

KIC 005263802

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})
005263802-01	OBS	5145.01	3.350254	131.833142	27308.0	4.207	4066.2	3855.2	1.50	6657	38.46	1781.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005263802-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_SATURATED

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 005263802-01

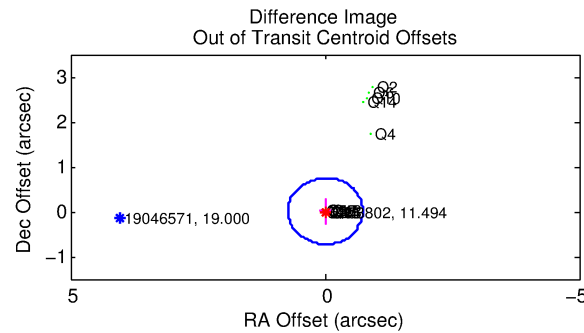
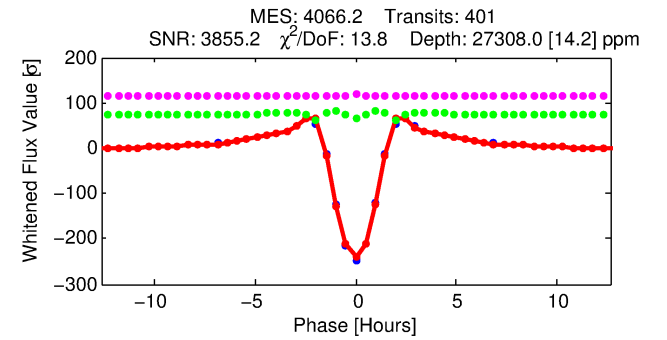
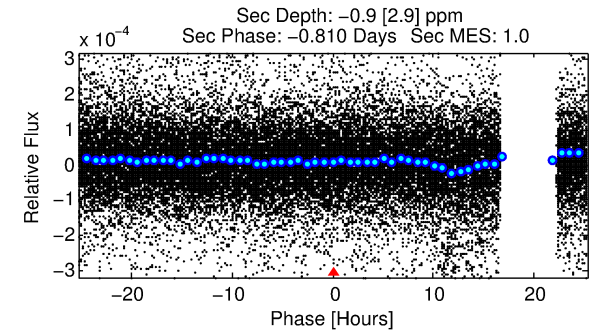
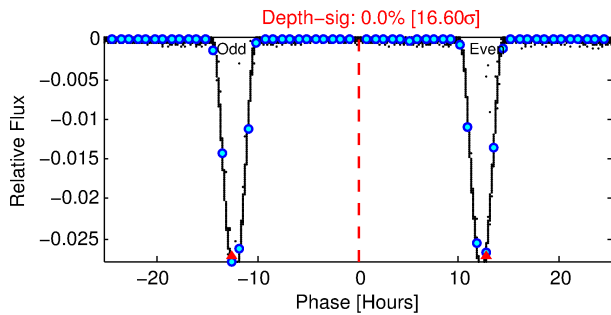
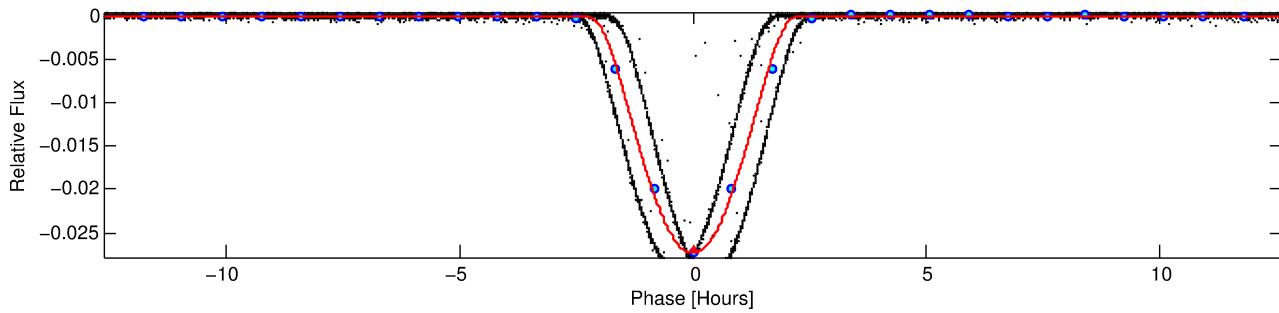
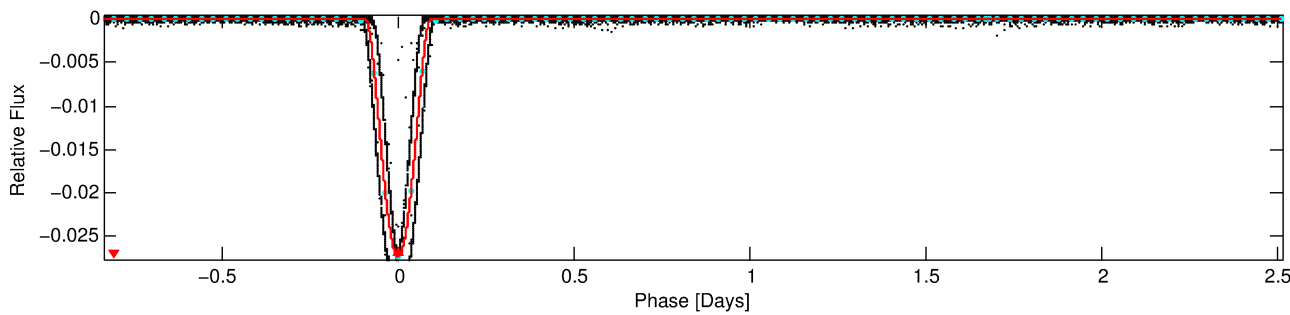
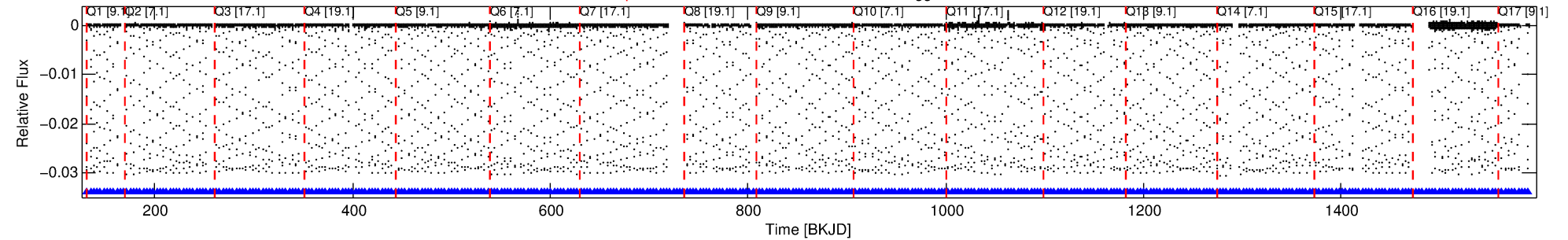
No Significant Match Found

DV One-Page Summary

KIC: 5263802 Candidate: 1 of 1 Period: 3.350 d

KOI: K05145.01 Corr: 0.973

Kp: 11.49 R*: 1.50 Rs Teff: 6657.0 K Logg: 4.18 Fe/H: -0.240



DV Fit Results:

Period = 3.35025 [0.00000] d
Epoch = 131.8331 [0.0000] BKJD
Rp/R* = 0.2348 [0.0032]
a/R* = 4.83 [0.01]
b = 0.96 [0.00]
Seff = 1781.66 [415.88]
Teff = 1657 [97] K
Rp = 38.46 [6.12] Re
a = 0.0472 [0.0069] AU
Ag = N/A
Teffp = N/A

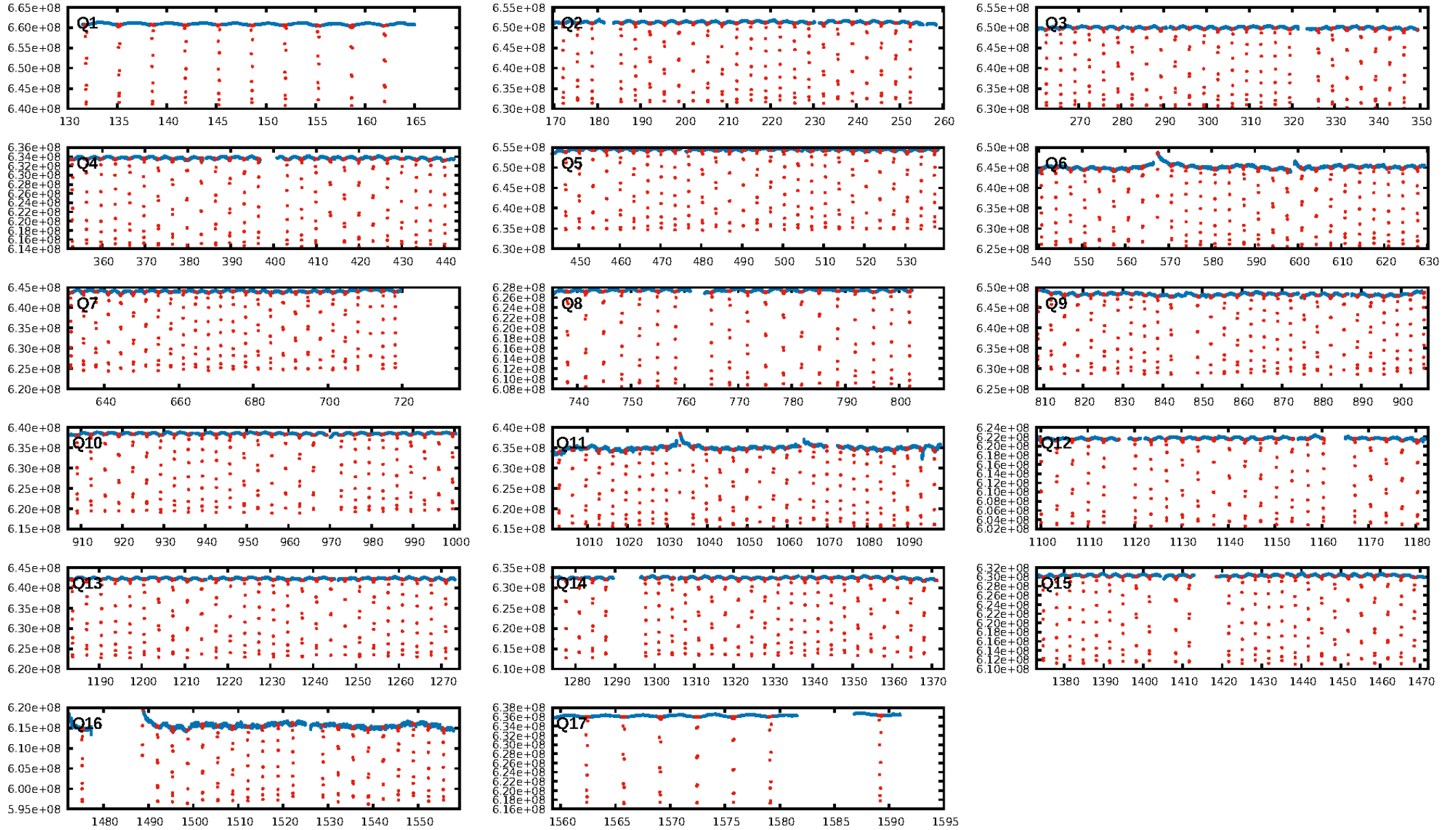
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [384/384]
GhostDiagnostic-chr: 3.003
Centroid-sig: 0.0%
Centroid-so: 0.192 arcsec [238.66σ]
OotOffset-rm: 0.012 arcsec [0.05σ]
KicOffset-rm: 0.177 arcsec [0.66σ]
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]

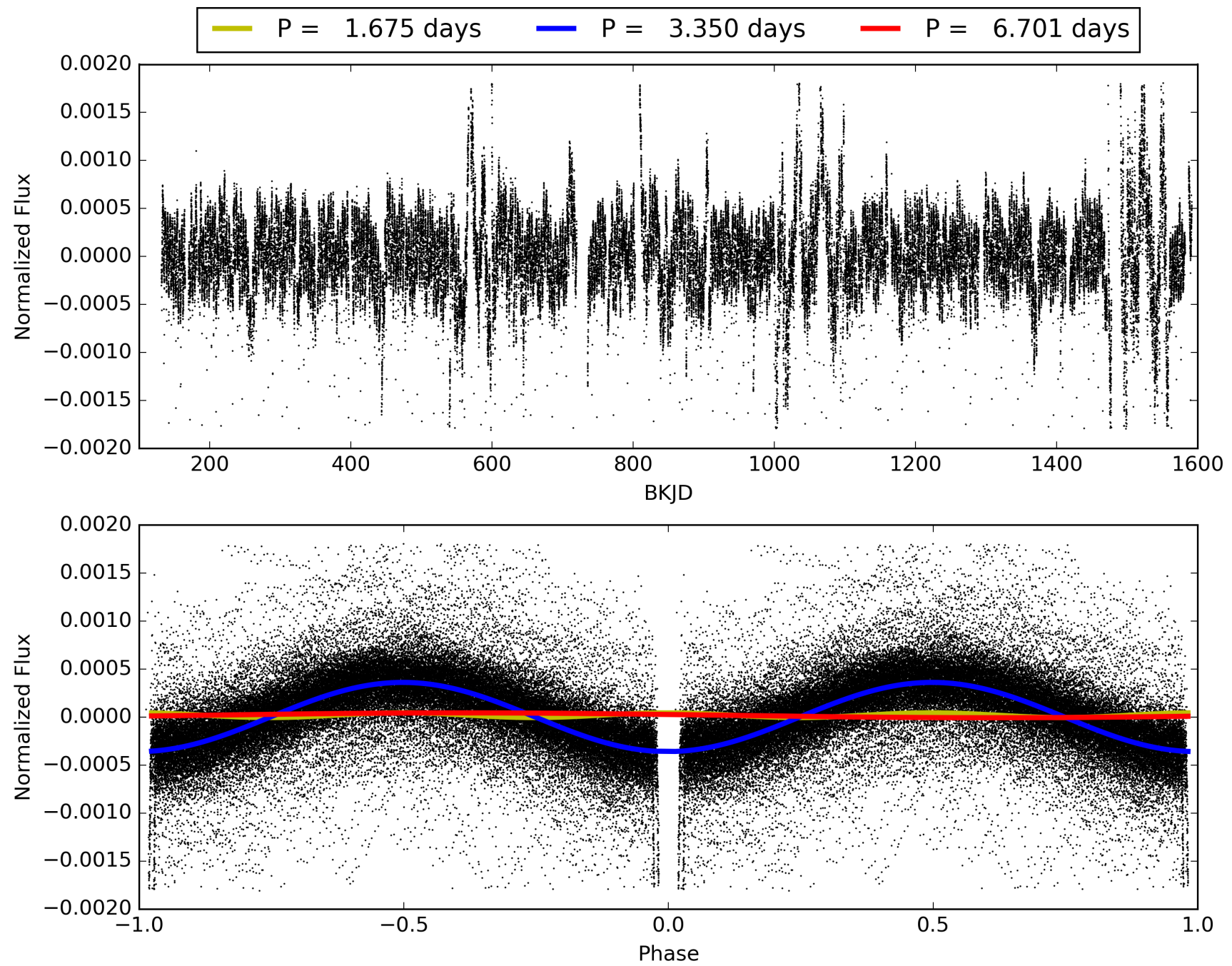
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:45:26 Z

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

TCE 005263802-01, PDC Light Curves

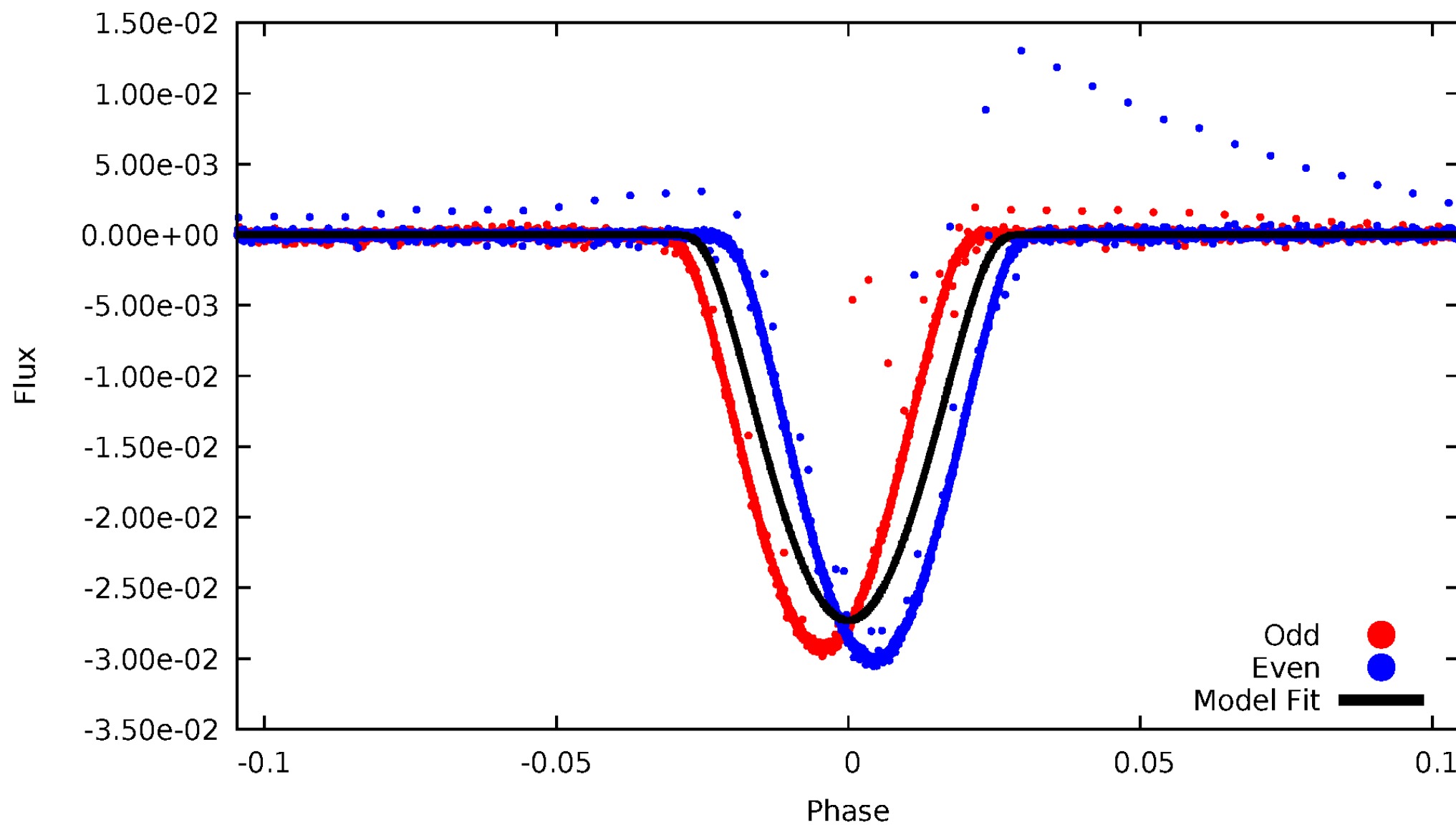


TCE 005263802-01



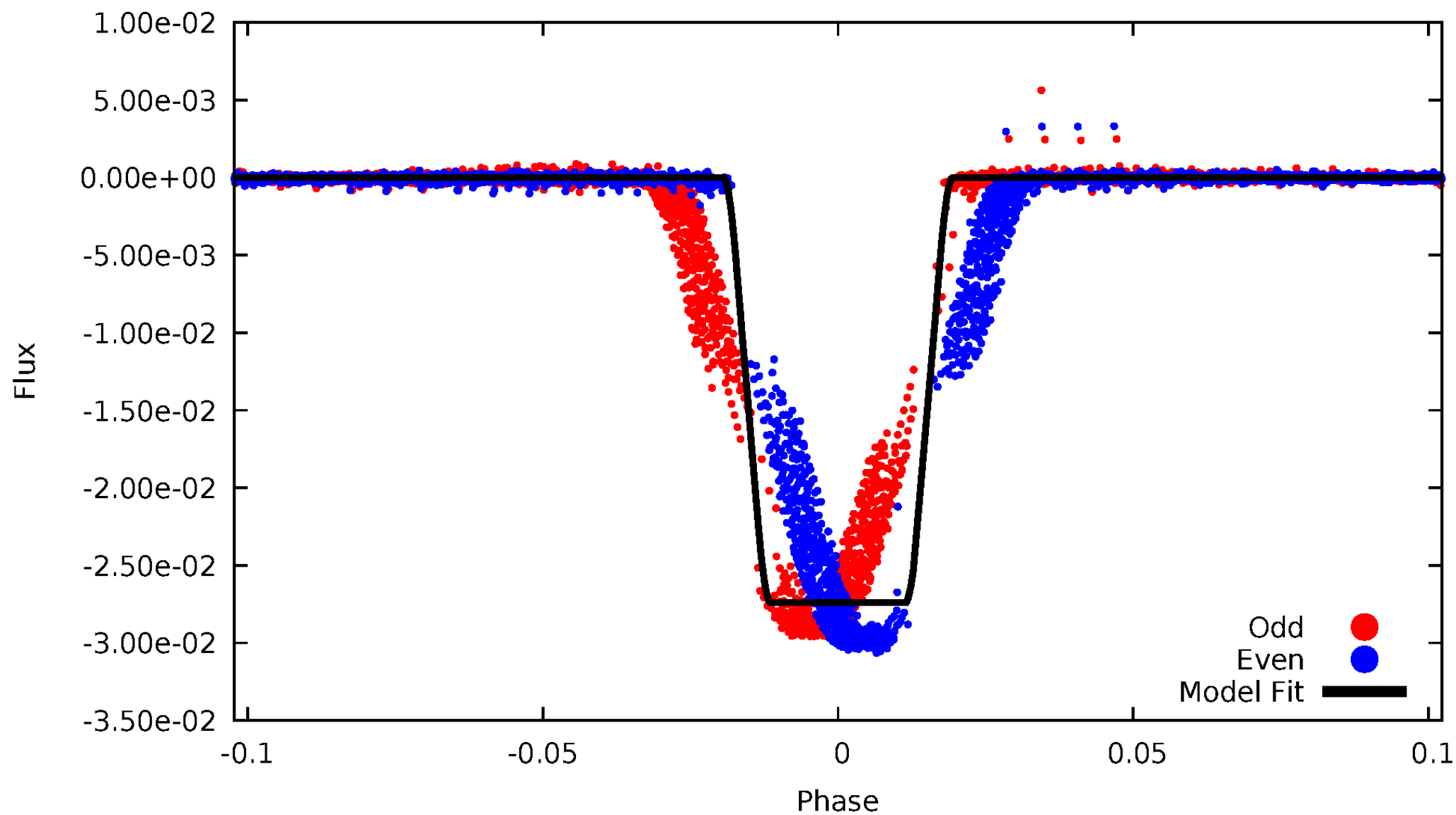
DV Odd/Even

TCE 005263802-01



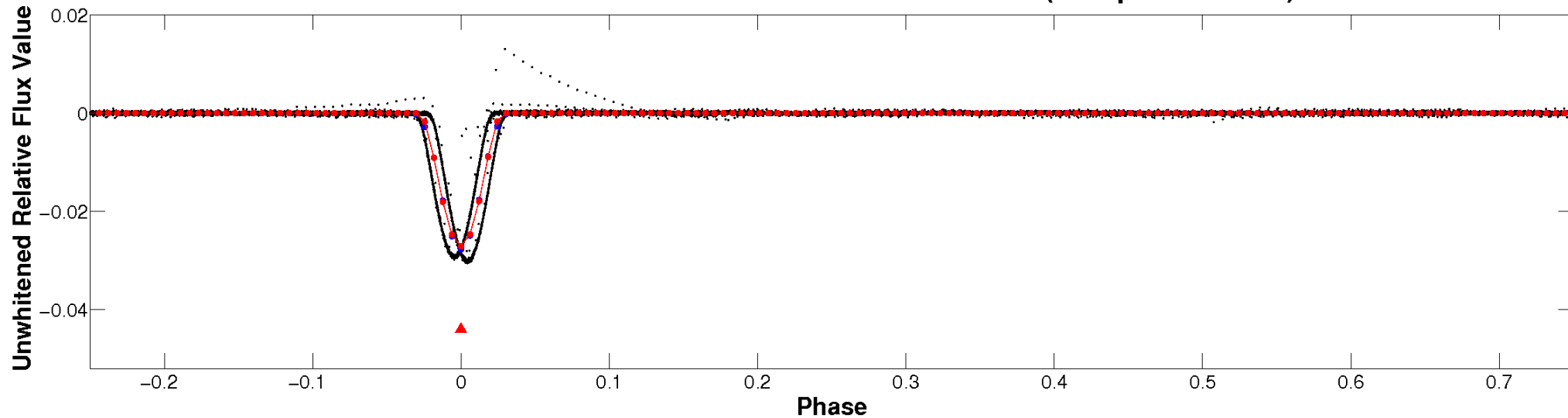
ALT Odd/Even

TCE 005263802-01

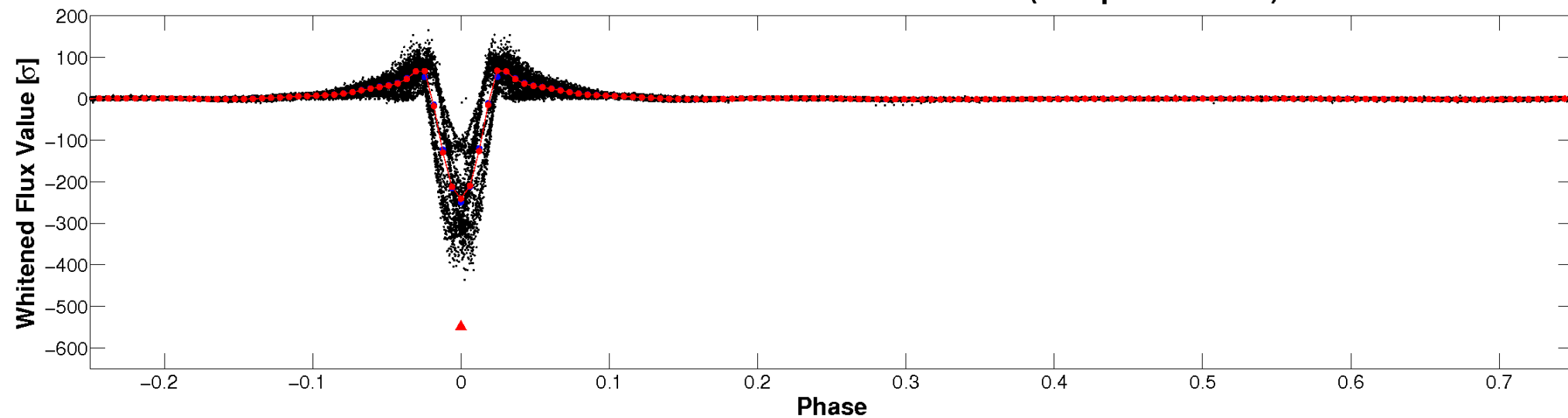


Non-Whitened Vs. Whitened Light Curve

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

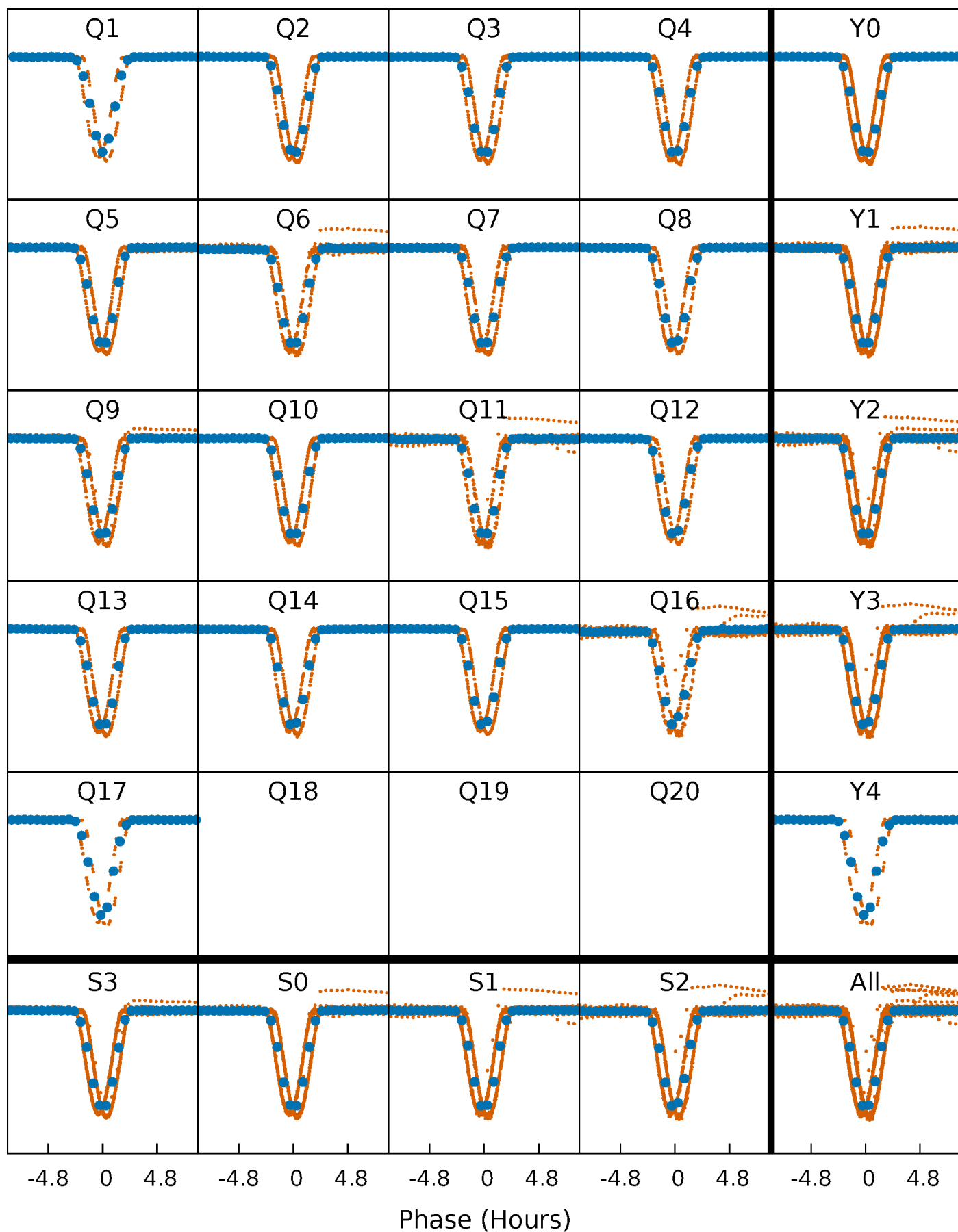


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



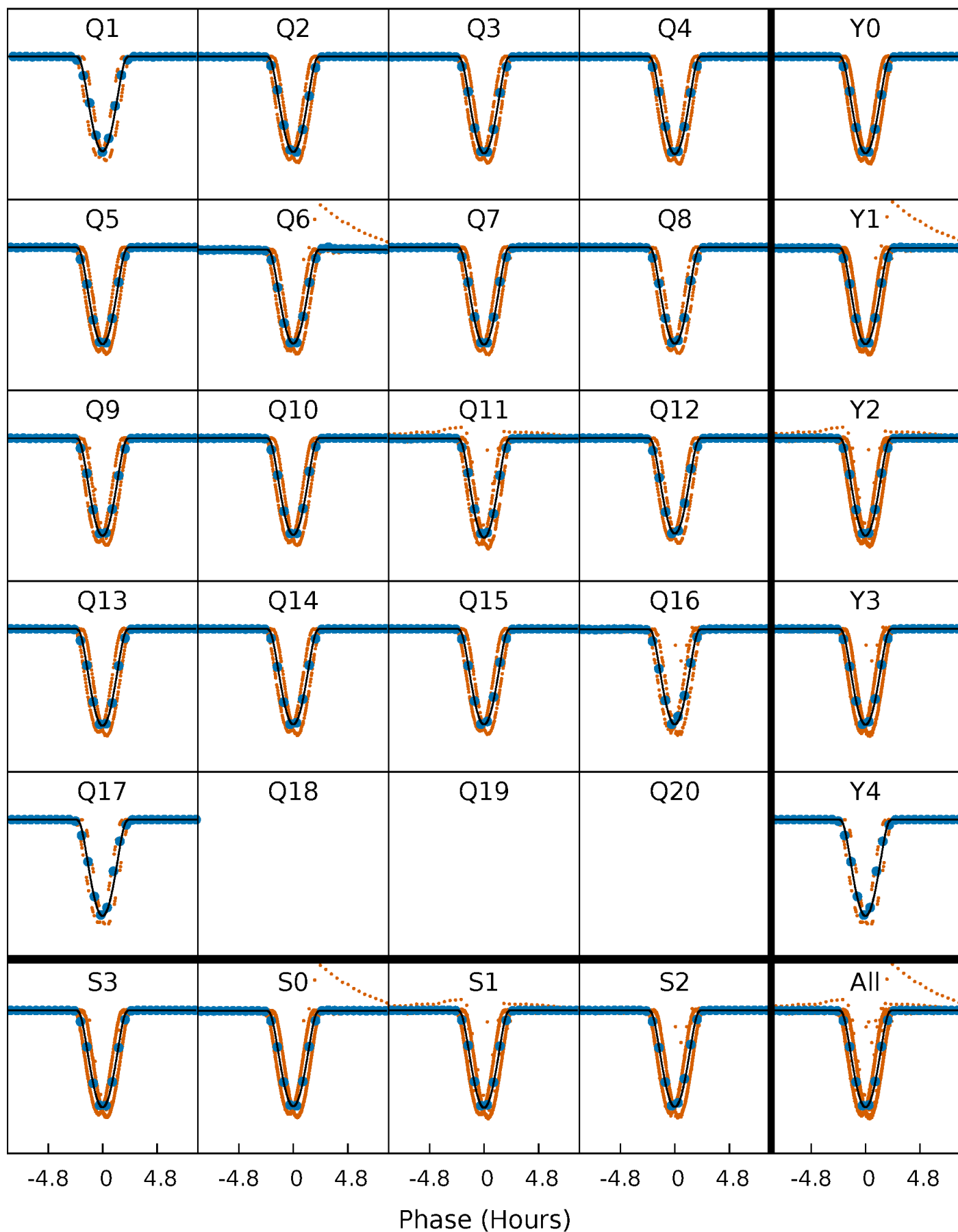
PDC Quarter-Phased Transit Curves

TCE 005263802-01 P= 3.350254 Days $T_0=131.833142$ (BKJD)



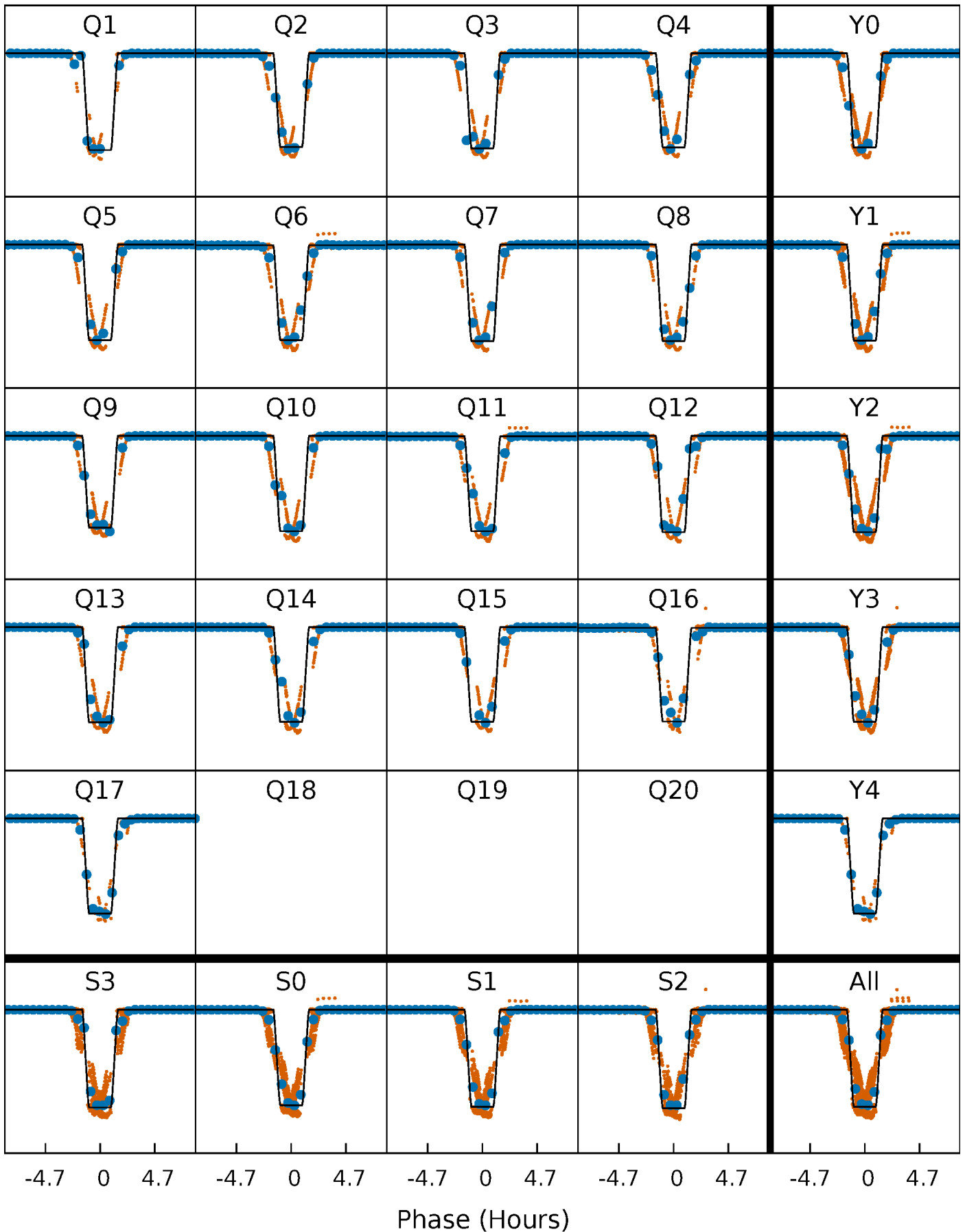
DV Quarter-Phased Transit Curves

TCE 005263802-01 P= 3.350254 Days $T_0=131.833142$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

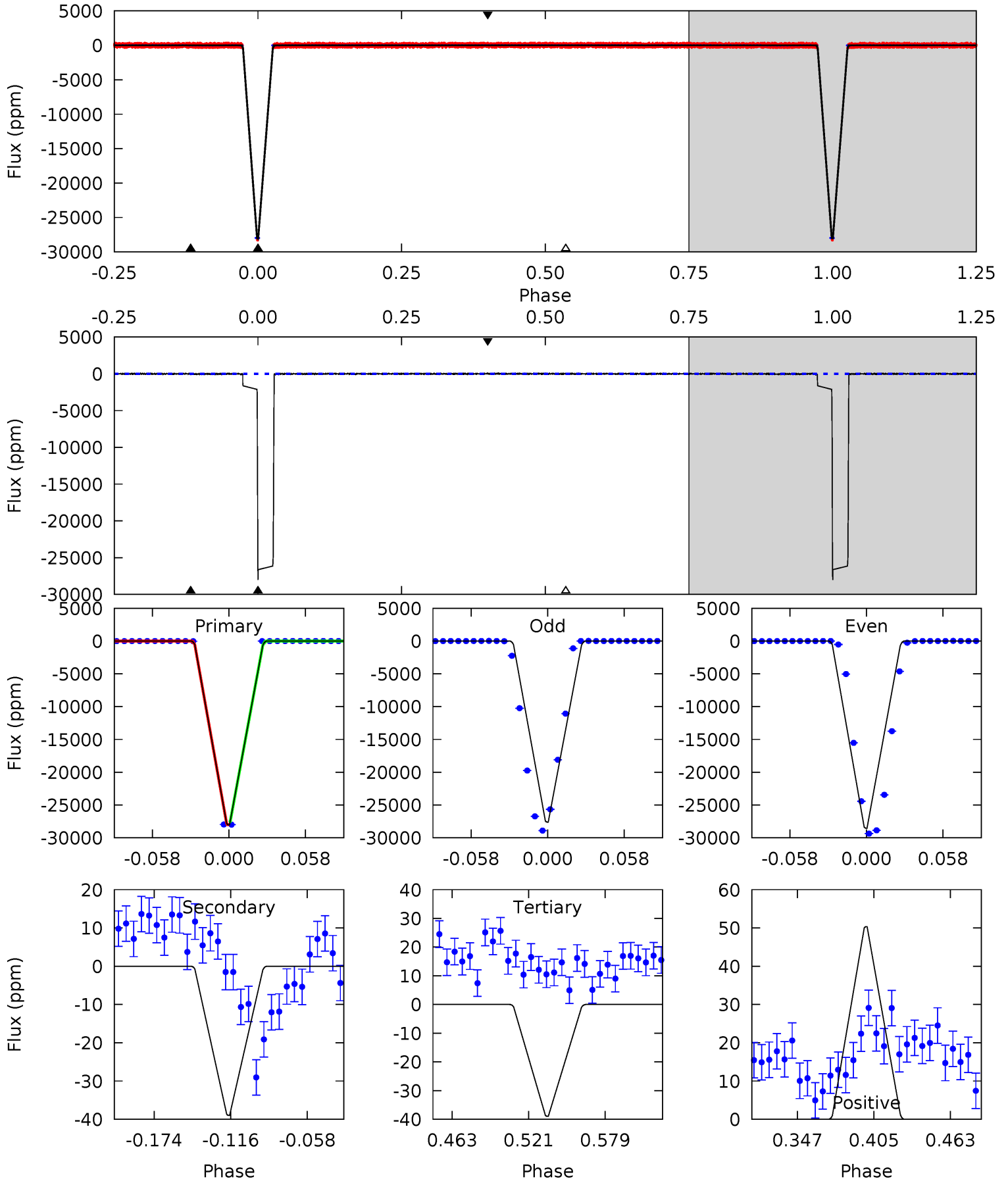
TCE 005263802-01 $P = 3.350200$ Days $T_0 = 131.844070$ (BKJD)



DV Model-Shift Uniqueness Test

005263802-01, P = 3.350254 Days, E = 128.482888 Days

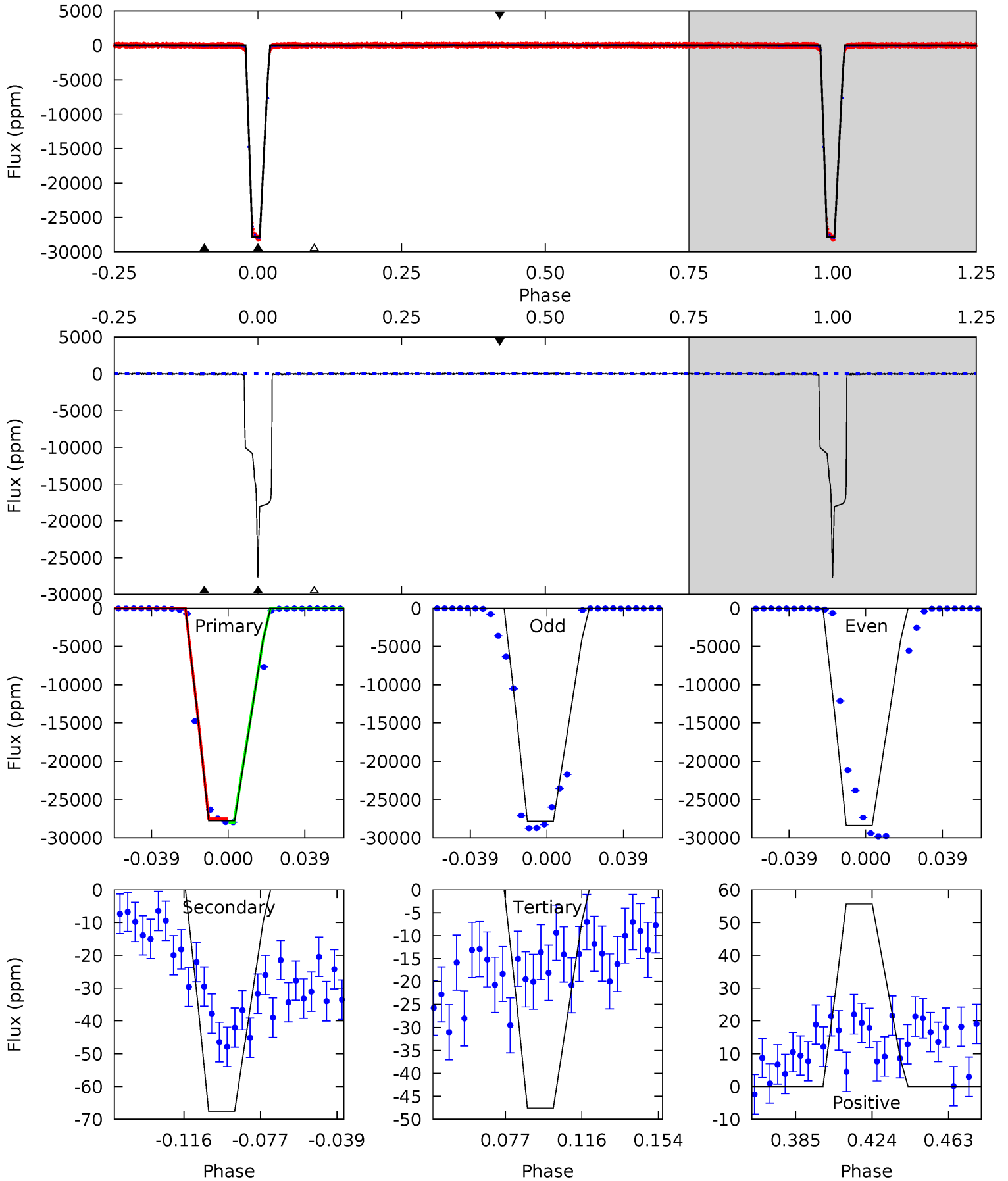
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4401	6.12	6.12	7.91	4.68	1.90	1.94	4395	4393	0.00	-1.79	283.0	0.99	0.00	33.2



Alt Model-Shift Uniqueness Test

005263802-01, P = 3.350200 Days, E = 128.493870 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2584	6.29	4.42	5.18	4.76	2.07	1.36	2579	2579	1.86	1.11	48.8	0.99	0.00	0



Stellar Parameters For KIC 005263802

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6657^{+79}_{-79}	$4.181^{+0.132}_{-0.108}$	$-0.240^{+0.150}_{-0.150}$	$1.501^{+0.238}_{-0.238}$	$1.255^{+0.089}_{-0.123}$	$0.522^{+0.313}_{-0.167}$
	+1%/-1%	+3%/-3%	+62%/-62%	+16%/-16%	+7%/-10%	+60%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005263802-01 / KOI 5145.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39 ± 6	$38.27^{+3.42}_{-3.32}$	2308^{+106}_{-106}	-2640^{+70}_{-66}	$0.032^{+0.009}_{-0.007}$
Alt.	-68 ± 11	$26.99^{+2.56}_{-2.54}$	2307^{+102}_{-106}	-2524^{+103}_{-83}	$0.112^{+0.030}_{-0.023}$

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 $A_{obs} \gg 1.0$

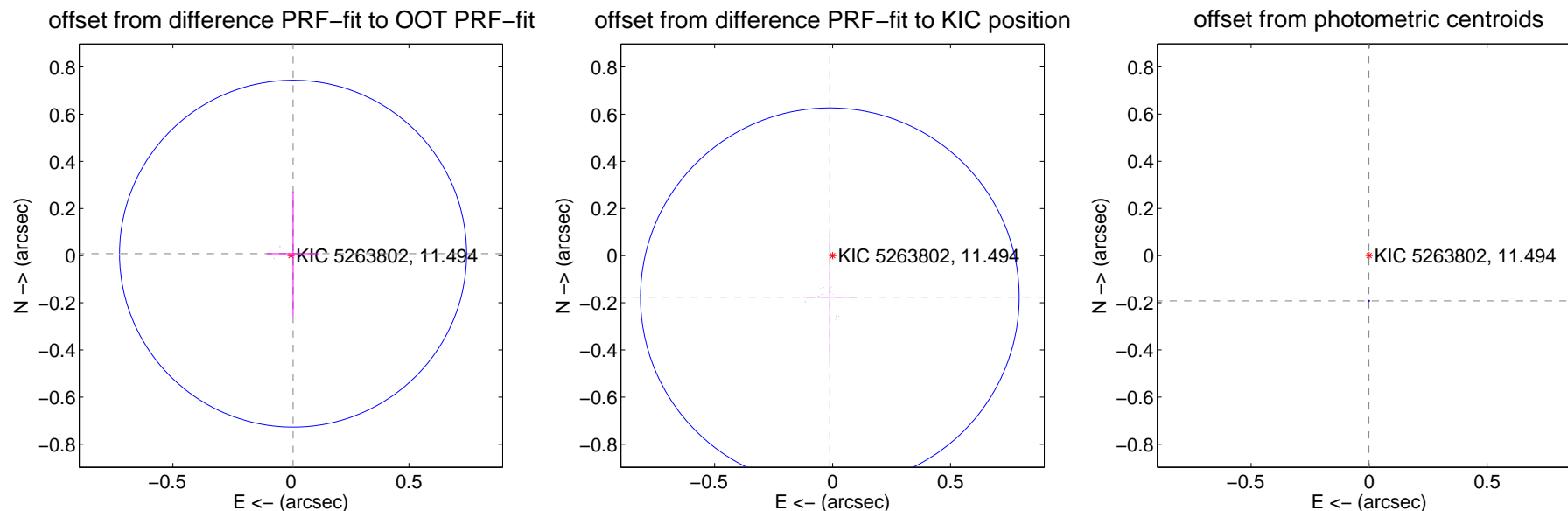
DV Centroid Data

Supplemental centroid analysis for 005263802-01. **Kepler magnitude: 11.49.** Transit SNR 3855.16

There are 17 quarters with good PRF difference image offsets

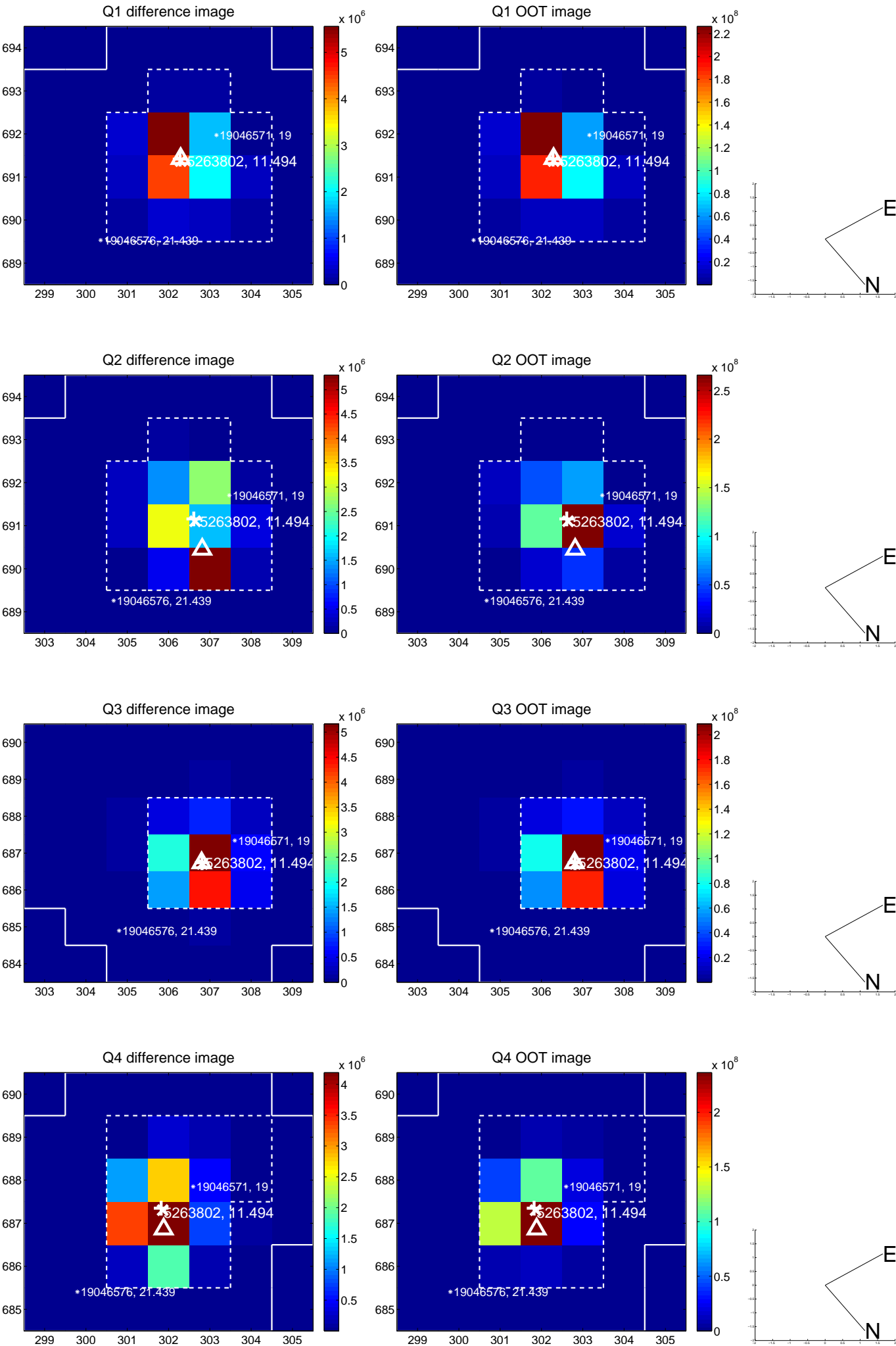
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.012 ± 0.245	0.05	-0.009 ± 0.111	0.008 ± 0.264
PRF-fit source offset from KIC position	0.177 ± 0.268	0.66	0.012 ± 0.114	-0.176 ± 0.263
photometric centroid source offset	0.19 ± 0.00	238.66	0.00 ± 0.00	-0.19 ± 0.00

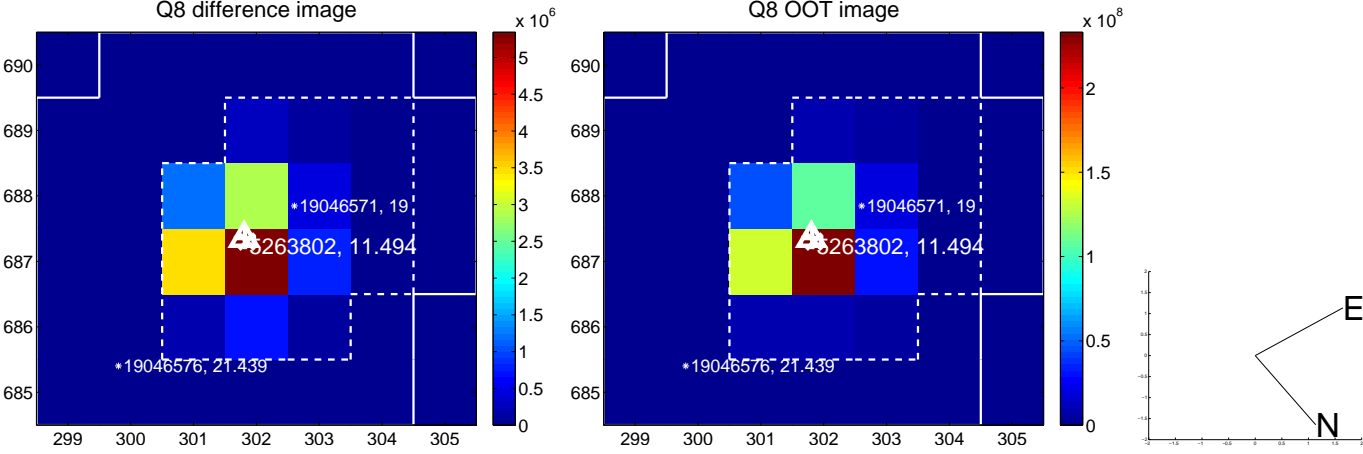
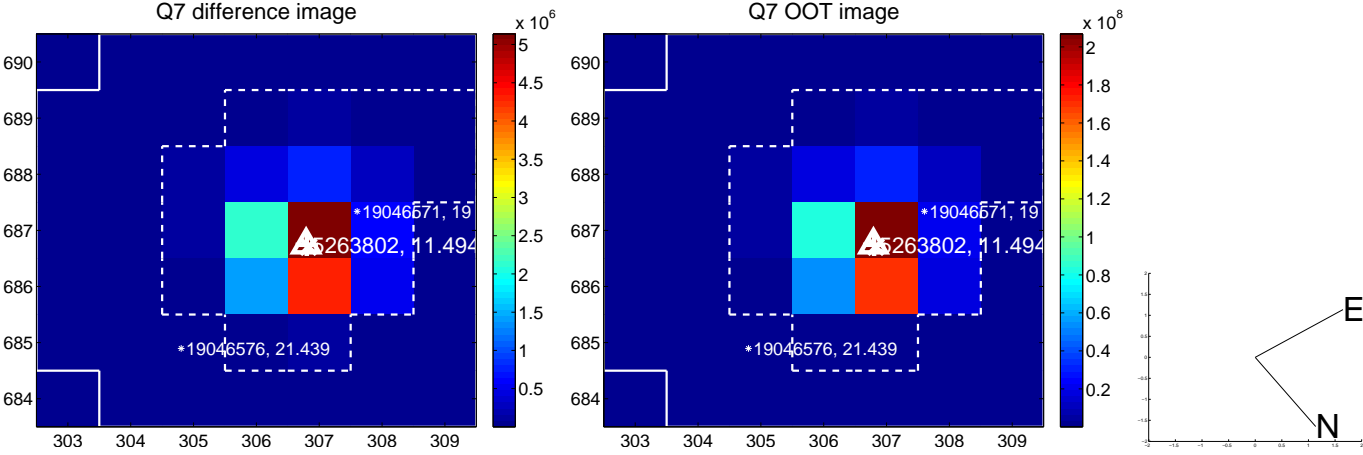
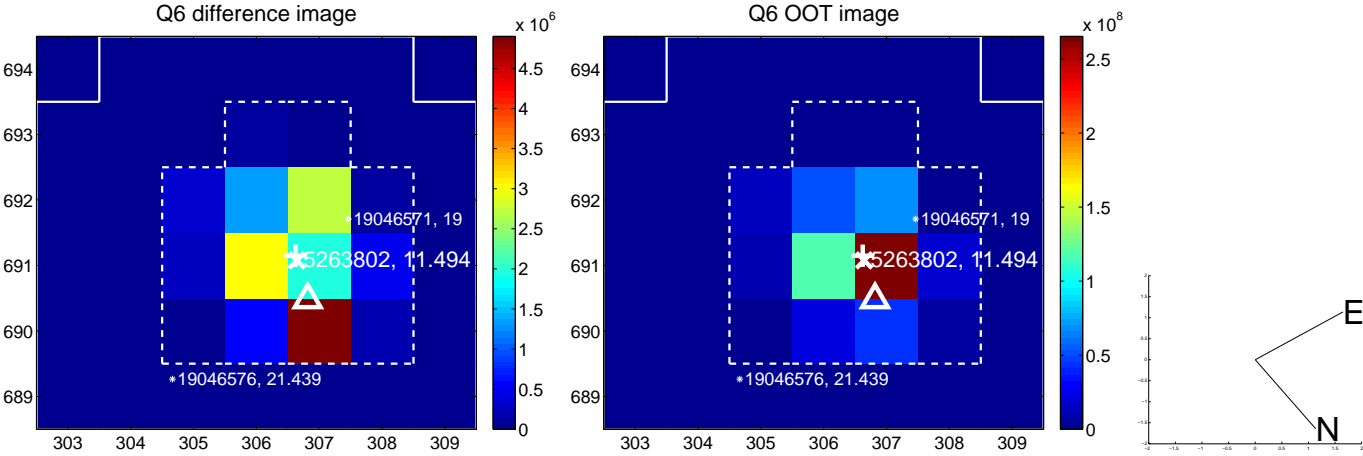
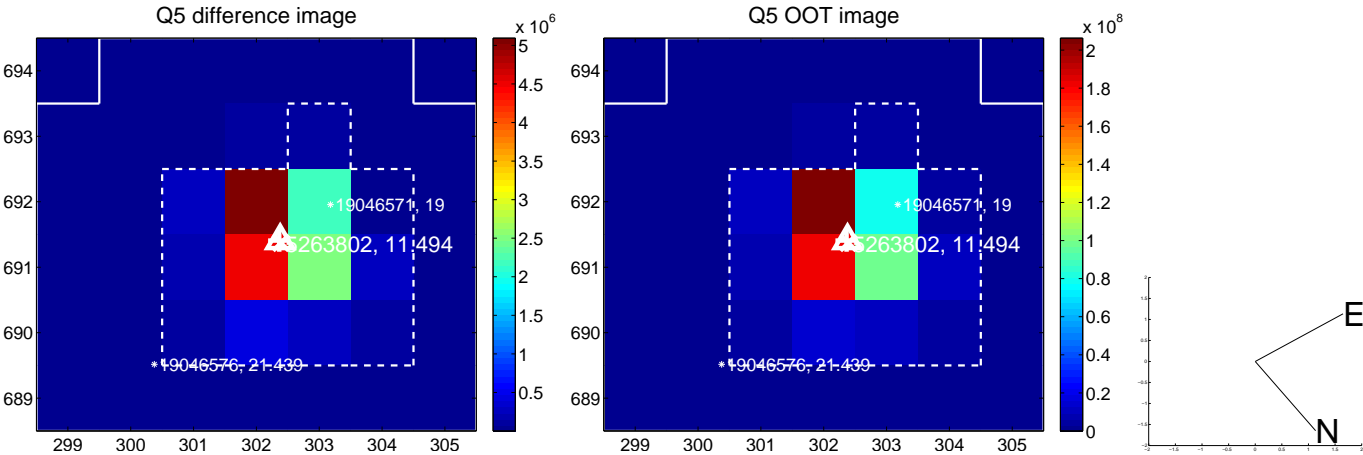


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

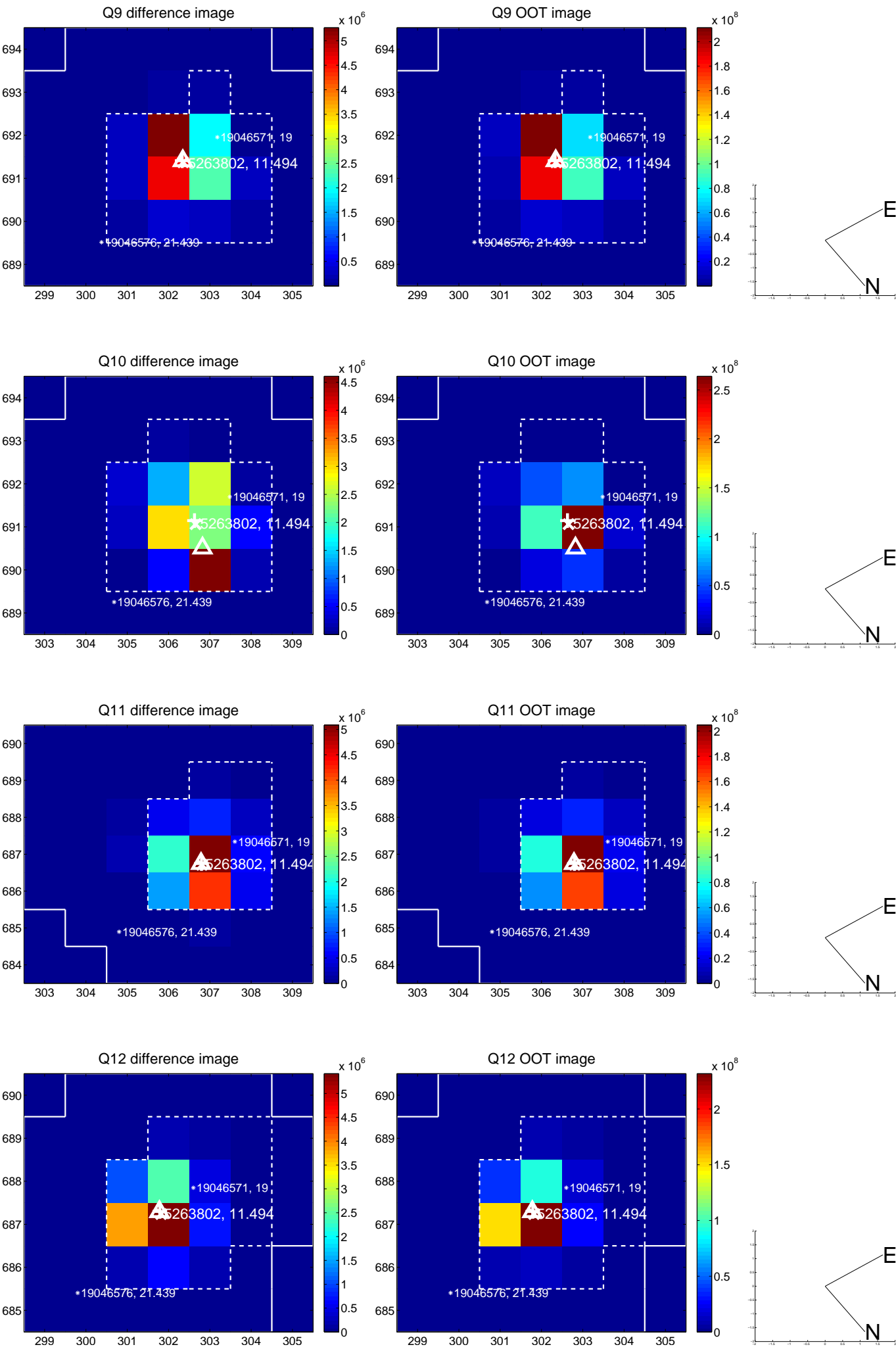
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



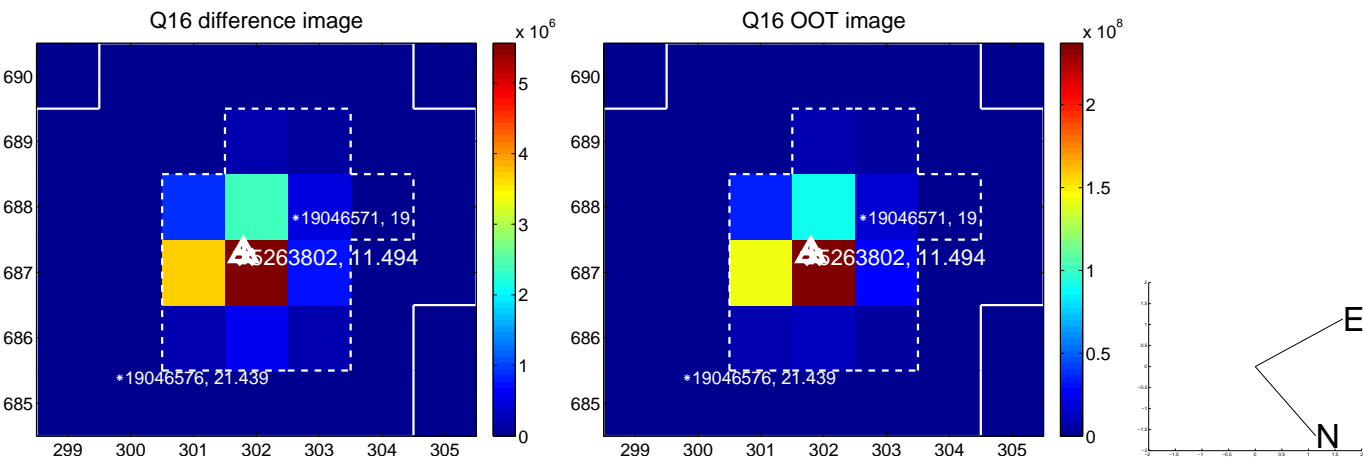
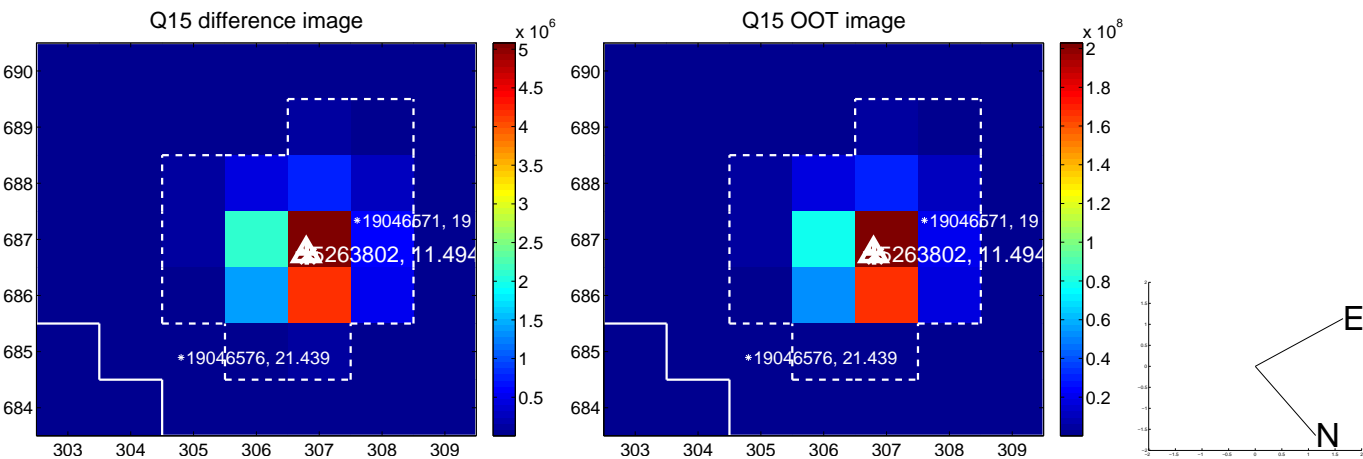
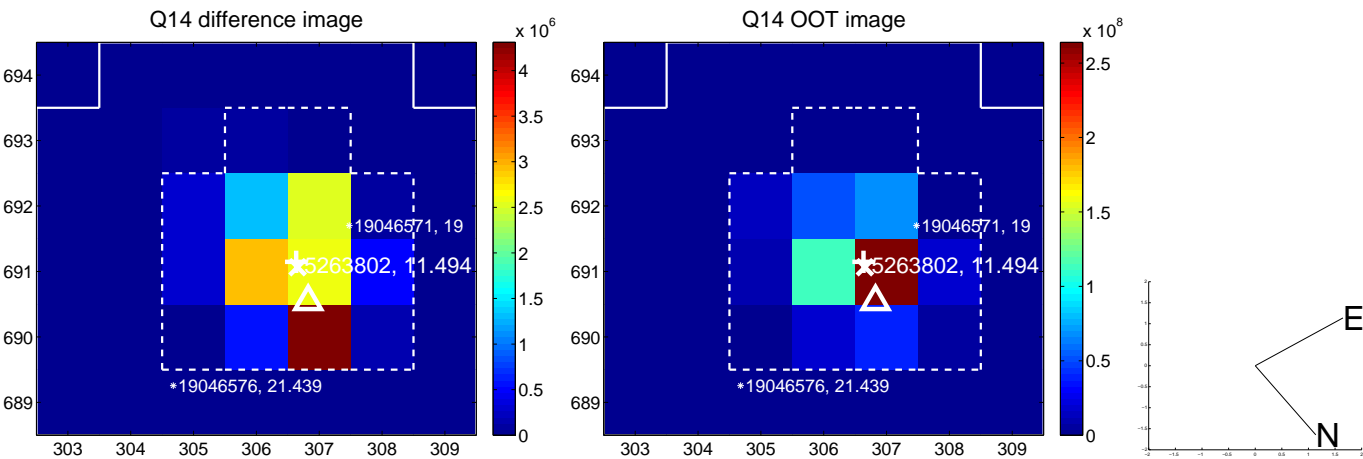
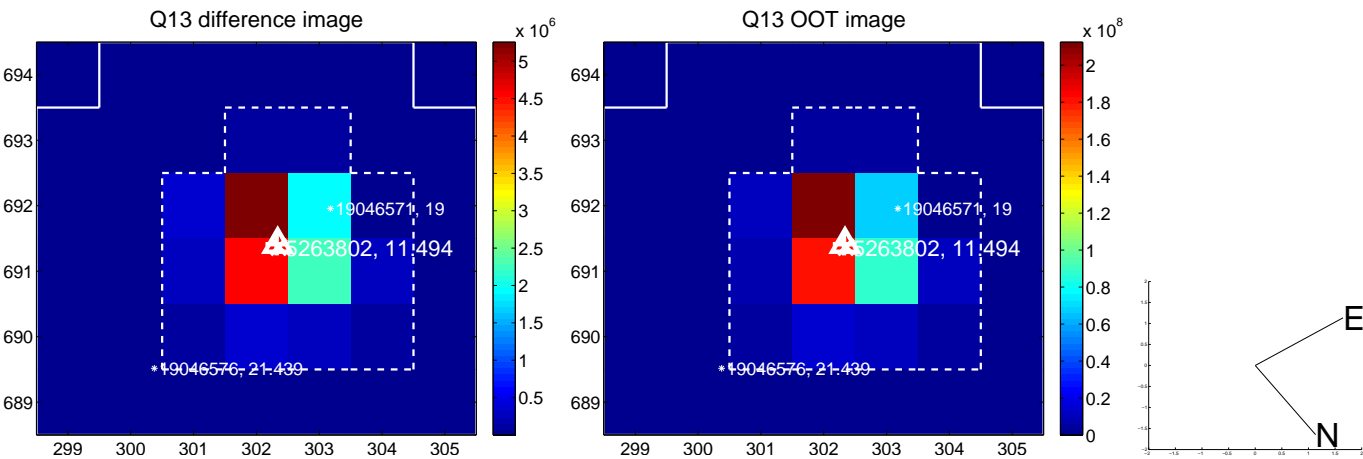
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



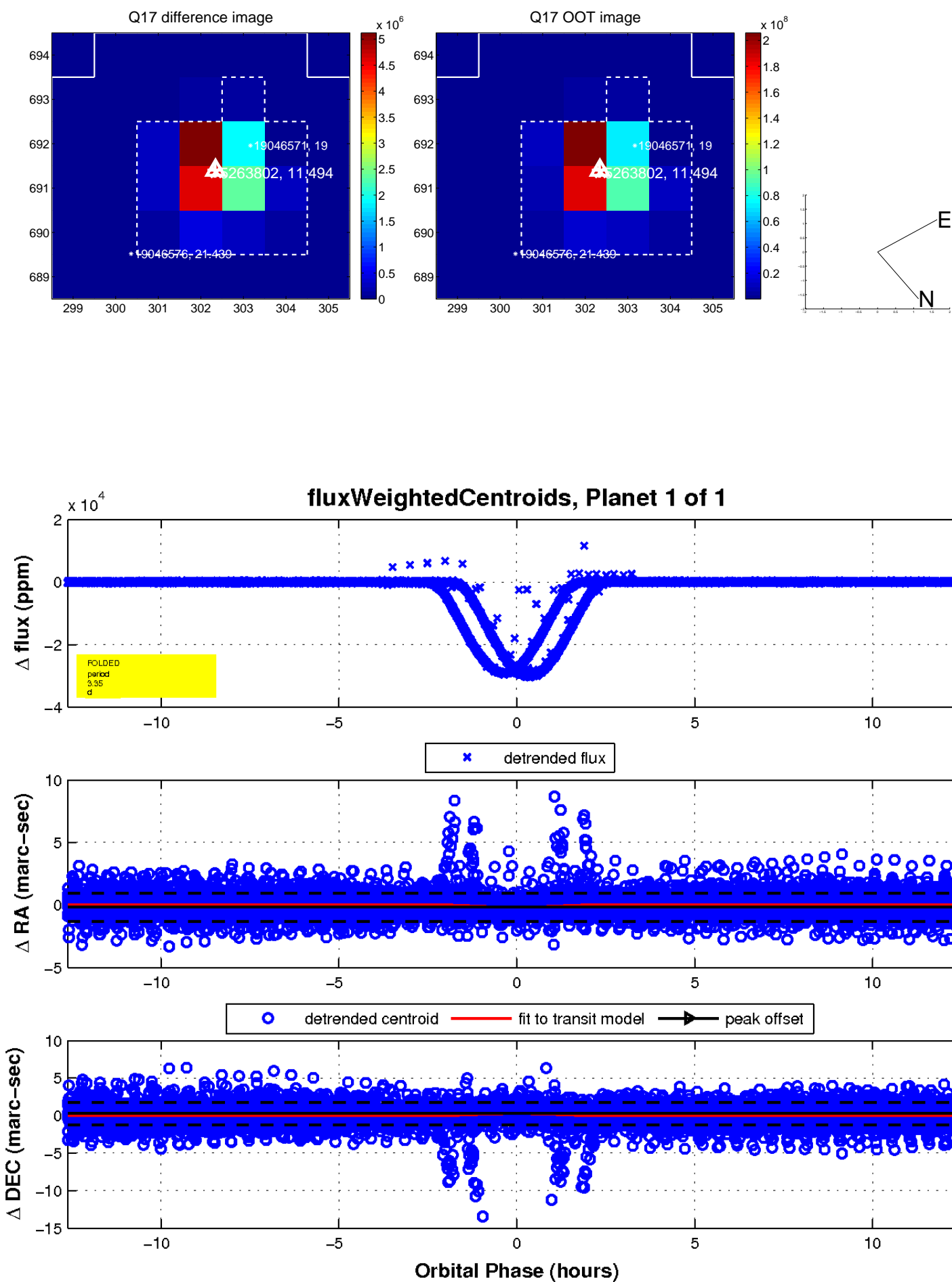
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

