

KIC 005371090

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})
005371090-01	OBS	No	1.191789	131.639215	12.3	5.828	8.1	6.7	0.84	5693	0.29	1441.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005371090-01	OBS	FP	0.00	1	0	1	0	LPP_DV—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.

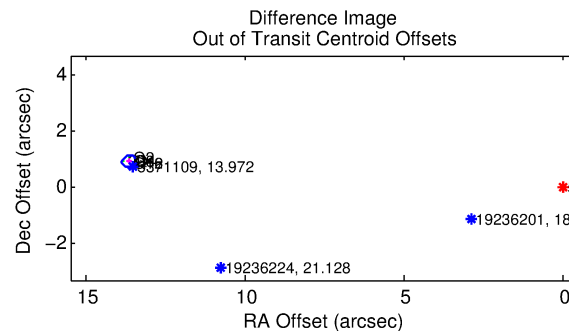
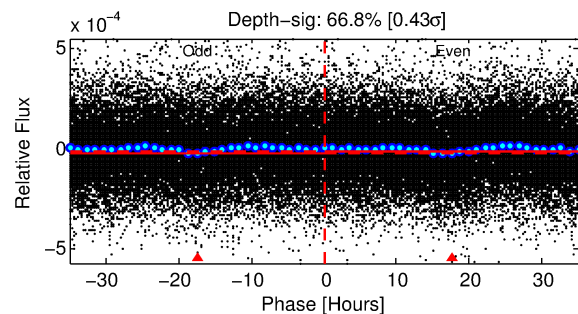
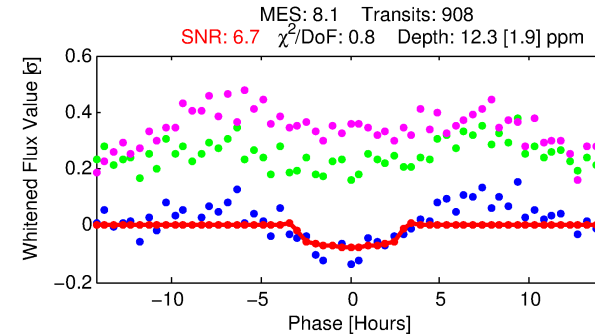
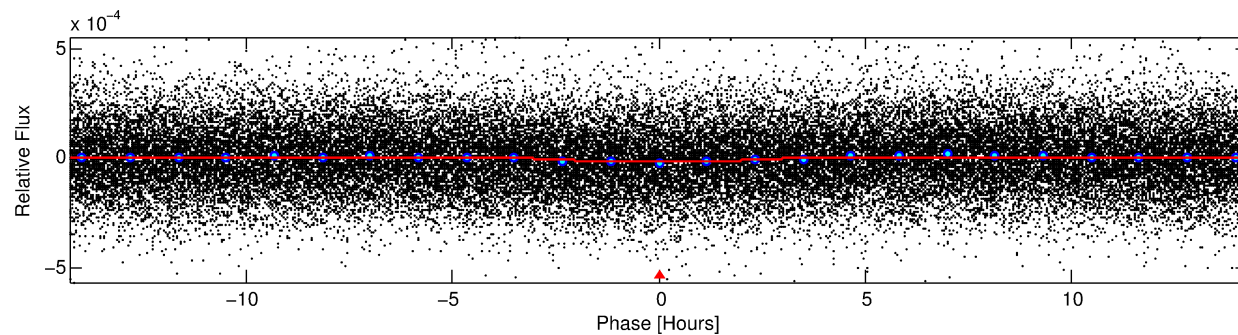
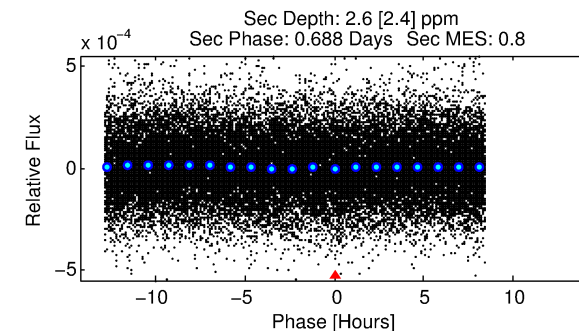
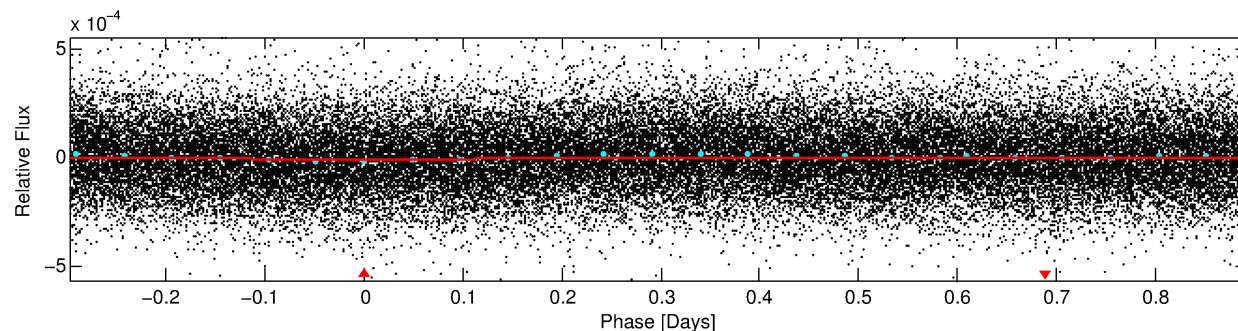
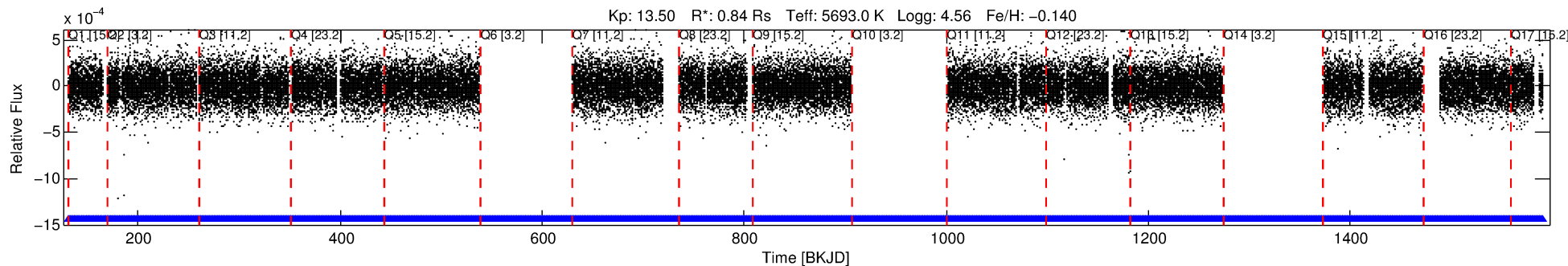
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005371090-01

No Significant Match Found

DV One-Page Summary

KIC: 5371090 Candidate: 1 of 1 Period: 1.192 d



DV Fit Results:

Period = 1.19179 [0.00003] d
Epoch = 131.6392 [0.0096] BKJD
Rp/R* = 0.0032 [0.0062]
a/R* = 1.68 [9.31]
b = 0.01 [690.96]
Seff = 1441.68 [491.88]
Teff = 1571 [134] K
Rp = 0.29 [0.58] Re
a = 0.0215 [0.0048] AU
Ag = 7.65 [30.88] [0.22σ]
Teffp = 4041 [4064] K [0.61σ]

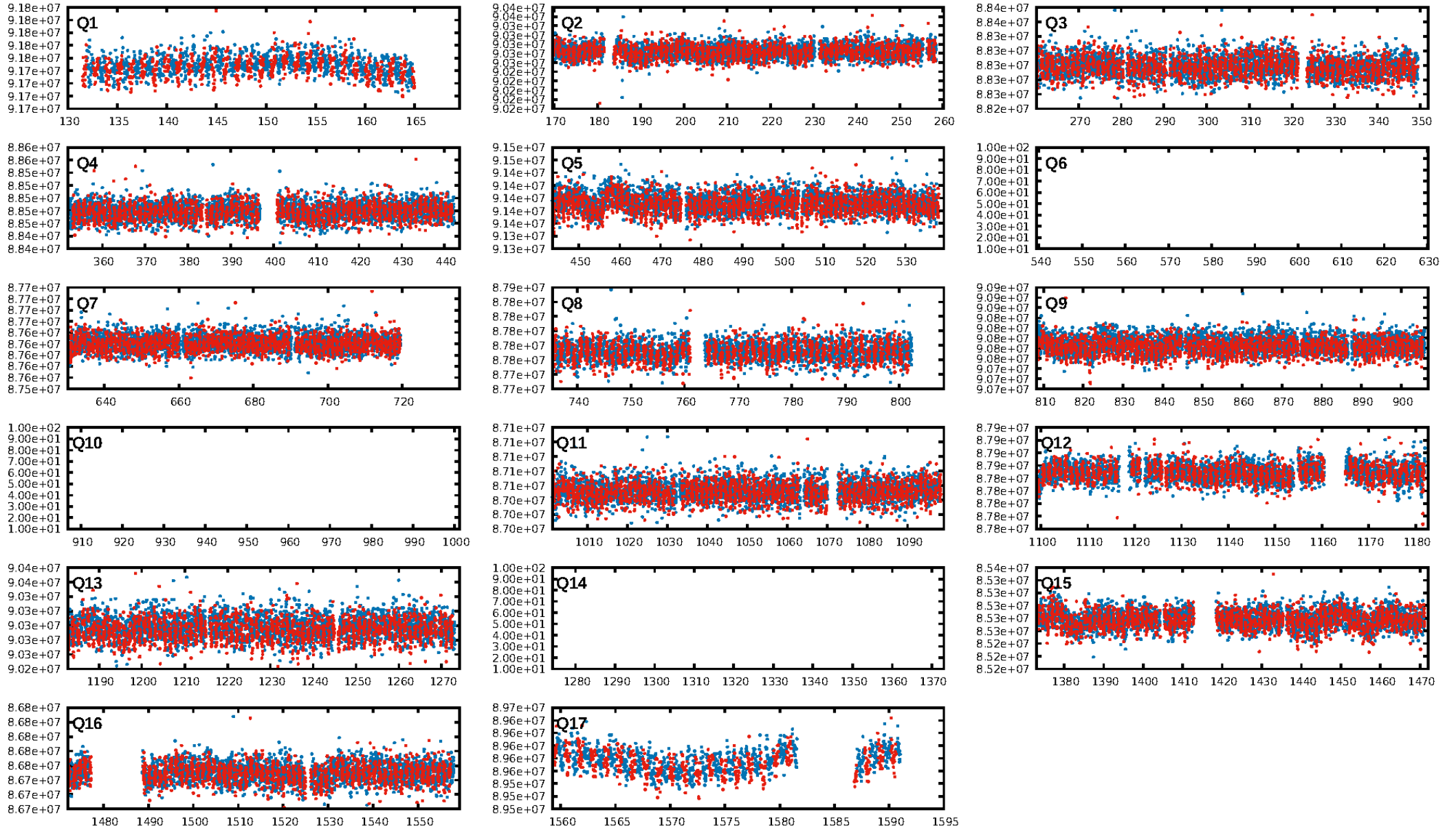
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.07e-12
RollingBand-fgt: 1.00 [856/856]
GhostDiagnostic-chr: -1.202
Centroid-sig: 49.8%
Centroid-so: 3.058 arcsec [0.95σ]
OotOffset-rm: 13.678 arcsec [187.28σ]
KicOffset-rm: 13.441 arcsec [168.62σ]
OotOffset-st: 1/0/4/1 [6]
KicOffset-st: 1/0/4/1 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [14/14]

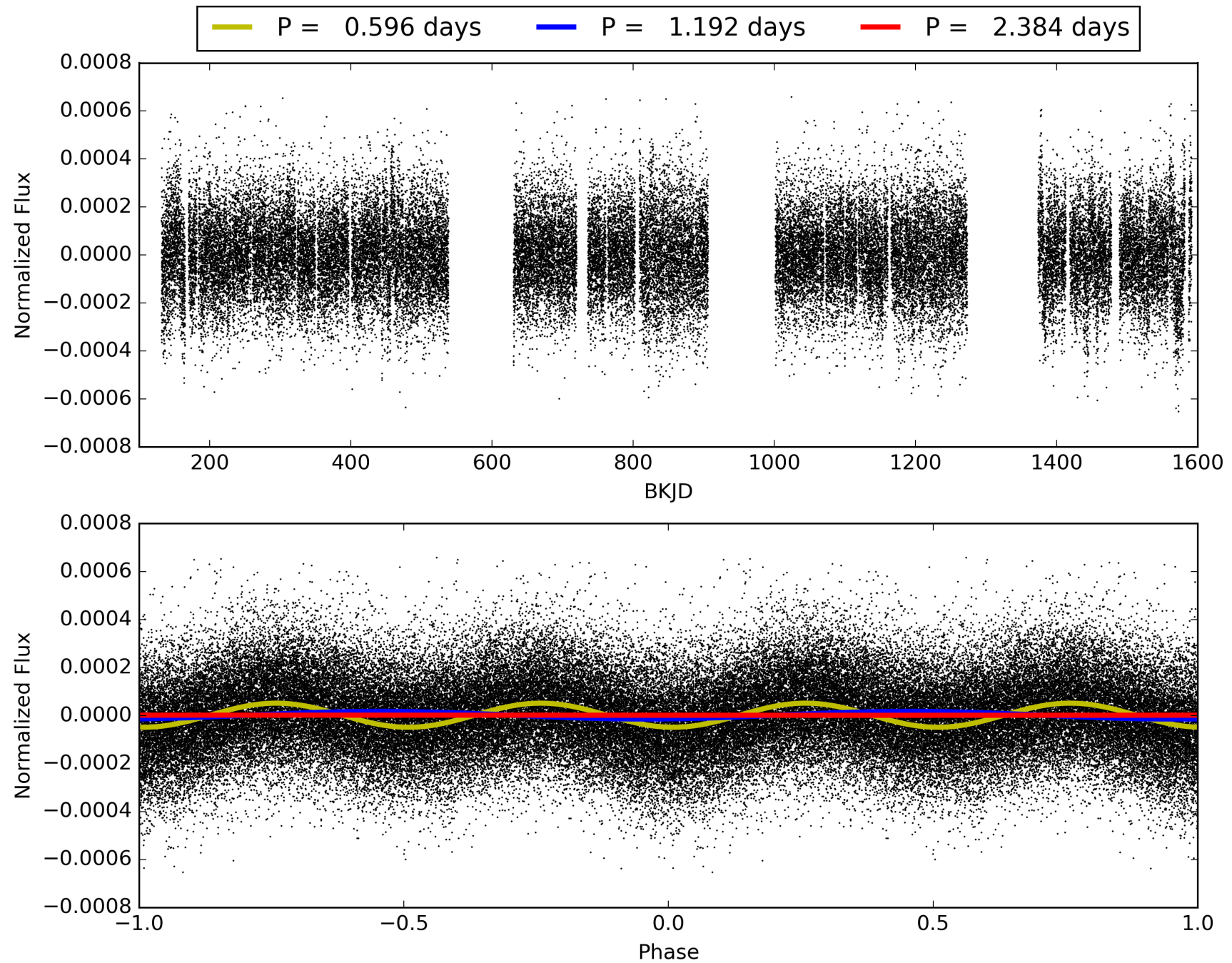
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:44:38 Z

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

TCE 005371090-01, PDC Light Curves

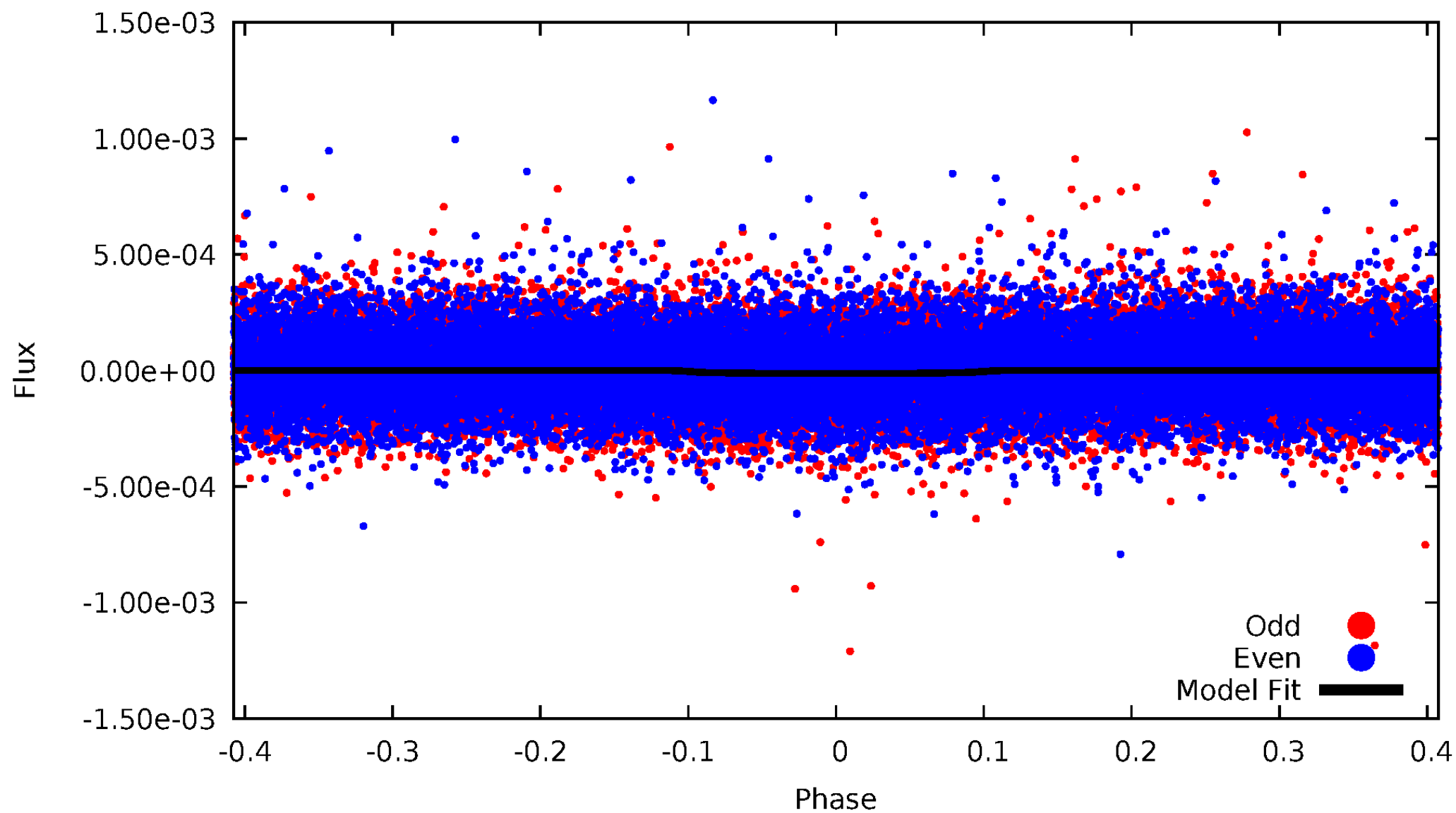


TCE 005371090-01



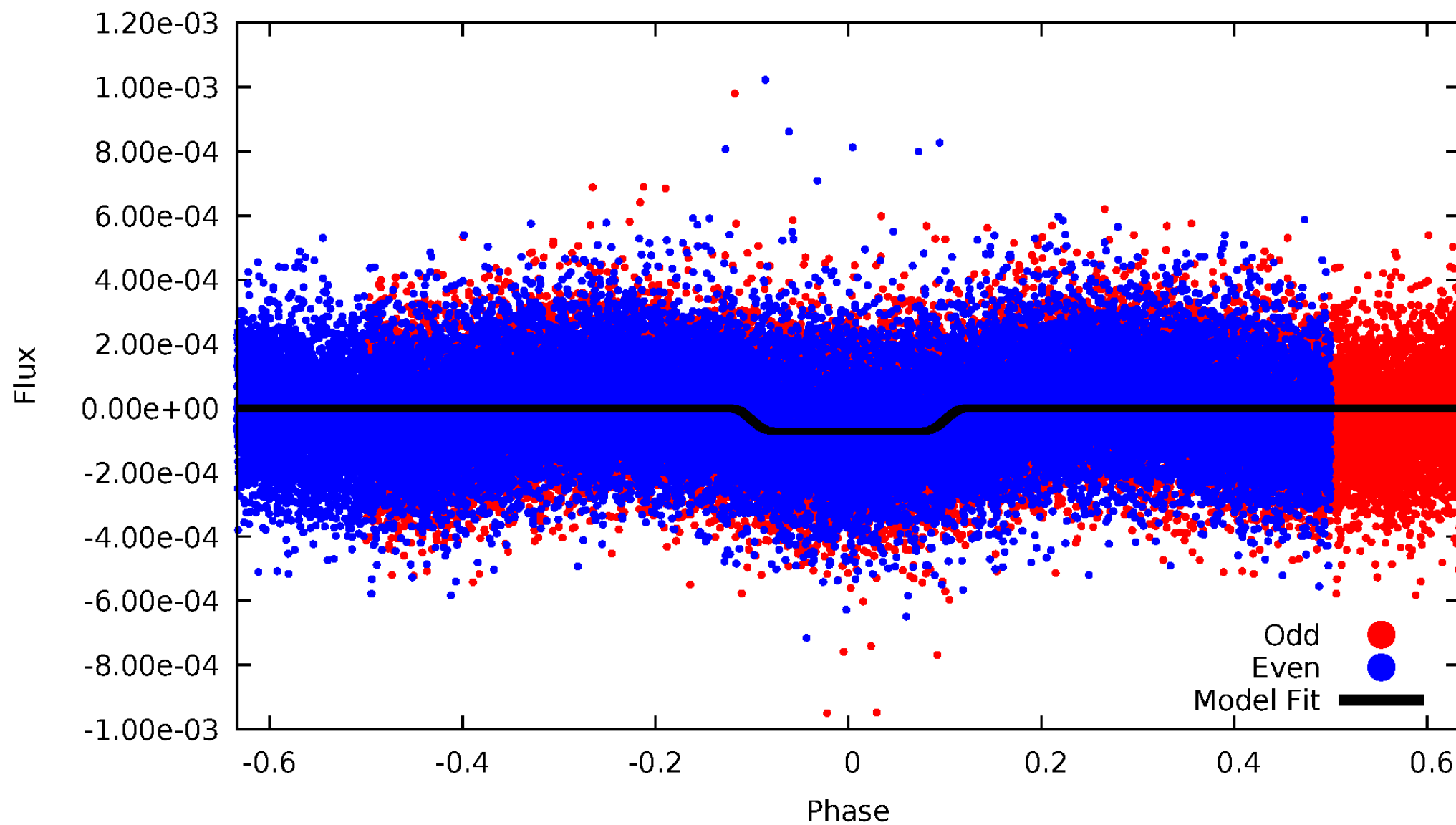
DV Odd/Even

TCE 005371090-01



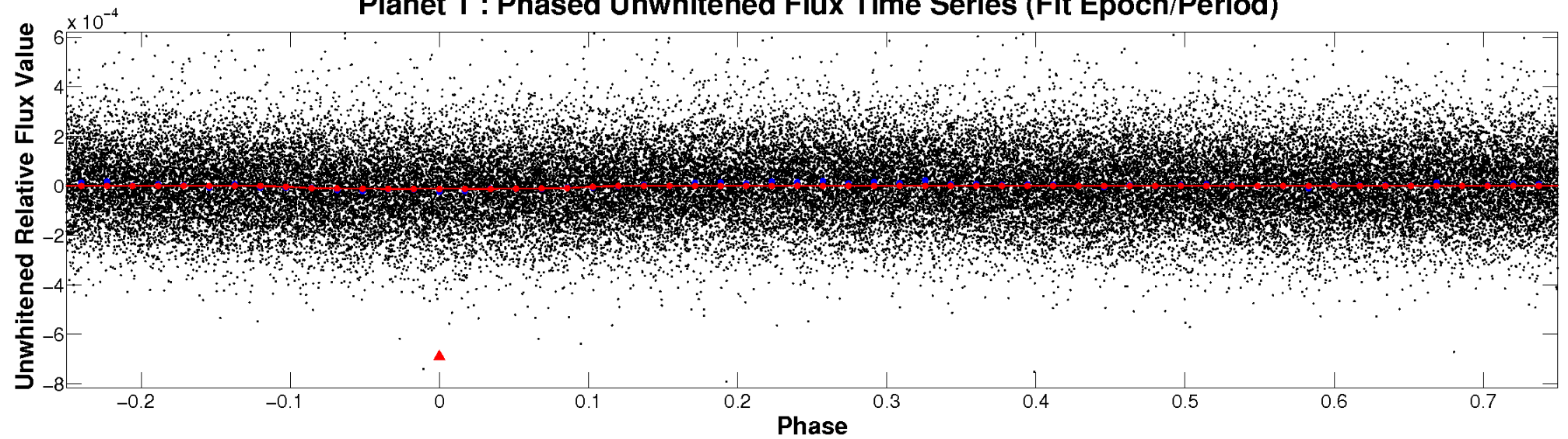
ALT Odd/Even

TCE 005371090-01

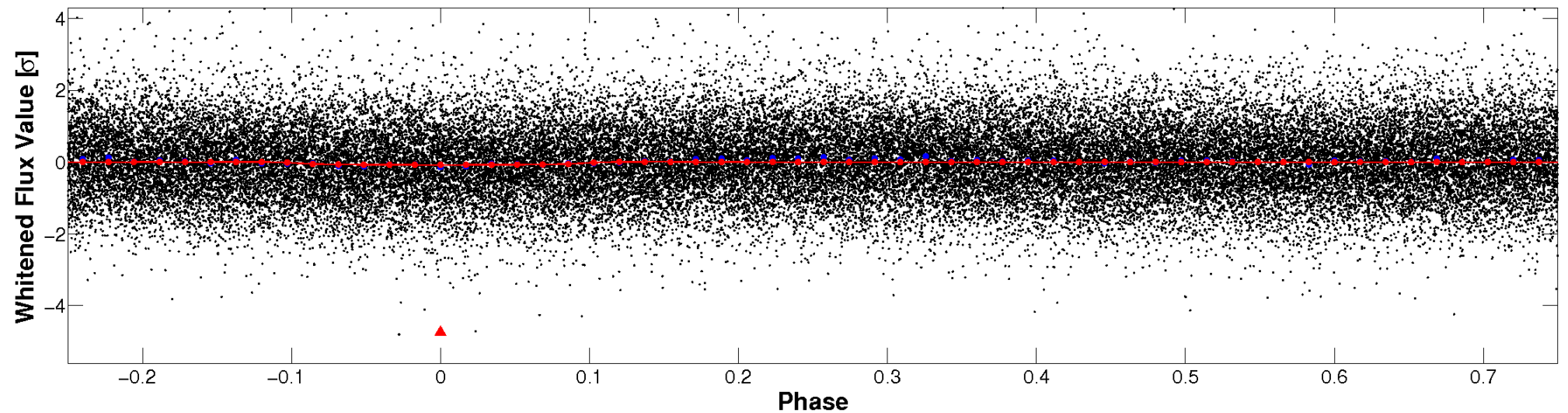


Non-Whitened Vs. Whitened Light Curve

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

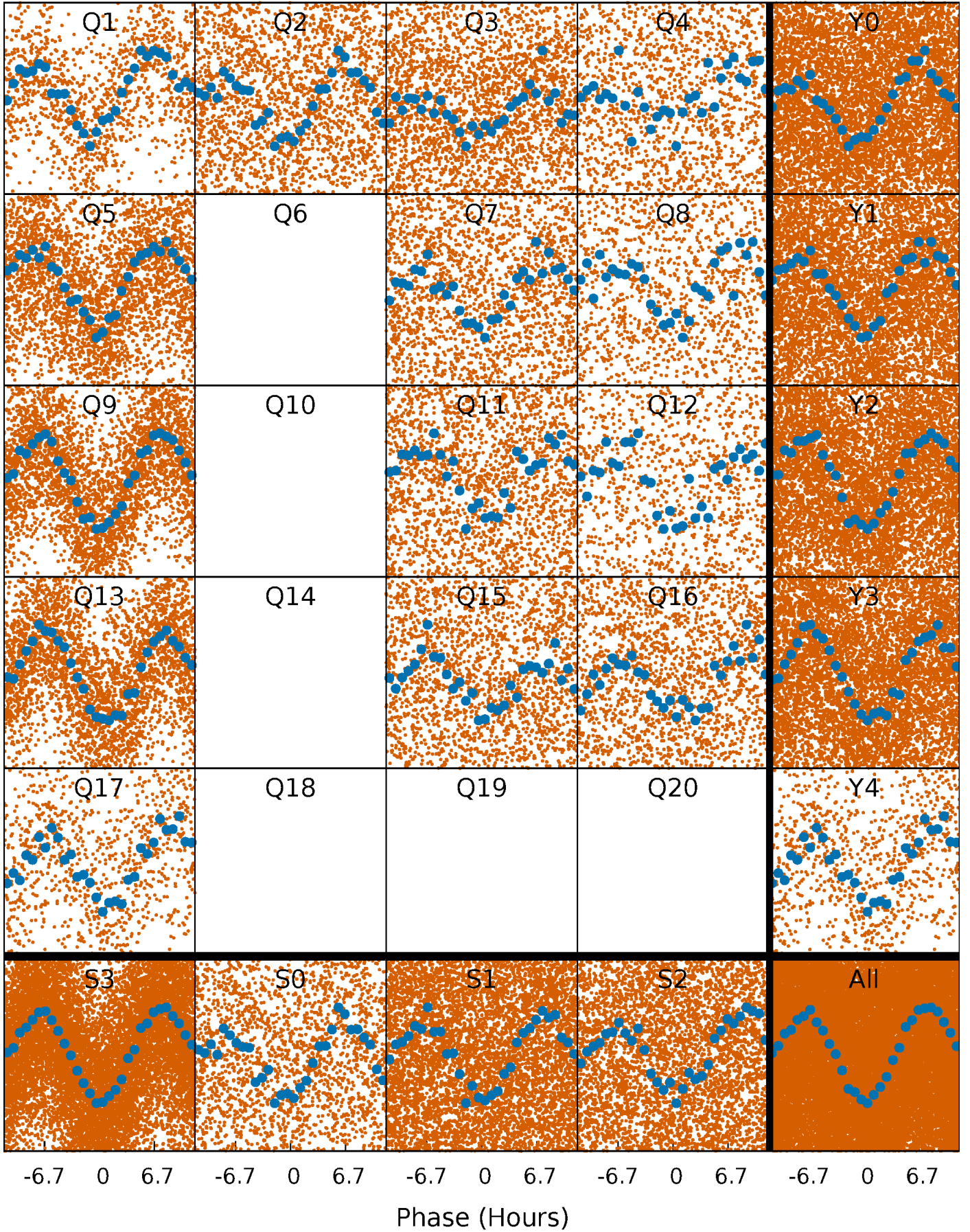


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



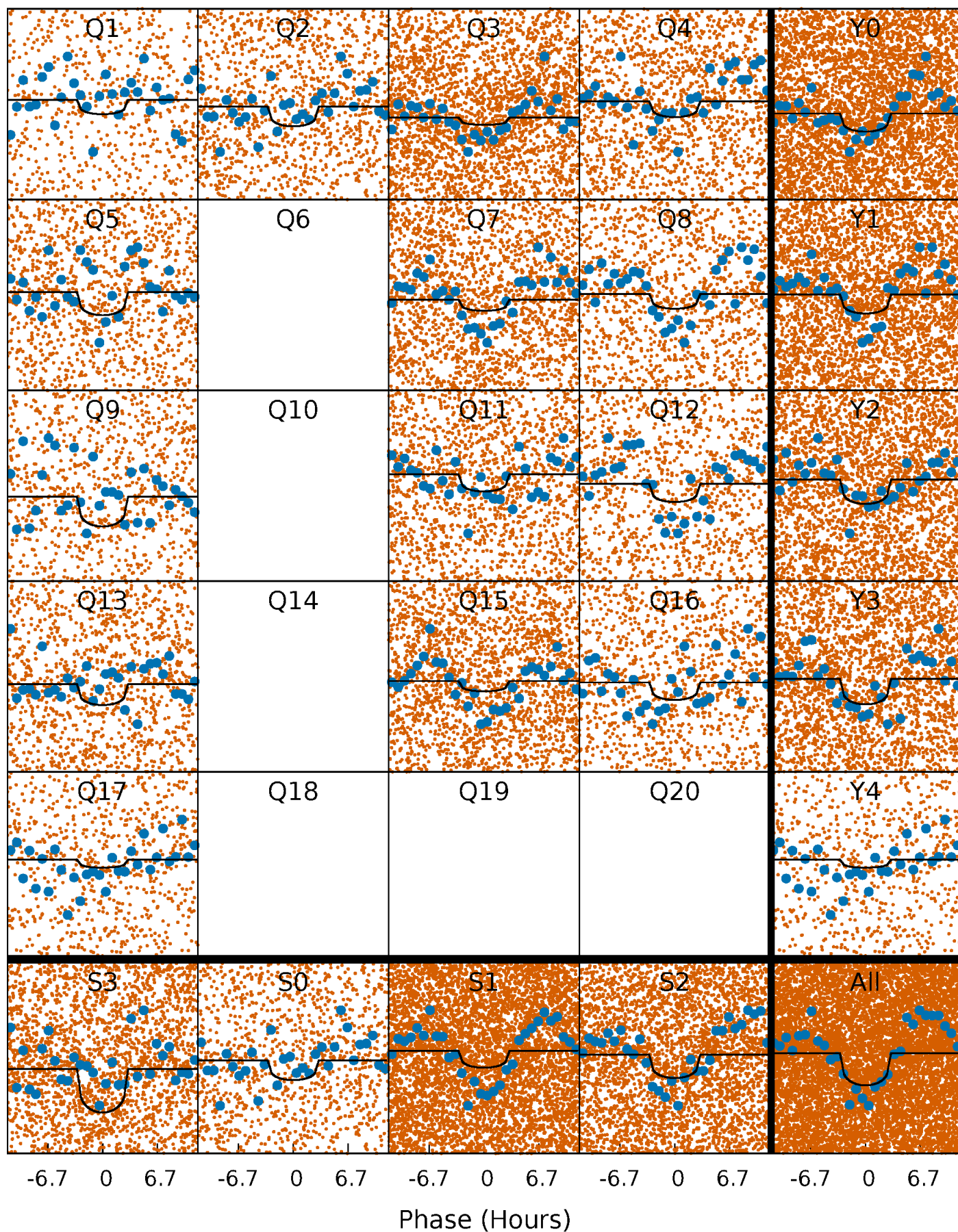
PDC Quarter-Phased Transit Curves

TCE 005371090-01 P= 1.191789 Days $T_0=131.639215$ (BKJD)



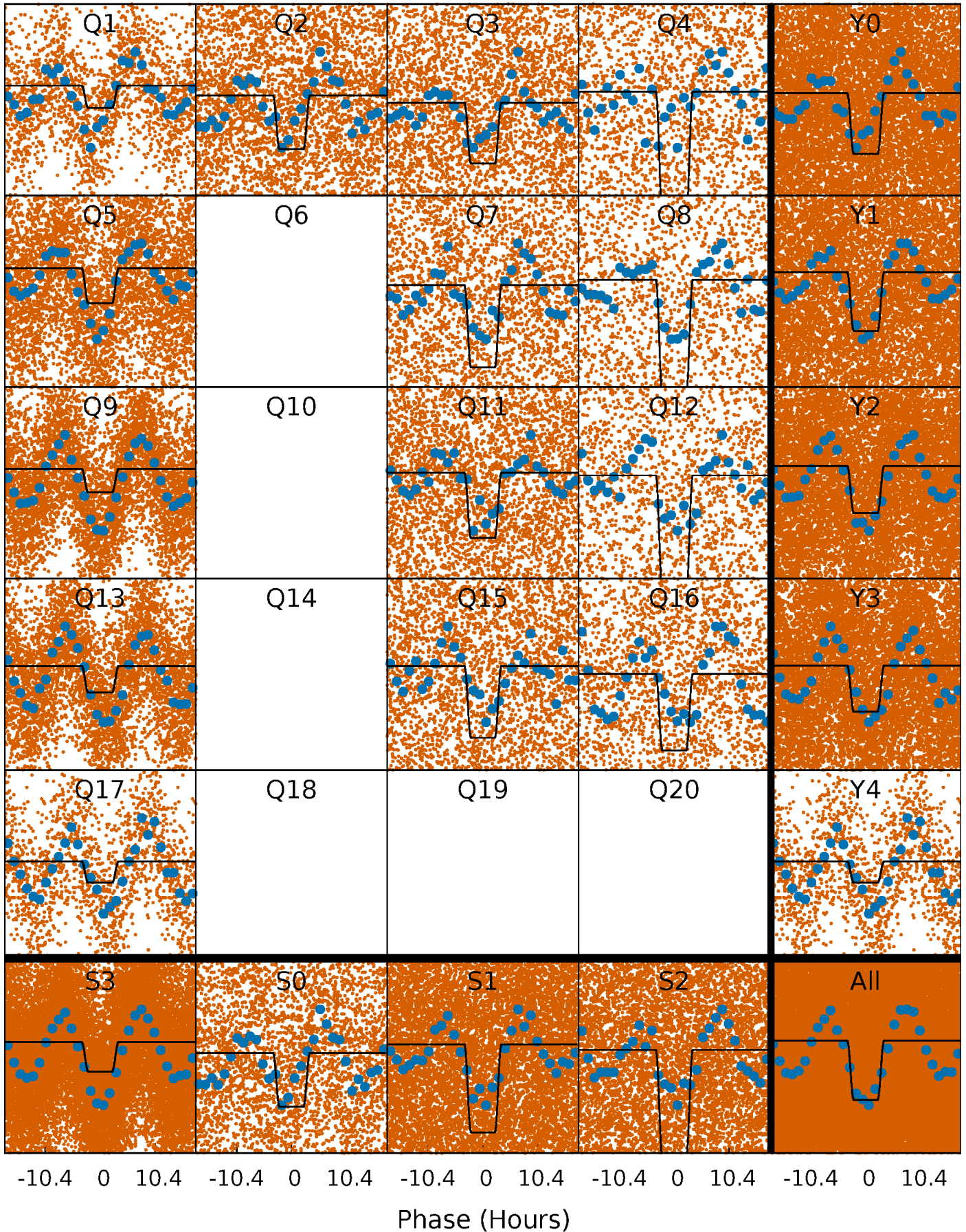
DV Quarter-Phased Transit Curves

TCE 005371090-01 P= 1.191789 Days $T_0=131.639215$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

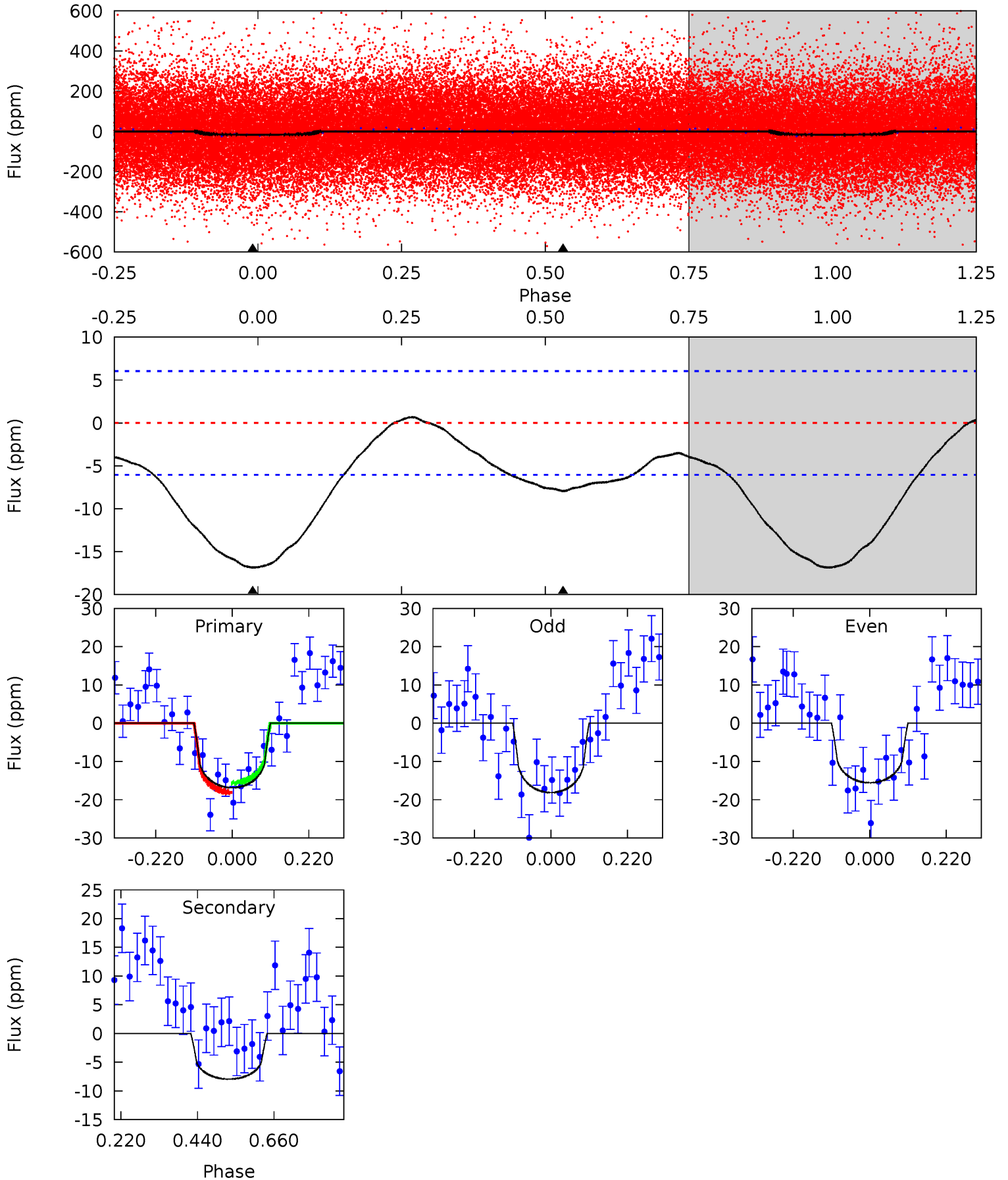
TCE 005371090-01 P= 1.191755 Days $T_0=131.661548$ (BKJD)



DV Model-Shift Uniqueness Test

005371090-01, P = 1.191789 Days, E = 130.447426 Days

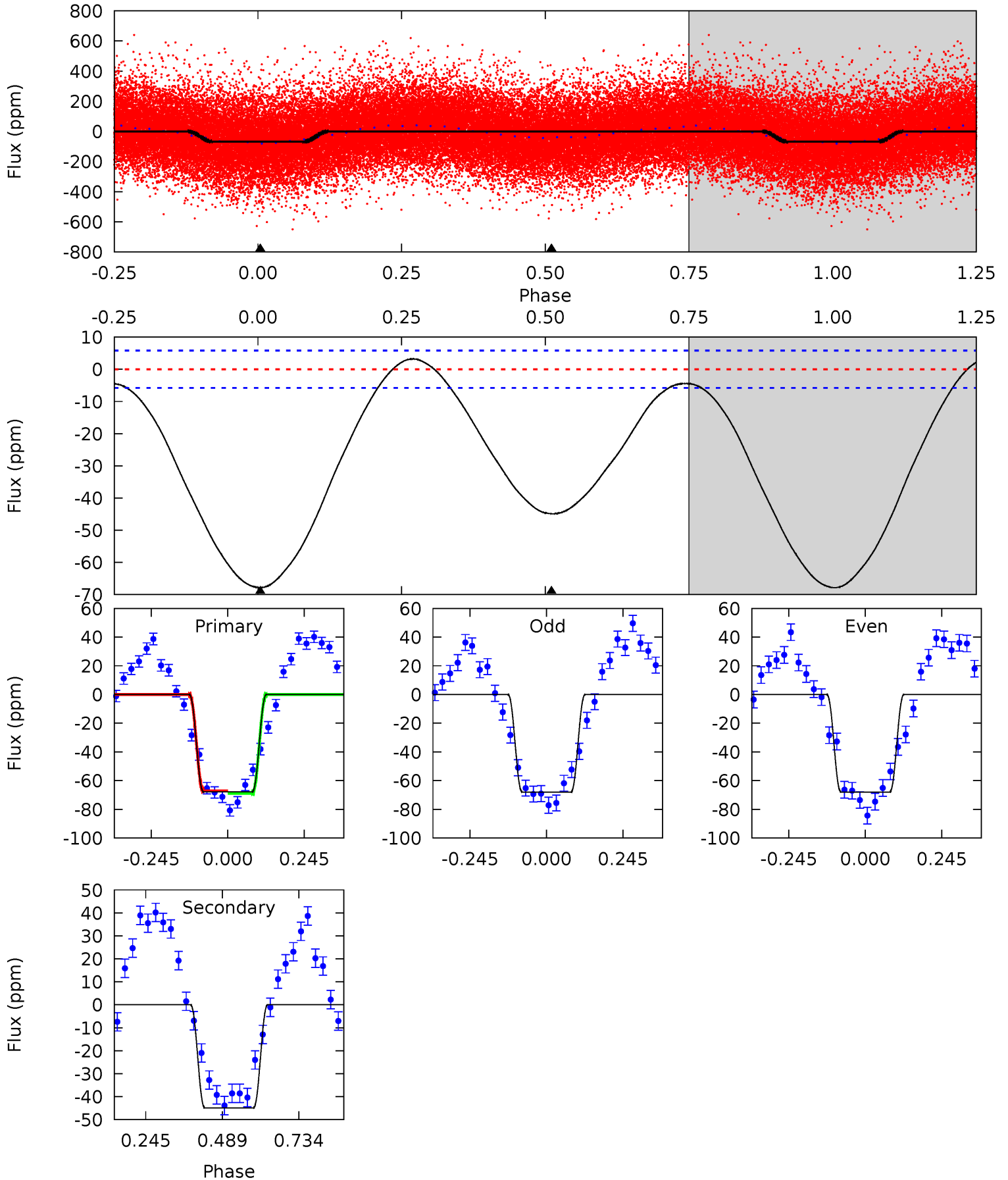
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	5.79	0	0	4.40	1.23	1.19	12.3	12.3	5.79	5.79	0.95	0.90	0.04	0.92



Alt Model-Shift Uniqueness Test

005371090-01, P = 1.191755 Days, E = 130.469793 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.1	33.8	0	0	4.37	1.16	2.77	51.1	51.1	33.8	33.8	0.02	1.08	0.05	0.68



Stellar Parameters For KIC 005371090

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5693^{+152}_{-152}	$4.558^{+0.042}_{-0.178}$	$-0.140^{+0.300}_{-0.300}$	$0.842^{+0.220}_{-0.073}$	$0.938^{+0.094}_{-0.115}$	$2.217^{+0.380}_{-1.043}$
	+3%/-3%	+1%/-4%	+214%/-214%	+26%/-9%	+10%/-12%	+17%/-47%
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 005371090-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8 ± 1	$0.53^{+0.48}_{-0.35}$	2231^{+130}_{-87}	4255^{+2858}_{-918}	$6.863^{+54.822}_{-4.985}$
Alt.	-45 ± 1	$0.86^{+0.57}_{-0.51}$	2238^{+132}_{-98}	4966^{+2826}_{-904}	15^{+81}_{-10}

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

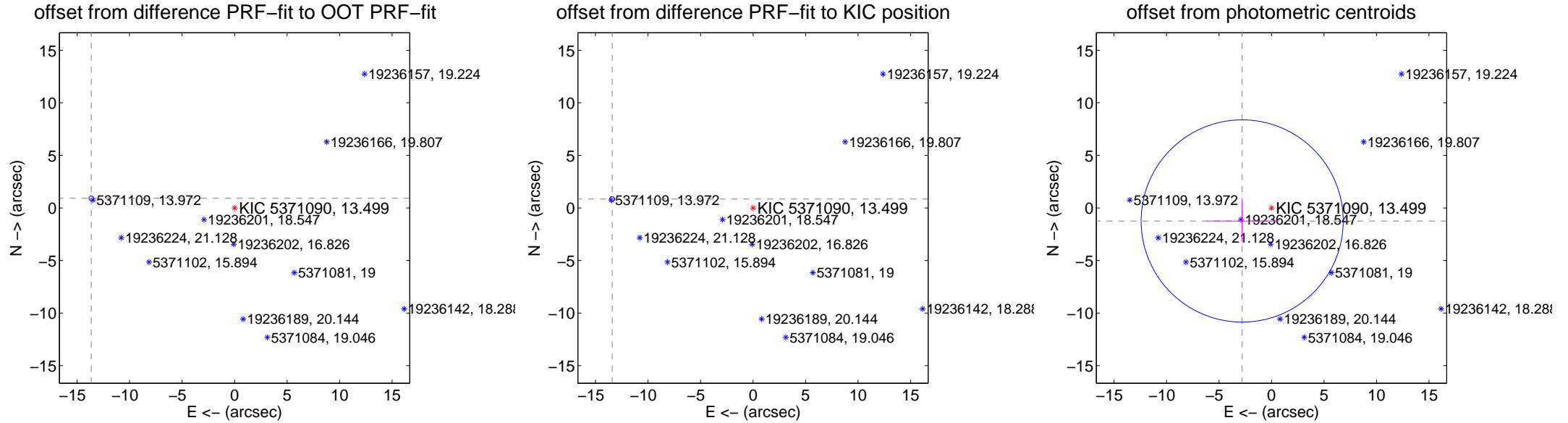
DV Centroid Data

Supplemental centroid analysis for 005371090-01. Kepler magnitude: 13.50. Transit SNR 6.67

There are 6 quarters with good PRF difference image offsets

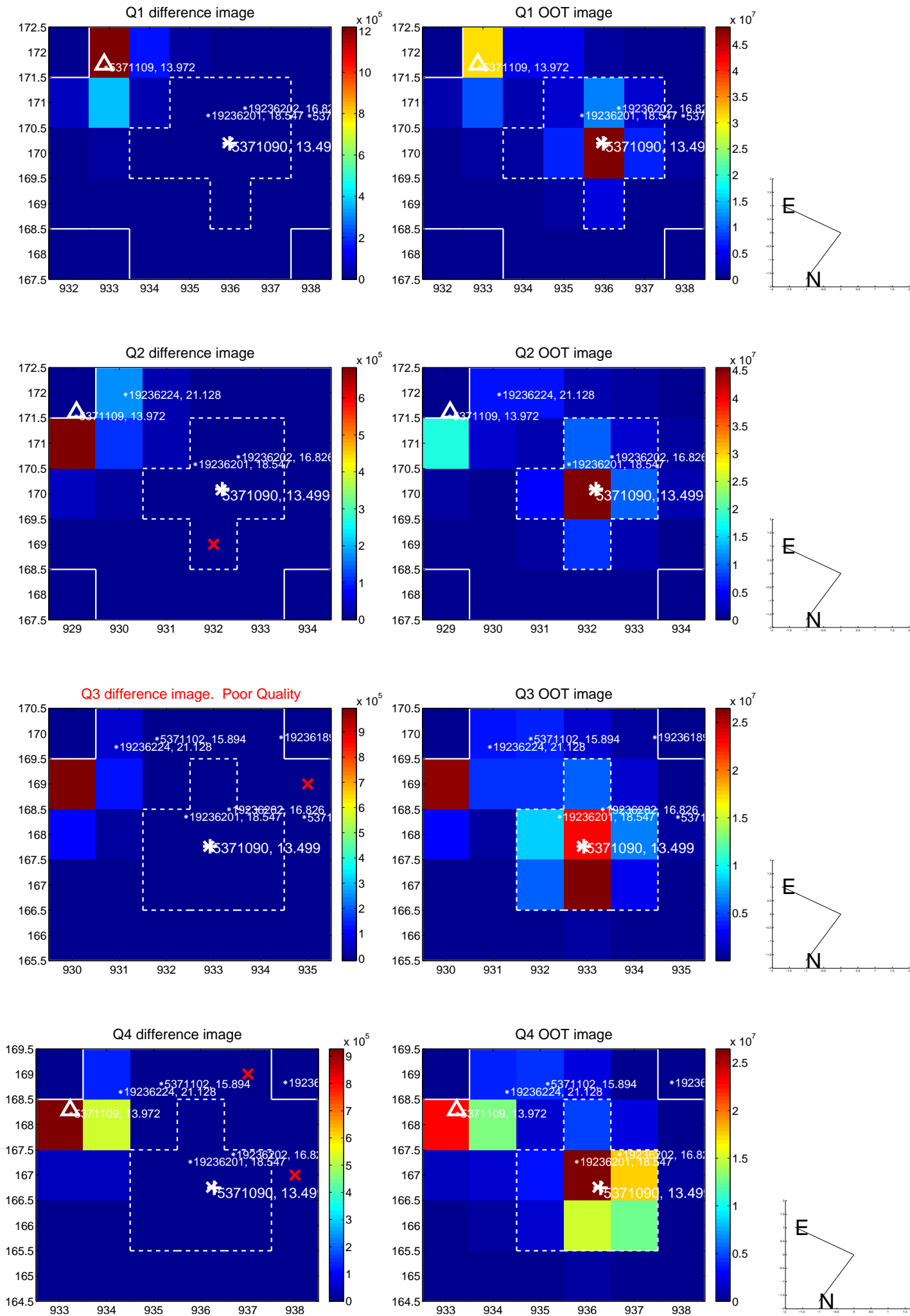
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.678 \pm 0.073	187.28	13.647 \pm 0.073	0.917 \pm 0.071
PRF-fit source offset from KIC position	13.441 \pm 0.080	168.62	13.414 \pm 0.079	0.849 \pm 0.069
photometric centroid source offset	3.06 \pm 3.21	0.95	2.80 \pm 3.40	-1.24 \pm 1.98

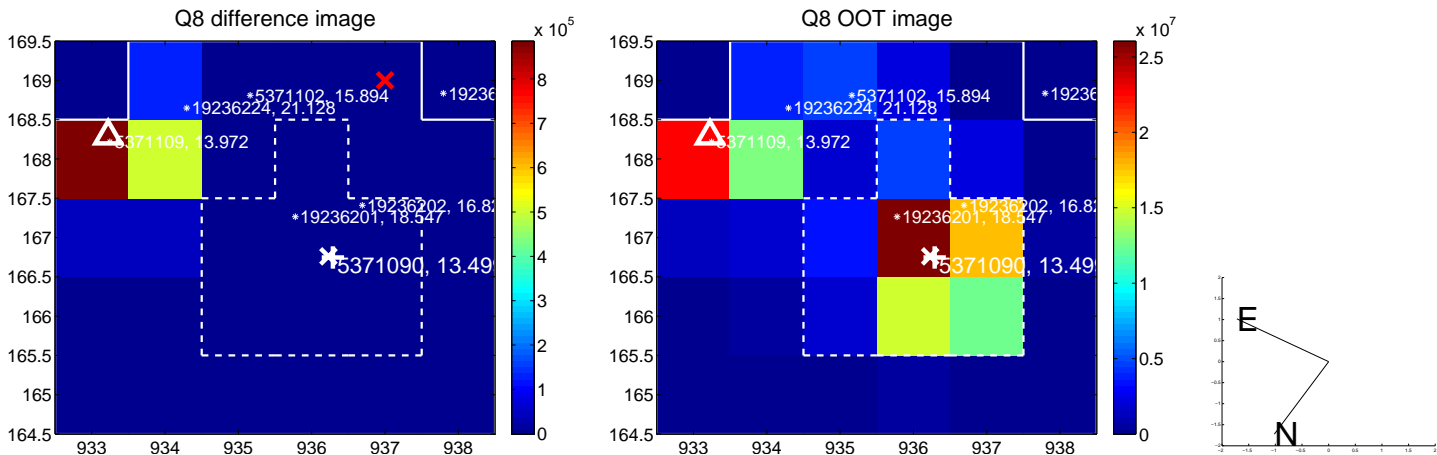
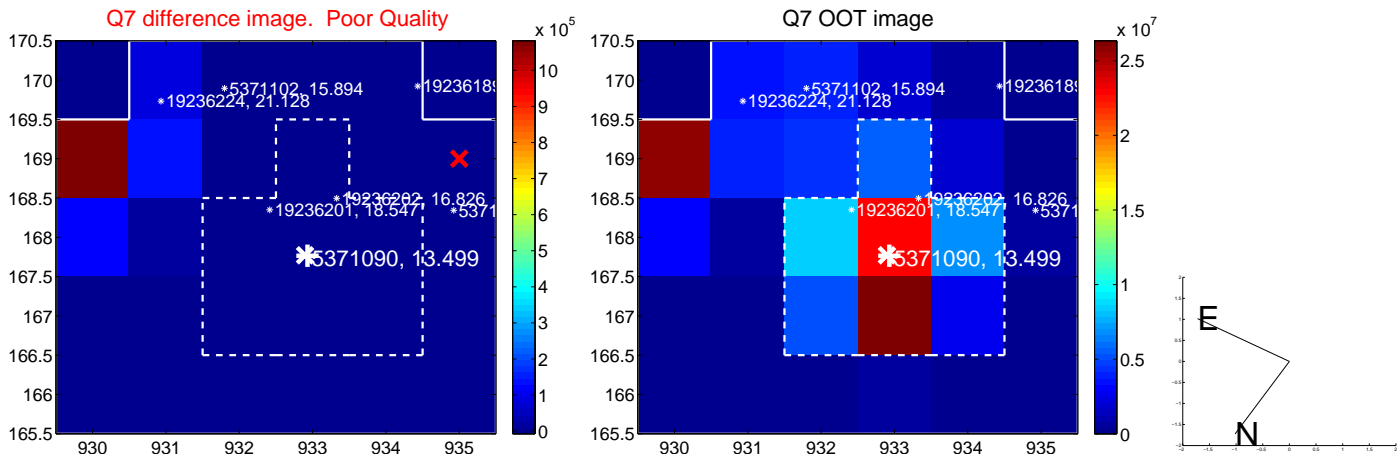
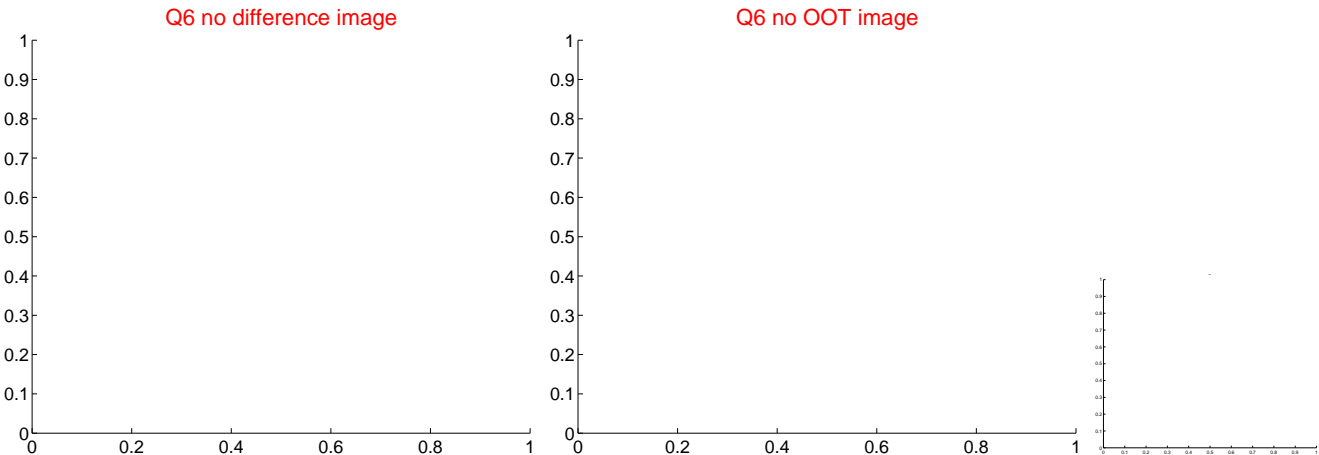
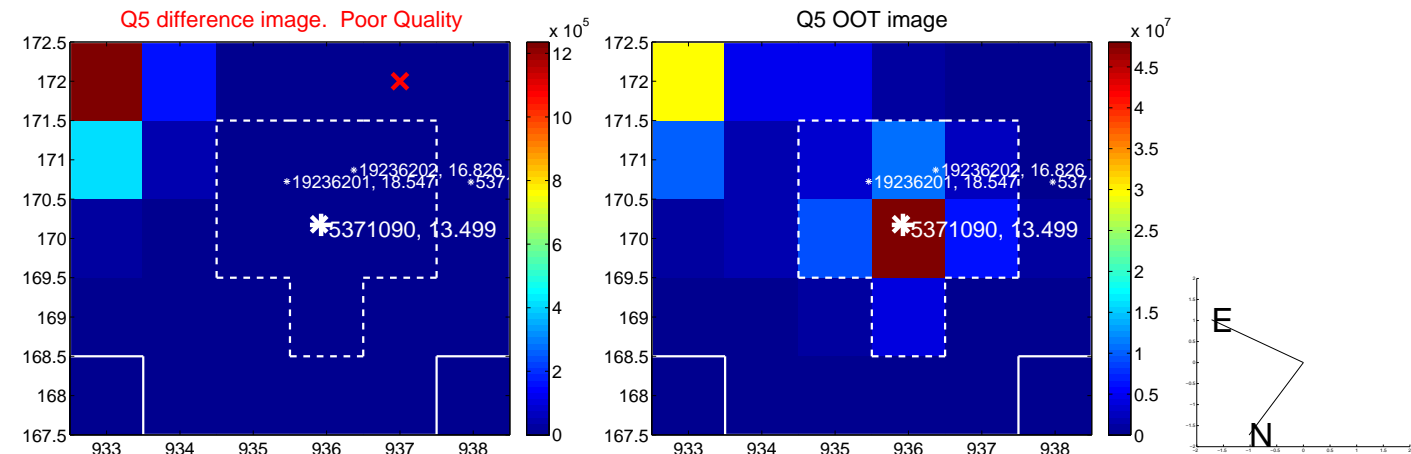


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

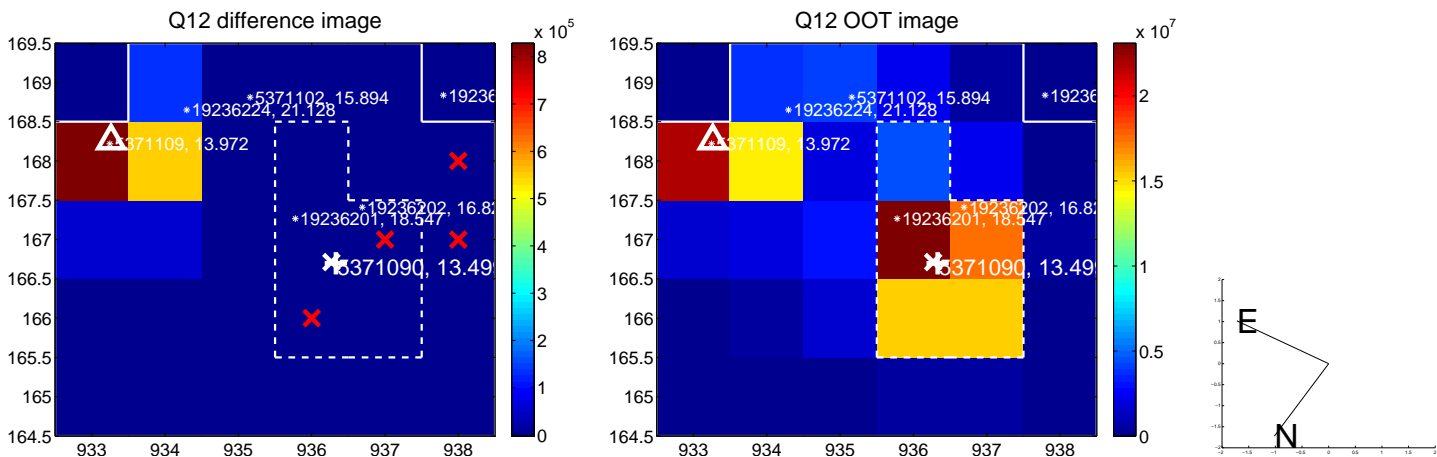
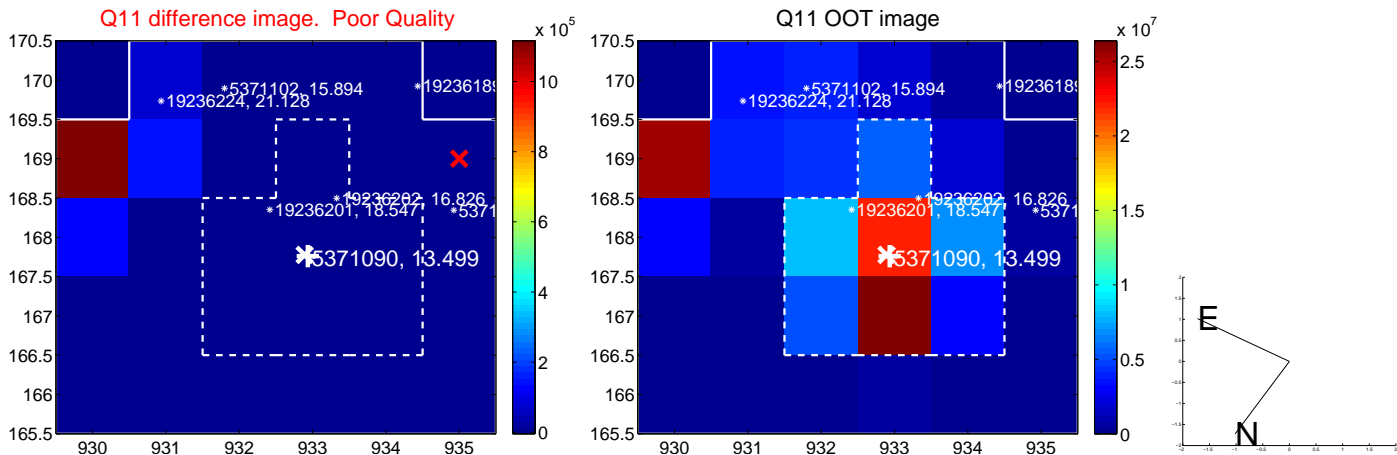
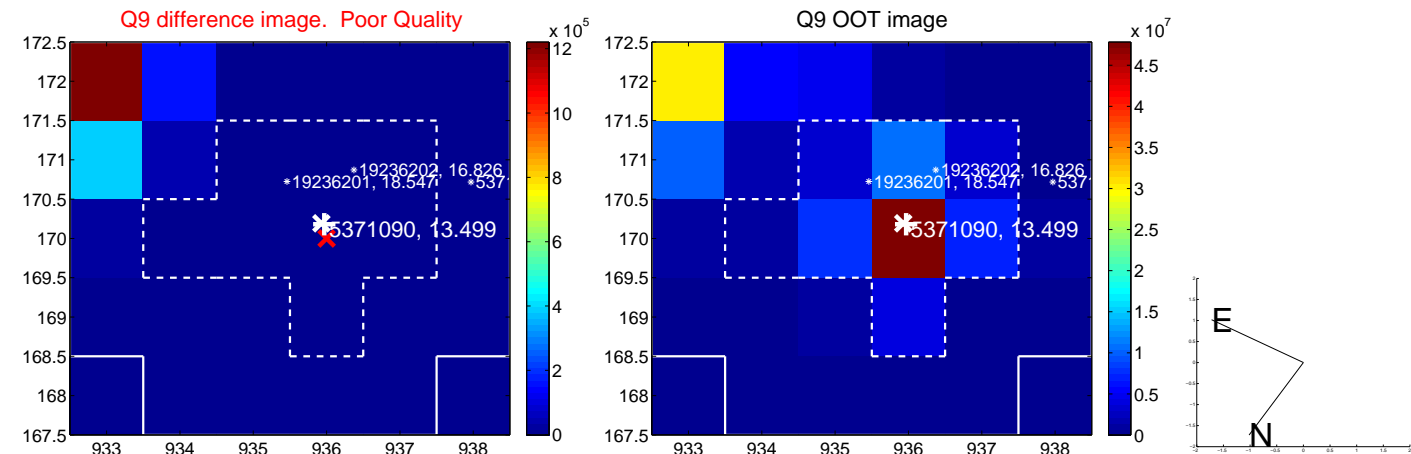
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



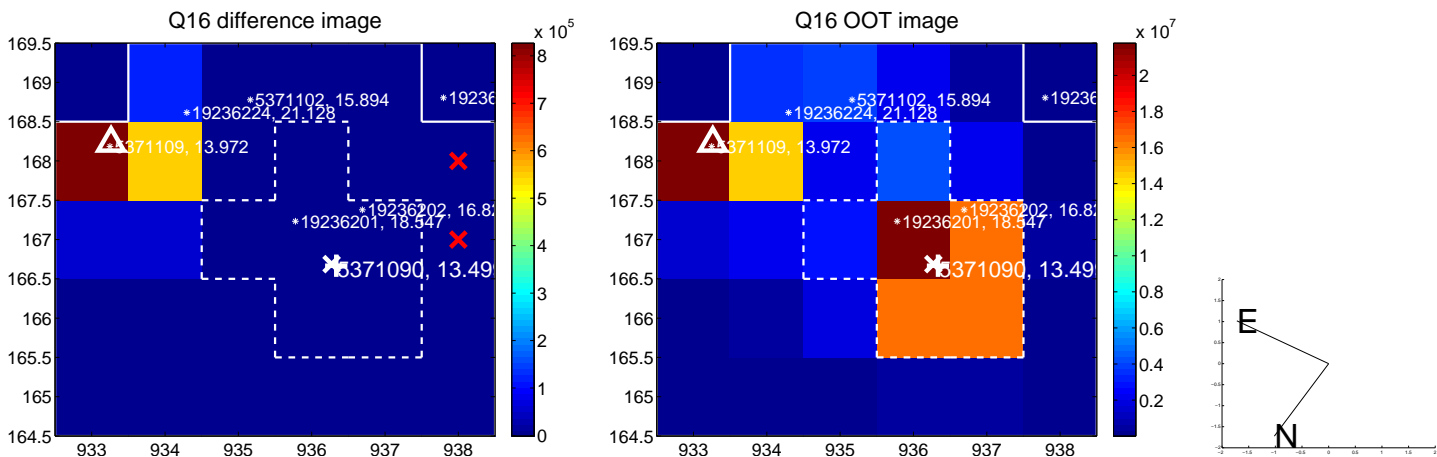
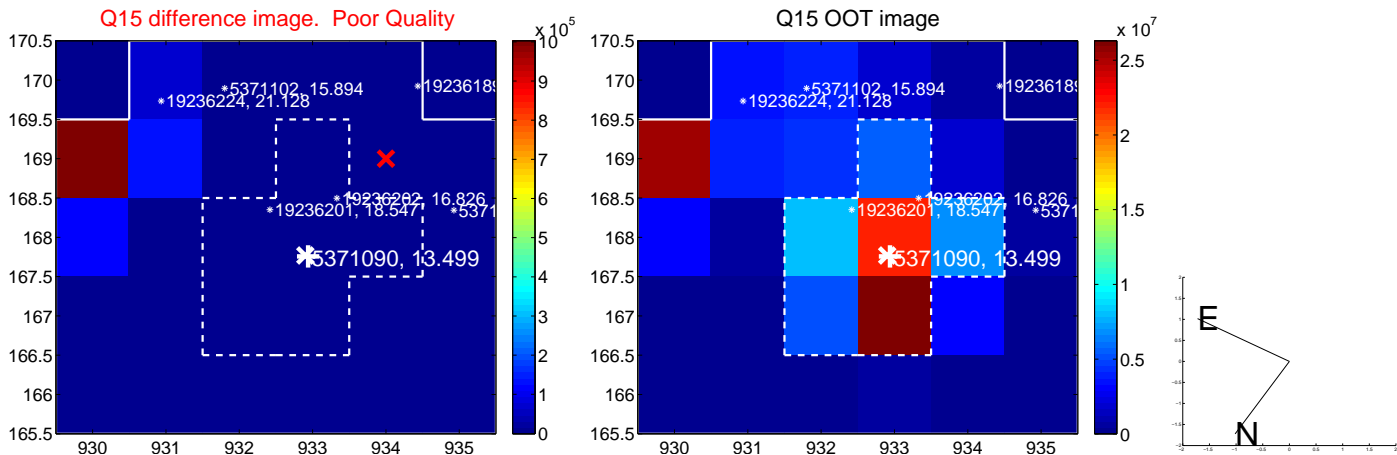
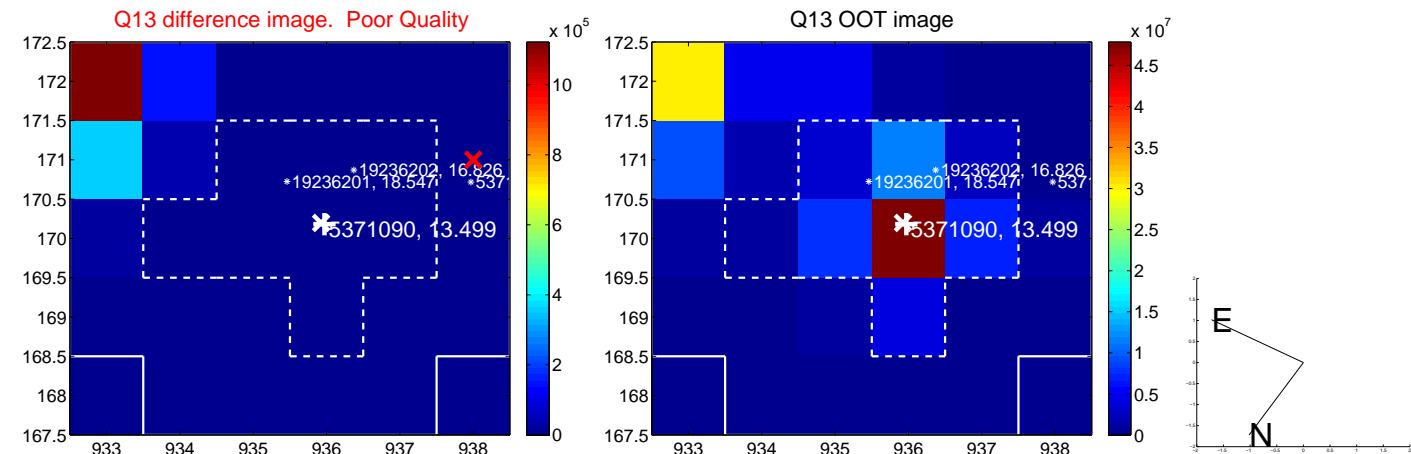
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



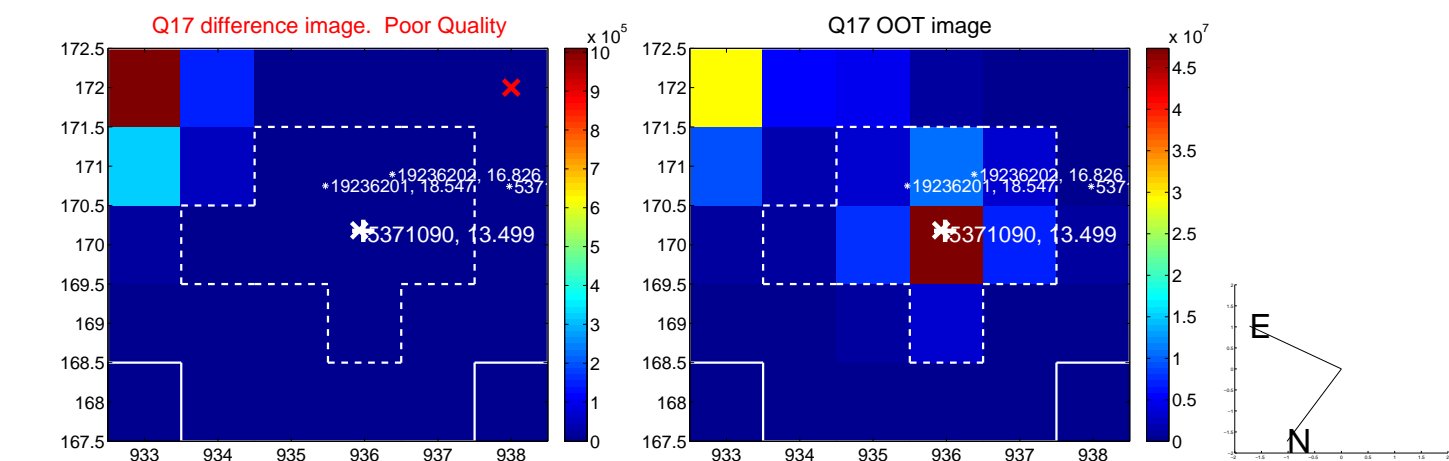
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



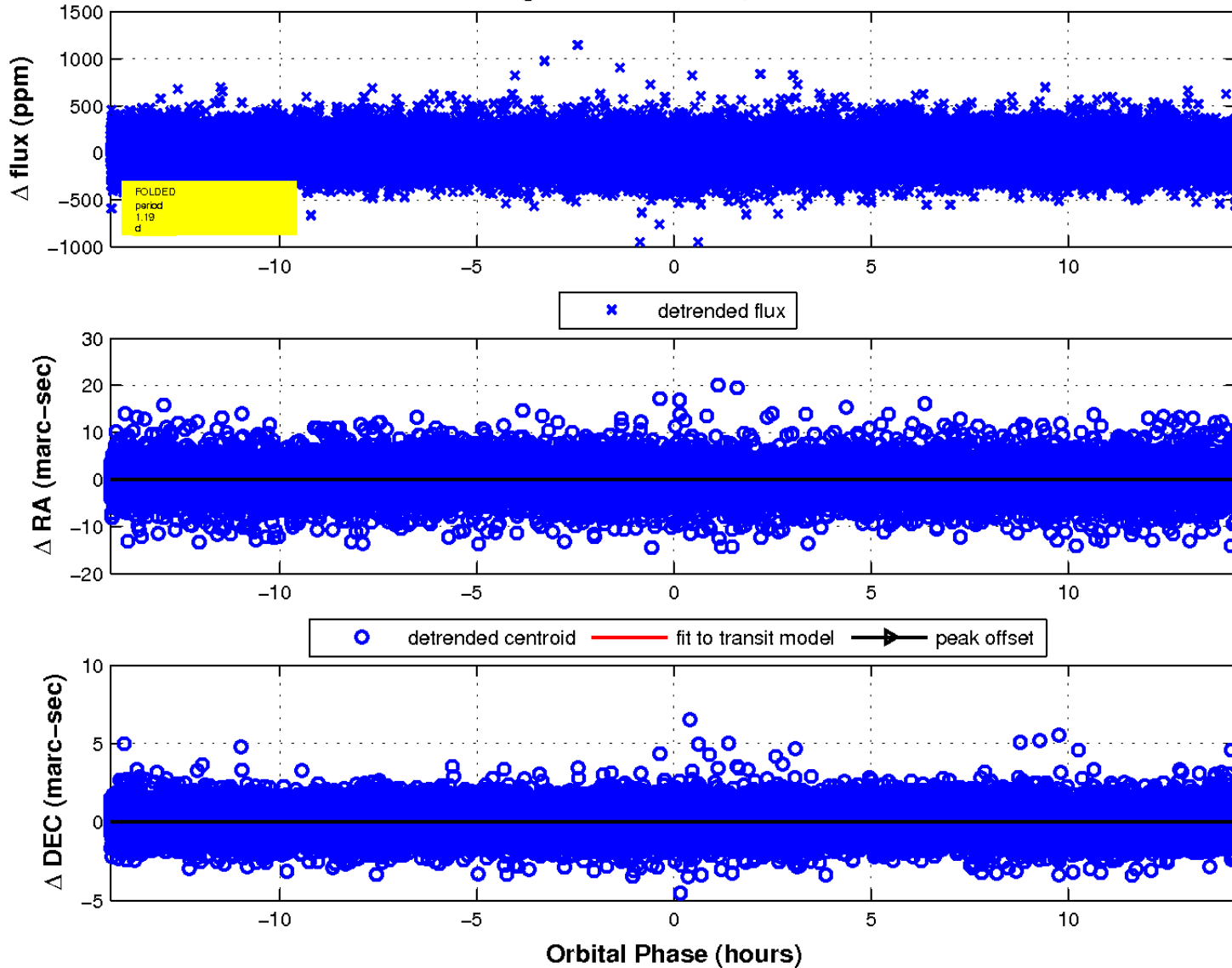
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

