

KIC 010199817

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})
010199817-01	OBS	8197.01	392.942878	383.669182	127.8	11.337	7.6	7.3	1.44	6596	1.89	3.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010199817-01	OBS	FP	0.05	1	0	0	0	ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

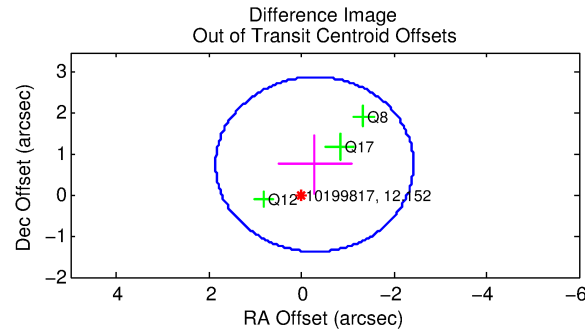
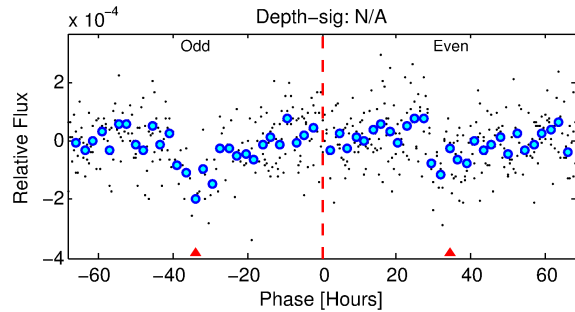
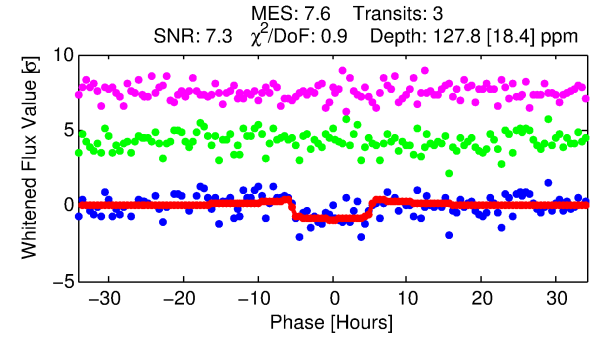
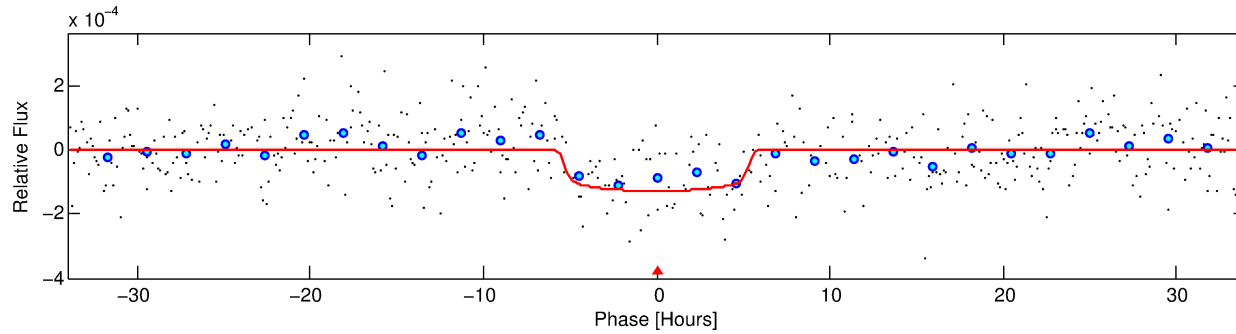
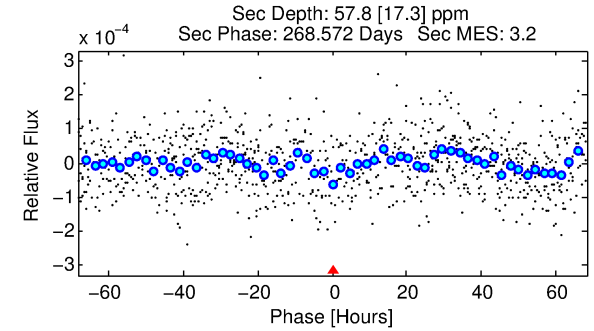
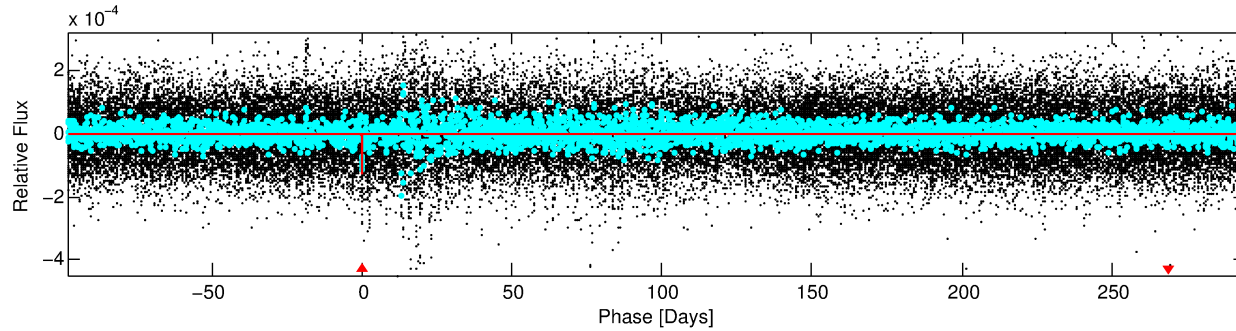
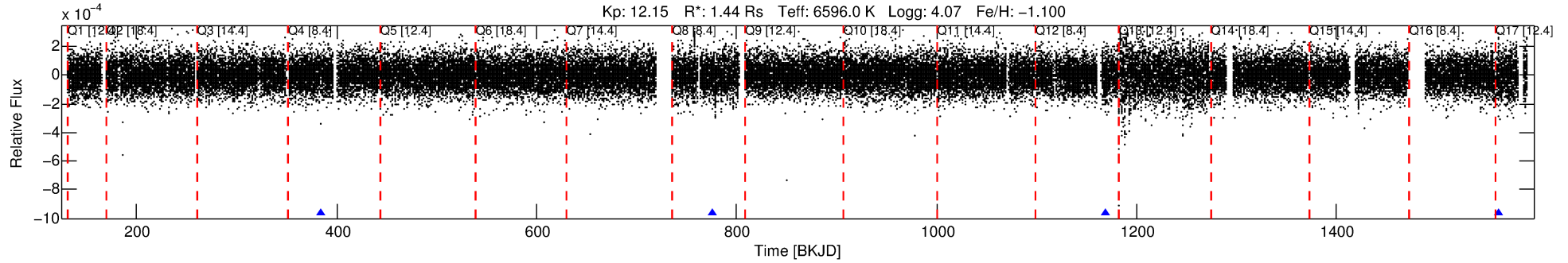
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010199817-01

No Significant Match Found

DV One-Page Summary

KIC: 10199817 Candidate: 1 of 1 Period: 392.943 d



DV Fit Results:

Period = 392.94288 [0.01213] d
Epoch = 383.6692 [0.0264] BKJD
Rp/R* = 0.0120 [0.0025]
a/R* = 125.73 [142.55]
b = 0.89 [0.26]
Seff = 3.43 [2.25]
Teq = 347 [57] K
Rp = 1.89 [0.80] Re
a = 1.0119 [0.3884] AU
Ag = 9138.02 [7511.63] [1.22σ]
Teffp = 5247 [701] K [6.96σ]

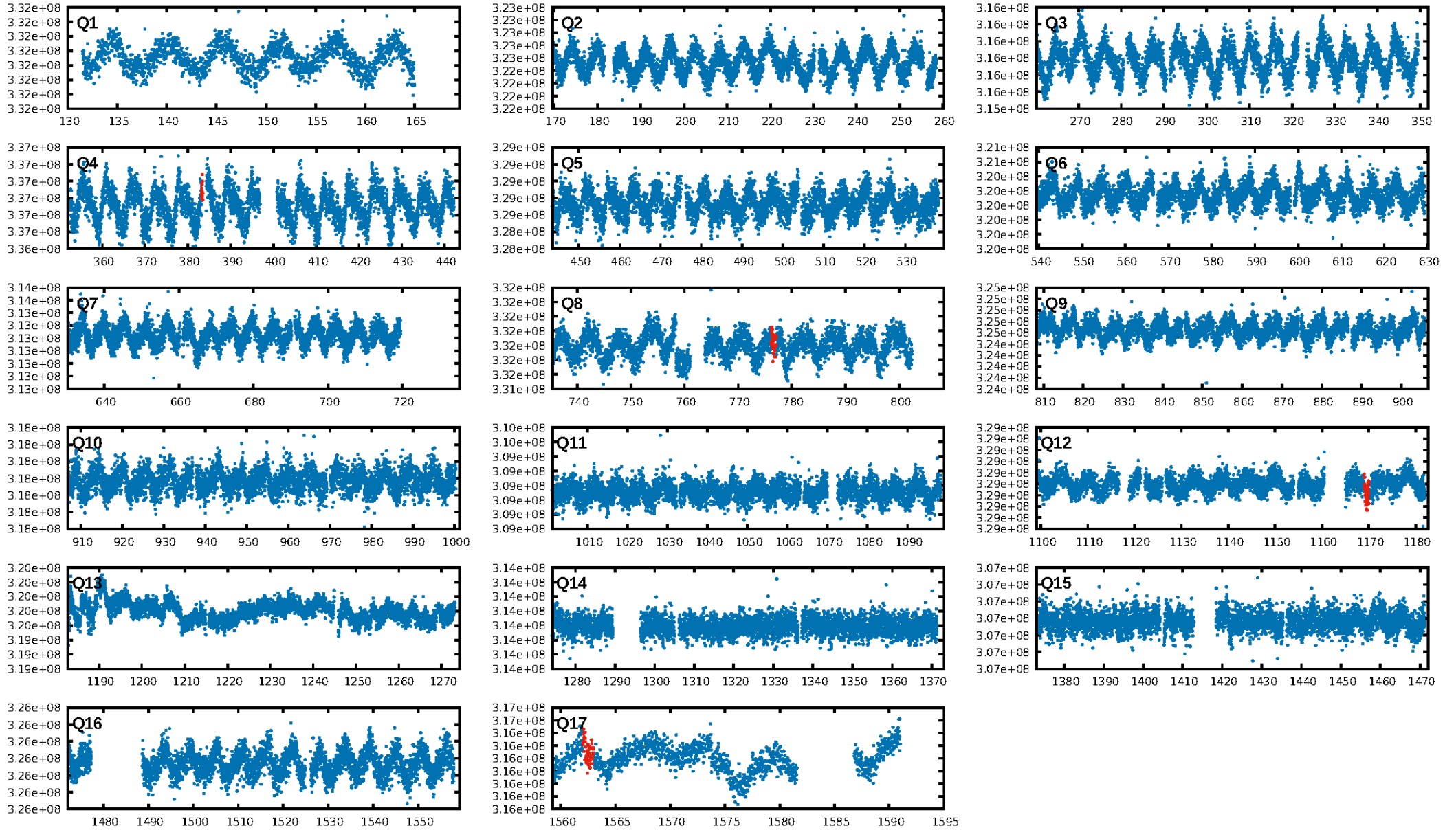
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.5%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: 1.58e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -5.544
Centroid-sig: 21.0%
Centroid-so: 0.783 arcsec [0.78σ]
OotOffset-rm: 0.807 arcsec [1.13σ]
OotOffset-st: 0/0/2/1 [3]
KicOffset-rm: 0.949 arcsec [1.35σ]
KicOffset-st: 0/0/2/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

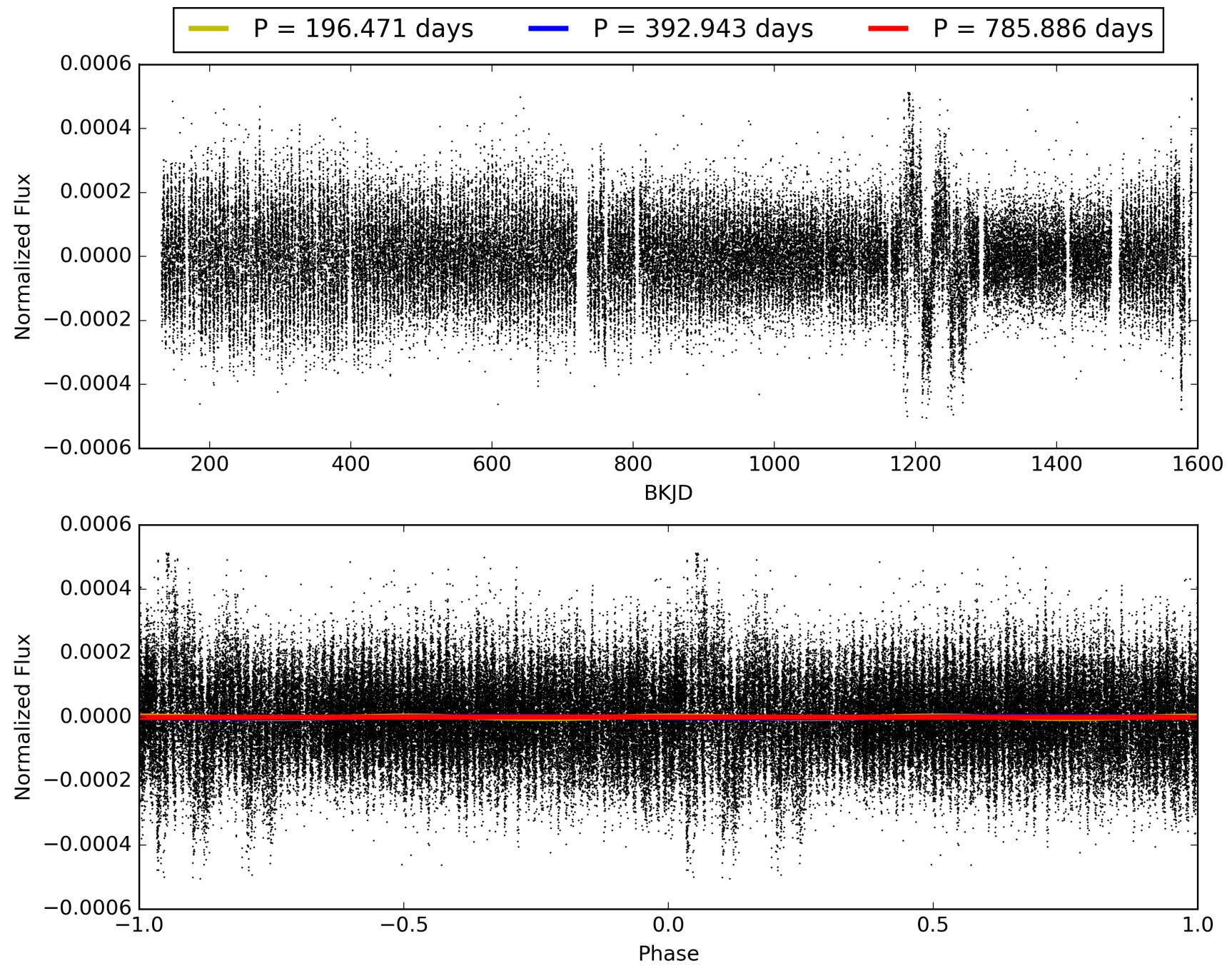
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:17:52 Z

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

TCE 010199817-01, PDC Light Curves

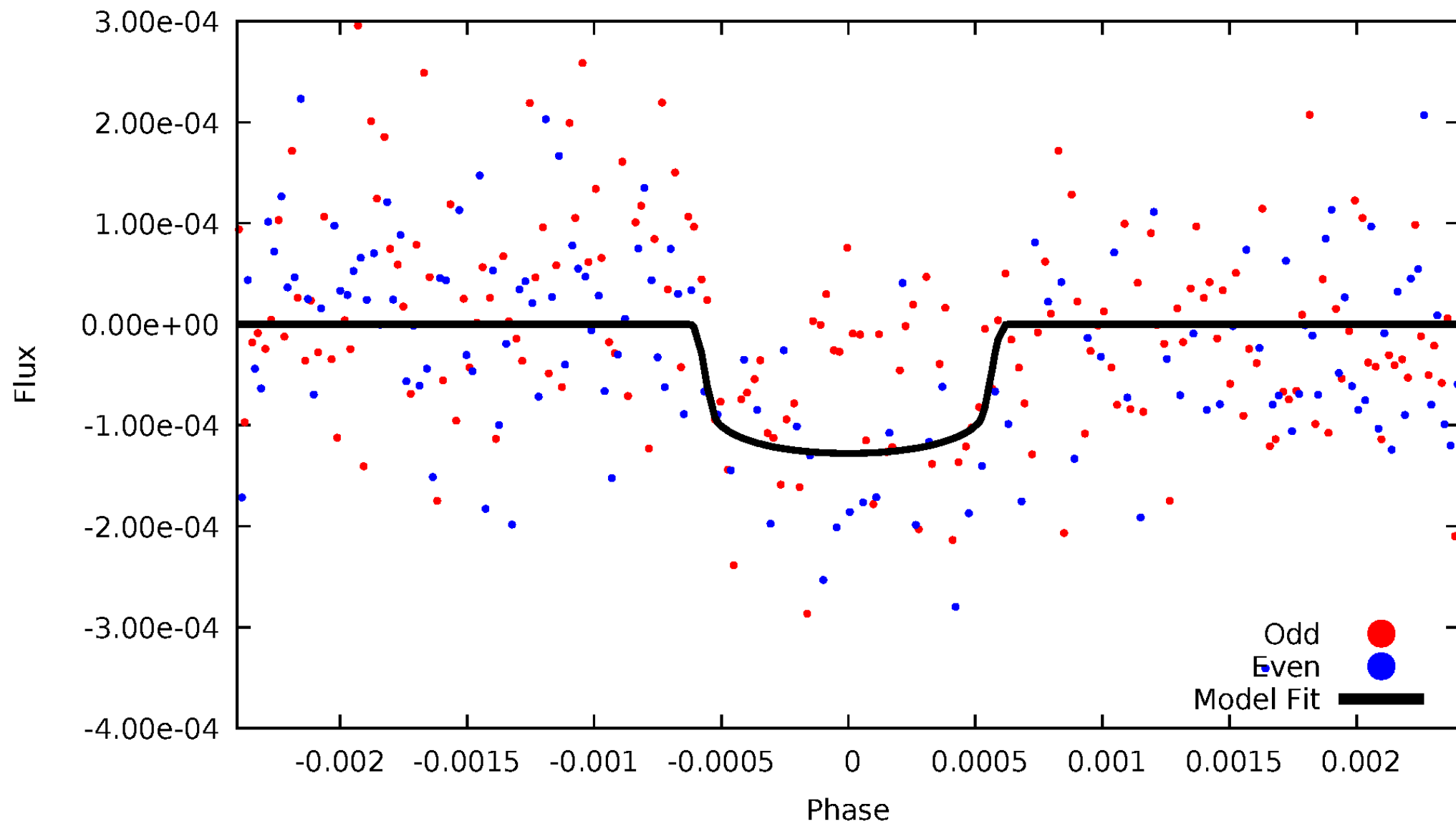


TCE 010199817-01



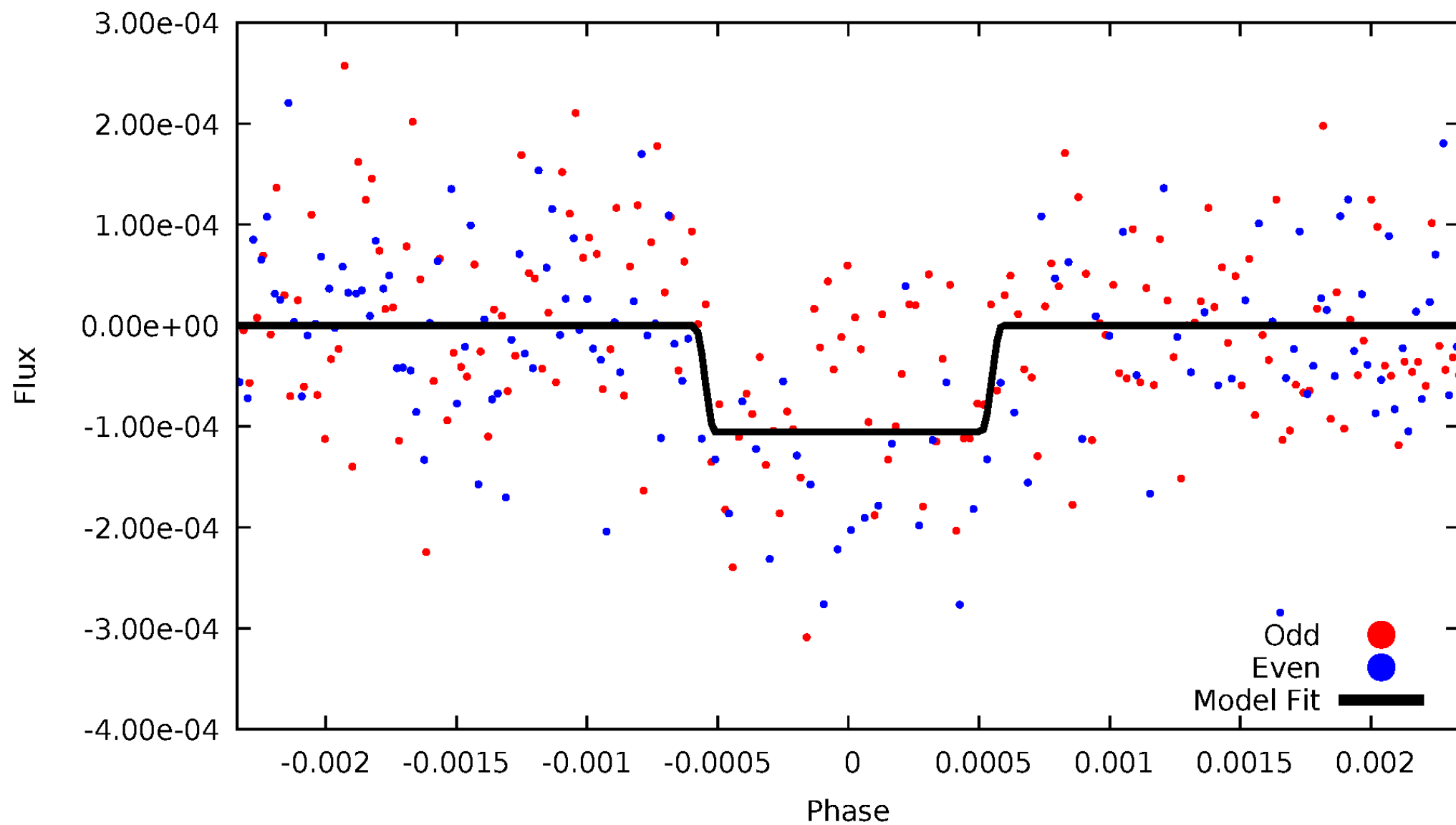
DV Odd/Even

TCE 010199817-01



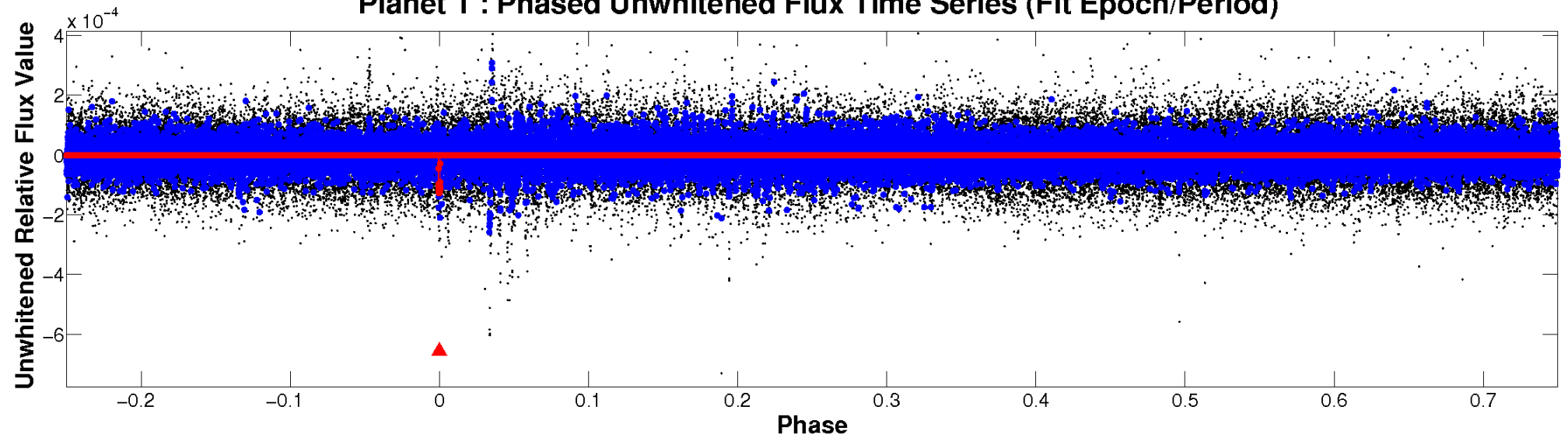
ALT Odd/Even

TCE 010199817-01

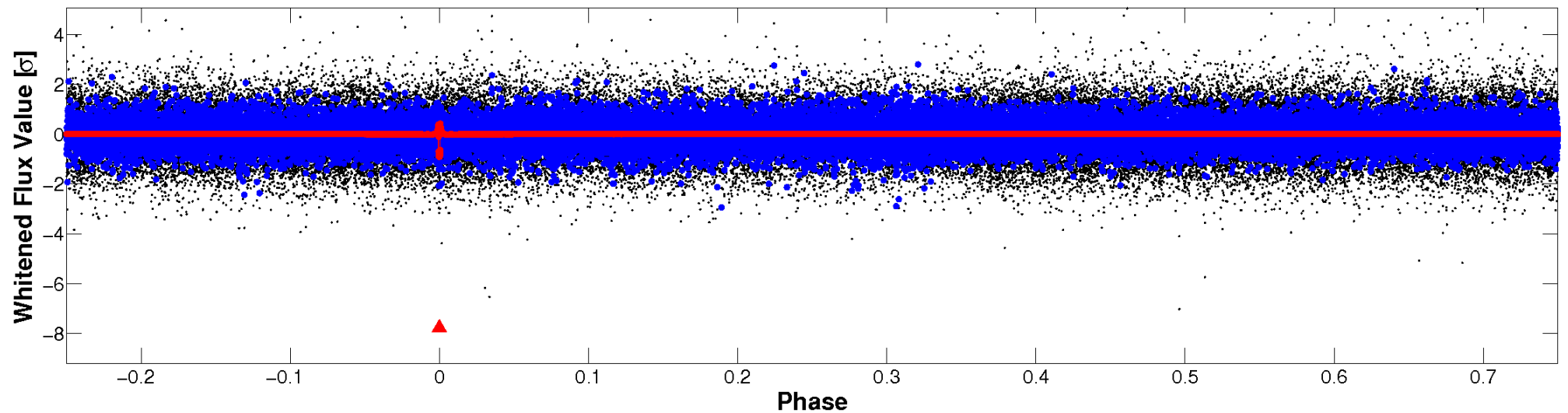


Non-Whitened Vs. Whitened Light Curve

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

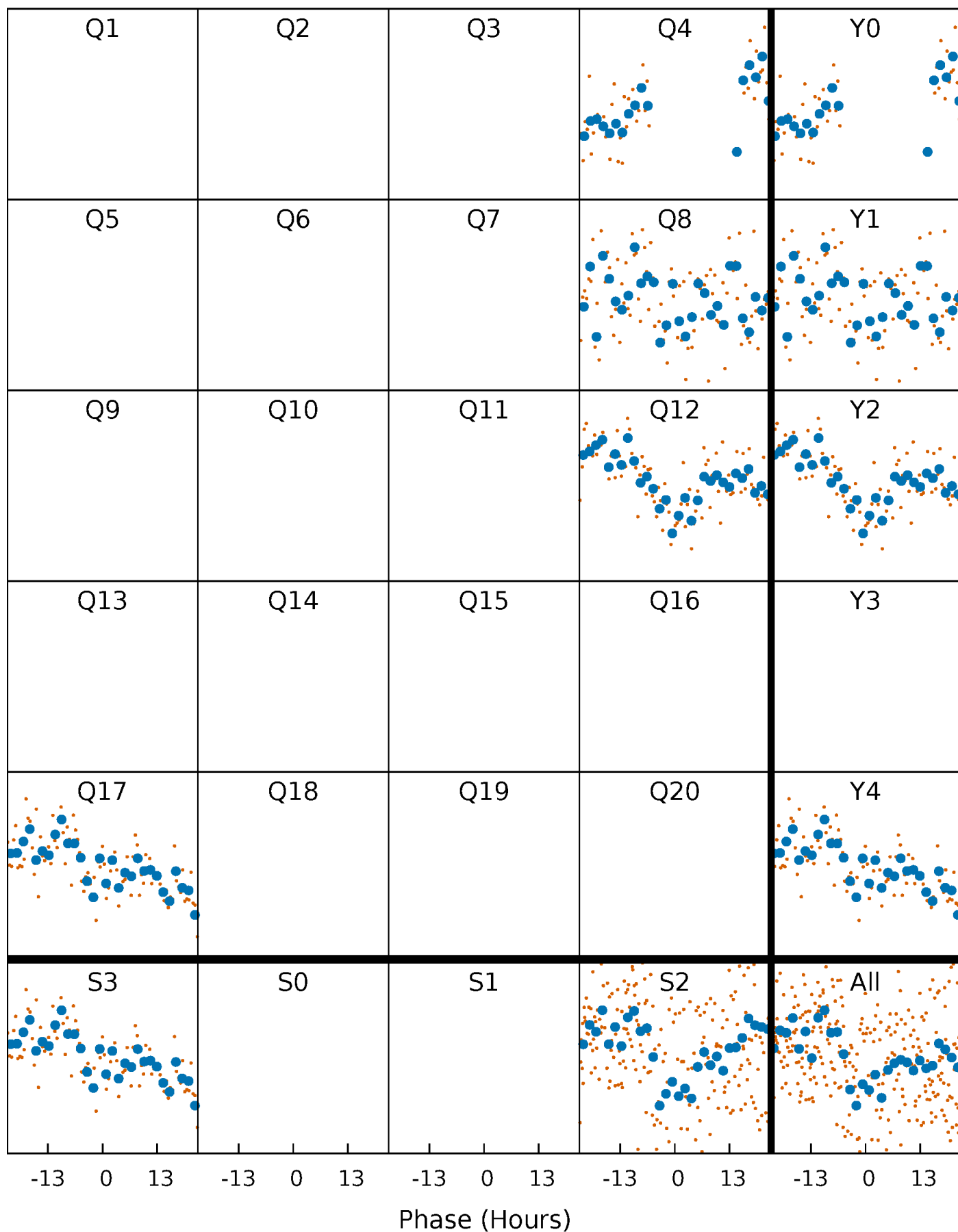


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 010199817-01 P=392.942879 Days $T_0=383.669182$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 010199817-01 P=392.942879 Days $T_0=383.669182$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

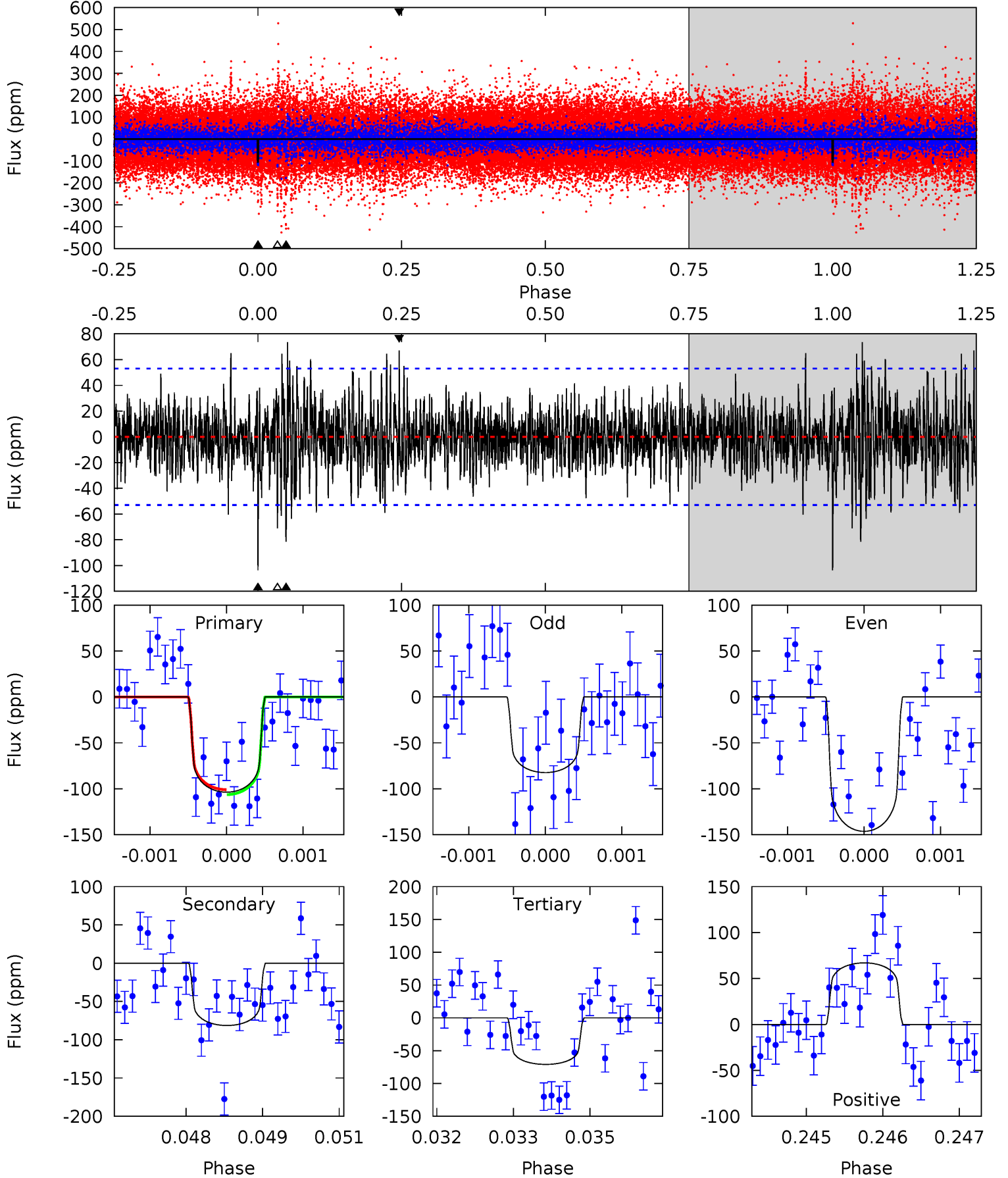
TCE 010199817-01 $P=392.944170$ Days $T_0=383.664573$ (BKJD)



DV Model-Shift Uniqueness Test

010199817-01, P = 392.942879 Days, E = 383.669182 Days

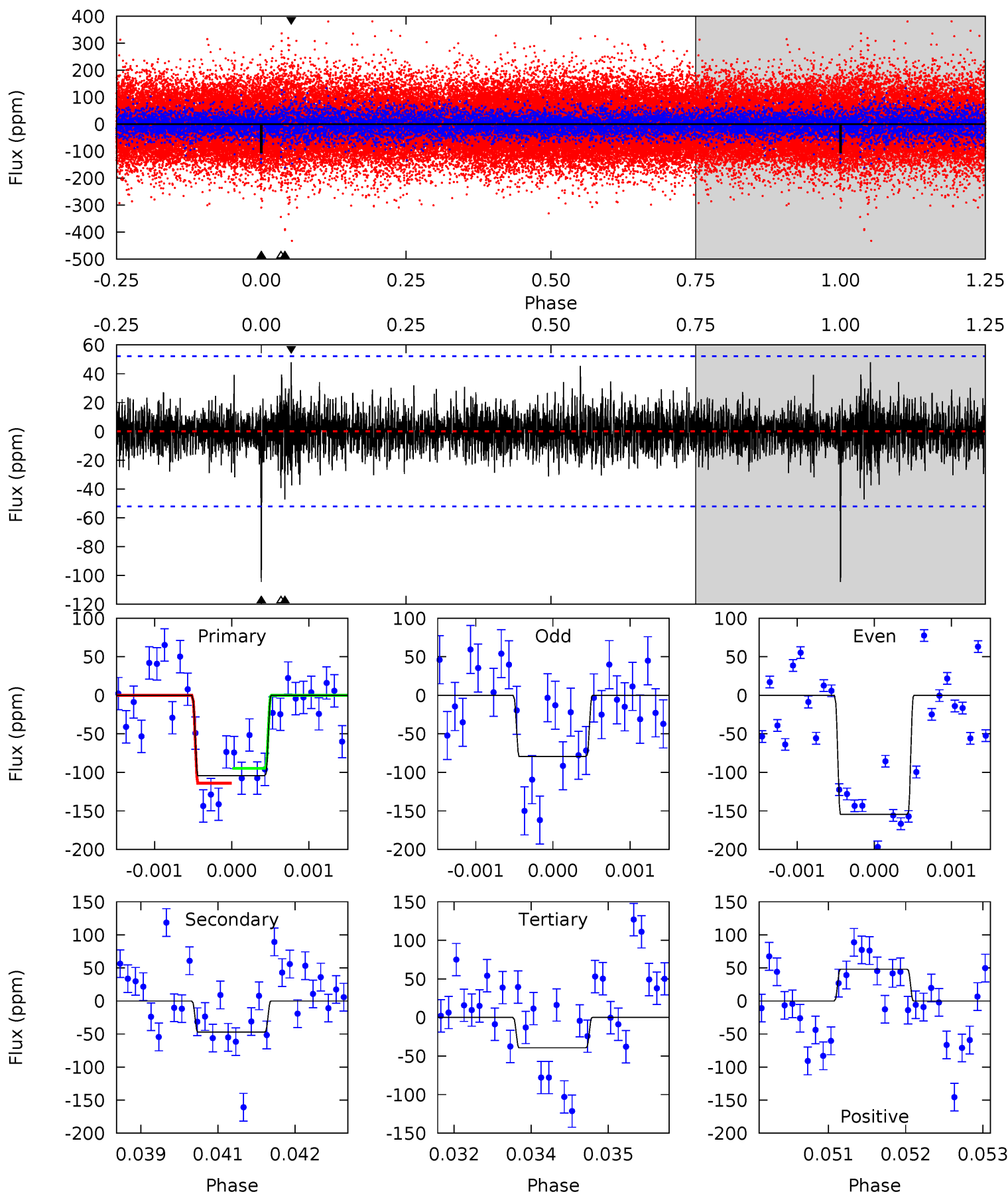
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	8.31	7.24	6.84	5.41	3.23	1.78	3.34	3.75	1.07	1.47	3.08	1.22	0.42	0.27



Alt Model-Shift Uniqueness Test

010199817-01, P = 392.944170 Days, E = 383.664573 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	4.91	4.09	4.98	5.43	3.25	1.05	6.77	5.88	0.82	-0.07	3.67	1.08	0.31	1.01



Stellar Parameters For KIC 010199817

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6596^{+206}_{-229}	$4.073^{+0.385}_{-0.165}$	$-1.100^{+0.300}_{-0.300}$	$1.440^{+0.353}_{-0.529}$	$0.895^{+0.087}_{-0.079}$	$0.422^{+1.173}_{-0.182}$
	+3%/-3%	+9%/-4%	+27%/-27%	+25%/-37%	+10%/-9%	+278%/-43%
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 010199817-01 / KOI 8197.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-81 ± 10	$1.77^{+0.53}_{-0.43}$	480^{+41}_{-50}	5761^{+714}_{-559}	14577^{+11792}_{-5923}
Alt.	-47 ± 10	$1.54^{+0.50}_{-0.47}$	478^{+40}_{-53}	5411^{+859}_{-592}	10856^{+13004}_{-4645}

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

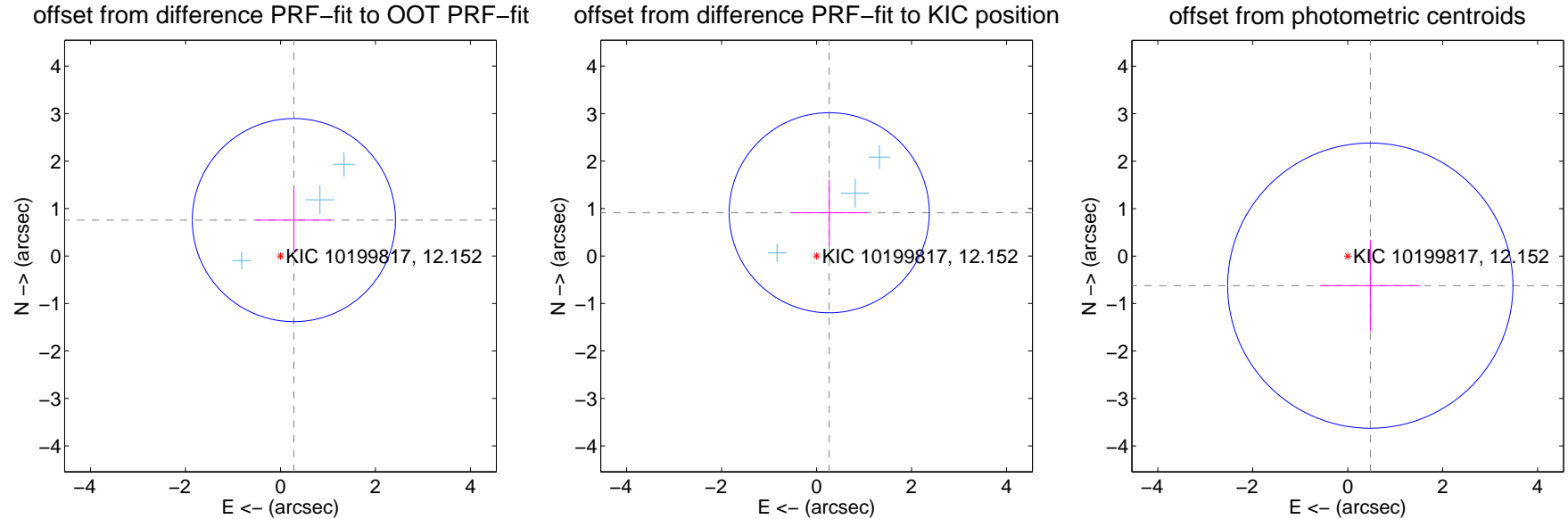
DV Centroid Data

Supplemental centroid analysis for 010199817-01. Kepler magnitude: 12.15. Transit SNR 7.30

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.807 ± 0.713	1.13	-0.282 ± 0.788	0.757 ± 0.702
PRF-fit source offset from KIC position	0.949 ± 0.702	1.35	-0.266 ± 0.788	0.911 ± 0.695
photometric centroid source offset	0.78 ± 1.00	0.78	-0.48 ± 1.06	-0.62 ± 0.96

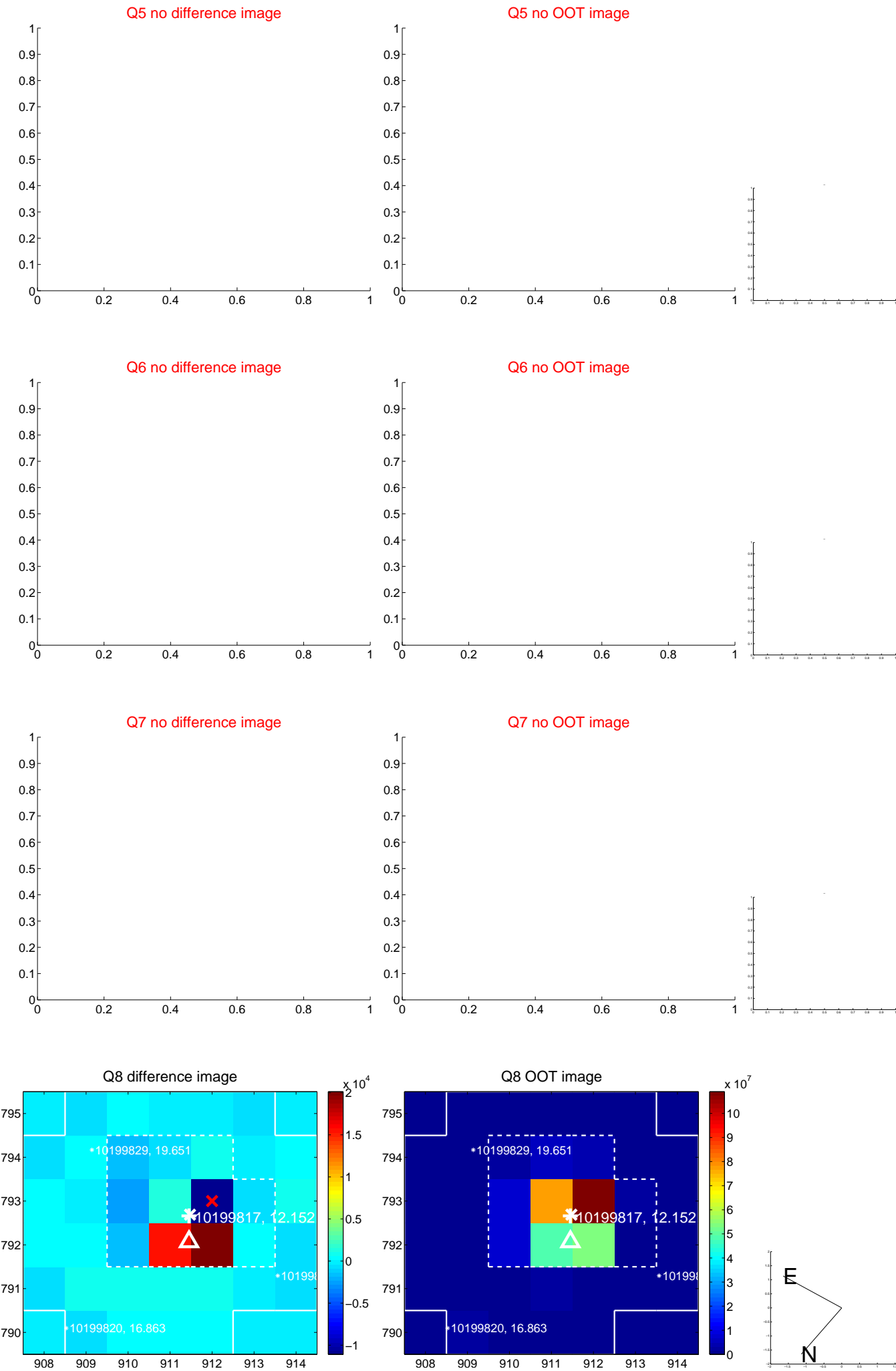


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

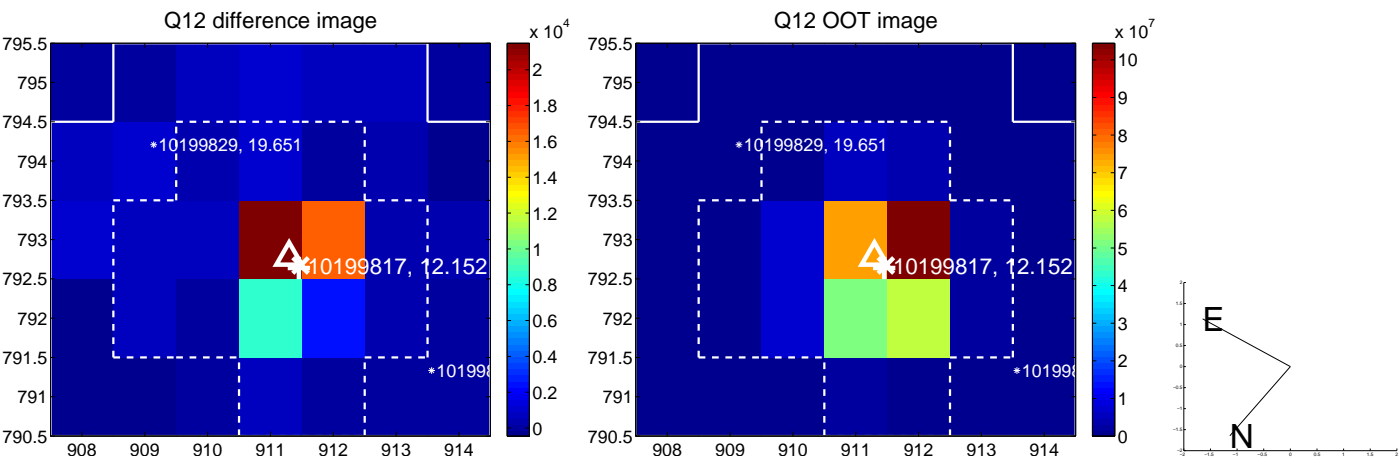
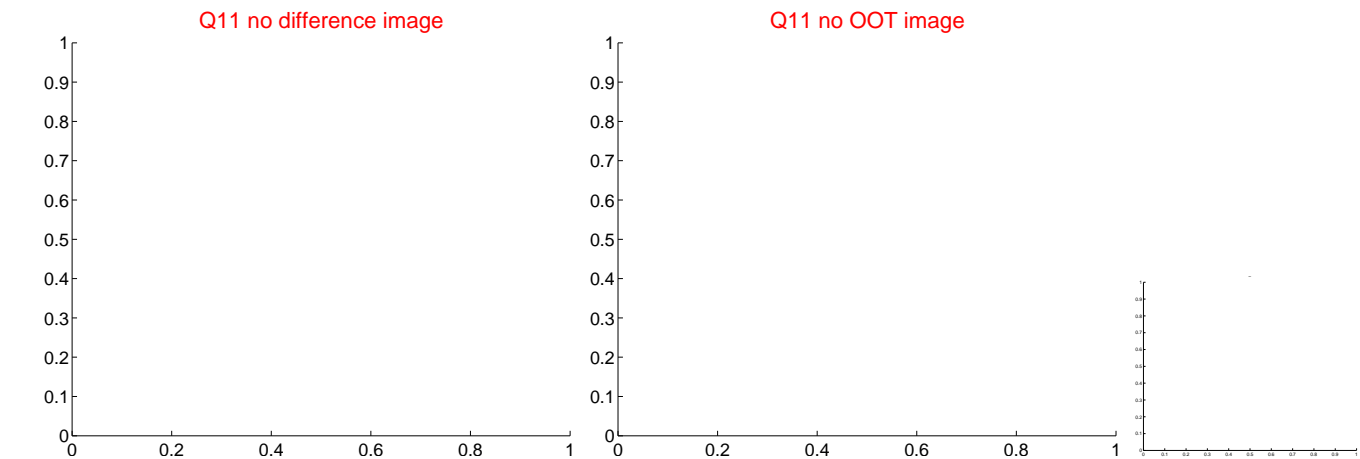
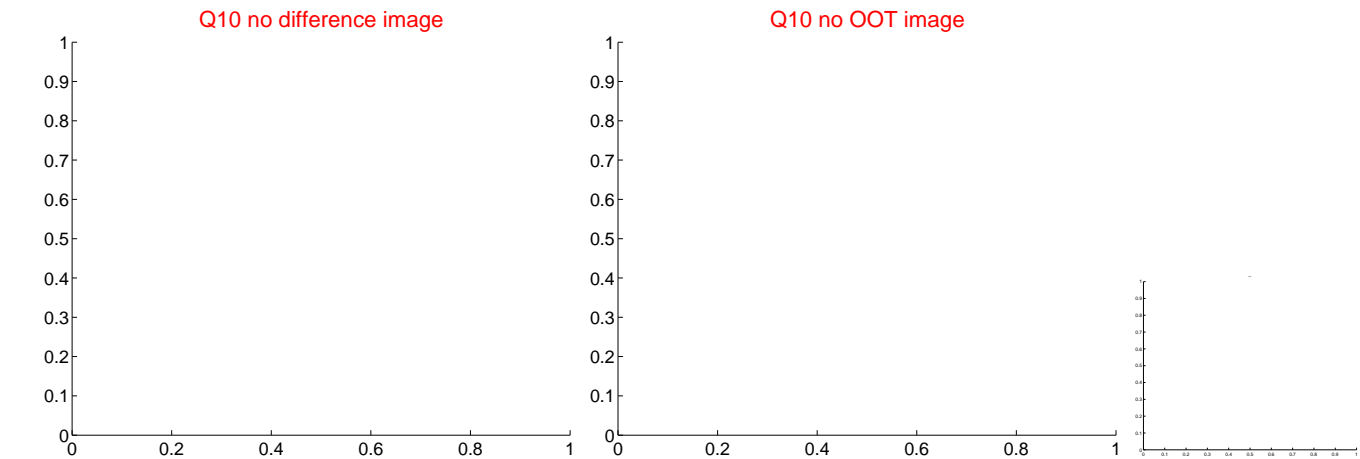
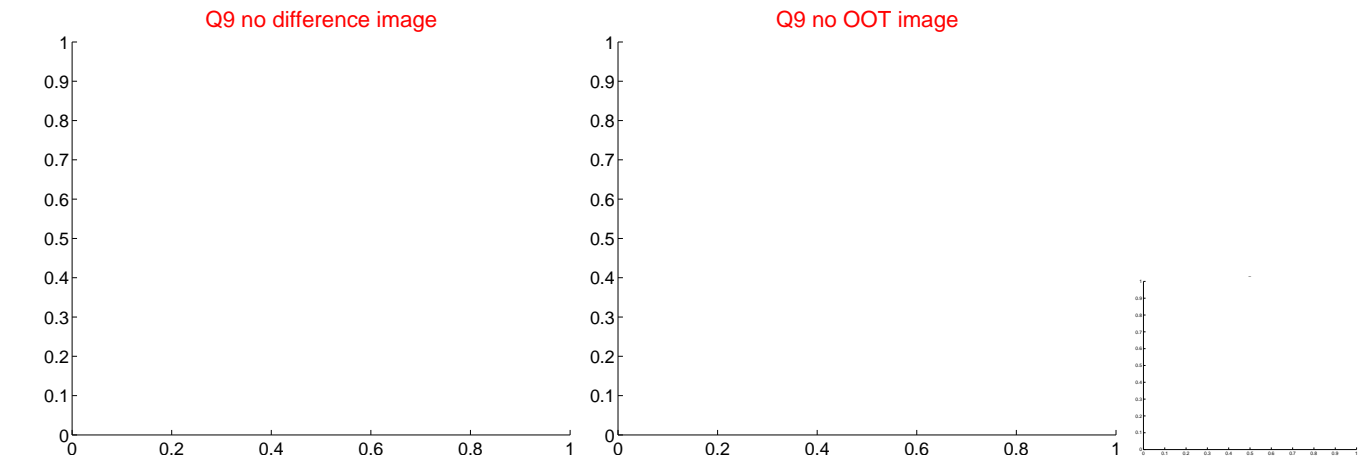
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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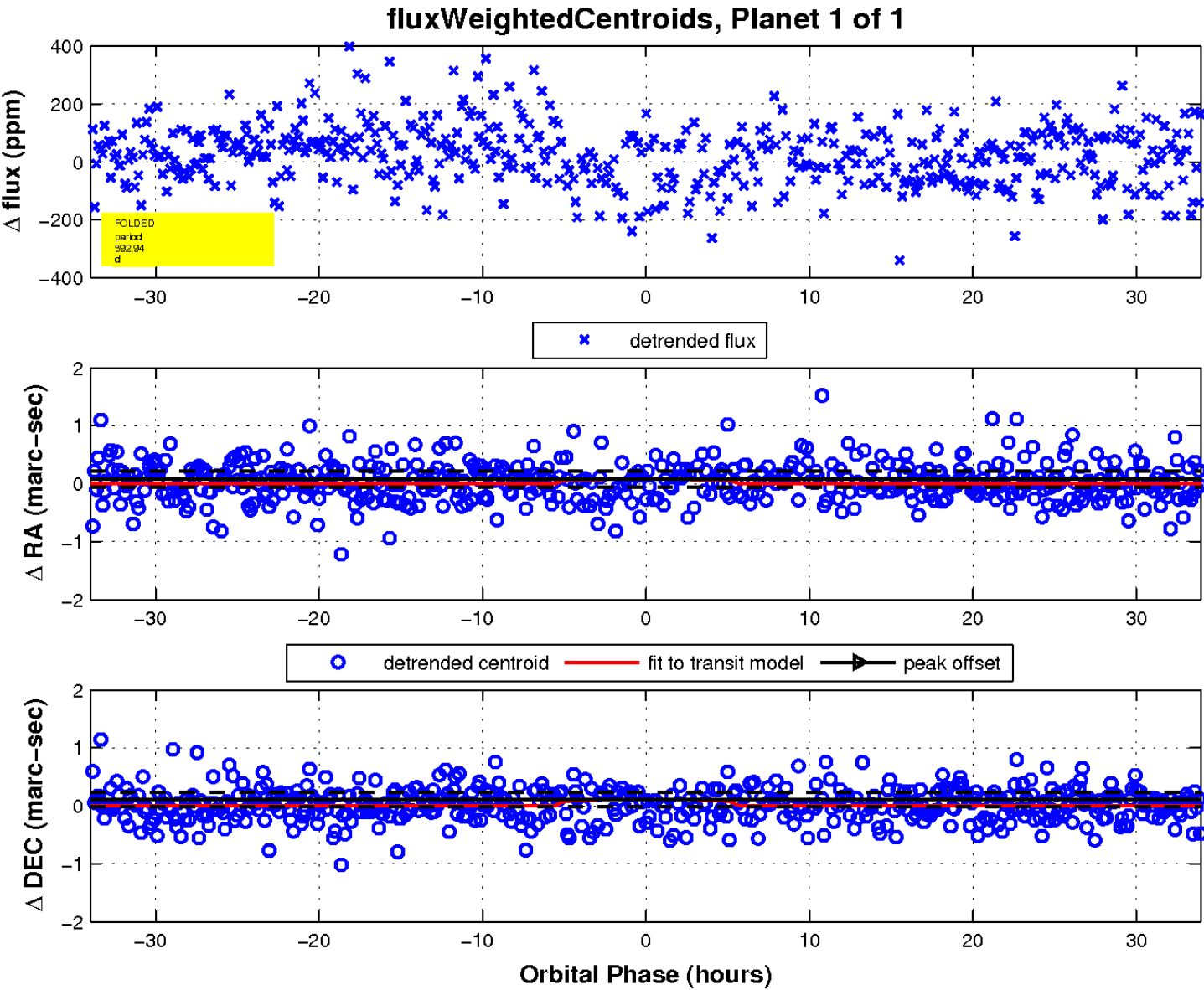
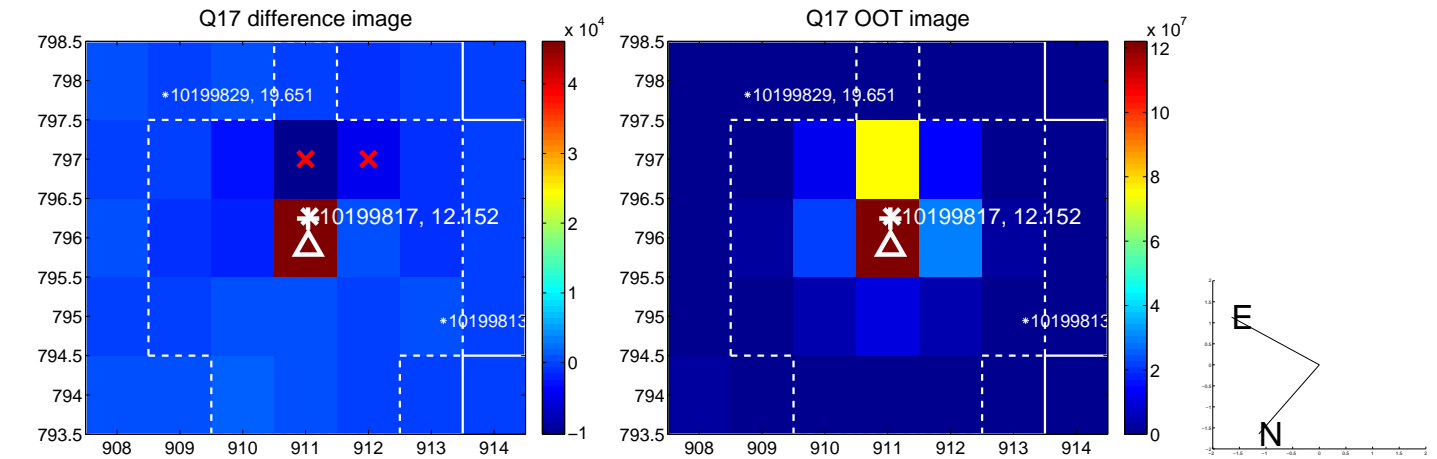
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UKIRT Image

Declination

