

KIC 006198118

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})
006198118-01	OBS	No	370.852162	309.508349	152.1	16.314	8.4	8.0	1.15	6084	1.58	1.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006198118-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

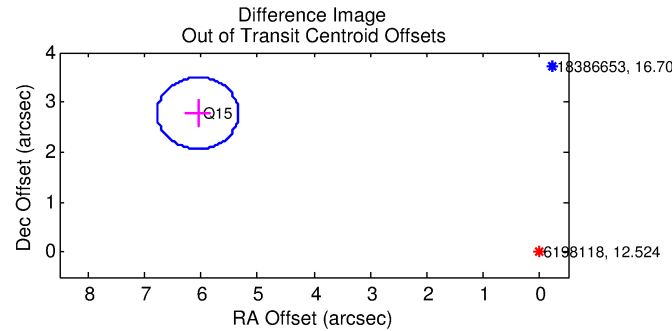
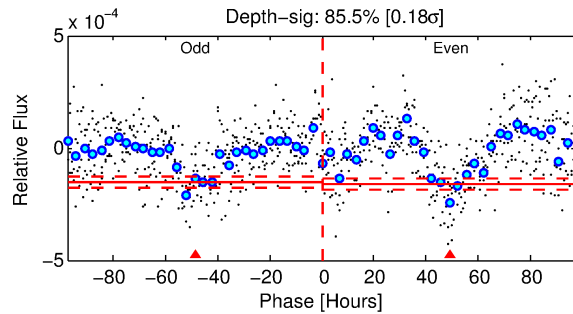
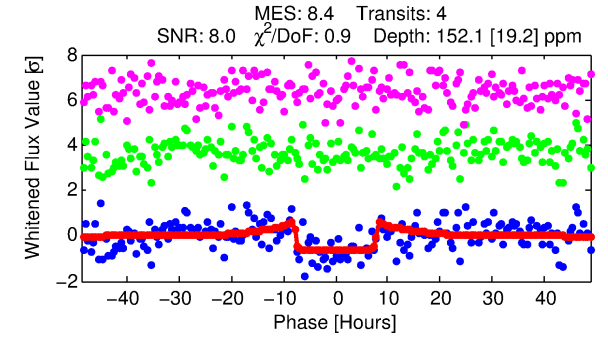
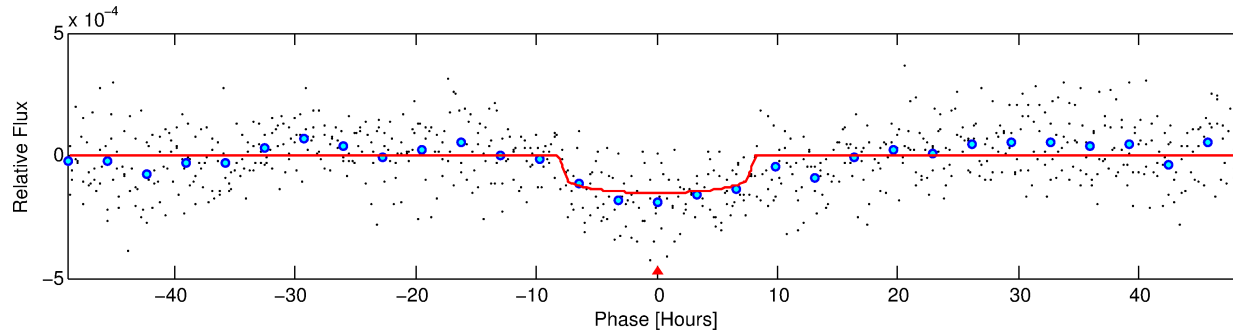
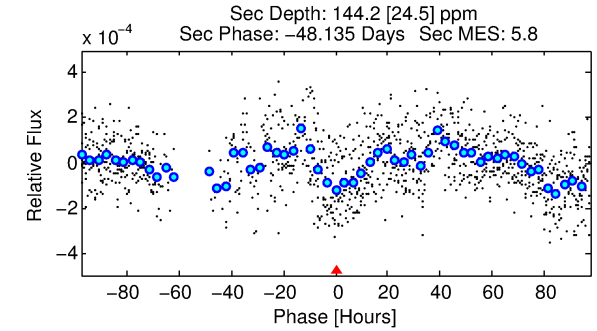
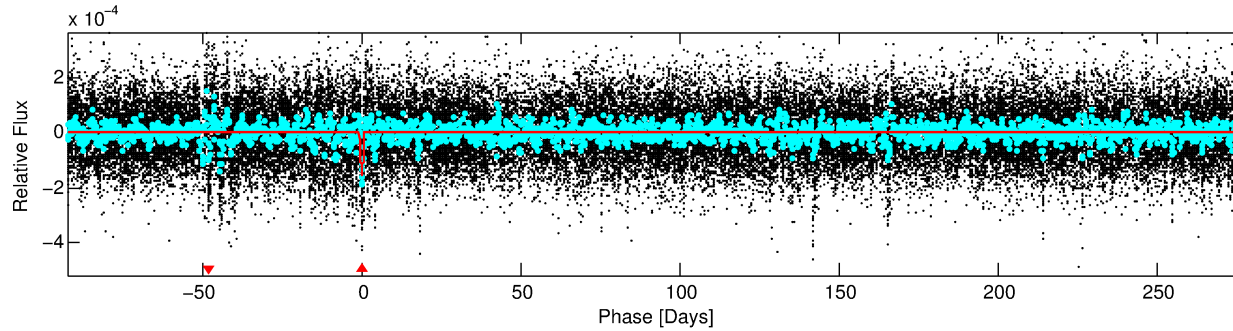
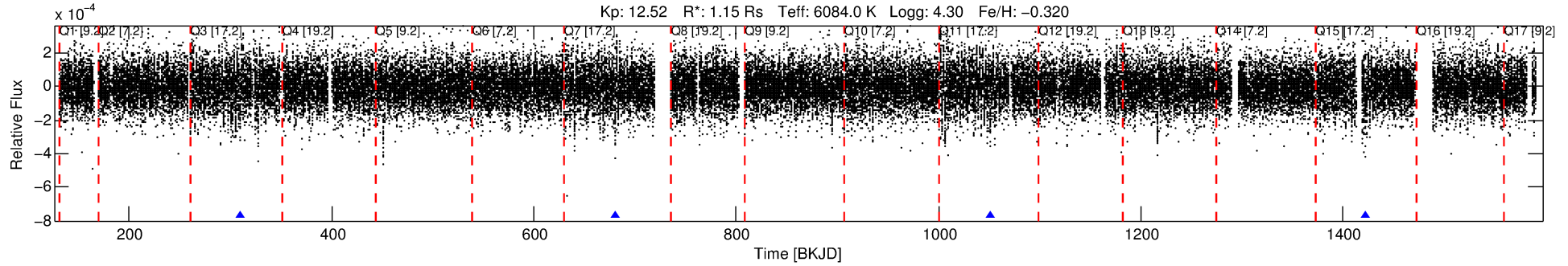
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006198118-01

No Significant Match Found

DV One-Page Summary

KIC: 6198118 Candidate: 1 of 1 Period: 370.852 d



DV Fit Results:

Period = 370.85216 [0.00809] d
Epoch = 309.5083 [0.0135] BKJD
Rp/R* = 0.0126 [0.0023]
a/R* = 103.68 [89.57]
b = 0.82 [0.35]
Seff = 1.64 [0.50]
Teq = 289 [22] K
Rp = 1.58 [0.44] Re
a = 0.9940 [0.1854] AU
Ag = 31418.36 [15474.73] [2.03σ]
Teff = 5940 [620] K [9.1σ]

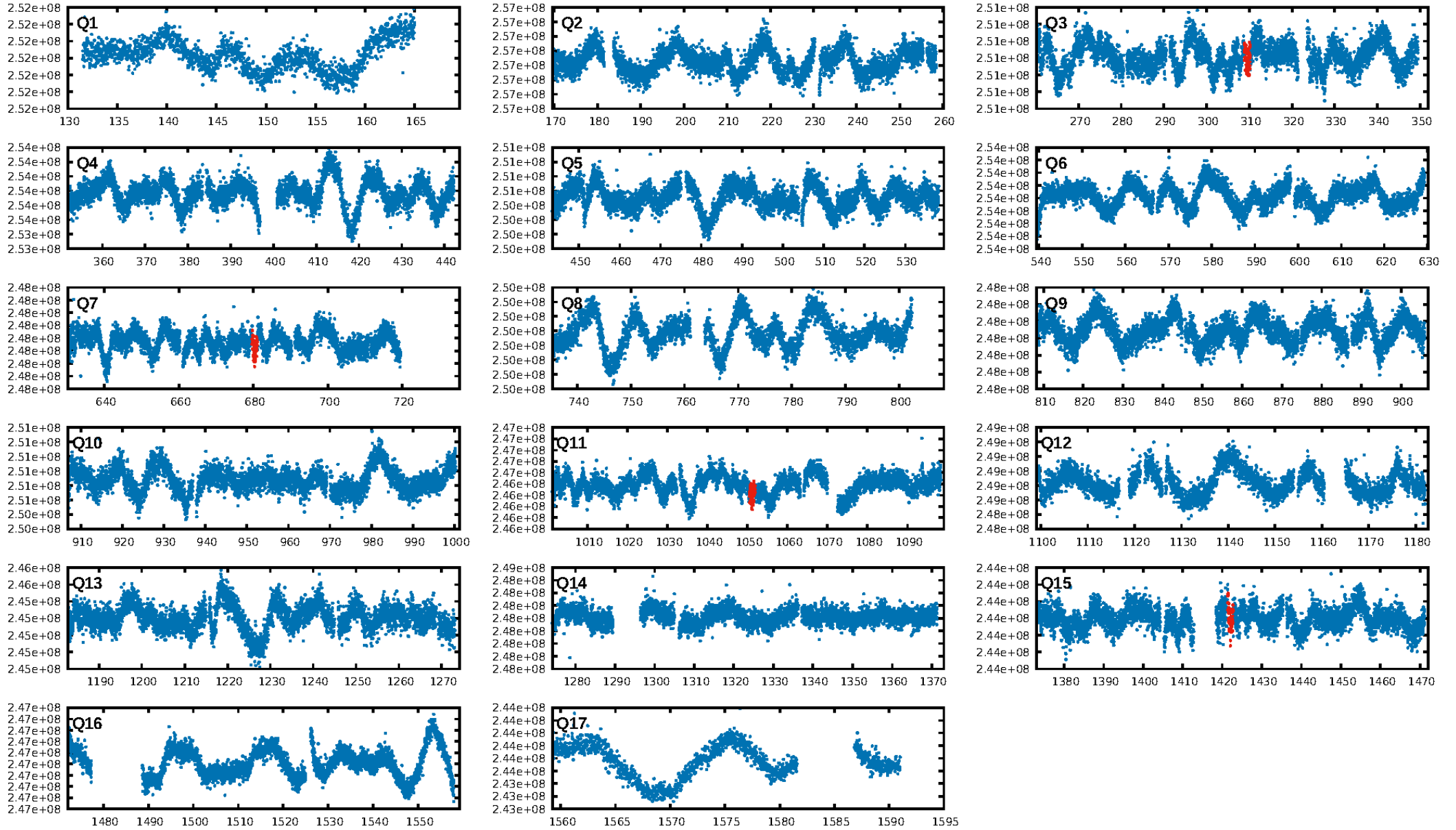
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 34.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.77e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.9971
Centroid-sig: 30.6%
Centroid-so: 2.120 arcsec [1.18σ]
OotOffset-rm: 6.659 arcsec [27.84σ]
KicOffset-rm: 6.721 arcsec [27.97σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

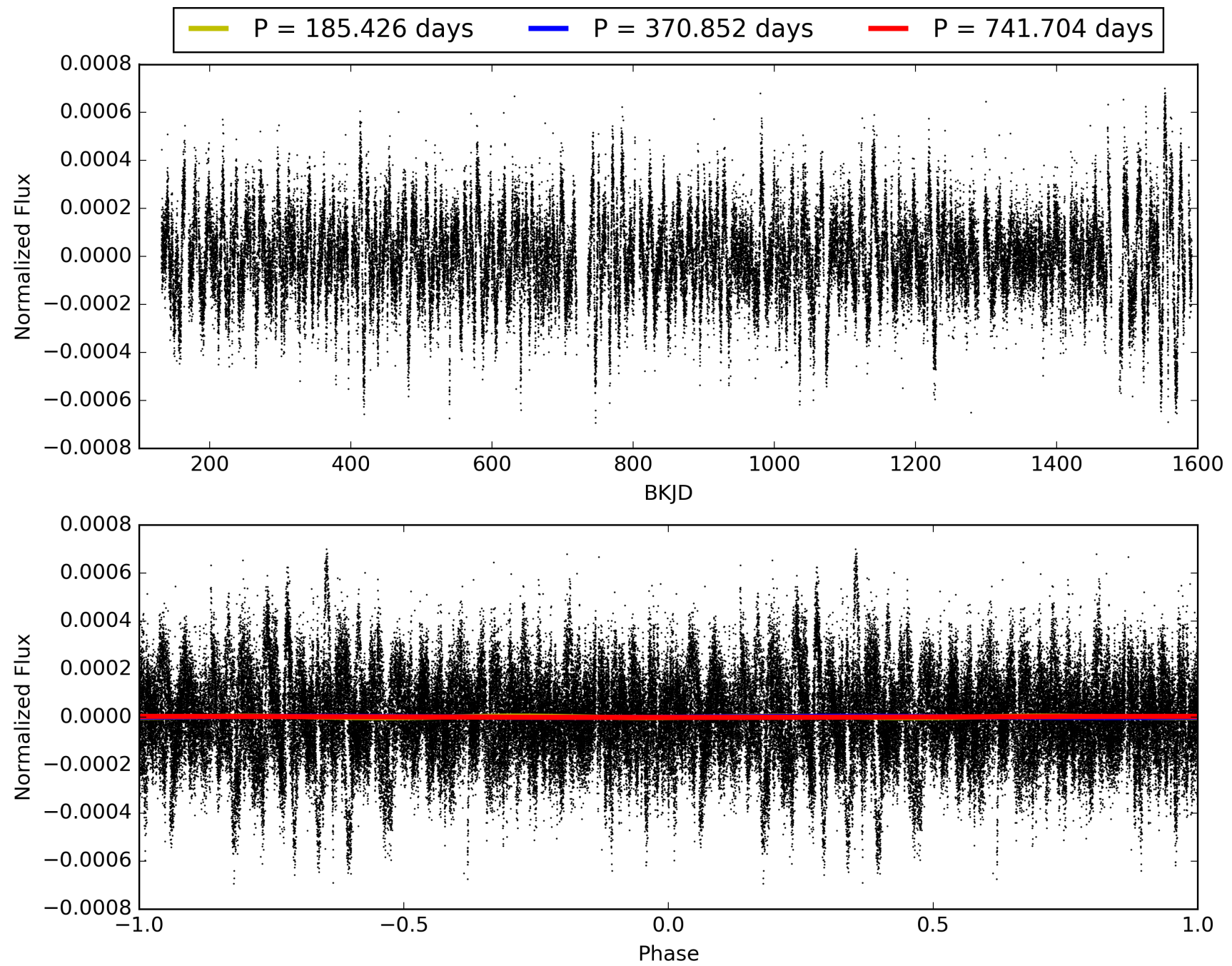
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:28:42 Z

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

TCE 006198118-01, PDC Light Curves

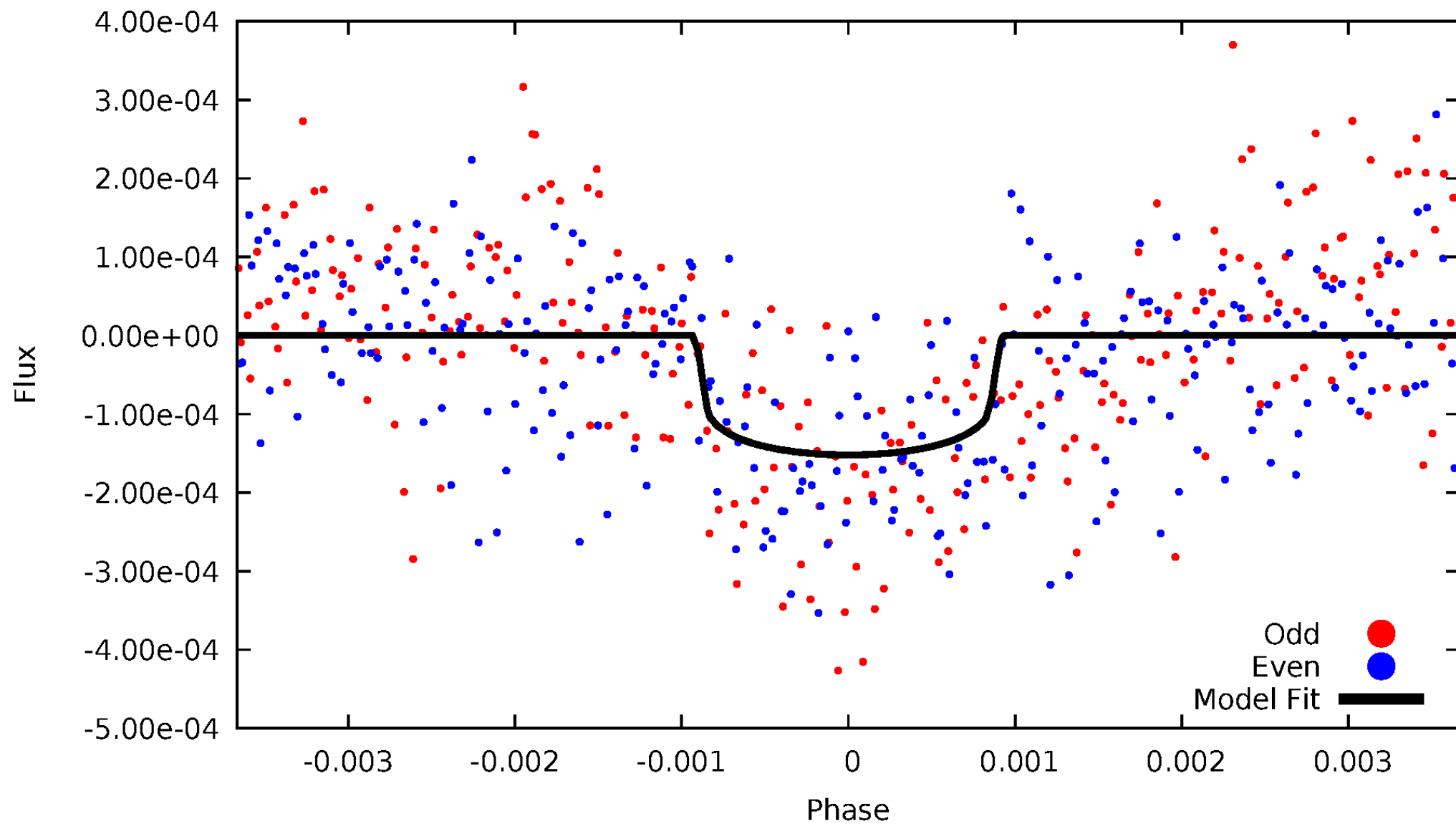


TCE 006198118-01



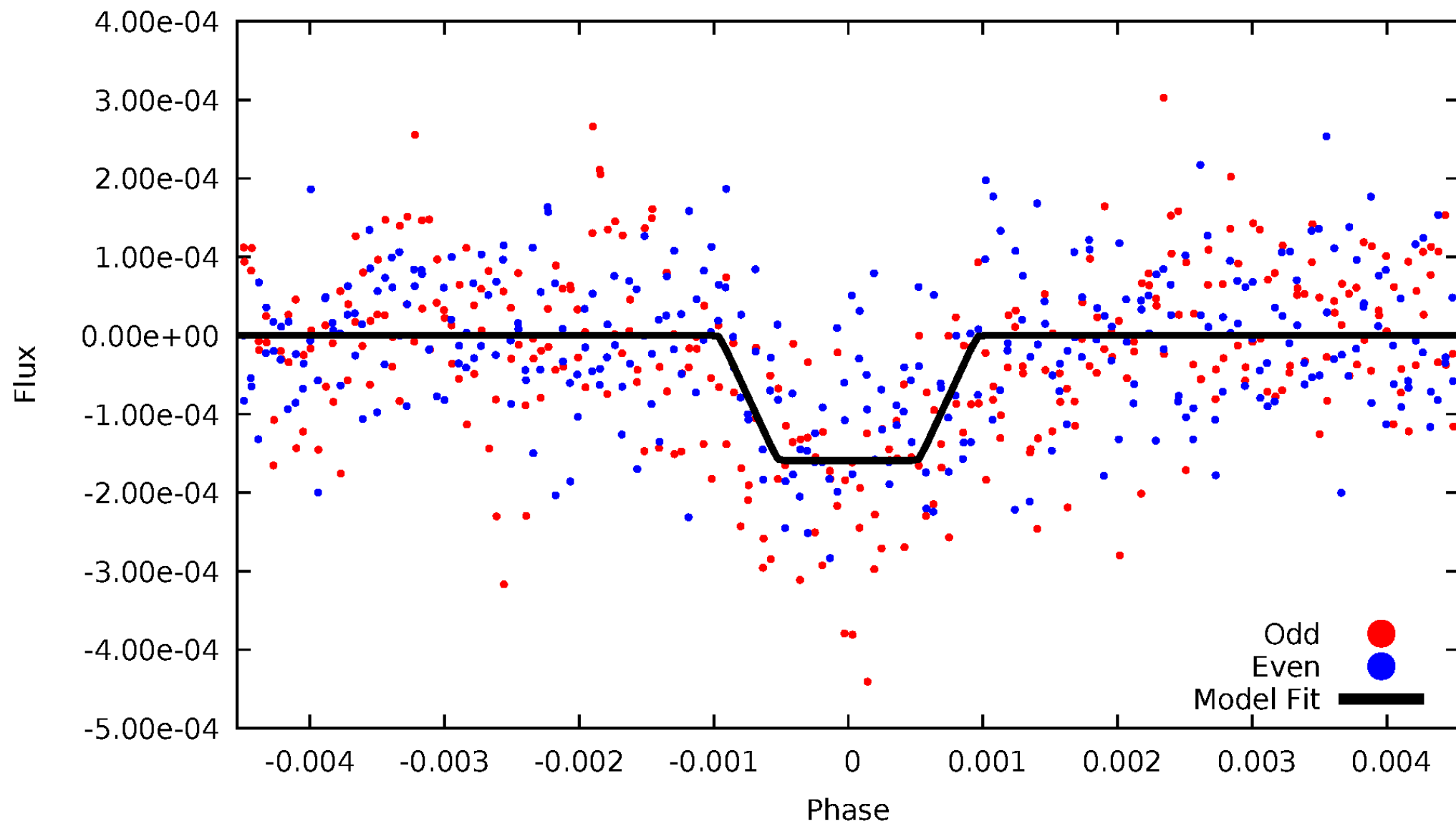
DV Odd/Even

TCE 006198118-01



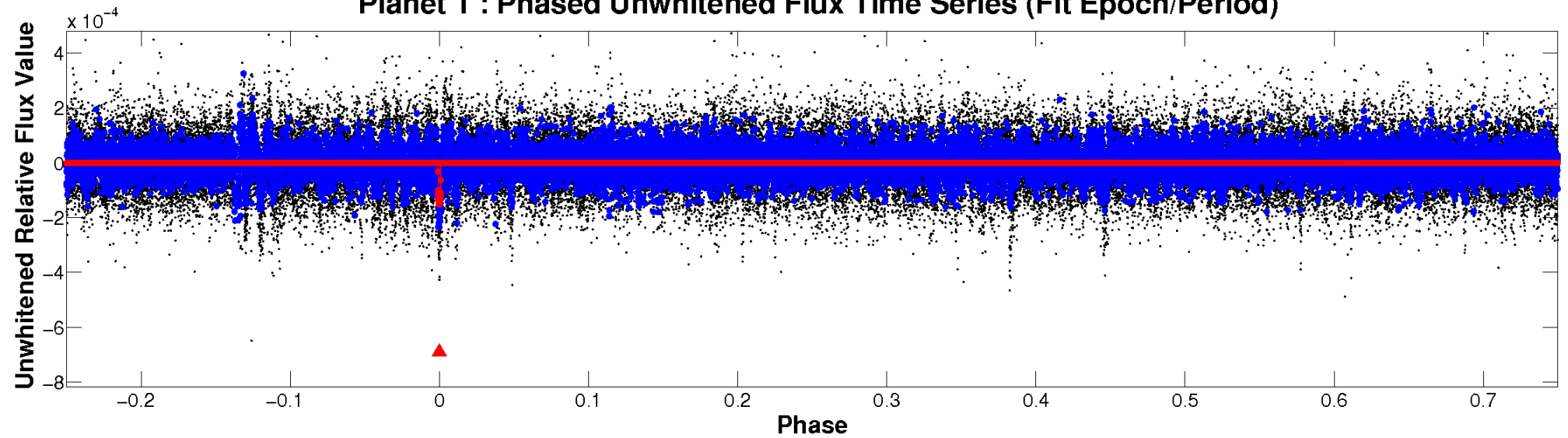
ALT Odd/Even

TCE 006198118-01

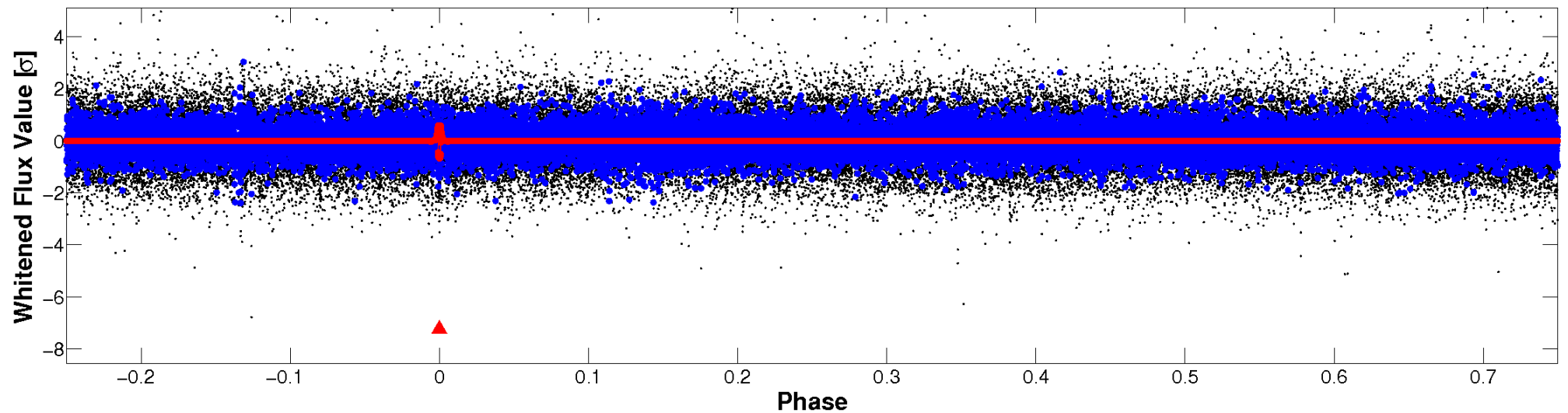


Non-Whitened Vs. Whitened Light Curve

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

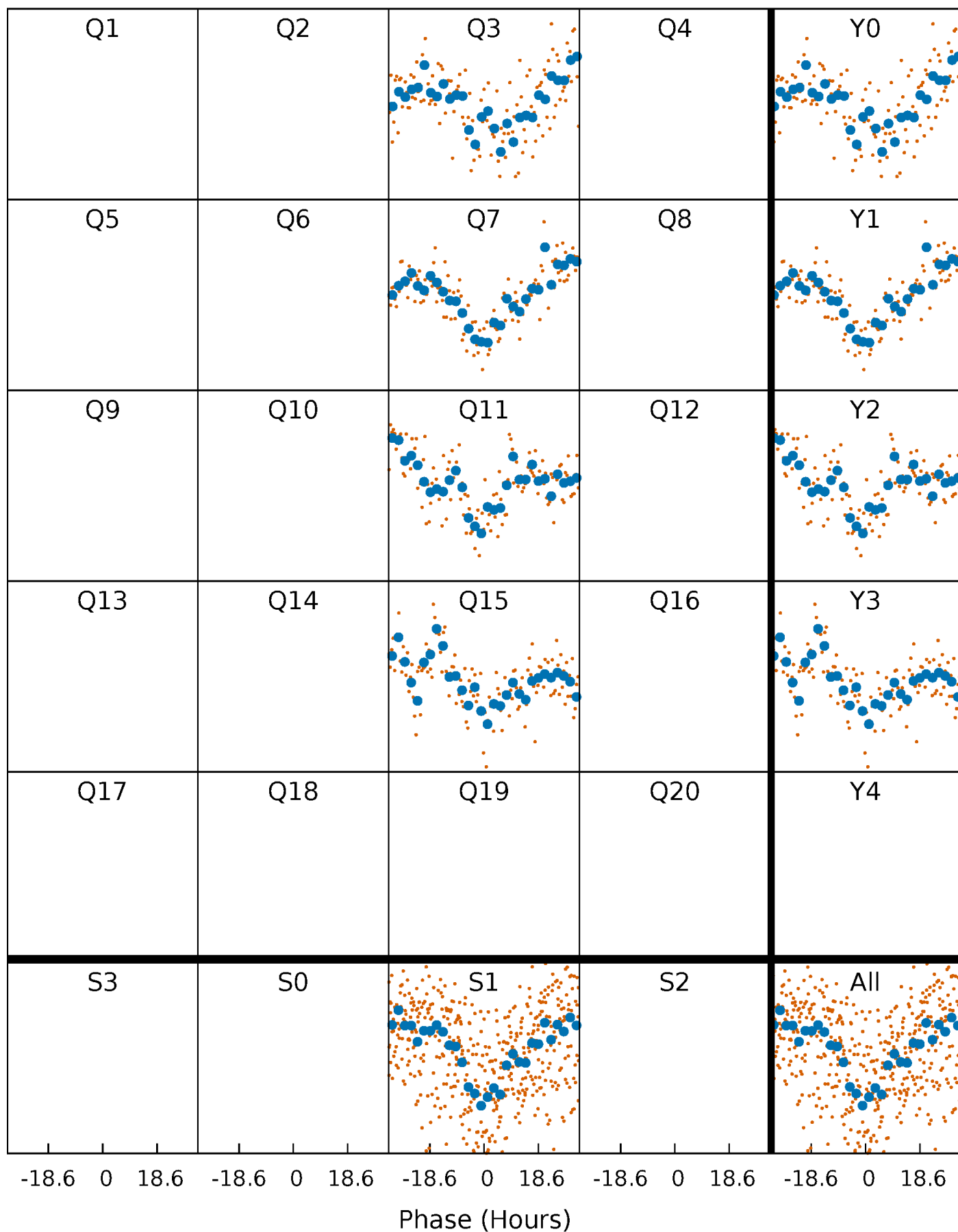


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



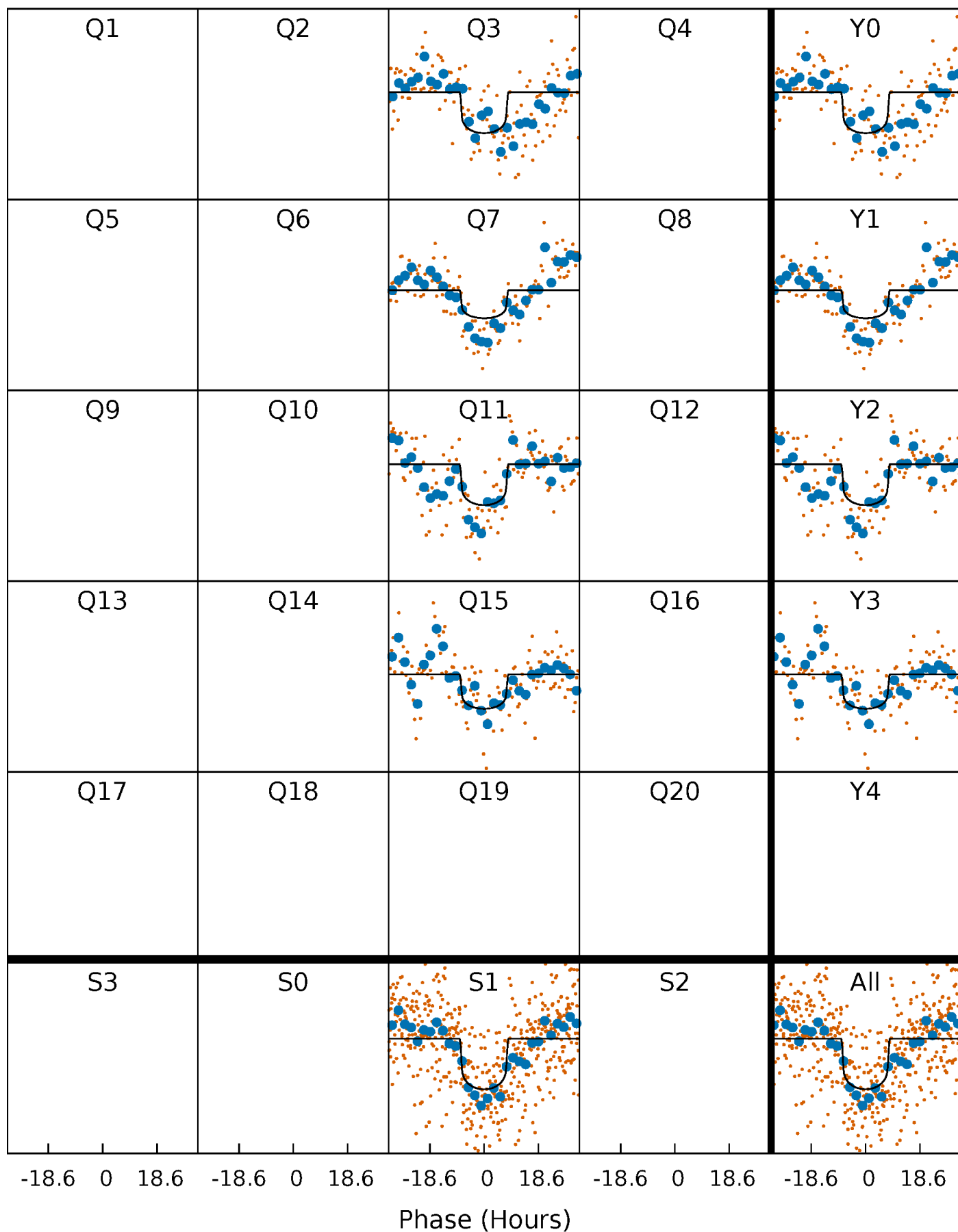
PDC Quarter-Phased Transit Curves

TCE 006198118-01 P=370.852162 Days $T_0=309.508349$ (BKJD)



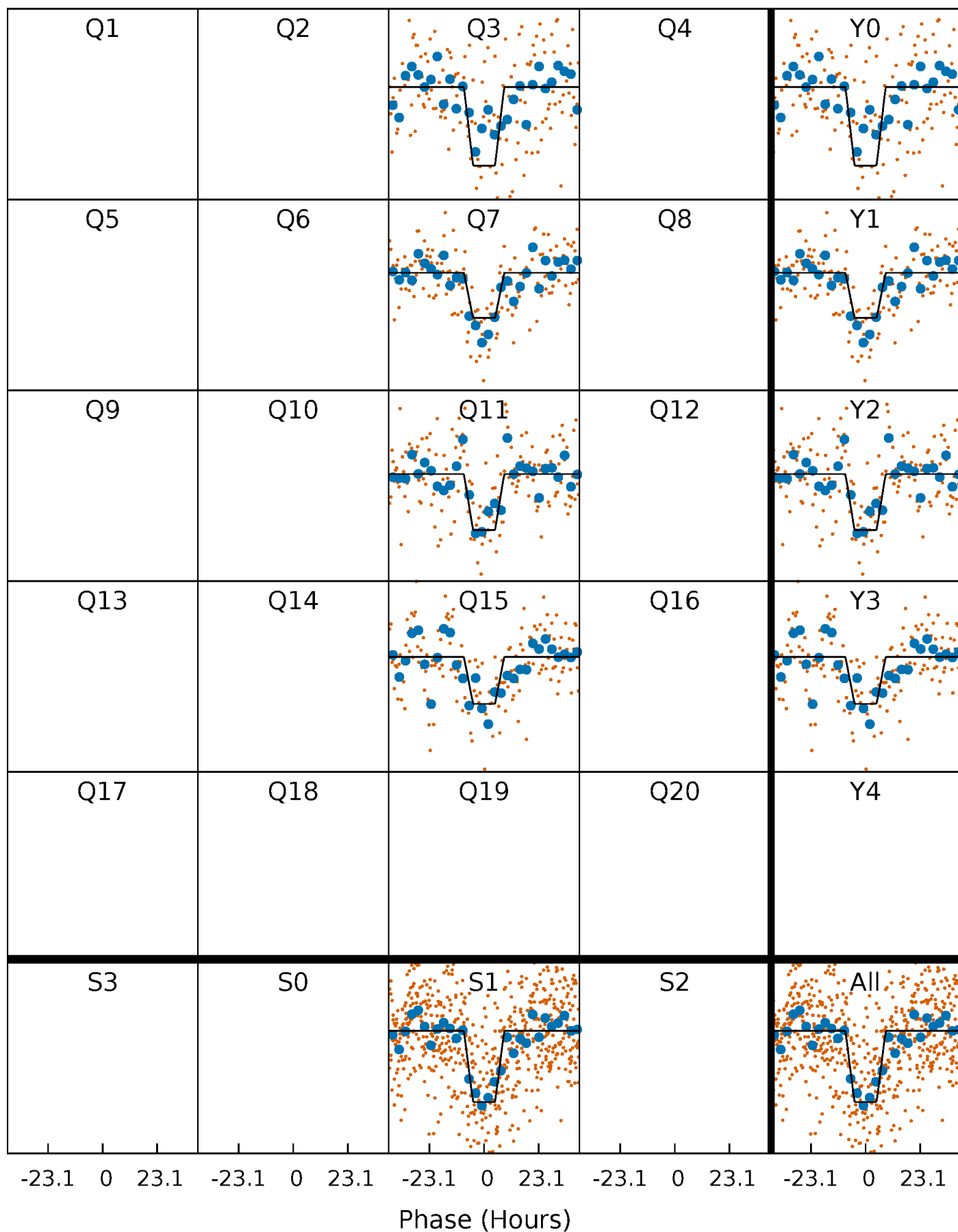
DV Quarter-Phased Transit Curves

TCE 006198118-01 P=370.852162 Days $T_0=309.508349$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

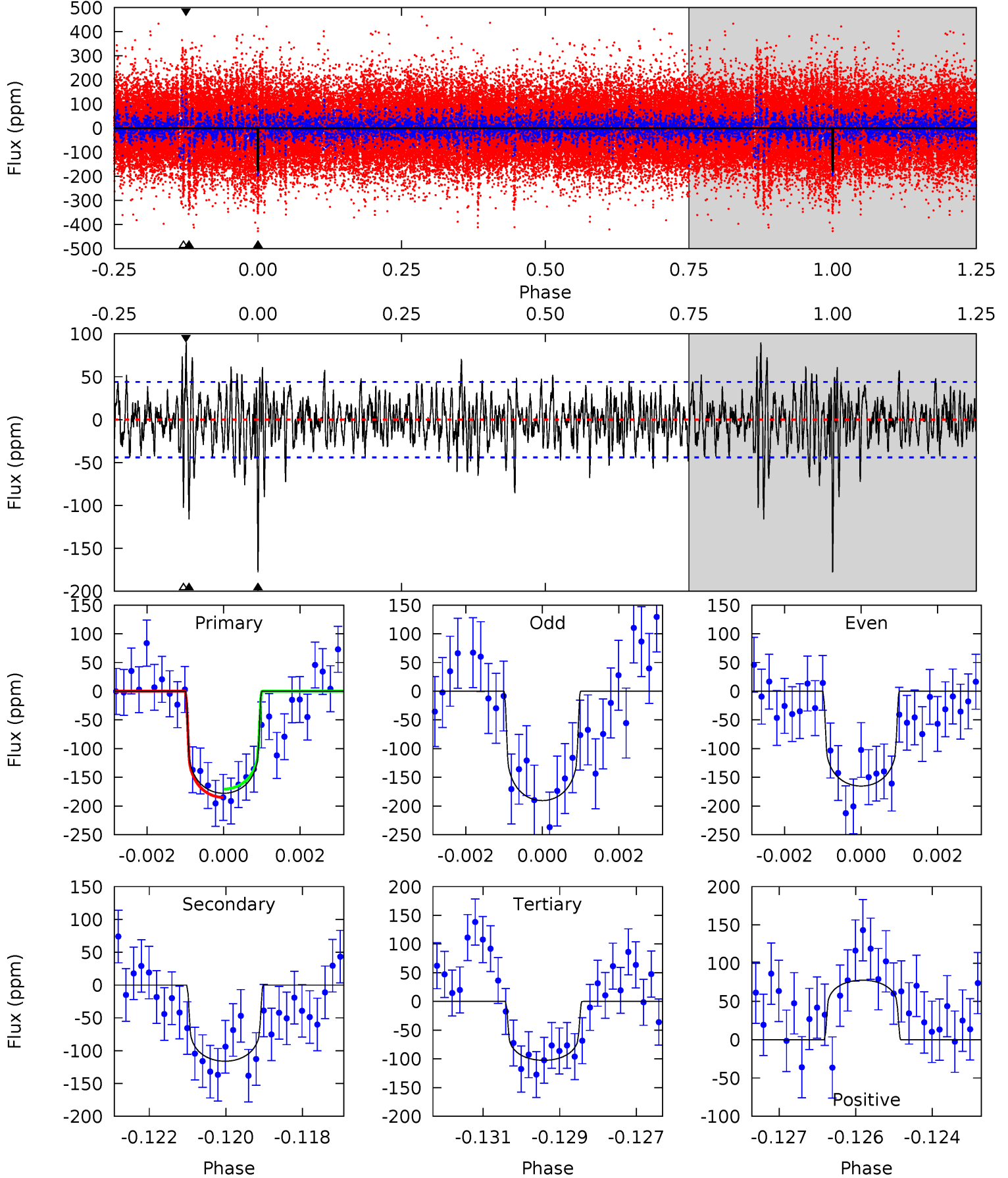
TCE 006198118-01 P=370.848680 Days $T_0=309.499191$ (BKJD)



DV Model-Shift Uniqueness Test

006198118-01, P = 370.852162 Days, E = 309.508349 Days

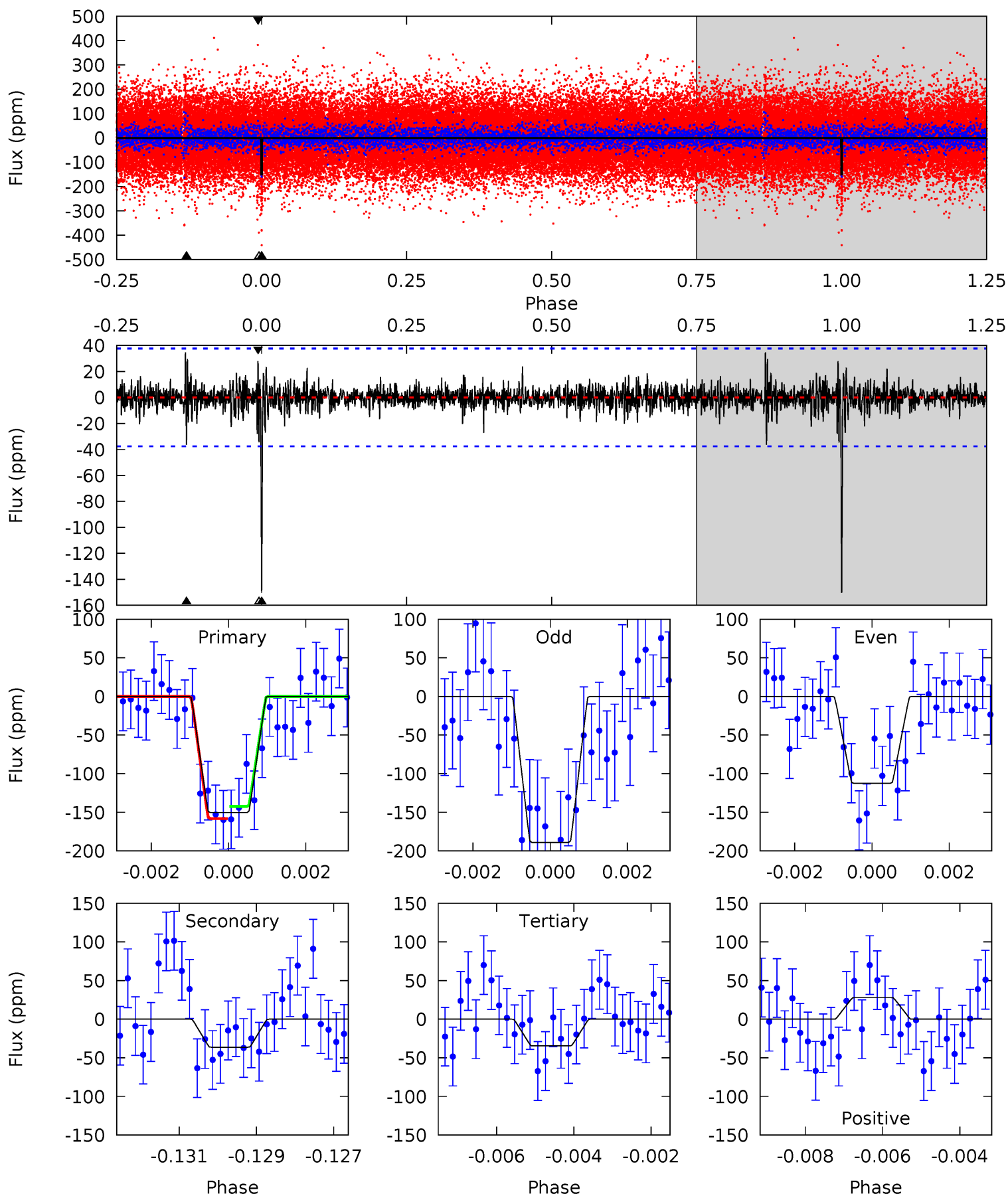
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	14.1	12.5	9.45	5.34	3.11	2.77	9.14	12.2	1.64	4.65	1.54	1.07	0.34	0.88



Alt Model-Shift Uniqueness Test

006198118-01, P = 370.848680 Days, E = 309.499191 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.3	5.14	4.90	3.96	5.33	3.09	0.88	16.4	17.3	0.24	1.17	5.47	0.99	0.19	1.11



Stellar Parameters For KIC 006198118

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6084^{+164}_{-164}	$4.296^{+0.160}_{-0.131}$	$-0.320^{+0.300}_{-0.300}$	$1.149^{+0.242}_{-0.220}$	$0.951^{+0.143}_{-0.095}$	$0.884^{+0.664}_{-0.322}$
	+3%/-3%	+4%/-3%	+94%/-94%	+21%/-19%	+15%/-10%	+75%/-36%
Source	PHO1	FLK73	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 006198118-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-116 ± 8	$1.57^{+0.35}_{-0.32}$	401^{+26}_{-23}	5655^{+616}_{-431}	26435^{+14651}_{-9129}
Alt.	-36 ± 7	$1.58^{+0.34}_{-0.30}$	403^{+22}_{-23}	4407^{+413}_{-339}	8013^{+4575}_{-3068}

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

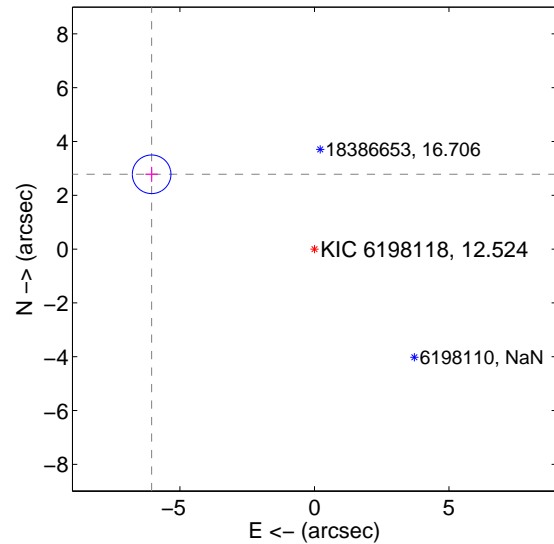
Supplemental centroid analysis for 006198118-01. Kepler magnitude: 12.52. Transit SNR 7.97

There are 0 quarters with good PRF difference image offsets

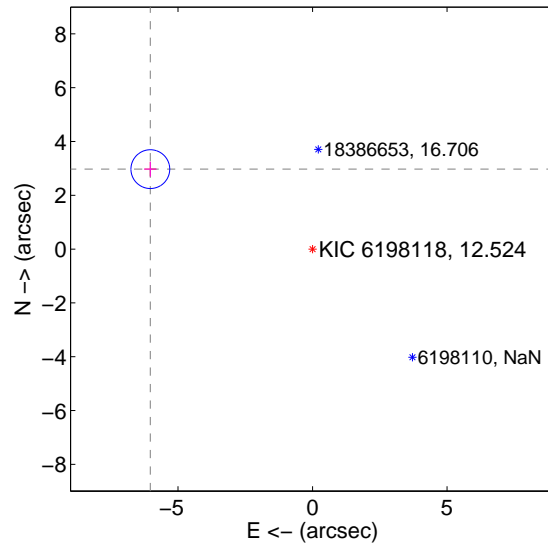
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.659 \pm 0.239	27.84	6.051 \pm 0.230	2.781 \pm 0.279
PRF-fit source offset from KIC position	6.721 \pm 0.240	27.97	6.028 \pm 0.230	2.972 \pm 0.279
photometric centroid source offset	2.12 \pm 1.79	1.18	-2.05 \pm 1.81	0.53 \pm 1.57

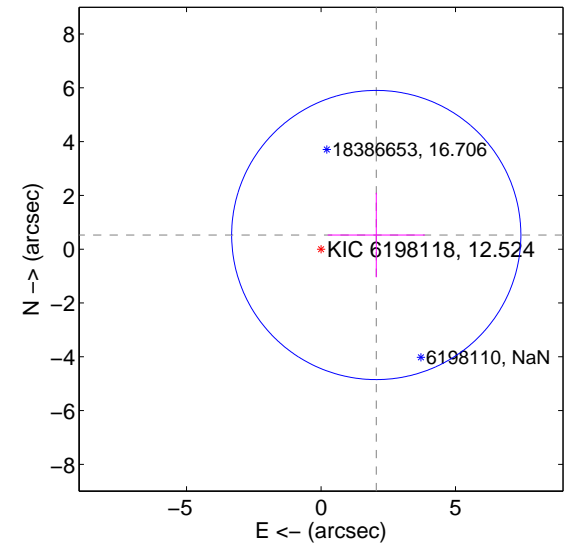
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

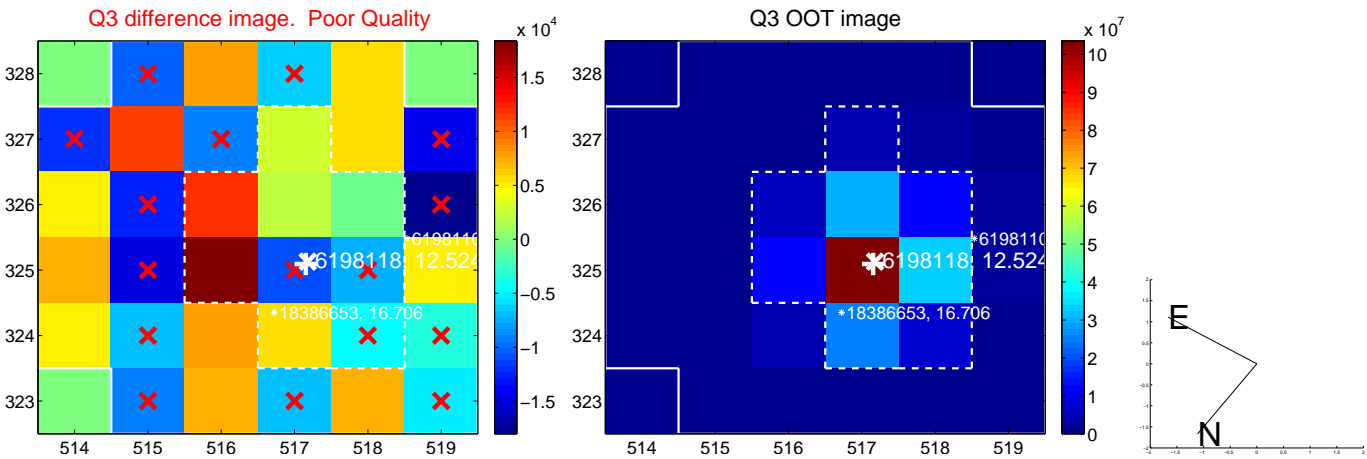


offset from photometric centroids

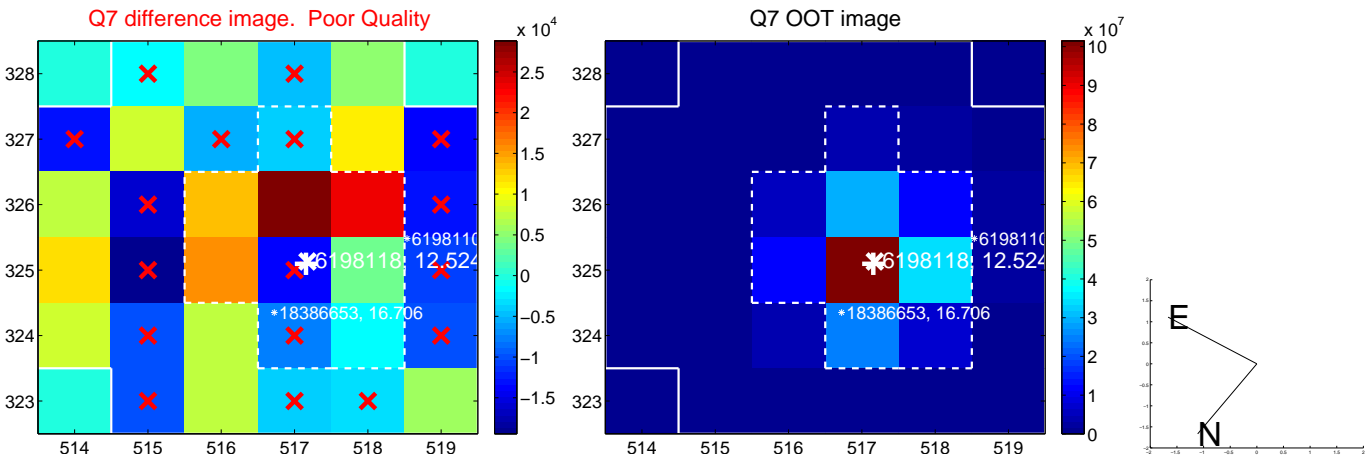


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

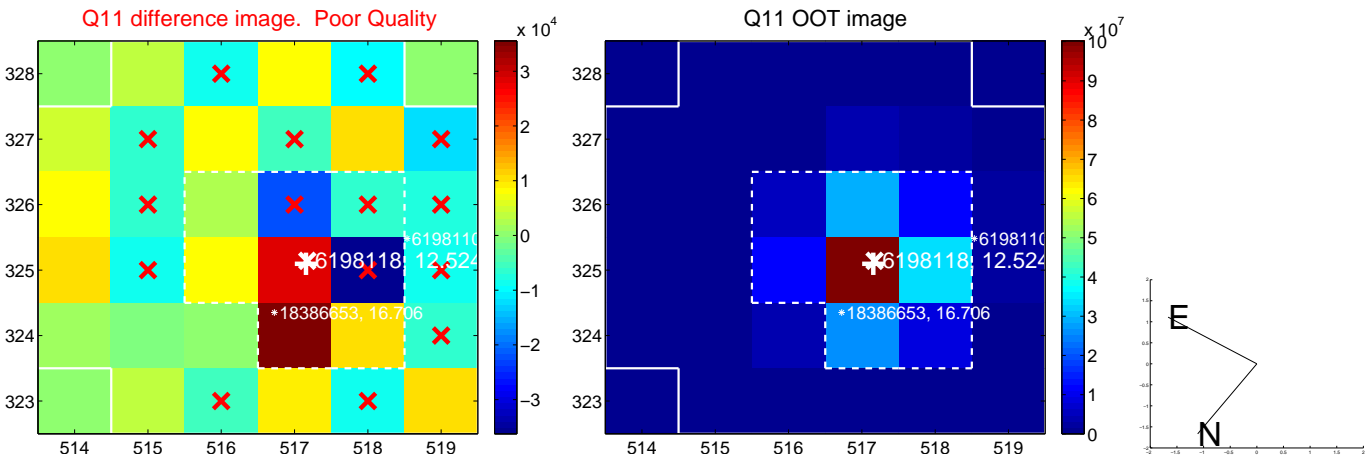
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



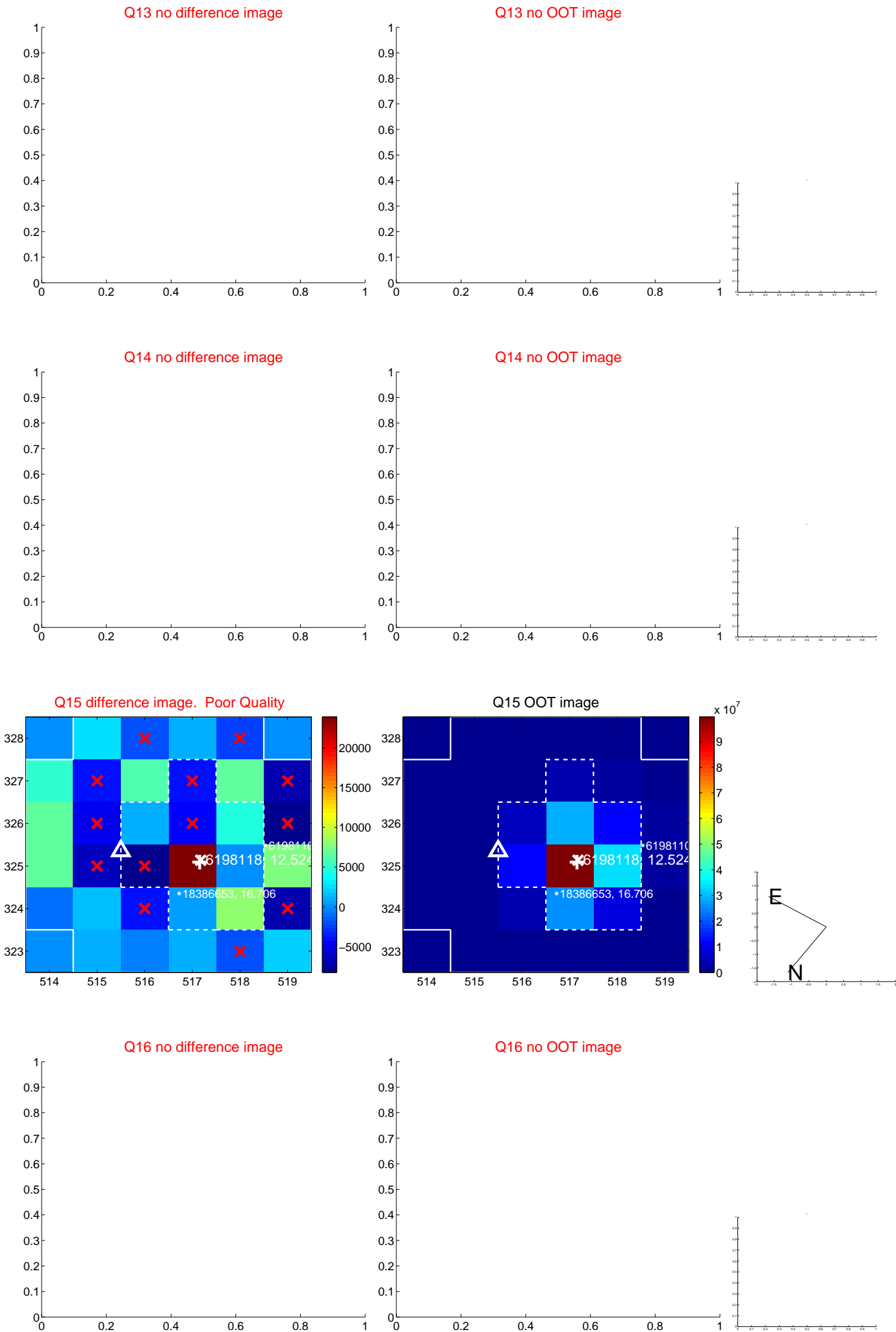
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



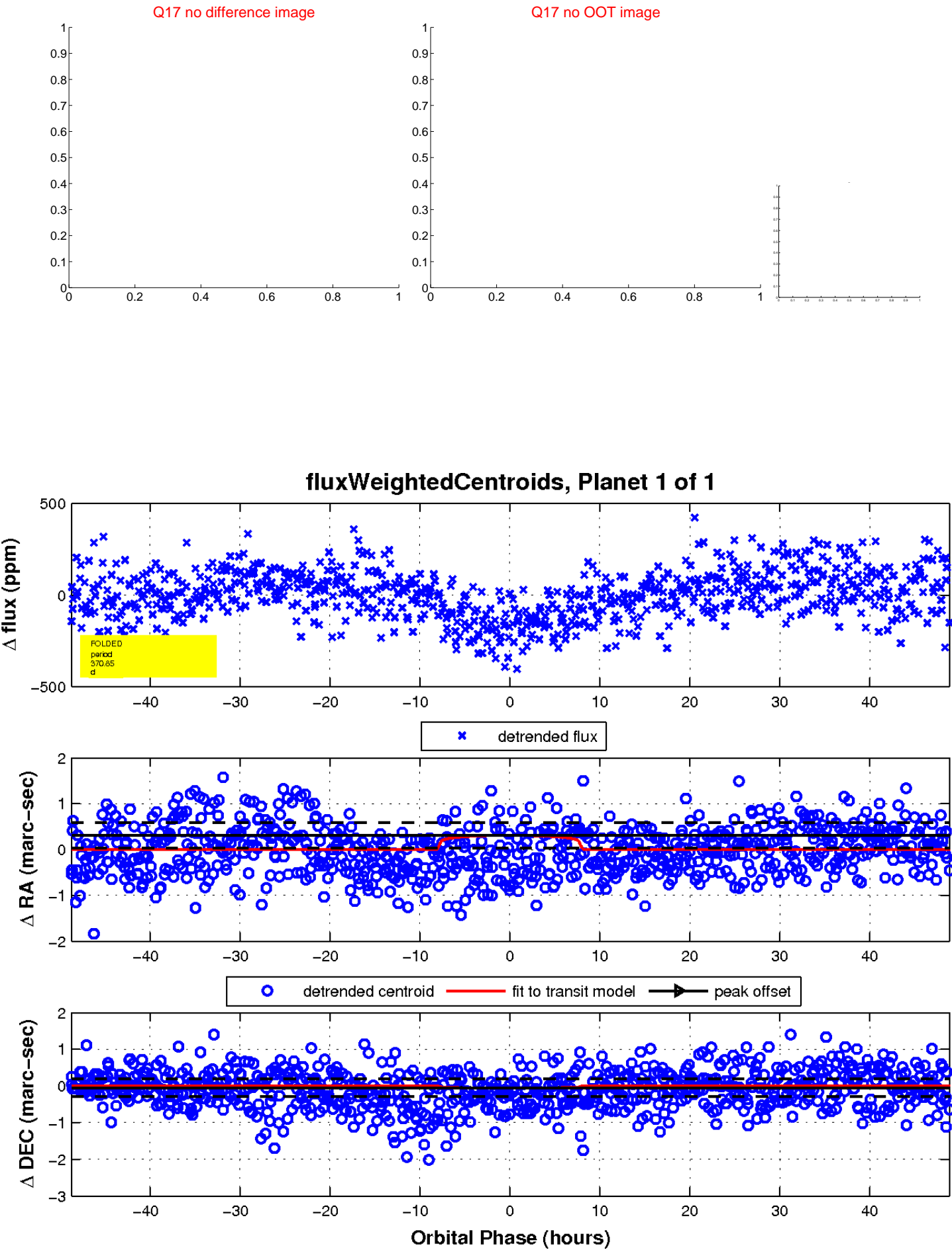
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

