

KIC 009652632

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})
009652632-01	OBS	7217.01	2.488812	132.124922	128434.4	5.923	23911.8	18087.8	1.50	6499	75.27	2786.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009652632-01	OBS	FP	0.00	0	1	0	0	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.

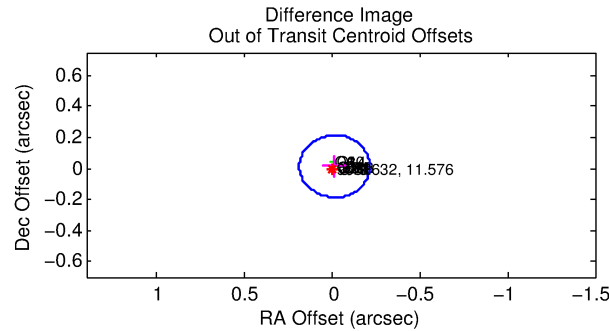
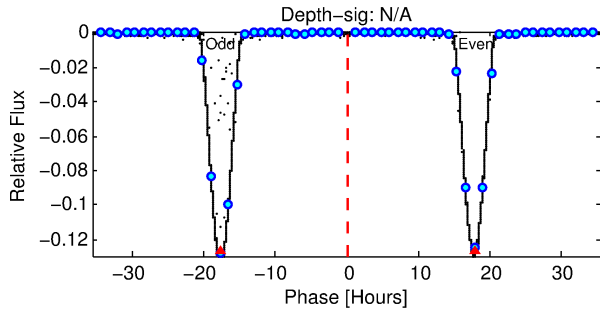
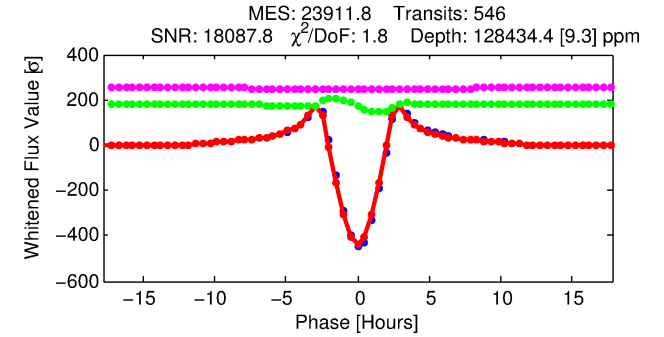
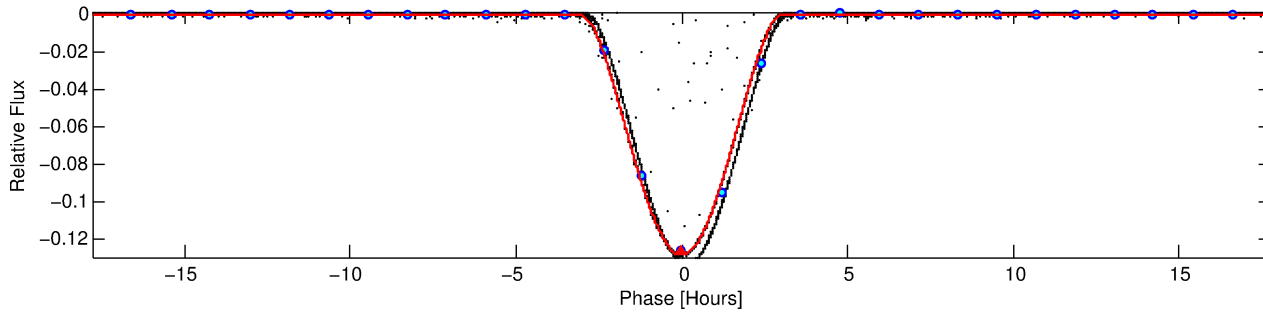
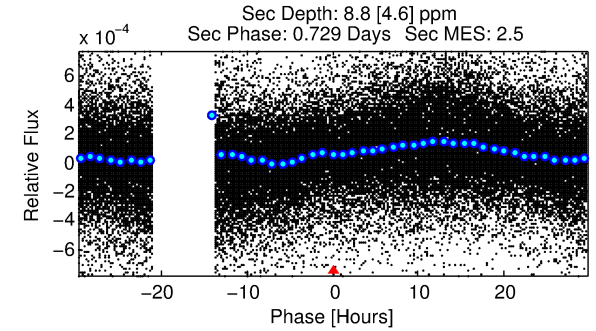
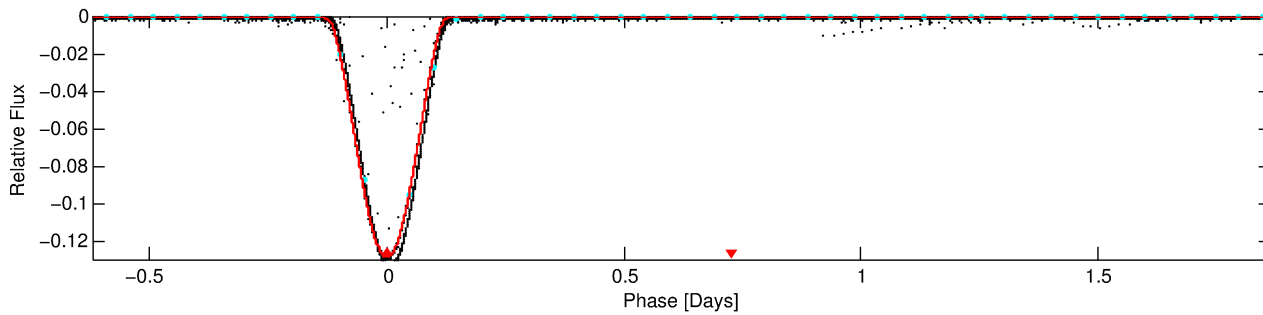
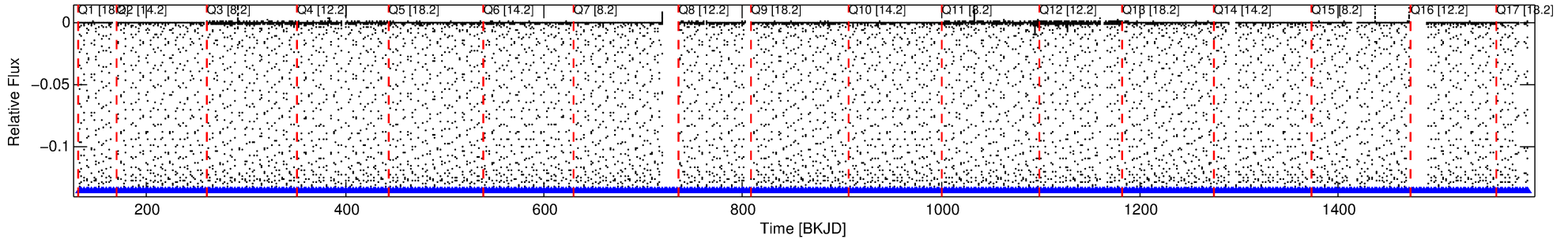
Ephemeris Match Information For 009652632-01

No Significant Match Found

DV One-Page Summary

KIC: 9652632 Candidate: 1 of 1 Period: 2.489 d
KOI: K07217.01 Corr: 0.987

Kp: 11.58 R*: 1.50 Rs Teff: 6499.0 K Logg: 4.08 Fe/H: -0.660



DV Fit Results:

Period = 2.48881 [0.00000] d
Epoch = 132.1249 [0.0000] BKJD
Rp/R* = 0.4608 [0.0014]
a/R* = 3.93 [0.00]
b = 0.87 [0.00]
Seff = 2786.80 [1627.71]
Teq = 1853 [271] K
Rp = 75.27 [26.50] Re
a = 0.0359 [0.0125] AU
Ag = 0.00 [0.00] [-1178.52σ]
Teffp = 522 [71] K [-4.7σ]

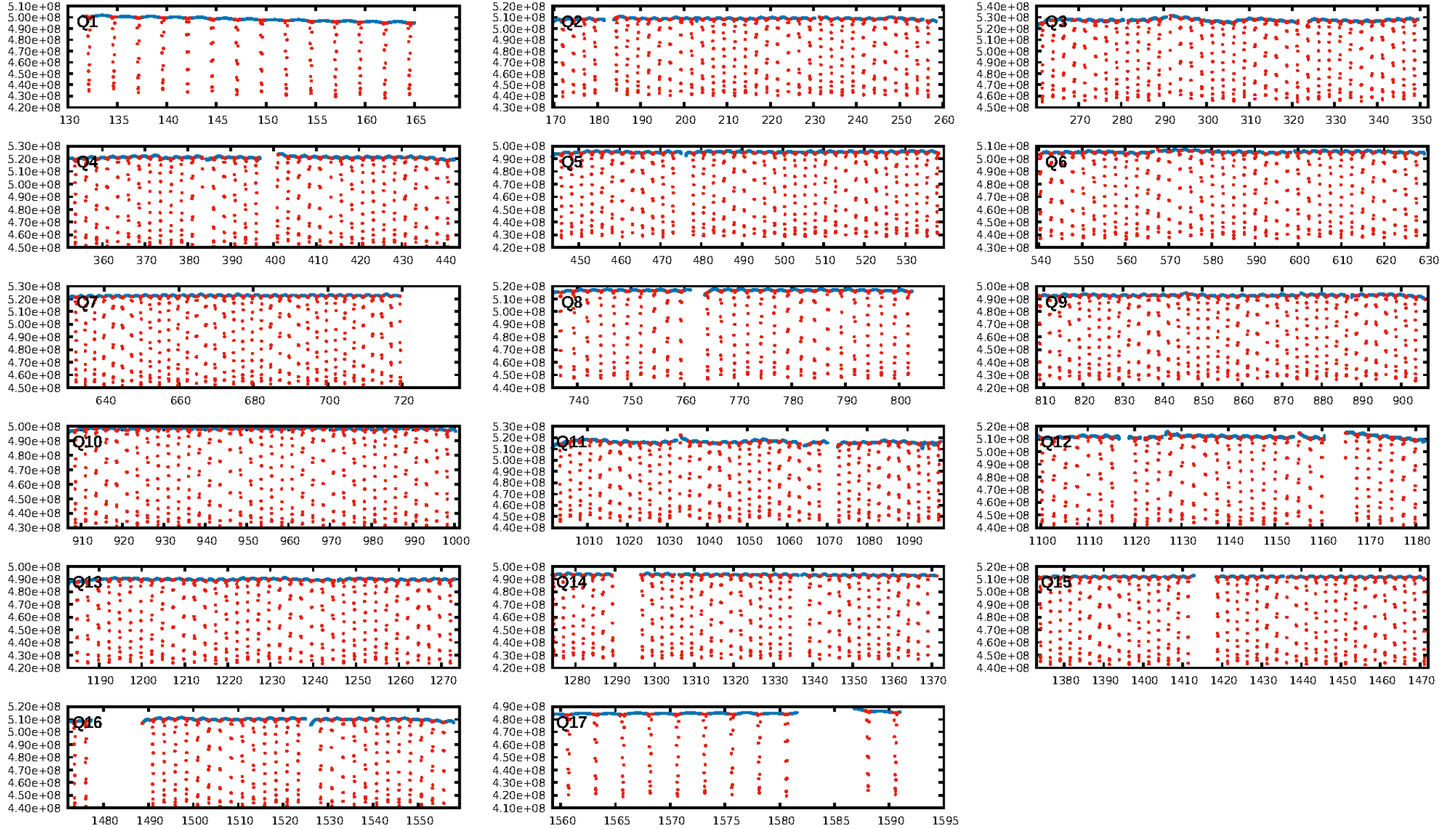
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-figt: 1.00 [521/521]
GhostDiagnostic-chr: 4.723
Centroid-sig: 0.0%
Centroid-so: 0.199 arcsec [1085.84σ]
OotOffset-rm: 0.020 arcsec [0.31σ]
KicOffset-rm: 0.078 arcsec [1.16σ]
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]

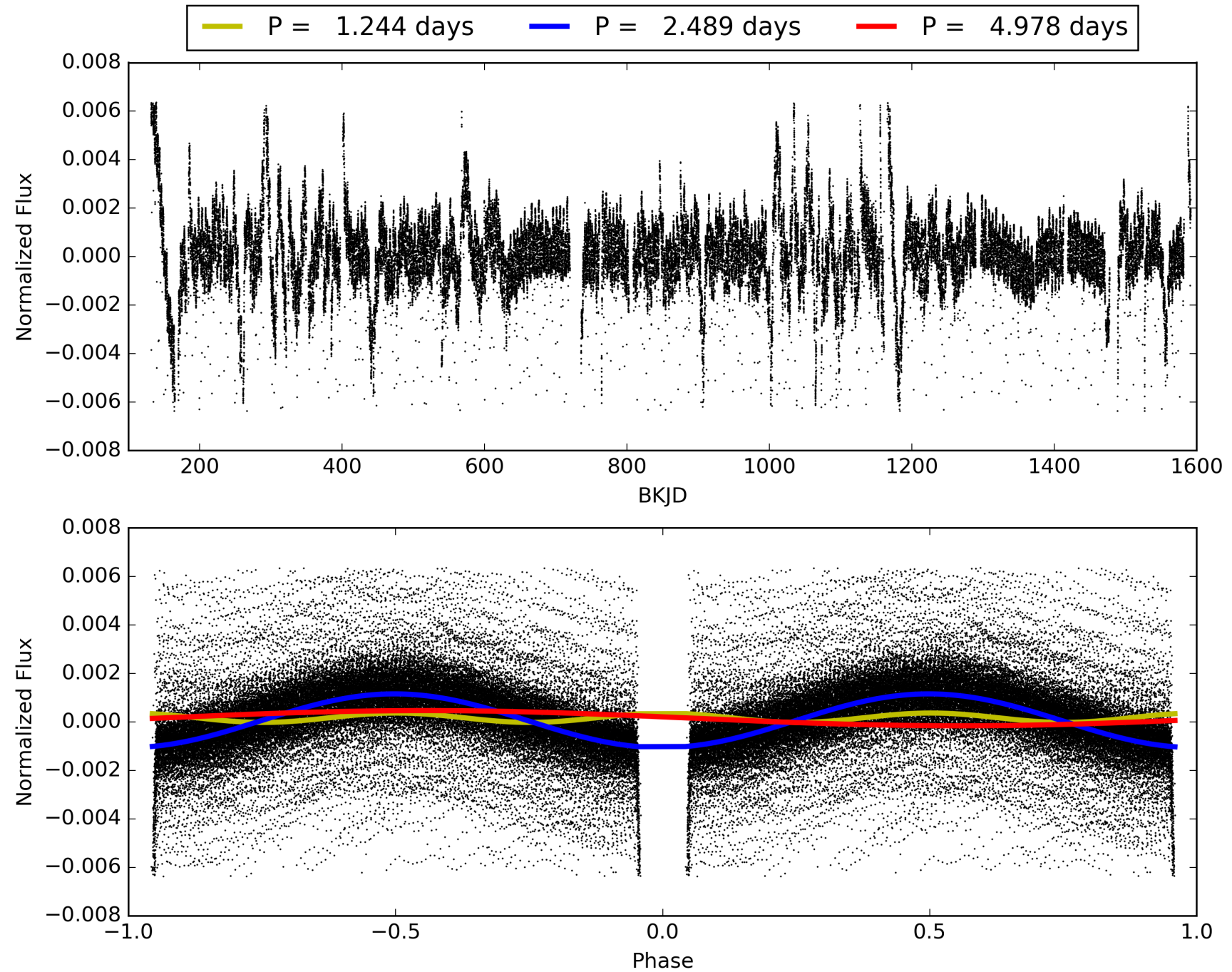
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:22:31 Z

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

TCE 009652632-01, PDC Light Curves

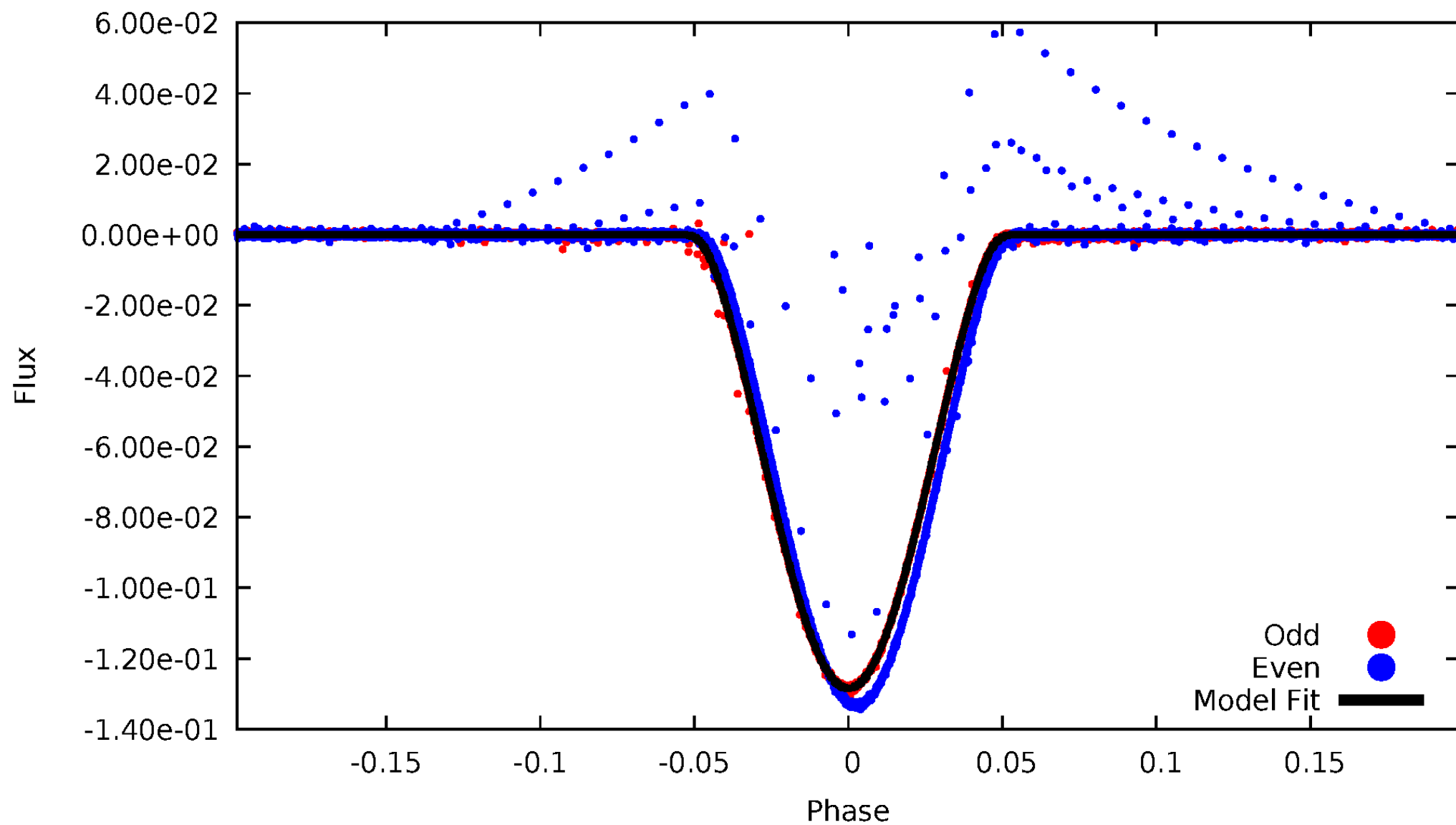


TCE 009652632-01



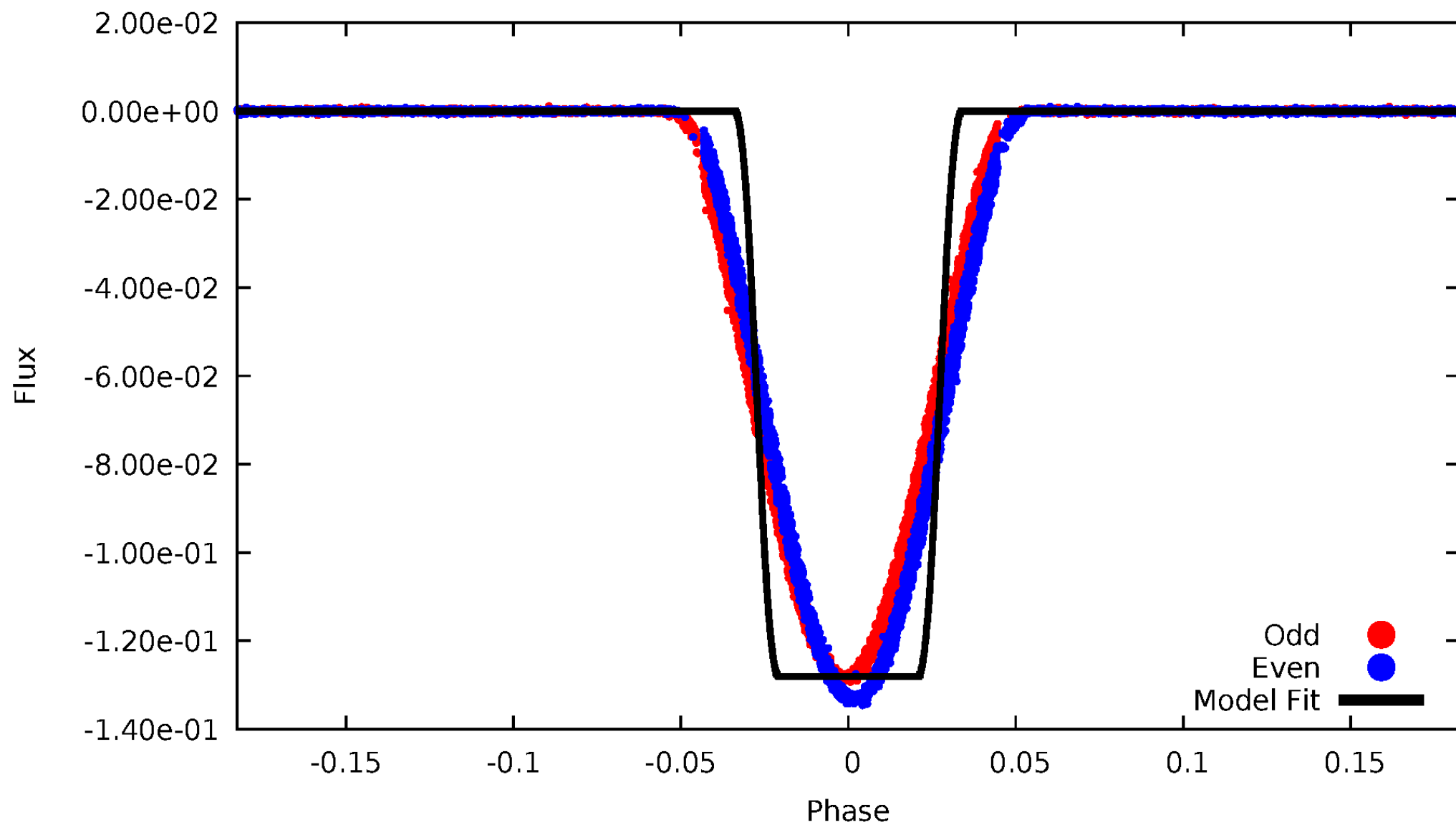
DV Odd/Even

TCE 009652632-01



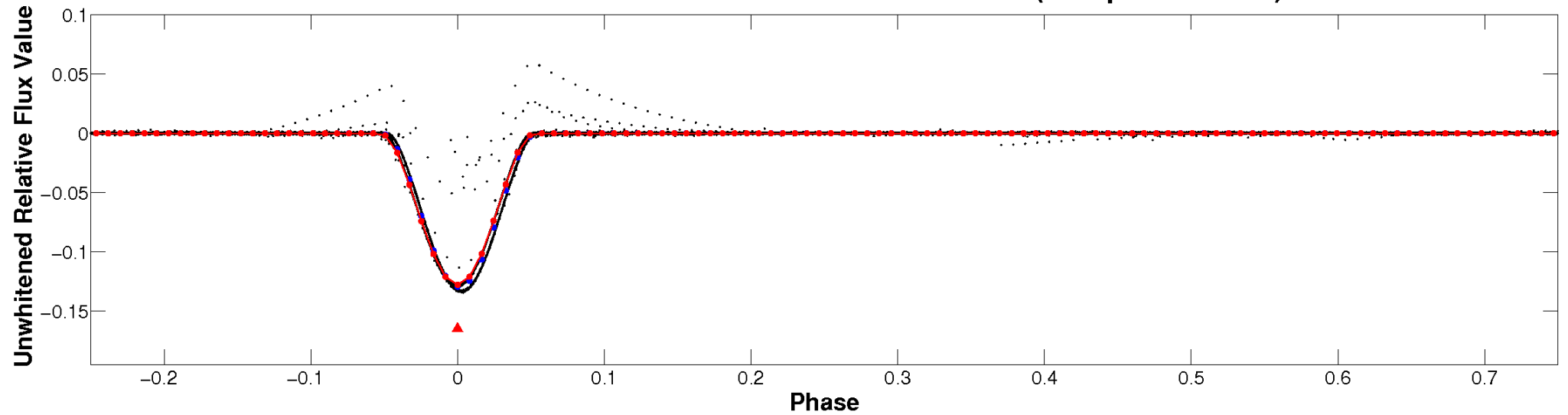
ALT Odd/Even

TCE 009652632-01

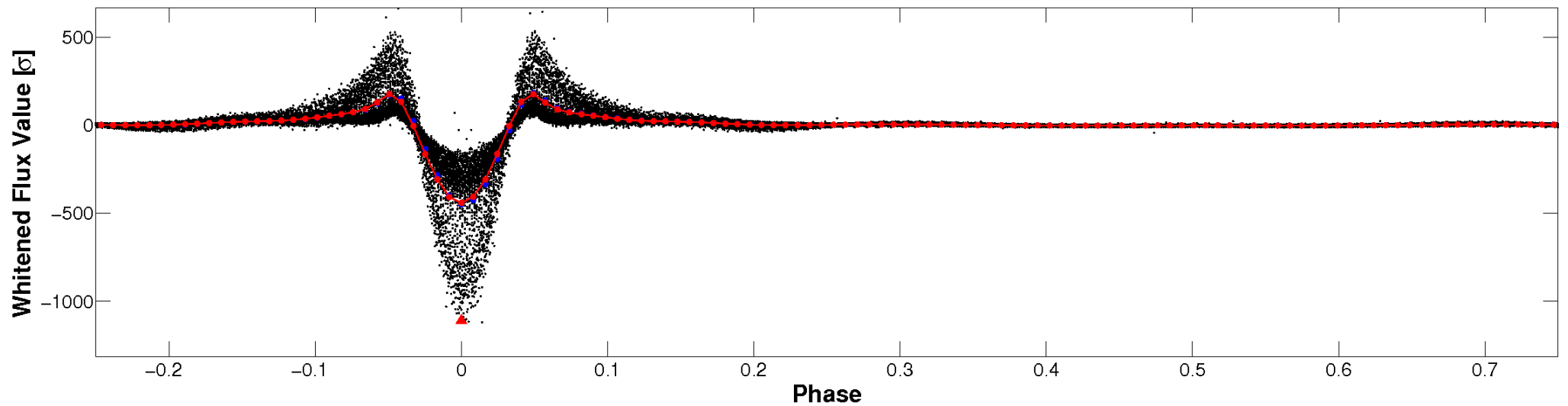


Non-Whitened Vs. Whitened Light Curve

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

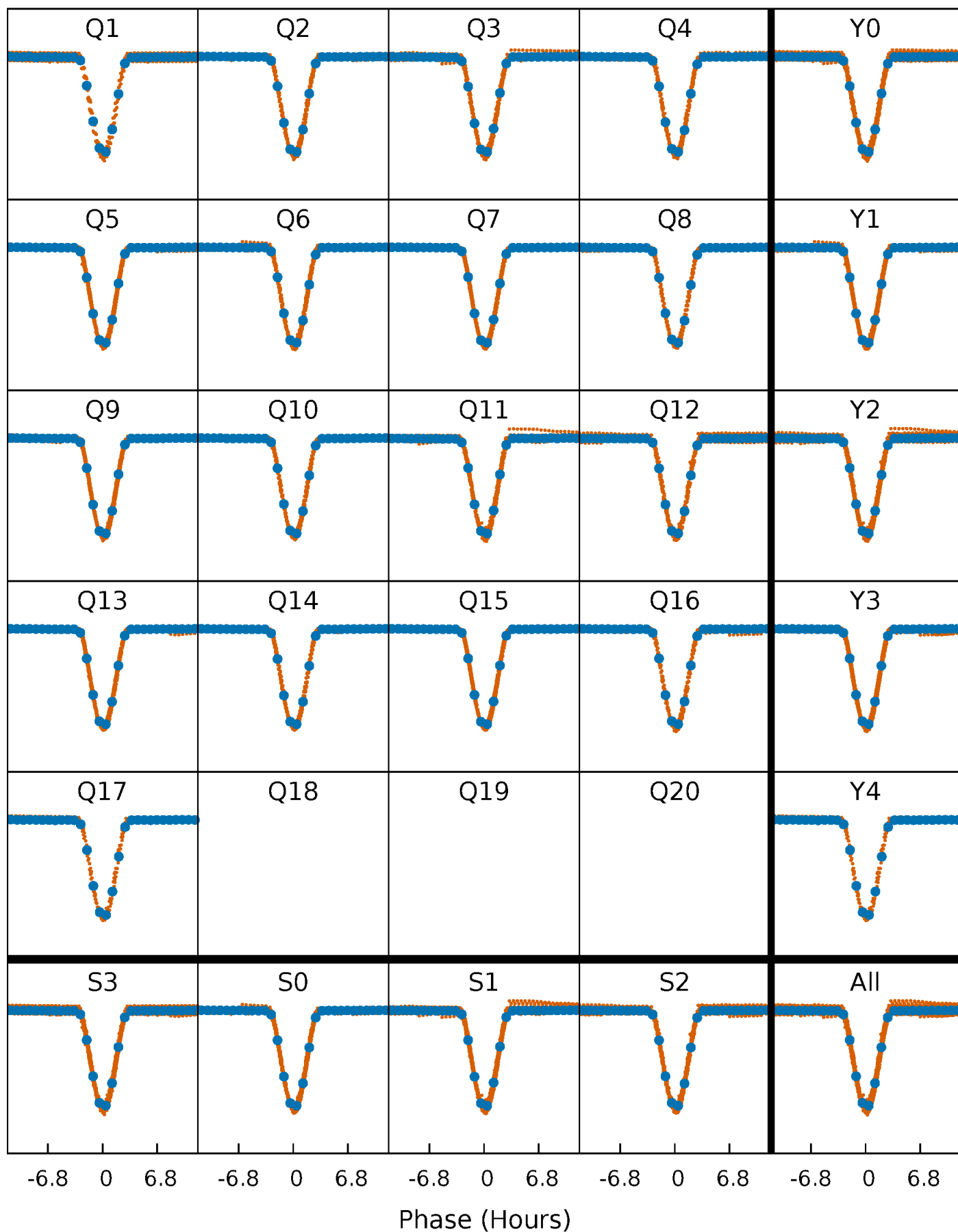


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



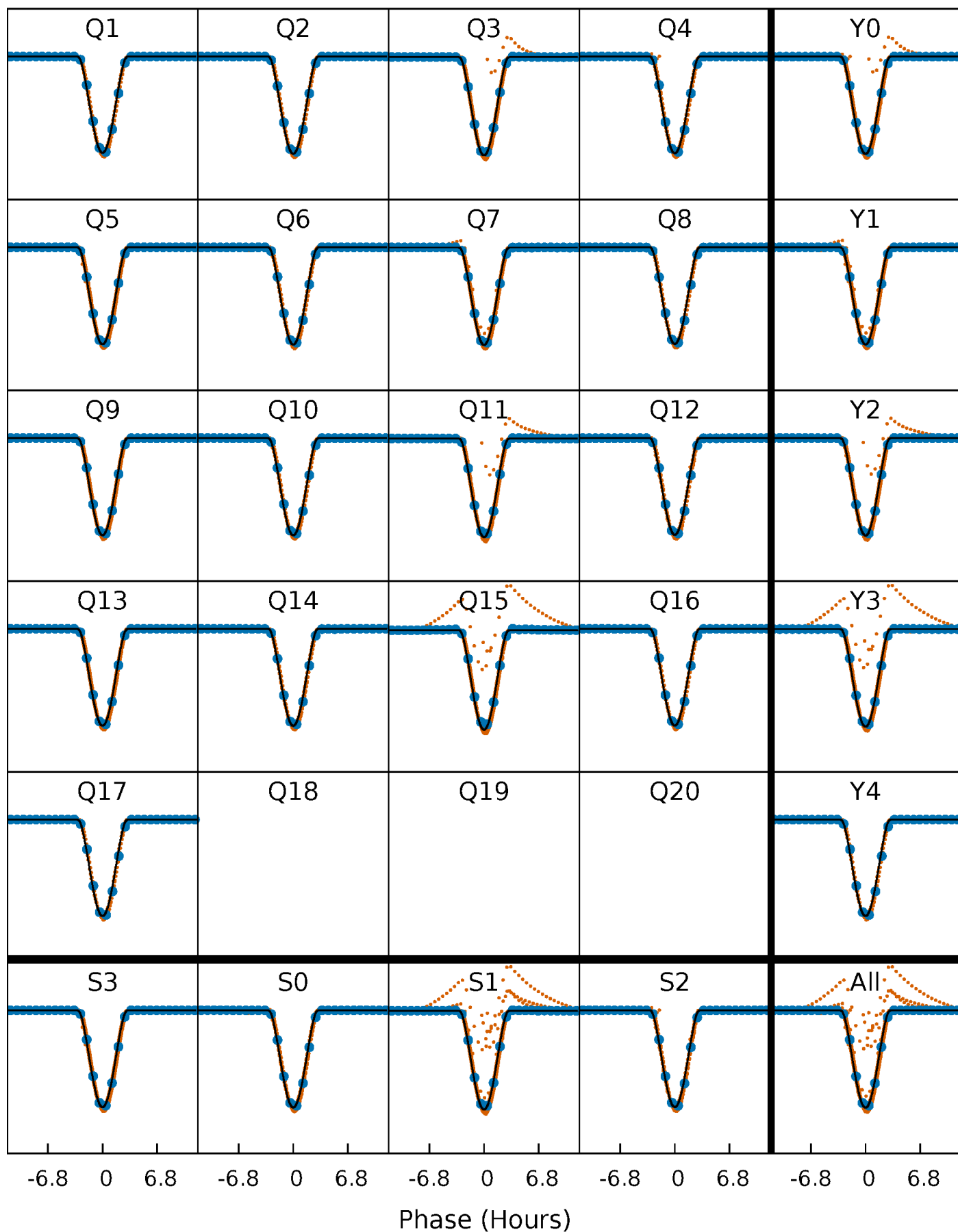
PDC Quarter-Phased Transit Curves

TCE 009652632-01 P= 2.488812 Days $T_0=132.124922$ (BKJD)



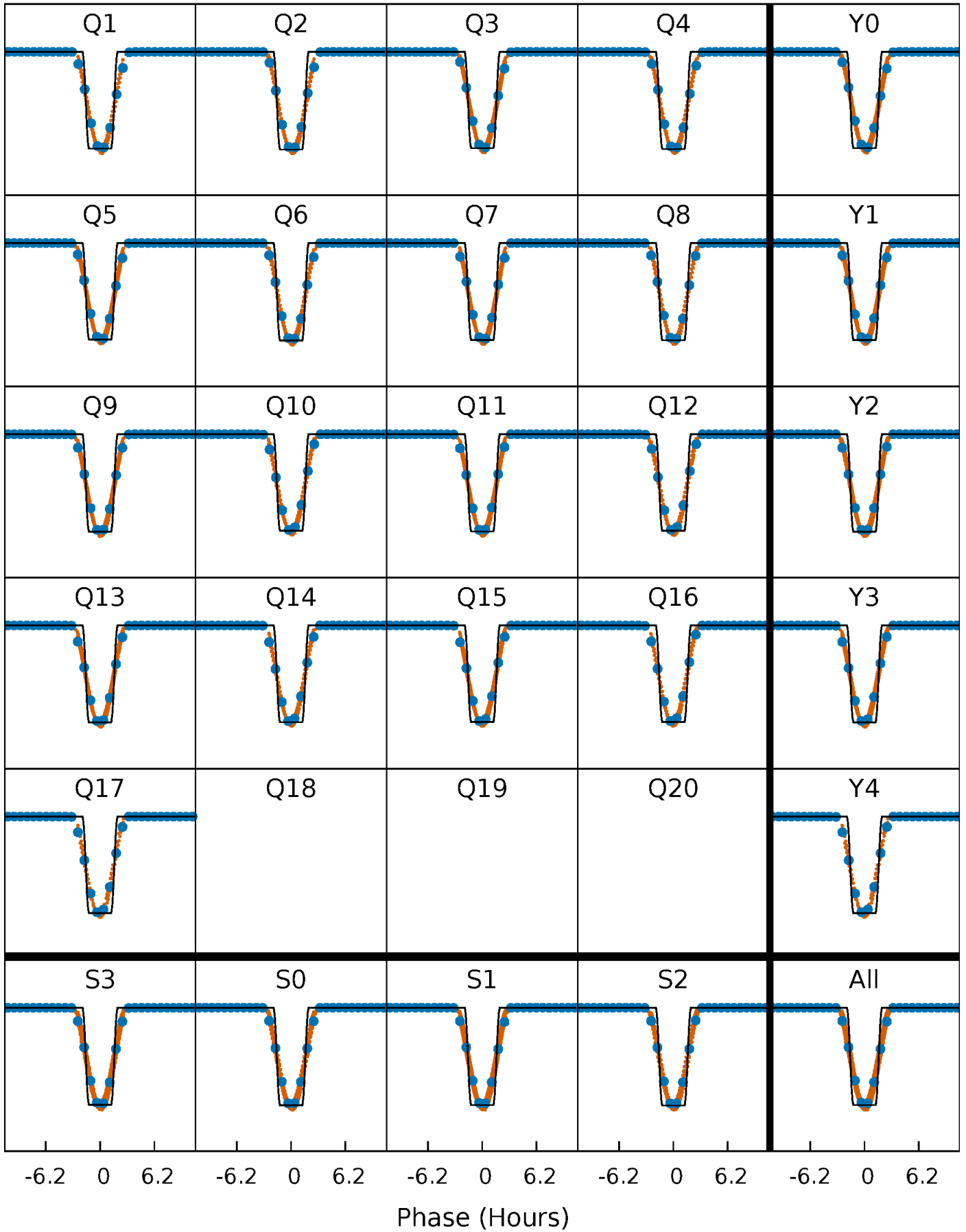
DV Quarter-Phased Transit Curves

TCE 009652632-01 P= 2.488812 Days $T_0=132.124922$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

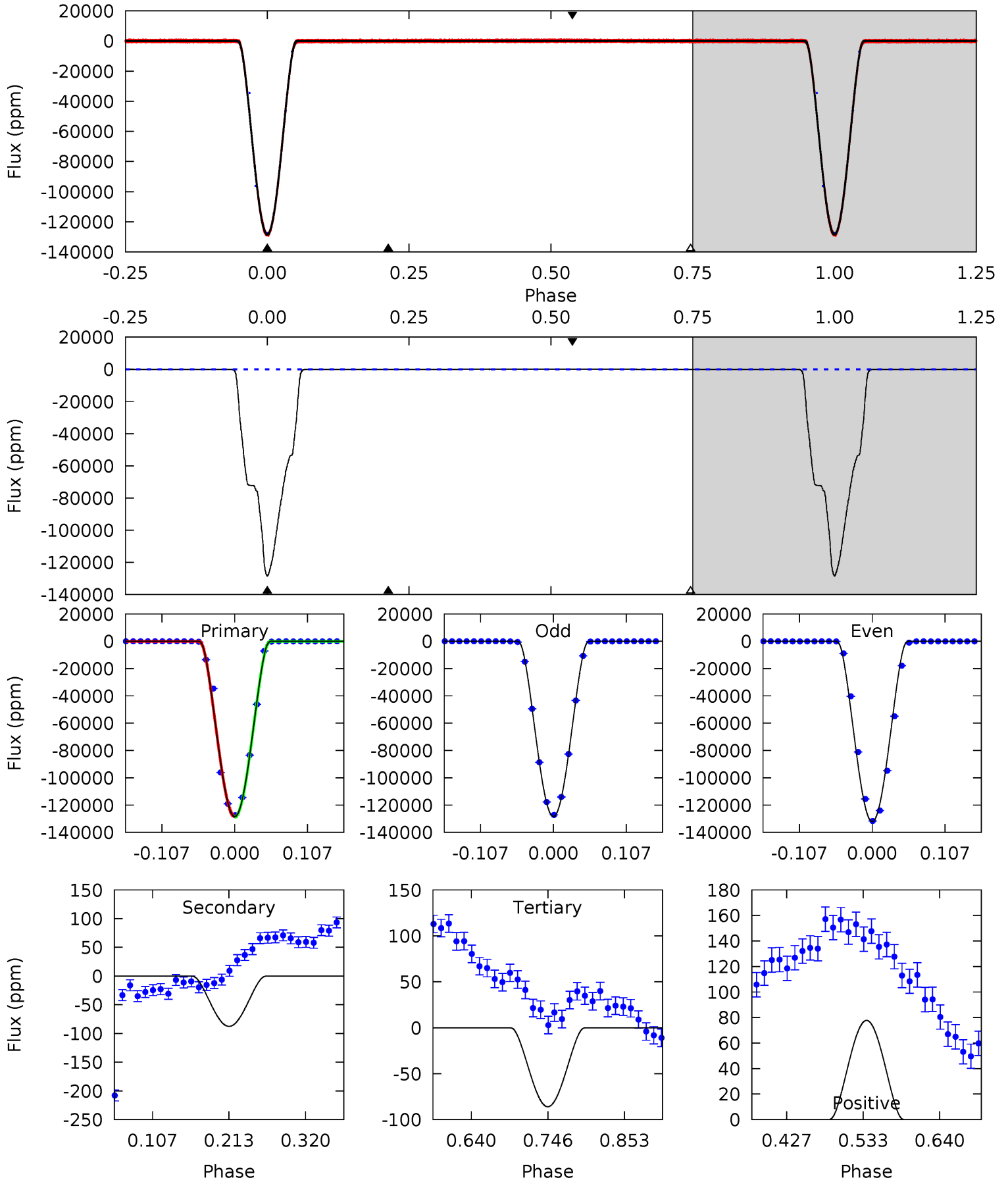
TCE 009652632-01 $P = 2.488825$ Days $T_0 = 132.123500$ (BKJD)



DV Model-Shift Uniqueness Test

009652632-01, P = 2.488812 Days, E = 129.636110 Days

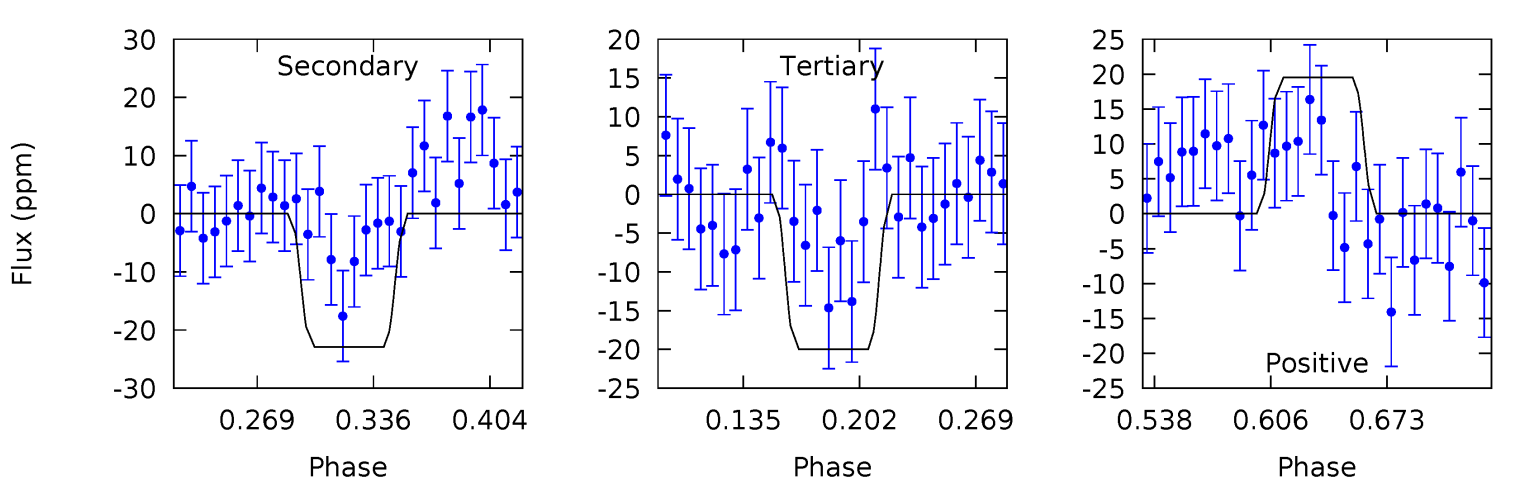
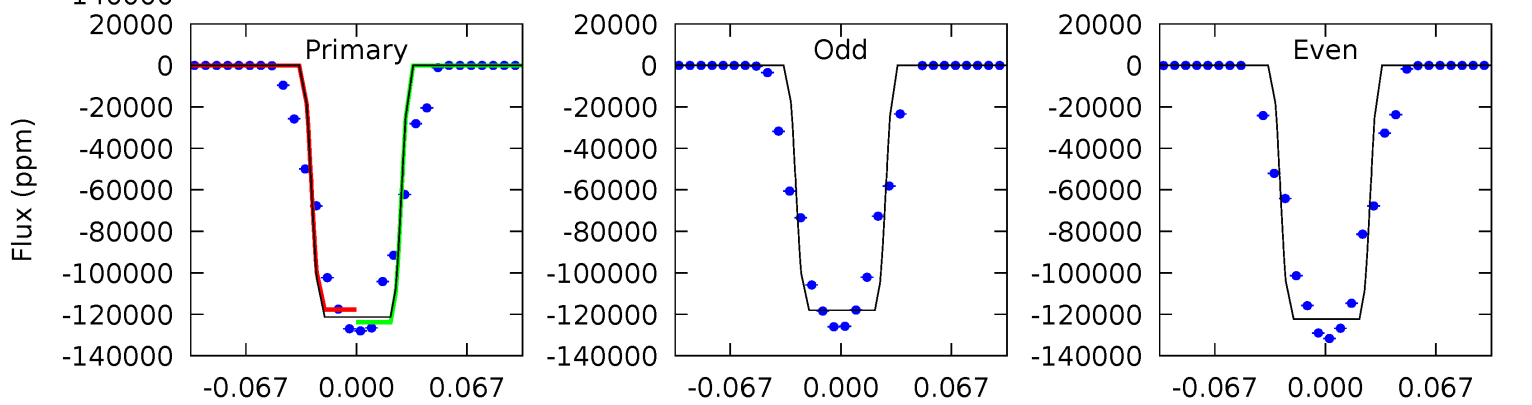
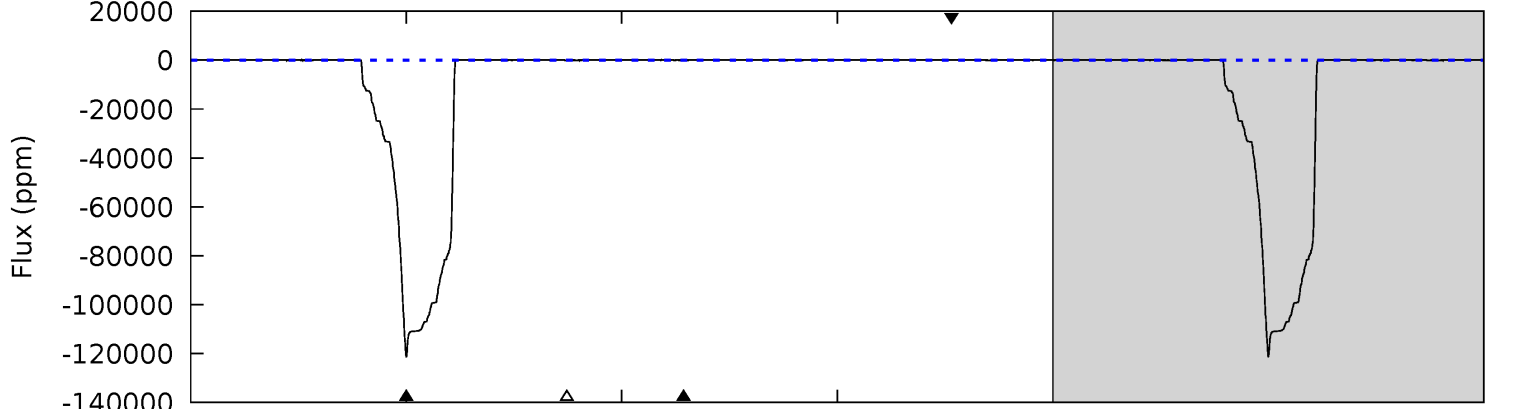
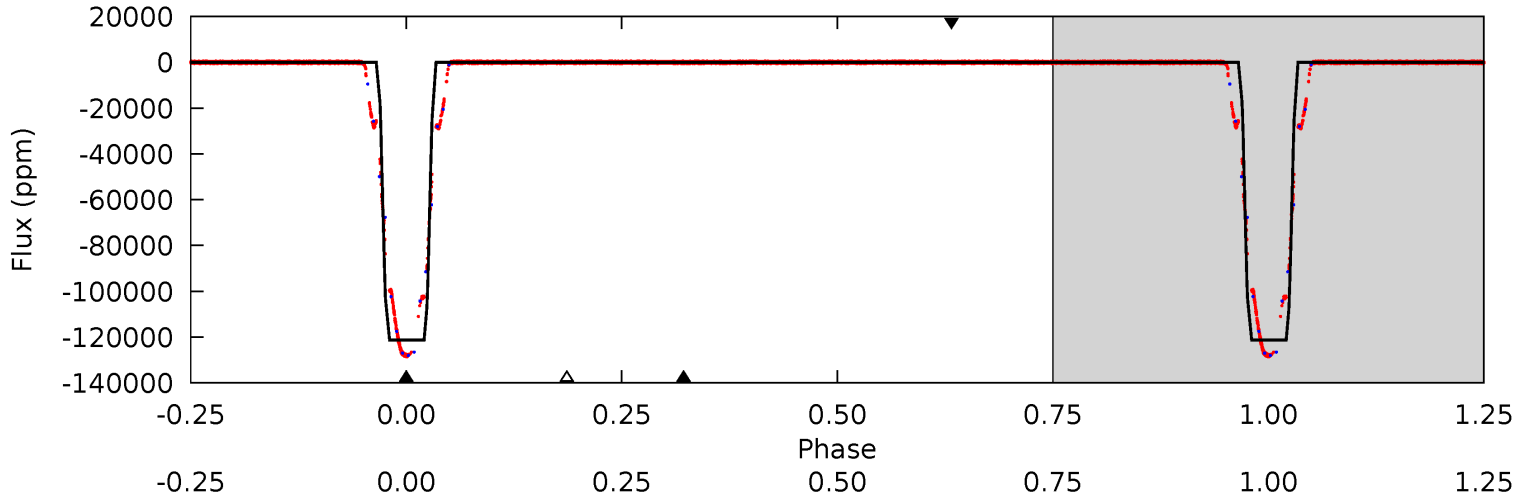
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24953	17.0	16.7	15.1	4.55	1.61	11.3	24937	24938	0.31	1.91	619.1	1.00	0.00	40.8



Alt Model-Shift Uniqueness Test

009652632-01, P = 2.488825 Days, E = 129.634675 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16120	3.04	2.66	2.59	4.65	1.83	1.08	16117	16118	0.39	0.45	334.4	1.00	0.00	357.7



Stellar Parameters For KIC 009652632

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6499^{+184}_{-230}	$4.084^{+0.336}_{-0.168}$	$-0.660^{+0.300}_{-0.300}$	$1.497^{+0.395}_{-0.527}$	$0.993^{+0.148}_{-0.121}$	$0.416^{+0.897}_{-0.196}$
	+3%/-4%	+8%/-4%	+45%/-45%	+26%/-35%	+15%/-12%	+216%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009652632-01 / KOI 7217.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-88 ± 5	$74.93^{+11.24}_{-14.42}$	2559^{+204}_{-249}	-2815^{+154}_{-123}	$0.011^{+0.006}_{-0.003}$
Alt.	-23 ± 8	$58.08^{+8.62}_{-10.64}$	2548^{+212}_{-237}	-2818^{+144}_{-126}	$0.005^{+0.003}_{-0.002}$

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 $A_{obs} \gg 1.0$

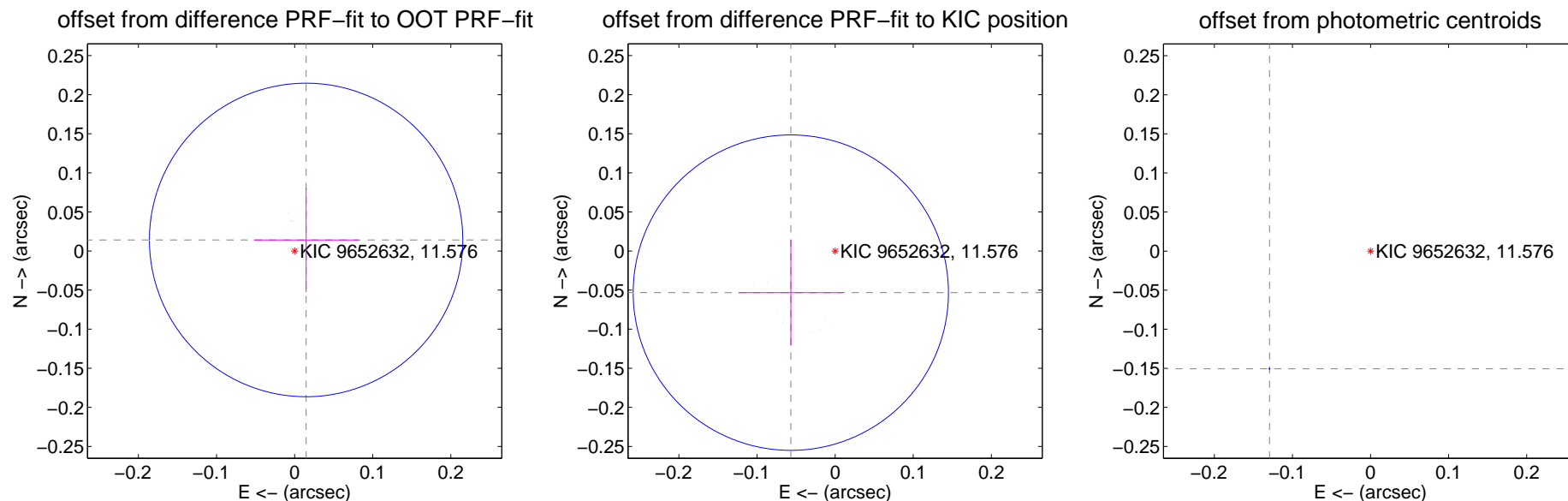
DV Centroid Data

Supplemental centroid analysis for 009652632-01. **Kepler magnitude: 11.58.** Transit SNR 18087.81

There are 17 quarters with good PRF difference image offsets

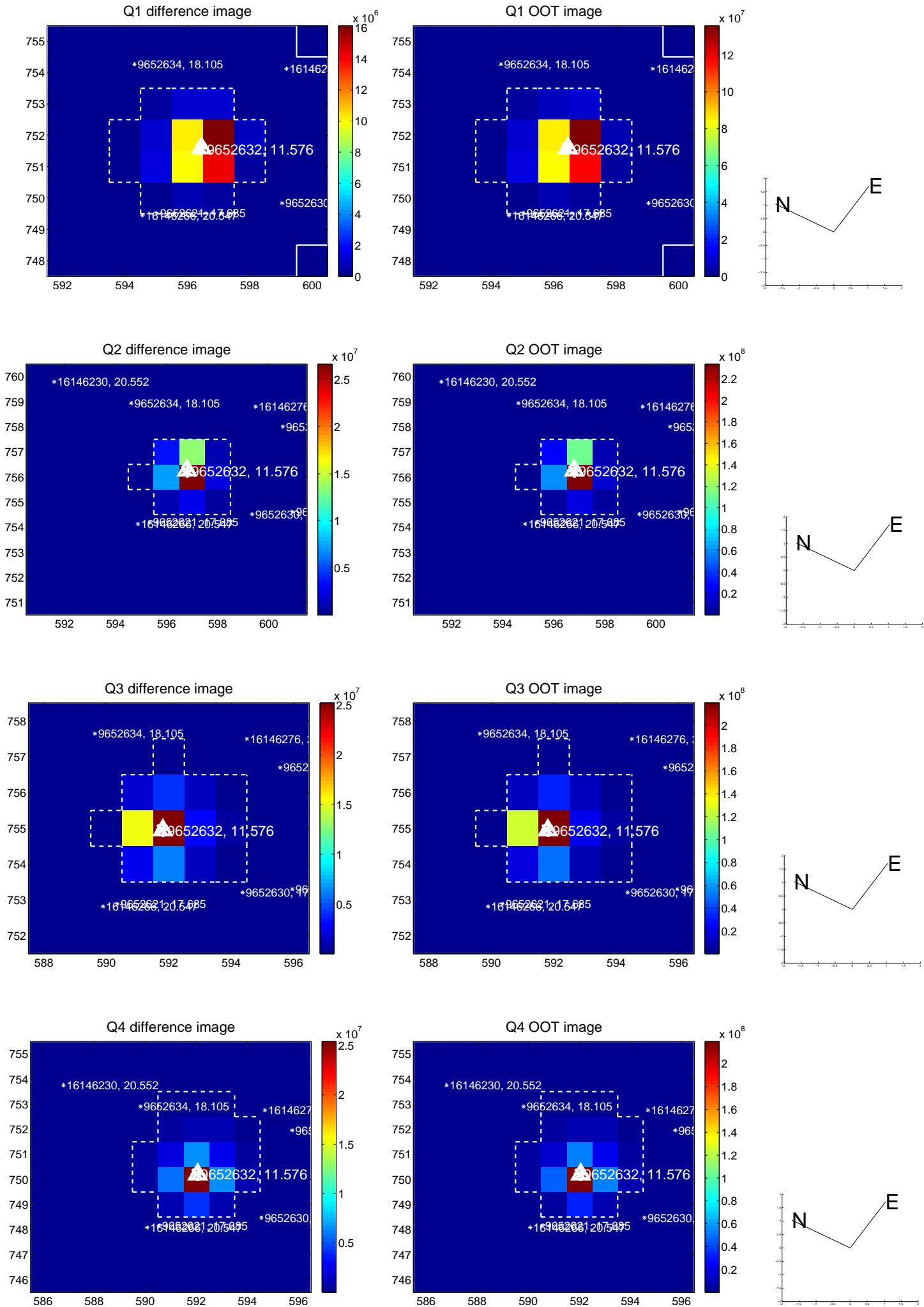
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.067	0.31	-0.015 ± 0.067	0.014 ± 0.067
PRF-fit source offset from KIC position	0.078 ± 0.067	1.16	0.057 ± 0.067	-0.053 ± 0.068
photometric centroid source offset	0.20 ± 0.00	1085.84	0.13 ± 0.00	-0.15 ± 0.00

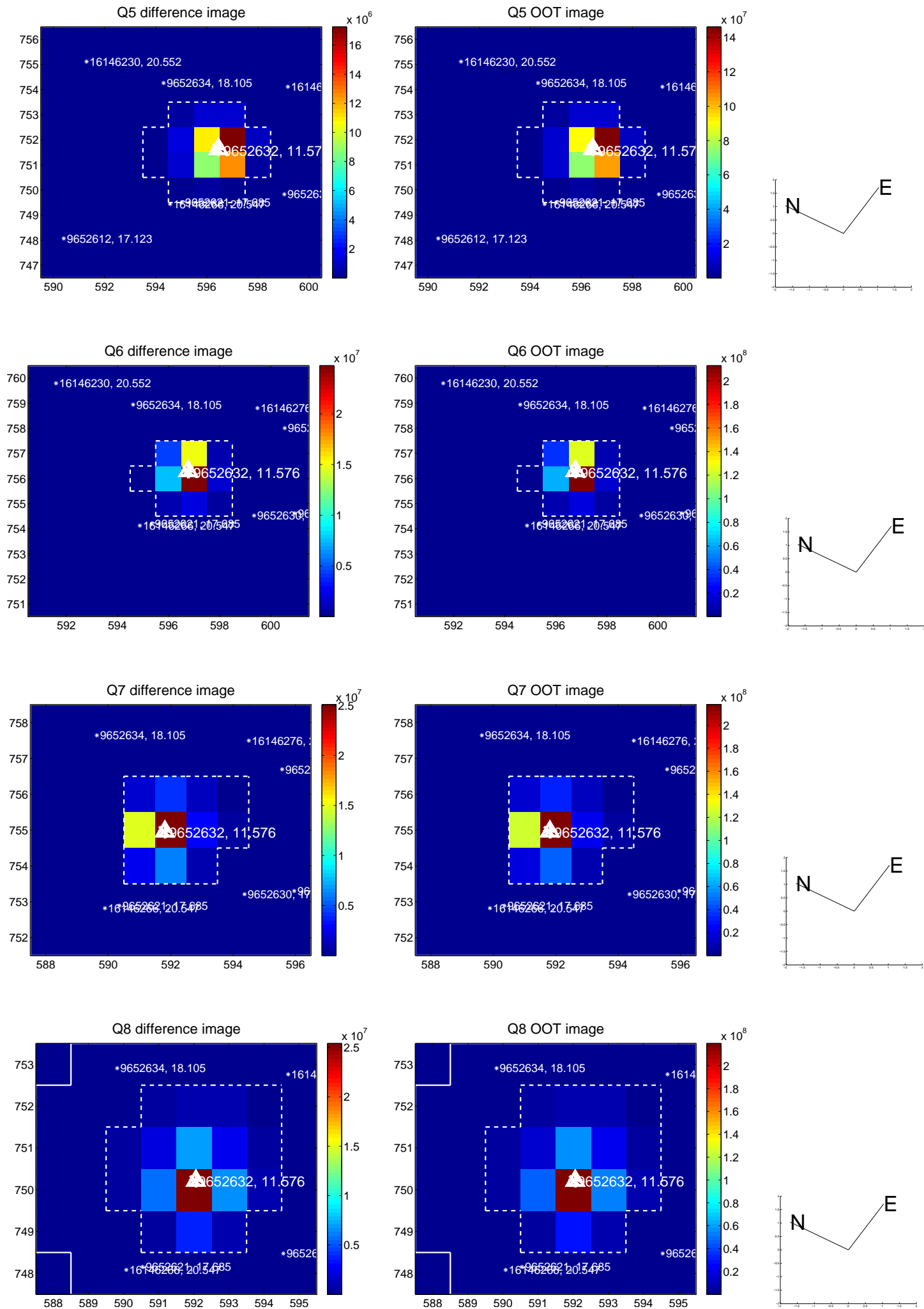


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

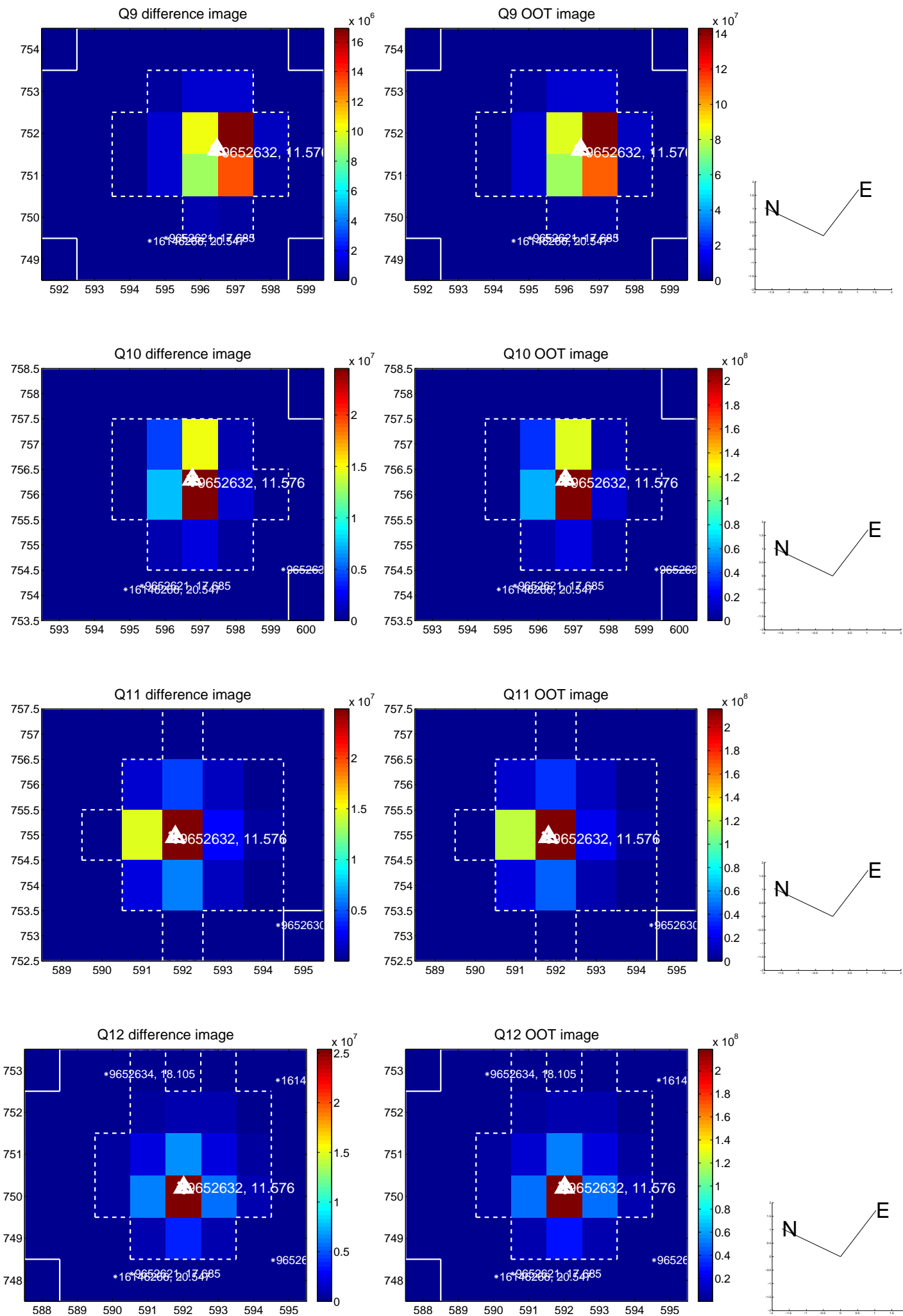
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



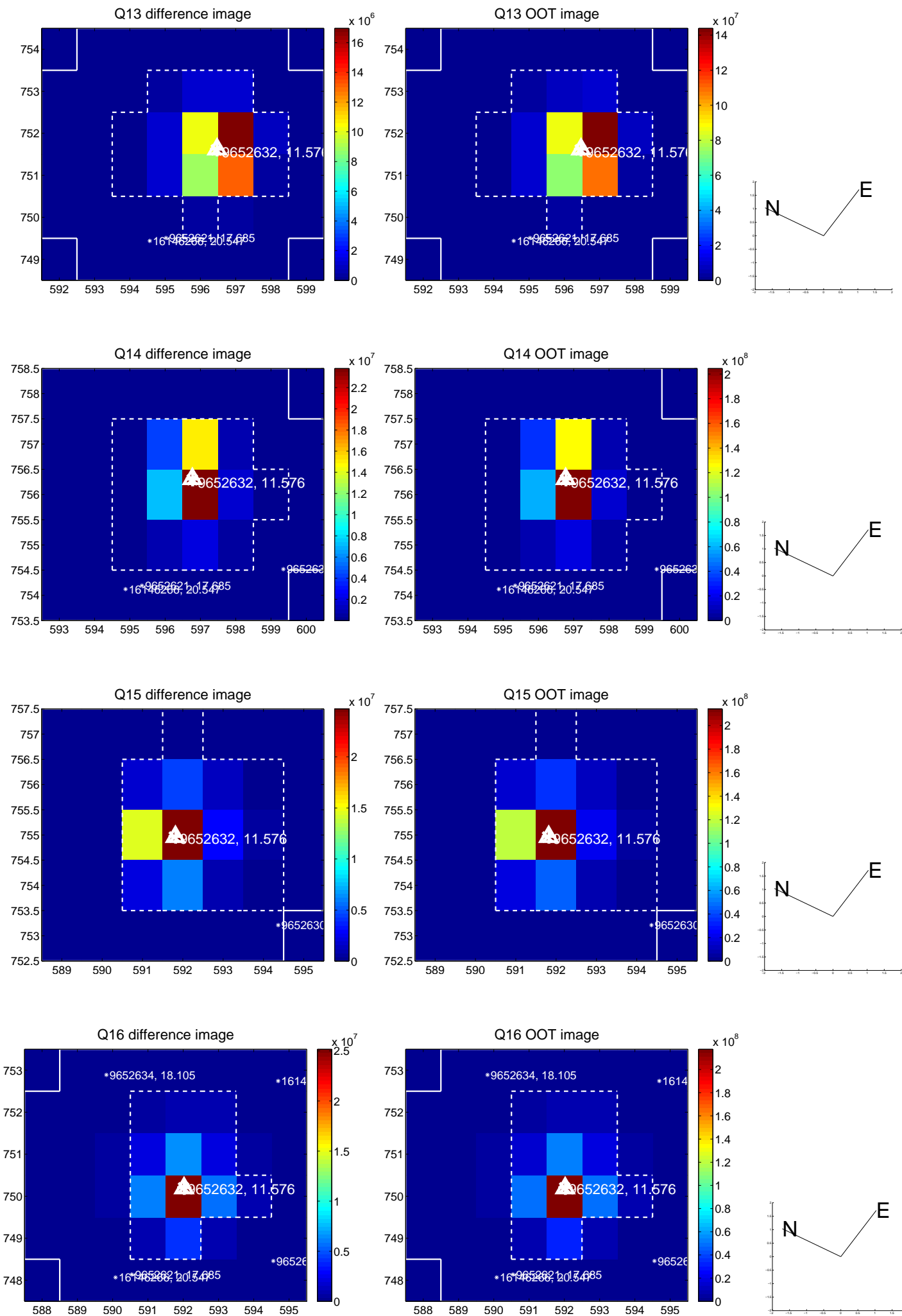
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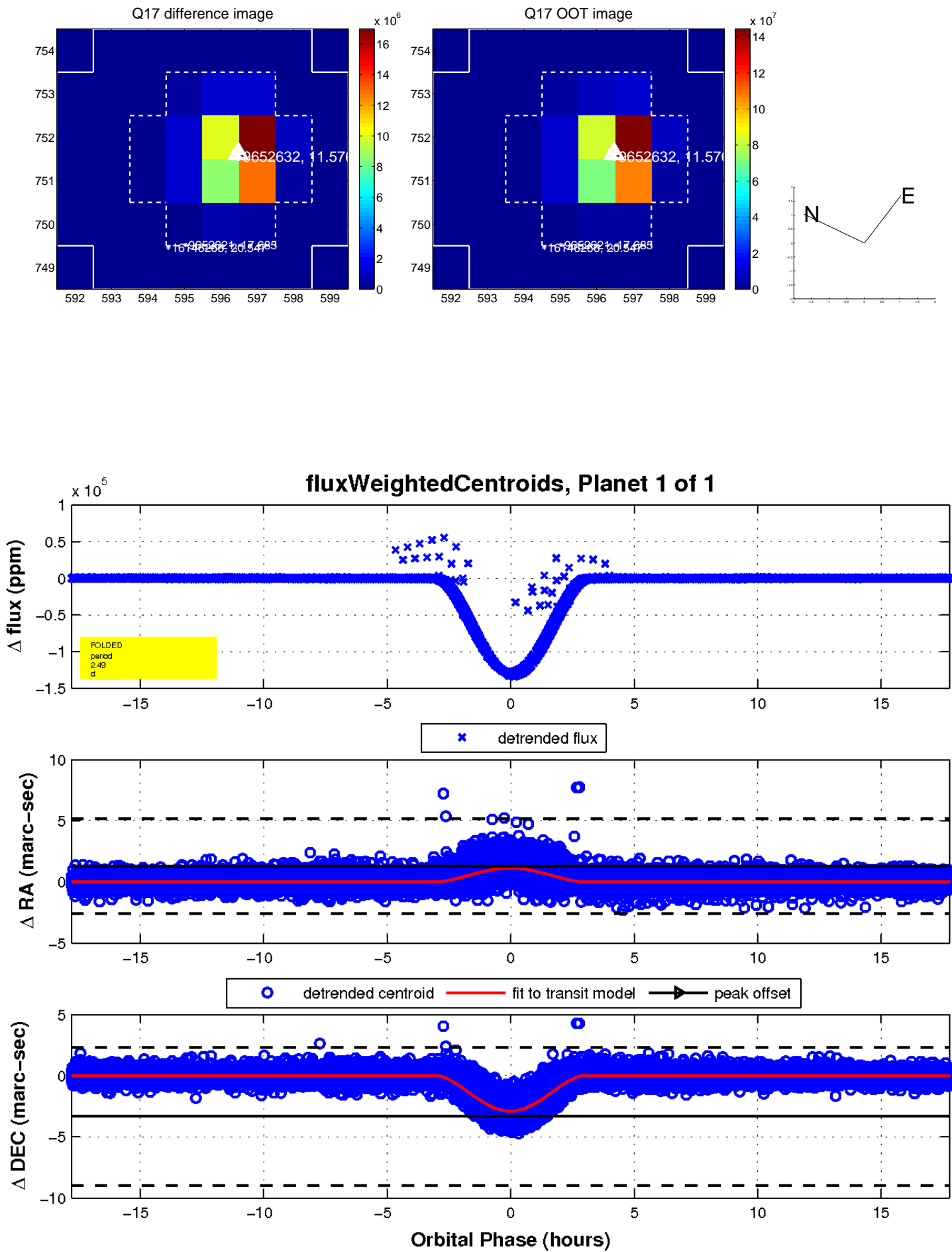
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

