

KIC 006517246

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})
006517246-01	OBS	No	368.204990	498.898922	1338.4	17.389	7.4	8.6	1.01	6340	3.74	1.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006517246-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—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.

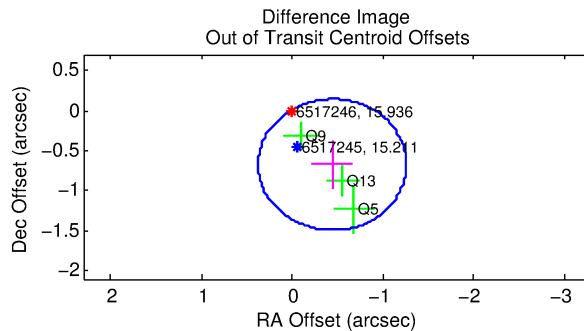
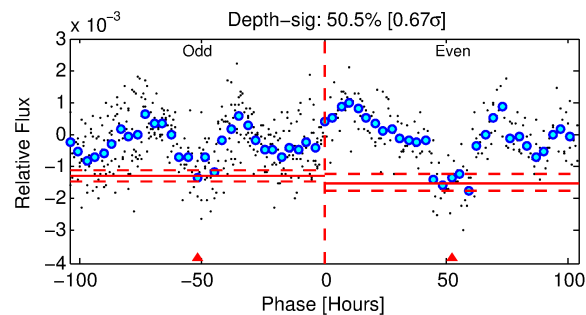
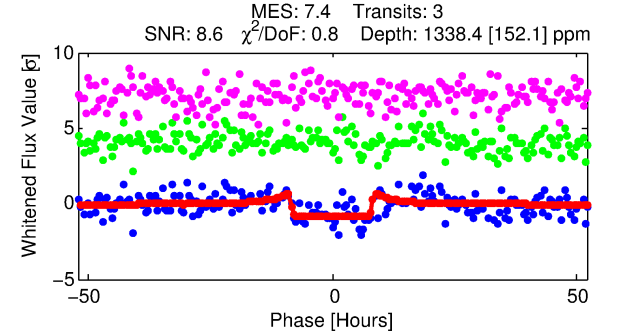
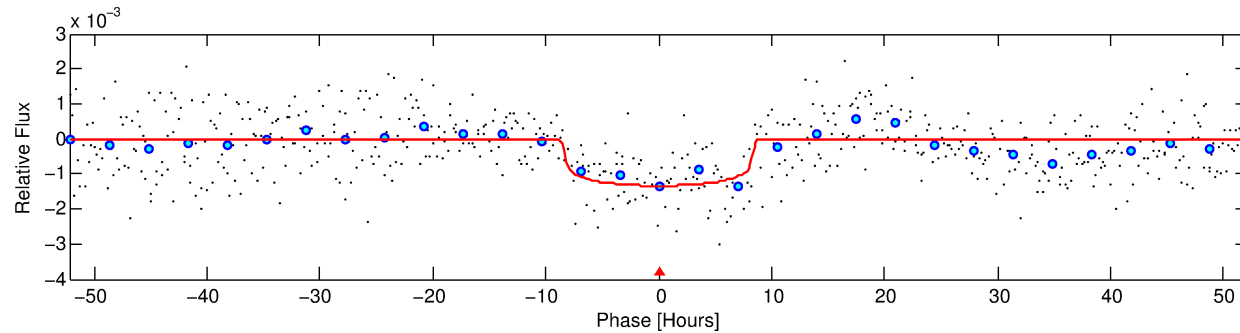
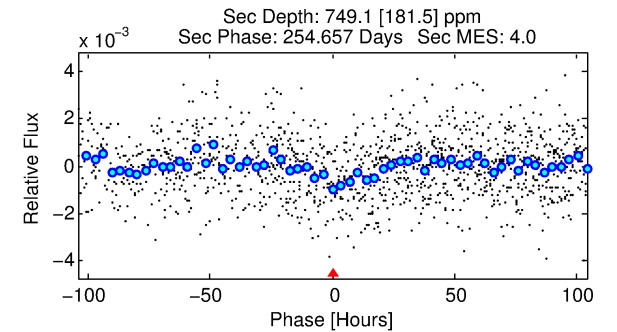
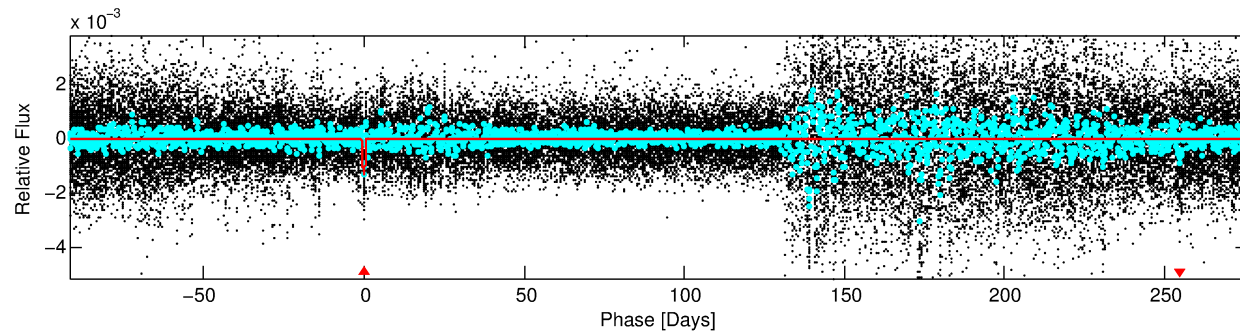
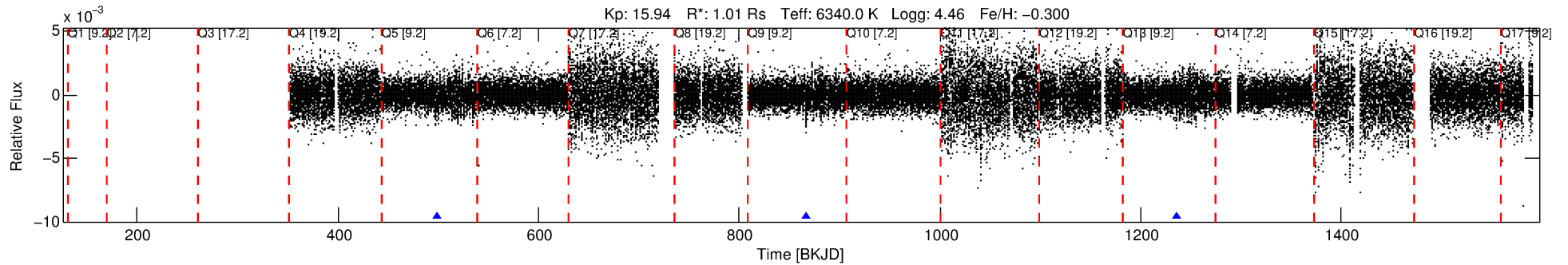
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006517246-01

No Significant Match Found

DV One-Page Summary

KIC: 6517246 Candidate: 1 of 1 Period: 368.205 d



DV Fit Results:

Period = 368.20499 [0.01163] d
Epoch = 498.8989 [0.0128] BKJD
Rp/R* = 0.0339 [0.0070]
a/R* = 161.29 [162.91]
b = 0.27 [3.44]
Seff = 1.40 [0.54]
Teq = 277 [27] K
Rp = 3.74 [1.35] Re
a = 1.0272 [0.2539] AU
Ag = 31151.69 [18661.33] [1.67σ]
Teffp = 5697 [718] K [7.55σ]

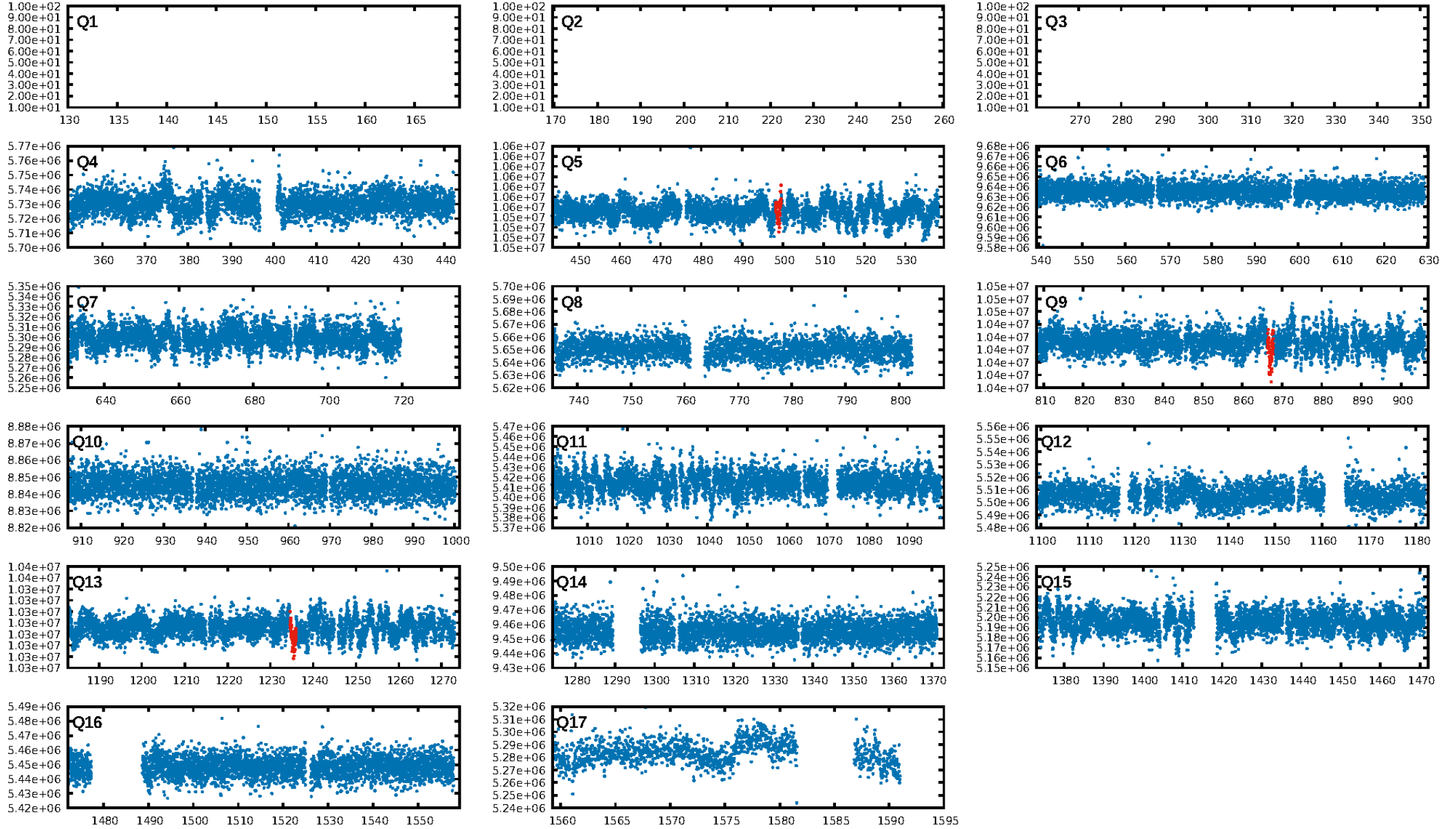
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 79.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.97e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.42
Centroid-sig: 0.0%
Centroid-so: 4.445 arcsec [2.03σ]
OotOffset-rm: 0.806 arcsec [2.96σ]
KicOffset-rm: 1.119 arcsec [3.36σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

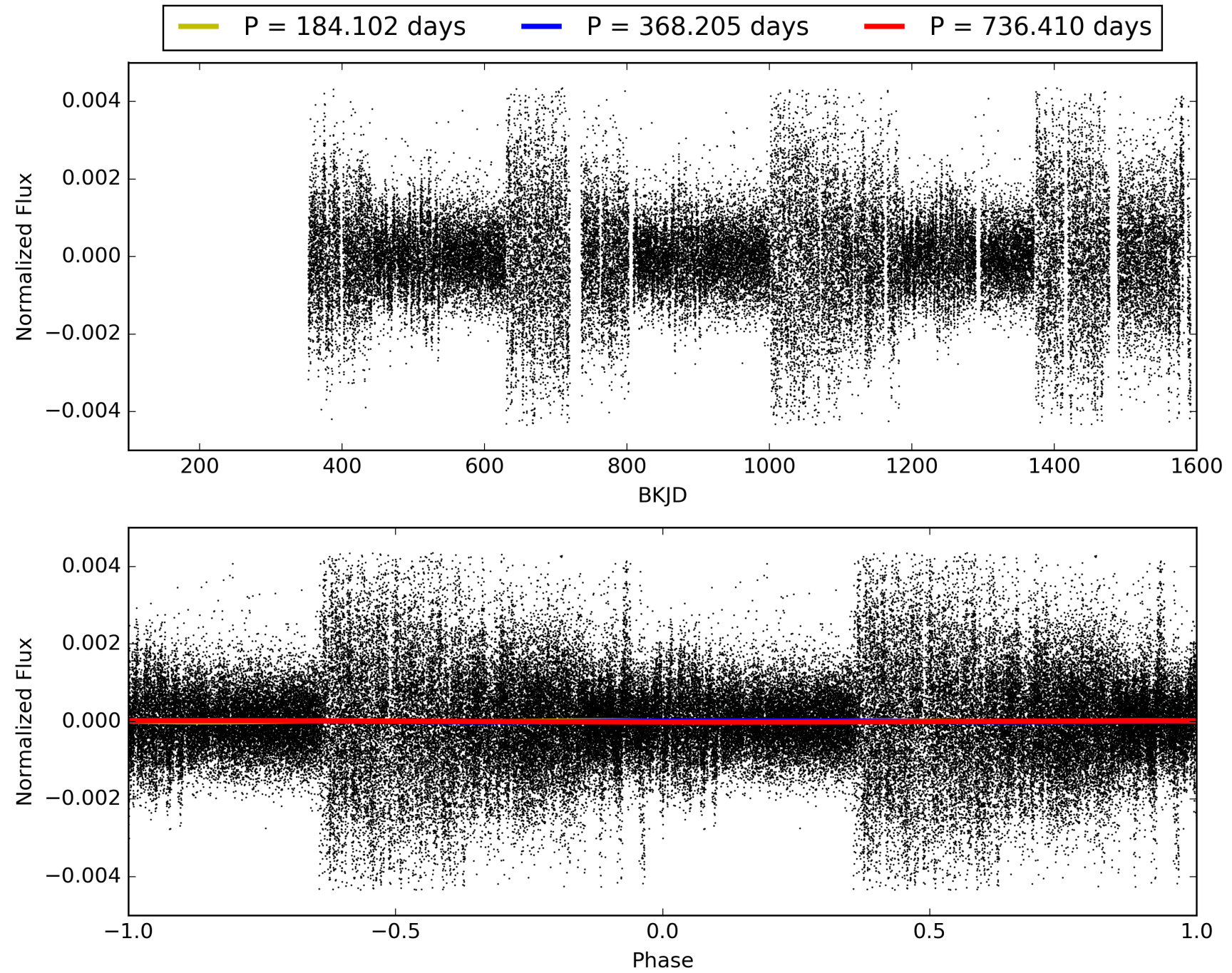
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:22:34 Z

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

TCE 006517246-01, PDC Light Curves

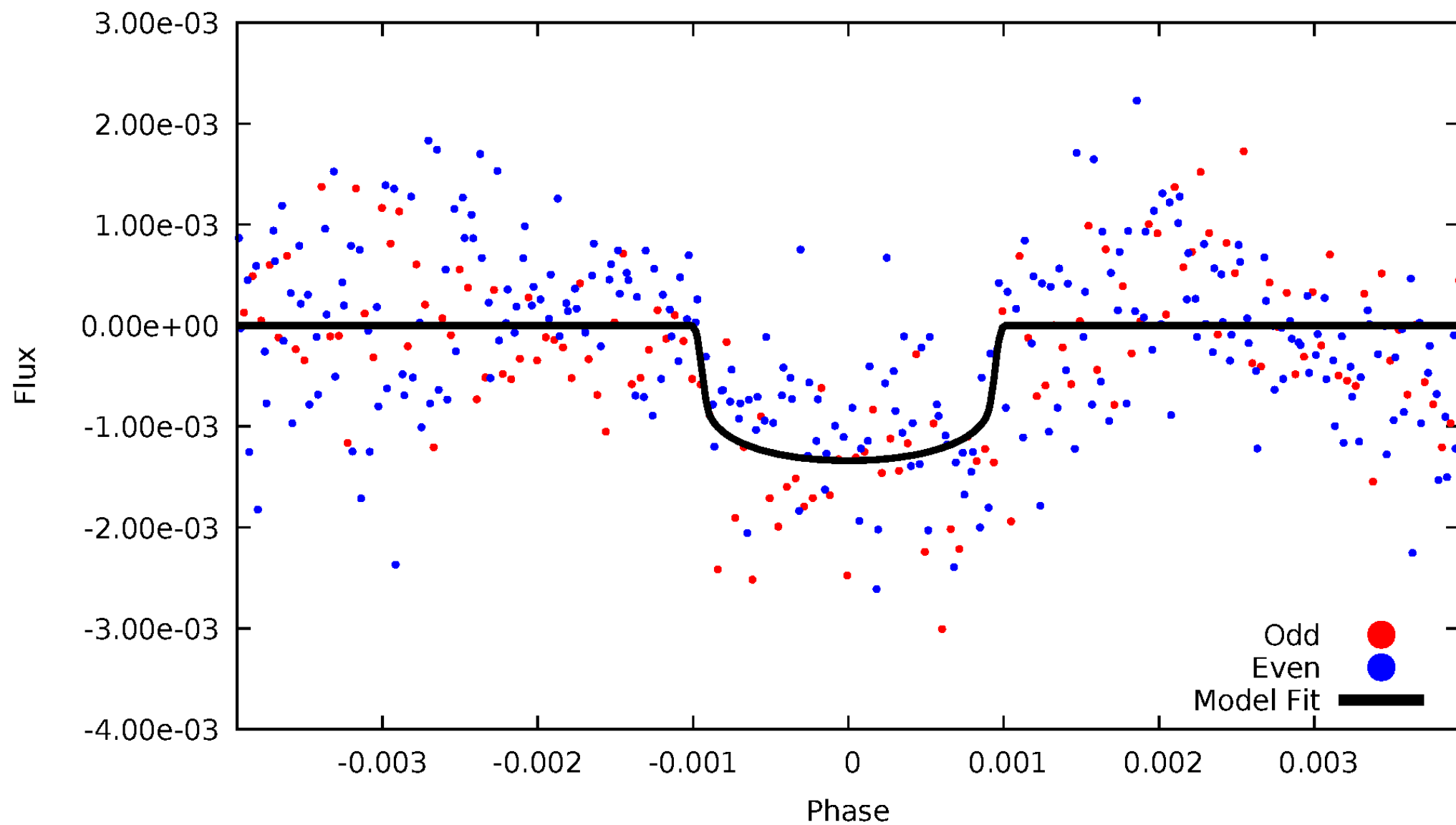


TCE 006517246-01



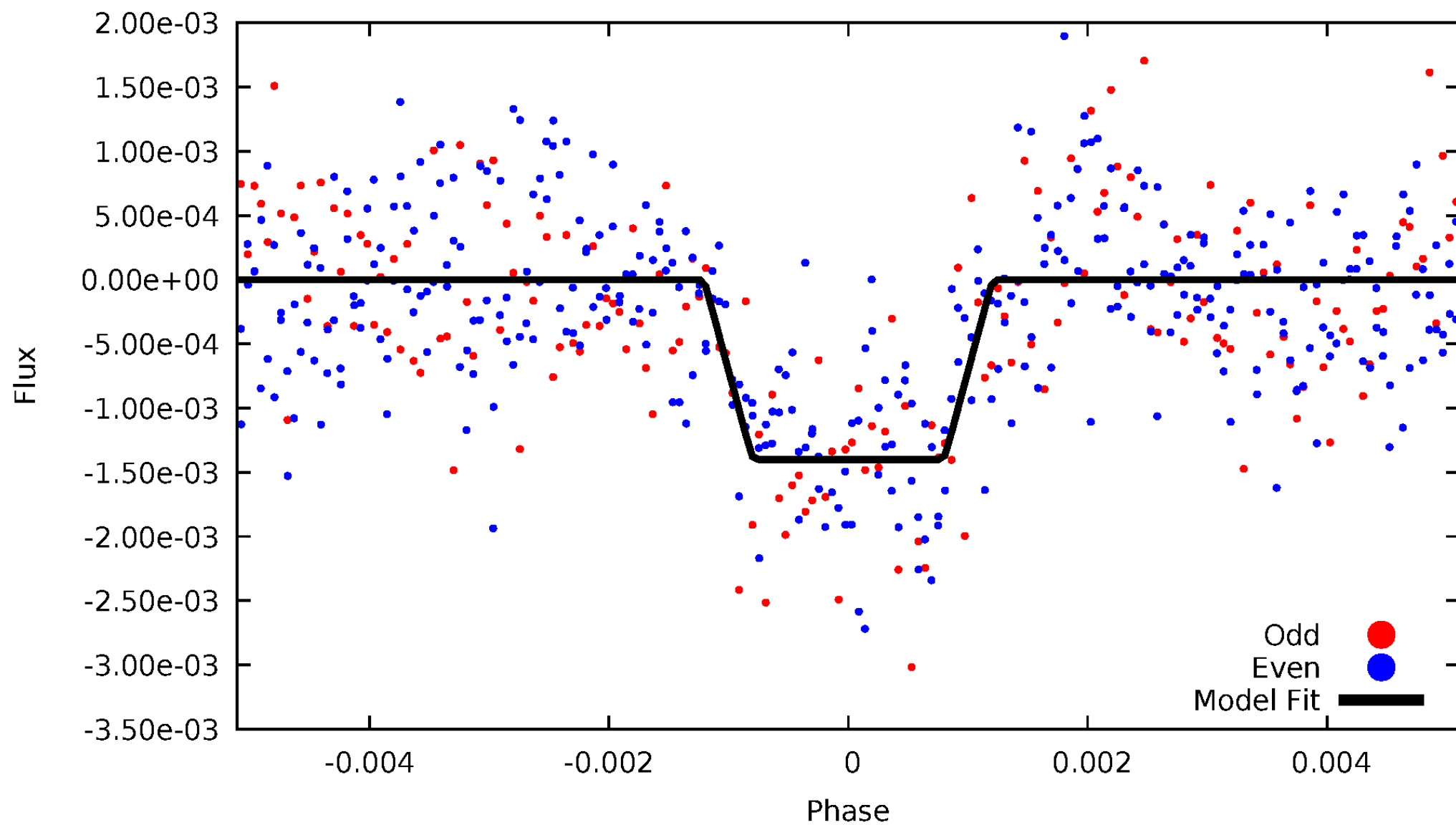
DV Odd/Even

TCE 006517246-01

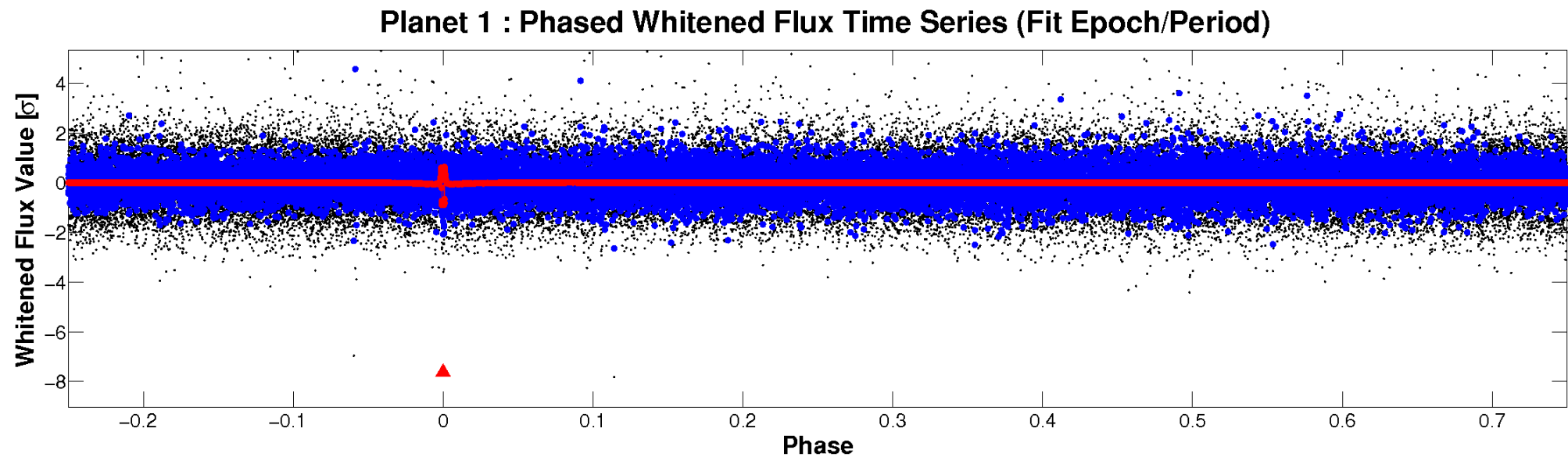
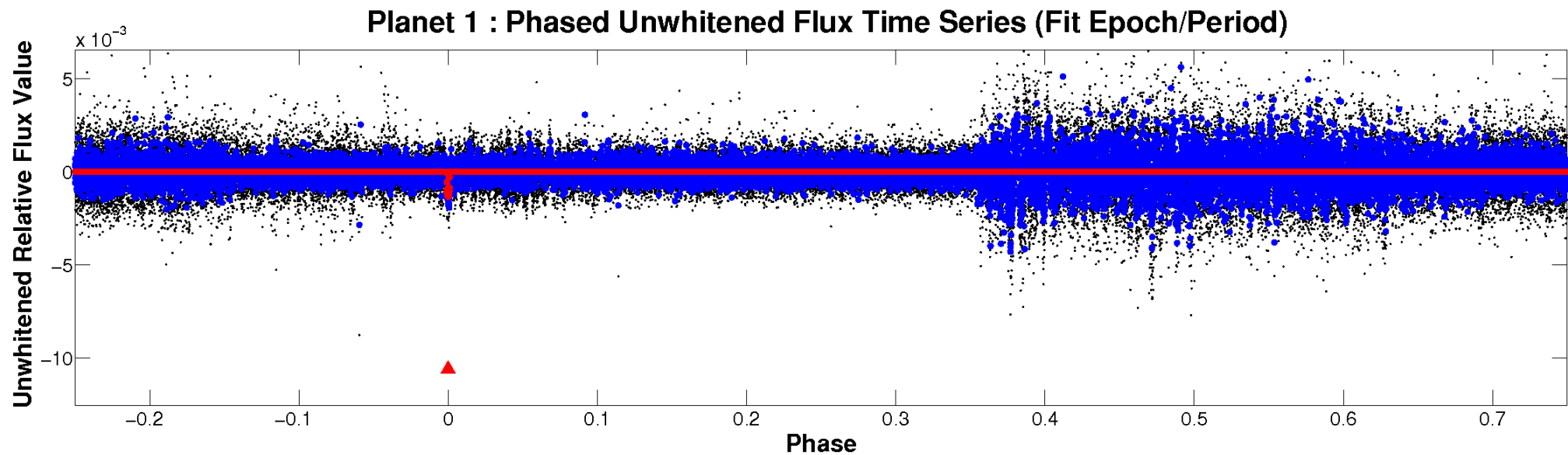


ALT Odd/Even

TCE 006517246-01

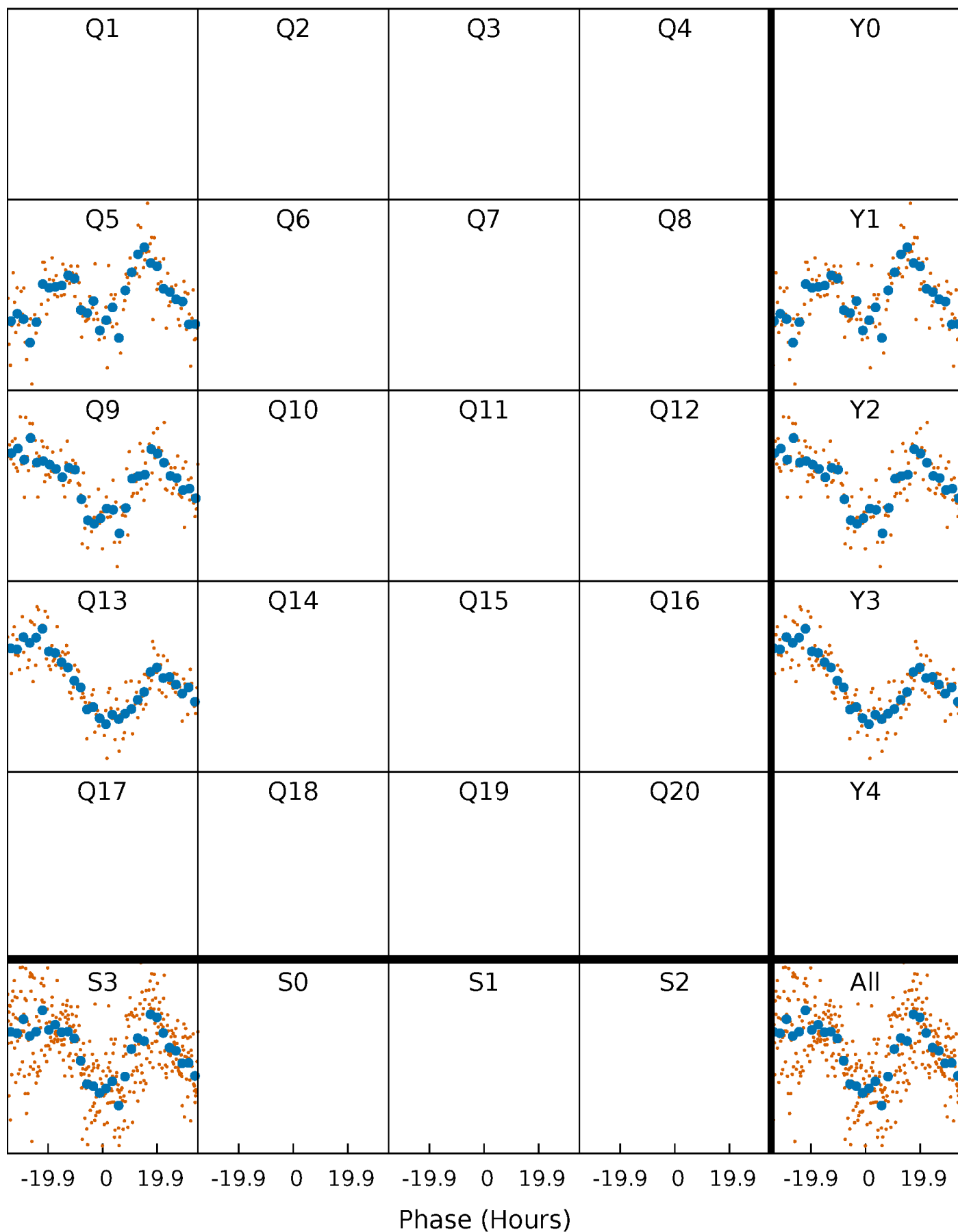


Non-Whitened Vs. Whitened Light Curve



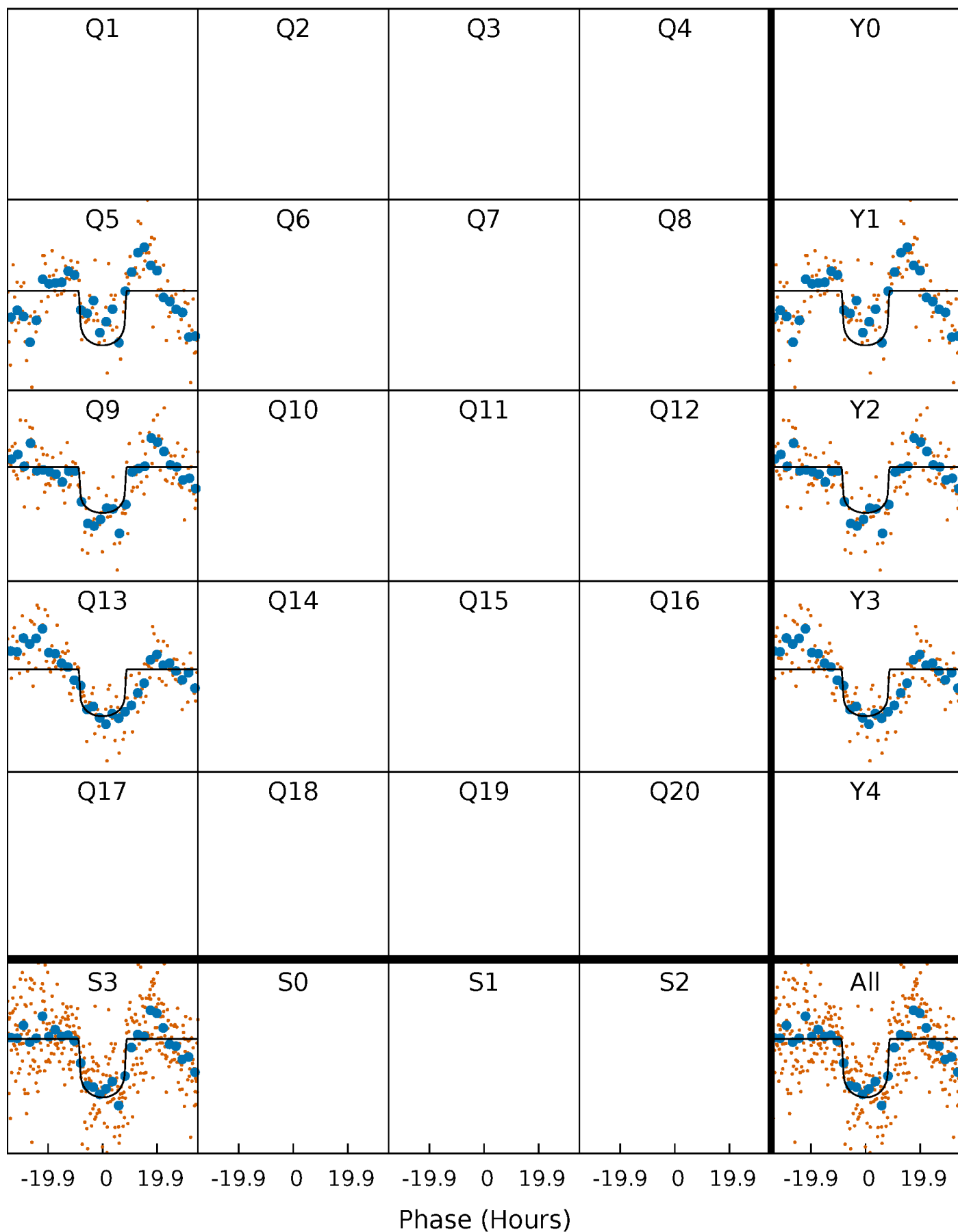
PDC Quarter-Phased Transit Curves

TCE 006517246-01 P=368.204990 Days $T_0=498.898922$ (BKJD)



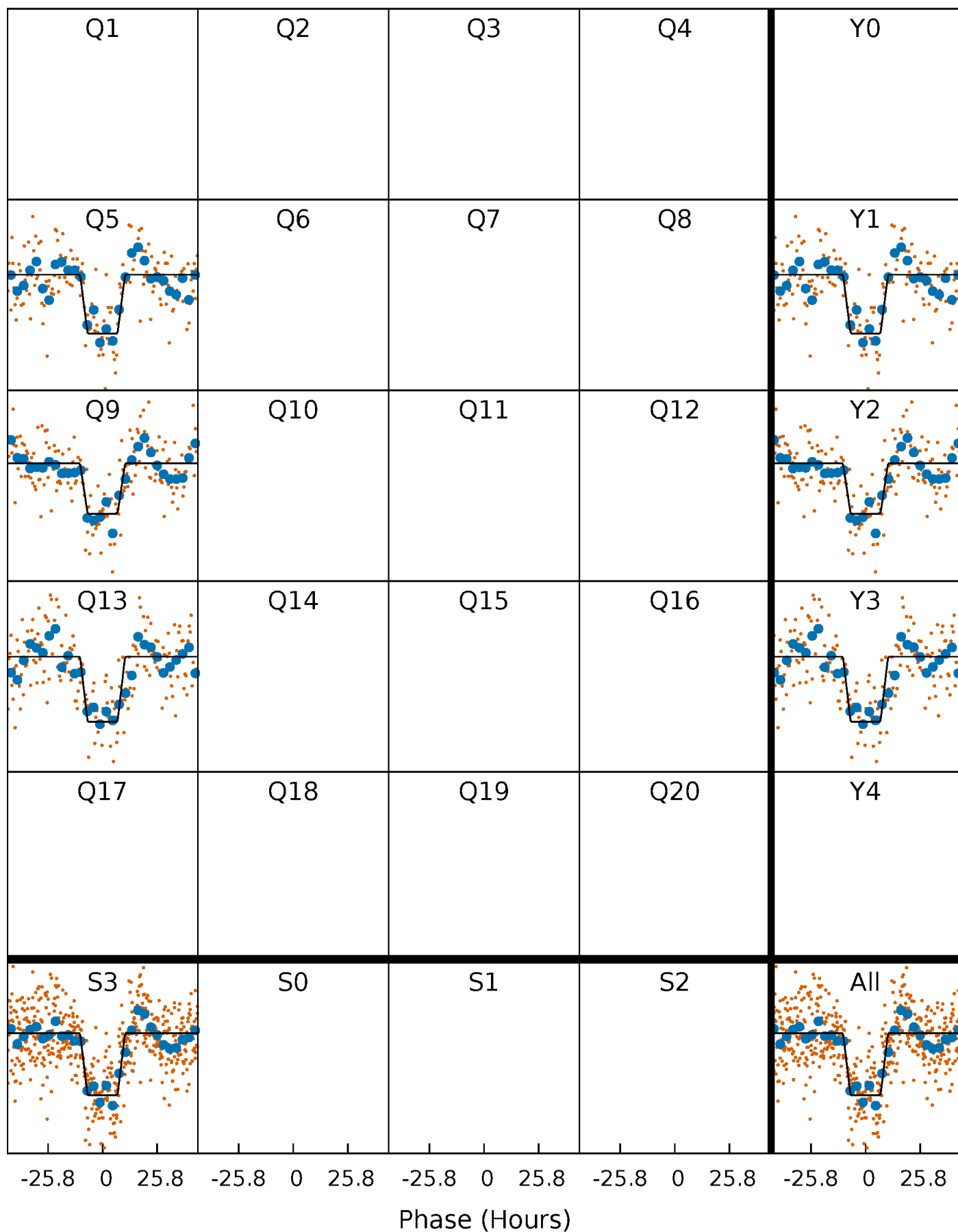
DV Quarter-Phased Transit Curves

TCE 006517246-01 P=368.204990 Days $T_0=498.898922$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

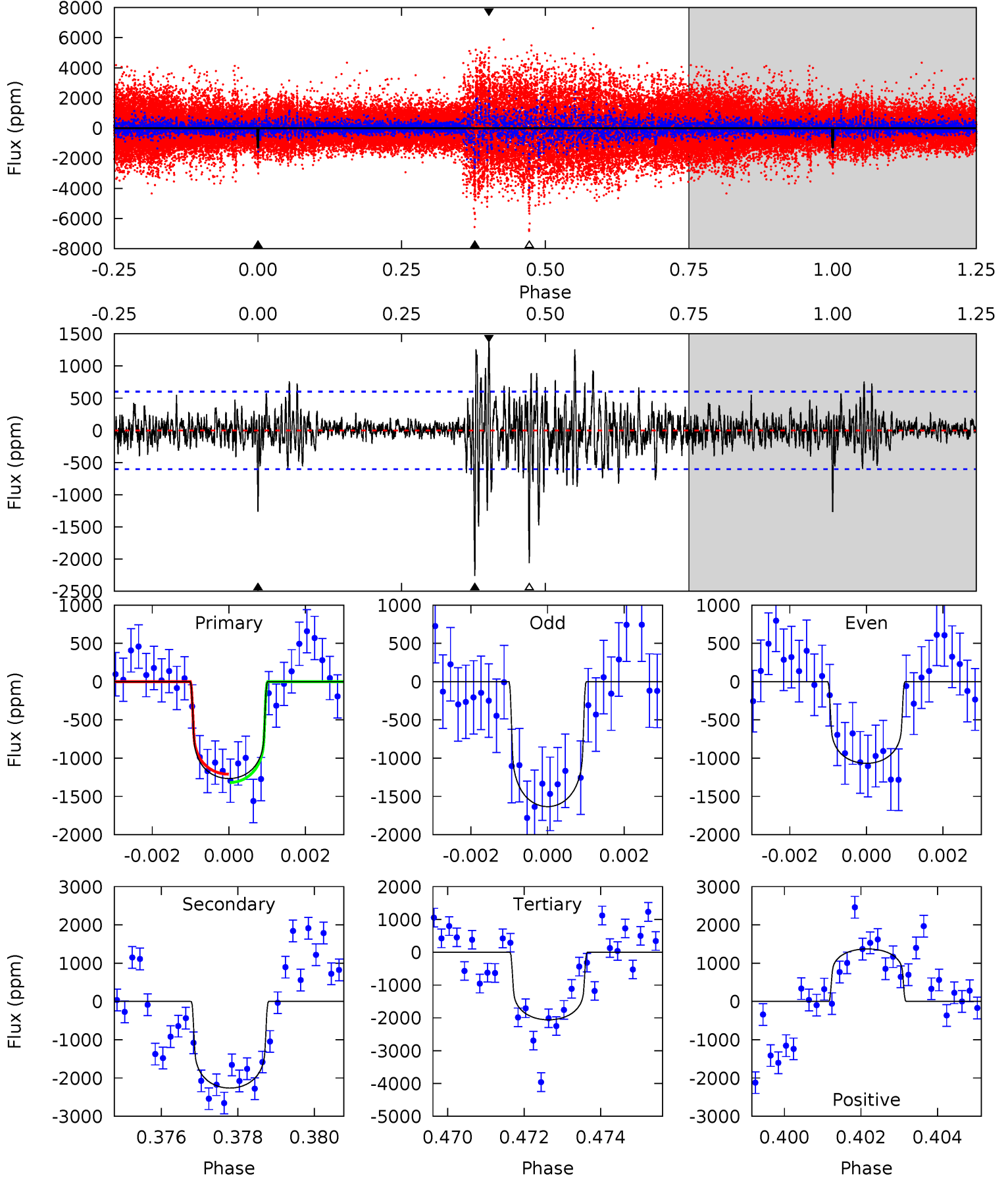
TCE 006517246-01 P=368.212751 Days $T_0=498.918344$ (BKJD)



DV Model-Shift Uniqueness Test

006517246-01, P = 368.204990 Days, E = 130.693932 Days

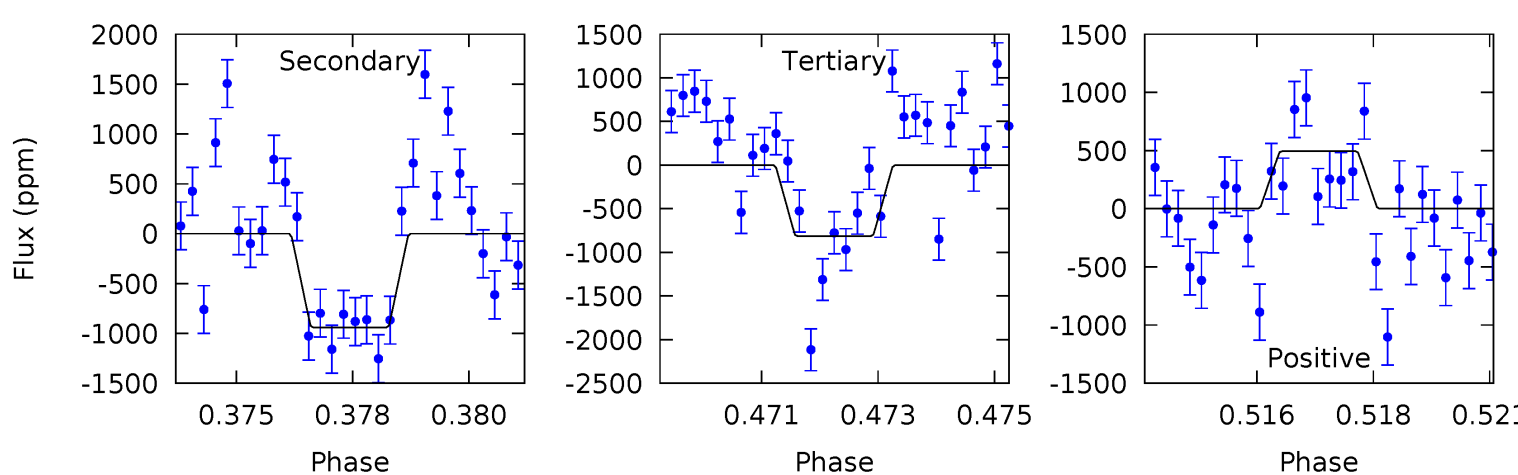
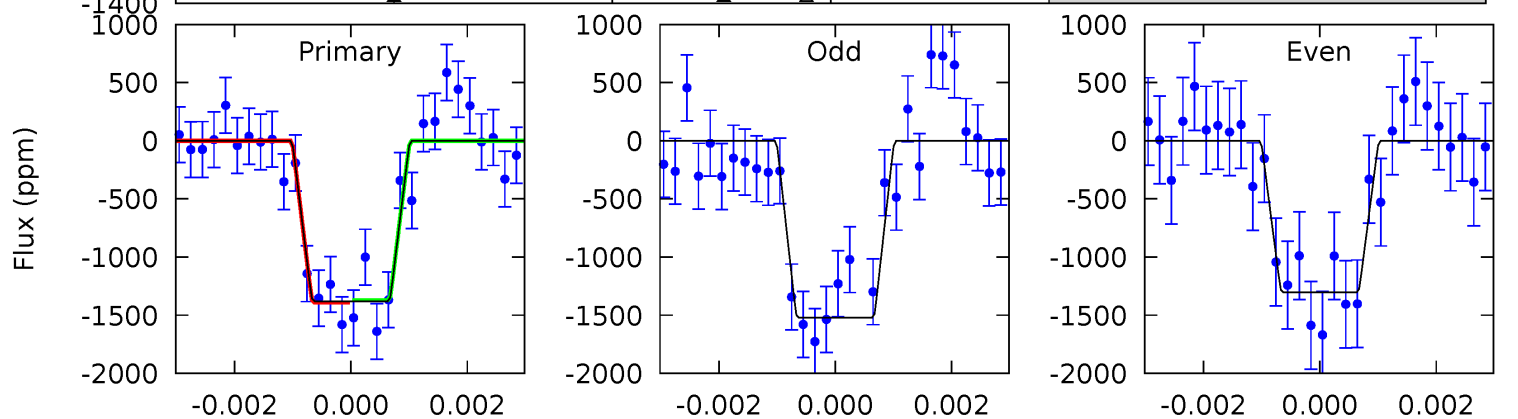
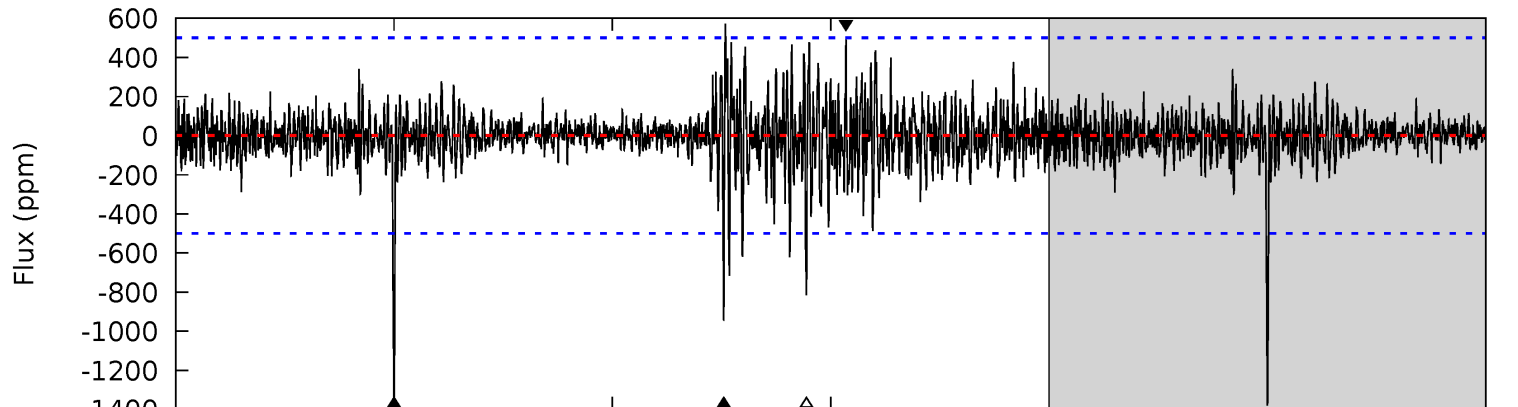
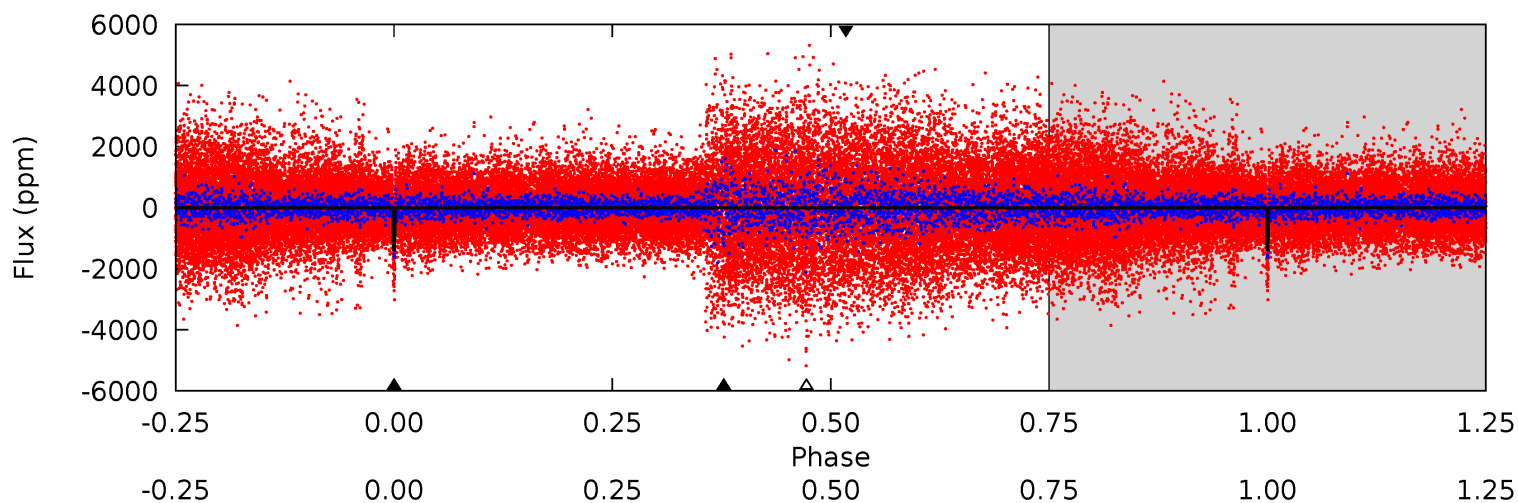
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	20.0	18.2	12.1	5.33	3.09	2.39	-7.01	-0.94	1.80	7.87	2.29	0.90	0.38	0.49



Alt Model-Shift Uniqueness Test

006517246-01, P = 368.212751 Days, E = 130.705593 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	9.96	8.62	5.24	5.29	3.04	1.27	5.99	9.37	1.34	4.72	1.07	1.04	0.29	0.10



Stellar Parameters For KIC 006517246

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6340^{+176}_{-242}	$4.457^{+0.065}_{-0.195}$	$-0.300^{+0.250}_{-0.350}$	$1.010^{+0.298}_{-0.106}$	$1.066^{+0.143}_{-0.143}$	$1.458^{+0.395}_{-0.744}$
	+3%/-4%	+1%/-4%	+83%/-117%	+30%/-10%	+13%/-13%	+27%/-51%
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 006517246-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2262 ± 113	$3.86^{+0.90}_{-0.78}$	393^{+27}_{-19}	7659^{+1142}_{-844}	87448^{+52374}_{-29338}
Alt.	-941 ± 94	$4.34^{+0.99}_{-0.91}$	394^{+27}_{-21}	5677^{+669}_{-467}	28470^{+16837}_{-9676}

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

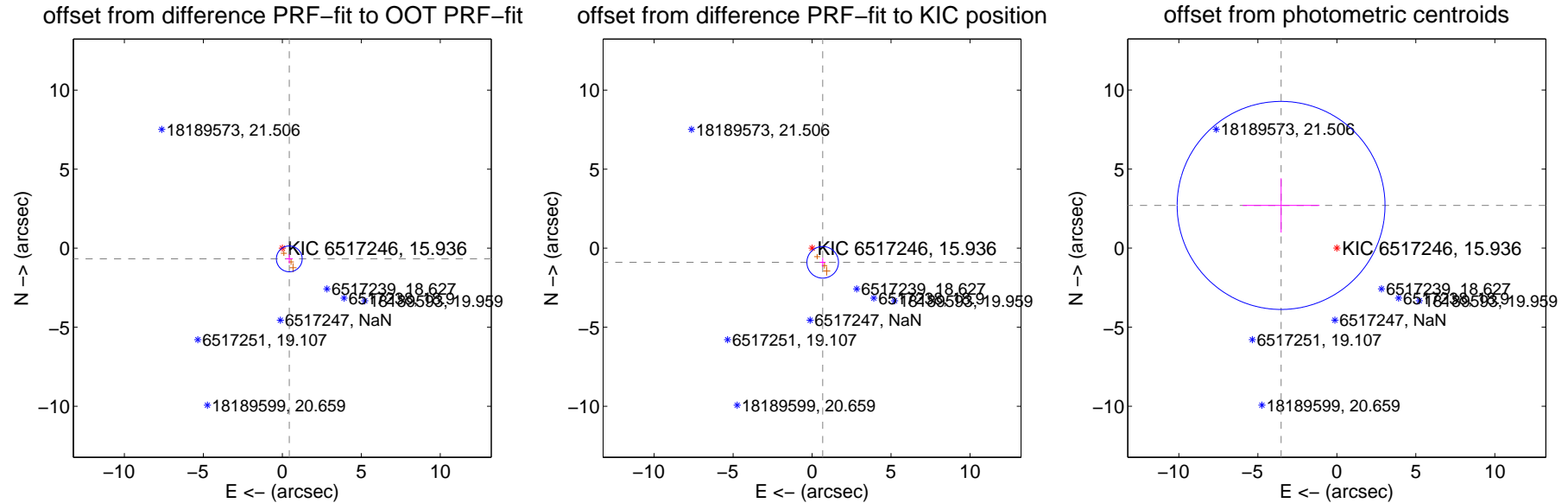
DV Centroid Data

Supplemental centroid analysis for 006517246-01. Kepler magnitude: 15.94. Transit SNR 8.62

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.806 ± 0.272	2.96	-0.441 ± 0.219	-0.675 ± 0.292
PRF-fit source offset from KIC position	1.119 ± 0.333	3.36	-0.672 ± 0.185	-0.895 ± 0.287
photometric centroid source offset	4.44 ± 2.19	2.03	3.53 ± 2.43	2.70 ± 1.72

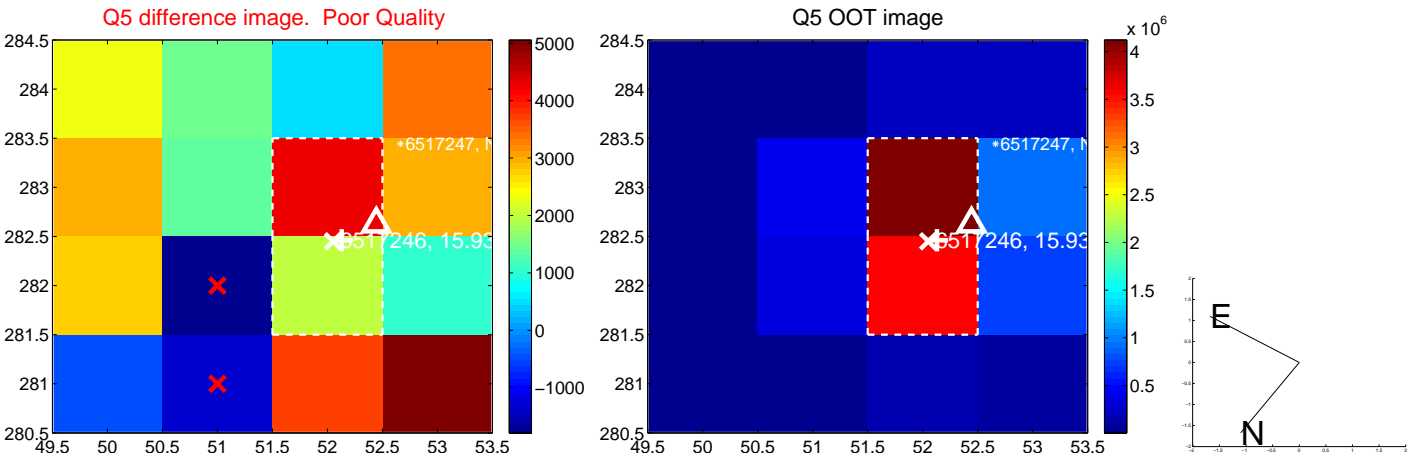


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

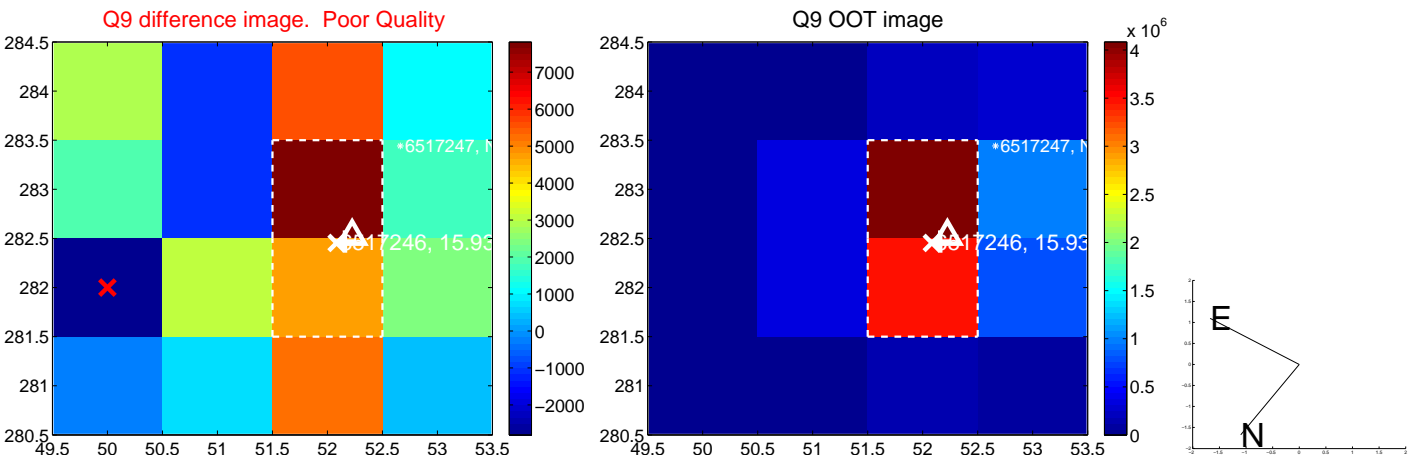
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



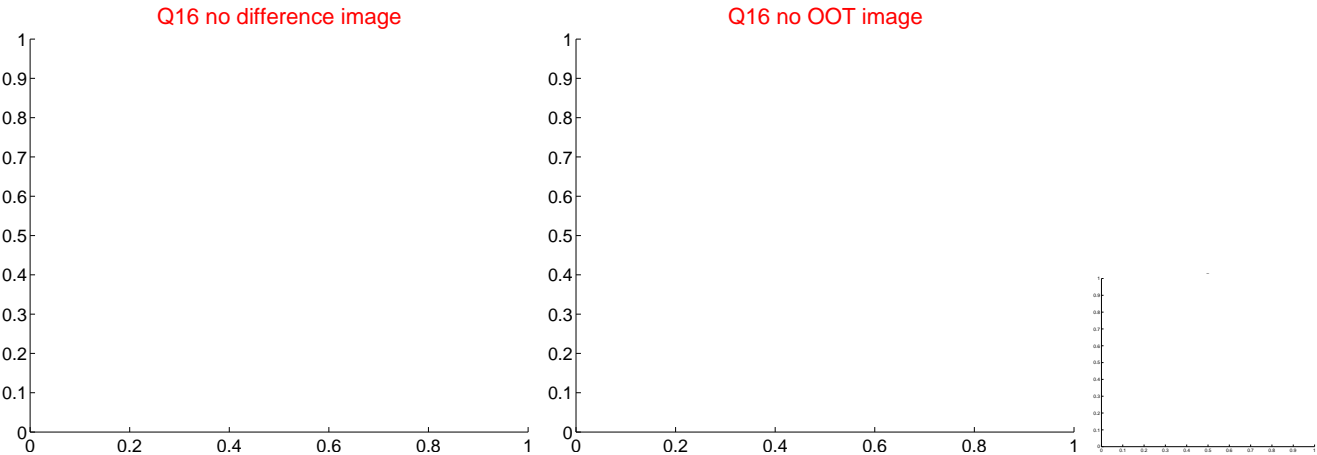
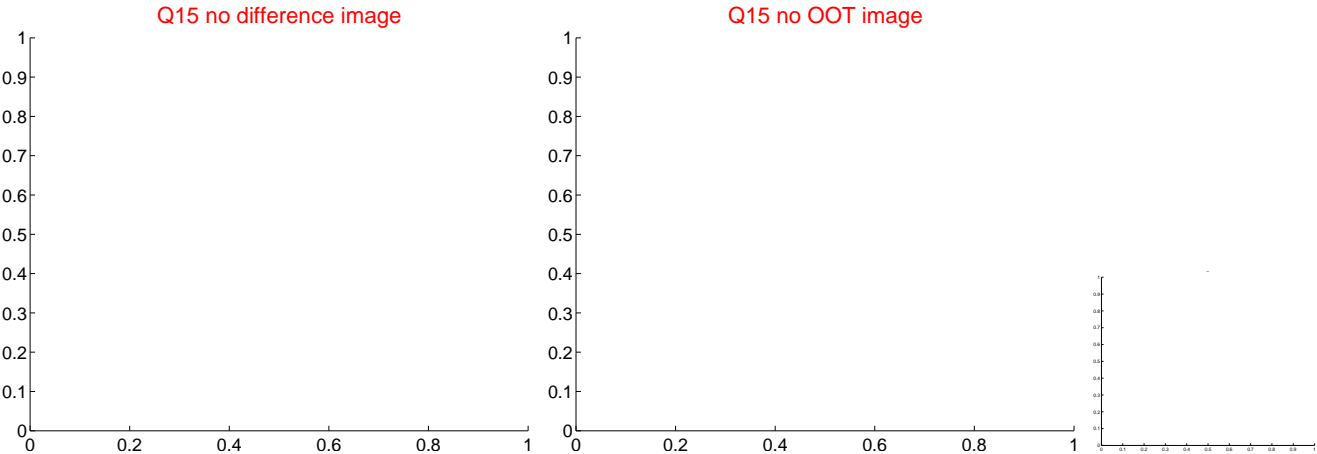
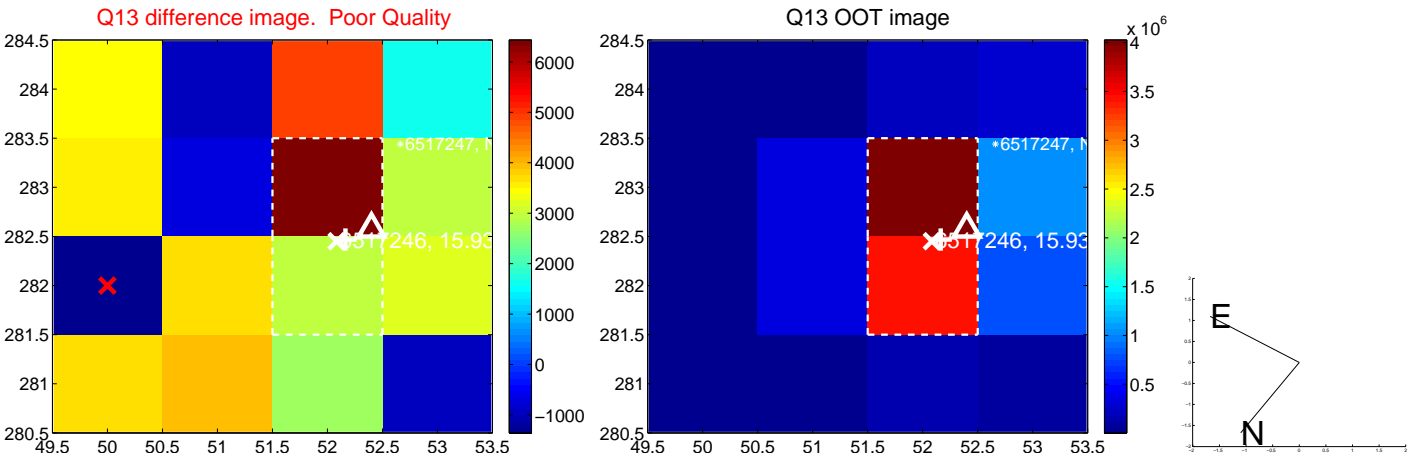
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



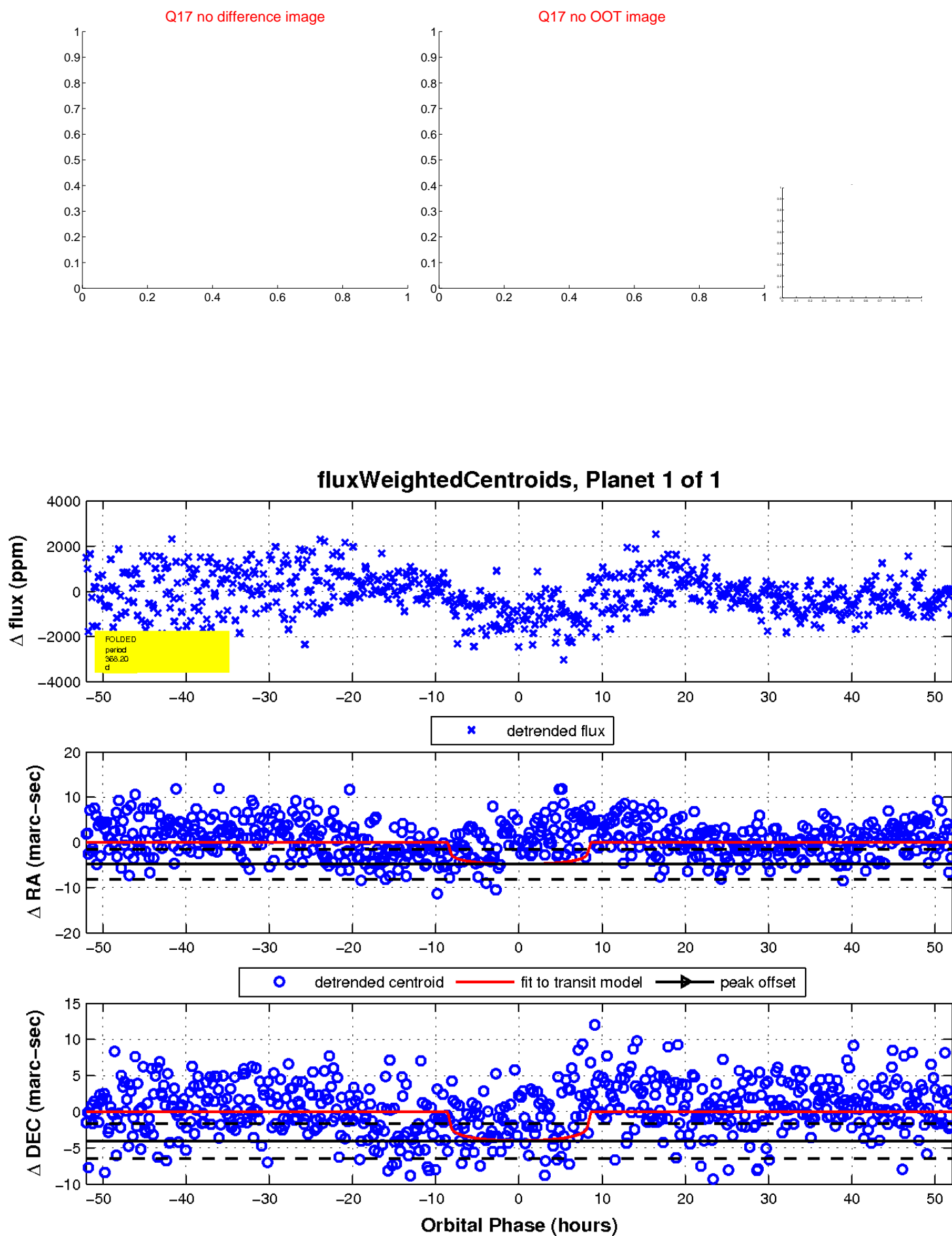
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

