

KIC 008155584

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
008155584-01	OBS	6979.01	26.016962	157.348642	34816.3	4.289	436.9	271.6	1.28	6287	34.36	76.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008155584-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—MOD_ODDEVEN_DV—DEEP_V_SHAPED—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.

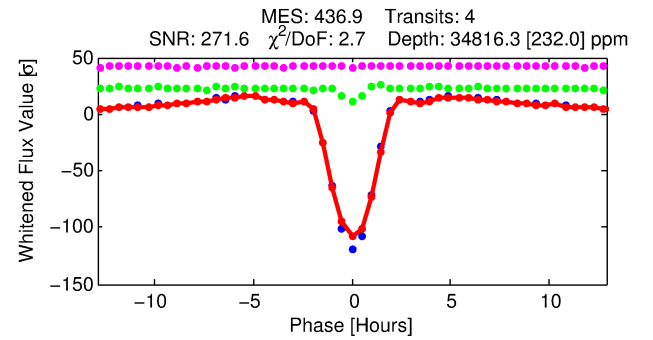
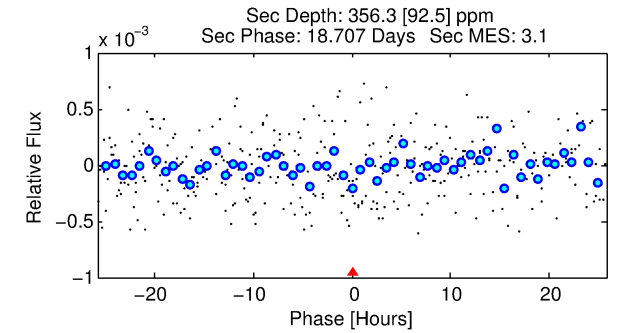
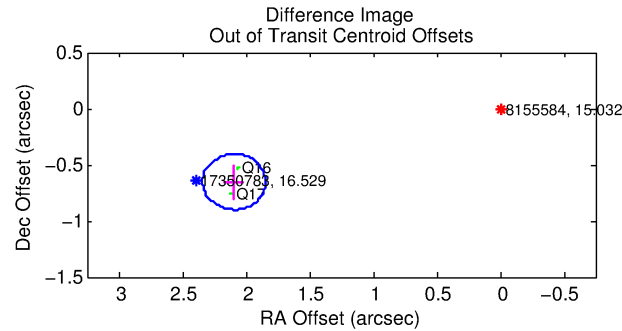
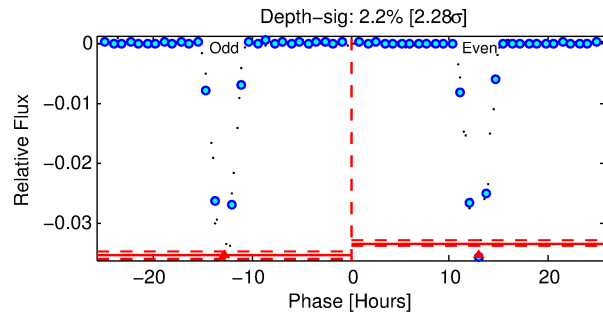
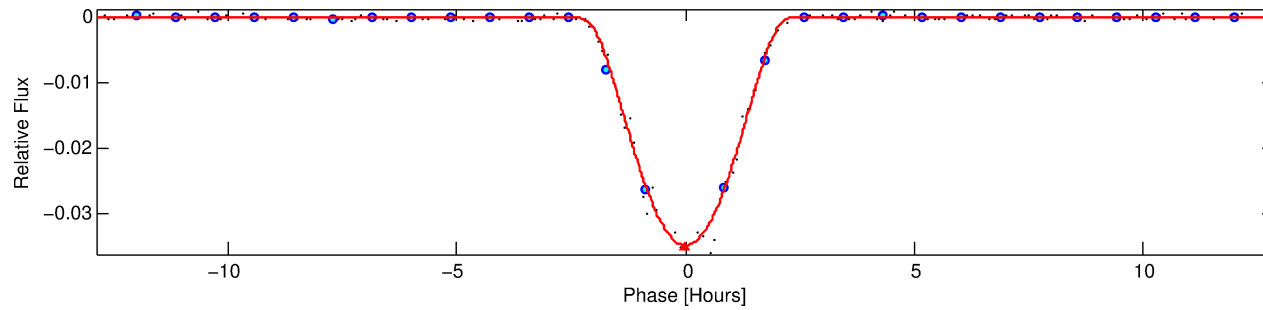
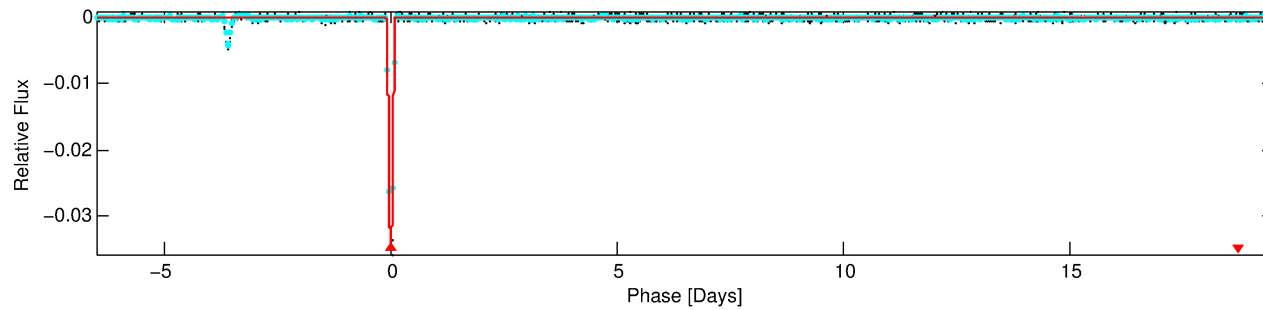
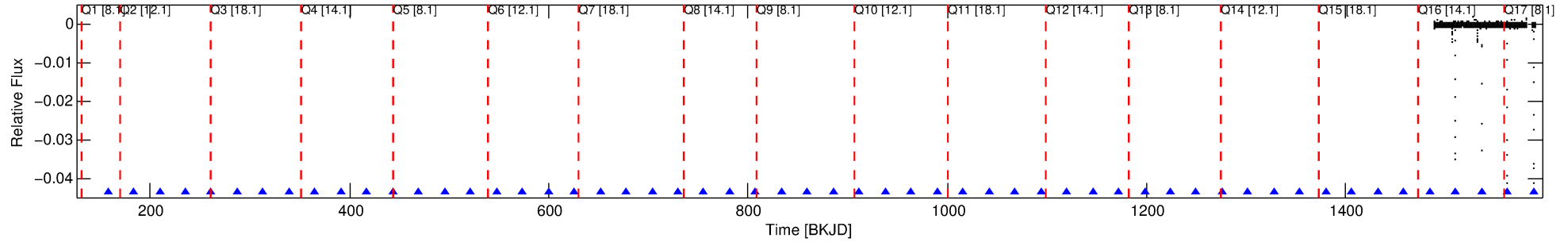
Ephemeris Match Information For 008155584-01

No Significant Match Found

DV One-Page Summary

KIC: 8155584 Candidate: 1 of 1 Period: 26.017 d
KOI: K06979.01 Corr: 0.970

Kp: 15.03 R*: 1.28 Rs Teff: 6287.0 K Logg: 4.23 Fe/H: -0.340



DV Fit Results:

Period = 26.01696 [0.00021] d
Epoch = 157.3486 [0.0112] BKJD
Rp/R* = 0.2460 [0.0447]
a/R* = 38.54 [1.07]
b = 0.93 [0.07]
Seff = 76.76 [29.38]
Teq = 755 [72] K
Rp = 34.36 [11.80] Re
a = 0.1729 [0.0420] AU
Ag = 4.96 [2.82] [1.41σ]
Teffp = 1742 [206] K [4.53σ]

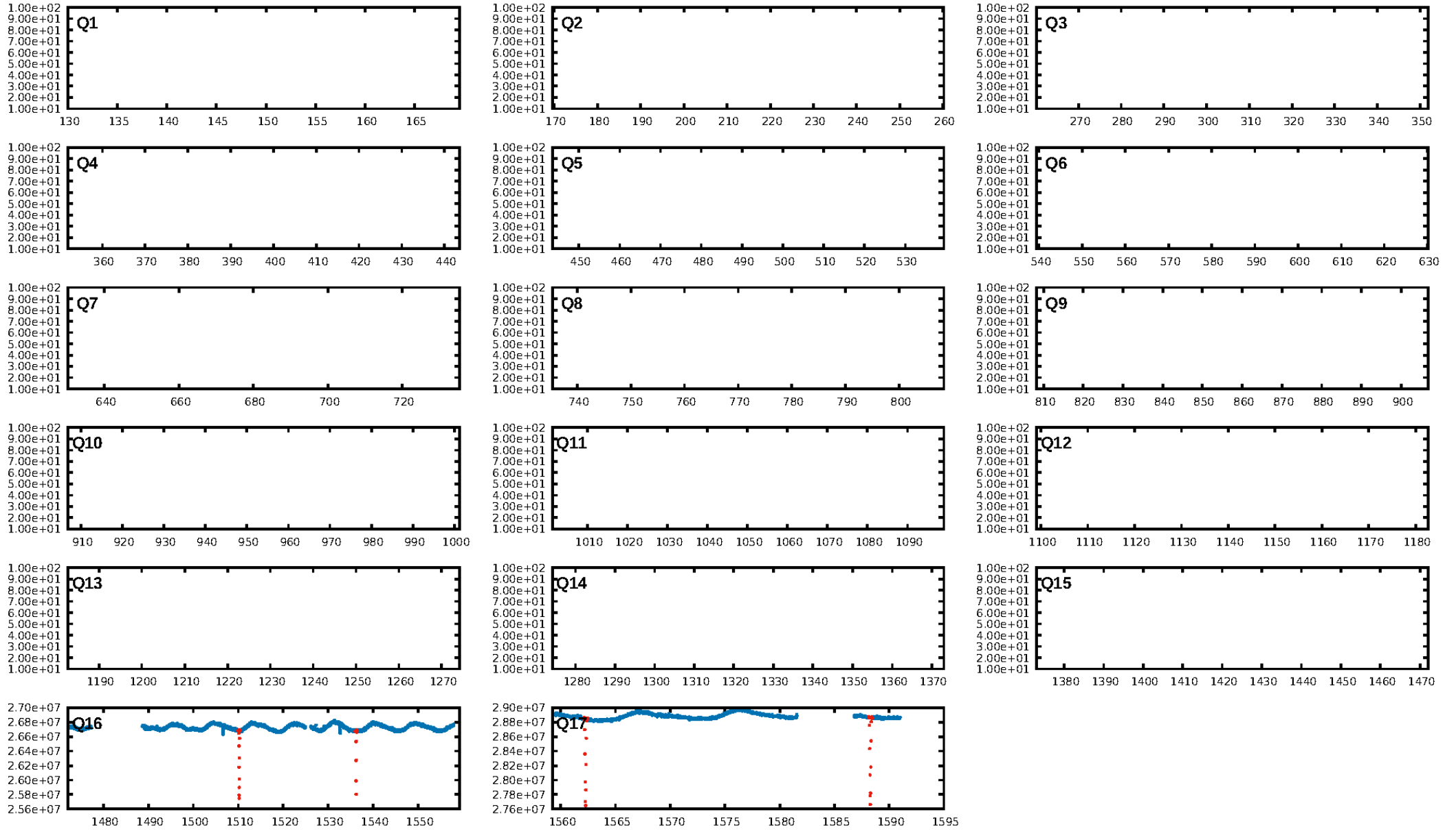
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 1.498
Centroid-sig: 0.0%
Centroid-so: 3.073 arcsec [92.68σ]
OotOffset-rm: 2.194 arcsec [26.60σ]
KicOffset-rm: 2.436 arcsec [35.74σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

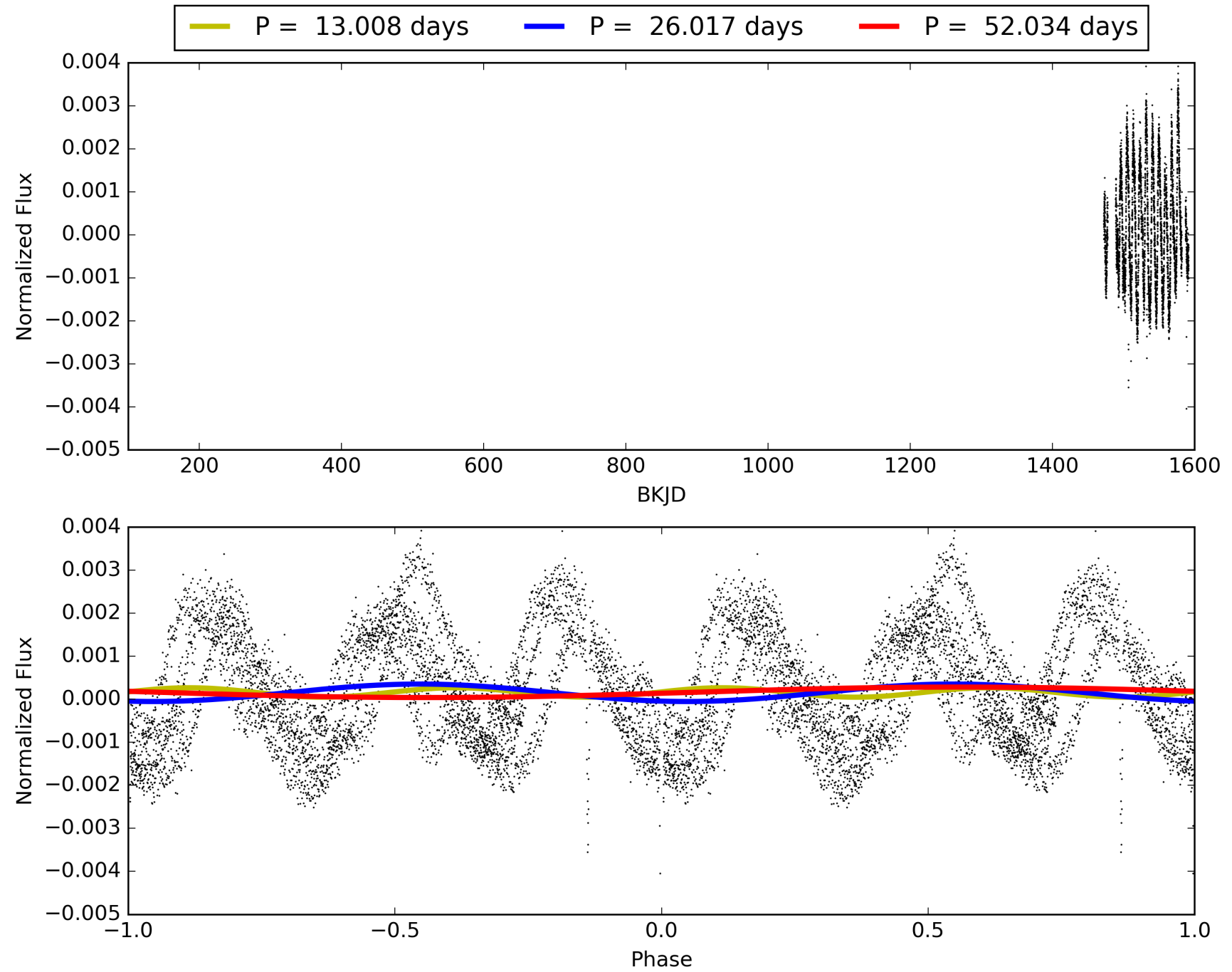
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:49:17 Z

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

TCE 008155584-01, PDC Light Curves

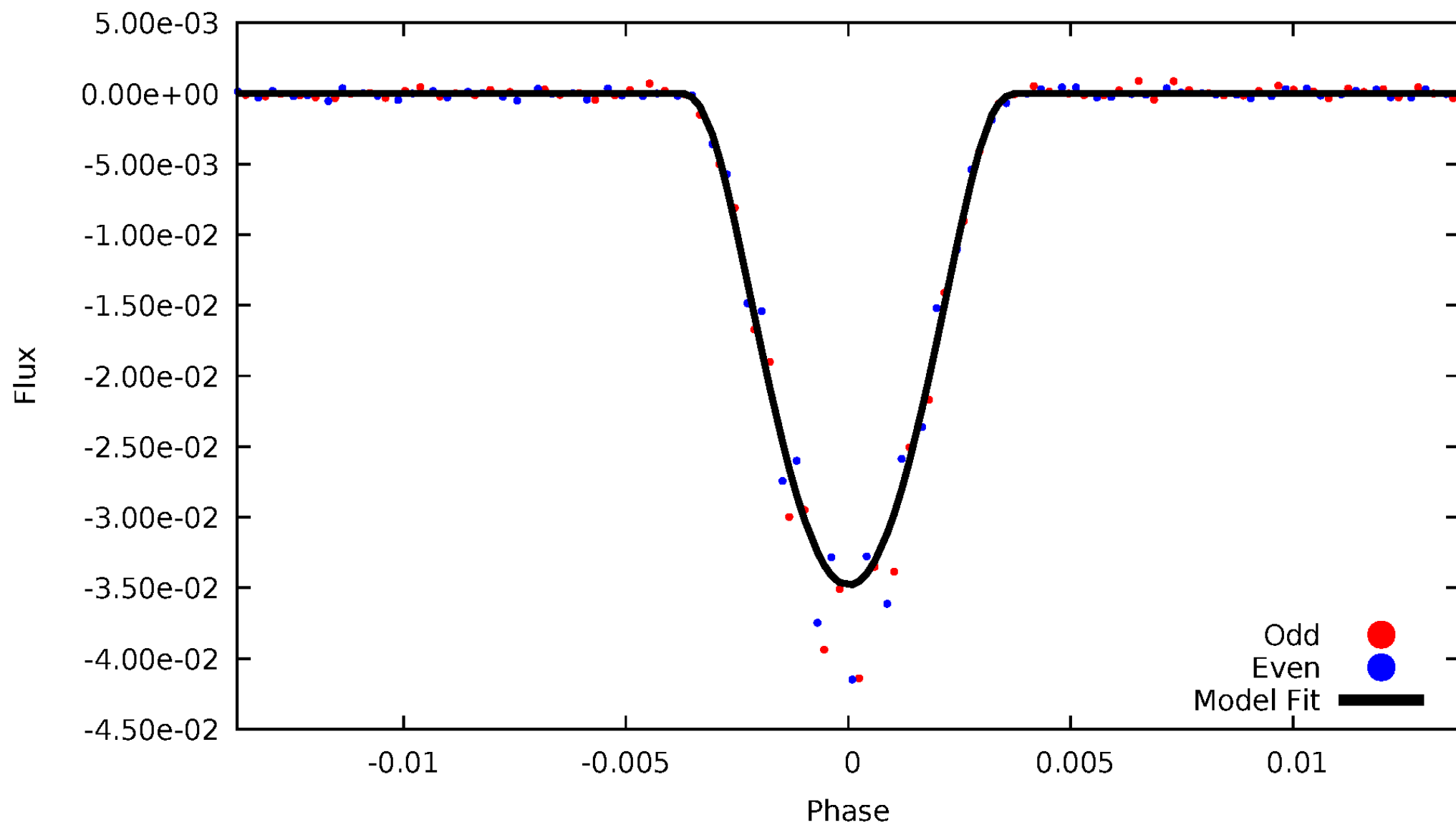


TCE 008155584-01



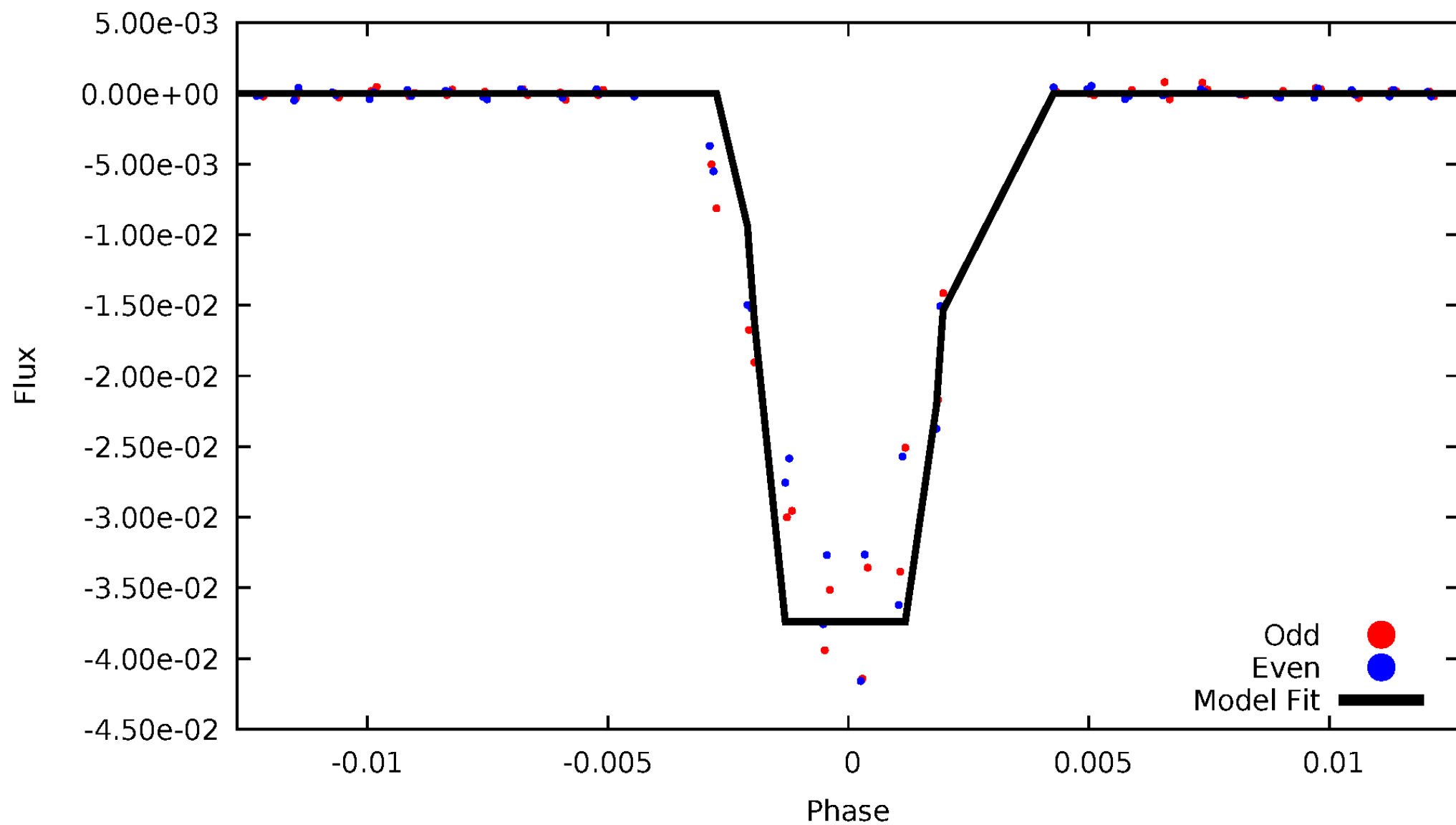
DV Odd/Even

TCE 008155584-01



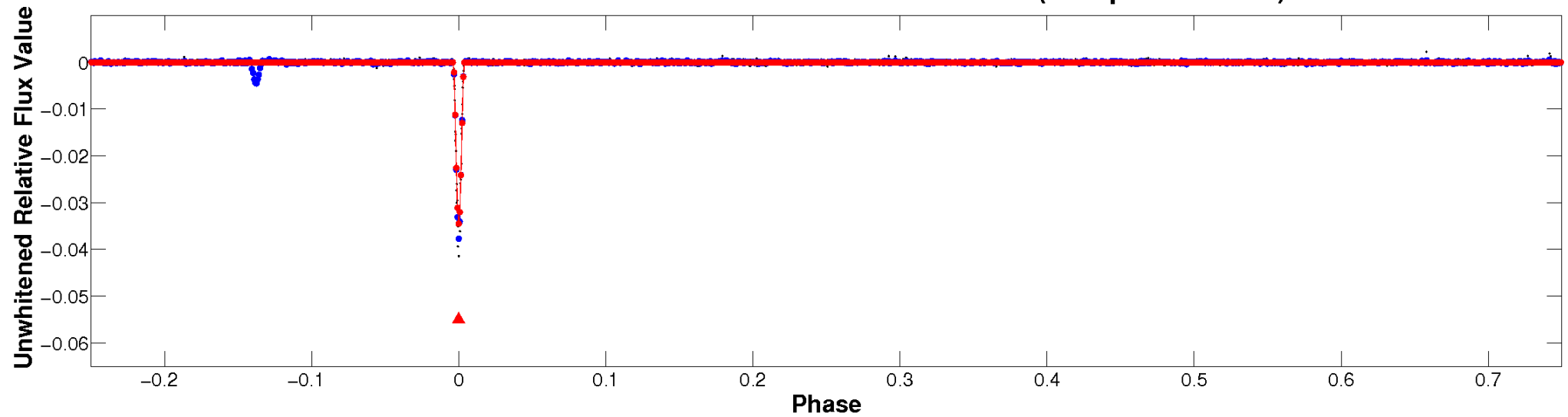
ALT Odd/Even

TCE 008155584-01

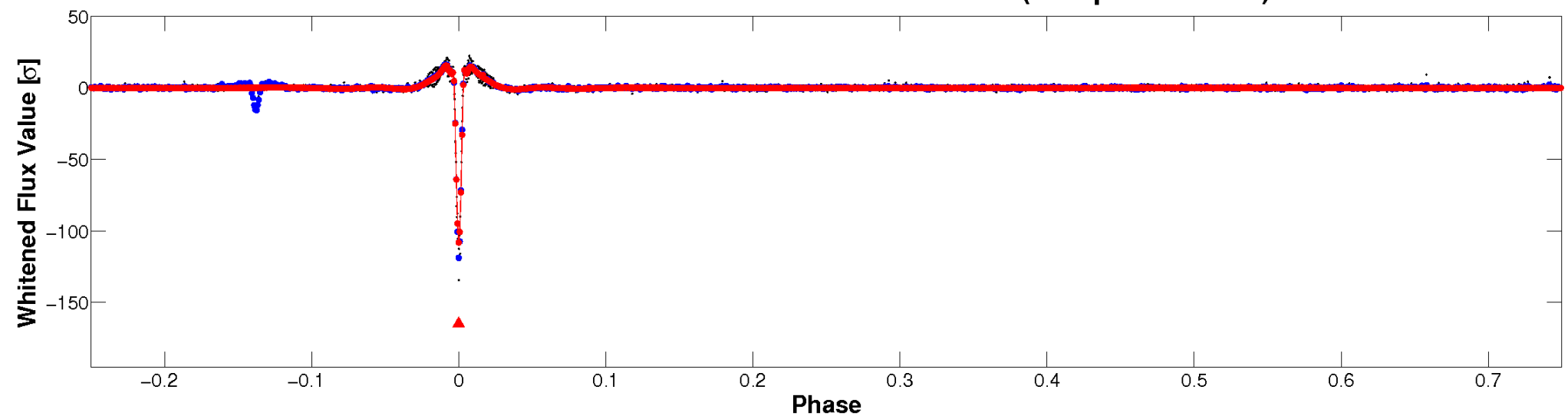


Non-Whitened Vs. Whitened Light Curve

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

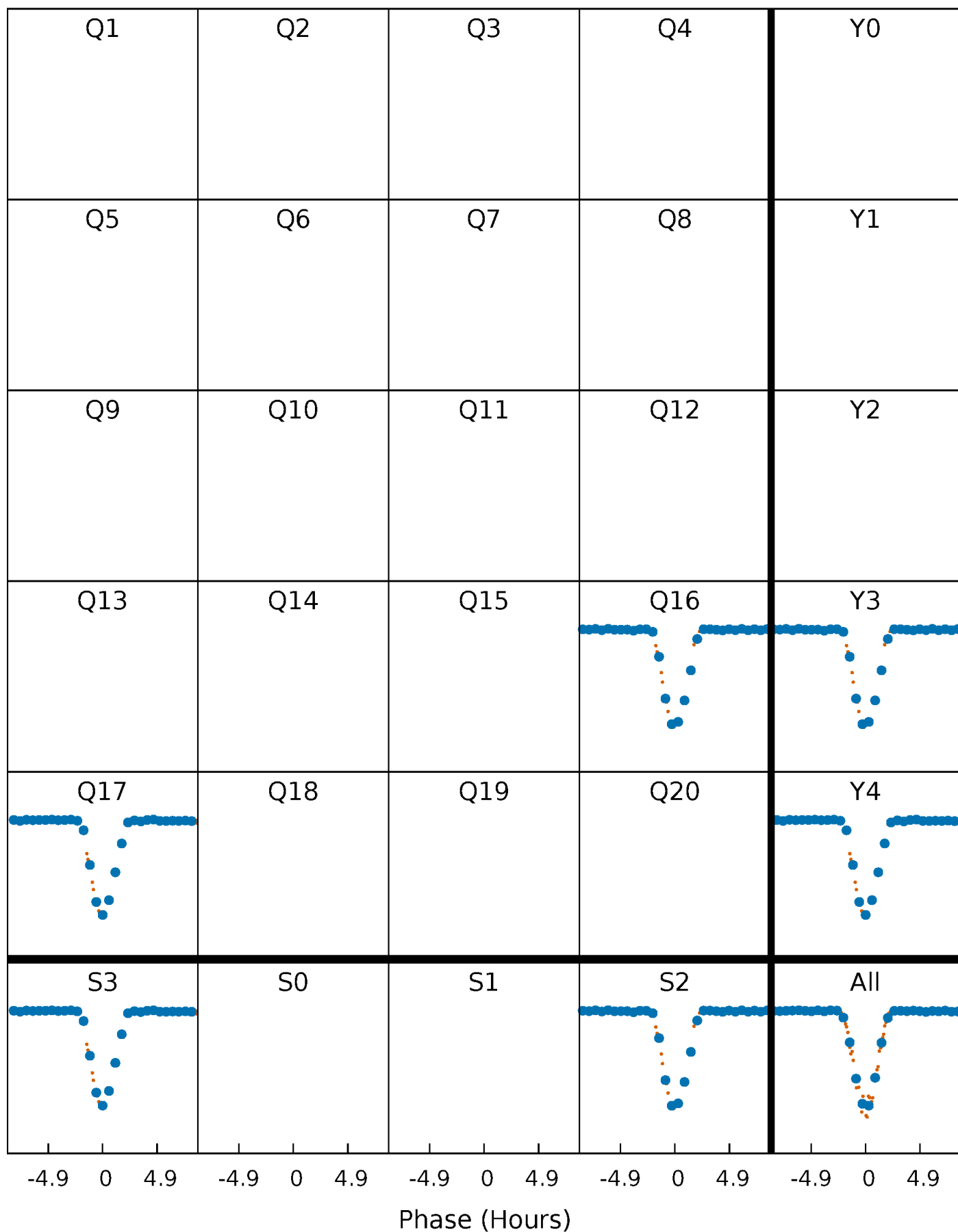


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



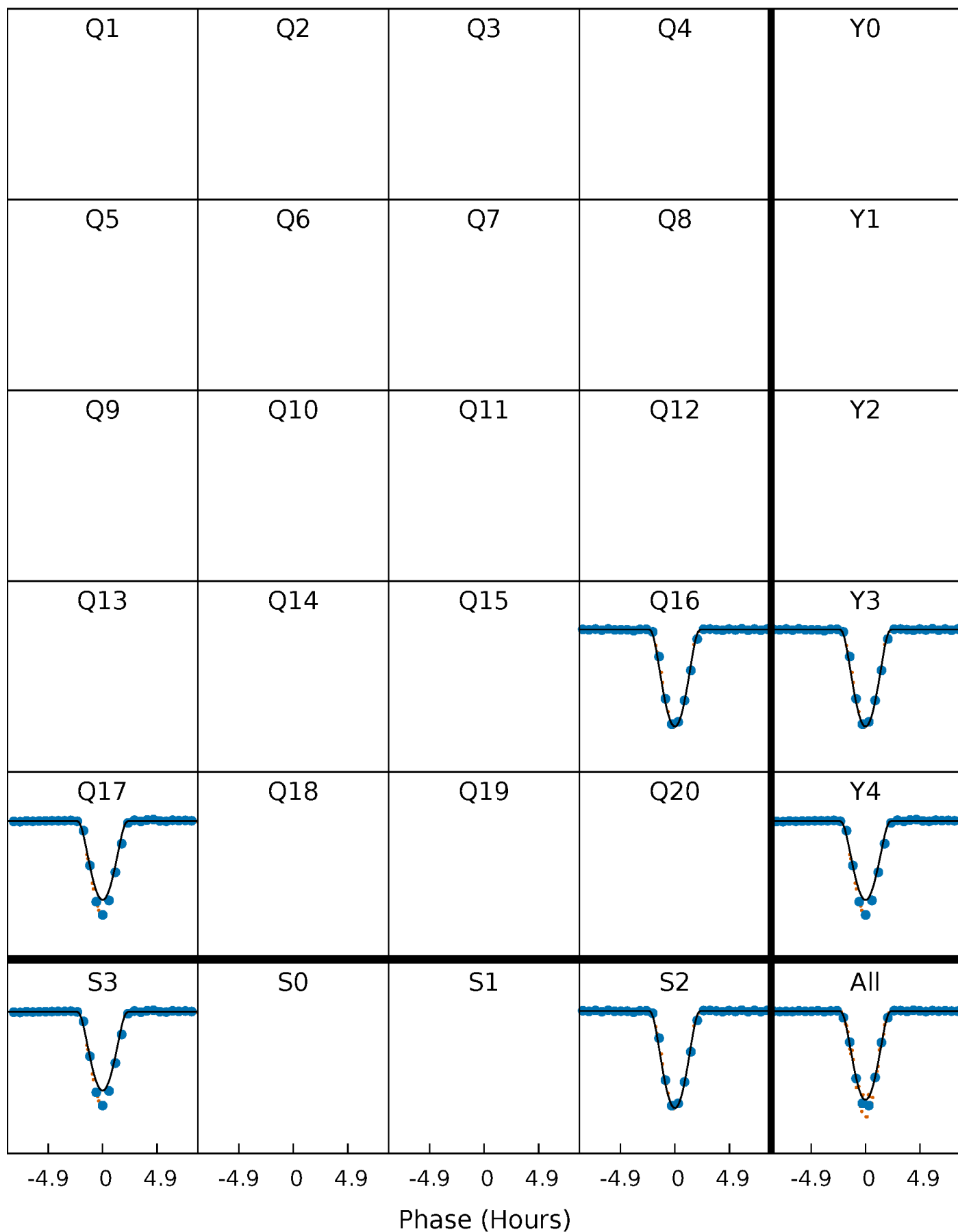
PDC Quarter-Phased Transit Curves

TCE 008155584-01 P= 26.016962 Days $T_0=157.348642$ (BKJD)



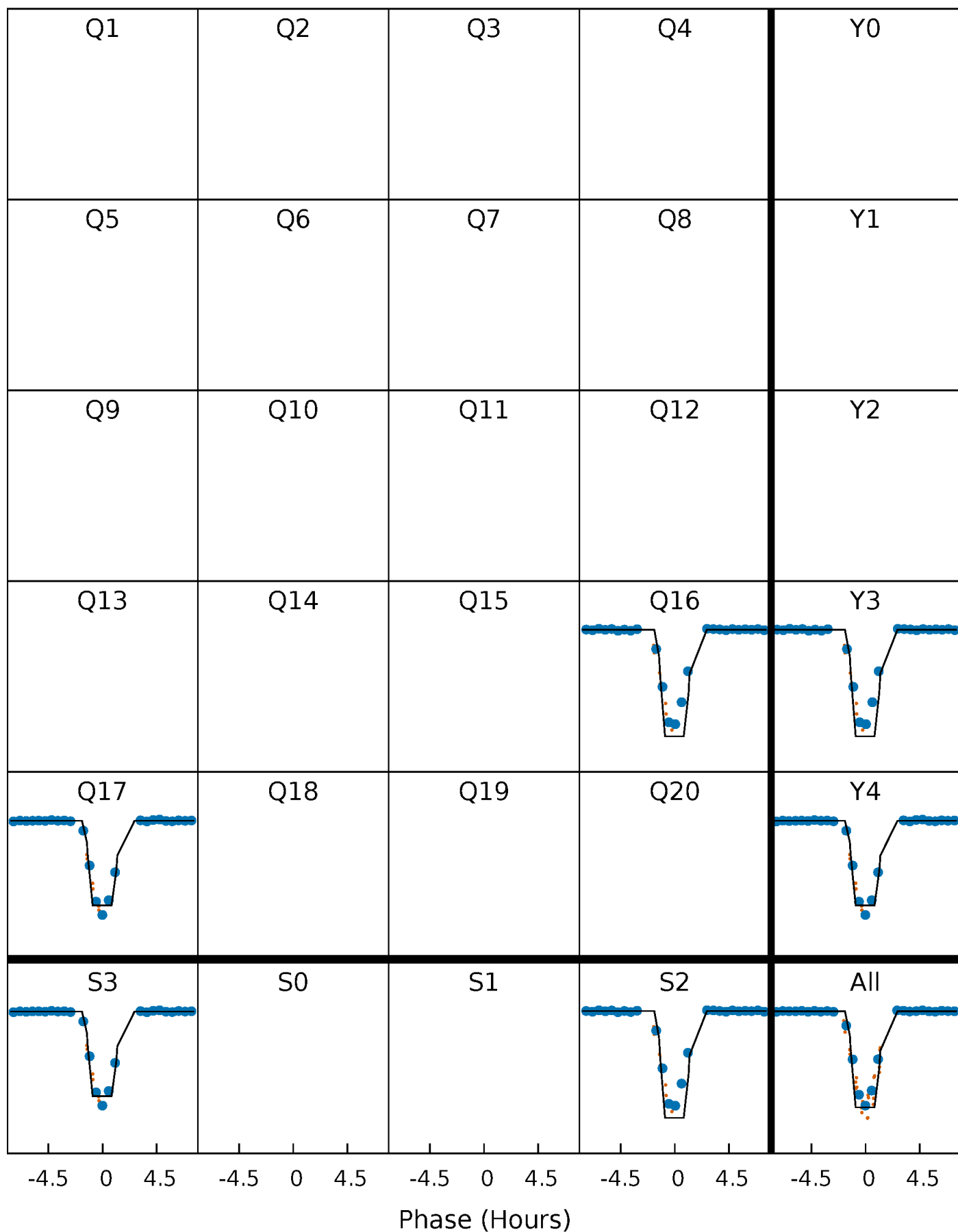
DV Quarter-Phased Transit Curves

TCE 008155584-01 P= 26.016962 Days $T_0=157.348642$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

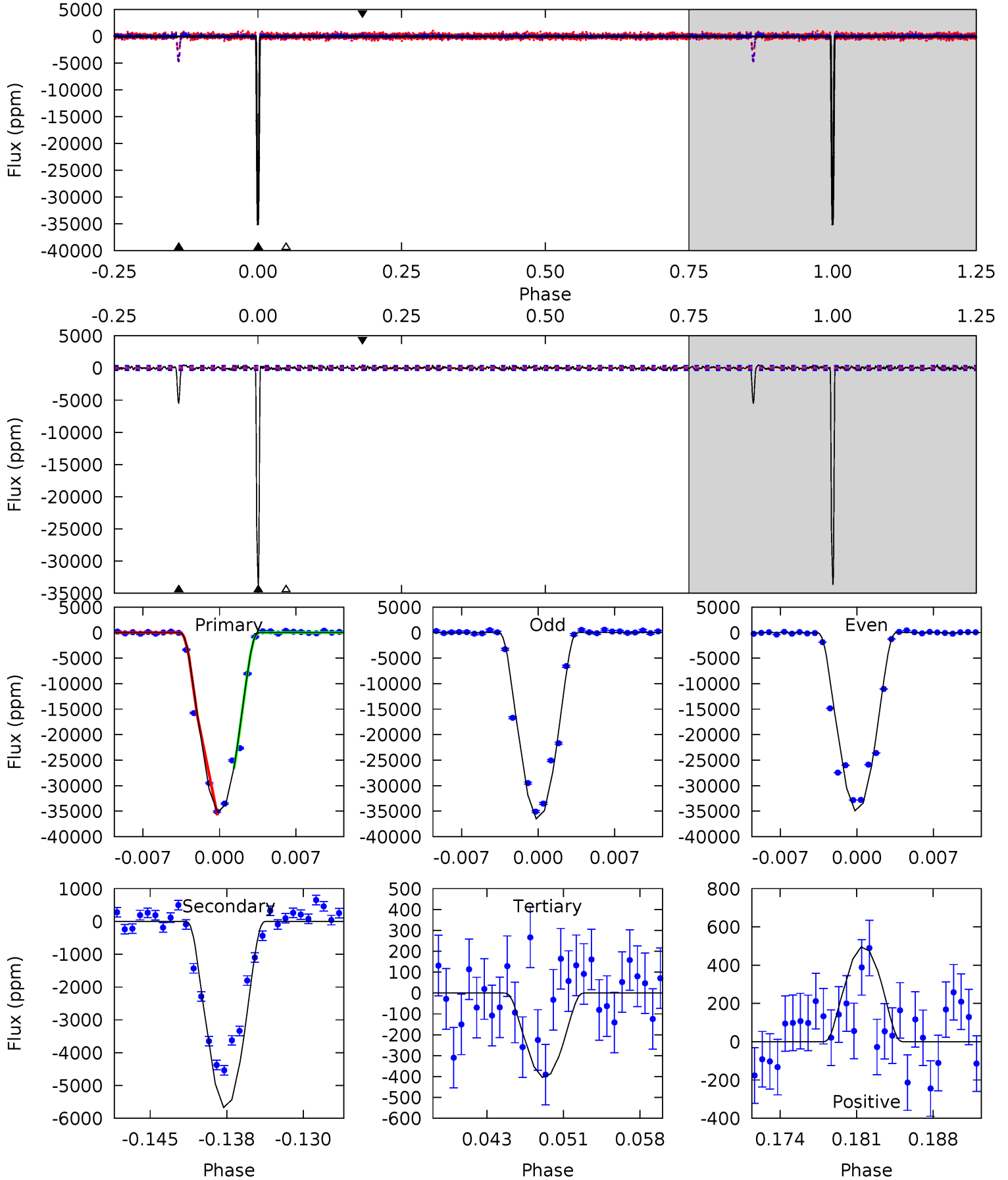
TCE 008155584-01 P= 26.013846 Days $T_0=157.515581$ (BKJD)



DV Model-Shift Uniqueness Test

008155584-01, P = 26.016962 Days, E = 157.348642 Days

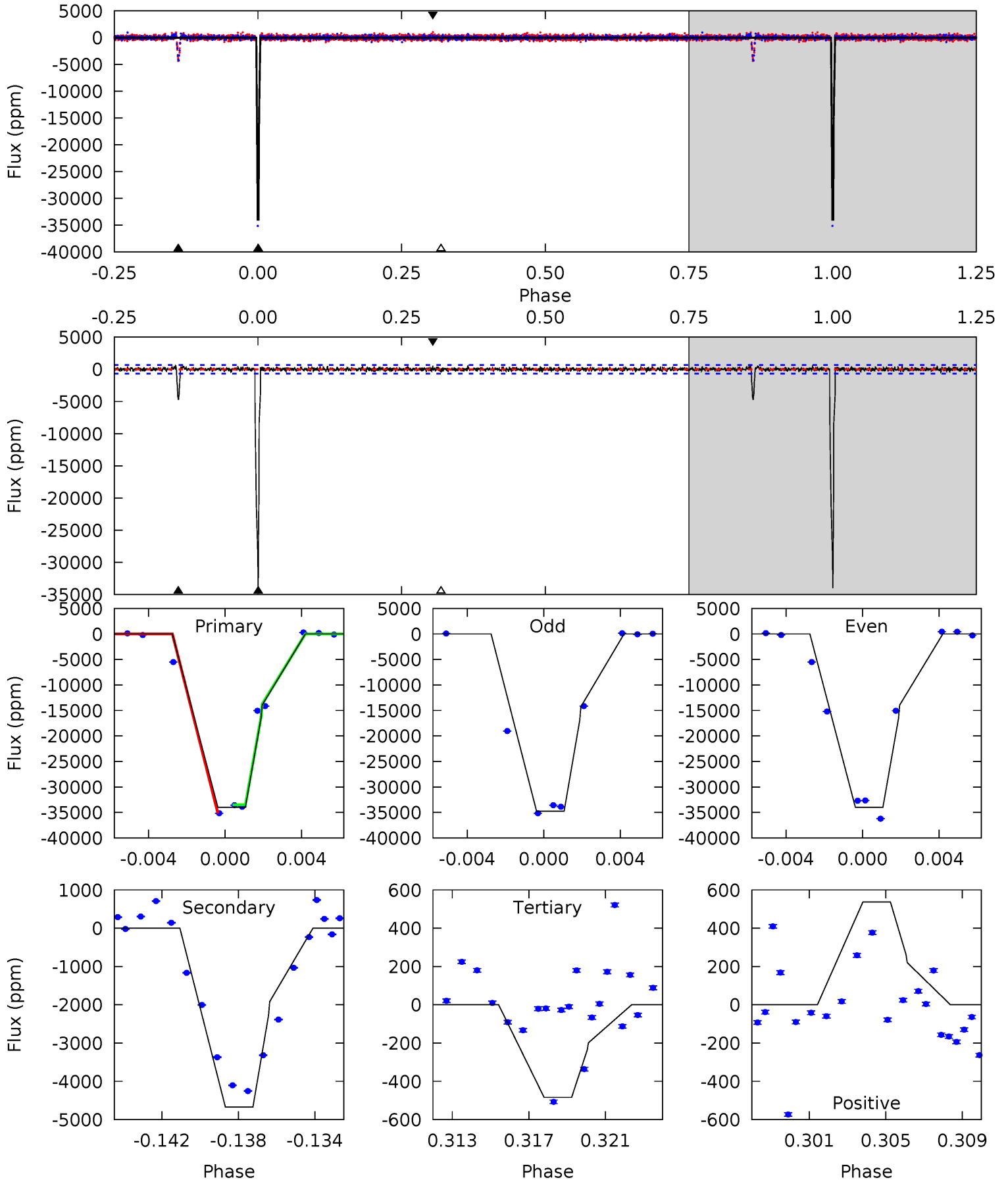
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
509.7	82.1	5.85	7.17	5.09	2.69	1.81	503.9	502.6	76.3	75.0	12.8	0.99	0.01	49.8



Alt Model-Shift Uniqueness Test

008155584-01, P = 26.013846 Days, E = 157.515581 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
260.9	35.9	3.72	4.12	5.20	2.87	1.72	257.2	256.8	32.2	31.8	4.46	0.99	0.02	5.56



Stellar Parameters For KIC 008155584

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6287^{+198}_{-242}	$4.231^{+0.190}_{-0.171}$	$-0.340^{+0.300}_{-0.300}$	$1.280^{+0.373}_{-0.305}$	$1.015^{+0.172}_{-0.129}$	$0.682^{+0.761}_{-0.338}$
	+3%/-4%	+4%/-4%	+88%/-88%	+29%/-24%	+17%/-13%	+112%/-50%
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 008155584-01 / KOI 6979.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5428 ± 66	$34.52^{+8.02}_{-7.95}$	1053^{+83}_{-73}	3810^{+290}_{-229}	76^{+47}_{-27}
Alt.	-4672 ± 130	$26.69^{+7.91}_{-6.51}$	1046^{+89}_{-74}	4045^{+408}_{-293}	109^{+84}_{-44}

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 $A_{obs} \gg 1.0$

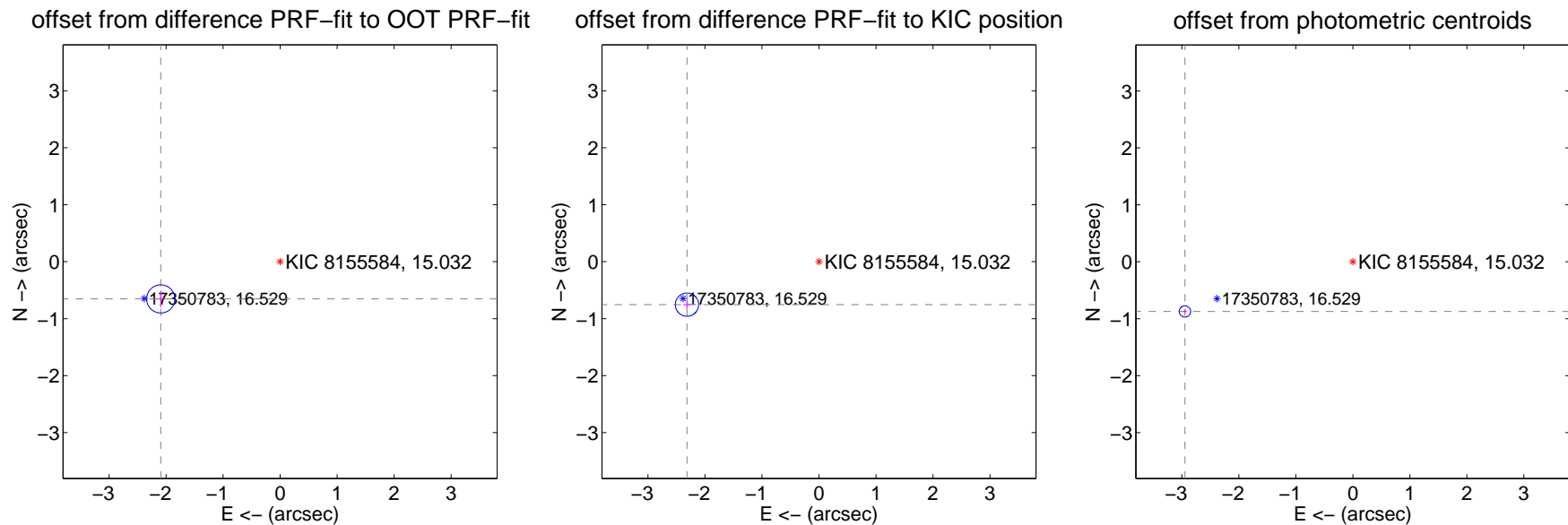
DV Centroid Data

Supplemental centroid analysis for 008155584-01. Kepler magnitude: 15.03. Transit SNR 271.63

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.194 ± 0.082	26.60	2.094 ± 0.073	-0.654 ± 0.147
PRF-fit source offset from KIC position	2.436 ± 0.068	35.74	2.317 ± 0.068	-0.754 ± 0.074
photometric centroid source offset	3.07 ± 0.03	92.68	2.95 ± 0.03	-0.87 ± 0.03

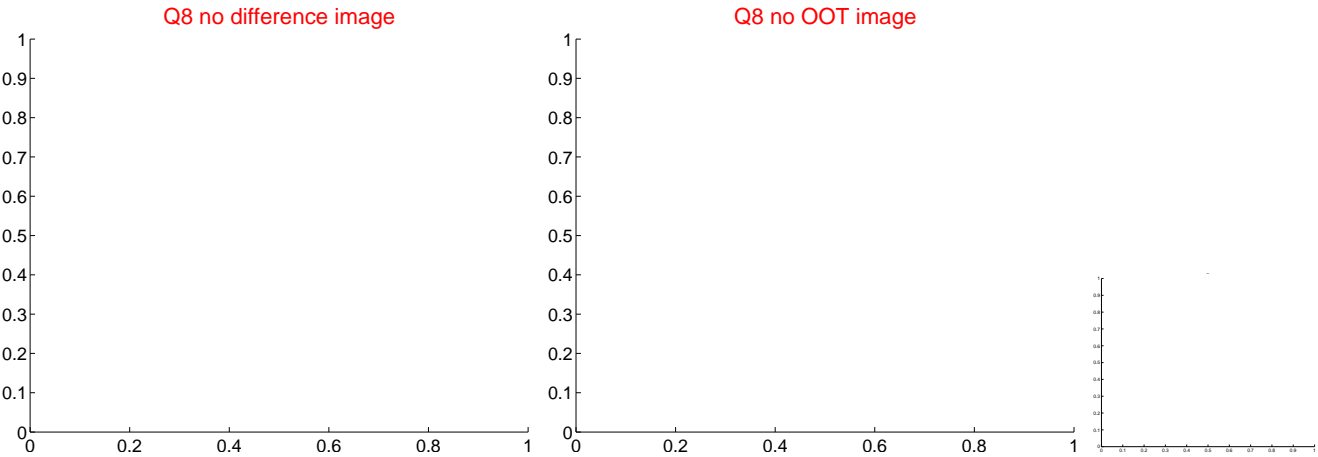
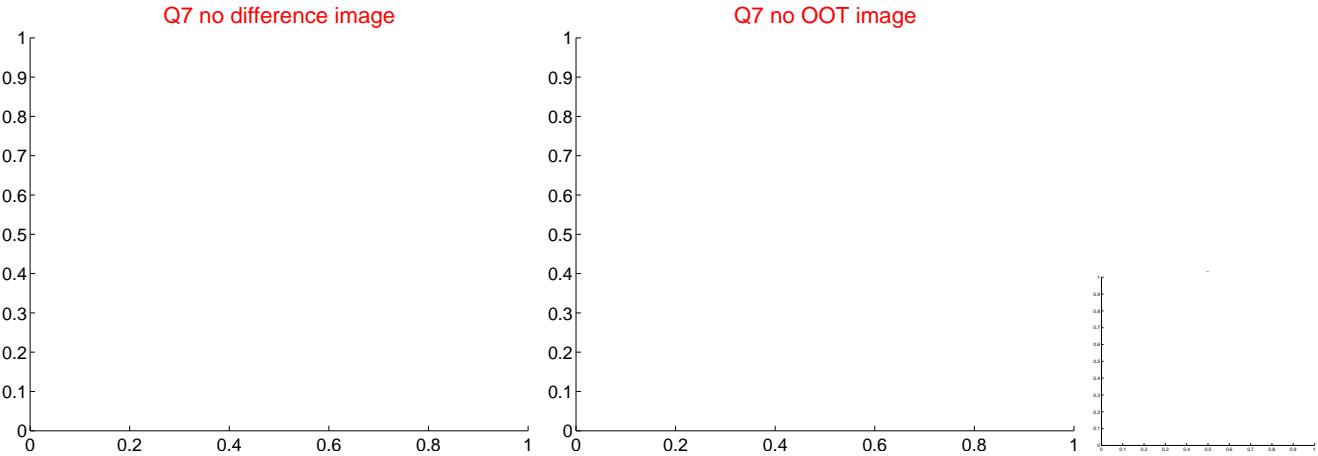
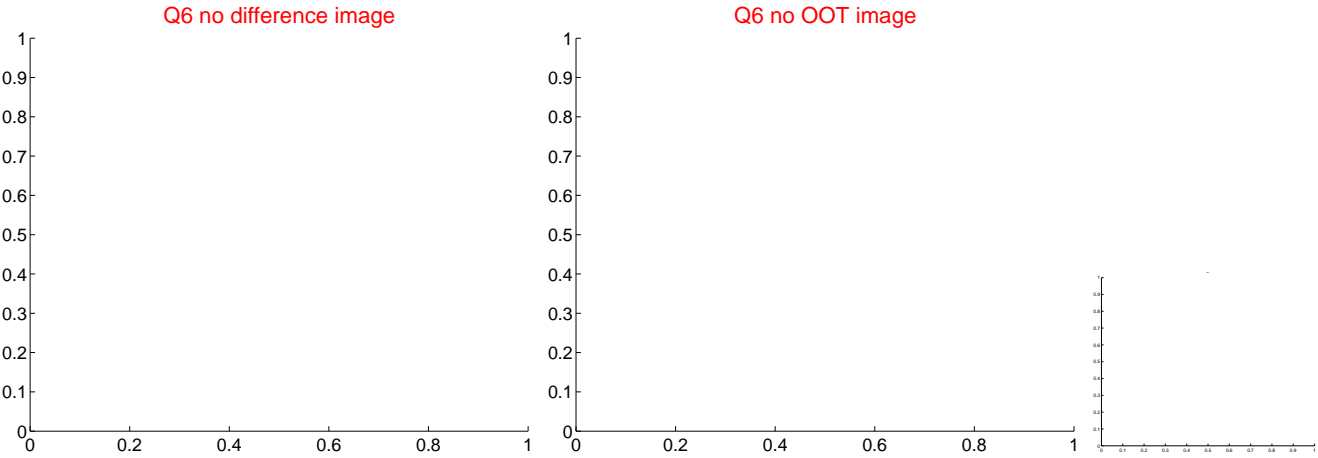
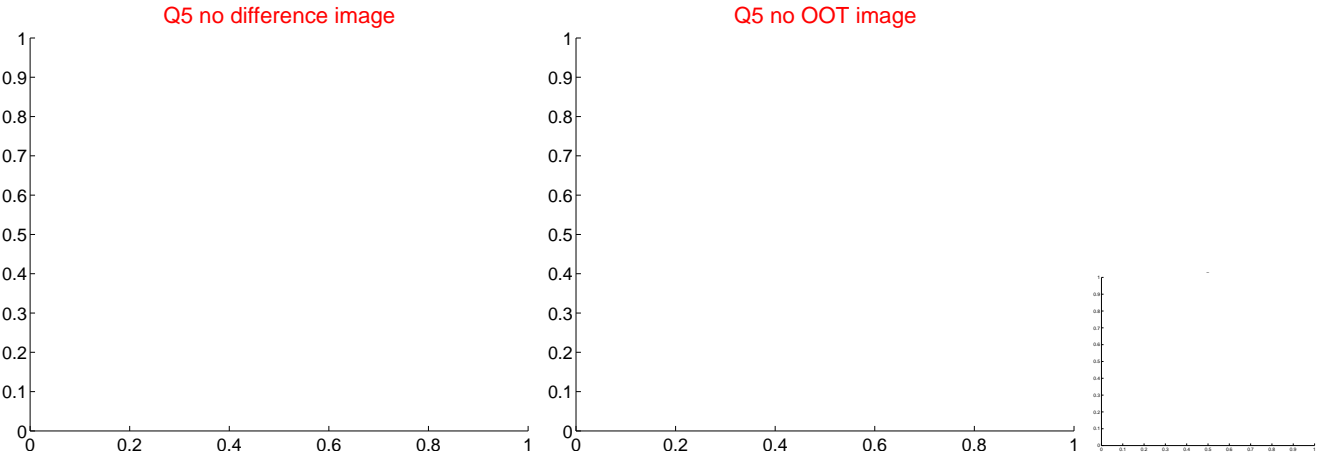


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



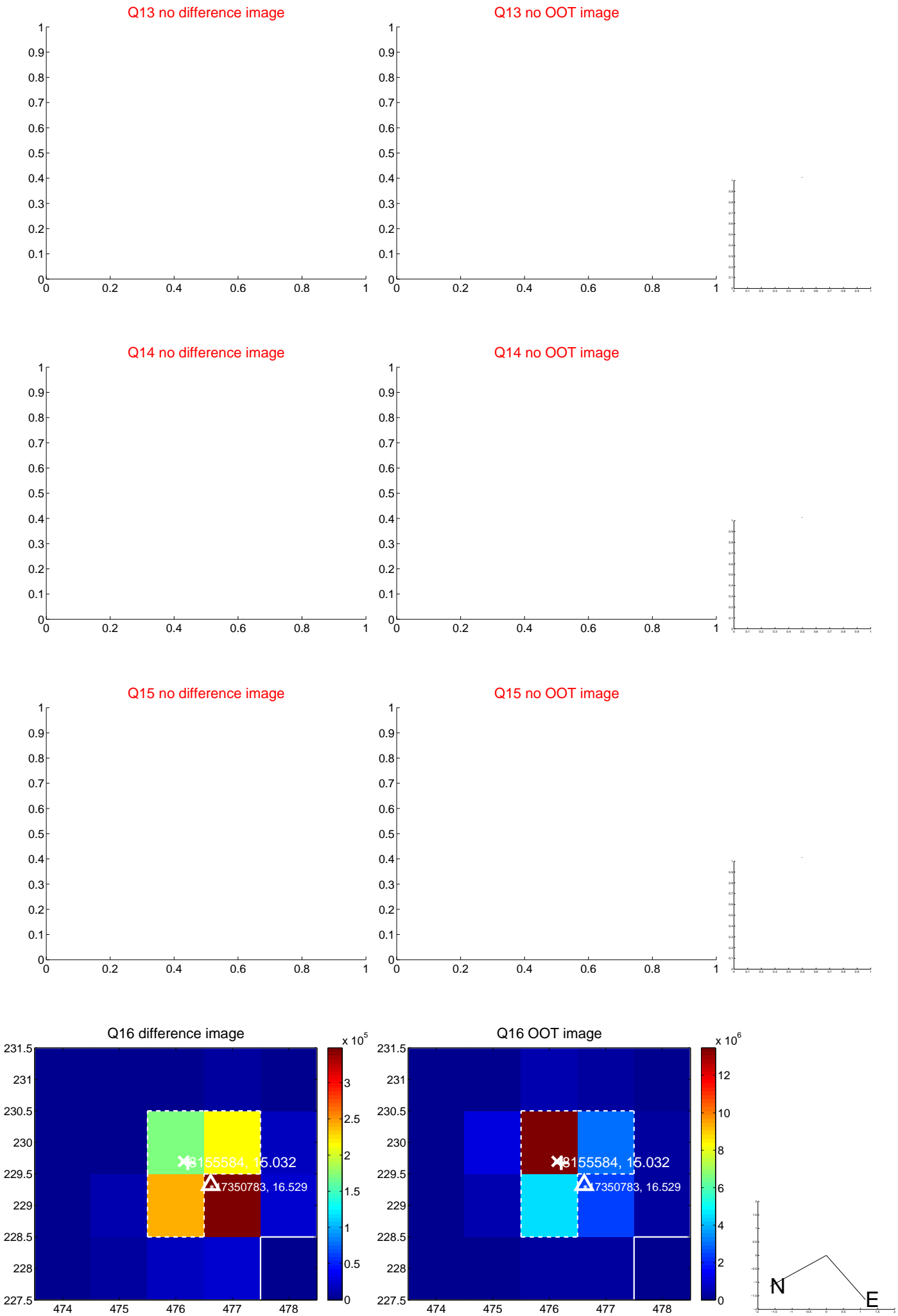
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



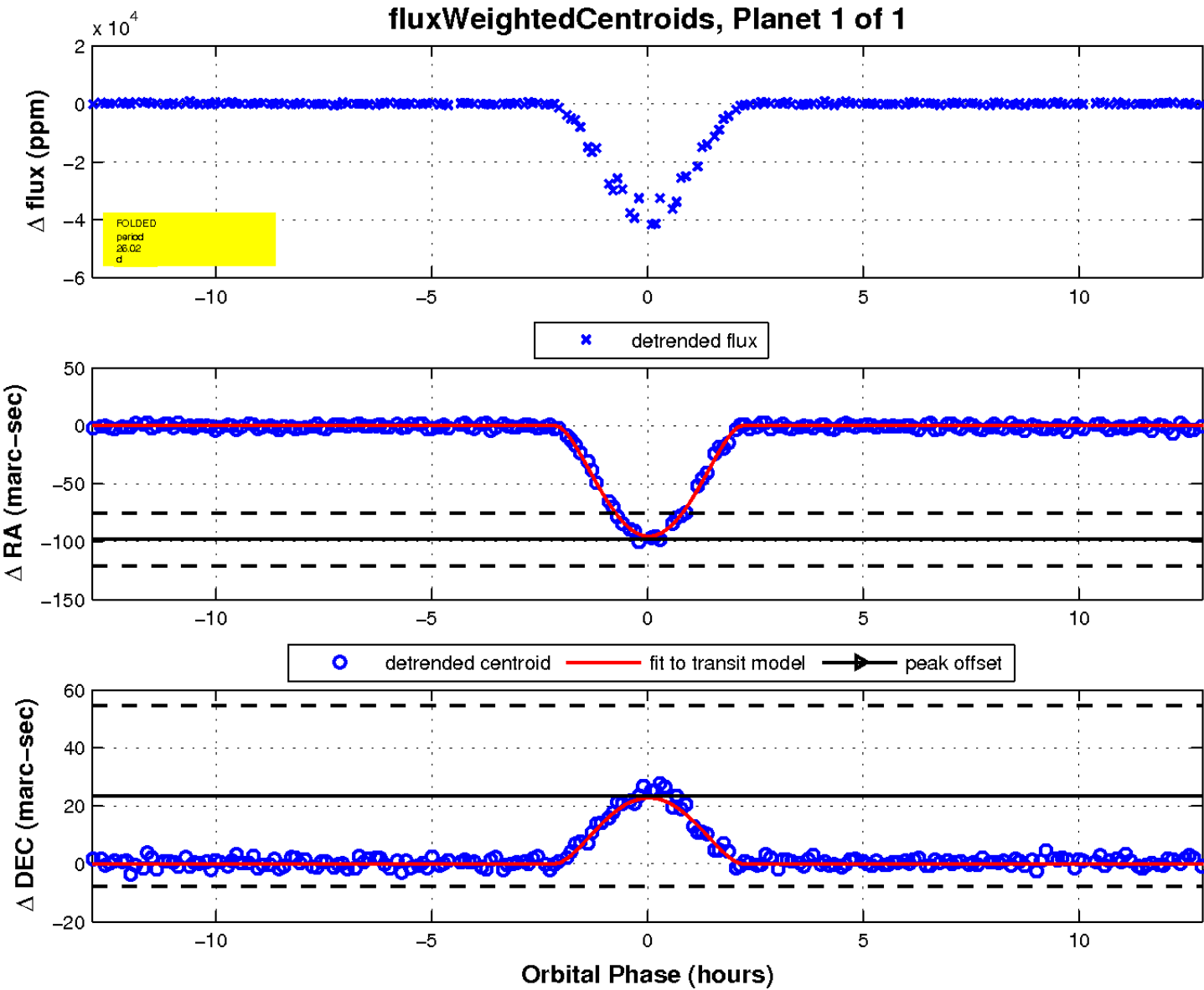
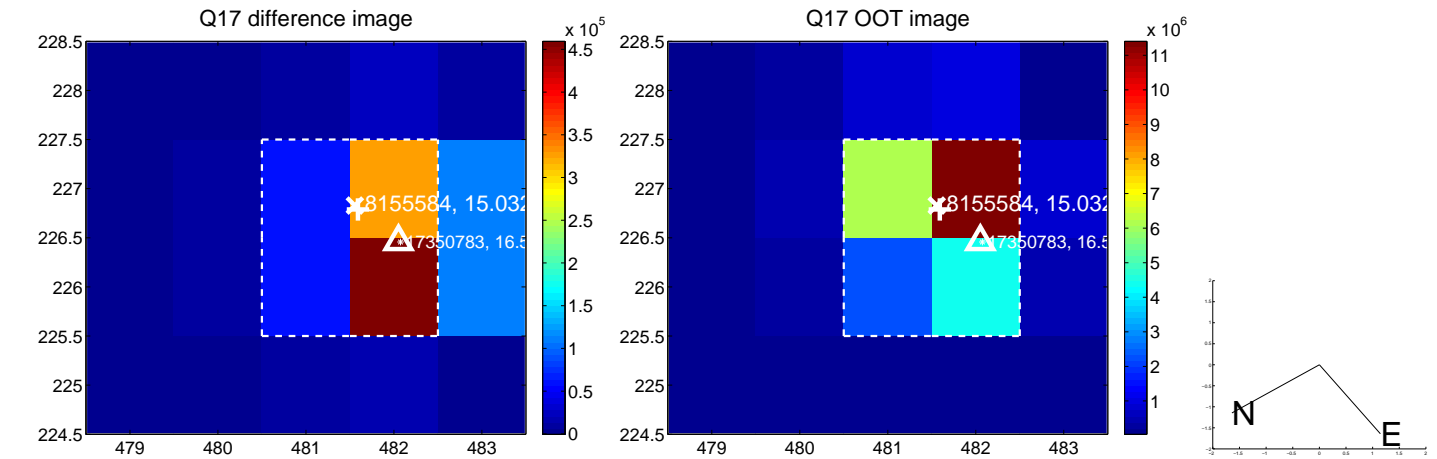
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

