

KIC 003115480

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})
003115480-01	OBS	6306.01	1.846858	133.345689	23892.6	3.259	2201.3	1742.2	1.40	6309	33.94	2663.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003115480-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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 003115480-01

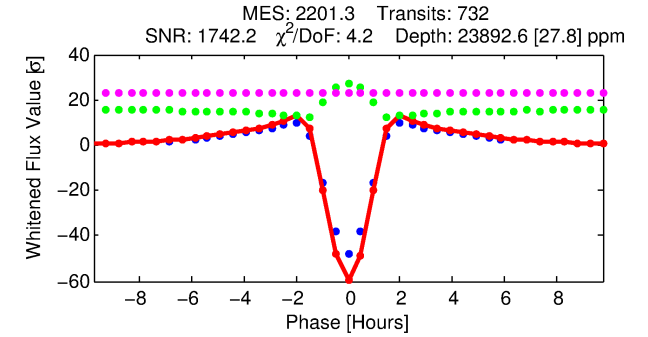
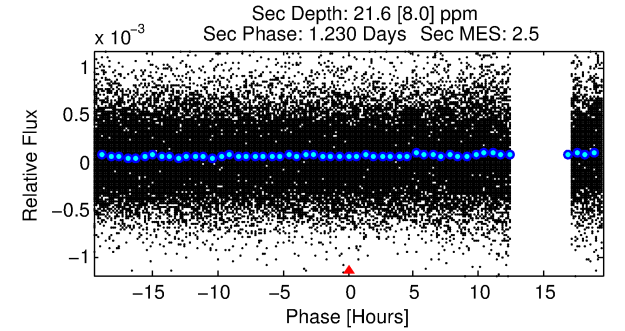
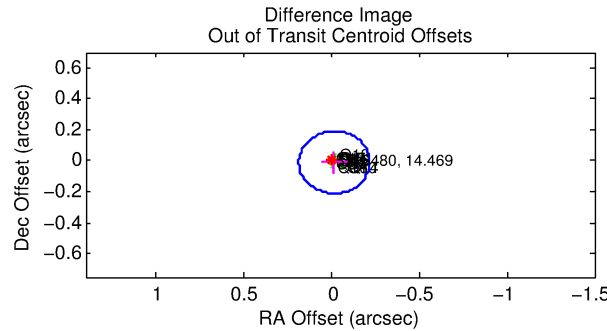
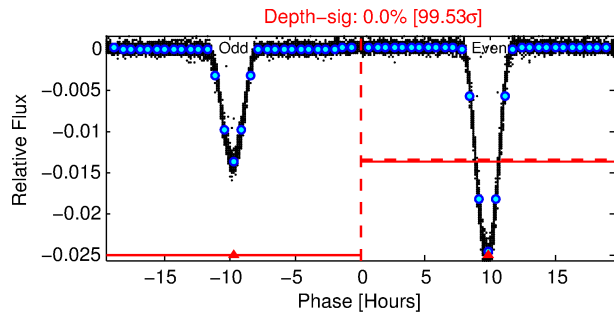
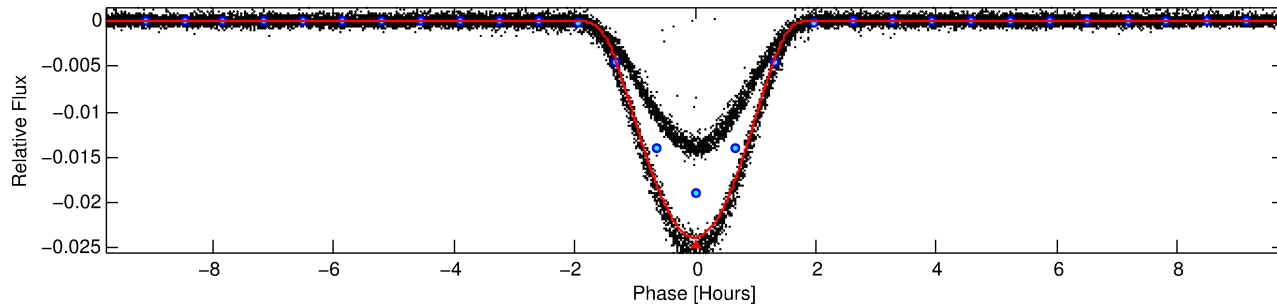
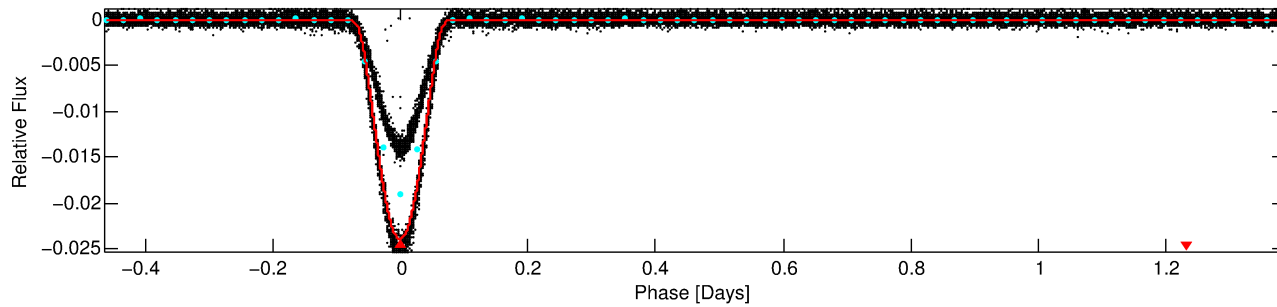
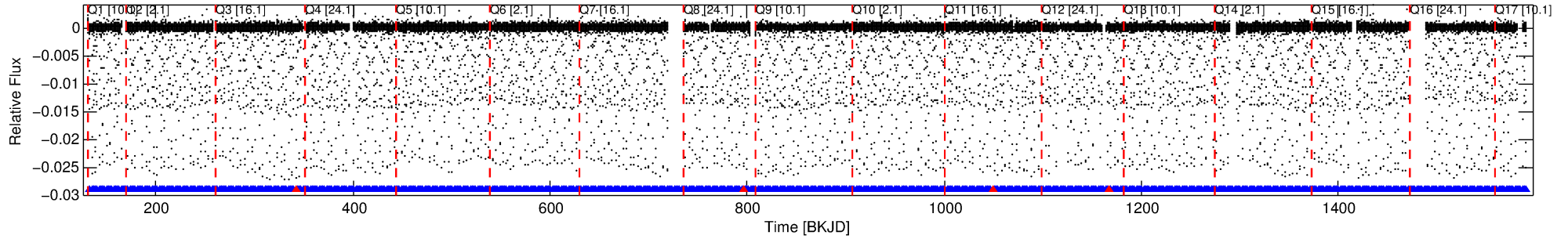
No Significant Match Found

DV One-Page Summary

KIC: 3115480 Candidate: 1 of 1 Period: 1.847 d

KOI: K06306 Corr: No Ephemeris Match

Kp: 14.47 R*: 1.40 Rs Teff: 6309.0 K Logg: 4.26 Fe/H: 0.320



DV Fit Results:

Period = 1.84686 [0.00000] d
Epoch = 133.3457 [0.0000] BKJD
Rp/R* = 0.2228 [0.0077]
a/R* = 3.43 [0.01]
b = 0.96 [0.01]
Seff = 2663.27 [587.42]
Teff = 1832 [101] K
Rp = 33.94 [6.07] Re
a = 0.0322 [0.0048] AU
Ag = 0.01 [0.00] [-213.64σ]
Teffp = 911 [86] K [-6.93σ]

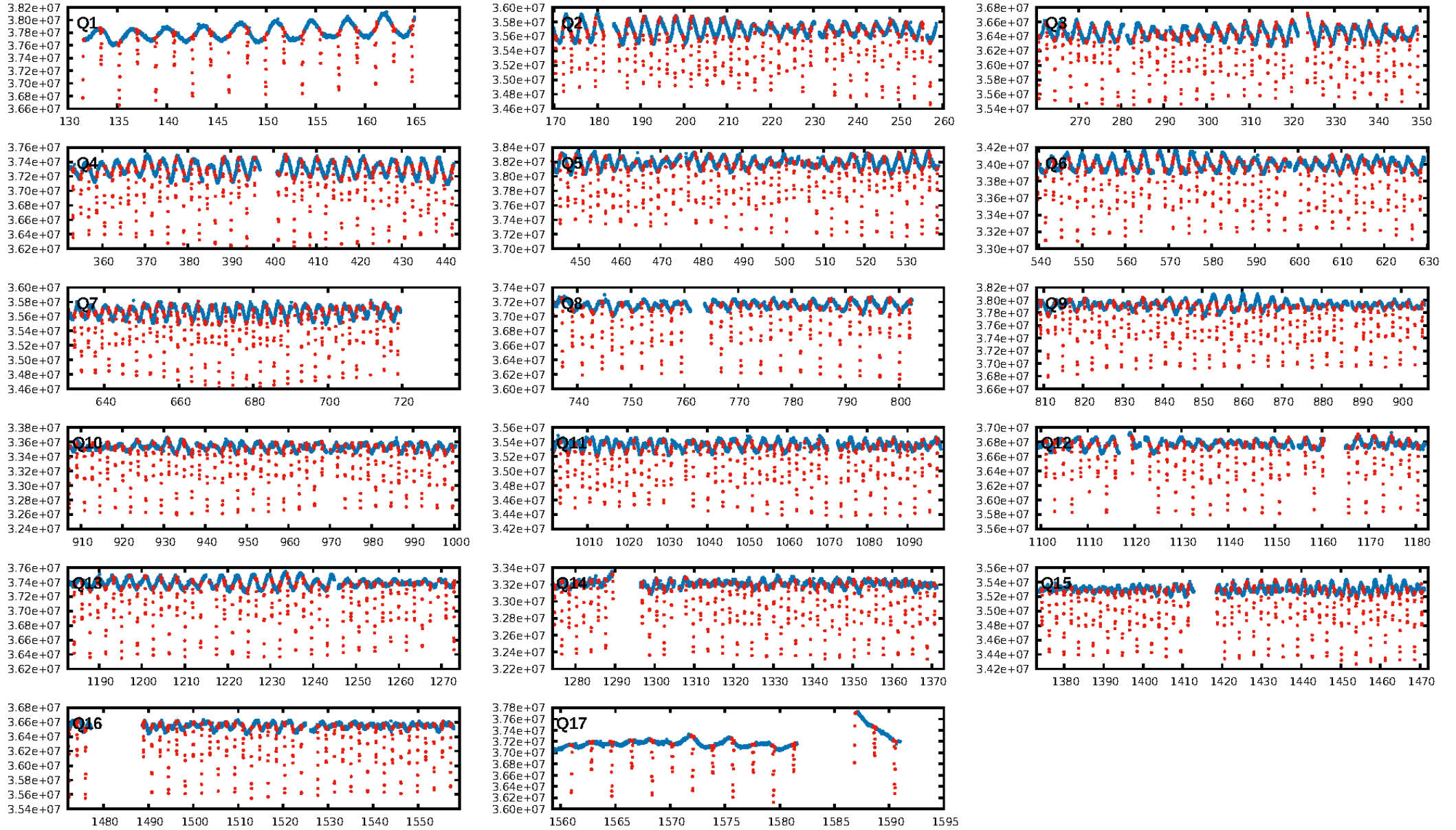
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [694/698]
GhostDiagnostic-chr: 2.962
Centroid-sig: 0.0%
Centroid-so: 0.077 arcsec [18.74σ]
OotOffset-rm: 0.018 arcsec [0.27σ]
KicOffset-rm: 0.037 arcsec [0.51σ]
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]

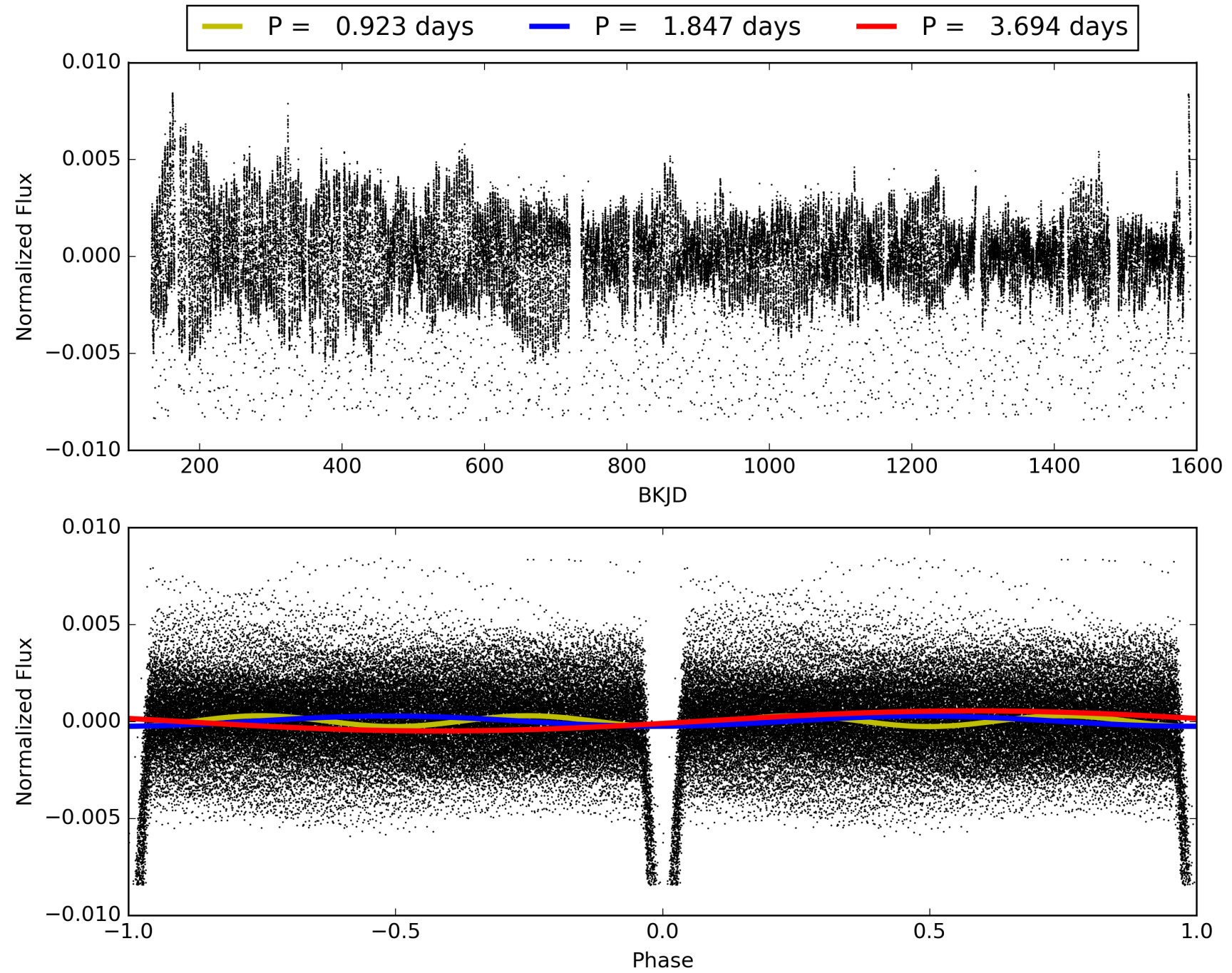
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:20:37 Z

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

TCE 003115480-01, PDC Light Curves

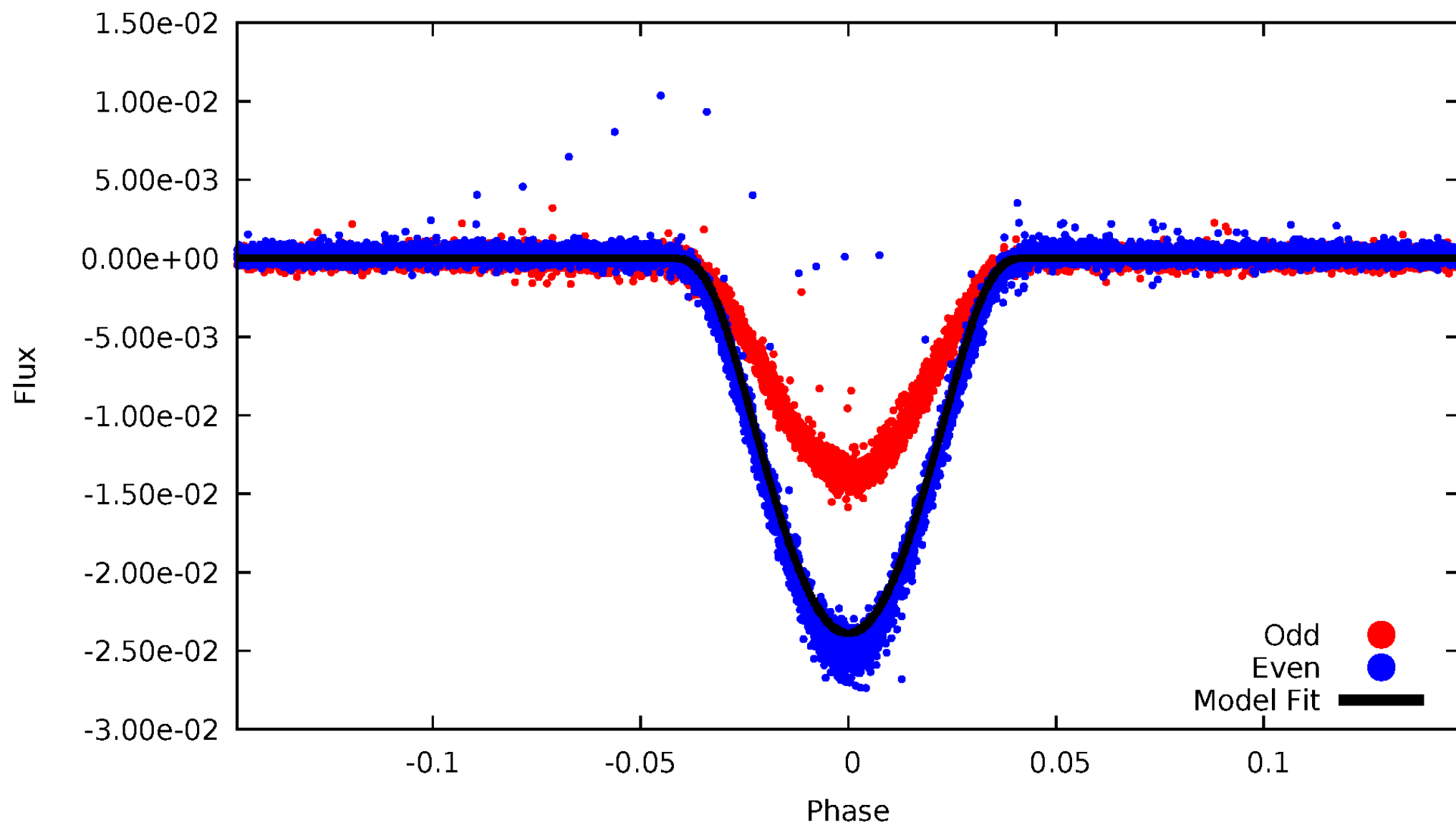


TCE 003115480-01



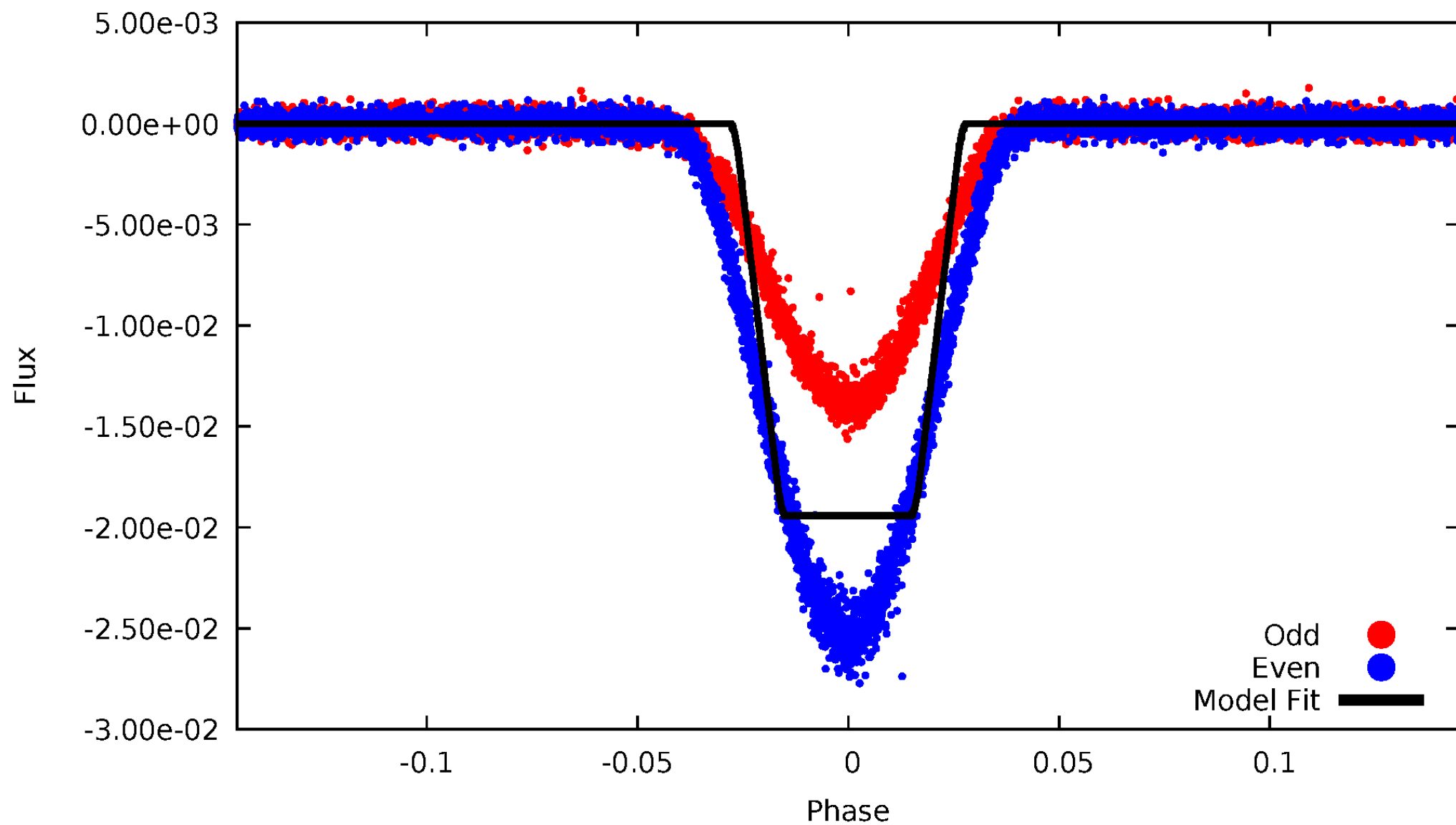
DV Odd/Even

TCE 003115480-01



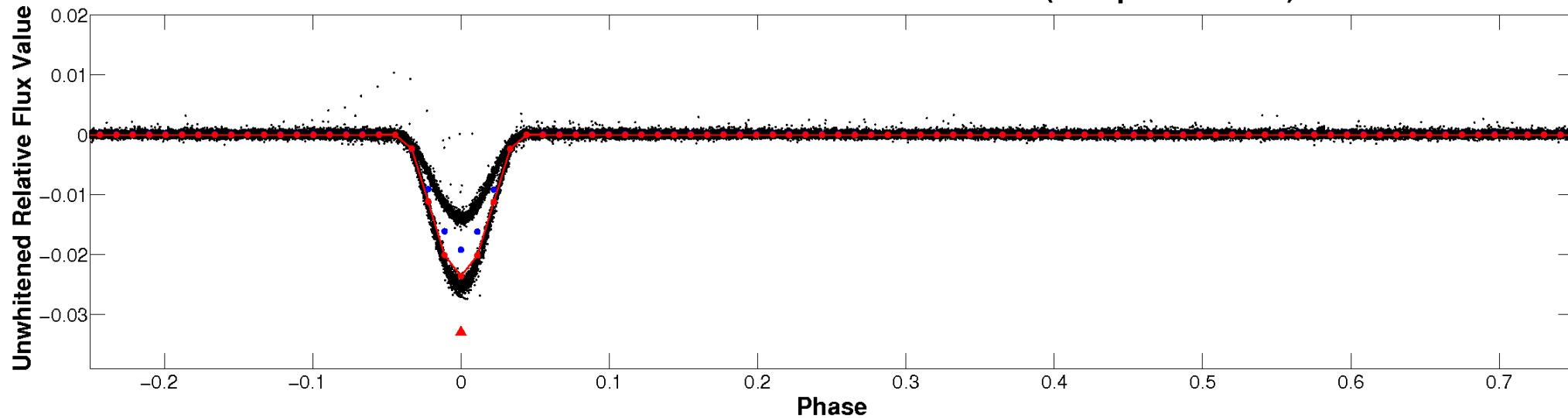
ALT Odd/Even

TCE 003115480-01

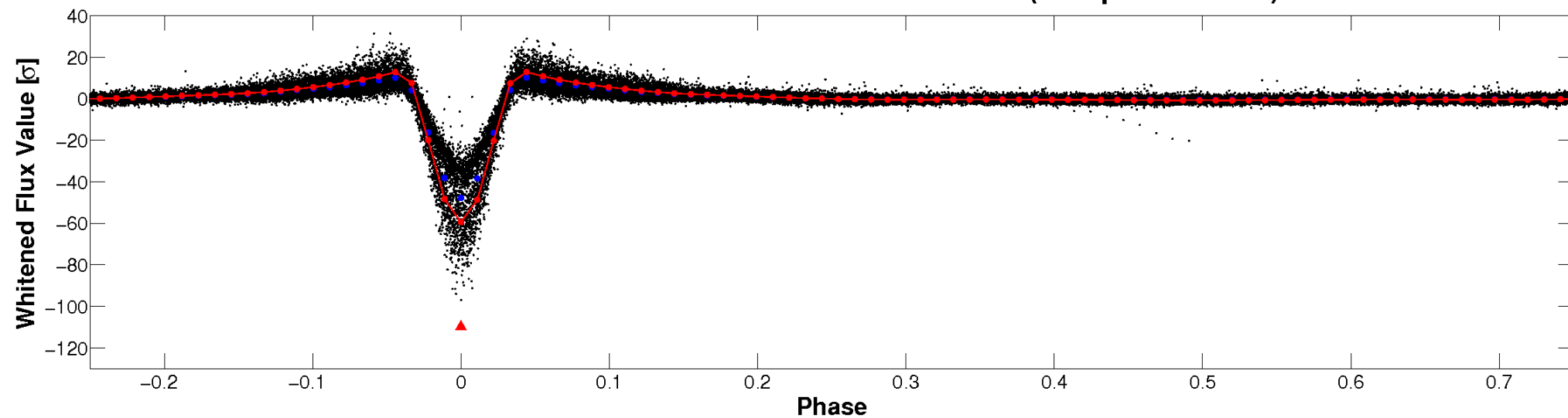


Non-Whitened Vs. Whitened Light Curve

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

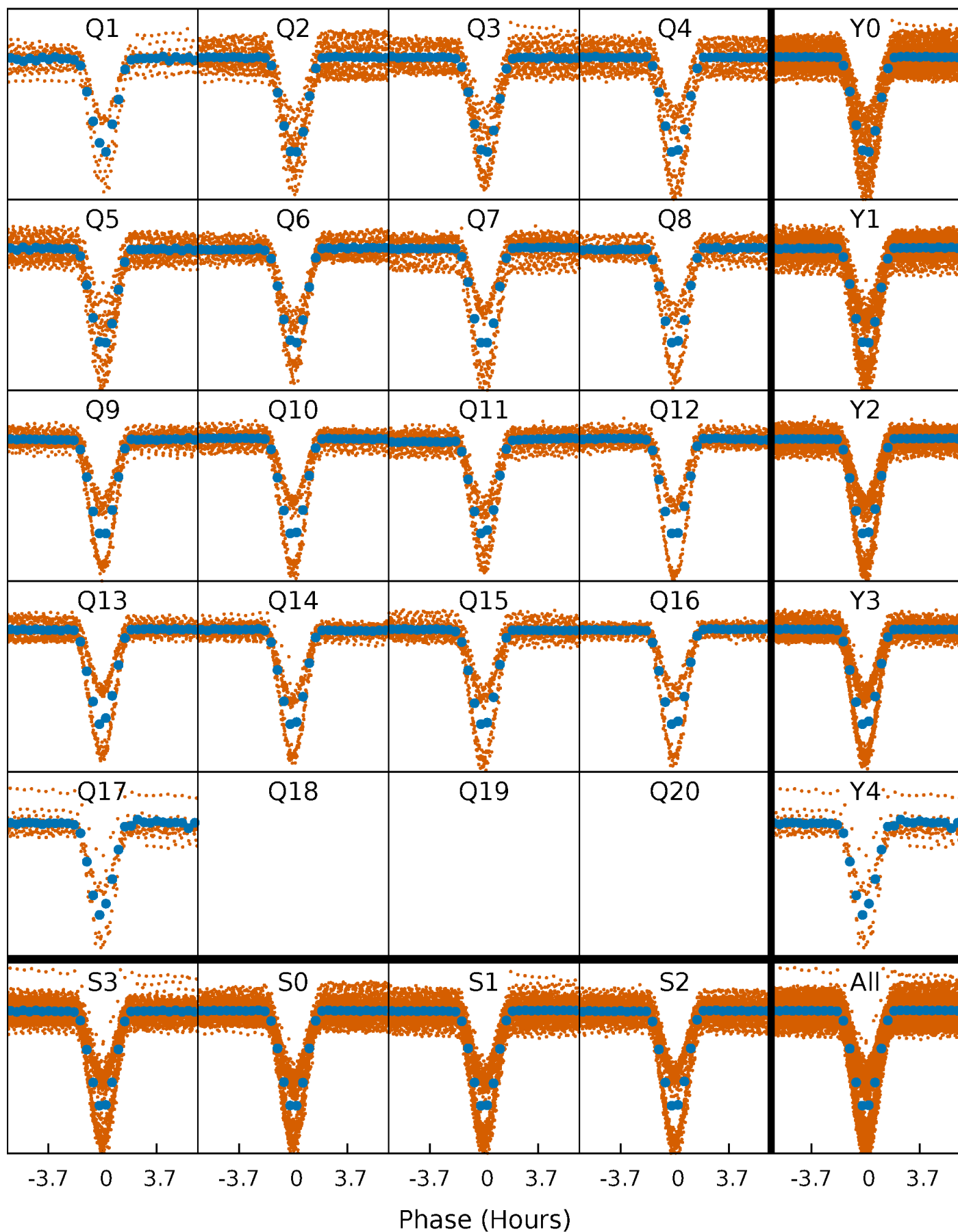


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



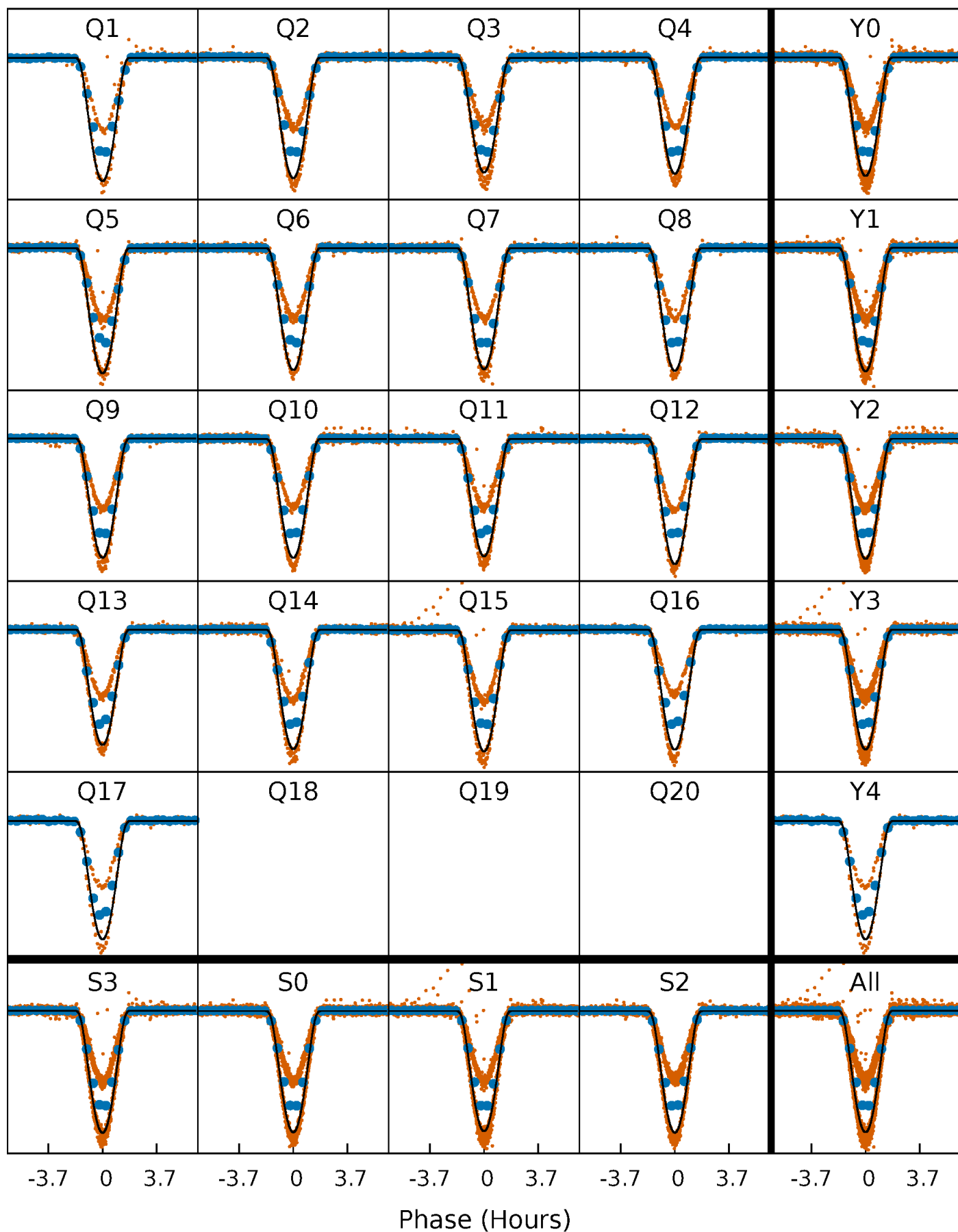
PDC Quarter-Phased Transit Curves

TCE 003115480-01 P= 1.846858 Days $T_0=133.345689$ (BKJD)



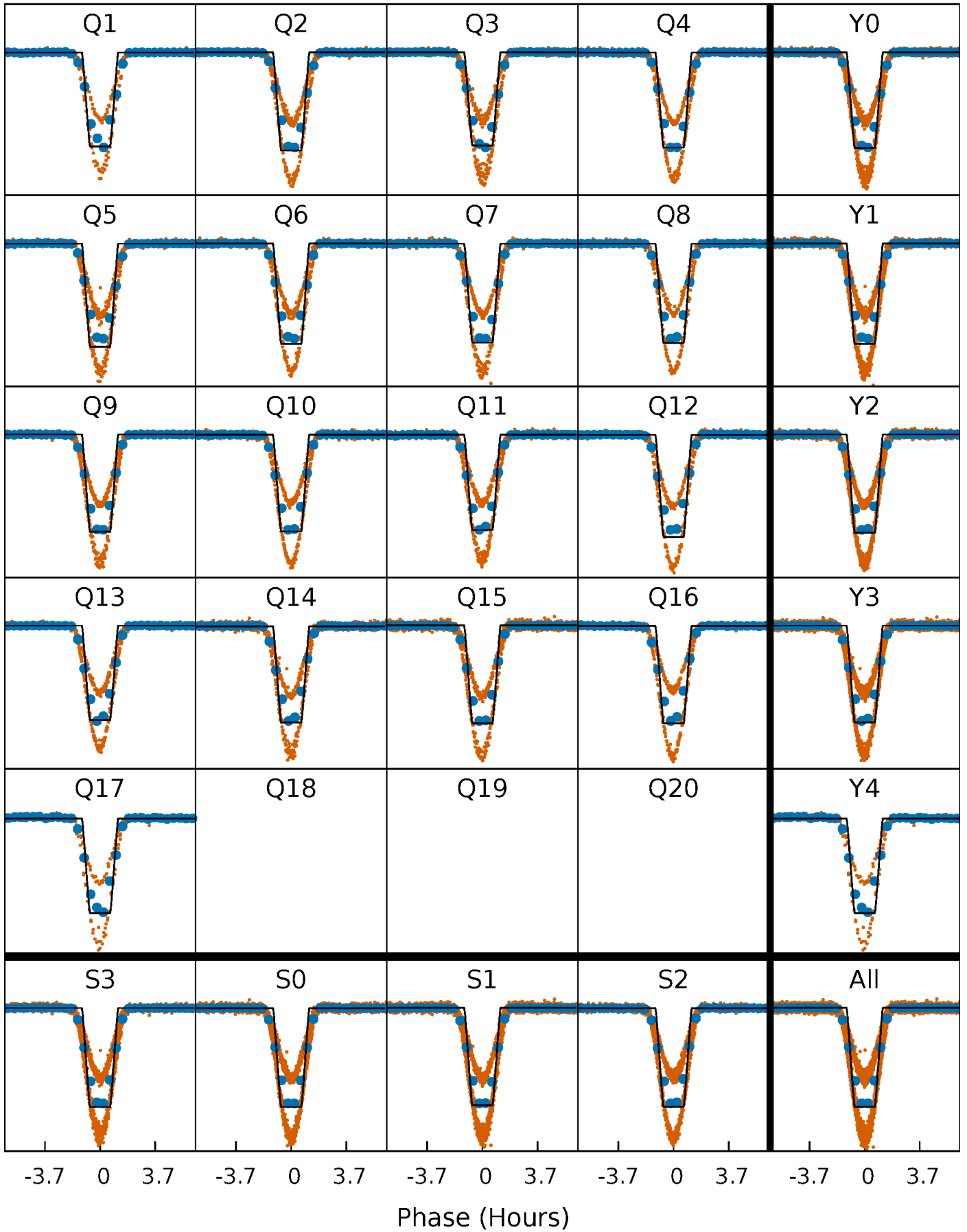
DV Quarter-Phased Transit Curves

TCE 003115480-01 P= 1.846858 Days $T_0=133.345689$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

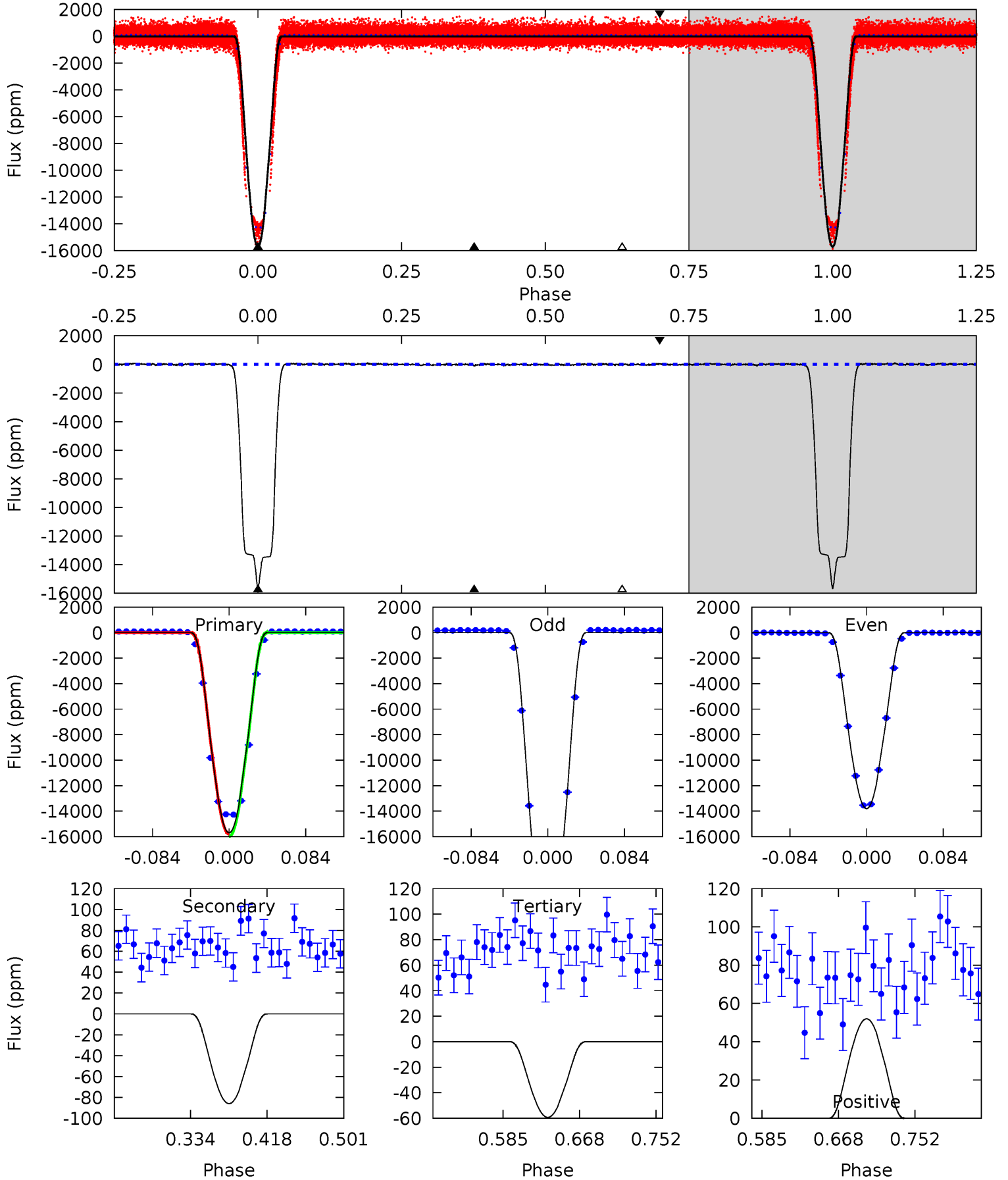
TCE 003115480-01 P= 1.846857 Days $T_0=133.346123$ (BKJD)



DV Model-Shift Uniqueness Test

003115480-01, P = 1.846858 Days, E = 131.498831 Days

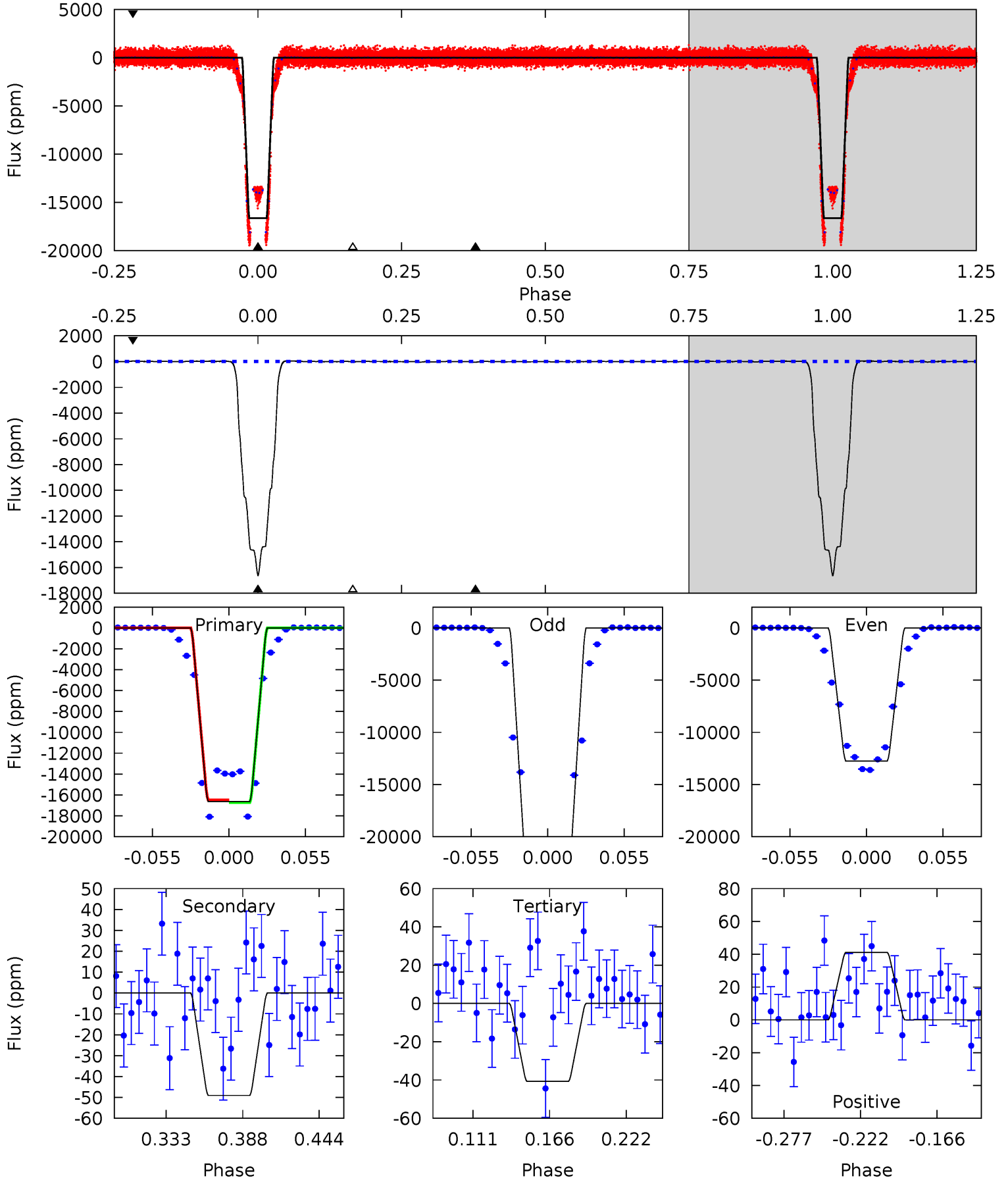
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2054	11.2	7.75	6.80	4.60	1.73	3.47	2046	2047	3.49	4.45	1215	1.29	0.01	0



Alt Model-Shift Uniqueness Test

003115480-01, P = 1.846857 Days, E = 131.499266 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1596	4.71	3.91	3.95	4.69	1.91	1.52	1592	1592	0.80	0.76	788.4	1.27	0.00	11.7



Stellar Parameters For KIC 003115480

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6309^{+75}_{-82}	$4.265^{+0.063}_{-0.117}$	$0.320^{+0.100}_{-0.150}$	$1.396^{+0.245}_{-0.113}$	$1.306^{+0.084}_{-0.067}$	$0.677^{+0.178}_{-0.238}$
	+1%/-1%	+1%/-3%	+31%/-47%	+18%/-8%	+6%/-5%	+26%/-35%
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 003115480-01 / KOI 6306.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-86 ± 8	$34.27^{+3.19}_{-2.23}$	2569^{+119}_{-71}	-2780^{+48}_{-78}	$0.041^{+0.008}_{-0.007}$
Alt.	-49 ± 10	$21.42^{+2.20}_{-1.70}$	2568^{+109}_{-67}	-2756^{+58}_{-73}	$0.060^{+0.016}_{-0.017}$

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 $A_{obs} \gg 1.0$

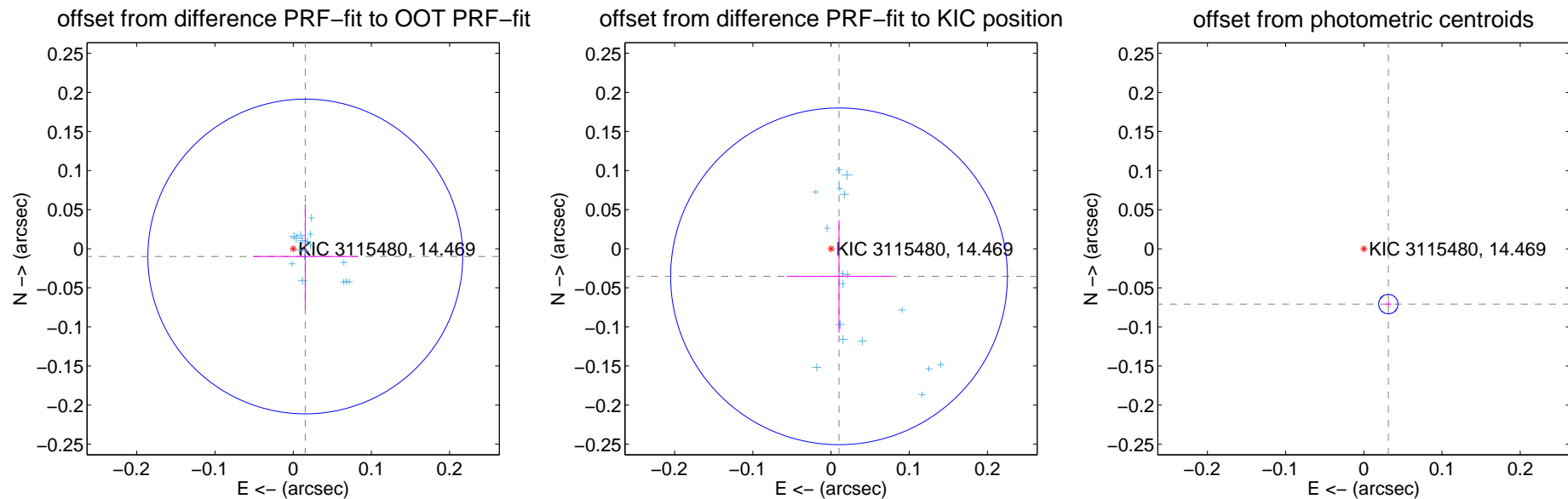
DV Centroid Data

Supplemental centroid analysis for 003115480-01. Kepler magnitude: 14.47. Transit SNR 1742.16

There are 17 quarters with good PRF difference image offsets

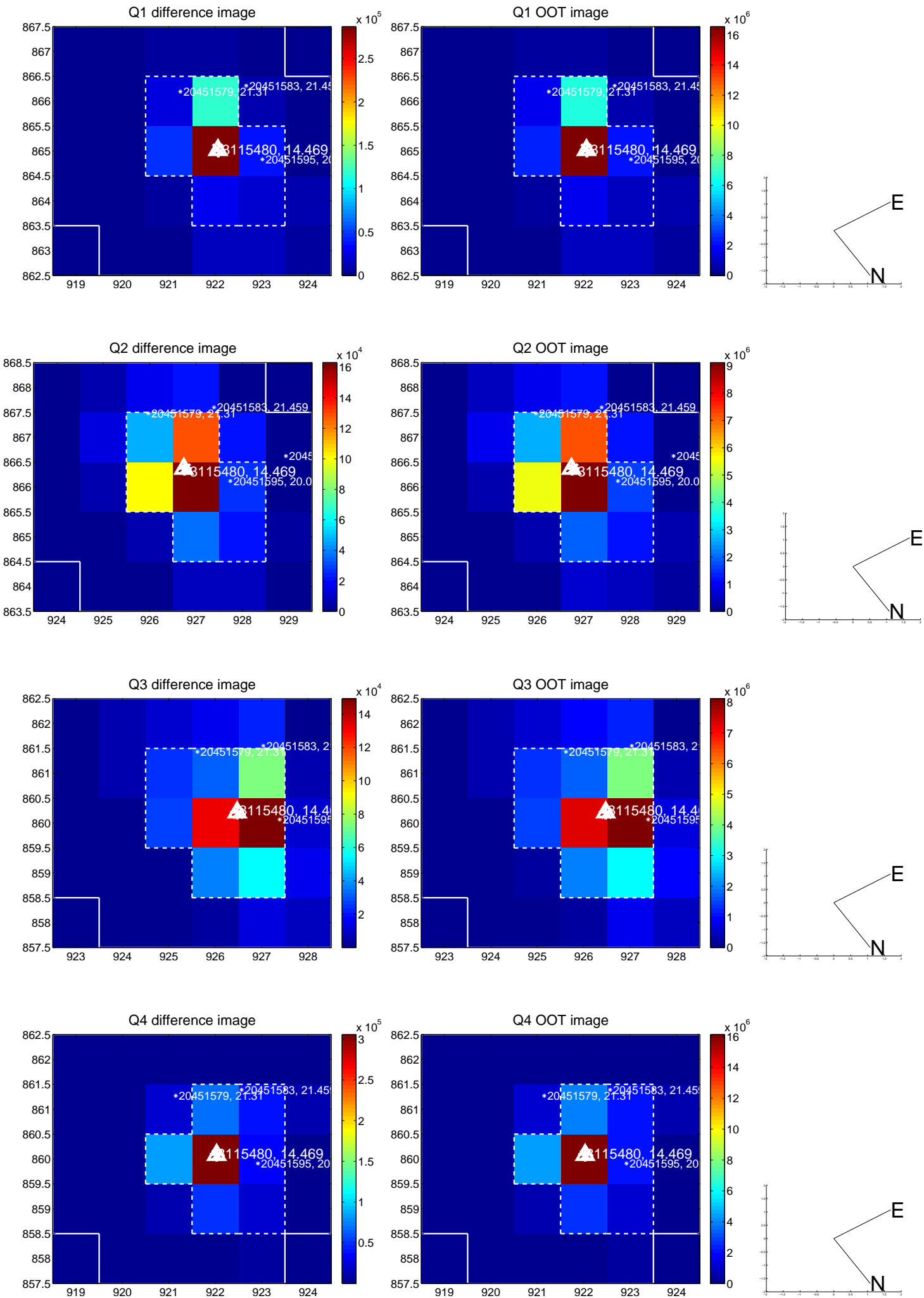
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.018 ± 0.067	0.27	-0.015 ± 0.067	-0.010 ± 0.067
PRF-fit source offset from KIC position	0.037 ± 0.072	0.51	-0.010 ± 0.067	-0.035 ± 0.072
photometric centroid source offset	0.08 ± 0.00	18.74	-0.03 ± 0.00	-0.07 ± 0.00

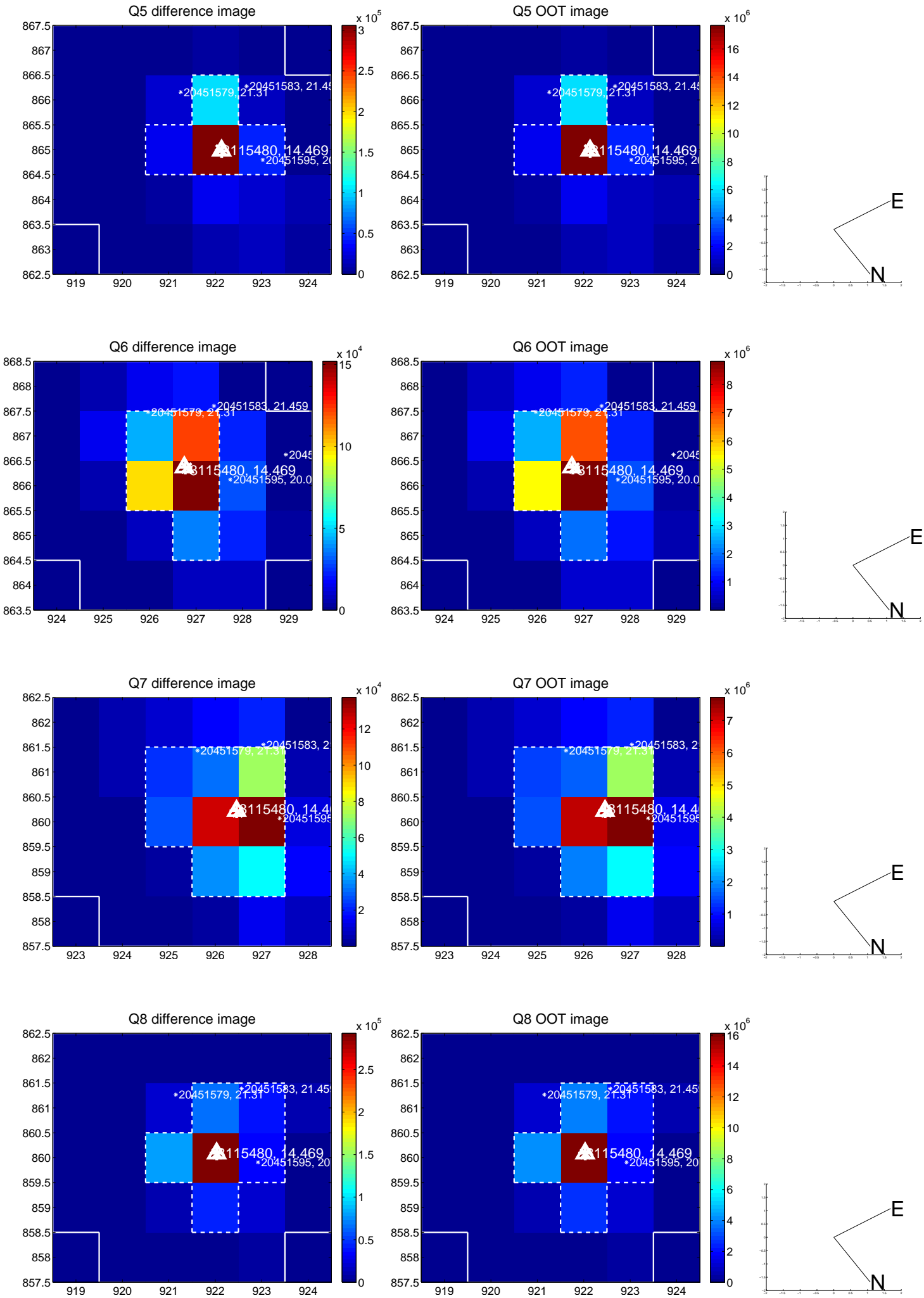


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

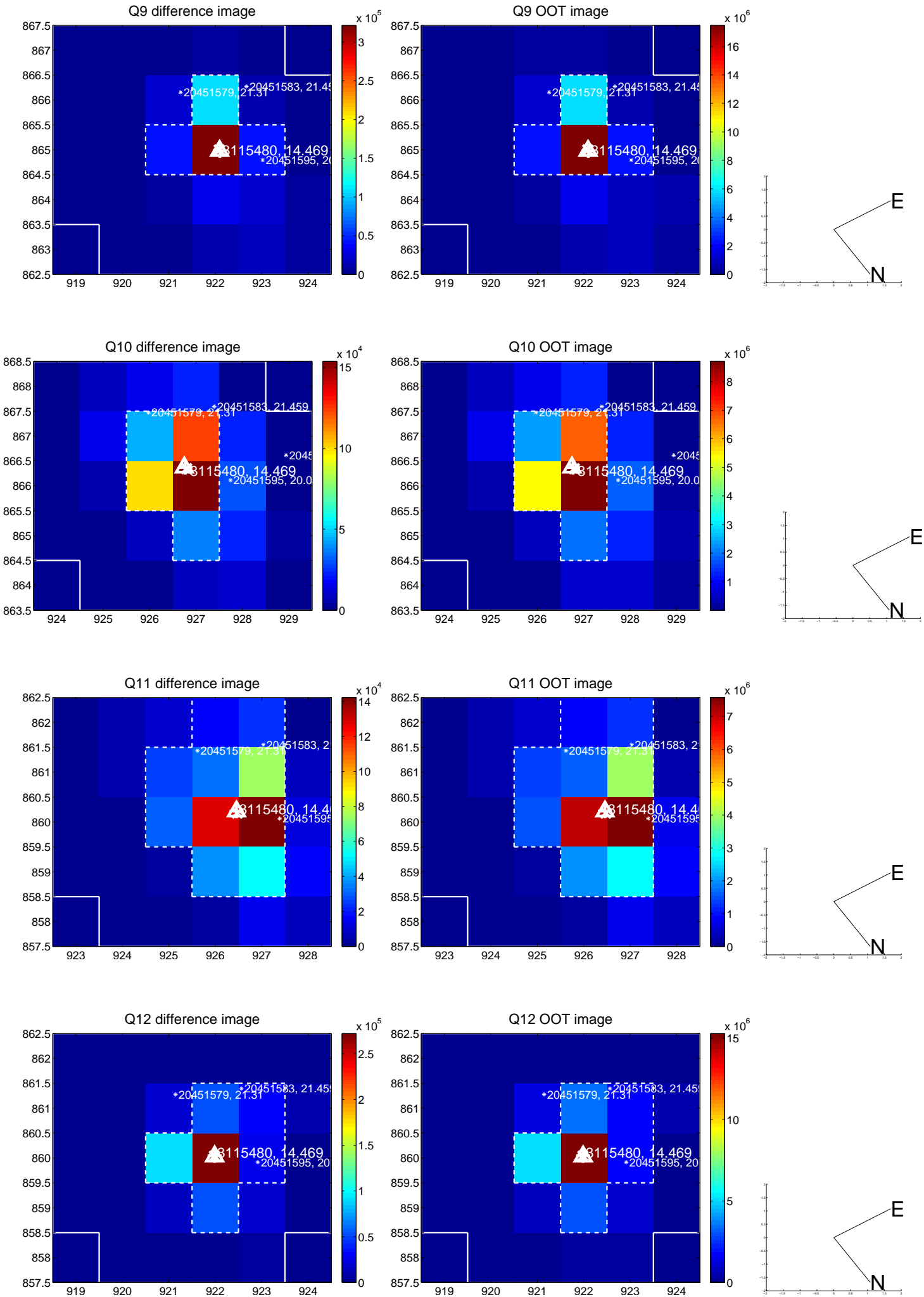
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



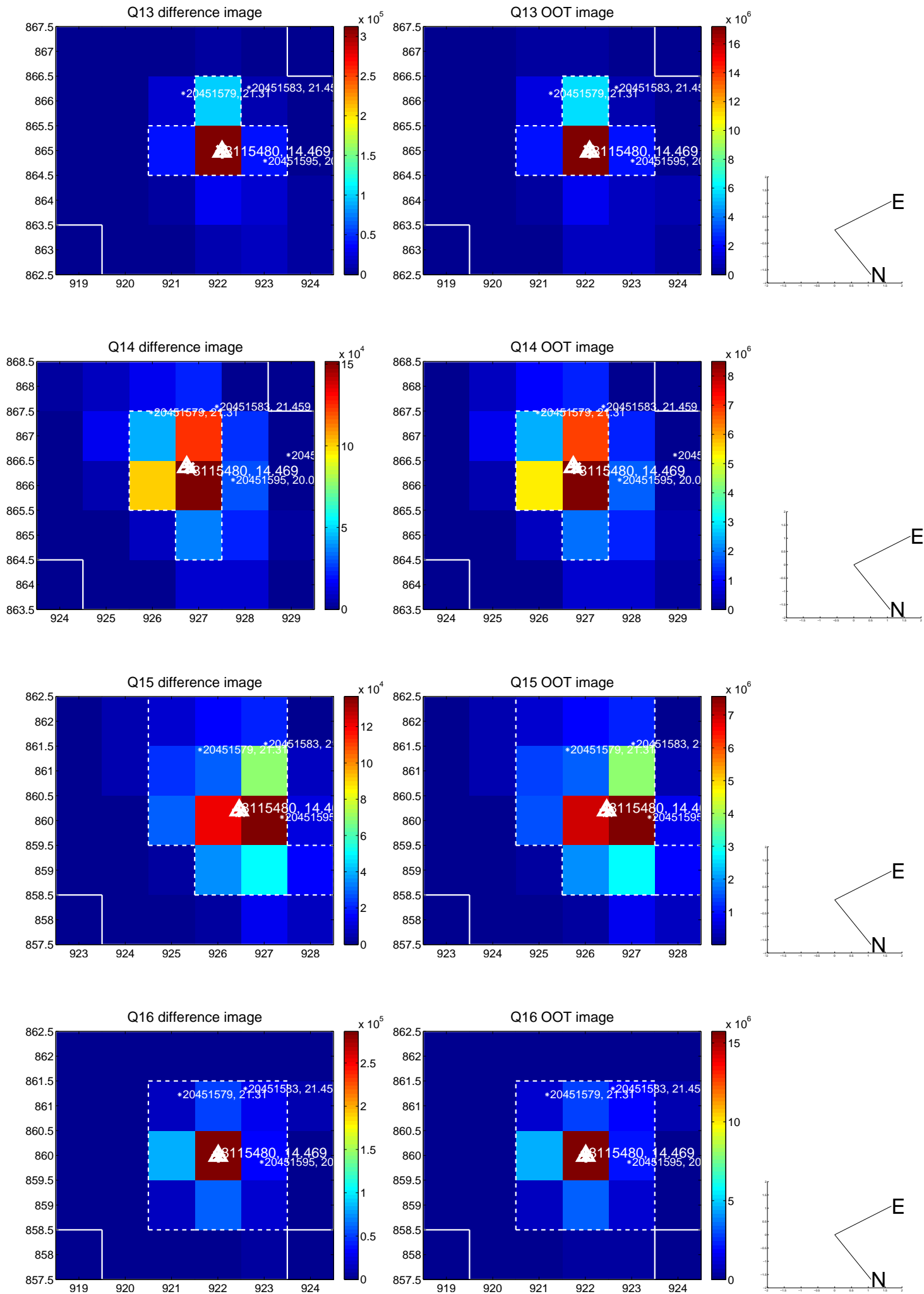
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



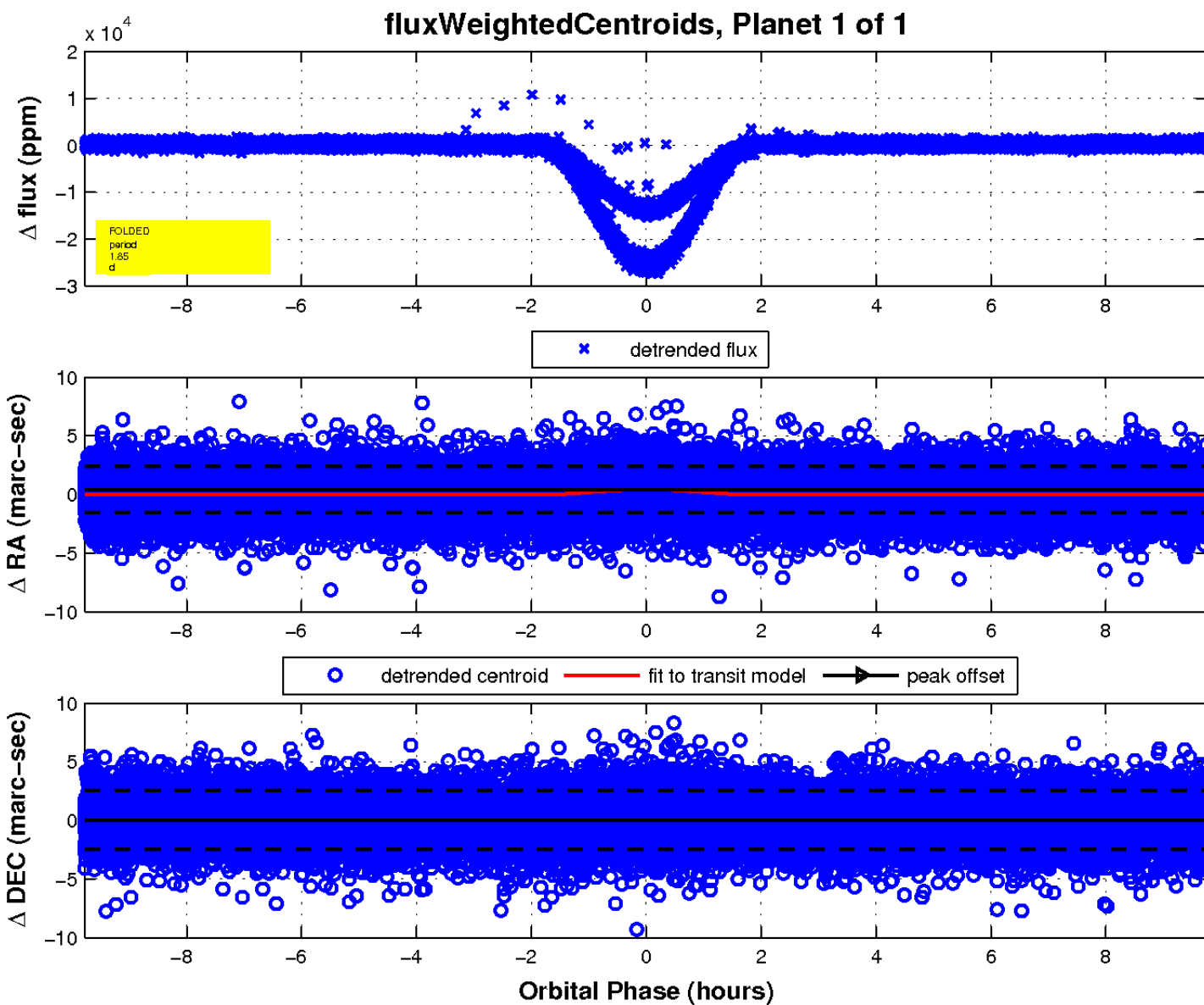
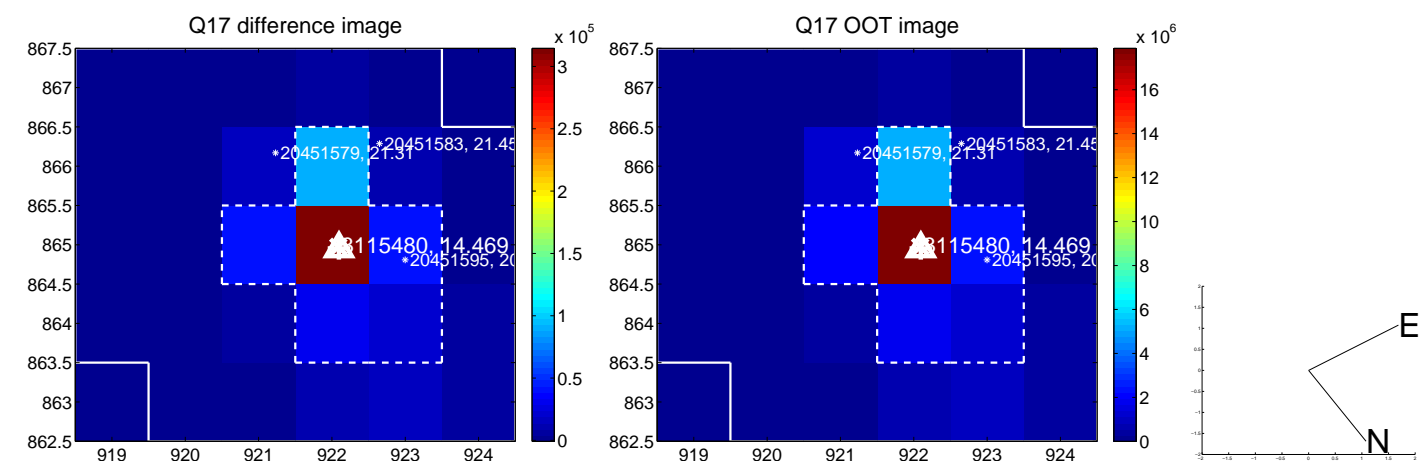
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UKIRT Image

Declination

