

KIC 009834719

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})
009834719-01	OBS	0715.01	1.621662	133.062320	7137.0	1.638	1057.8	901.2	0.97	6106	9.79	1546.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009834719-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

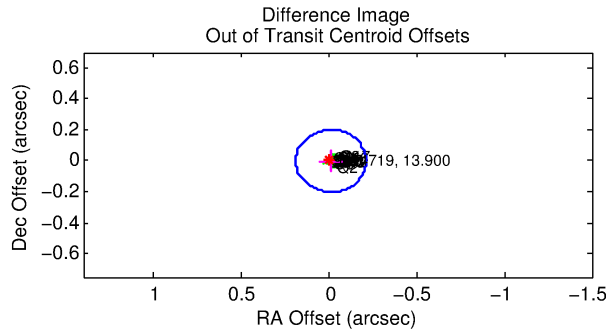
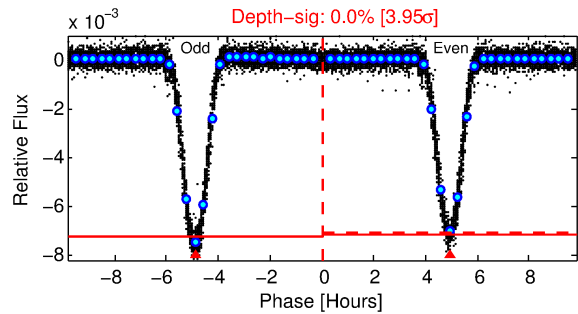
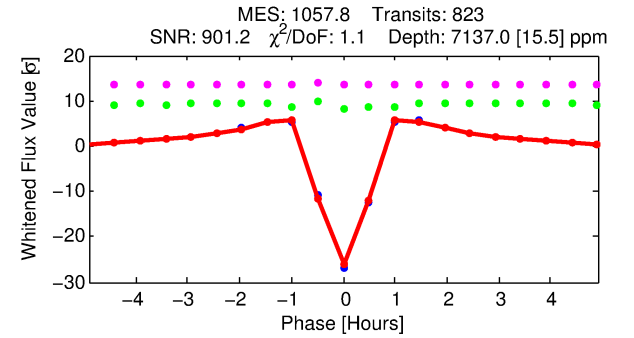
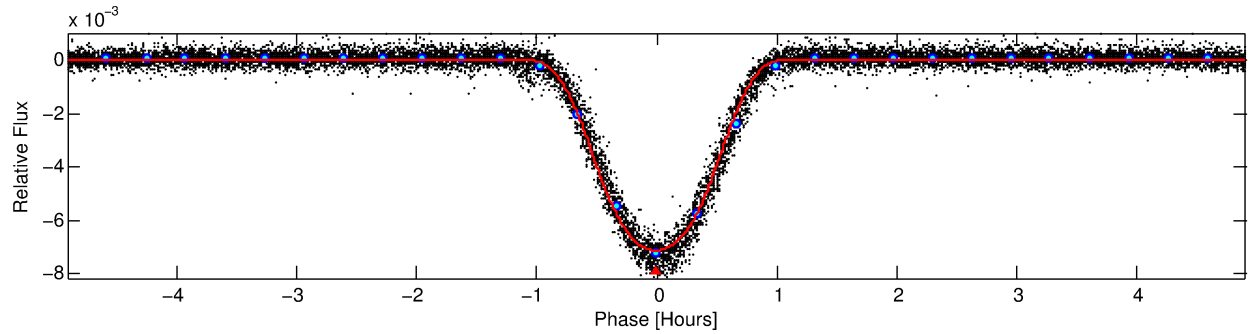
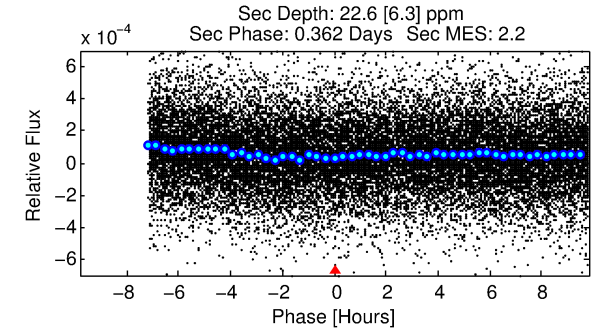
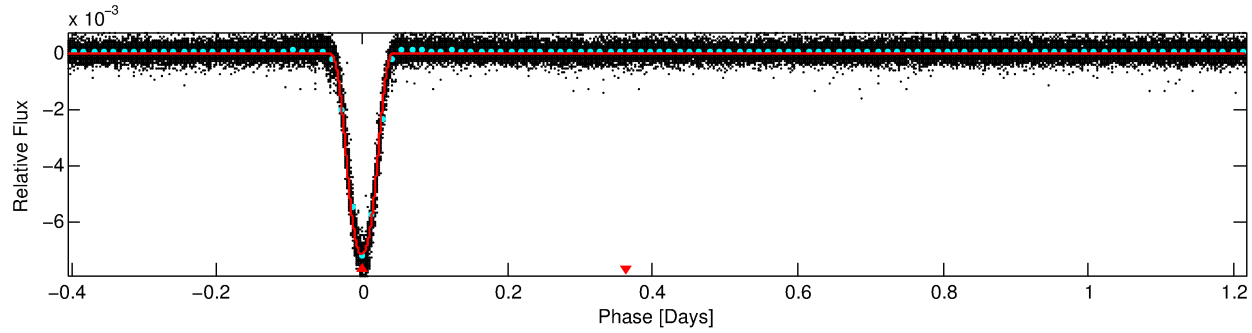
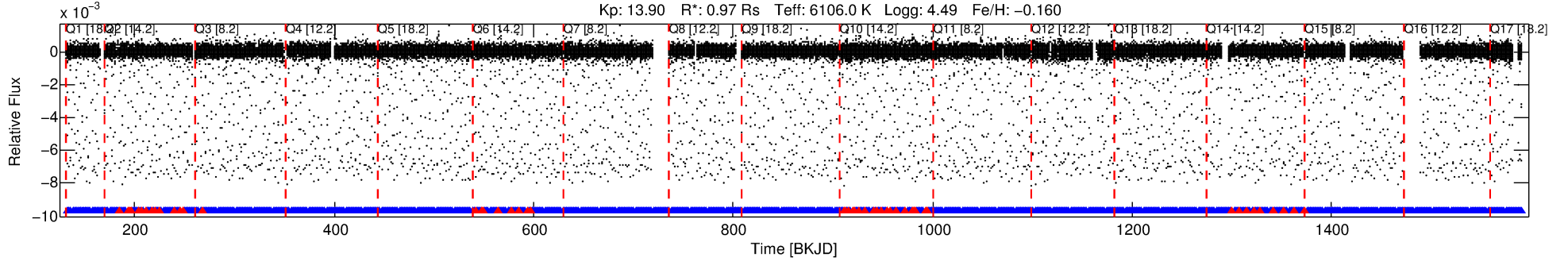
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009834719-01

No Significant Match Found

DV One-Page Summary

KIC: 9834719 Candidate: 1 of 1 Period: 1.622 d
KOI: K00715.01 Corr: 0.972



DV Fit Results:

Period = 1.62166 [0.00000] d
Epoch = 133.0623 [0.0000] BKJD
Rp/R* = 0.0928 [0.0002]
a/R* = 4.79 [0.02]
b = 0.90 [0.00]
Seff = 1546.30 [668.54]
Teq = 1599 [173] K
Rp = 9.79 [3.21] Re
a = 0.0274 [0.0077] AU
Ag = 0.10 [0.05] [-18.47 σ]
Teffp = 1382 [106] K [-1.07 σ]

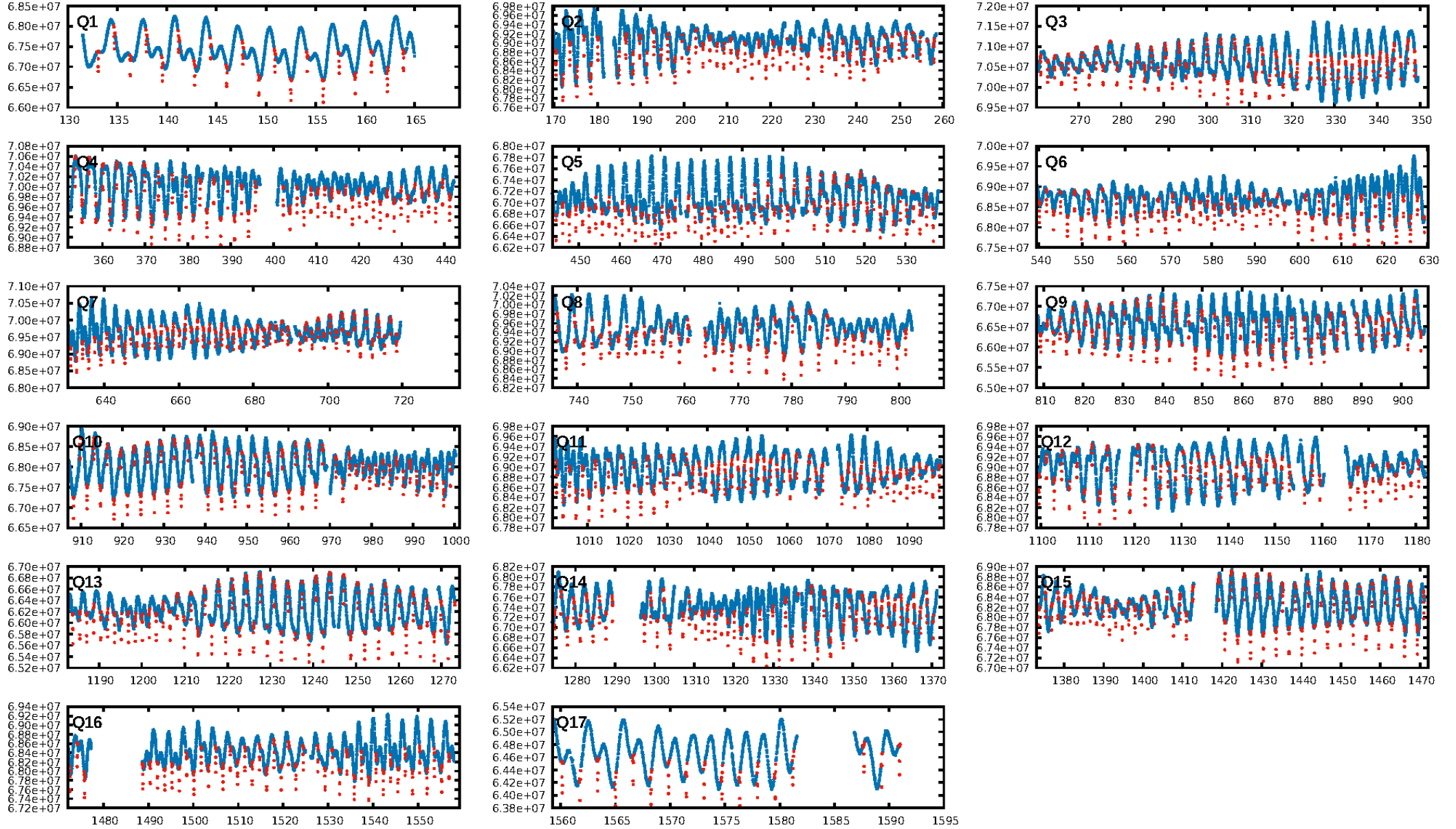
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.94 [736/786]
GhostDiagnostic-chr: 3.676
Centroid-sig: 0.0%
Centroid-so: 0.350 arcsec [39.42 σ]
OotOffset-rm: 0.012 arcsec [0.18 σ]
KicOffset-rm: 0.260 arcsec [3.86 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

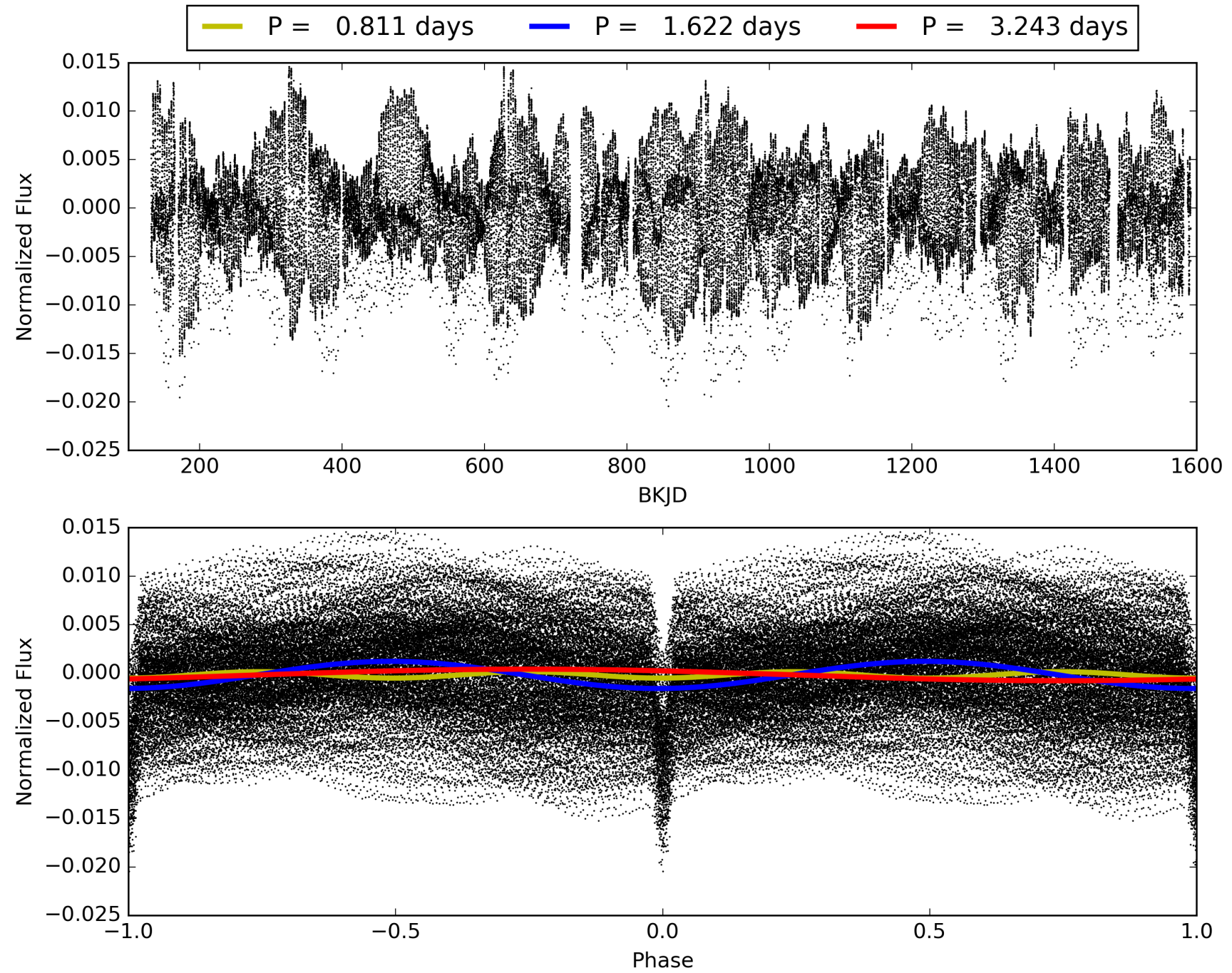
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:15:04 Z

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

TCE 009834719-01, PDC Light Curves

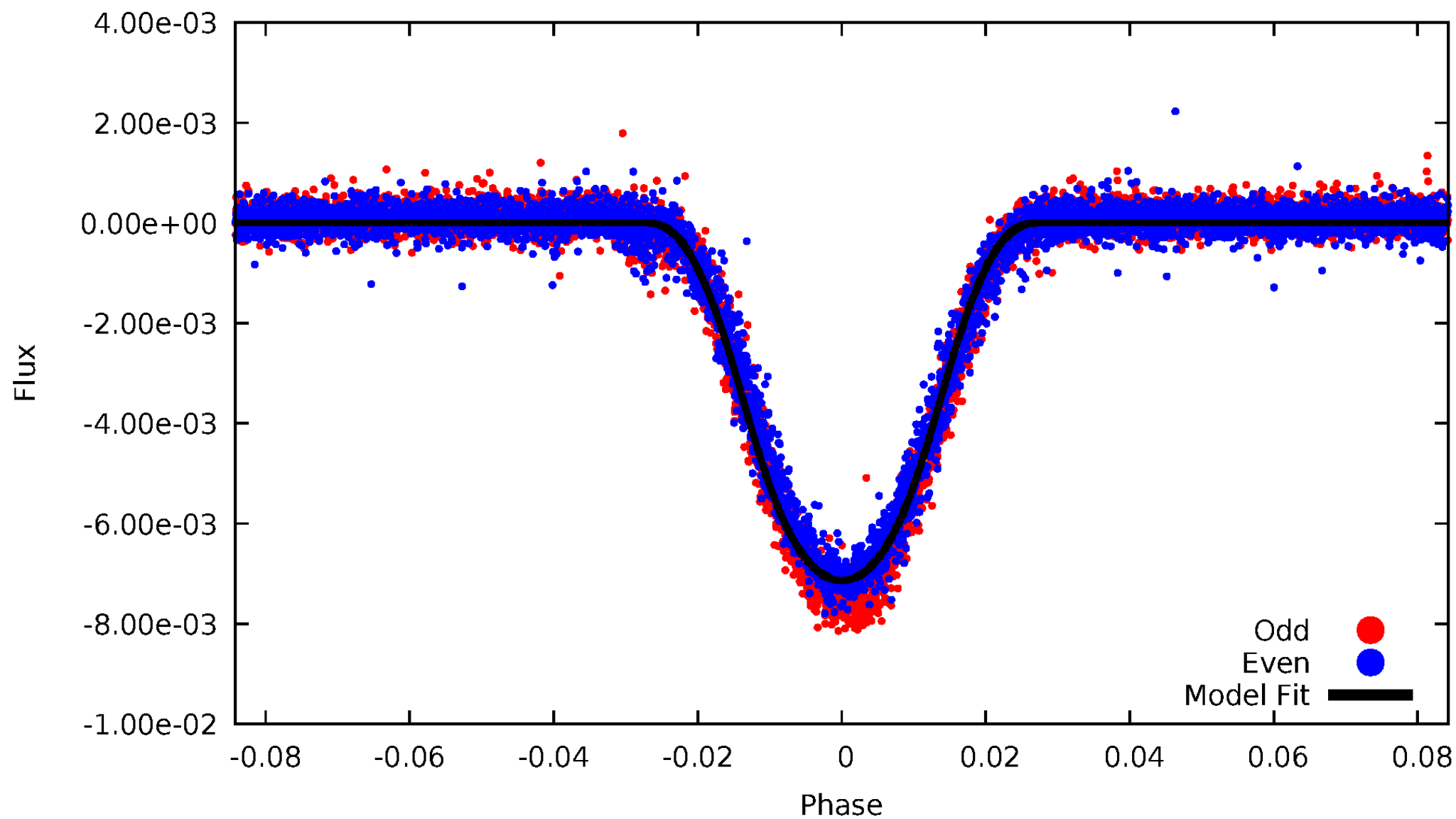


TCE 009834719-01



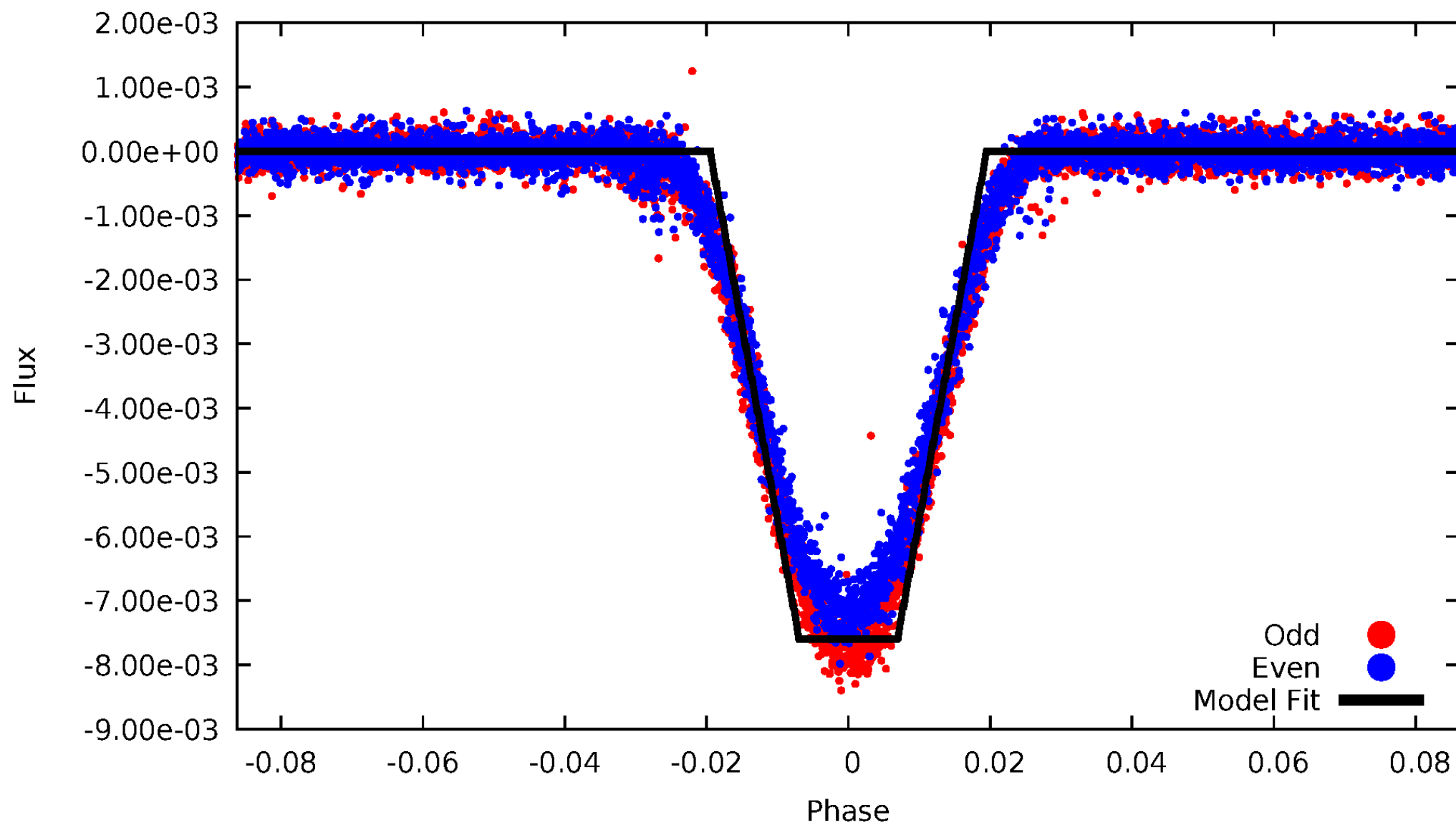
DV Odd/Even

TCE 009834719-01



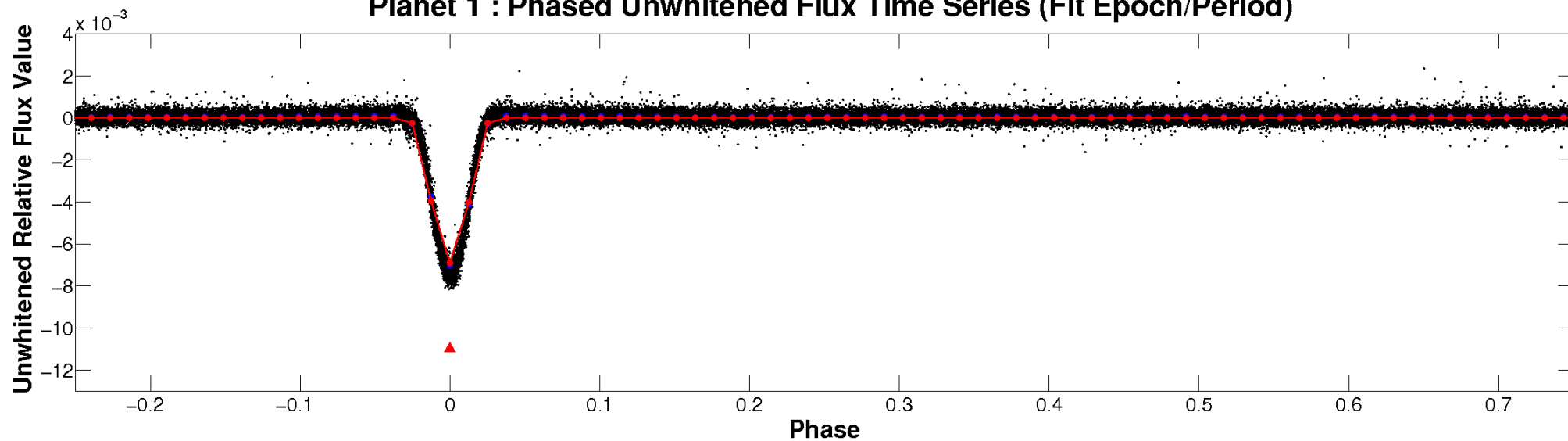
ALT Odd/Even

TCE 009834719-01

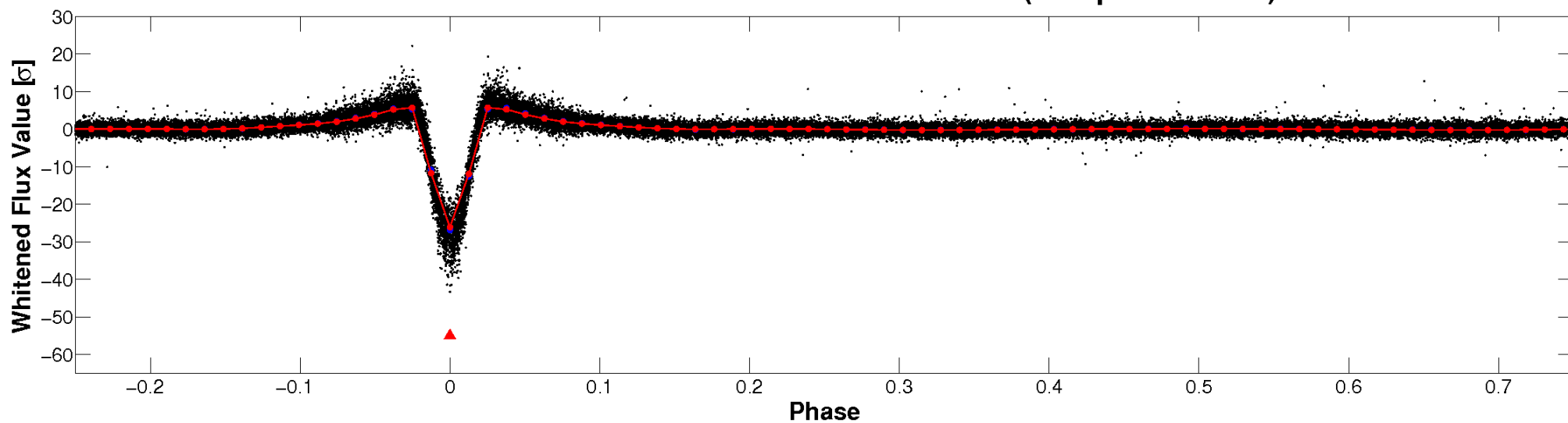


Non-Whitened Vs. Whitened Light Curve

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

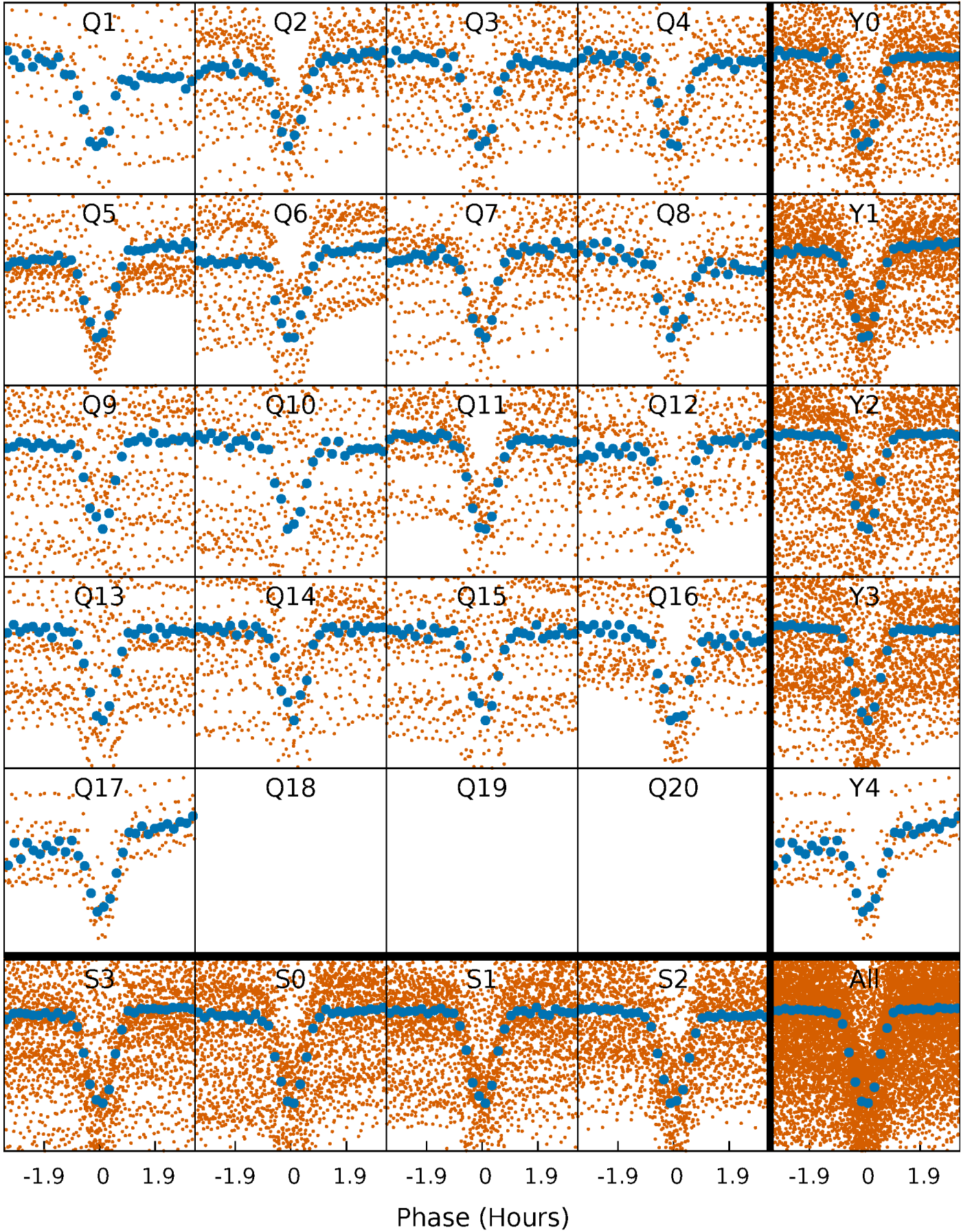


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



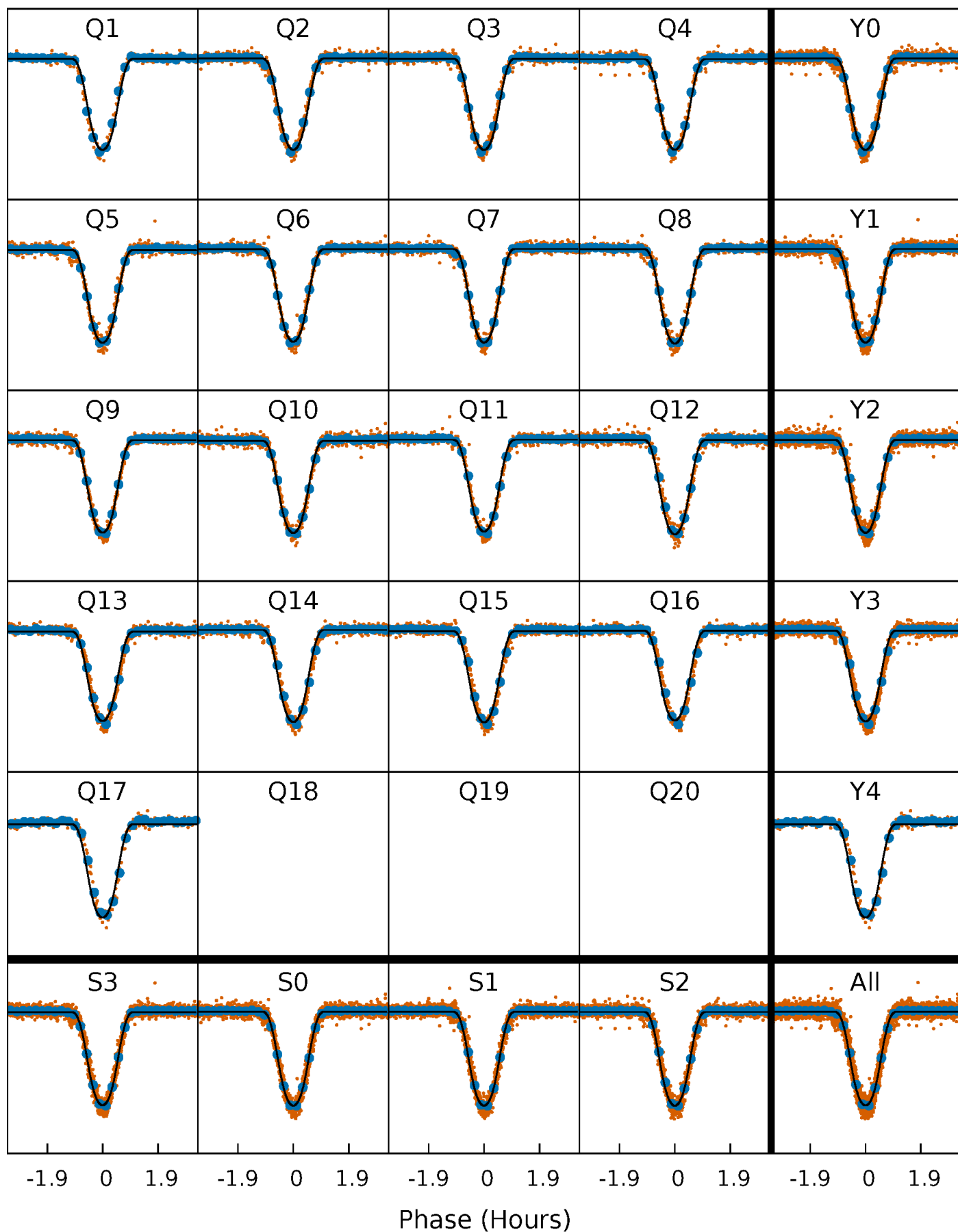
PDC Quarter-Phased Transit Curves

TCE 009834719-01 P= 1.621662 Days $T_0=133.062320$ (BKJD)



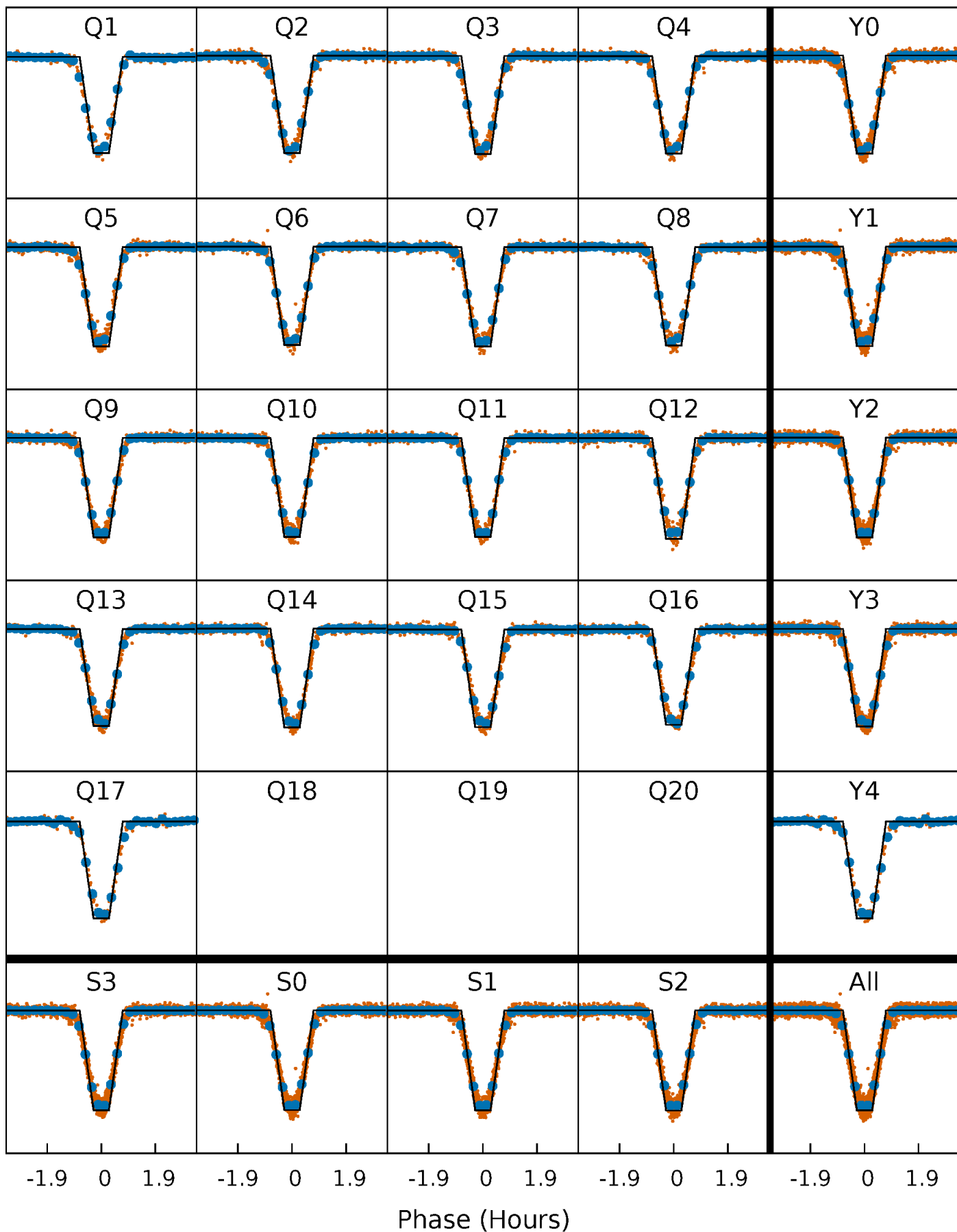
DV Quarter-Phased Transit Curves

TCE 009834719-01 P= 1.621662 Days $T_0=133.062320$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

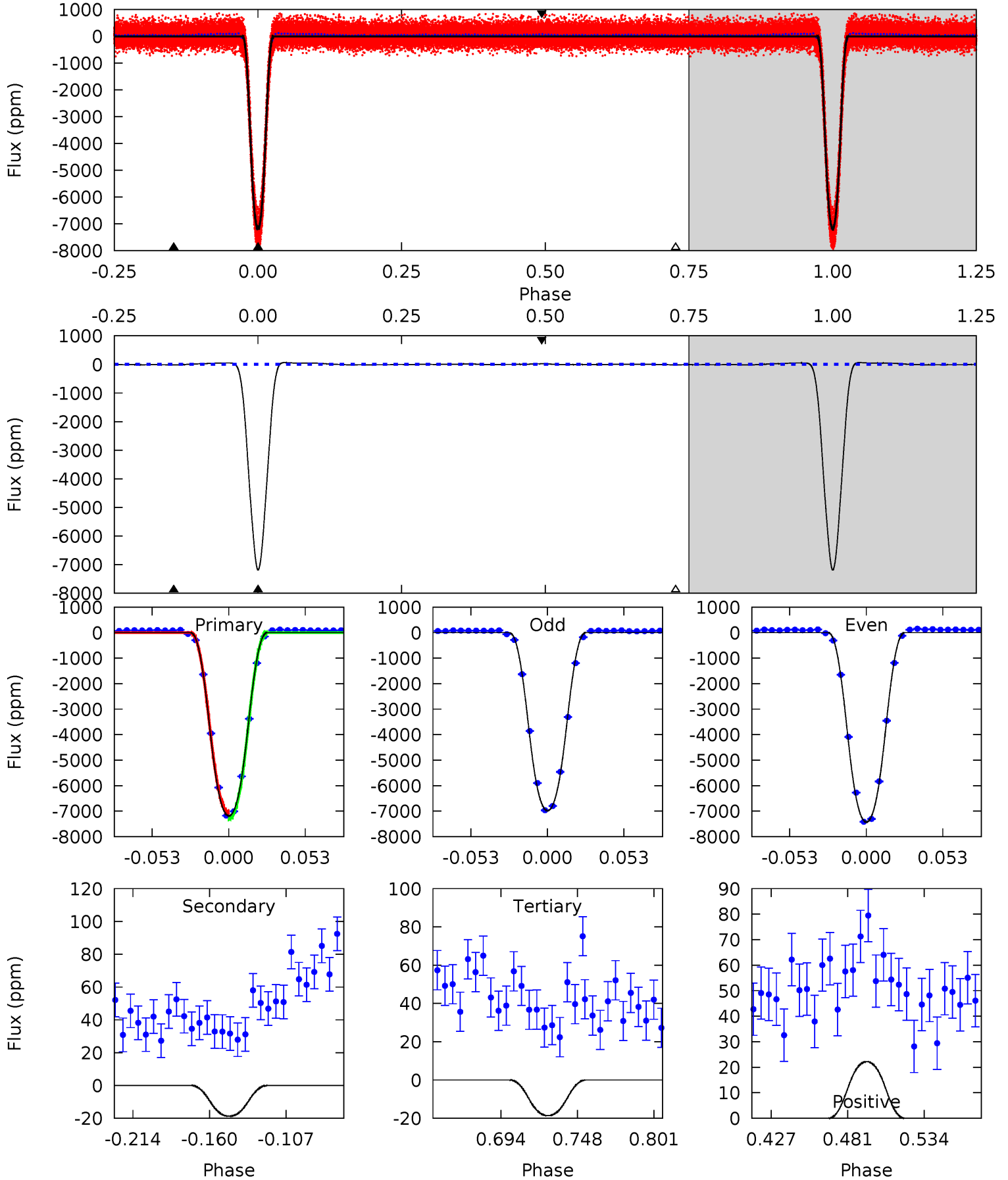
TCE 009834719-01 P= 1.621664 Days $T_0=133.062109$ (BKJD)



DV Model-Shift Uniqueness Test

009834719-01, P = 1.621662 Days, E = 131.440658 Days

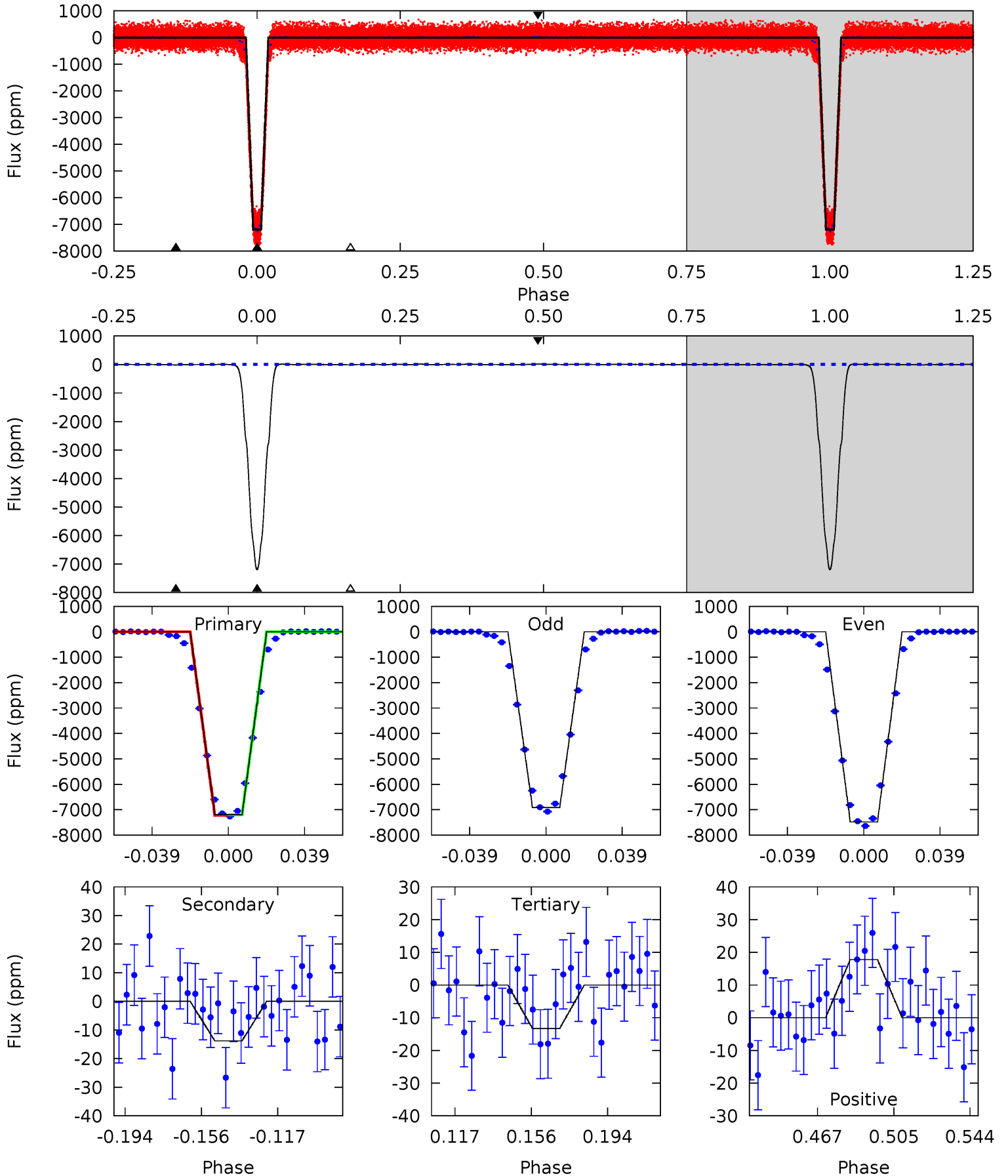
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1970	5.15	5.11	6.09	4.69	1.93	4.85	1965	1964	0.04	-0.94	61.6	1.00	0.01	31.4



Alt Model-Shift Uniqueness Test

009834719-01, P = 1.621664 Days, E = 131.440445 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1846	3.54	3.41	4.56	4.76	2.07	1.47	1843	1842	0.13	-1.02	72.6	1.00	0.00	2.27



Stellar Parameters For KIC 009834719

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6106^{+169}_{-190}	$4.487^{+0.054}_{-0.229}$	$-0.160^{+0.250}_{-0.350}$	$0.966^{+0.317}_{-0.106}$	$1.043^{+0.140}_{-0.140}$	$1.631^{+0.461}_{-0.889}$
	+3%/-3%	+1%/-5%	+156%/-219%	+33%/-11%	+13%/-13%	+28%/-54%
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 009834719-01 / KOI 0715.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-19 ± 4	$10.15^{+1.79}_{-0.89}$	2288^{+180}_{-110}	-2574^{+79}_{-126}	$0.072^{+0.022}_{-0.020}$
Alt.	-14 ± 4	$9.47^{+1.68}_{-0.80}$	2289^{+172}_{-111}	-2592^{+78}_{-123}	$0.059^{+0.022}_{-0.020}$

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 $A_{\text{obs}} \gg 1.0$

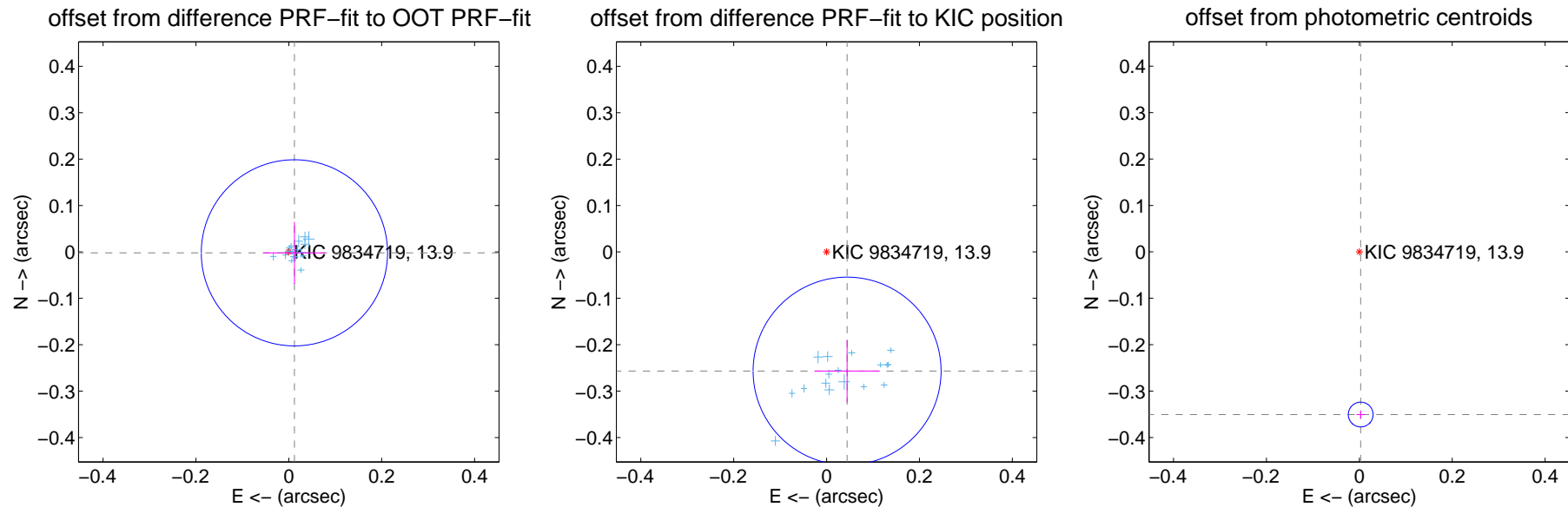
DV Centroid Data

Supplemental centroid analysis for 009834719-01. Kepler magnitude: 13.90. Transit SNR 901.19

There are 17 quarters with good PRF difference image offsets

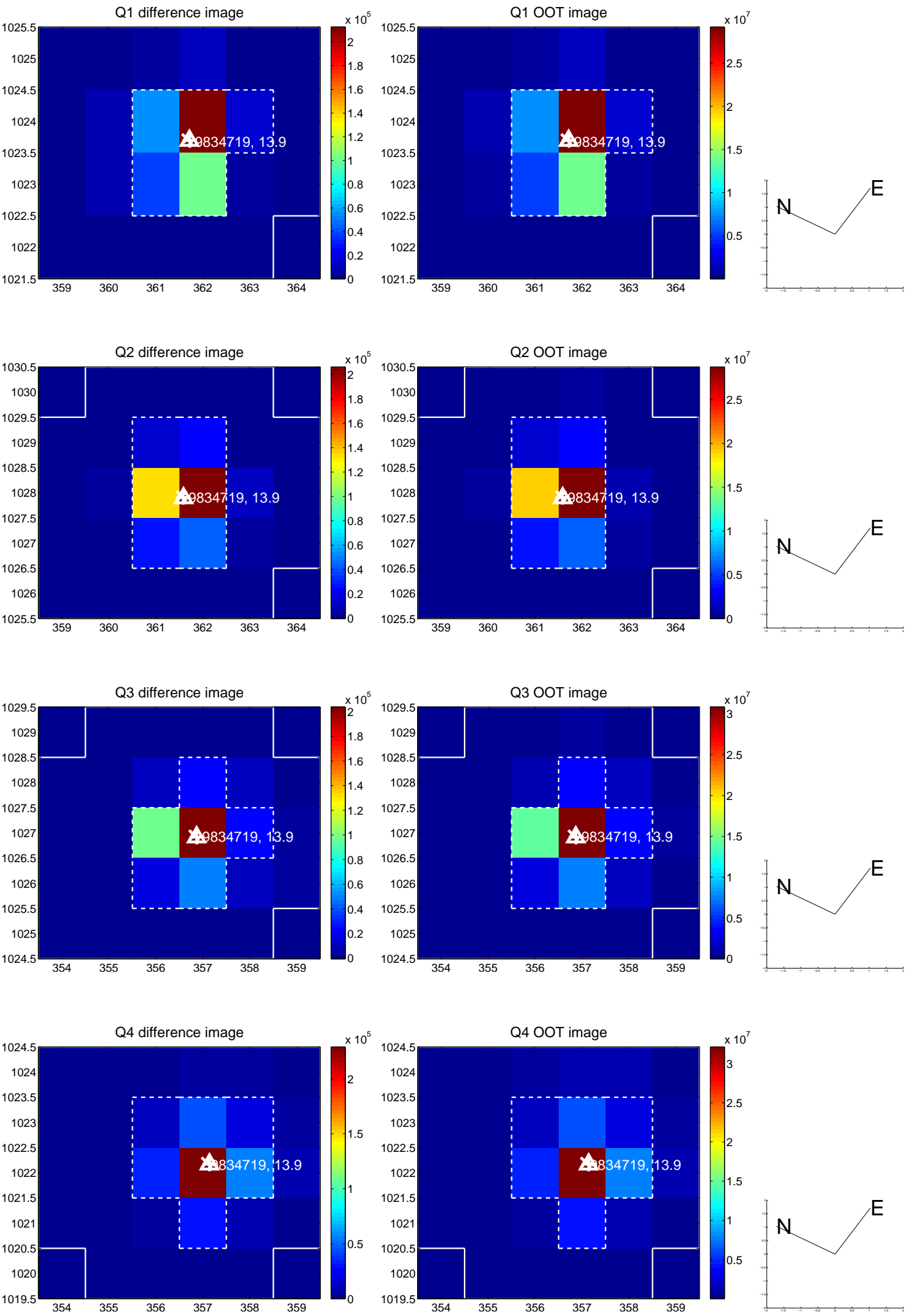
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.012 ± 0.067	0.18	-0.012 ± 0.067	-0.002 ± 0.067
PRF-fit source offset from KIC position	0.260 ± 0.067	3.86	-0.044 ± 0.070	-0.257 ± 0.067
photometric centroid source offset	0.35 ± 0.01	39.42	-0.00 ± 0.01	-0.35 ± 0.01

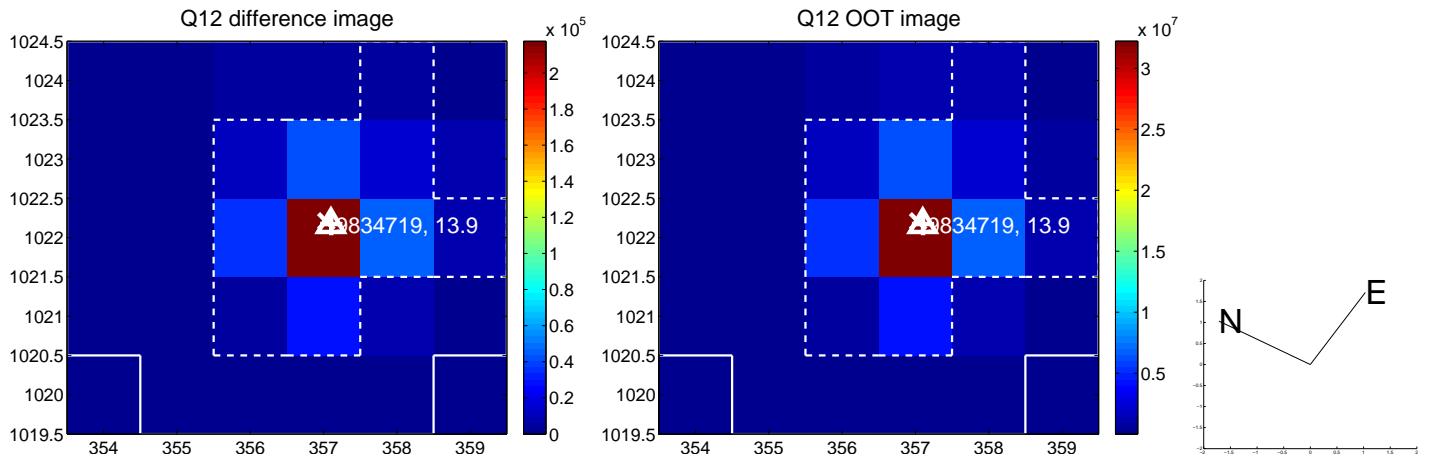
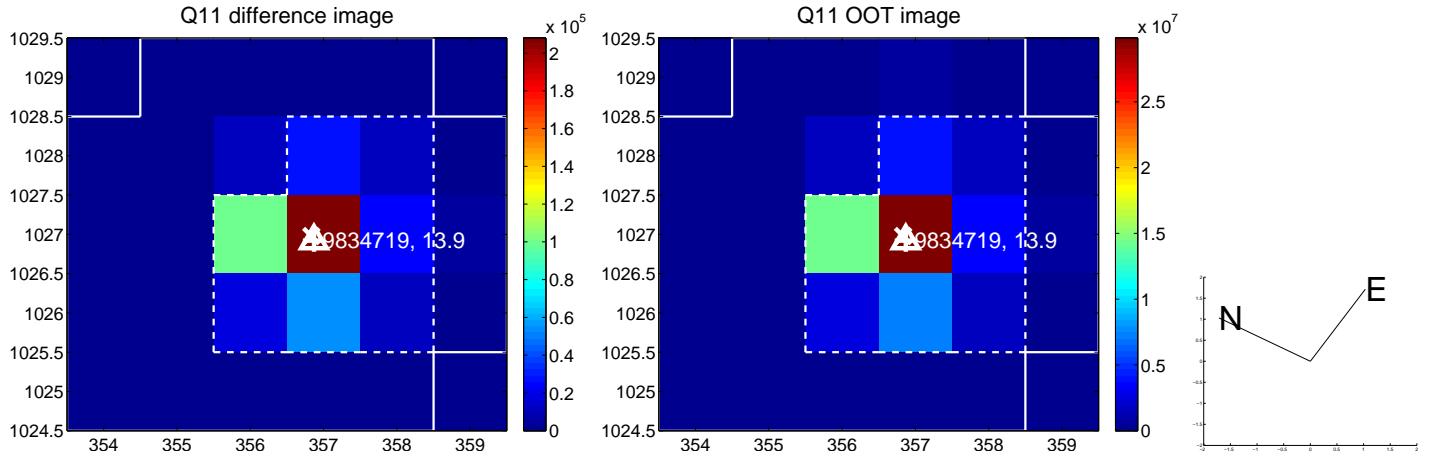
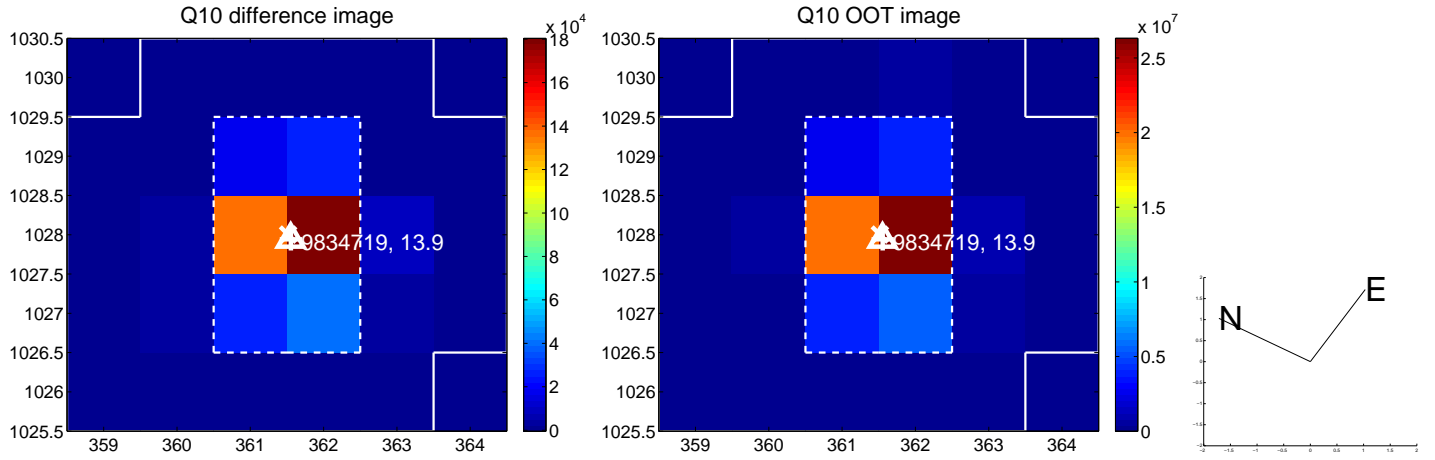
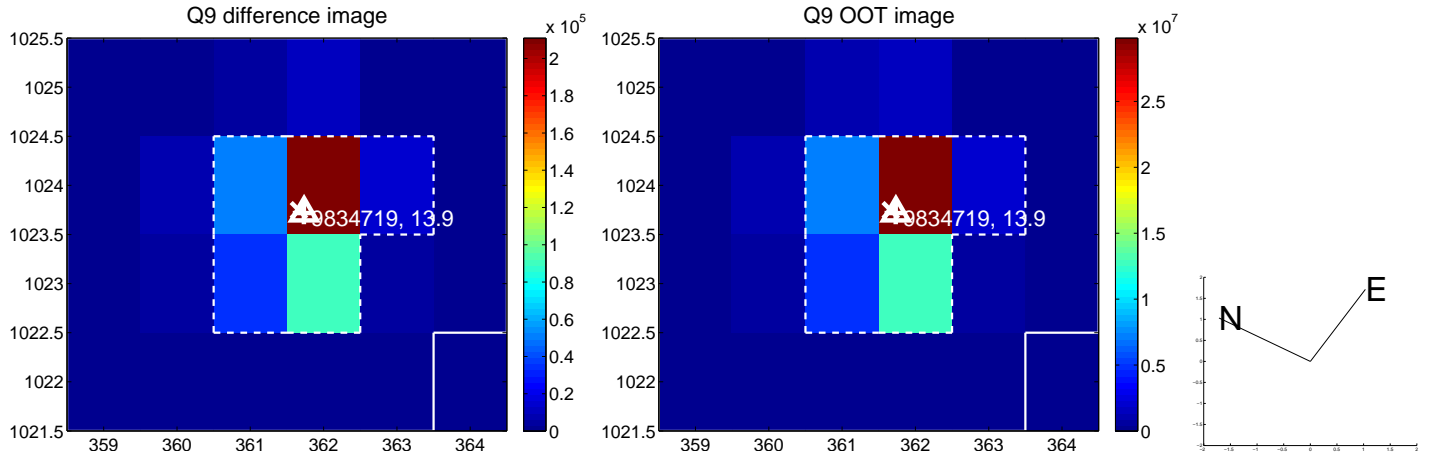


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

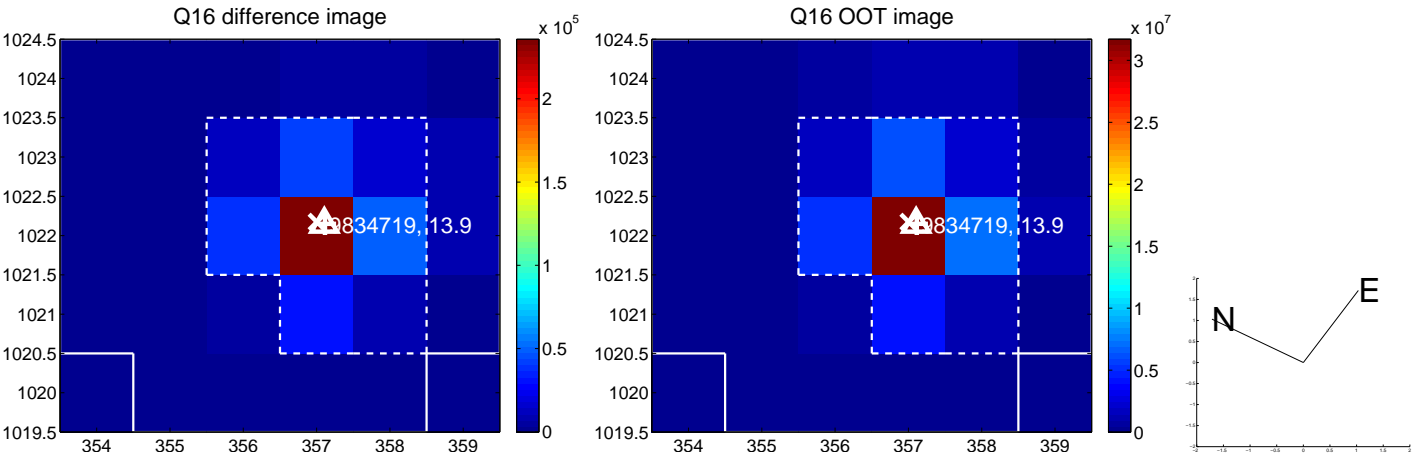
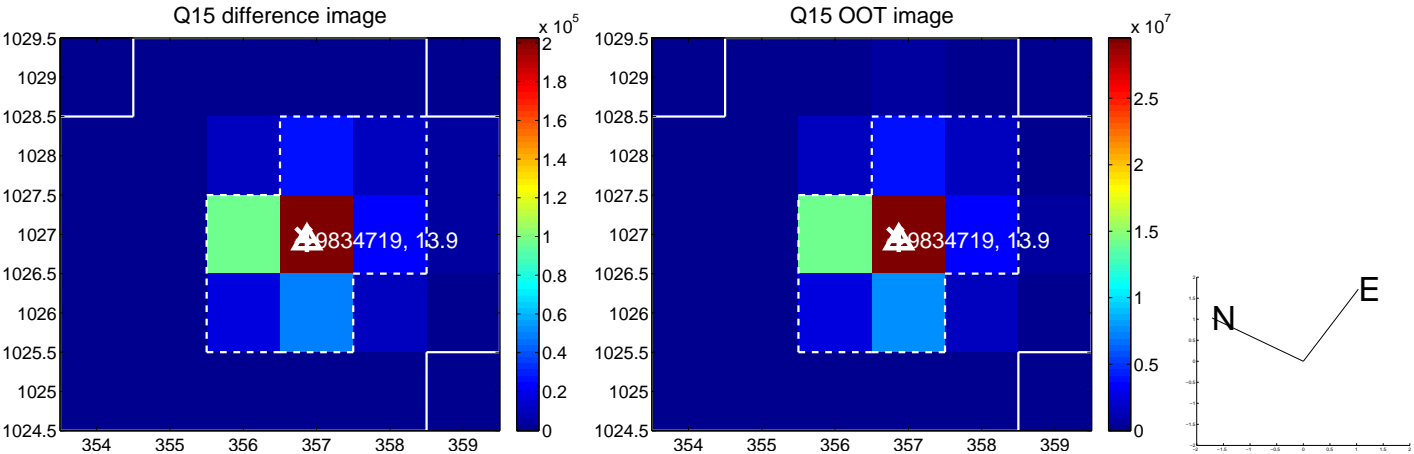
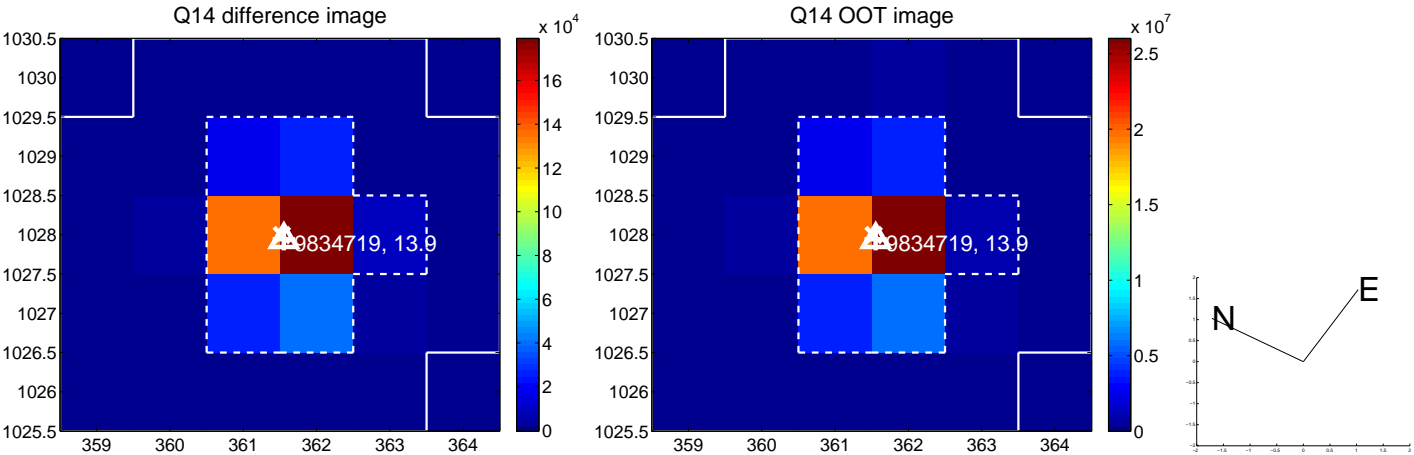
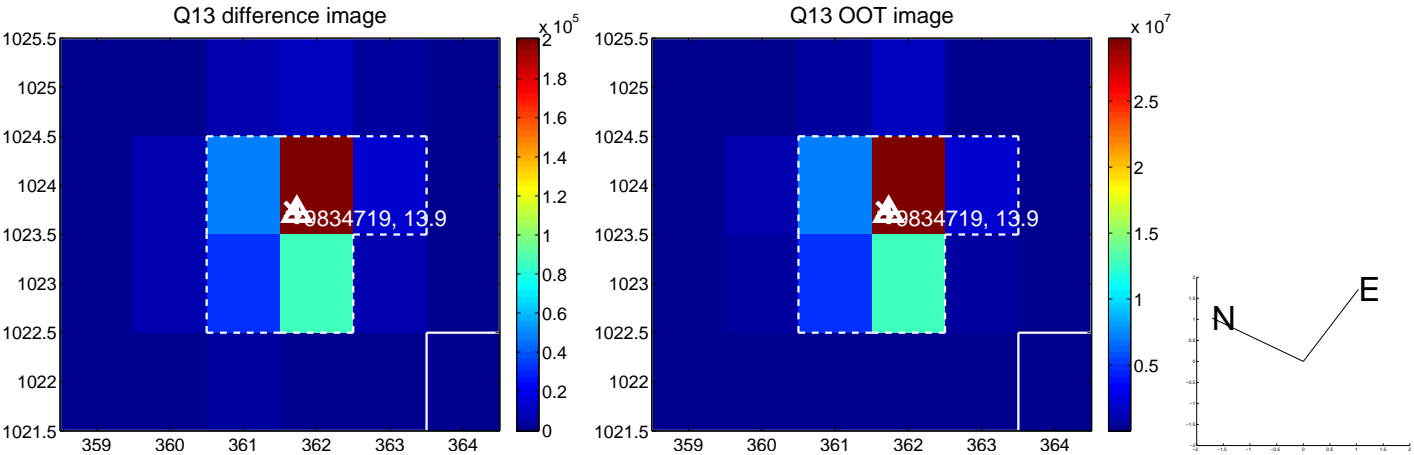
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

