

KIC 006362874

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})
006362874-01	OBS	1128.01	0.974847	132.111622	121.1	1.632	24.3	46.8	0.83	5487	1.10	1601.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006362874-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

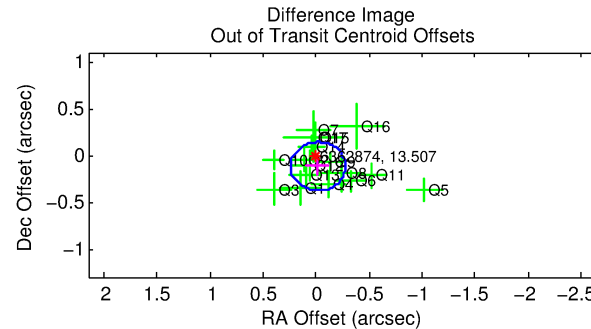
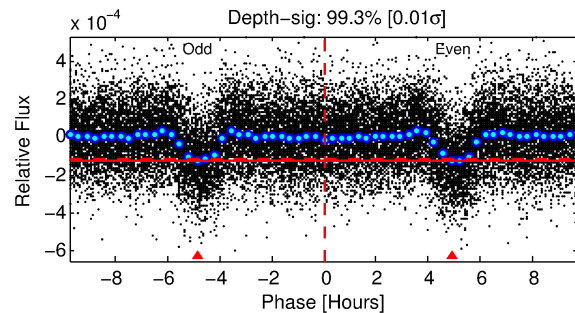
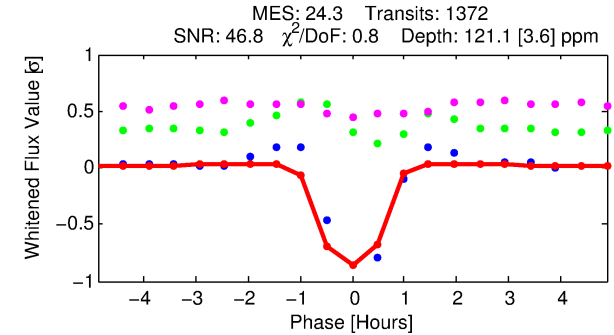
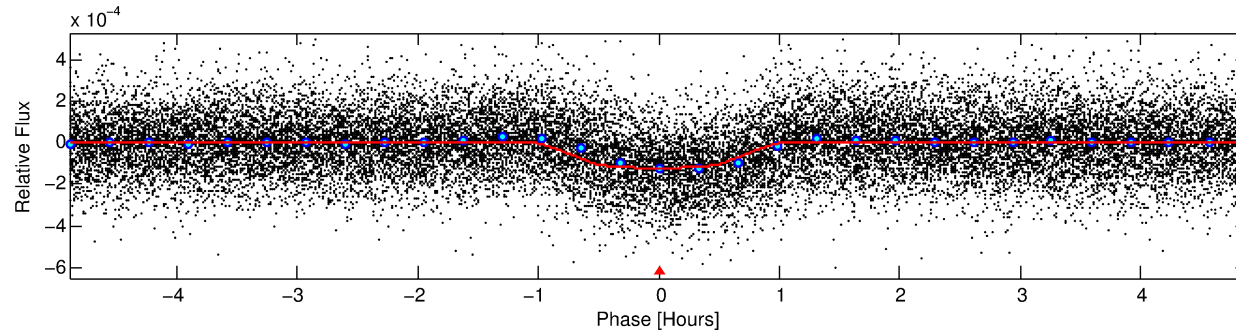
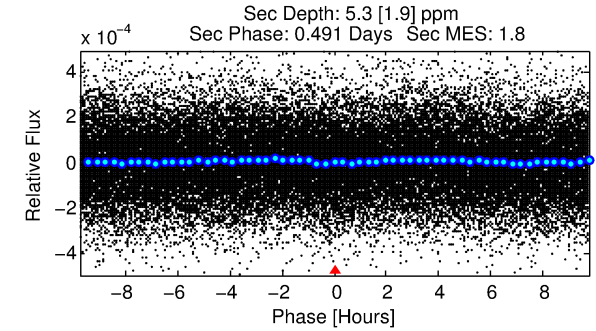
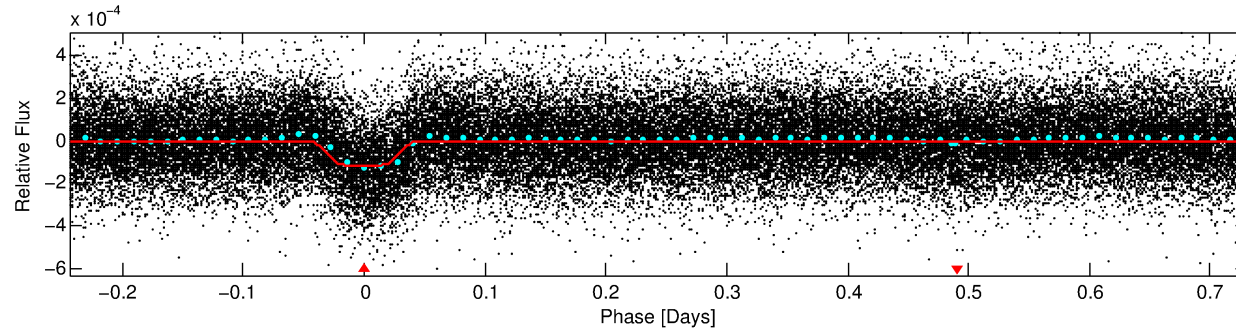
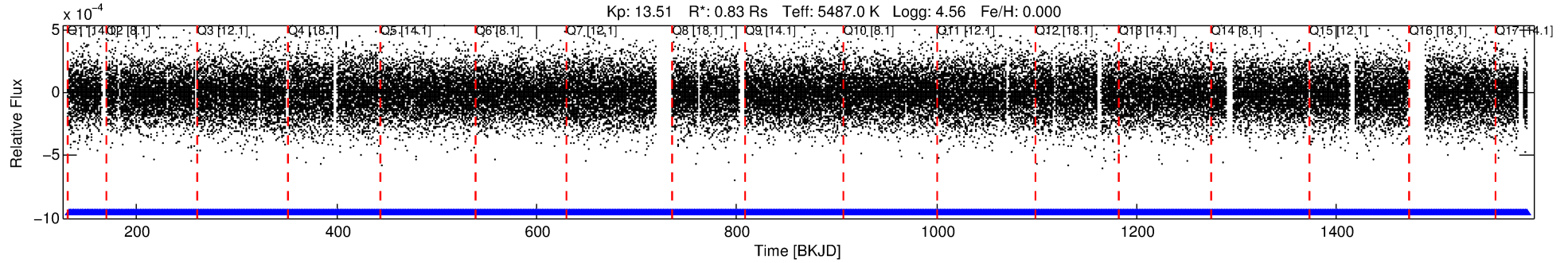
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006362874-01

No Significant Match Found

DV One-Page Summary

KIC: 6362874 Candidate: 1 of 1 Period: 0.975 d
KOI: K01128.01 Corr: 0.864



DV Fit Results:

Period = 0.97485 [0.00000] d
Epoch = 132.1116 [0.0005] BKJD
Rp/R* = 0.0121 [0.0024]
a/R* = 2.31 [1.67]
b = 0.90 [0.19]
Seff = 1601.04 [310.95]
Teff = 1613 [78] K
Rp = 1.10 [0.25] Re
a = 0.0187 [0.0020] AU
Ag = 0.84 [0.47] [-0.34σ]
Teffp = 2386 [323] K [2.33σ]

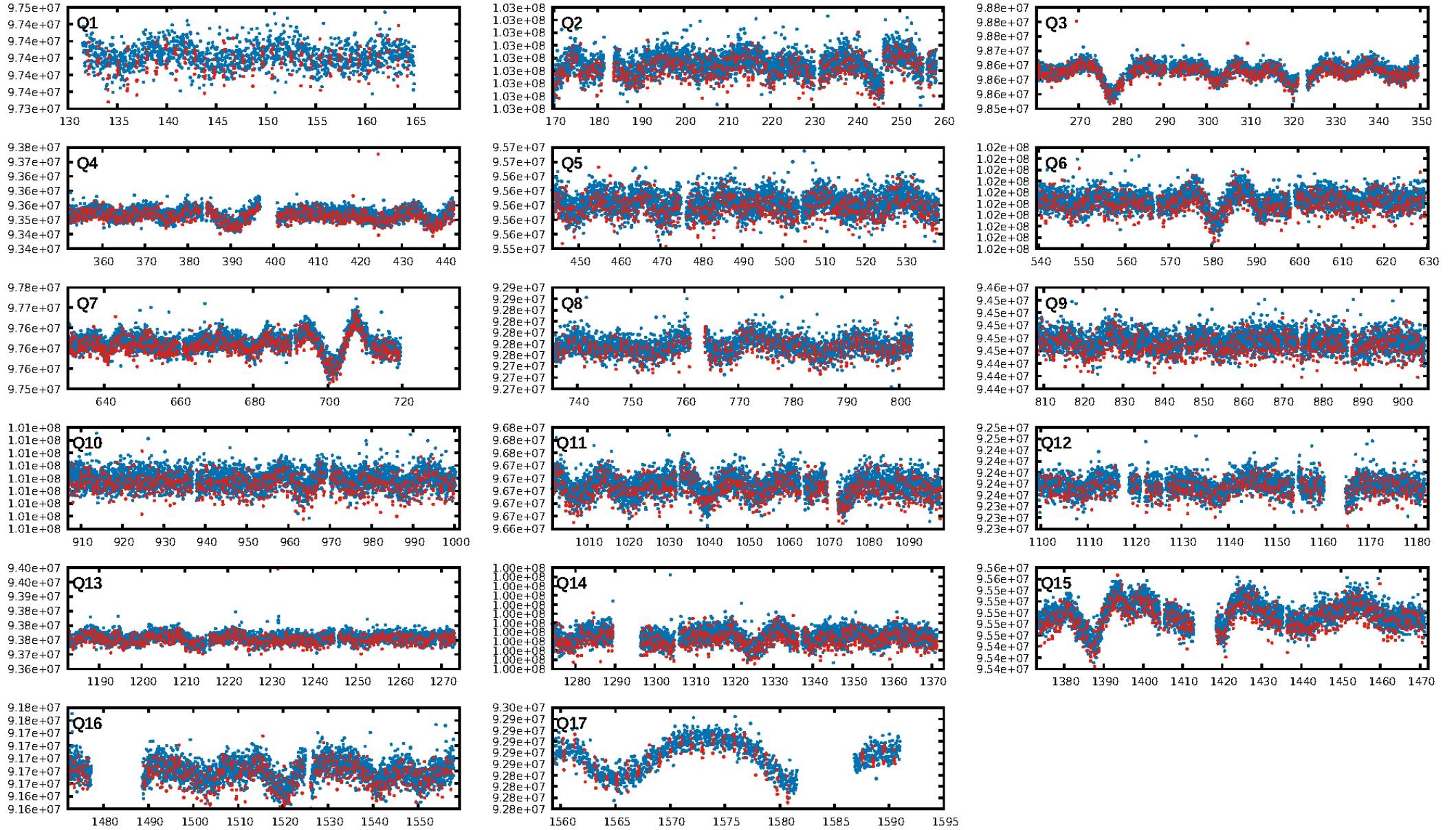
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.29e-123
RollingBand-fgt: 1.00 [1311/1311]
GhostDiagnostic-chr: 7.97
Centroid-sig: N/A
Centroid-so: 0.546 arcsec [2.40σ]
OotOffset-rm: 0.119 arcsec [1.38σ]
KicOffset-rm: 0.471 arcsec [5.48σ]
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]

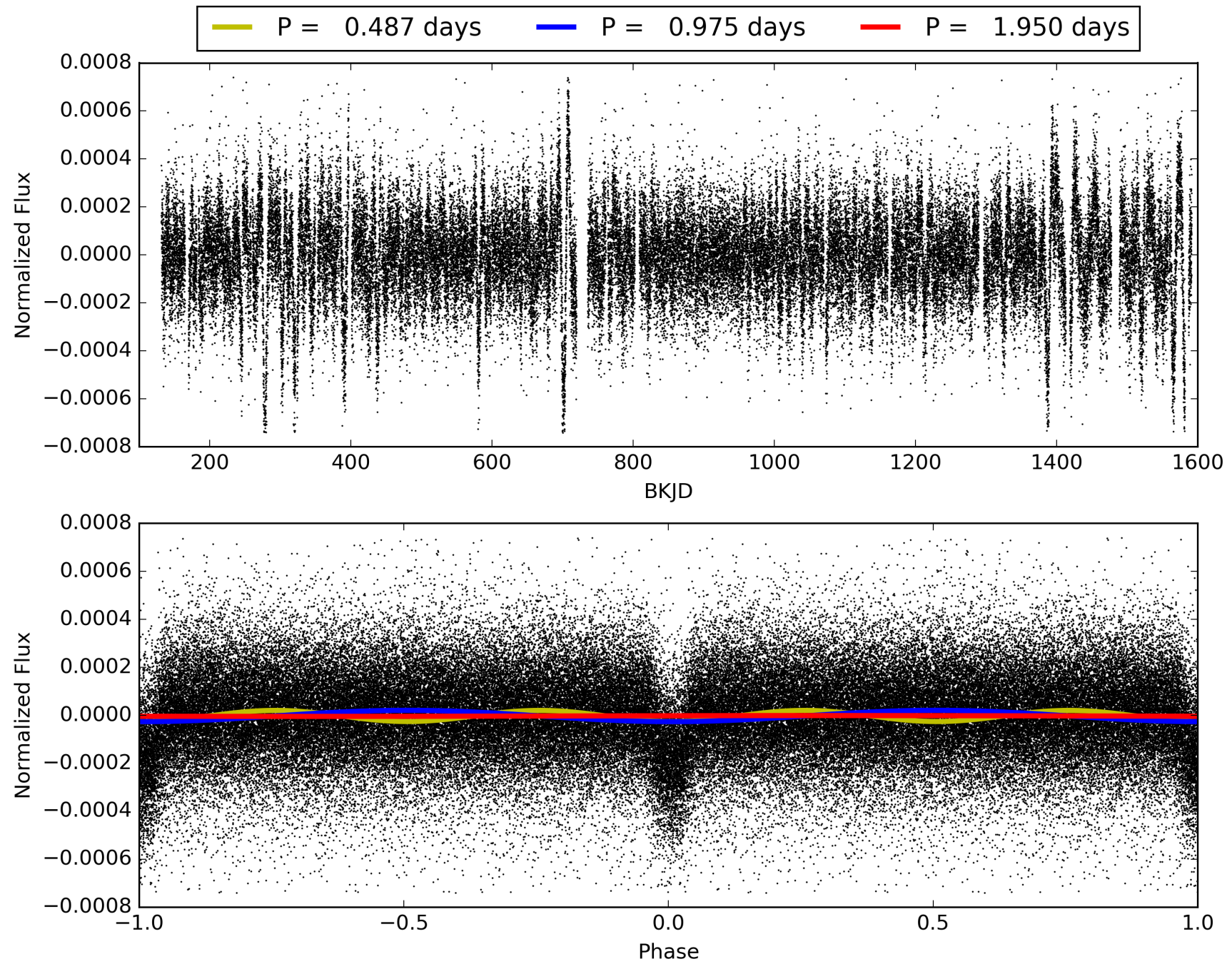
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:14:36 Z

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

TCE 006362874-01, PDC Light Curves

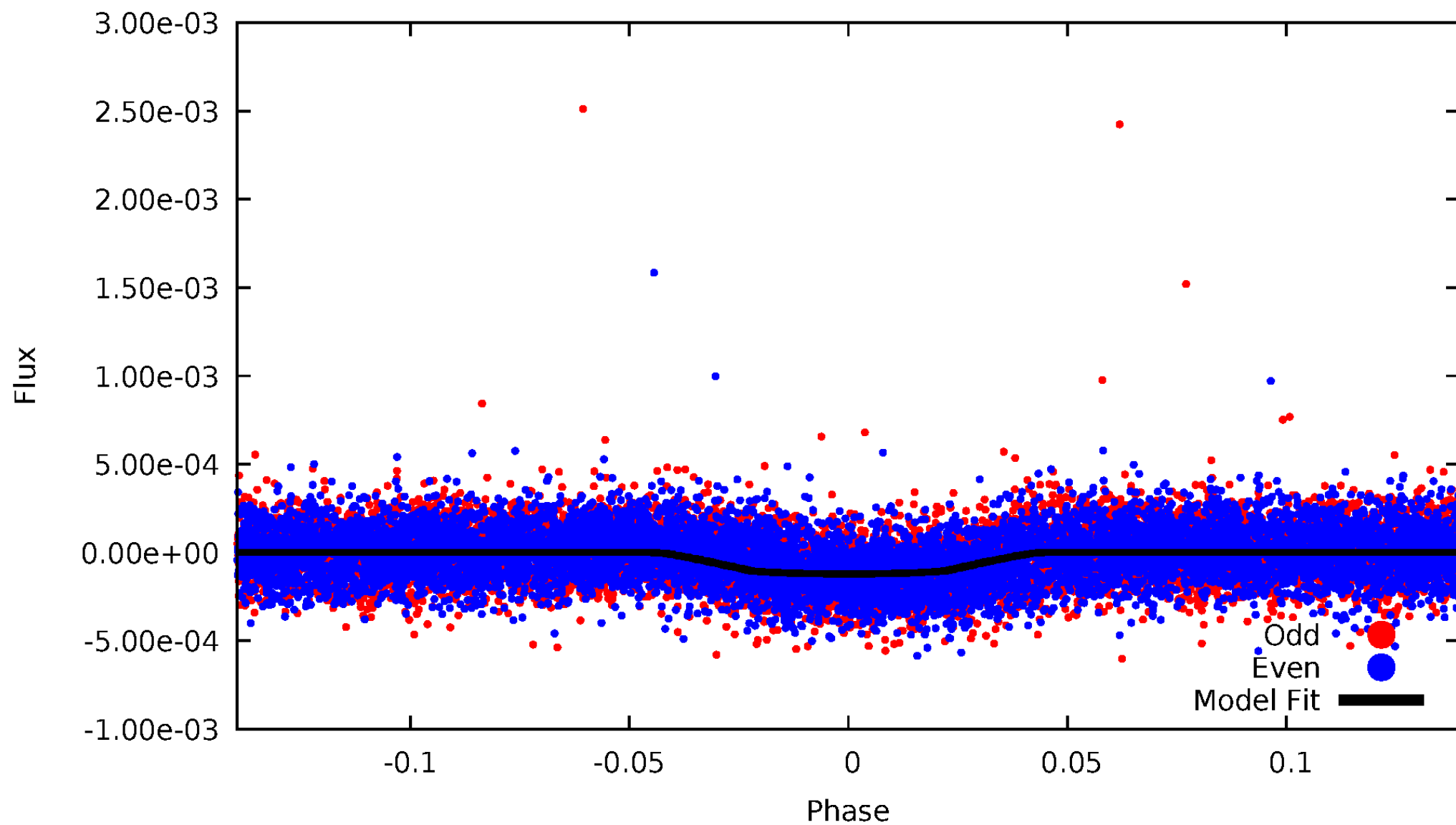


TCE 006362874-01



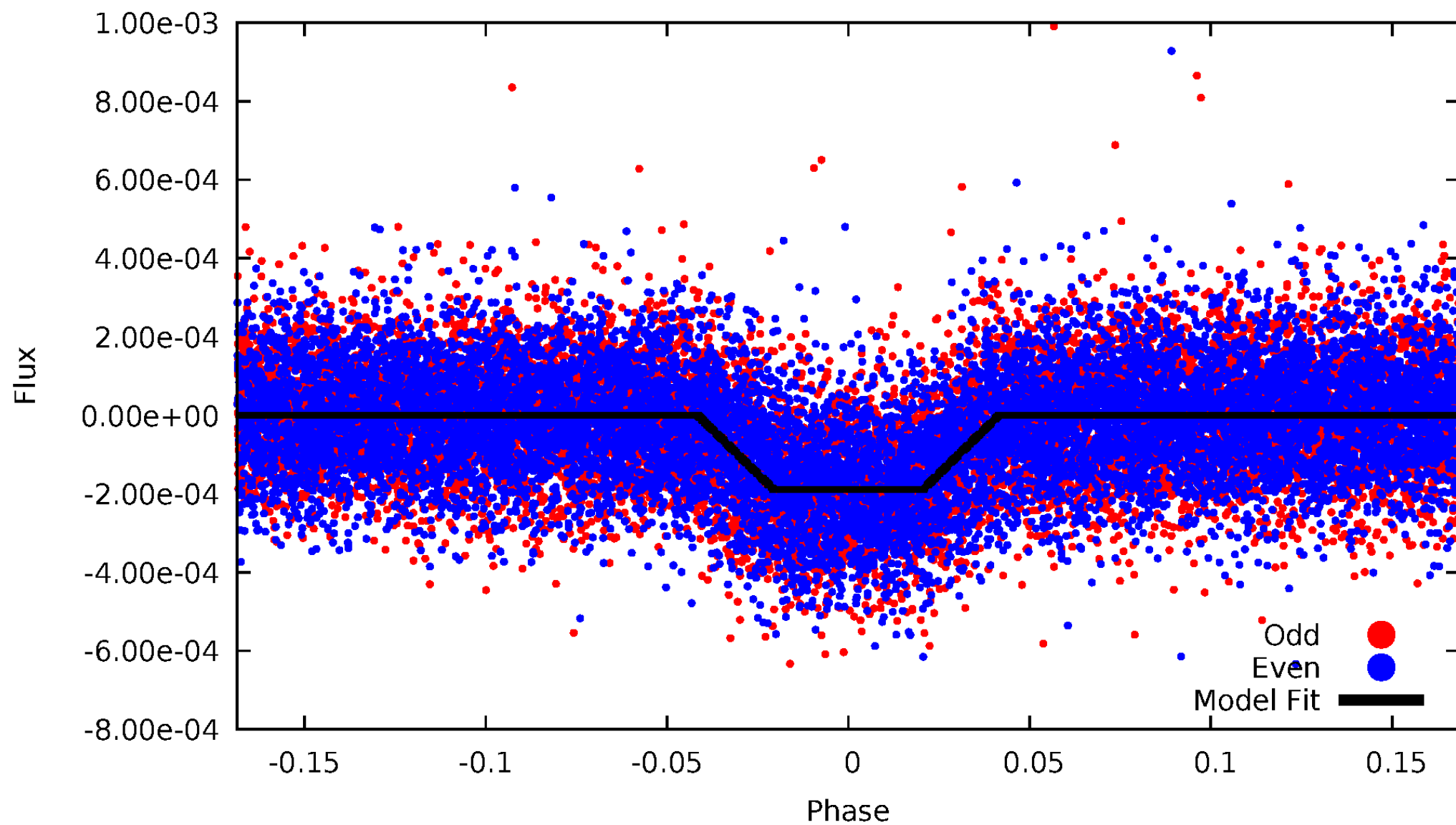
DV Odd/Even

TCE 006362874-01



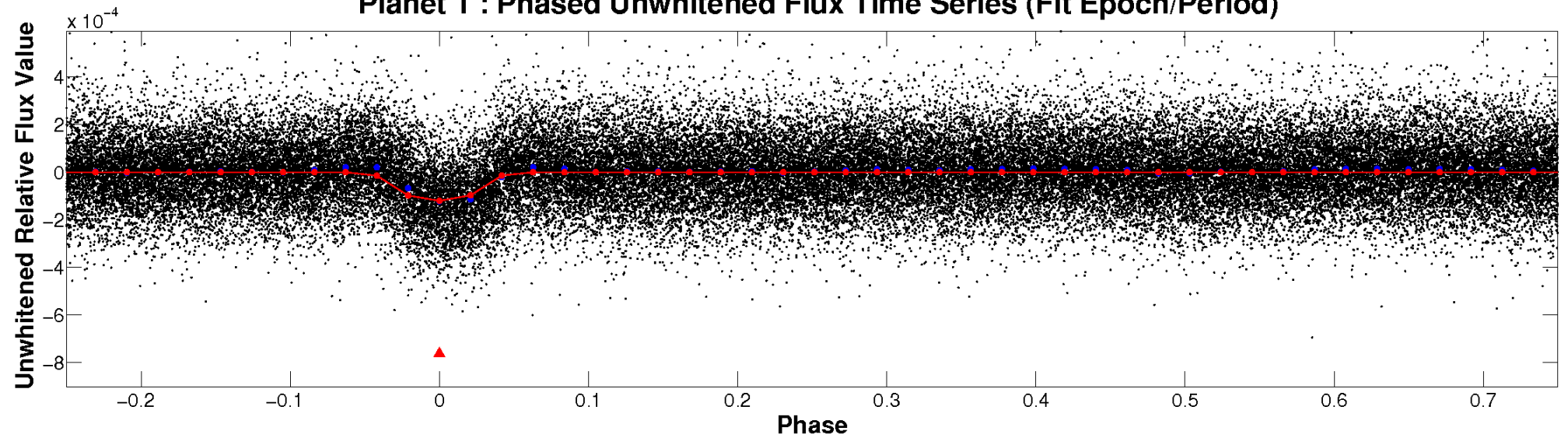
ALT Odd/Even

TCE 006362874-01

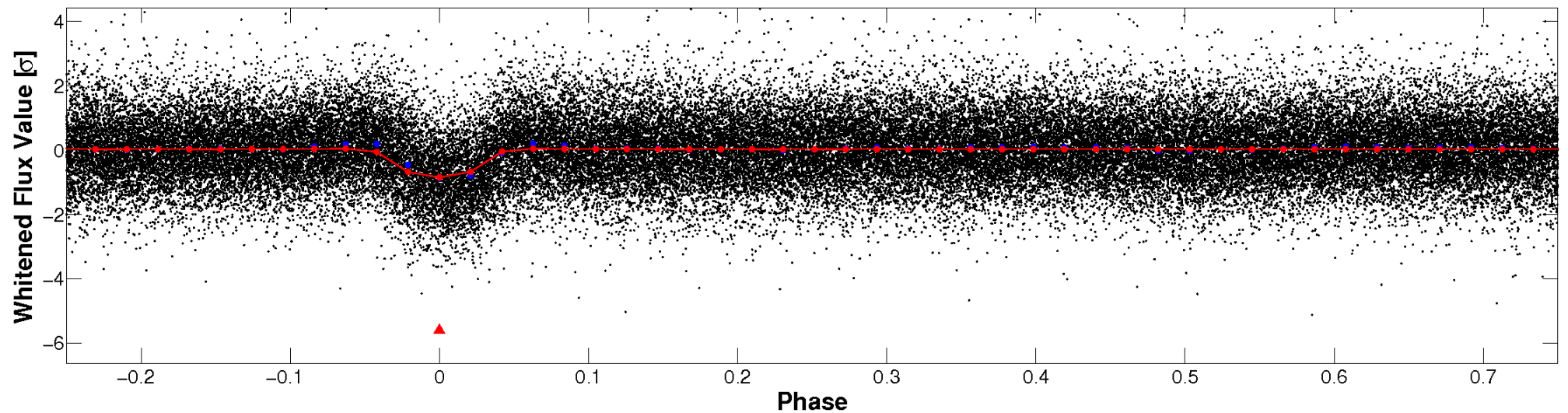


Non-Whitened Vs. Whitened Light Curve

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

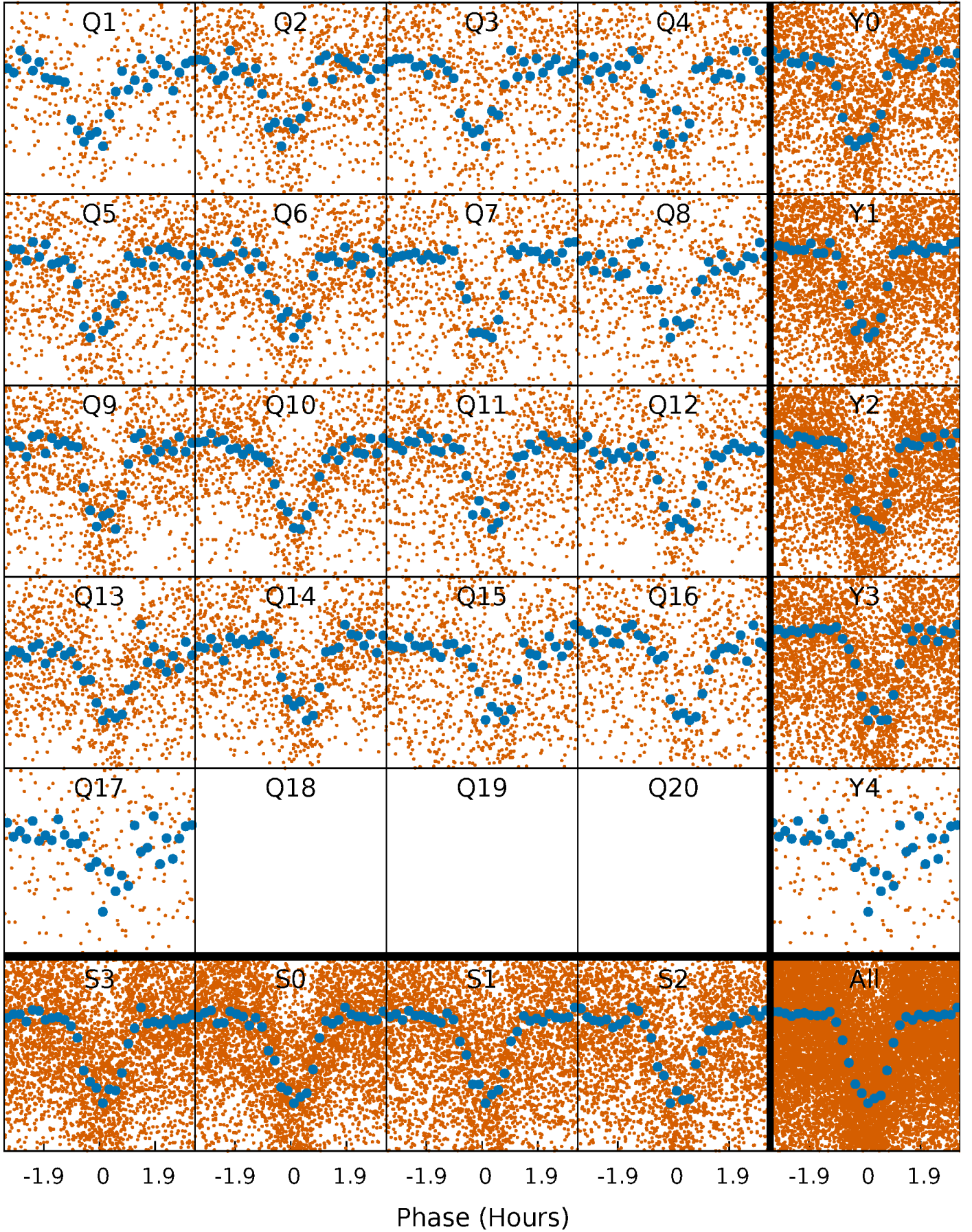


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



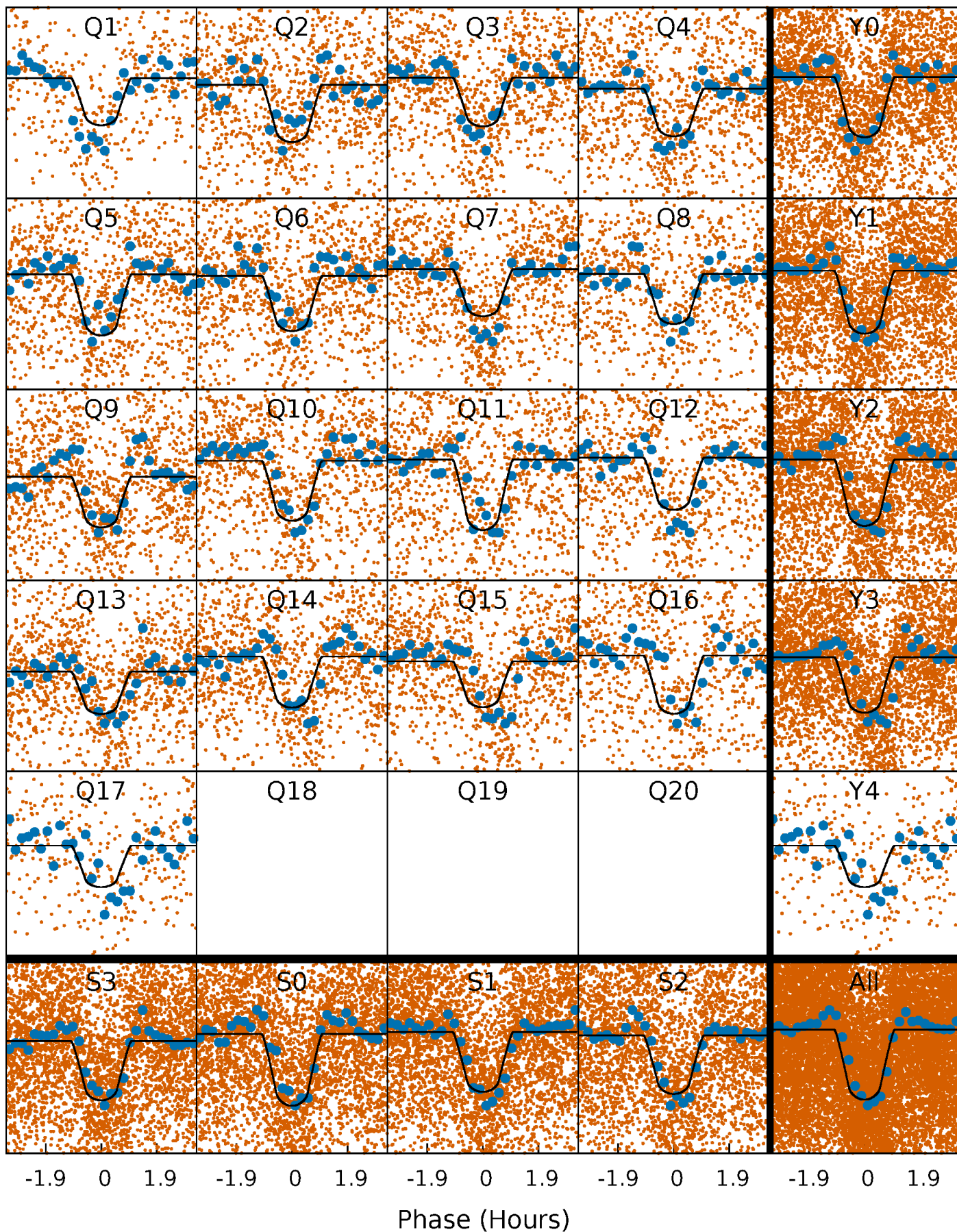
PDC Quarter-Phased Transit Curves

TCE 006362874-01 P= 0.974847 Days $T_0=132.111622$ (BKJD)



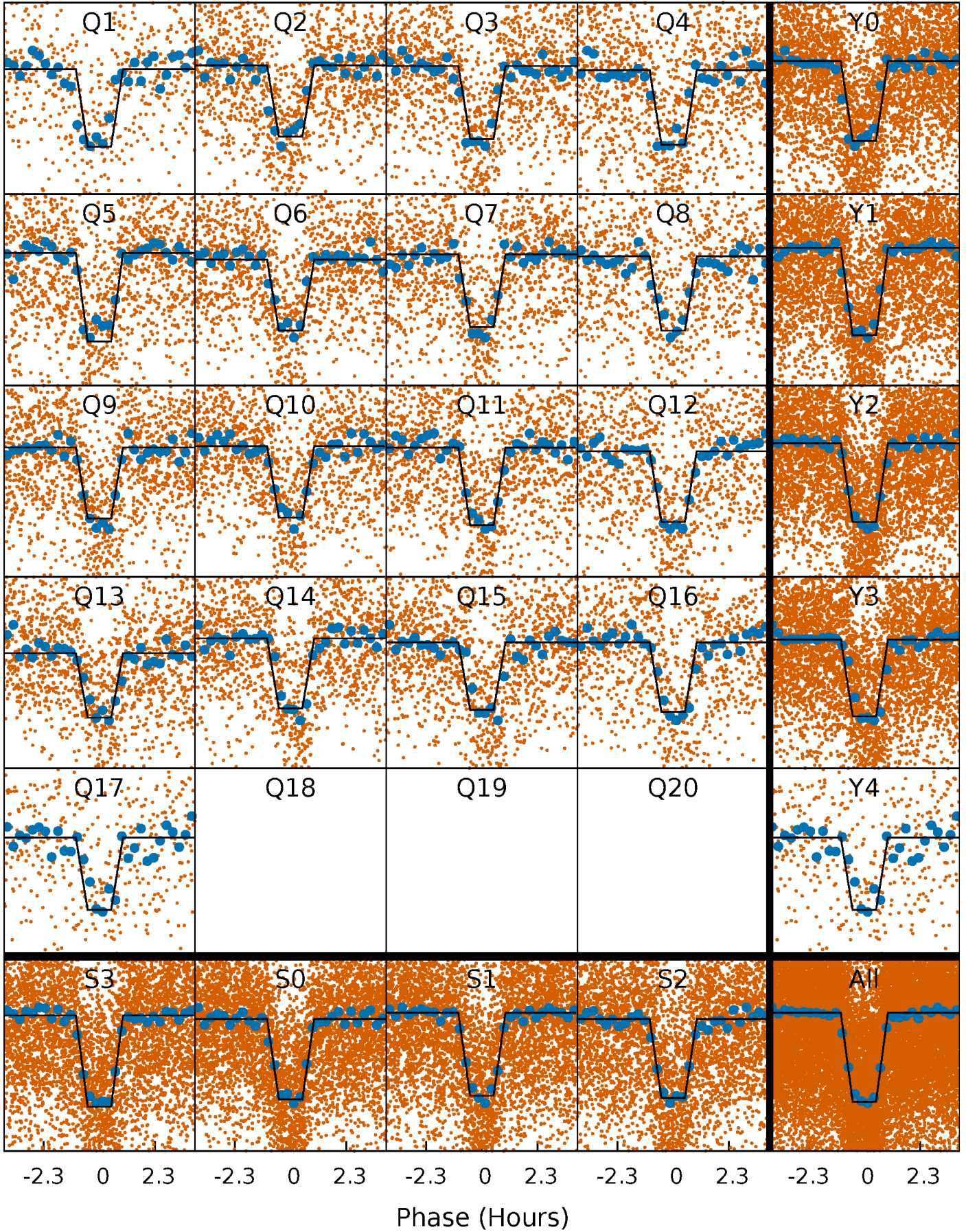
DV Quarter-Phased Transit Curves

TCE 006362874-01 P= 0.974847 Days $T_0=132.111622$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

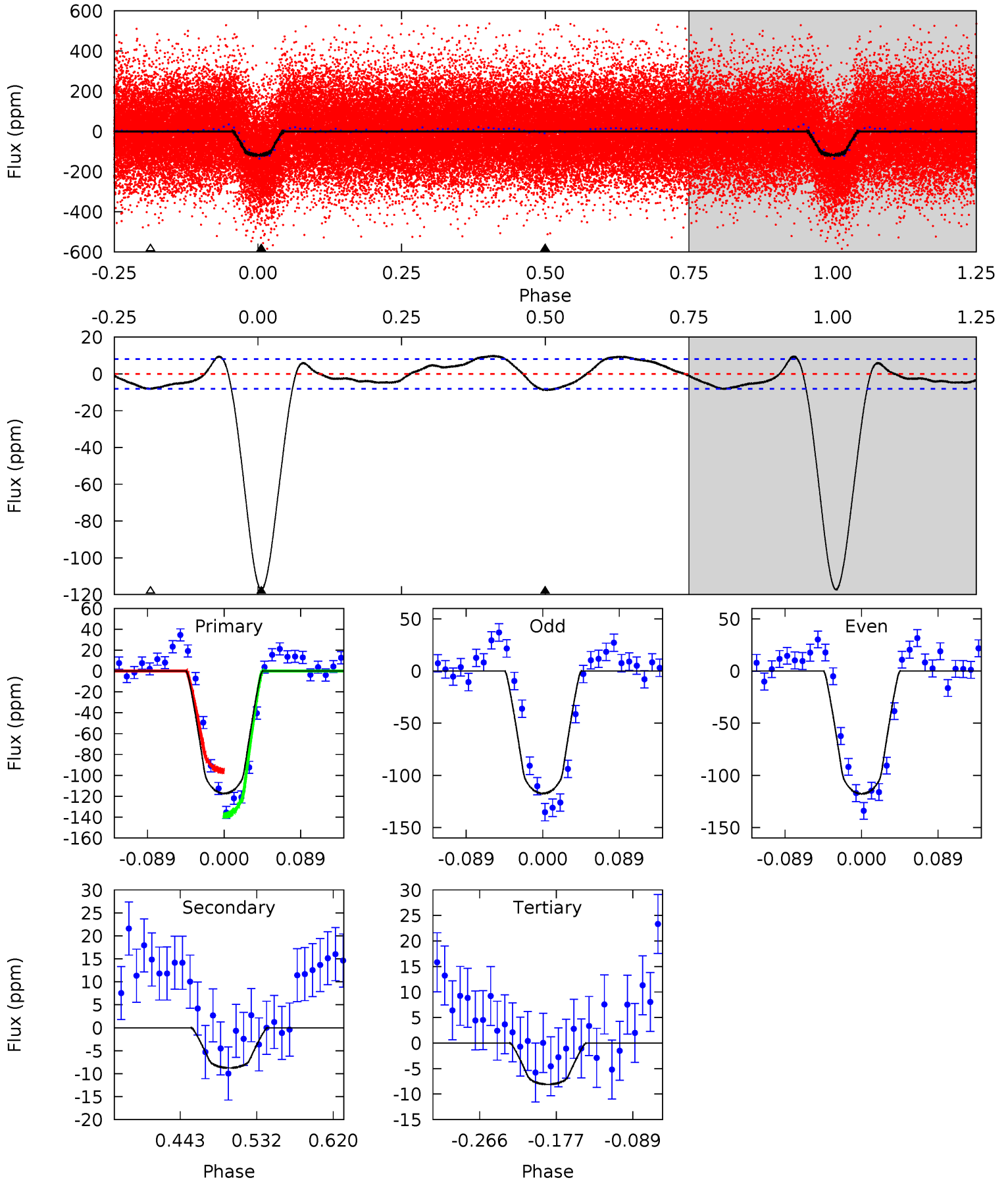
TCE 006362874-01 P= 0.974856 Days $T_0=132.111338$ (BKJD)



DV Model-Shift Uniqueness Test

006362874-01, P = 0.974847 Days, E = 131.136775 Days

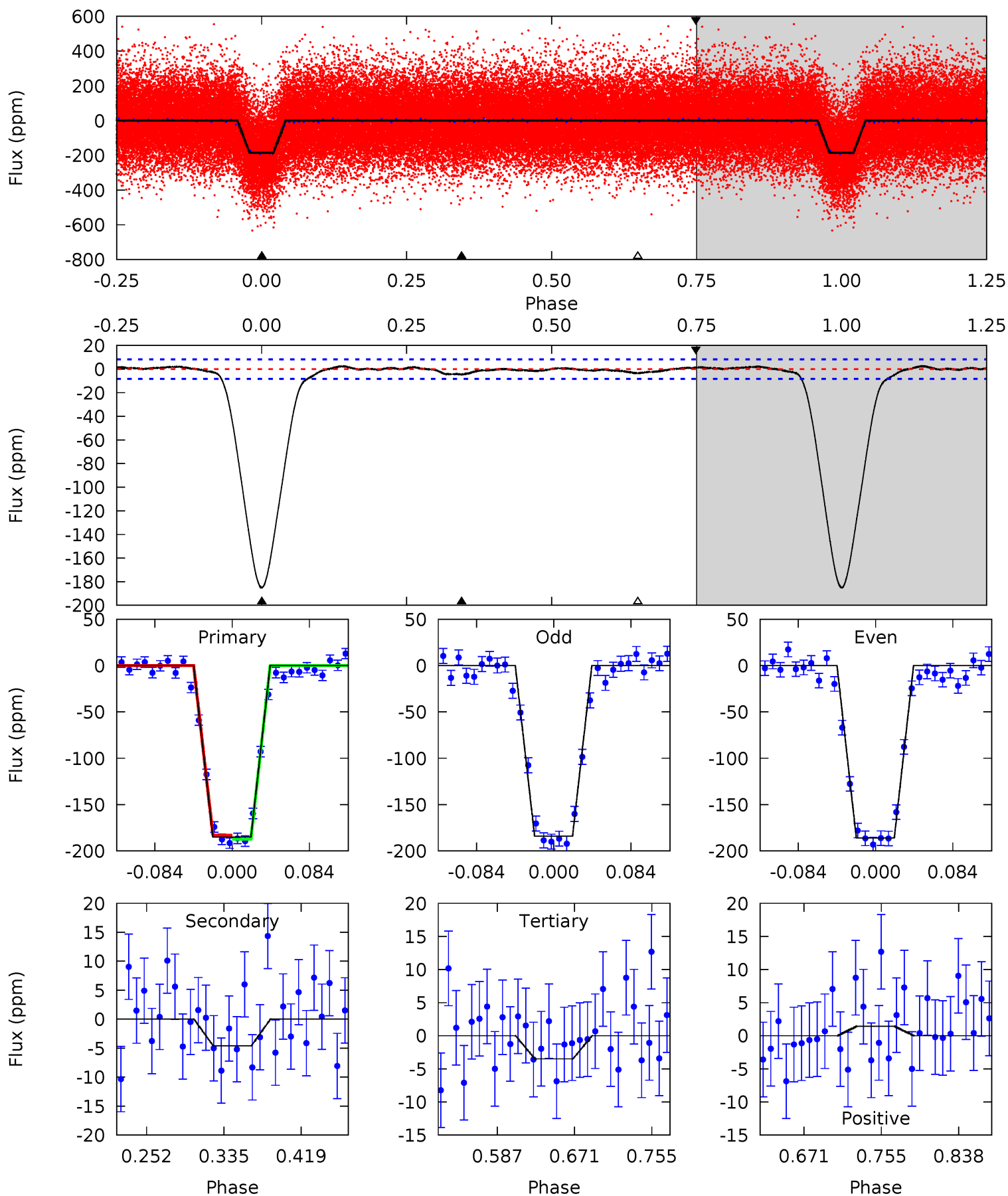
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.7	4.97	4.60	0	4.59	1.70	3.04	62.1	66.7	0.38	4.97	0.09	0.99	0.08	12.2



Alt Model-Shift Uniqueness Test

006362874-01, P = 0.974856 Days, E = 131.136482 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
102.7	2.56	1.94	0.78	4.60	1.73	0.81	100.8	102.0	0.62	1.78	0.55	1.00	0.01	1.25



Stellar Parameters For KIC 006362874

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5487^{+98}_{-120}	$4.563^{+0.018}_{-0.102}$	$0.000^{+0.150}_{-0.150}$	$0.832^{+0.093}_{-0.040}$	$0.924^{+0.038}_{-0.071}$	$2.264^{+0.195}_{-0.635}$
	+2%/-2%	+0%/-2%	+inf%/-inf%	+11%/-5%	+4%/-8%	+9%/-28%
Source	SPE3	SPE3	SPE3	DSEP		

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

Secondary Eclipse Parameters for KIC 006362874-01 / KOI 1128.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 2	$1.12^{+0.24}_{-0.22}$	2286^{+73}_{-64}	3126^{+295}_{-251}	$1.278^{+0.768}_{-0.446}$
Alt.	-5 ± 2	$1.28^{+0.25}_{-0.21}$	2283^{+79}_{-60}	2573^{+342}_{-4481}	$0.524^{+0.372}_{-0.238}$

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

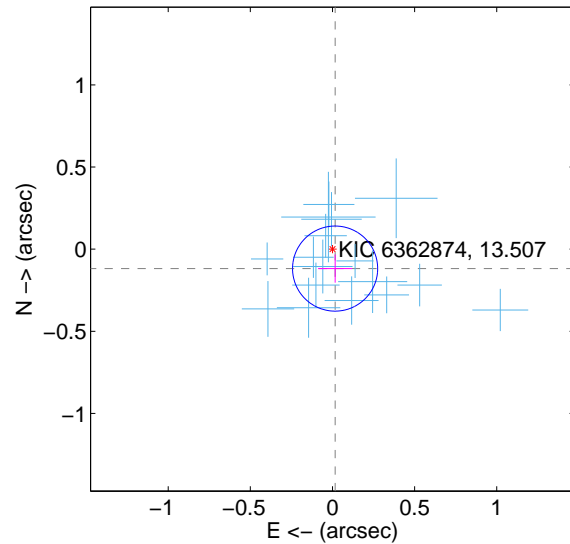
Supplemental centroid analysis for 006362874-01. Kepler magnitude: 13.51. Transit SNR 46.80

There are 17 quarters with good PRF difference image offsets

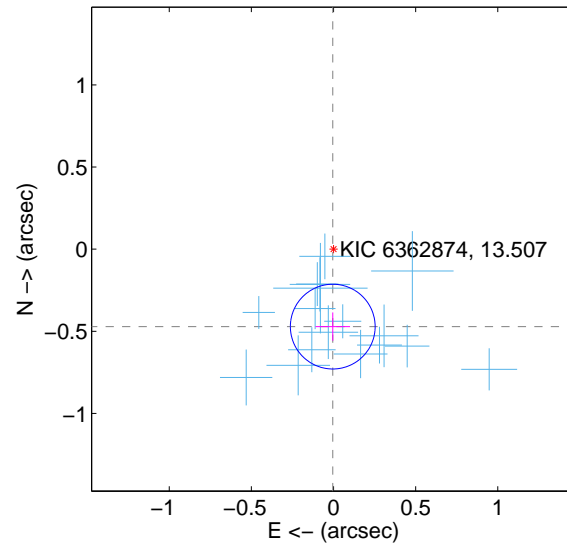
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.119 ± 0.086	1.38	-0.016 ± 0.104	-0.118 ± 0.085
PRF-fit source offset from KIC position	0.471 ± 0.086	5.48	0.005 ± 0.105	-0.471 ± 0.086
photometric centroid source offset	0.55 ± 0.23	2.40	0.06 ± 0.24	-0.54 ± 0.23

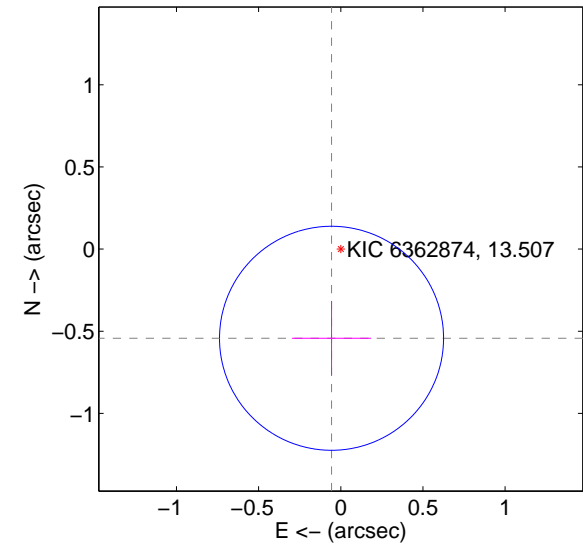
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

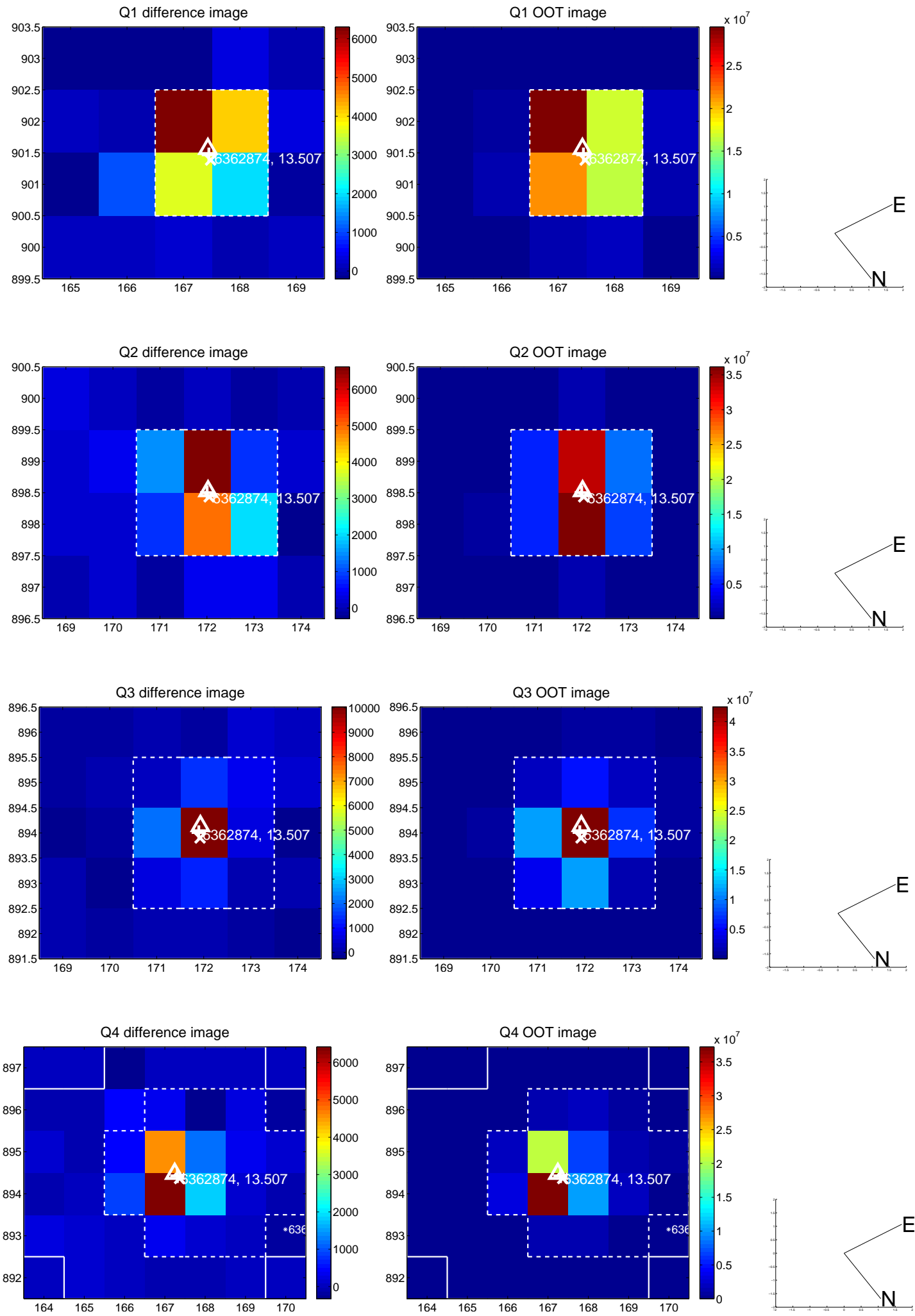


offset from photometric centroids

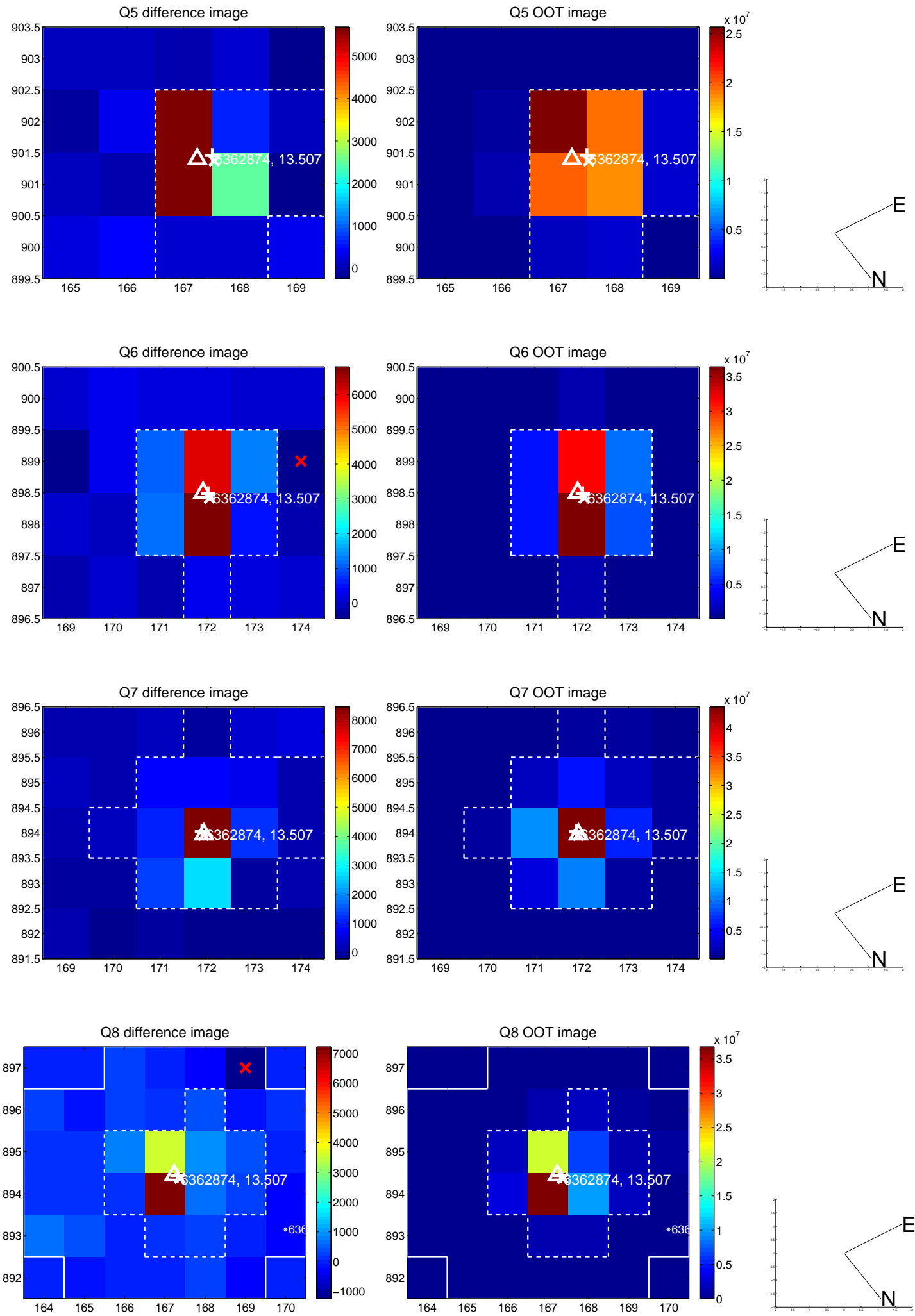


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

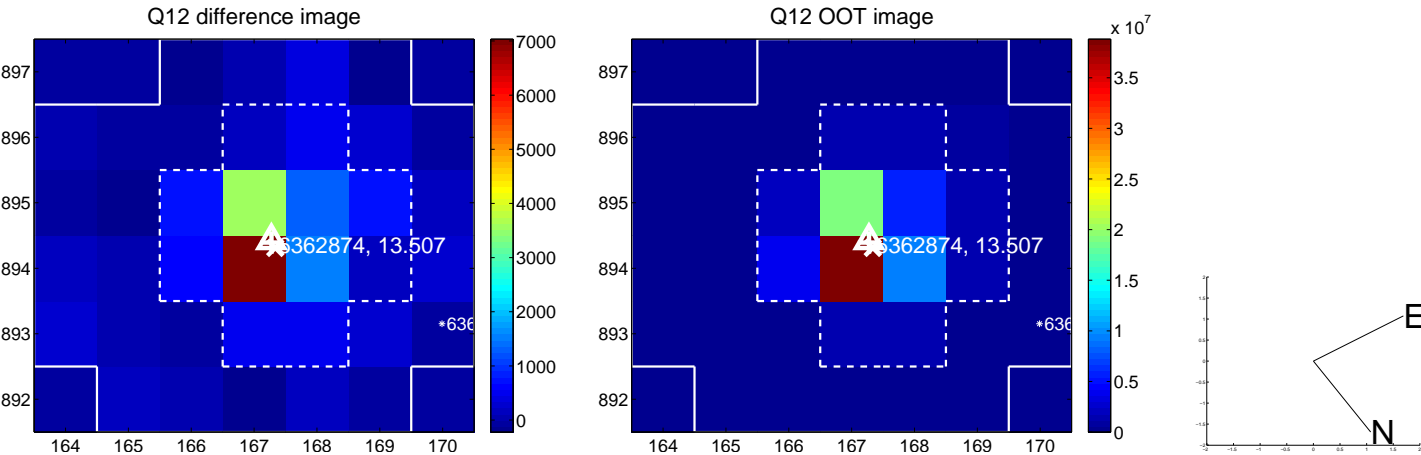
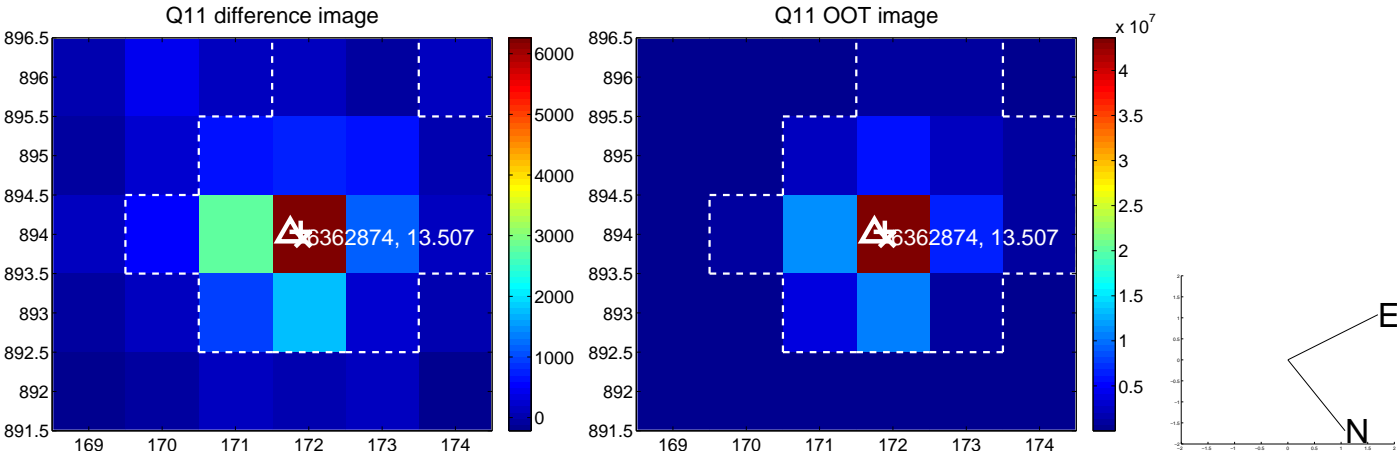
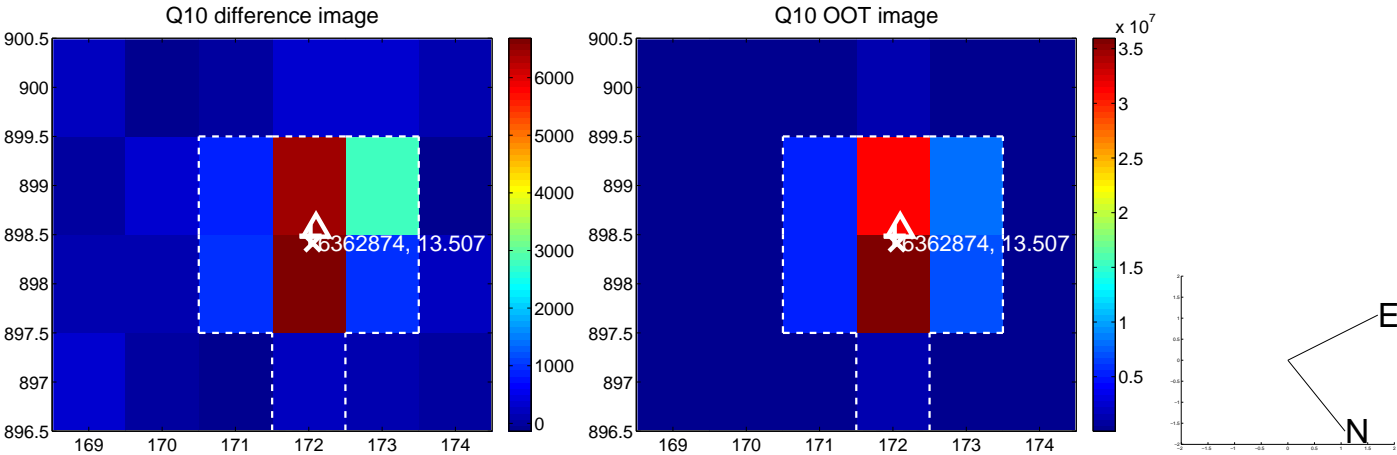
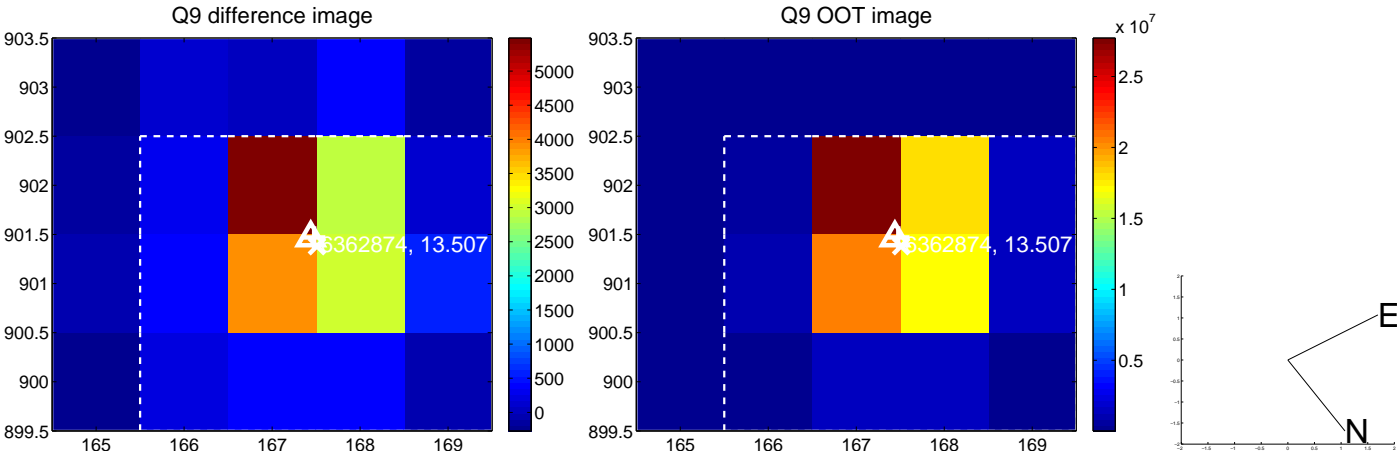
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



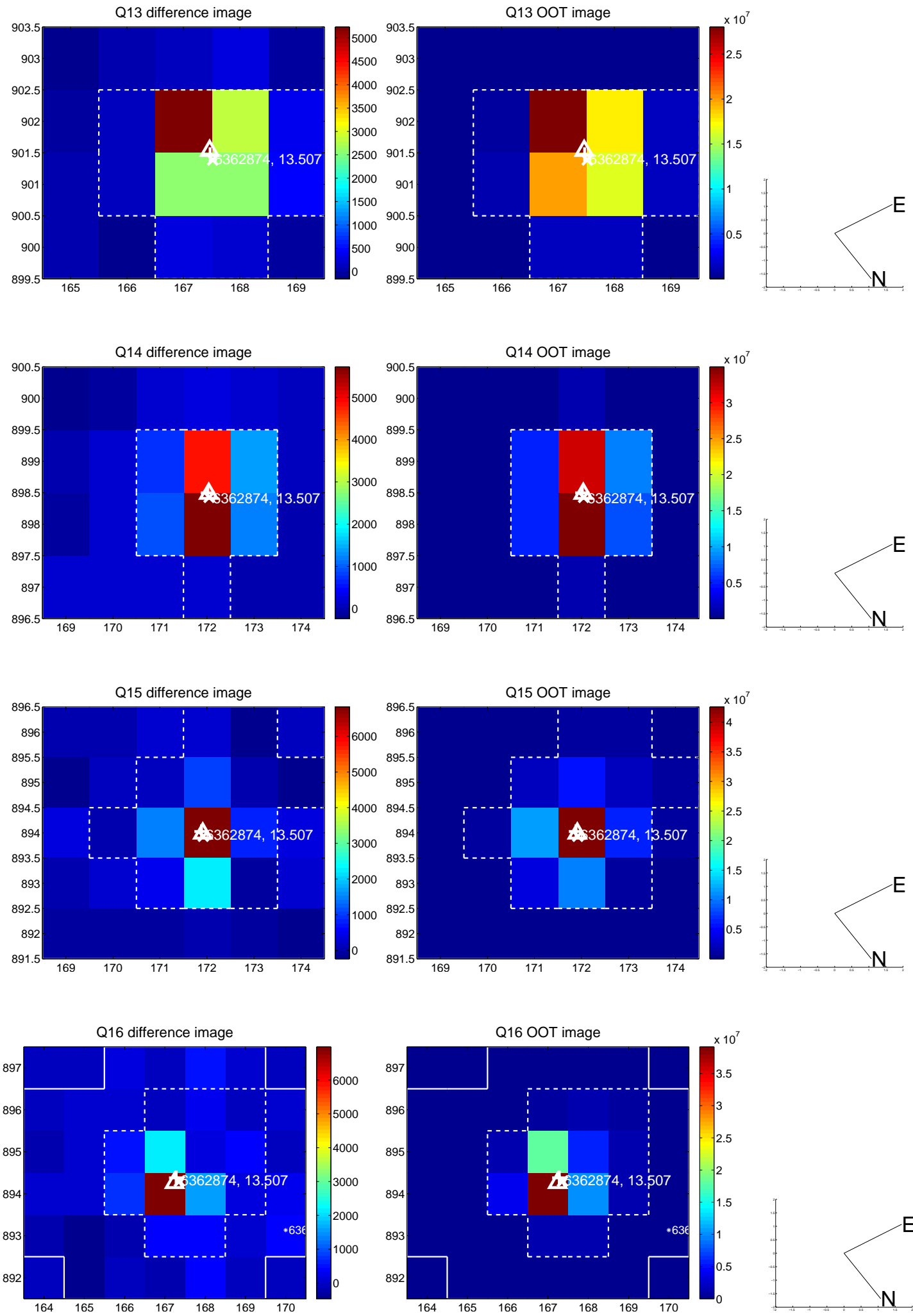
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



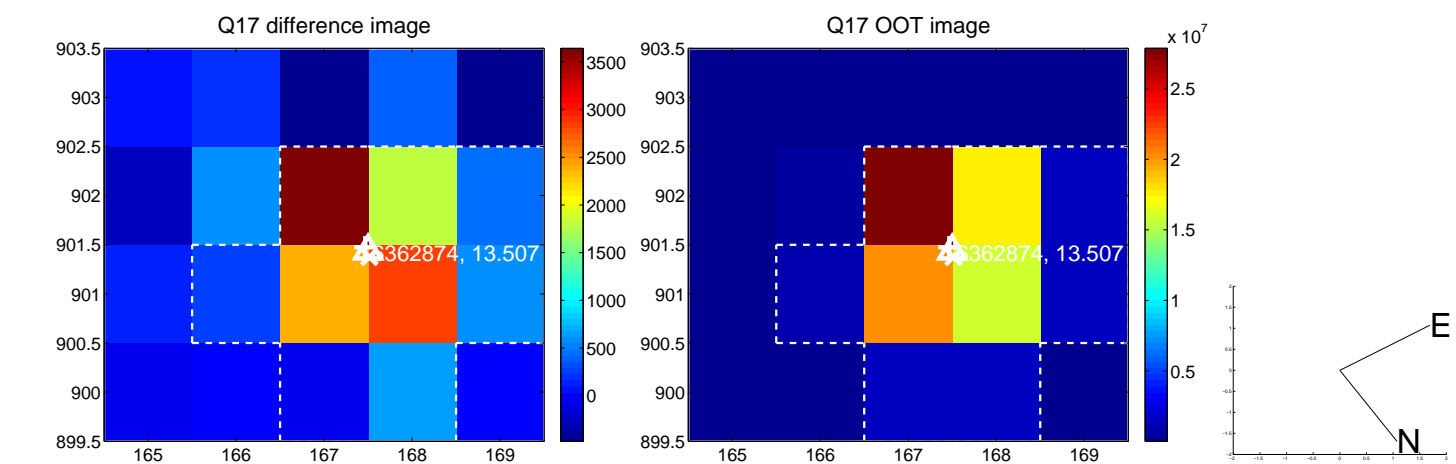
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



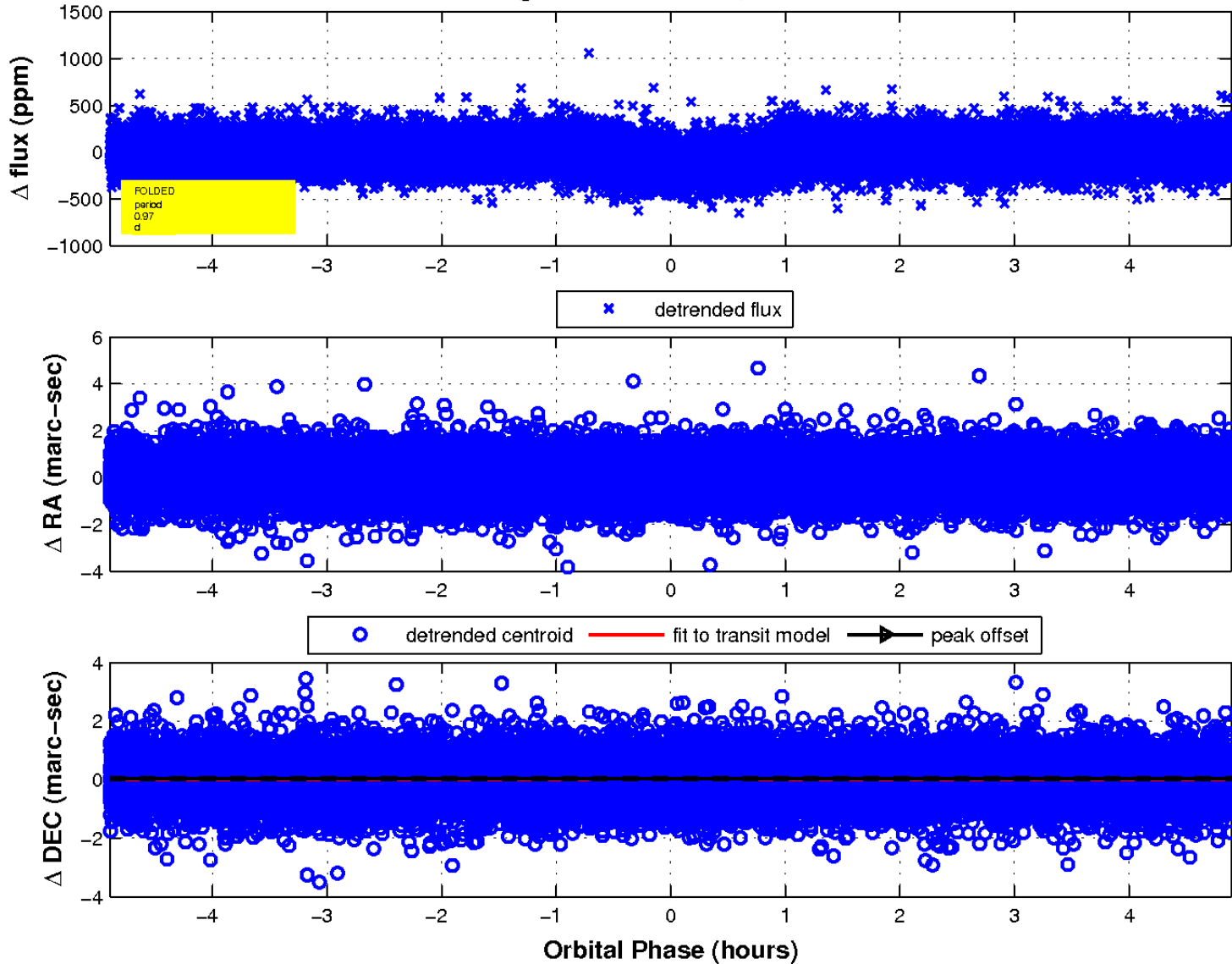
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

