

KIC 004348313

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})
004348313-01	OBS	No	104.856690	157.926705	3466.3	22.543	24.6	35.4	148.12	3299	1816.34	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004348313-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

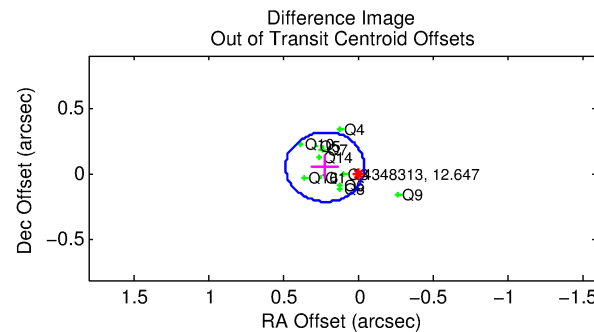
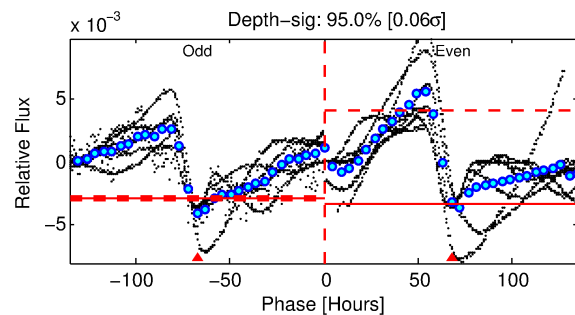
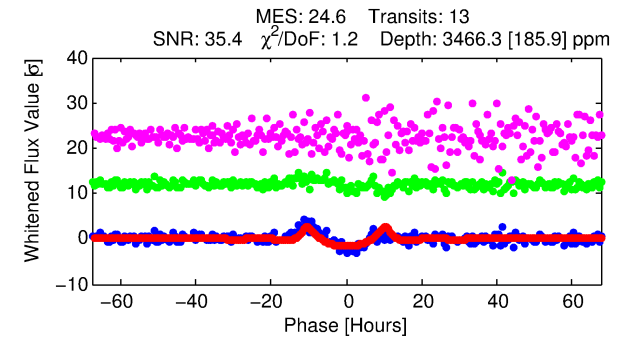
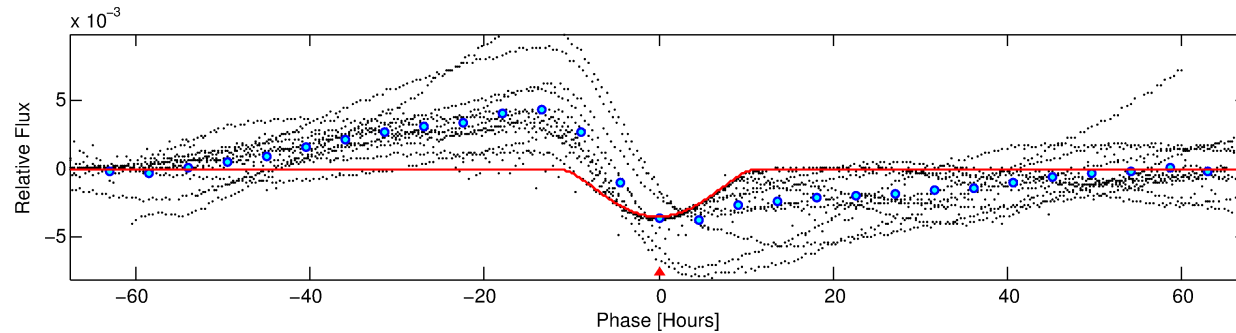
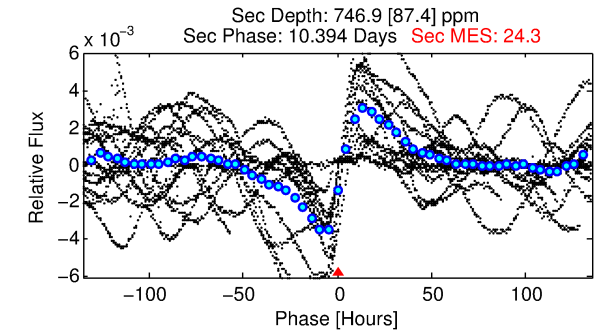
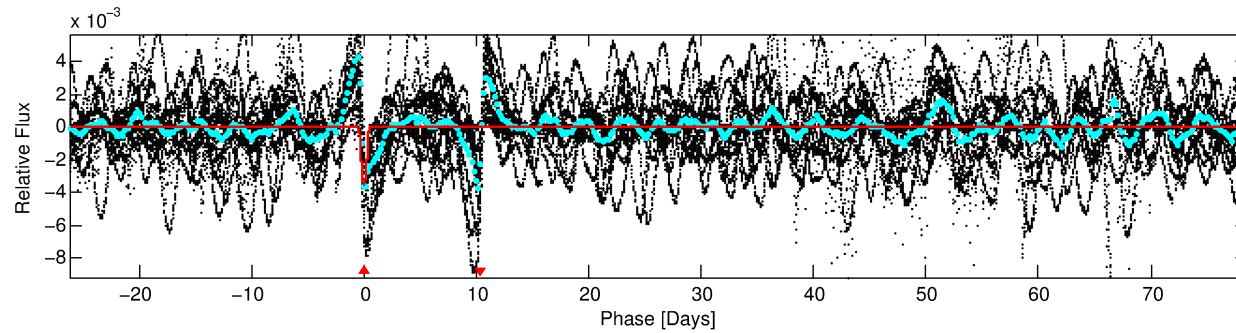
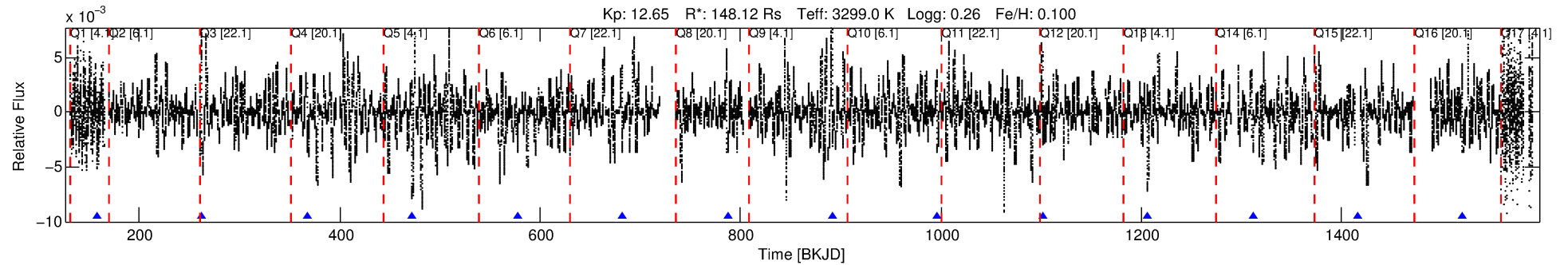
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004348313-01

No Significant Match Found

DV One-Page Summary

KIC: 4348313 Candidate: 1 of 1 Period: 104.857 d



DV Fit Results:

Period = 104.85669 [0.00084] d
Epoch = 157.9267 [0.0063] BKJD
Rp/R* = 0.1124 [0.0239]
a/R* = 17.35 [0.56]
b = 1.00 [0.03]
Seff = N/A
Teq = N/A
Rp = 1816.34 [432.01] Re
a = N/A
Ag = N/A
Teffp = N/A

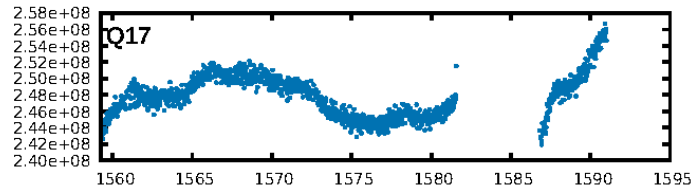
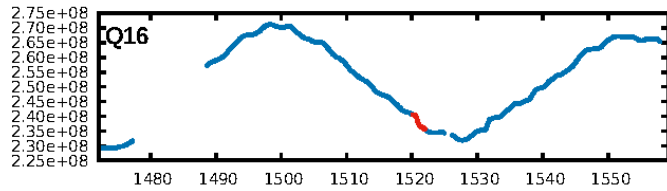
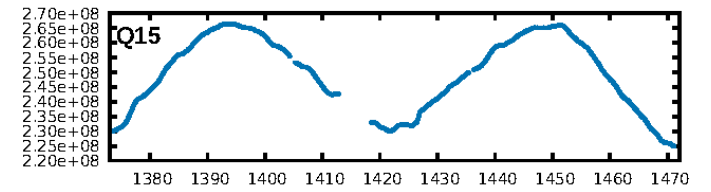
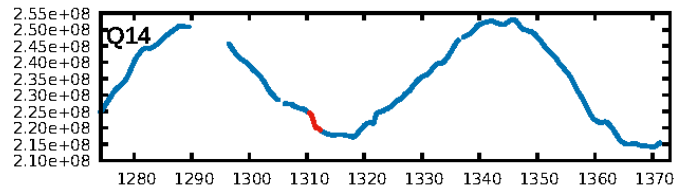
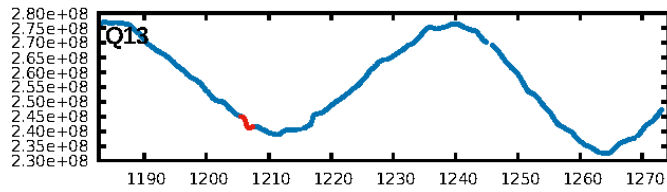
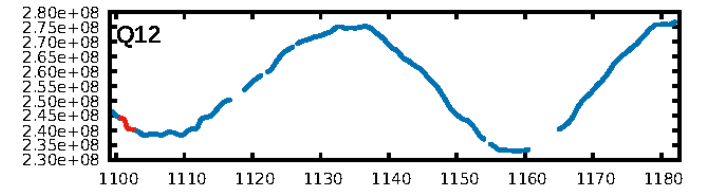
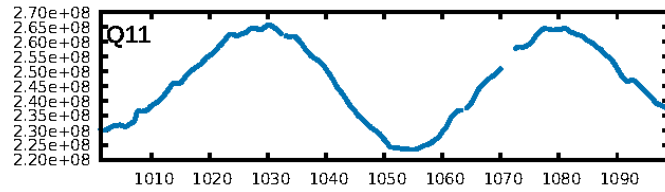
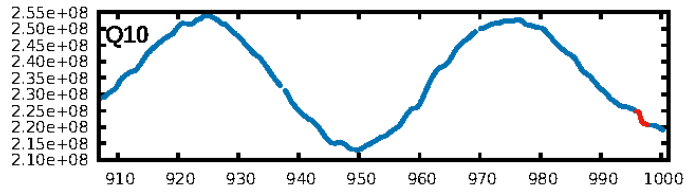
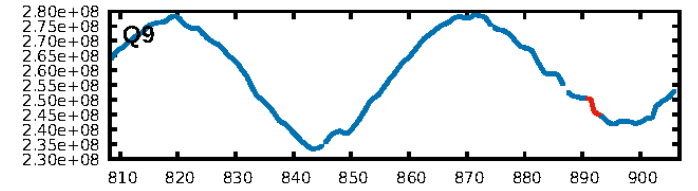
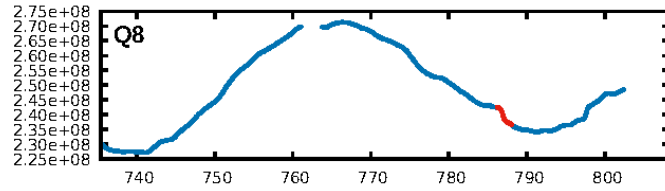
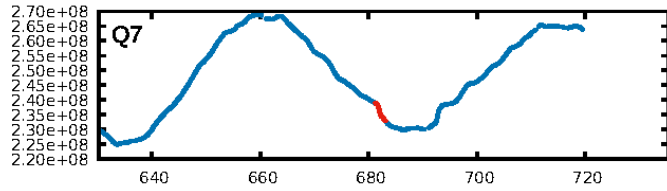
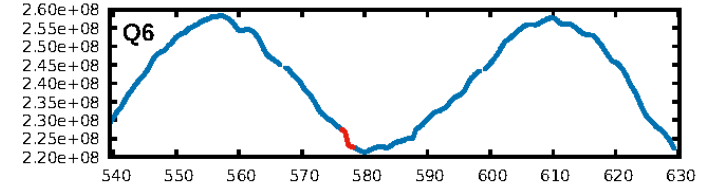
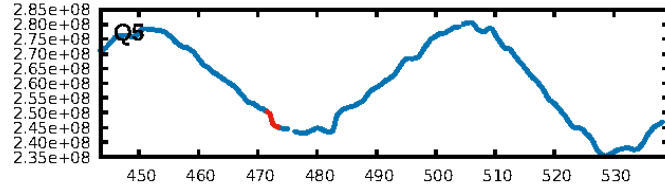
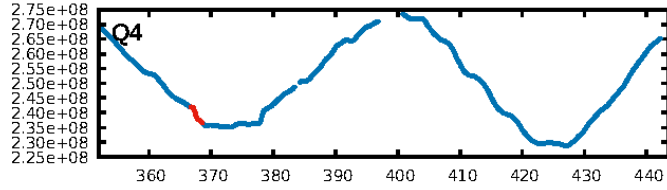
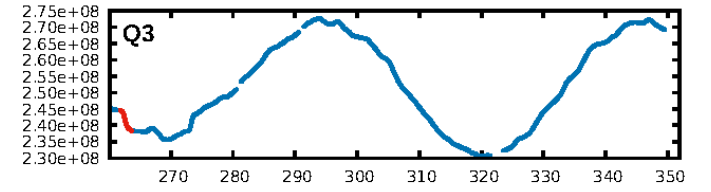
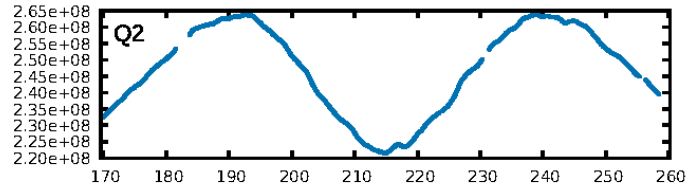
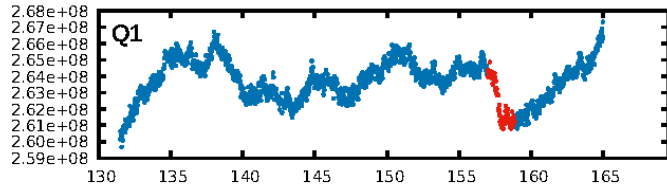
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 96.4%
ModelChiSquareGof-sig: 45.4%
Bootstrap-pfa: 2.69e-11
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: 1.284
Centroid-sig: 0.0%
Centroid-so: 0.301 arcsec [5.87 σ]
OotOffset-rm: 0.224 arcsec [2.56 σ]
KicOffset-rm: 0.246 arcsec [2.93 σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 1.00 [11/11]
DiffImageOverlap-fno: 1.00 [11/11]

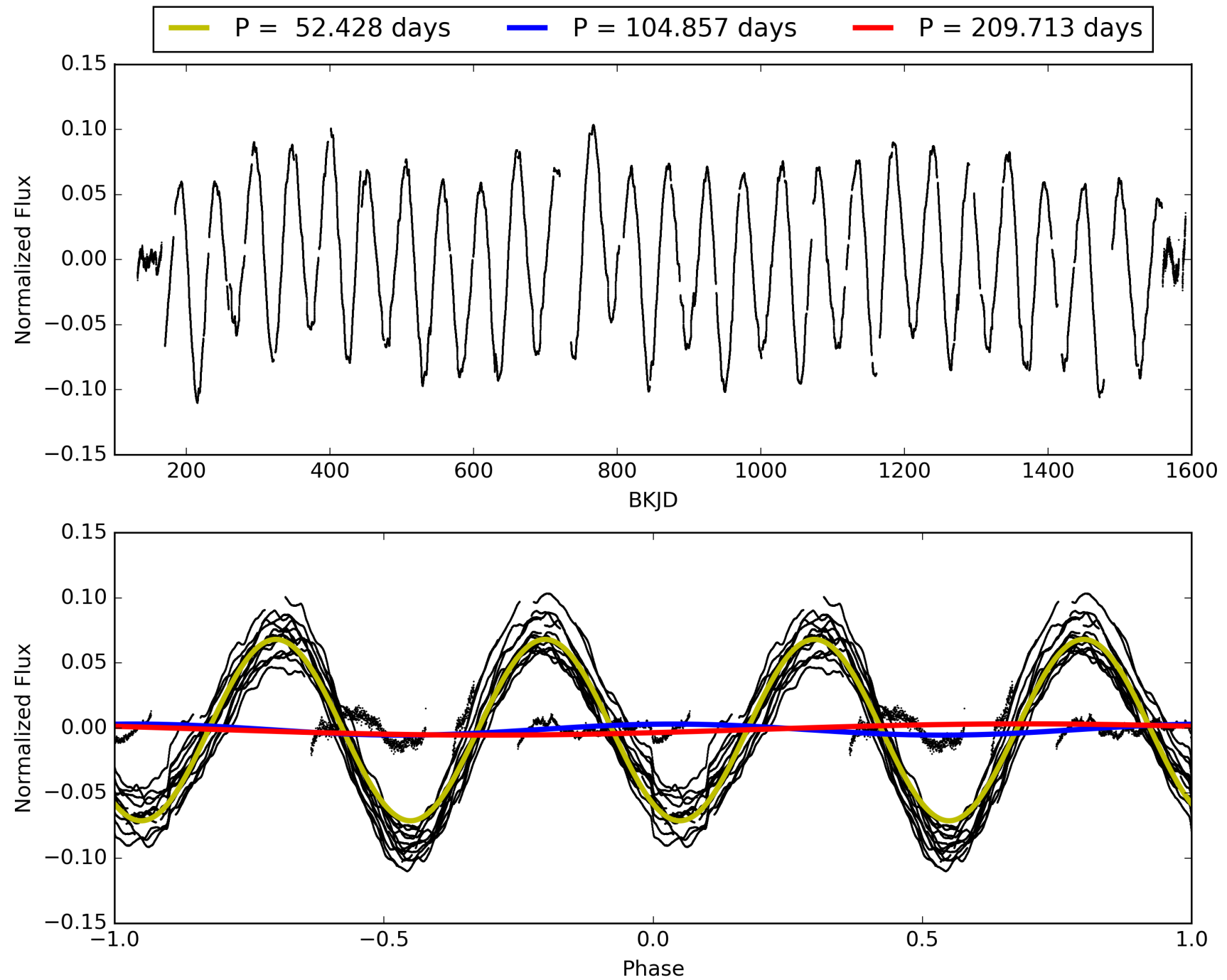
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 23:36:34 Z

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

TCE 004348313-01, PDC Light Curves

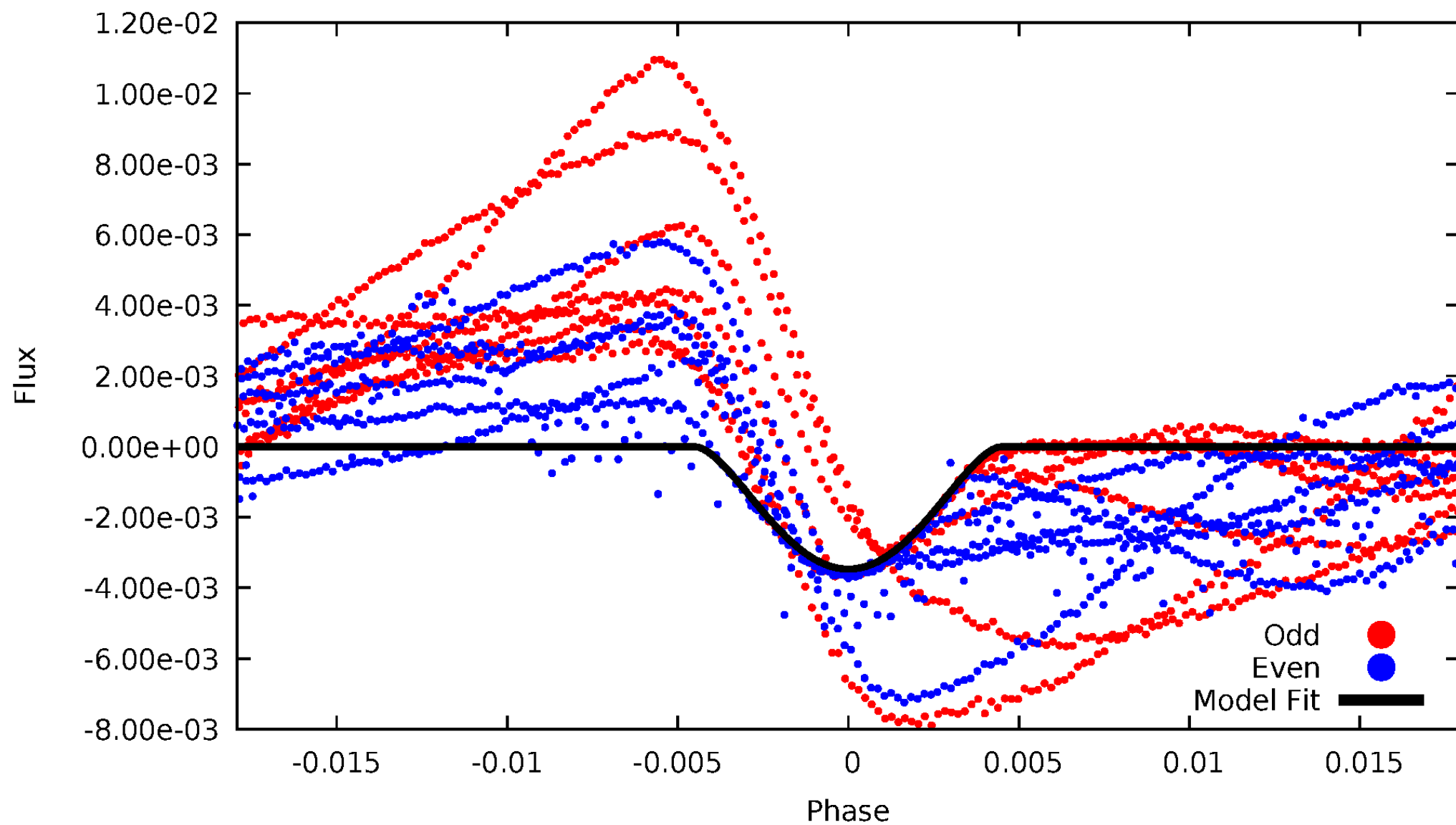


TCE 004348313-01



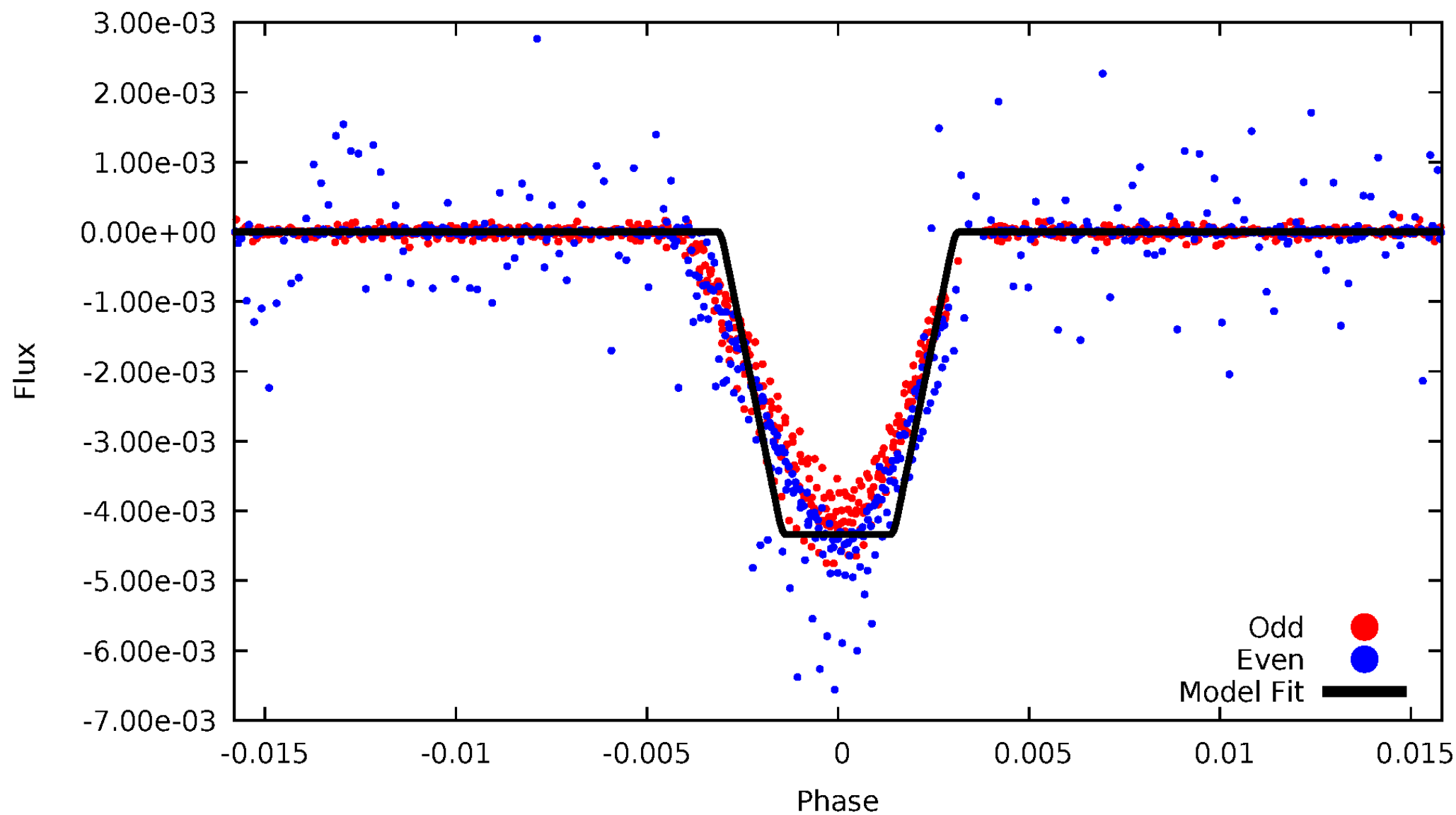
DV Odd/Even

TCE 004348313-01

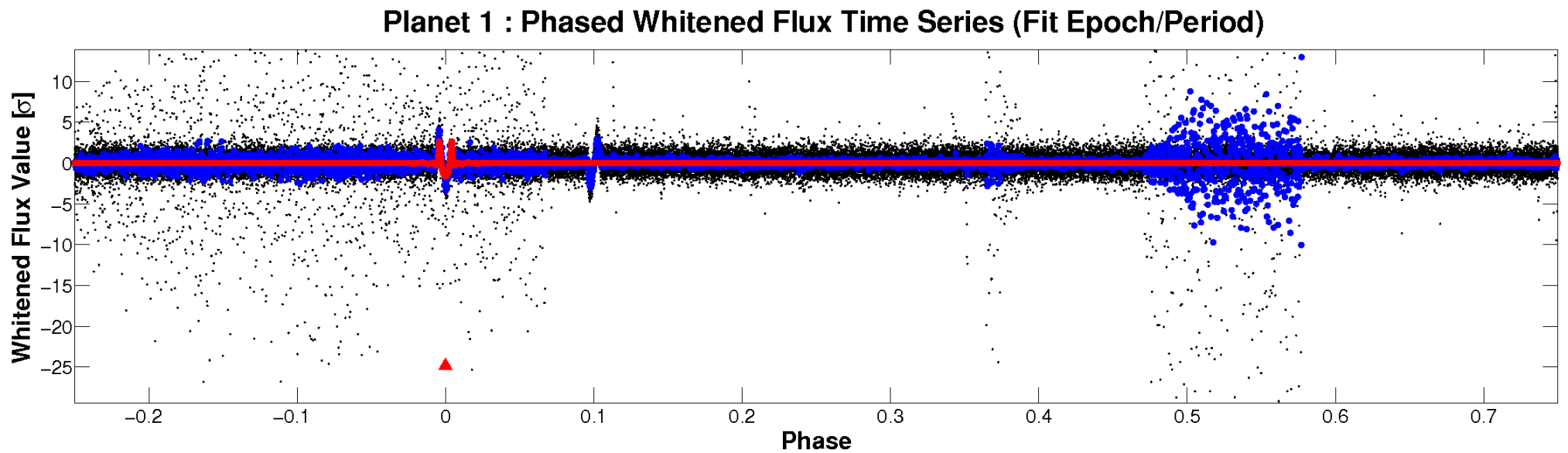
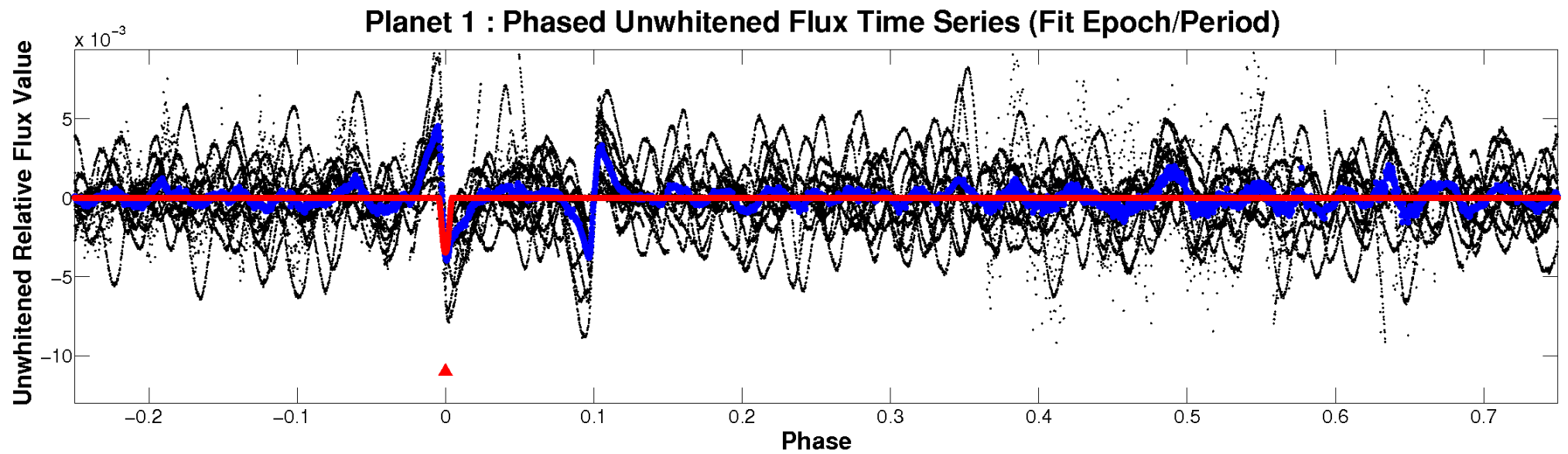


ALT Odd/Even

TCE 004348313-01

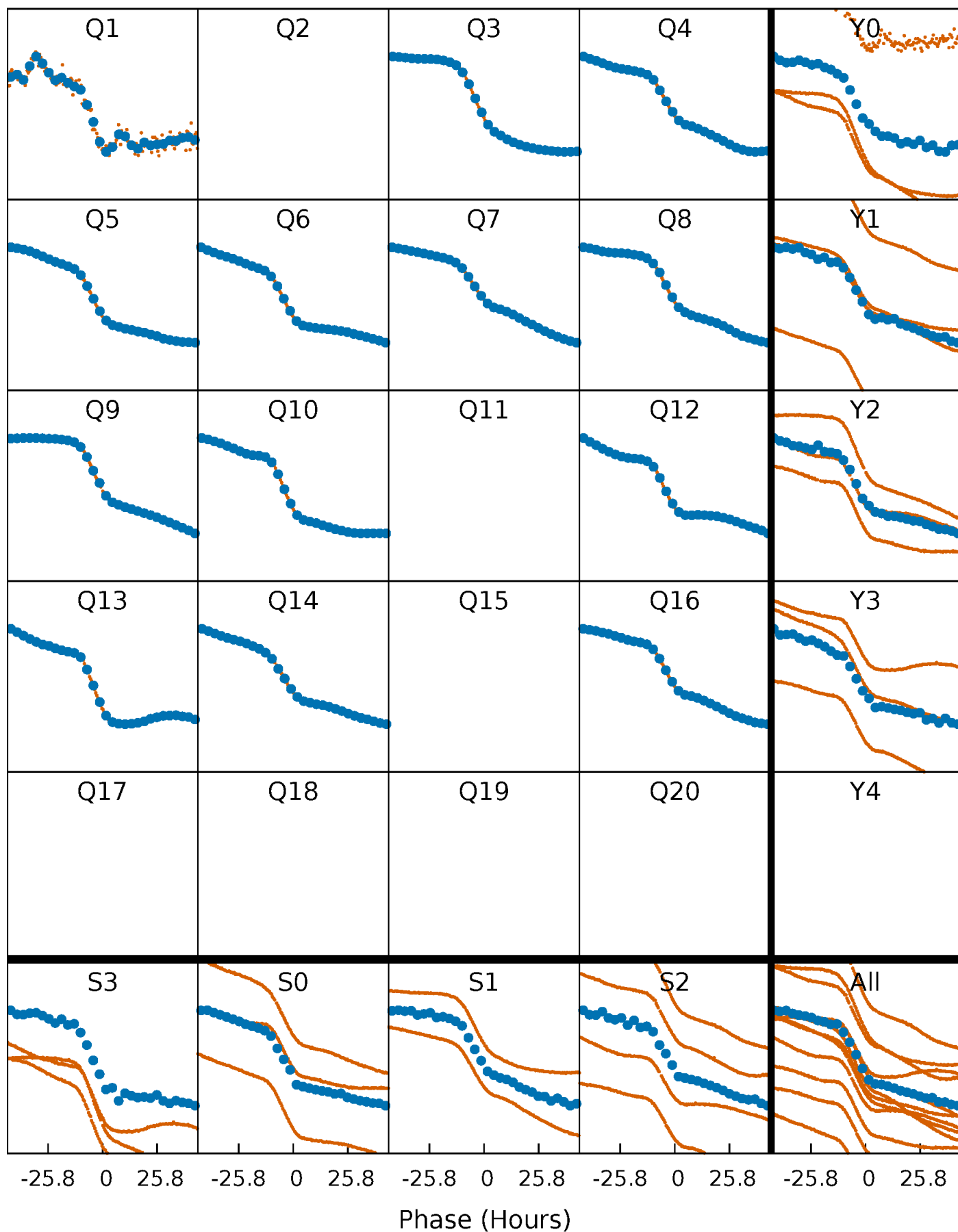


Non-Whitened Vs. Whitened Light Curve



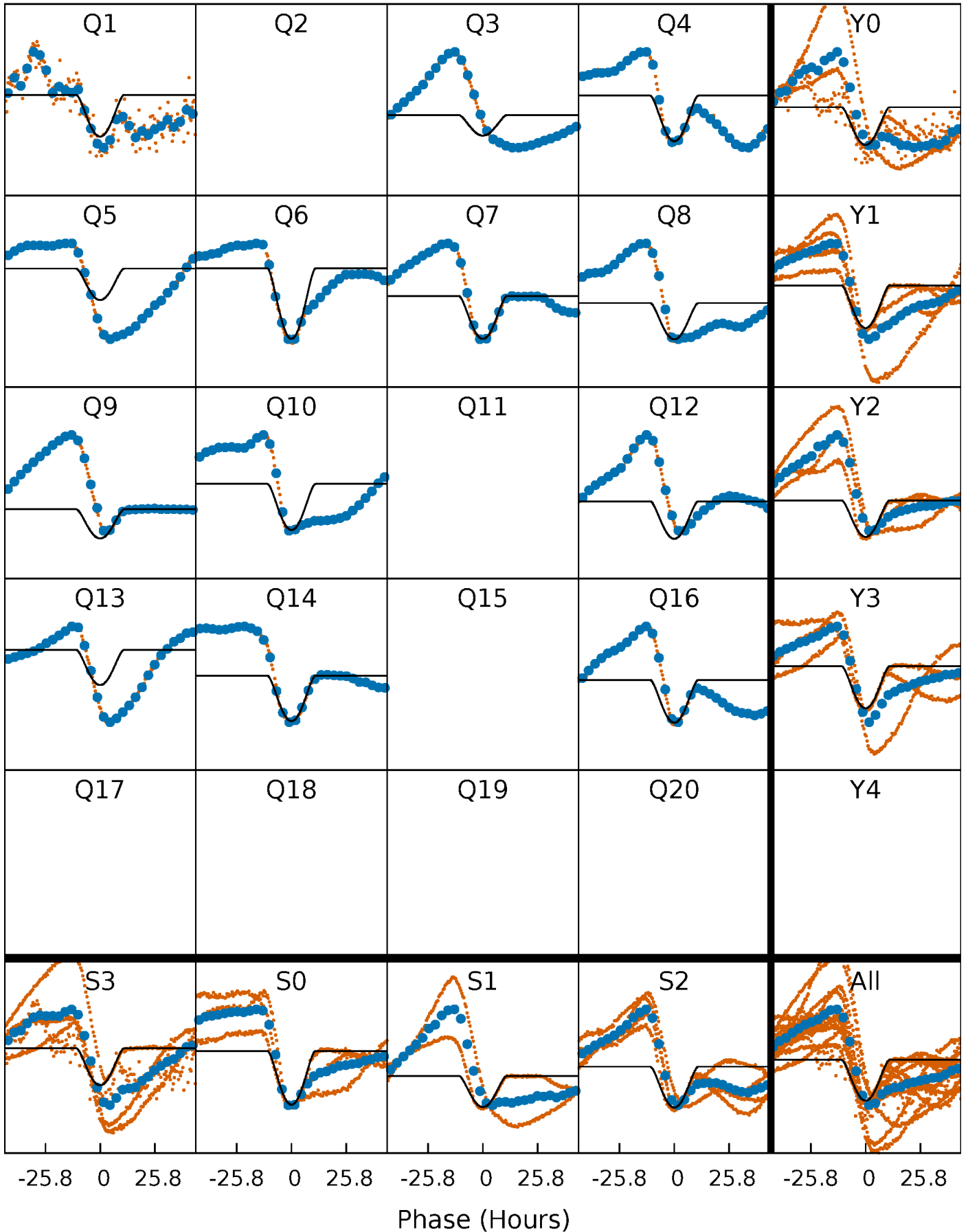
PDC Quarter-Phased Transit Curves

TCE 004348313-01 P=104.856690 Days $T_0=157.926705$ (BKJD)



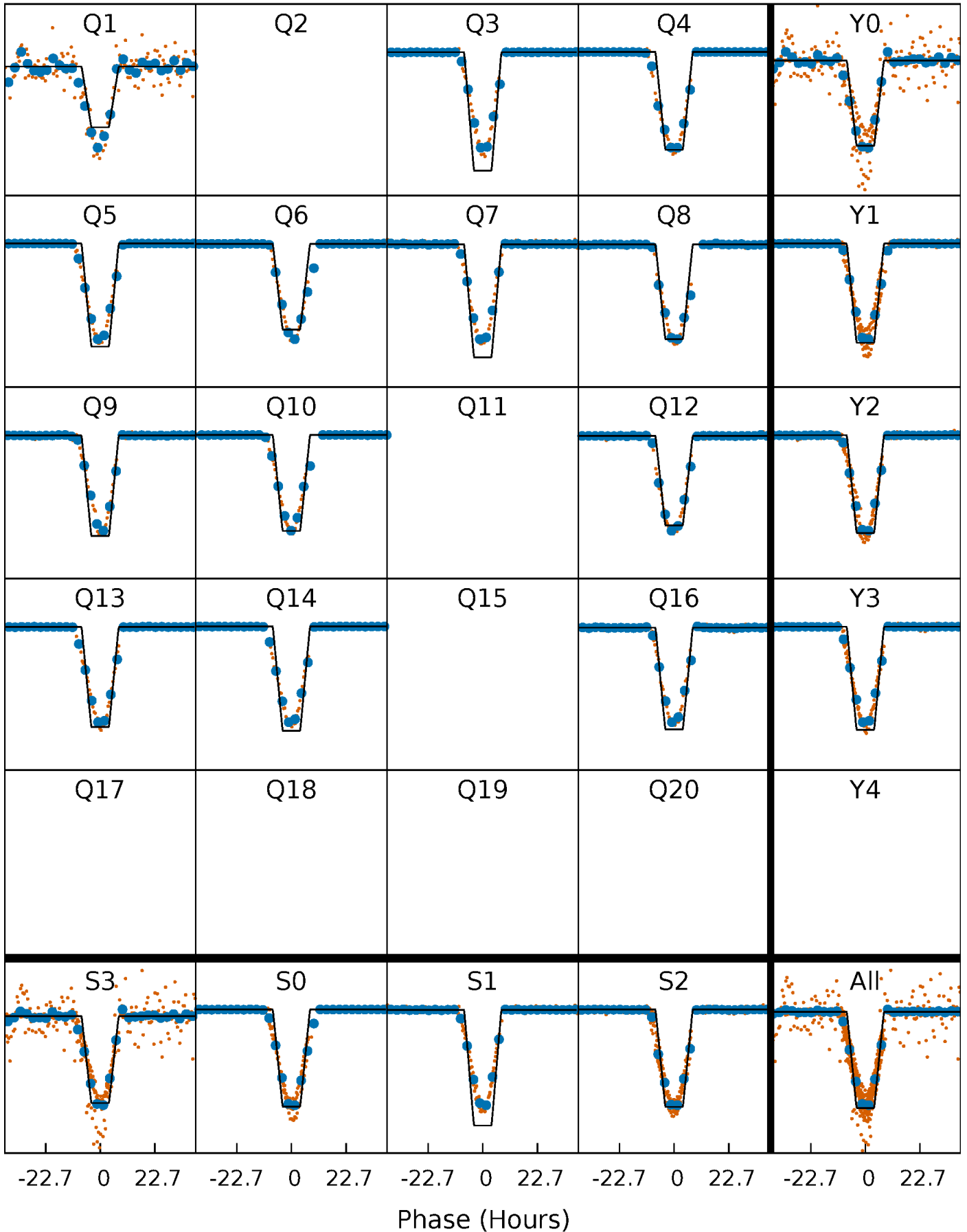
DV Quarter-Phased Transit Curves

TCE 004348313-01 P=104.856690 Days $T_0=157.926705$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

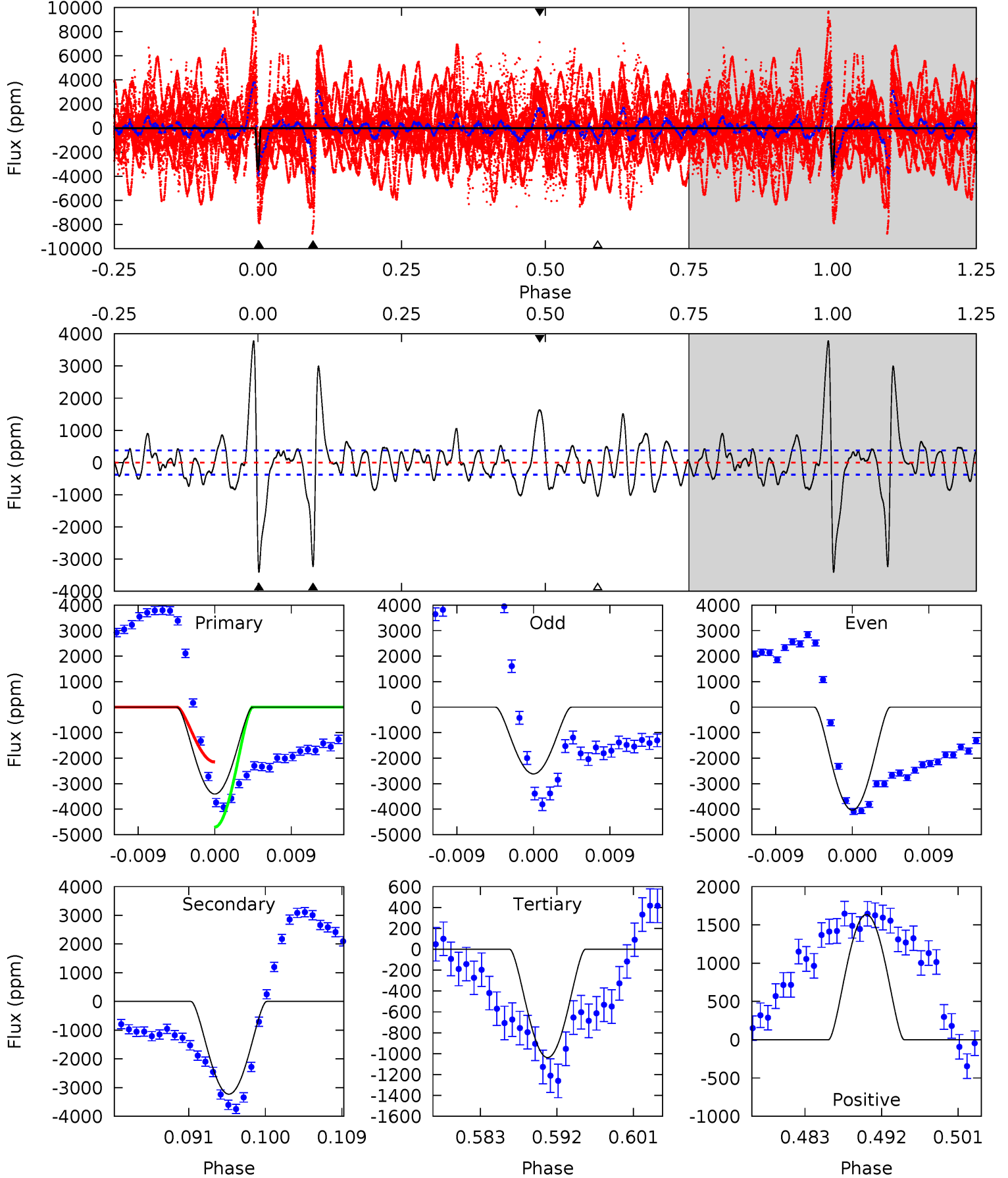
TCE 004348313-01 P=104.858219 Days $T_0=157.963945$ (BKJD)



DV Model-Shift Uniqueness Test

004348313-01, P = 104.856690 Days, E = 53.070015 Days

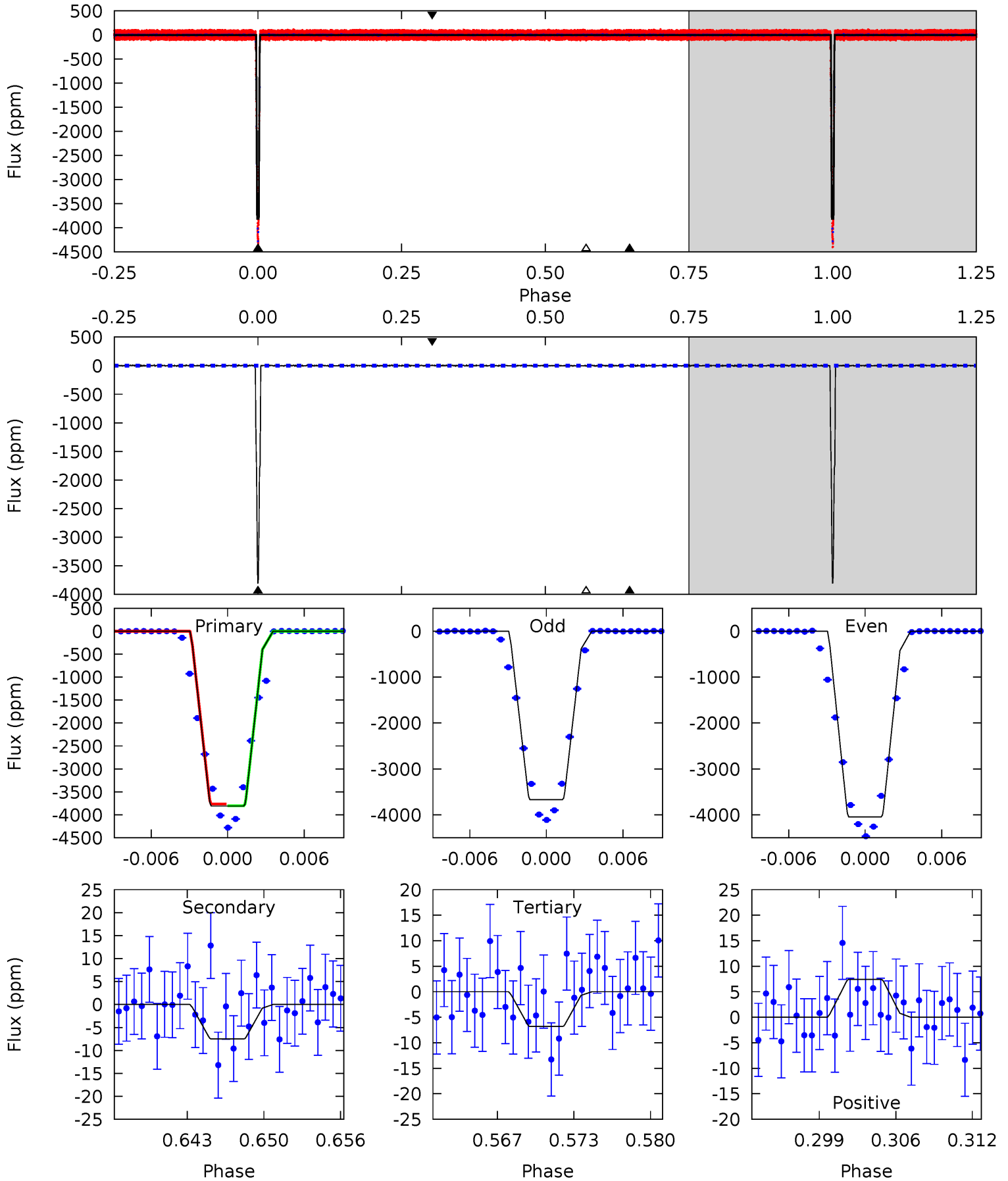
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.6	43.2	13.9	21.9	5.04	2.61	8.19	31.7	23.7	29.3	21.4	9.67	0.96	0.53	17.0



Alt Model-Shift Uniqueness Test

004348313-01, P = 104.858219 Days, E = 53.105726 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1218	2.40	2.18	2.37	5.11	2.73	0.63	1215	1215	0.23	0.03	67.7	1.01	0.00	0



Stellar Parameters For KIC 004348313

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3299^{+97}_{-87}	$0.256^{+0.030}_{-0.033}$	$0.100^{+0.150}_{-0.300}$	$148.117^{+5.278}_{-15.834}$	$1.441^{+0.054}_{-0.286}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+12%/-13%	+150%/-300%	+4%/-11%	+4%/-20%	+18%/-9%
Source	PHO54	AST54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 004348313-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3229 ± 75	$1837.85^{+372.85}_{-447.16}$	3532^{+107}_{-99}	-2813^{+255}_{-126}	$0.126^{+0.089}_{-0.039}$
Alt.	-8 ± 3	$1047.77^{+414.66}_{-350.47}$	3528^{+113}_{-105}	-3048^{+83}_{-87}	$0.001^{+0.001}_{-0.000}$

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

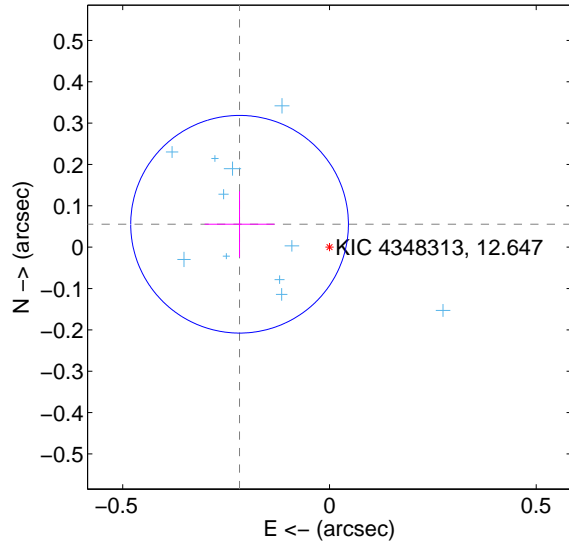
Supplemental centroid analysis for 004348313-01. Kepler magnitude: 12.65. Transit SNR 35.40

There are 11 quarters with good PRF difference image offsets

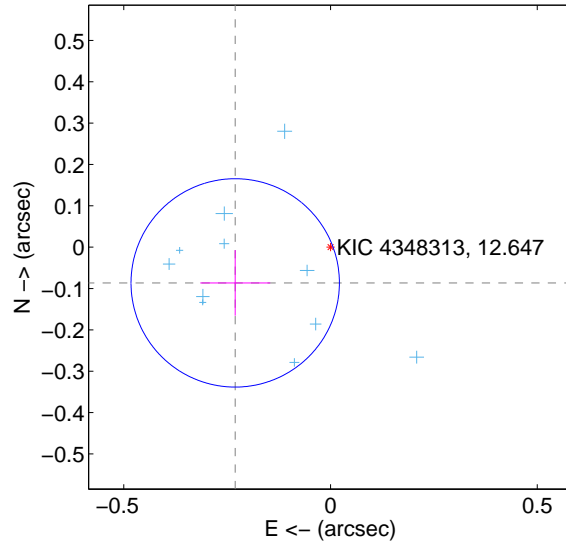
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.224 ± 0.088	2.56	0.217 ± 0.085	0.055 ± 0.080
PRF-fit source offset from KIC position	0.246 ± 0.084	2.93	0.231 ± 0.085	-0.086 ± 0.079
photometric centroid source offset	0.30 ± 0.05	5.87	0.19 ± 0.06	-0.23 ± 0.05

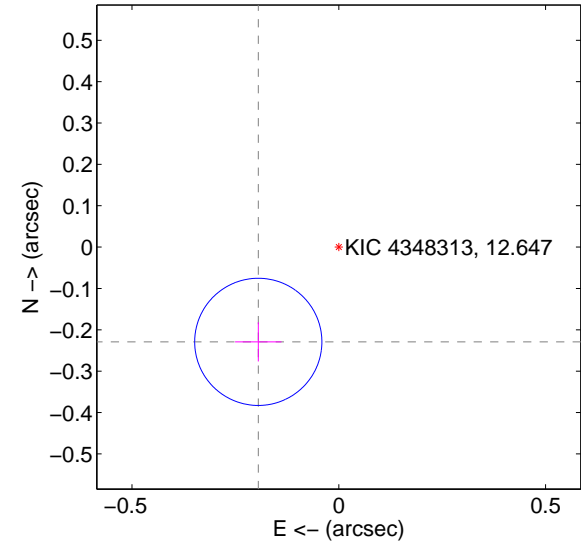
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

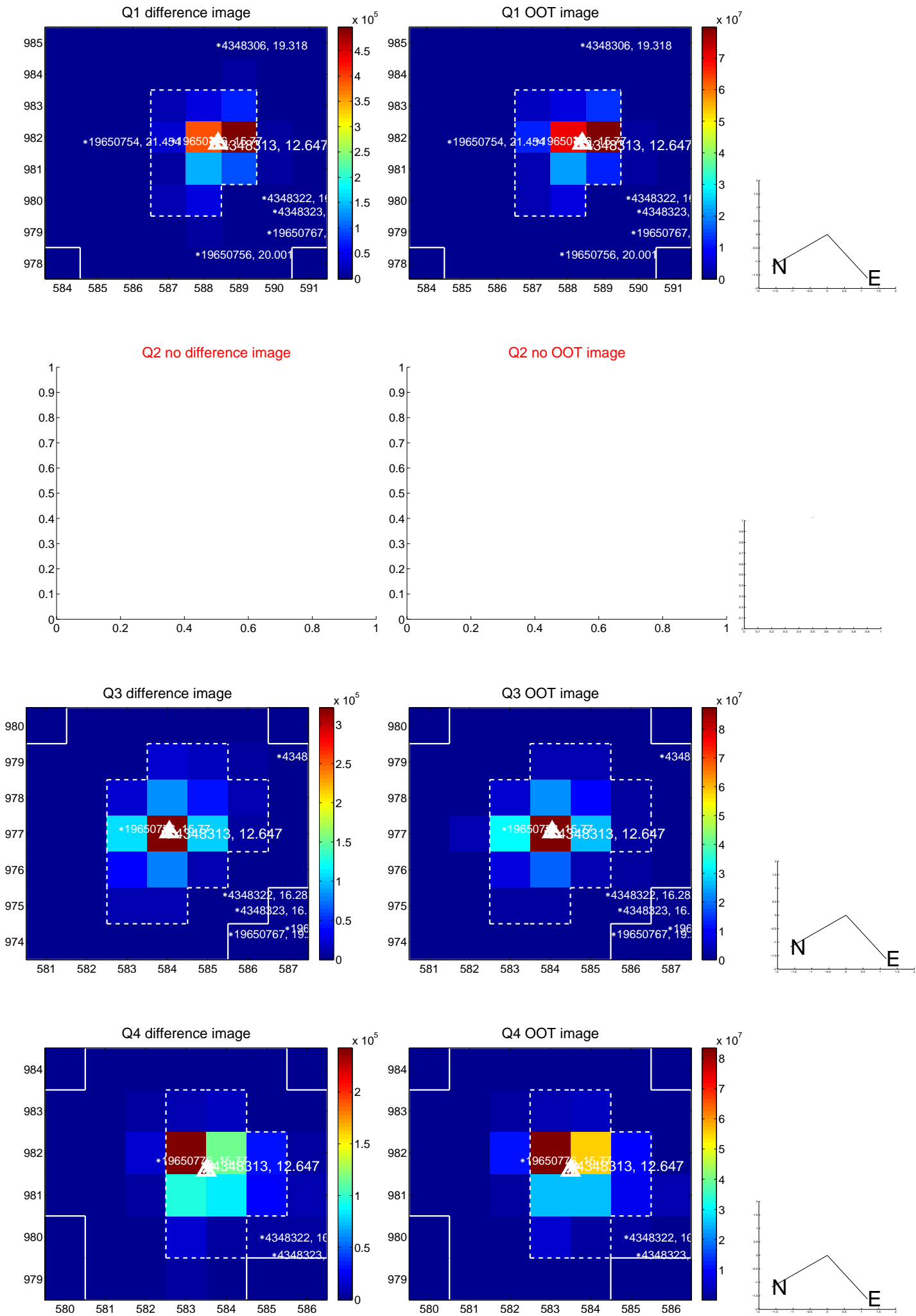


offset from photometric centroids

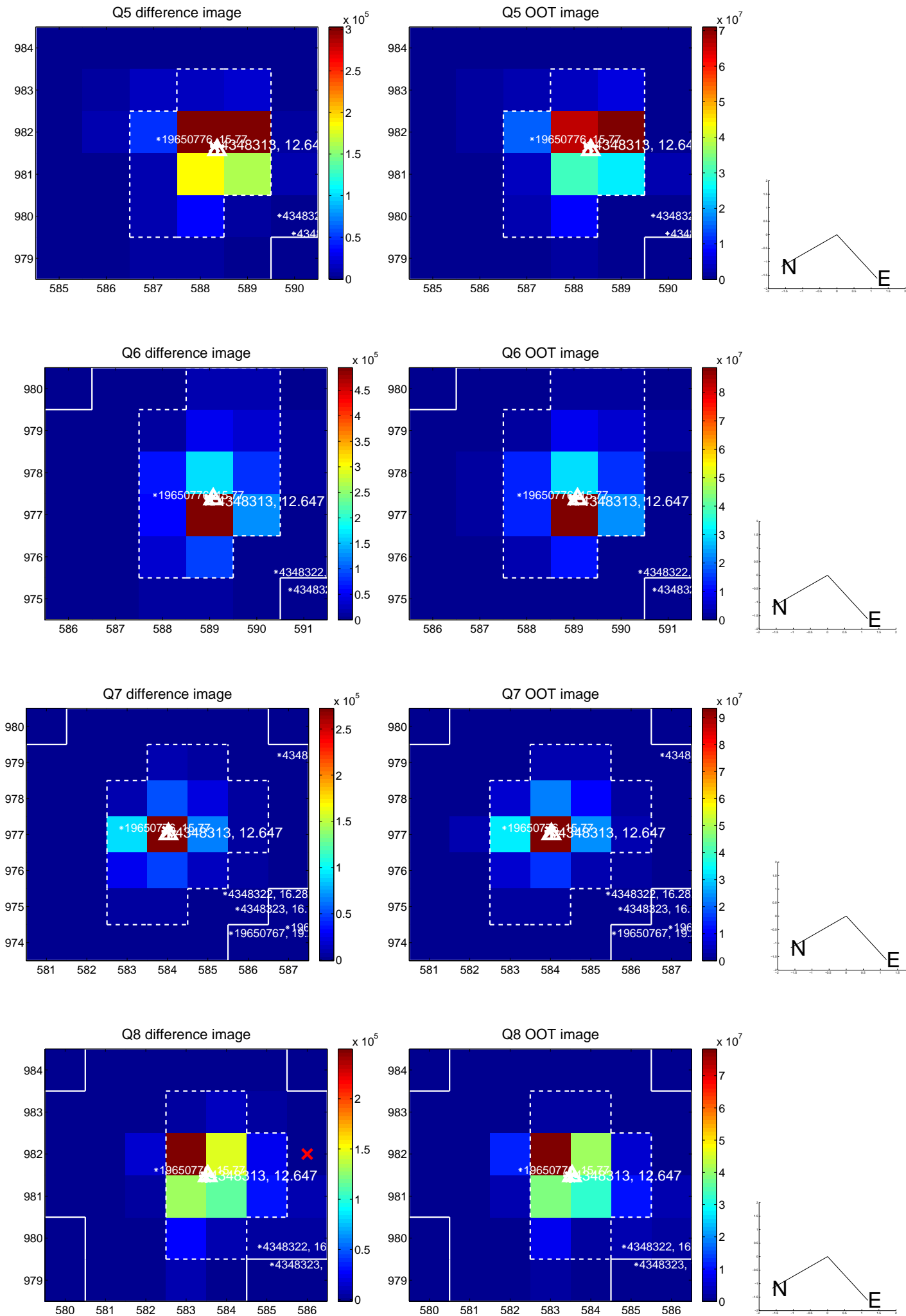


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

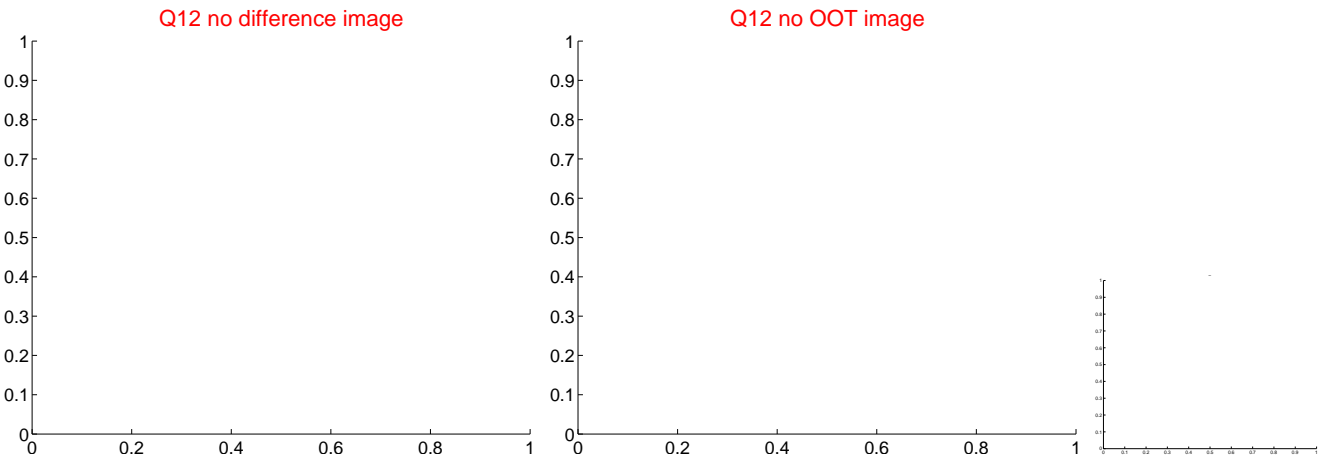
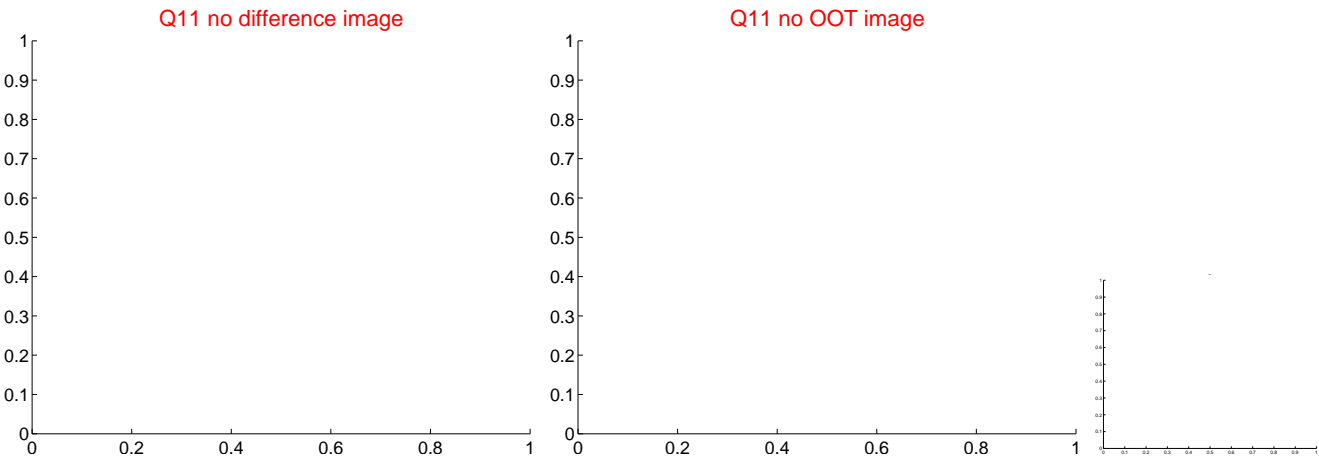
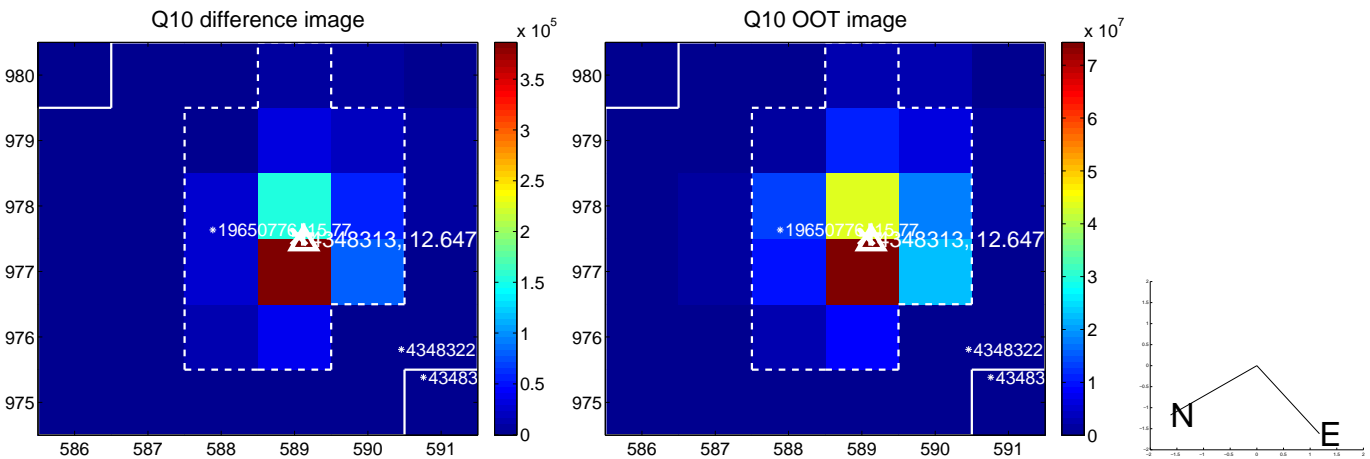
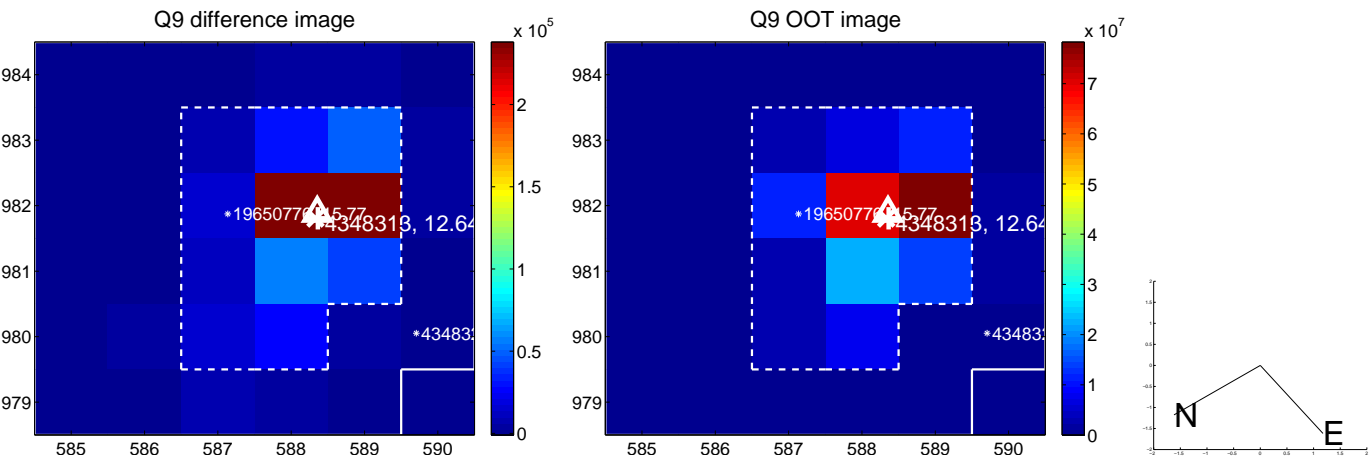
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



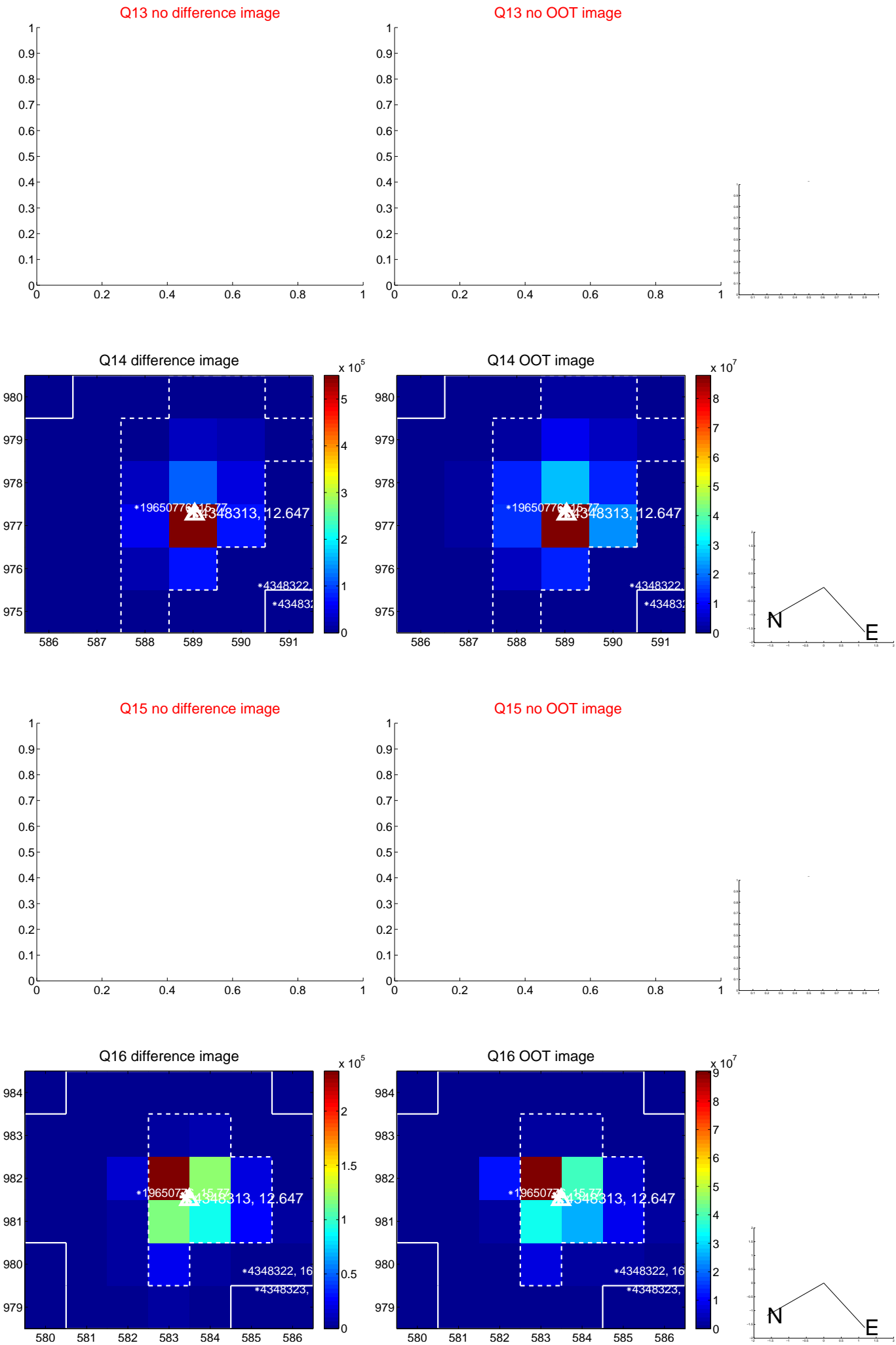
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



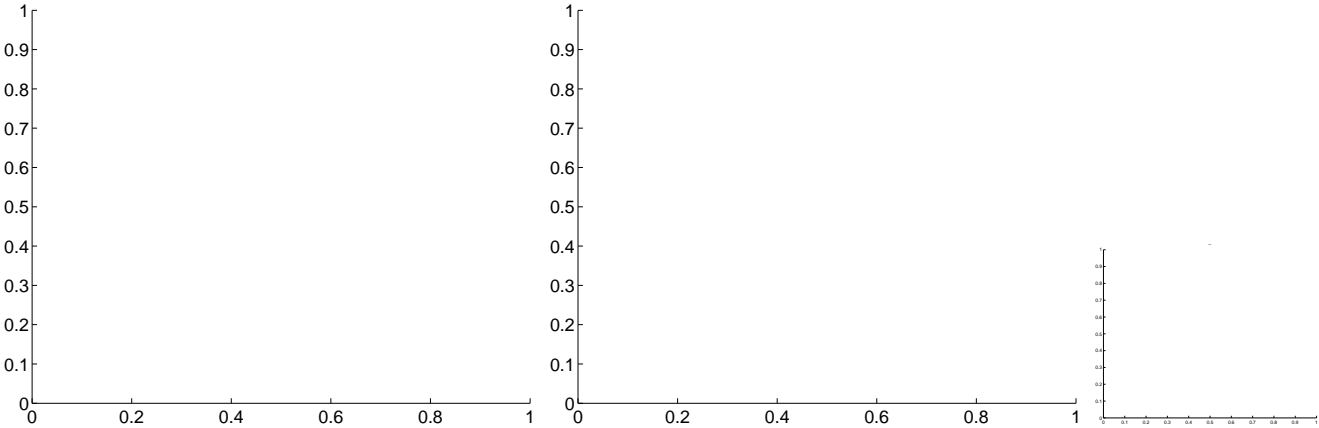
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



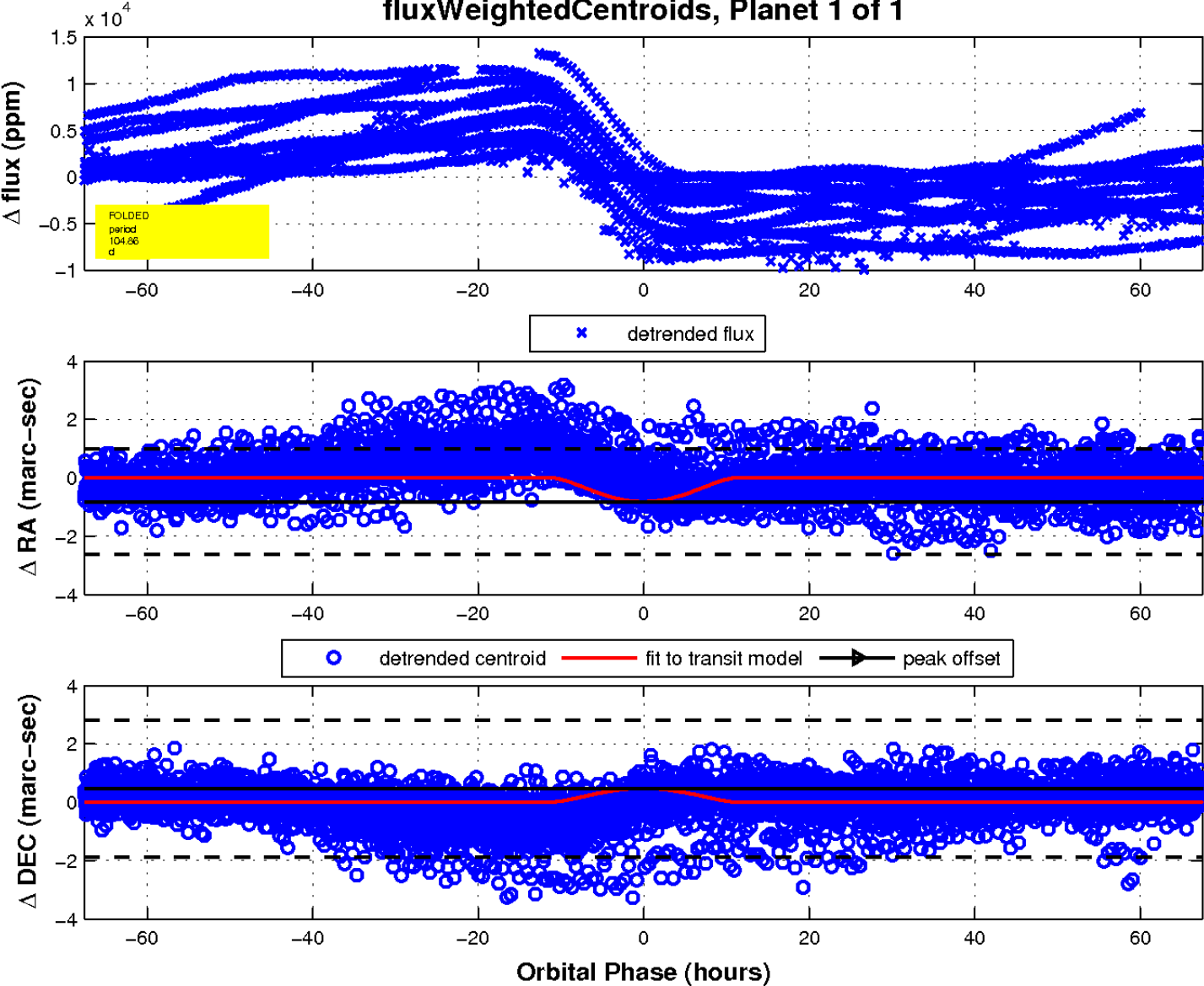
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

