

KIC 008229048

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})
008229048-01	OBS	6995.01	2.739476	131.930998	24567.5	3.344	4060.7	2233.8	1.06	6469	18.32	1119.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008229048-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT

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.

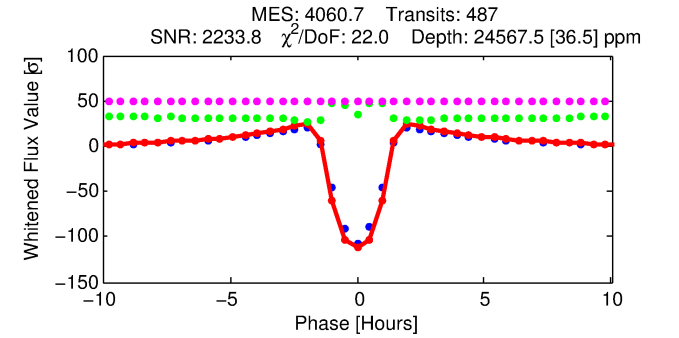
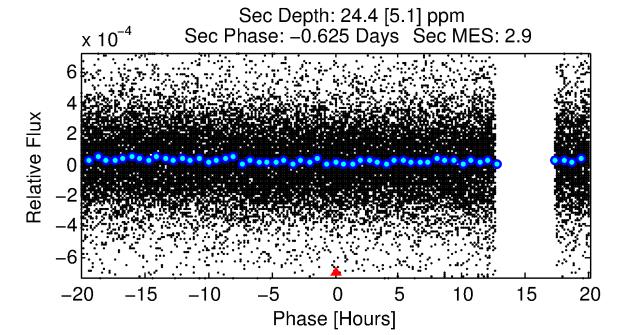
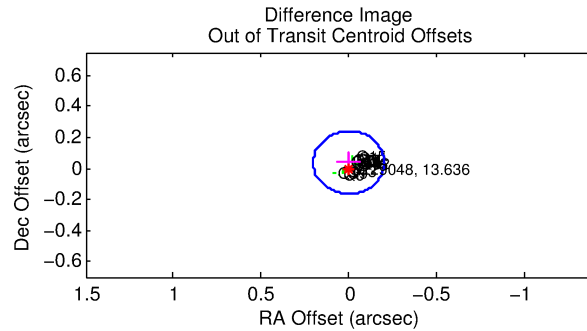
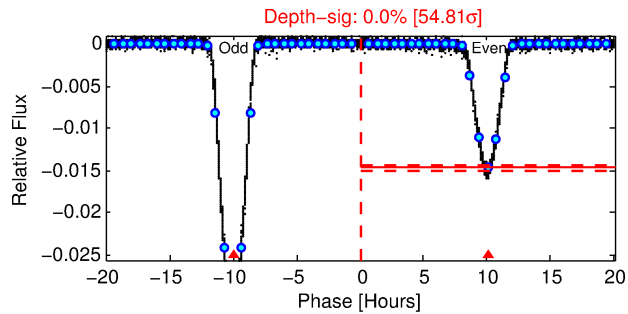
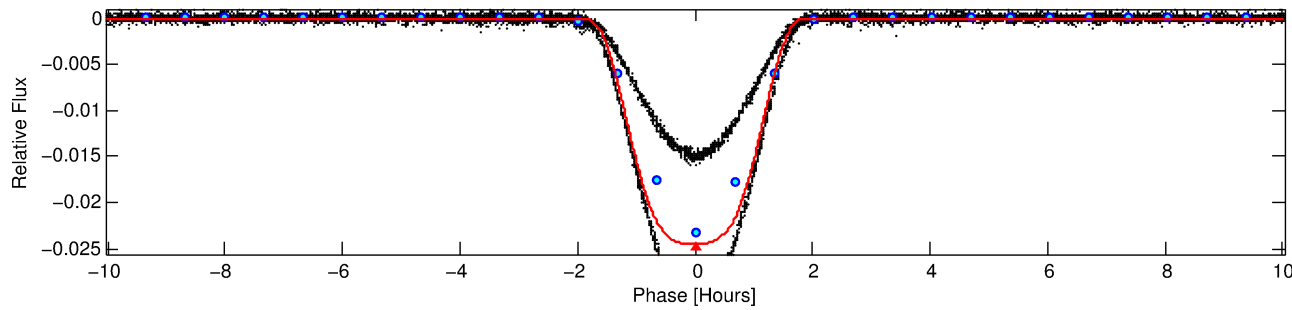
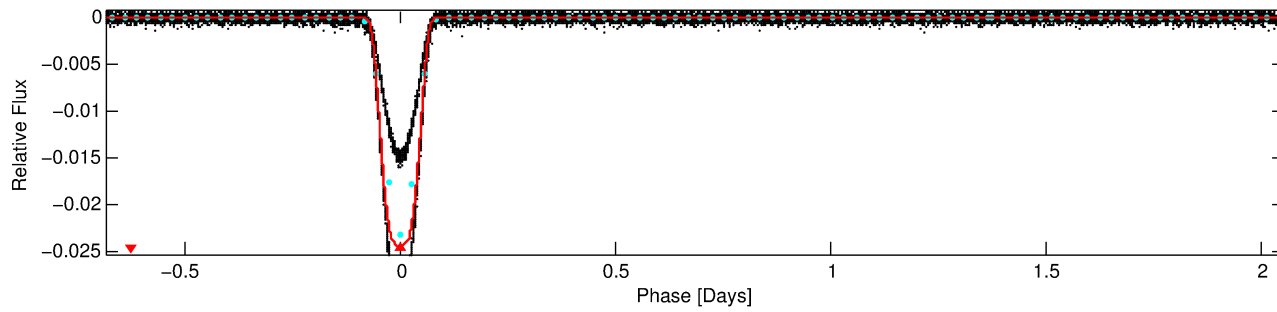
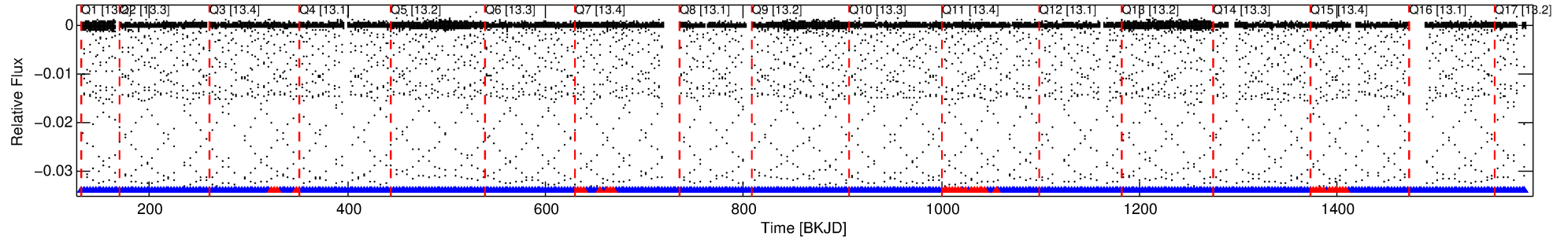
Ephemeris Match Information For 008229048-01

No Significant Match Found

DV One-Page Summary

KIC: 8229048 Candidate: 1 of 1 Period: 2.739 d
KOI: K06995.01 Corr: 0.983

Kp: 13.64 R*: 1.06 Rs Teff: 6469.0 K Logg: 4.43 Fe/H: -0.320



DV Fit Results:

Period = 2.73948 [0.00000] d
Epoch = 131.9310 [0.0001] BKJD
Rp/R* = 0.1590 [0.0002]
a/R* = 5.42 [0.02]
b = 0.78 [0.00]
Seff = 1119.77 [440.48]
Teq = 1475 [145] K
Rp = 18.32 [5.78] Re
a = 0.0395 [0.0103] AU
Ag = 0.06 [0.03] [-34.82σ]
Teff = 1141 [69] K [-2.08σ]

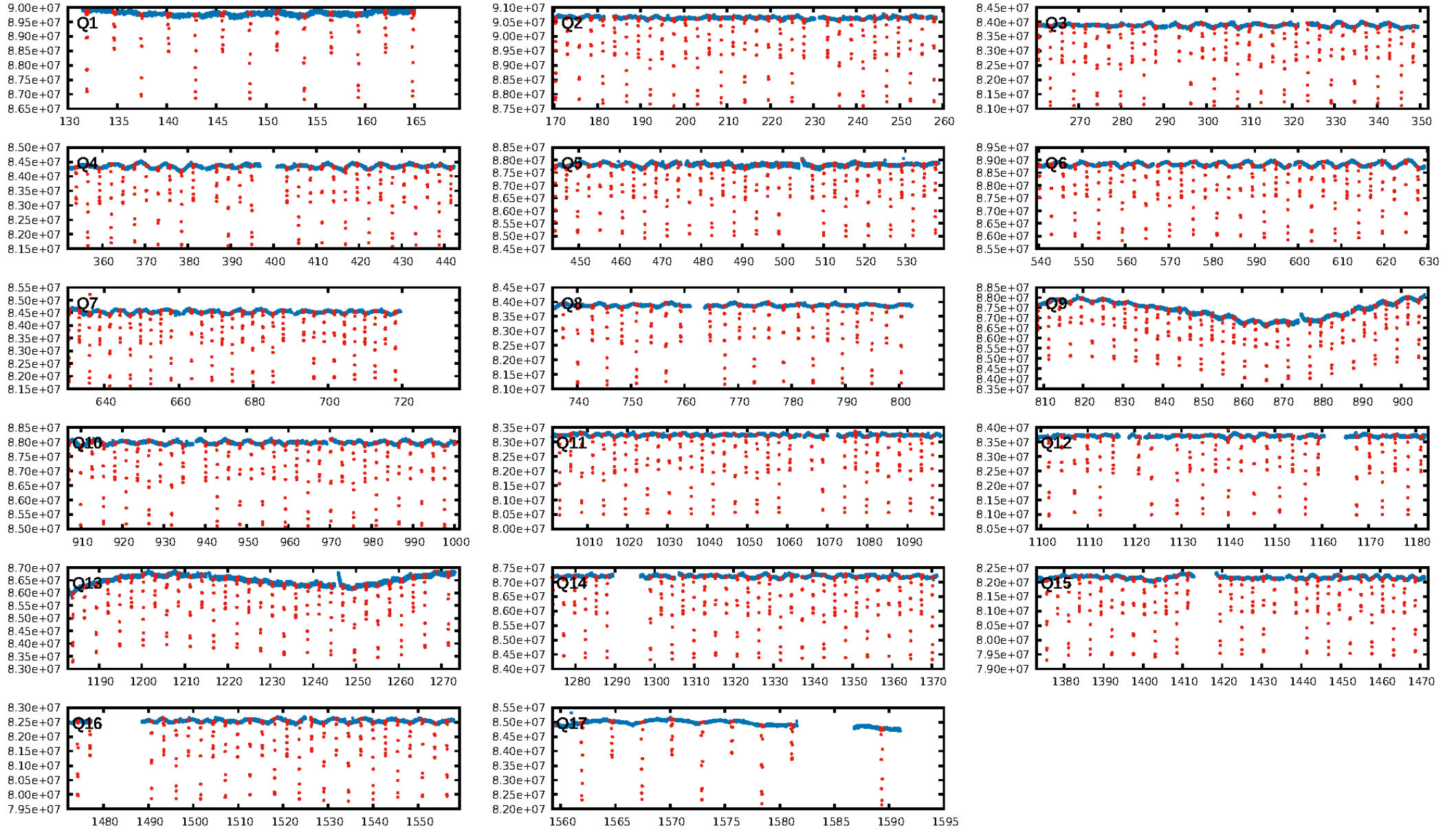
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-igt: 0.92 [426/464]
GhostDiagnostic-chr: 3.336
Centroid-sig: 0.0%
Centroid-so: 0.069 arcsec [26.81σ]
OotOffset-rm: 0.039 arcsec [0.58σ]
KicOffset-rm: 0.104 arcsec [1.53σ]
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]

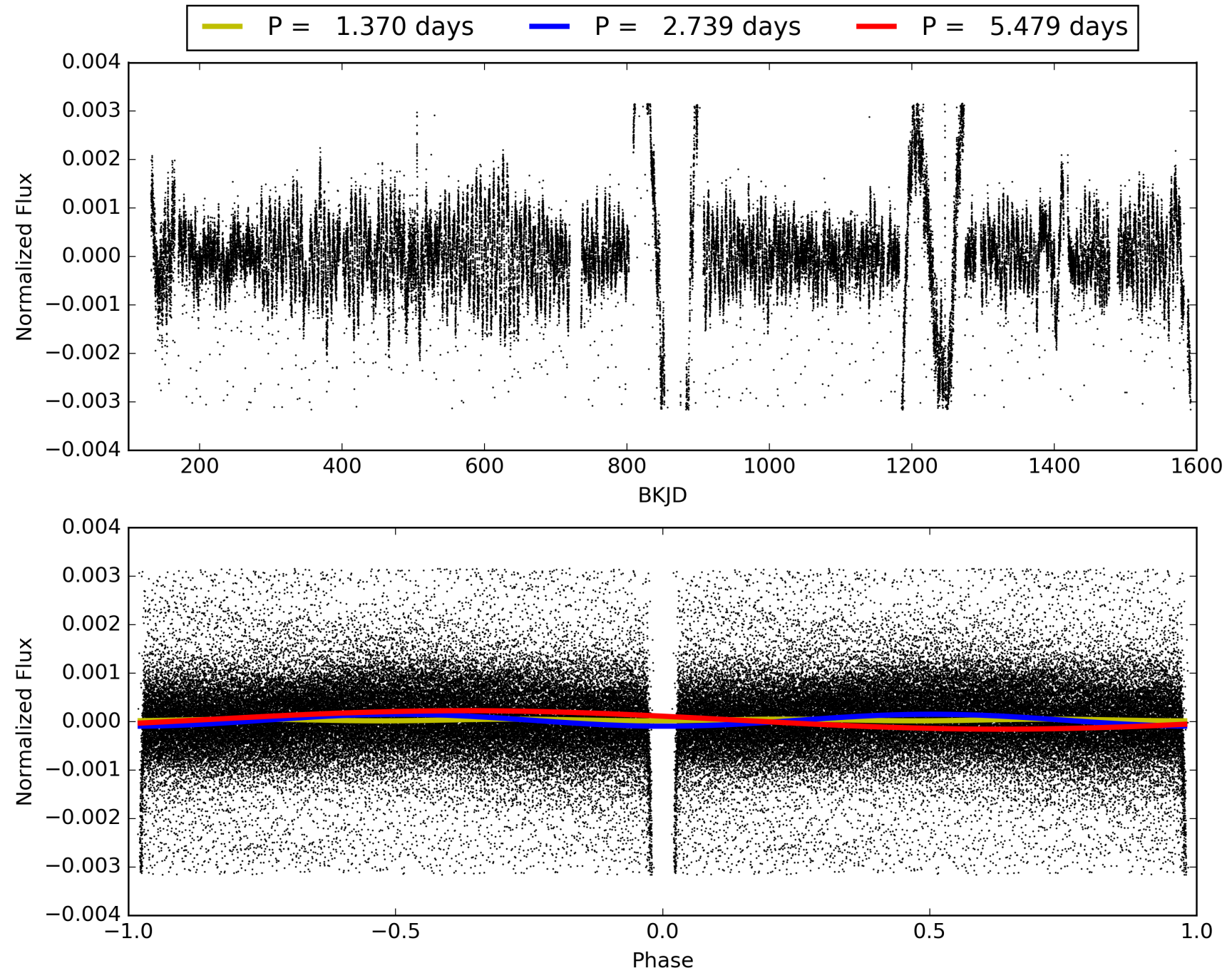
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:58:07 Z

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

TCE 008229048-01, PDC Light Curves

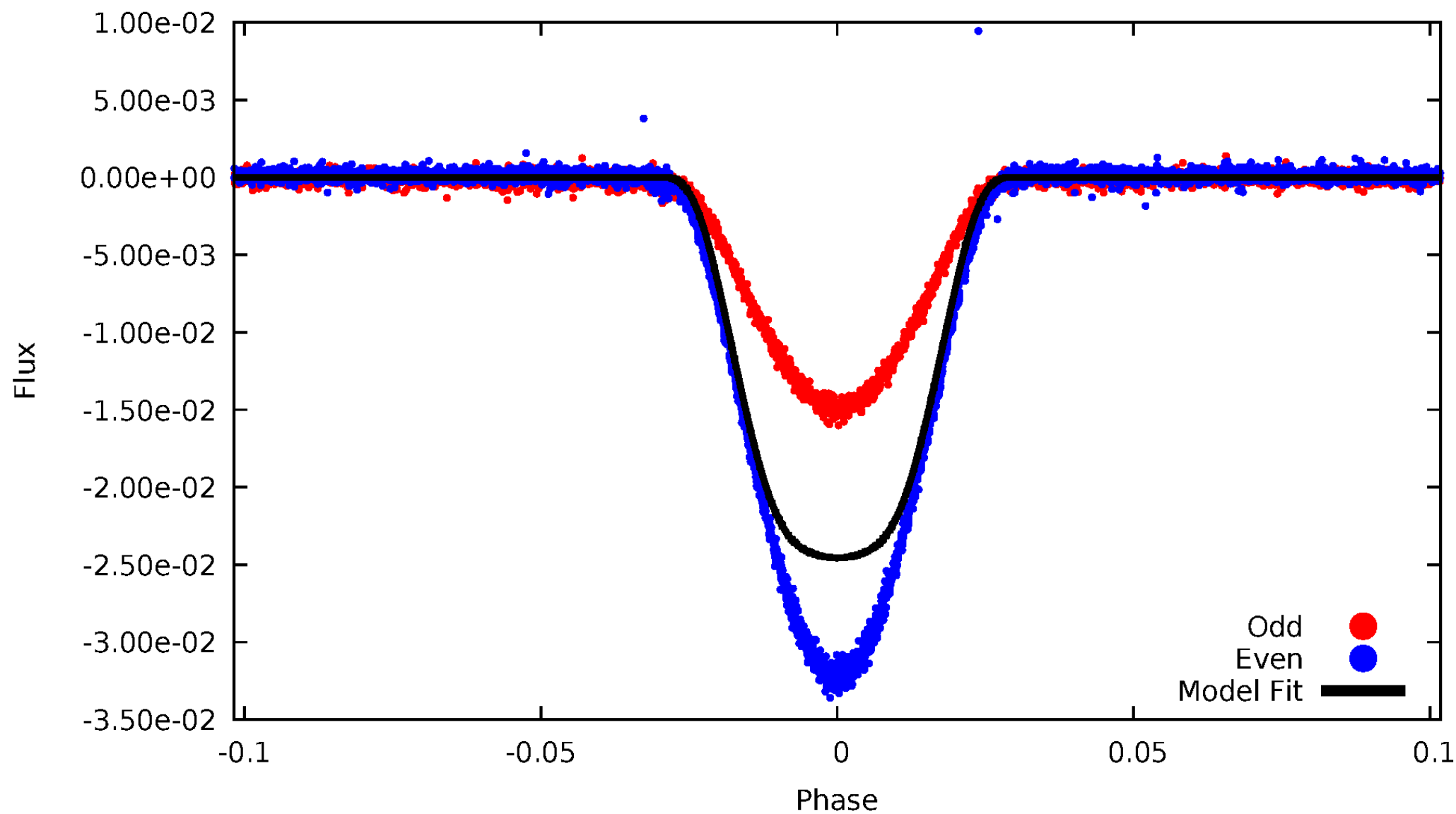


TCE 008229048-01



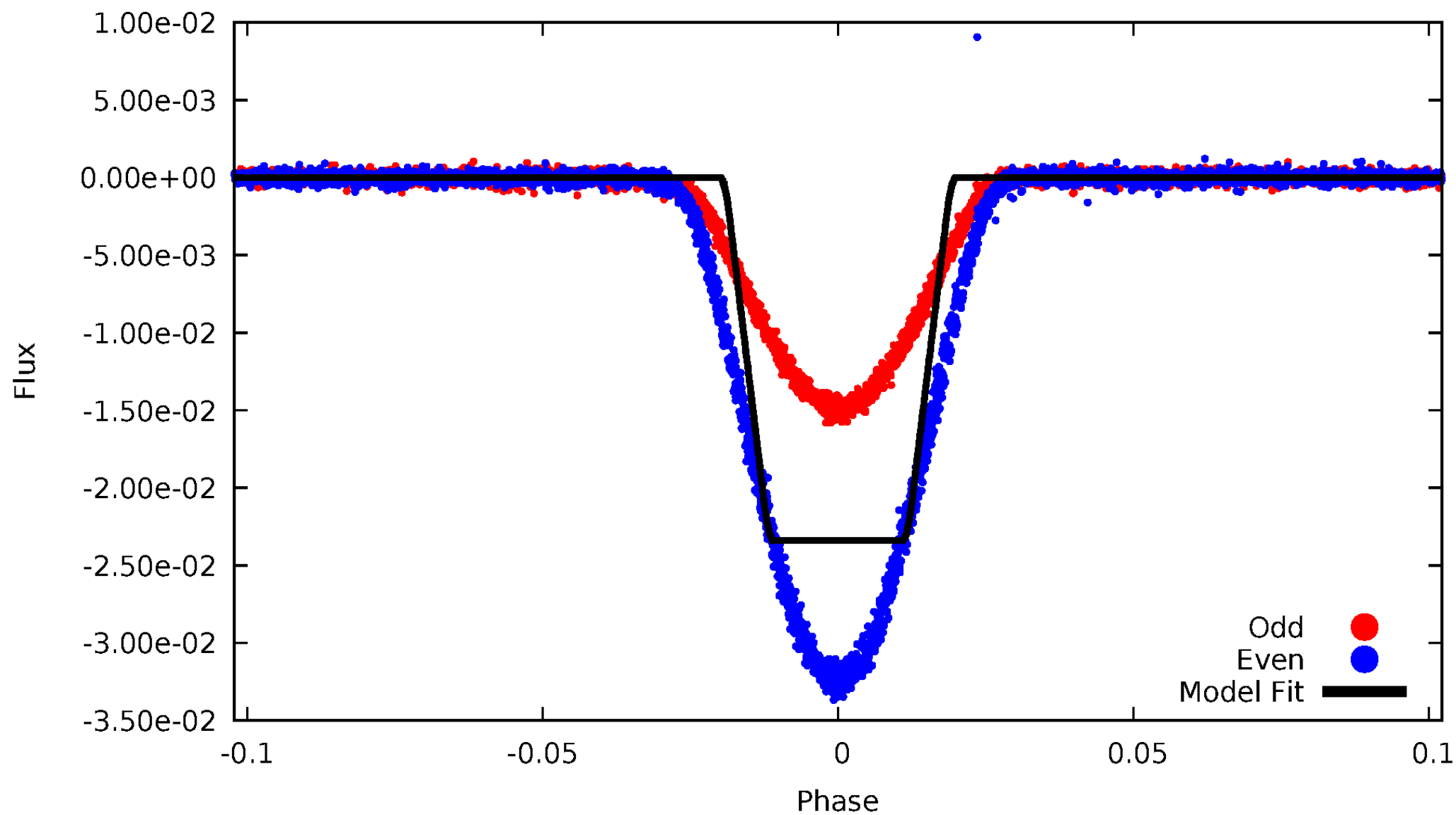
DV Odd/Even

TCE 008229048-01



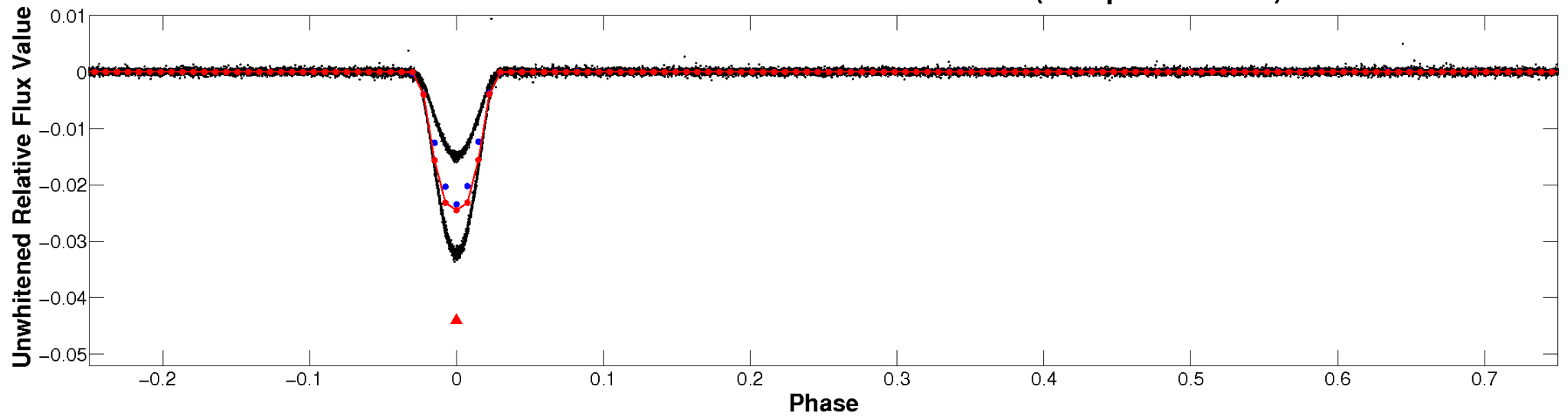
ALT Odd/Even

TCE 008229048-01

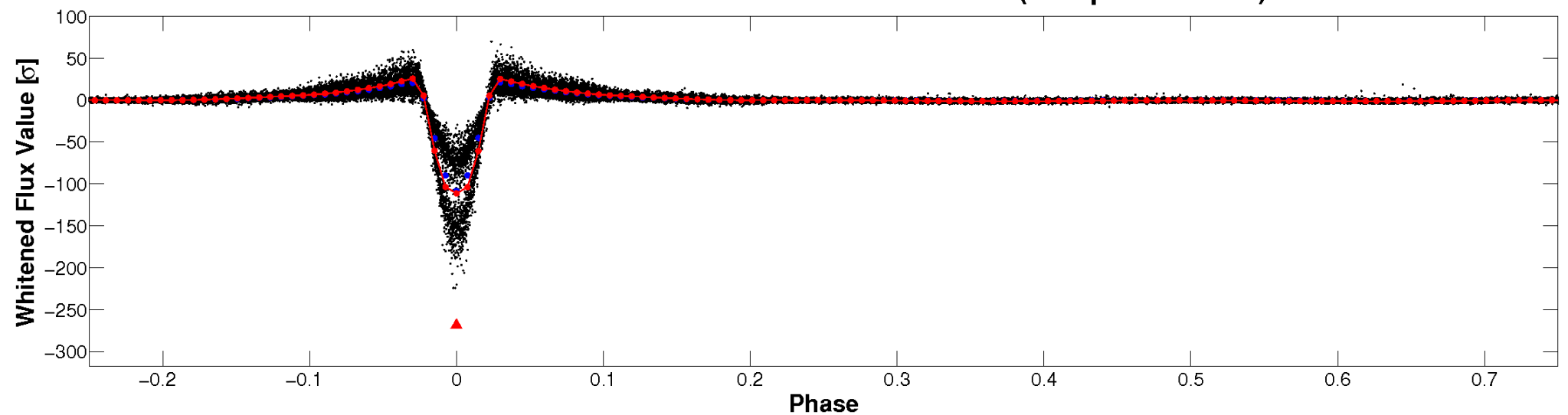


Non-Whitened Vs. Whitened Light Curve

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

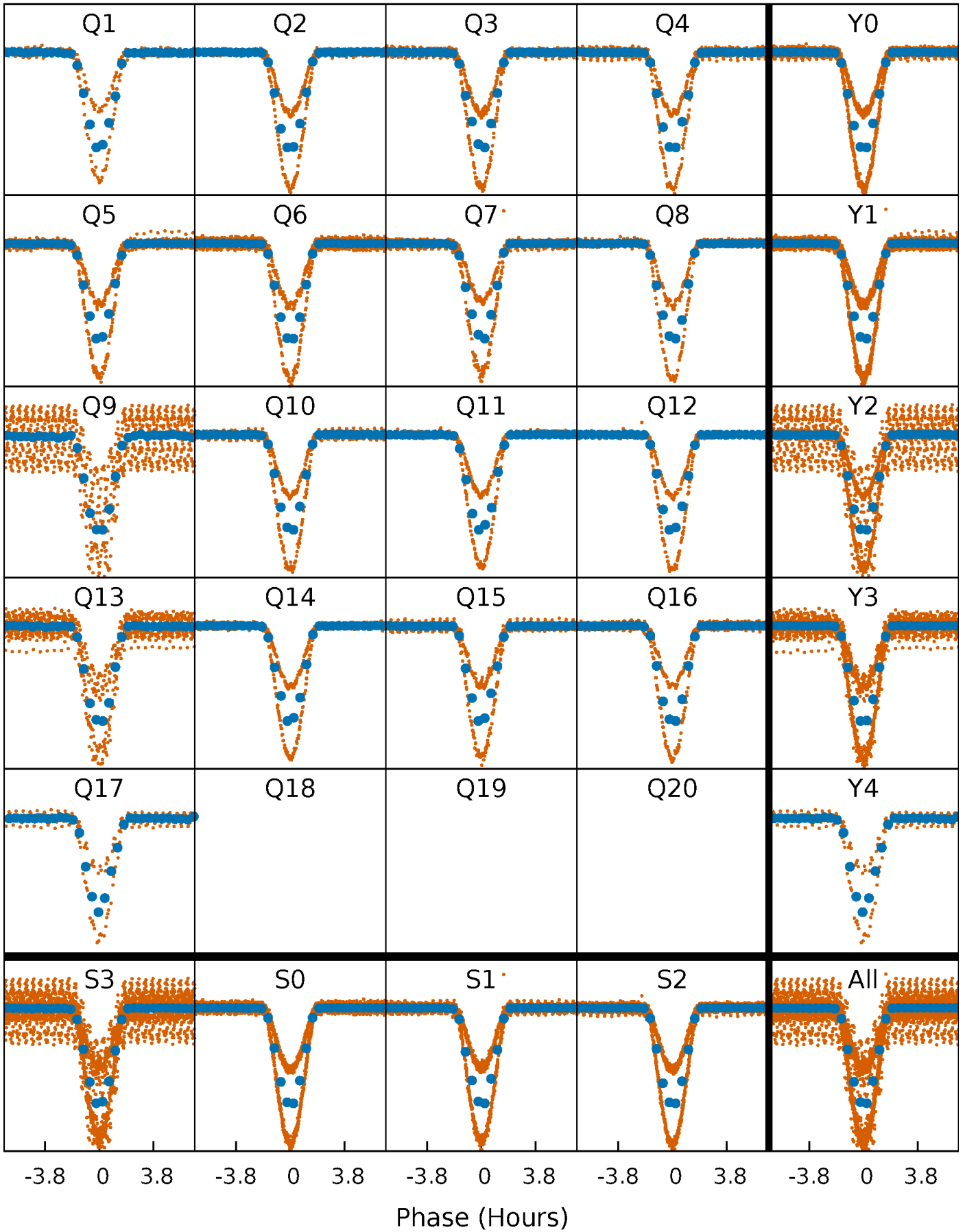


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



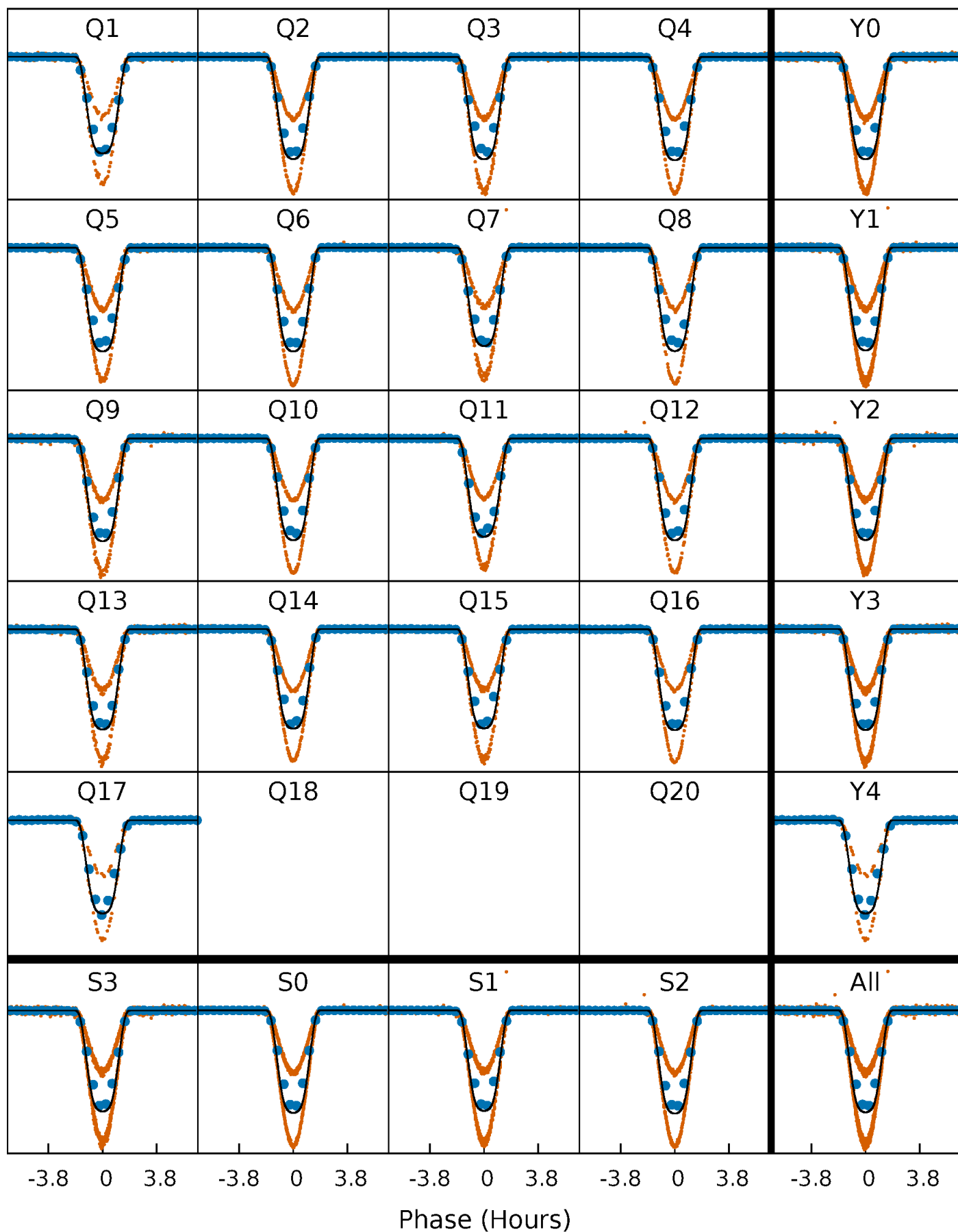
PDC Quarter-Phased Transit Curves

TCE 008229048-01 P= 2.739476 Days $T_0=131.930998$ (BKJD)



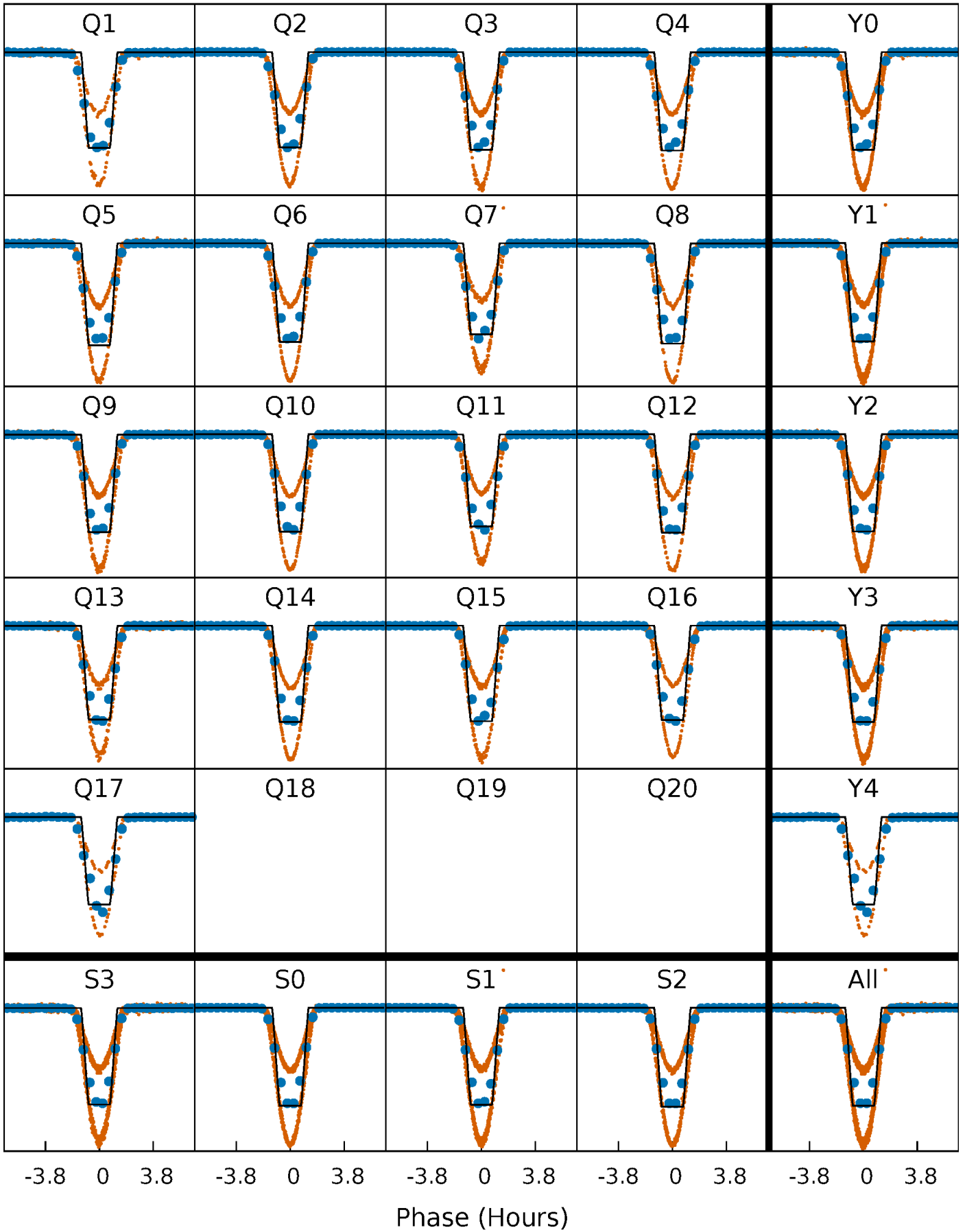
DV Quarter-Phased Transit Curves

TCE 008229048-01 P= 2.739476 Days $T_0=131.930998$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

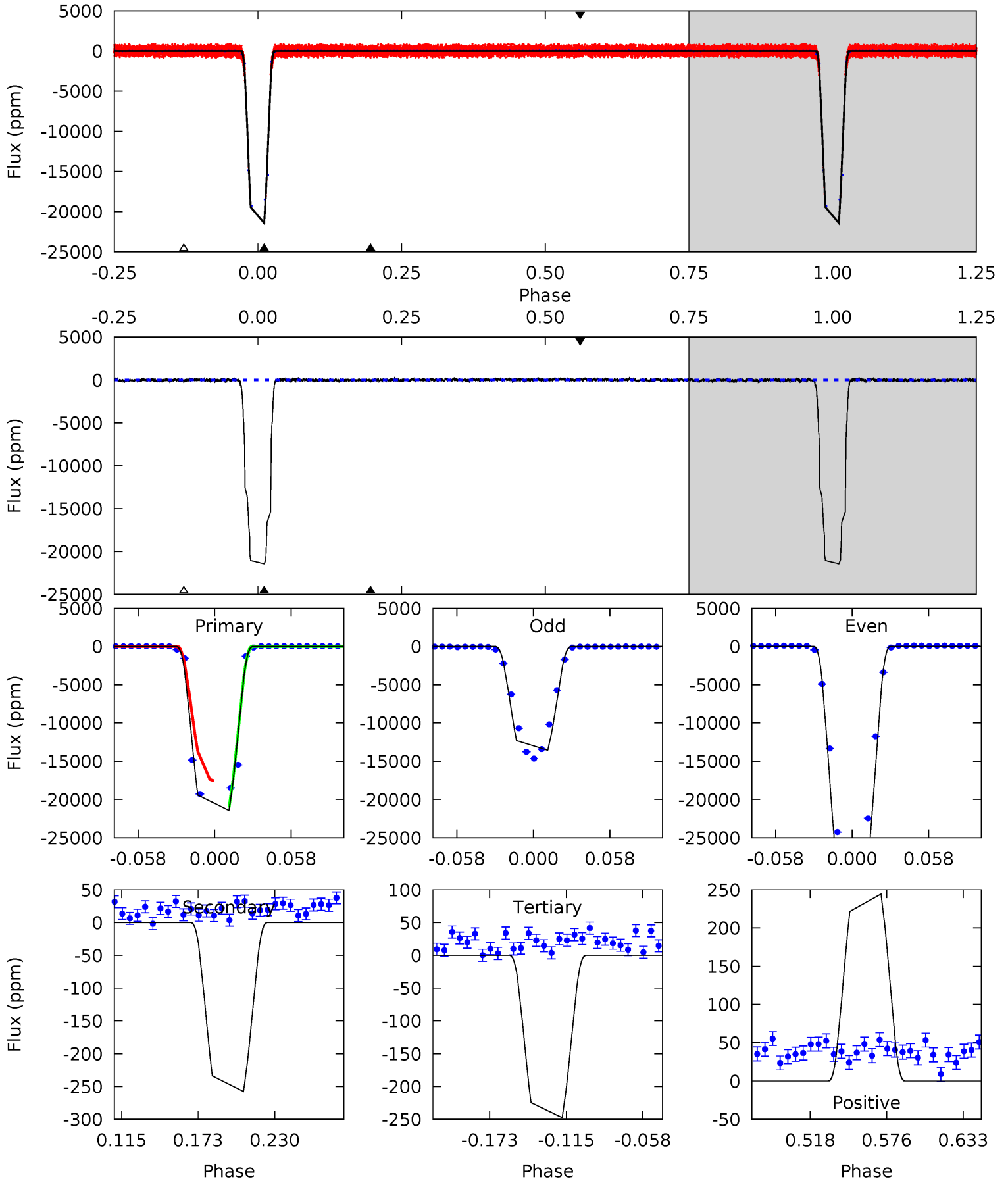
TCE 008229048-01 P= 2.739468 Days $T_0=131.933135$ (BKJD)



DV Model-Shift Uniqueness Test

008229048-01, P = 2.739476 Days, E = 129.191522 Days

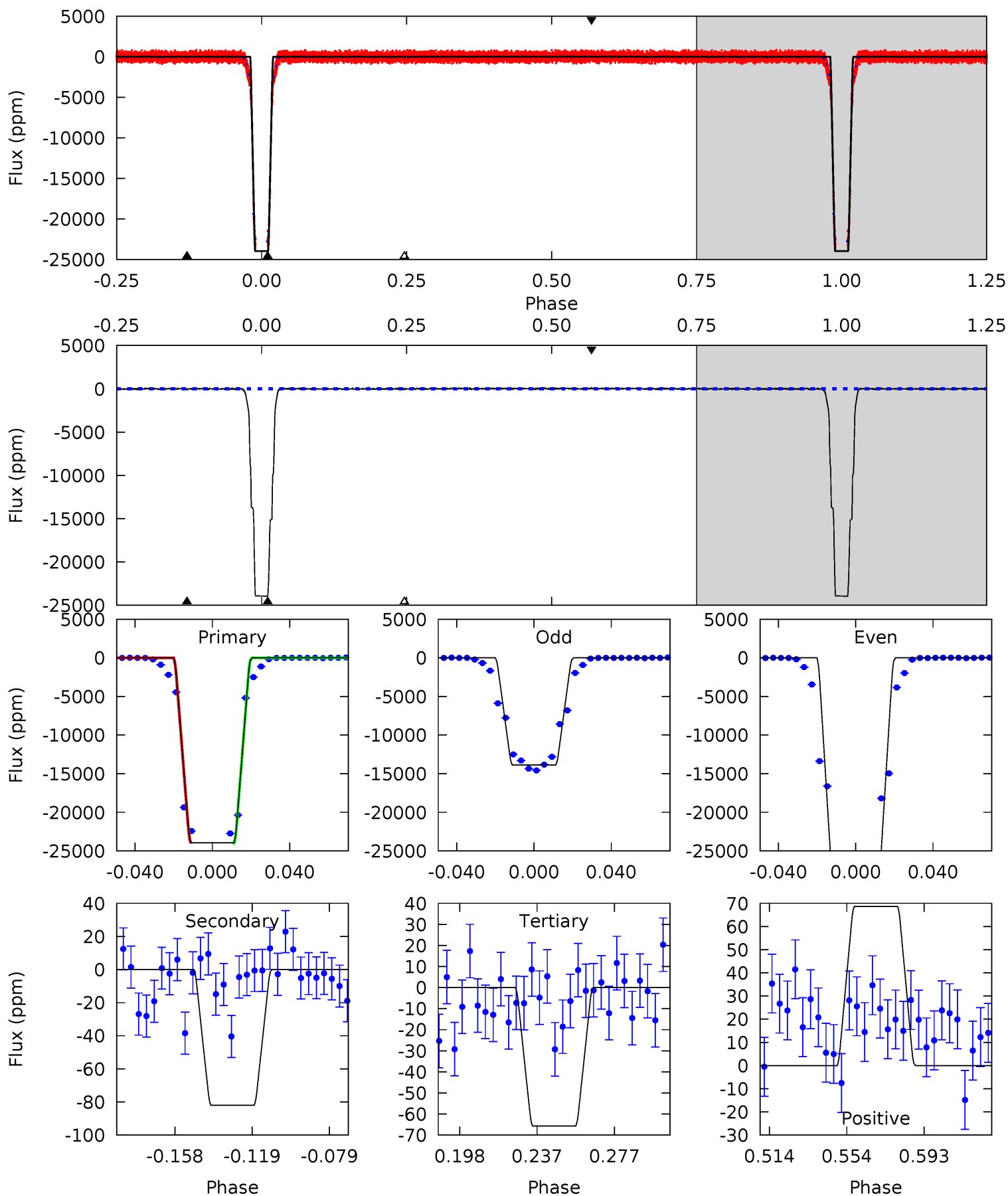
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2561	30.8	29.6	29.2	4.68	1.90	8.40	2531	2531	1.21	1.59	2188	0.77	0.01	0



Alt Model-Shift Uniqueness Test

008229048-01, P = 2.739468 Days, E = 129.193667 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1674	5.73	4.59	4.80	4.76	2.06	1.76	1669	1669	1.14	0.93	1335	0.79	0.00	0



Stellar Parameters For KIC 008229048

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6469^{+155}_{-194}	$4.431^{+0.054}_{-0.202}$	$-0.320^{+0.250}_{-0.300}$	$1.056^{+0.333}_{-0.111}$	$1.095^{+0.146}_{-0.132}$	$1.311^{+0.360}_{-0.671}$
	+2%/-3%	+1%/-5%	+78%/-94%	+32%/-11%	+13%/-12%	+27%/-51%
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 008229048-01 / KOI 6995.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-258 ± 8	$19.03^{+3.18}_{-1.66}$	2106^{+153}_{-99}	2553^{+65}_{-106}	$0.607^{+0.101}_{-0.143}$
Alt.	-82 ± 14	$17.96^{+3.05}_{-1.28}$	2098^{+144}_{-97}	-2222^{+221}_{-193}	$0.206^{+0.057}_{-0.058}$

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 $A_{\text{obs}} \gg 1.0$

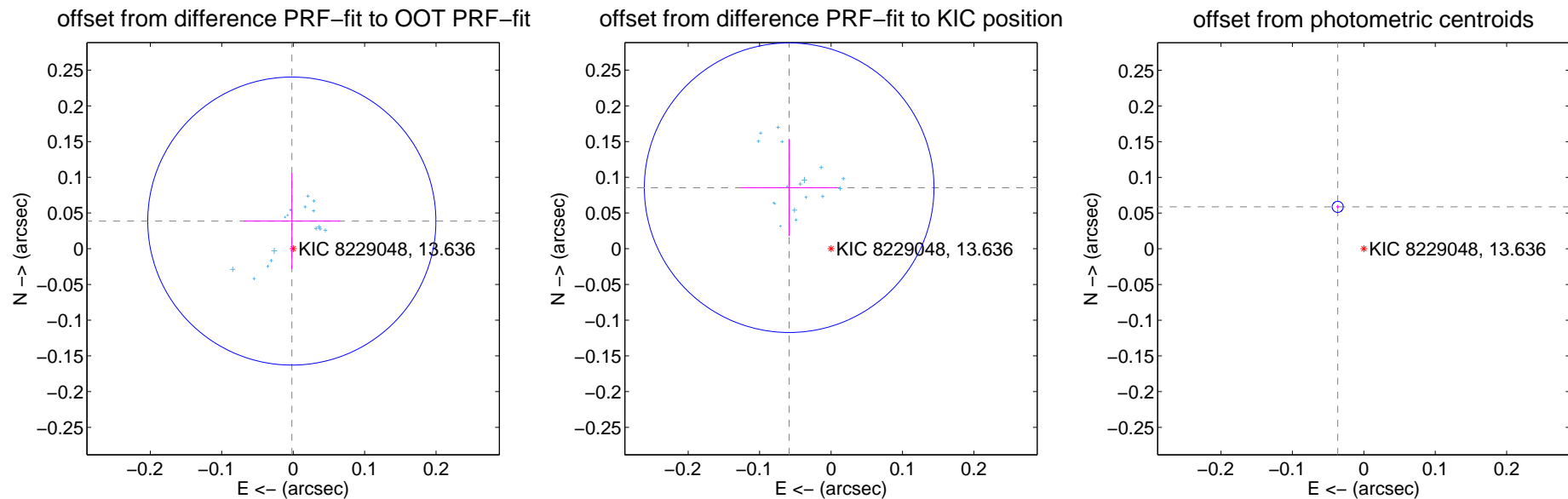
DV Centroid Data

Supplemental centroid analysis for 008229048-01. Kepler magnitude: 13.64. Transit SNR 2233.75

There are 17 quarters with good PRF difference image offsets

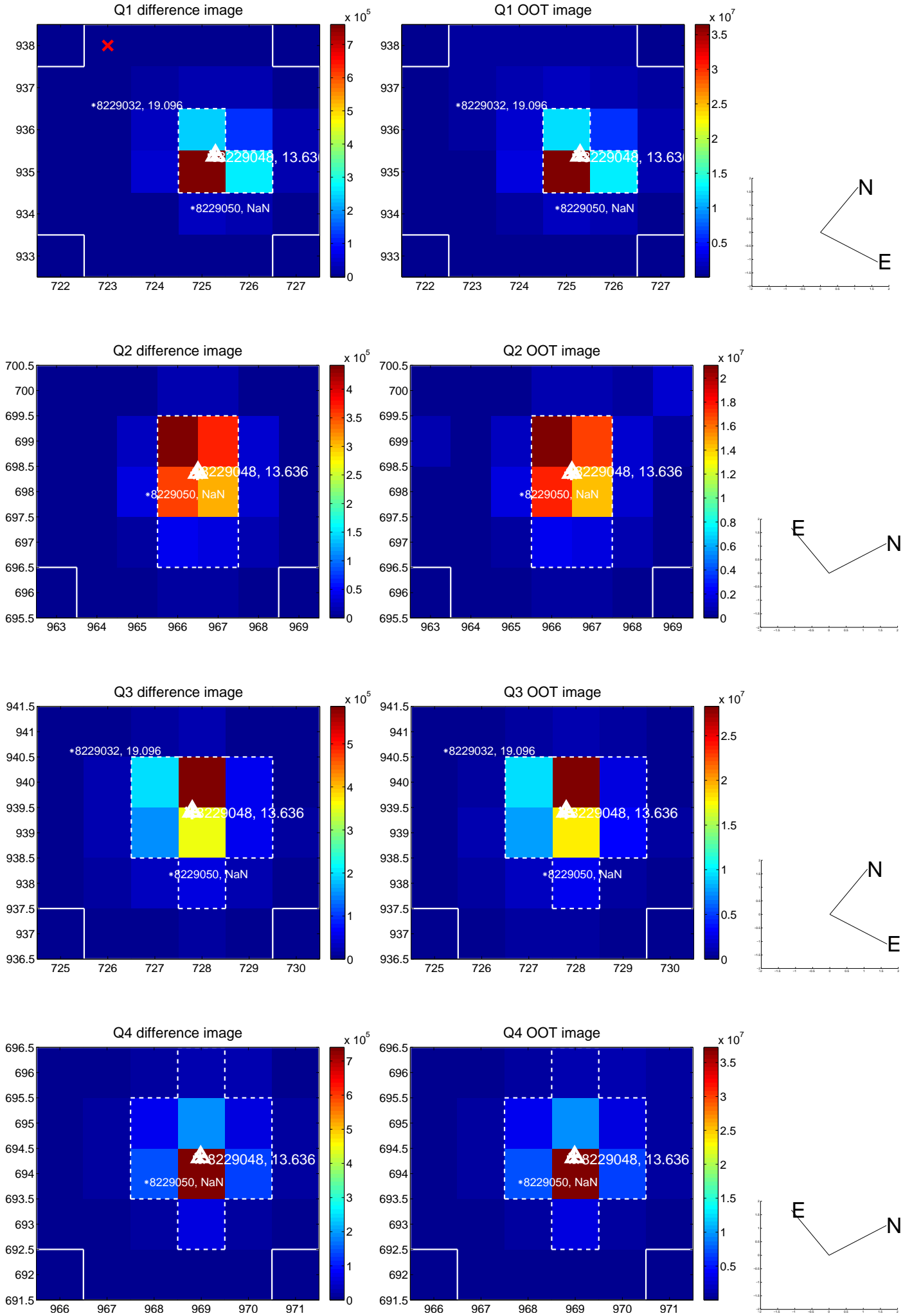
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.039 ± 0.067	0.58	0.002 ± 0.067	0.039 ± 0.067
PRF-fit source offset from KIC position	0.104 ± 0.068	1.53	0.059 ± 0.067	0.085 ± 0.068
photometric centroid source offset	0.07 ± 0.00	26.81	0.04 ± 0.00	0.06 ± 0.00

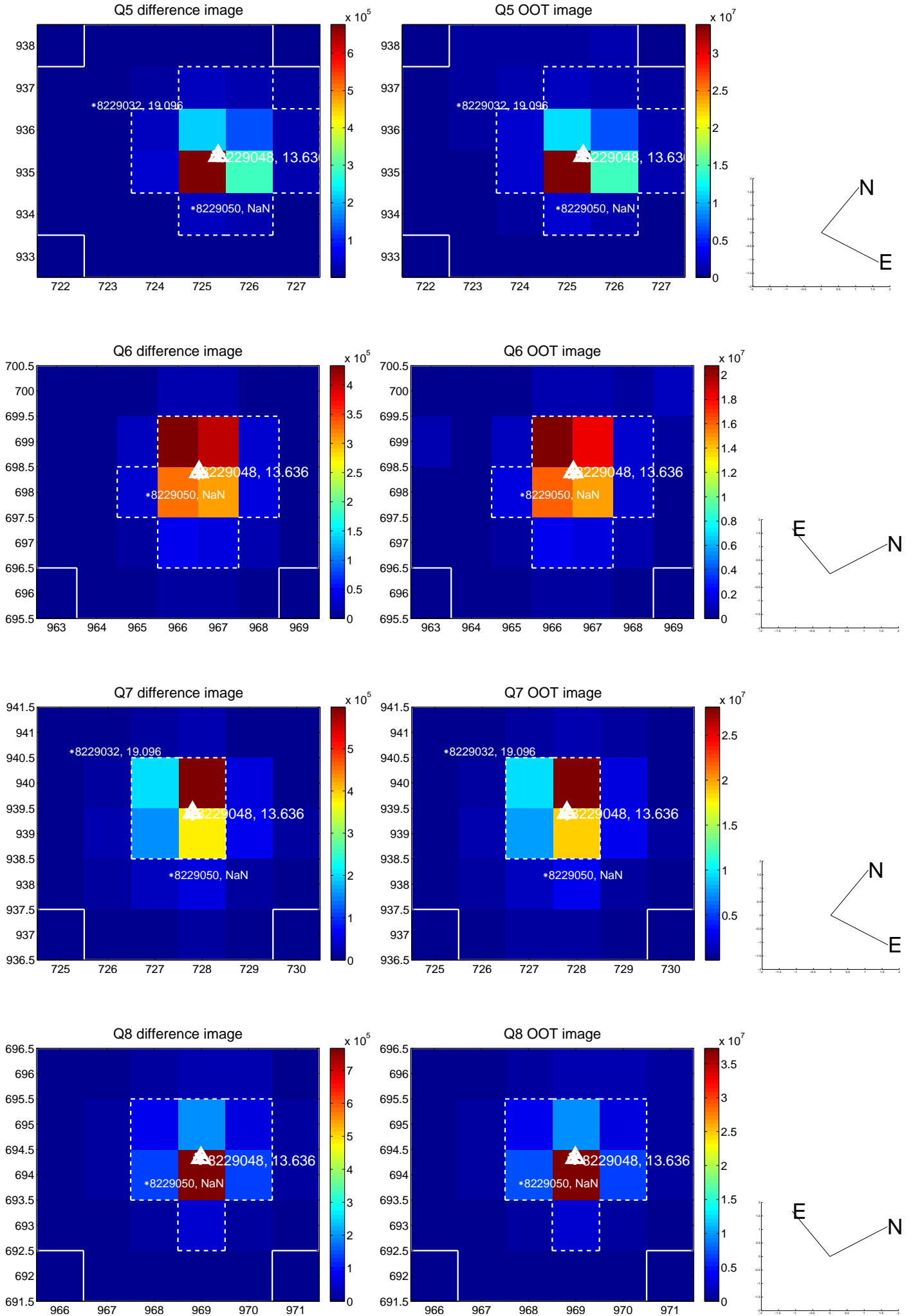


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

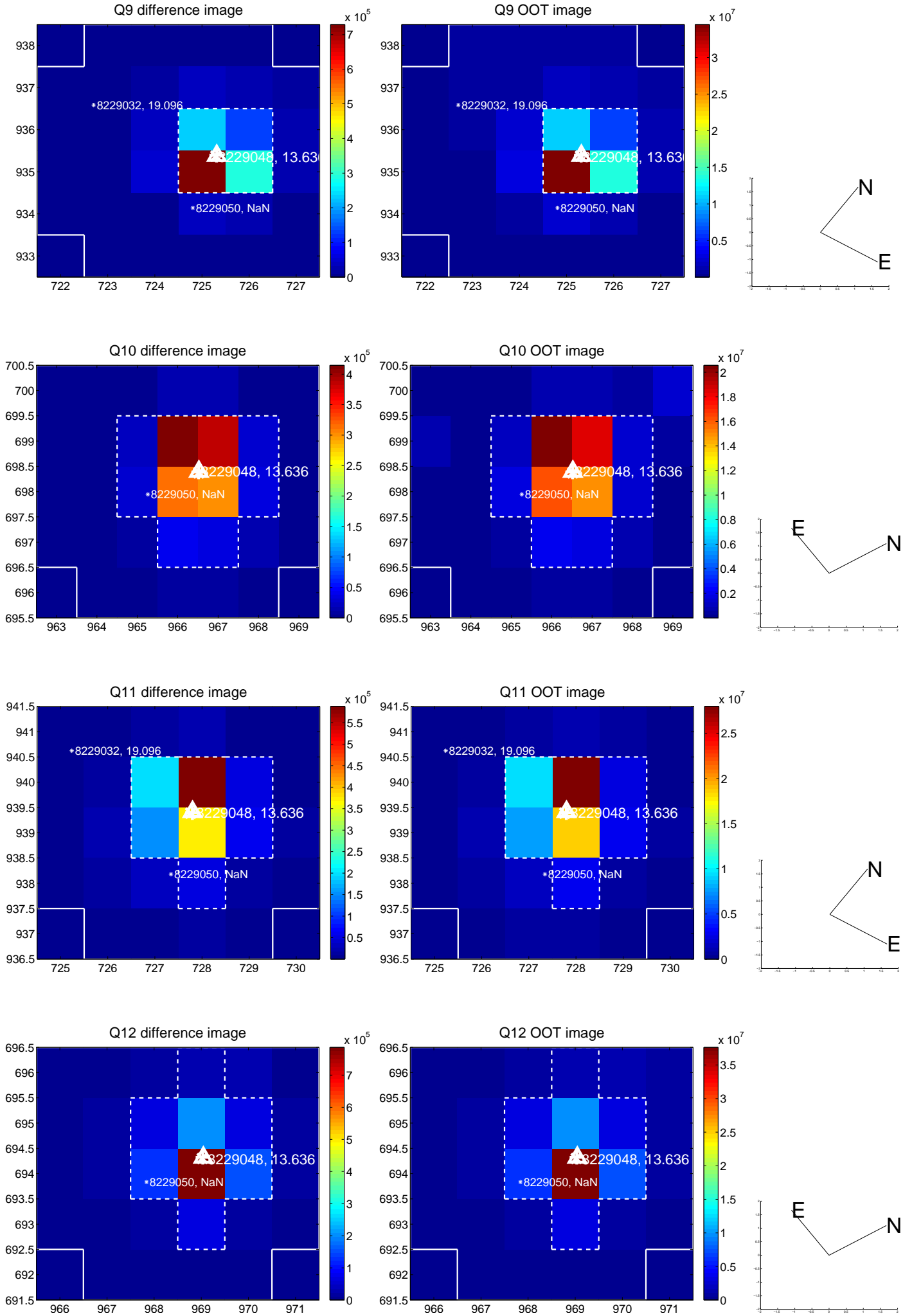
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



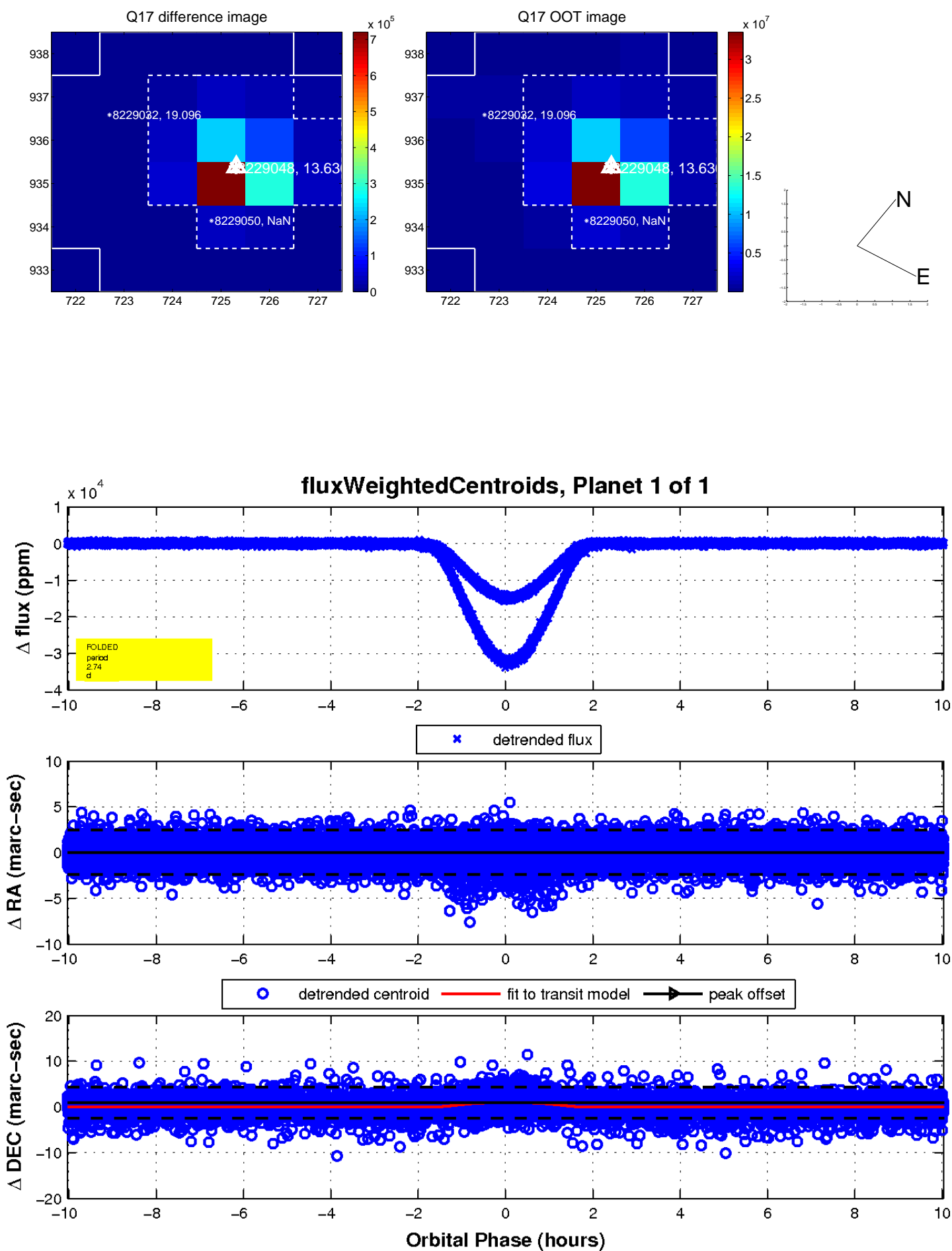
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

