

KIC 010359646

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})
010359646-01	OBS	No	2.105784	133.248374	0.0	17.698	7.6	0.0	1.01	6296	0.00	1362.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010359646-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT

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

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

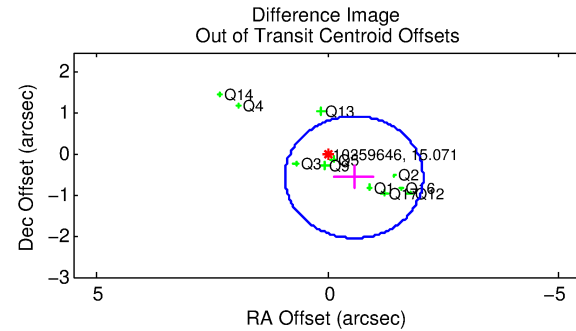
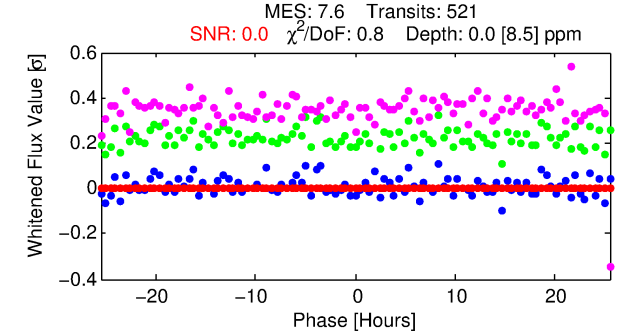
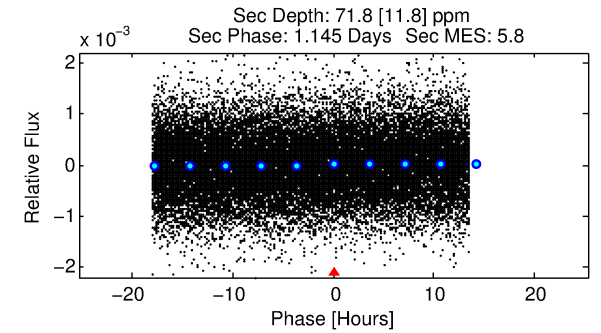
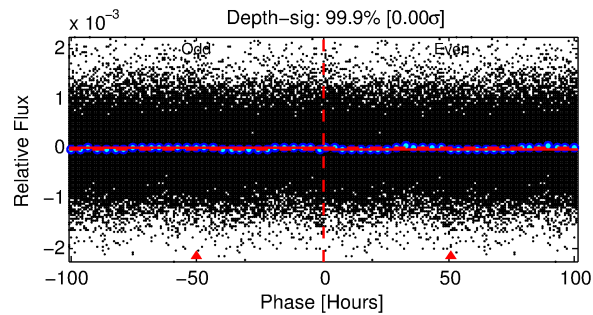
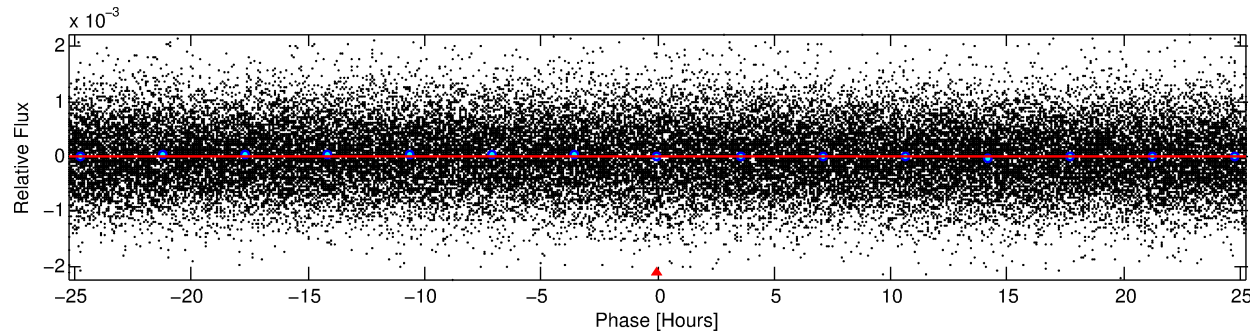
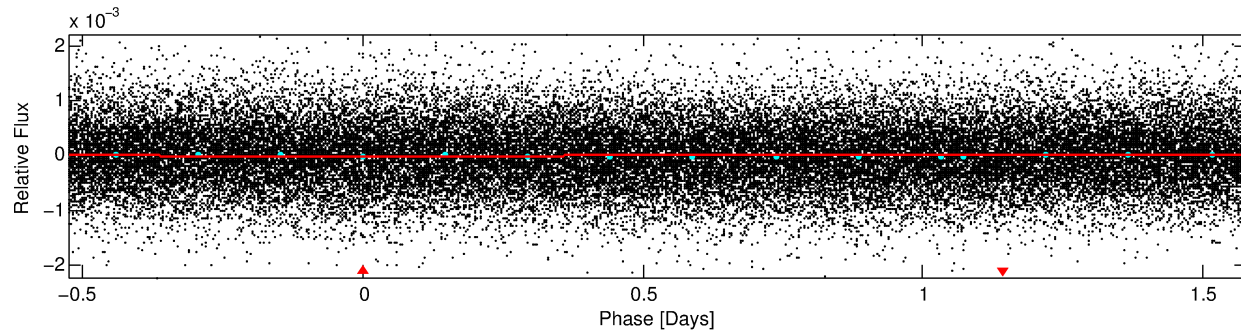
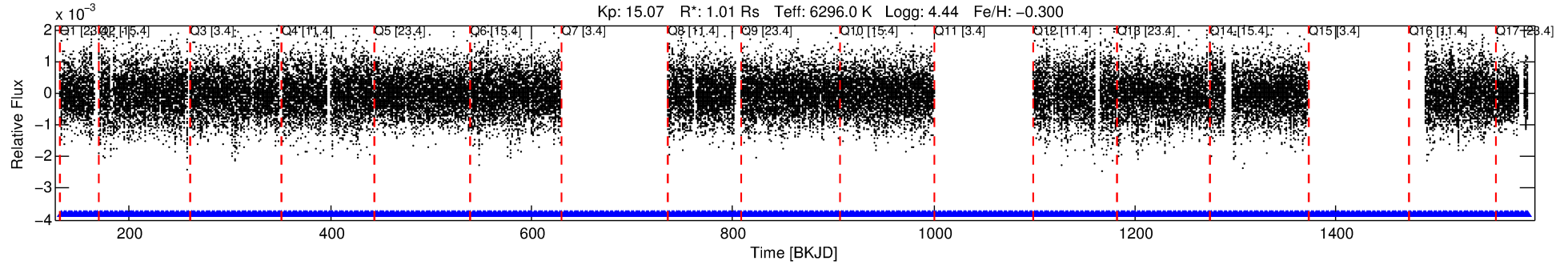
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010359646-01

No Significant Match Found

DV One-Page Summary

KIC: 10359646 Candidate: 1 of 1 Period: 2.106 d



DV Fit Results:

Period = 2.10578 [17.97163] d
Epoch = 133.2484 [4186.2169] BKJD
Rp/R* = 0.0000 [0.3271]
a/R* = 1.10 [1048.45]
b = 0.44 [13370.33]
Seff = 1362.81 [15518.02]
Teq = 1549 [4410] K
Rp = 0.00 [36.08] Re
a = 0.0325 [0.1851] AU
Ag = 26047421.10 [1485454860987.23] 10.0661
Teff = 171126 [2439874972] K [0.00]

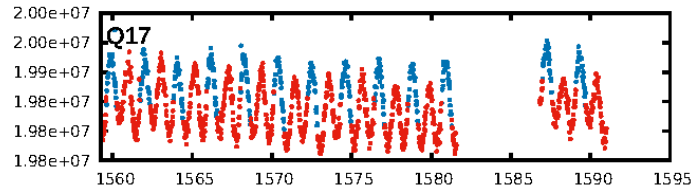
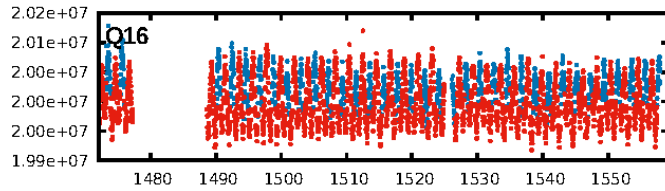
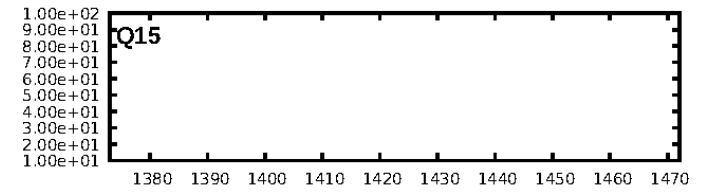
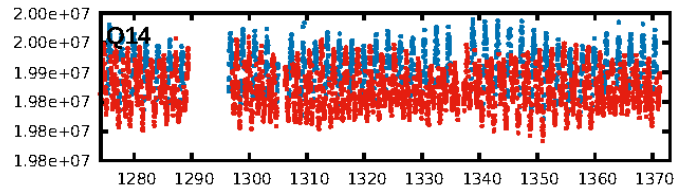
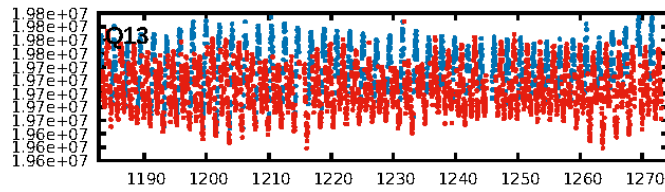
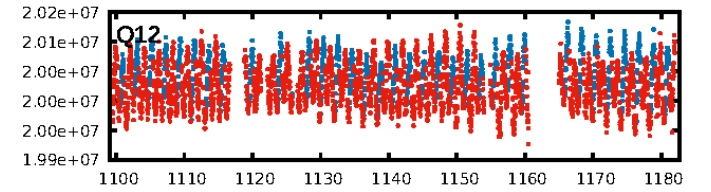
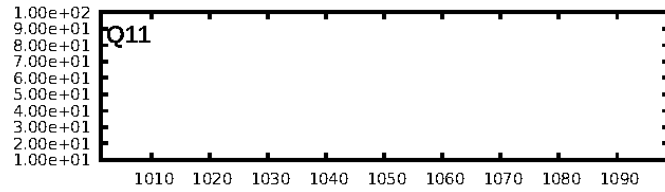
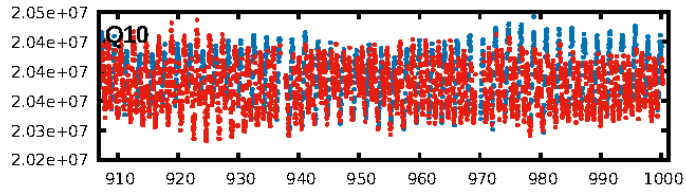
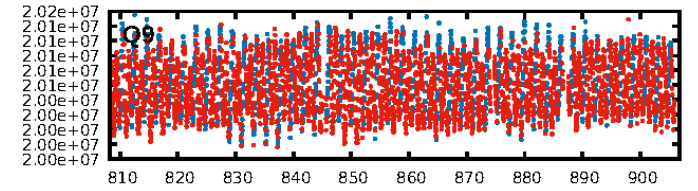
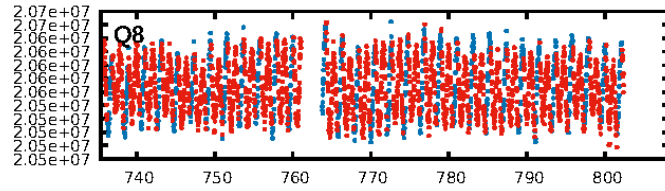
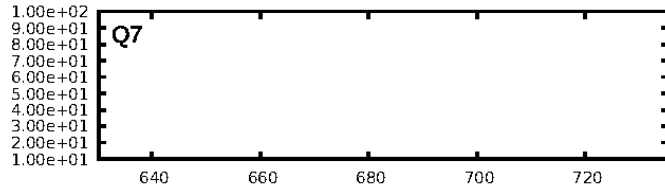
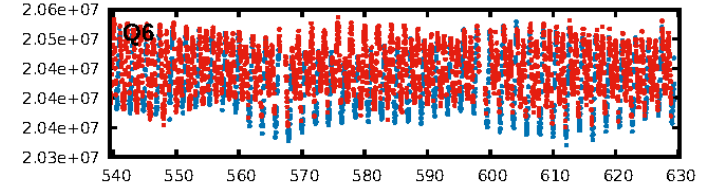
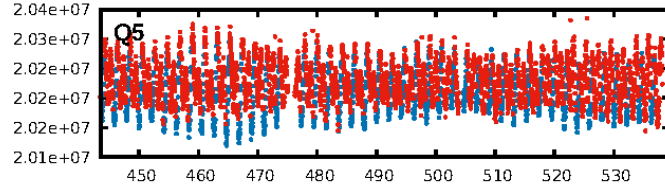
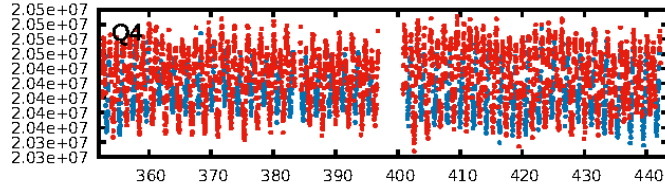
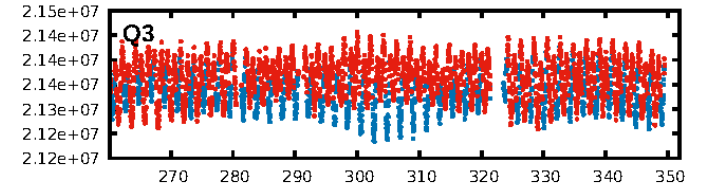
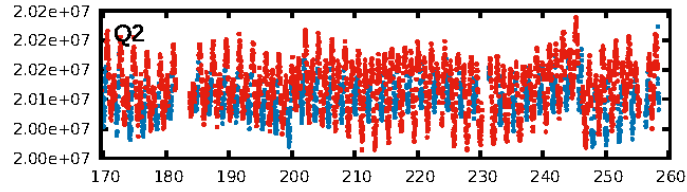
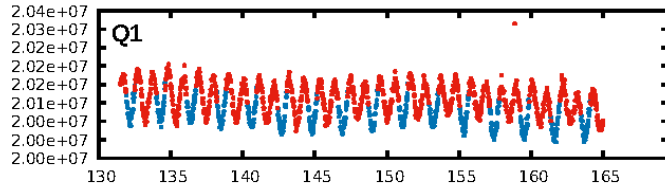
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [492/492]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OutOffset-rm: 0.799 arcsec [1.60σ]
KicOffset-rm: 0.821 arcsec [1.60σ]
OutOffset-st: 2/1/3/5 [11]
KicOffset-st: 2/1/3/5 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [14/14]

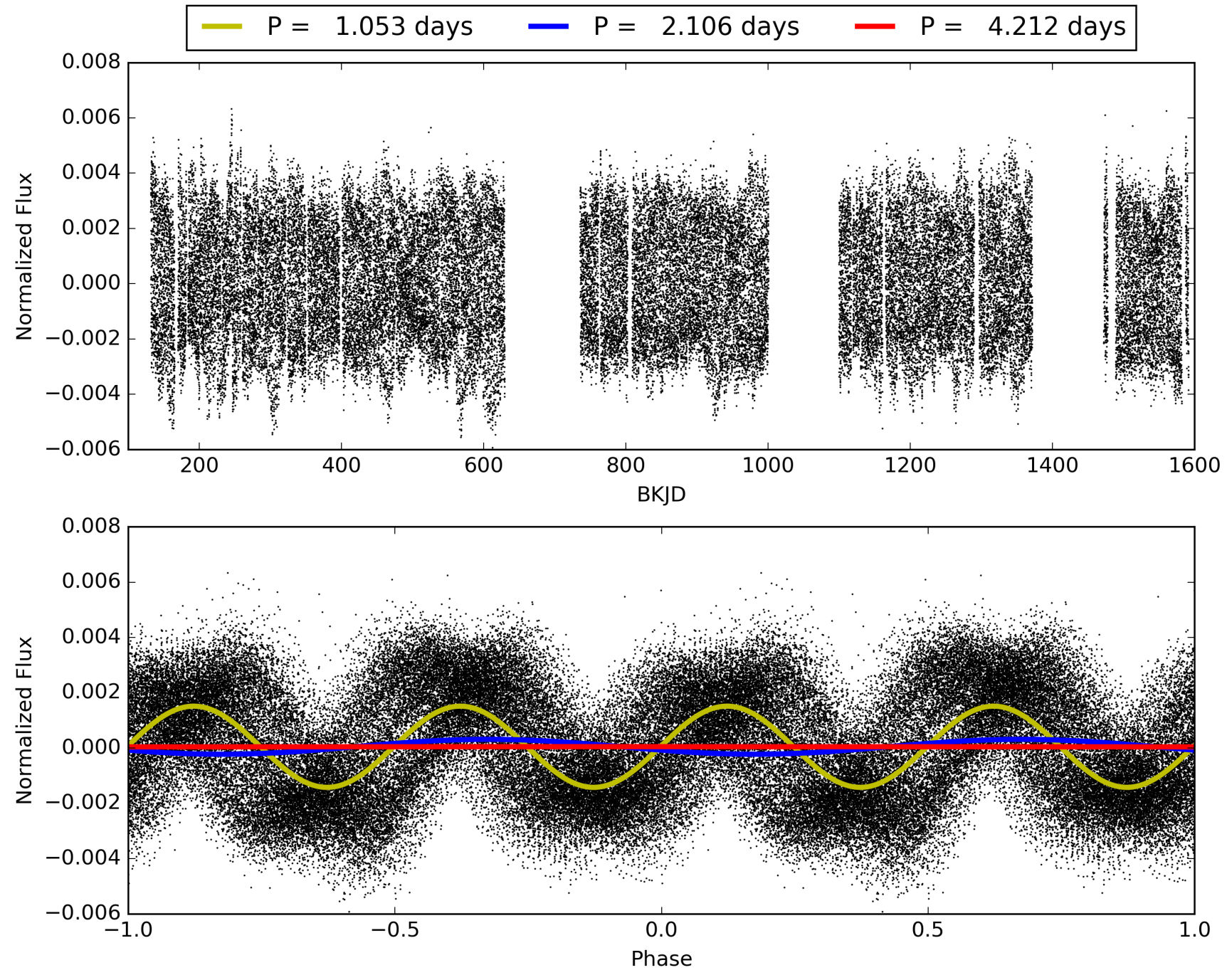
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:05:42 Z

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

TCE 010359646-01, PDC Light Curves

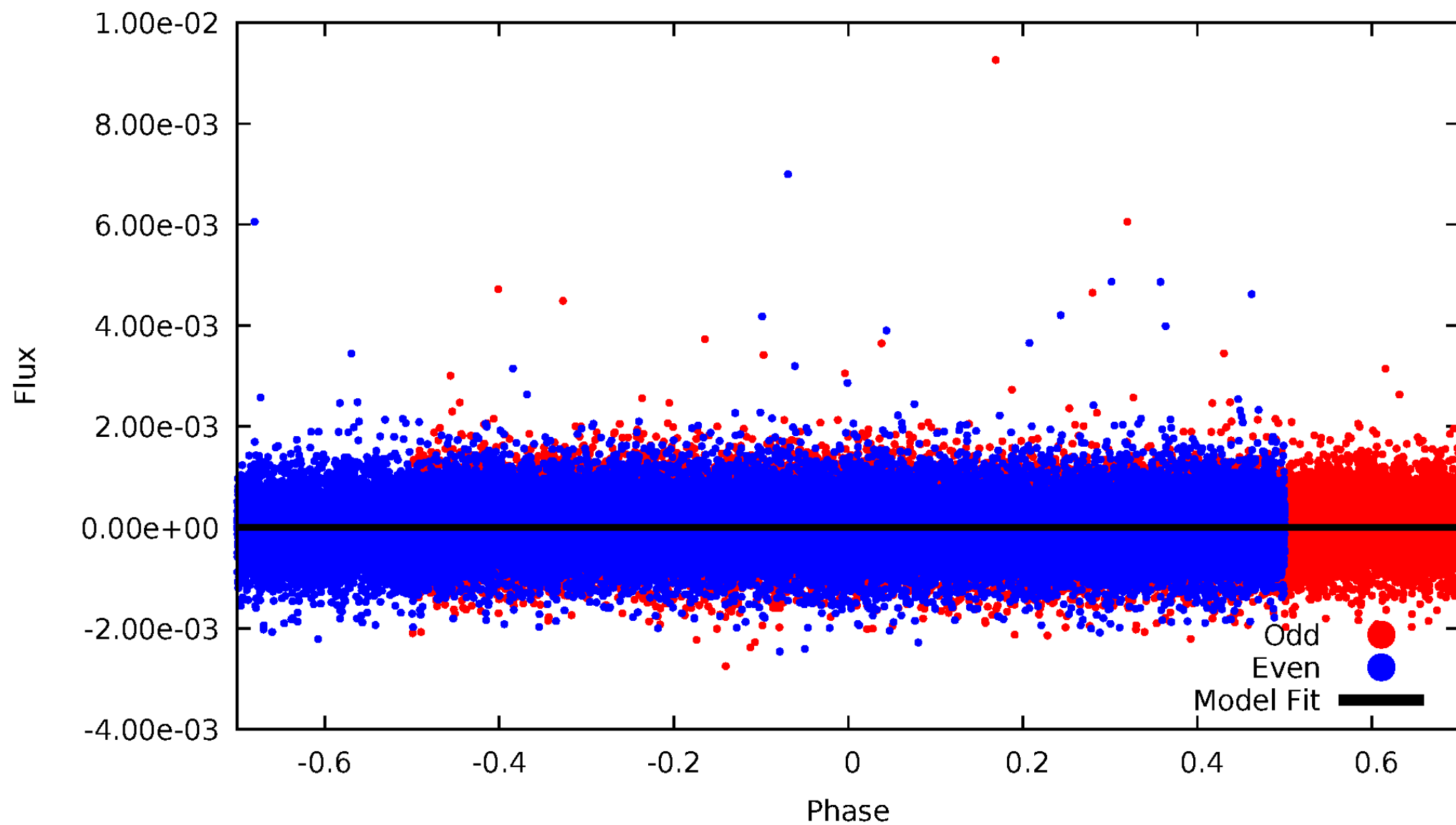


TCE 010359646-01



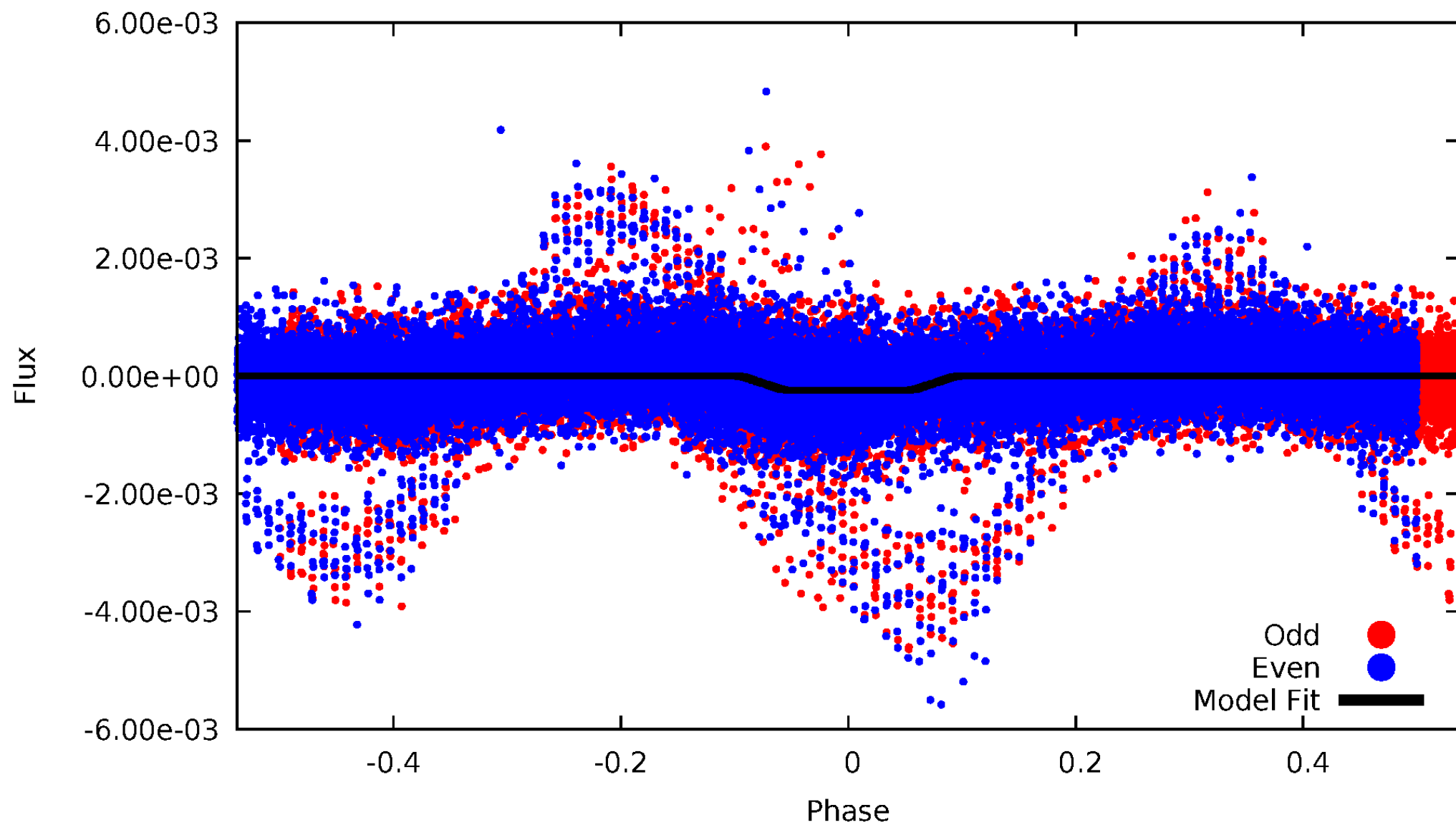
DV Odd/Even

TCE 010359646-01

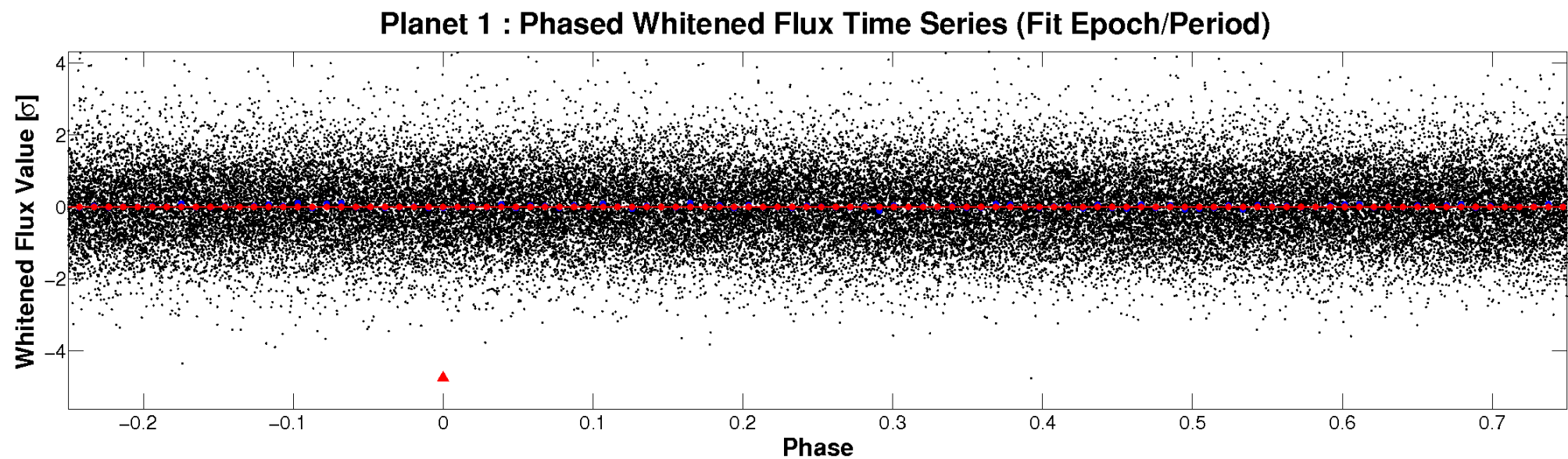
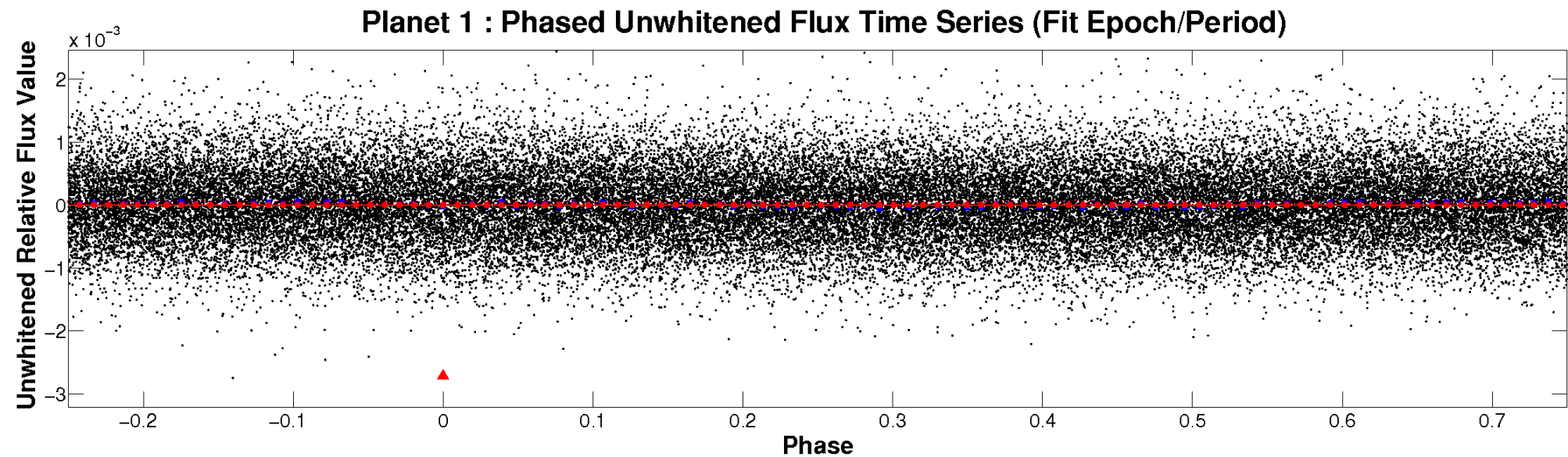


ALT Odd/Even

TCE 010359646-01

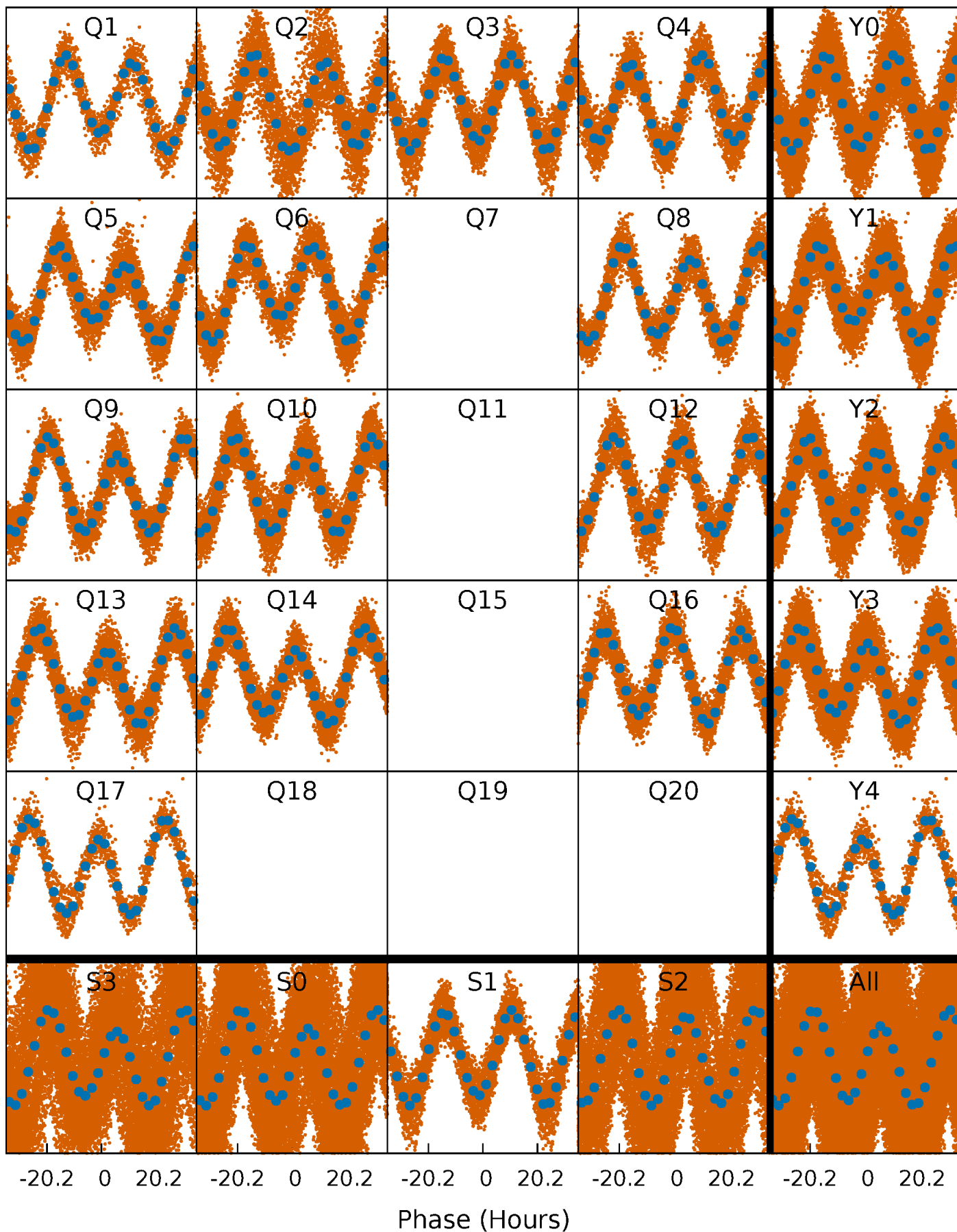


Non-Whitened Vs. Whitened Light Curve



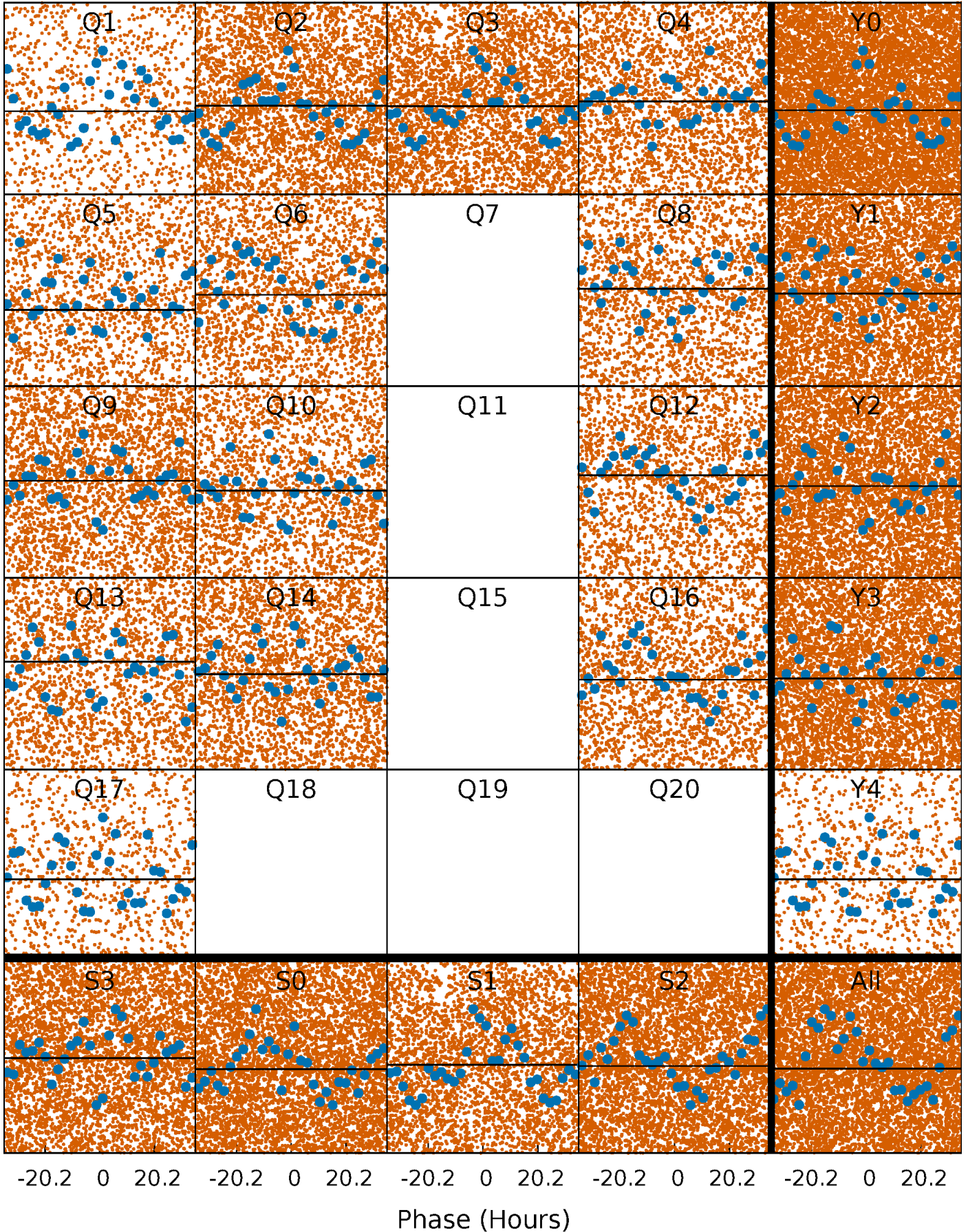
PDC Quarter-Phased Transit Curves

TCE 010359646-01 P= 2.105784 Days $T_0=133.248374$ (BKJD)



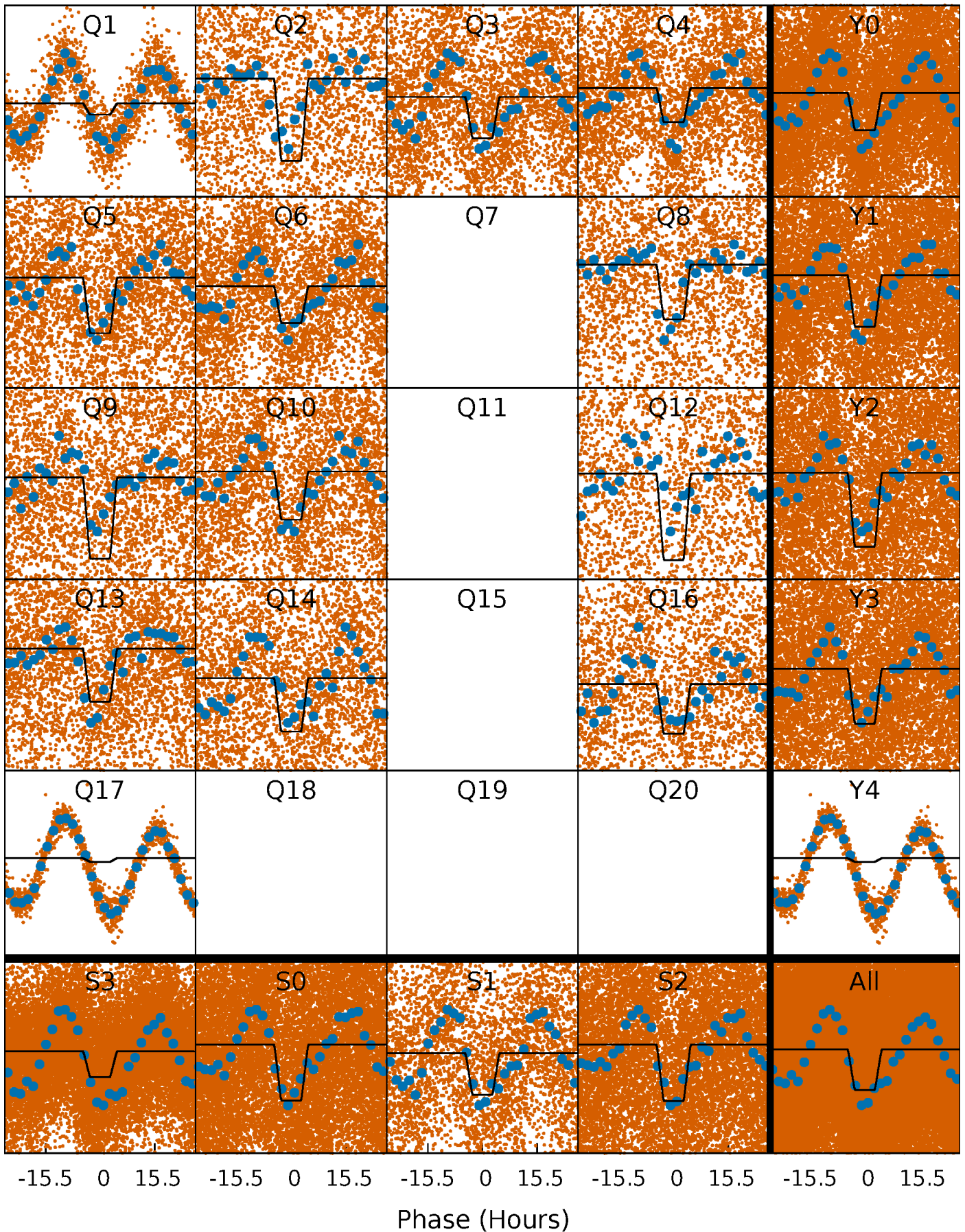
DV Quarter-Phased Transit Curves

TCE 010359646-01 P= 2.105784 Days $T_0=133.248374$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

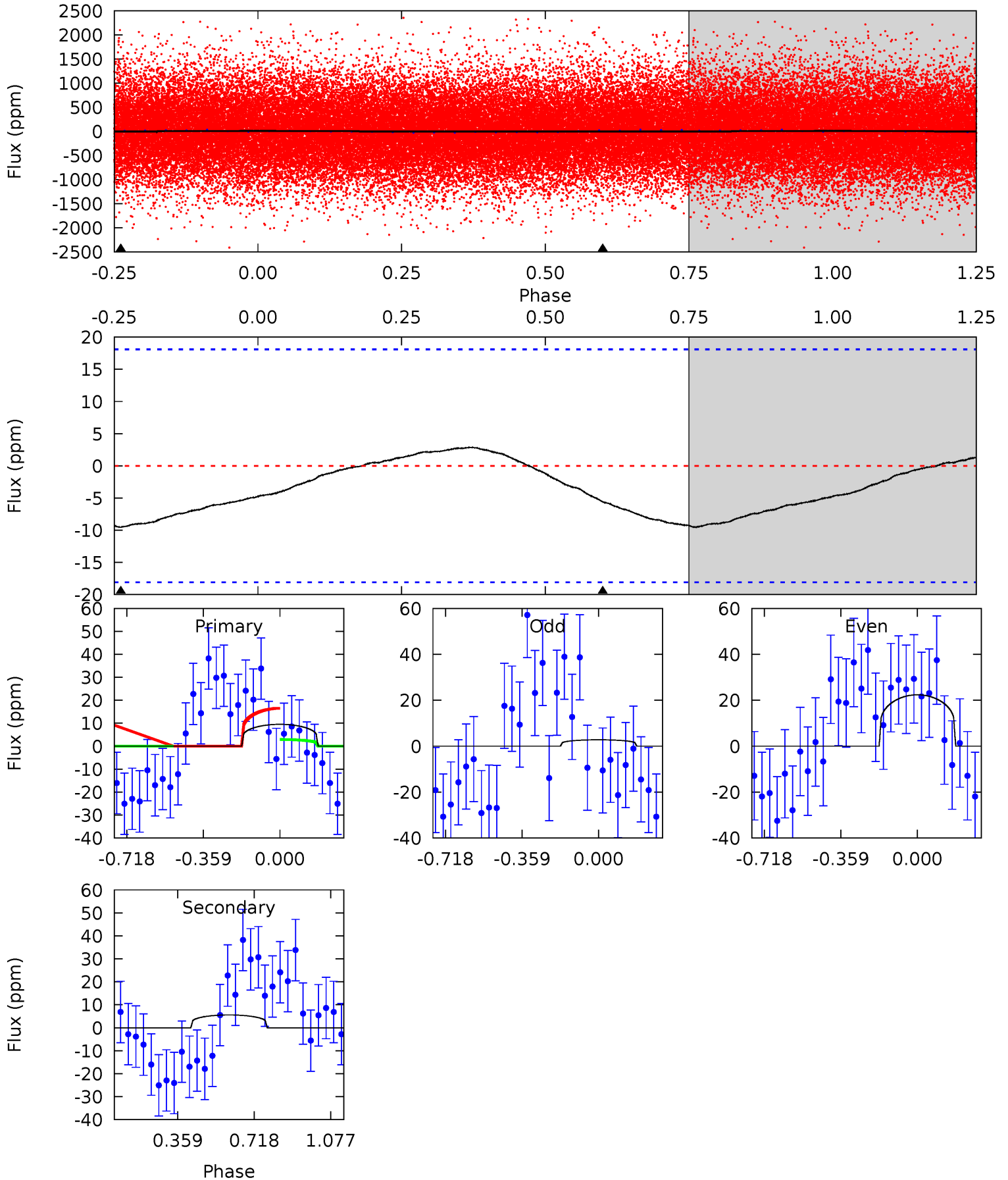
TCE 010359646-01 P= 2.104995 Days $T_0=133.089915$ (BKJD)



DV Model-Shift Uniqueness Test

010359646-01, P = 2.105784 Days, E = 131.142590 Days

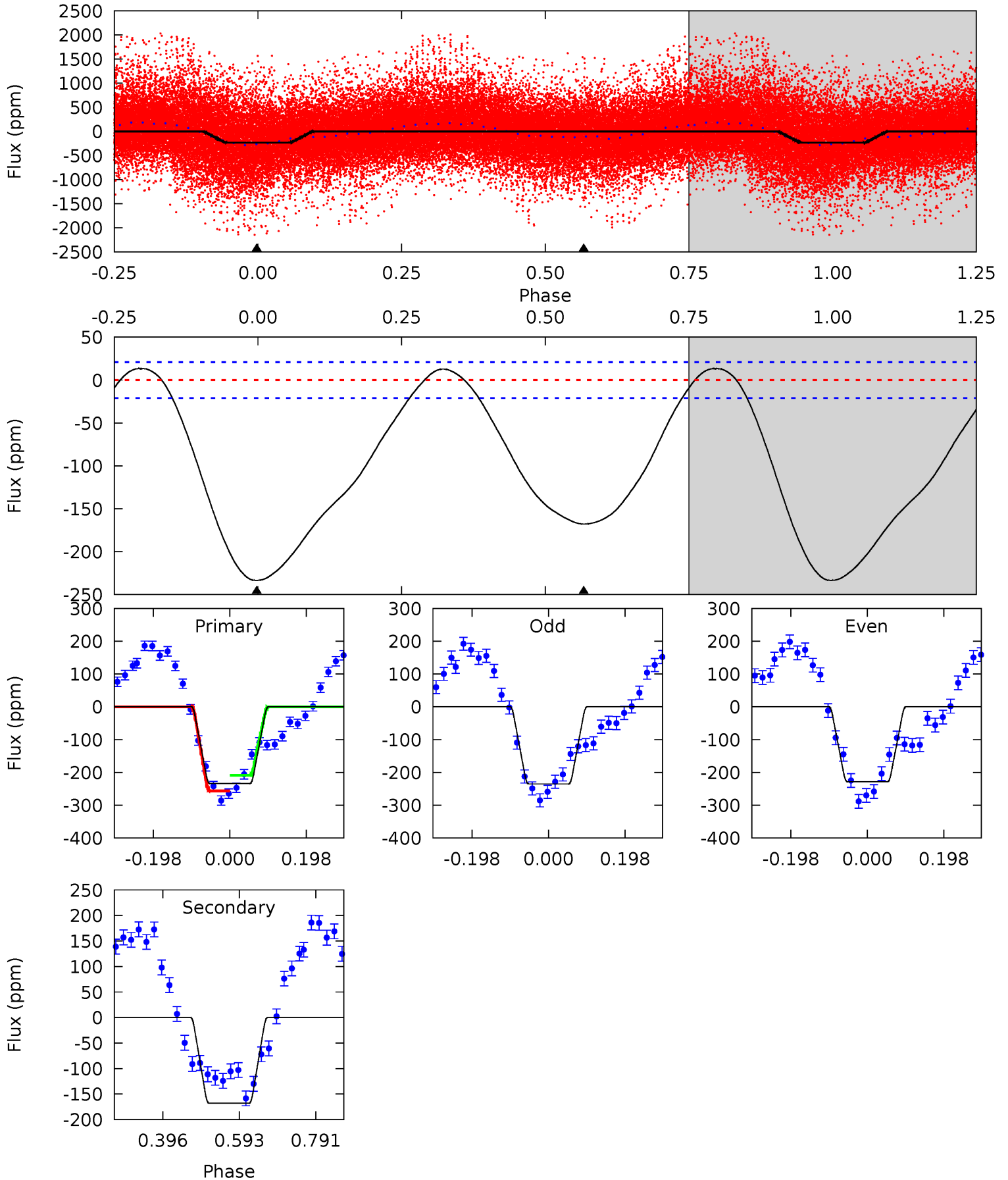
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.26	1.32	0	0	4.29	0.92	0.16	2.26	2.26	1.32	1.32	2.30	0.86	0.23	1.58



Alt Model-Shift Uniqueness Test

010359646-01, P = 2.104995 Days, E = 130.984920 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.4	35.5	0	0	4.42	1.29	6.57	49.4	49.4	35.5	35.5	0.70	1.46	0.05	5.14



Stellar Parameters For KIC 010359646

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6296^{+176}_{-220}	$4.442^{+0.070}_{-0.210}$	$-0.300^{+0.300}_{-0.300}$	$1.011^{+0.334}_{-0.111}$	$1.026^{+0.146}_{-0.120}$	$1.398^{+0.420}_{-0.768}$
	+3%/-3%	+2%/-5%	+100%/-100%	+33%/-11%	+14%/-12%	+30%/-55%
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 010359646-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 4	$25.14^{+27.77}_{-17.74}$	1231^{+623}_{-283}	-1931^{+3787}_{-423}	$0.034^{+0.529}_{-0.032}$
Alt.	-168 ± 5	$24.34^{+30.55}_{-16.35}$	1210^{+623}_{-260}	2308^{+900}_{-4331}	$1.650^{+17.500}_{-1.476}$

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 $A_{obs} \gg 1.0$

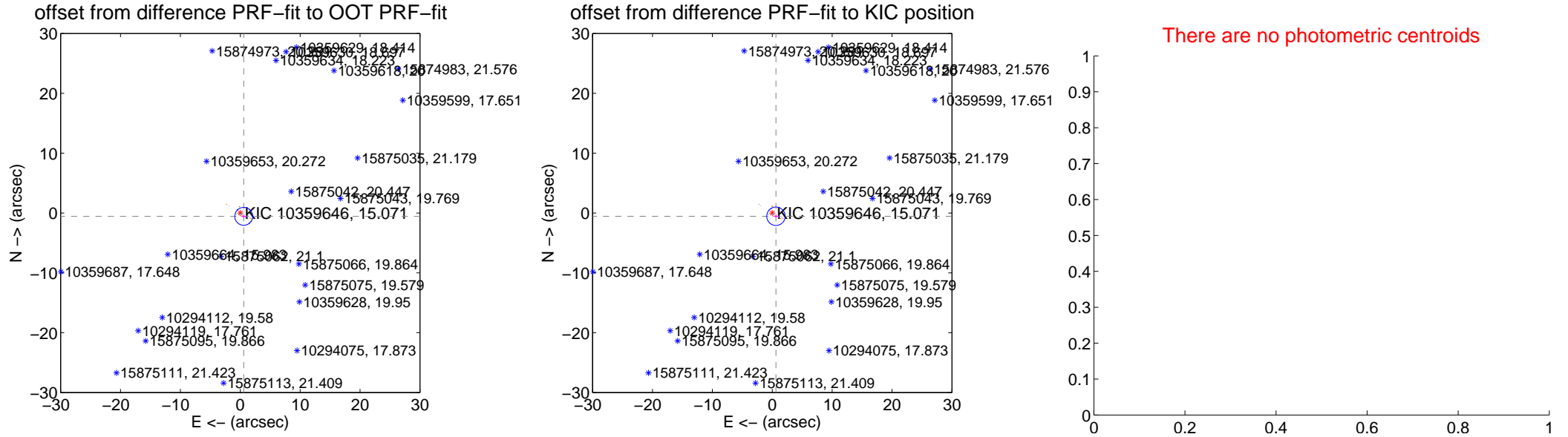
DV Centroid Data

Supplemental centroid analysis for 010359646-01. Kepler magnitude: 15.07. Transit SNR 0.00

There are 6 quarters with good PRF difference image offsets

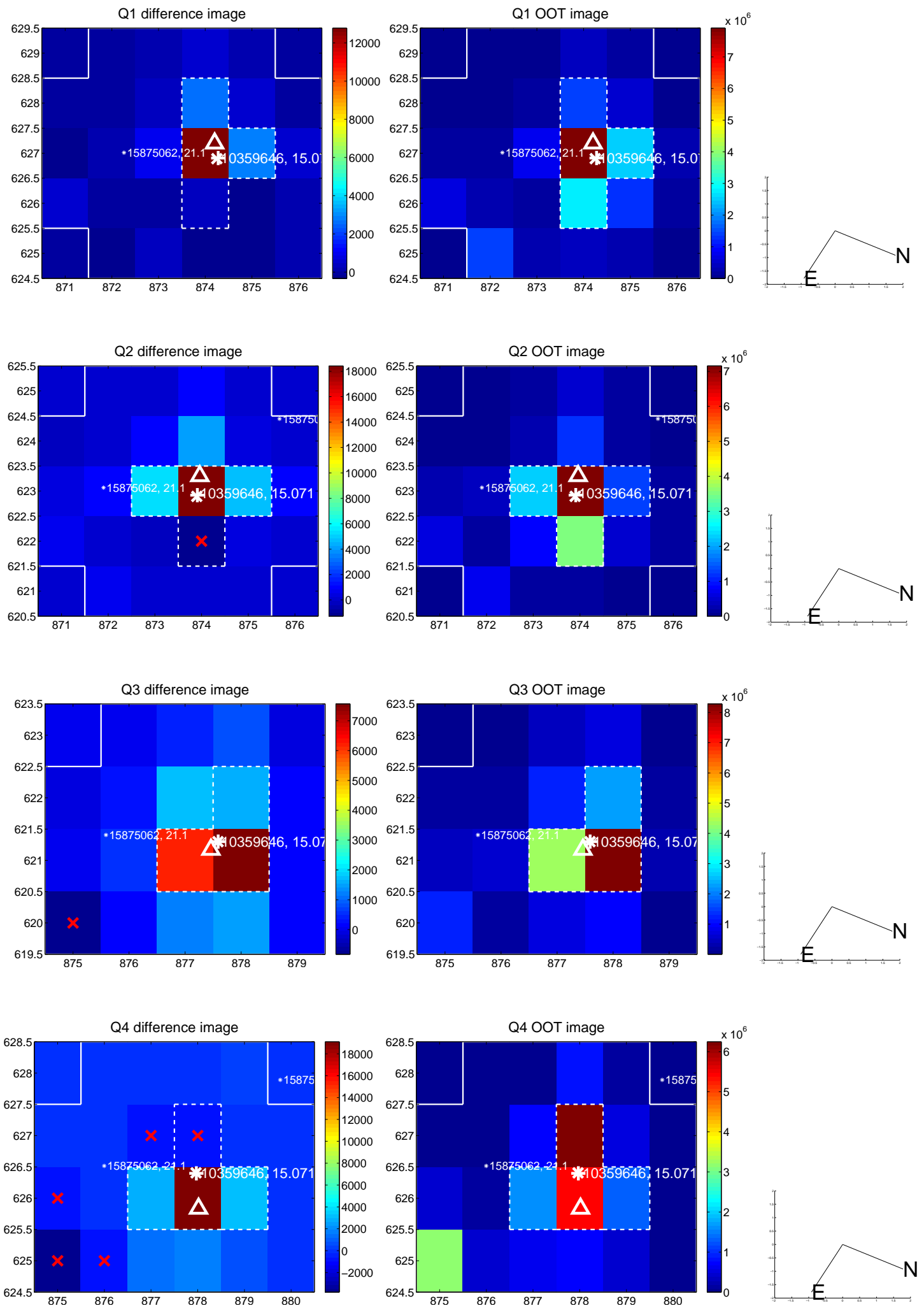
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.799 ± 0.498	1.60	-0.574 ± 0.435	-0.555 ± 0.290
PRF-fit source offset from KIC position	0.821 ± 0.513	1.60	-0.617 ± 0.454	-0.541 ± 0.285
photometric centroid source offset	—	—	—	—

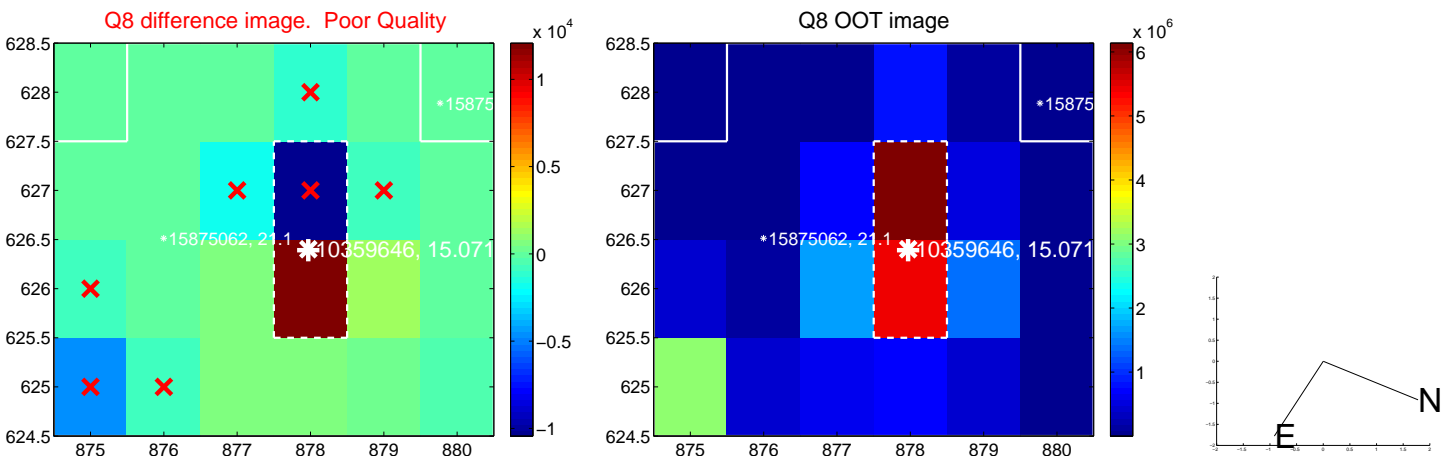
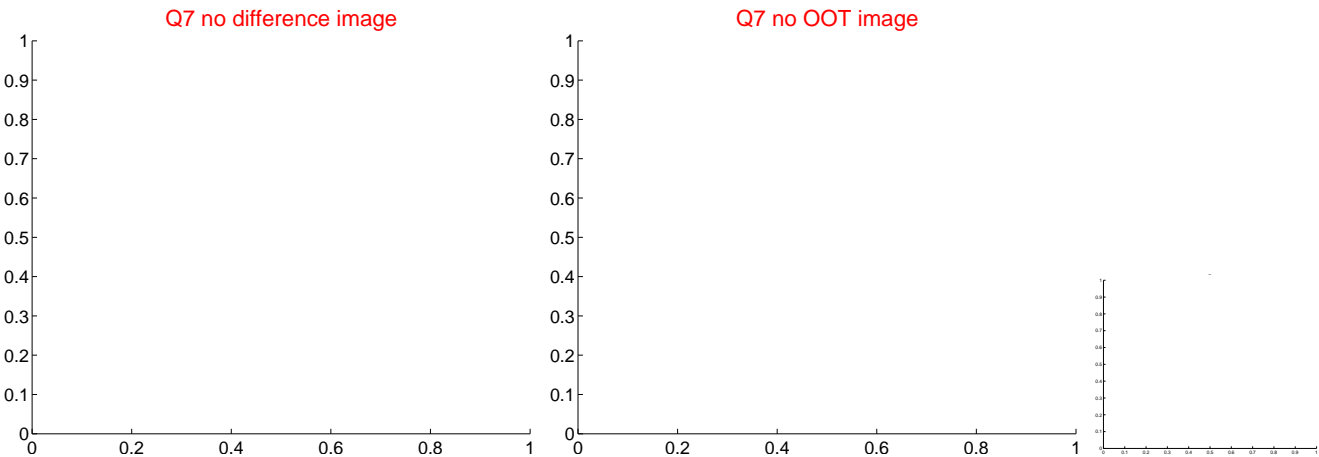
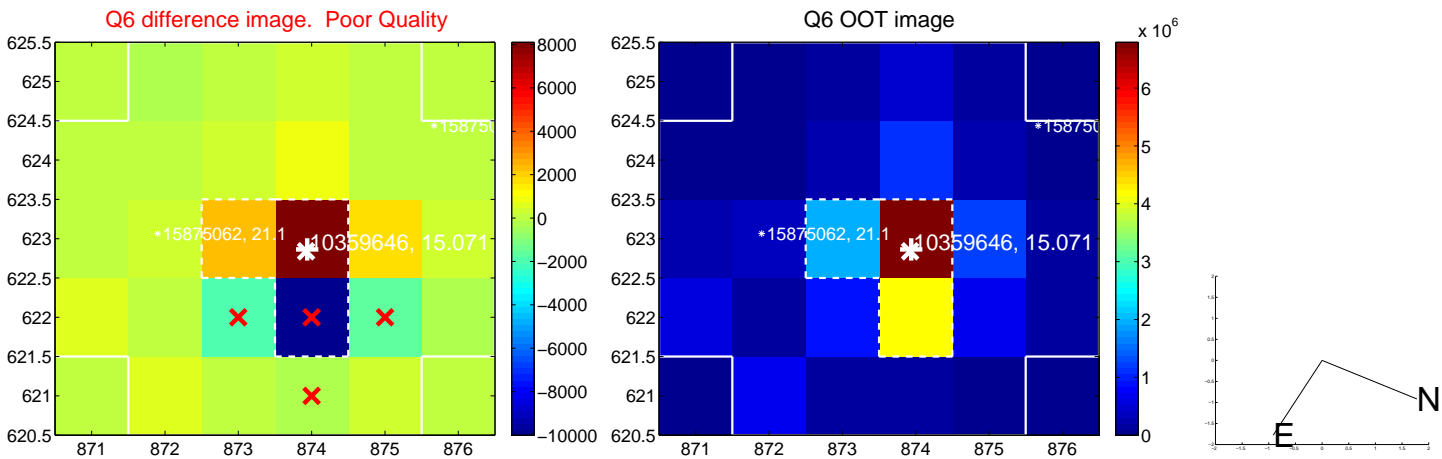
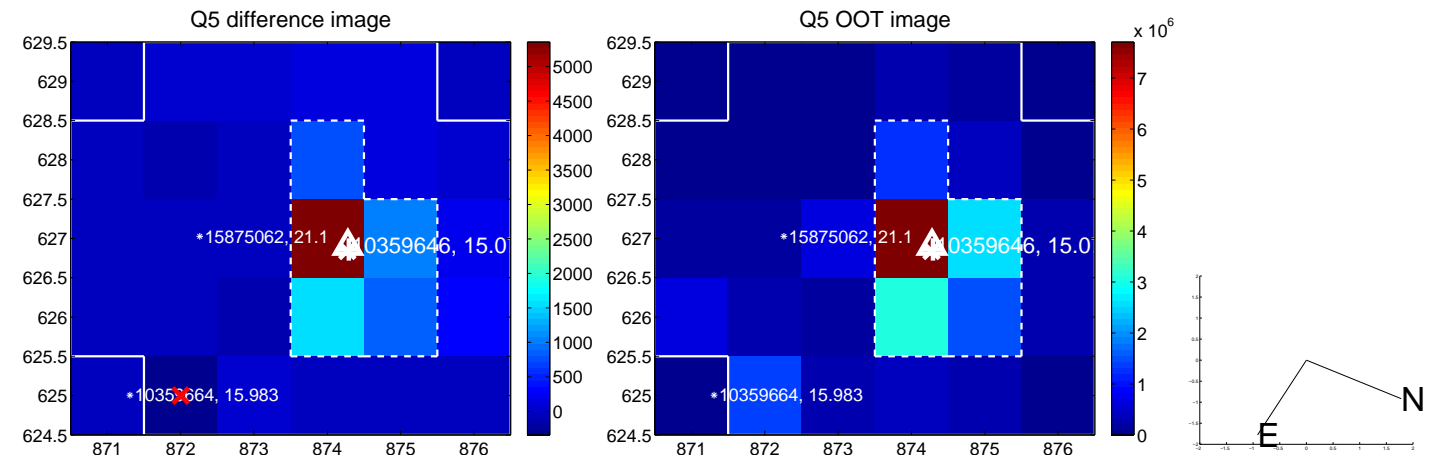


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

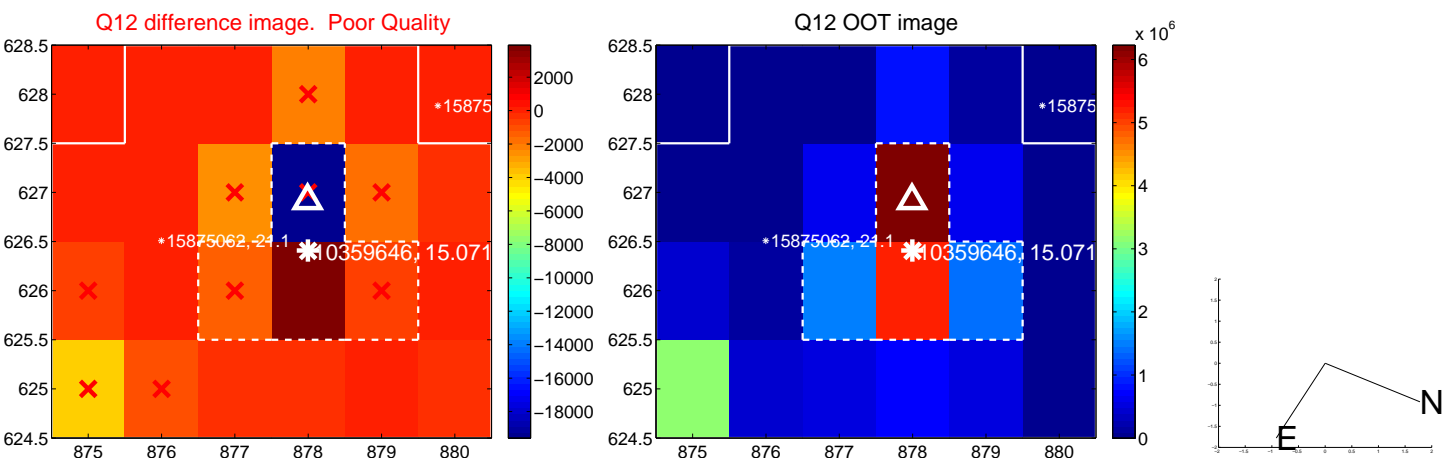
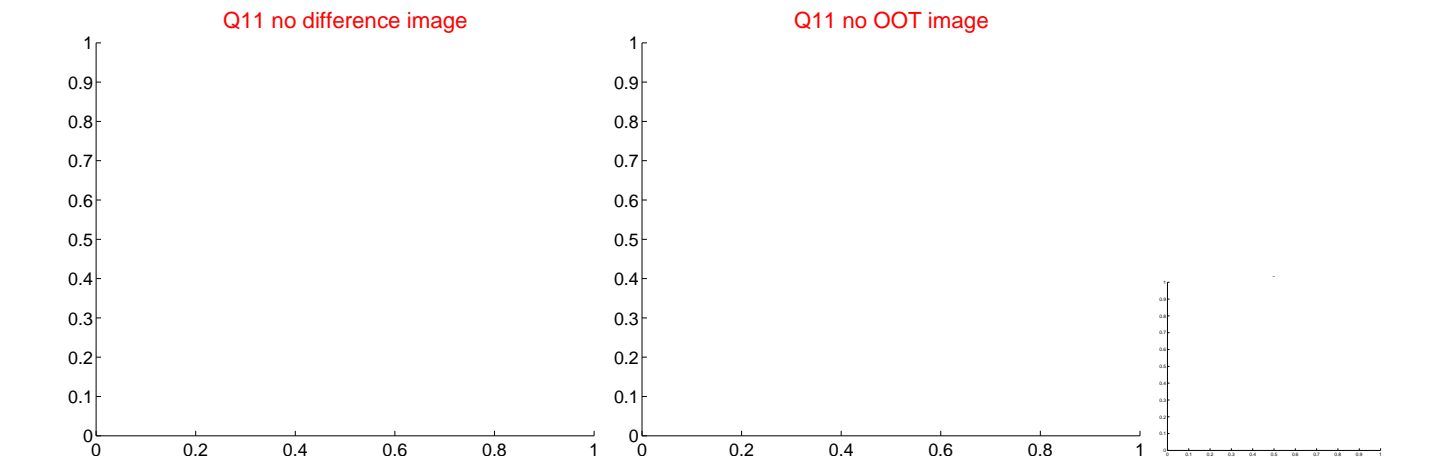
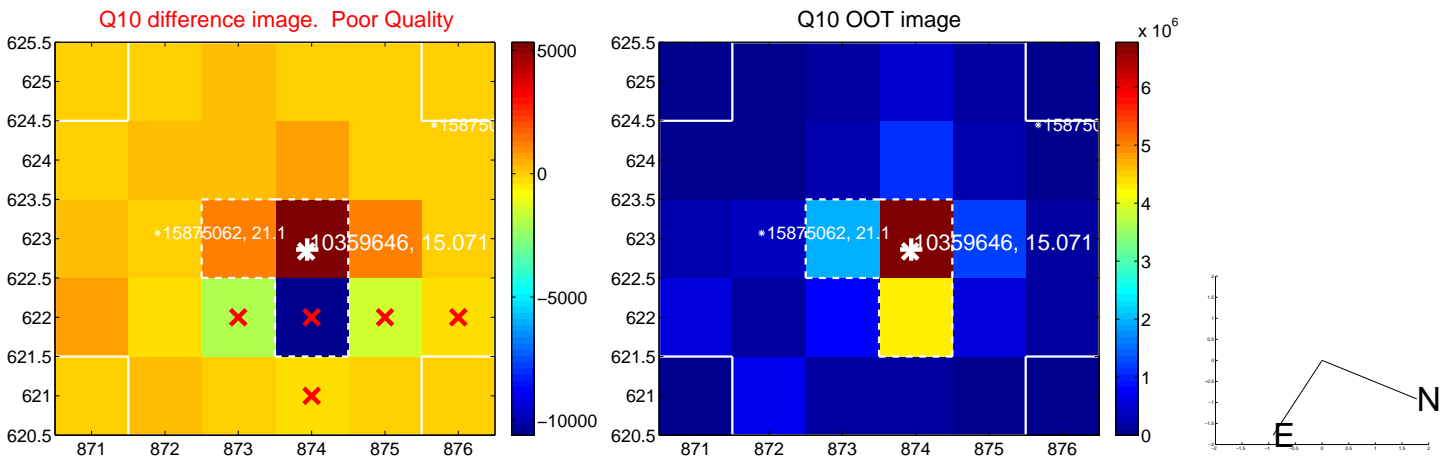
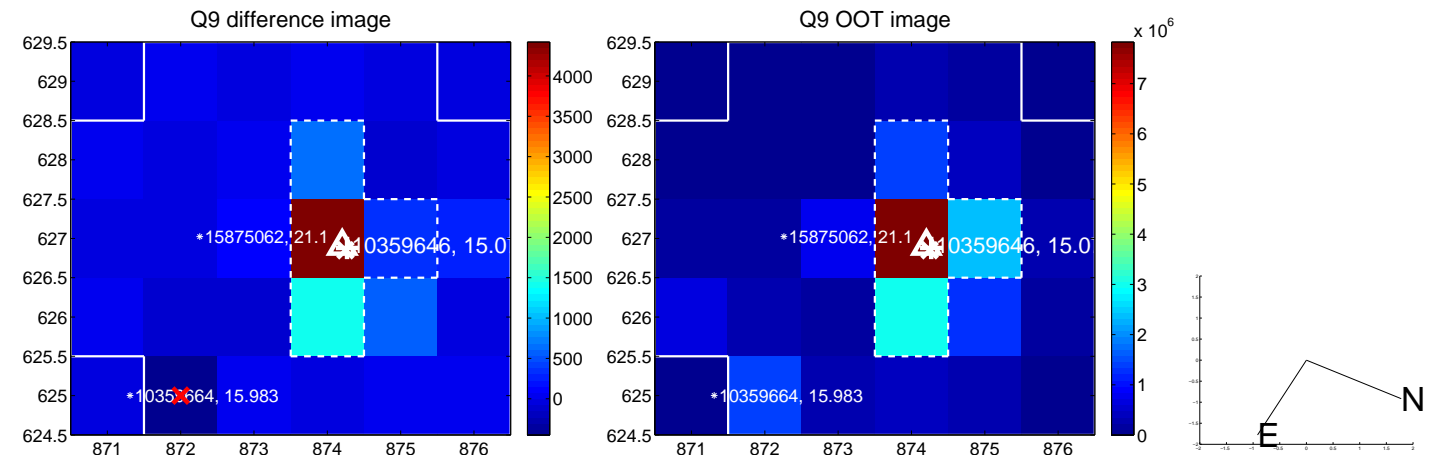
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



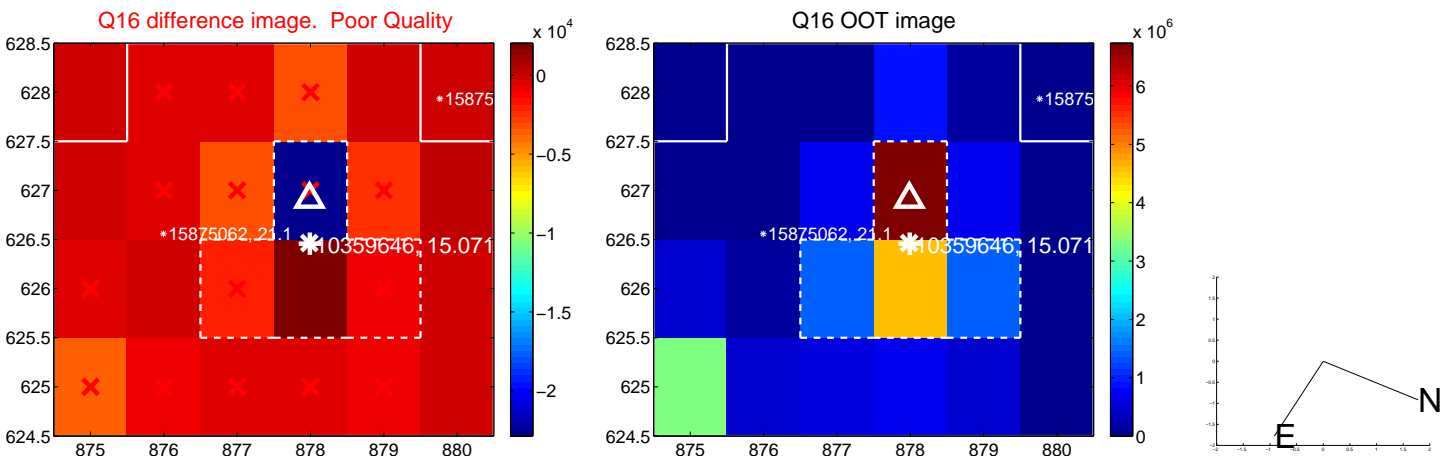
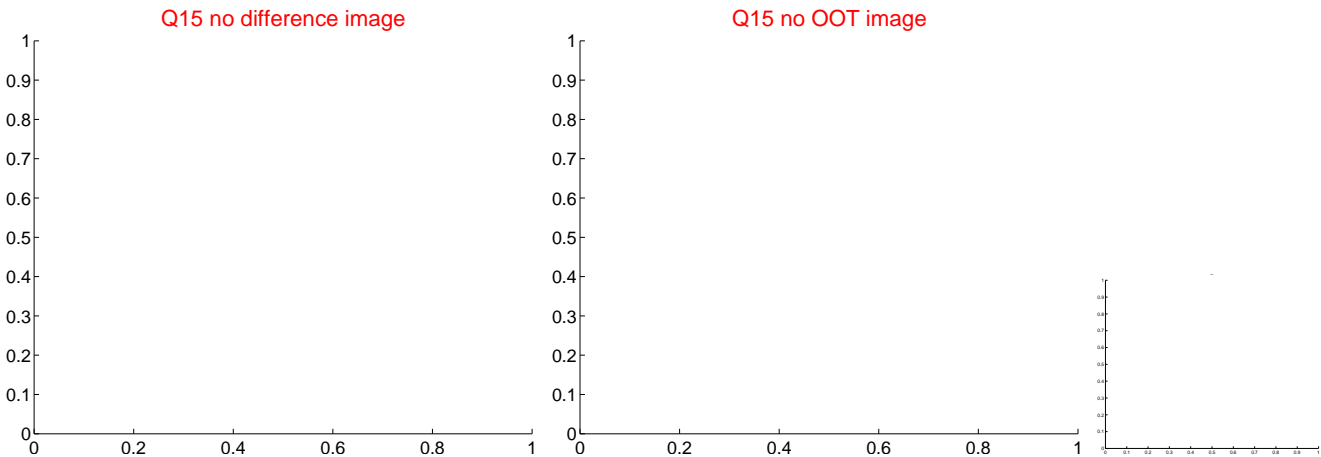
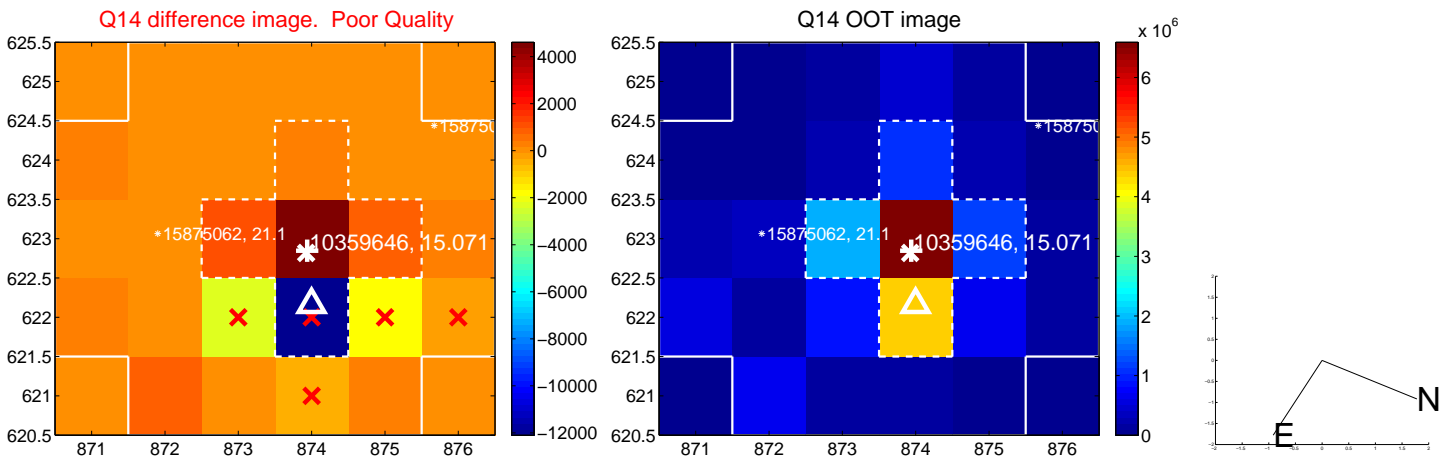
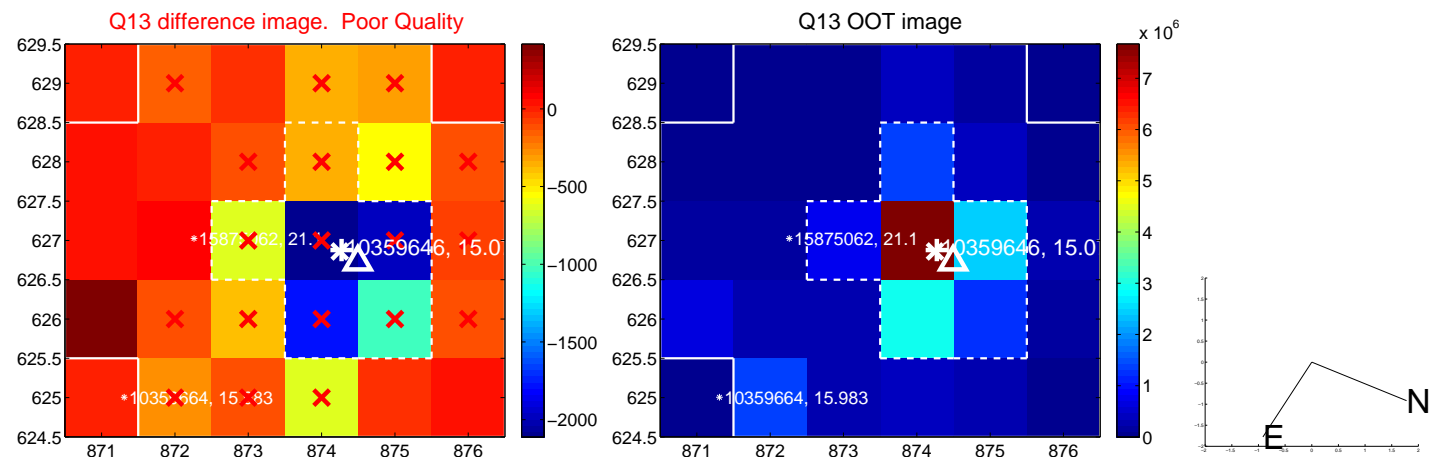
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



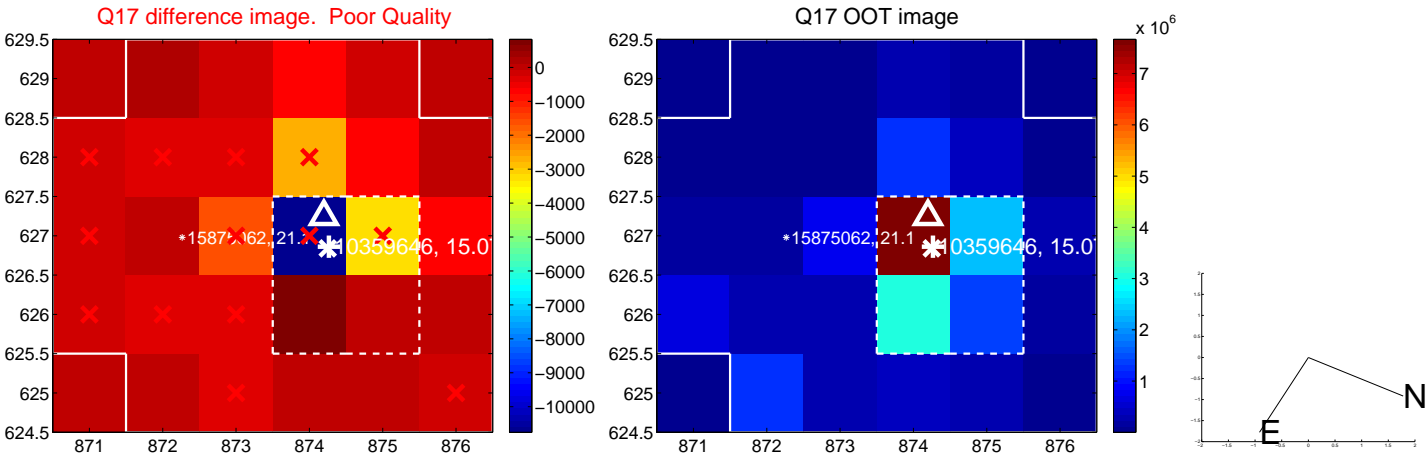
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



folded centroid time series figure for this object.

UKIRT Image

Declination

