

KIC 008355204

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})
008355204-01	OBS	No	575.147404	251.297557	289.7	13.957	7.6	8.2	0.96	6200	1.74	0.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008355204-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

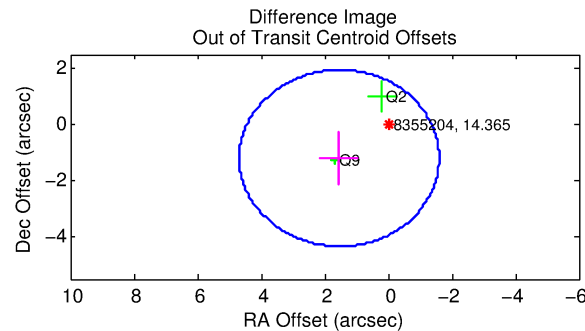
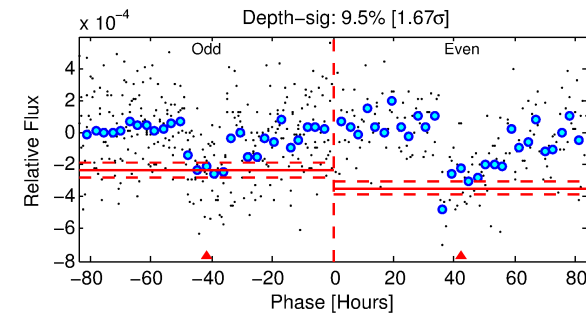
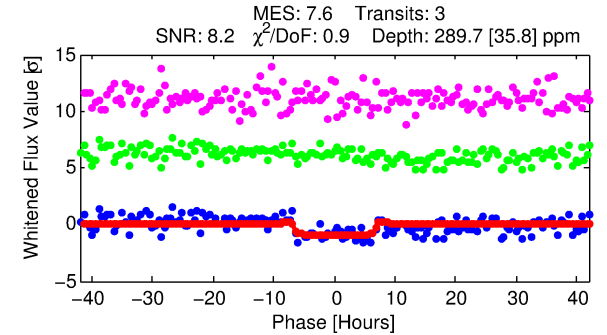
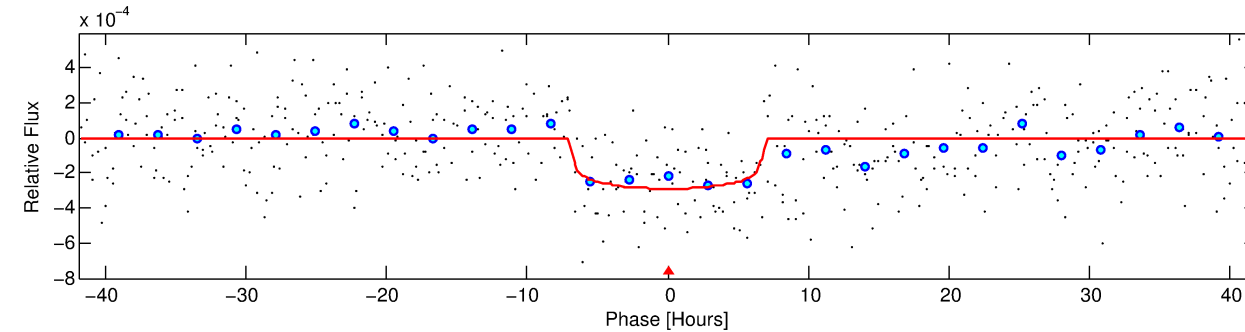
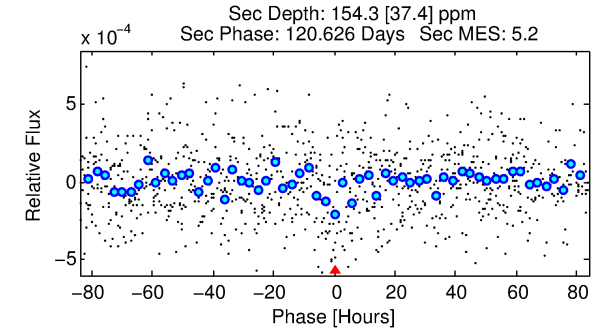
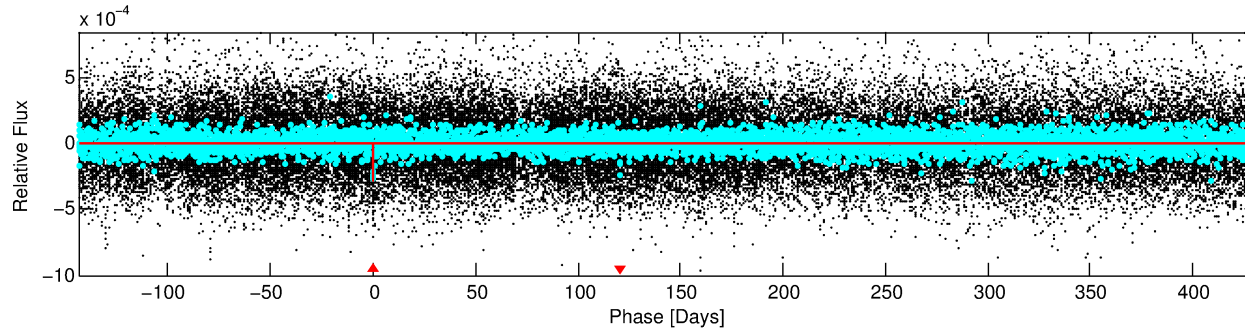
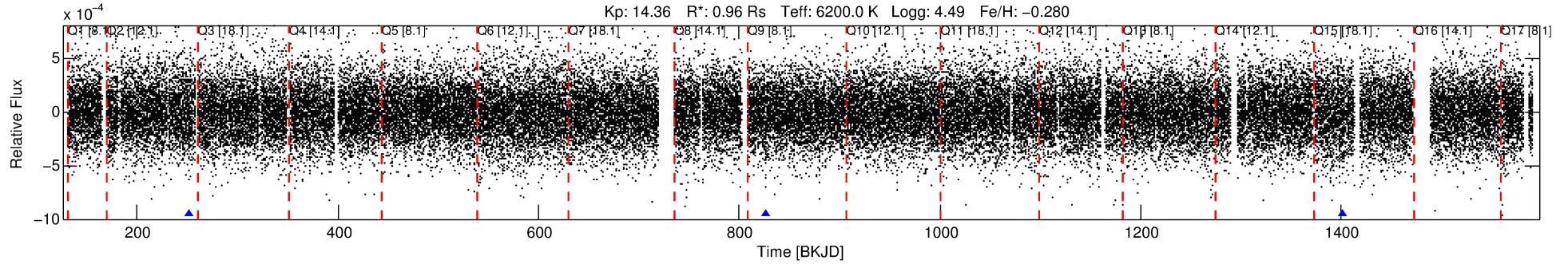
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008355204-01

No Significant Match Found

DV One-Page Summary

KIC: 8355204 Candidate: 1 of 1 Period: 575.147 d



DV Fit Results:

Period = 575.14740 [0.01408] d
Epoch = 251.2976 [0.0180] BKJD
Rp/R* = 0.0166 [0.0069]
a/R* = 236.73 [509.43]
b = 0.68 [1.68]
Seff = 0.65 [0.27]
Teq = 229 [24] K
Rp = 1.74 [0.91] Re
a = 1.3671 [0.3714] AU
Ag = 52625.72 [50277.74] [1.05 σ]
Teffp = 5362 [1176] K [4.36 σ]

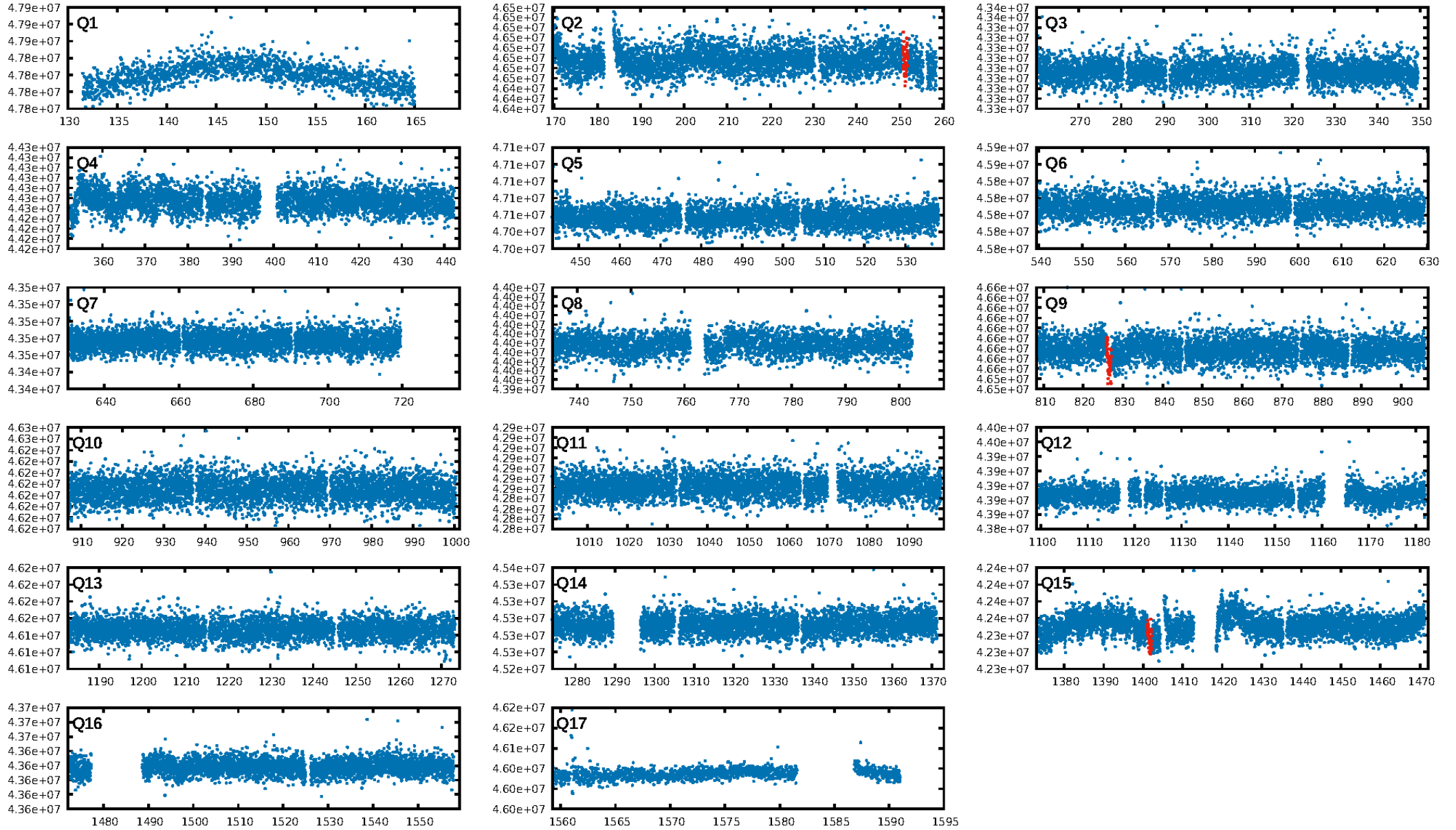
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.7%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.82e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.451
Centroid-sig: 34.2%
Centroid-so: 1.294 arcsec [1.04 σ]
OotOffset-rm: 1.952 arcsec [1.86 σ]
KicOffset-rm: 2.097 arcsec [1.88 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

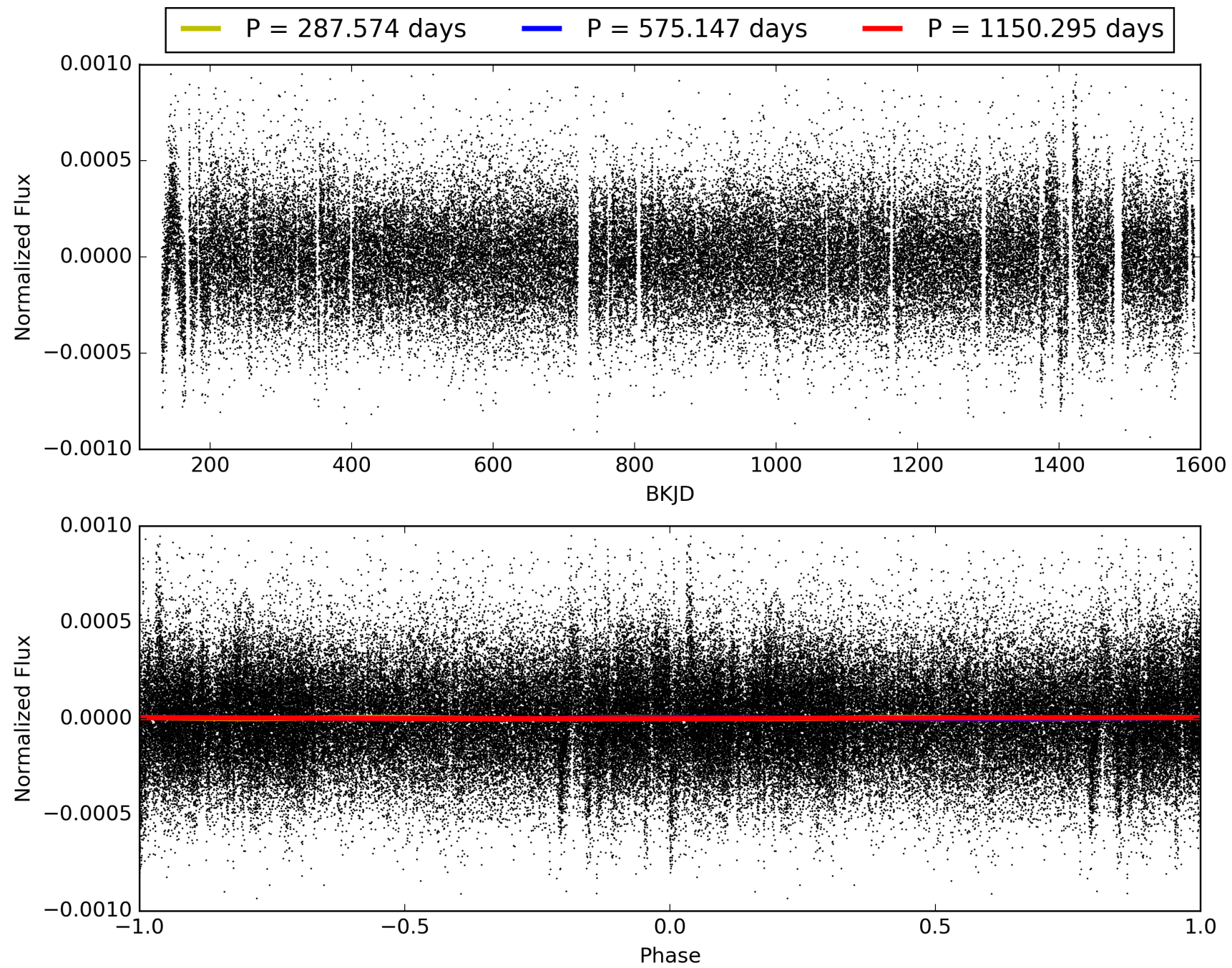
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:11:39 Z

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

TCE 008355204-01, PDC Light Curves

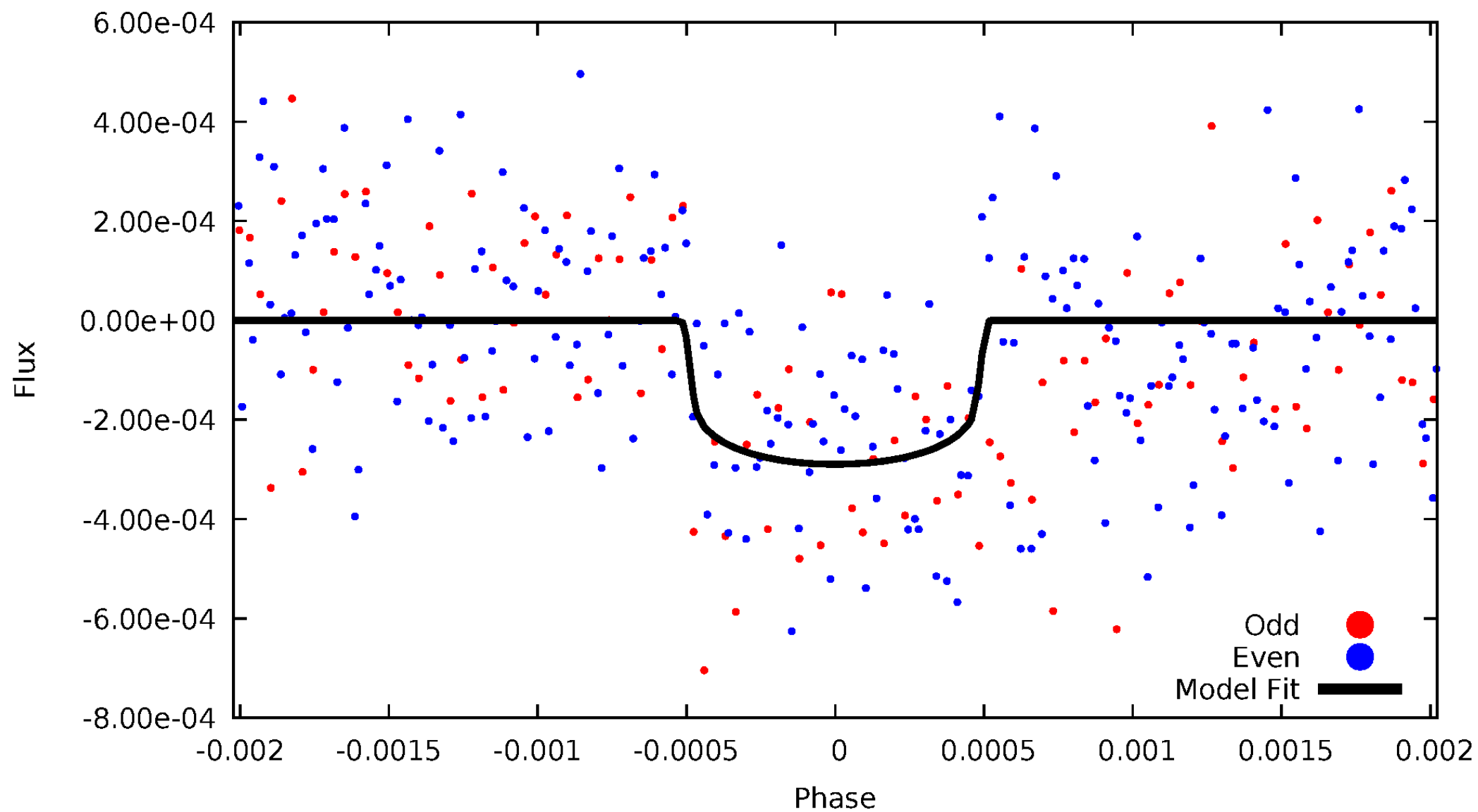


TCE 008355204-01



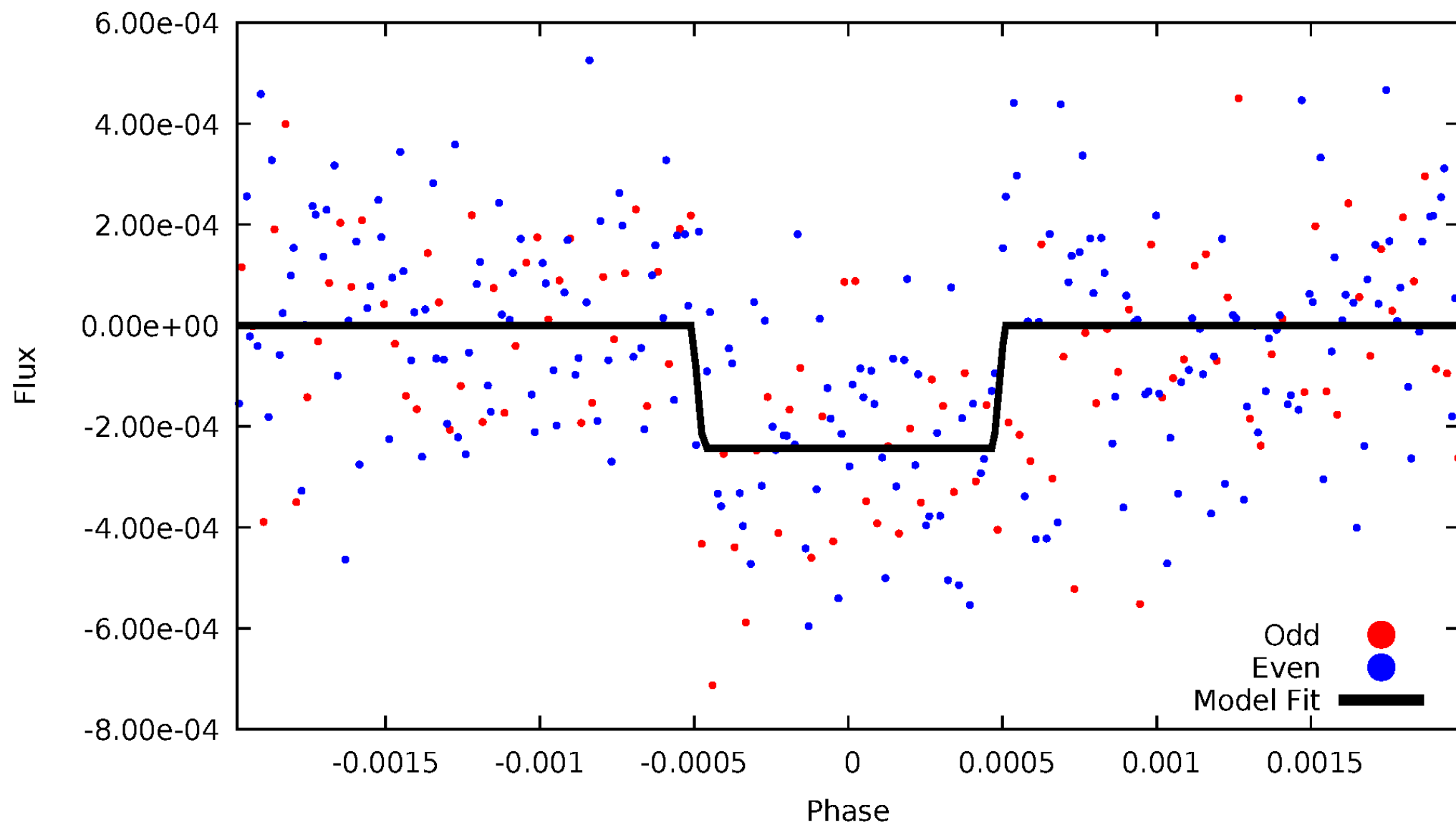
DV Odd/Even

TCE 008355204-01

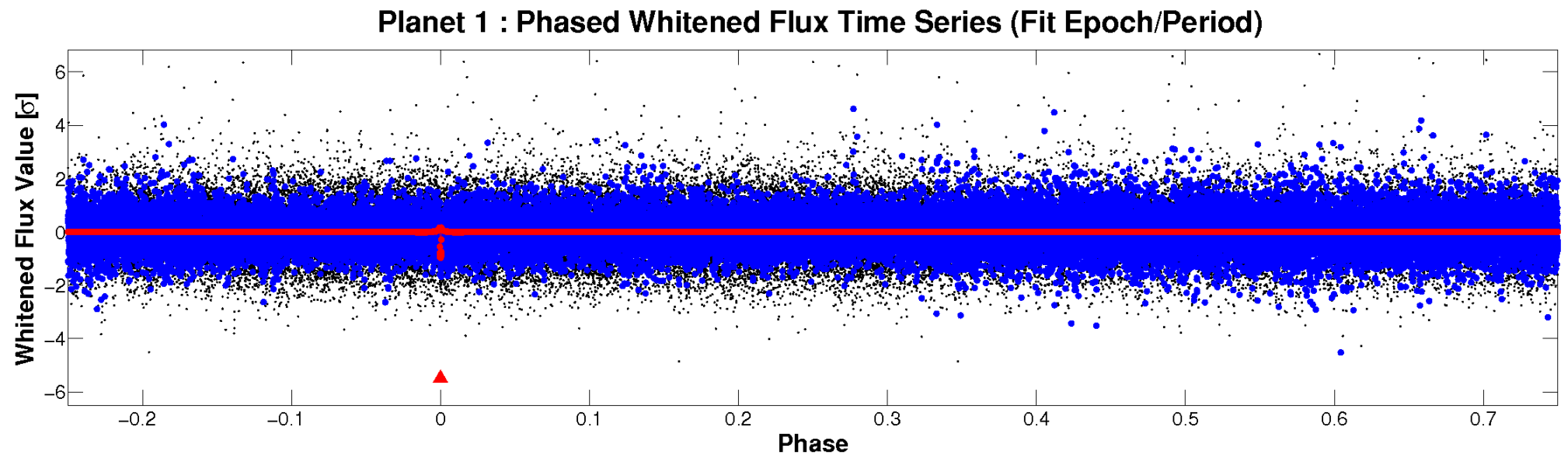
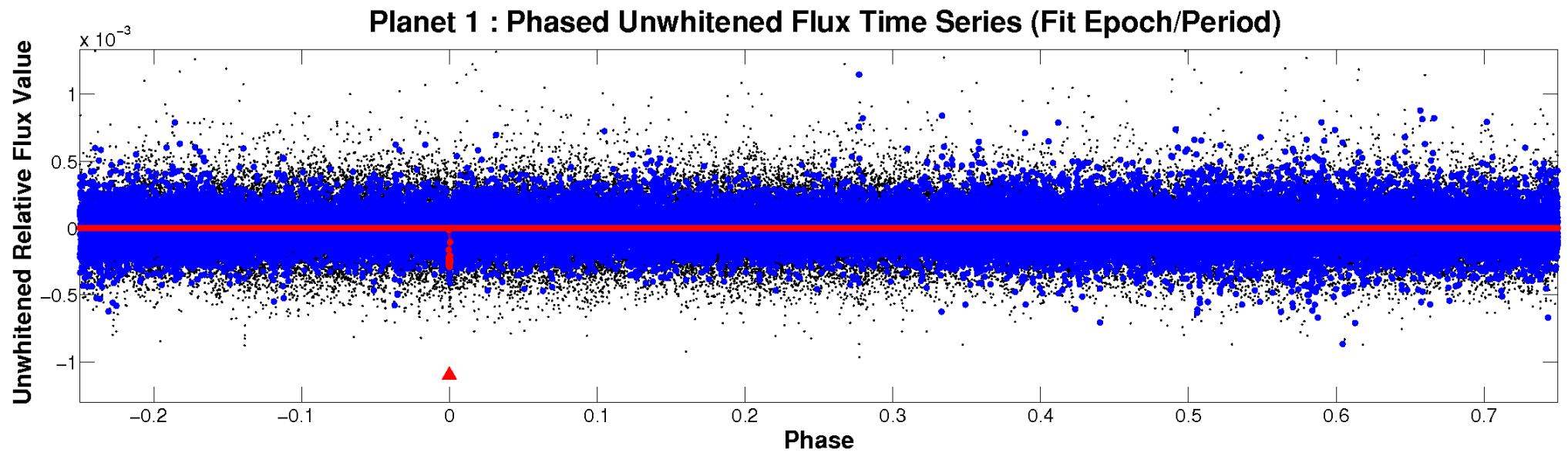


ALT Odd/Even

TCE 008355204-01



Non-Whitened Vs. Whitened Light Curve



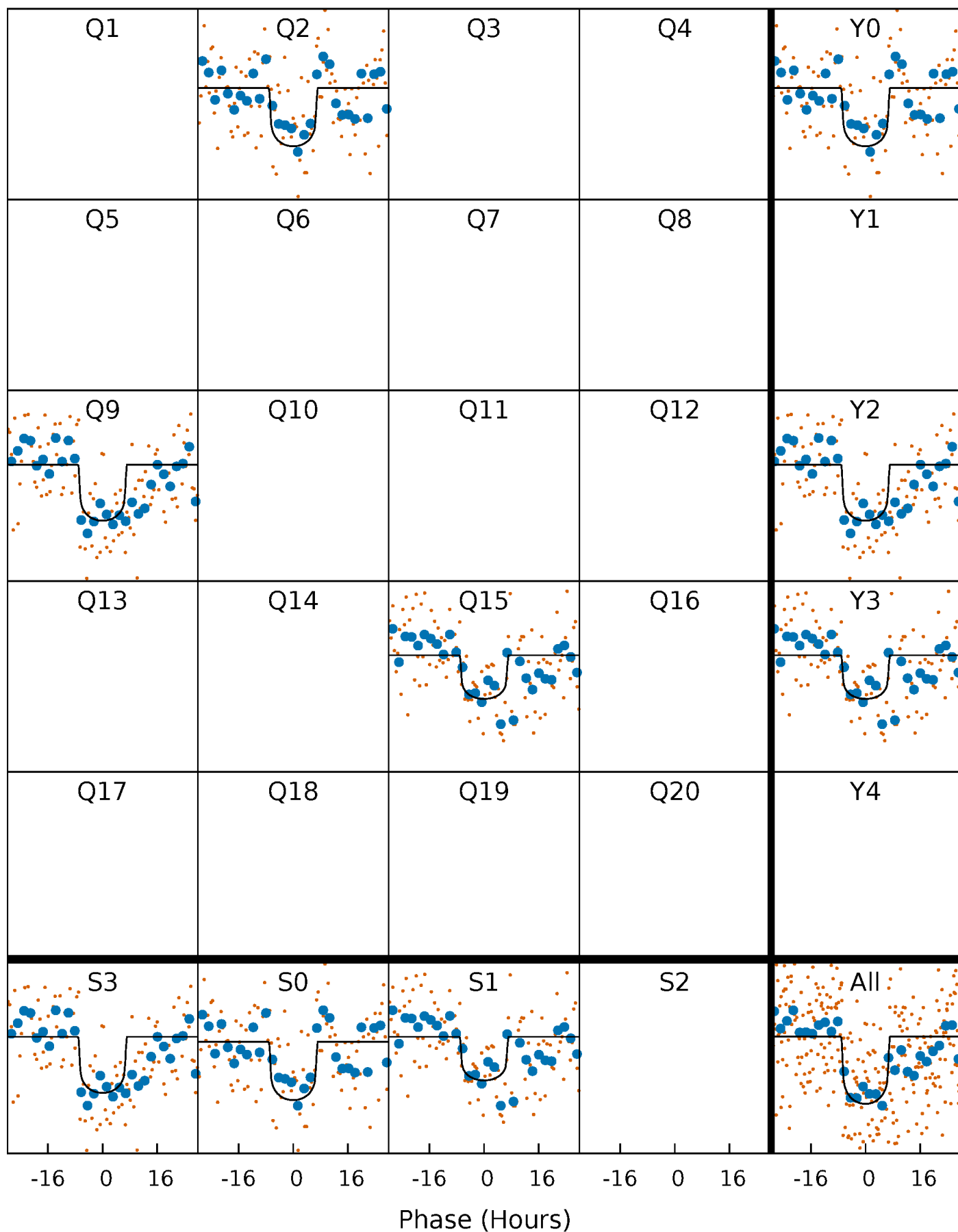
PDC Quarter-Phased Transit Curves

TCE 008355204-01 P=575.147404 Days $T_0=251.297557$ (BKJD)



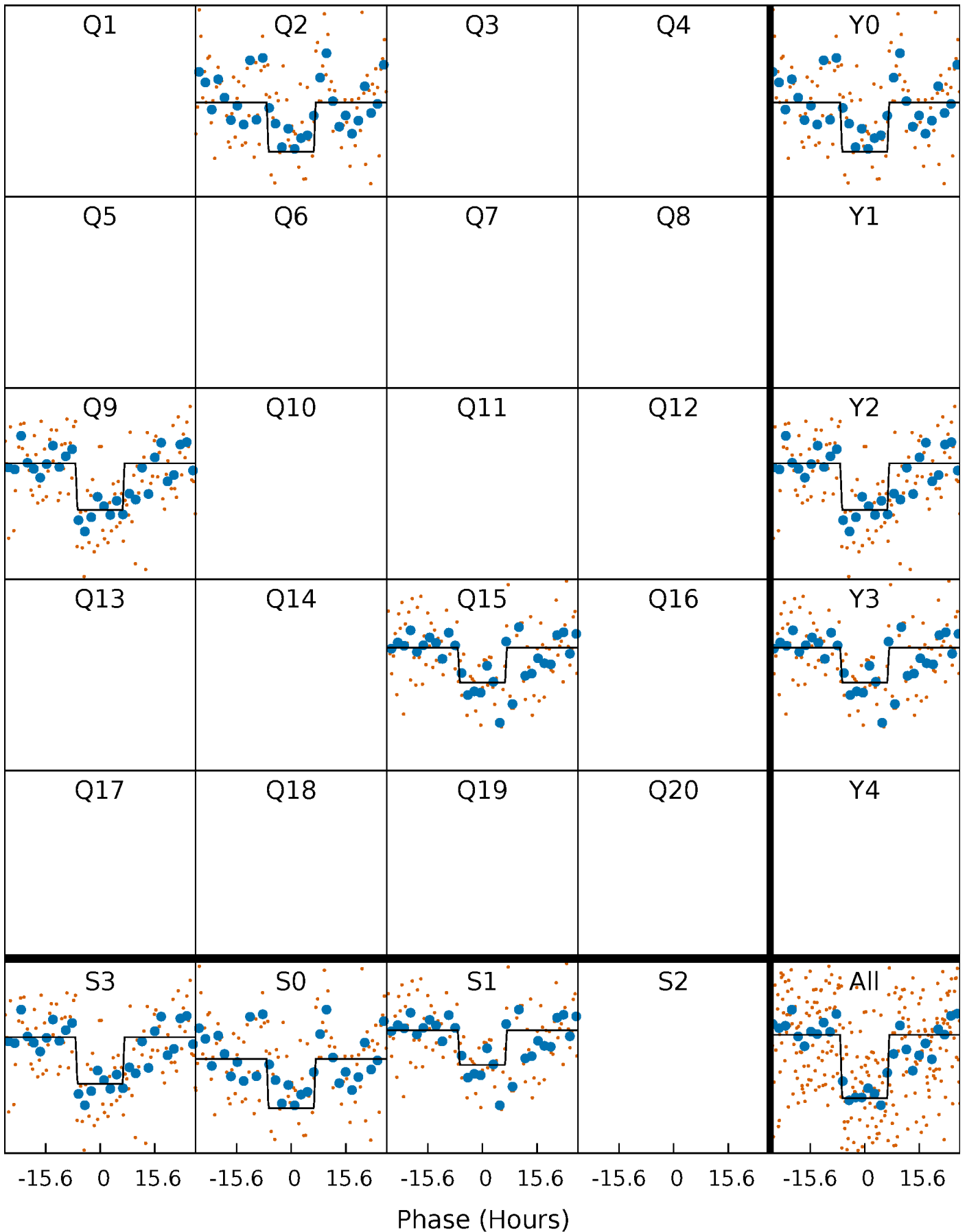
DV Quarter-Phased Transit Curves

TCE 008355204-01 P=575.147404 Days $T_0=251.297557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

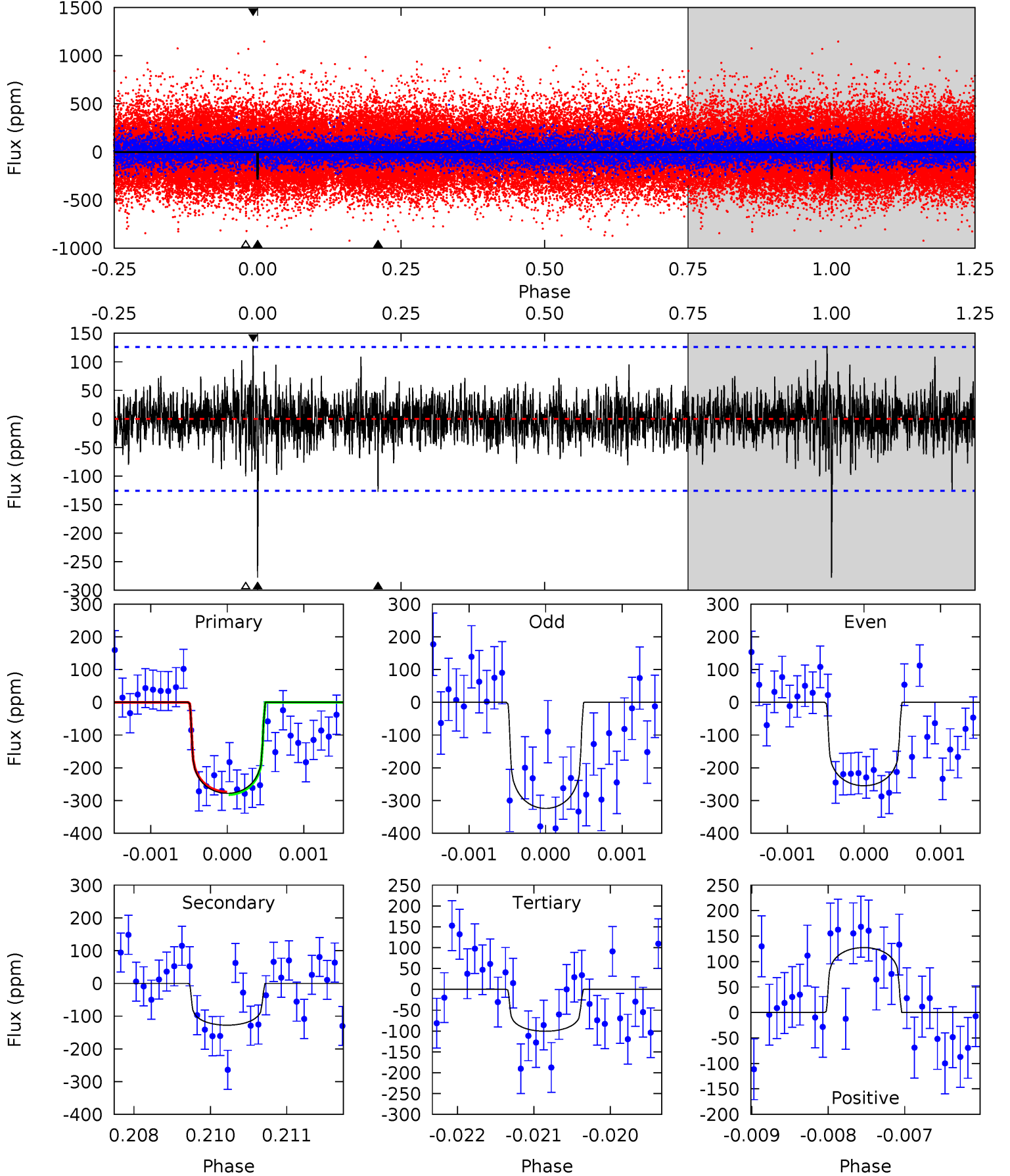
TCE 008355204-01 P=575.157036 Days $T_0=251.287545$ (BKJD)



DV Model-Shift Uniqueness Test

008355204-01, P = 575.147404 Days, E = 251.297557 Days

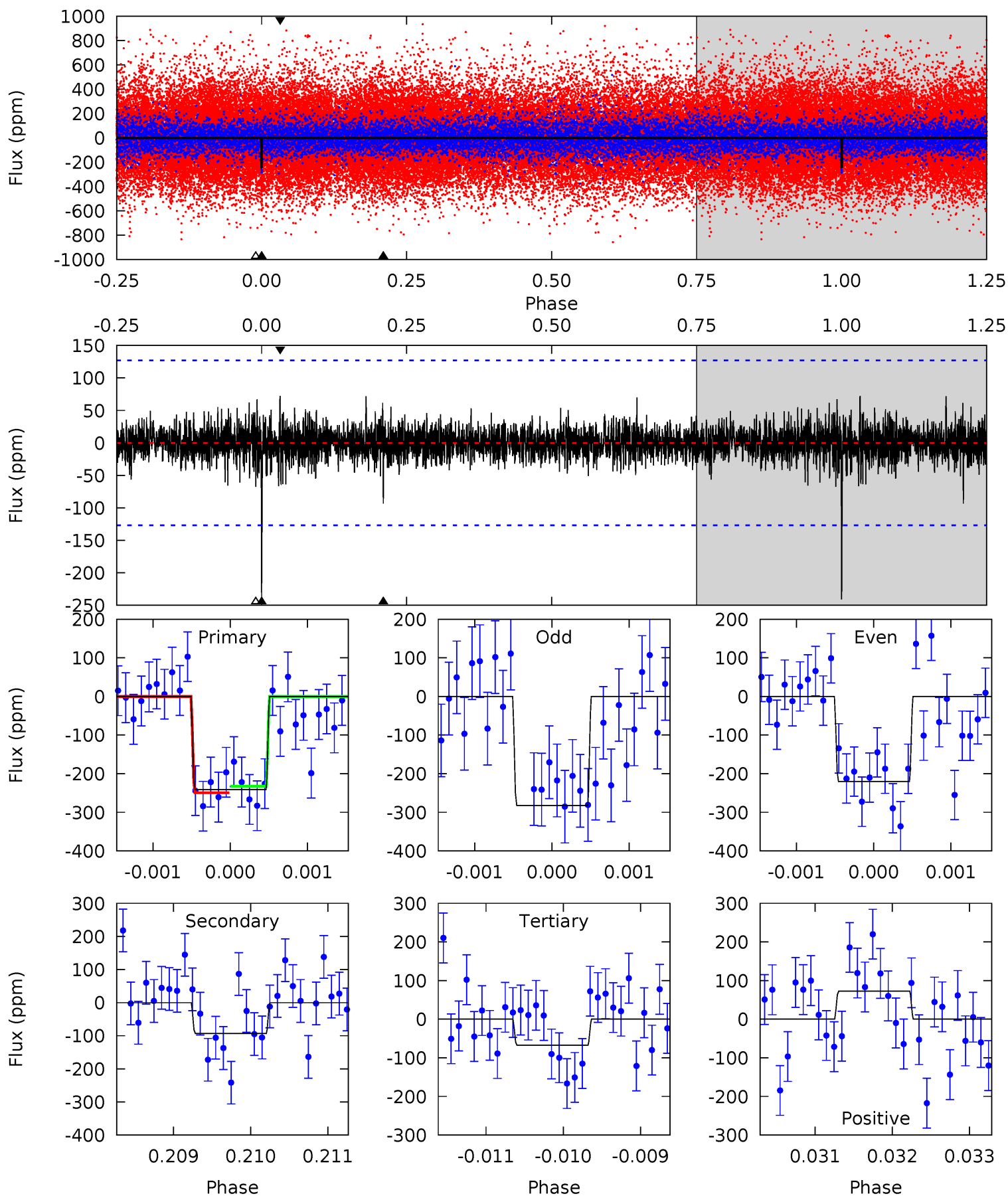
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	5.52	4.35	5.51	5.44	3.28	1.18	7.67	6.51	1.17	0.01	1.43	0.97	0.31	0.17



Alt Model-Shift Uniqueness Test

008355204-01, P = 575.157036 Days, E = 251.287545 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	4.00	2.90	3.11	5.45	3.29	0.75	7.45	7.24	1.09	0.89	1.27	0.88	0.23	0.37



Stellar Parameters For KIC 008355204

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6200^{+169}_{-206}	$4.488^{+0.052}_{-0.221}$	$-0.280^{+0.250}_{-0.300}$	$0.958^{+0.305}_{-0.102}$	$1.029^{+0.129}_{-0.129}$	$1.650^{+0.455}_{-0.850}$
	+3%/-3%	+1%/-5%	+89%/-107%	+32%/-11%	+13%/-13%	+28%/-52%
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 008355204-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-128 ± 23	$1.83^{+0.86}_{-0.71}$	327^{+23}_{-16}	5165^{+1380}_{-725}	38042^{+62994}_{-20538}
Alt.	-93 ± 23	$1.71^{+0.83}_{-0.72}$	327^{+24}_{-16}	4936^{+1571}_{-719}	31436^{+72009}_{-17871}

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

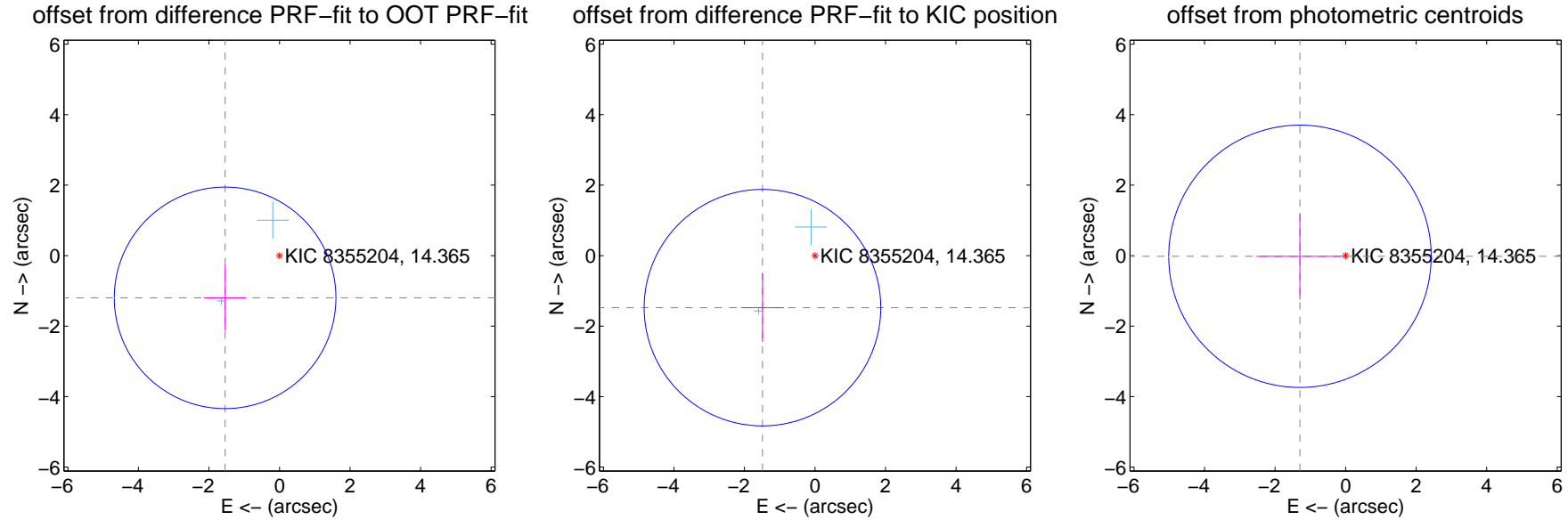
DV Centroid Data

Supplemental centroid analysis for 008355204-01. Kepler magnitude: 14.37. Transit SNR 8.17

There are 2 quarters with good PRF difference image offsets

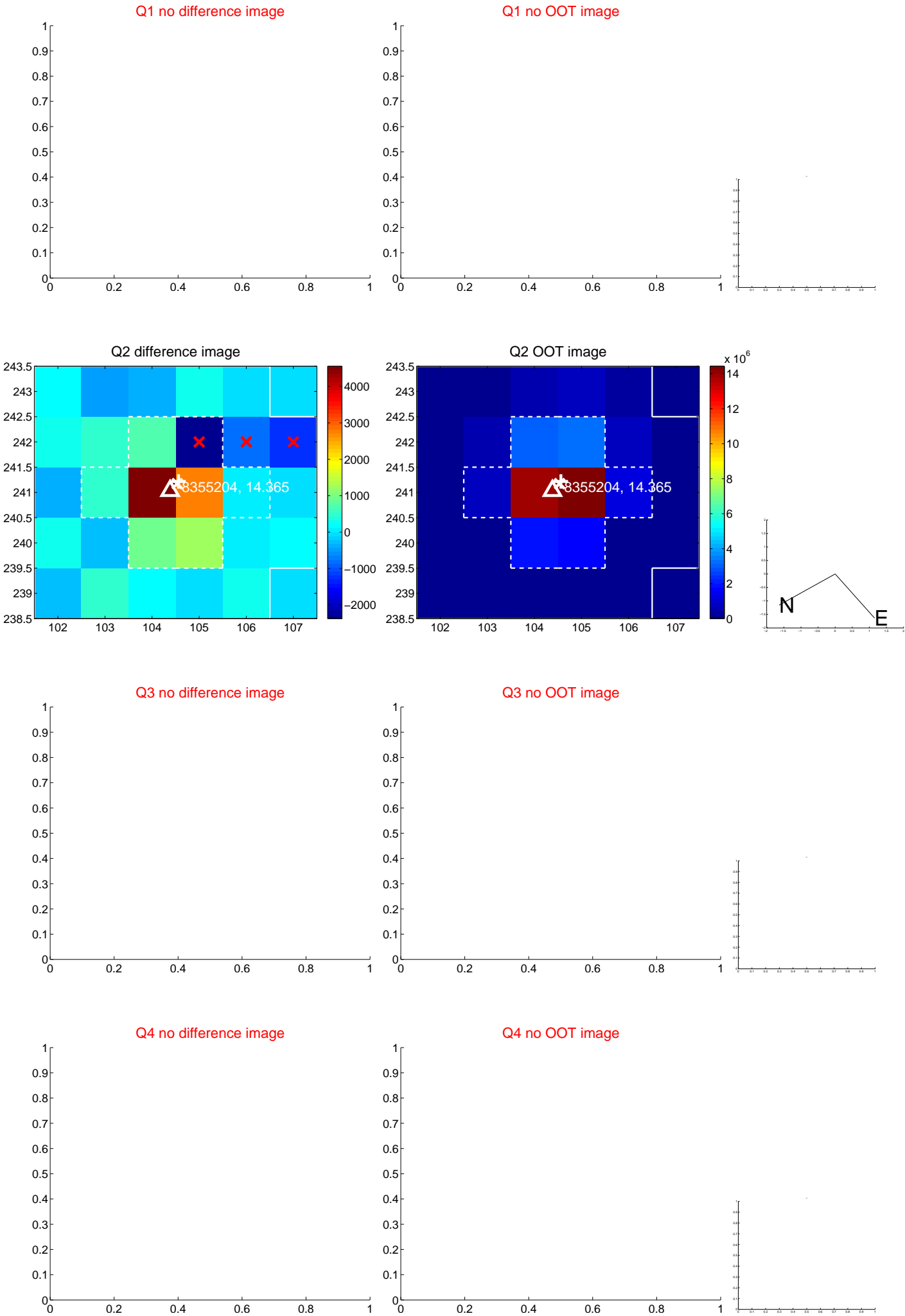
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.952 ± 1.047	1.86	1.542 ± 0.600	-1.198 ± 0.938
PRF-fit source offset from KIC position	2.097 ± 1.118	1.88	1.489 ± 0.612	-1.476 ± 0.974
photometric centroid source offset	1.29 ± 1.24	1.04	1.29 ± 1.24	-0.02 ± 1.23



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.

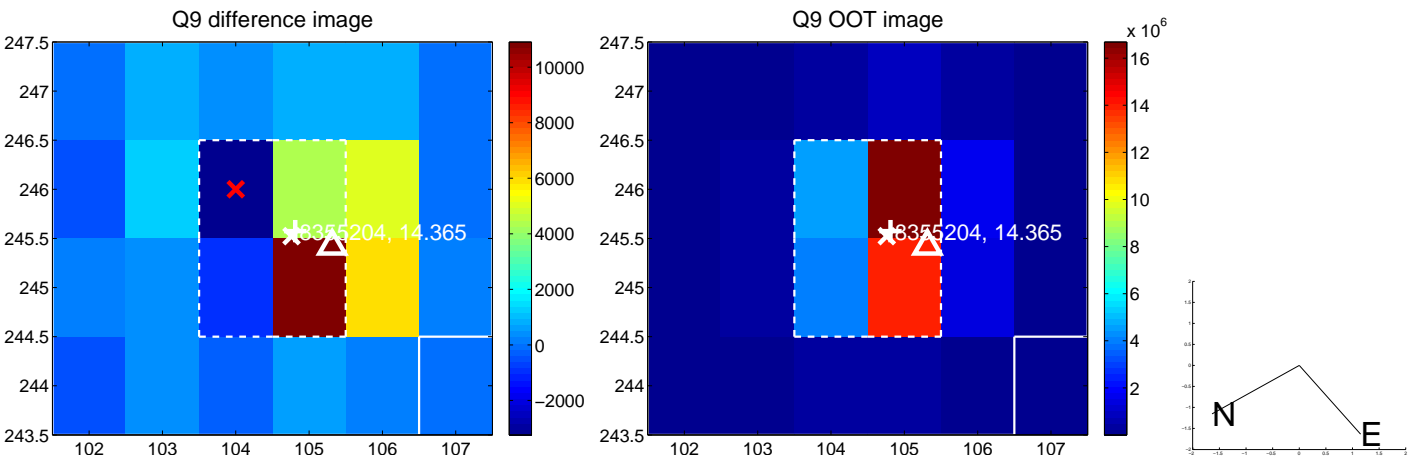
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



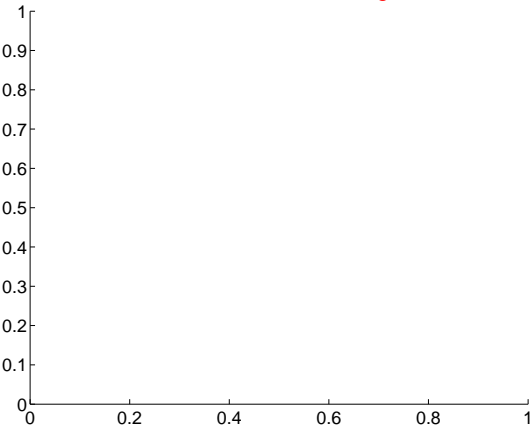
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



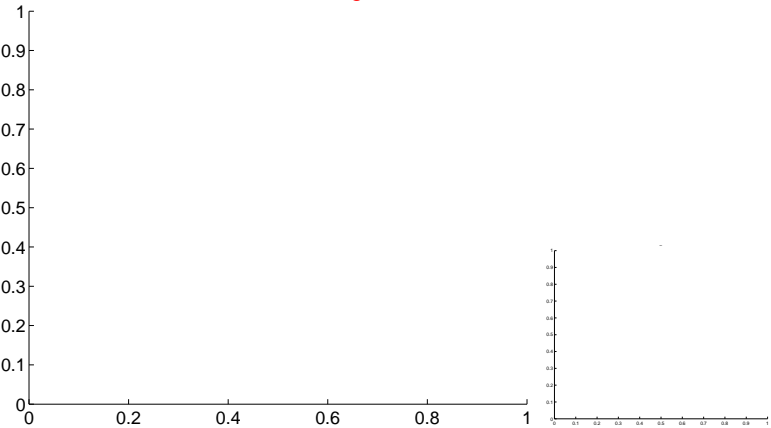
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



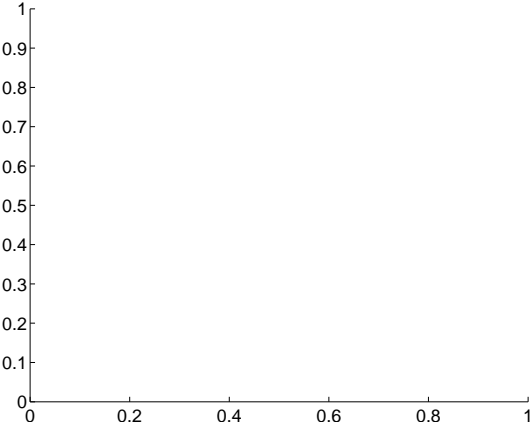
Q10 no difference image



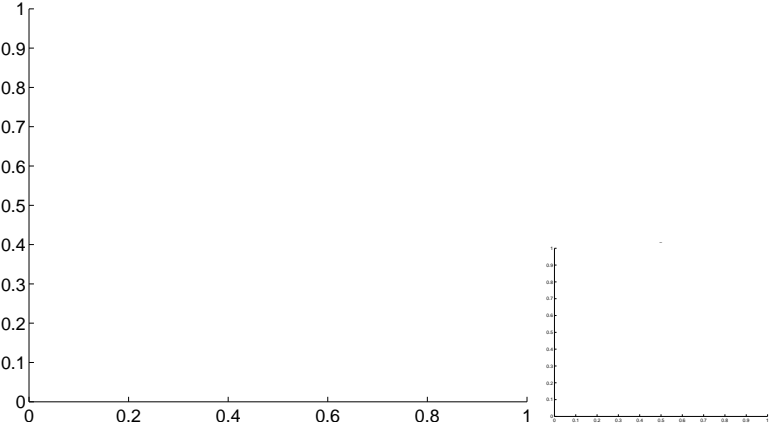
Q10 no OOT image



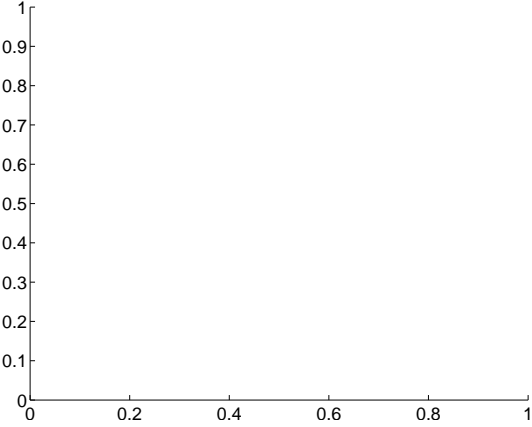
Q11 no difference image



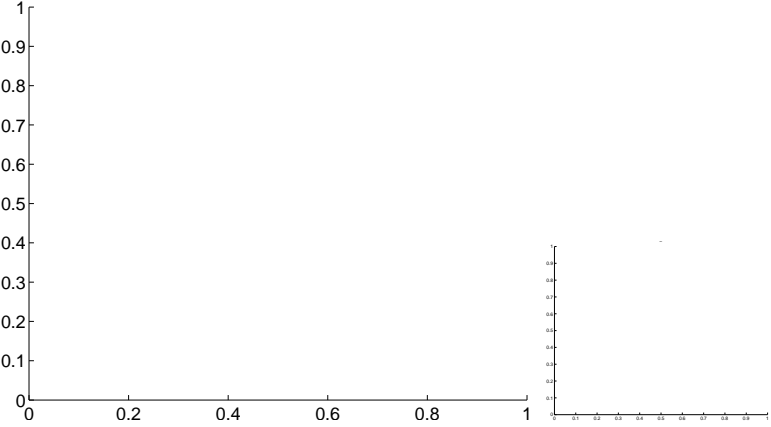
Q11 no OOT image



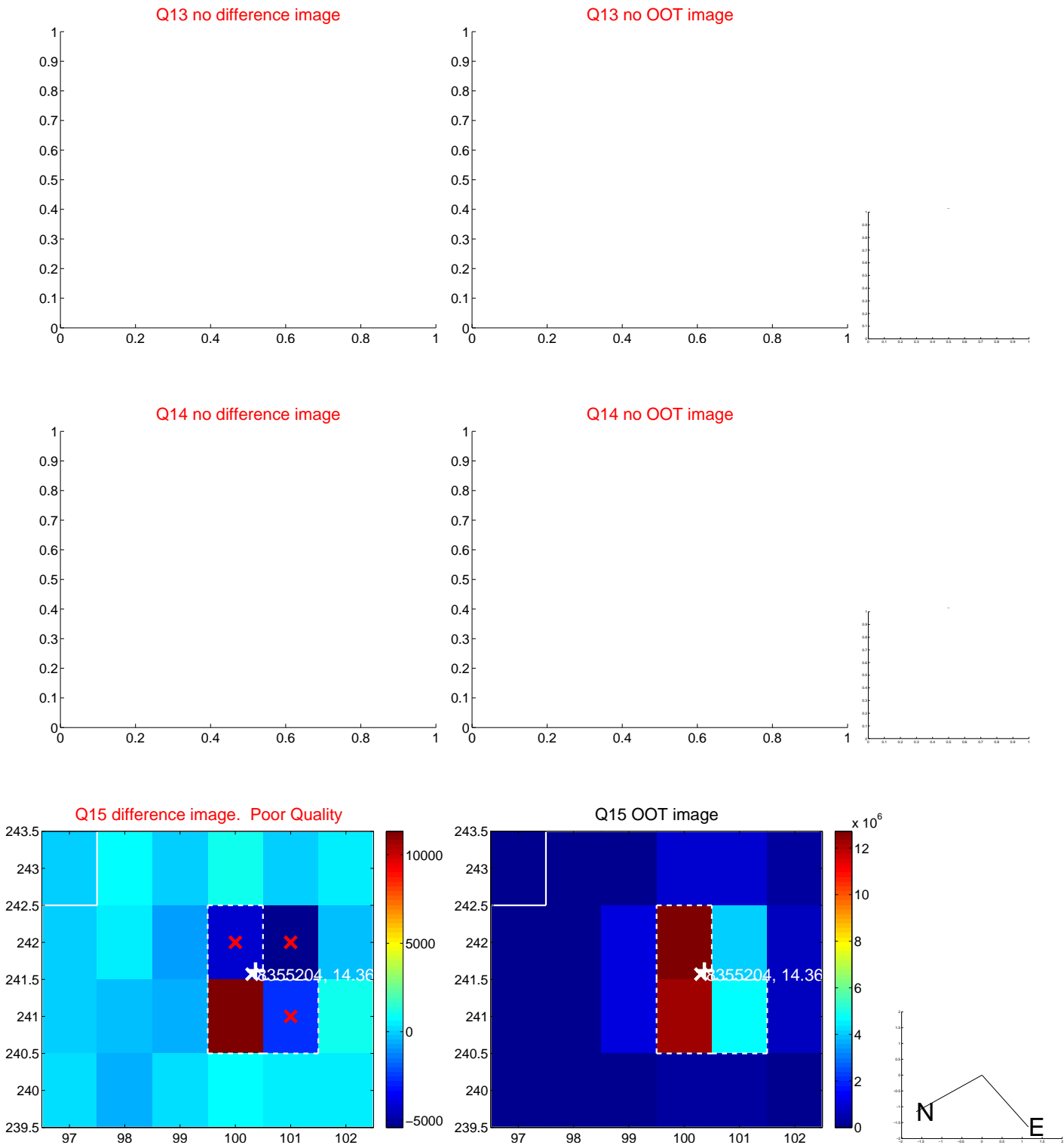
Q12 no difference image



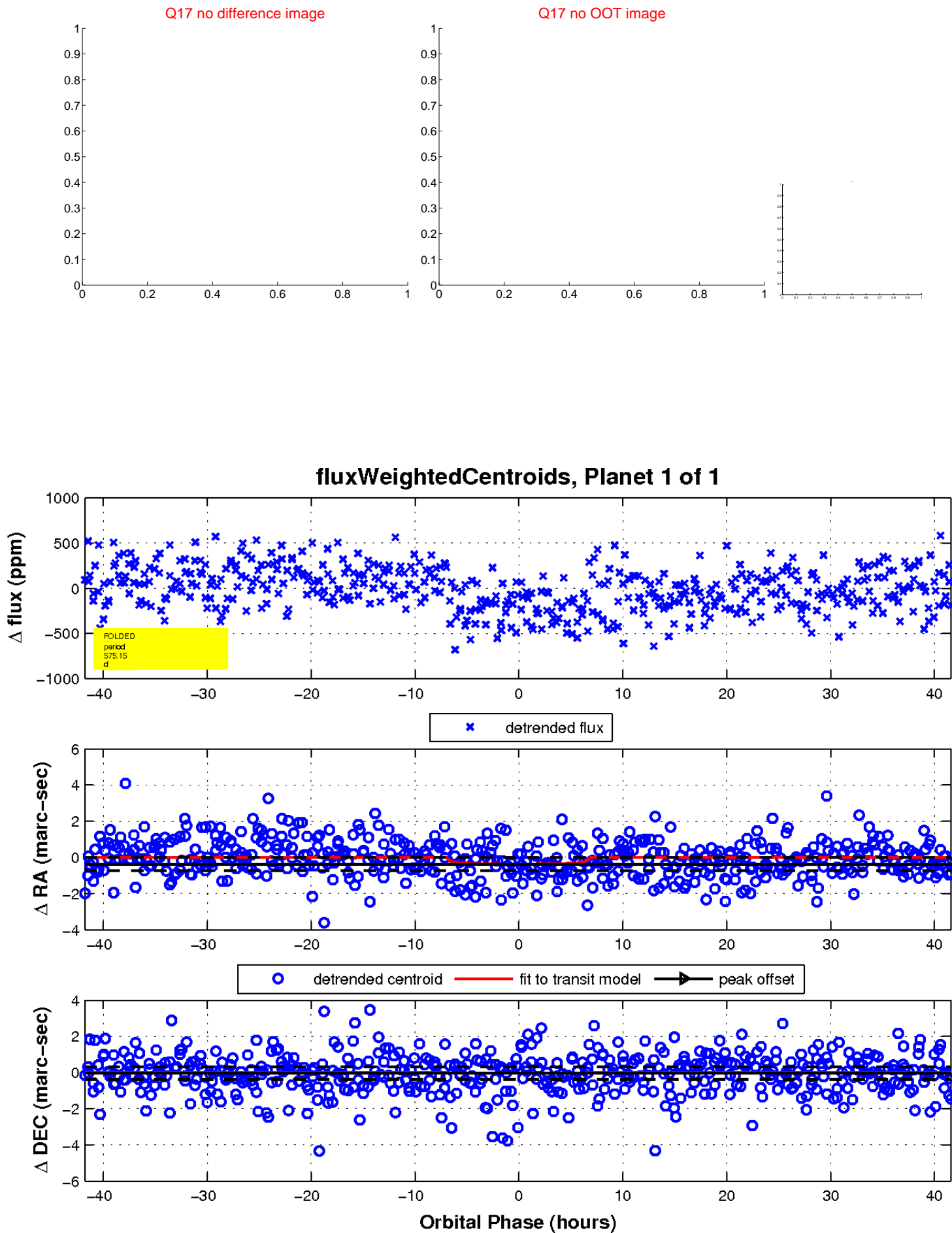
Q12 no OOT image



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.



UKIRT Image

Declination

