

KIC 003838004

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})
003838004-01	OBS	6365.01	1.172056	131.582733	62.1	0.785	8.8	12.9	2.10	5313	1.79	6229.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003838004-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL

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.

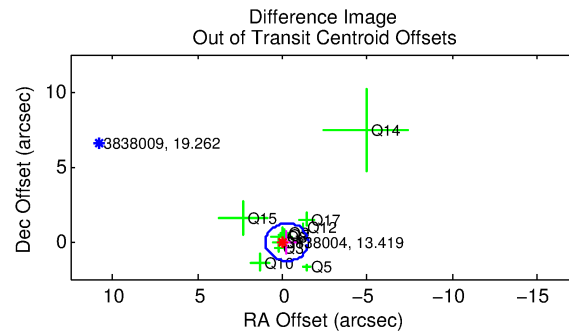
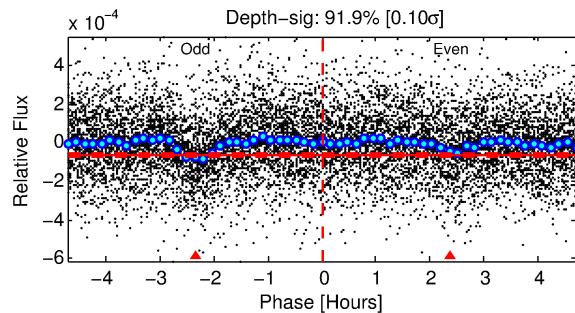
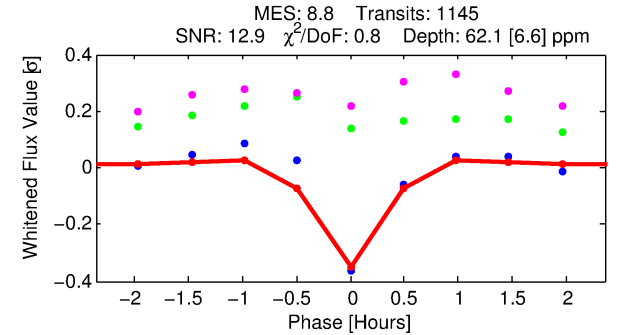
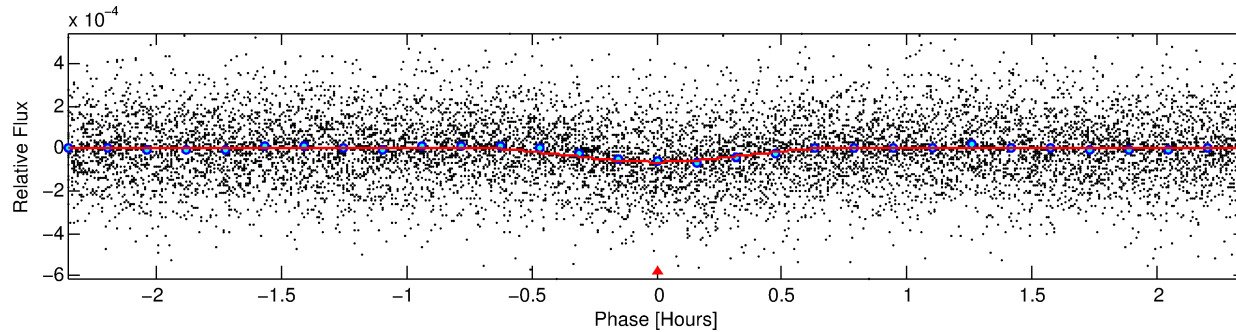
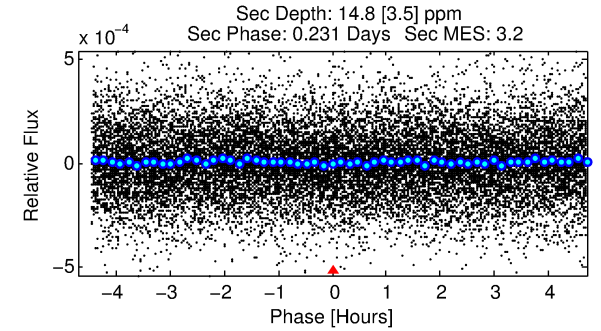
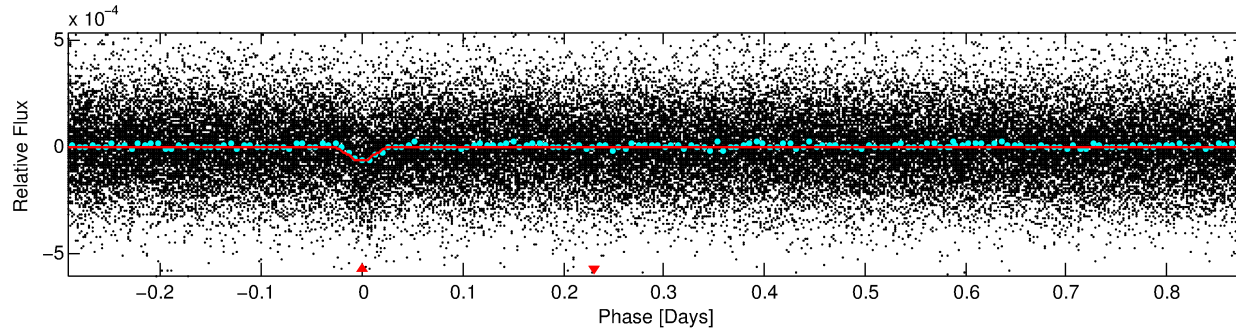
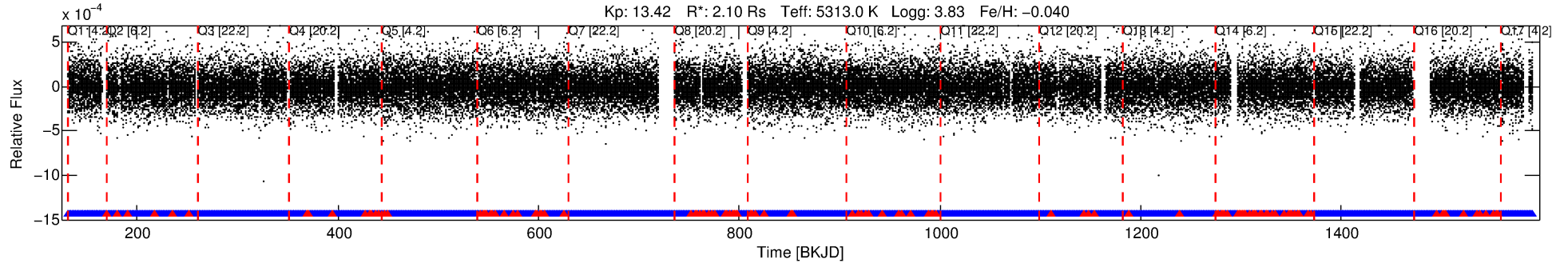
Ephemeris Match Information For 003838004-01

No Significant Match Found

DV One-Page Summary

KIC: 3838004 Candidate: 1 of 1 Period: 1.172 d
KOI: K06365 Corr: No Ephemeris Match

Kp: 13.42 R*: 2.10 Rs Teff: 5313.0 K Logg: 3.83 Fe/H: -0.040



DV Fit Results:

Period = 1.17206 [0.00001] d
Epoch = 131.5827 [0.0011] BKJD
Rp/R* = 0.0079 [0.0026]
a/R* = 8.31 [10.75]
b = 0.70 [0.97]
Seff = 6229.39 [7160.01]
Teff = 2265 [651] K
Rp = 1.79 [1.23] Re
a = 0.0224 [0.0150] AU
Ag = 1.27 [1.72] [0.16σ]
Teffp = 3721 [674] K [1.55σ]

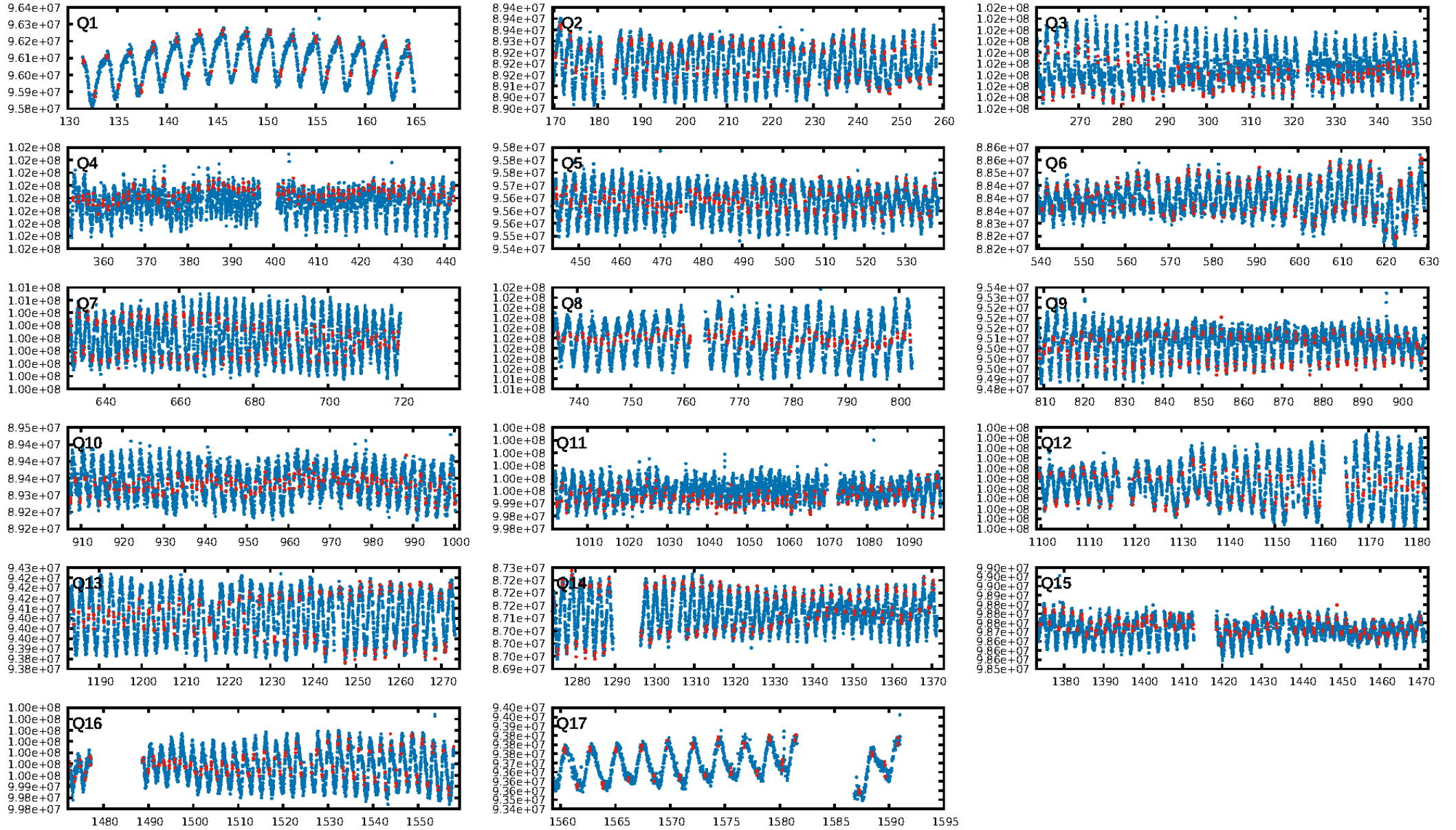
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.34e-17
RollingBand-fgt: 0.89 [969/1093]
GhostDiagnostic-chr: 1.301
Centroid-sig: 73.5%
Centroid-so: 0.267 arcsec [0.29σ]
OotOffset-rm: 0.265 arcsec [0.63σ]
OotOffset-st: 2/4/2/3 [11]
KicOffset-rm: 0.352 arcsec [1.03σ]
KicOffset-st: 2/4/2/3 [11]
DiffImageQuality-fgm: 0.82 [9/11]
DiffImageOverlap-fno: 1.00 [17/17]

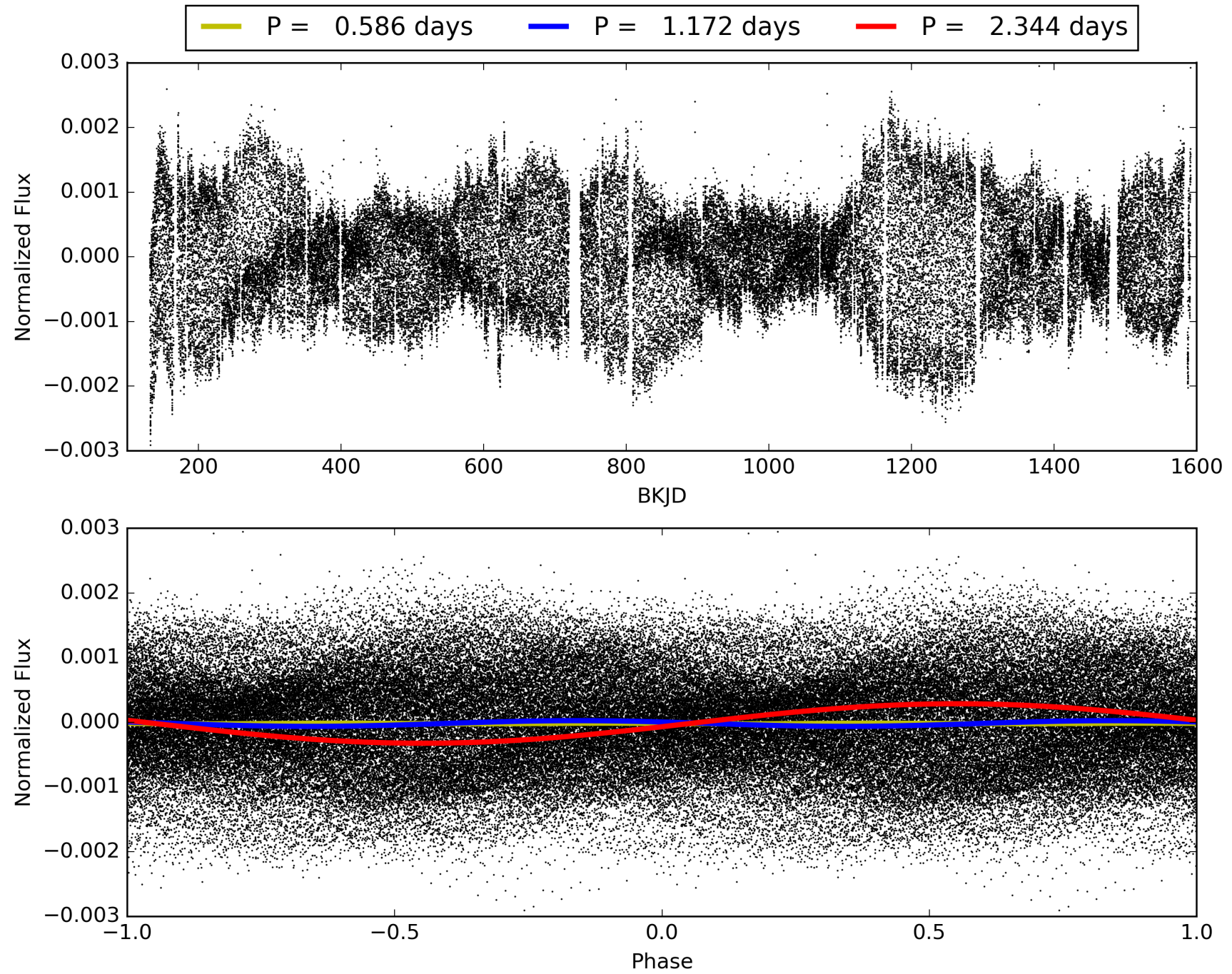
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:14:33 Z

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

TCE 003838004-01, PDC Light Curves

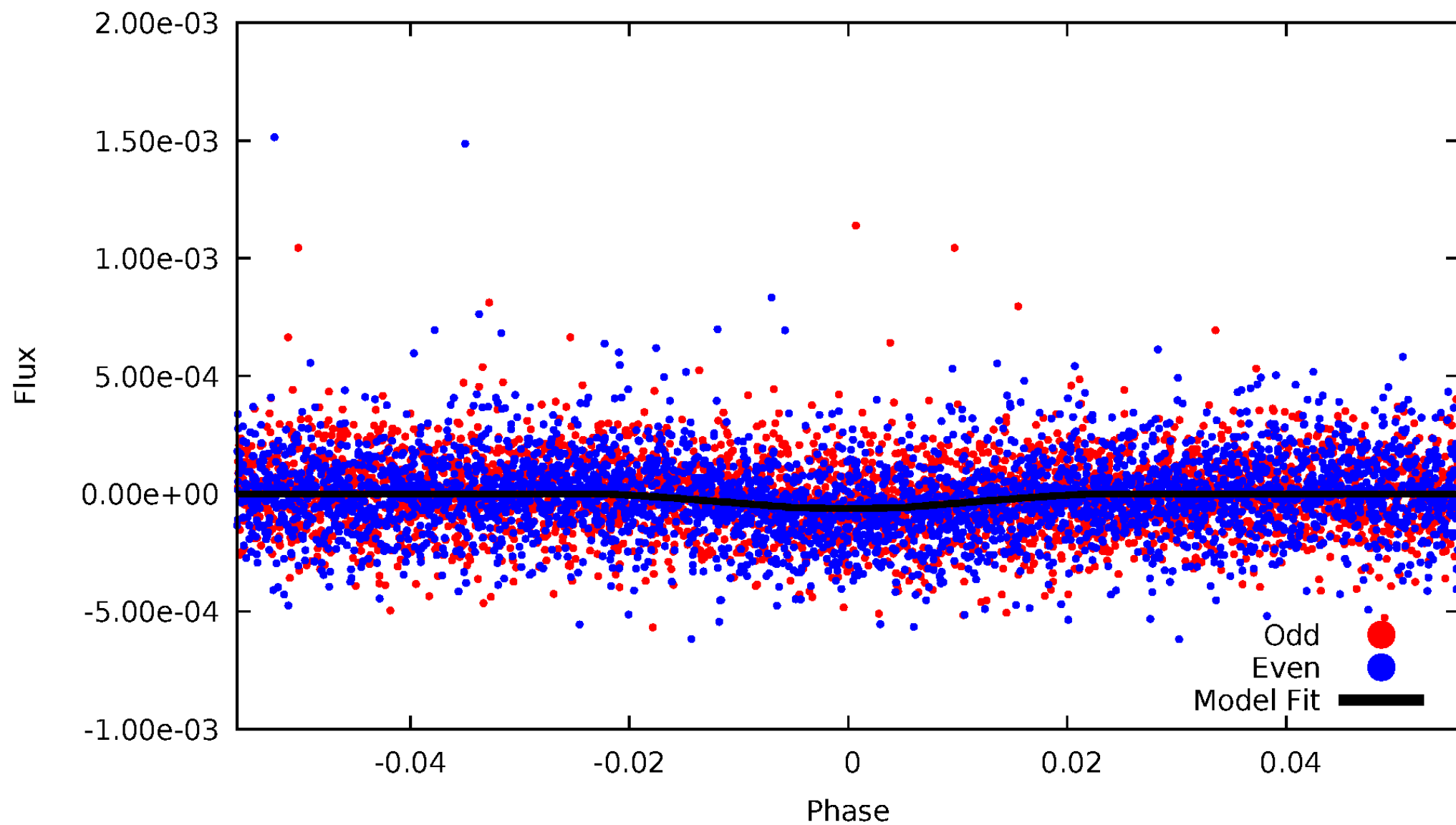


TCE 003838004-01



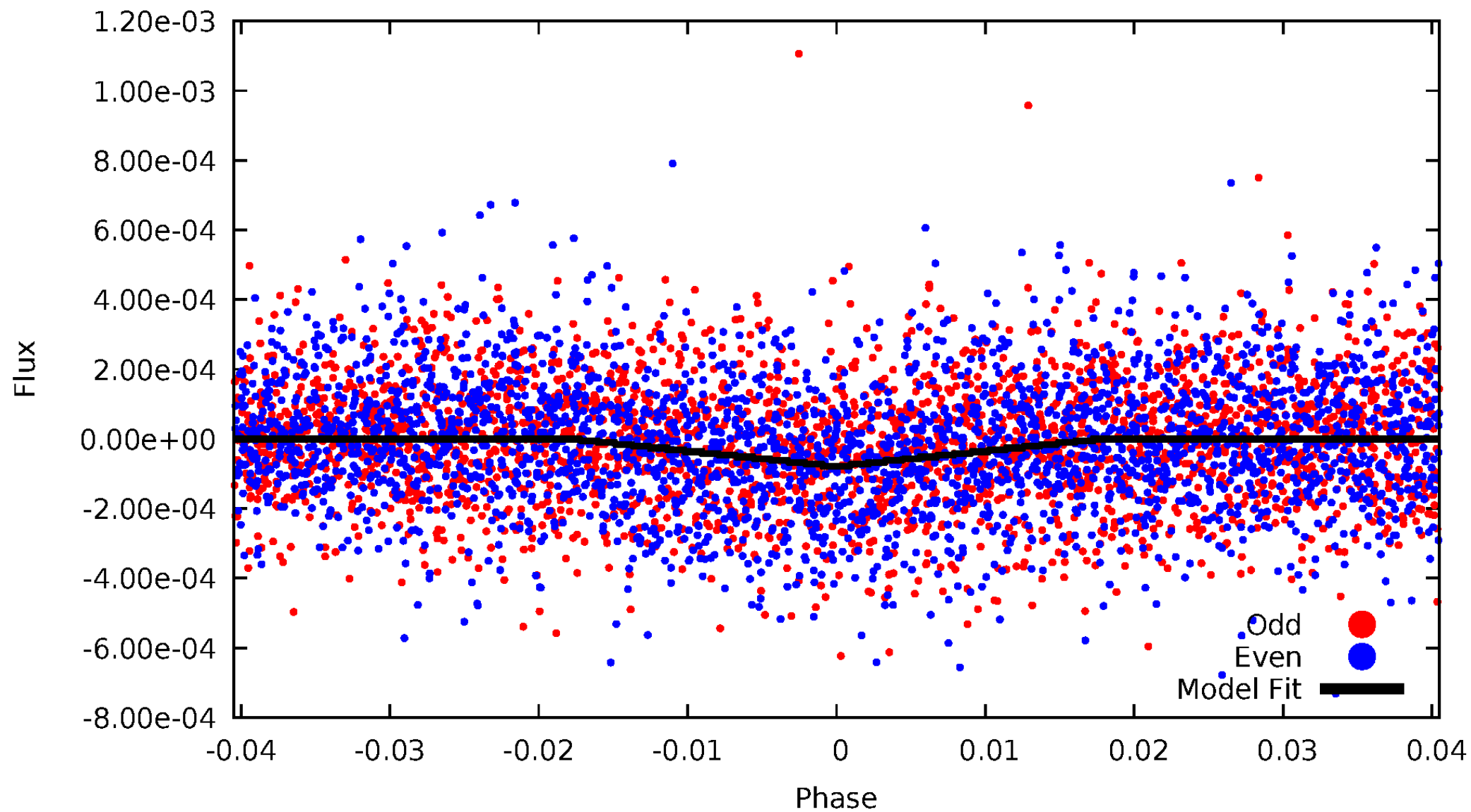
DV Odd/Even

TCE 003838004-01



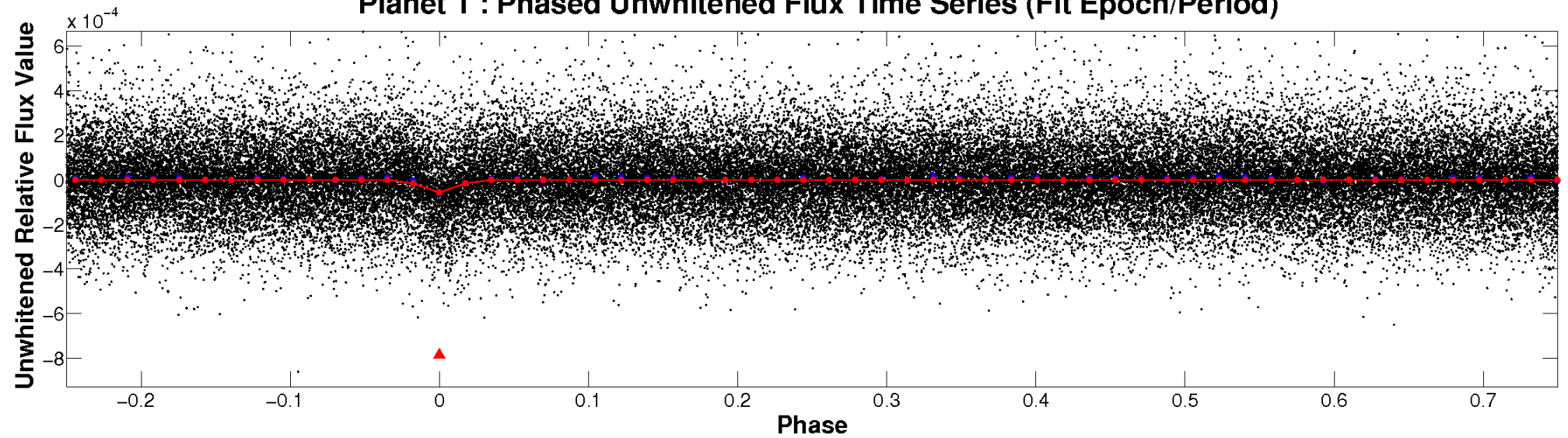
ALT Odd/Even

TCE 003838004-01

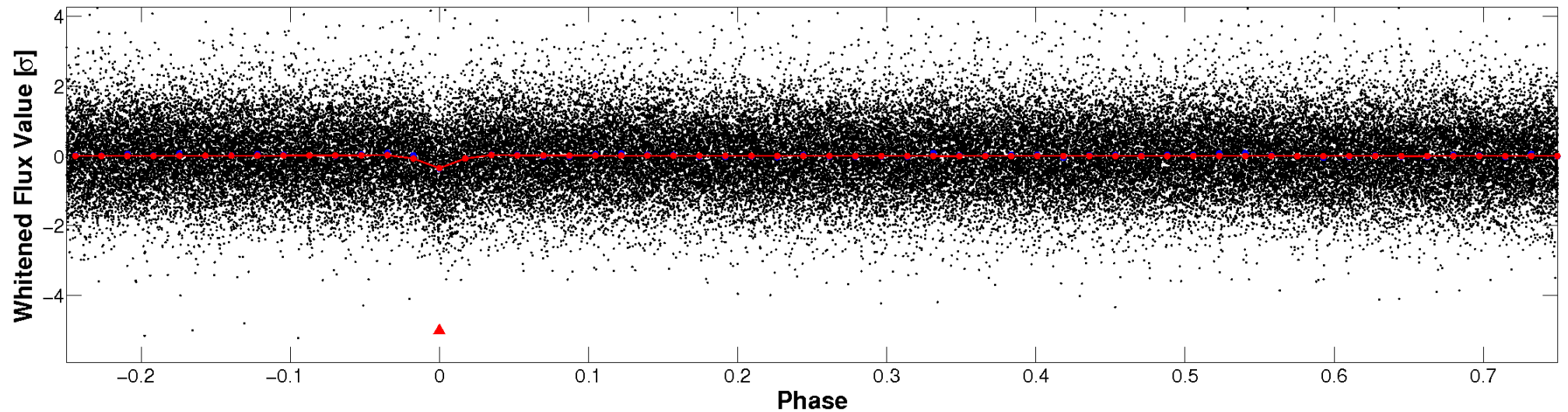


Non-Whitened Vs. Whitened Light Curve

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

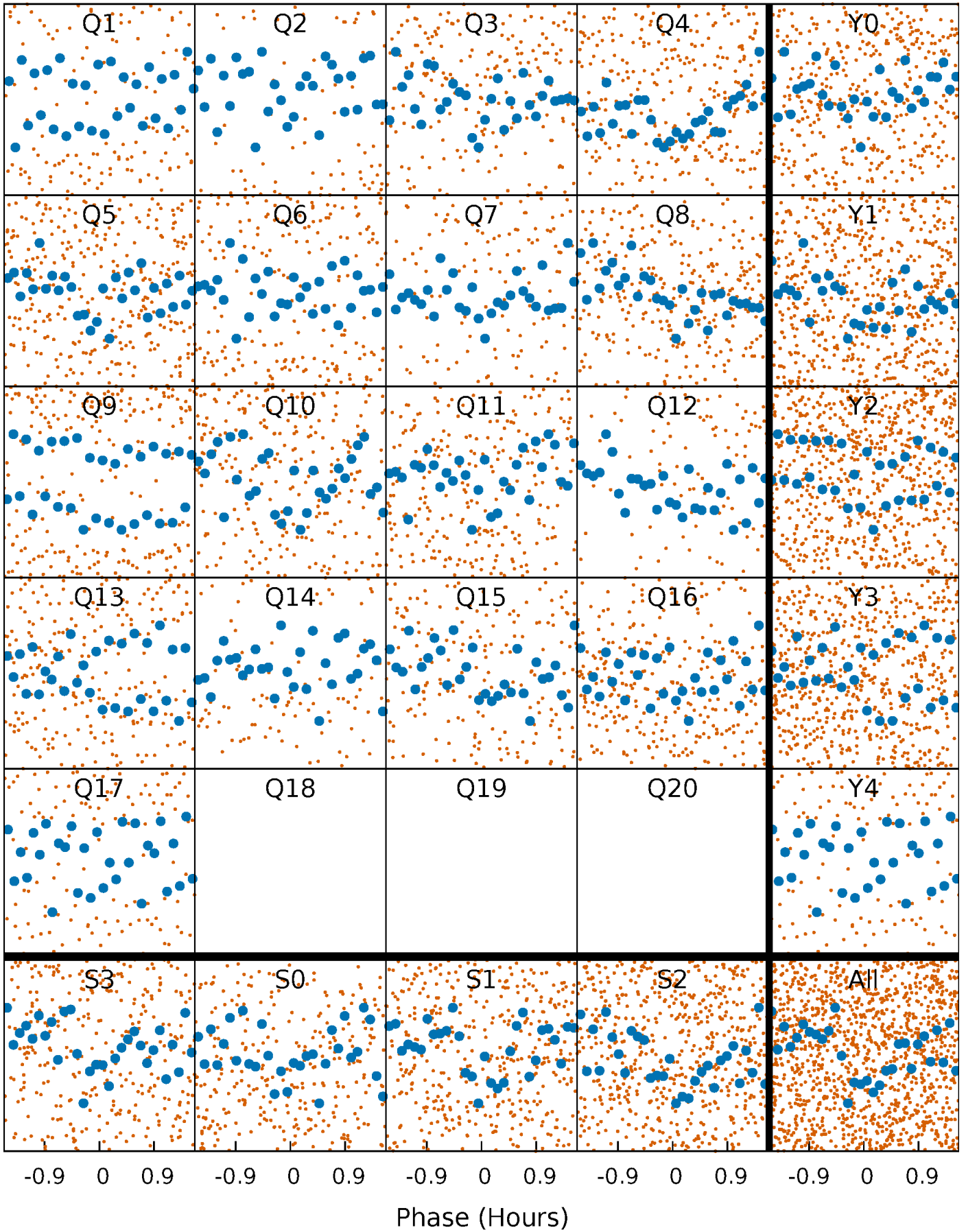


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



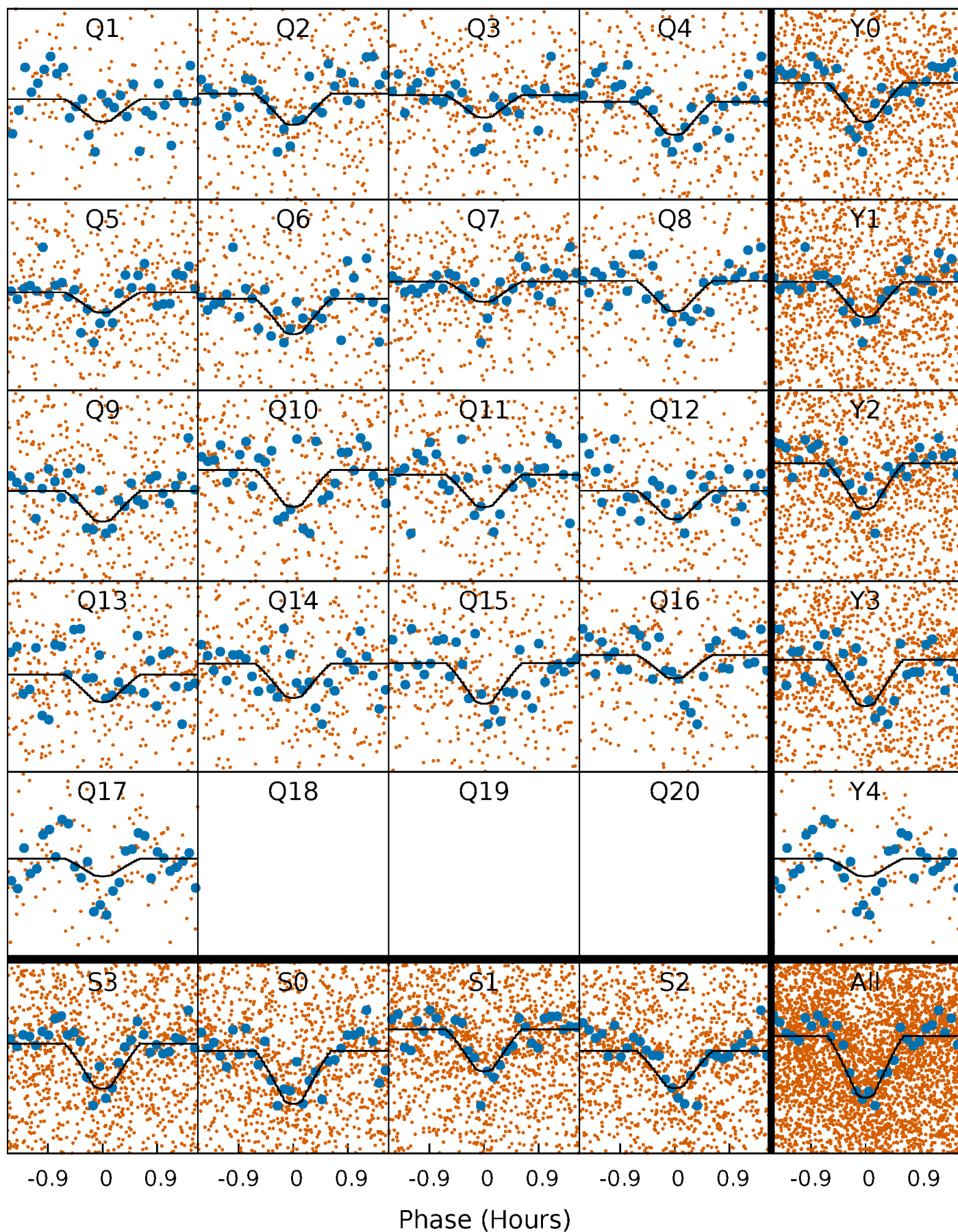
PDC Quarter-Phased Transit Curves

TCE 003838004-01 P= 1.172056 Days $T_0=131.582733$ (BKJD)



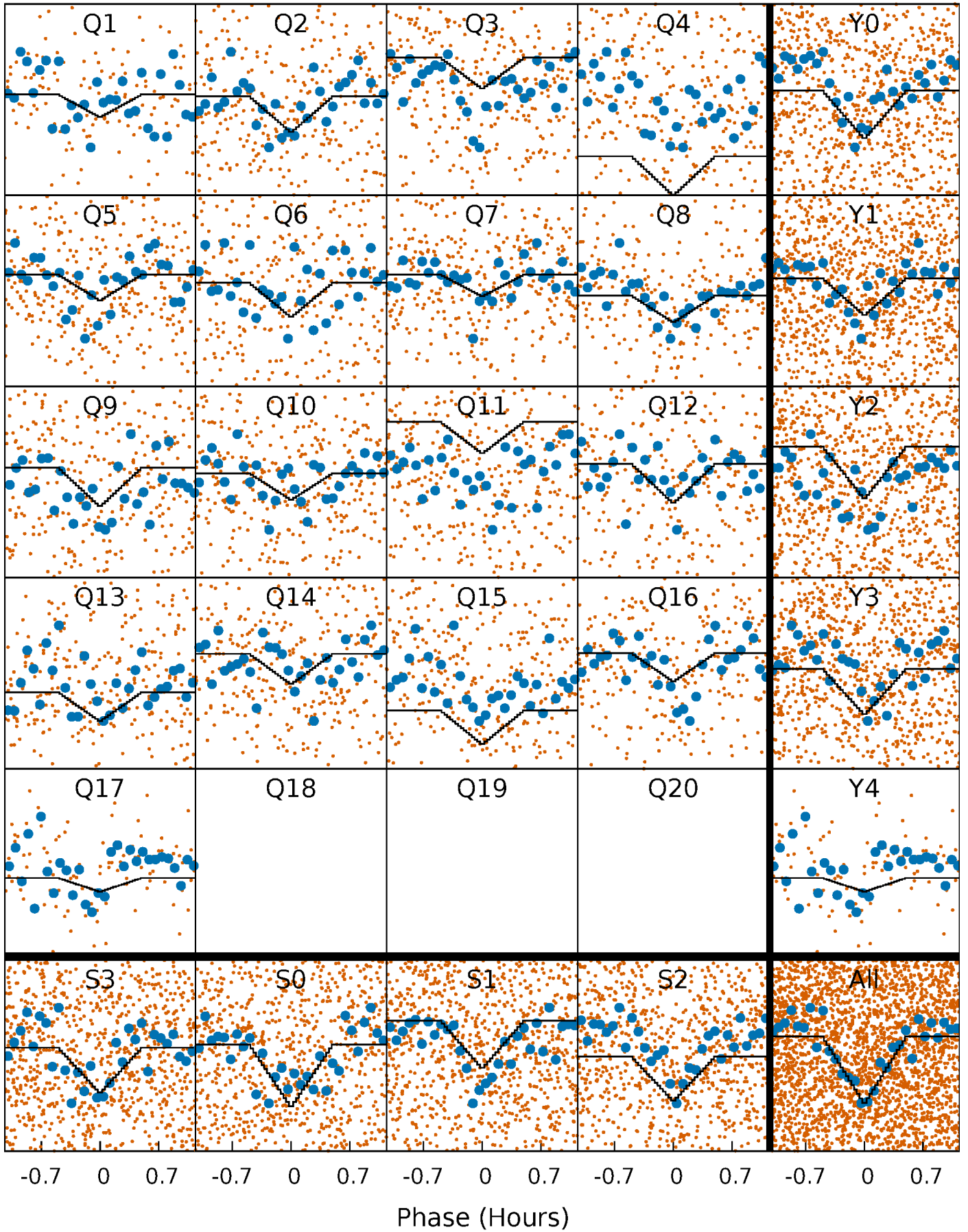
DV Quarter-Phased Transit Curves

TCE 003838004-01 P= 1.172056 Days $T_0=131.582733$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

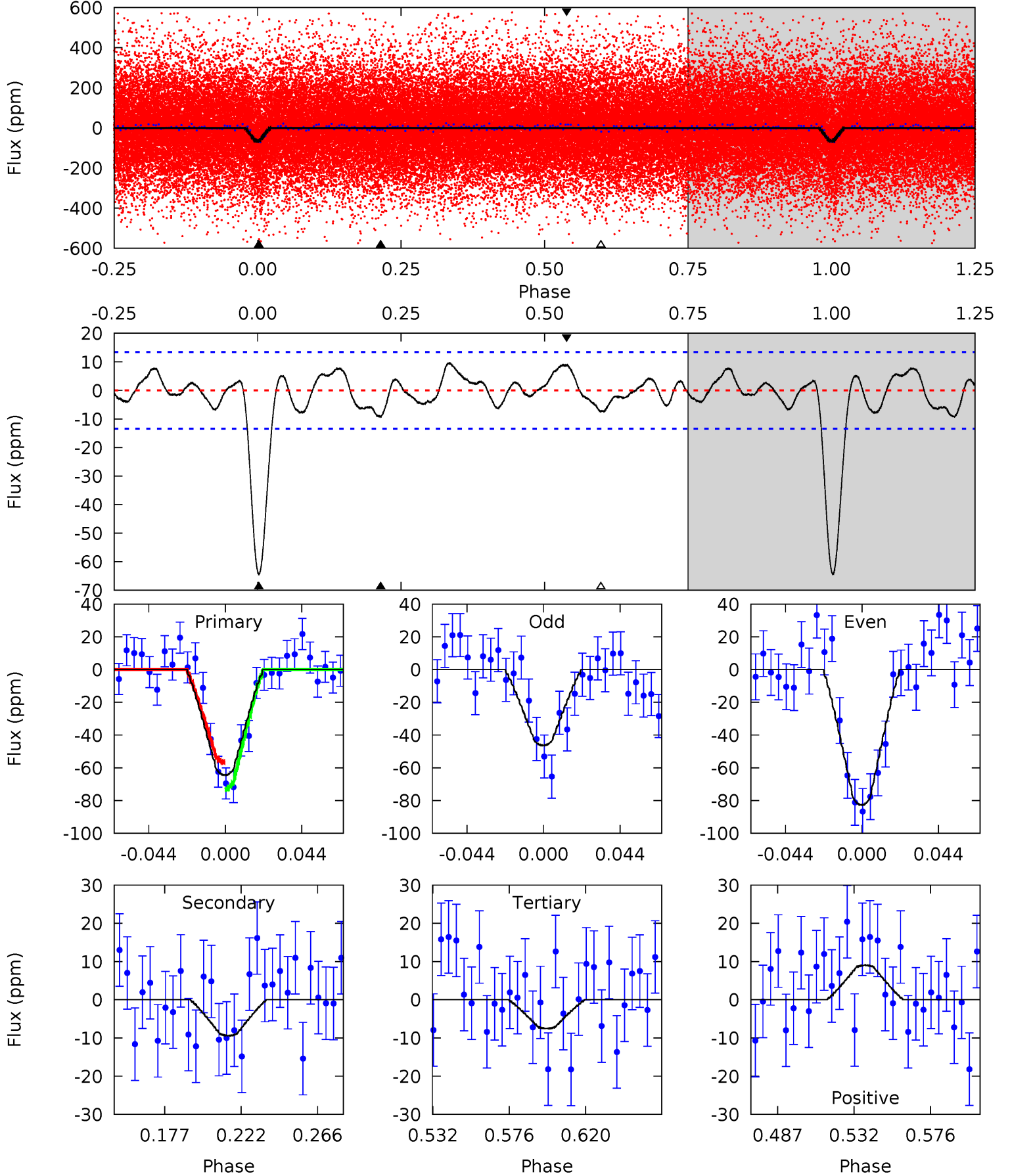
TCE 003838004-01 P= 1.172062 Days $T_0=131.582105$ (BKJD)



DV Model-Shift Uniqueness Test

003838004-01, P = 1.172056 Days, E = 130.410677 Days

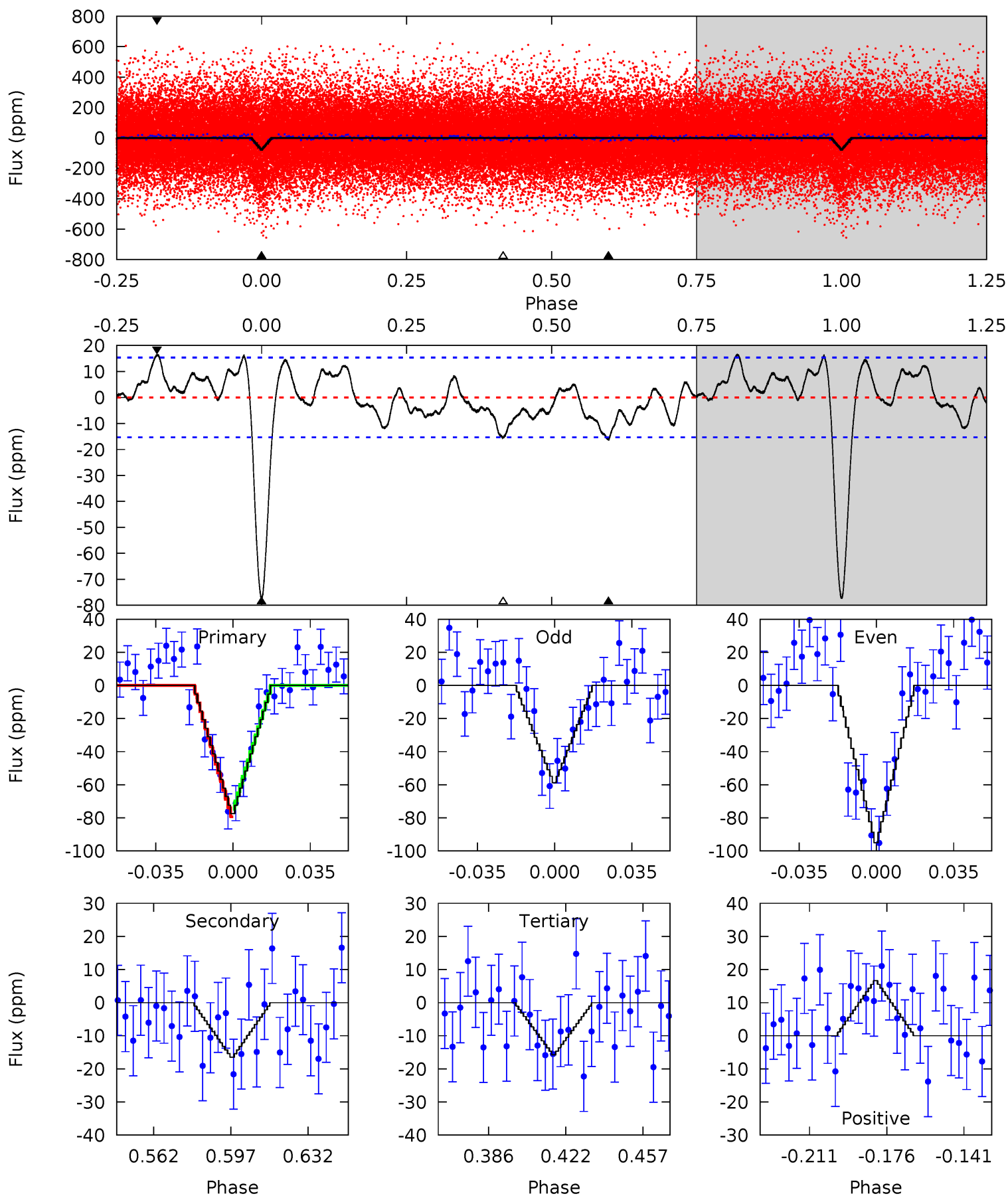
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.8	3.32	2.65	3.18	4.73	2.01	1.49	20.1	19.6	0.66	0.13	6.44	0.92	0.13	2.88



Alt Model-Shift Uniqueness Test

003838004-01, P = 1.172062 Days, E = 130.410043 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	5.14	4.91	5.18	4.78	2.11	2.08	19.2	19.0	0.23	-0.04	5.65	1.06	0.18	0.71



Stellar Parameters For KIC 003838004

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5313^{+175}_{-159}	$3.835^{+0.697}_{-0.232}$	$-0.040^{+0.300}_{-0.250}$	$2.095^{+0.835}_{-1.253}$	$1.095^{+0.181}_{-0.249}$	$0.168^{+1.990}_{-0.096}$
	+3%/-3%	+18%/-6%	+750%/-625%	+40%/-60%	+17%/-23%	+1187%/-57%
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 003838004-01 / KOI 6365.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 3	$1.62^{+0.87}_{-0.66}$	3104^{+355}_{-506}	3439^{+712}_{-648}	$0.969^{+1.737}_{-0.573}$
Alt.	-16 ± 3	$1.88^{+0.90}_{-0.79}$	3101^{+371}_{-487}	3717^{+659}_{-558}	$1.293^{+2.234}_{-0.727}$

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

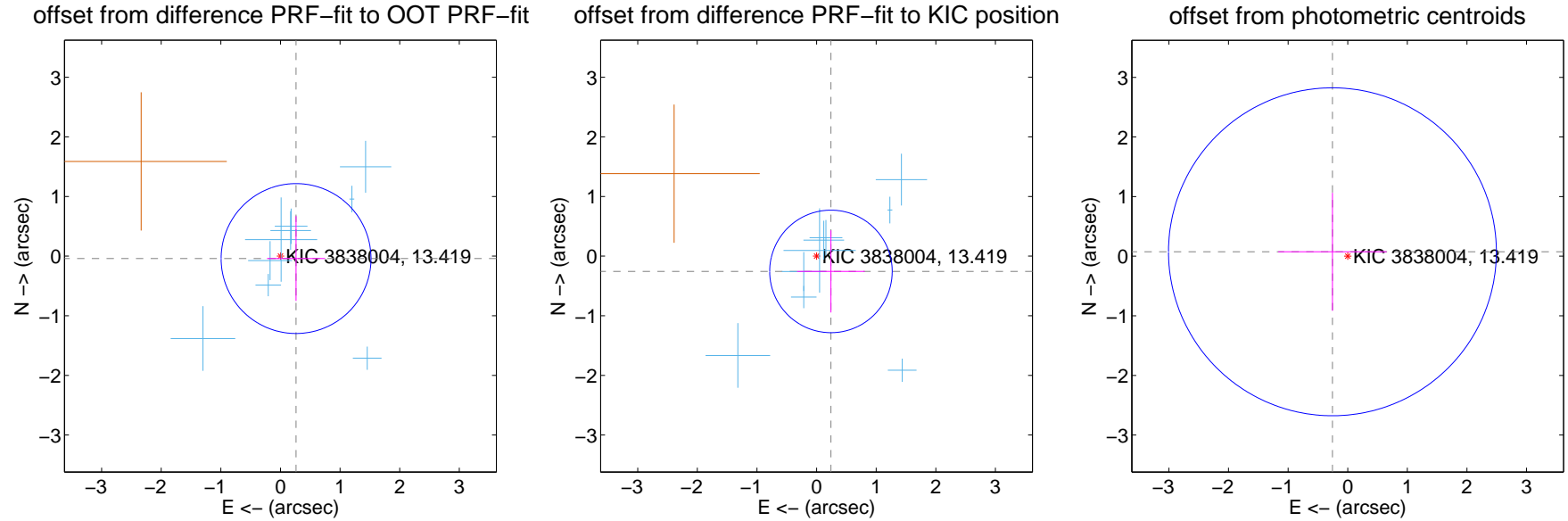
DV Centroid Data

Supplemental centroid analysis for 003838004-01. Kepler magnitude: 13.42. Transit SNR 12.91

There are 9 quarters with good PRF difference image offsets

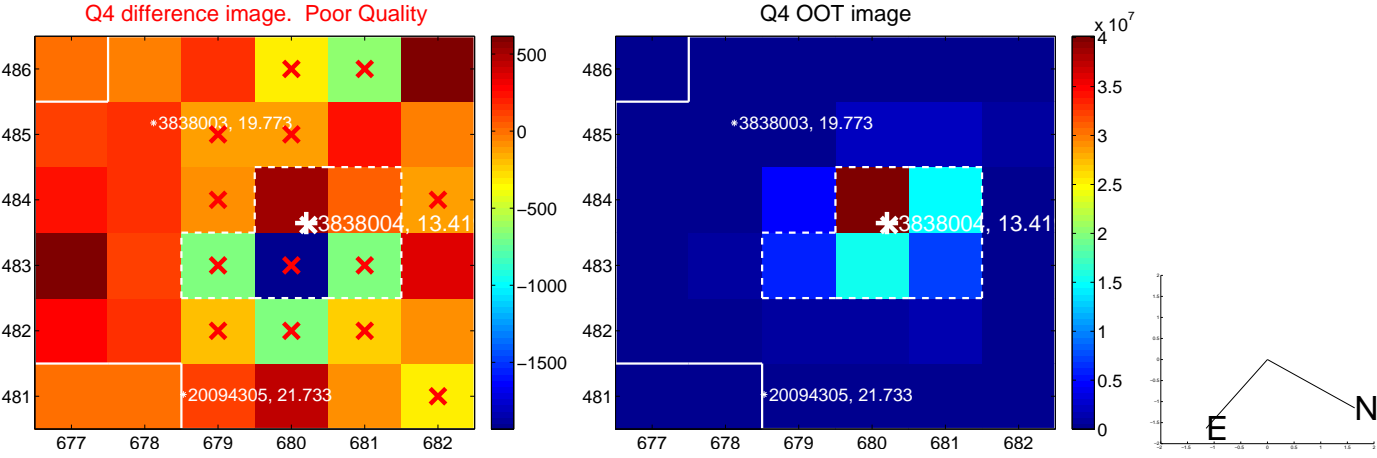
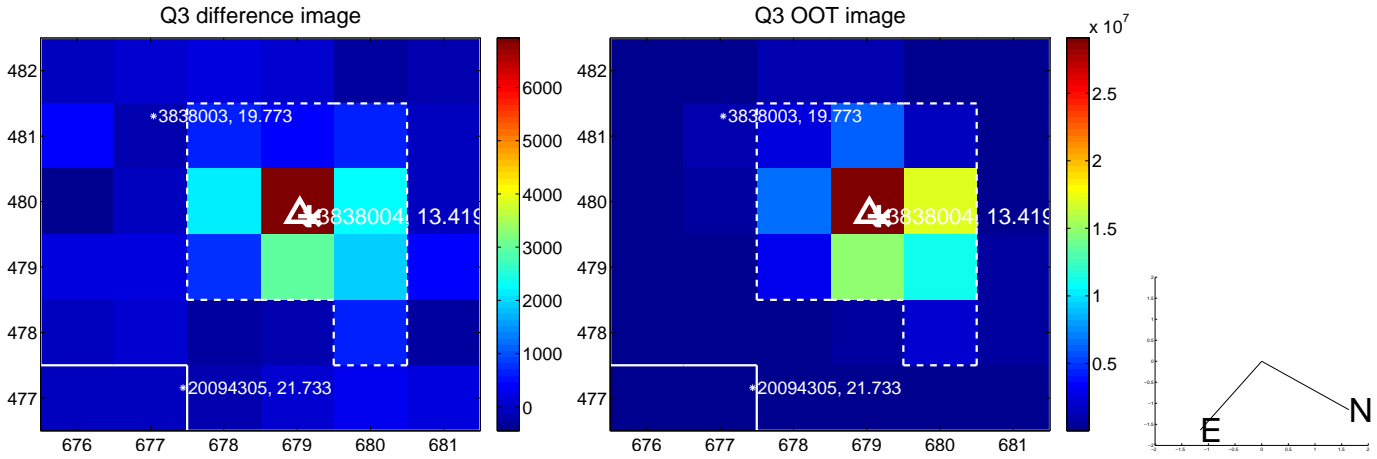
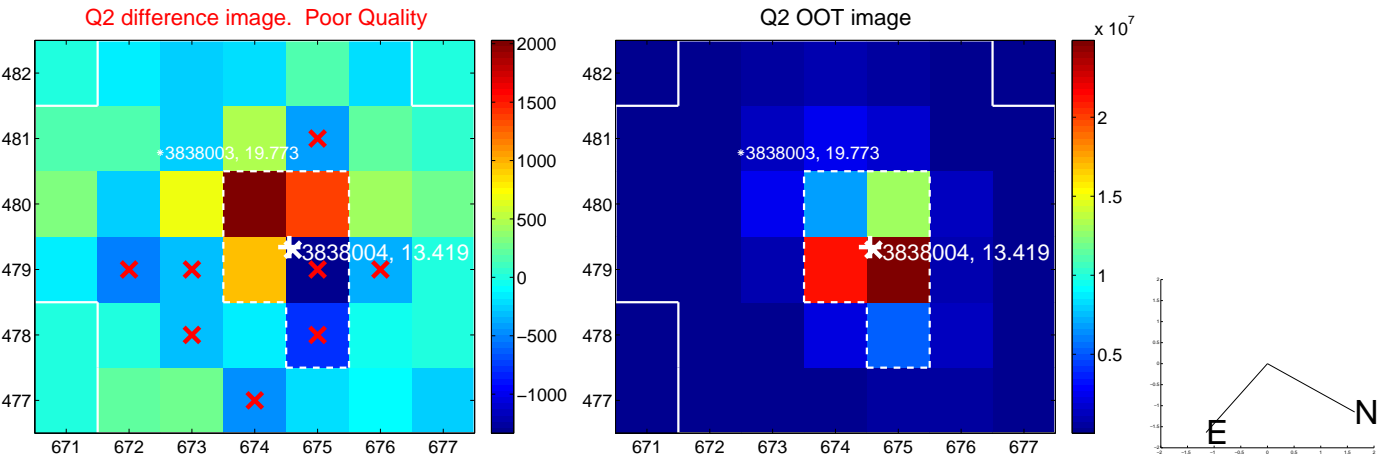
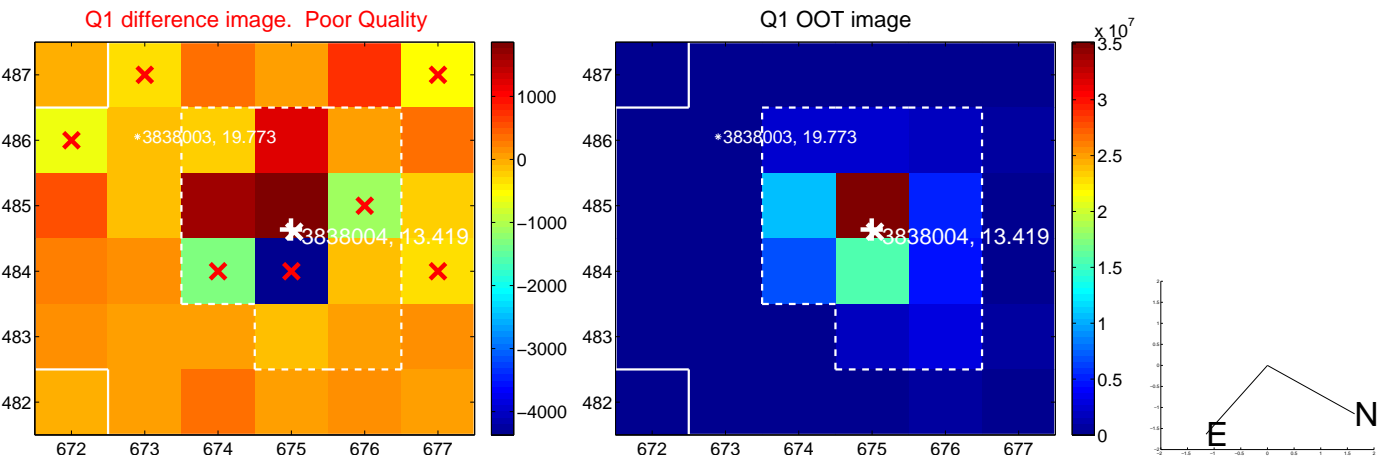
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.265 ± 0.419	0.63	-0.262 ± 0.488	-0.041 ± 0.711
PRF-fit source offset from KIC position	0.352 ± 0.342	1.03	-0.241 ± 0.567	-0.256 ± 0.689
photometric centroid source offset	0.27 ± 0.92	0.29	0.26 ± 0.91	0.07 ± 0.99

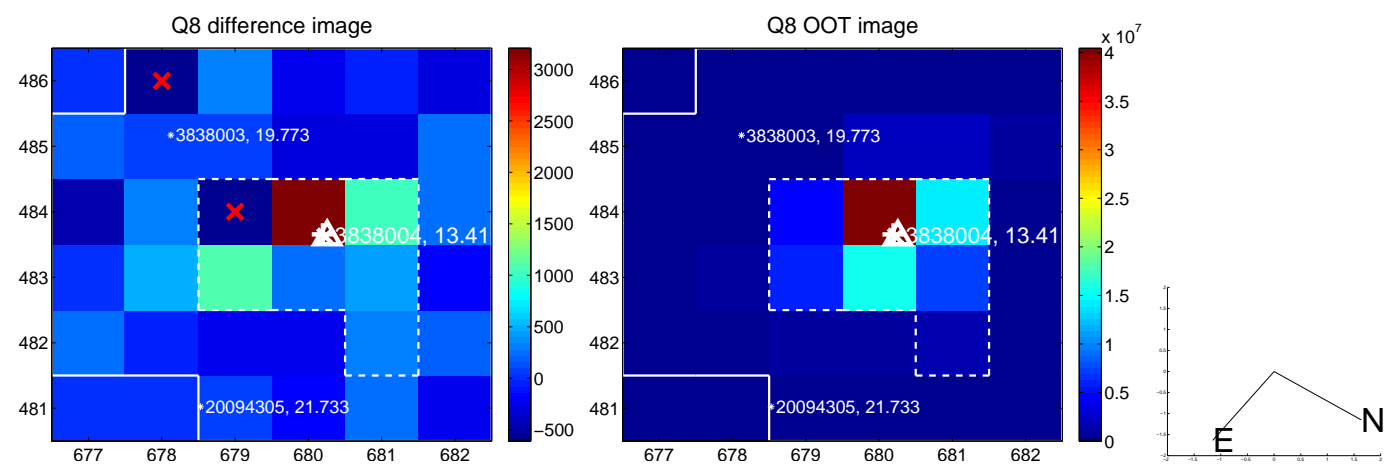
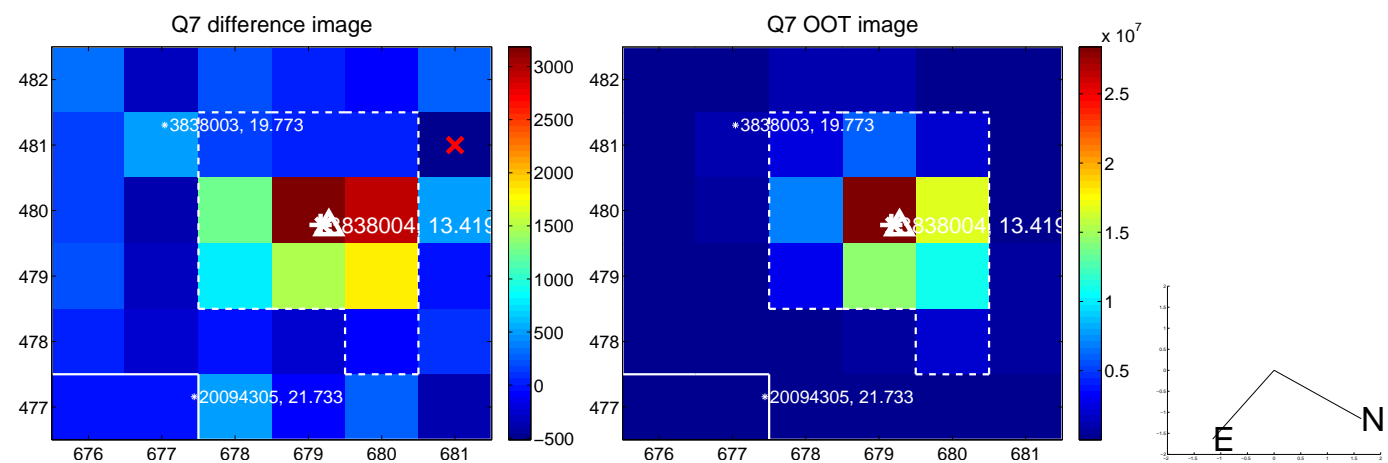
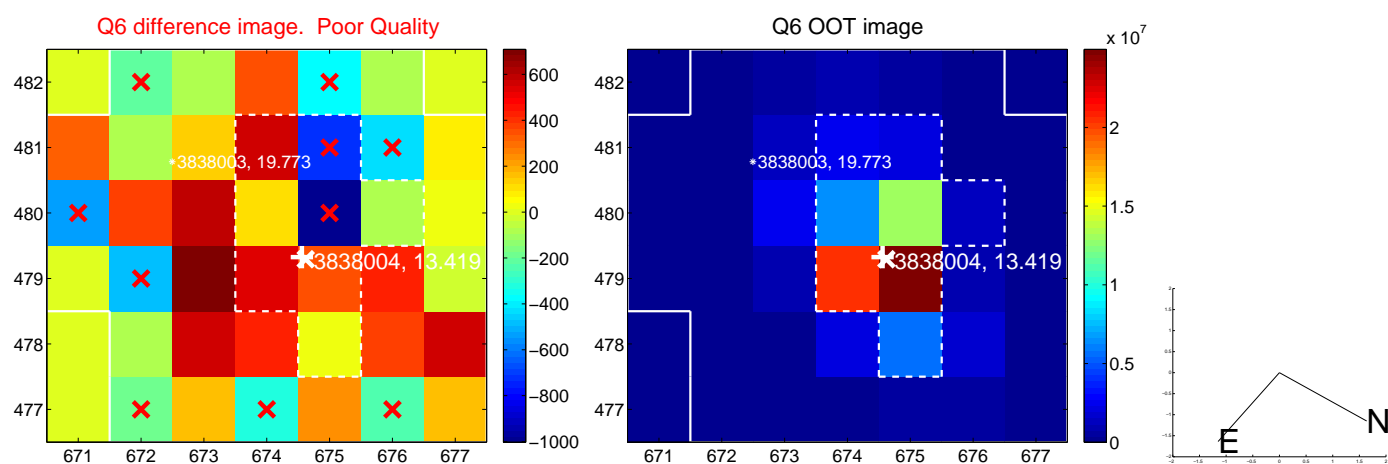
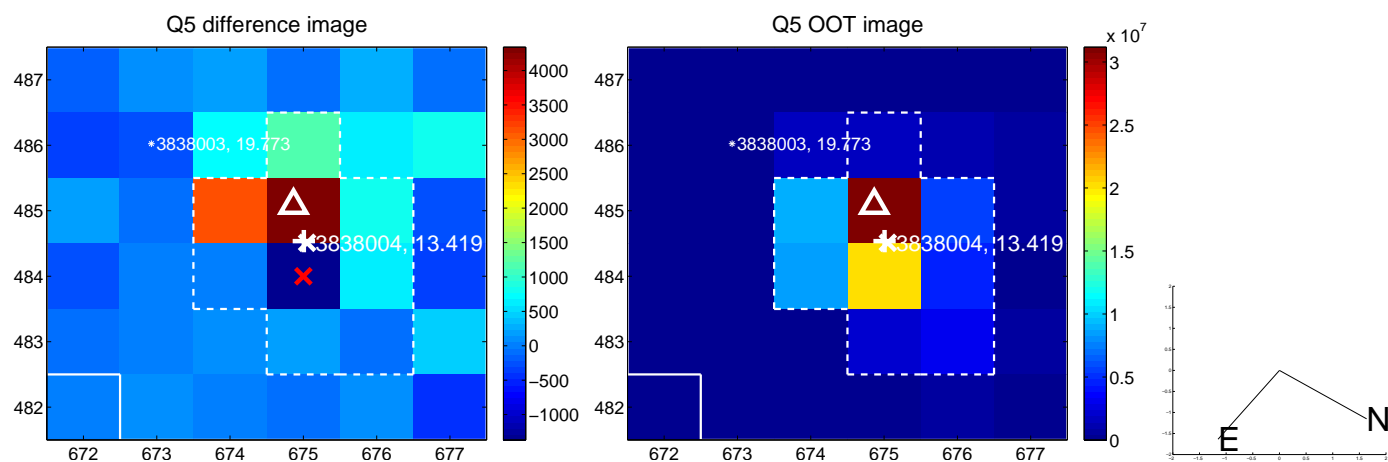


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

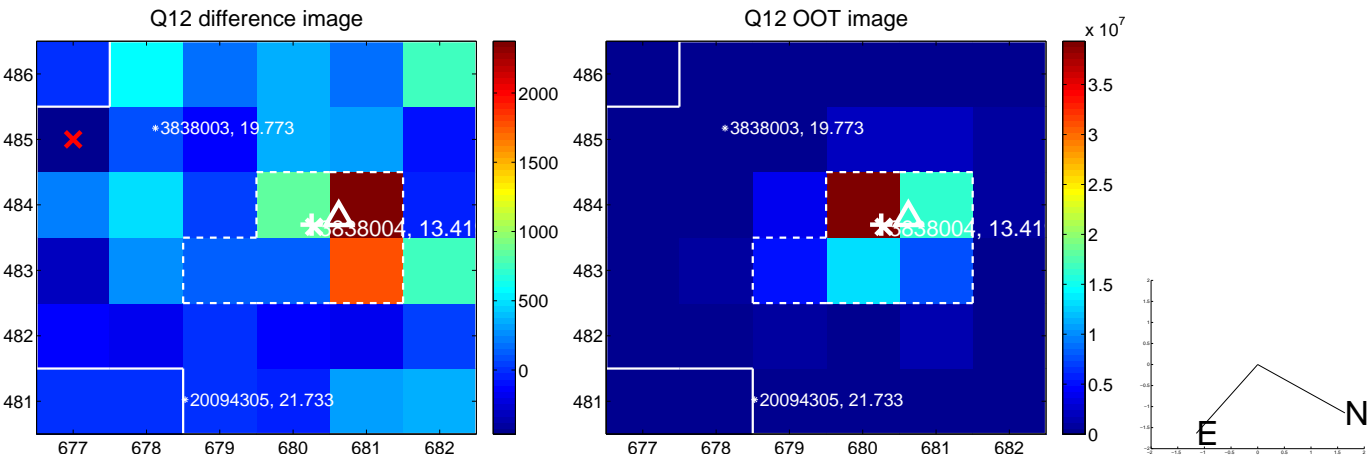
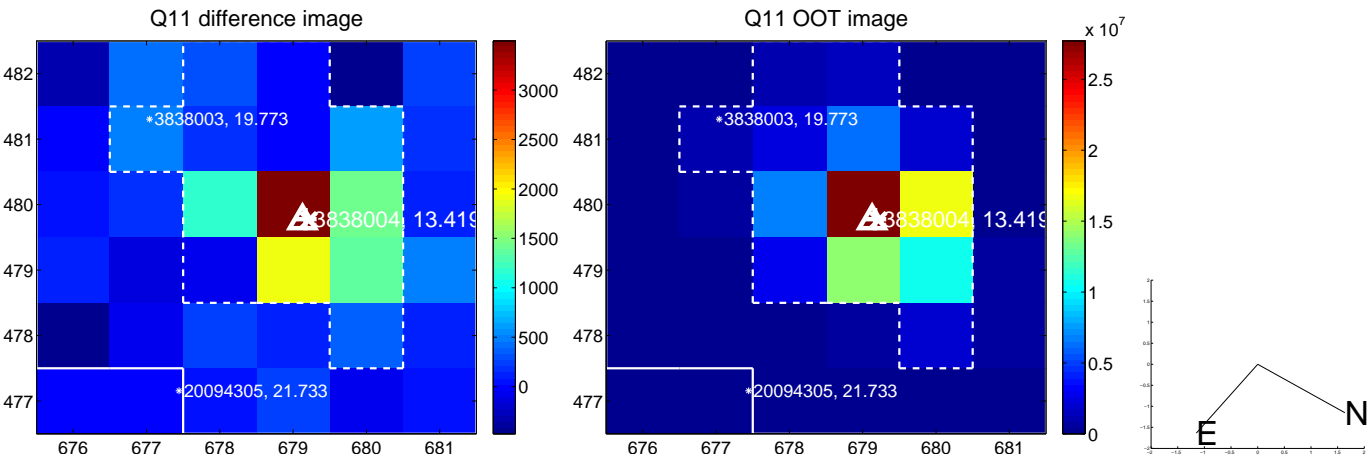
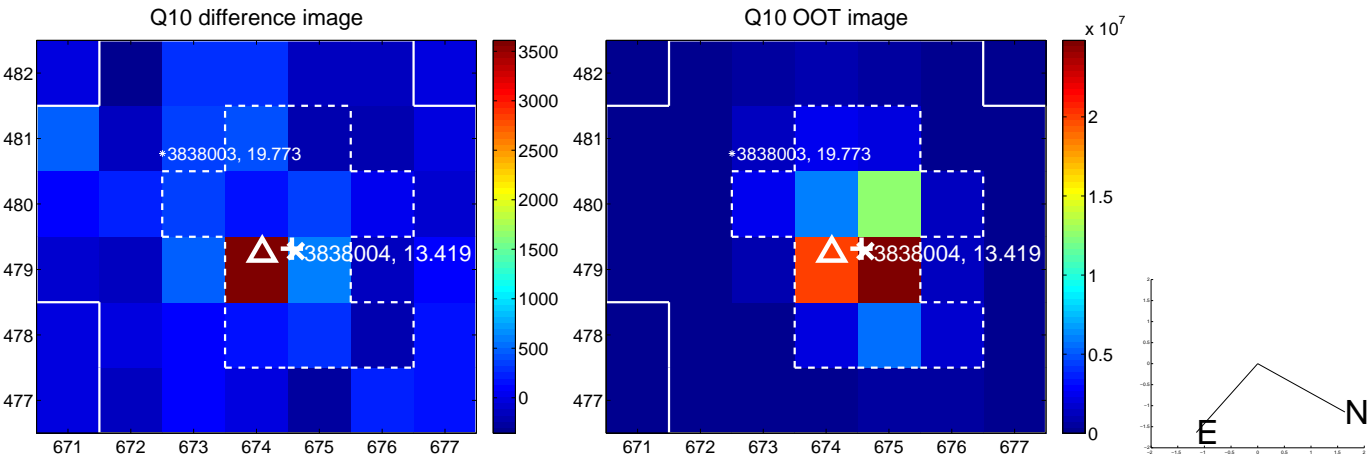
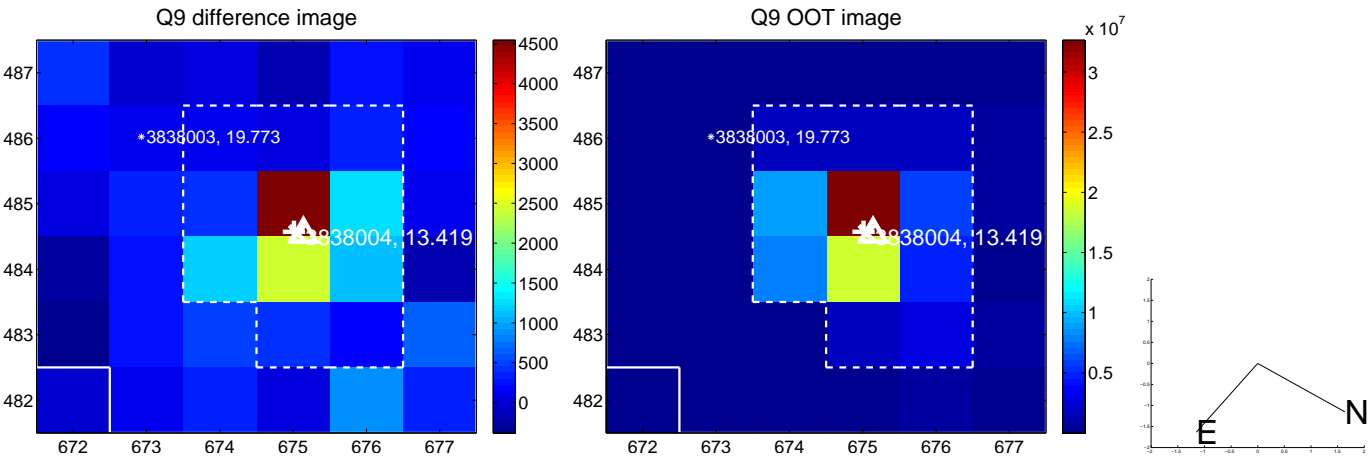
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



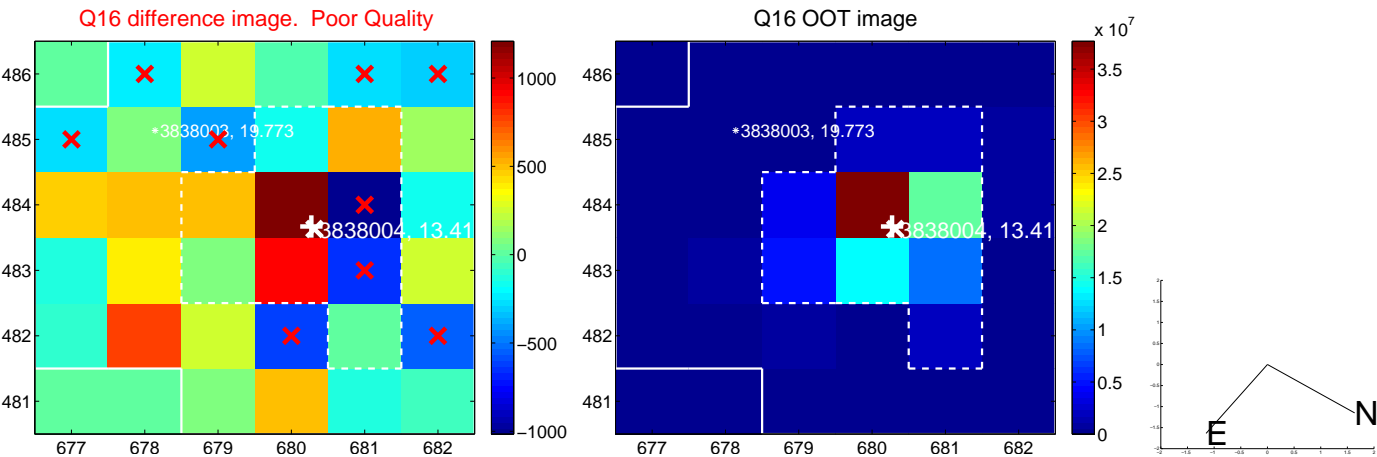
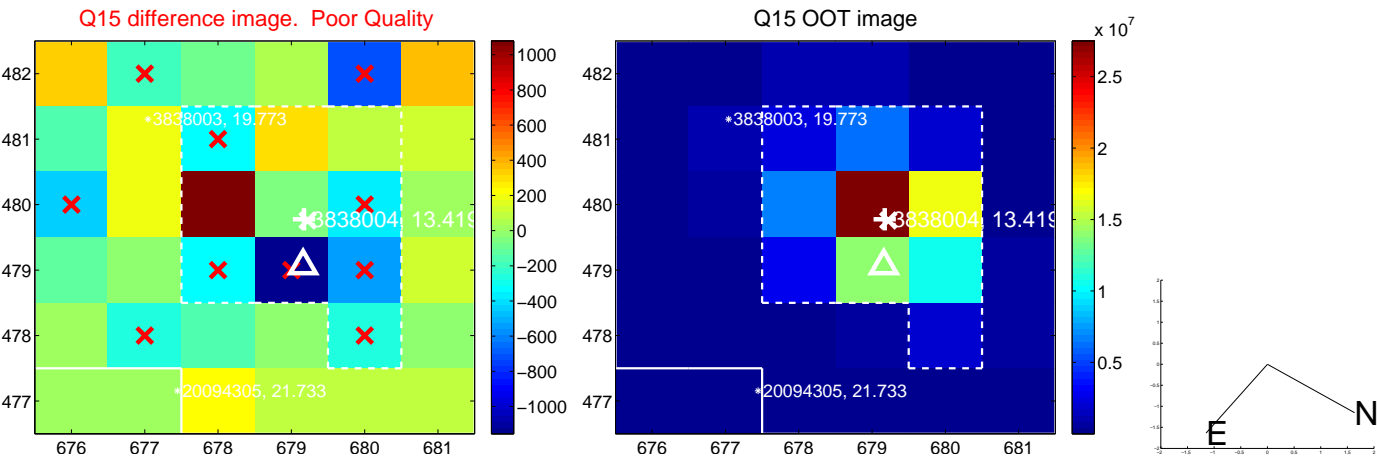
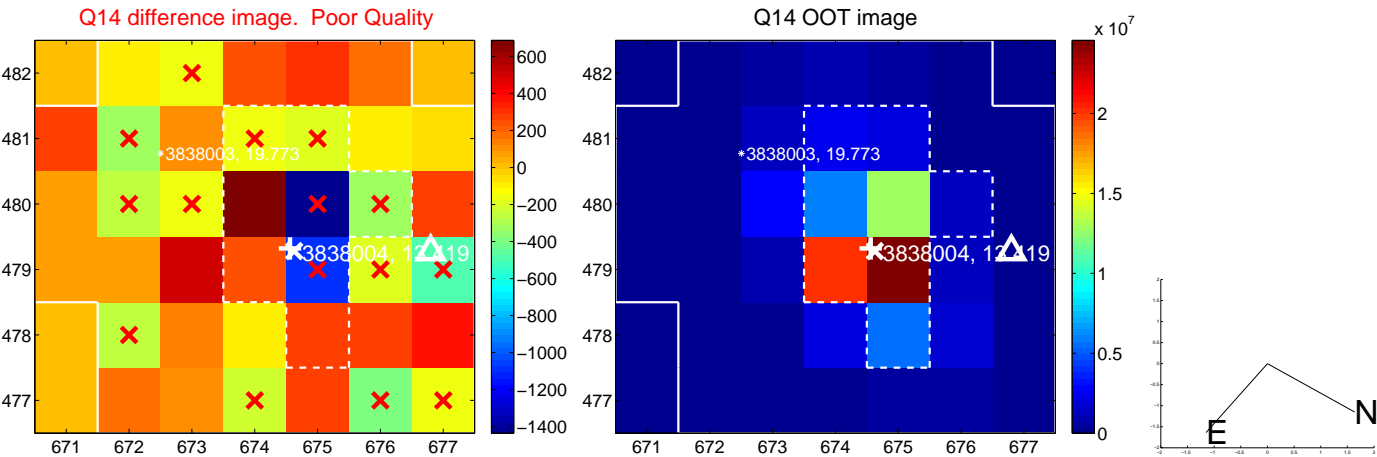
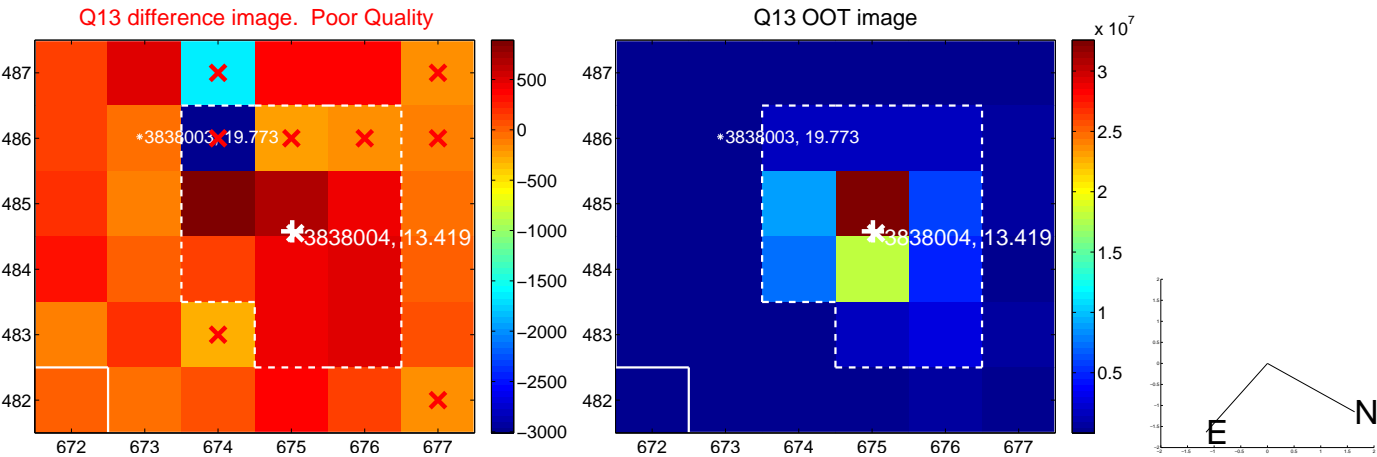
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



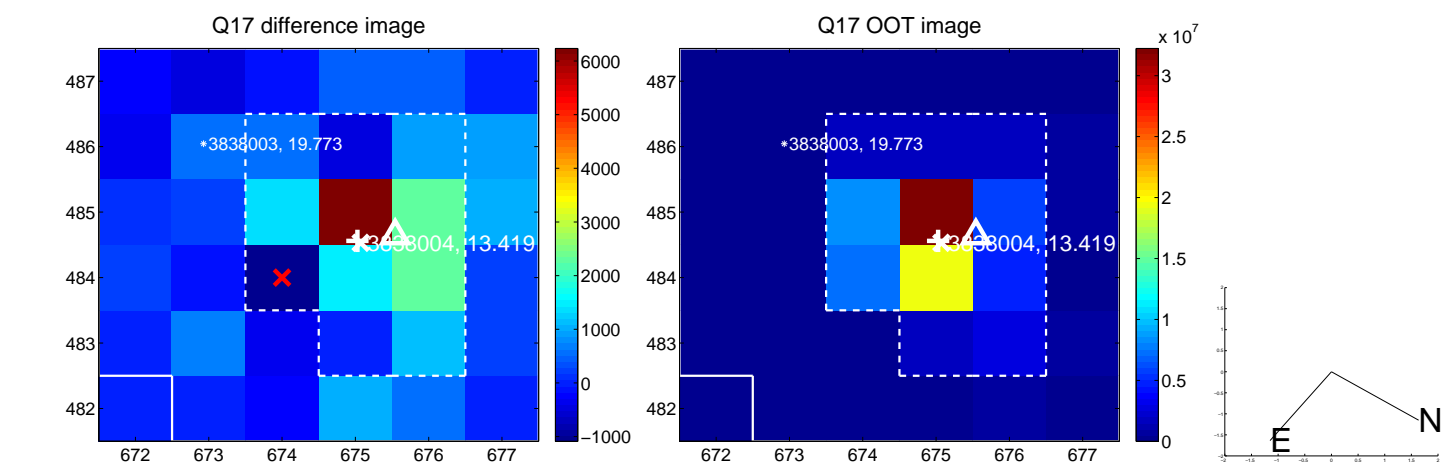
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



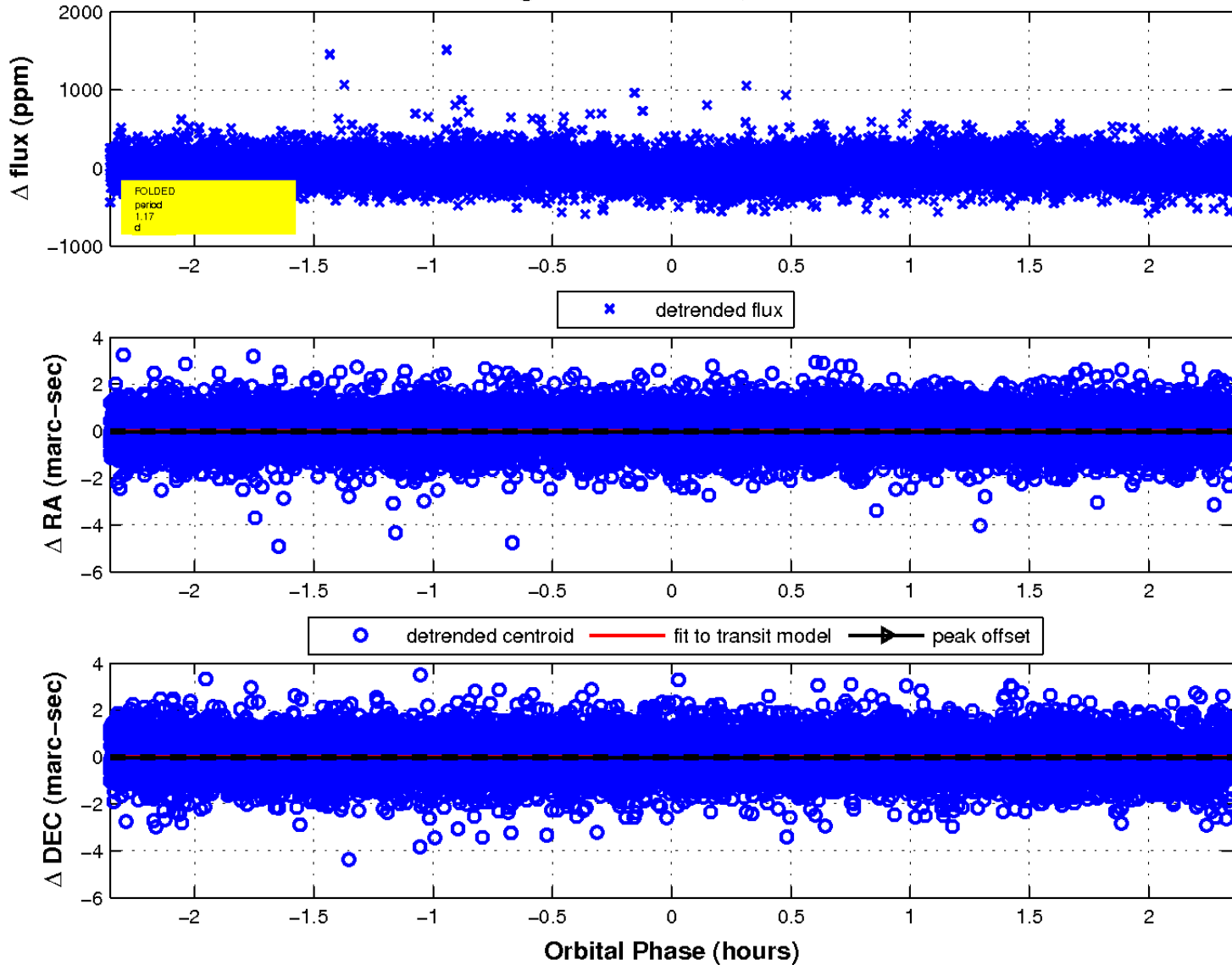
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

