

KIC 006933567

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})
006933567-01	OBS	2643.01	4.541164	135.115632	235.1	2.096	15.3	17.1	0.79	5354	1.44	173.41

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006933567-01	OBS	PC	0.92	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.

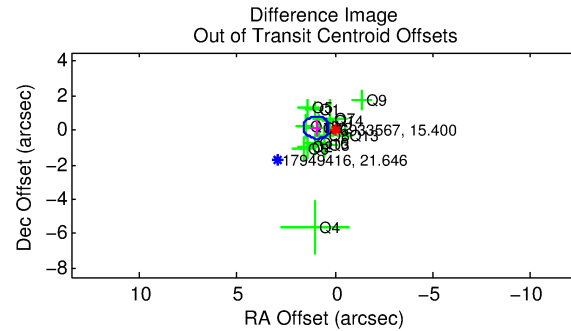
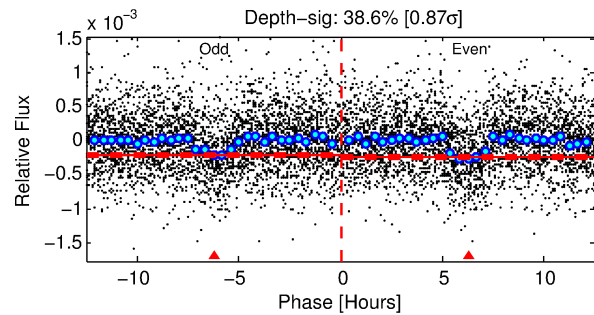
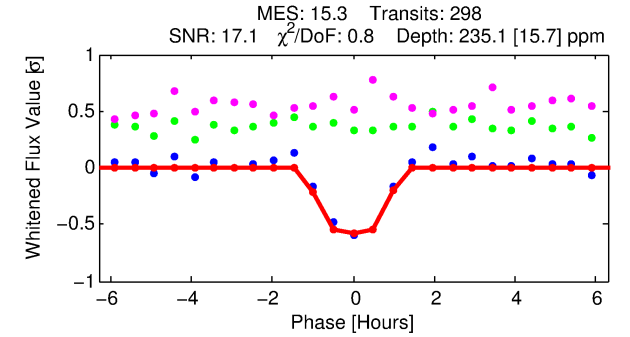
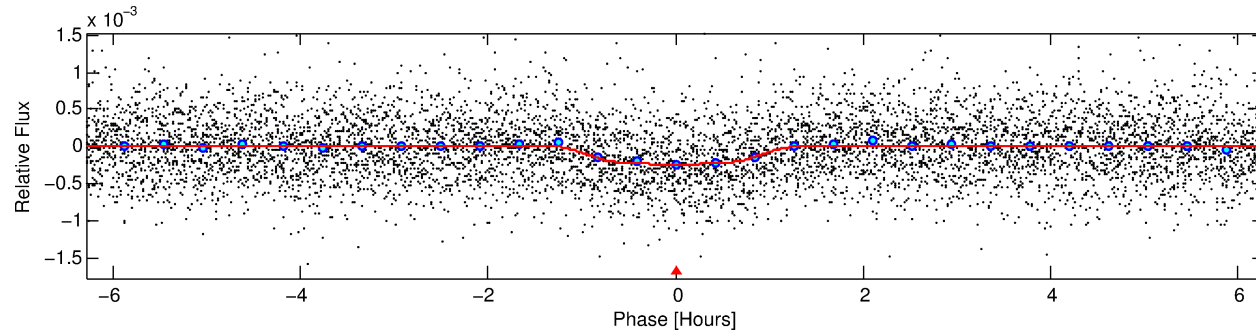
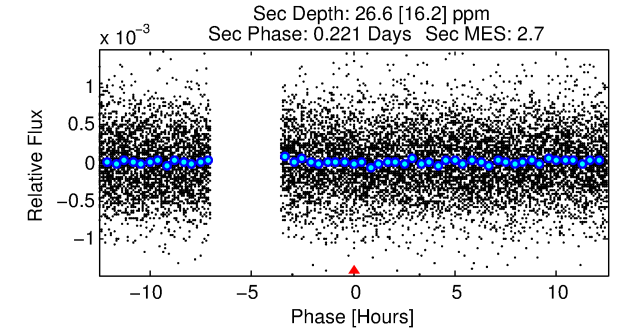
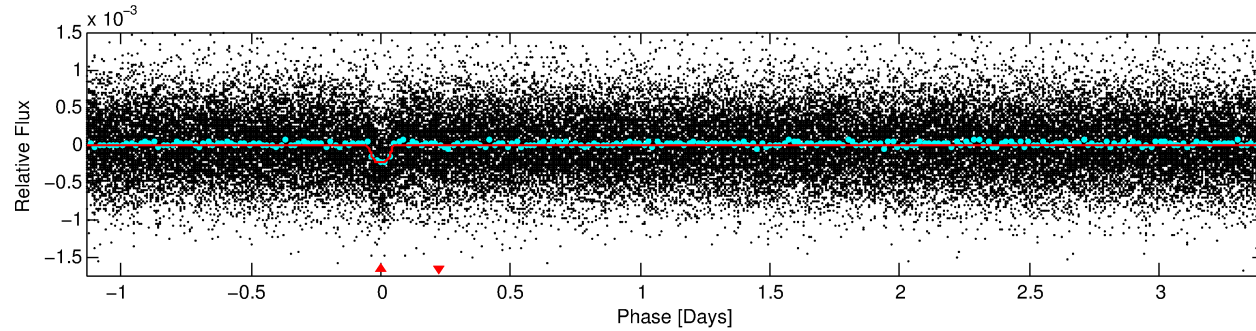
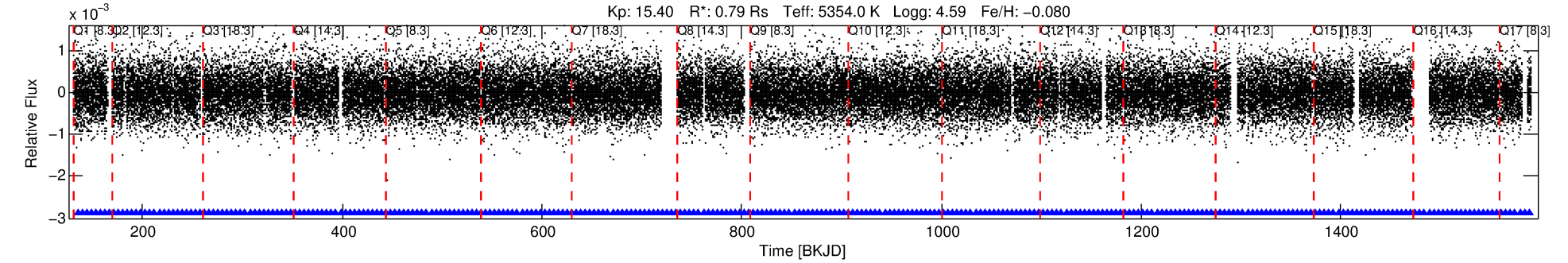
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006933567-01

No Significant Match Found

DV One-Page Summary

KIC: 6933567 Candidate: 1 of 1 Period: 4.541 d
KOI: K02643 Corr: No Ephemeris Match



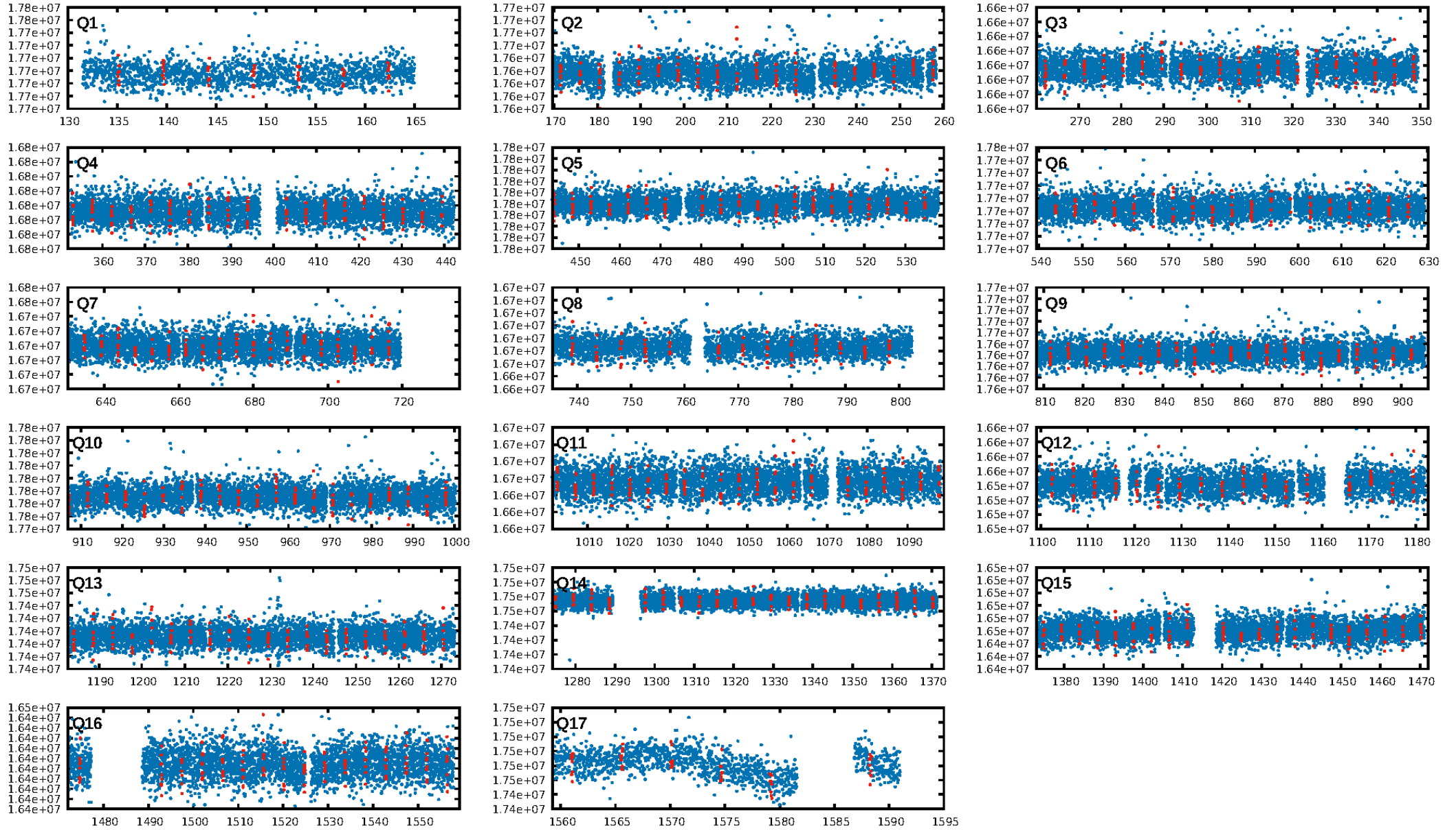
DV Fit Results:

Period = 4.54116 [0.00002] d
Epoch = 135.1156 [0.0024] BKJD
Rp/R* = 0.0168 [0.0088]
a/R* = 8.15 [17.93]
b = 0.89 [0.53]
Seff = 173.41 [44.44]
Teq = 925 [59] K
Rp = 1.44 [0.80] Re
a = 0.0513 [0.0078] AU
Ag = 18.53 [22.75] [0.77σ]
Teffp = 2968 [902] K [2.26σ]

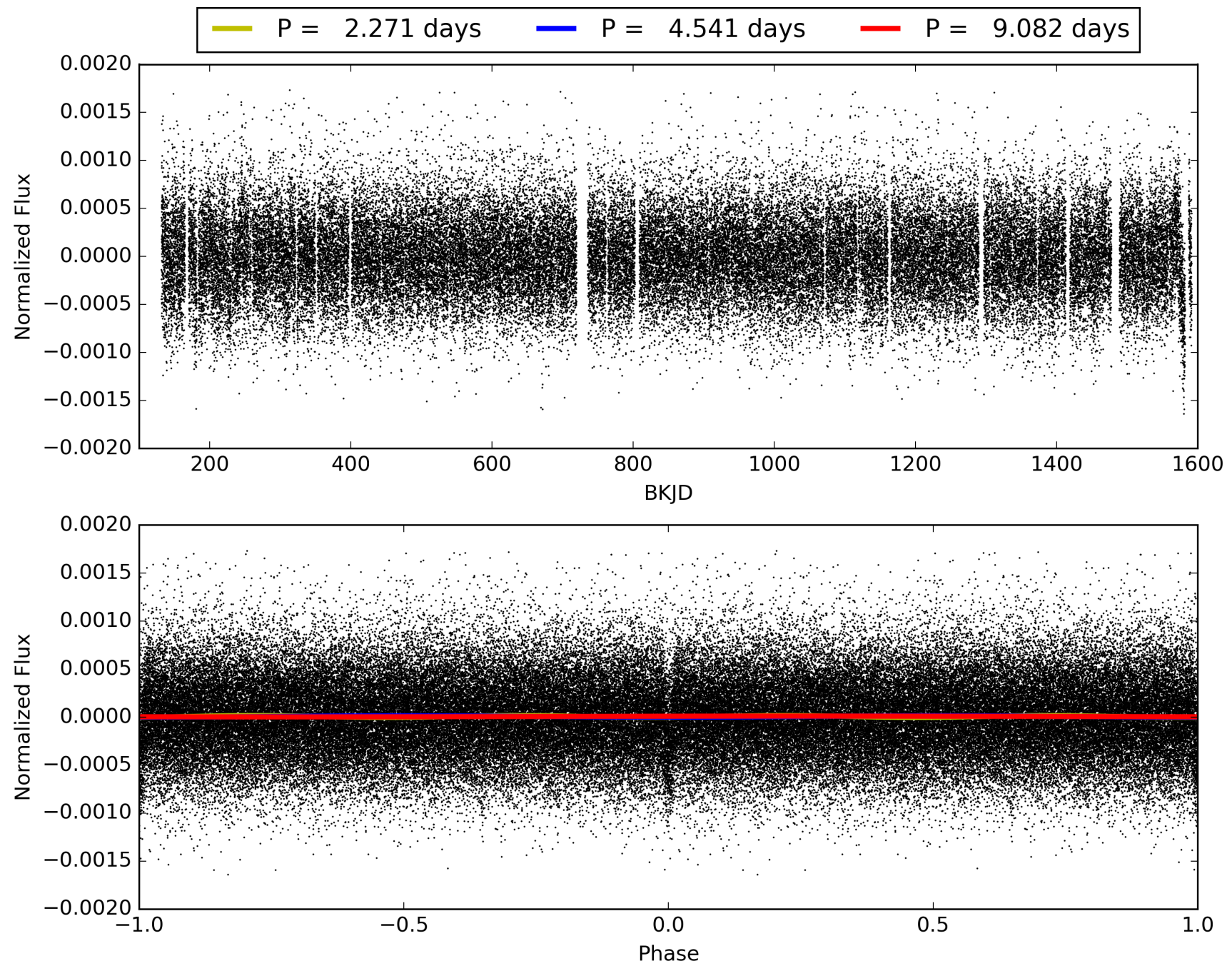
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.49e-51
RollingBand-fgt: 1.00 [285/285]
GhostDiagnostic-chr: 3.213
Centroid-sig: 3.3%
Centroid-so: 1.177 arcsec [1.38σ]
OotOffset-rm: 0.984 arcsec [4.50σ]
KicOffset-rm: 1.014 arcsec [4.83σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006933567-01, PDC Light Curves

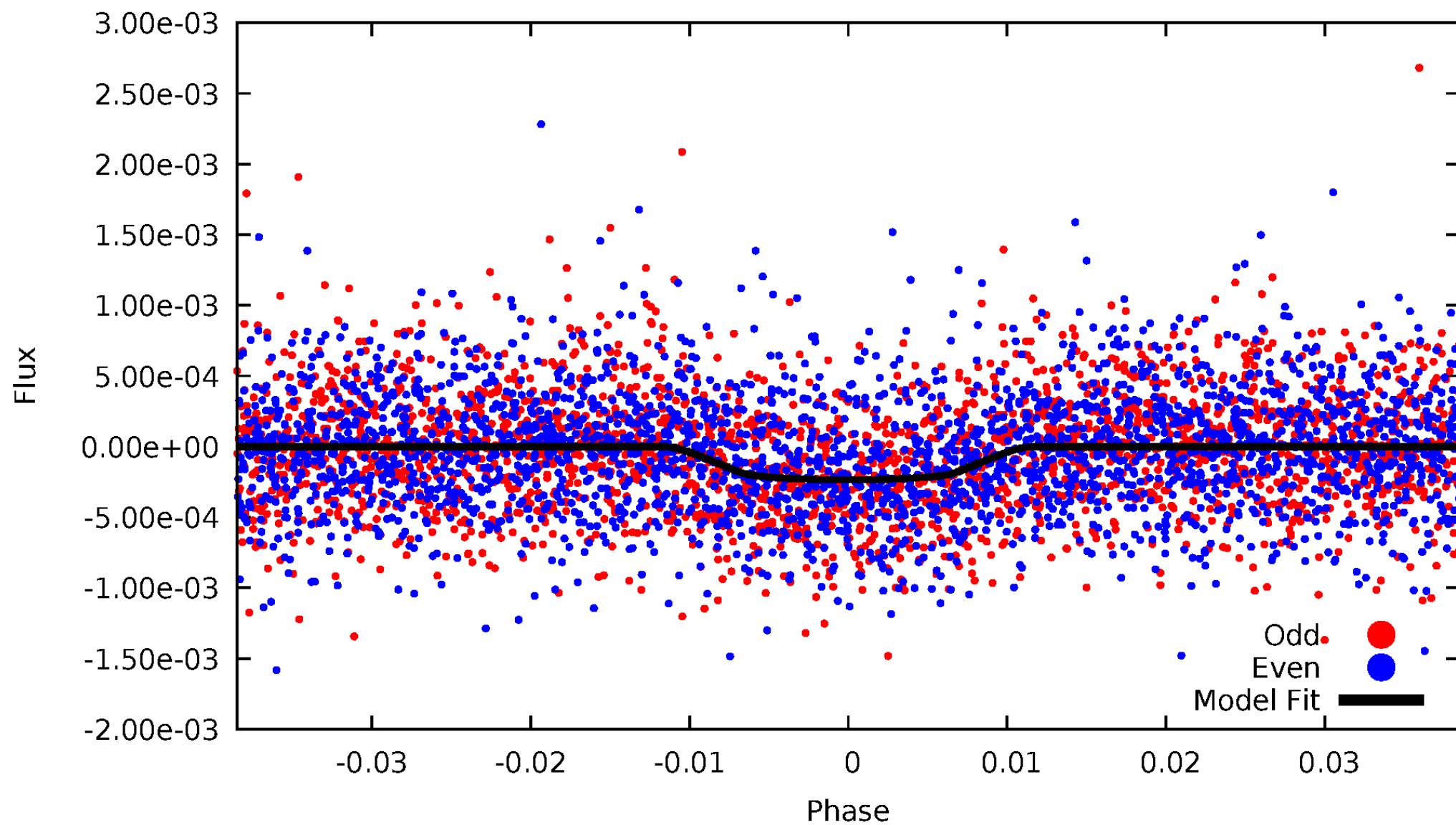


TCE 006933567-01



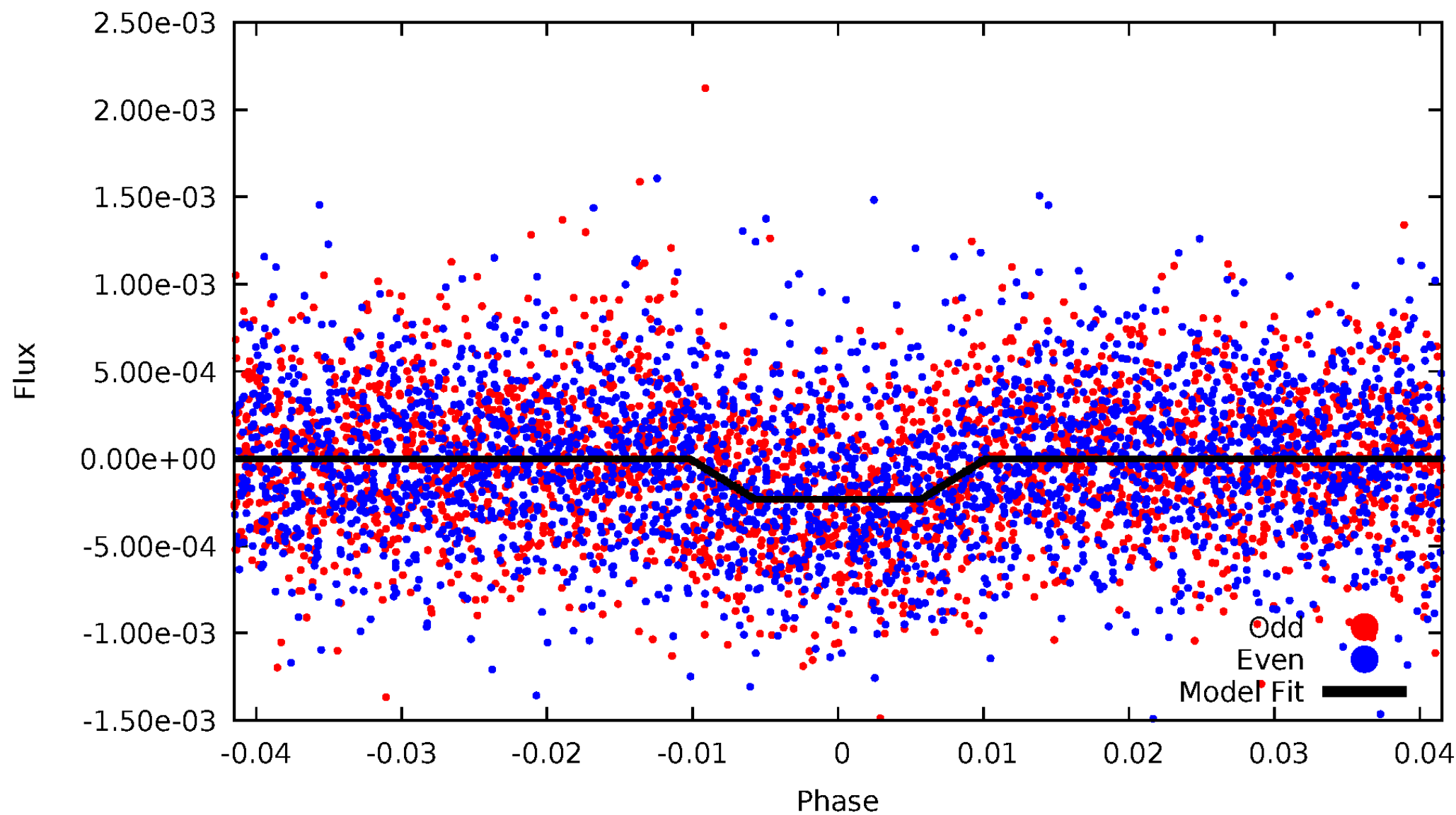
DV Odd/Even

TCE 006933567-01



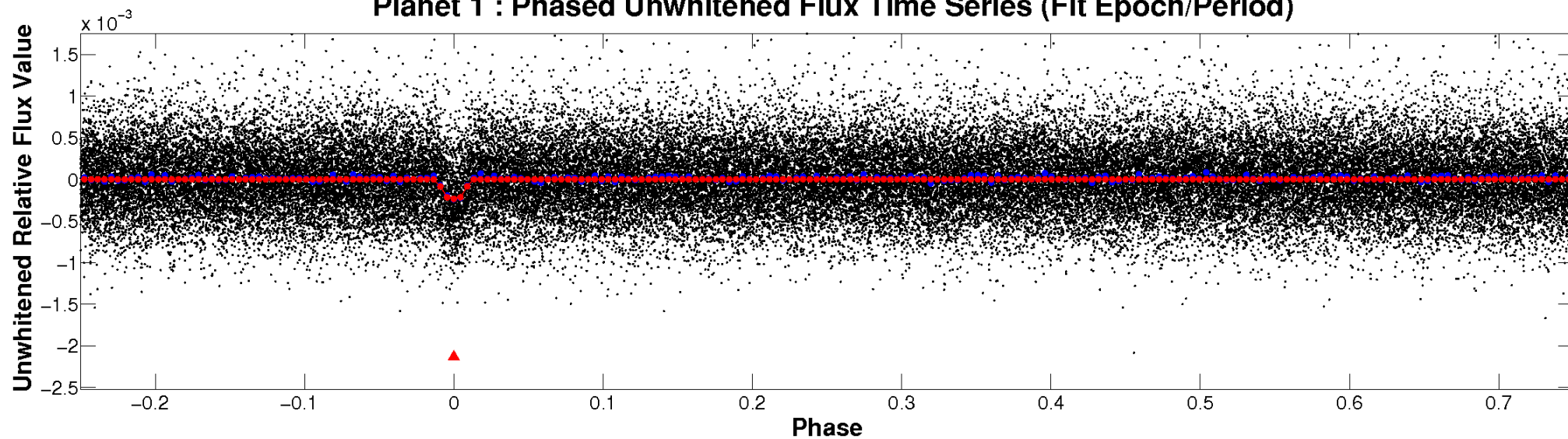
ALT Odd/Even

TCE 006933567-01

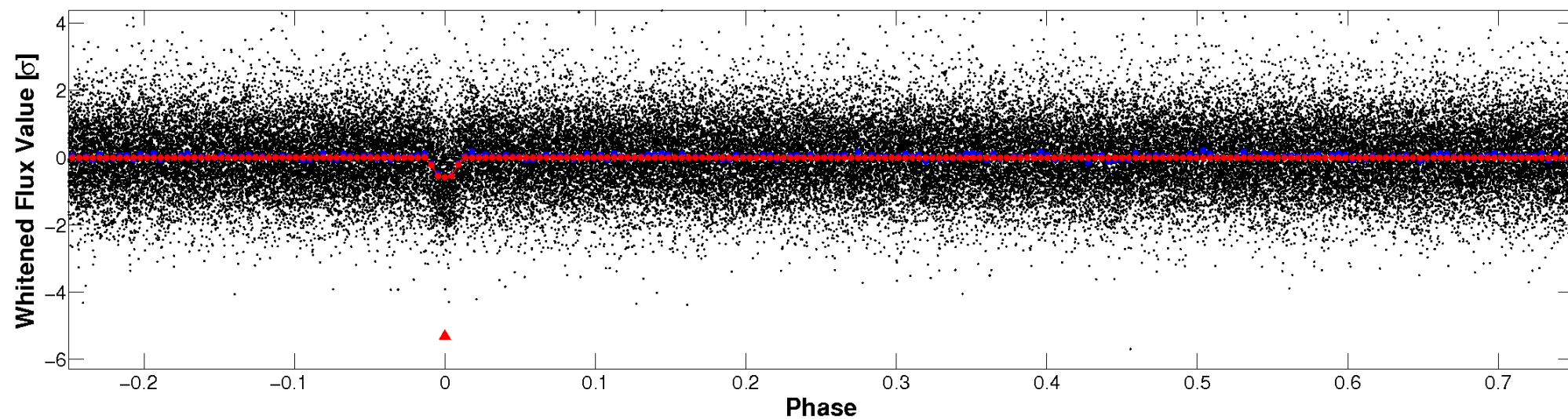


Non-Whitened Vs. Whitened Light Curve

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

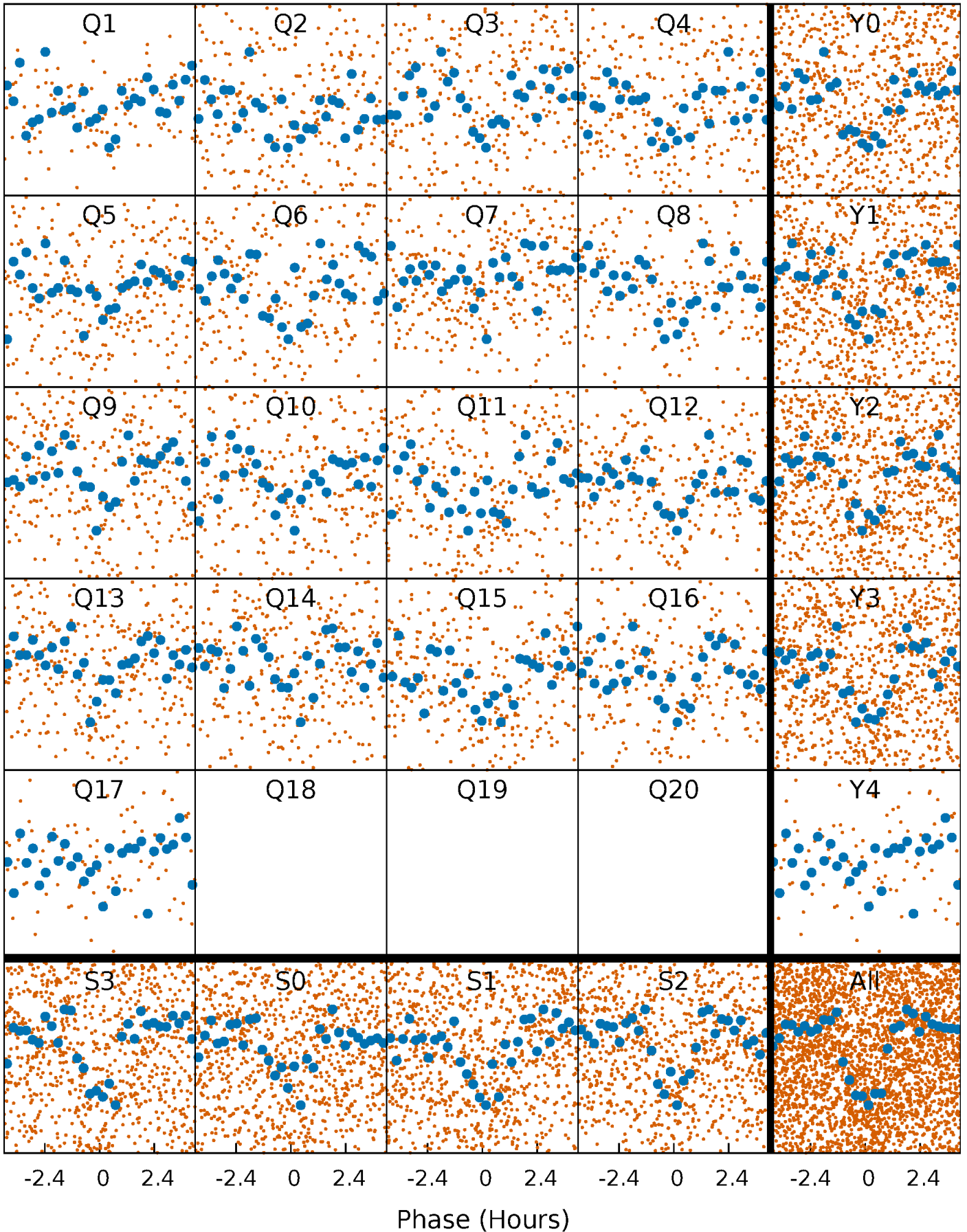


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



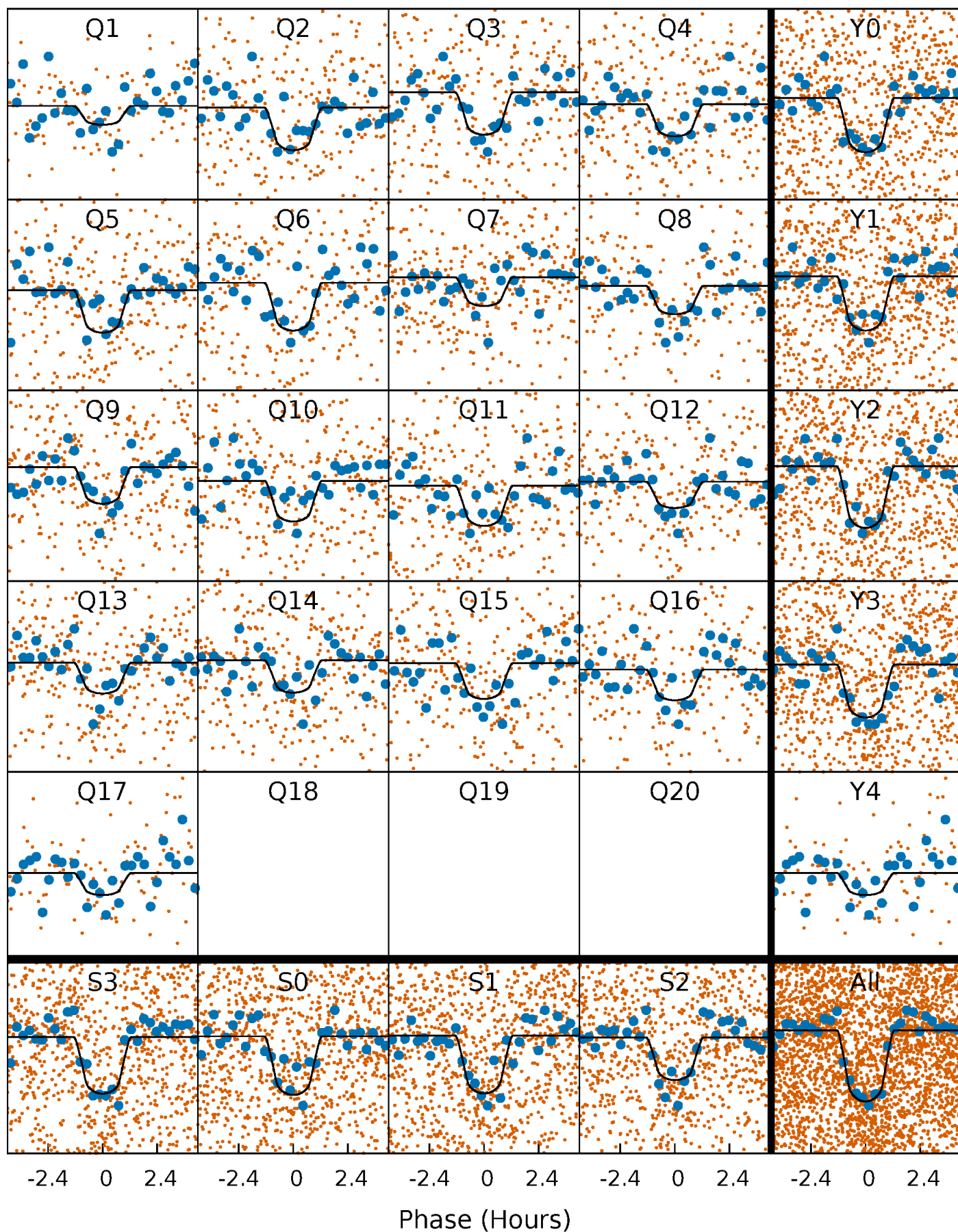
PDC Quarter-Phased Transit Curves

TCE 006933567-01 P= 4.541164 Days $T_0=135.115632$ (BKJD)



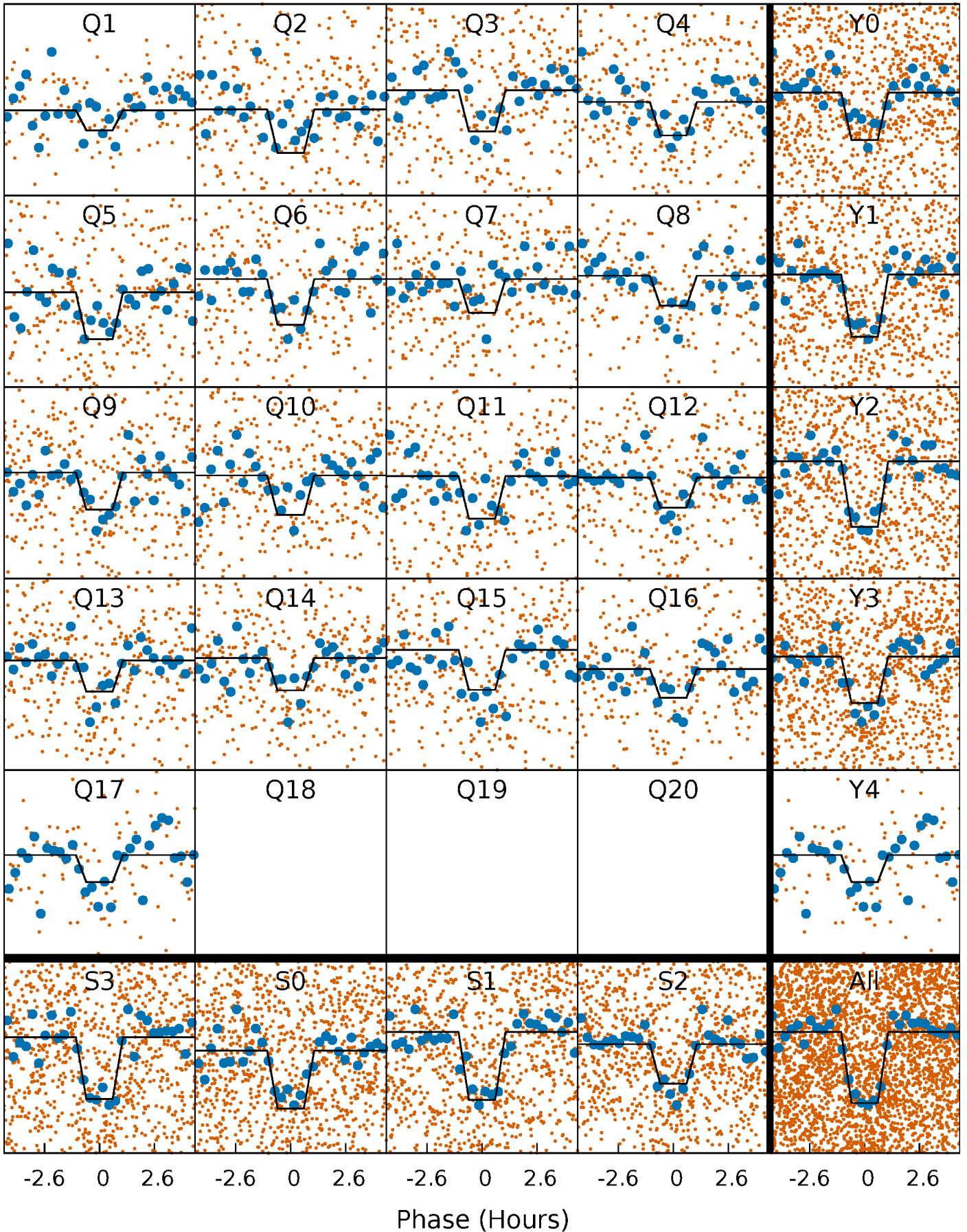
DV Quarter-Phased Transit Curves

TCE 006933567-01 P= 4.541164 Days $T_0=135.115632$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

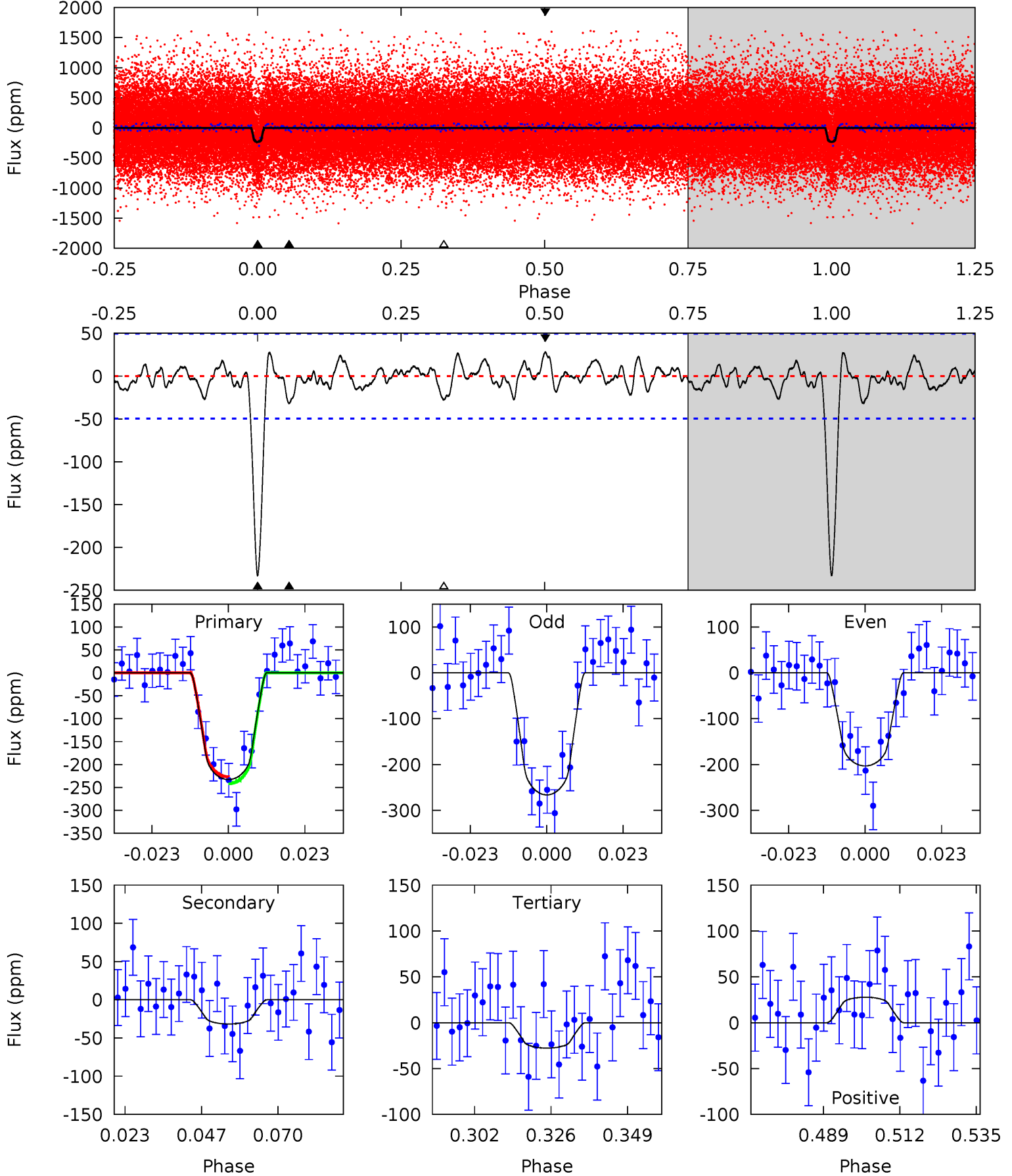
TCE 006933567-01 P= 4.541204 Days $T_0=135.108838$ (BKJD)



DV Model-Shift Uniqueness Test

006933567-01, P = 4.541164 Days, E = 130.574468 Days

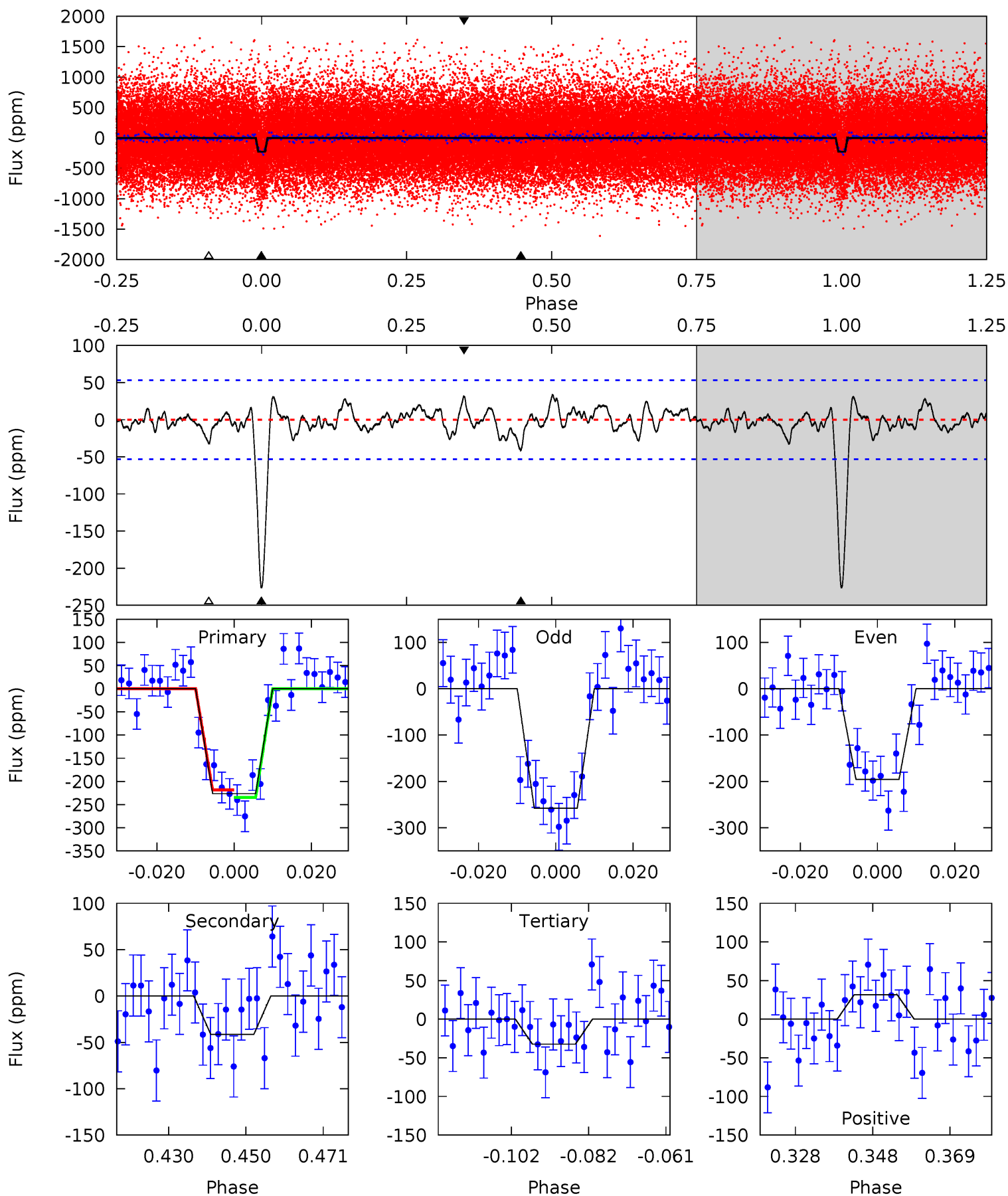
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	3.12	2.72	2.73	4.86	2.27	1.07	20.2	20.1	0.39	0.38	3.11	0.98	0.11	0.76



Alt Model-Shift Uniqueness Test

006933567-01, P = 4.541204 Days, E = 130.567634 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.8	3.81	2.97	2.91	4.89	2.32	1.11	17.8	17.9	0.84	0.90	2.85	1.02	0.13	0.74



Stellar Parameters For KIC 006933567

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5354^{+175}_{-159}	$4.587^{+0.032}_{-0.120}$	$-0.080^{+0.300}_{-0.300}$	$0.788^{+0.143}_{-0.071}$	$0.884^{+0.070}_{-0.104}$	$2.542^{+0.425}_{-0.942}$
	+3%/-3%	+1%/-3%	+375%/-375%	+18%/-9%	+8%/-12%	+17%/-37%
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 006933567-01 / KOI 2643.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-32 ± 10	$1.53^{+0.74}_{-0.71}$	1314^{+61}_{-51}	3499^{+813}_{-446}	19^{+42}_{-12}
Alt.	-41 ± 11	$1.32^{+0.82}_{-0.66}$	1318^{+61}_{-54}	3839^{+1217}_{-562}	34^{+108}_{-21}

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

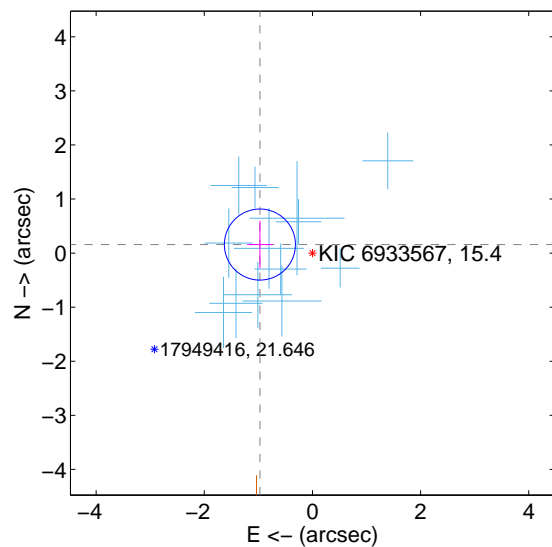
Supplemental centroid analysis for 006933567-01. Kepler magnitude: 15.40. Transit SNR 17.06

There are 13 quarters with good PRF difference image offsets

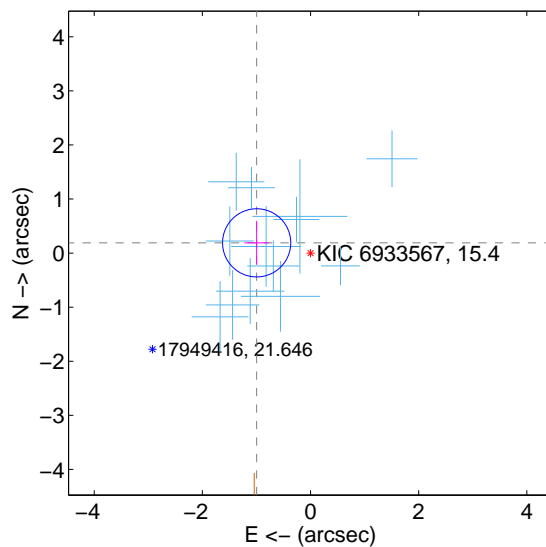
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.984 ± 0.219	4.50	0.972 ± 0.234	0.158 ± 0.440
PRF-fit source offset from KIC position	1.014 ± 0.210	4.83	0.996 ± 0.226	0.190 ± 0.407
photometric centroid source offset	1.18 ± 0.85	1.38	-0.14 ± 0.77	1.17 ± 0.85

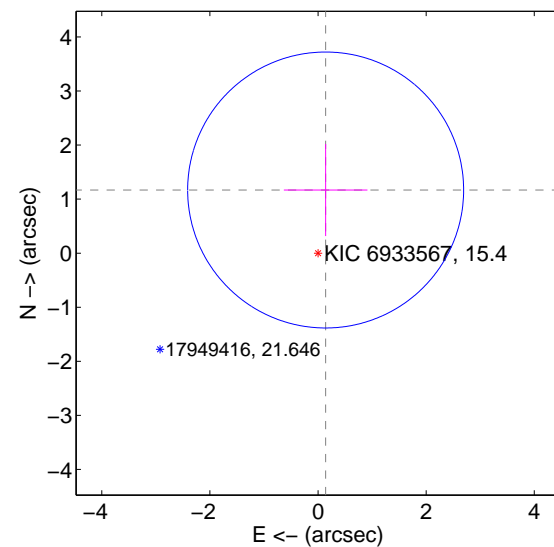
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

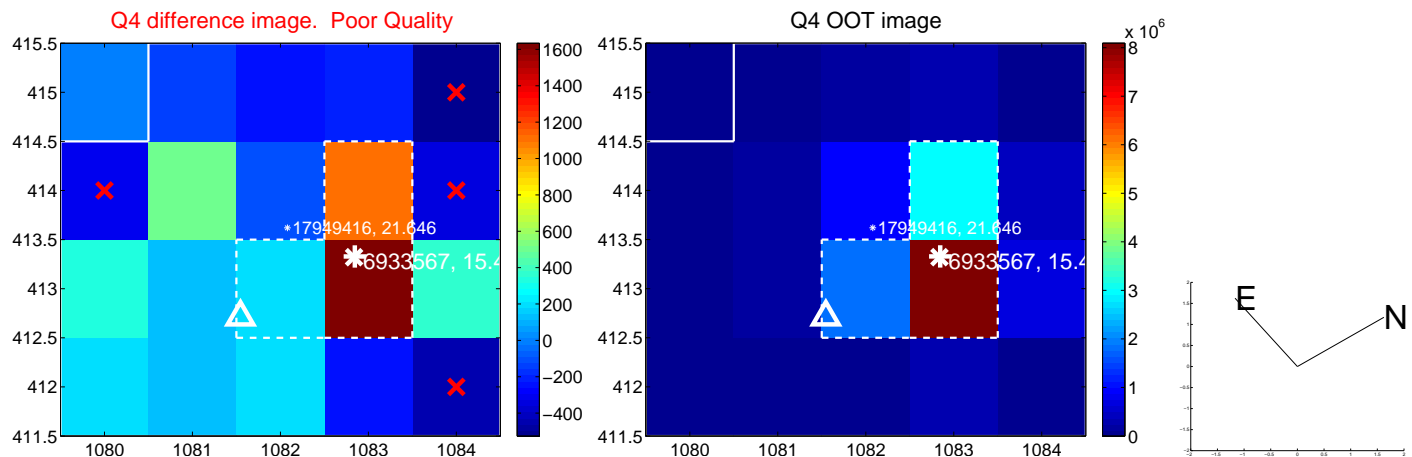
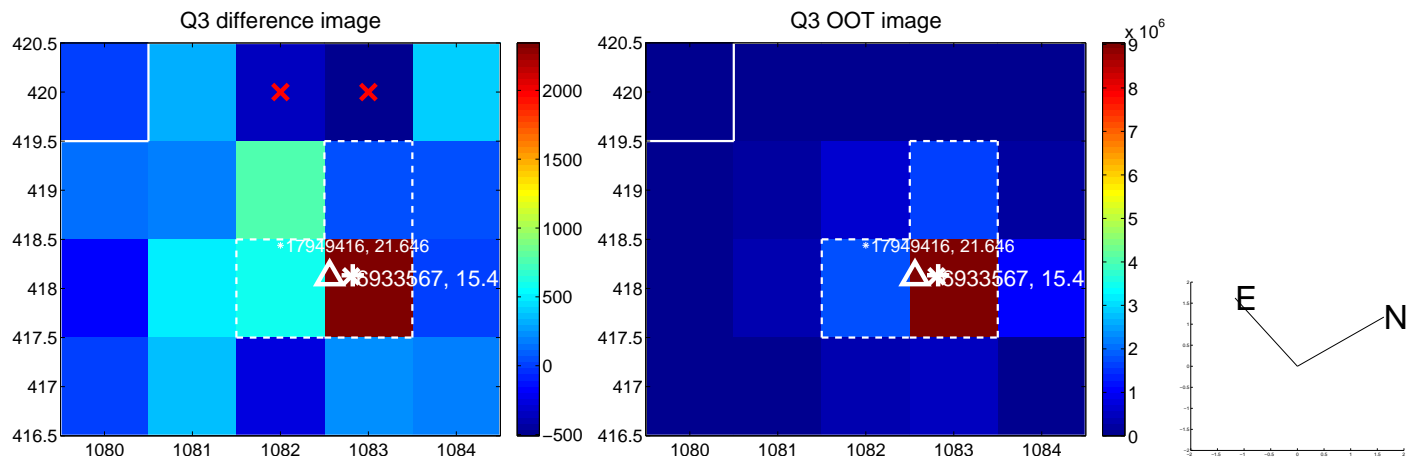
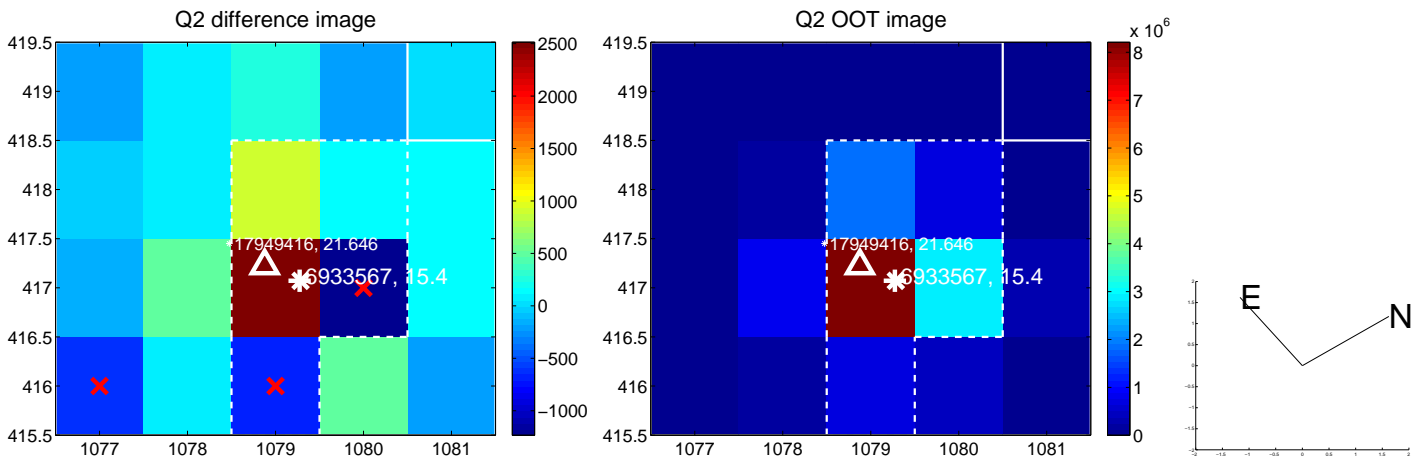
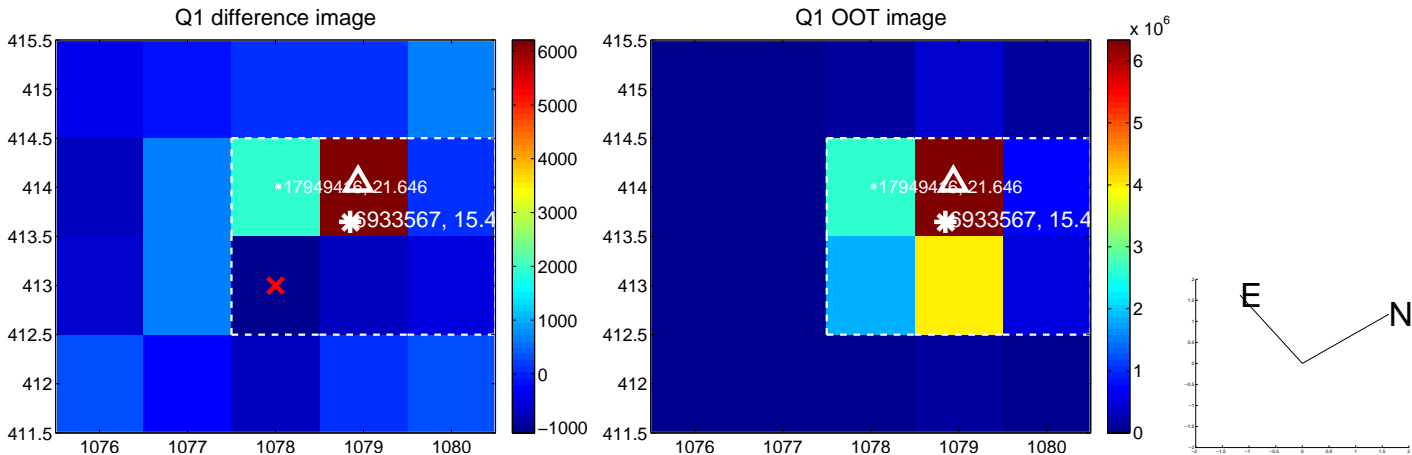


offset from photometric centroids

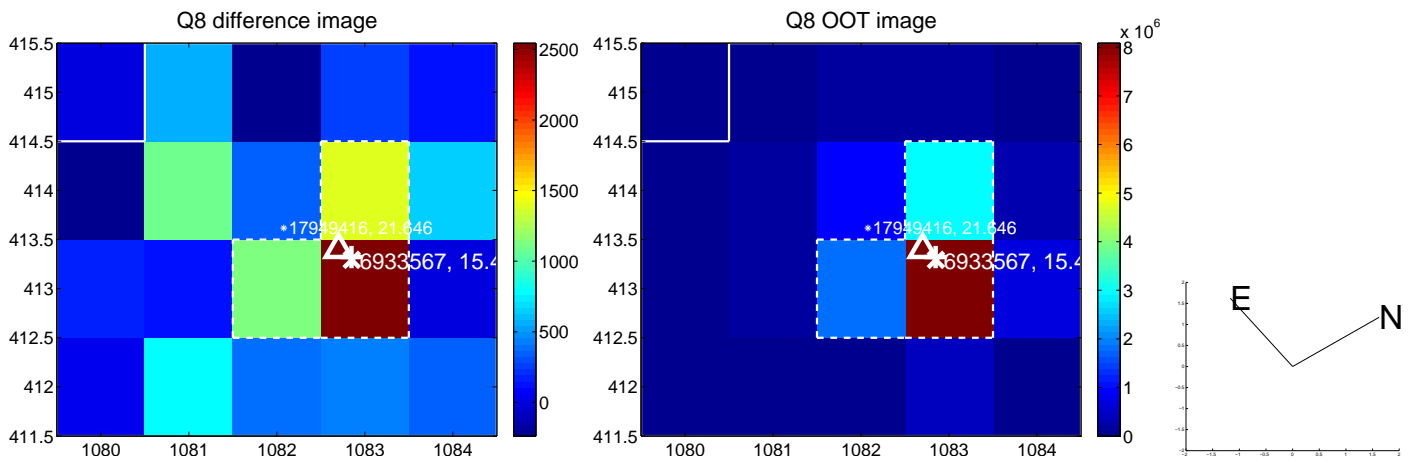
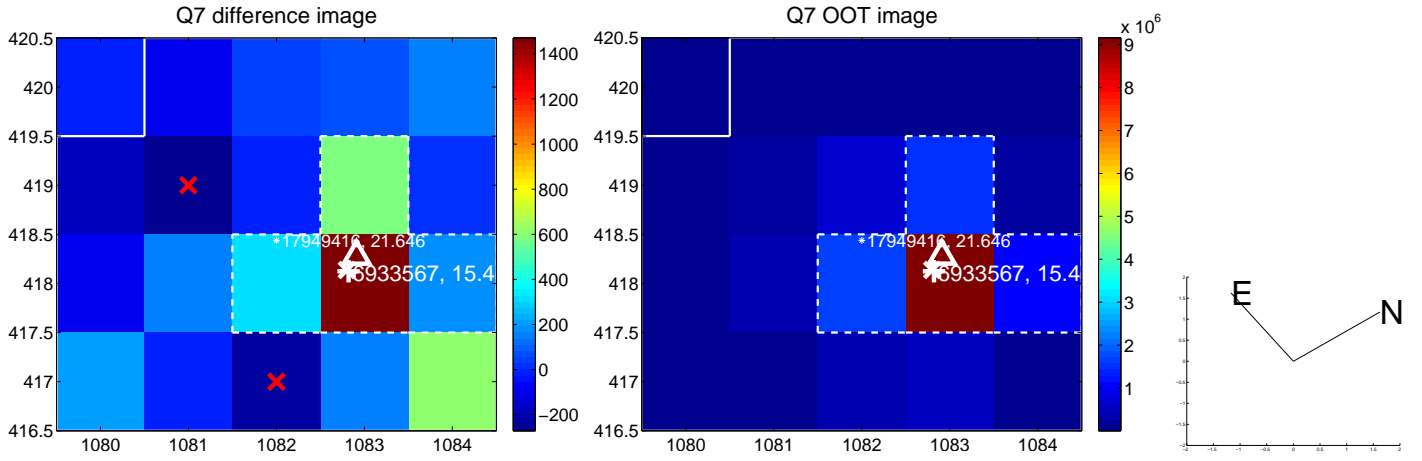
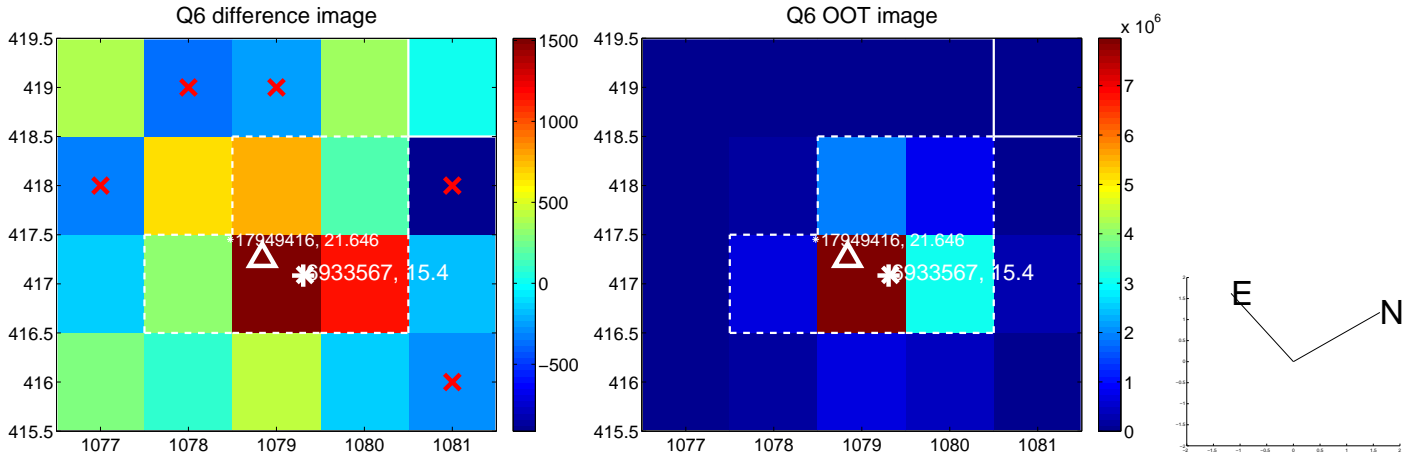
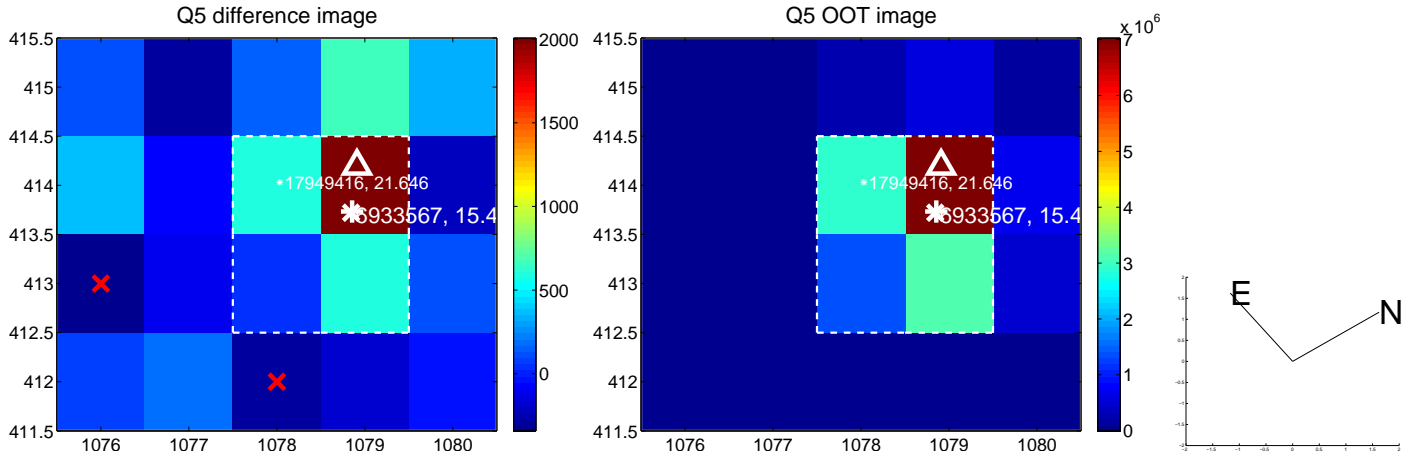


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

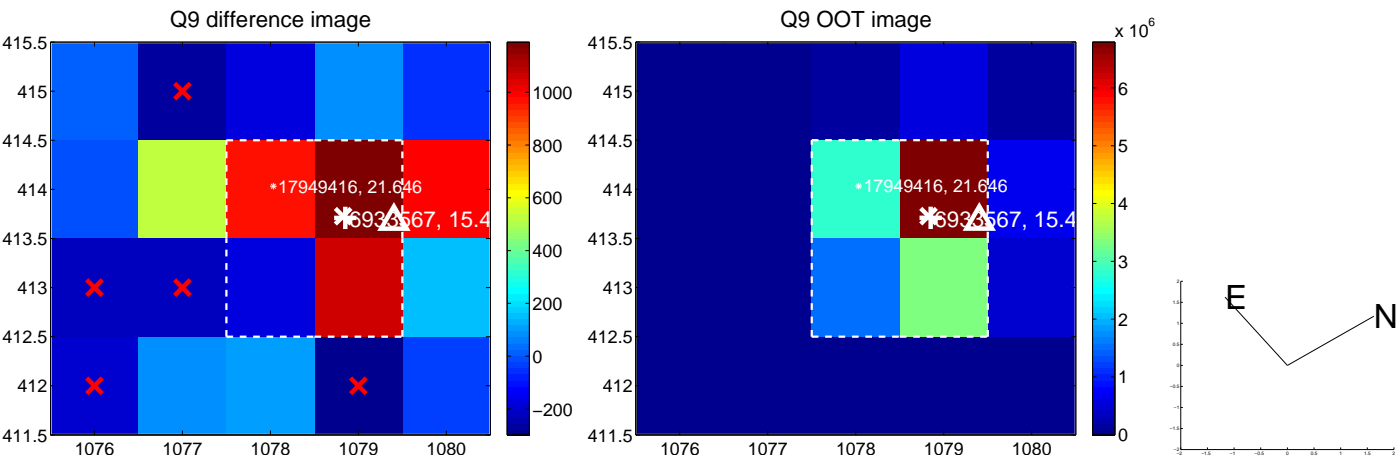
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



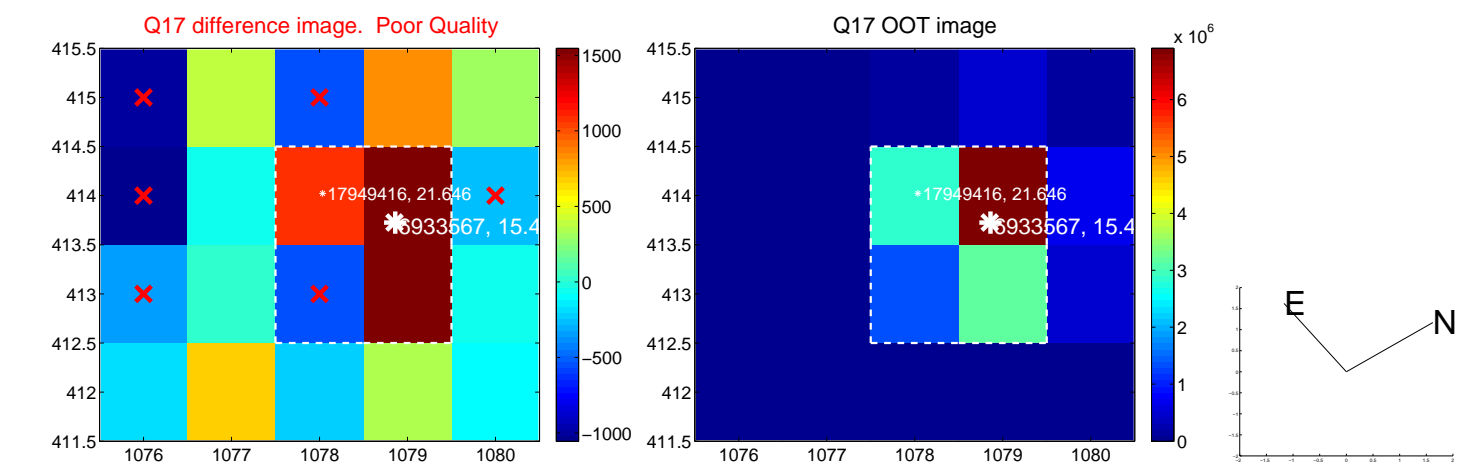
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



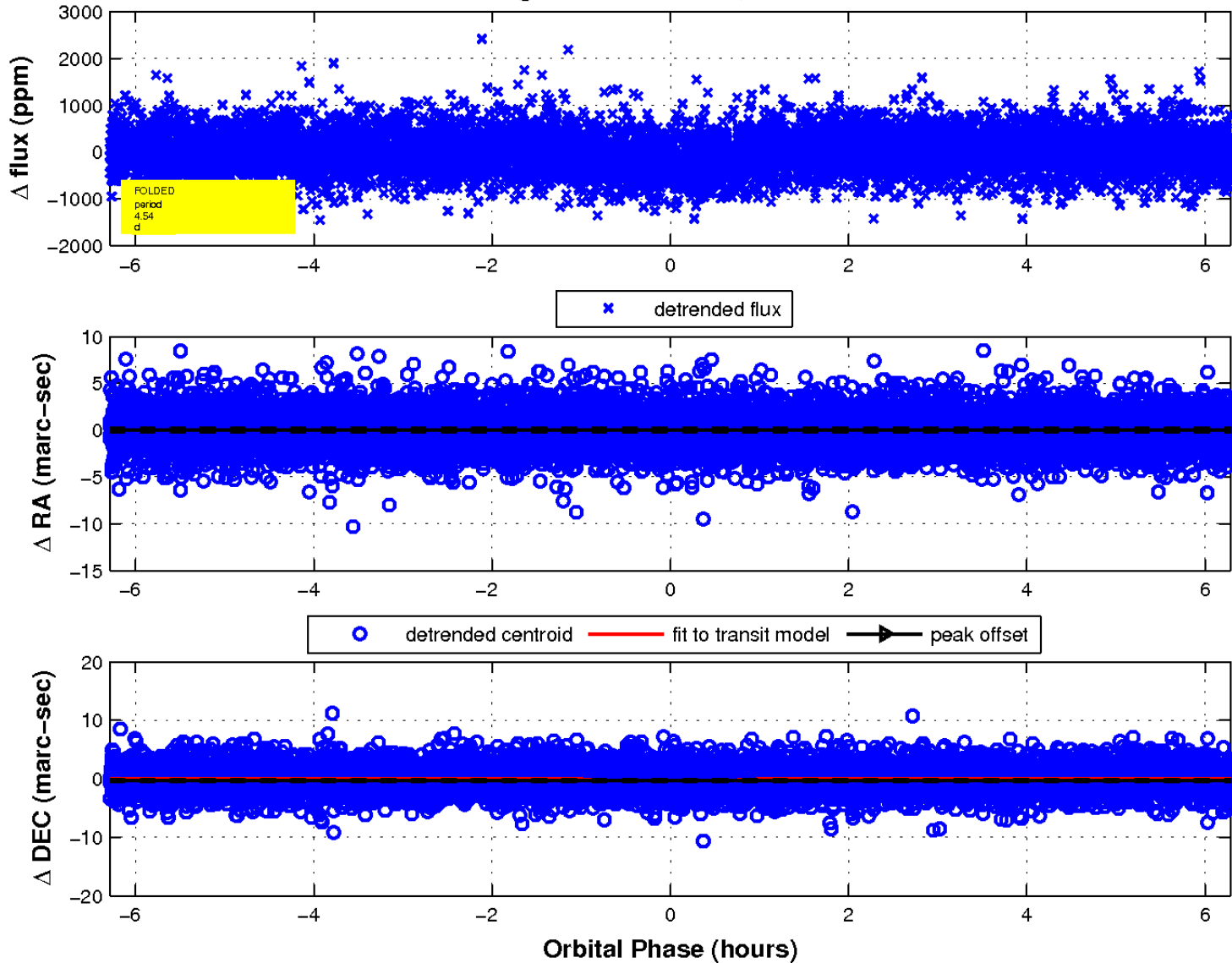
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

