

KIC 003942446

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})
003942446-01	OBS	1193.01	119.062478	149.222166	5393.9	3.071	71.3	70.2	0.92	5697	9.22	4.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003942446-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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 003942446-01

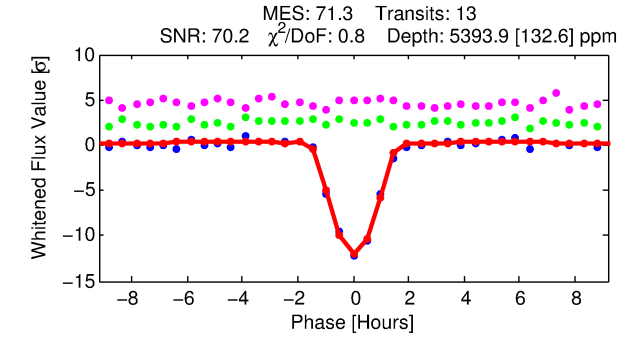
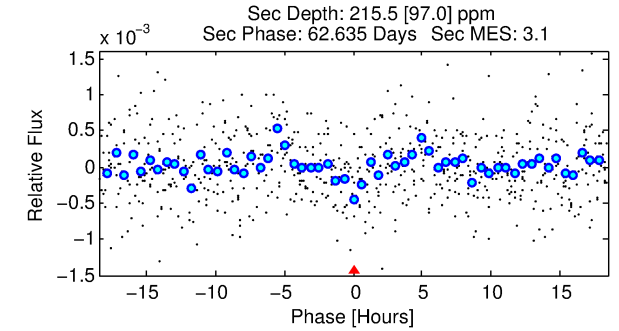
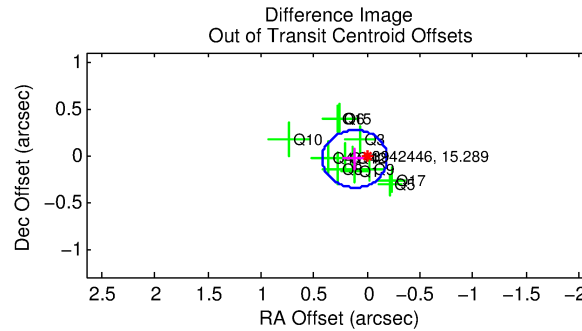
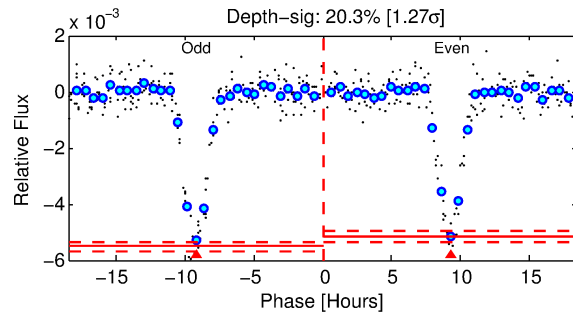
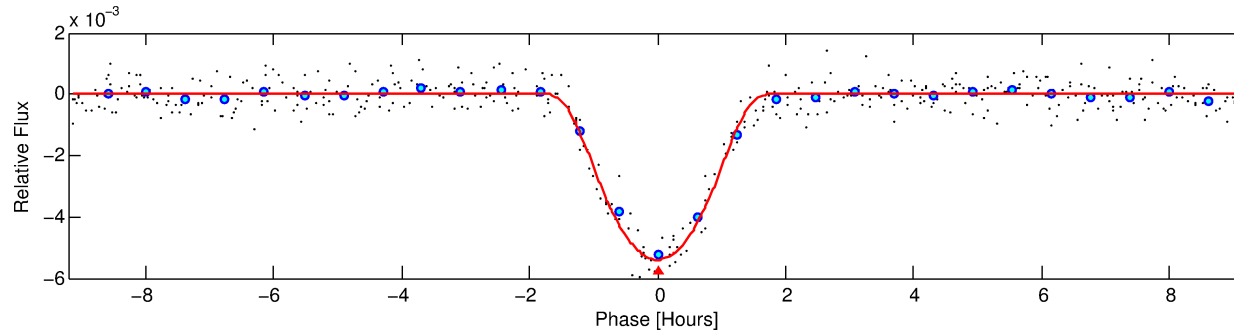
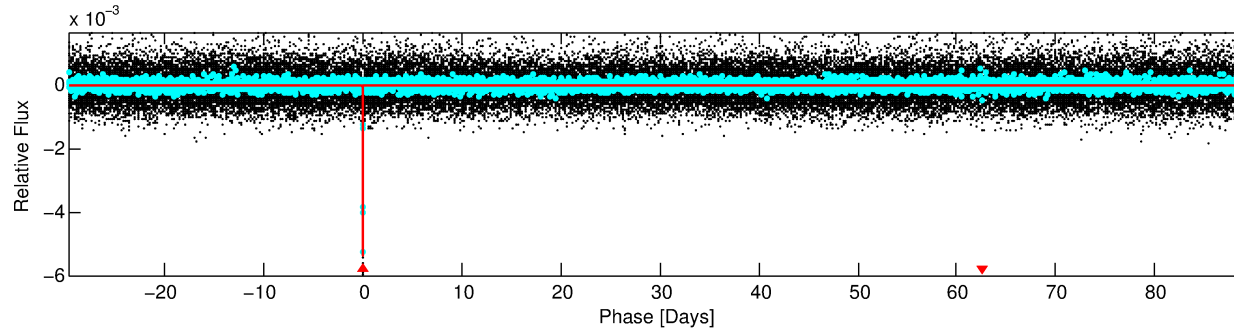
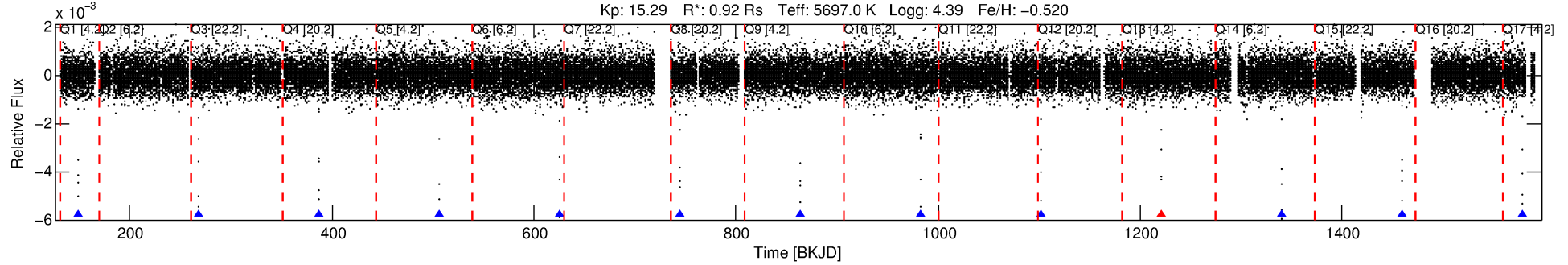
No Significant Match Found

DV One-Page Summary

KIC: 3942446 Candidate: 1 of 1 Period: 119.062 d

KOI: K01193.01 Corr: 0.996

Kp: 15.29 R*: 0.92 Rs Teff: 5697.0 K Logg: 4.39 Fe/H: -0.520



DV Fit Results:

Period = 119.06248 [0.00014] d
Epoch = 149.2222 [0.0010] BKJD
Rp/R* = 0.0918 [0.0171]
a/R* = 161.48 [12.45]
b = 0.95 [0.04]
Seff = 4.27 [1.55]
Teq = 367 [33] K
Rp = 9.22 [3.04] Re
a = 0.4326 [0.1006] AU
Ag = 260.92 [176.90] [1.47σ]
Teffp = 2278 [340] K [5.59σ]

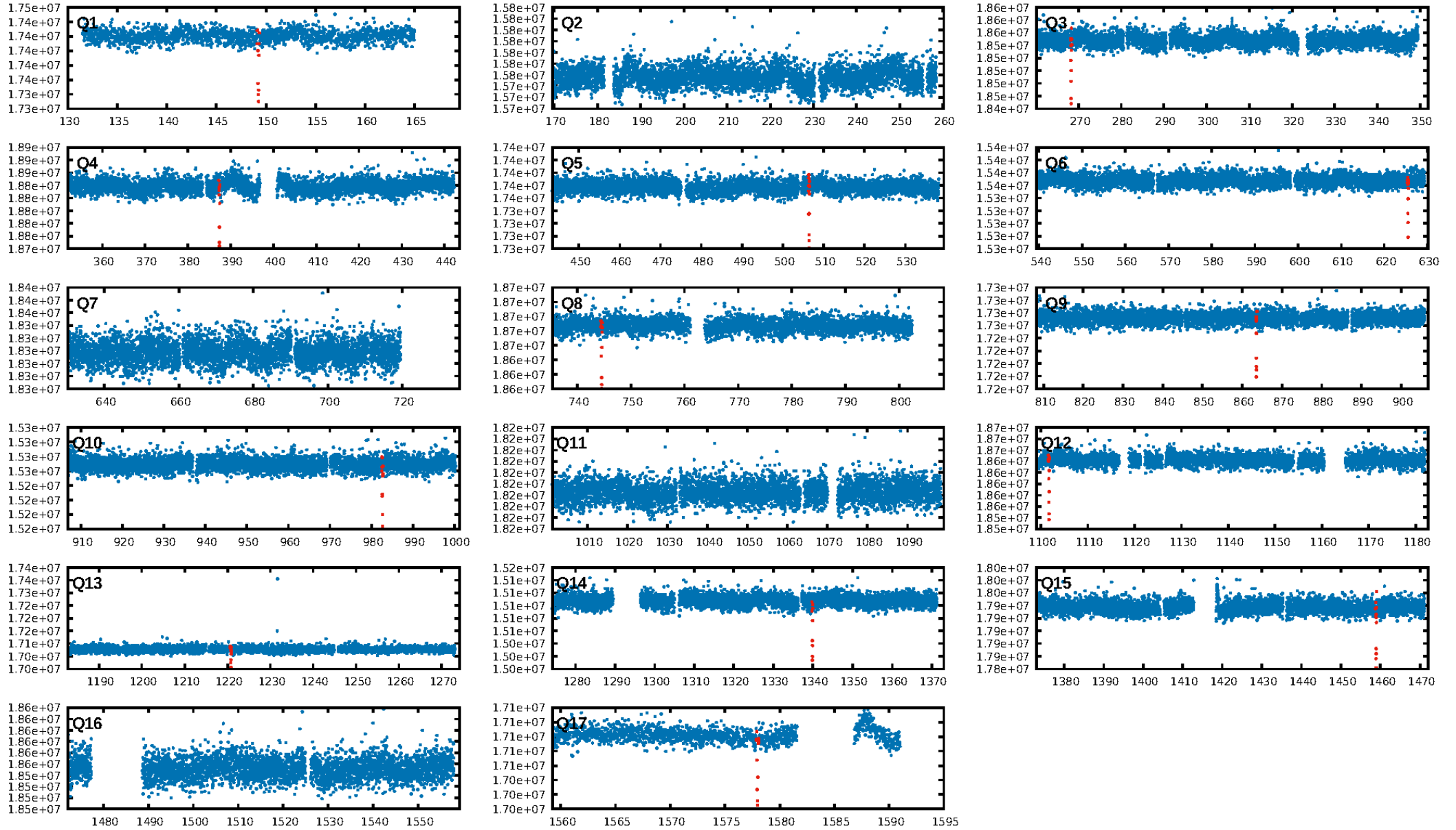
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 12.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.91 [10/11]
GhostDiagnostic-chr: 4.078
Centroid-sig: 79.8%
Centroid-so: 0.246 arcsec [1.17σ]
OotOffset-rm: 0.123 arcsec [1.20σ]
KicOffset-rm: 0.115 arcsec [1.23σ]
OotOffset-st: 3/2/3/4 [12]
KicOffset-st: 3/2/3/4 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [12/12]

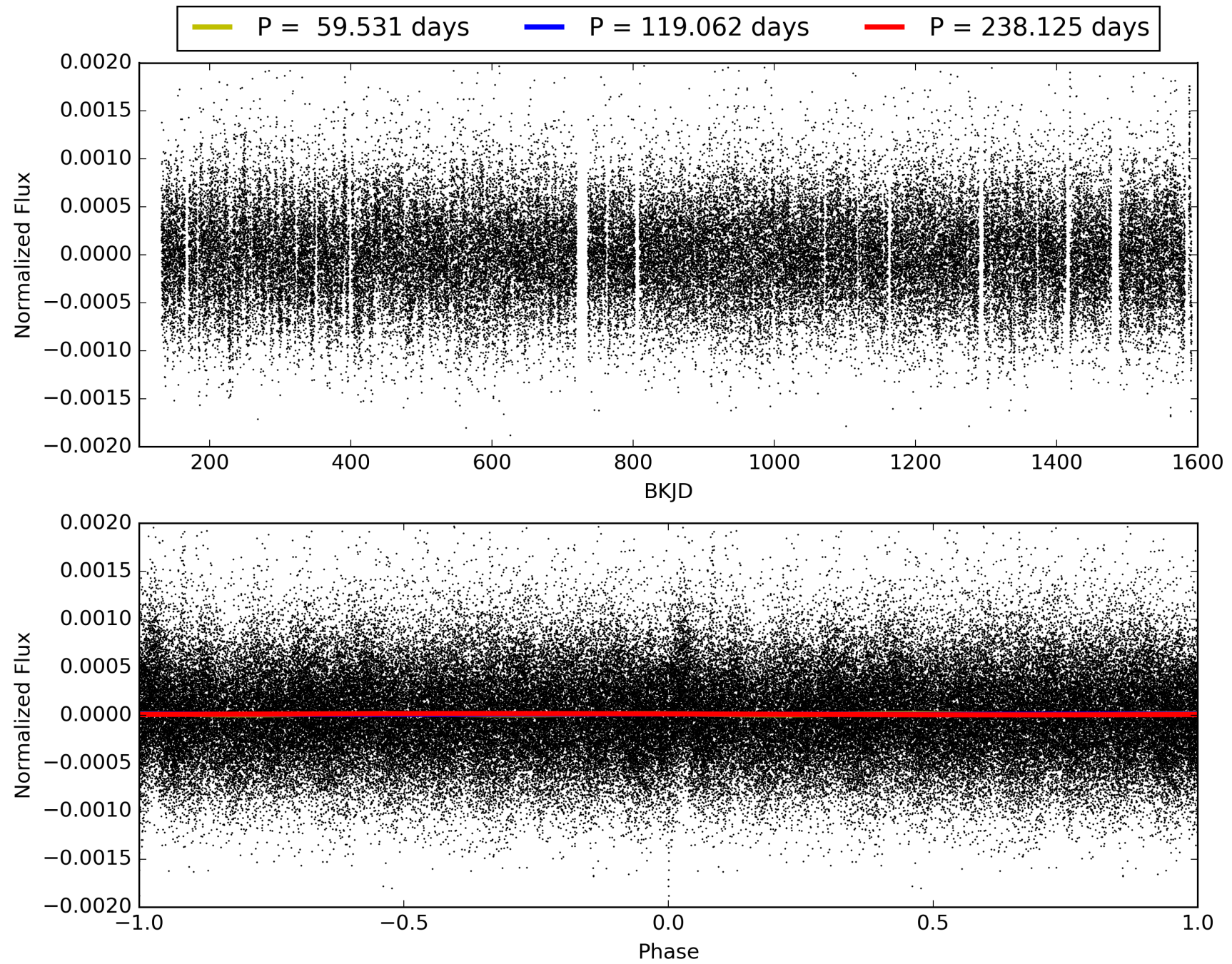
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:47:57 Z

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

TCE 003942446-01, PDC Light Curves

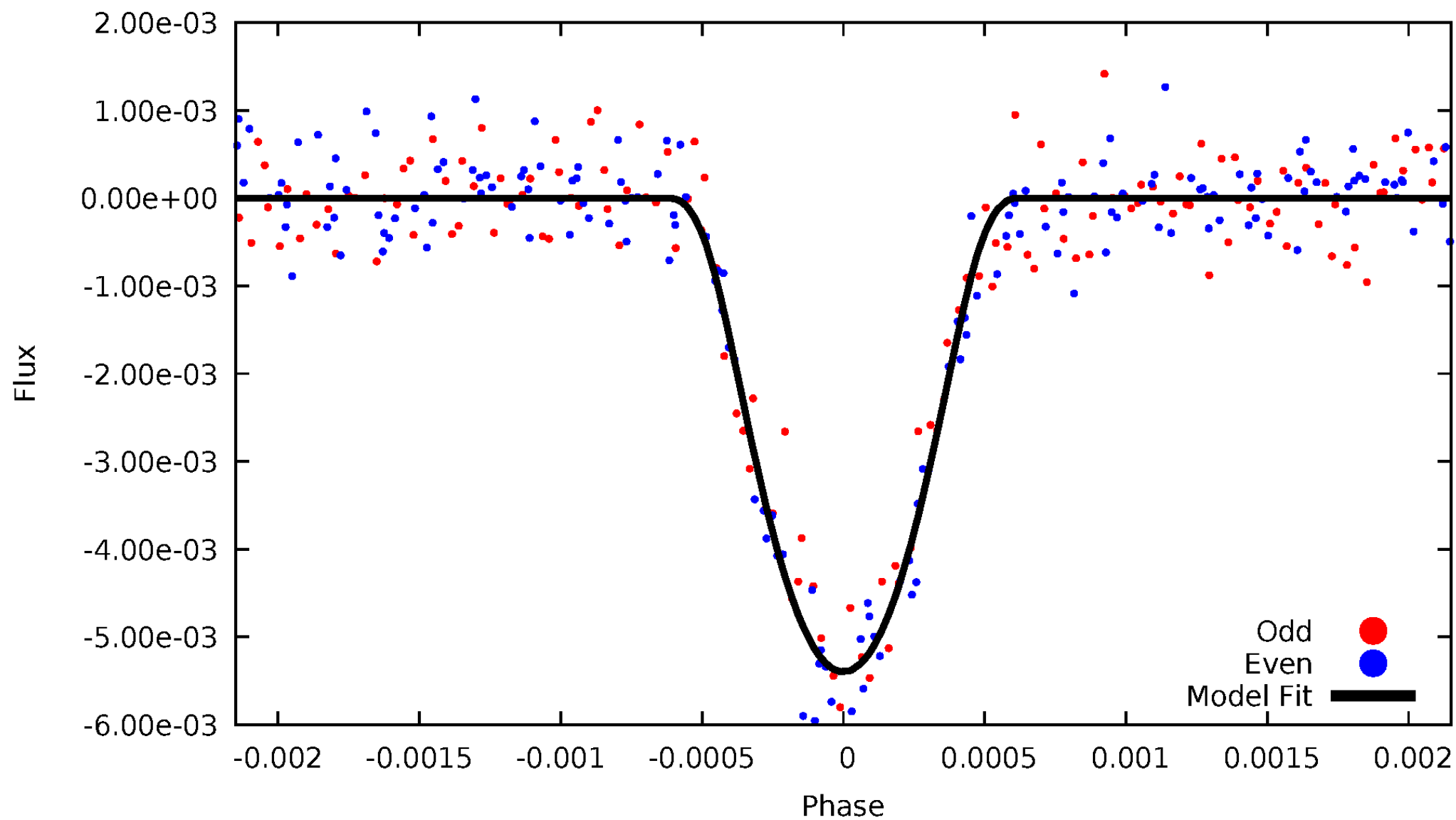


TCE 003942446-01



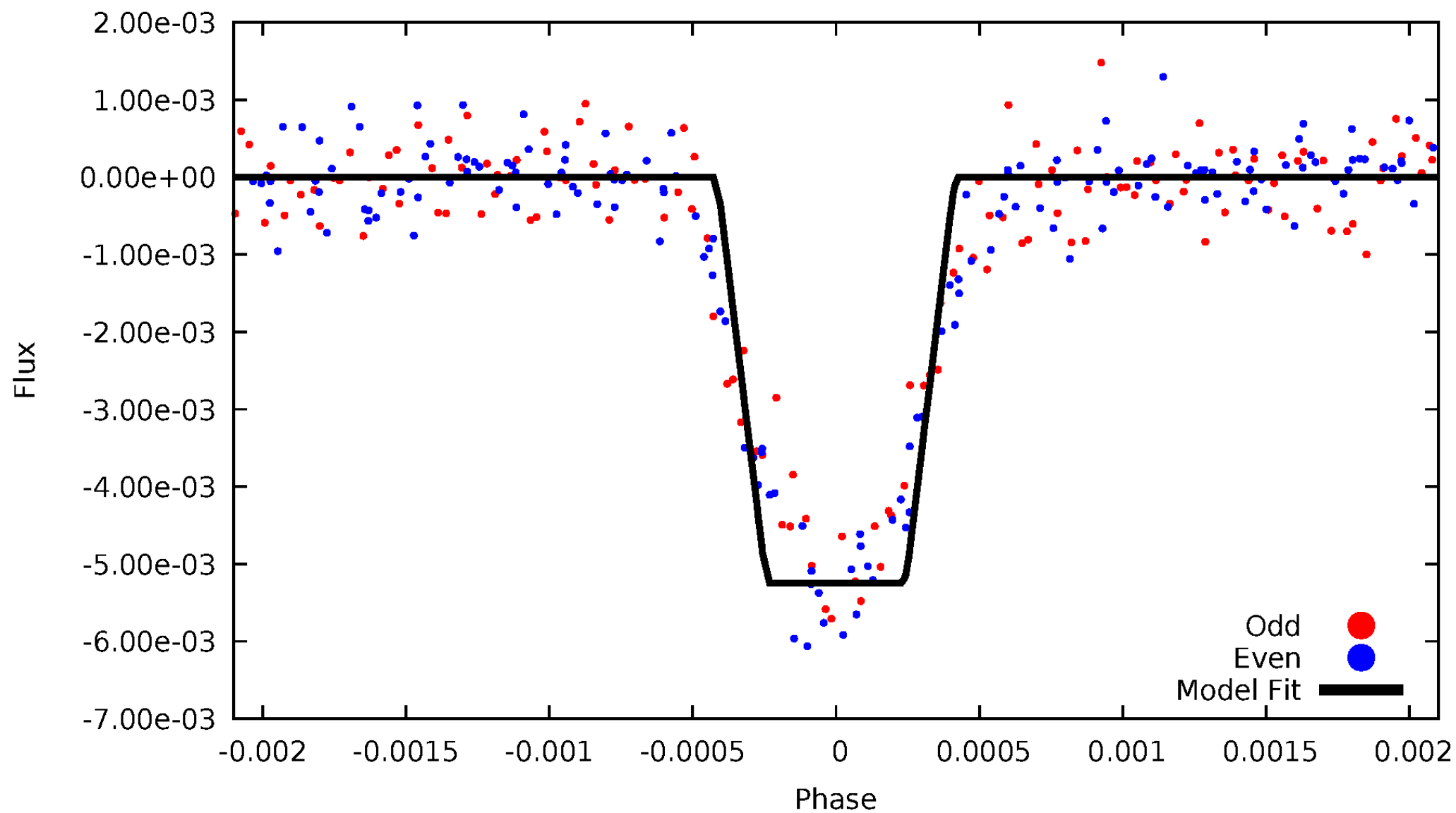
DV Odd/Even

TCE 003942446-01



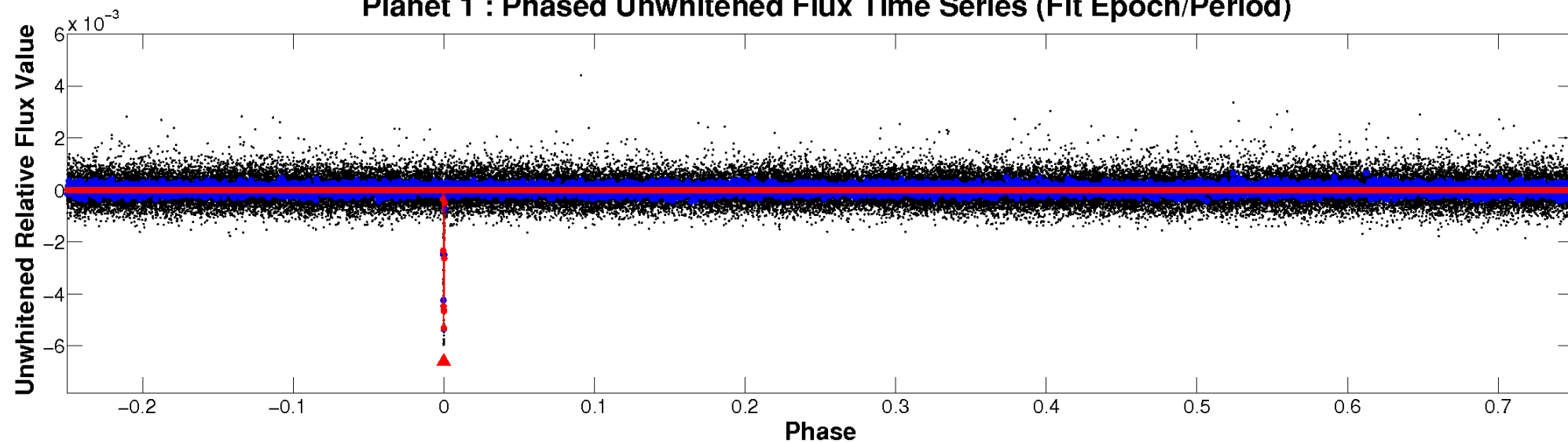
ALT Odd/Even

TCE 003942446-01

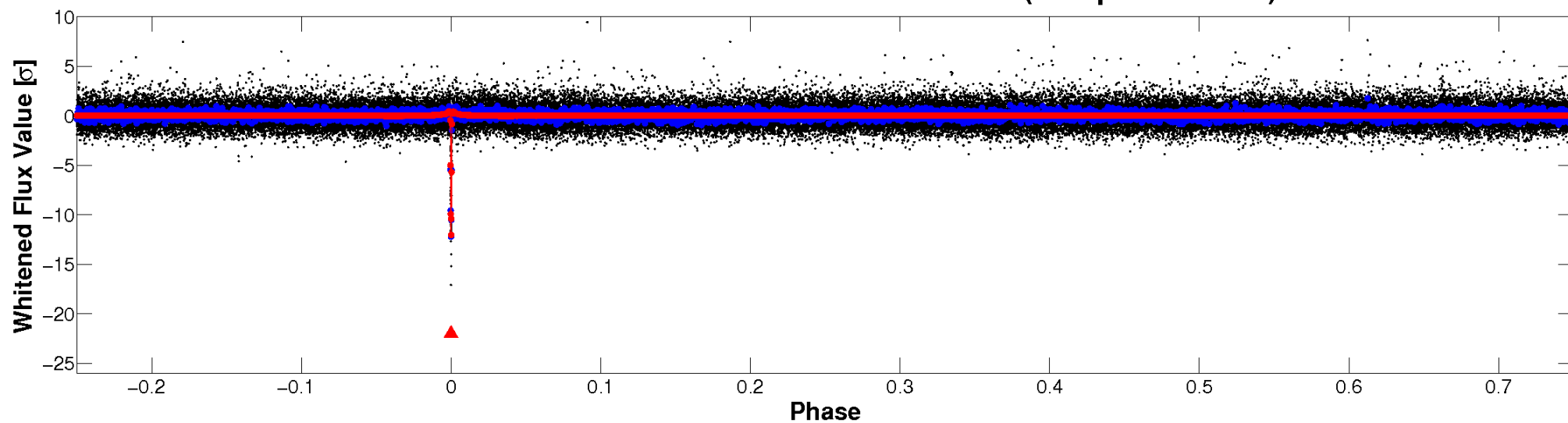


Non-Whitened Vs. Whitened Light Curve

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

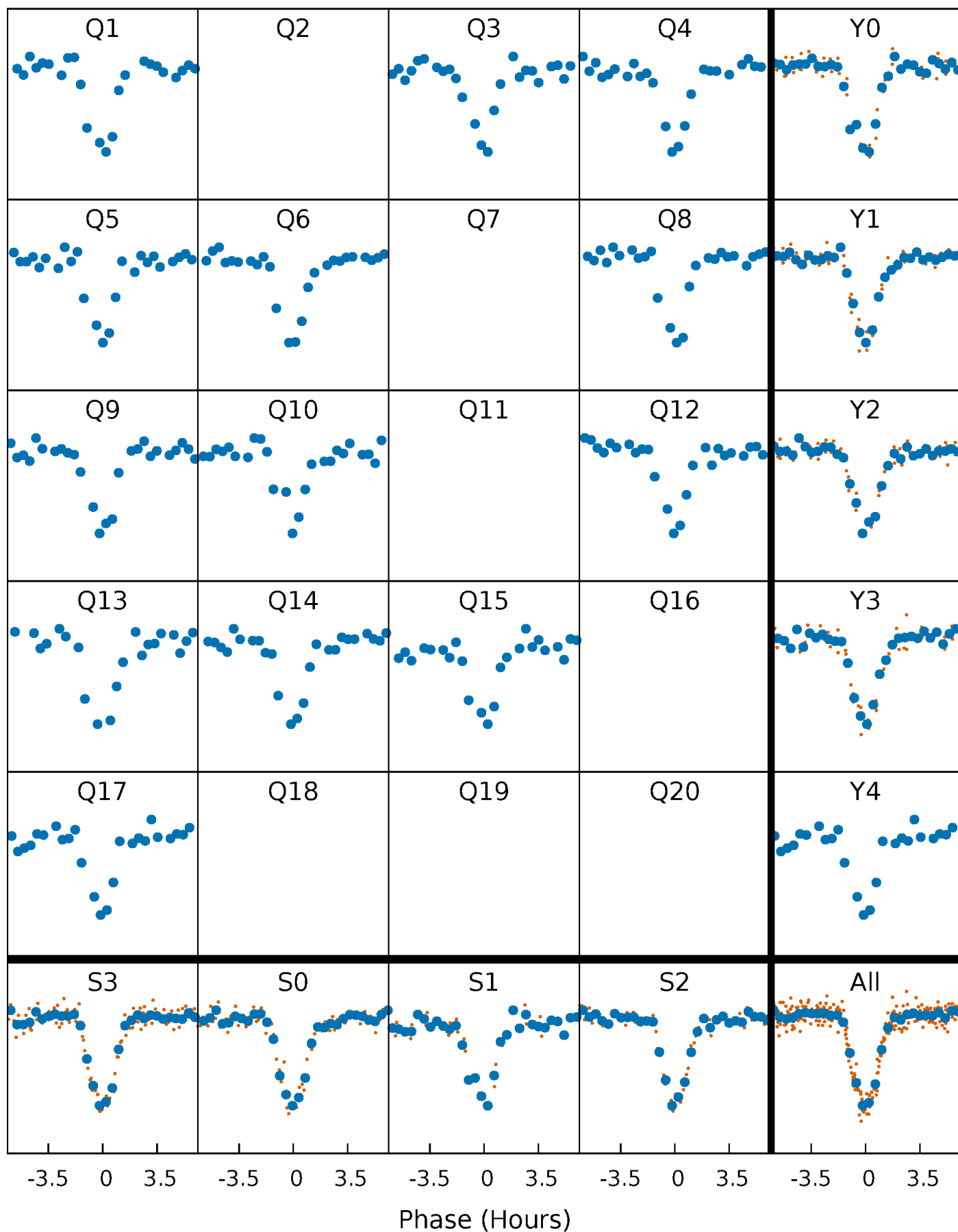


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



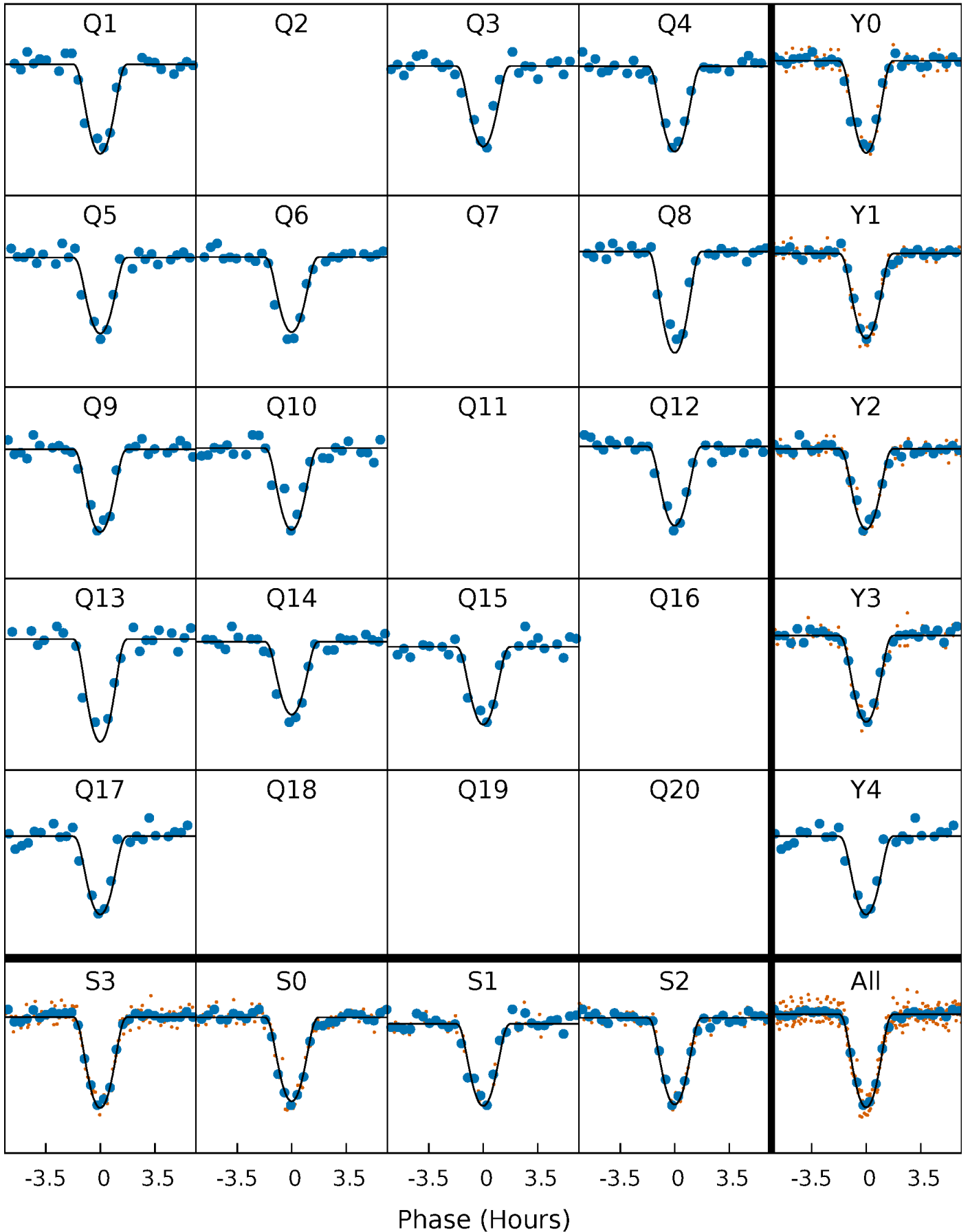
PDC Quarter-Phased Transit Curves

TCE 003942446-01 P=119.062478 Days $T_0=149.222166$ (BKJD)



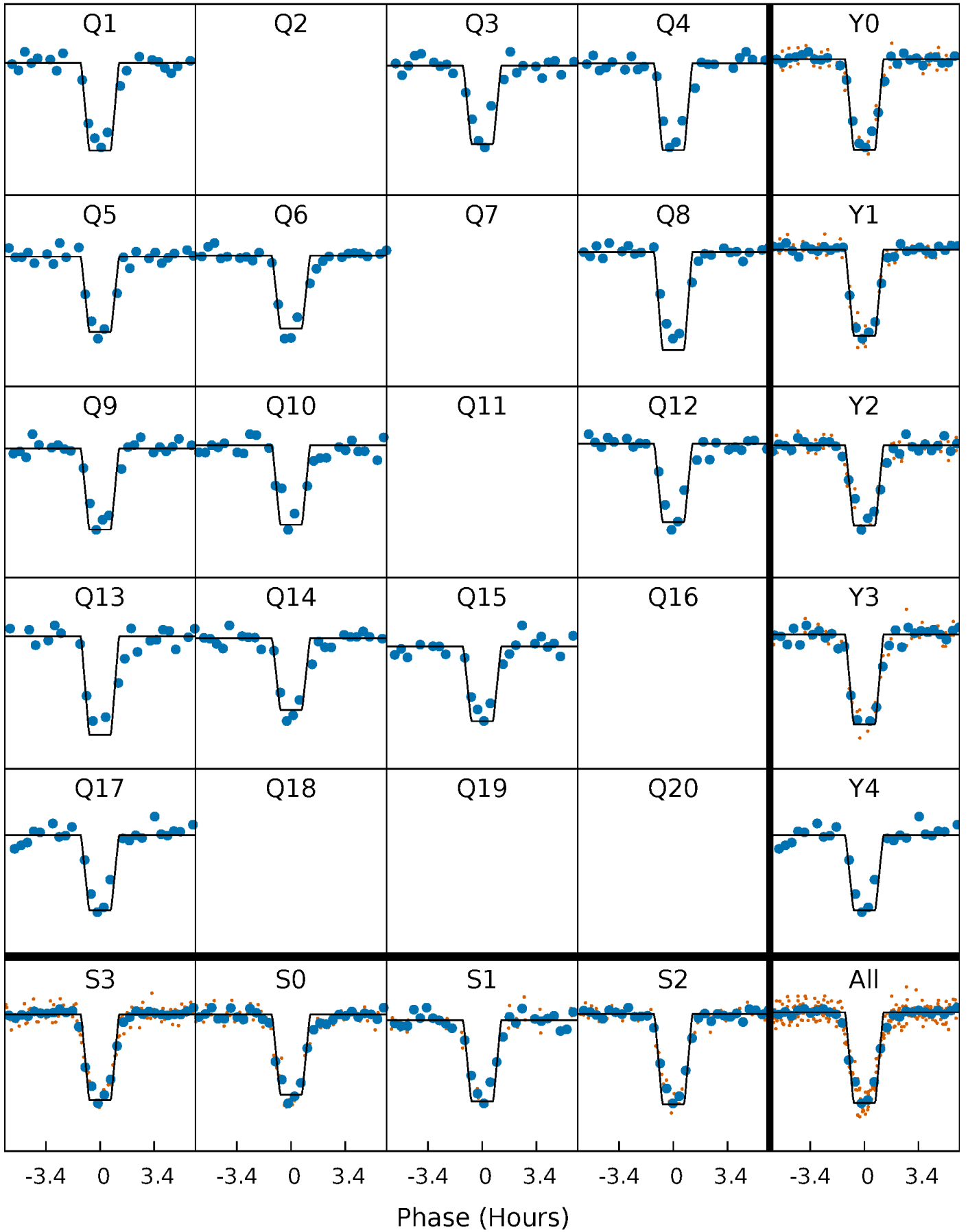
DV Quarter-Phased Transit Curves

TCE 003942446-01 P=119.062478 Days $T_0=149.222166$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

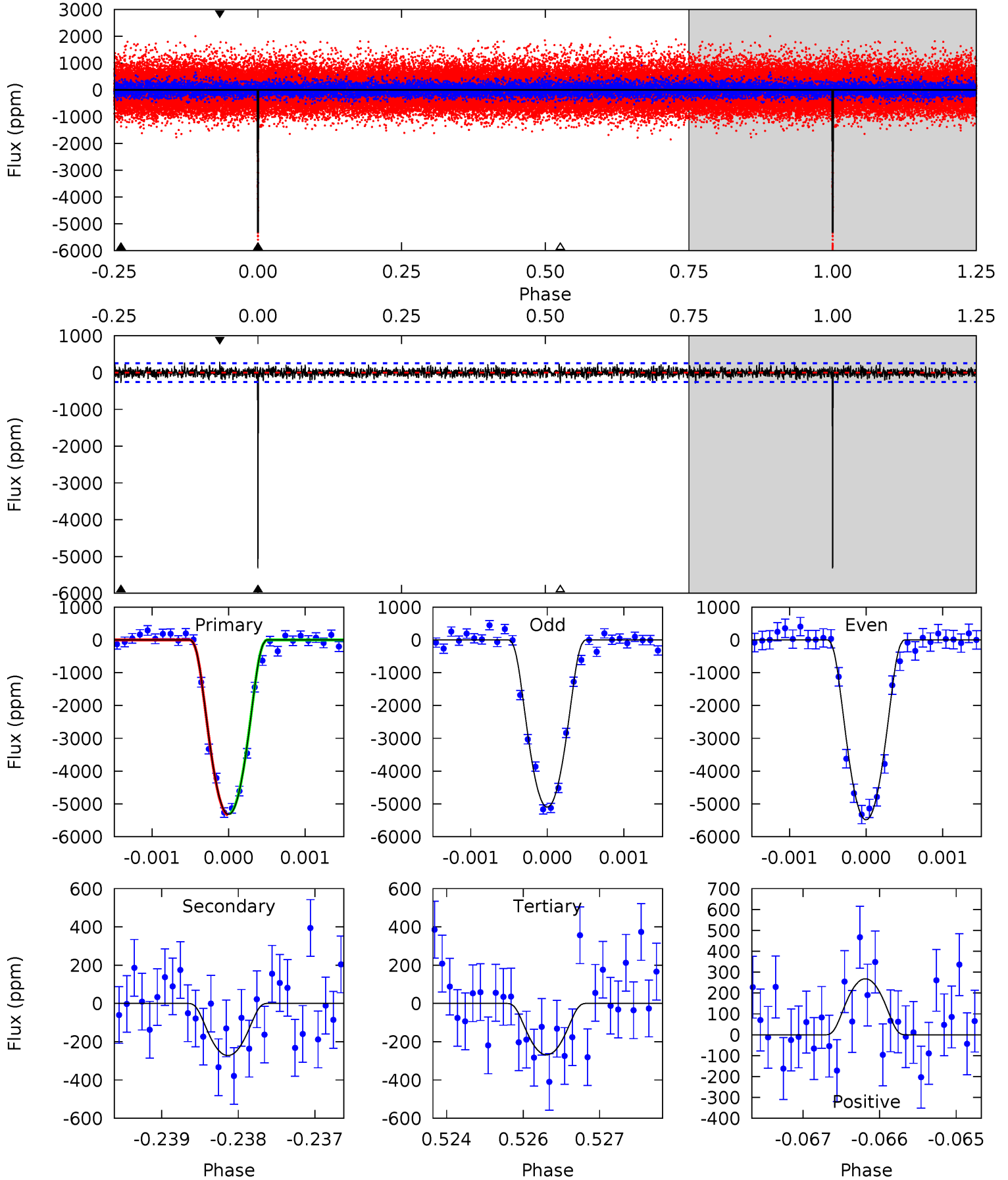
TCE 003942446-01 P=119.062387 Days $T_0=149.222997$ (BKJD)



DV Model-Shift Uniqueness Test

003942446-01, P = 119.062478 Days, E = 30.159688 Days

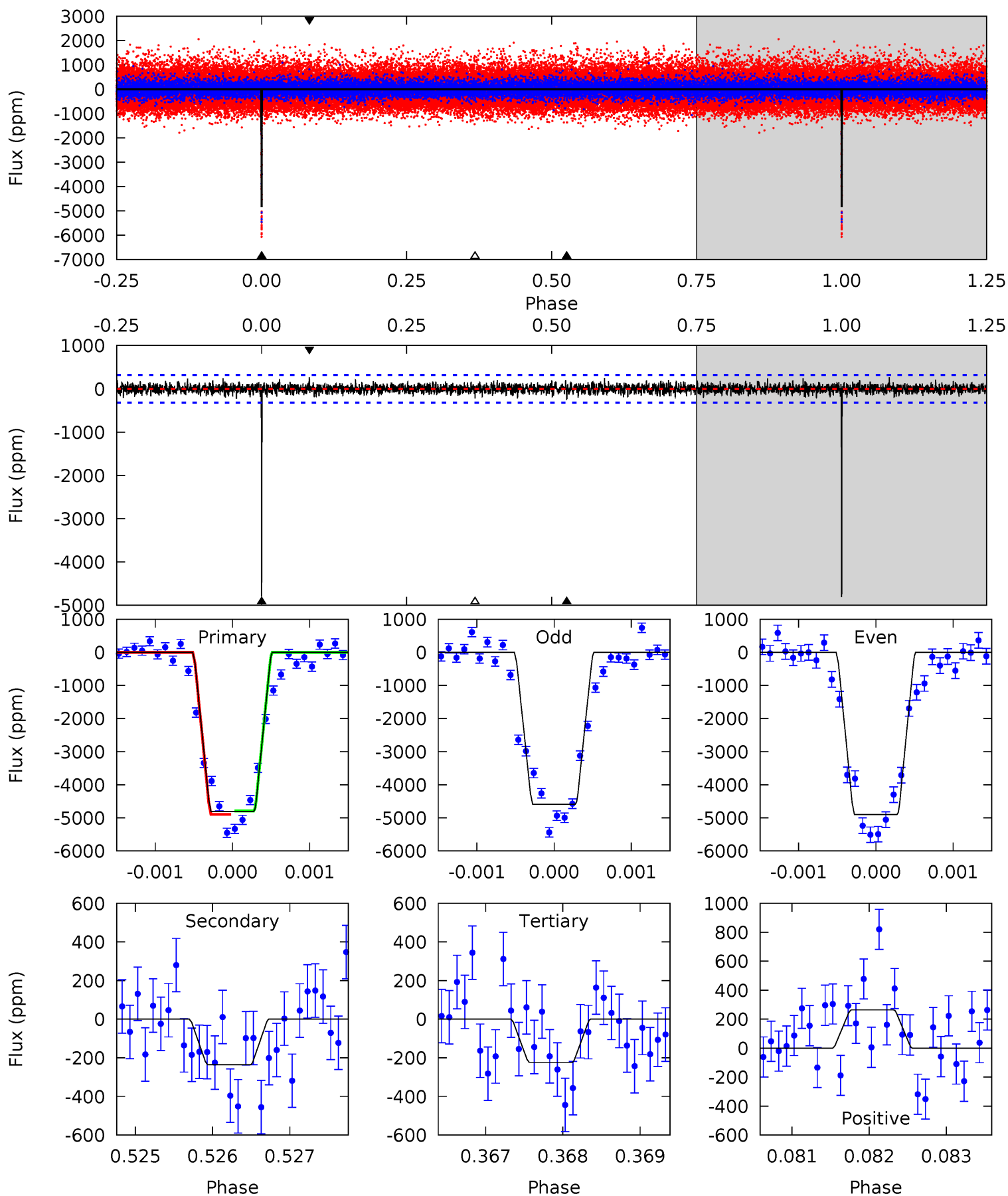
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
113.2	5.79	5.71	5.71	5.42	3.24	1.51	107.5	107.5	0.08	0.08	4.11	1.03	0.05	0.50



Alt Model-Shift Uniqueness Test

003942446-01, $P = 119.062387$ Days, $E = 30.160610$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
82.9	4.07	3.86	4.55	5.48	3.34	1.15	79.0	78.3	0.21	-0.47	2.71	1.02	0.05	0.90



Stellar Parameters For KIC 003942446

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5697^{+173}_{-173}	$4.392^{+0.171}_{-0.190}$	$-0.520^{+0.300}_{-0.300}$	$0.920^{+0.250}_{-0.167}$	$0.760^{+0.123}_{-0.044}$	$1.377^{+1.135}_{-0.717}$
	+3%/-3%	+4%/-4%	+58%/-58%	+27%/-18%	+16%/-6%	+82%/-52%
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 003942446-01 / KOI 1193.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-272 ± 47	$9.57^{+2.28}_{-2.21}$	515^{+39}_{-33}	3055^{+217}_{-179}	314^{+237}_{-120}
Alt.	-236 ± 58	$7.38^{+2.19}_{-1.89}$	513^{+40}_{-34}	3216^{+301}_{-253}	450^{+404}_{-200}

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 $A_{obs} \gg 1.0$

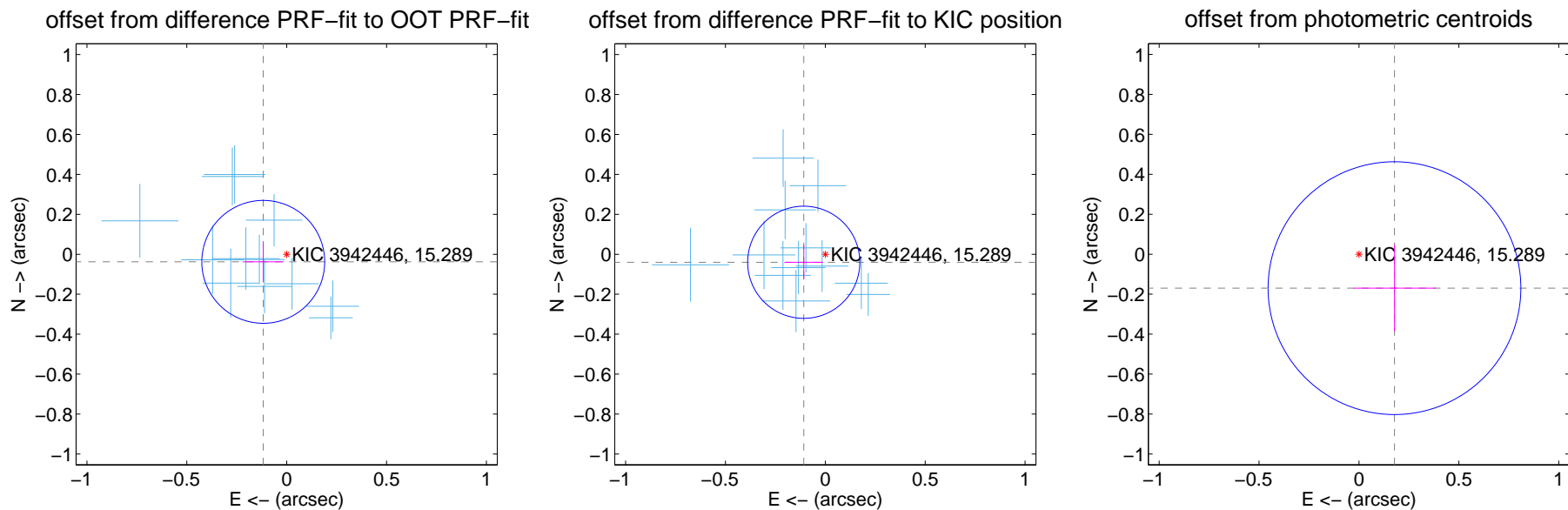
DV Centroid Data

Supplemental centroid analysis for 003942446-01. Kepler magnitude: 15.29. Transit SNR 70.17

There are 12 quarters with good PRF difference image offsets

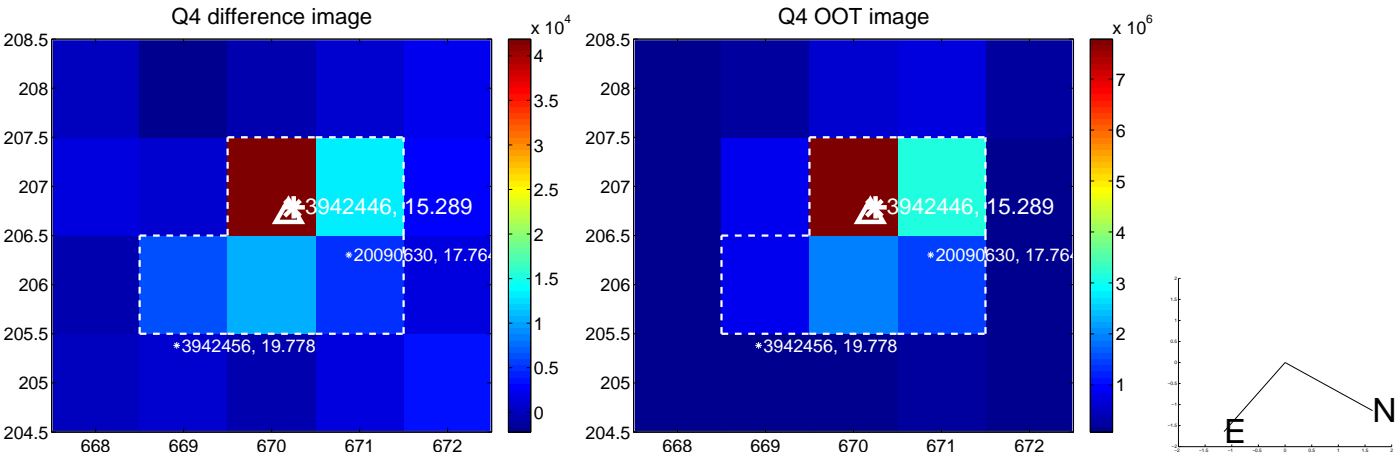
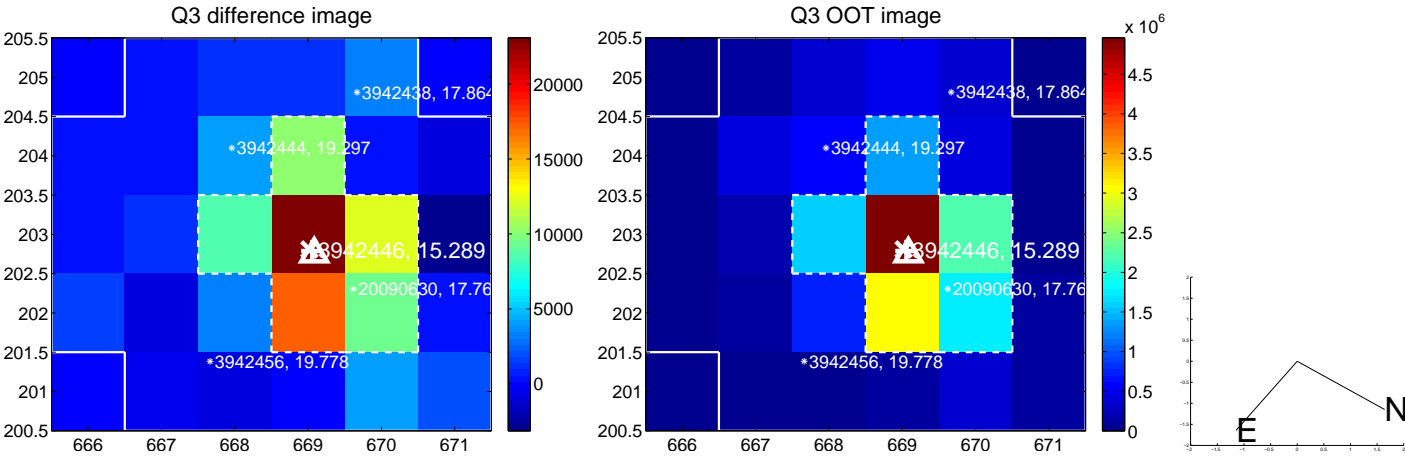
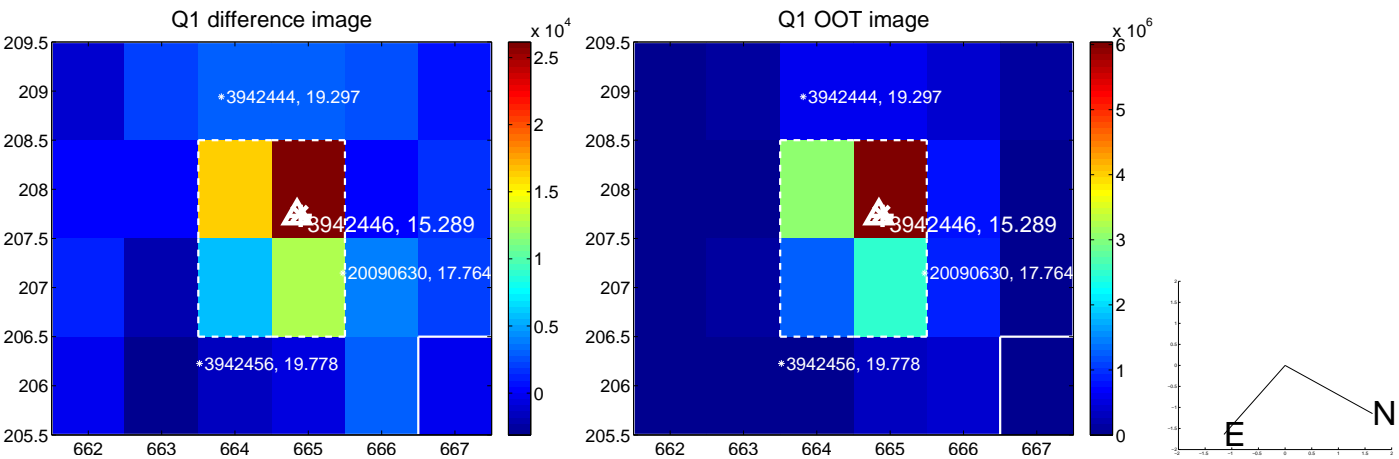
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.123 ± 0.103	1.20	0.117 ± 0.102	-0.038 ± 0.103
PRF-fit source offset from KIC position	0.115 ± 0.094	1.23	0.108 ± 0.097	-0.040 ± 0.087
photometric centroid source offset	0.25 ± 0.21	1.17	-0.18 ± 0.21	-0.17 ± 0.22

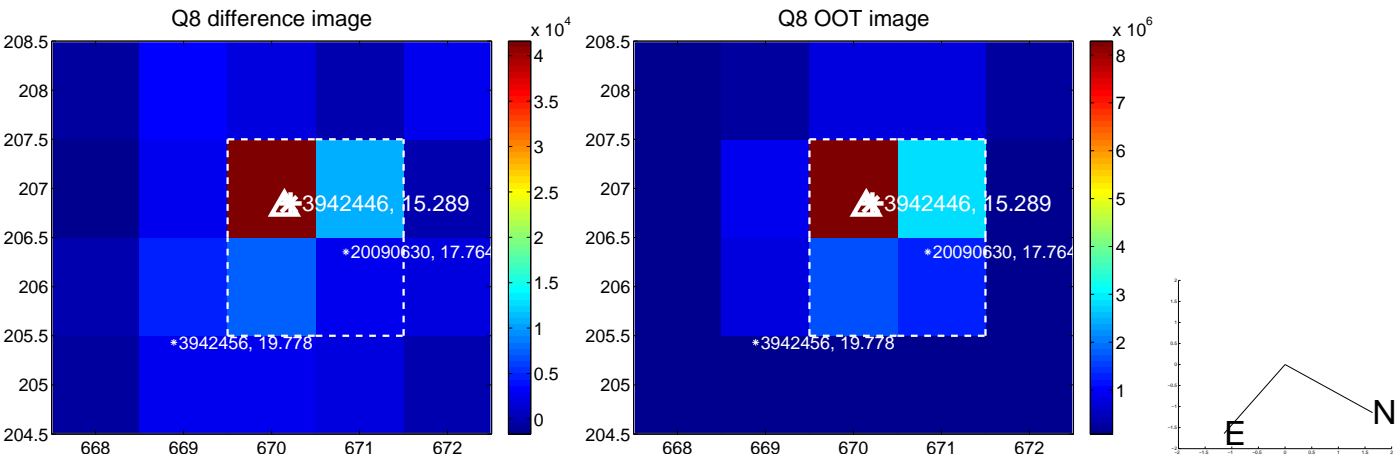
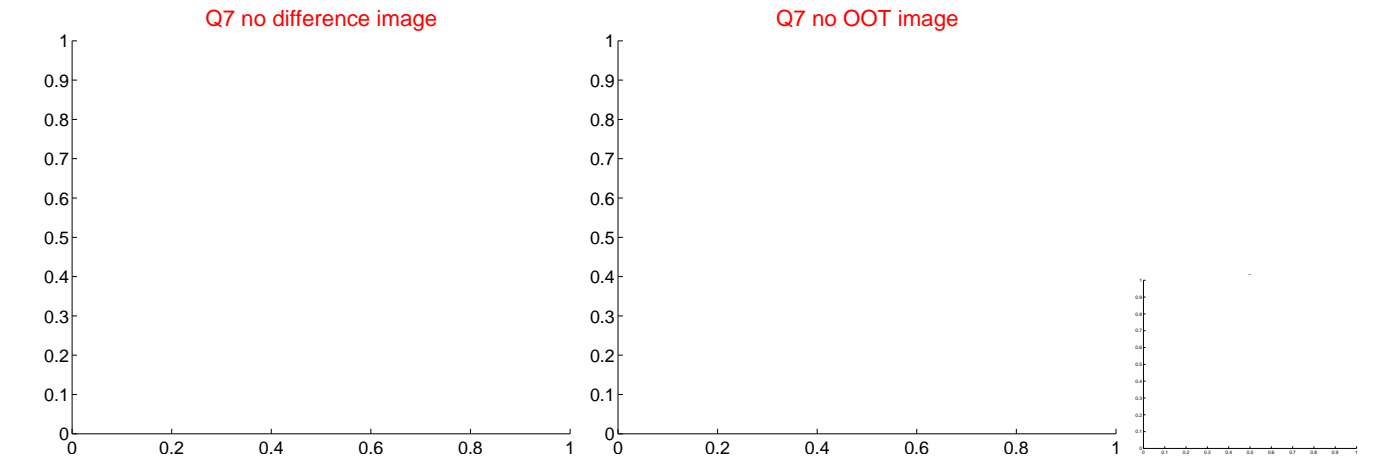
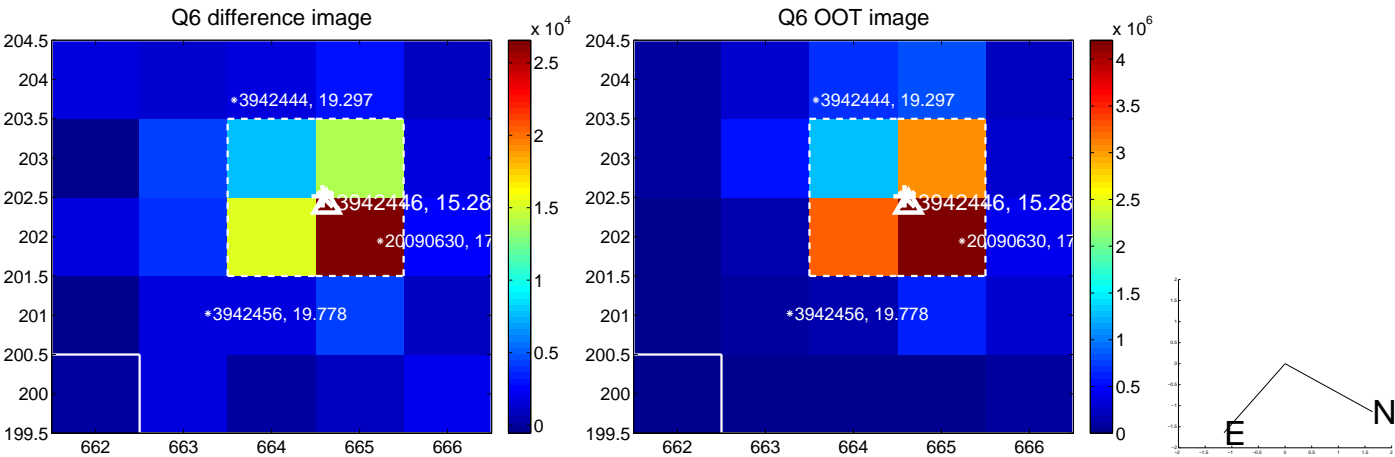
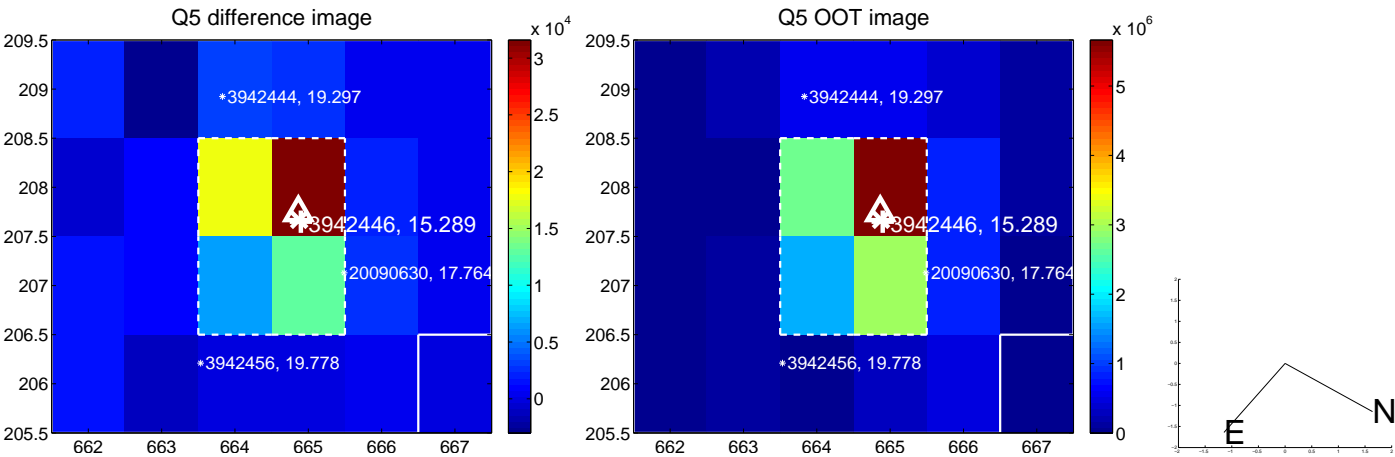


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

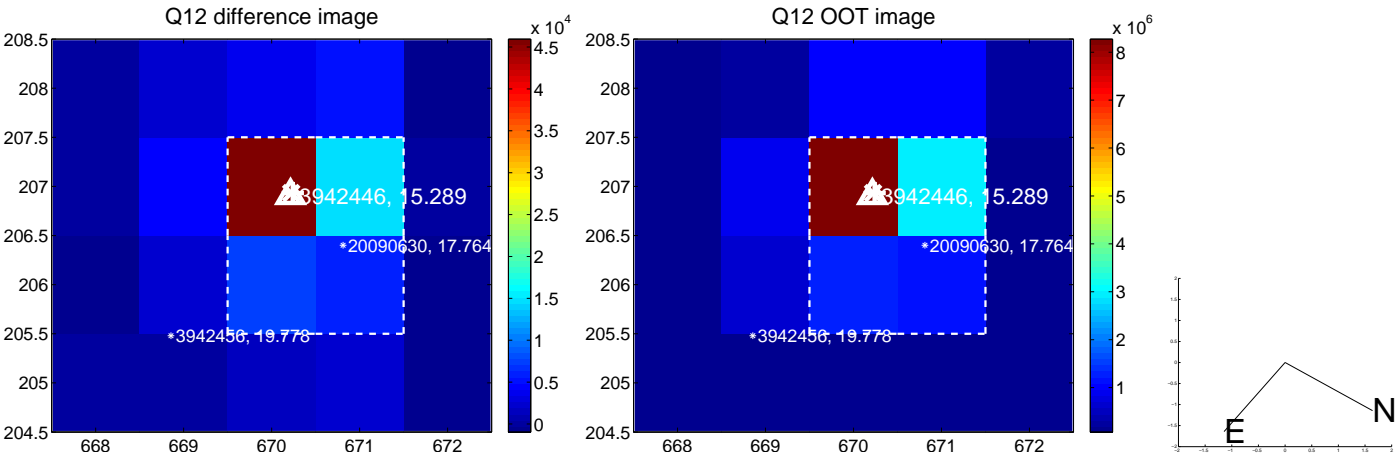
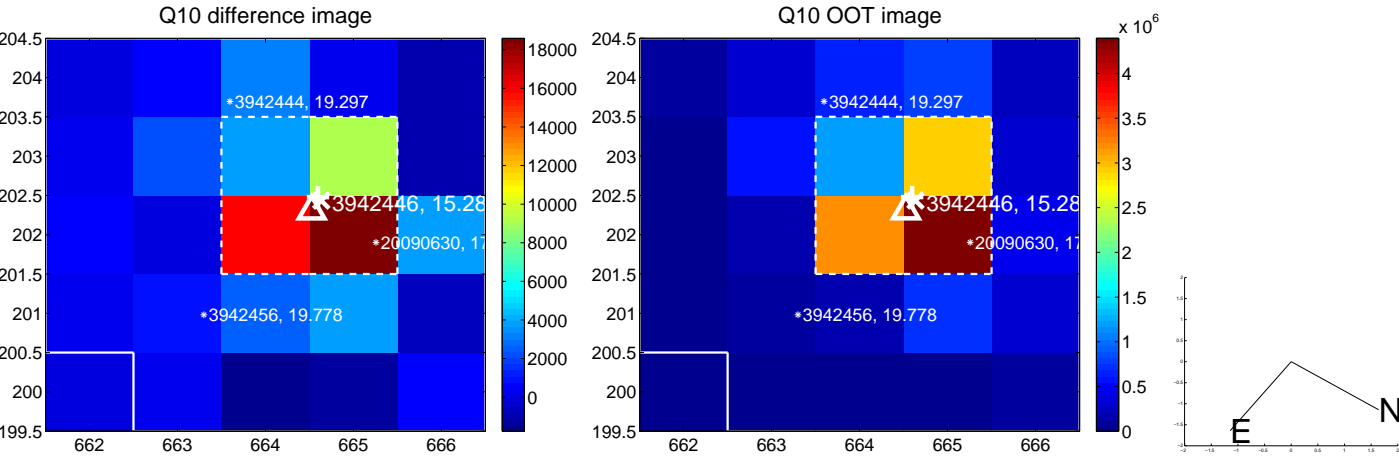
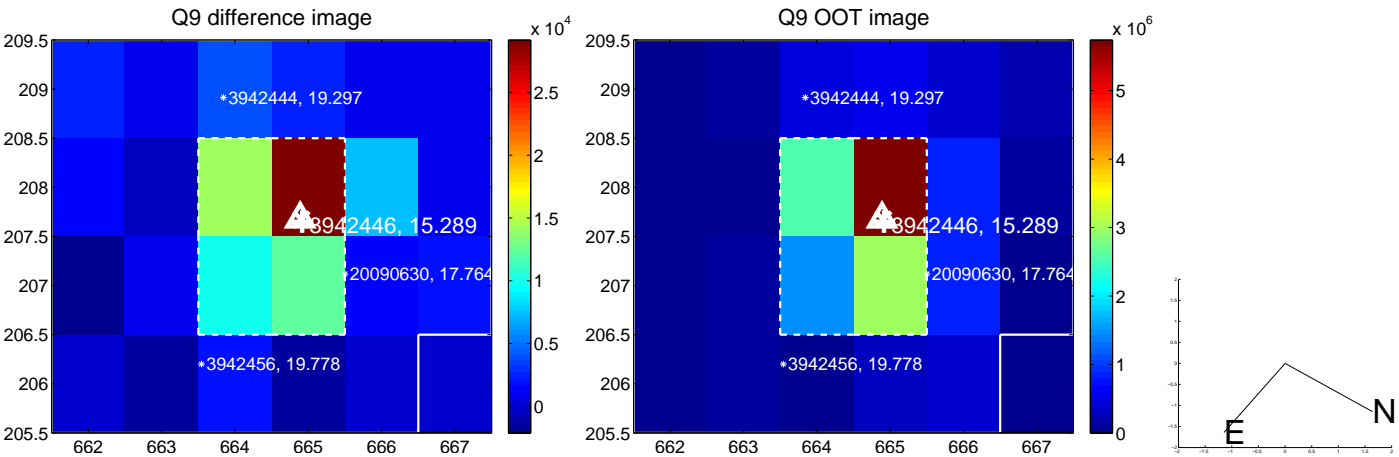
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

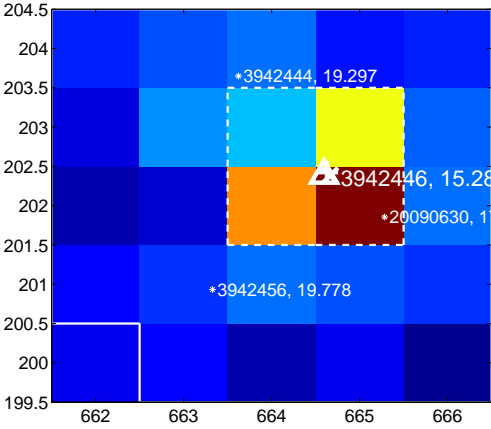
Q13 no difference image



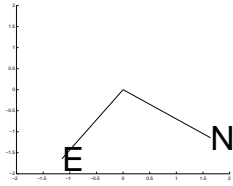
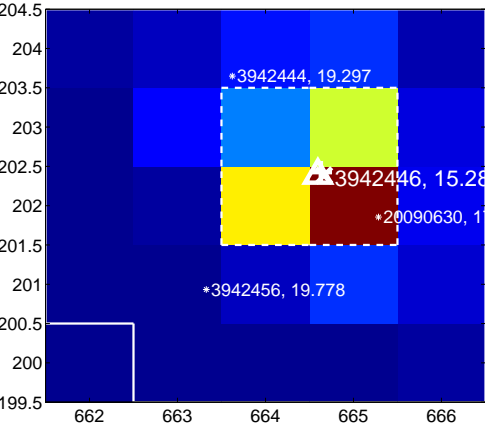
Q13 no OOT image



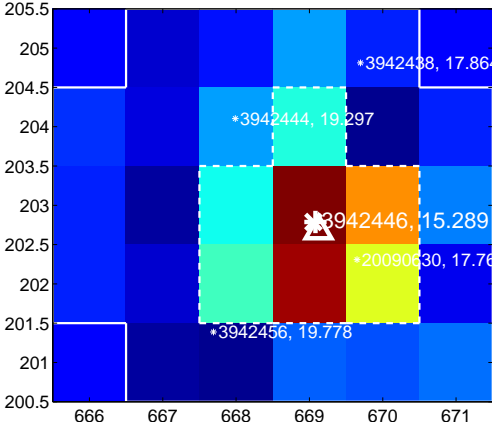
Q14 difference image



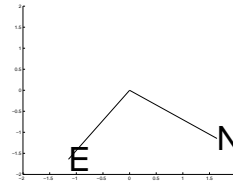
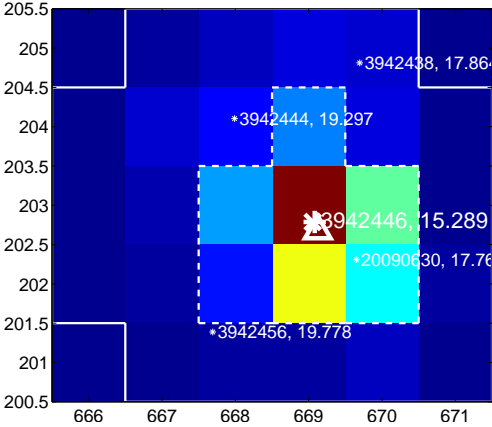
Q14 OOT image



Q15 difference image



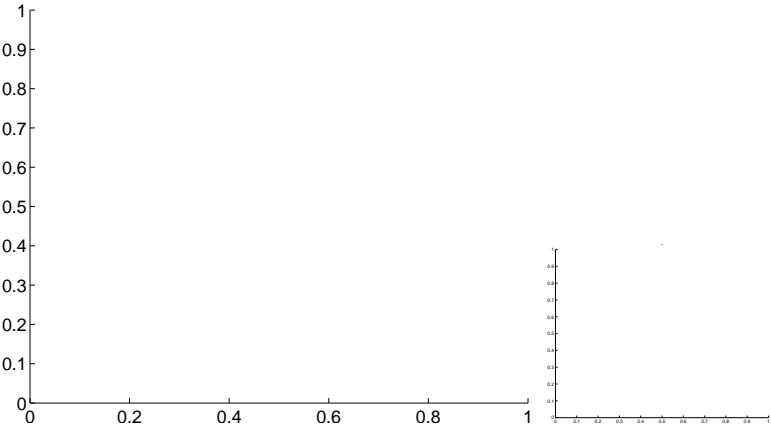
Q15 OOT image



Q16 no difference image



Q16 no OOT image



UKIRT Image

Declination

