

KIC 008189801

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})
008189801-01	OBS	2480.01	0.666828	131.706084	529.3	0.633	24.3	33.0	0.55	3993	1.33	463.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008189801-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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 008189801-01

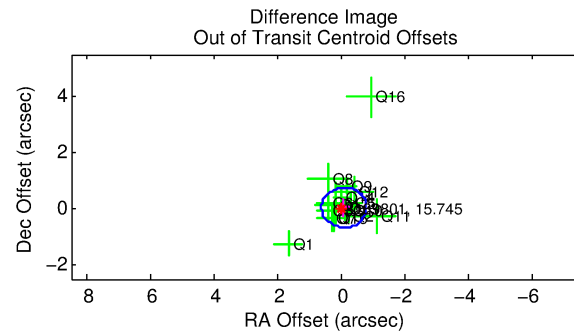
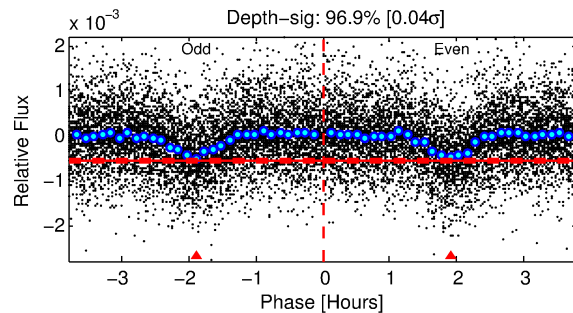
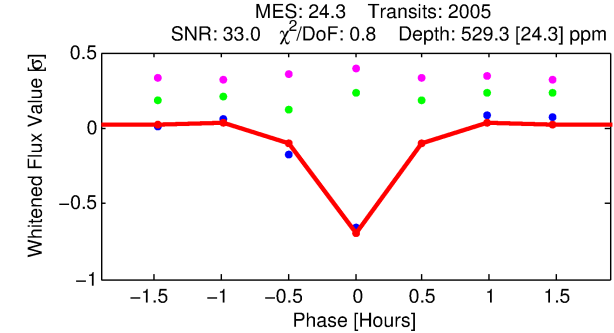
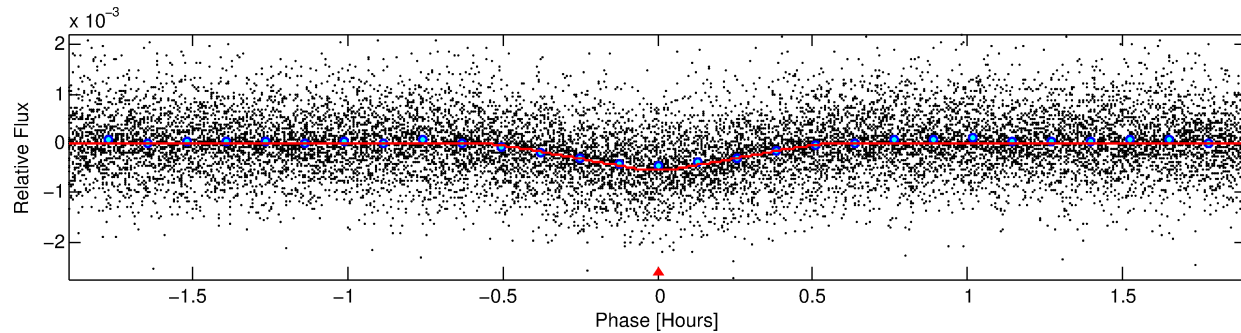
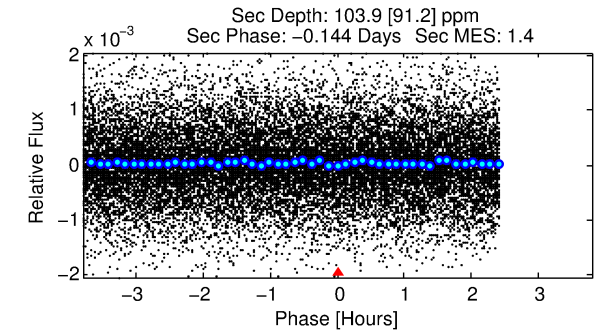
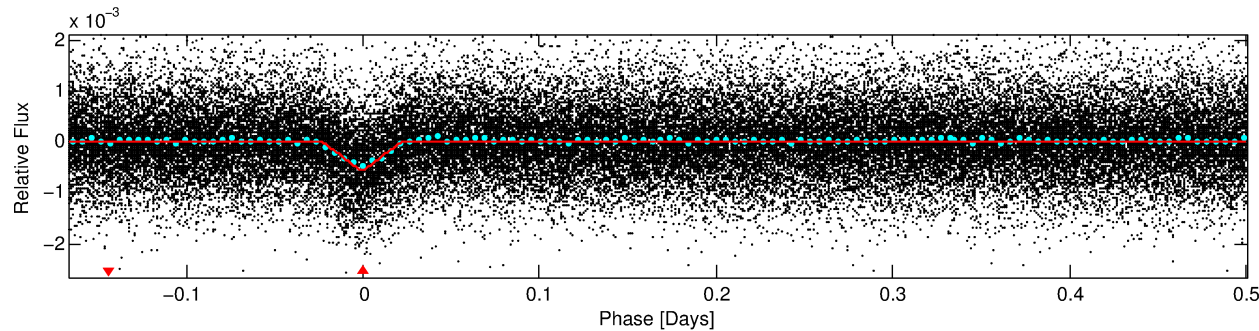
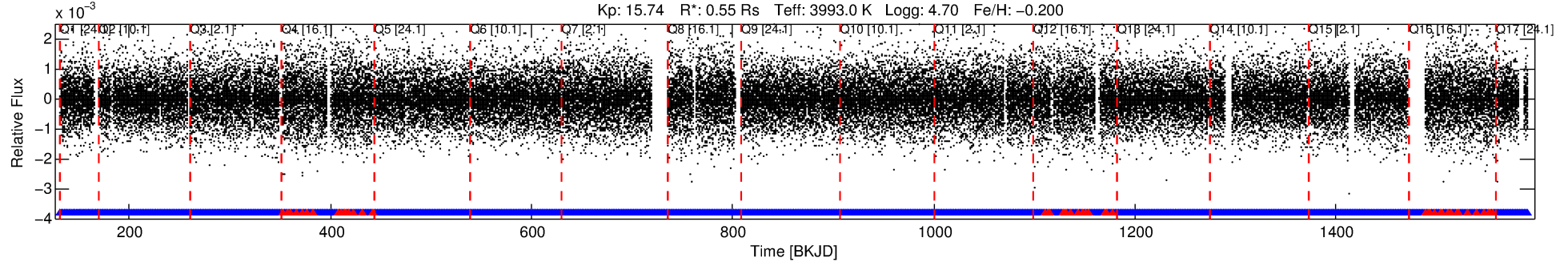
No Significant Match Found

DV One-Page Summary

KIC: 8189801 Candidate: 1 of 1 Period: 0.667 d

KOI: K02480.01 Corr: 0.893

Kp: 15.74 R*: 0.55 Rs Teff: 3993.0 K Logg: 4.70 Fe/H: -0.200



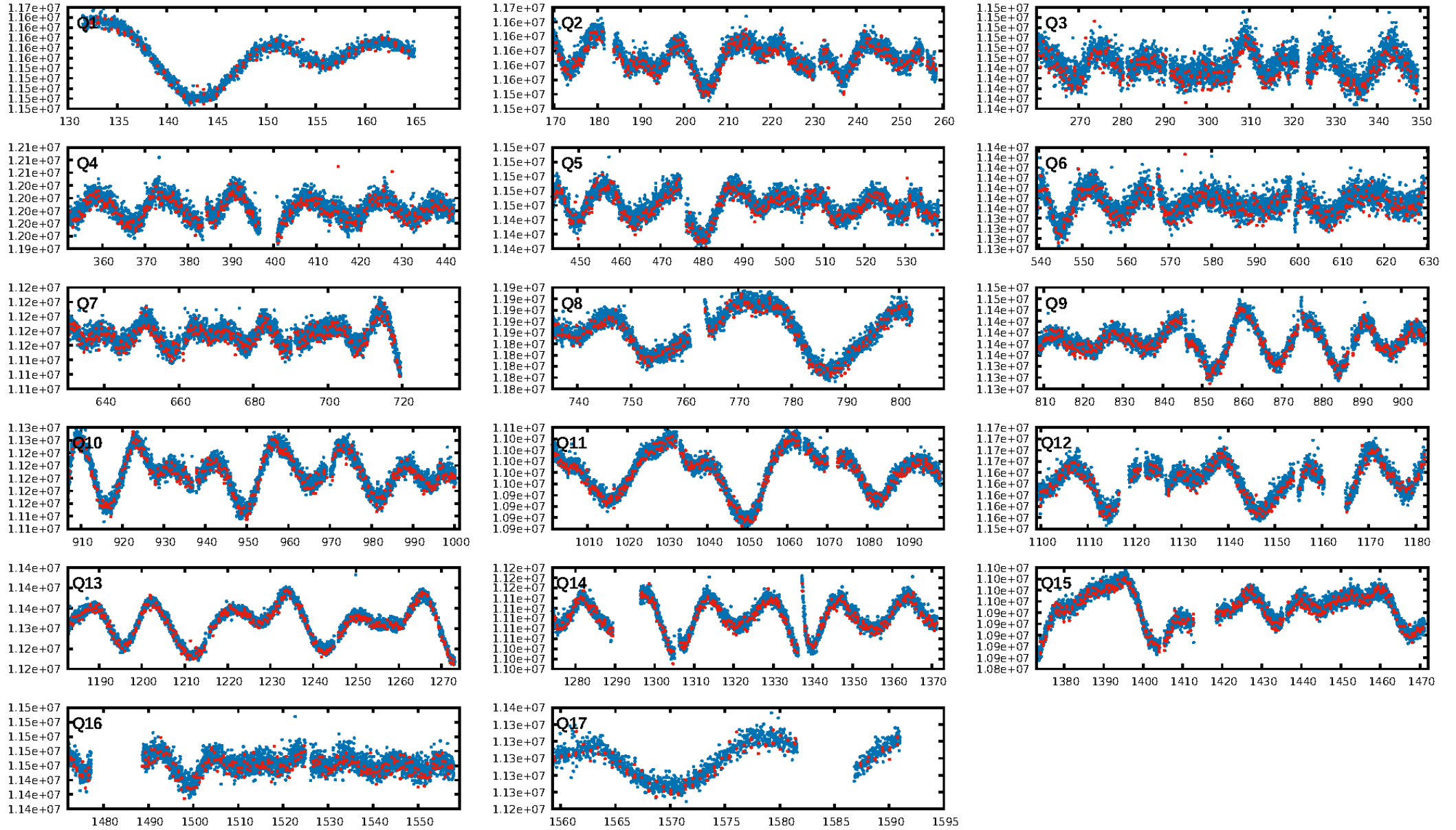
DV Fit Results:

Period = 0.66683 [0.00000] d
Epoch = 131.7061 [0.0004] BKJD
Rp/R* = 0.0221 [0.0062]
a/R* = 7.30 [8.31]
b = 0.48 [1.87]
Seff = 463.18 [63.61]
Teff = 1183 [41] K
Rp = 1.34 [0.40] Re
a = 0.0123 [0.0010] AU
Ag = 4.84 [5.06] [0.76σ]
Teffp = 2712 [708] K [2.16σ]

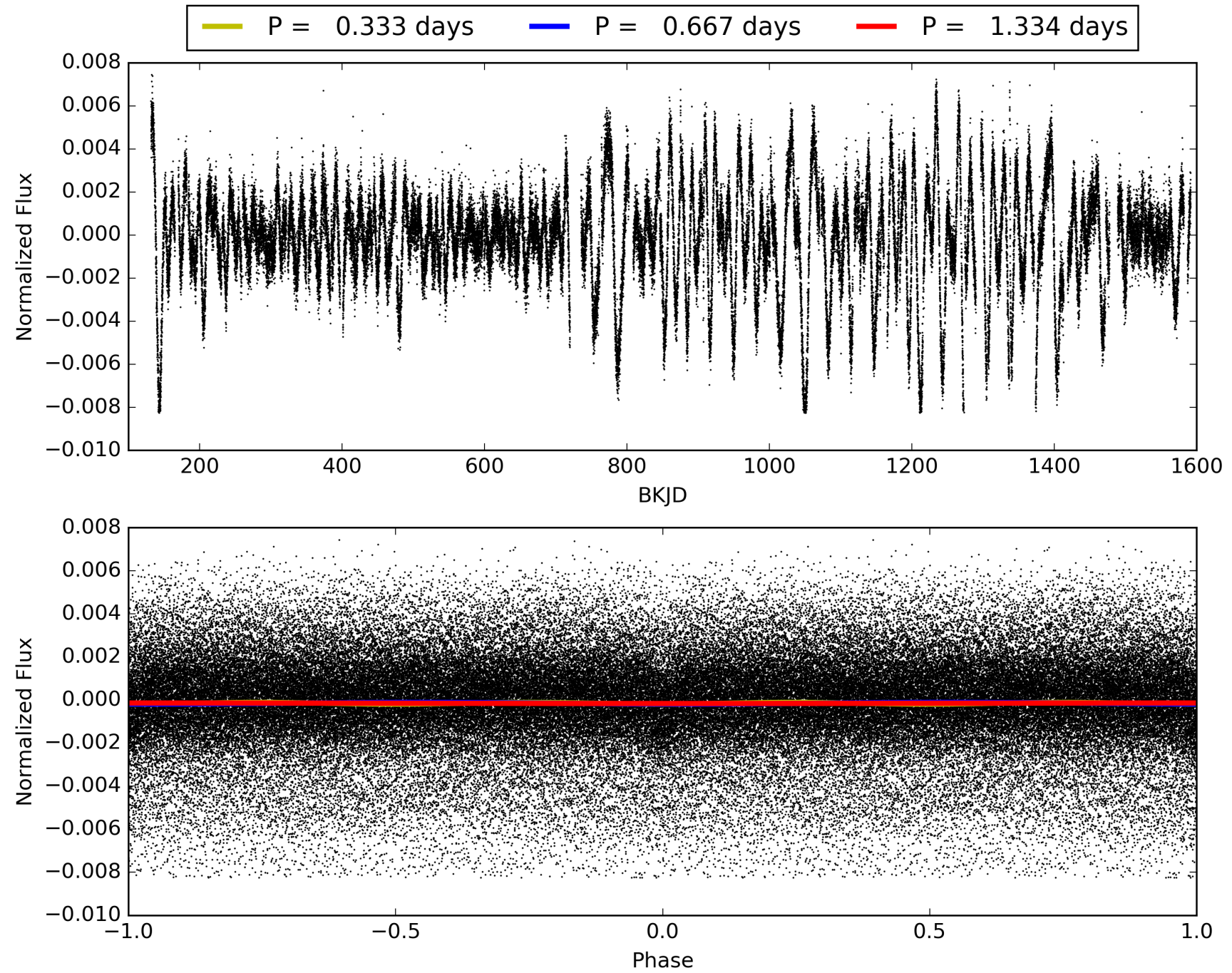
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.26e-118
RollingBand-fgt: 0.97 [1864/1915]
GhostDiagnostic-chr: 7.151
Centroid-sig: 7.2%
Centroid-so: 0.682 arcsec [1.77σ]
OotOffset-rm: 0.091 arcsec [0.38σ]
KicOffset-rm: 0.073 arcsec [0.24σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008189801-01, PDC Light Curves

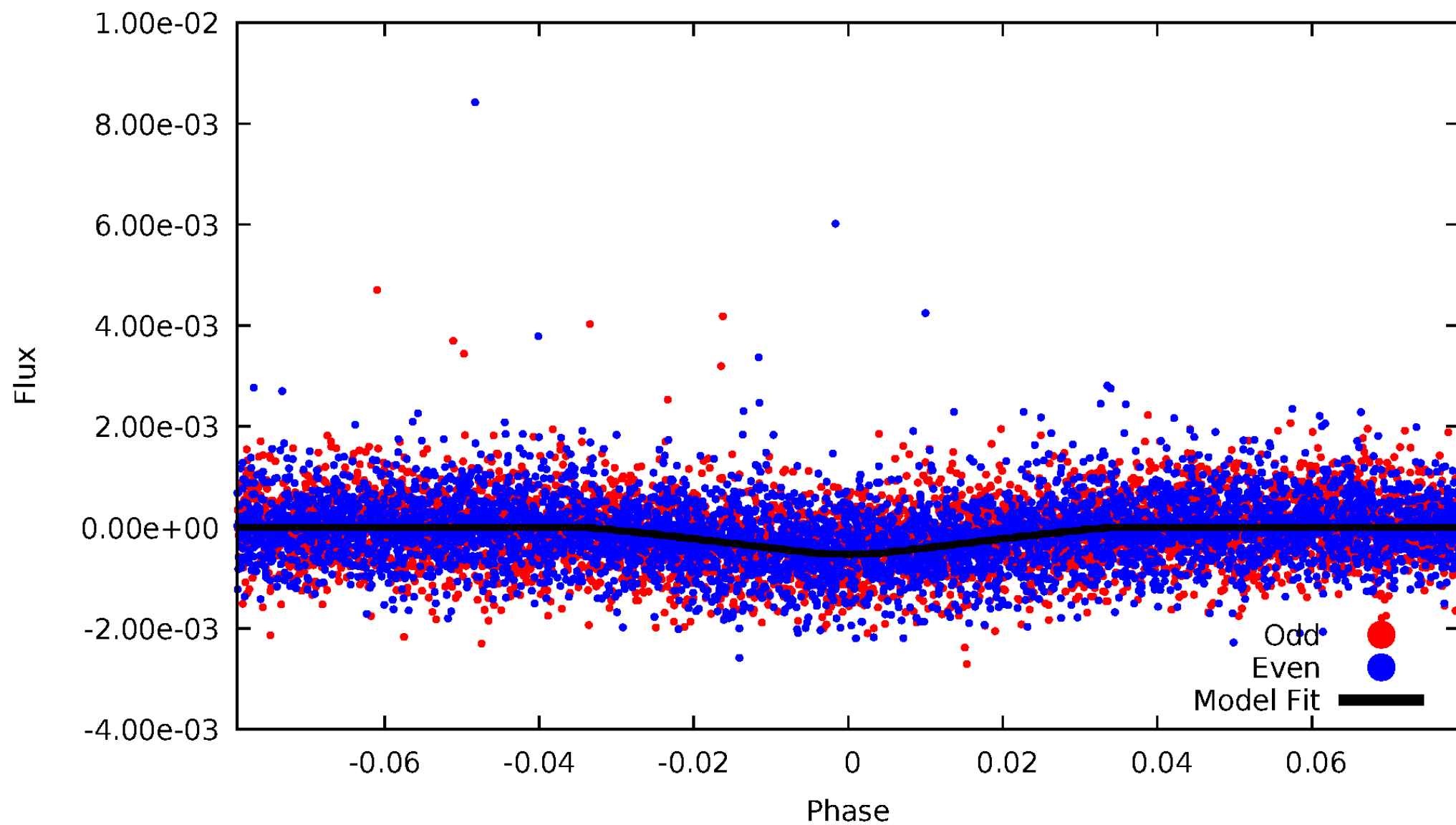


TCE 008189801-01



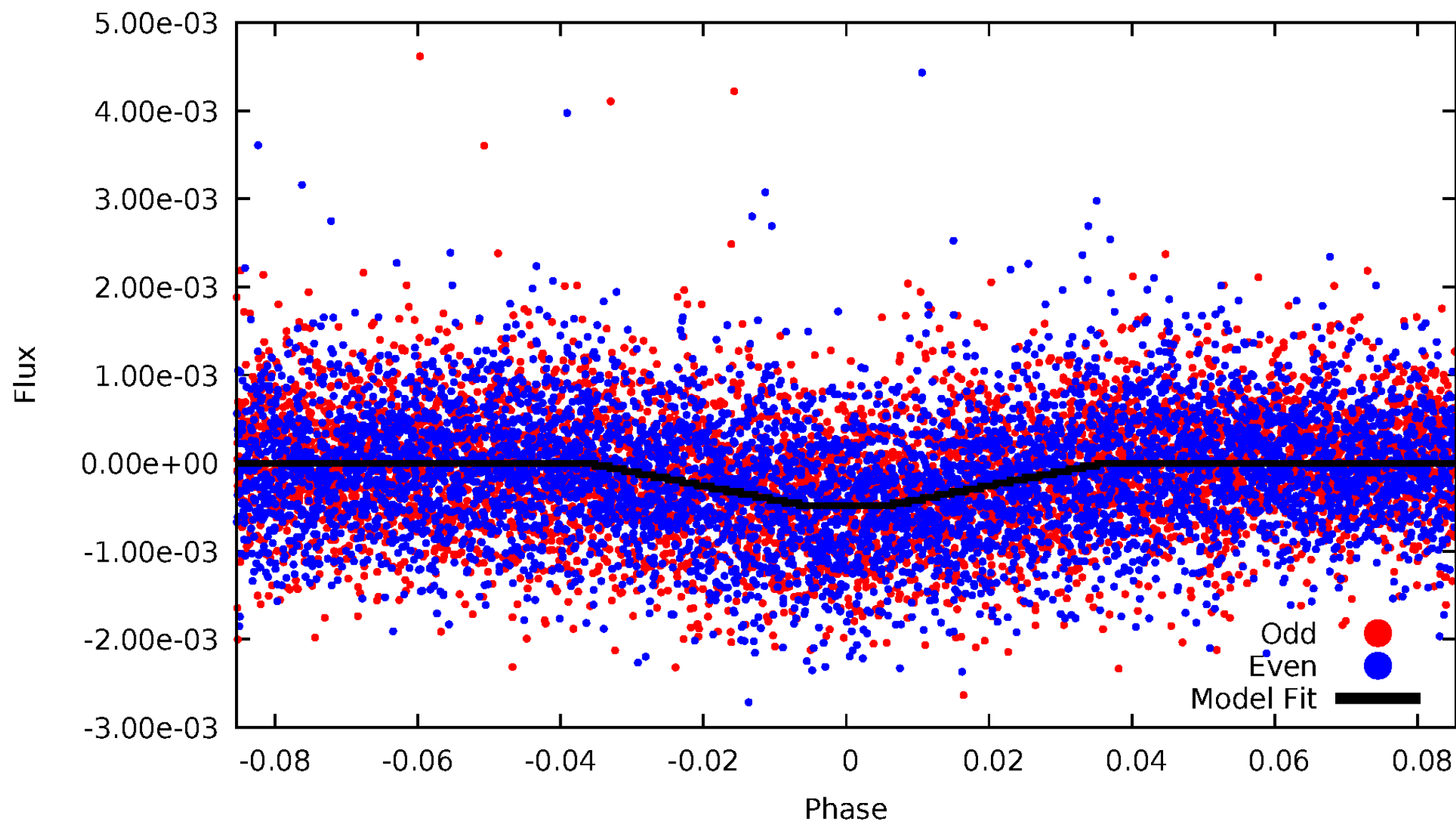
DV Odd/Even

TCE 008189801-01



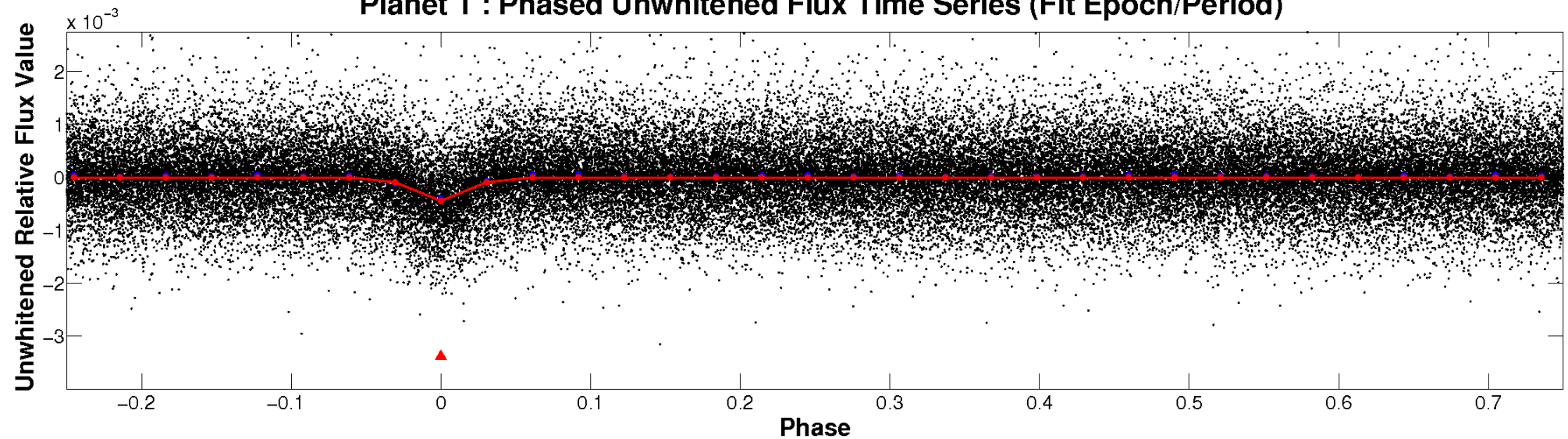
ALT Odd/Even

TCE 008189801-01

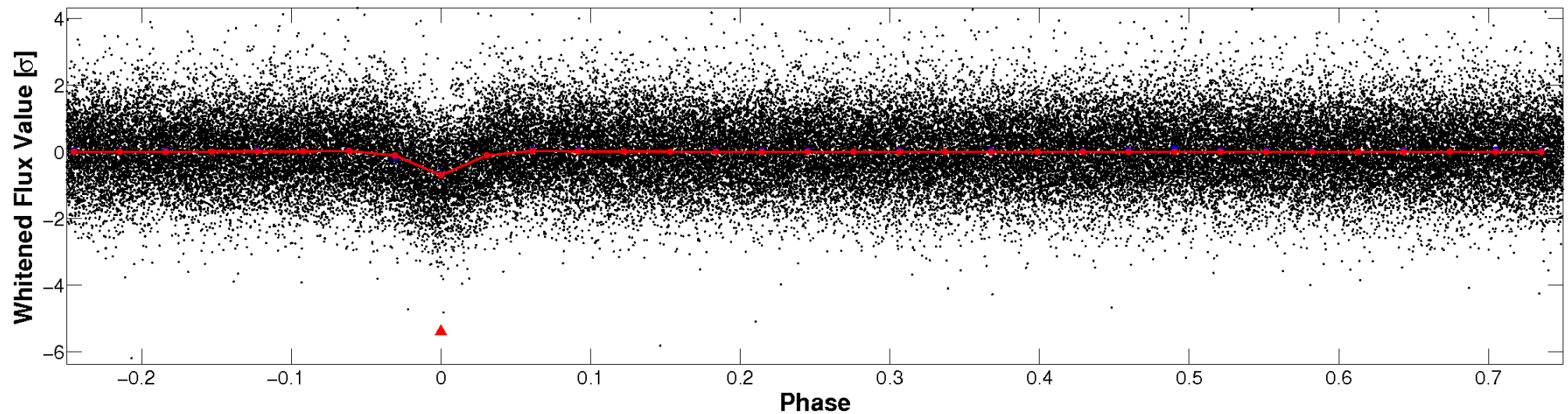


Non-Whitened Vs. Whitened Light Curve

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

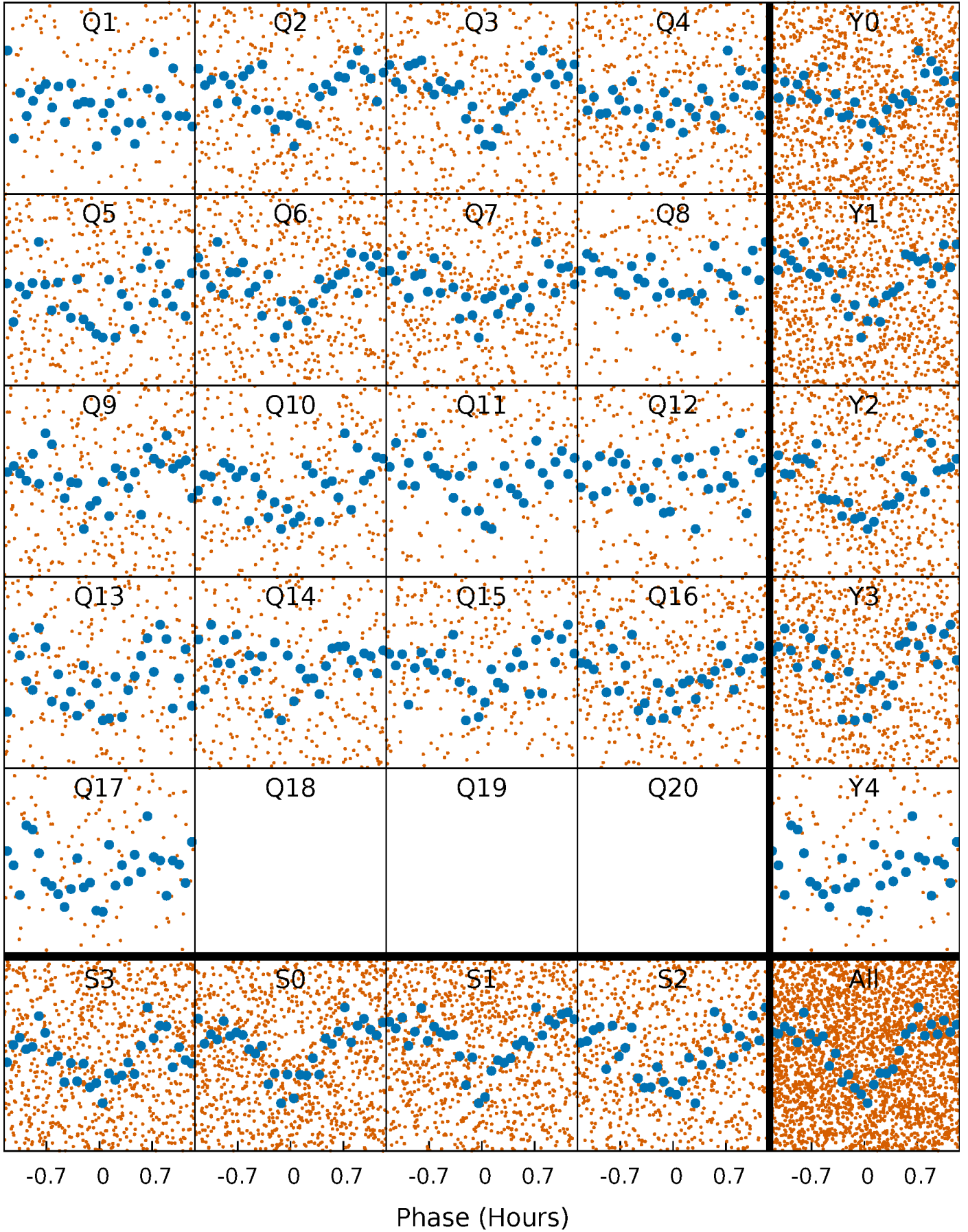


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



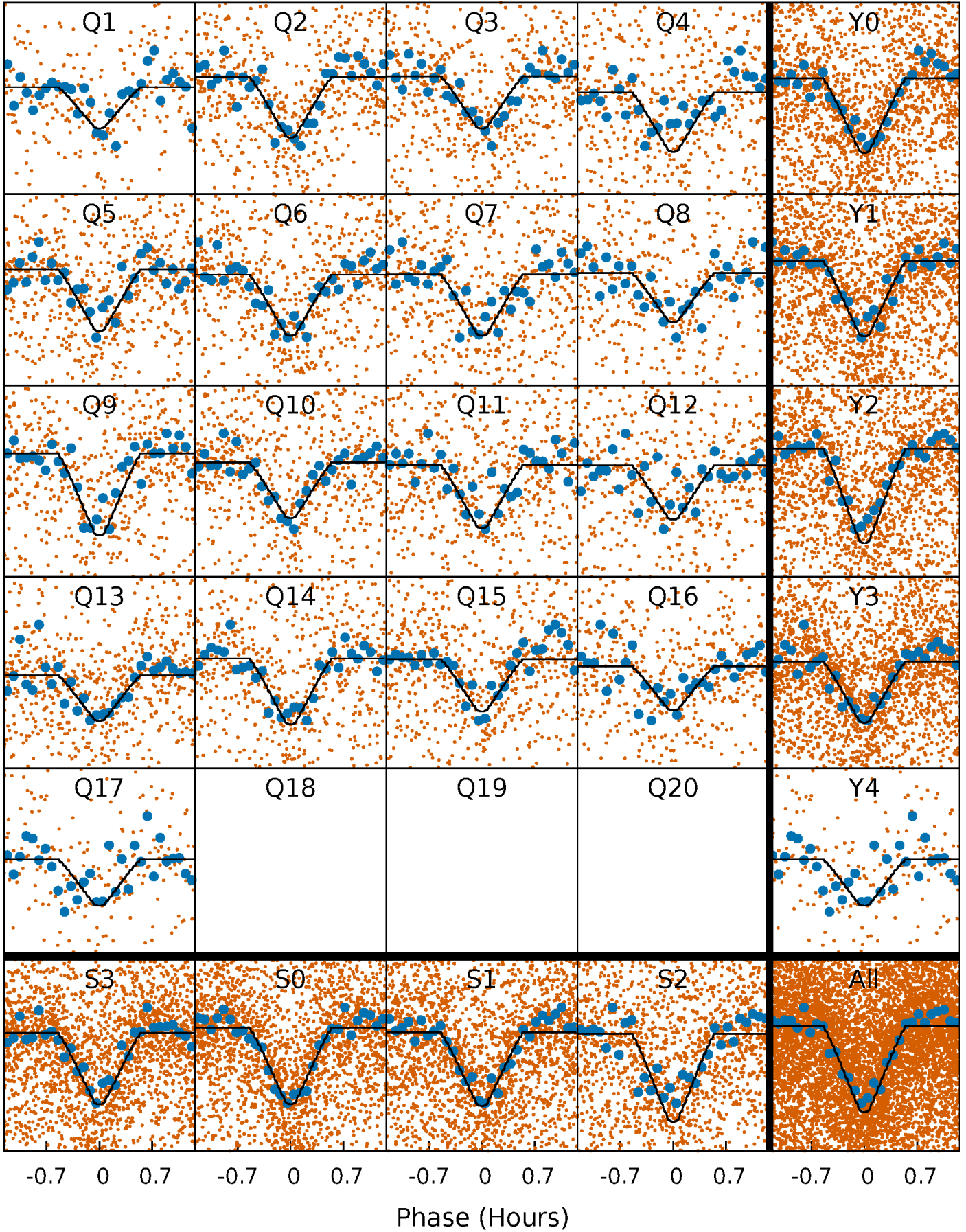
PDC Quarter-Phased Transit Curves

TCE 008189801-01 P= 0.666828 Days $T_0=131.706084$ (BKJD)



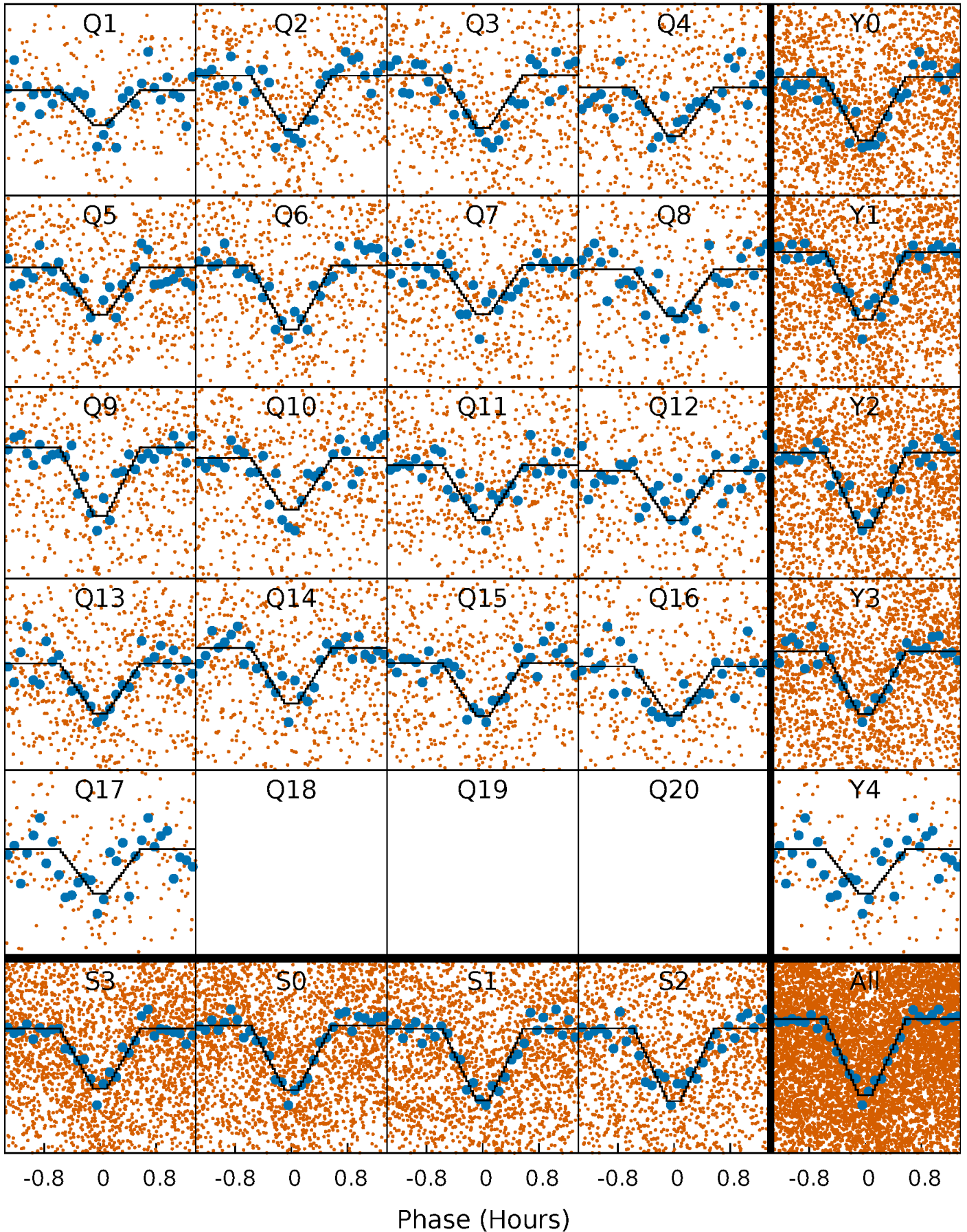
DV Quarter-Phased Transit Curves

TCE 008189801-01 P= 0.666828 Days $T_0=131.706084$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

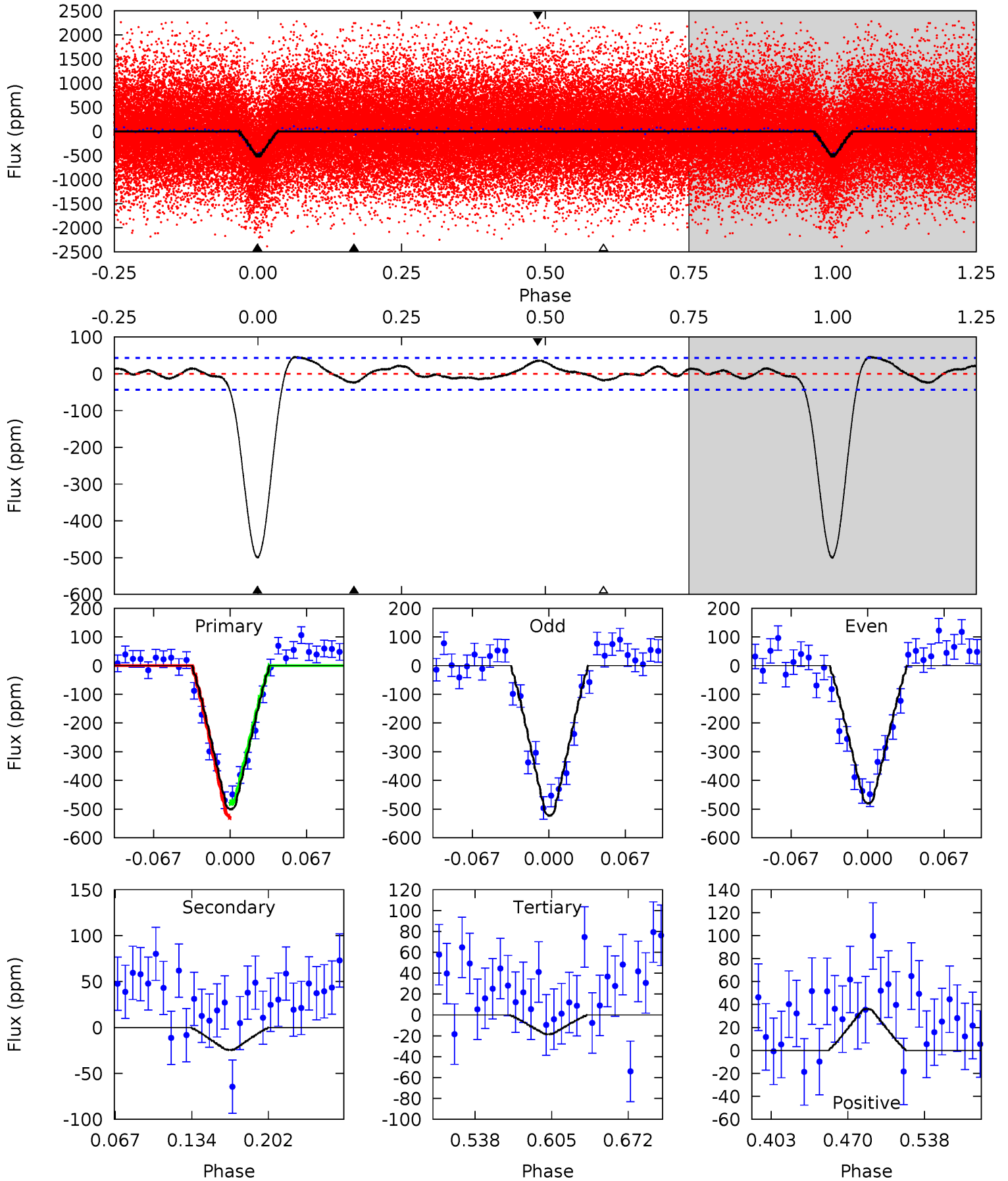
TCE 008189801-01 P= 0.666828 Days $T_0=131.705906$ (BKJD)



DV Model-Shift Uniqueness Test

008189801-01, P = 0.666828 Days, E = 131.039256 Days

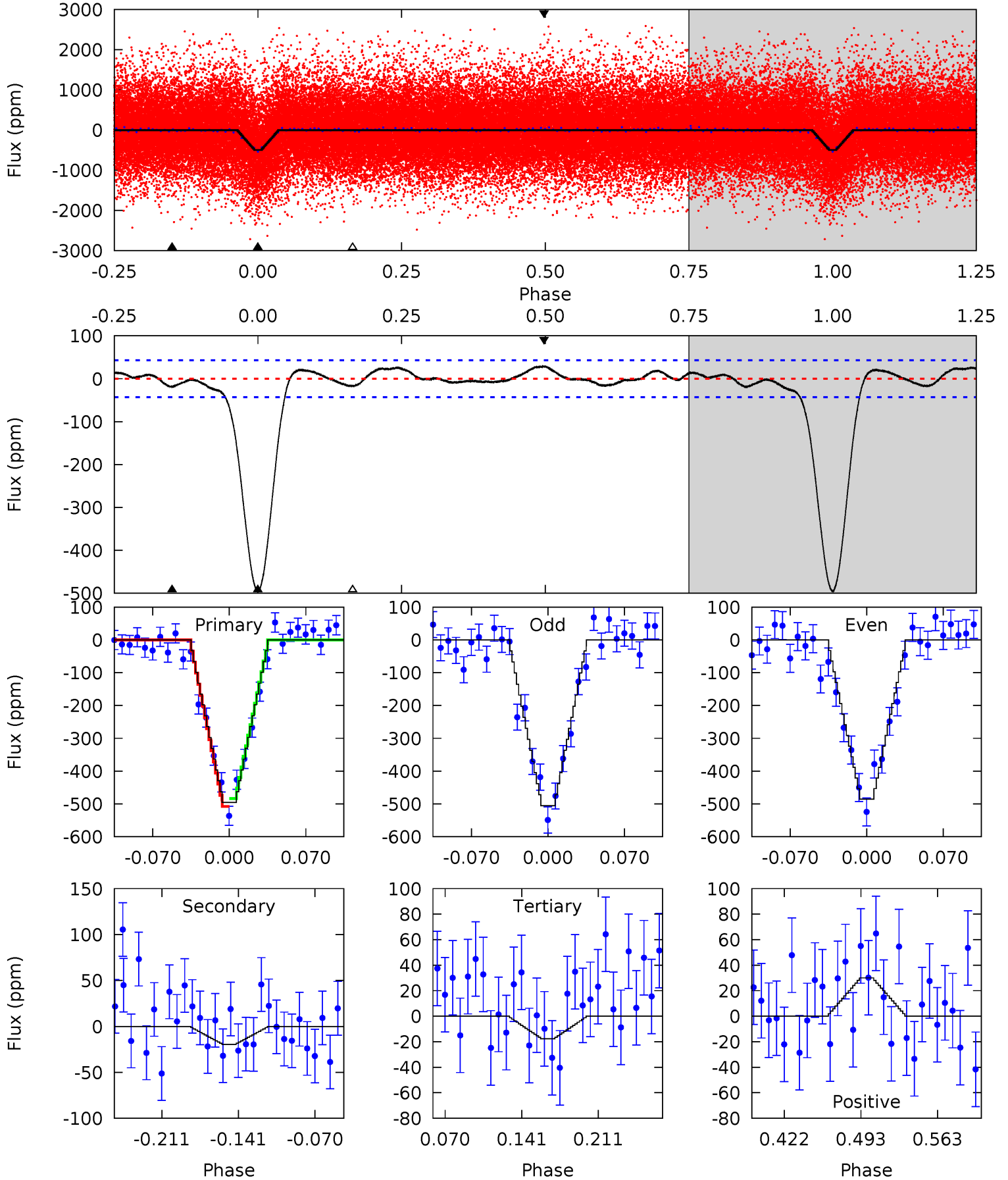
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.7	2.63	1.97	3.87	4.65	1.83	1.55	51.7	49.8	0.65	-1.25	2.29	0.97	0.08	2.75



Alt Model-Shift Uniqueness Test

008189801-01, P = 0.666828 Days, E = 131.039078 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.2	2.11	1.90	3.22	4.64	1.81	1.34	51.3	50.0	0.20	-1.12	1.07	0.98	0.06	1.29



Stellar Parameters For KIC 008189801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3993^{+79}_{-89}	$4.696^{+0.052}_{-0.028}$	$-0.200^{+0.300}_{-0.300}$	$0.554^{+0.046}_{-0.056}$	$0.556^{+0.052}_{-0.052}$	$4.609^{+1.150}_{-0.637}$
	+2%/-2%	+1%/-1%	+150%/-150%	+8%/-10%	+9%/-9%	+25%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 008189801-01 / KOI 2480.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-25 ± 9	$1.33^{+0.38}_{-0.35}$	1645^{+43}_{-51}	2462^{+289}_{-310}	$1.136^{+1.148}_{-0.572}$
Alt.	-20 ± 9	$1.34^{+0.37}_{-0.38}$	1644^{+44}_{-45}	2363^{+310}_{-477}	$0.888^{+0.964}_{-0.523}$

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 $A_{obs} \gg 1.0$

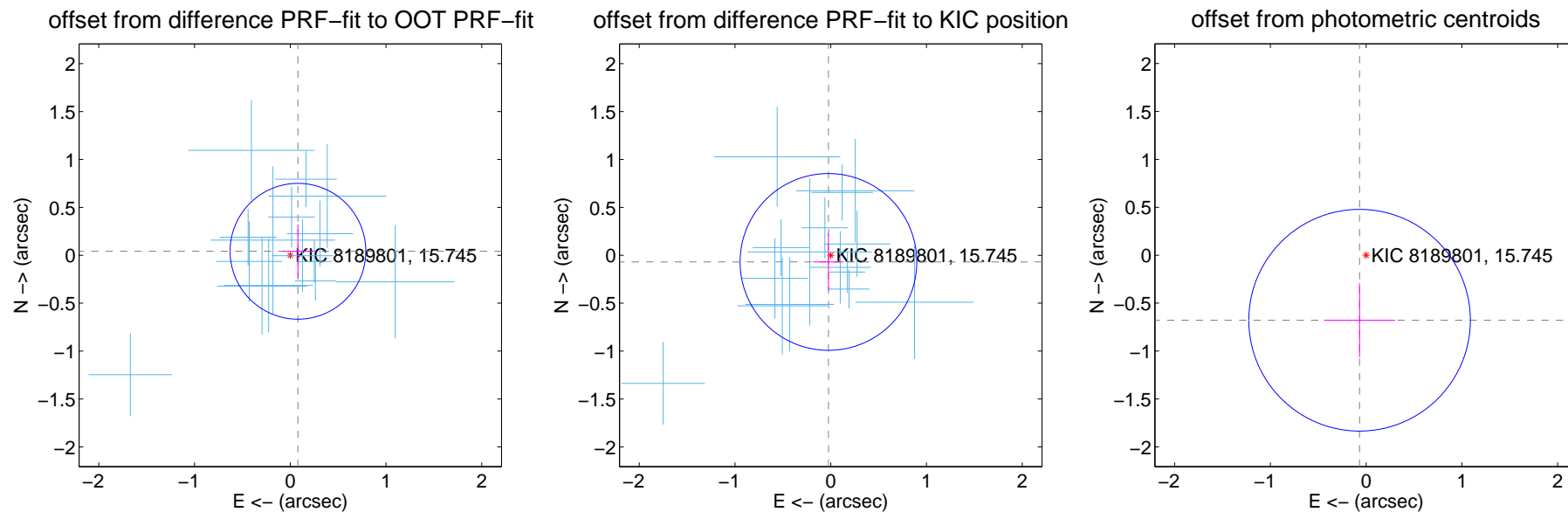
DV Centroid Data

Supplemental centroid analysis for 008189801-01. Kepler magnitude: 15.74. Transit SNR 33.02

There are 15 quarters with good PRF difference image offsets

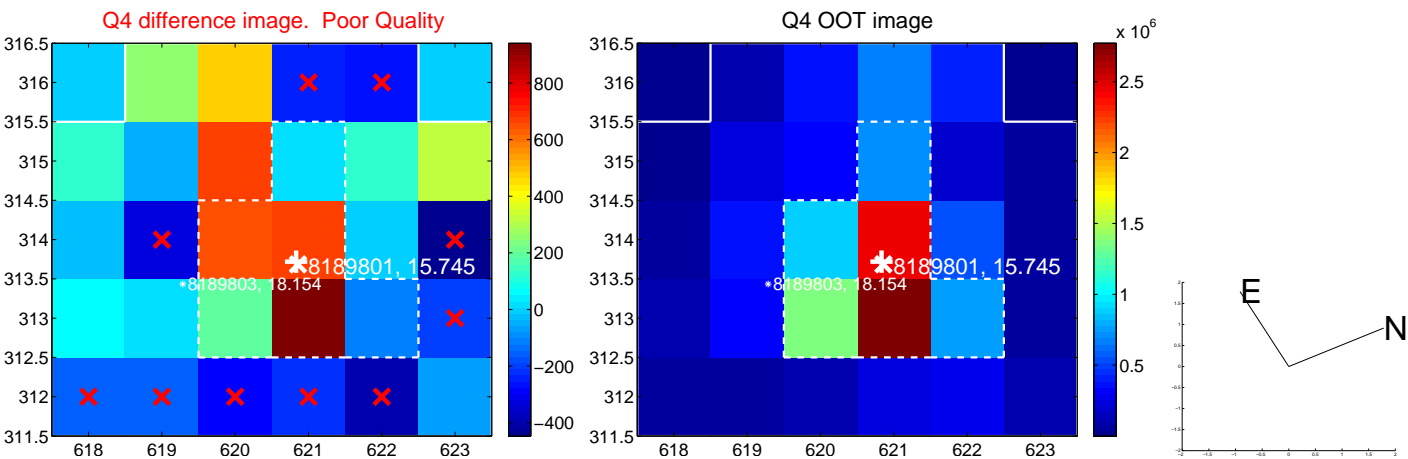
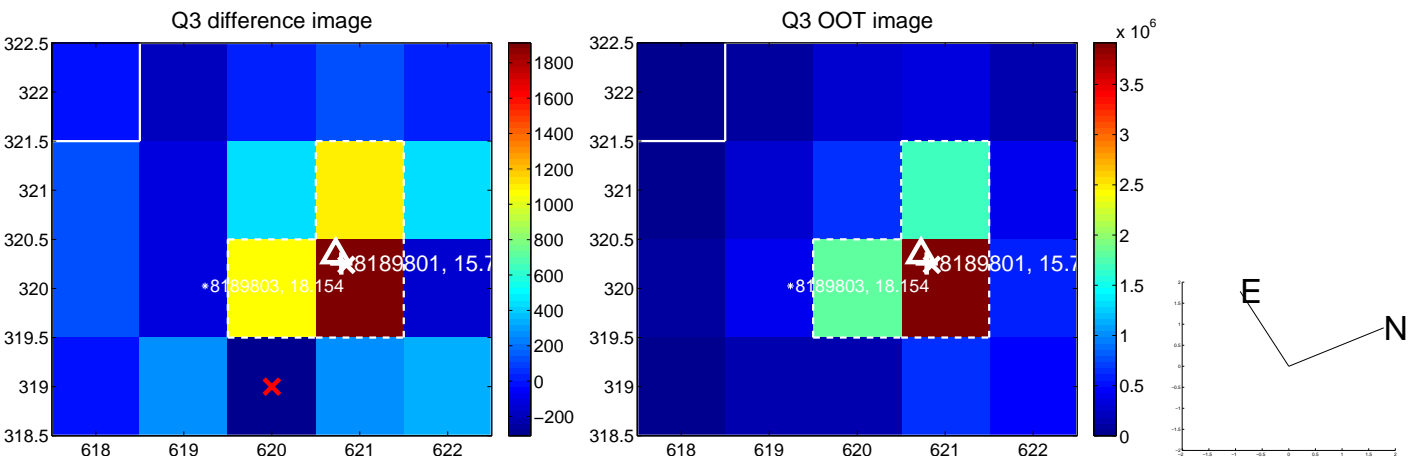
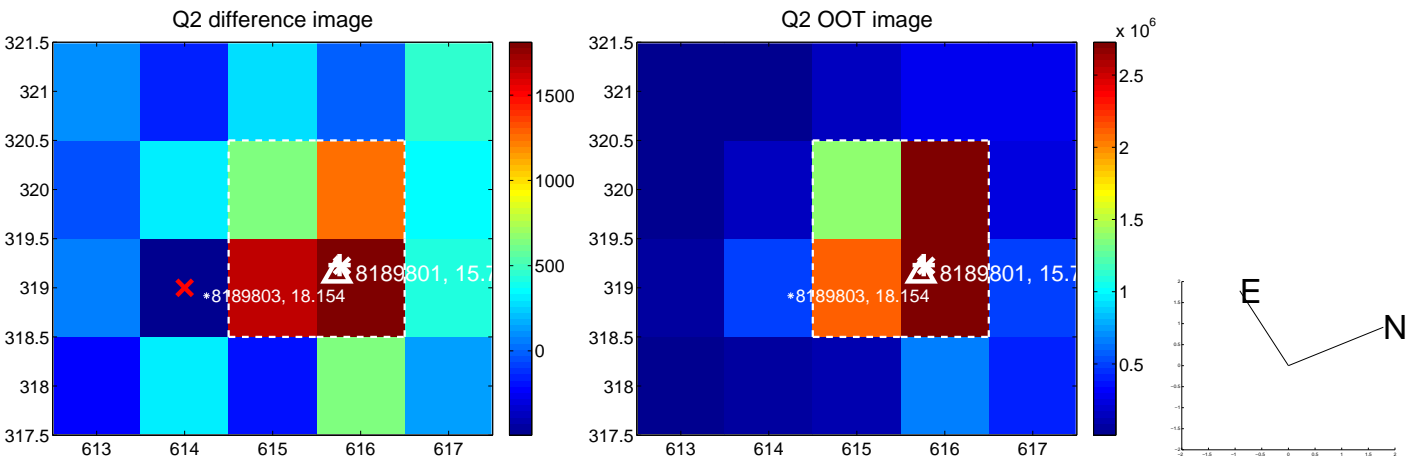
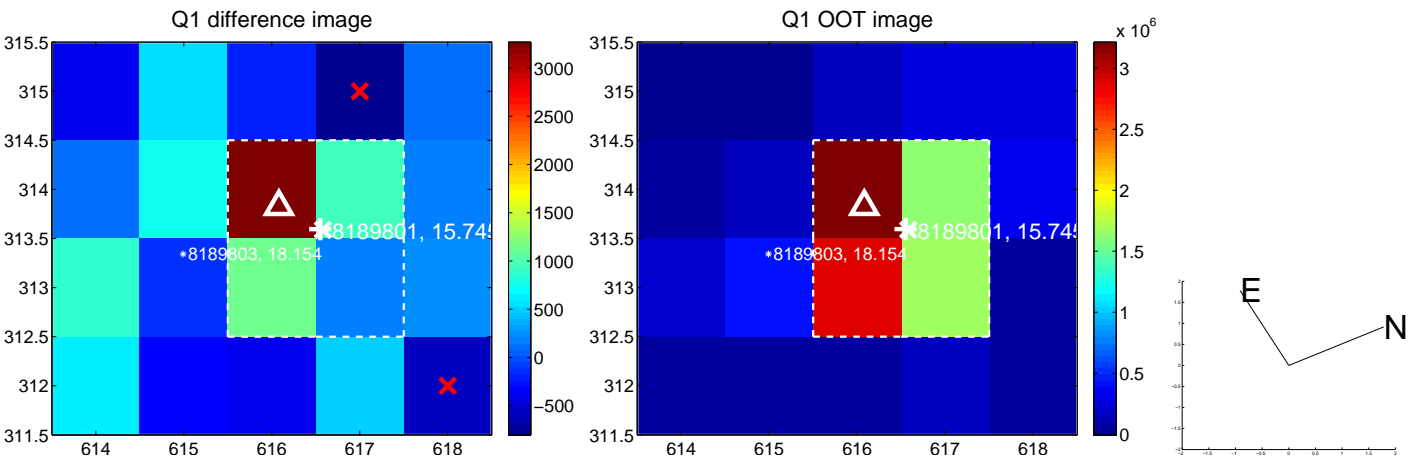
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.091 ± 0.236	0.38	-0.080 ± 0.164	0.042 ± 0.278
PRF-fit source offset from KIC position	0.073 ± 0.308	0.24	0.024 ± 0.161	-0.070 ± 0.297
photometric centroid source offset	0.68 ± 0.39	1.77	0.07 ± 0.37	-0.68 ± 0.39

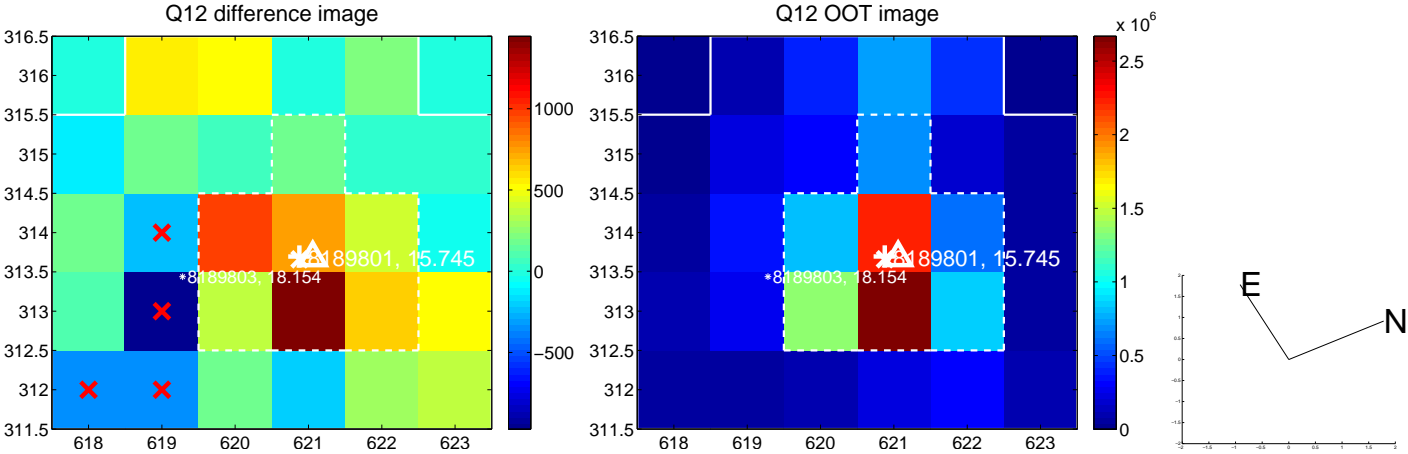
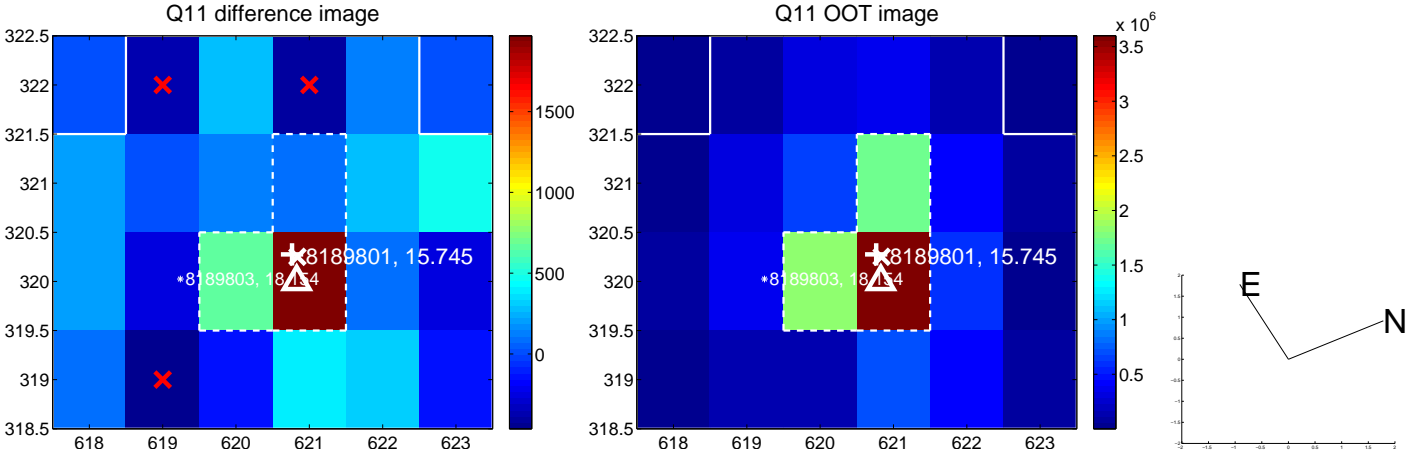
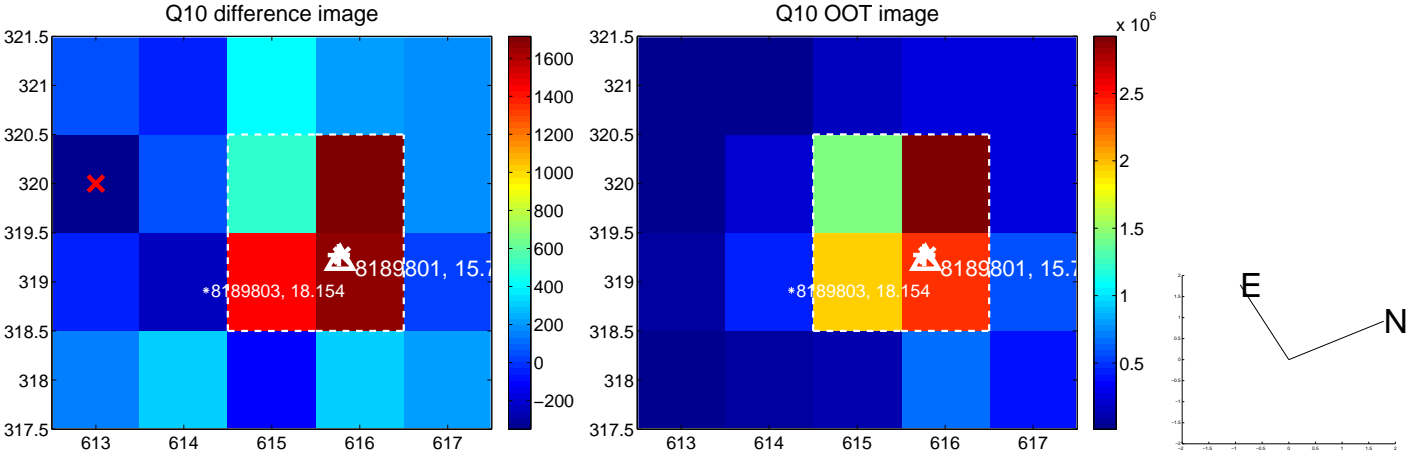
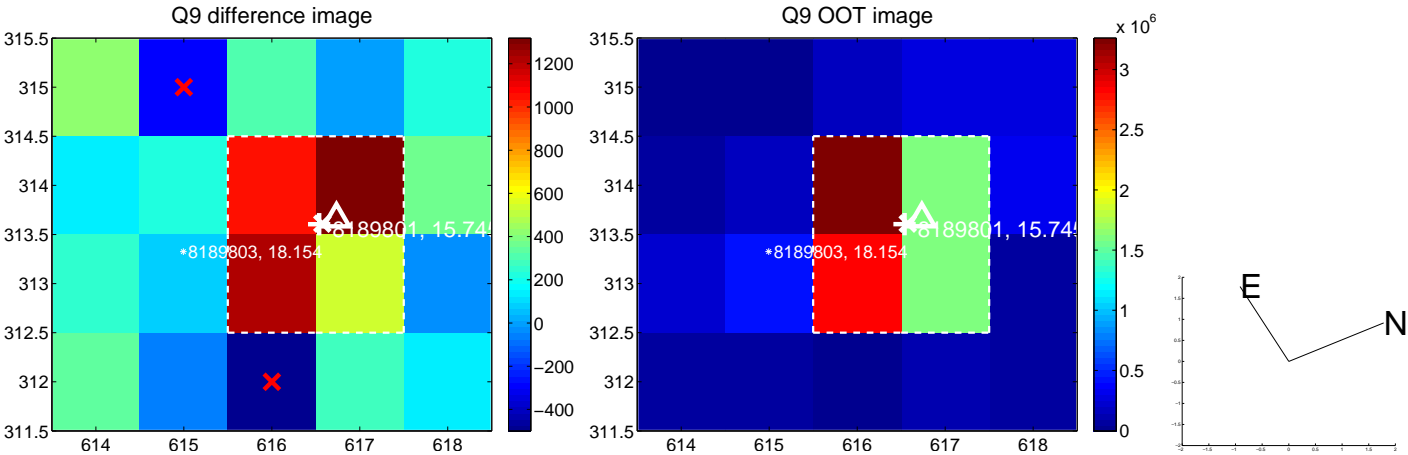


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

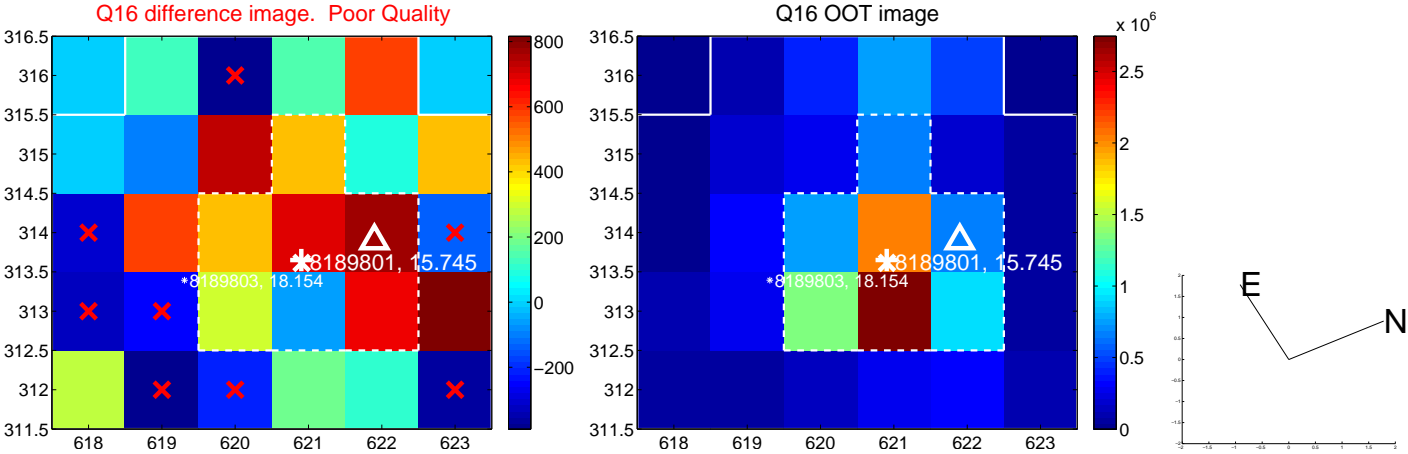
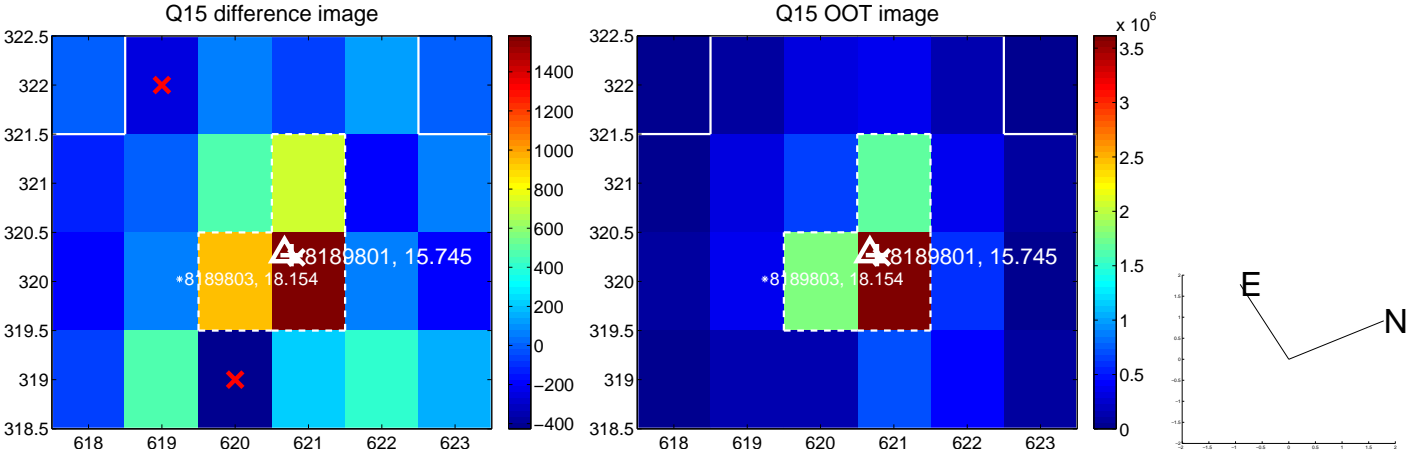
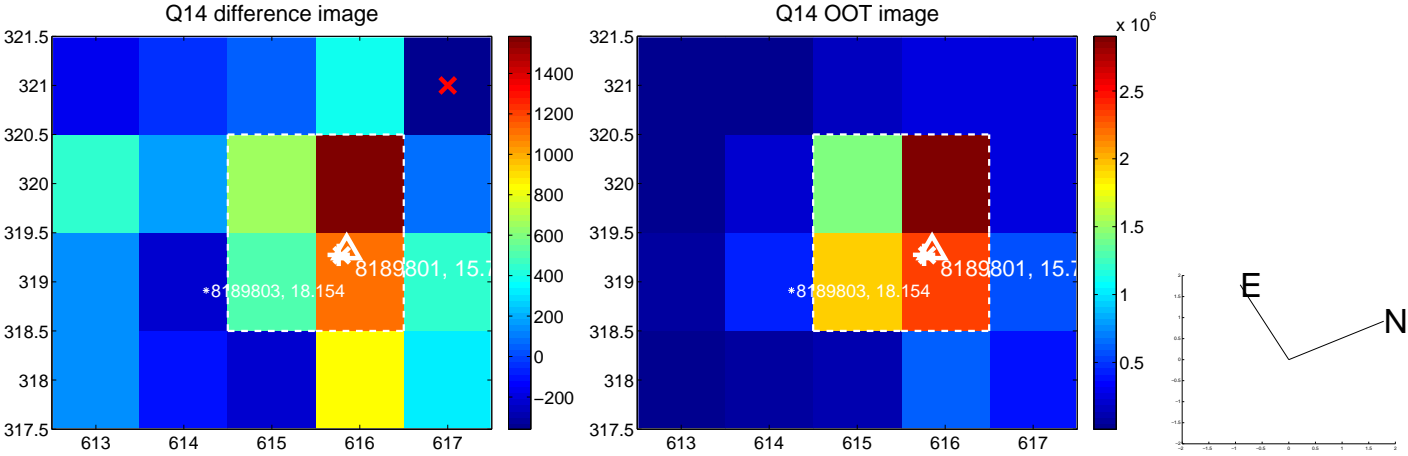
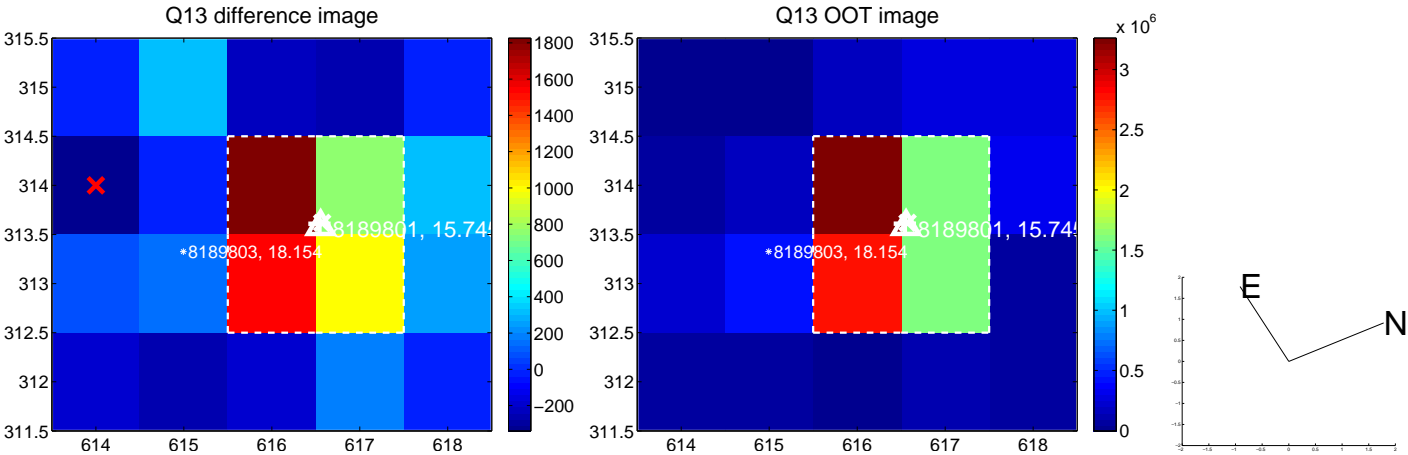
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



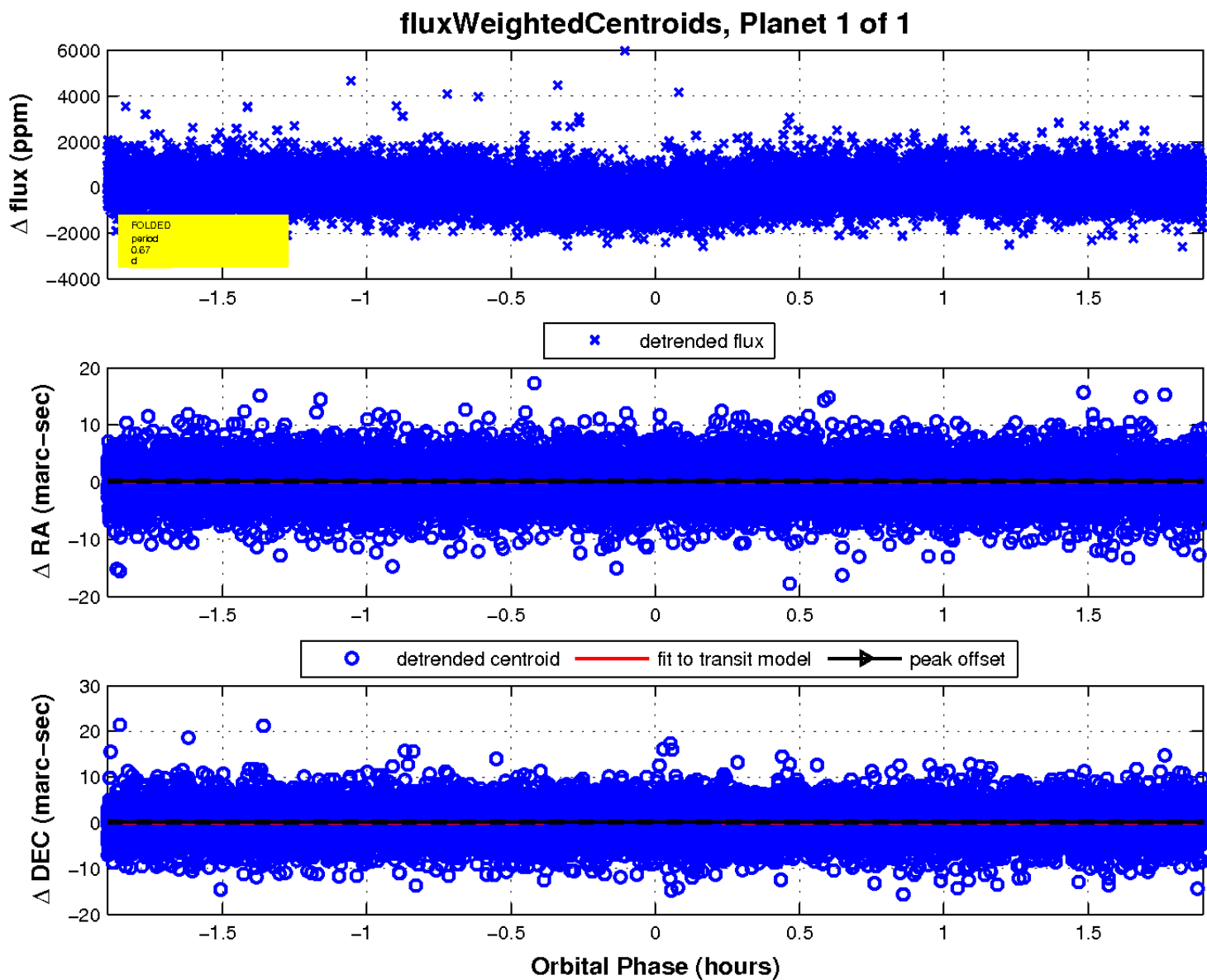
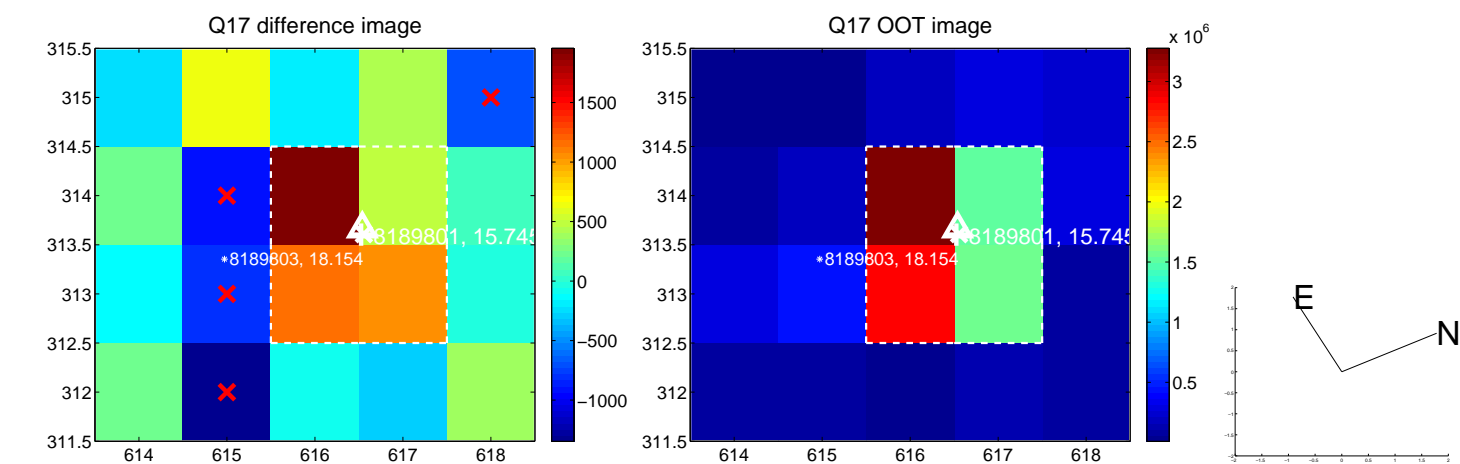
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

