

KIC 008652999

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})
008652999-01	OBS	1953.01	15.160256	136.554588	297.1	6.437	25.8	26.8	1.19	5940	2.50	107.74

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008652999-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

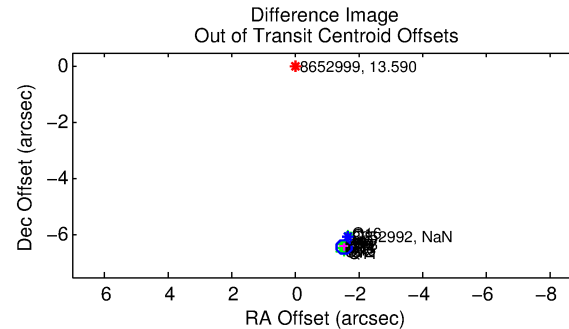
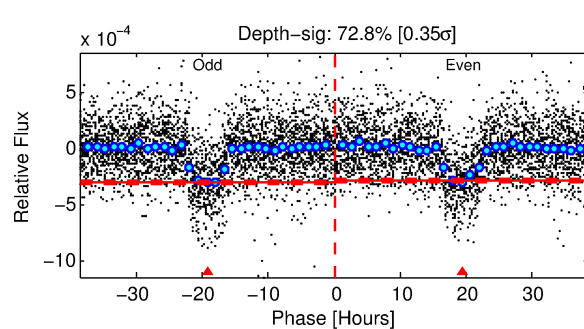
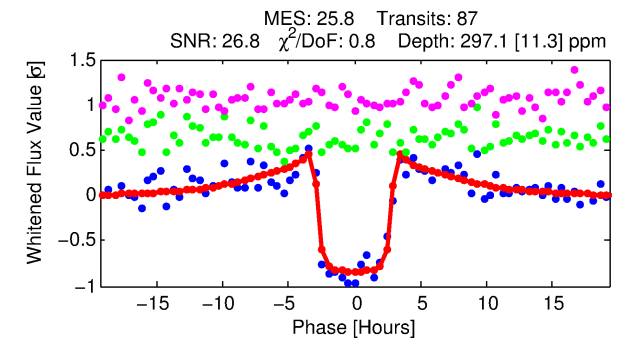
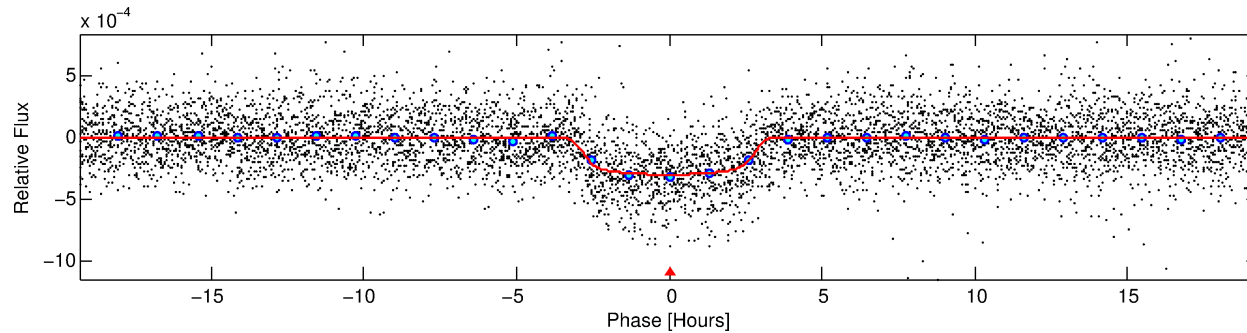
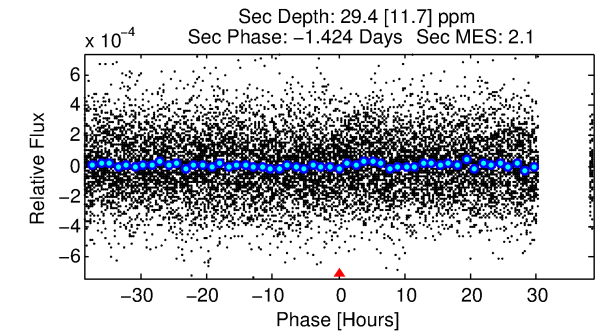
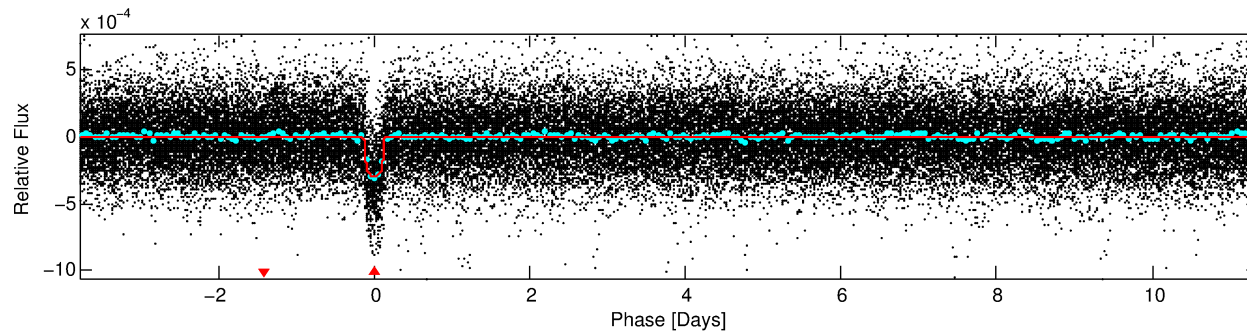
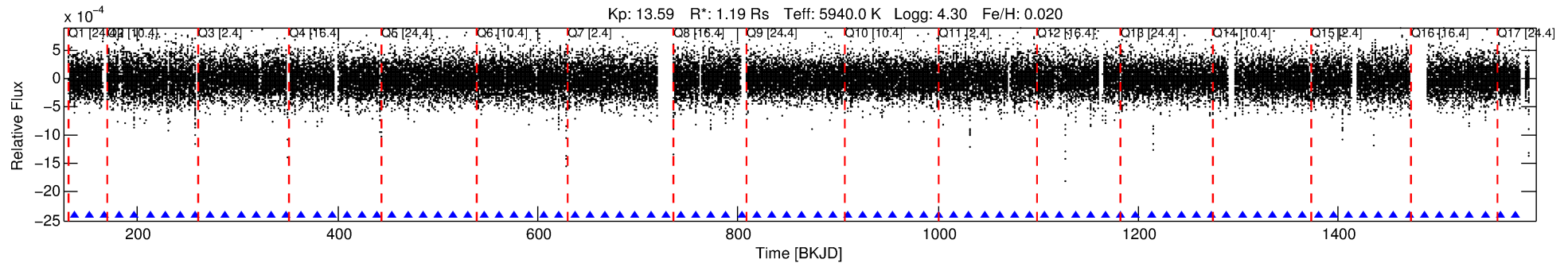
Ephemeris Match Information For 008652999-01

No Significant Match Found

DV One-Page Summary

KIC: 8652999 Candidate: 1 of 1 Period: 15.160 d

KOI: K01953.01 Corr: 0.990



DV Fit Results:

Period = 15.16026 [0.00006] d
Epoch = 136.5546 [0.0035] BKJD
Rp/R* = 0.0192 [0.0007]
a/R* = 7.72 [1.19]
b = 0.93 [0.02]
Seff = 107.74 [40.97]
Teq = 822 [78] K
Rp = 2.50 [0.76] Re
a = 0.1212 [0.0301] AU
Ag = 38.01 [20.54] [1.80 σ]
Teffp = 3154 [336] K [6.77 σ]

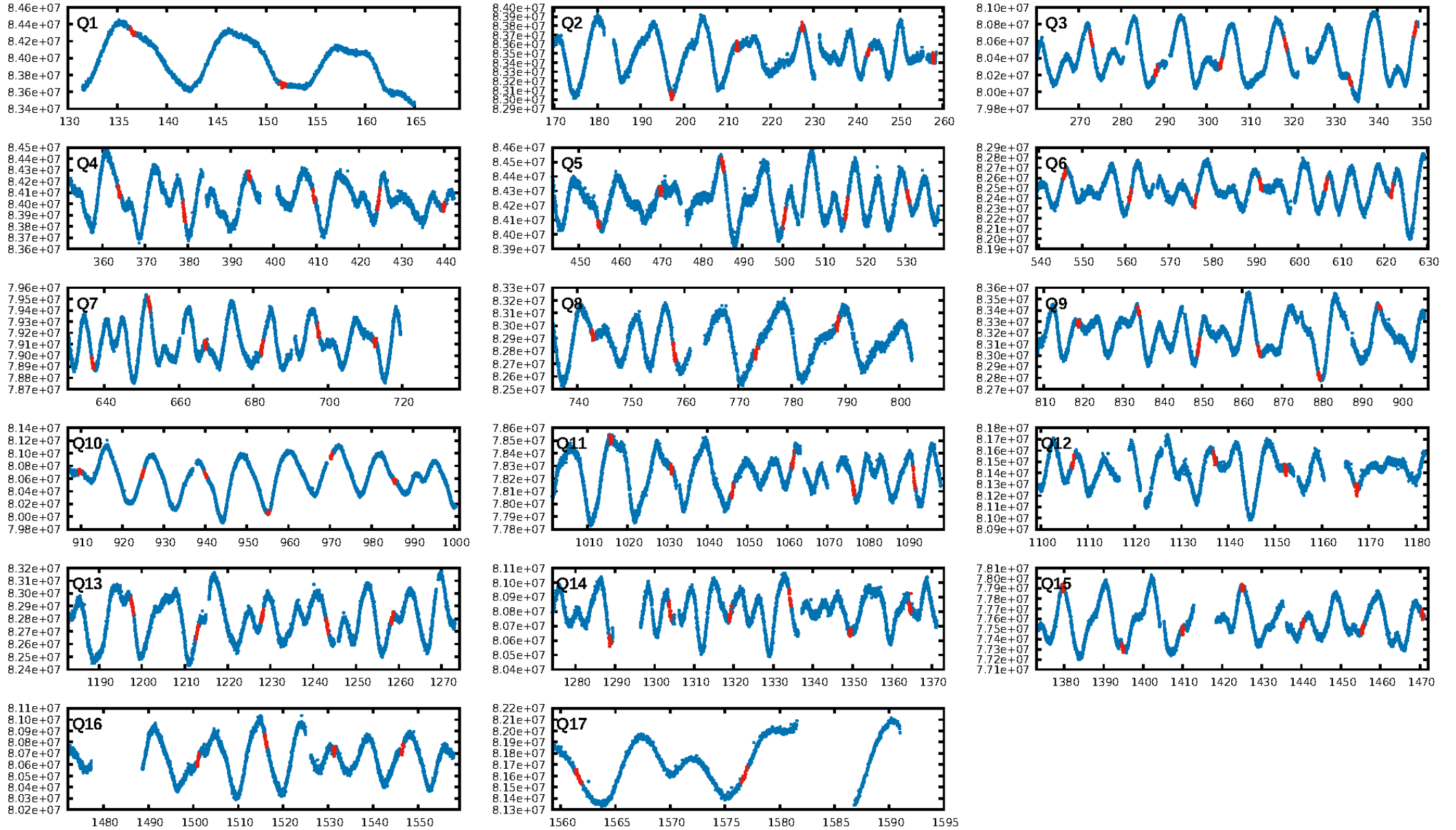
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.67e-131
RollingBand-fgt: 1.00 [83/83]
GhostDiagnostic-chr: -0.04852
Centroid-sig: 0.0%
Centroid-so: 15.985 arcsec [42.43 σ]
OotOffset-rm: 6.611 arcsec [81.59 σ]
KicOffset-rm: 6.510 arcsec [79.54 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]

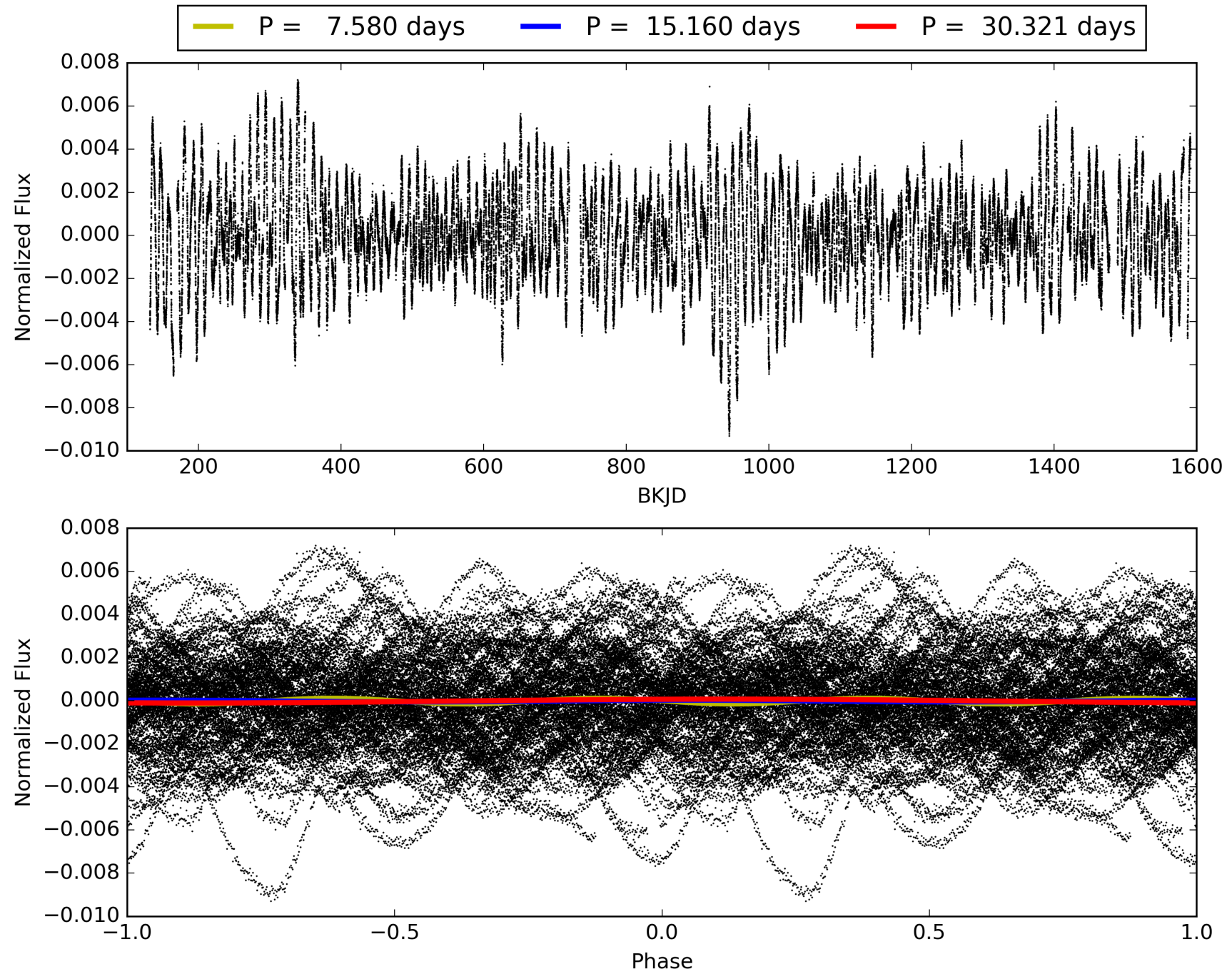
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:20:09 Z

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

TCE 008652999-01, PDC Light Curves

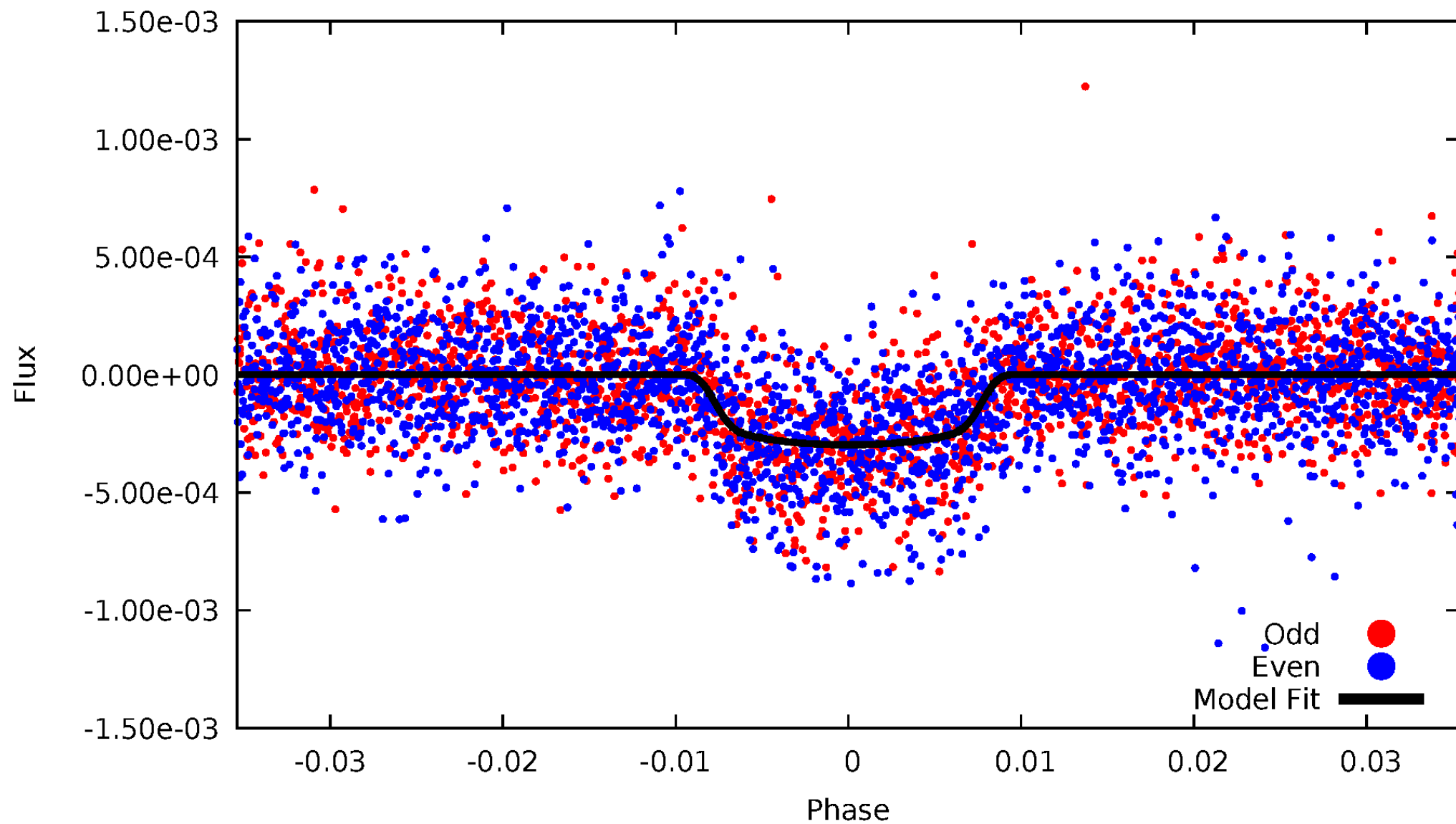


TCE 008652999-01



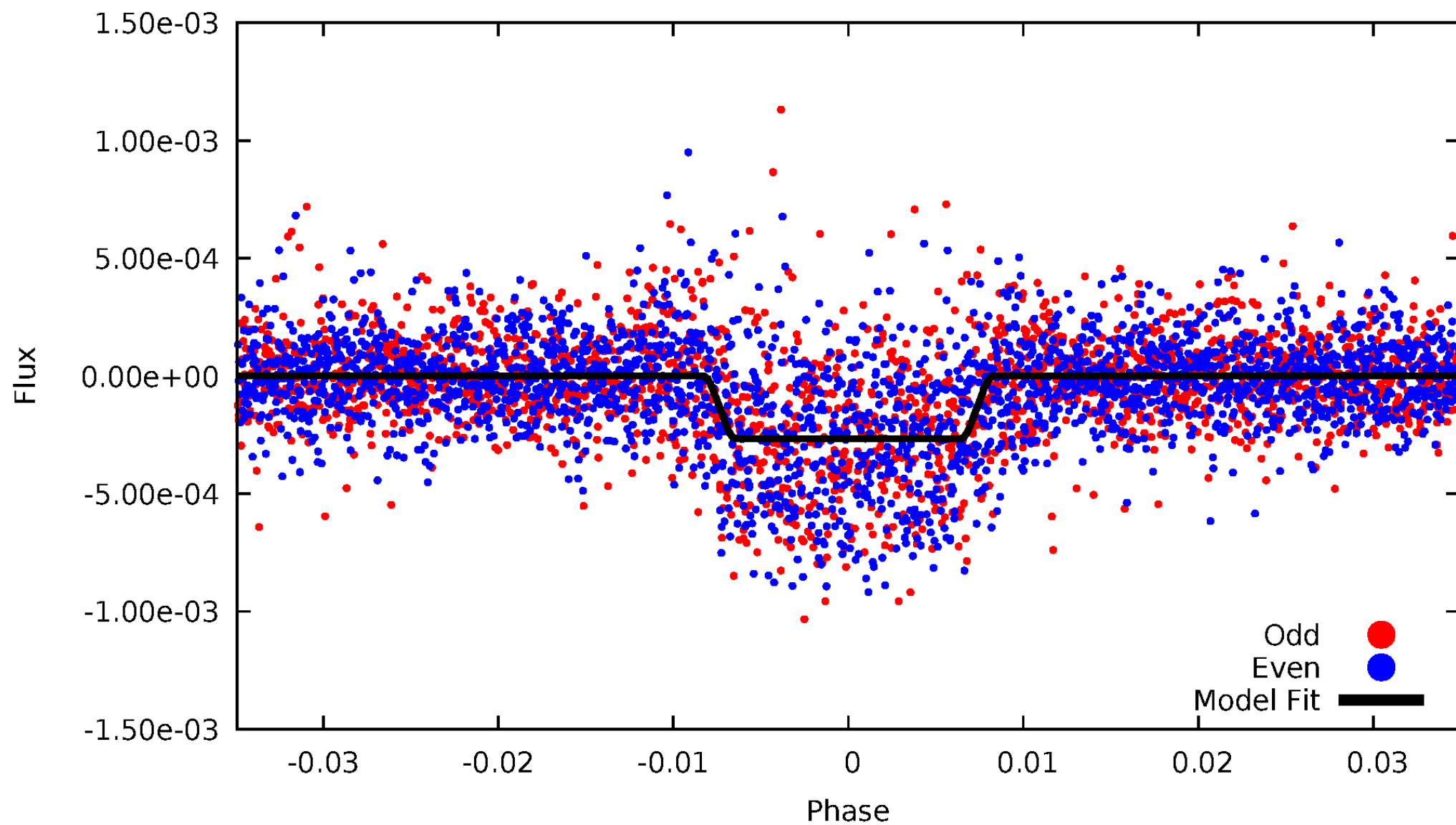
DV Odd/Even

TCE 008652999-01

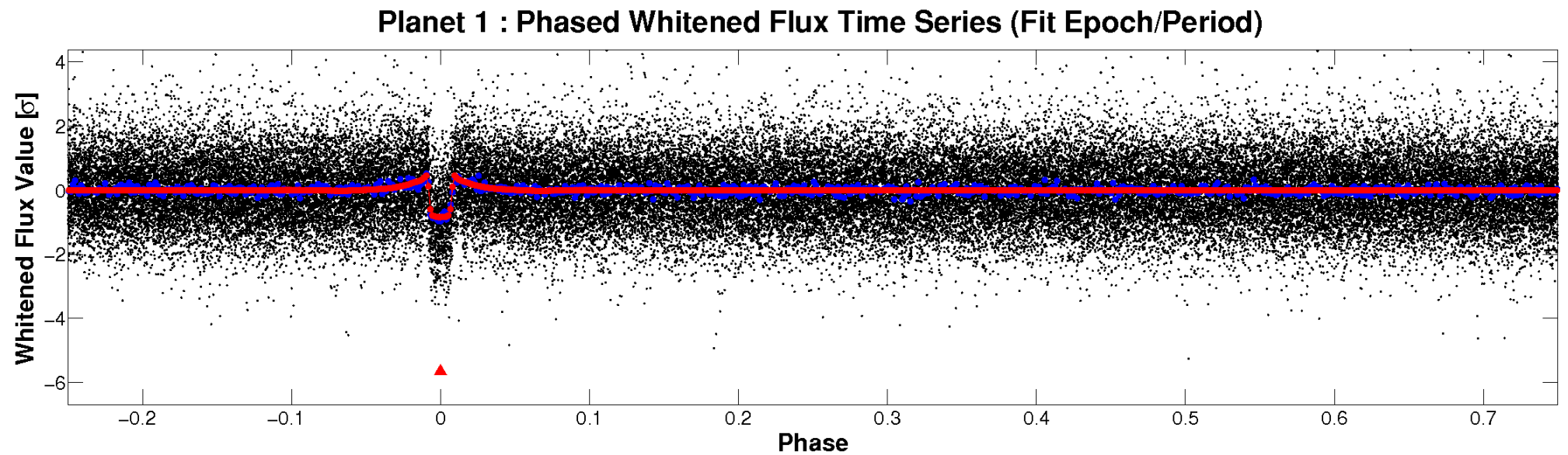
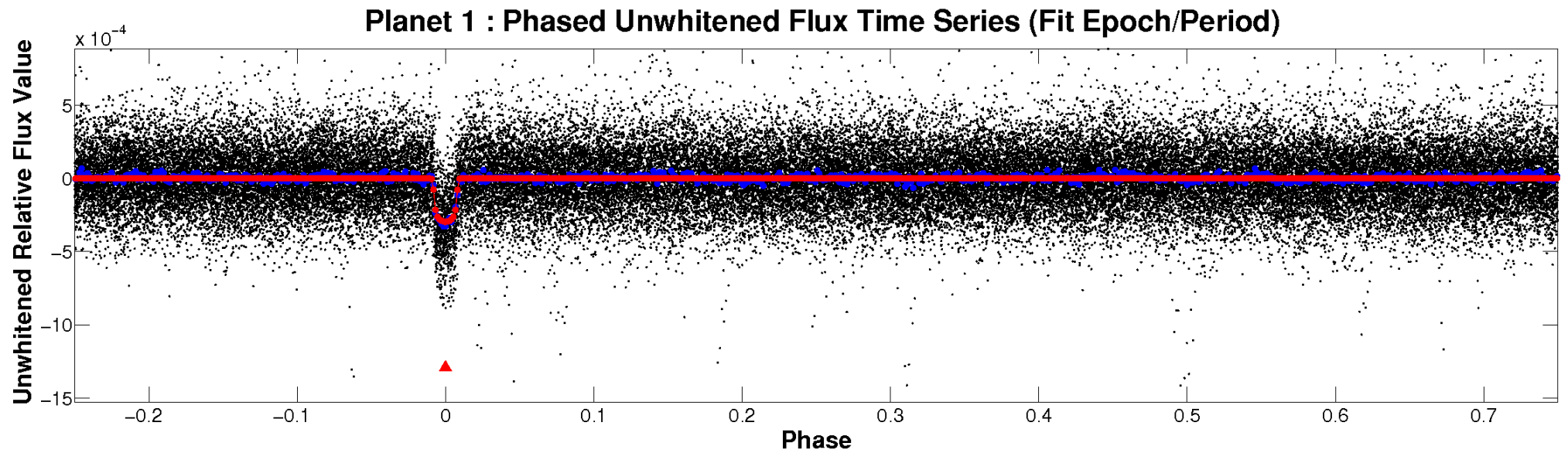


ALT Odd/Even

TCE 008652999-01

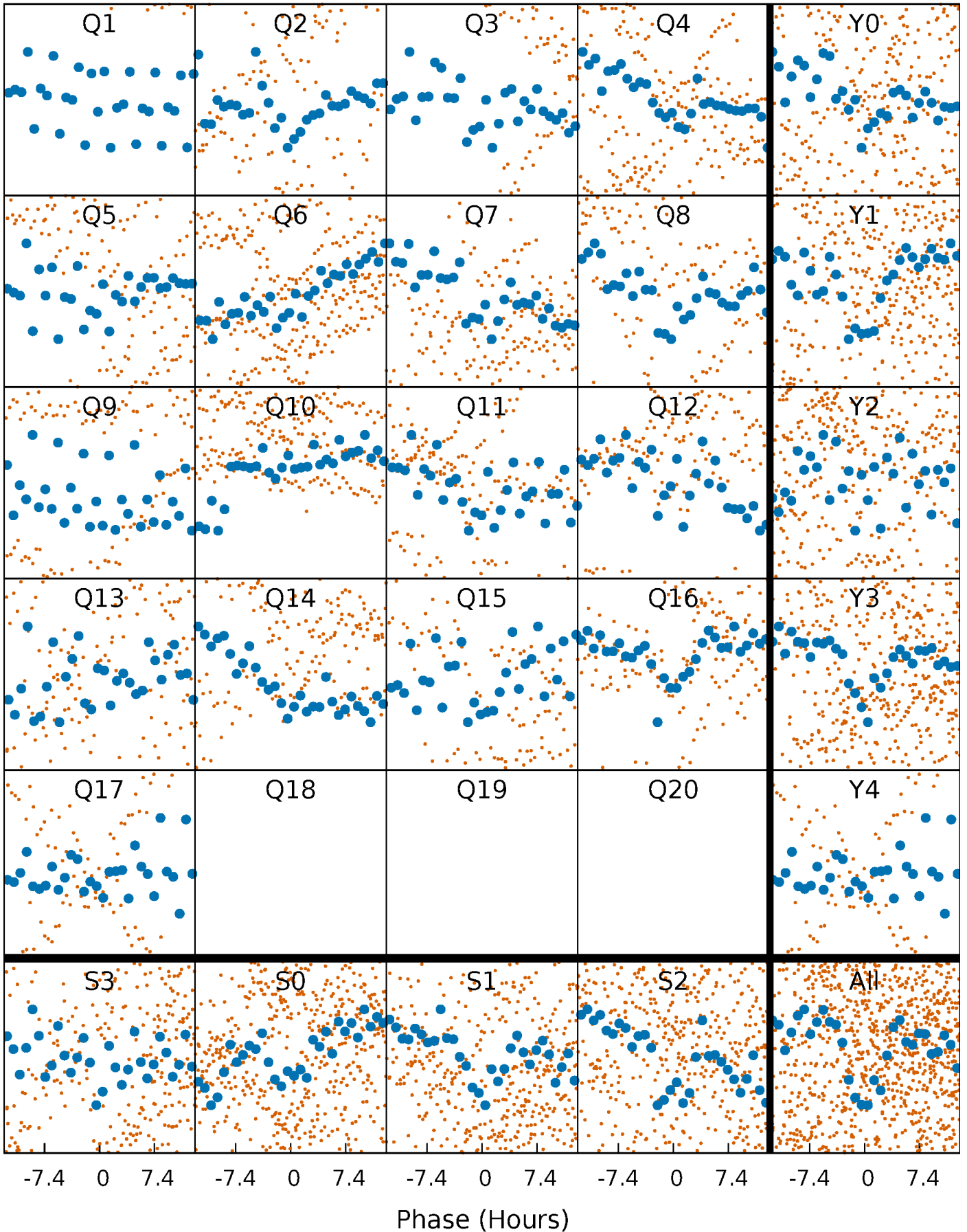


Non-Whitened Vs. Whitened Light Curve



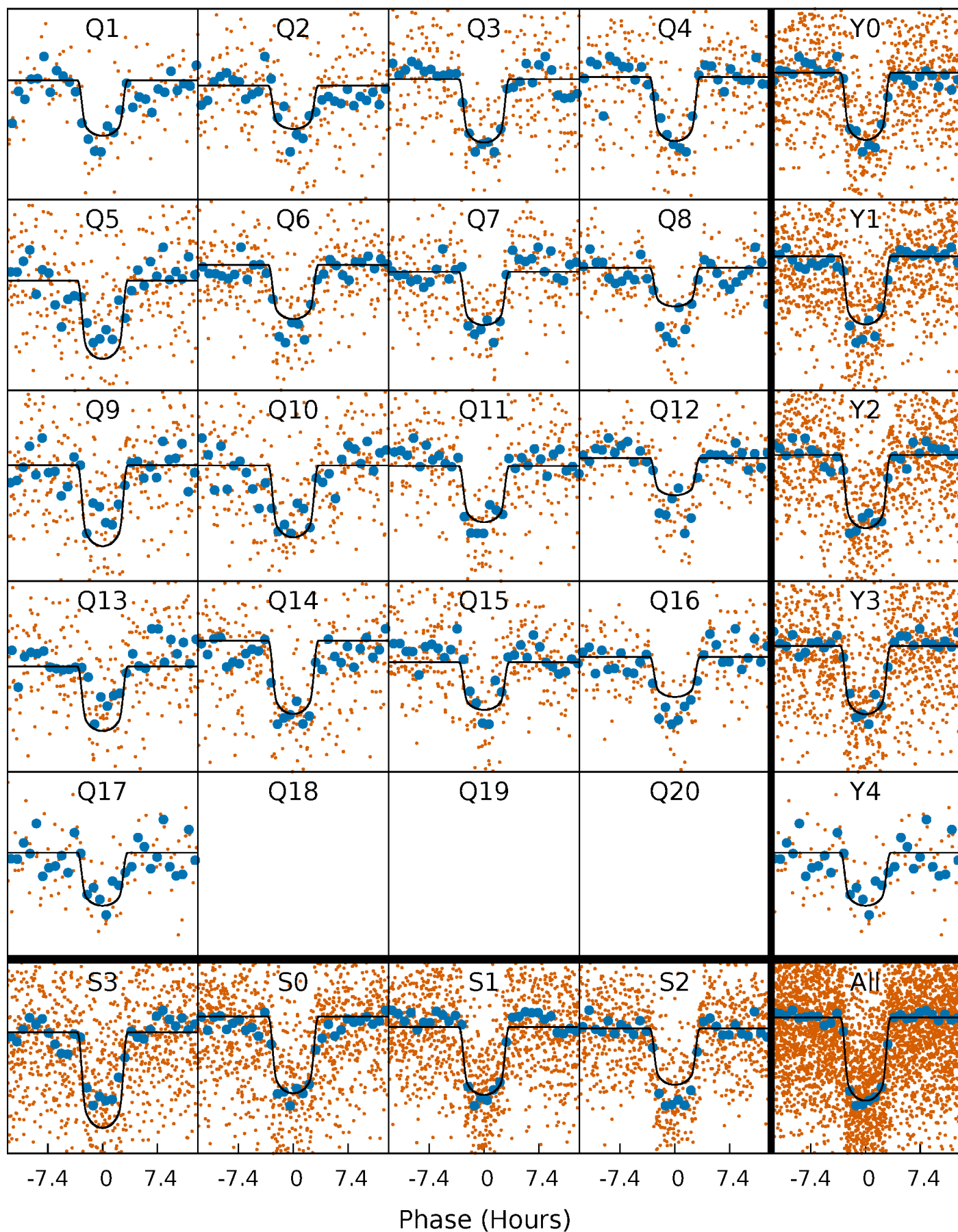
PDC Quarter-Phased Transit Curves

TCE 008652999-01 P= 15.160256 Days $T_0=136.554588$ (BKJD)



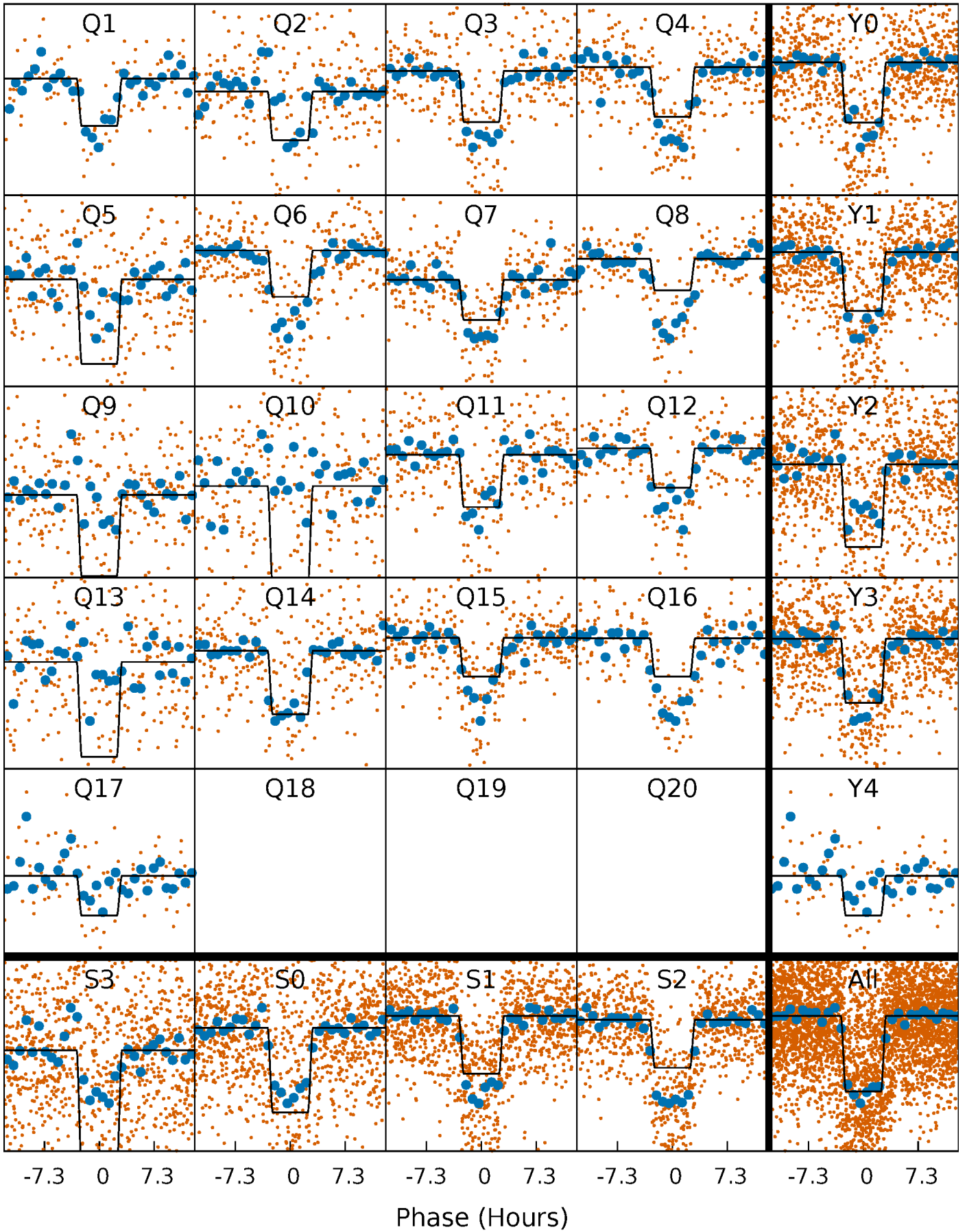
DV Quarter-Phased Transit Curves

TCE 008652999-01 P= 15.160256 Days $T_0=136.554588$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

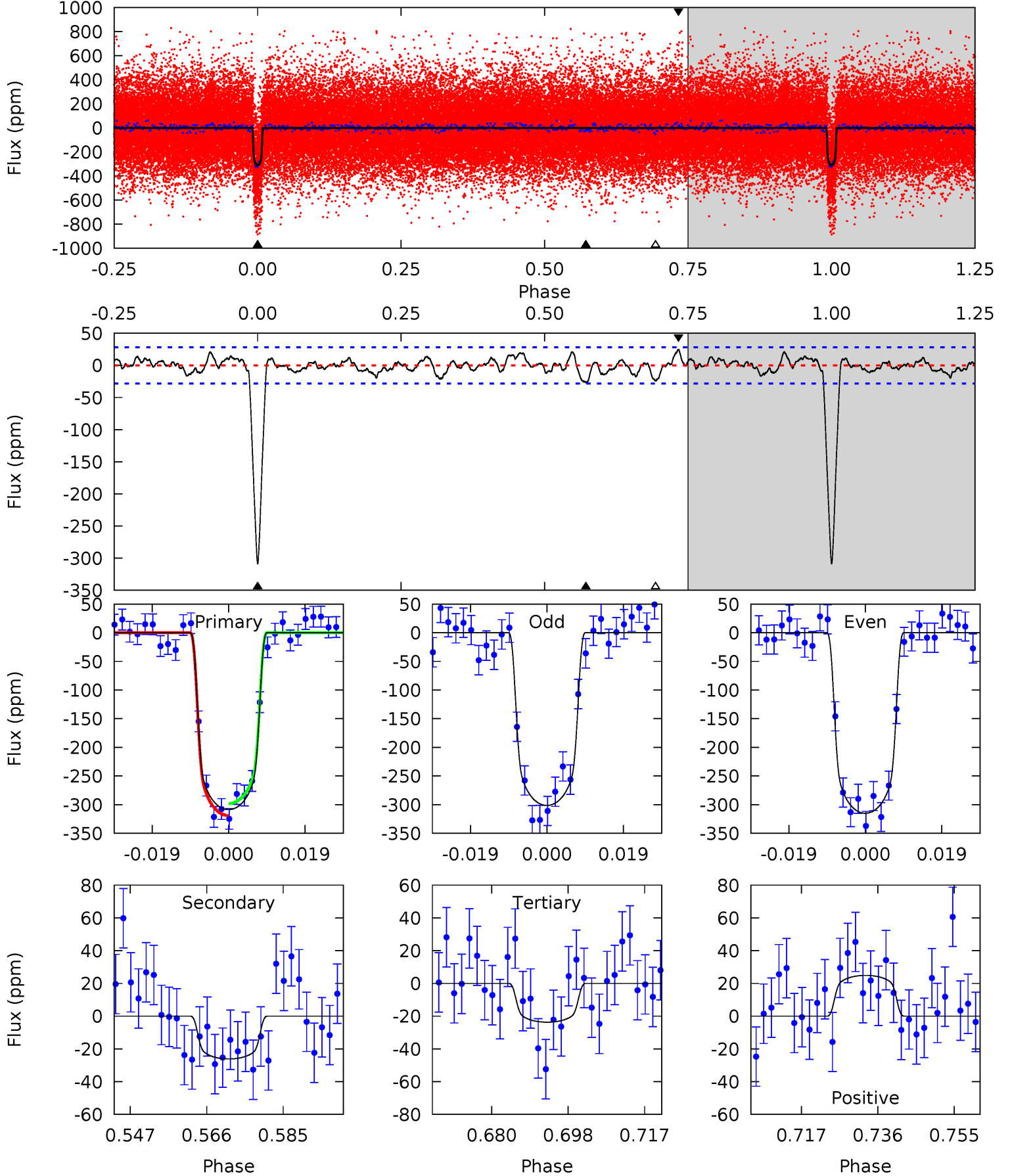
TCE 008652999-01 $P = 15.160523$ Days $T_0 = 136.544014$ (BKJD)



DV Model-Shift Uniqueness Test

008652999-01, $P = 15.160256$ Days, $E = 121.394332$ Days

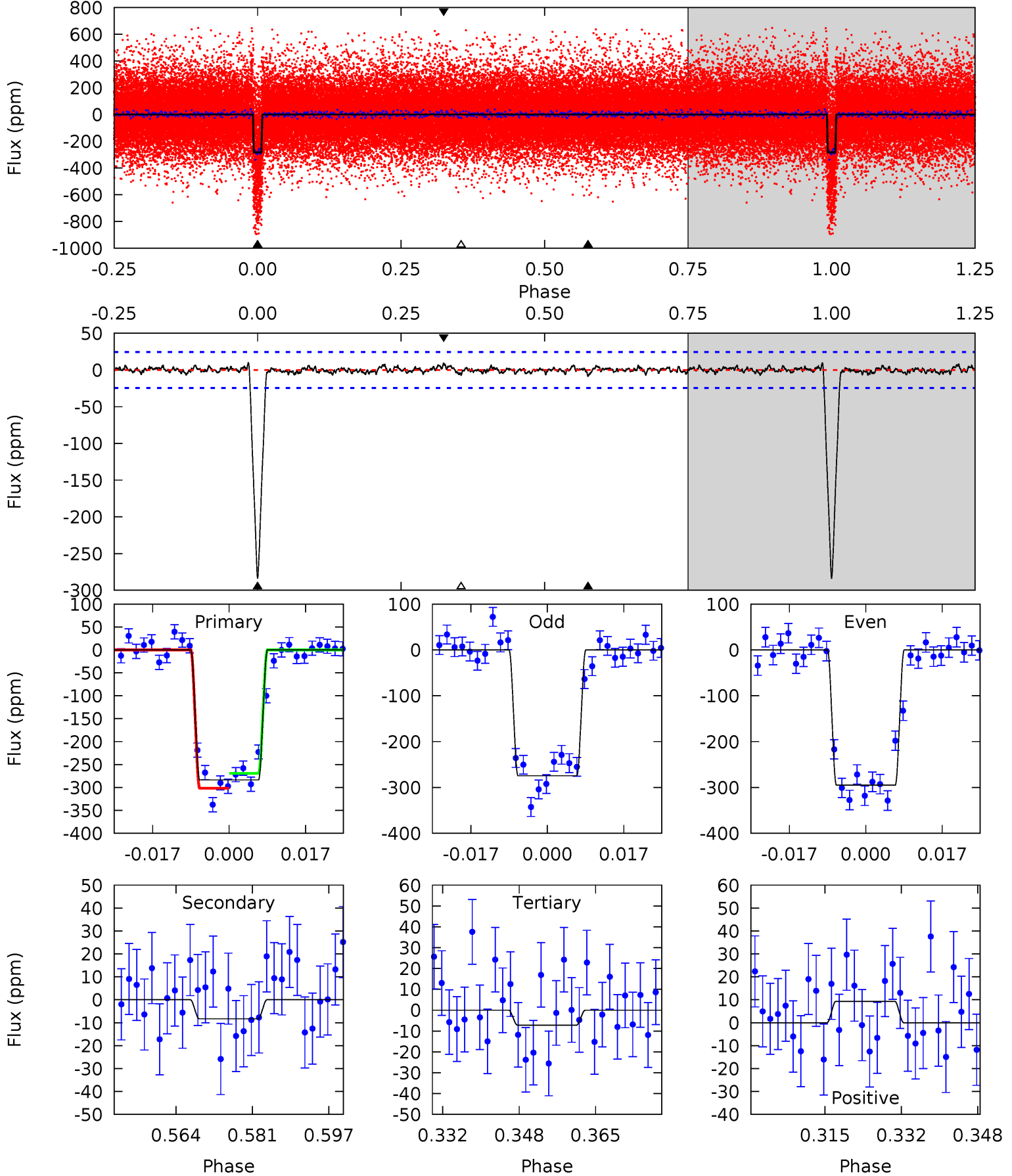
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.6	4.54	4.11	4.32	4.90	2.35	1.52	49.5	49.3	0.42	0.22	1.19	1.03	0.07	1.83



Alt Model-Shift Uniqueness Test

008652999-01, $P = 15.160523$ Days, $E = 121.383491$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.3	1.68	1.45	1.88	4.93	2.40	0.54	55.9	55.4	0.23	-0.21	2.06	0.90	0.03	3.27



Stellar Parameters For KIC 008652999

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5940^{+158}_{-193}	$4.300^{+0.158}_{-0.193}$	$0.020^{+0.250}_{-0.300}$	$1.191^{+0.357}_{-0.238}$	$1.030^{+0.152}_{-0.124}$	$0.859^{+0.720}_{-0.413}$
	+3%/-3%	+4%/-4%	+1250%/-1500%	+30%/-20%	+15%/-12%	+84%/-48%
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 008652999-01 / KOI 1953.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-26 ± 6	$2.52^{+0.42}_{-0.32}$	1150^{+92}_{-75}	3528^{+149}_{-147}	34^{+13}_{-10}
Alt.	-8 ± 5	$2.15^{+0.38}_{-0.25}$	1153^{+95}_{-75}	3126^{+244}_{-378}	14^{+12}_{-8}

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 $A_{obs} \gg 1.0$

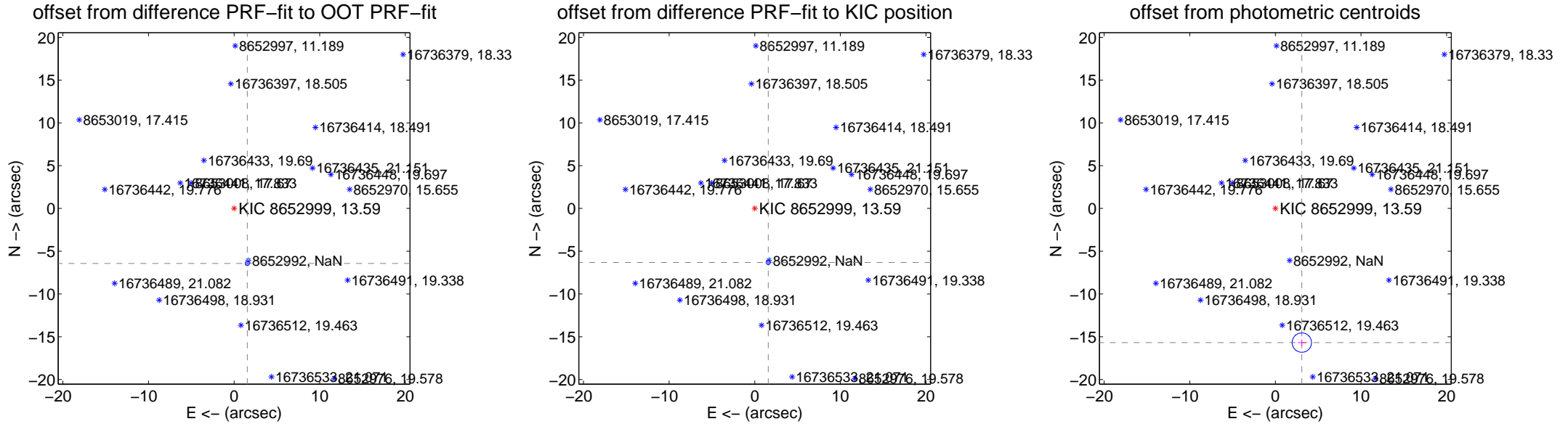
DV Centroid Data

Supplemental centroid analysis for 008652999-01. Kepler magnitude: 13.59. Transit SNR 26.85

There are 17 quarters with good PRF difference image offsets

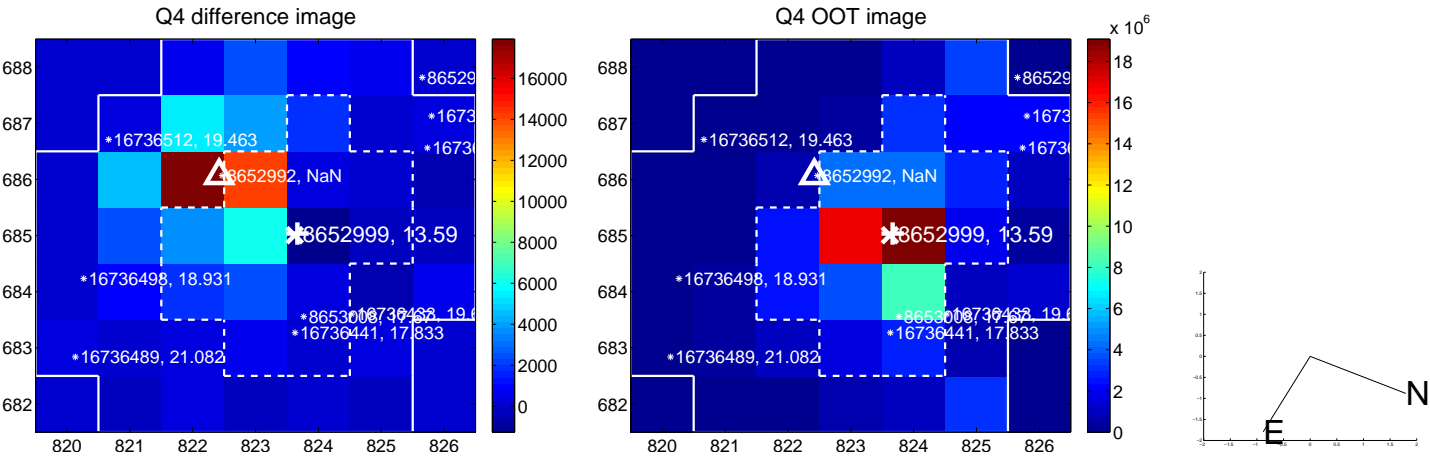
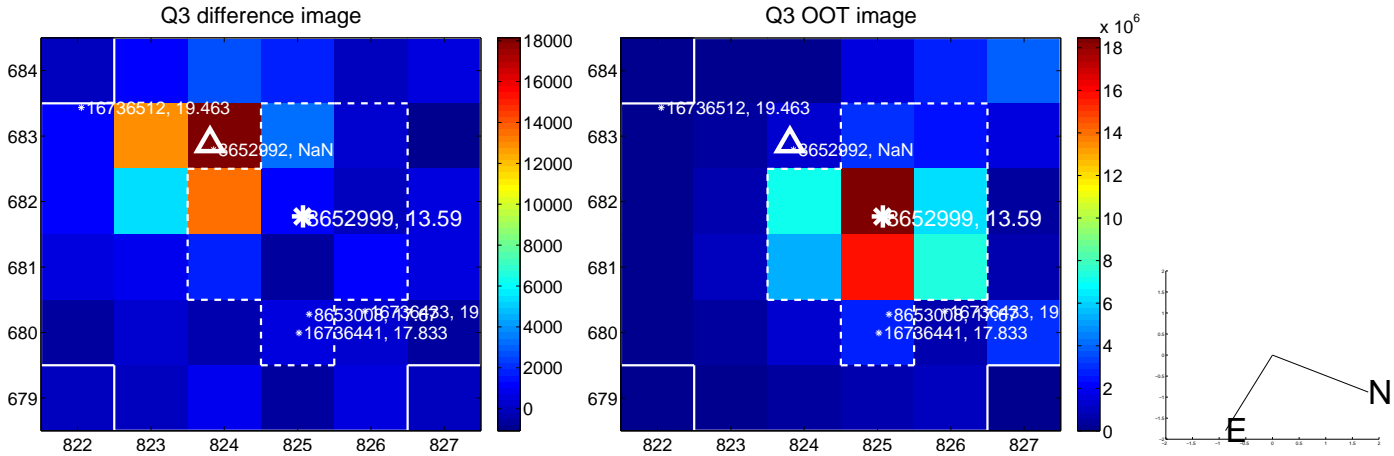
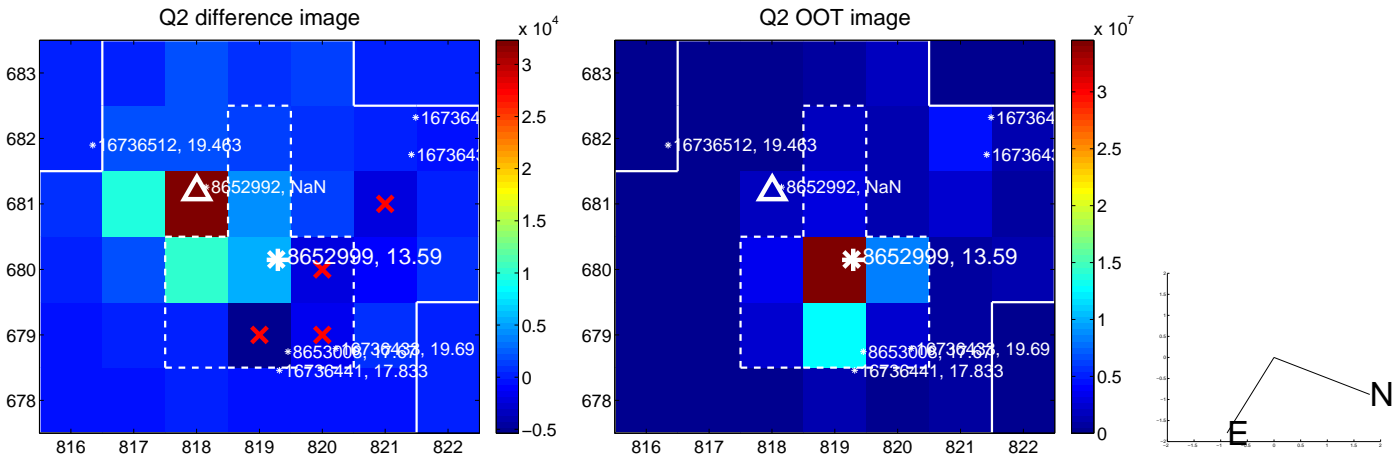
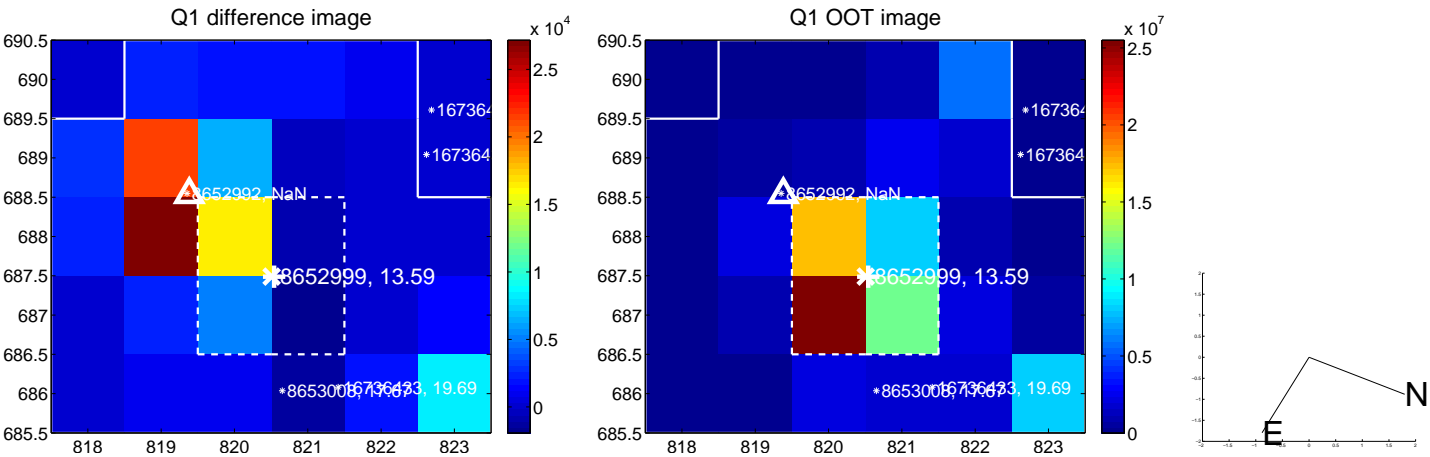
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.611 \pm 0.081	81.59	-1.539 \pm 0.072	-6.429 \pm 0.084
PRF-fit source offset from KIC position	6.510 \pm 0.082	79.54	-1.580 \pm 0.074	-6.315 \pm 0.084
photometric centroid source offset	15.98 \pm 0.38	42.43	-3.09 \pm 0.45	-15.68 \pm 0.37

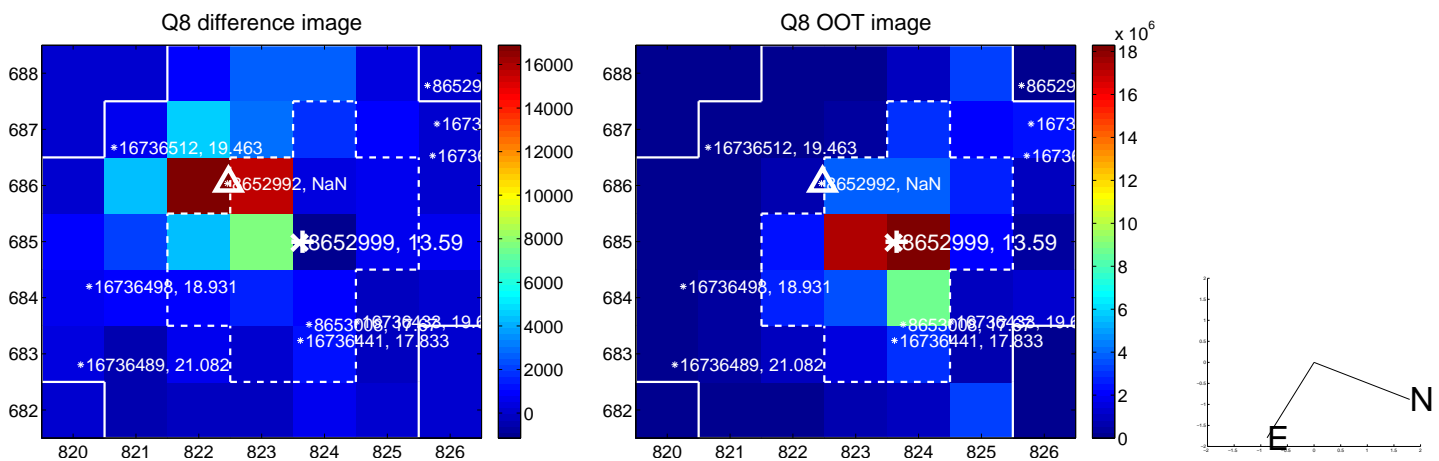
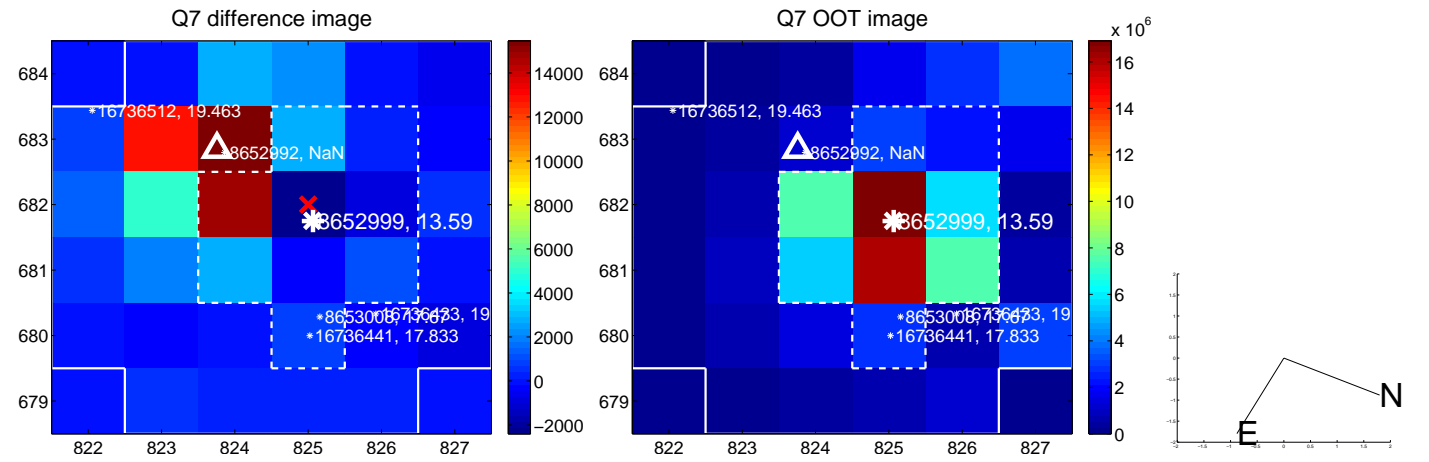
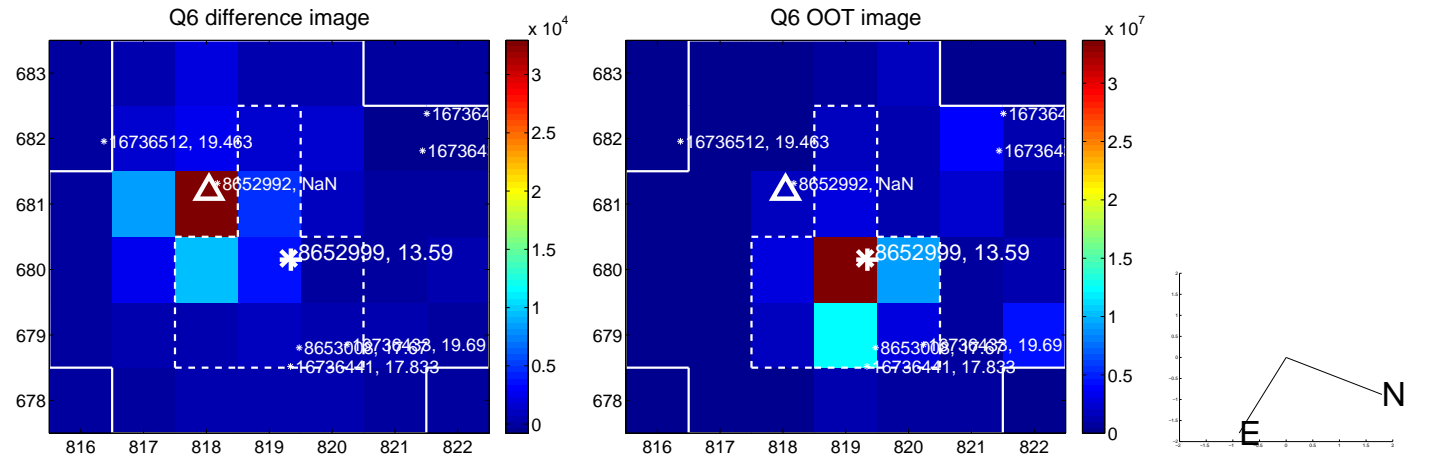
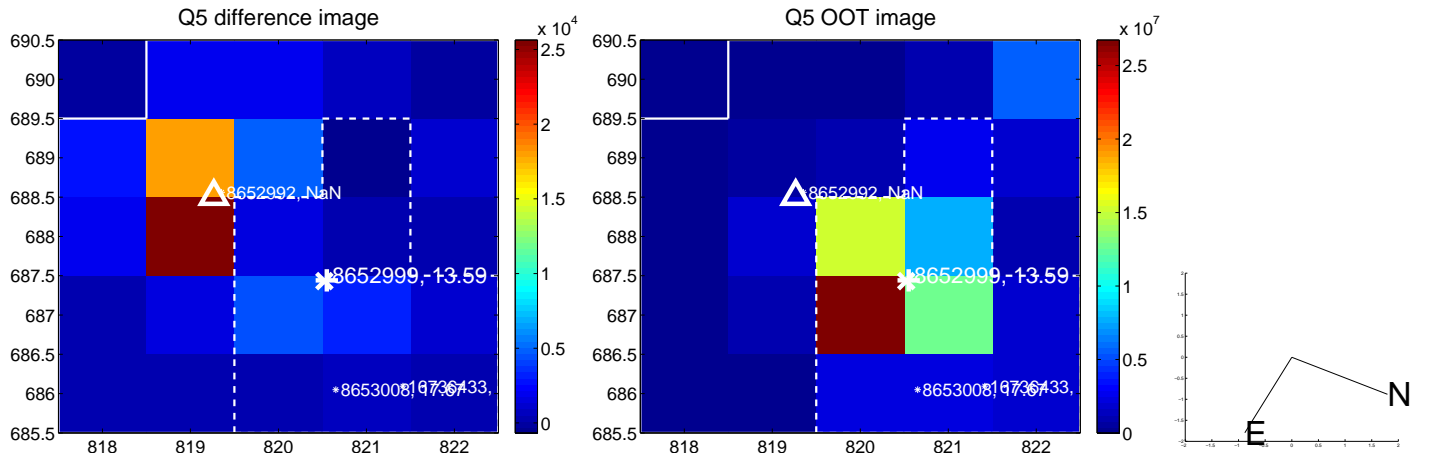


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

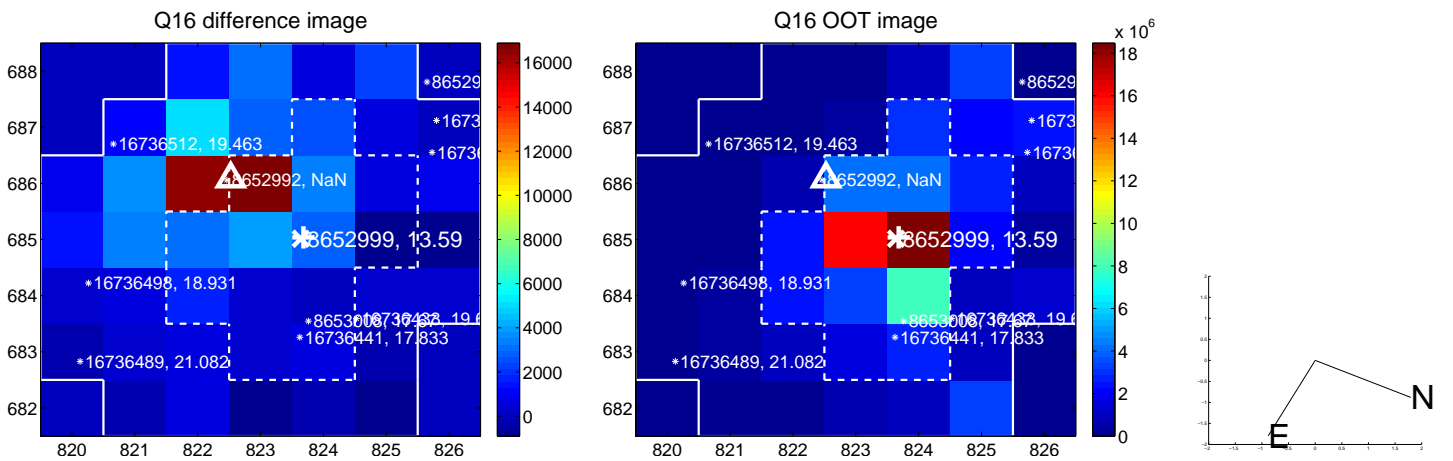
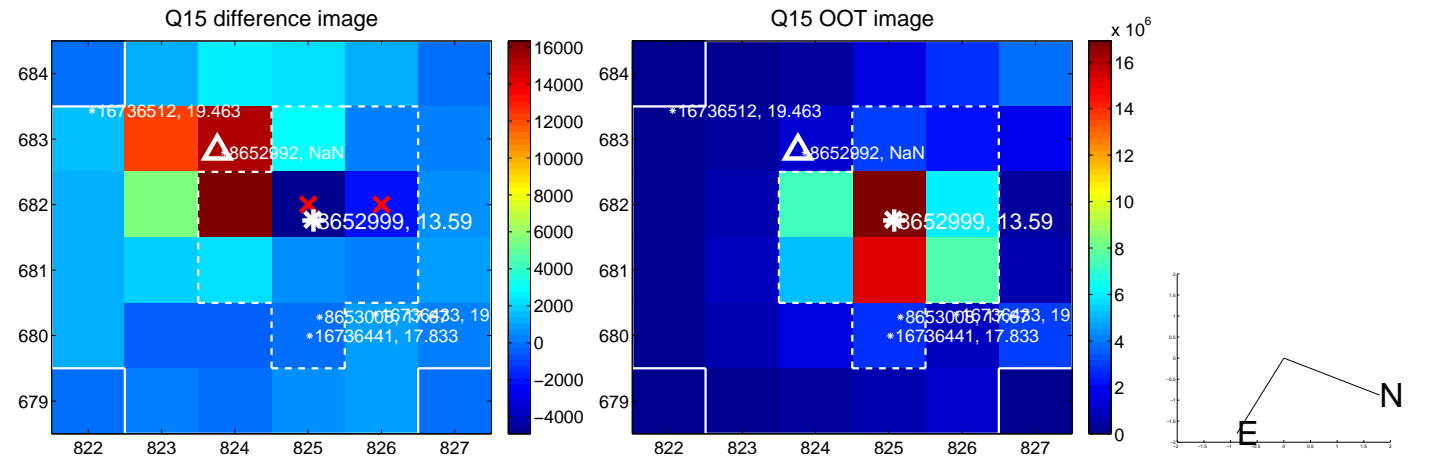
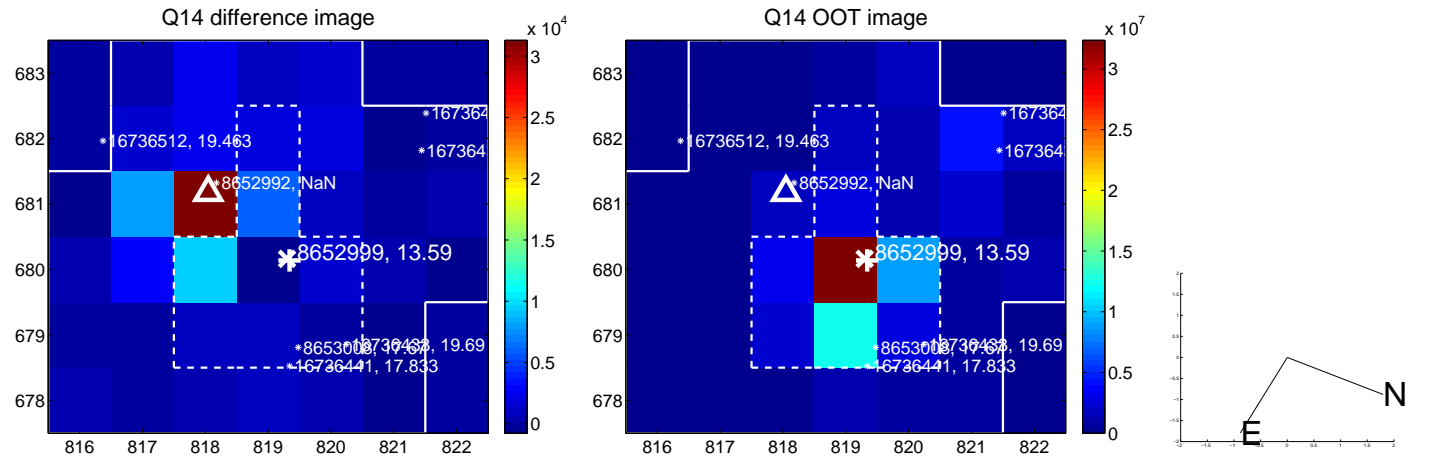
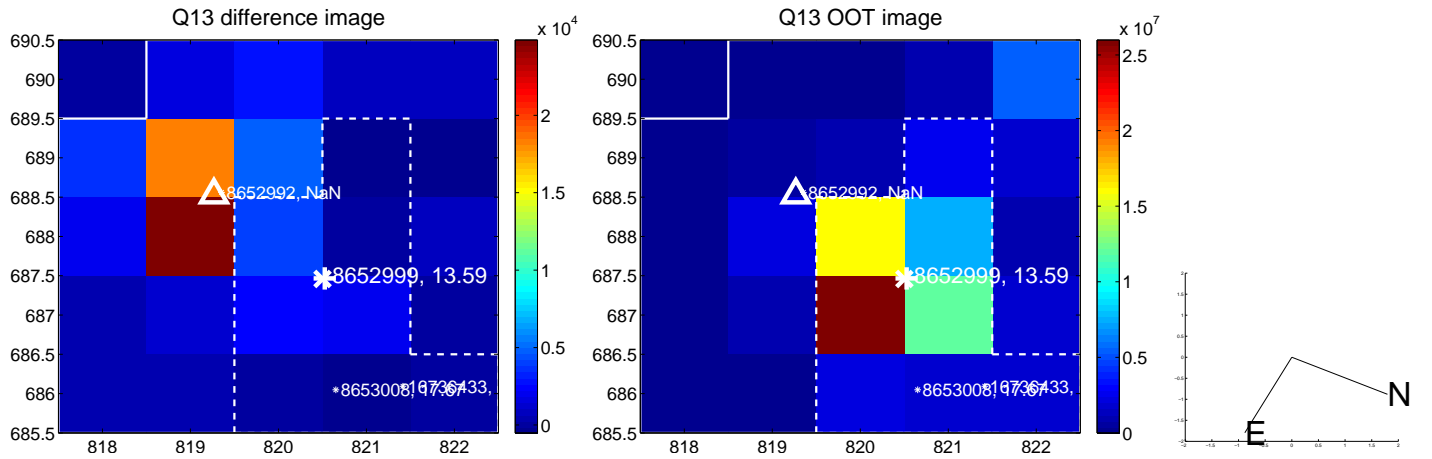
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



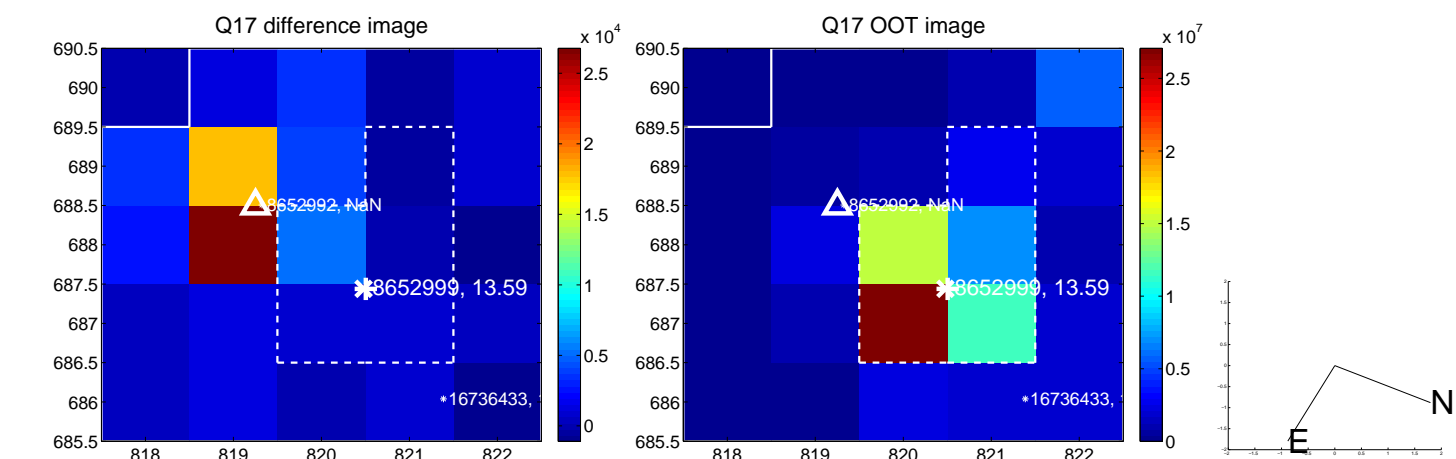
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



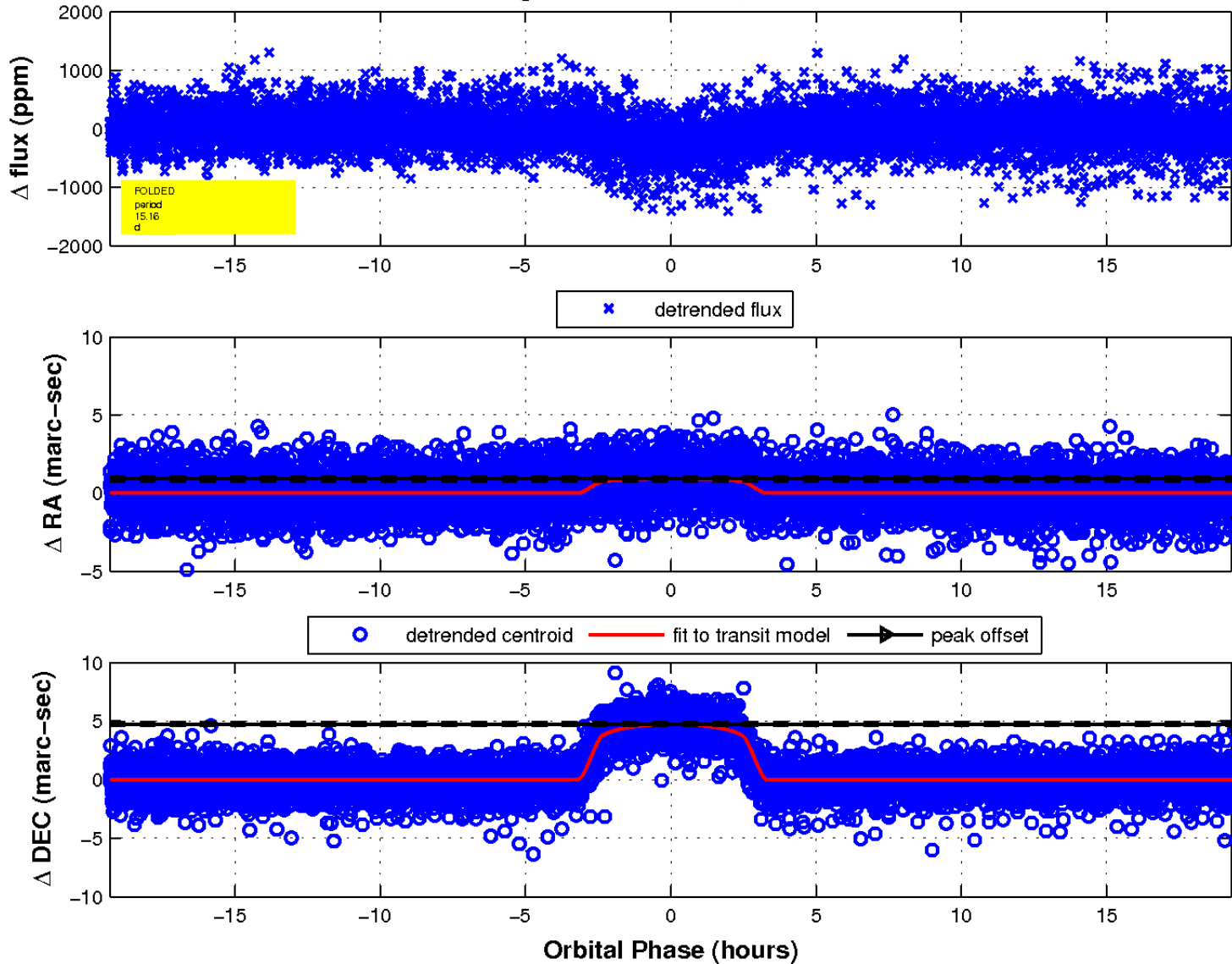
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

