

KIC 003356193

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})
003356193-01	OBS	6331.01	5.822979	133.996226	265.9	3.087	7.8	7.9	0.80	5704	1.48	165.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003356193-01	OBS	PC	0.45	0	0	0	0	CENT_UNCERTAIN

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

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

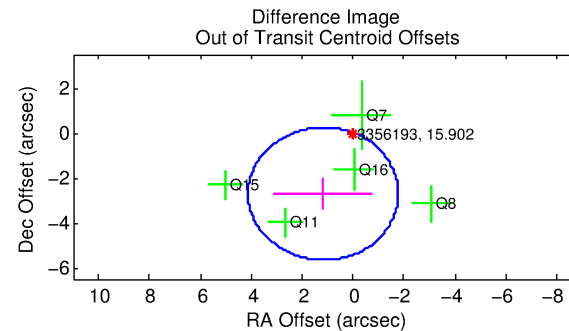
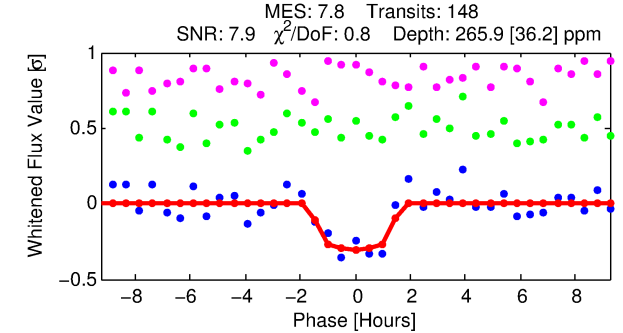
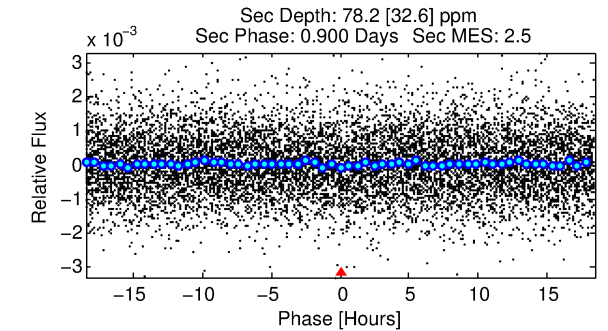
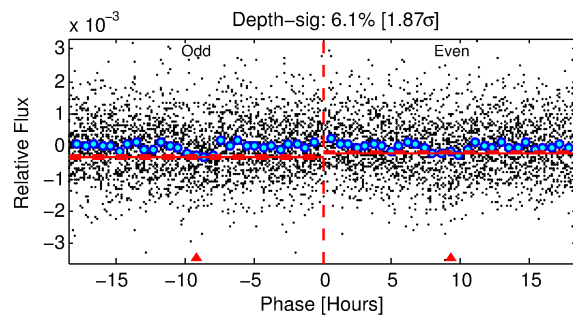
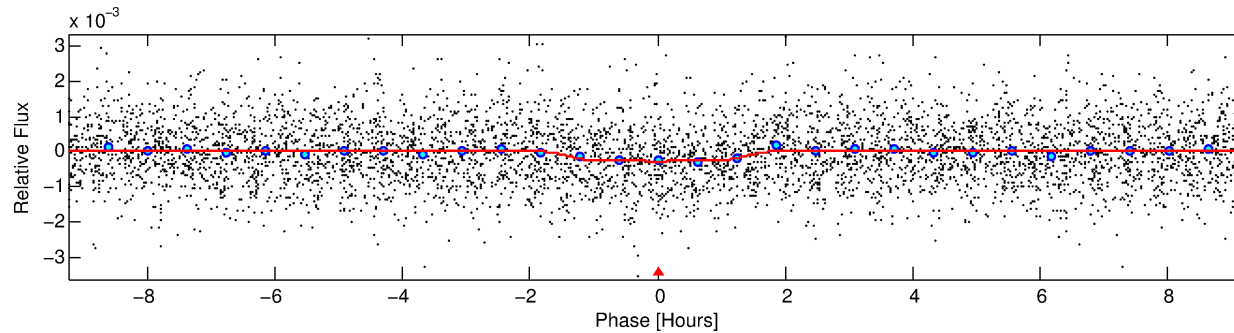
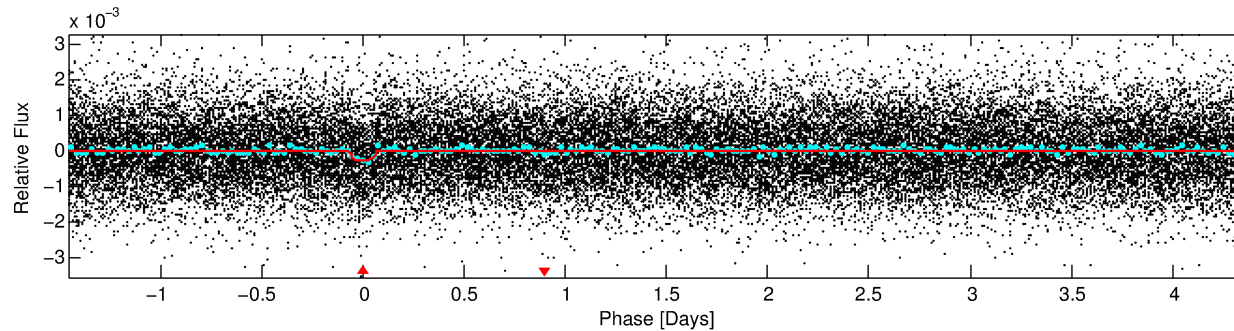
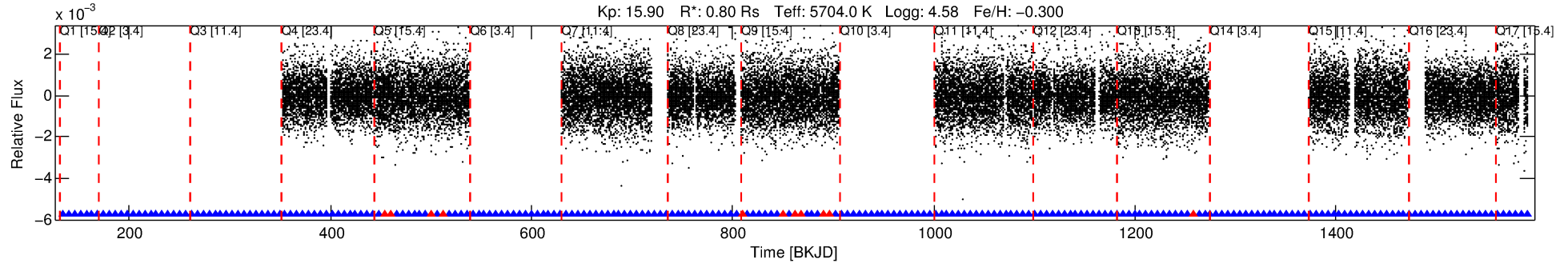
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003356193-01

No Significant Match Found

DV One-Page Summary

KIC: 3356193 Candidate: 1 of 1 Period: 5.823 d
KOI: K06331.01 Corr: 0.837



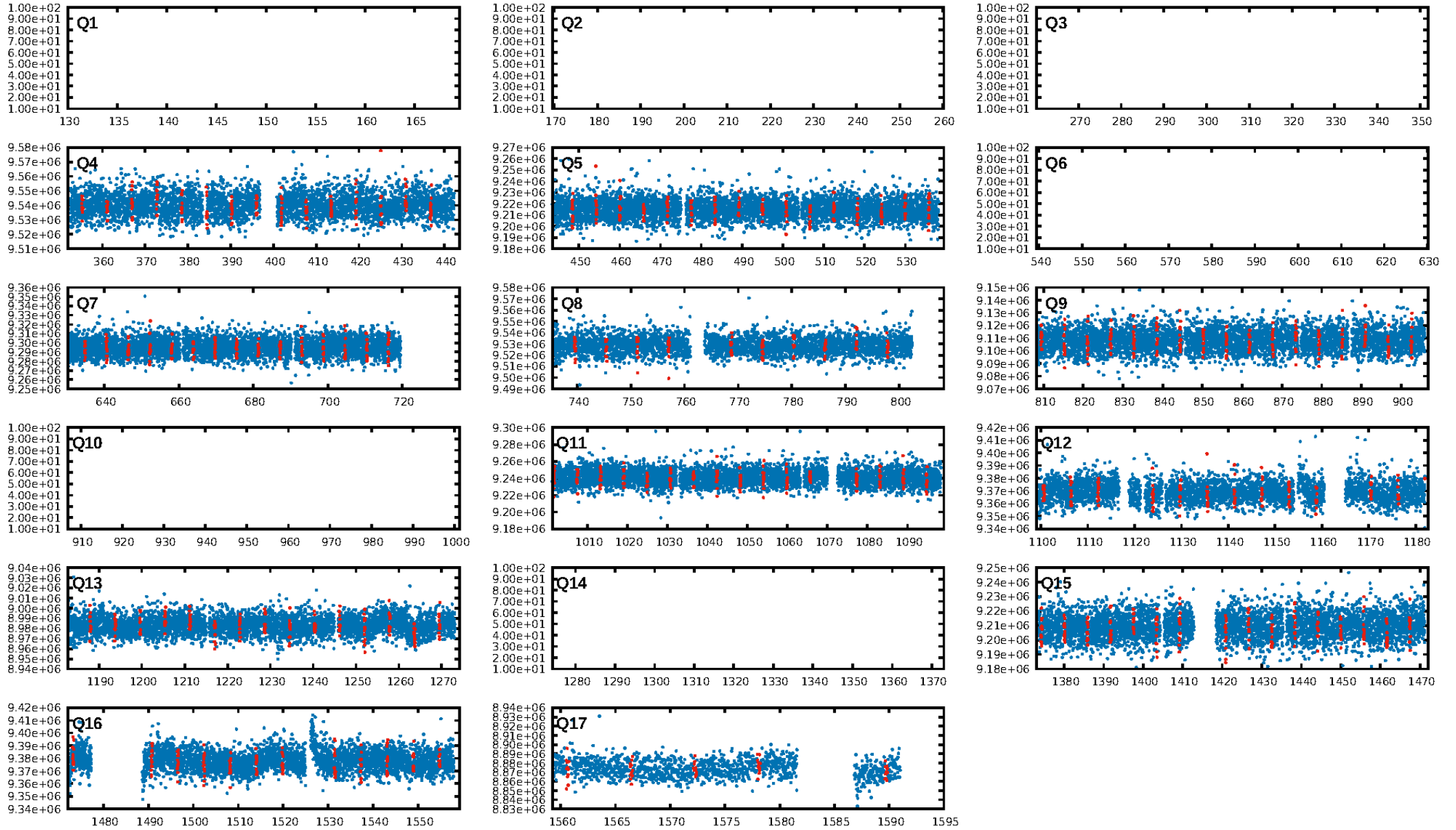
DV Fit Results:

Period = 5.82298 [0.00006] d
Epoch = 133.9962 [0.0084] BKJD
Rp/R* = 0.0168 [0.0202]
a/R* = 8.57 [47.07]
b = 0.83 [2.16]
Seff = 165.55 [53.05]
Teq = 915 [73] K
Rp = 1.48 [1.80] Re
a = 0.0609 [0.0122] AU
Ag = 73.14 [179.19] [0.40 σ]
Teff = 4136 [2518] K [1.28 σ]

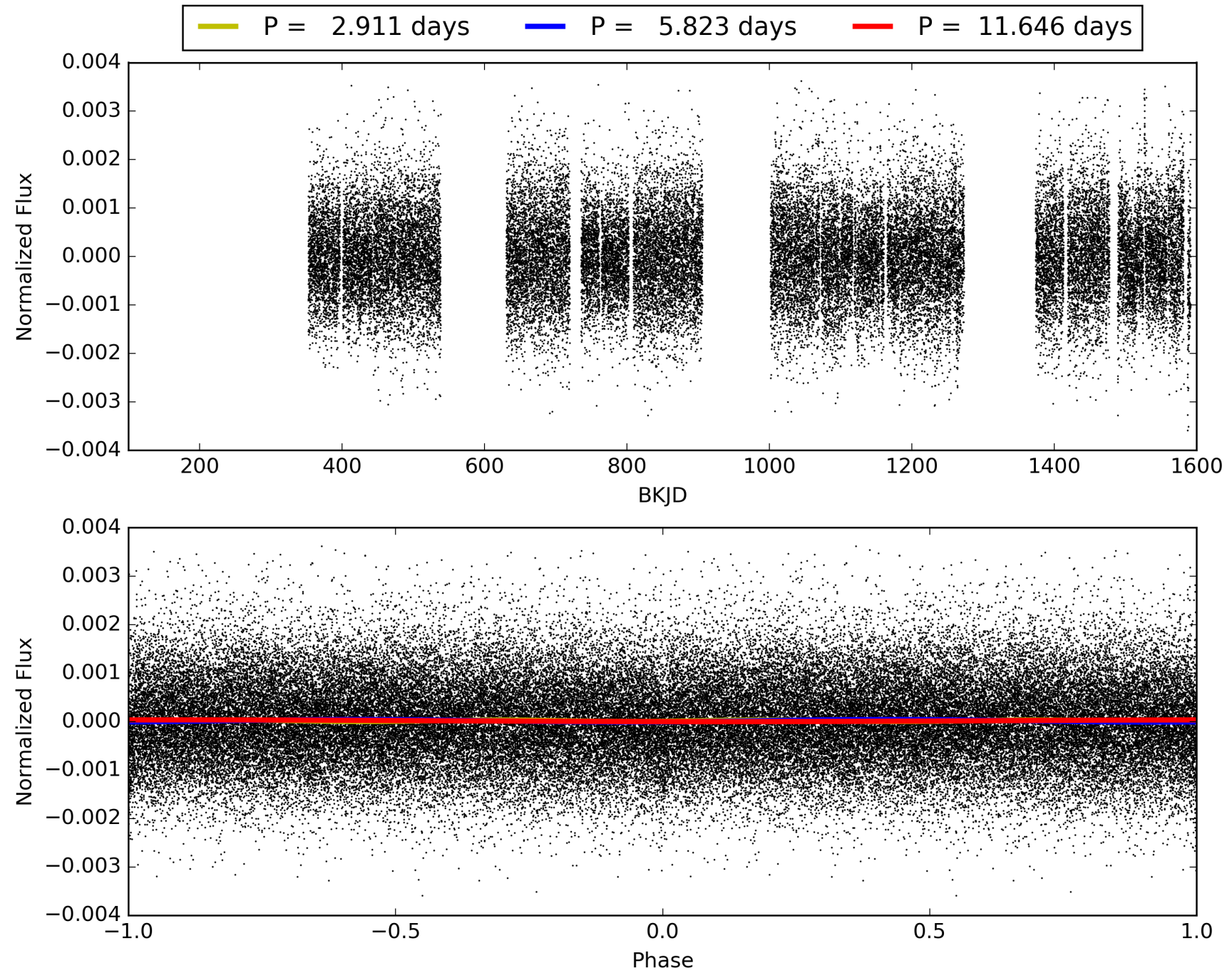
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.00e-15
RollingBand-fgt: 0.92 [132/143]
GhostDiagnostic-chr: 0.5729
Centroid-sig: 7.2%
Centroid-so: 3.894 arcsec [1.95 σ]
OotOffset-rm: 2.949 arcsec [2.99 σ]
OotOffset-st: 0/3/2/0 [5]
KicOffset-rm: 3.043 arcsec [3.18 σ]
KicOffset-st: 0/3/2/0 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 1.00 [11/11]

TCE 003356193-01, PDC Light Curves

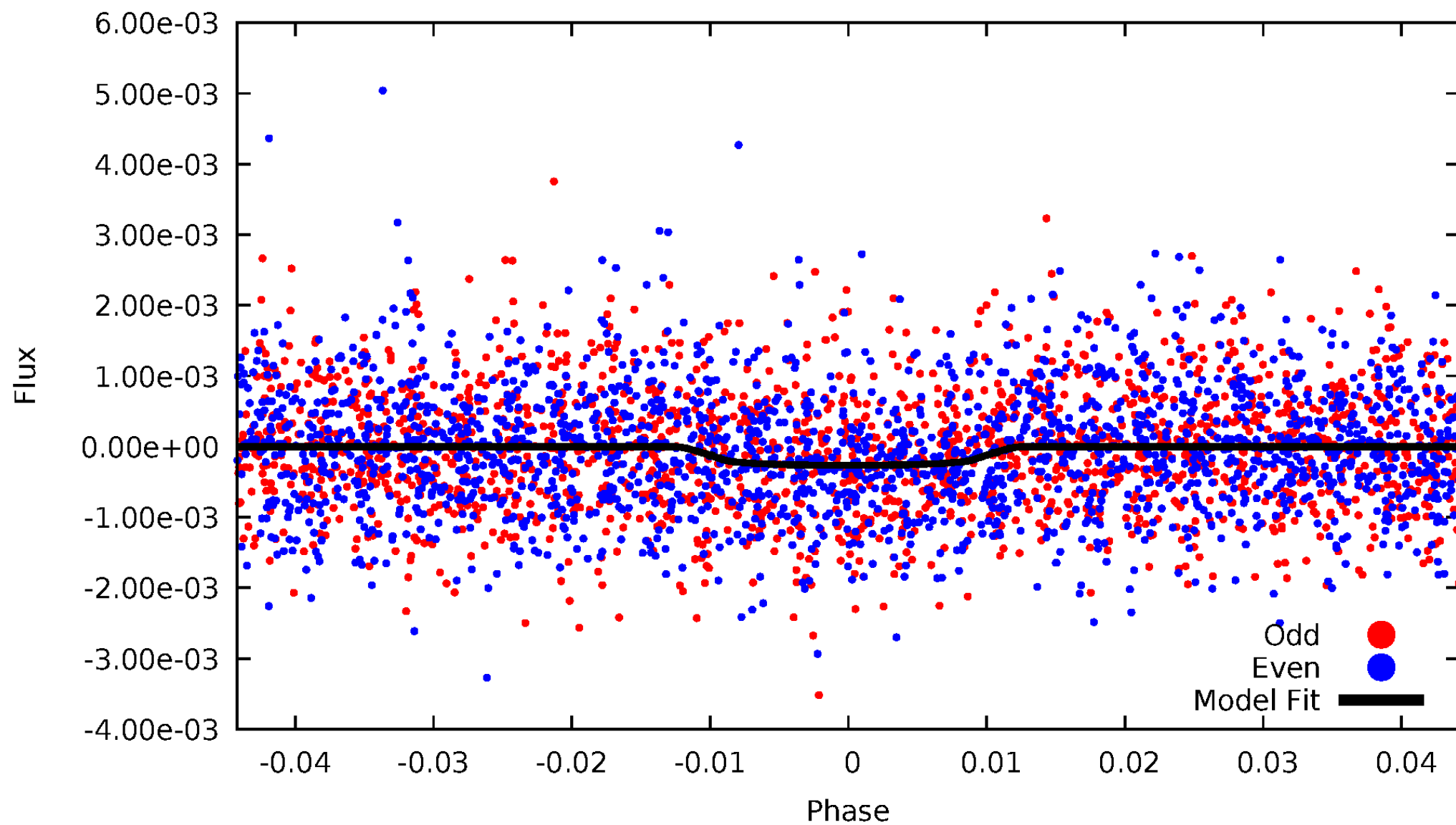


TCE 003356193-01



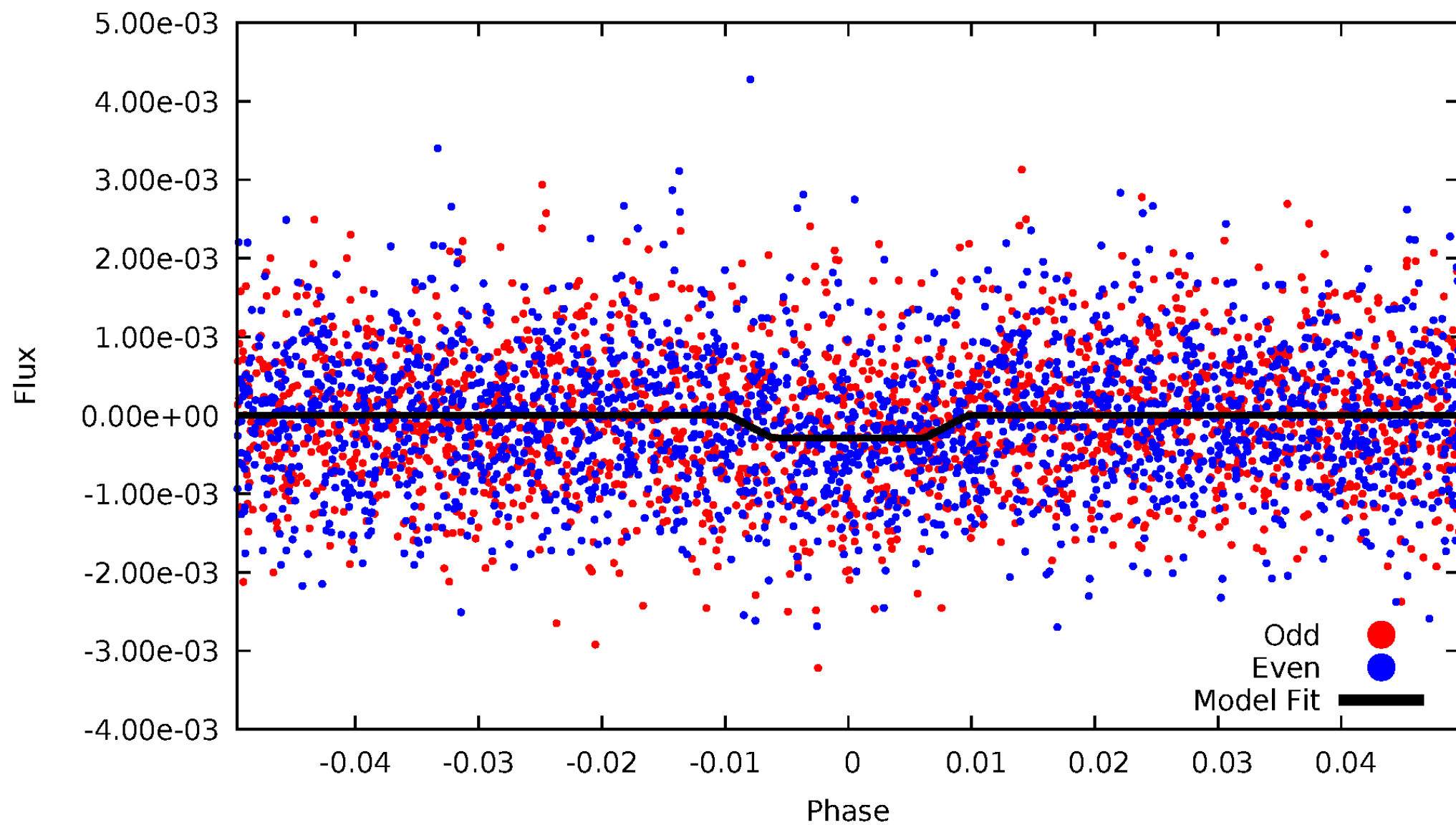
DV Odd/Even

TCE 003356193-01



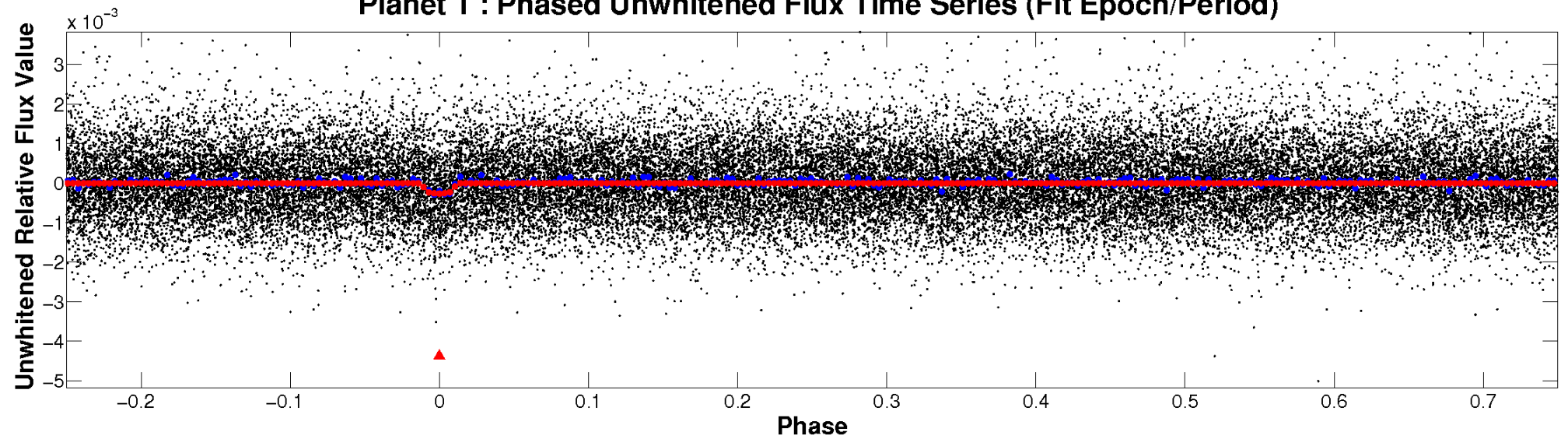
ALT Odd/Even

TCE 003356193-01

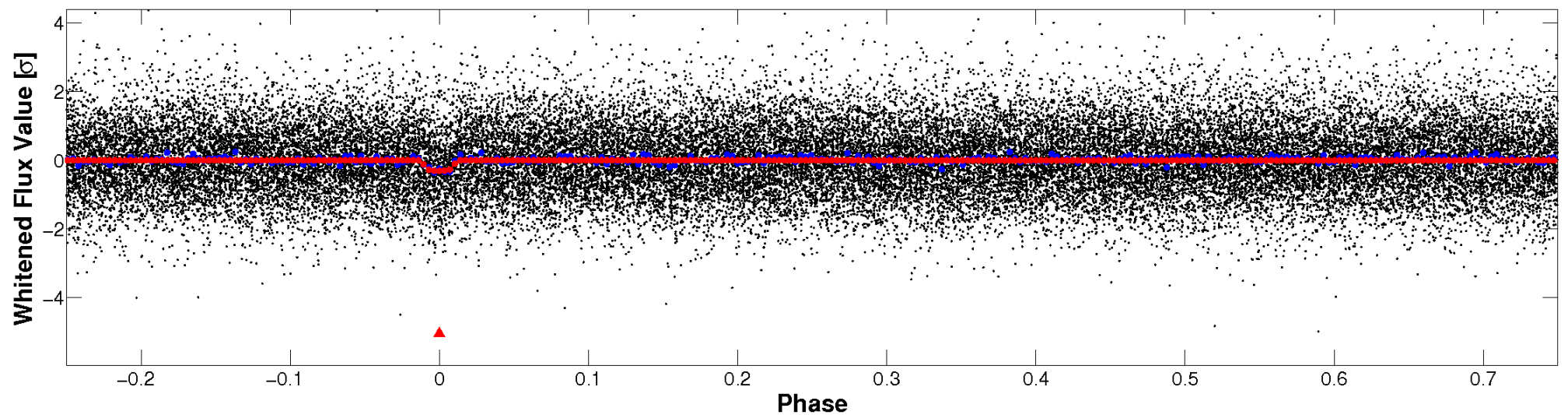


Non-Whitened Vs. Whitened Light Curve

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

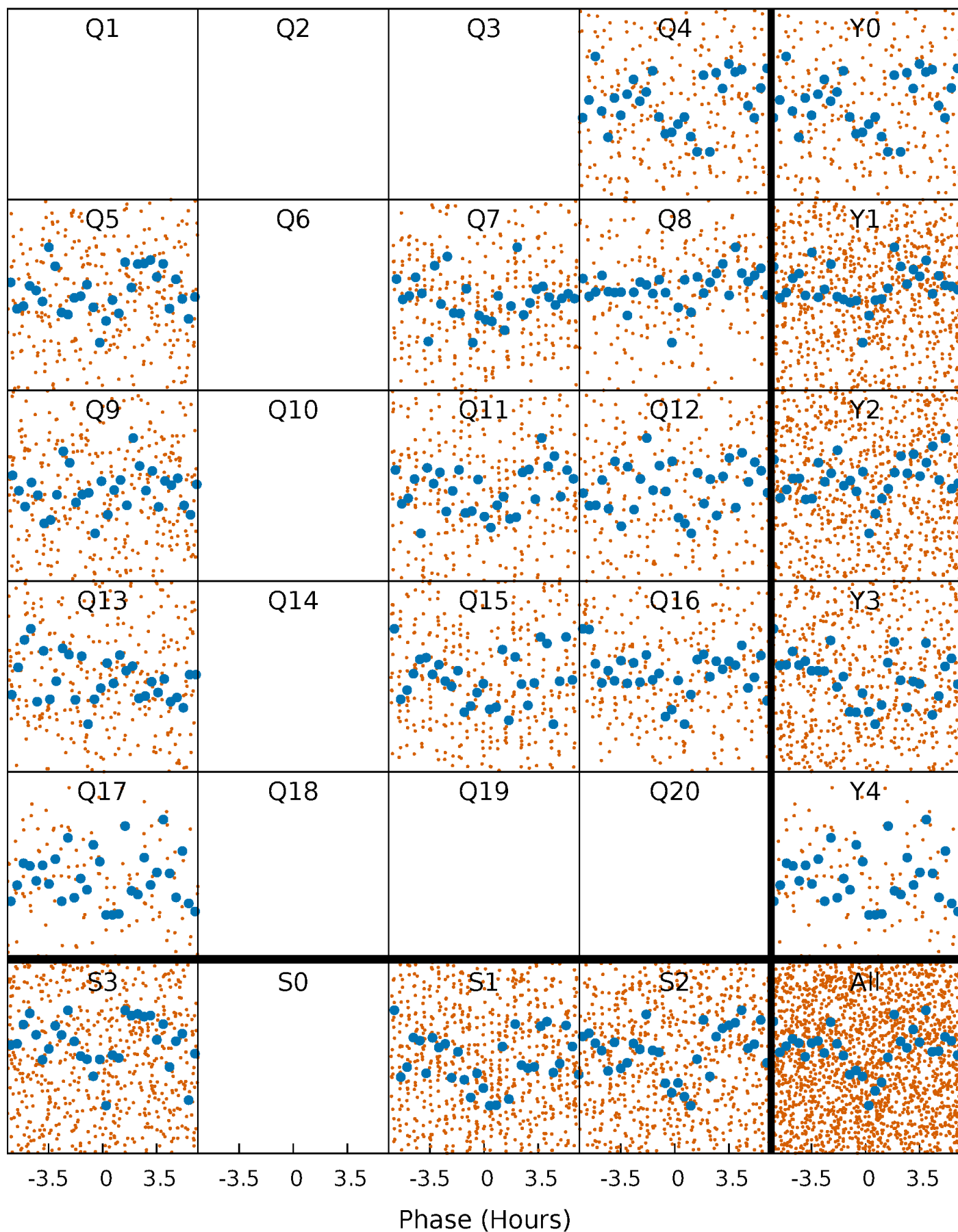


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



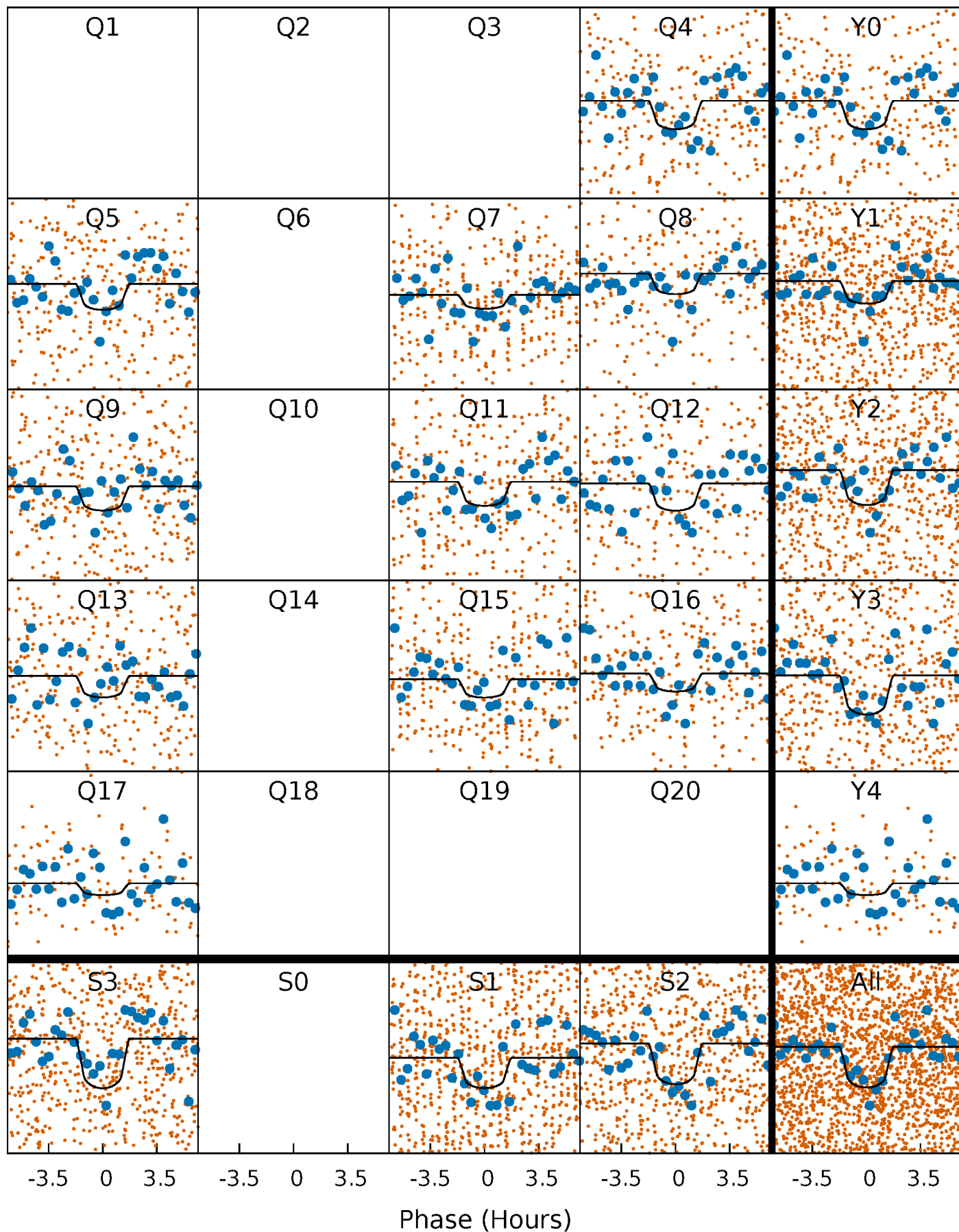
PDC Quarter-Phased Transit Curves

TCE 003356193-01 P= 5.822979 Days $T_0=133.996226$ (BKJD)



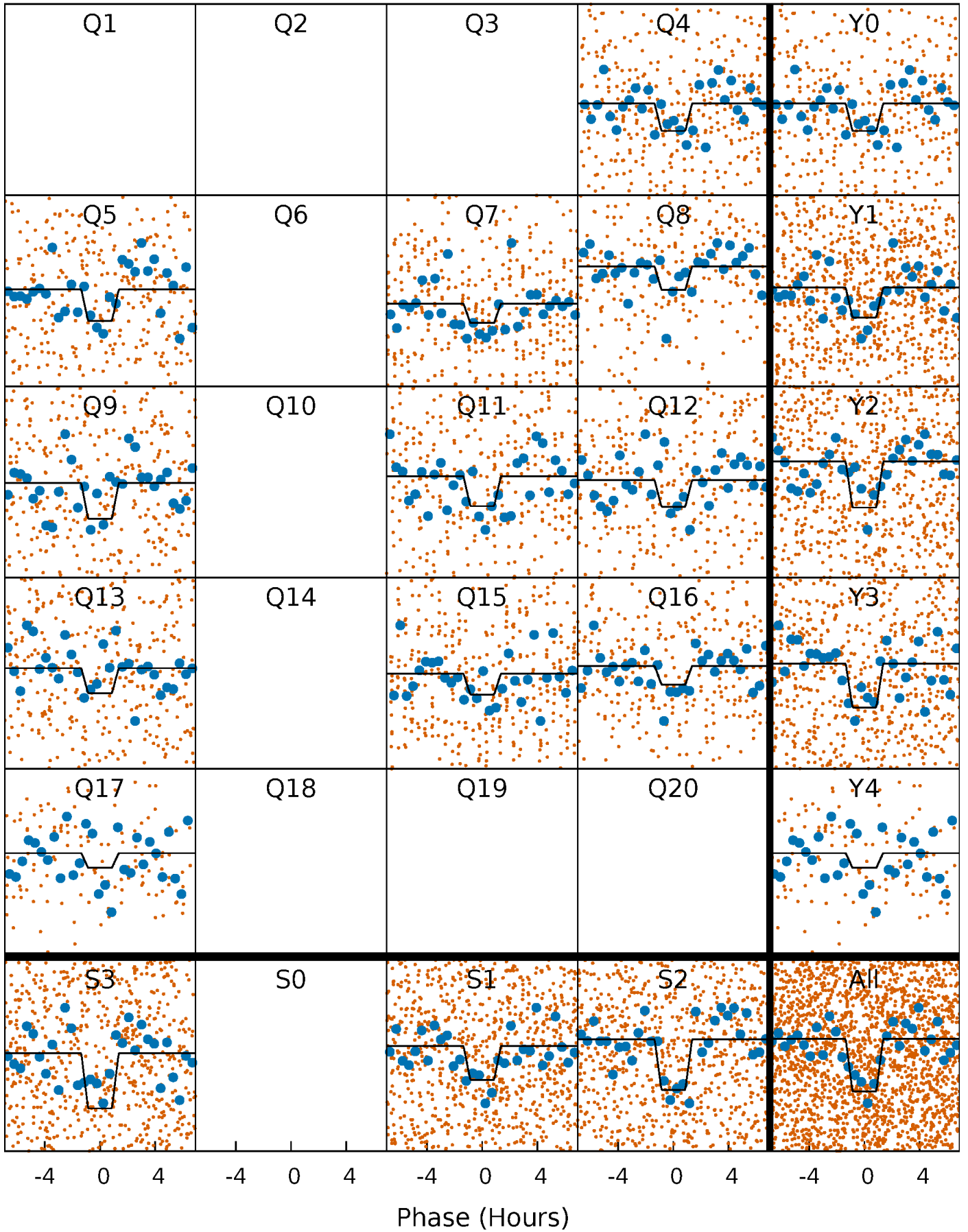
DV Quarter-Phased Transit Curves

TCE 003356193-01 P= 5.822979 Days $T_0=133.996226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

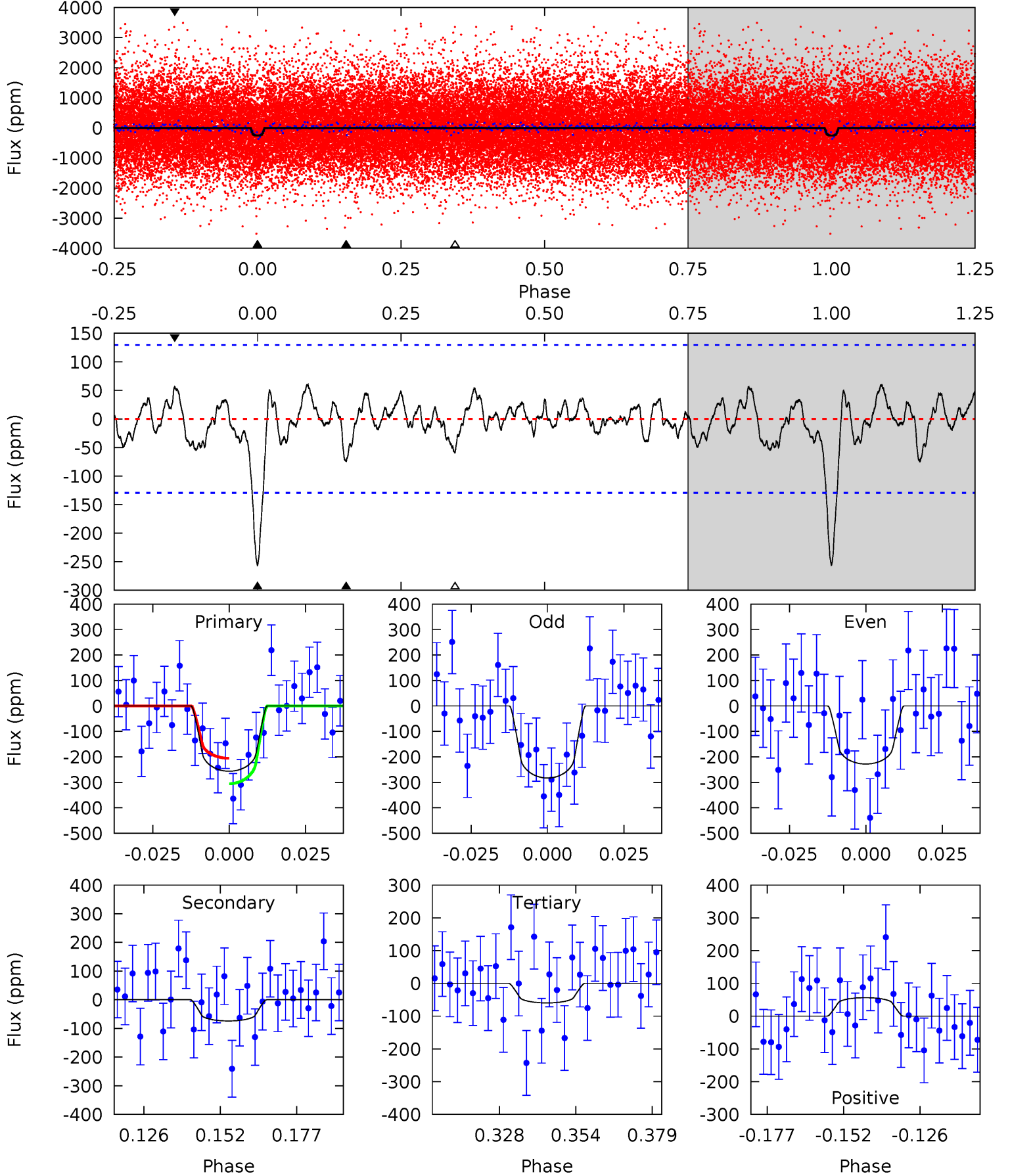
TCE 003356193-01 P= 5.823011 Days $T_0=133.994774$ (BKJD)



DV Model-Shift Uniqueness Test

003356193-01, P = 5.822979 Days, E = 133.996226 Days

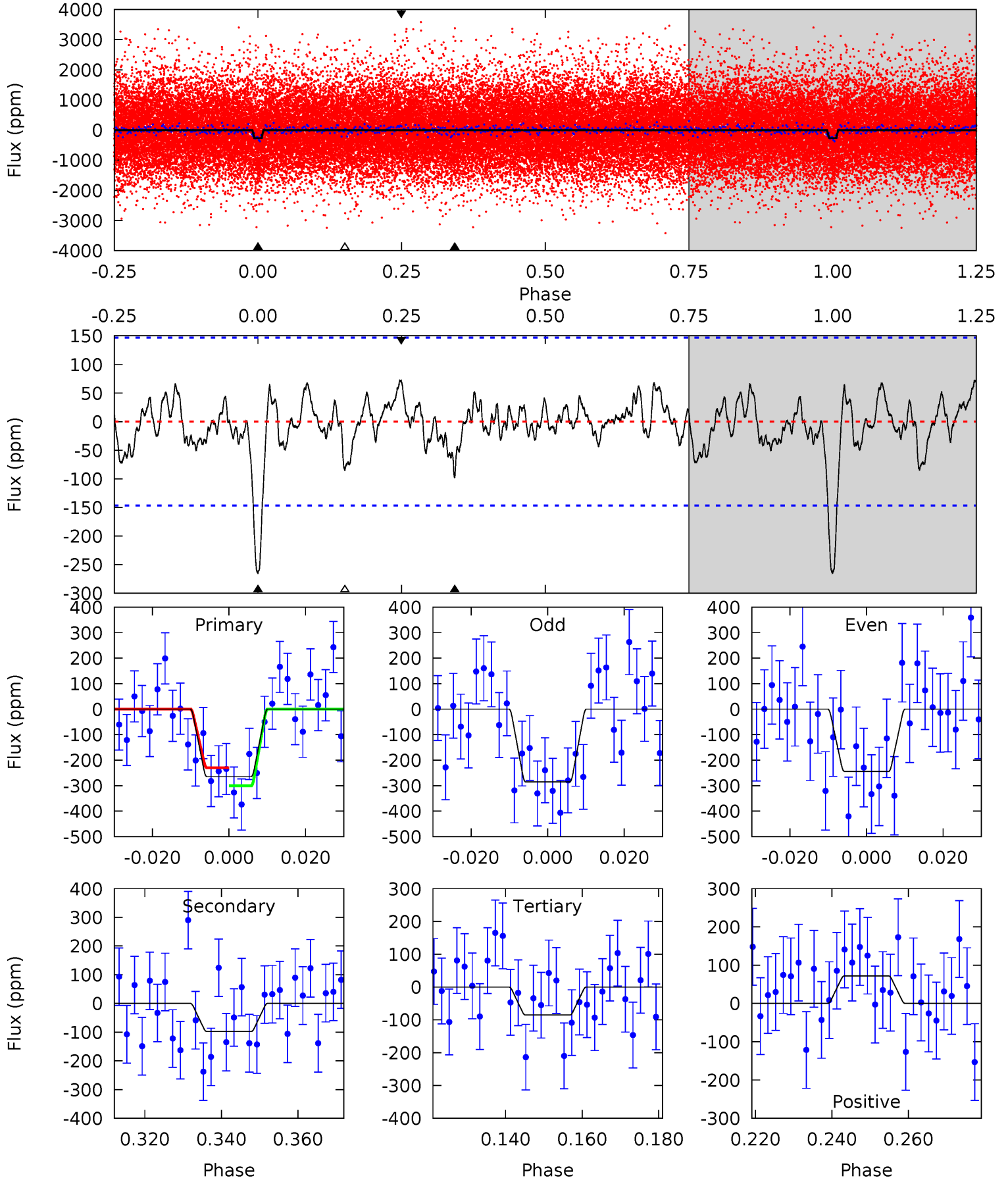
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.59	2.77	2.23	2.11	4.85	2.24	0.90	7.36	7.48	0.54	0.66	1.03	1.00	0.19	1.87



Alt Model-Shift Uniqueness Test

003356193-01, P = 5.823011 Days, E = 133.994774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.84	3.26	2.85	2.39	4.89	2.33	0.99	5.99	6.44	0.41	0.87	0.68	0.97	0.21	1.18



Stellar Parameters For KIC 003356193

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5704^{+169}_{-186}	$4.575^{+0.040}_{-0.160}$	$-0.300^{+0.300}_{-0.300}$	$0.804^{+0.192}_{-0.069}$	$0.897^{+0.088}_{-0.107}$	$2.429^{+0.515}_{-1.058}$
	+3%/-3%	+1%/-3%	+100%/-100%	+24%/-9%	+10%/-12%	+21%/-44%
Source	KIC0	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 003356193-01 / KOI 6331.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-74 ± 27	$1.98^{+1.59}_{-1.20}$	1307^{+76}_{-62}	3914^{+1980}_{-747}	37^{+233}_{-27}
Alt.	-98 ± 30	$1.98^{+1.68}_{-1.23}$	1301^{+72}_{-60}	4063^{+2146}_{-756}	47^{+296}_{-34}

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 $A_{obs} \gg 1.0$

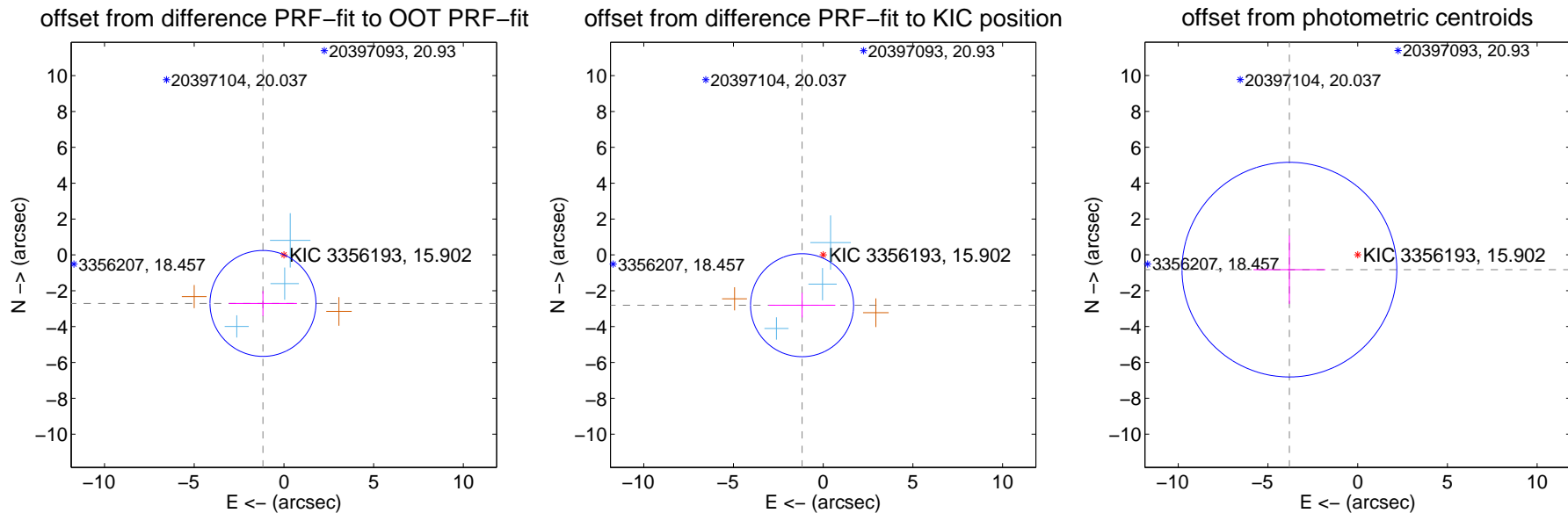
DV Centroid Data

Supplemental centroid analysis for 003356193-01. Kepler magnitude: 15.90. Transit SNR 7.86

There are 3 quarters with good PRF difference image offsets

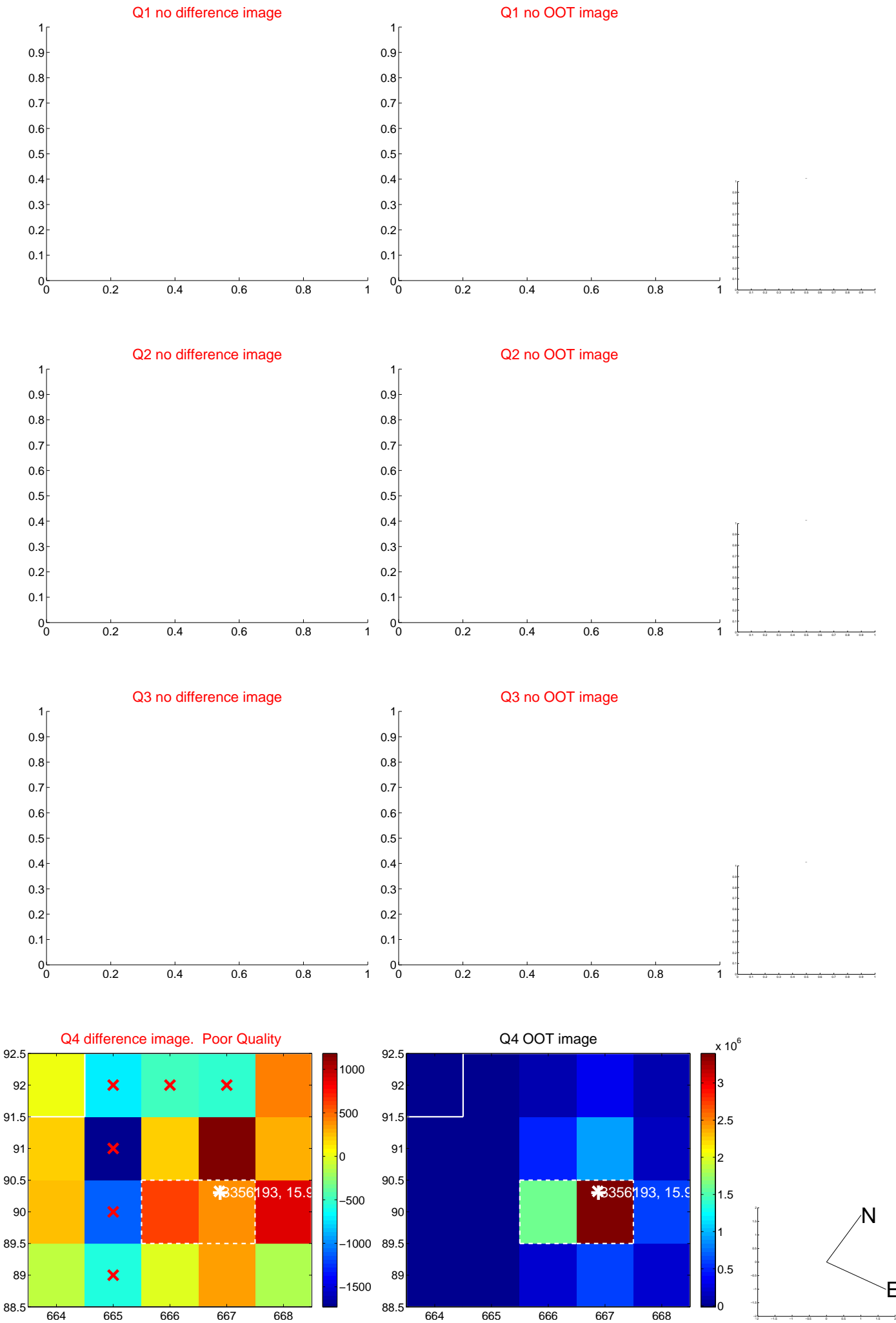
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.949 ± 0.985	2.99	1.168 ± 1.895	-2.707 ± 0.694
PRF-fit source offset from KIC position	3.043 ± 0.958	3.18	1.177 ± 1.855	-2.806 ± 0.688
photometric centroid source offset	3.89 ± 2.00	1.95	3.81 ± 2.00	-0.83 ± 1.91

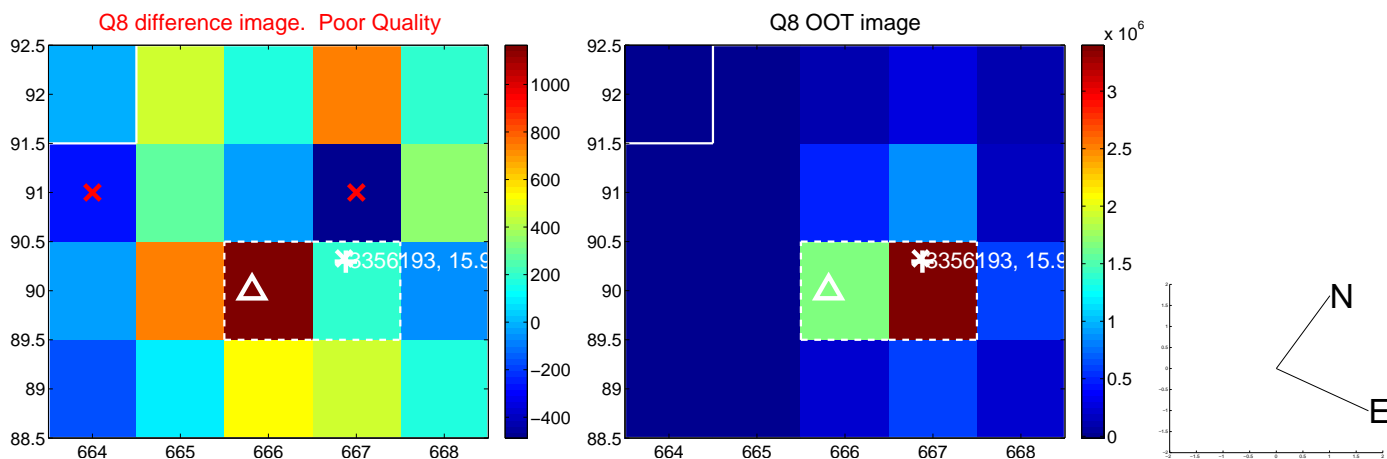
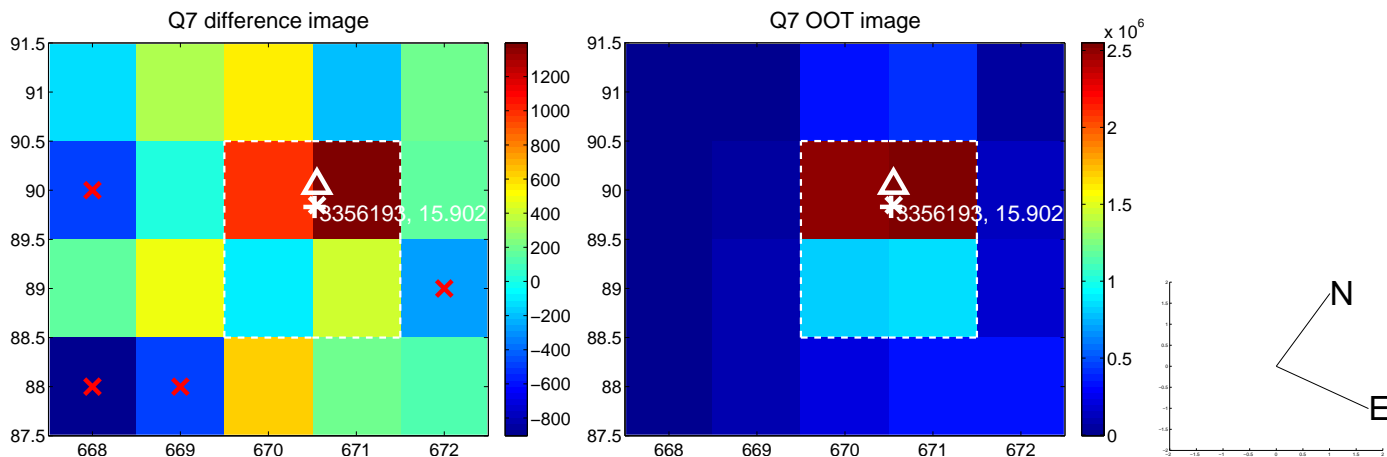
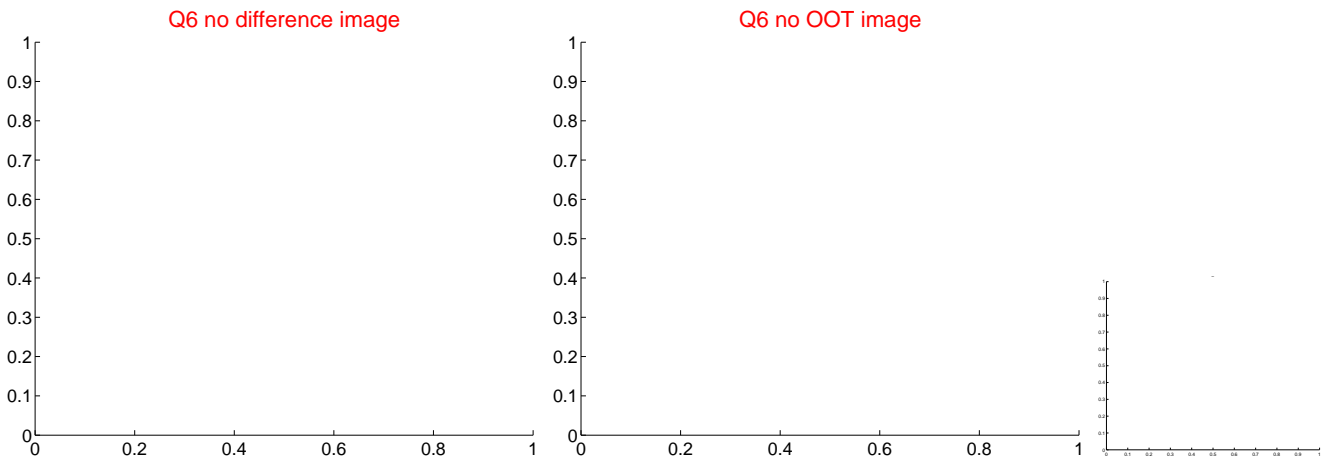
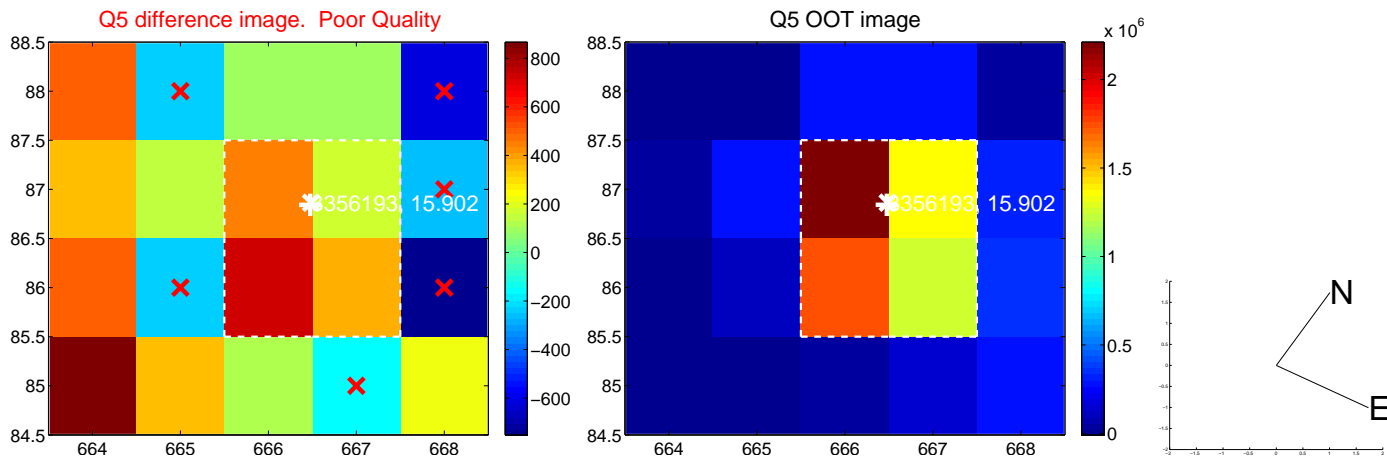


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

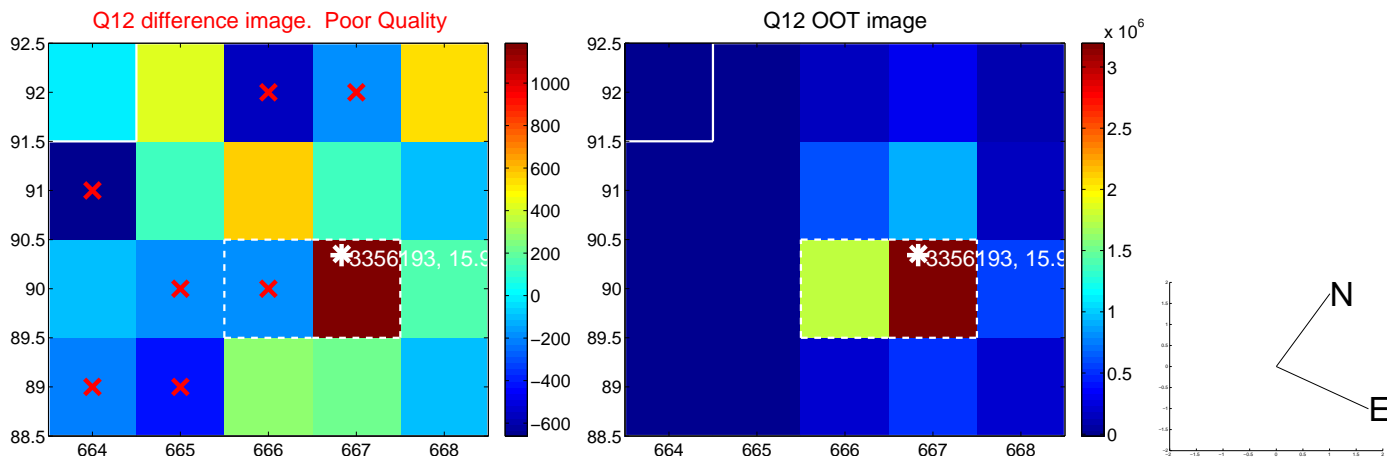
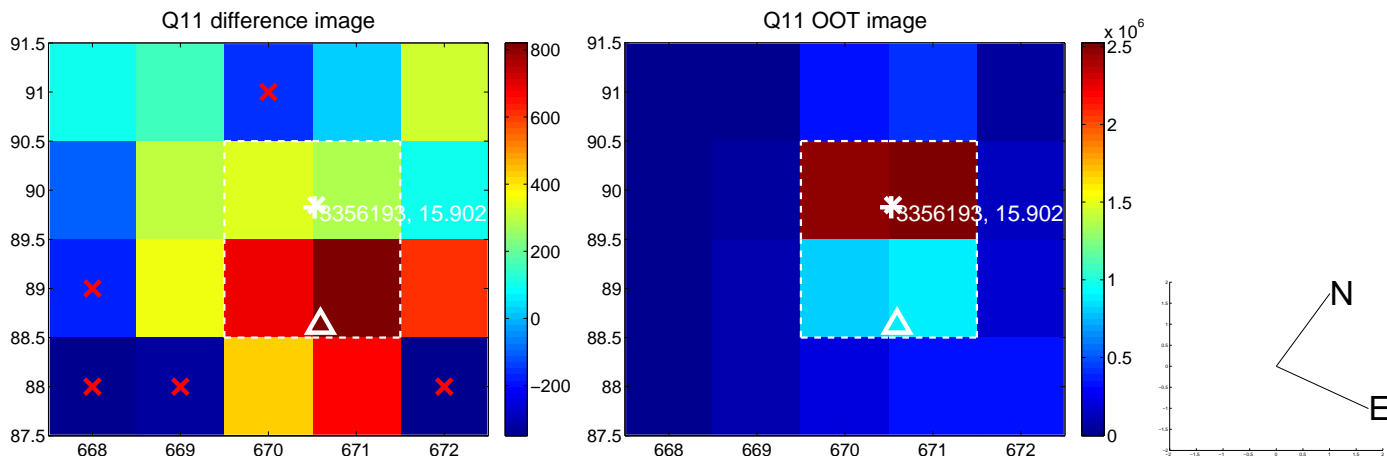
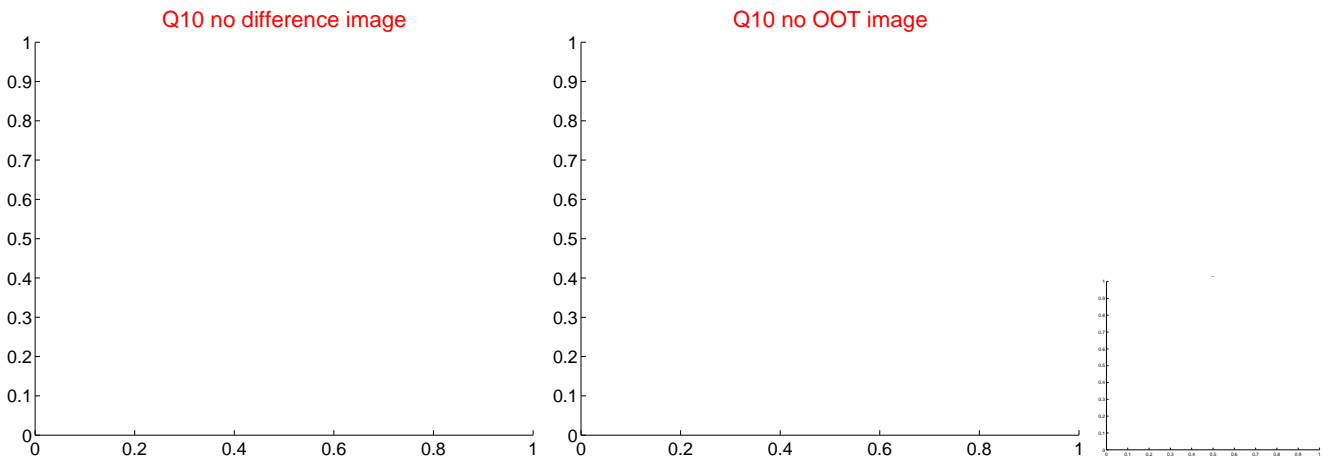
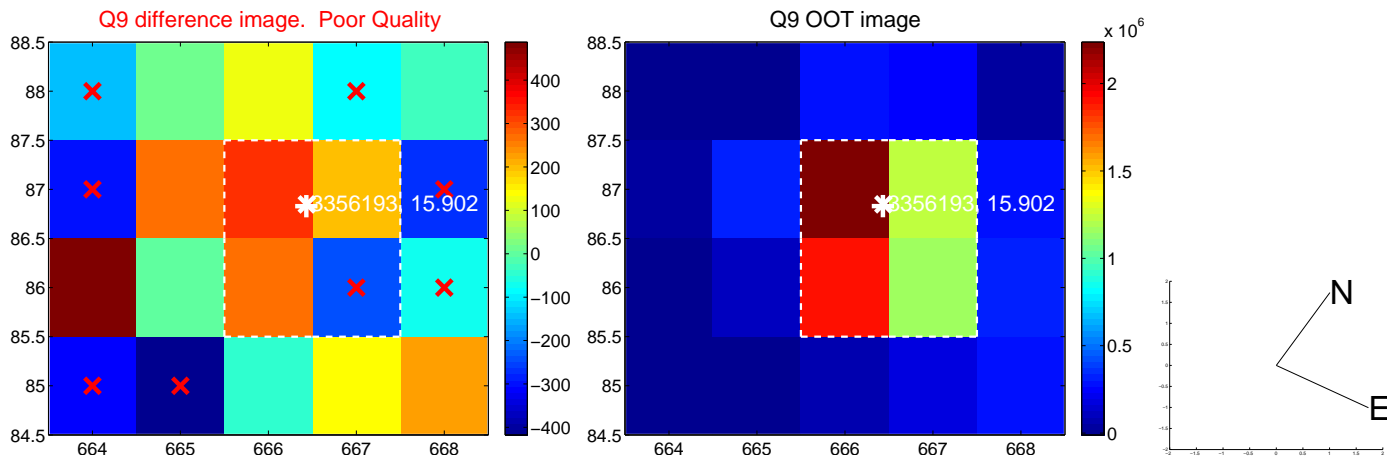
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



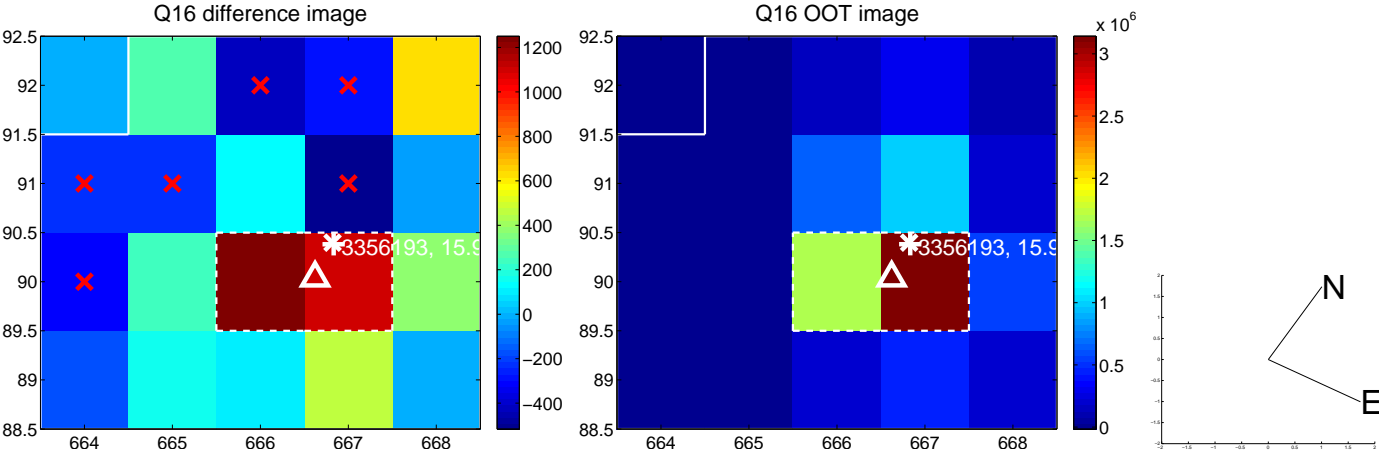
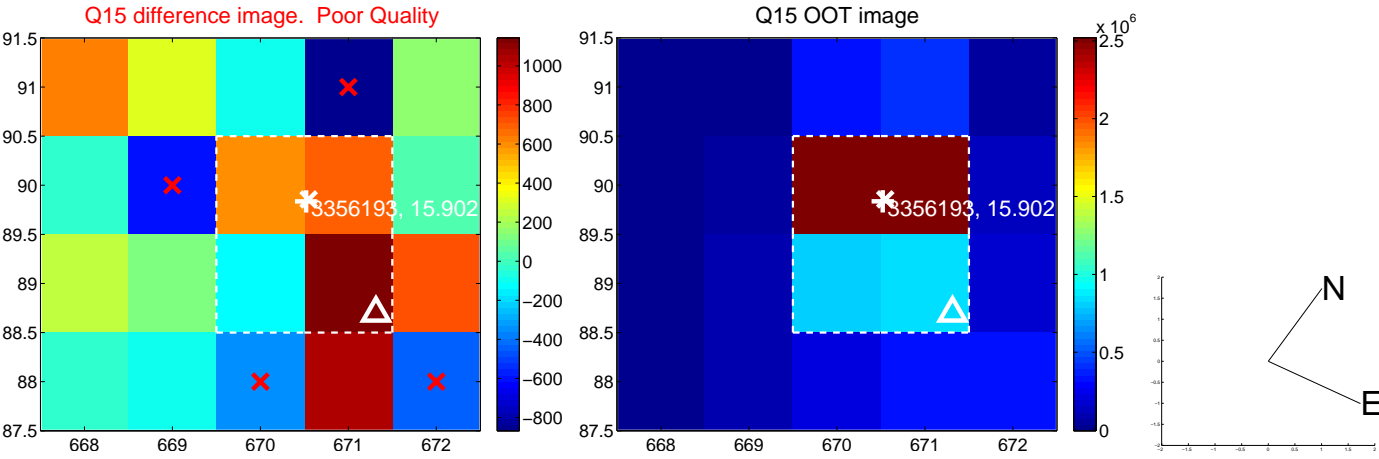
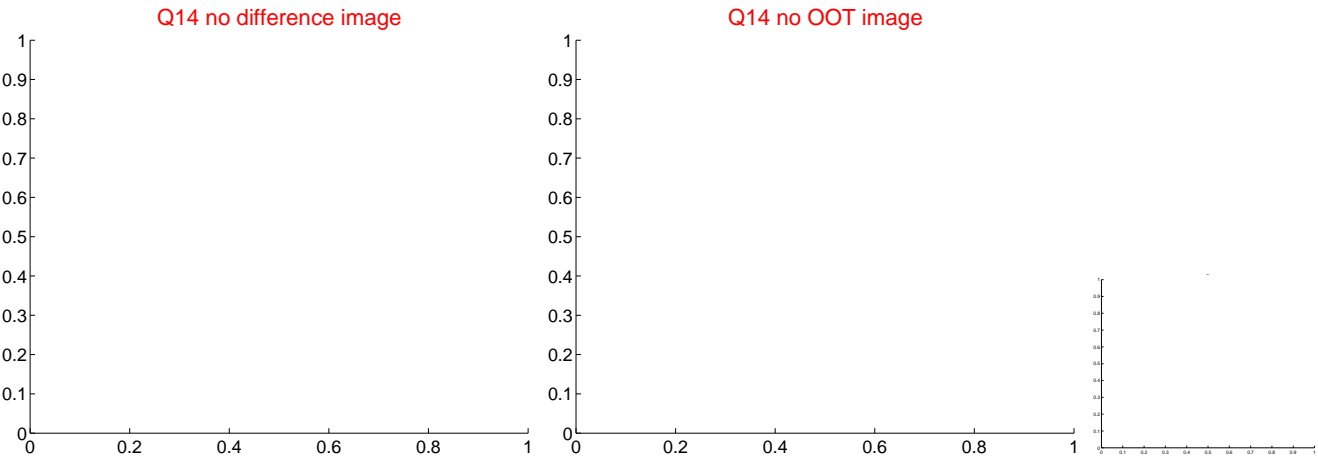
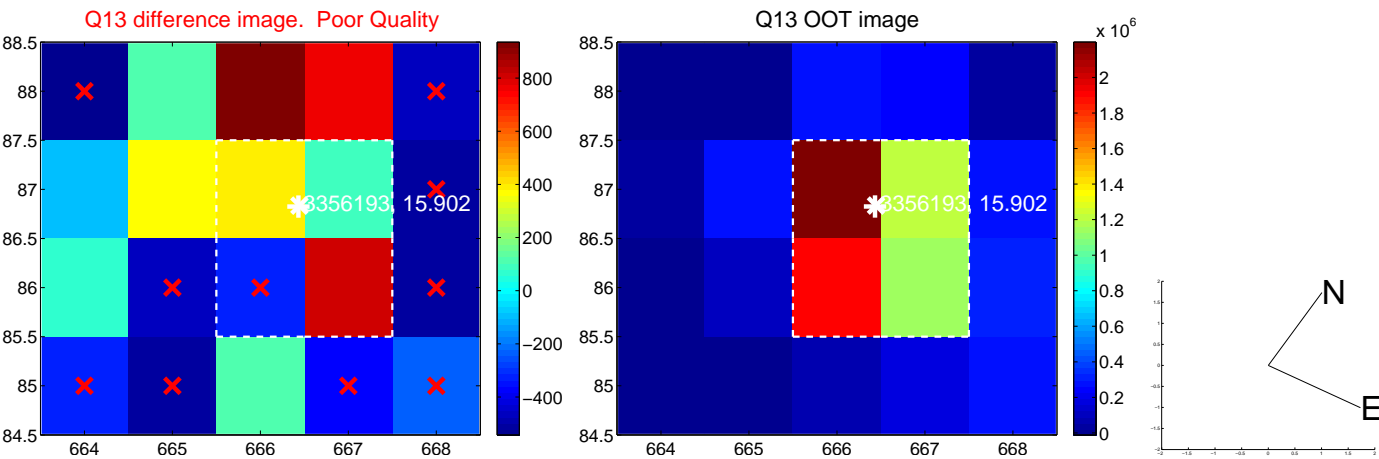
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



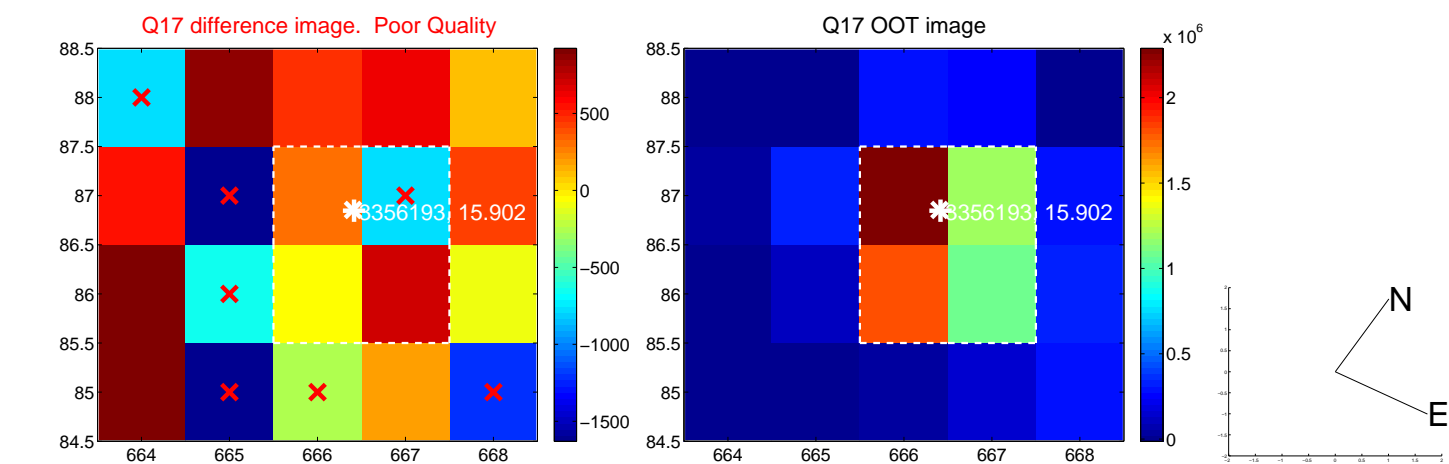
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



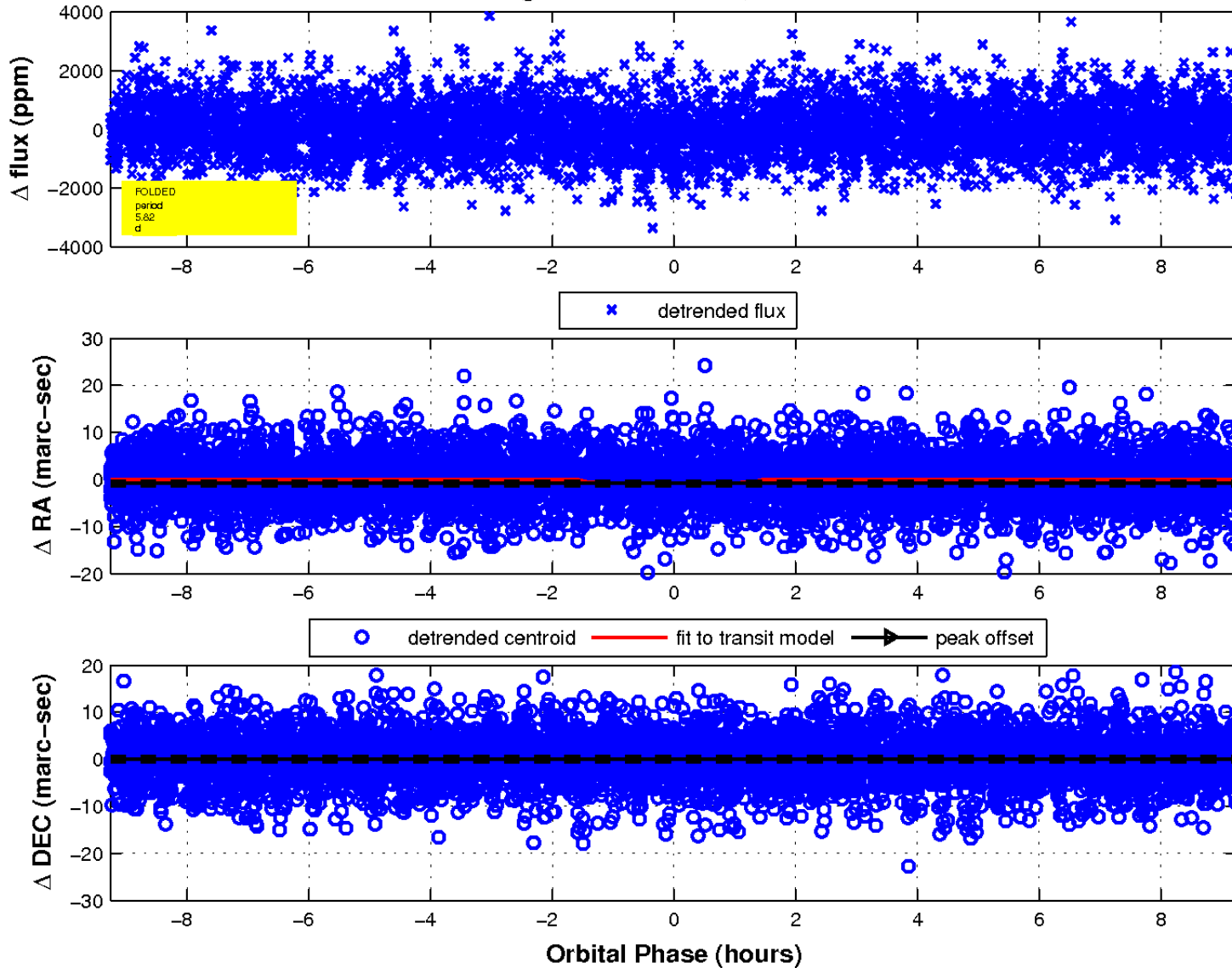
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

