

KIC 003114167

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})
003114167-01	OBS	0795.01	6.770294	136.726017	1288.5	2.227	43.8	50.0	0.68	5653	2.91	103.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003114167-01	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.

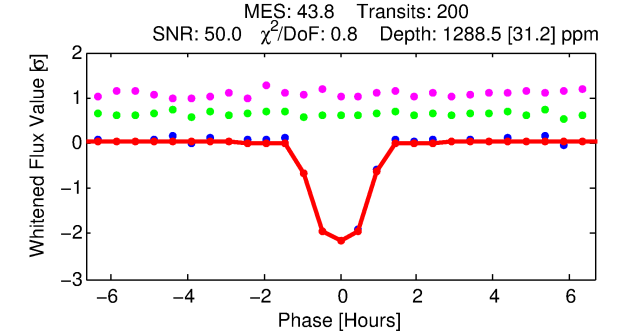
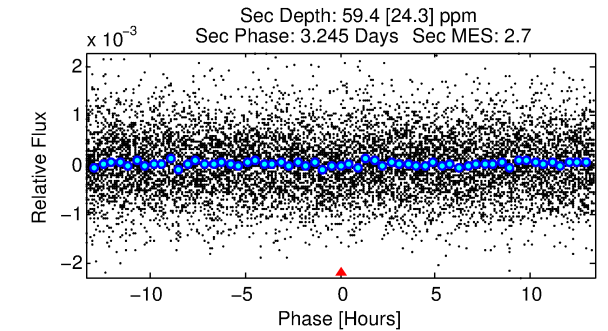
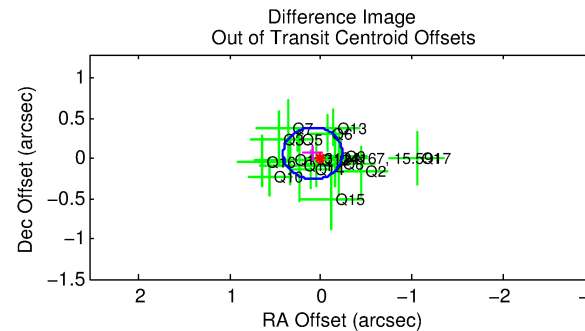
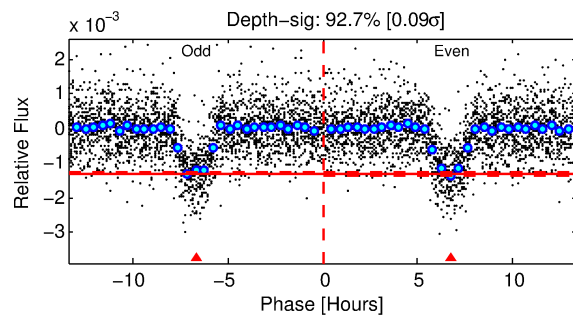
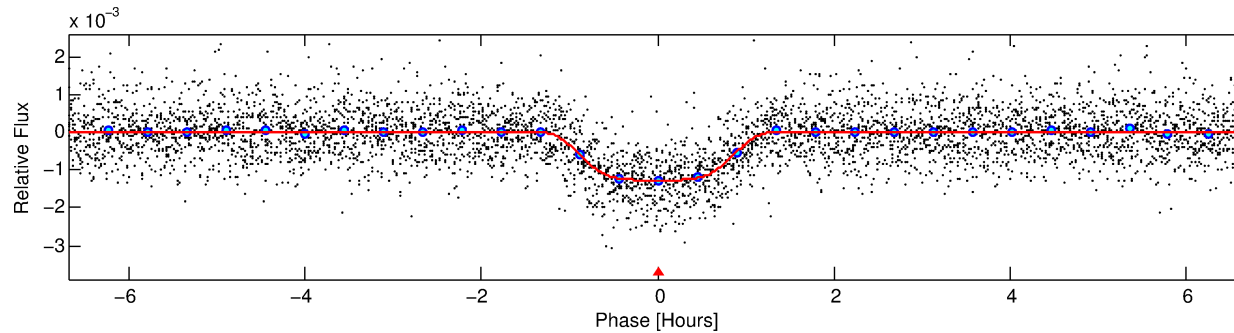
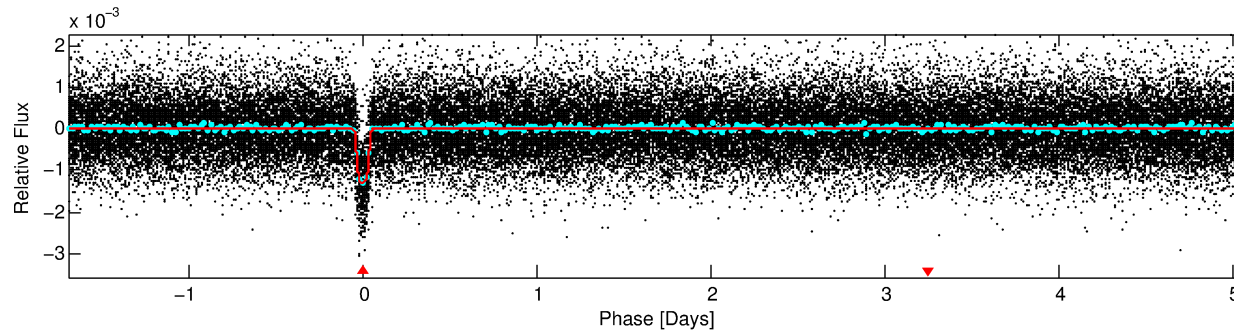
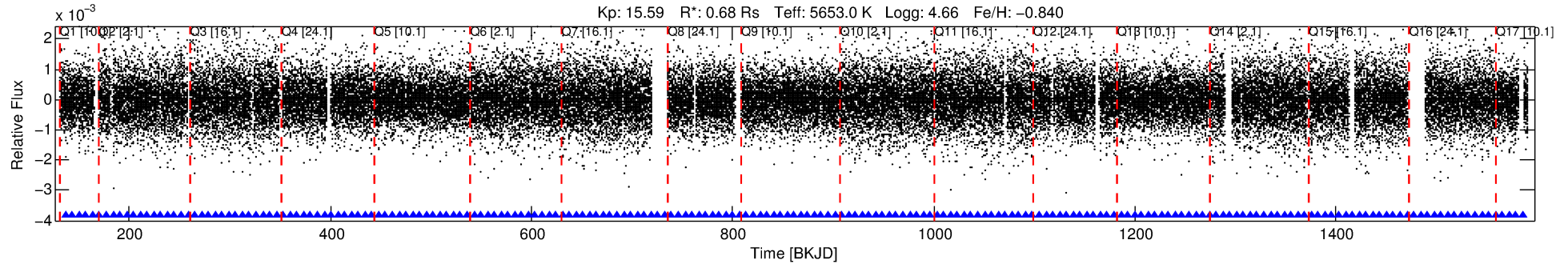
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003114167-01

No Significant Match Found

DV One-Page Summary

KIC: 3114167 Candidate: 1 of 1 Period: 6.770 d
KOI: K00795.01 Corr: 0.933



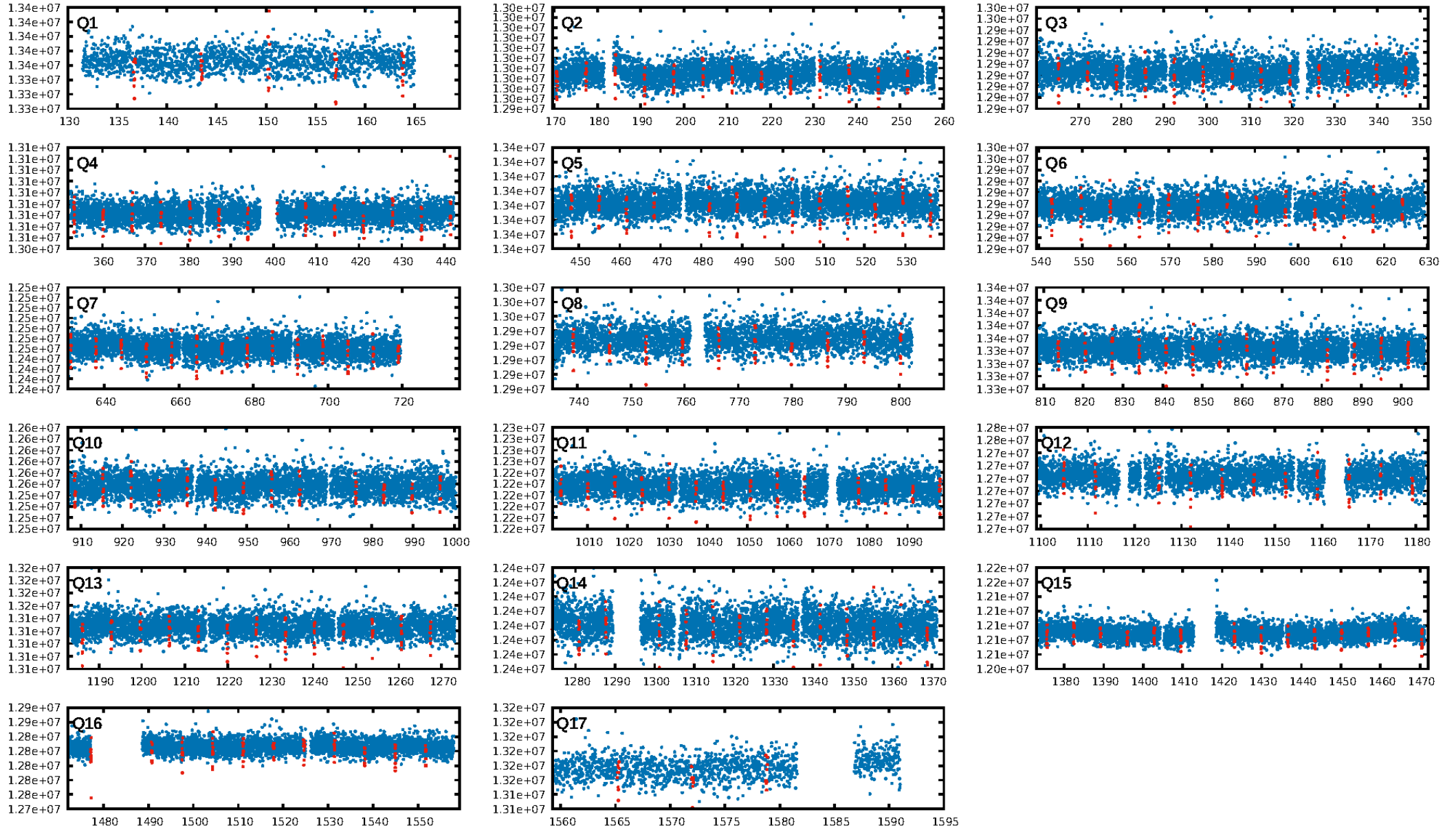
DV Fit Results:

Period = 6.77029 [0.00001] d
Epoch = 136.7260 [0.0010] BKJD
Rp/R* = 0.0393 [0.0015]
a/R* = 11.64 [1.97]
b = 0.91 [0.03]
Seff = 103.07 [24.27]
Teff = 812 [48] K
Rp = 2.91 [0.49] Re
a = 0.0640 [0.0089] AU
Ag = 15.80 [7.32] [2.02 σ]
Teffp = 2504 [271] K [6.15 σ]

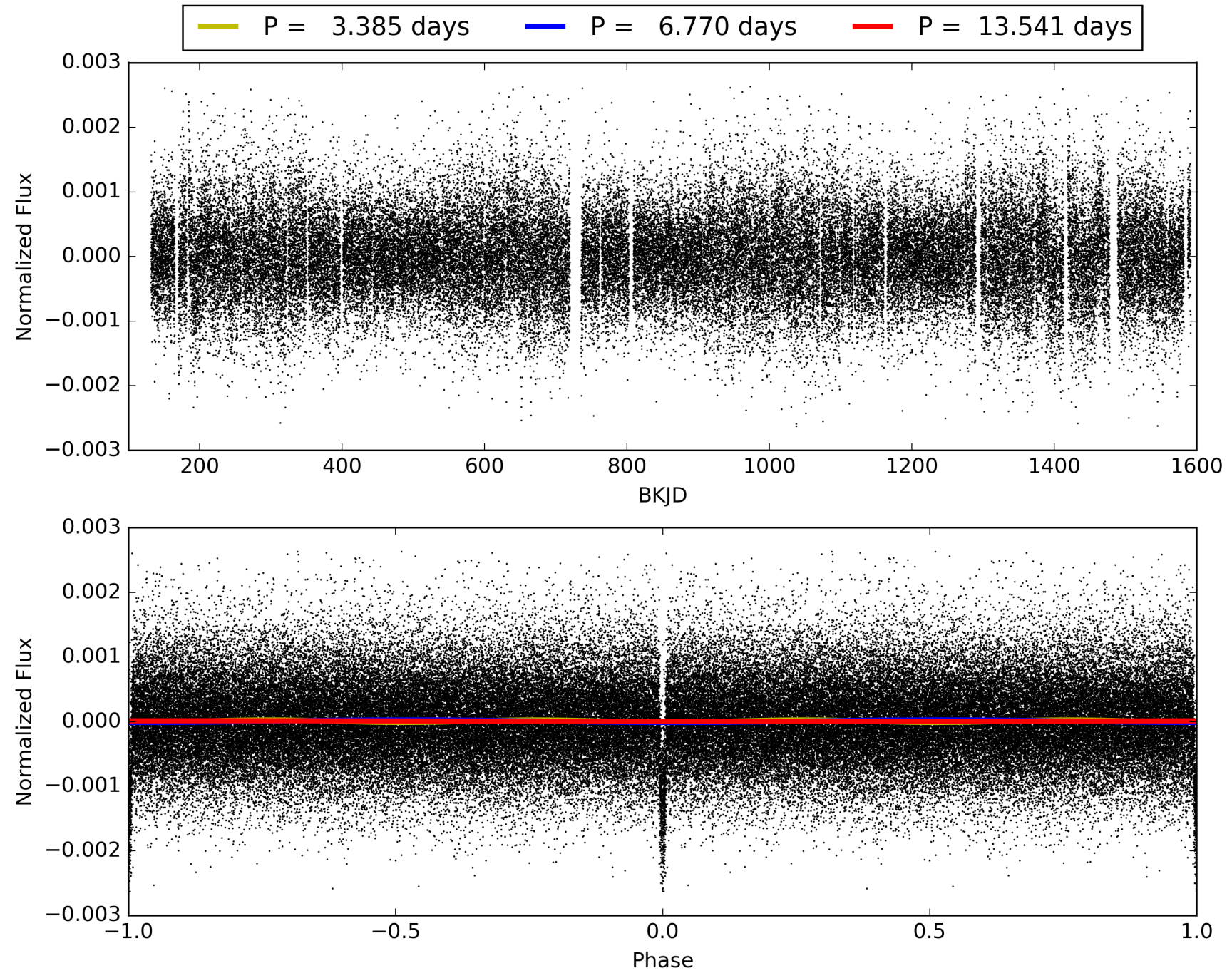
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [192/192]
GhostDiagnostic-chr: 2.543
Centroid-sig: 0.5%
Centroid-so: 0.790 arcsec [3.00 σ]
OotOffset-rm: 0.111 arcsec [1.03 σ]
KicOffset-rm: 0.052 arcsec [0.46 σ]
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]

TCE 003114167-01, PDC Light Curves

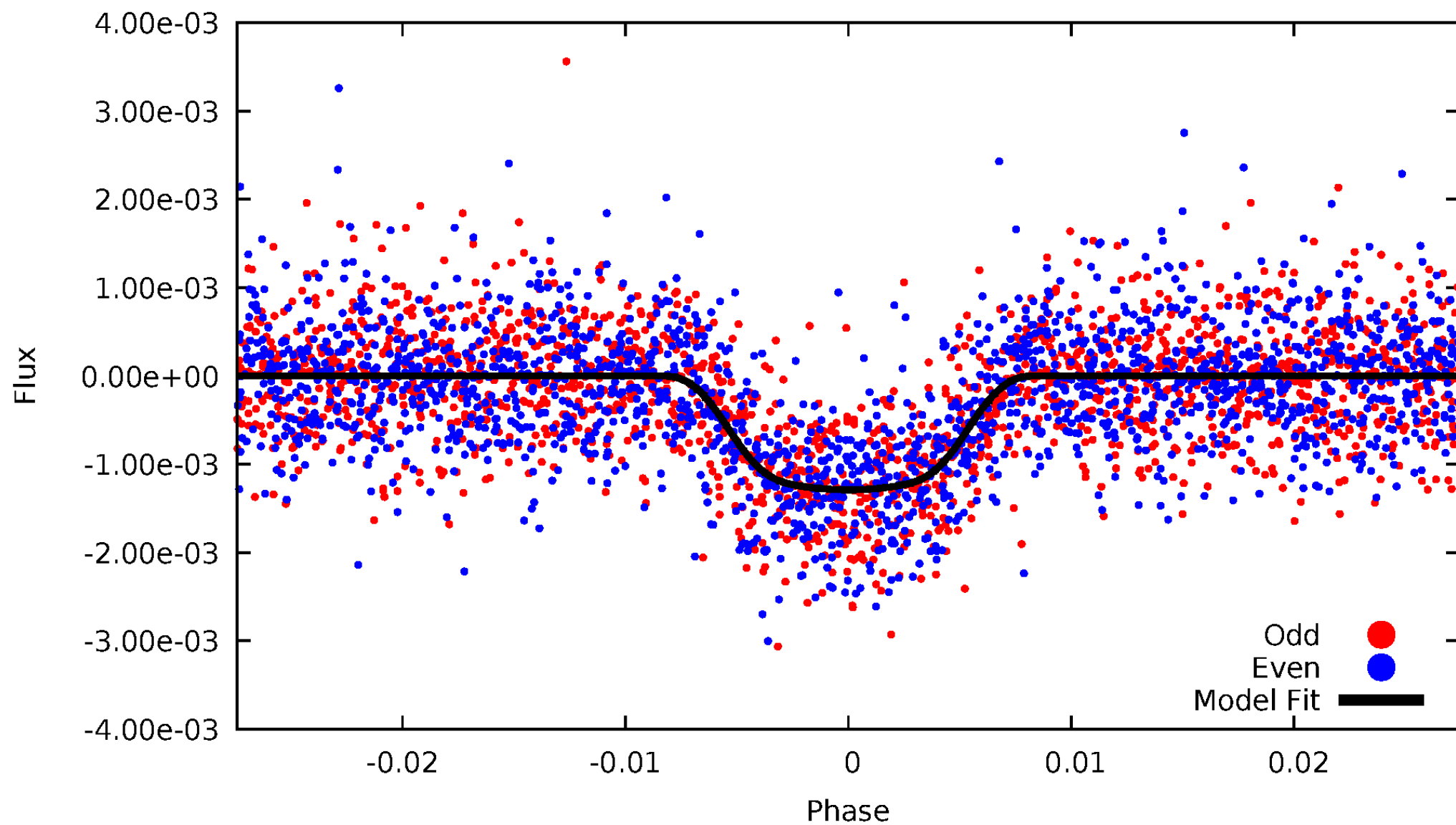


TCE 003114167-01



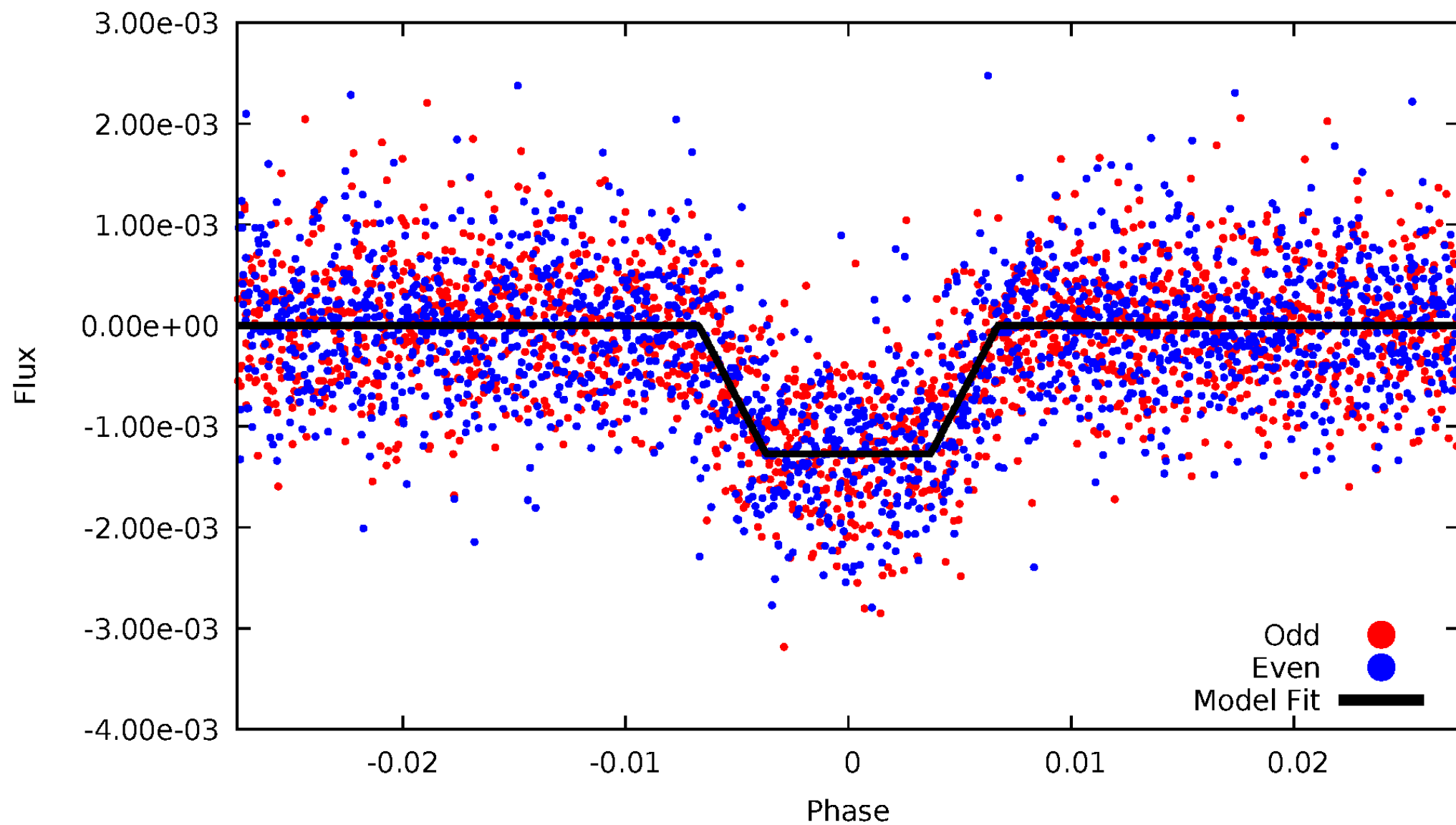
DV Odd/Even

TCE 003114167-01



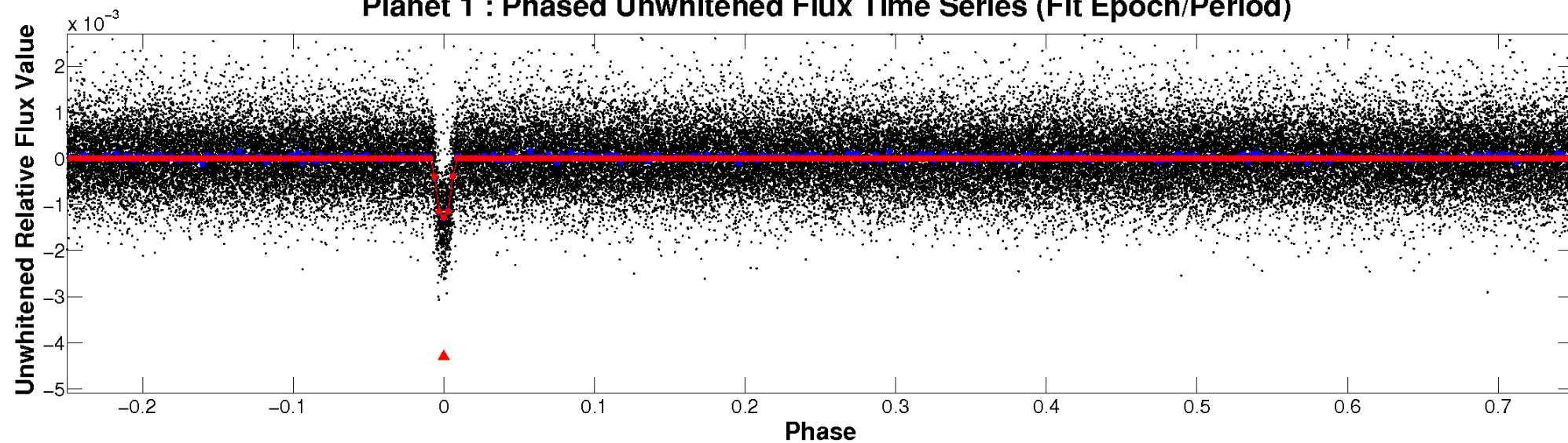
ALT Odd/Even

TCE 003114167-01

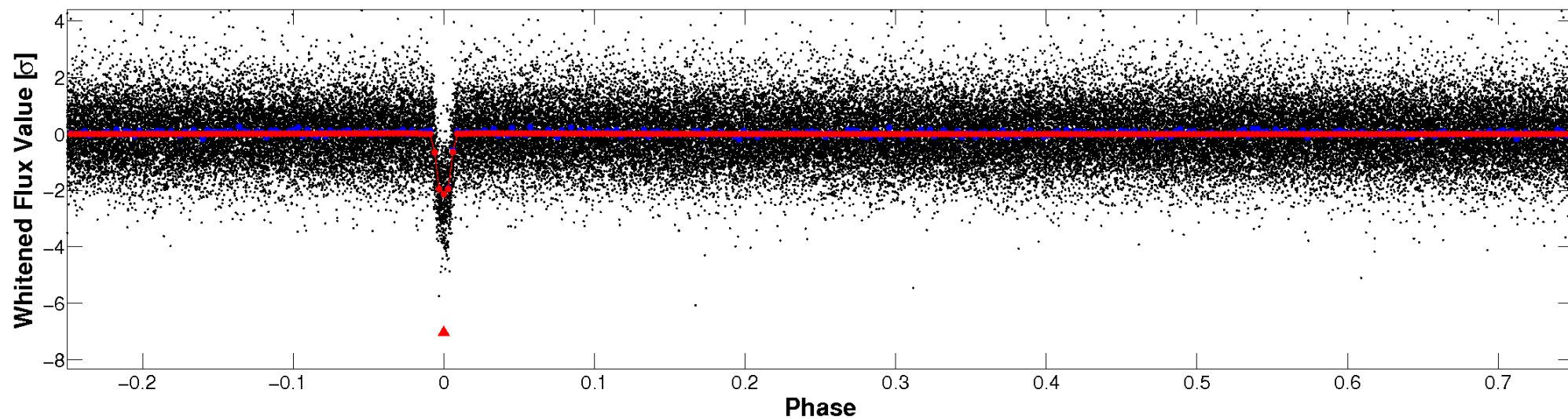


Non-Whitened Vs. Whitened Light Curve

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

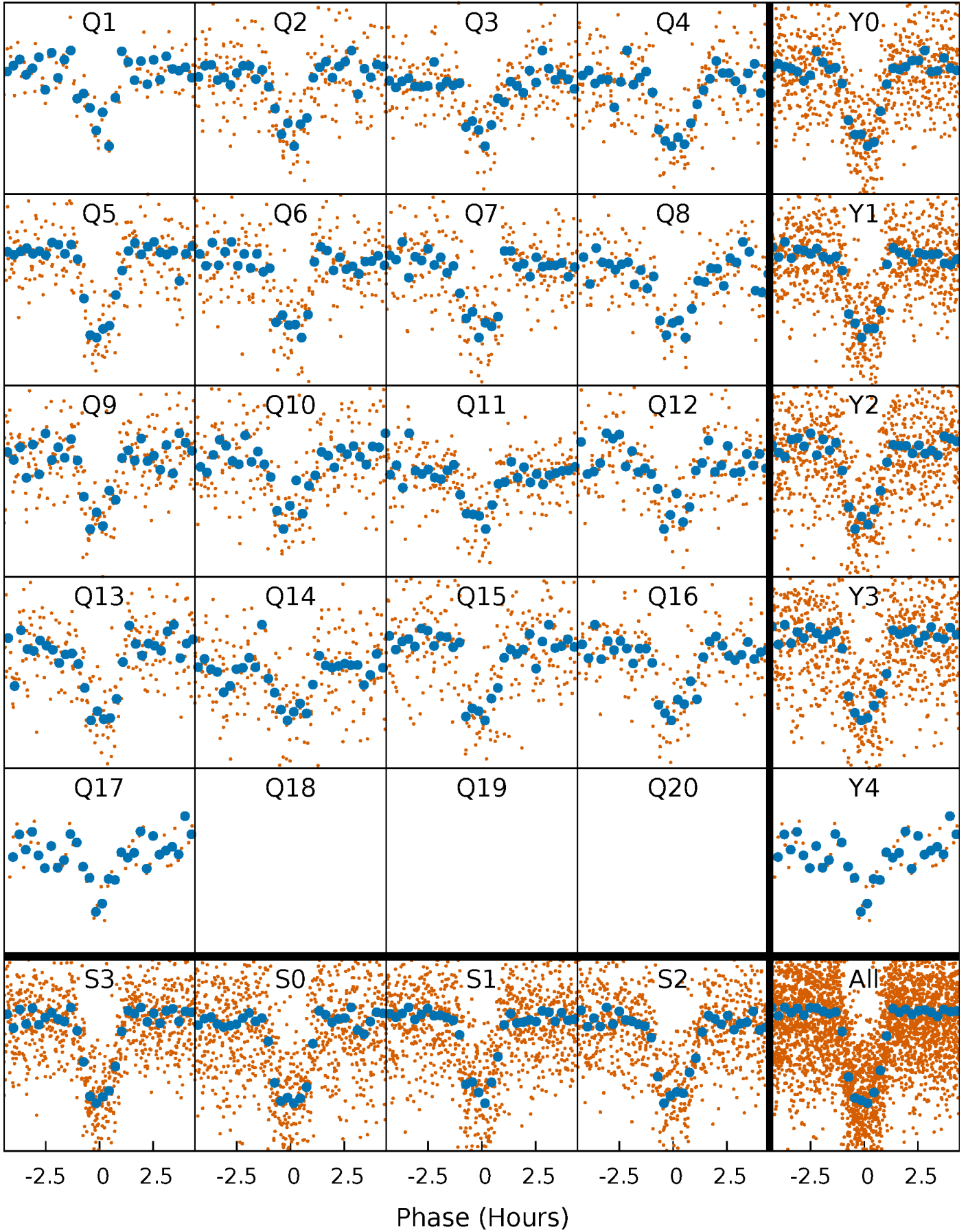


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



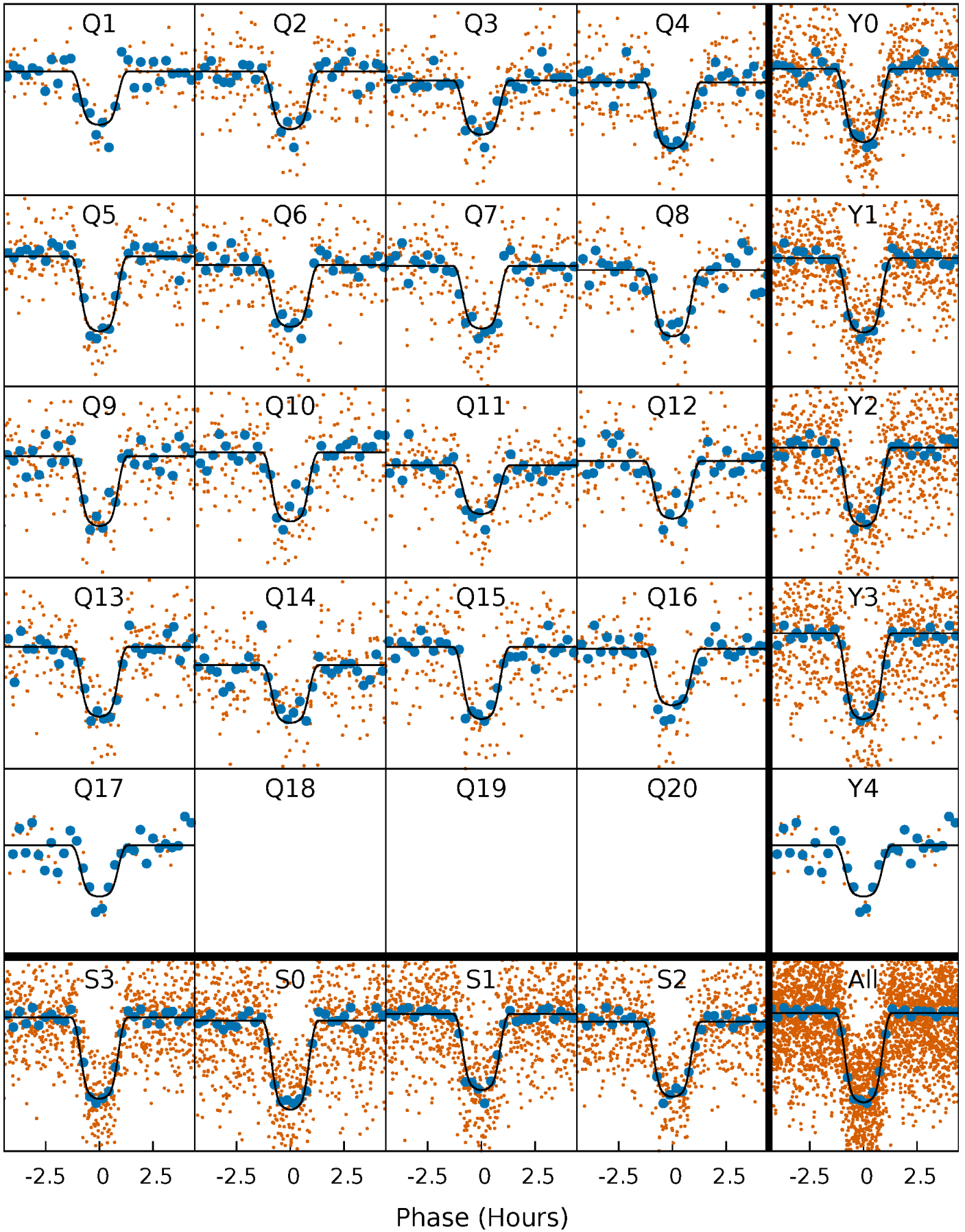
PDC Quarter-Phased Transit Curves

TCE 003114167-01 P= 6.770294 Days $T_0=136.726017$ (BKJD)



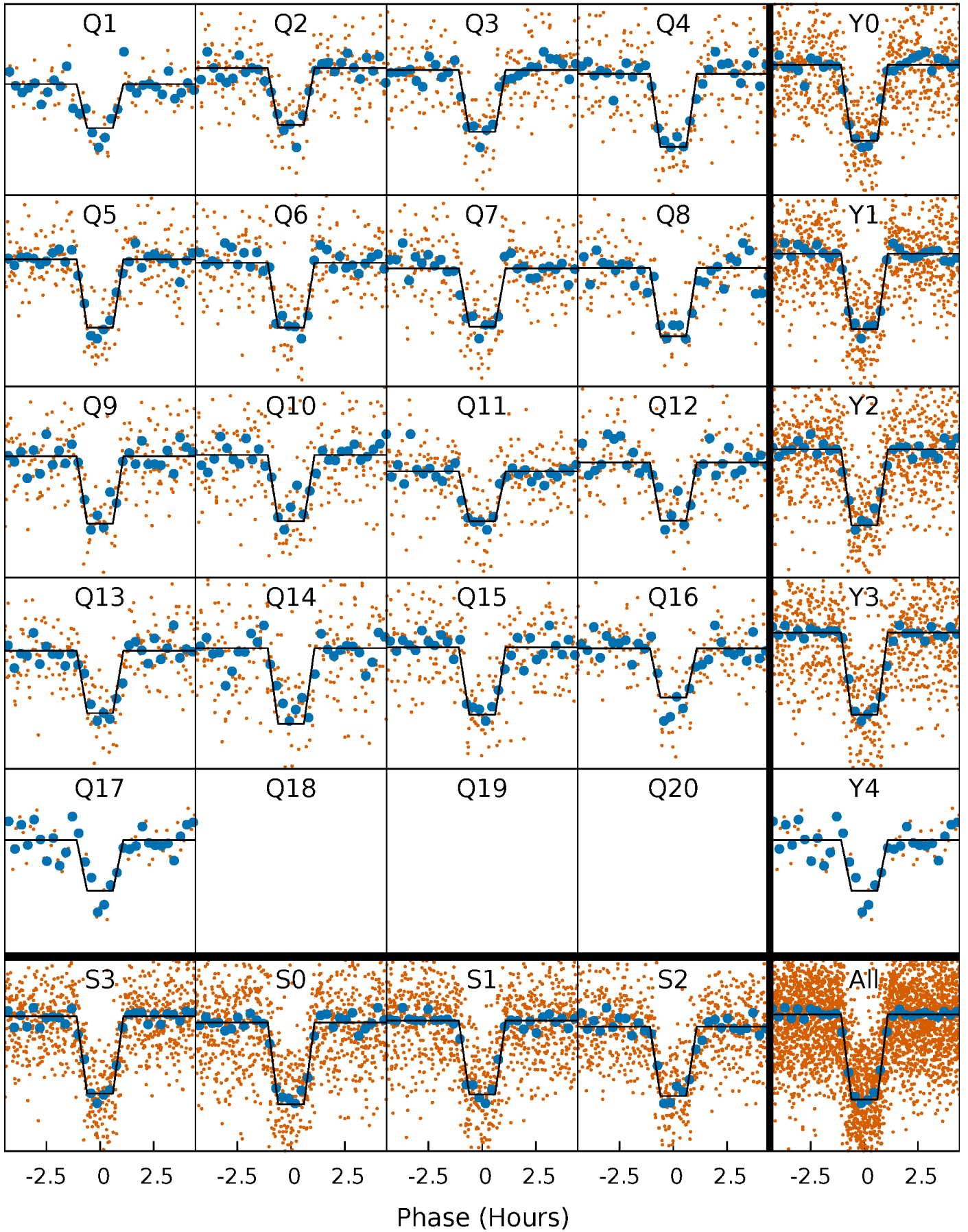
DV Quarter-Phased Transit Curves

TCE 003114167-01 P= 6.770294 Days $T_0=136.726017$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

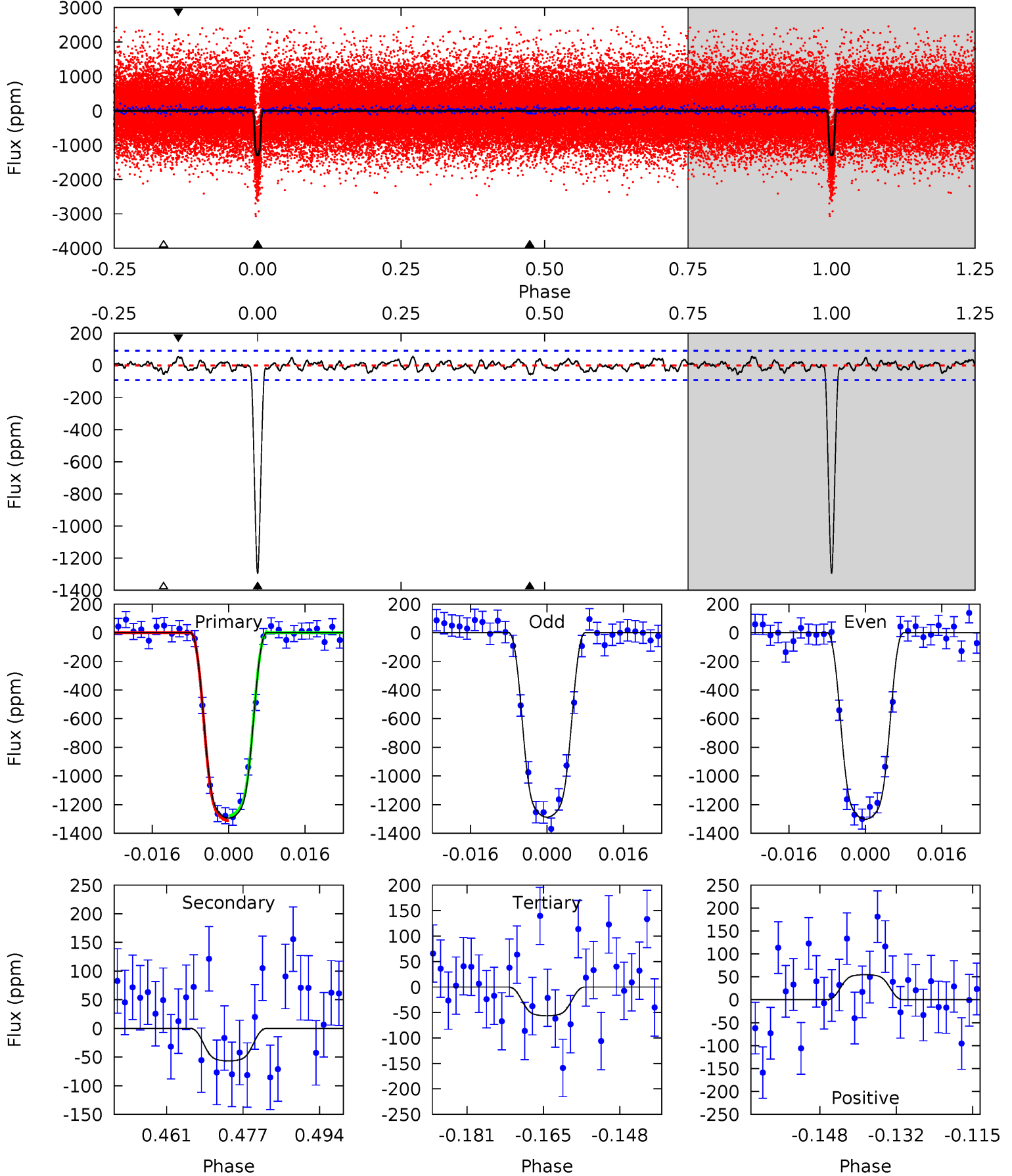
TCE 003114167-01 P= 6.770258 Days $T_0=136.729424$ (BKJD)



DV Model-Shift Uniqueness Test

003114167-01, P = 6.770294 Days, E = 129.955723 Days

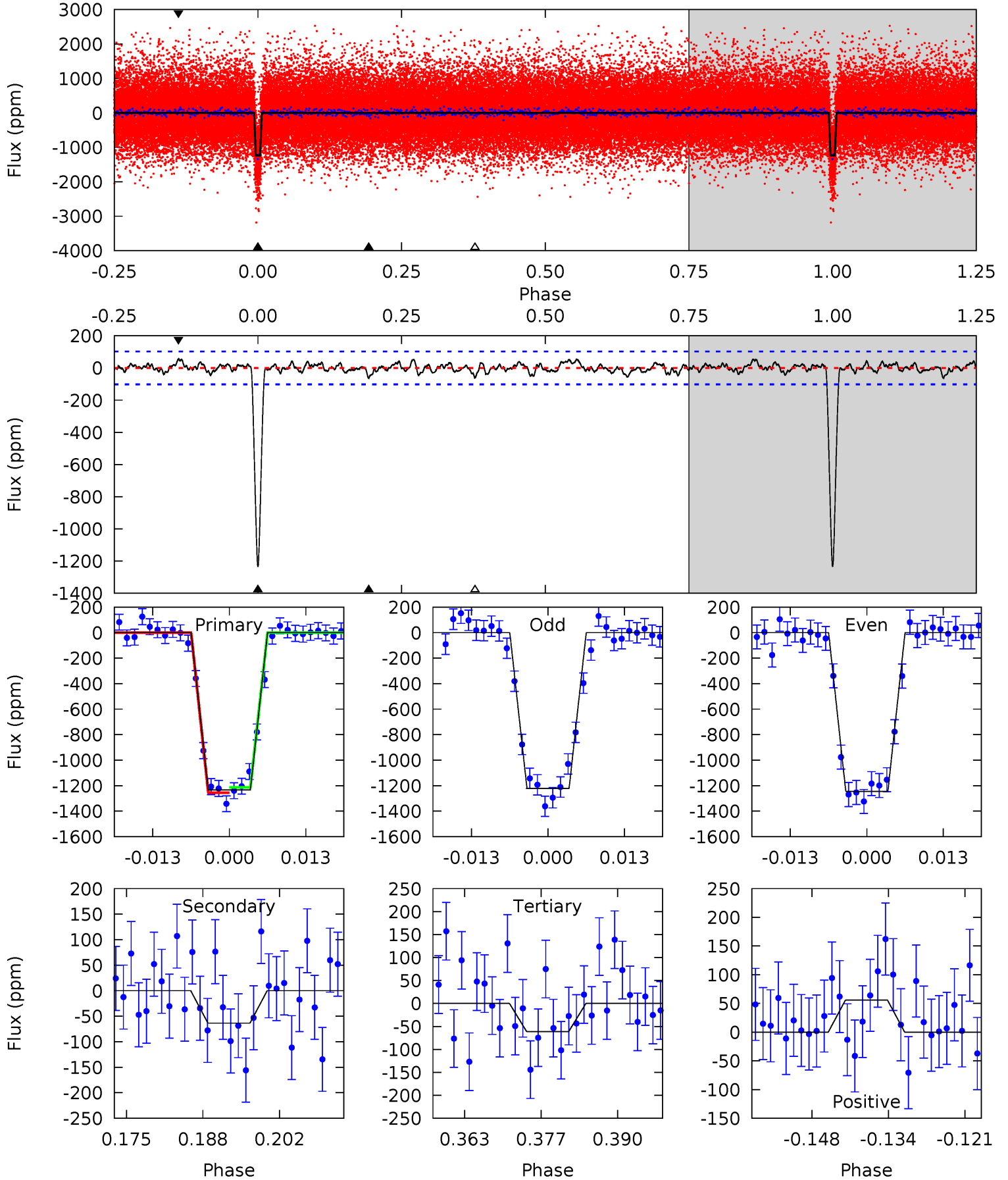
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.0	3.07	3.06	2.97	4.93	2.40	1.15	67.0	67.0	0.01	0.10	0.39	0.99	0.04	0.95



Alt Model-Shift Uniqueness Test

003114167-01, $P = 6.770258$ Days, $E = 129.959166$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.0	3.09	2.97	2.71	4.97	2.47	1.04	57.0	57.2	0.12	0.38	0.57	1.00	0.04	1.03



Stellar Parameters For KIC 003114167

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5653^{+166}_{-166}	$4.656^{+0.028}_{-0.112}$	$-0.840^{+0.300}_{-0.300}$	$0.679^{+0.112}_{-0.037}$	$0.767^{+0.058}_{-0.071}$	$3.446^{+0.462}_{-1.140}$
	+3%/-3%	+1%/-2%	+36%/-36%	+16%/-5%	+8%/-9%	+13%/-33%
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 003114167-01 / KOI 0795.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-57 ± 18	$2.98^{+0.27}_{-0.20}$	1153^{+52}_{-46}	3089^{+156}_{-181}	14^{+5}_{-5}
Alt.	-64 ± 21	$2.70^{+0.24}_{-0.18}$	1151^{+50}_{-42}	3233^{+164}_{-196}	19^{+7}_{-7}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

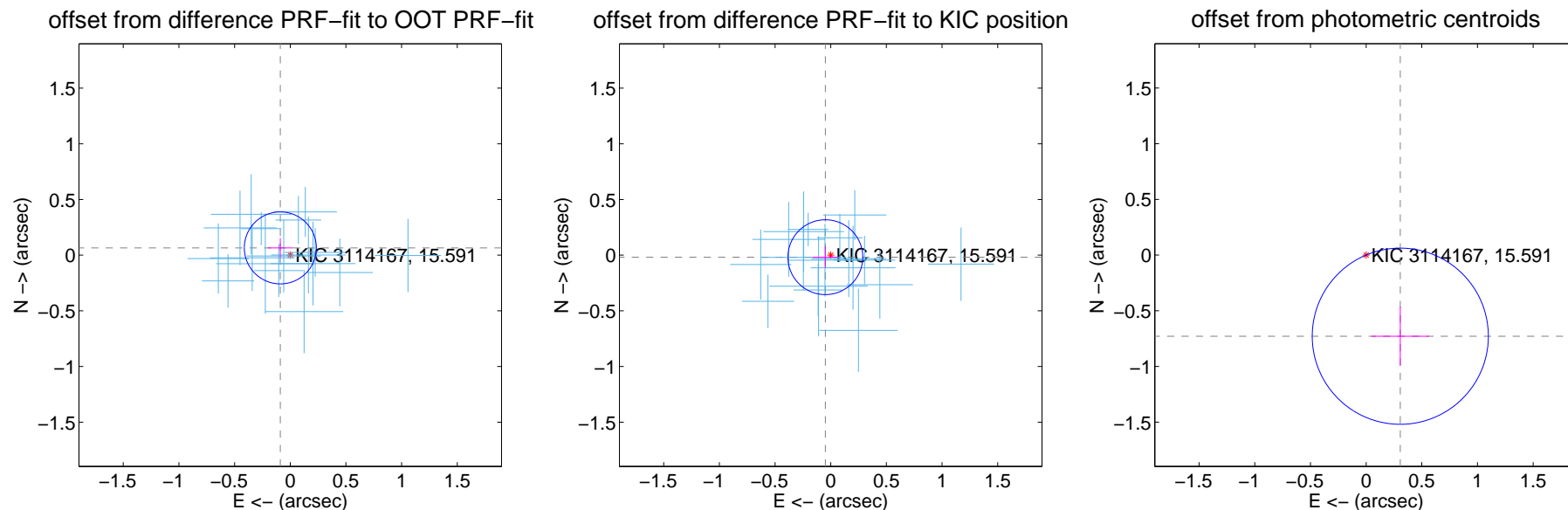
DV Centroid Data

Supplemental centroid analysis for 003114167-01. Kepler magnitude: 15.59. Transit SNR 49.97

There are 17 quarters with good PRF difference image offsets

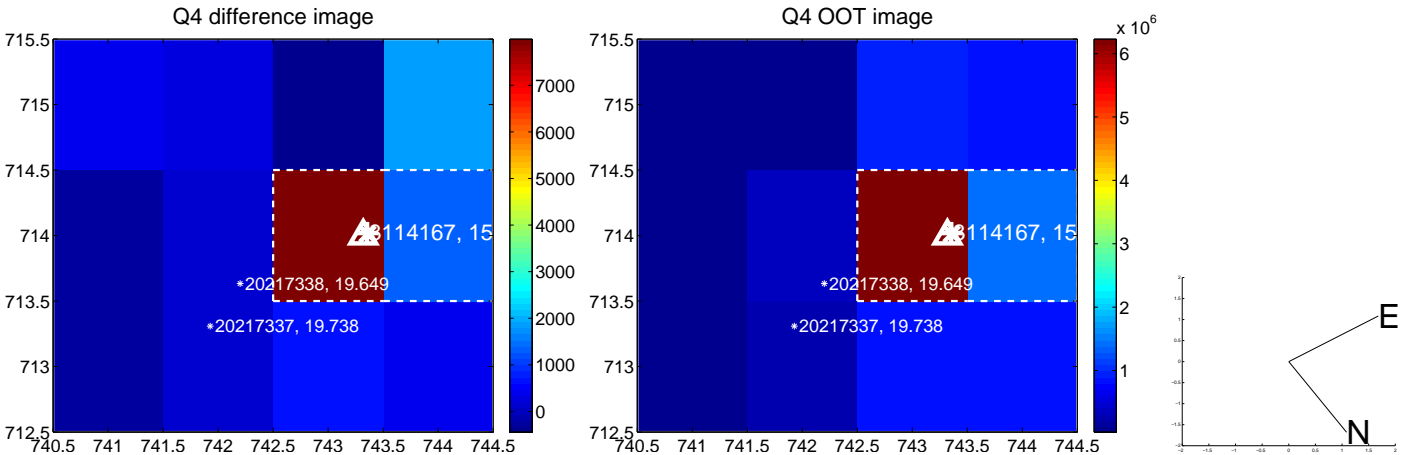
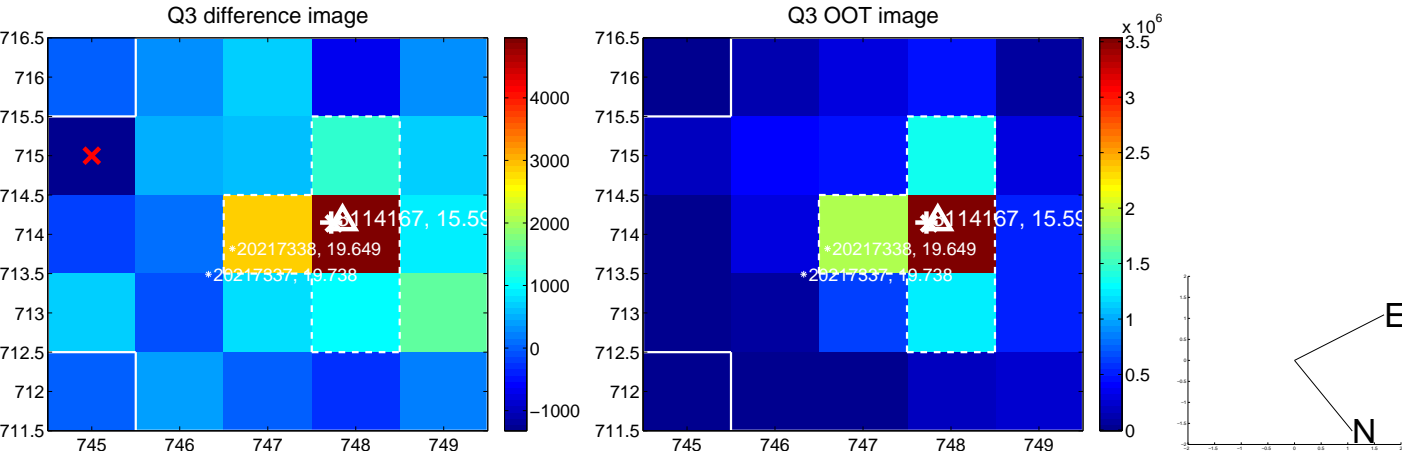
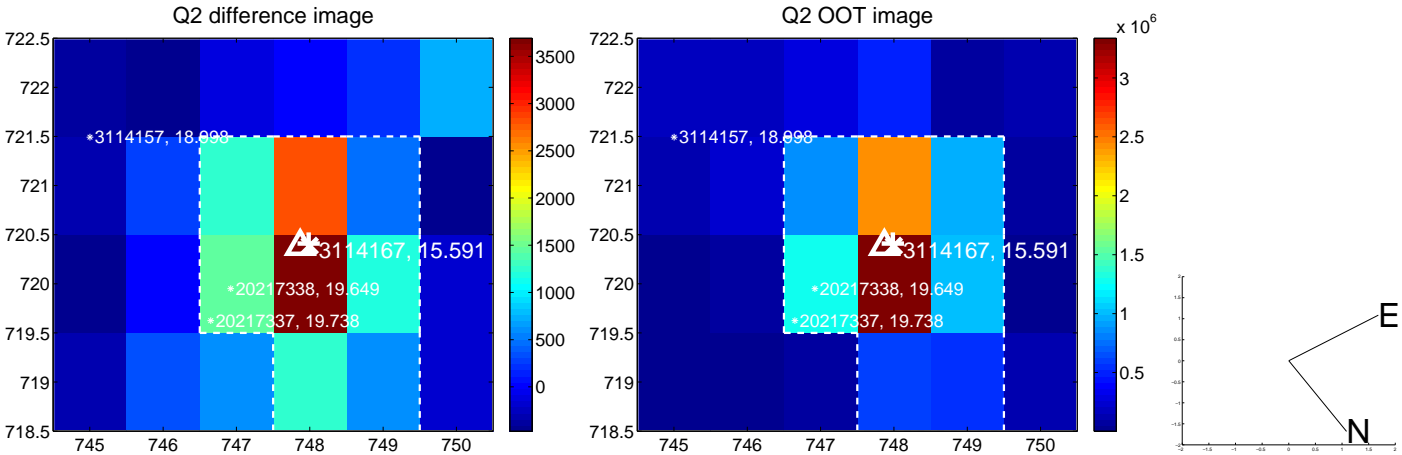
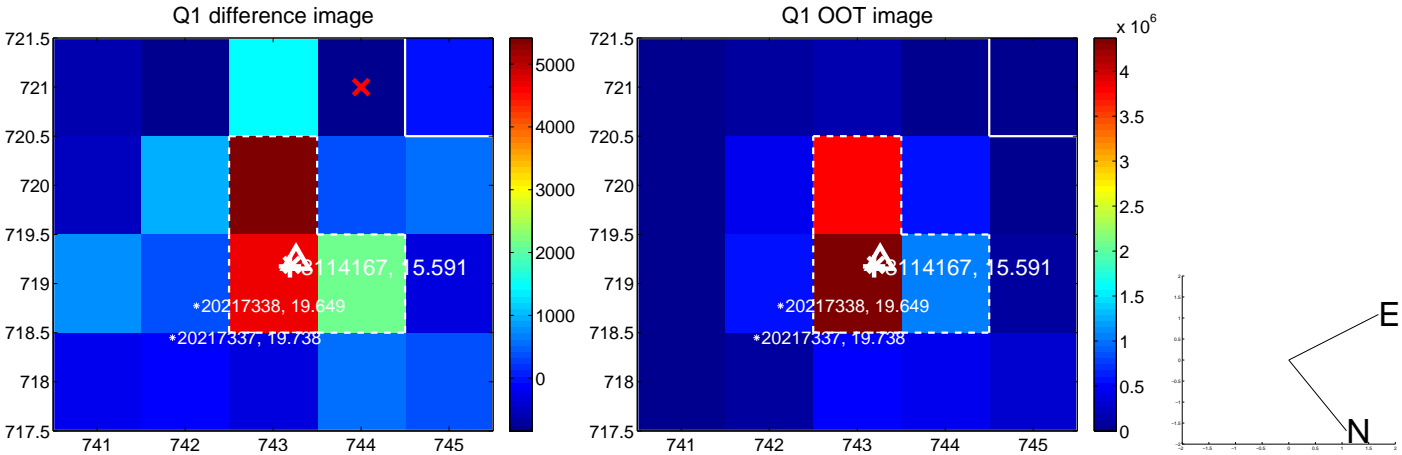
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.111 ± 0.108	1.03	0.089 ± 0.112	0.065 ± 0.089
PRF-fit source offset from KIC position	0.052 ± 0.112	0.46	0.048 ± 0.114	-0.018 ± 0.096
photometric centroid source offset	0.79 ± 0.26	3.00	-0.31 ± 0.26	-0.73 ± 0.26

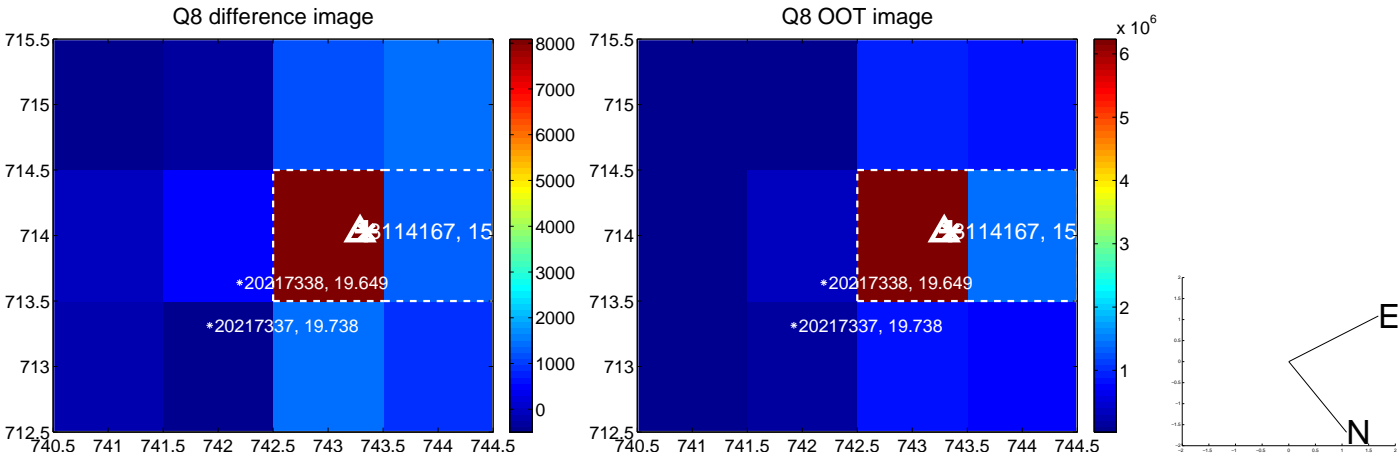
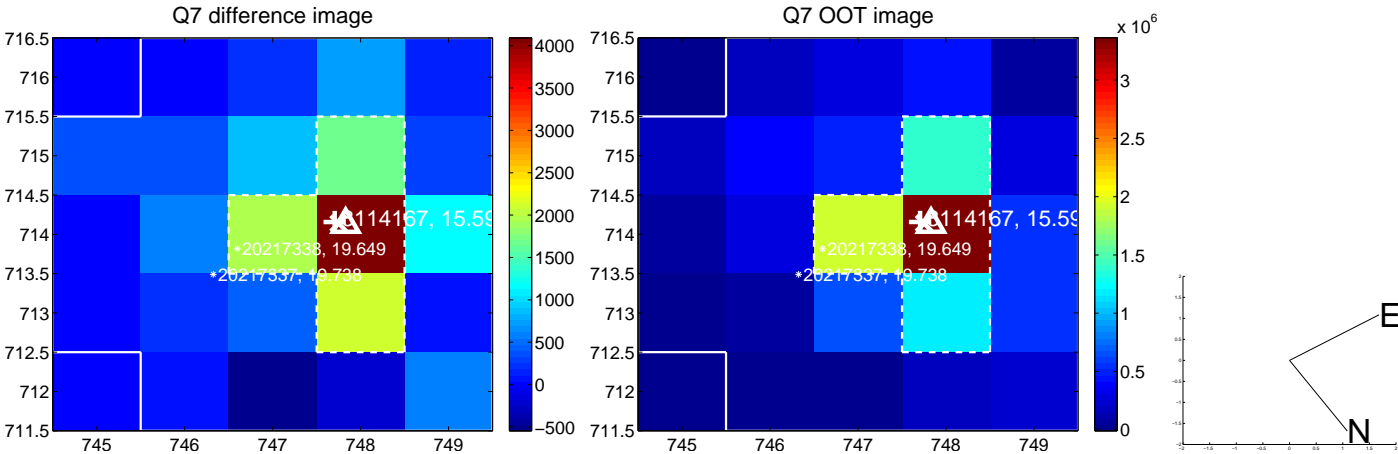
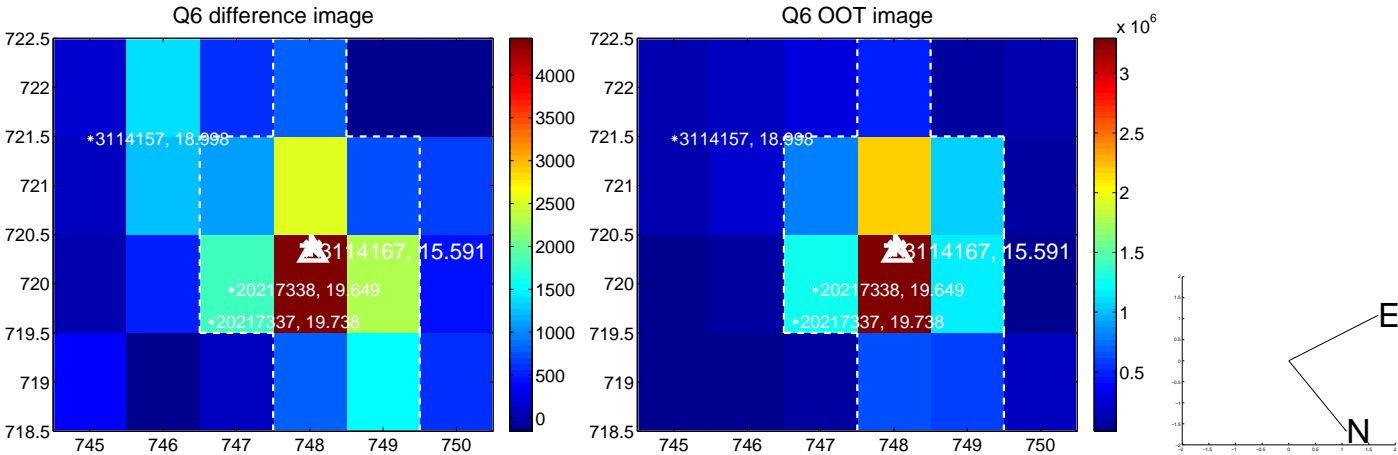
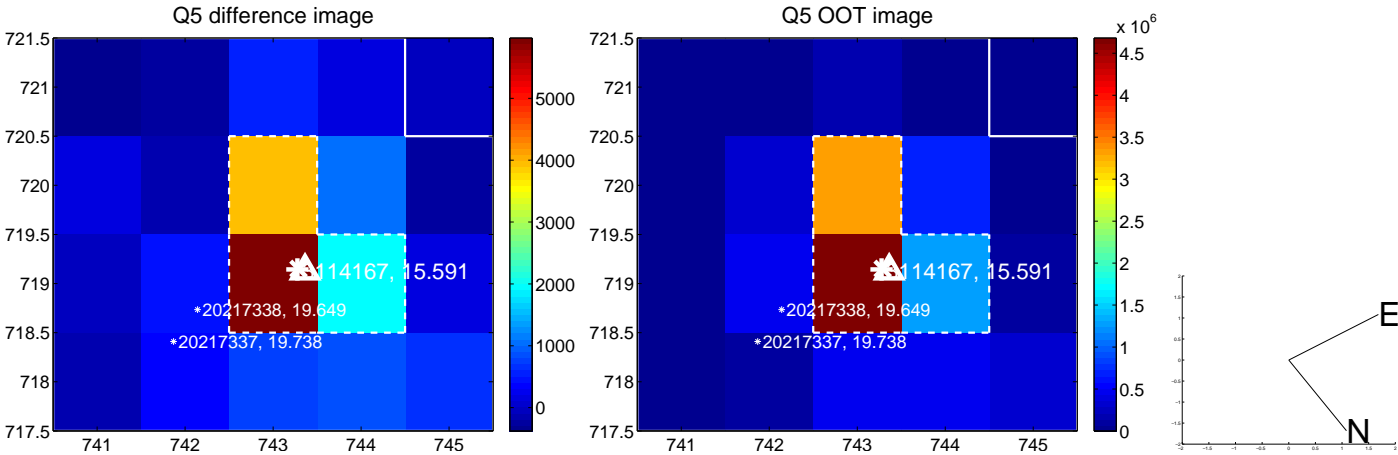


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

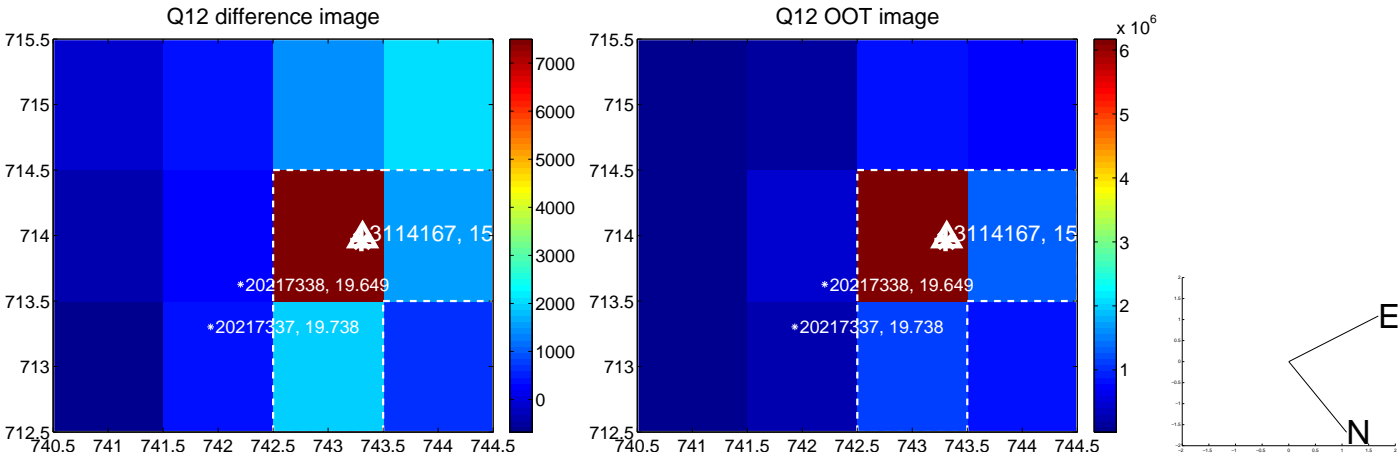
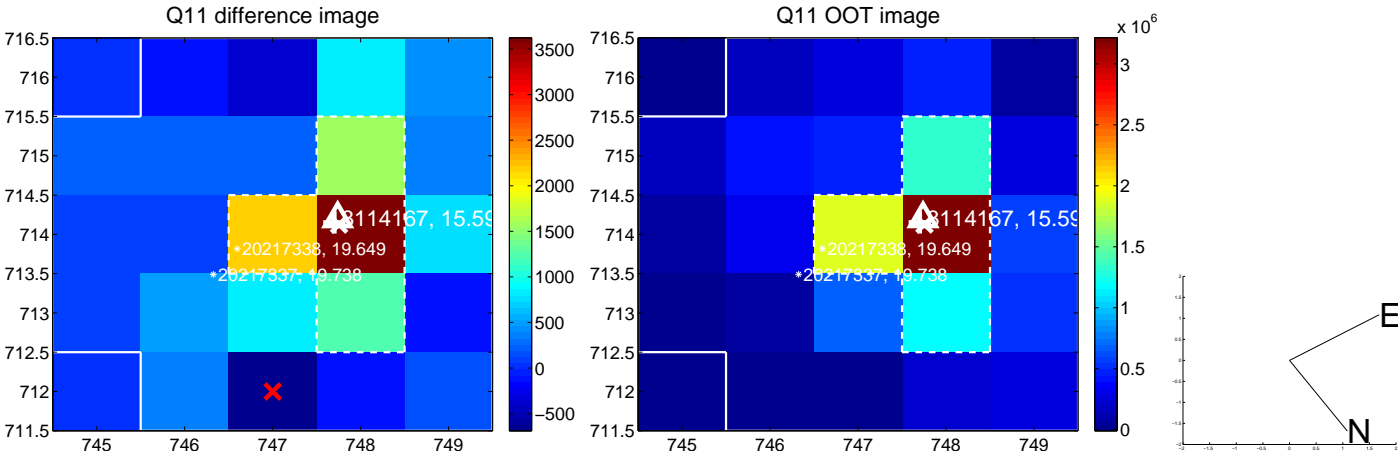
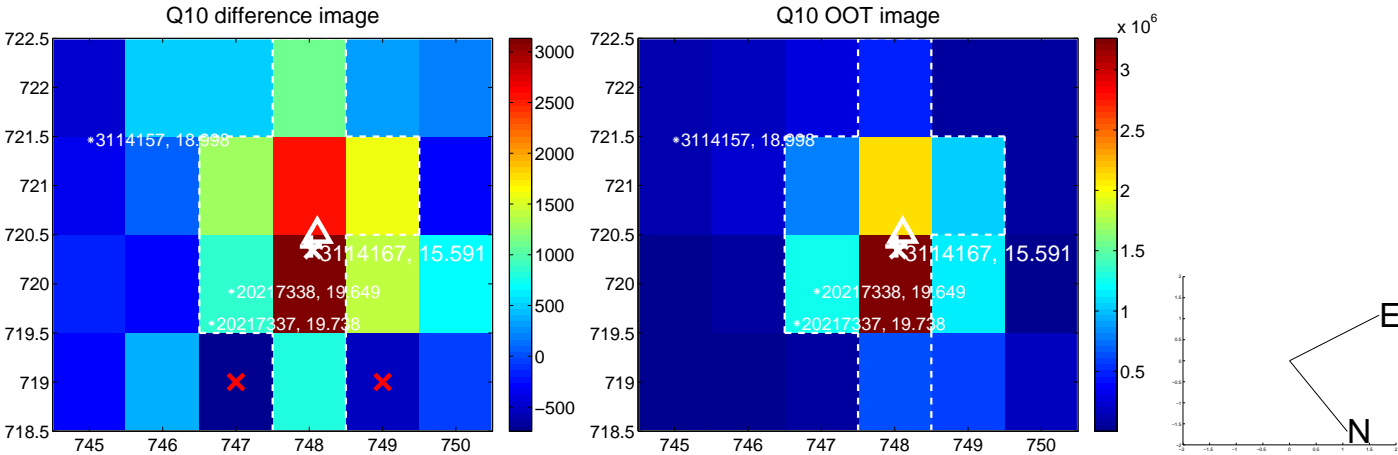
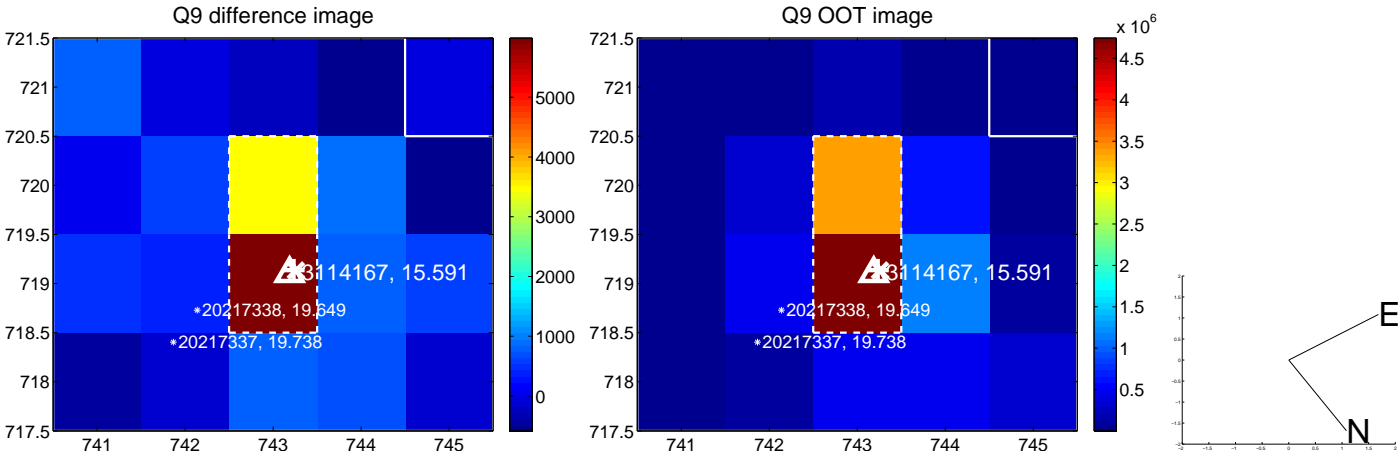
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



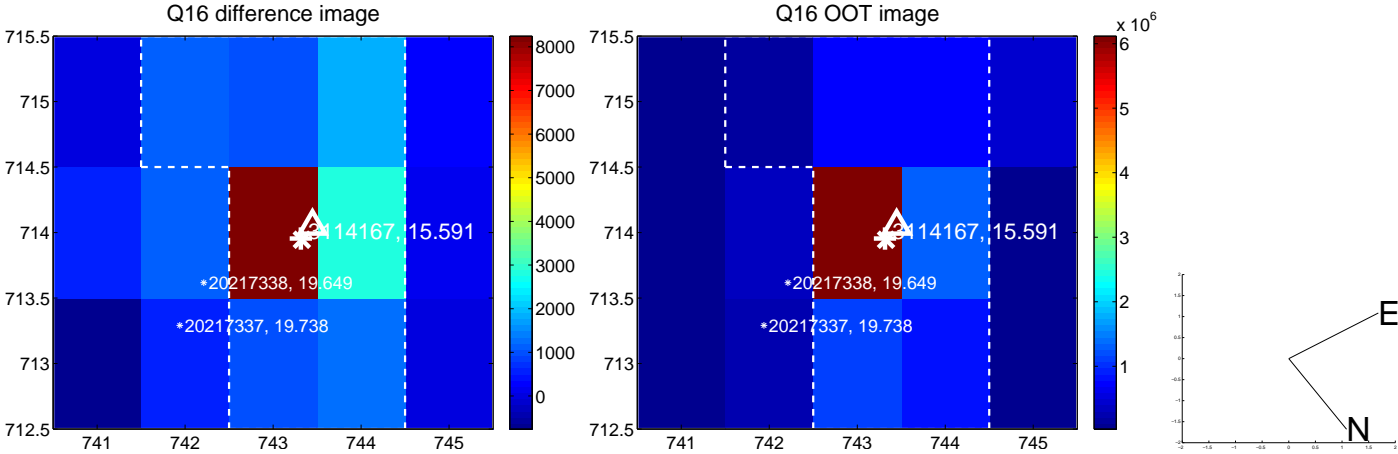
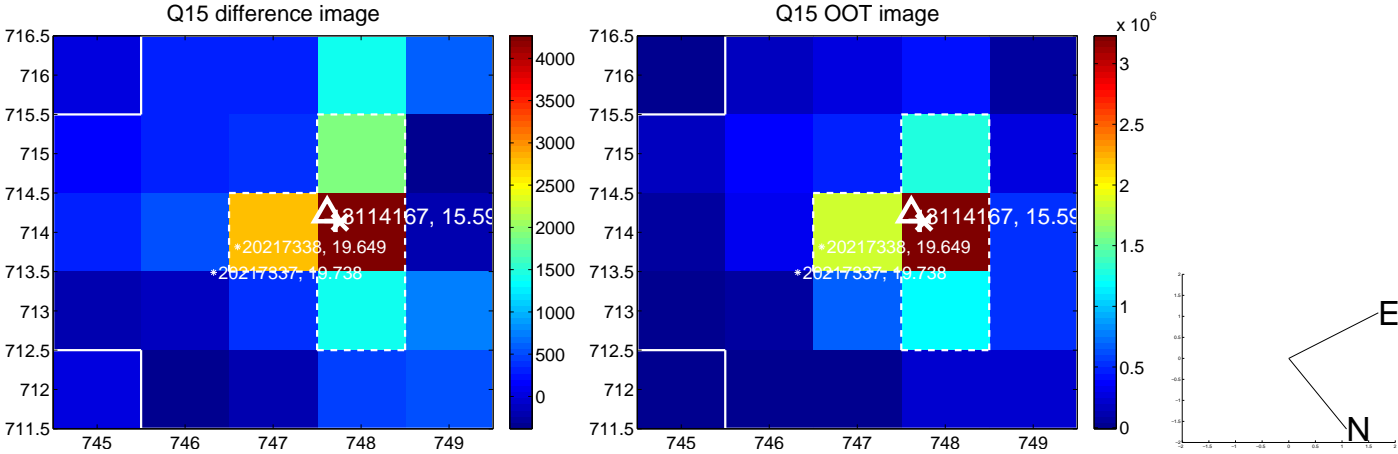
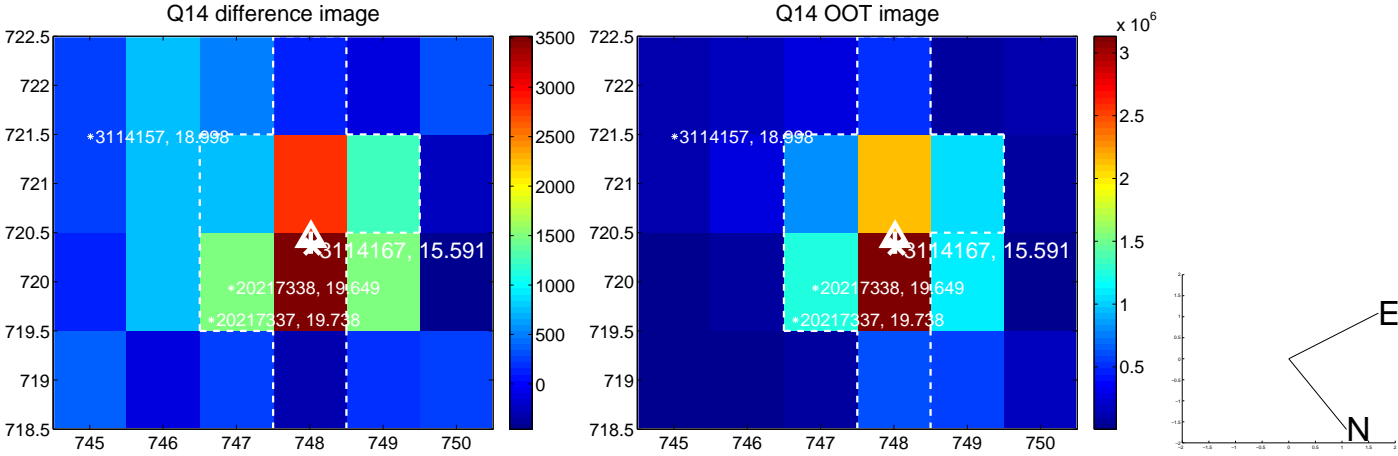
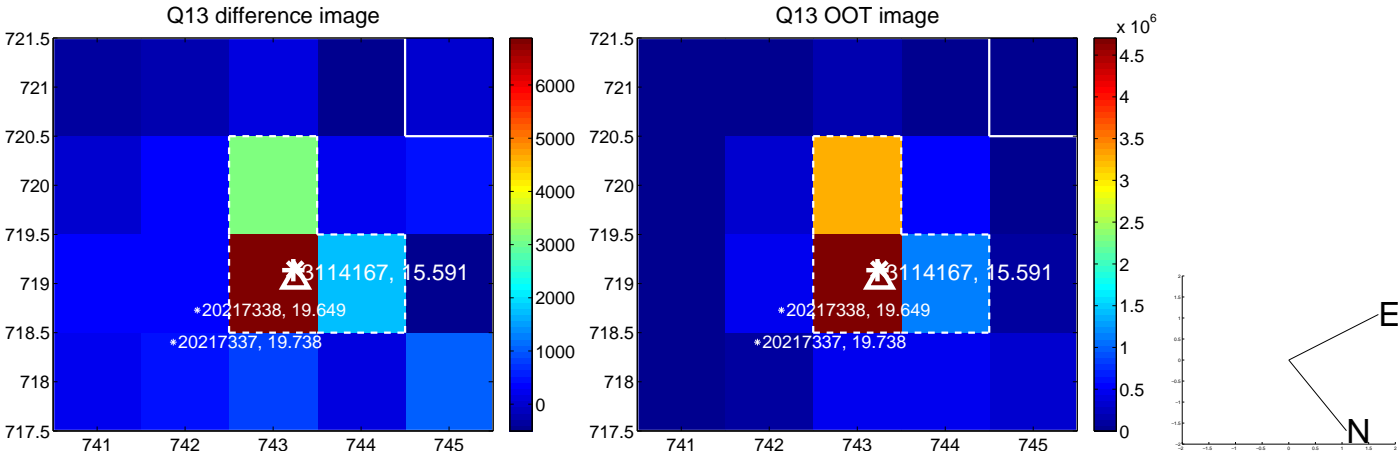
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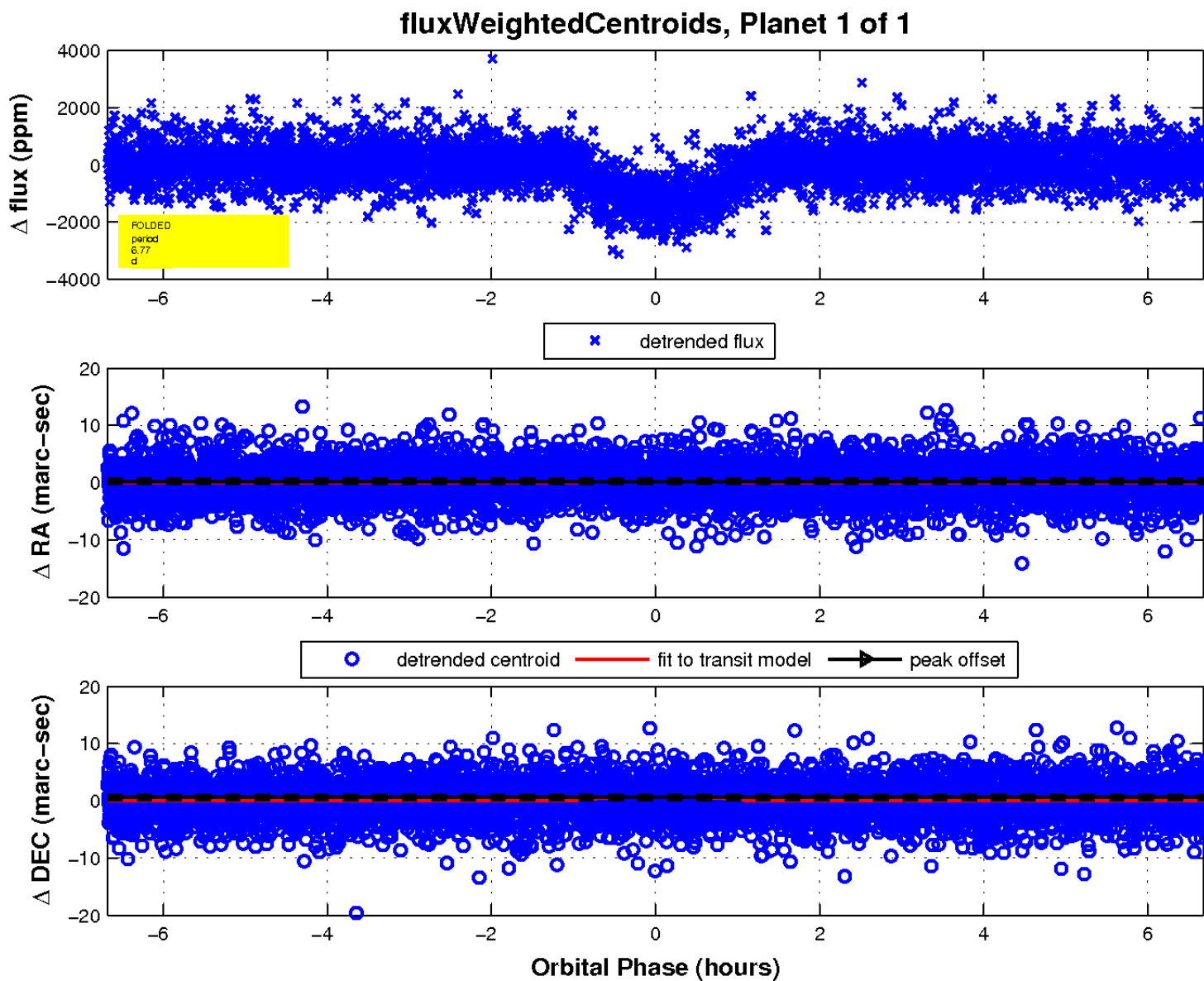
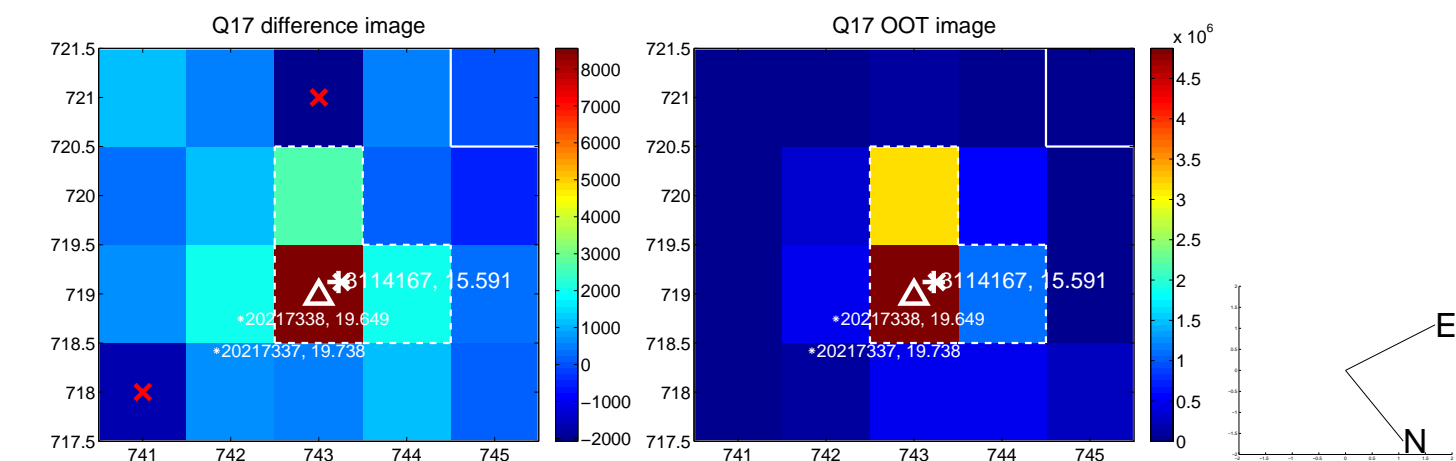
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

