

KIC 004373195

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})
004373195-01	OBS	7692.01	0.562550	131.733801	2.7	2.514	11.1	12.1	2.77	9005	0.53	163649.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004373195-01	OBS	FP	0.00	1	0	0	1	LPP_DV—CENT_SATURATED—EPHEM_MATCH

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.

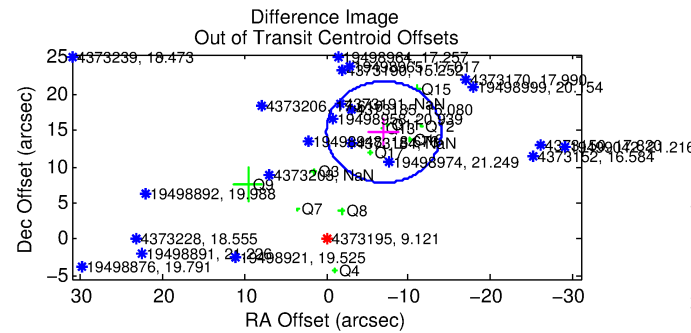
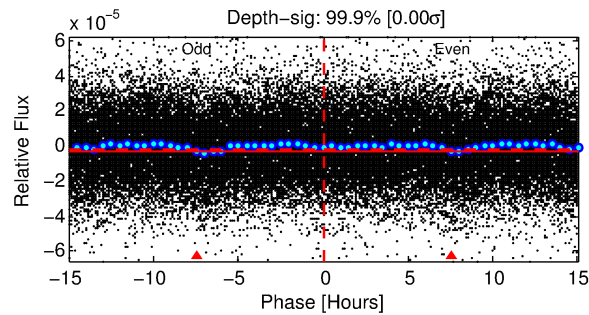
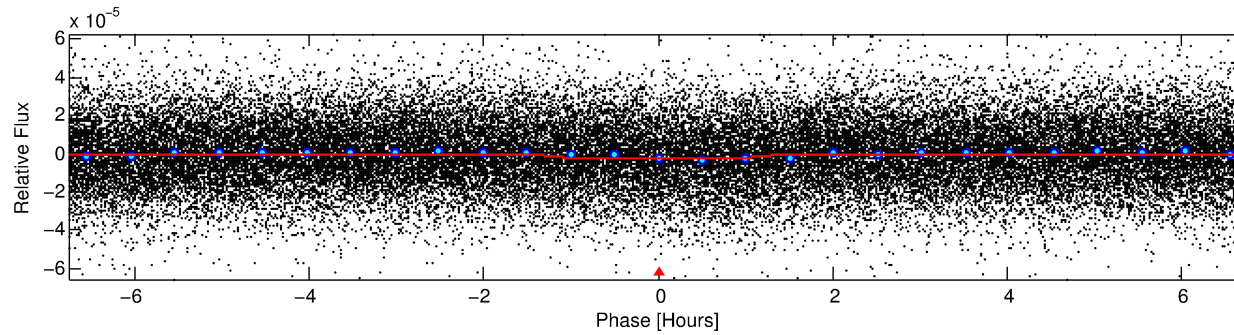
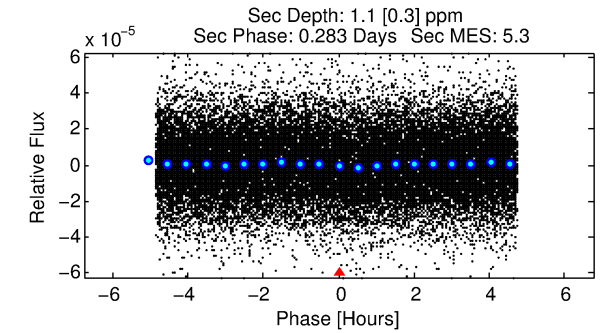
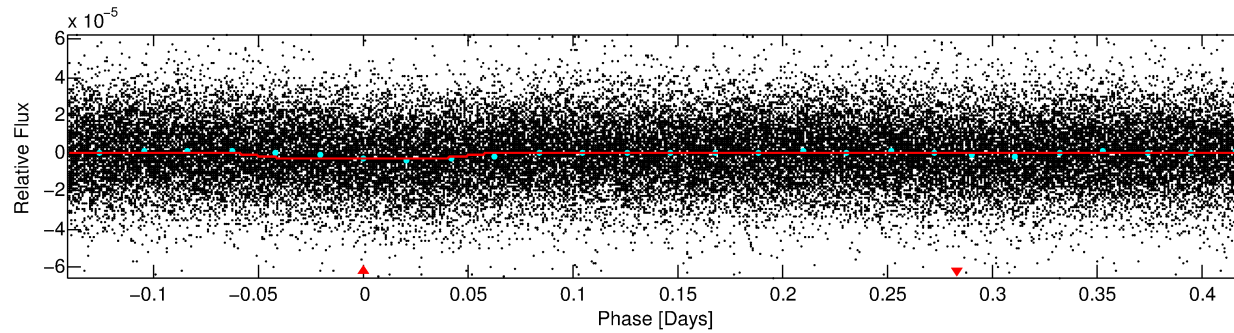
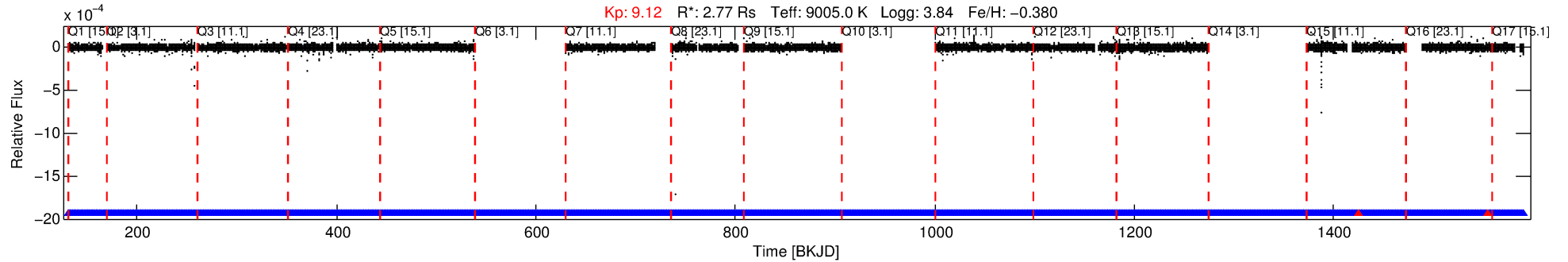
Ephemeris Match Information For 004373195-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
004373195-01	4373195	V1130-Cyg-pri	4660997	1:1	1112.4	280	0	12.32	9.12	200630.00	Col-Anomaly	0	2.08	0.38

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 4373195 Candidate: 1 of 1 Period: 0.563 d



DV Fit Results:

Period = 0.56255 [0.00001] d
Epoch = 131.7338 [0.0023] BKJD
Rp/R* = 0.0017 [0.0001]
a/R* = 1.20 [0.15]
b = 0.90 [0.08]
Seff = 163649.30 [119899.58]
Teq = 5129 [939] K
Rp = 0.53 [0.23] Re
a = 0.0166 [0.0069] AU
Ag = 0.60 [0.43] [-0.94σ]
Teff = 6968 [761] K [1.52σ]

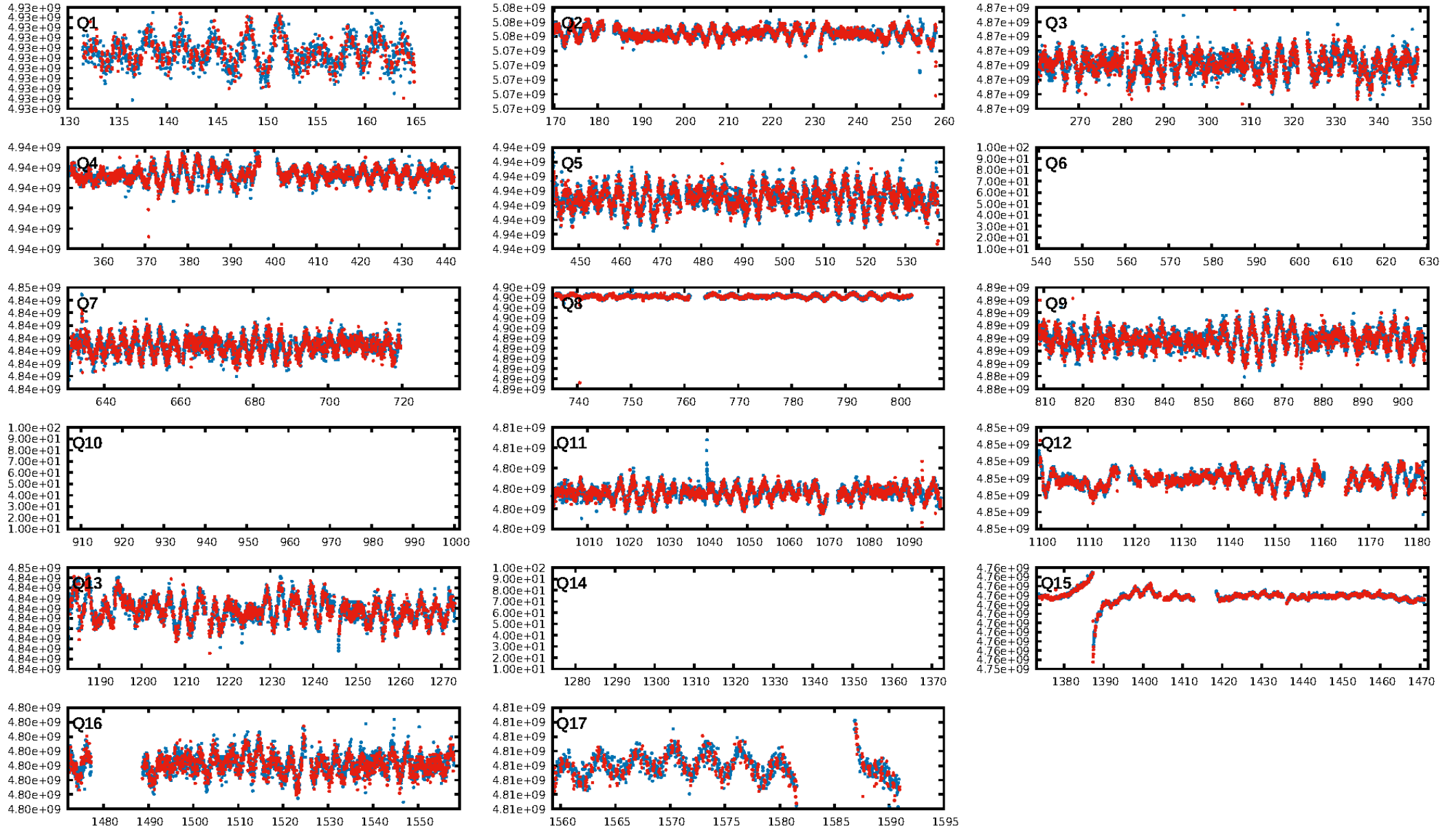
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.25e-21
RollingBand-fgt: 1.00 [1796/1798]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 16.357 arcsec [7.03σ]
KicOffset-rm: 16.401 arcsec [7.03σ]
OotOffset-st: 0/4/4/3 [11]
KicOffset-st: 0/4/4/3 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 1.00 [14/14]

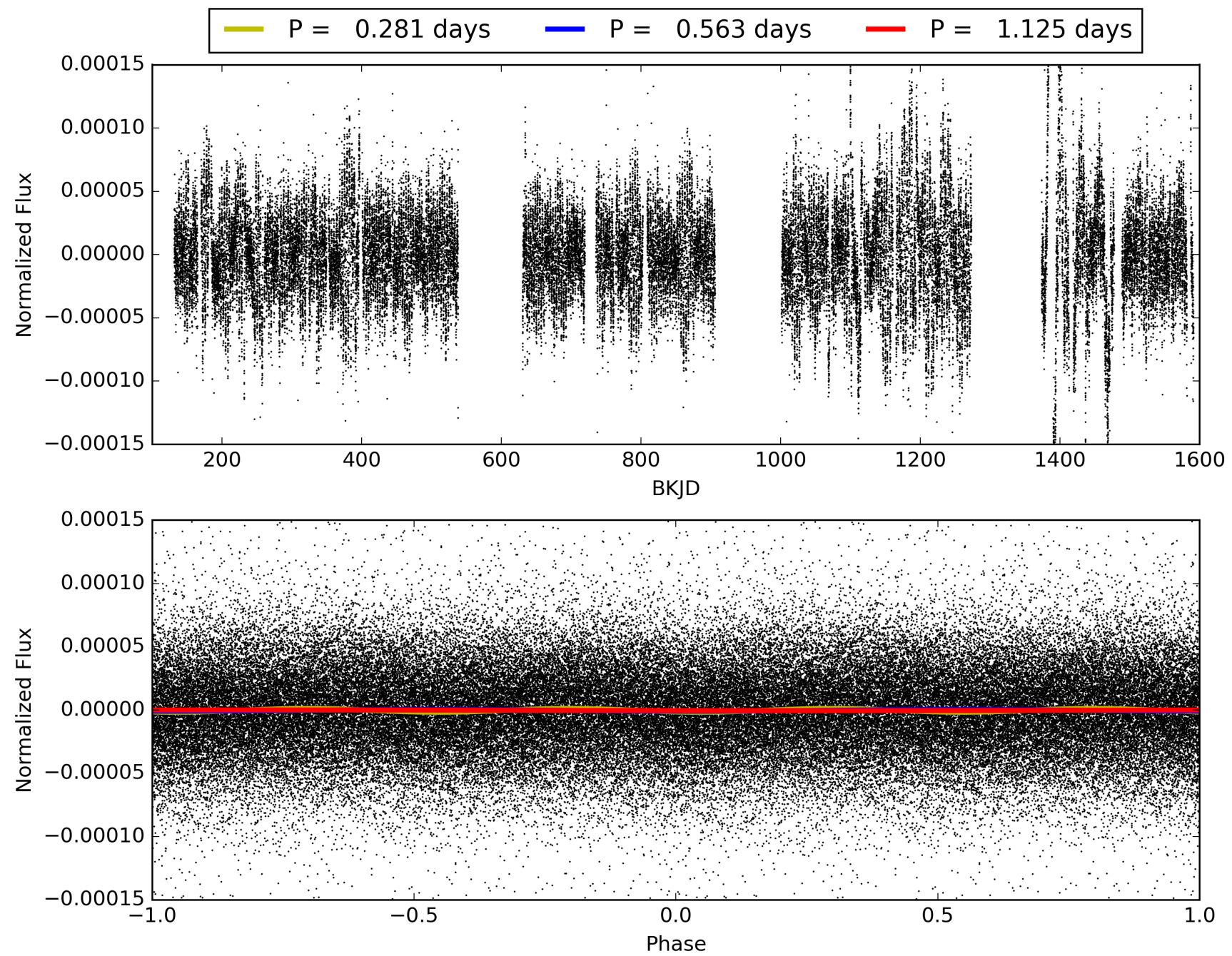
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:21:17 Z

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

TCE 004373195-01, PDC Light Curves

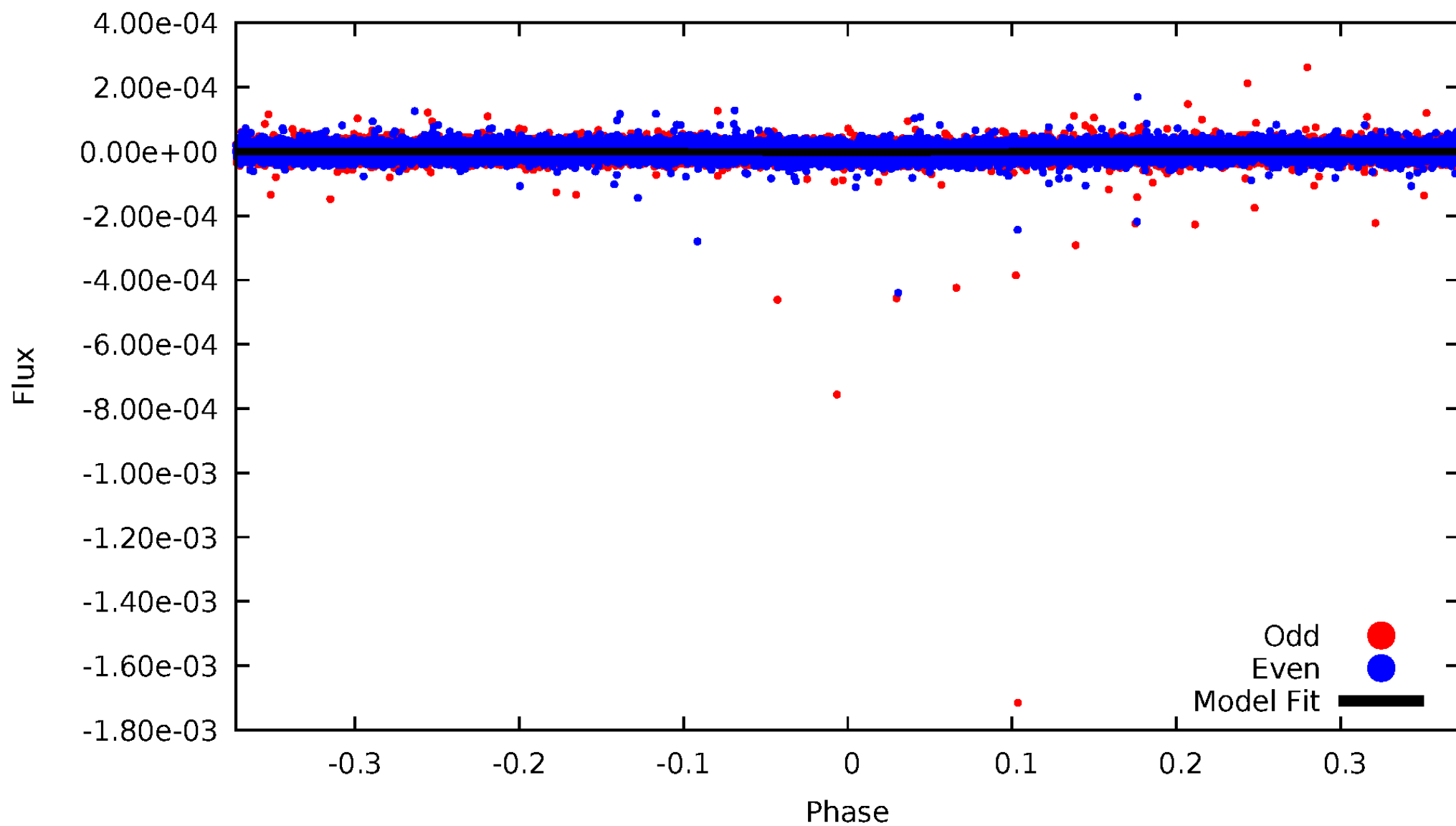


TCE 004373195-01



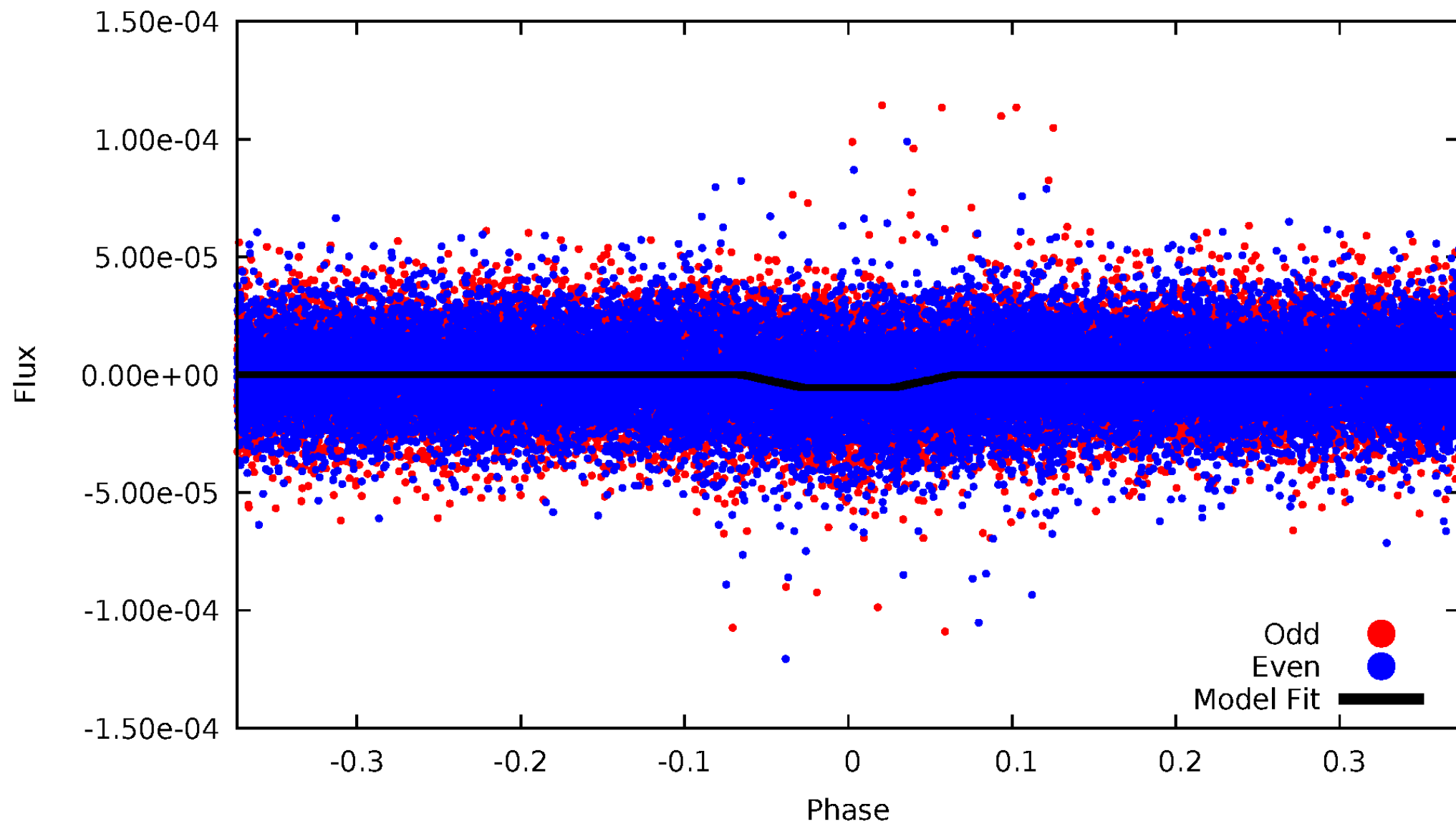
DV Odd/Even

TCE 004373195-01



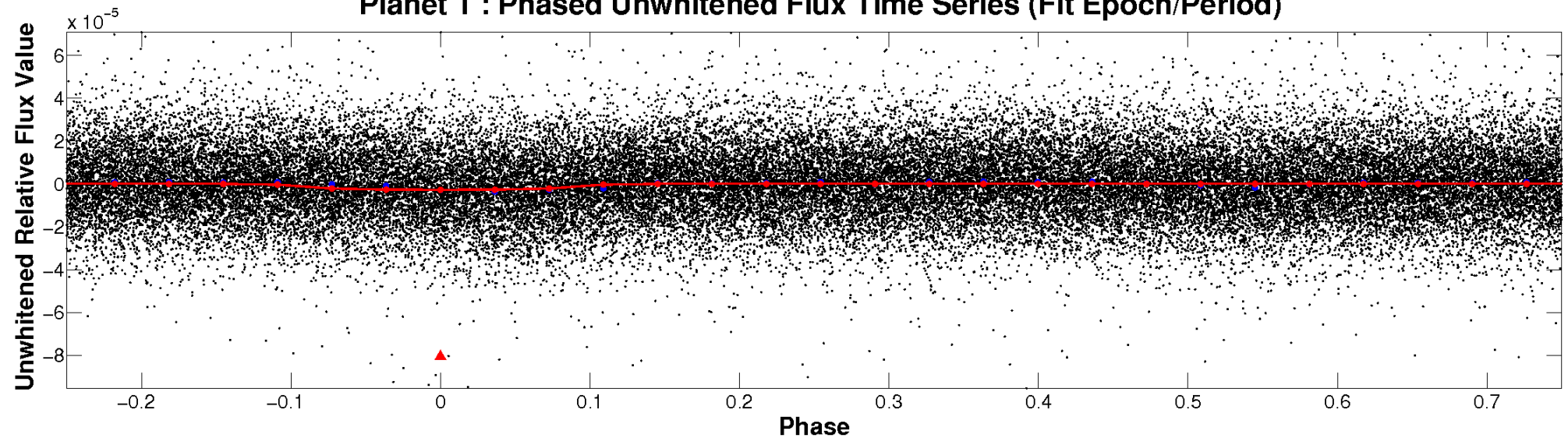
ALT Odd/Even

TCE 004373195-01

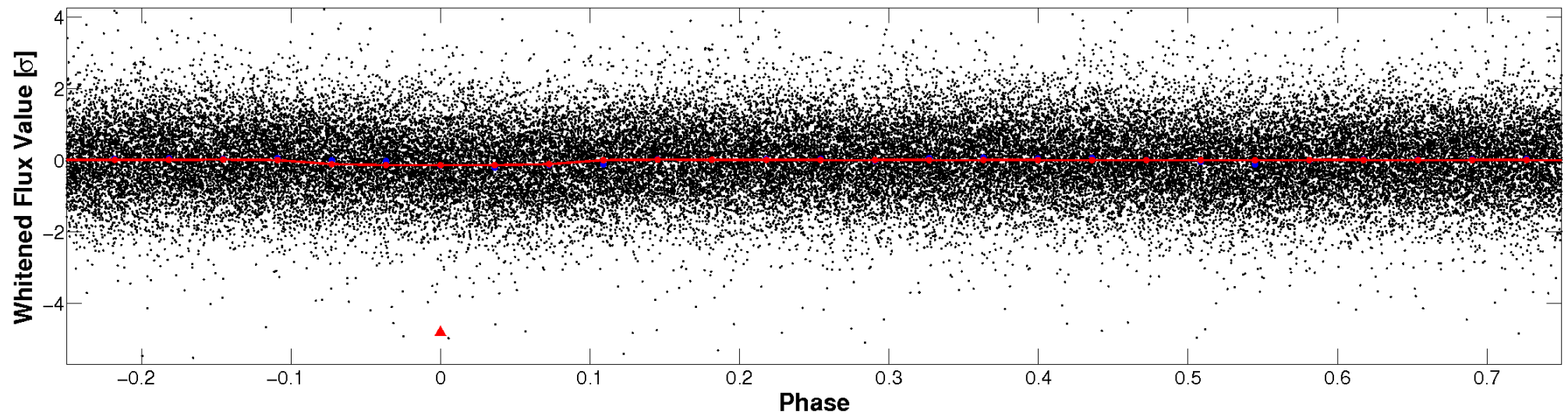


Non-Whitened Vs. Whitened Light Curve

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

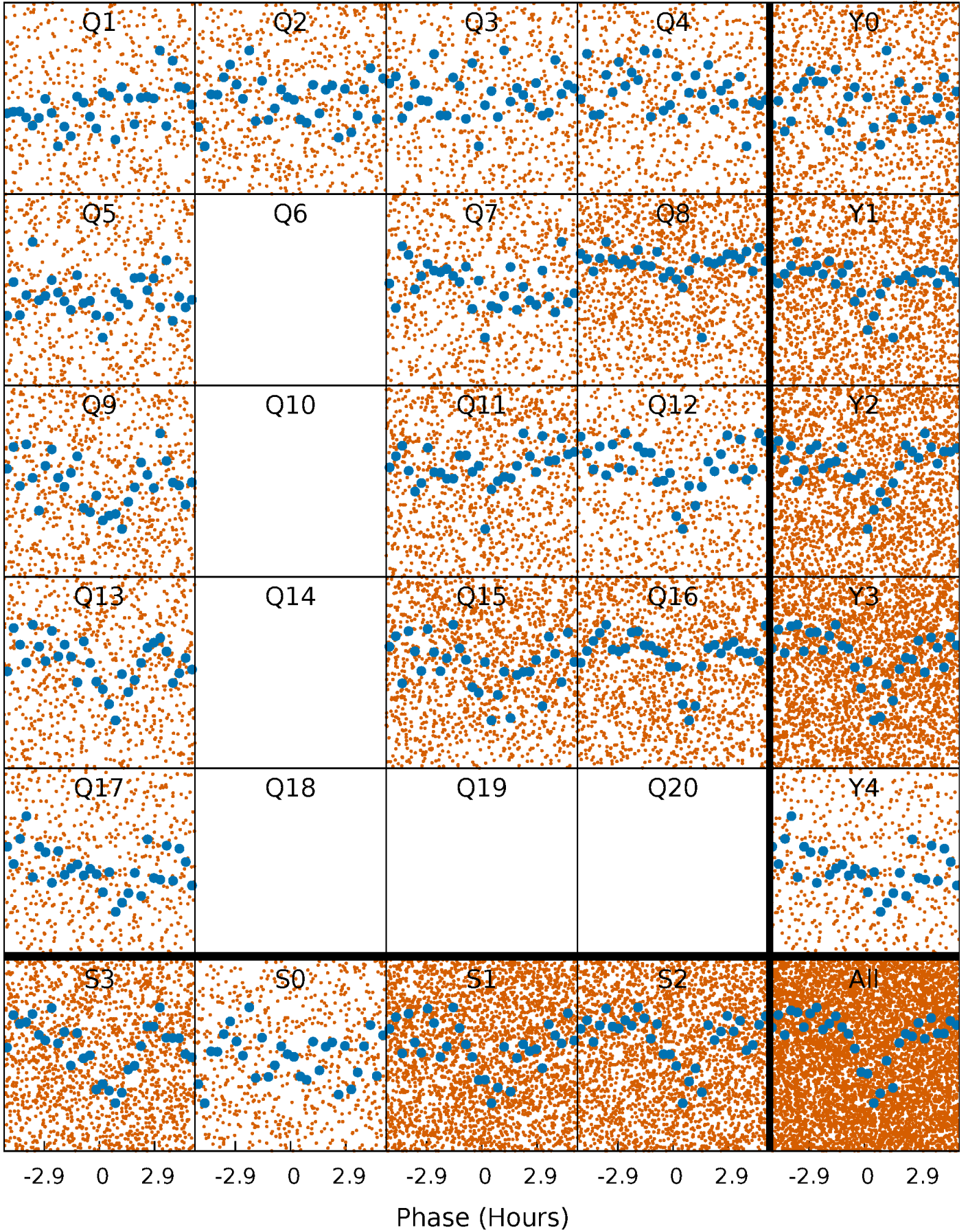


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



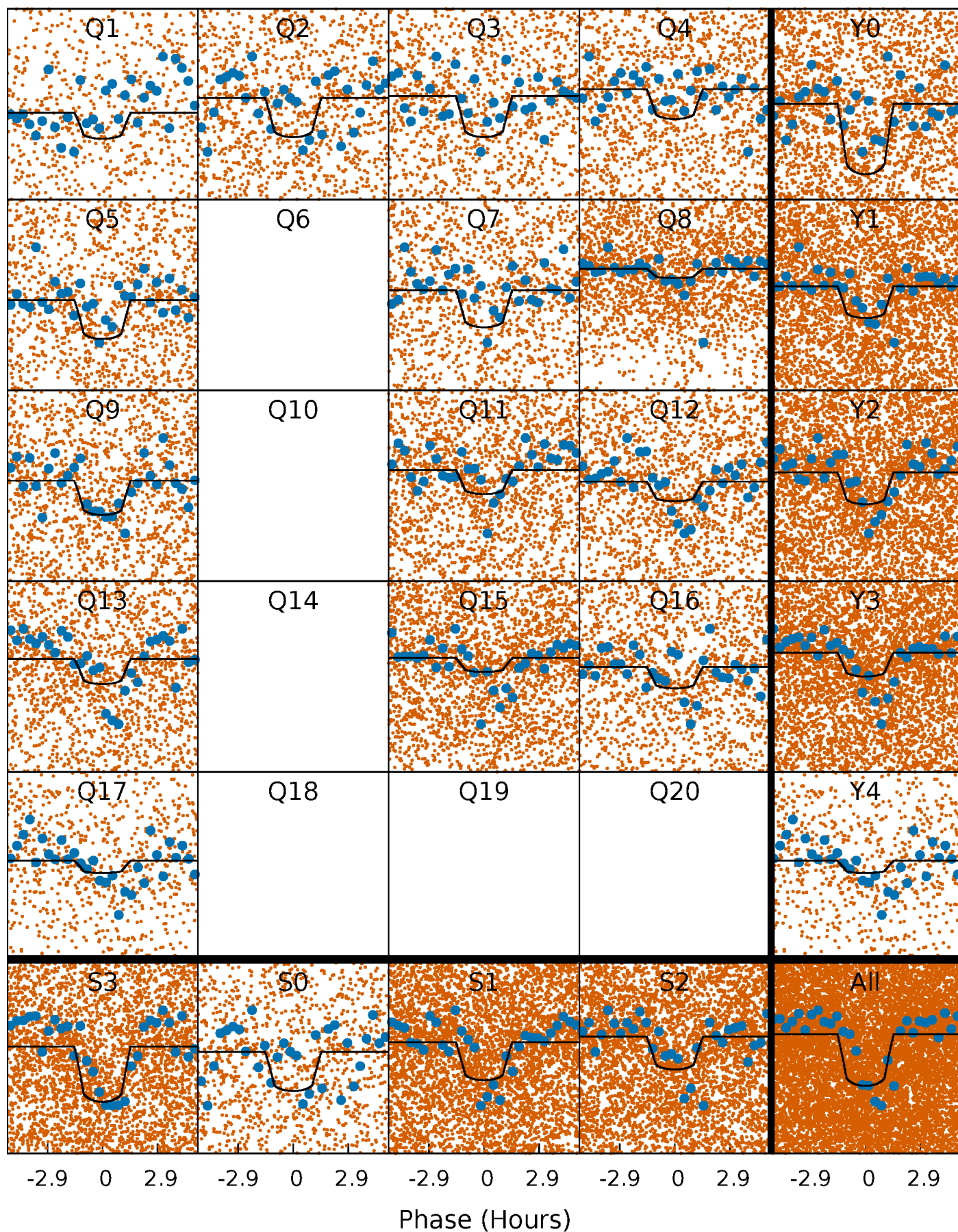
PDC Quarter-Phased Transit Curves

TCE 004373195-01 P= 0.562550 Days $T_0=131.733801$ (BKJD)



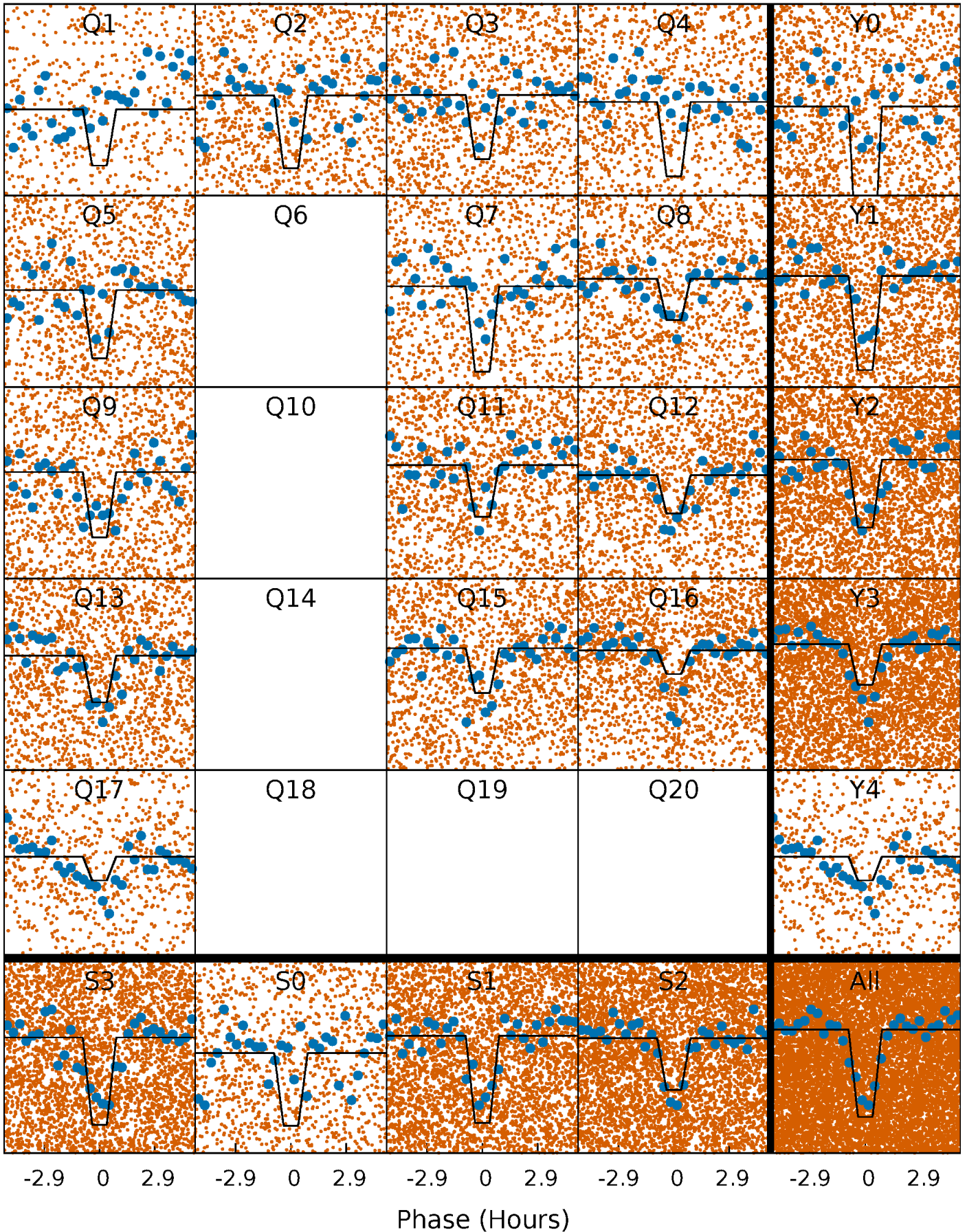
DV Quarter-Phased Transit Curves

TCE 004373195-01 P= 0.562550 Days $T_0=131.733801$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

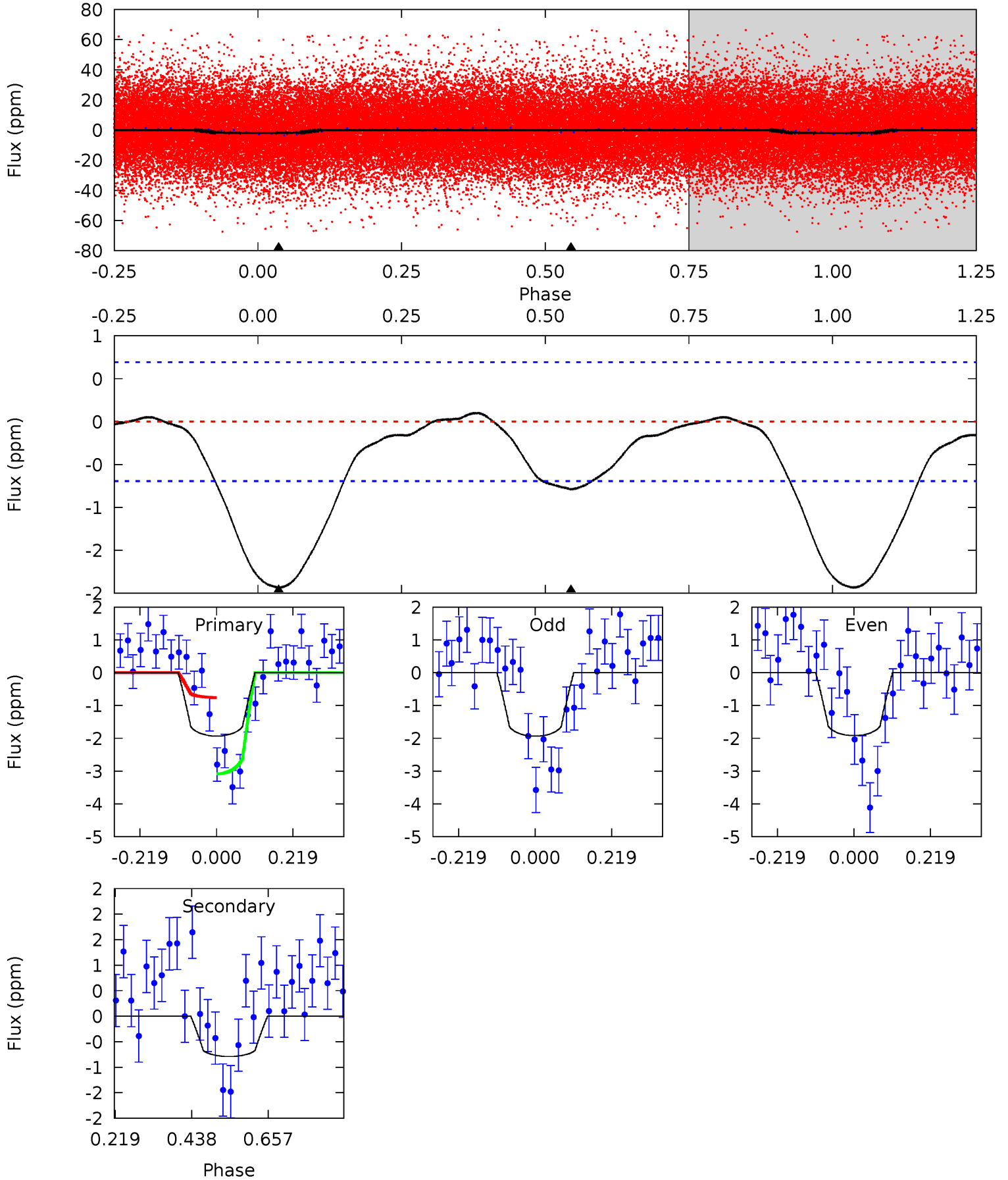
TCE 004373195-01 P= 0.562566 Days $T_0=131.729259$ (BKJD)



DV Model-Shift Uniqueness Test

004373195-01, P = 0.562550 Days, E = 131.171251 Days

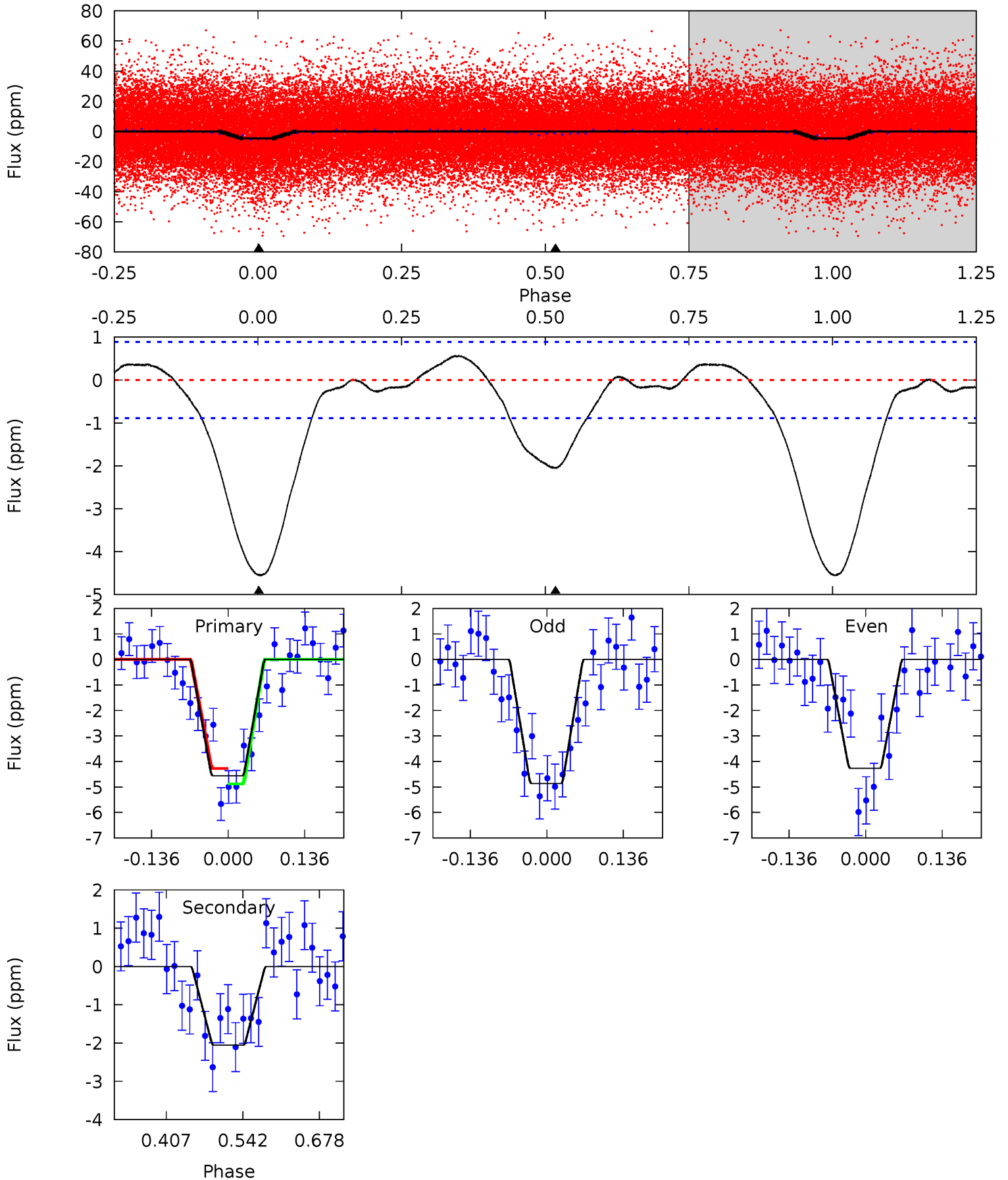
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.3	5.01	0	0	4.40	1.23	0.43	12.3	12.3	5.01	5.01	0.05	1.03	0.05	7.45



Alt Model-Shift Uniqueness Test

004373195-01, P = 0.562566 Days, E = 131.166693 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.2	10.4	0	0	4.50	1.49	1.29	23.2	23.2	10.4	10.4	1.53	1.02	0.11	1.55



Stellar Parameters For KIC 004373195

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9005^{+595}_{-727}	$3.840^{+0.384}_{-0.096}$	$-0.380^{+0.100}_{-0.150}$	$2.773^{+0.404}_{-1.213}$	$1.941^{+0.254}_{-0.350}$	$0.128^{+0.450}_{-0.038}$
	+7%/-8%	+10%/-2%	+26%/-39%	+15%/-44%	+13%/-18%	+350%/-29%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004373195-01 / KOI 7692.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 0	$0.51^{+0.08}_{-0.11}$	6927^{+696}_{-859}	4785^{+827}_{-1181}	$0.476^{+0.284}_{-0.149}$
Alt.	-2 ± 0	$0.67^{+0.10}_{-0.14}$	6918^{+663}_{-804}	5834^{+575}_{-581}	$0.702^{+0.397}_{-0.163}$

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

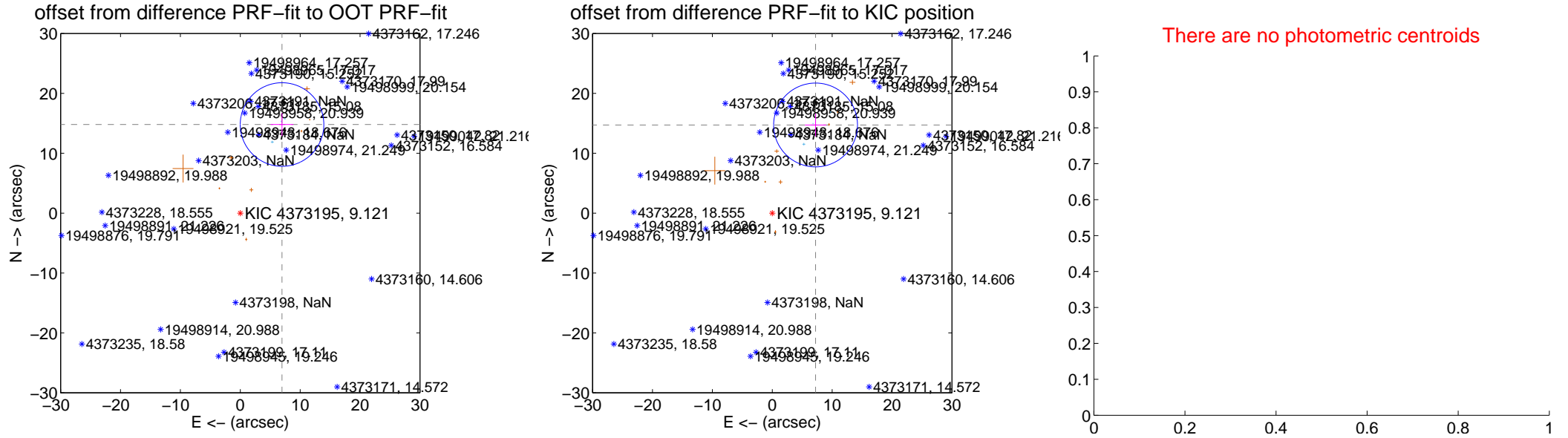
DV Centroid Data

Supplemental centroid analysis for 004373195-01. **Kepler magnitude: 9.12.** Transit SNR 12.09

There are 3 quarters with good PRF difference image offsets

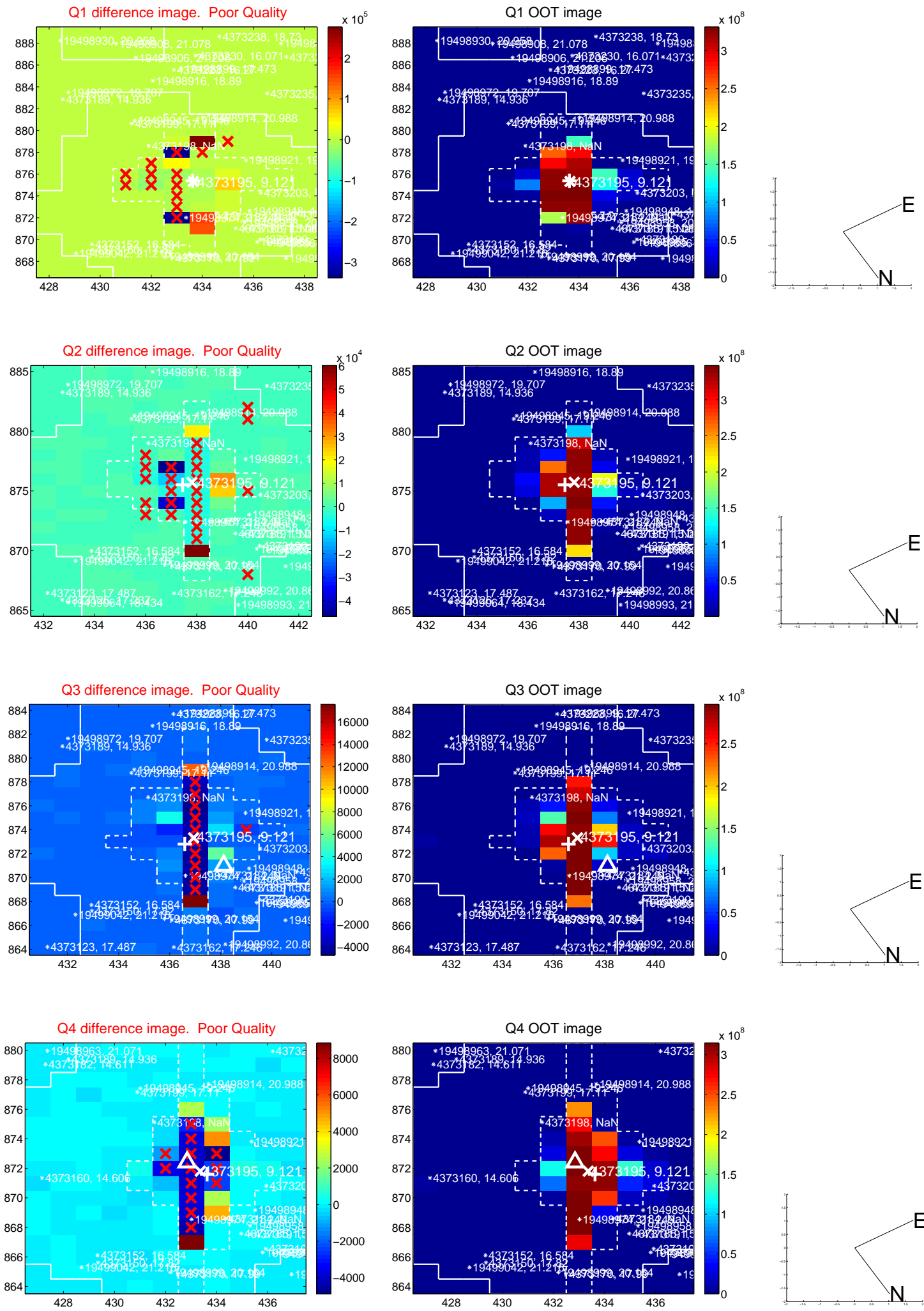
The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	16.357 ± 2.326	7.03	-6.971 ± 1.889	14.797 ± 1.910
PRF-fit source offset from KIC position	16.401 ± 2.333	7.03	-7.229 ± 1.767	14.722 ± 1.906
photometric centroid source offset	—	—	—	—

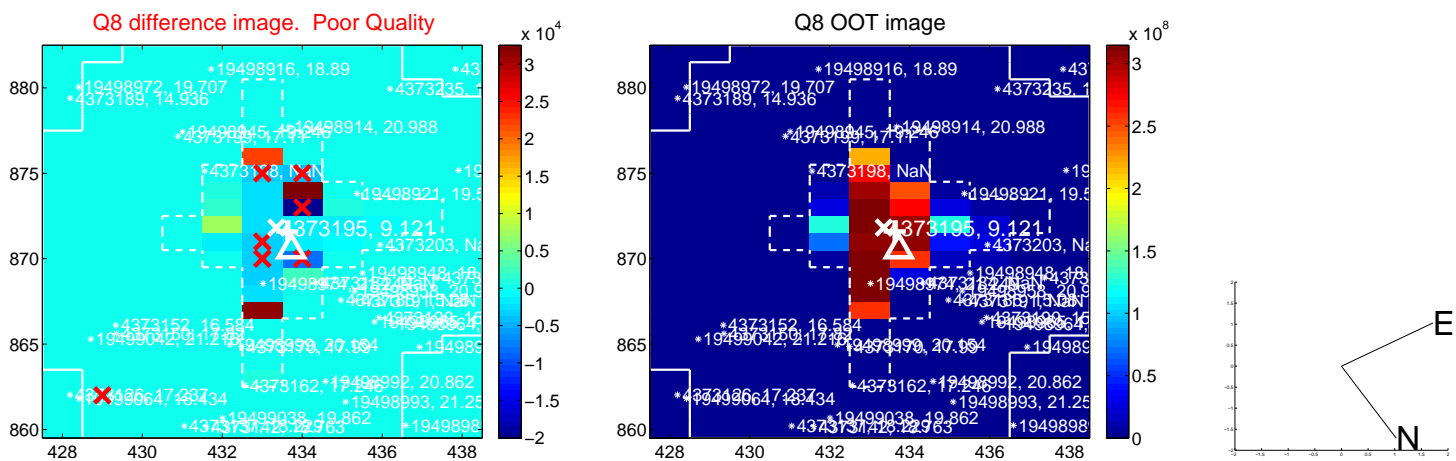
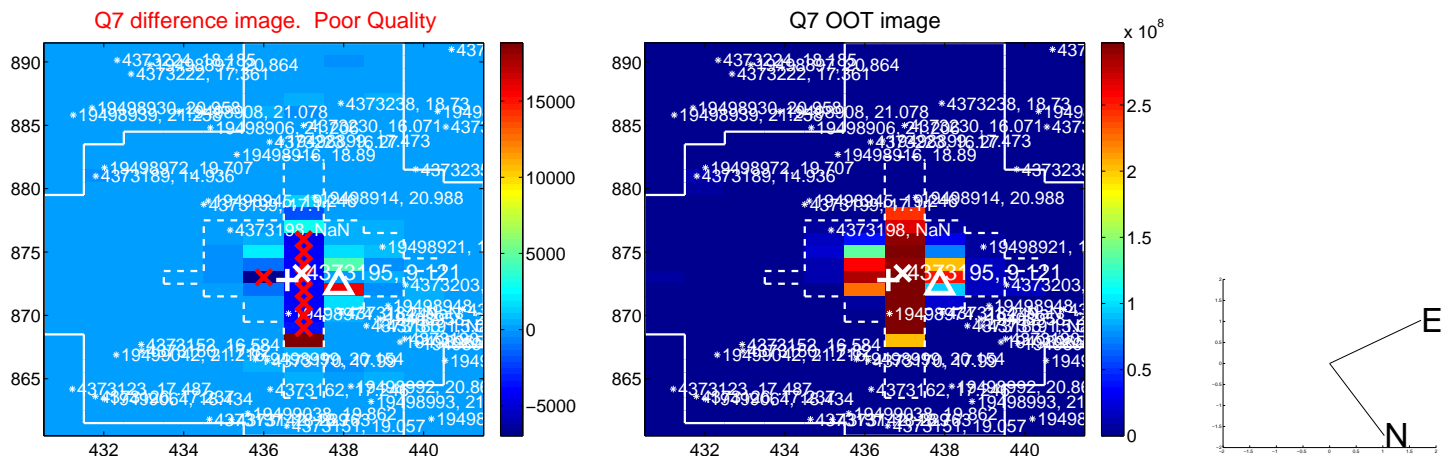
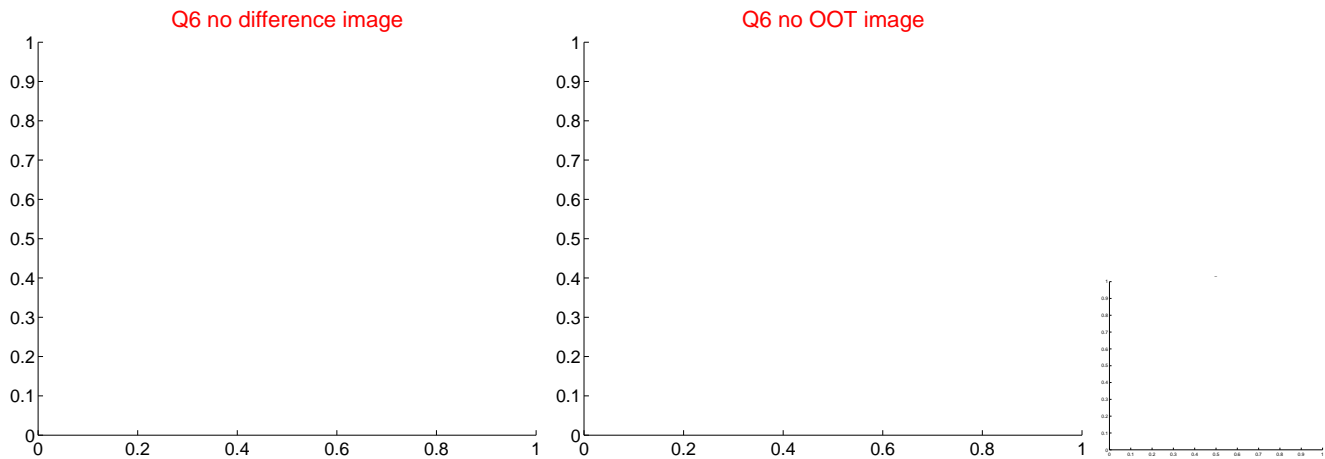
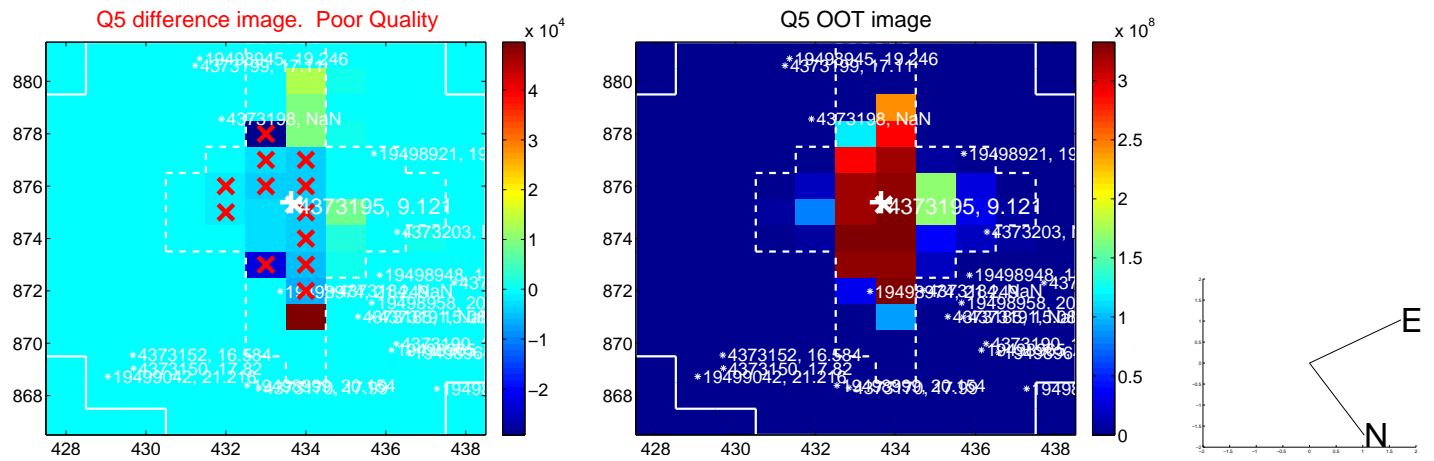


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

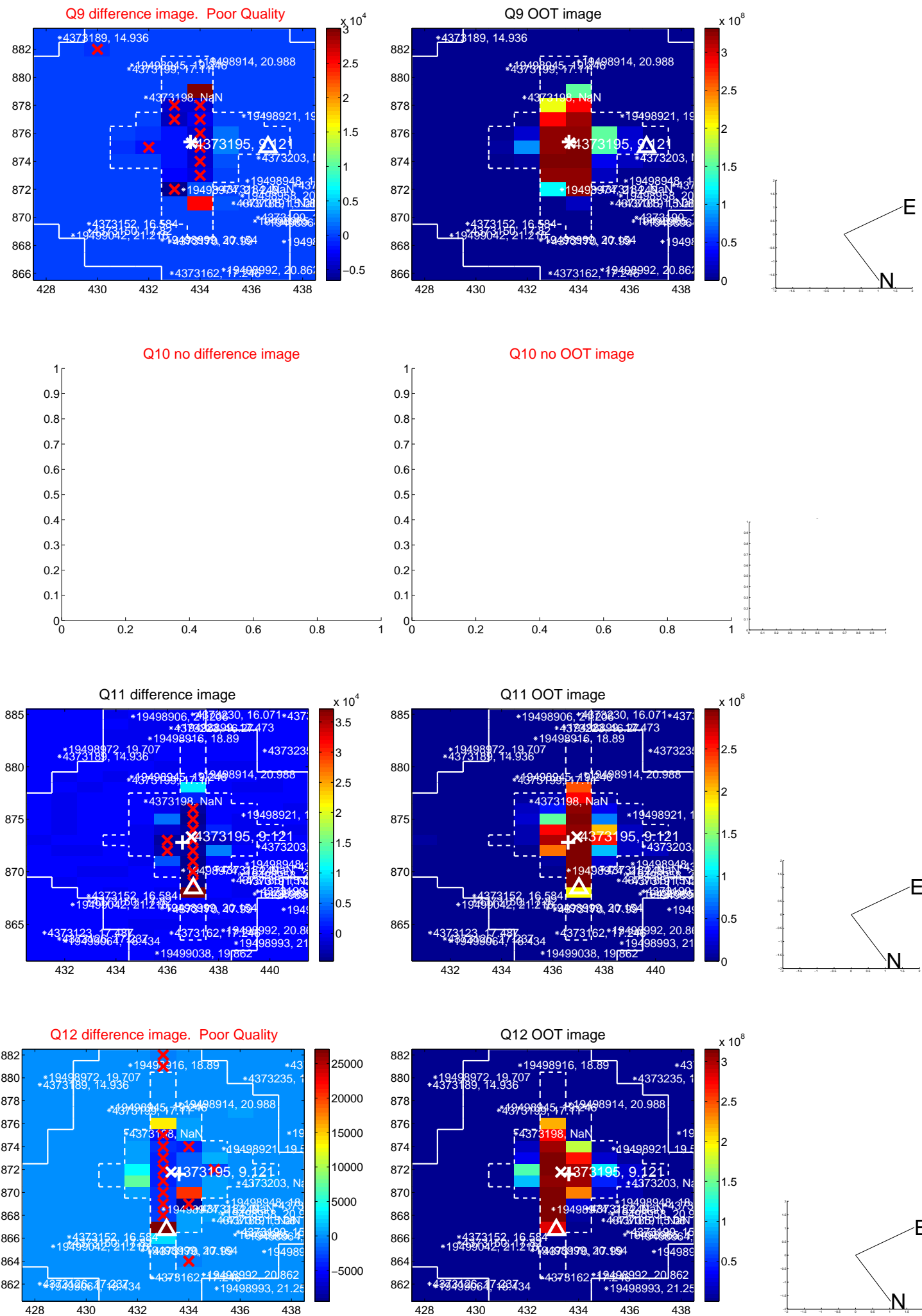
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



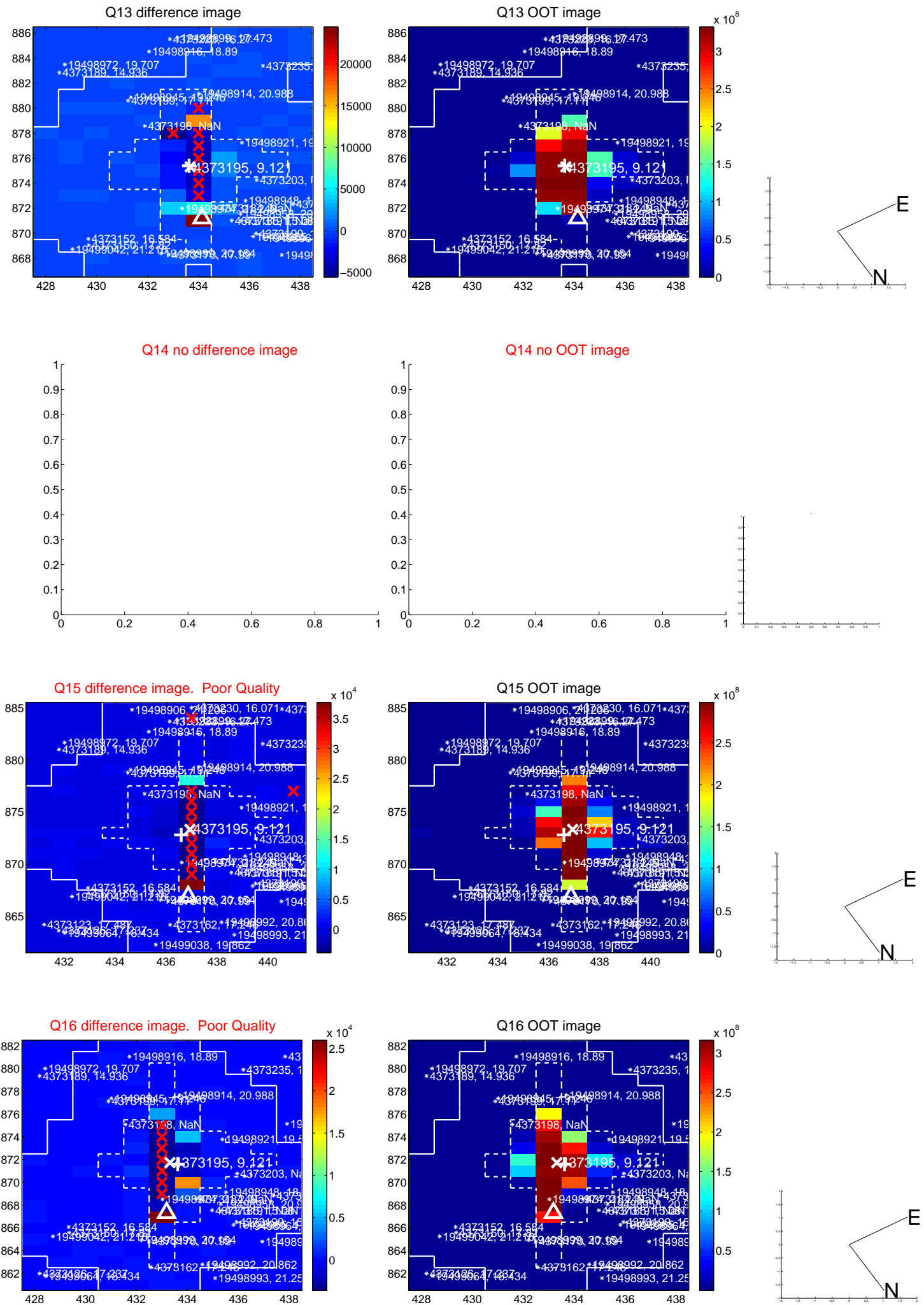
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



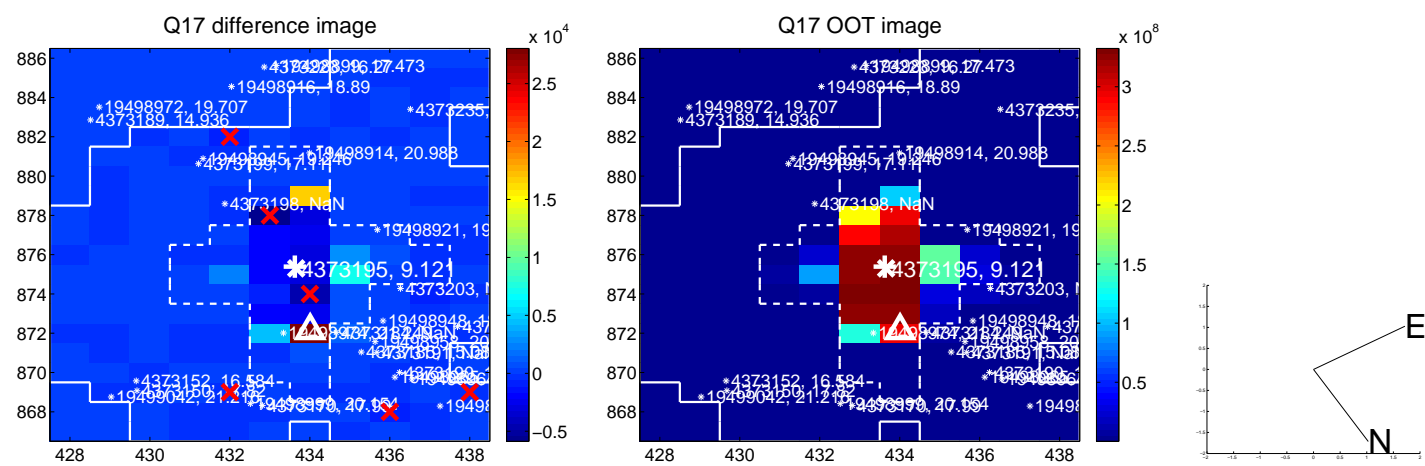
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

