

KIC 007465258

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})
007465258-01	OBS	No	616.858163	342.050178	121.5	6.029	9.7	3.2	61.09	3890	71.06	280.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007465258-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

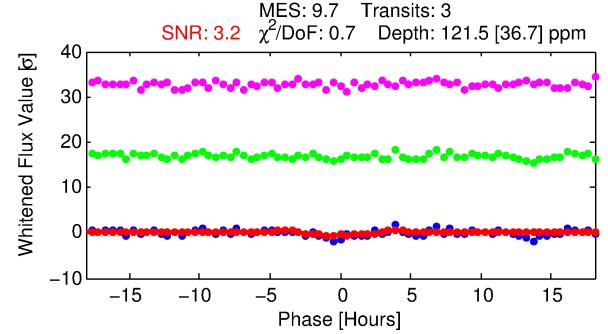
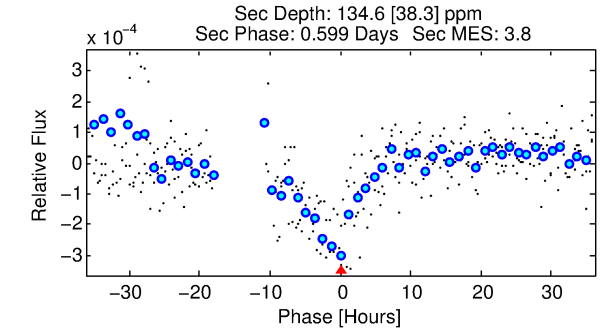
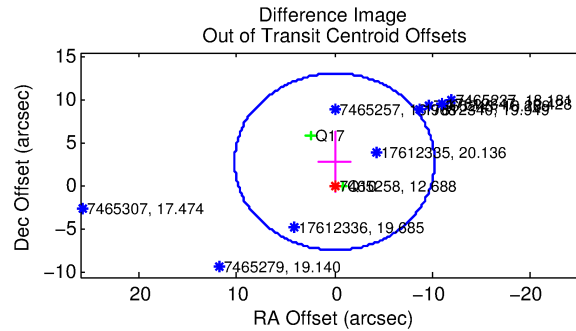
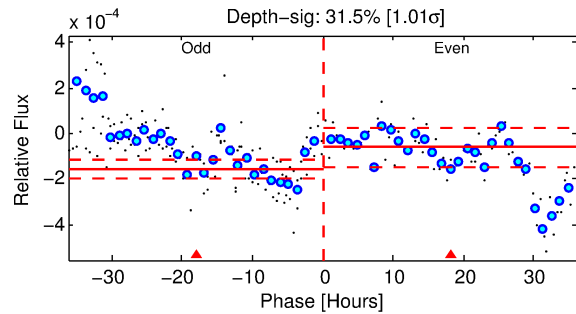
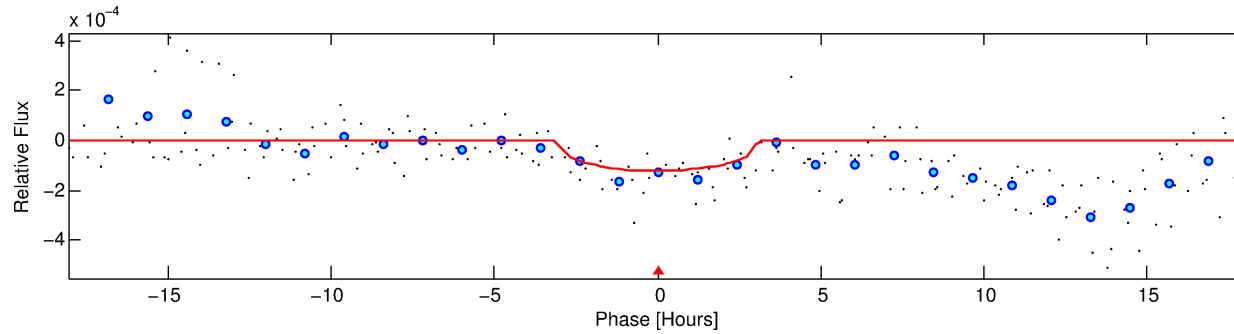
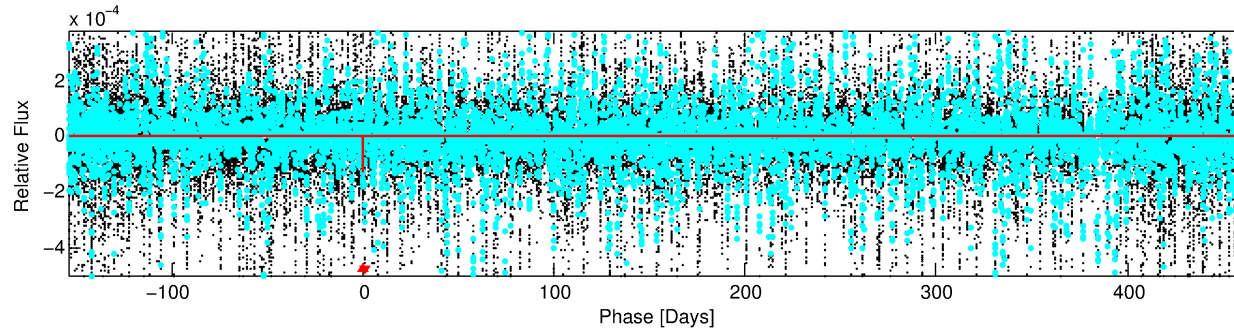
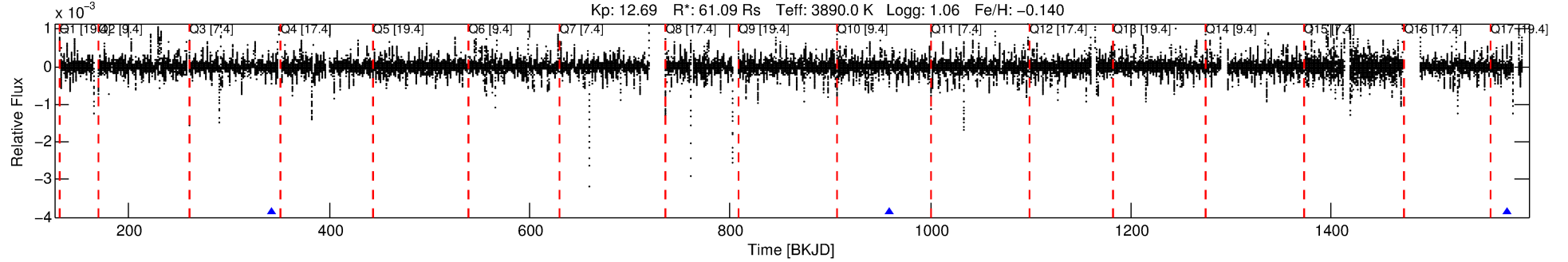
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007465258-01

No Significant Match Found

DV One-Page Summary

KIC: 7465258 Candidate: 1 of 1 Period: 616.858 d



DV Fit Results:

Period = 616.85816 [0.01259] d
Epoch = 342.0502 [0.0138] BKJD
Rp/R* = 0.0107 [0.0120]
a/R* = 586.38 [1735.99]
b = 0.68 [2.44]
Seff = 280.83 [45.21]
Teq = 1044 [42] K
Rp = 71.06 [81.22] Re
a = 1.6513 [0.1980] AU
Ag = 40.00 [91.20] [0.43 σ]
Teffp = 4059 [2312] K [1.30 σ]

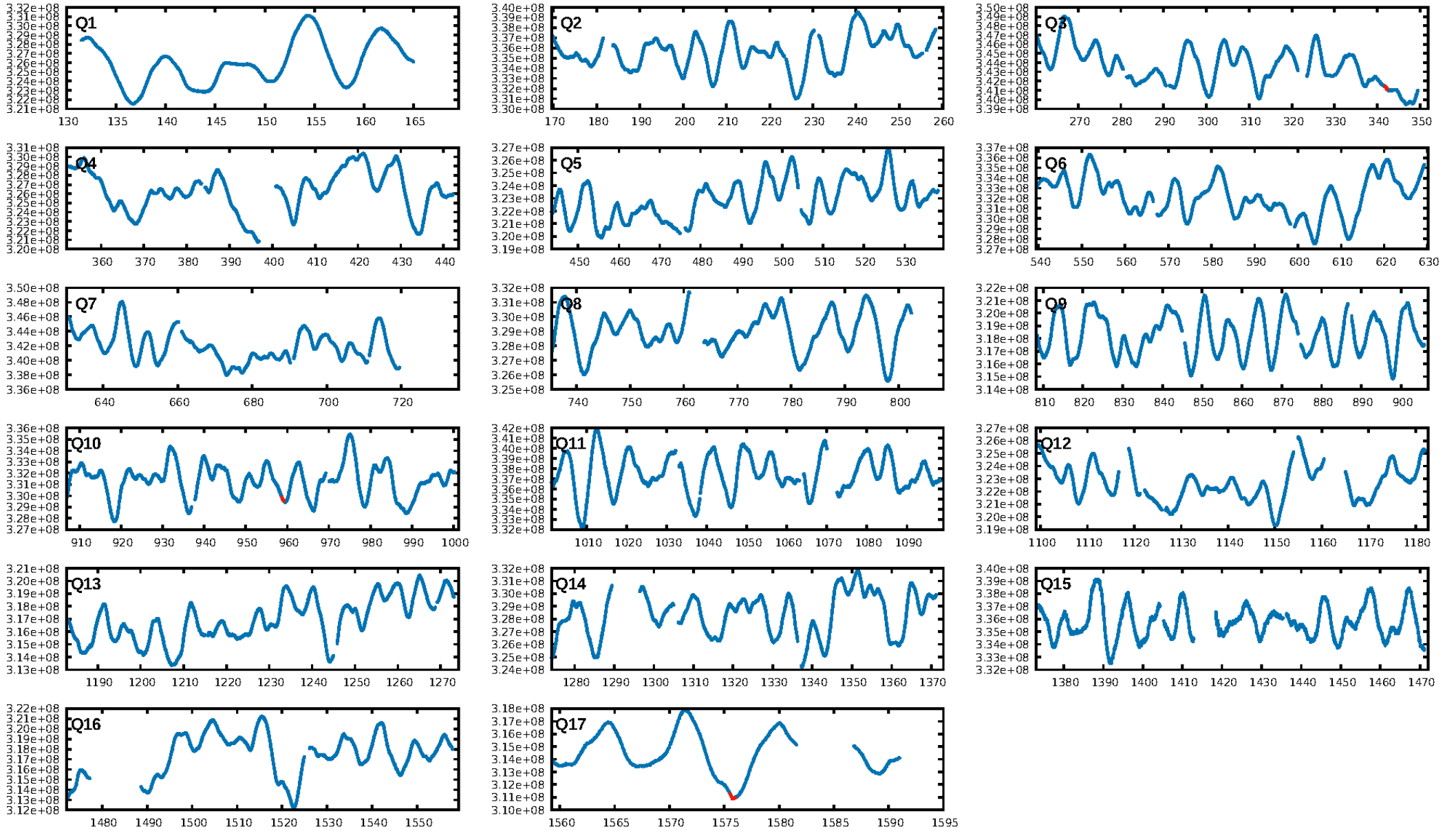
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 27.6%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.06e-05
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -2.073
Centroid-sig: 21.6%
Centroid-so: 2.113 arcsec [1.26 σ]
OotOffset-rm: 2.831 arcsec [0.83 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 2.333 arcsec [0.72 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

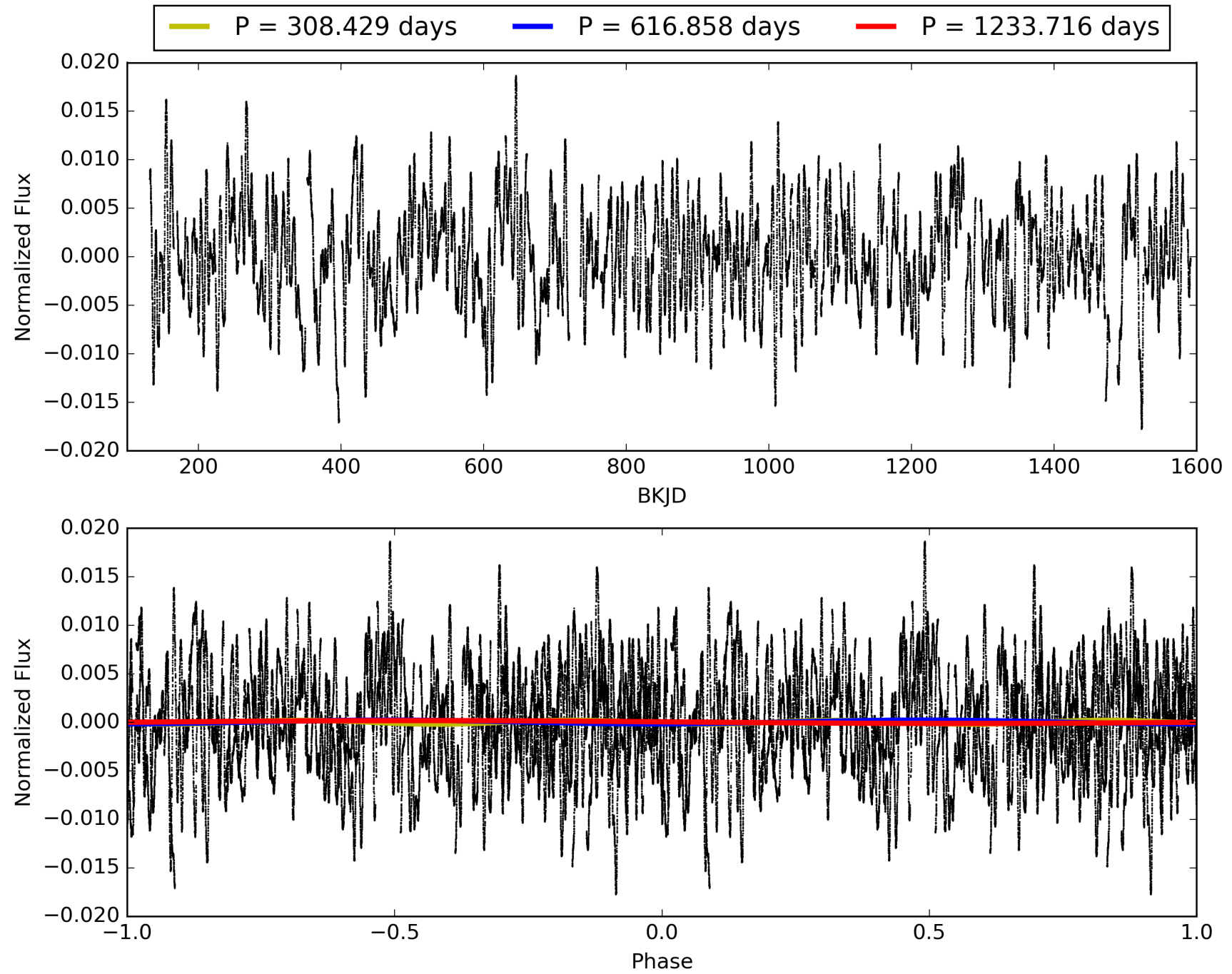
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:53:44 Z

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

TCE 007465258-01, PDC Light Curves

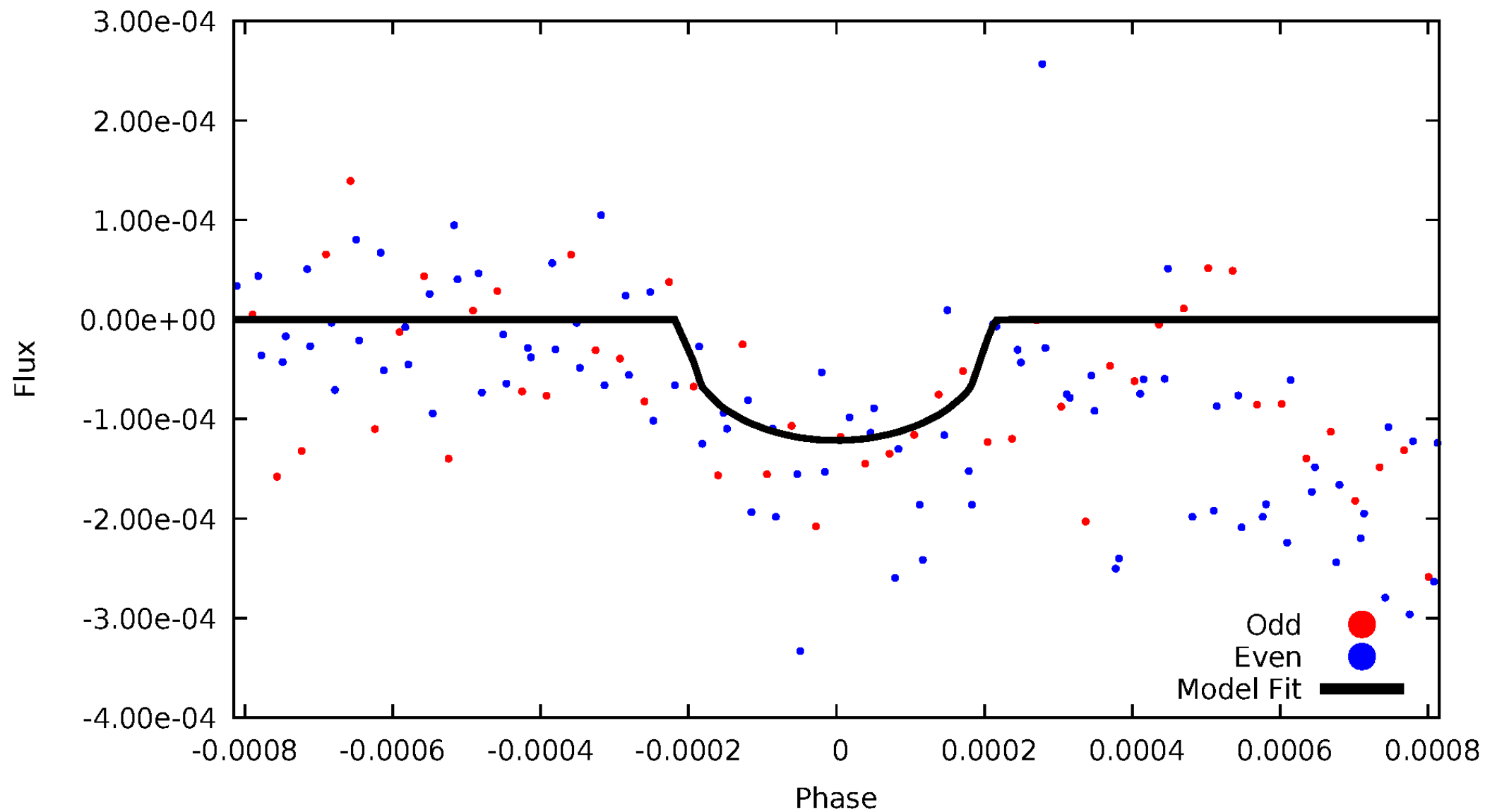


TCE 007465258-01



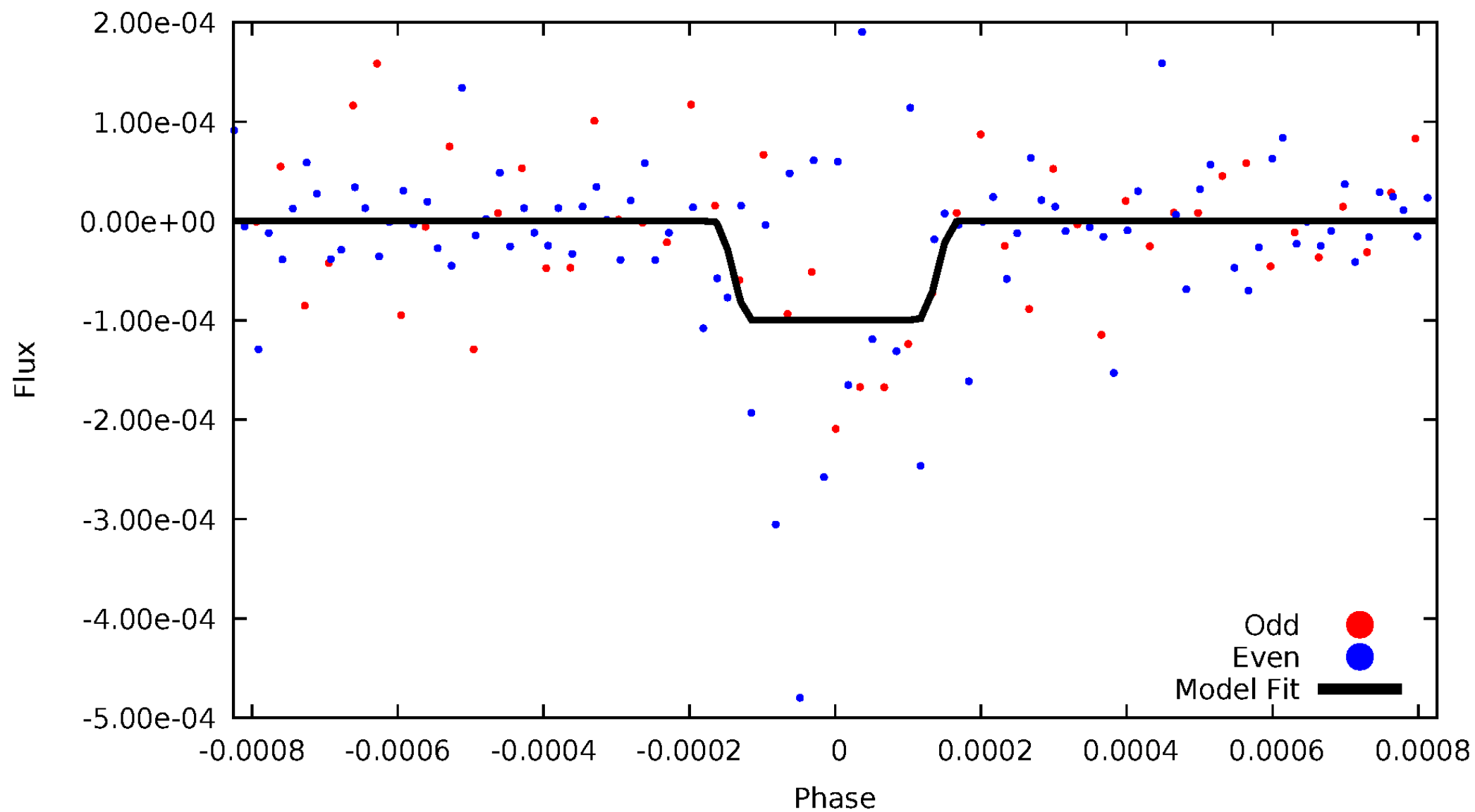
DV Odd/Even

TCE 007465258-01



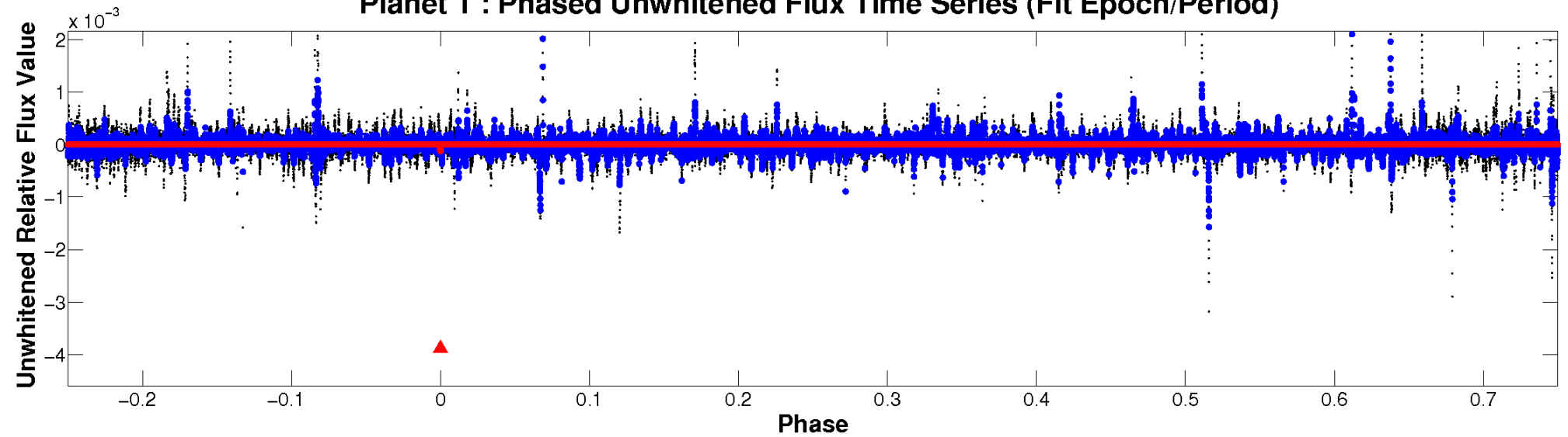
ALT Odd/Even

TCE 007465258-01

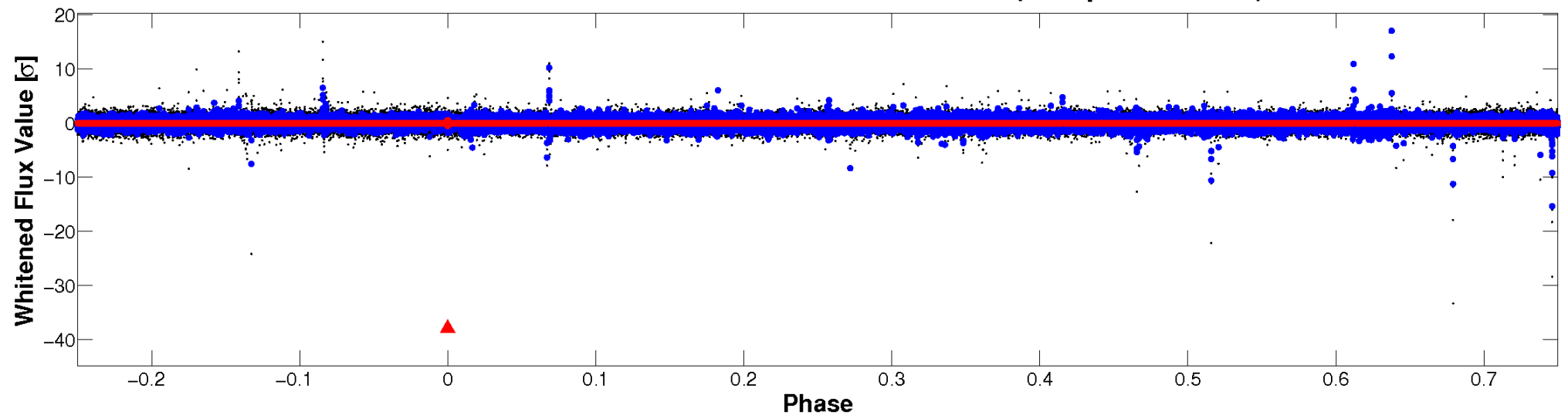


Non-Whitened Vs. Whitened Light Curve

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

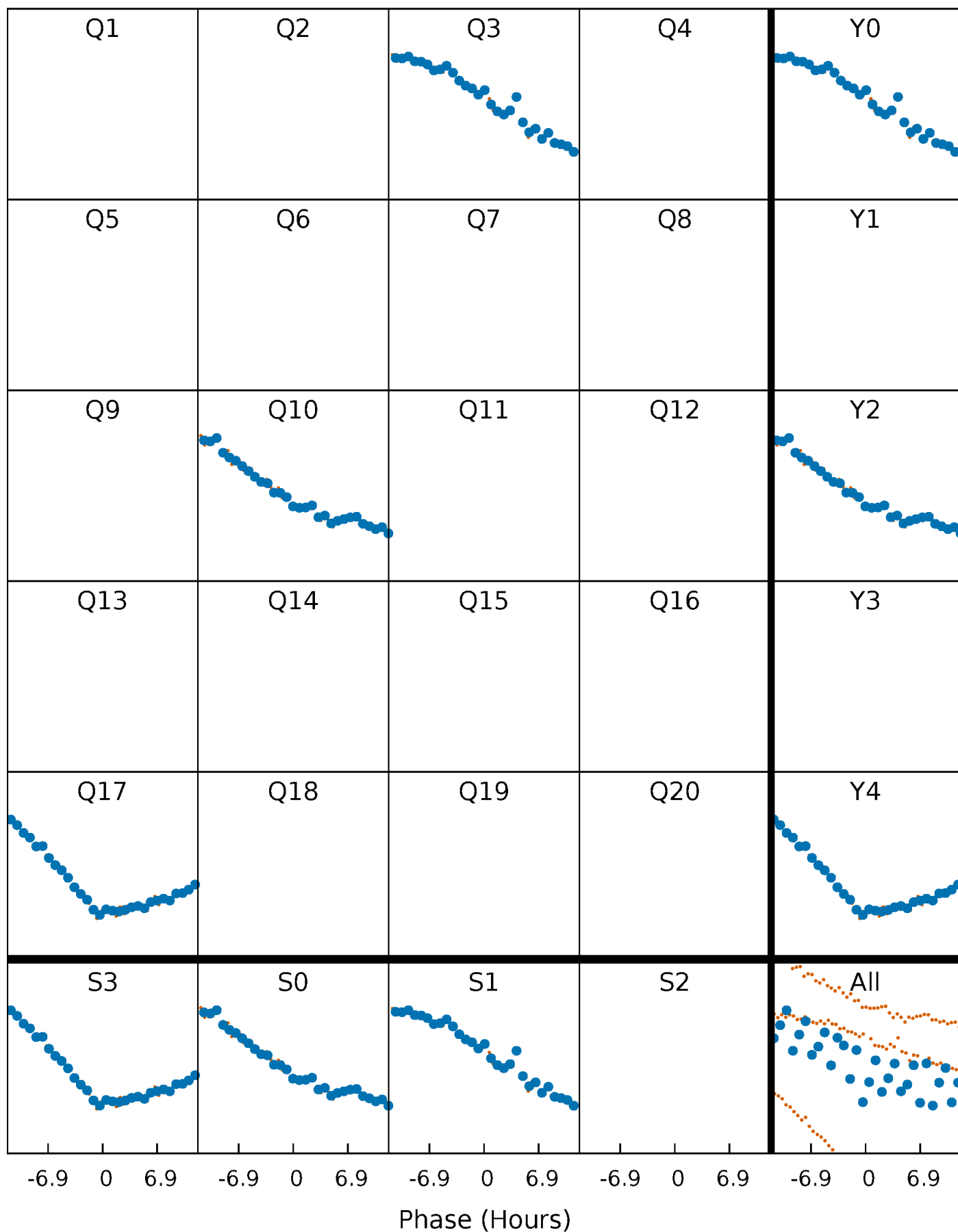


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



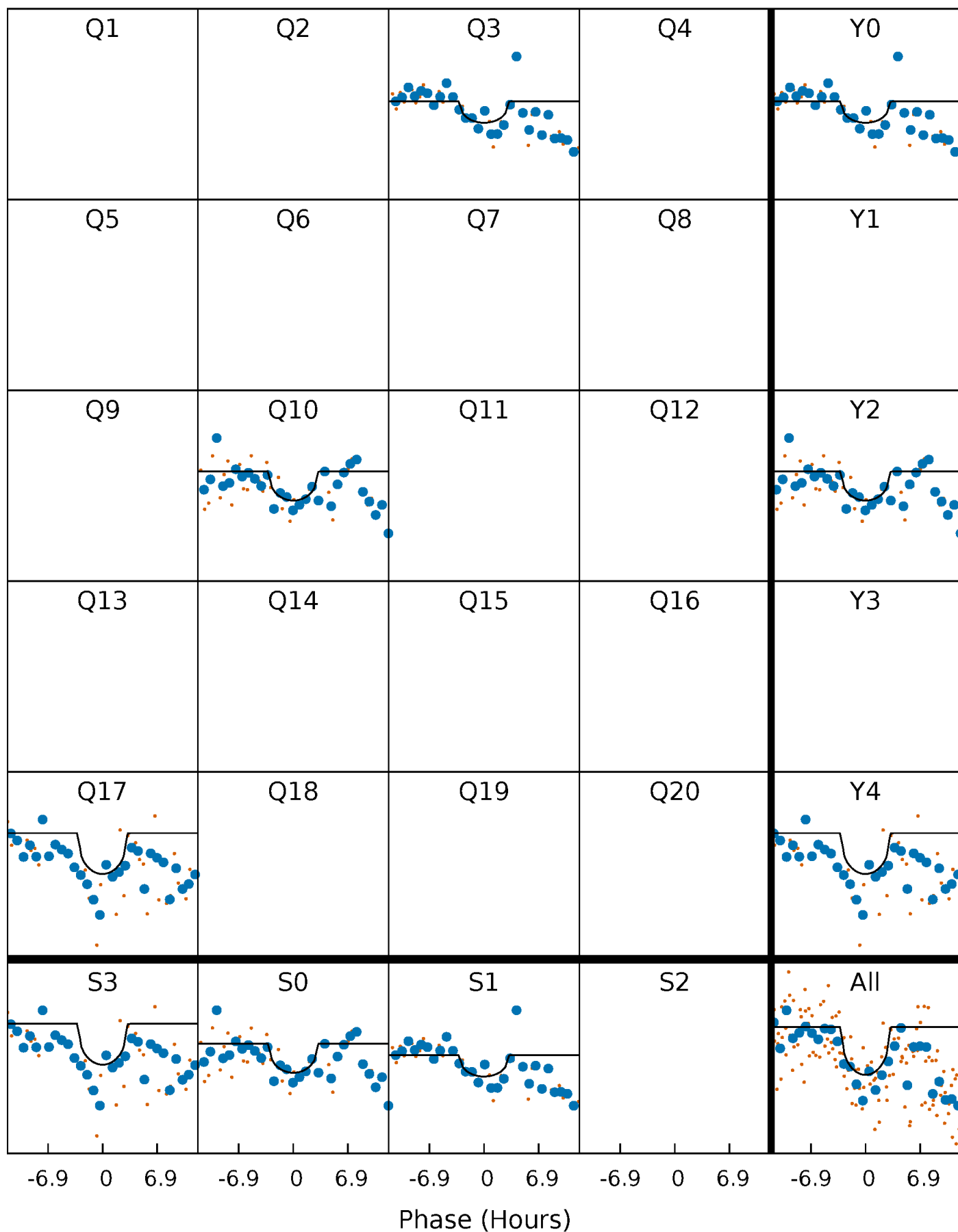
PDC Quarter-Phased Transit Curves

TCE 007465258-01 P=616.858163 Days $T_0=342.050178$ (BKJD)



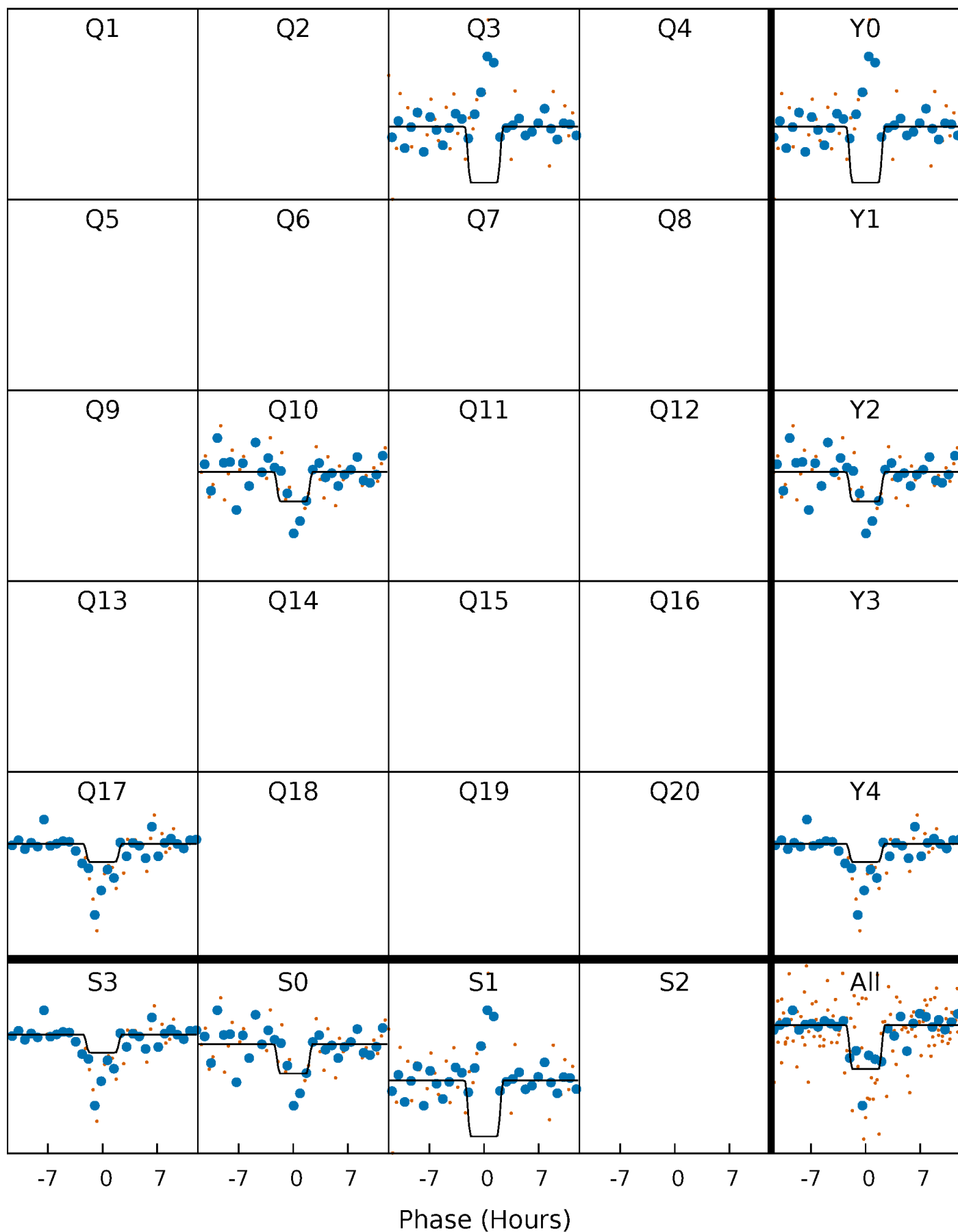
DV Quarter-Phased Transit Curves

TCE 007465258-01 P=616.858163 Days $T_0=342.050178$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

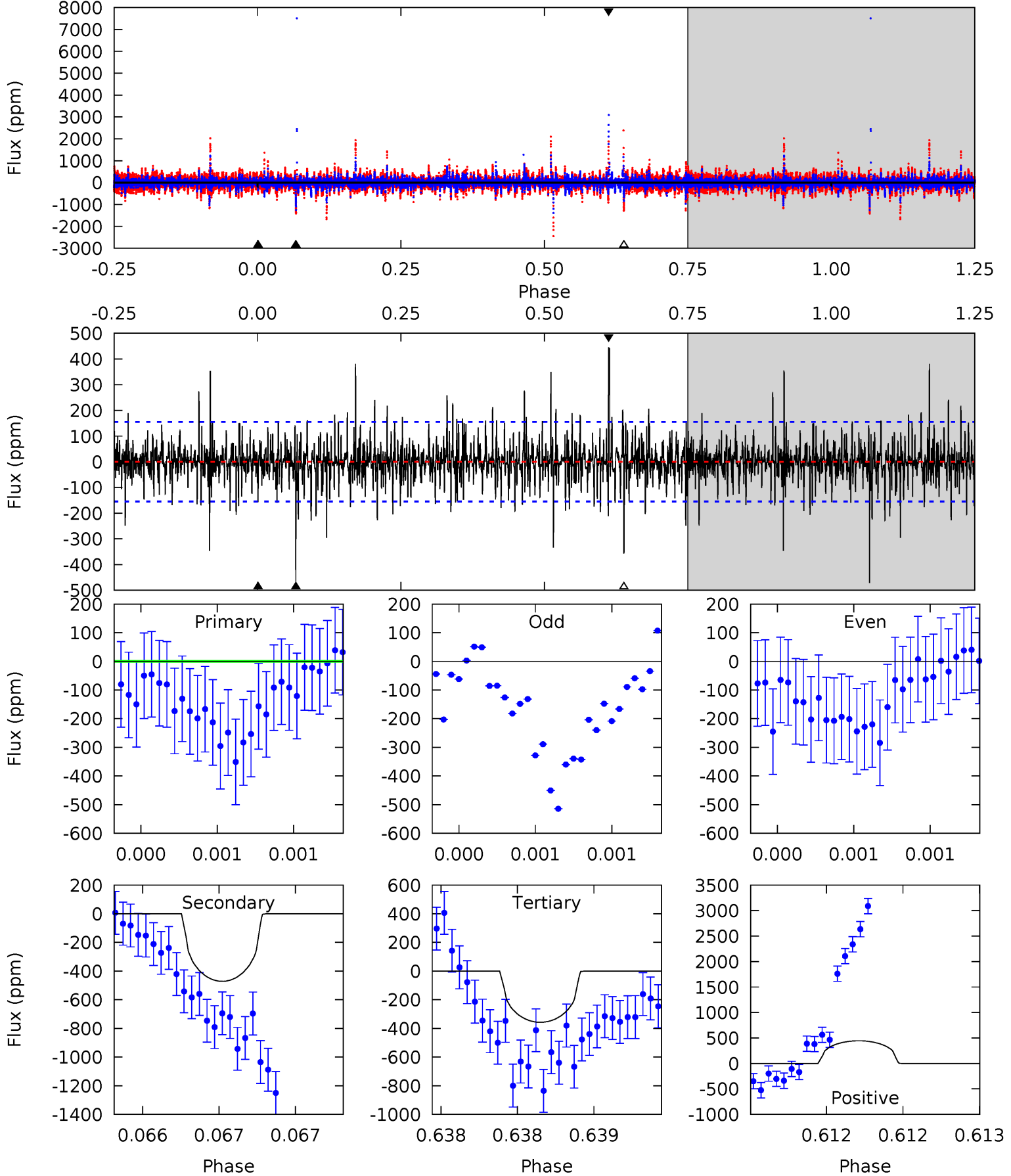
TCE 007465258-01 P=616.875554 Days $T_0=342.015200$ (BKJD)



DV Model-Shift Uniqueness Test

007465258-01, P = 616.858163 Days, E = 342.050178 Days

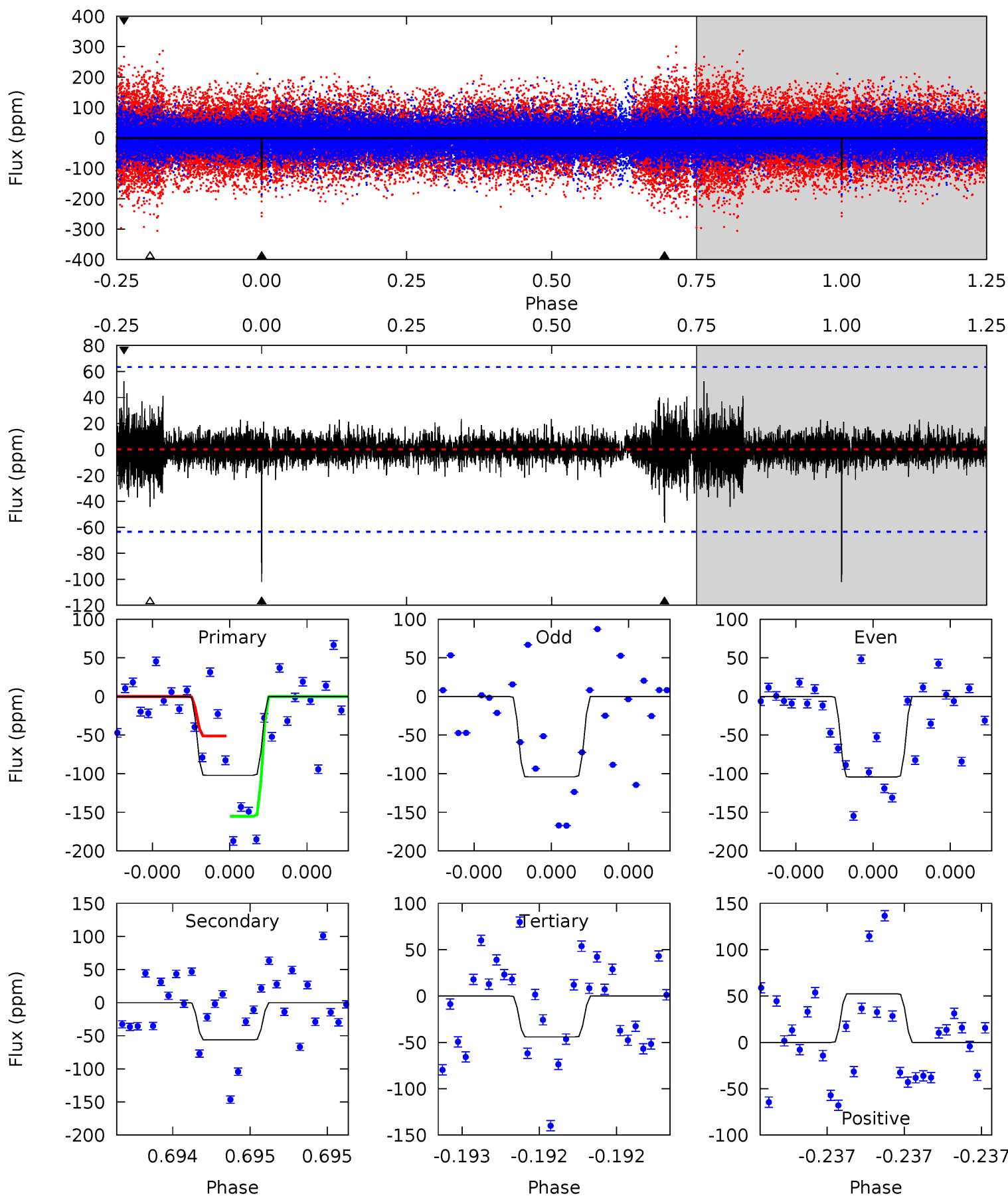
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.65	17.1	13.0	16.2	5.61	3.53	2.05	-7.32	-10.5	4.14	0.95	0.39	1.05	0.49	0.16



Alt Model-Shift Uniqueness Test

007465258-01, P = 616.875554 Days, E = 342.015200 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.09	5.01	3.94	4.67	5.64	3.59	0.64	5.15	4.42	1.07	0.34	0.01	0.88	0.34	4.67



Stellar Parameters For KIC 007465258

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3890^{+87}_{-97}	$1.064^{+0.030}_{-0.030}$	$-0.140^{+0.200}_{-0.200}$	$61.095^{+3.595}_{-10.785}$	$1.578^{+0.163}_{-0.489}$	$0.000^{+0.000}_{-0.000}$
	+2%/-2%	+3%/-3%	+143%/-143%	+6%/-18%	+10%/-31%	+23%/-11%
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 007465258-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-471 ± 28	$93.30^{+71.18}_{-60.18}$	1460^{+38}_{-44}	4574^{+2956}_{-853}	82^{+576}_{-56}
Alt.	-56 ± 11	$87.96^{+73.48}_{-58.31}$	1460^{+38}_{-41}	3239^{+1387}_{-541}	11^{+78}_{-8}

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 $A_{obs} \gg 1.0$

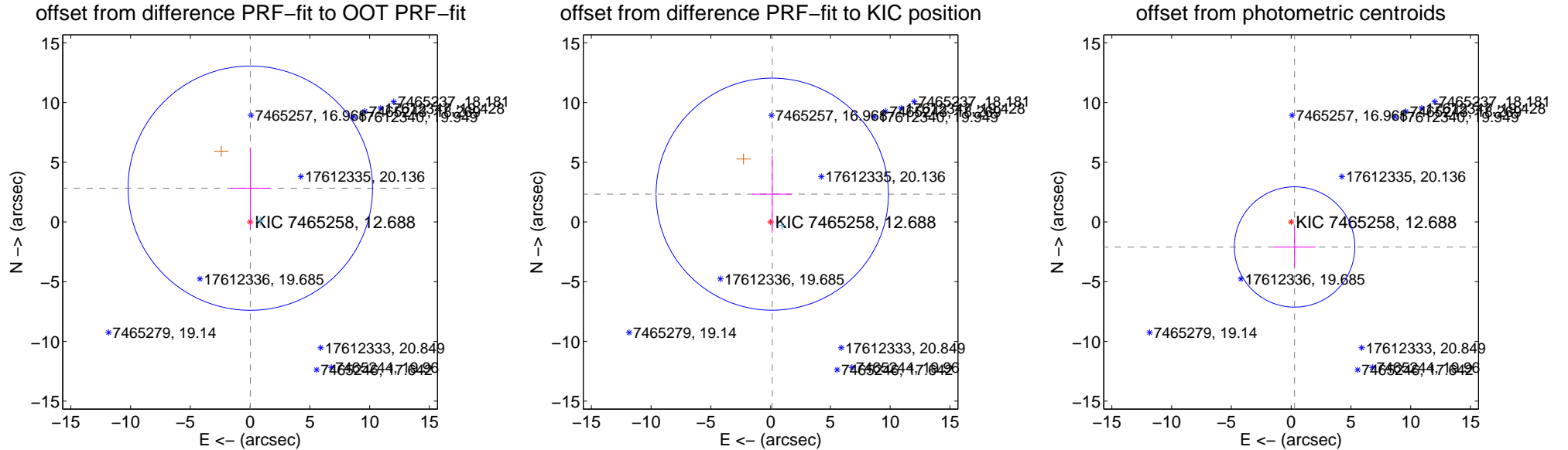
DV Centroid Data

Supplemental centroid analysis for 007465258-01. Kepler magnitude: 12.69. Transit SNR 3.23

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.67 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.831 ± 3.409	0.83	-0.016 ± 1.655	2.831 ± 3.409
PRF-fit source offset from KIC position	2.333 ± 3.239	0.72	-0.135 ± 1.637	2.329 ± 3.243
photometric centroid source offset	2.11 ± 1.68	1.26	-0.29 ± 1.75	-2.09 ± 1.68



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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

Q1 no difference image



Q1 no OOT image



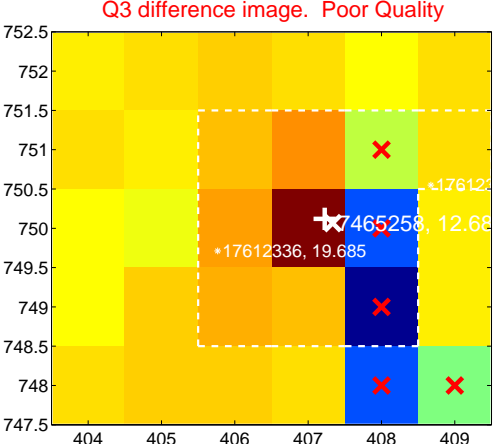
Q2 no difference image



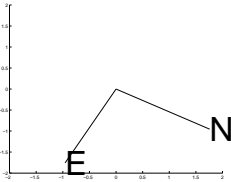
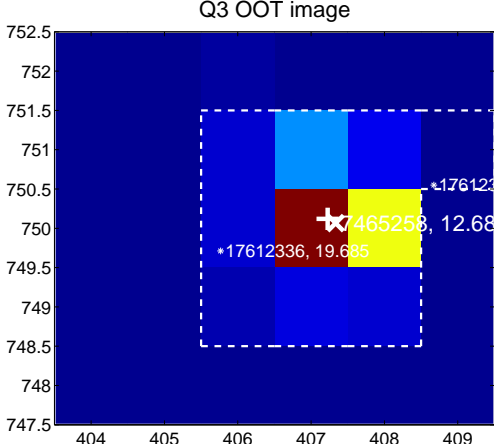
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



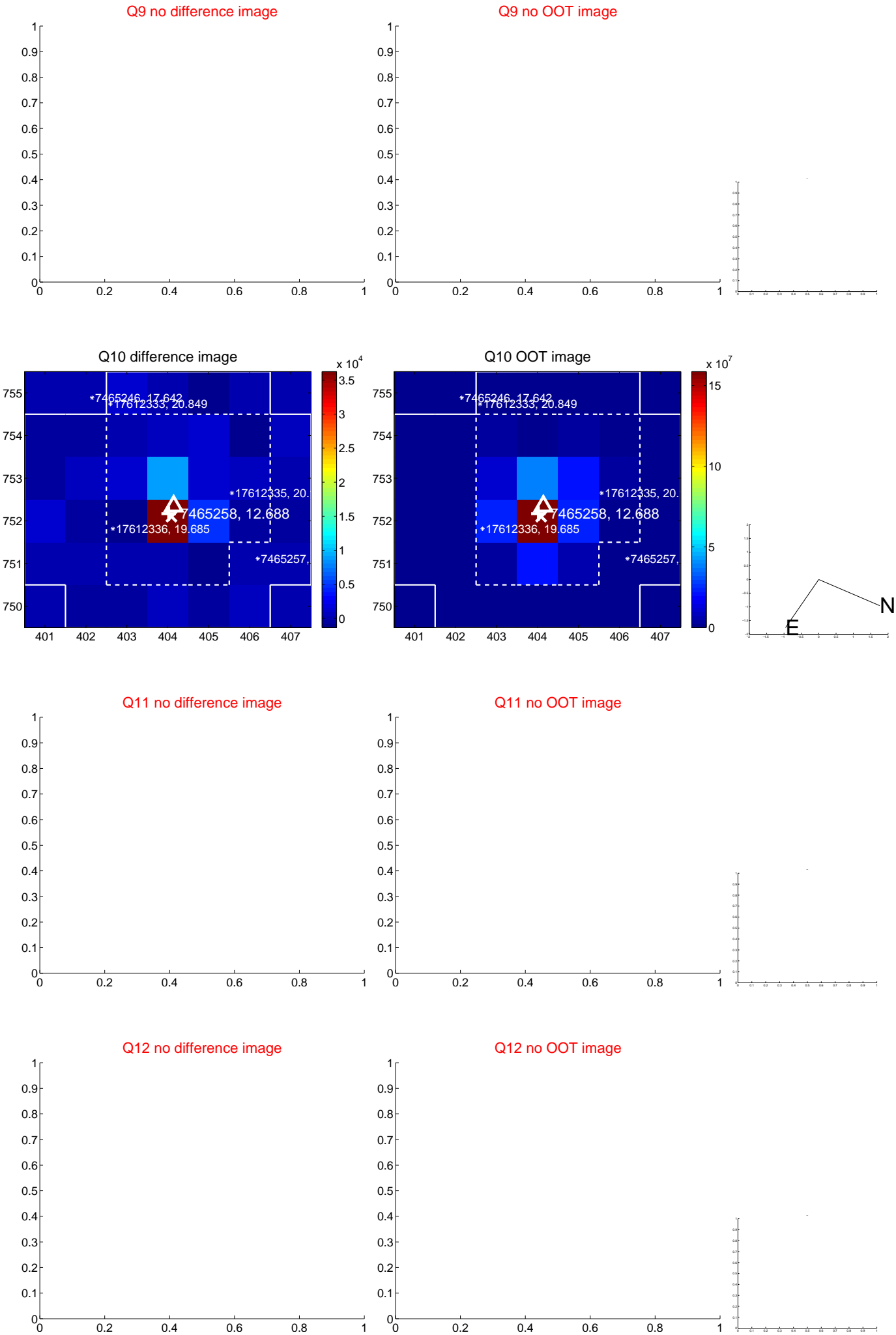
Q4 no OOT image



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



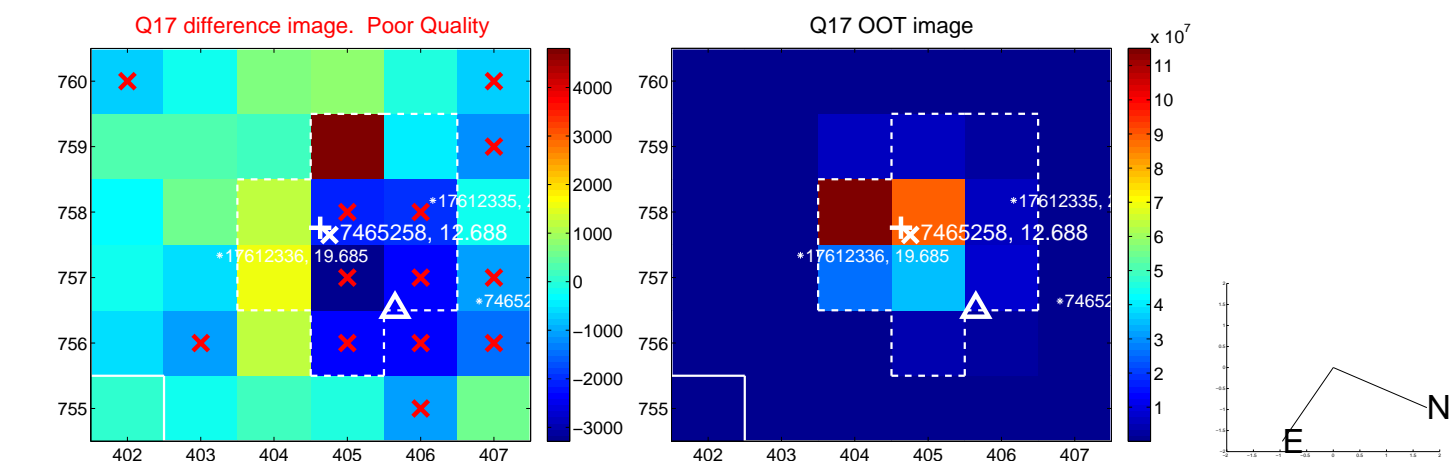
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



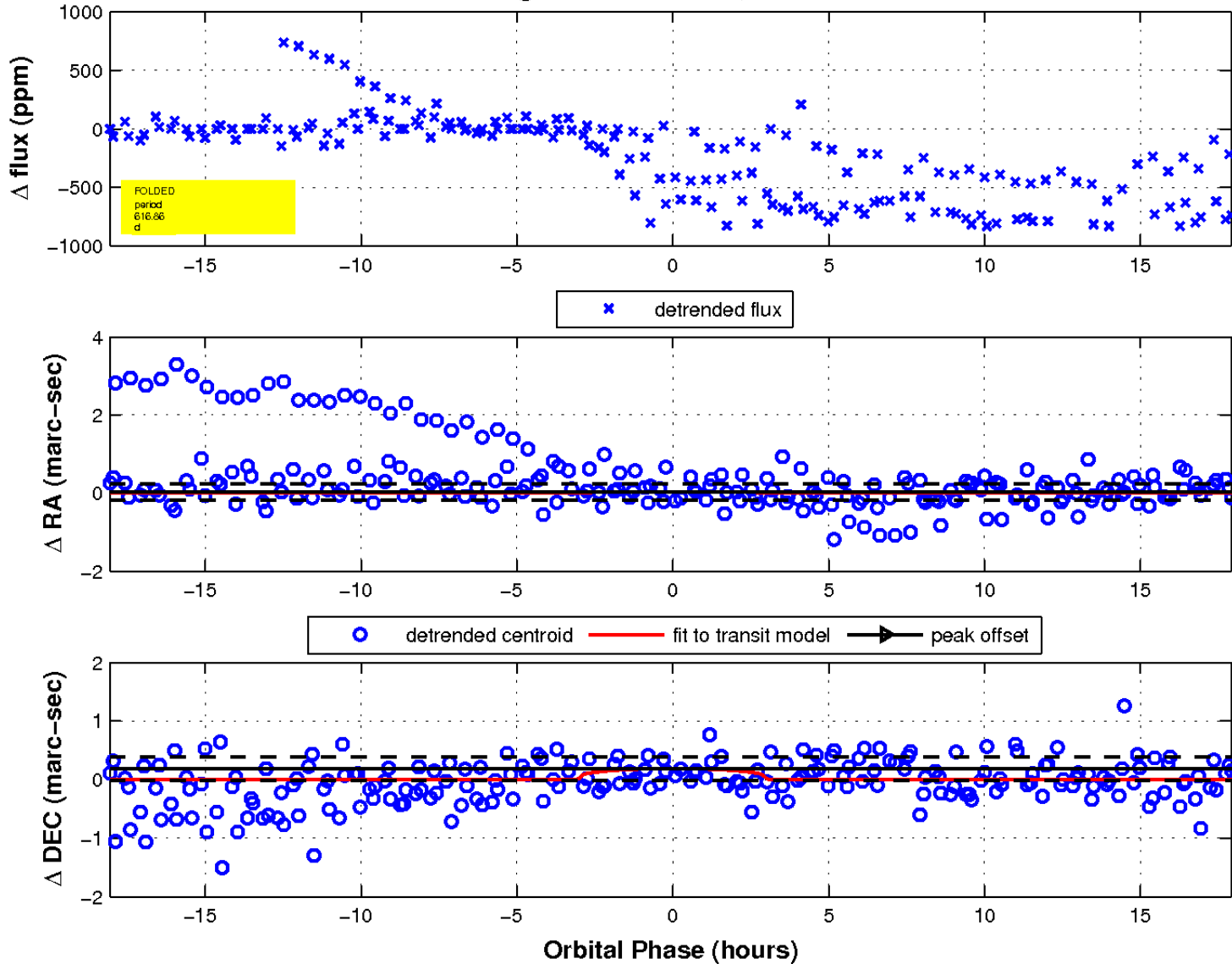
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

