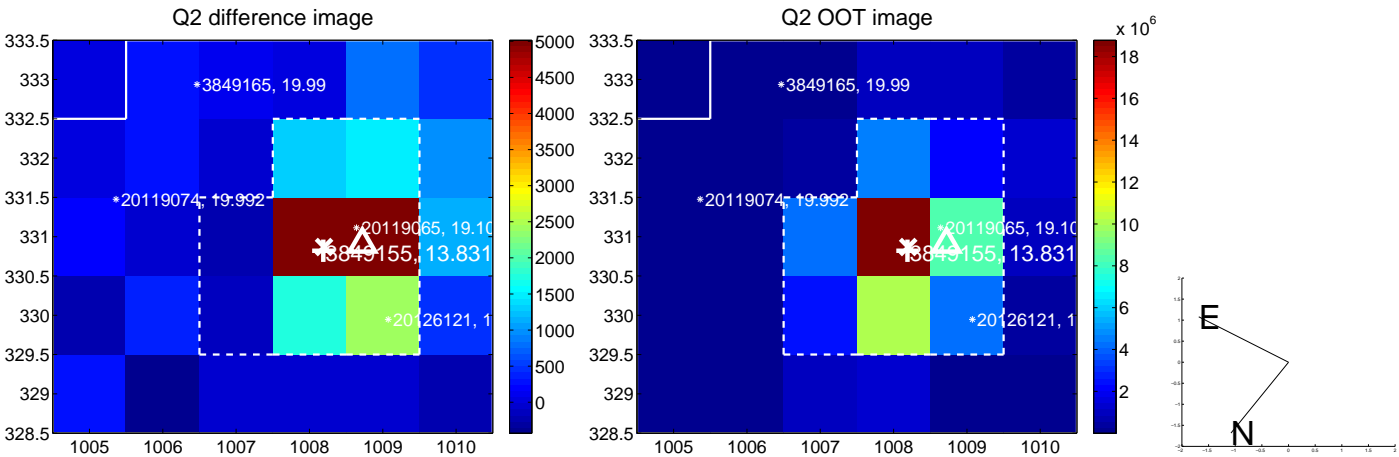
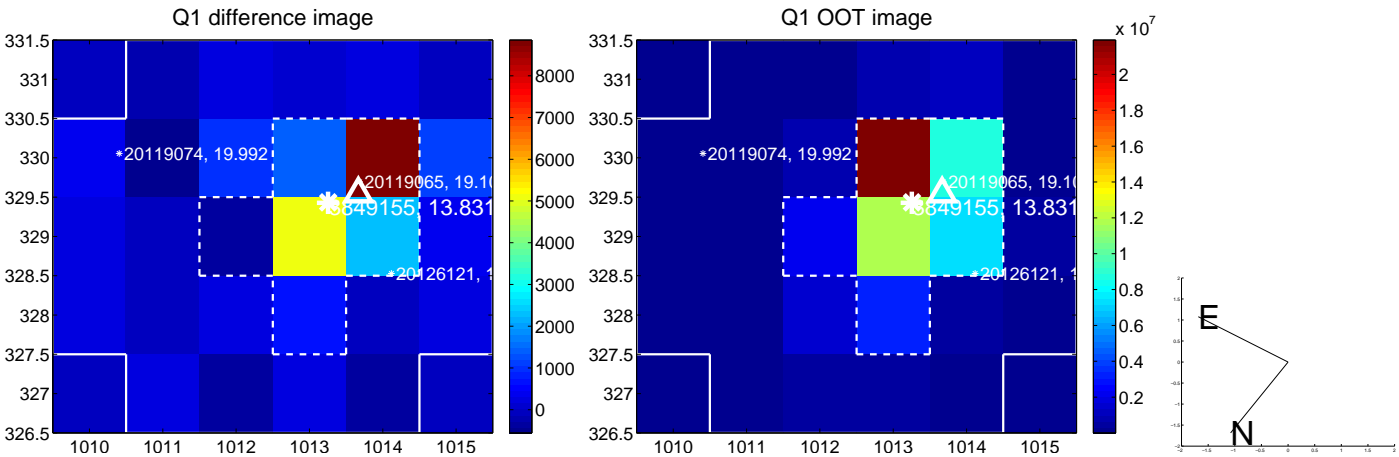
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.592 ± 0.104	24.97	-1.149 ± 0.088	-2.324 ± 0.123
PRF-fit source offset from KIC position	2.545 ± 0.100	25.42	-1.196 ± 0.085	-2.247 ± 0.119
photometric centroid source offset	3.24 ± 0.26	12.60	-1.70 ± 0.24	-2.76 ± 0.26

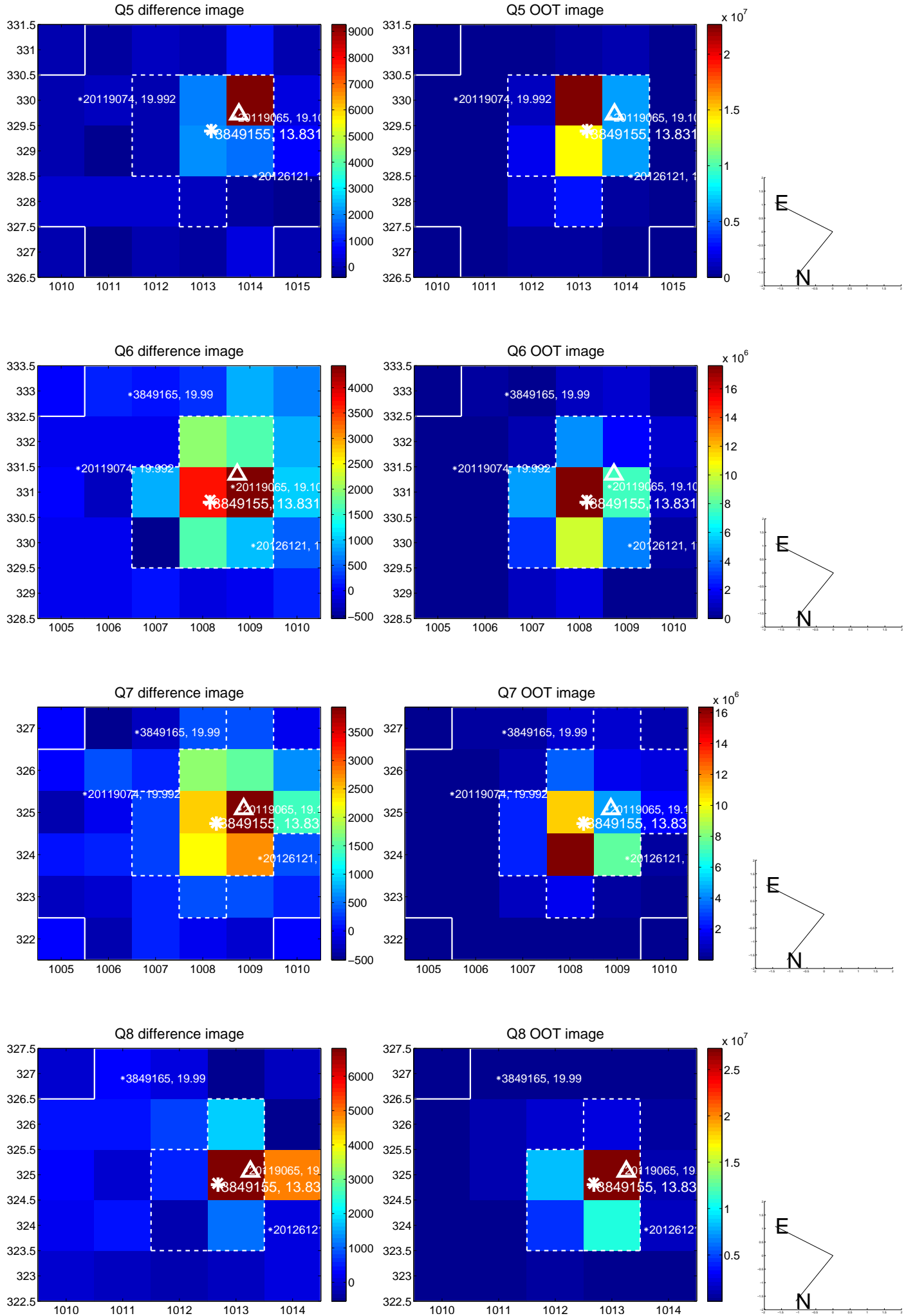


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

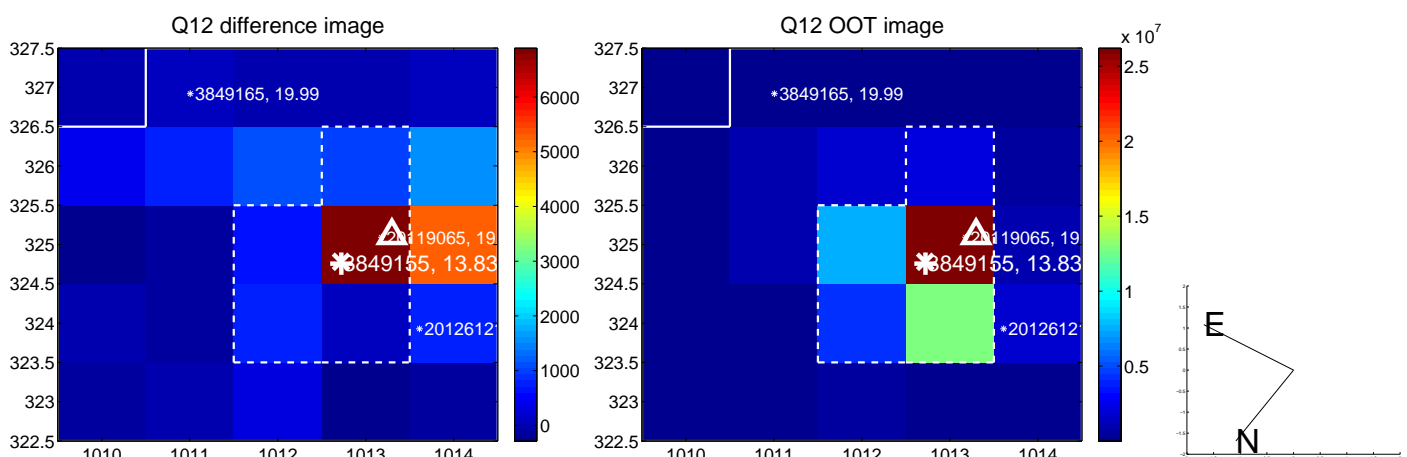
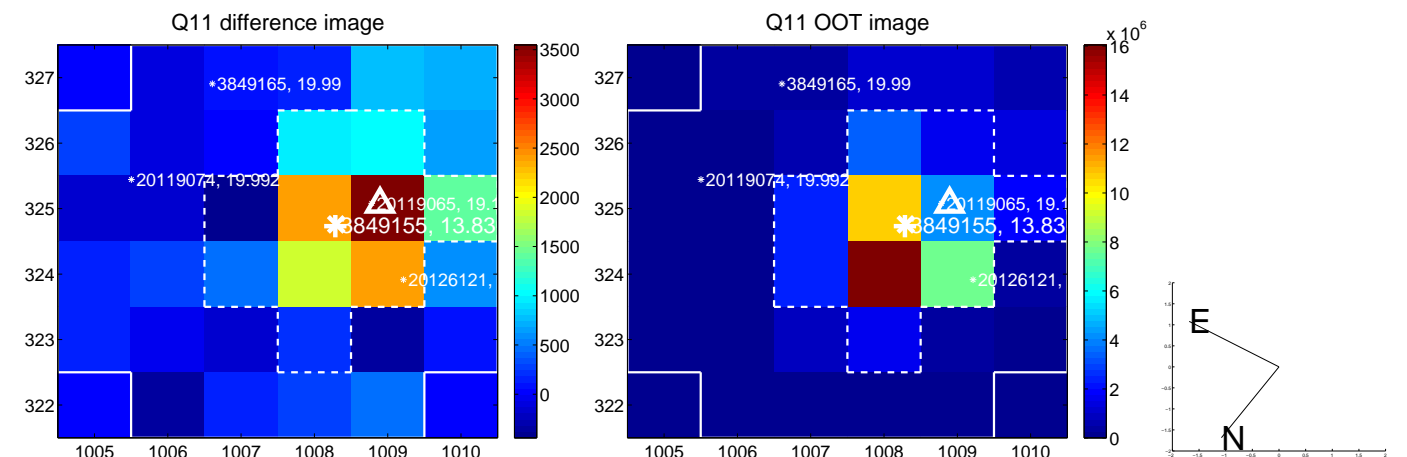
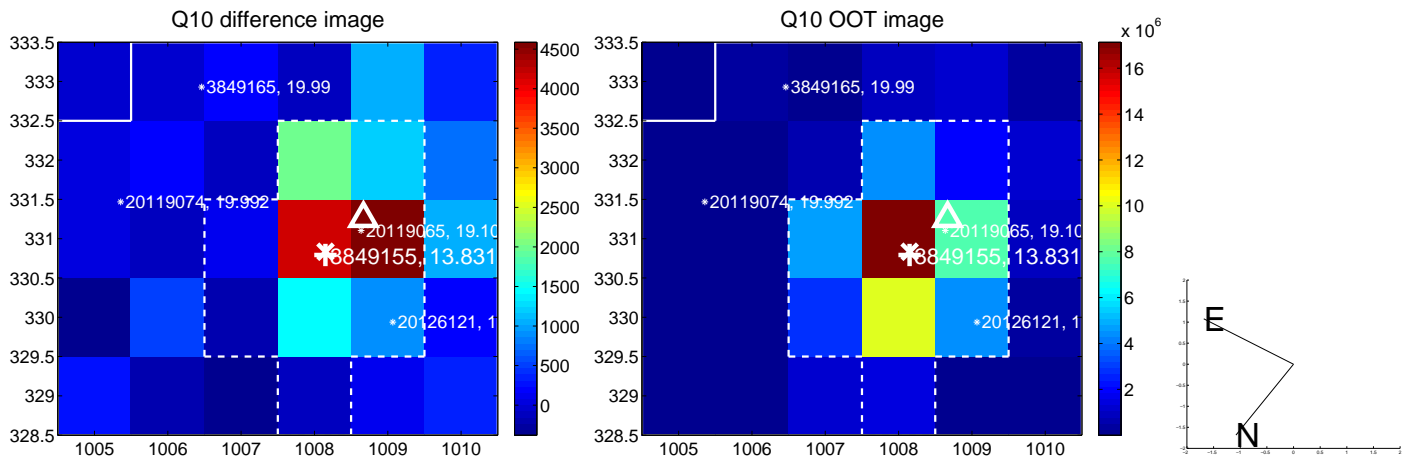
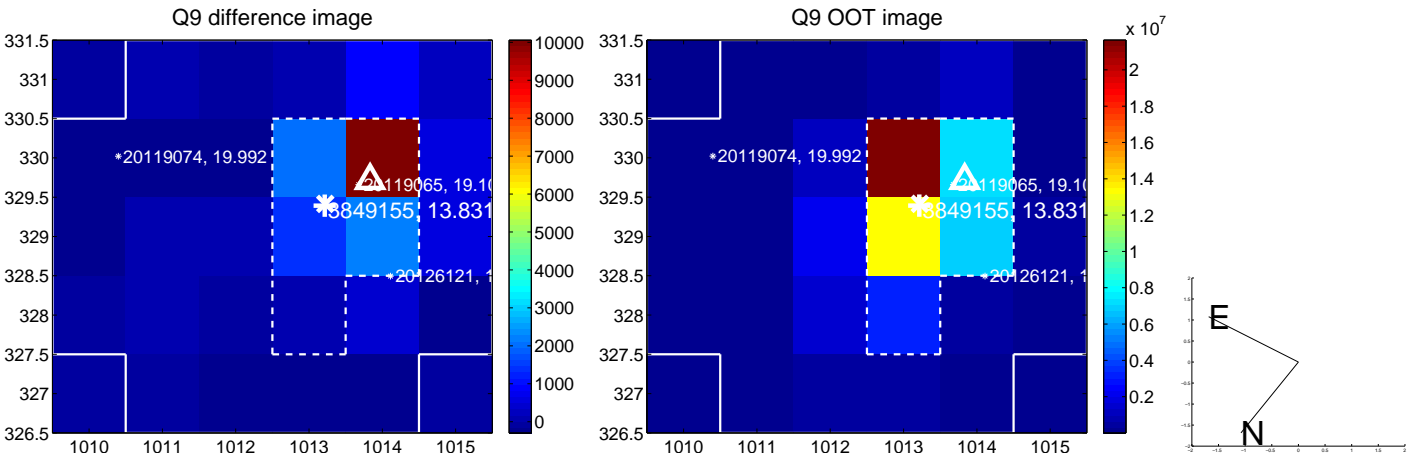
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



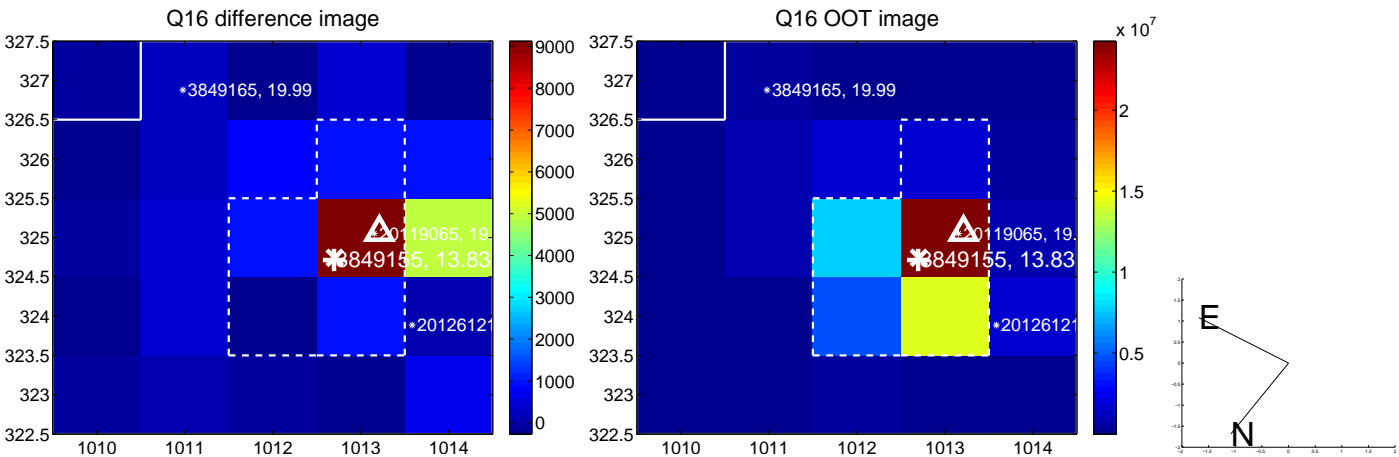
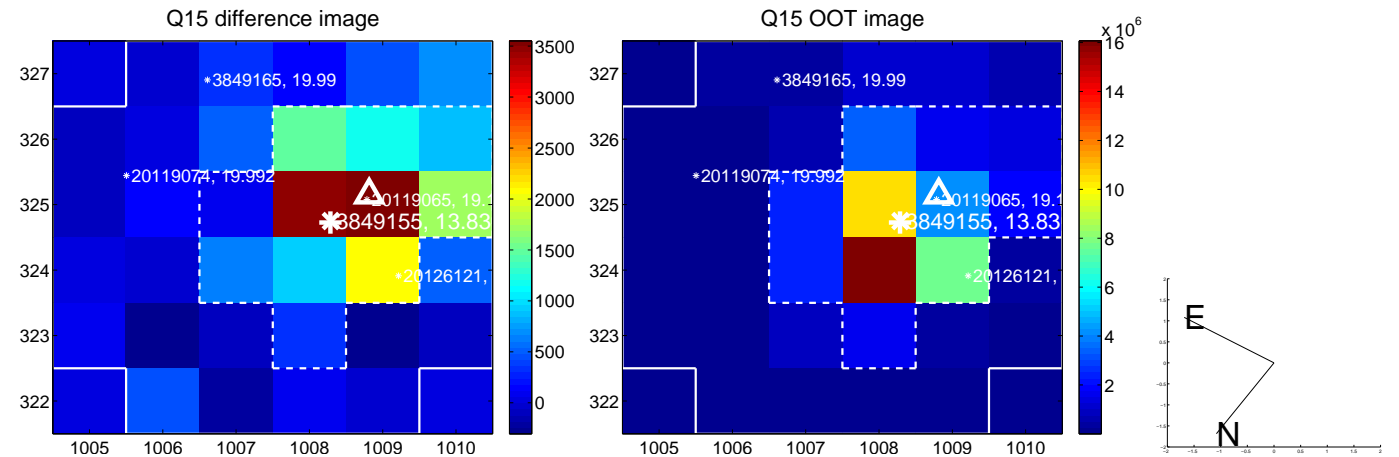
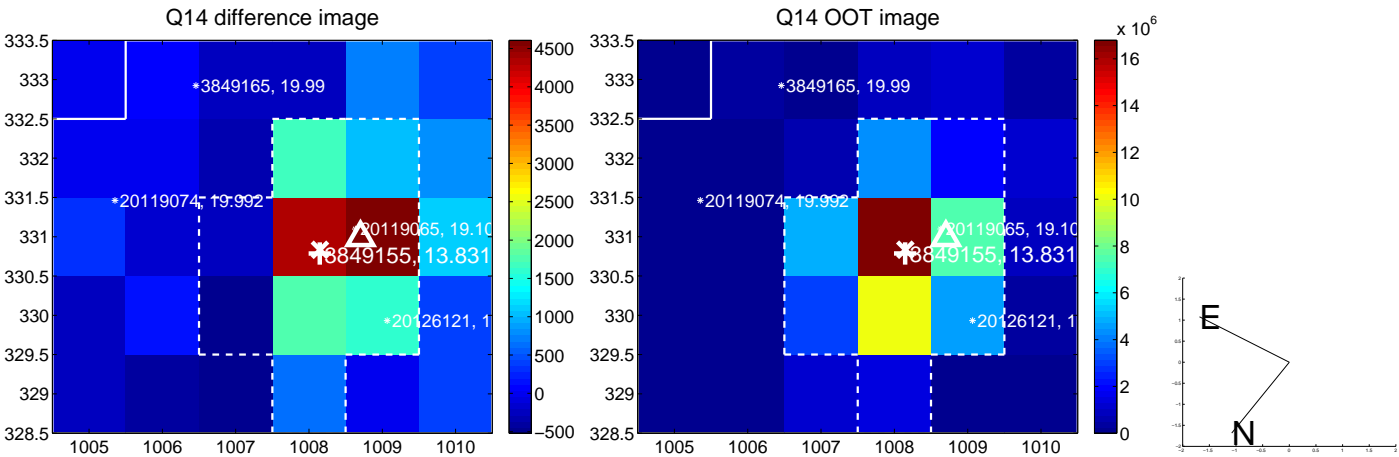
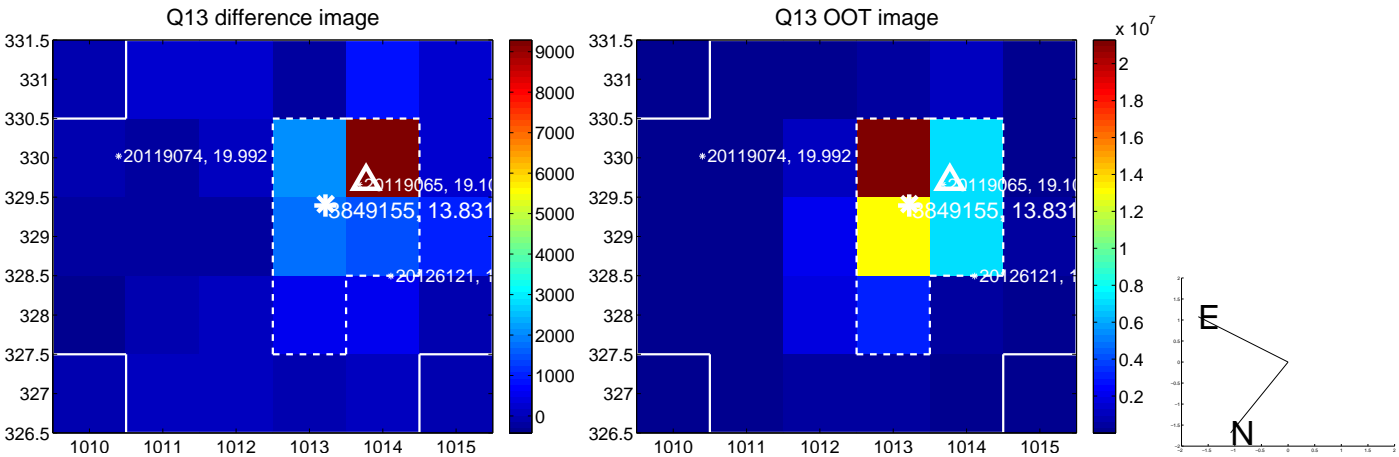
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



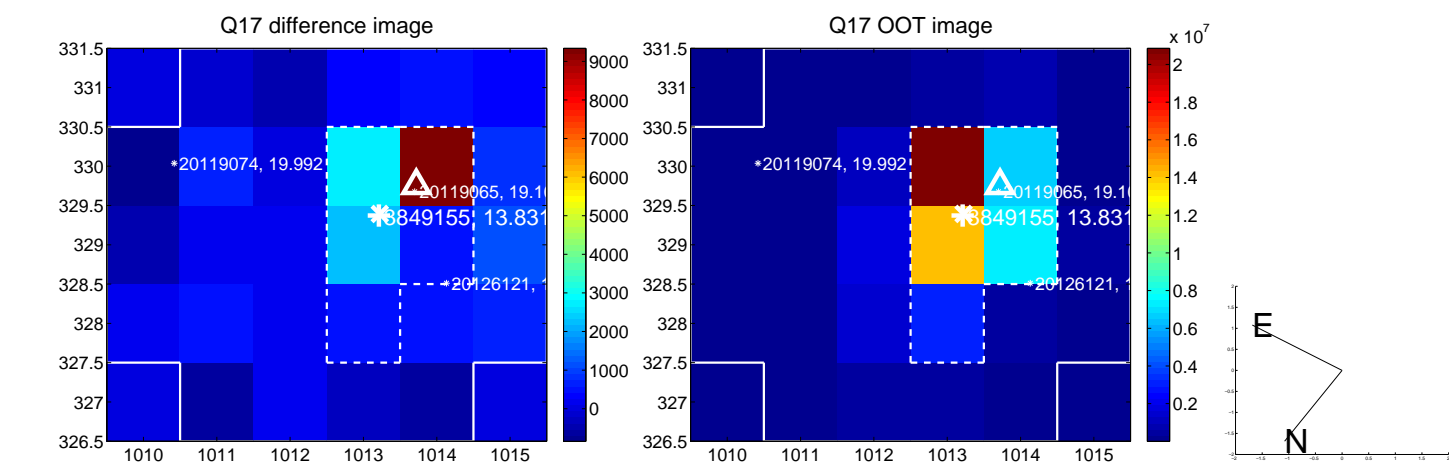
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



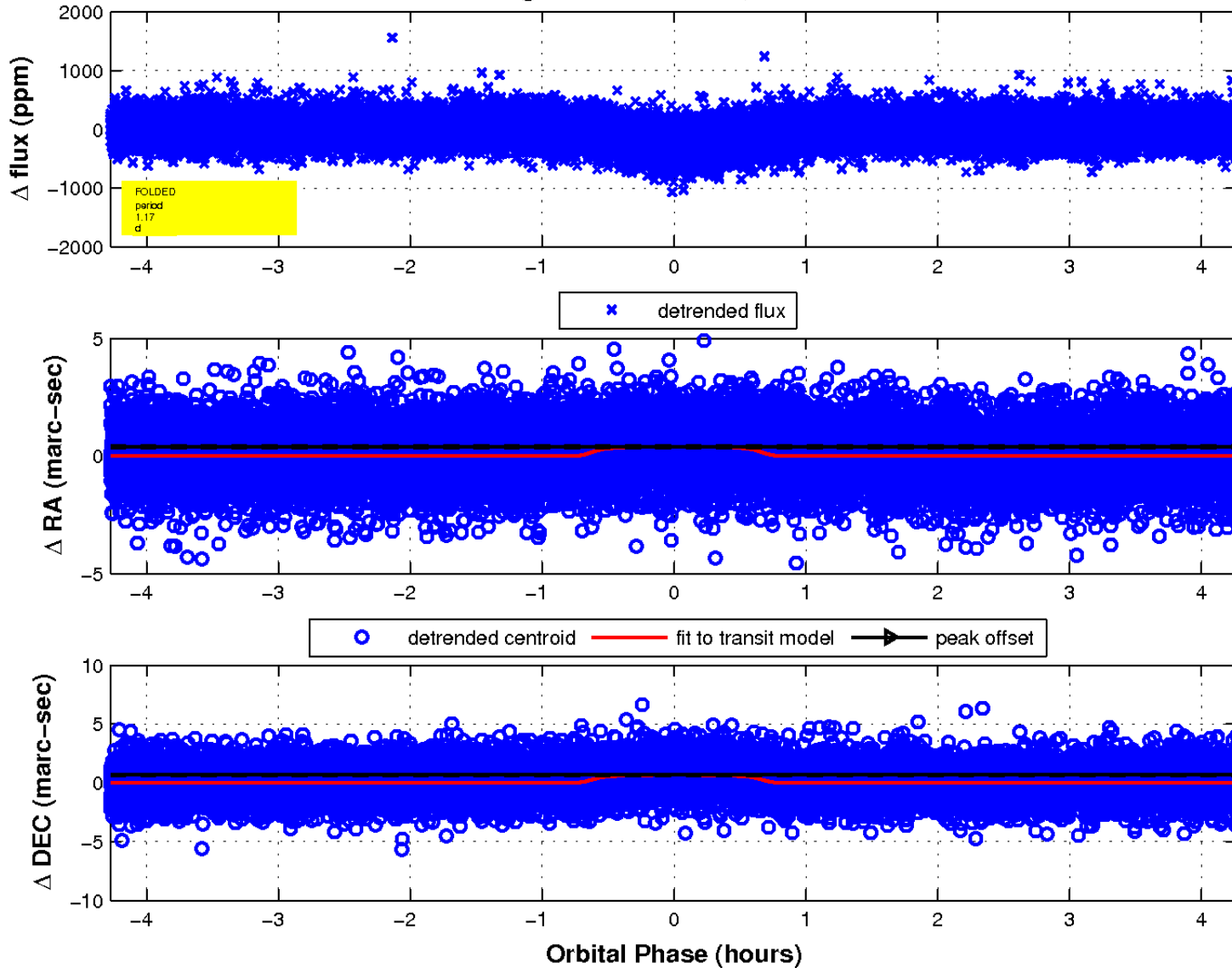
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

