

KIC 008191672

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})
008191672-01	OBS	0018.01	3.548464	133.547039	7281.5	4.561	2268.6	2177.8	1.75	6290	14.91	1714.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008191672-01	OBS	PC	0.75	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—PLANET_OCCULT_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.

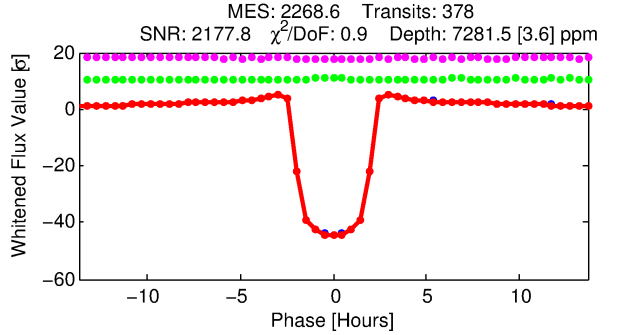
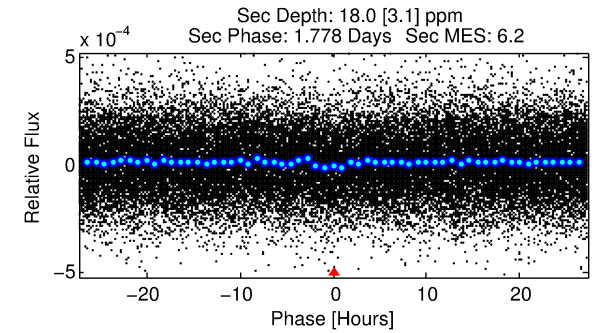
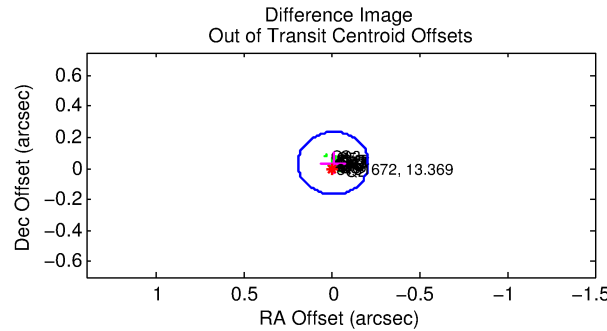
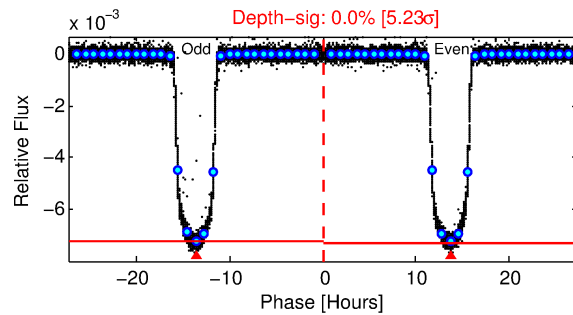
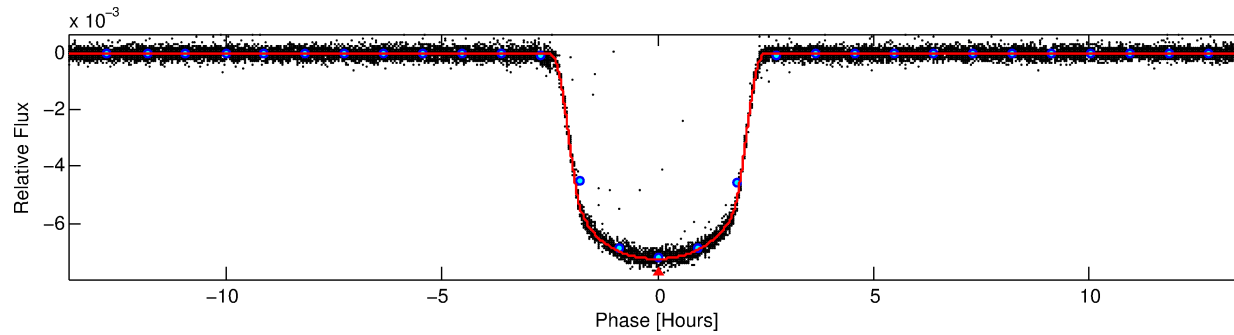
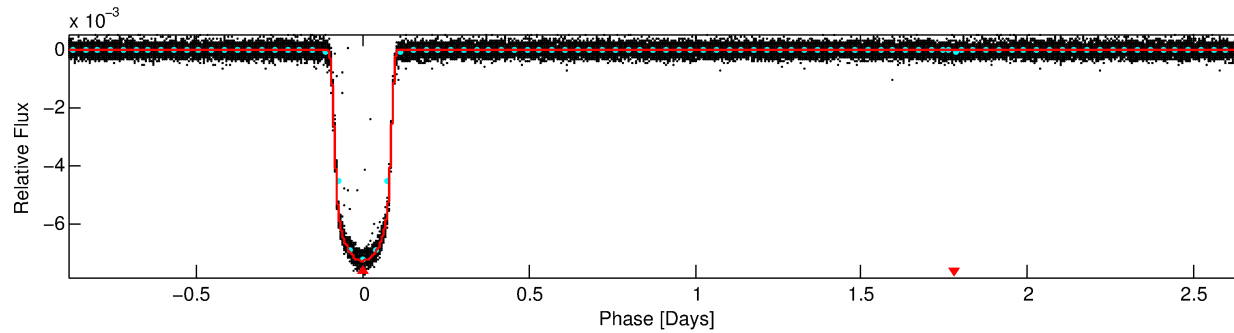
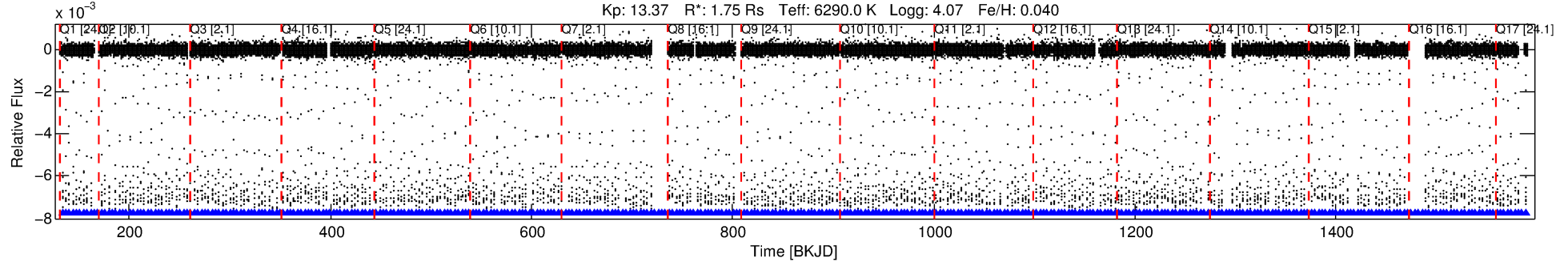
Ephemeris Match Information For 008191672-01

No Significant Match Found

DV One-Page Summary

KIC: 8191672 Candidate: 1 of 1 Period: 3.548 d
KOI: K00018.01 Name: Kepler-5b Corr: 0.998

Kp: 13.37 R*: 1.75 Rs Teff: 6290.0 K Logg: 4.07 Fe/H: 0.040



DV Fit Results:

Period = 3.54846 [0.00000] d
Epoch = 133.5470 [0.0000] BKJD
Rp/R* = 0.0783 [0.0002]
a/R* = 6.44 [0.07]
b = 0.01 [1.35]
Seff = 1714.51 [214.60]
Teff = 1641 [51] K
Rp = 14.91 [1.32] Re
a = 0.0499 [0.0035] AU
Ag = 0.11 [0.02] [-40.73σ]
Teffp = 1465 [69] K [-2.04σ]

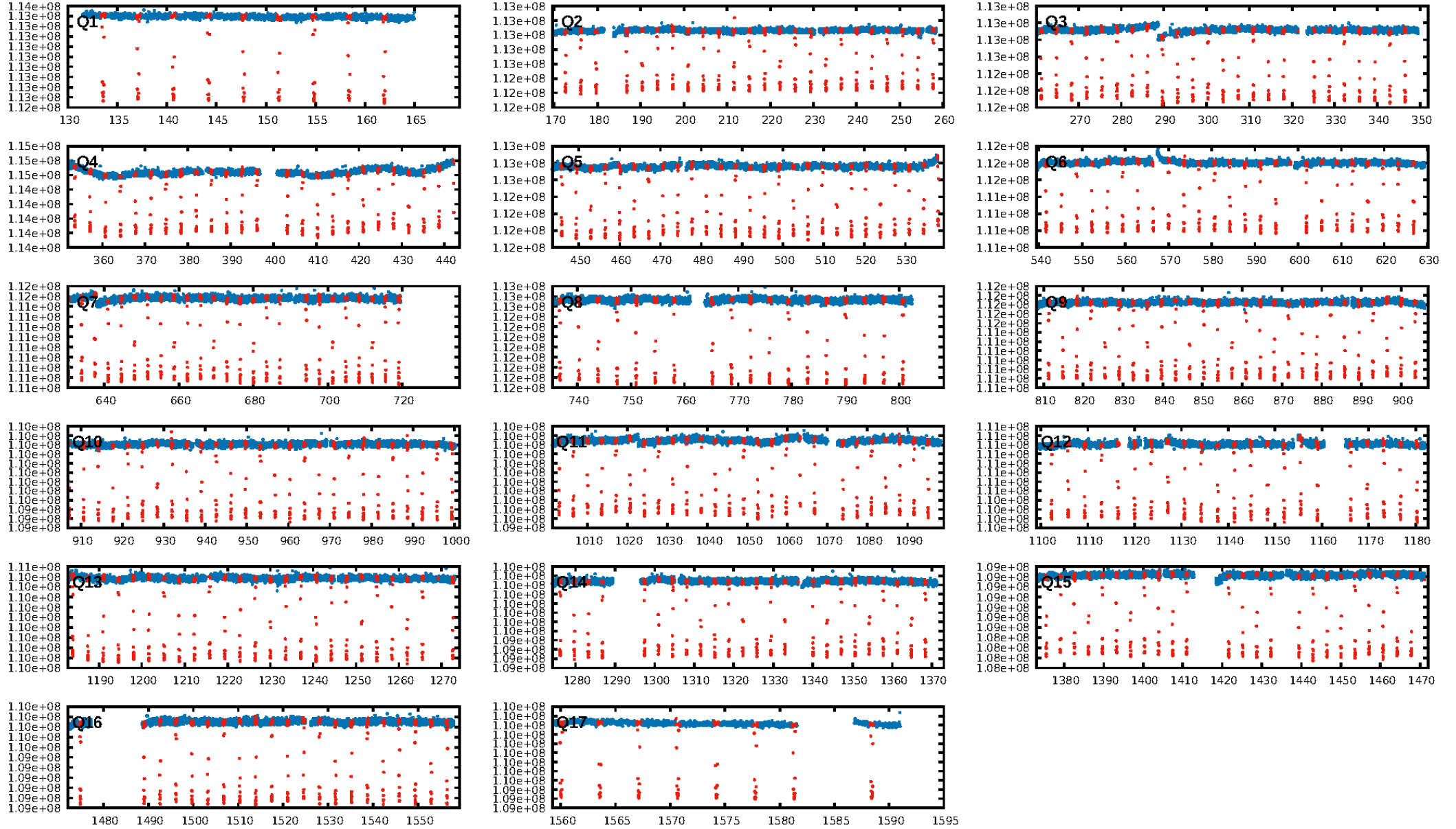
DV Diagnostic Results:

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 [361/361]
GhostDiagnostic-chr: 5.512
Centroid-sig: 0.0%
Centroid-so: 0.059 arcsec [10.20σ]
OotOffset-rm: 0.035 arcsec [0.52σ]
KicOffset-rm: 0.026 arcsec [0.39σ]
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]

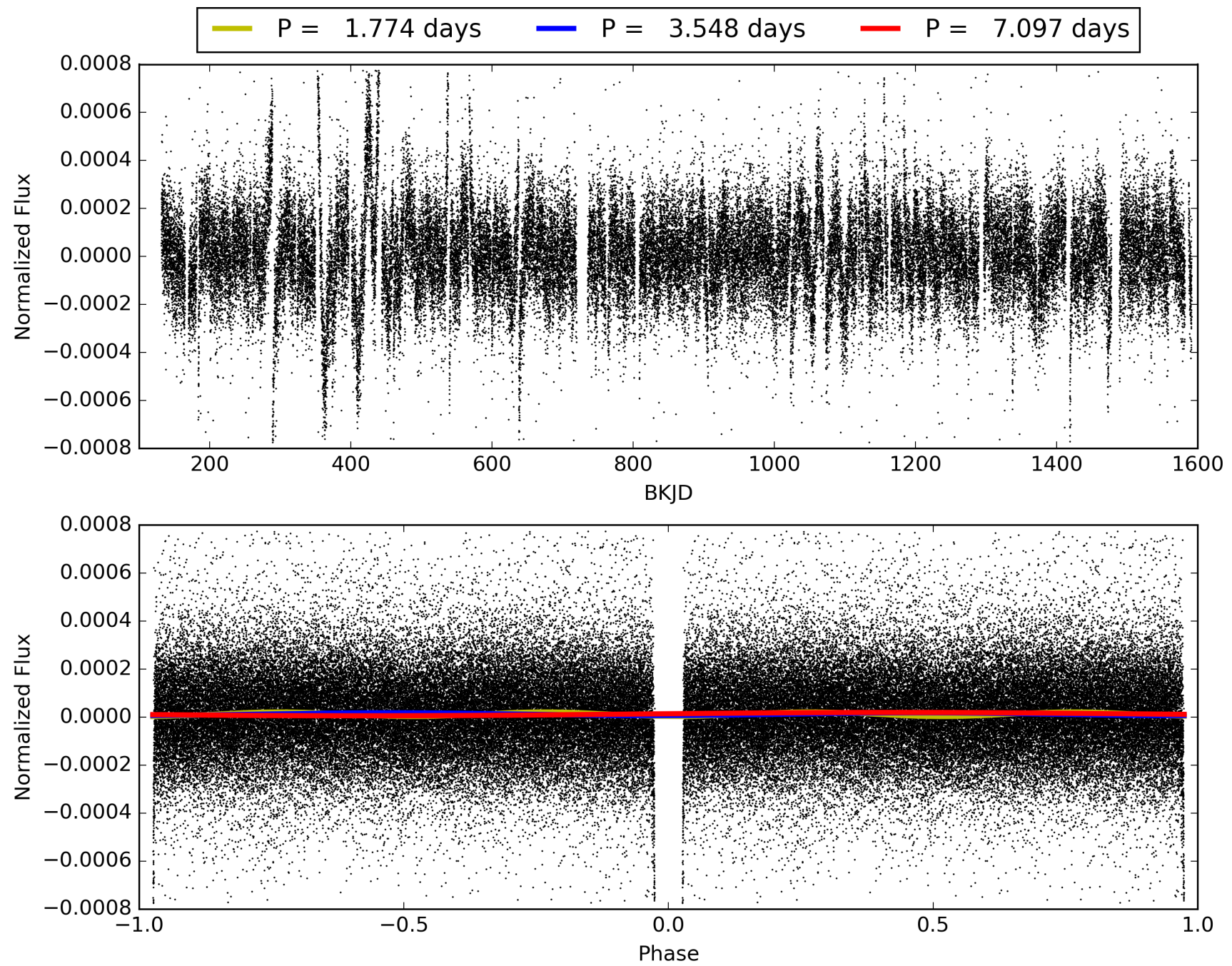
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:30:42 Z

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

TCE 008191672-01, PDC Light Curves

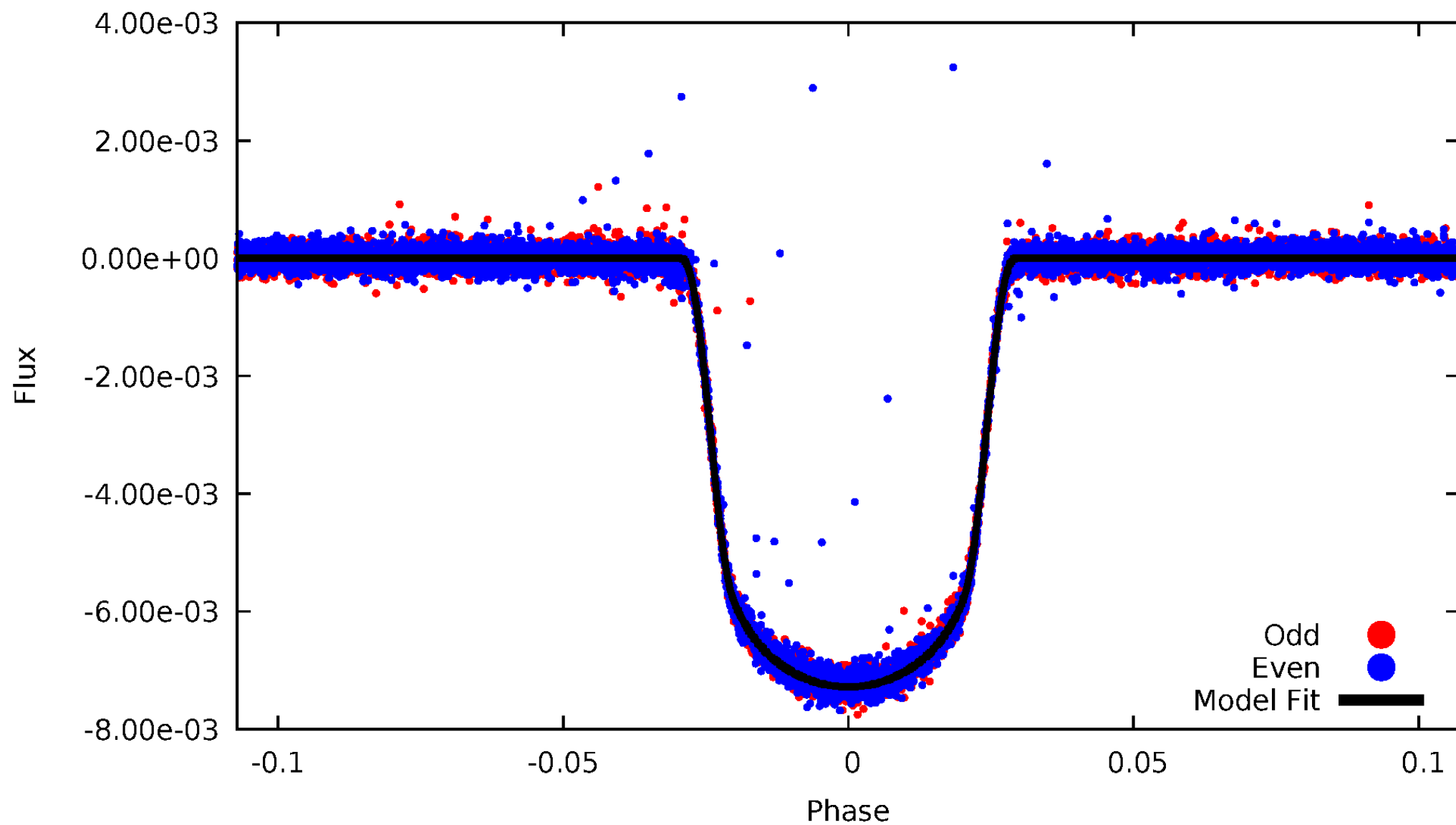


TCE 008191672-01



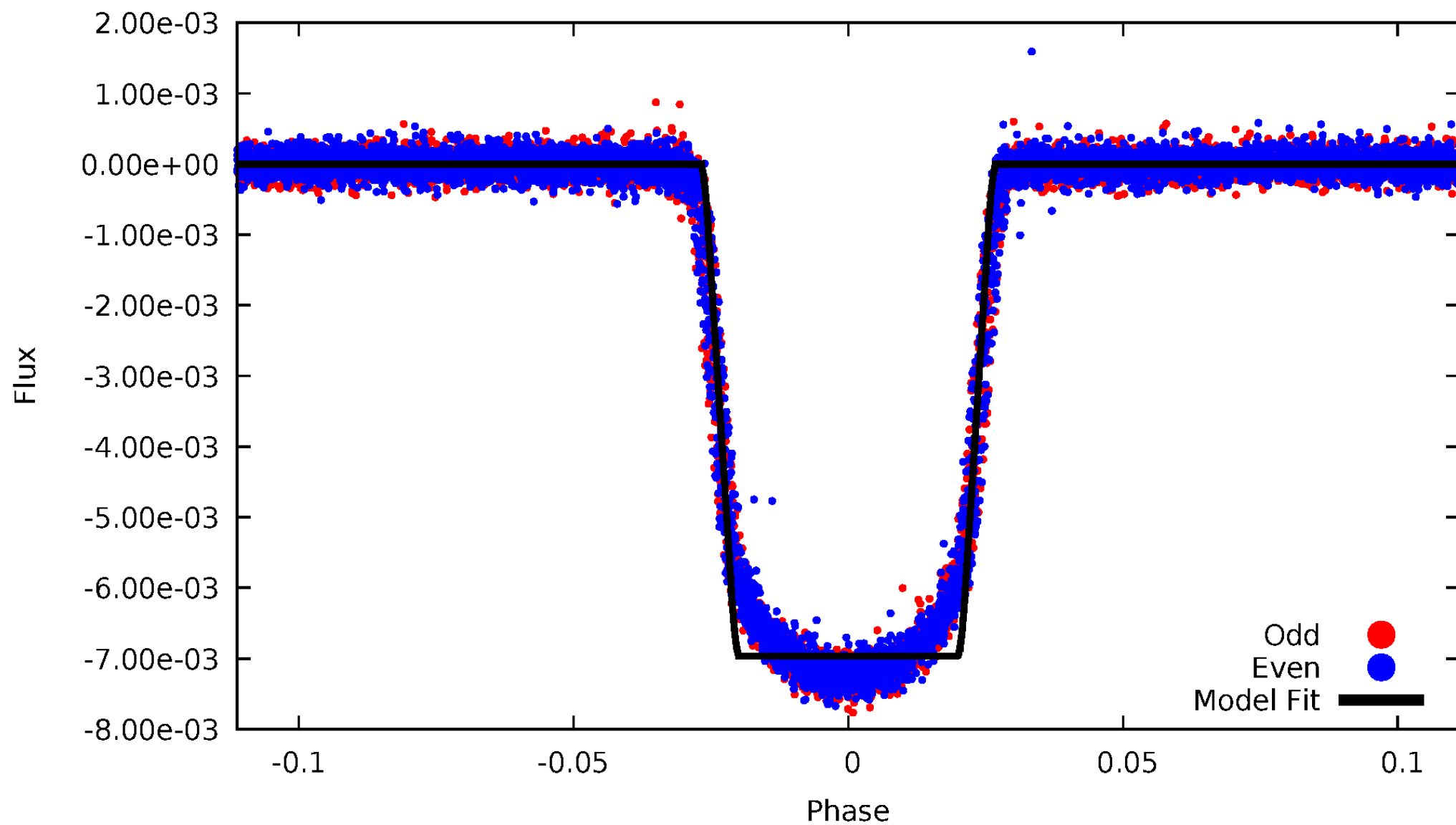
DV Odd/Even

TCE 008191672-01



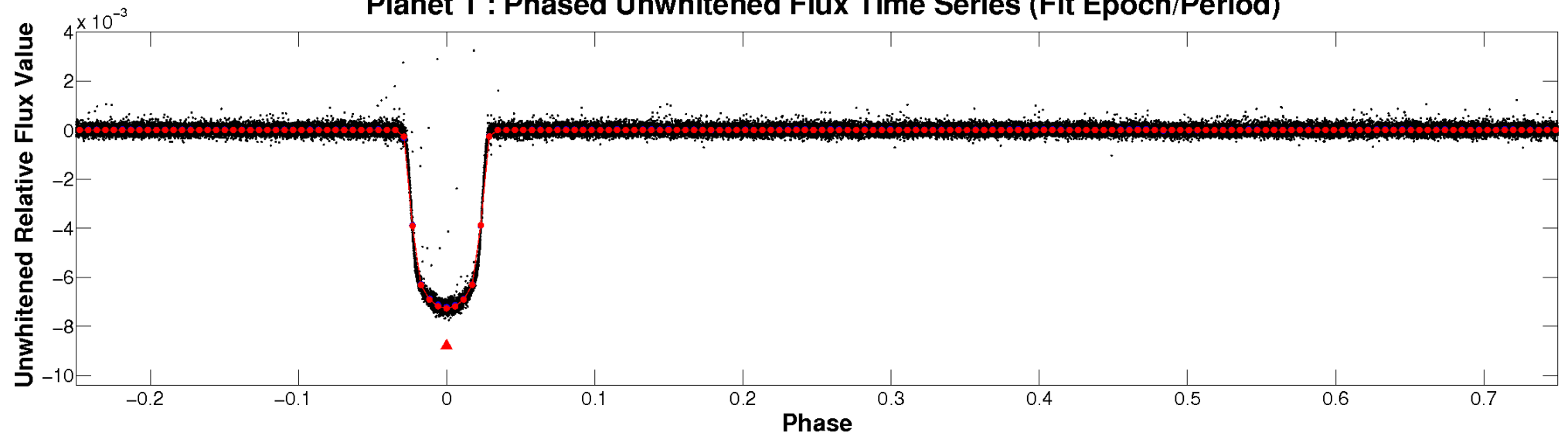
ALT Odd/Even

TCE 008191672-01

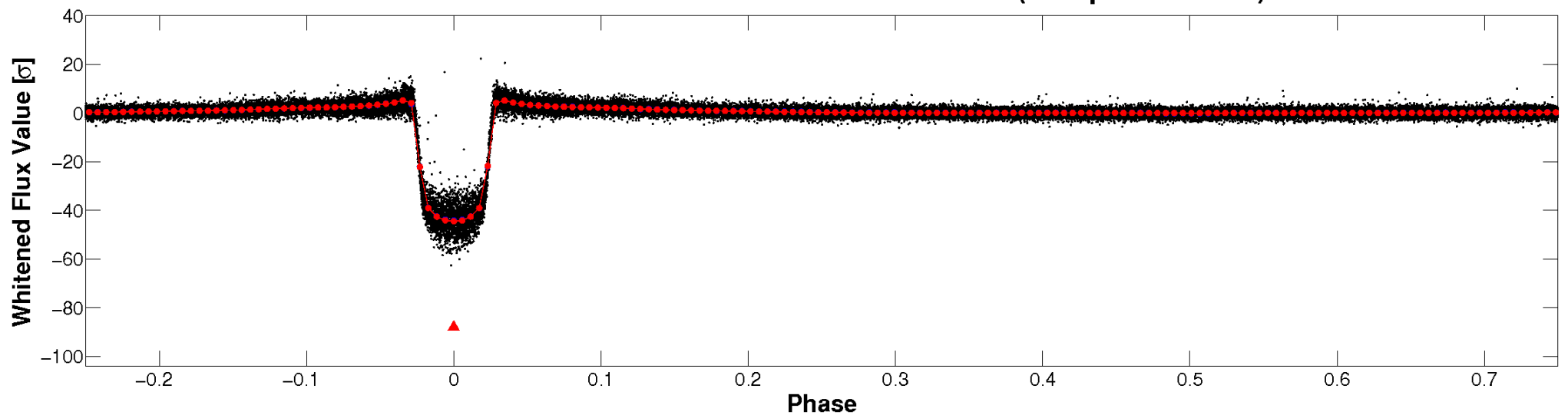


Non-Whitened Vs. Whitened Light Curve

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

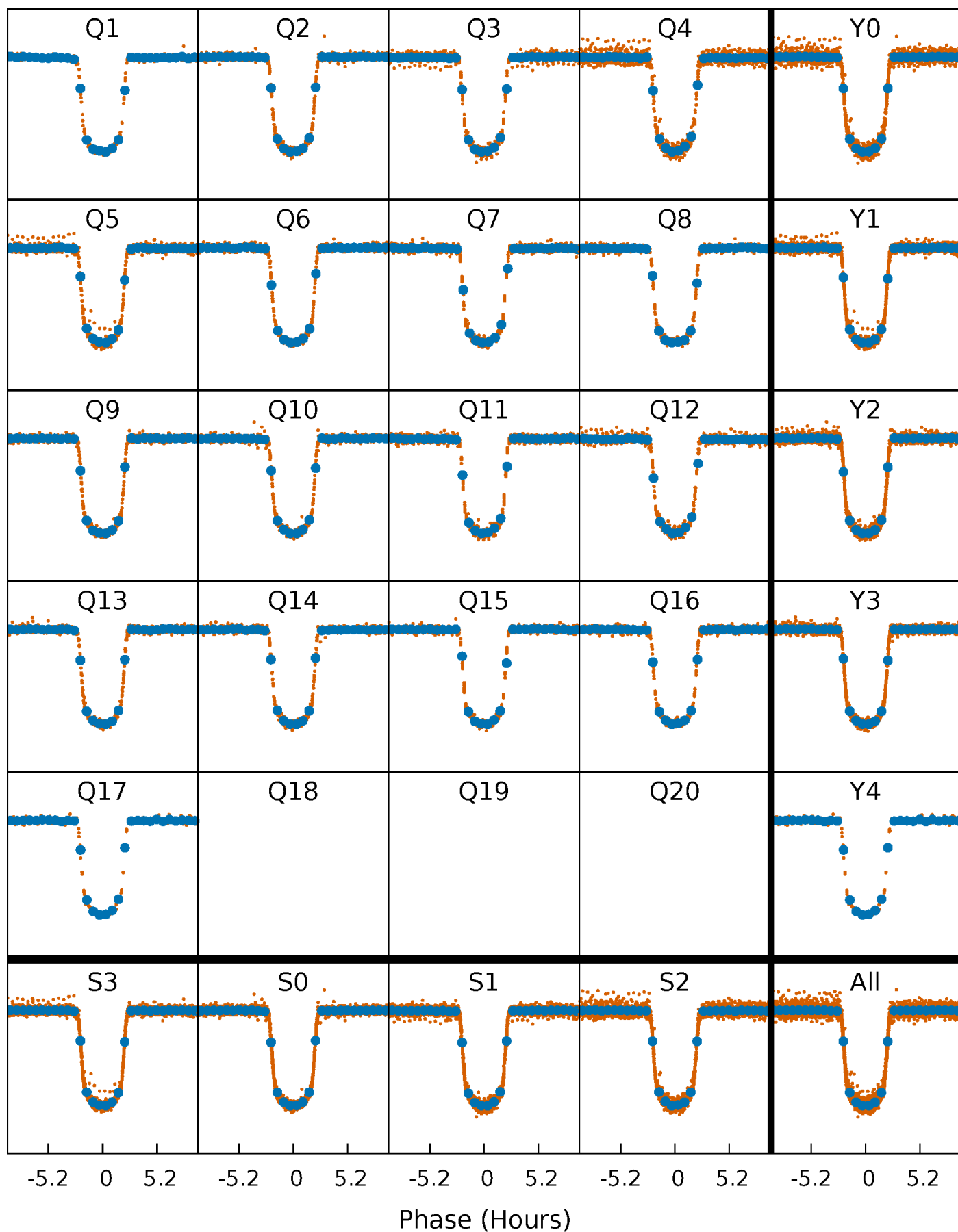


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



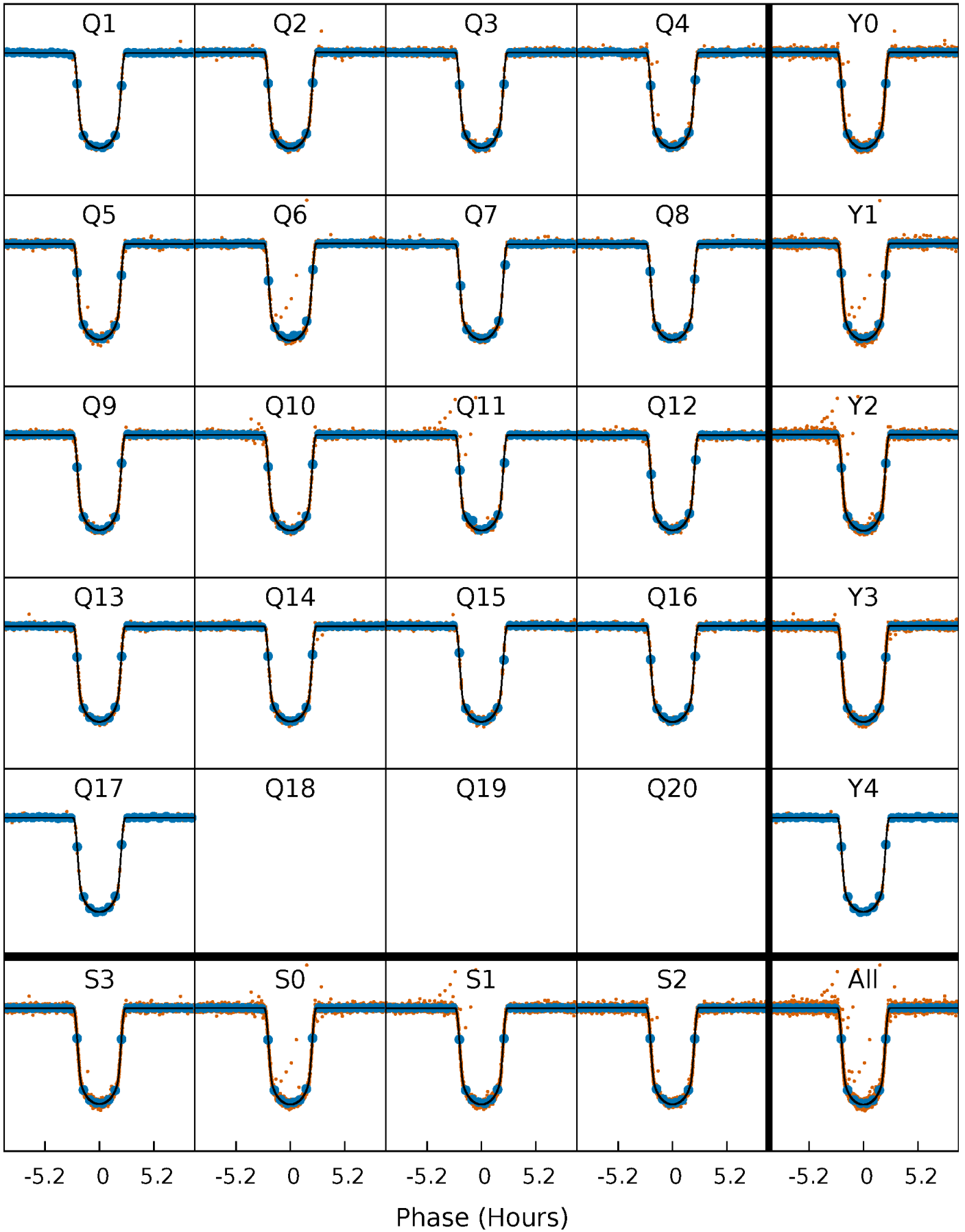
PDC Quarter-Phased Transit Curves

TCE 008191672-01 P= 3.548464 Days $T_0=133.547040$ (BKJD)



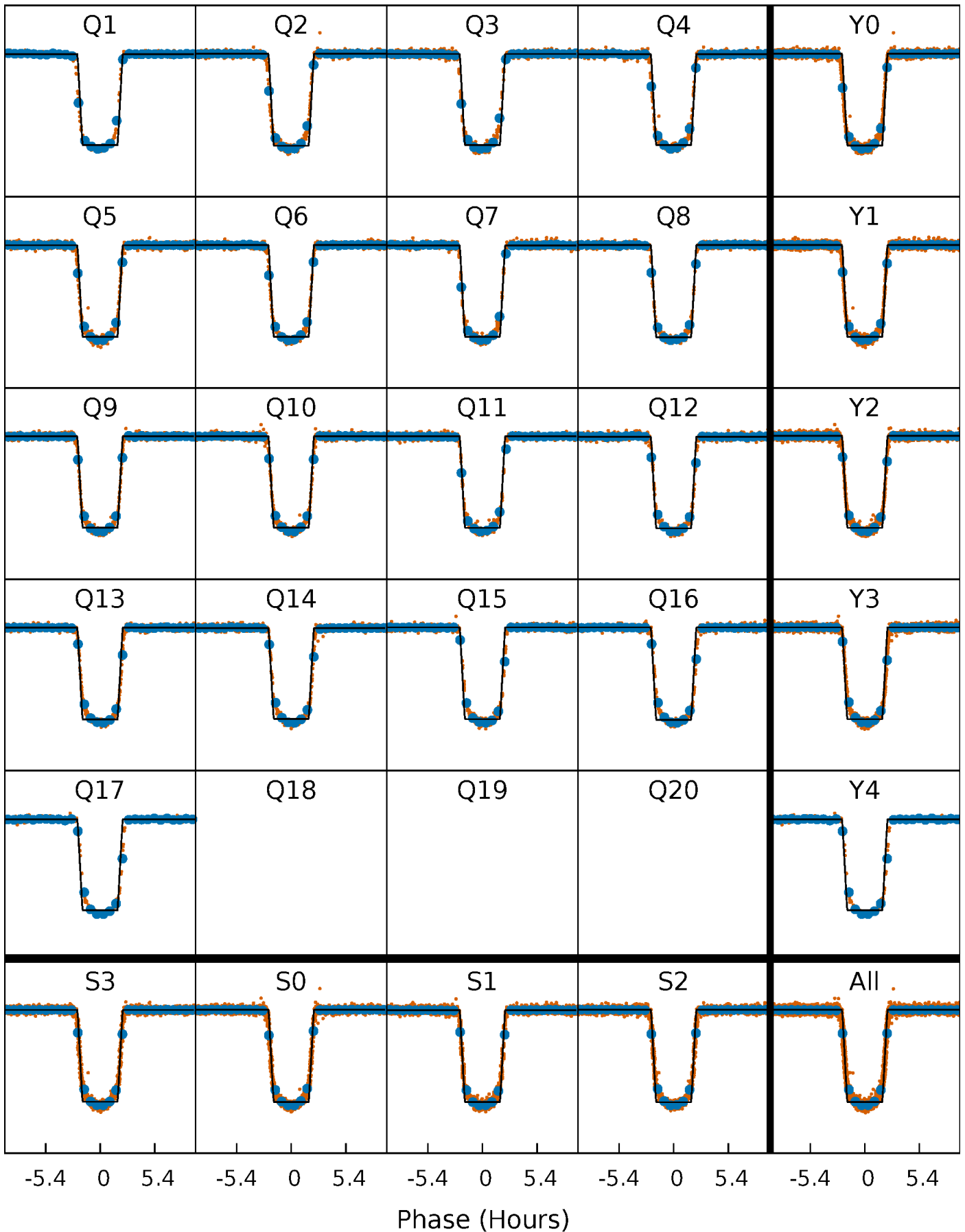
DV Quarter-Phased Transit Curves

TCE 008191672-01 P= 3.548464 Days $T_0=133.547040$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

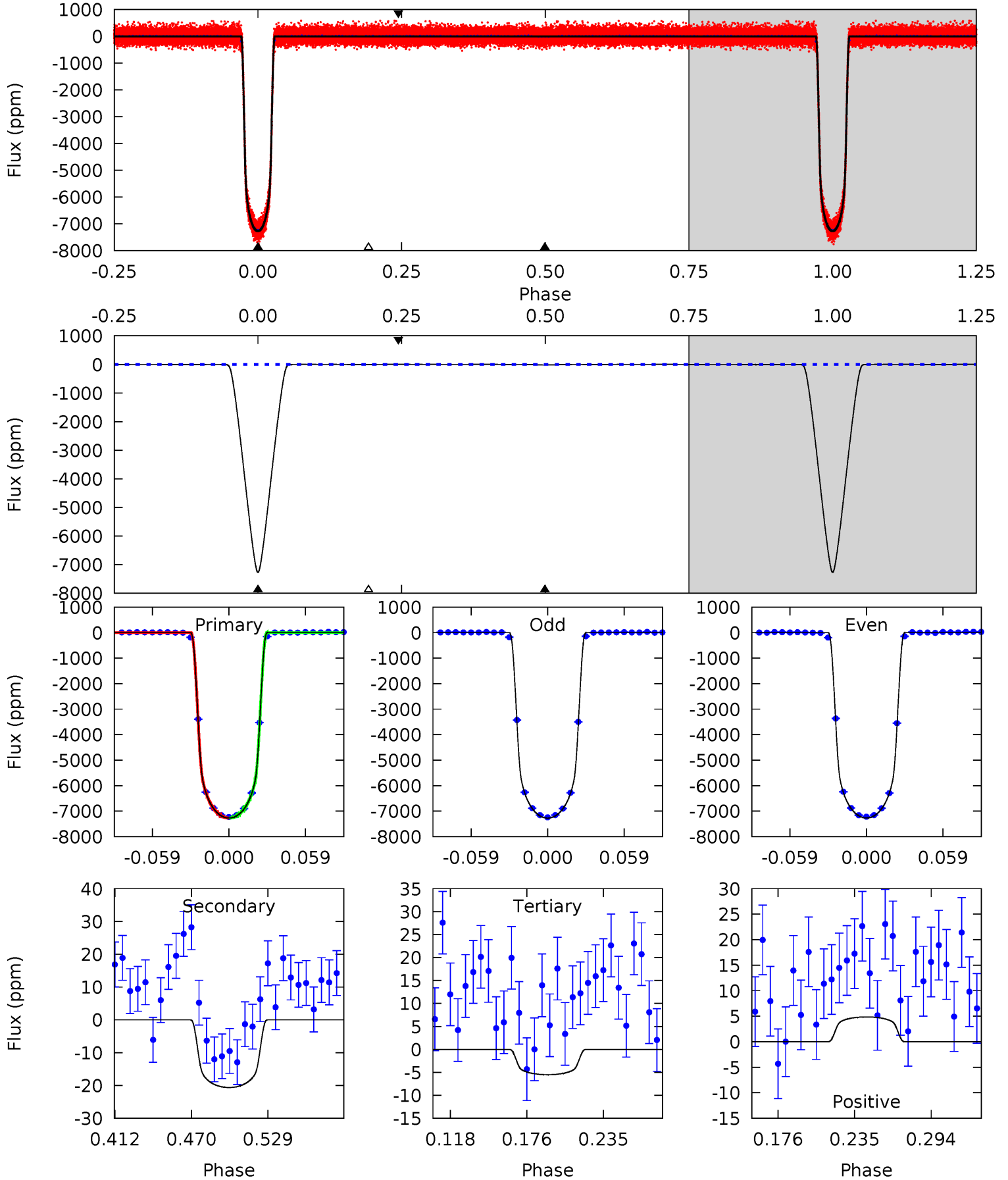
TCE 008191672-01 P= 3.548437 Days $T_0=133.552647$ (BKJD)



DV Model-Shift Uniqueness Test

008191672-01, P = 3.548464 Days, E = 129.998576 Days

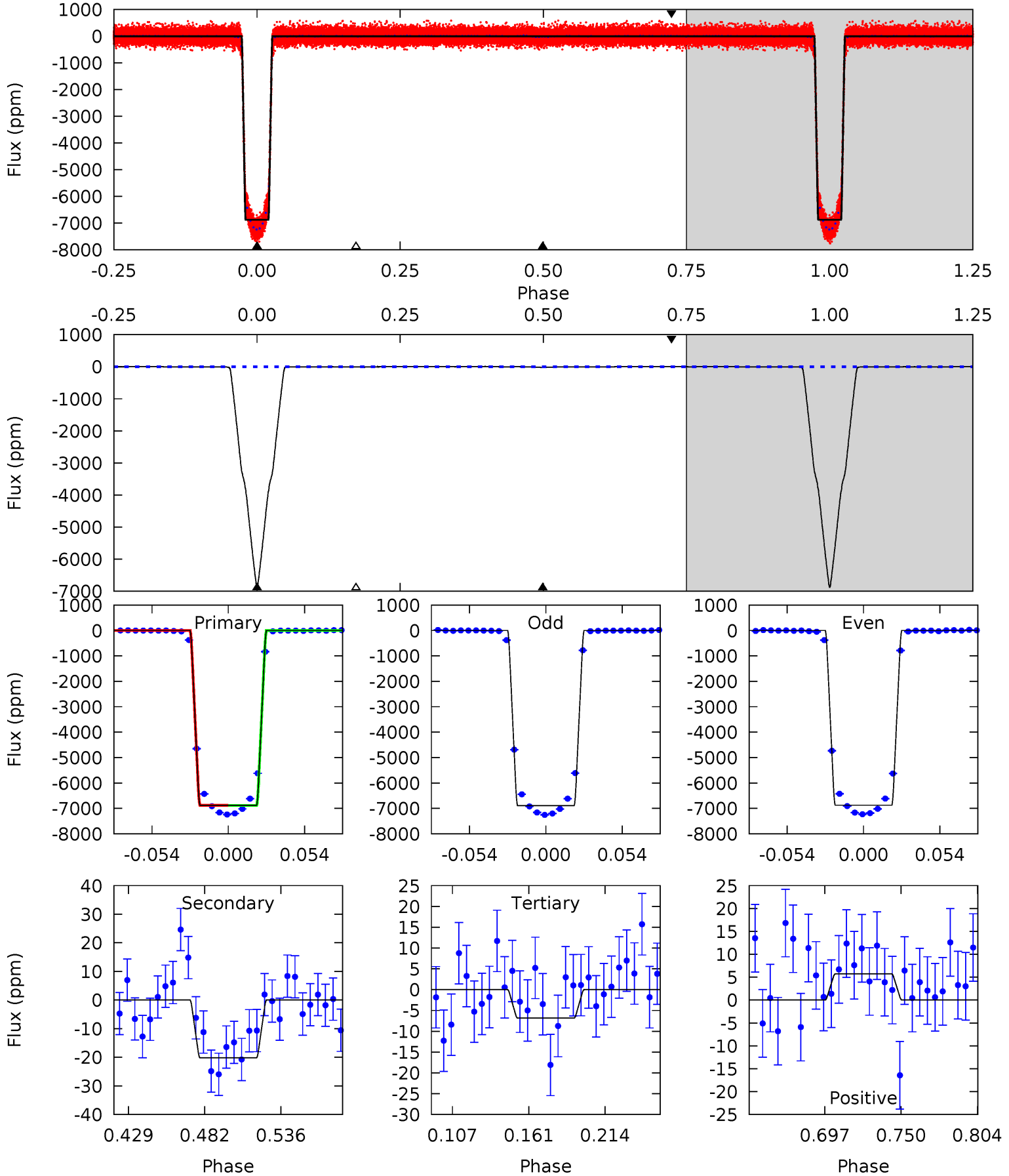
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3215	9.12	2.44	2.15	4.67	1.89	1.08	3213	3213	6.69	6.97	0.91	0.99	0.00	0.96



Alt Model-Shift Uniqueness Test

008191672-01, P = 3.548437 Days, E = 130.004210 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2699	7.93	2.68	2.24	4.69	1.93	1.33	2696	2697	5.24	5.69	3.44	1.00	0.00	0.42



Stellar Parameters For KIC 008191672

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6290^{+125}_{-125}	$4.074^{+0.050}_{-0.050}$	$0.040^{+0.150}_{-0.150}$	$1.746^{+0.126}_{-0.154}$	$1.319^{+0.084}_{-0.137}$	$0.349^{+0.075}_{-0.056}$
	+2%/-2%	+1%/-1%	+375%/-375%	+7%/-9%	+6%/-10%	+22%/-16%
Source	SPE21	TRA21	SPE21	DSEP		

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

Secondary Eclipse Parameters for KIC 008191672-01 / KOI 0018.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-21 ± 2	$15.00^{+0.65}_{-0.85}$	2295^{+60}_{-62}	-2495^{+53}_{-51}	$0.127^{+0.019}_{-0.017}$
Alt.	-20 ± 3	$15.97^{+0.70}_{-0.85}$	2290^{+68}_{-59}	-2525^{+53}_{-48}	$0.110^{+0.016}_{-0.016}$

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 $A_{obs} \gg 1.0$

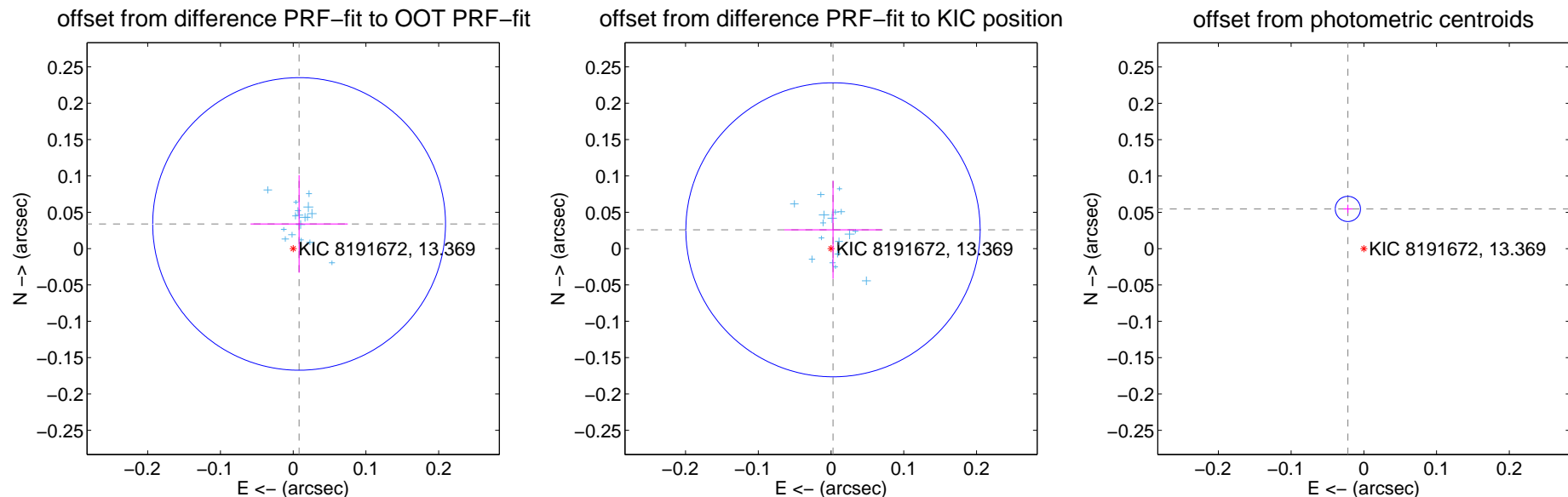
DV Centroid Data

Supplemental centroid analysis for 008191672-01. Kepler magnitude: 13.37. Transit SNR 2177.76

There are 17 quarters with good PRF difference image offsets

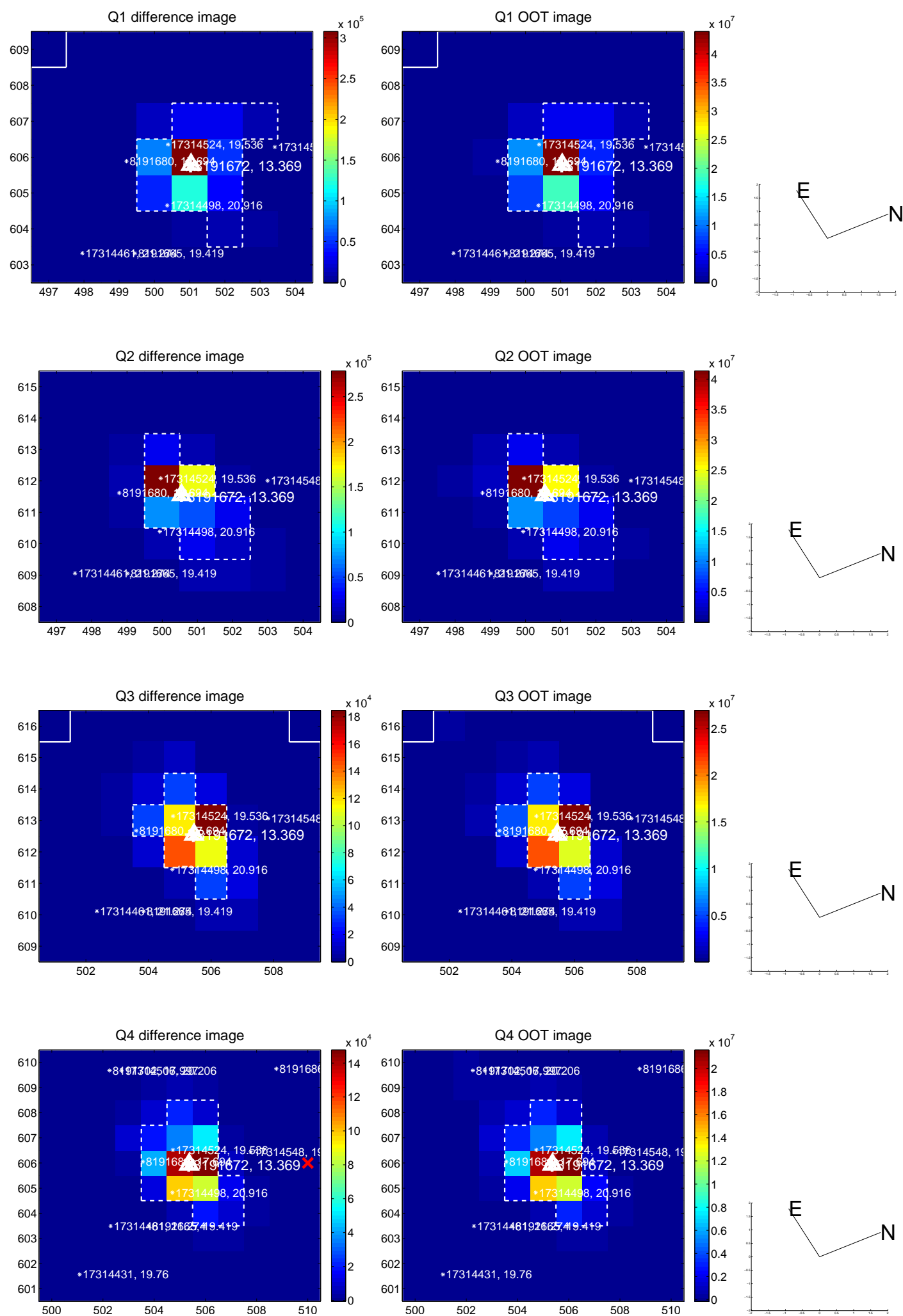
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.035 ± 0.067	0.52	-0.008 ± 0.067	0.034 ± 0.067
PRF-fit source offset from KIC position	0.026 ± 0.067	0.39	-0.003 ± 0.067	0.026 ± 0.067
photometric centroid source offset	0.06 ± 0.01	10.20	0.02 ± 0.01	0.05 ± 0.01

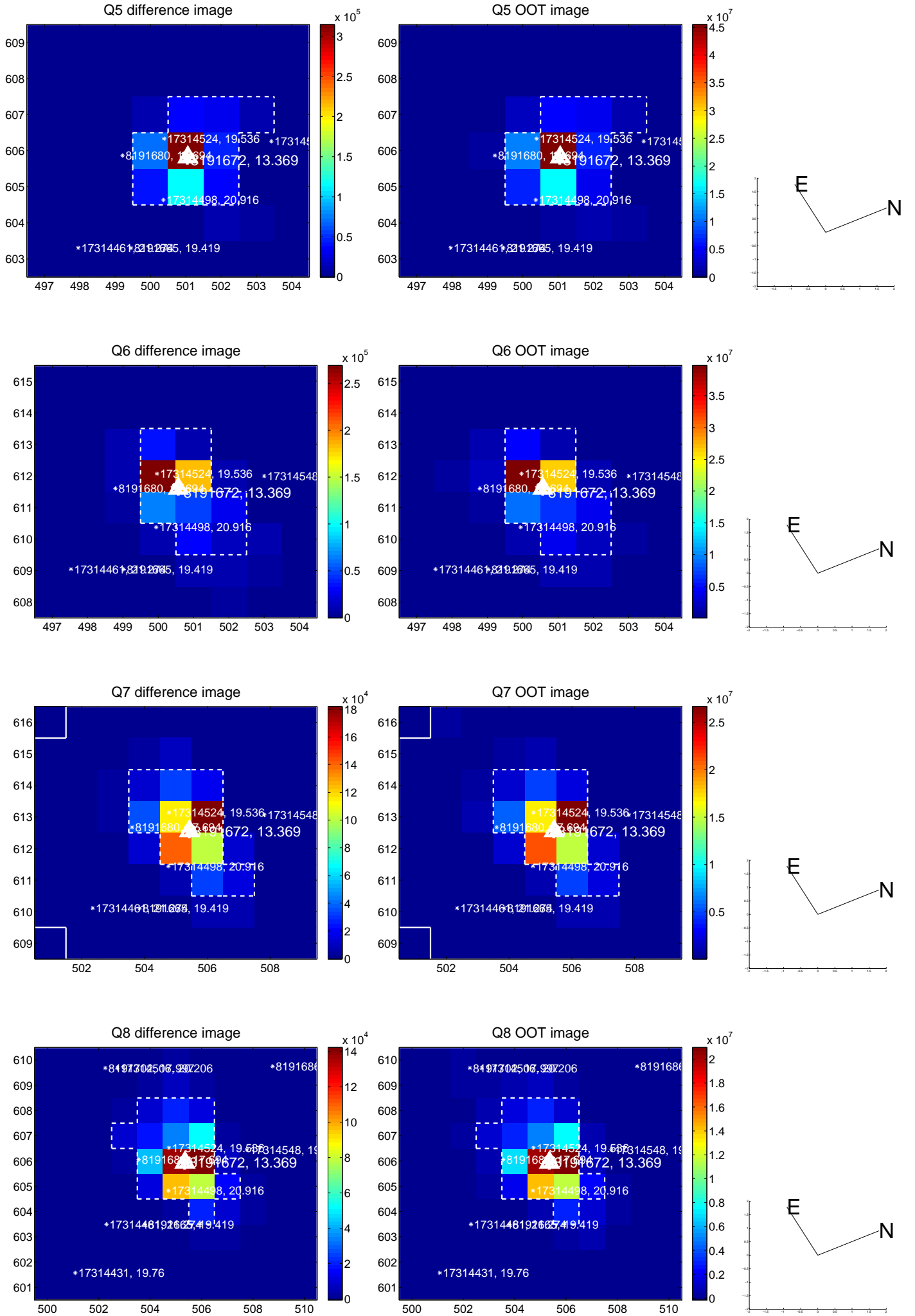


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

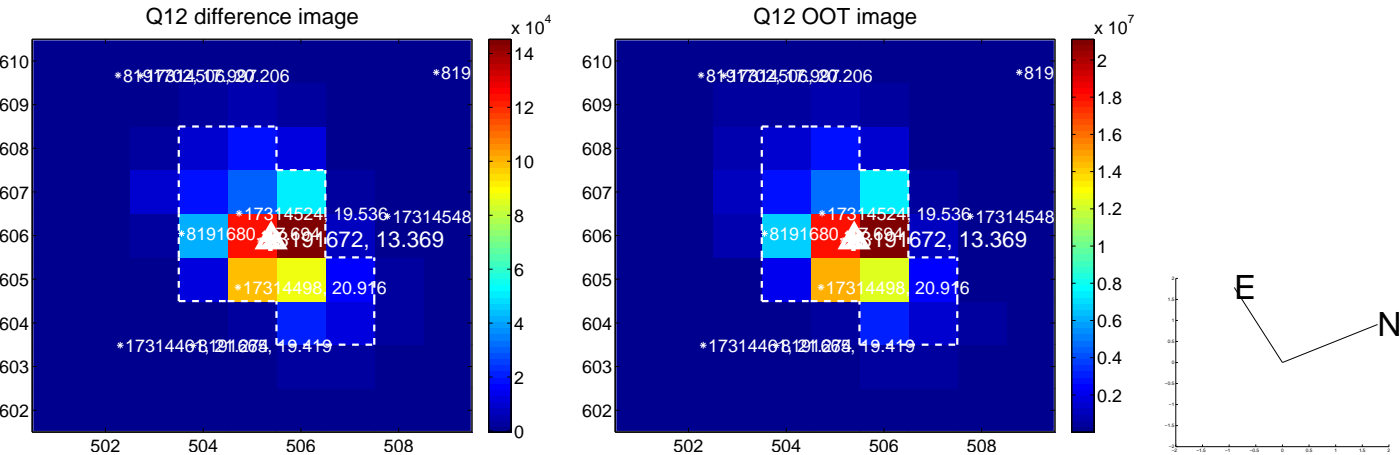
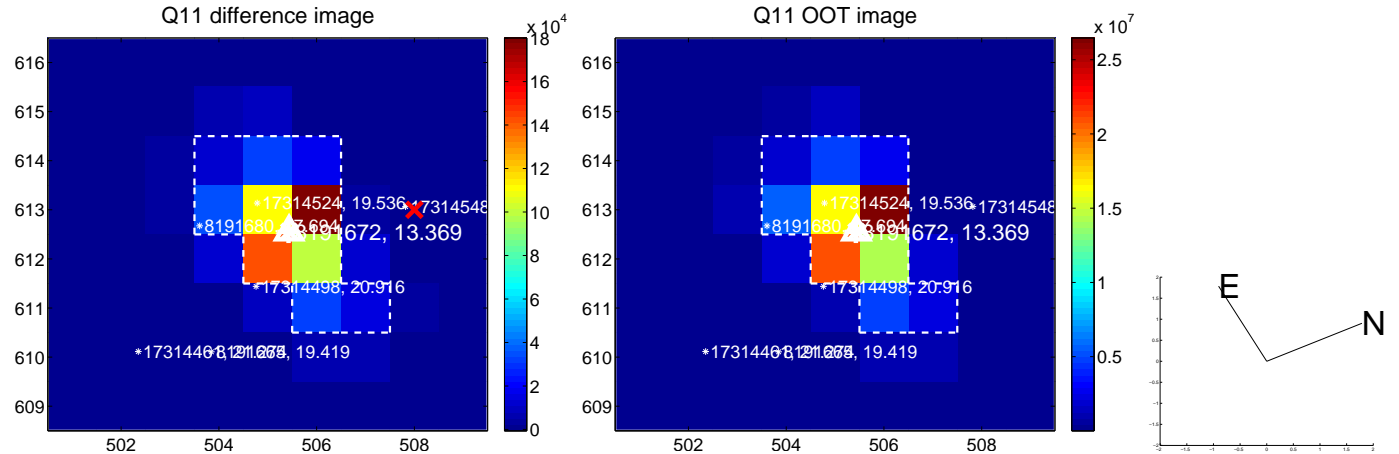
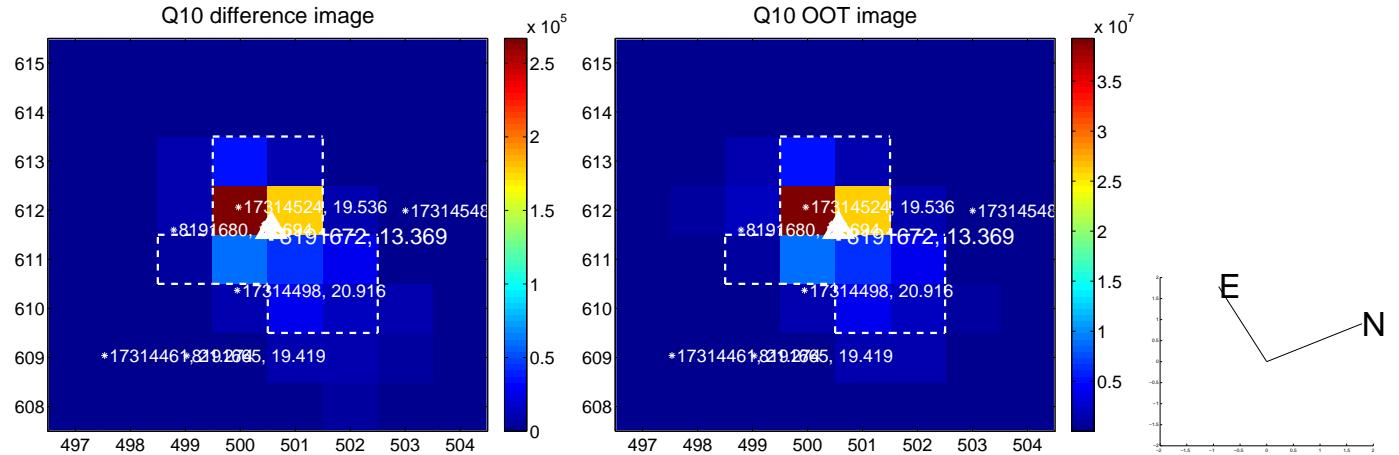
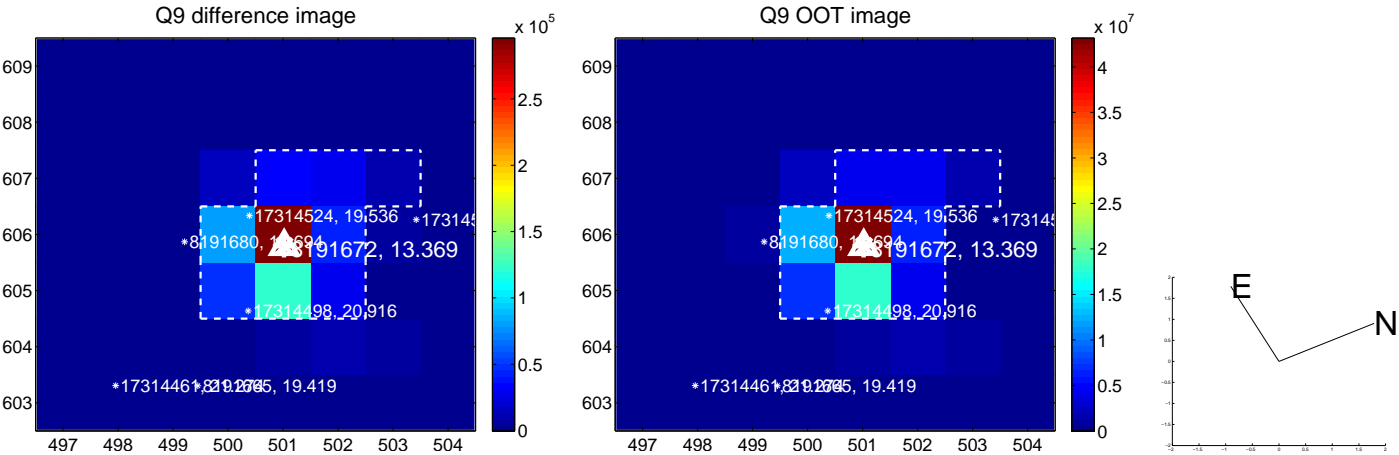
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



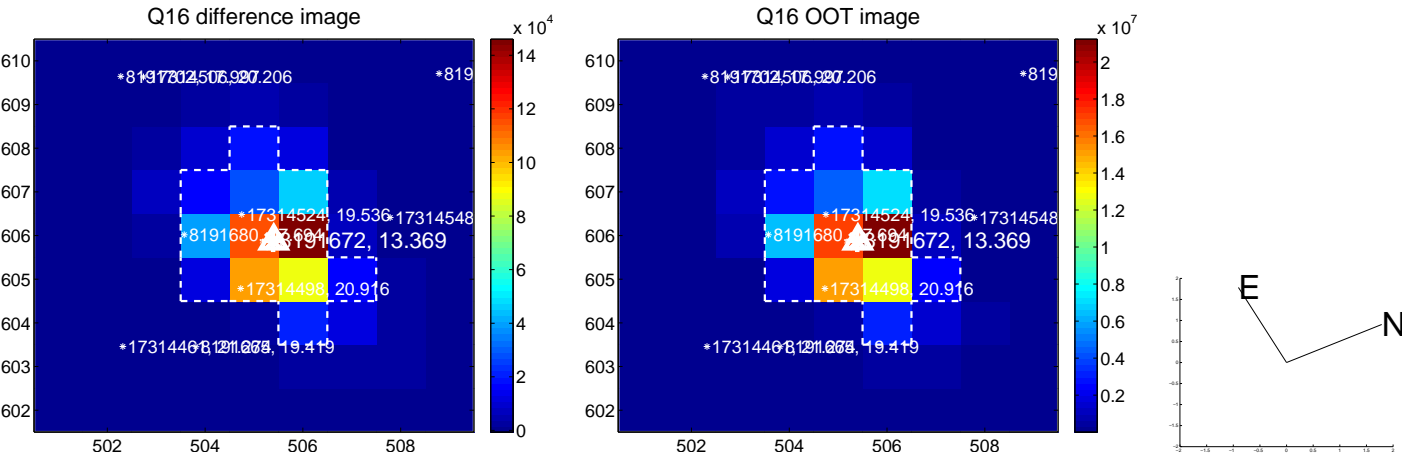
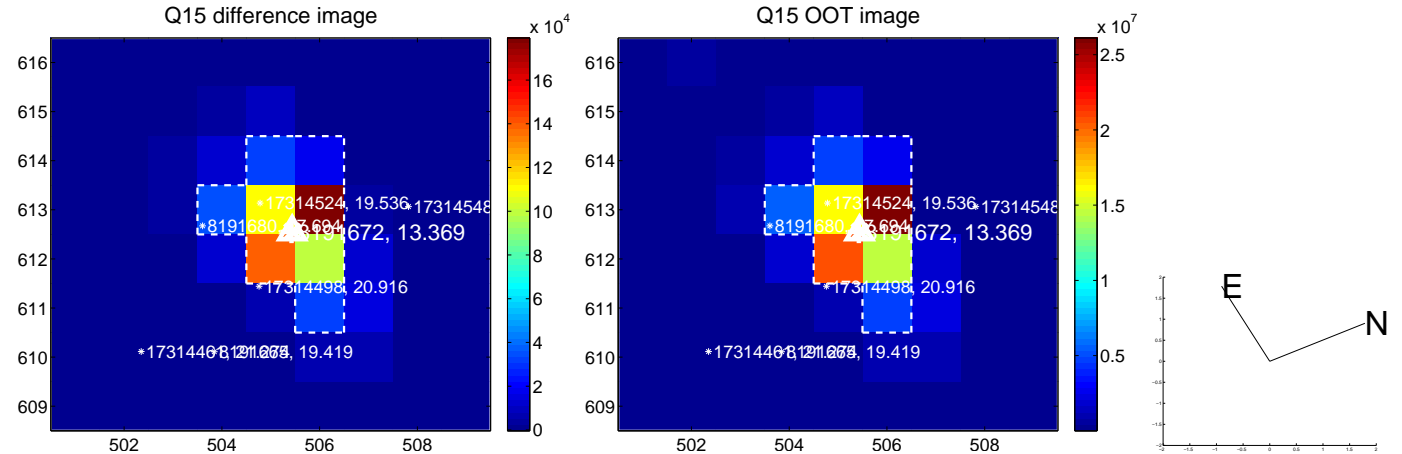
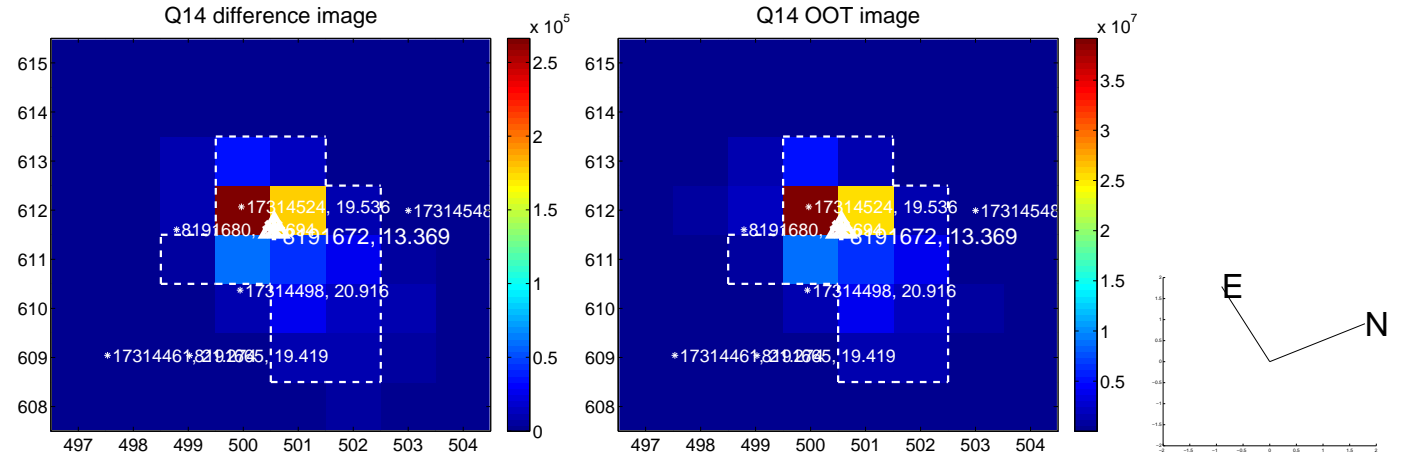
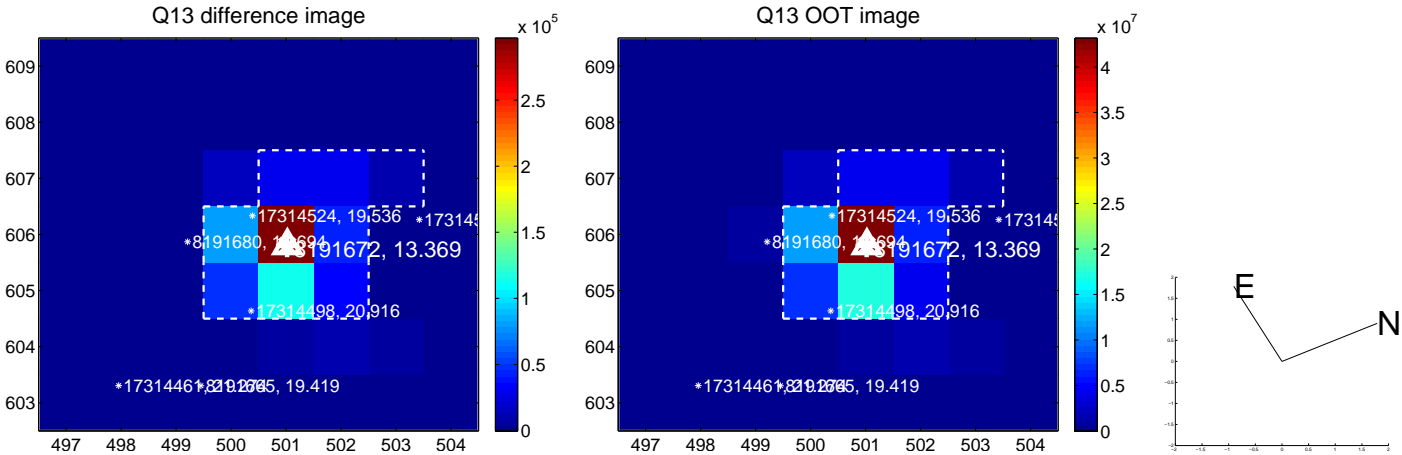
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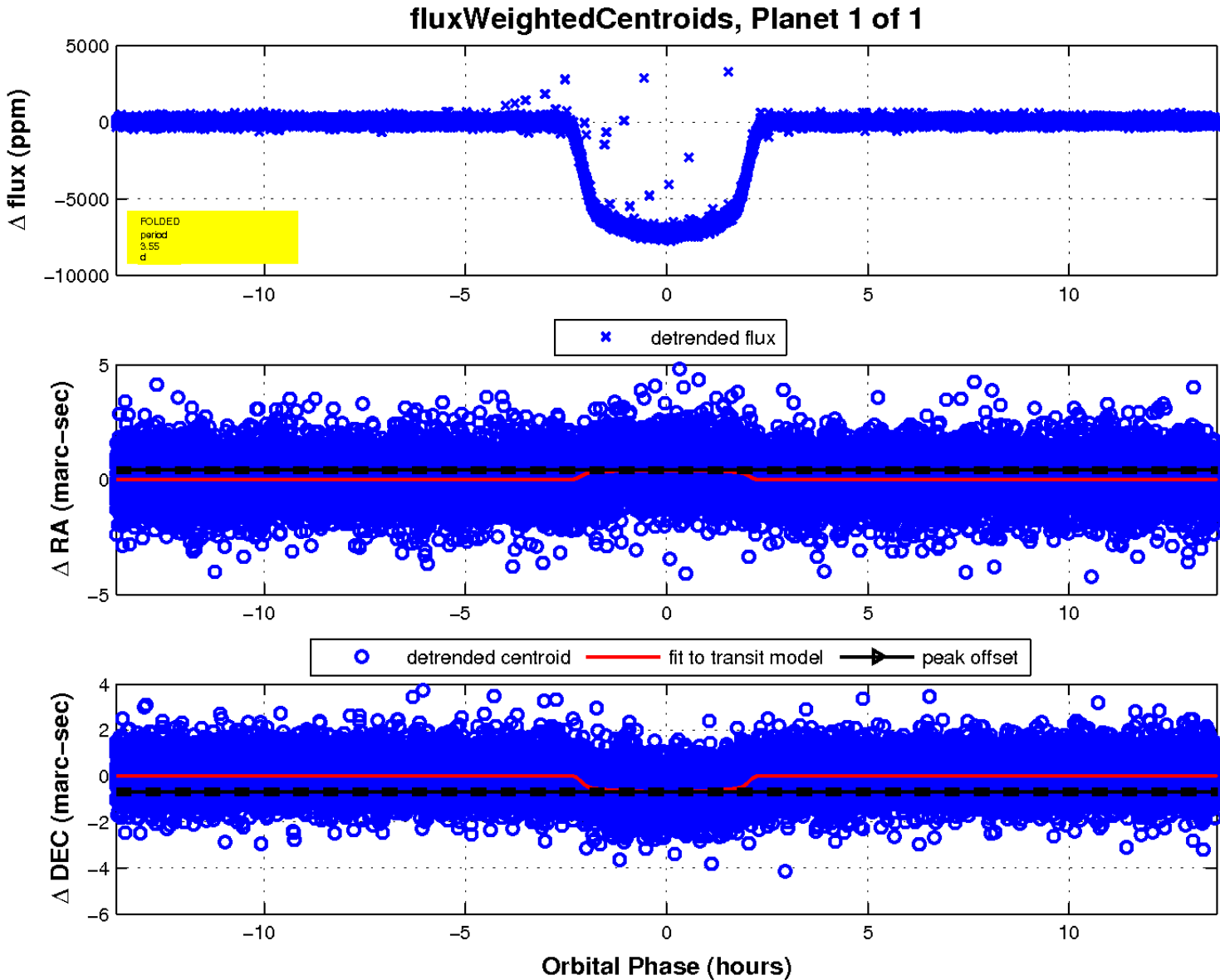
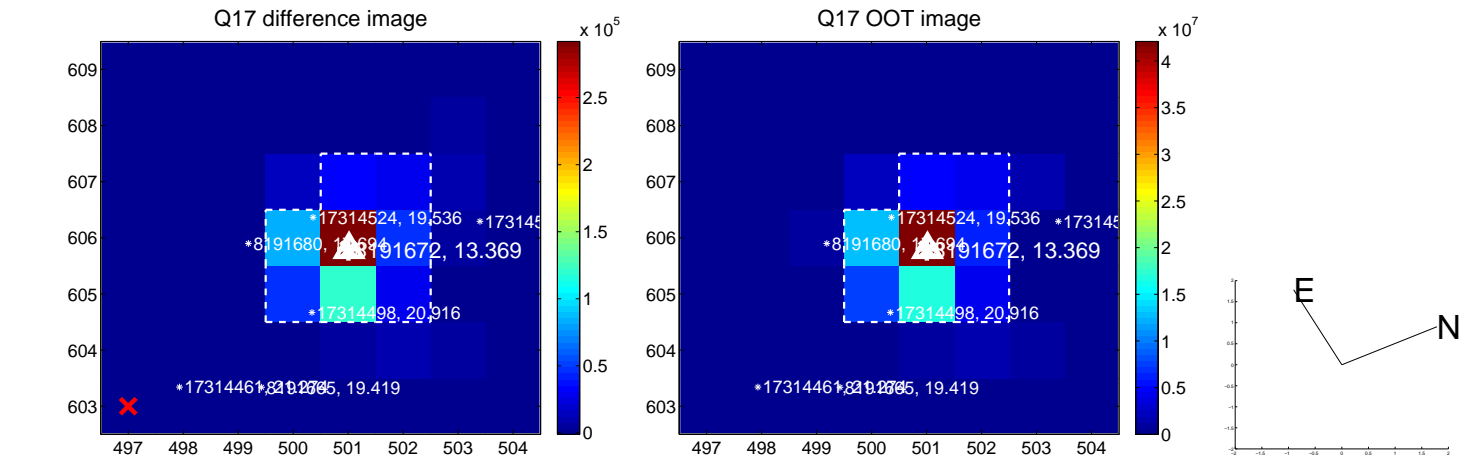
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UKIRT Image

Declination

