

KIC 008036124

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})
008036124-01	OBS	No	368.537747	236.010434	1832.9	35.576	7.3	9.9	0.83	5425	6.24	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008036124-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—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.

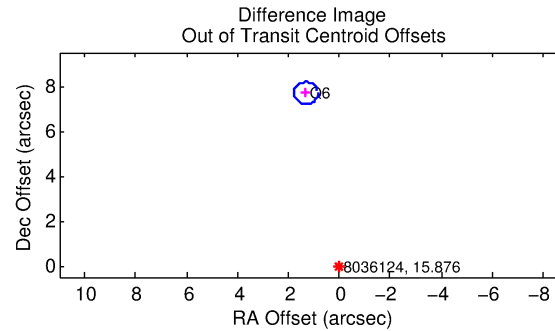
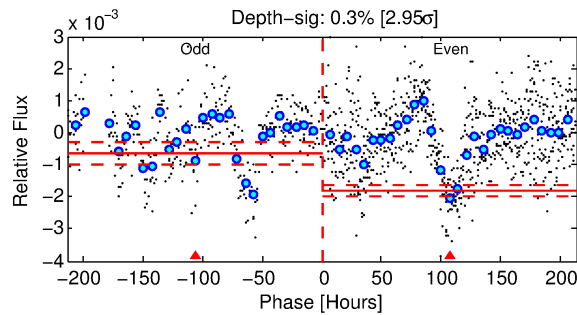
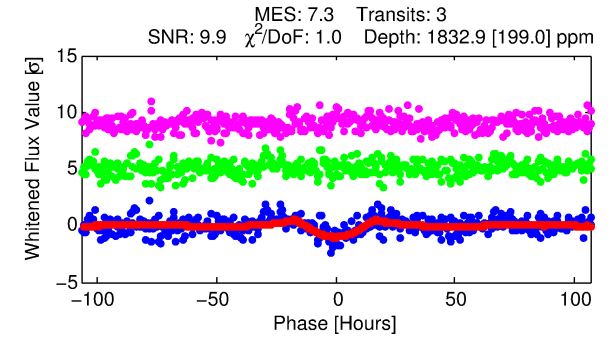
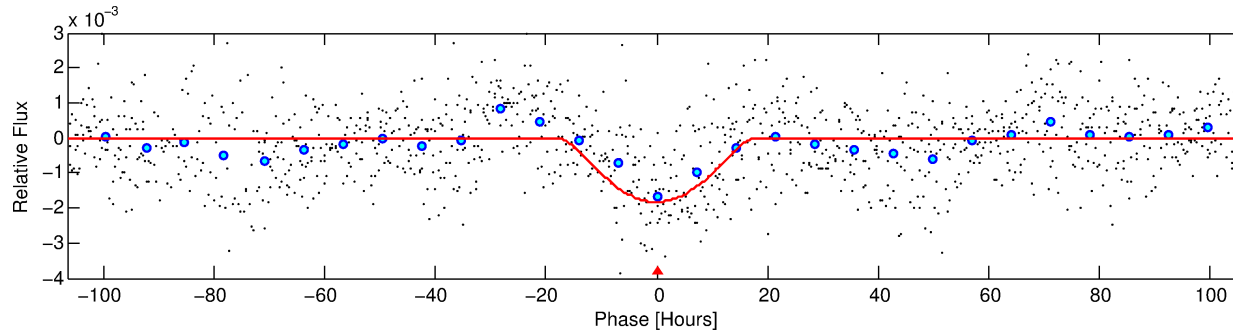
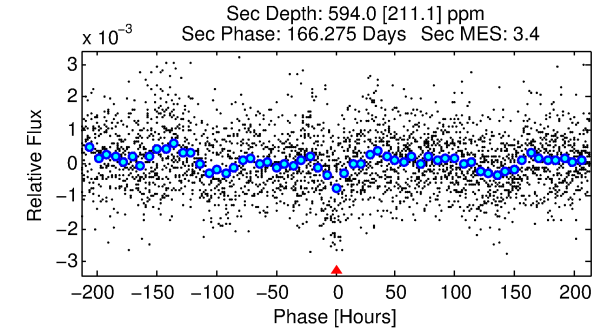
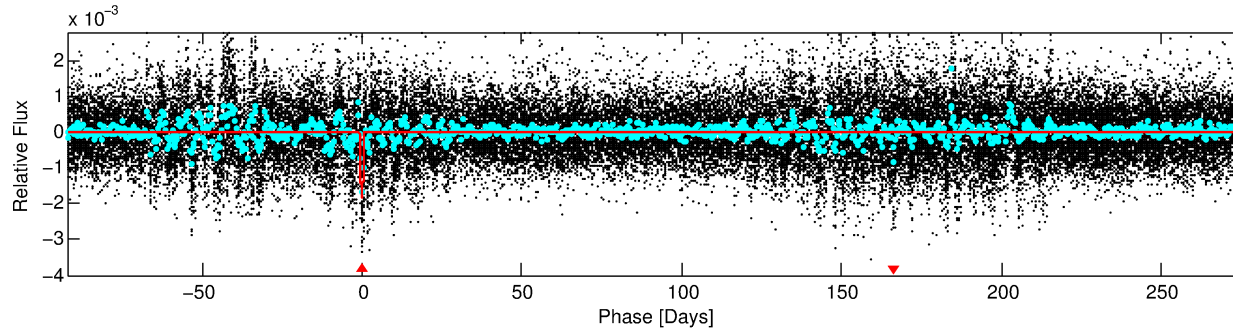
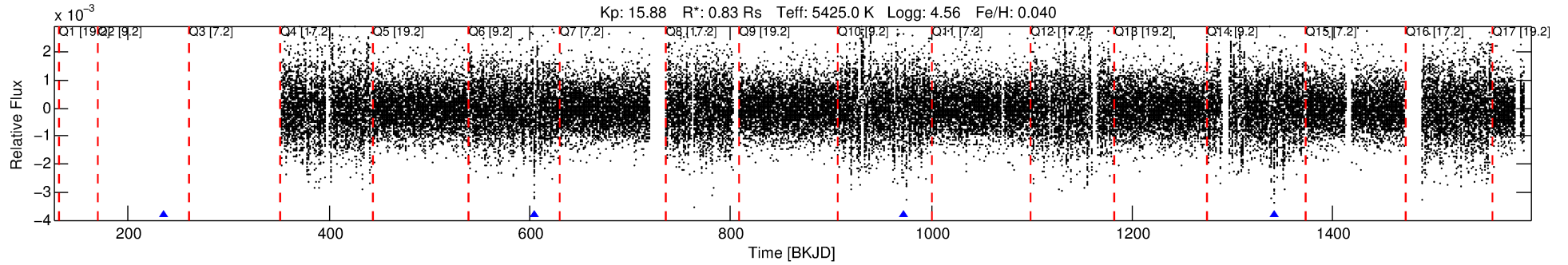
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008036124-01

No Significant Match Found

DV One-Page Summary

KIC: 8036124 Candidate: 1 of 1 Period: 368.538 d



DV Fit Results:

Period = 368.53775 [0.03557] d
Epoch = 236.0104 [0.0744] BKJD
Rp/R* = 0.0689 [0.1063]
a/R* = 32.17 [12.58]
b = 0.99 [0.17]
Seff = 0.56 [0.18]
Teq = 221 [17] K
Rp = 6.24 [9.73] Re
a = 0.9766 [0.1907] AU
Ag = 8012.82 [24976.72] [0.32σ]
Teff = 3226 [2506] K [1.20σ]

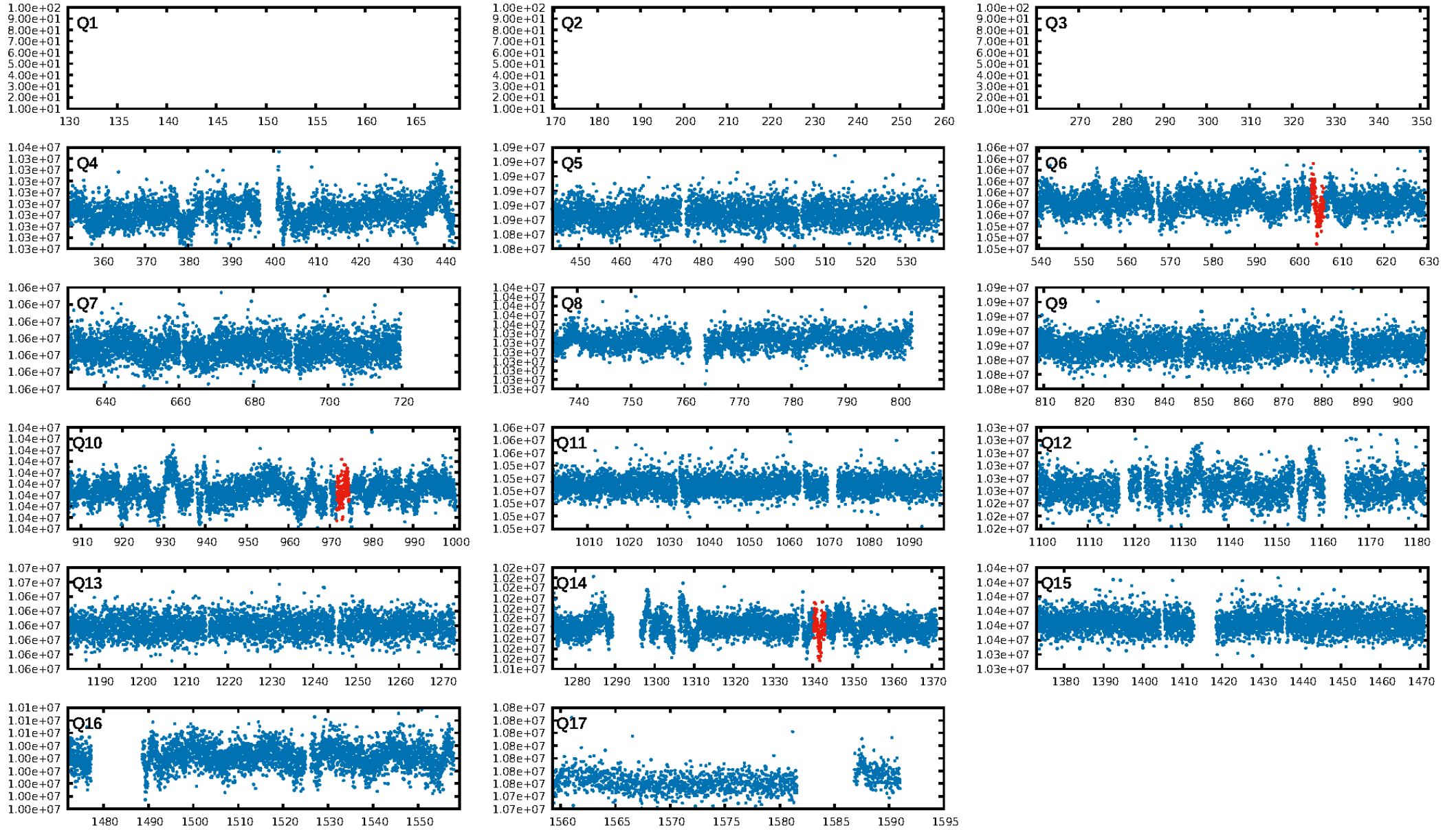
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.67e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.433
Centroid-sig: 0.0%
Centroid-so: 1.104 arcsec [1.10σ]
OotOffset-rm: 7.799 arcsec [48.07σ]
KicOffset-rm: 2.572 arcsec [15.84σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

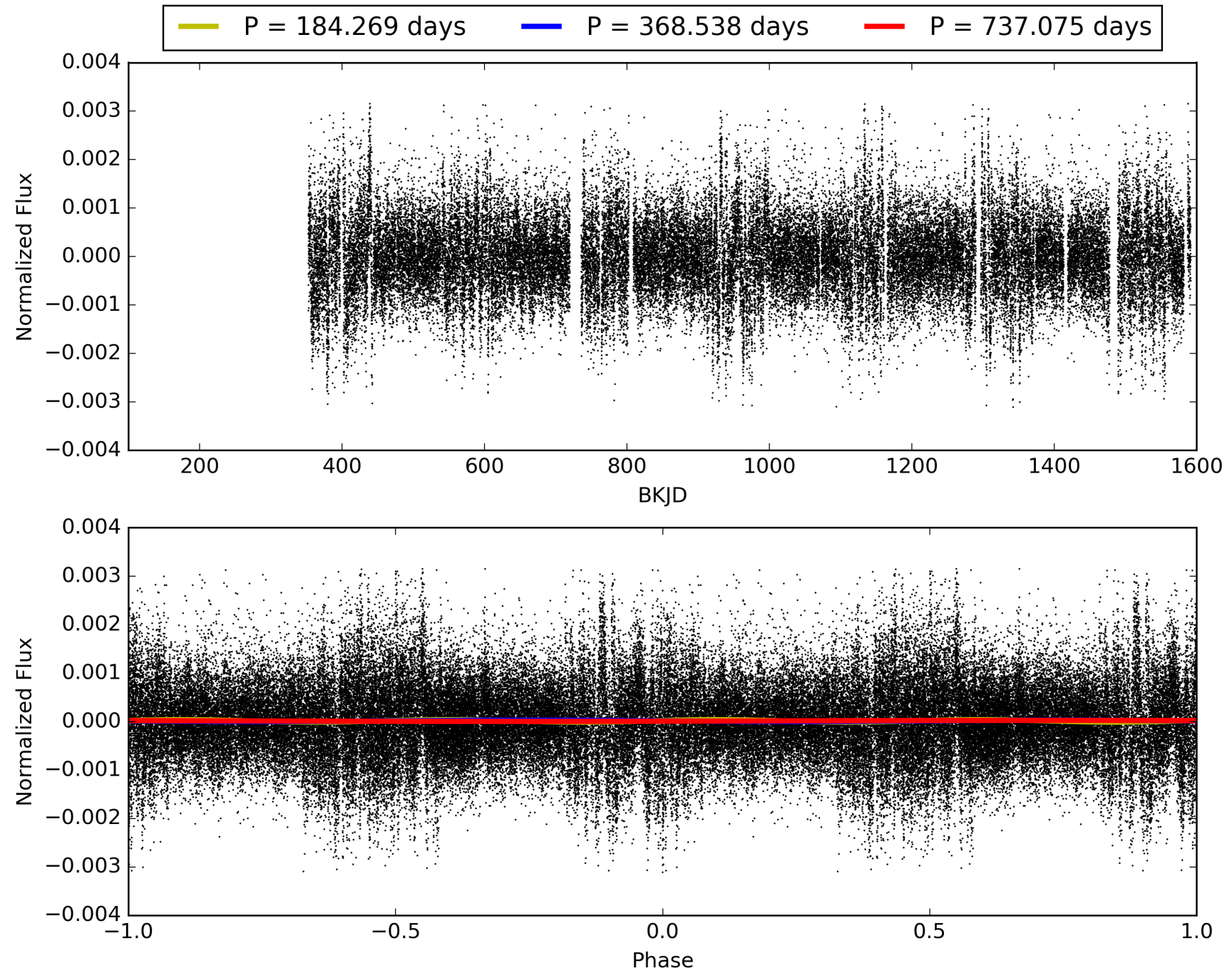
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:23:46 Z

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

TCE 008036124-01, PDC Light Curves

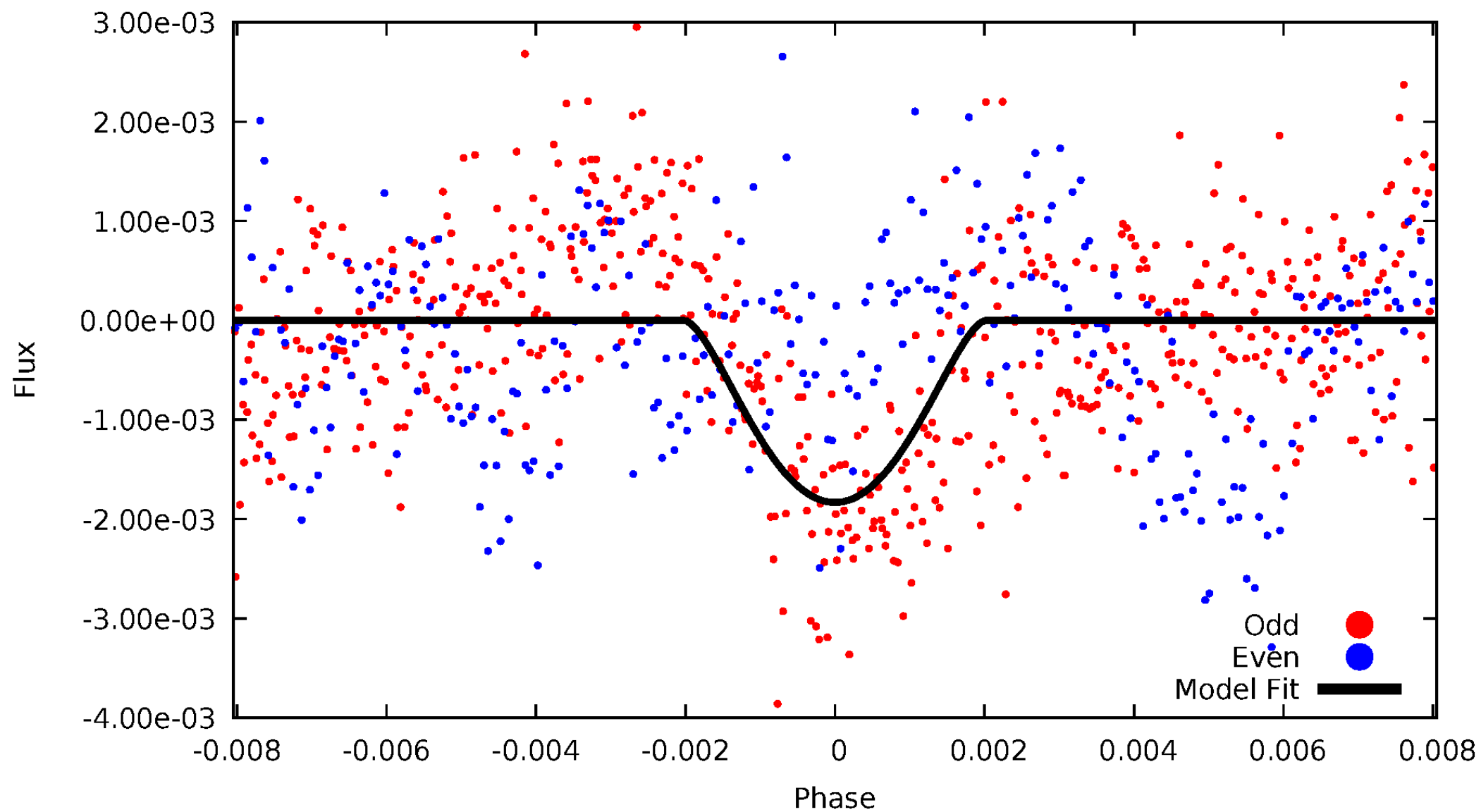


TCE 008036124-01



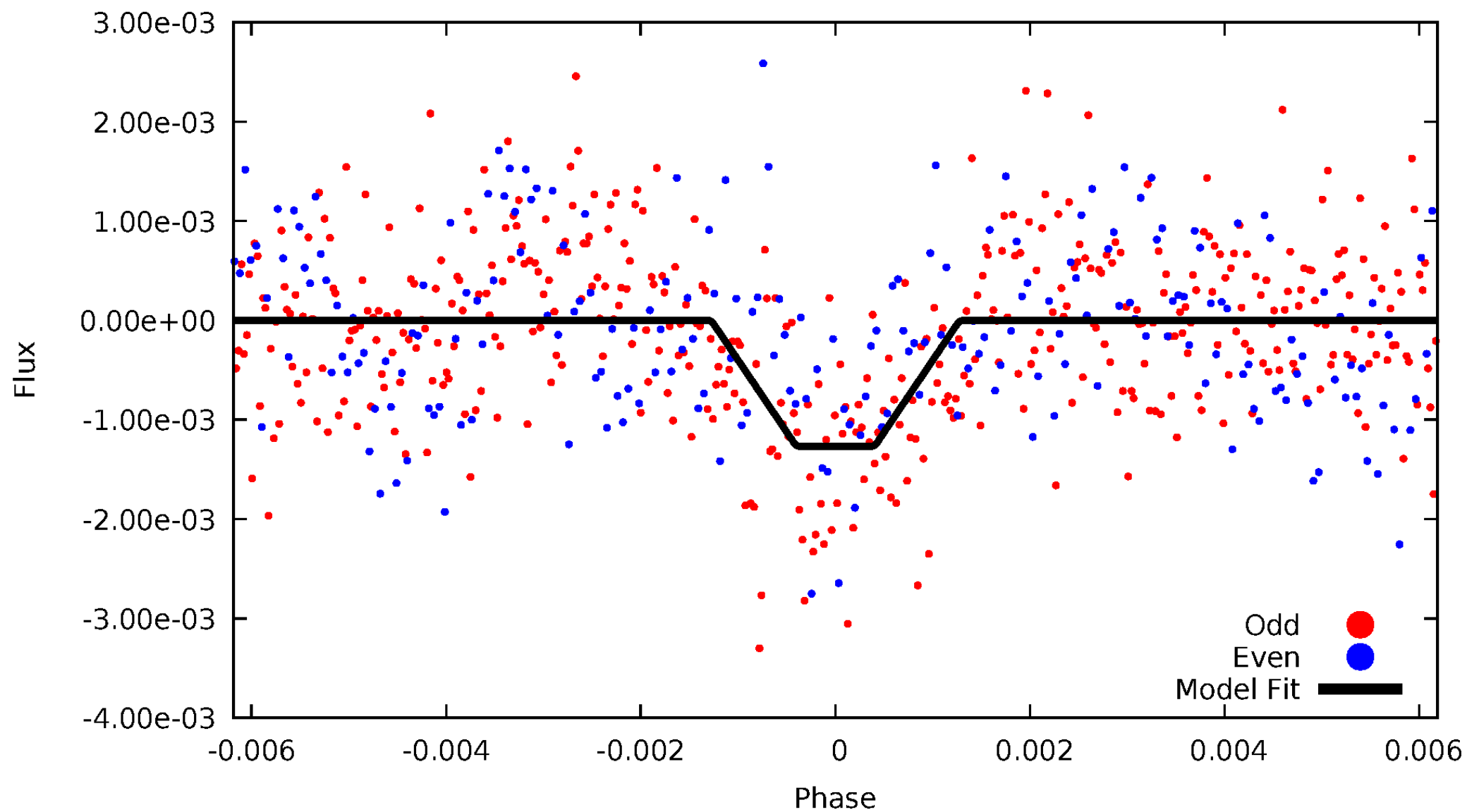
DV Odd/Even

TCE 008036124-01



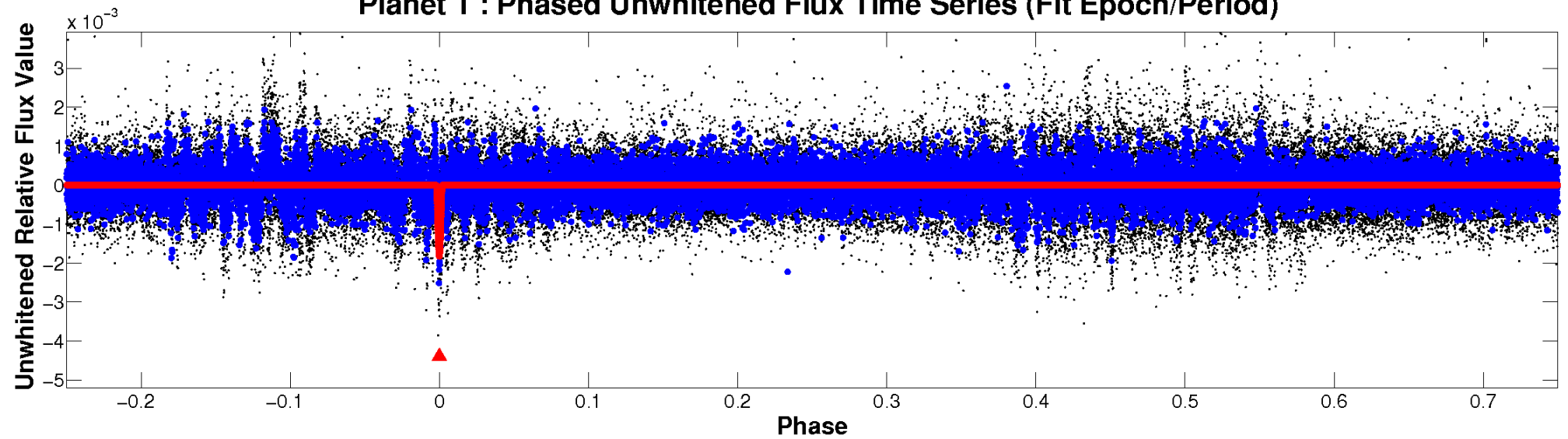
ALT Odd/Even

TCE 008036124-01

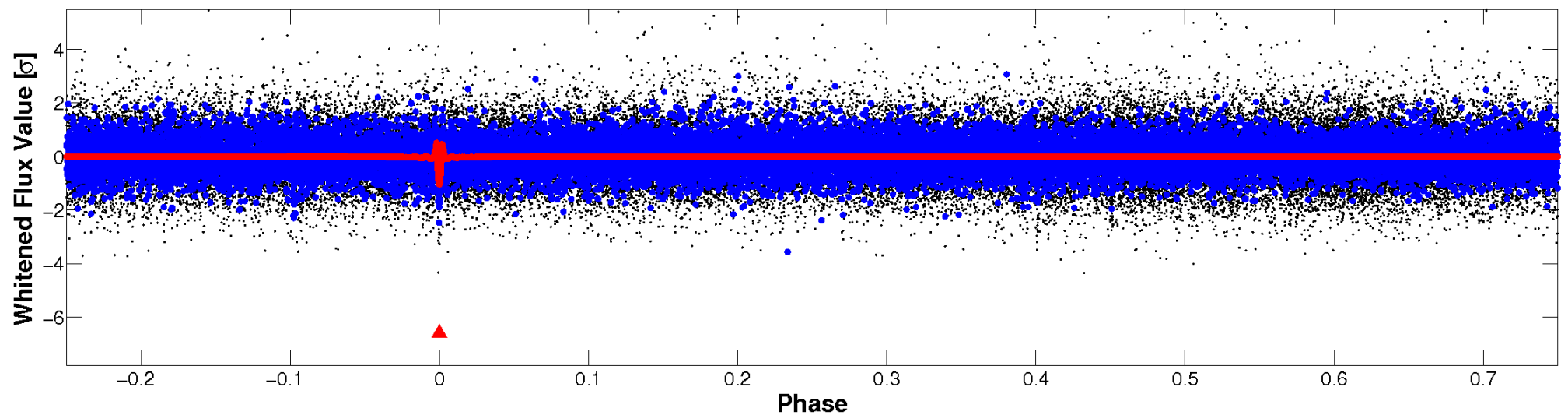


Non-Whitened Vs. Whitened Light Curve

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



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



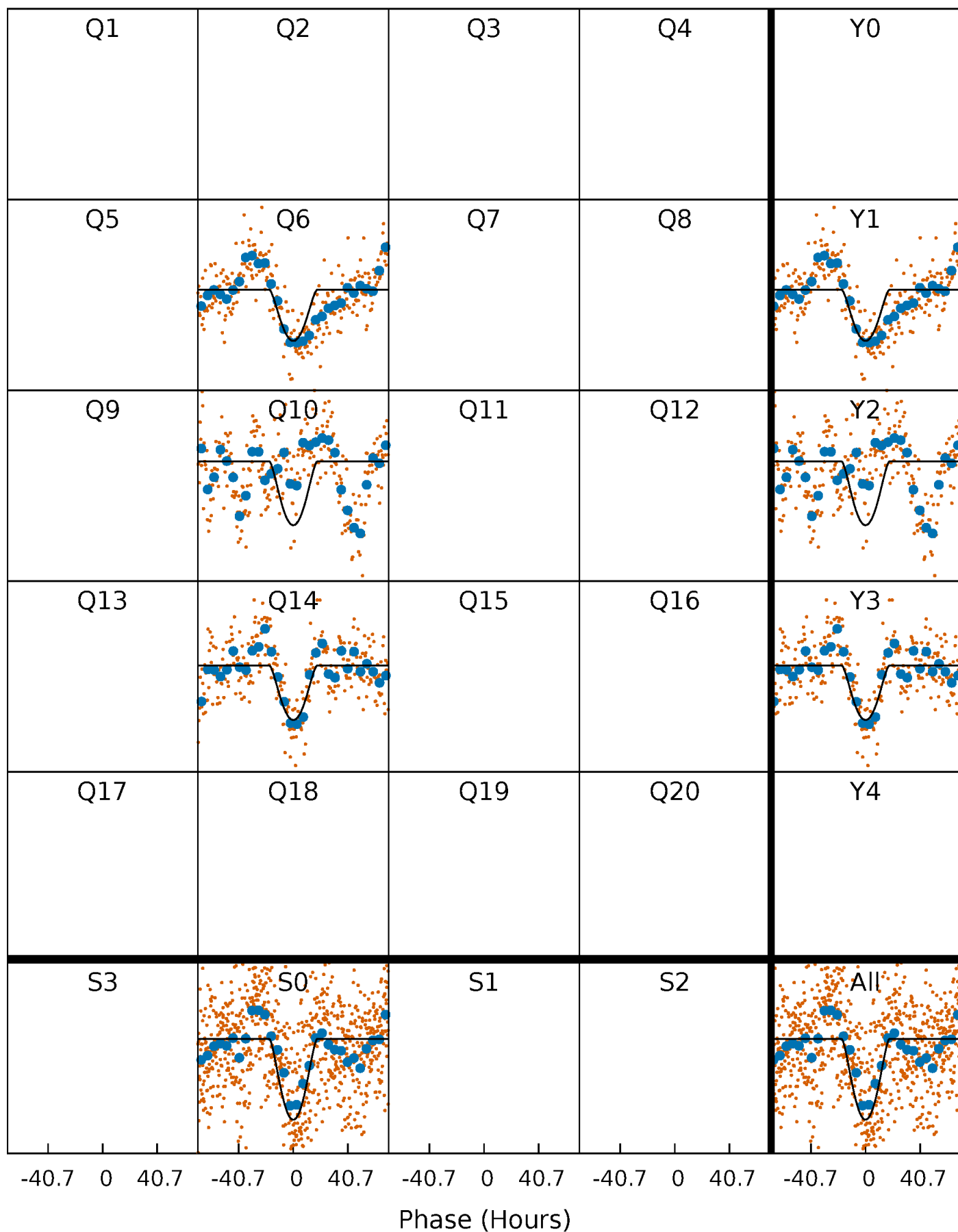
PDC Quarter-Phased Transit Curves

TCE 008036124-01 P=368.537748 Days $T_0=236.010434$ (BKJD)



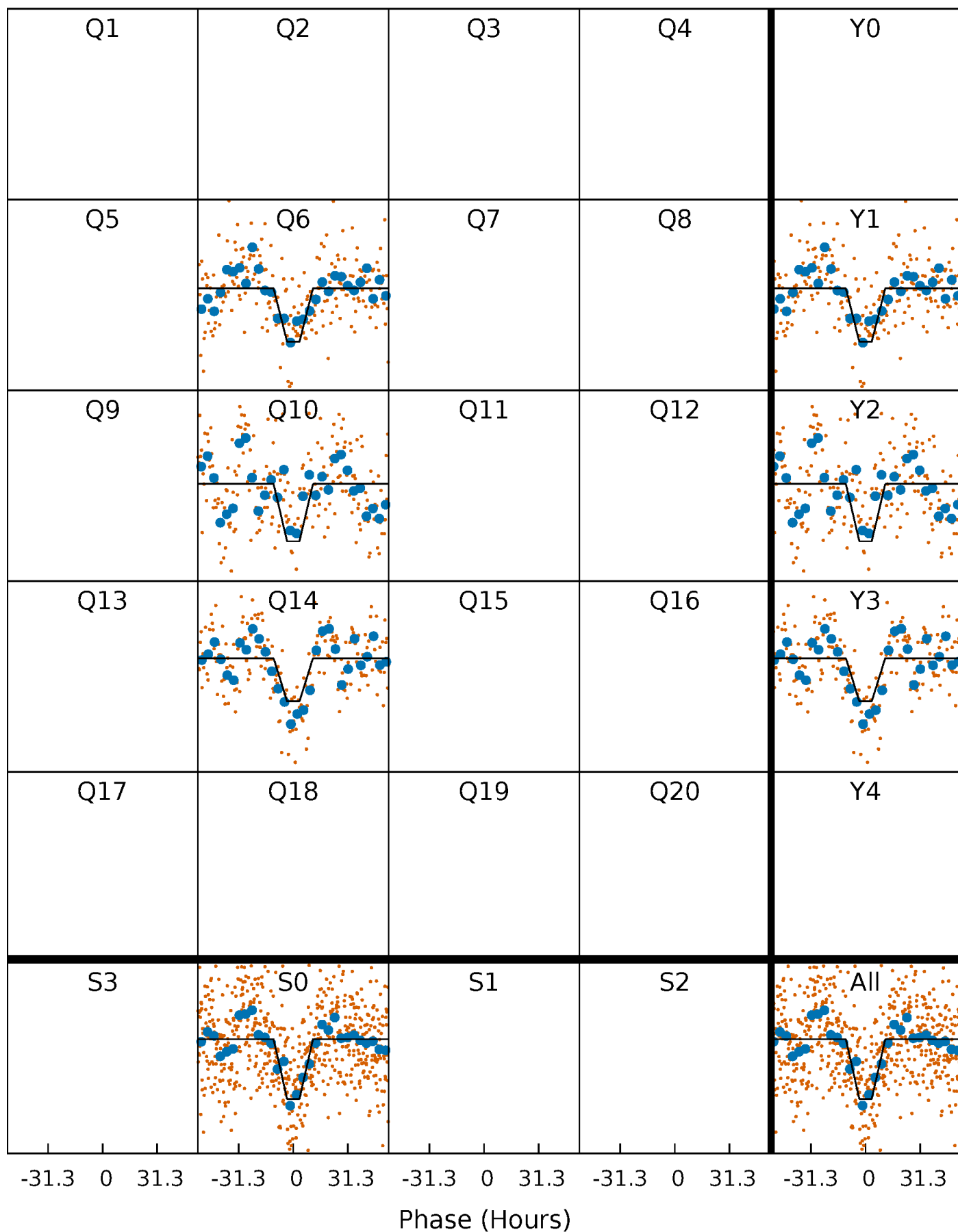
DV Quarter-Phased Transit Curves

TCE 008036124-01 P=368.537748 Days $T_0=236.010434$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

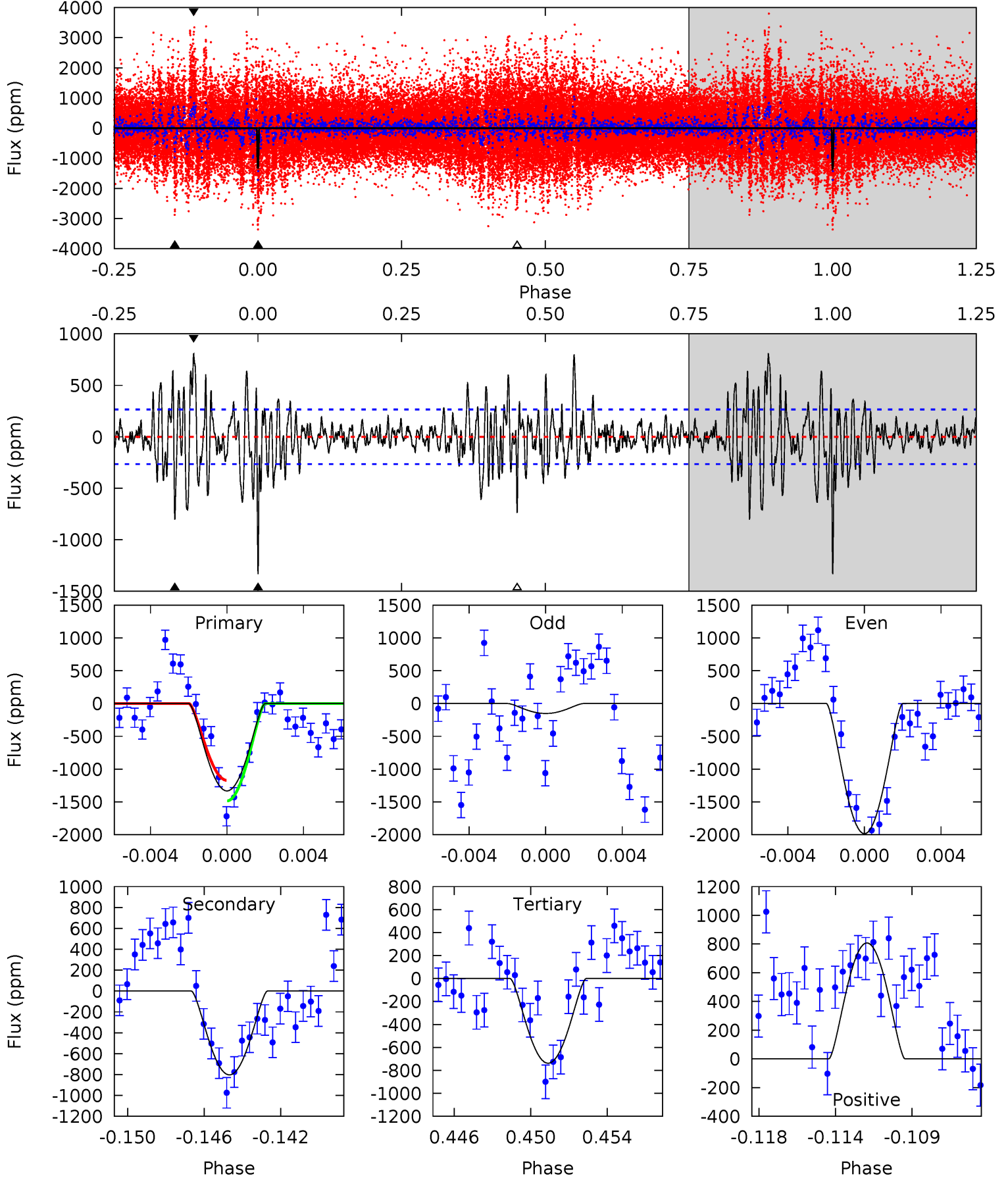
TCE 008036124-01 P=368.546499 Days $T_0=236.007798$ (BKJD)



DV Model-Shift Uniqueness Test

008036124-01, P = 368.537748 Days, E = 236.010434 Days

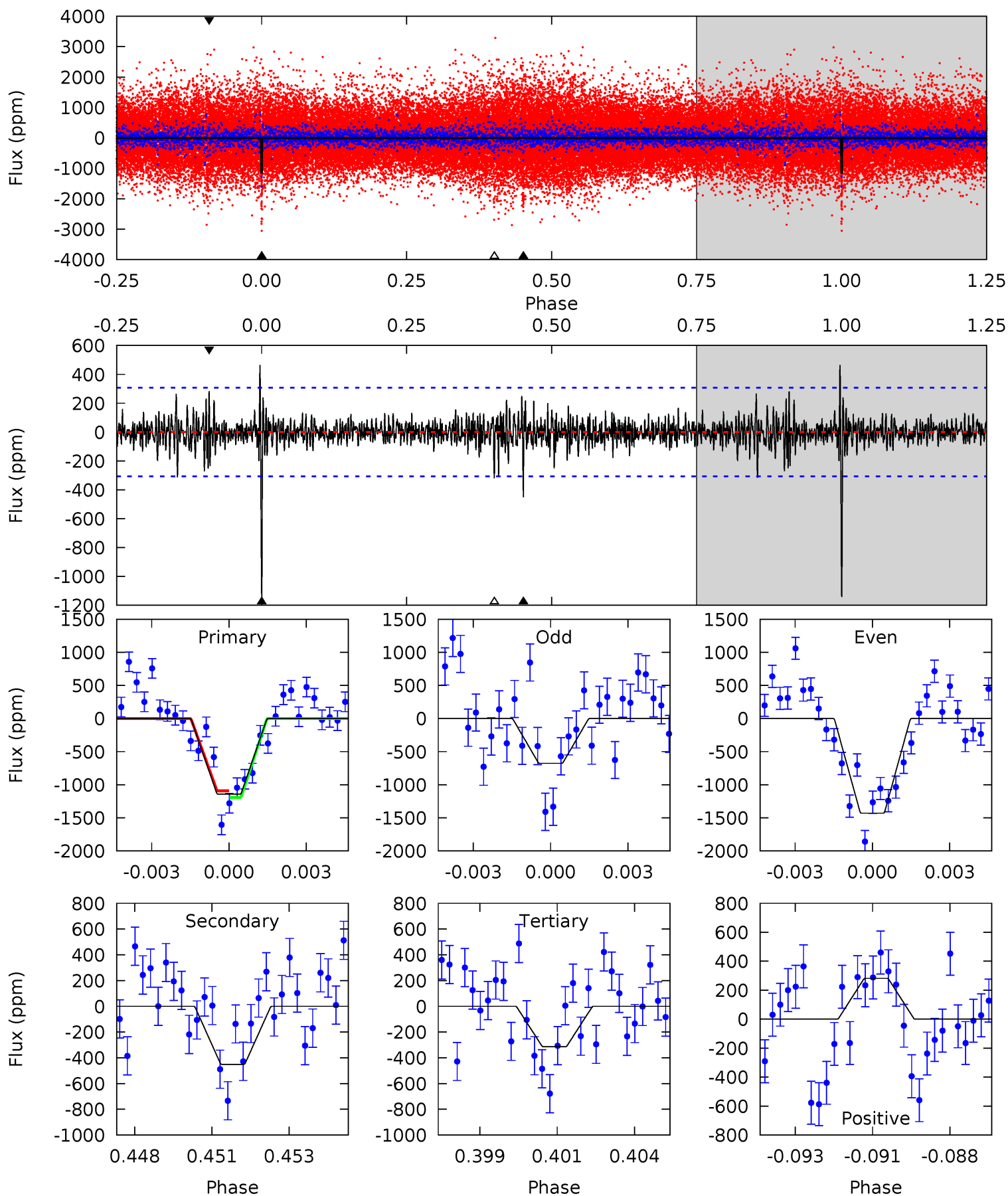
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	15.7	14.5	15.8	5.20	2.87	4.05	11.6	10.3	1.28	-0.08	16.7	0.73	0.38	3.08



Alt Model-Shift Uniqueness Test

008036124-01, P = 368.546499 Days, E = 236.007798 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	7.75	5.41	4.84	5.28	3.01	1.17	14.2	14.8	2.34	2.91	6.12	1.16	0.29	0.87



Stellar Parameters For KIC 008036124

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5425^{+187}_{-168}	$4.562^{+0.036}_{-0.153}$	$0.040^{+0.250}_{-0.300}$	$0.829^{+0.194}_{-0.077}$	$0.915^{+0.081}_{-0.099}$	$2.259^{+0.440}_{-0.933}$
	+3%/-3%	+1%/-3%	+625%/-750%	+23%/-9%	+9%/-11%	+19%/-41%
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 008036124-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-803 ± 51	$10.00^{+7.86}_{-6.58}$	315^{+19}_{-14}	3345^{+1561}_{-522}	4167^{+33507}_{-2878}
Alt.	-451 ± 58	$8.09^{+8.13}_{-5.28}$	314^{+19}_{-13}	3275^{+1444}_{-599}	3496^{+25203}_{-2627}

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

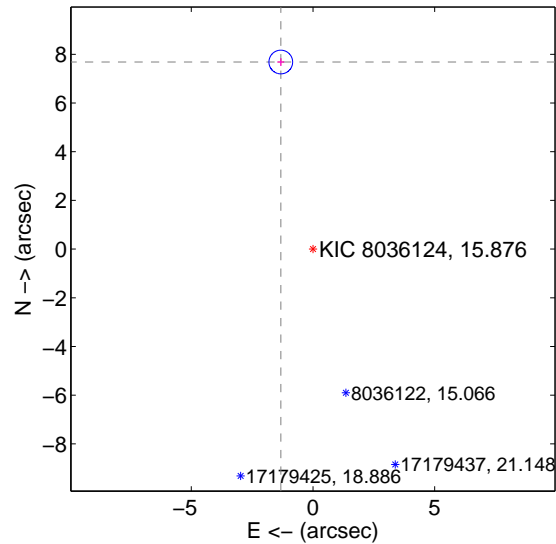
Supplemental centroid analysis for 008036124-01. Kepler magnitude: 15.88. Transit SNR 9.86

There are 0 quarters with good PRF difference image offsets

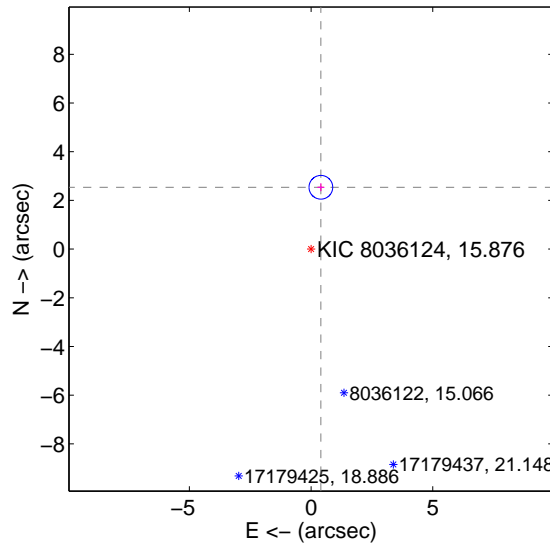
The OOT PRF centroid is offset from the target star catalog position by about 5.43 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.799 ± 0.162	48.07	1.322 ± 0.145	7.686 ± 0.163
PRF-fit source offset from KIC position	2.572 ± 0.162	15.84	-0.403 ± 0.145	2.540 ± 0.163
photometric centroid source offset	1.10 ± 1.01	1.10	-0.92 ± 0.73	-0.62 ± 1.43

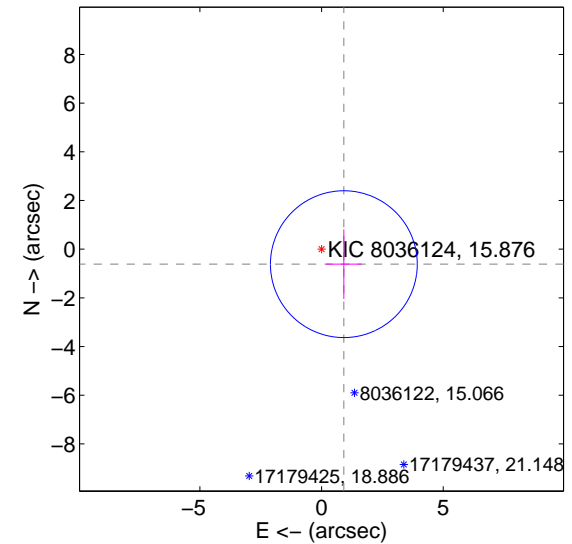
offset from difference PRF-fit to OOT PRF-fit



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.



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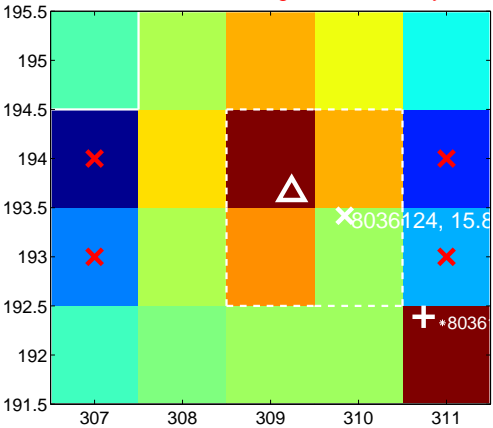
Q5 no difference image



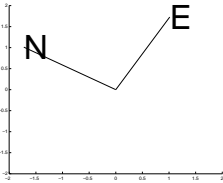
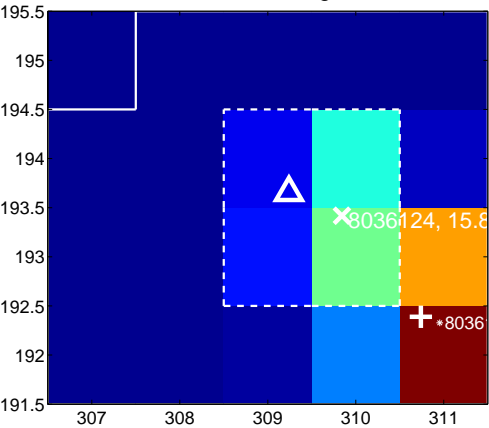
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



Q7 no difference image



Q7 no OOT image



Q8 no difference image



Q8 no OOT image



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

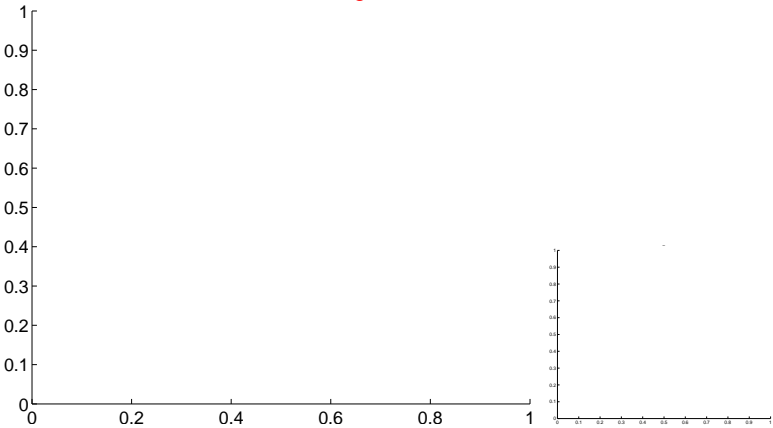


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

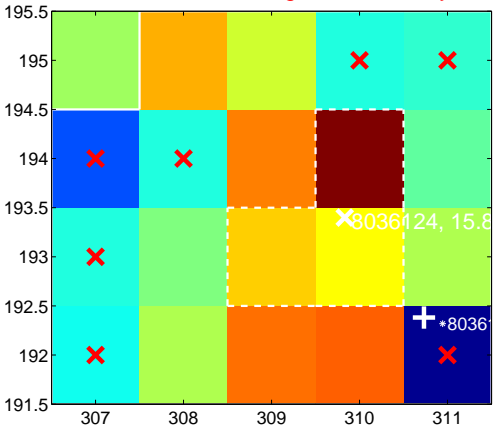
Q13 no difference image



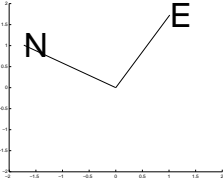
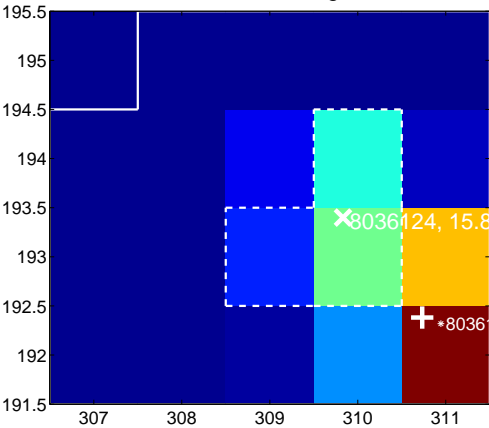
Q13 no OOT image



Q14 difference image. Poor Quality



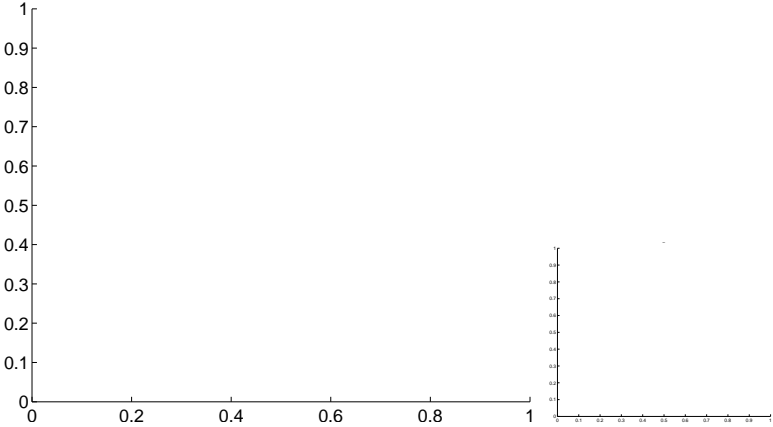
Q14 OOT image



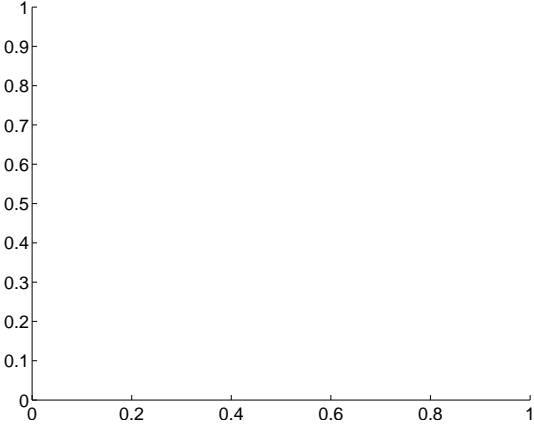
Q15 no difference image



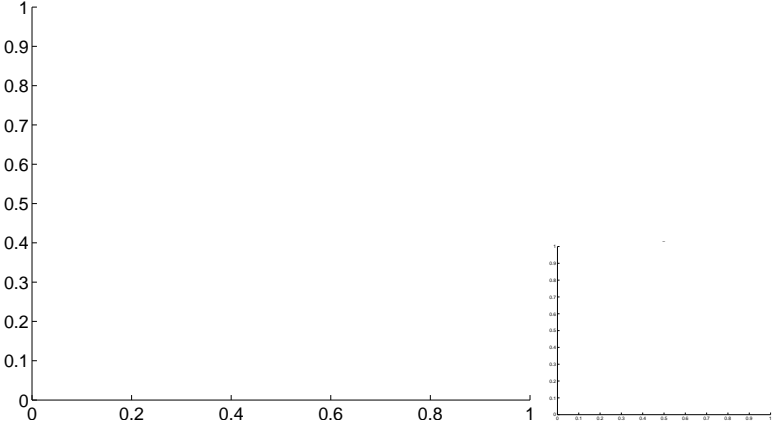
Q15 no OOT image



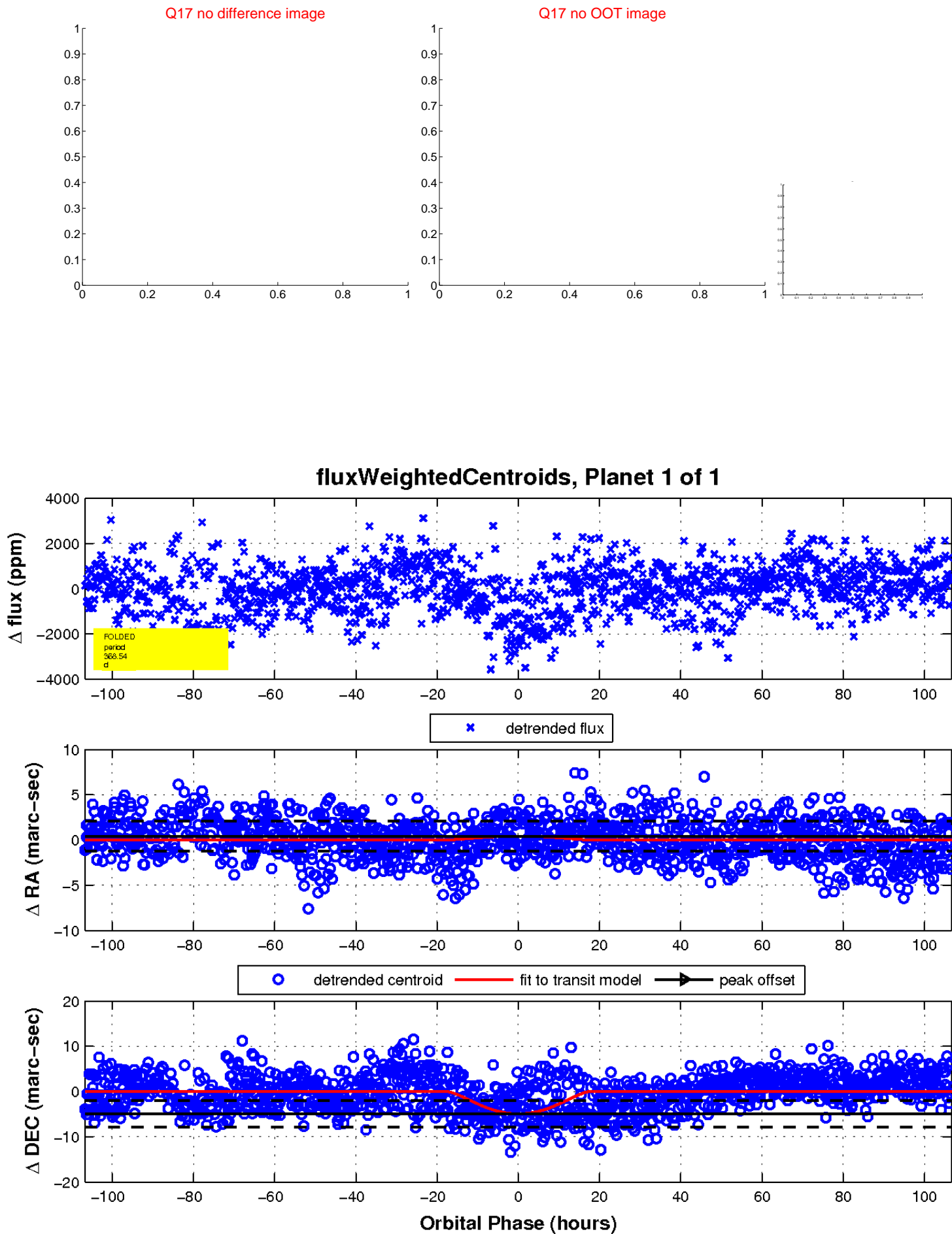
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

