

KIC 008197368

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})
008197368-01	OBS	No	9.085791	134.551217	52.3	32.439	7.9	10.8	3.39	6631	2.84	1937.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008197368-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_FEW_MEAS—HALO_GHOST

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

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

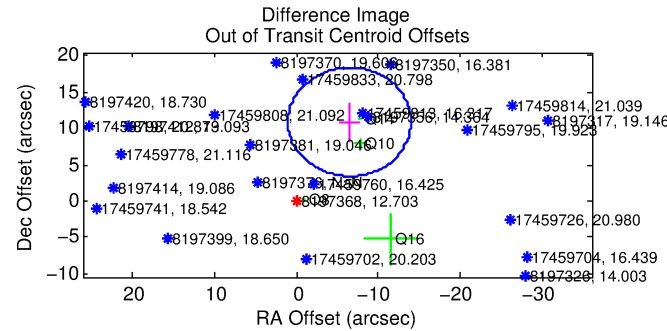
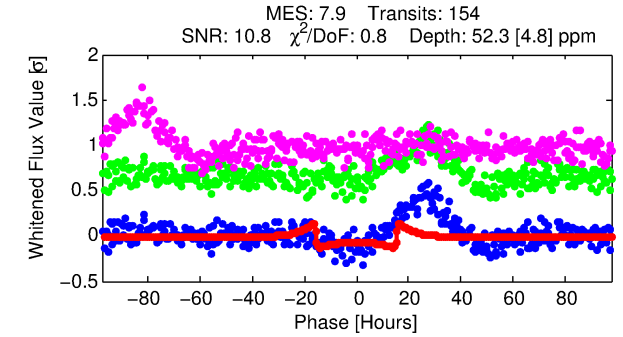
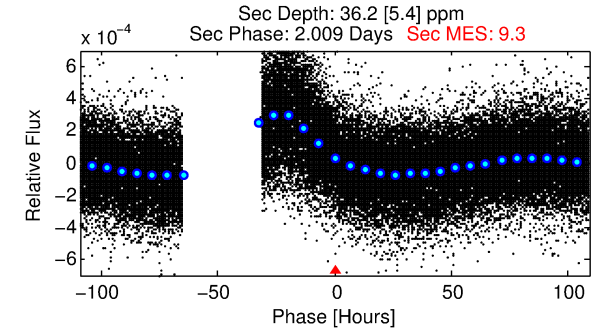
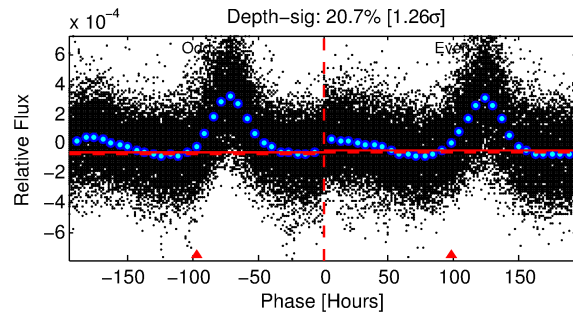
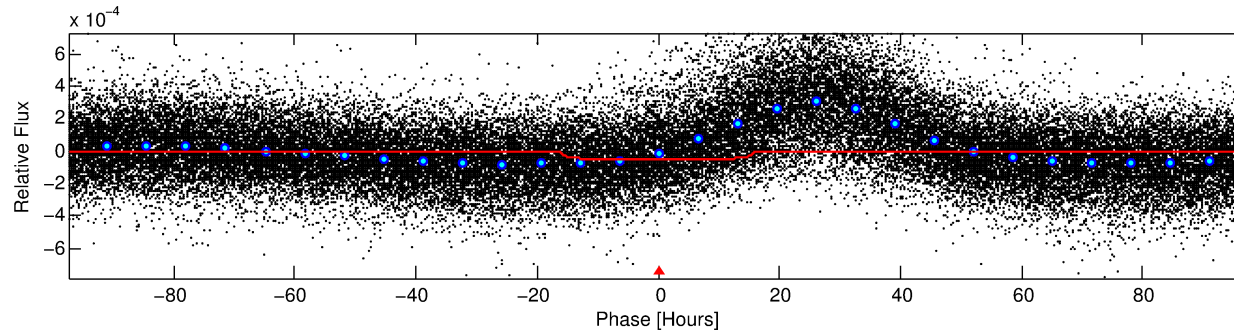
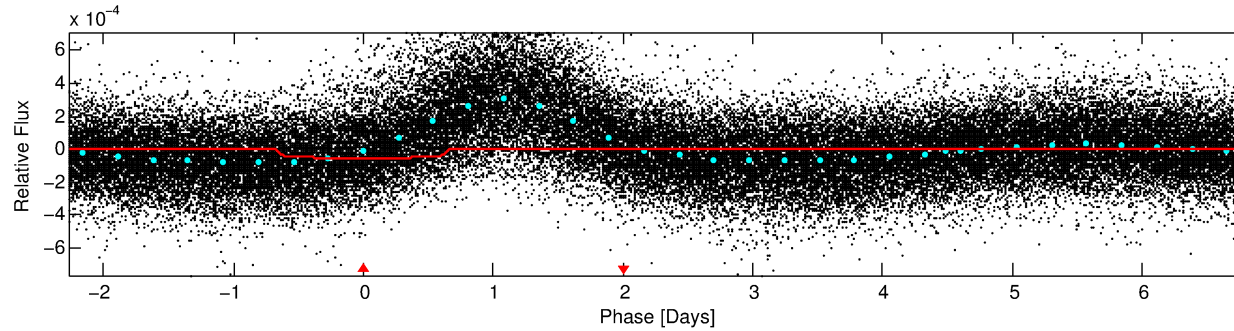
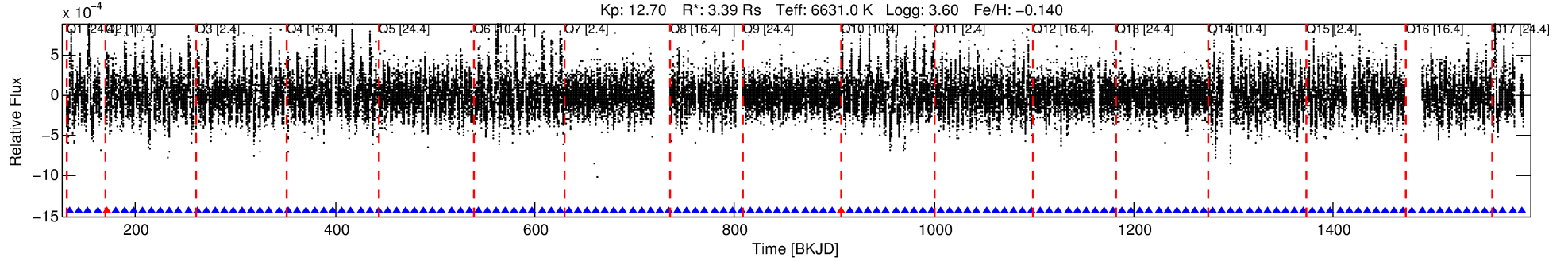
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008197368-01

No Significant Match Found

DV One-Page Summary

KIC: 8197368 Candidate: 1 of 1 Period: 9.086 d



DV Fit Results:

Period = 9.08579 [0.00015] d
Epoch = 134.5512 [0.0137] BKJD
Rp/R* = 0.0077 [0.0005]
a/R* = 1.37 [0.13]
b = 0.89 [0.05]
Seff = 1937.63 [1064.07]
Teq = 1692 [232] K
Rp = 2.84 [1.02] Re
a = 0.1013 [0.0343] AU
Ag = 25.31 [14.48] [1.68 σ]
Teffp = 5867 [325] K [10.44 σ]

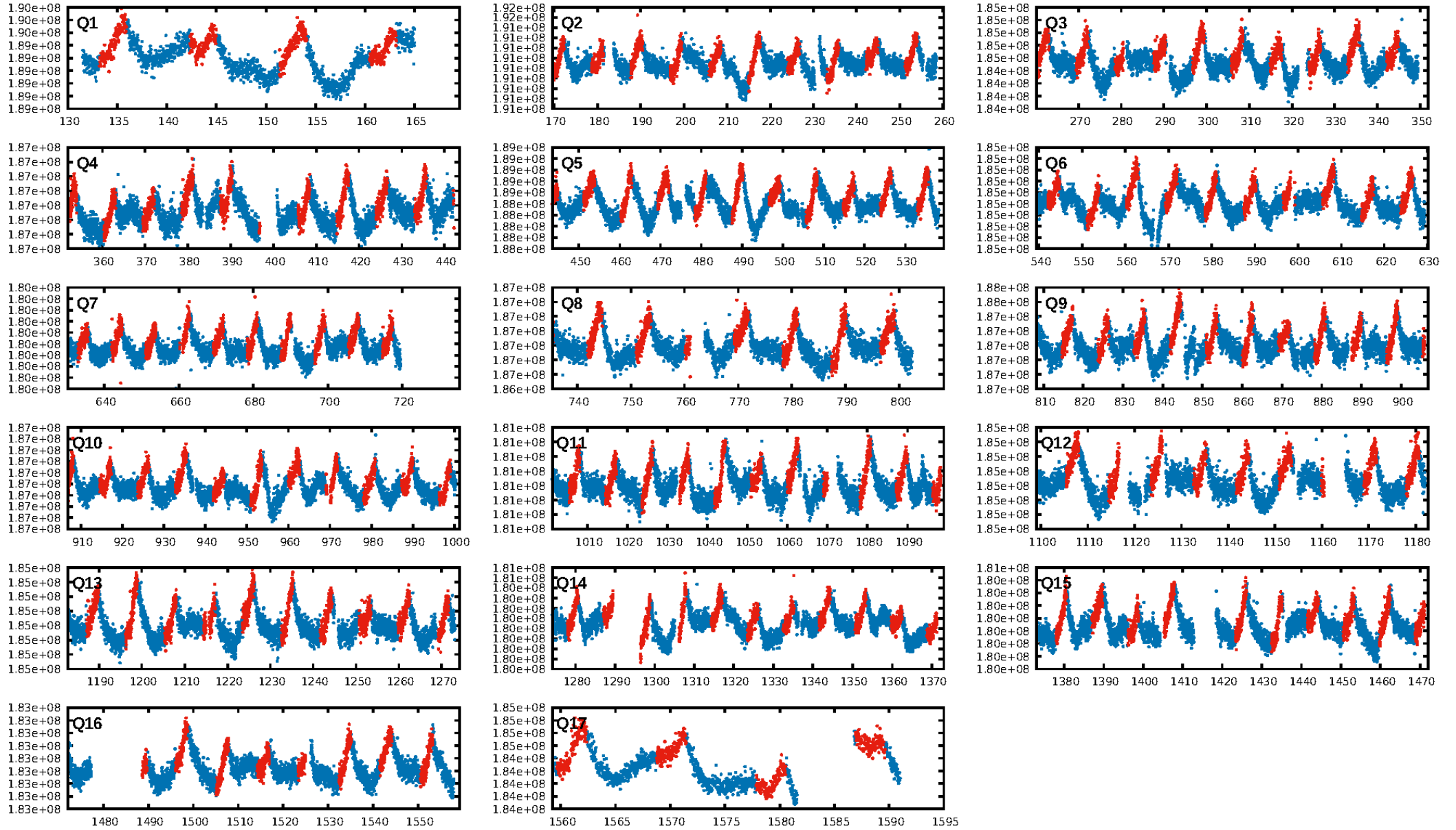
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.12e-16
RollingBand-fgt: 0.99 [144/146]
GhostDiagnostic-chr: 0.2376
Centroid-sig: 1.4%
Centroid-so: 1.439 arcsec [1.94 σ]
OotOffset-rm: 12.674 arcsec [5.07 σ]
KicOffset-rm: 12.814 arcsec [4.55 σ]
OotOffset-st: 2/0/2/0 [4]
KicOffset-st: 2/0/2/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [17/17]

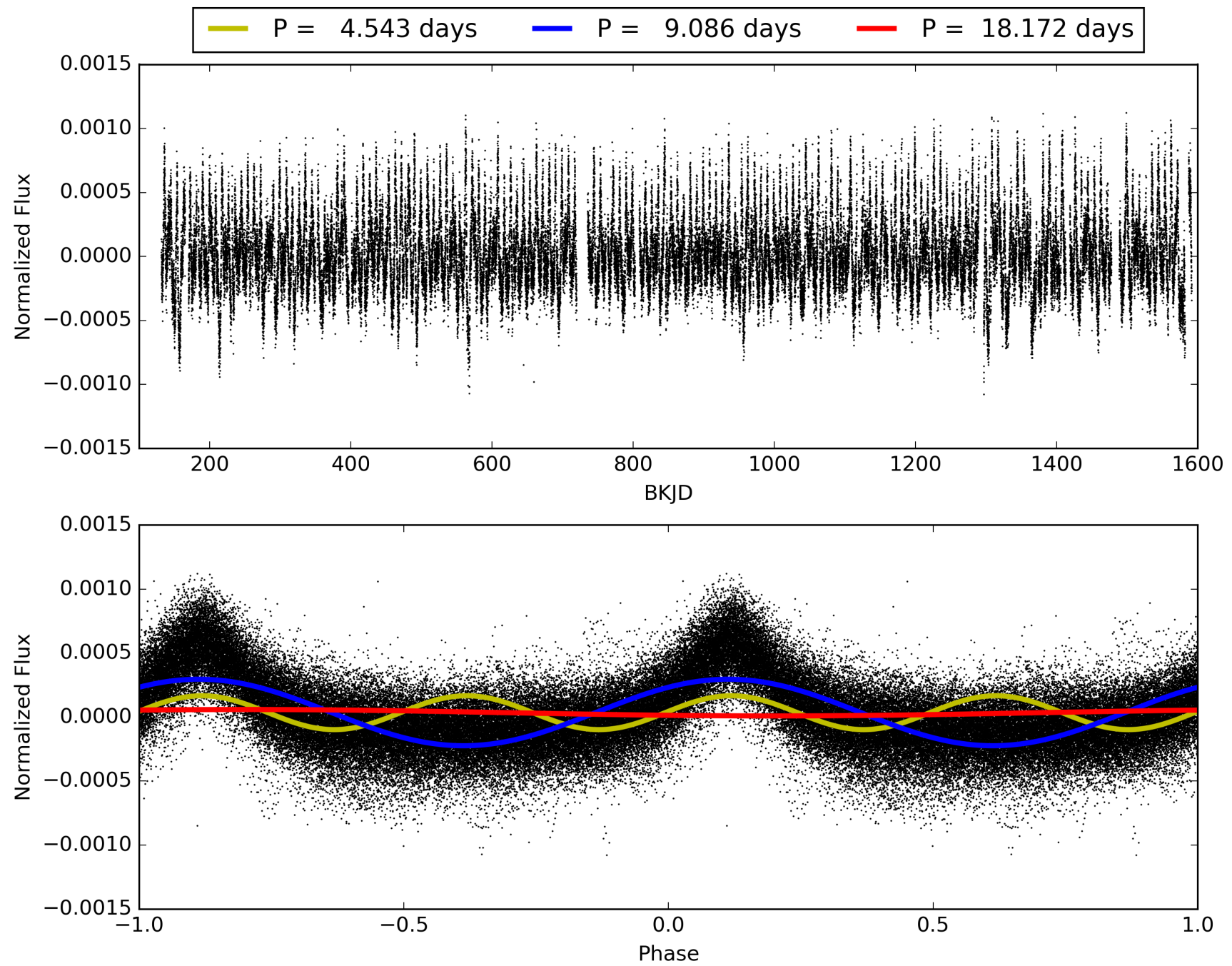
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:02:45 Z

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

TCE 008197368-01, PDC Light Curves

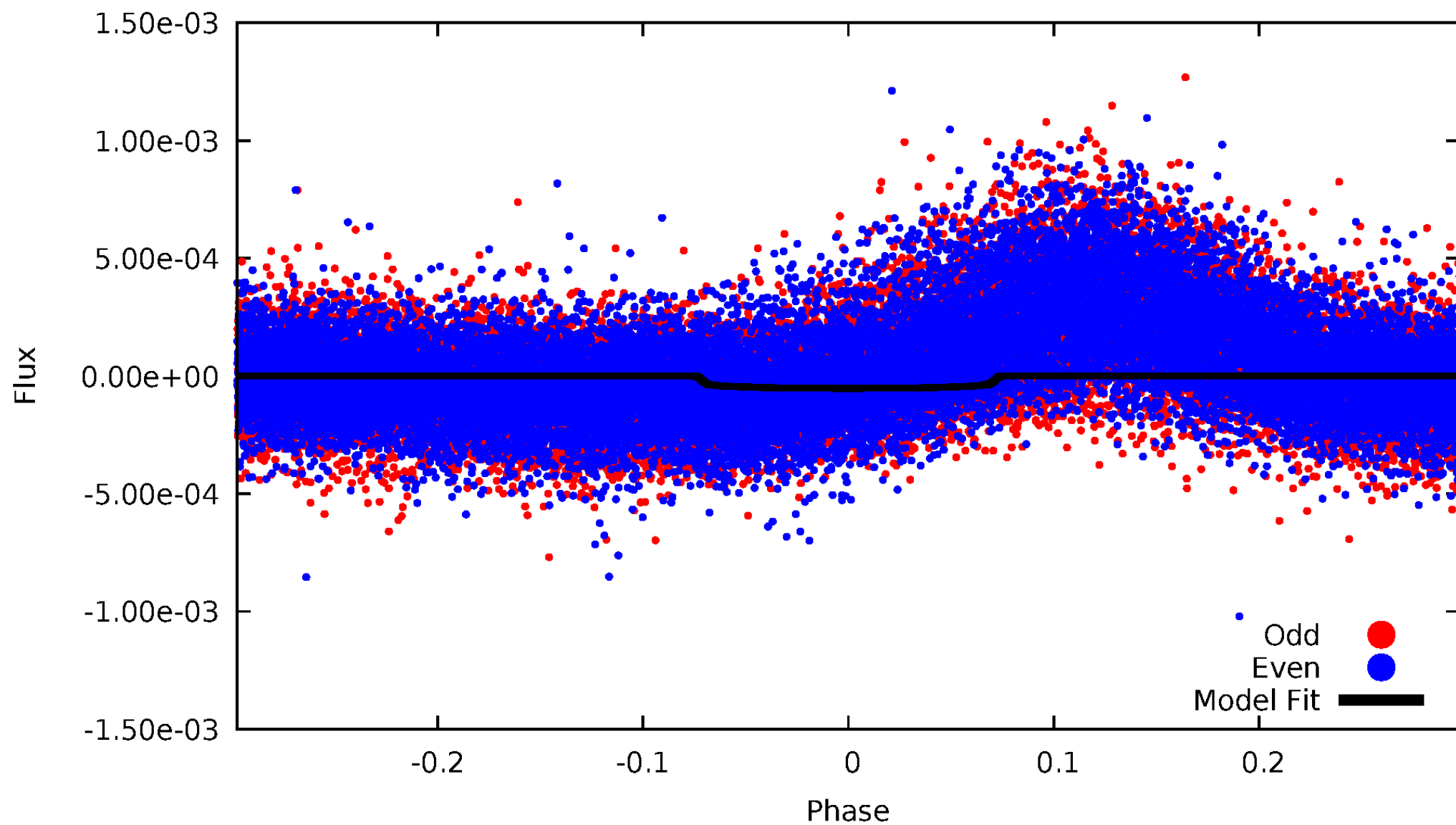


TCE 008197368-01



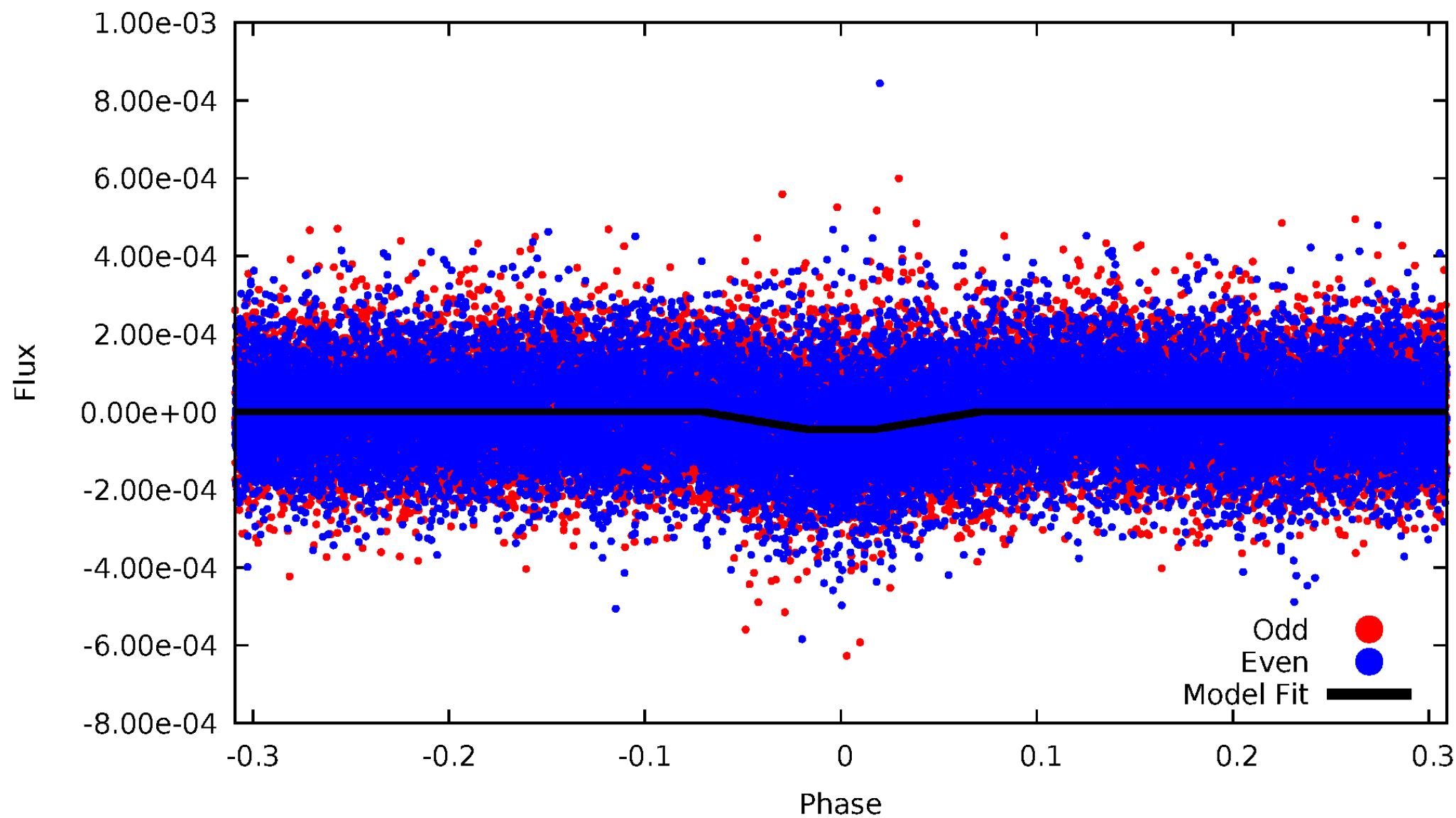
DV Odd/Even

TCE 008197368-01



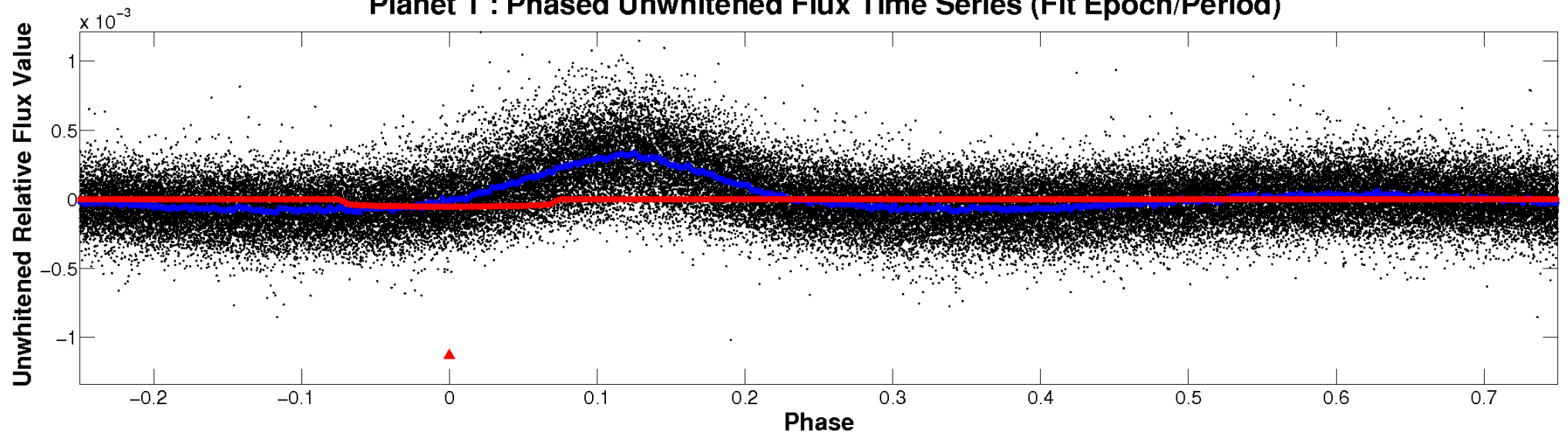
ALT Odd/Even

TCE 008197368-01

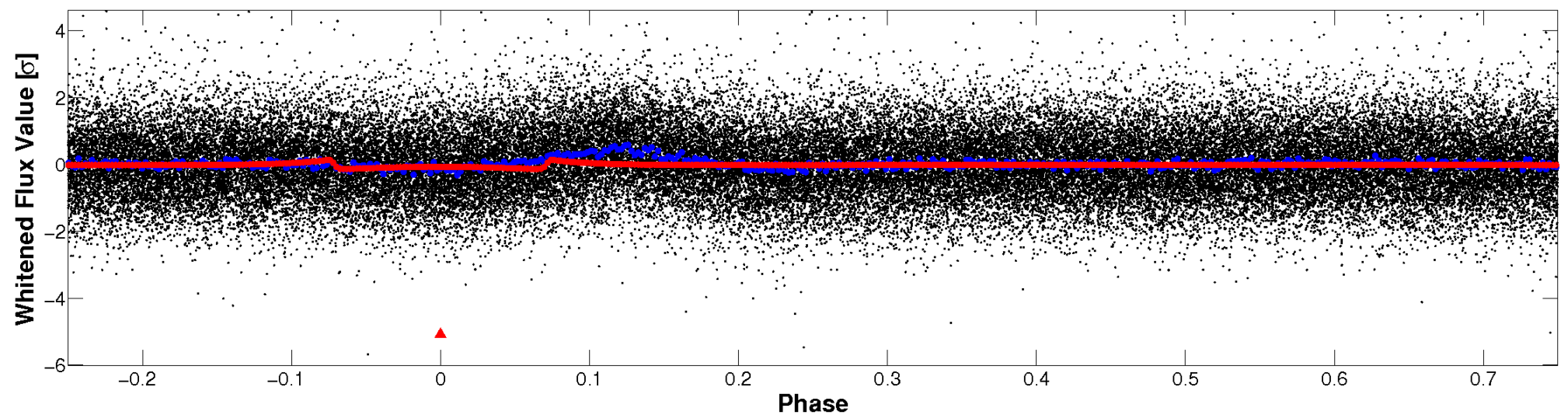


Non-Whitened Vs. Whitened Light Curve

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

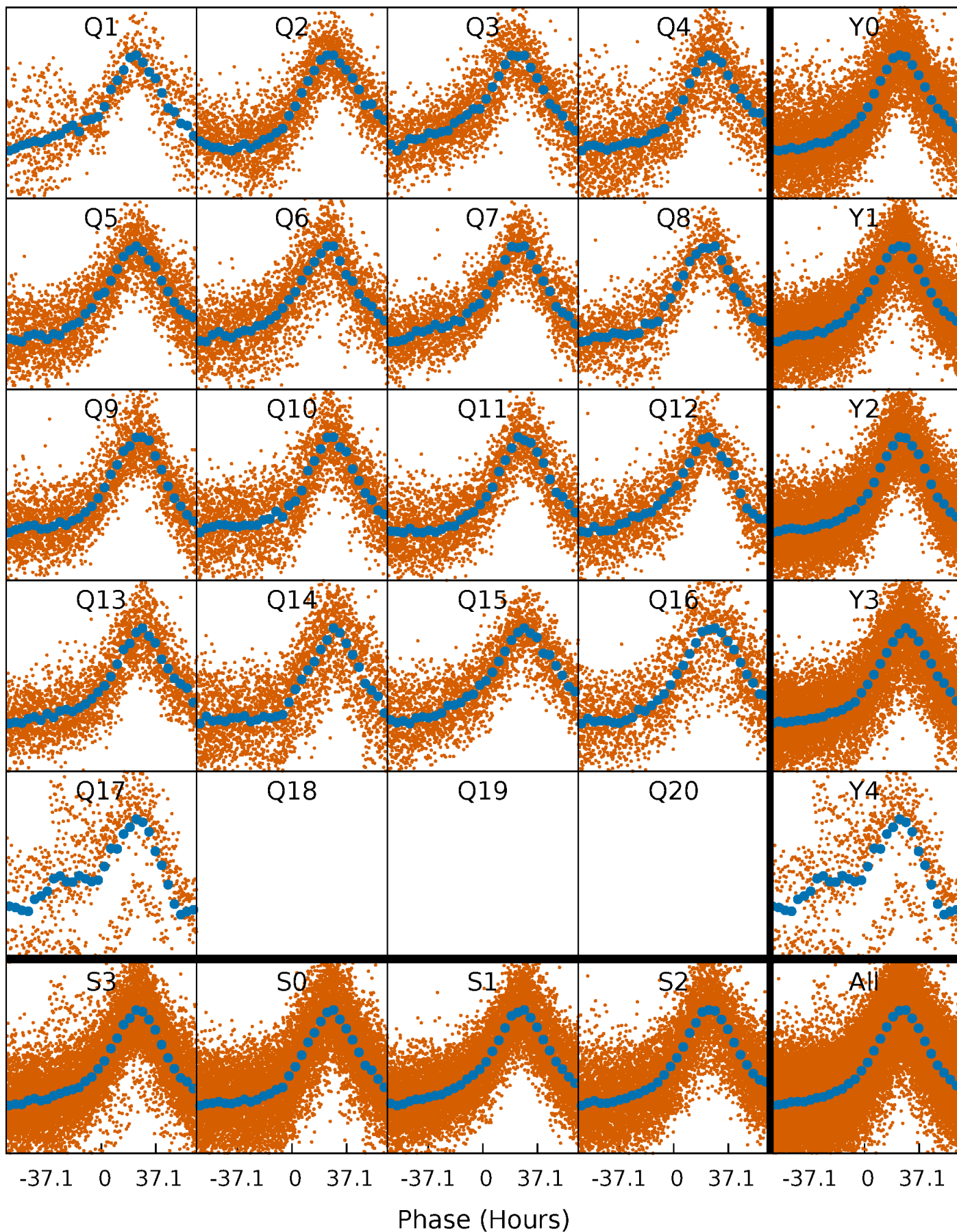


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



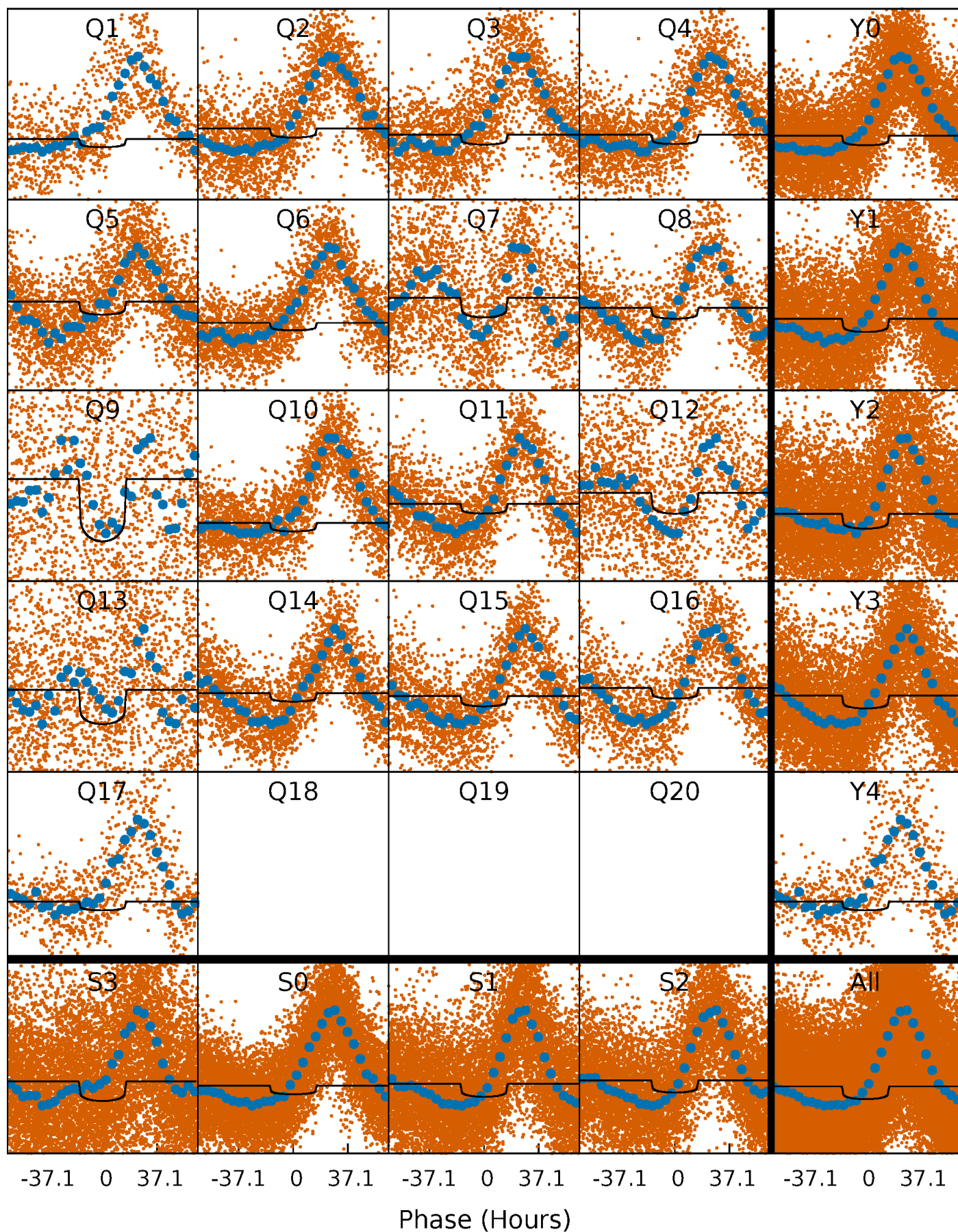
PDC Quarter-Phased Transit Curves

TCE 008197368-01 P= 9.085791 Days $T_0=134.551217$ (BKJD)



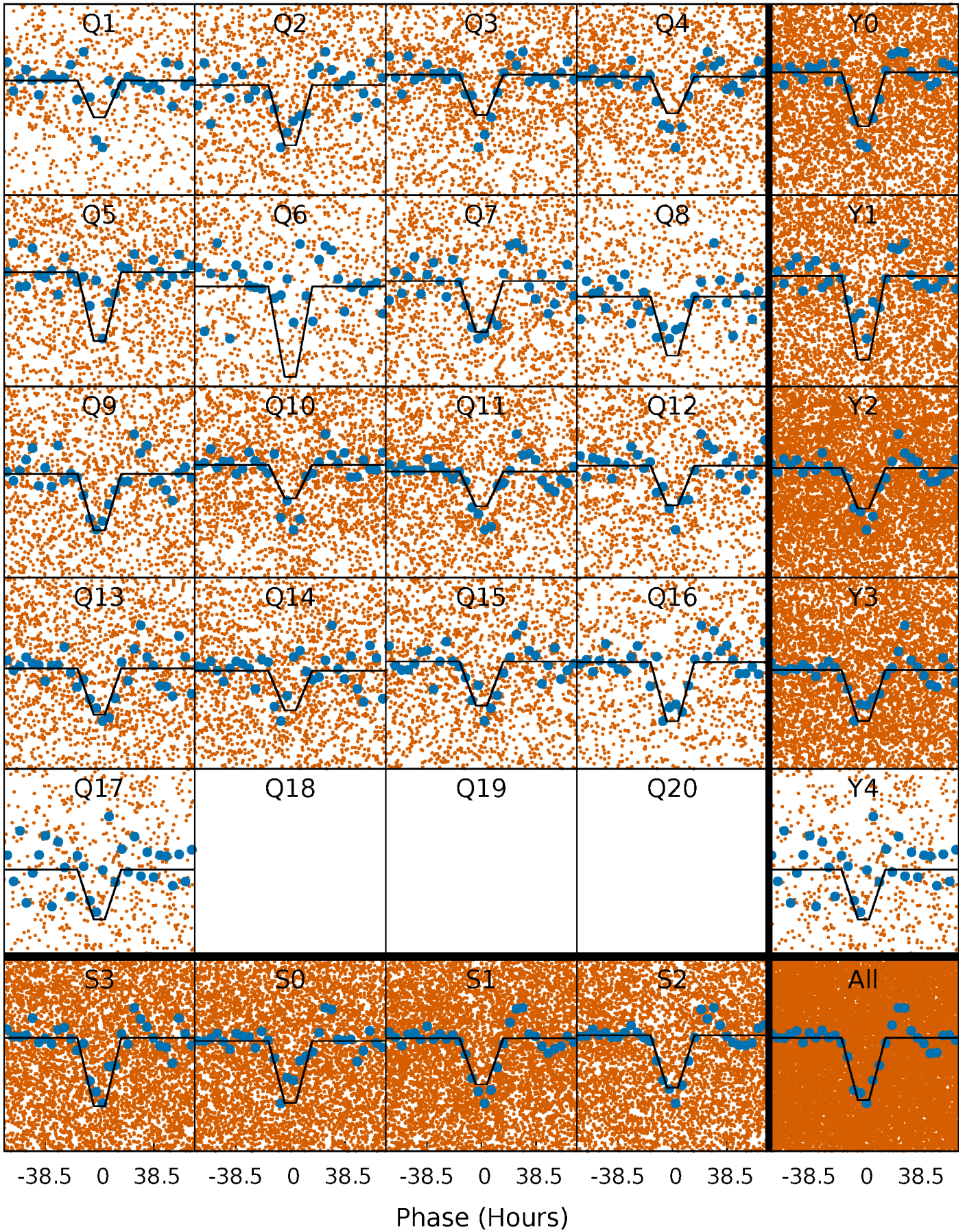
DV Quarter-Phased Transit Curves

TCE 008197368-01 P= 9.085791 Days $T_0=134.551217$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

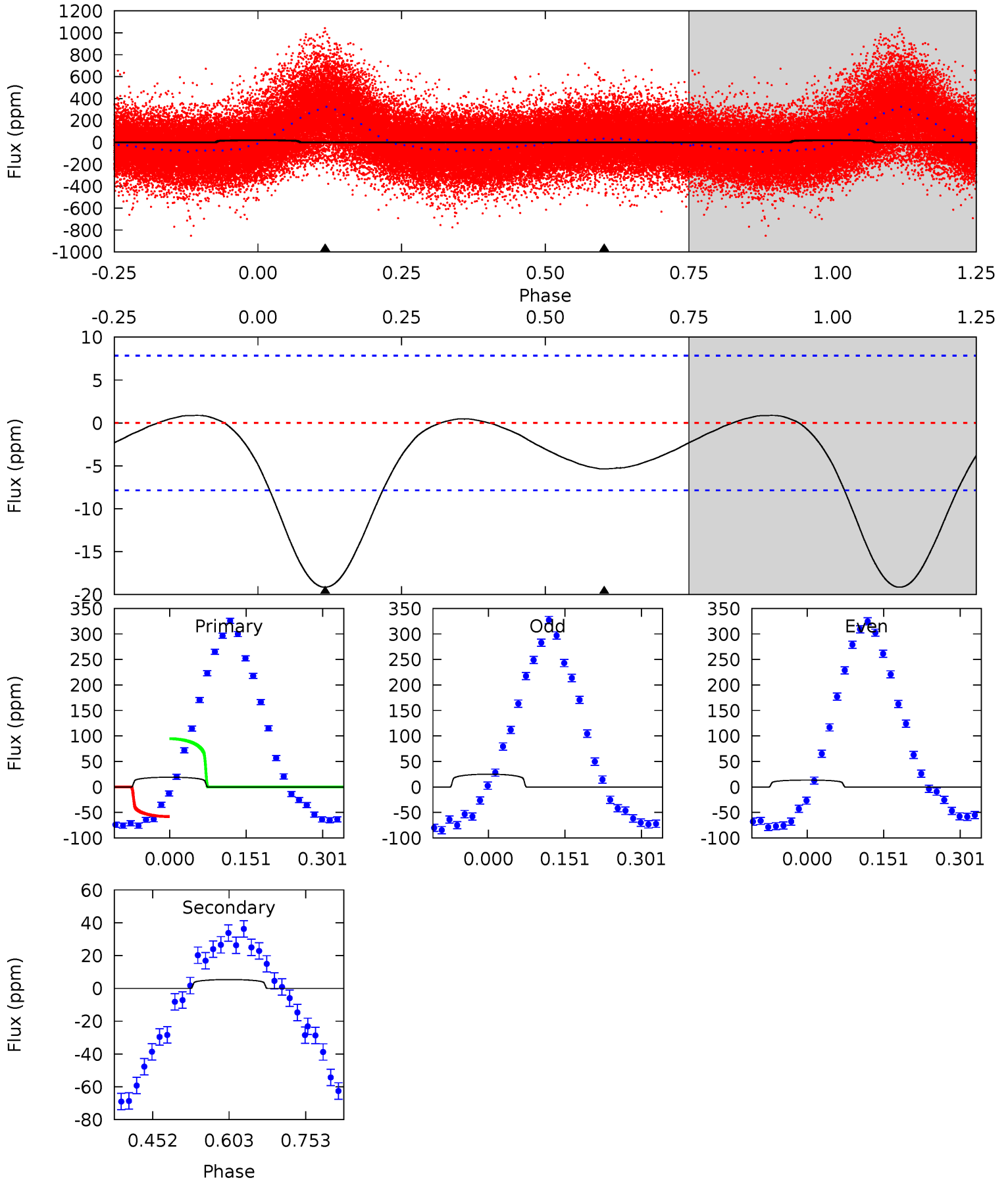
TCE 008197368-01 P= 9.085576 Days $T_0=134.564774$ (BKJD)



DV Model-Shift Uniqueness Test

008197368-01, P = 9.085791 Days, E = 125.465426 Days

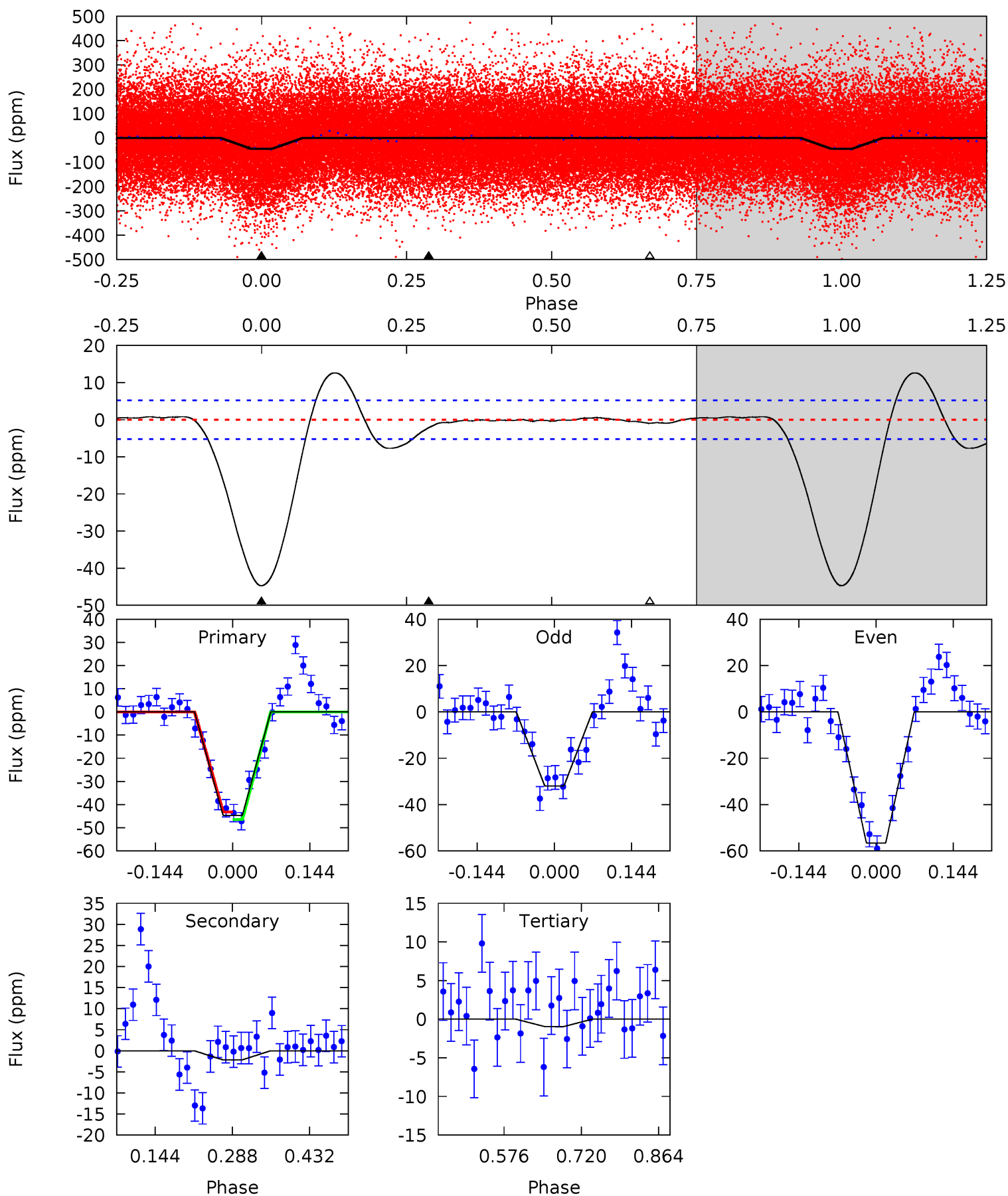
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.07	0	0	4.48	1.44	0.46	10.9	10.9	3.07	3.07	3.27	-5.61	0.04	10.9



Alt Model-Shift Uniqueness Test

008197368-01, P = 9.085576 Days, E = 125.479198 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.5	1.86	0.82	0	4.49	1.46	0.52	37.7	38.5	1.04	1.86	10.6	0.99	0.22	1.40



Stellar Parameters For KIC 008197368

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6631^{+180}_{-180}	$3.603^{+0.315}_{-0.056}$	$-0.140^{+0.300}_{-0.250}$	$3.387^{+0.401}_{-1.202}$	$1.676^{+0.213}_{-0.320}$	$0.061^{+0.137}_{-0.011}$
	+3%/-3%	+9%/-2%	+214%/-179%	+12%/-35%	+13%/-19%	+225%/-19%
Source	PHO1	FLK73	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 008197368-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-5 ± 2	$2.75^{+0.31}_{-0.53}$	2311^{+114}_{-202}	3900^{+257}_{-312}	$4.139^{+2.282}_{-1.558}$
Alt.	-2 ± 1	$2.33^{+0.36}_{-0.42}$	2291^{+127}_{-199}	3497^{+314}_{-463}	$2.377^{+1.705}_{-1.298}$

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

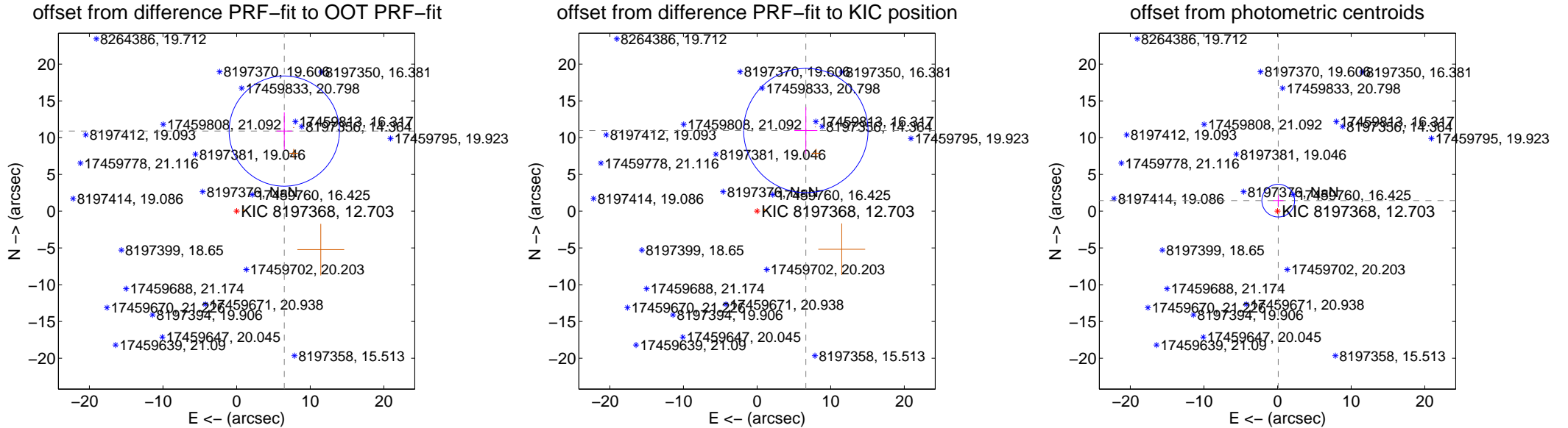
DV Centroid Data

Supplemental centroid analysis for 008197368-01. Kepler magnitude: 12.70. Transit SNR 10.77

There are 0 quarters with good PRF difference image offsets

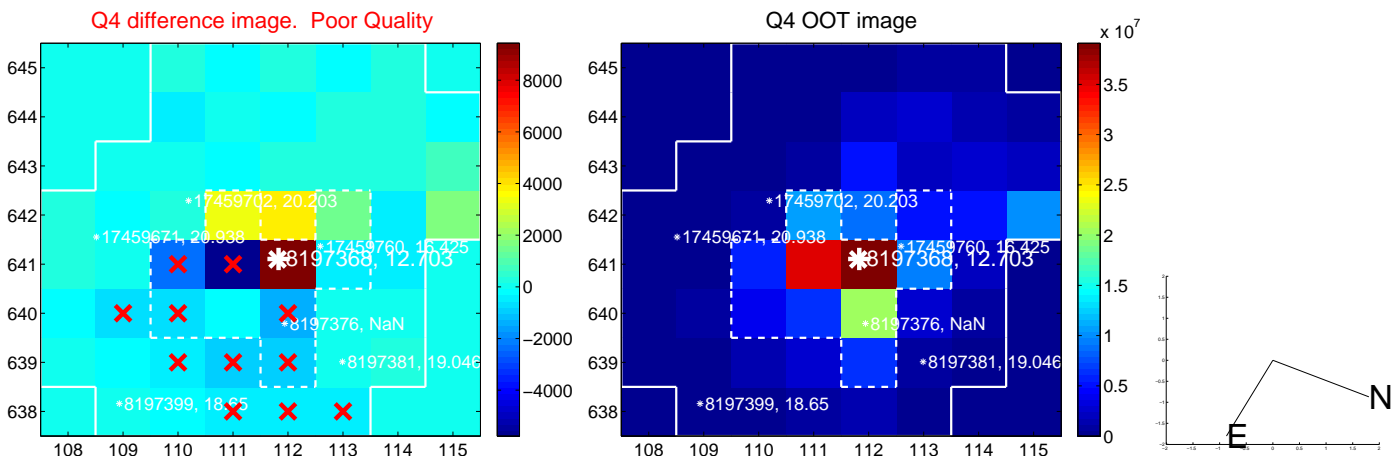
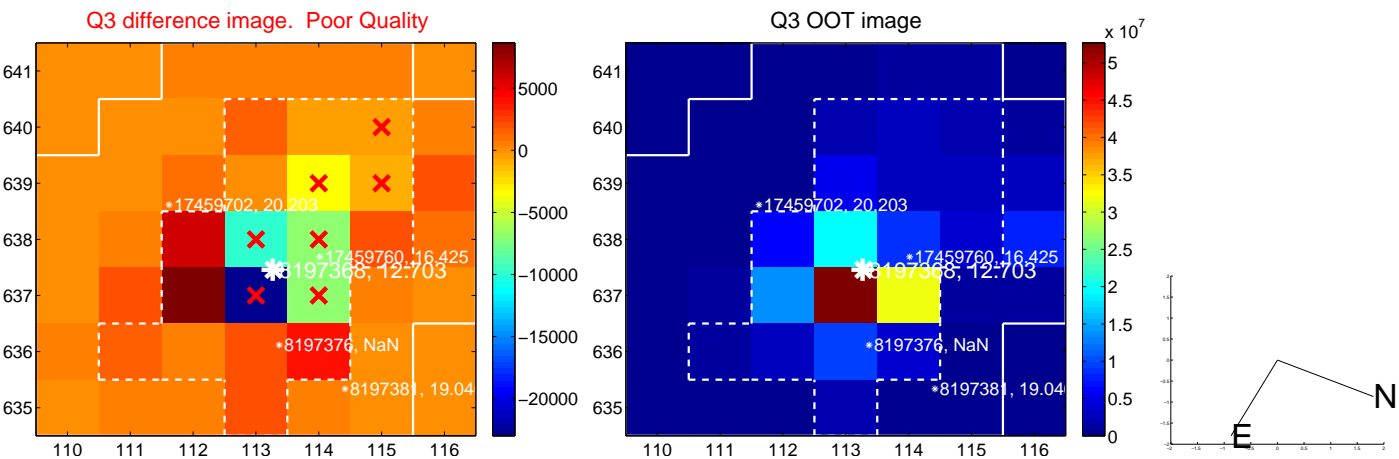
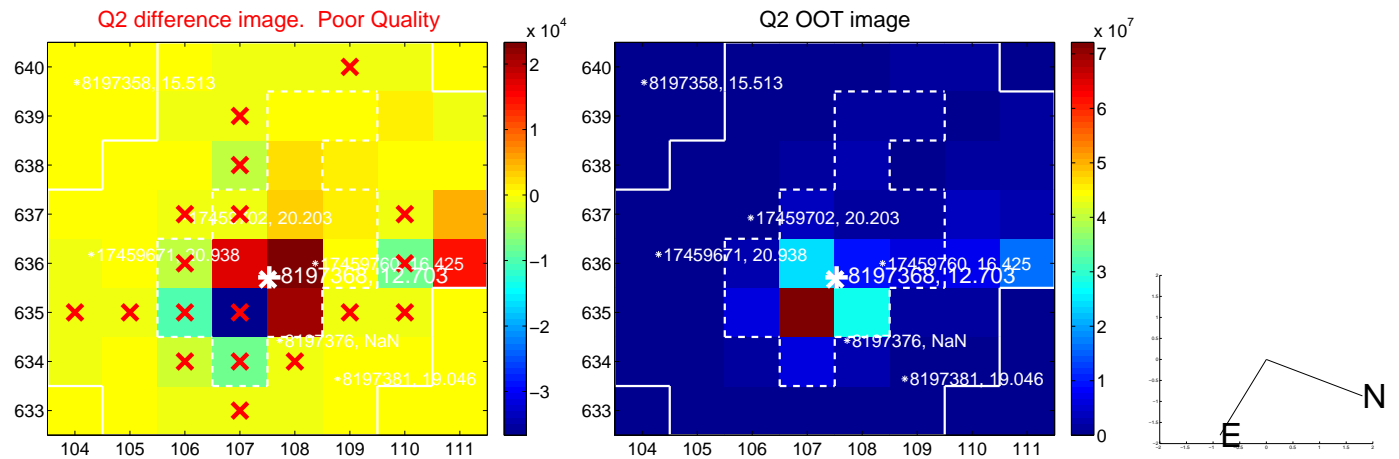
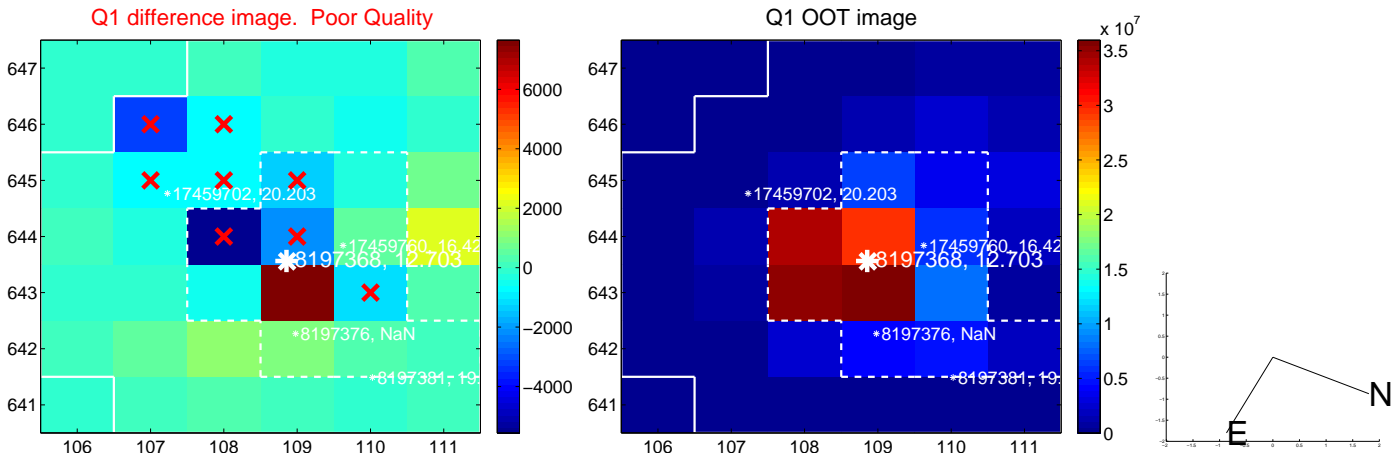
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.674 ± 2.498	5.07	-6.478 ± 1.060	10.893 ± 2.557
PRF-fit source offset from KIC position	12.814 ± 2.817	4.55	-6.627 ± 1.564	10.967 ± 3.170
photometric centroid source offset	1.44 ± 0.74	1.94	-0.09 ± 0.71	1.44 ± 0.74

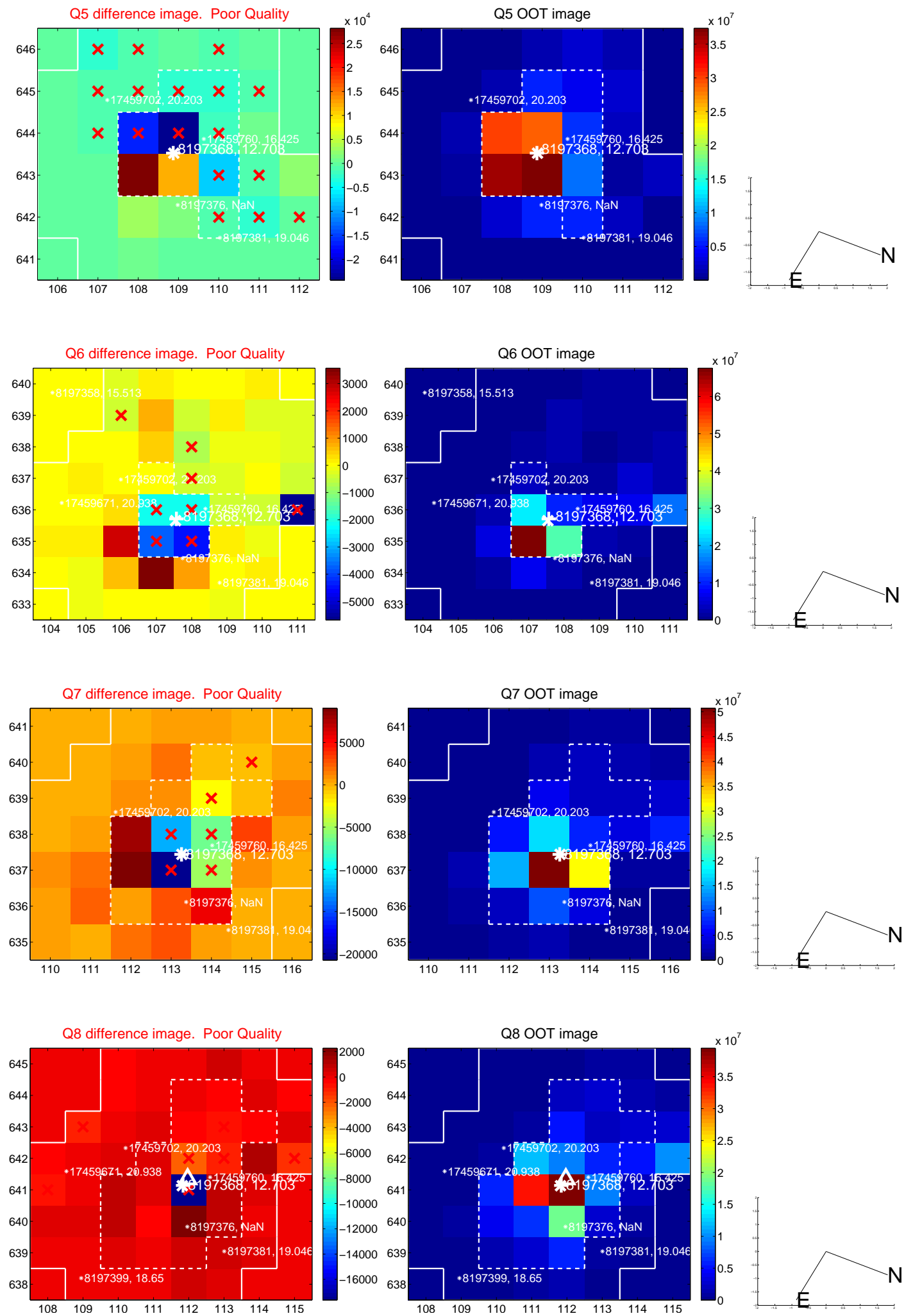


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

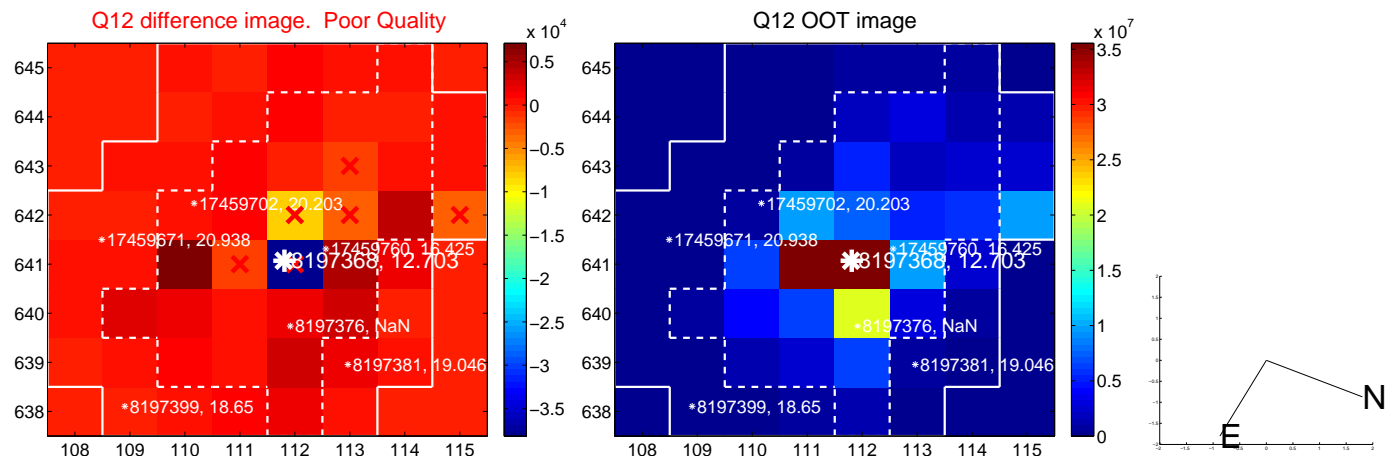
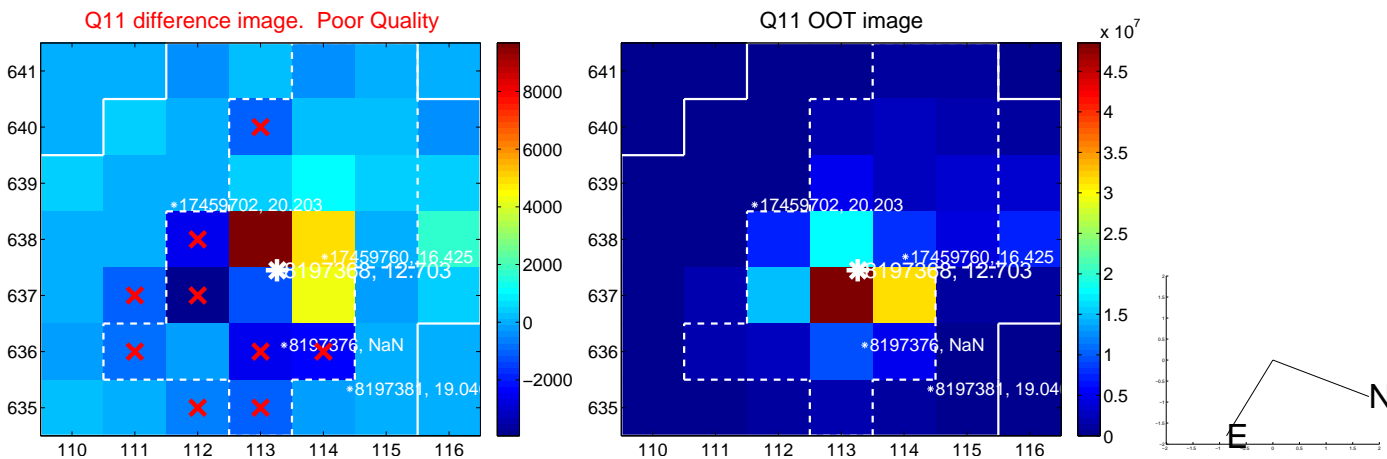
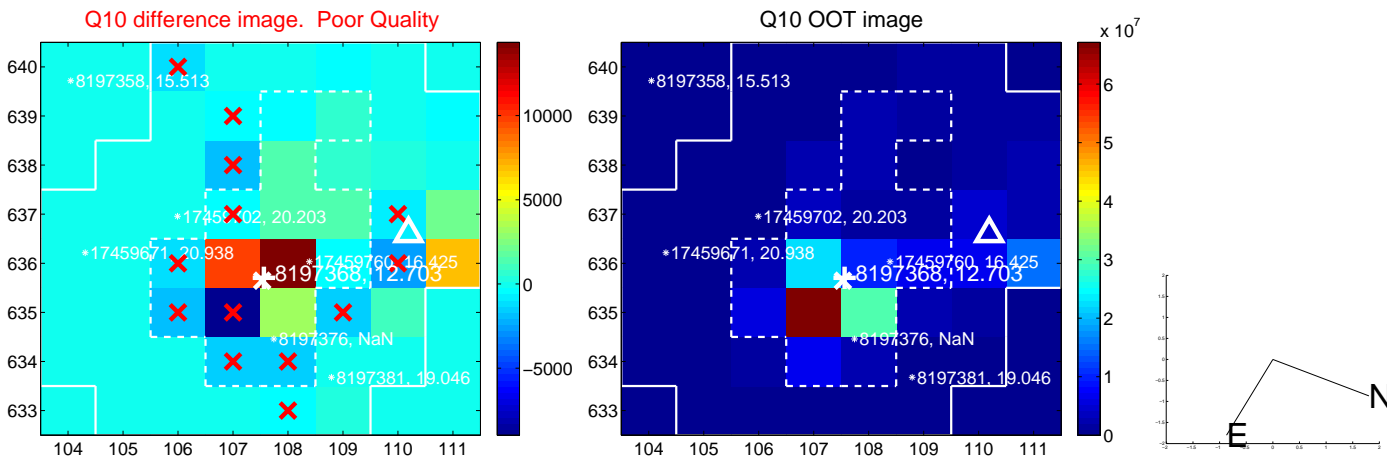
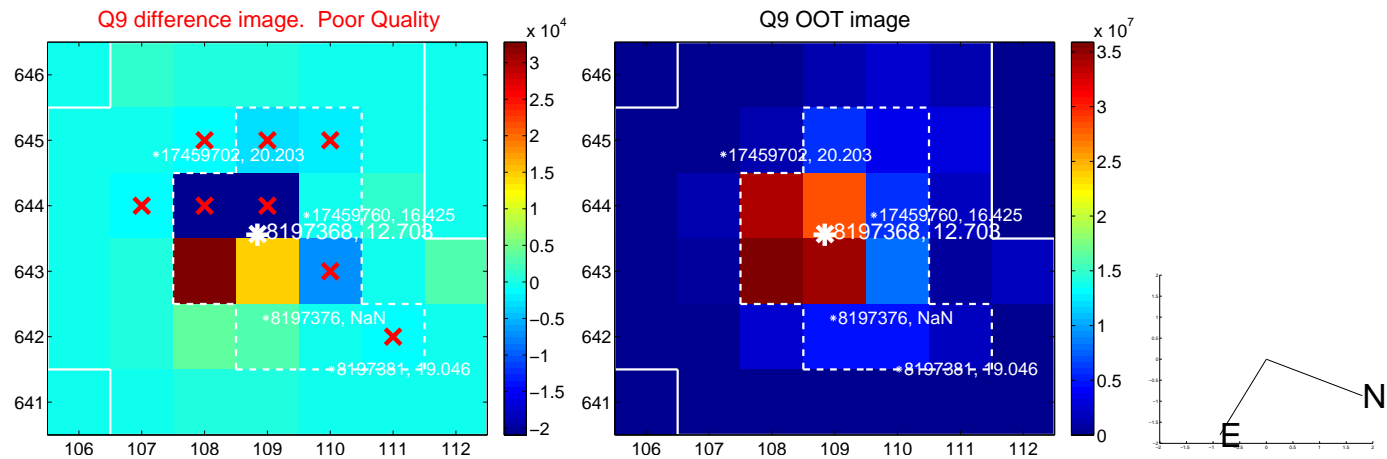
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



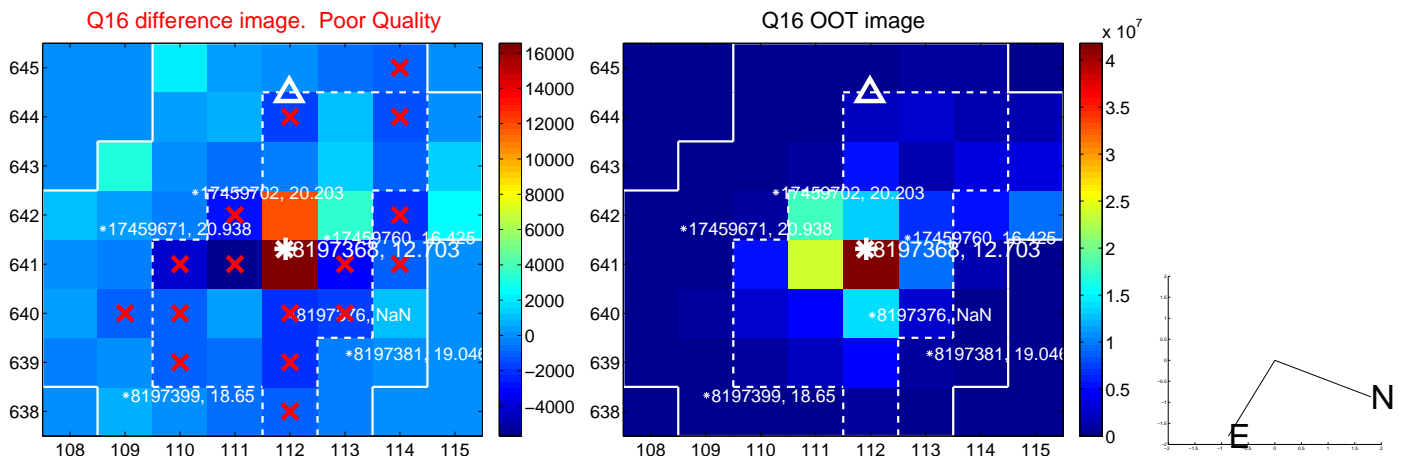
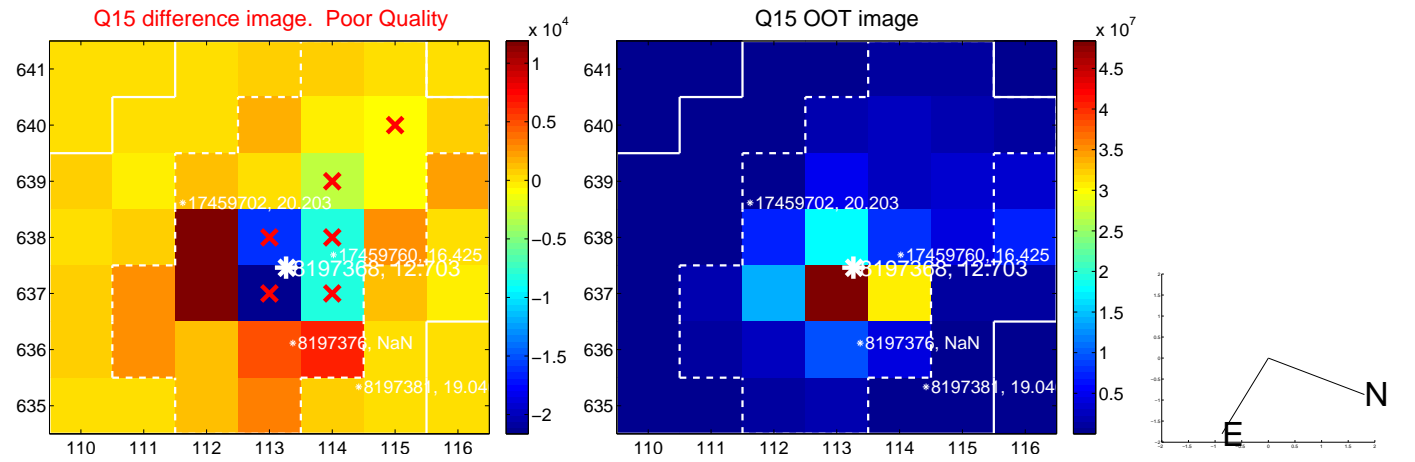
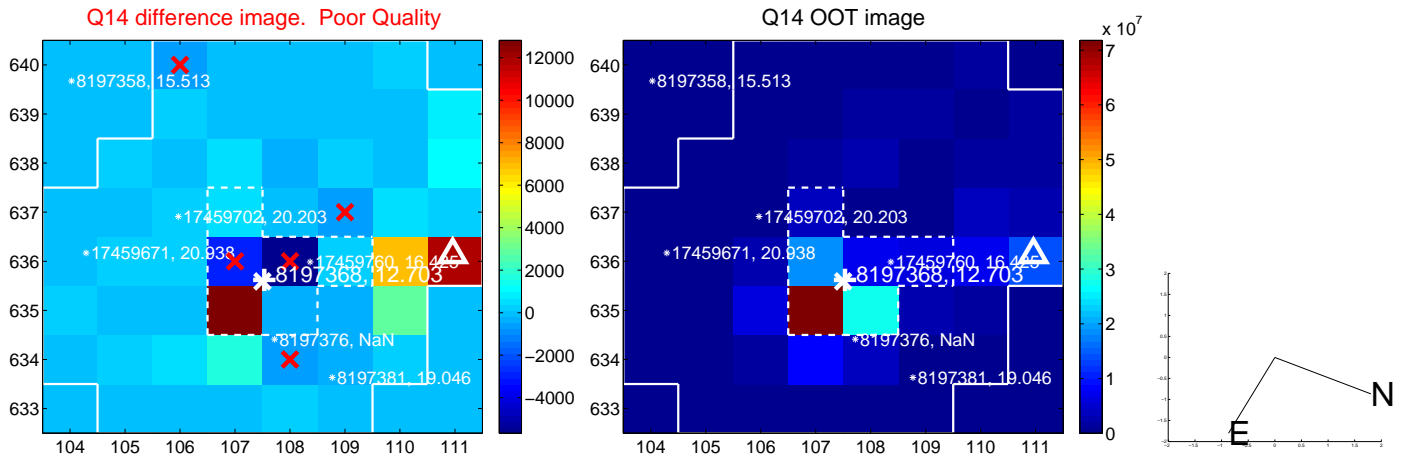
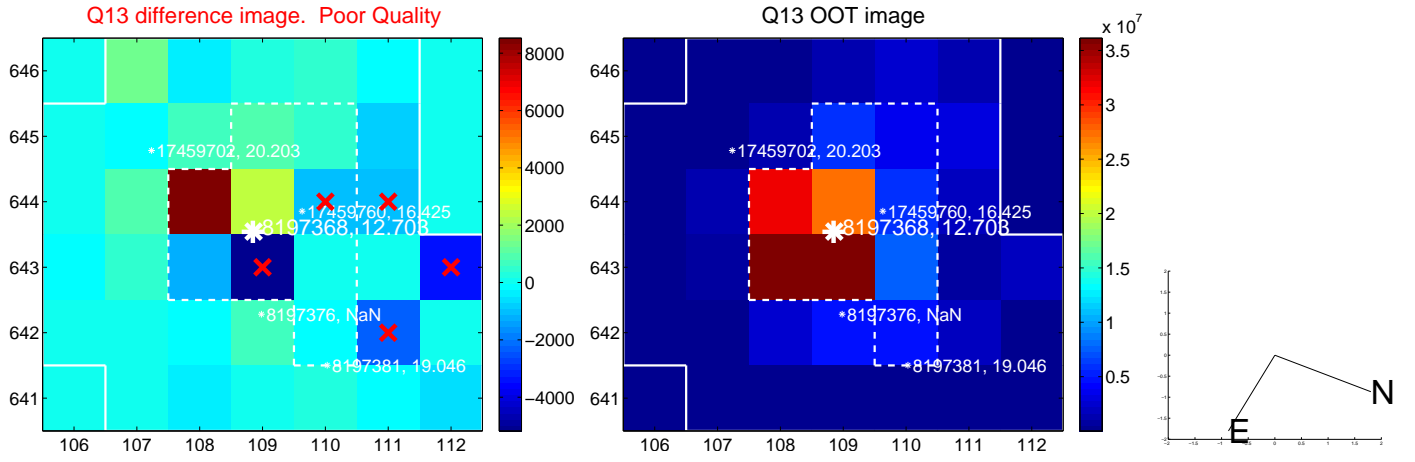
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



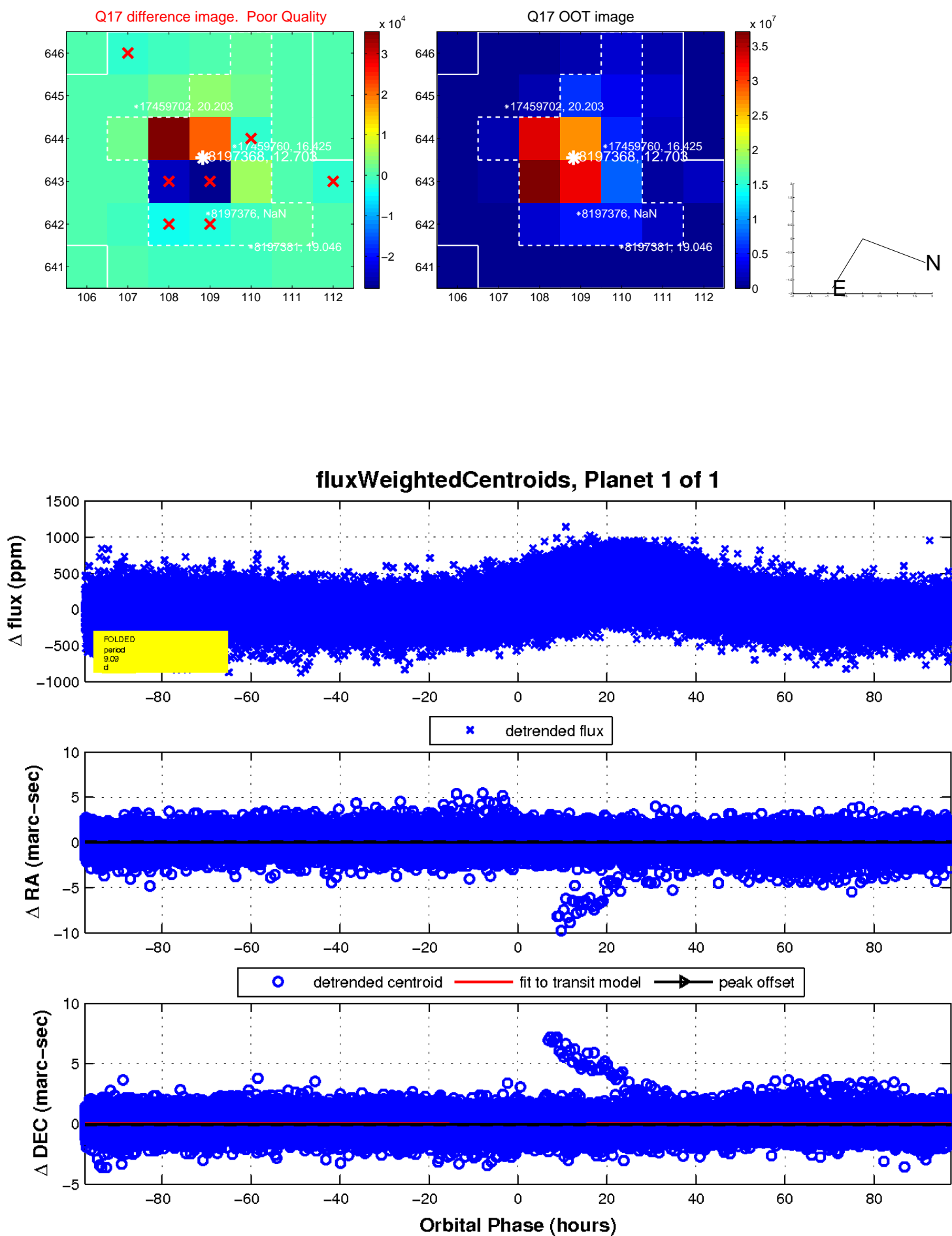
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

