

KIC 010557395

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})
010557395-01	OBS	No	0.678326	131.540634	26.8	6.612	8.1	9.1	1.98	4876	1.09	9065.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010557395-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

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

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

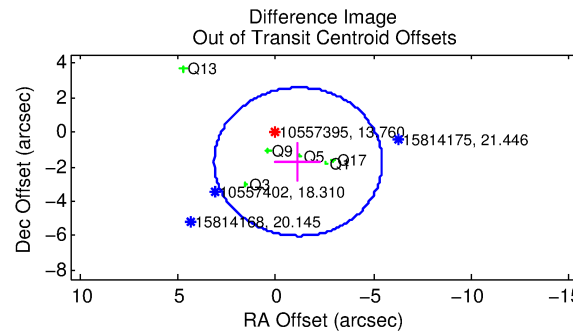
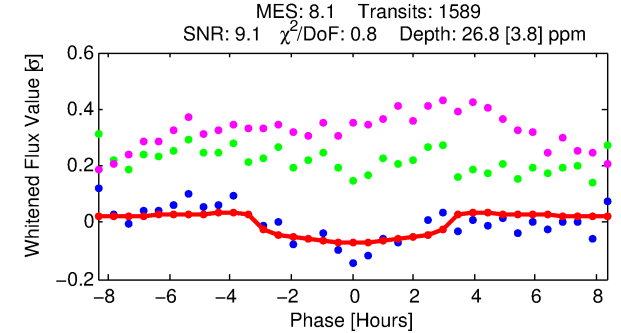
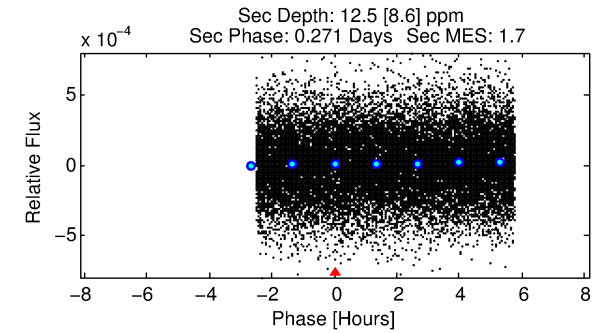
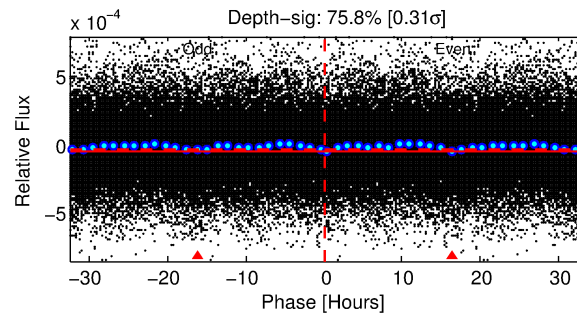
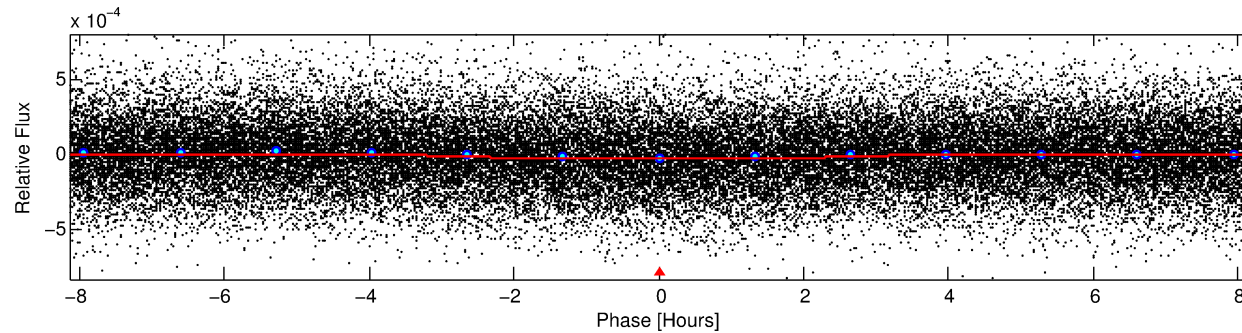
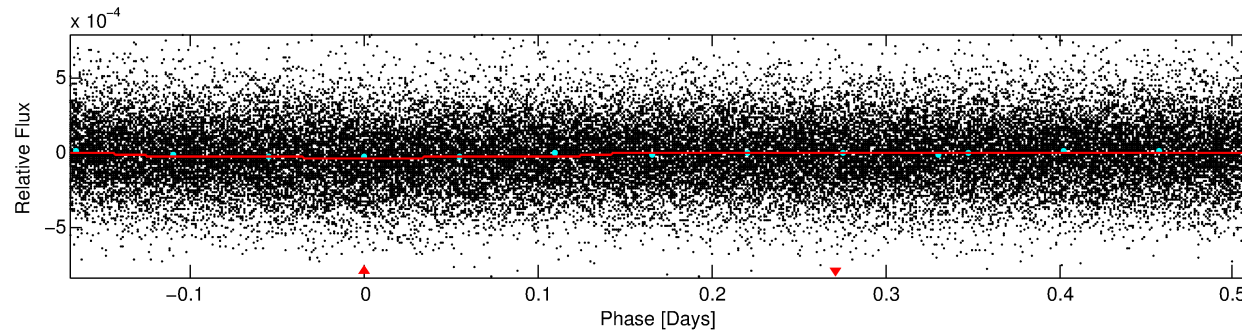
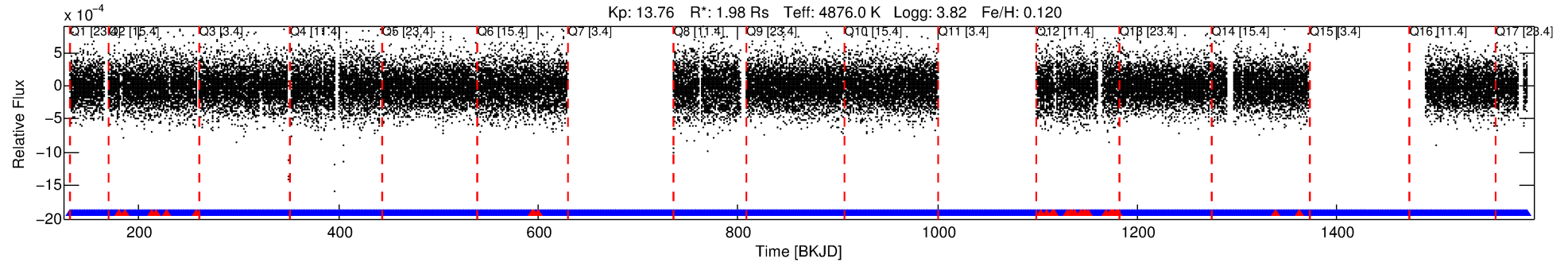
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010557395-01

No Significant Match Found

DV One-Page Summary

KIC: 10557395 Candidate: 1 of 1 Period: 0.678 d



DV Fit Results:

Period = 0.67833 [0.00001] d
Epoch = 131.5406 [0.0057] BKJD
Rp/R* = 0.0050 [0.0022]
a/R* = 1.03 [0.08]
b = 0.69 [1.13]
Seff = 9065.30 [11257.87]
Teff = 2488 [772] K
Rp = 1.09 [0.84] Re
a = 0.0148 [0.0107] AU
Ag = 1.26 [2.09] [0.13σ]
Teffp = 4078 [1127] K [1.16σ]

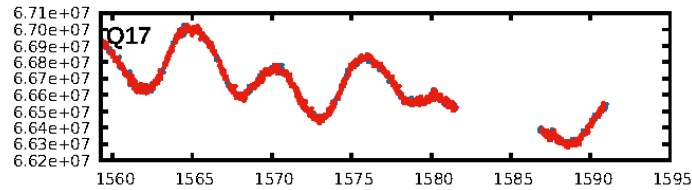
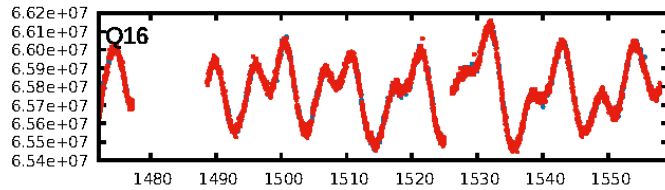
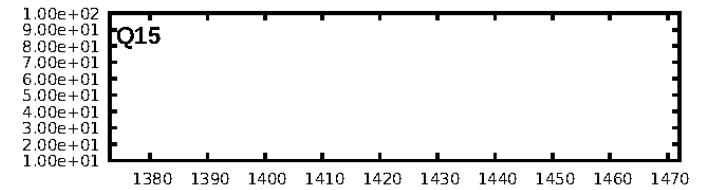
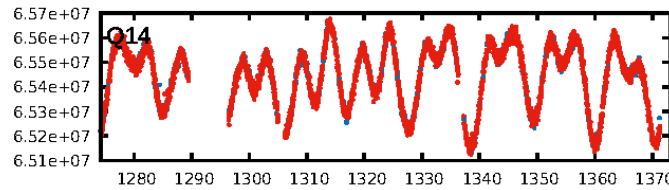
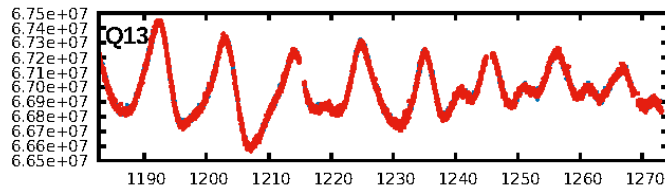
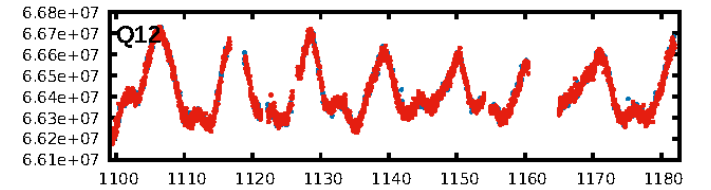
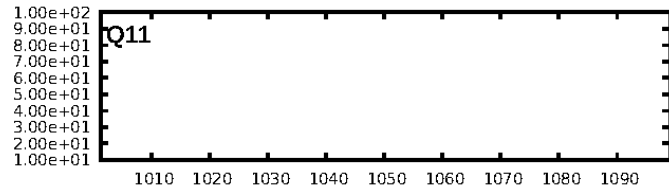
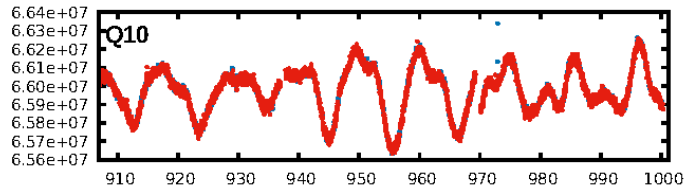
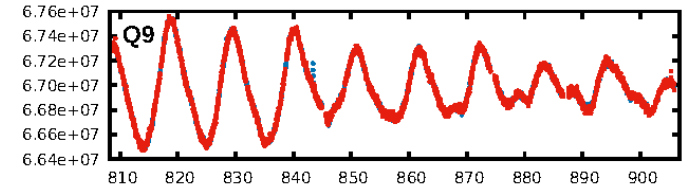
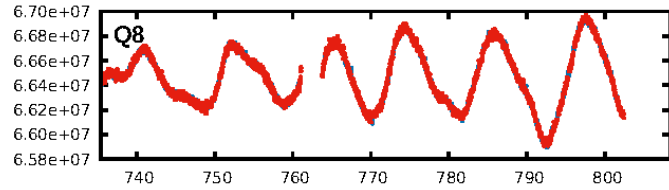
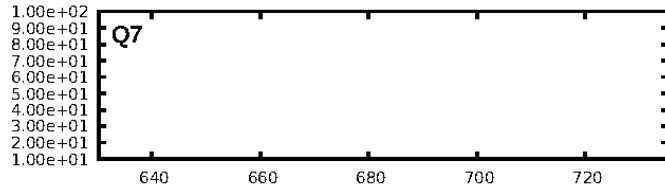
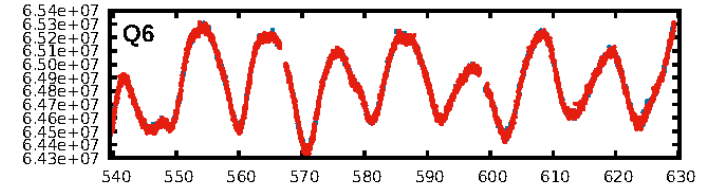
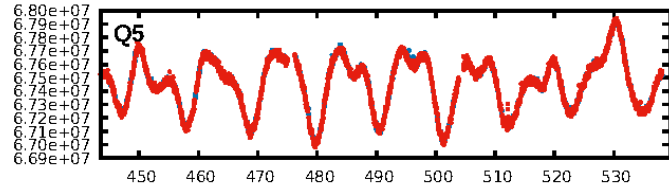
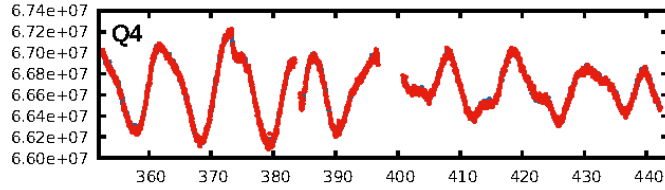
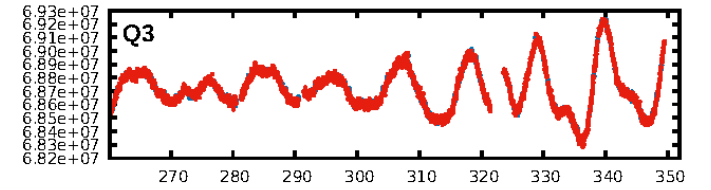
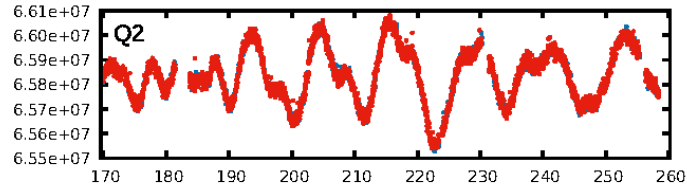
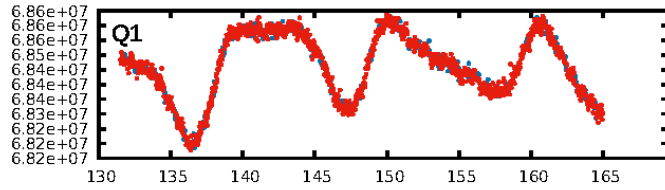
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1469/1500]
GhostDiagnostic-chr: 886.9
Centroid-sig: 5.1%
Centroid-so: 0.972 arcsec [0.86σ]
OotOffset-rm: 2.069 arcsec [1.45σ]
OotOffset-st: 0.1/0/5 [6]
KicOffset-rm: 2.073 arcsec [2.32σ]
KicOffset-st: 0.1/0/5 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 1.00 [14/14]

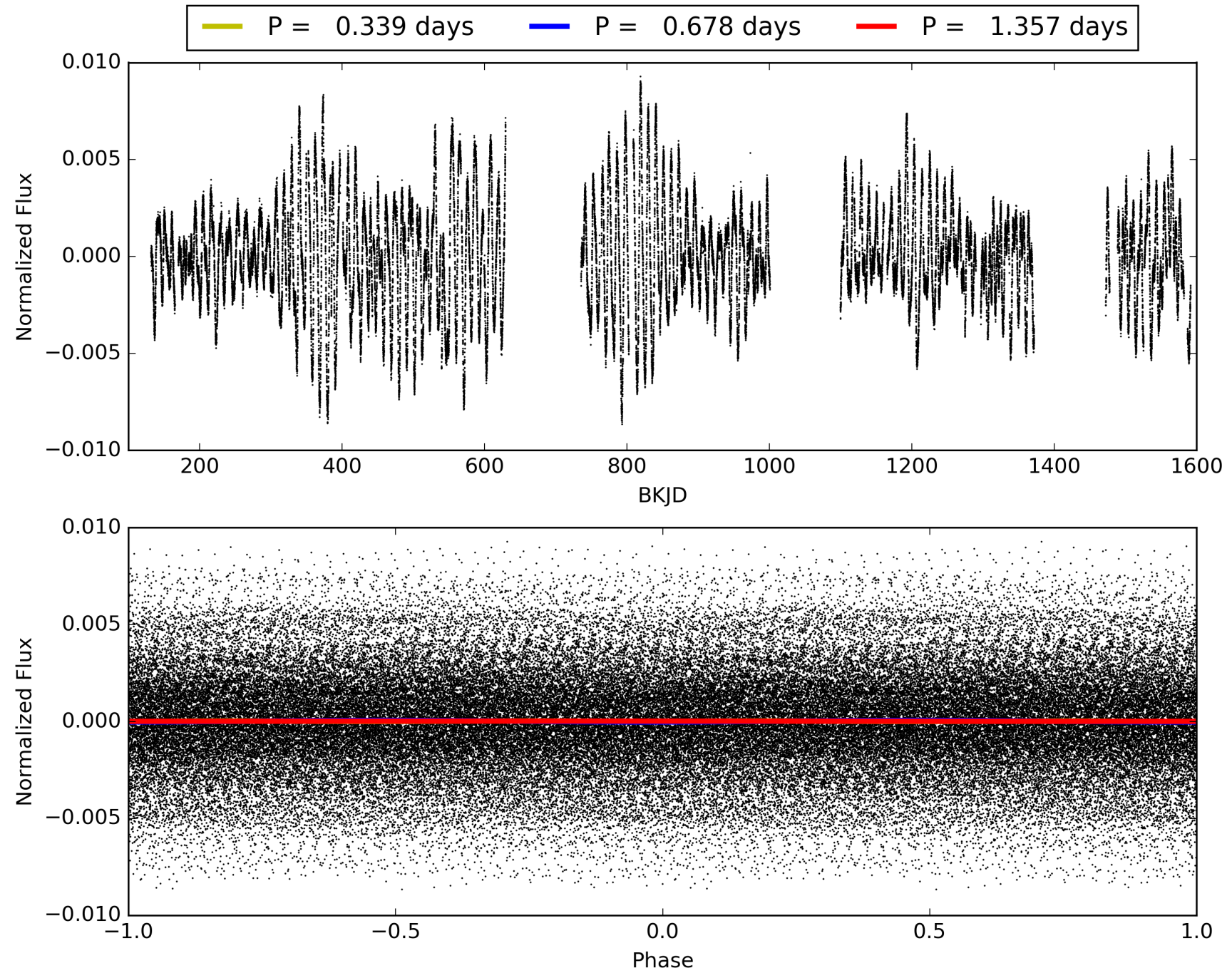
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:15:39 Z

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

TCE 010557395-01, PDC Light Curves

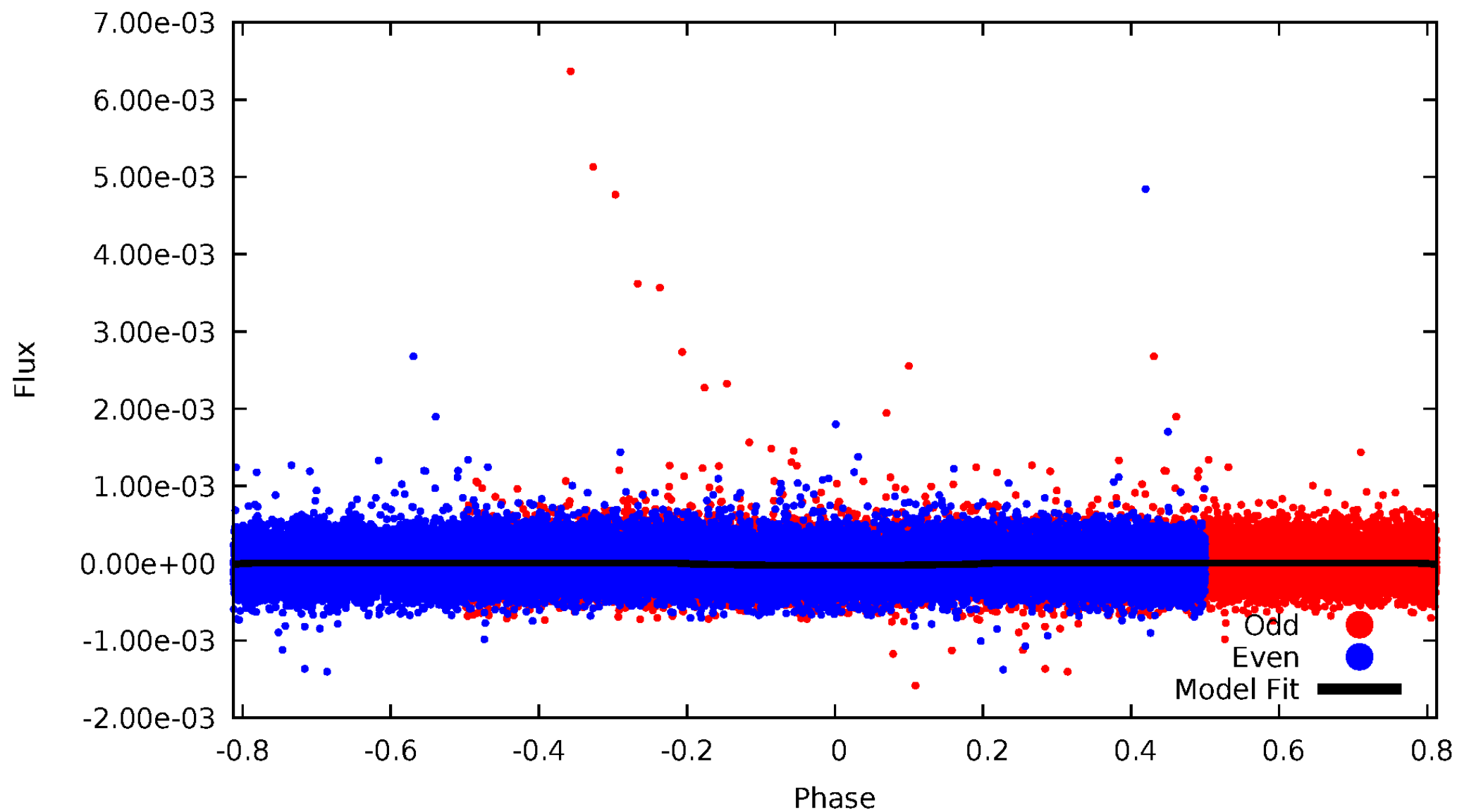


TCE 010557395-01



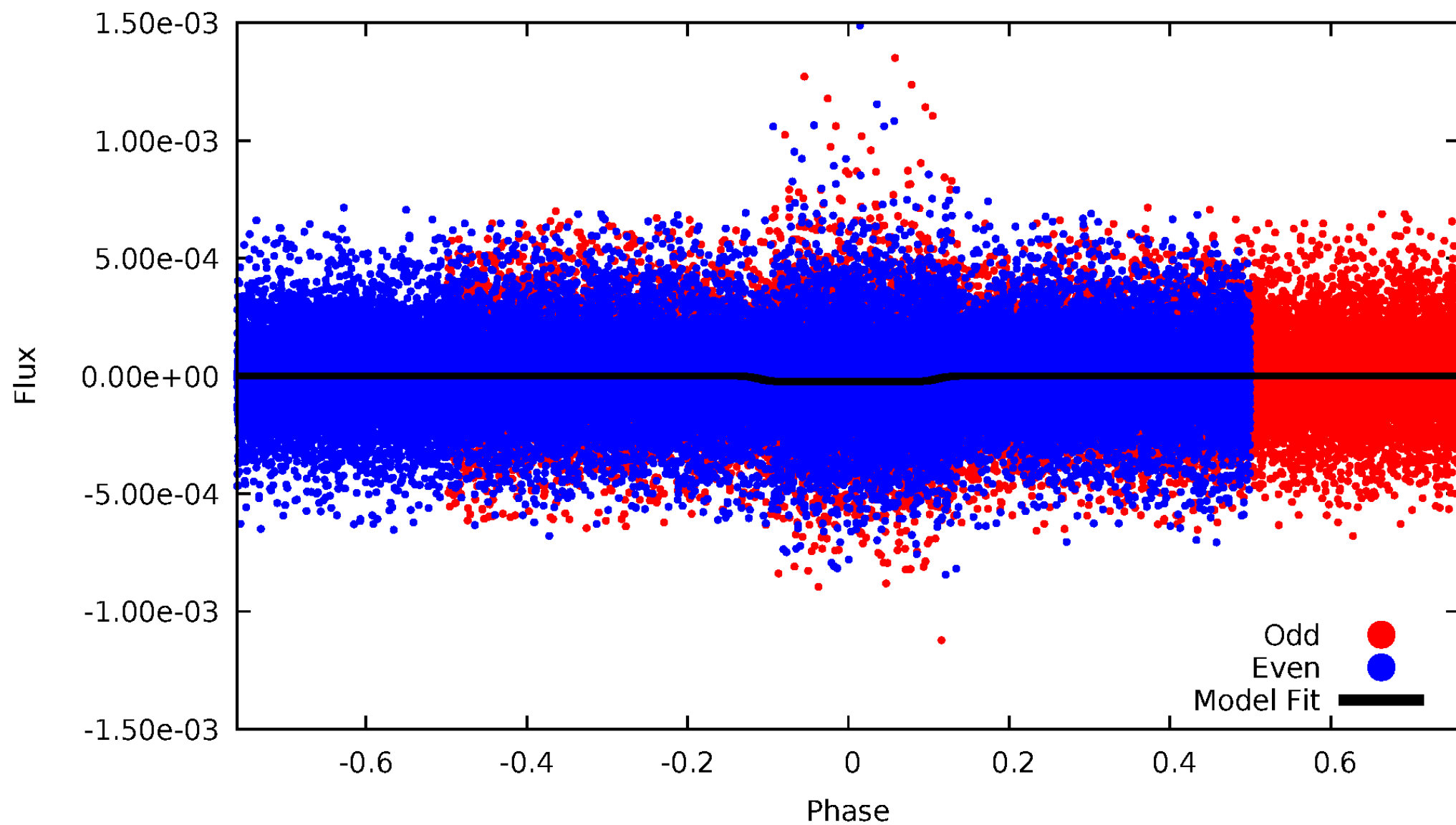
DV Odd/Even

TCE 010557395-01



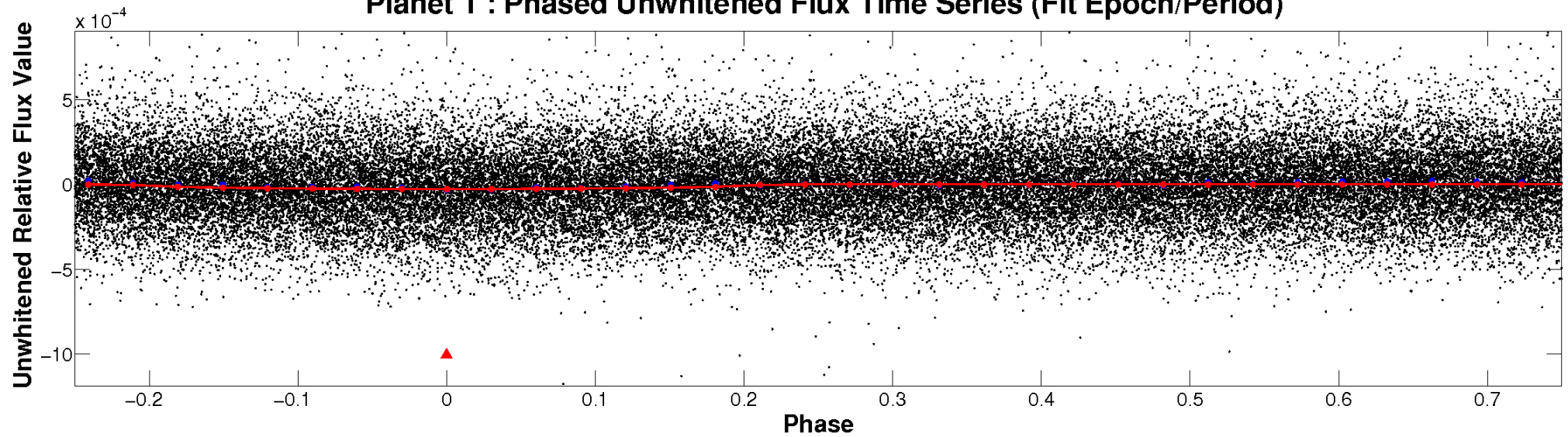
ALT Odd/Even

TCE 010557395-01

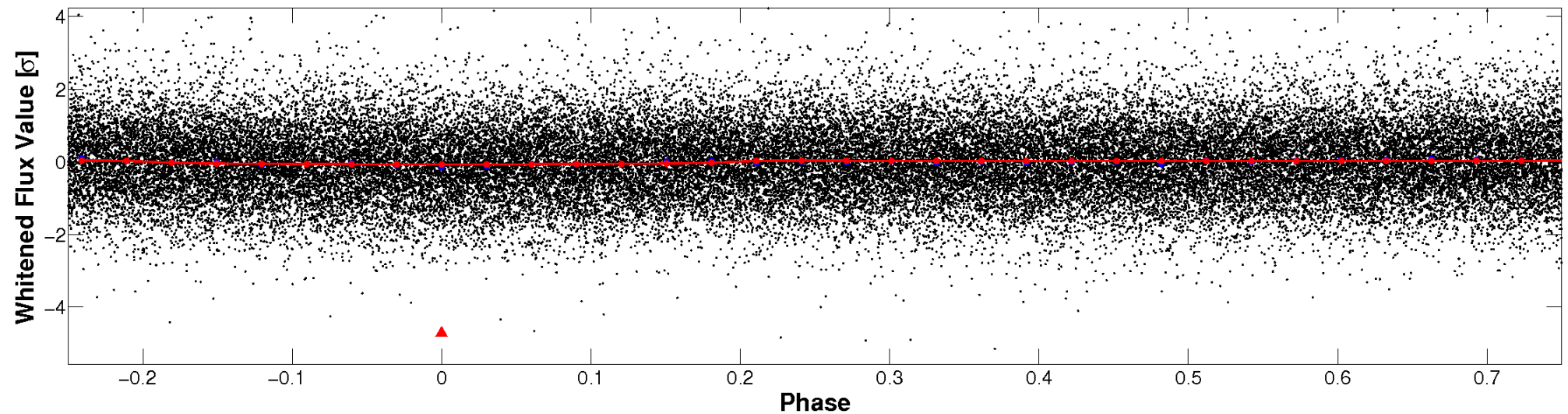


Non-Whitened Vs. Whitened Light Curve

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

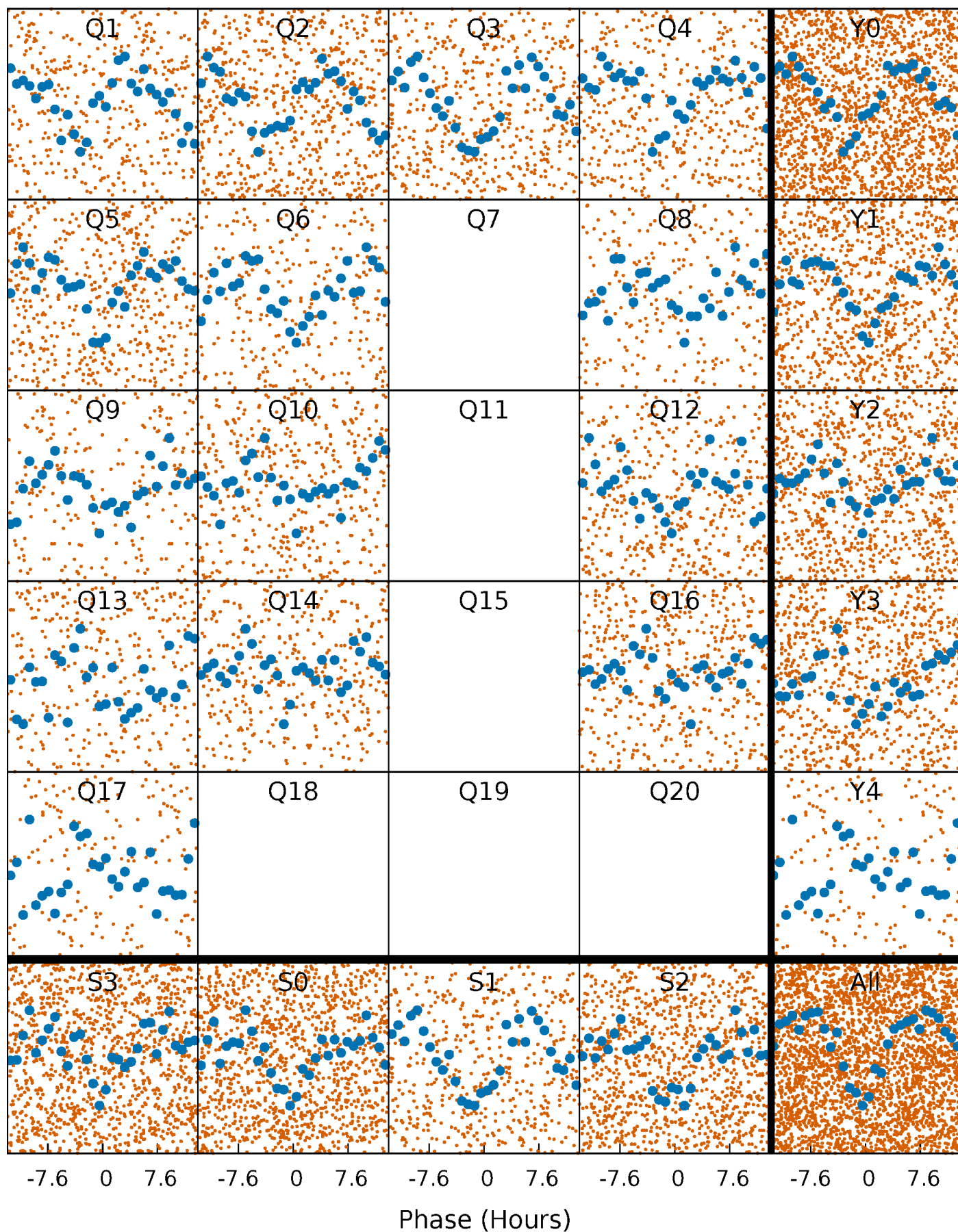


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



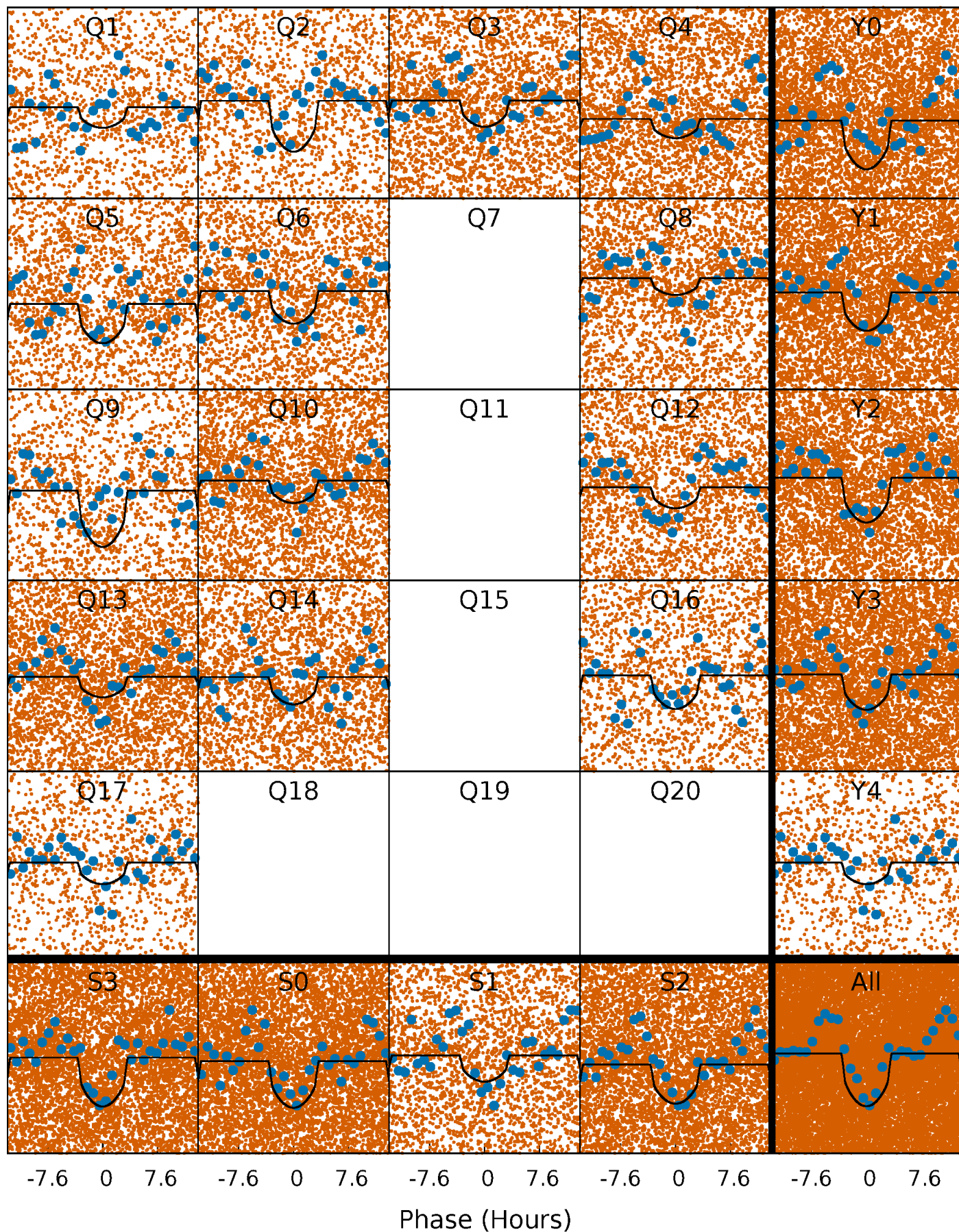
PDC Quarter-Phased Transit Curves

TCE 010557395-01 P= 0.678326 Days $T_0=131.540634$ (BKJD)



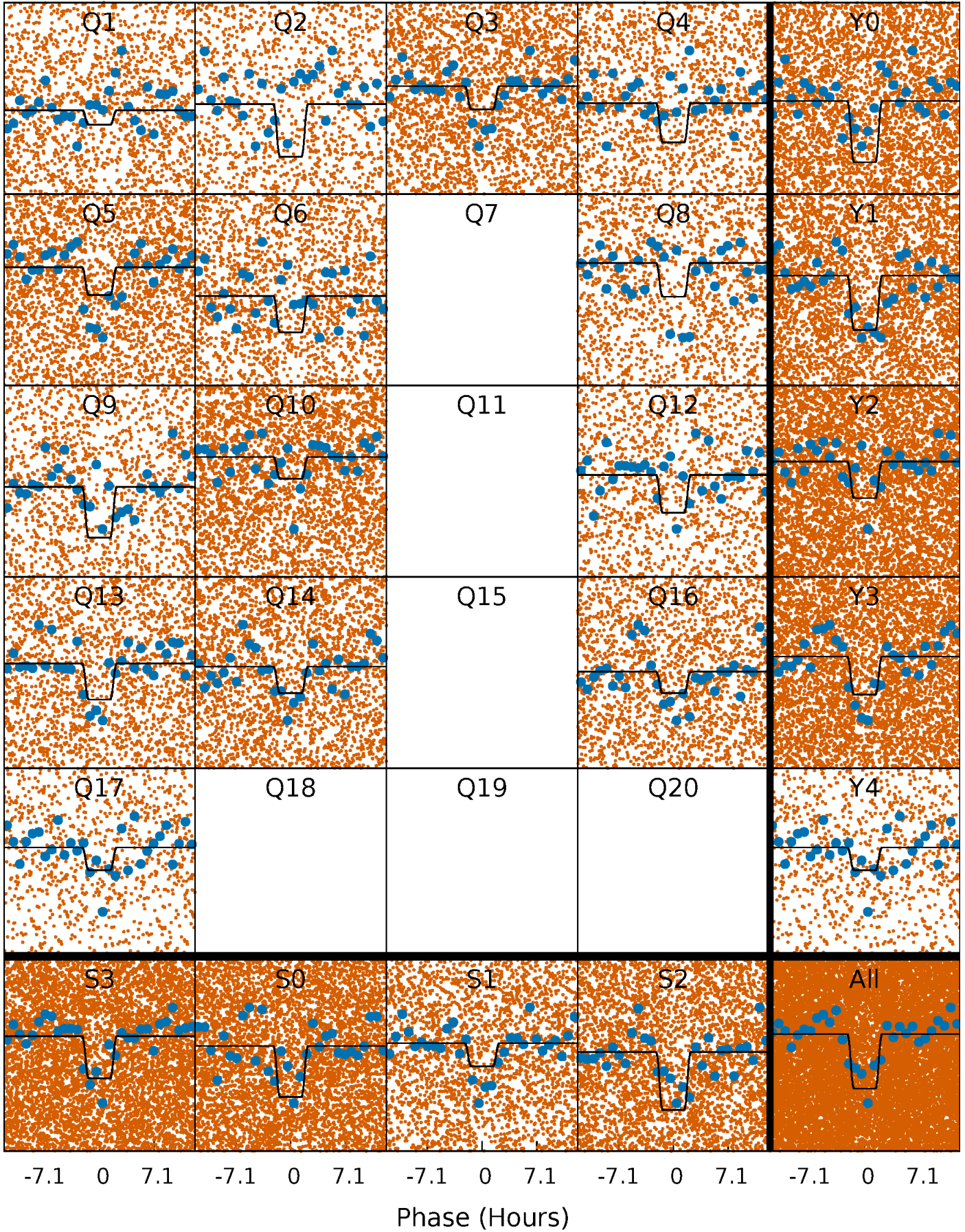
DV Quarter-Phased Transit Curves

TCE 010557395-01 P= 0.678326 Days $T_0=131.540634$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

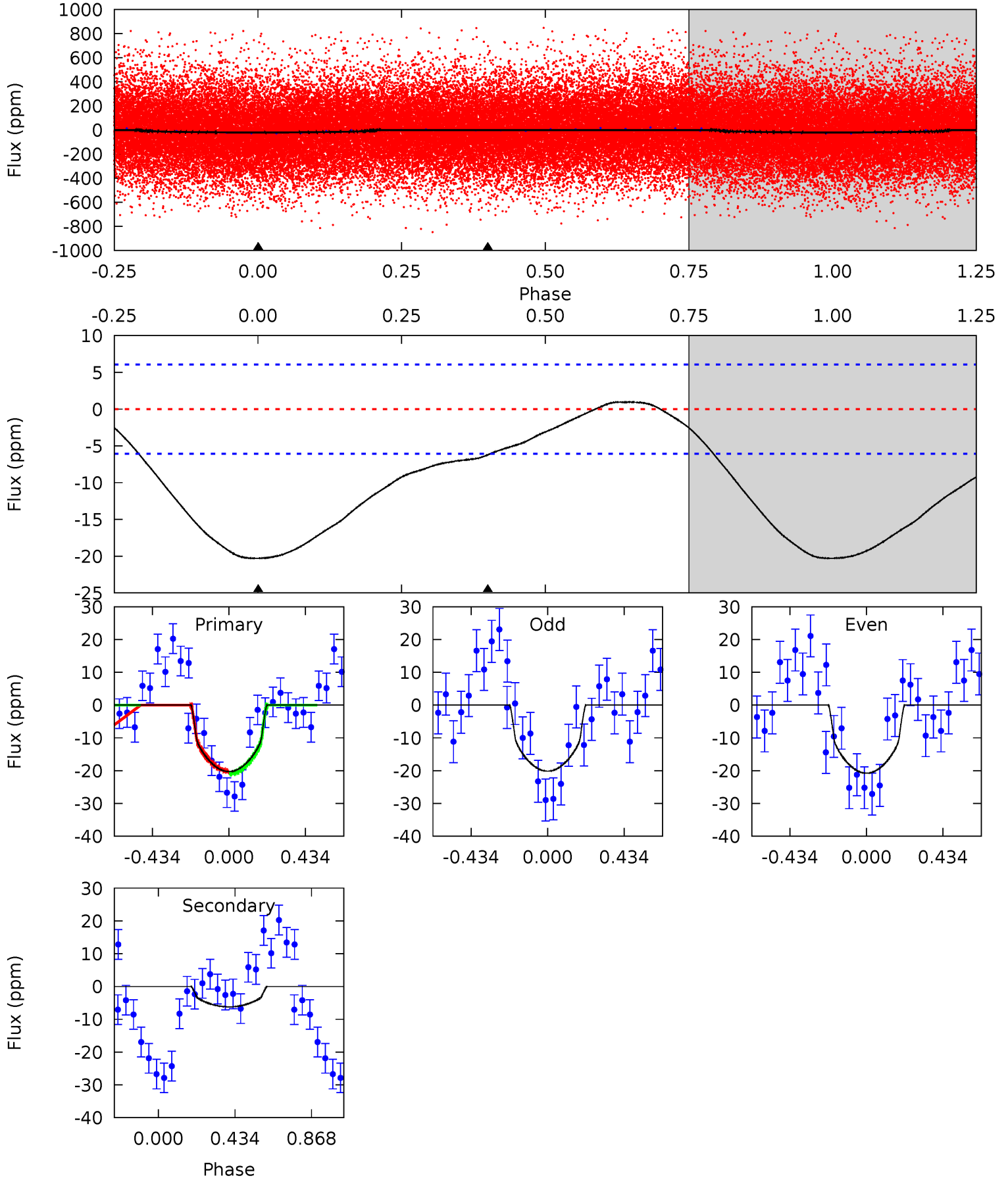
TCE 010557395-01 P= 0.678318 Days $T_0=131.538725$ (BKJD)



DV Model-Shift Uniqueness Test

010557395-01, P = 0.678326 Days, E = 130.862308 Days

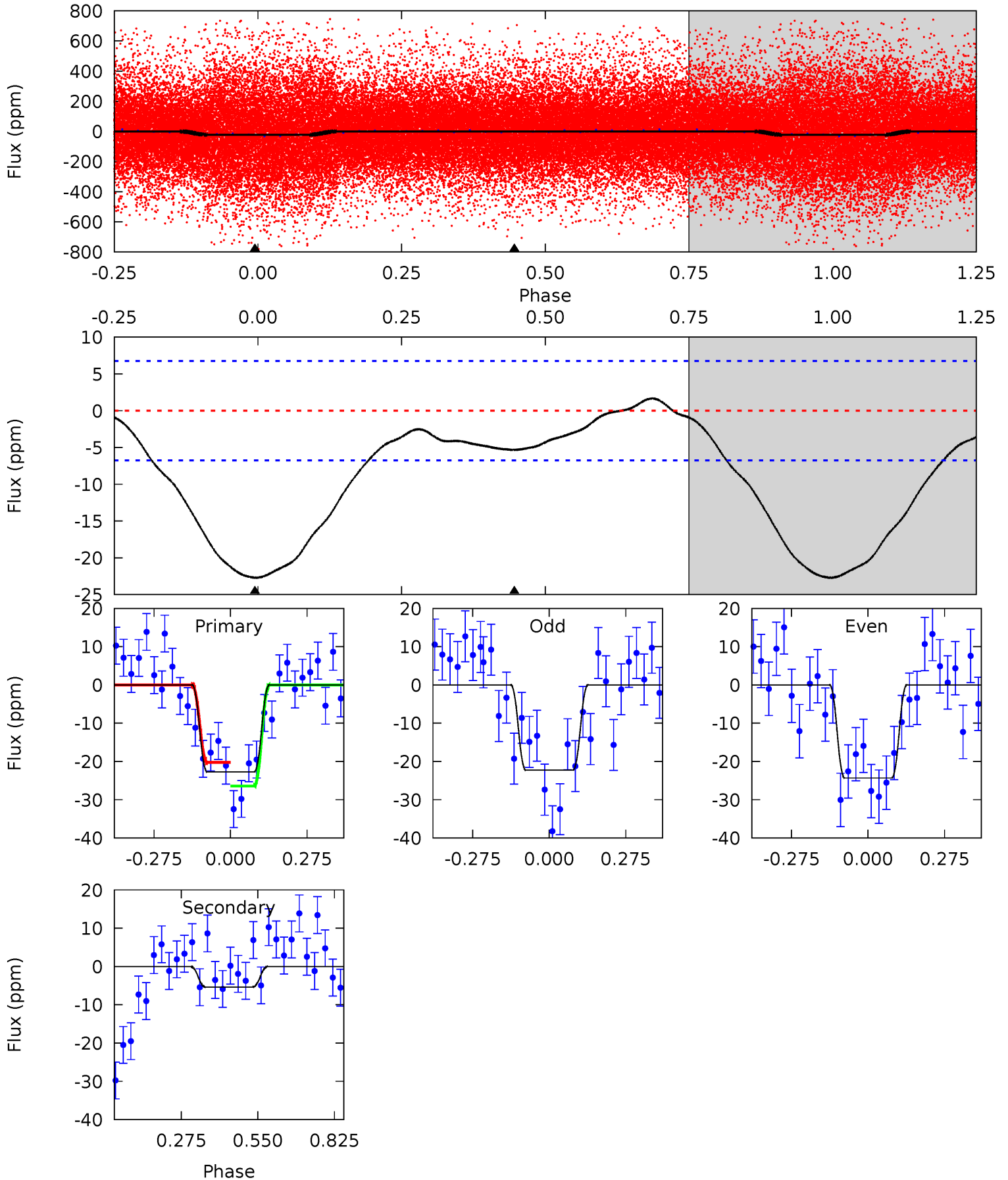
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	4.35	0	0	4.25	0.78	0.78	14.2	14.2	4.35	4.35	0.22	0.89	0.05	0.28



Alt Model-Shift Uniqueness Test

010557395-01, P = 0.678318 Days, E = 130.860407 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	3.44	0	0	4.35	1.09	0.91	14.6	14.6	3.44	3.44	0.66	0.98	0.07	1.86



Stellar Parameters For KIC 010557395

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4876^{+130}_{-130}	$3.817^{+0.756}_{-0.324}$	$0.120^{+0.250}_{-0.250}$	$1.978^{+1.041}_{-1.273}$	$0.936^{+0.209}_{-0.171}$	$0.170^{+2.917}_{-0.113}$
	+3%/-3%	+20%/-8%	+208%/-208%	+53%/-64%	+22%/-18%	+1712%/-66%
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 010557395-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 1	$1.01^{+0.64}_{-0.53}$	3460^{+471}_{-635}	3442^{+1092}_{-6039}	$0.722^{+2.386}_{-0.465}$
Alt.	-5 ± 2	$0.93^{+0.65}_{-0.46}$	3413^{+502}_{-639}	3325^{+1166}_{-5991}	$0.727^{+2.517}_{-0.479}$

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 $A_{obs} \gg 1.0$

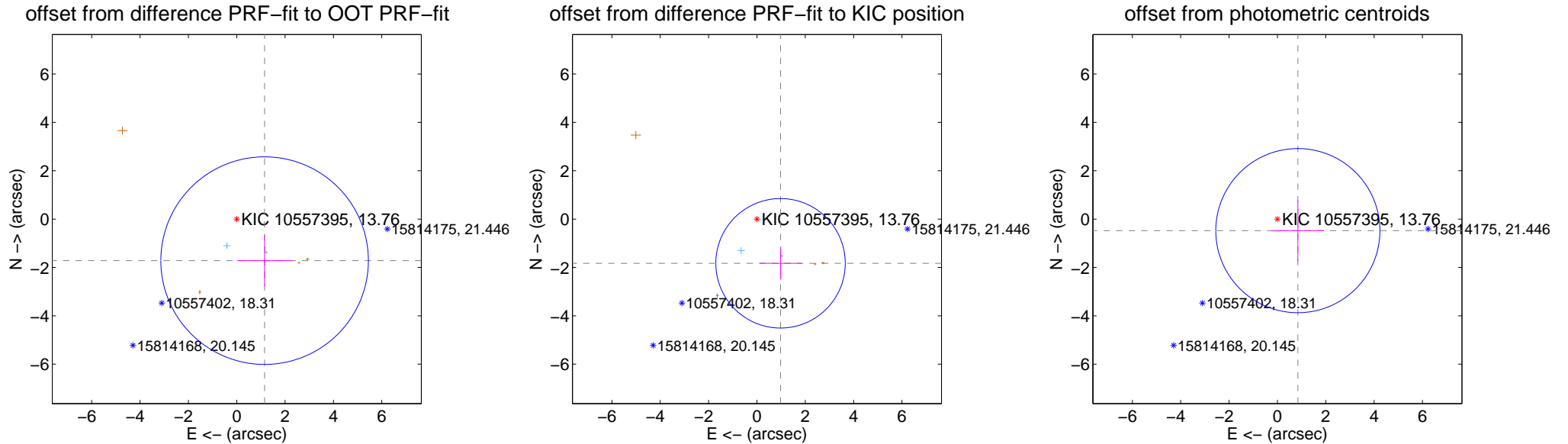
DV Centroid Data

Supplemental centroid analysis for 010557395-01. Kepler magnitude: 13.76. Transit SNR 9.13

There are 2 quarters with good PRF difference image offsets

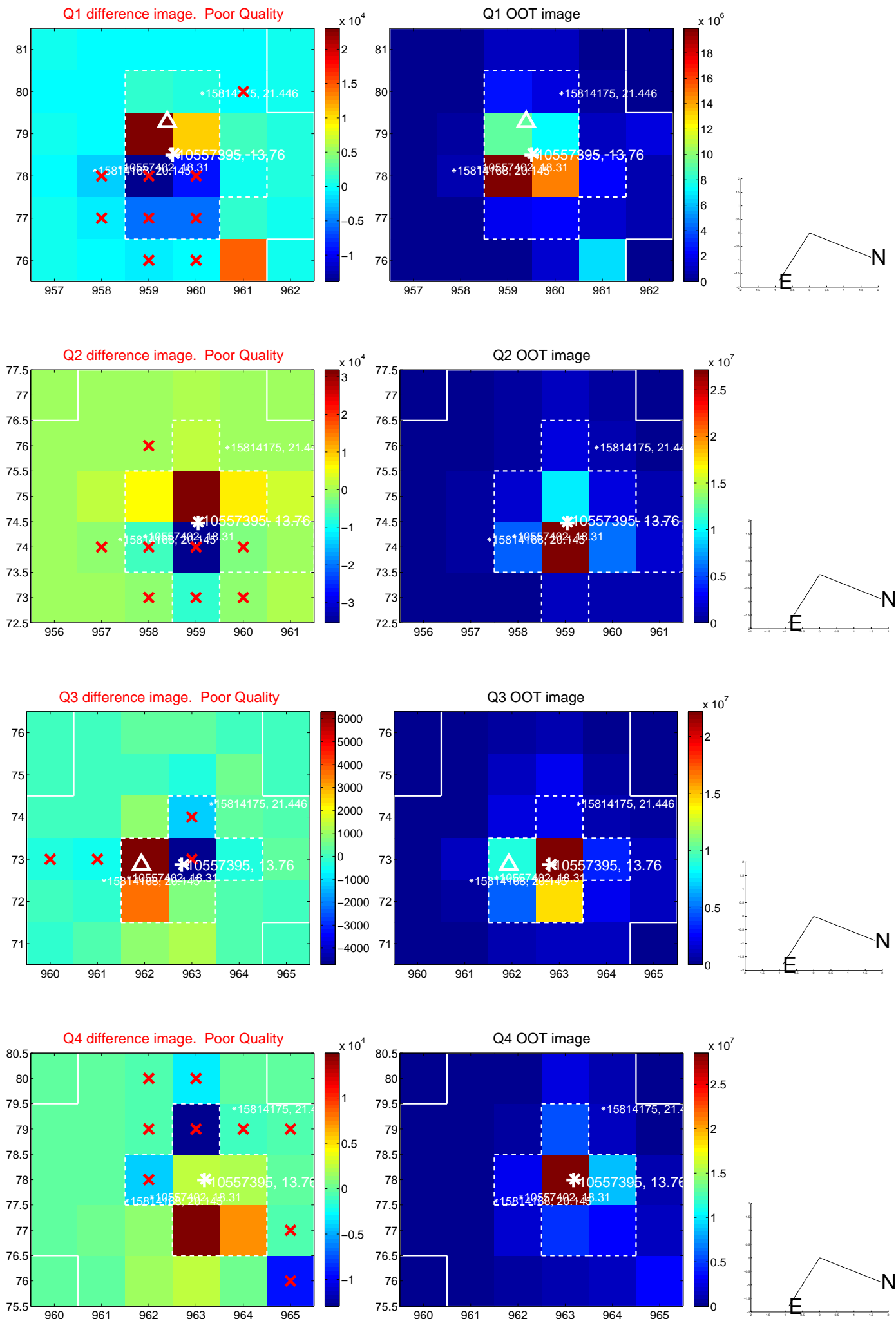
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.069 ± 1.431	1.45	-1.153 ± 1.144	-1.718 ± 1.061
PRF-fit source offset from KIC position	2.073 ± 0.893	2.32	-0.976 ± 0.867	-1.829 ± 0.668
photometric centroid source offset	0.97 ± 1.13	0.86	-0.85 ± 1.09	-0.48 ± 1.26

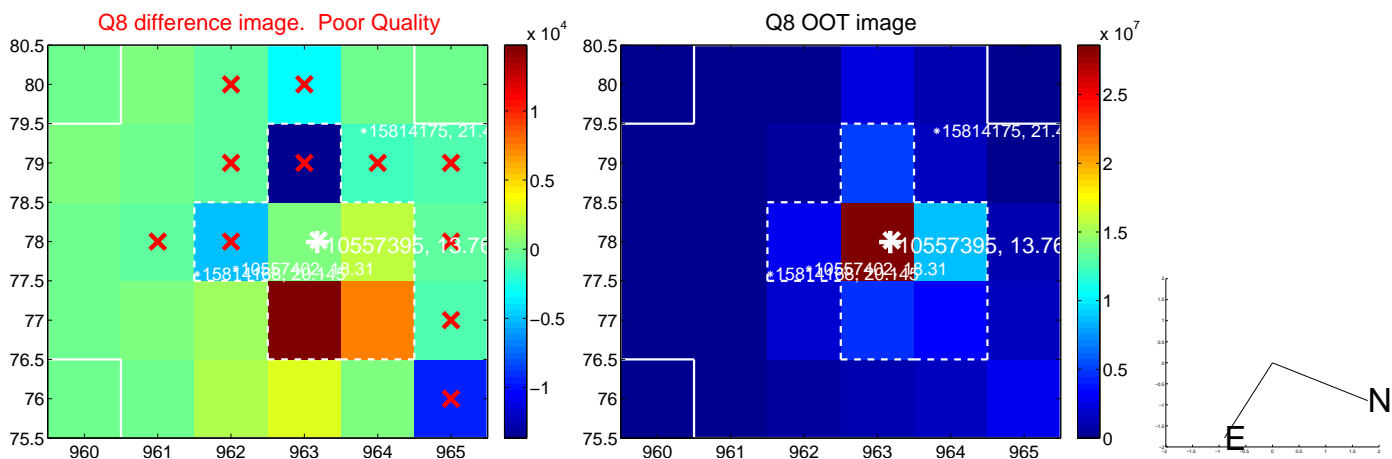
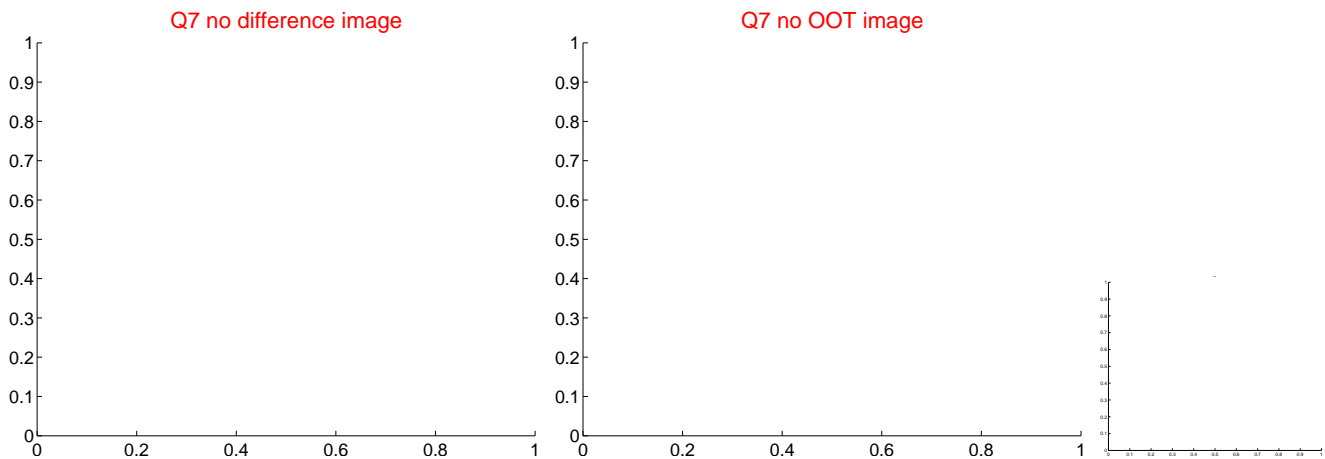
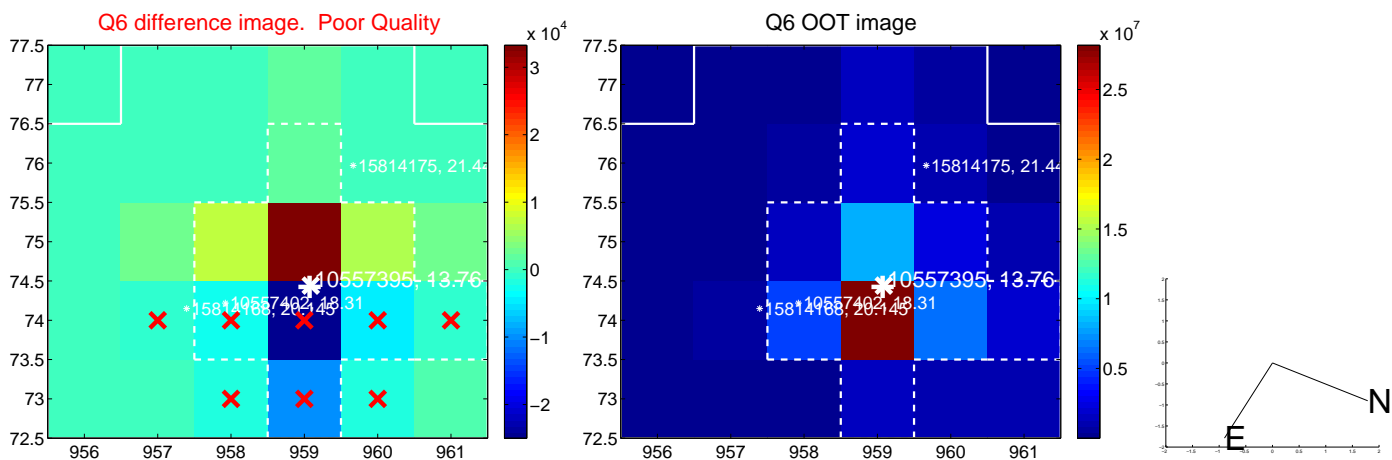
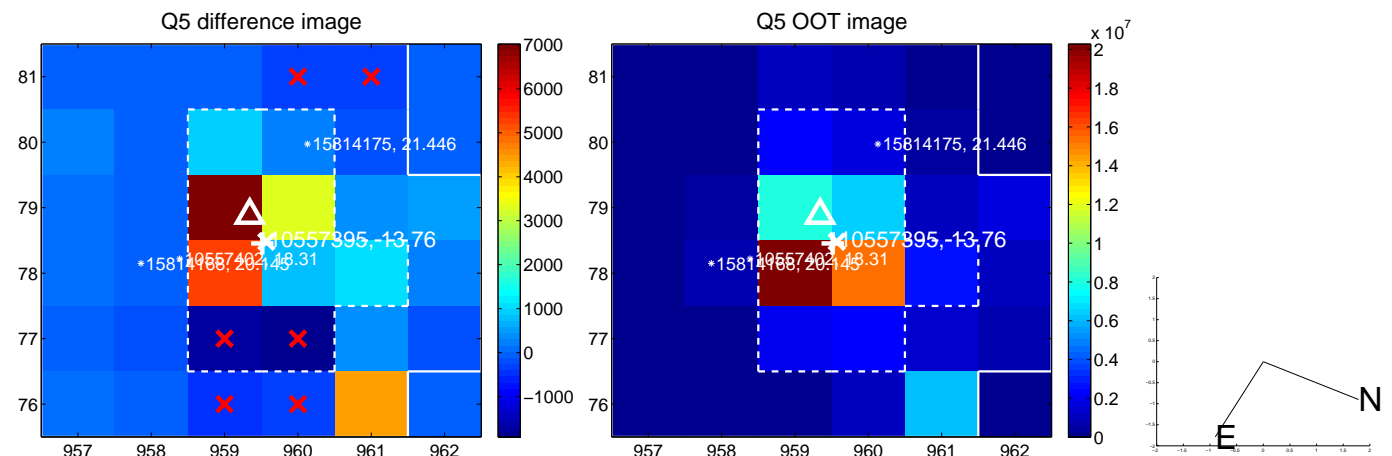


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

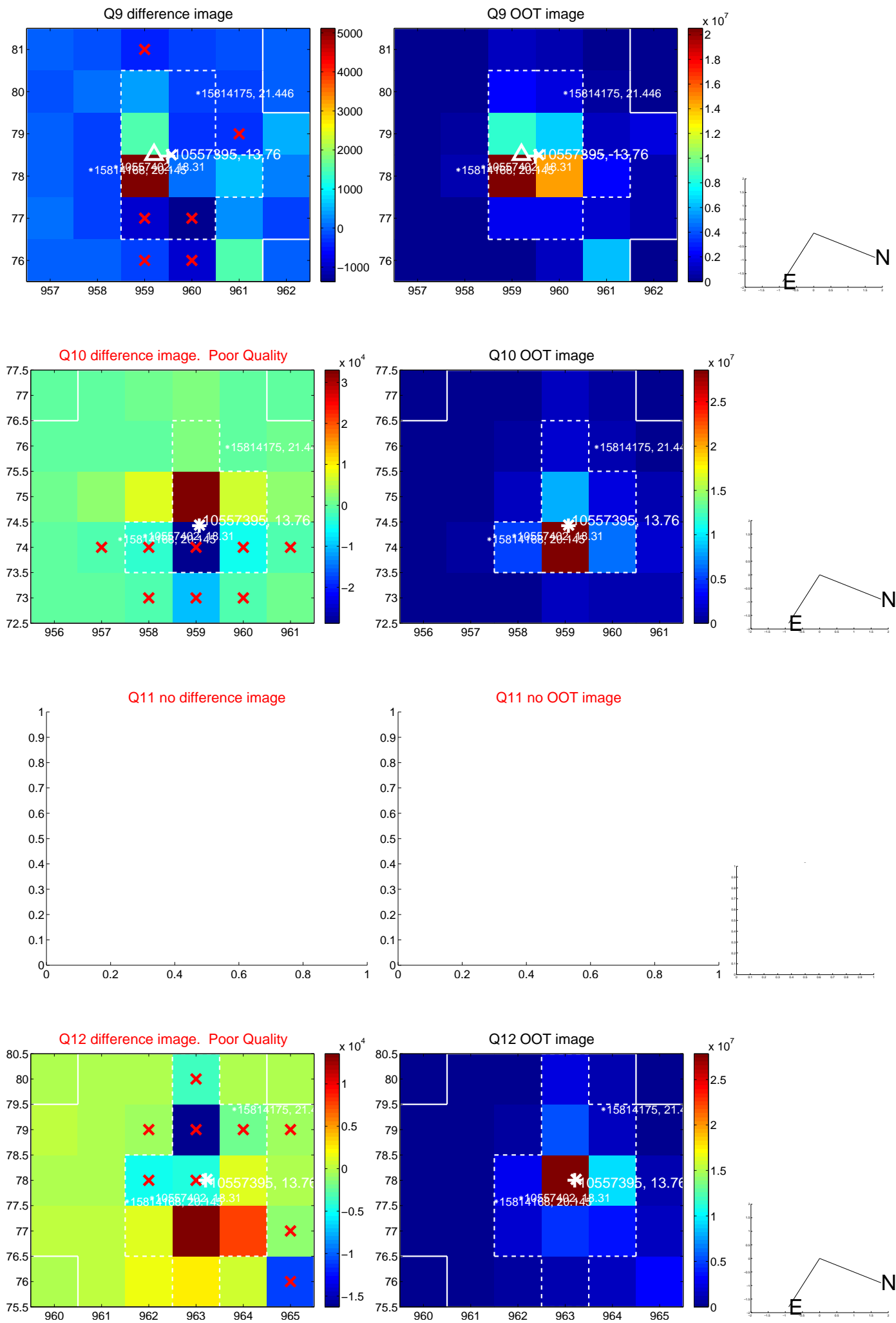
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



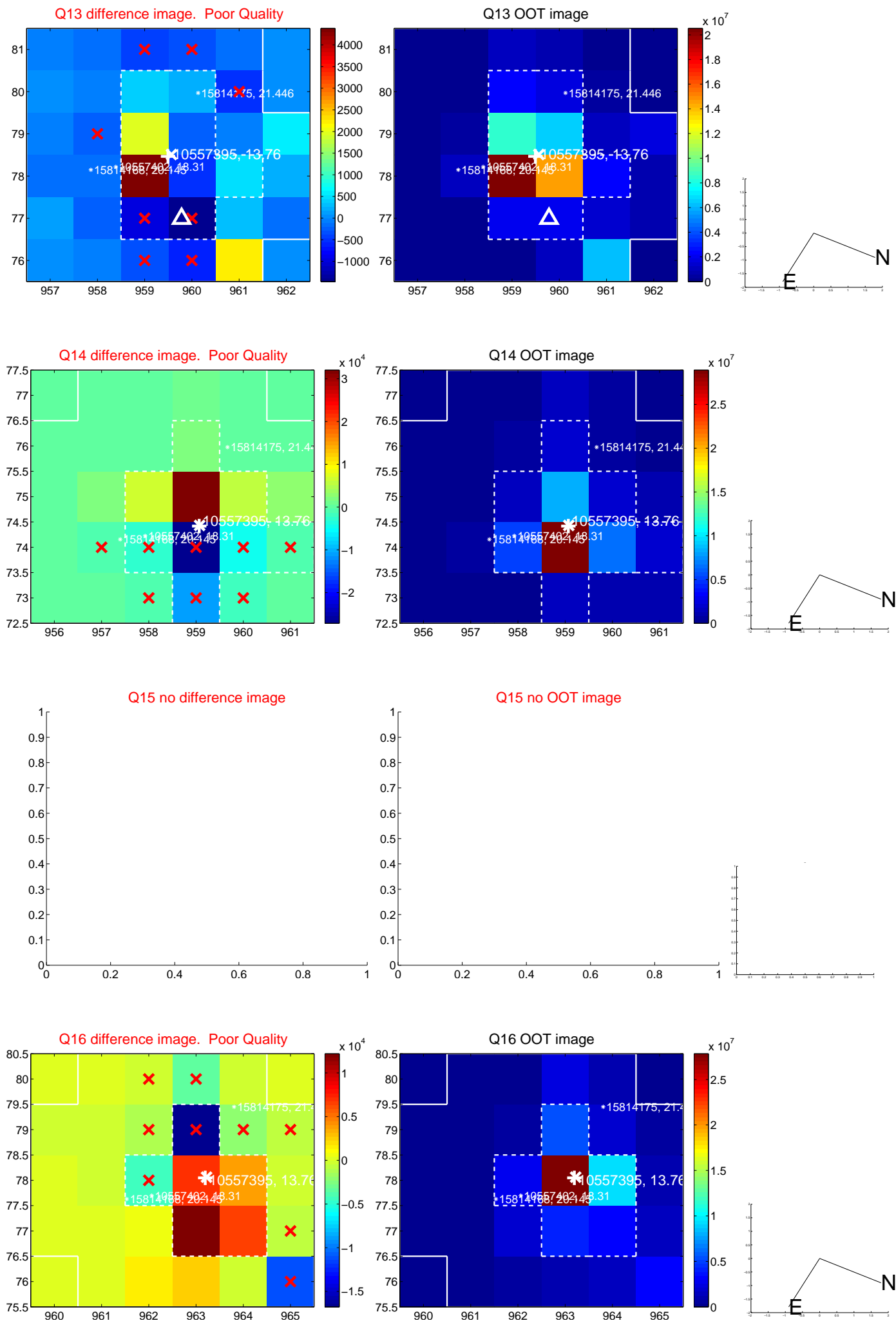
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



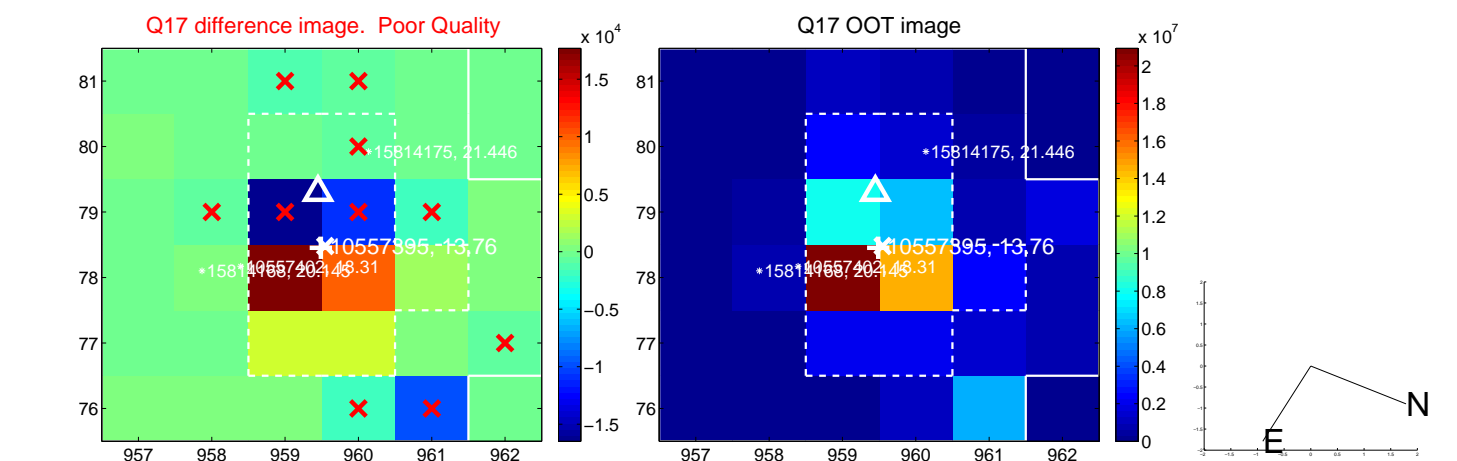
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



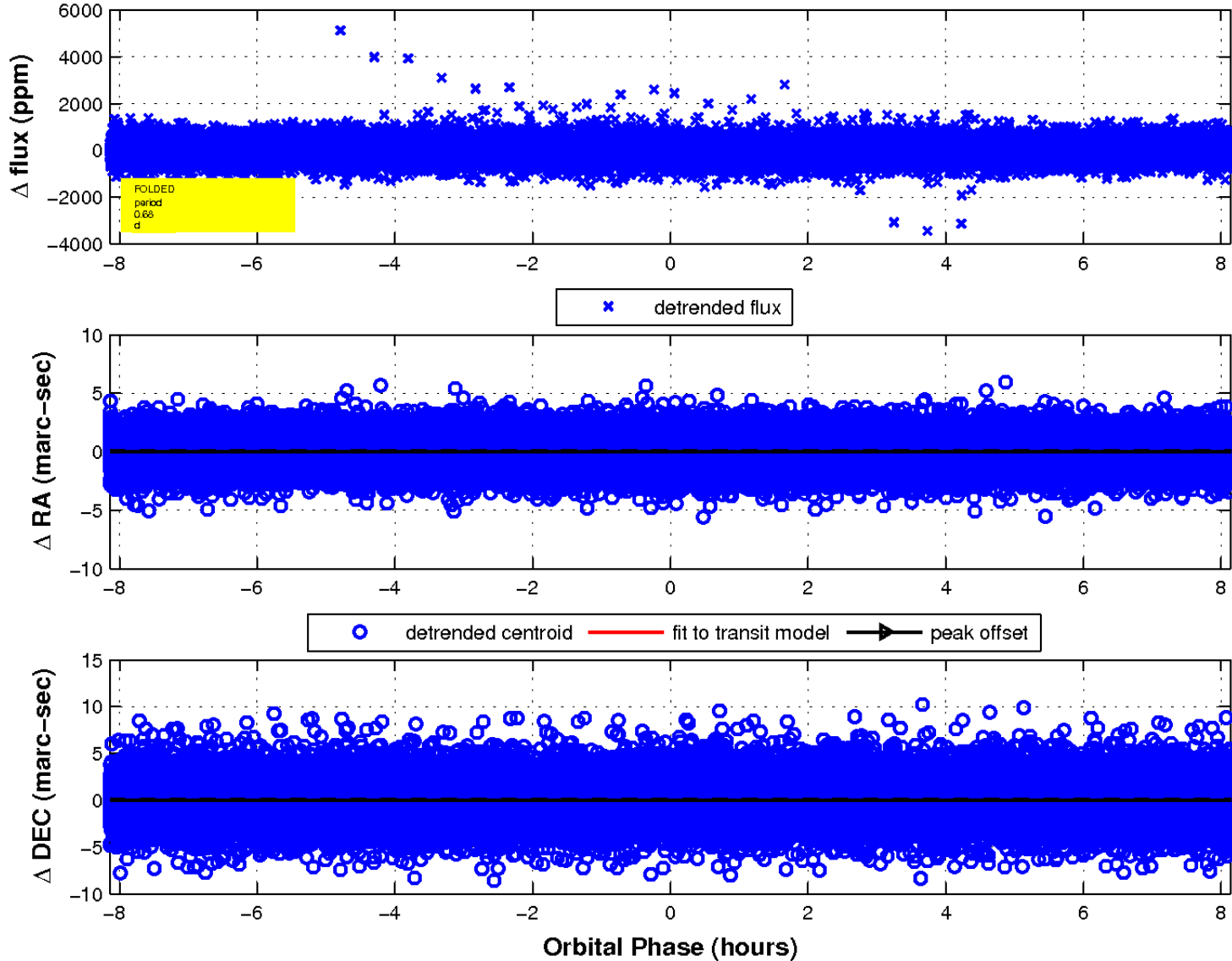
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

