

KIC 004769799

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})
004769799-01	OBS	5086.01	21.929007	135.517003	22294.8	9.848	1243.5	832.1	3.03	5001	59.48	220.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004769799-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—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 004769799-01

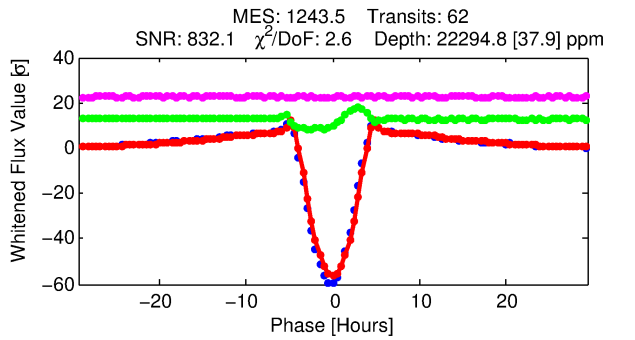
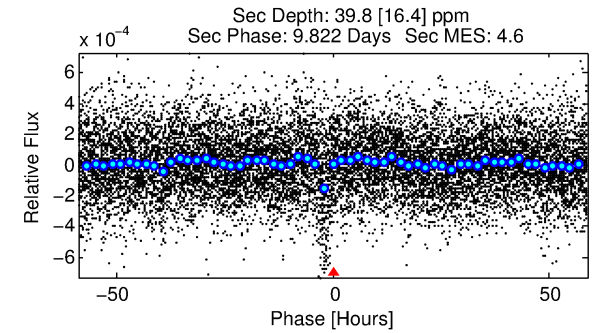
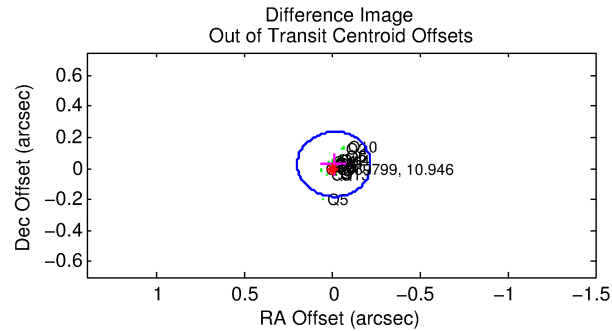
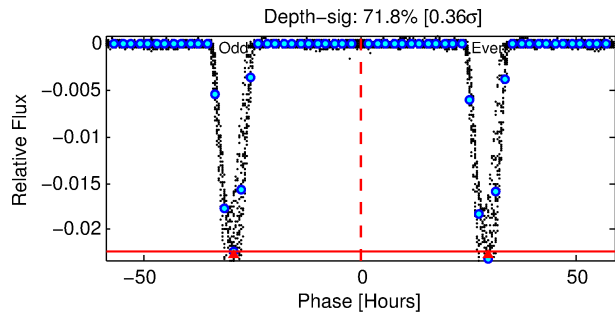
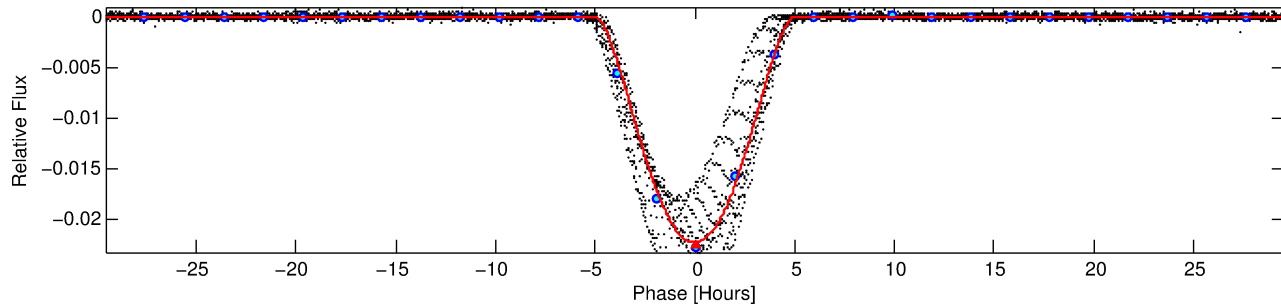
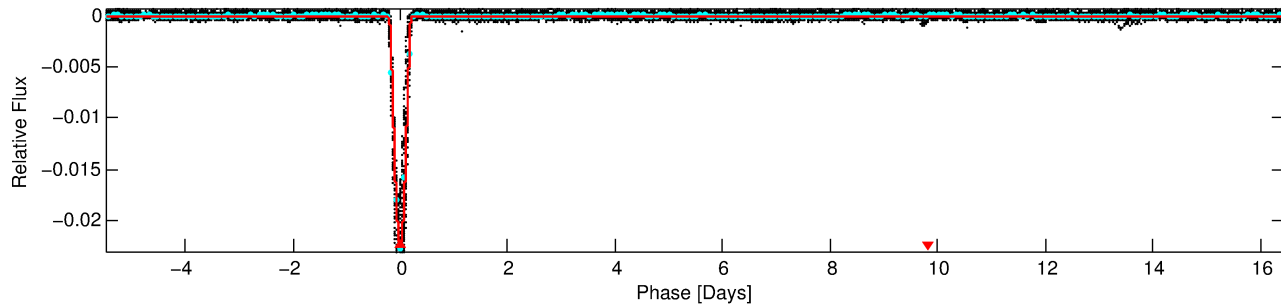
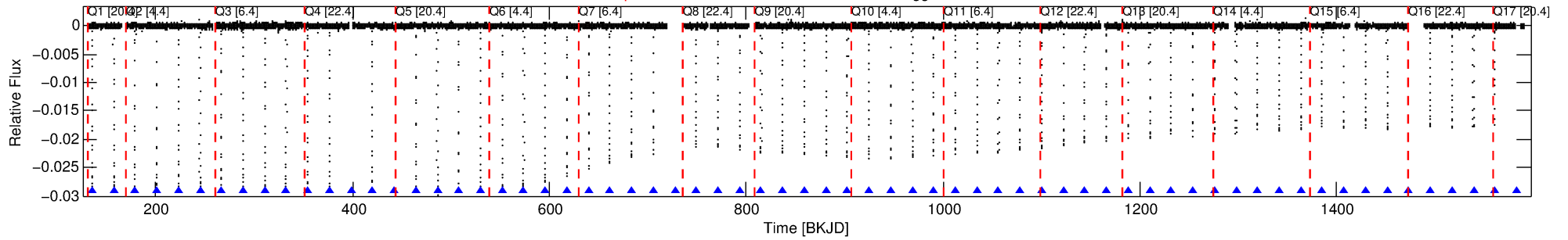
No Significant Match Found

DV One-Page Summary

KIC: 4769799 Candidate: 1 of 1 Period: 21.929 d

KOI: K05086.01 Corr: 0.978

Kp: 10.95 R*: 3.03 Rs Teff: 5001.0 K Logg: 3.47 Fe/H: -0.240



DV Fit Results:

Period = 21.92901 [0.00001] d
Epoch = 135.5170 [0.0003] BKJD
Rp/R* = 0.1800 [0.0020]
a/R* = 13.12 [0.04]
b = 0.90 [0.00]
Seff = 220.73 [57.76]
Teq = 983 [64] K
Rp = 59.48 [13.06] Re
a = 0.1526 [0.0275] AU
Ag = 0.14 [0.07] [-12.25σ]
Teffp = 936 [97] K [-0.40σ]

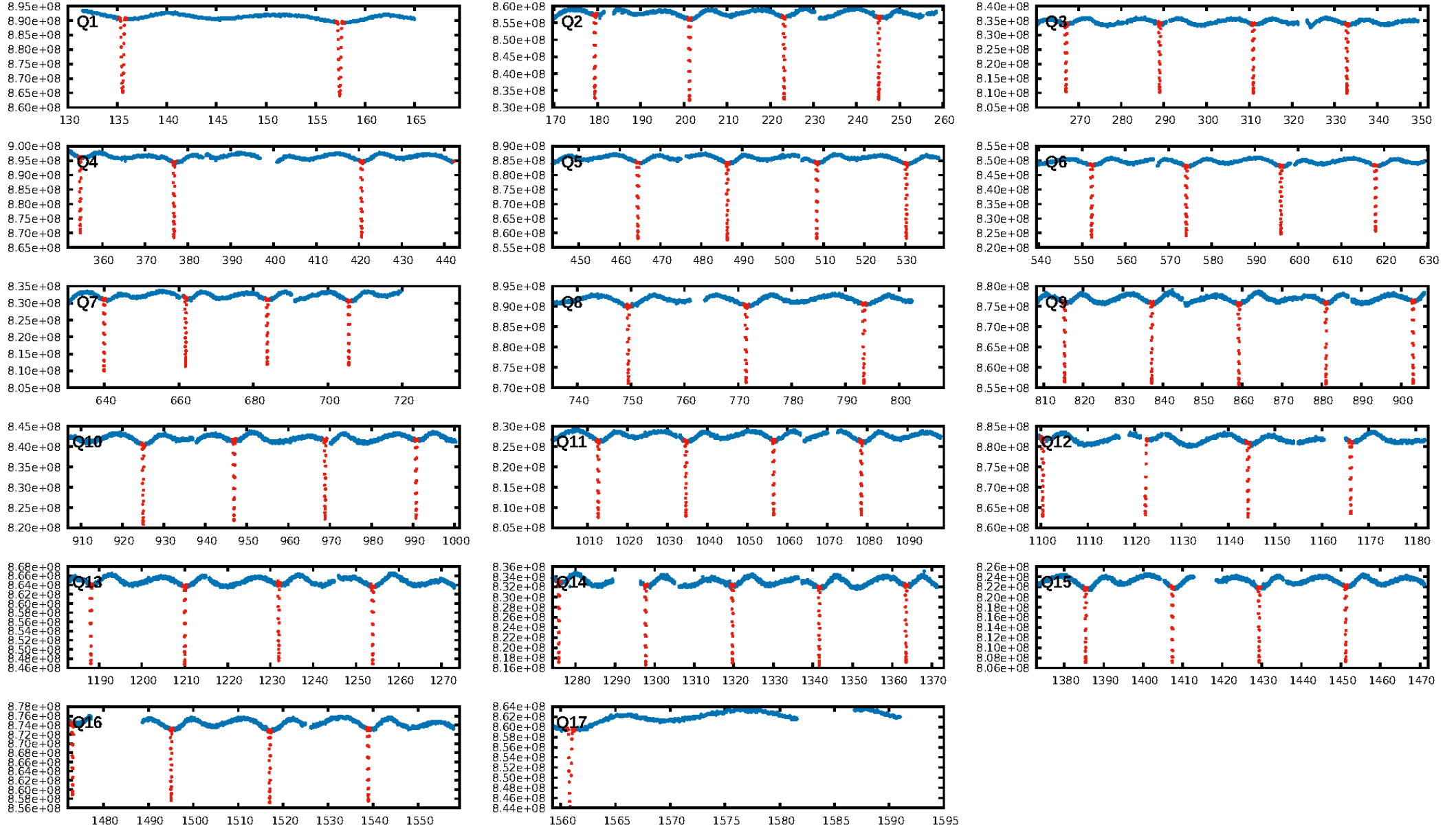
DV Diagnostic Results:

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 [59/59]
GhostDiagnostic-chr: 1.792
Centroid-sig: 0.0%
Centroid-so: 0.431 arcsec [202.94σ]
OotOffset-rm: 0.029 arcsec [0.42σ]
KicOffset-rm: 0.370 arcsec [5.00σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

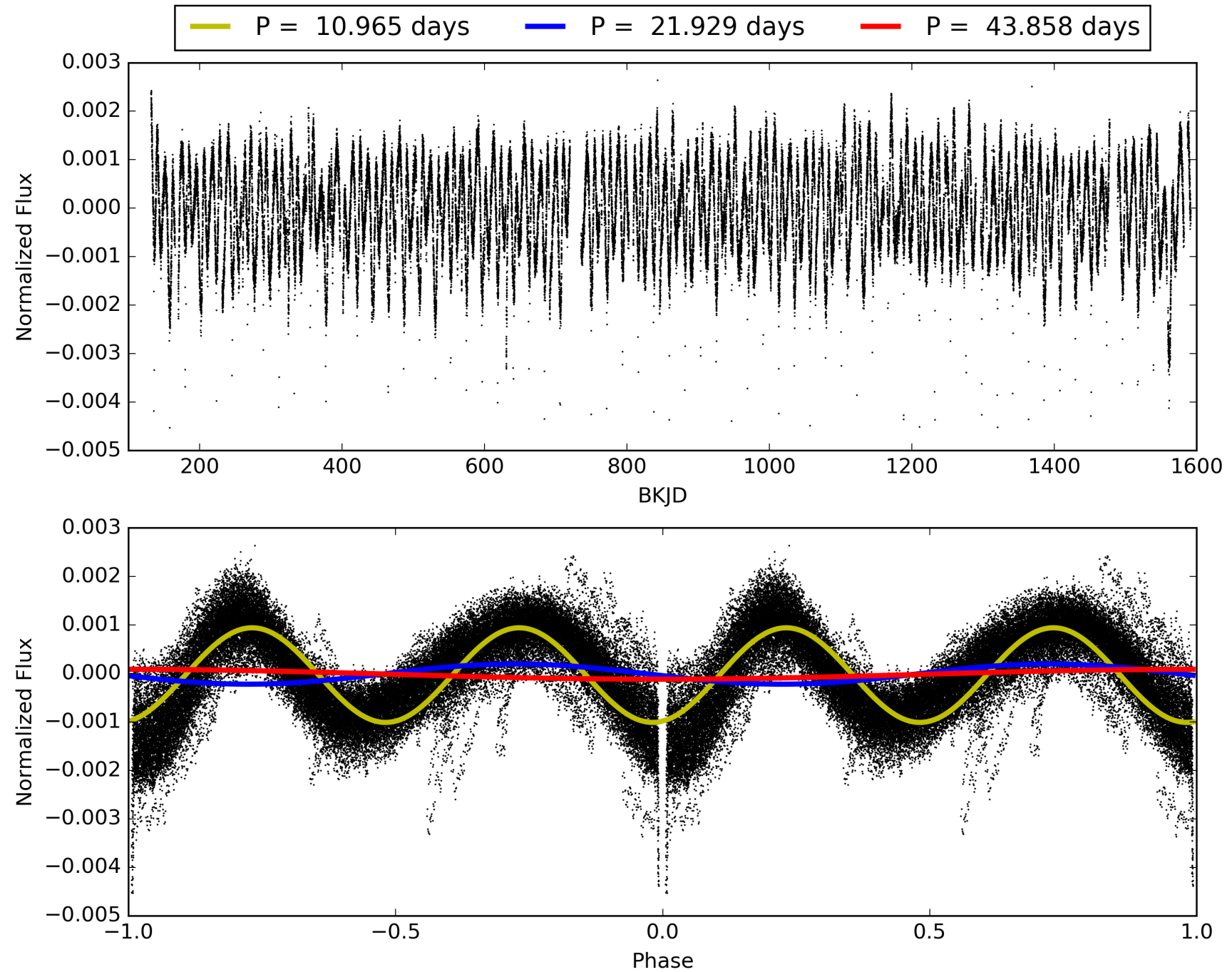
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:44:12 Z

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

TCE 004769799-01, PDC Light Curves

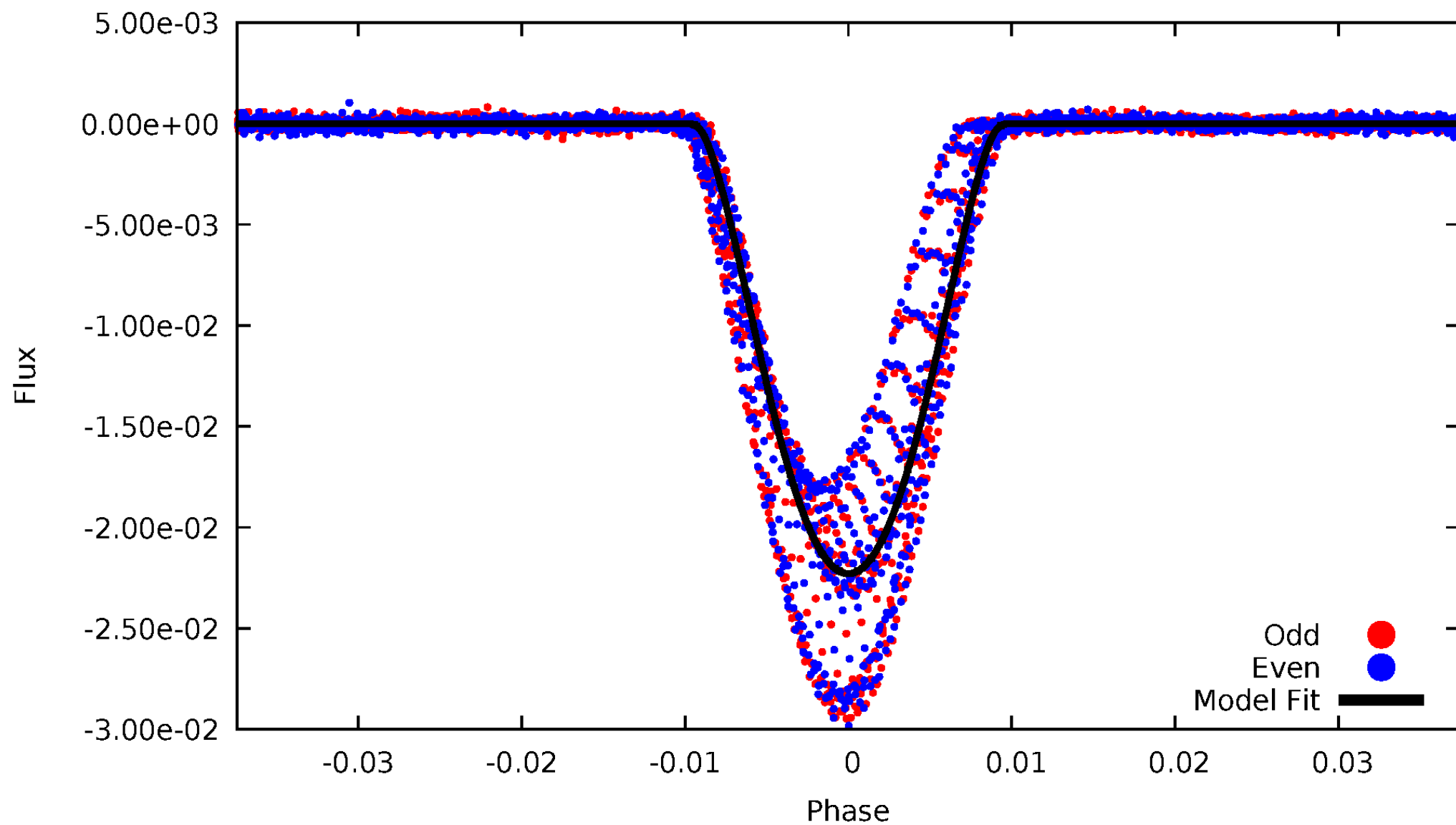


TCE 004769799-01



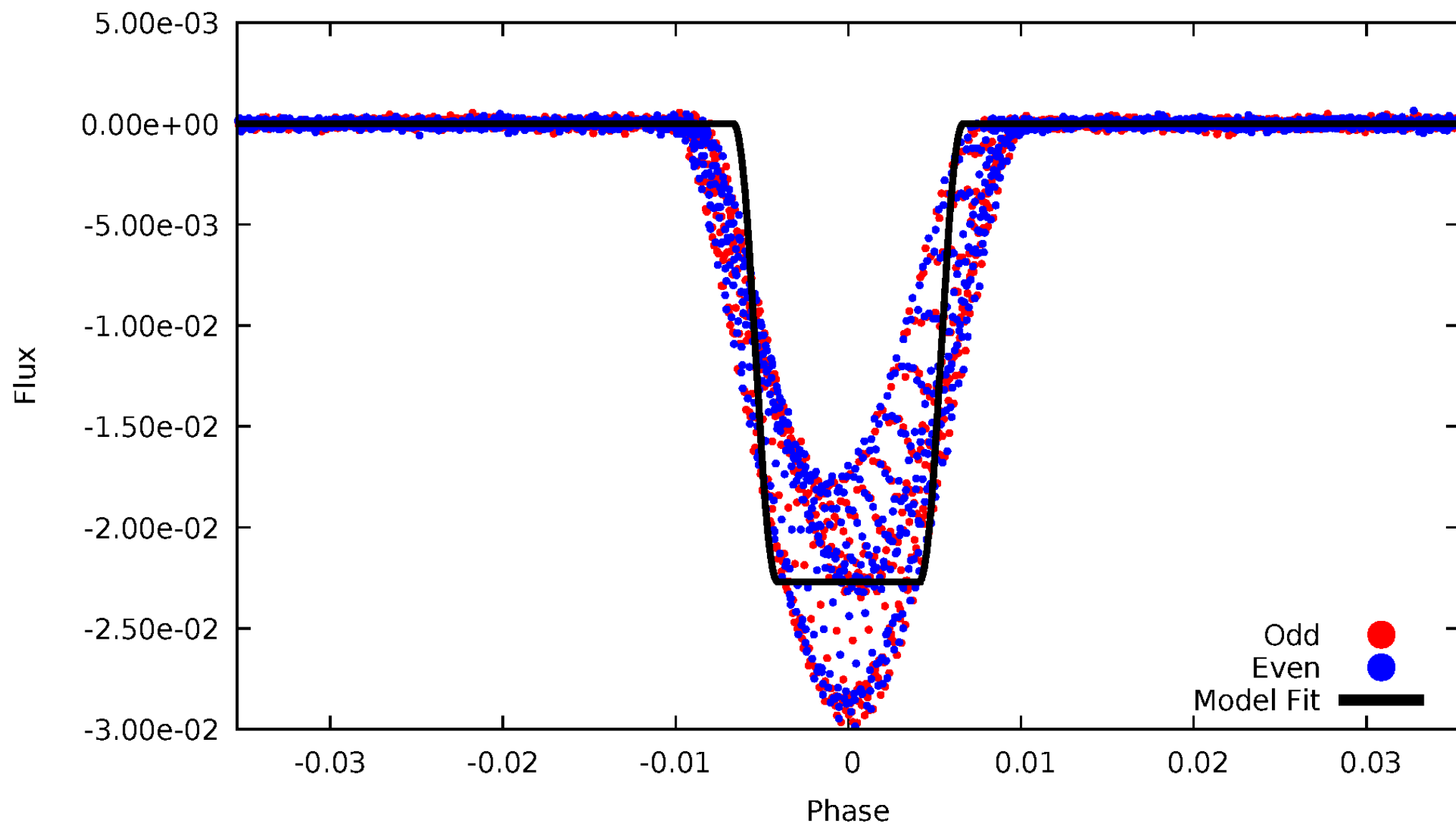
DV Odd/Even

TCE 004769799-01



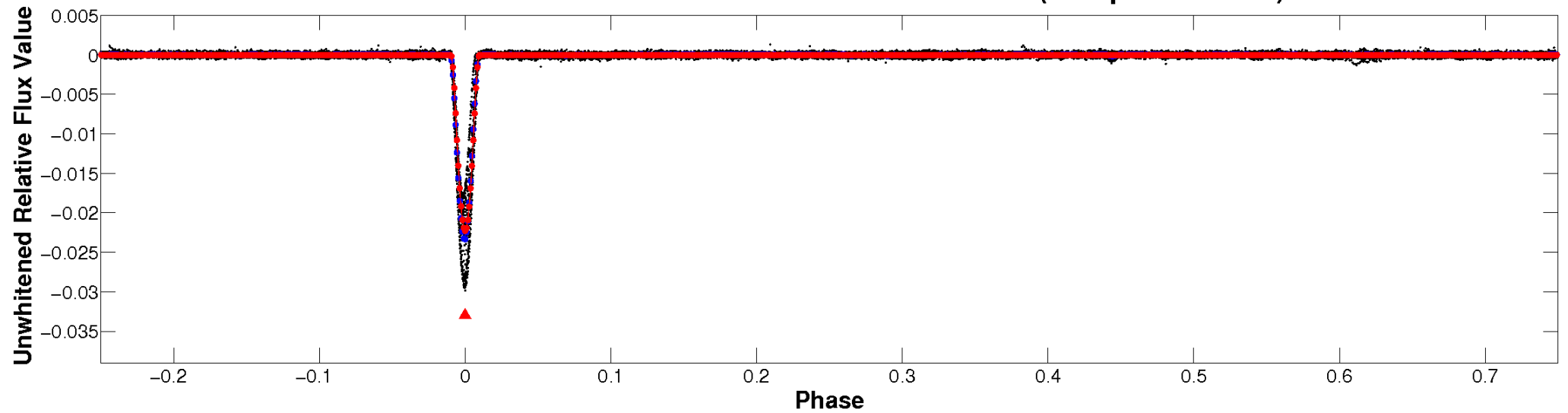
ALT Odd/Even

TCE 004769799-01

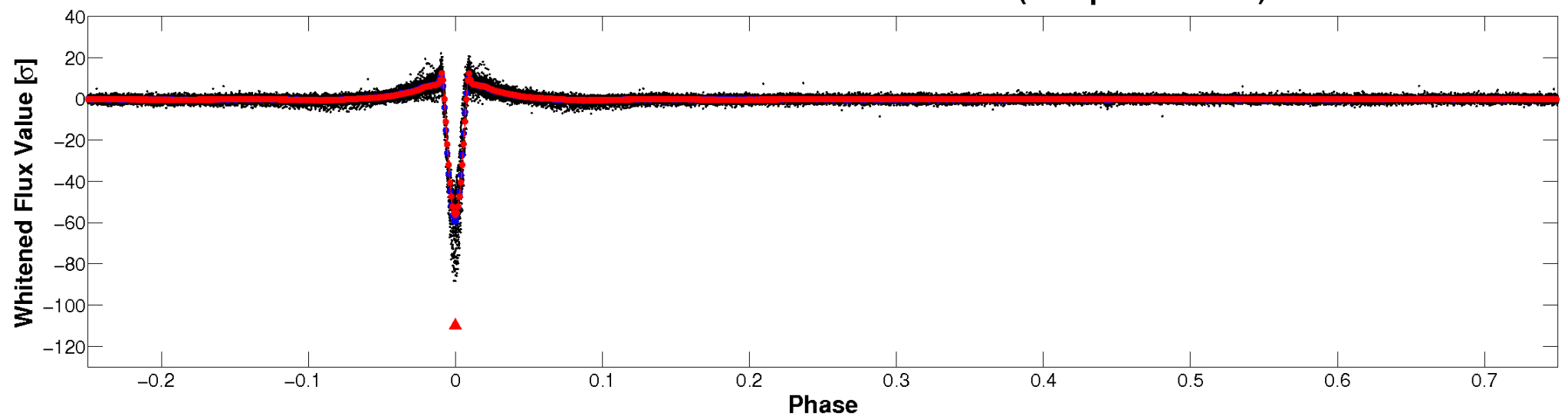


Non-Whitened Vs. Whitened Light Curve

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

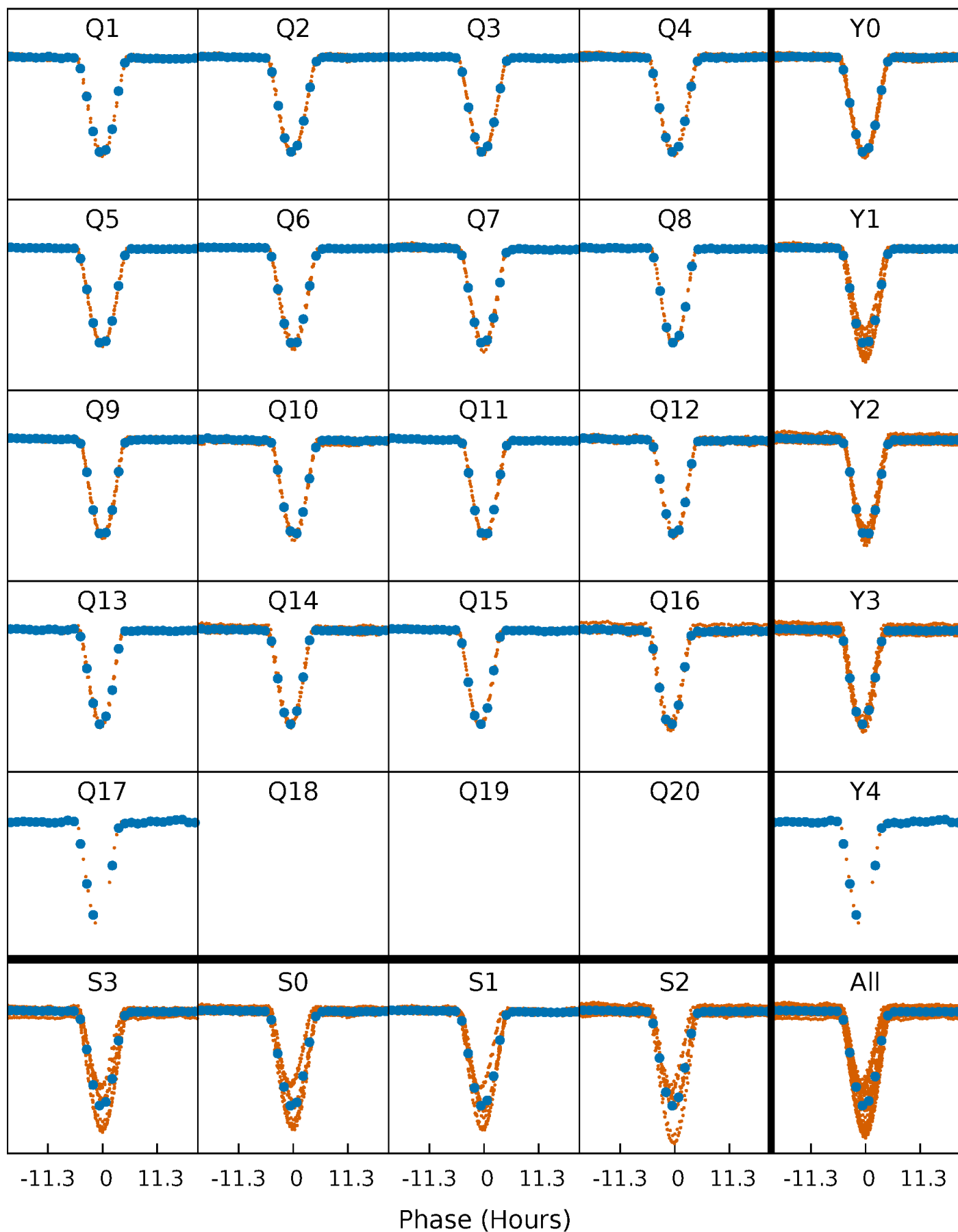


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



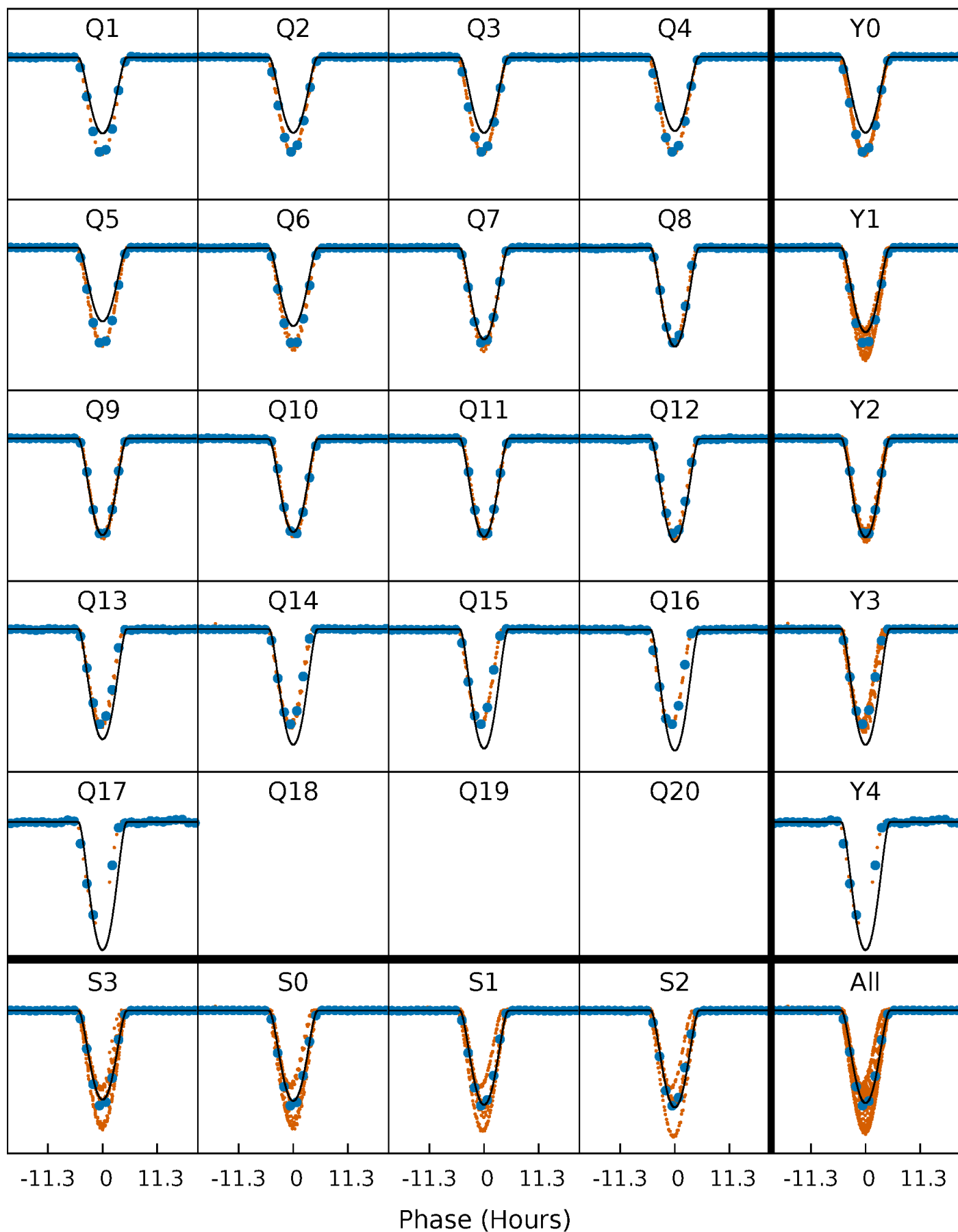
PDC Quarter-Phased Transit Curves

TCE 004769799-01 P= 21.929007 Days $T_0=135.517003$ (BKJD)



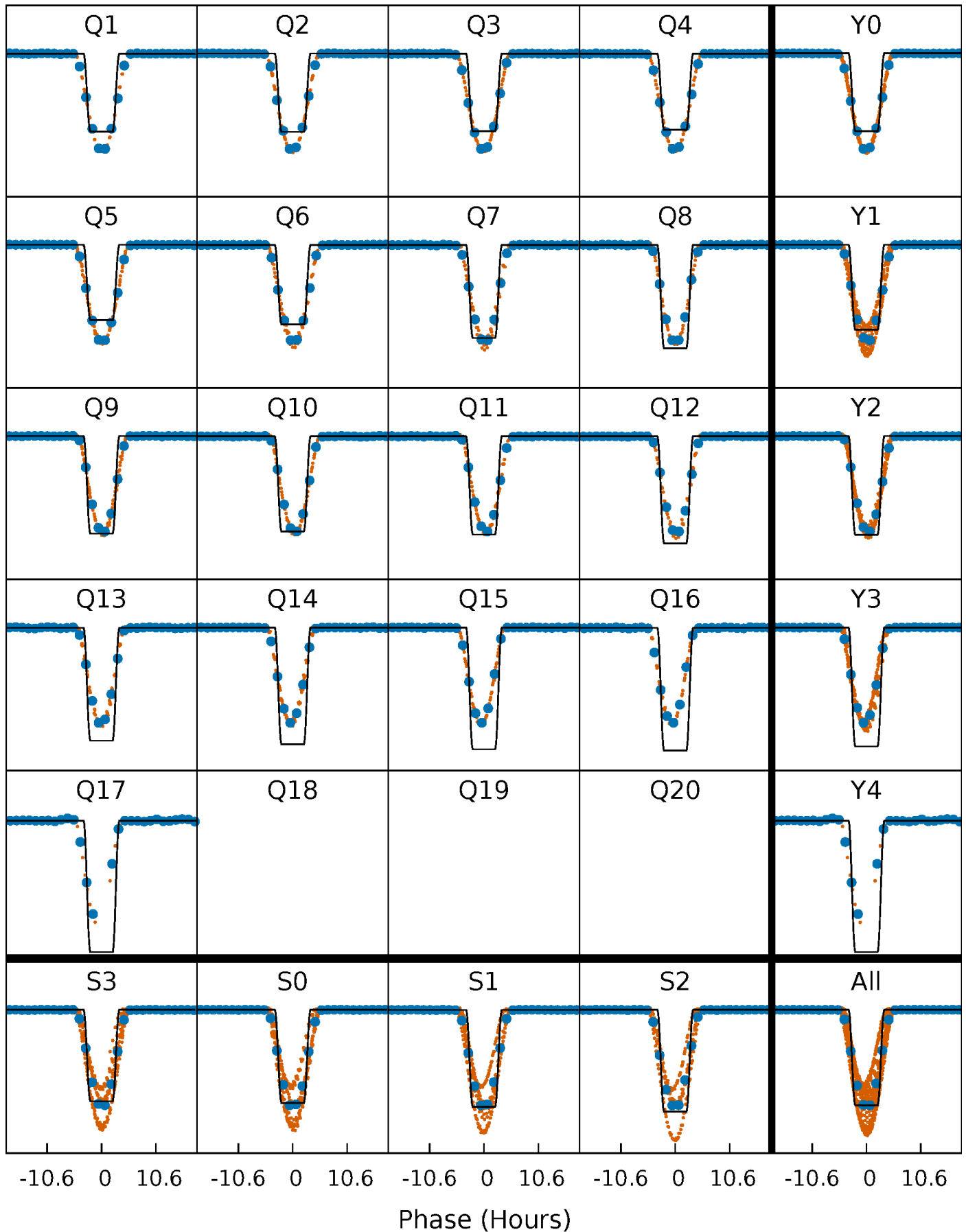
DV Quarter-Phased Transit Curves

TCE 004769799-01 P= 21.929007 Days $T_0=135.517003$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

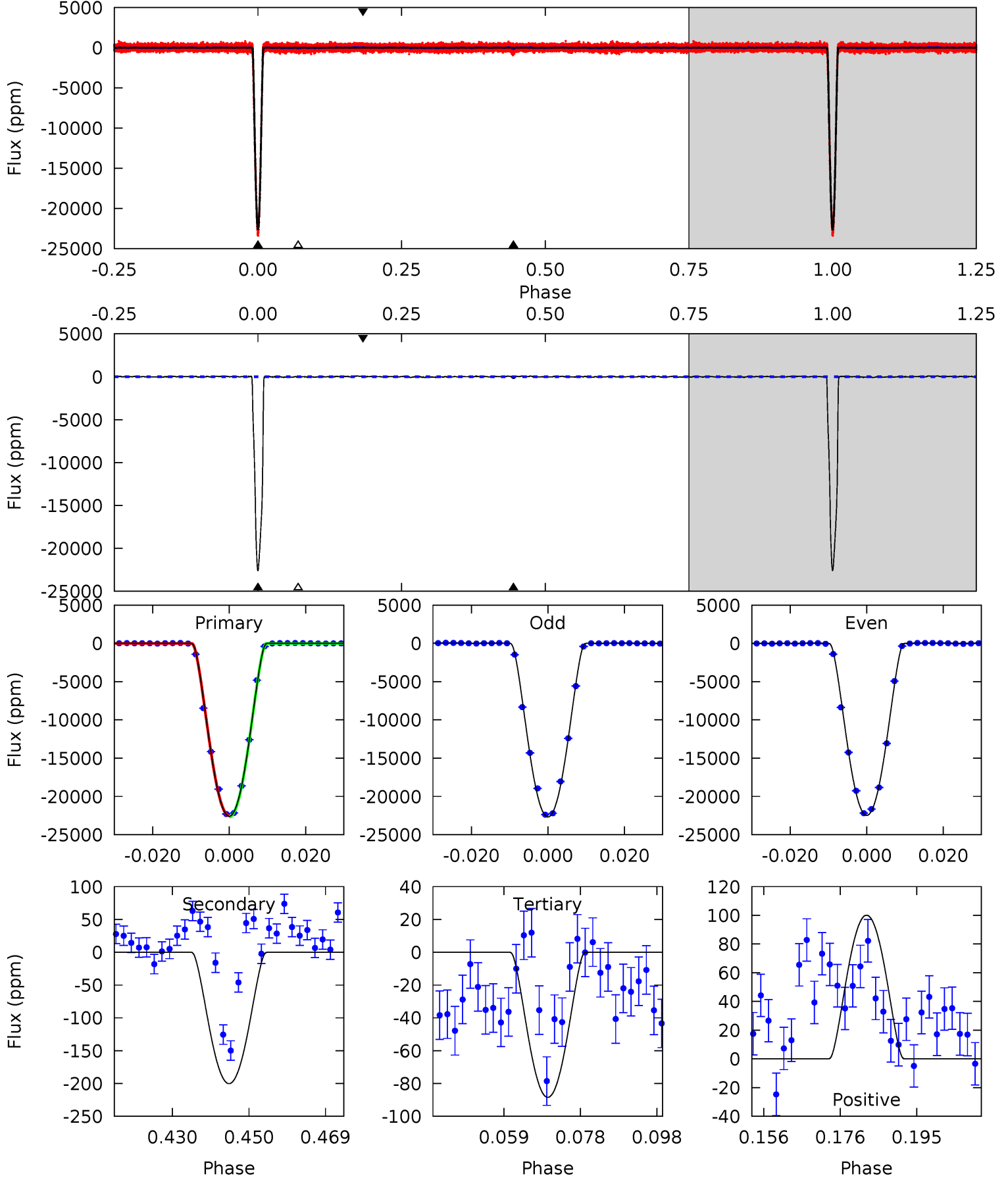
TCE 004769799-01 P= 21.928945 Days $T_0=135.510036$ (BKJD)



DV Model-Shift Uniqueness Test

004769799-01, P = 21.929007 Days, E = 113.587996 Days

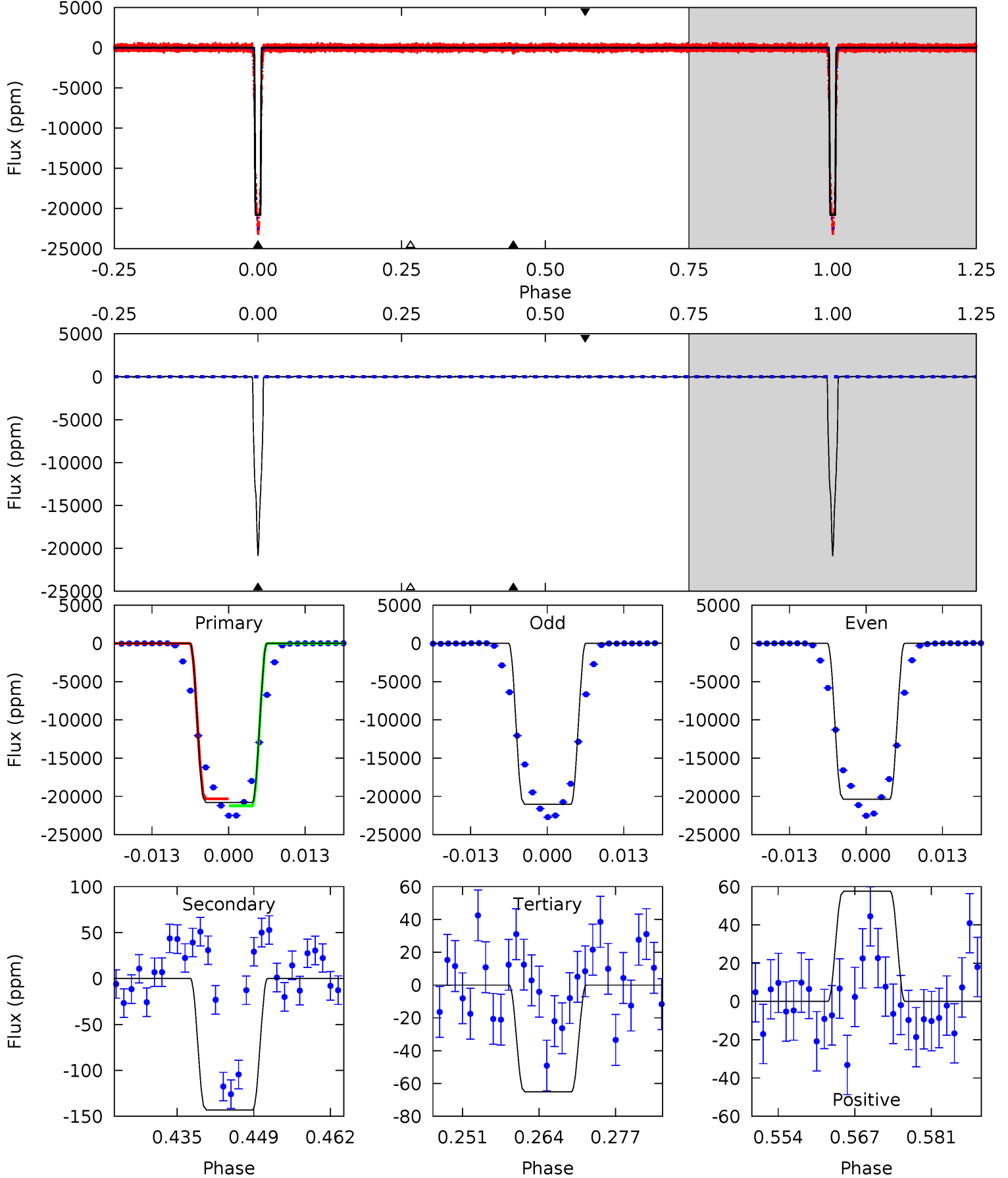
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2396	21.3	9.39	10.6	4.90	2.33	3.31	2387	2386	11.9	10.6	11.2	1.03	0.00	0



Alt Model-Shift Uniqueness Test

004769799-01, P = 21.928945 Days, E = 113.581091 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1547	10.6	4.85	4.28	4.97	2.48	1.31	1543	1543	5.80	6.37	24.1	1.04	0.00	0



Stellar Parameters For KIC 004769799

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5001^{+67}_{-60}	$3.469^{+0.125}_{-0.137}$	$-0.240^{+0.150}_{-0.100}$	$3.028^{+0.664}_{-0.443}$	$0.985^{+0.208}_{-0.089}$	$0.050^{+0.026}_{-0.018}$
	+1%/-1%	+4%/-4%	+62%/-42%	+22%/-15%	+21%/-9%	+52%/-37%
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 004769799-01 / KOI 5086.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-200 ± 9	$59.99^{+7.84}_{-5.41}$	1376^{+74}_{-60}	2164^{+39}_{-41}	$0.717^{+0.152}_{-0.122}$
Alt.	-143 ± 13	$50.31^{+6.25}_{-4.81}$	1378^{+74}_{-65}	2172^{+47}_{-61}	$0.727^{+0.178}_{-0.144}$

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 $A_{obs} \gg 1.0$

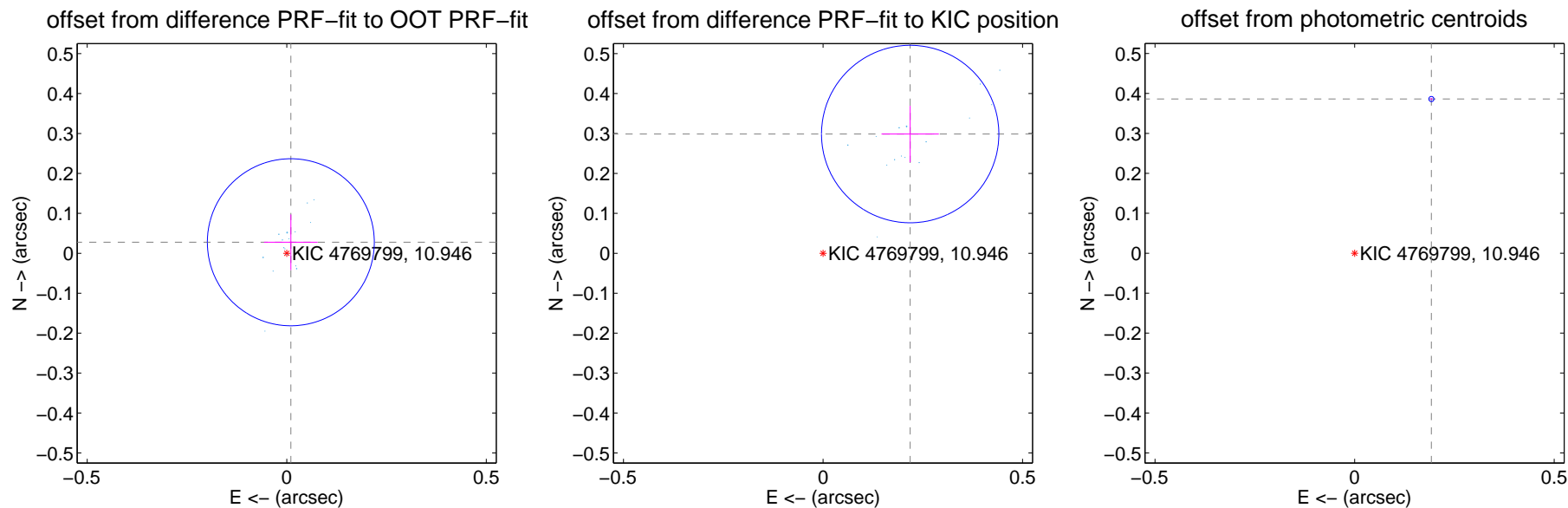
DV Centroid Data

Supplemental centroid analysis for 004769799-01. **Kepler magnitude: 10.95.** Transit SNR 832.11

There are 16 quarters with good PRF difference image offsets

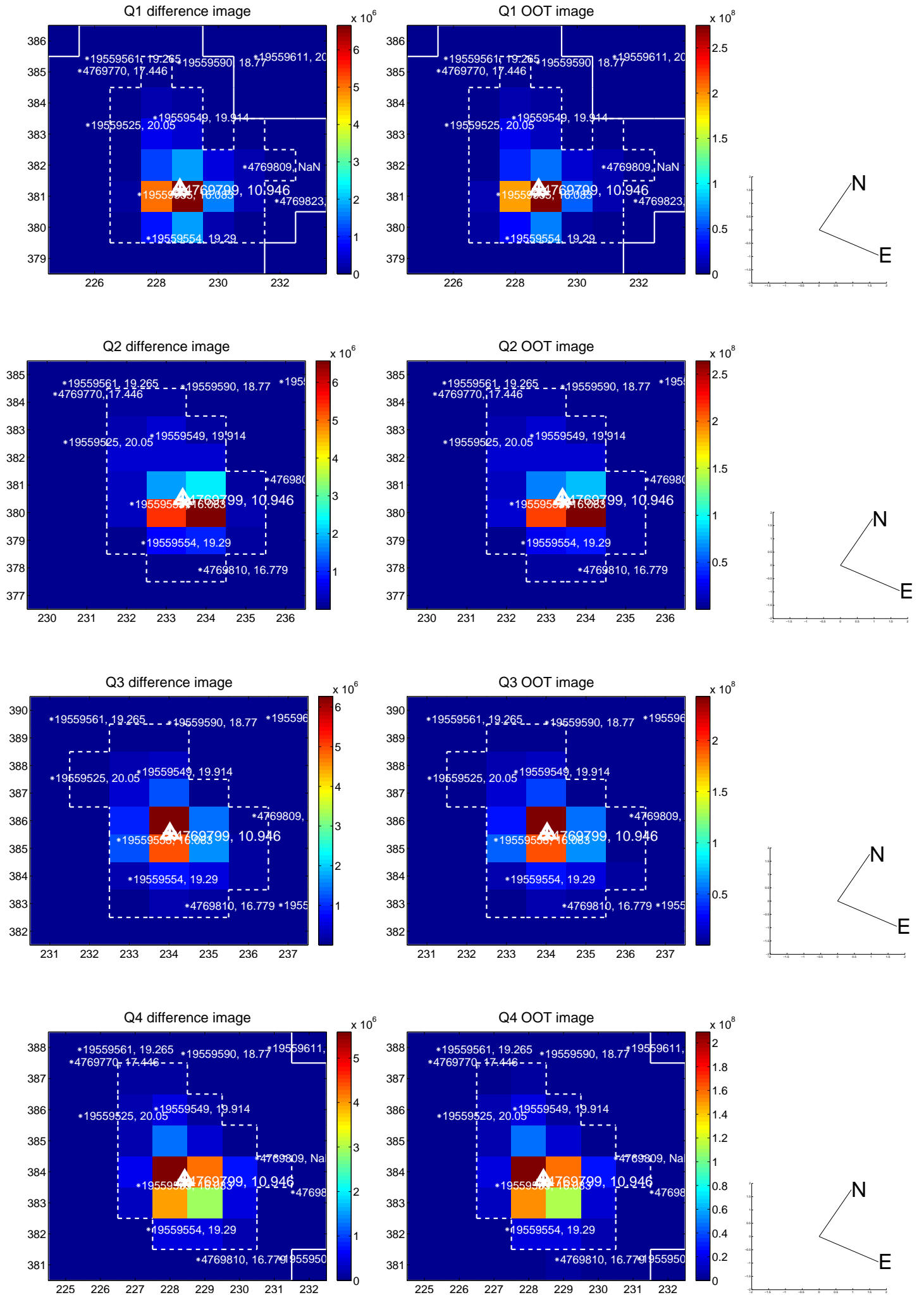
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.029 ± 0.070	0.42	-0.010 ± 0.067	0.028 ± 0.069
PRF-fit source offset from KIC position	0.370 ± 0.074	5.00	-0.218 ± 0.072	0.299 ± 0.071
photometric centroid source offset	0.43 ± 0.00	202.94	-0.19 ± 0.00	0.39 ± 0.00

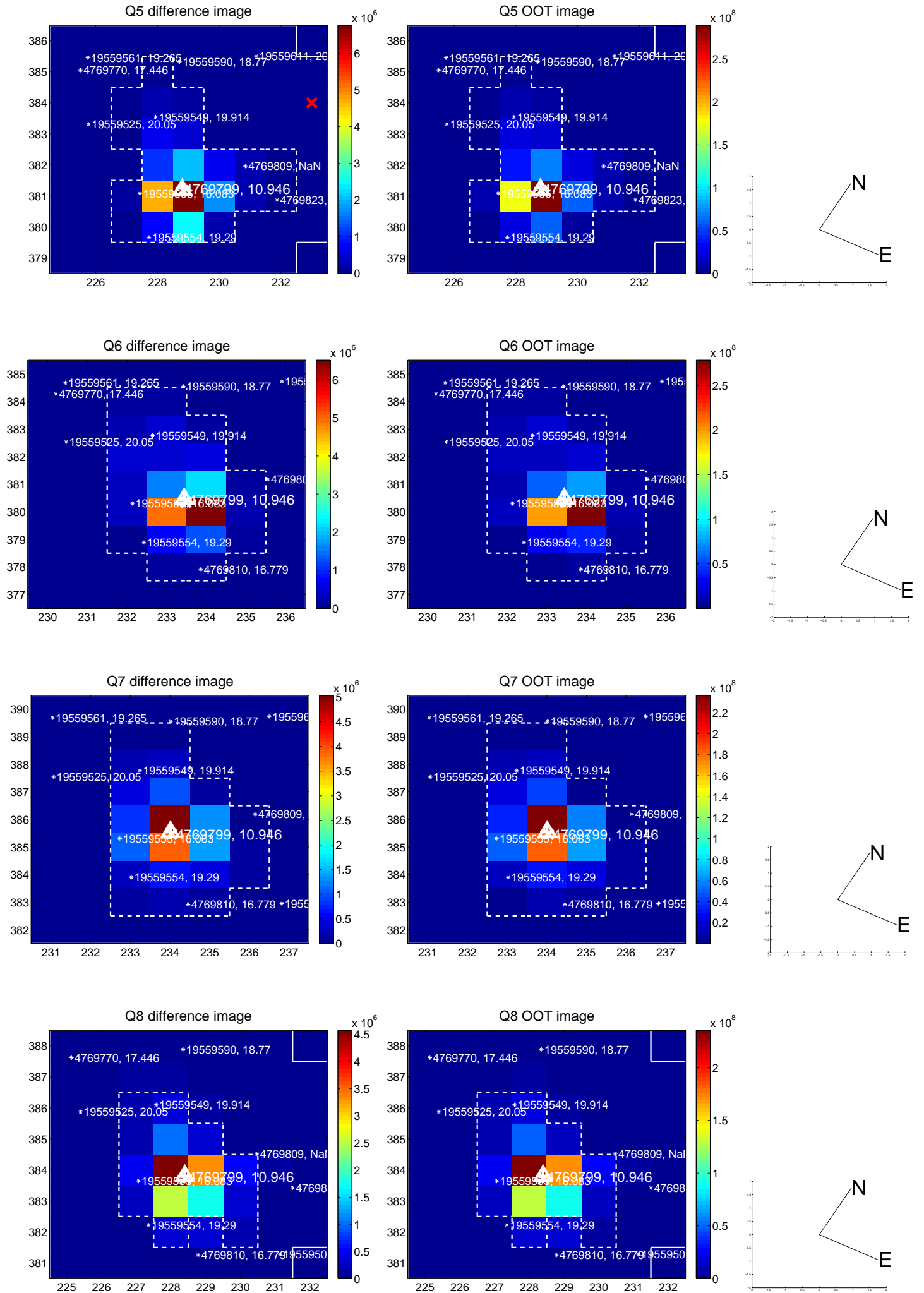


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

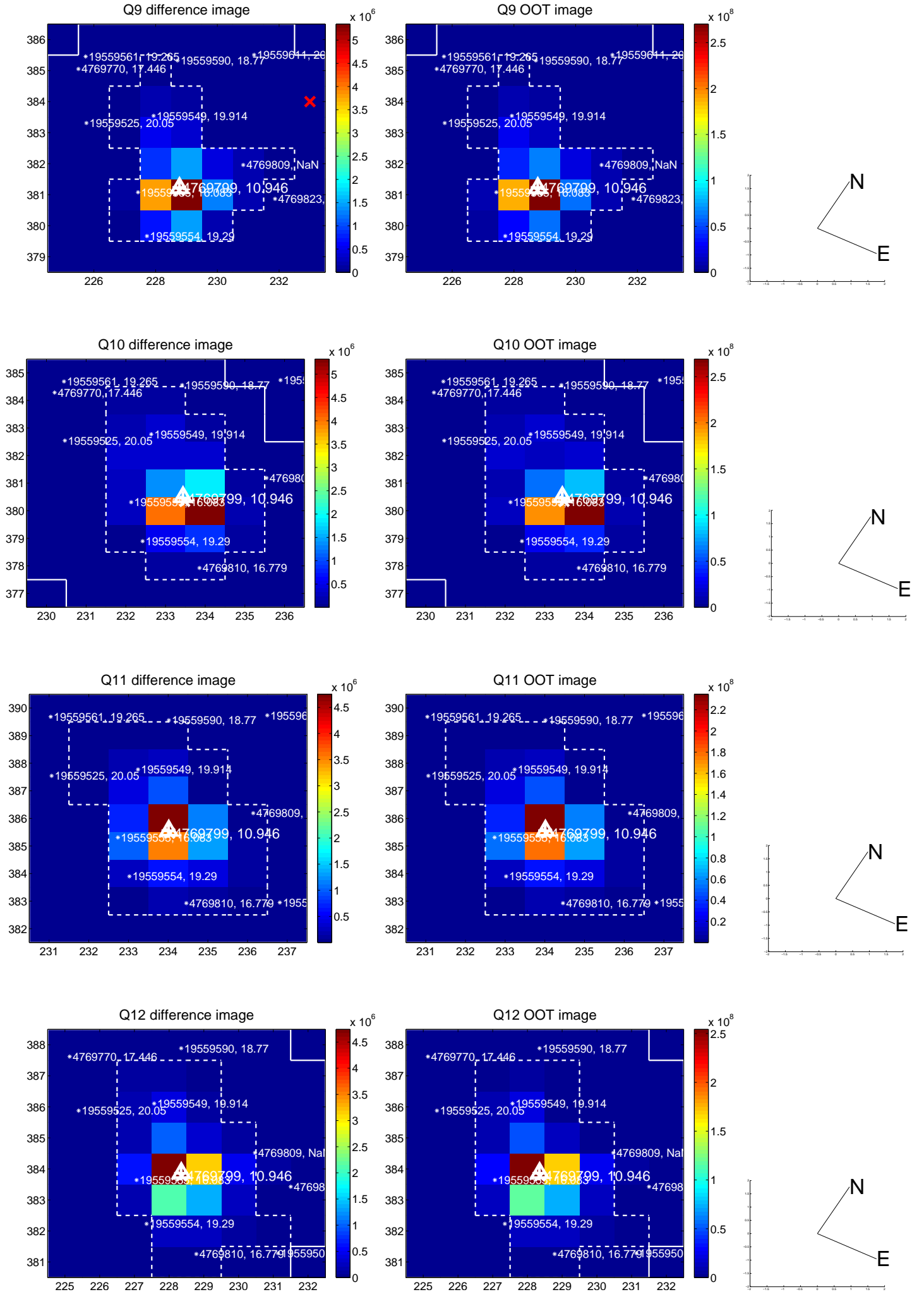
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



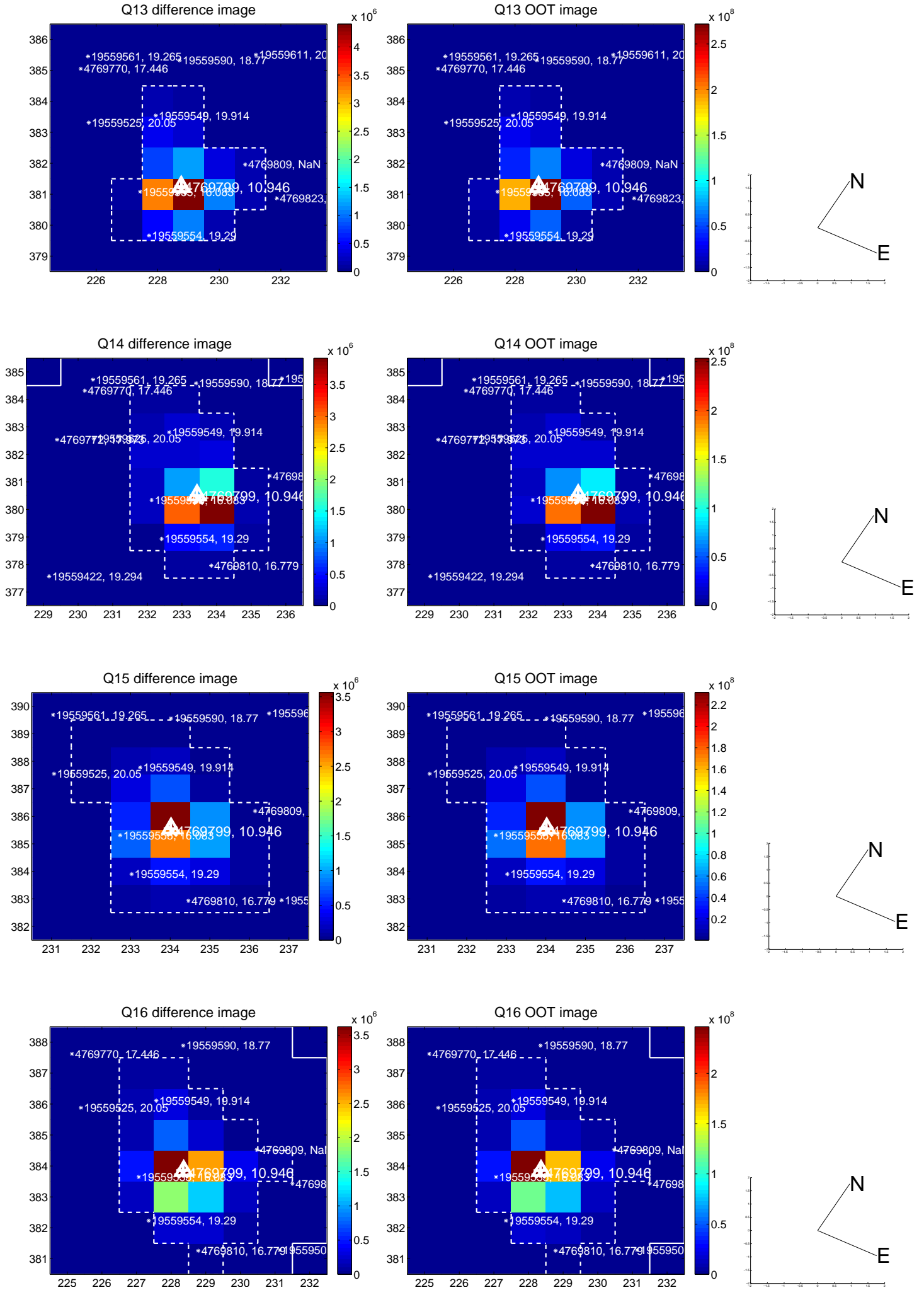
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



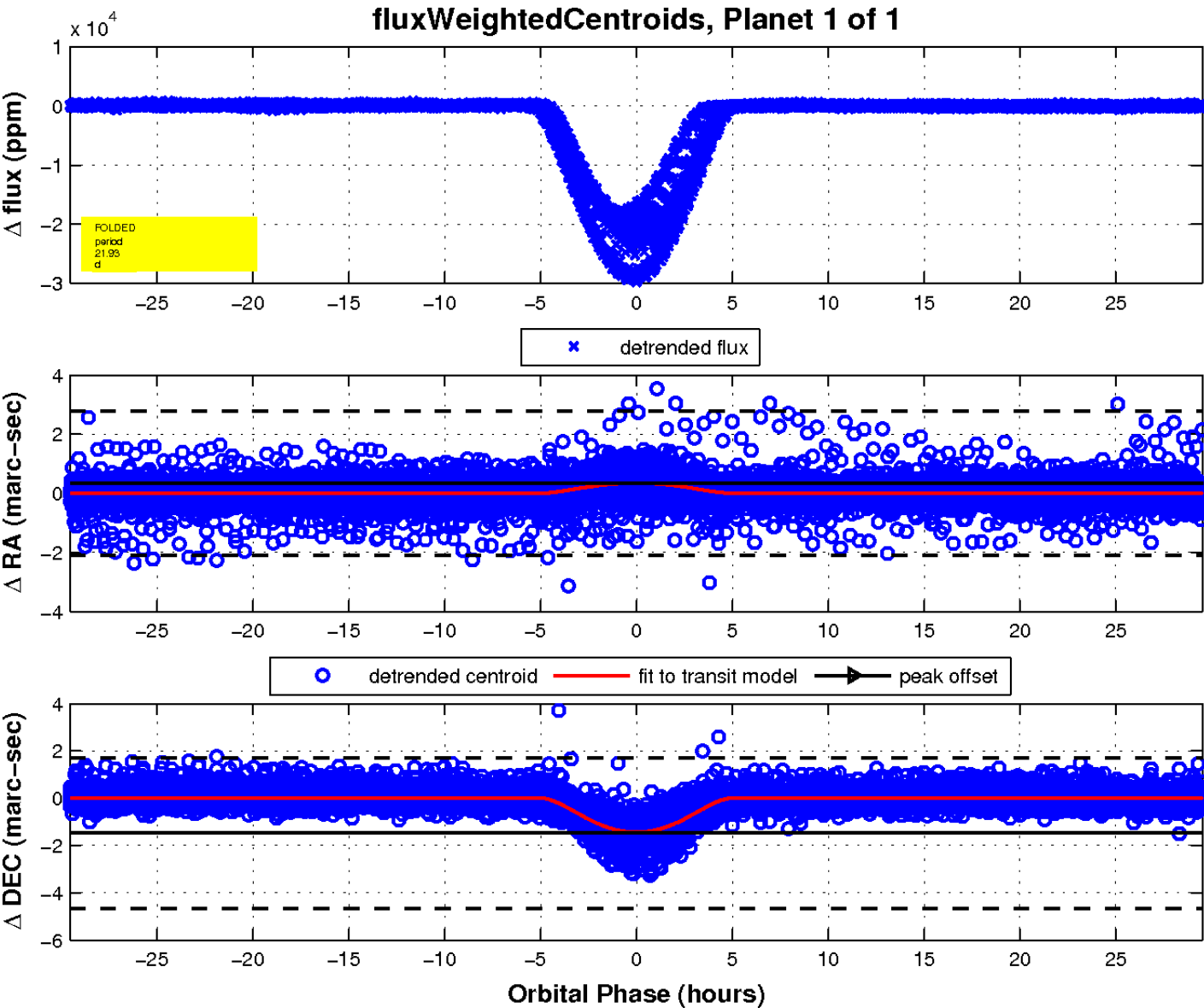
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

