

KIC 006718659

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})
006718659-01	OBS	No	470.127599	199.758186	712.5	15.679	14.5	14.0	0.65	5327	1.78	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006718659-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

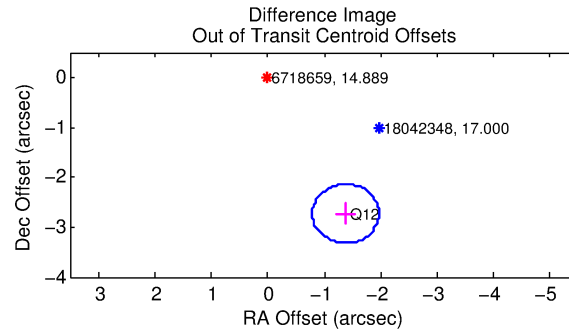
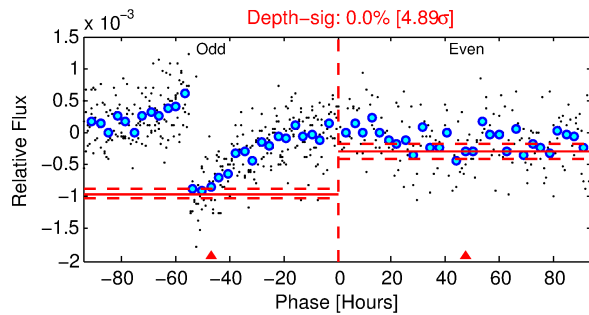
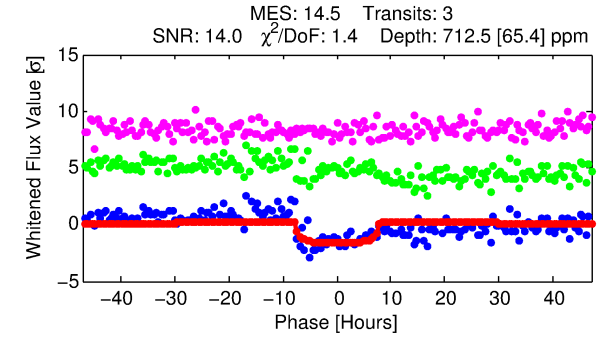
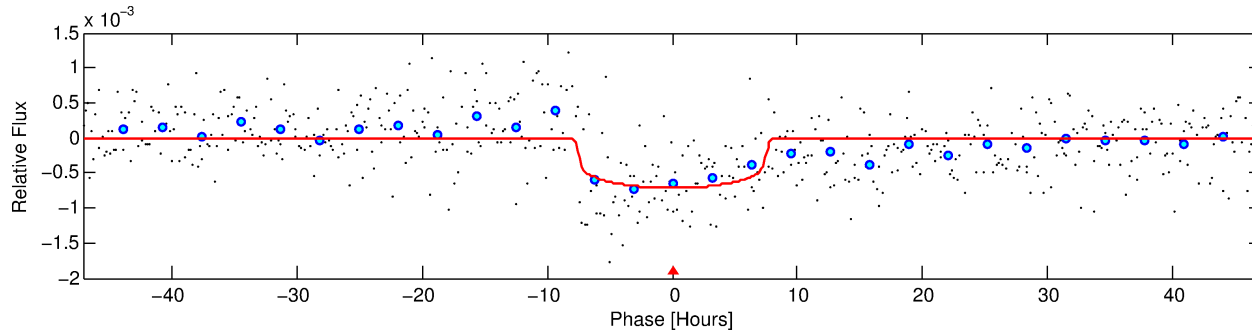
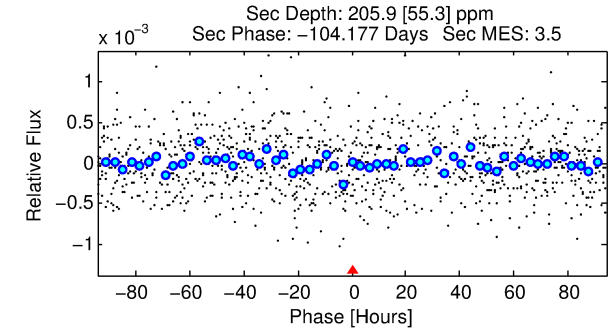
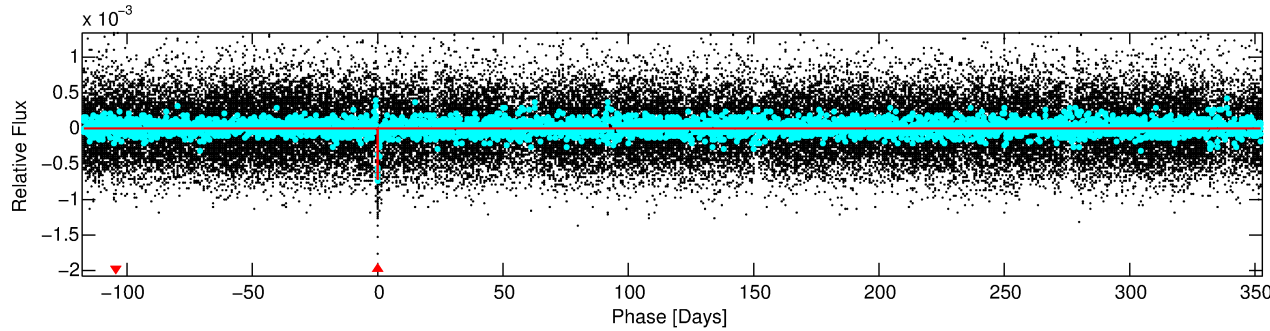
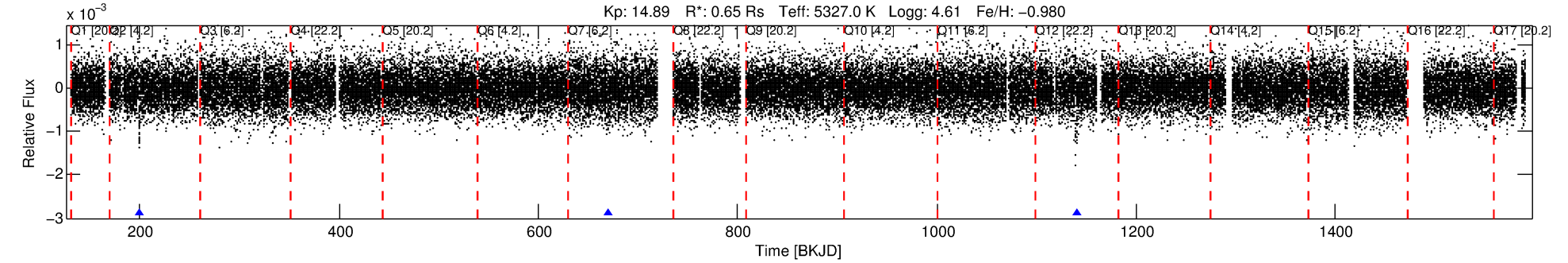
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006718659-01

No Significant Match Found

DV One-Page Summary

KIC: 6718659 Candidate: 1 of 1 Period: 470.128 d



DV Fit Results:

Period = 470.12760 [0.01357] d
Epoch = 199.7582 [0.0168] BKJD
Rp/R* = 0.0251 [0.0115]
a/R* = 203.26 [419.37]
b = 0.51 [2.98]
Seff = 0.30 [0.05]
Teq = 188 [9] K
Rp = 1.78 [0.84] Re
a = 1.0186 [0.0859] AU
Ag = 36932.69 [35581.62] [1.04σ]
Teffp = 4030 [971] K [3.95σ]

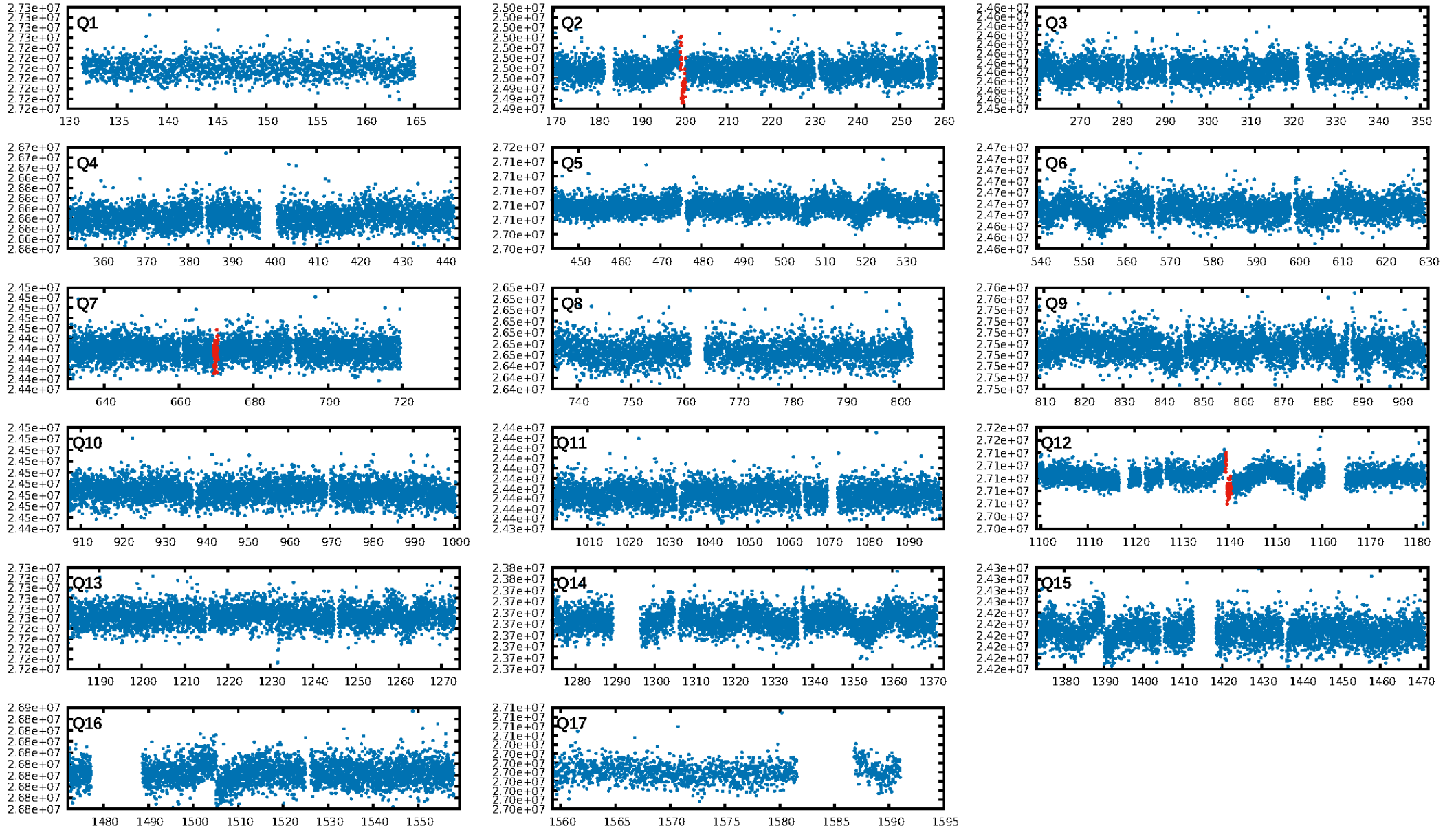
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 45.5%
Bootstrap-pfa: 7.22e-24
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 7.17
Centroid-sig: 13.1%
Centroid-so: 1.050 arcsec [0.89σ]
OotOffset-rm: 3.061 arcsec [15.57σ]
KicOffset-rm: 3.182 arcsec [16.28σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

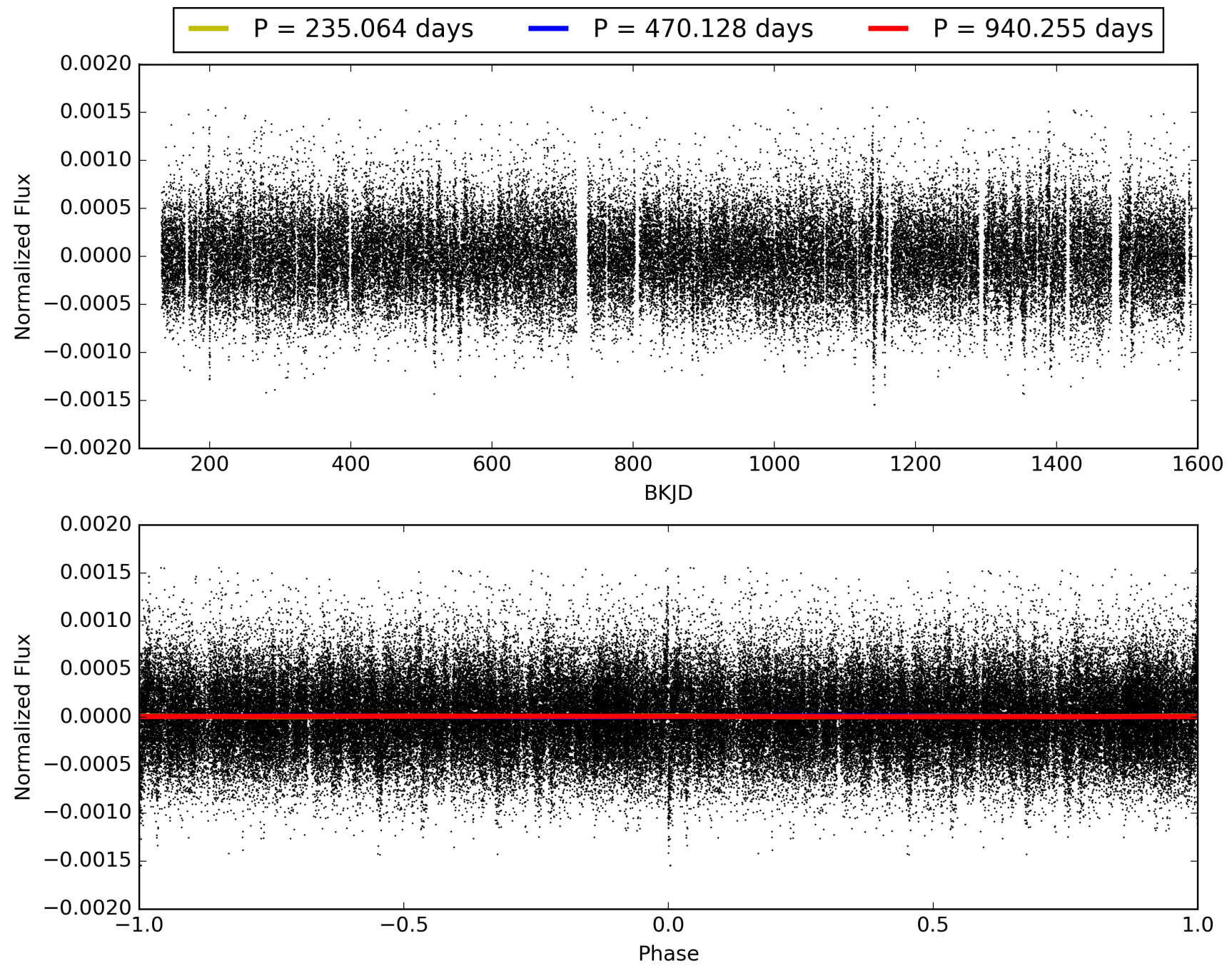
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:01:58 Z

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

TCE 006718659-01, PDC Light Curves

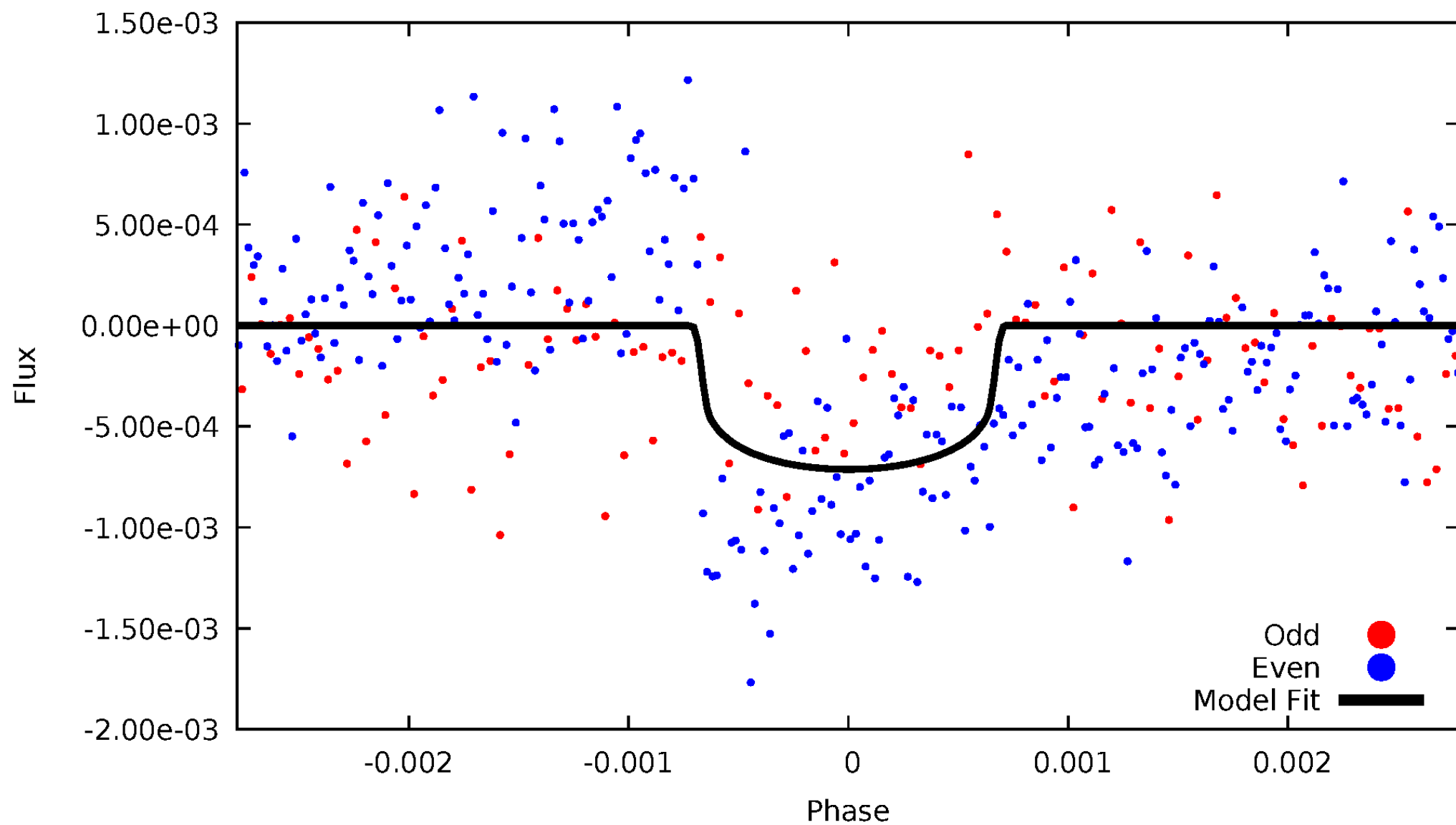


TCE 006718659-01



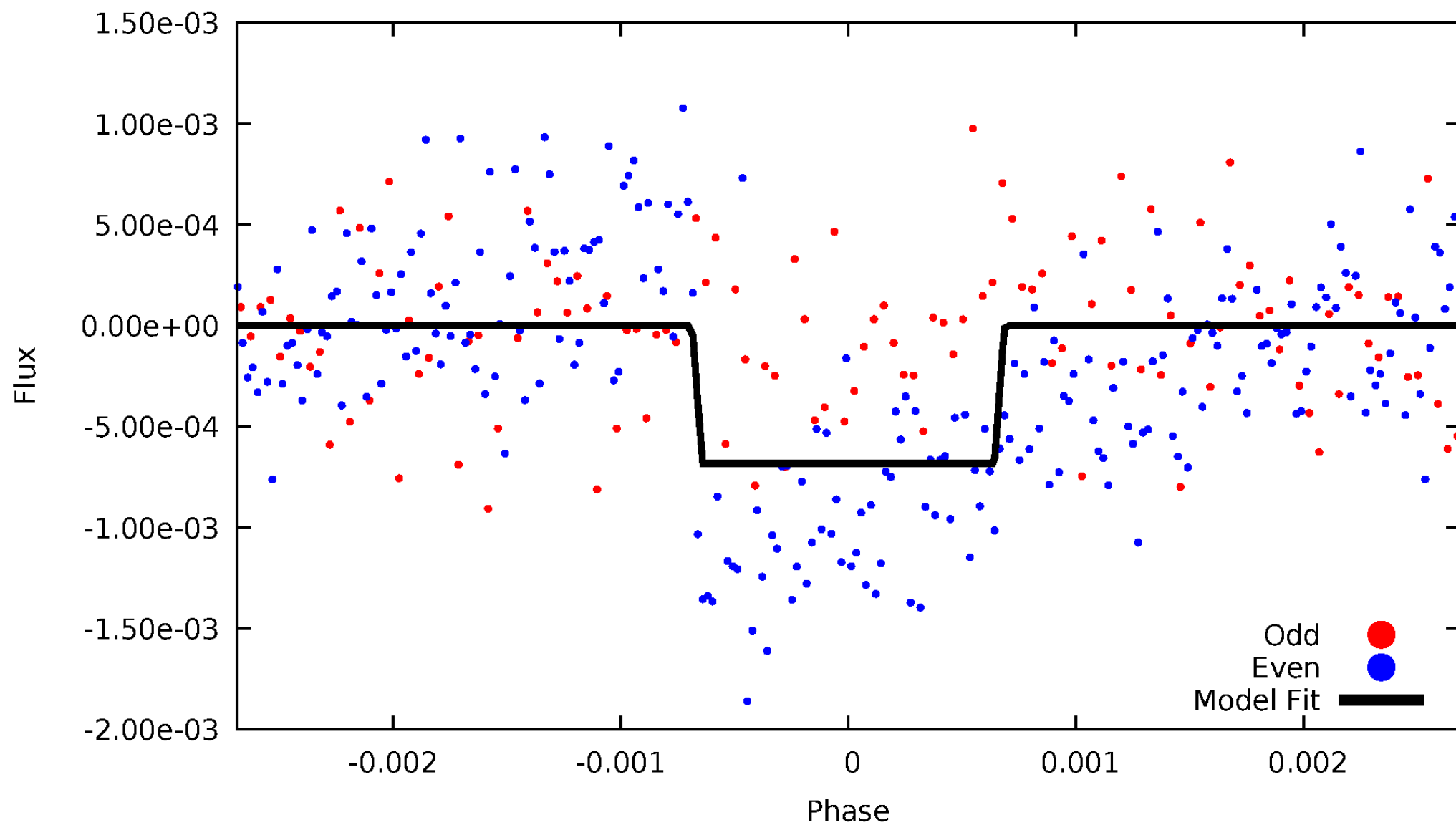
DV Odd/Even

TCE 006718659-01



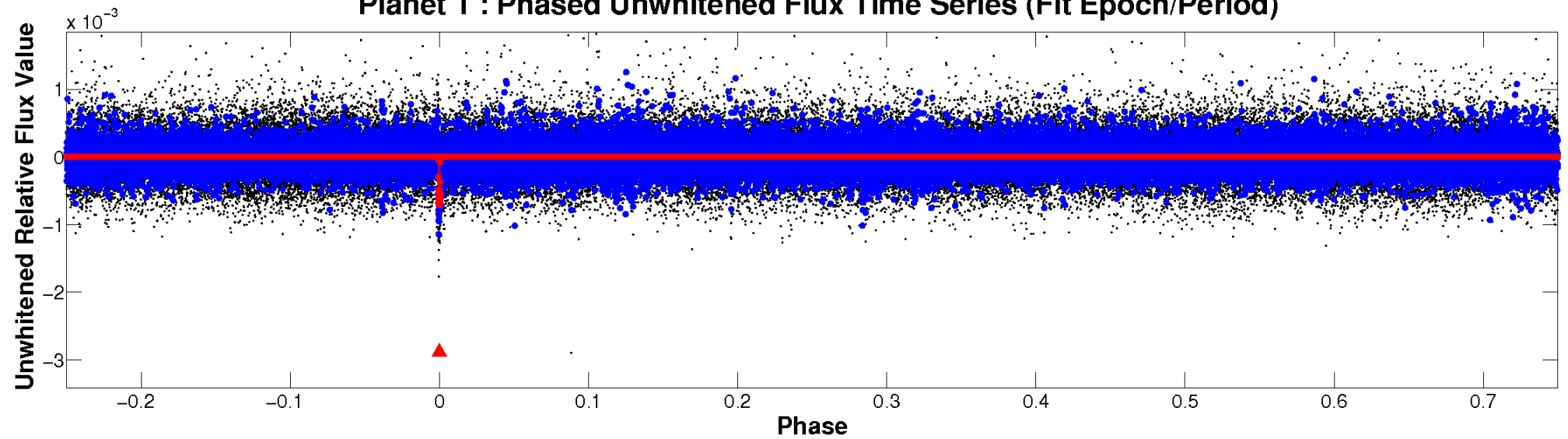
ALT Odd/Even

TCE 006718659-01

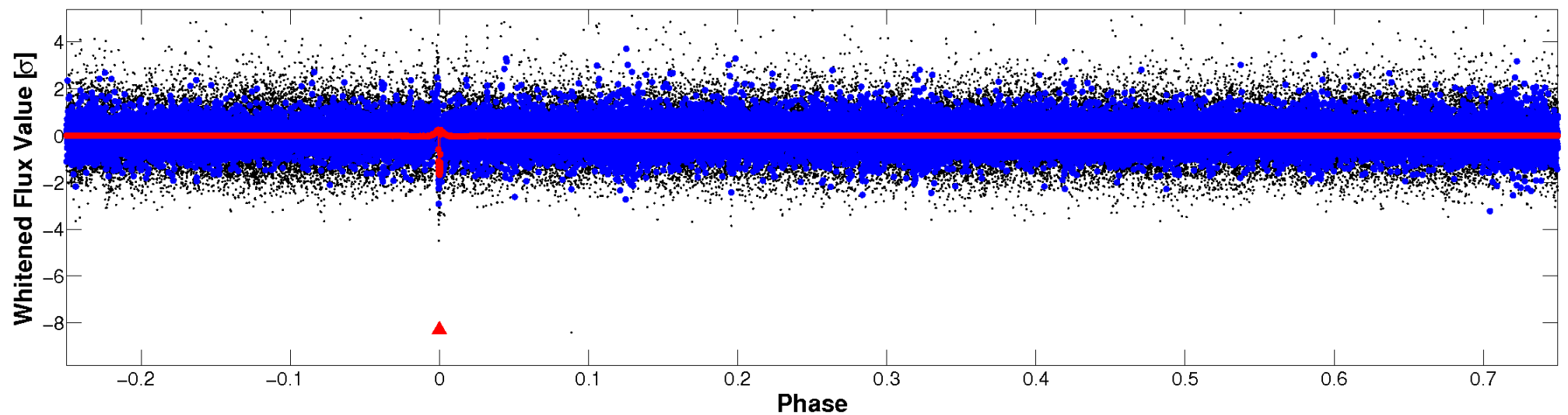


Non-Whitened Vs. Whitened Light Curve

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

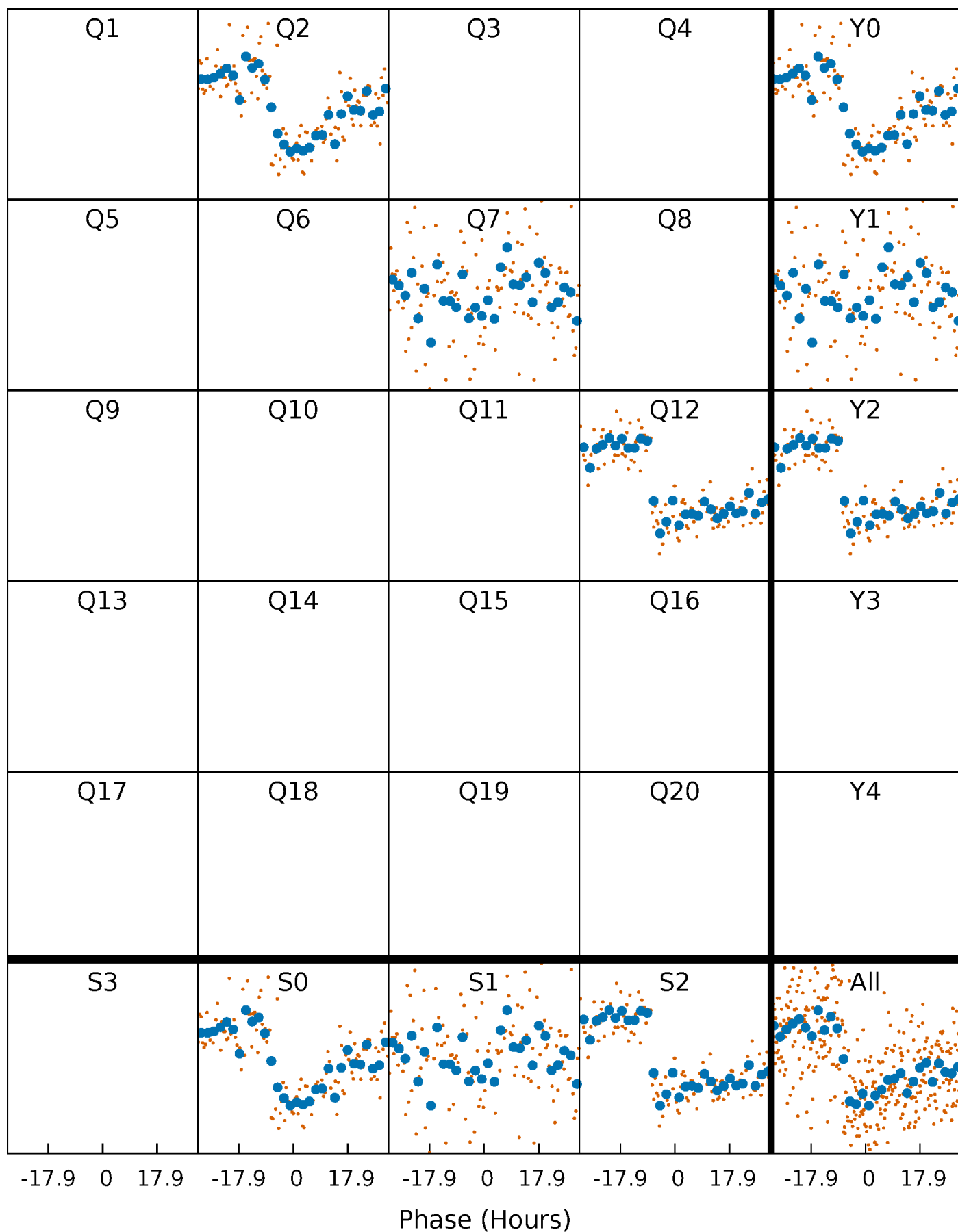


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 006718659-01 P=470.127599 Days $T_0=199.758186$ (BKJD)



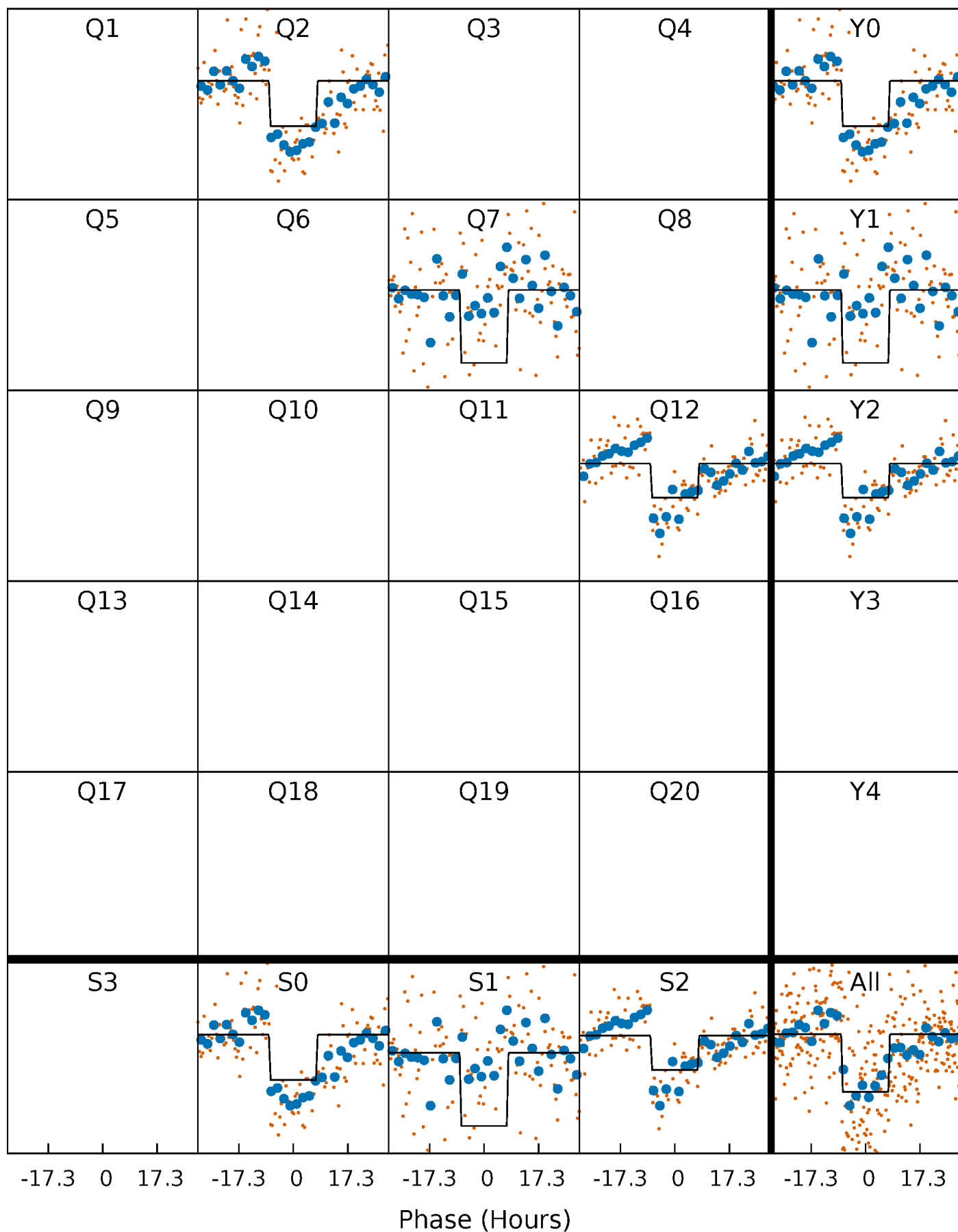
DV Quarter-Phased Transit Curves

TCE 006718659-01 P=470.127599 Days $T_0=199.758186$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

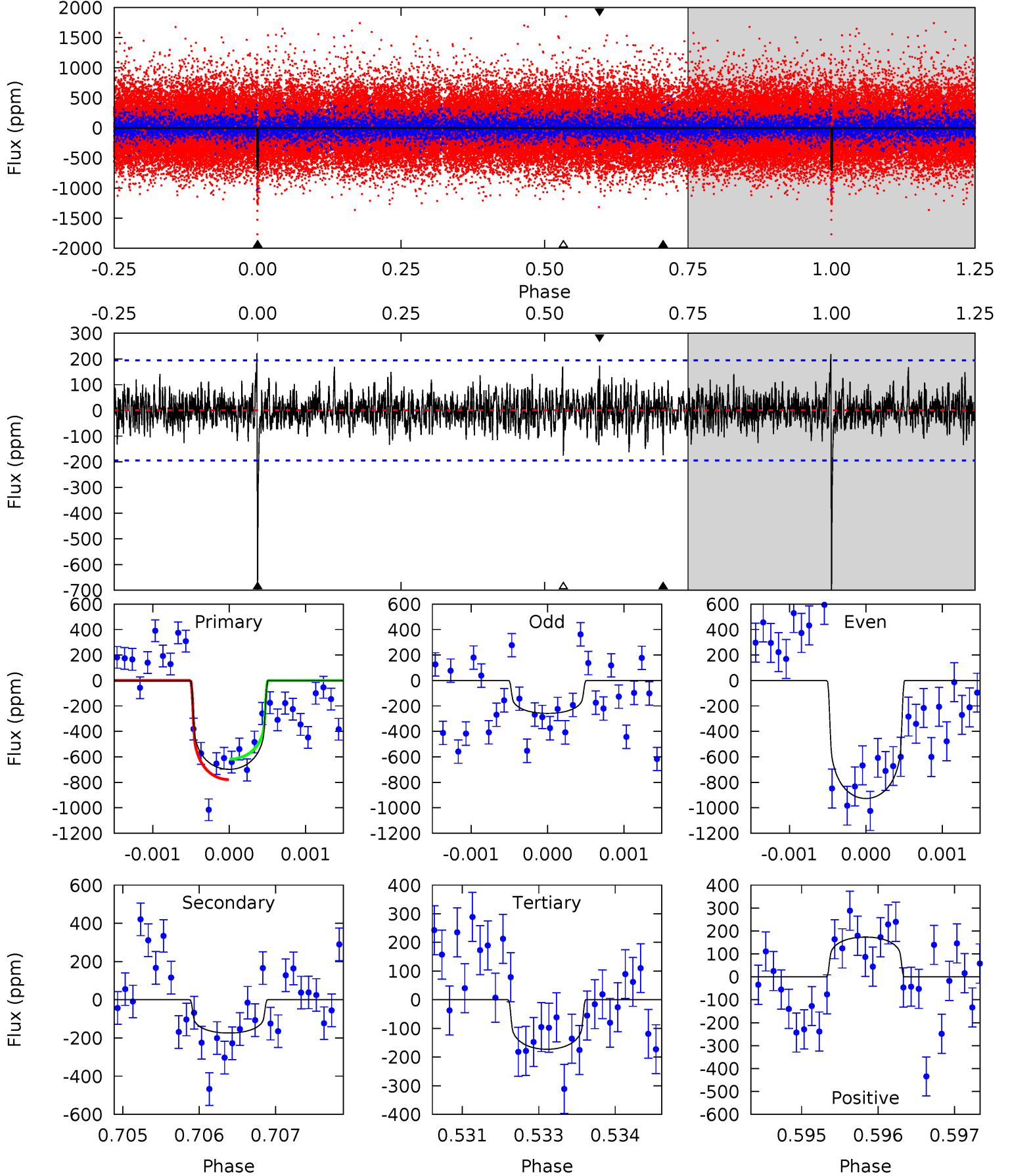
TCE 006718659-01 P=470.128537 Days $T_0=199.756507$ (BKJD)



DV Model-Shift Uniqueness Test

006718659-01, P = 470.127599 Days, E = 199.758186 Days

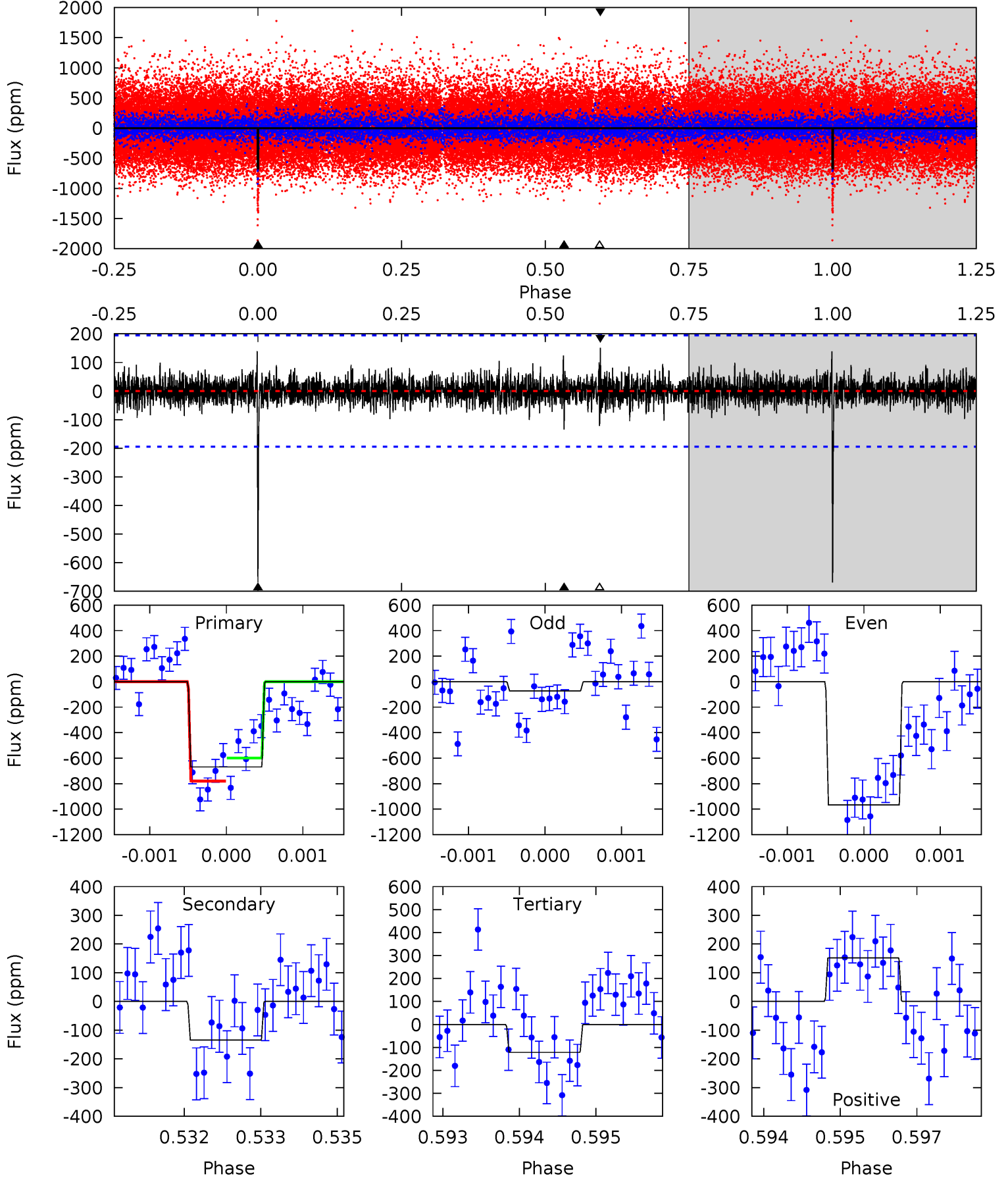
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	4.82	4.78	4.80	5.39	3.19	1.29	14.5	14.5	0.04	0.02	8.80	0.78	0.24	2.22



Alt Model-Shift Uniqueness Test

006718659-01, P = 470.128537 Days, E = 199.756507 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	3.72	3.37	4.20	5.39	3.20	0.79	15.2	14.4	0.35	-0.47	11.8	0.73	0.18	2.50



Stellar Parameters For KIC 006718659

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5327^{+177}_{-161}	$4.614^{+0.071}_{-0.058}$	$-0.980^{+0.300}_{-0.300}$	$0.652^{+0.063}_{-0.052}$	$0.637^{+0.066}_{-0.024}$	$3.242^{+0.888}_{-0.635}$
	+3%/-3%	+2%/-1%	+31%/-31%	+10%/-8%	+10%/-4%	+27%/-20%
Source	PHO1	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 006718659-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-174 ± 36	$1.78^{+0.82}_{-0.73}$	262^{+11}_{-10}	4106^{+927}_{-507}	31226^{+54709}_{-16756}
Alt.	-134 ± 36	$1.92^{+0.85}_{-0.81}$	263^{+11}_{-11}	3827^{+911}_{-481}	20540^{+43730}_{-11744}

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 $A_{obs} \gg 1.0$

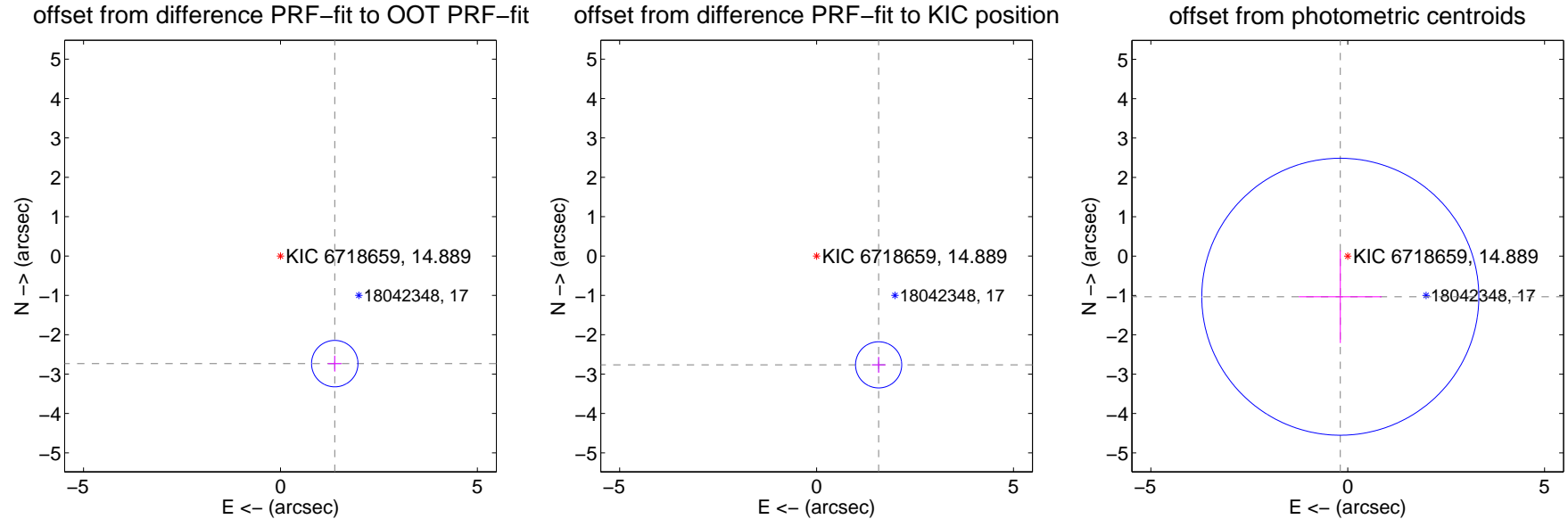
DV Centroid Data

Supplemental centroid analysis for 006718659-01. Kepler magnitude: 14.89. Transit SNR 13.96

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.061 ± 0.197	15.57	-1.379 ± 0.174	-2.733 ± 0.202
PRF-fit source offset from KIC position	3.182 ± 0.195	16.28	-1.576 ± 0.174	-2.764 ± 0.202
photometric centroid source offset	1.05 ± 1.17	0.89	0.19 ± 1.05	-1.03 ± 1.18

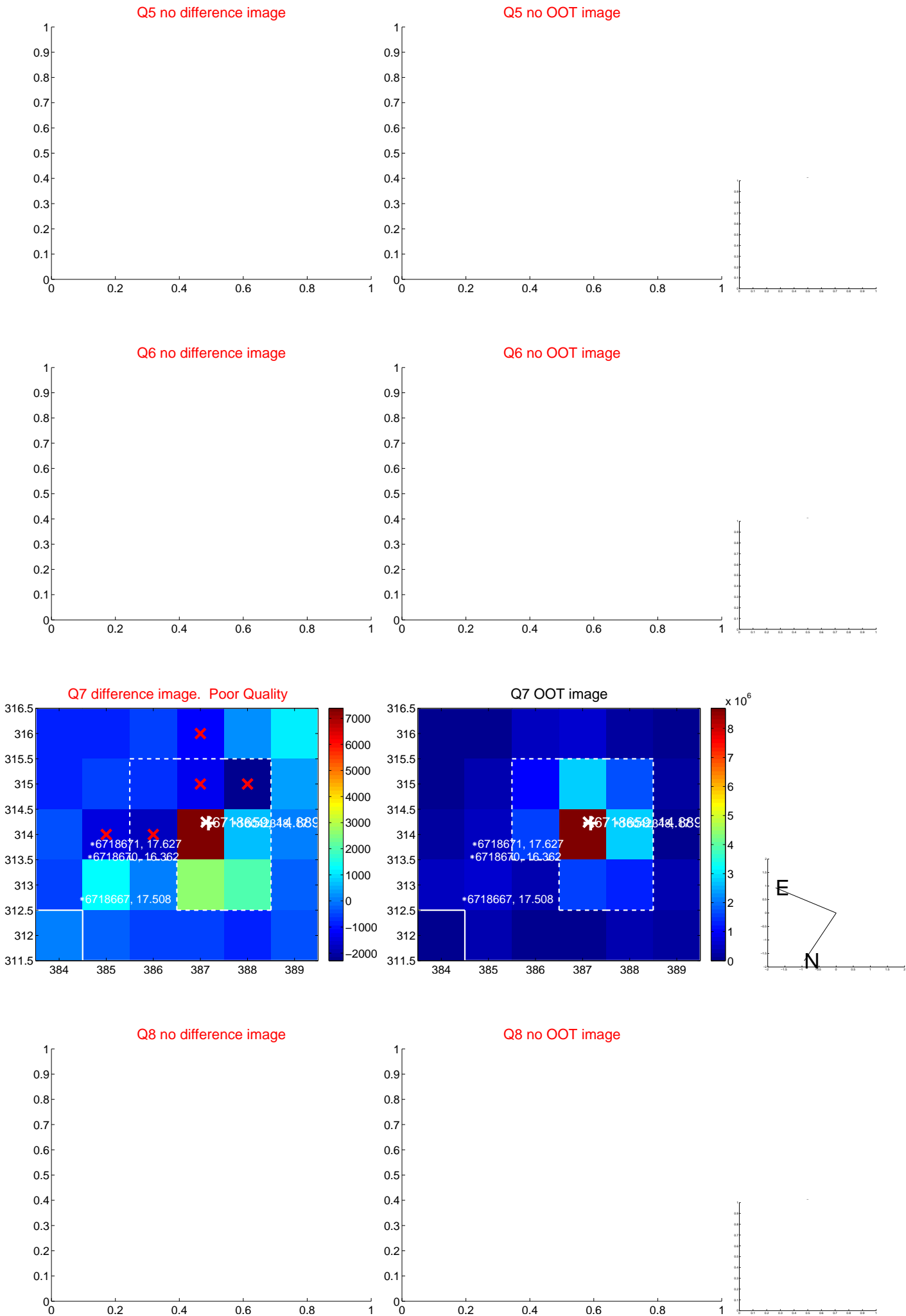


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

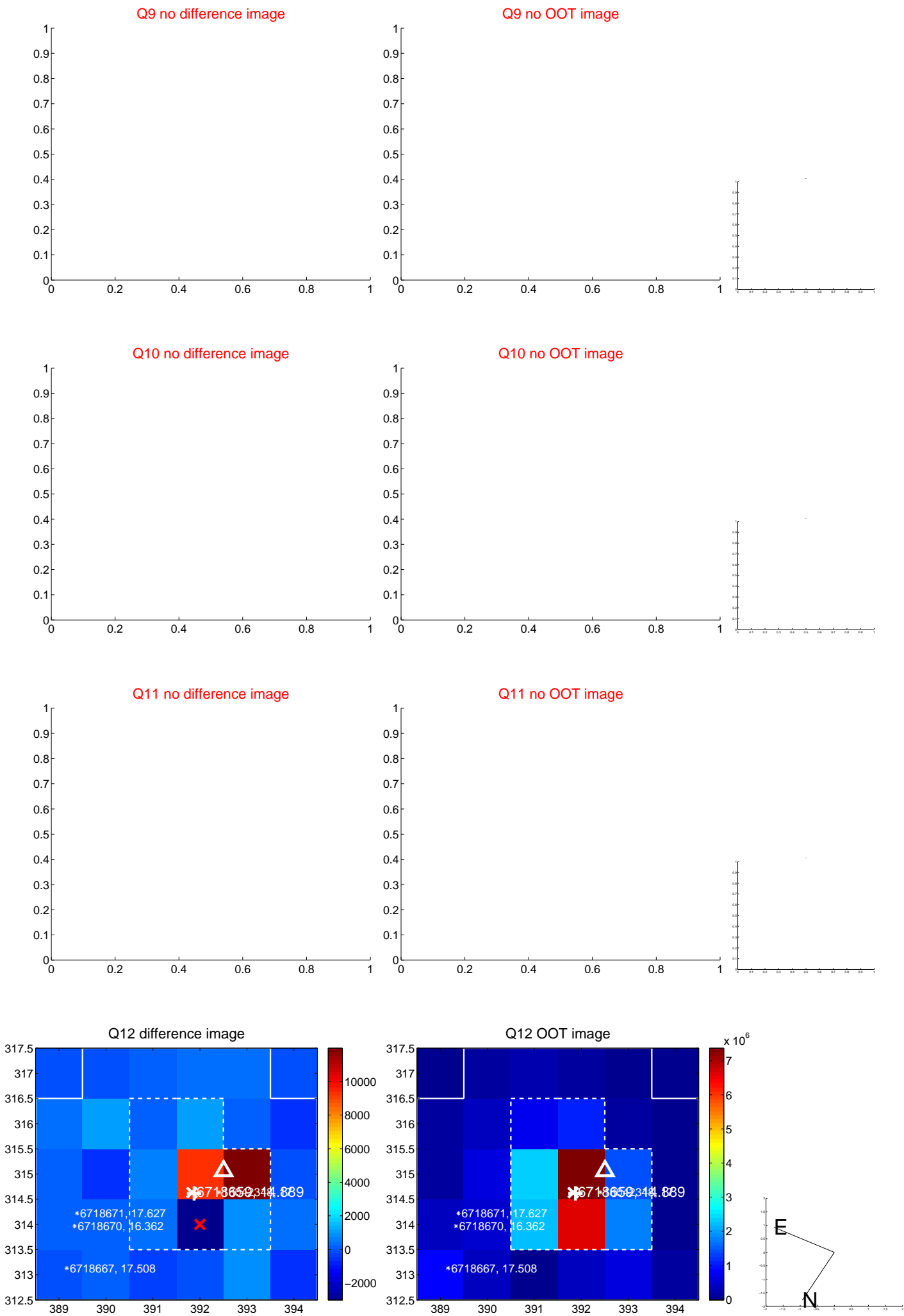
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



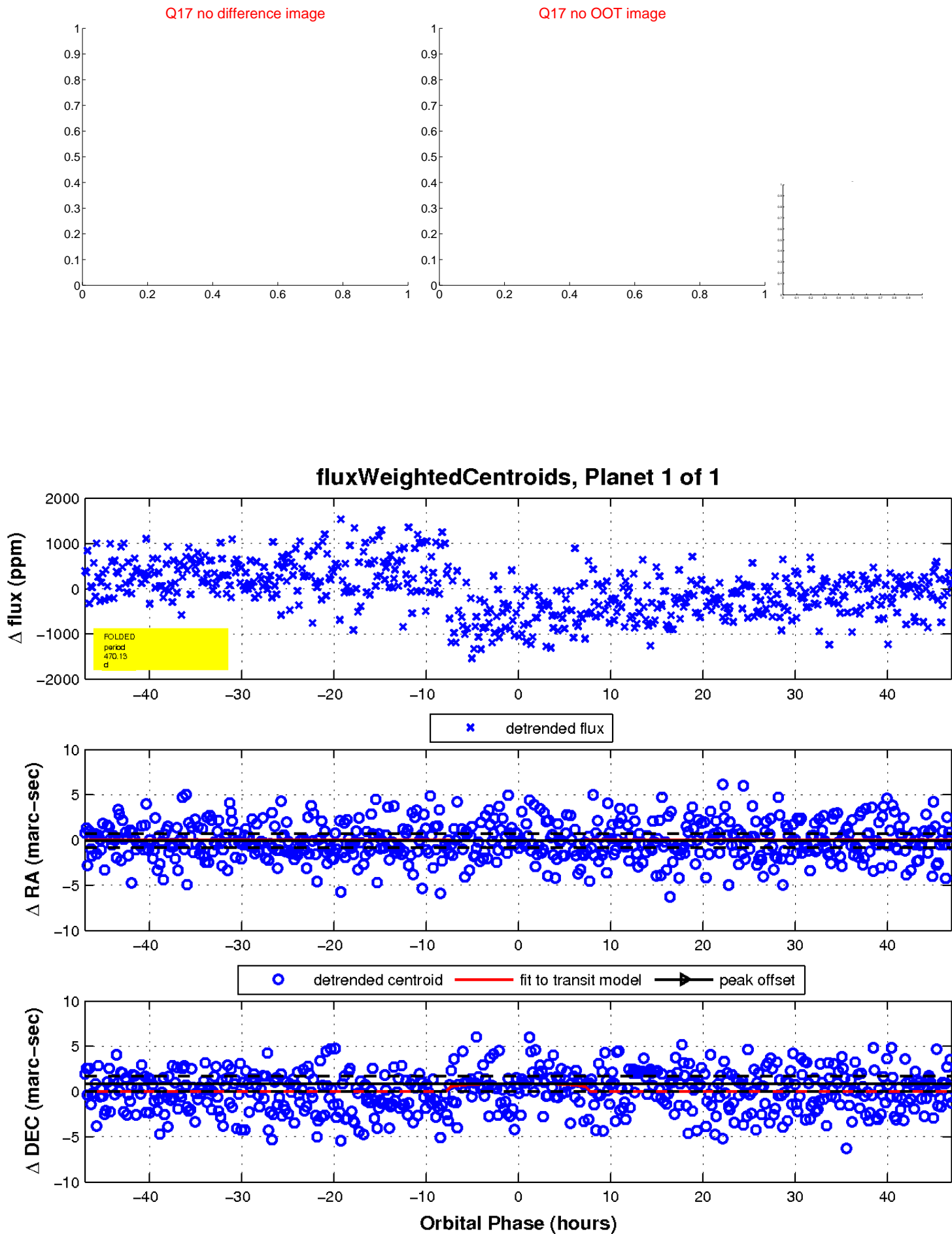
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

