

KIC 003526331

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})
003526331-01	OBS	4800.01	2.237564	133.057565	98.3	2.475	7.7	7.6	0.92	6026	1.09	901.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003526331-01	OBS	FP	0.00	1	0	1	0	MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

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.

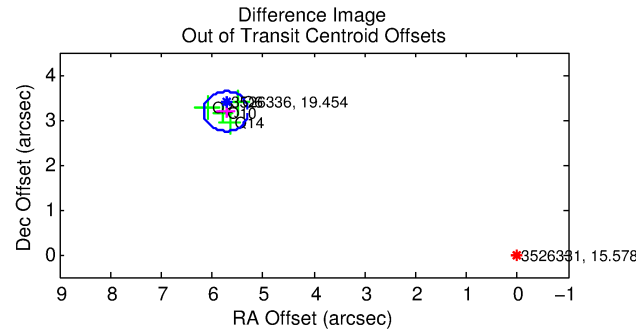
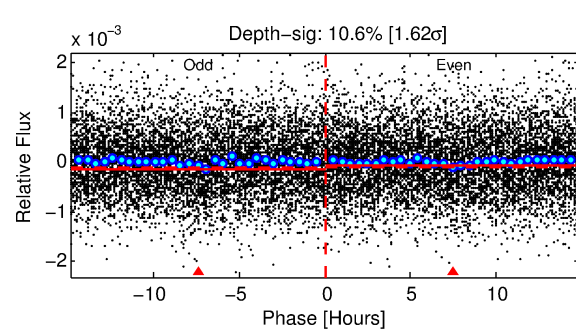
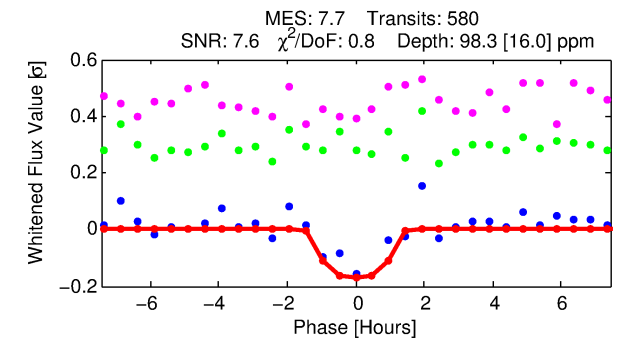
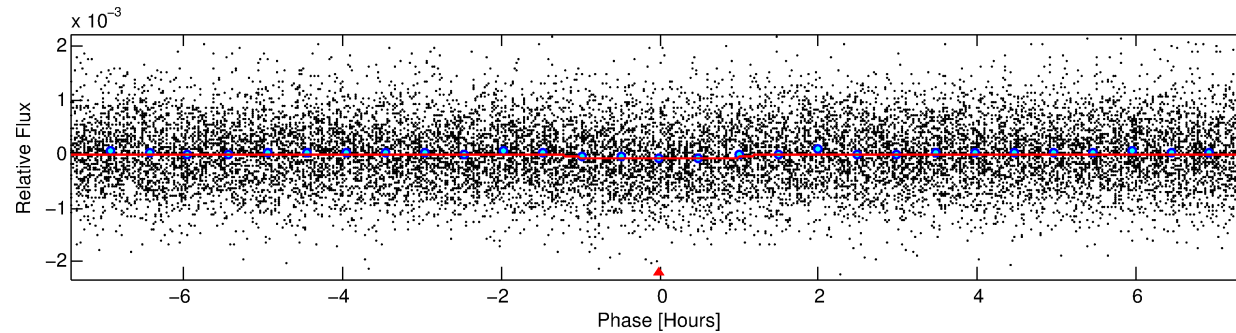
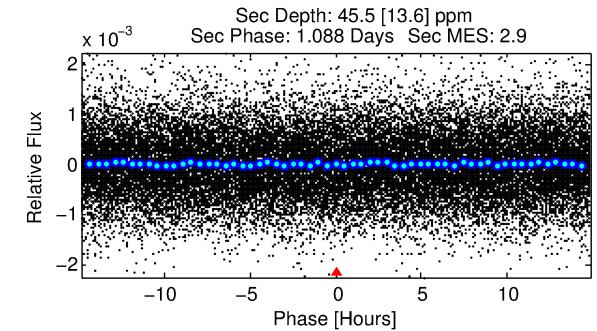
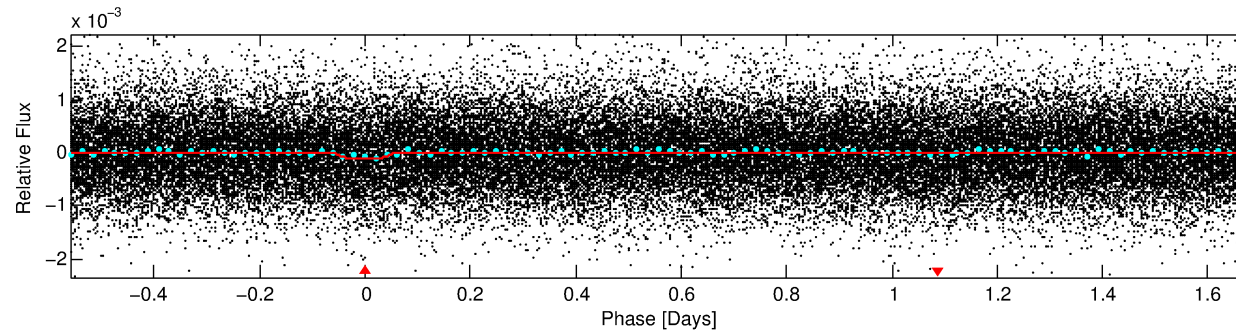
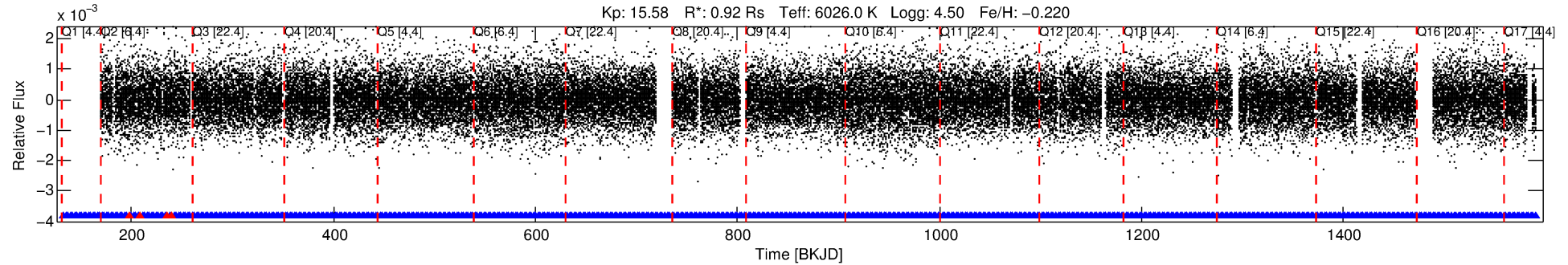
Ephemeris Match Information For 003526331-01

No Significant Match Found

DV One-Page Summary

KIC: 3526331 Candidate: 1 of 1 Period: 2.238 d
KOI: K04800.01 Corr: 0.920

Kp: 15.58 R*: 0.92 Rs Teff: 6026.0 K Logg: 4.50 Fe/H: -0.220



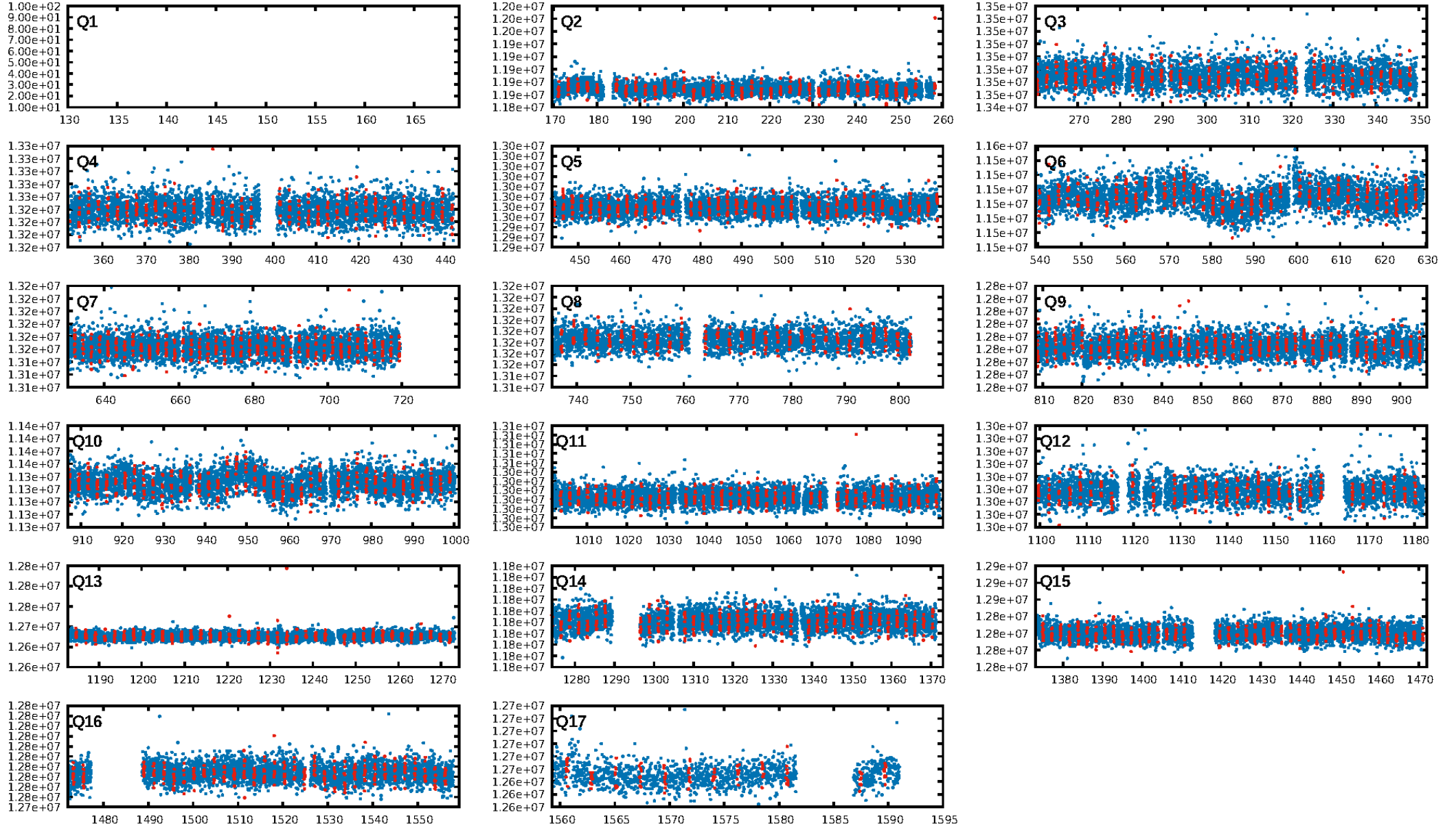
DV Fit Results:

Period = 2.23756 [0.00002] d
Epoch = 133.0576 [0.0052] BKJD
Rp/R* = 0.0109 [0.0095]
a/R* = 3.12 [13.01]
b = 0.91 [0.85]
Seff = 901.76 [364.41]
Teq = 1397 [141] K
Rp = 1.09 [1.02] Re
a = 0.0334 [0.0088] AU
Ag = 23.38 [42.39] [0.53σ]
Teff = 4751 [2111] K [1.59σ]

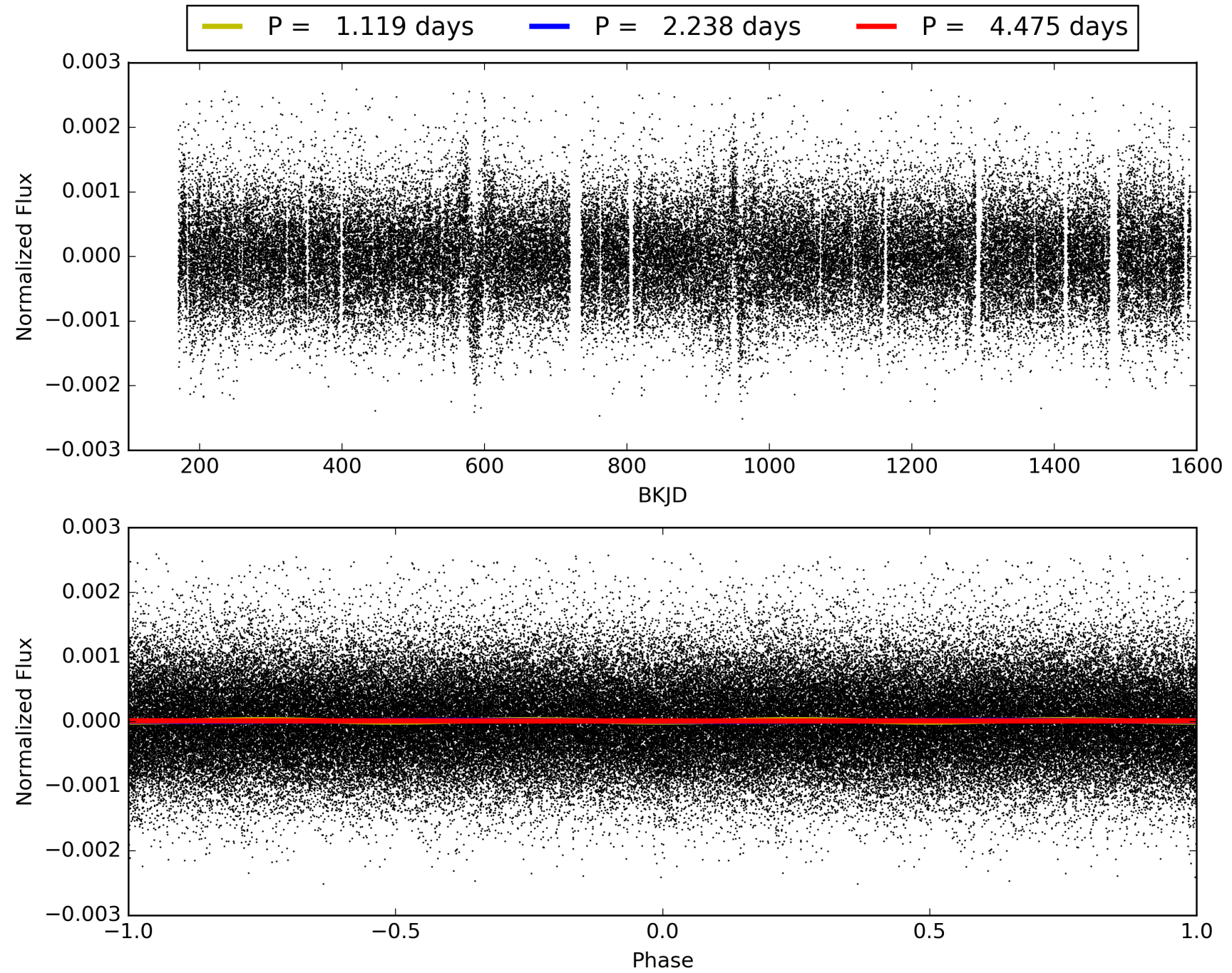
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.89e-15
RollingBand-fgt: 0.99 [564/568]
GhostDiagnostic-chr: -0.04357
Centroid-sig: 0.0%
Centroid-so: 15.047 arcsec [8.59σ]
OotOffset-rm: 6.553 arcsec [44.48σ]
KicOffset-rm: 6.689 arcsec [46.84σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 003526331-01, PDC Light Curves

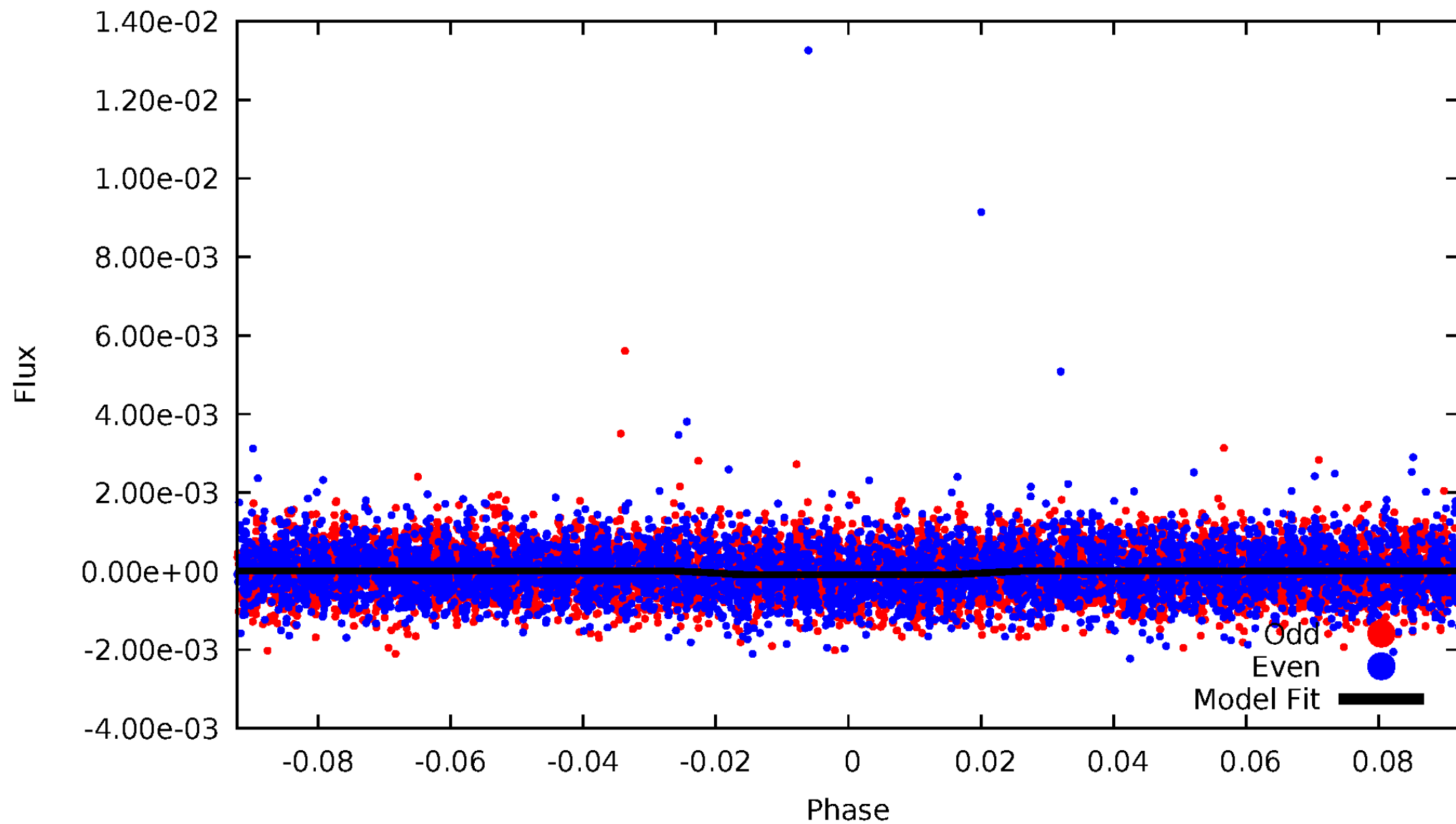


TCE 003526331-01



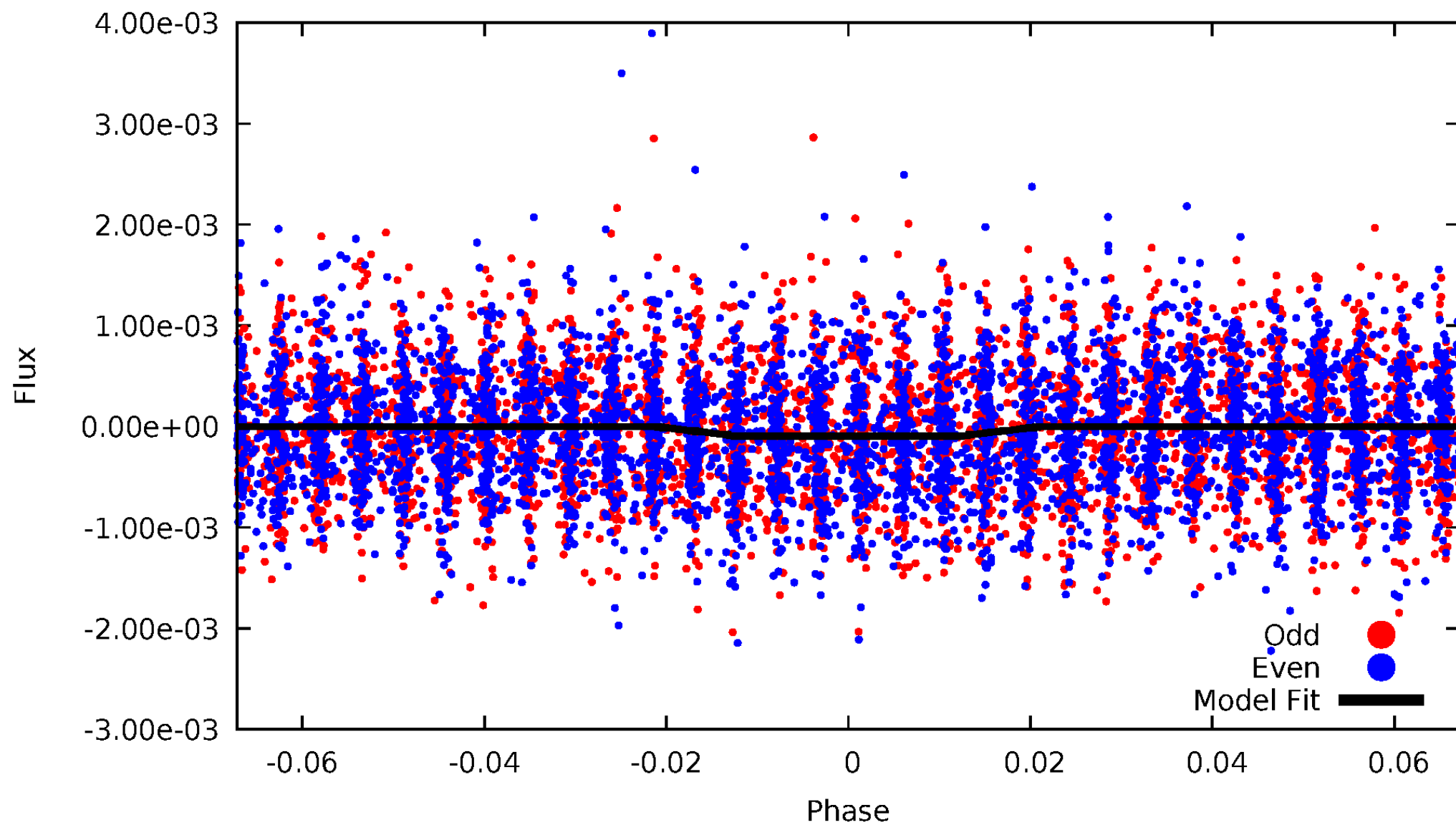
DV Odd/Even

TCE 003526331-01



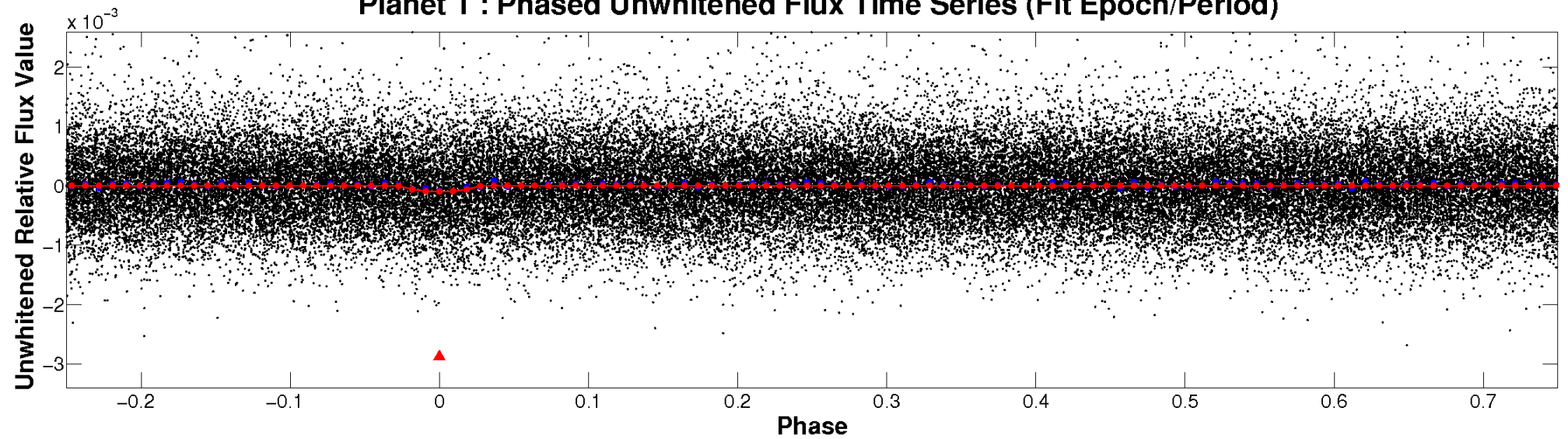
ALT Odd/Even

TCE 003526331-01

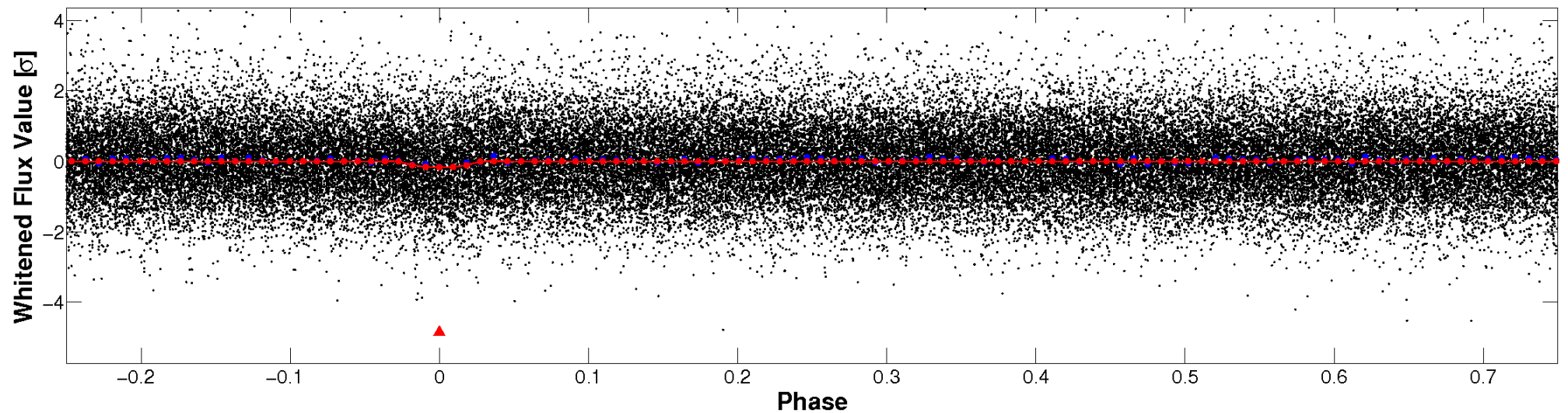


Non-Whitened Vs. Whitened Light Curve

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

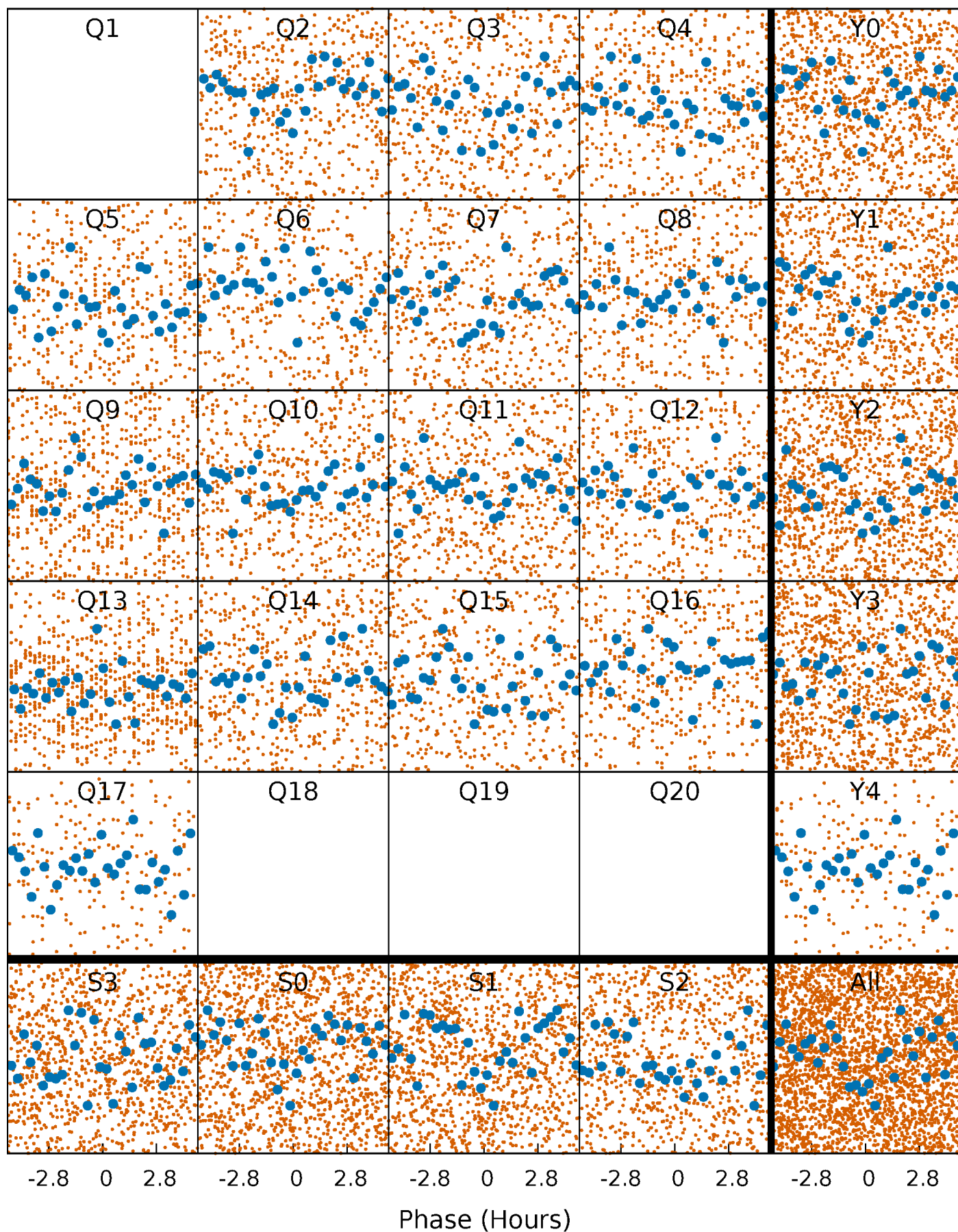


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



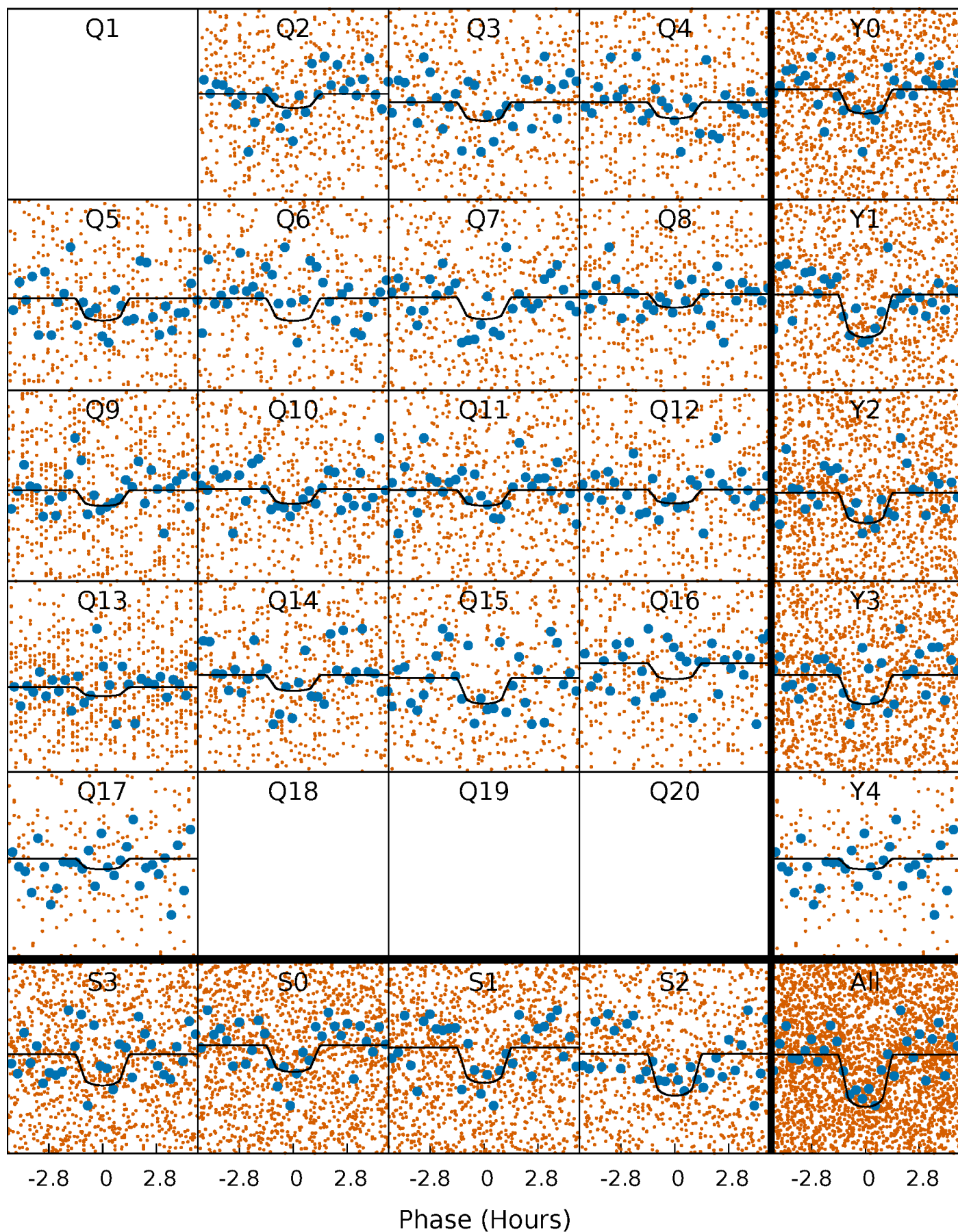
PDC Quarter-Phased Transit Curves

TCE 003526331-01 P= 2.237564 Days $T_0=133.057566$ (BKJD)



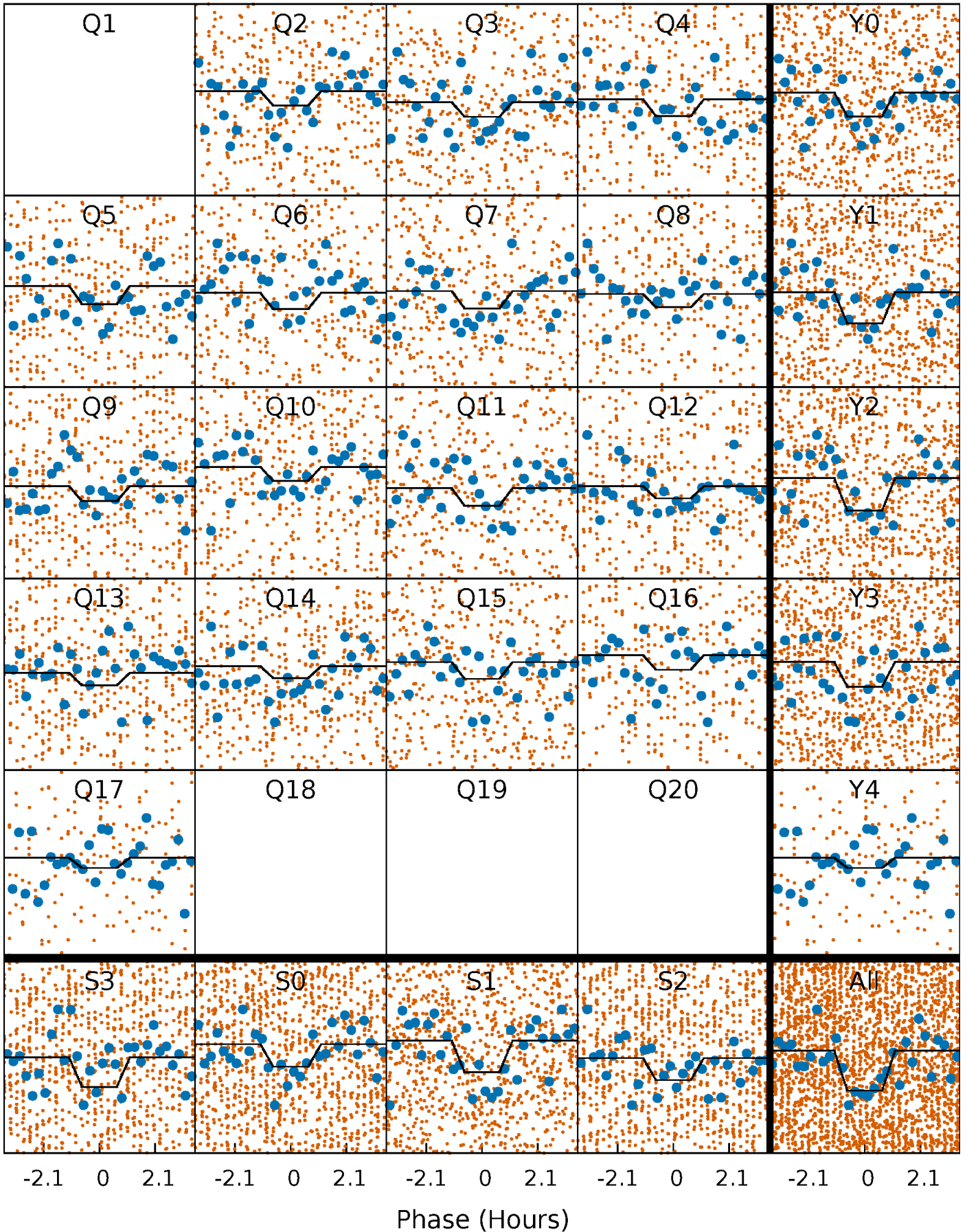
DV Quarter-Phased Transit Curves

TCE 003526331-01 P= 2.237564 Days $T_0=133.057566$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

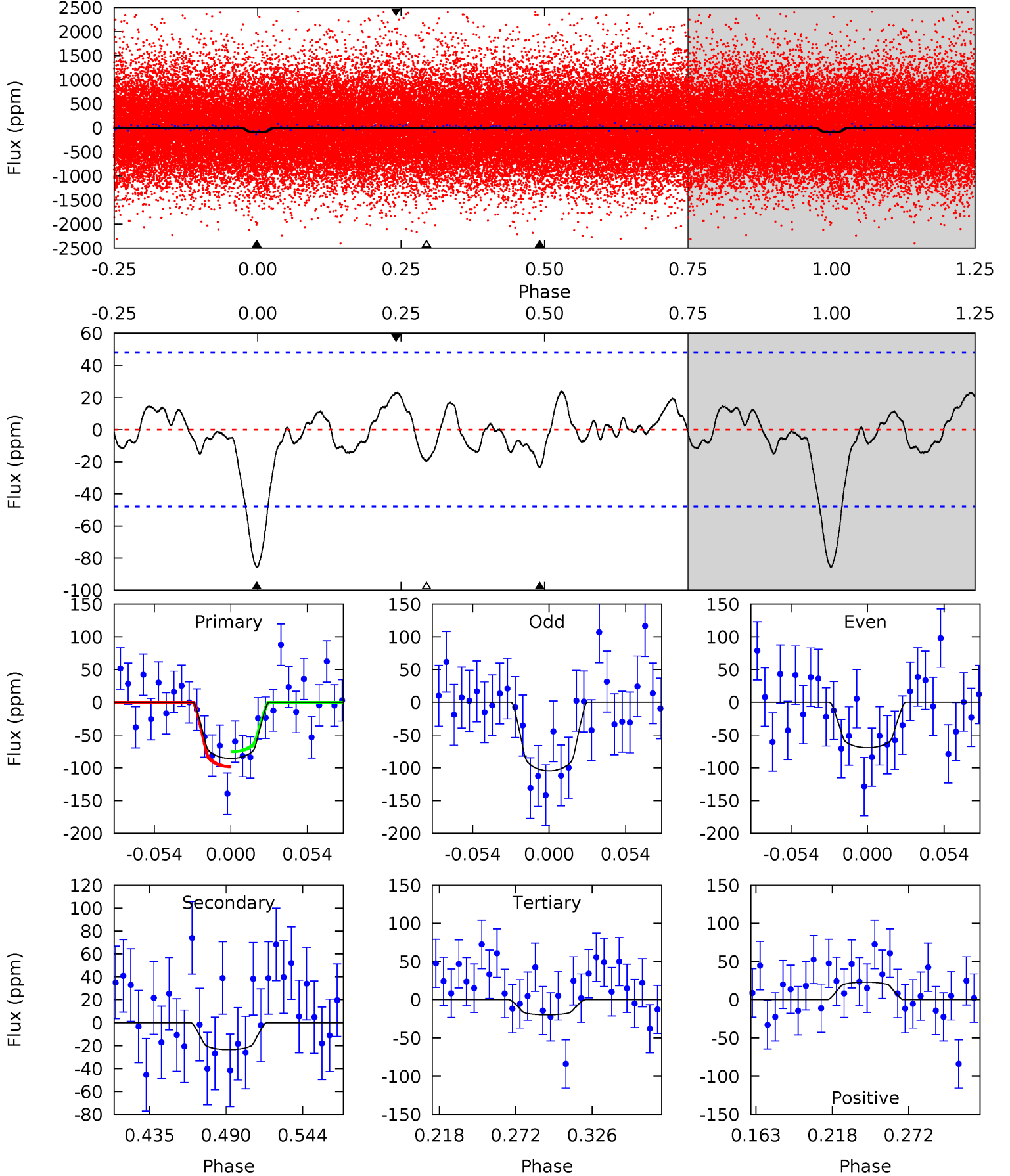
TCE 003526331-01 P= 2.237544 Days $T_0=133.061292$ (BKJD)



DV Model-Shift Uniqueness Test

003526331-01, P = 2.237564 Days, E = 133.057566 Days

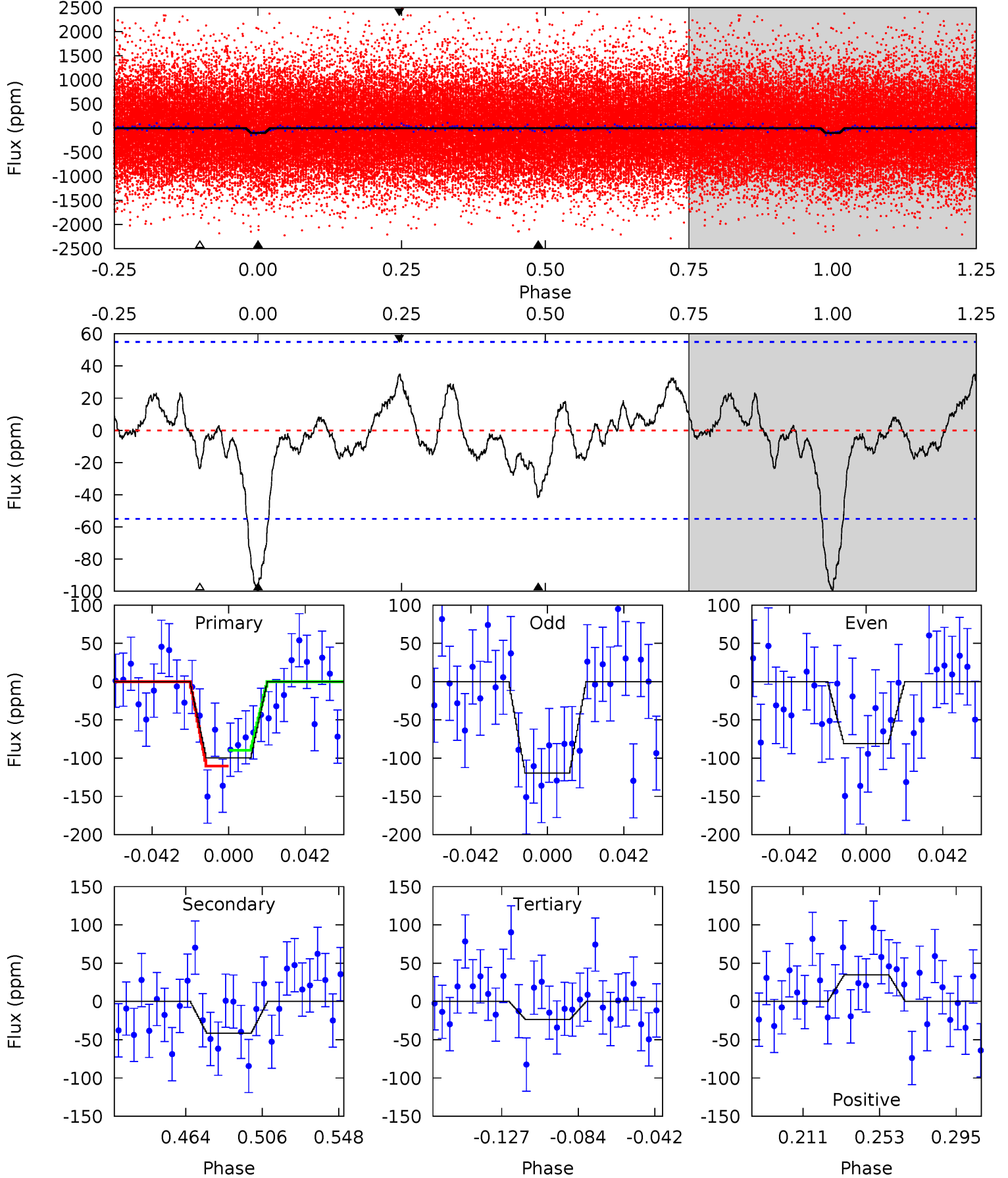
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.40	2.31	1.94	2.27	4.69	1.92	0.94	6.47	6.14	0.37	0.04	1.74	0.81	0.22	1.12



Alt Model-Shift Uniqueness Test

003526331-01, P = 2.237544 Days, E = 133.061292 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.60	3.59	2.02	3.01	4.74	2.03	1.13	6.58	5.59	1.57	0.58	1.66	0.89	0.26	0.88



Stellar Parameters For KIC 003526331

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6026^{+162}_{-198}	$4.505^{+0.052}_{-0.208}$	$-0.220^{+0.300}_{-0.300}$	$0.924^{+0.291}_{-0.097}$	$0.995^{+0.130}_{-0.130}$	$1.778^{+0.397}_{-0.951}$
	+3%/-3%	+1%/-5%	+136%/-136%	+31%/-10%	+13%/-13%	+22%/-53%
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 003526331-01 / KOI 4800.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 10	$1.31^{+0.96}_{-0.83}$	1990^{+145}_{-98}	4037^{+2062}_{-846}	$7.976^{+46.710}_{-5.870}$
Alt.	-42 ± 12	$1.21^{+1.01}_{-0.79}$	1984^{+147}_{-89}	4594^{+3084}_{-913}	16^{+120}_{-11}

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

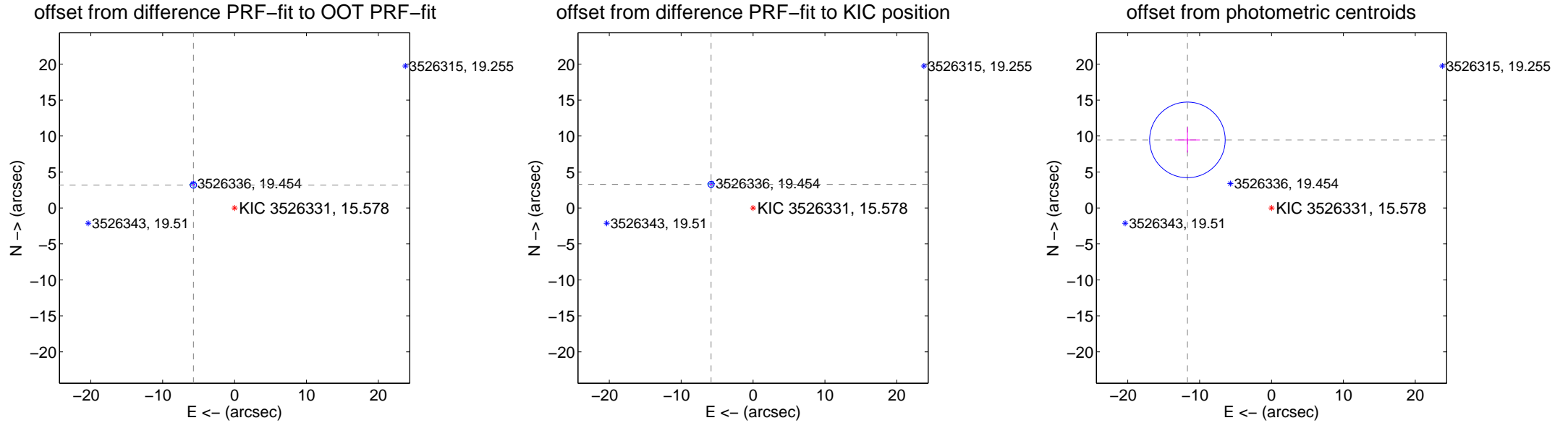
DV Centroid Data

Supplemental centroid analysis for 003526331-01. Kepler magnitude: 15.58. Transit SNR 7.57

There are 4 quarters with good PRF difference image offsets

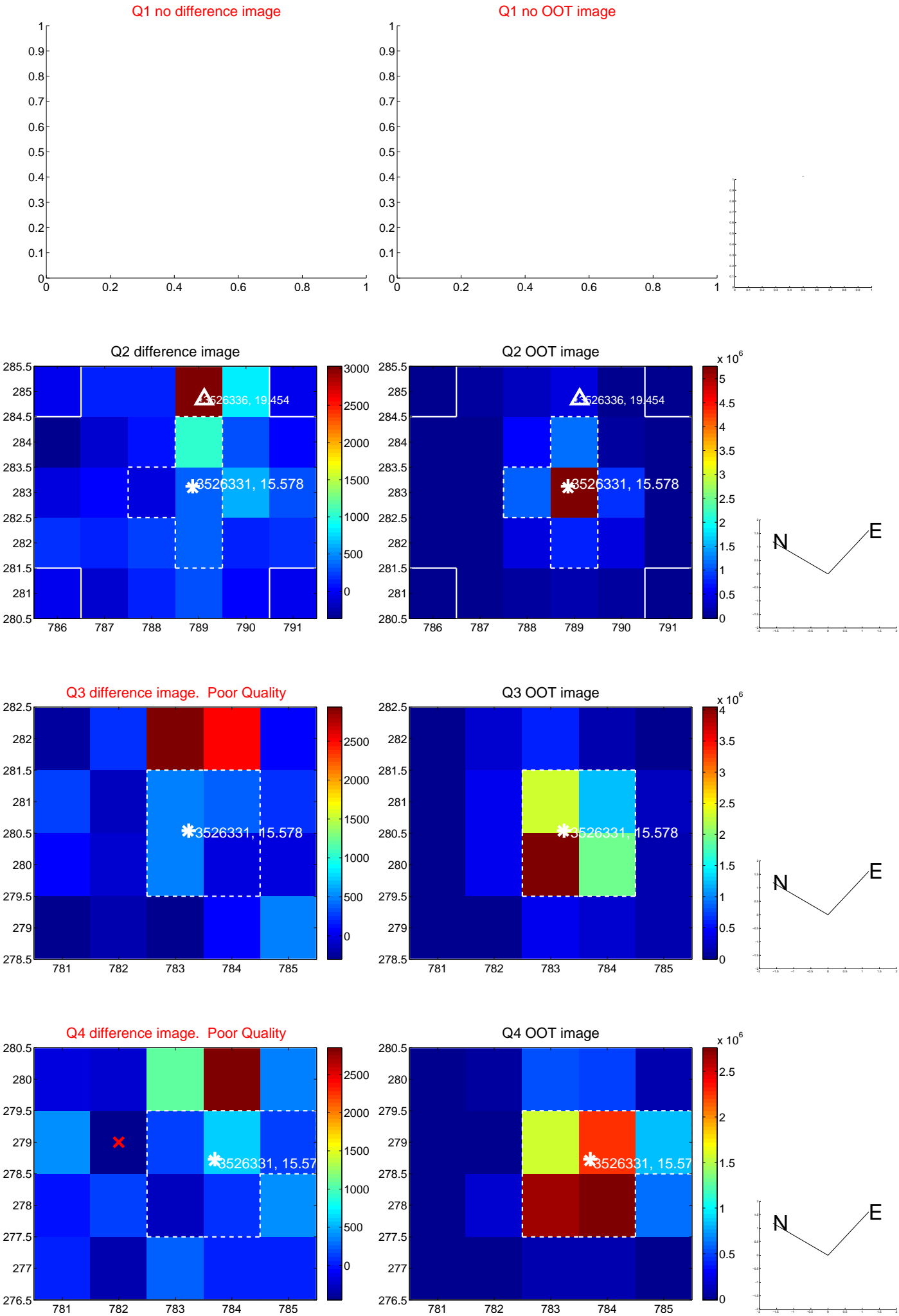
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.553 ± 0.147	44.48	5.726 ± 0.154	3.186 ± 0.125
PRF-fit source offset from KIC position	6.689 ± 0.143	46.84	5.835 ± 0.149	3.270 ± 0.119
photometric centroid source offset	15.05 ± 1.75	8.59	11.70 ± 1.75	9.46 ± 1.76

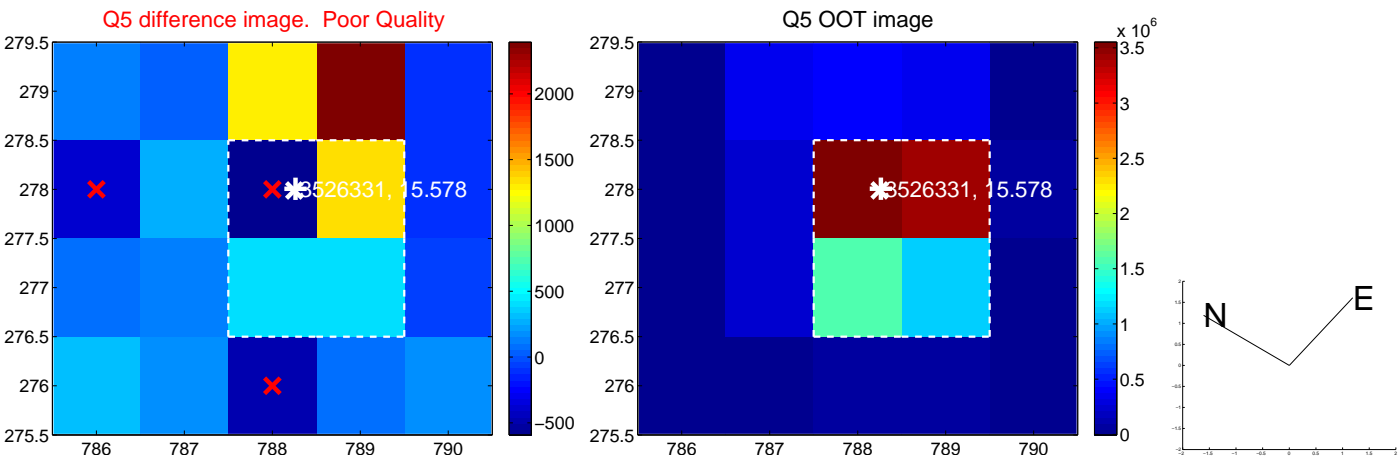


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

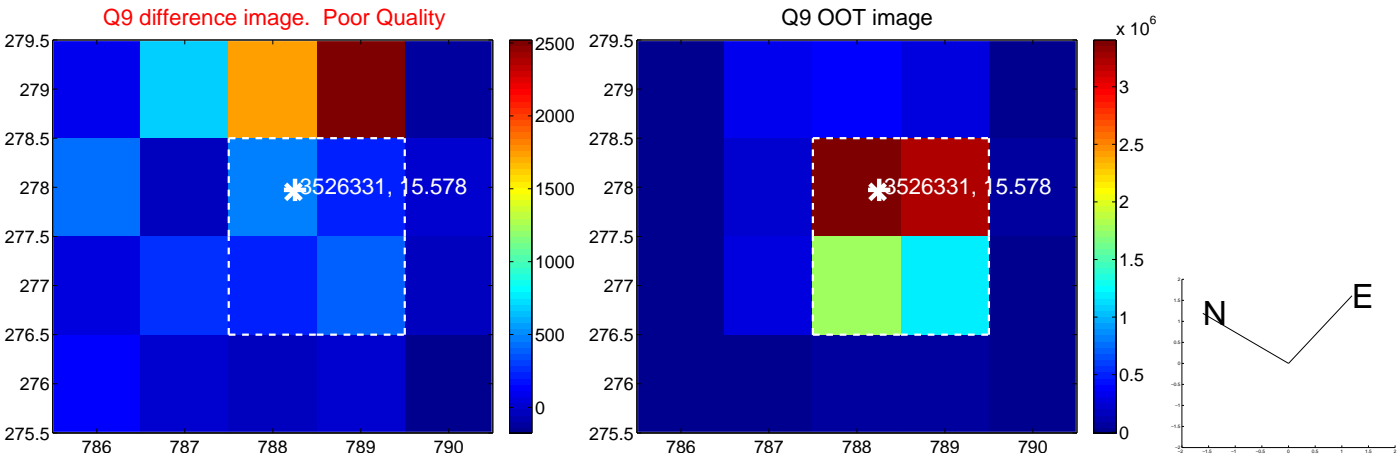
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



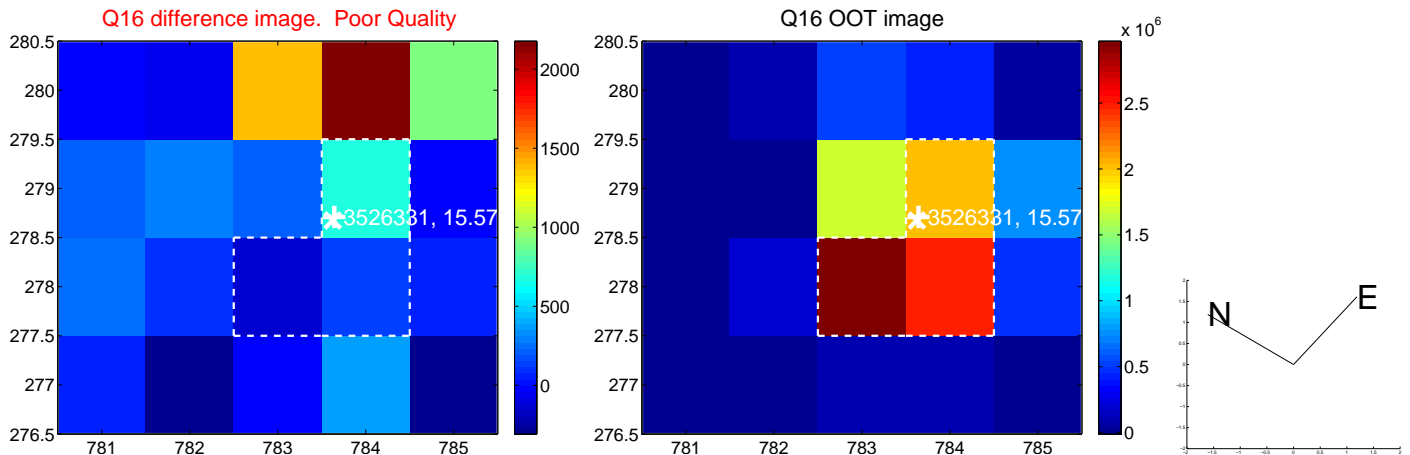
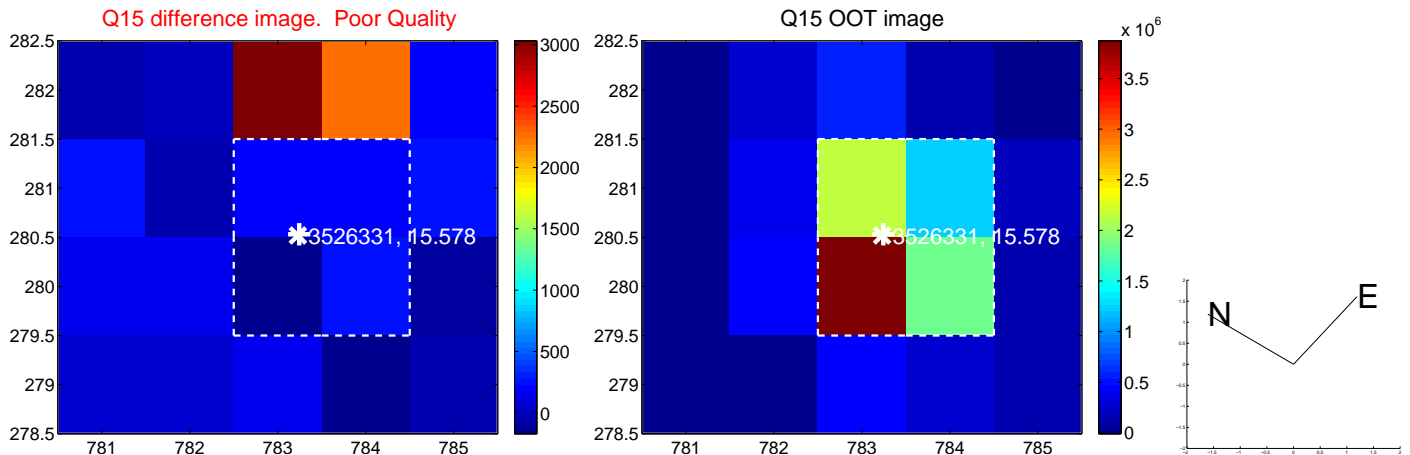
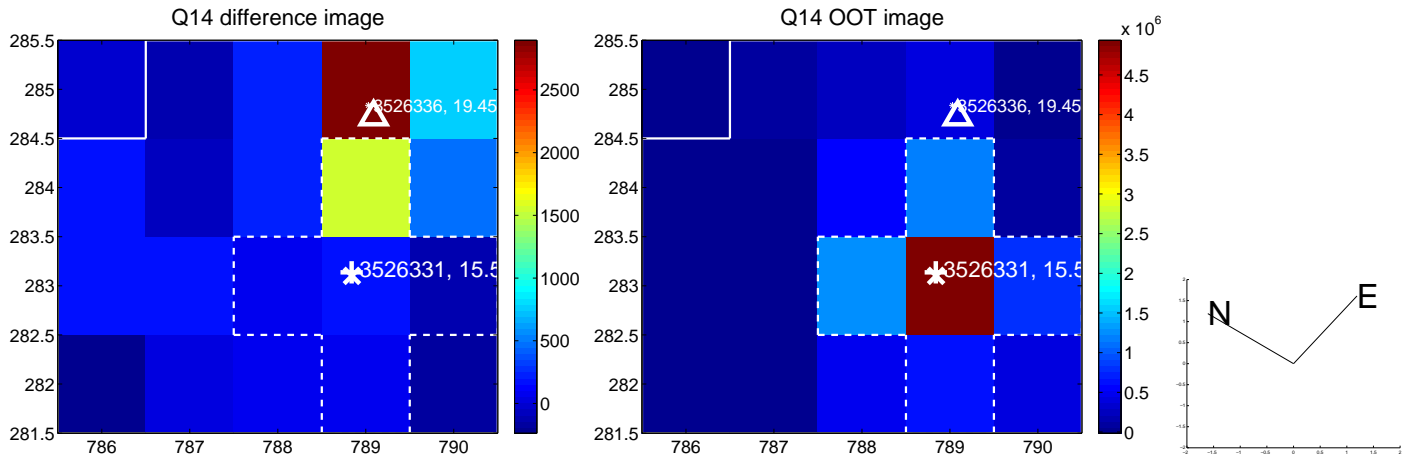
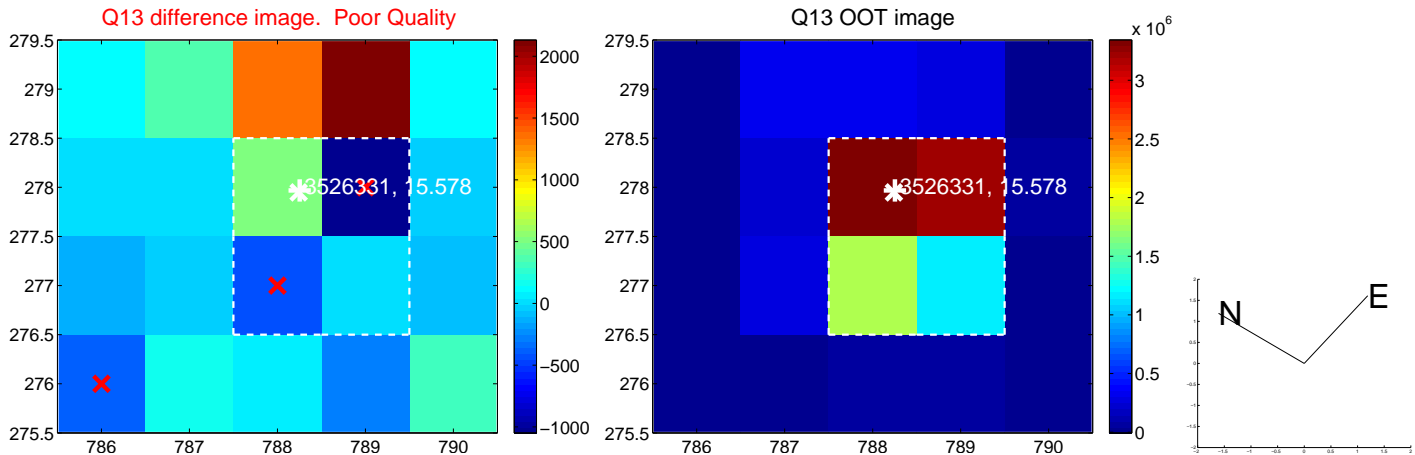
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



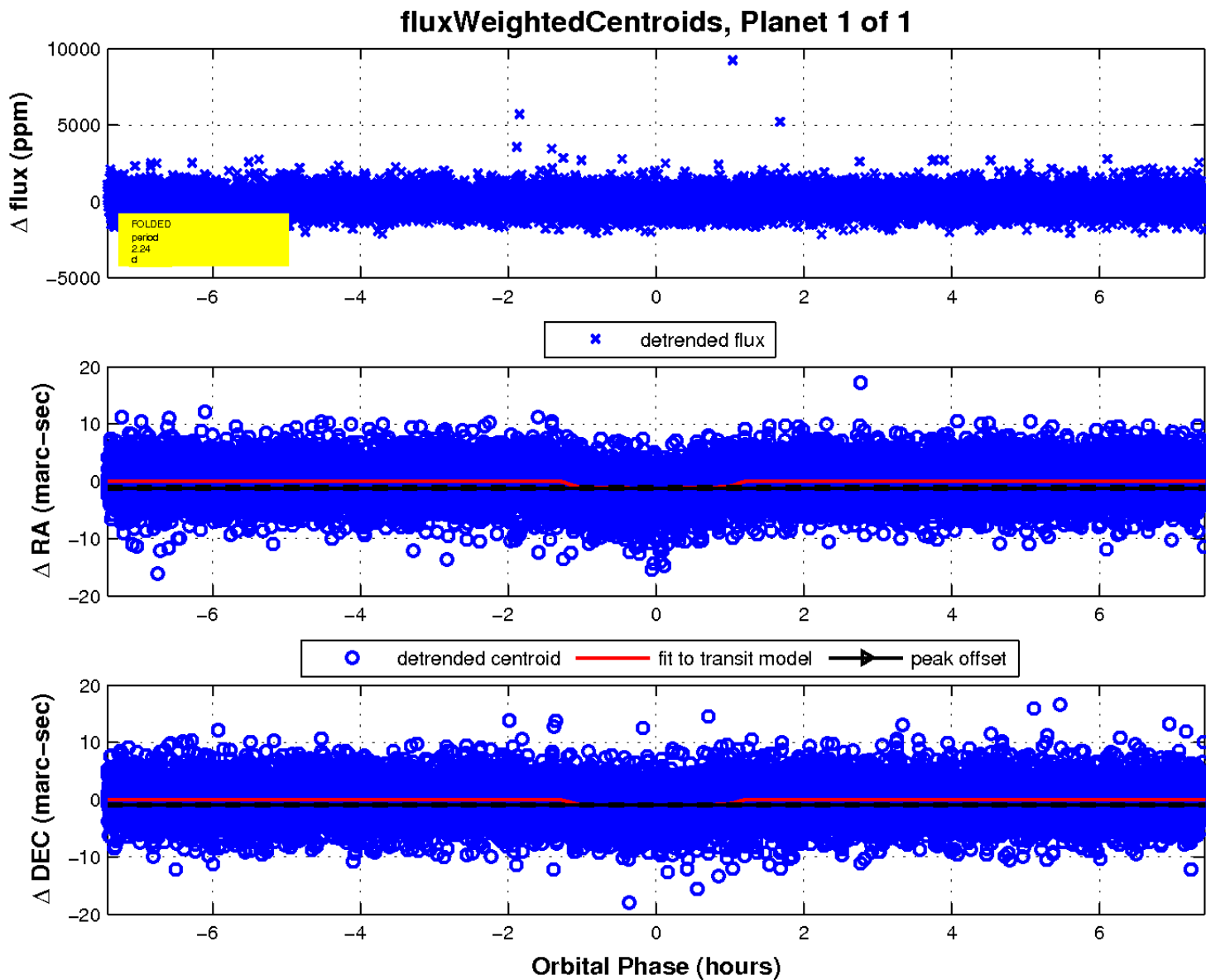
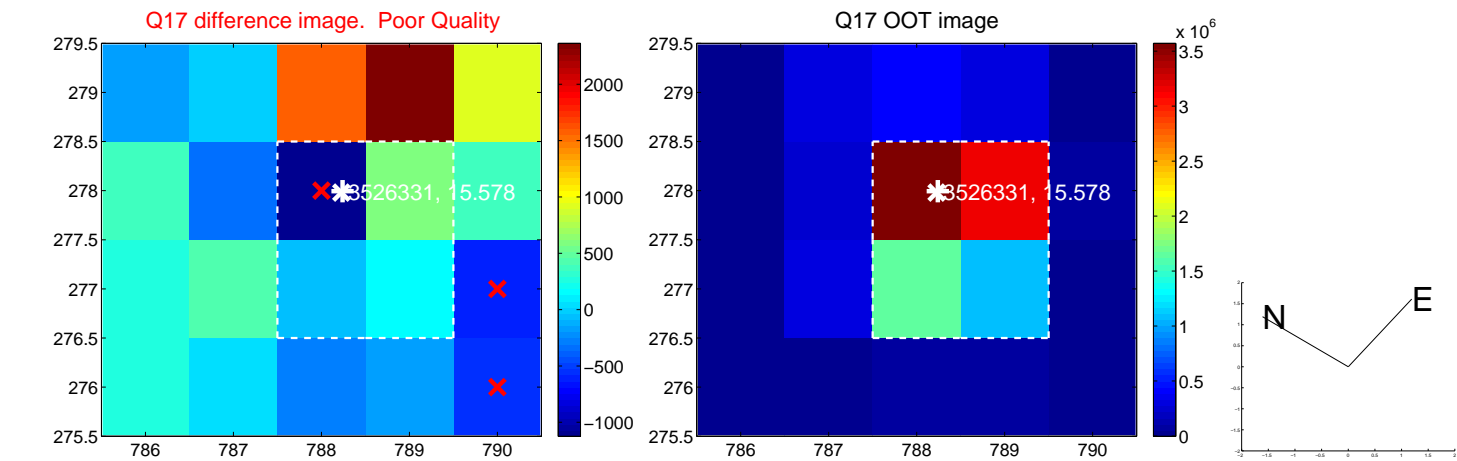
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

