

KIC 007832356

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})
007832356-01	OBS	1456.01	7.886630	131.802161	6375.7	5.243	341.0	340.0	1.14	5847	9.10	232.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007832356-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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 007832356-01

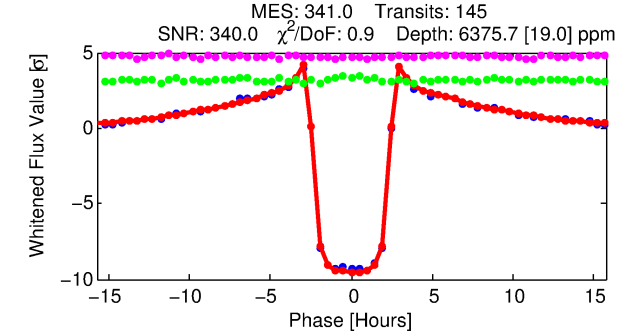
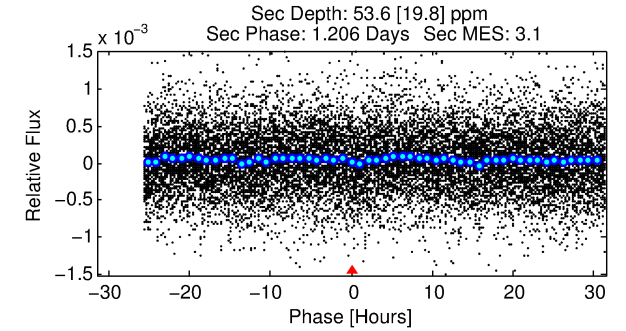
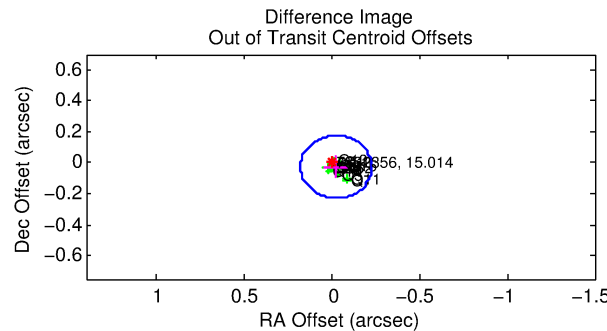
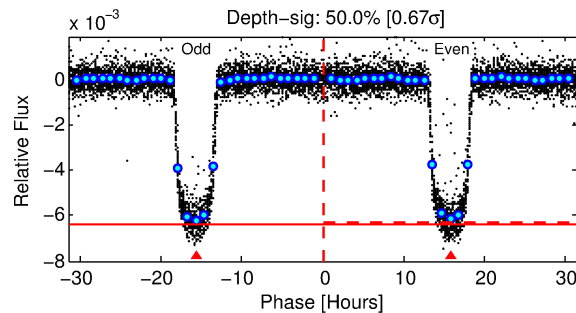
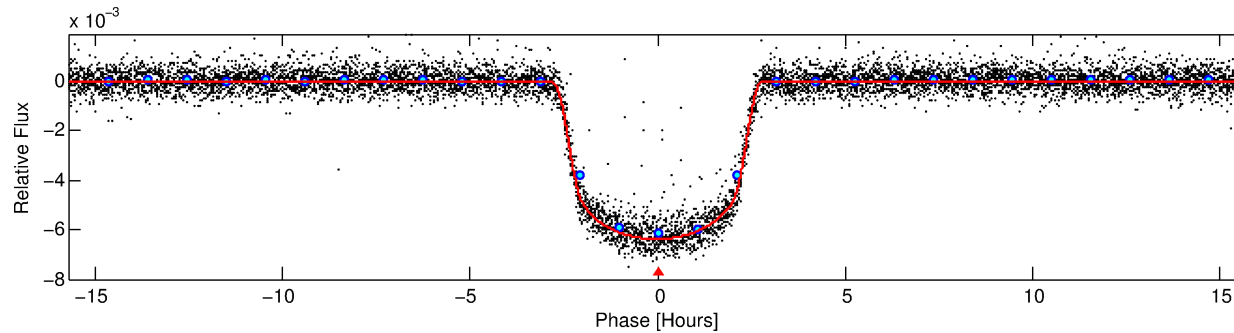
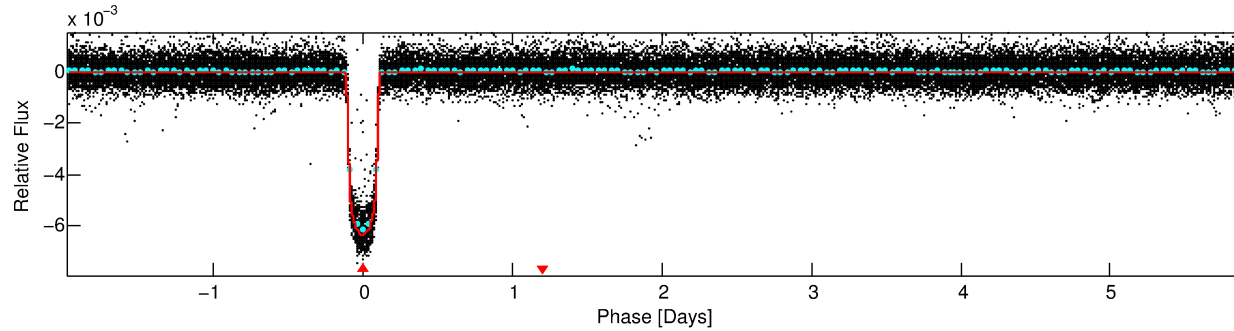
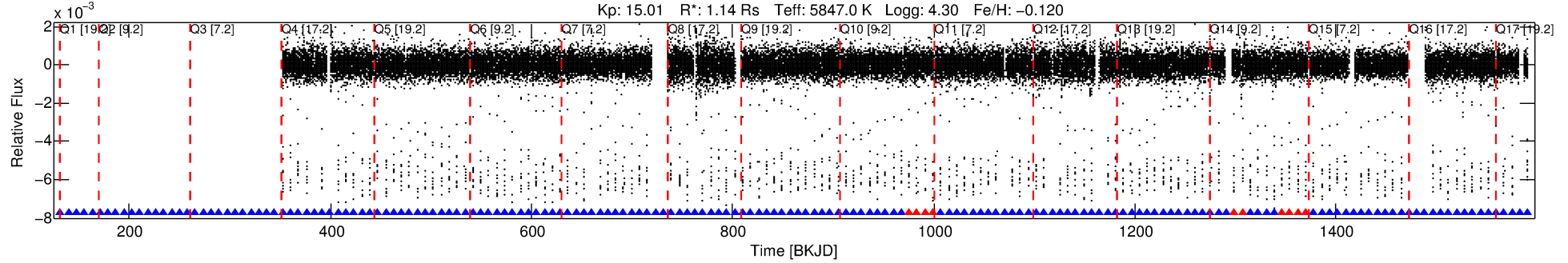
No Significant Match Found

DV One-Page Summary

KIC: 7832356 Candidate: 1 of 1 Period: 7.887 d

KOI: K01456.01 Corr: 0.998

Kp: 15.01 R*: 1.14 Rs Teff: 5847.0 K Logg: 4.30 Fe/H: -0.120



DV Fit Results:

Period = 7.88663 [0.00000] d
Epoch = 131.8022 [0.0002] BKJD
Rp/R* = 0.0735 [0.0007]
a/R* = 11.82 [0.50]
b = 0.31 [0.12]
Seff = 232.69 [84.55]
Teff = 996 [90] K
Rp = 9.10 [2.67] Re
a = 0.0761 [0.0182] AU
Ag = 2.07 [1.03] [1.03σ]
Teffp = 1846 [181] K [4.20σ]

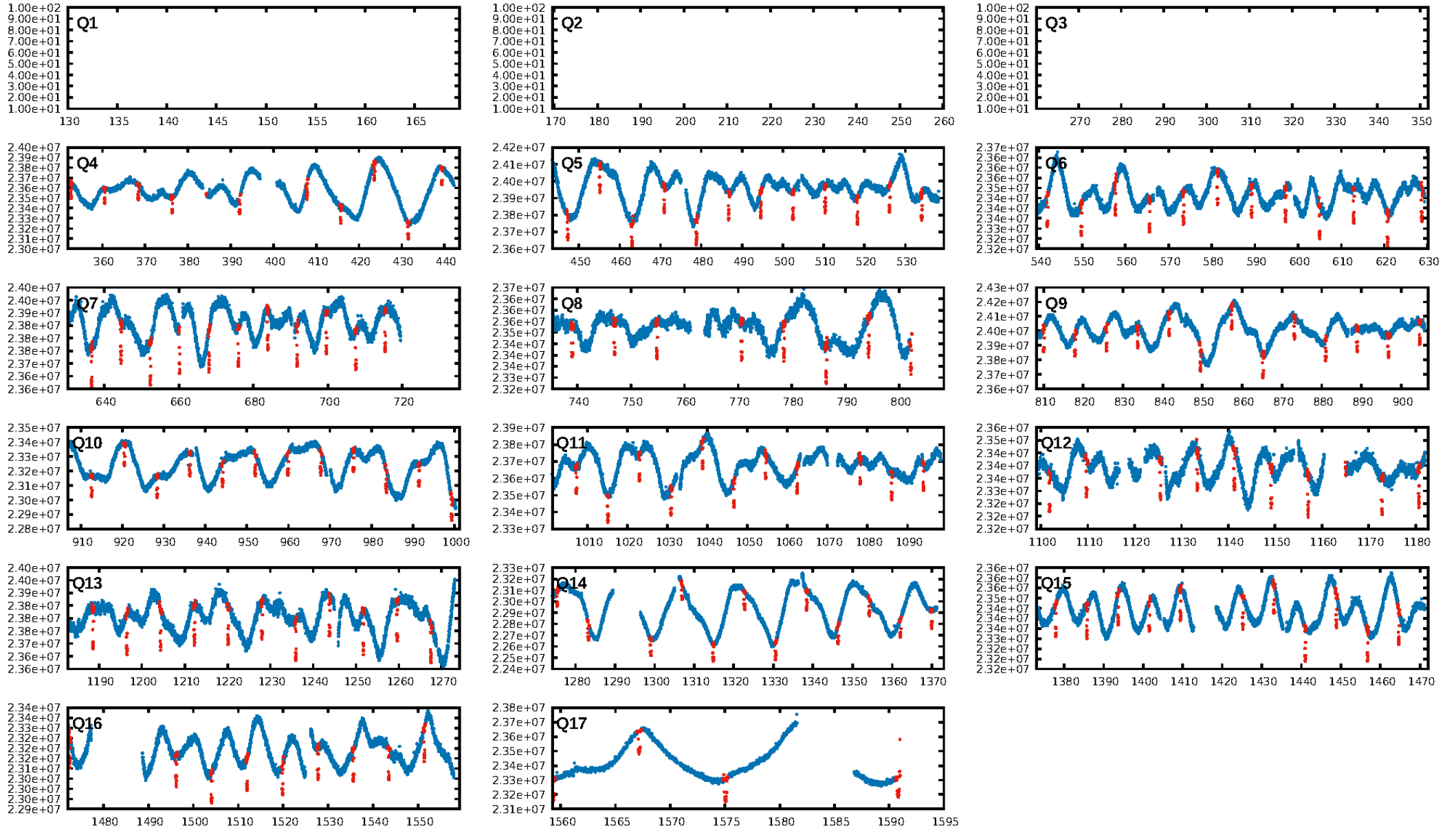
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 63.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.93 [131/141]
GhostDiagnostic-chr: 4.149
Centroid-sig: 0.0%
Centroid-so: 0.105 arcsec [3.85σ]
OotOffset-rm: 0.036 arcsec [0.54σ]
KicOffset-rm: 0.009 arcsec [0.13σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

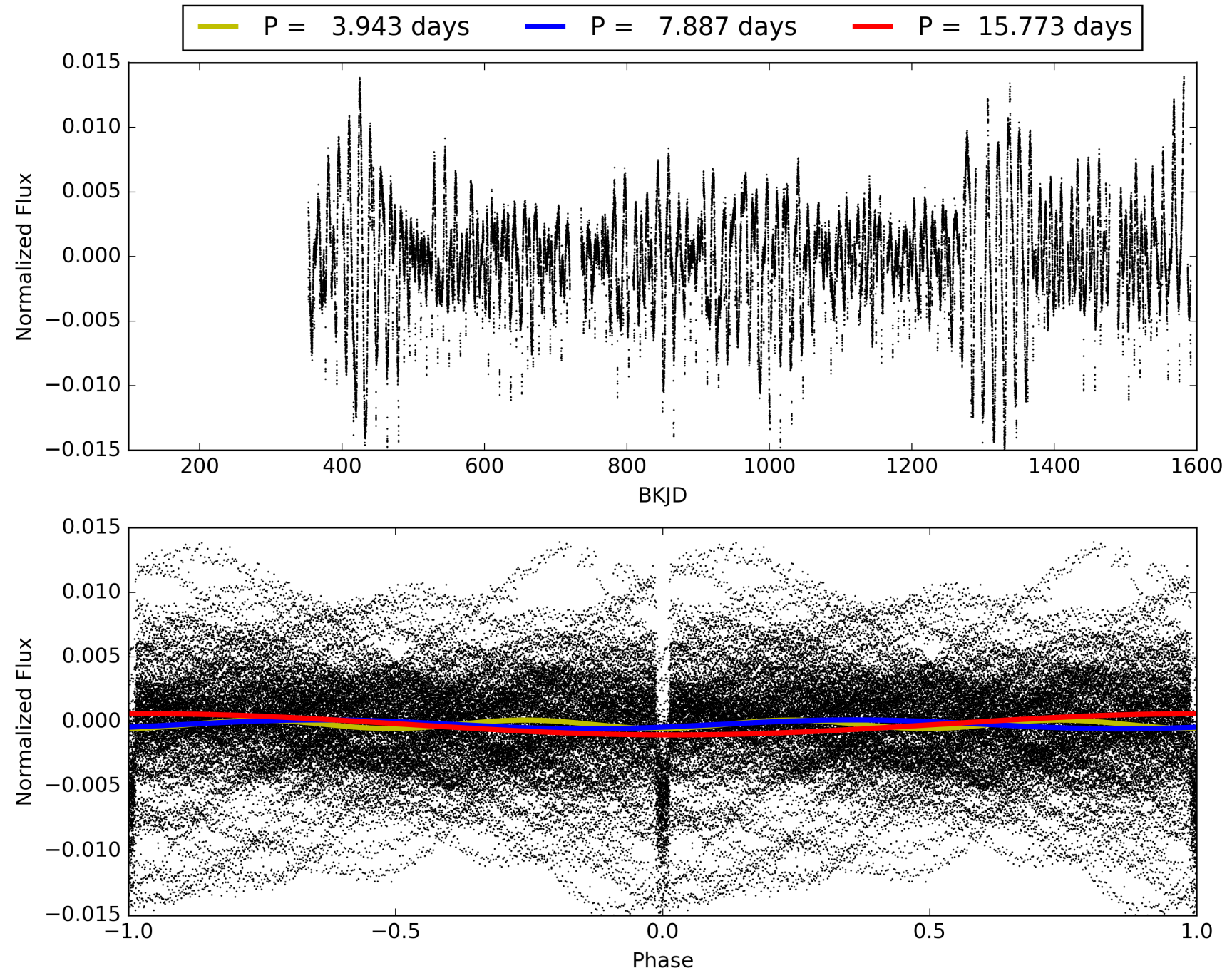
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:16:02 Z

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

TCE 007832356-01, PDC Light Curves

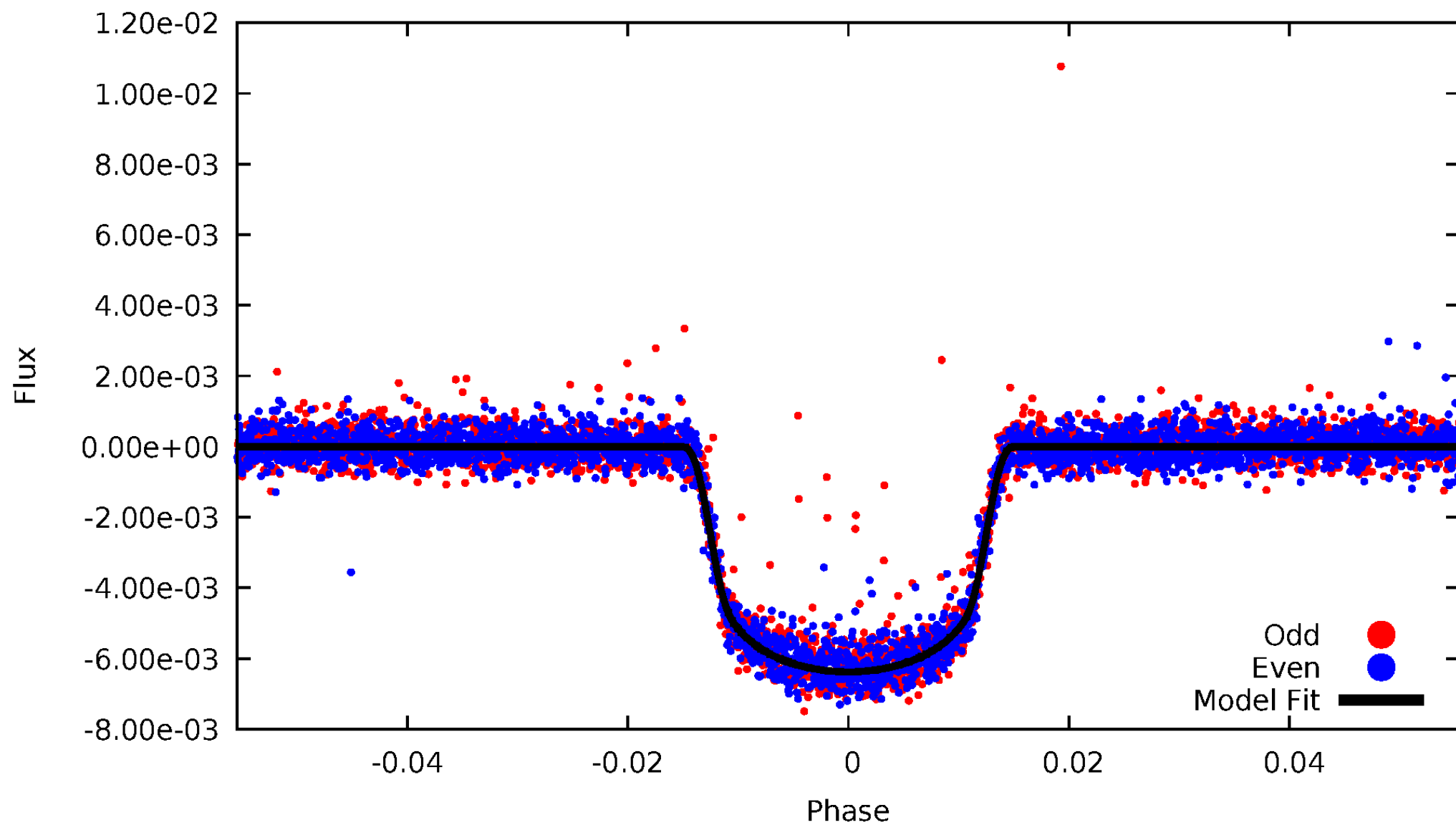


TCE 007832356-01



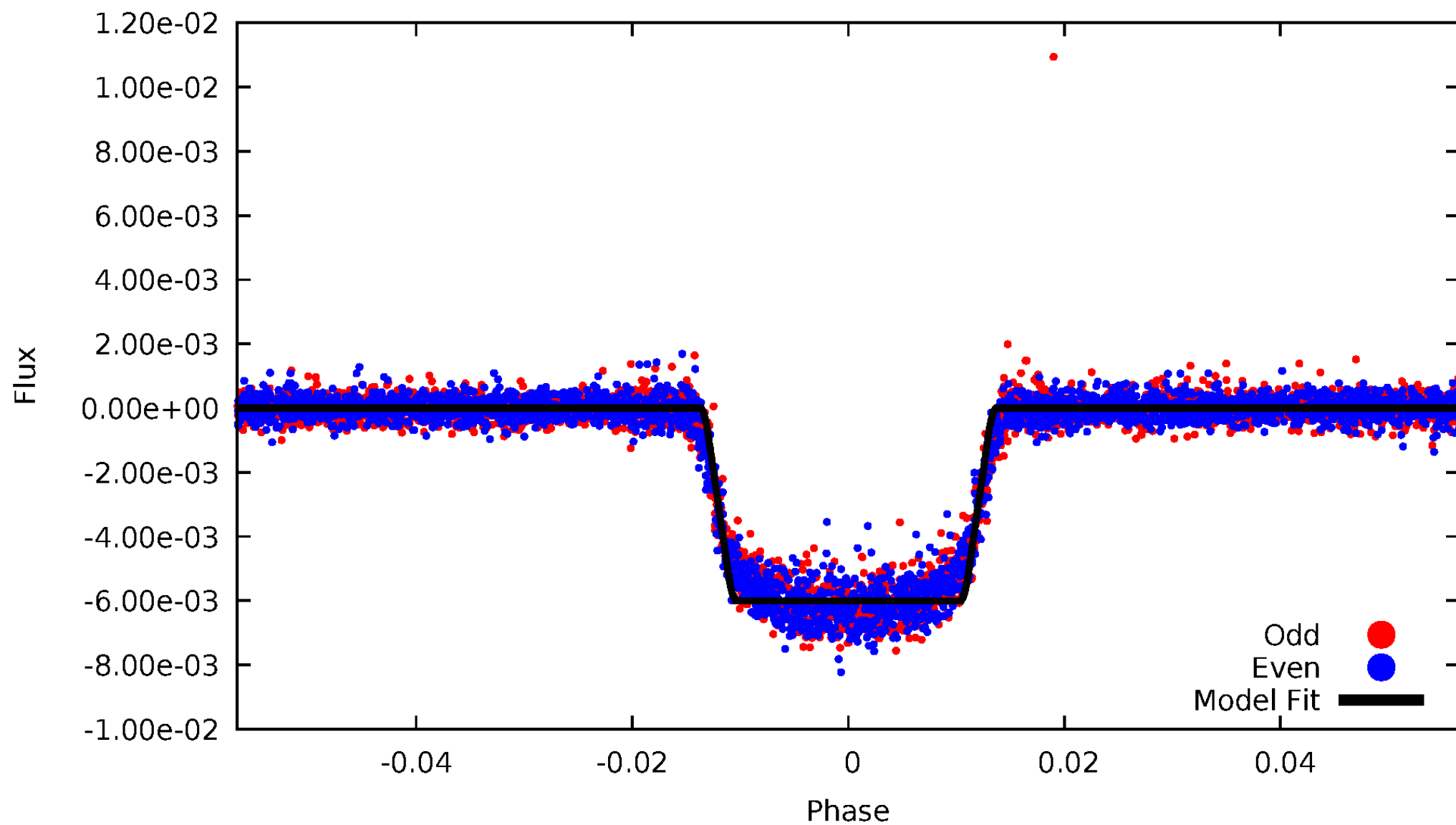
DV Odd/Even

TCE 007832356-01



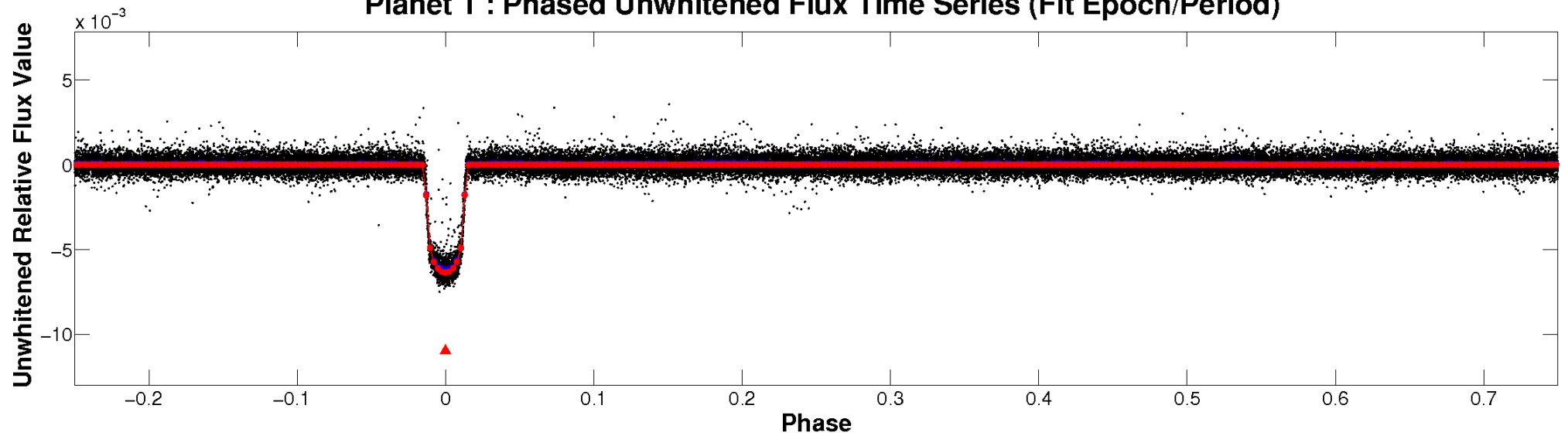
ALT Odd/Even

TCE 007832356-01

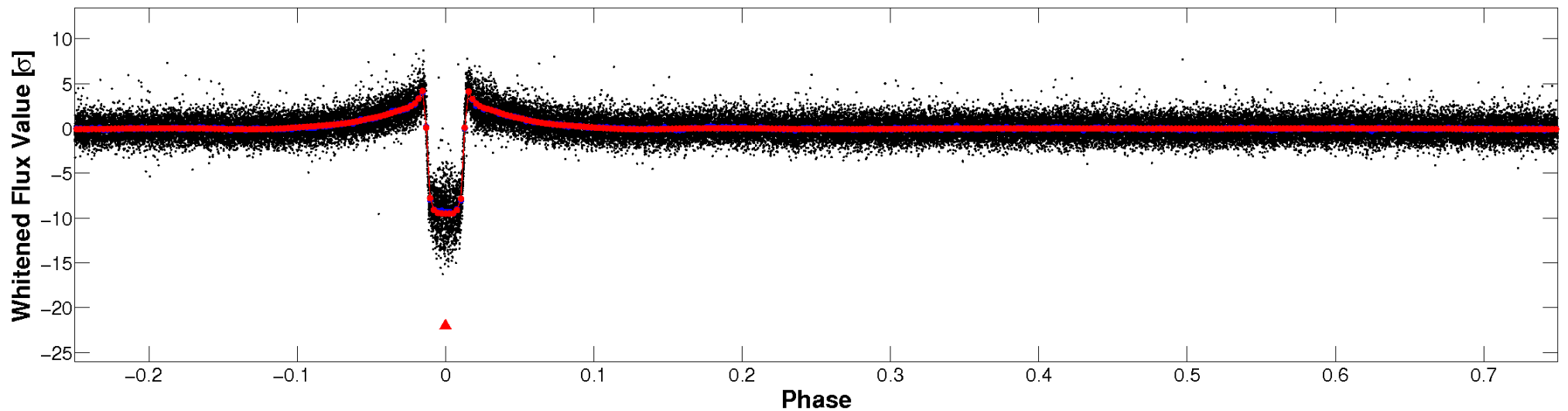


Non-Whitened Vs. Whitened Light Curve

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

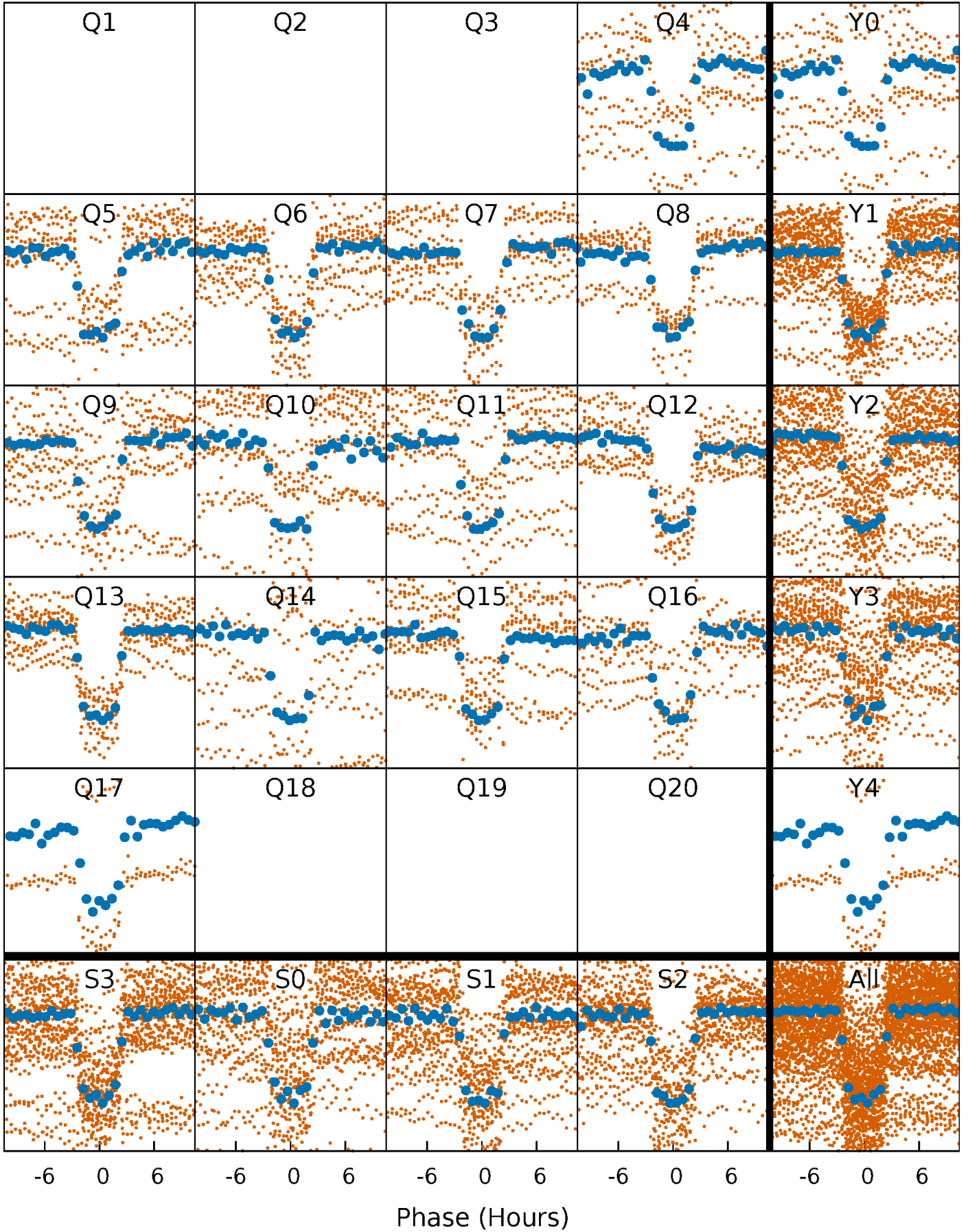


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



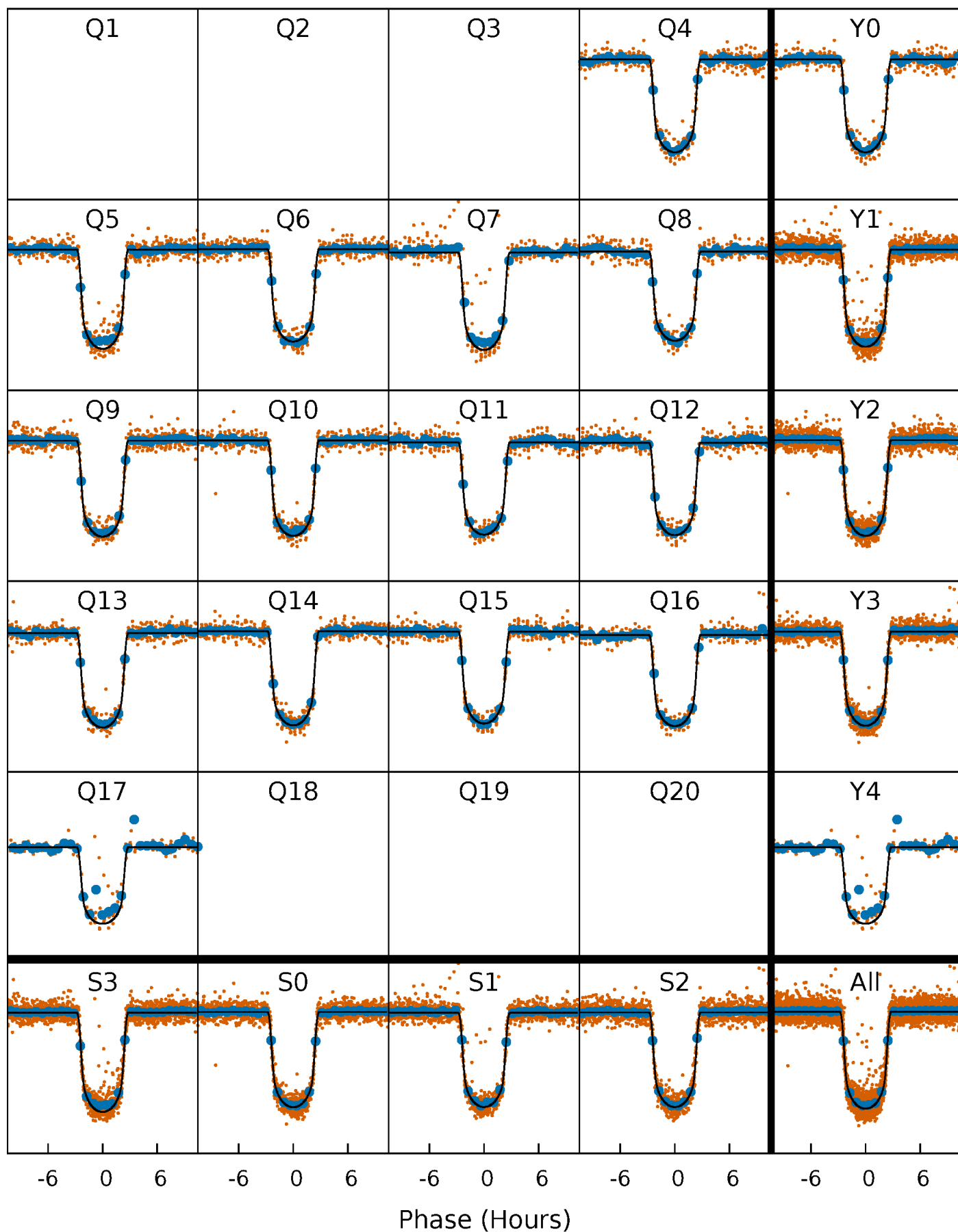
PDC Quarter-Phased Transit Curves

TCE 007832356-01 P= 7.886630 Days $T_0=131.802161$ (BKJD)



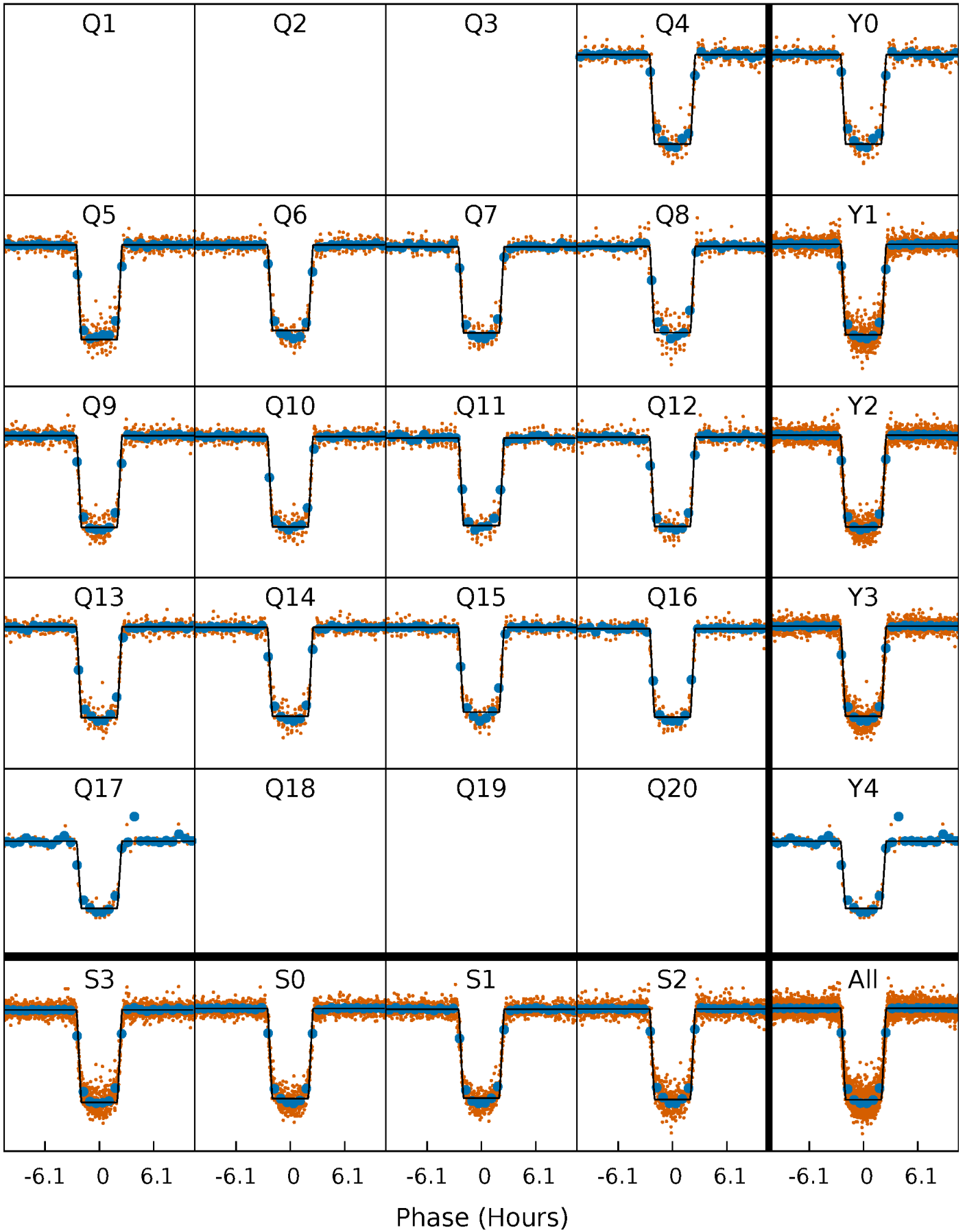
DV Quarter-Phased Transit Curves

TCE 007832356-01 P= 7.886630 Days $T_0=131.802161$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

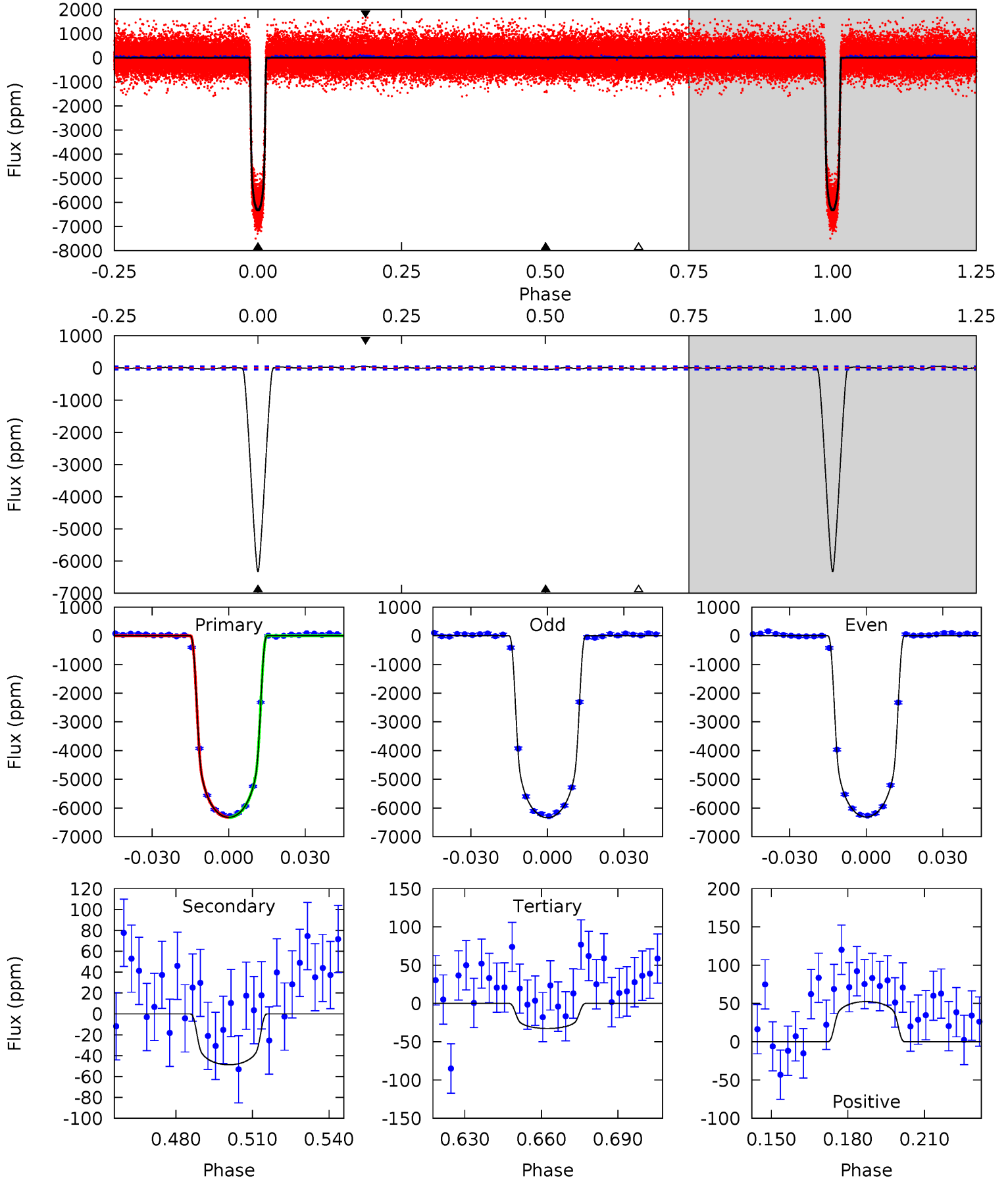
TCE 007832356-01 P= 7.886657 Days $T_0=131.799285$ (BKJD)



DV Model-Shift Uniqueness Test

007832356-01, P = 7.886630 Days, E = 131.802161 Days

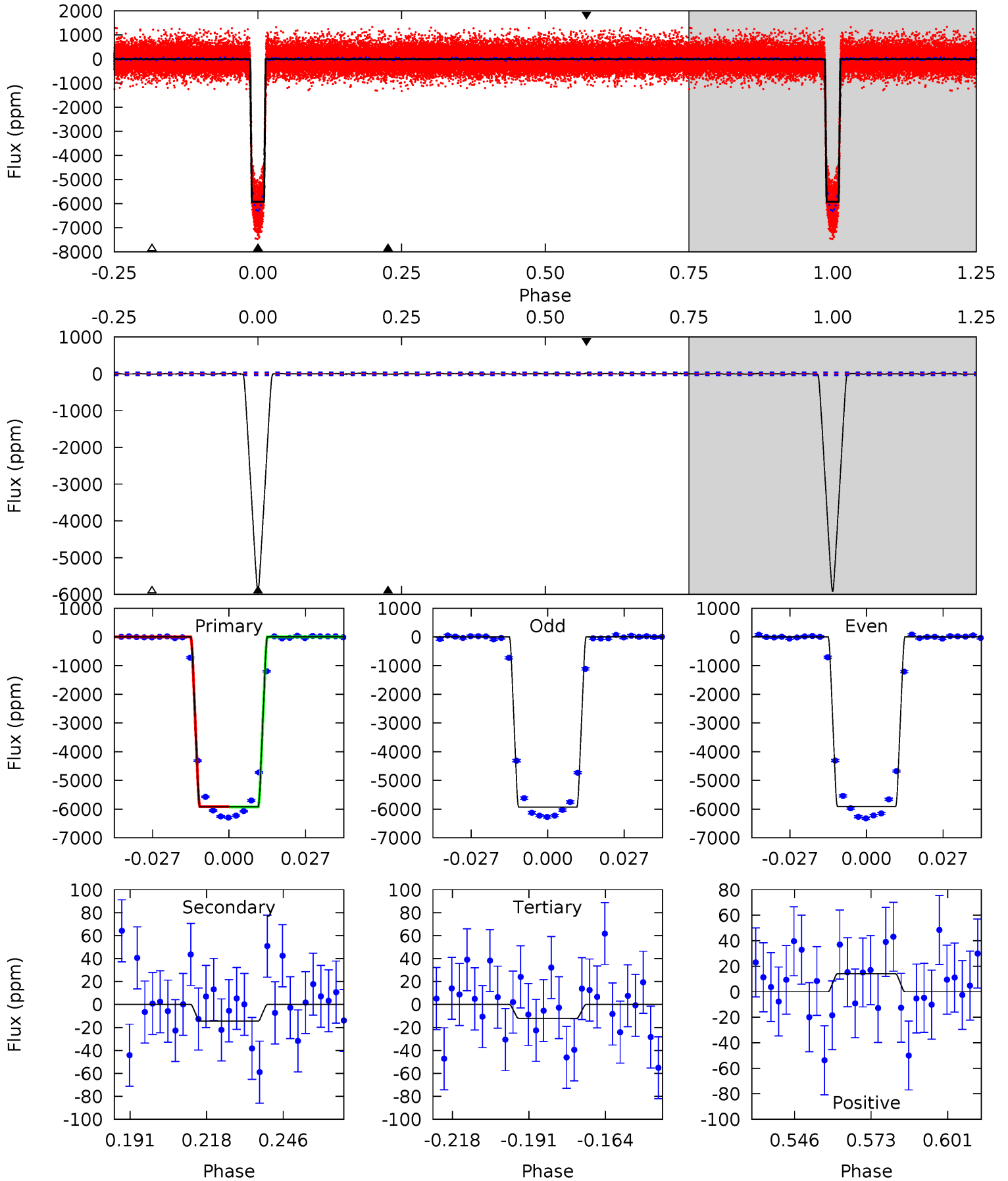
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
630.2	4.85	3.26	5.23	4.81	2.17	1.49	626.9	625.0	1.60	-0.37	1.21	0.99	0.01	0.35



Alt Model-Shift Uniqueness Test

007832356-01, P = 7.886657 Days, E = 131.799285 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
695.3	1.70	1.41	1.65	4.83	2.21	0.61	693.9	693.7	0.29	0.06	1.19	1.00	0.00	0.90



Stellar Parameters For KIC 007832356

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5847^{+176}_{-193}	$4.304^{+0.180}_{-0.180}$	$-0.120^{+0.300}_{-0.300}$	$1.135^{+0.333}_{-0.222}$	$0.946^{+0.140}_{-0.102}$	$0.912^{+0.863}_{-0.448}$
	+3%/-3%	+4%/-4%	+250%/-250%	+29%/-20%	+15%/-11%	+95%/-49%
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 007832356-01 / KOI 1456.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-49 ± 10	$9.00^{+1.43}_{-1.03}$	1381^{+118}_{-85}	2567^{+79}_{-103}	$1.943^{+0.681}_{-0.574}$
Alt.	-14 ± 9	$9.60^{+1.50}_{-1.06}$	1392^{+100}_{-92}	1995^{+223}_{-3925}	$0.462^{+0.348}_{-0.277}$

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 $A_{obs} \gg 1.0$

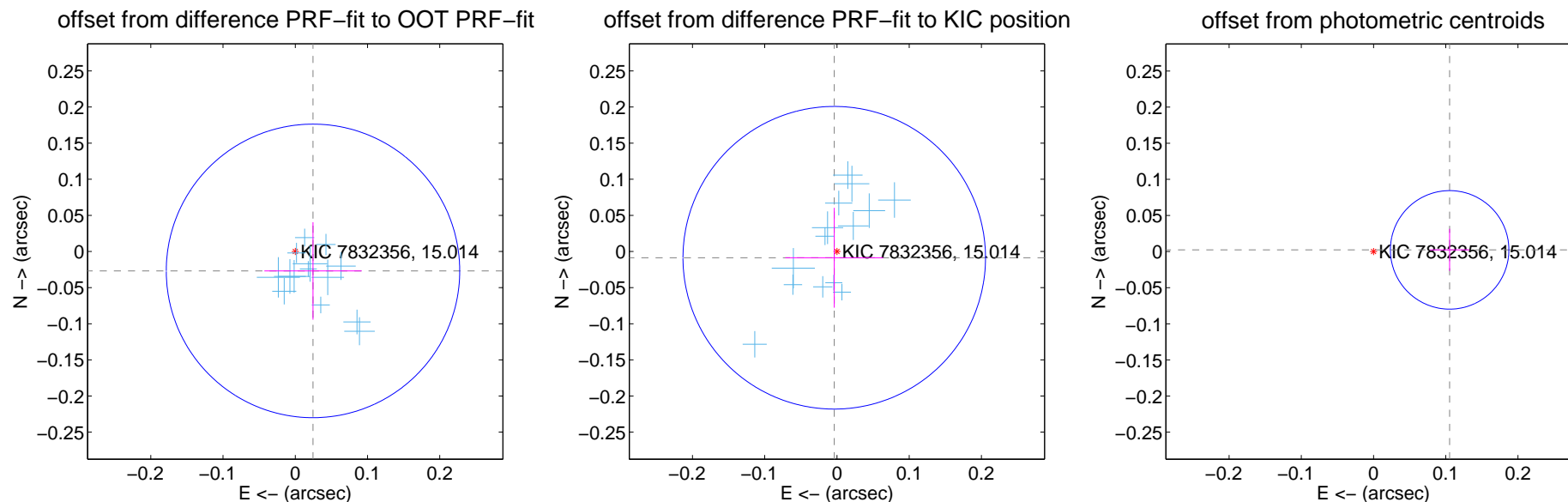
DV Centroid Data

Supplemental centroid analysis for 007832356-01. Kepler magnitude: 15.01. Transit SNR 340.05

There are 14 quarters with good PRF difference image offsets

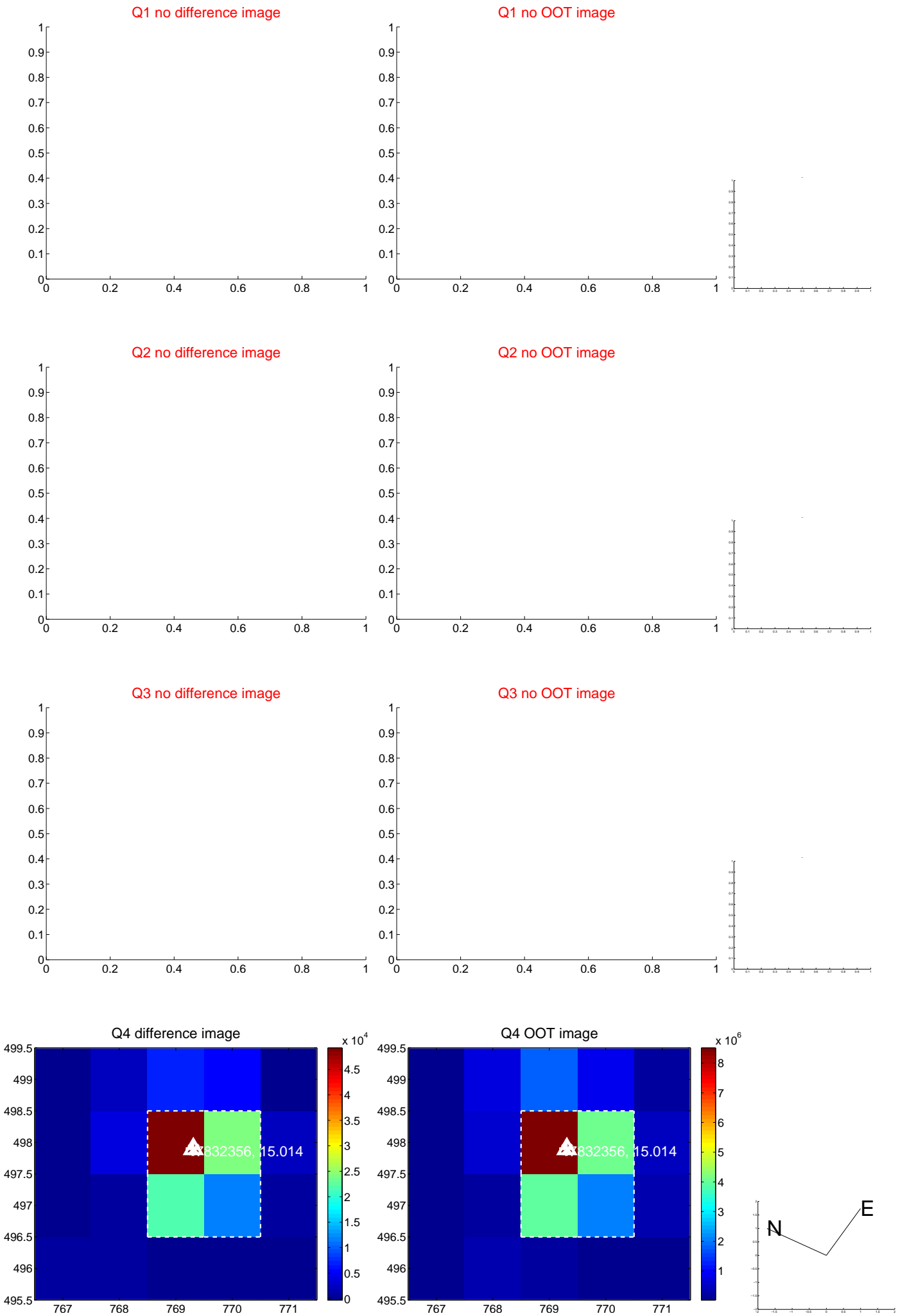
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.036 ± 0.068	0.54	-0.025 ± 0.067	-0.027 ± 0.067
PRF-fit source offset from KIC position	0.009 ± 0.070	0.13	0.004 ± 0.068	-0.009 ± 0.069
photometric centroid source offset	0.11 ± 0.03	3.85	-0.11 ± 0.03	0.00 ± 0.03

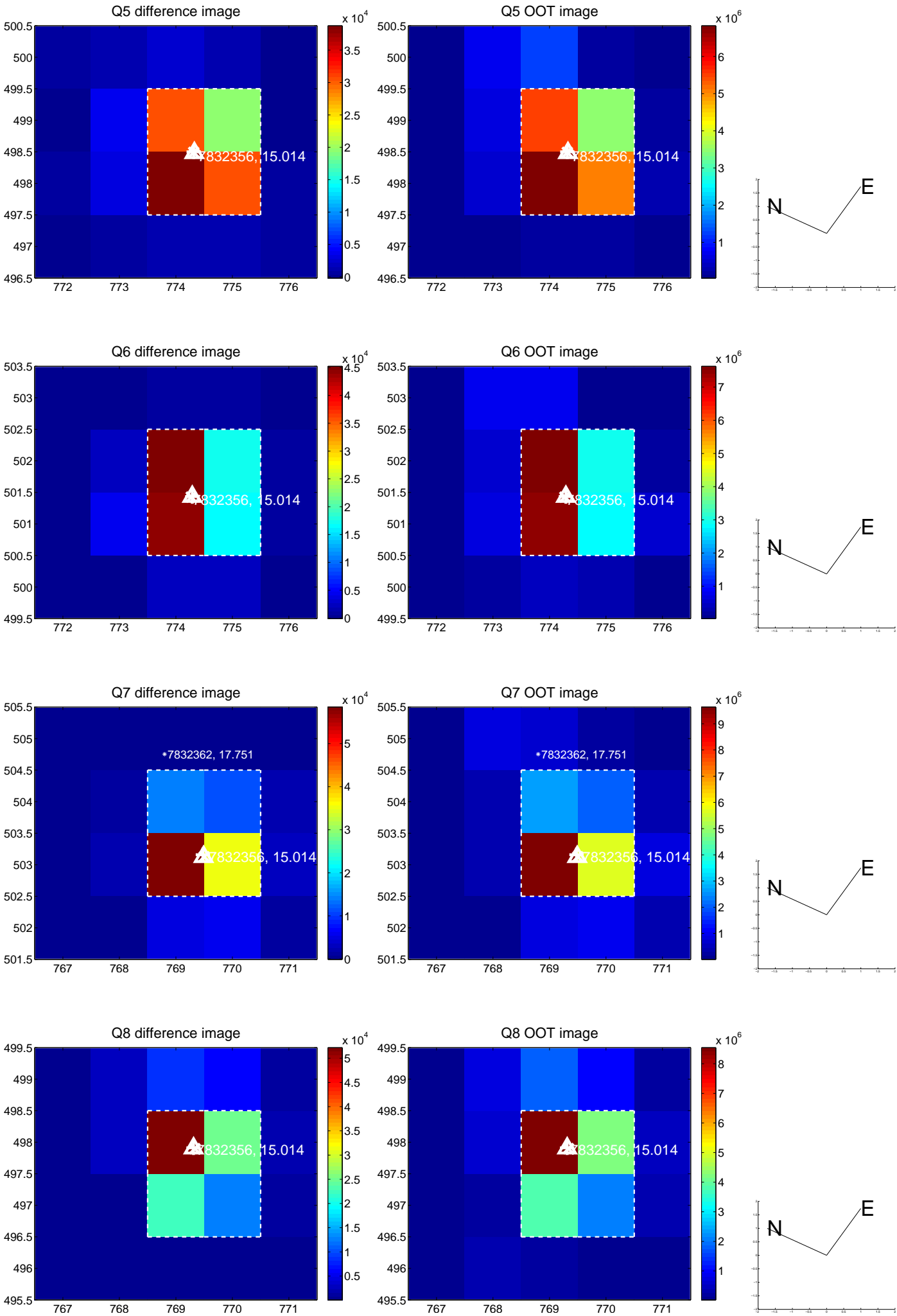


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

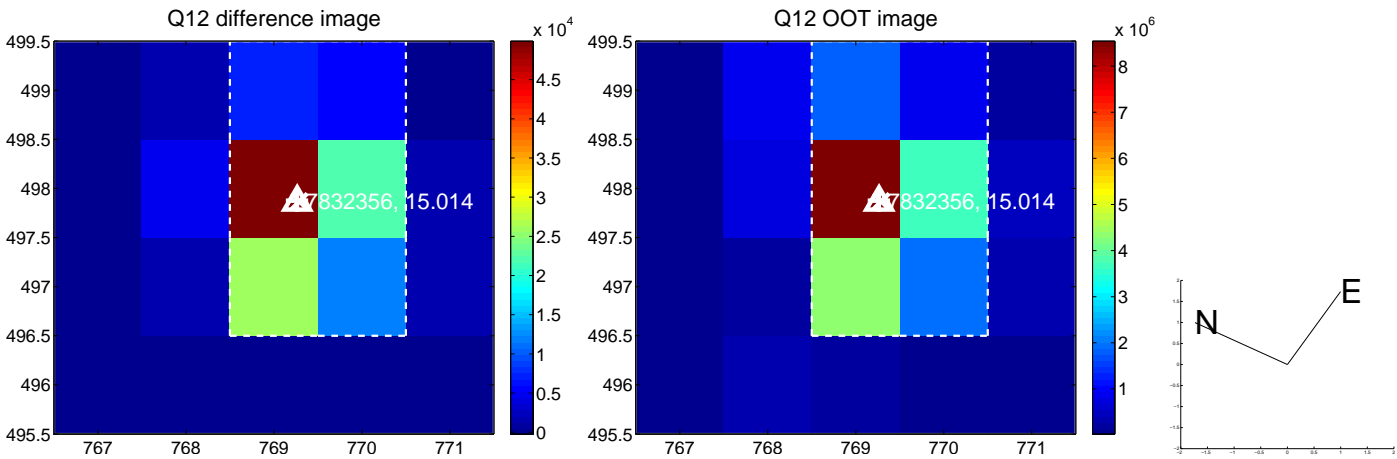
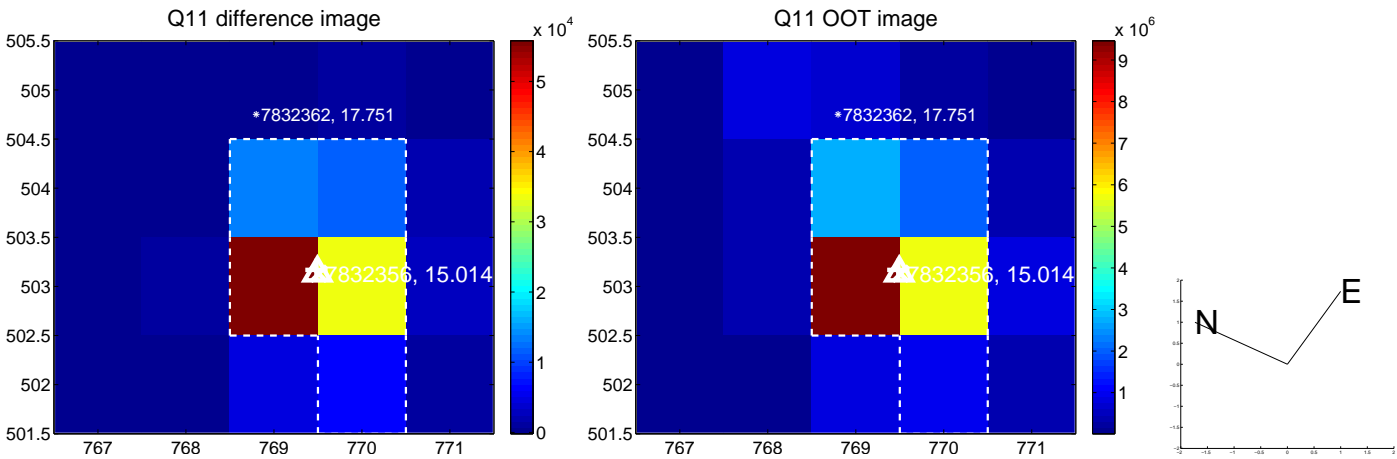
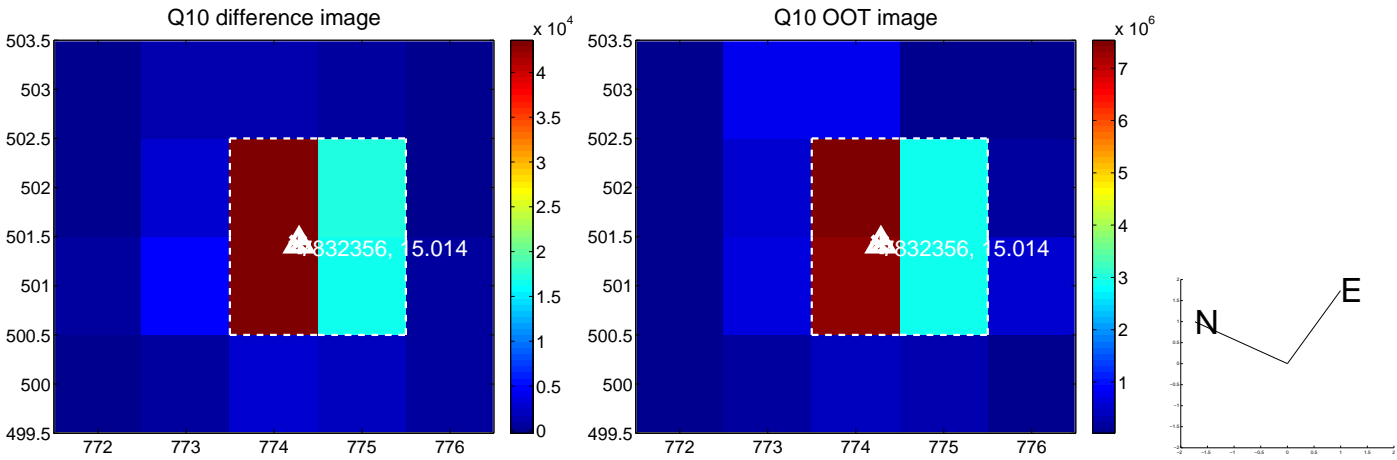
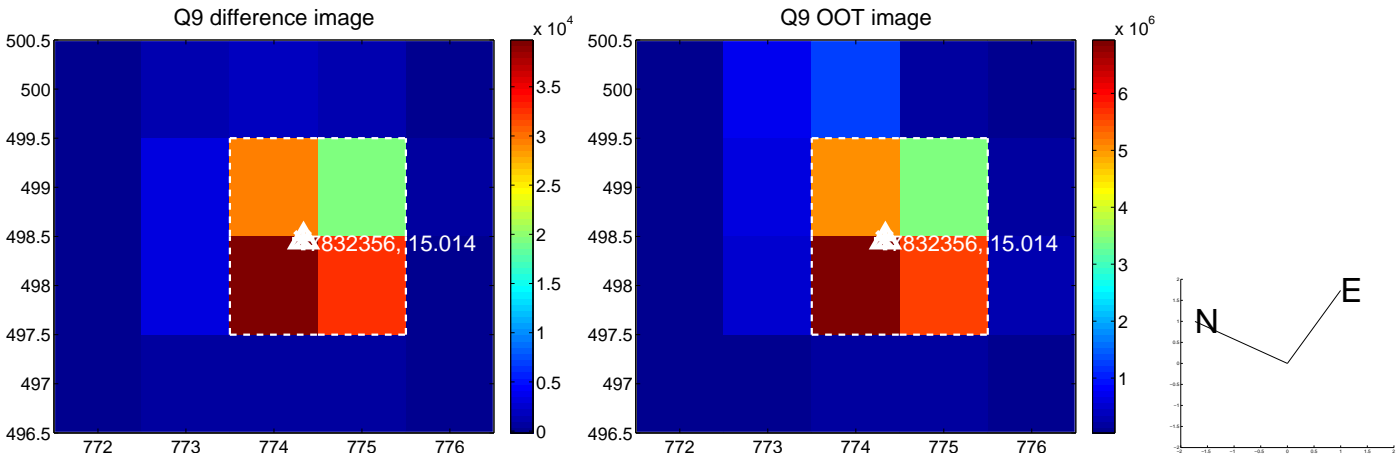
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



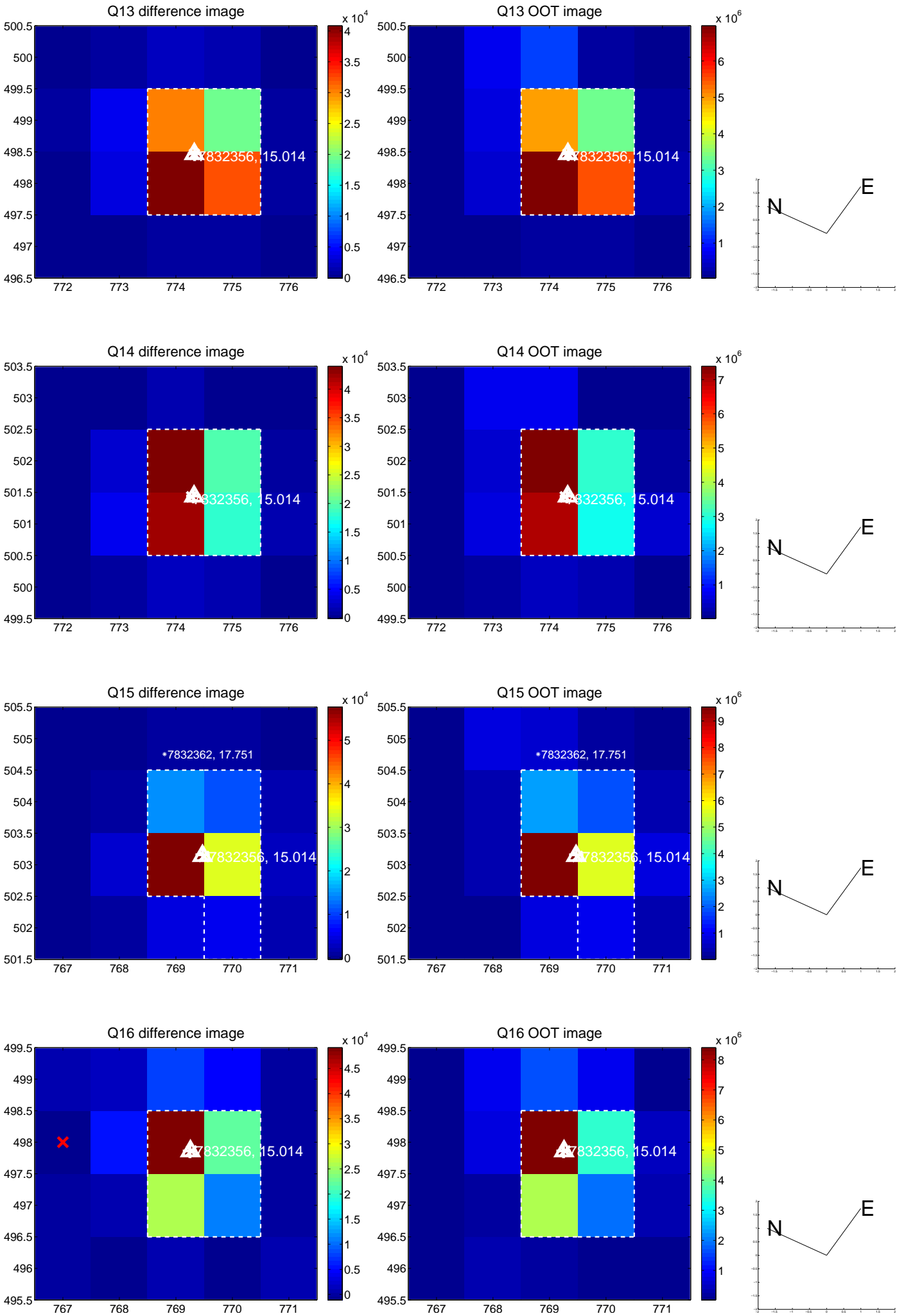
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



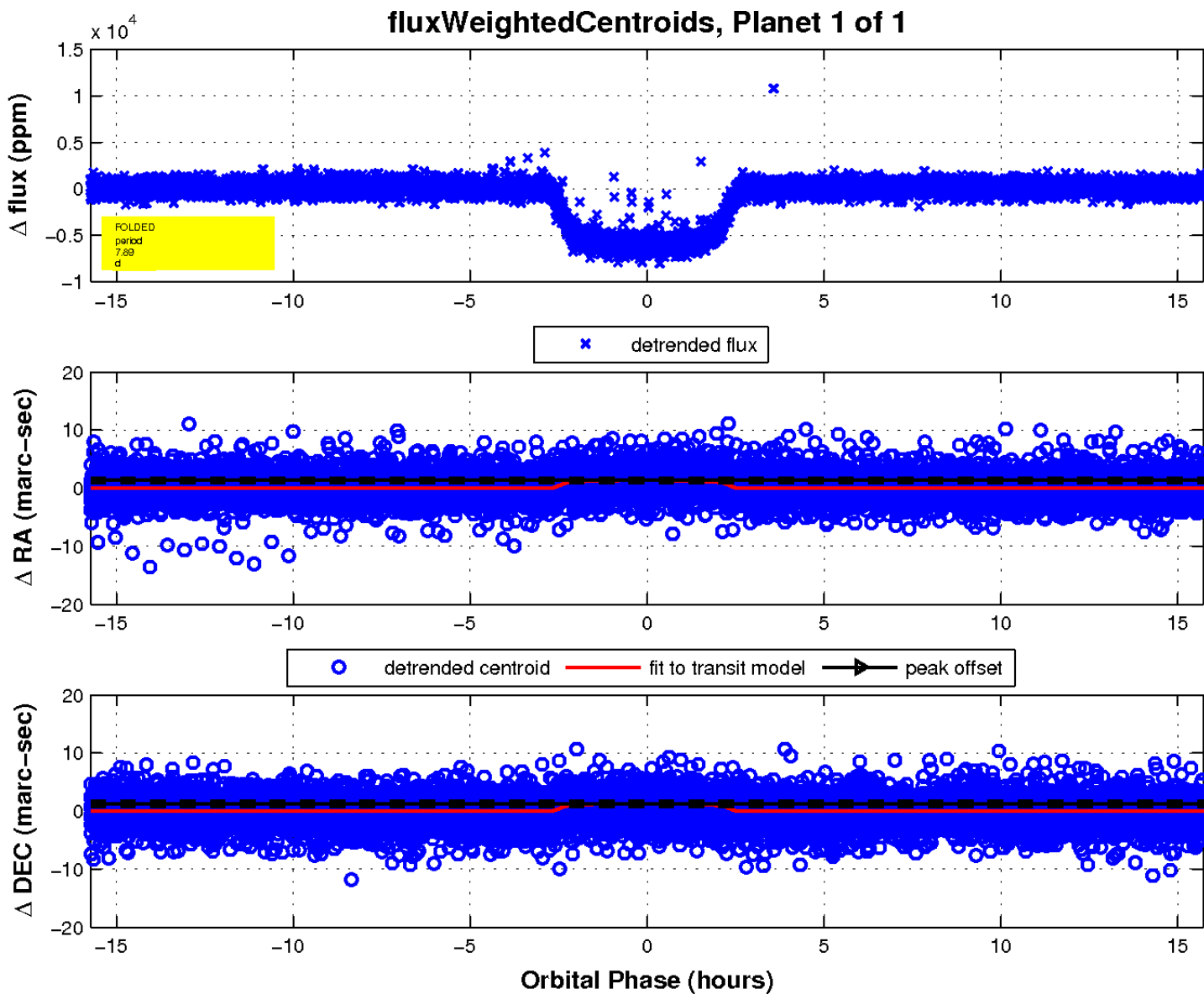
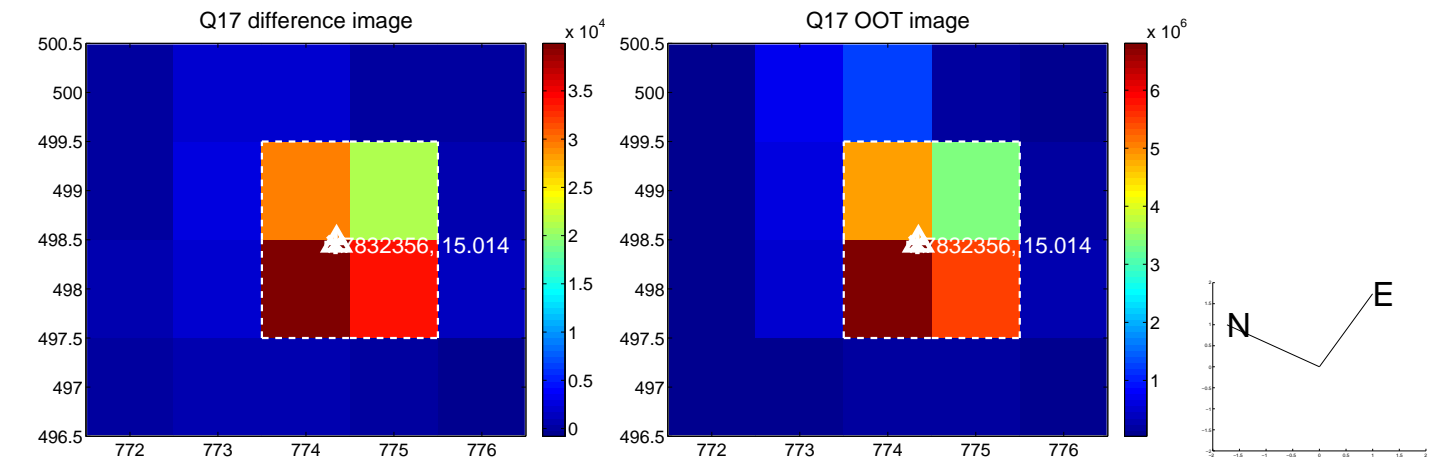
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

