

KIC 007764367

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})
007764367-01	OBS	0685.01	3.173917	132.837617	281.2	3.664	54.9	61.3	1.58	6432	3.11	1775.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007764367-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

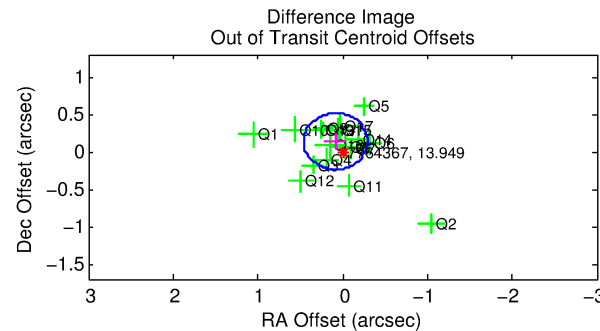
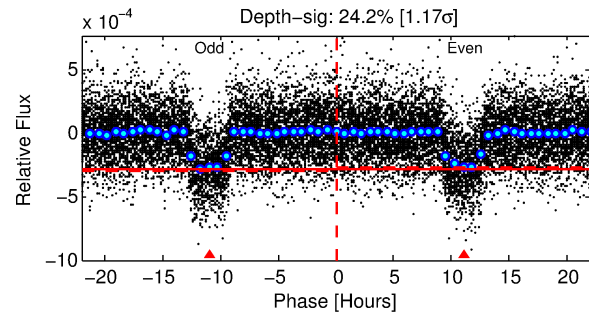
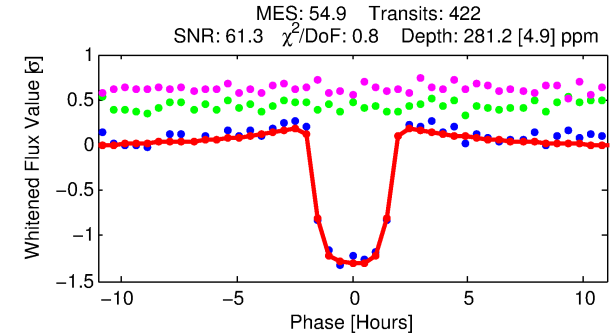
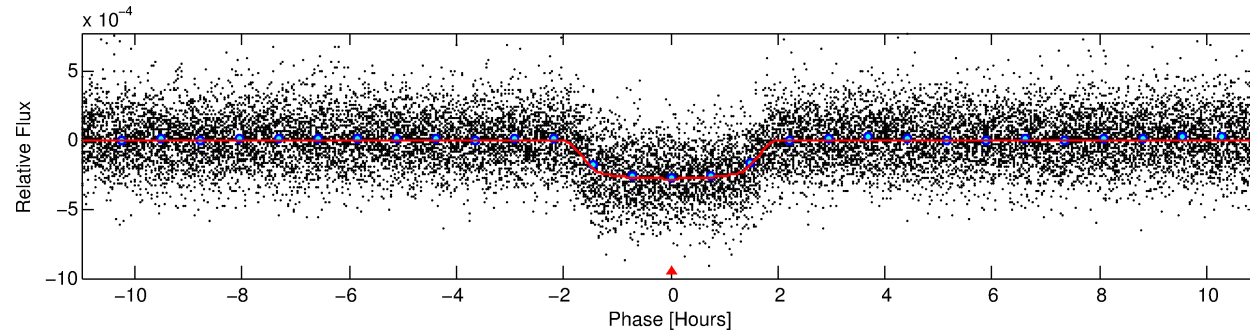
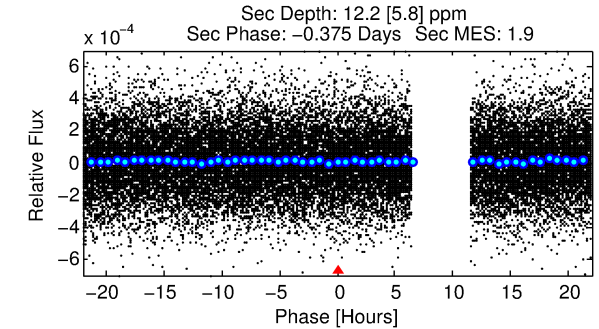
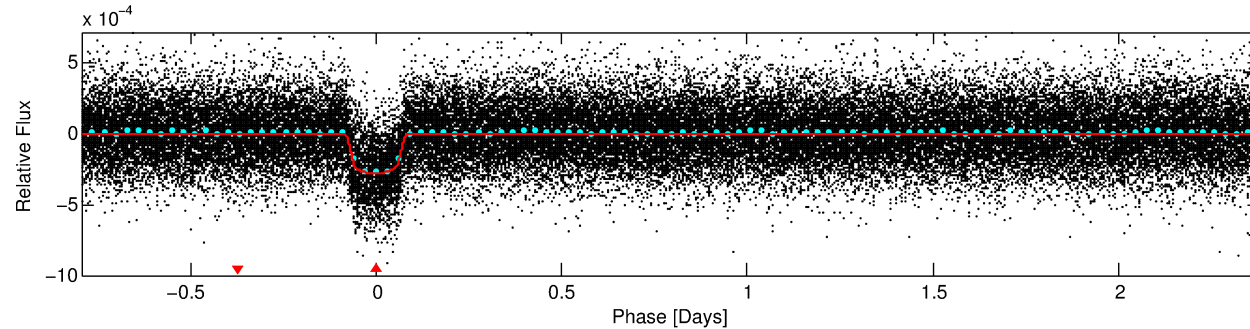
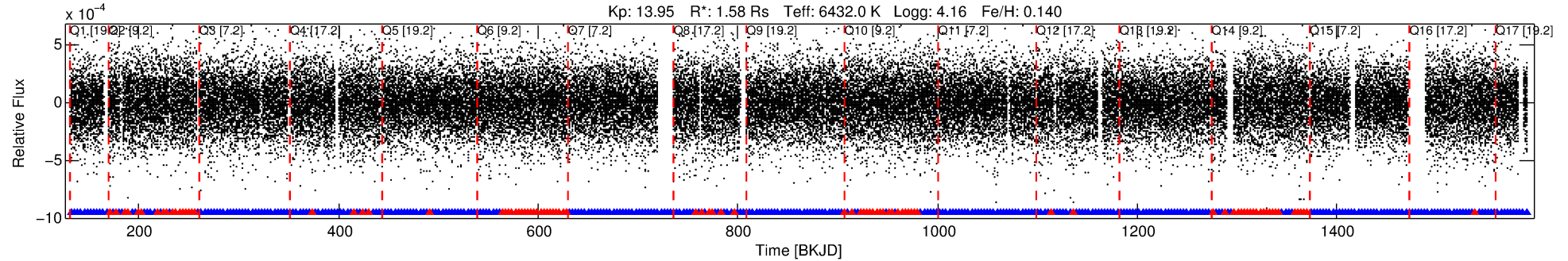
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007764367-01

No Significant Match Found

DV One-Page Summary

KIC: 7764367 Candidate: 1 of 1 Period: 3.174 d
KOI: K00685.01 Corr: 0.978



DV Fit Results:

Period = 3.17392 [0.00000] d
Epoch = 132.8376 [0.0008] BKJD
Rp/R* = 0.0180 [0.0009]
a/R* = 3.31 [0.78]
b = 0.90 [0.06]
Seff = 1775.50 [719.93]
Teq = 1655 [168] K
Rp = 3.11 [1.05] Re
a = 0.0466 [0.0125] AU
Ag = 1.50 [0.93] [0.54σ]
Teffp = 2833 [362] K [2.95σ]

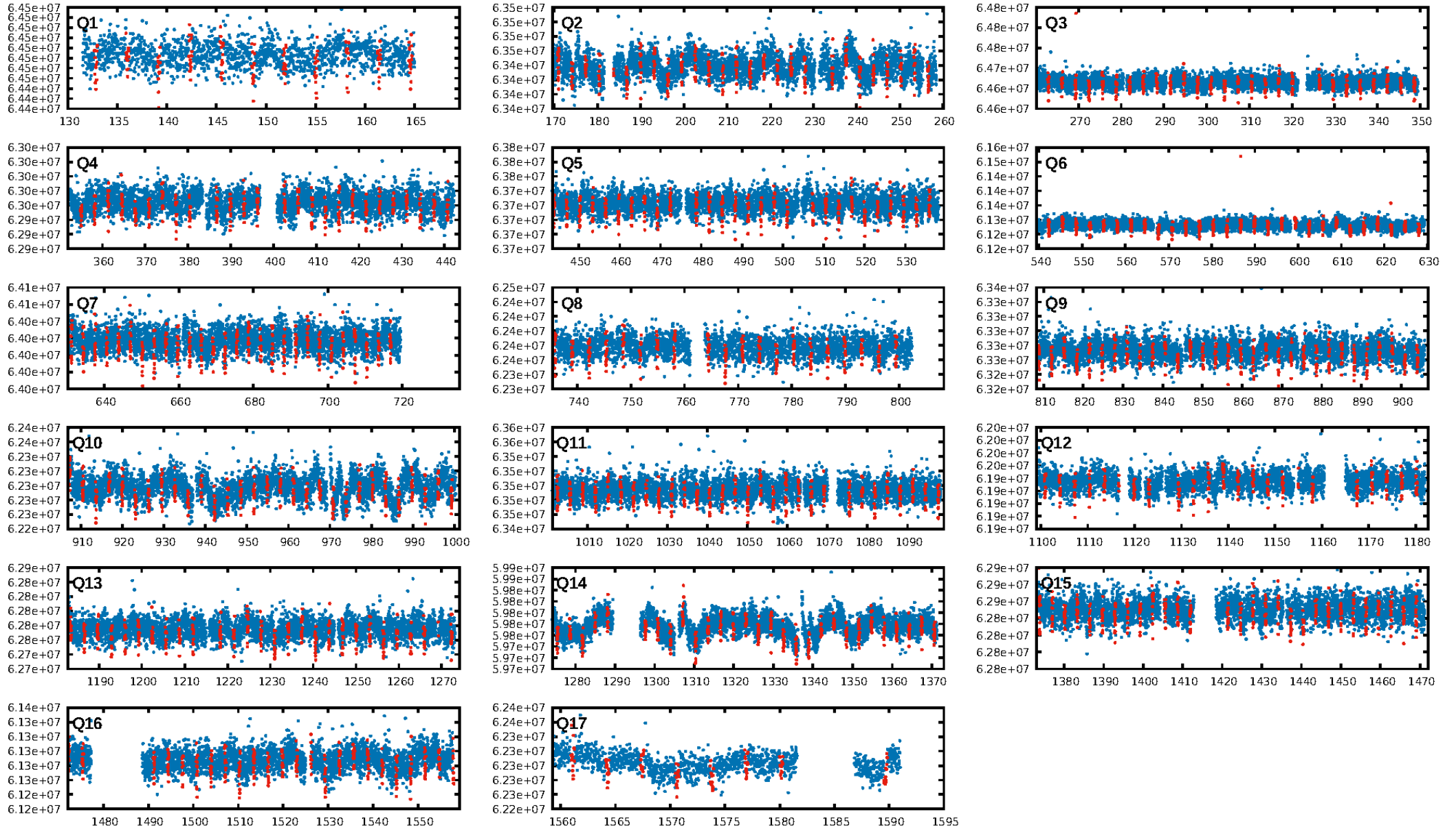
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.77 [310/403]
GhostDiagnostic-chr: 5.844
Centroid-sig: 0.0%
Centroid-so: 0.484 arcsec [2.16σ]
OotOffset-rm: 0.163 arcsec [1.30σ]
KicOffset-rm: 0.081 arcsec [0.81σ]
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]

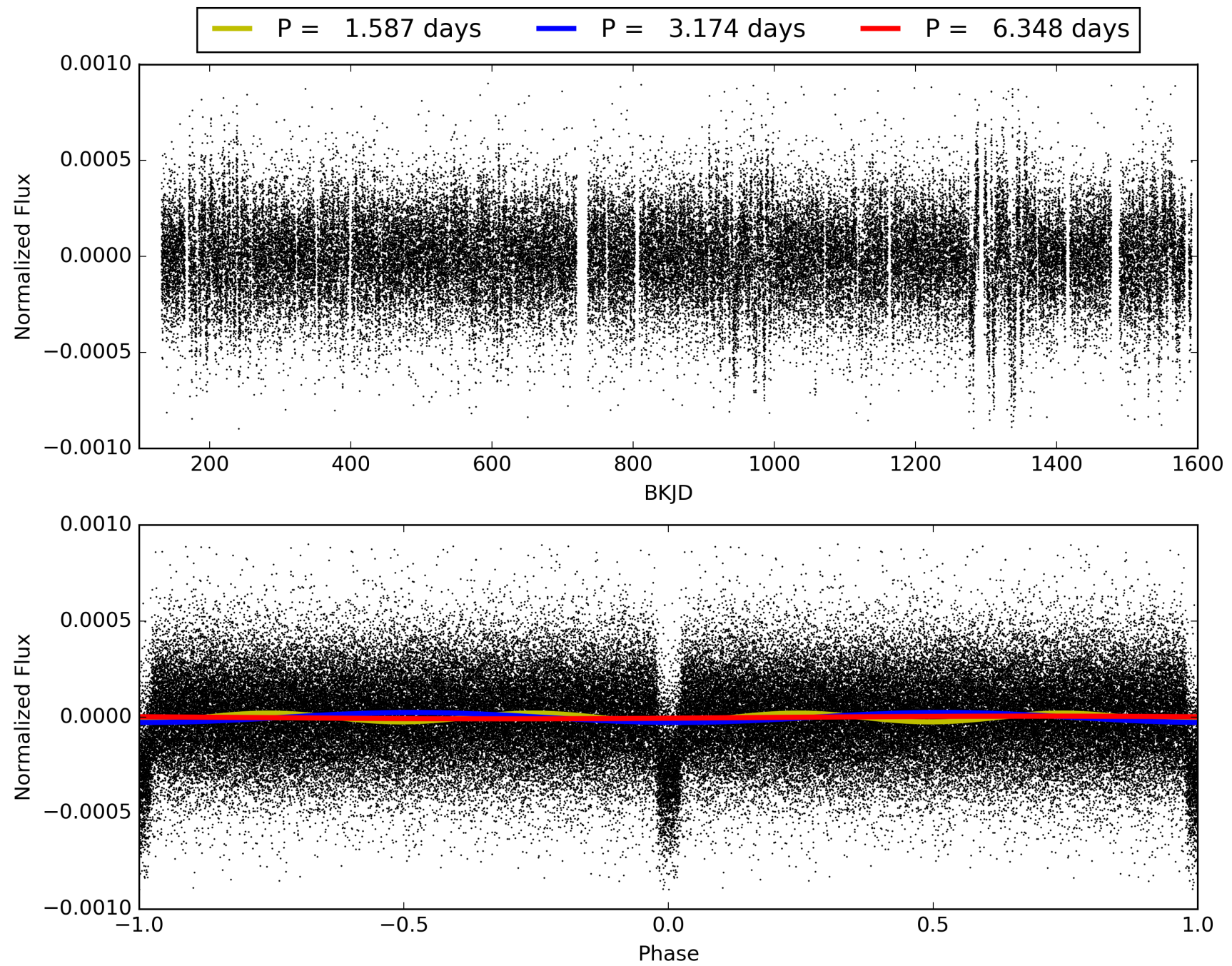
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:47:20 Z

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

TCE 007764367-01, PDC Light Curves

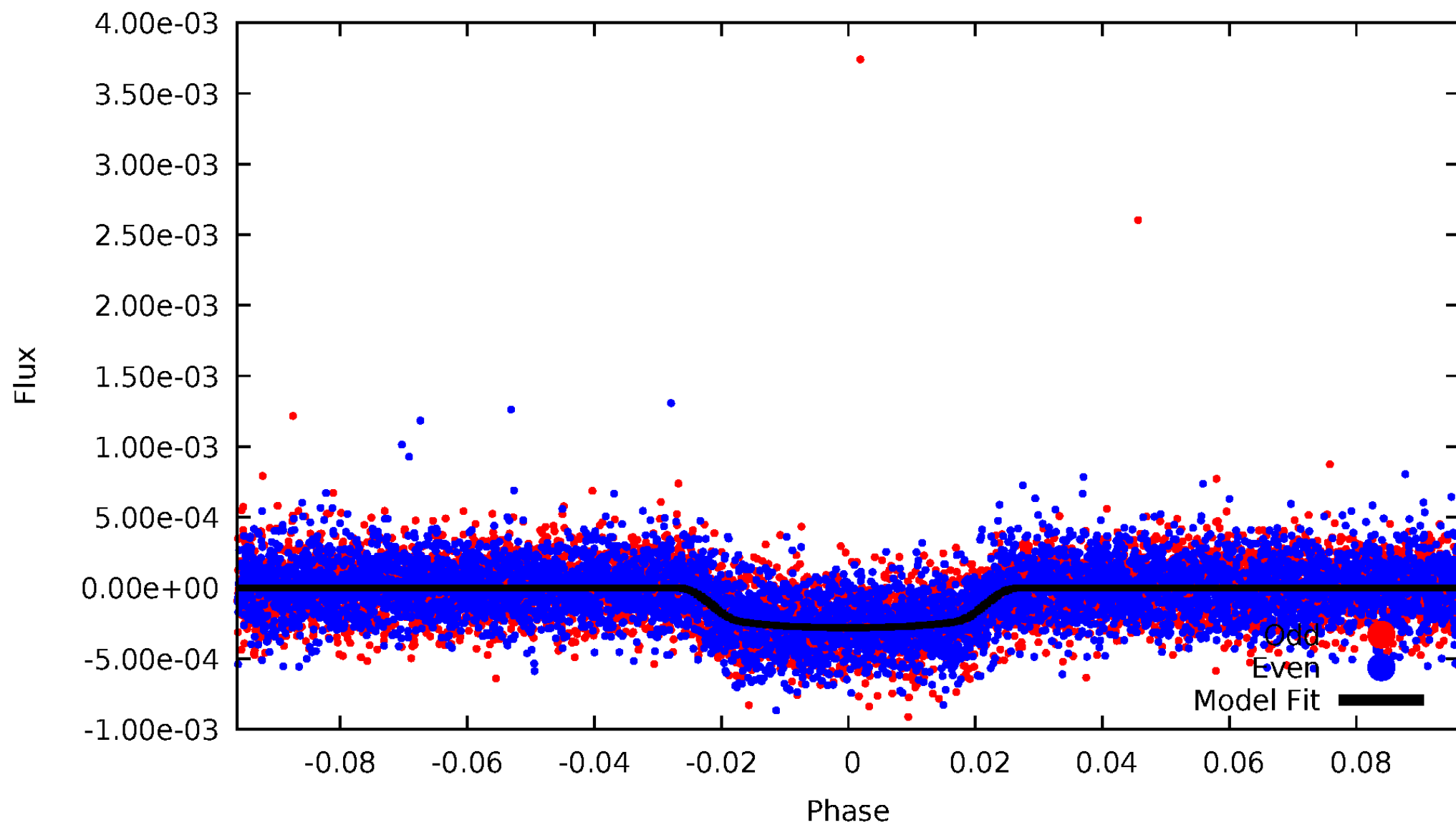


TCE 007764367-01



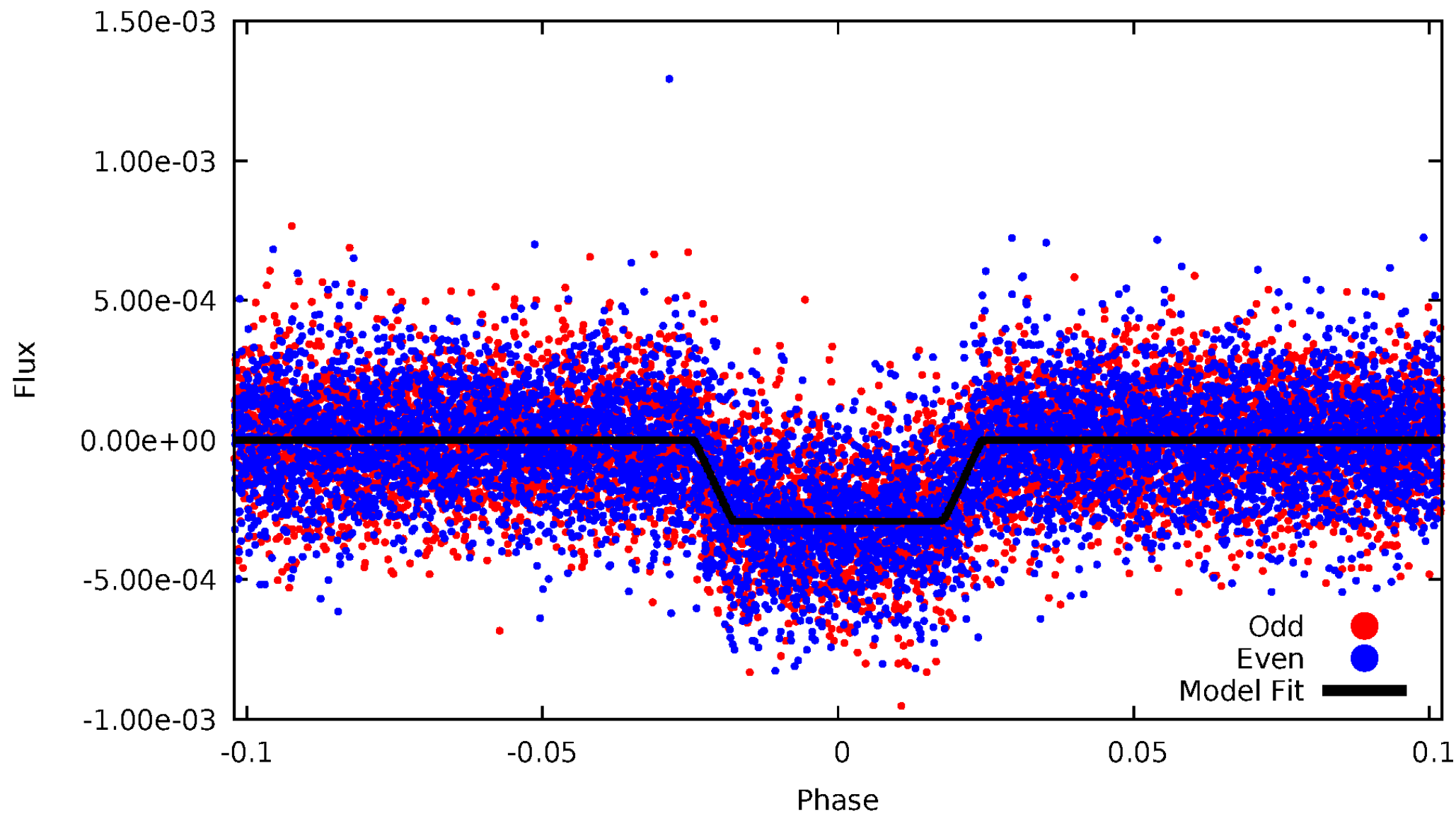
DV Odd/Even

TCE 007764367-01



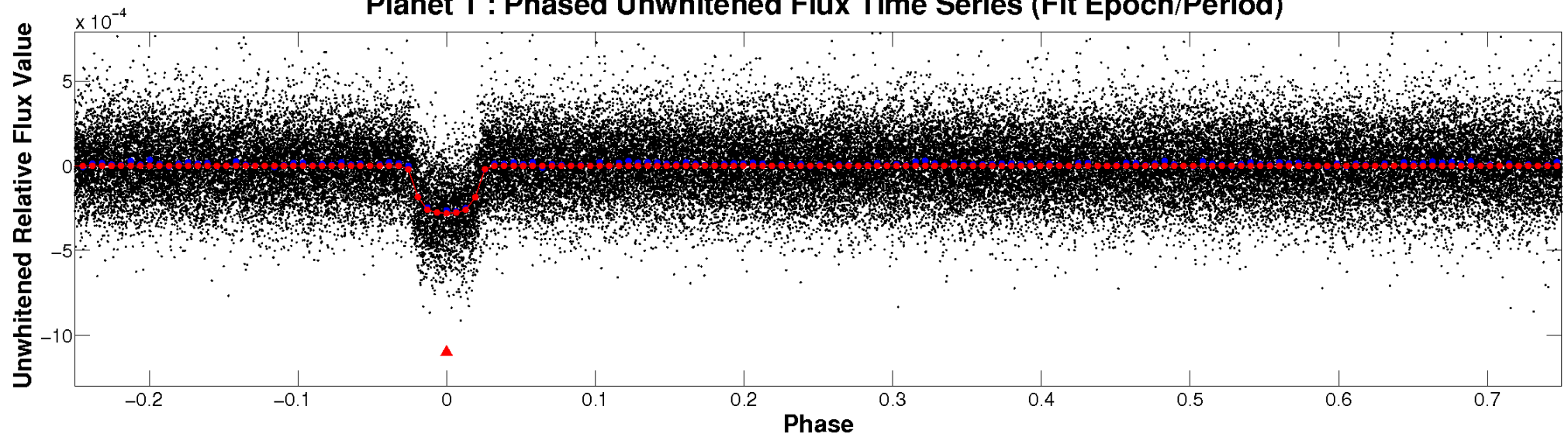
ALT Odd/Even

TCE 007764367-01

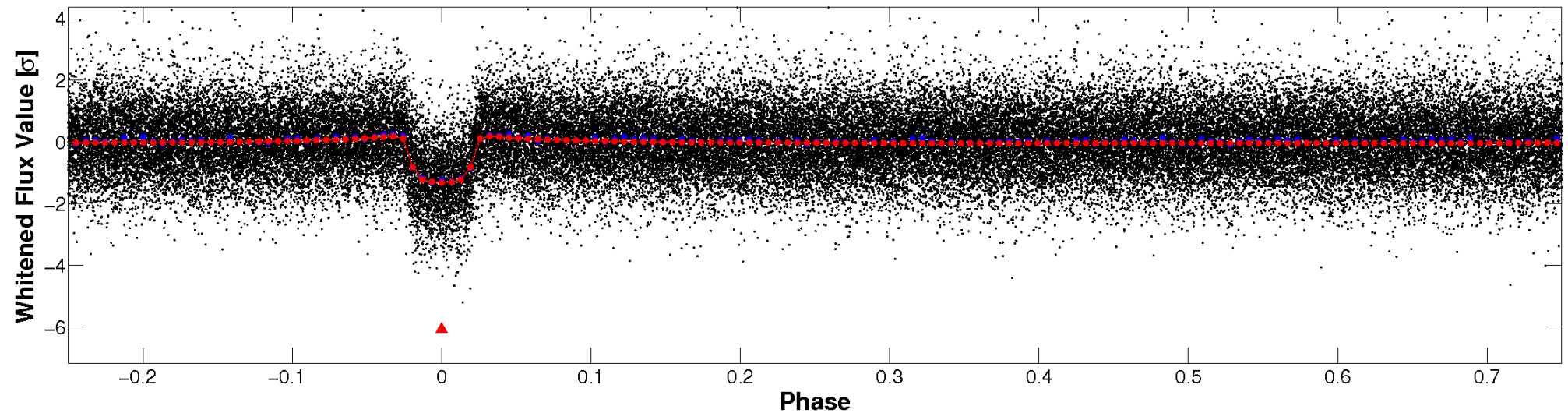


Non-Whitened Vs. Whitened Light Curve

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

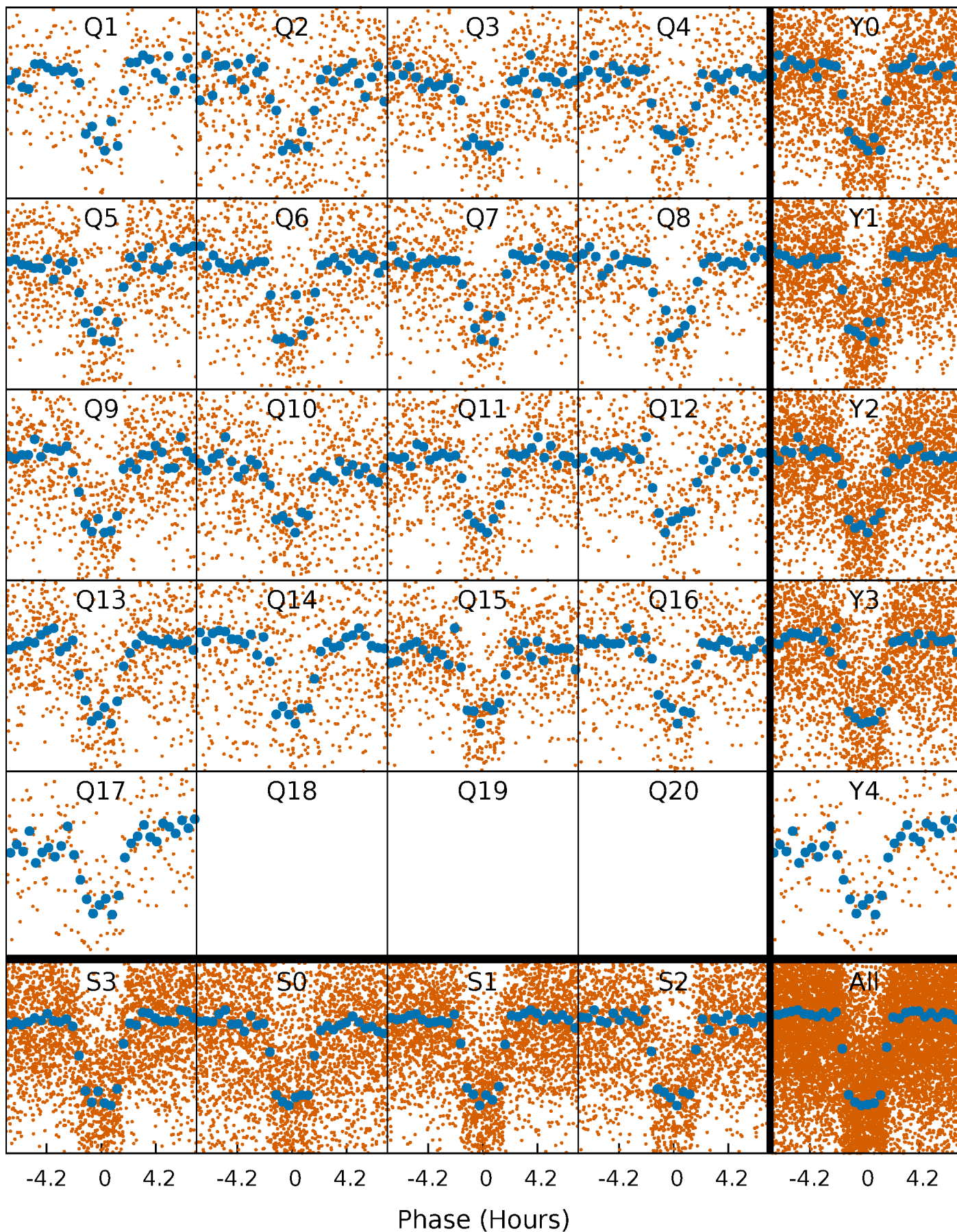


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



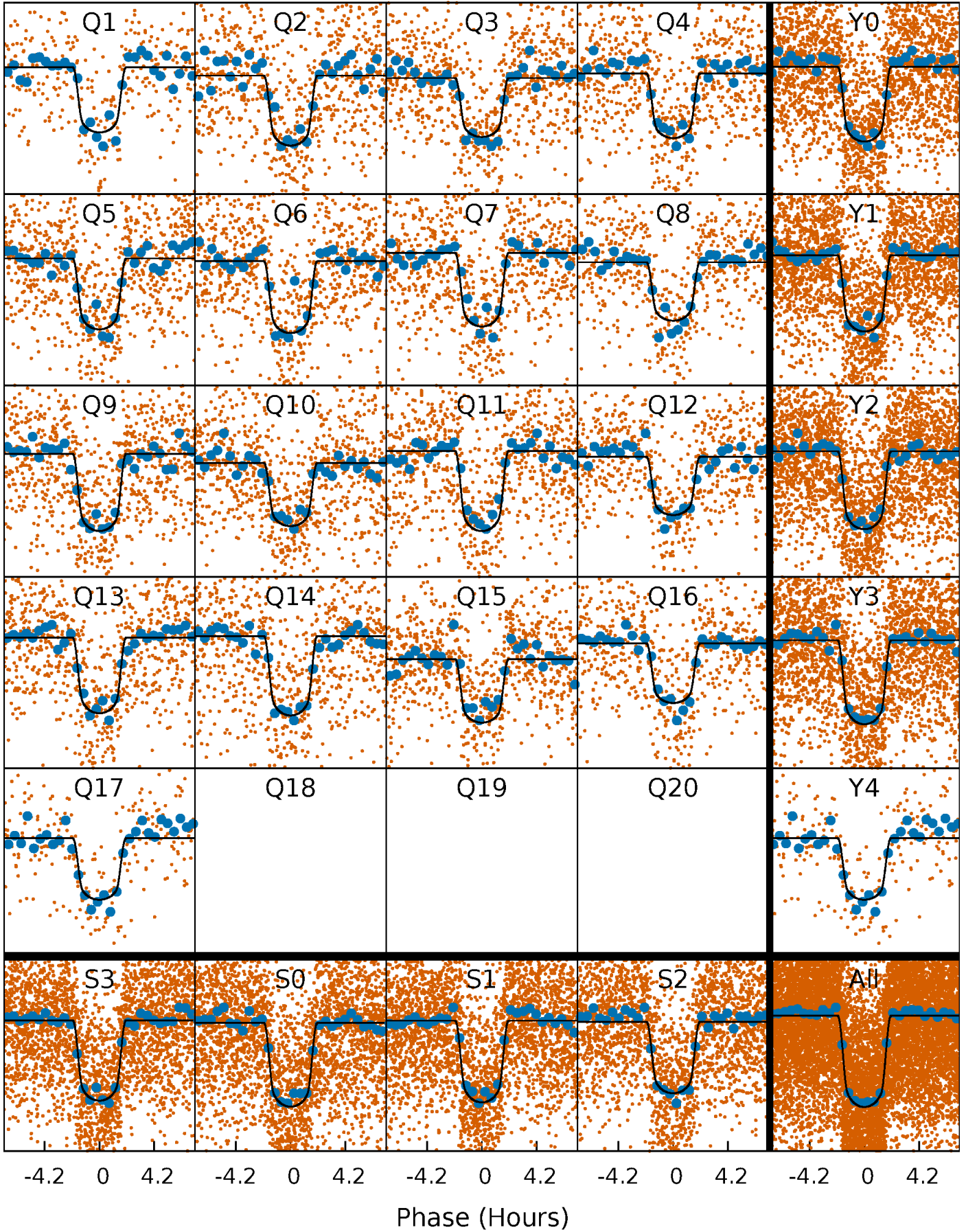
PDC Quarter-Phased Transit Curves

TCE 007764367-01 P= 3.173917 Days $T_0=132.837617$ (BKJD)



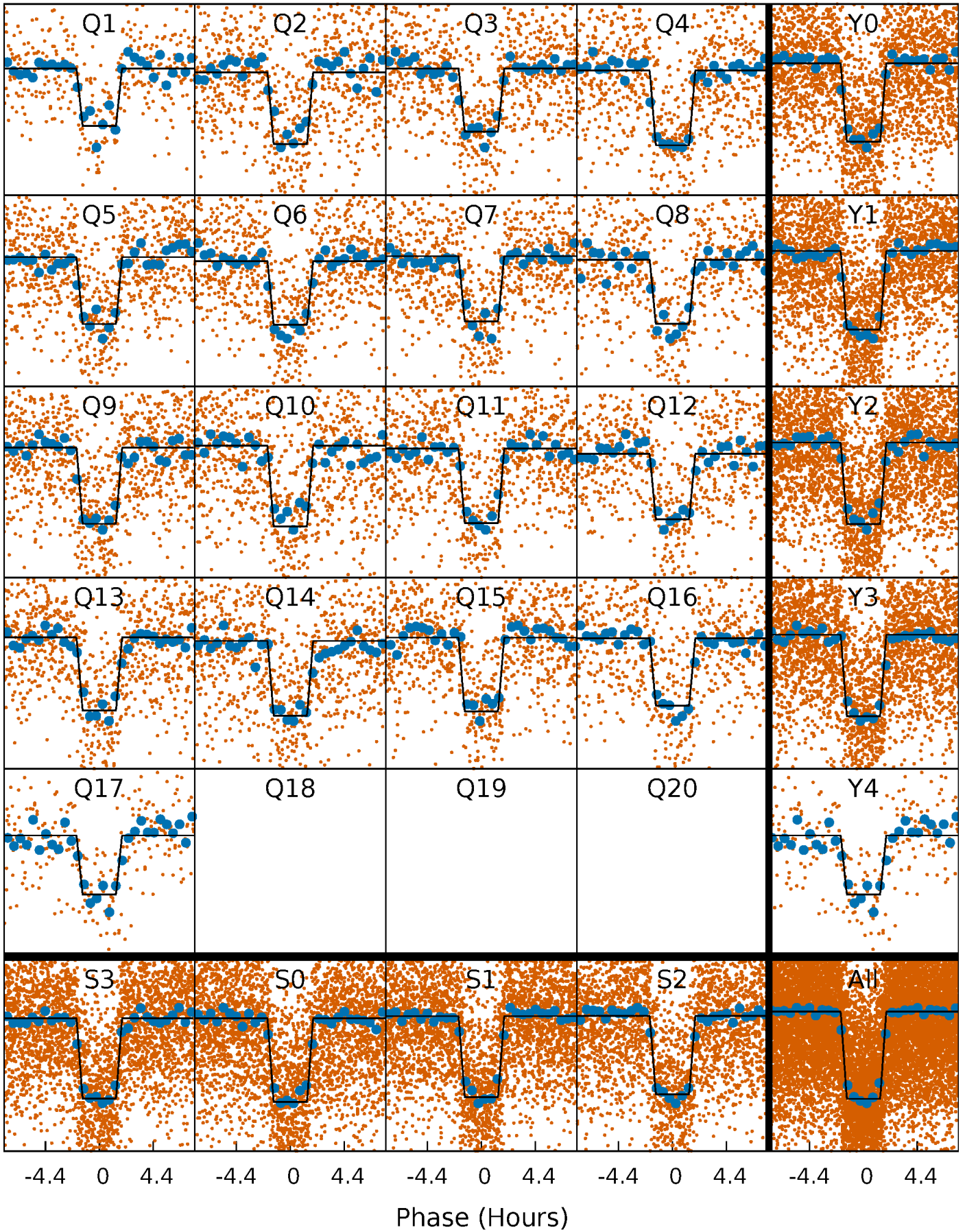
DV Quarter-Phased Transit Curves

TCE 007764367-01 P= 3.173917 Days $T_0=132.837617$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

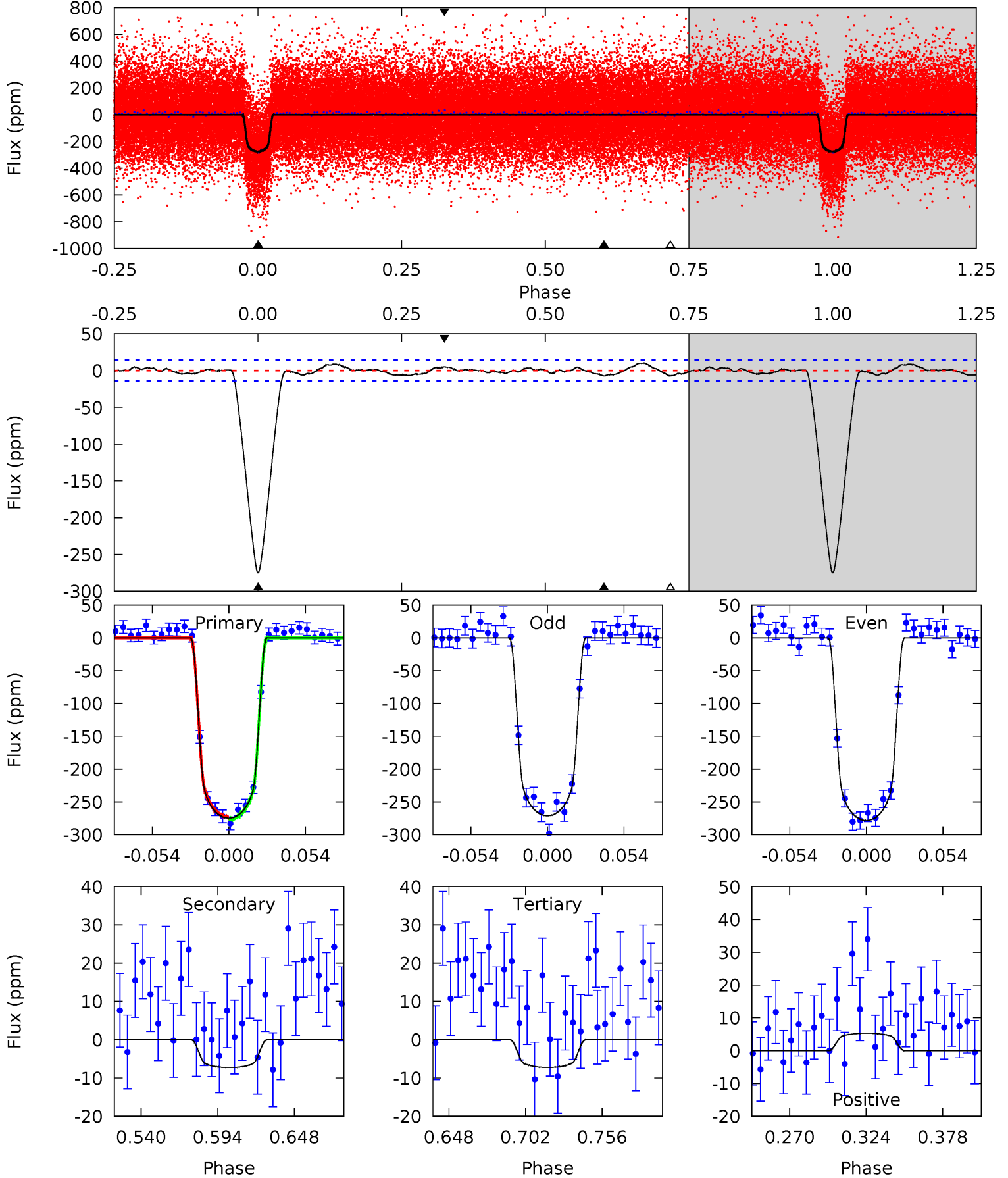
TCE 007764367-01 P= 3.173889 Days $T_0=132.843899$ (BKJD)



DV Model-Shift Uniqueness Test

007764367-01, P = 3.173917 Days, E = 129.663700 Days

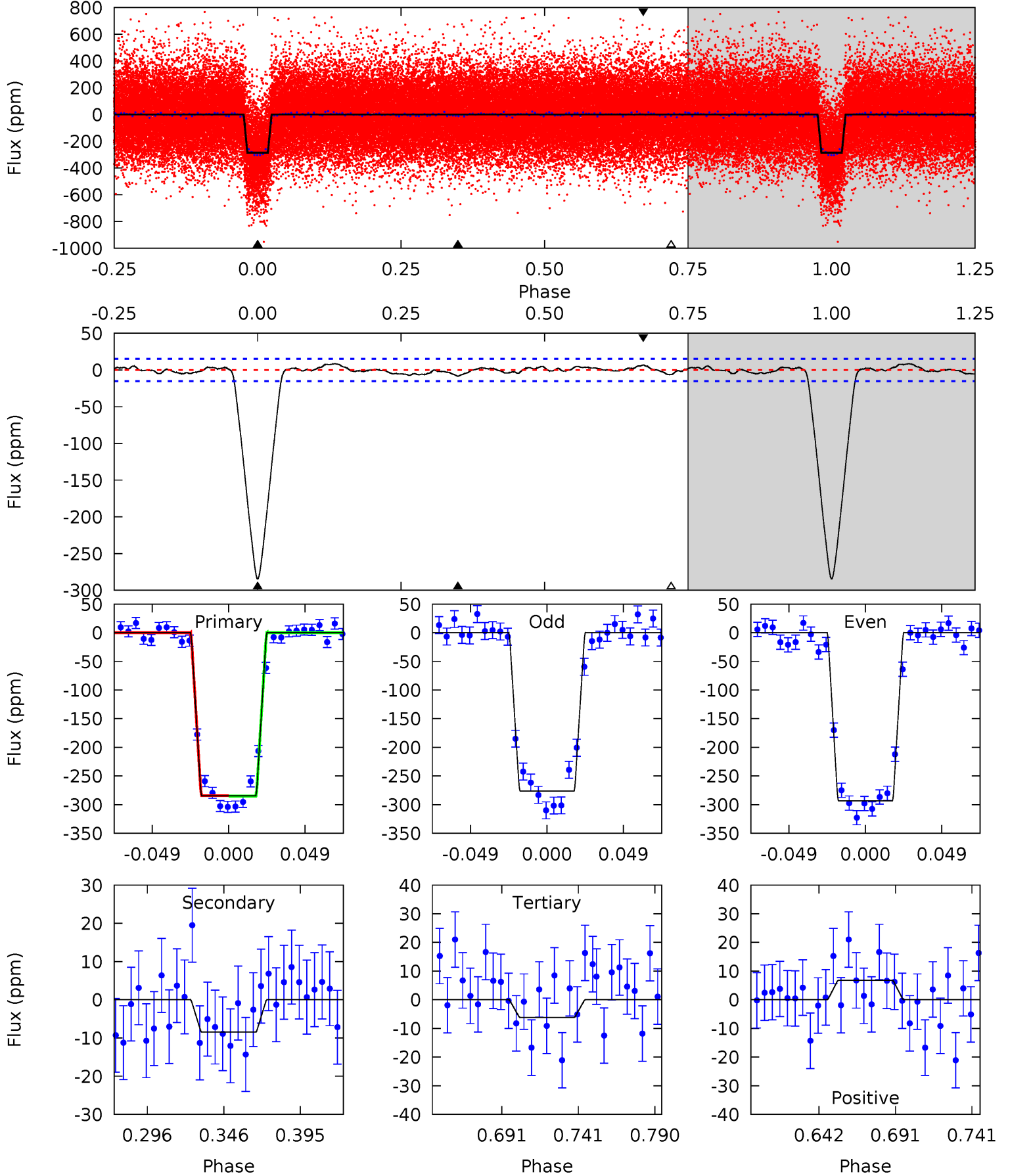
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
89.6	2.38	2.36	1.73	4.69	1.93	1.24	87.3	87.9	0.01	0.65	1.16	0.98	0.04	0.54



Alt Model-Shift Uniqueness Test

007764367-01, P = 3.173889 Days, E = 129.670010 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
88.4	2.63	1.91	2.10	4.71	1.97	1.06	86.5	86.3	0.72	0.53	2.67	0.99	0.03	0.11



Stellar Parameters For KIC 007764367

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6432^{+177}_{-243}	$4.164^{+0.180}_{-0.198}$	$0.140^{+0.200}_{-0.300}$	$1.584^{+0.527}_{-0.395}$	$1.337^{+0.189}_{-0.230}$	$0.474^{+0.466}_{-0.234}$
	+3%/-4%	+4%/-5%	+143%/-214%	+33%/-25%	+14%/-17%	+98%/-49%
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 007764367-01 / KOI 0685.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-7 ± 3	$3.12^{+0.59}_{-0.45}$	2317^{+190}_{-162}	2937^{+223}_{-409}	$0.859^{+0.563}_{-0.398}$
Alt.	-8 ± 3	$2.97^{+0.52}_{-0.45}$	2314^{+189}_{-169}	3078^{+214}_{-335}	$1.099^{+0.668}_{-0.492}$

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 $A_{obs} \gg 1.0$

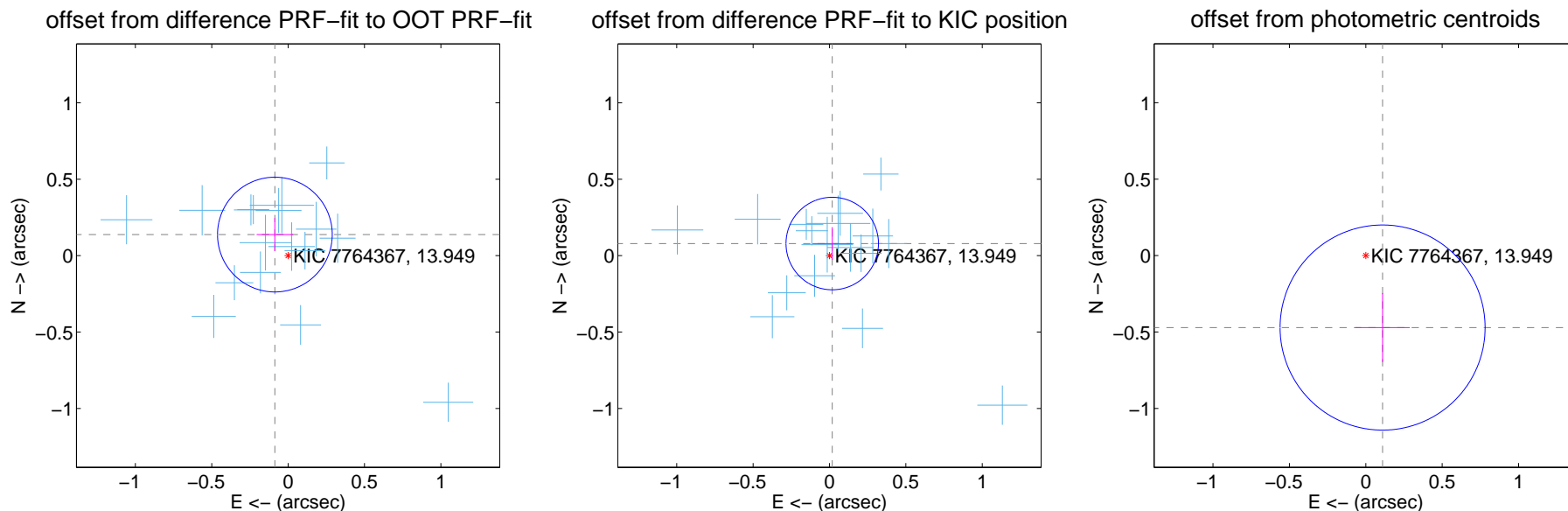
DV Centroid Data

Supplemental centroid analysis for 007764367-01. Kepler magnitude: 13.95. Transit SNR 61.31

There are 17 quarters with good PRF difference image offsets

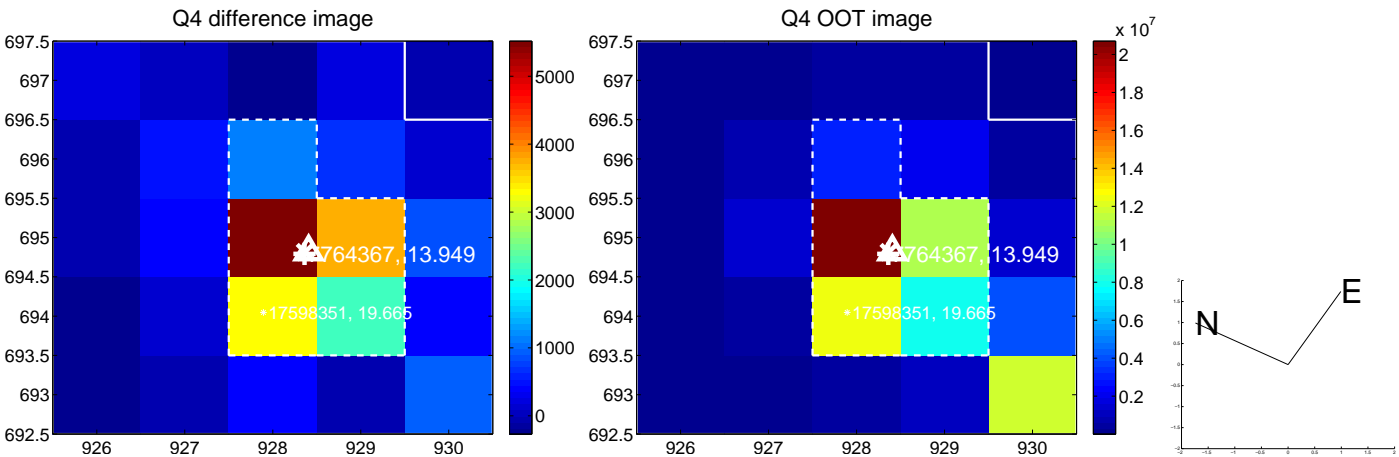
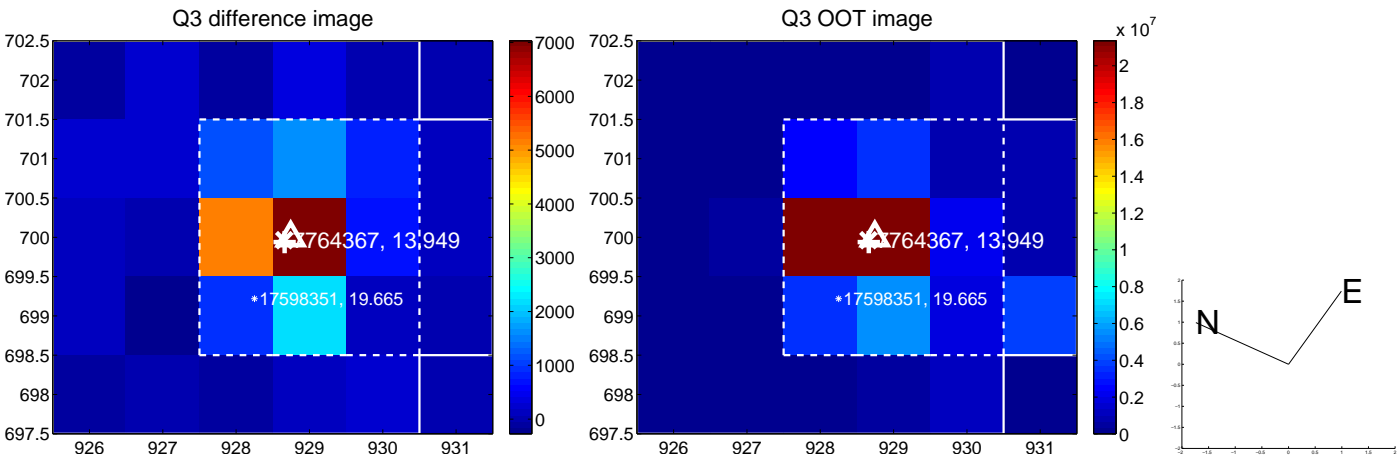
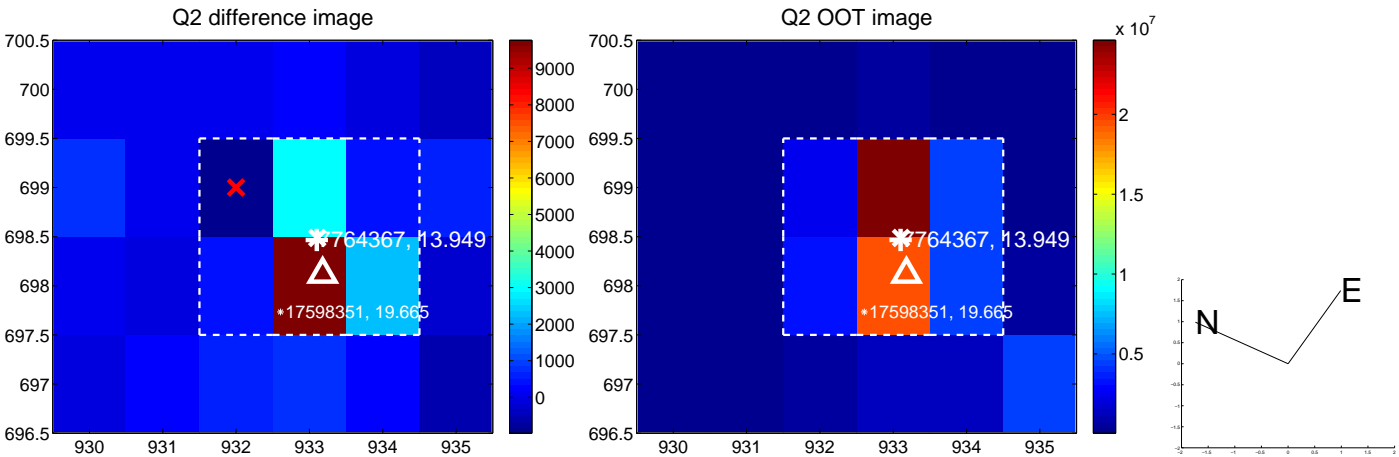
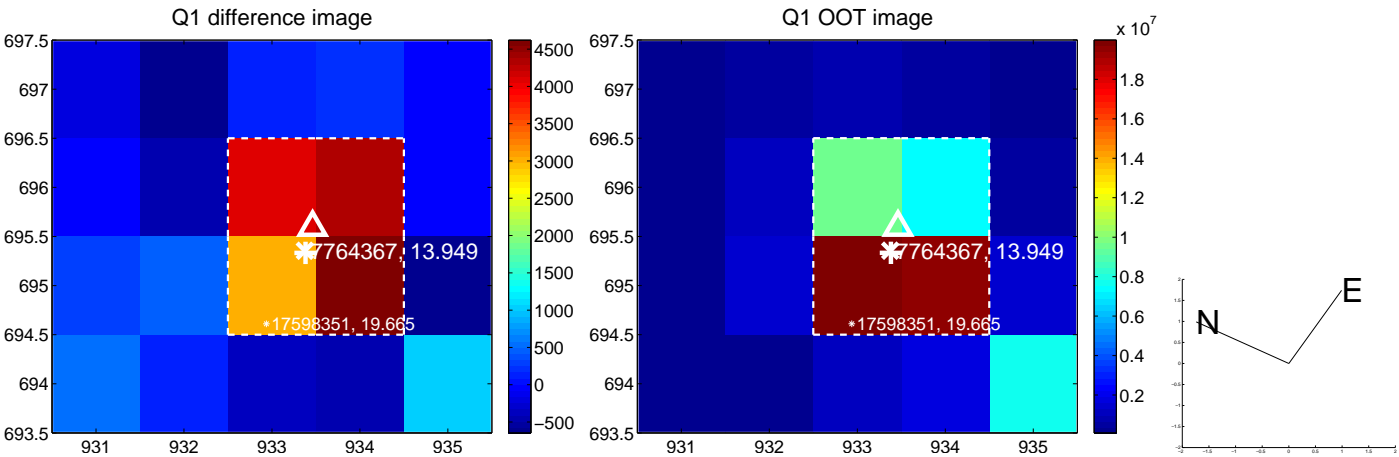
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.163 ± 0.125	1.30	0.087 ± 0.120	0.138 ± 0.108
PRF-fit source offset from KIC position	0.081 ± 0.101	0.81	-0.018 ± 0.129	0.079 ± 0.107
photometric centroid source offset	0.48 ± 0.22	2.16	-0.11 ± 0.18	-0.47 ± 0.23

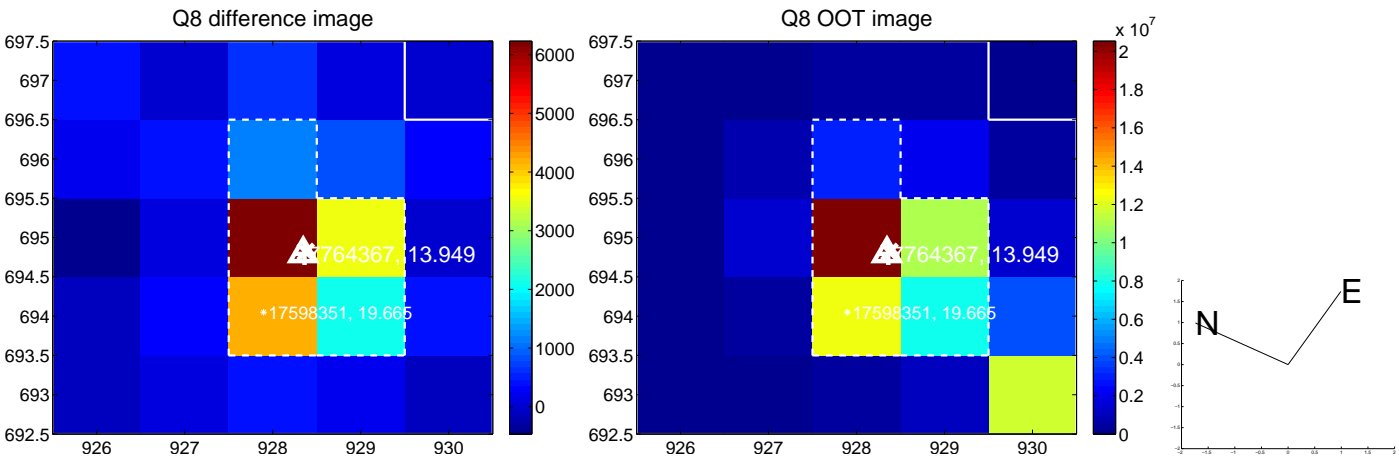
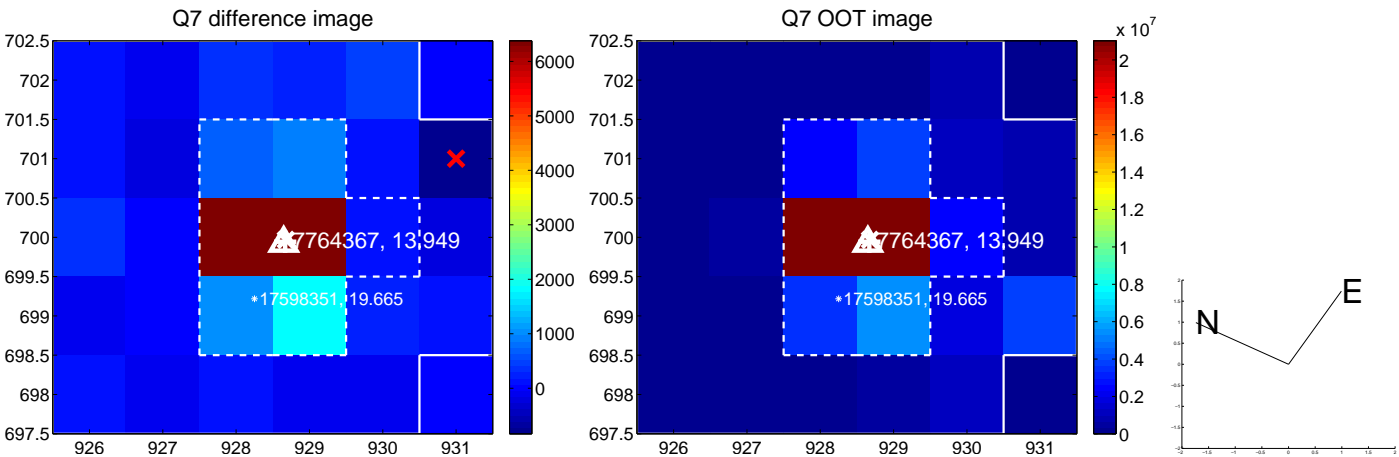
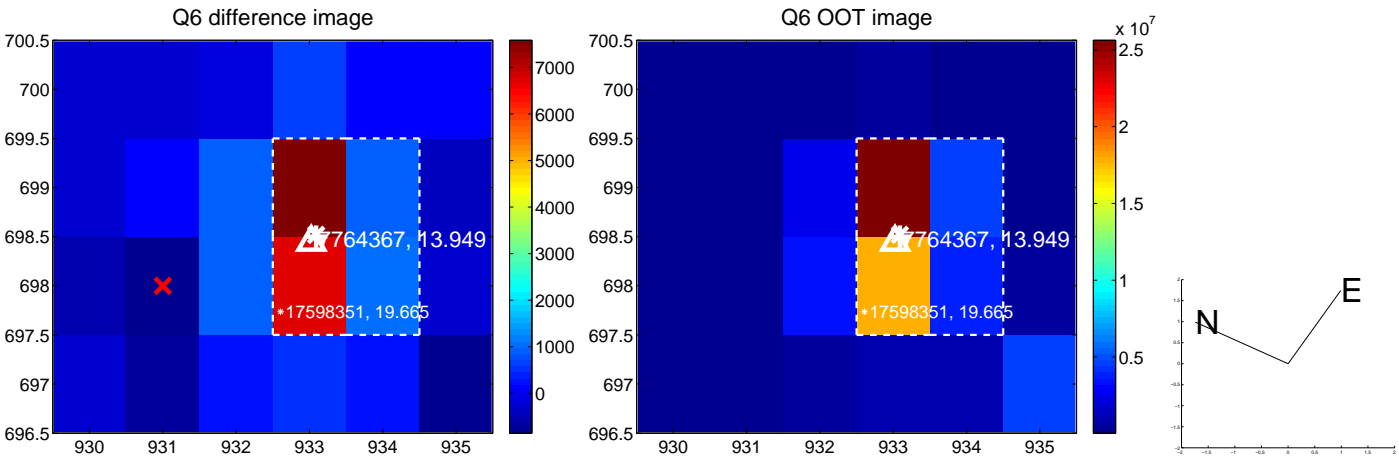
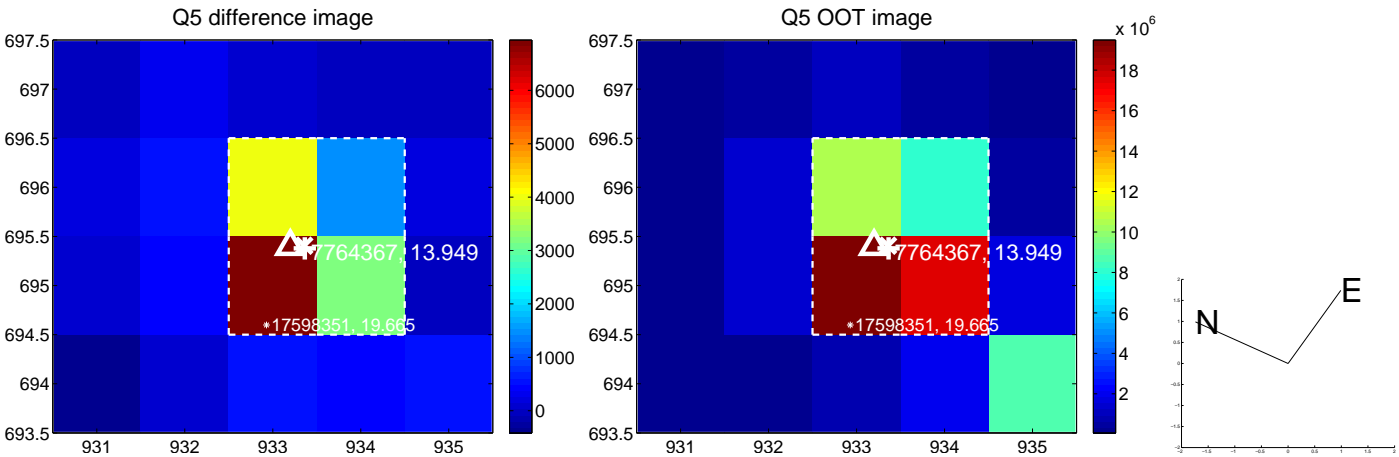


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

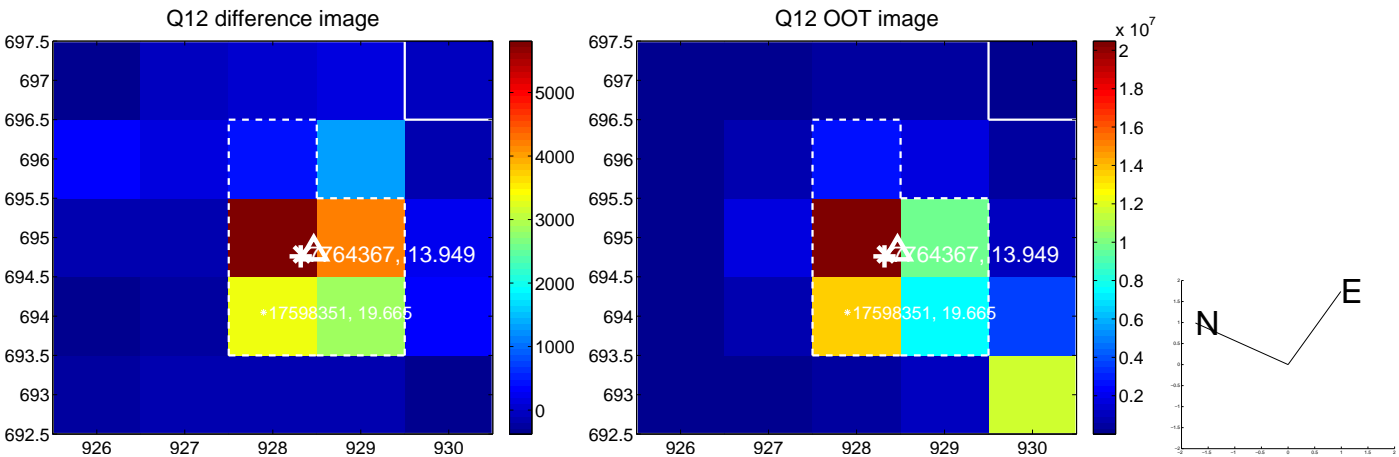
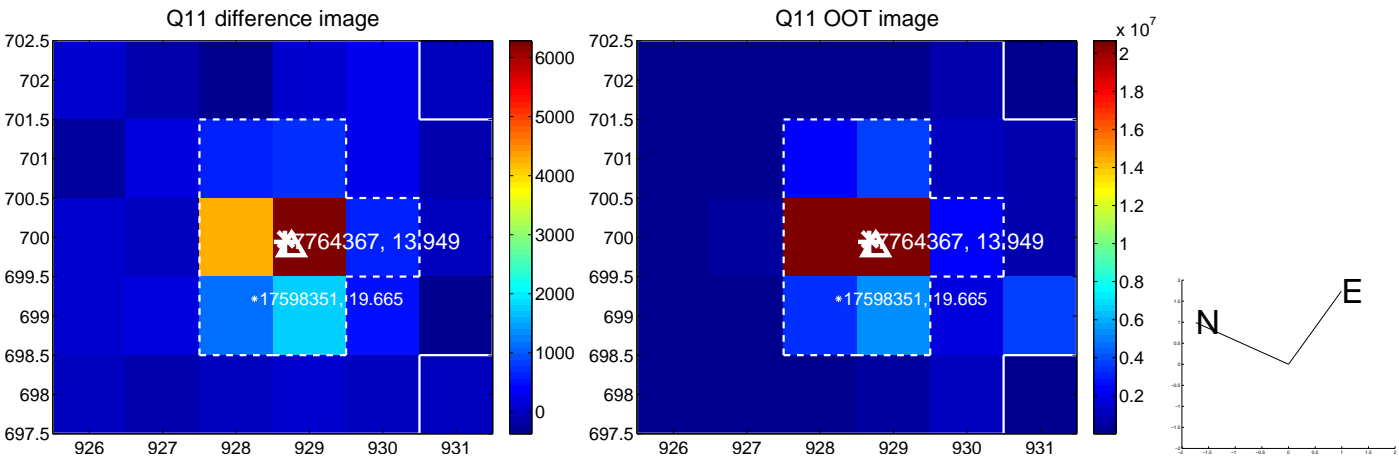
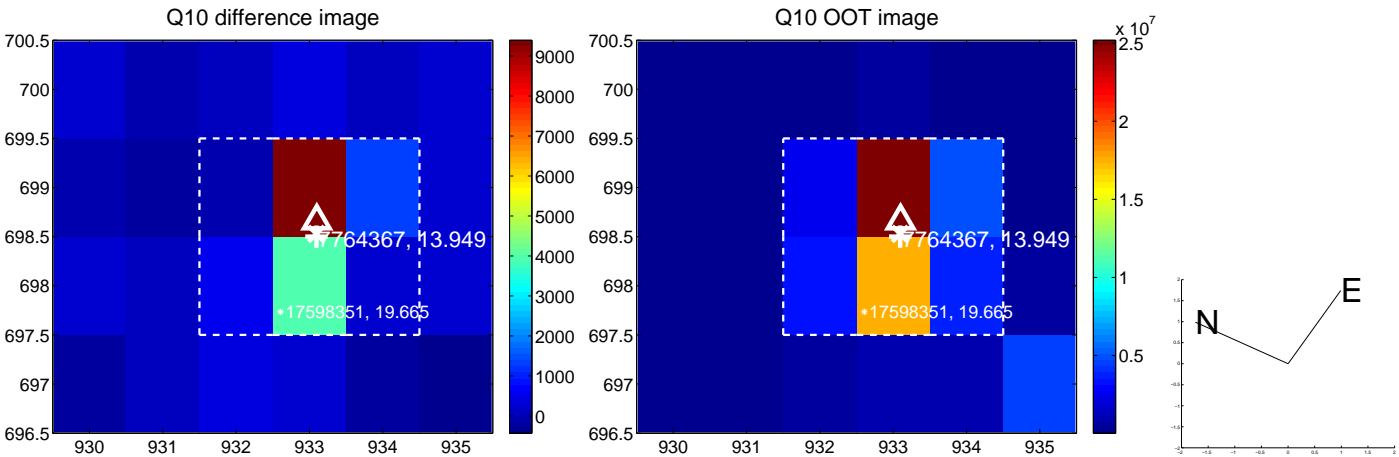
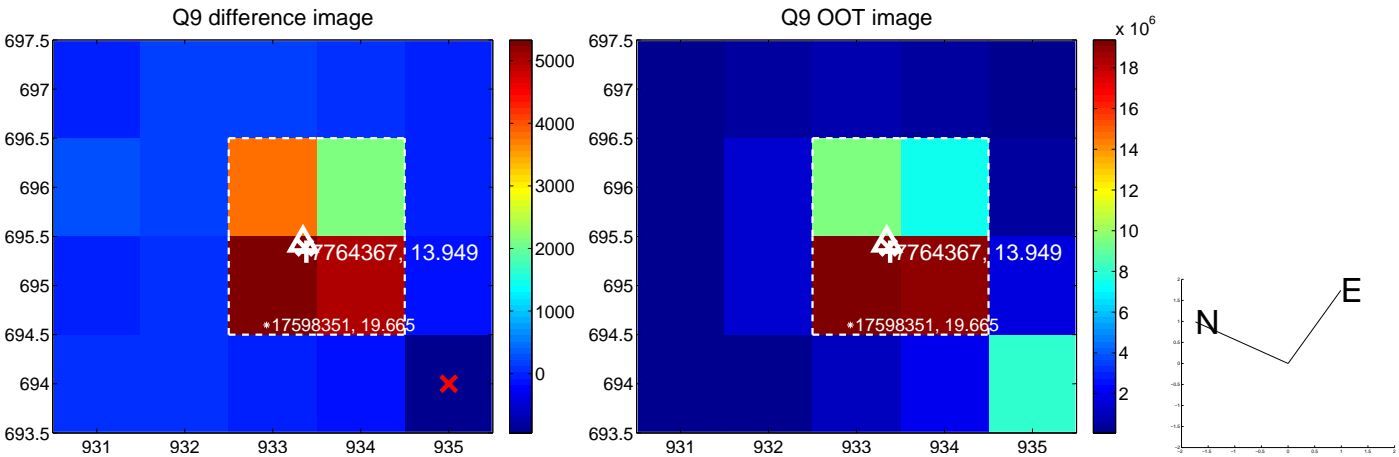
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



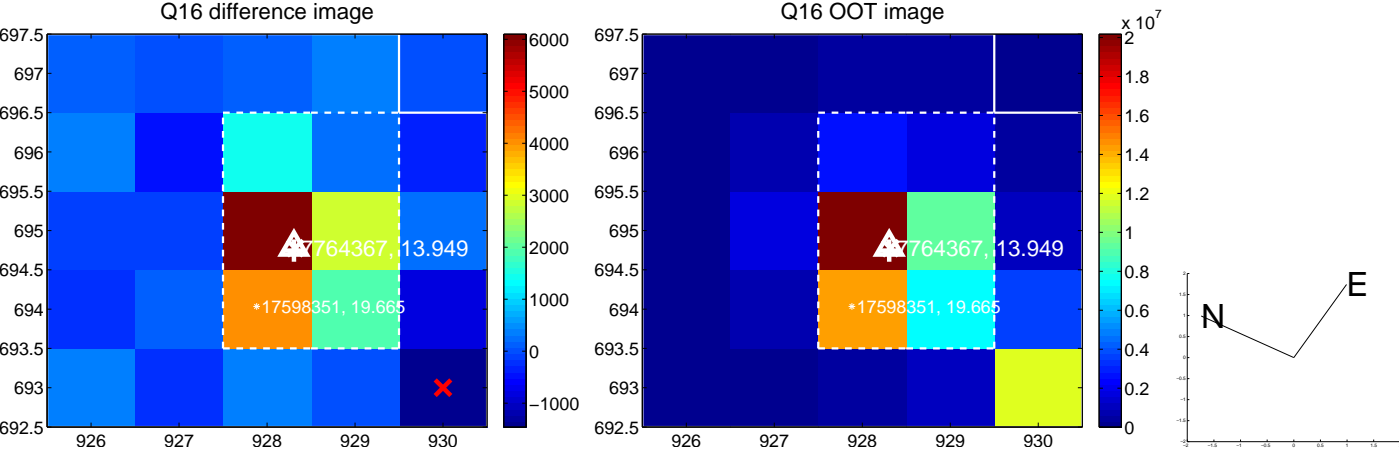
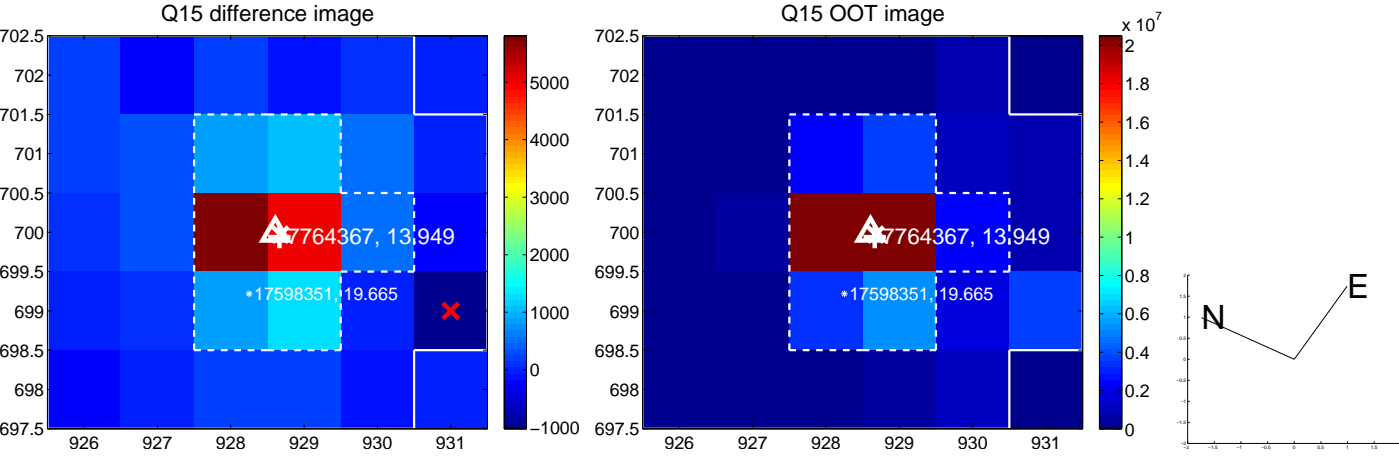
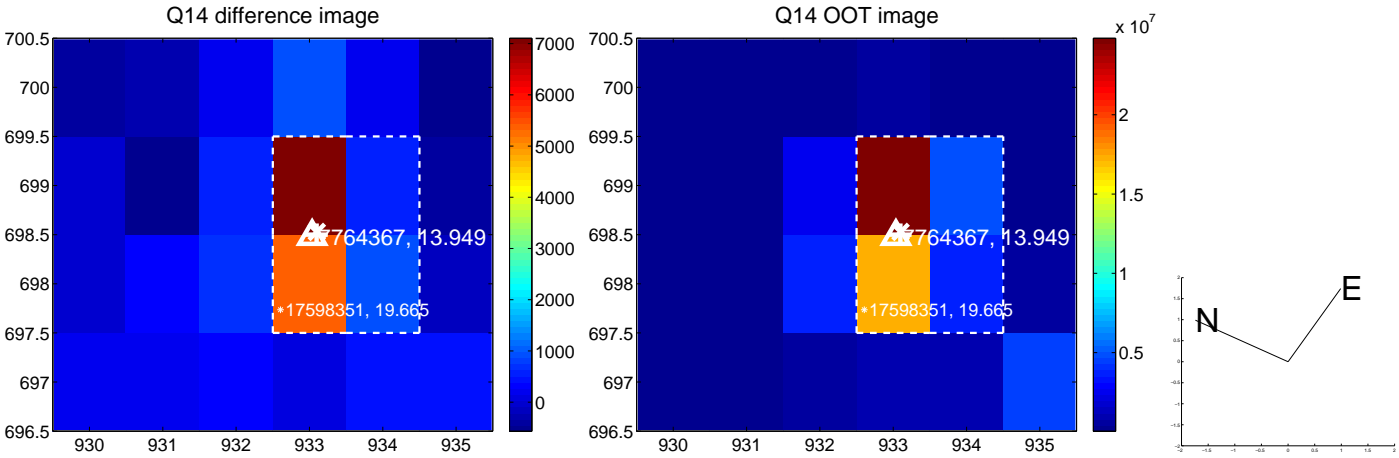
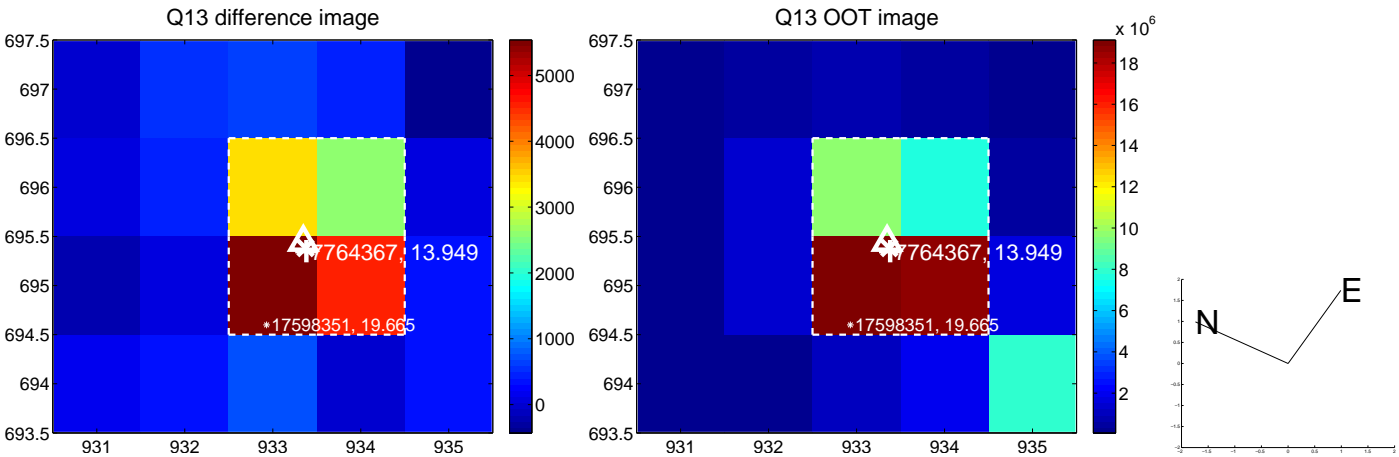
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



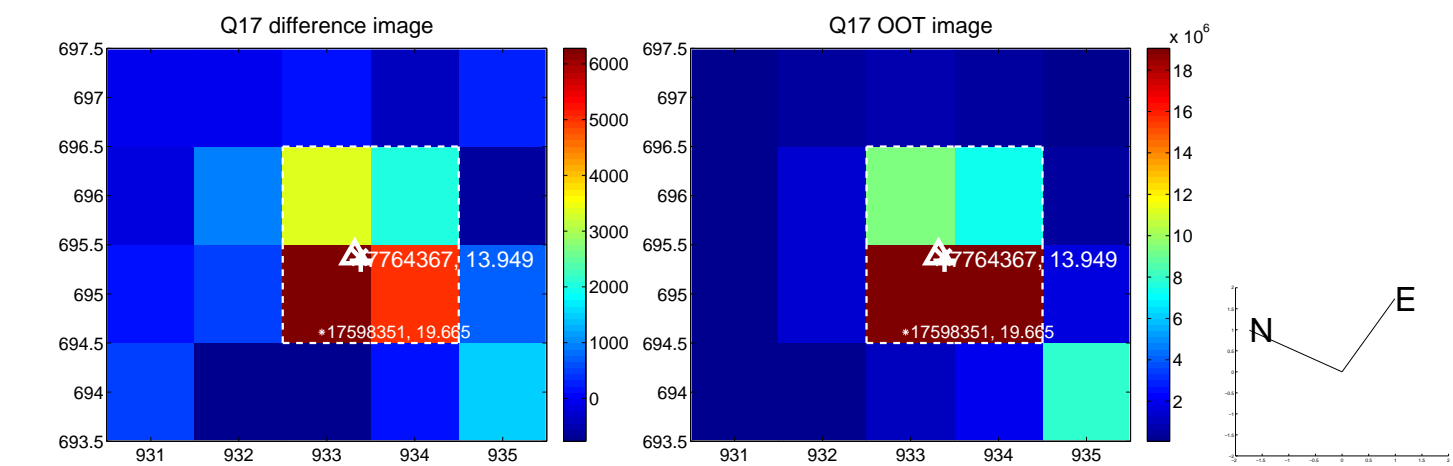
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



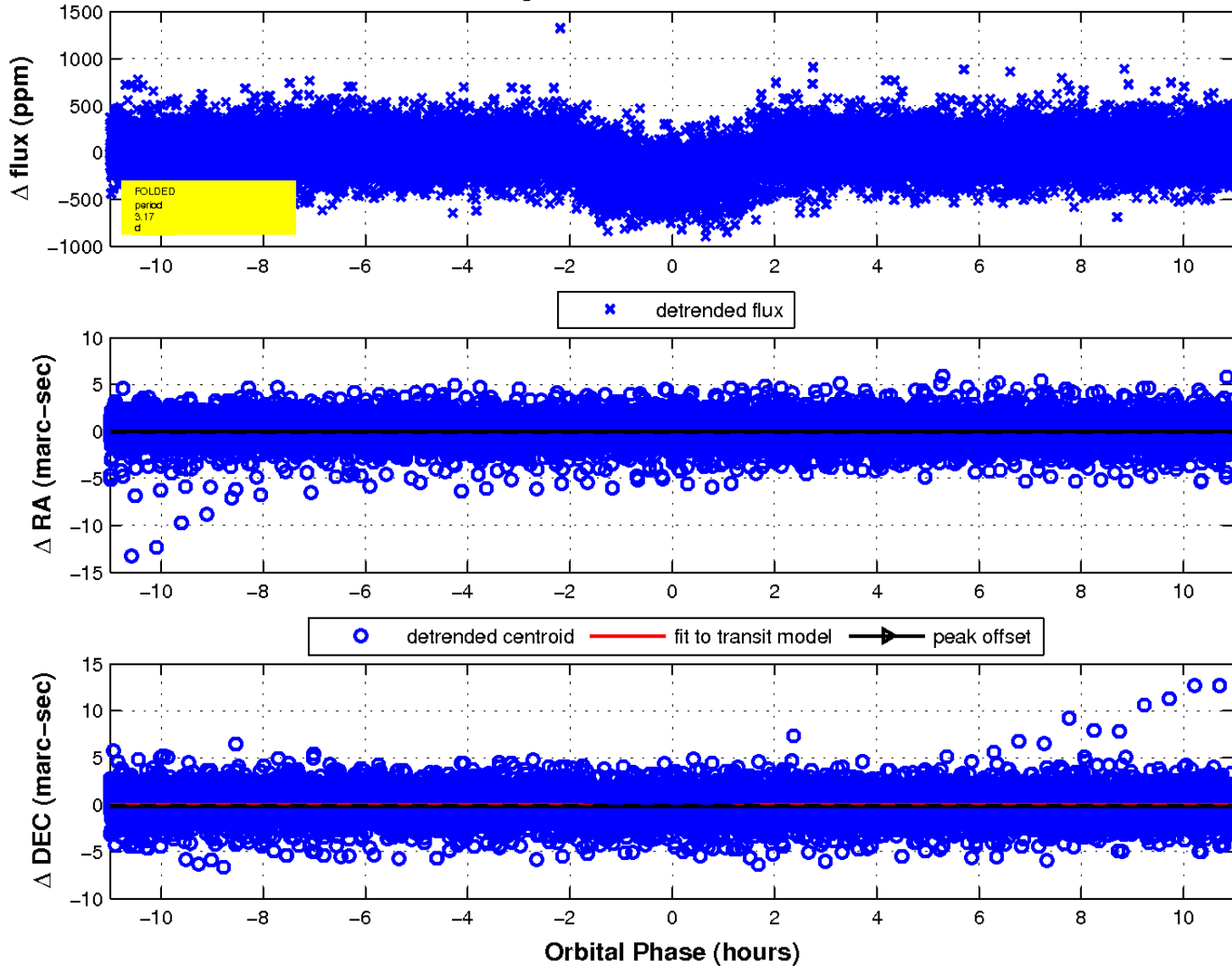
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

