

KIC 008847759

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})
008847759-01	OBS	No	694.873267	155.857599	1024.8	8.048	11.6	7.3	0.61	4005	2.04	0.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008847759-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_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.

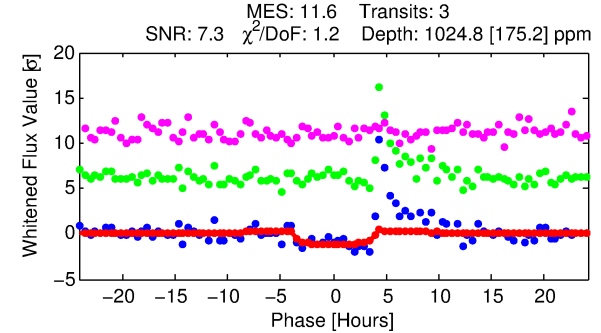
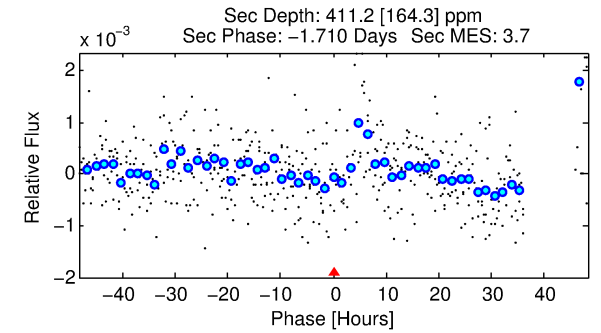
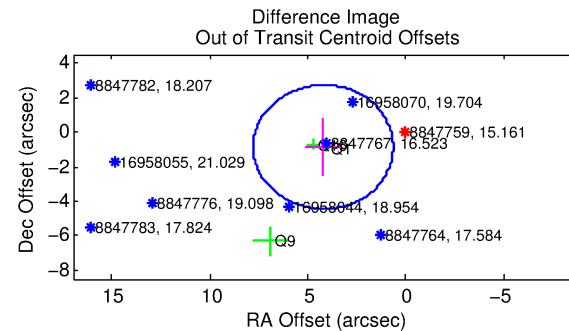
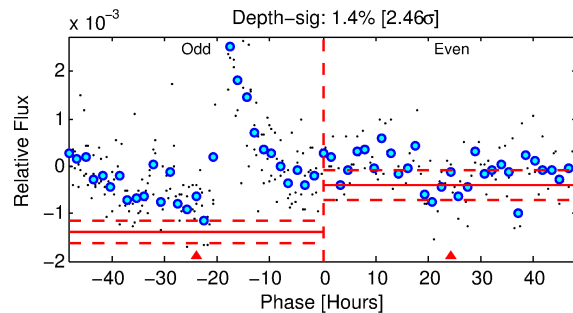
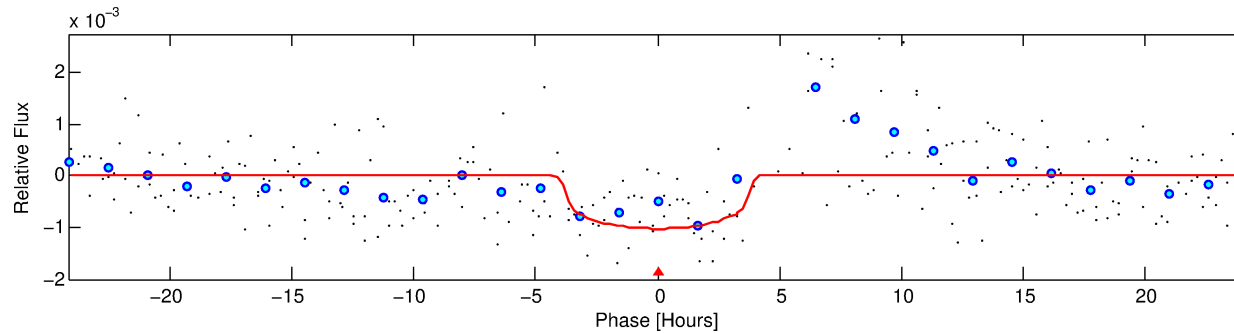
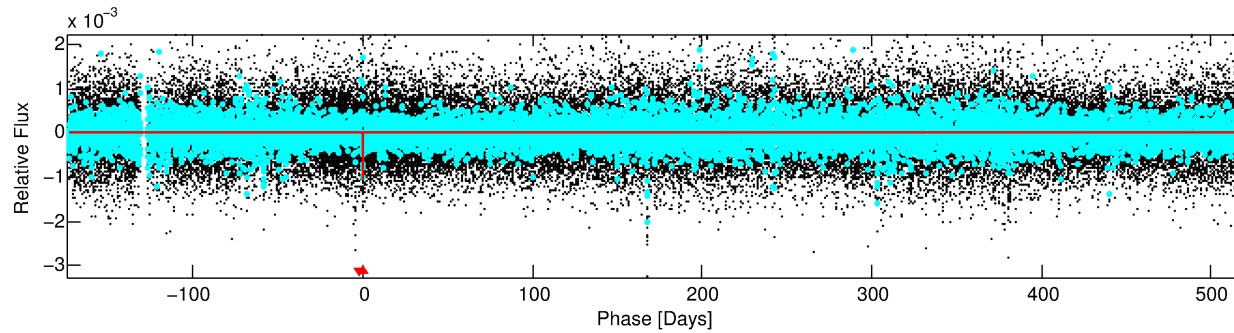
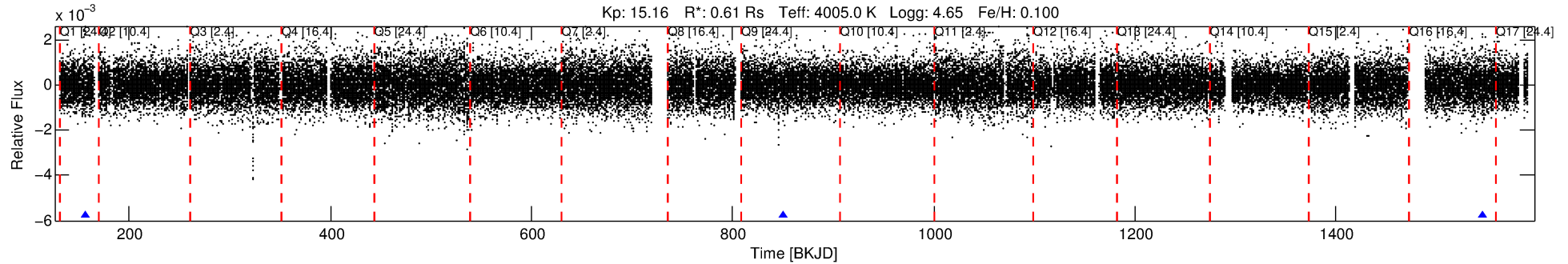
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008847759-01

No Significant Match Found

DV One-Page Summary

KIC: 8847759 Candidate: 1 of 1 Period: 694.873 d



DV Fit Results:

Period = 694.87327 [0.01195] d
Epoch = 155.8576 [0.0149] BKJD
Rp/R* = 0.0309 [0.0268]
a/R* = 521.03 [1587.83]
b = 0.66 [2.61]
Seff = 0.05 [0.01]
Teq = 121 [6] K
Rp = 2.04 [1.79] Re
a = 1.2995 [0.1152] AU
Ag = 91376.76 [163364.31] [0.56 σ]
Teffp = 3246 [1453] K [2.15 σ]

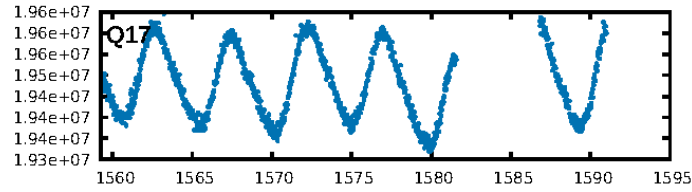
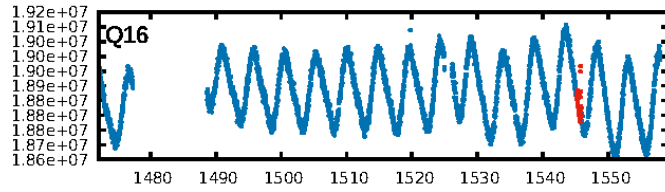
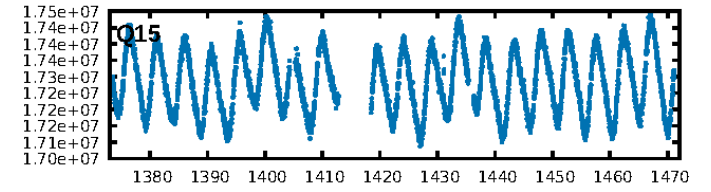
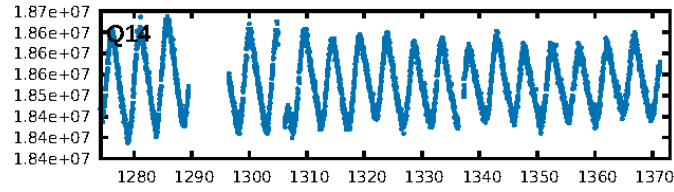
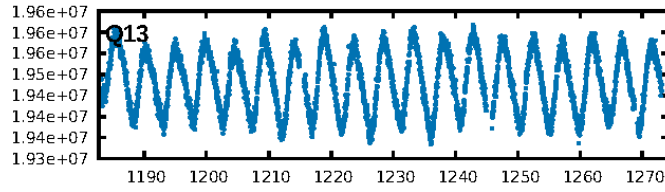
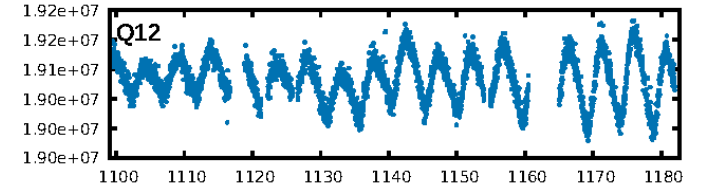
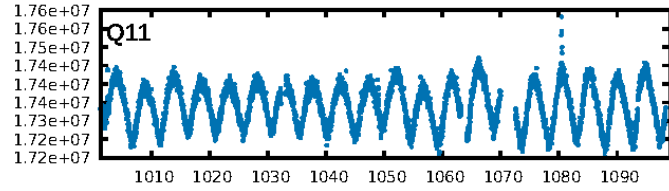
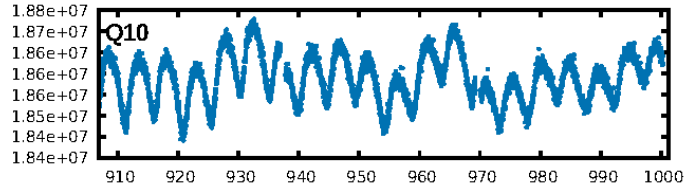
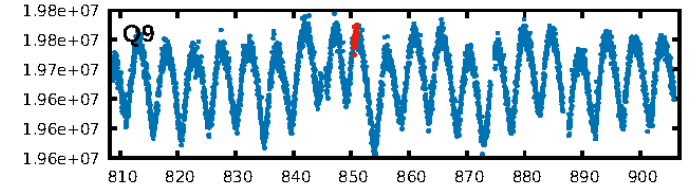
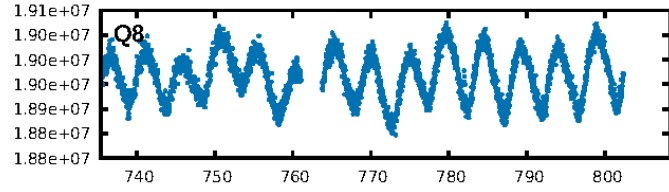
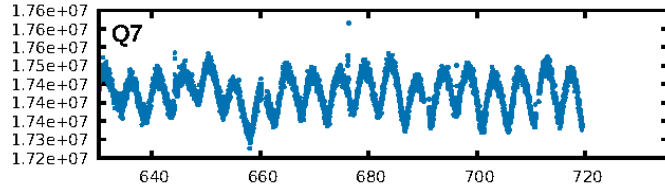
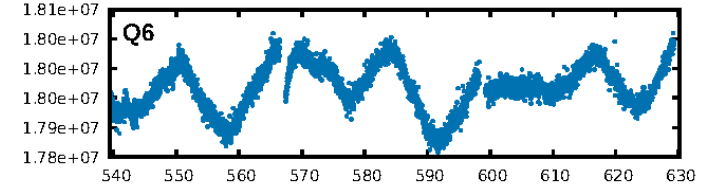
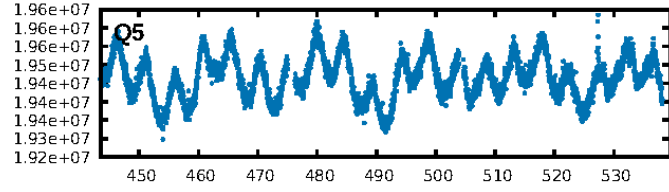
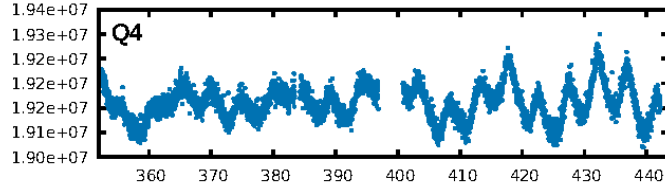
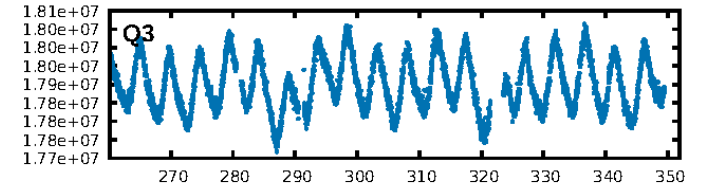
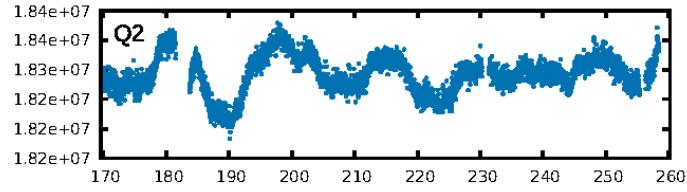
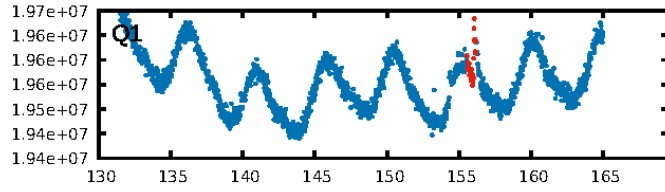
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.5%
ModelChiSquareGof-sig: 92.9%
Bootstrap-pfa: 1.60e-18
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 1.569
Centroid-sig: 36.3%
Centroid-so: 3.550 arcsec [1.38 σ]
OotOffset-rm: 4.306 arcsec [3.61 σ]
KicOffset-rm: 4.569 arcsec [5.18 σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

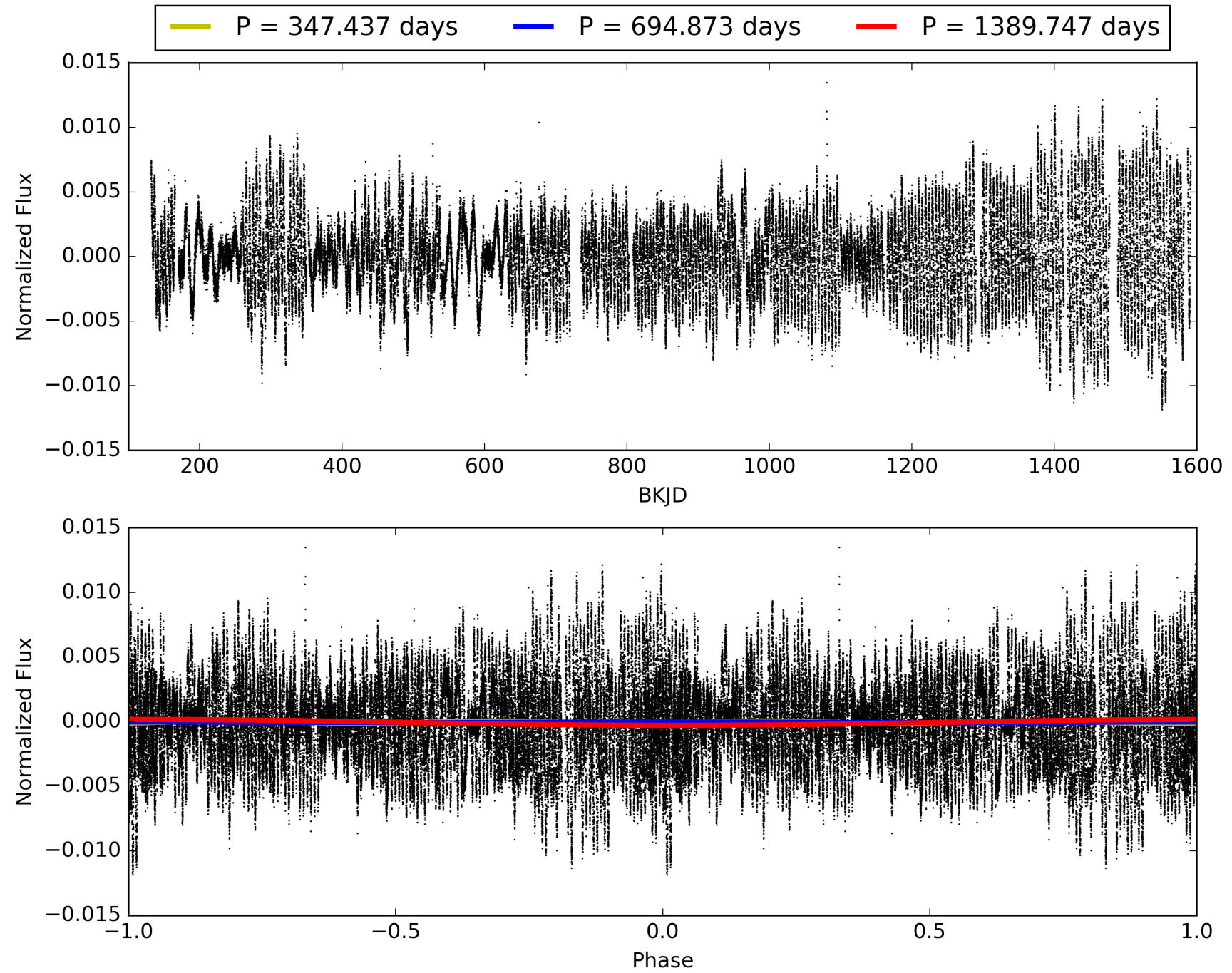
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:38:43 Z

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

TCE 008847759-01, PDC Light Curves

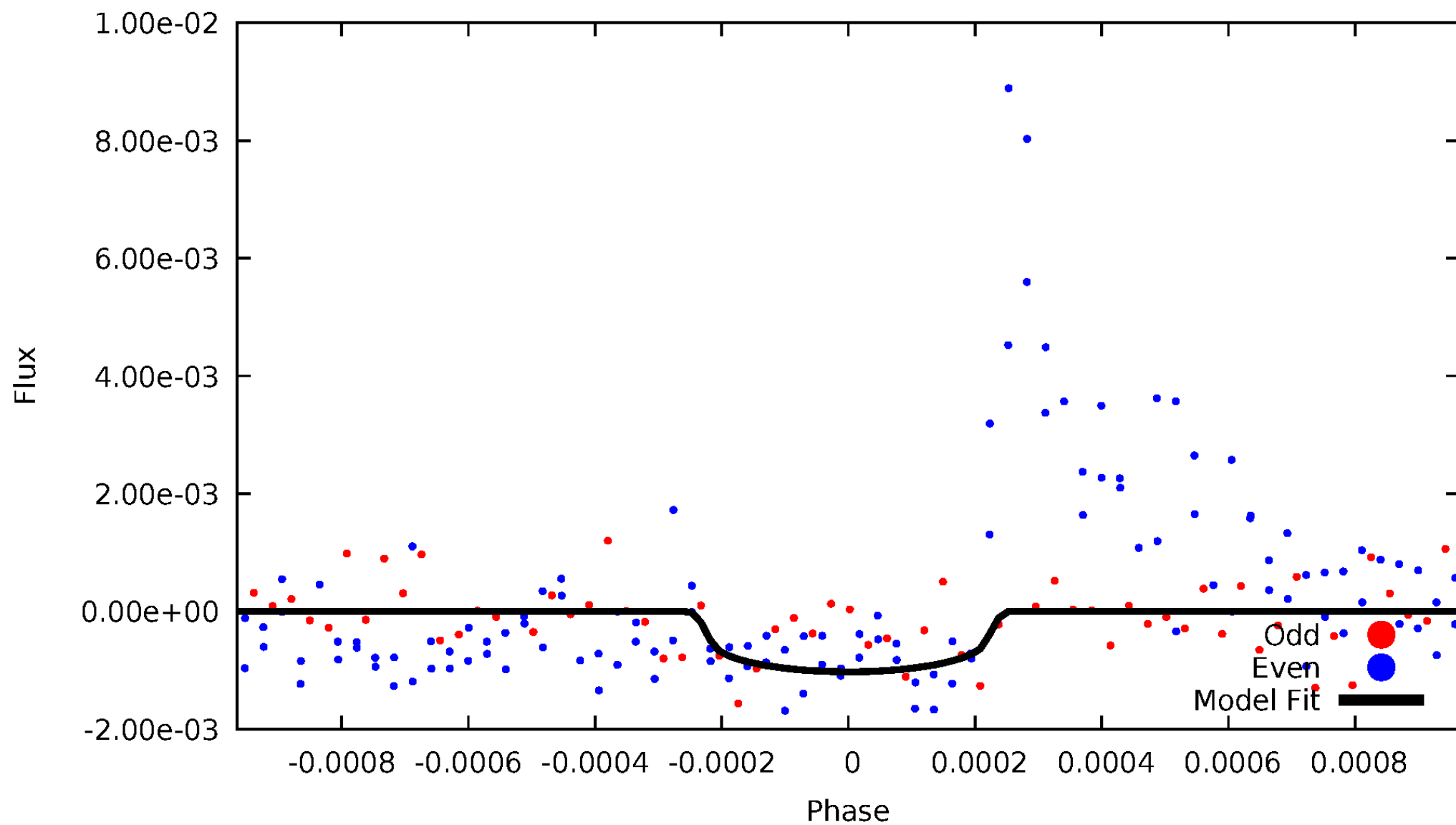


TCE 008847759-01



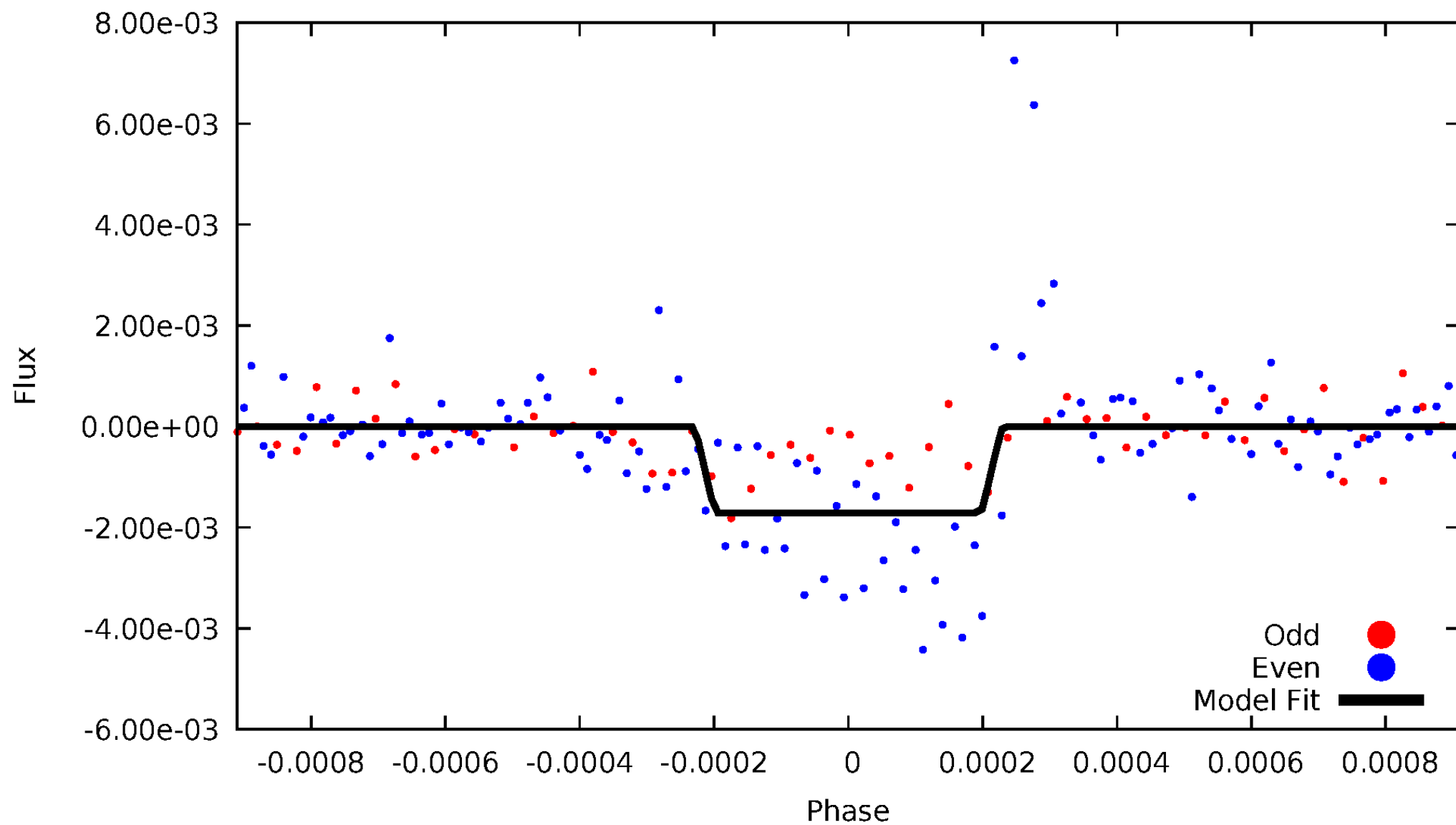
DV Odd/Even

TCE 008847759-01

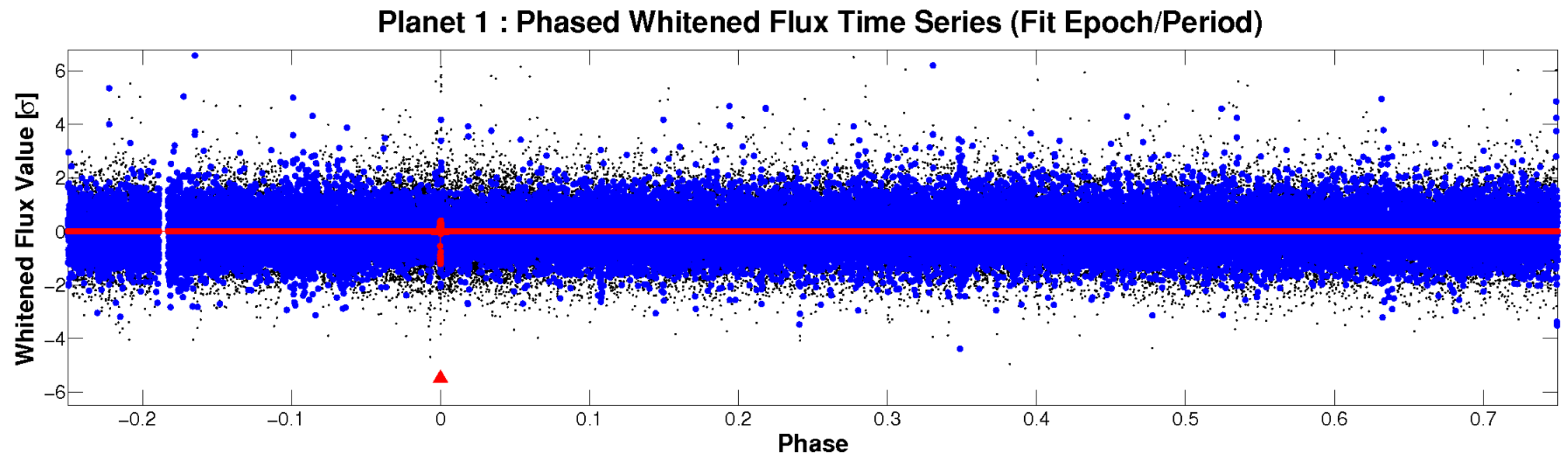
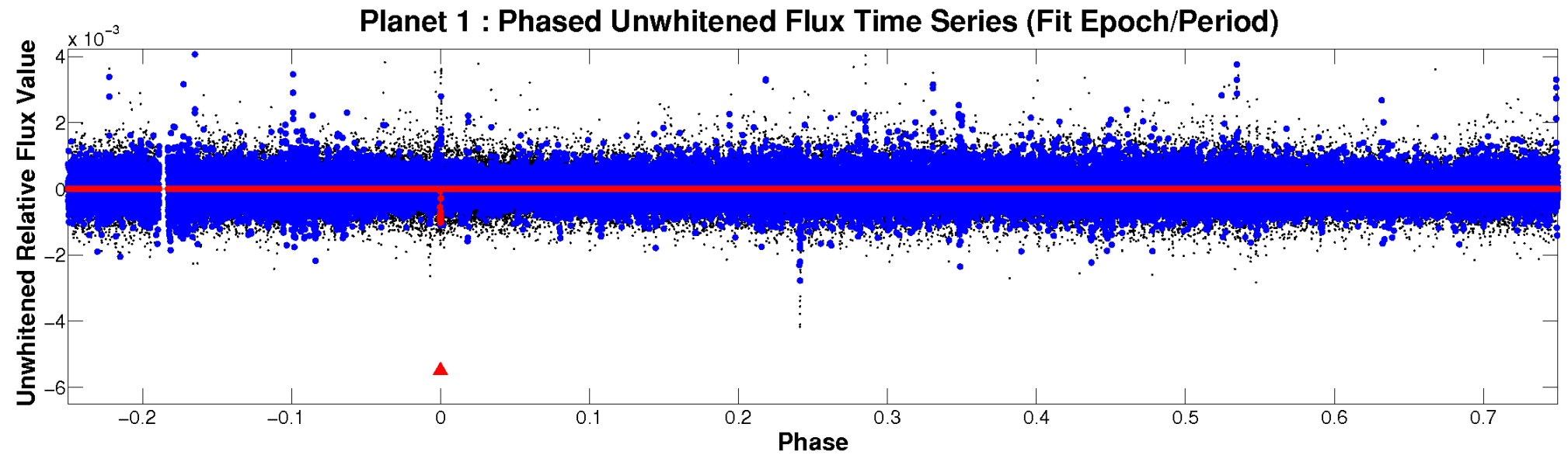


ALT Odd/Even

TCE 008847759-01

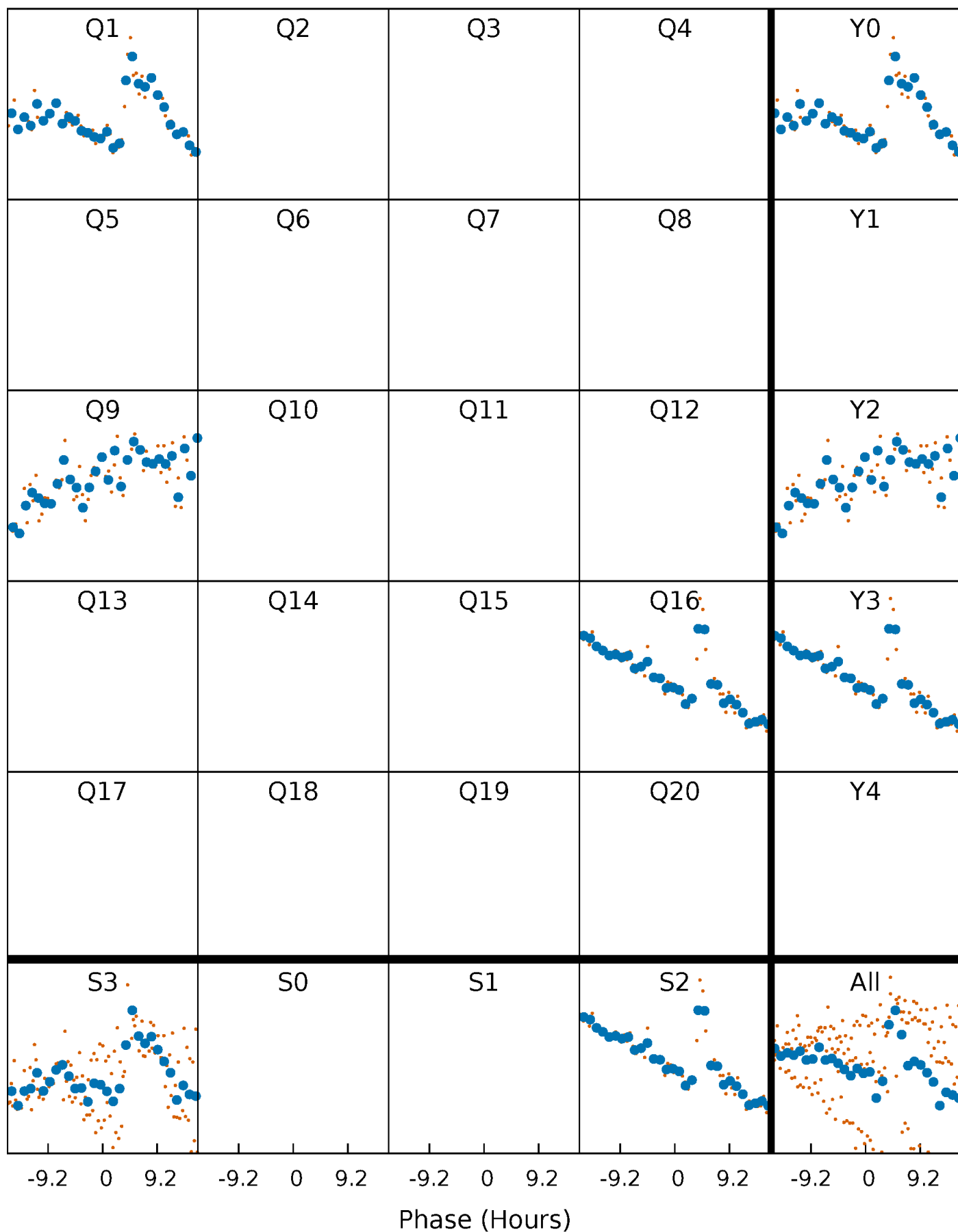


Non-Whitened Vs. Whitened Light Curve



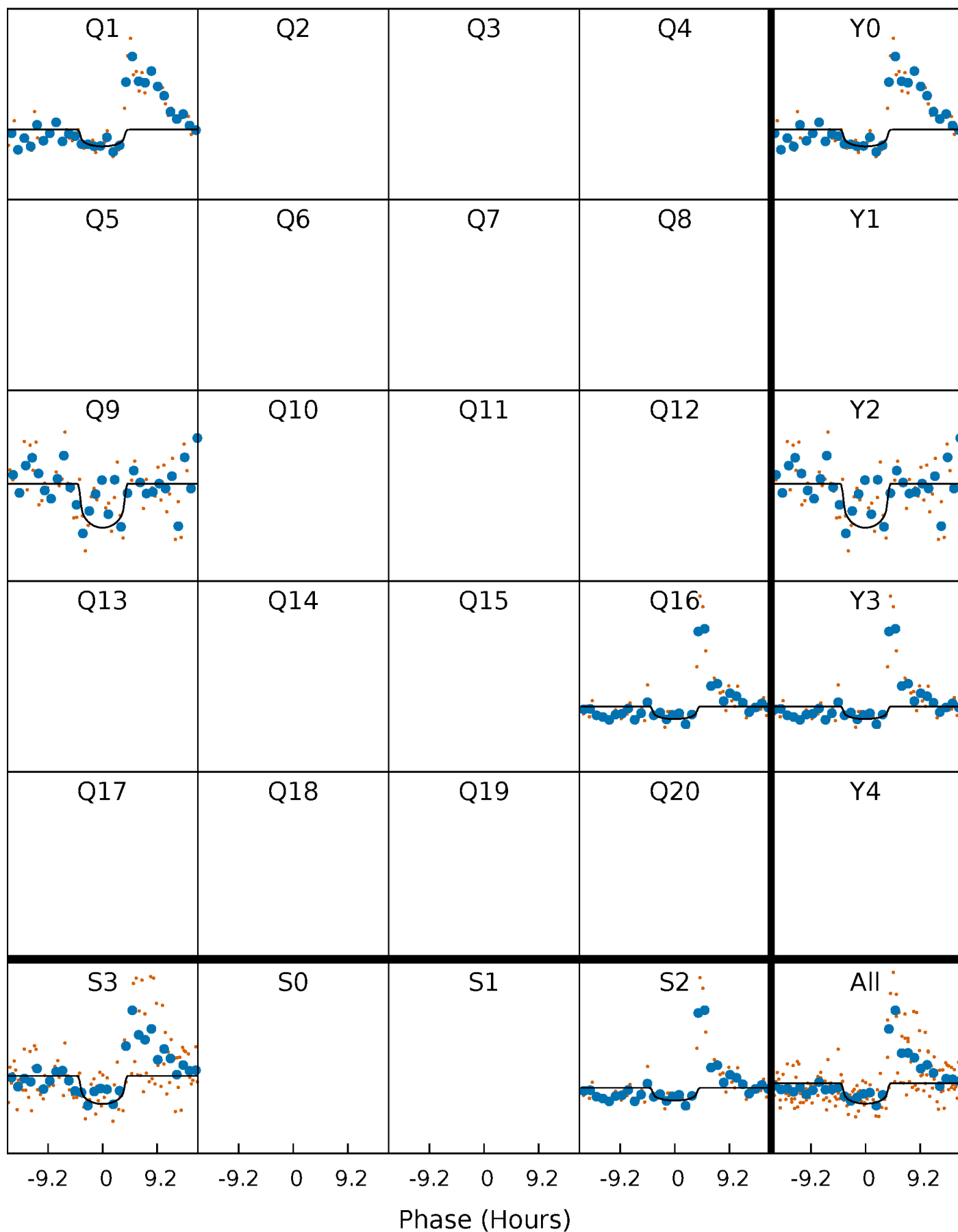
PDC Quarter-Phased Transit Curves

TCE 008847759-01 P=694.873267 Days $T_0=155.857599$ (BKJD)



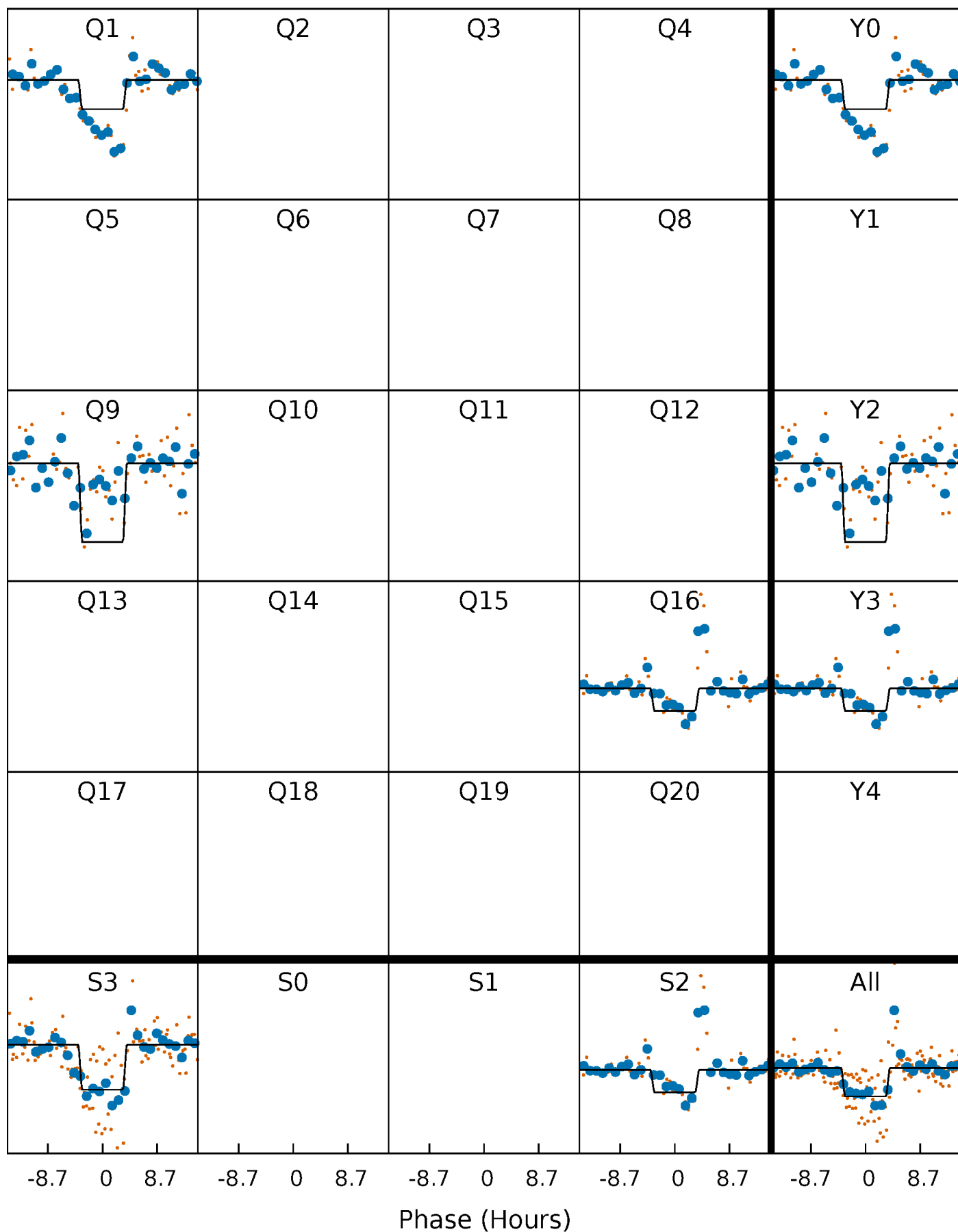
DV Quarter-Phased Transit Curves

TCE 008847759-01 $P=694.873267$ Days $T_0=155.857599$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

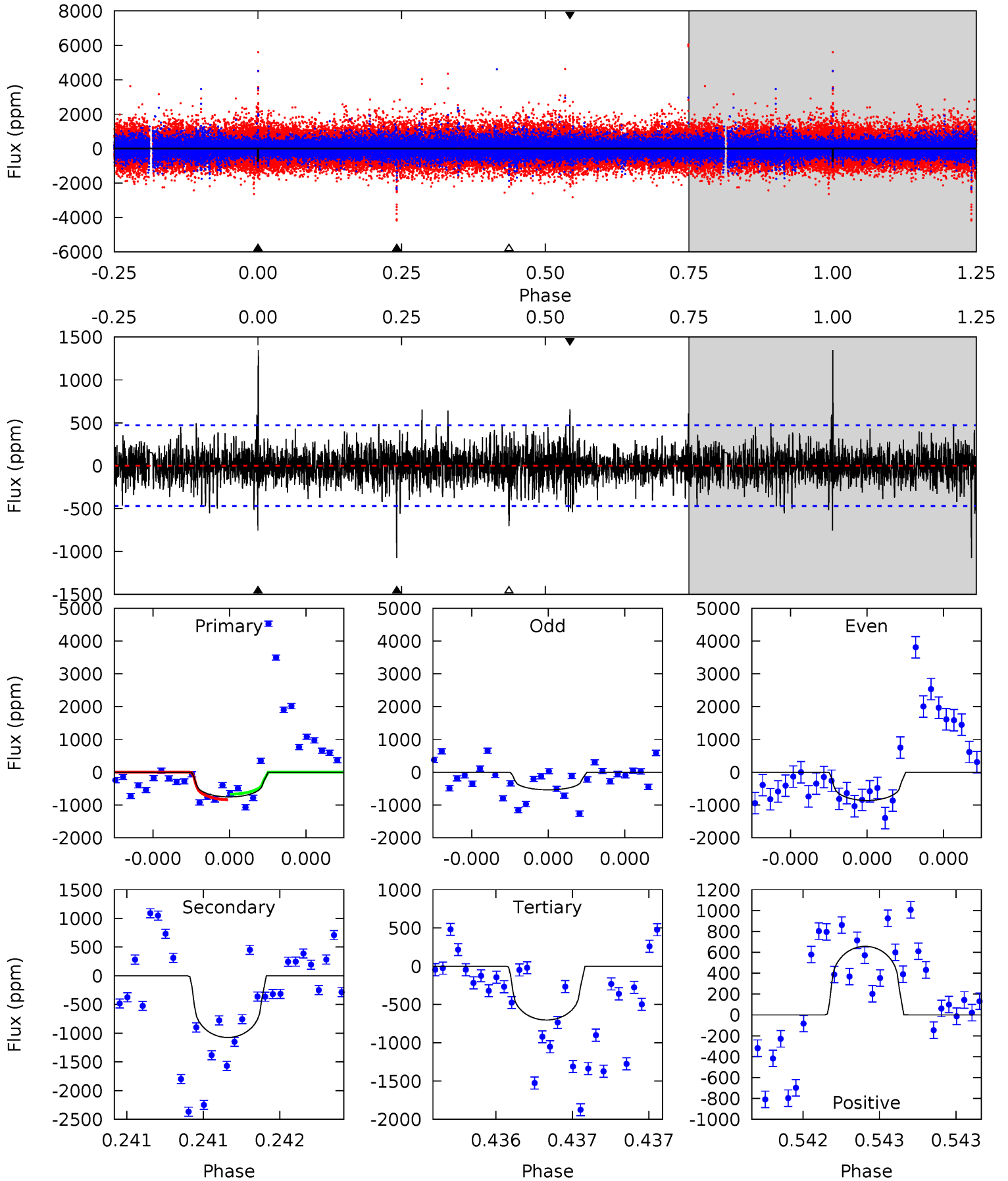
TCE 008847759-01 P=694.877264 Days $T_0=155.853699$ (BKJD)



DV Model-Shift Uniqueness Test

008847759-01, P = 694.873267 Days, E = 155.857599 Days

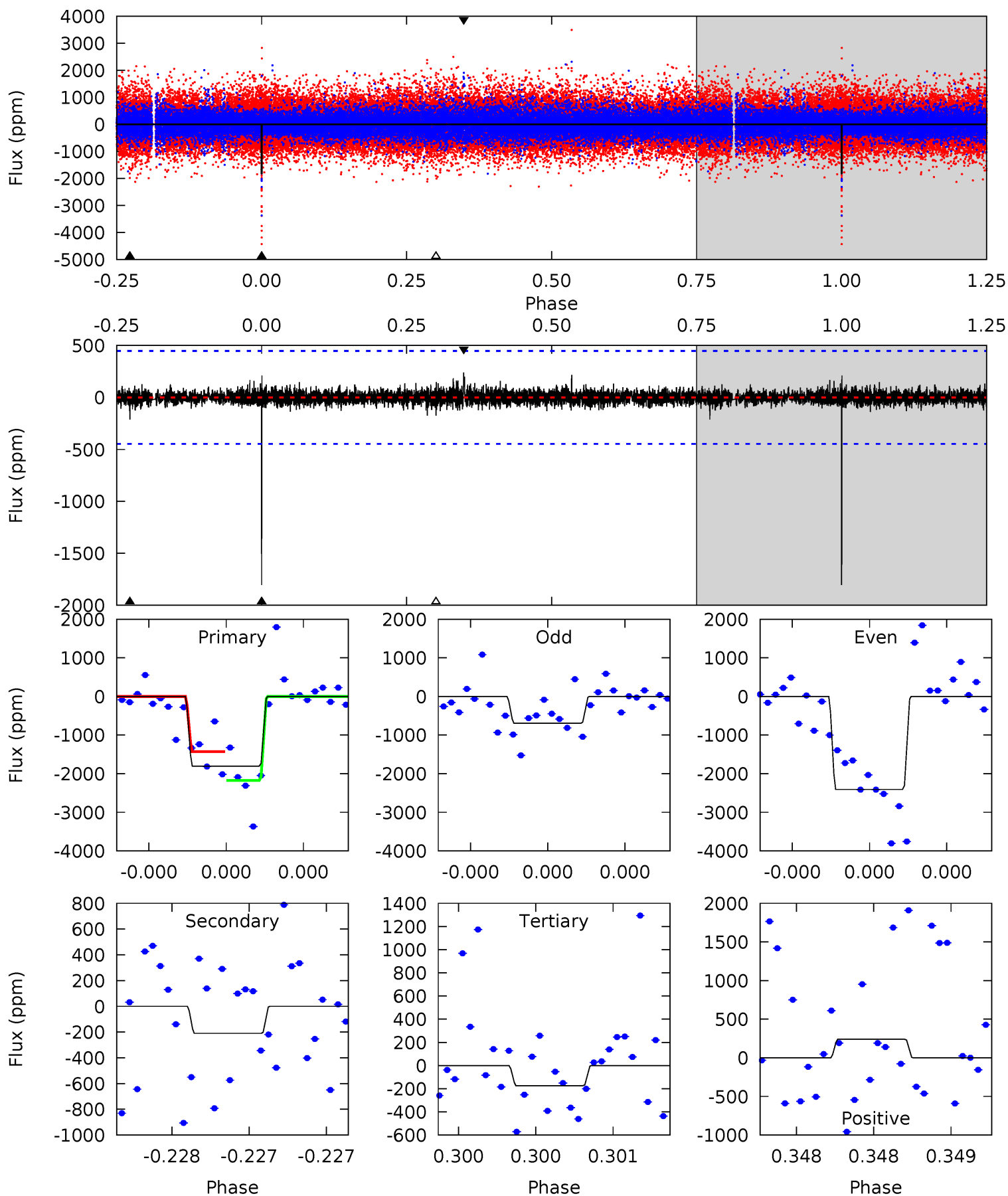
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.93	12.7	8.32	7.78	5.57	3.48	1.71	0.61	1.15	4.40	4.94	1.80	0.99	0.56	1.00



Alt Model-Shift Uniqueness Test

008847759-01, P = 694.877264 Days, E = 155.853699 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	2.63	2.17	3.00	5.60	3.51	0.46	20.4	19.6	0.46	-0.37	10.5	1.26	0.12	4.67



Stellar Parameters For KIC 008847759

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4005^{+126}_{-158}	$4.654^{+0.060}_{-0.024}$	$0.100^{+0.250}_{-0.300}$	$0.607^{+0.037}_{-0.069}$	$0.606^{+0.050}_{-0.067}$	$3.817^{+1.126}_{-0.400}$
	+3%/-4%	+1%/-1%	+250%/-300%	+6%/-11%	+8%/-11%	+29%/-10%
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 008847759-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1074 ± 84	$2.25^{+1.65}_{-1.42}$	167^{+6}_{-7}	3909^{+1956}_{-655}	$196801^{+1247730}_{-131169}$
Alt.	-210 ± 80	$2.91^{+1.62}_{-1.55}$	167^{+6}_{-8}	2783^{+685}_{-326}	21340^{+67204}_{-13240}

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

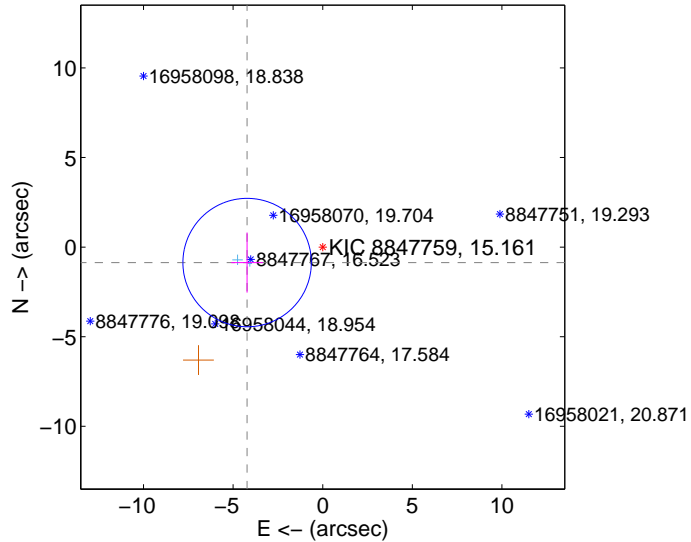
Supplemental centroid analysis for 008847759-01. Kepler magnitude: 15.16. Transit SNR 7.27

There are 2 quarters with good PRF difference image offsets

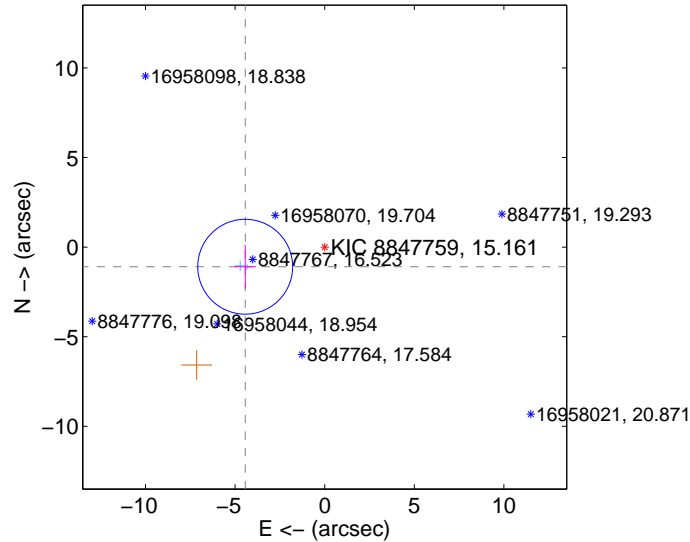
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.306 ± 1.194	3.61	4.219 ± 0.885	-0.863 ± 1.676
PRF-fit source offset from KIC position	4.569 ± 0.882	5.18	4.436 ± 0.610	-1.095 ± 1.220
photometric centroid source offset	3.55 ± 2.57	1.38	3.54 ± 2.57	0.26 ± 1.28

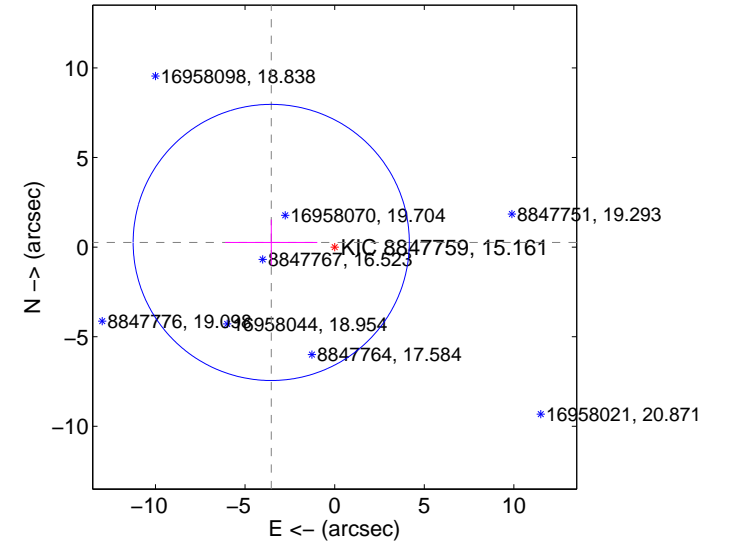
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

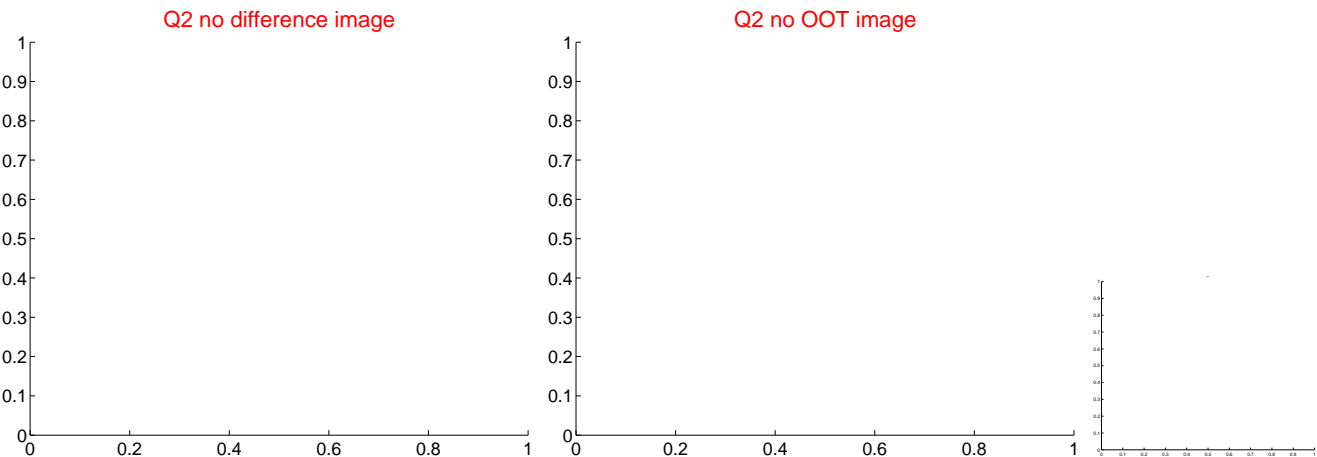
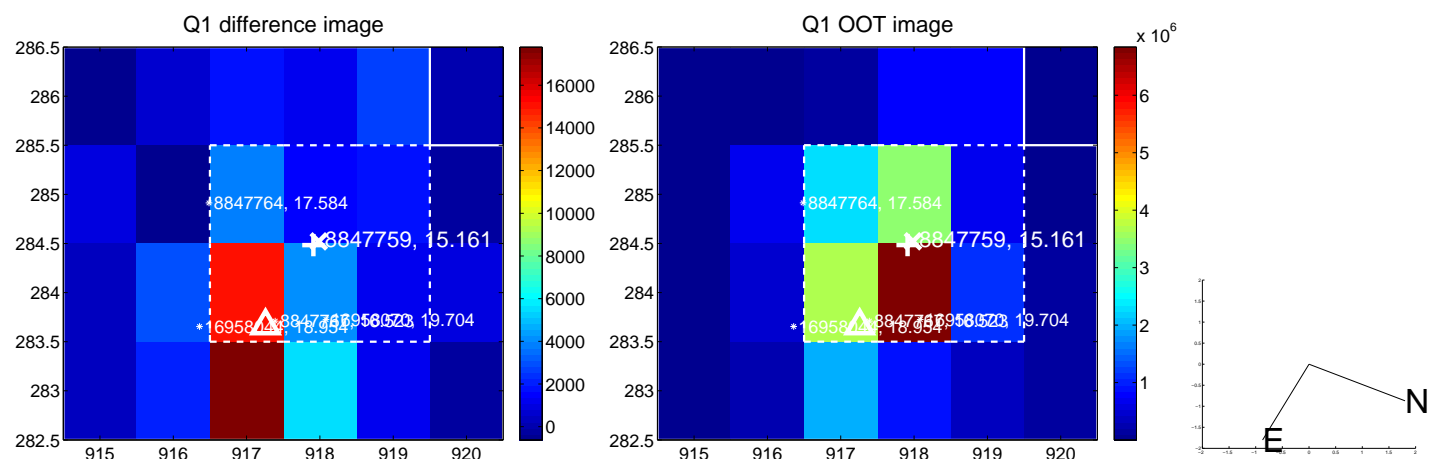


offset from photometric centroids



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.

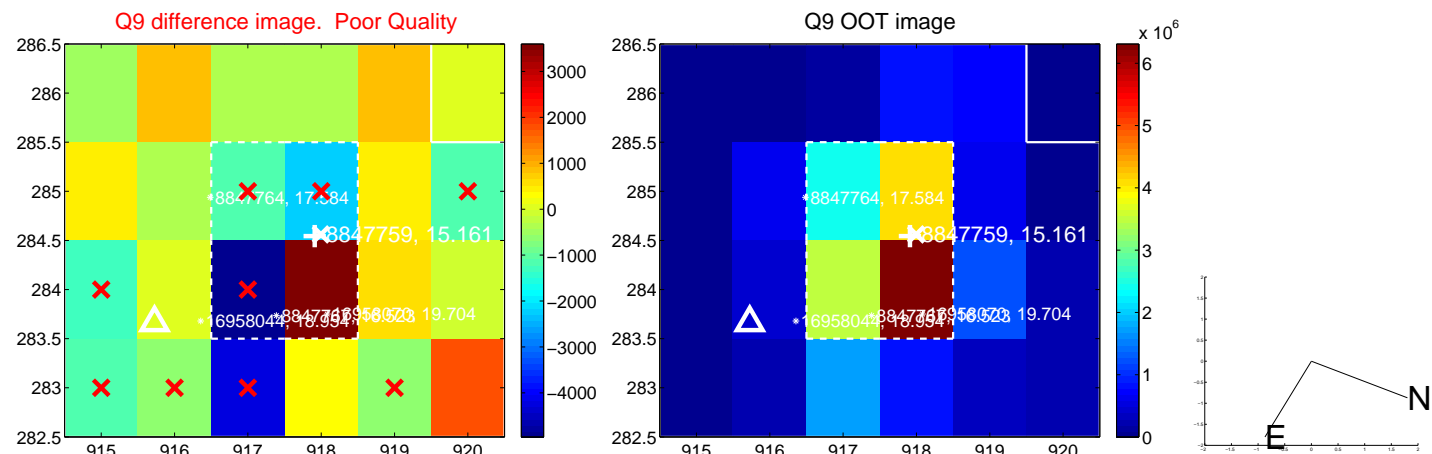
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



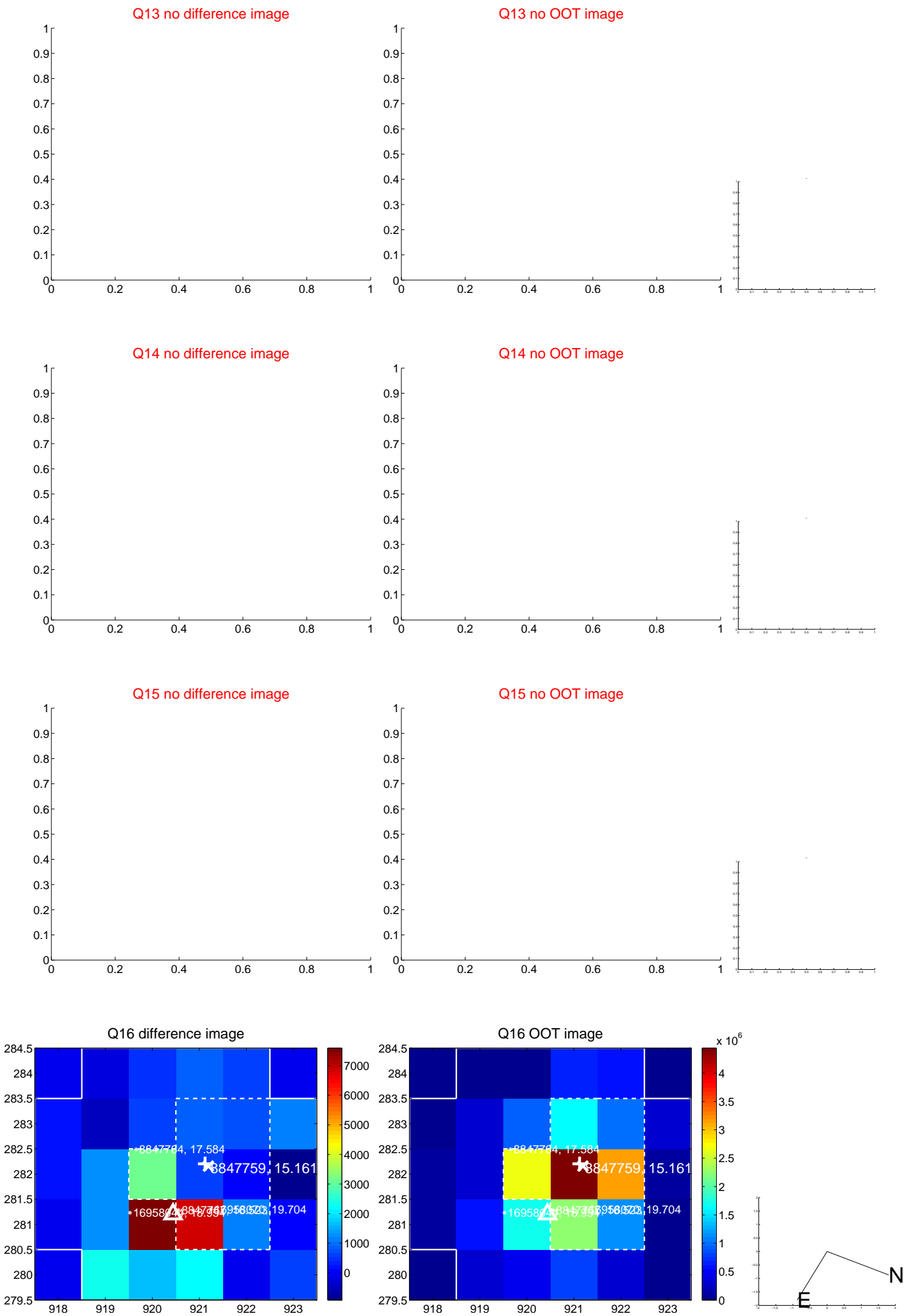
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



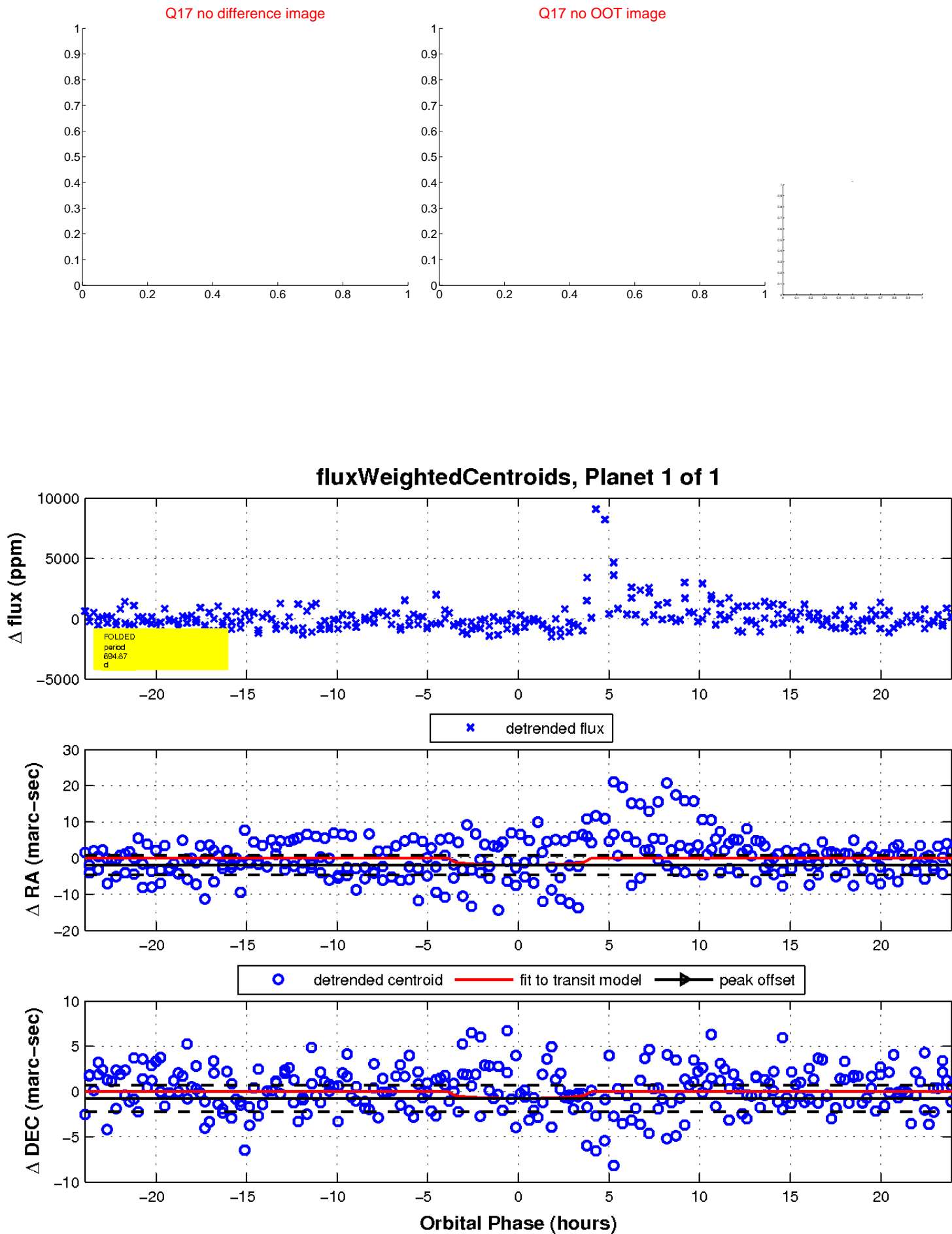
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

