

KIC 005347784

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})
005347784-01	OBS	6567.01	4.792027	134.012642	112137.4	6.849	10096.8	7351.0	2.27	5605	117.61	1289.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005347784-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—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.

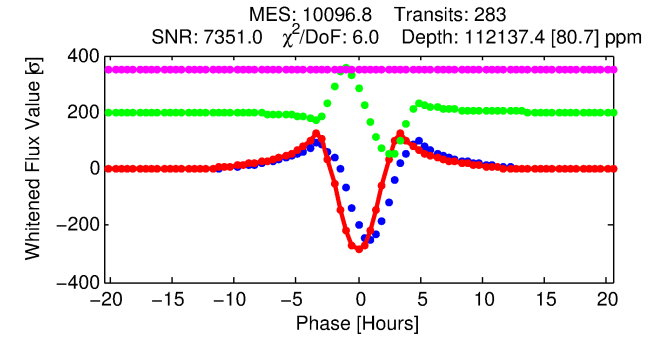
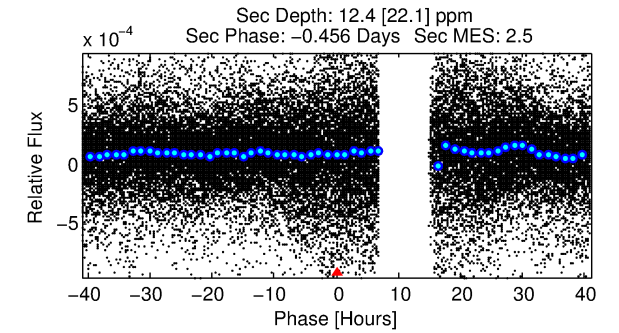
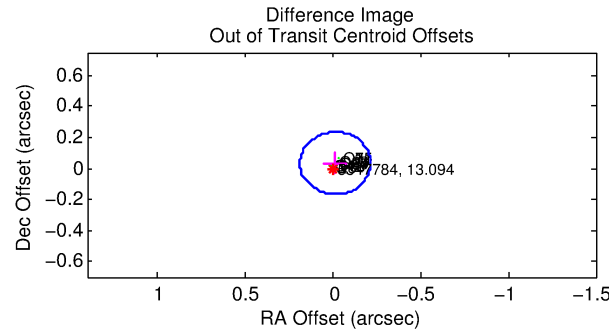
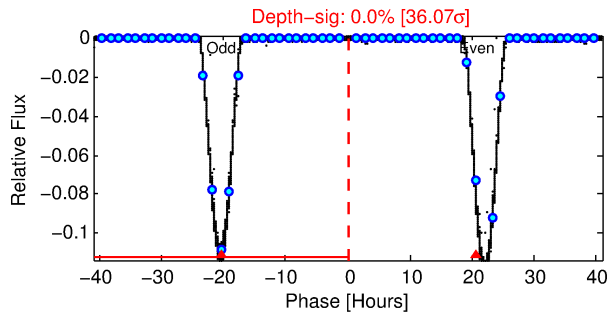
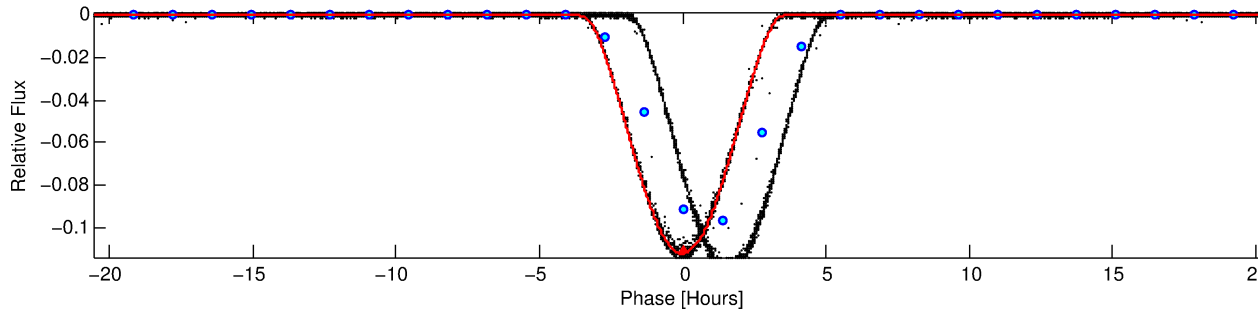
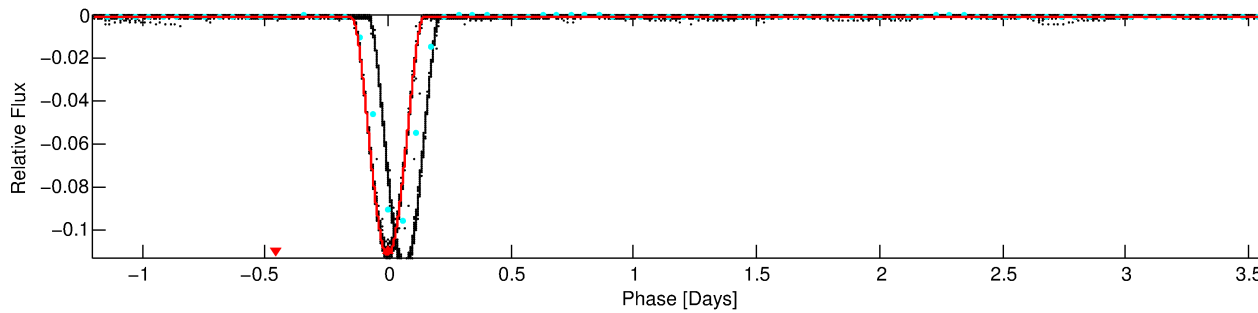
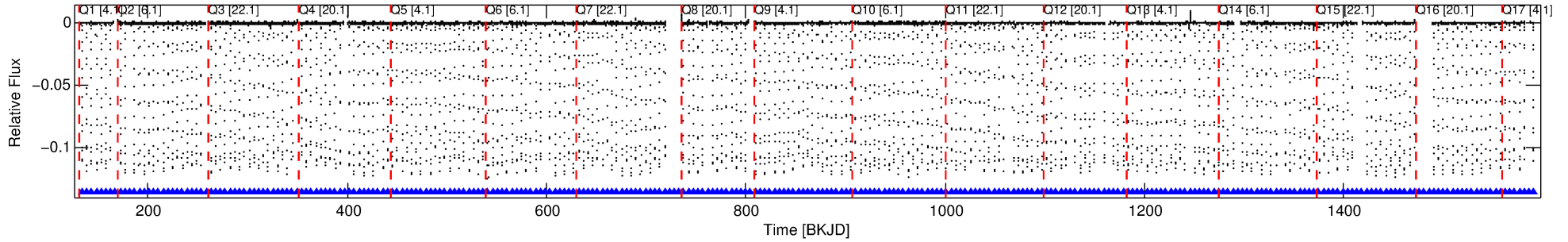
Ephemeris Match Information For 005347784-01

No Significant Match Found

DV One-Page Summary

KIC: 5347784 Candidate: 1 of 1 Period: 4.792 d
KOI: K06567 Corr: No Ephemeris Match

Kp: 13.09 R*: 2.27 Rs Teff: 5605.0 K Logg: 3.81 Fe/H: -0.040



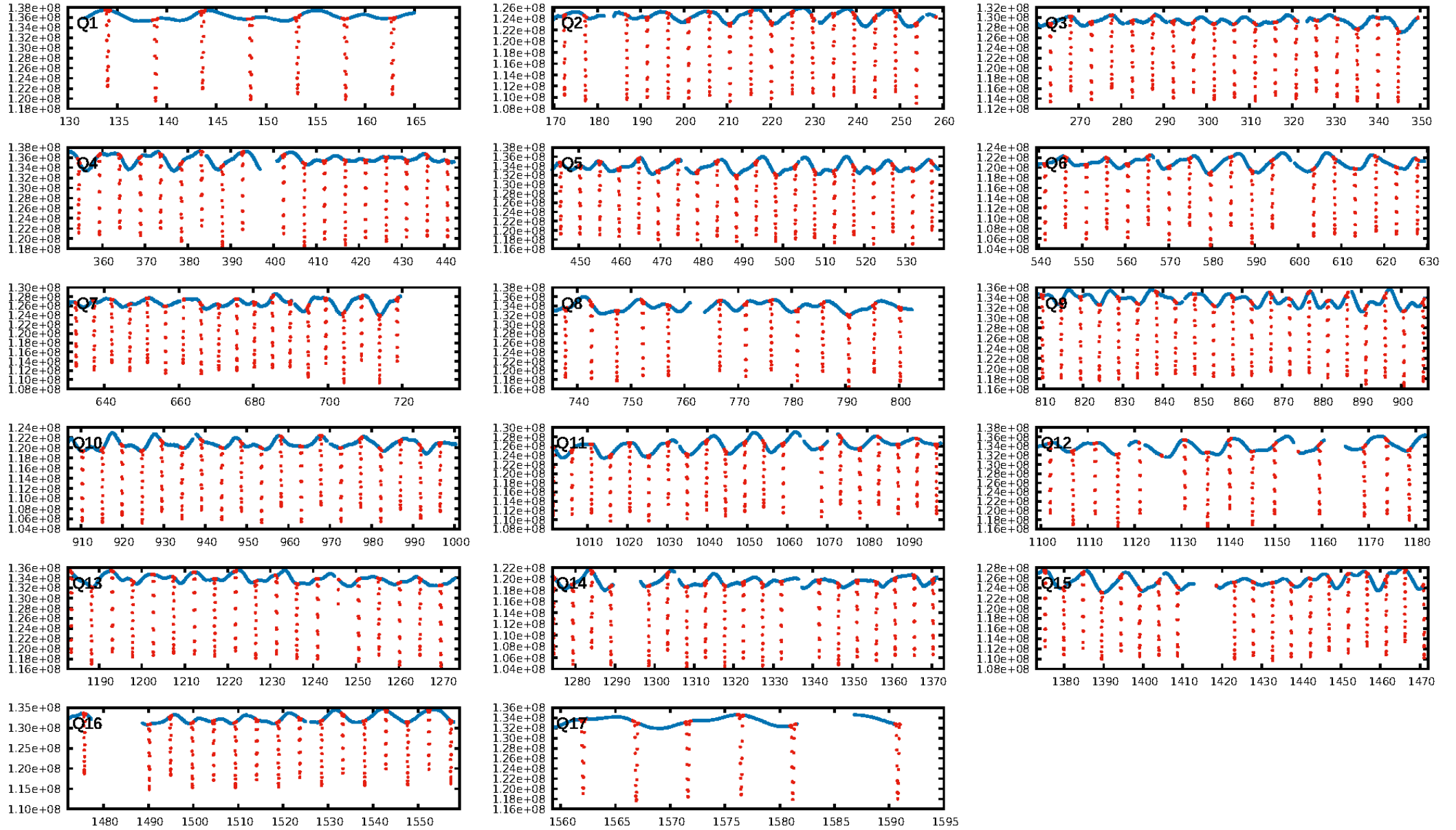
DV Fit Results:

Period = 4.79203 [0.00000] d
Epoch = 134.0126 [0.0000] BKJD
Rp/R* = 0.4737 [0.0224]
a/R* = 6.20 [0.02]
b = 0.93 [0.03]
Seff = 1289.71 [1308.57]
Teq = 1528 [388] K
Rp = 117.61 [67.18] Re
a = 0.0596 [0.0358] AU
Ag = 0.00 [0.00] [-278.48σ]
Teffp = 483 [216] K [-2.35σ]

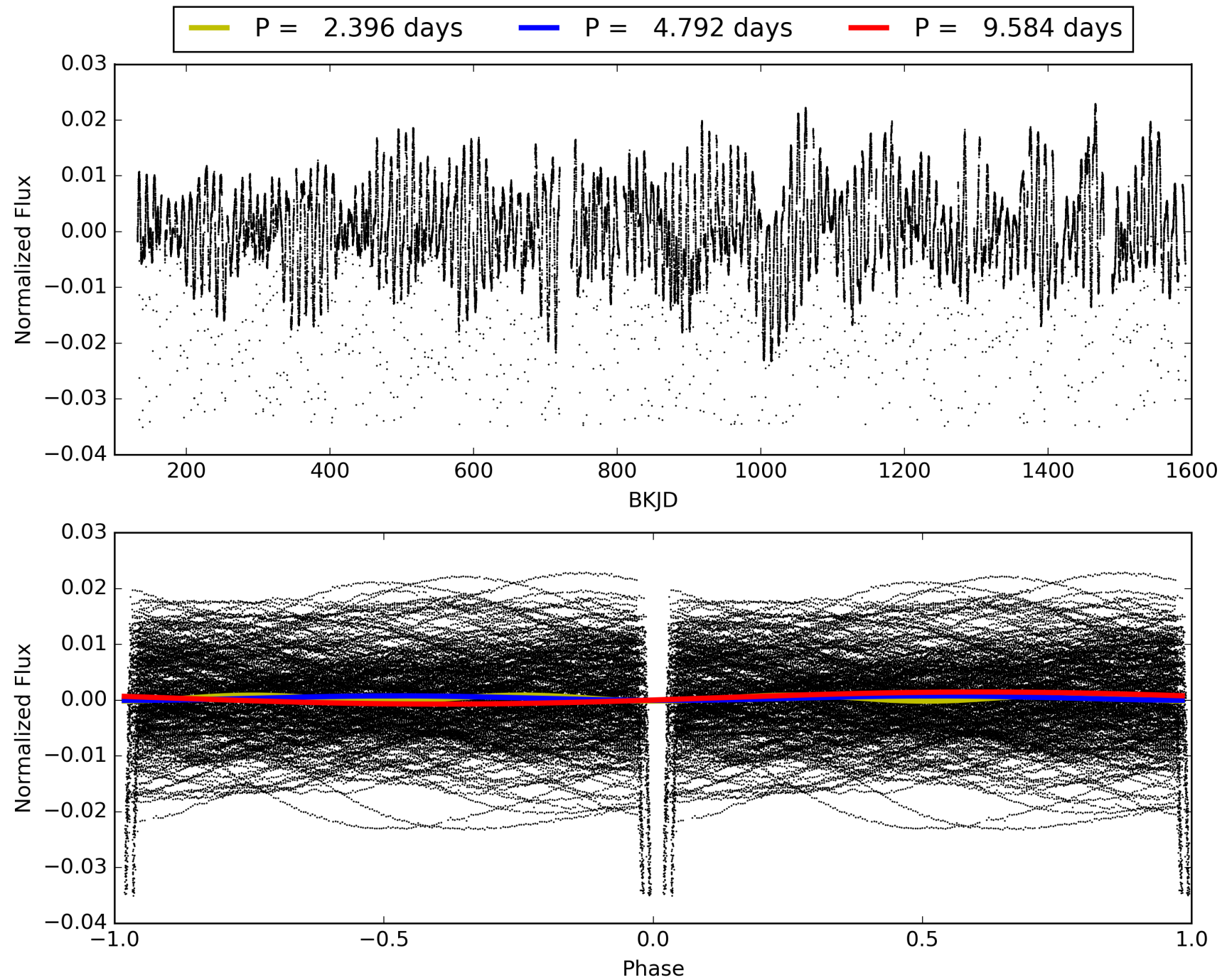
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [270/270]
GhostDiagnostic-chr: 2.435
Centroid-sig: 0.0%
Centroid-so: 0.035 arcsec [56.36σ]
OotOffset-rm: 0.037 arcsec [0.56σ]
KicOffset-rm: 0.096 arcsec [1.34σ]
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 005347784-01, PDC Light Curves

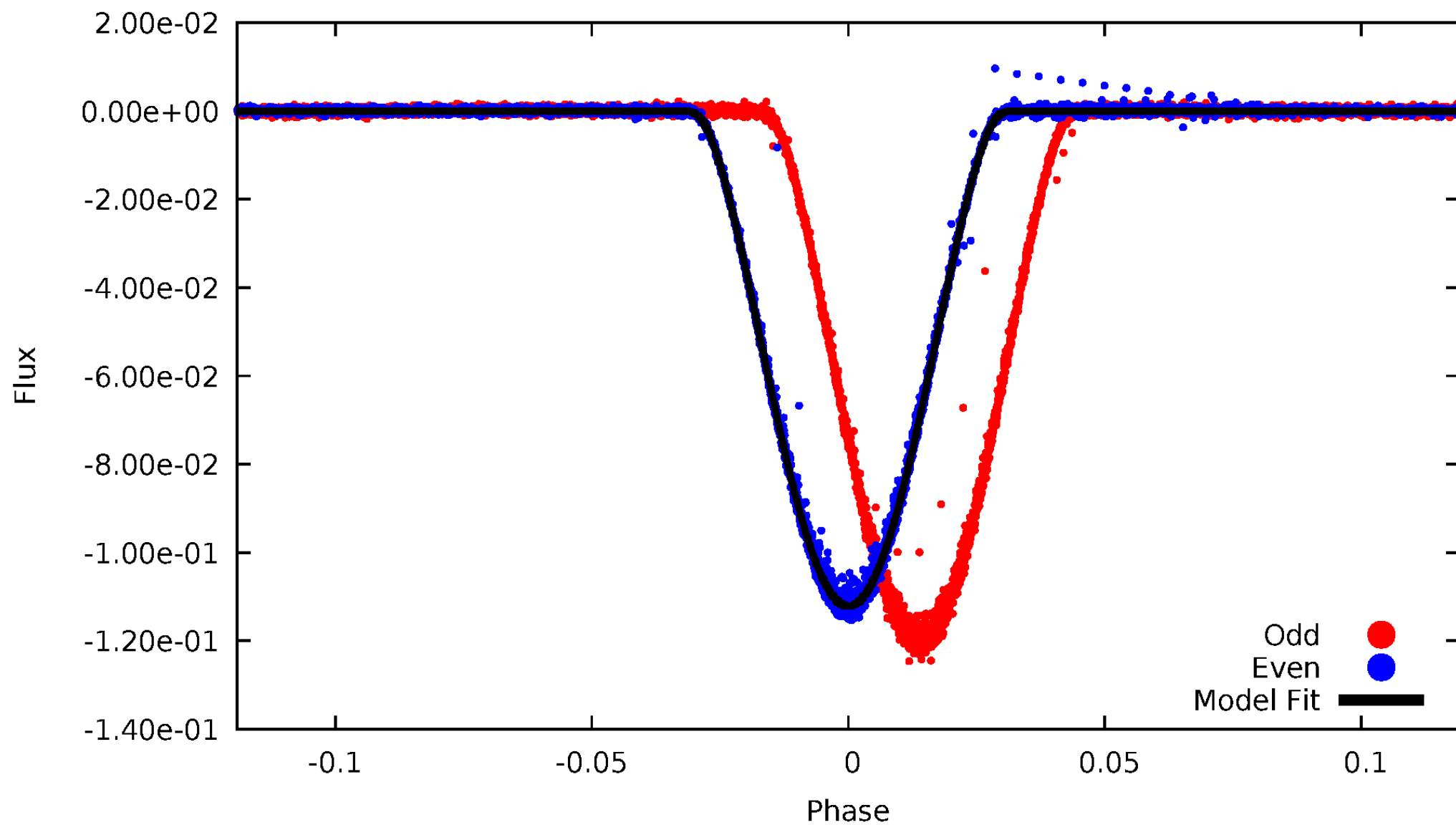


TCE 005347784-01



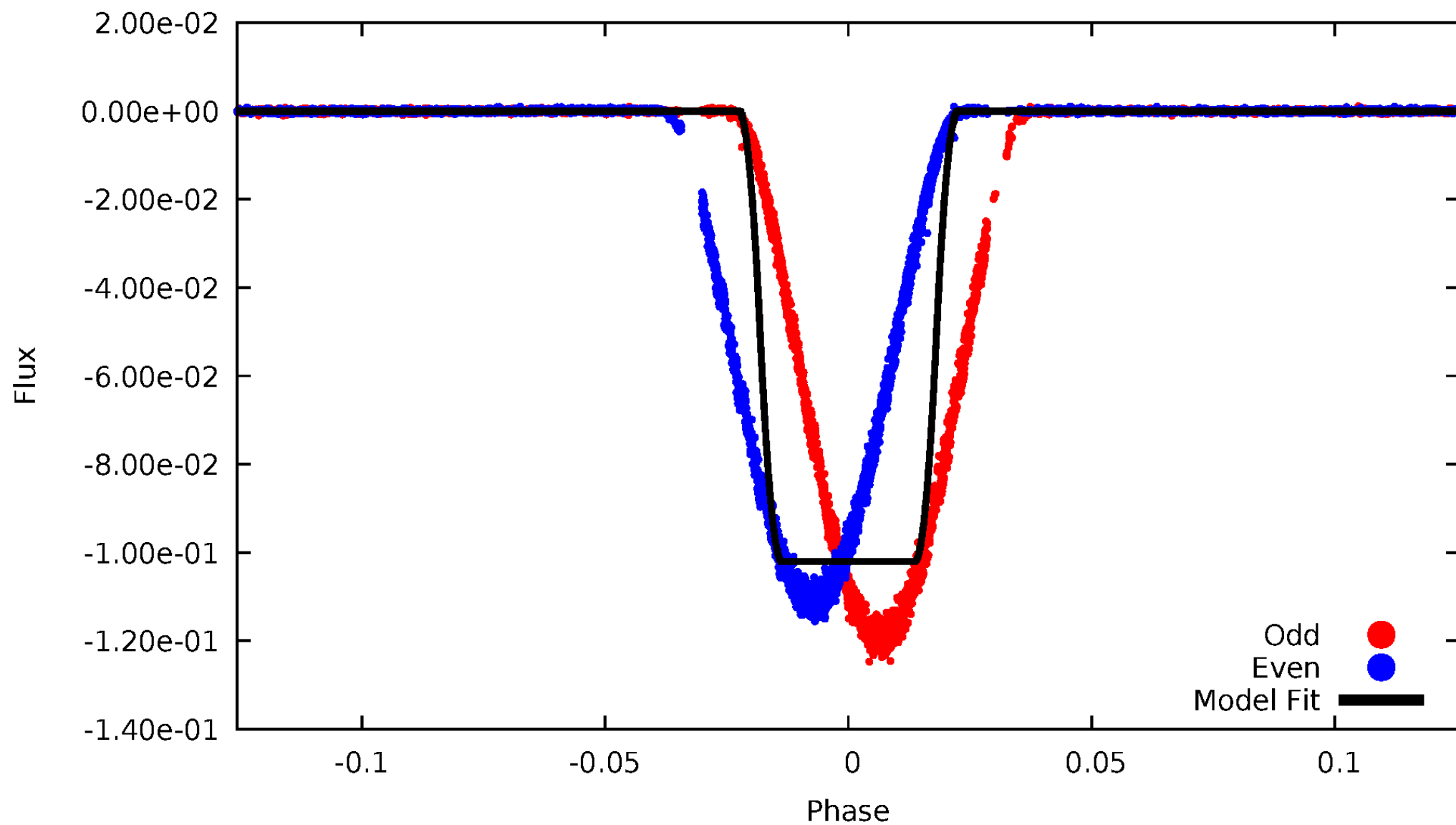
DV Odd/Even

TCE 005347784-01



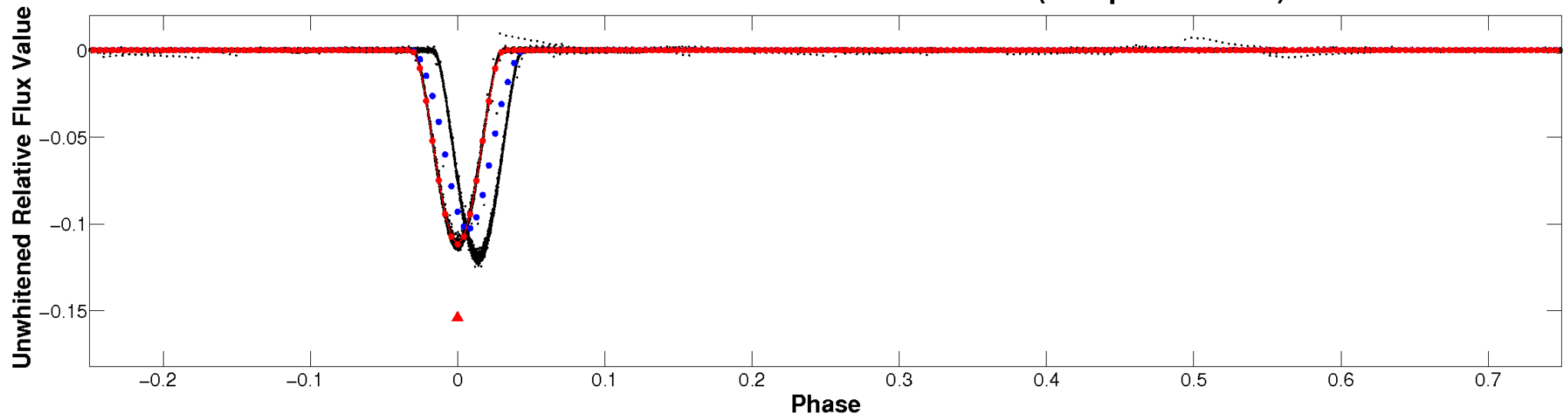
ALT Odd/Even

TCE 005347784-01

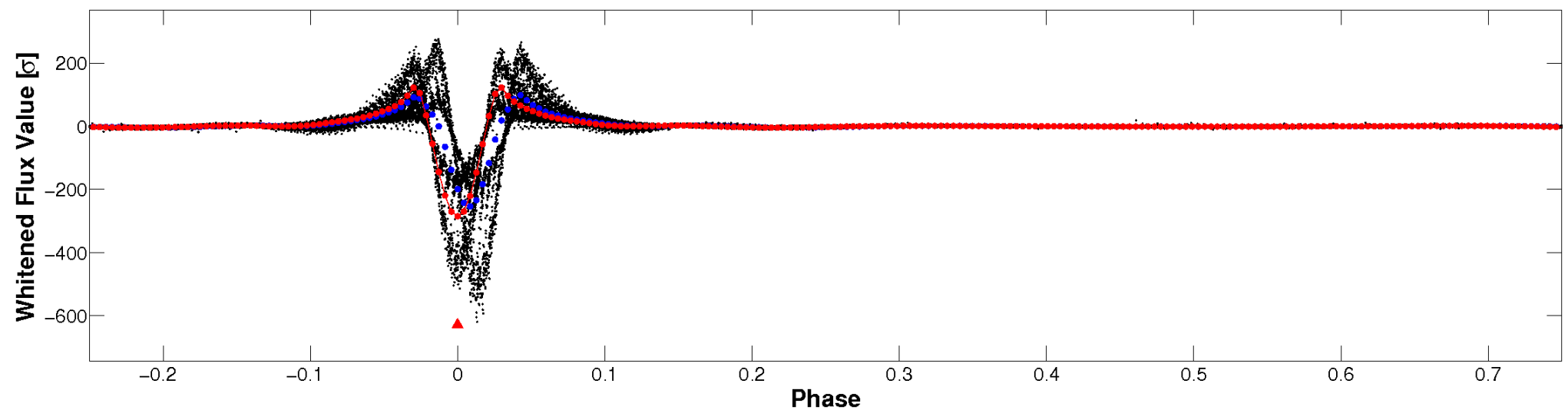


Non-Whitened Vs. Whitened Light Curve

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

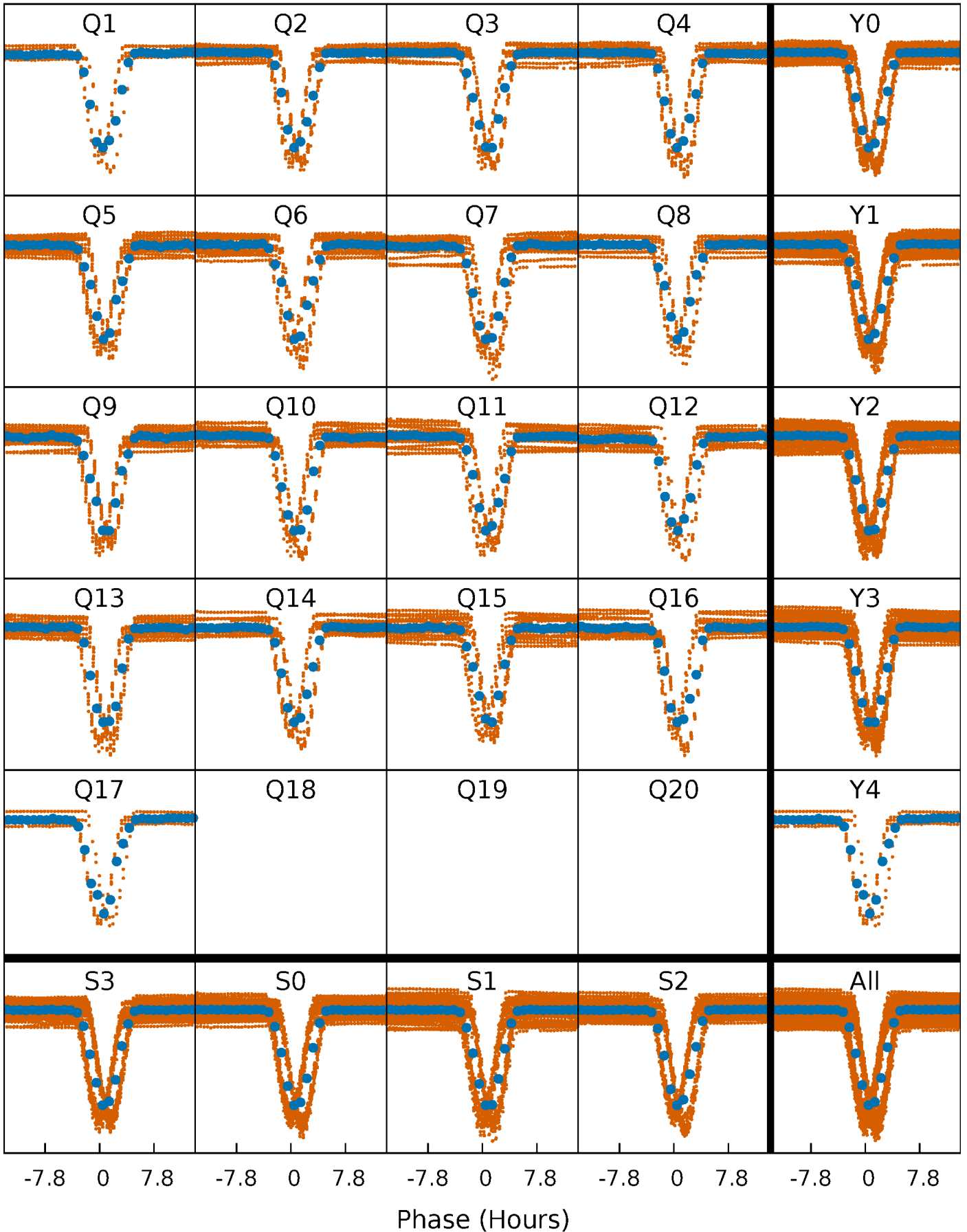


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



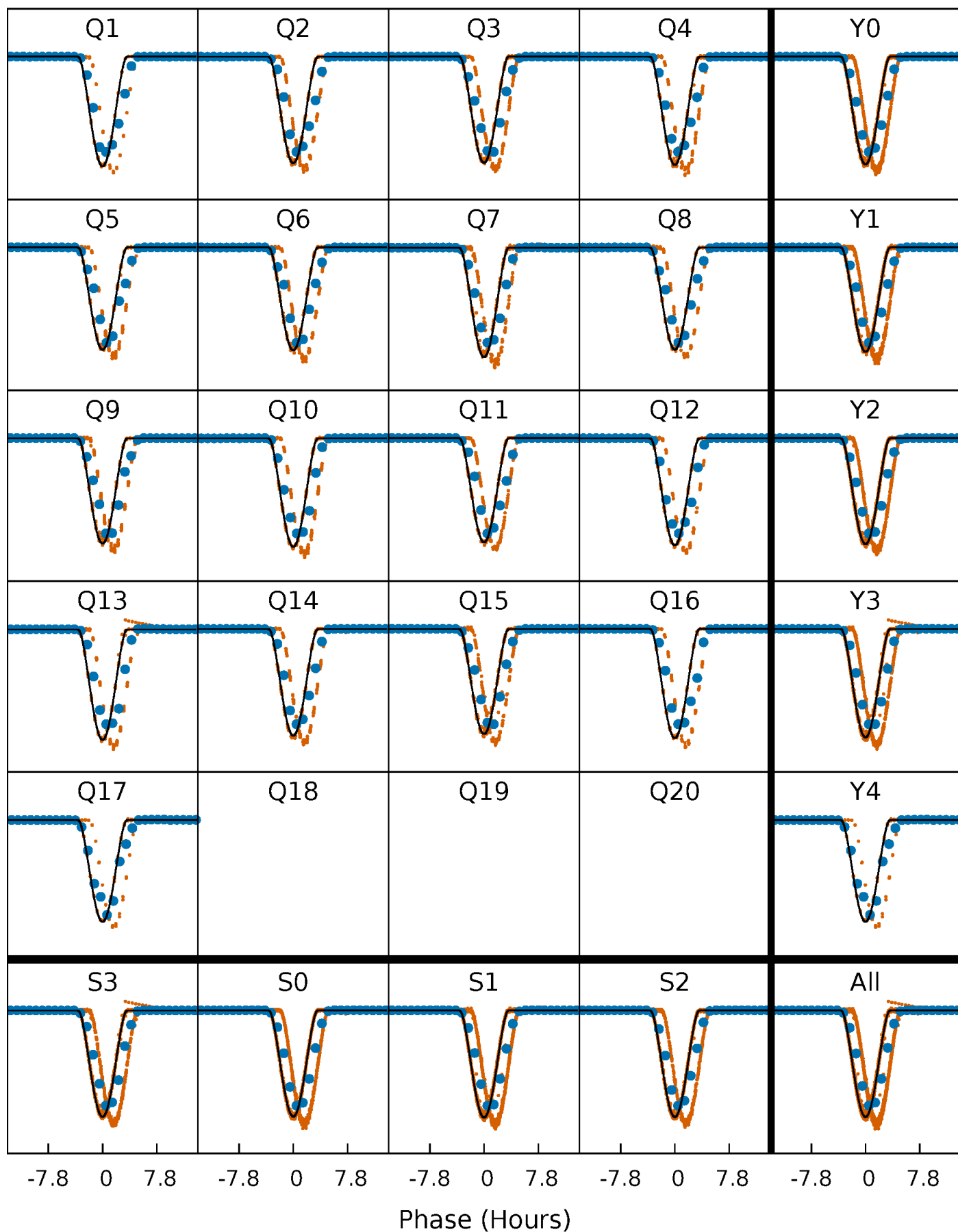
PDC Quarter-Phased Transit Curves

TCE 005347784-01 P= 4.792027 Days $T_0=134.012642$ (BKJD)



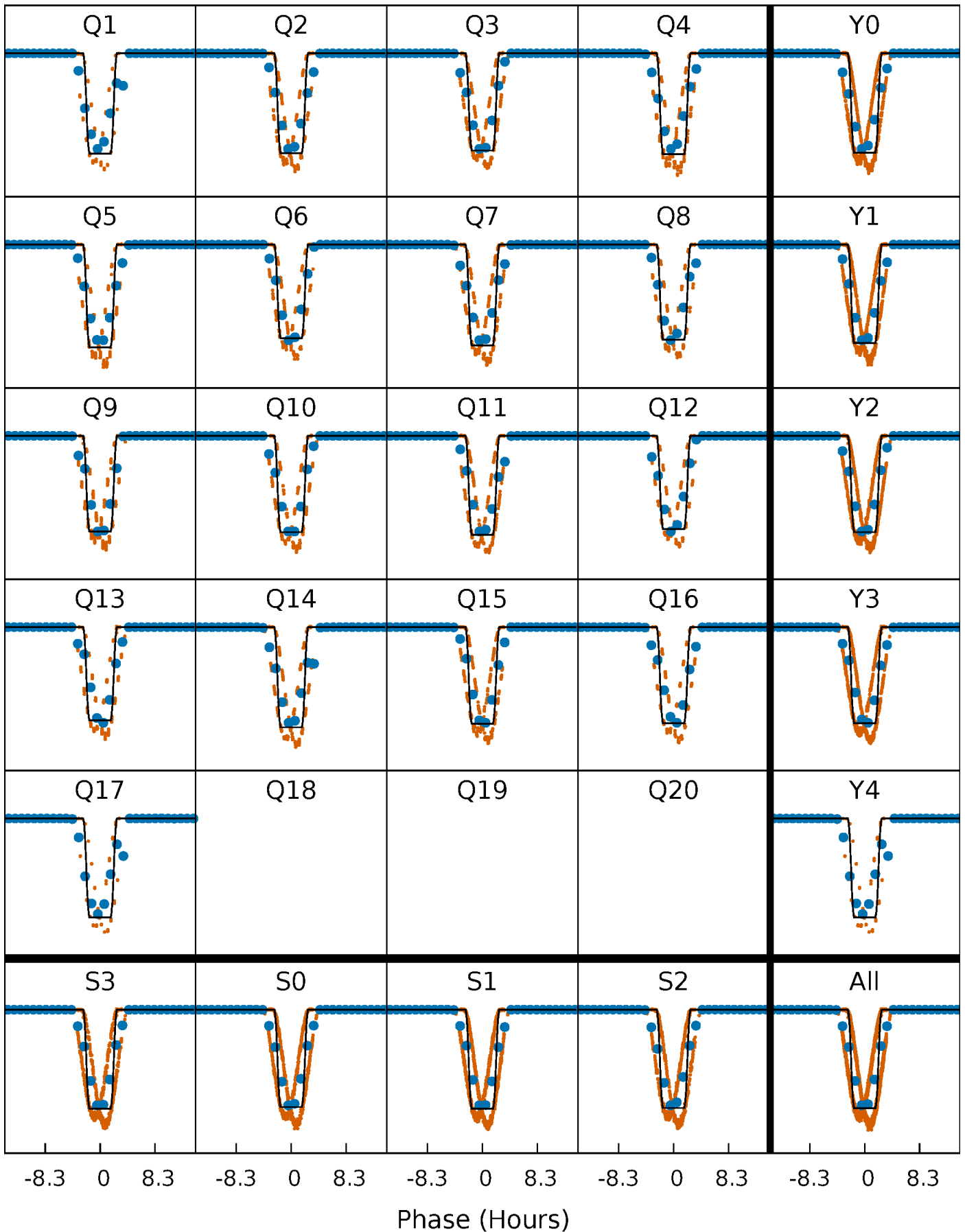
DV Quarter-Phased Transit Curves

TCE 005347784-01 P= 4.792027 Days $T_0=134.012642$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

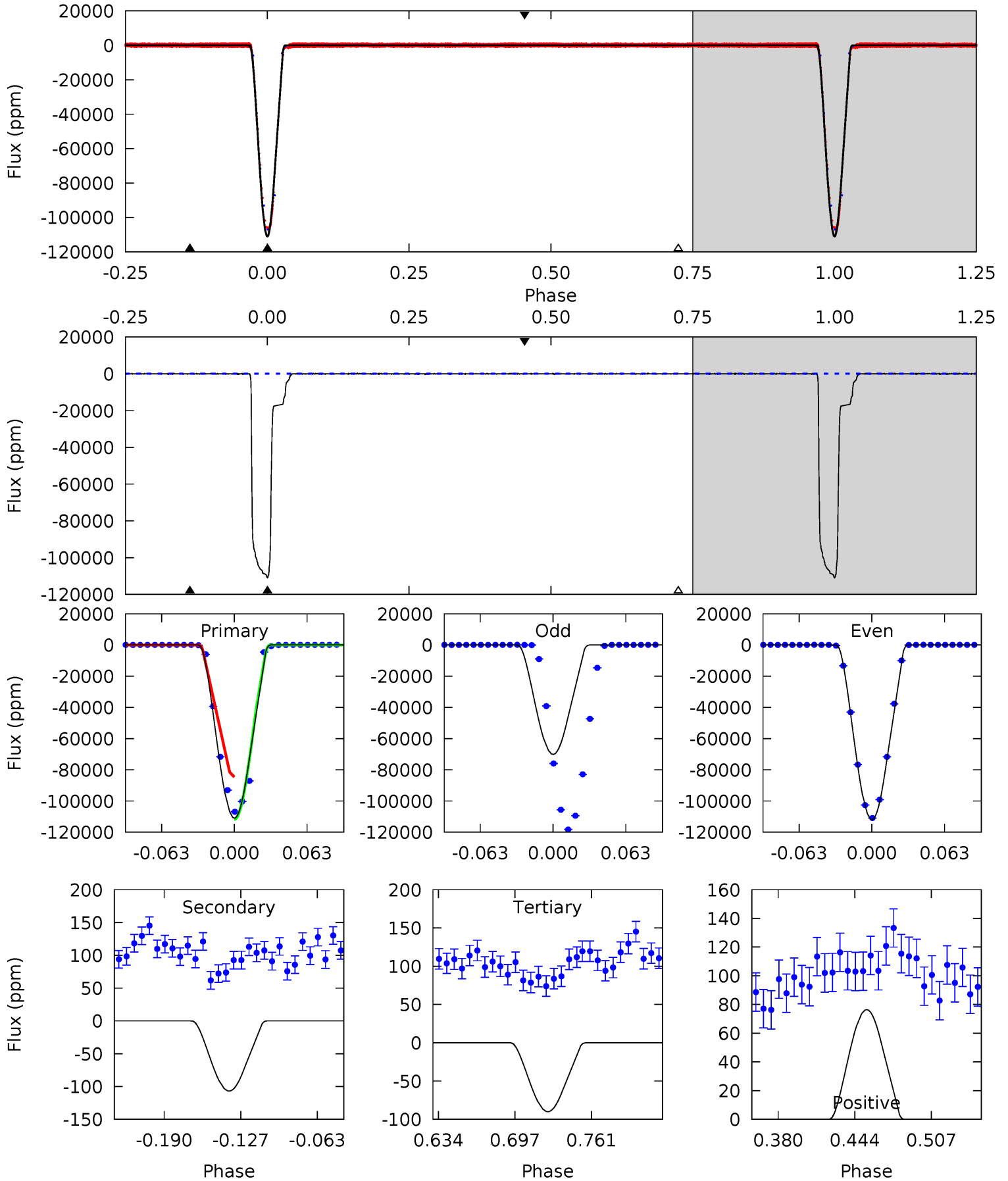
TCE 005347784-01 P= 4.792008 Days $T_0=134.050259$ (BKJD)



DV Model-Shift Uniqueness Test

005347784-01, P = 4.792027 Days, E = 129.220615 Days

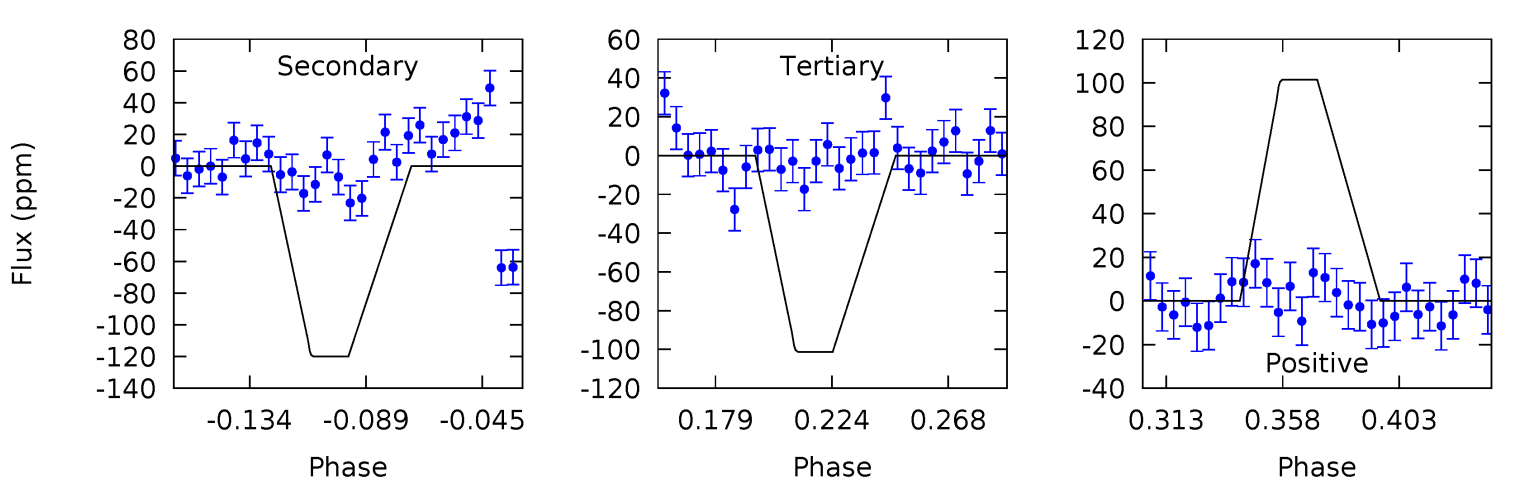
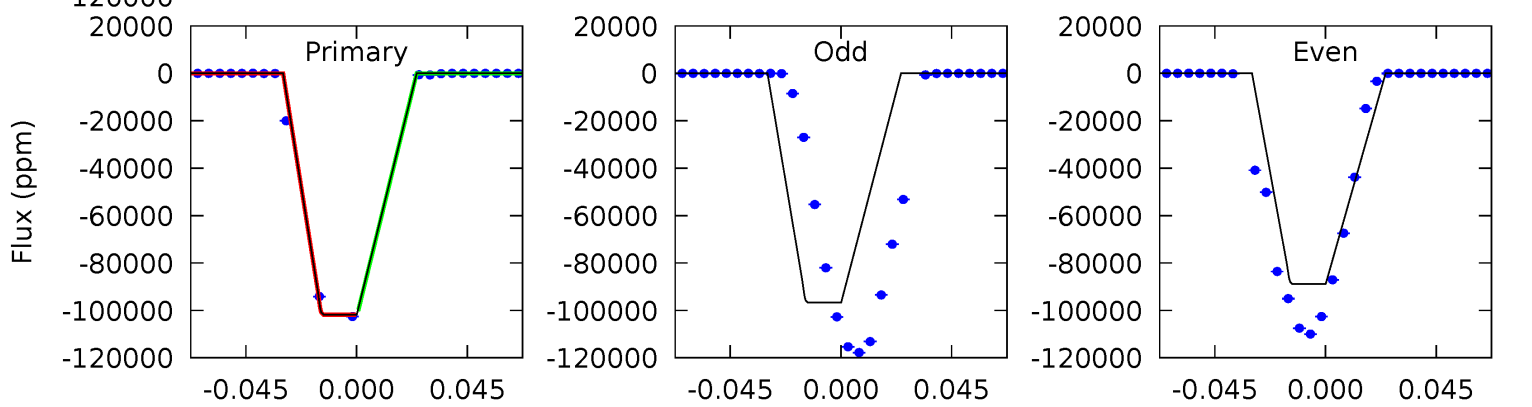
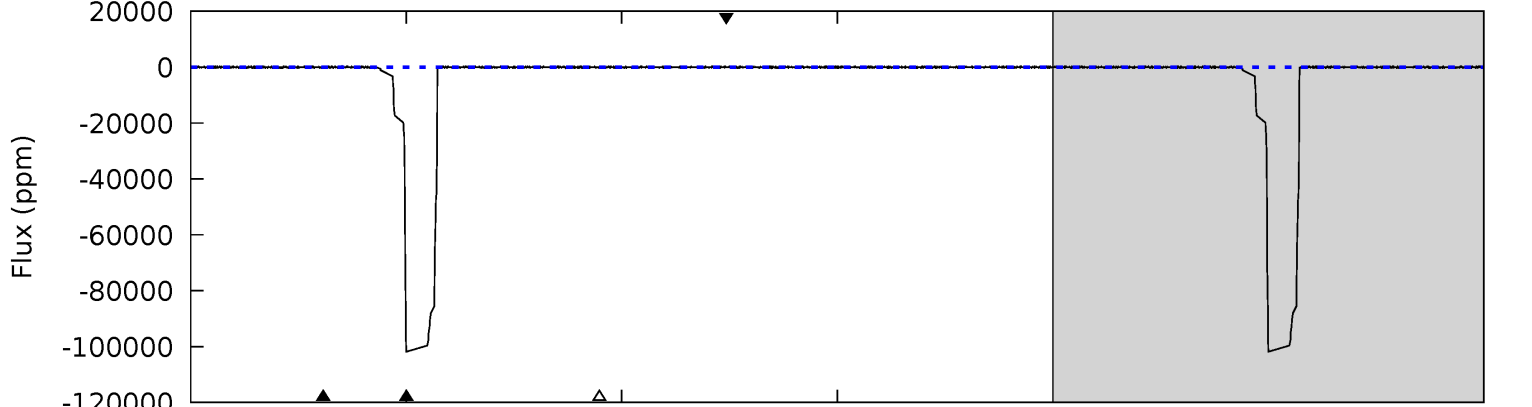
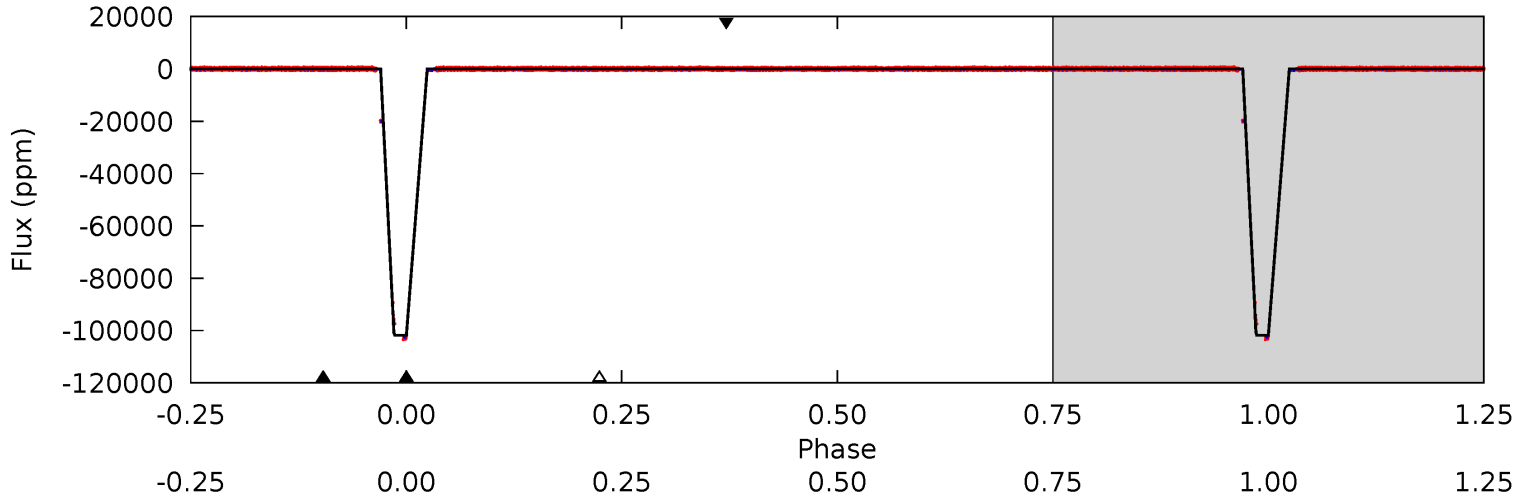
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7476	7.20	6.07	5.15	4.66	1.86	2.20	7470	7471	1.14	2.05	3516	0.94	0.00	791.9



Alt Model-Shift Uniqueness Test

005347784-01, P = 4.792008 Days, E = 129.258251 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3716	4.38	3.69	3.70	4.73	2.01	1.01	3712	3712	0.69	0.68	527.1	1.00	0.00	0



Stellar Parameters For KIC 005347784

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5605^{+168}_{-151}	$3.813^{+0.608}_{-0.152}$	$-0.040^{+0.300}_{-0.250}$	$2.275^{+0.555}_{-1.295}$	$1.226^{+0.136}_{-0.318}$	$0.147^{+1.156}_{-0.059}$
	+3%/-3%	+16%/-4%	+750%/-625%	+24%/-57%	+11%/-26%	+789%/-40%
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 005347784-01 / KOI 6567.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-107 ± 15	$112.79^{+20.57}_{-31.33}$	2096^{+175}_{-291}	-2530^{+185}_{-112}	$0.017^{+0.014}_{-0.005}$
Alt.	-120 ± 27	$73.91^{+16.23}_{-21.72}$	2076^{+192}_{-305}	-2487^{+215}_{-133}	$0.043^{+0.036}_{-0.016}$

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

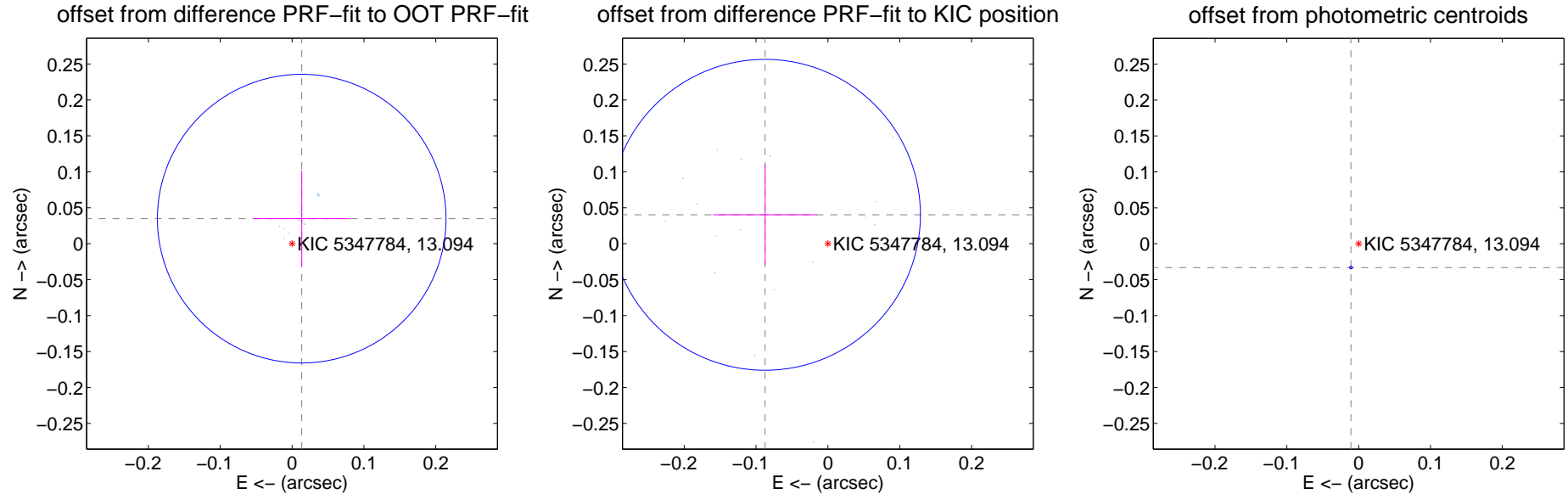
DV Centroid Data

Supplemental centroid analysis for 005347784-01. Kepler magnitude: 13.09. Transit SNR 7350.96

There are 17 quarters with good PRF difference image offsets

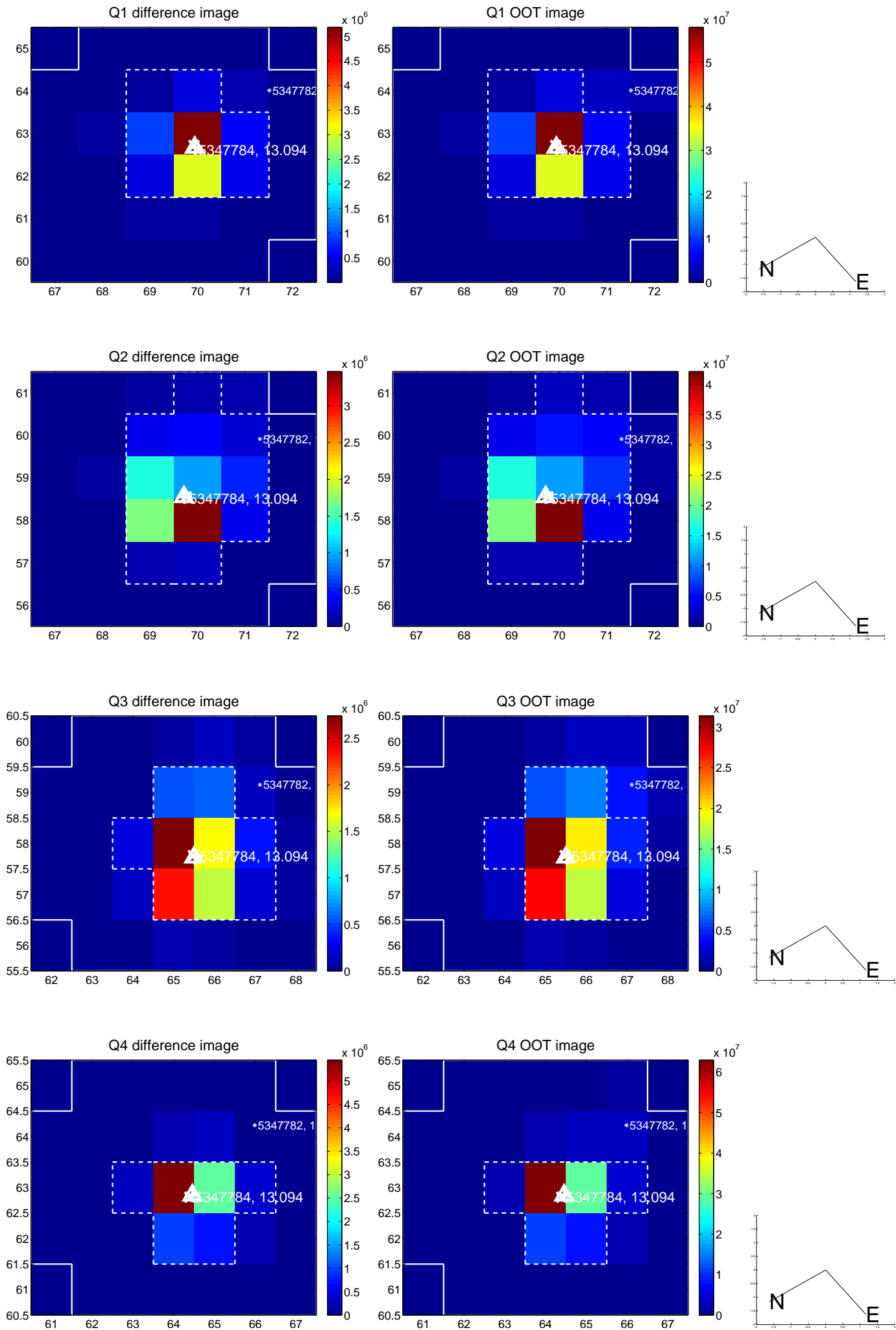
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.037 ± 0.067	0.56	-0.013 ± 0.067	0.035 ± 0.067
PRF-fit source offset from KIC position	0.096 ± 0.072	1.34	0.087 ± 0.073	0.040 ± 0.070
photometric centroid source offset	0.03 ± 0.00	56.36	0.01 ± 0.00	-0.03 ± 0.00

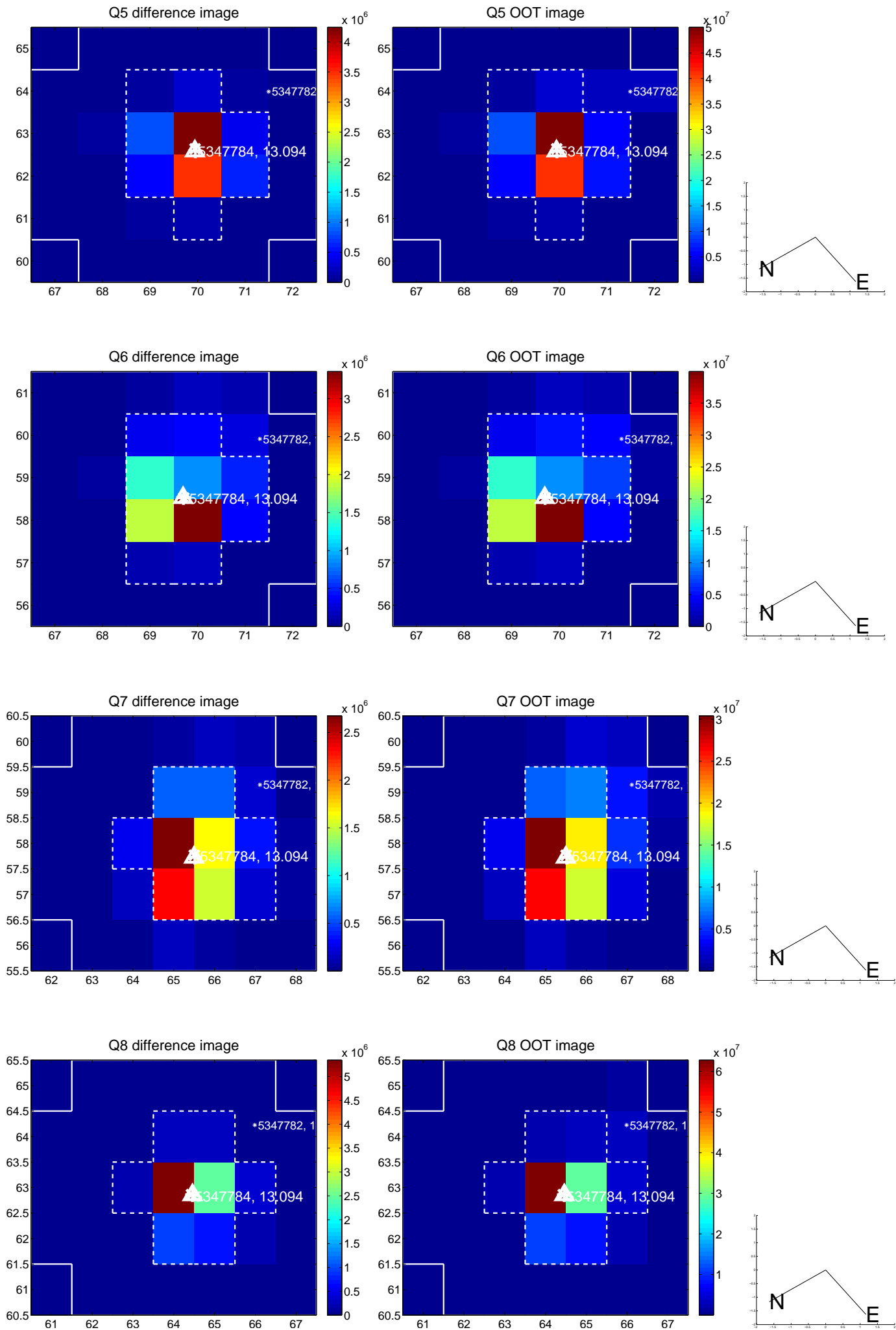


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

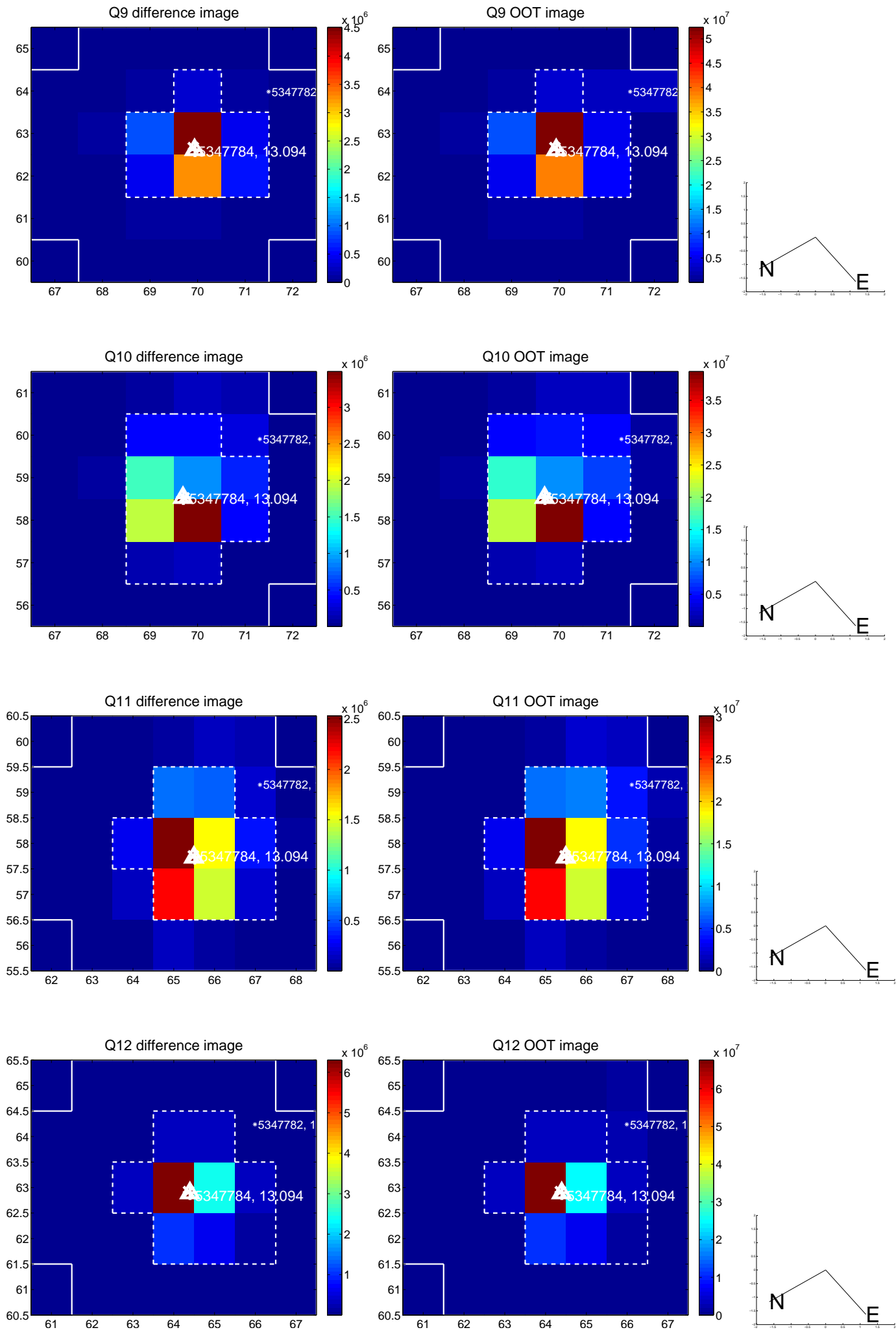
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



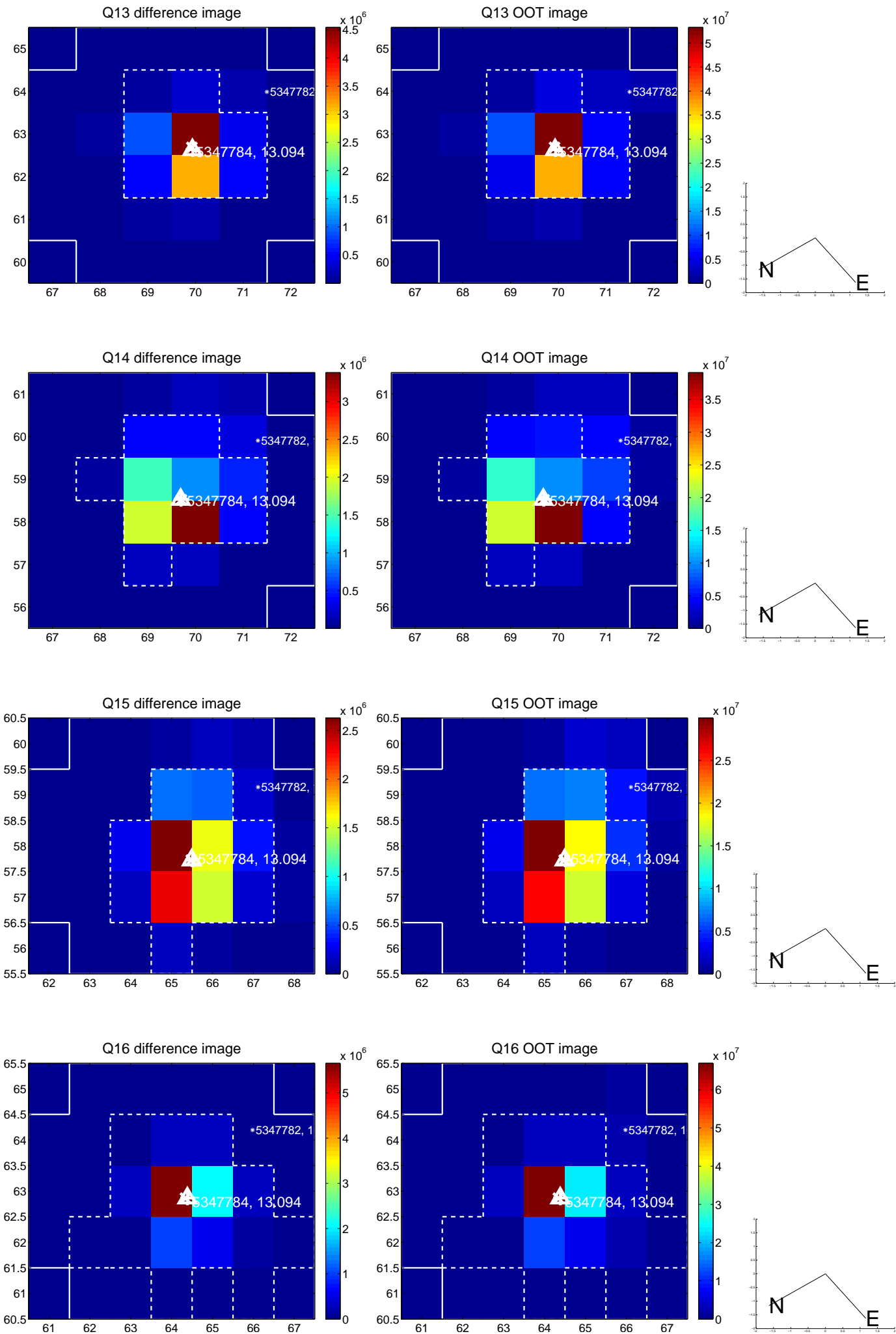
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



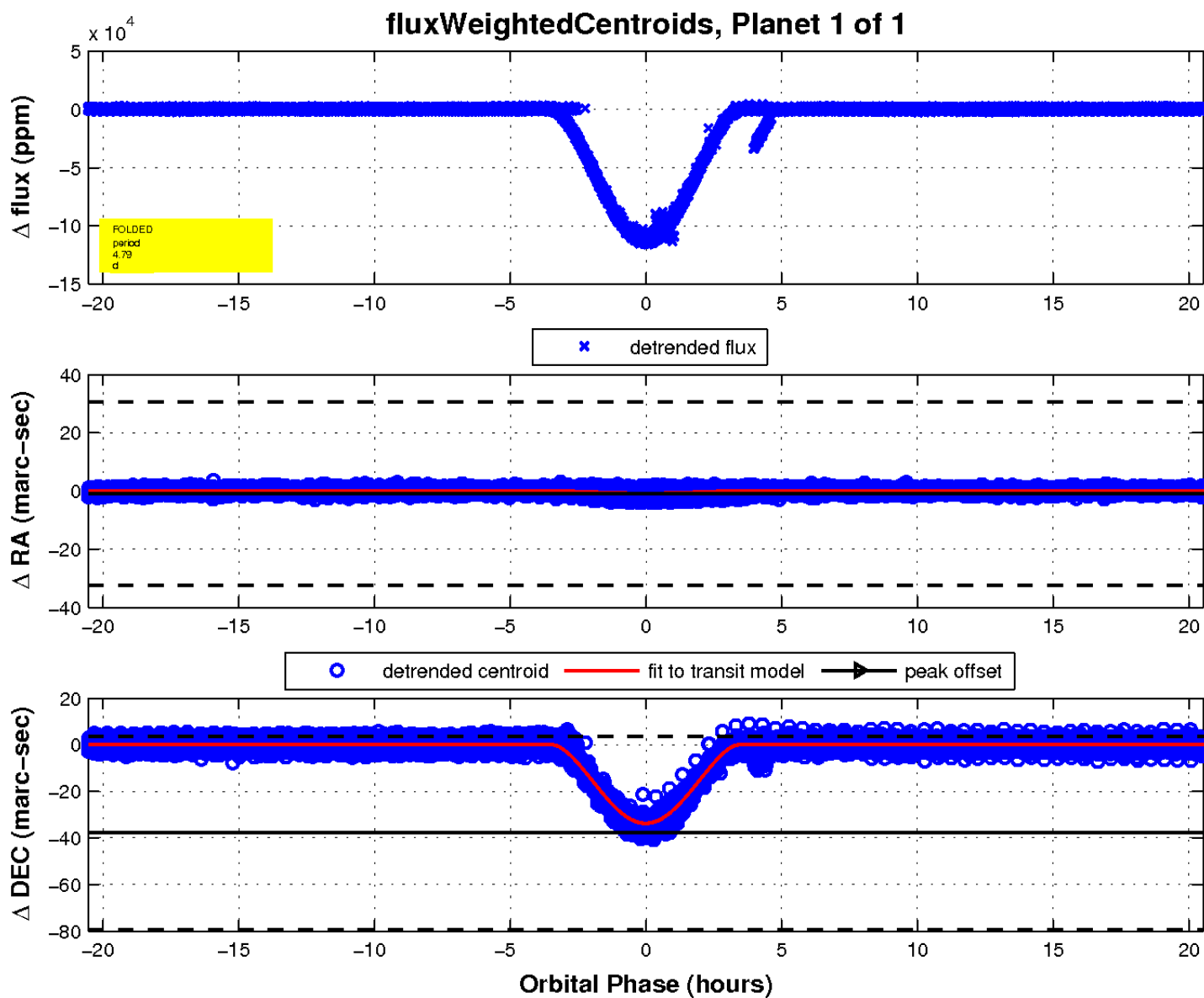
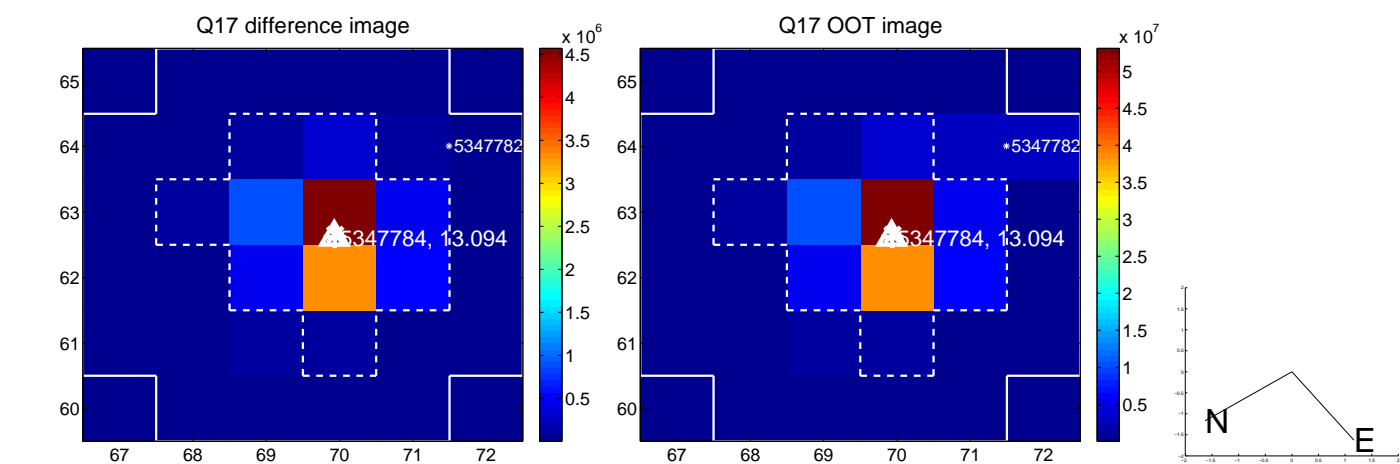
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UKIRT Image

Declination

