

KIC 006188234

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})
006188234-01	OBS	No	402.709130	288.415886	289.6	11.440	12.2	9.2	1.00	5780	1.90	0.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006188234-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE—LPP_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.

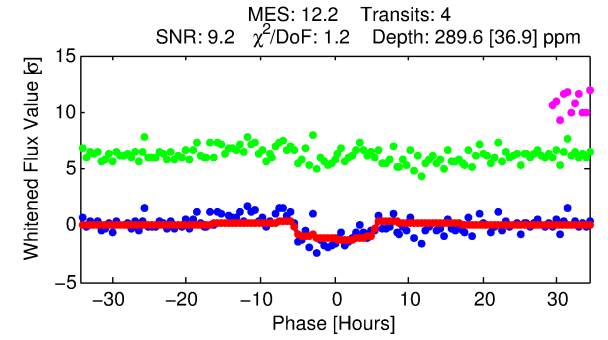
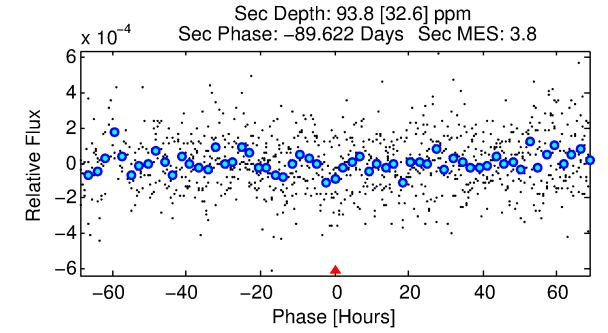
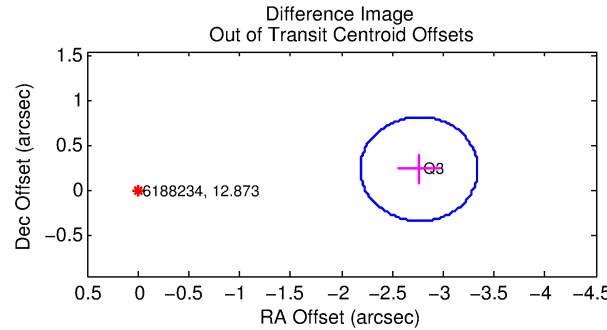
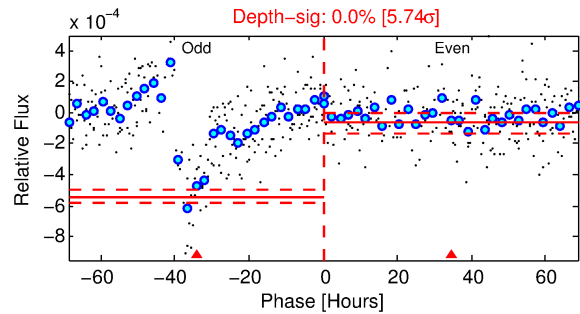
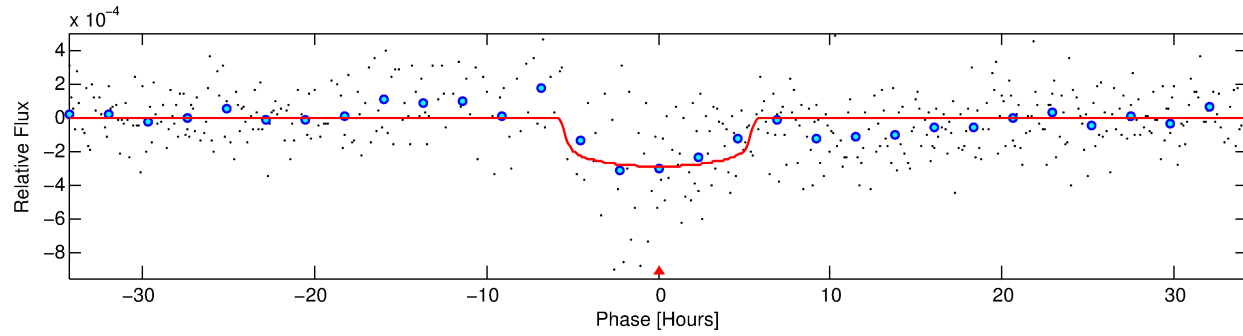
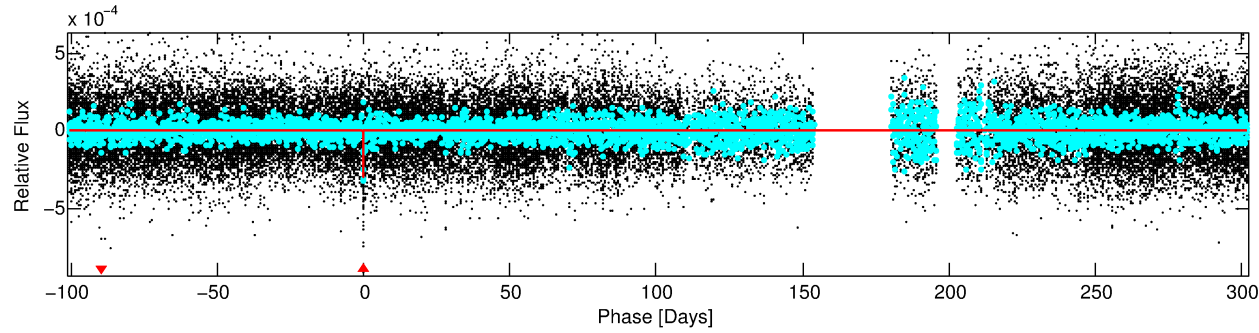
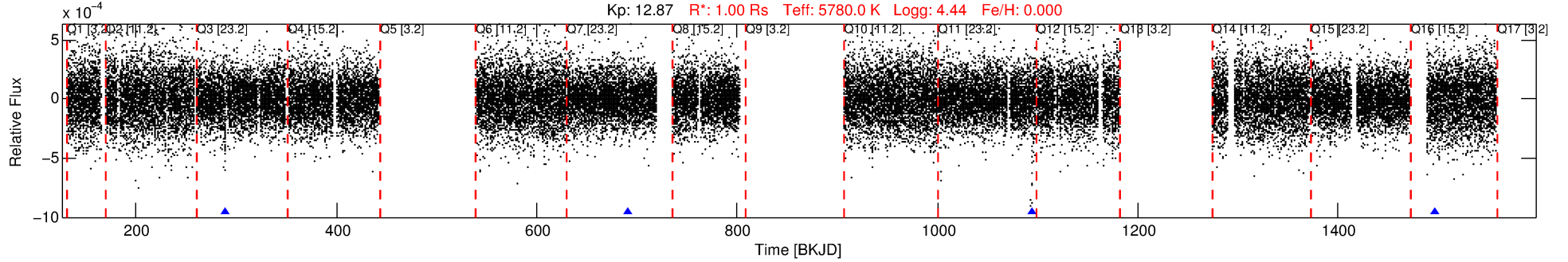
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006188234-01

No Significant Match Found

DV One-Page Summary

KIC: 6188234 Candidate: 1 of 1 Period: 402.709 d



DV Fit Results:

Period = 402.70913 [0.00913] d
Epoch = 288.4159 [0.0163] BKJD
Rp/R* = 0.0174 [0.0060]
a/R* = 165.94 [253.69]
b = 0.81 [0.66]
Seff = 0.88 [0.00]
Teq = 247 [0] K
Rp = 1.90 [0.65] Re
a = 1.0675 [0.0000] AU
Ag = 16338.39 [12591.76] [1.30 σ]
Teffp = 4314 [831] K [4.89 σ]

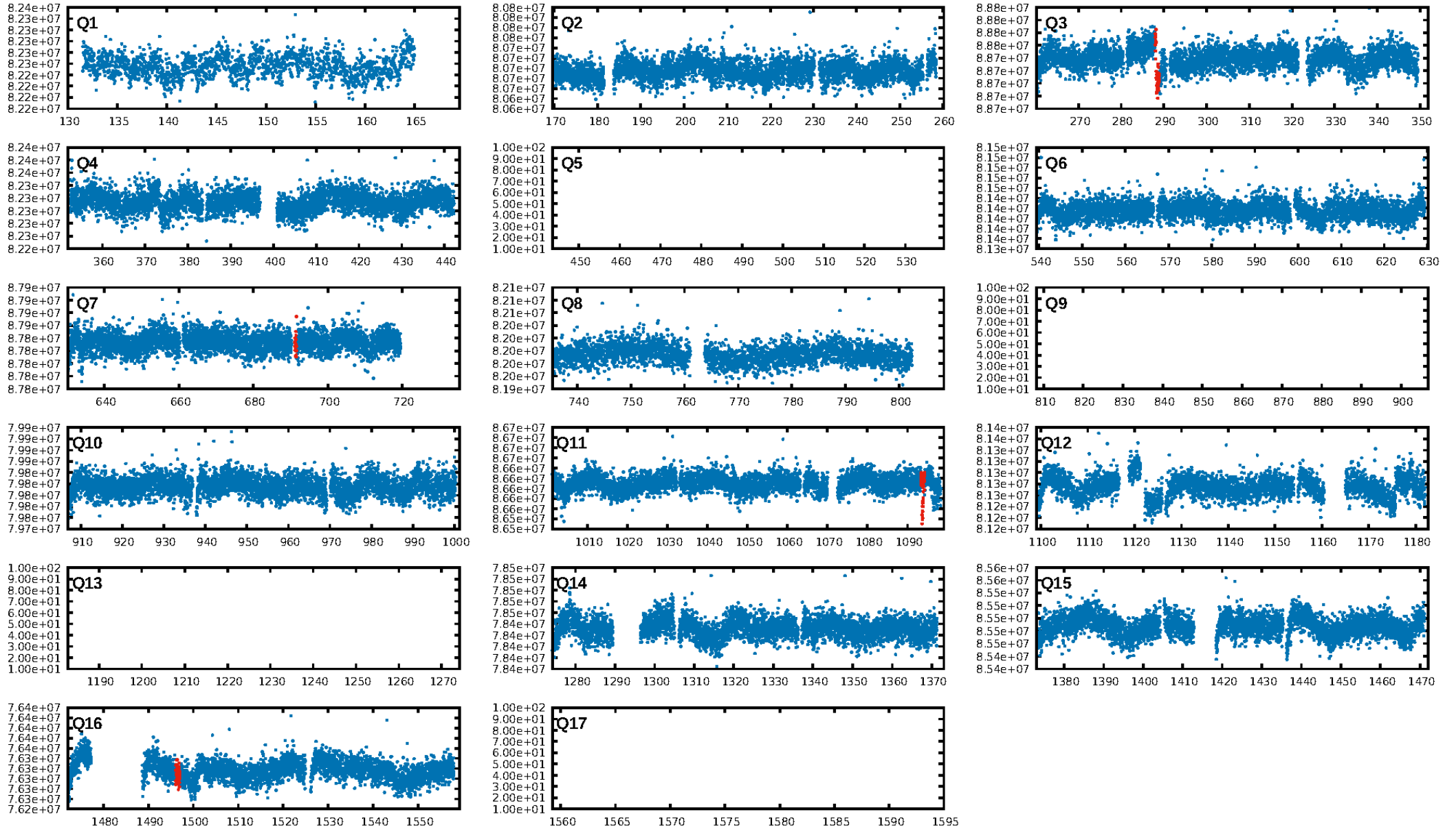
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 82.7%
Bootstrap-pfa: 2.36e-28
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.272
Centroid-sig: 61.1%
Centroid-so: 0.356 arcsec [0.38 σ]
OotOffset-rm: 2.773 arcsec [14.38 σ]
KicOffset-rm: 2.242 arcsec [12.18 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

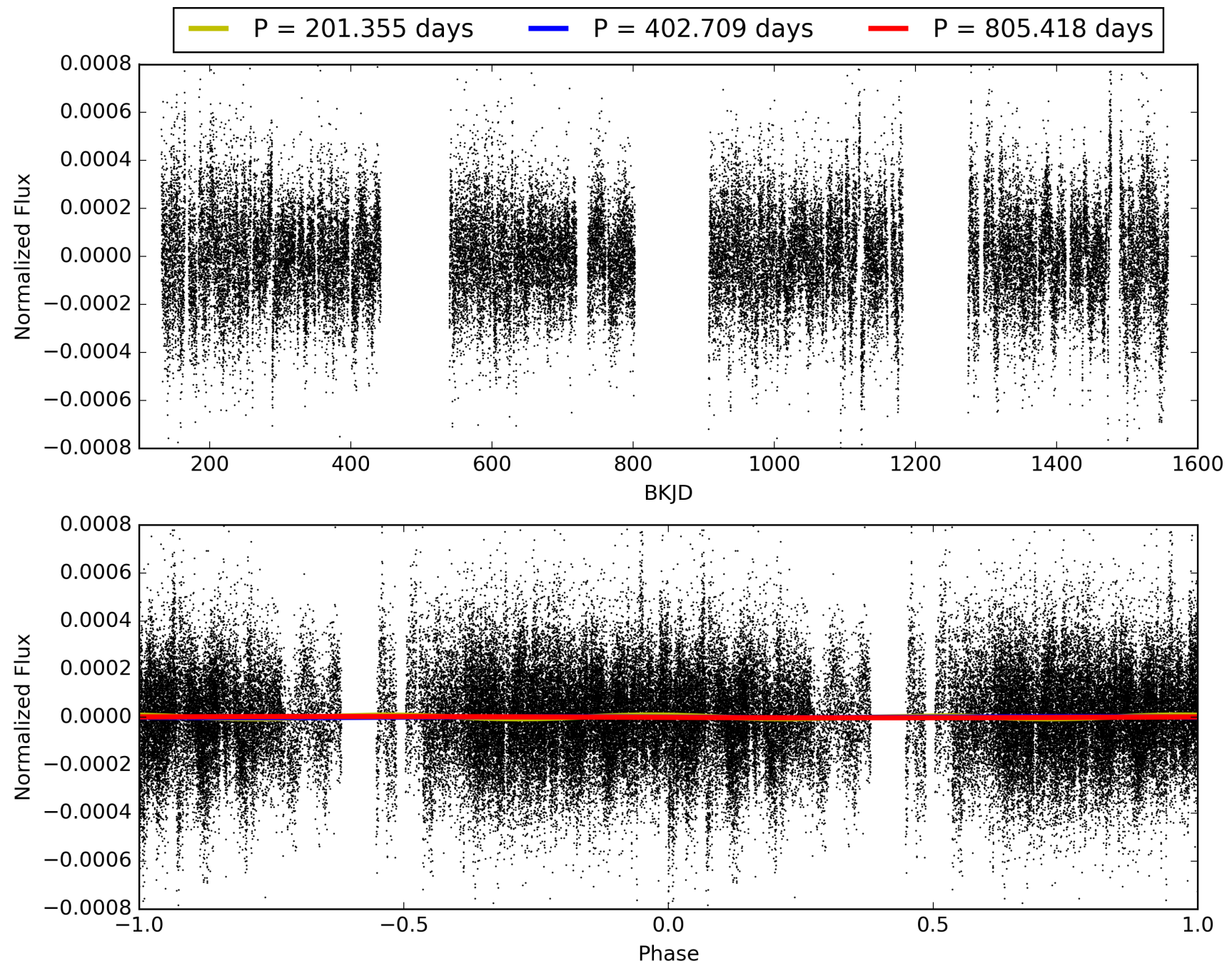
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:22:04 Z

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

TCE 006188234-01, PDC Light Curves

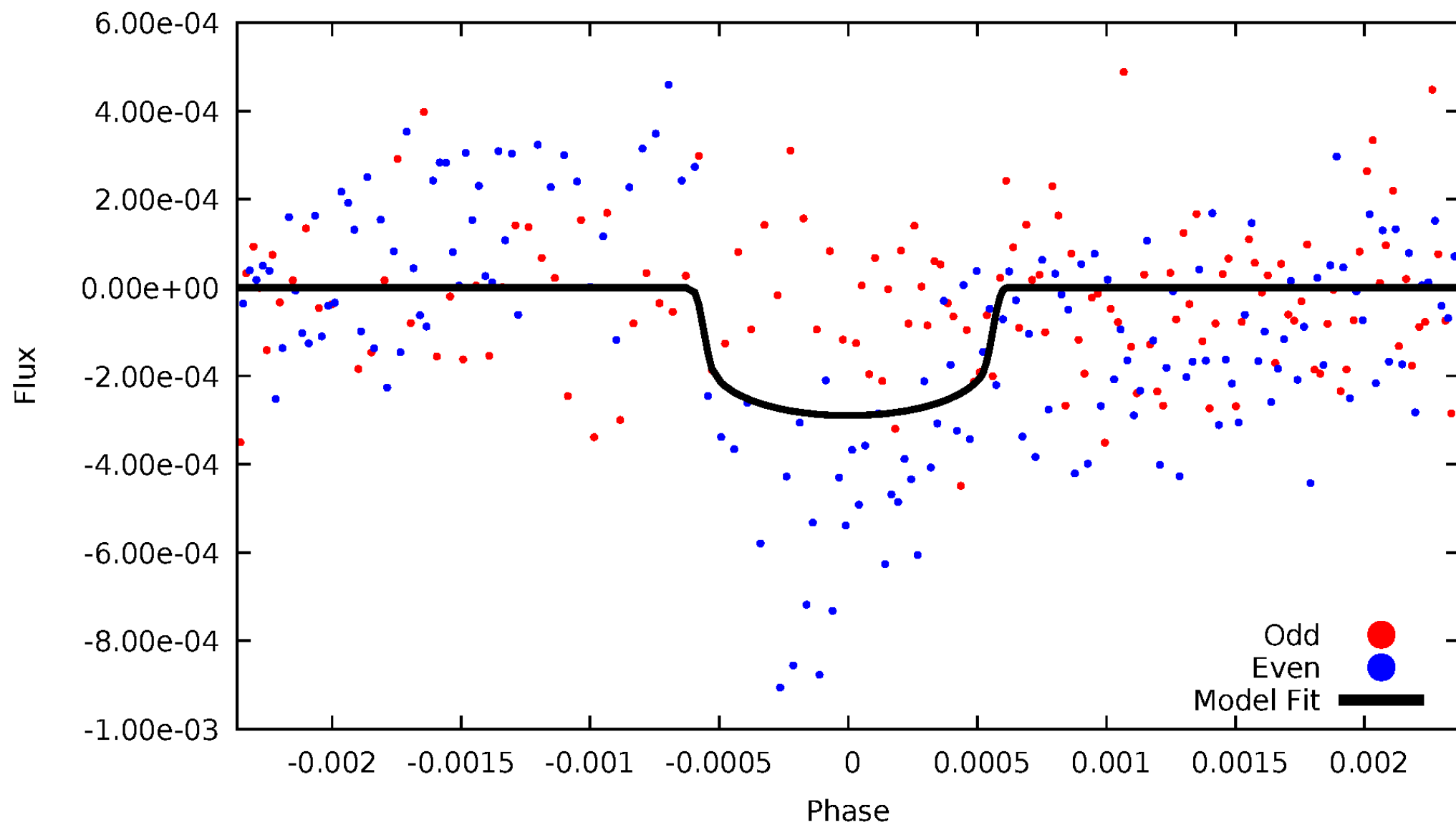


TCE 006188234-01



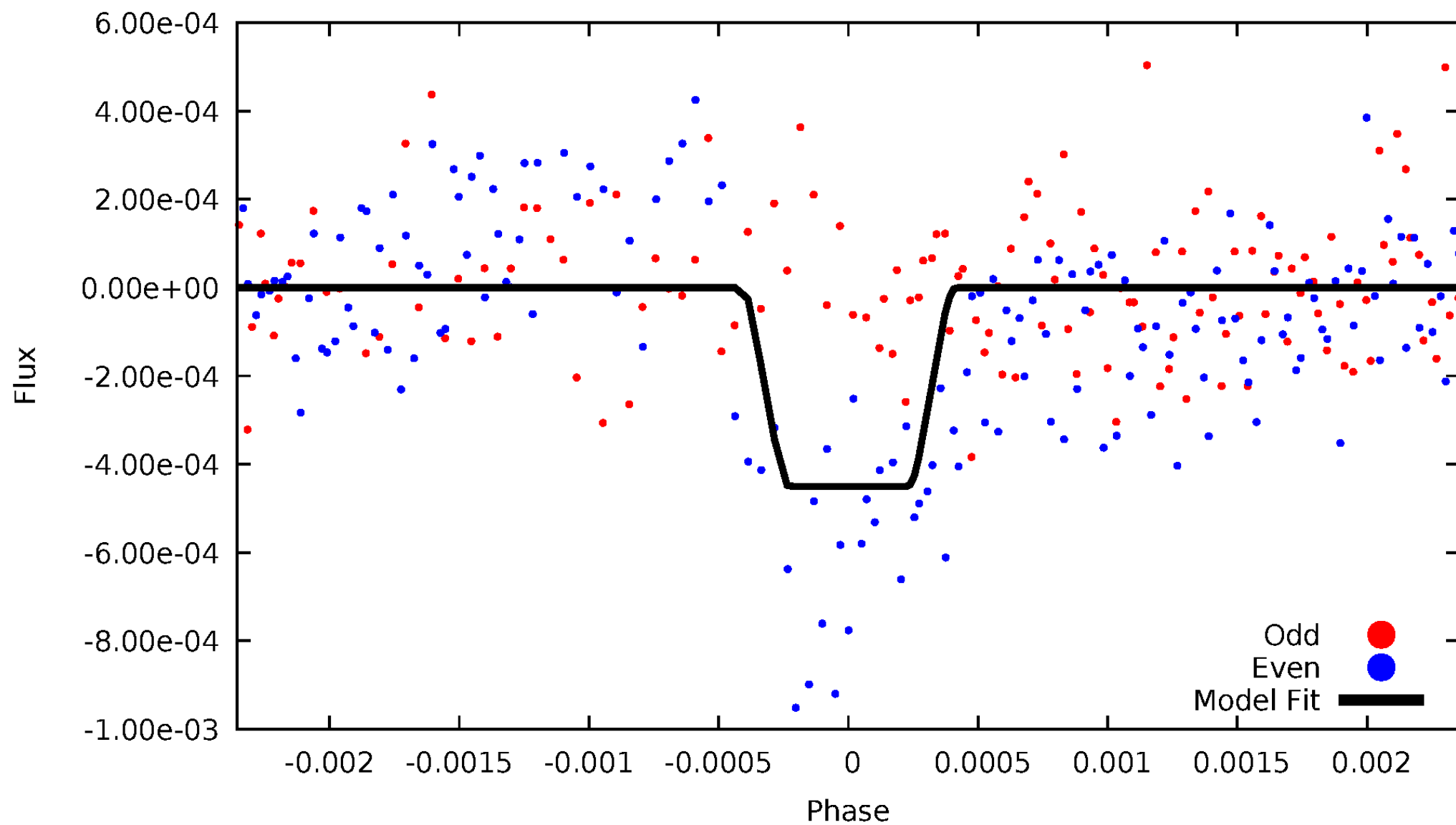
DV Odd/Even

TCE 006188234-01



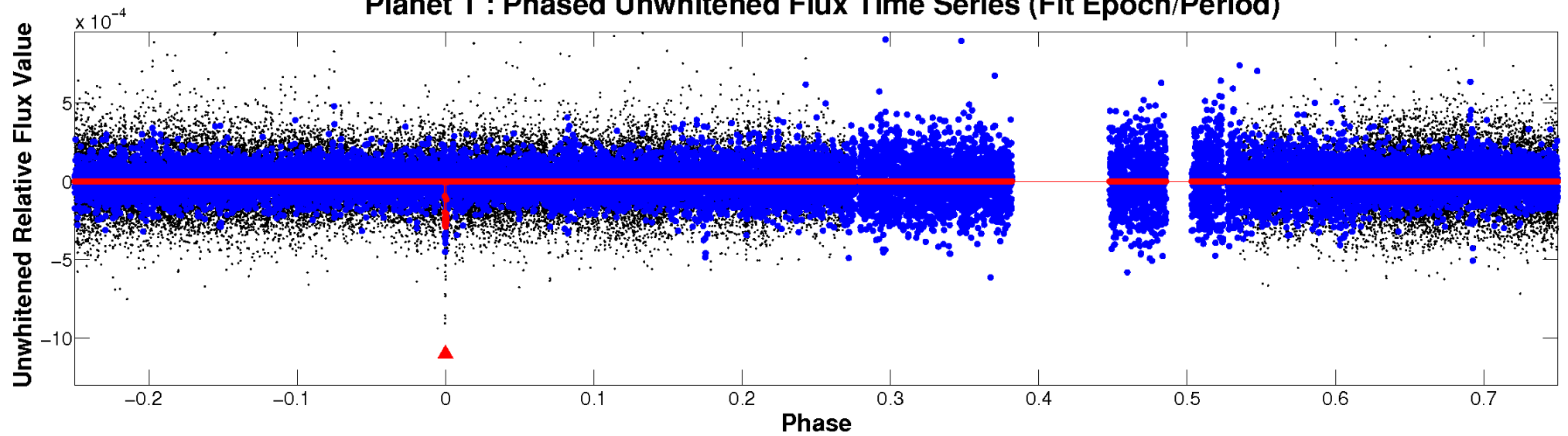
ALT Odd/Even

TCE 006188234-01

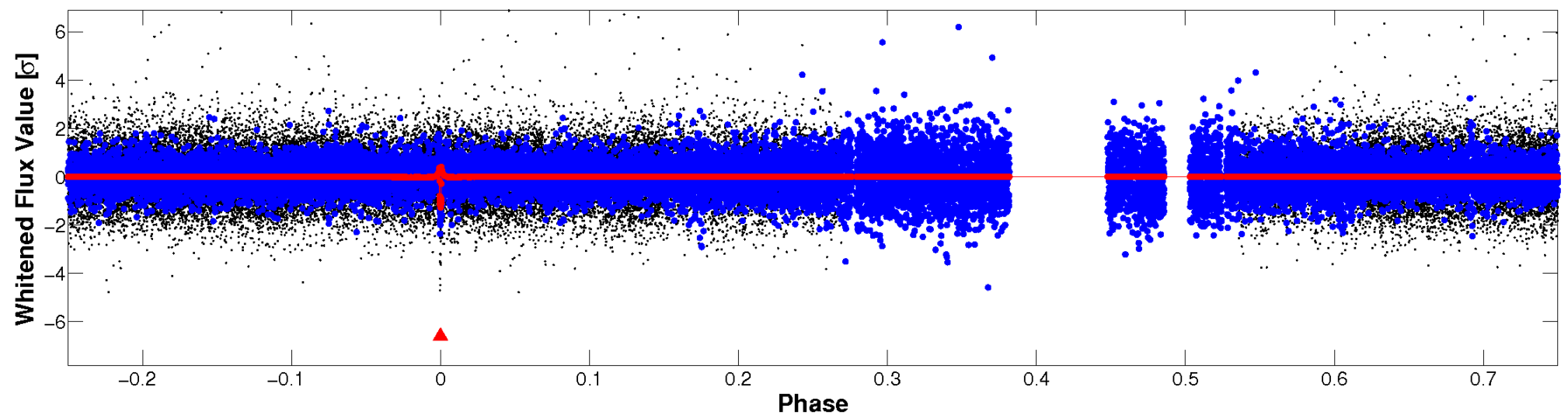


Non-Whitened Vs. Whitened Light Curve

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

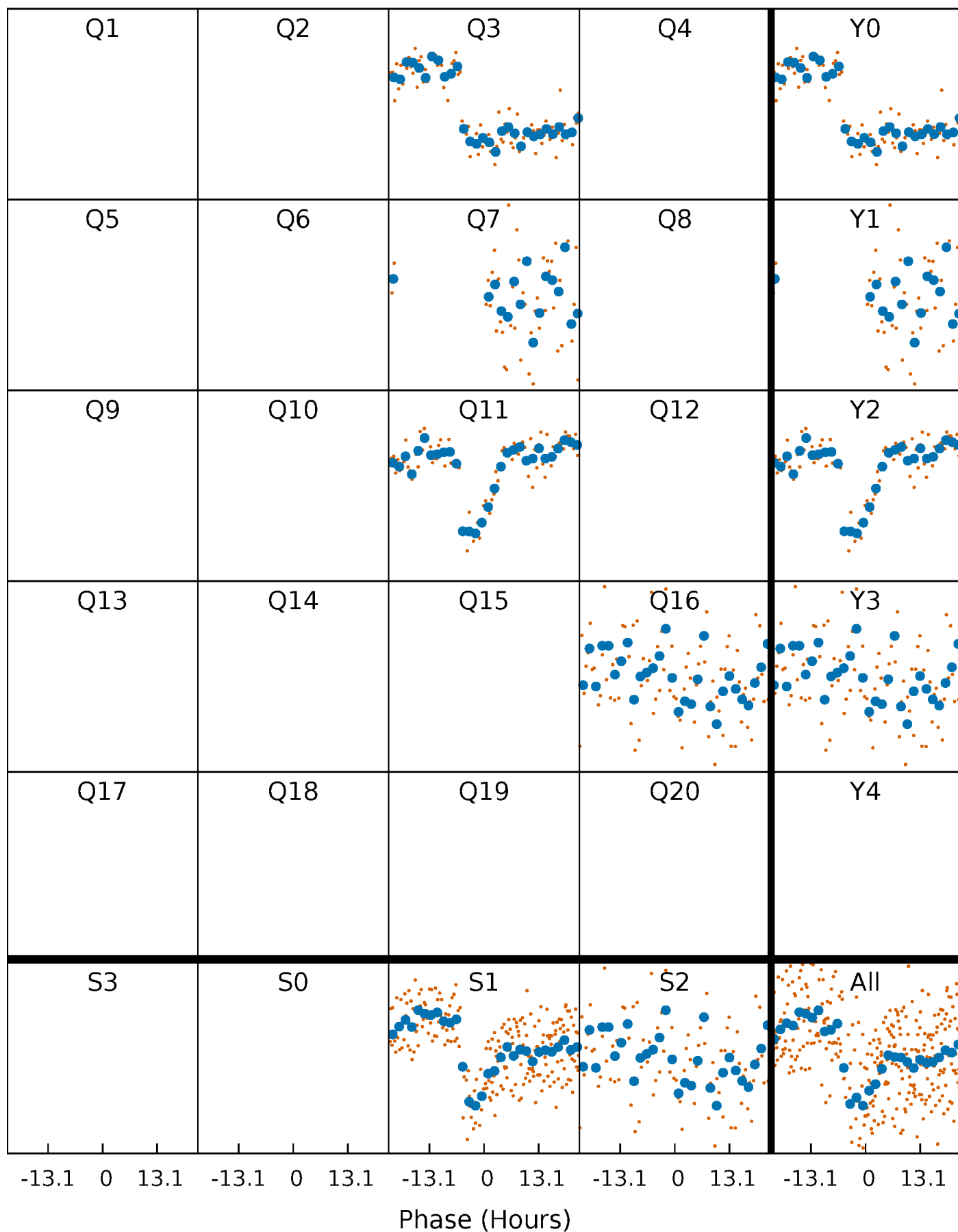


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



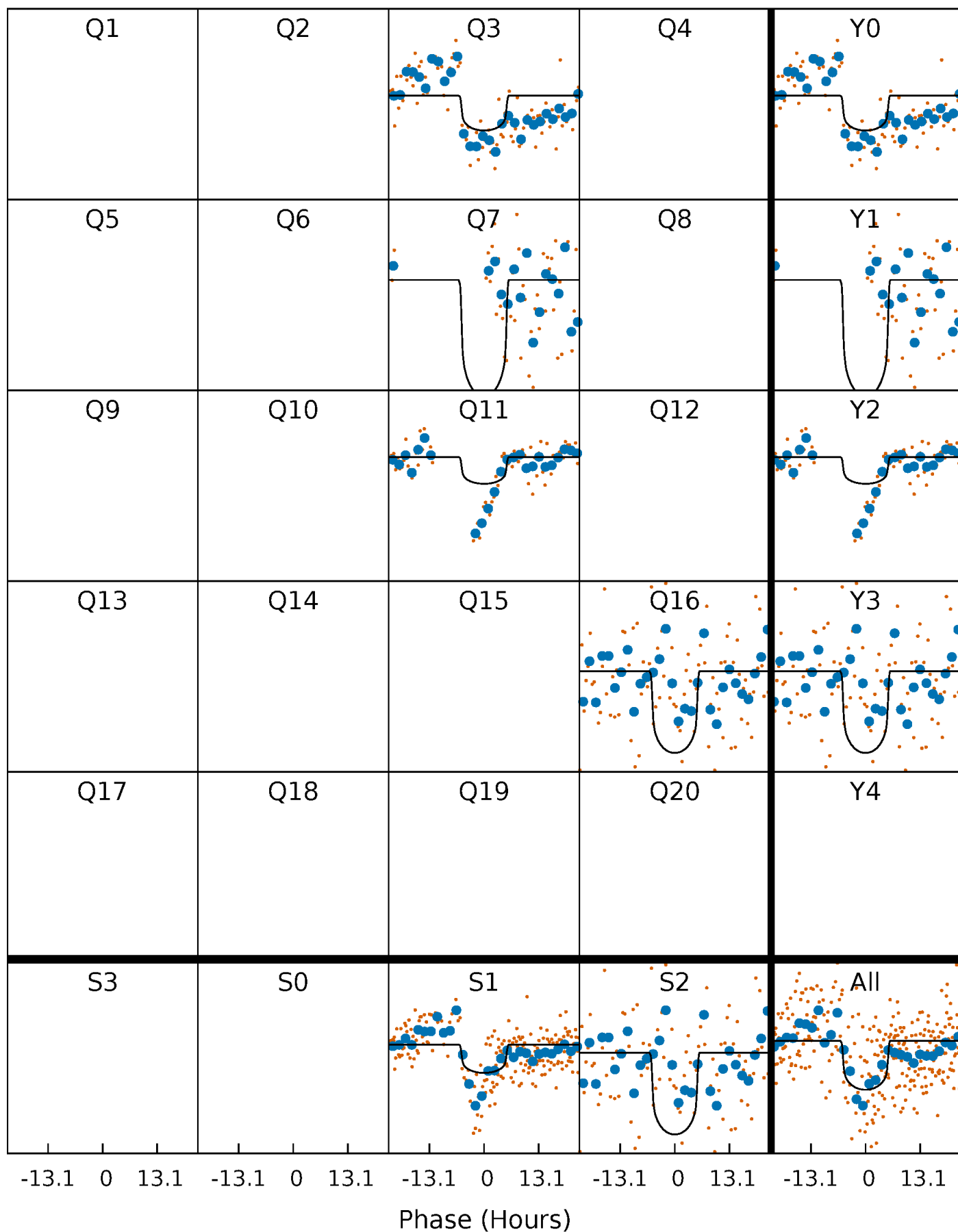
PDC Quarter-Phased Transit Curves

TCE 006188234-01 P=402.709130 Days $T_0=288.415886$ (BKJD)



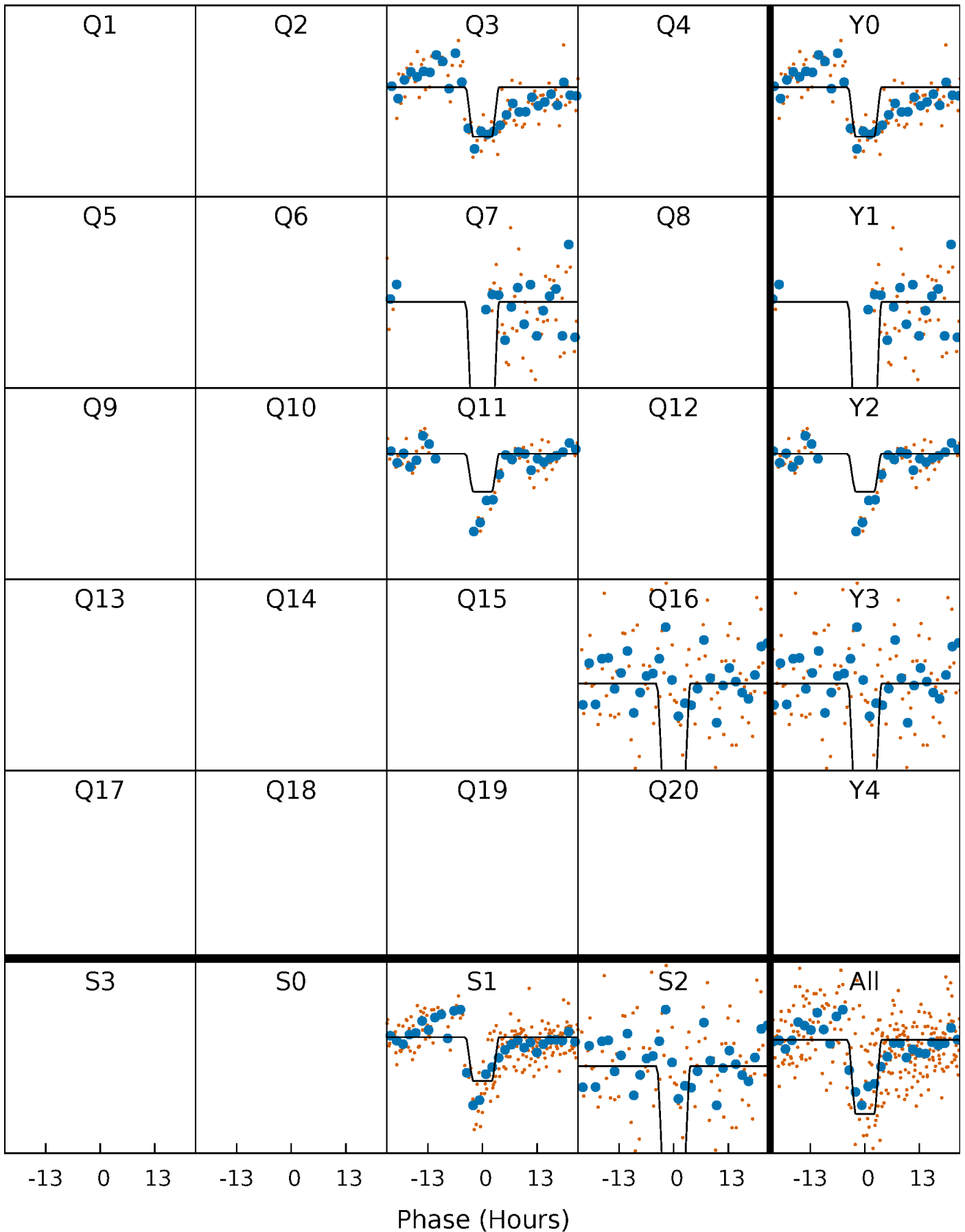
DV Quarter-Phased Transit Curves

TCE 006188234-01 P=402.709130 Days $T_0=288.415886$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

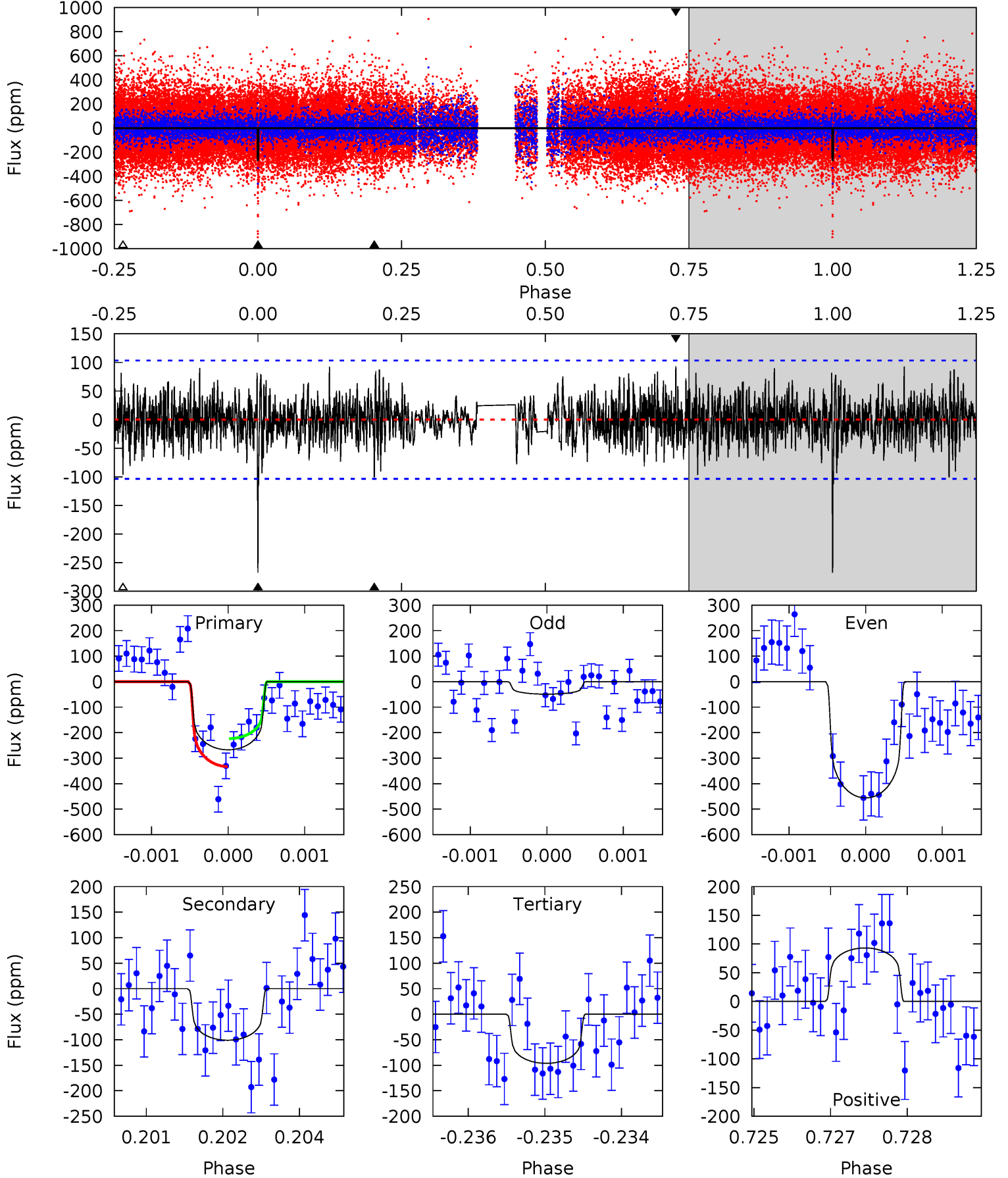
TCE 006188234-01 P=402.718223 Days $T_0=288.372888$ (BKJD)



DV Model-Shift Uniqueness Test

006188234-01, P = 402.709130 Days, E = 288.415886 Days

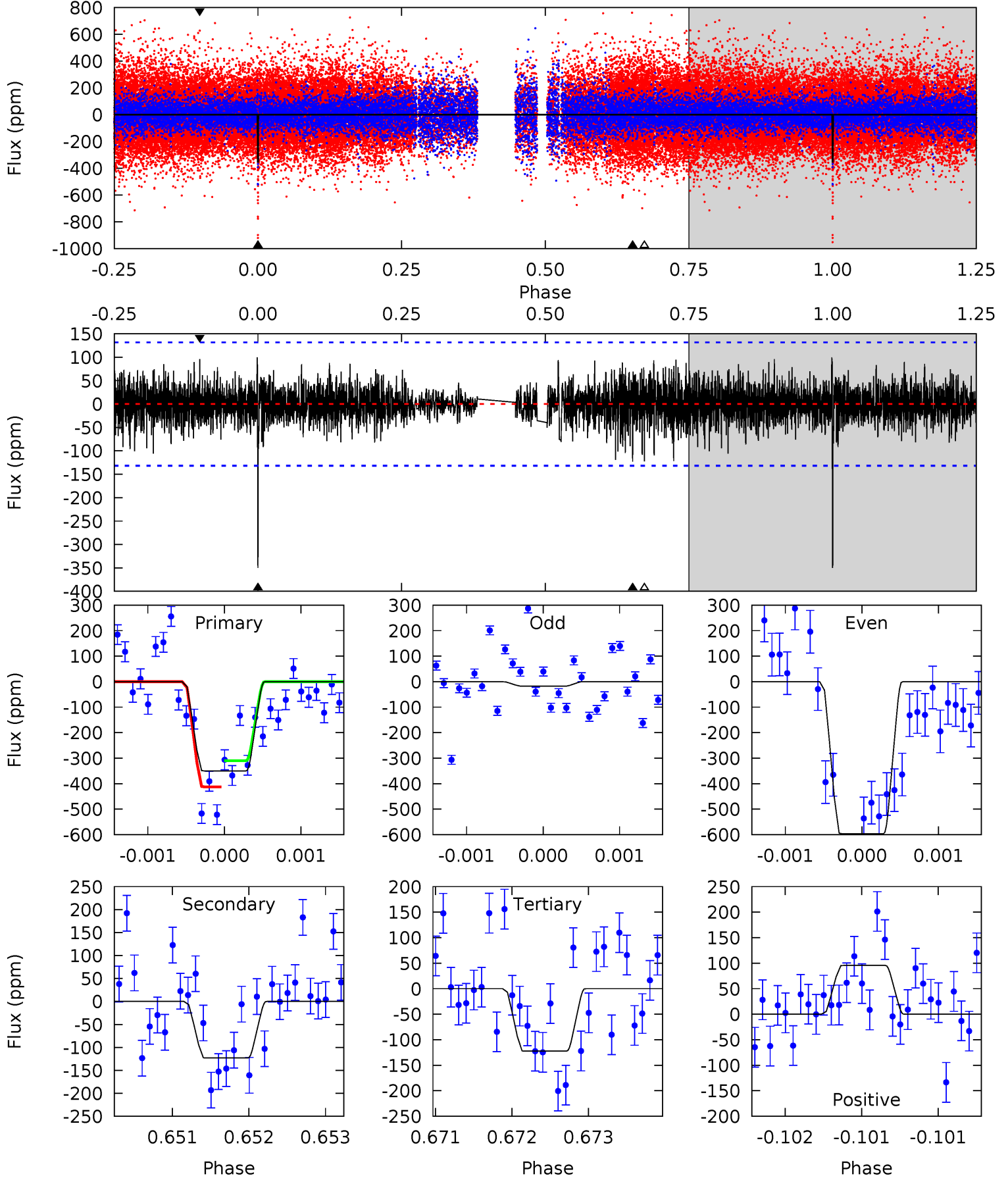
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	5.28	5.04	4.88	5.42	3.24	1.45	8.95	9.11	0.24	0.41	10.7	1.08	0.26	2.78



Alt Model-Shift Uniqueness Test

006188234-01, P = 402.718223 Days, E = 288.372888 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	5.13	5.10	3.99	5.49	3.36	1.20	9.49	10.6	0.03	1.14	12.3	1.30	0.22	2.05



Stellar Parameters For KIC 006188234

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 006188234-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-101 ± 19	$1.91^{+0.69}_{-0.67}$	346^{+17}_{-17}	4551^{+911}_{-533}	17211^{+24763}_{-8369}
Alt.	-123 ± 24	$2.36^{+0.65}_{-0.70}$	344^{+18}_{-16}	4346^{+636}_{-423}	13922^{+13472}_{-5982}

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

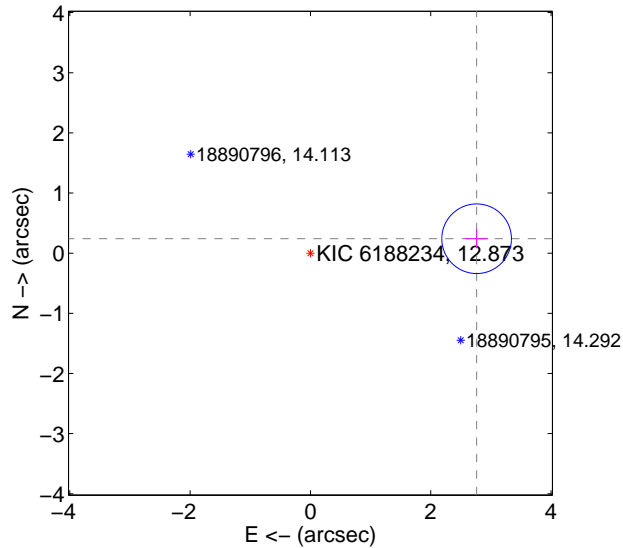
Supplemental centroid analysis for 006188234-01. Kepler magnitude: 12.87. Transit SNR 9.15

There are 1 quarters with good PRF difference image offsets

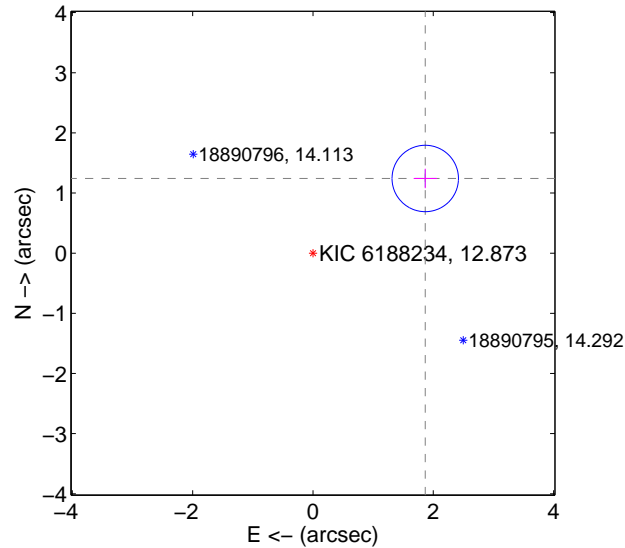
The direct PRF centroid is offset from the target star catalog position by about 1.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.773 ± 0.193	14.38	-2.763 ± 0.193	0.240 ± 0.161
PRF-fit source offset from KIC position	2.242 ± 0.184	12.18	-1.867 ± 0.193	1.242 ± 0.161
photometric centroid source offset	0.36 ± 0.93	0.38	-0.35 ± 0.94	0.08 ± 0.82

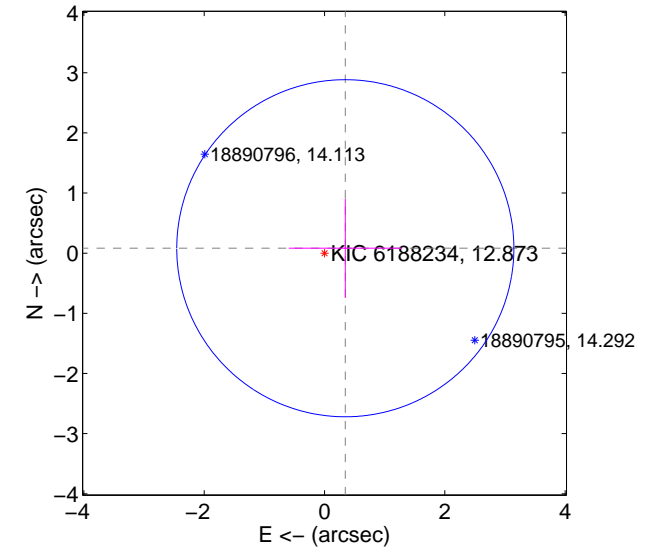
offset from difference PRF-fit to OOT PRF-fit



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.

Q1 no difference image



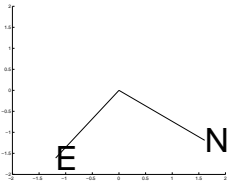
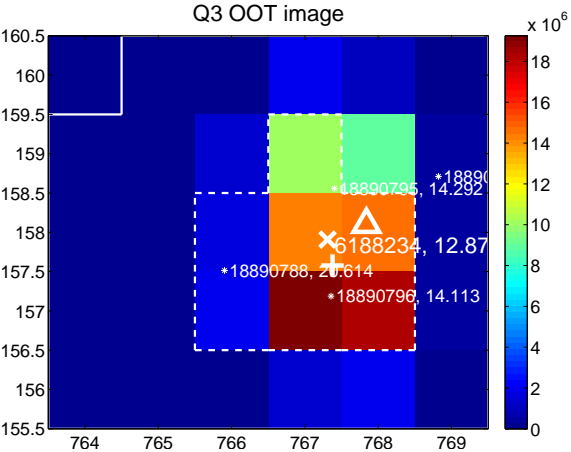
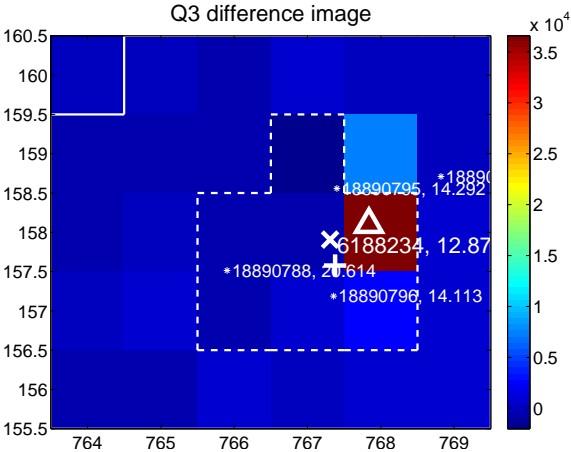
Q1 no OOT image



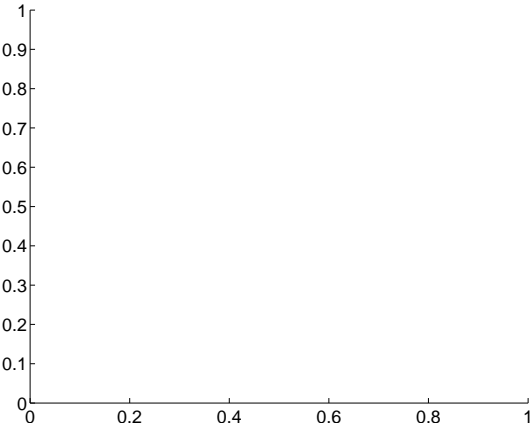
Q2 no difference image



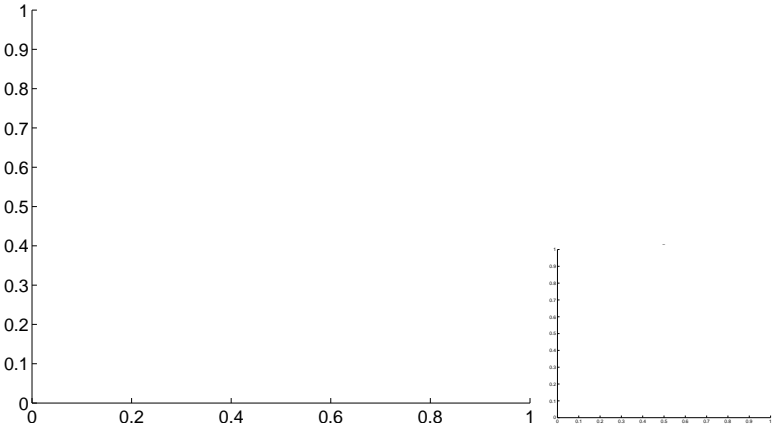
Q2 no OOT image



Q4 no difference image



Q4 no OOT image



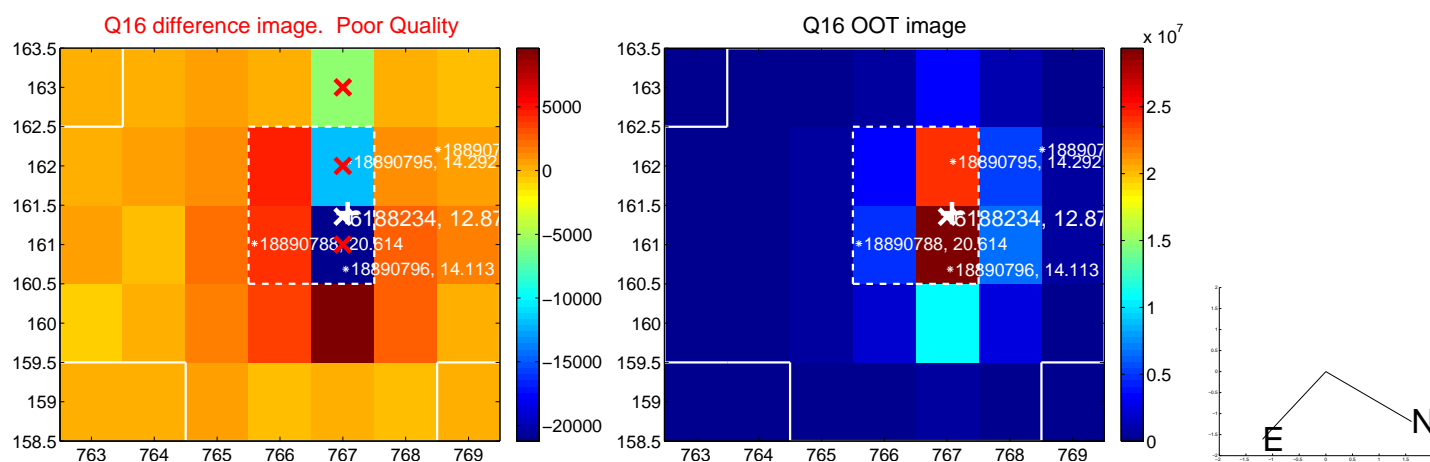
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



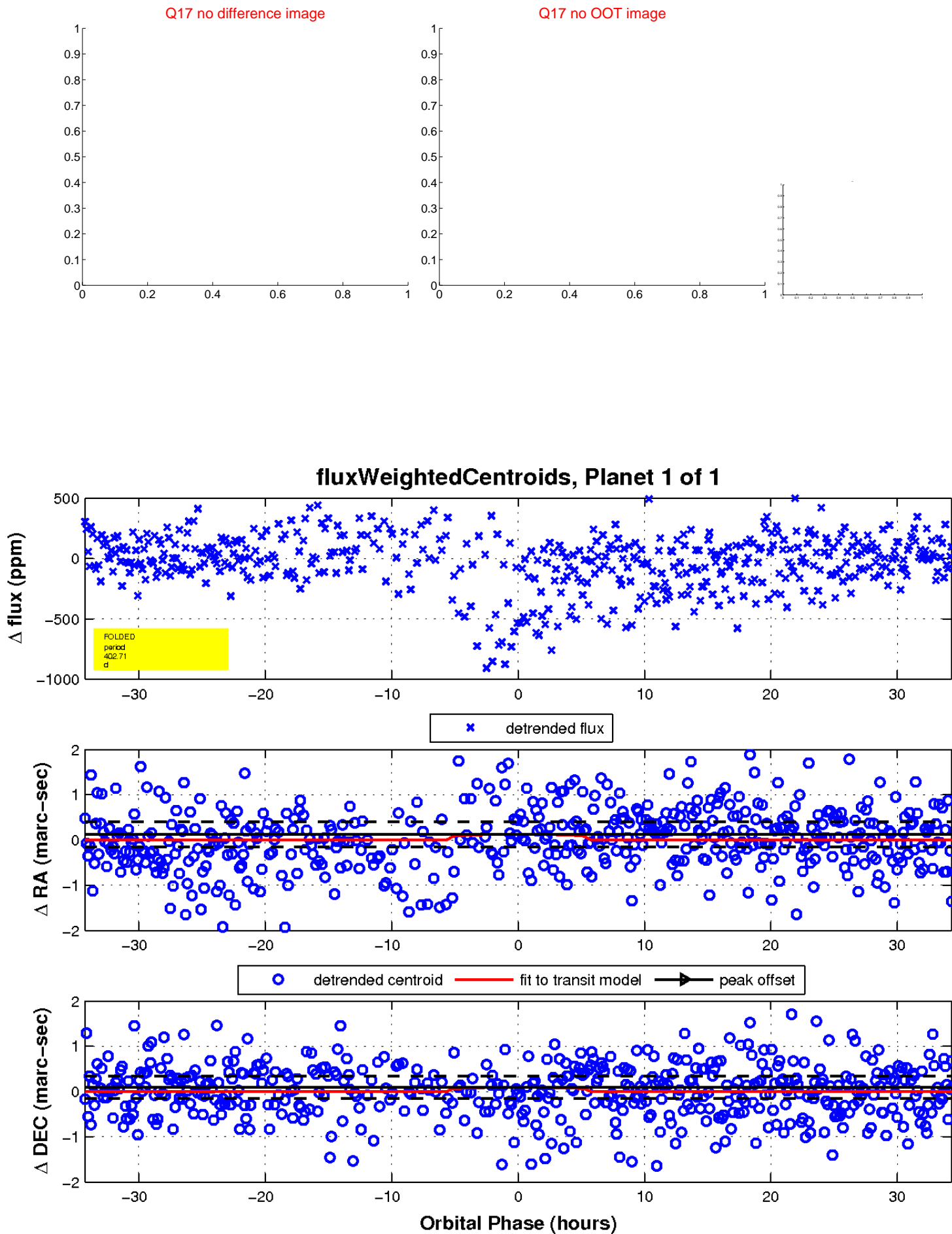
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

