

KIC 005444392

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})
005444392-01	OBS	6578.01	0.759762	131.795037	395057.5	5.580	10308.2	4428.7	1.91	5807	162.19	12872.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005444392-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_SATURATED

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 005444392-01

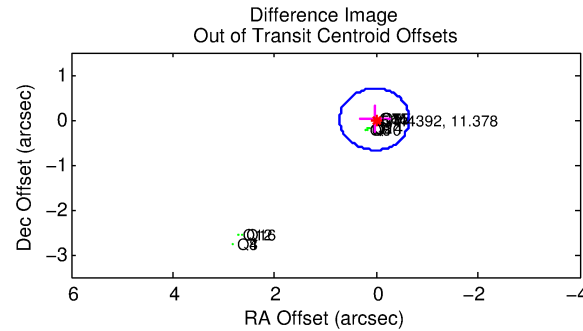
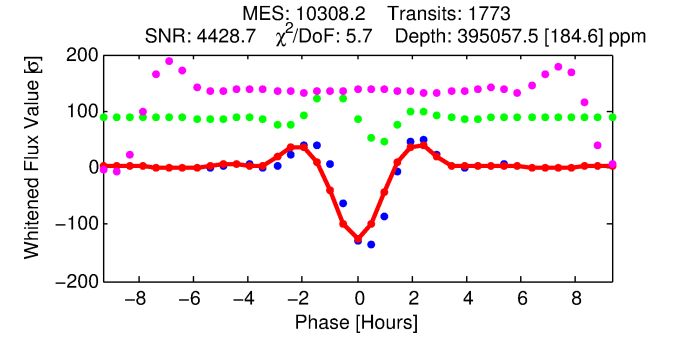
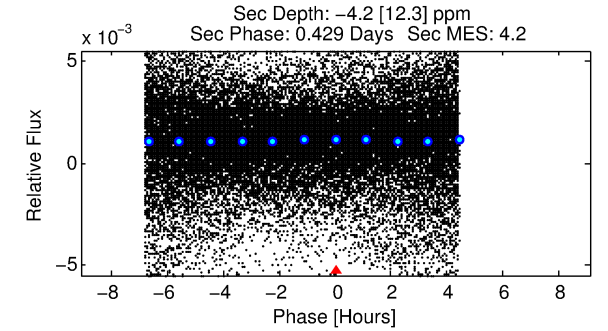
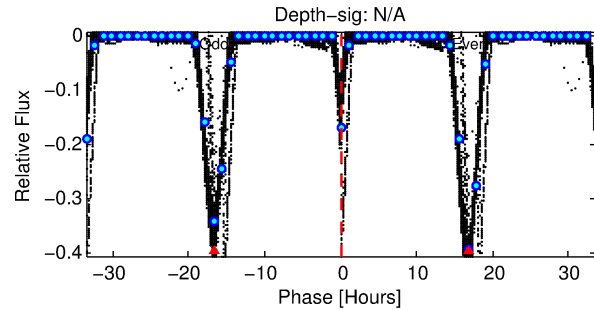
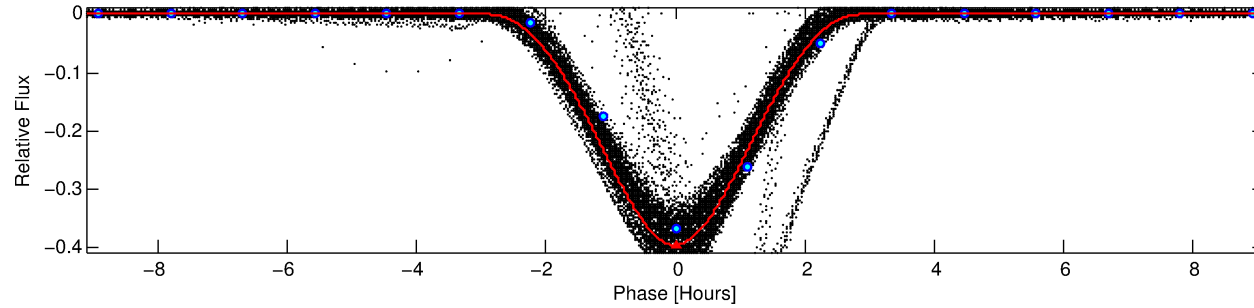
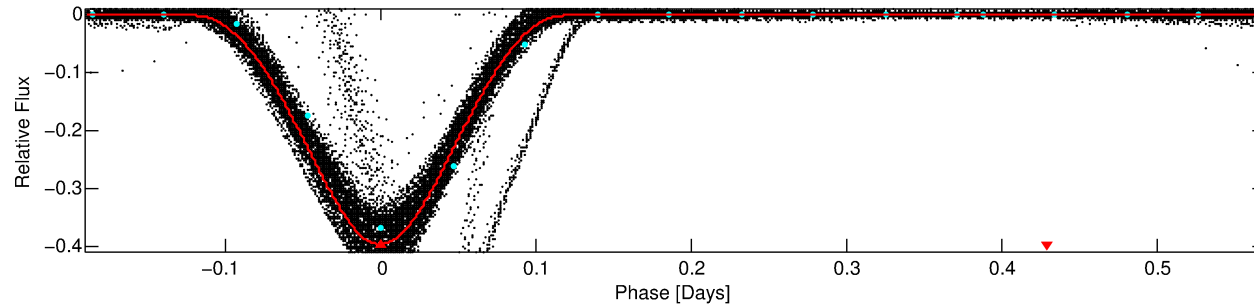
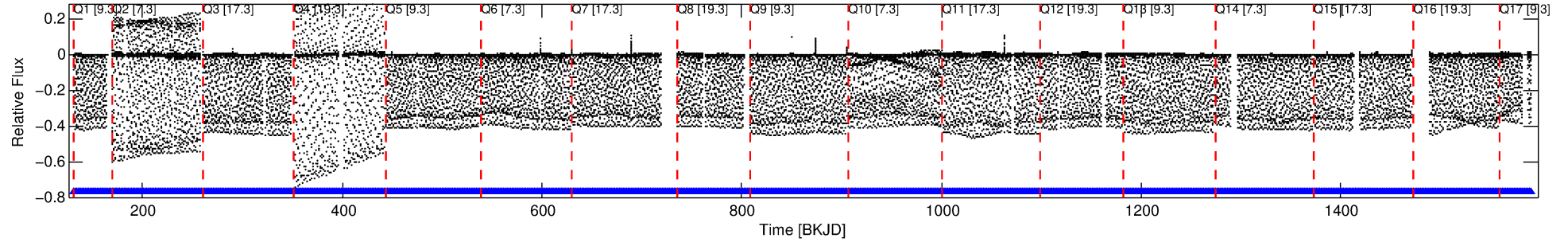
No Significant Match Found

DV One-Page Summary

KIC: 5444392 Candidate: 1 of 1 Period: 0.760 d

KOI: K06578.01 Corr: 0.984

Kp: 11.38 R*: 1.91 Rs Teff: 5807.0 K Logg: 3.93 Fe/H: -0.020



DV Fit Results:

Period = 0.75976 [0.00000] d
Epoch = 131.7950 [0.0000] BKJD
Rp/R* = 0.7786 [0.0017]
a/R* = 2.11 [0.00]
b = 0.72 [0.00]
Seff = 12872.68 [5170.24]
Teff = 2716 [273] K
Rp = 162.19 [42.06] Re
a = 0.0170 [0.0042] AU
Ag = N/A
Teffp = N/A

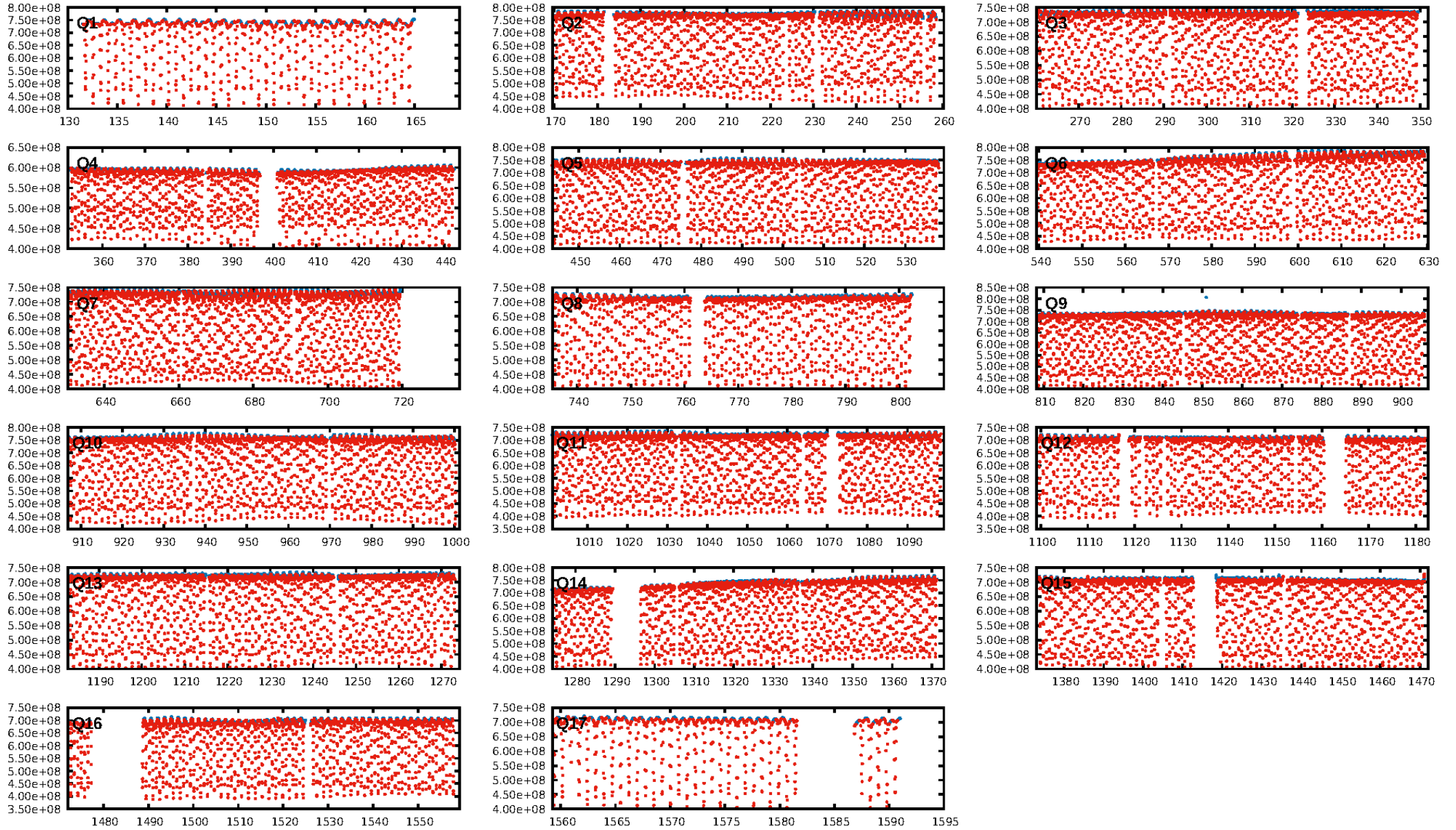
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1693/1693]
GhostDiagnostic-chr: 1.107
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.038 arcsec [0.17σ]
KicOffset-rm: 0.195 arcsec [0.65σ]
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]

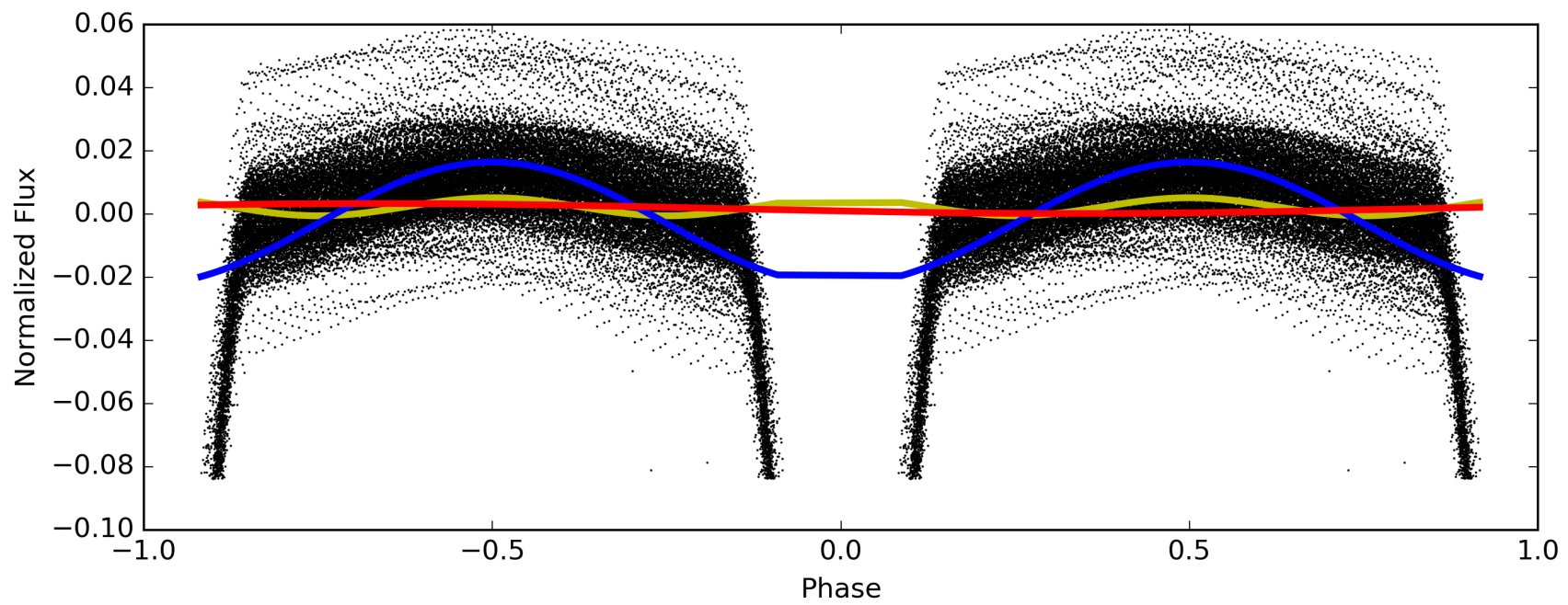
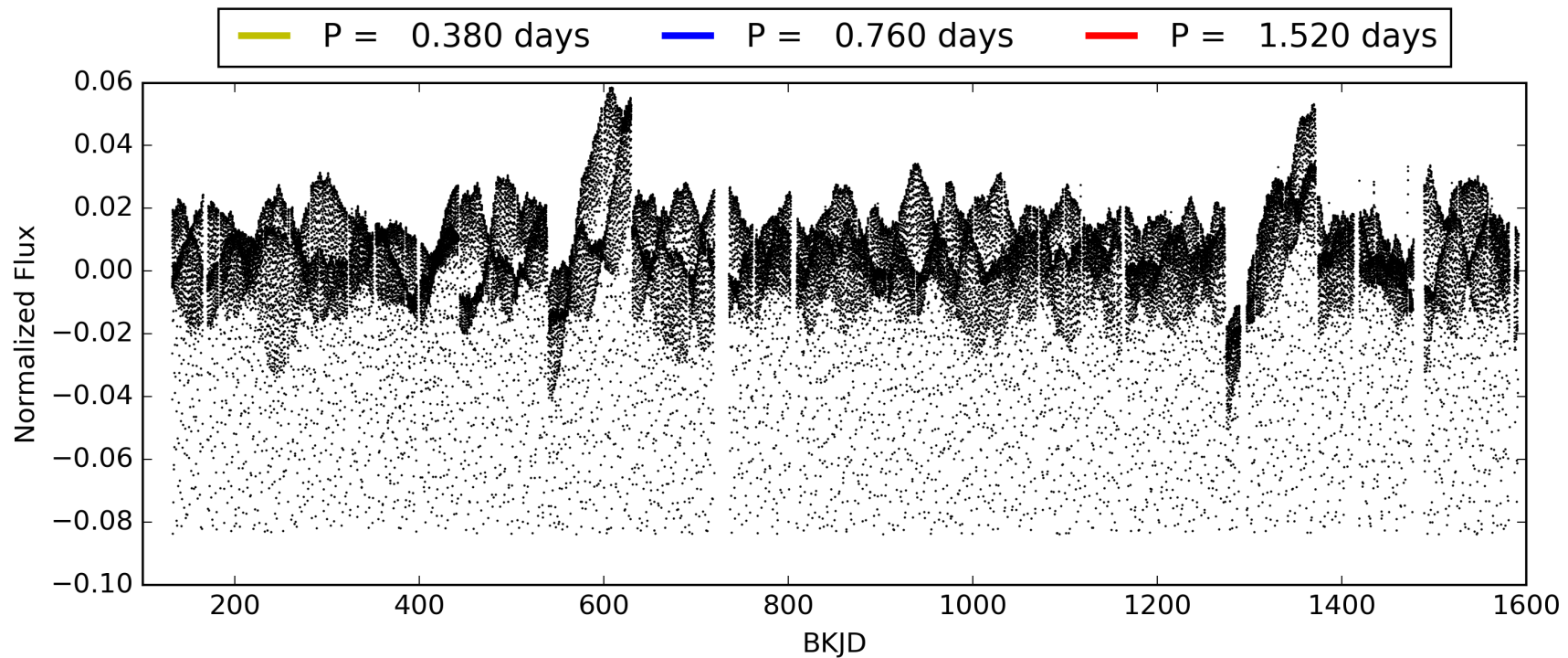
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:23:58 Z

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

TCE 005444392-01, PDC Light Curves

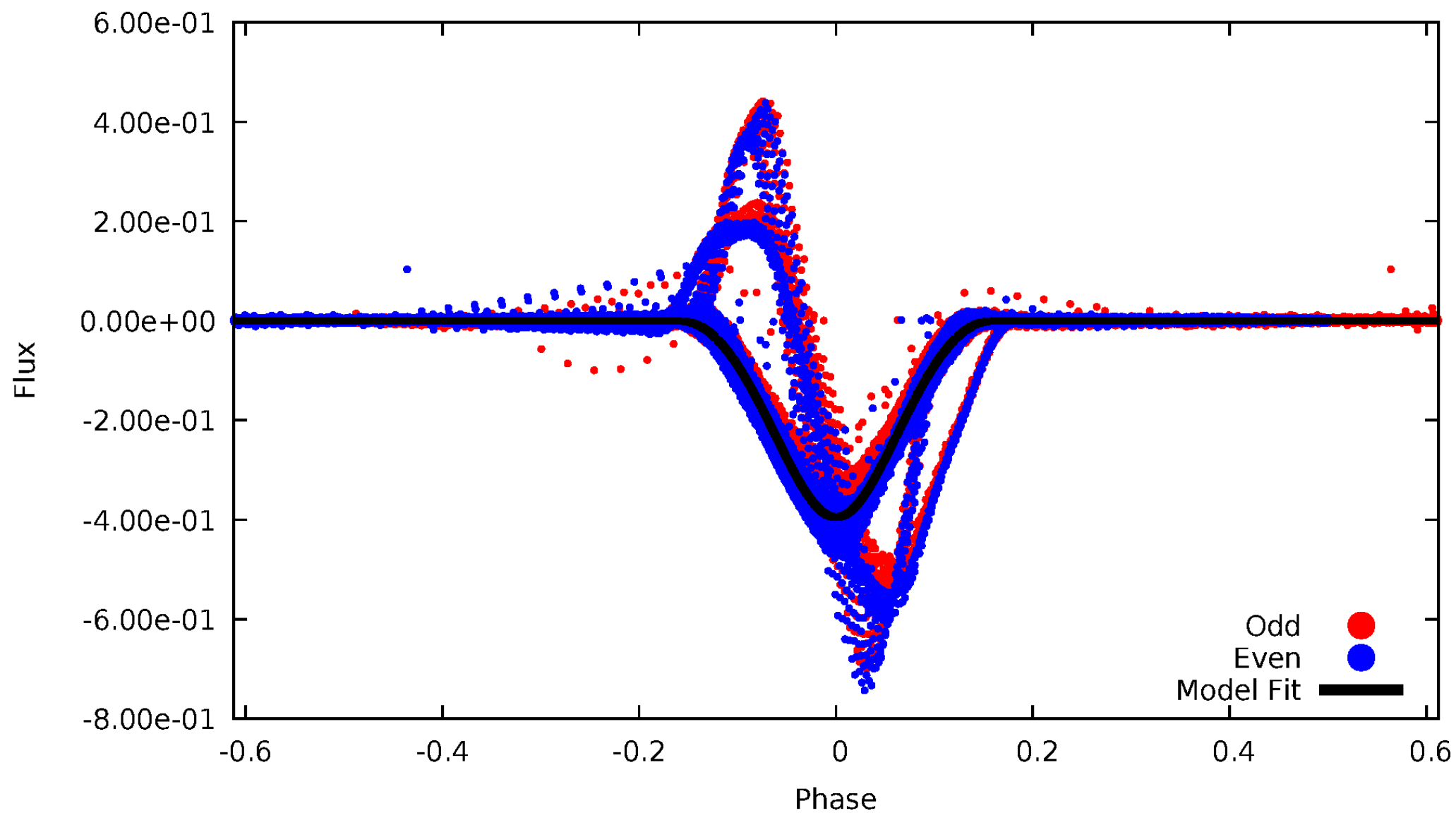


TCE 005444392-01



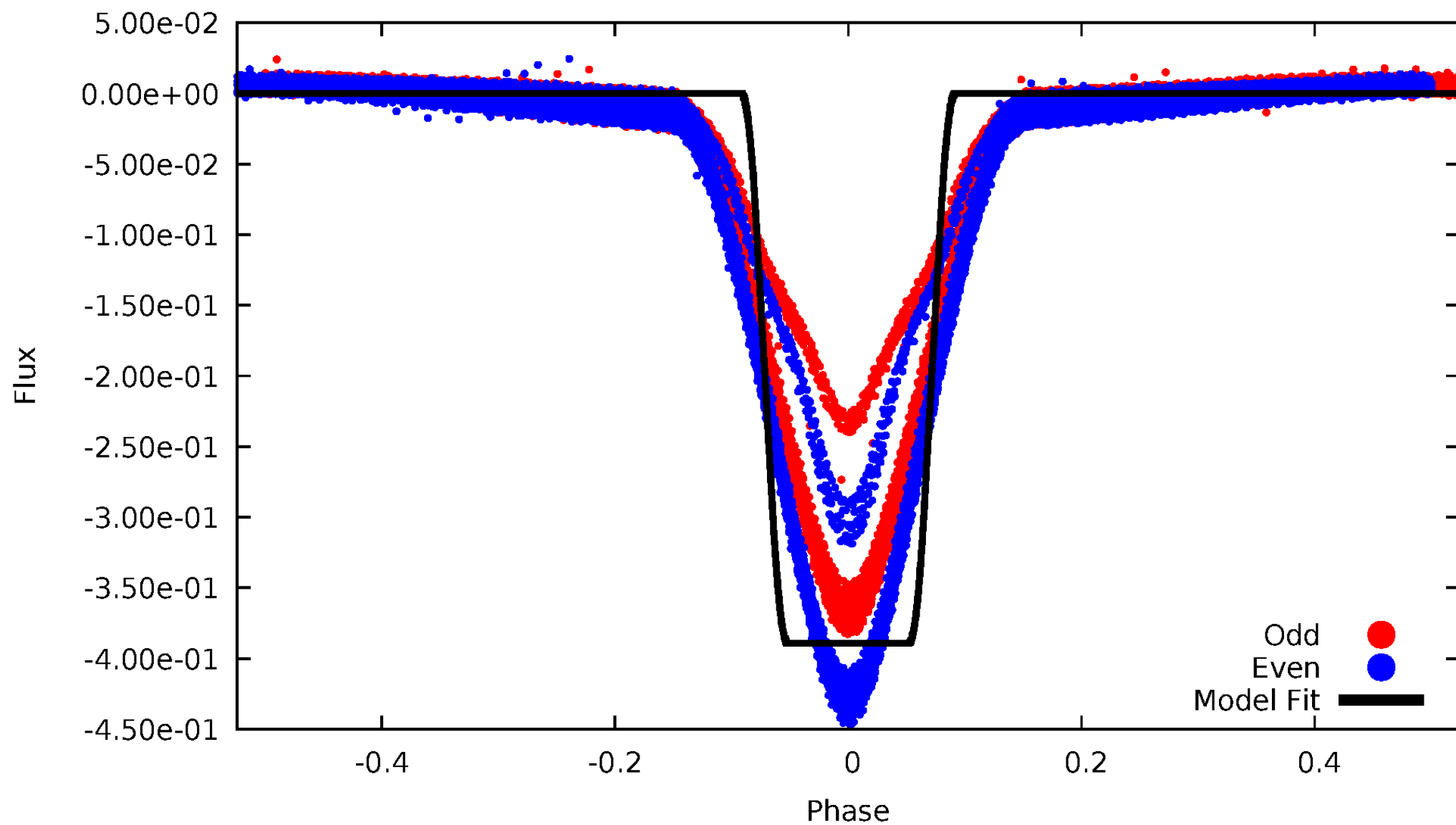
DV Odd/Even

TCE 005444392-01



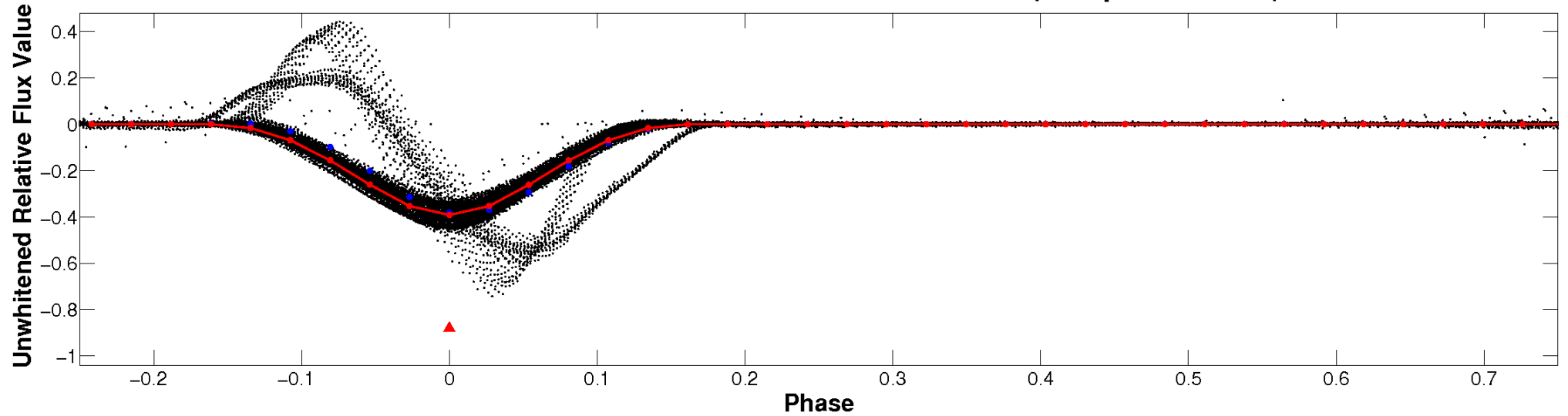
ALT Odd/Even

TCE 005444392-01

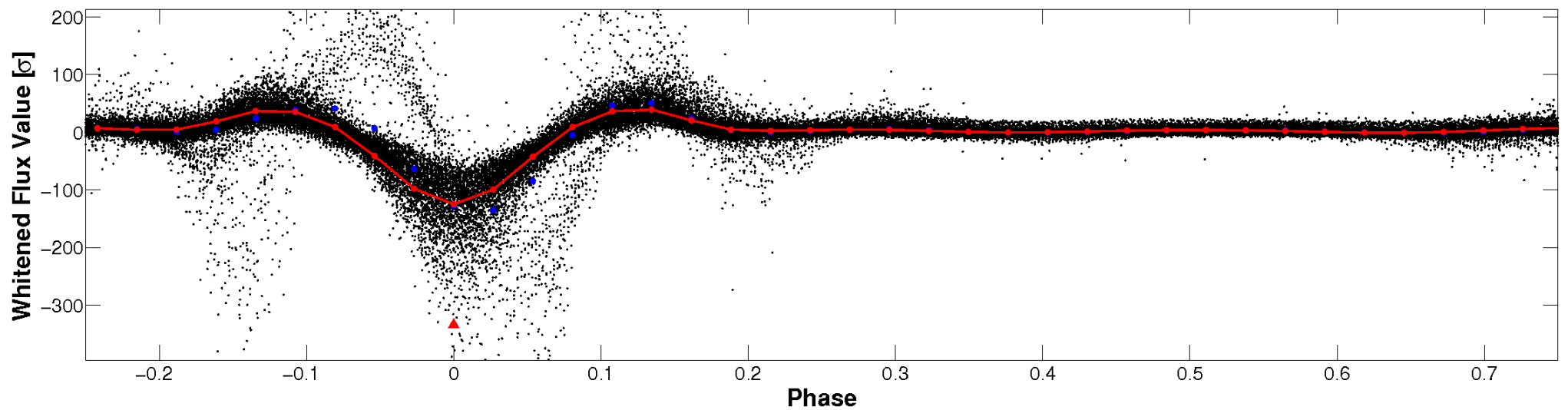


Non-Whitened Vs. Whitened Light Curve

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

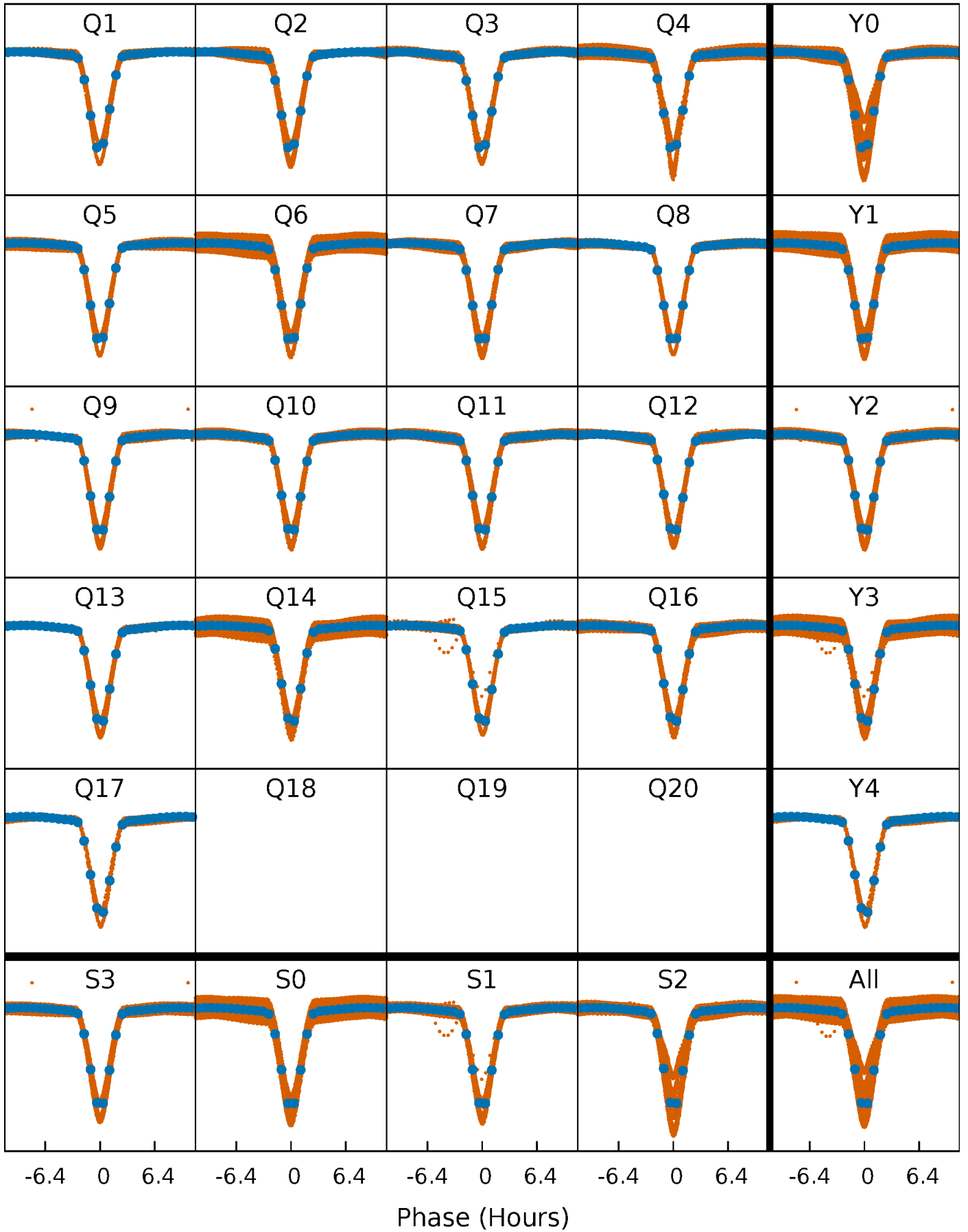


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



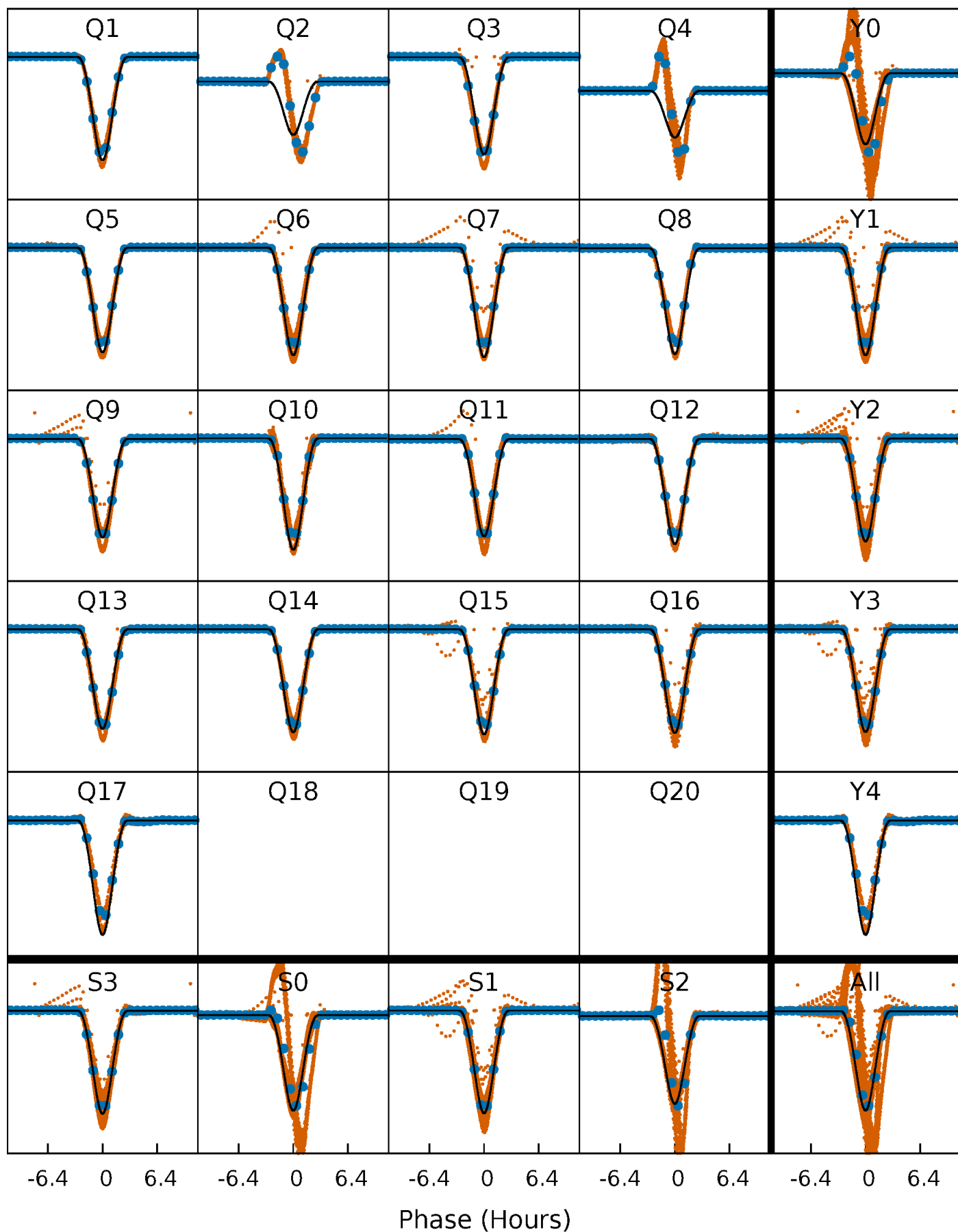
PDC Quarter-Phased Transit Curves

TCE 005444392-01 P= 0.759762 Days $T_0=131.795037$ (BKJD)



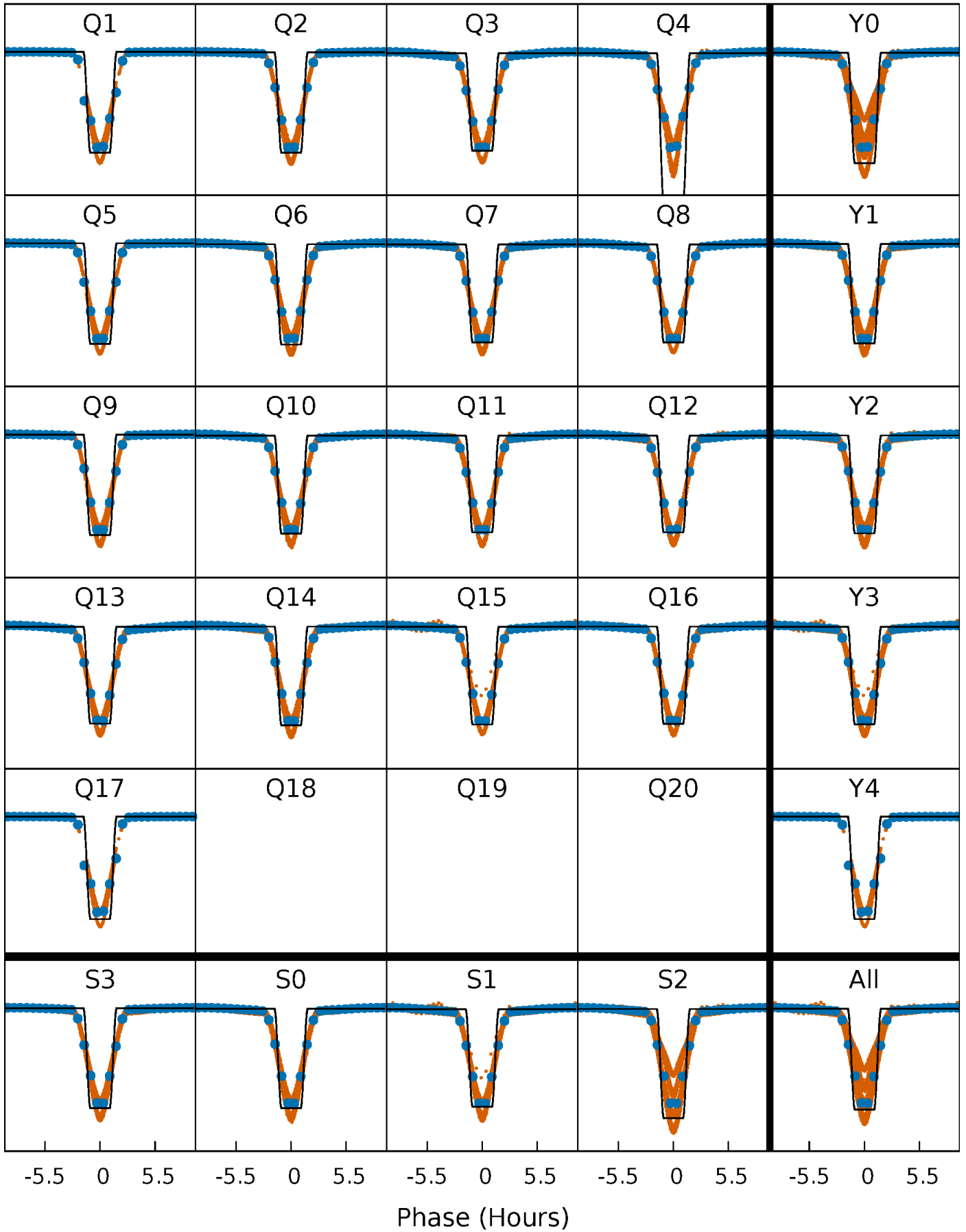
DV Quarter-Phased Transit Curves

TCE 005444392-01 P= 0.759762 Days $T_0=131.795037$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

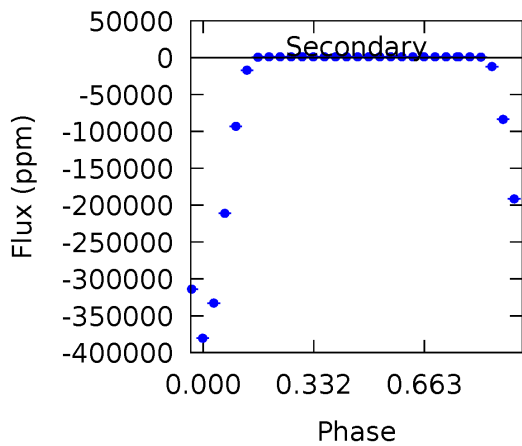
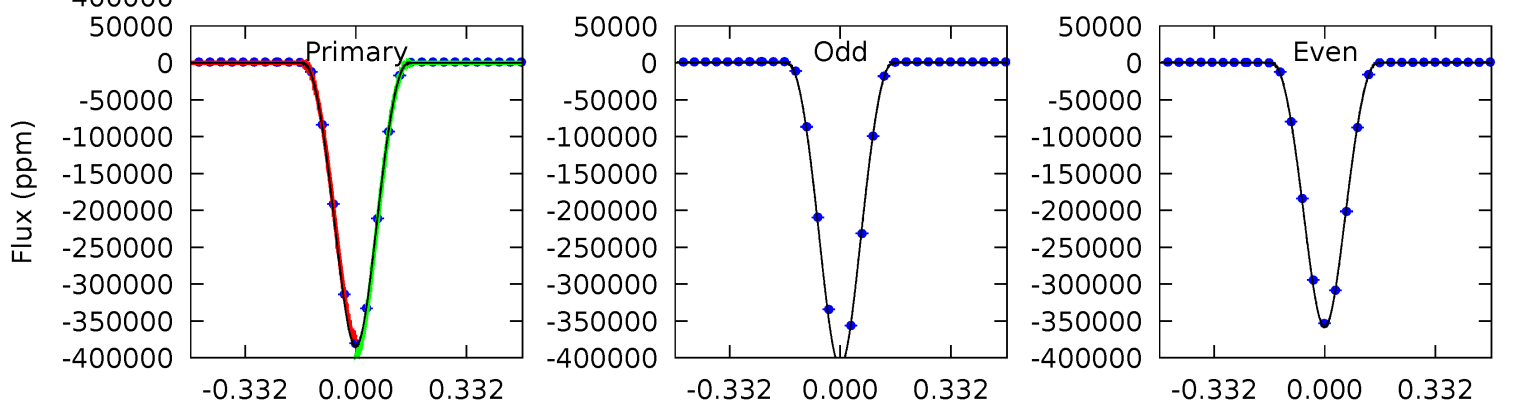
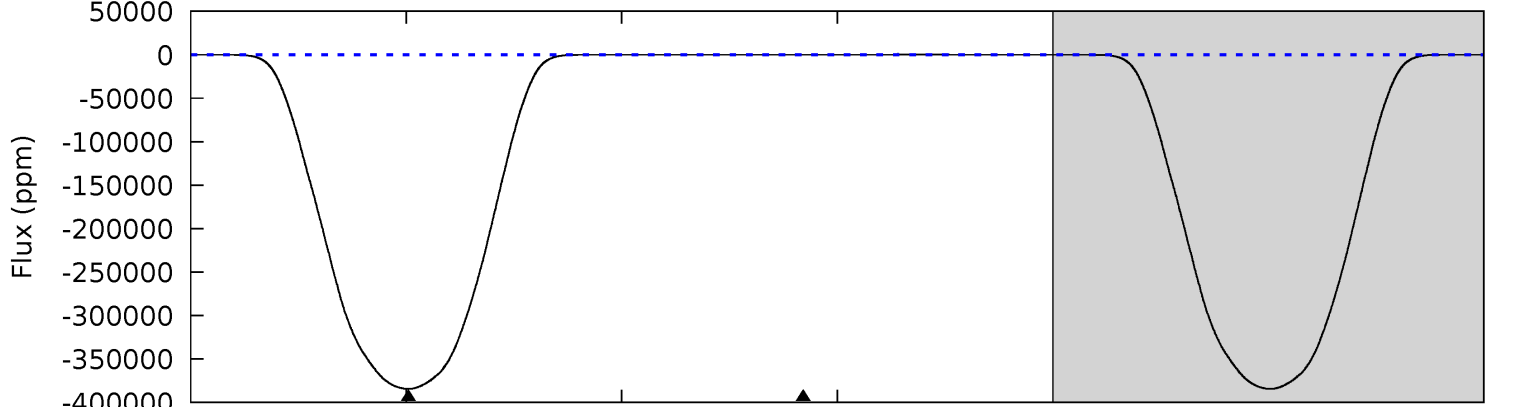
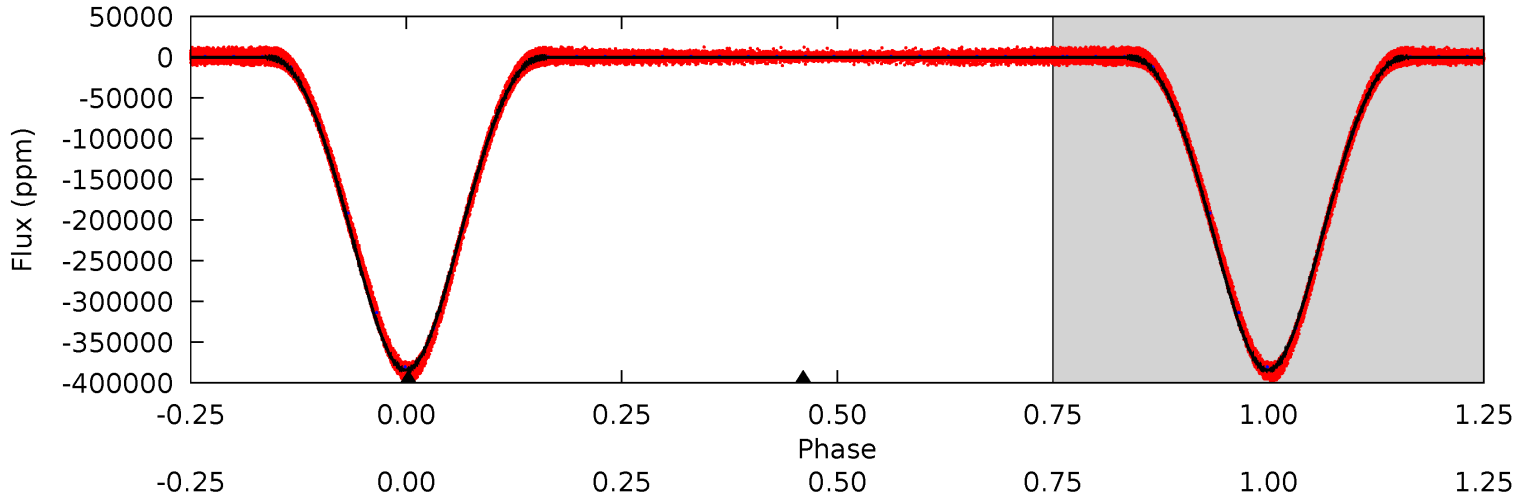
TCE 005444392-01 P= 0.759764 Days $T_0=131.793035$ (BKJD)



DV Model-Shift Uniqueness Test

005444392-01, P = 0.759762 Days, E = 131.035275 Days

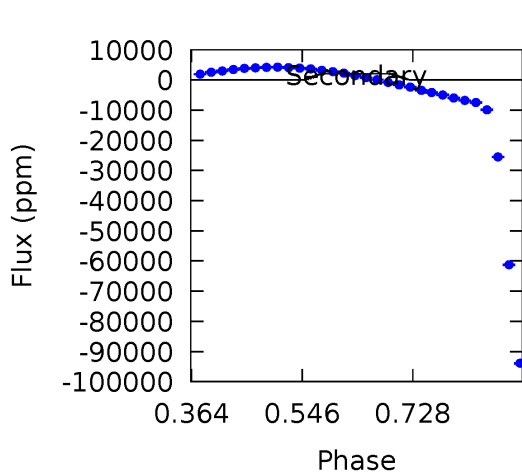
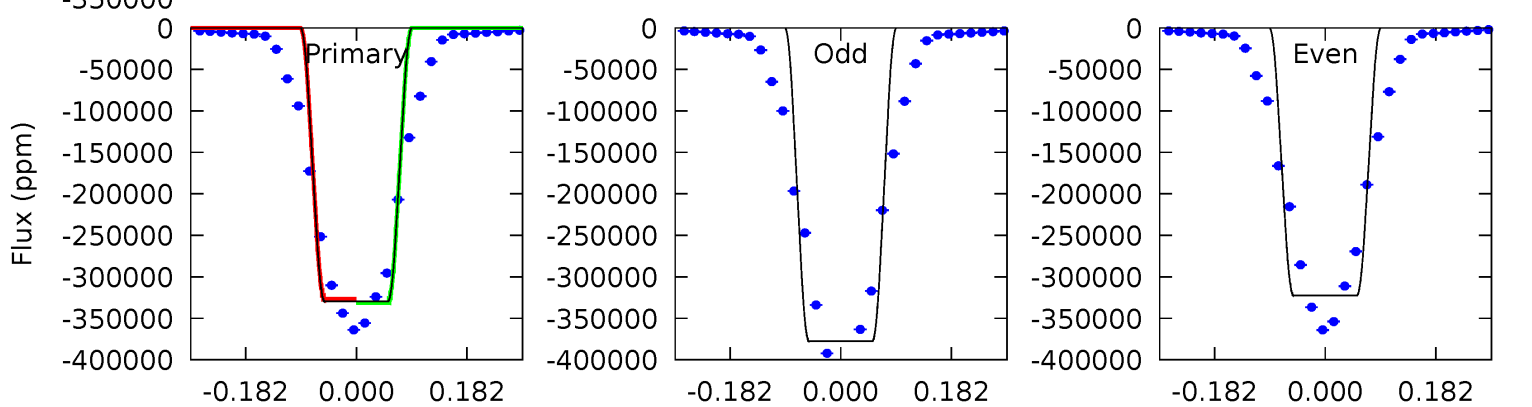
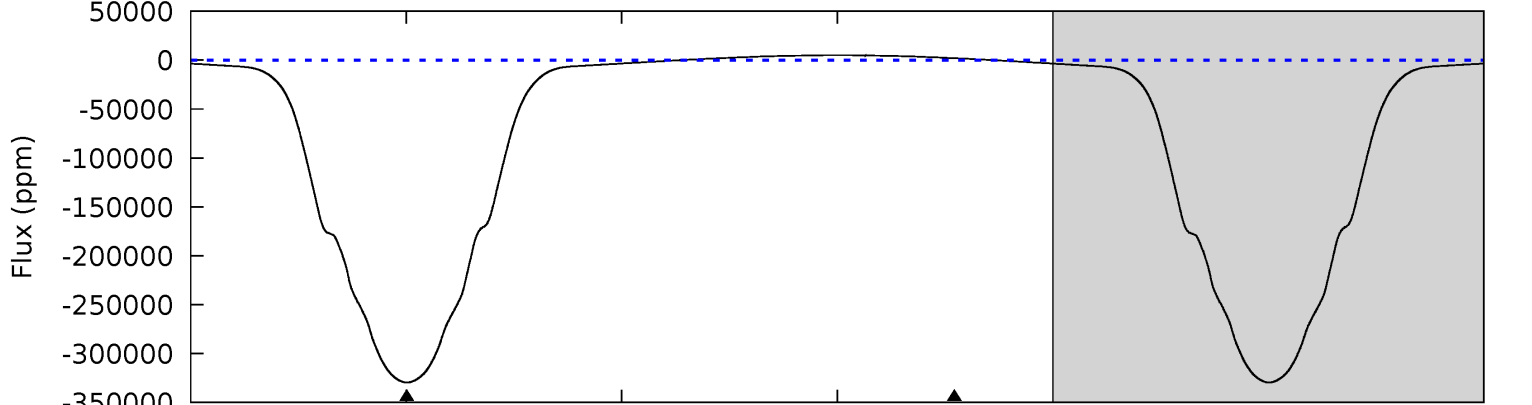
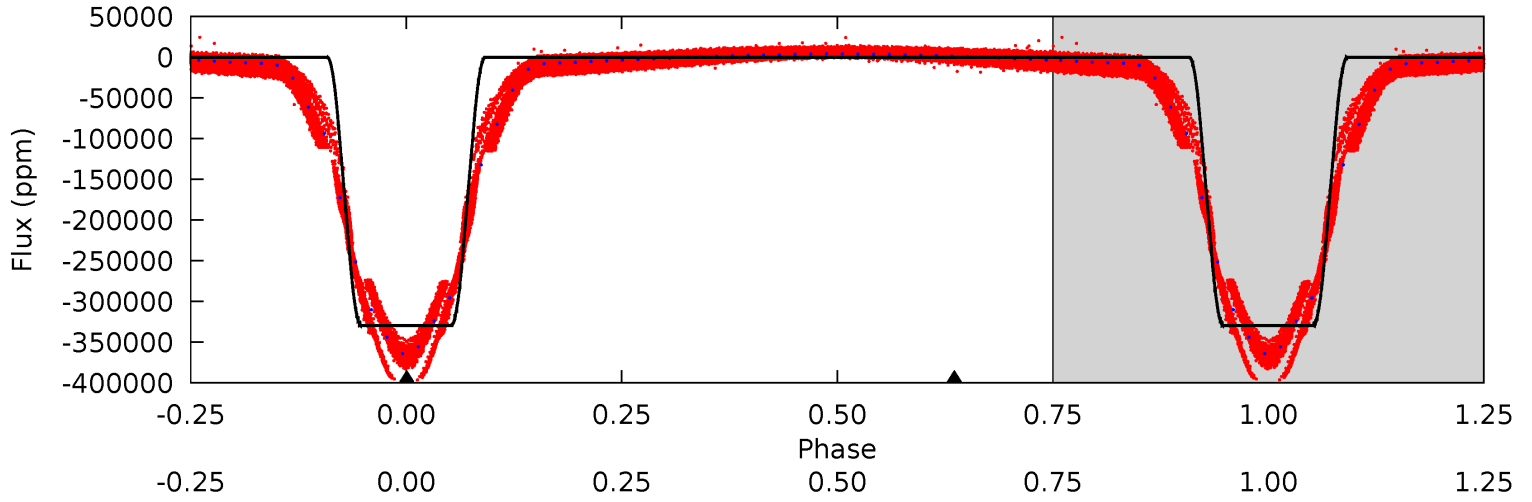
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13666	1.88	0	0	4.31	0.97	0.71	13666	13666	1.88	1.88	1037	0.98	0.00	0



Alt Model-Shift Uniqueness Test

005444392-01, P = 0.759764 Days, E = 131.033271 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5279	-32.6	0	0	4.44	1.33	56.2	5279	5279	-32.6	-32.6	502.3	1.02	0.02	0



Stellar Parameters For KIC 005444392

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5807^{+86}_{-78}	$3.930^{+0.233}_{-0.078}$	$-0.020^{+0.150}_{-0.150}$	$1.909^{+0.266}_{-0.495}$	$1.130^{+0.113}_{-0.150}$	$0.229^{+0.307}_{-0.056}$
	+1%/-1%	+6%/-2%	+750%/-750%	+14%/-26%	+10%/-13%	+134%/-24%
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 005444392-01 / KOI 6578.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-53 ± 28	$159.41^{+13.15}_{-23.28}$	3752^{+162}_{-262}	-3541^{+156}_{-98}	$0.000^{+0.000}_{-0.000}$
Alt.	2037 ± 62	$127.46^{+11.90}_{-18.03}$	3755^{+157}_{-258}	-3580^{+149}_{-94}	$-0.020^{+0.003}_{-0.007}$

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 $A_{obs} \gg 1.0$

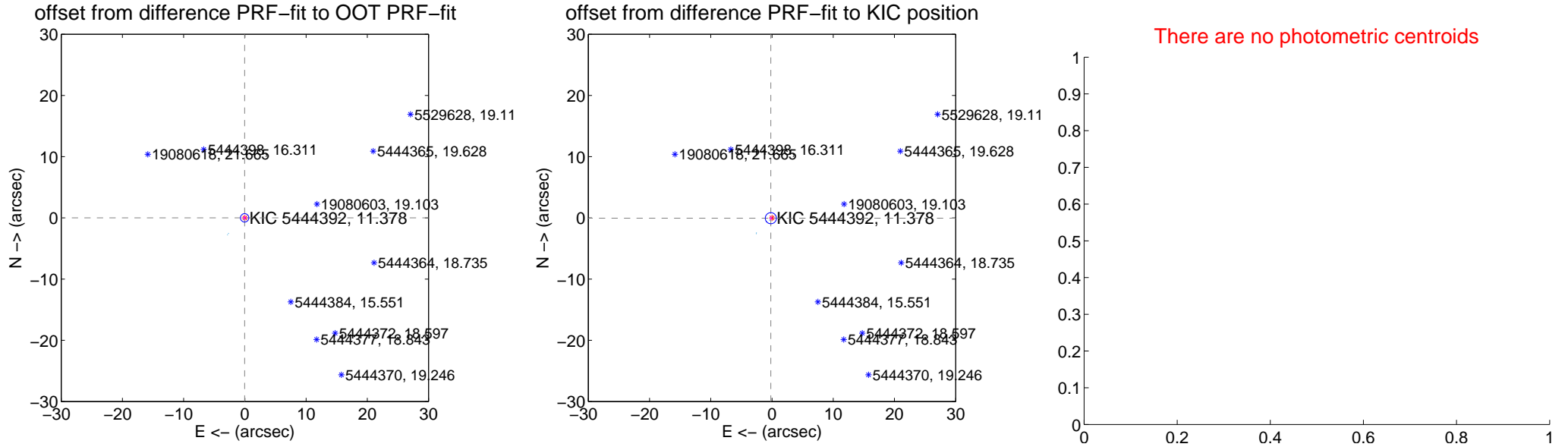
DV Centroid Data

Supplemental centroid analysis for 005444392-01. **Kepler magnitude: 11.38.** Transit SNR 4428.72

There are 17 quarters with good PRF difference image offsets

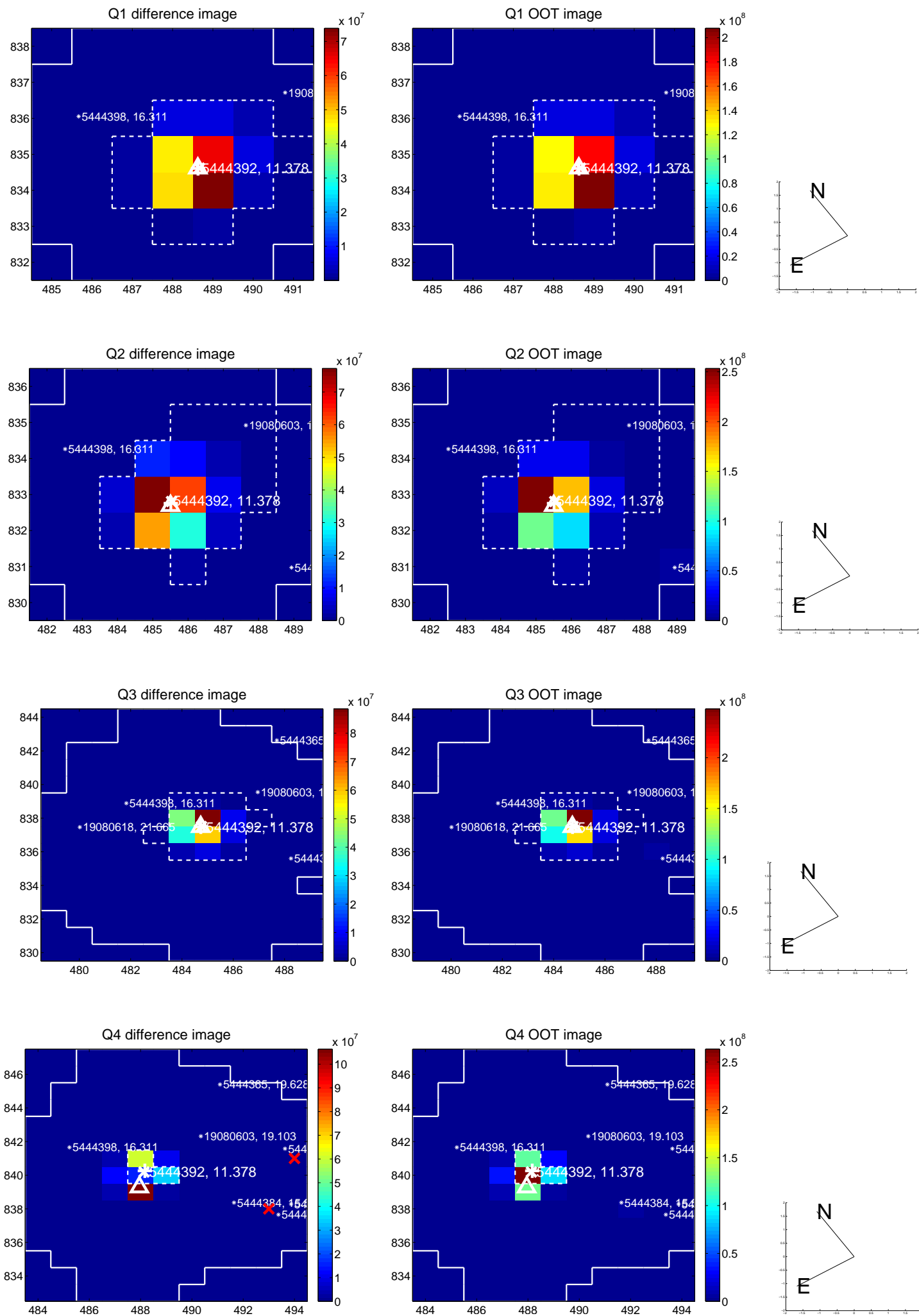
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.038 ± 0.228	0.17	0.037 ± 0.300	0.009 ± 0.291
PRF-fit source offset from KIC position	0.195 ± 0.302	0.65	0.188 ± 0.247	-0.052 ± 0.257
photometric centroid source offset	—	—	—	—

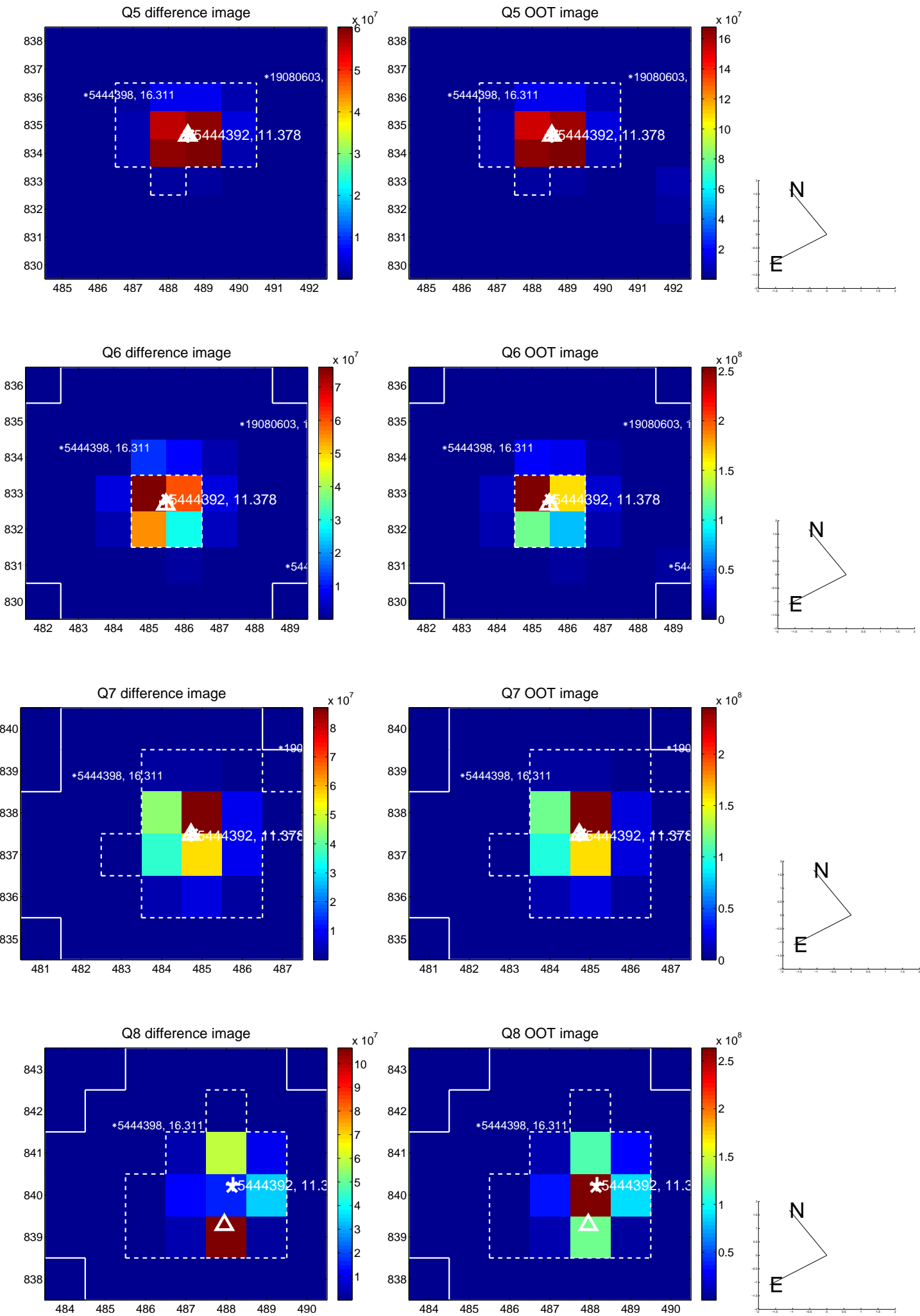


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

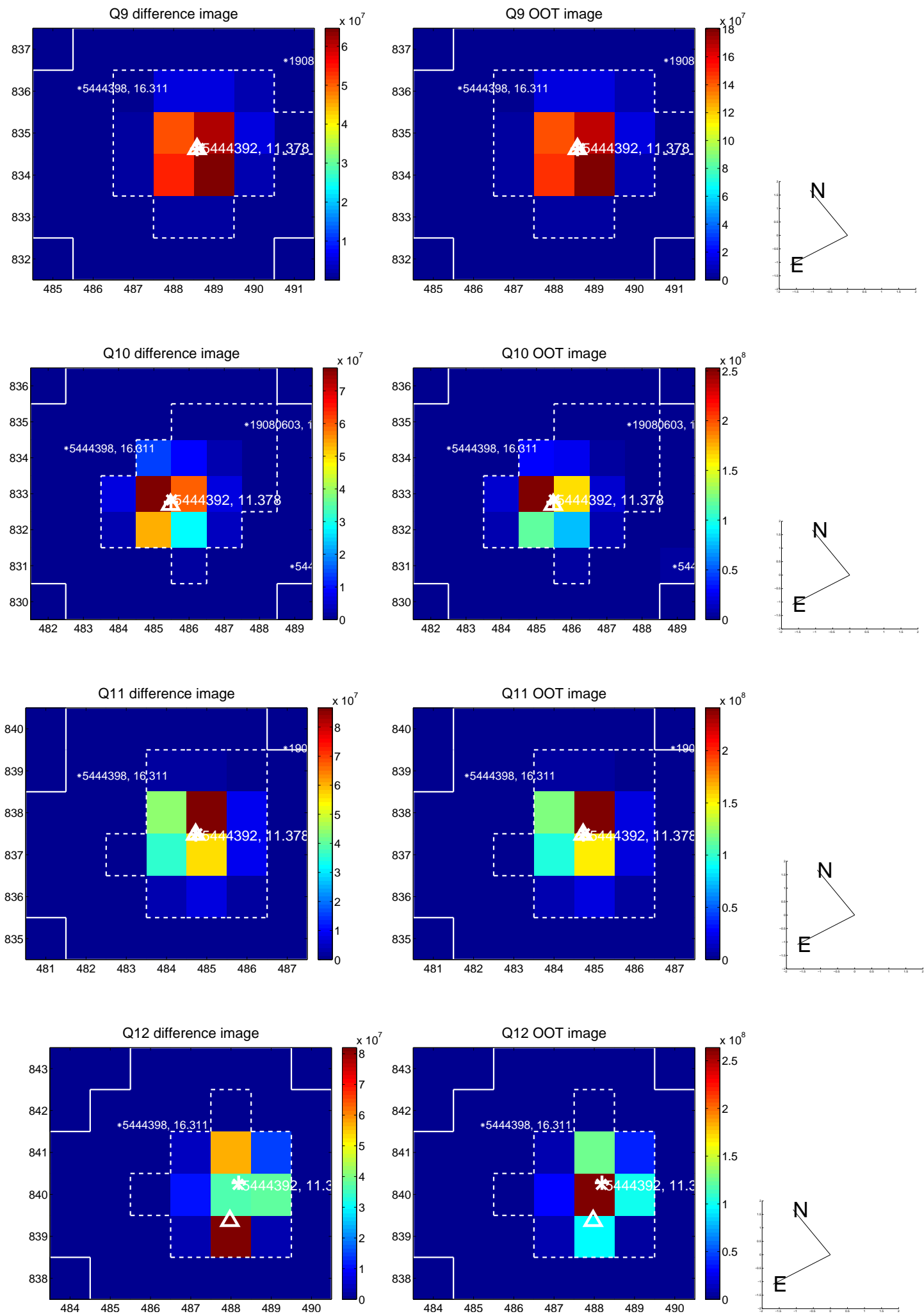
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



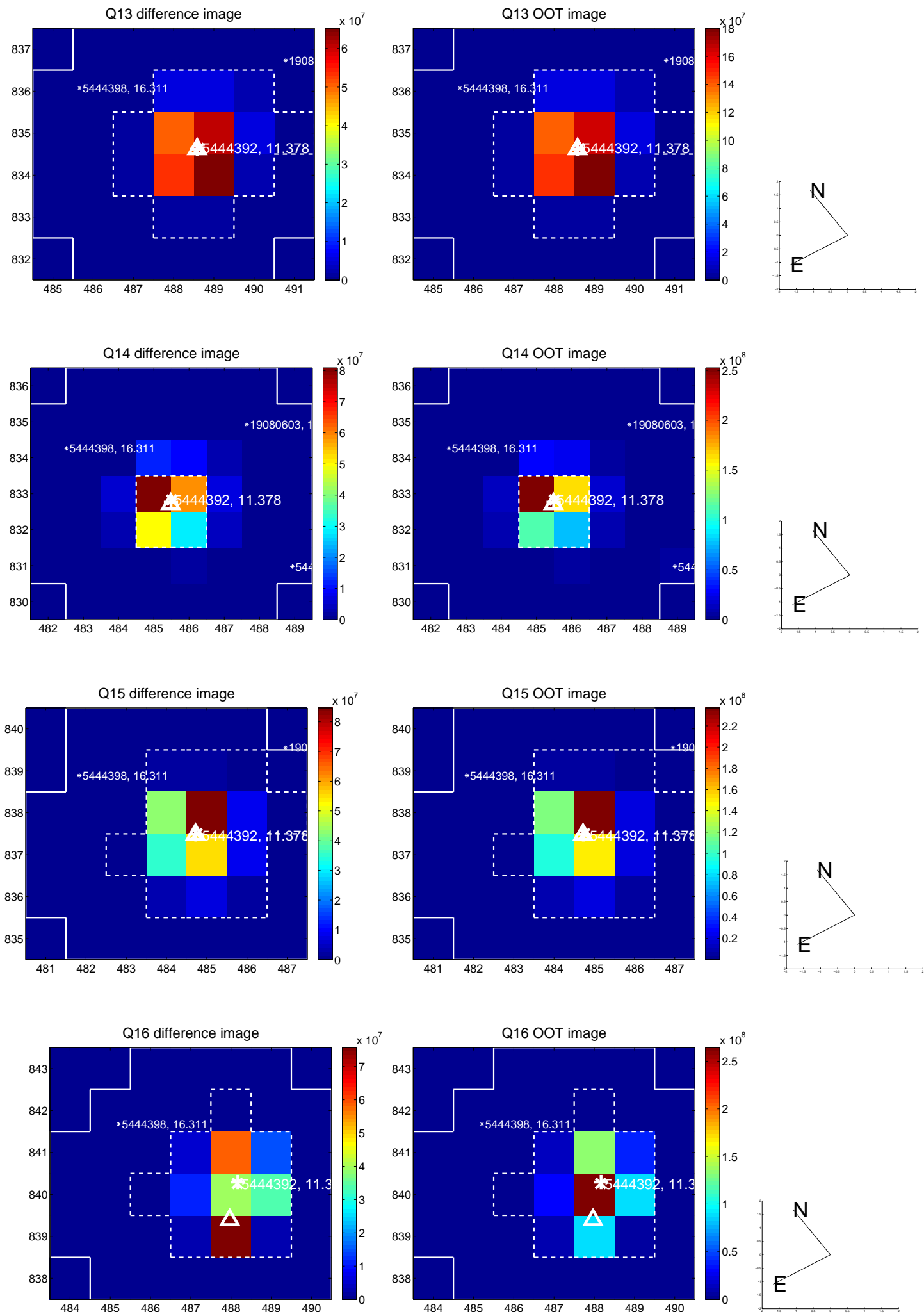
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



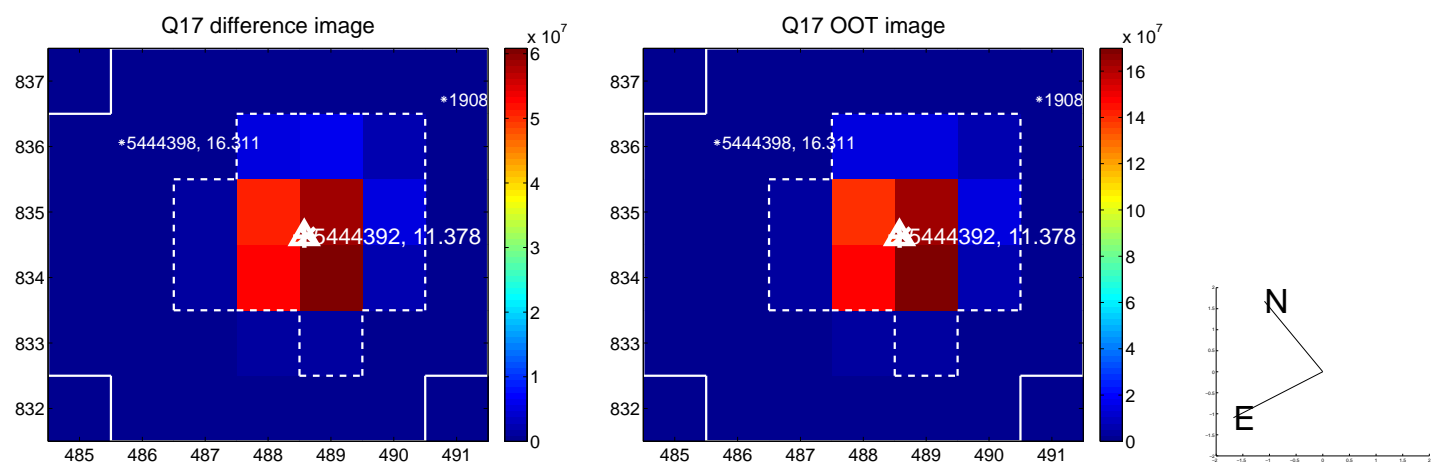
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

