

KIC 008492050

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})
008492050-01	OBS	No	374.807138	133.302269	1950.2	59.322	15.3	24.1	0.75	5423	5.18	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008492050-01	OBS	FP	0.00	1	0	1	1	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH

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.

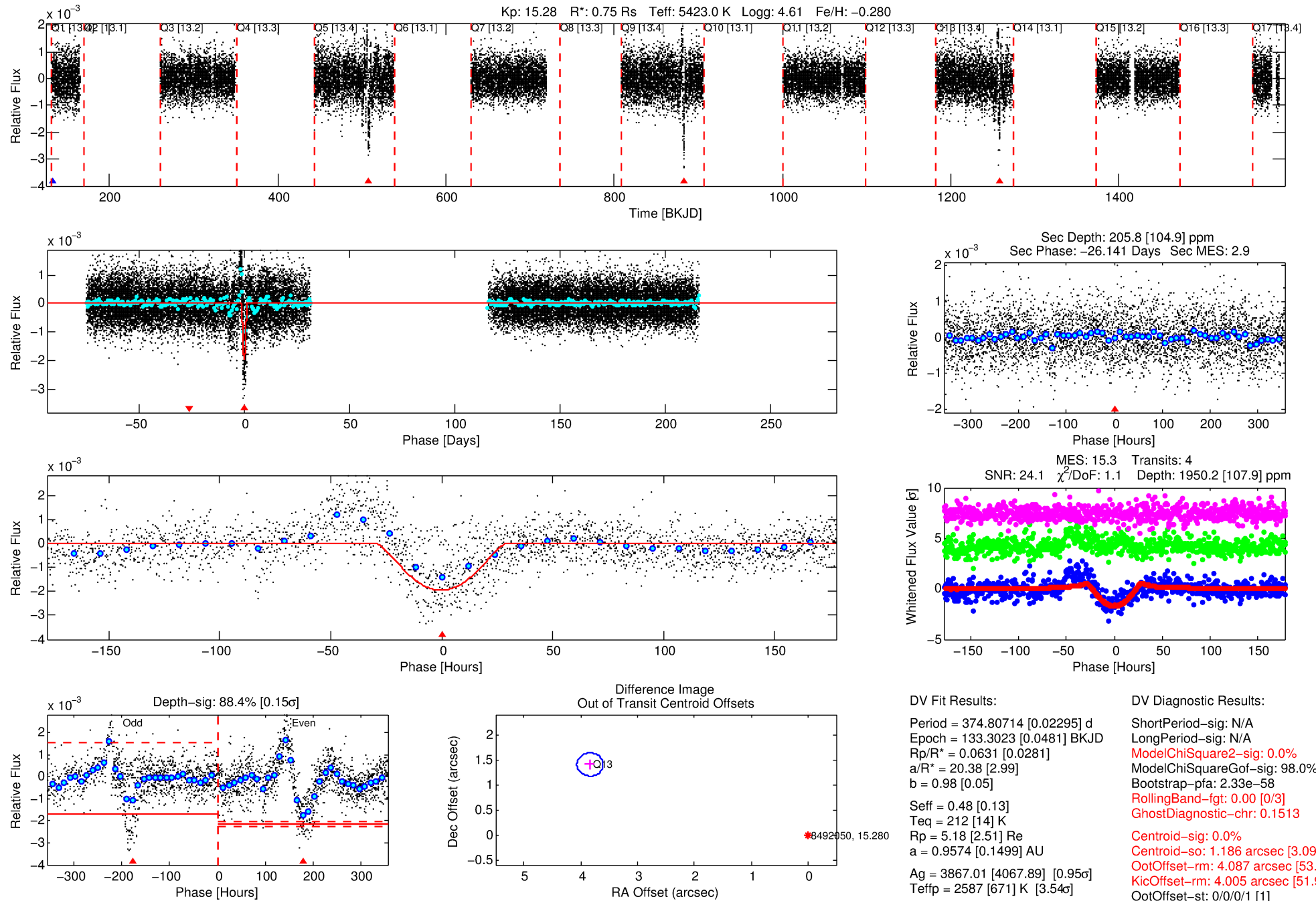
Ephemeris Match Information For 008492050-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist (\prime)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008492050-01	8492050	008557304-01	8557304	1:1	592.1	149	0	15.94	15.28	1.49	Col-Anomaly	1	1.26	4.34

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8492050 Candidate: 1 of 1 Period: 374.807 d



DV Fit Results:

Period = 374.80714 [0.02295] d
Epoch = 133.3023 [0.0481] BKJD
Rp/R* = 0.0631 [0.0281]
a/R* = 20.38 [2.99]
b = 0.98 [0.05]
Seff = 0.48 [0.13]
Teq = 212 [14] K
Rp = 5.18 [2.51] Re
a = 0.9574 [0.1499] AU
Ag = 3867.01 [4067.89] [0.95σ]
Teff = 2587 [671] K [3.54σ]

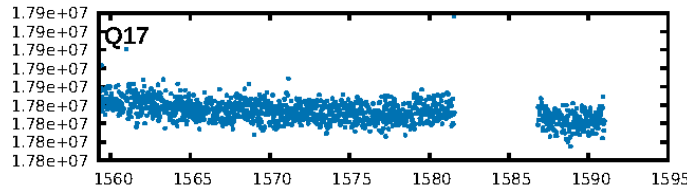
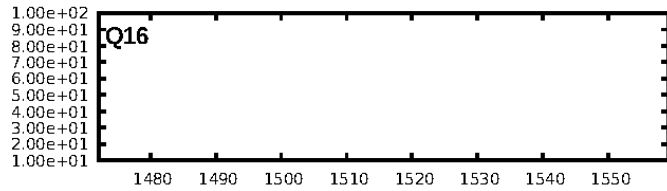
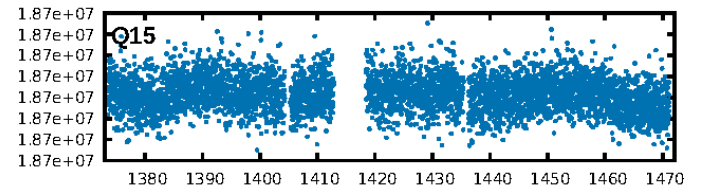
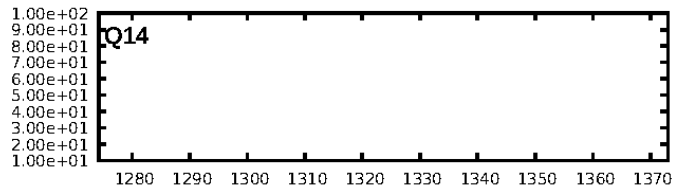
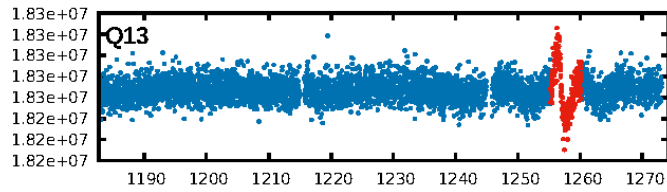
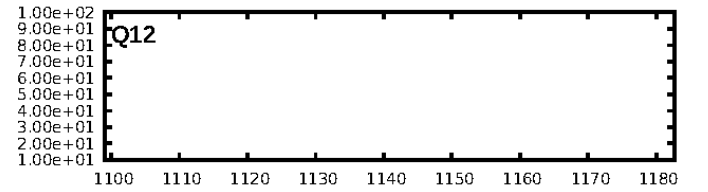
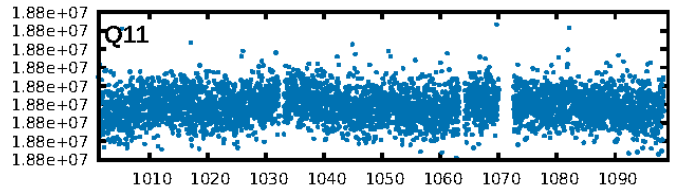
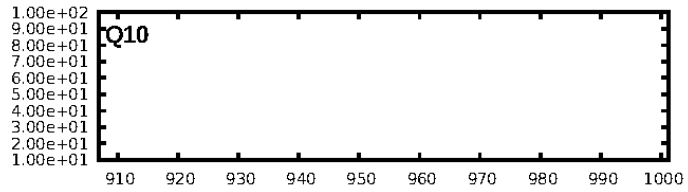
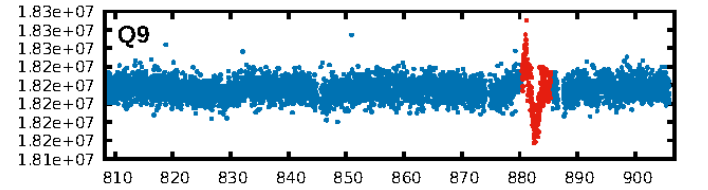
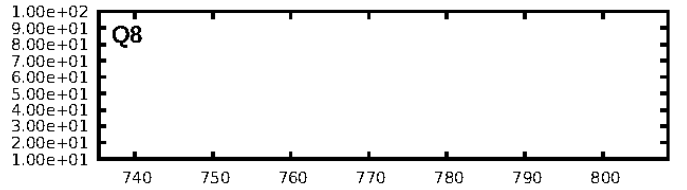
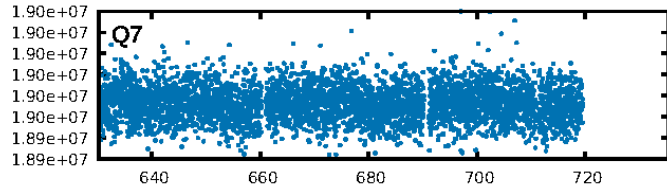
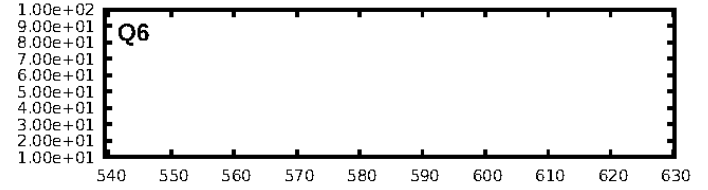
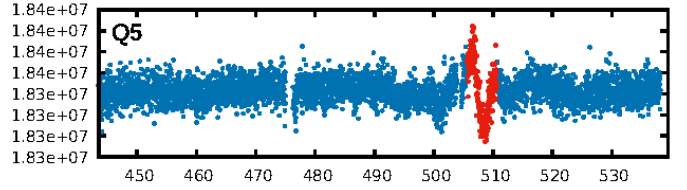
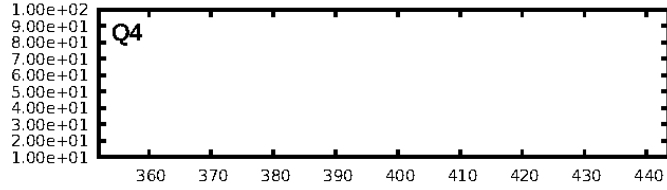
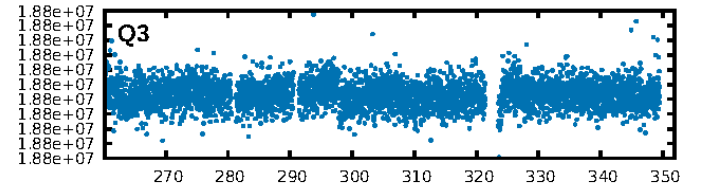
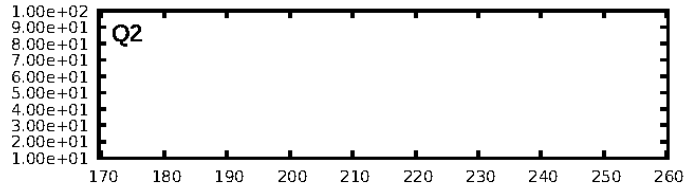
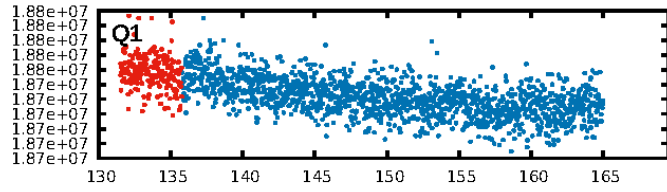
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 98.0%
Bootstrap-pfa: 2.33e-58
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 0.1513
Centroid-sig: 0.0%
Centroid-so: 1.186 arcsec [3.09σ]
OotOffset-rm: 4.087 arcsec [53.03σ]
KicOffset-rm: 4.005 arcsec [51.96σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

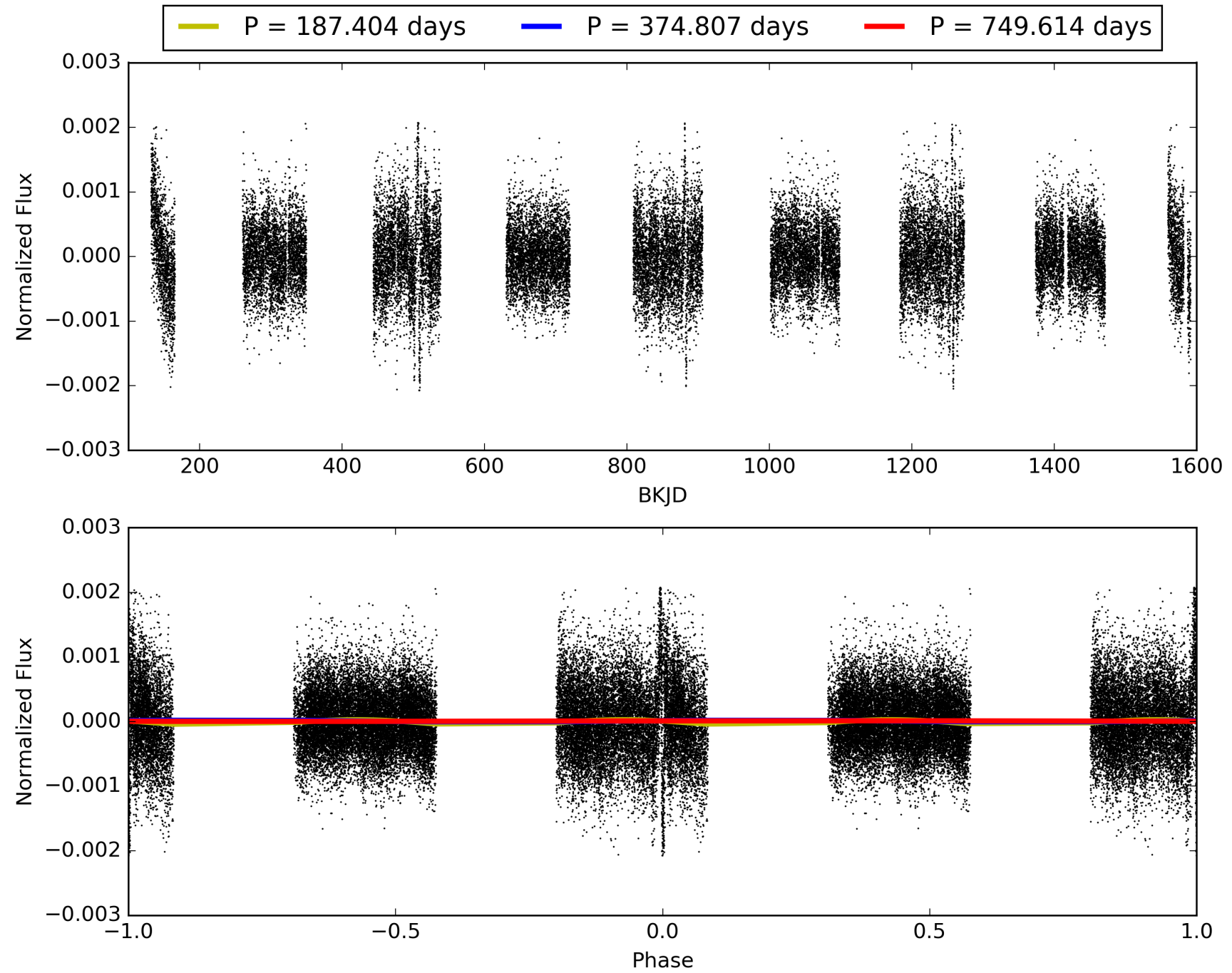
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:59:38 Z

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

TCE 008492050-01, PDC Light Curves

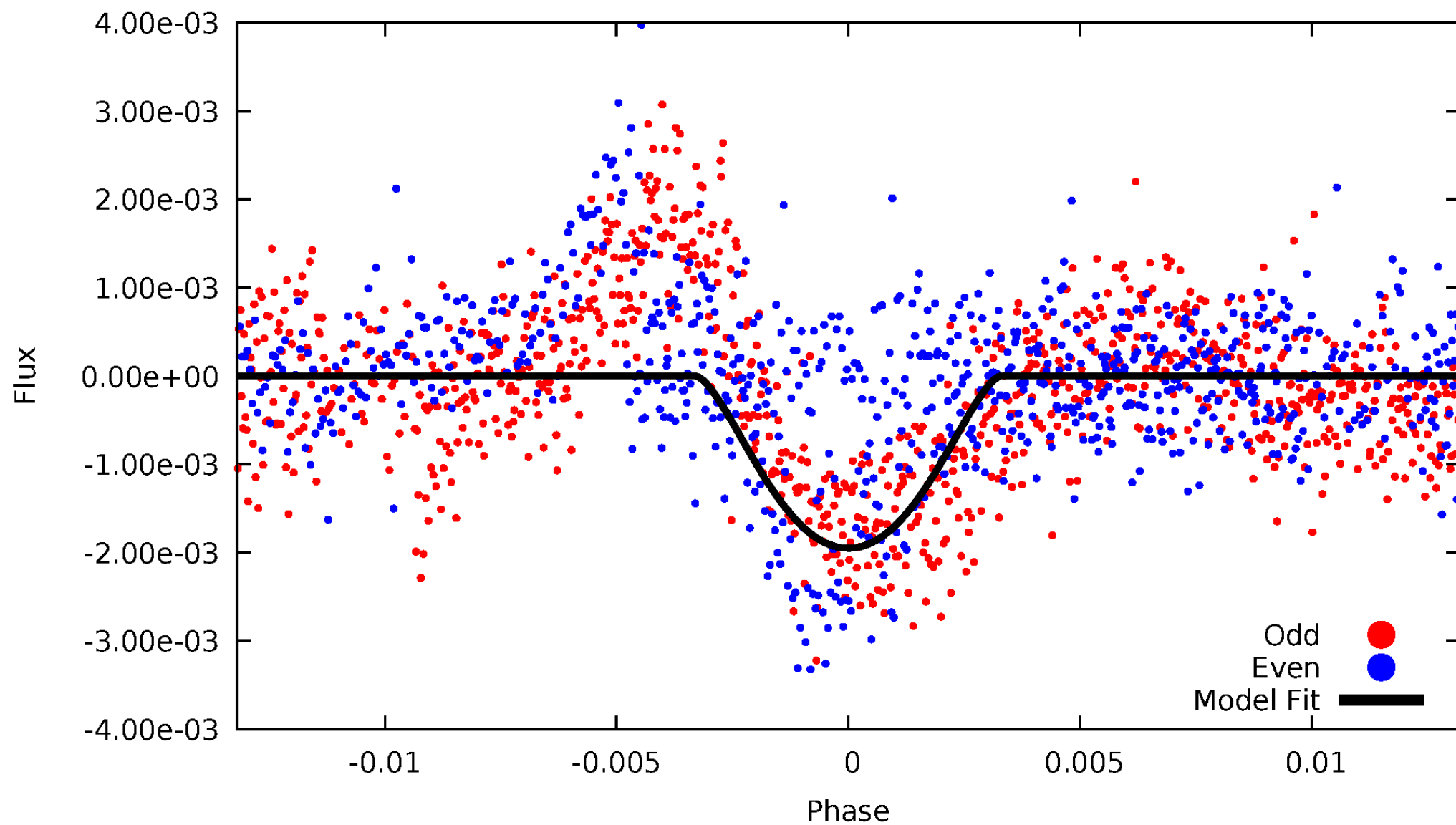


TCE 008492050-01



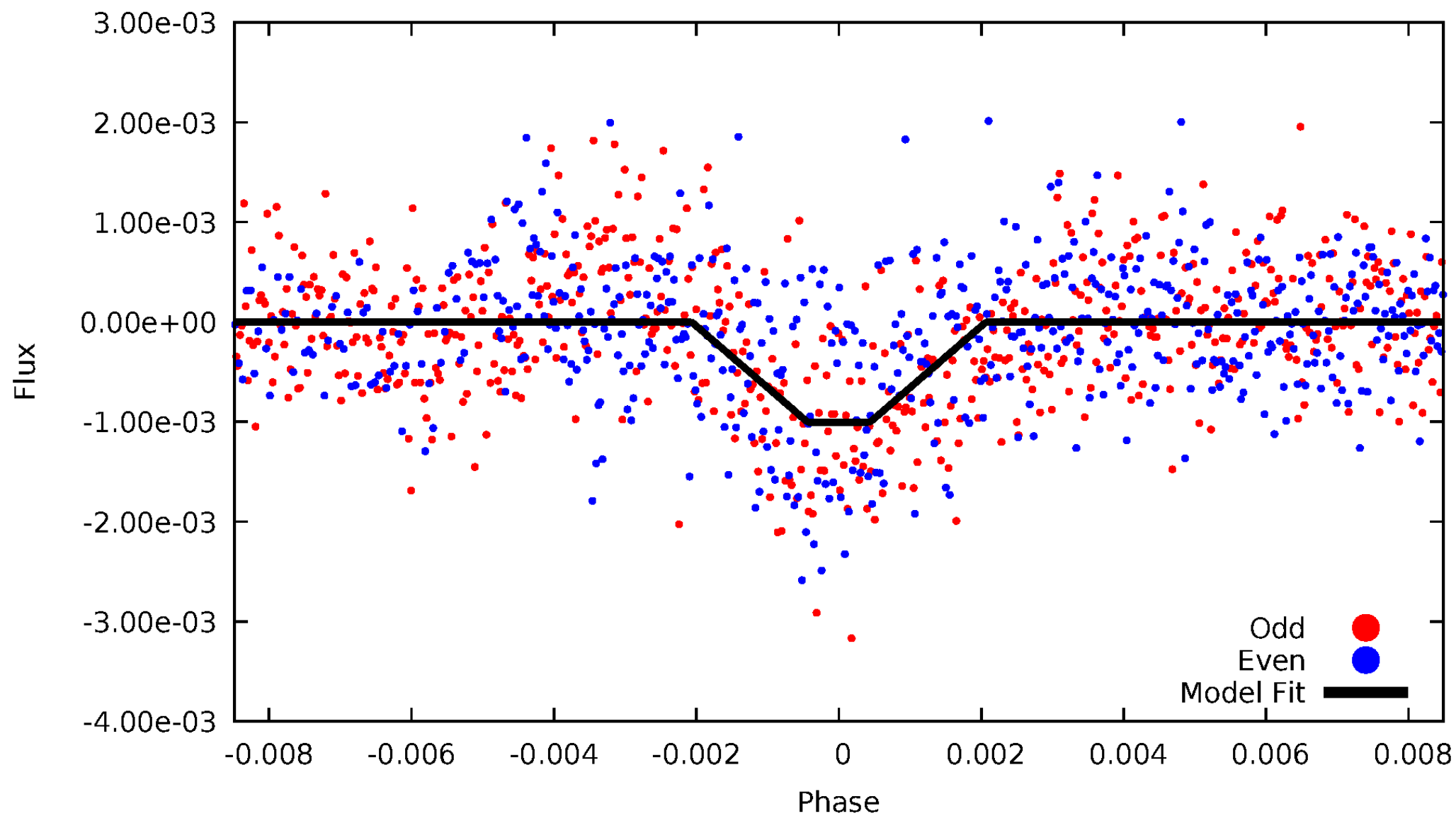
DV Odd/Even

TCE 008492050-01



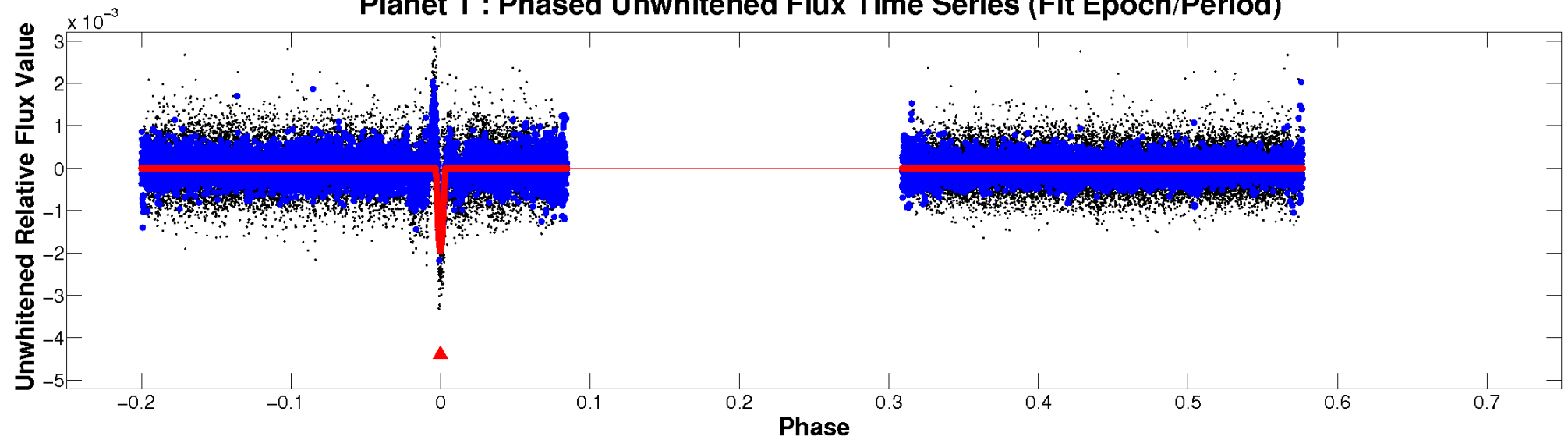
ALT Odd/Even

TCE 008492050-01

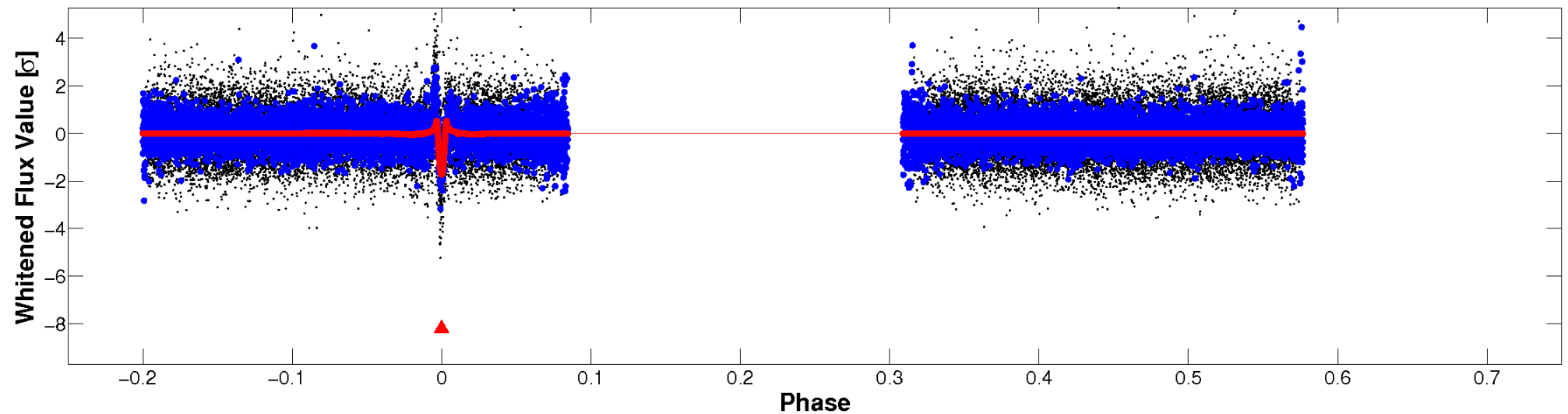


Non-Whitened Vs. Whitened Light Curve

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

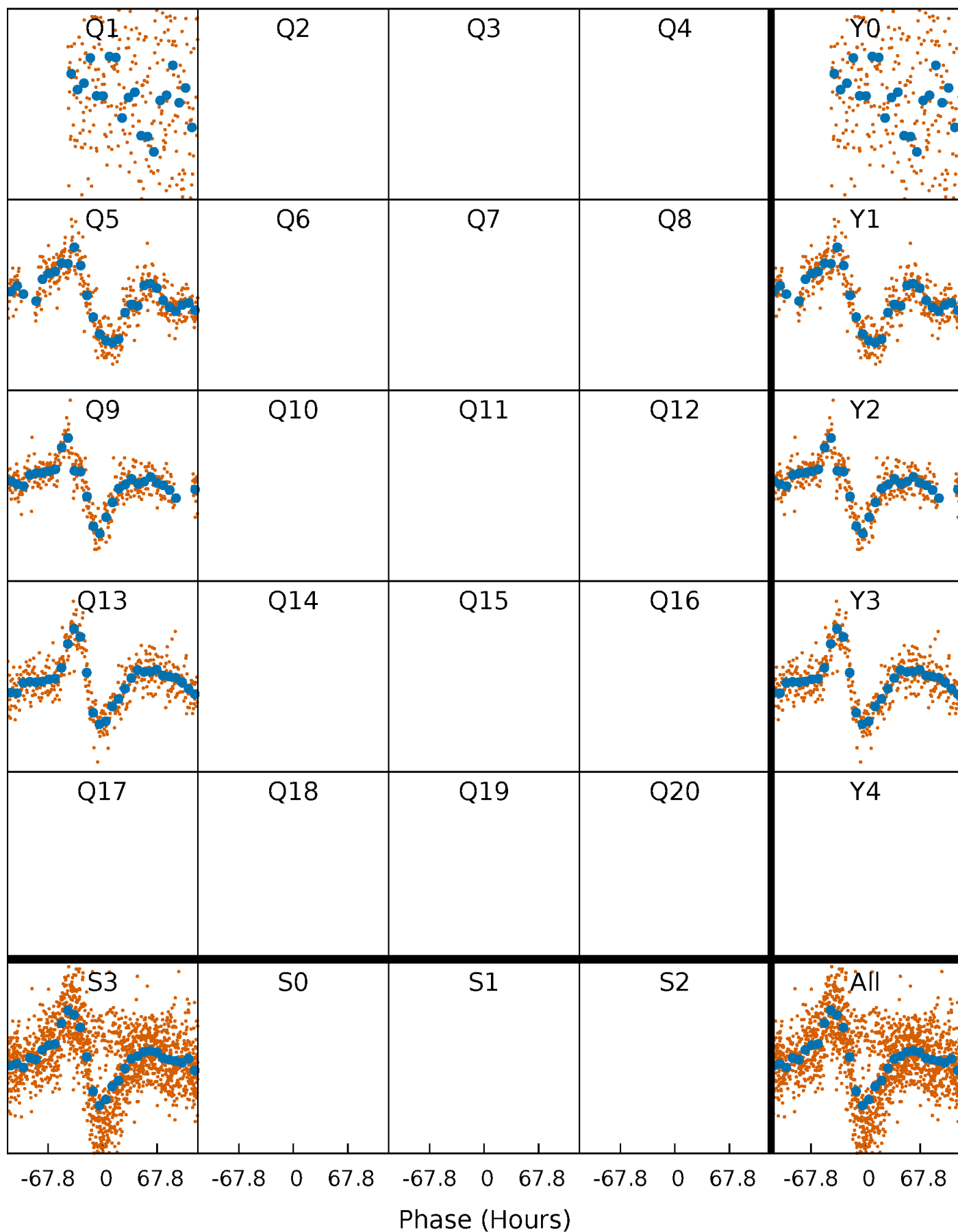


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



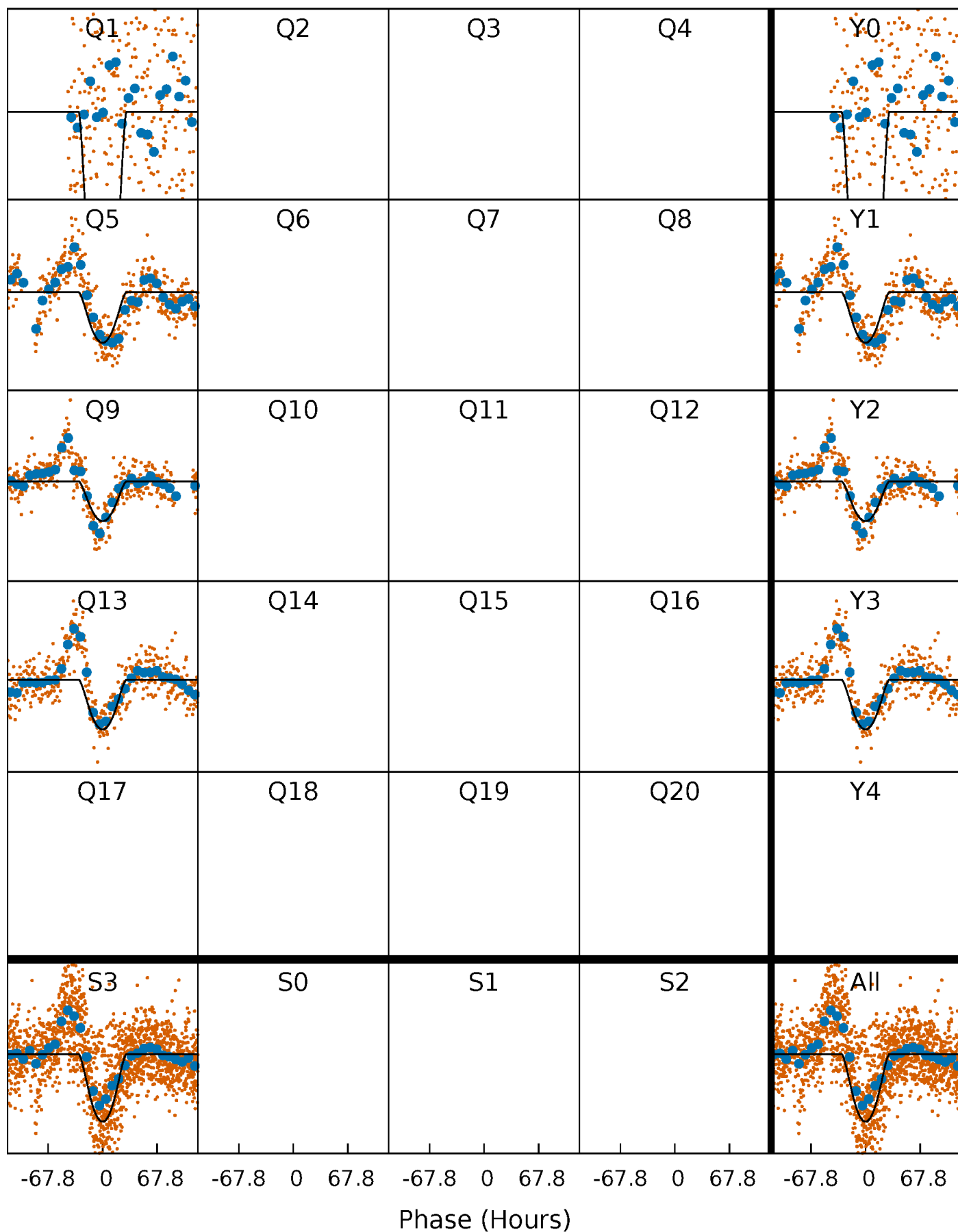
PDC Quarter-Phased Transit Curves

TCE 008492050-01 $P=374.807138$ Days $T_0=133.302269$ (BKJD)



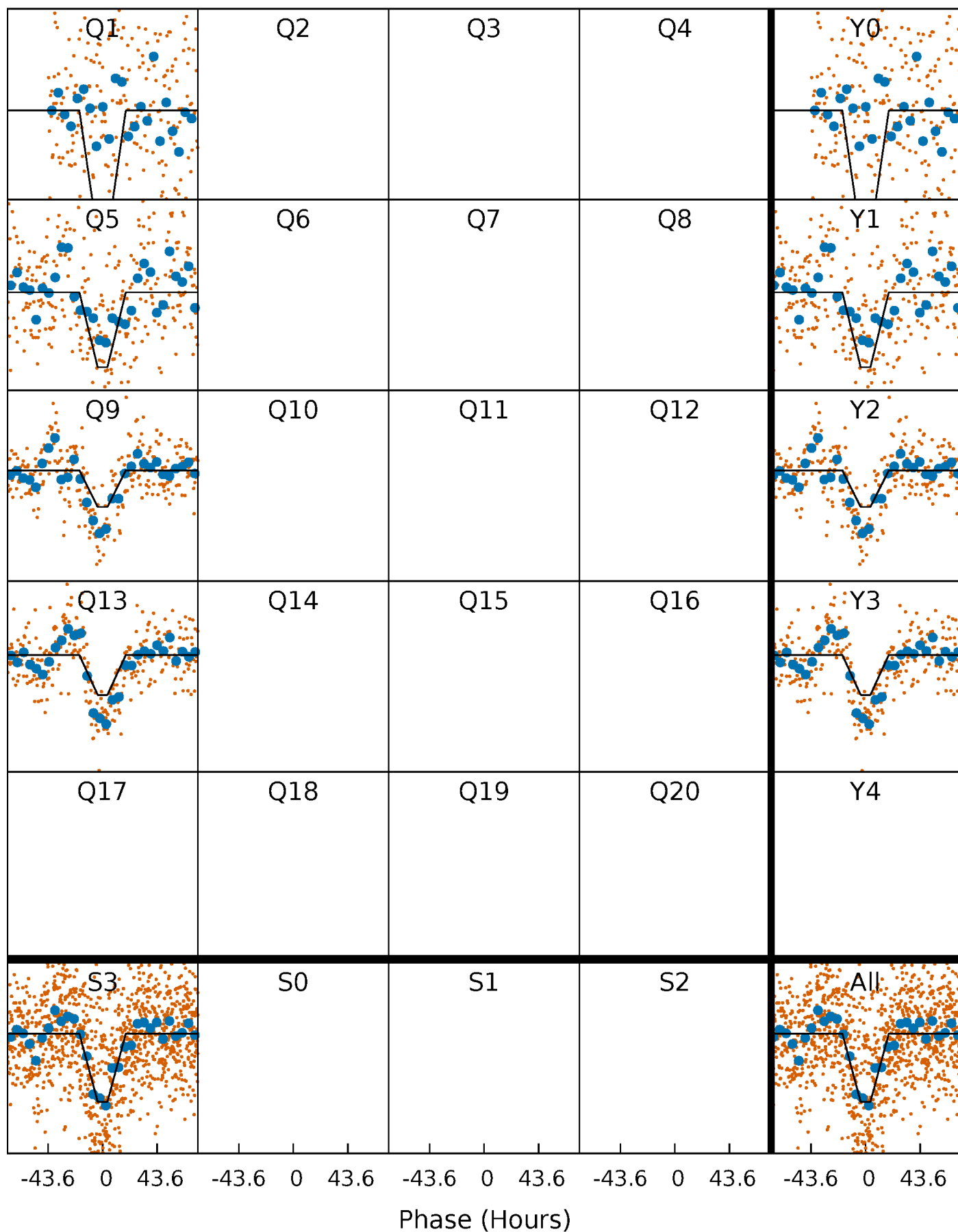
DV Quarter-Phased Transit Curves

TCE 008492050-01 P=374.807138 Days $T_0=133.302269$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

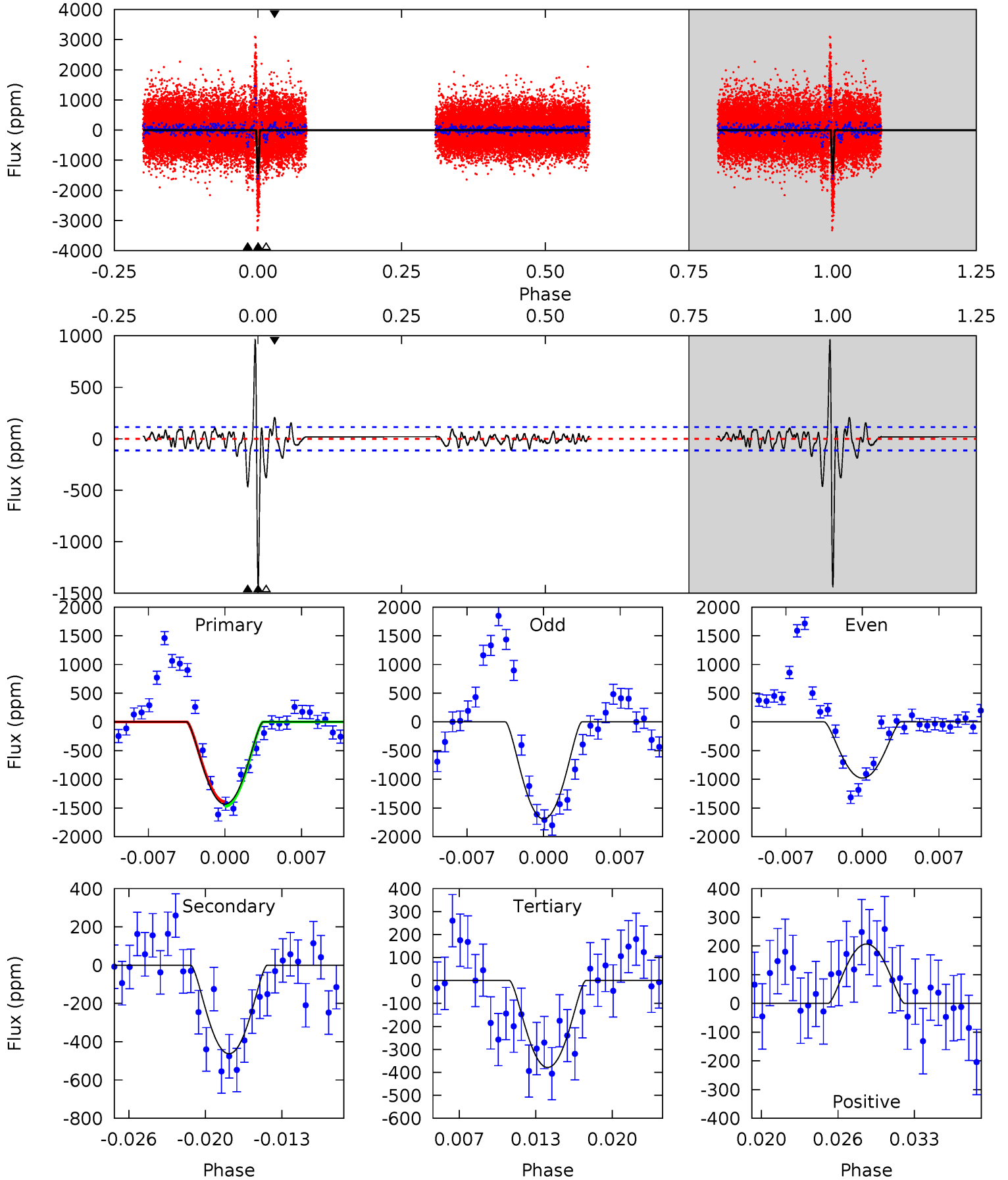
TCE 008492050-01 P=374.697001 Days $T_0=133.307818$ (BKJD)



DV Model-Shift Uniqueness Test

008492050-01, P = 374.807138 Days, E = 133.302269 Days

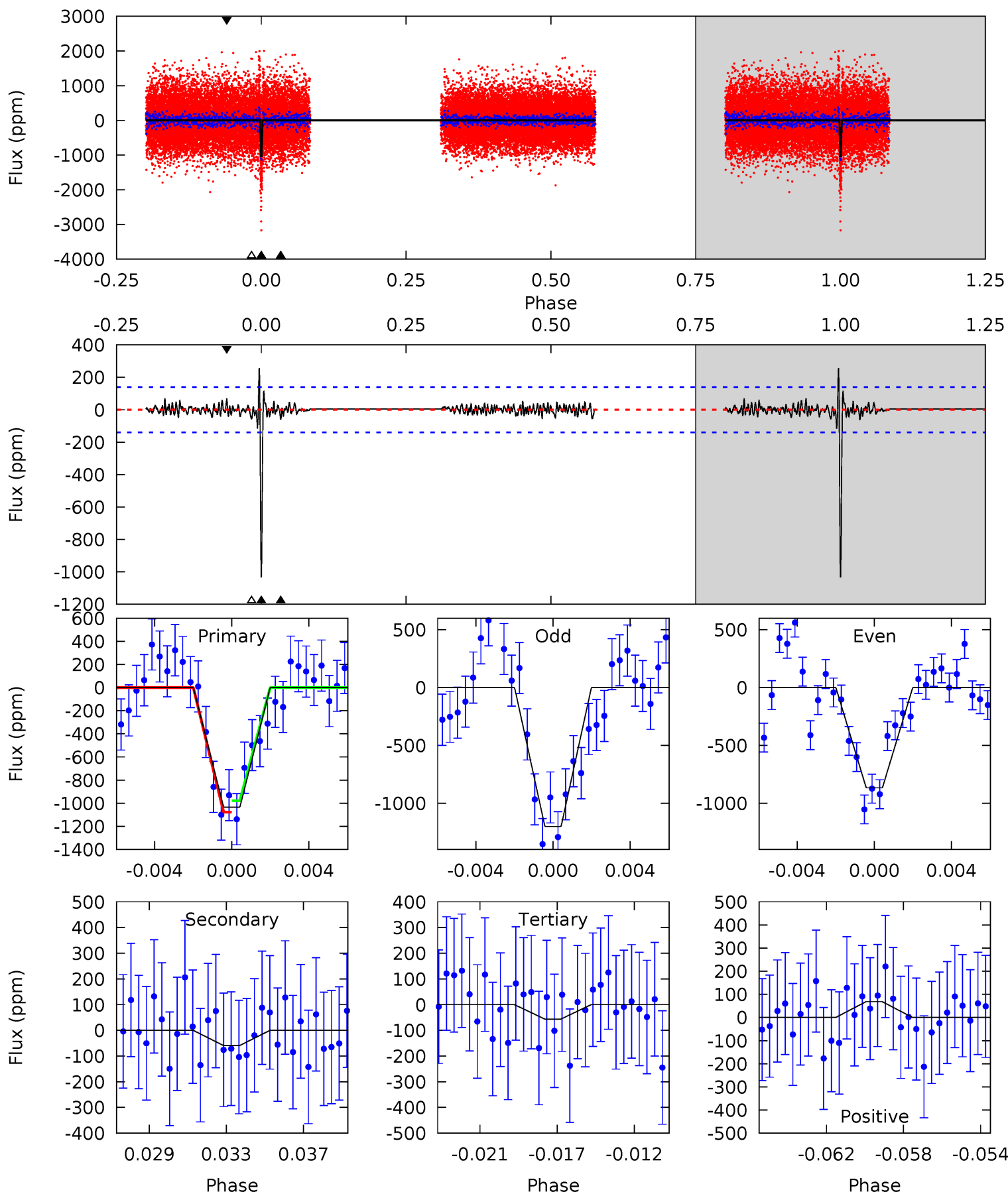
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.6	20.8	17.1	9.33	5.11	2.72	3.22	47.5	55.2	3.78	11.5	16.2	0.79	0.40	1.85



Alt Model-Shift Uniqueness Test

008492050-01, P = 374.697001 Days, E = 133.307818 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.4	2.19	2.09	2.54	5.19	2.87	0.83	36.3	35.9	0.11	-0.35	6.20	0.89	0.20	1.82



Stellar Parameters For KIC 008492050

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5423^{+185}_{-185}	$4.605^{+0.037}_{-0.120}$	$-0.280^{+0.300}_{-0.300}$	$0.753^{+0.143}_{-0.061}$	$0.843^{+0.077}_{-0.096}$	$2.782^{+0.546}_{-1.003}$
	+3%/-3%	+1%/-3%	+107%/-107%	+19%/-8%	+9%/-11%	+20%/-36%
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 008492050-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-463 ± 22	$5.27^{+2.46}_{-2.23}$	302^{+15}_{-14}	3625^{+767}_{-407}	8428^{+16907}_{-4627}
Alt.	-59 ± 27	$3.13^{+2.19}_{-1.96}$	301^{+16}_{-14}	3071^{+1183}_{-464}	2789^{+18061}_{-1950}

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 $A_{obs} \gg 1.0$

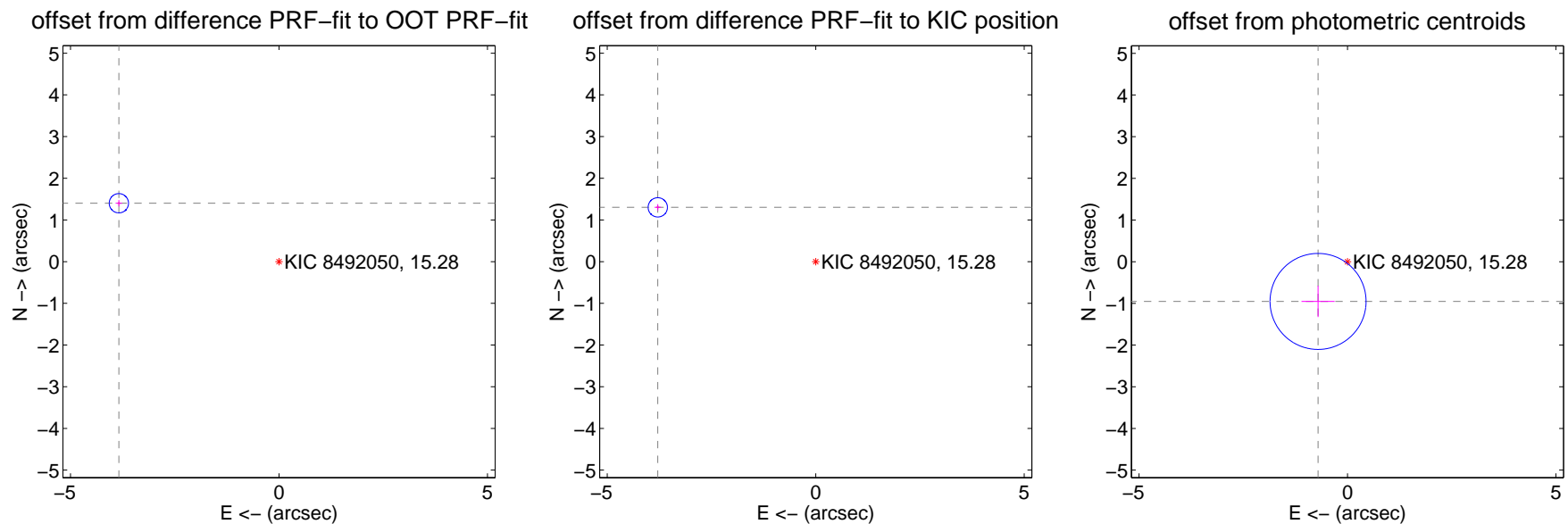
DV Centroid Data

Supplemental centroid analysis for 008492050-01. Kepler magnitude: 15.28. Transit SNR 24.13

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.087 ± 0.077	53.03	3.839 ± 0.077	1.401 ± 0.077
PRF-fit source offset from KIC position	4.005 ± 0.077	51.96	3.787 ± 0.077	1.302 ± 0.077
photometric centroid source offset	1.19 ± 0.38	3.09	0.71 ± 0.40	-0.95 ± 0.38



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.



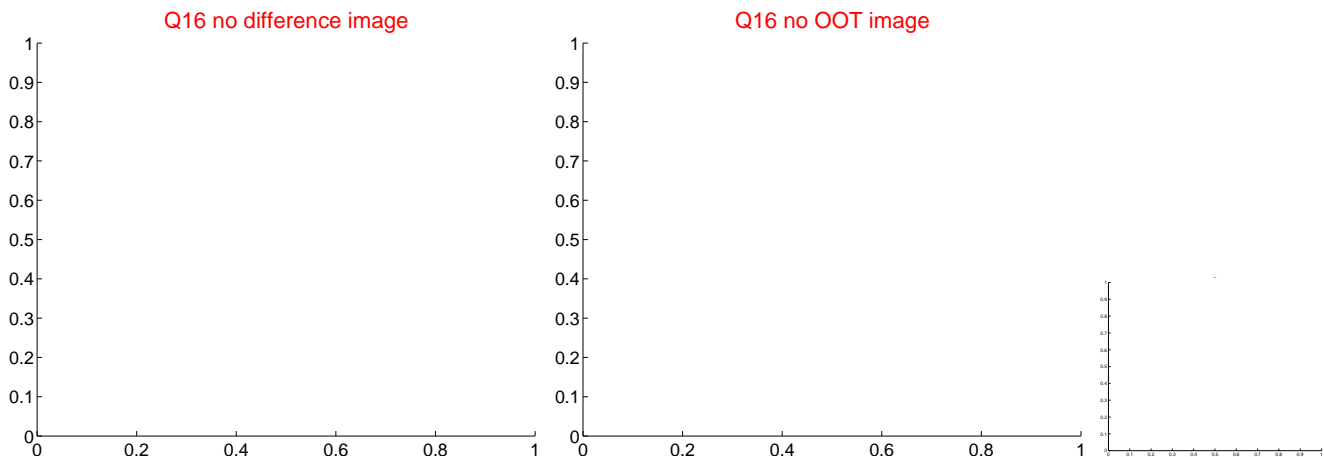
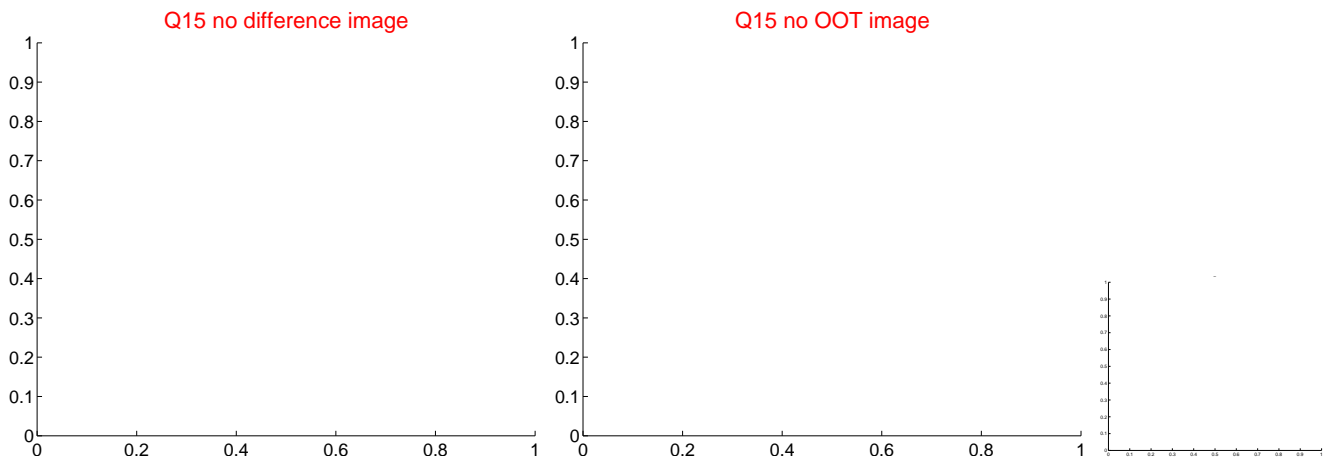
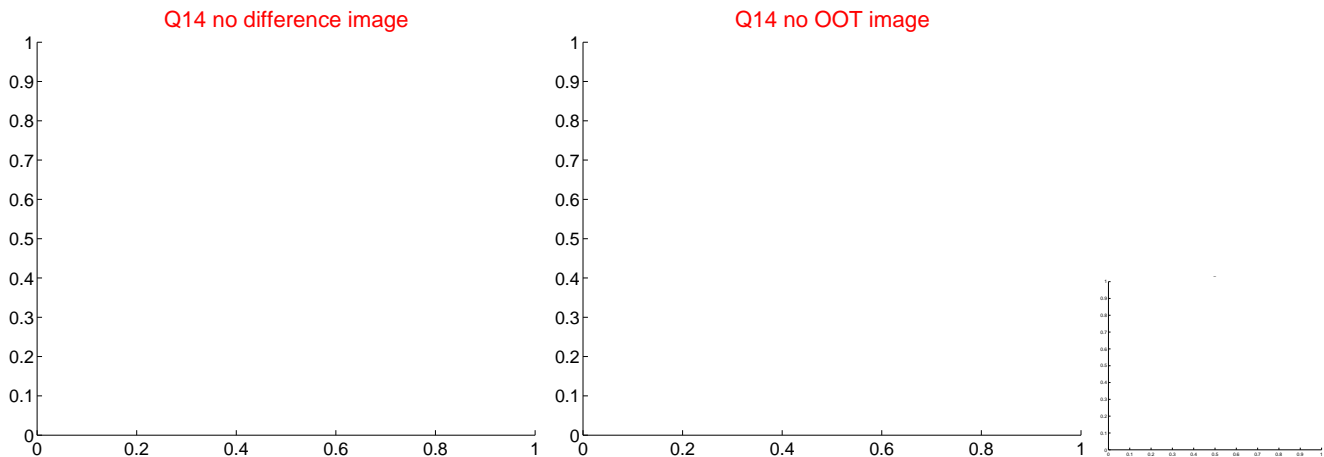
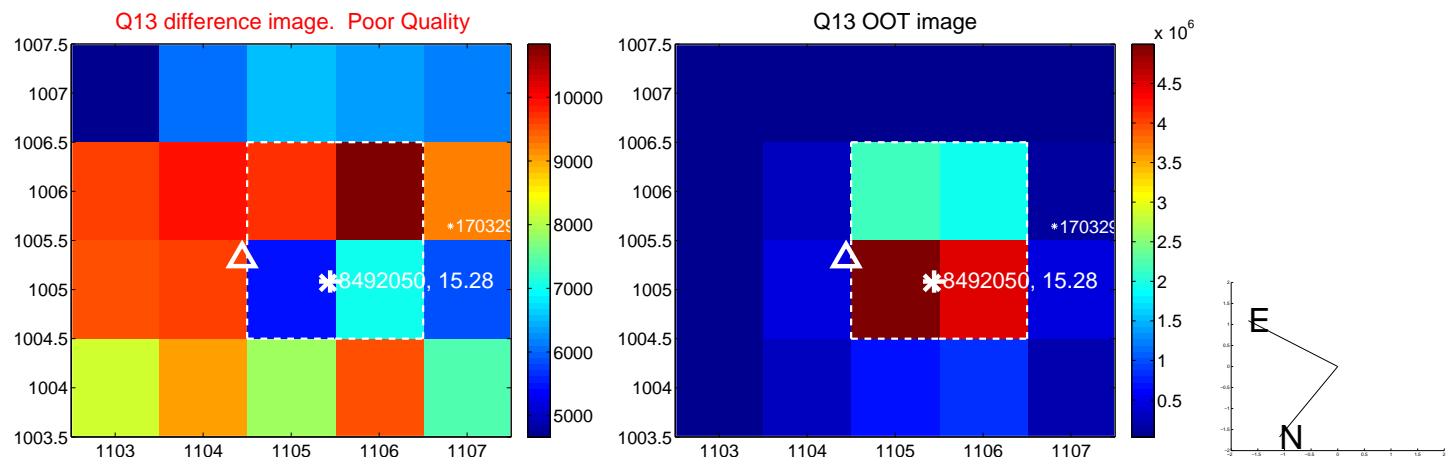
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



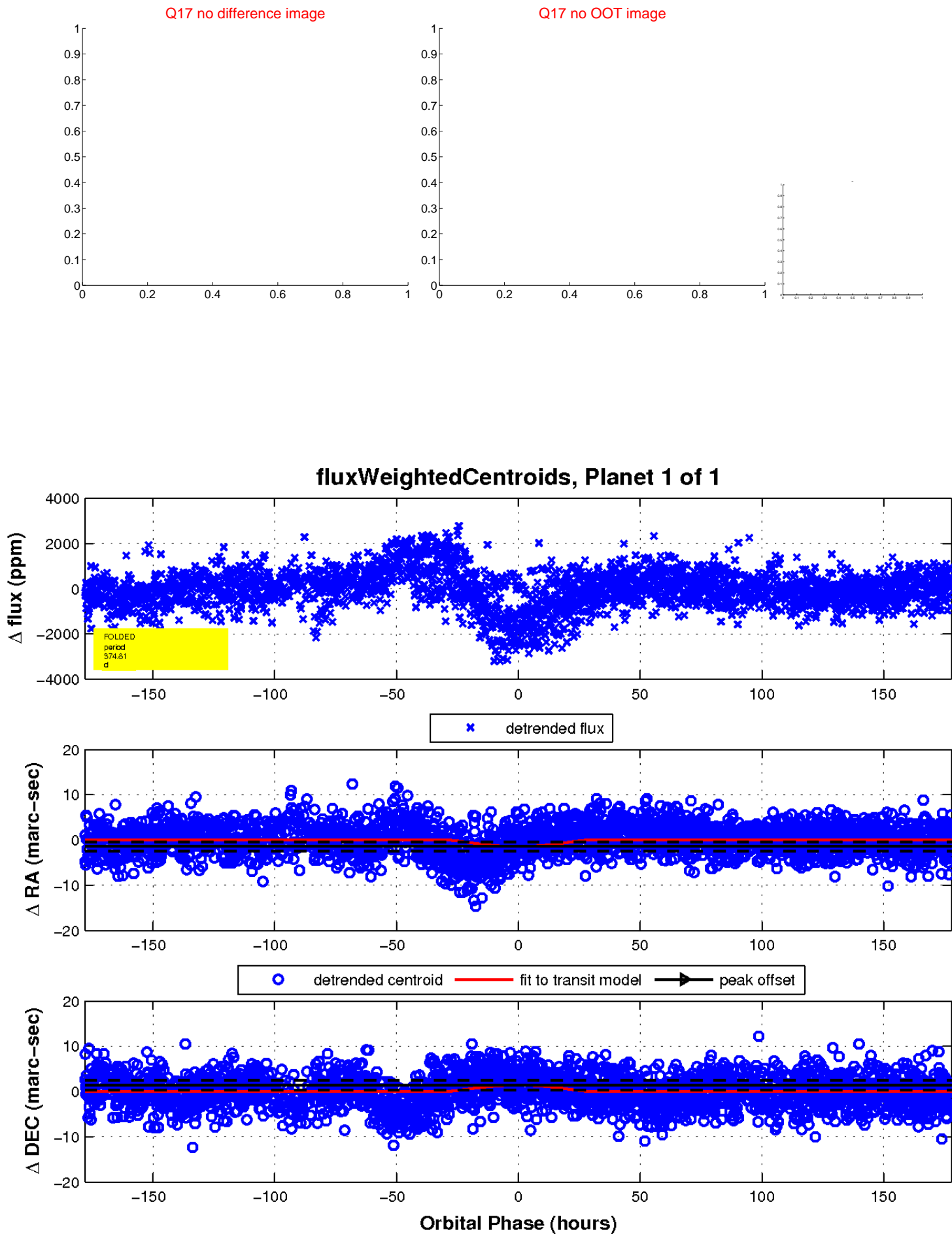
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

