

KIC 003335813

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})
003335813-01	OBS	3632.01	3.711023	132.486557	8882.2	3.442	848.9	582.5	1.12	6141	18.92	696.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003335813-01	OBS	FP	0.00	0	1	1	1	MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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 003335813-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
003335813-01	3335813	003335816-pri	3335816	1:2	8.3	-2	1	12.08	13.79	2.36	Direct-PRF	0	0.61	0.10

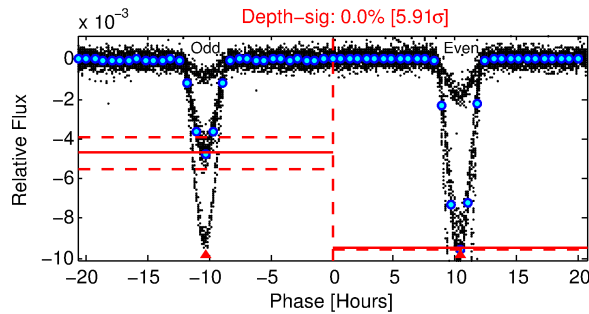
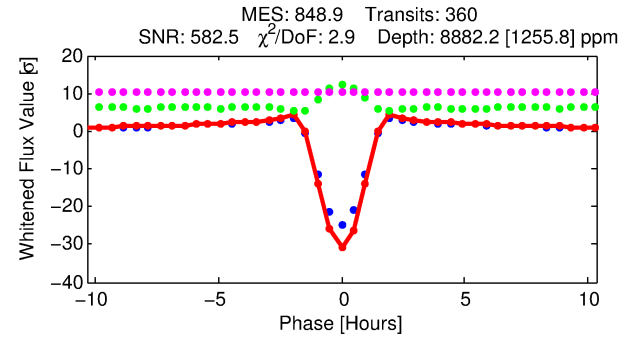
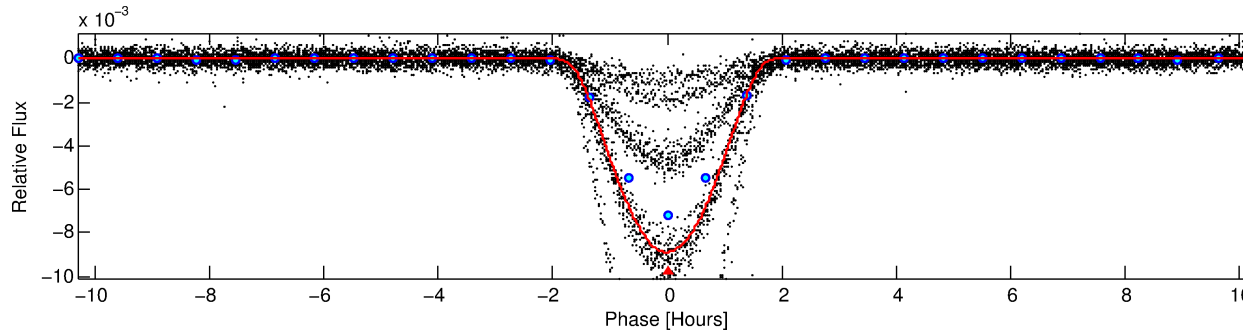
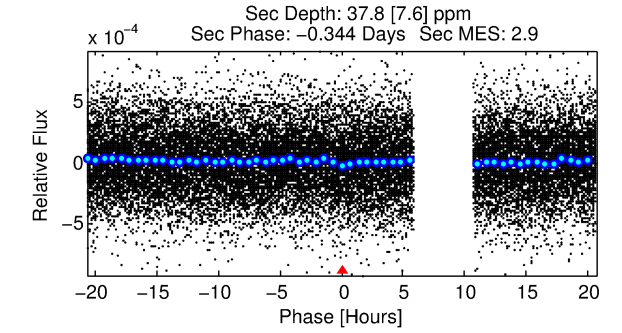
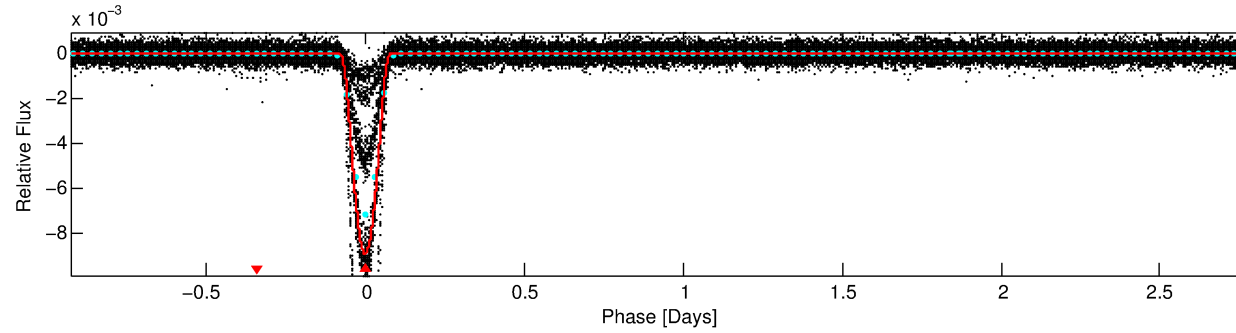
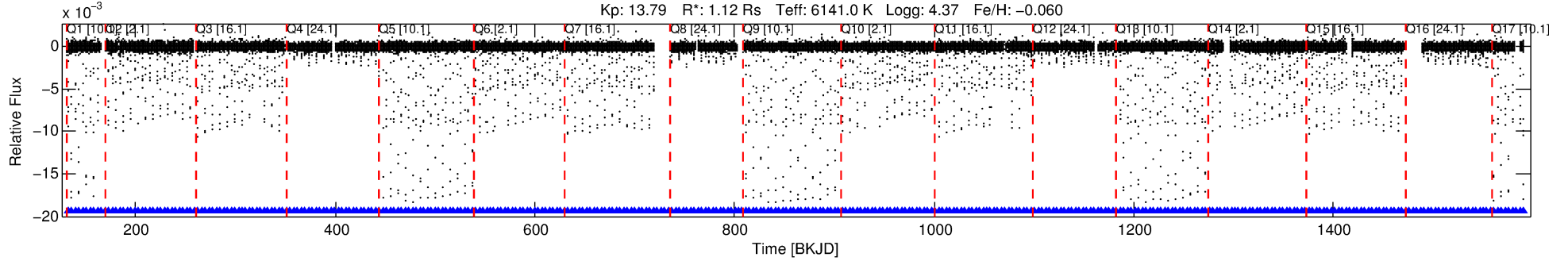
Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 3335813 Candidate: 1 of 1 Period: 3.711 d

KOI: K03632.01 Corr: 0.966

Kp: 13.79 R*: 1.12 Rs Teff: 6141.0 K Logg: 4.37 Fe/H: -0.060



DV Fit Results:

Period = 3.71102 [0.00000] d
Epoch = 132.4866 [0.0001] BKJD
Rp/R* = 0.1553 [0.0154]
a/R* = 4.88 [0.07]
b = 1.00 [0.04]
Seff = 696.99 [286.49]
Teq = 1310 [135] K
Rp = 18.92 [6.48] Re
a = 0.0478 [0.0130] AU
Ag = 0.13 [0.06] [-13.63σ]
Teffp = 1222 [95] K [-0.54σ]

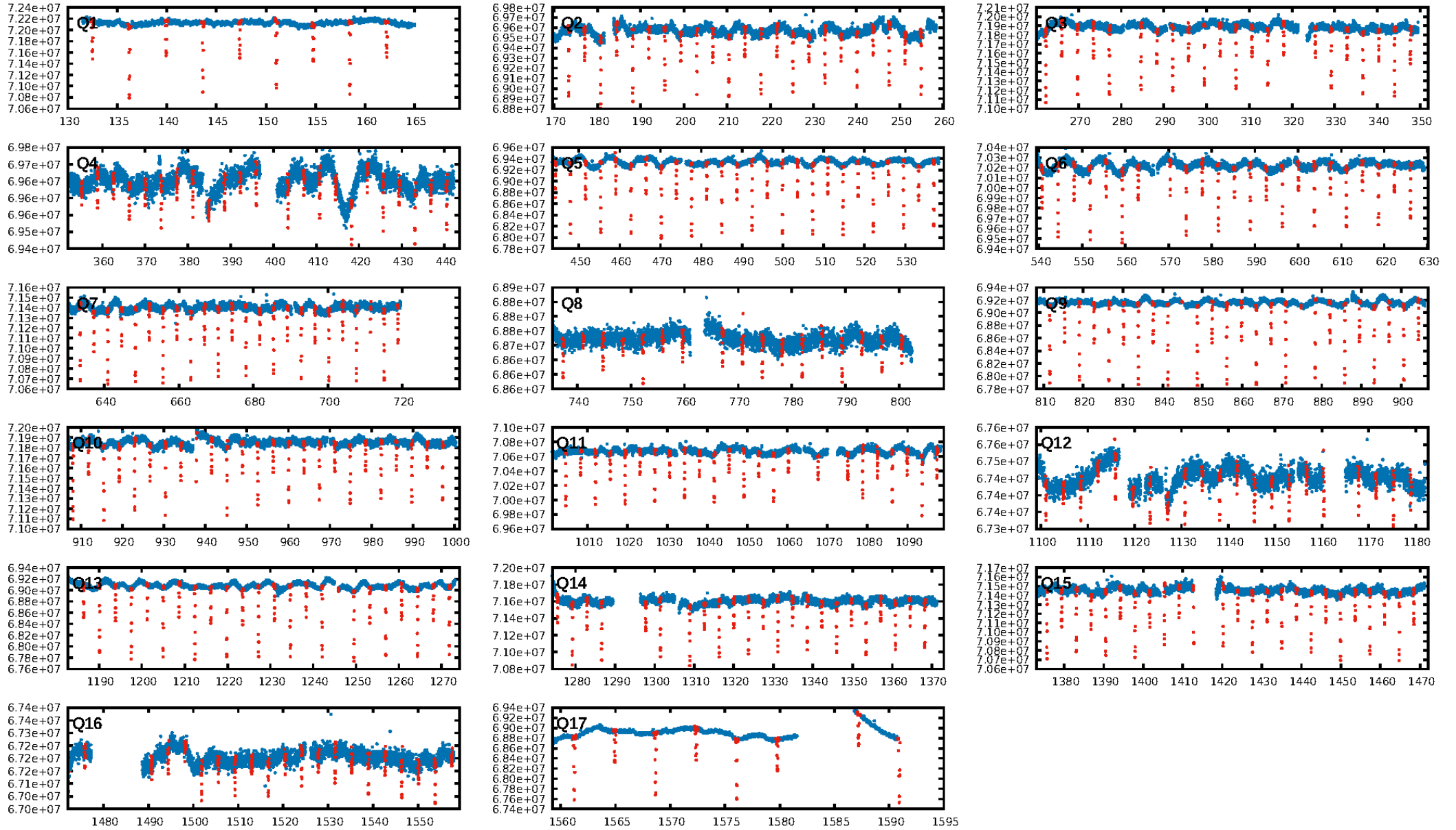
DV Diagnostic Results:

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 [343/343]
GhostDiagnostic-chr: -0.208
Centroid-sig: 0.0%
Centroid-so: 4.327 arcsec [646.58σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

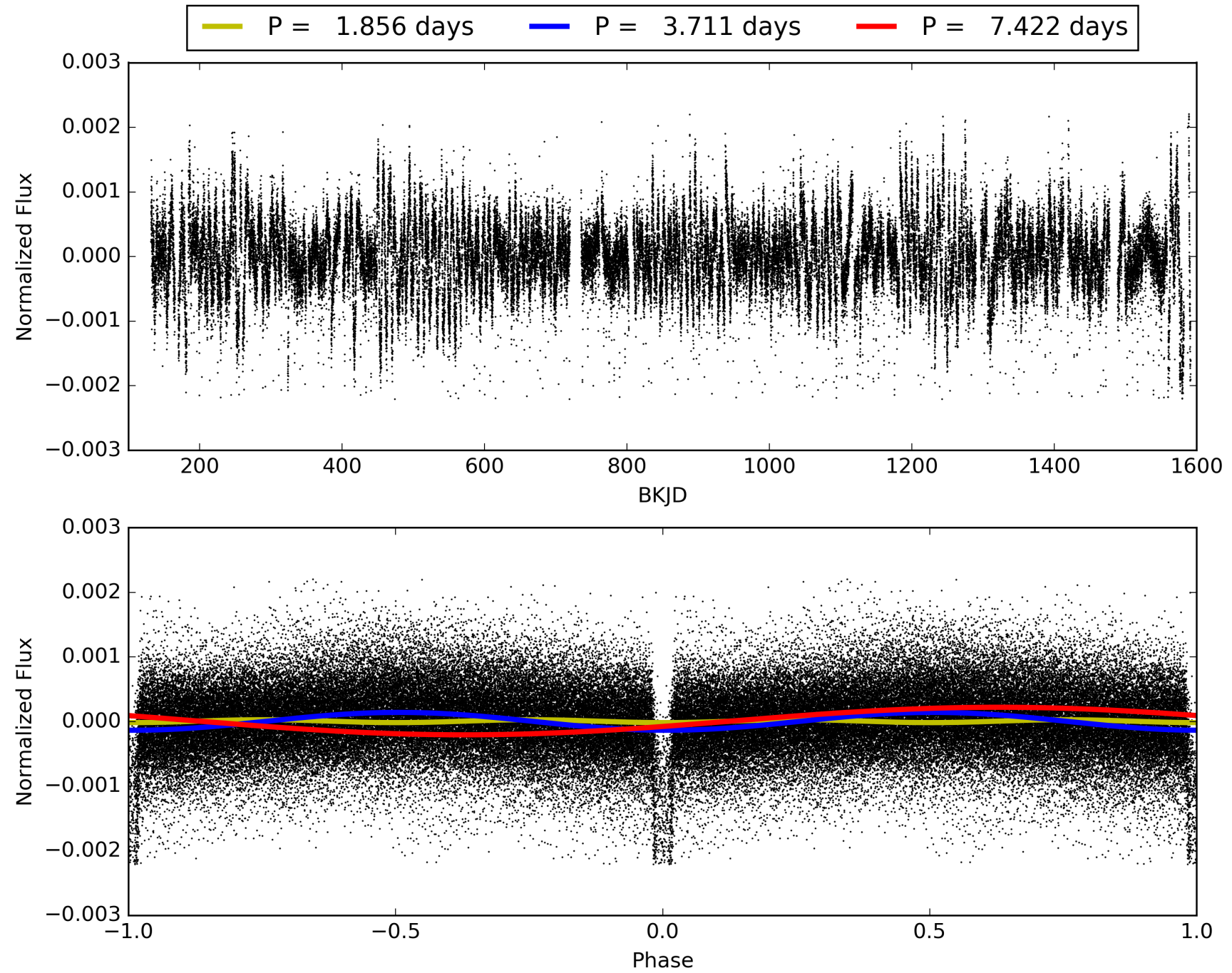
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:40:49 Z

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

TCE 003335813-01, PDC Light Curves

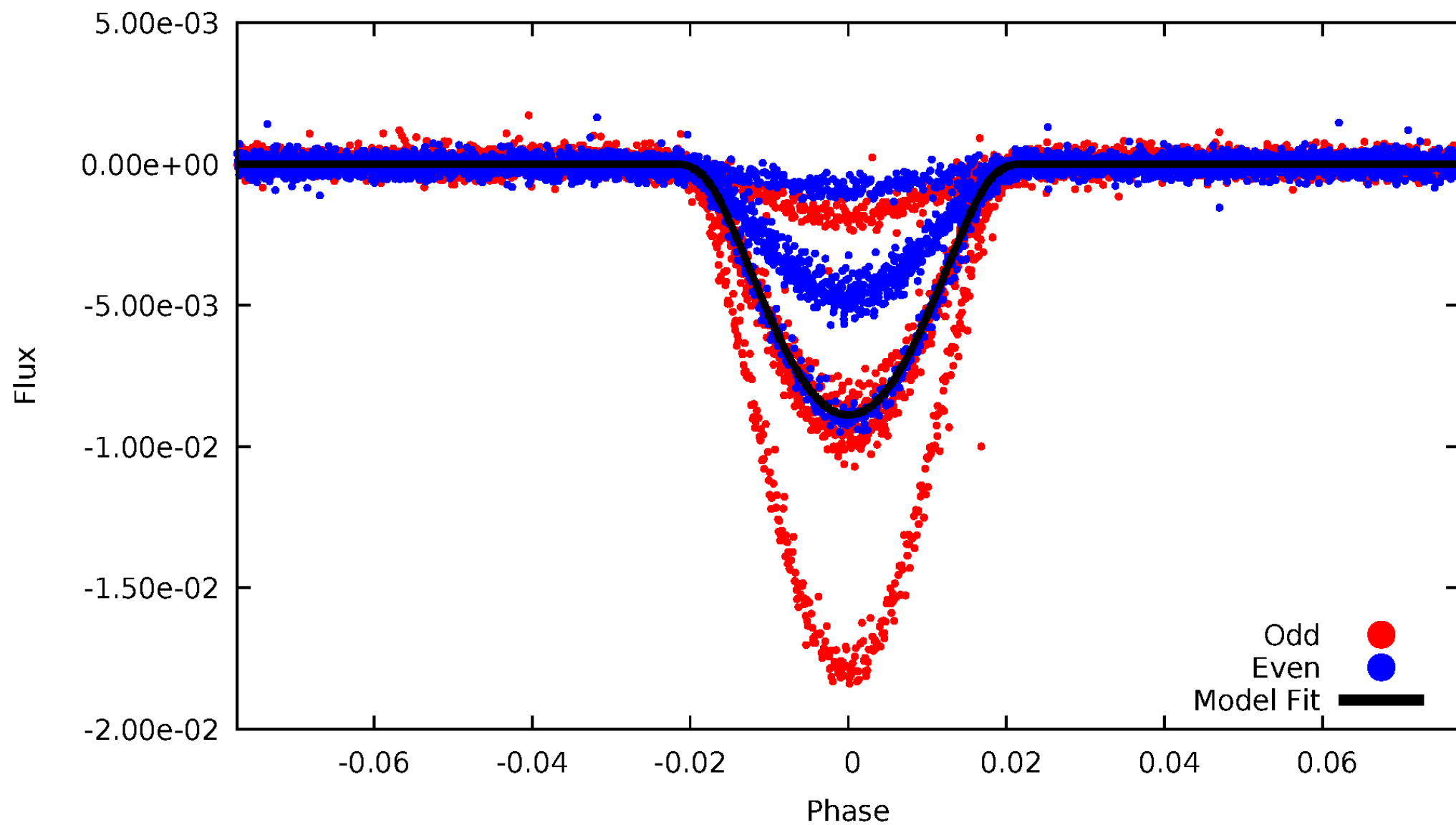


TCE 003335813-01



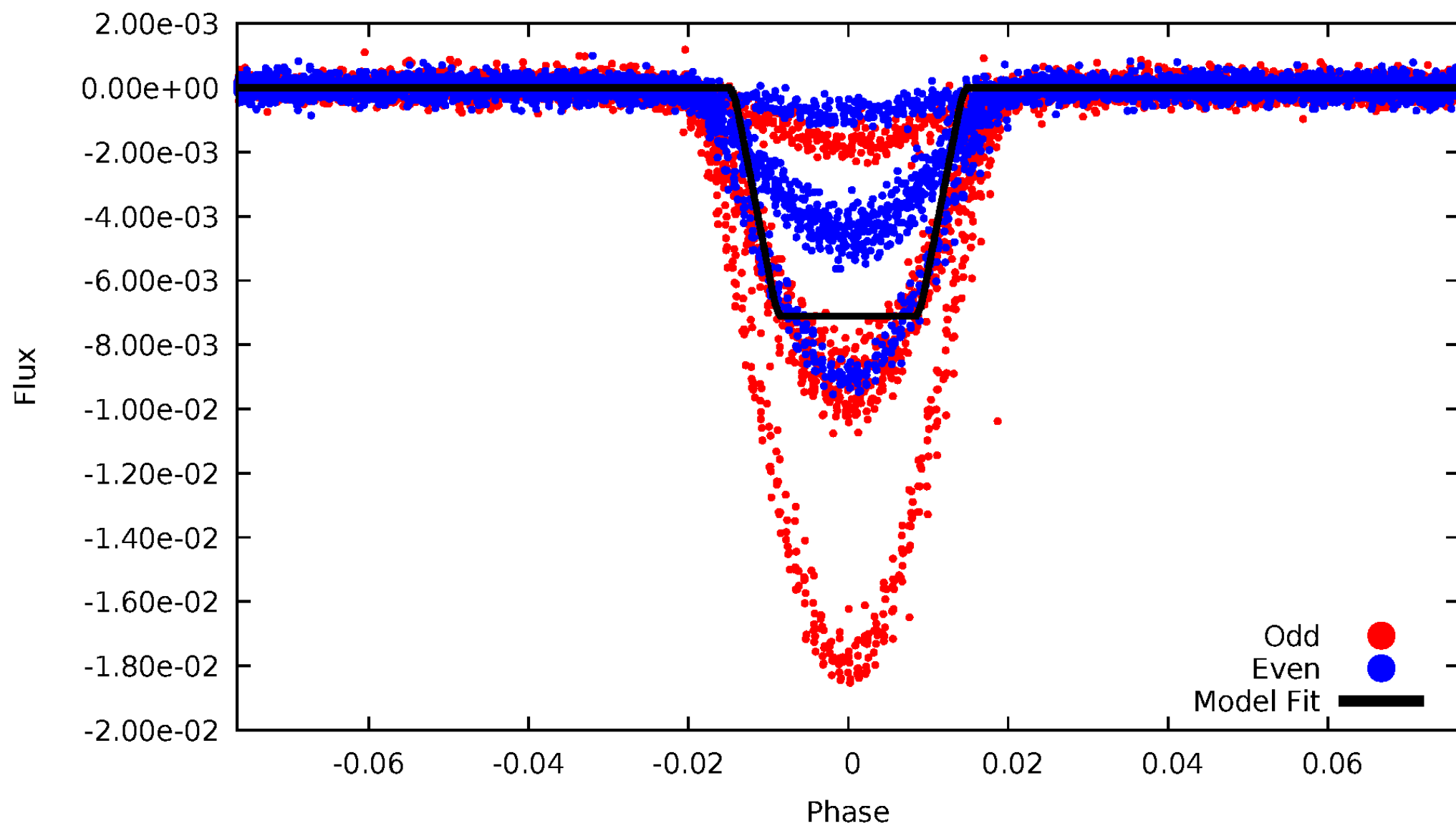
DV Odd/Even

TCE 003335813-01



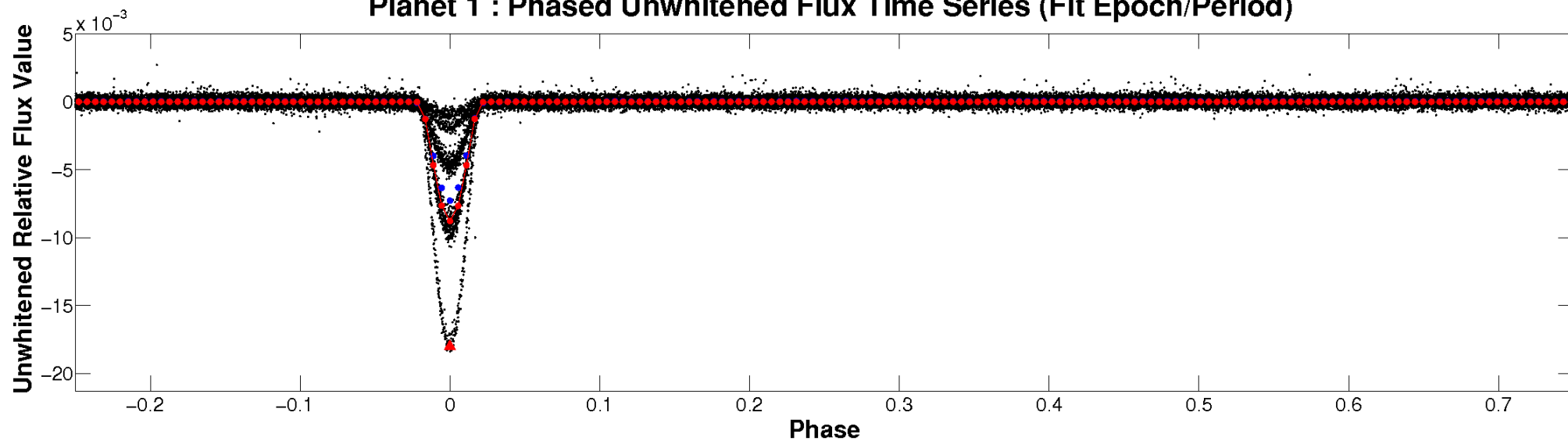
ALT Odd/Even

TCE 003335813-01

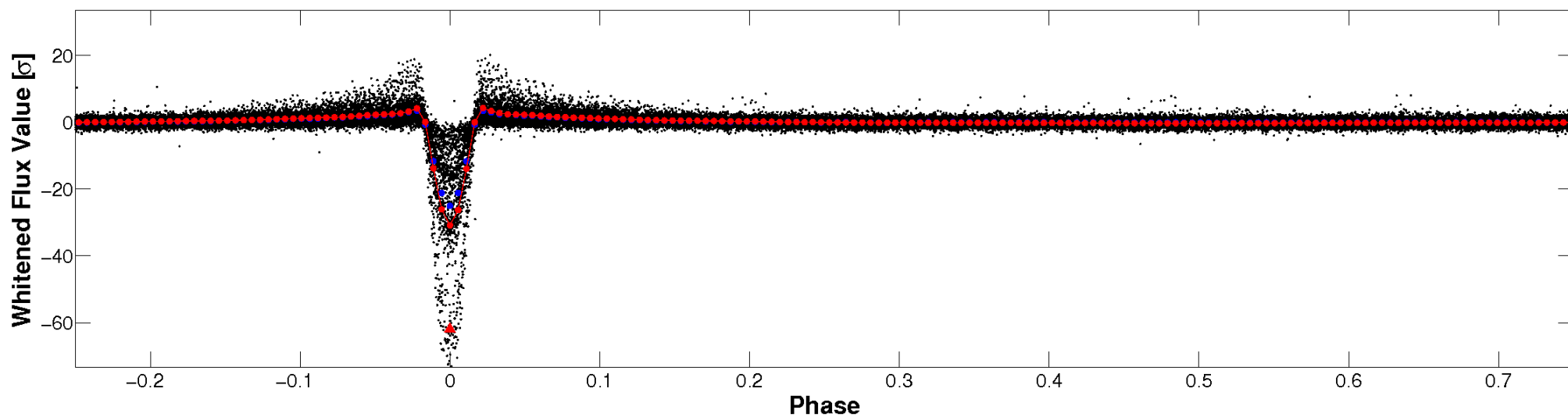


Non-Whitened Vs. Whitened Light Curve

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

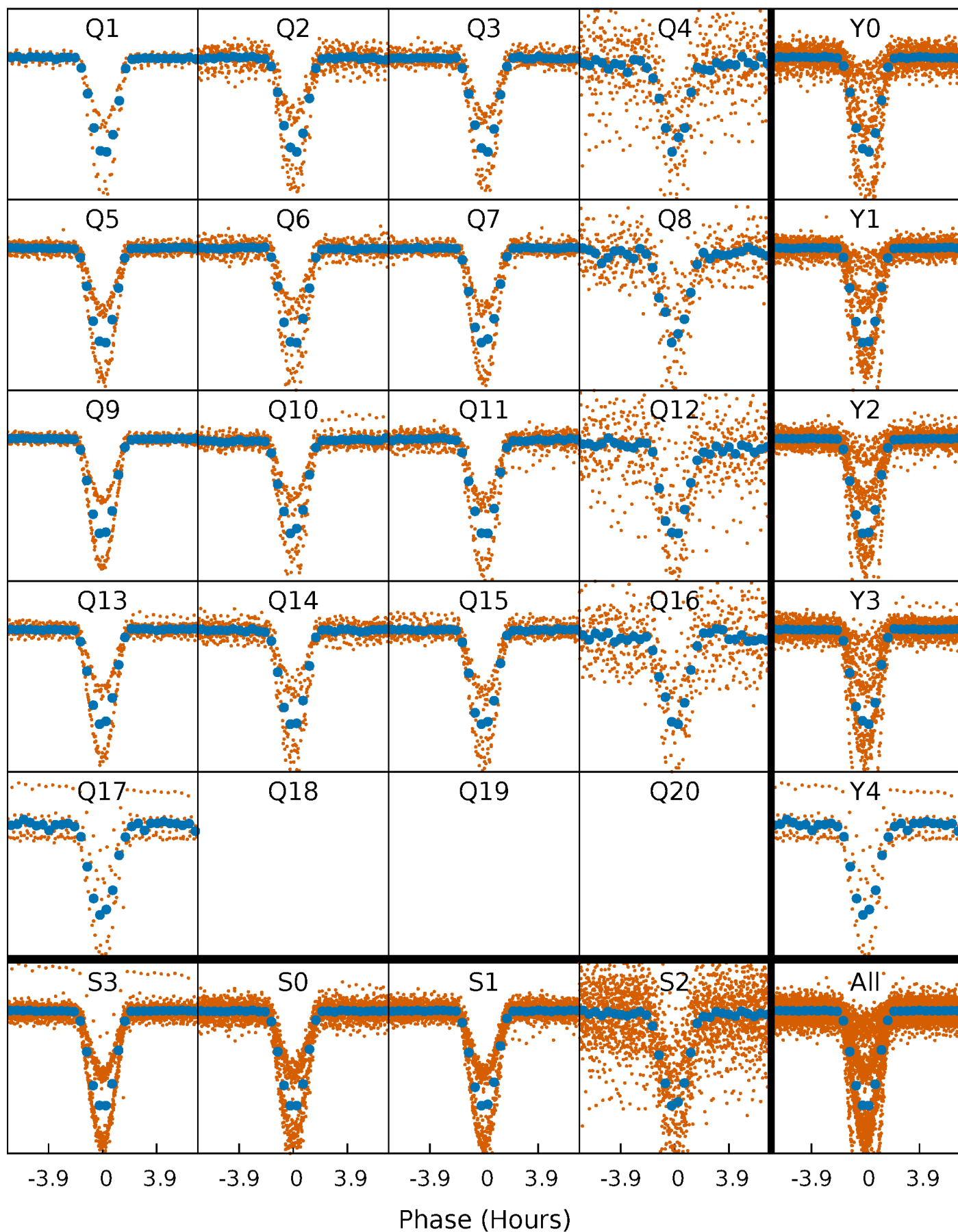


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



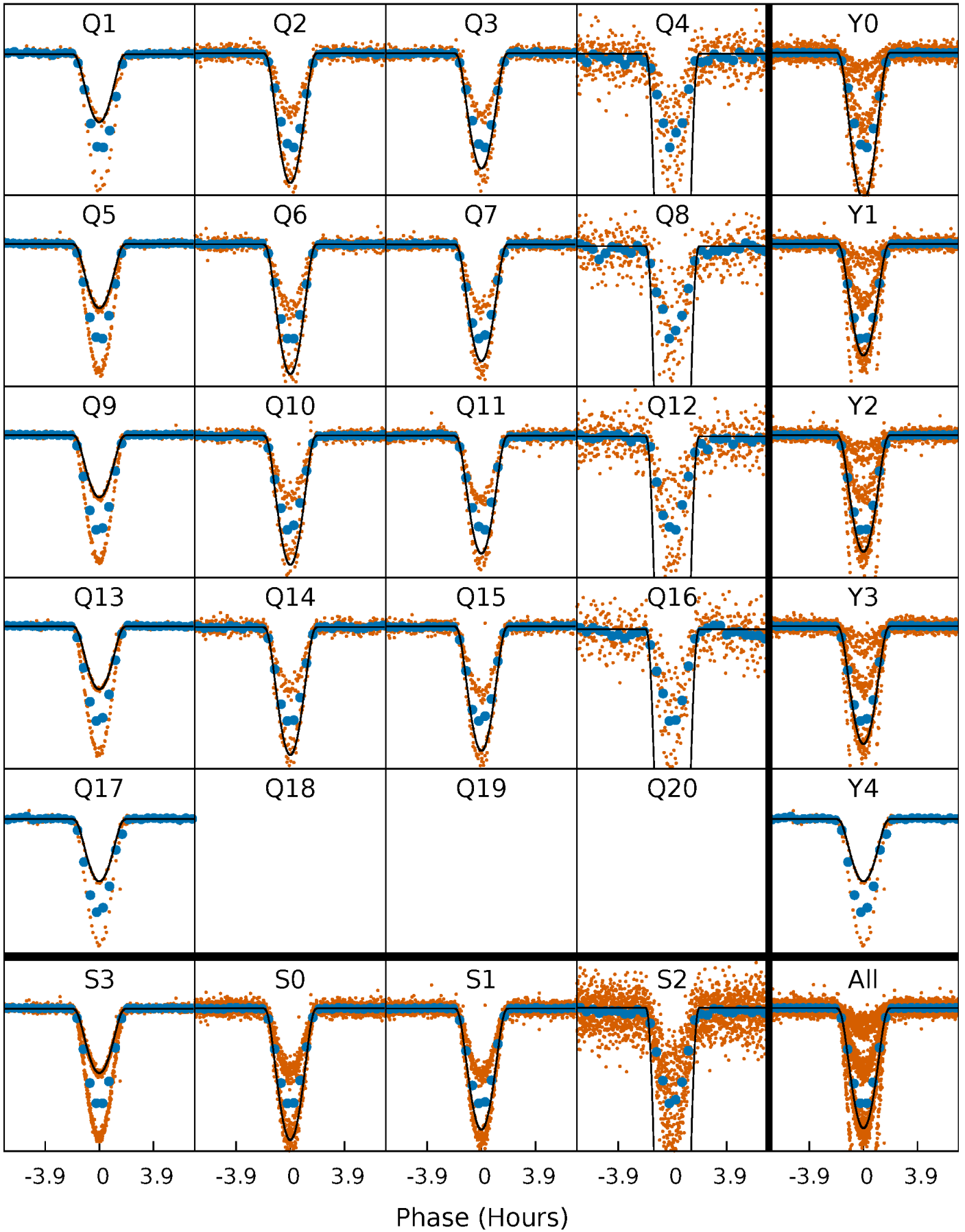
PDC Quarter-Phased Transit Curves

TCE 003335813-01 P= 3.711023 Days $T_0=132.486557$ (BKJD)



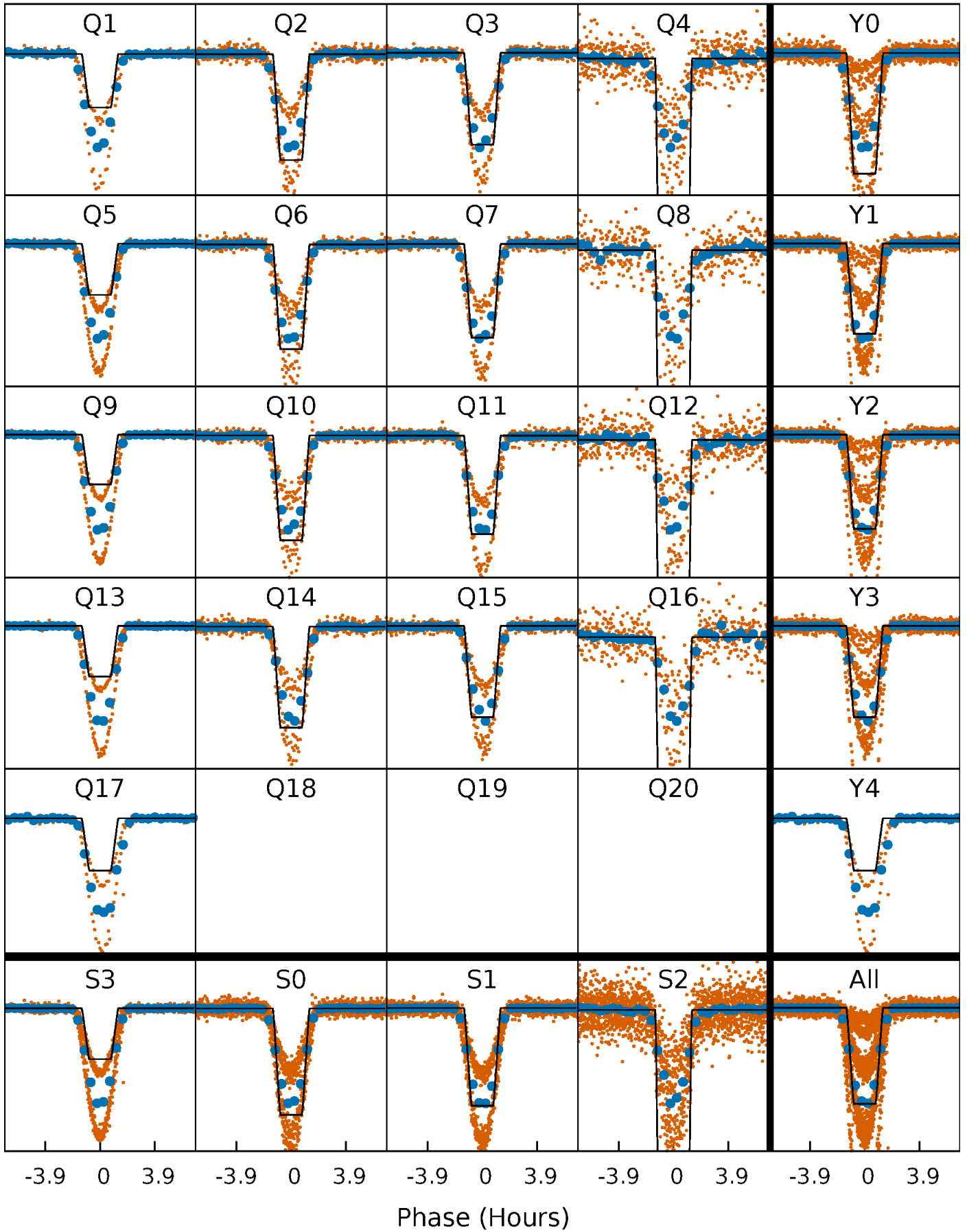
DV Quarter-Phased Transit Curves

TCE 003335813-01 P= 3.711023 Days $T_0=132.486557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

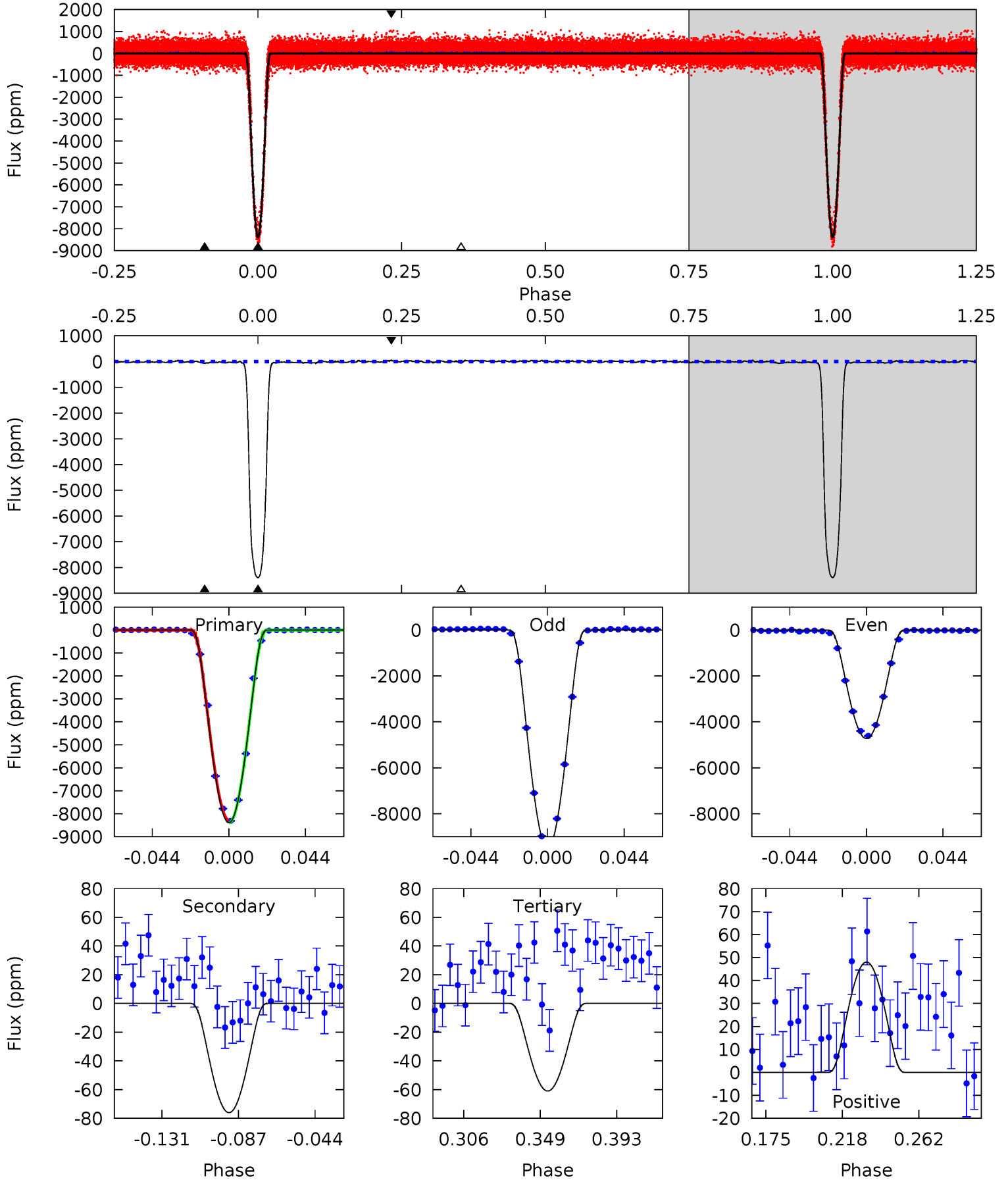
TCE 003335813-01 P= 3.710990 Days $T_0=132.492799$ (BKJD)



DV Model-Shift Uniqueness Test

003335813-01, P = 3.711023 Days, E = 128.775534 Days

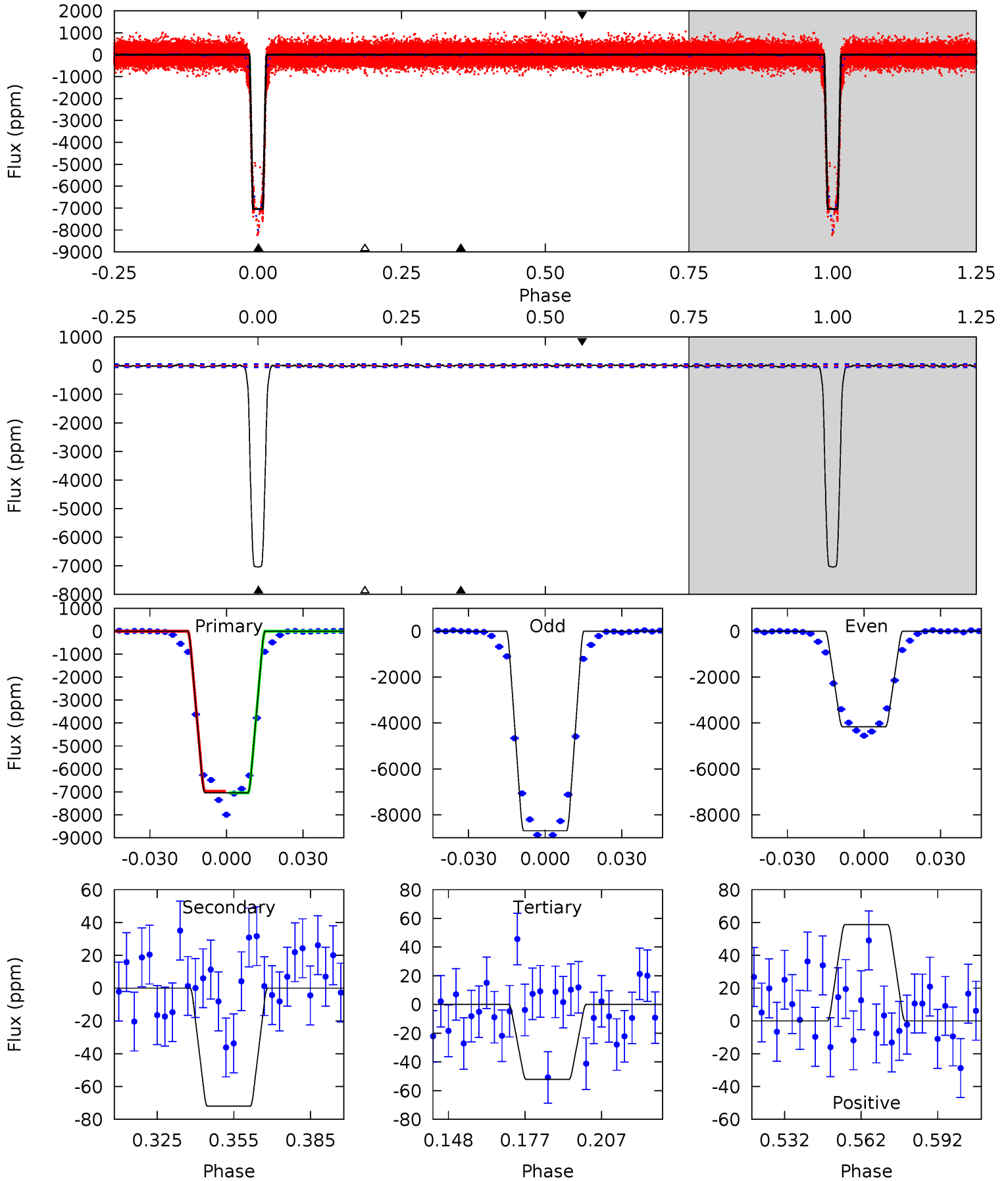
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1211	11.0	8.80	6.93	4.74	2.02	3.12	1202	1204	2.18	4.05	407.6	0.93	0.01	0



Alt Model-Shift Uniqueness Test

003335813-01, P = 3.710990 Days, E = 128.781809 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
580.3	5.93	4.30	4.83	4.81	2.18	1.46	576.0	575.5	1.63	1.10	258.6	0.94	0.01	0



Stellar Parameters For KIC 003335813

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6141^{+165}_{-202}	$4.365^{+0.105}_{-0.210}$	$-0.060^{+0.250}_{-0.300}$	$1.117^{+0.366}_{-0.157}$	$1.051^{+0.167}_{-0.125}$	$1.062^{+0.519}_{-0.557}$
	+3%/-3%	+2%/-5%	+417%/-500%	+33%/-14%	+16%/-12%	+49%/-52%
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 003335813-01 / KOI 3632.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-76 ± 7	$19.18^{+3.84}_{-2.61}$	1839^{+157}_{-99}	-1945^{+3872}_{-272}	$0.254^{+0.092}_{-0.074}$
Alt.	-72 ± 12	$10.38^{+2.80}_{-2.16}$	1848^{+138}_{-110}	2571^{+215}_{-257}	$0.826^{+0.517}_{-0.332}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

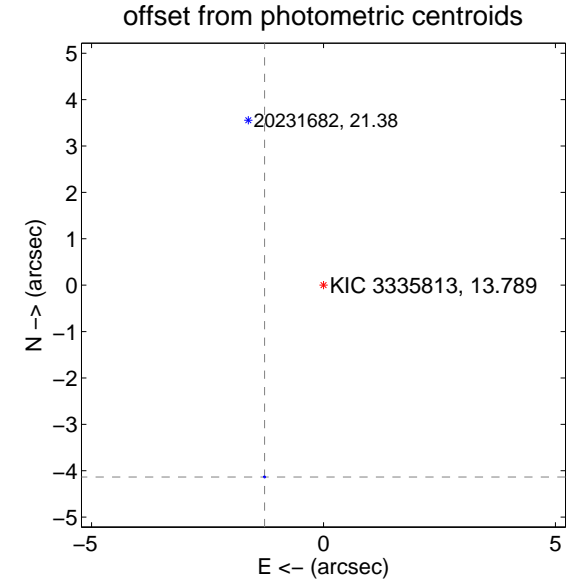
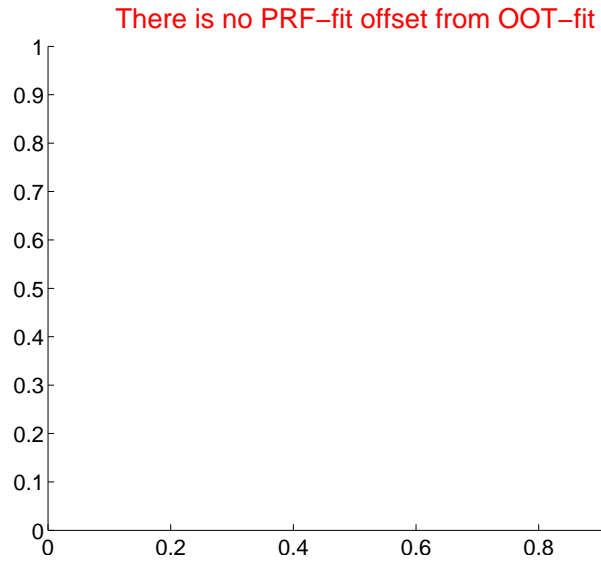
DV Centroid Data

Supplemental centroid analysis for 003335813-01. Kepler magnitude: 13.79. Transit SNR 582.53

There are 0 quarters with good PRF difference image offsets

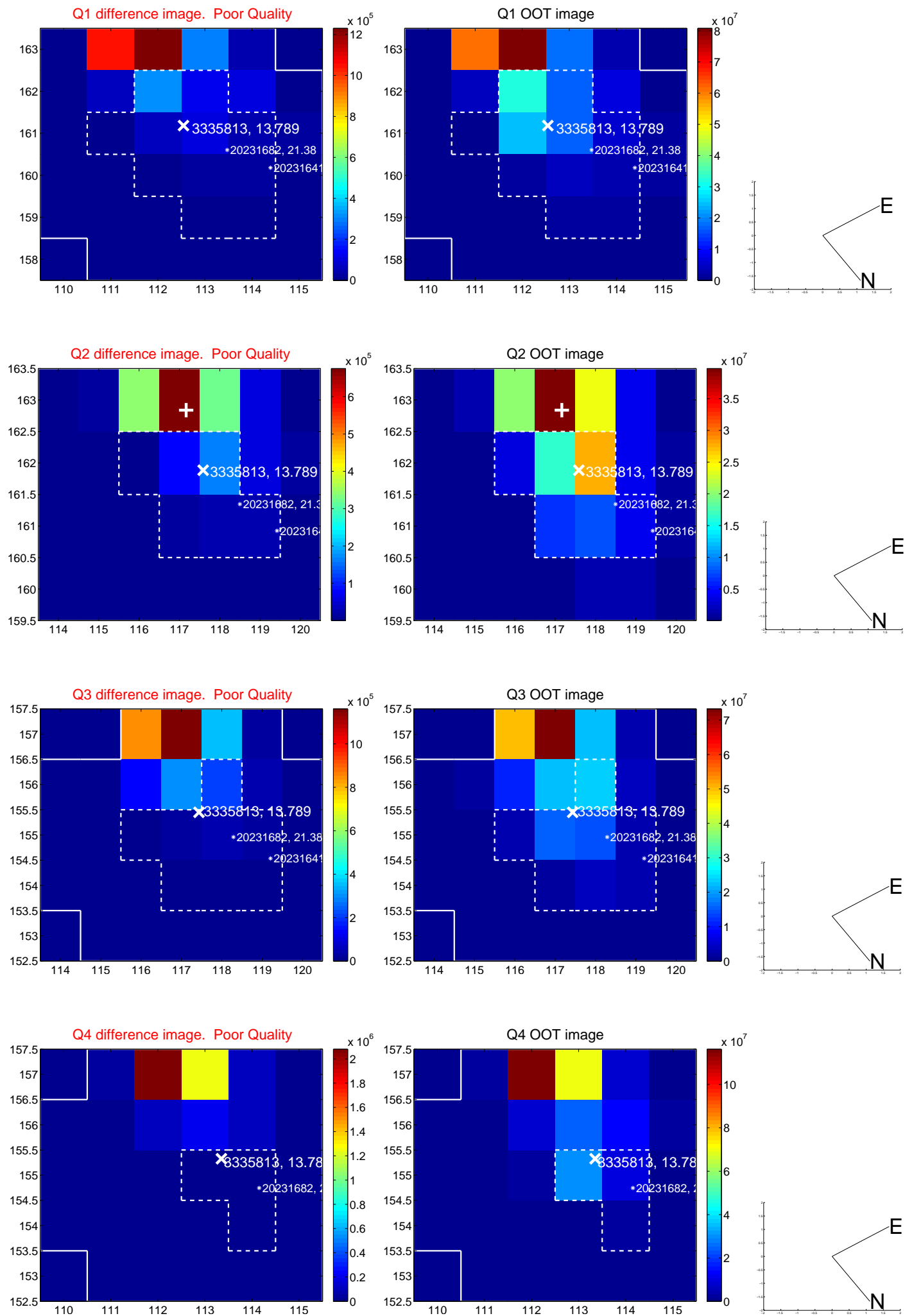
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	4.33 ± 0.01	646.58	1.27 ± 0.00	-4.14 ± 0.01

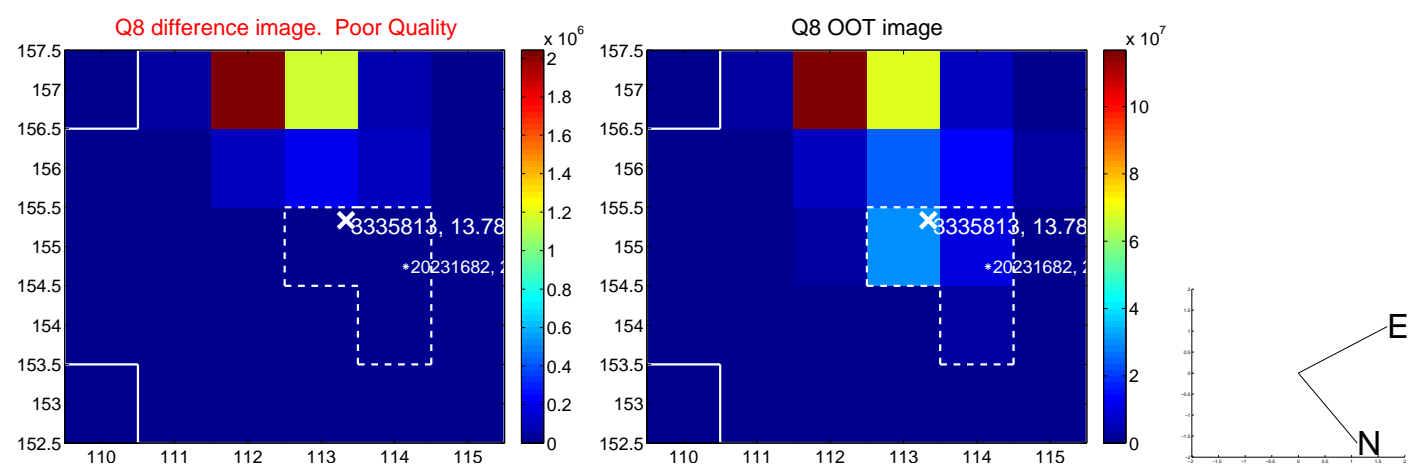
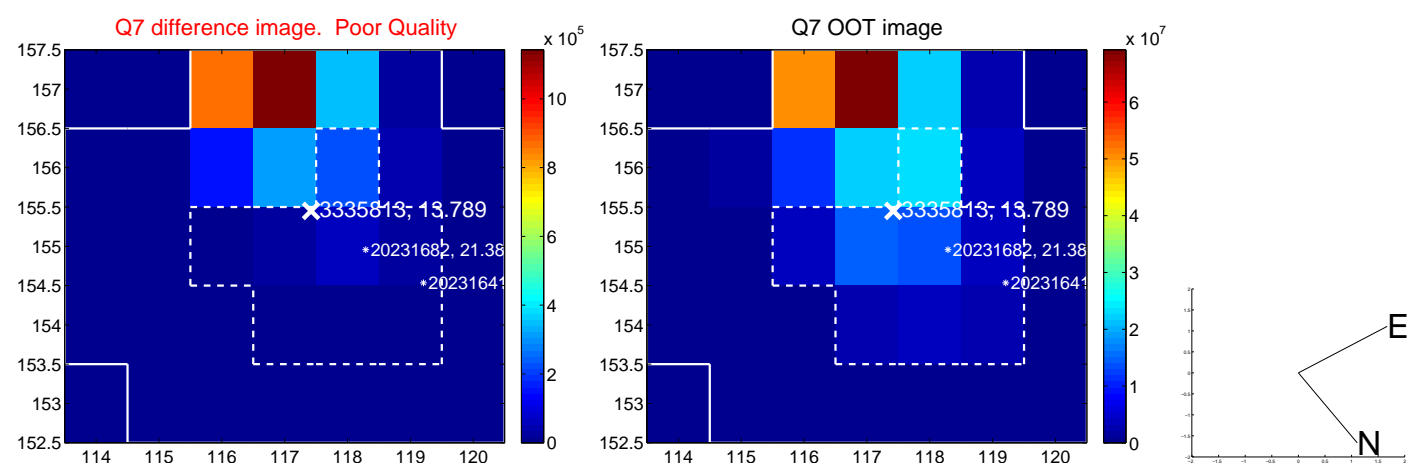
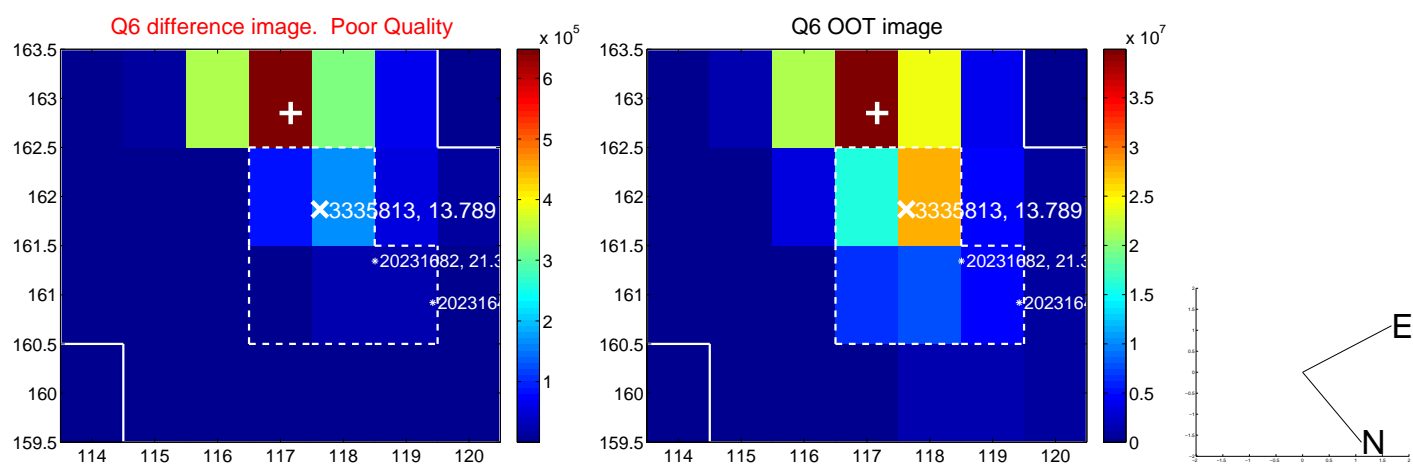
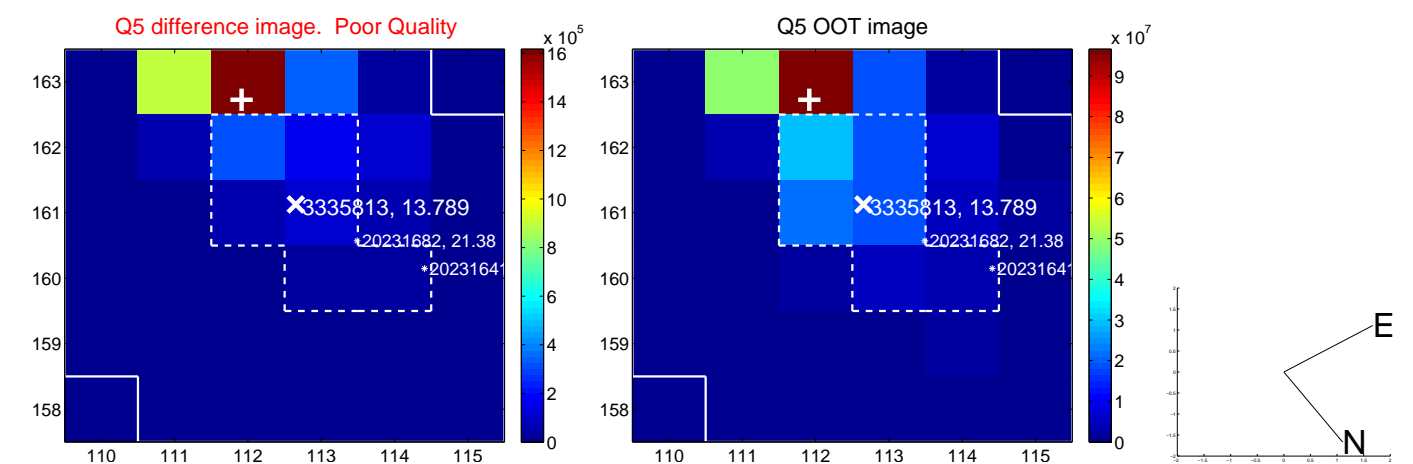


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

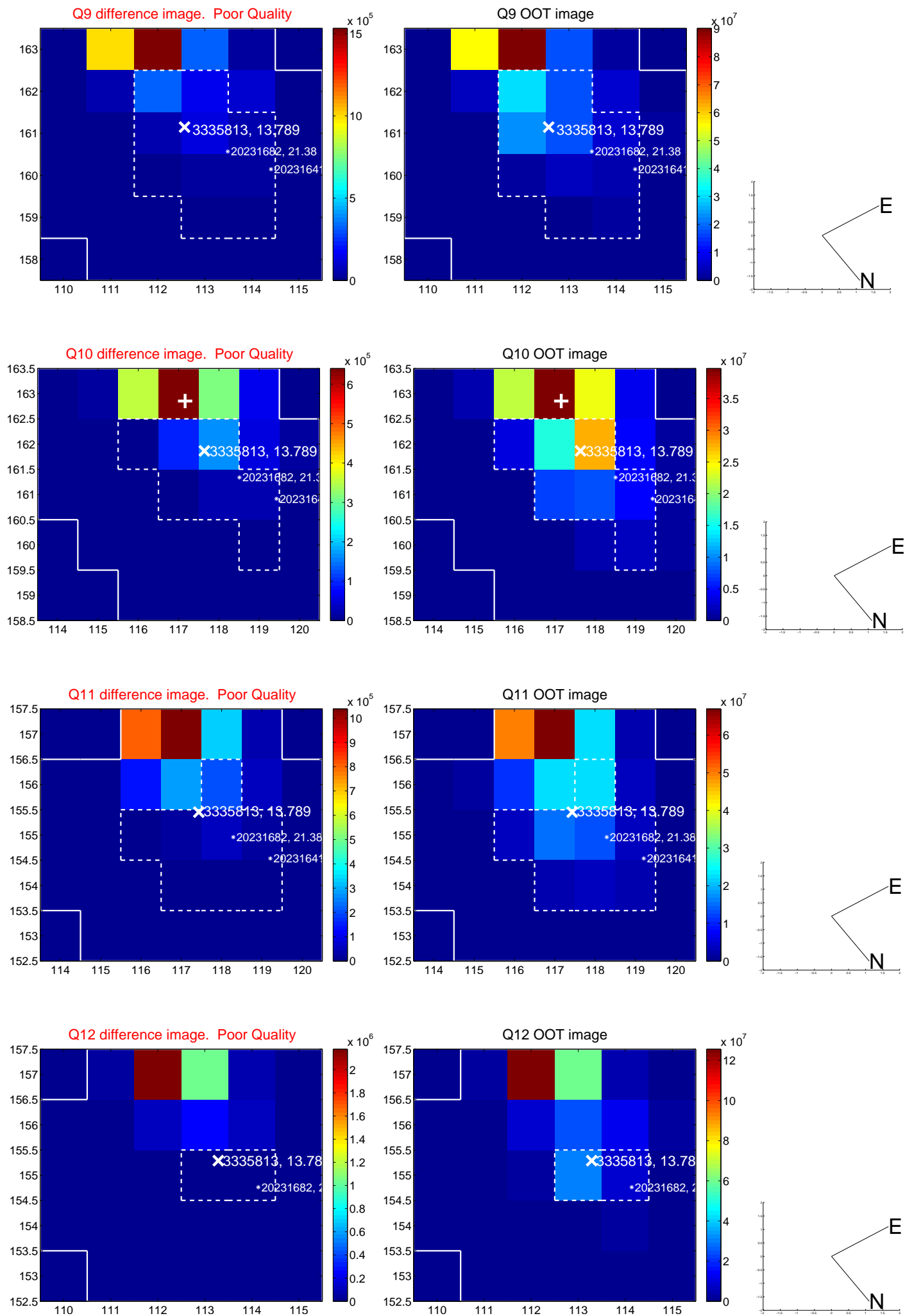
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



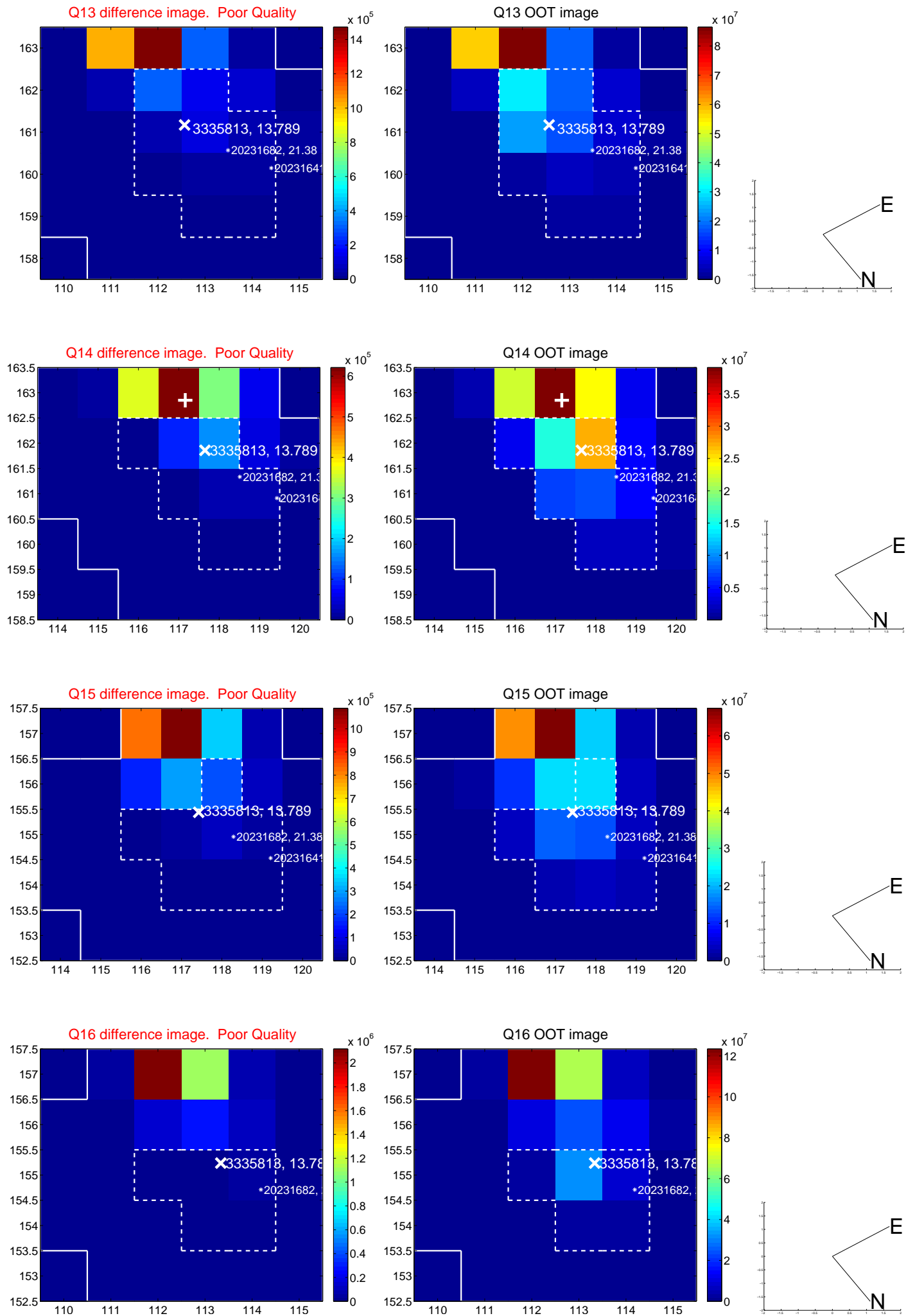
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



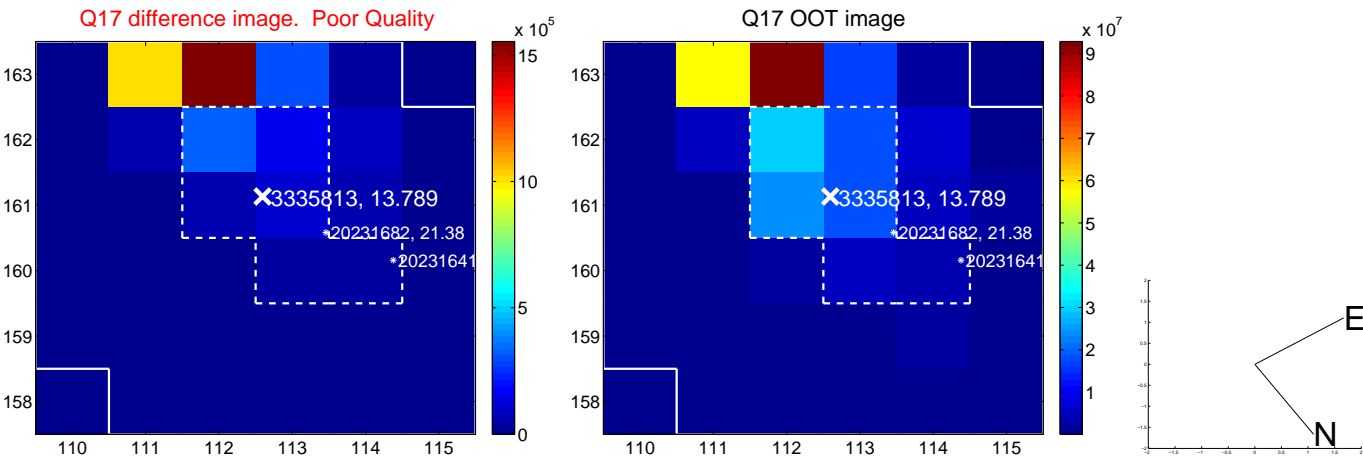
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



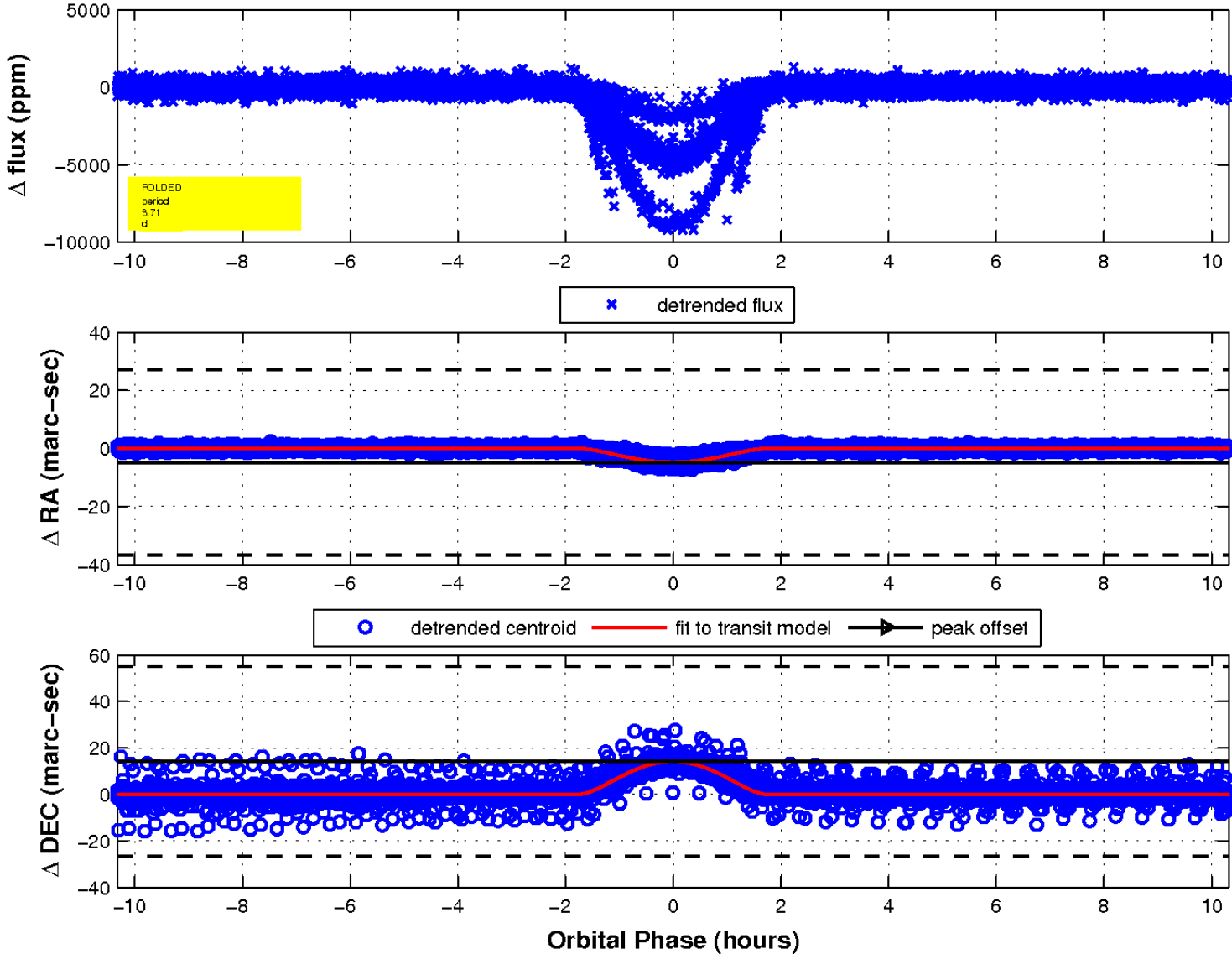
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

