

KIC 006201045

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})
006201045-01	OBS	No	345.041144	224.705385	1681.0	13.371	8.0	8.0	9.35	4723	69.85	32.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006201045-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—MOD_NONUNIQ_ALT—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.

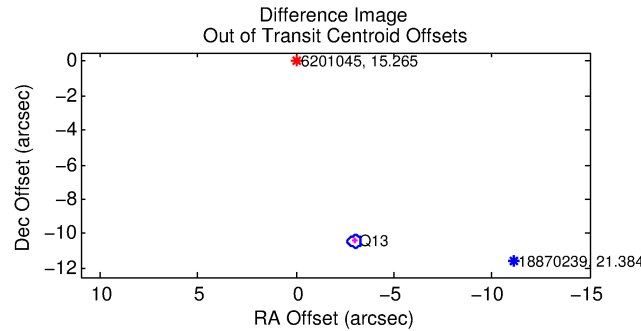
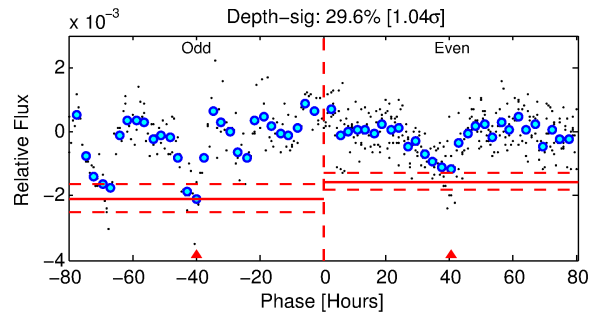
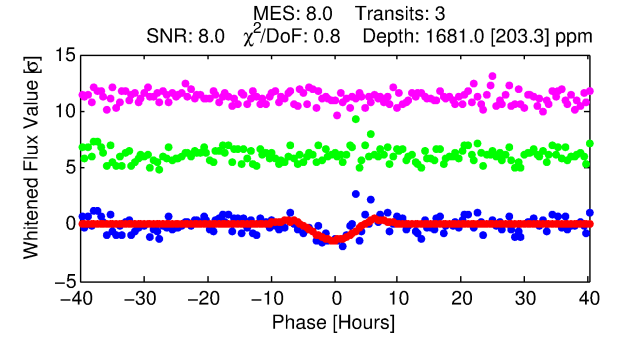
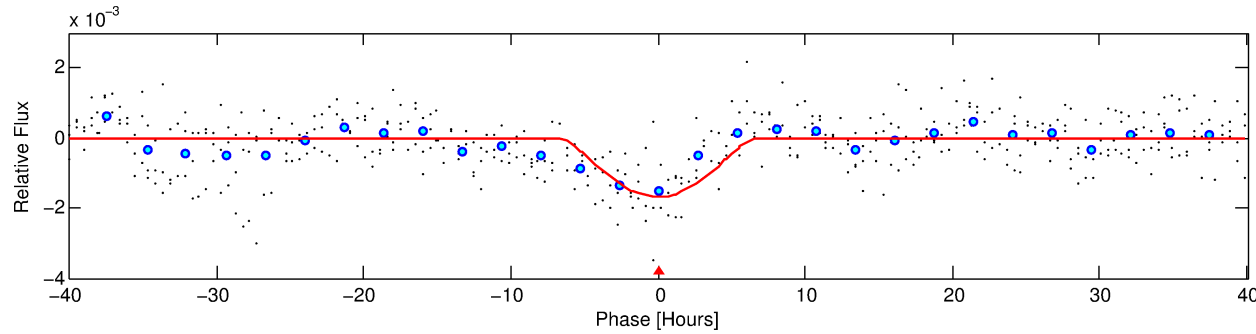
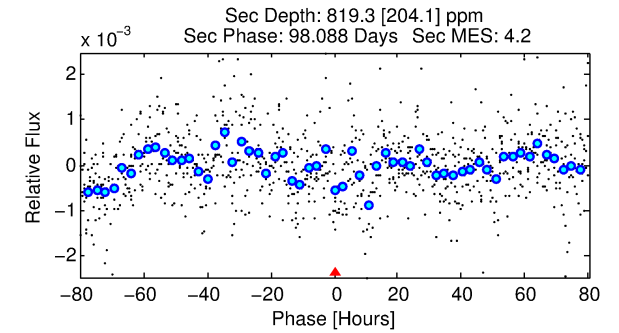
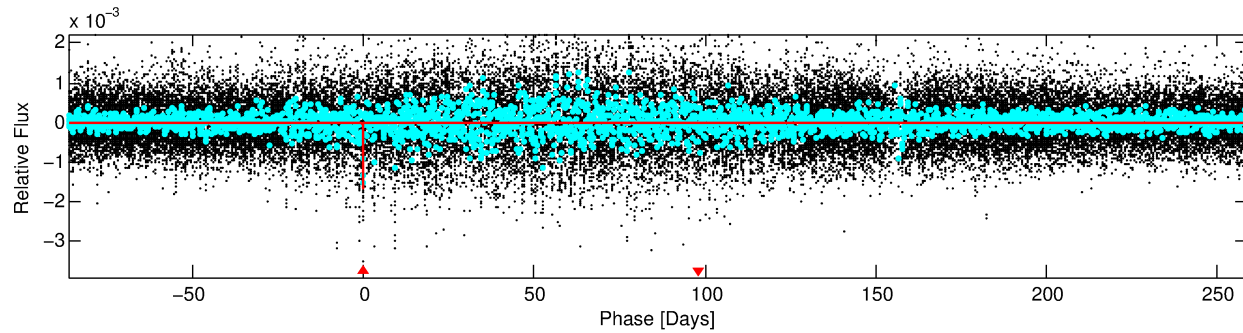
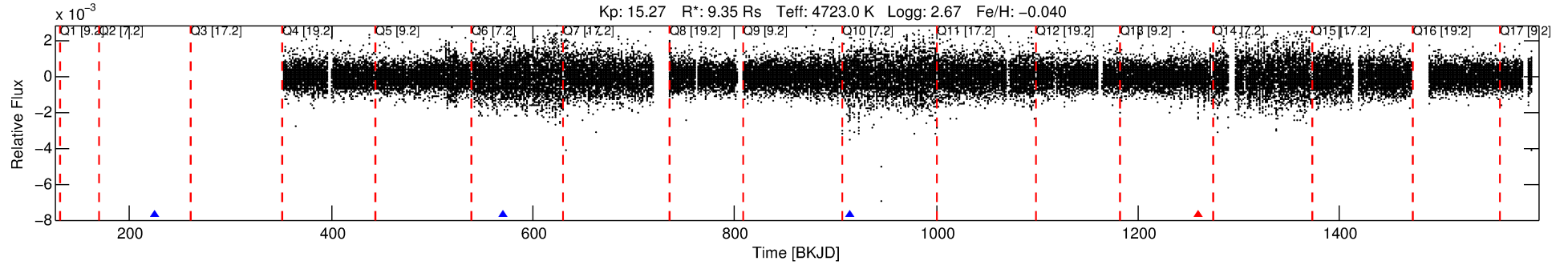
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006201045-01

No Significant Match Found

DV One-Page Summary

KIC: 6201045 Candidate: 1 of 1 Period: 345.041 d



DV Fit Results:

Period = 345.04114 [0.01802] d
Epoch = 224.7054 [0.0488] BKJD
Rp/R* = 0.0684 [0.1495]
a/R* = 79.79 [43.90]
b = 0.99 [0.23]
Seff = 32.10 [4.05]
Teq = 607 [19] K
Rp = 69.85 [152.92] Re
a = 1.1022 [0.1147] AU
Ag = 112.22 [491.17] [0.23 σ]
Teff = 3054 [3341] K [0.73 σ]

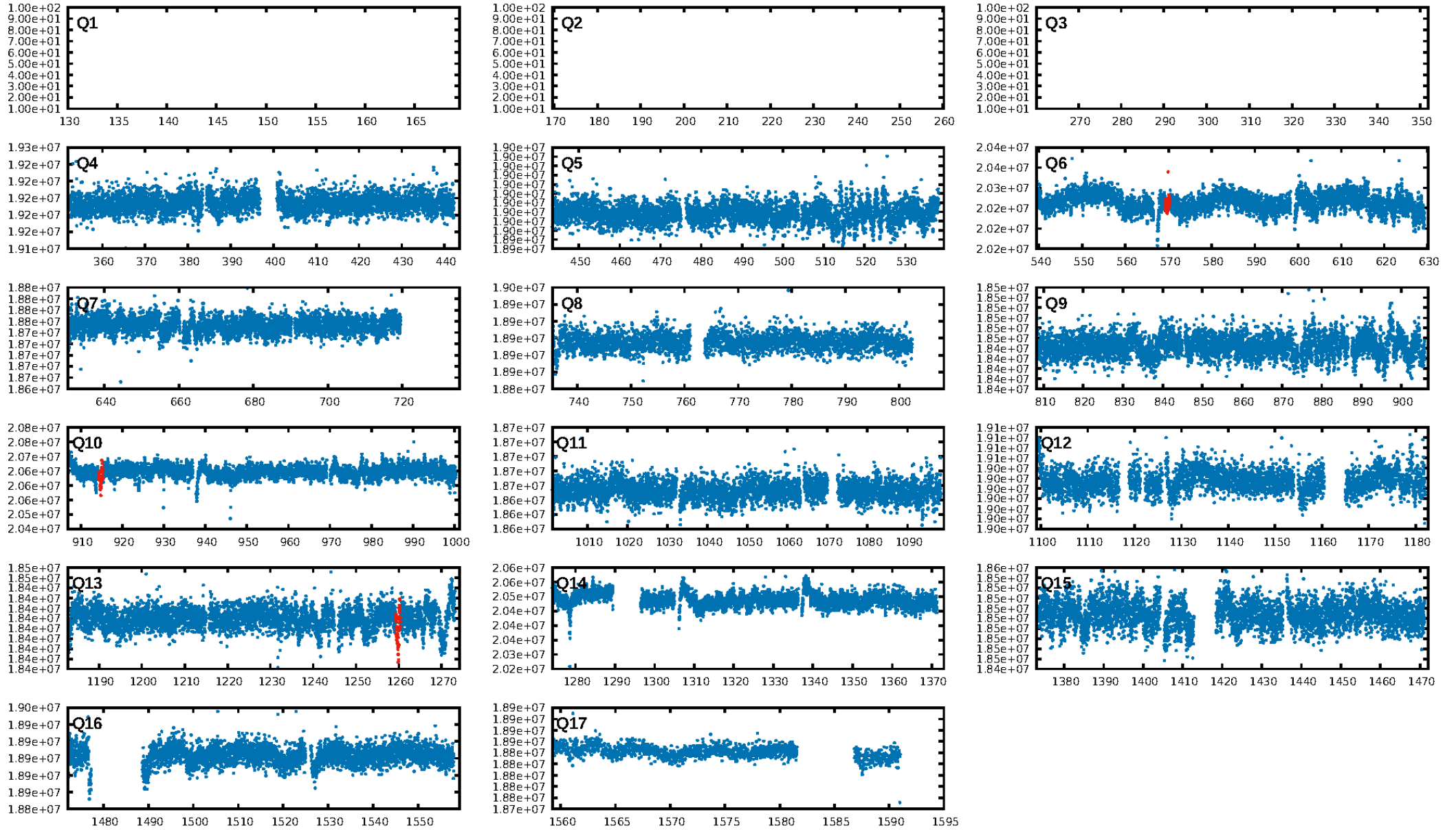
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.6%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 1.34e-10
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 3.028
Centroid-sig: 0.0%
Centroid-so: 4.634 arcsec [17.29 σ]
OotOffset-rm: 10.853 arcsec [95.61 σ]
KicOffset-rm: 3.496 arcsec [31.04 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

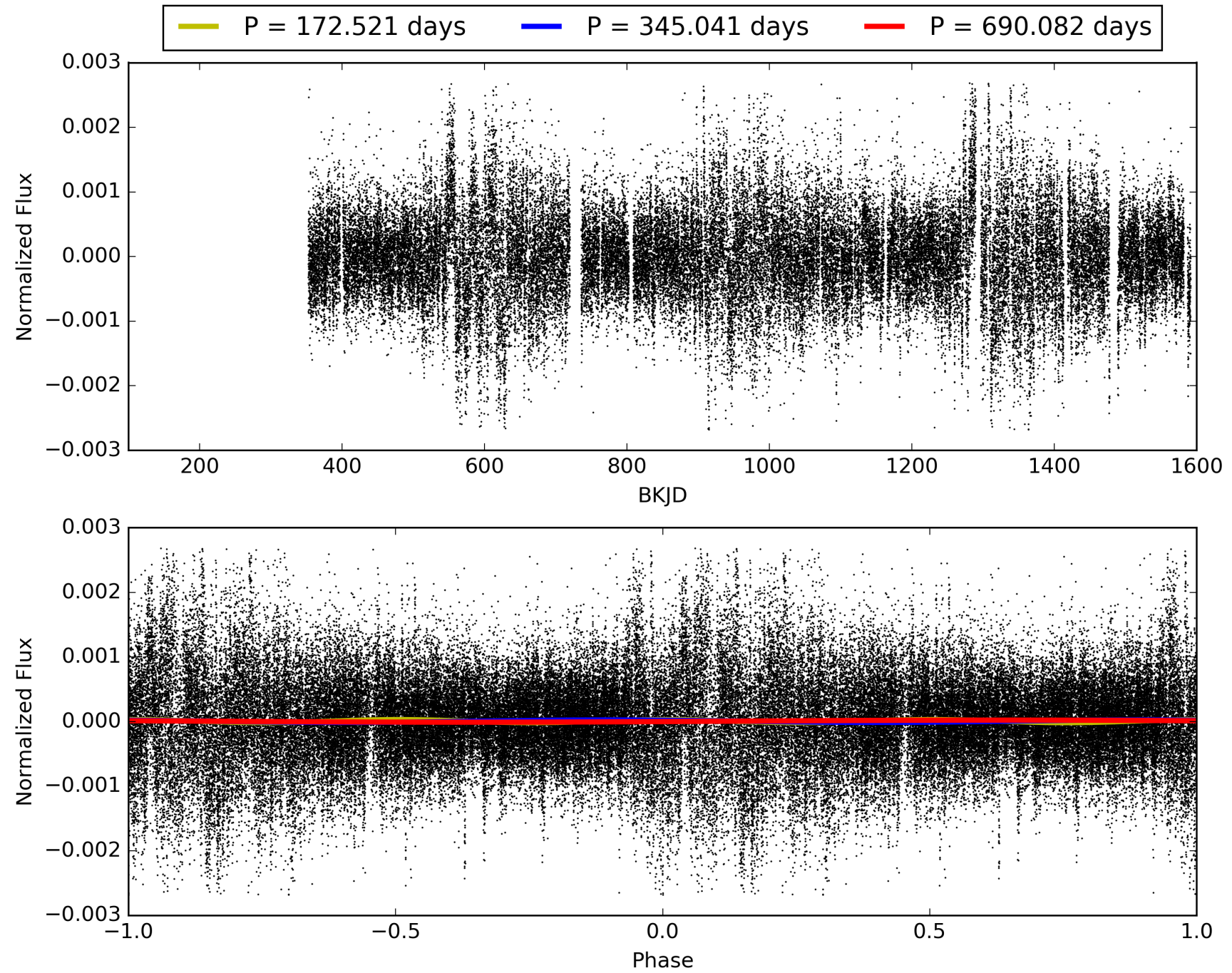
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:30:04 Z

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

TCE 006201045-01, PDC Light Curves

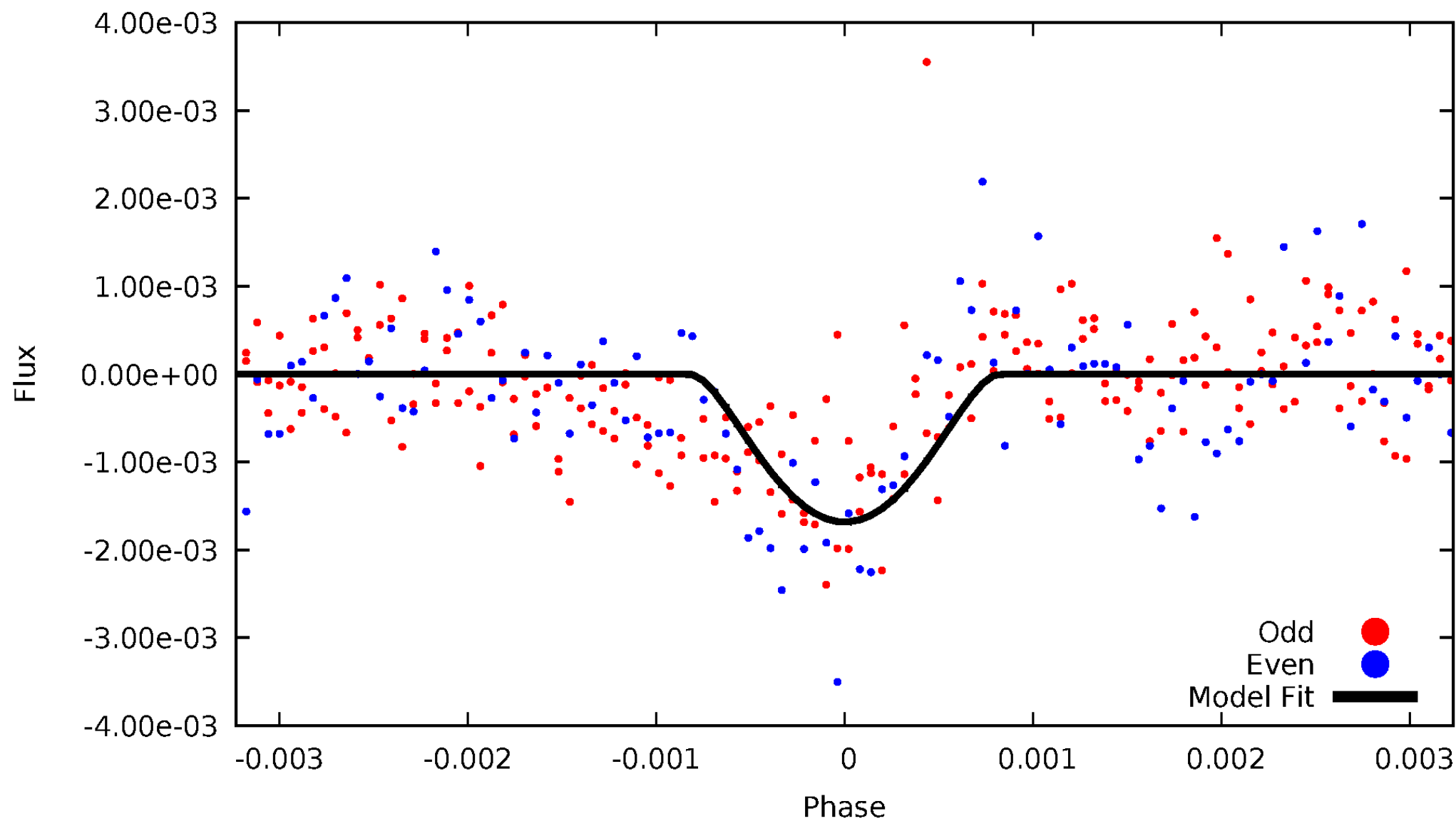


TCE 006201045-01



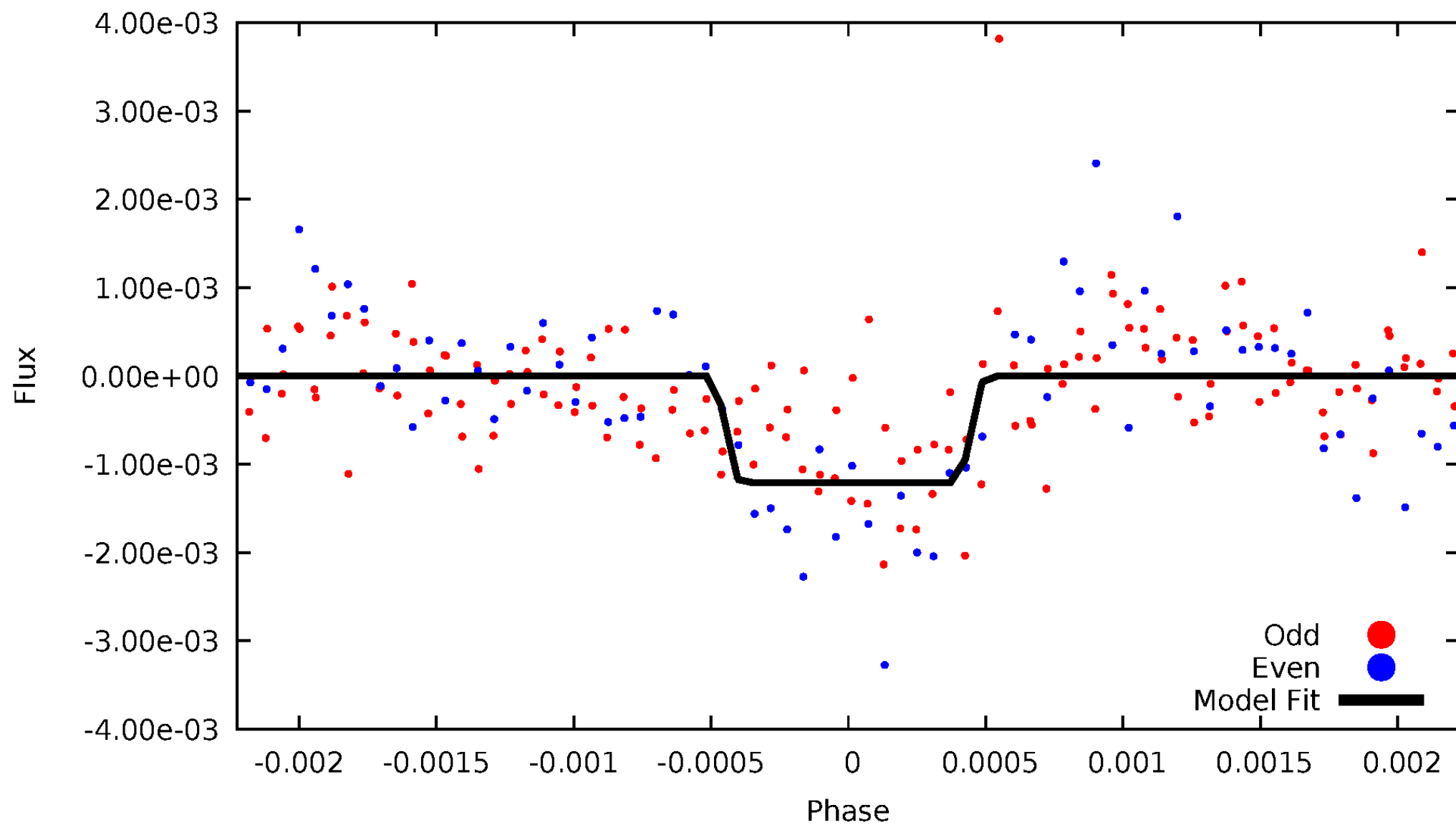
DV Odd/Even

TCE 006201045-01



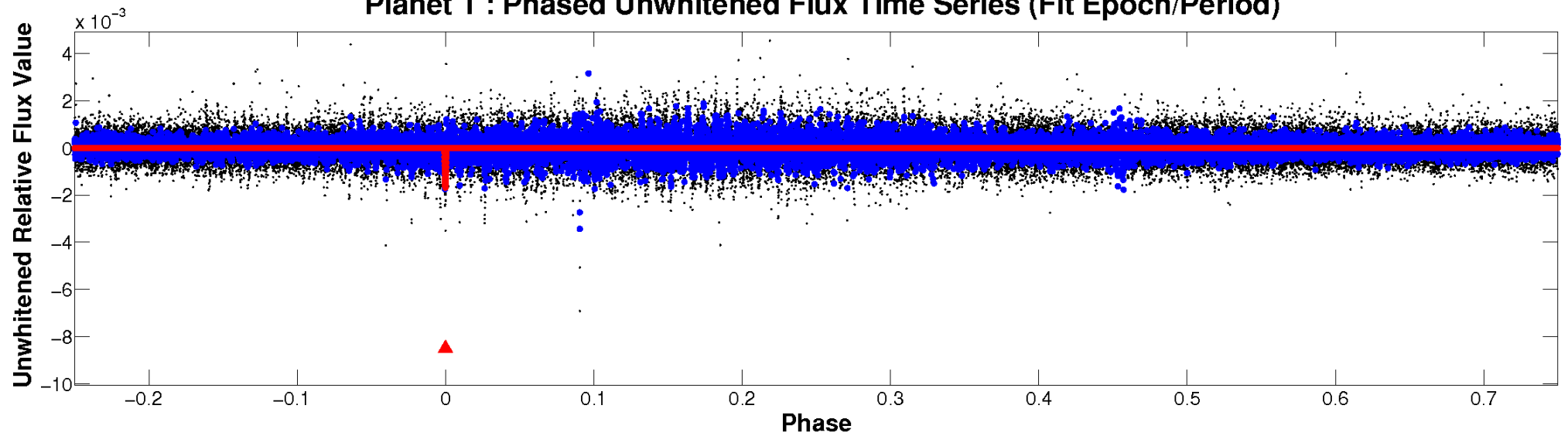
ALT Odd/Even

TCE 006201045-01

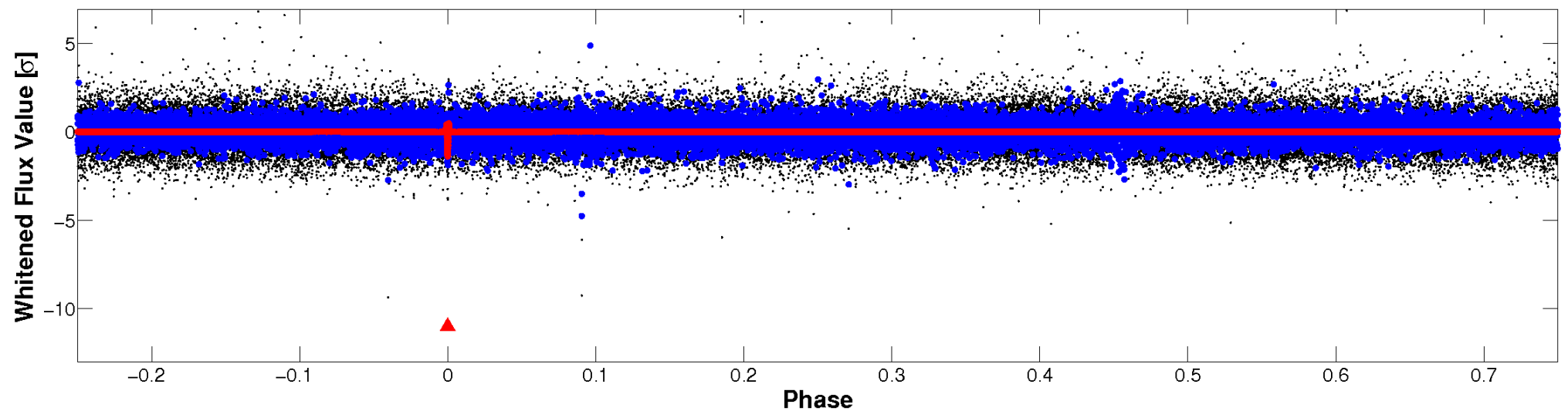


Non-Whitened Vs. Whitened Light Curve

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

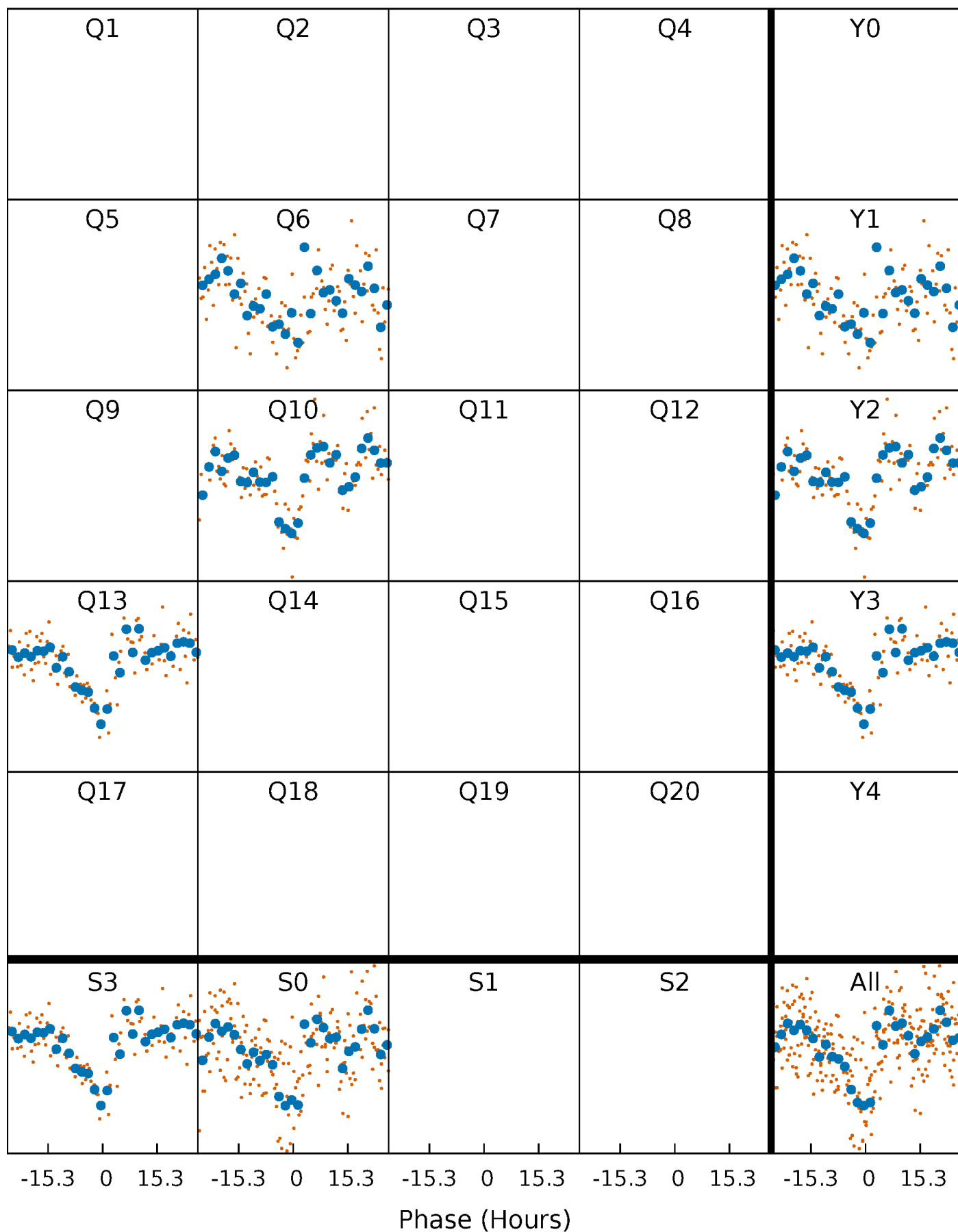


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



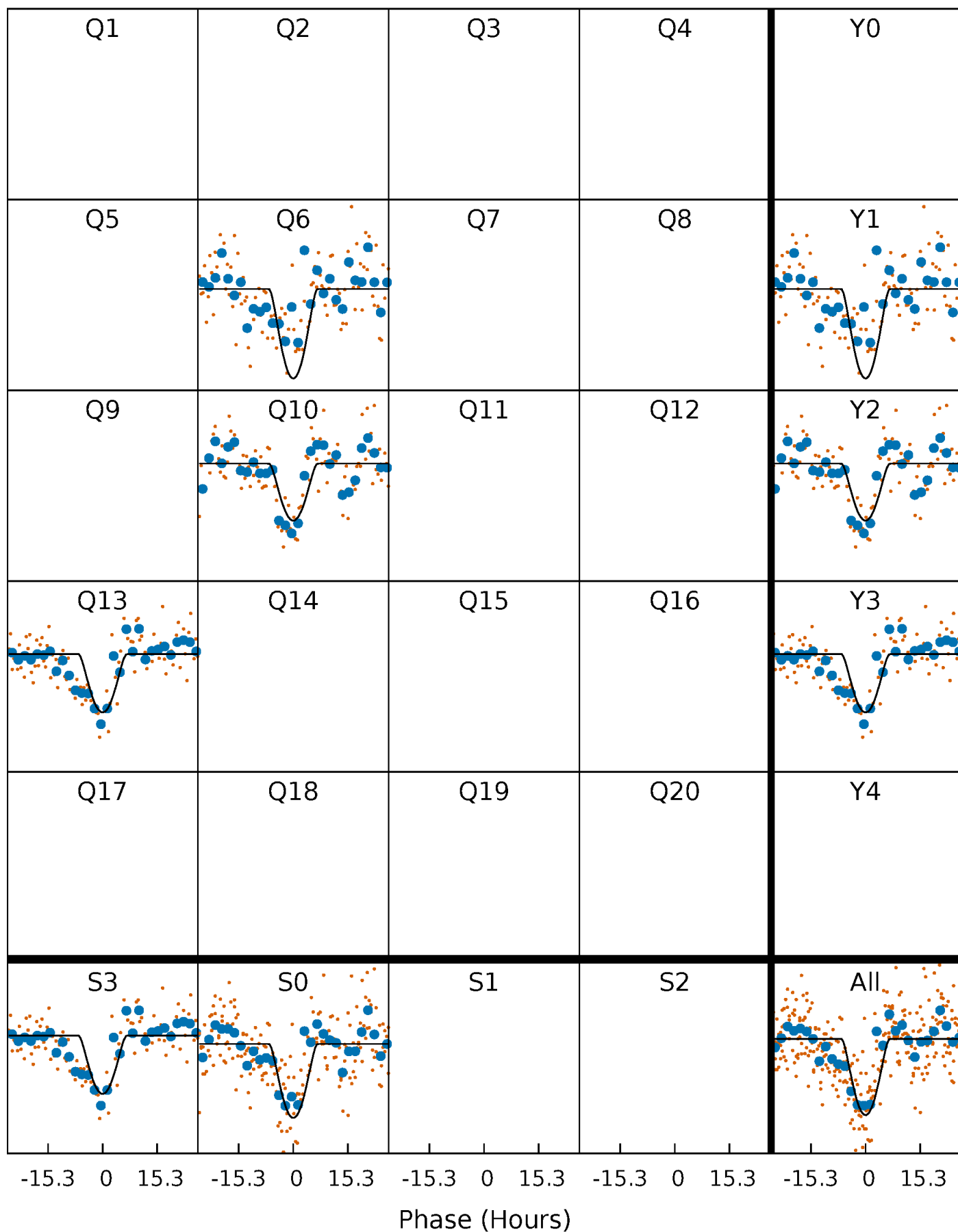
PDC Quarter-Phased Transit Curves

TCE 006201045-01 P=345.041144 Days $T_0=224.705385$ (BKJD)



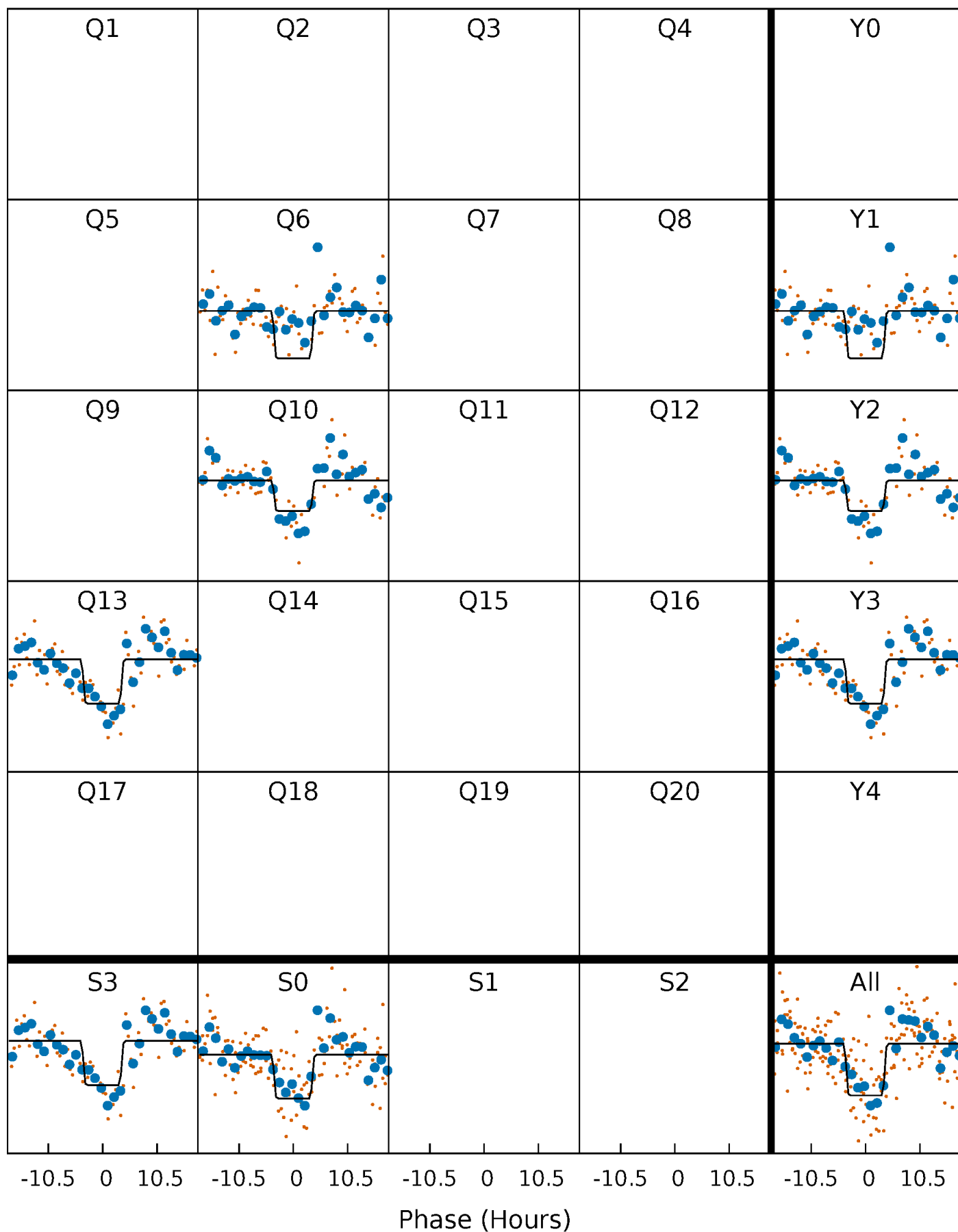
DV Quarter-Phased Transit Curves

TCE 006201045-01 P=345.041144 Days $T_0=224.705385$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

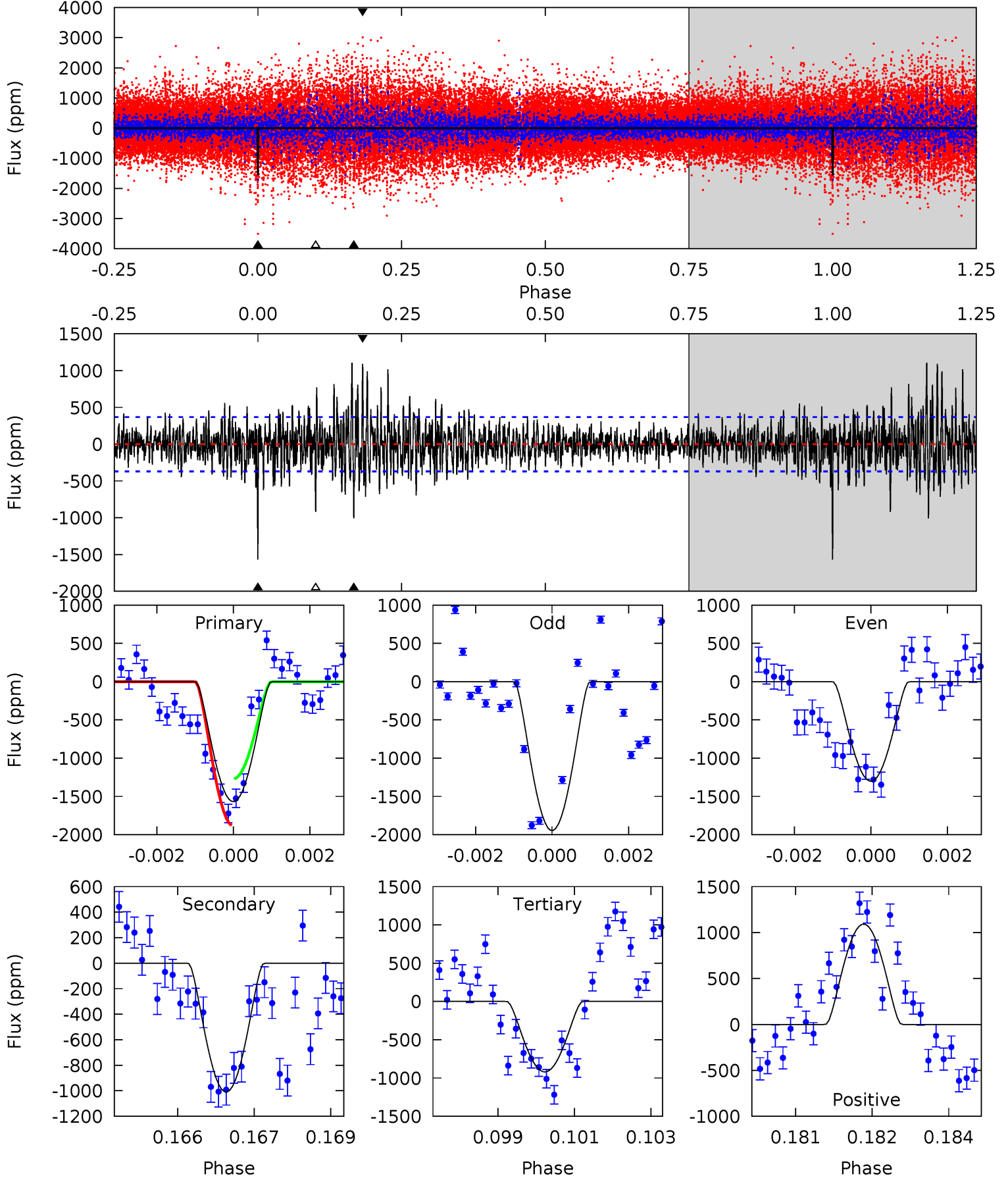
TCE 006201045-01 P=345.021575 Days $T_0=224.685920$ (BKJD)



DV Model-Shift Uniqueness Test

006201045-01, P = 345.041144 Days, E = 224.705385 Days

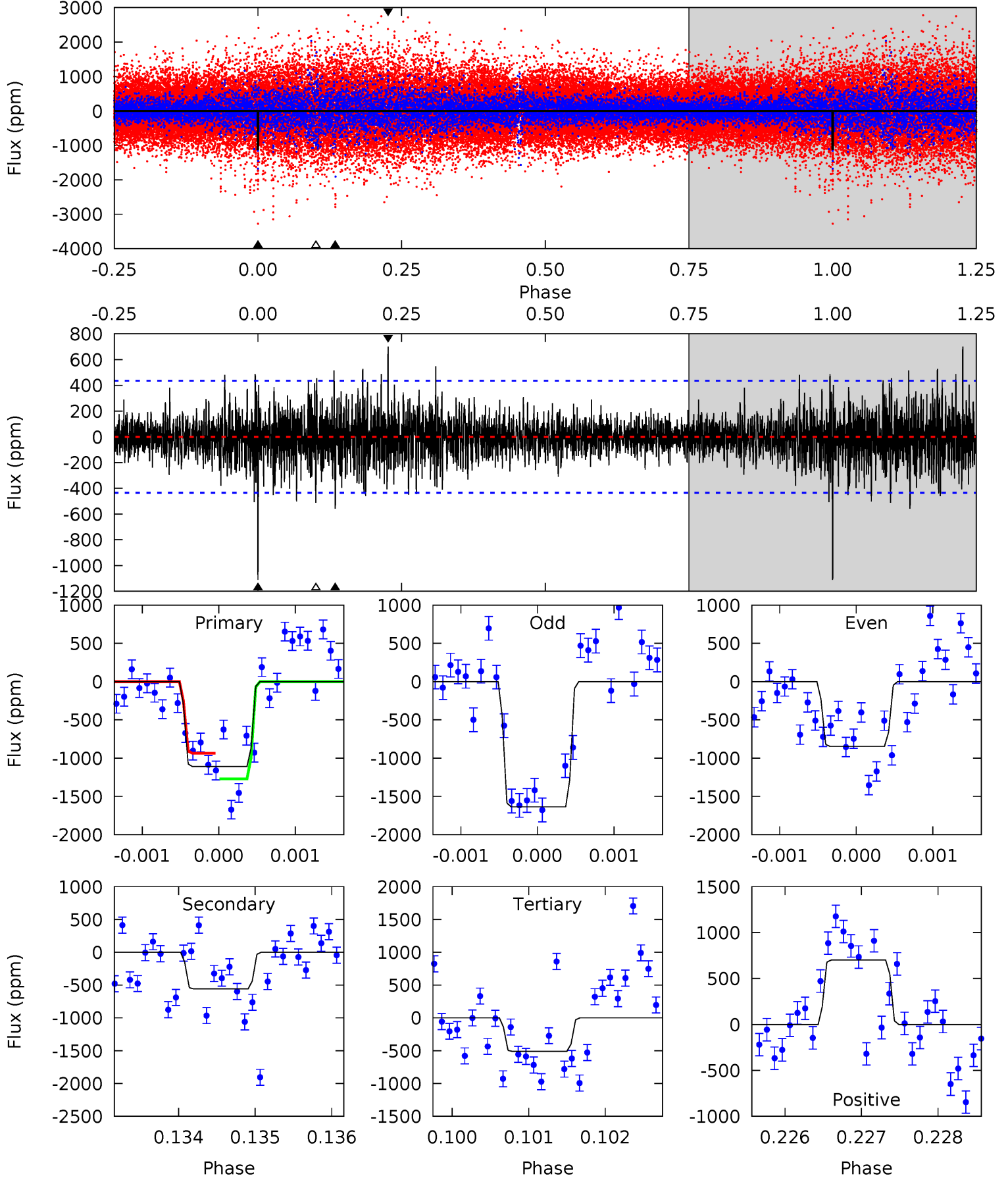
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	14.7	13.4	15.9	5.36	3.15	2.94	9.42	6.92	1.30	-1.19	4.50	0.85	0.41	4.36



Alt Model-Shift Uniqueness Test

006201045-01, P = 345.021575 Days, E = 224.685920 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	6.98	6.39	8.76	5.45	3.29	1.53	7.48	5.11	0.59	-1.78	4.74	0.85	0.39	2.08



Stellar Parameters For KIC 006201045

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4723^{+56}_{-70}	$2.672^{+0.030}_{-0.030}$	$-0.040^{+0.100}_{-0.150}$	$9.353^{+0.767}_{-1.424}$	$1.500^{+0.216}_{-0.402}$	$0.003^{+0.001}_{-0.000}$
	+1%/-1%	+1%/-1%	+250%/-375%	+8%/-15%	+14%/-27%	+21%/-11%
Source	SPE74	AST71	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006201045-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1009 ± 69	$139.64^{+119.52}_{-96.55}$	849^{+17}_{-18}	2922^{+1339}_{-437}	36^{+341}_{-25}
Alt.	-558 ± 80	$117.56^{+124.50}_{-79.48}$	848^{+17}_{-17}	2811^{+1166}_{-465}	27^{+228}_{-21}

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

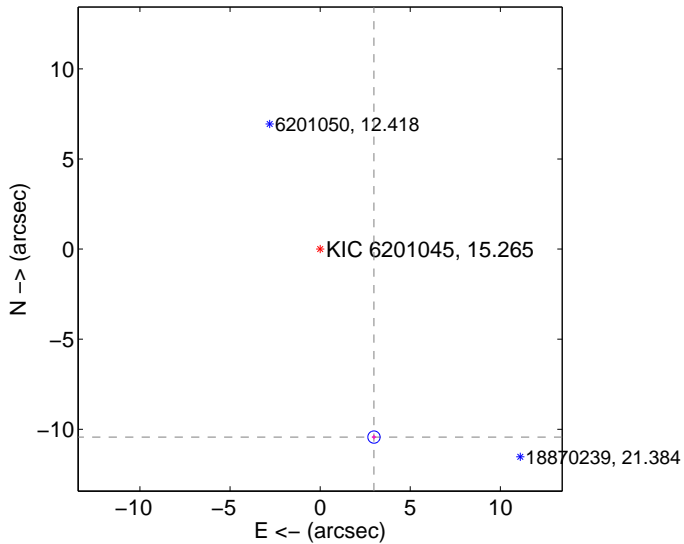
Supplemental centroid analysis for 006201045-01. Kepler magnitude: 15.27. Transit SNR 8.00

There are 0 quarters with good PRF difference image offsets

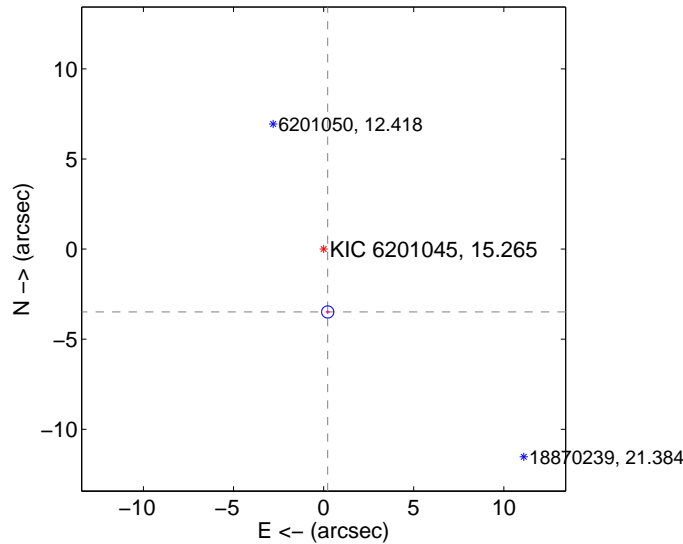
The OOT PRF centroid is offset from the target star catalog position by about 7.47 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.853 ± 0.114	95.61	-2.987 ± 0.124	-10.434 ± 0.113
PRF-fit source offset from KIC position	3.496 ± 0.113	31.04	-0.228 ± 0.124	-3.489 ± 0.113
photometric centroid source offset	4.63 ± 0.27	17.29	1.68 ± 0.16	4.32 ± 0.28

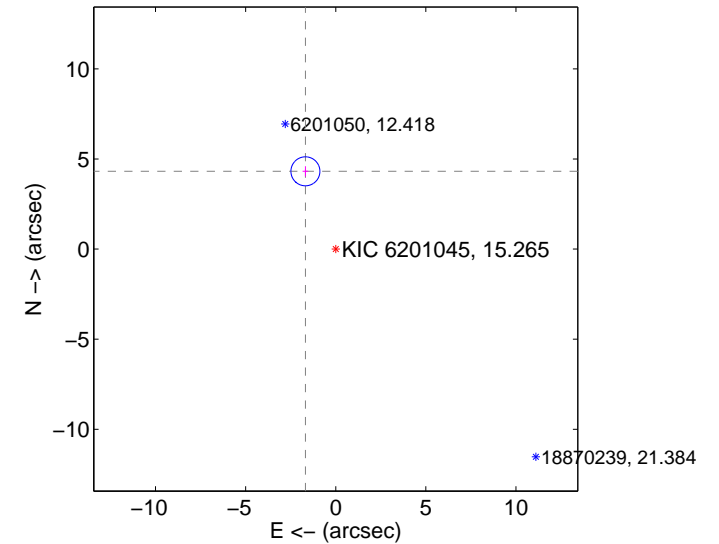
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

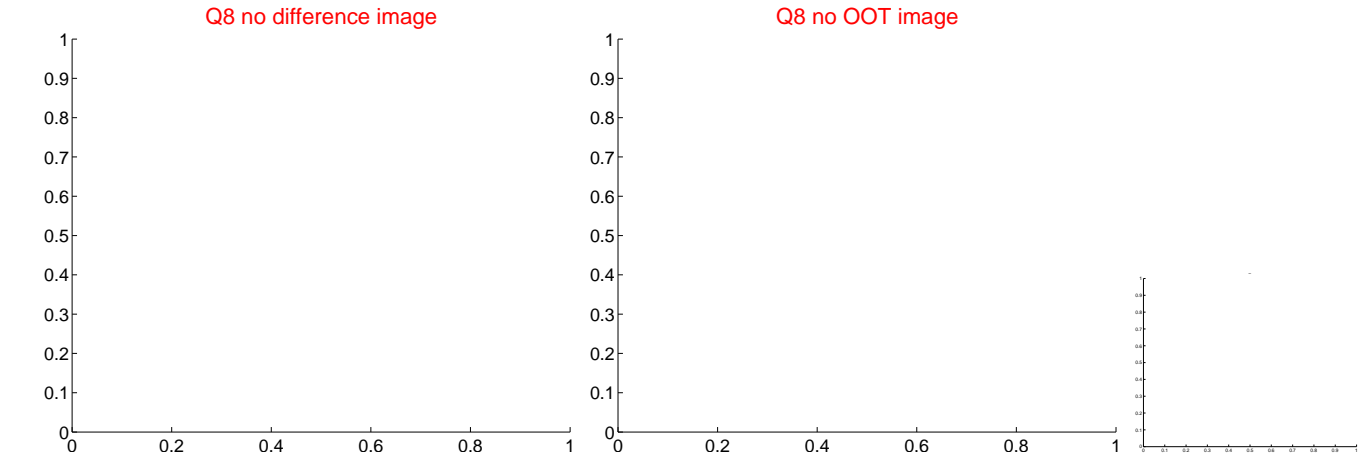
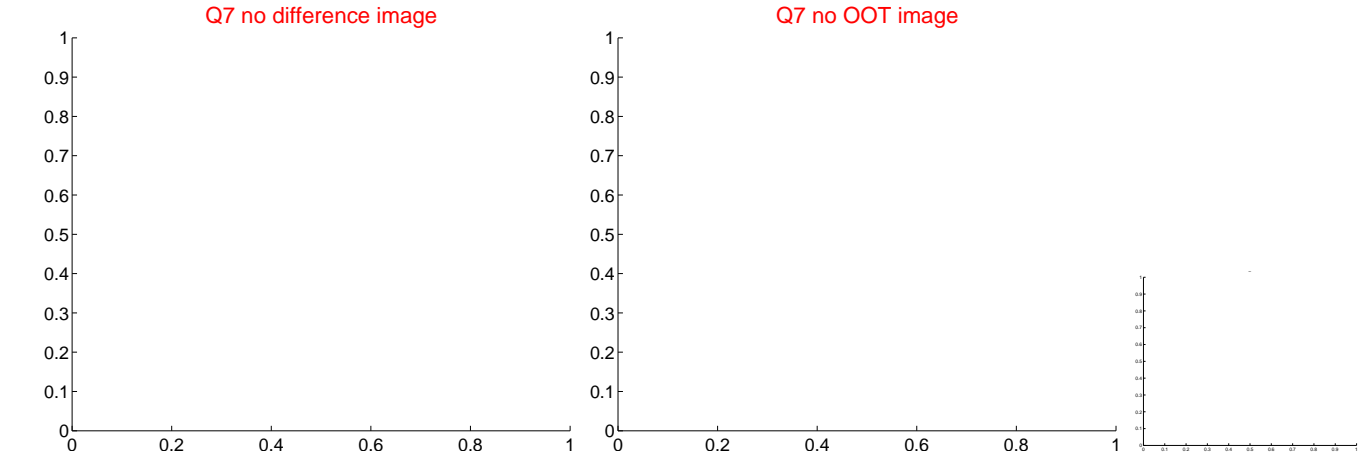
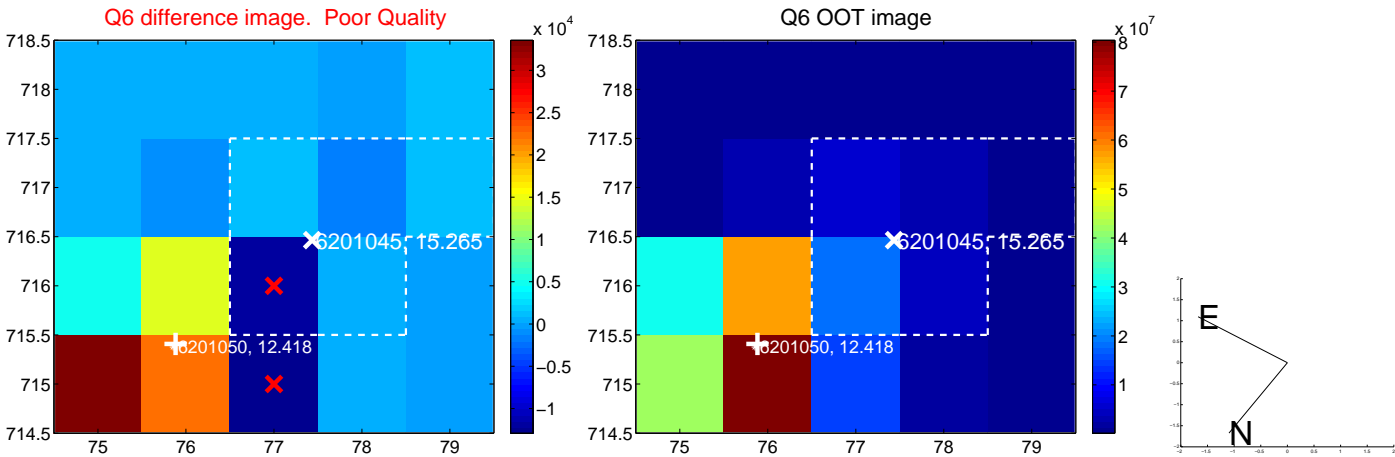
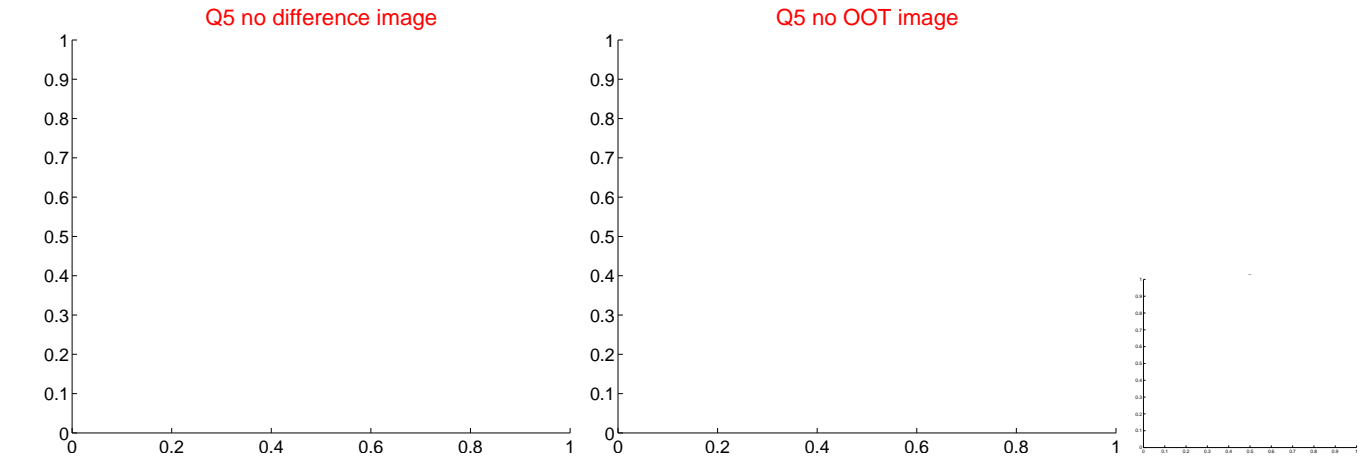


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

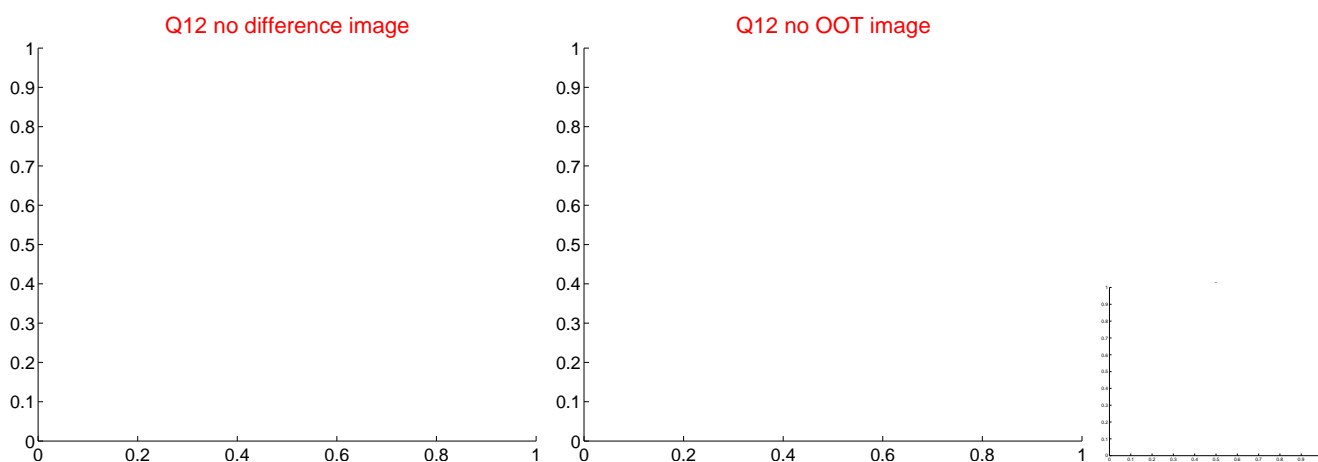
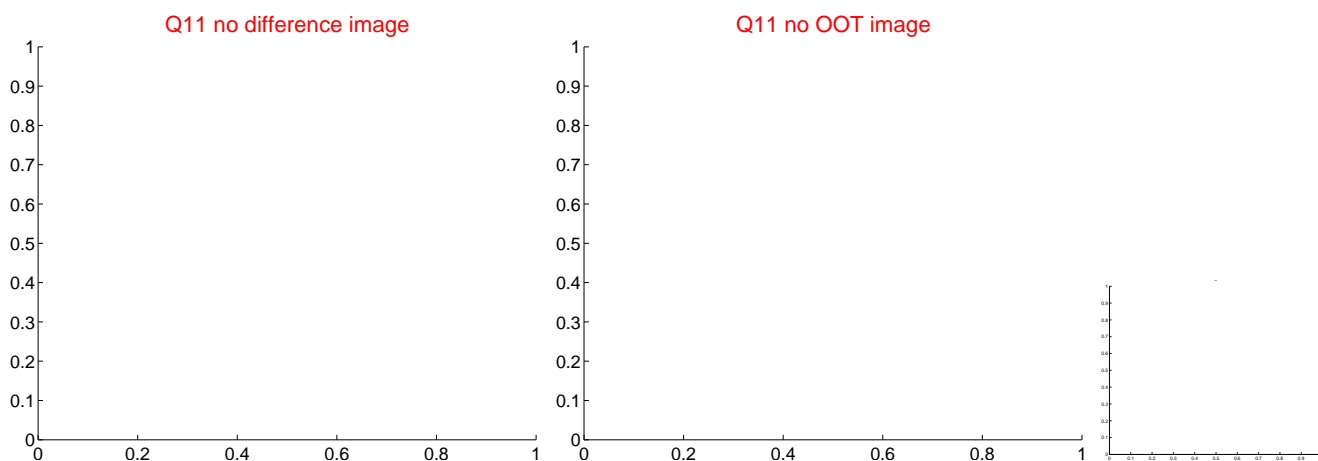
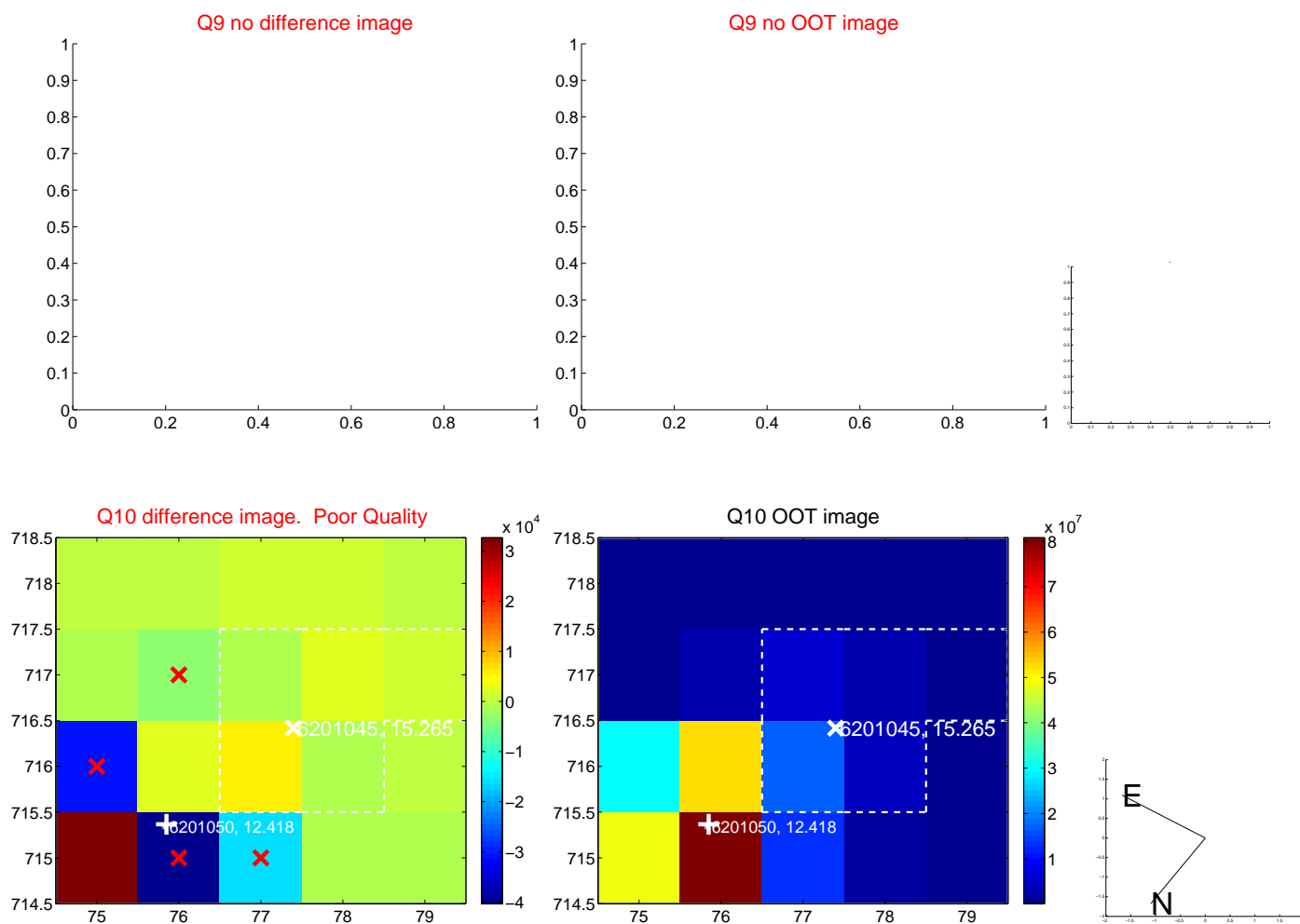
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



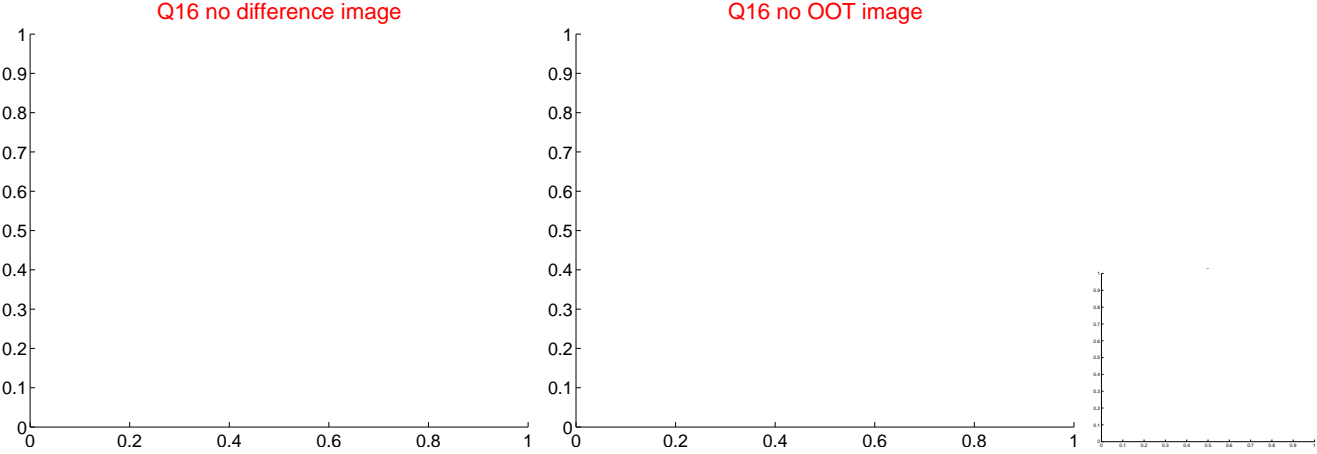
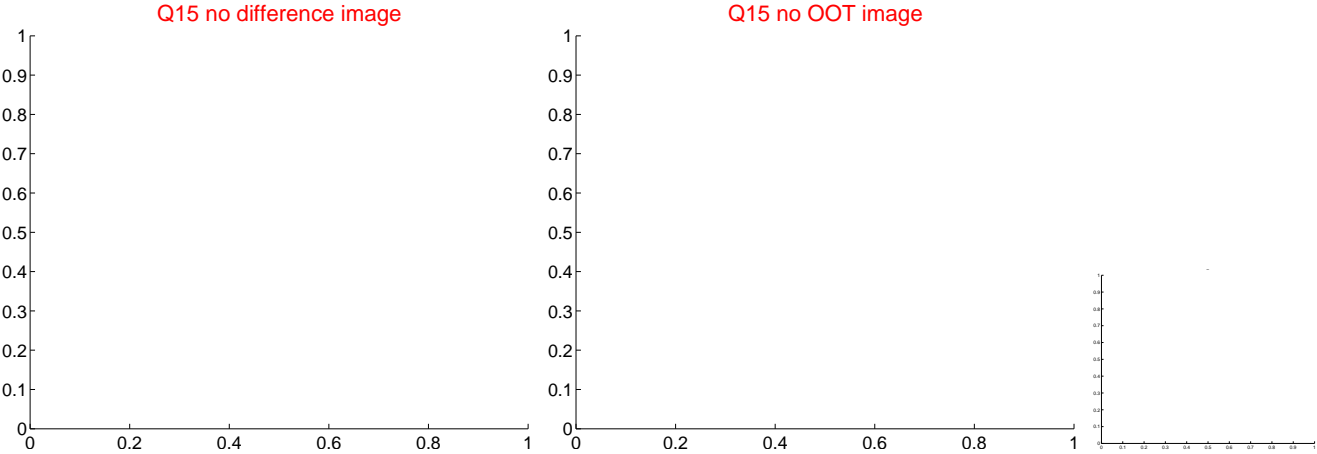
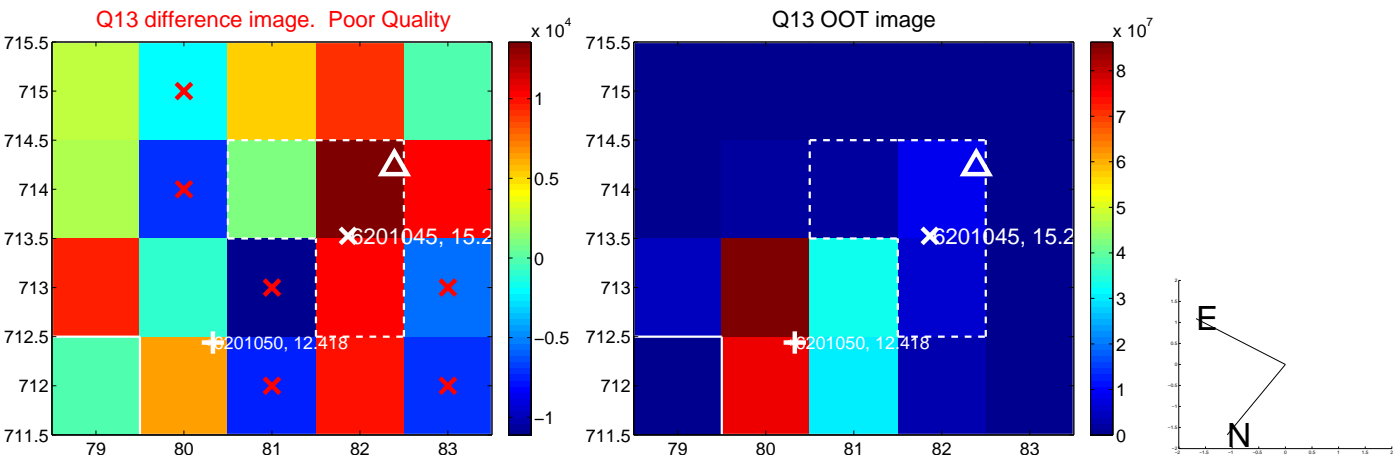
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



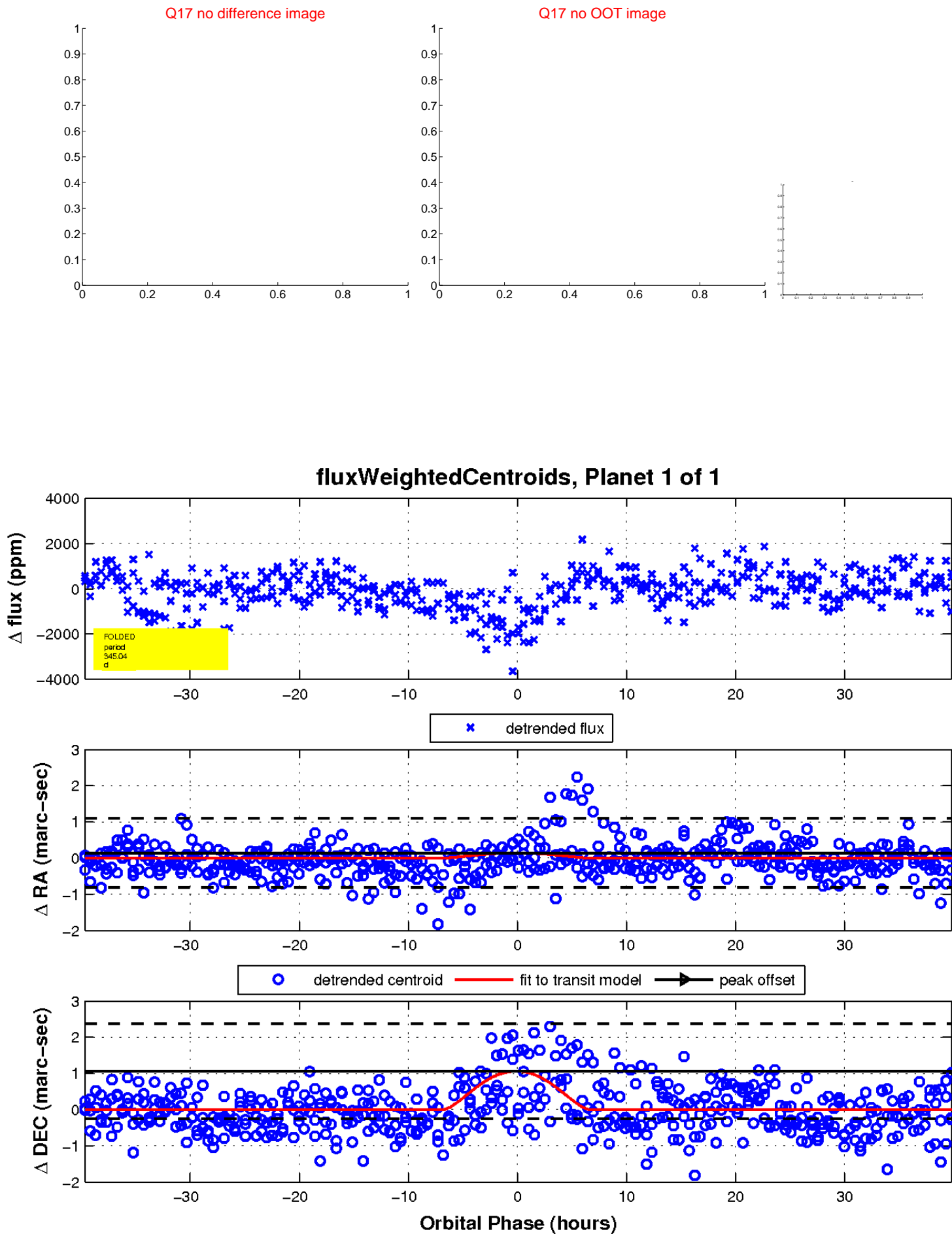
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

