

KIC 008960918

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})
008960918-01	OBS	4805.01	1.190901	131.708416	67.8	1.673	7.3	8.0	0.89	5158	0.87	1163.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008960918-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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

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

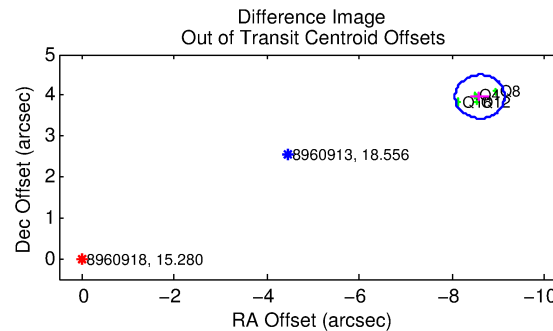
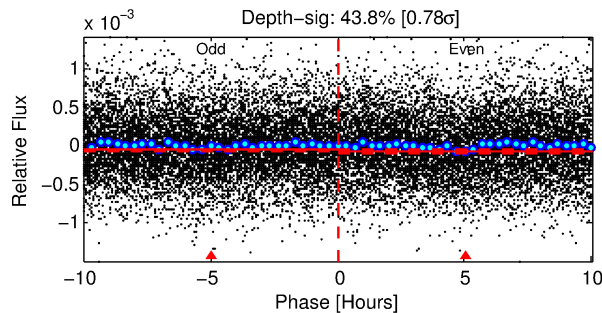
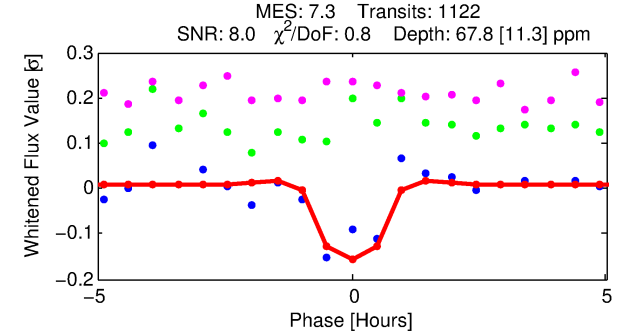
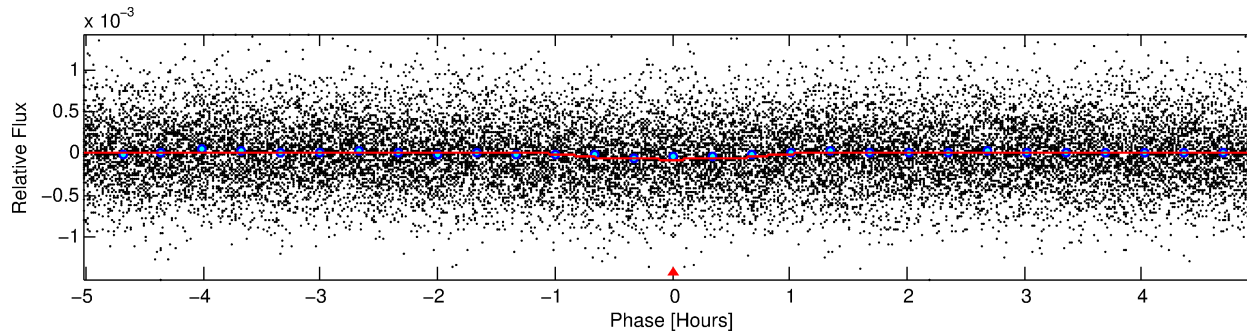
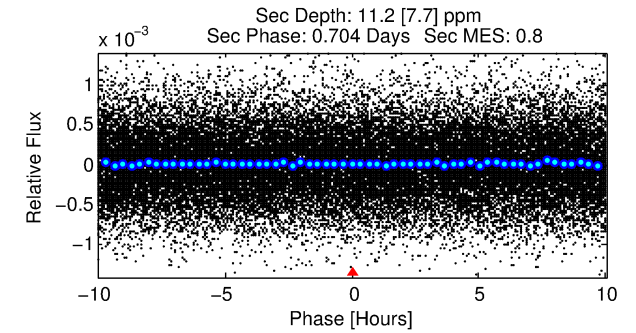
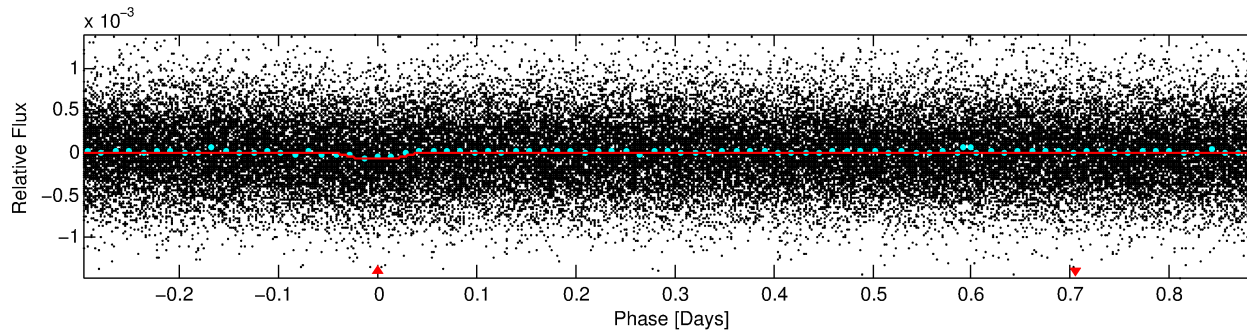
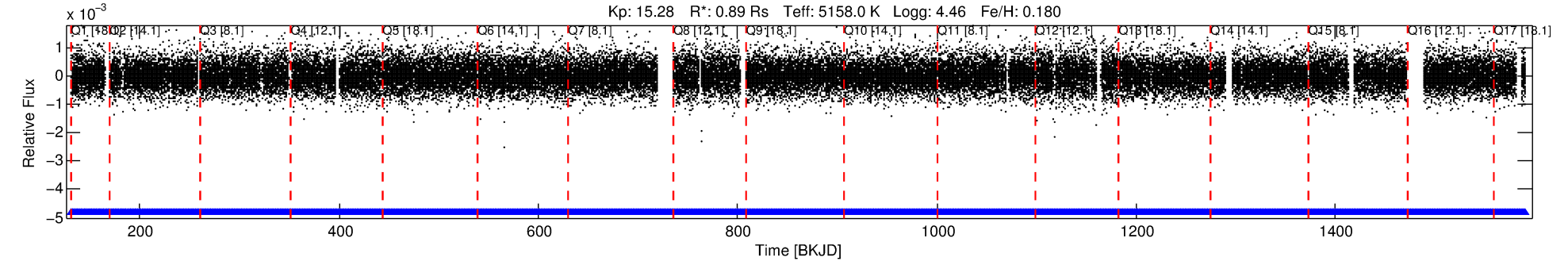
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008960918-01

No Significant Match Found

DV One-Page Summary

KIC: 8960918 Candidate: 1 of 1 Period: 1.191 d
KOI: K04805.01 Corr: 0.888



DV Fit Results:

Period = 1.19090 [0.00001] d
Epoch = 131.7084 [0.0029] BKJD
Rp/R* = 0.0090 [0.0089]
a/R* = 2.86 [9.81]
b = 0.88 [1.06]
Seff = 1163.93 [265.30]
Teq = 1489 [85] K
Rp = 0.87 [0.87] Re
a = 0.0207 [0.0025] AU
Ag = 3.50 [7.35] [0.34σ]
Teffp = 3150 [1650] K [1.01σ]

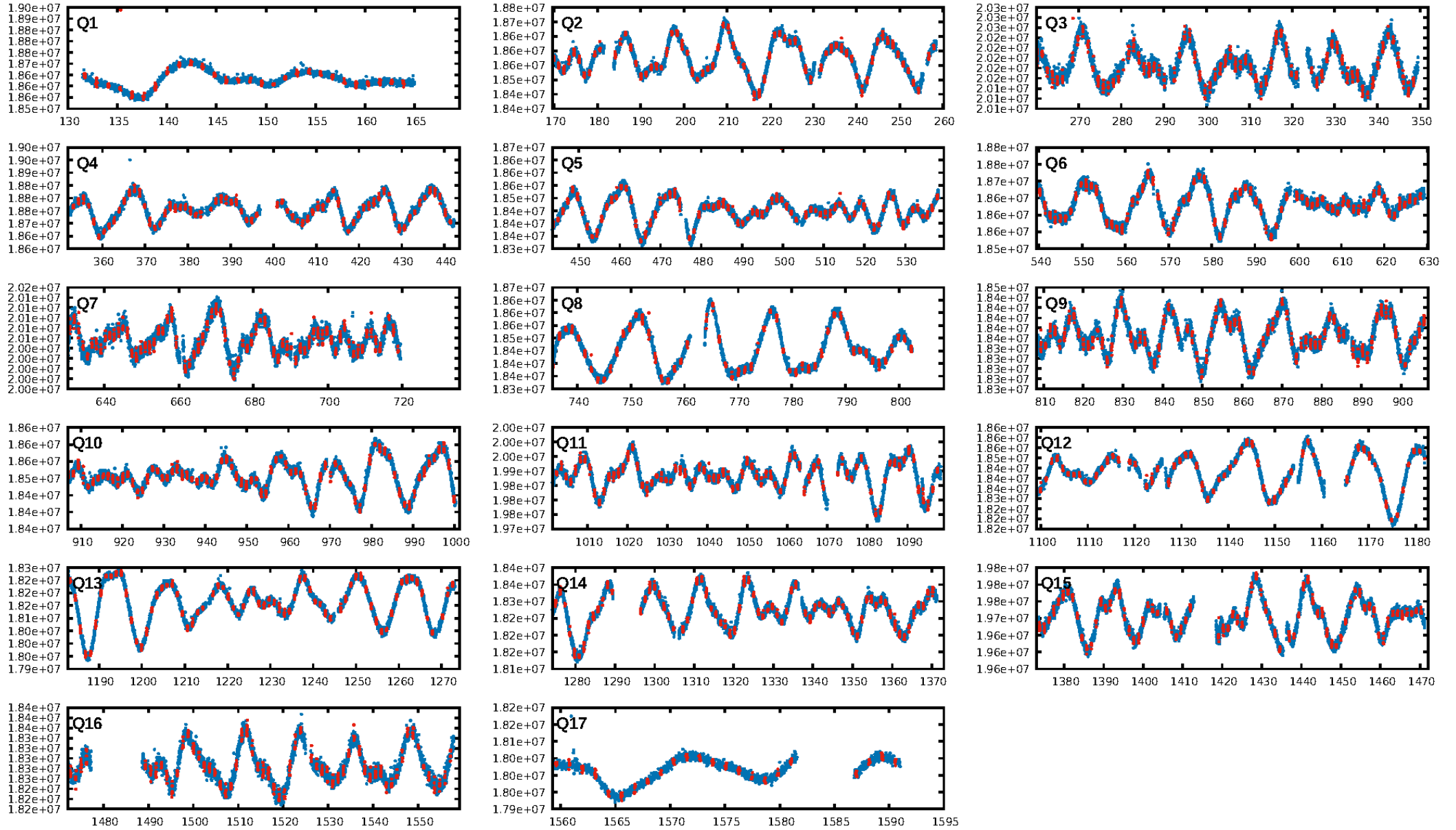
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.80e-13
RollingBand-fgt: 1.00 [1071/1071]
GhostDiagnostic-chr: -0.7228
Centroid-sig: 0.0%
Centroid-so: 47.012 arcsec [30.55σ]
OotOffset-rm: 9.470 arcsec [53.22σ]
KicOffset-rm: 9.518 arcsec [44.06σ]
OotOffset-st: 0/0/4/0 [4]
KicOffset-st: 0/0/4/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

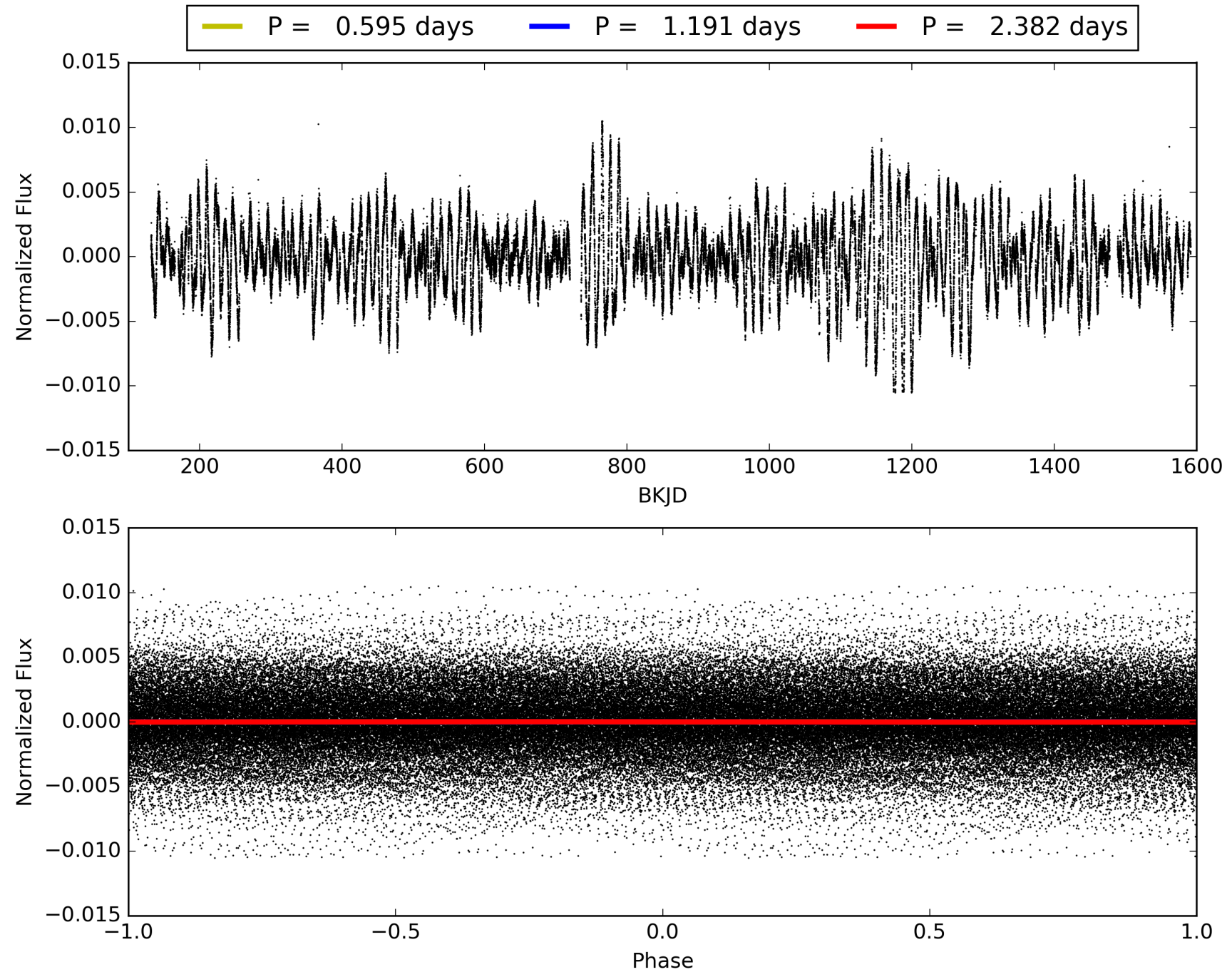
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:59:27 Z

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

TCE 008960918-01, PDC Light Curves

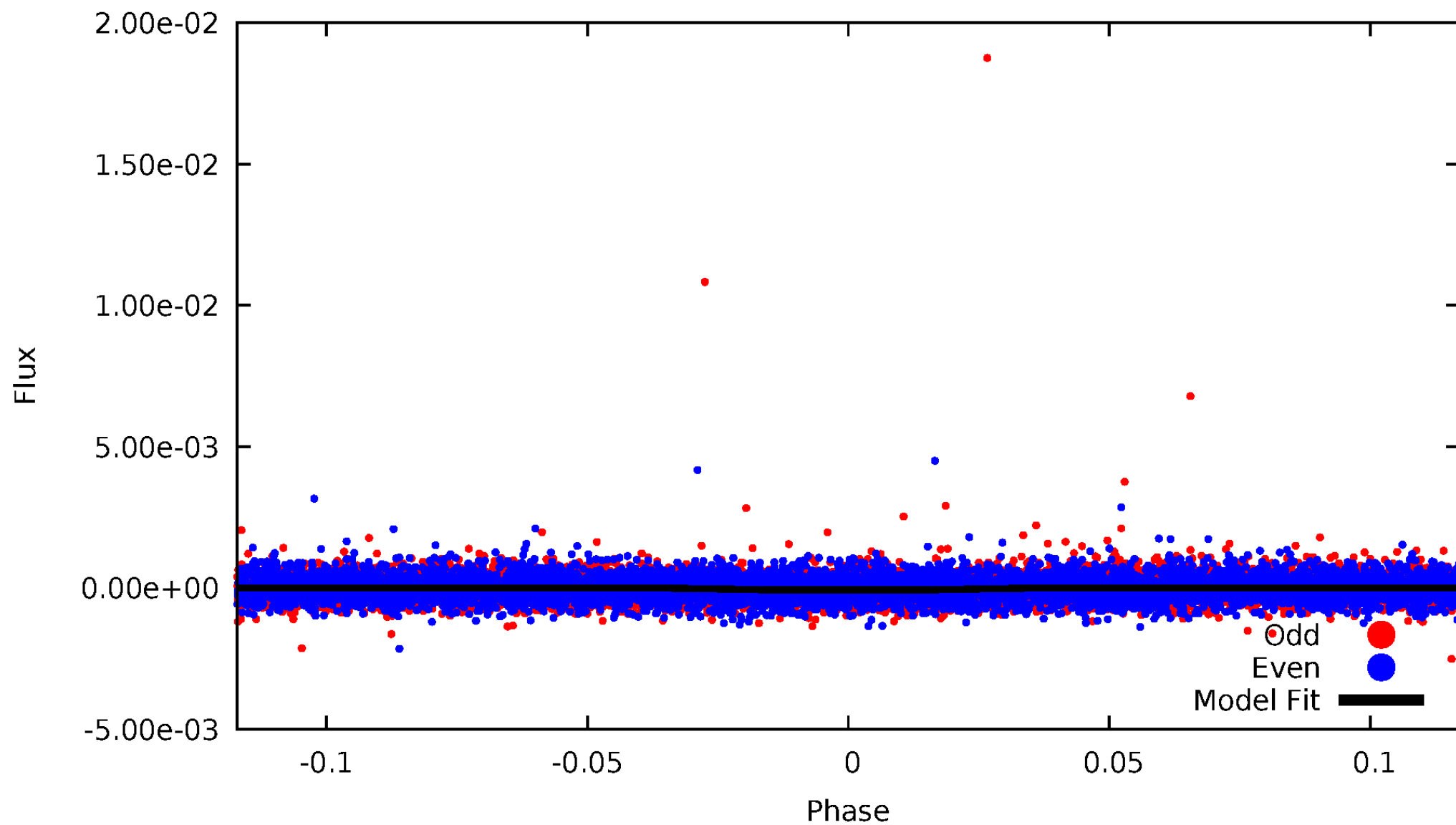


TCE 008960918-01



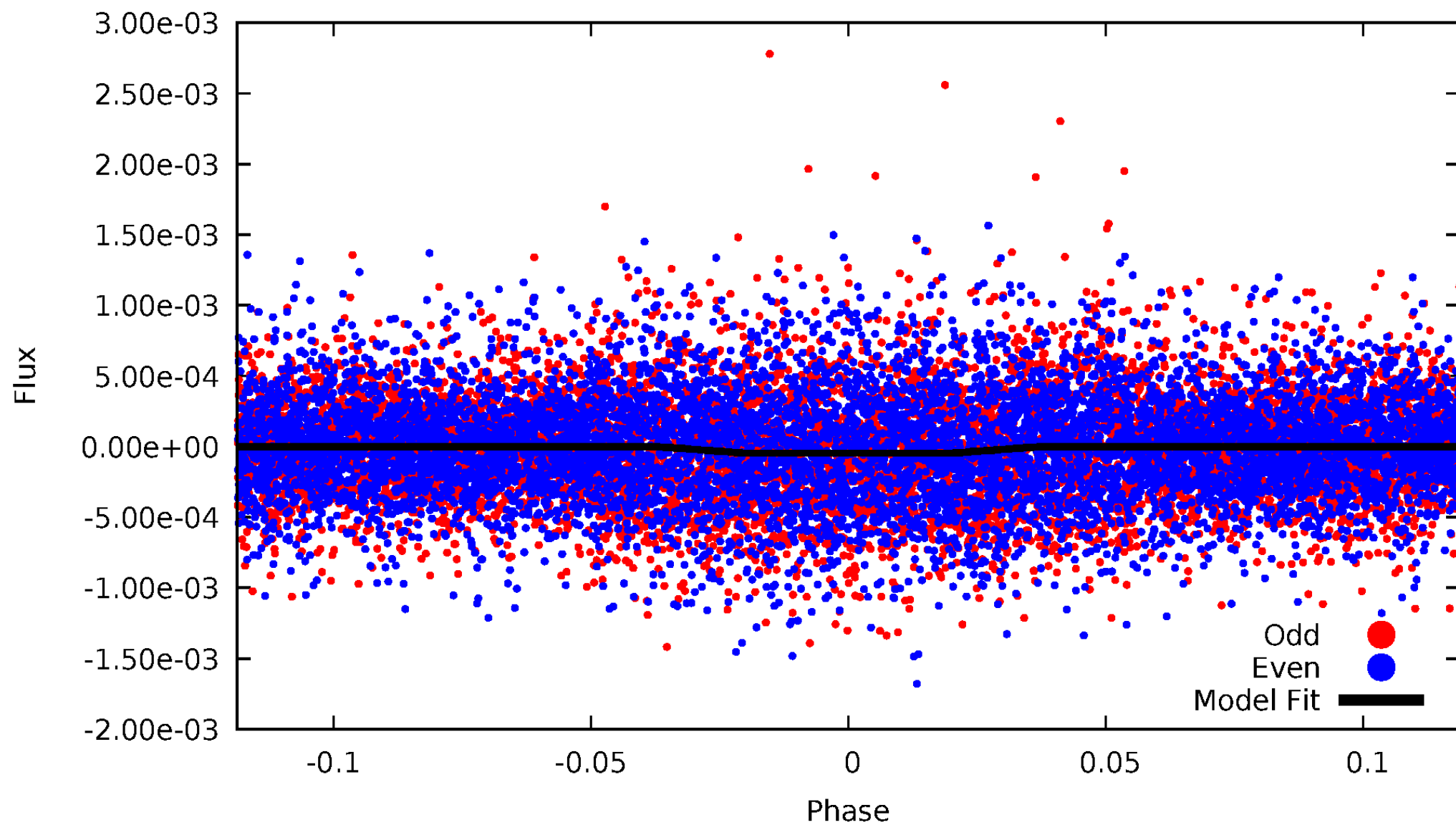
DV Odd/Even

TCE 008960918-01



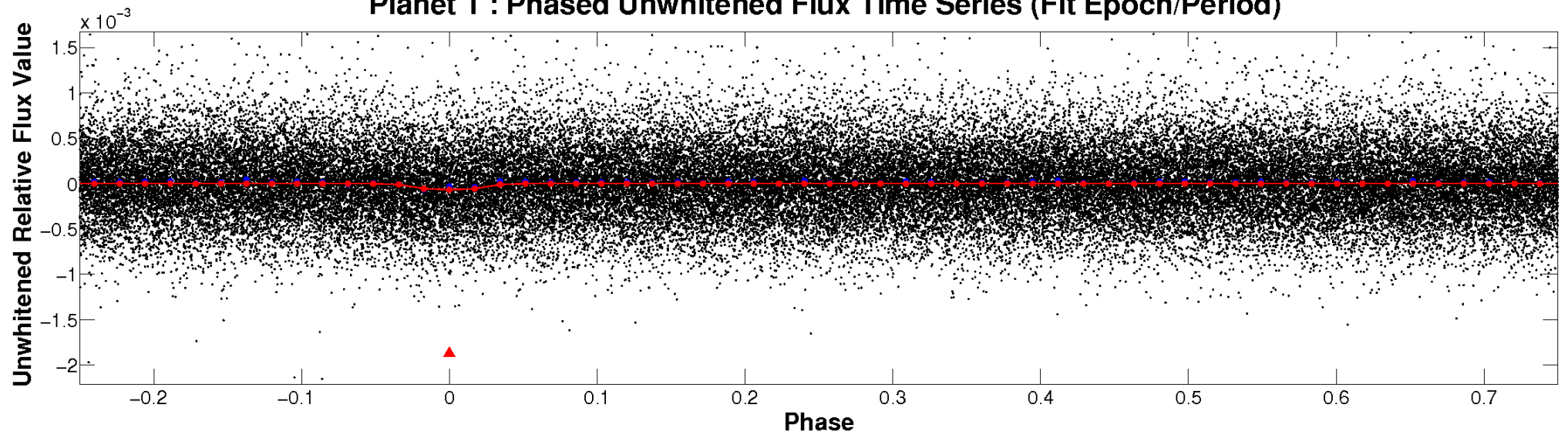
ALT Odd/Even

TCE 008960918-01

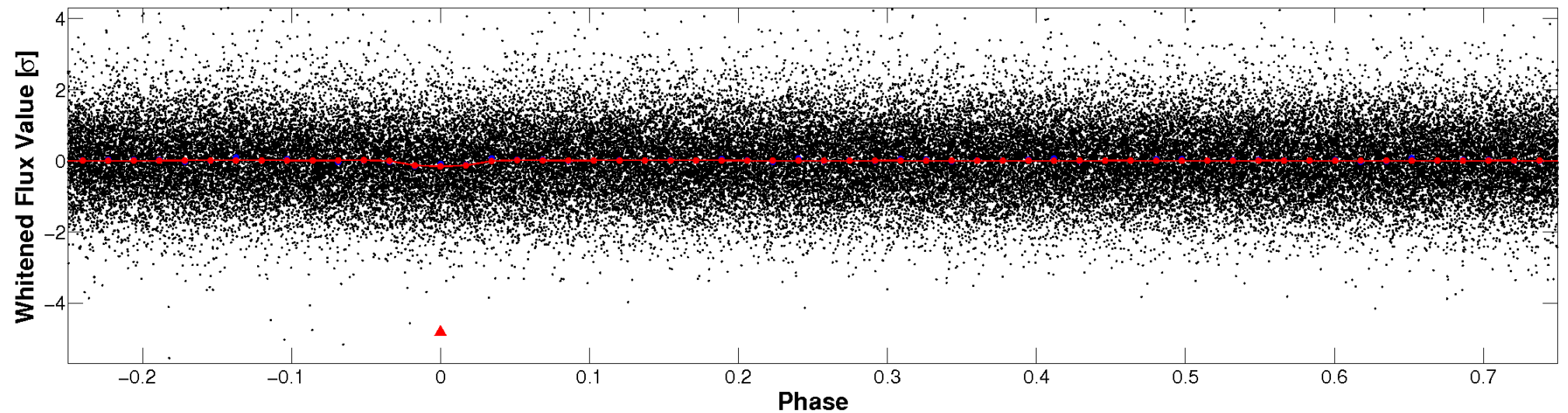


Non-Whitened Vs. Whitened Light Curve

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

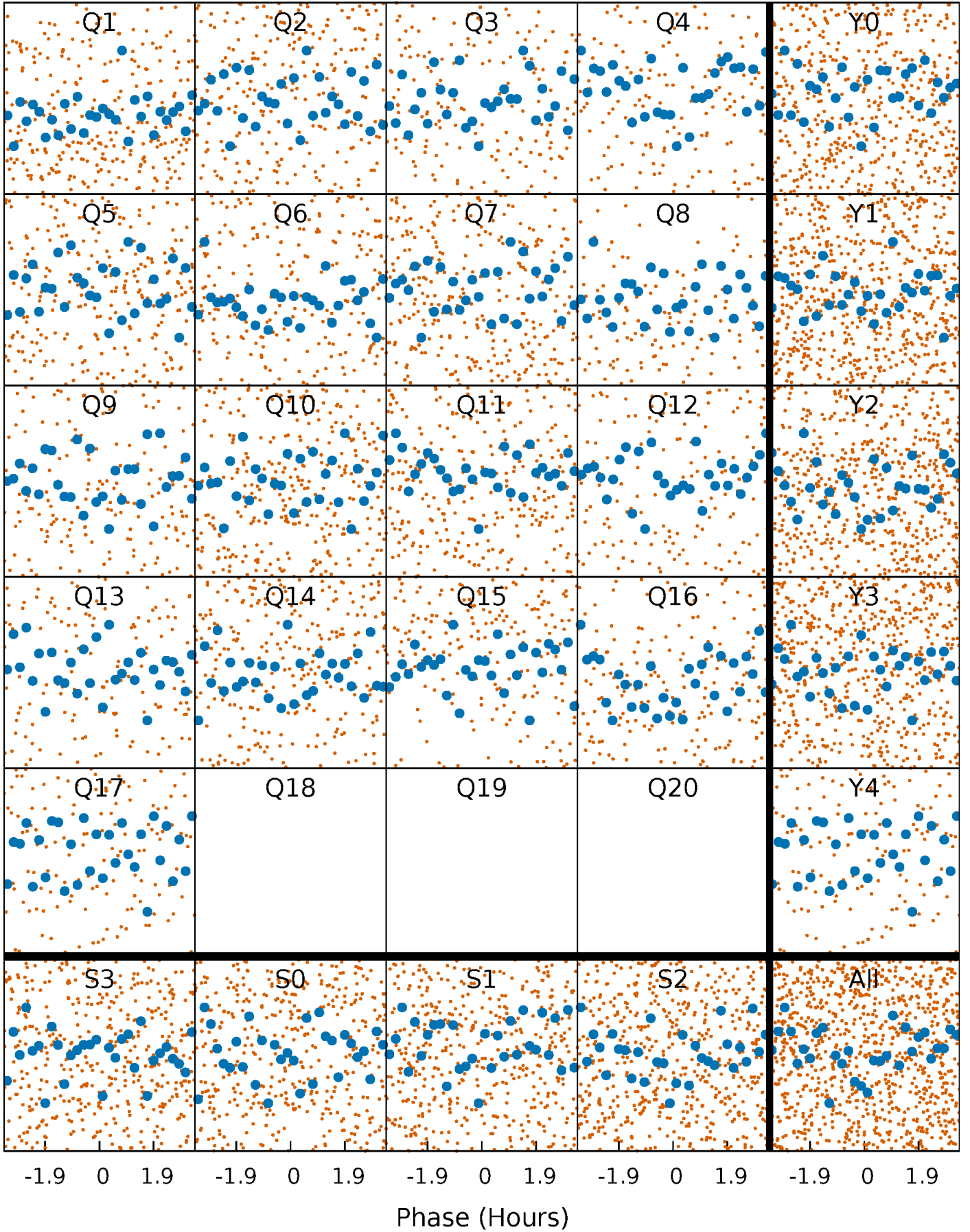


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



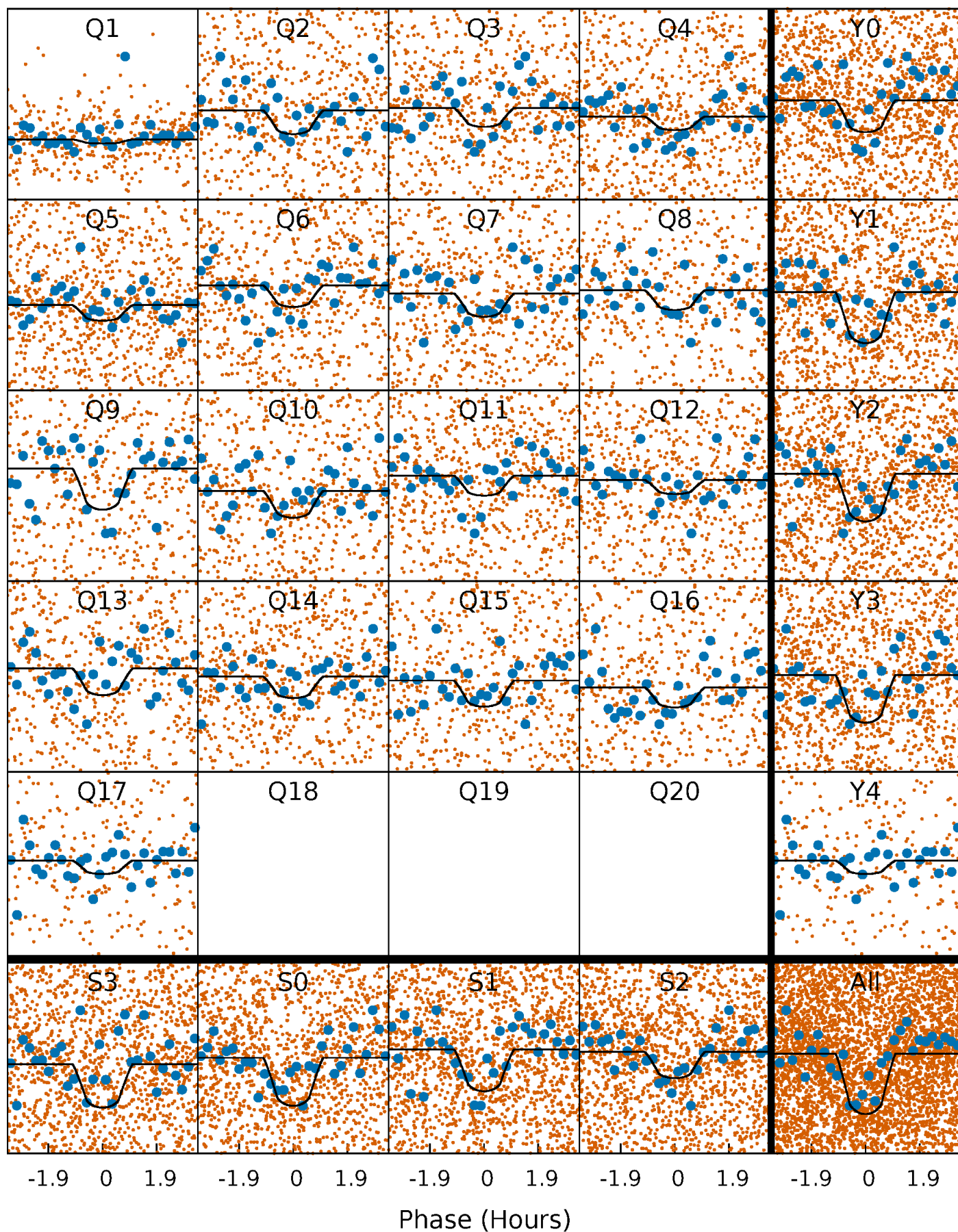
PDC Quarter-Phased Transit Curves

TCE 008960918-01 P= 1.190901 Days $T_0=131.708416$ (BKJD)



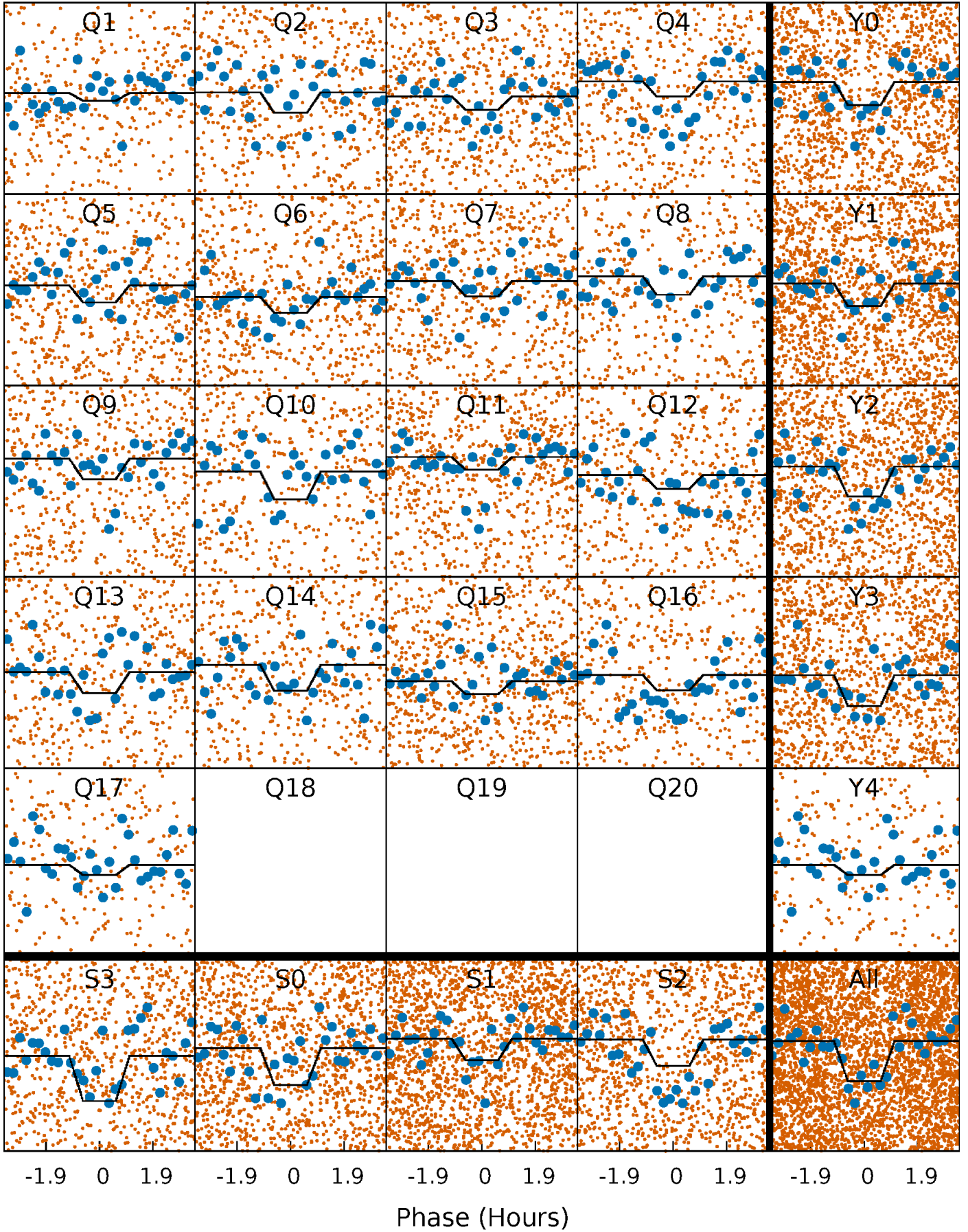
DV Quarter-Phased Transit Curves

TCE 008960918-01 P= 1.190901 Days $T_0=131.708416$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

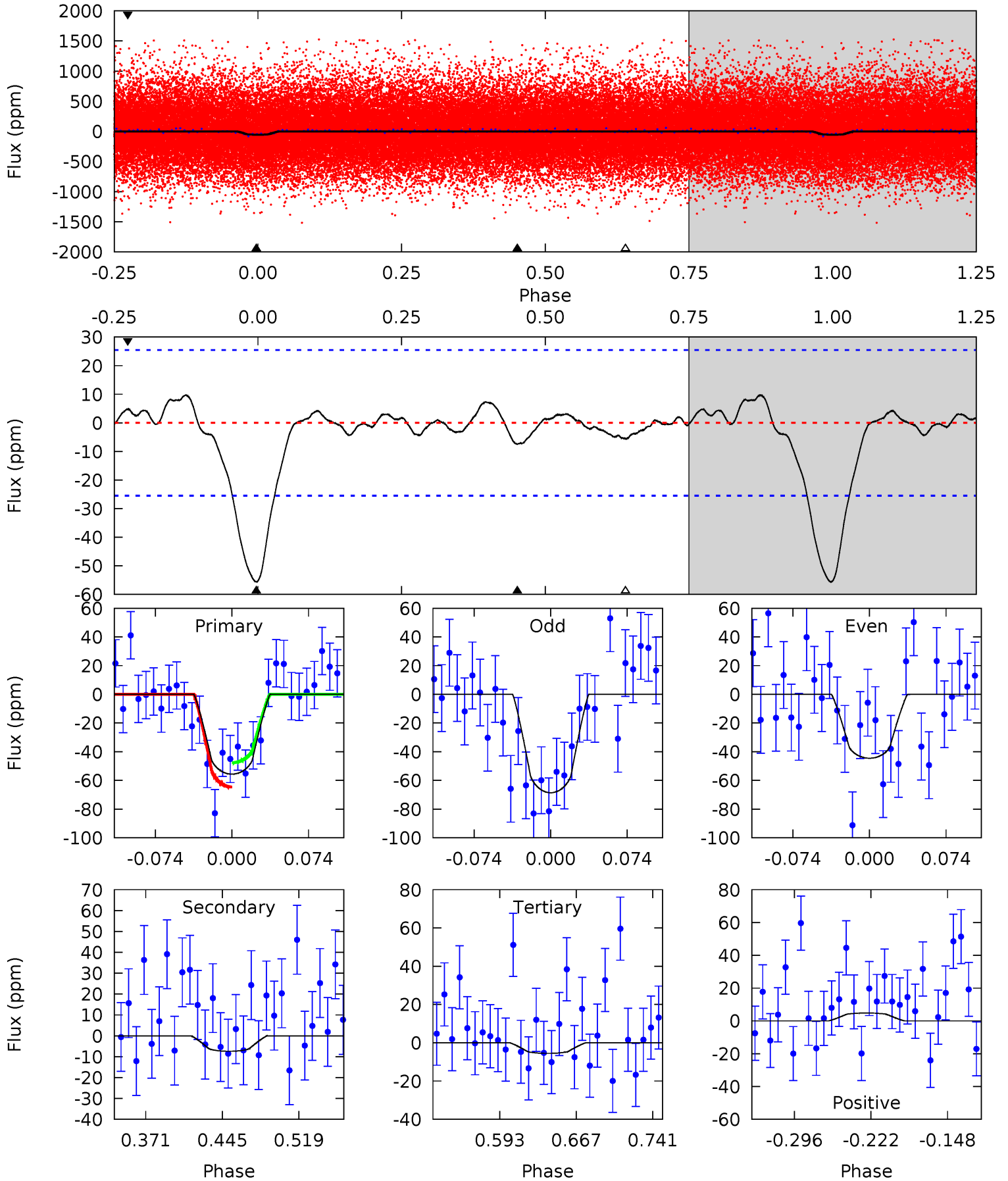
TCE 008960918-01 P= 1.190882 Days $T_0=131.712833$ (BKJD)



DV Model-Shift Uniqueness Test

008960918-01, P = 1.190901 Days, E = 130.517515 Days

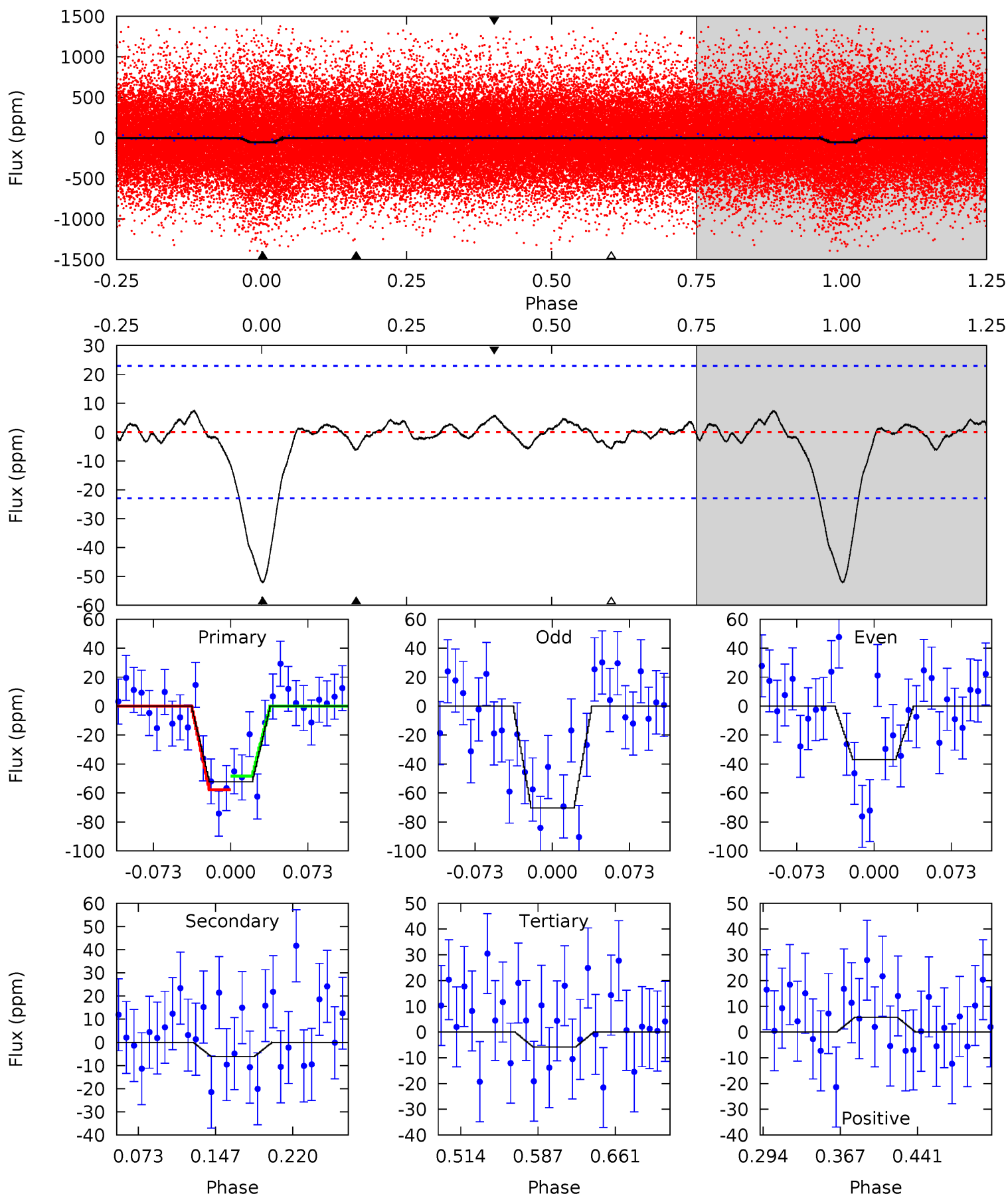
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	1.35	1.01	0.87	4.63	1.79	0.60	9.10	9.23	0.34	0.48	2.19	0.84	0.15	1.55



Alt Model-Shift Uniqueness Test

008960918-01, P = 1.190882 Days, E = 130.521951 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	1.25	1.17	1.15	4.63	1.79	0.54	9.37	9.39	0.08	0.09	3.38	0.97	0.13	0.96



Stellar Parameters For KIC 008960918

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5158^{+171}_{-155}	$4.464^{+0.105}_{-0.105}$	$0.180^{+0.200}_{-0.300}$	$0.888^{+0.122}_{-0.100}$	$0.836^{+0.080}_{-0.060}$	$1.681^{+0.673}_{-0.527}$
	+3%/-3%	+2%/-2%	+111%/-167%	+14%/-11%	+10%/-7%	+40%/-31%
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 008960918-01 / KOI 4805.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-7 ± 6	$1.06^{+0.81}_{-0.65}$	2087^{+109}_{-105}	2944^{+1275}_{-5201}	$1.278^{+8.373}_{-1.084}$
Alt.	-6 ± 5	$0.97^{+0.77}_{-0.66}$	2083^{+103}_{-101}	2943^{+1488}_{-5218}	$1.325^{+10.239}_{-1.144}$

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 $A_{obs} \gg 1.0$

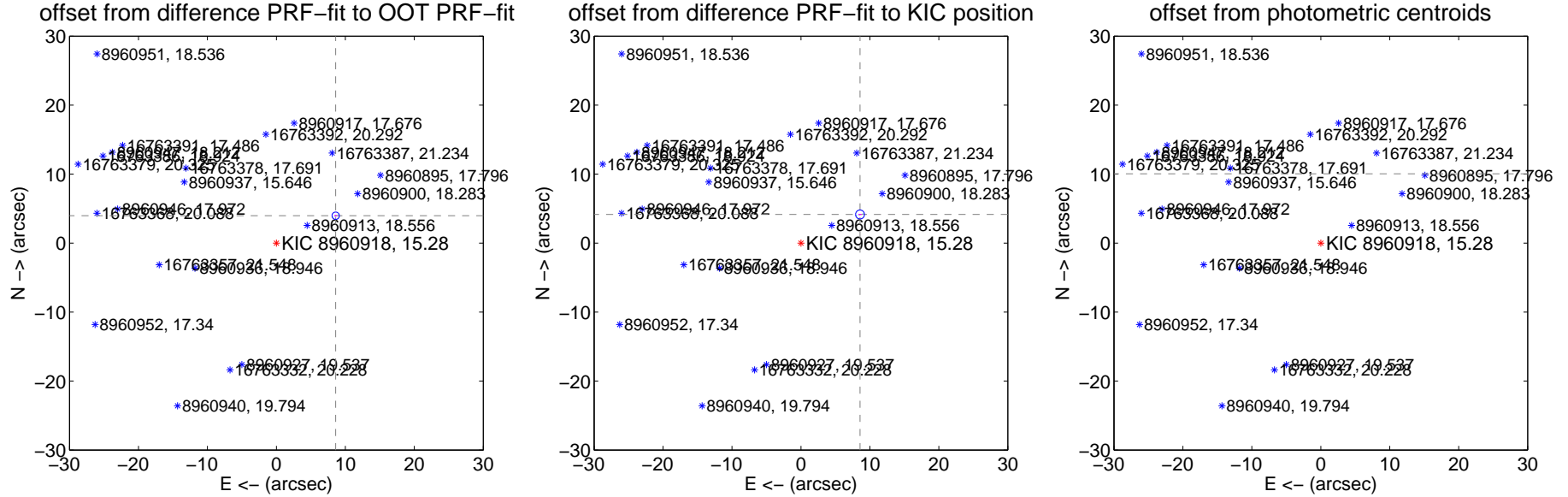
DV Centroid Data

Supplemental centroid analysis for 008960918-01. Kepler magnitude: 15.28. Transit SNR 8.02

There are 4 quarters with good PRF difference image offsets

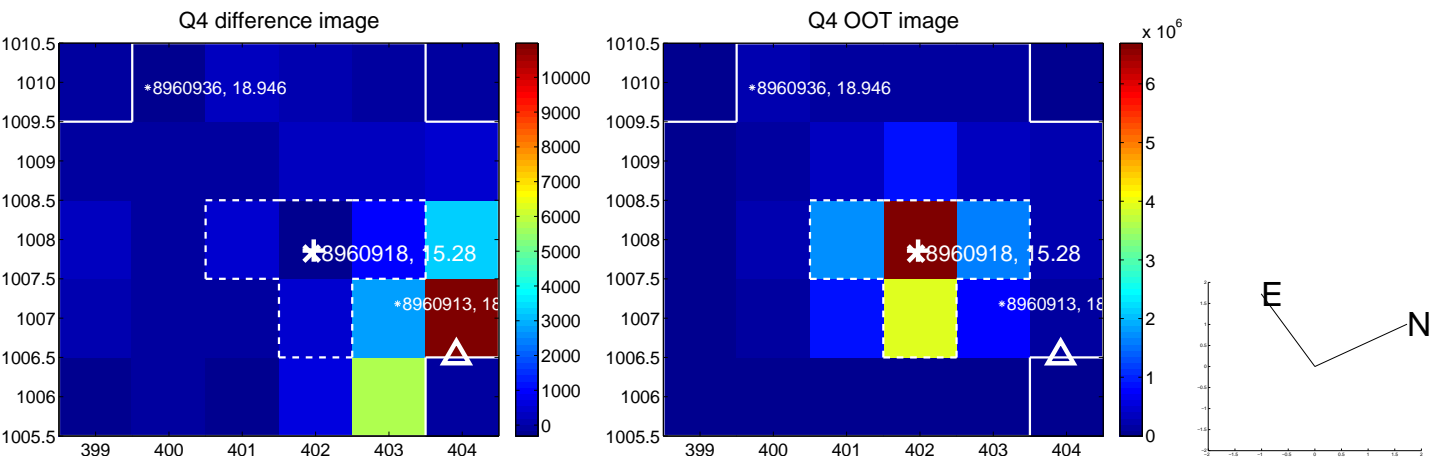
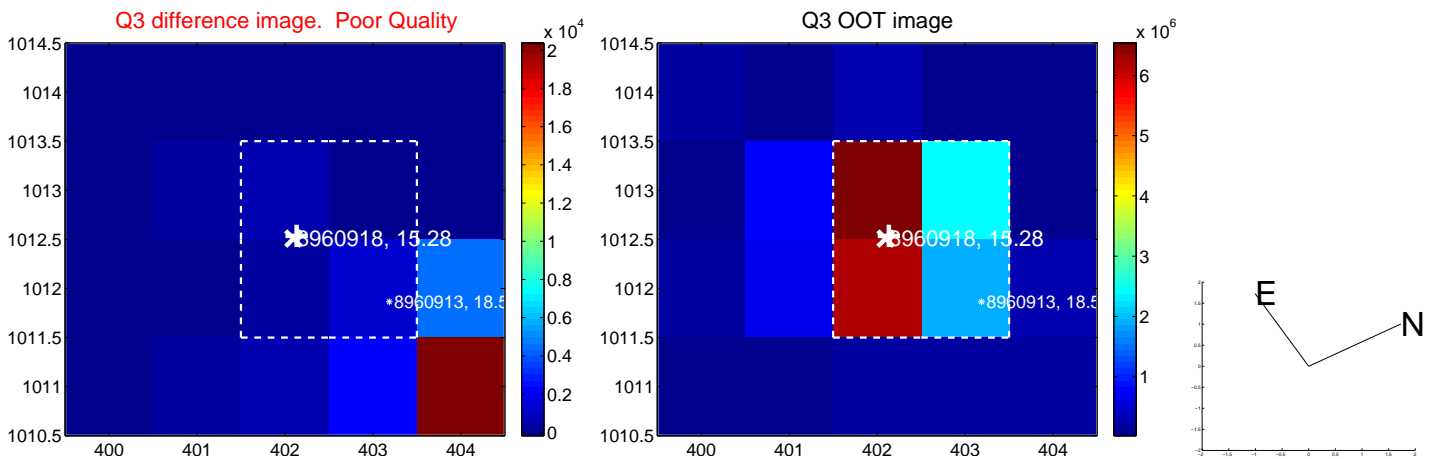
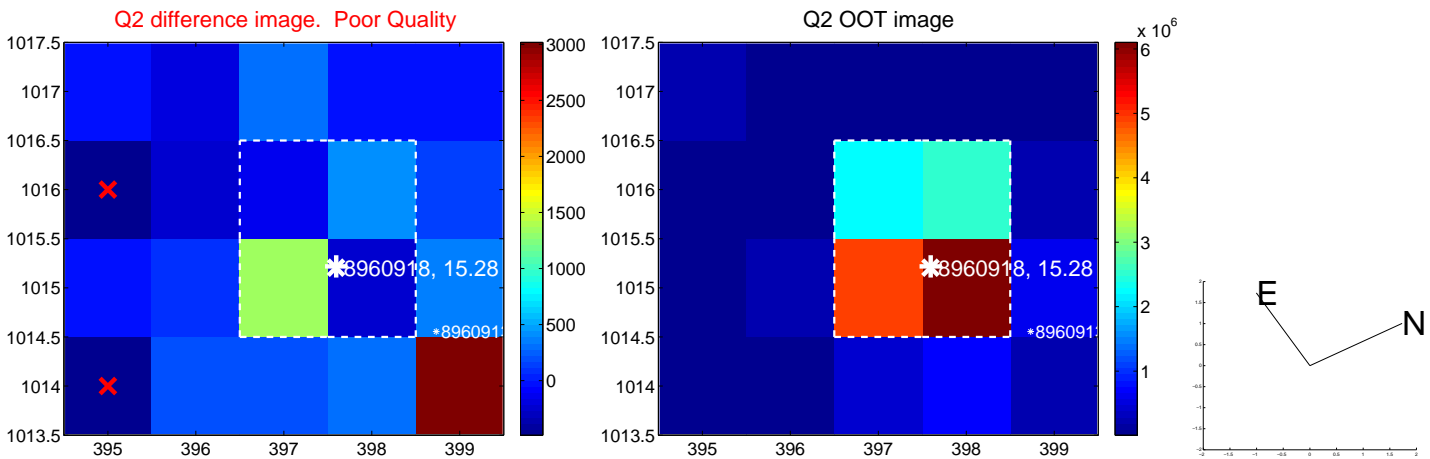
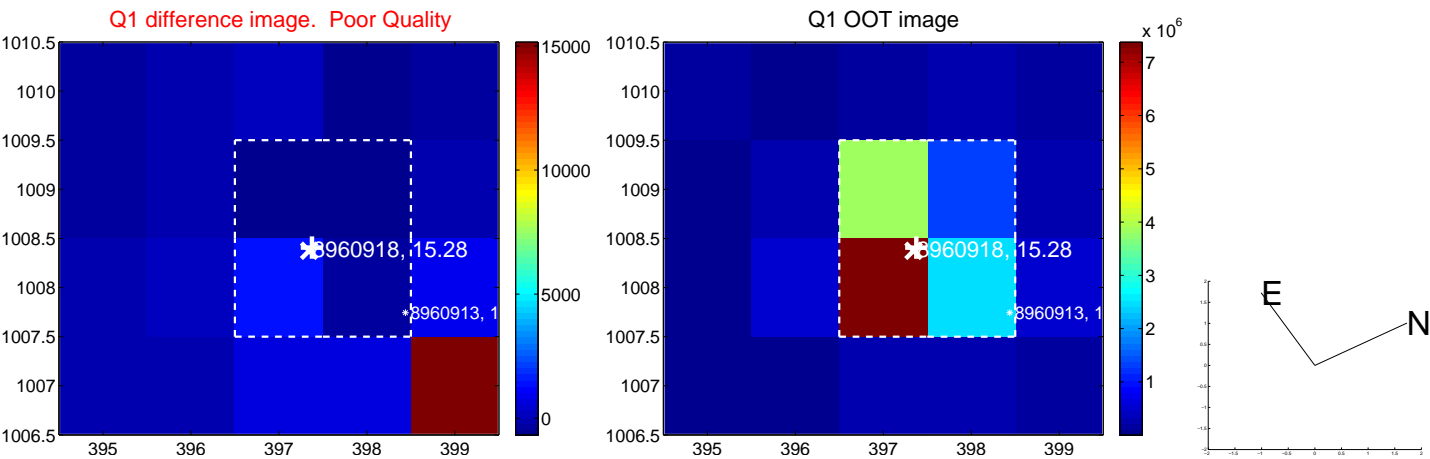
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.470 \pm 0.178	53.22	-8.599 \pm 0.191	3.966 \pm 0.090
PRF-fit source offset from KIC position	9.518 \pm 0.216	44.06	-8.567 \pm 0.237	4.148 \pm 0.084
photometric centroid source offset	47.01 \pm 1.54	30.55	-45.93 \pm 1.53	10.04 \pm 1.66

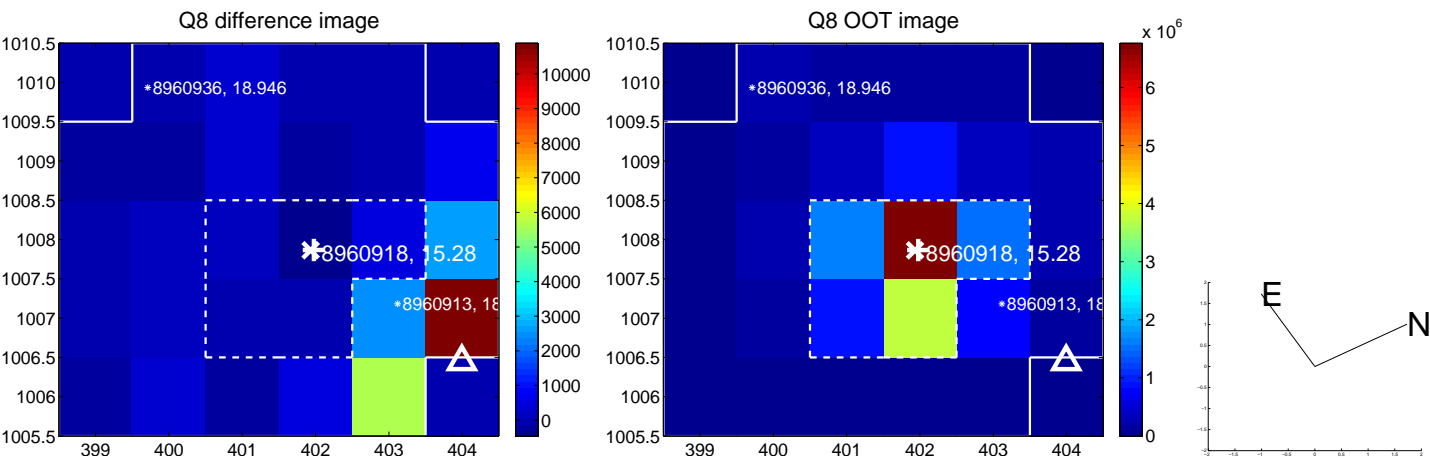
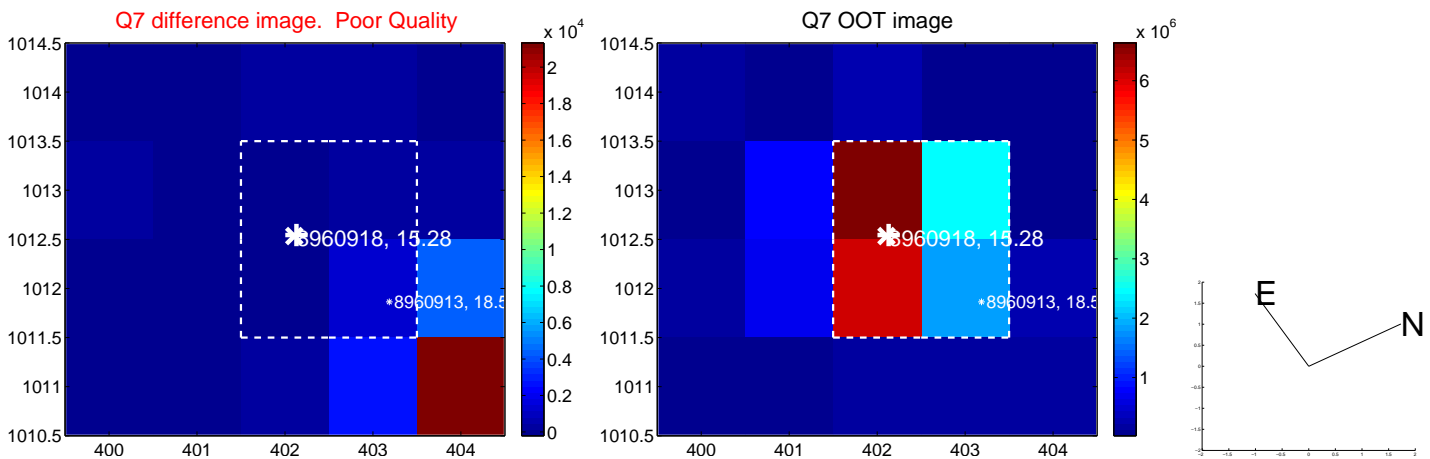
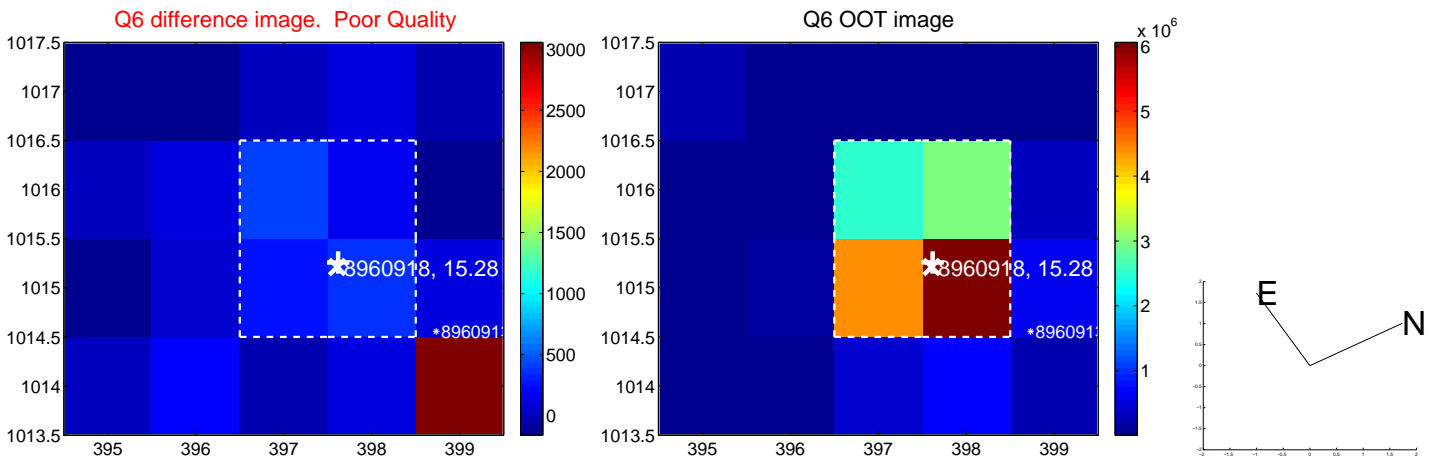
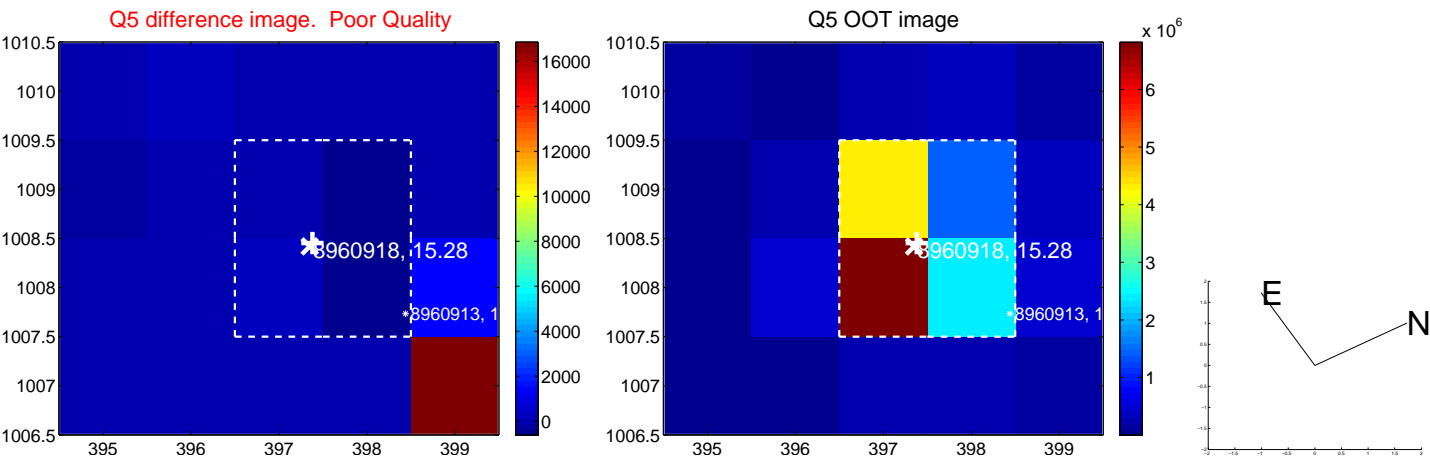


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

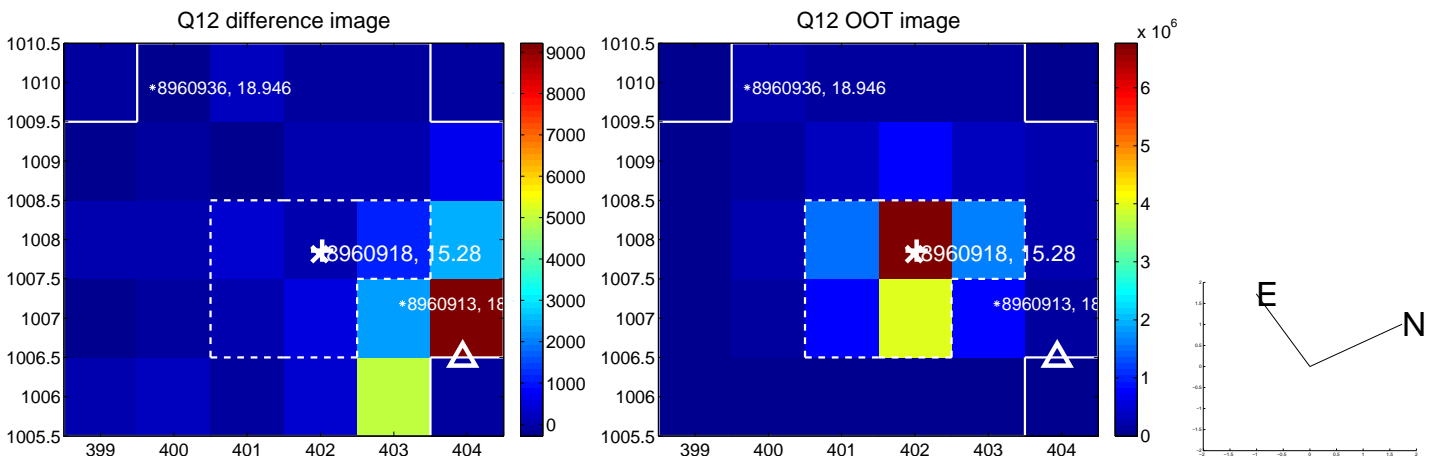
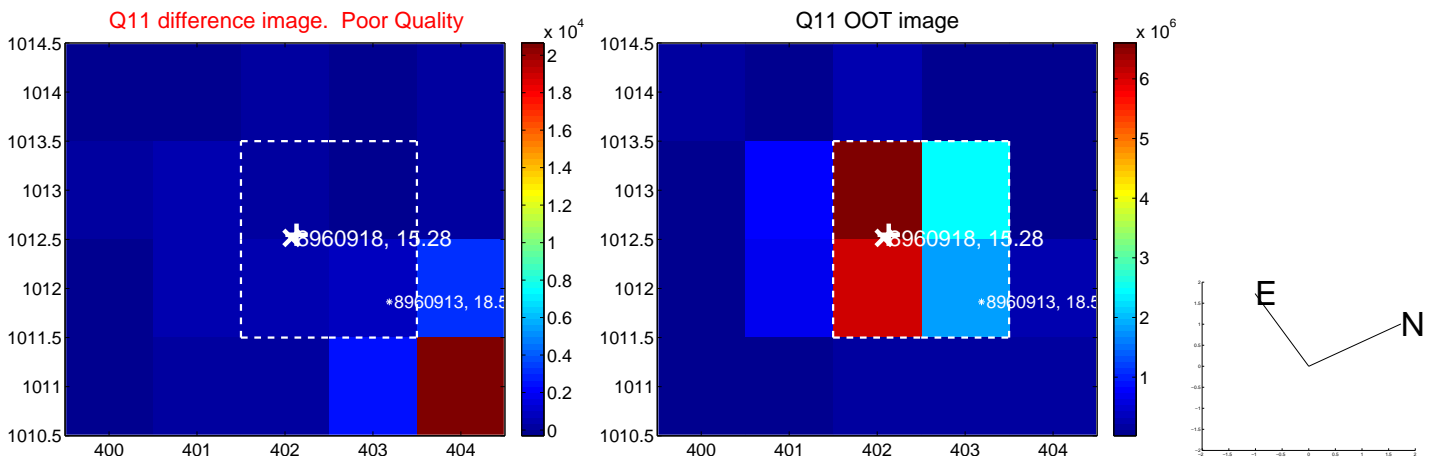
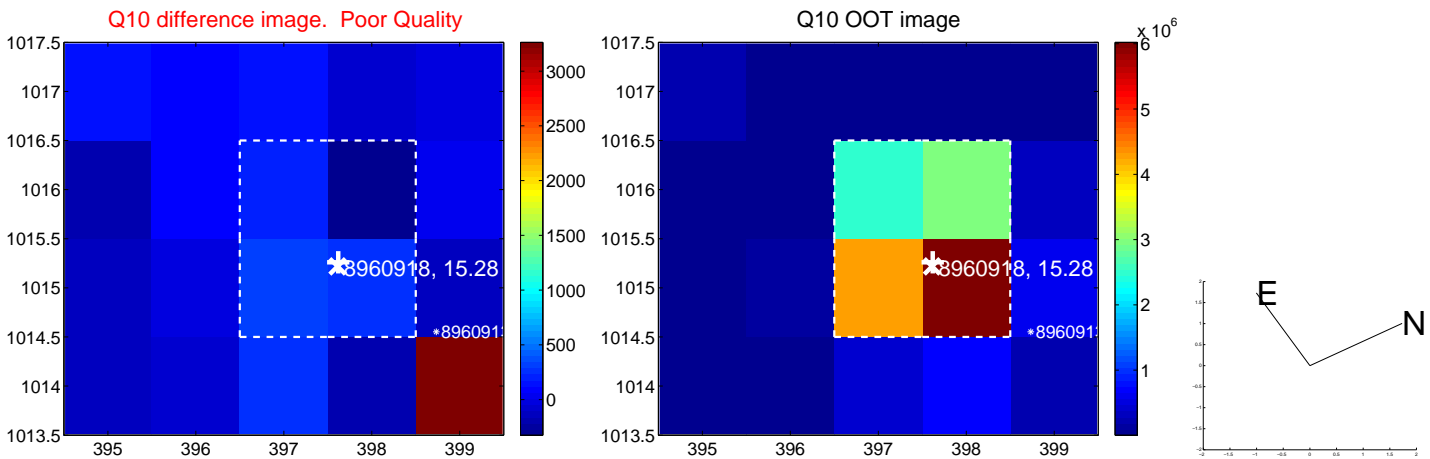
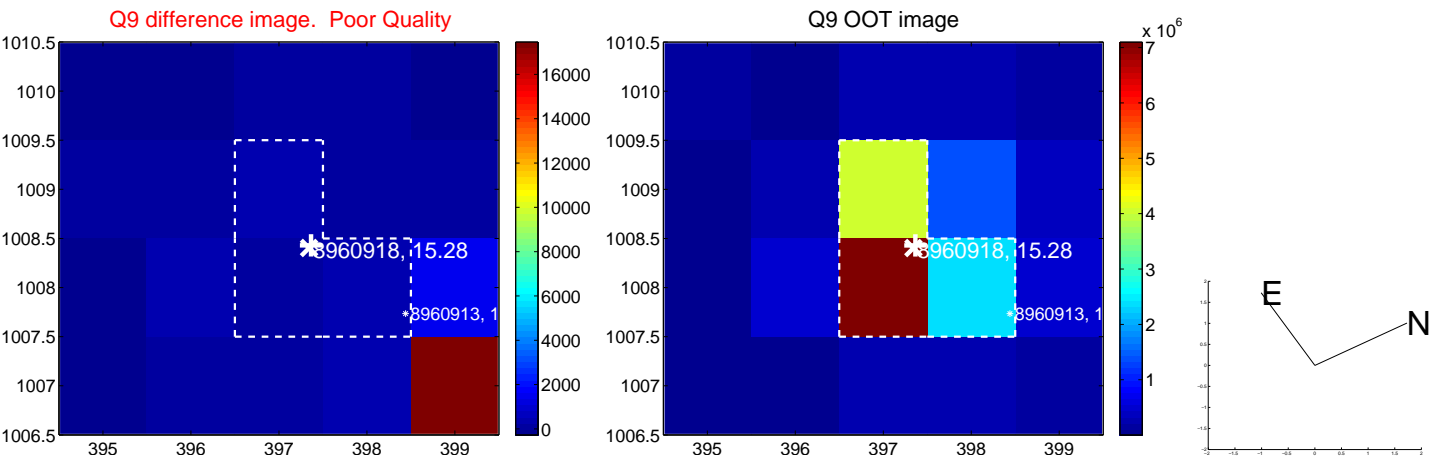
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



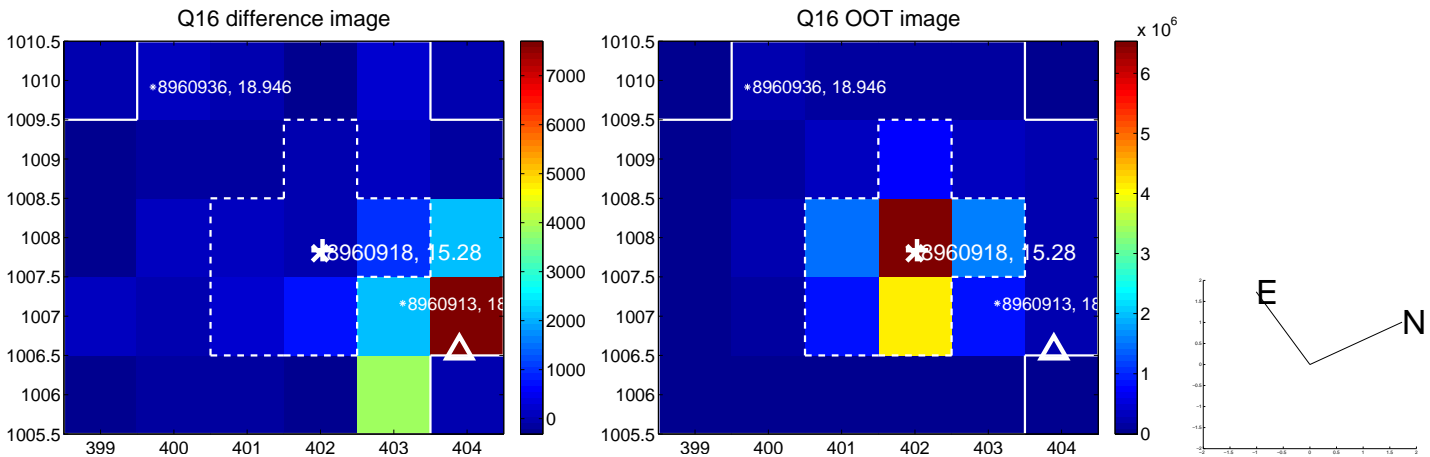
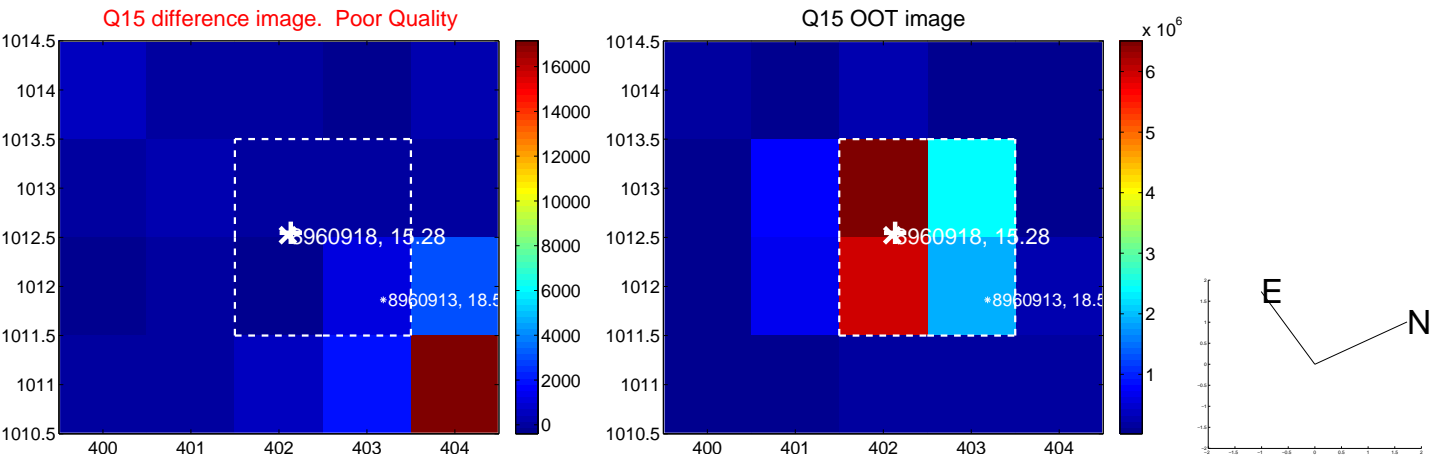
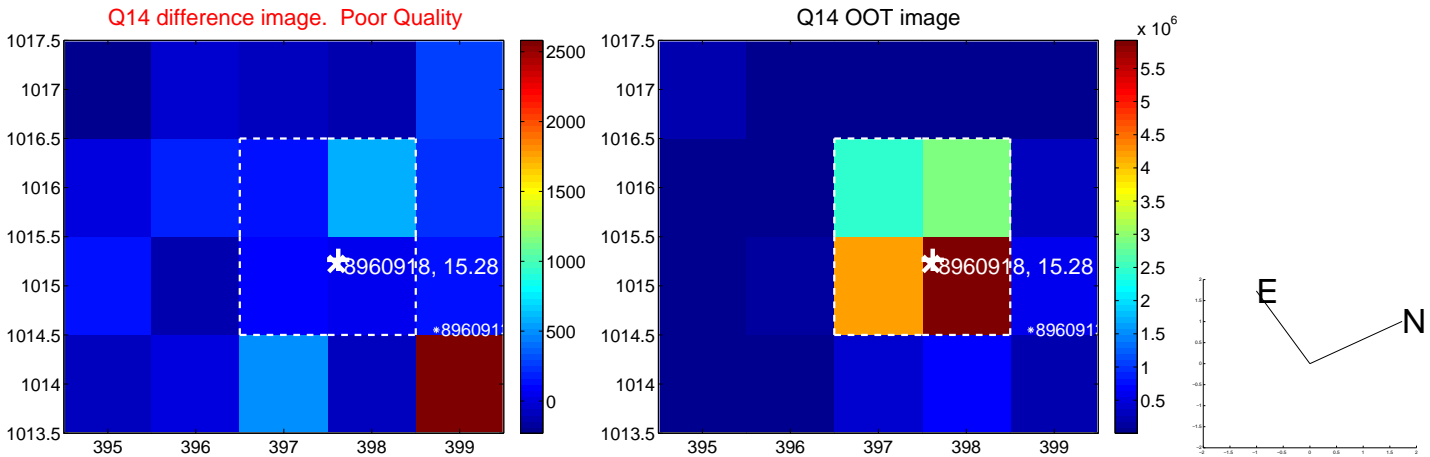
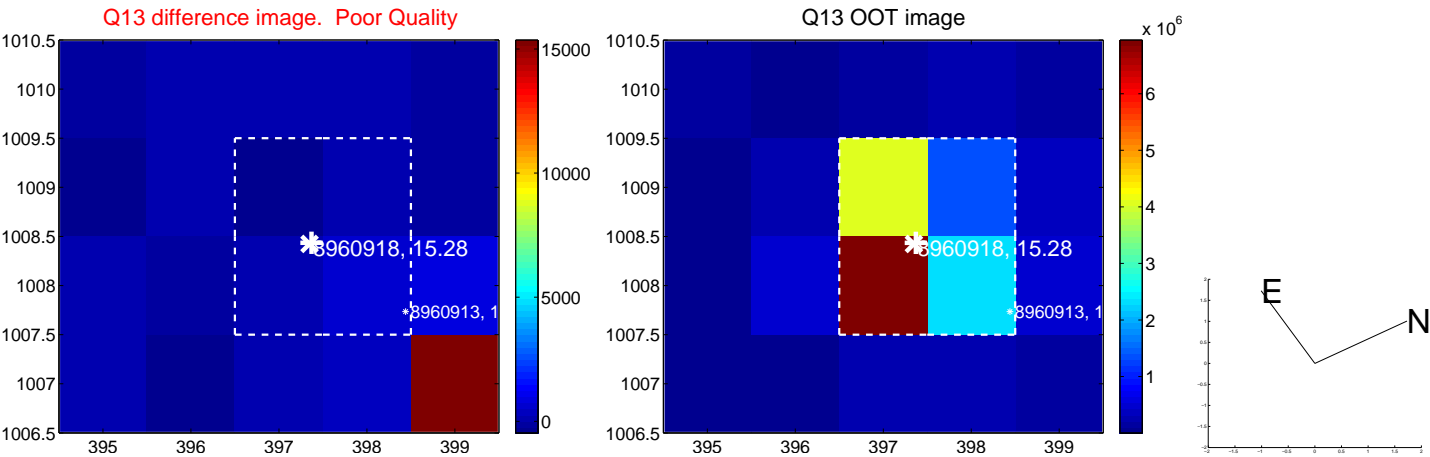
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



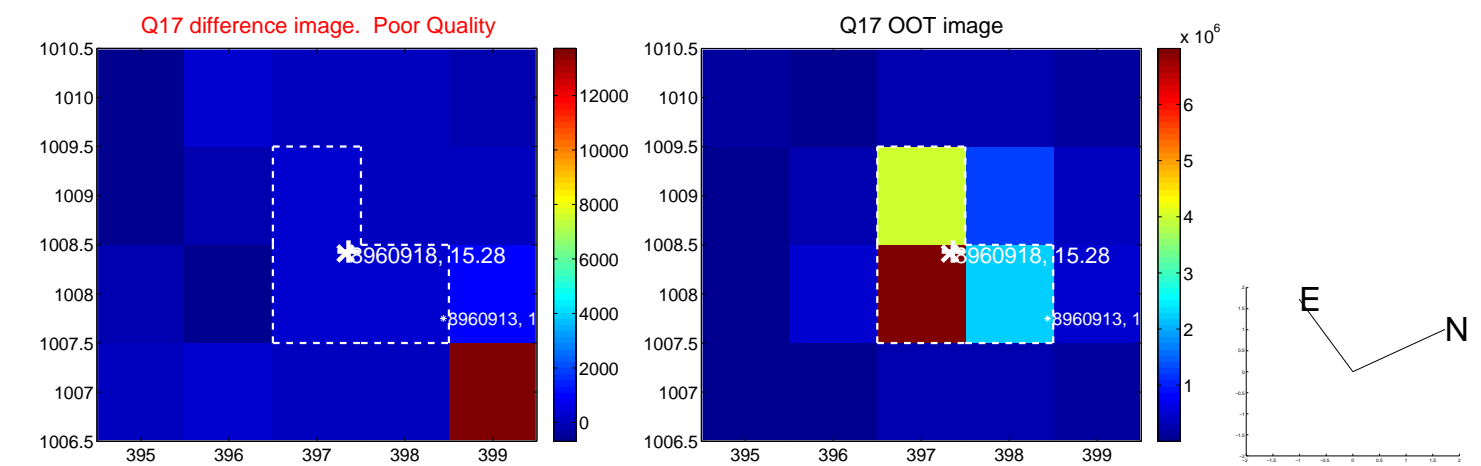
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



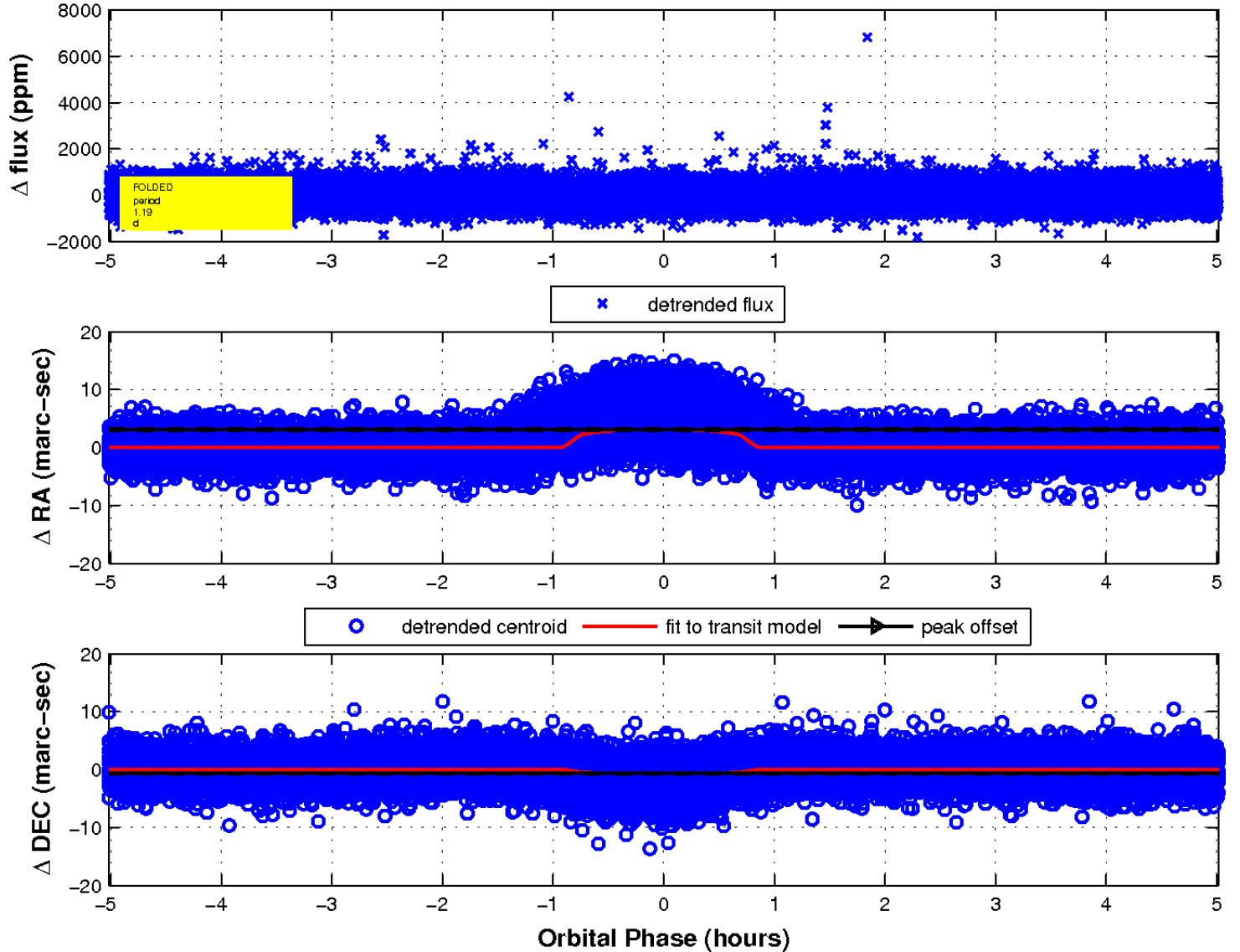
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

