

KIC 003240049

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})
003240049-01	OBS	4968.01	2.945411	133.956314	876.7	3.578	141.9	154.8	12.93	4403	79.67	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003240049-01	OBS	FP	0.00	0	1	0	0	PLANET_IN_STAR—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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 003240049-01

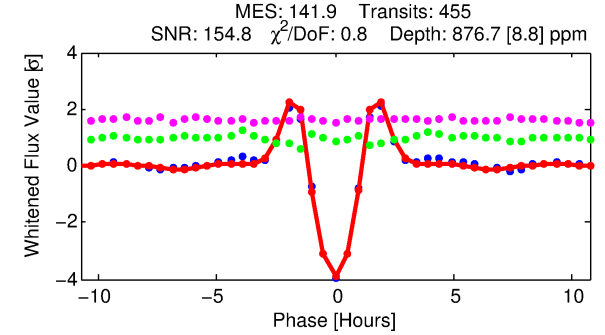
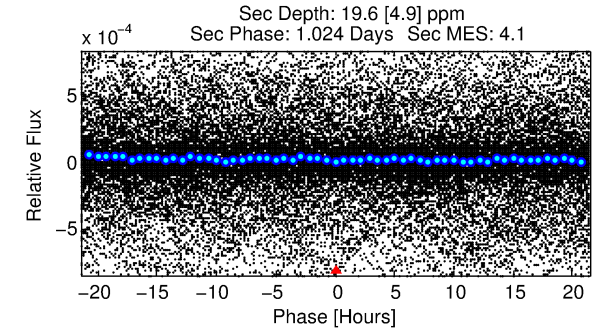
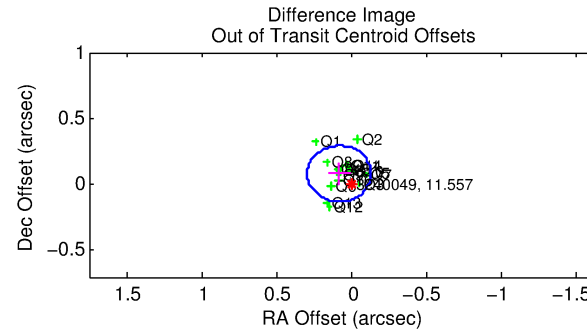
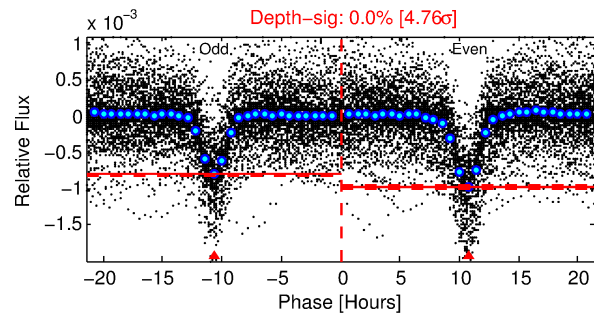
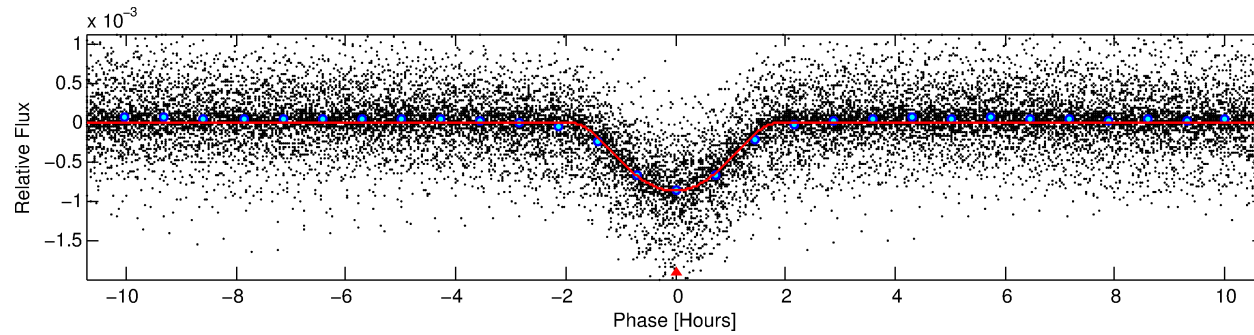
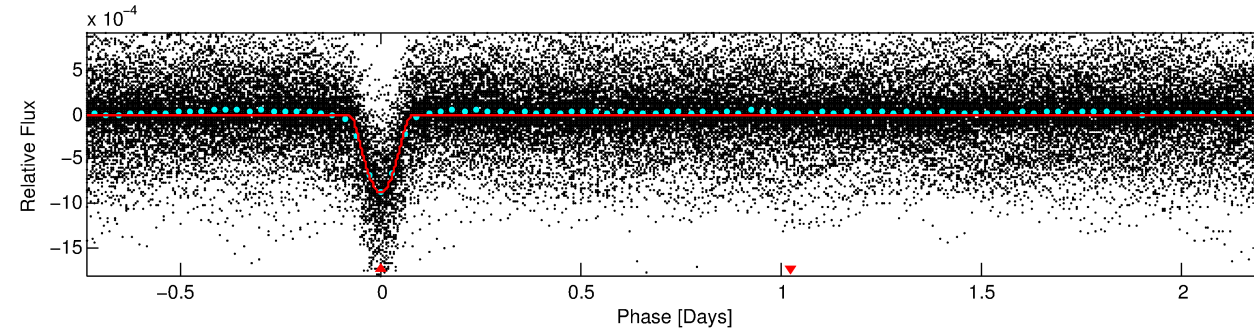
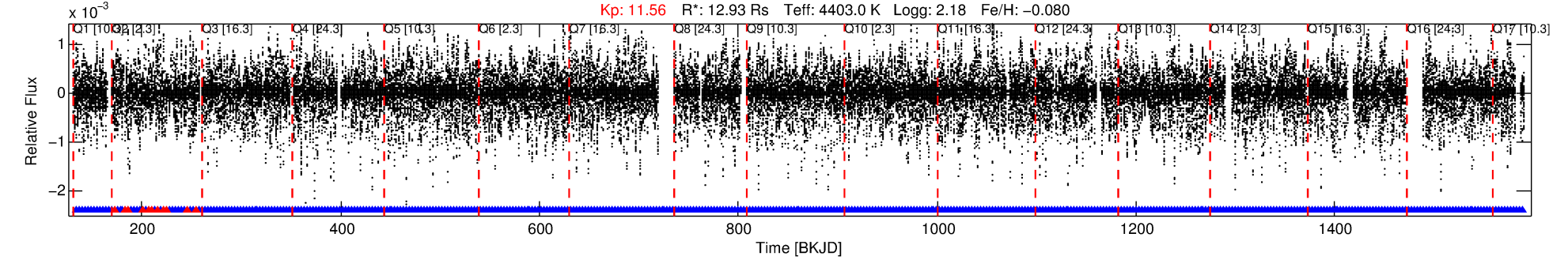
No Significant Match Found

DV One-Page Summary

KIC: 3240049 Candidate: 1 of 1 Period: 2.945 d

KOI: K04968.01 Corr: 0.870

Kp: 11.56 R*: 12.93 Rs Teff: 4403.0 K Logg: 2.18 Fe/H: -0.080



DV Fit Results:

Period = 2.94541 [0.00000] d
Epoch = 133.9563 [0.0002] BKJD
Rp/R* = 0.0565 [0.0054]
a/R* = 2.40 [0.04]
b = 1.00 [0.01]
Seff = N/A
Teq = N/A
Rp = 79.67 [29.43] Re
a = N/A
Ag = N/A
Teffp = N/A

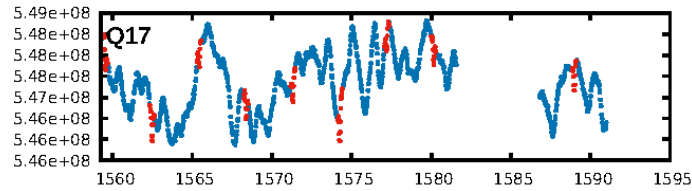
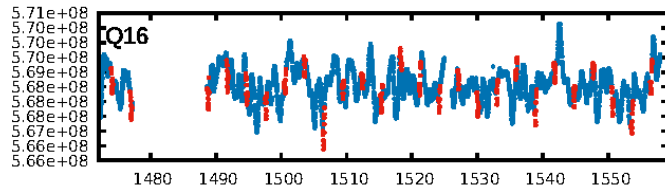
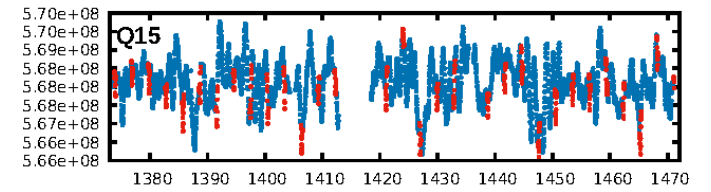
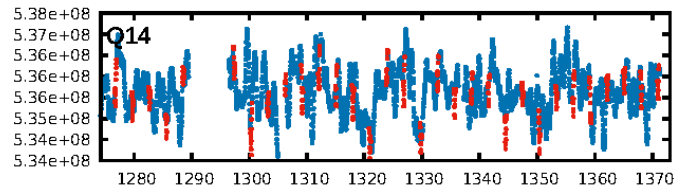
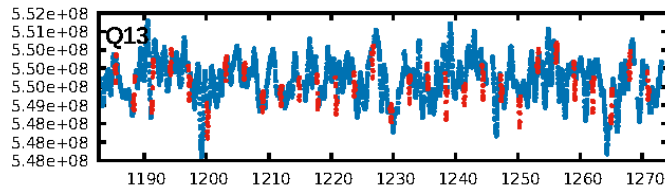
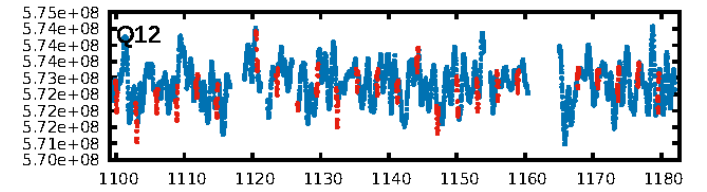
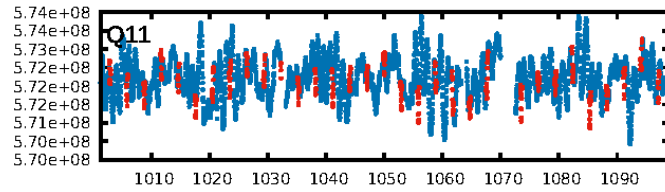
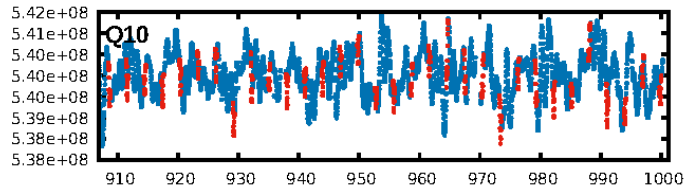
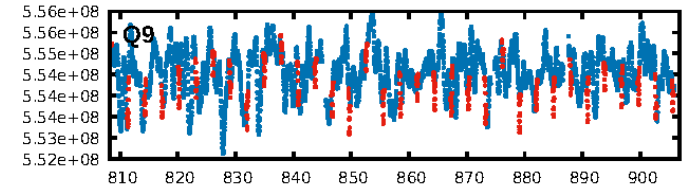
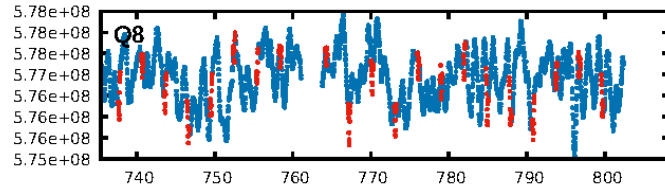
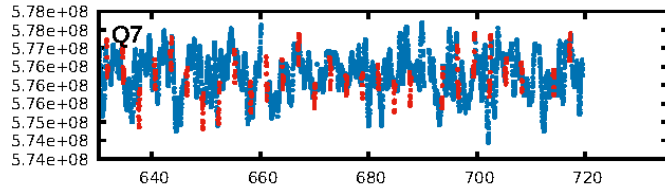
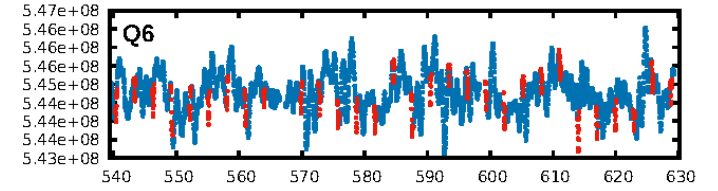
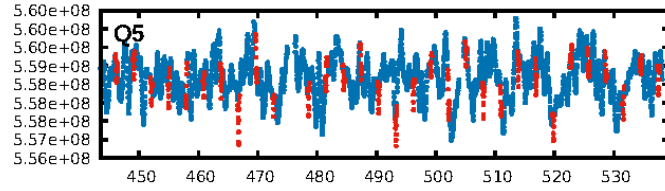
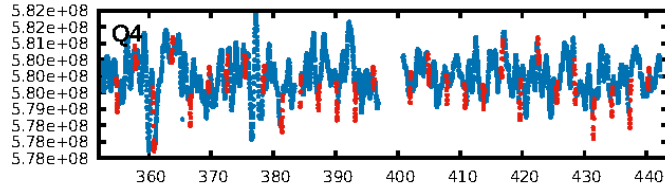
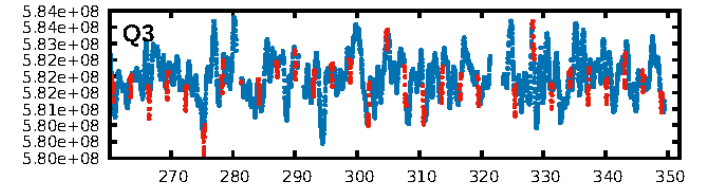
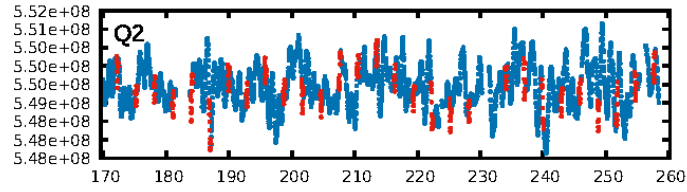
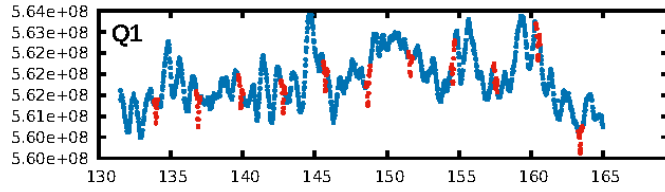
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.97 [424/435]
GhostDiagnostic-chr: 2.837
Centroid-sig: 0.1%
Centroid-so: 0.328 arcsec [10.28σ]
OotOffset-rm: 0.113 arcsec [1.59σ]
KicOffset-rm: 0.118 arcsec [1.62σ]
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]

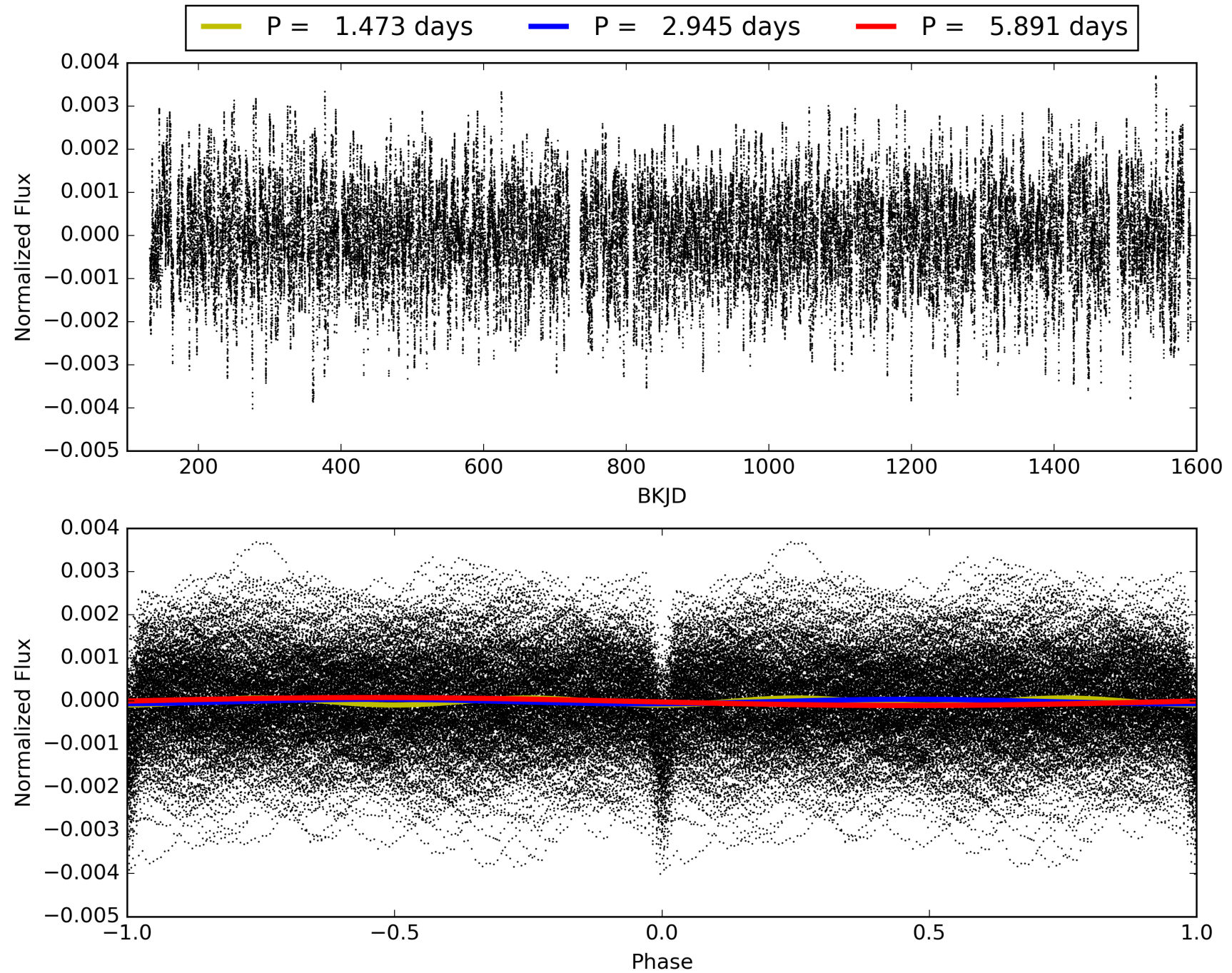
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 07:47:03 Z

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

TCE 003240049-01, PDC Light Curves

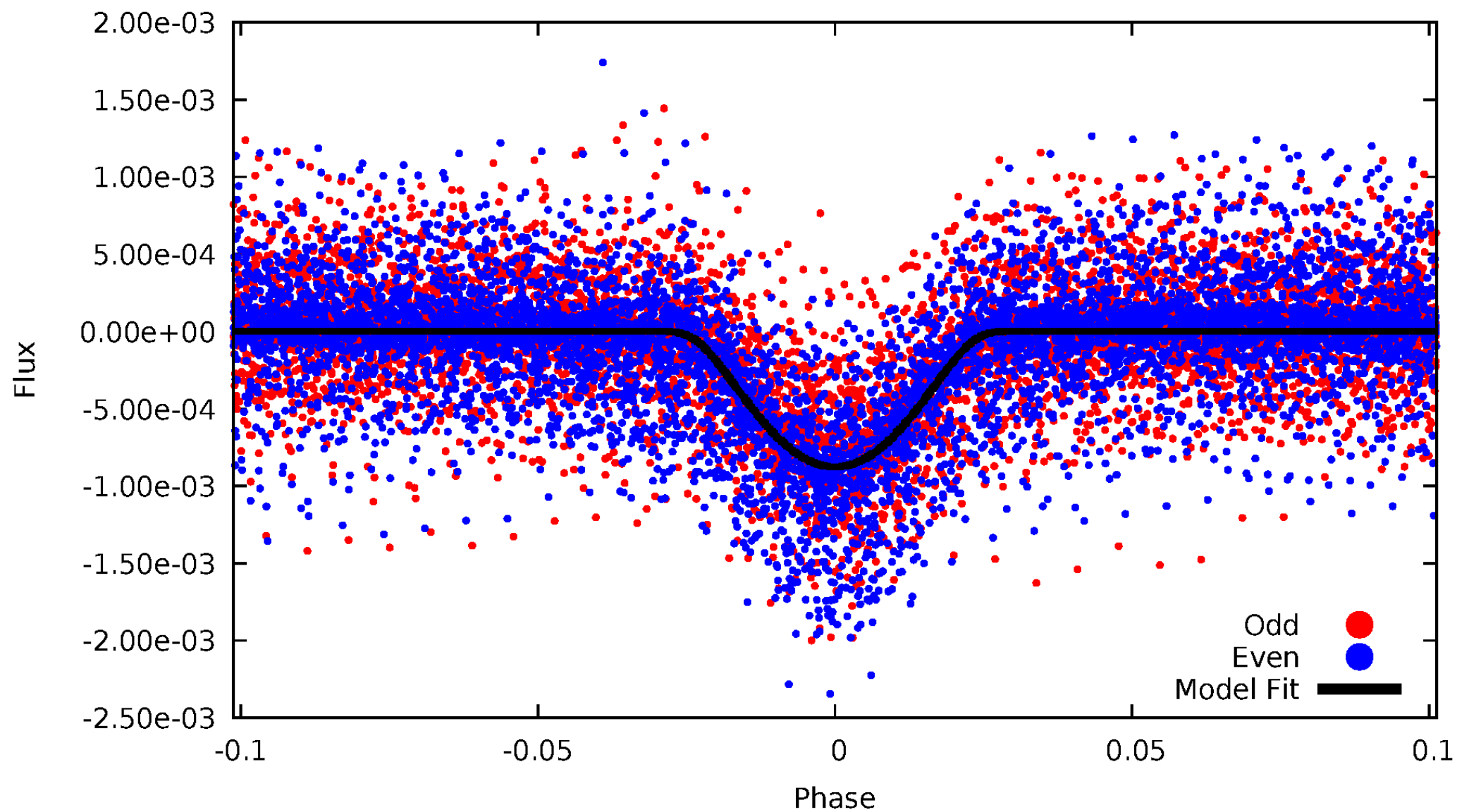


TCE 003240049-01



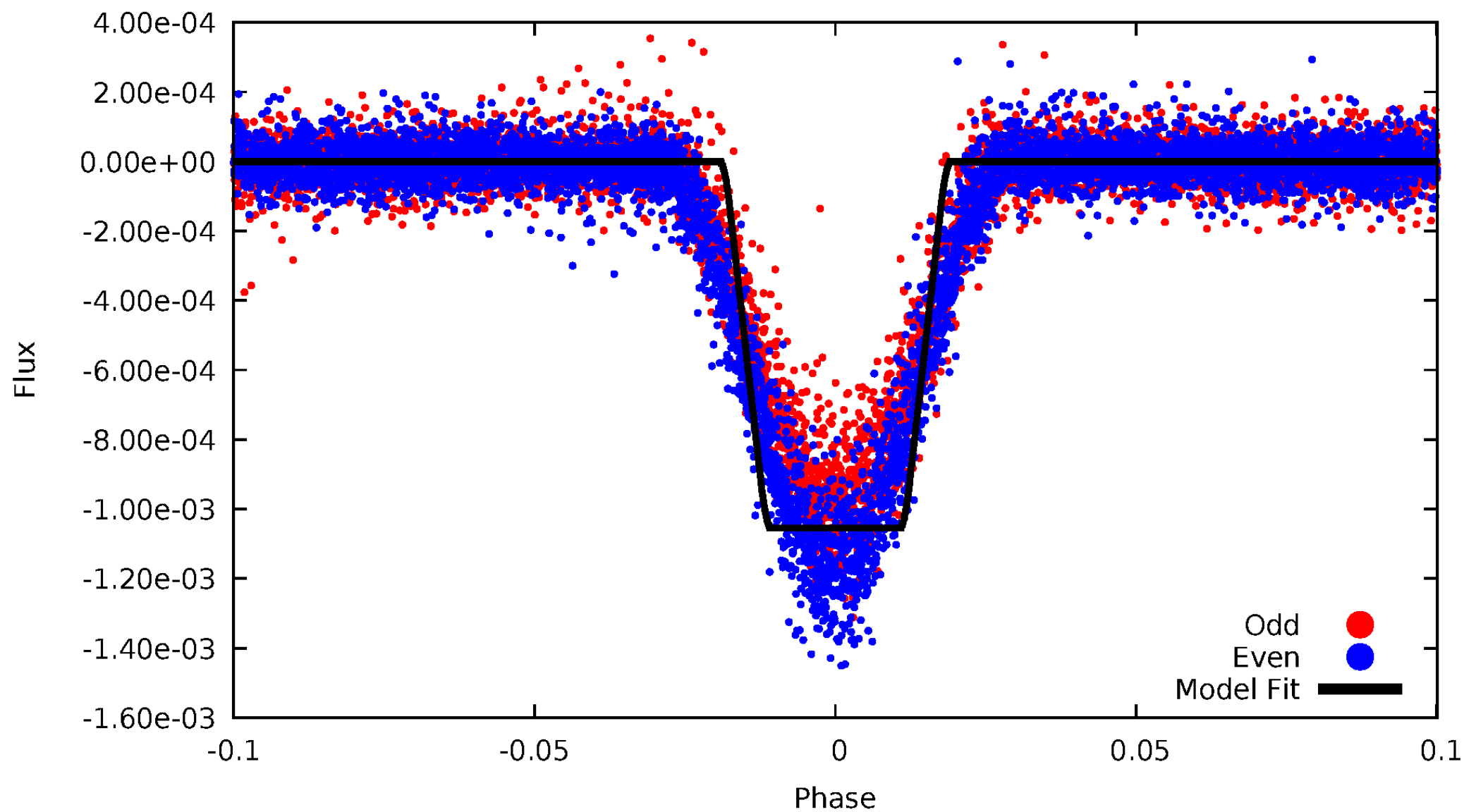
DV Odd/Even

TCE 003240049-01



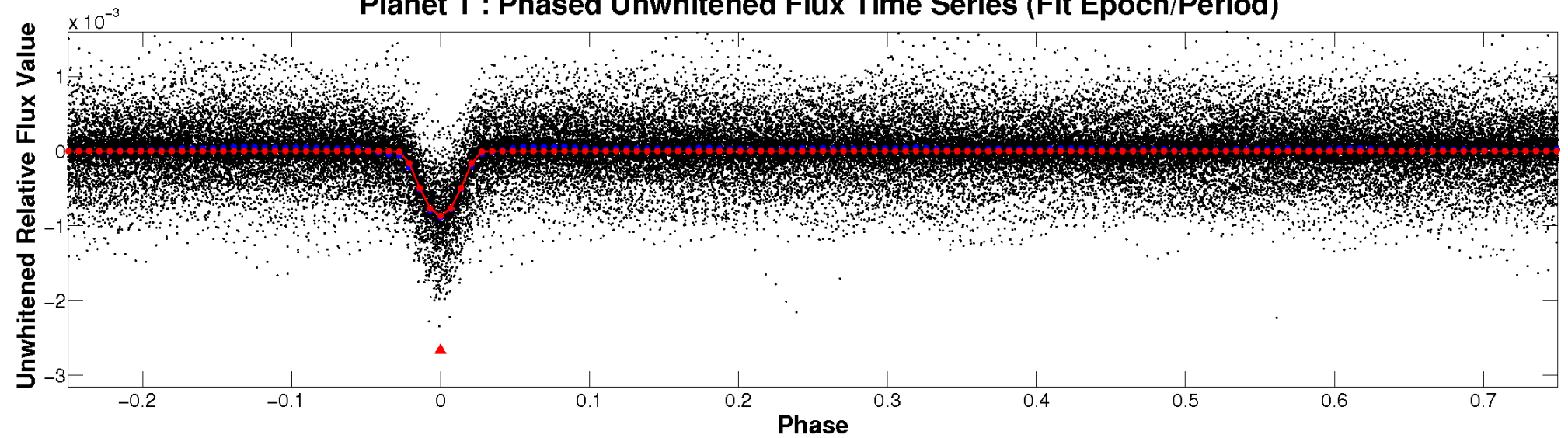
ALT Odd/Even

TCE 003240049-01

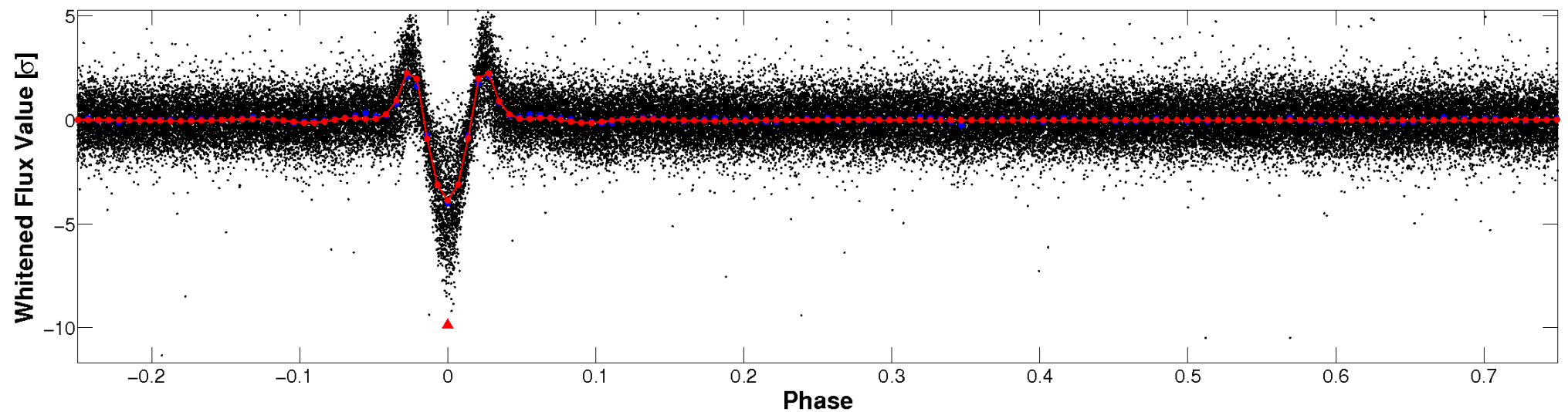


Non-Whitened Vs. Whitened Light Curve

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

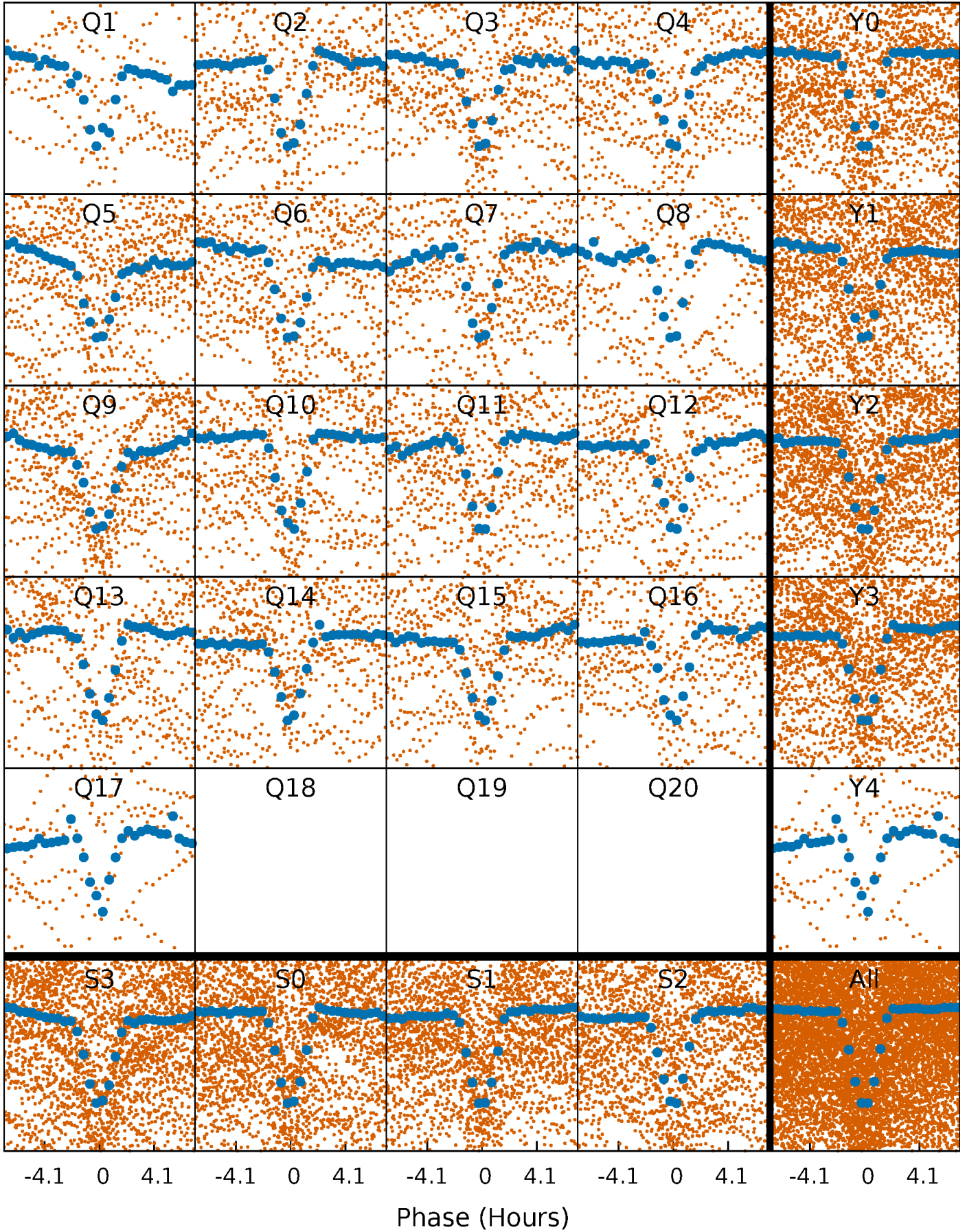


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



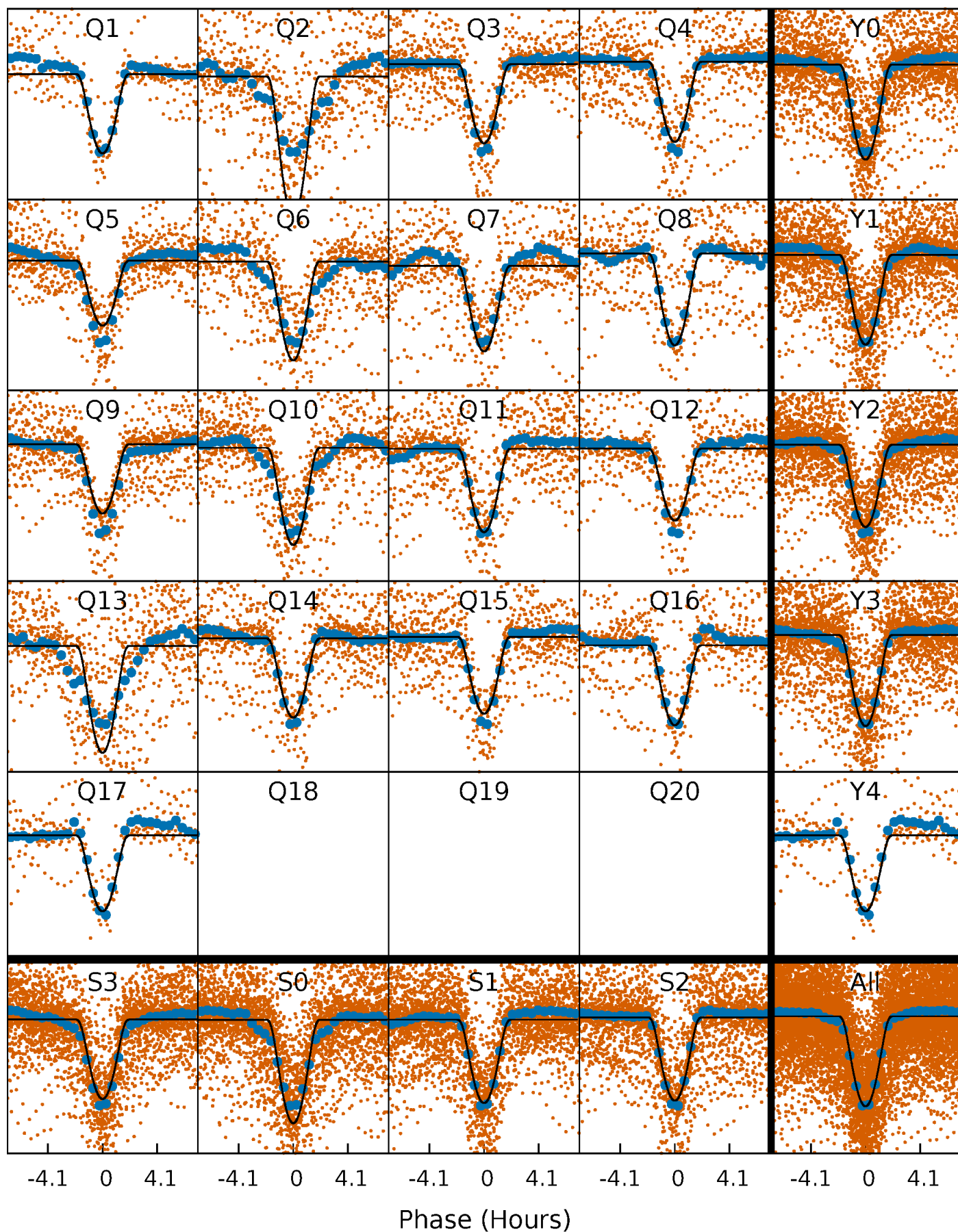
PDC Quarter-Phased Transit Curves

TCE 003240049-01 P= 2.945411 Days $T_0=133.956314$ (BKJD)



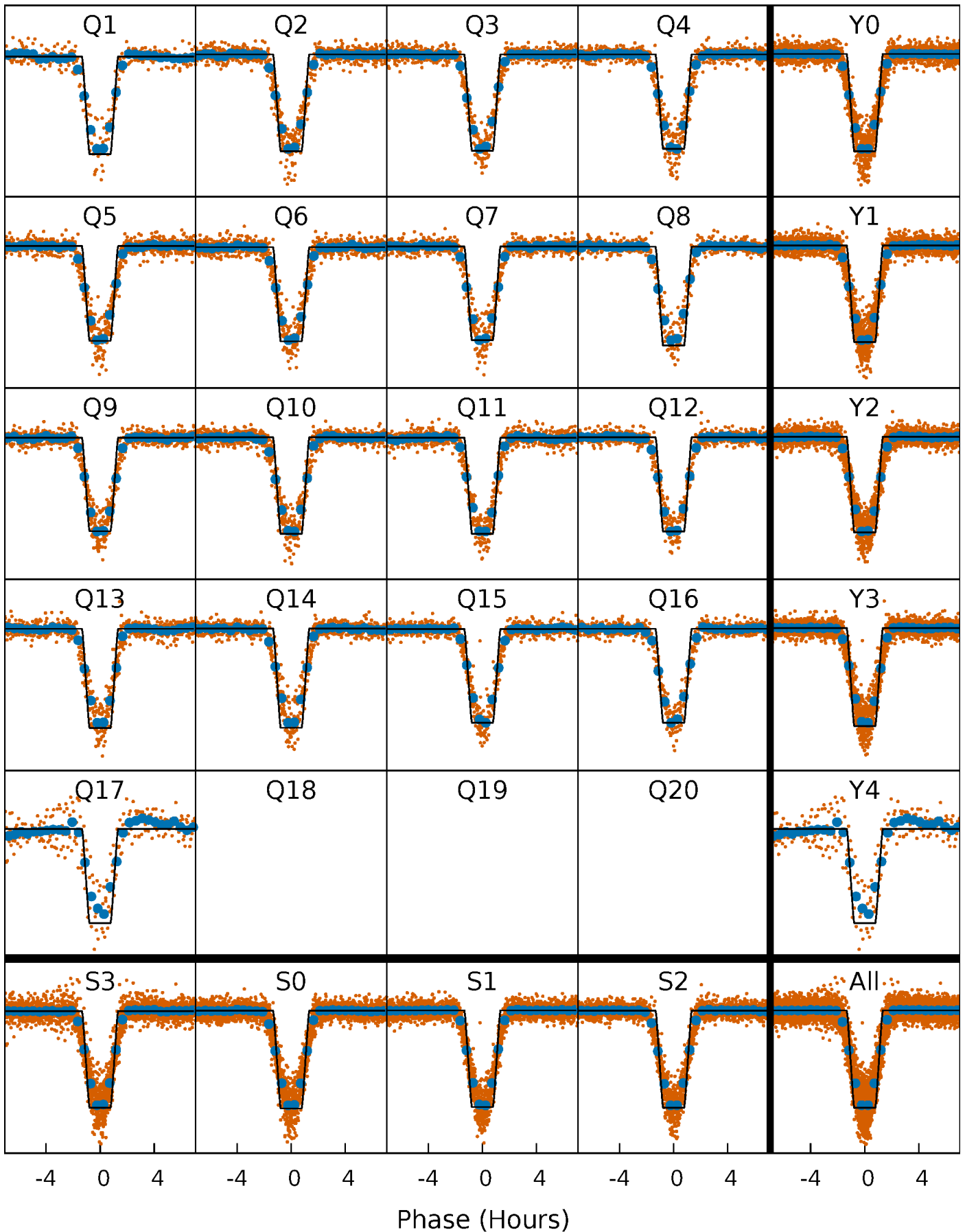
DV Quarter-Phased Transit Curves

TCE 003240049-01 P= 2.945411 Days $T_0=133.956314$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

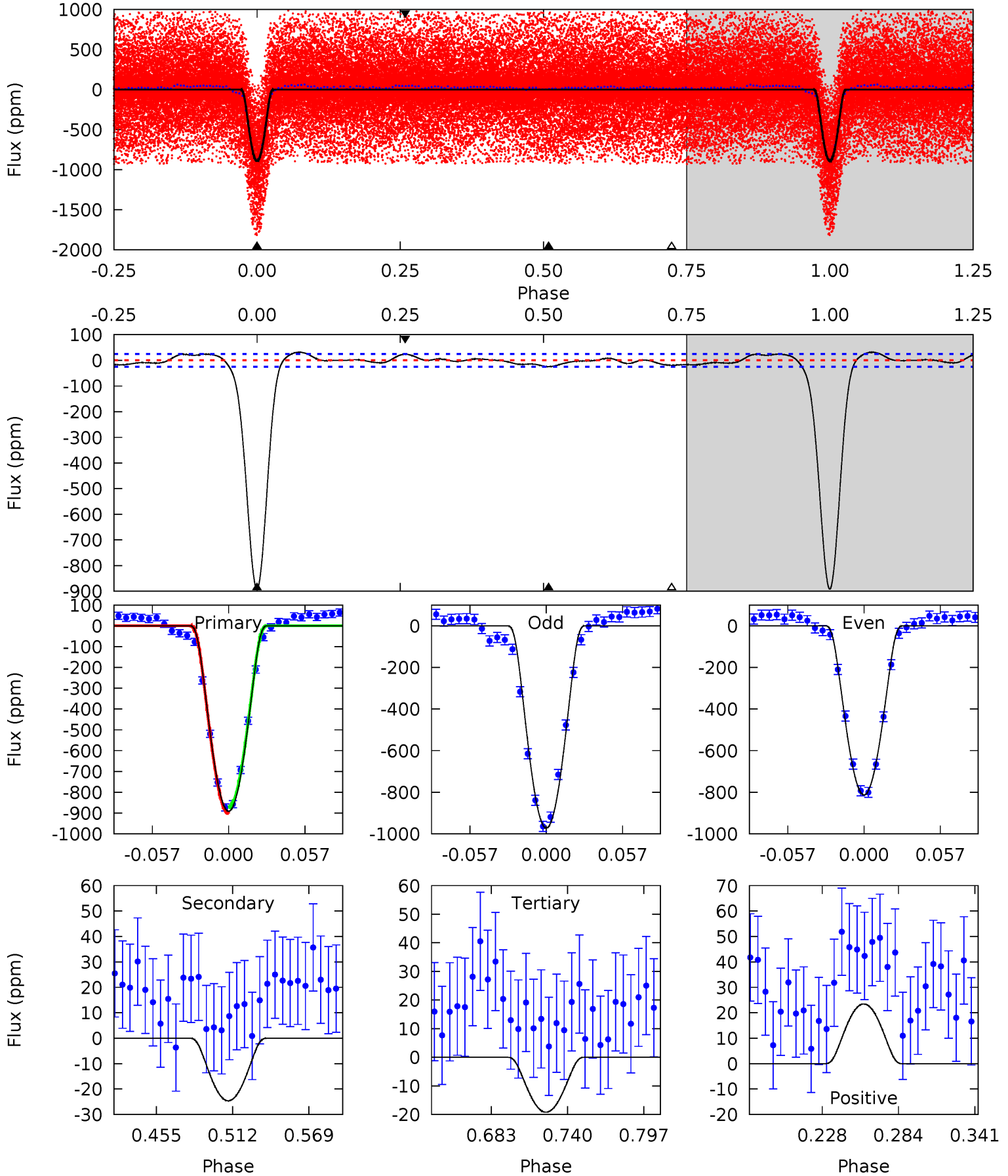
TCE 003240049-01 P= 2.945412 Days $T_0=133.956003$ (BKJD)



DV Model-Shift Uniqueness Test

003240049-01, P = 2.945411 Days, E = 131.010903 Days

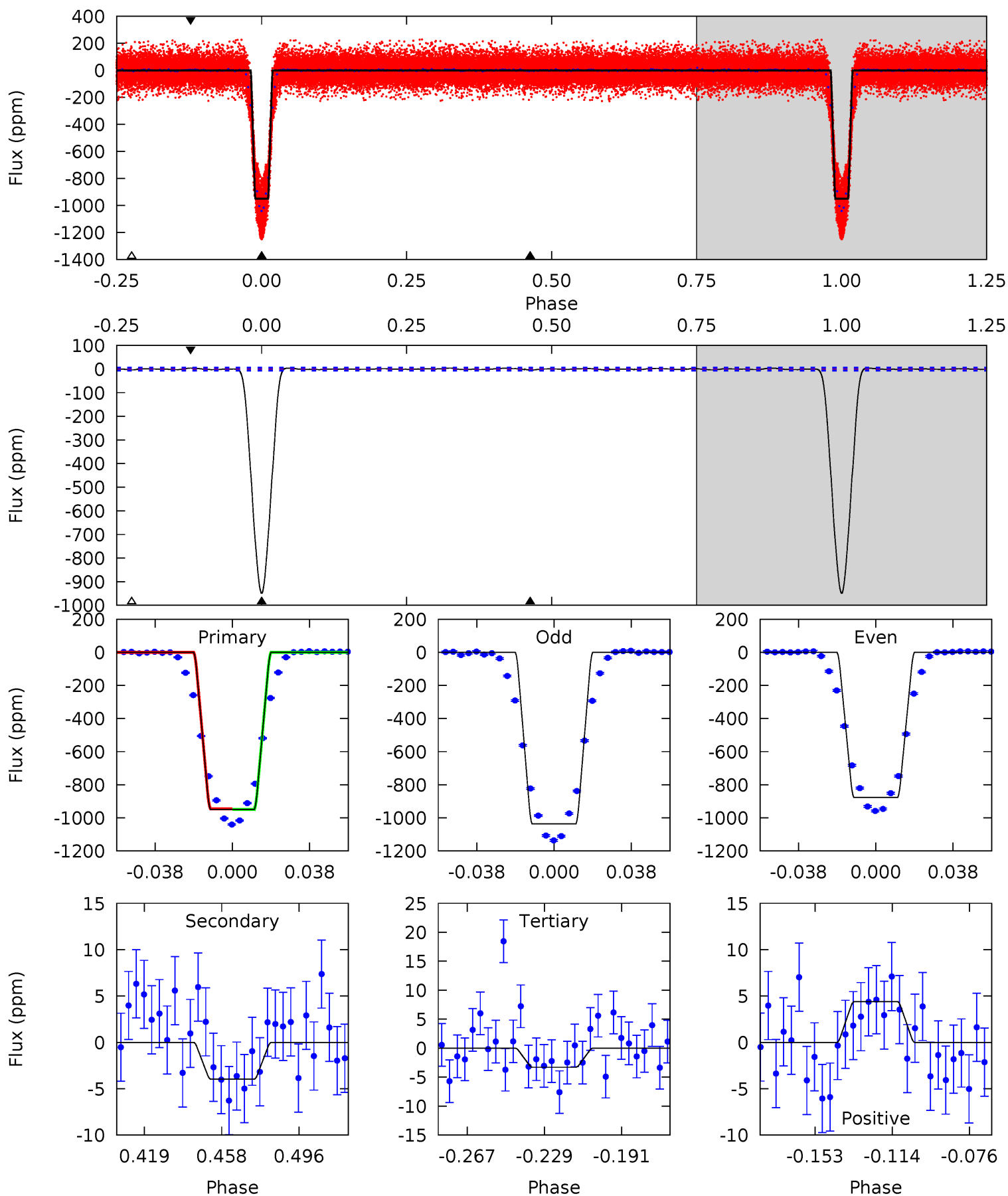
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
167.8	4.63	3.61	4.42	4.68	1.90	2.33	164.1	163.3	1.02	0.21	15.2	1.03	0.03	2.75



Alt Model-Shift Uniqueness Test

003240049-01, P = 2.945412 Days, E = 131.010591 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
787.0	3.29	2.73	3.64	4.76	2.07	1.38	784.2	783.3	0.56	-0.35	67.3	0.99	0.00	1.44



Stellar Parameters For KIC 003240049

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4403^{+87}_{-53}	$2.178^{+0.125}_{-0.125}$	$-0.080^{+0.150}_{-0.100}$	$12.927^{+4.615}_{-1.538}$	$0.917^{+0.559}_{-0.029}$	$0.001^{+0.000}_{-0.000}$
	+2%/-1%	+6%/-6%	+188%/-125%	+36%/-12%	+61%/-3%	+47%/-47%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003240049-01 / KOI 4968.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-25 ± 5	$80.59^{+16.76}_{-10.91}$	4926^{+314}_{-209}	-4121^{+134}_{-197}	$0.003^{+0.001}_{-0.001}$
Alt.	-4 ± 1	$46.70^{+11.24}_{-8.78}$	4913^{+301}_{-204}	-4117^{+134}_{-189}	$0.002^{+0.001}_{-0.001}$

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 $A_{obs} \gg 1.0$

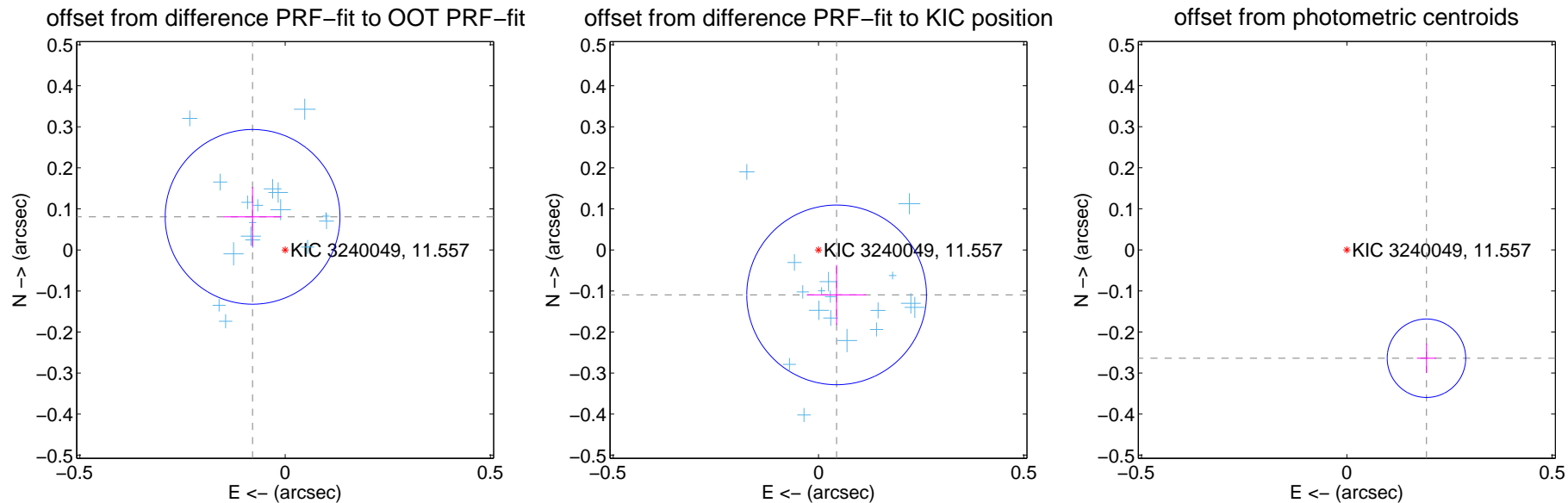
DV Centroid Data

Supplemental centroid analysis for 003240049-01. **Kepler magnitude: 11.56.** Transit SNR 154.81

There are 17 quarters with good PRF difference image offsets

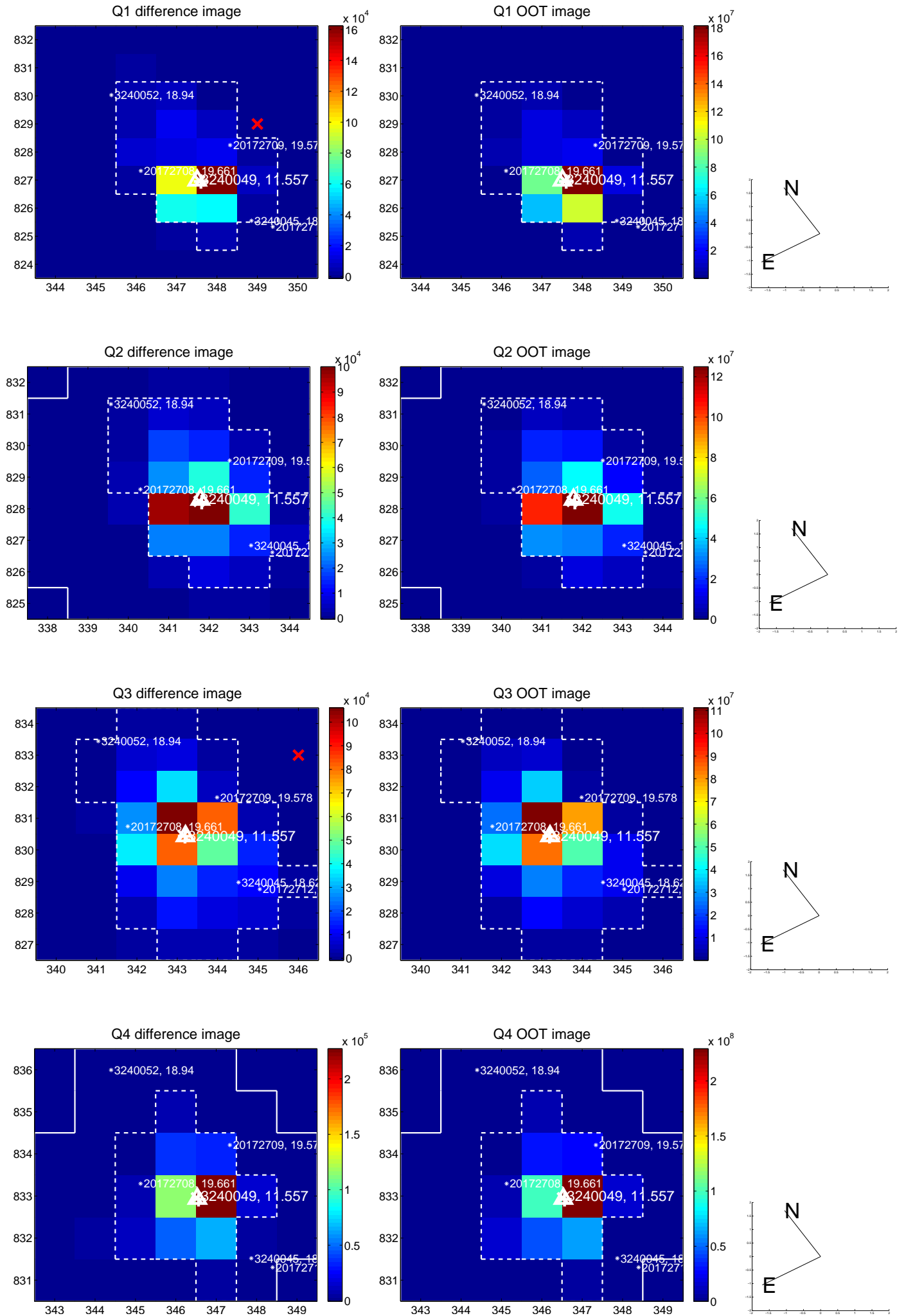
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.113 ± 0.071	1.59	0.079 ± 0.071	0.081 ± 0.073
PRF-fit source offset from KIC position	0.118 ± 0.073	1.62	-0.044 ± 0.072	-0.110 ± 0.073
photometric centroid source offset	0.33 ± 0.03	10.28	-0.19 ± 0.02	-0.26 ± 0.04

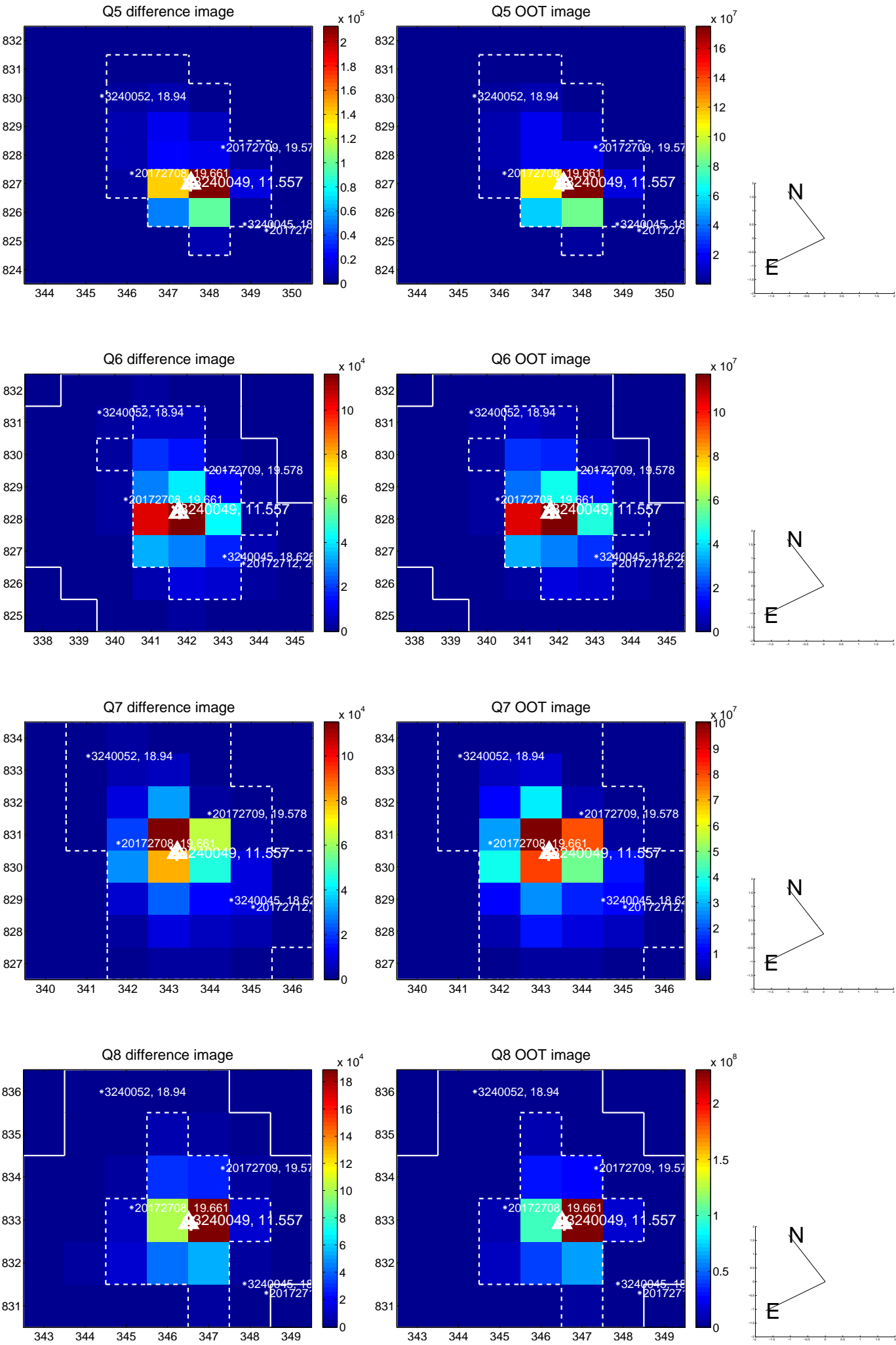


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

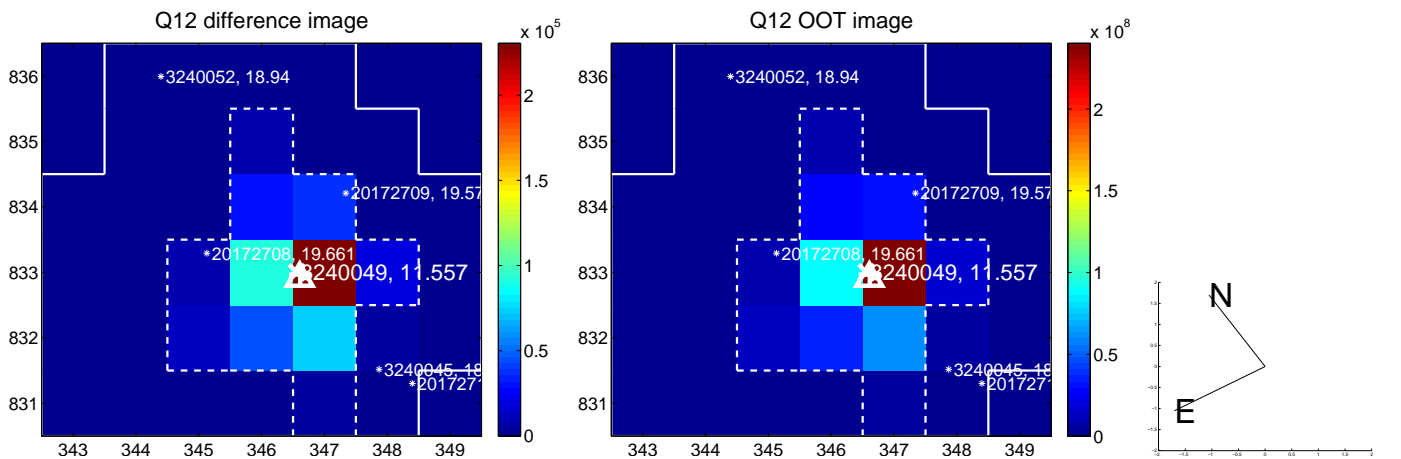
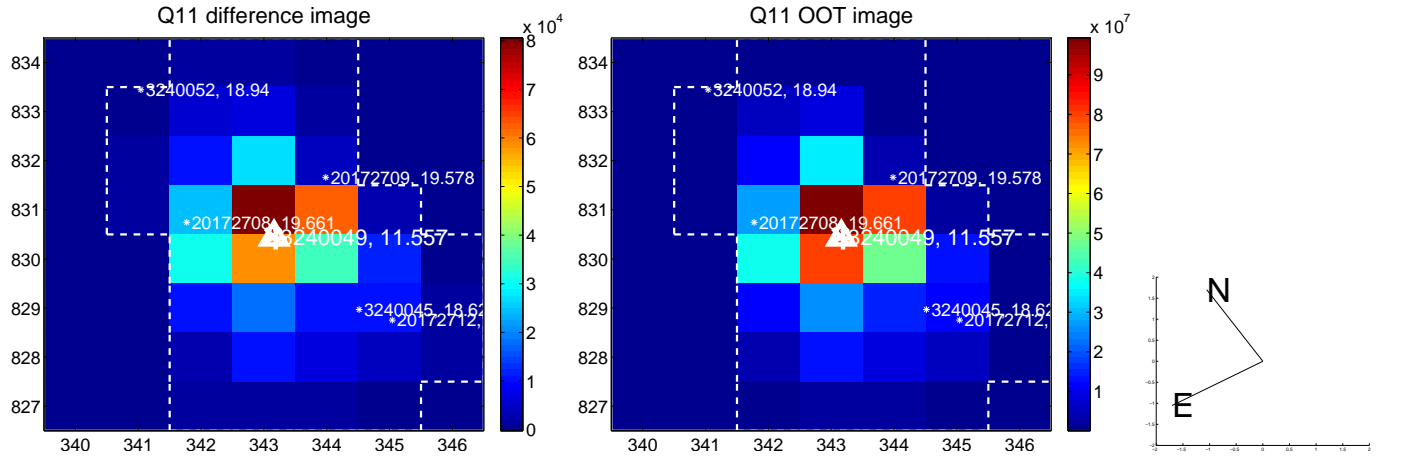
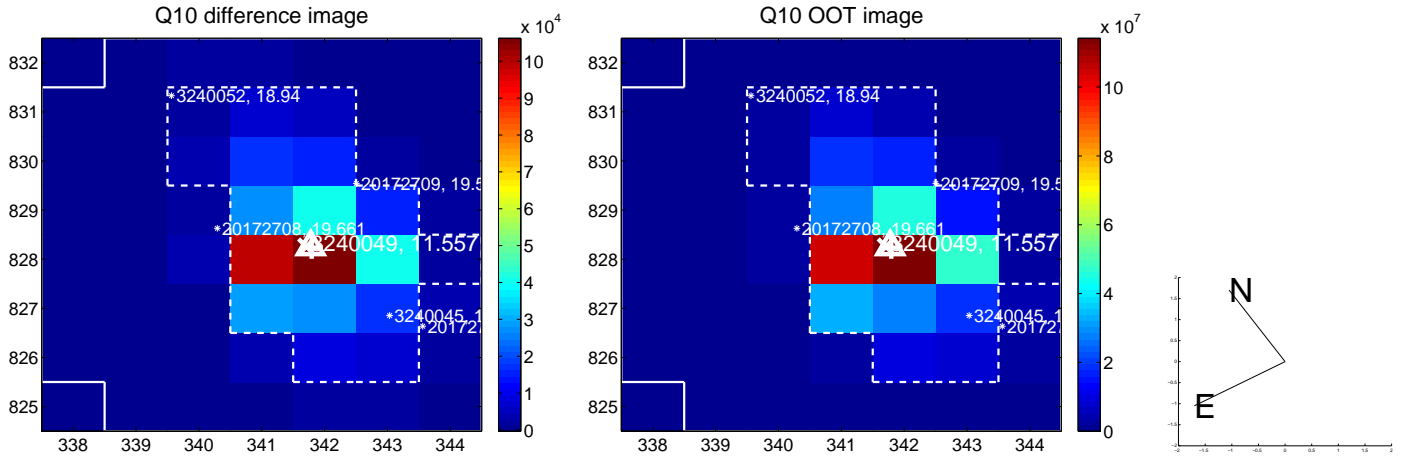
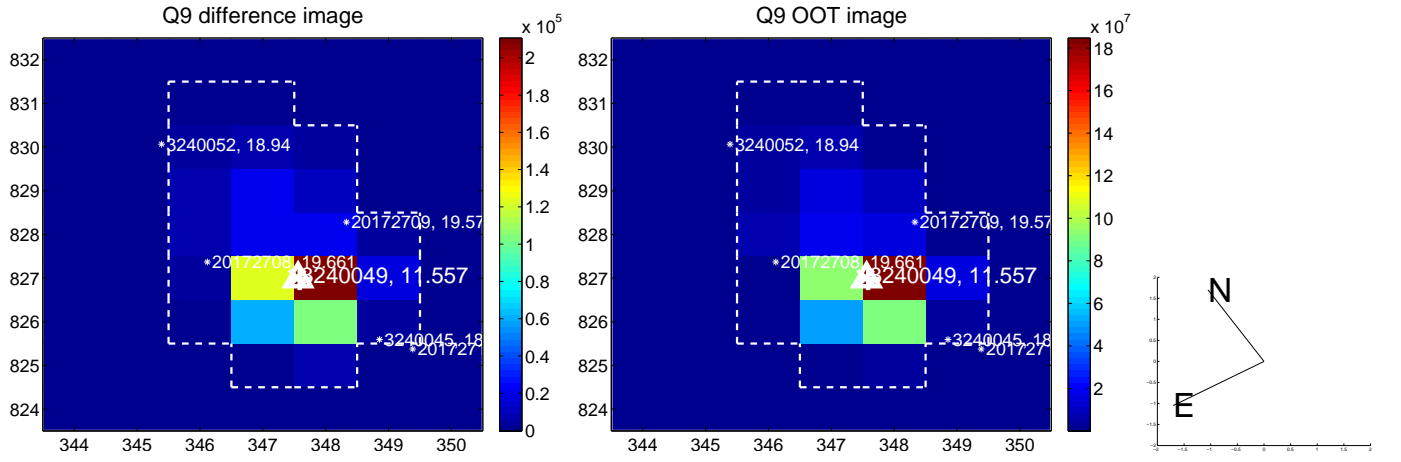
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



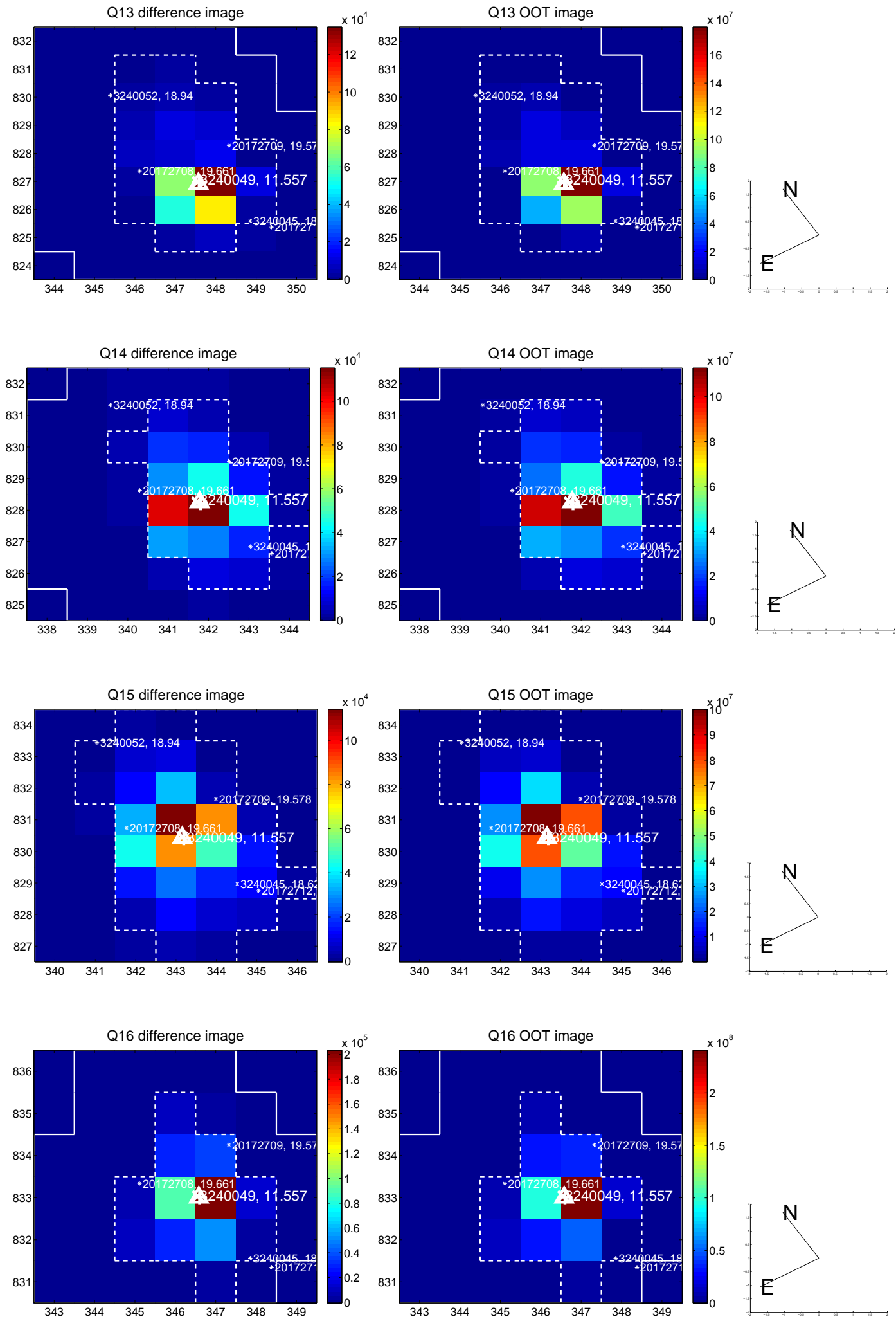
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



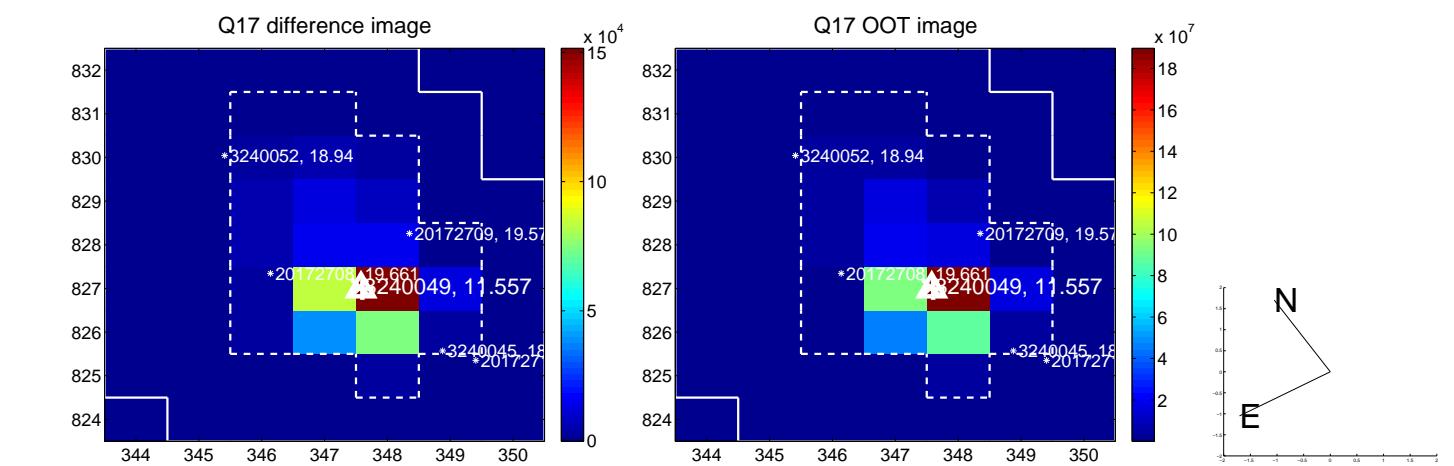
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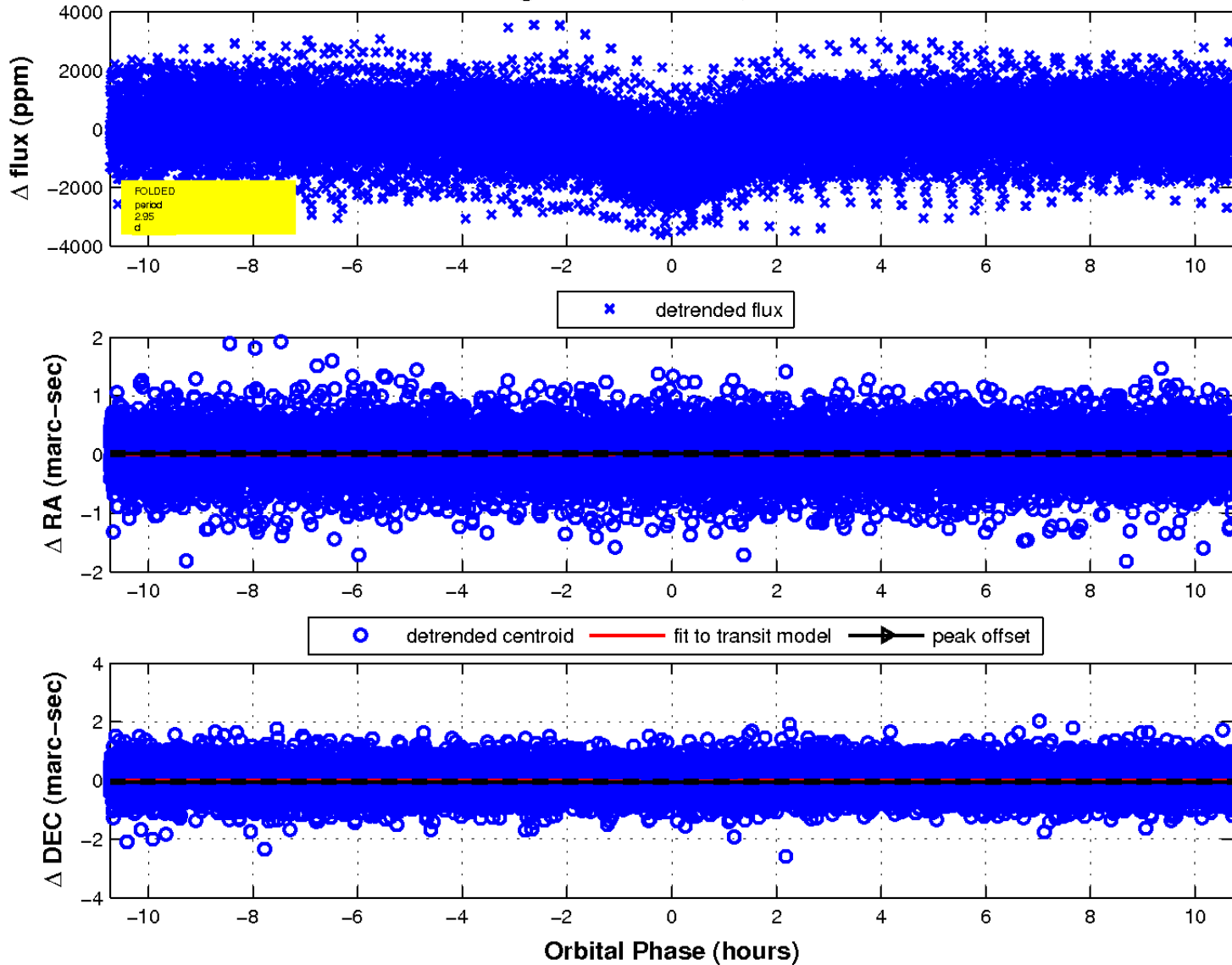
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

