

KIC 011137061

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})
011137061-01	OBS	7411.01	1.889067	132.985657	53.2	3.474	8.1	9.1	0.75	5413	0.63	574.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011137061-01	OBS	PC	0.67	0	0	0	0	NO_COMMENT

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

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

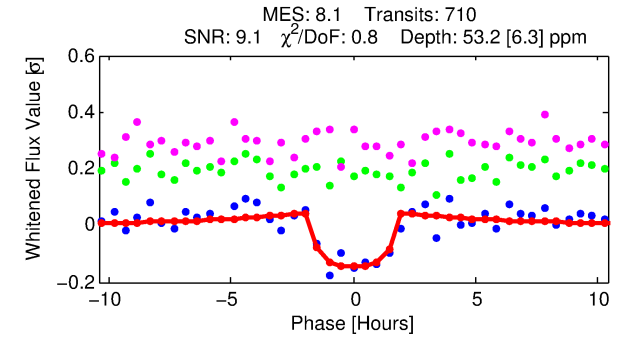
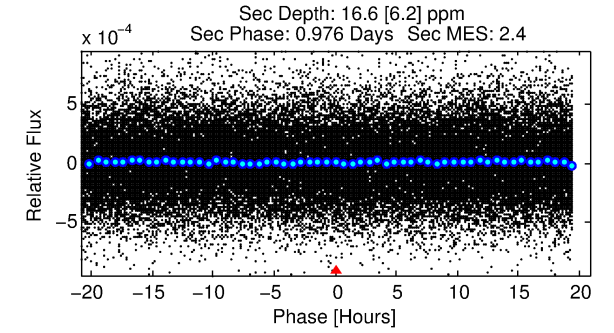
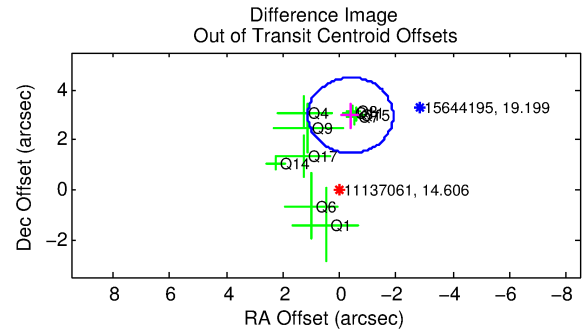
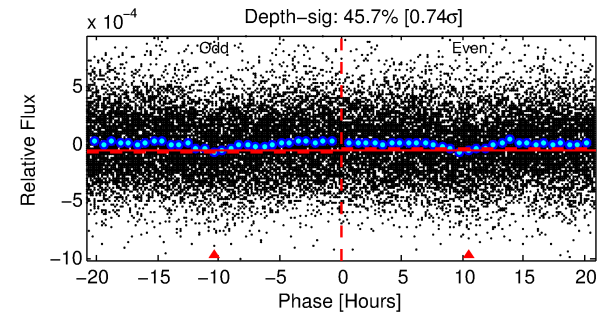
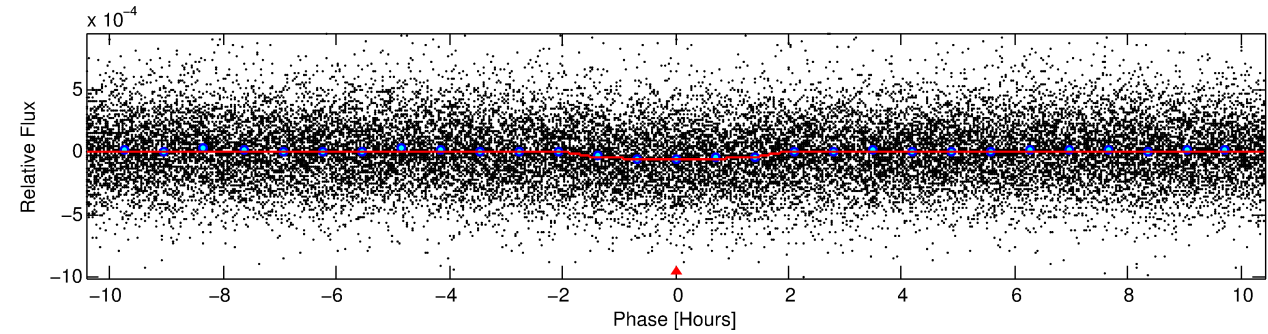
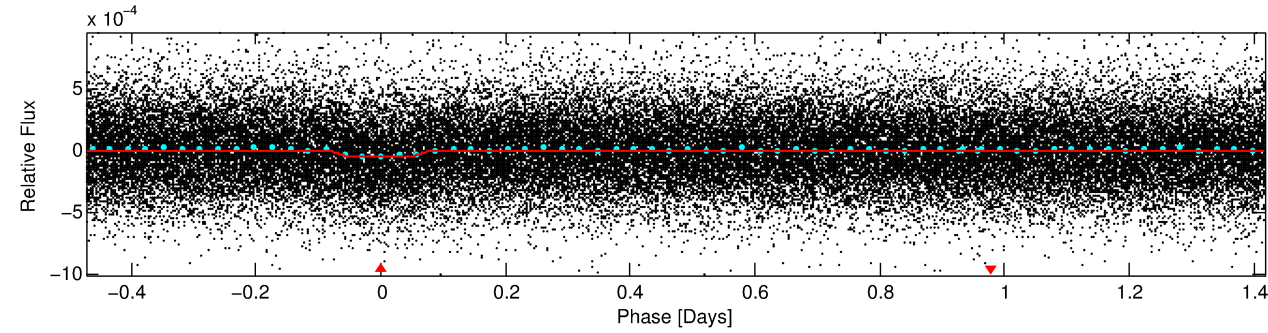
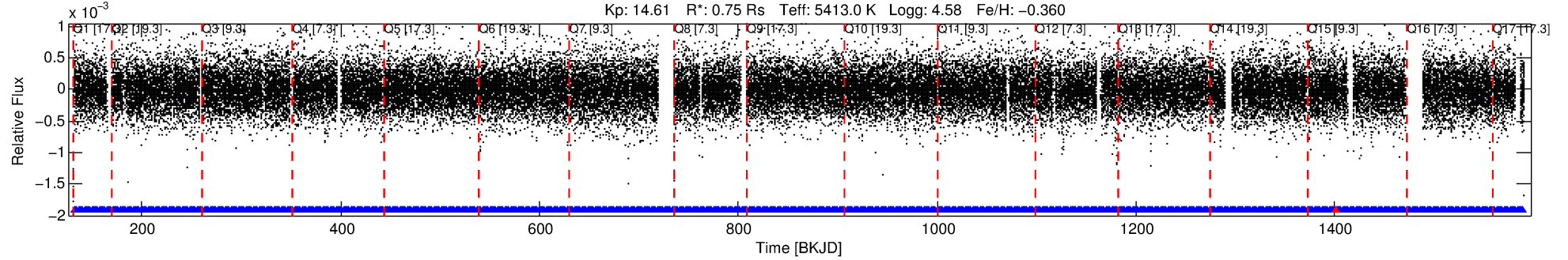
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011137061-01

No Significant Match Found

DV One-Page Summary

KIC: 11137061 Candidate: 1 of 1 Period: 1.889 d
KOI: K07411.01 Corr: 0.847



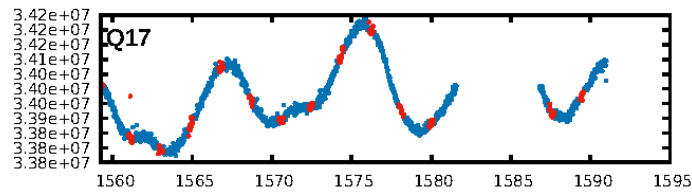
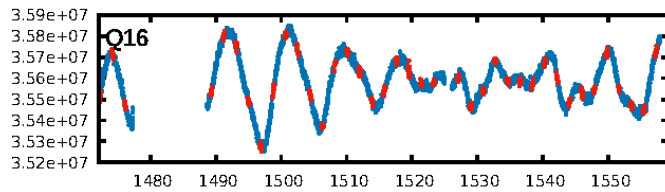
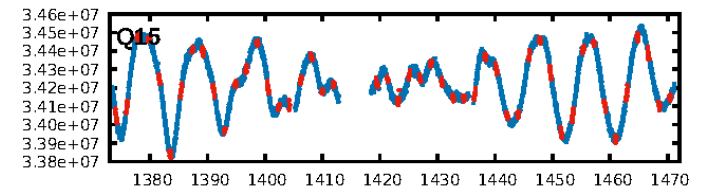
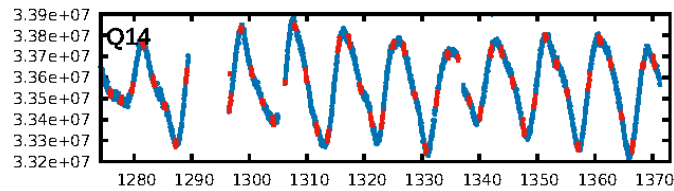
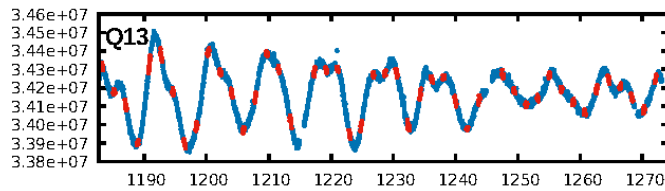
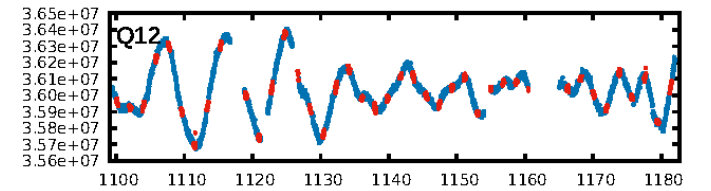
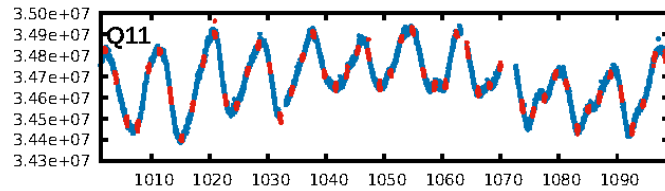
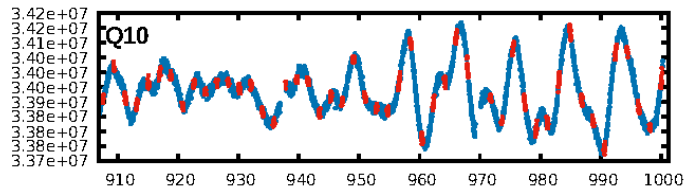
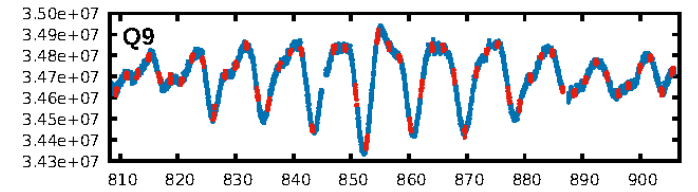
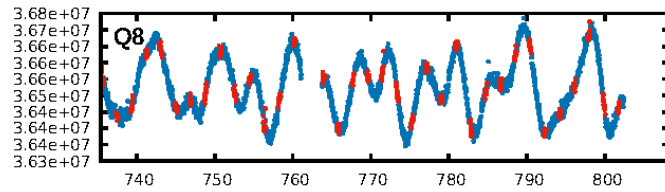
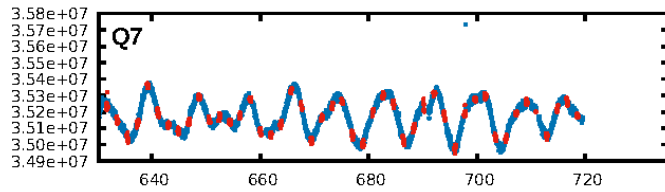
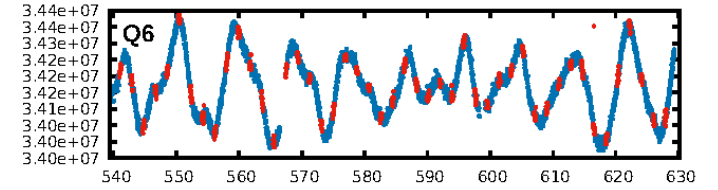
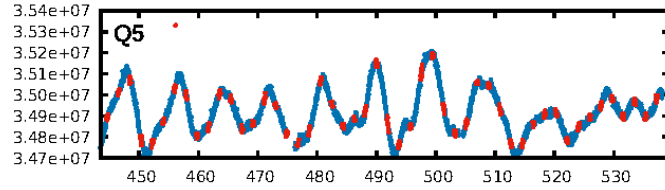
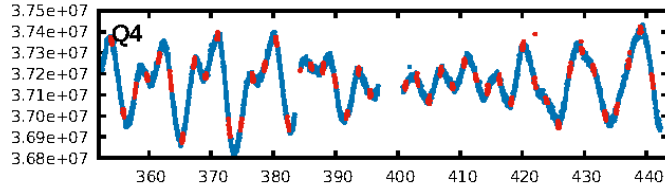
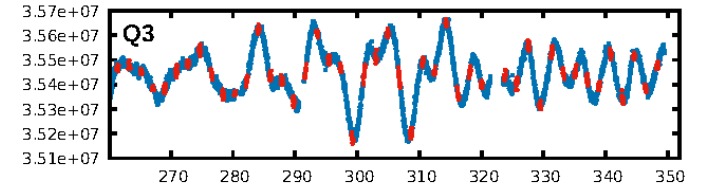
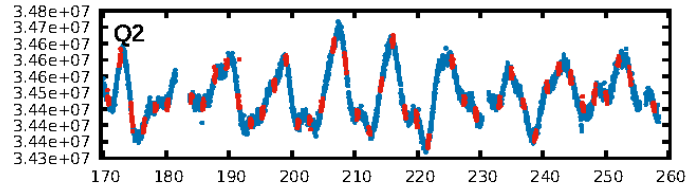
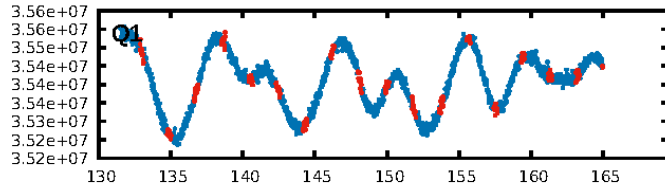
DV Fit Results:

Period = 1.88907 [0.00002] d
Epoch = 132.9857 [0.0040] BKJD
Rp/R* = 0.0076 [0.0035]
a/R* = 2.47 [4.15]
b = 0.84 [0.71]
Seff = 574.42 [125.57]
Teff = 1248 [68] K
Rp = 0.63 [0.31] Re
a = 0.0276 [0.0036] AU
Ag = 17.72 [17.98] [0.93 σ]
Teffp = 3960 [995] K [2.72 σ]

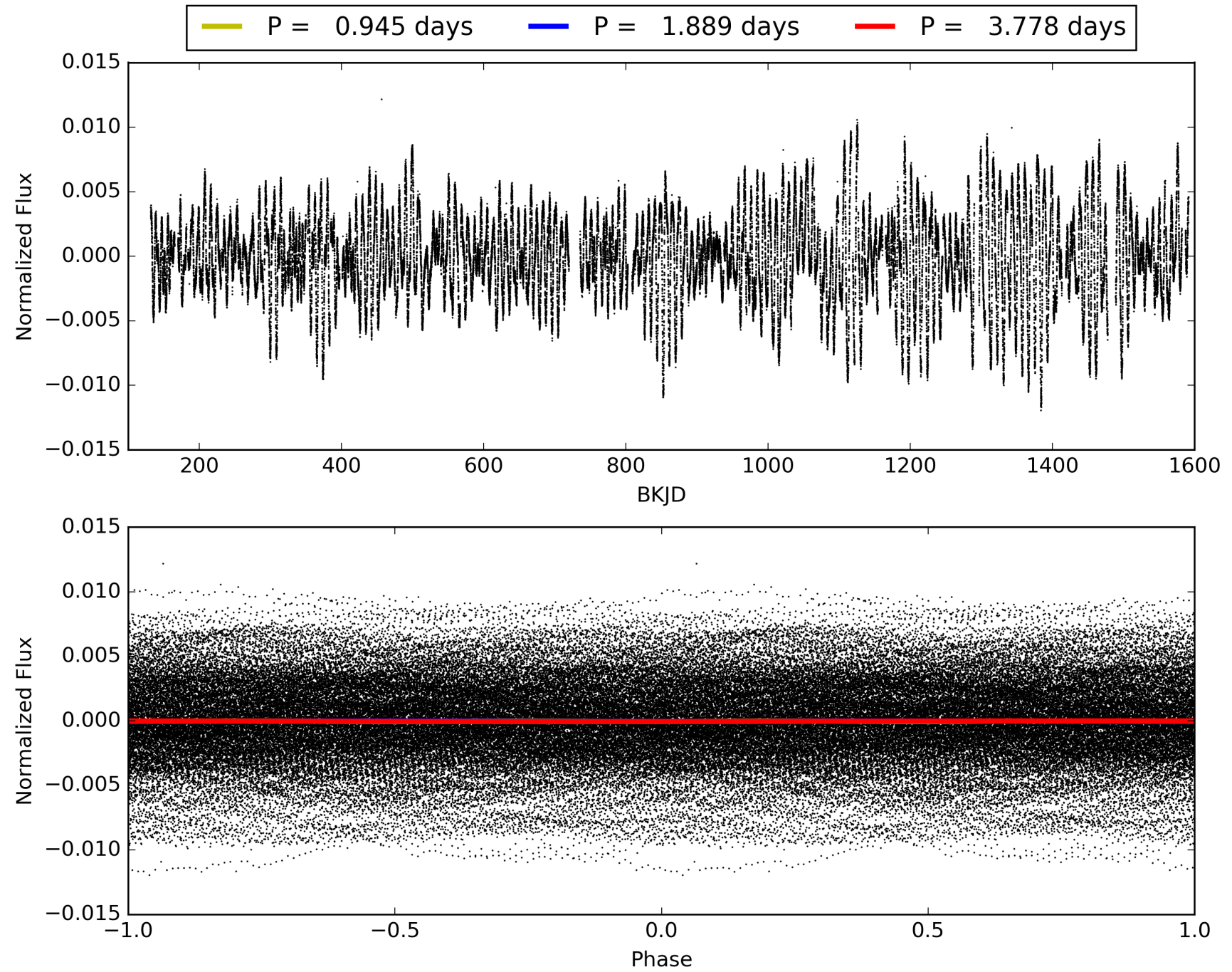
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.35e-14
RollingBand-fgt: 1.00 [678/679]
GhostDiagnostic-chr: -1.991
Centroid-sig: 0.0%
Centroid-so: 2.164 arcsec [2.14 σ]
OotOffset-rm: 2.999 arcsec [5.96 σ]
KicOffset-rm: 3.083 arcsec [6.14 σ]
OotOffset-st: 2/4/1/3 [10]
KicOffset-st: 2/4/1/3 [10]
DiffImageQuality-fgm: 0.70 [7/10]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011137061-01, PDC Light Curves

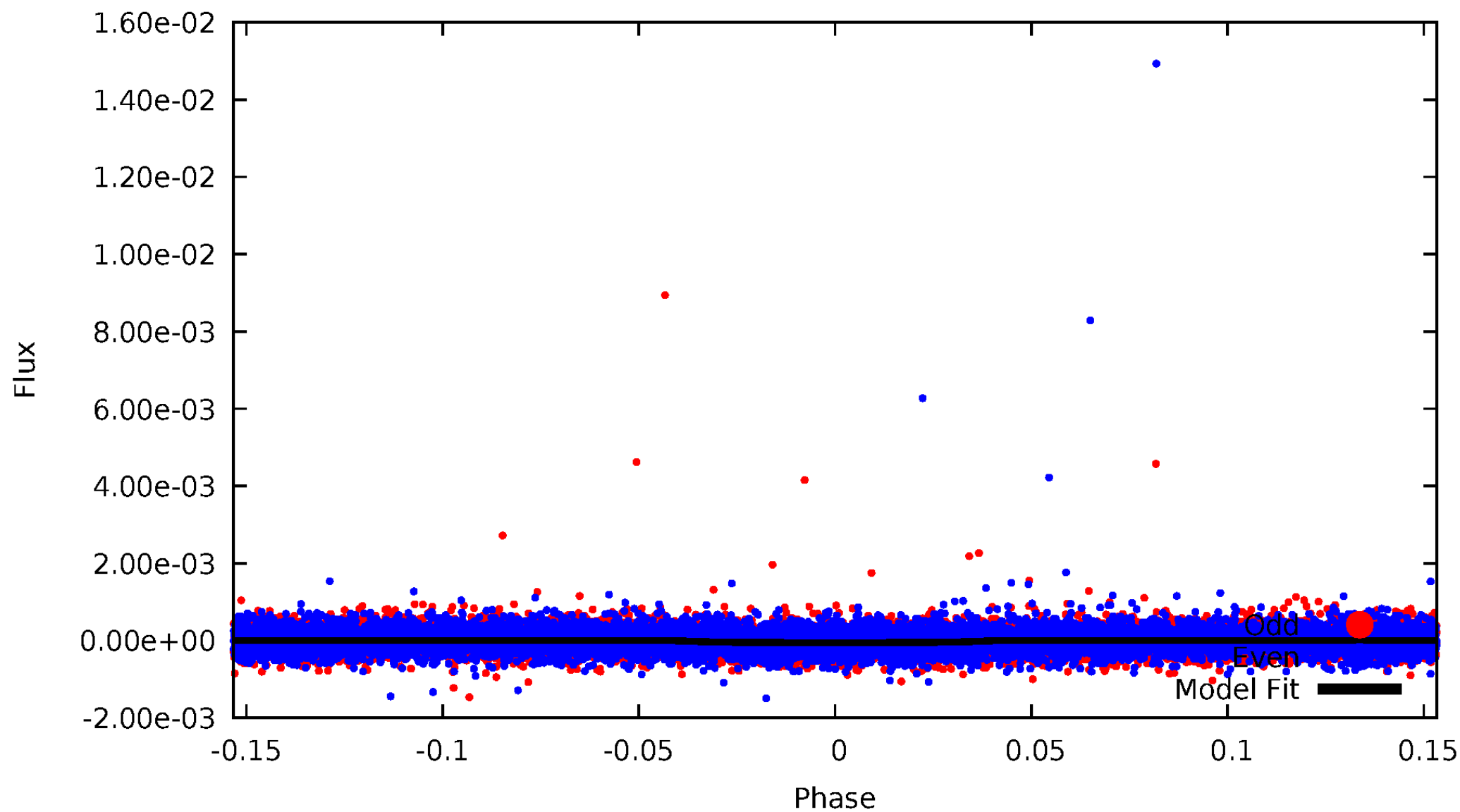


TCE 011137061-01



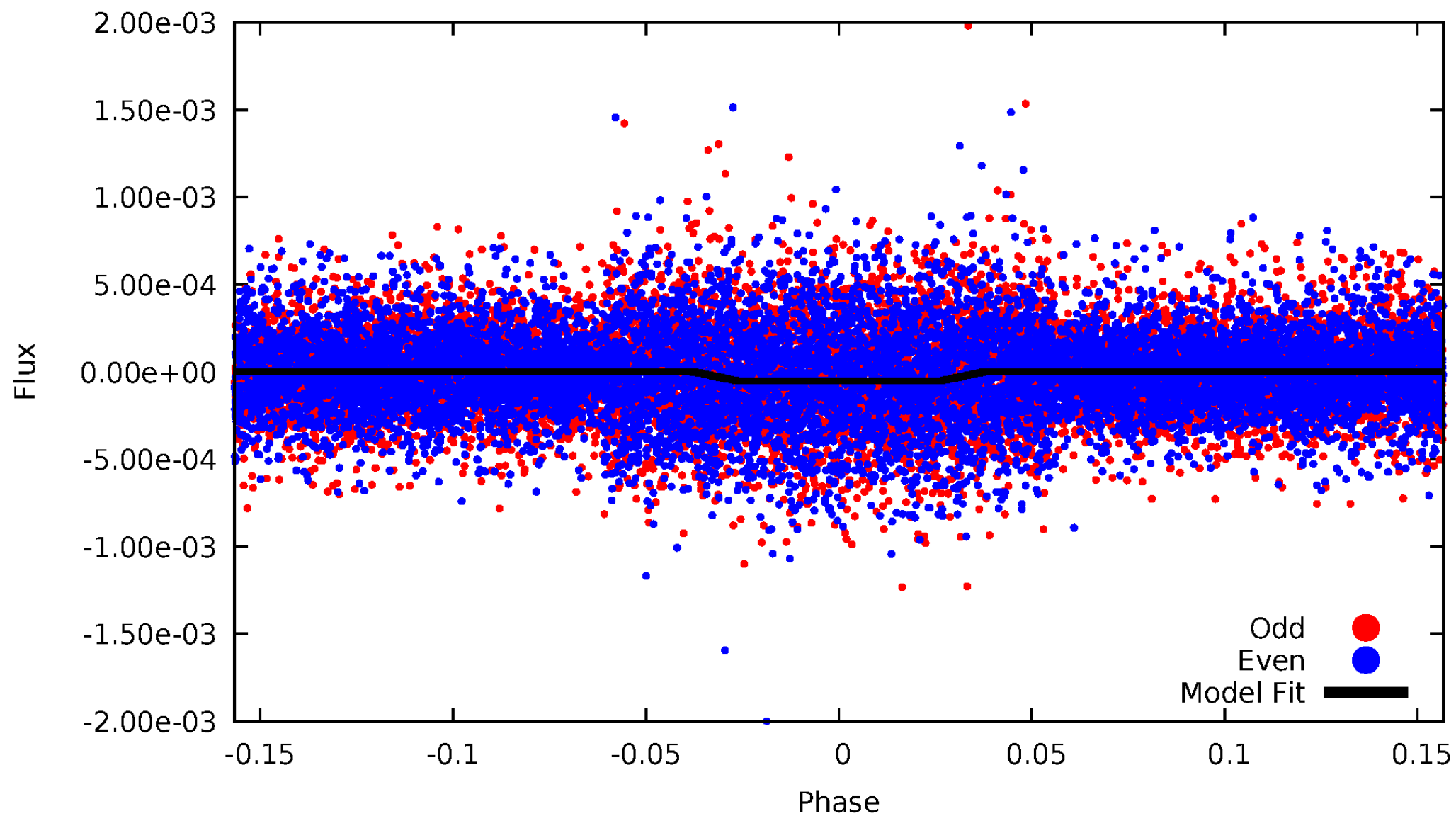
DV Odd/Even

TCE 011137061-01



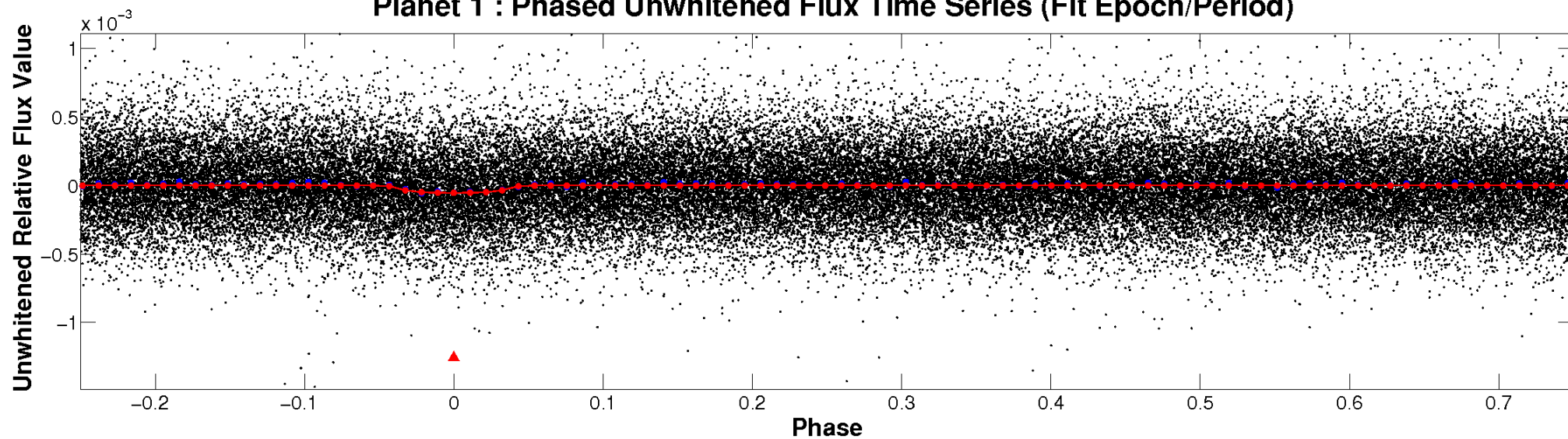
ALT Odd/Even

TCE 011137061-01

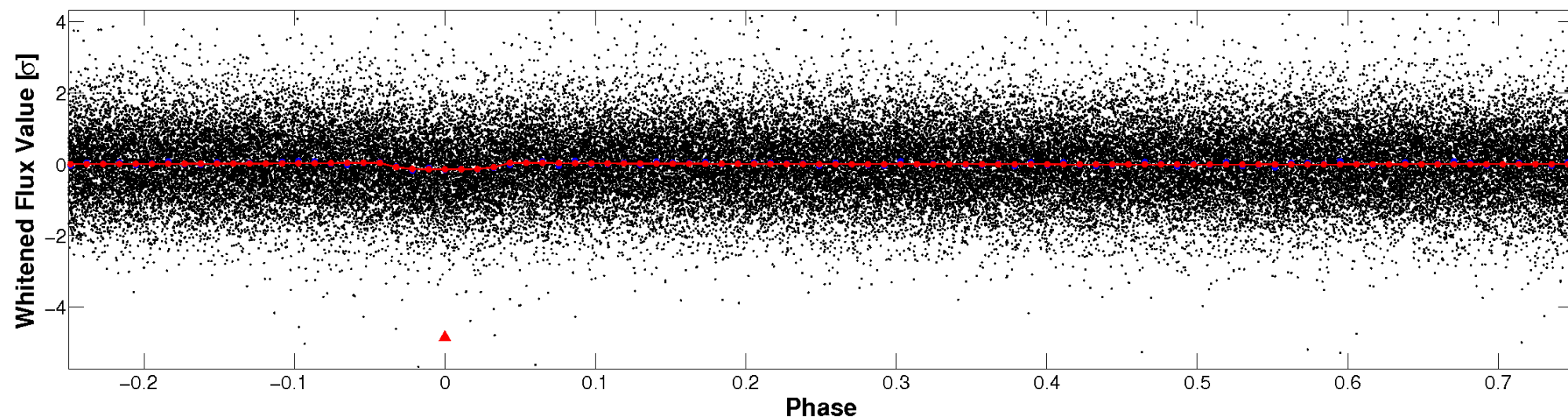


Non-Whitened Vs. Whitened Light Curve

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

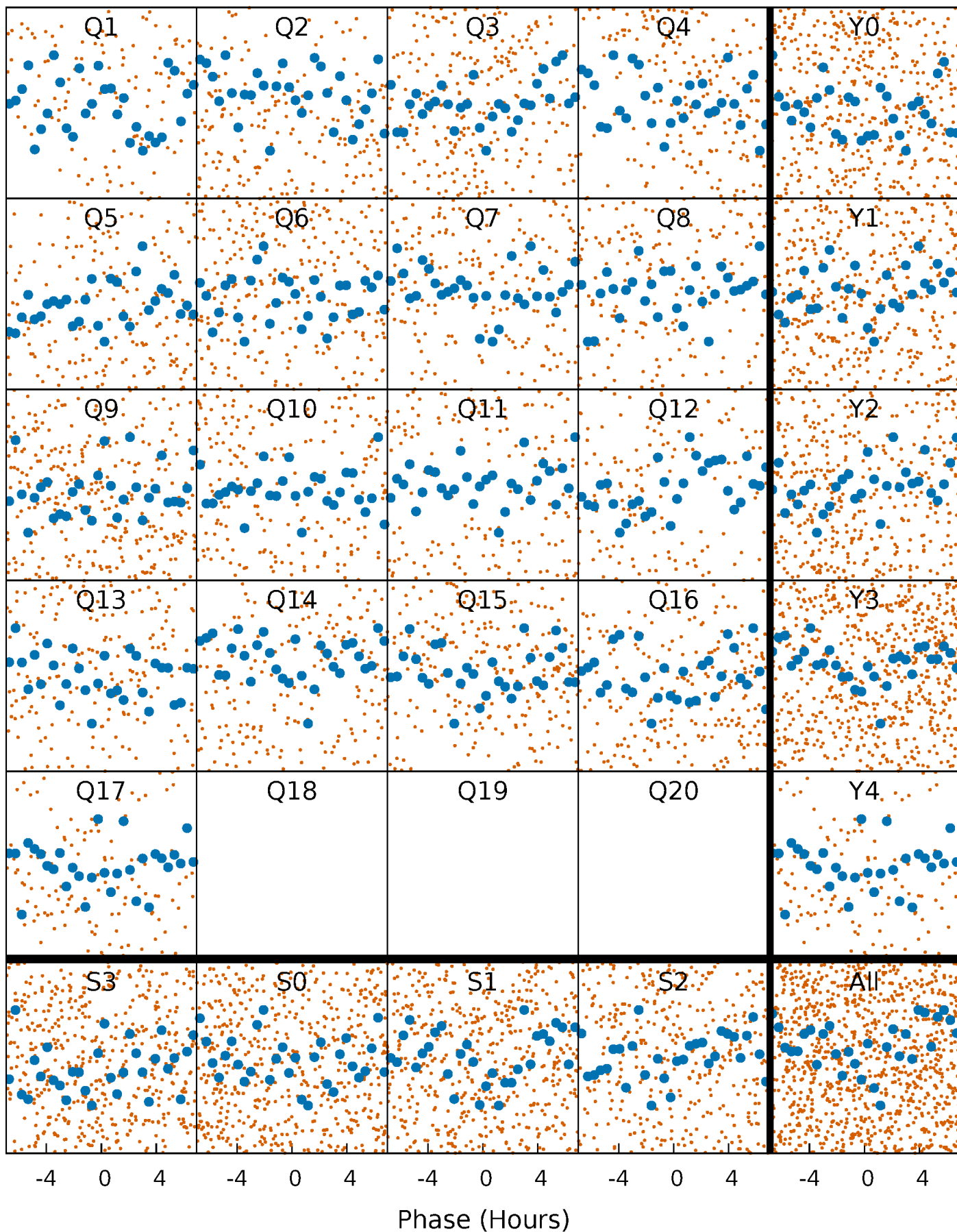


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



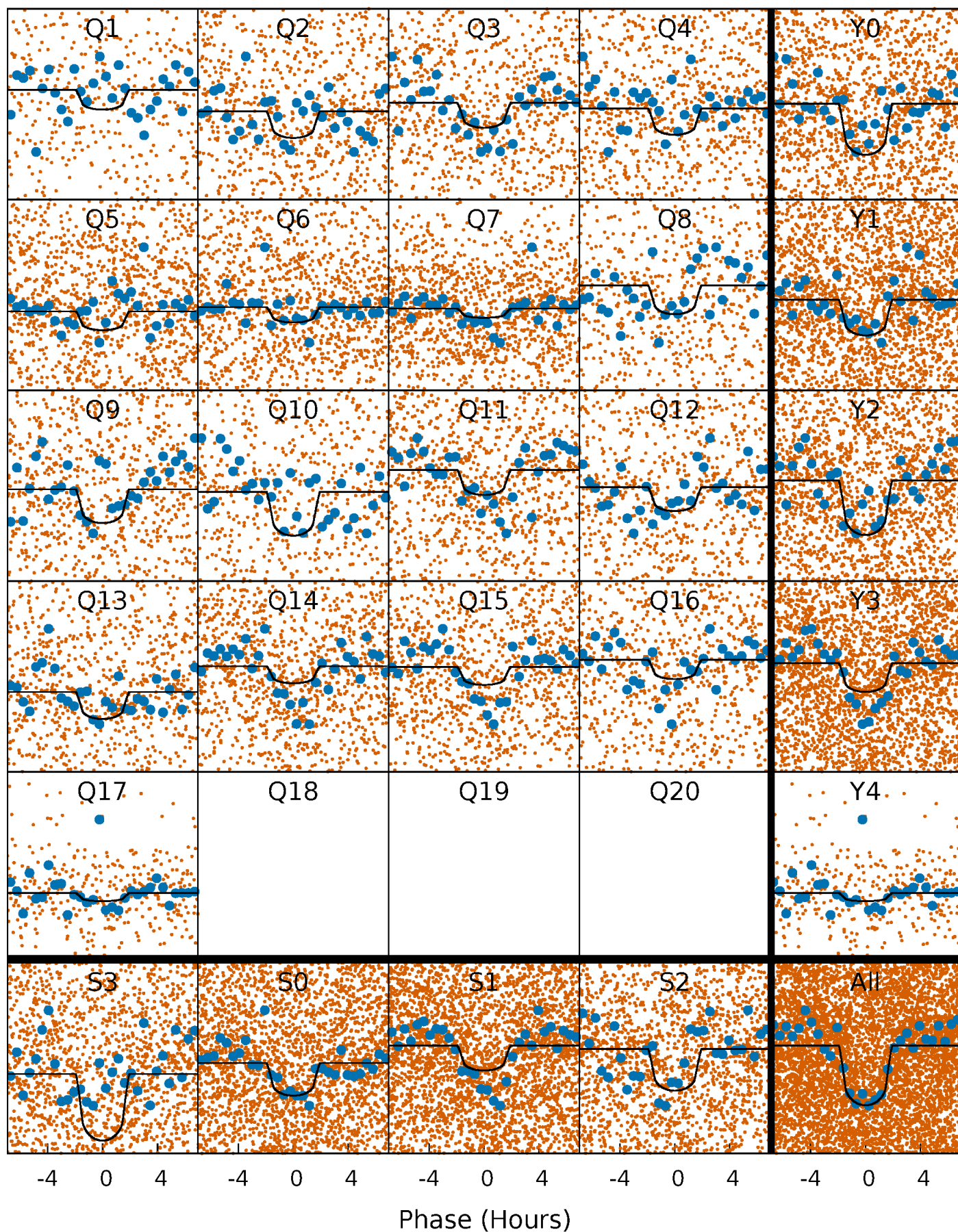
PDC Quarter-Phased Transit Curves

TCE 011137061-01 P= 1.889067 Days $T_0=132.985657$ (BKJD)



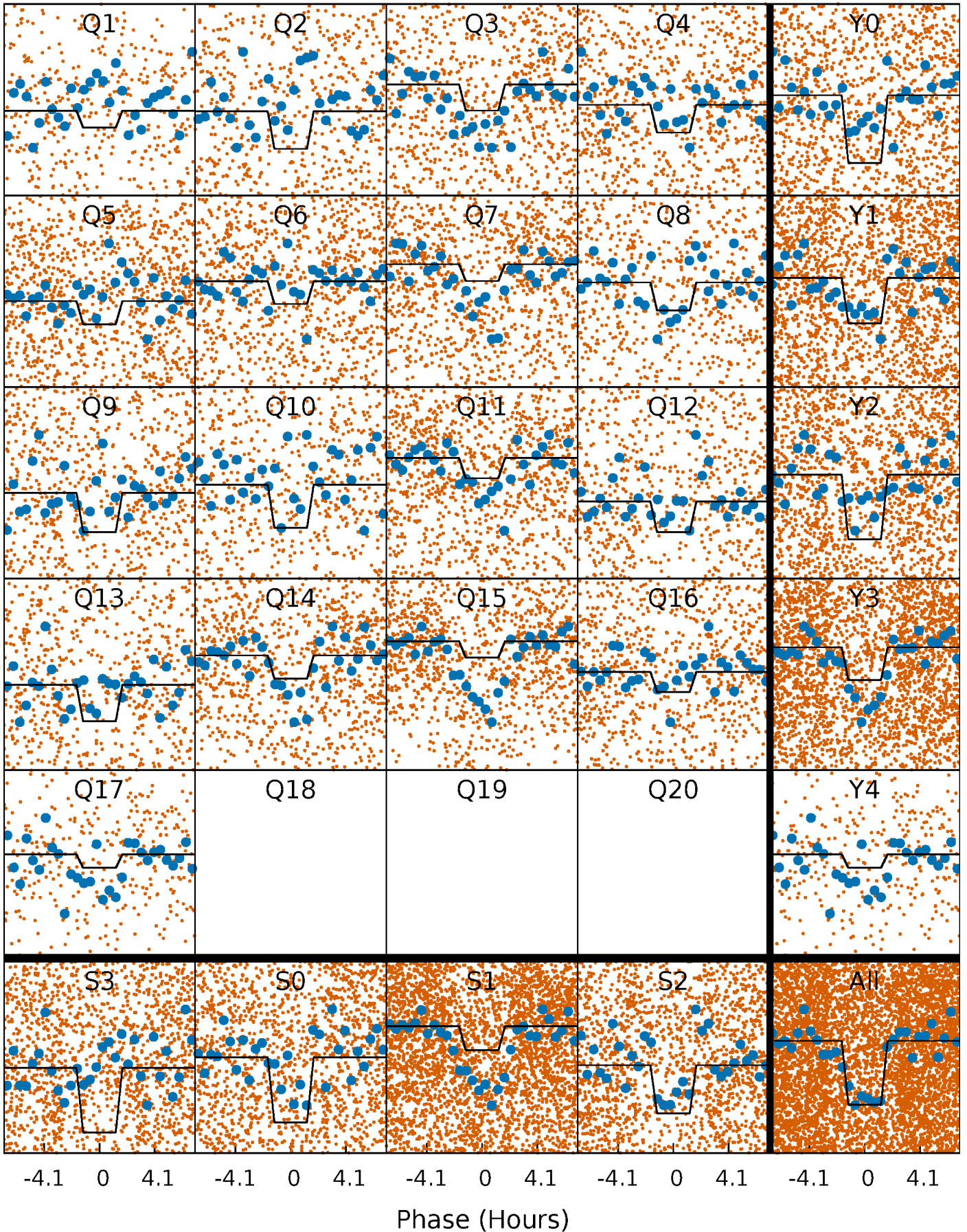
DV Quarter-Phased Transit Curves

TCE 011137061-01 P= 1.889067 Days $T_0=132.985657$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

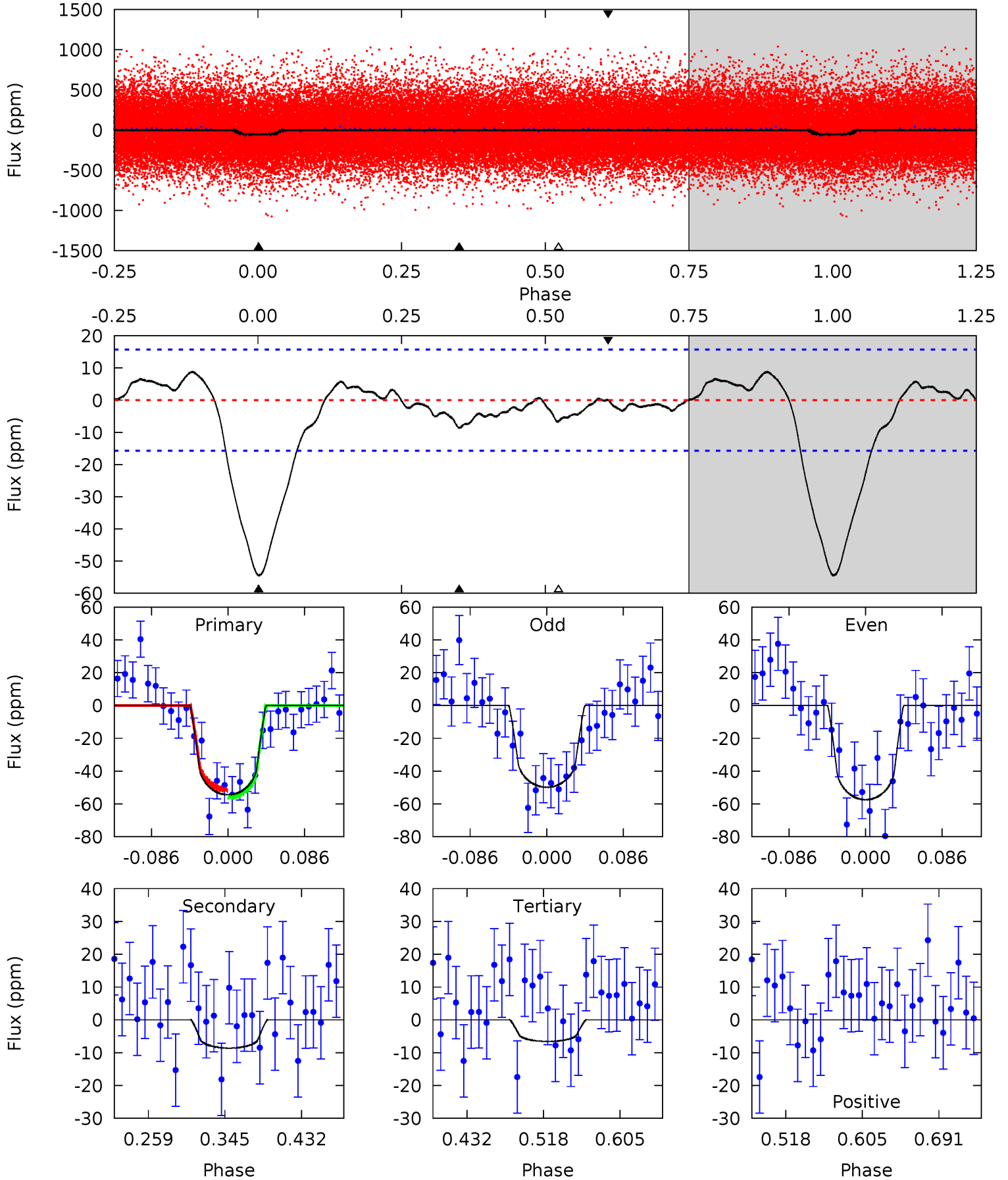
TCE 011137061-01 P= 1.889063 Days $T_0=132.989001$ (BKJD)



DV Model-Shift Uniqueness Test

011137061-01, P = 1.889067 Days, E = 131.096590 Days

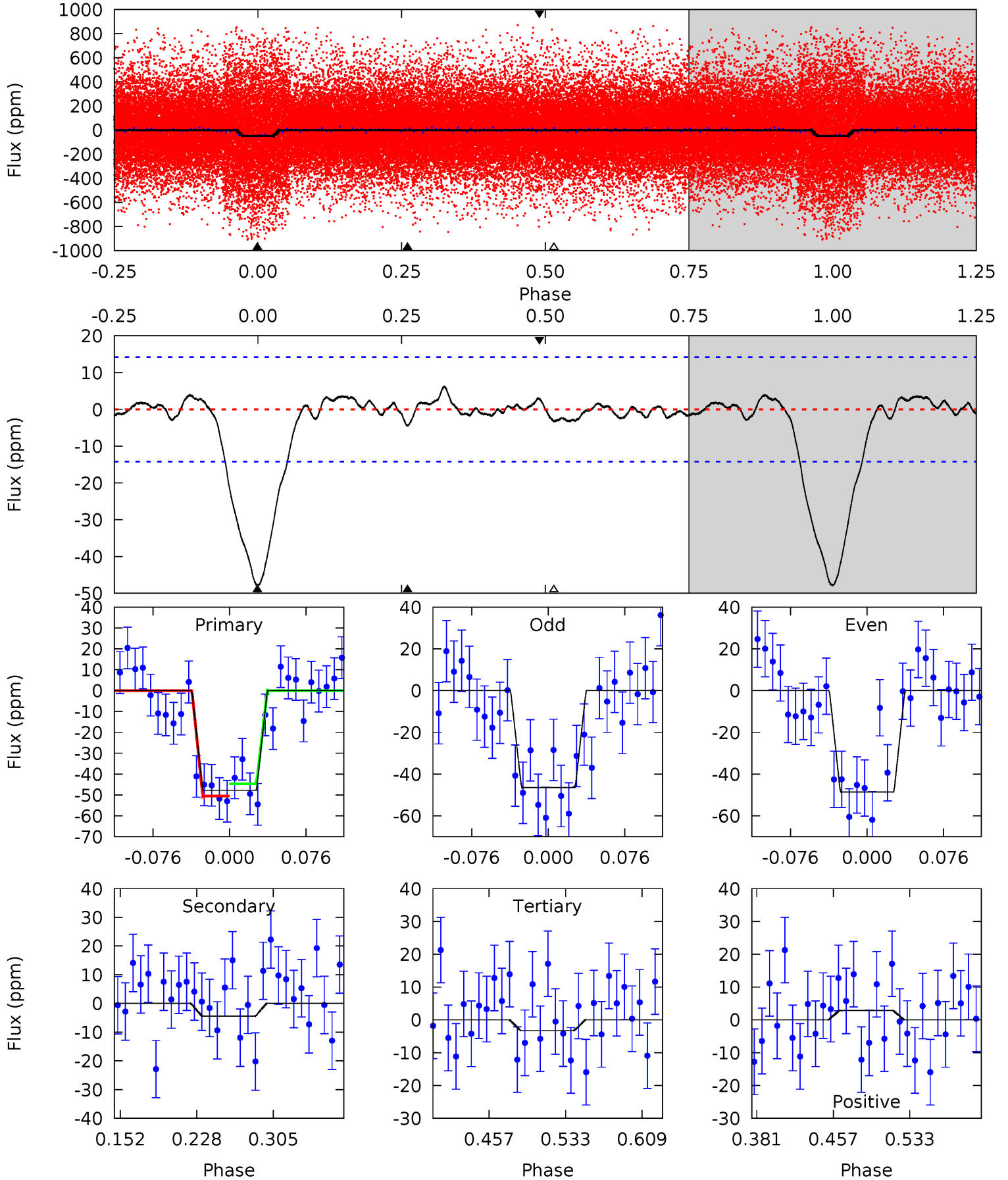
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	2.53	1.92	0	4.60	1.71	1.11	14.0	15.9	0.60	2.53	1.12	1.11	0.14	0.66



Alt Model-Shift Uniqueness Test

011137061-01, P = 1.889063 Days, E = 131.099938 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	1.44	1.06	0.93	4.62	1.77	0.57	14.5	14.6	0.37	0.50	0.34	1.17	0.11	0.96



Stellar Parameters For KIC 011137061

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5413^{+160}_{-144}	$4.578^{+0.045}_{-0.097}$	$-0.360^{+0.350}_{-0.300}$	$0.754^{+0.122}_{-0.071}$	$0.786^{+0.092}_{-0.069}$	$2.577^{+0.577}_{-0.807}$
	+3%/-3%	+1%/-2%	+97%/-83%	+16%/-9%	+12%/-9%	+22%/-31%
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 011137061-01 / KOI 7411.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 3	$0.64^{+0.30}_{-0.29}$	1759^{+79}_{-60}	3683^{+992}_{-460}	$8.264^{+22.110}_{-4.667}$
Alt.	-4 ± 3	$0.59^{+0.33}_{-0.28}$	1765^{+78}_{-66}	3338^{+977}_{-689}	$4.516^{+14.696}_{-3.362}$

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

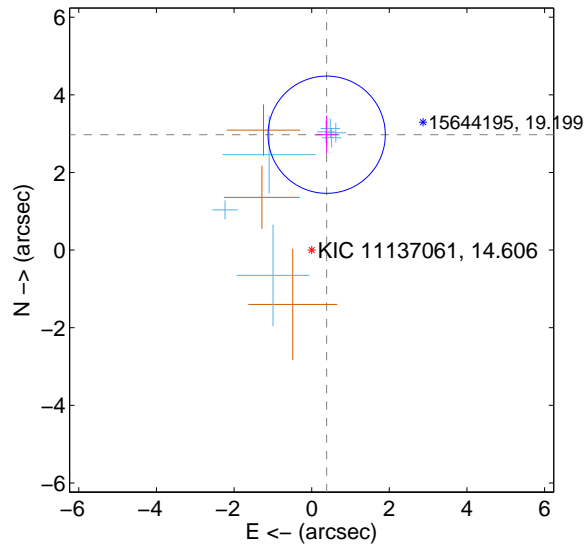
Supplemental centroid analysis for 011137061-01. Kepler magnitude: 14.61. Transit SNR 9.11

There are 7 quarters with good PRF difference image offsets

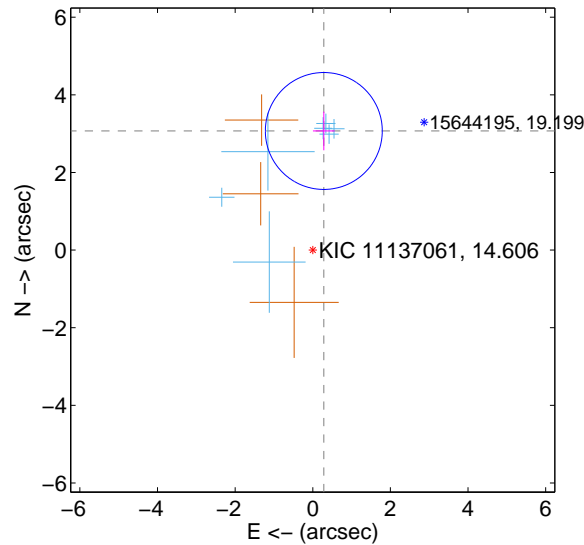
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.999 ± 0.504	5.96	-0.386 ± 0.292	2.974 ± 0.491
PRF-fit source offset from KIC position	3.083 ± 0.502	6.14	-0.285 ± 0.280	3.070 ± 0.496
photometric centroid source offset	2.16 ± 1.01	2.14	-0.68 ± 1.01	2.05 ± 1.01

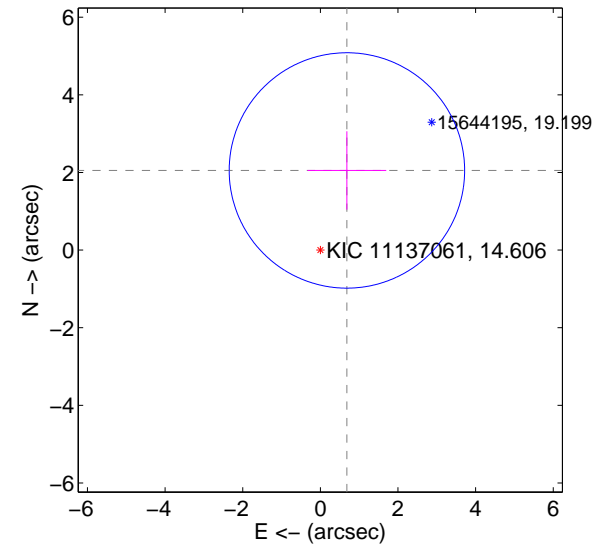
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

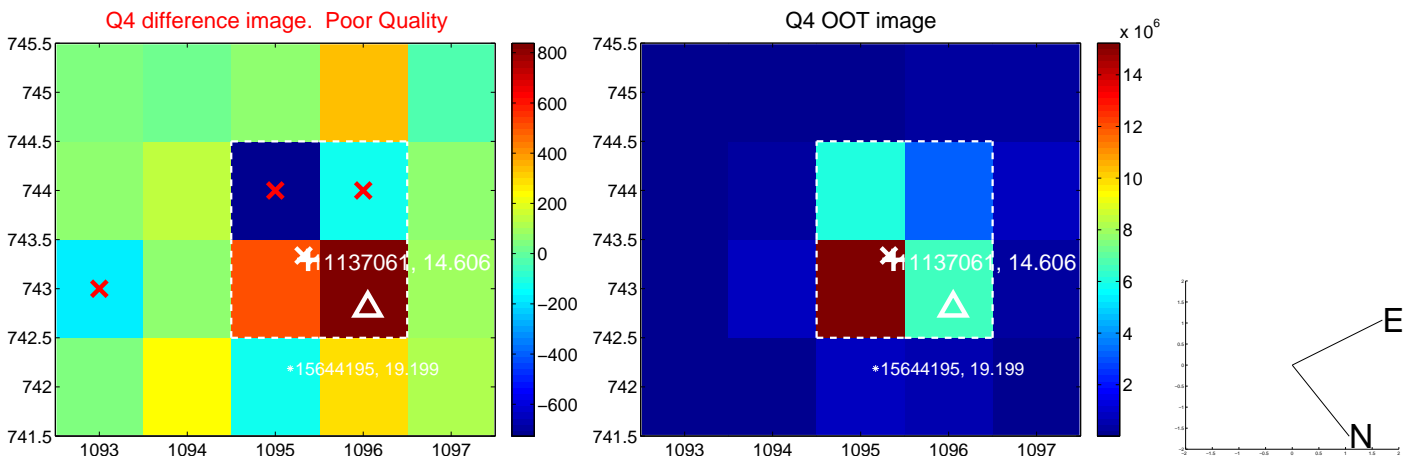
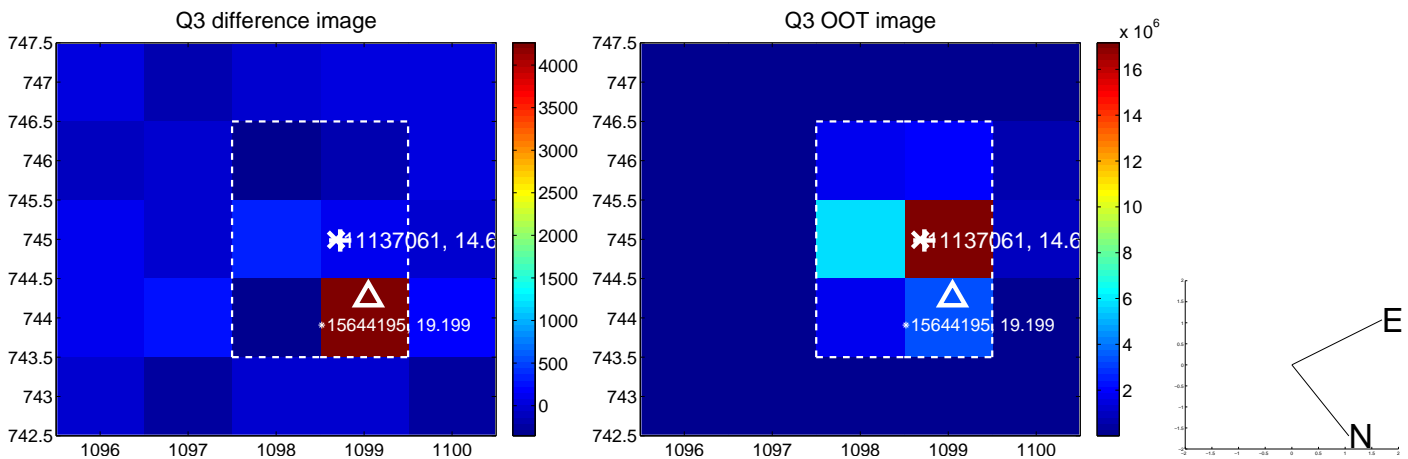
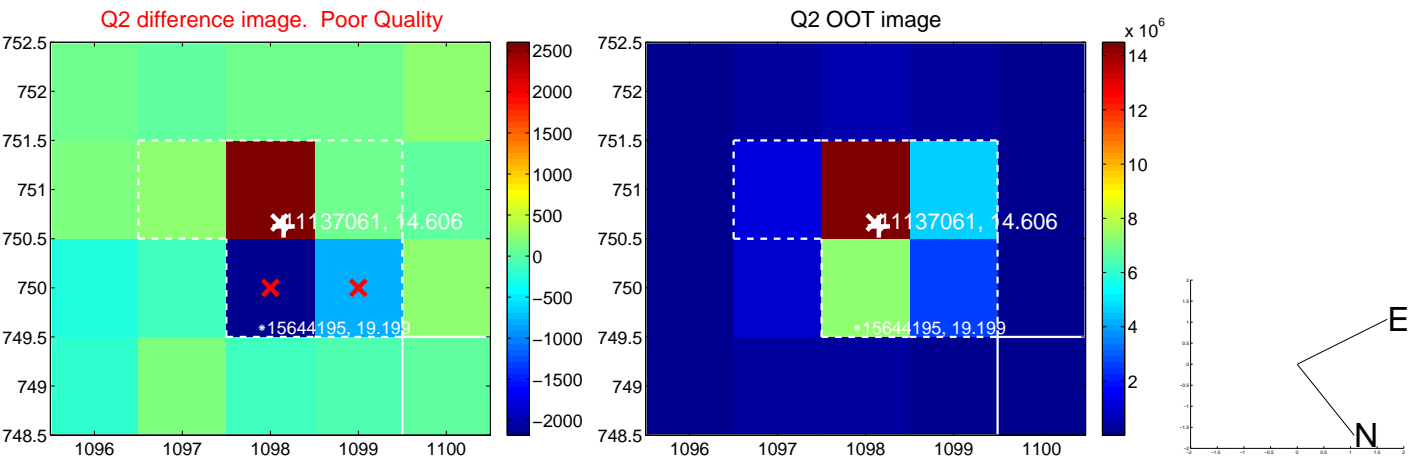
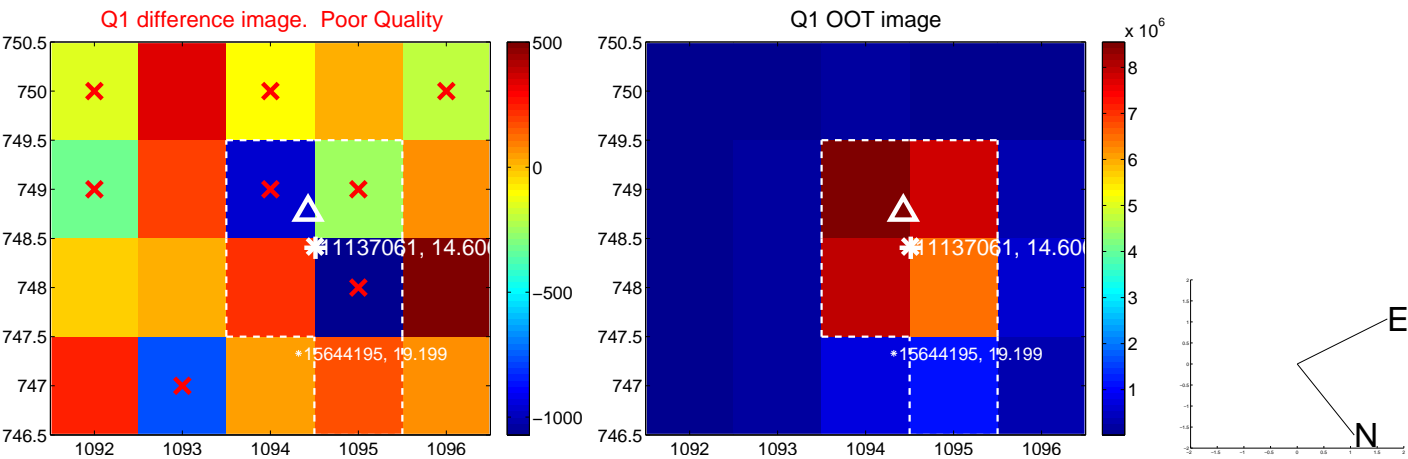


offset from photometric centroids

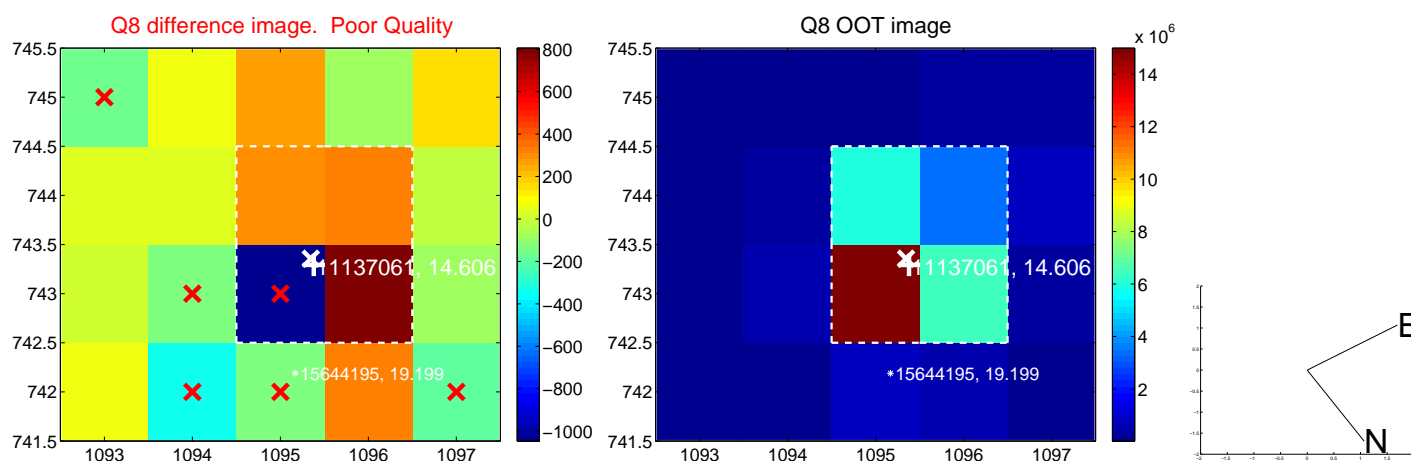
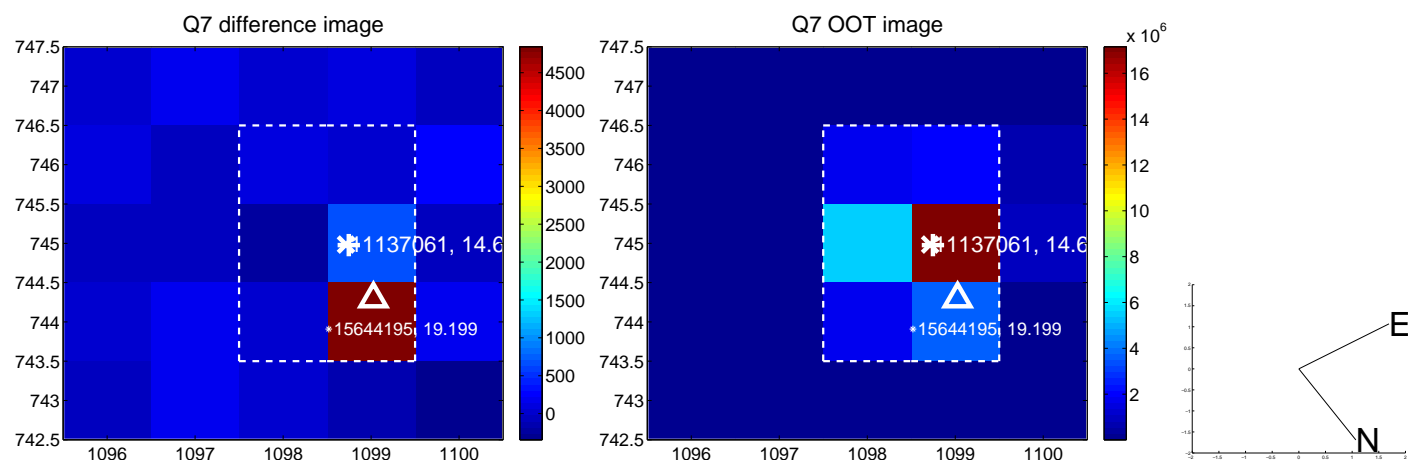
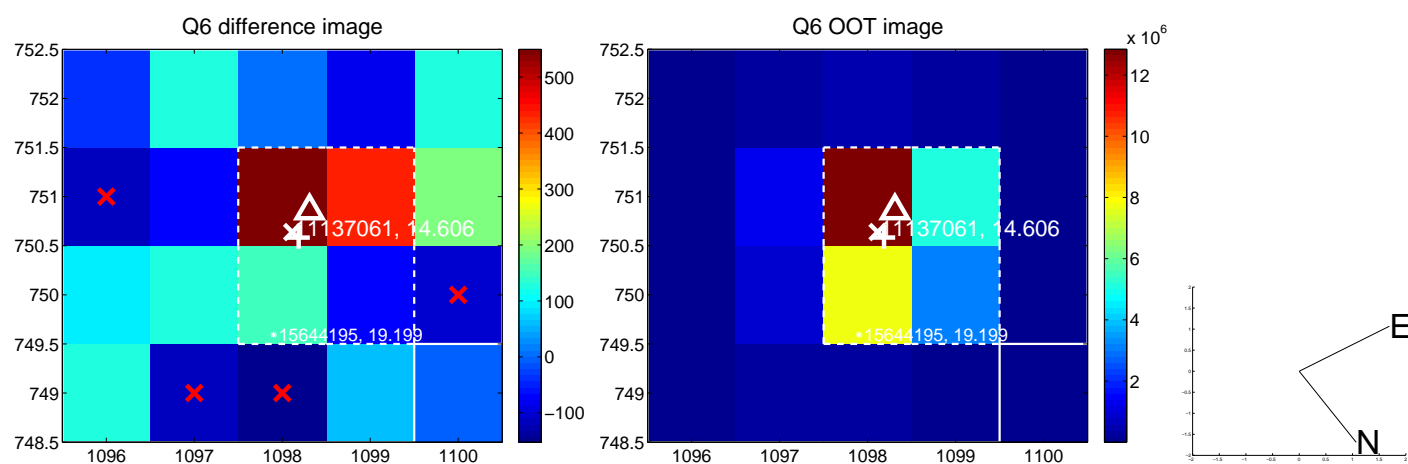
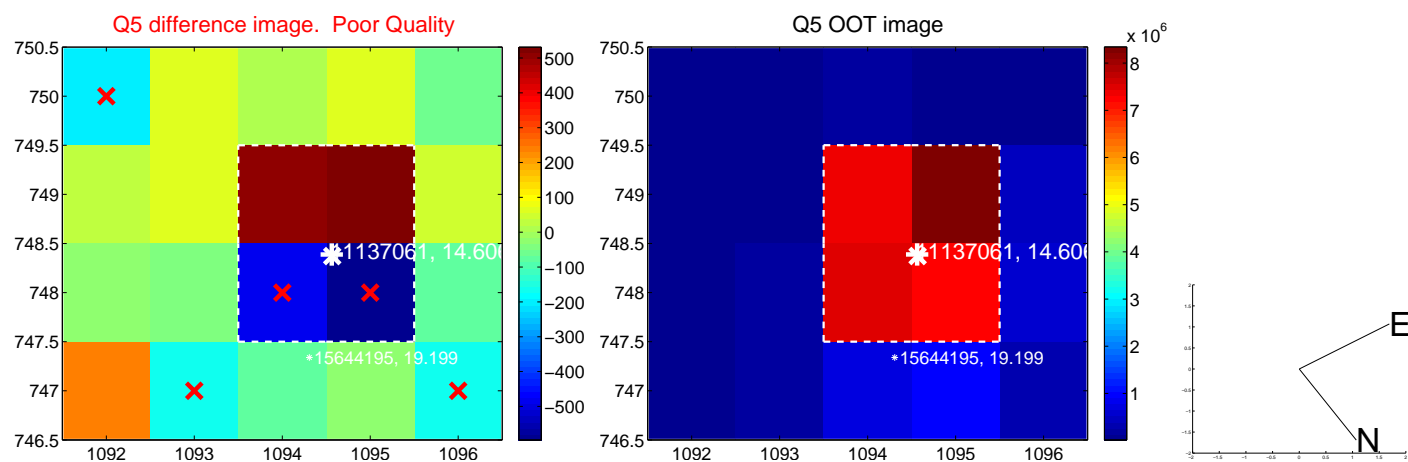


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

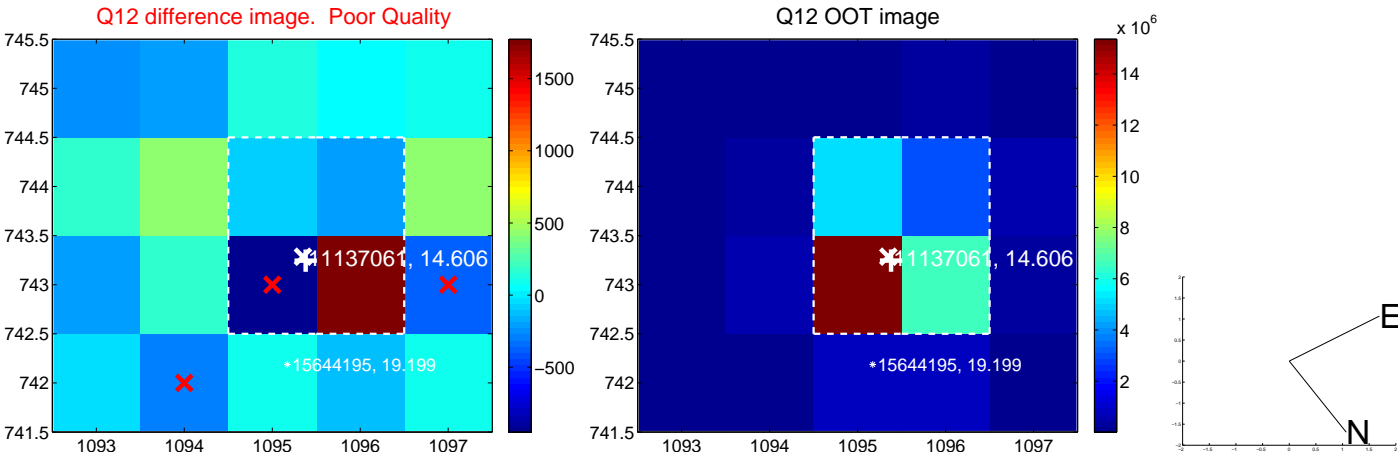
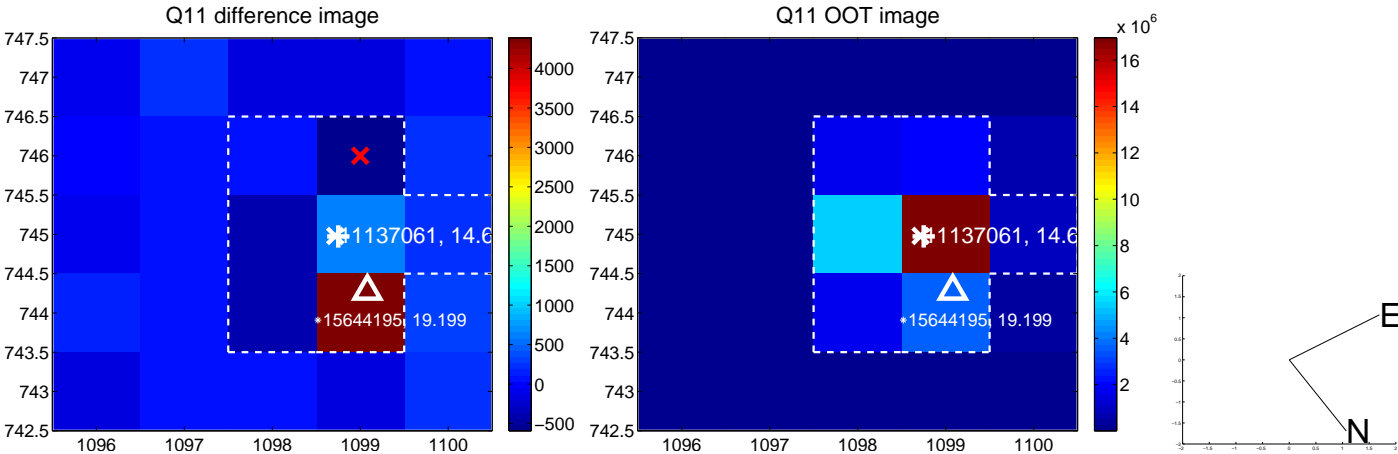
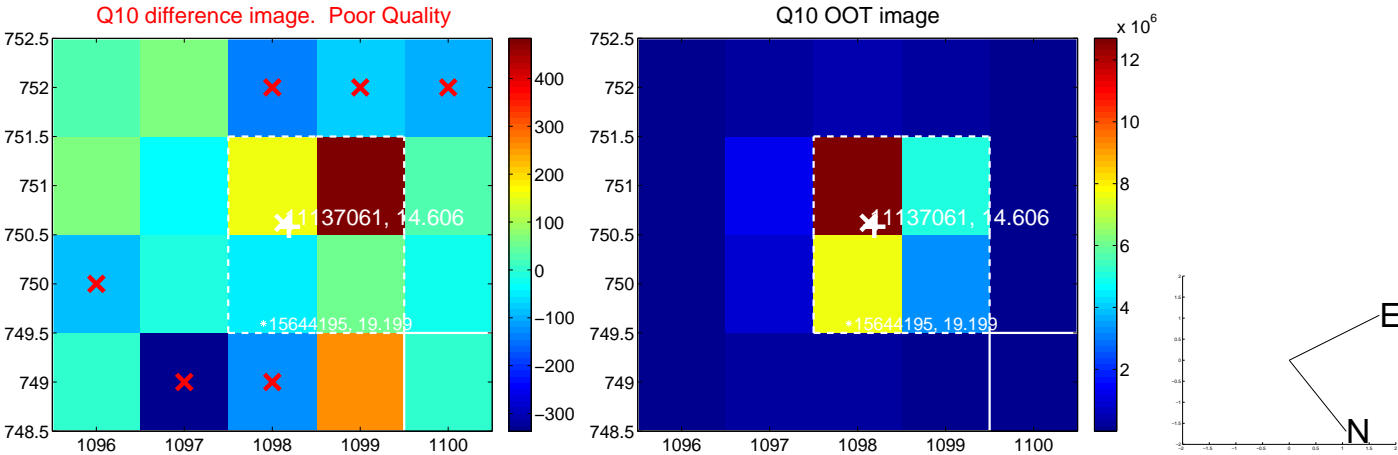
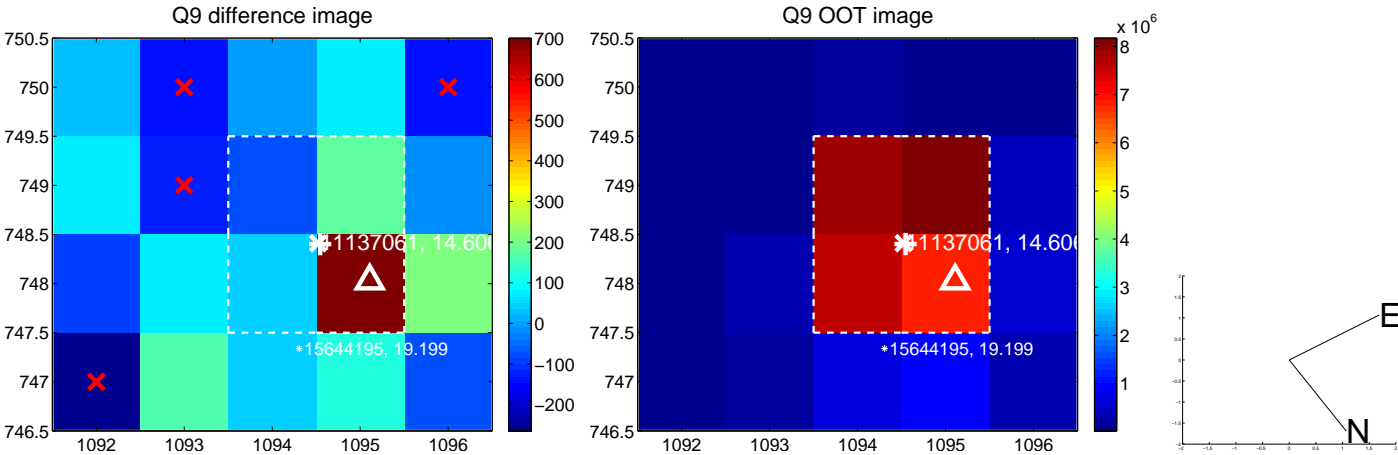
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



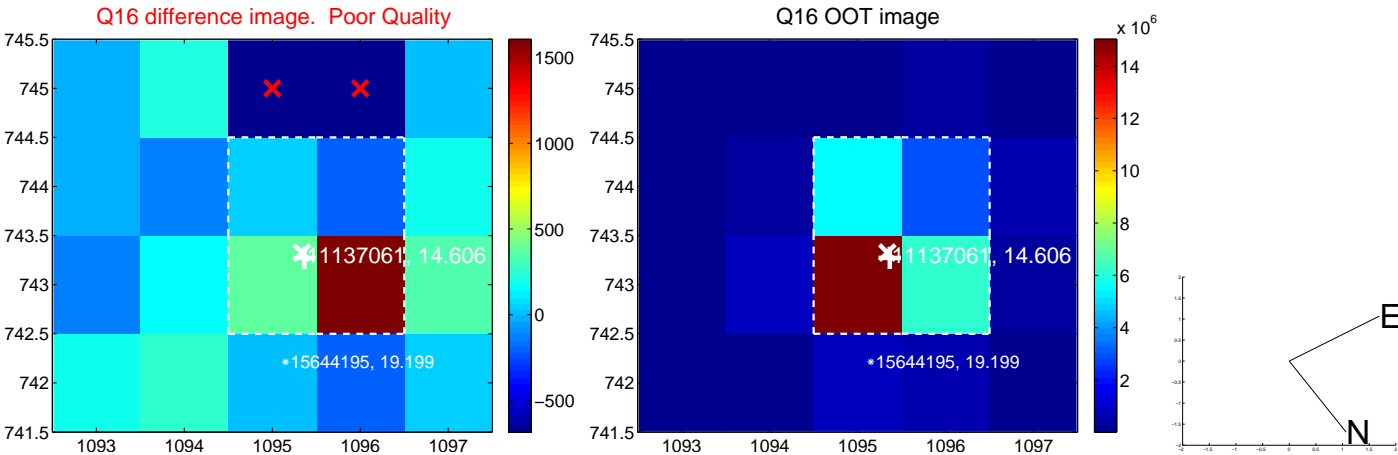
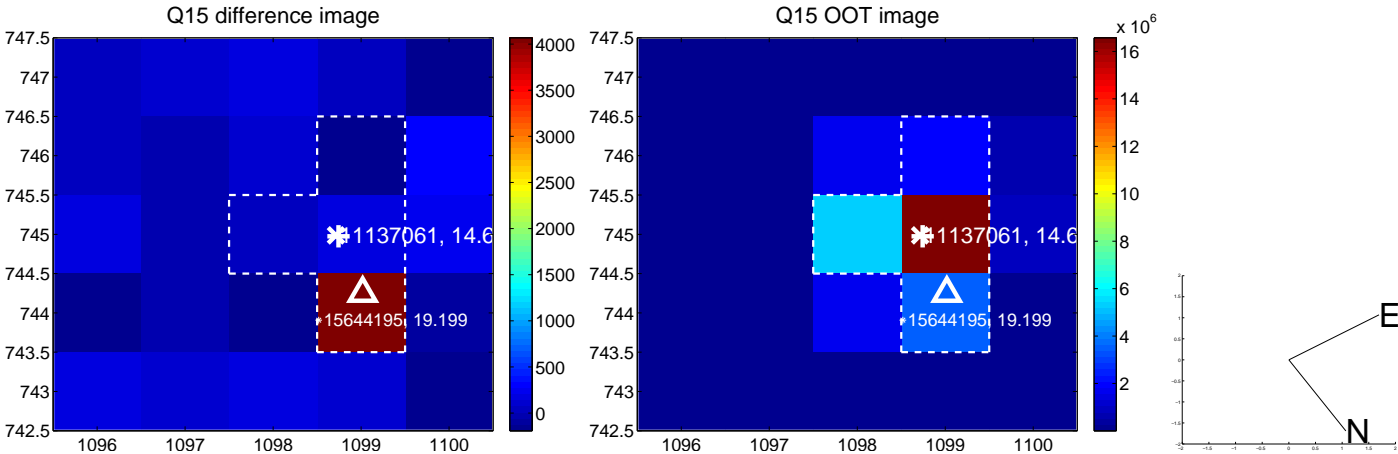
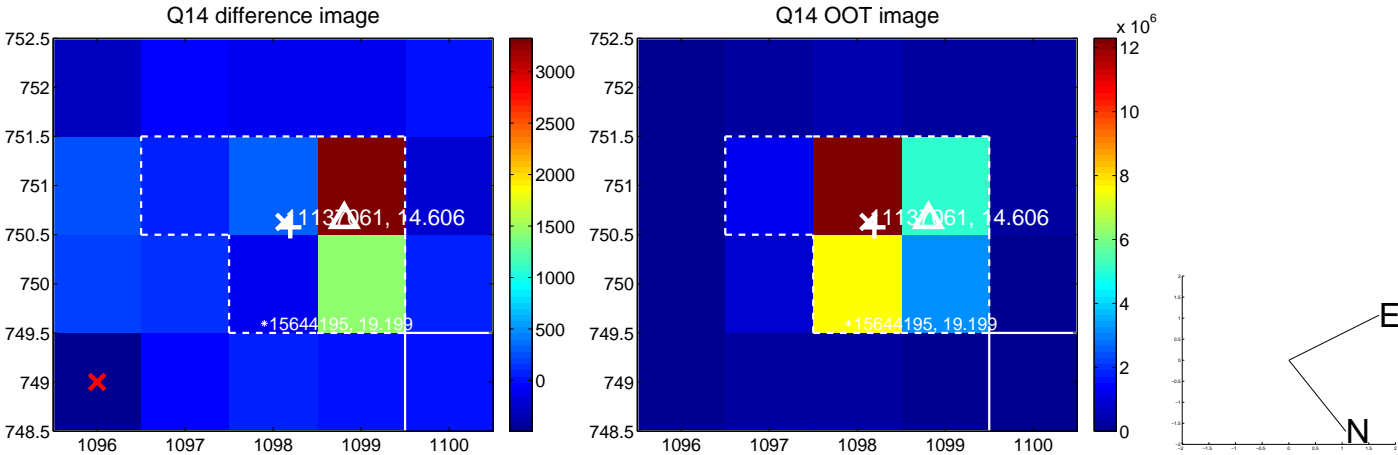
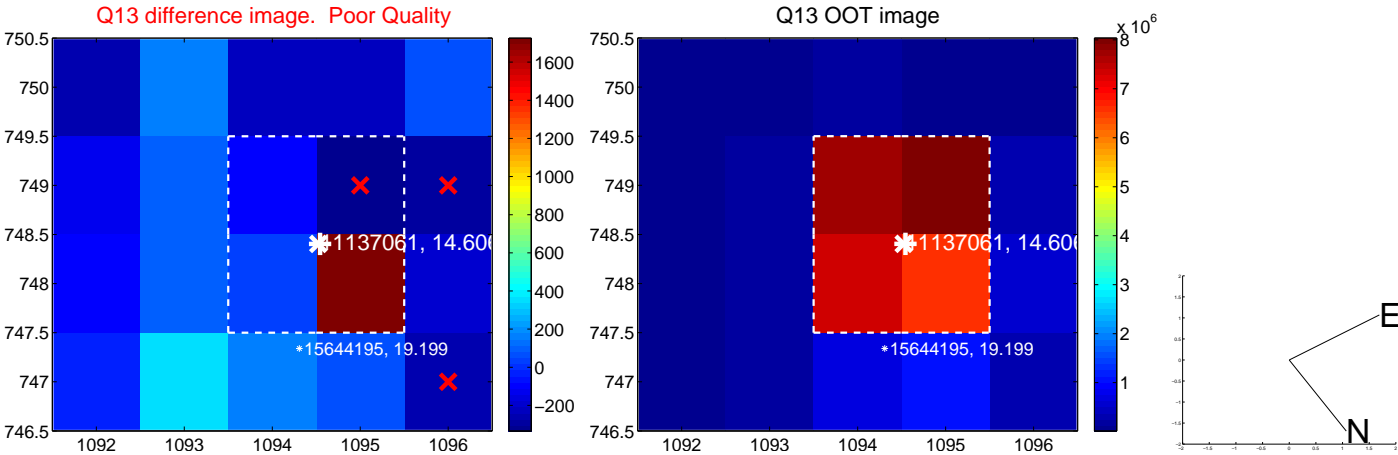
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



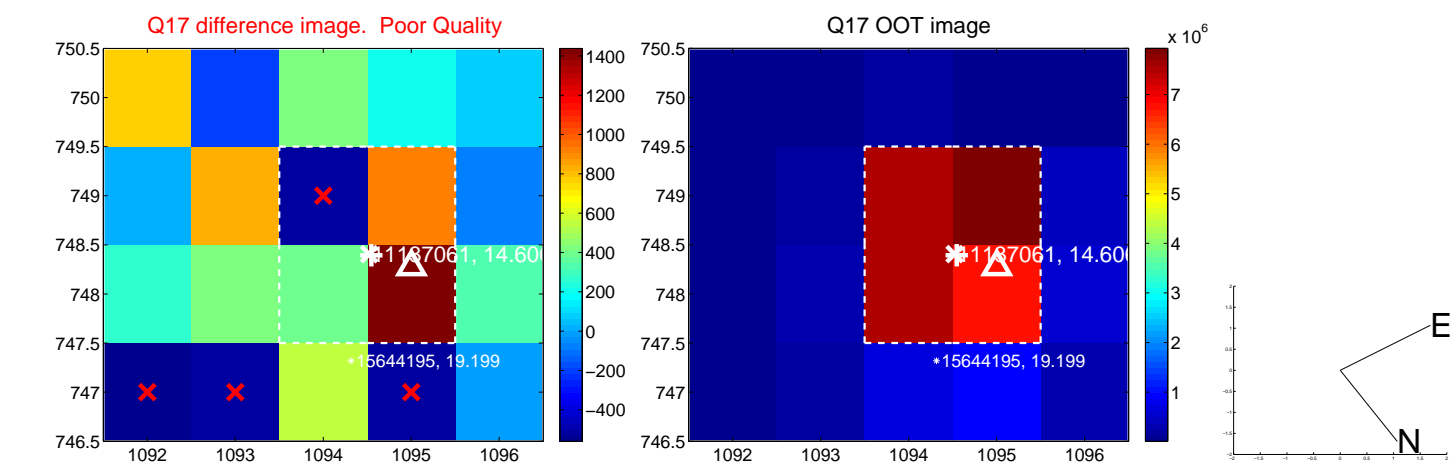
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



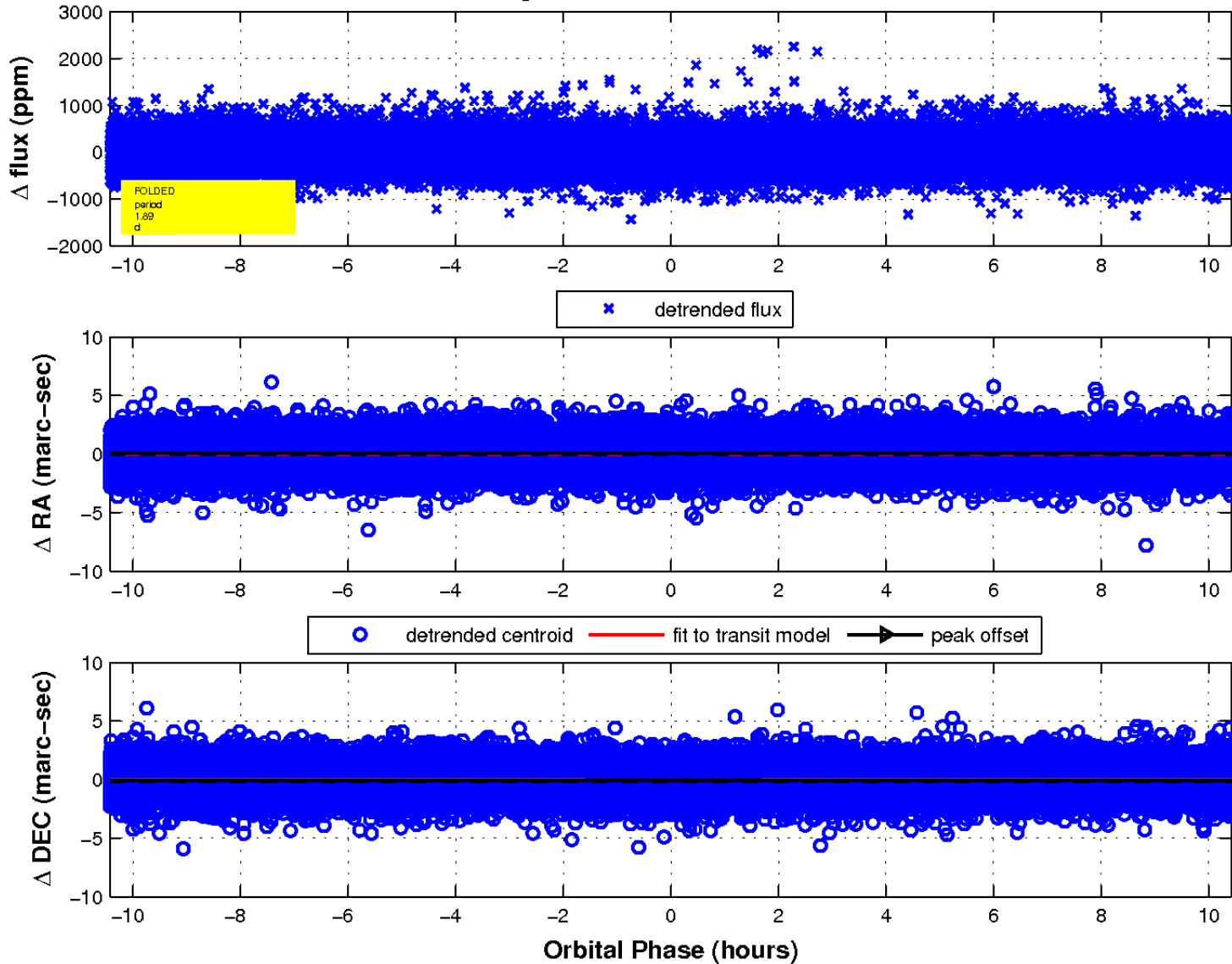
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

