

KIC 006364247

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})
006364247-01	OBS	6693.01	5.244078	132.650413	27.3	12.281	10.9	10.7	0.97	5952	0.55	292.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006364247-01	OBS	FP	0.00	0	0	1	1	HALO_GHOST—EPHEM_MATCH

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.

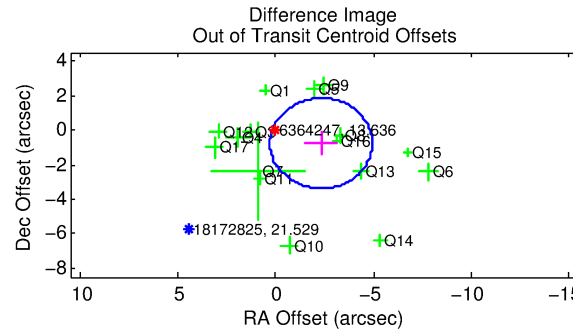
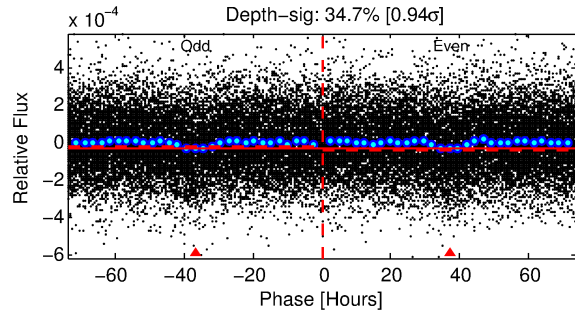
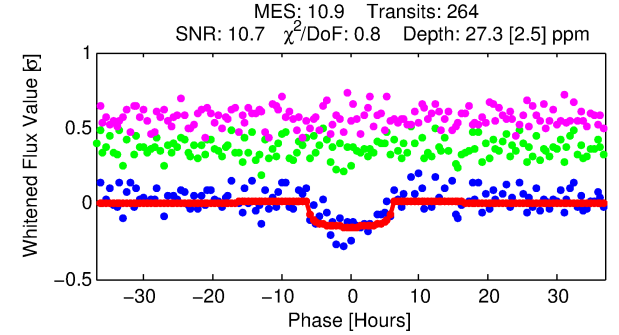
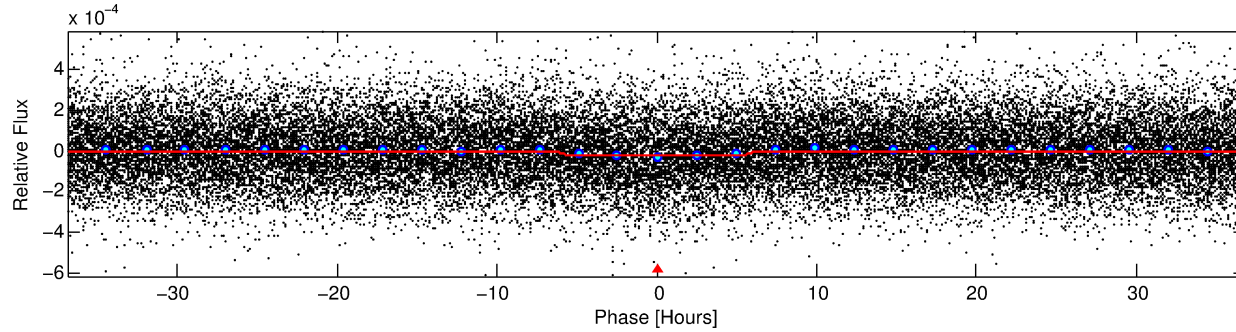
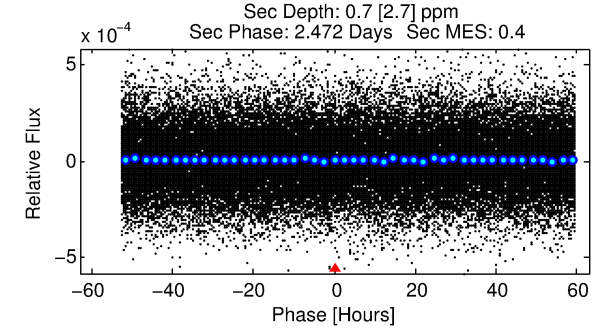
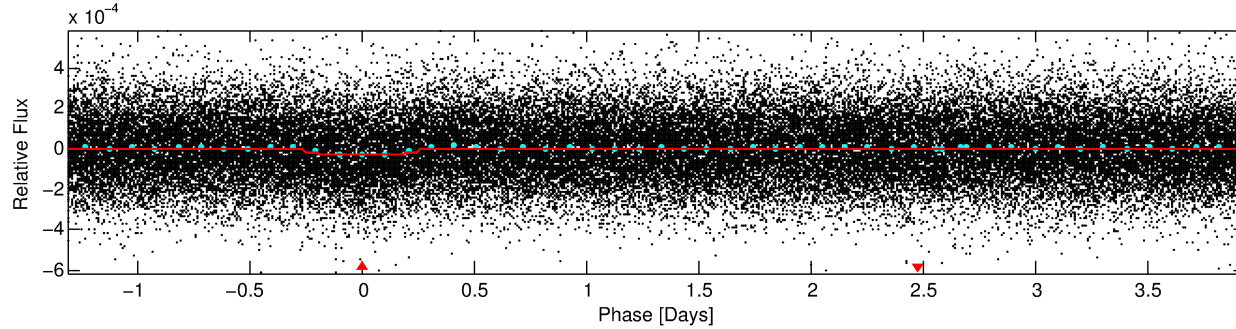
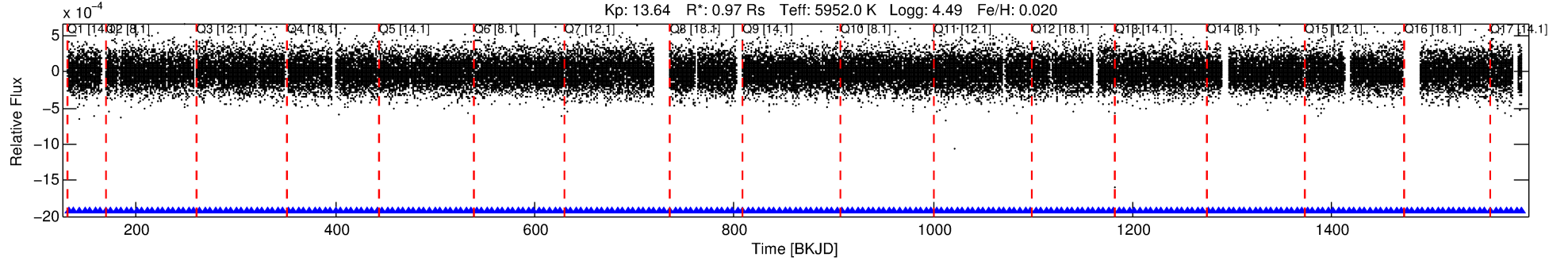
Ephemeris Match Information For 006364247-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006364247-01	6364247	TT-Lyr-pri	6364290	1:1	277.0	-63	29	9.49	13.63	31634.00	Direct-PRF	0	3.31	1.77

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6364247 Candidate: 1 of 1 Period: 5.244 d
KOI: K06693.01 Corr: 0.946



DV Fit Results:

Period = 5.24408 [0.00009] d
Epoch = 132.6504 [0.0122] BKJD
Rp/R* = 0.0051 [0.0018]
a/R* = 2.42 [3.22]
b = 0.72 [1.06]
Seff = 292.06 [116.18]
Teff = 1054 [105] K
Rp = 0.55 [0.25] Re
a = 0.0602 [0.0157] AU
Ag = 4.66 [18.29] [0.20σ]
Teffp = 2394 [2342] K [0.57σ]

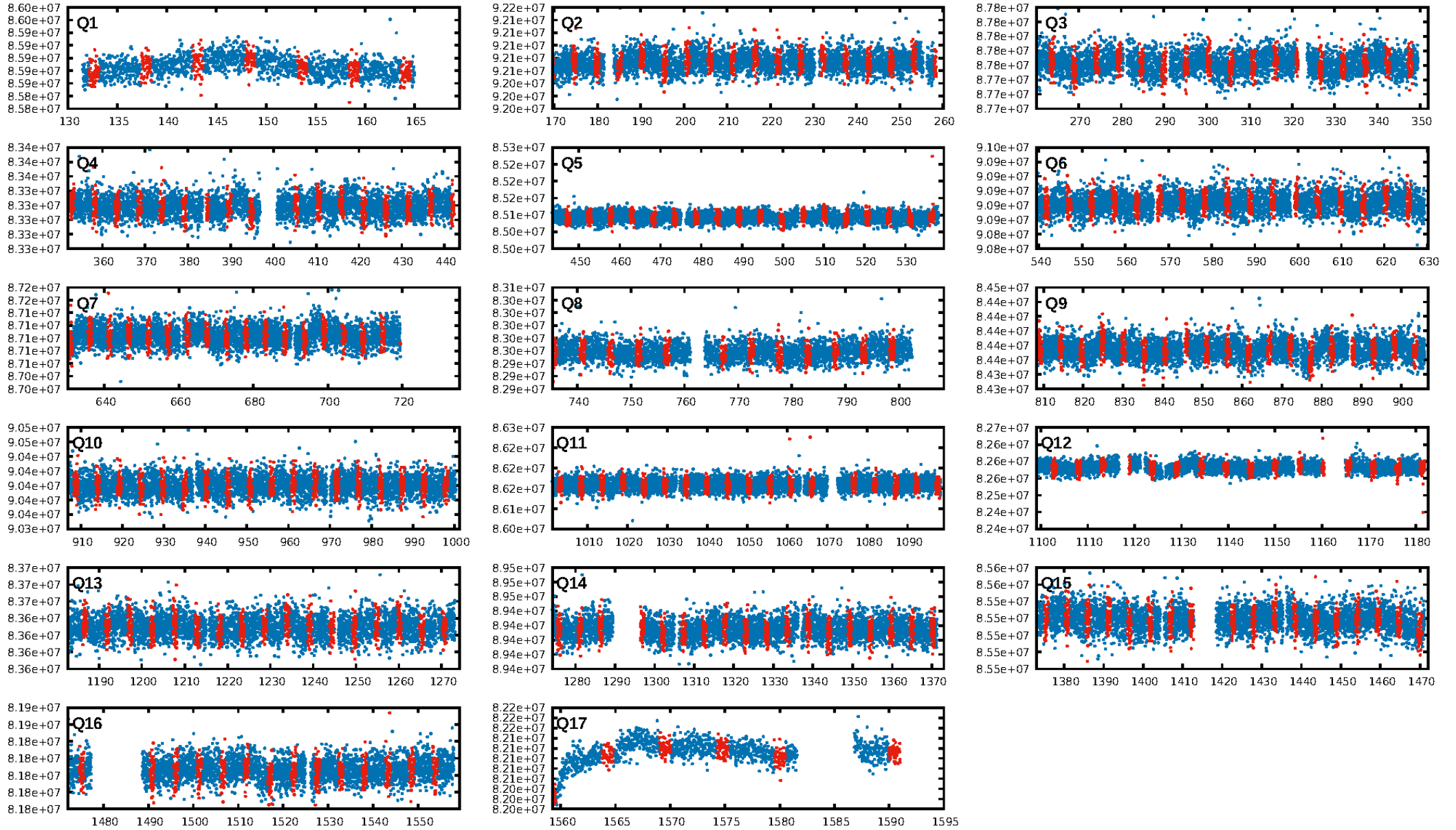
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.09e-24
RollingBand-fgt: 1.00 [251/251]
GhostDiagnostic-chr: 0.09543
Centroid-sig: 0.0%
Centroid-so: 3.122 arcsec [2.86σ]
OotOffset-rm: 2.438 arcsec [2.80σ]
KicOffset-rm: 2.650 arcsec [3.02σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.31 [5/16]
DiffImageOverlap-fno: 1.00 [17/17]

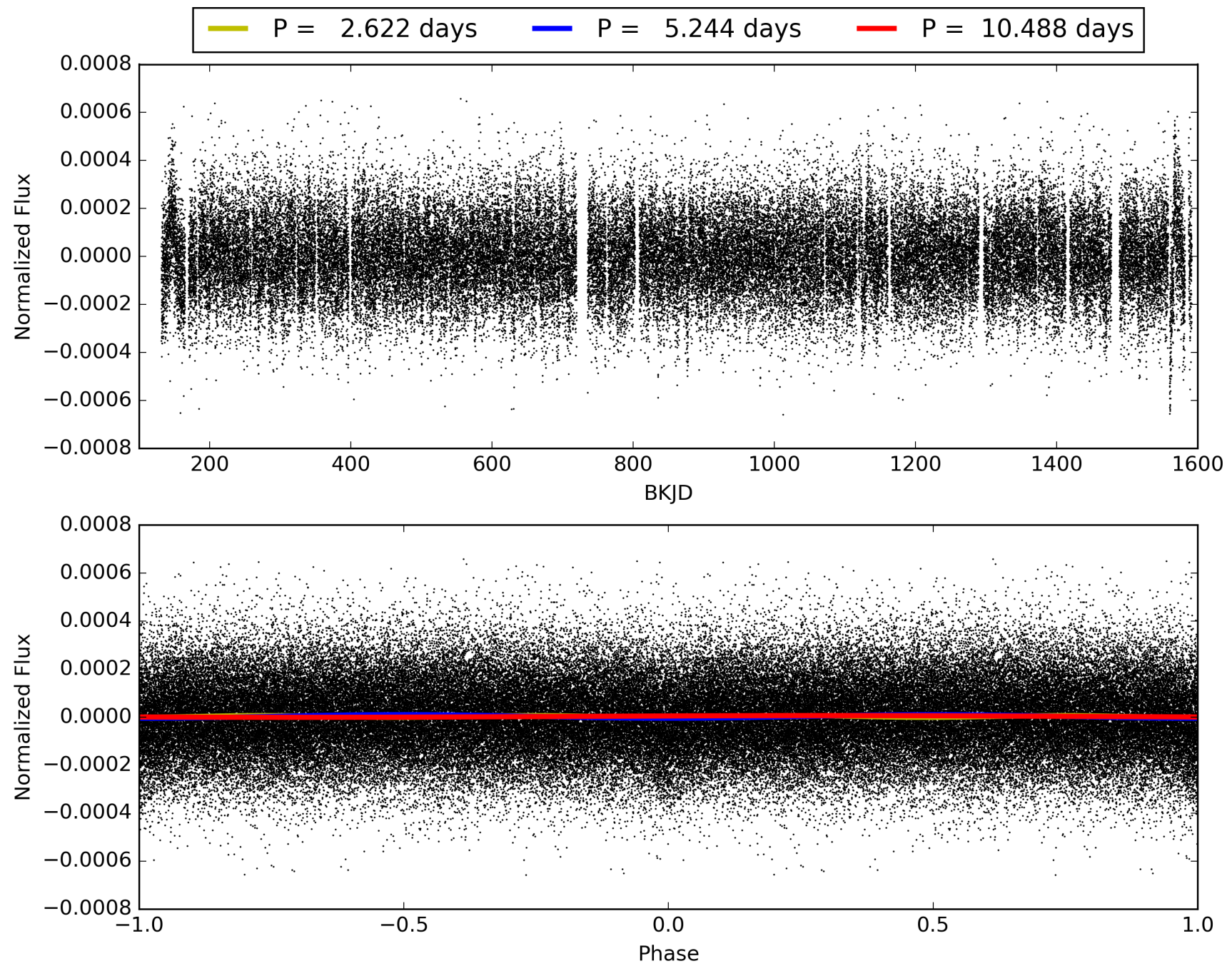
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:22:26 Z

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

TCE 006364247-01, PDC Light Curves

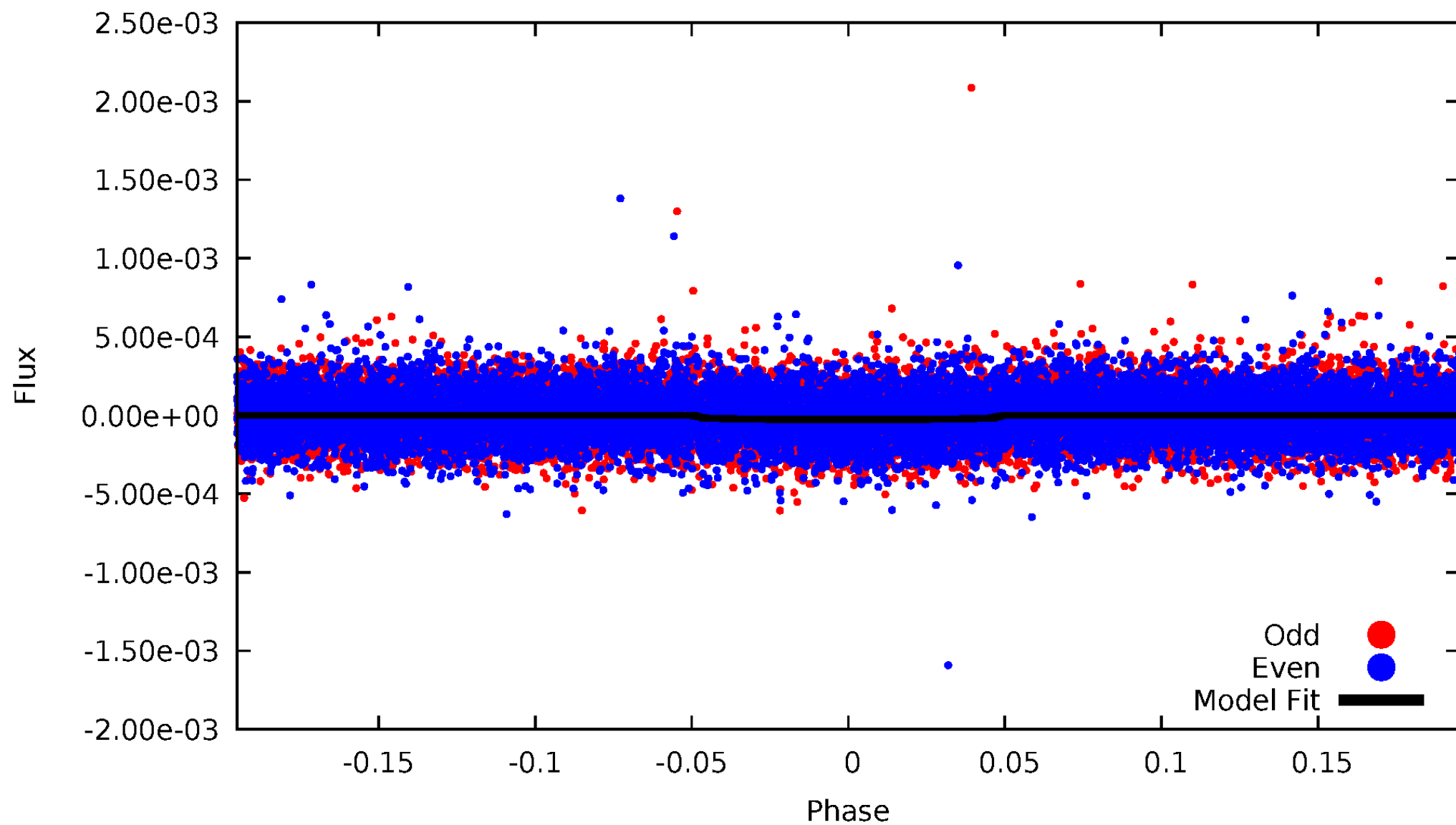


TCE 006364247-01



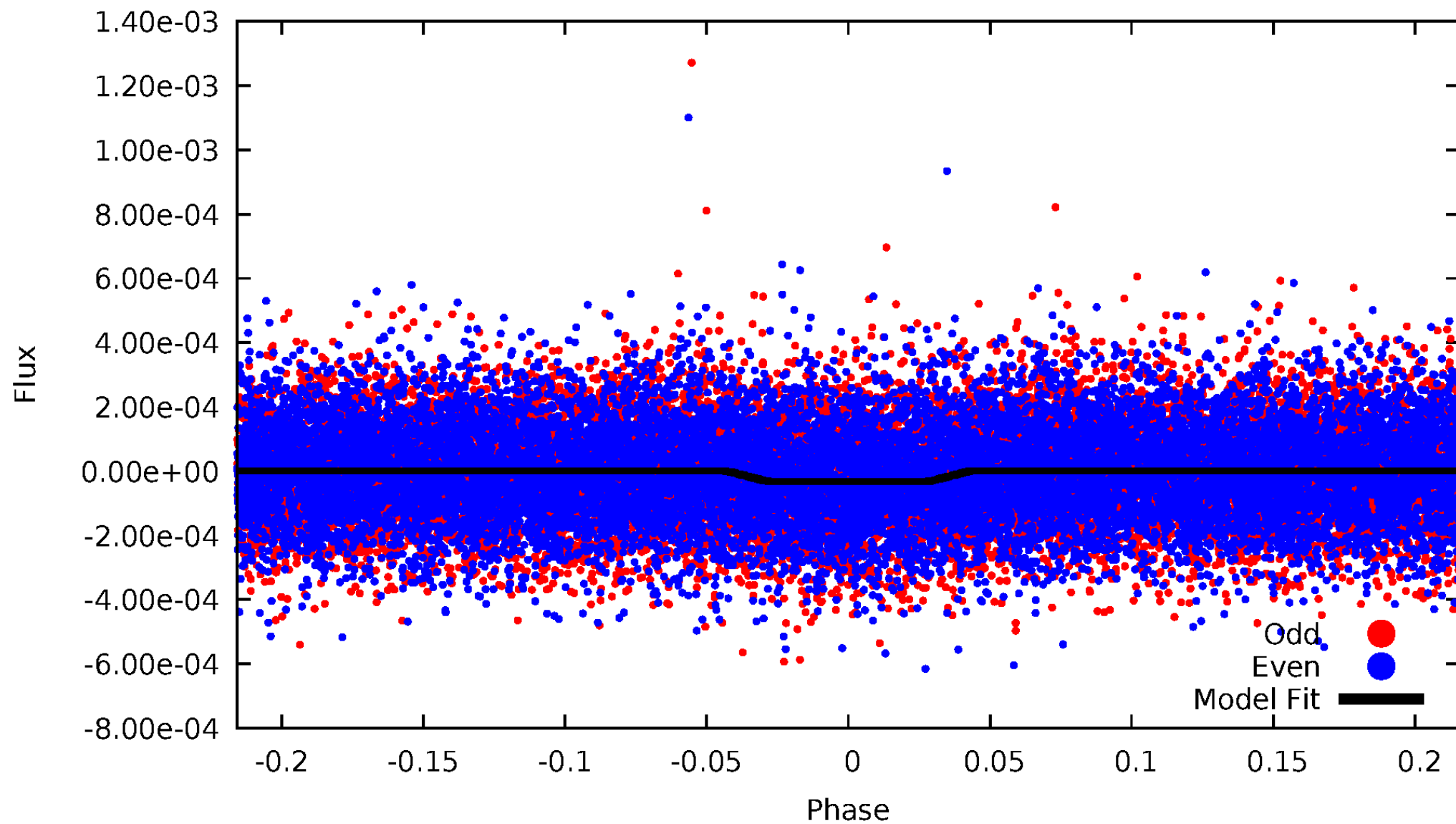
DV Odd/Even

TCE 006364247-01



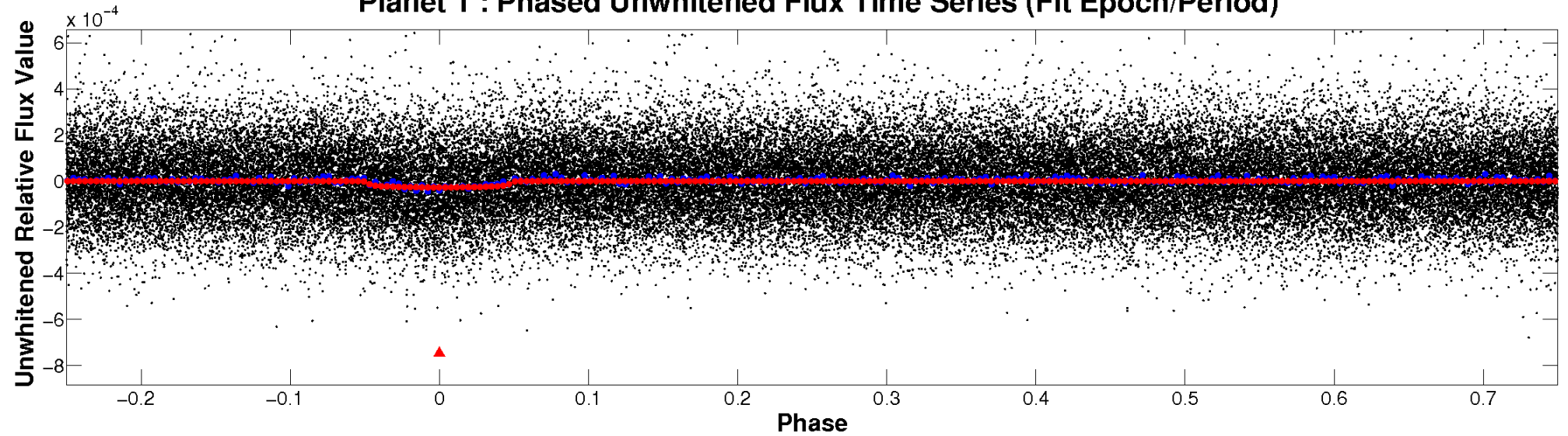
ALT Odd/Even

TCE 006364247-01

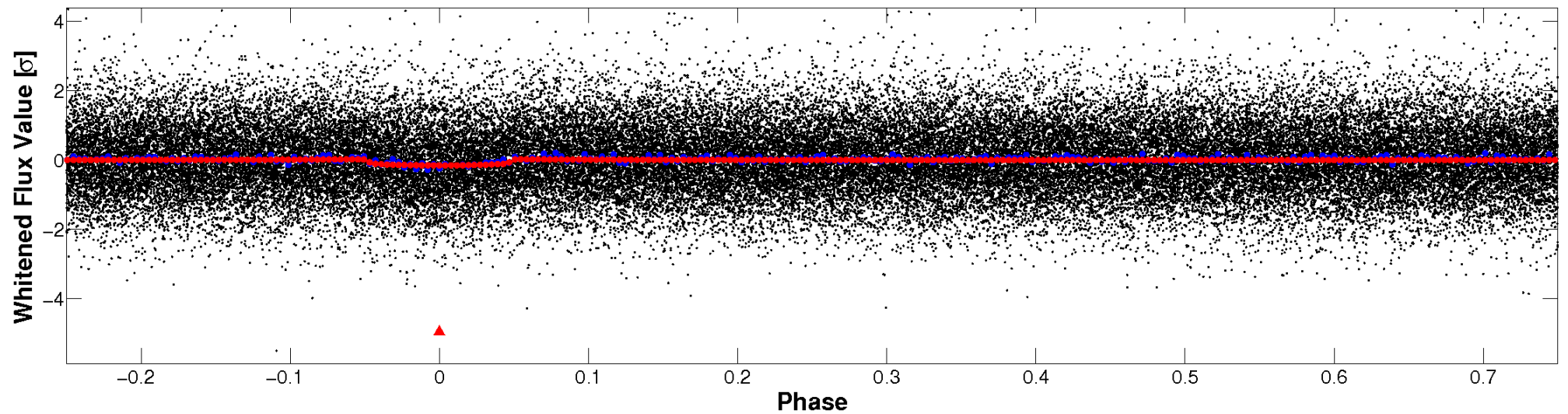


Non-Whitened Vs. Whitened Light Curve

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

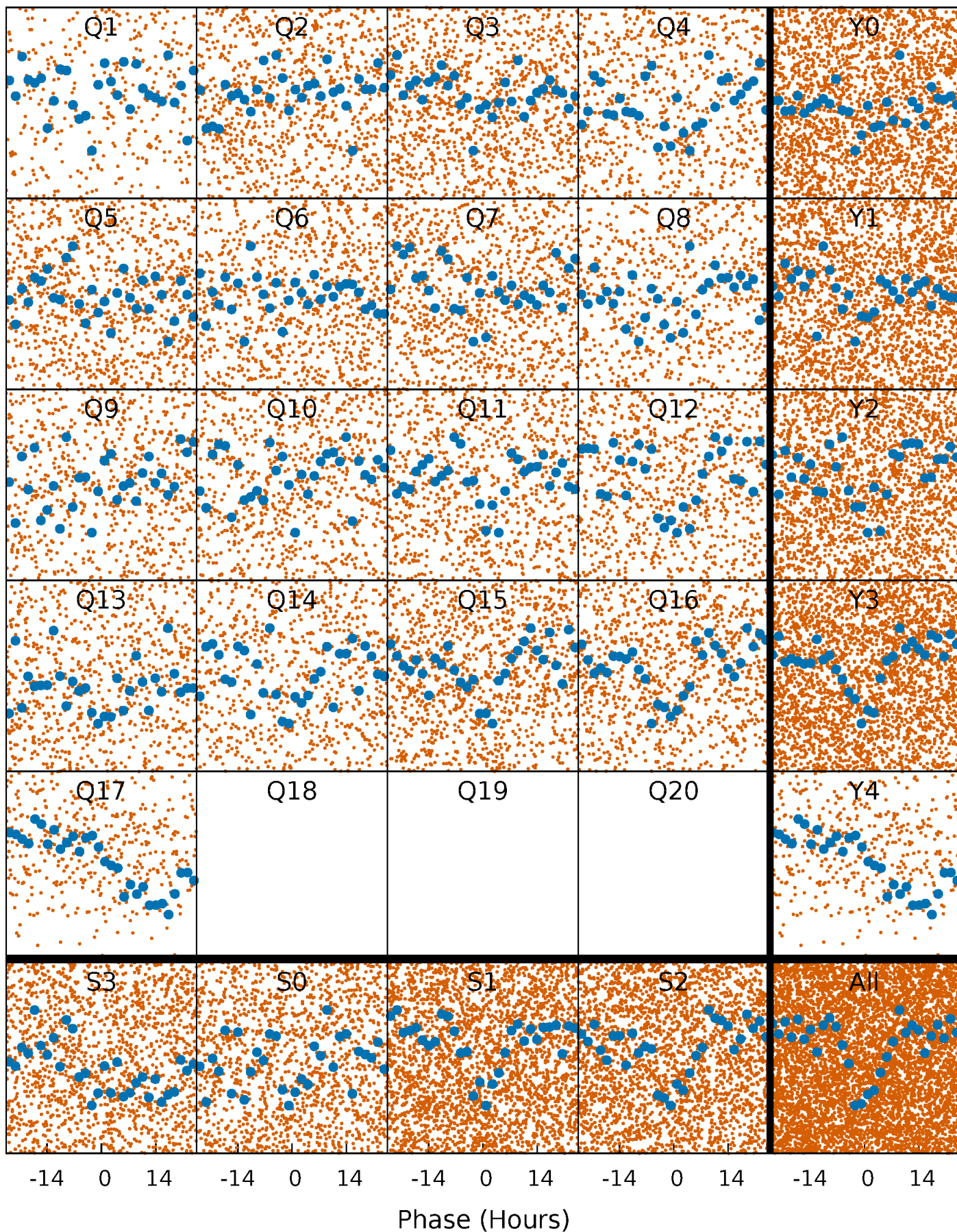


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



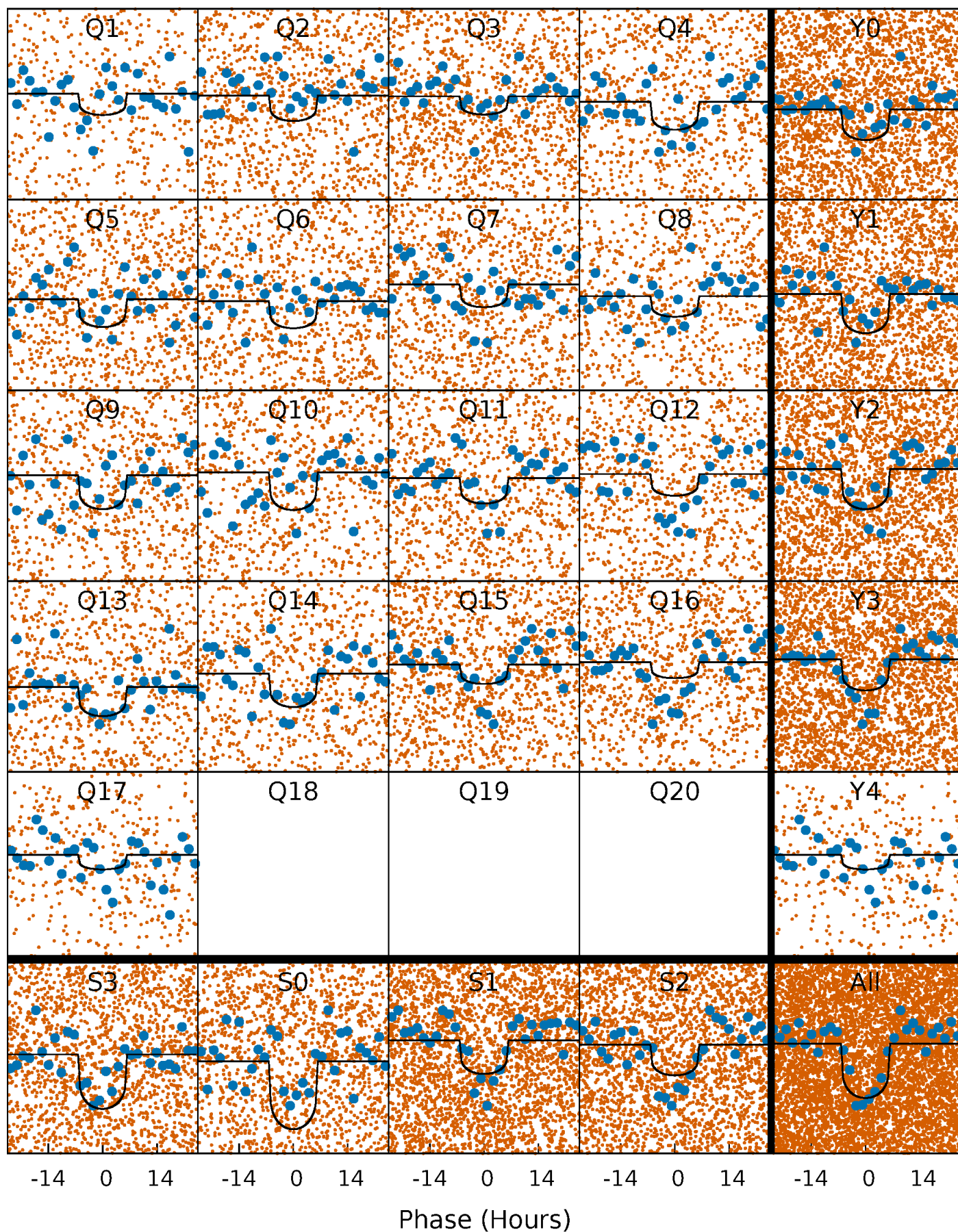
PDC Quarter-Phased Transit Curves

TCE 006364247-01 P= 5.244078 Days $T_0=132.650413$ (BKJD)



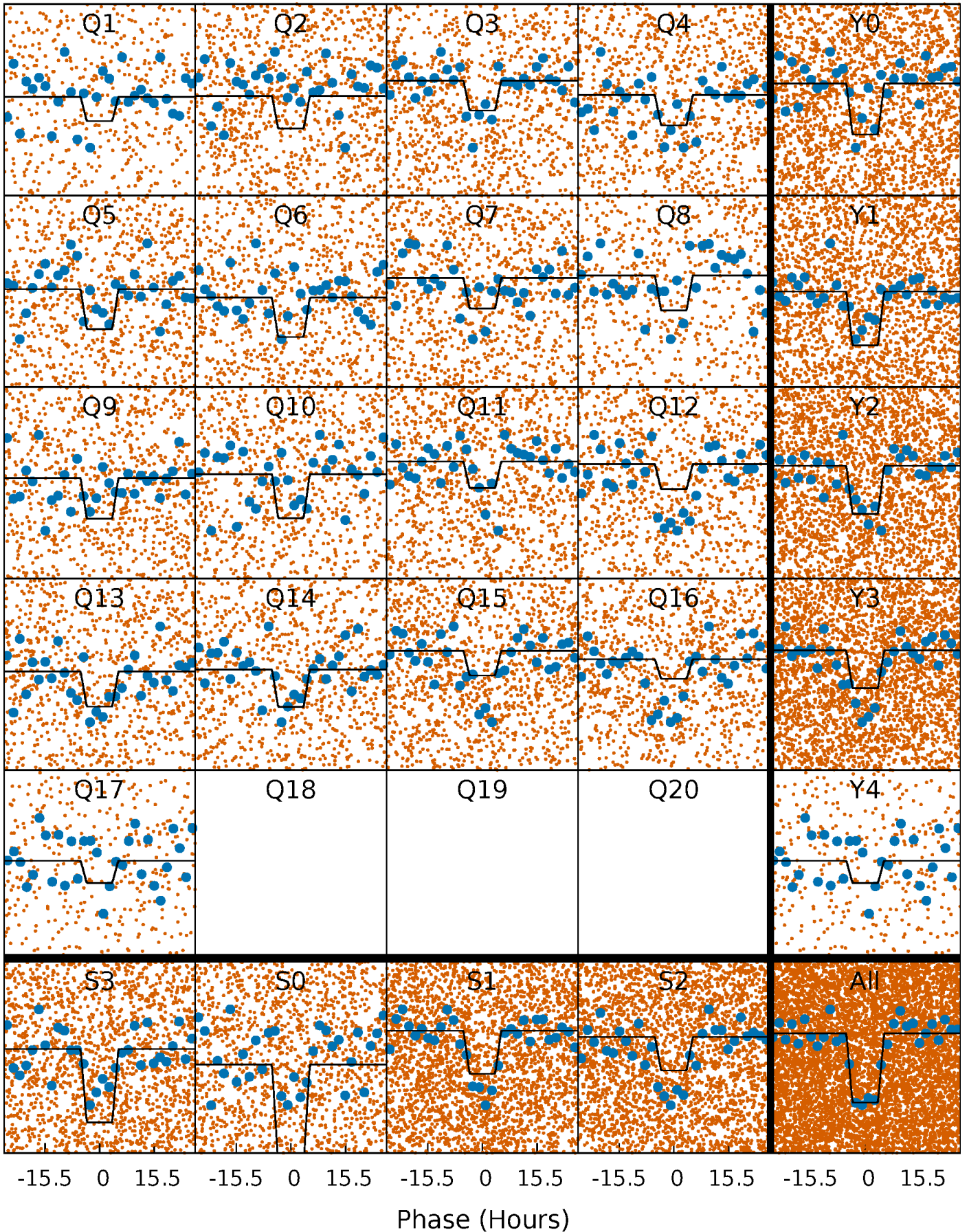
DV Quarter-Phased Transit Curves

TCE 006364247-01 P= 5.244078 Days $T_0=132.650413$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

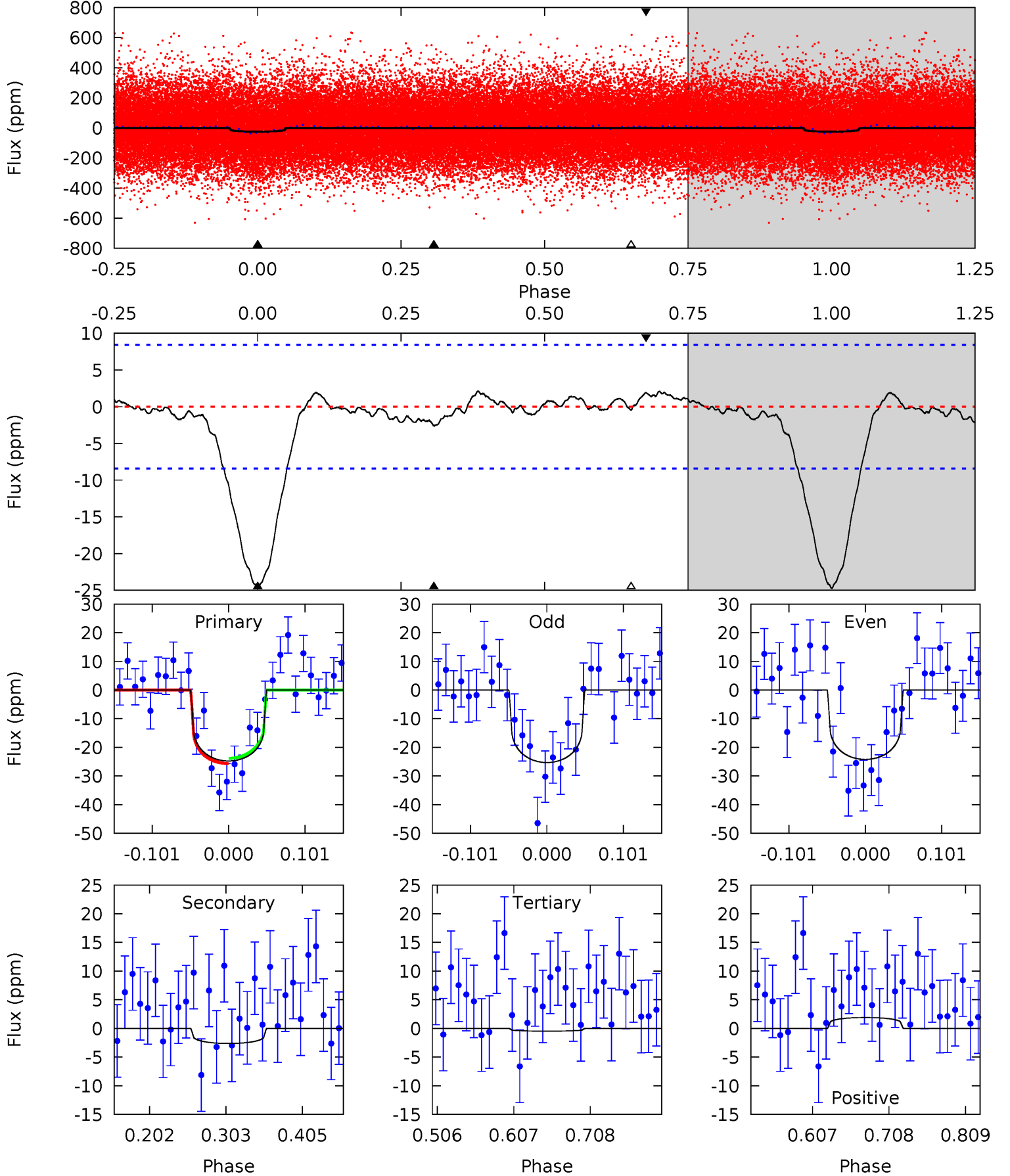
TCE 006364247-01 P= 5.244092 Days $T_0=132.651497$ (BKJD)



DV Model-Shift Uniqueness Test

006364247-01, P = 5.244078 Days, E = 127.406335 Days

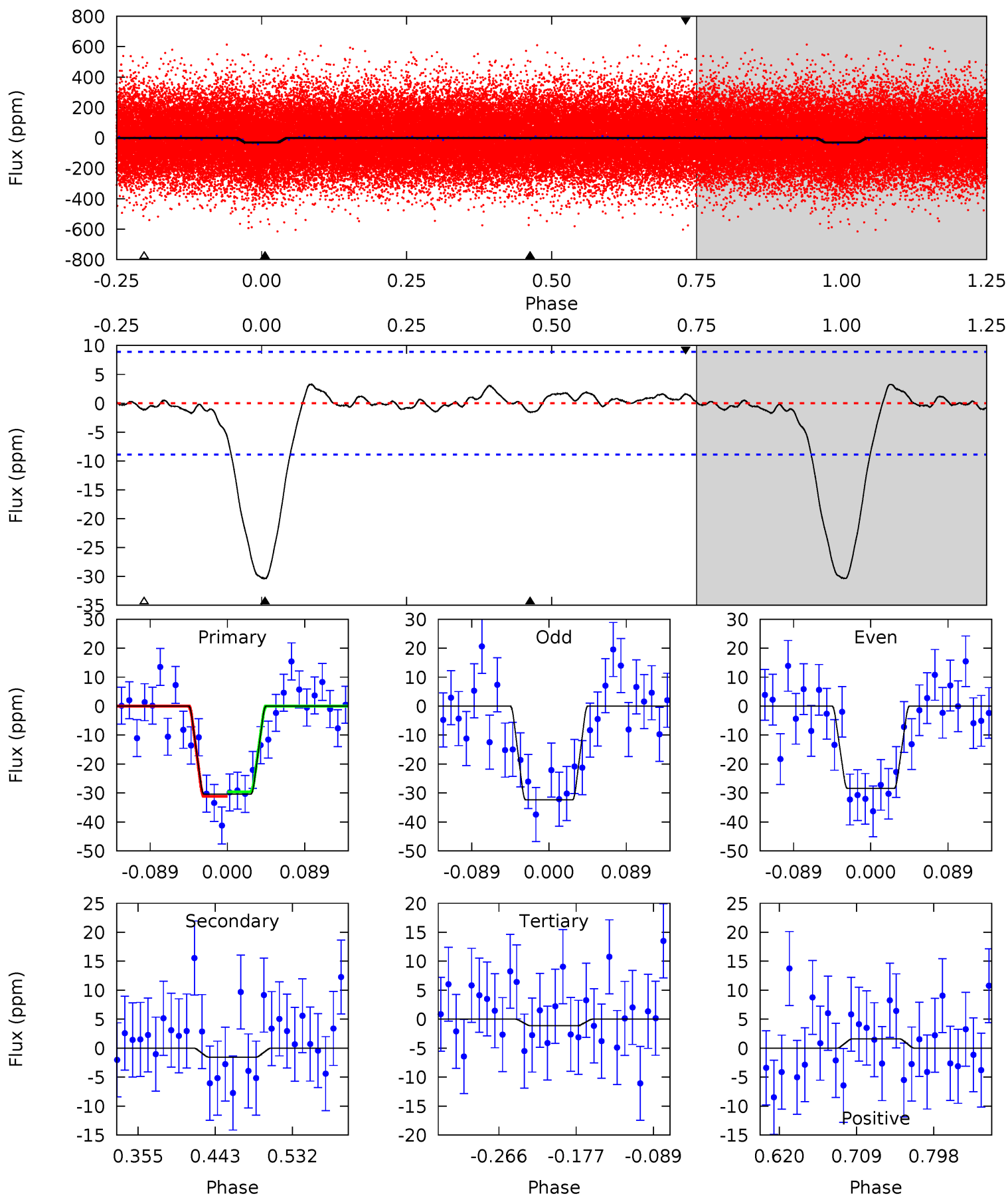
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	1.42	0.25	1.03	4.56	1.64	0.48	13.2	12.4	1.17	0.39	0.30	0.96	0.08	0.50



Alt Model-Shift Uniqueness Test

006364247-01, P = 5.244092 Days, E = 127.407405 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	0.80	0.59	0.83	4.59	1.70	0.44	15.1	14.9	0.22	-0.03	1.03	1.05	0.10	0.39



Stellar Parameters For KIC 006364247

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5952^{+160}_{-177}	$4.489^{+0.052}_{-0.208}$	$0.020^{+0.250}_{-0.300}$	$0.971^{+0.299}_{-0.100}$	$1.057^{+0.126}_{-0.140}$	$1.629^{+0.355}_{-0.897}$
	+3%/-3%	+1%/-5%	+1250%/-1500%	+31%/-10%	+12%/-13%	+22%/-55%
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 006364247-01 / KOI 6693.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 2	$0.58^{+0.23}_{-0.21}$	1503^{+116}_{-66}	3702^{+747}_{-674}	15^{+27}_{-11}
Alt.	-2 ± 2	$0.64^{+0.21}_{-0.21}$	1508^{+103}_{-73}	3279^{+677}_{-5913}	$7.266^{+14.689}_{-8.323}$

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 $A_{obs} \gg 1.0$

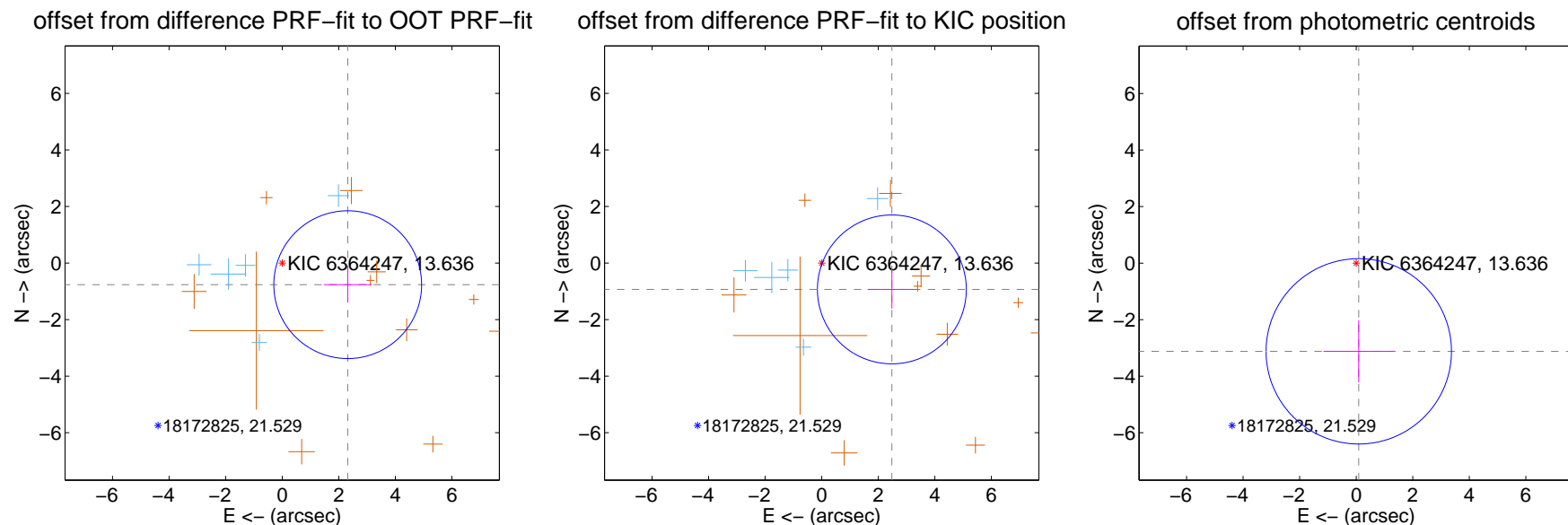
DV Centroid Data

Supplemental centroid analysis for 006364247-01. Kepler magnitude: 13.64. Transit SNR 10.69

There are 5 quarters with good PRF difference image offsets

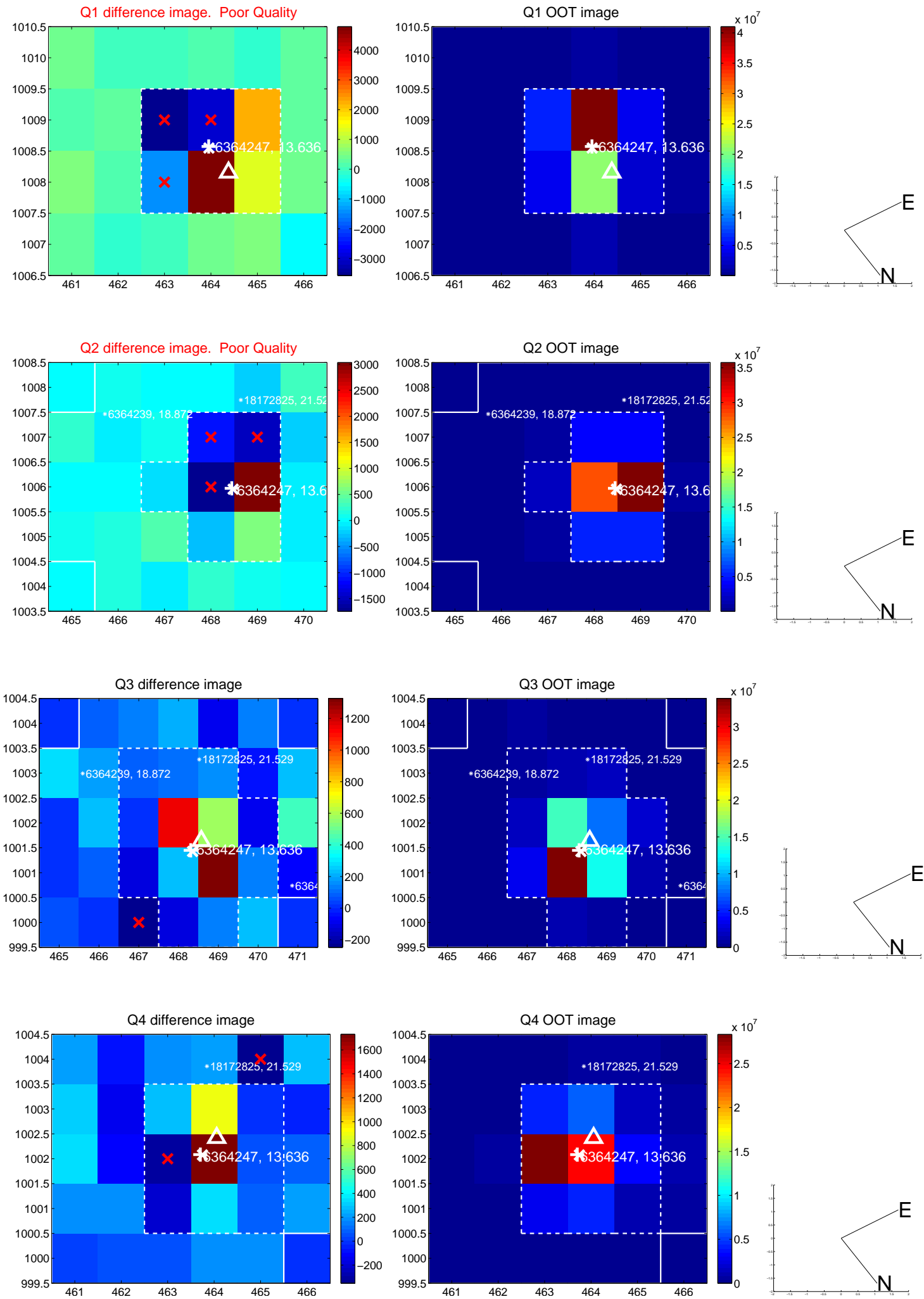
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.438 ± 0.871	2.80	-2.315 ± 0.840	-0.765 ± 0.626
PRF-fit source offset from KIC position	2.650 ± 0.877	3.02	-2.480 ± 0.859	-0.932 ± 0.675
photometric centroid source offset	3.12 ± 1.09	2.86	-0.09 ± 1.25	-3.12 ± 1.09

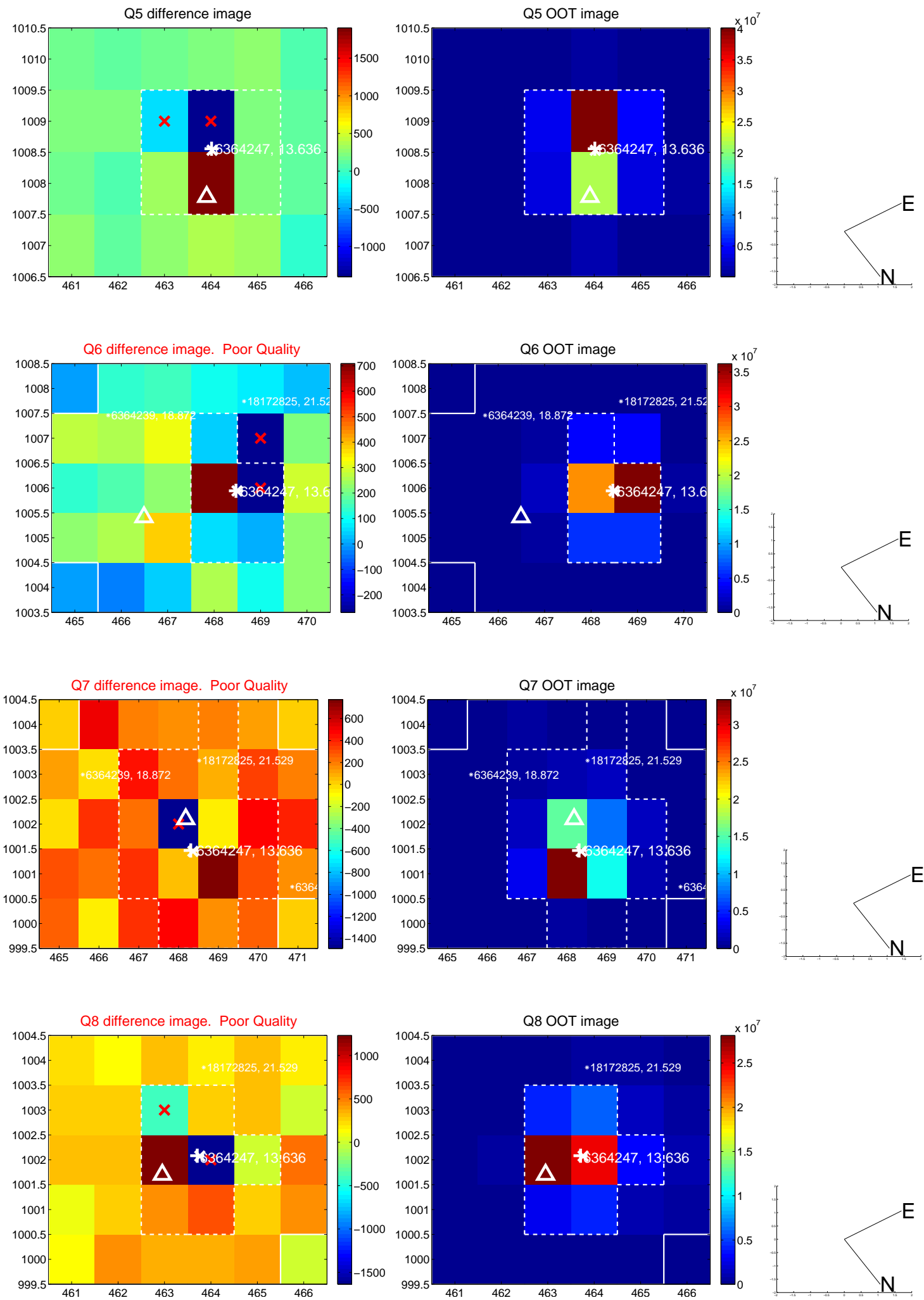


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

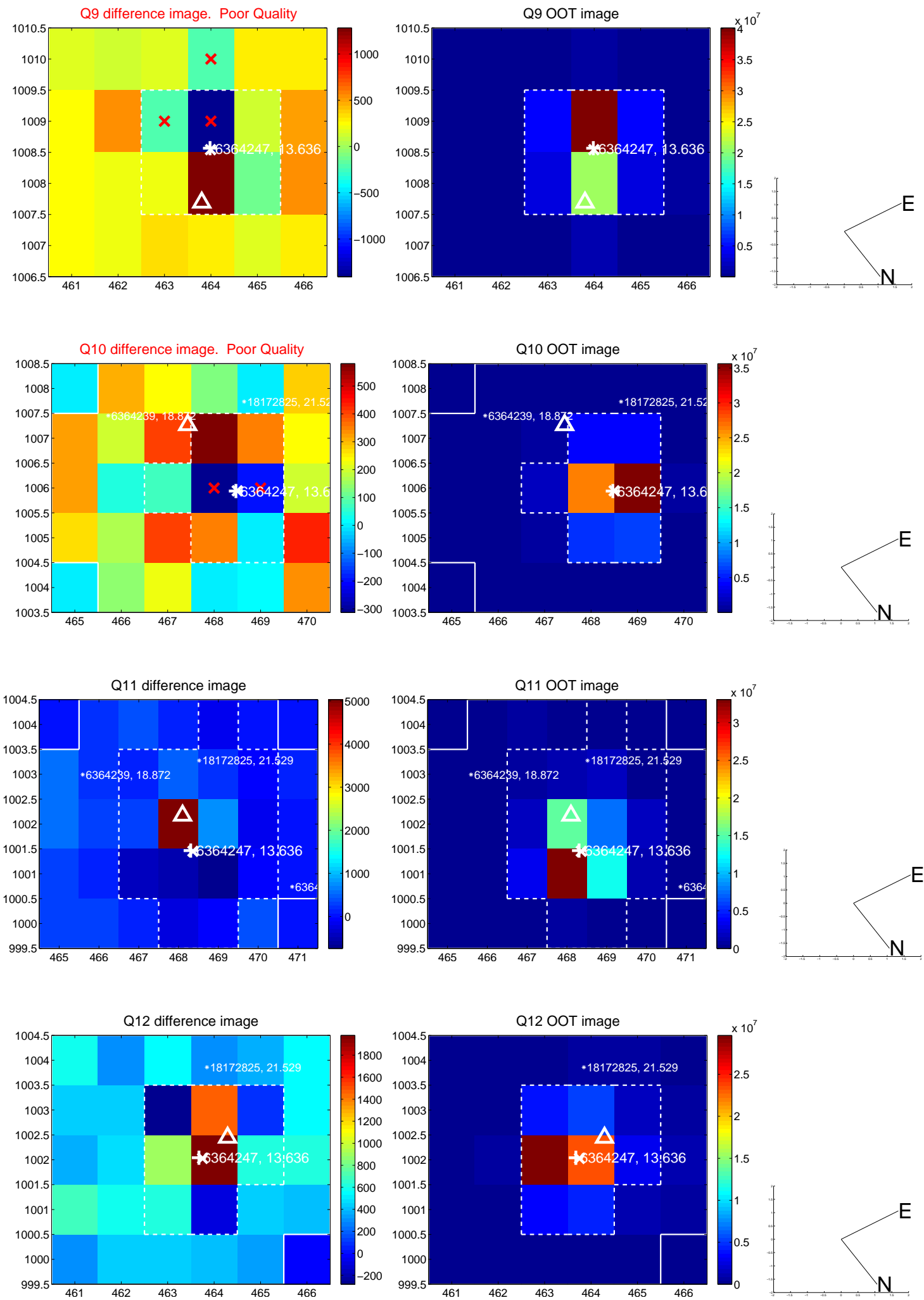
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



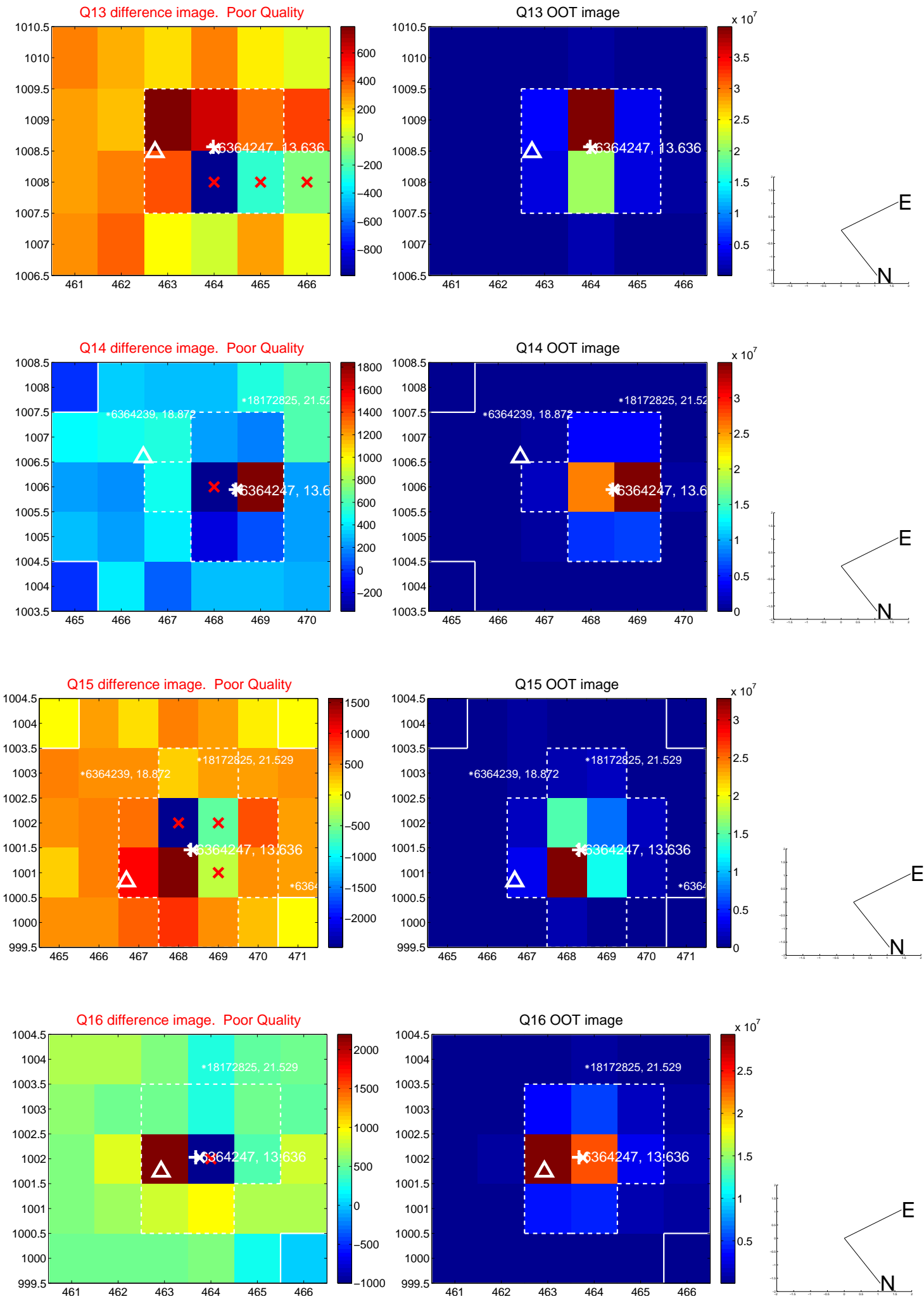
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



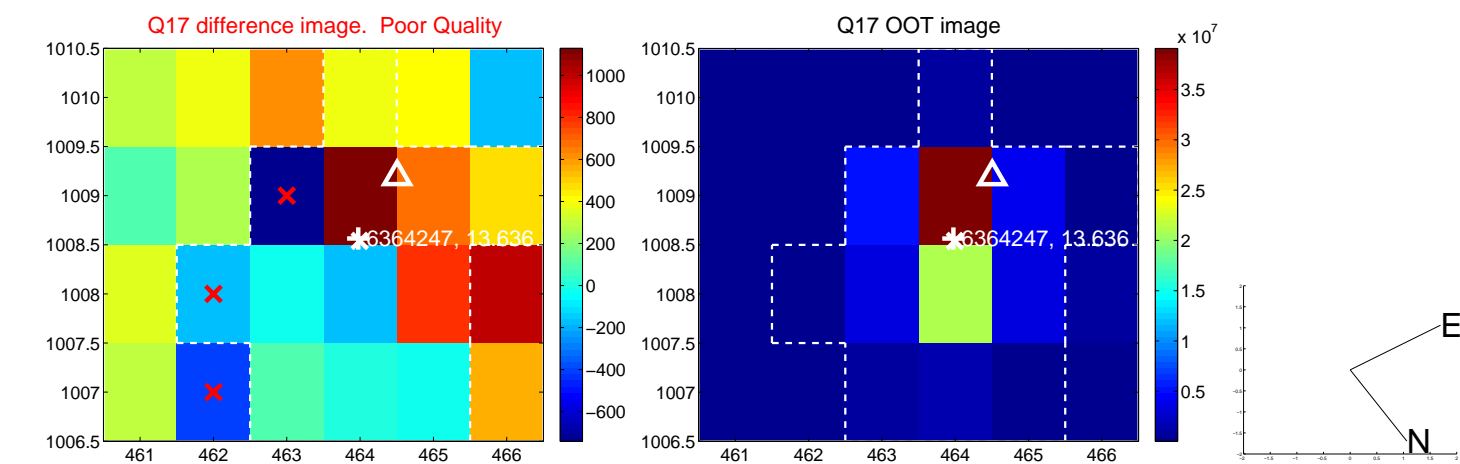
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



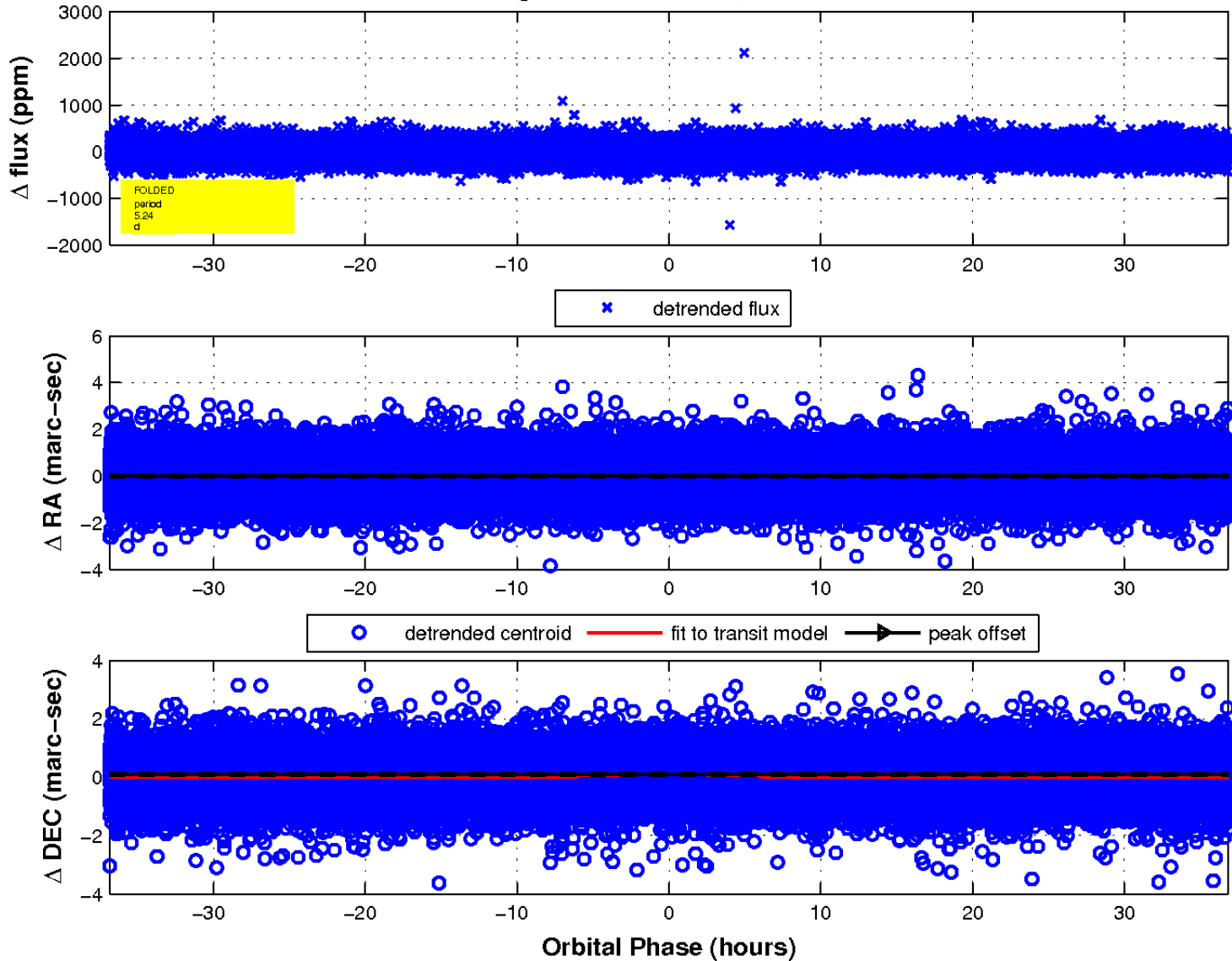
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

