

KIC 004848115

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})
004848115-01	OBS	4537.01	1.939255	131.917521	179.8	1.615	9.7	10.6	0.66	4856	1.11	297.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004848115-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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.

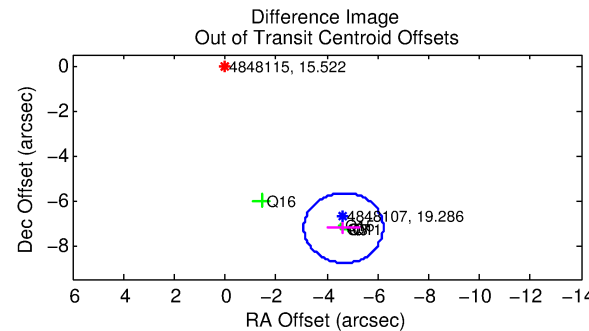
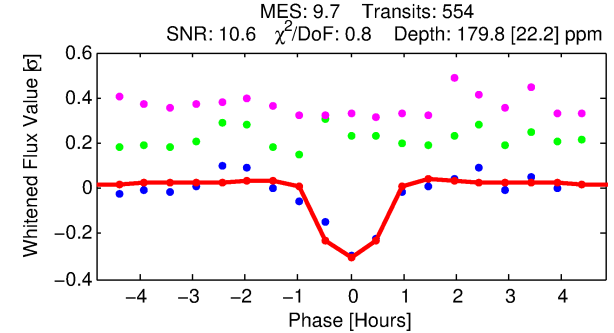
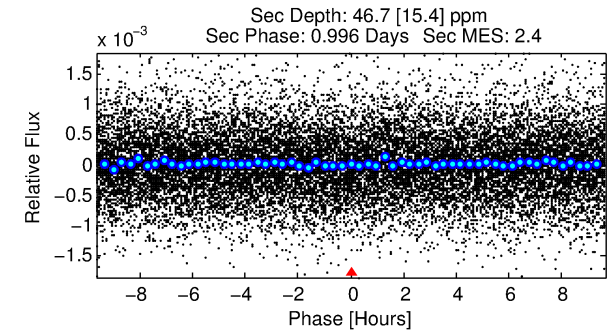
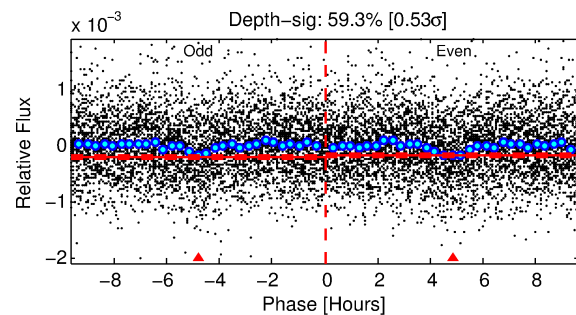
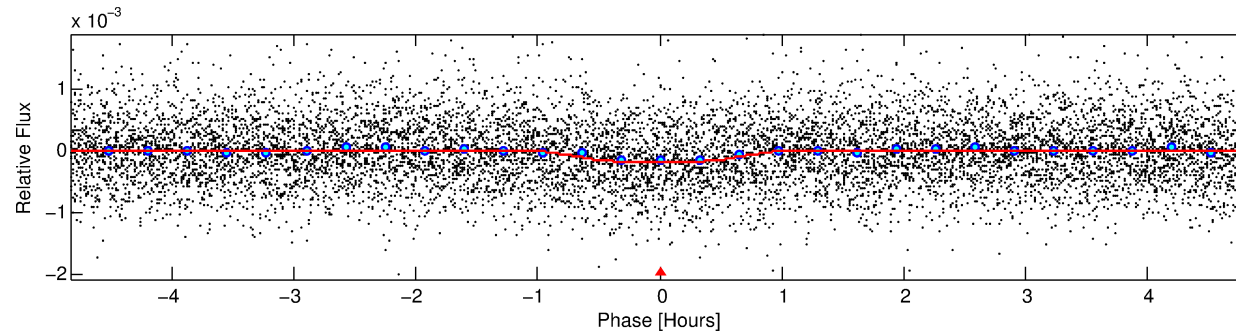
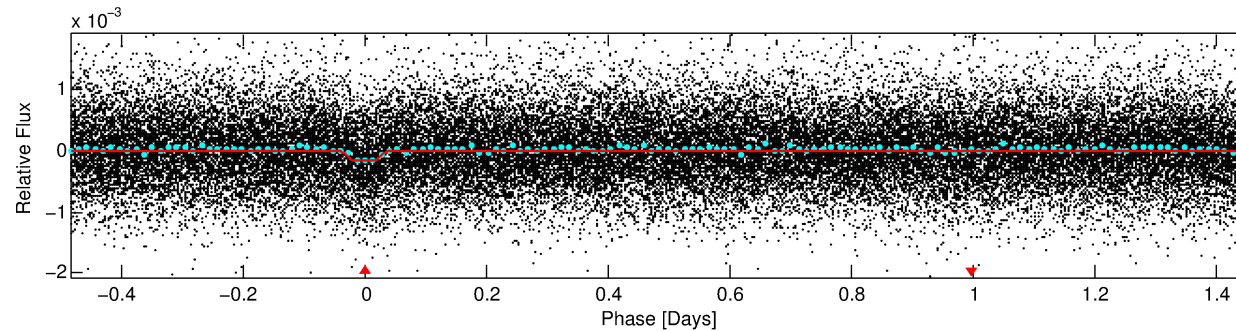
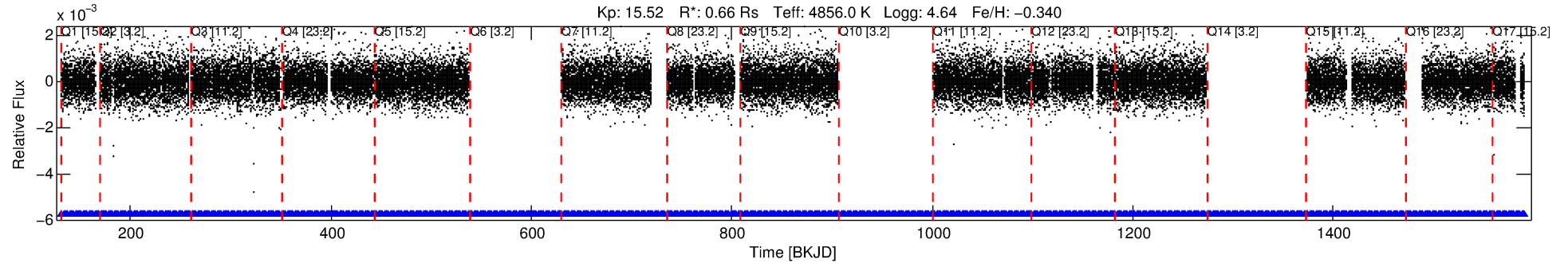
Ephemeris Match Information For 004848115-01

No Significant Match Found

DV One-Page Summary

KIC: 4848115 Candidate: 1 of 1 Period: 1.939 d
KOI: K04537 Corr: No Ephemeris Match

Kp: 15.52 R*: 0.66 Rs Teff: 4856.0 K Logg: 4.64 Fe/H: -0.340



DV Fit Results:

Period = 1.93925 [0.00001] d
Epoch = 131.9175 [0.0022] BKJD
Rp/R* = 0.0154 [0.0123]
a/R* = 4.11 [12.51]
b = 0.92 [0.58]
Seff = 297.53 [59.52]
Teq = 1059 [53] K
Rp = 1.11 [0.89] Re
a = 0.0270 [0.0024] AU
Ag = 15.31 [25.04] [0.57σ]
Teff = 3239 [1327] K [1.64σ]

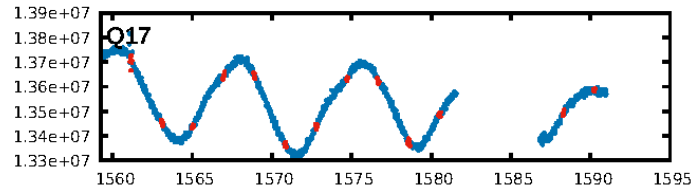
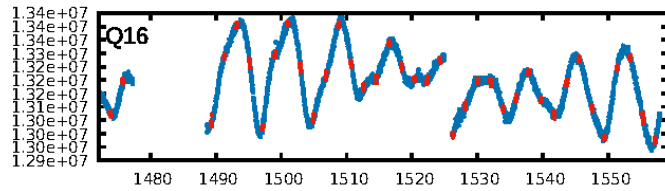
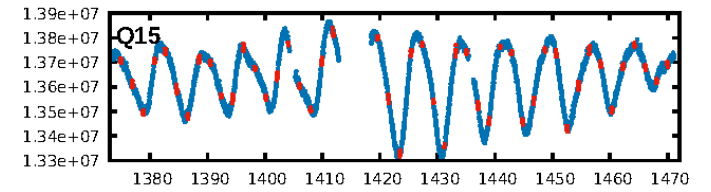
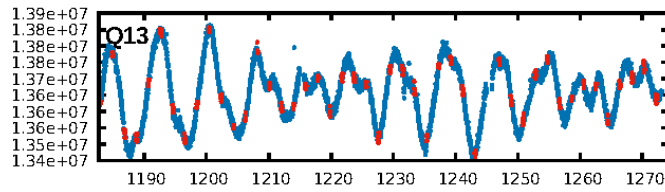
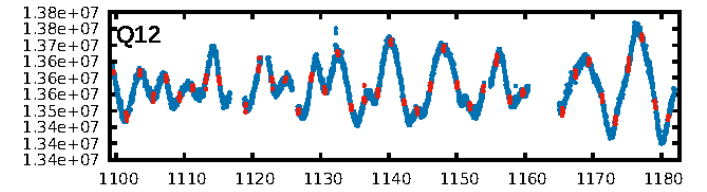
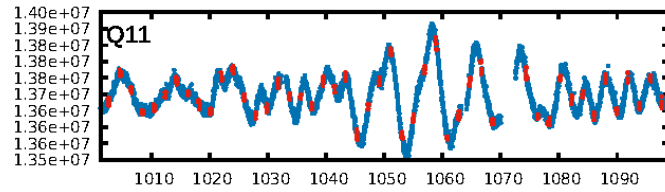
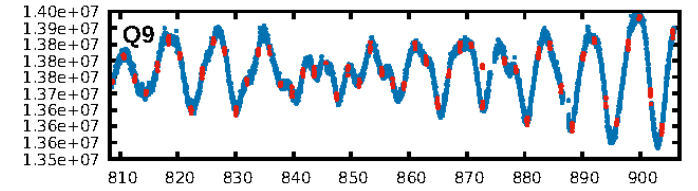
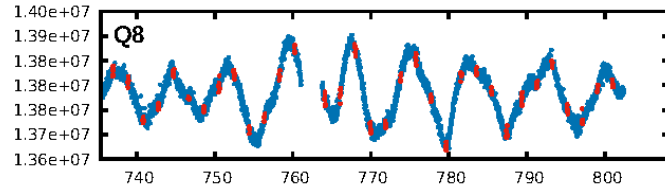
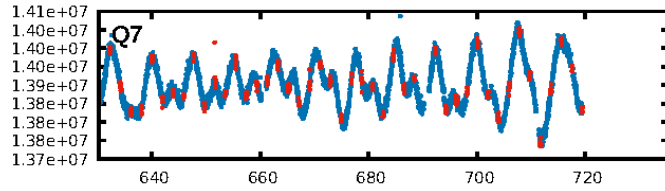
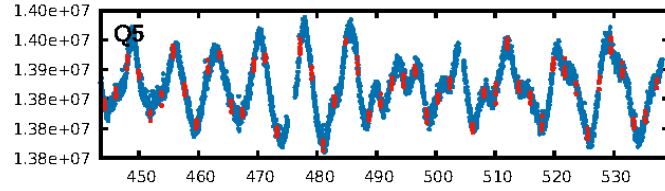
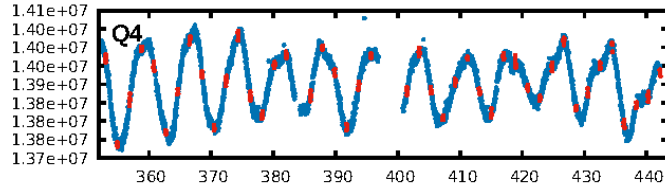
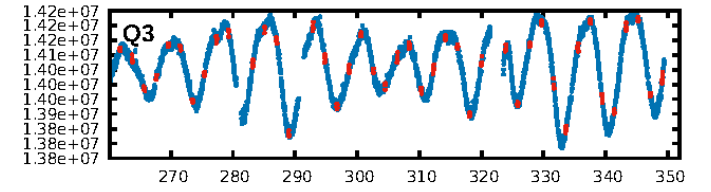
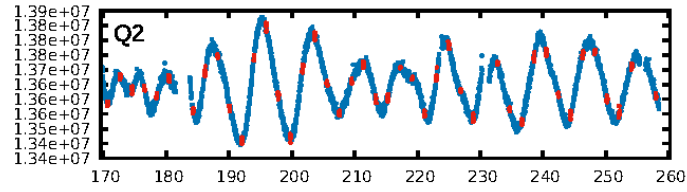
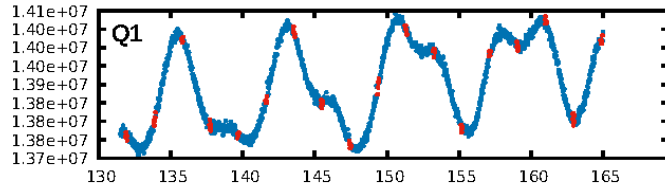
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 6.28e-21
RollingBand-fgt: 1.00 [522/522]
GhostDiagnostic-chr: -0.2943
Centroid-sig: 0.0%
Centroid-so: 29.666 arcsec [23.08σ]
OotOffset-rm: 8.601 arcsec [16.57σ]
KicOffset-rm: 8.587 arcsec [18.02σ]
OotOffset-st: 0/4/1/0 [5]
KicOffset-st: 0/4/1/0 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [14/14]

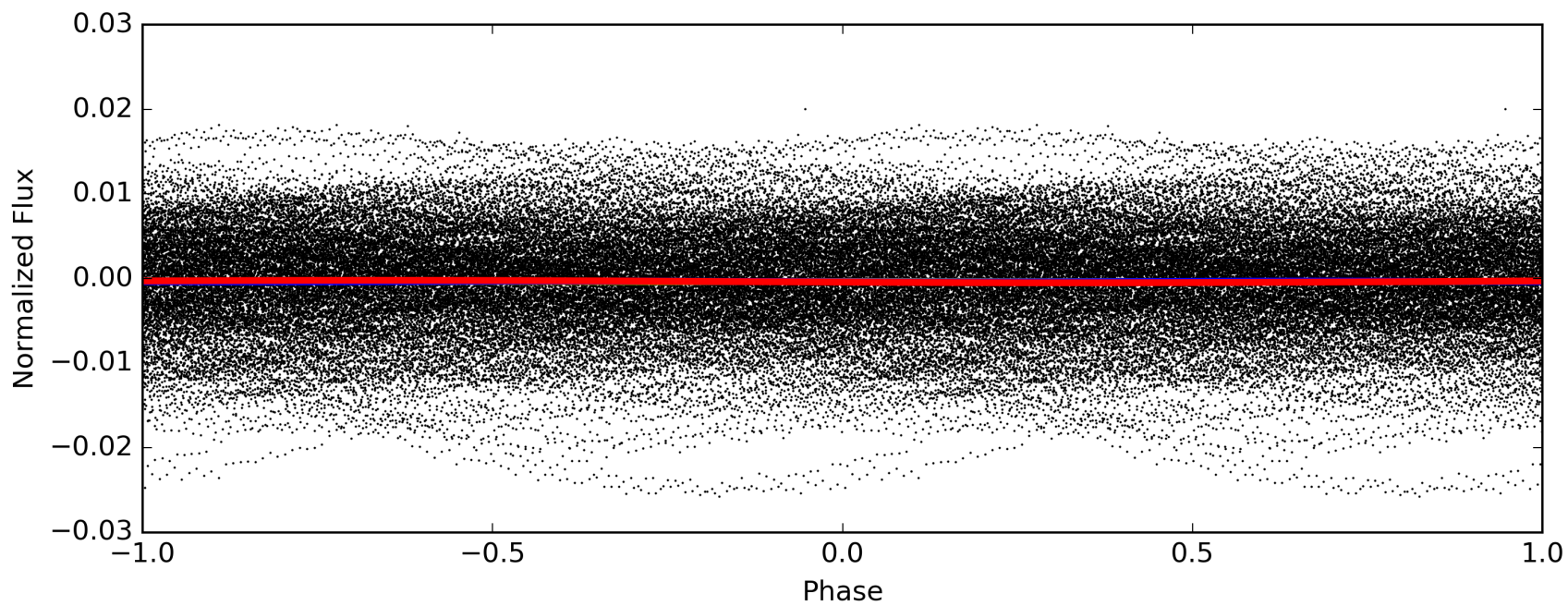
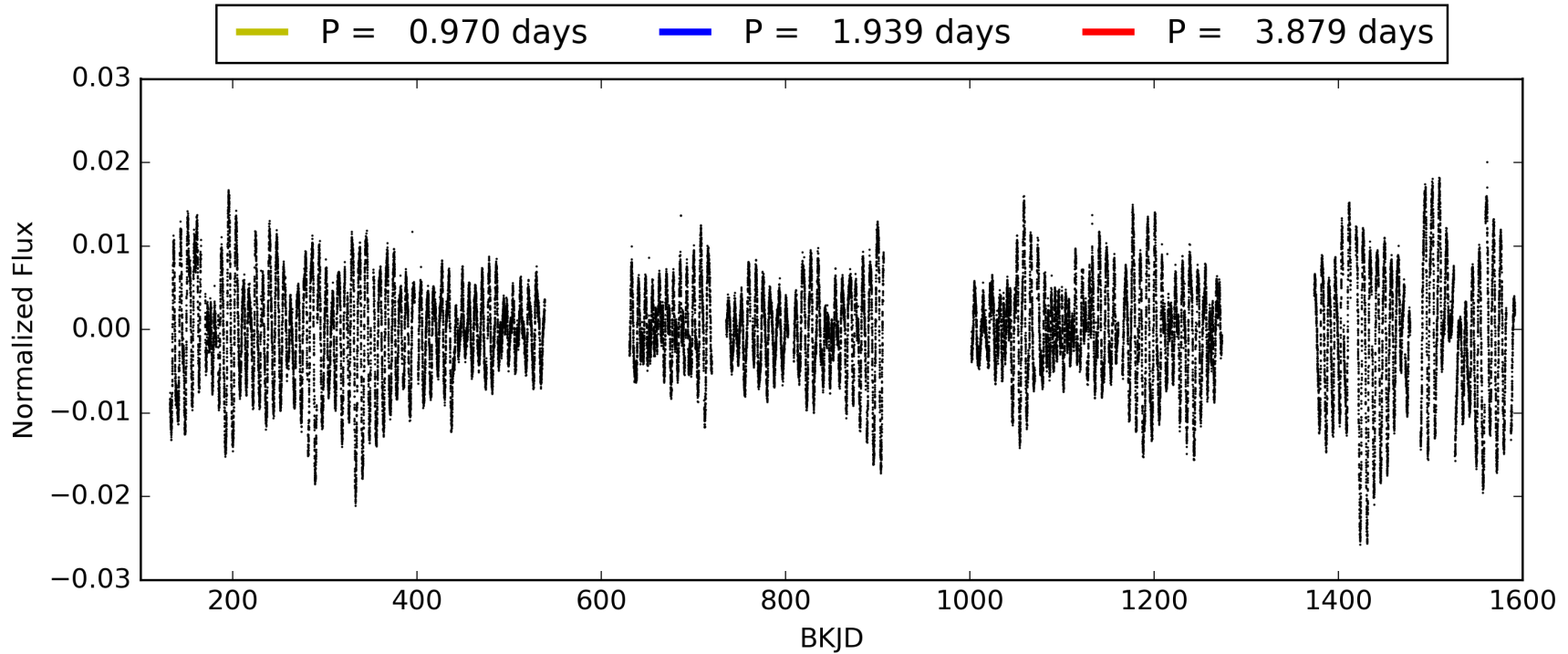
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:10:35 Z

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

TCE 004848115-01, PDC Light Curves

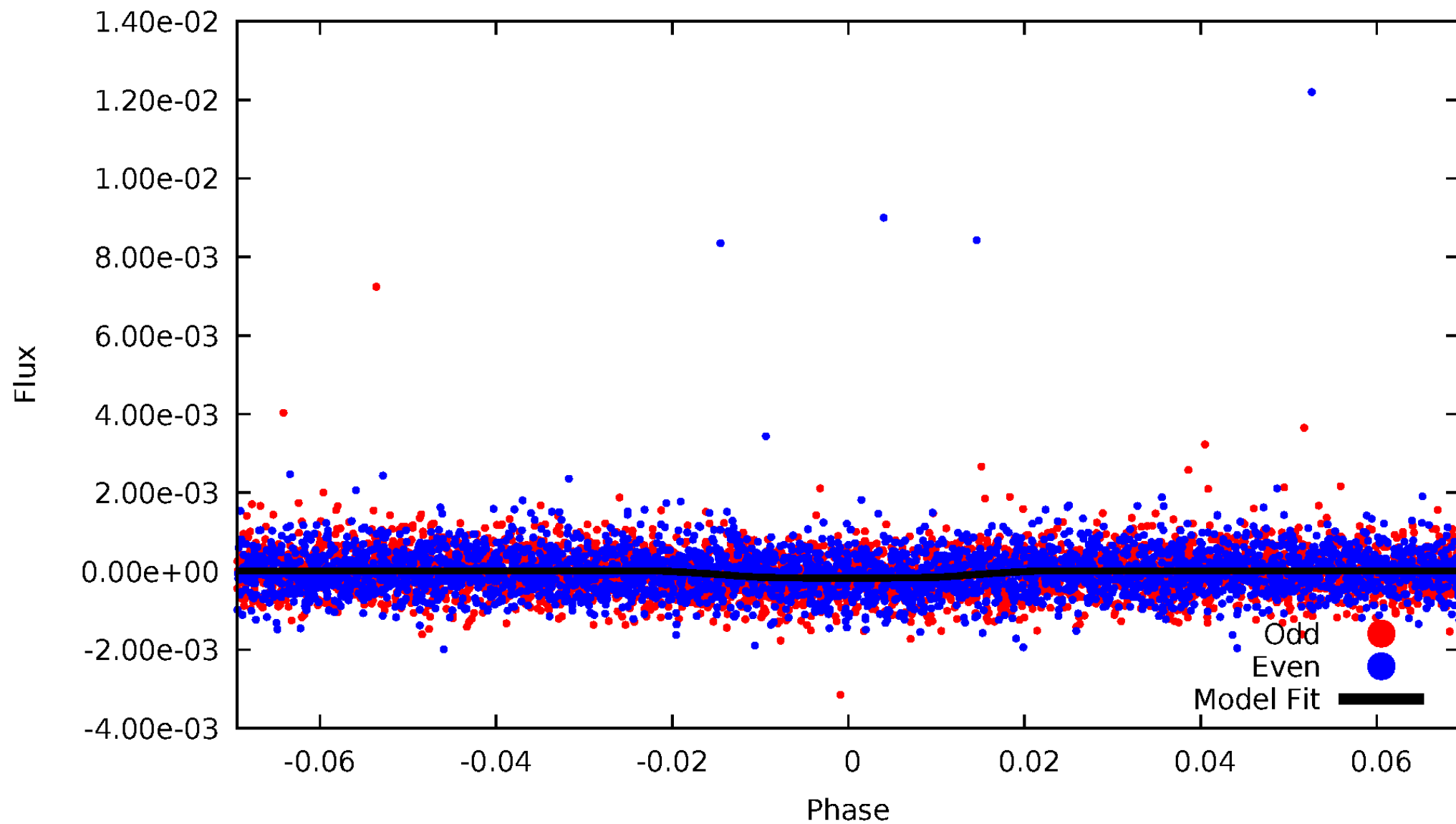


TCE 004848115-01



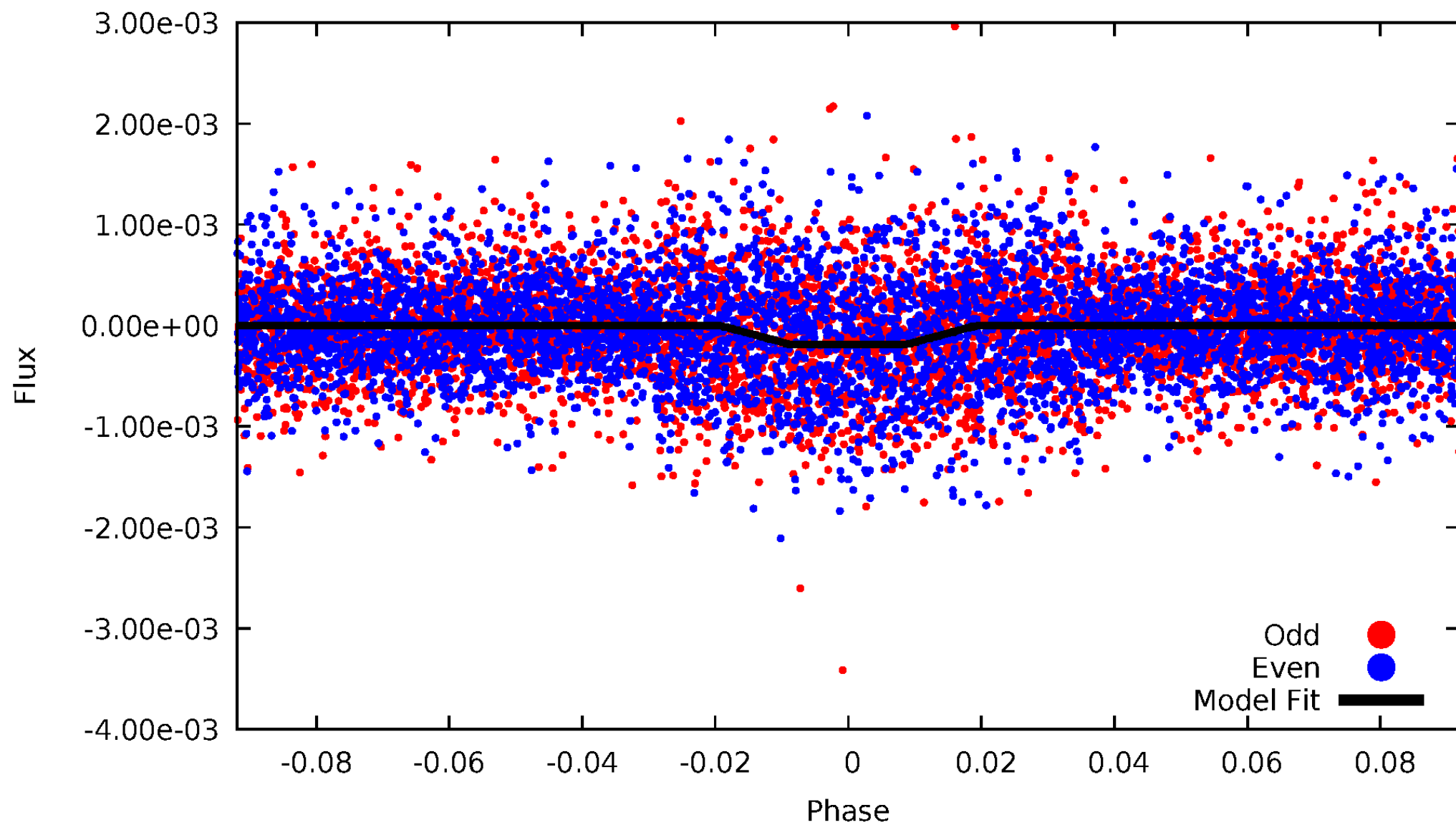
DV Odd/Even

TCE 004848115-01



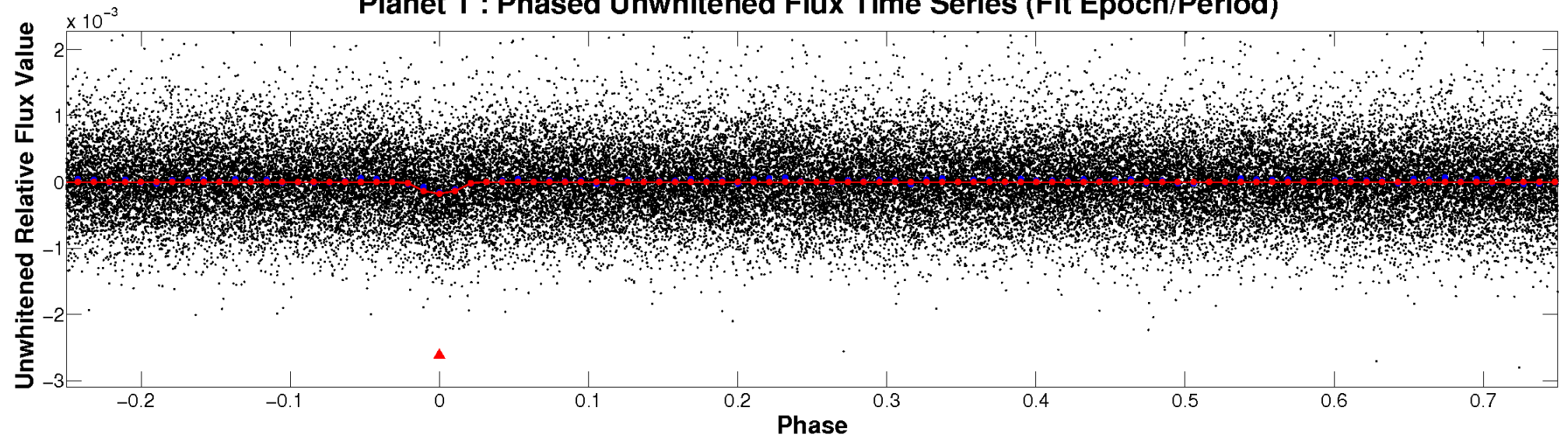
ALT Odd/Even

TCE 004848115-01

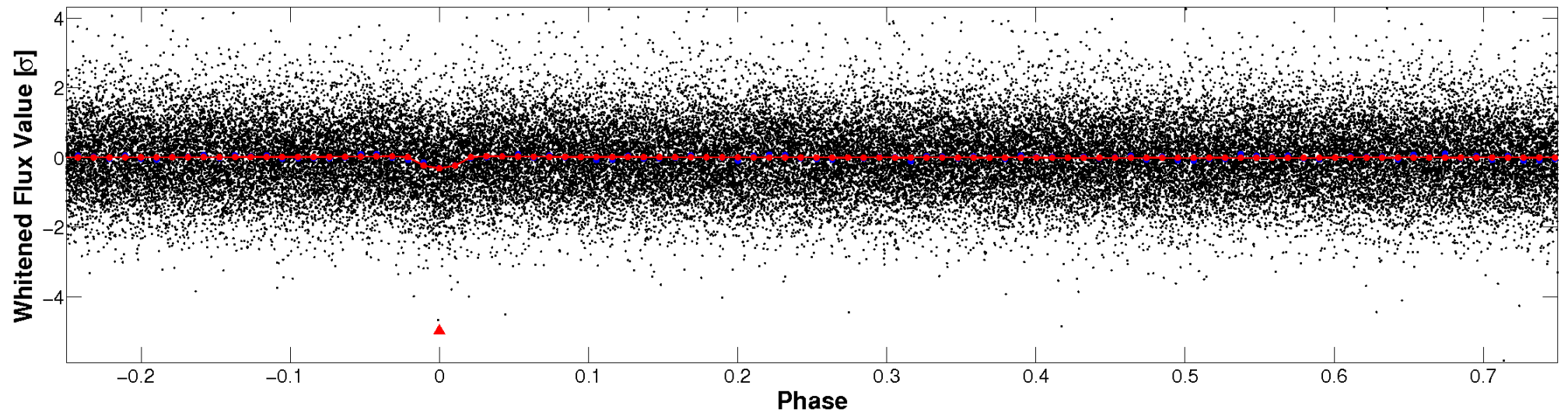


Non-Whitened Vs. Whitened Light Curve

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

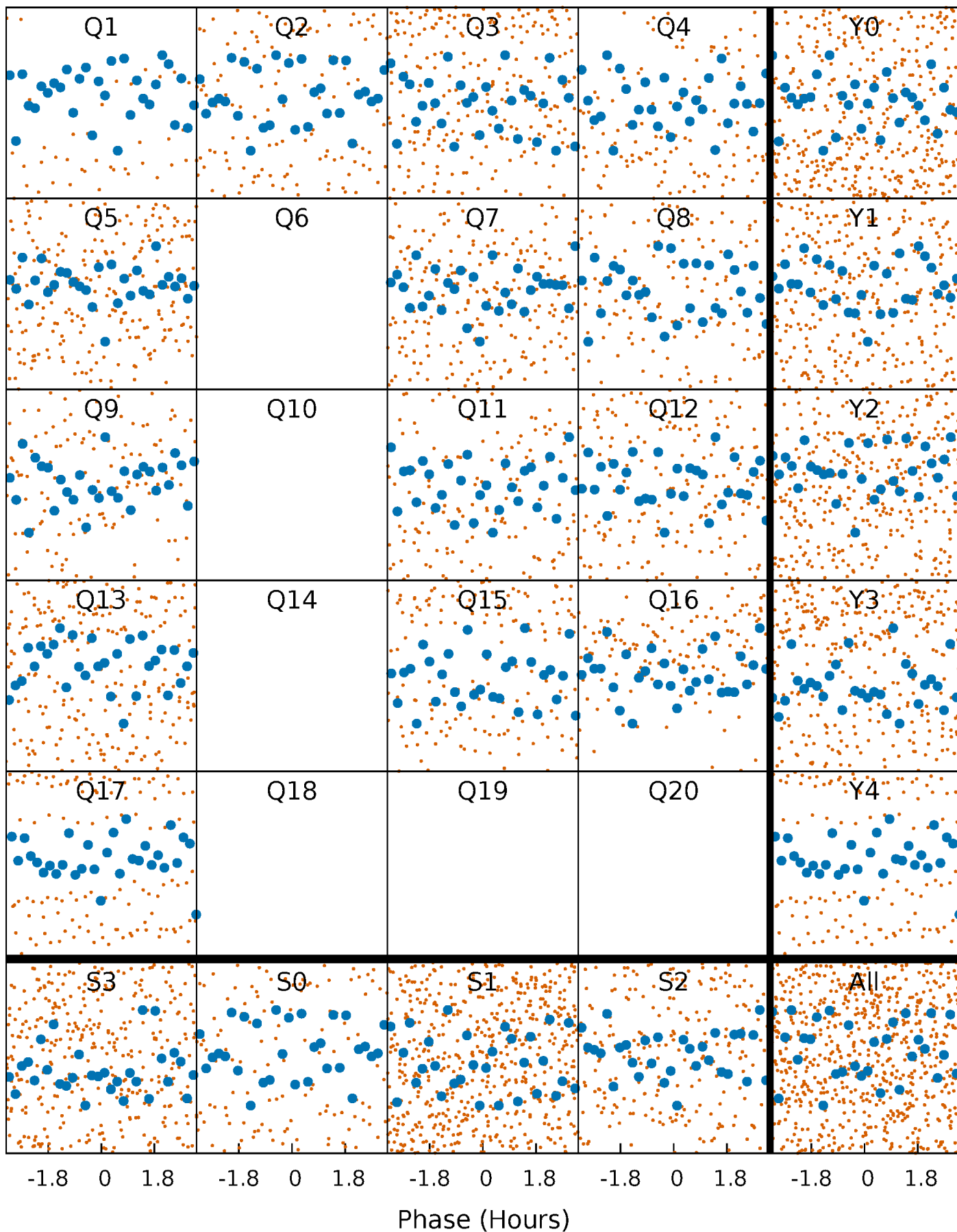


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



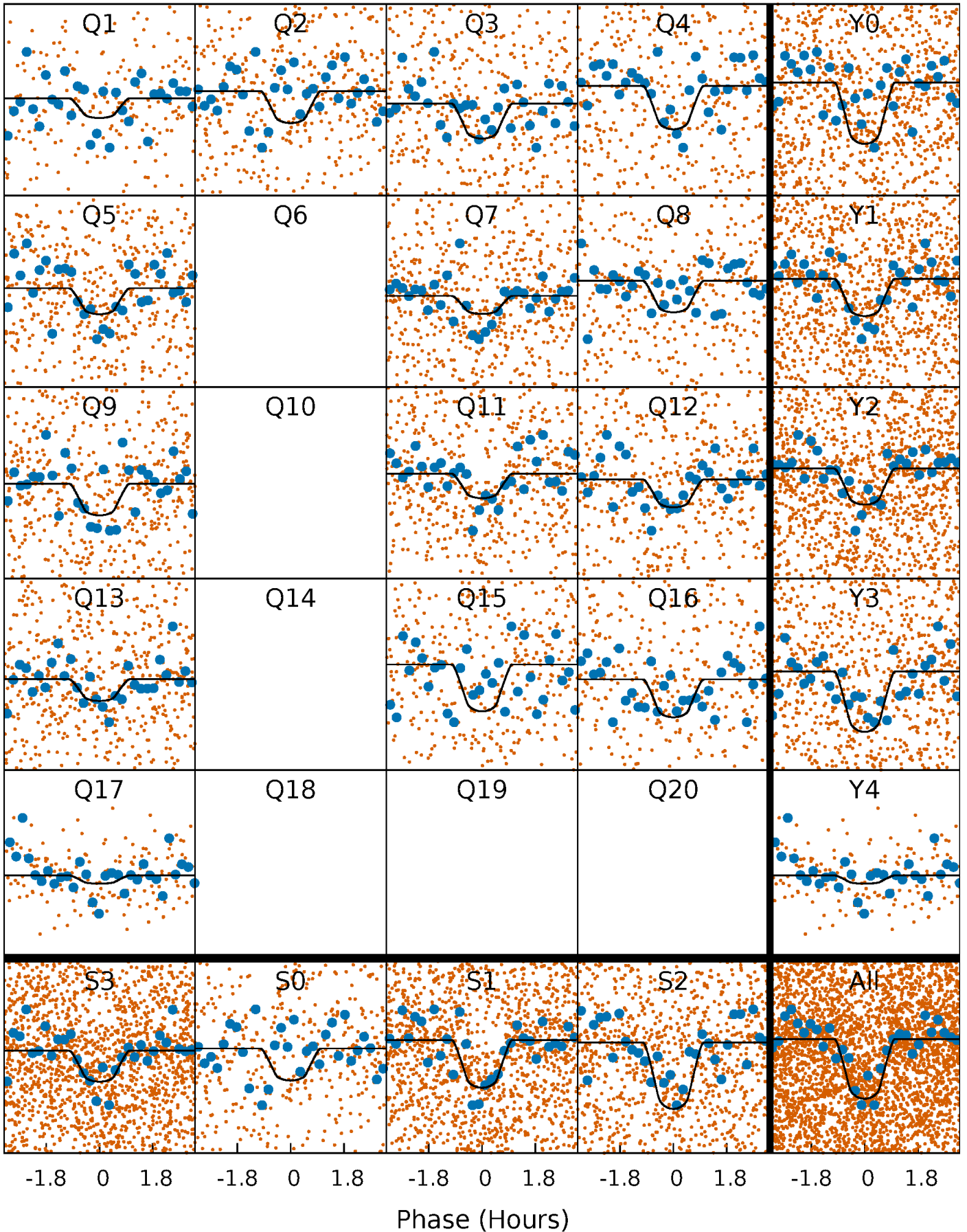
PDC Quarter-Phased Transit Curves

TCE 004848115-01 P= 1.939255 Days $T_0=131.917521$ (BKJD)



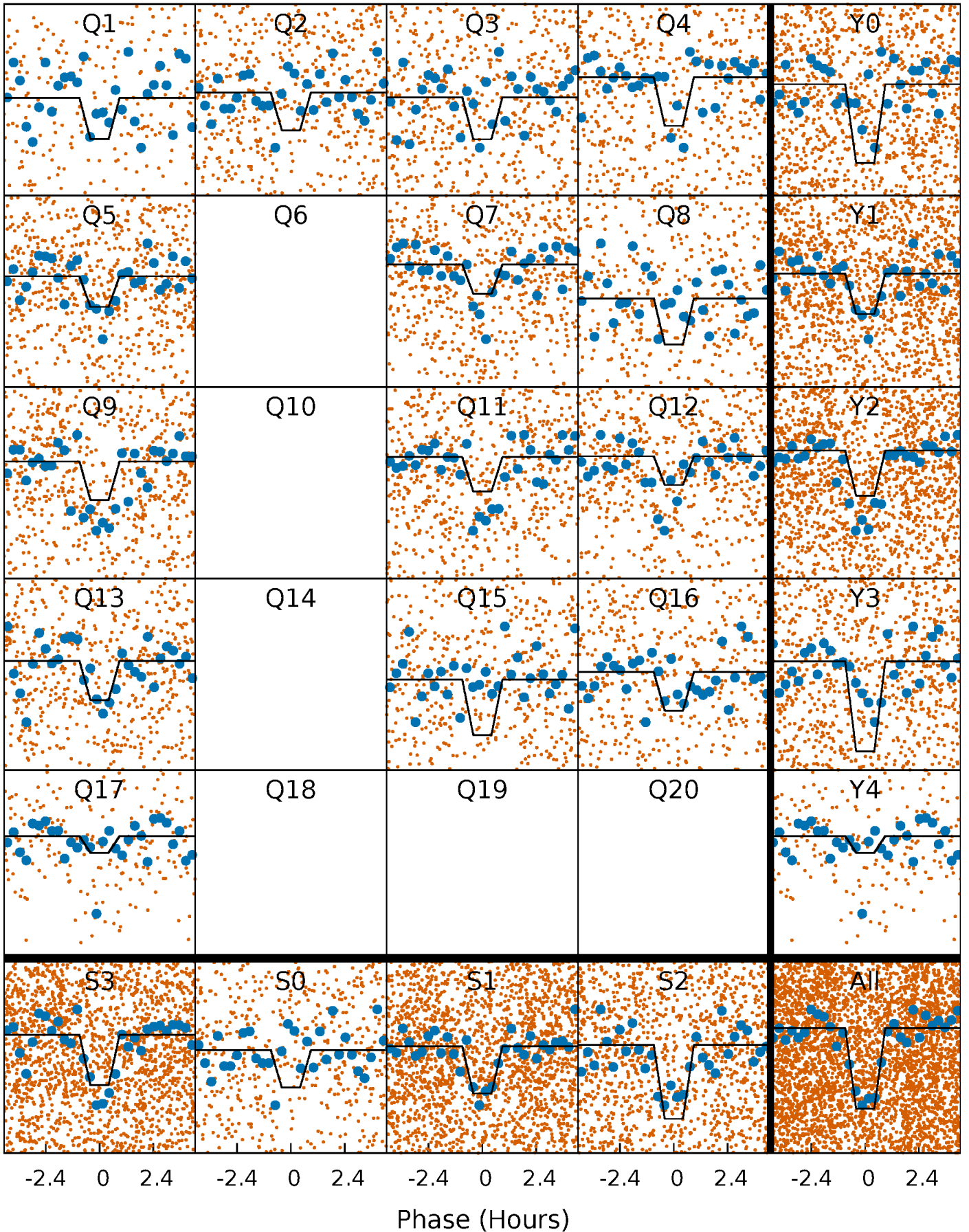
DV Quarter-Phased Transit Curves

TCE 004848115-01 P= 1.939255 Days $T_0=131.917521$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

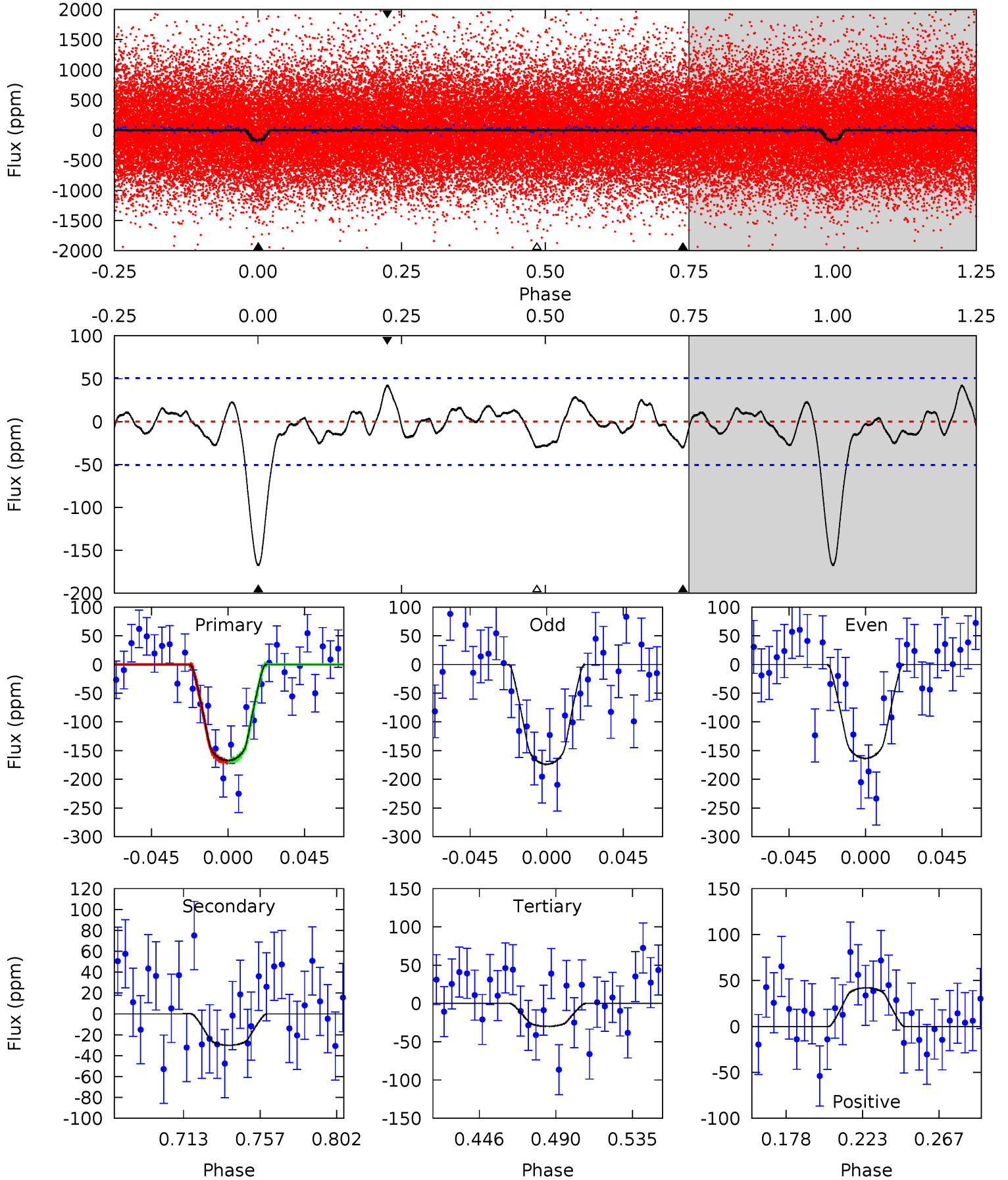
TCE 004848115-01 P= 1.939258 Days $T_0=131.914807$ (BKJD)



DV Model-Shift Uniqueness Test

004848115-01, P = 1.939255 Days, E = 129.978266 Days

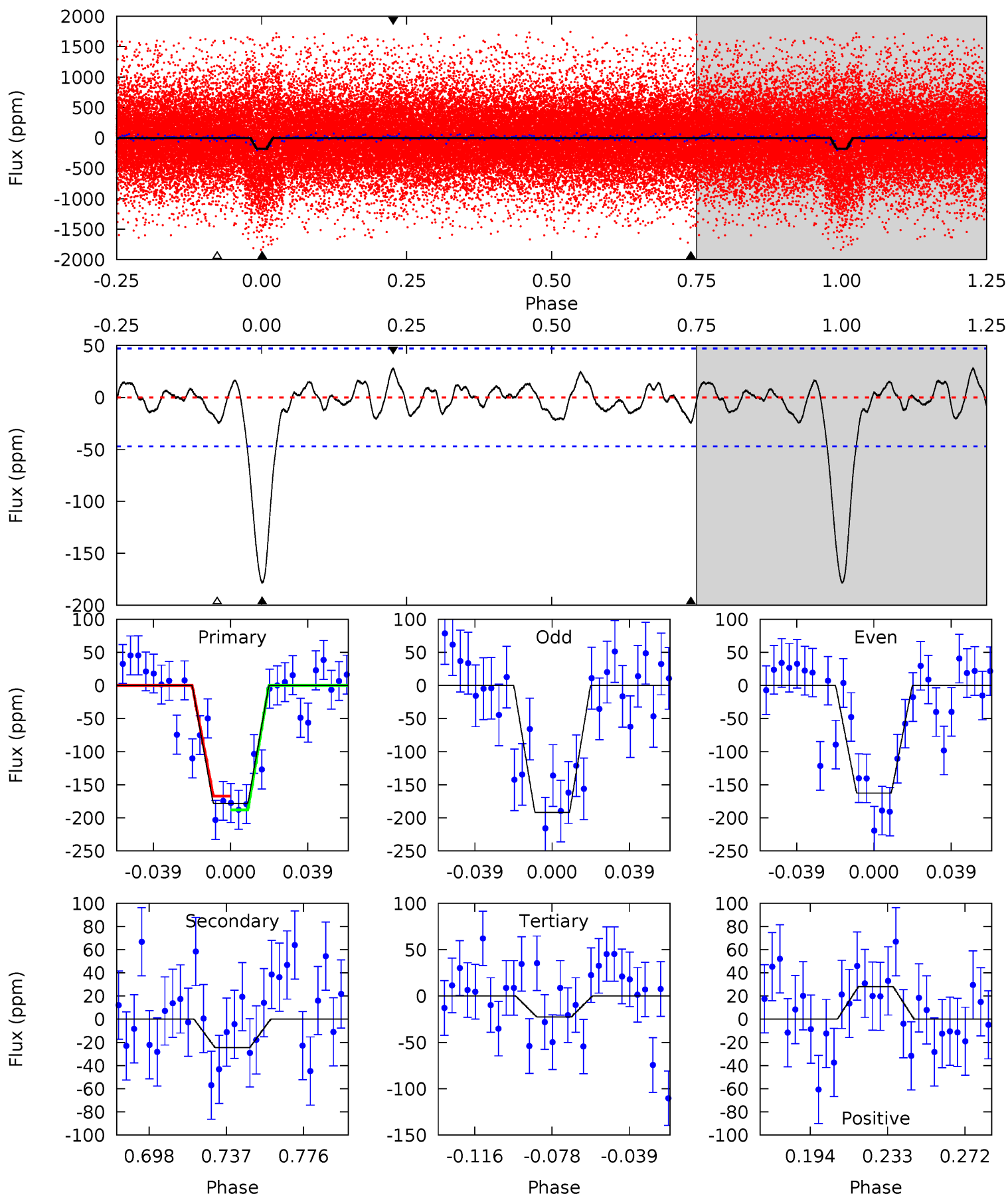
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	2.81	2.79	3.92	4.73	2.01	1.37	12.8	11.7	0.01	-1.11	0.48	0.88	0.20	0.06



Alt Model-Shift Uniqueness Test

004848115-01, P = 1.939258 Days, E = 129.975549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.0	2.48	2.27	2.84	4.76	2.07	1.07	15.7	15.2	0.20	-0.37	1.48	0.87	0.14	1.06



Stellar Parameters For KIC 004848115

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4856^{+195}_{-195}	$4.643^{+0.035}_{-0.060}$	$-0.340^{+0.300}_{-0.300}$	$0.660^{+0.075}_{-0.055}$	$0.701^{+0.075}_{-0.068}$	$3.440^{+0.541}_{-0.763}$
	+4%/-4%	+1%/-1%	+88%/-88%	+11%/-8%	+11%/-10%	+16%/-22%
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 004848115-01 / KOI 4537.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-30 ± 11	$1.27^{+0.84}_{-0.78}$	1488^{+73}_{-69}	3193^{+1247}_{-493}	$7.309^{+40.171}_{-4.979}$
Alt.	-25 ± 10	$1.13^{+0.83}_{-0.72}$	1490^{+63}_{-64}	3206^{+1336}_{-560}	$7.289^{+48.630}_{-5.309}$

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

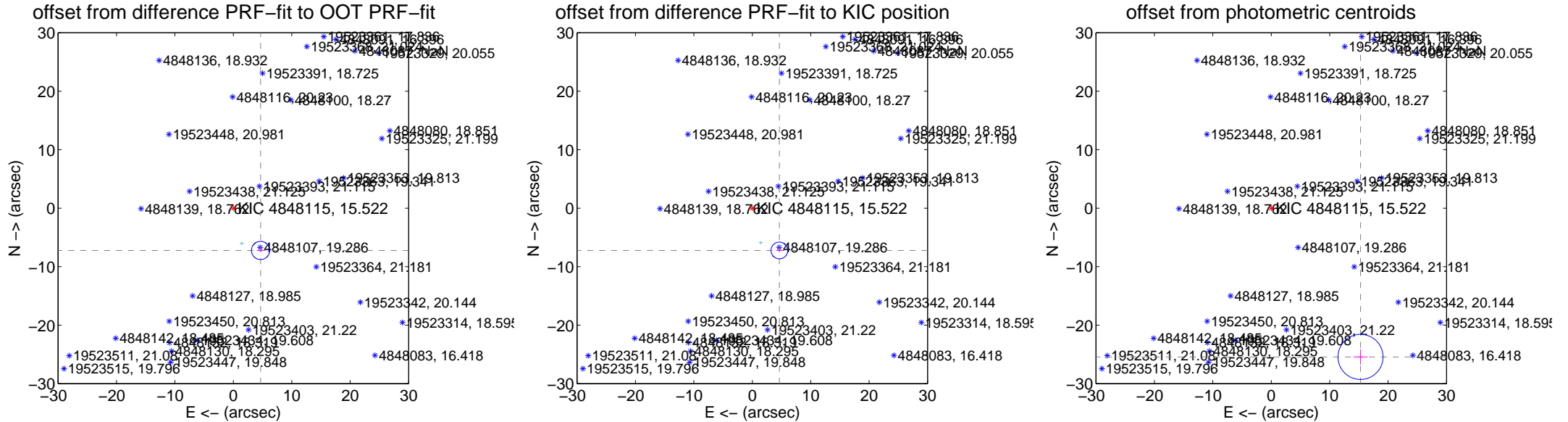
DV Centroid Data

Supplemental centroid analysis for 004848115-01. Kepler magnitude: 15.52. Transit SNR 10.61

There are 5 quarters with good PRF difference image offsets

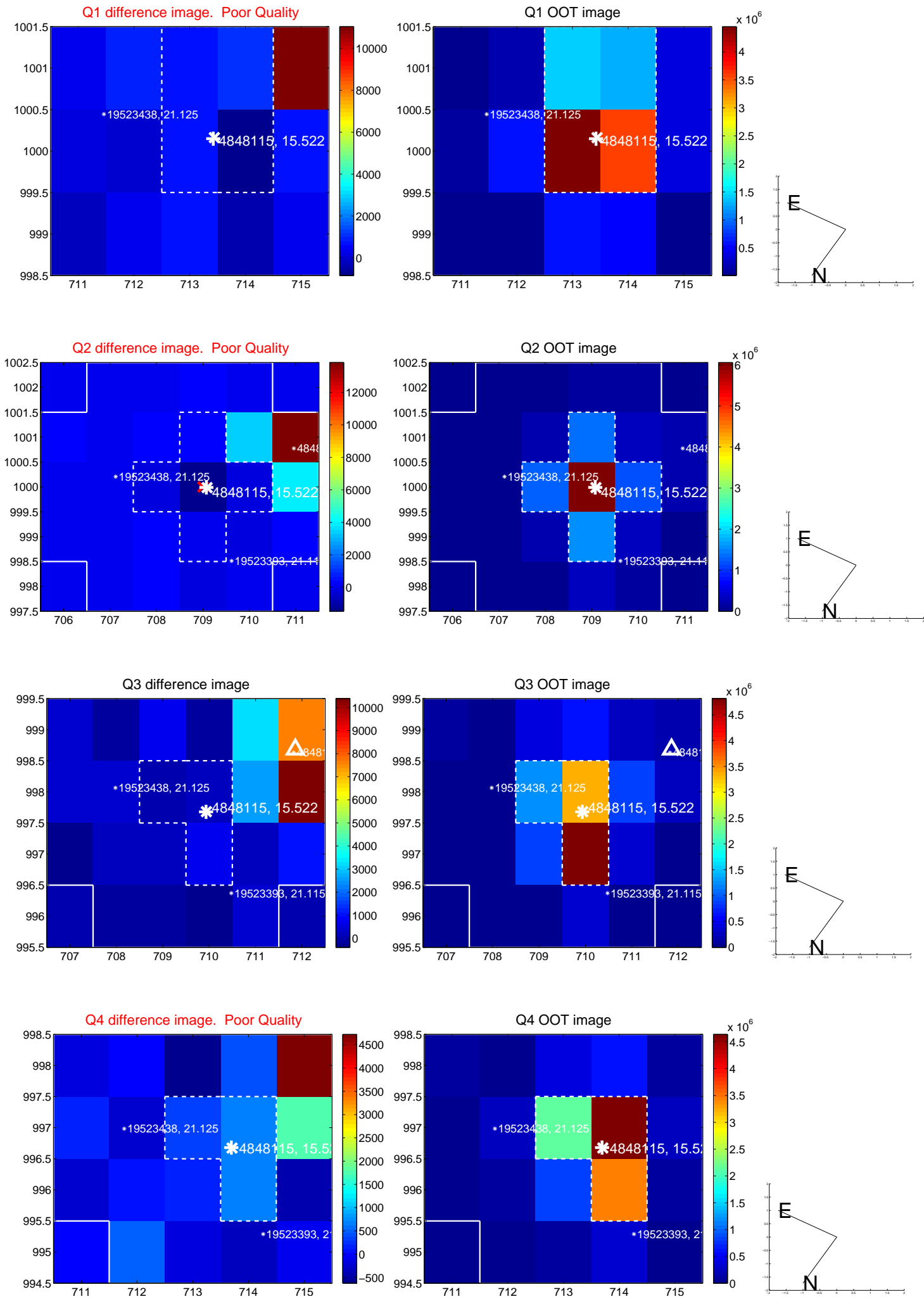
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.601 ± 0.519	16.57	-4.660 ± 0.602	-7.229 ± 0.237
PRF-fit source offset from KIC position	8.587 ± 0.476	18.02	-4.635 ± 0.534	-7.228 ± 0.231
photometric centroid source offset	29.67 ± 1.29	23.08	-15.28 ± 1.21	-25.43 ± 1.31

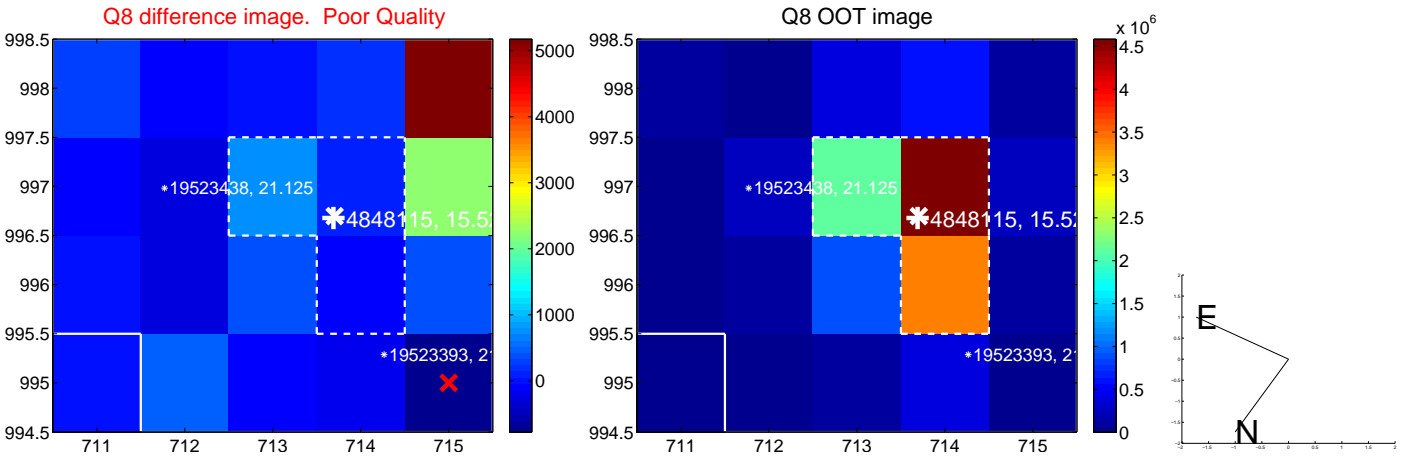
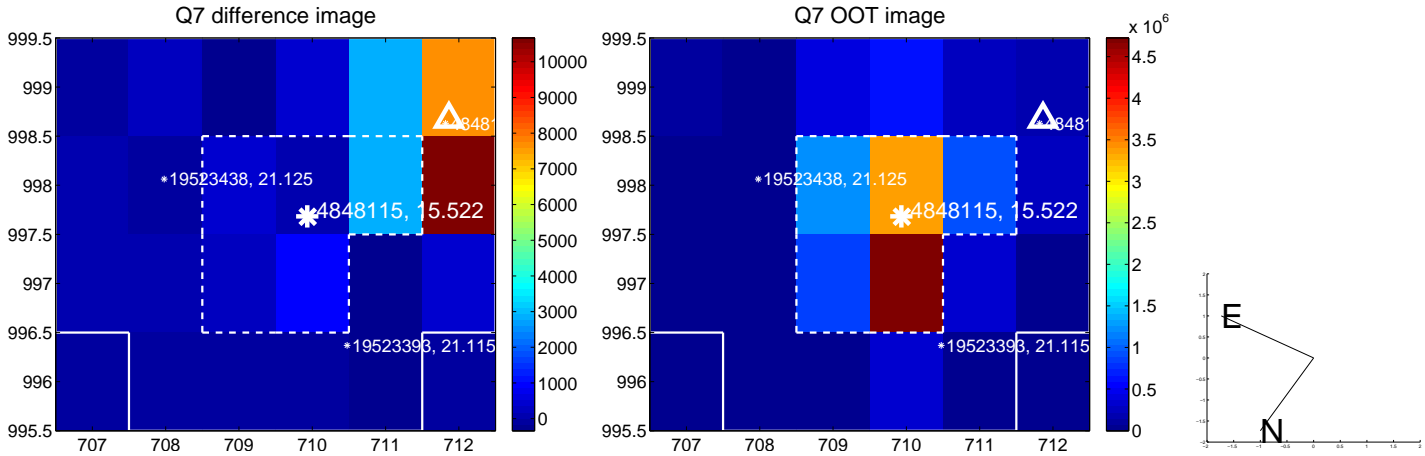
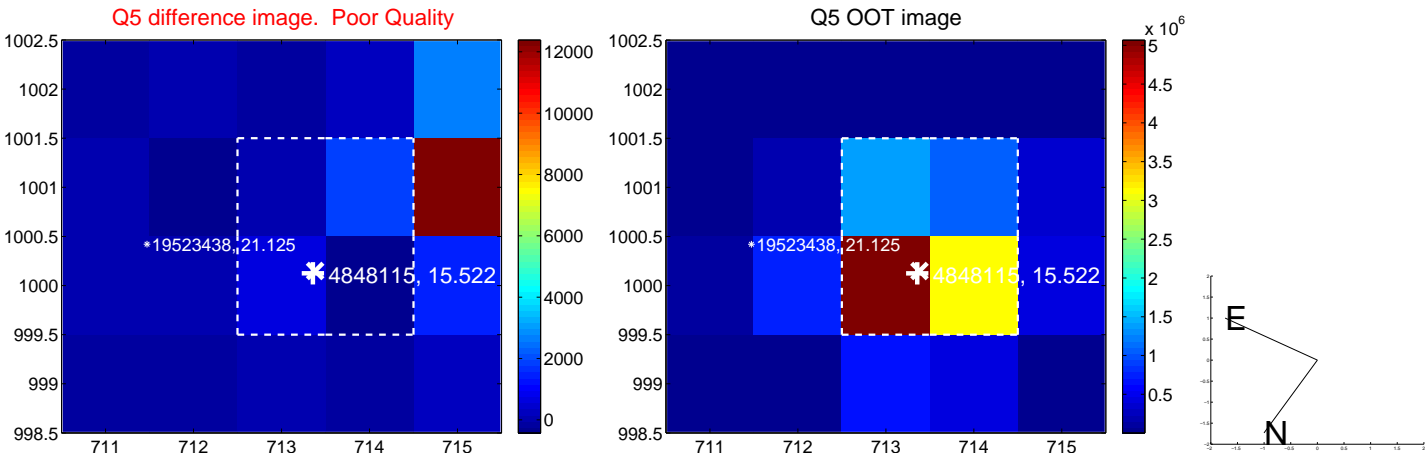


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

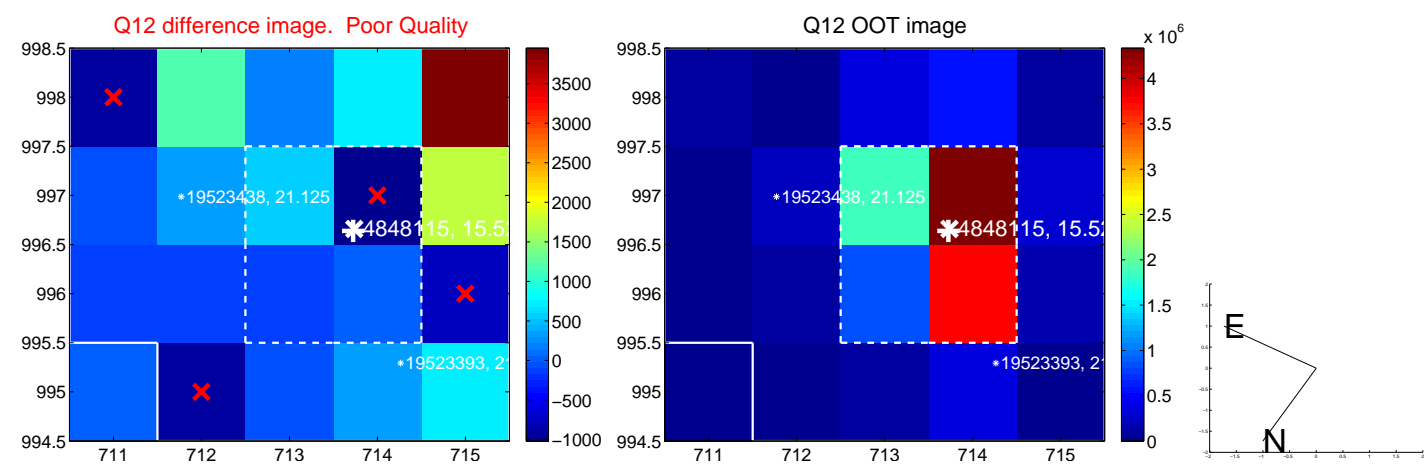
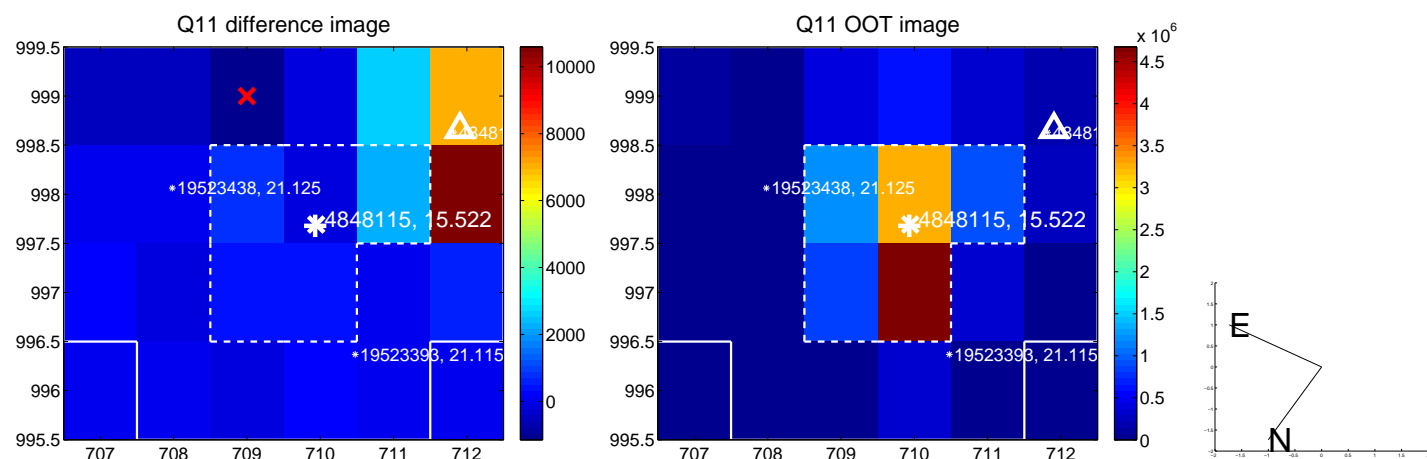
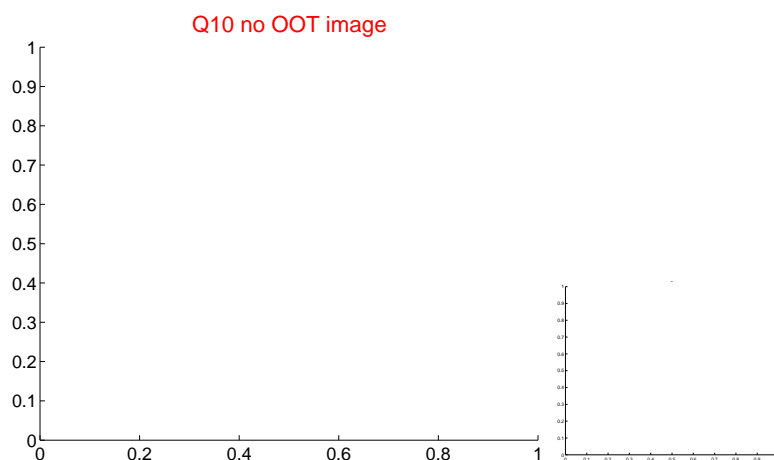
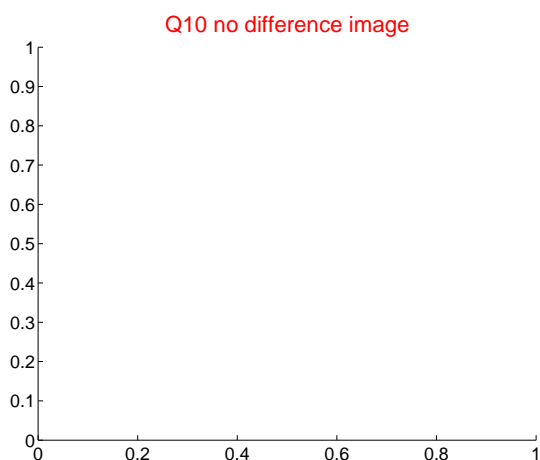
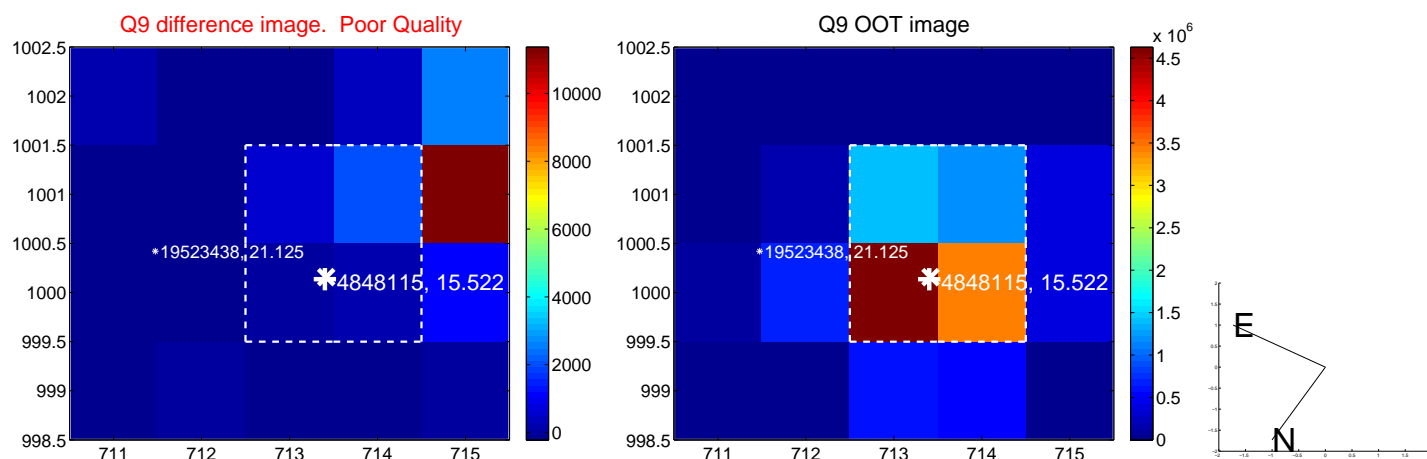
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



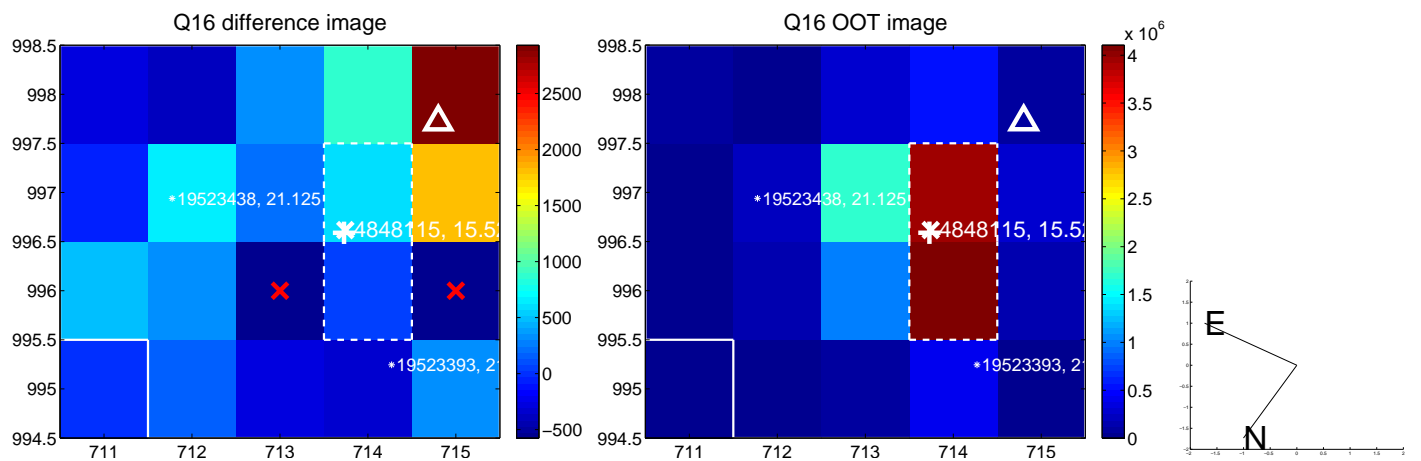
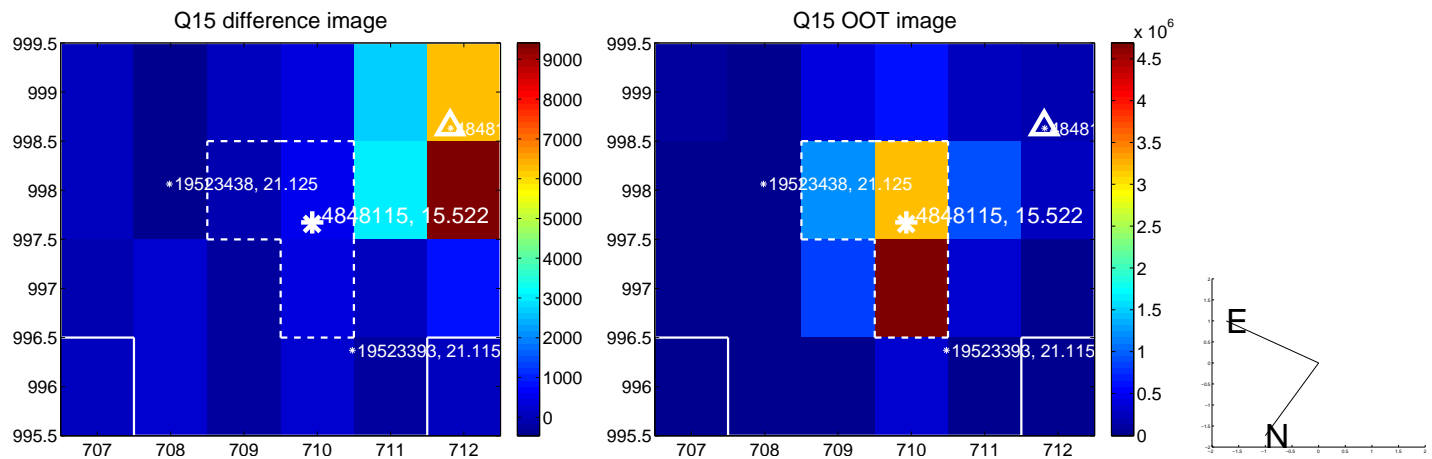
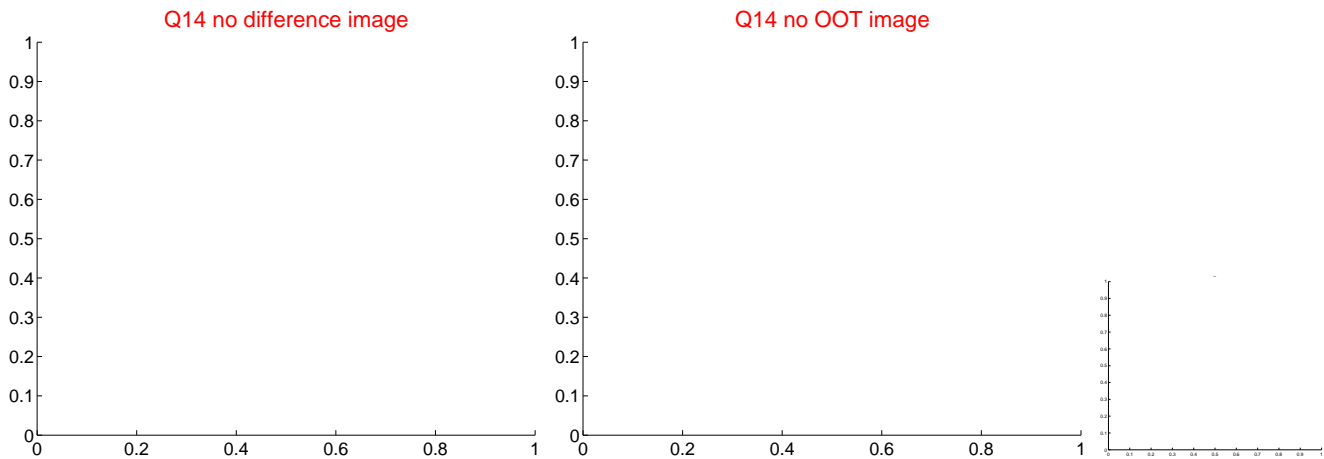
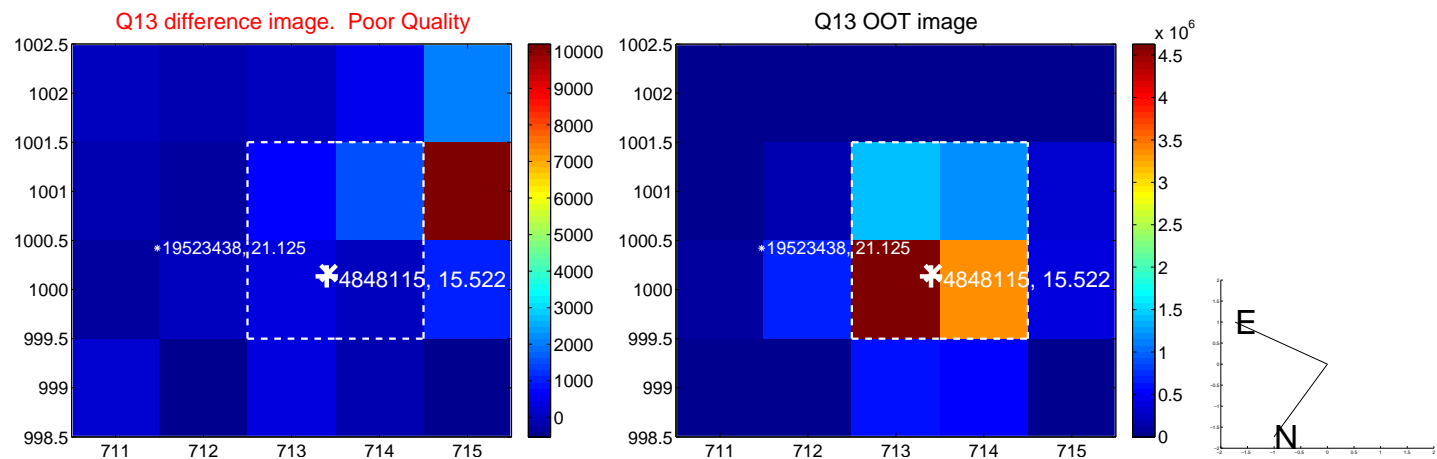
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

