

KIC 005347537

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})
005347537-01	OBS	6566.01	345.184660	228.840832	29762.6	6.503	661.3	596.4	0.97	5712	26.96	1.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005347537-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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.

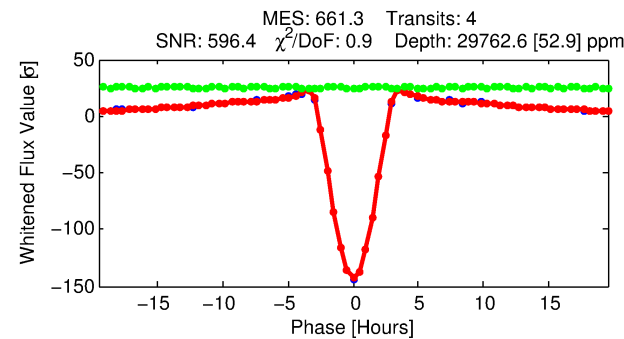
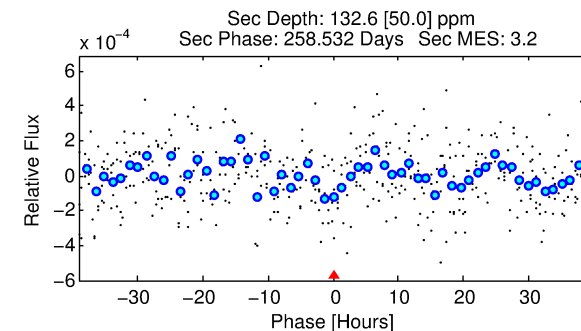
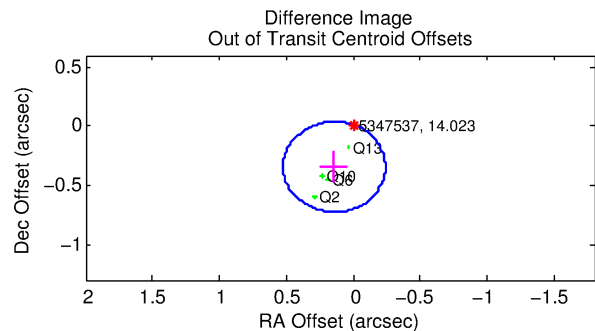
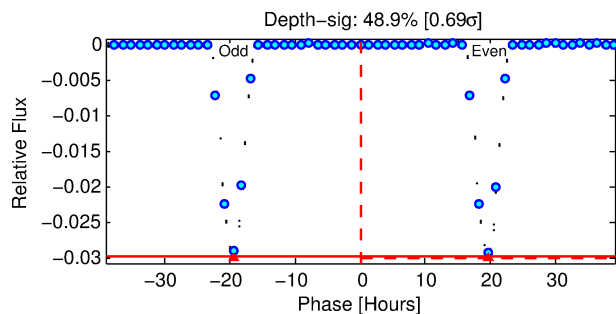
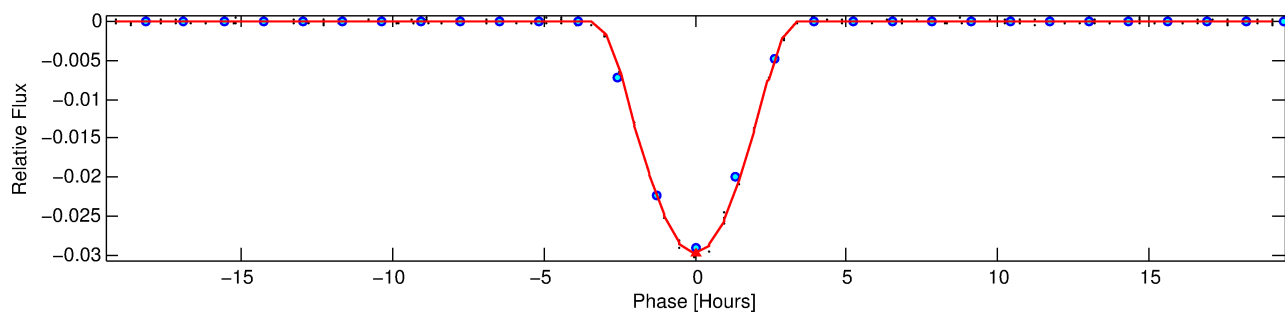
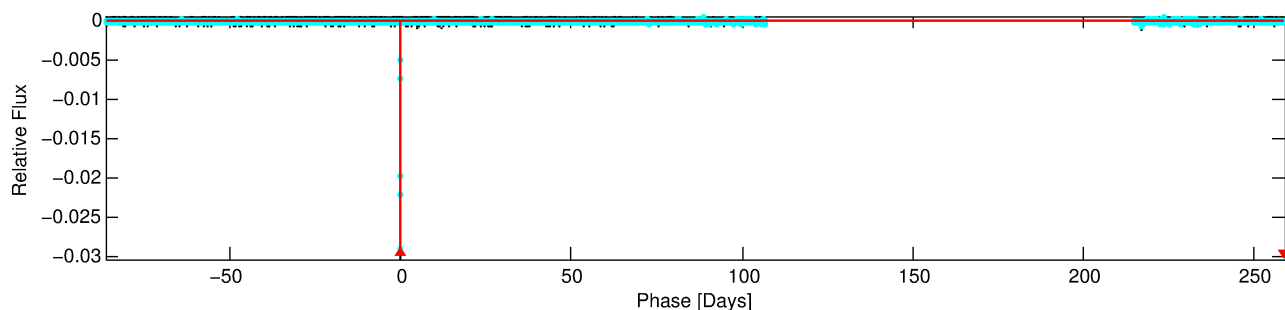
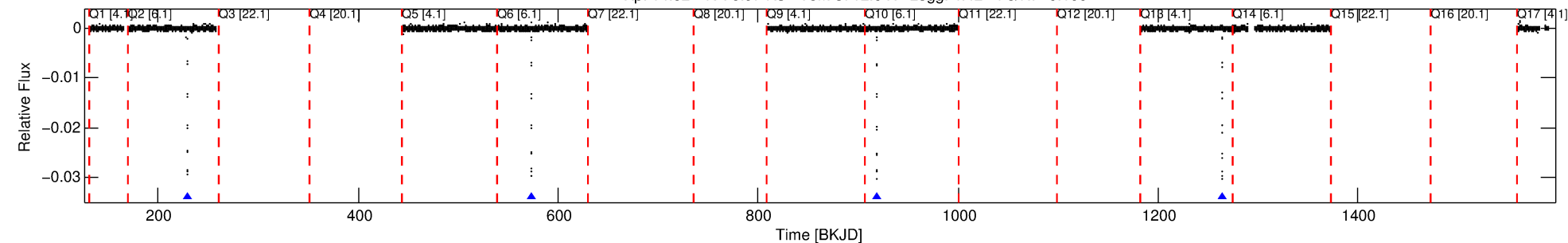
Ephemeris Match Information For 005347537-01

No Significant Match Found

DV One-Page Summary

KIC: 5347537 Candidate: 1 of 1 Period: 345.185 d
KOI: K06566.01 Corr: 0.995

Kp: 14.02 R*: 0.97 Rs Teff: 5712.0 K Logg: 4.42 Fe/H: -0.100



DV Fit Results:

Period = 345.18466 [0.00010] d
Epoch = 228.8408 [0.0002] BKJD
Rp/R* = 0.2544 [0.0196]
a/R* = 323.11 [2.35]
b = 0.97 [0.03]
Seff = 1.03 [0.37]
Teq = 257 [23] K
Rp = 26.96 [7.75] Re
a = 0.9344 [0.2155] AU
Ag = 87.65 [46.07] [1.88σ]
Teff = 1215 [130] K [7.27σ]

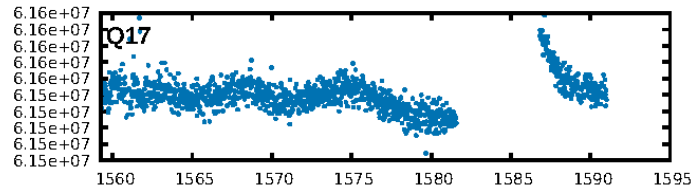
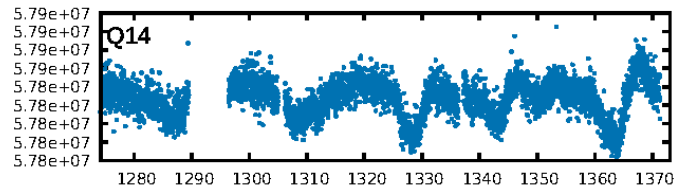
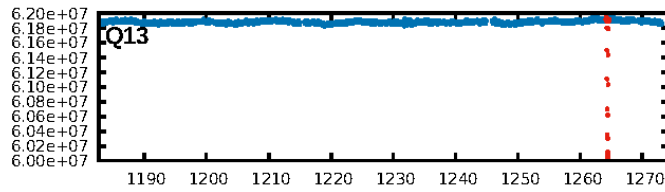
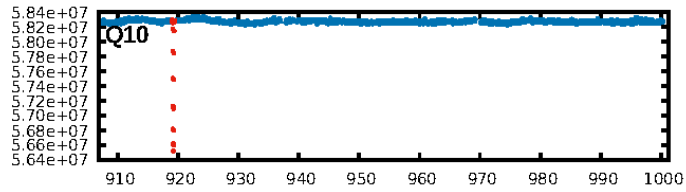
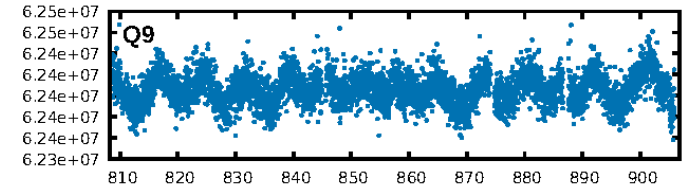
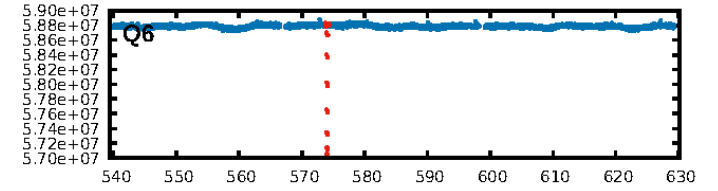
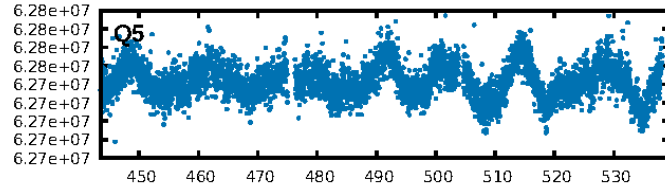
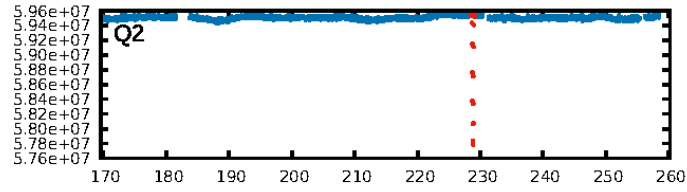
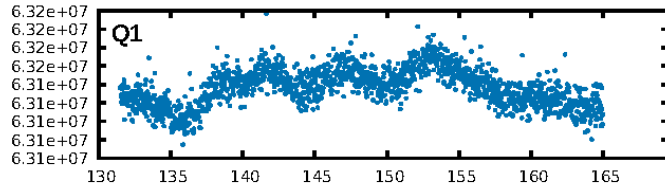
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.6%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 10.5
Centroid-sig: 0.0%
Centroid-so: 0.231 arcsec [10.88σ]
OotOffset-rm: 0.373 arcsec [2.93σ]
KicOffset-rm: 0.233 arcsec [2.72σ]
OotOffset-st: 3/0/0/1 [4]
KicOffset-st: 3/0/0/1 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

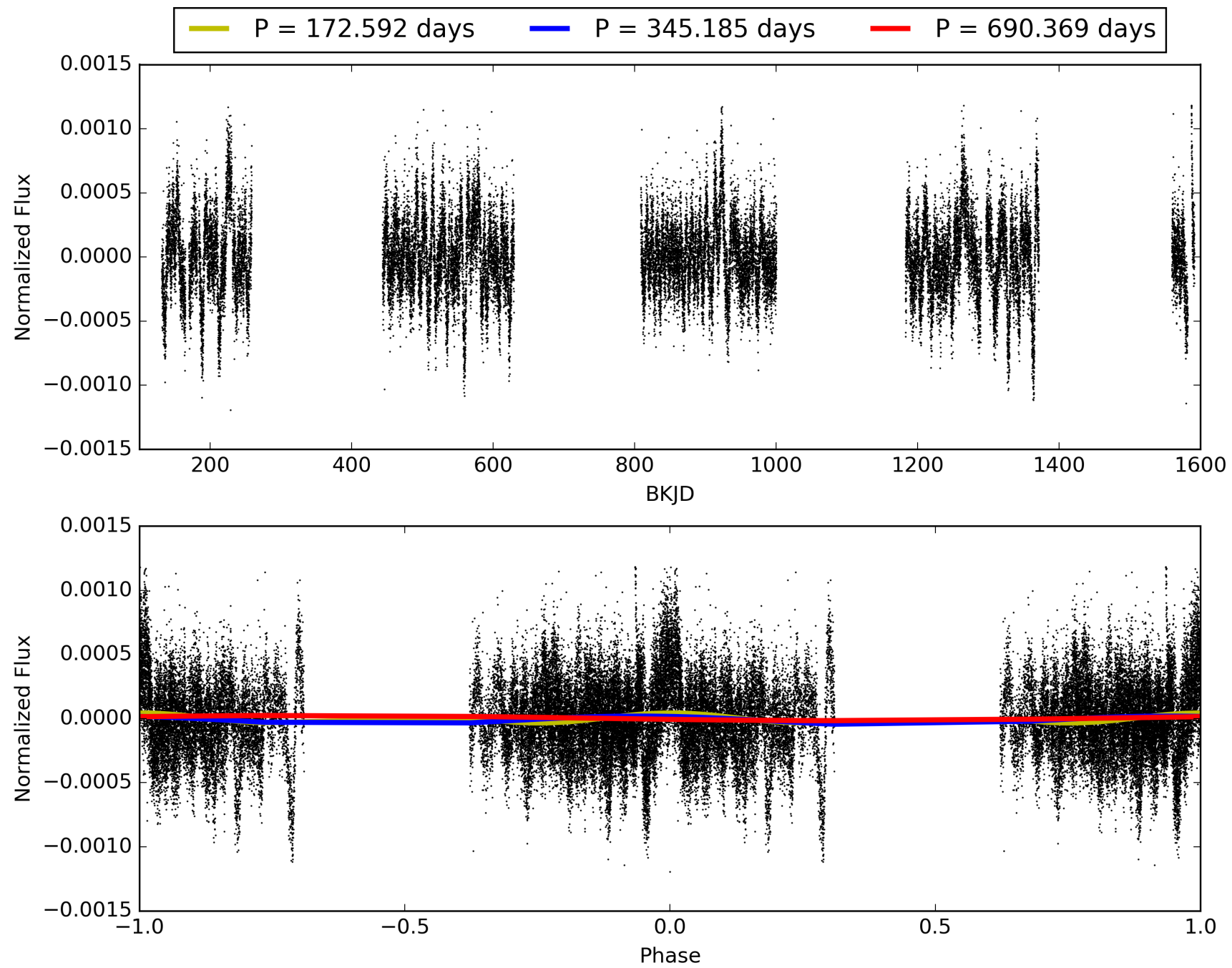
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:42:56 Z

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

TCE 005347537-01, PDC Light Curves

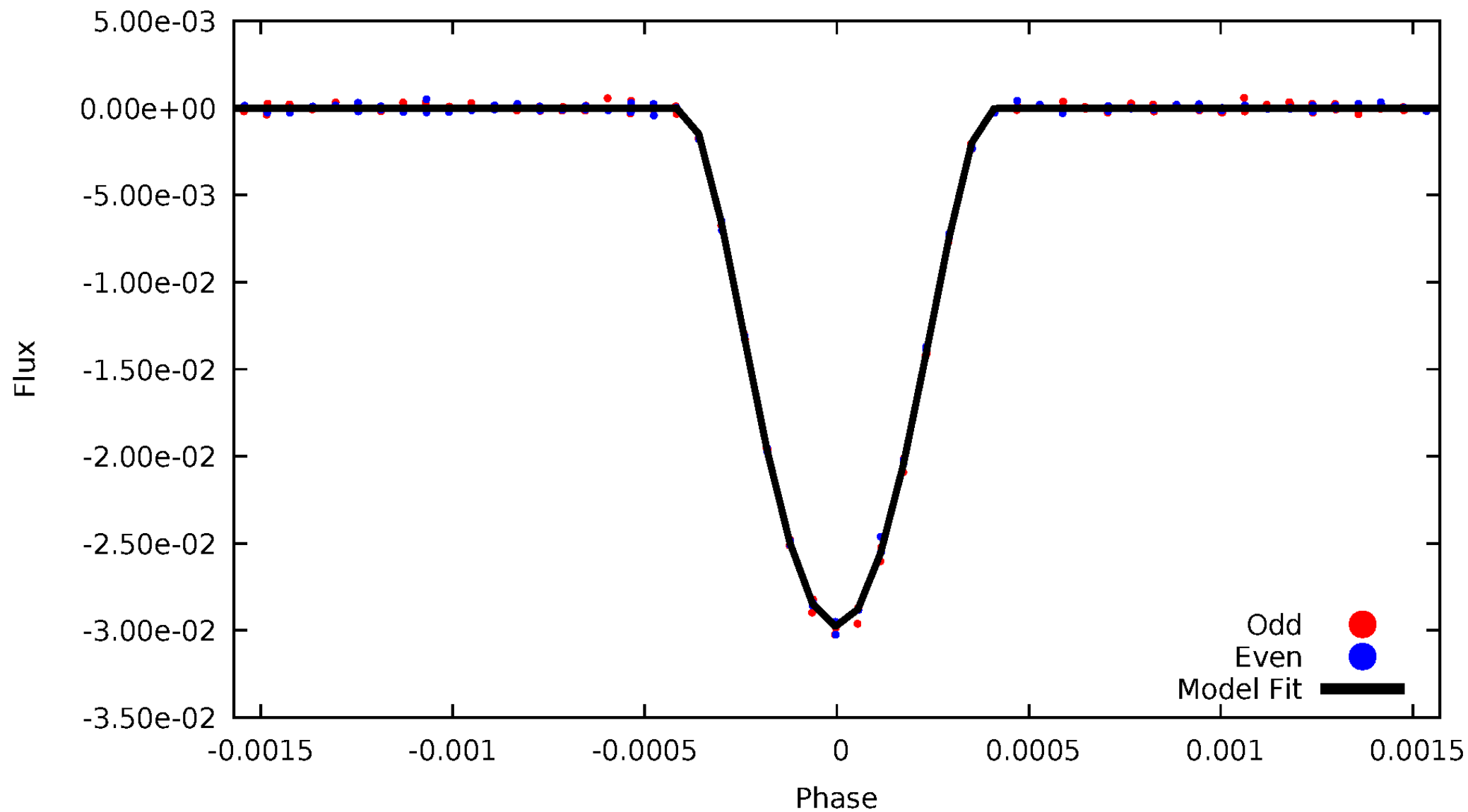


TCE 005347537-01



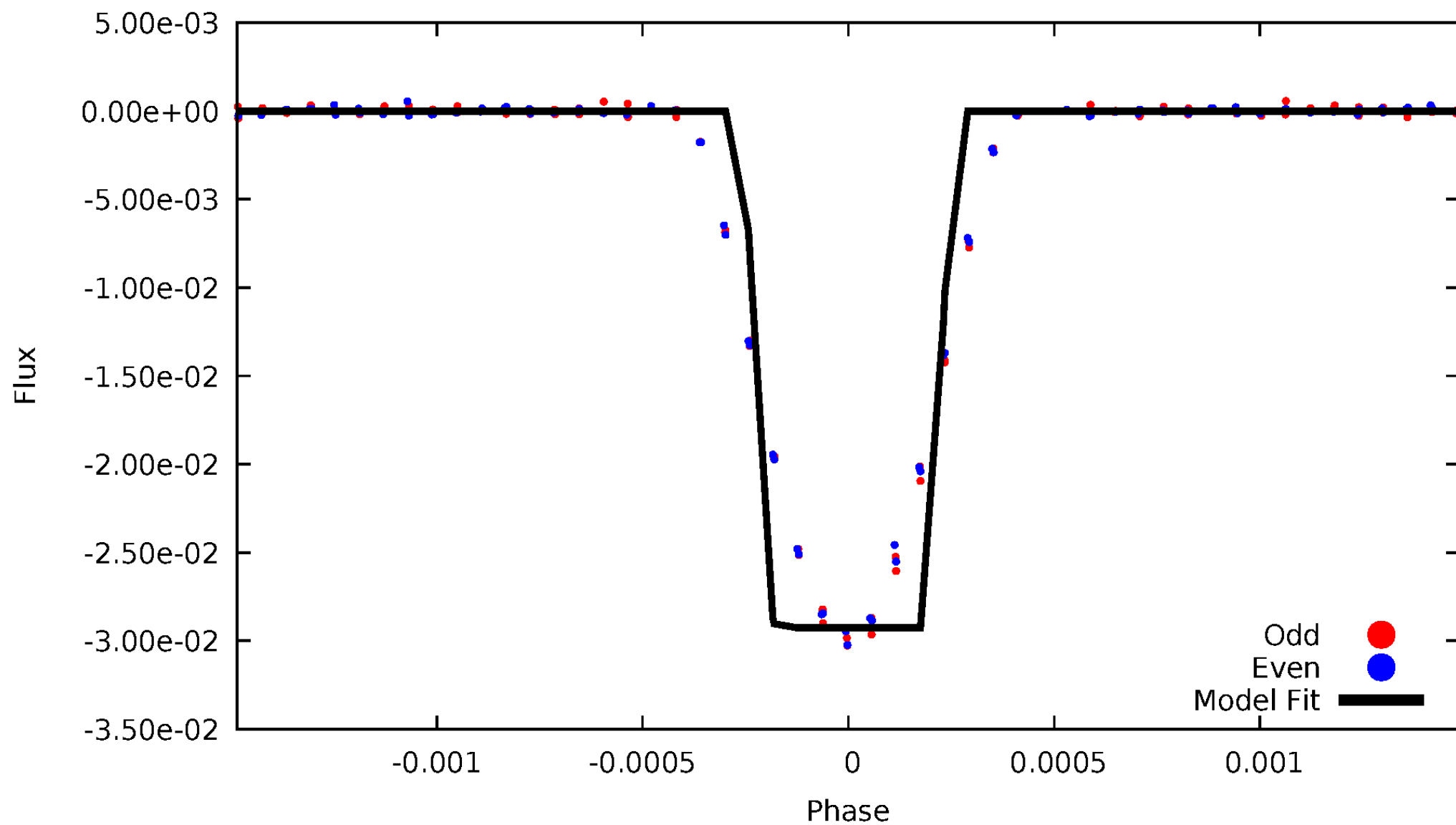
DV Odd/Even

TCE 005347537-01



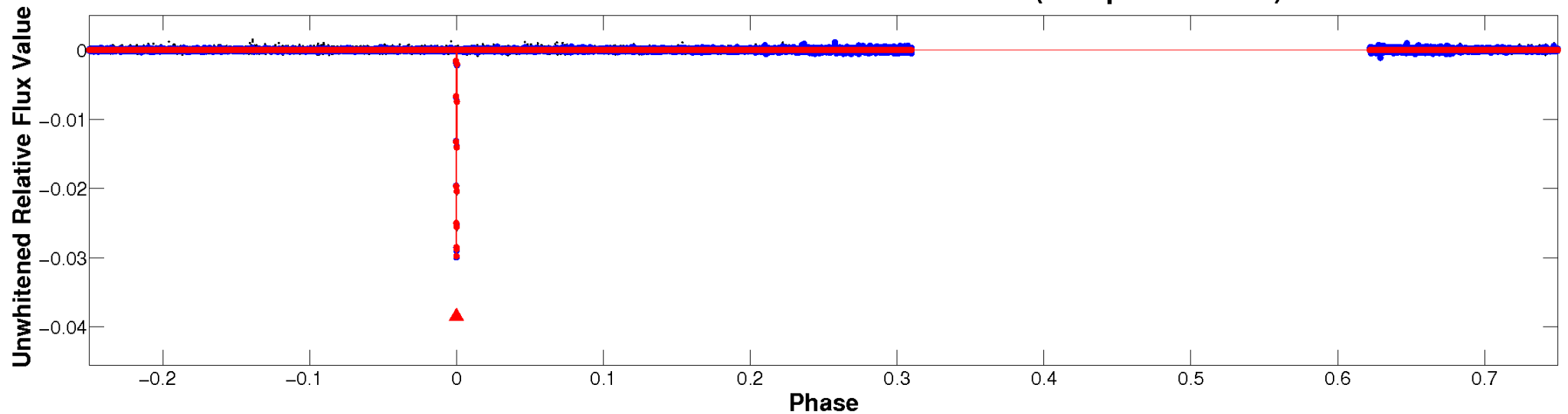
ALT Odd/Even

TCE 005347537-01

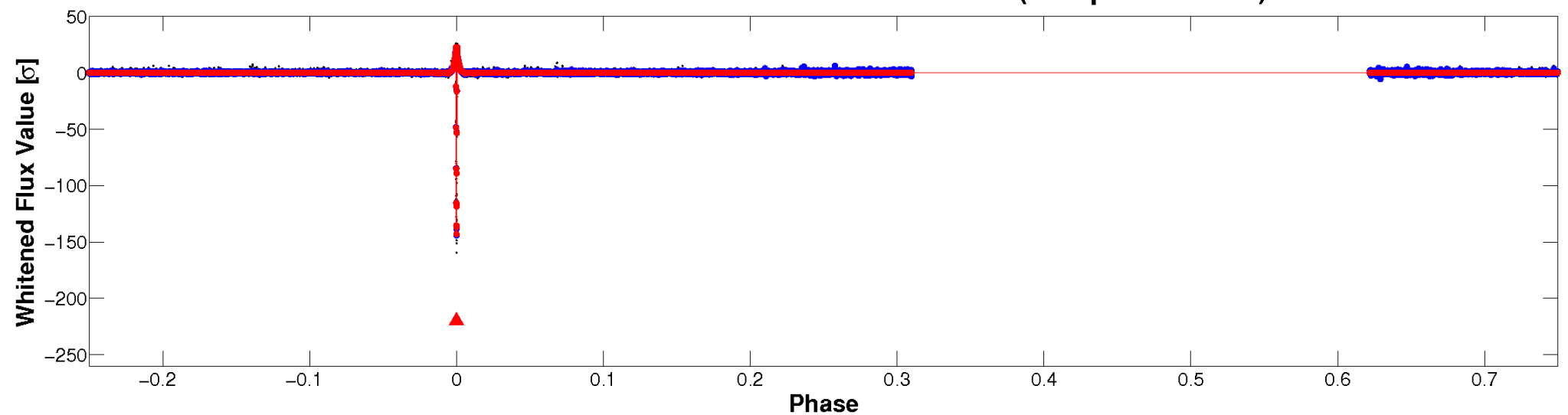


Non-Whitened Vs. Whitened Light Curve

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

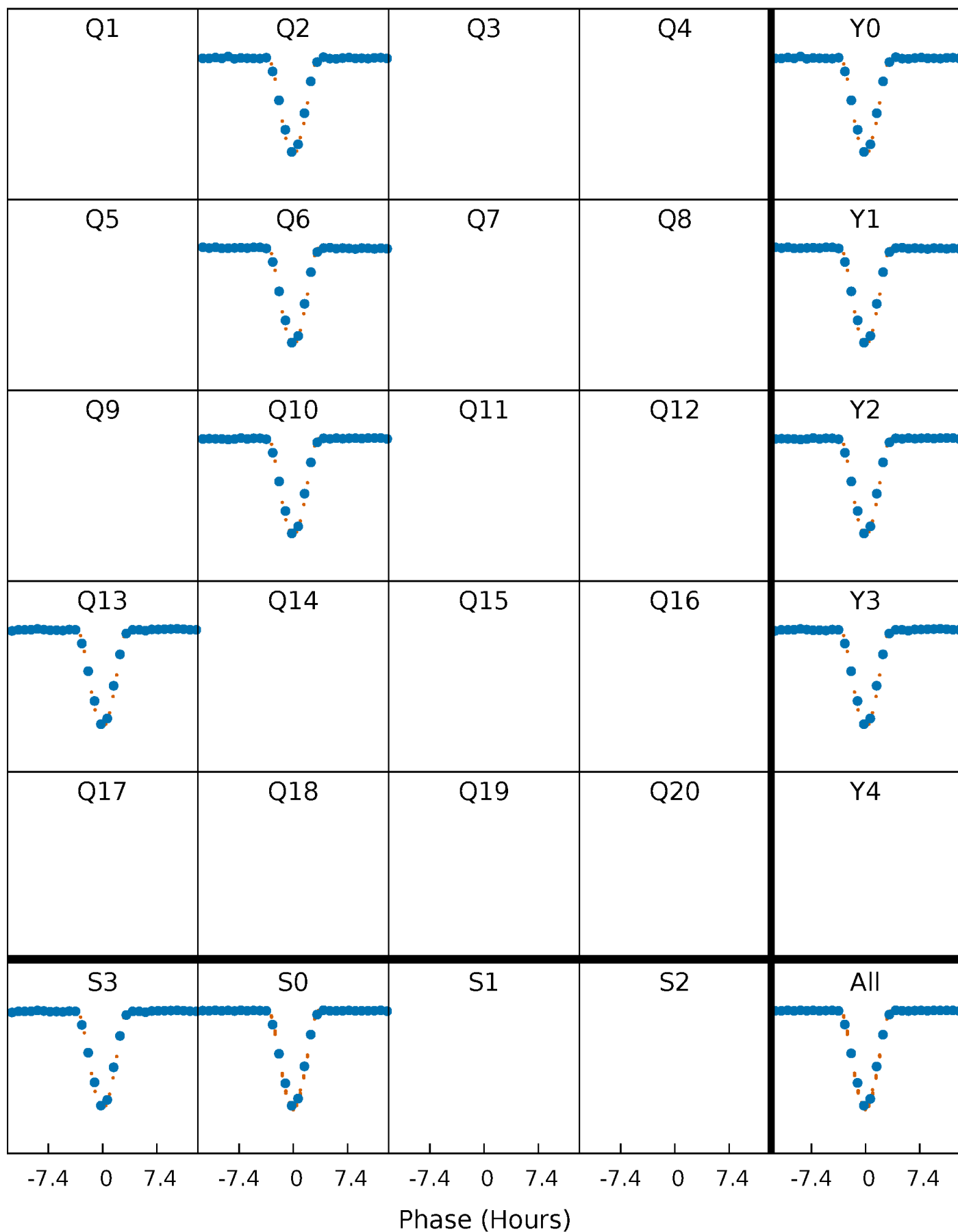


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



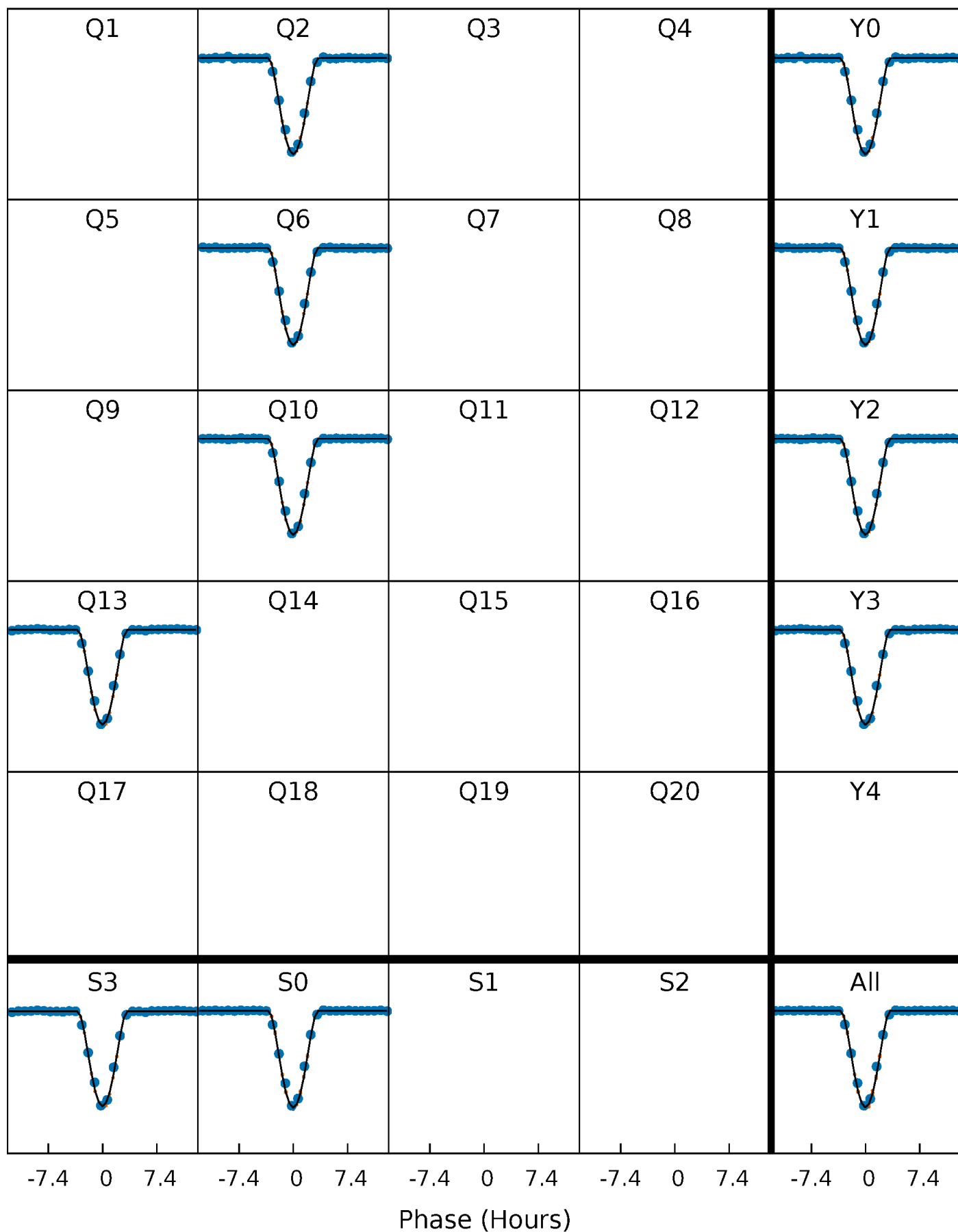
PDC Quarter-Phased Transit Curves

TCE 005347537-01 P=345.184660 Days $T_0=228.840832$ (BKJD)



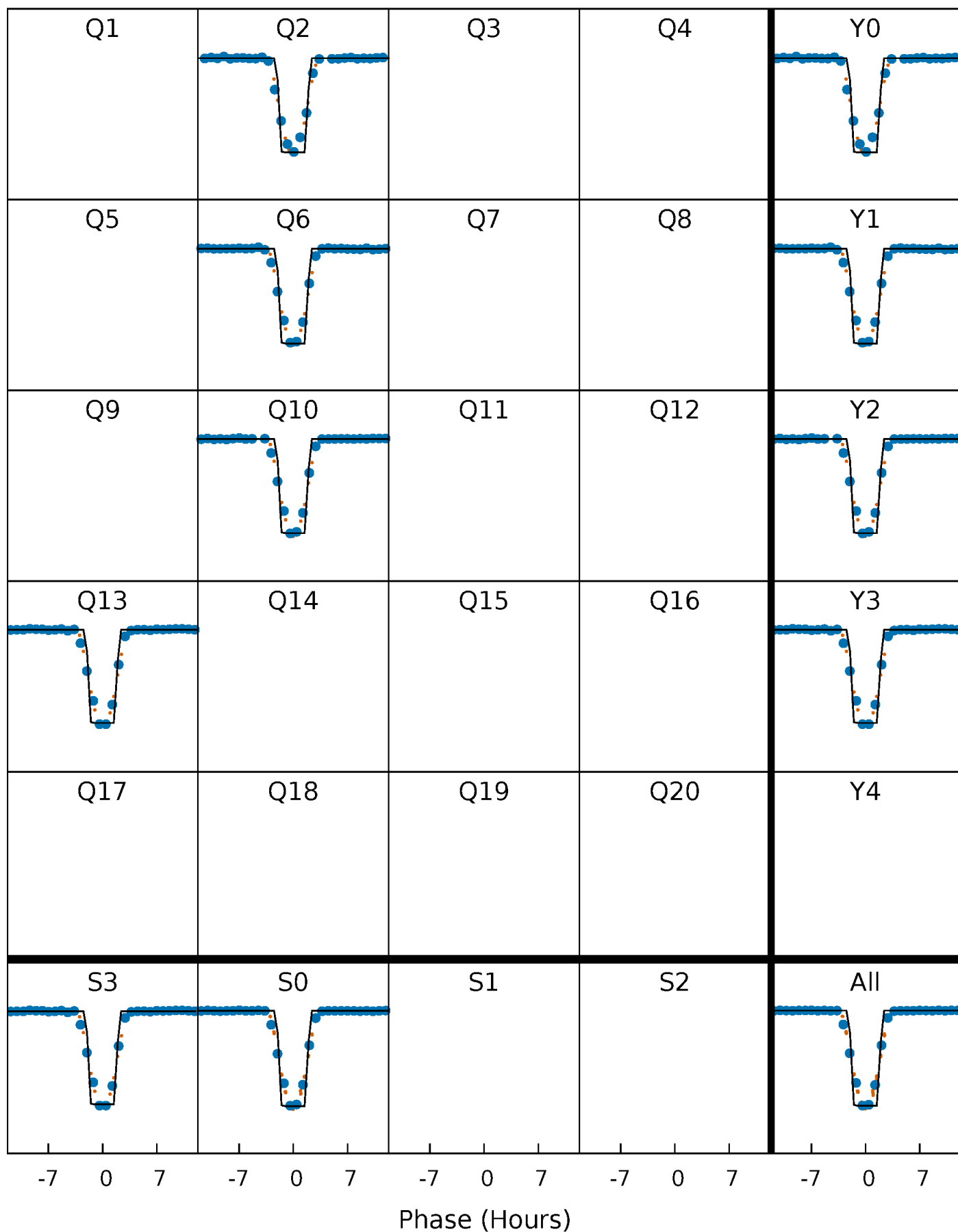
DV Quarter-Phased Transit Curves

TCE 005347537-01 P=345.184660 Days $T_0=228.840832$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

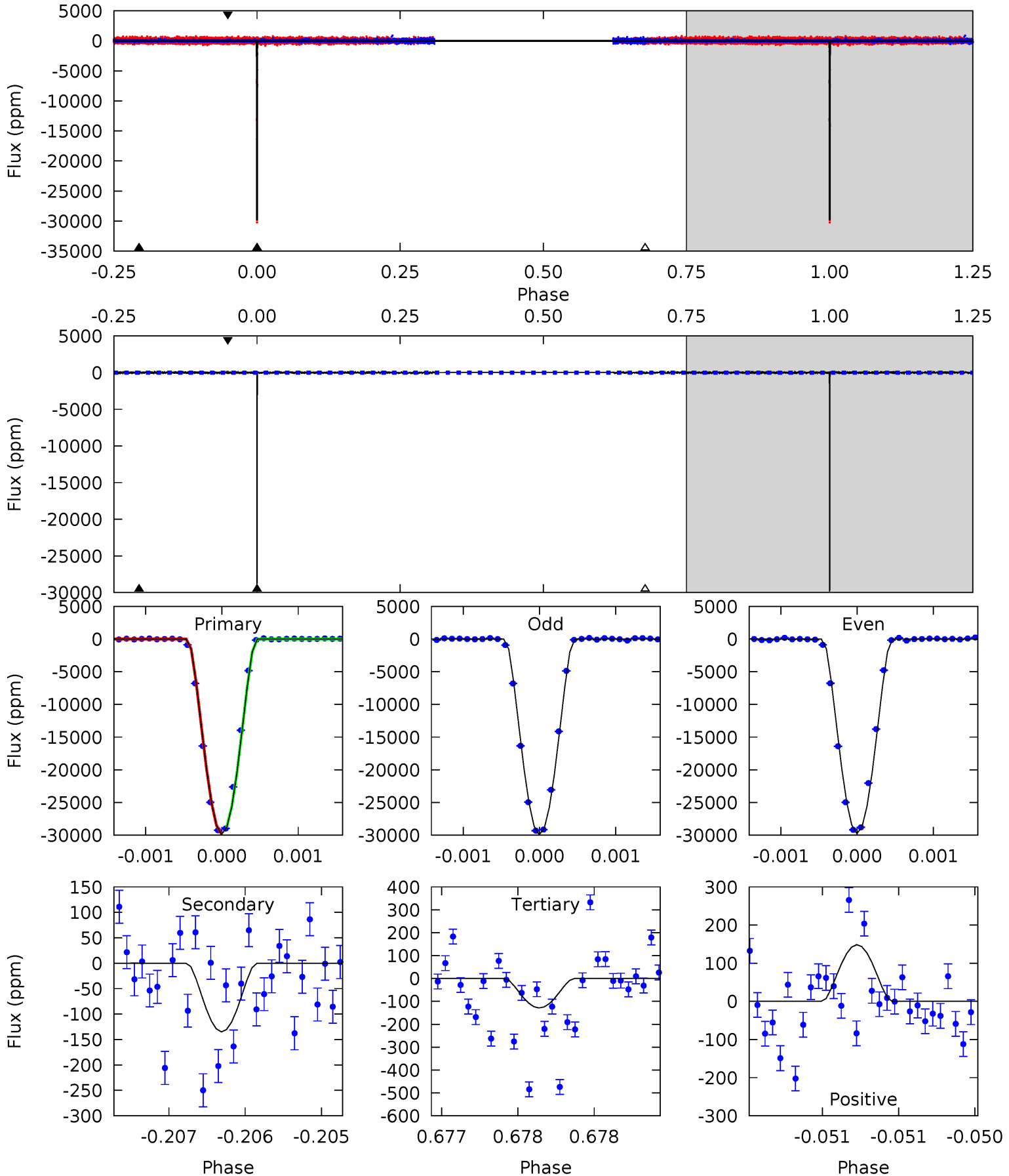
TCE 005347537-01 P=345.184129 Days $T_0=228.841569$ (BKJD)



DV Model-Shift Uniqueness Test

005347537-01, P = 345.184660 Days, E = 228.840832 Days

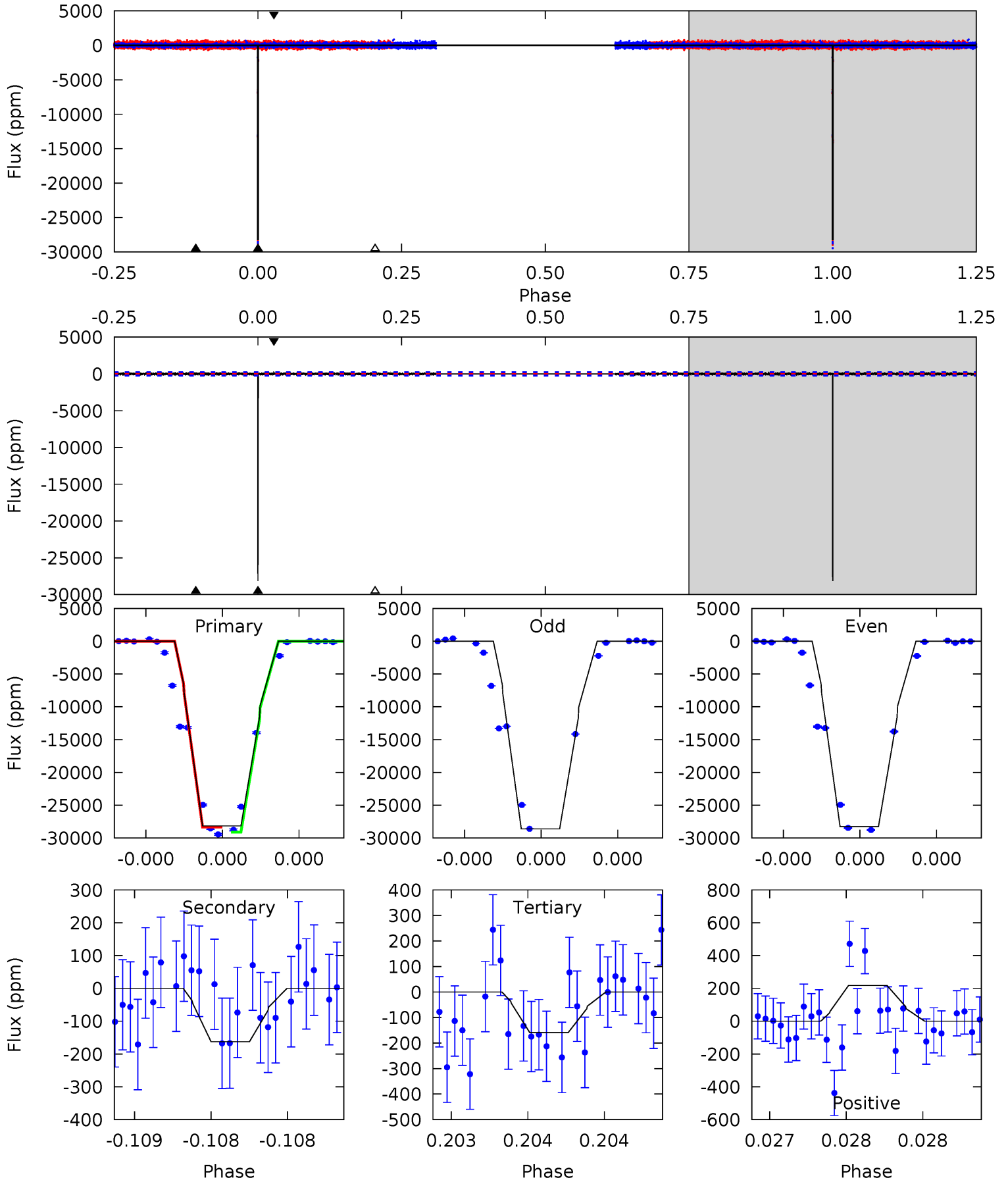
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1228	5.55	5.30	6.11	5.47	3.32	1.66	1223	1222	0.26	-0.56	3.62	1.00	0.00	21.4



Alt Model-Shift Uniqueness Test

005347537-01, P = 345.184129 Days, E = 228.841569 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
680.3	3.93	3.84	5.26	5.58	3.49	1.26	676.5	675.0	0.09	-1.33	4.09	1.00	0.01	9.04



Stellar Parameters For KIC 005347537

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5712^{+169}_{-186}	$4.424^{+0.105}_{-0.180}$	$-0.100^{+0.300}_{-0.300}$	$0.971^{+0.269}_{-0.145}$	$0.912^{+0.114}_{-0.091}$	$1.404^{+0.737}_{-0.695}$
	+3%/-3%	+2%/-4%	+300%/-300%	+28%/-15%	+12%/-10%	+53%/-50%
Source	KIC0	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 005347537-01 / KOI 6566.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-135 ± 24	$27.68^{+4.17}_{-3.58}$	362^{+26}_{-20}	2175^{+66}_{-66}	83^{+31}_{-24}
Alt.	-163 ± 41	$18.32^{+3.56}_{-2.71}$	360^{+27}_{-20}	2428^{+116}_{-108}	227^{+109}_{-84}

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 $A_{\text{obs}} \gg 1.0$

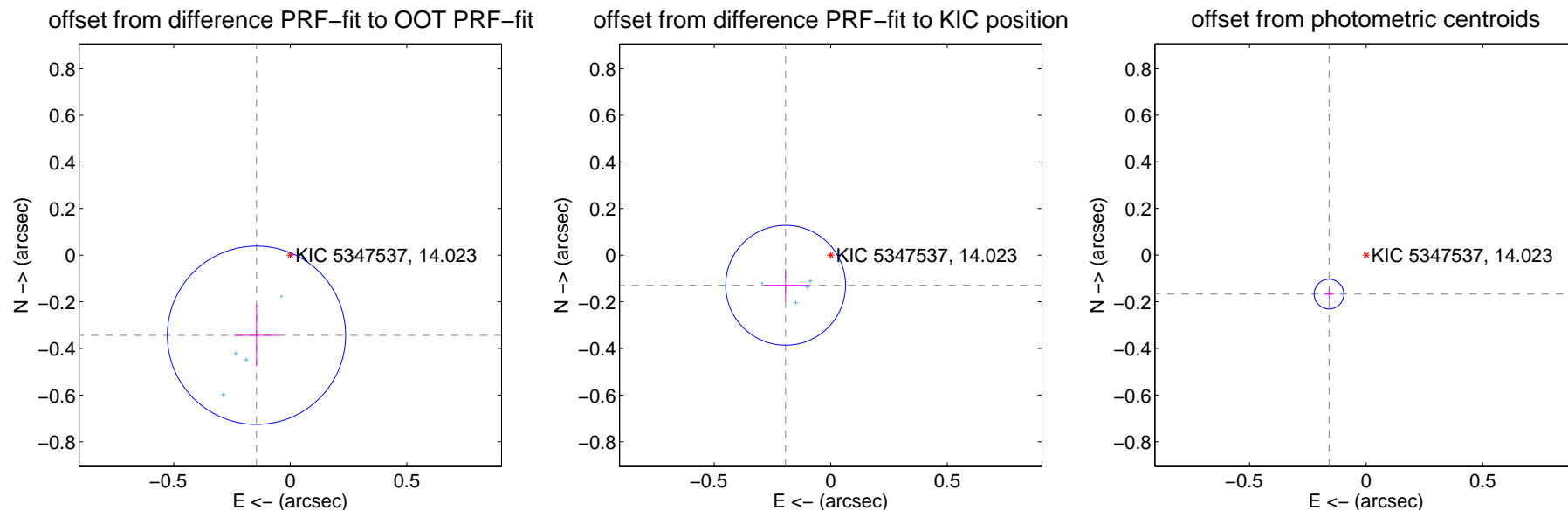
DV Centroid Data

Supplemental centroid analysis for 005347537-01. Kepler magnitude: 14.02. Transit SNR 596.40

There are 4 quarters with good PRF difference image offsets

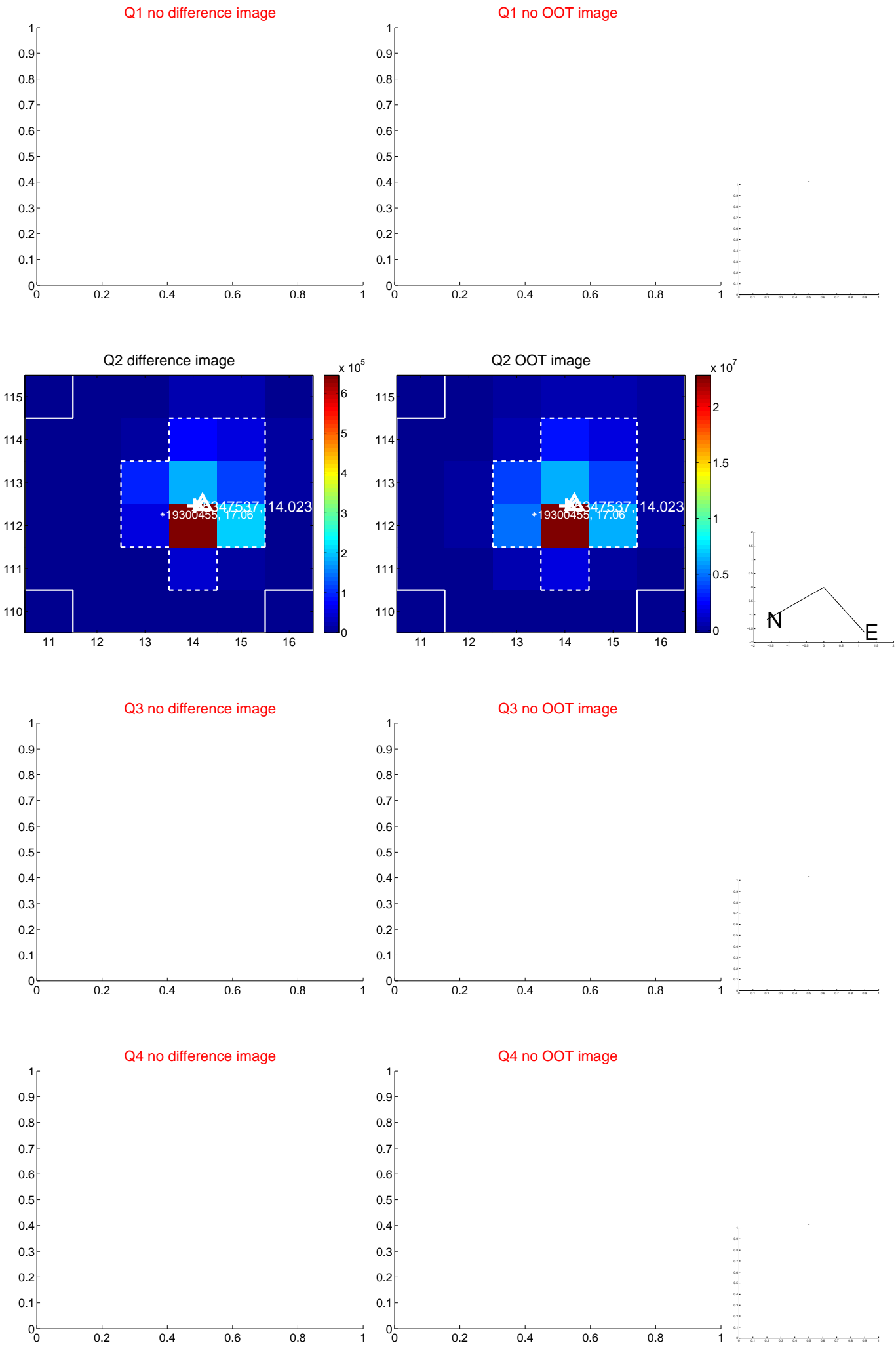
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.373 ± 0.127	2.93	0.145 ± 0.096	-0.343 ± 0.132
PRF-fit source offset from KIC position	0.233 ± 0.086	2.72	0.194 ± 0.092	-0.129 ± 0.070
photometric centroid source offset	0.23 ± 0.02	10.88	0.16 ± 0.02	-0.17 ± 0.02

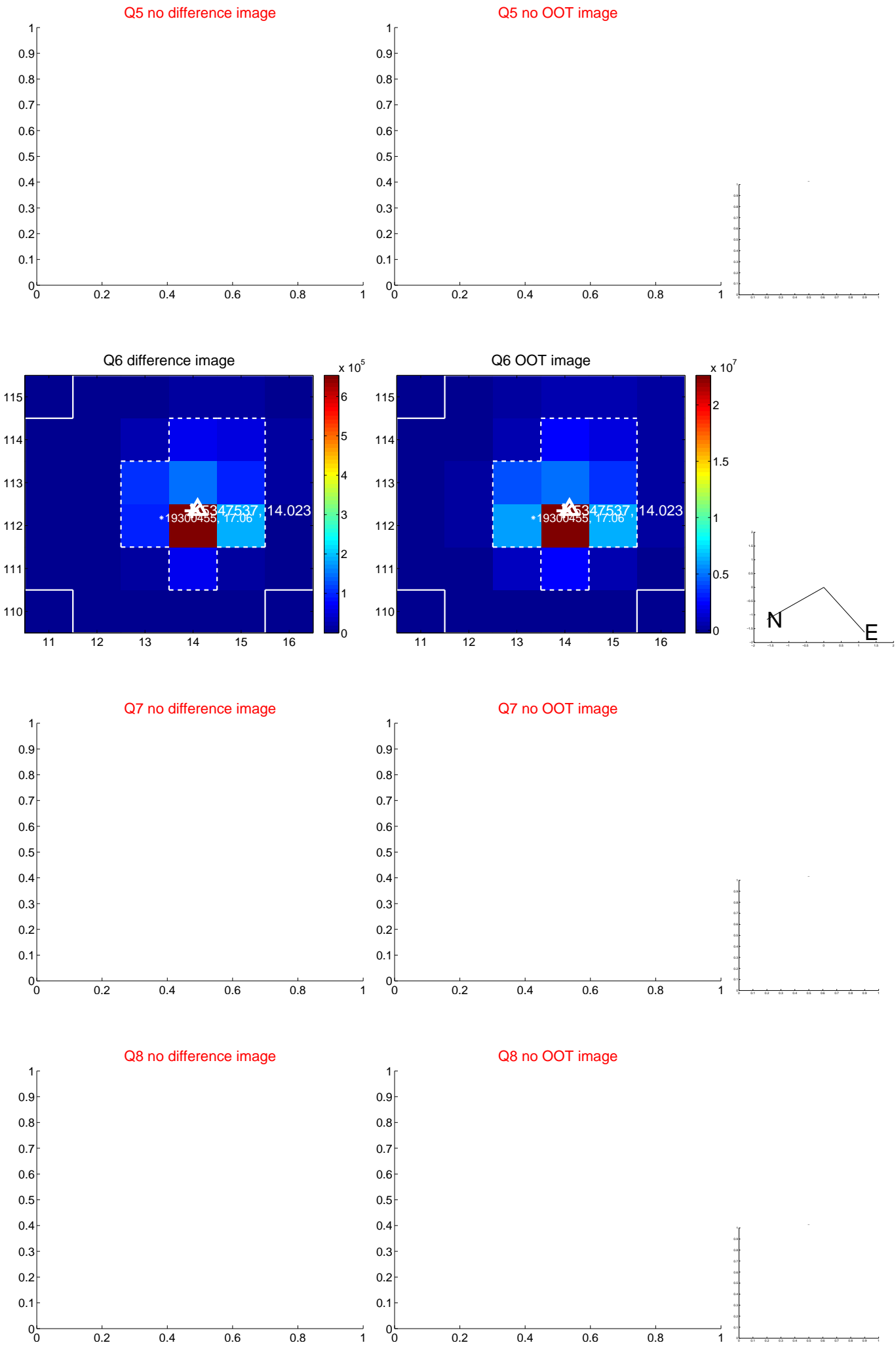


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

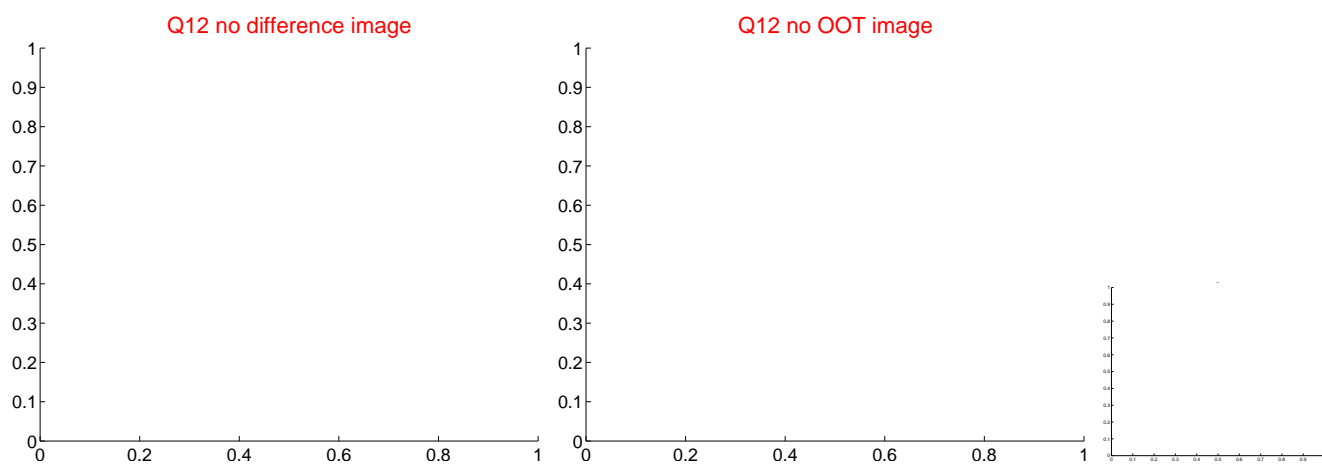
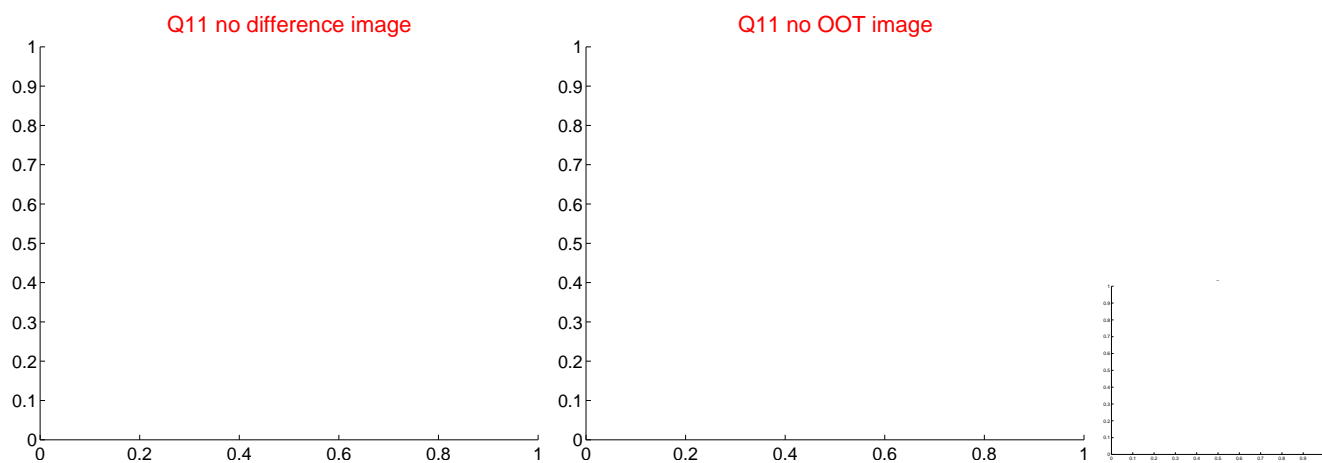
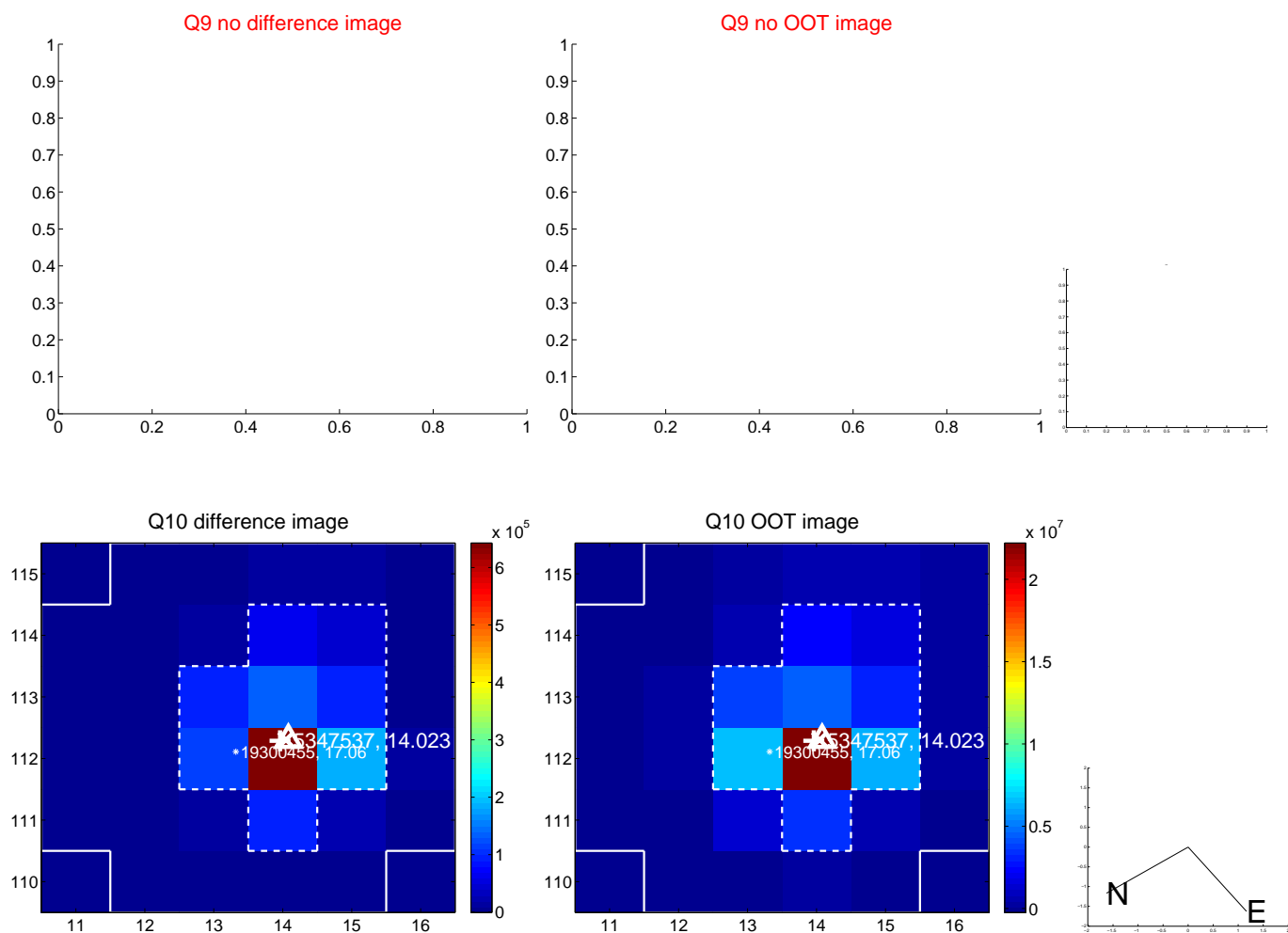
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



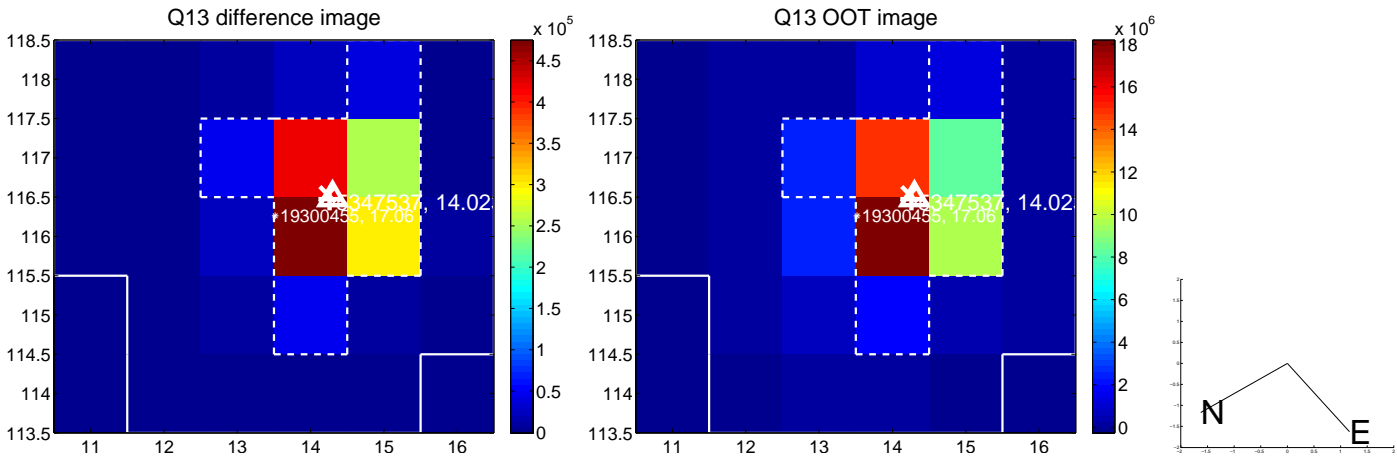
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



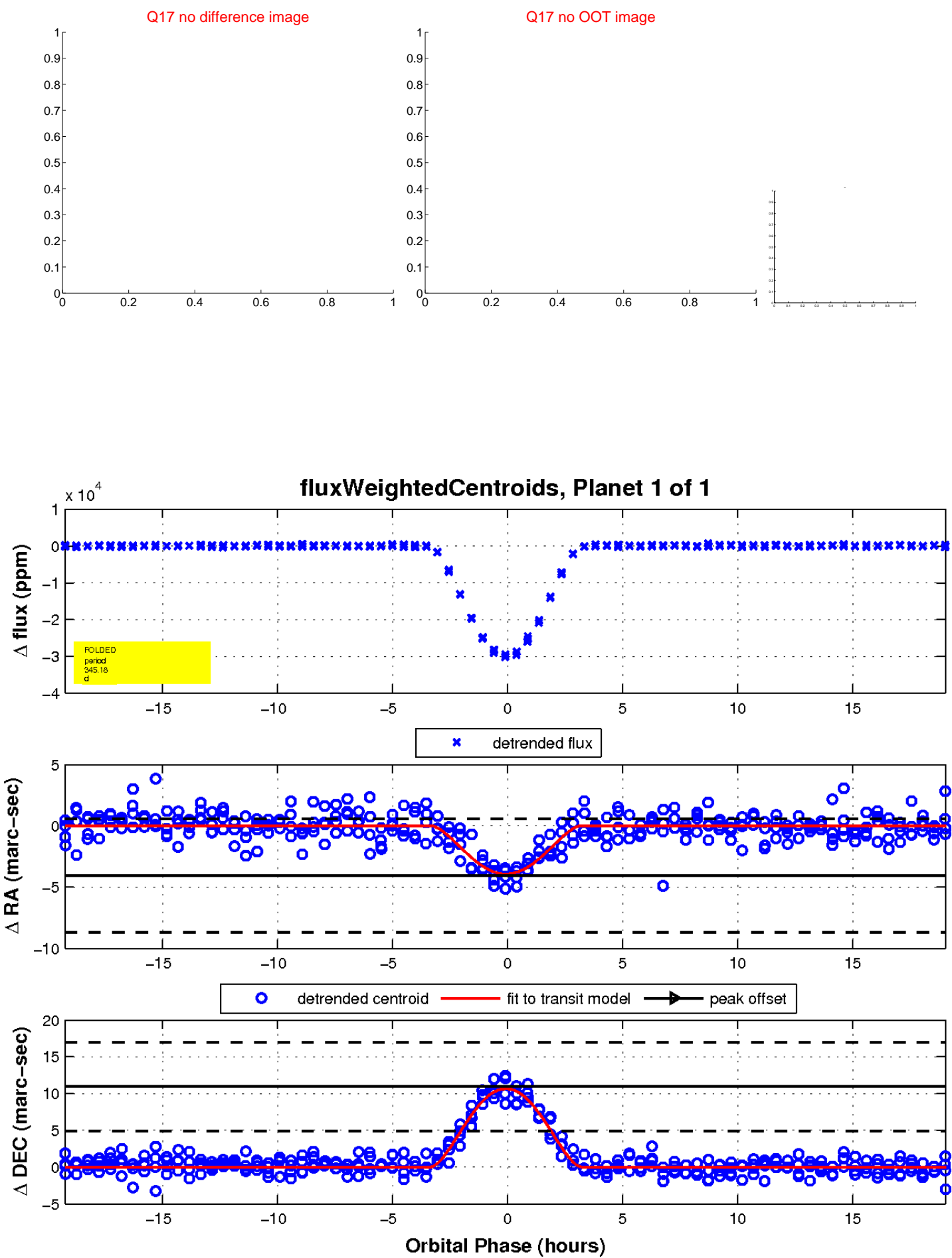
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

