

KIC 011518201

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})
011518201-01	OBS	3104.01	1.236860	132.180283	166.7	1.063	11.3	13.6	0.88	5621	1.39	1435.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011518201-01	OBS	PC	0.98	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.

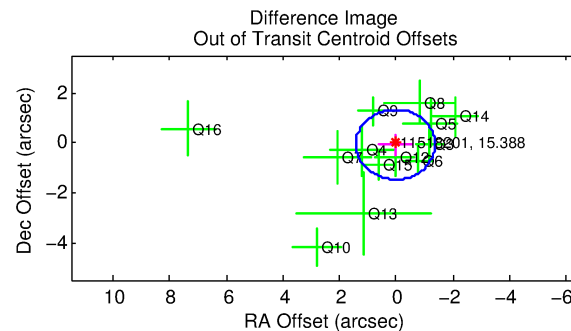
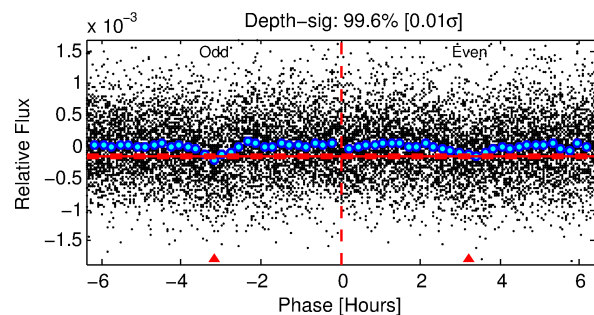
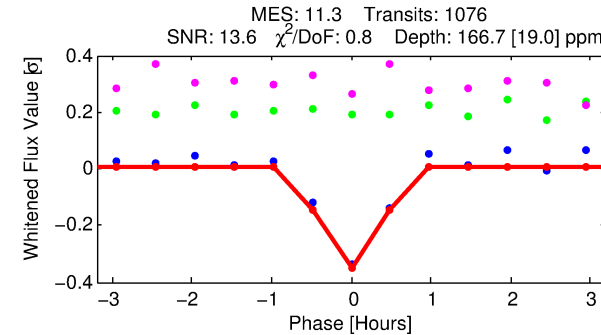
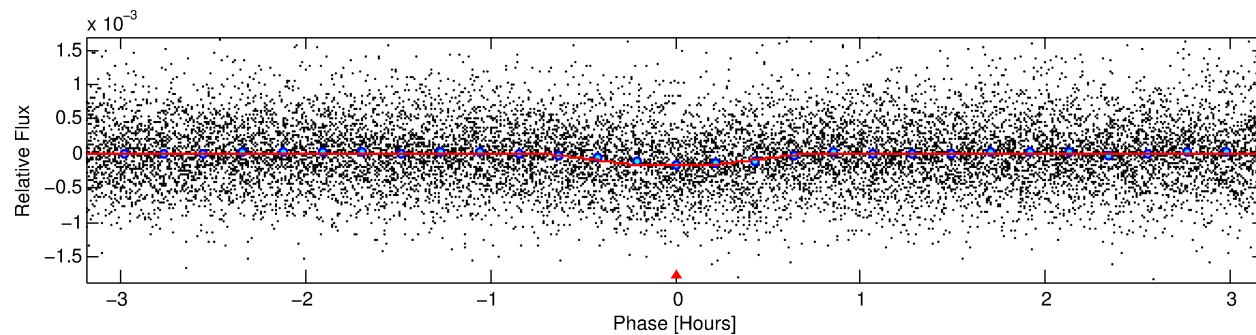
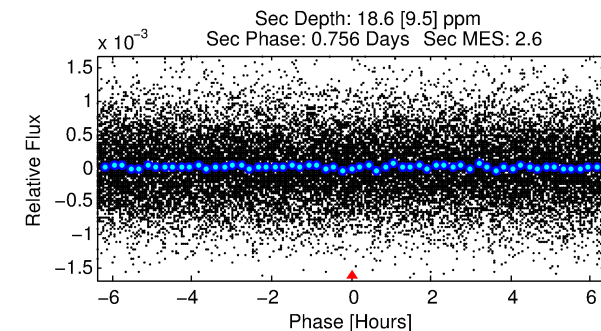
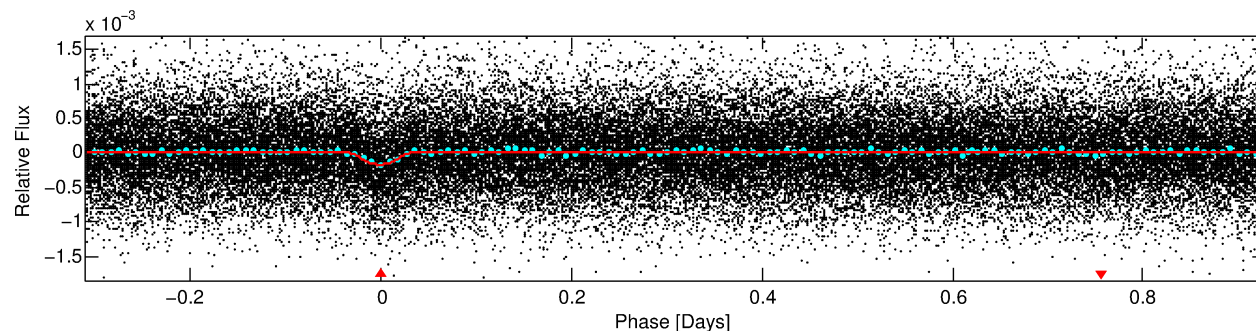
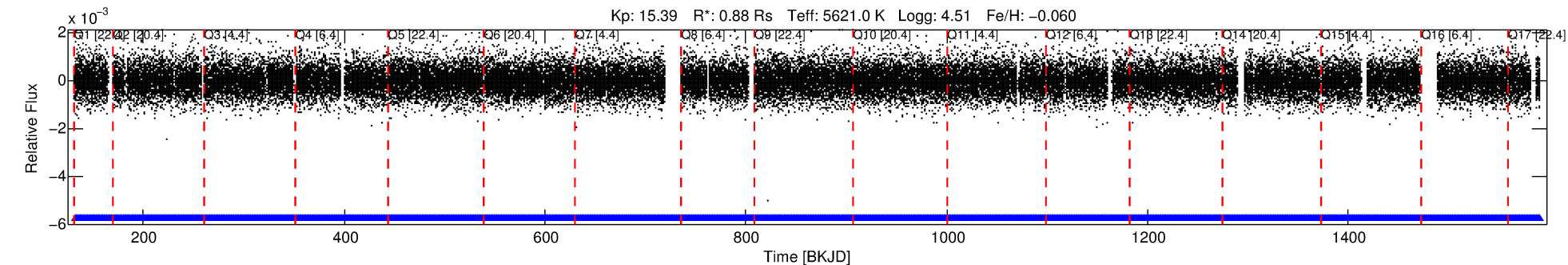
Ephemeris Match Information For 011518201-01

No Significant Match Found

DV One-Page Summary

KIC: 11518201 Candidate: 1 of 1 Period: 1.237 d

KOI: K03104.01 Corr: 0.851



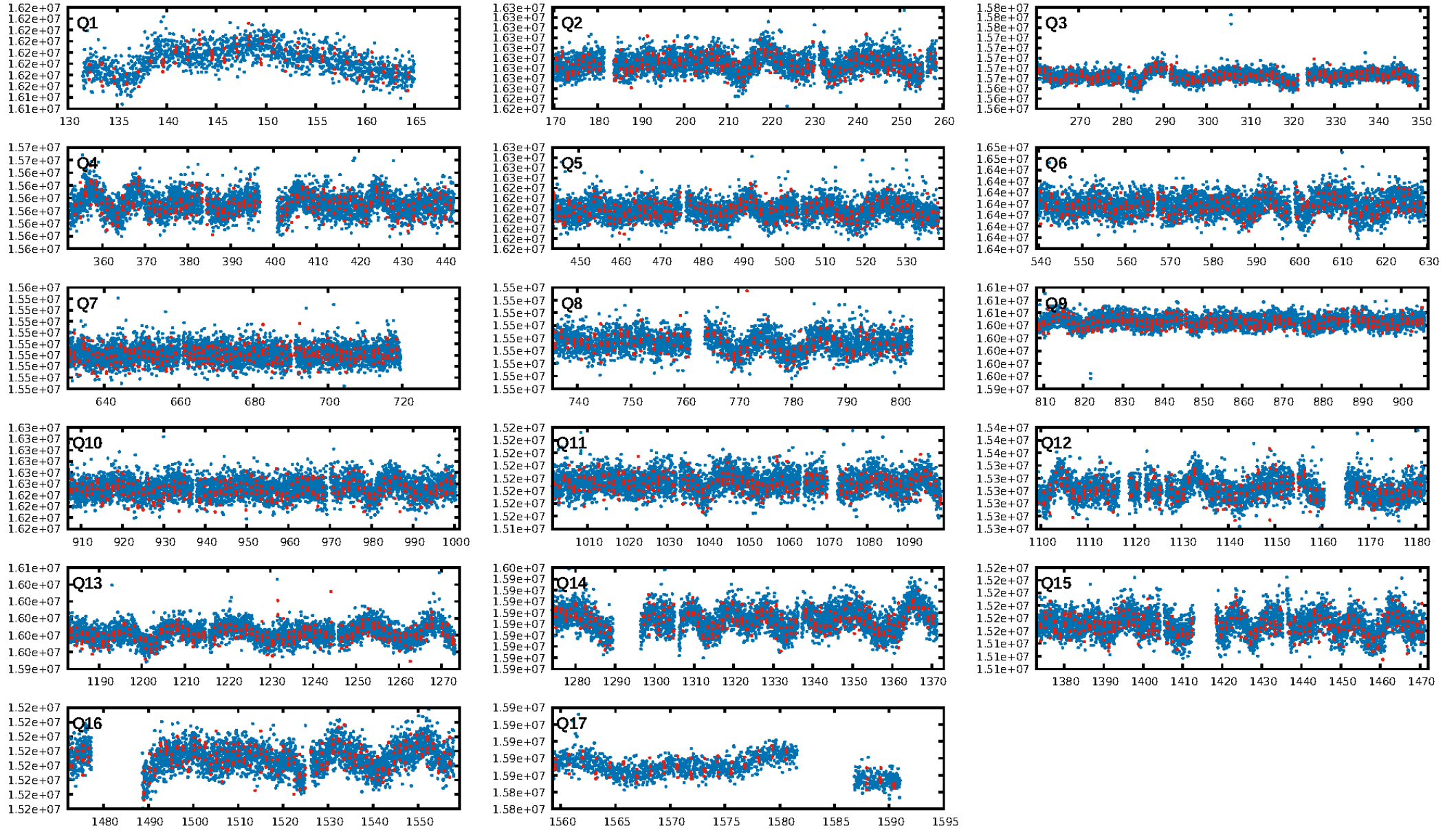
DV Fit Results:

Period = 1.23686 [0.00001] d
Epoch = 132.1803 [0.0013] BKJD
Rp/R* = 0.0145 [0.0074]
a/R* = 3.95 [8.79]
b = 0.92 [0.42]
Seff = 1435.65 [489.42]
Teq = 1570 [134] K
Rp = 1.39 [0.80] Re
a = 0.0219 [0.0048] AU
Ag = 2.54 [2.99] [0.51σ]
Teffp = 3064 [874] K [1.69σ]

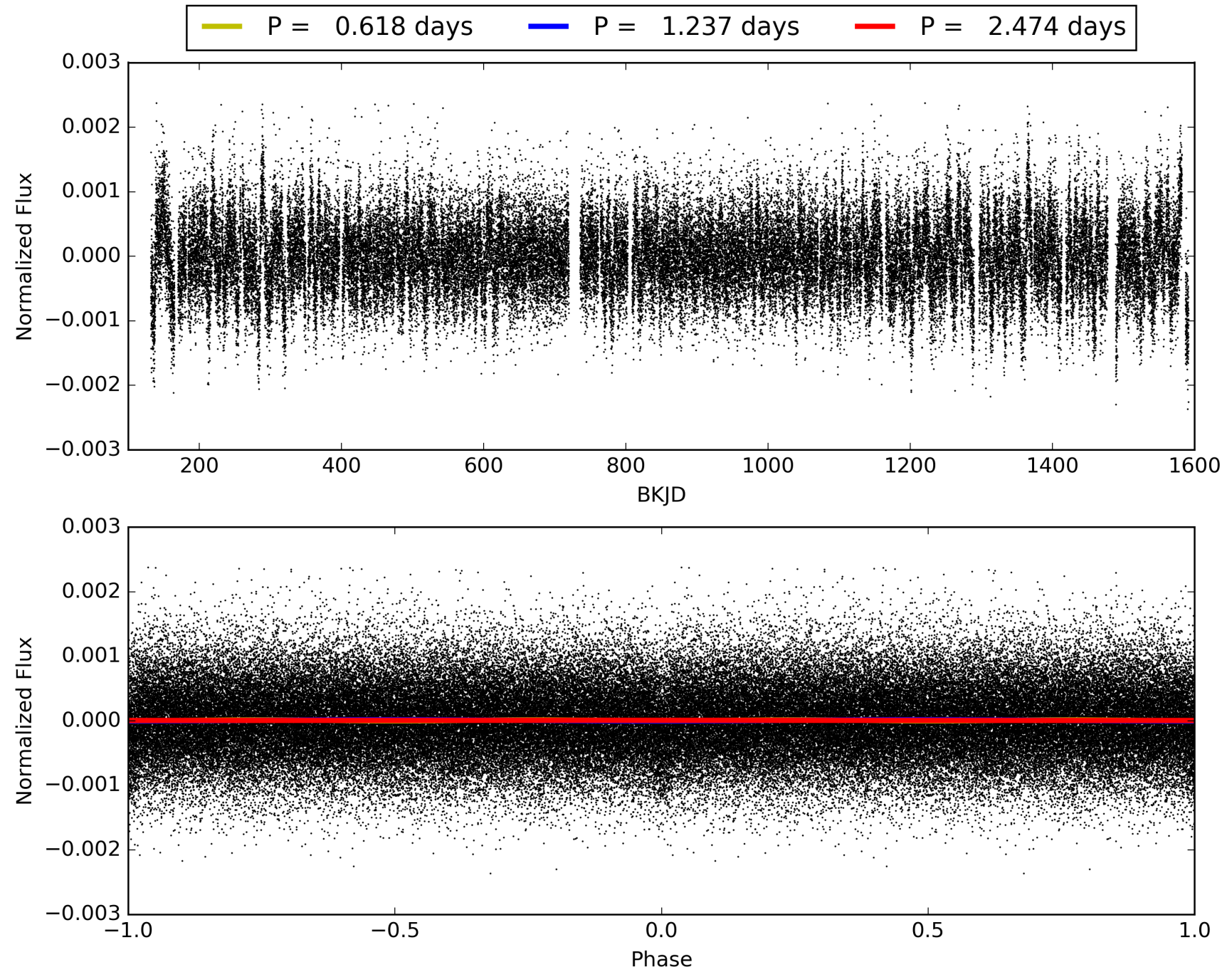
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.40e-29
RollingBand-fgt: 1.00 [1028/1028]
GhostDiagnostic-chr: 7.295
Centroid-sig: 19.9%
Centroid-so: 1.731 arcsec [1.60σ]
OotOffset-rm: 0.081 arcsec [0.17σ]
KicOffset-rm: 0.203 arcsec [0.38σ]
OotOffset-st: 3/3/4/3 [13]
KicOffset-st: 3/3/4/3 [13]
DiffImageQuality-fgm: 0.69 [9/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011518201-01, PDC Light Curves

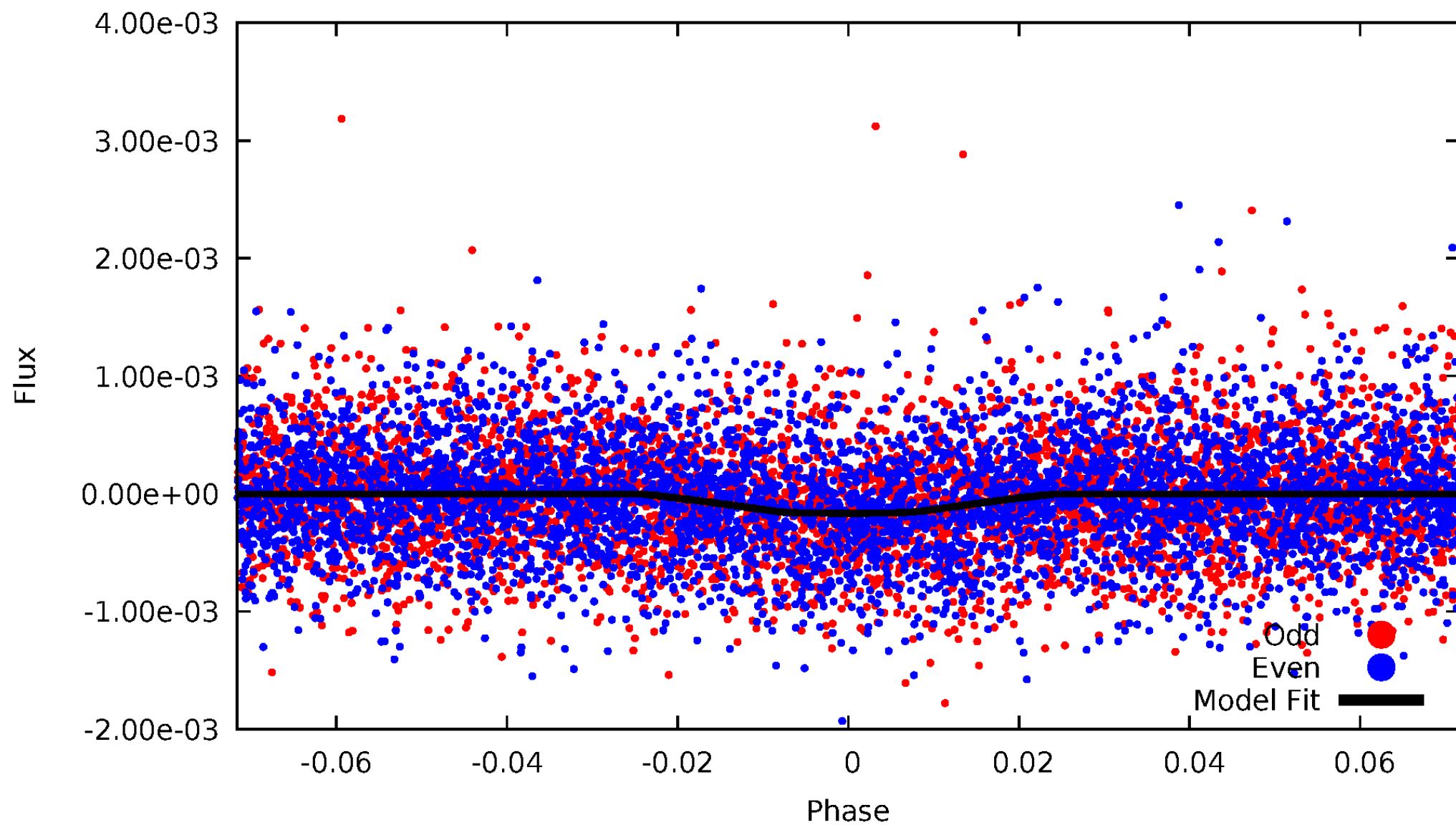


TCE 011518201-01



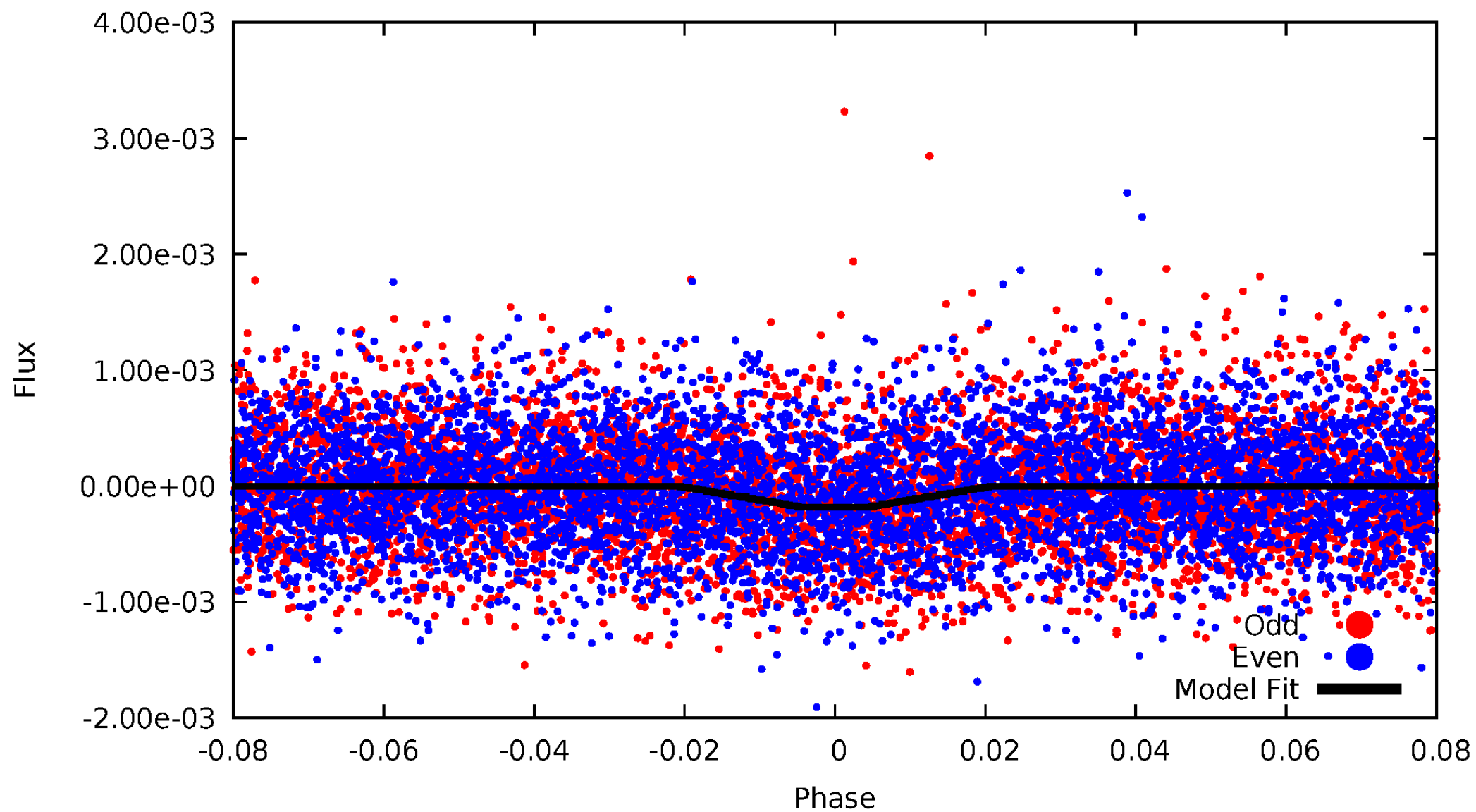
DV Odd/Even

TCE 011518201-01



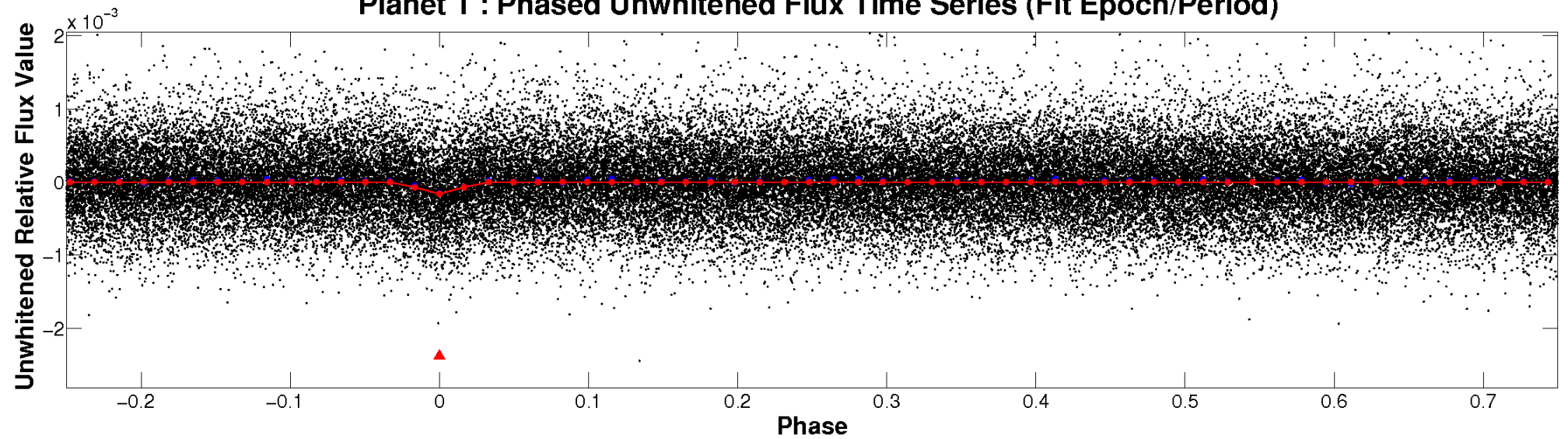
ALT Odd/Even

TCE 011518201-01

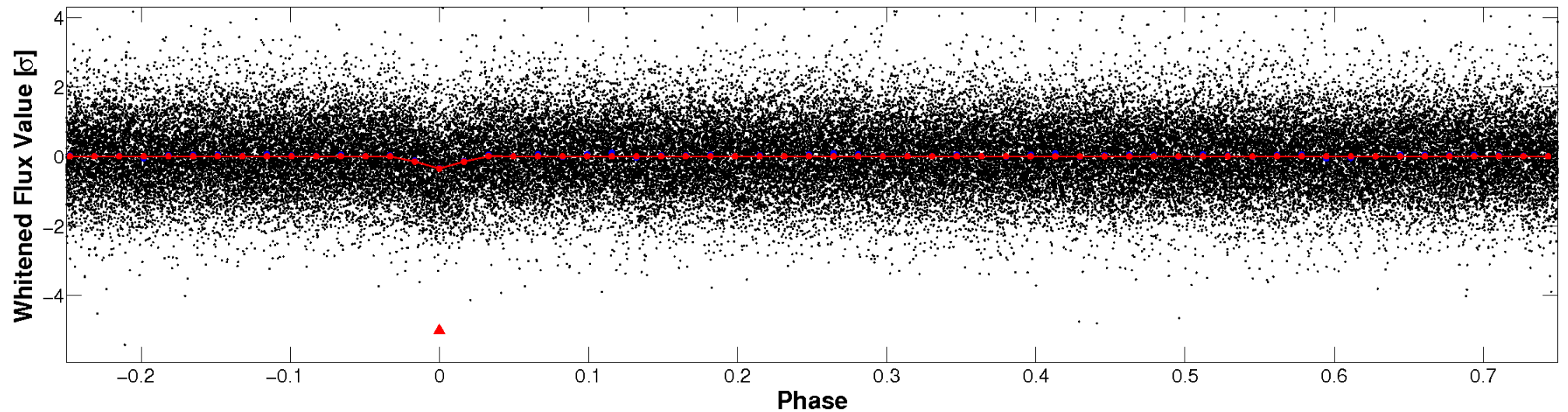


Non-Whitened Vs. Whitened Light Curve

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

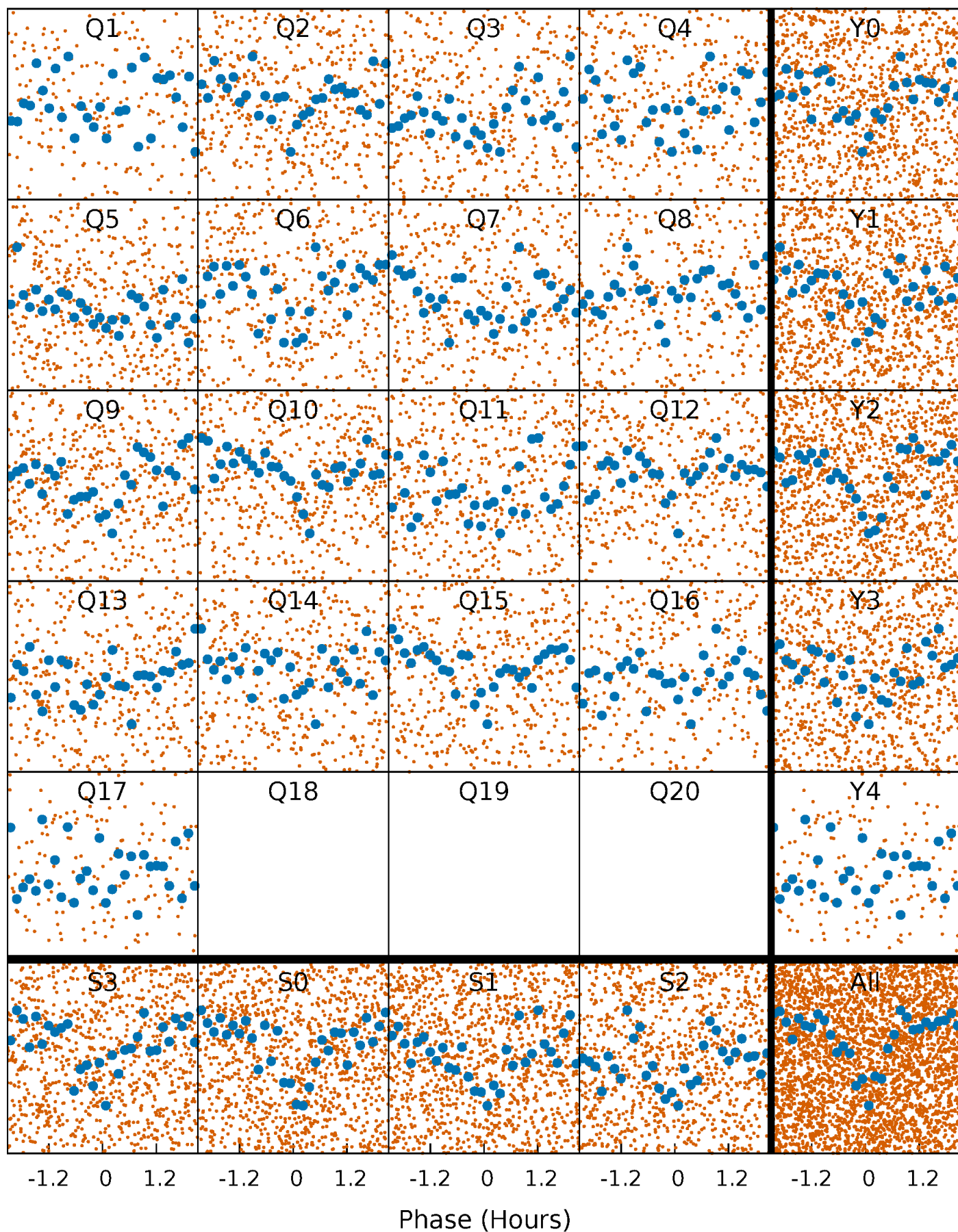


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



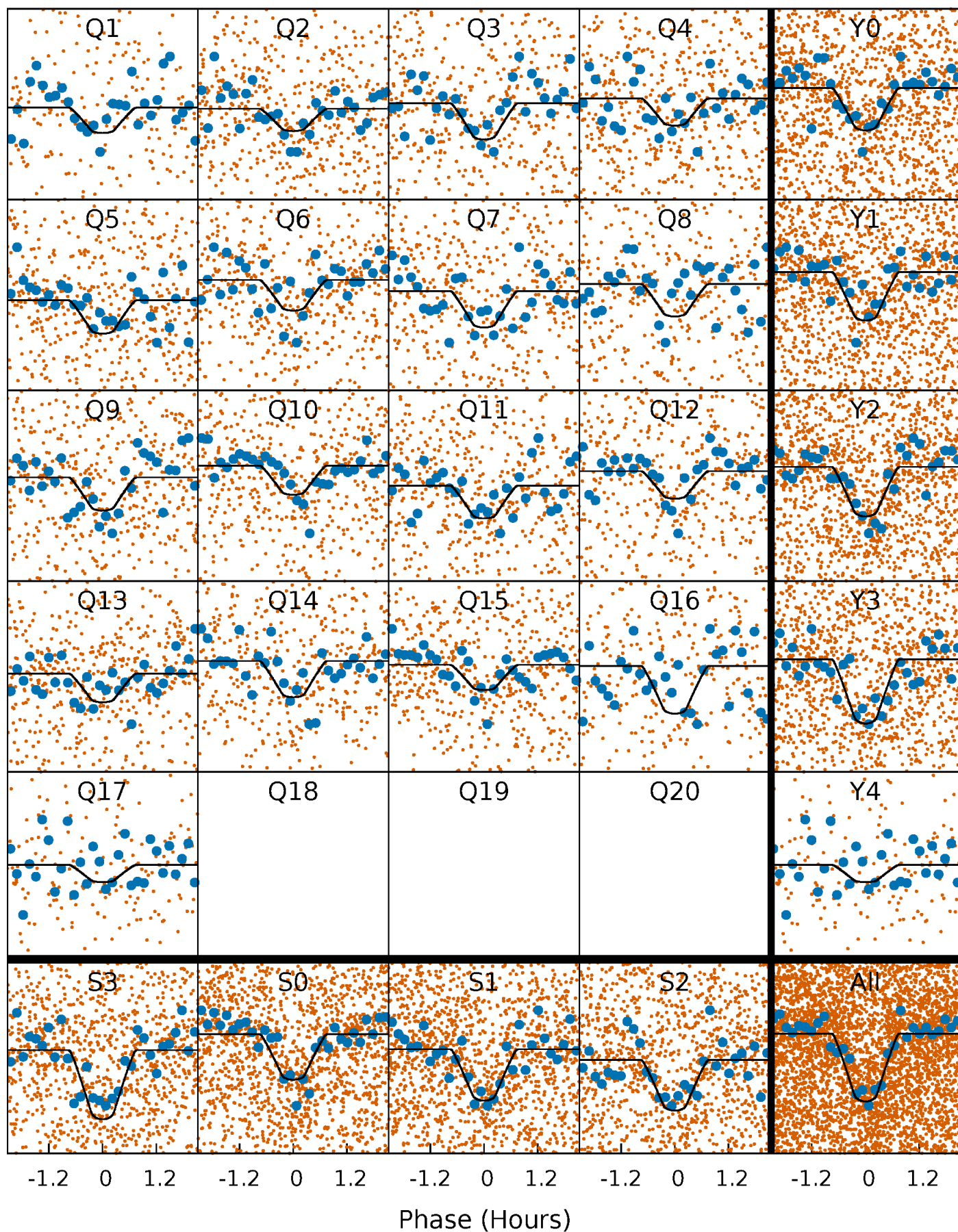
PDC Quarter-Phased Transit Curves

TCE 011518201-01 P= 1.236860 Days $T_0=132.180284$ (BKJD)



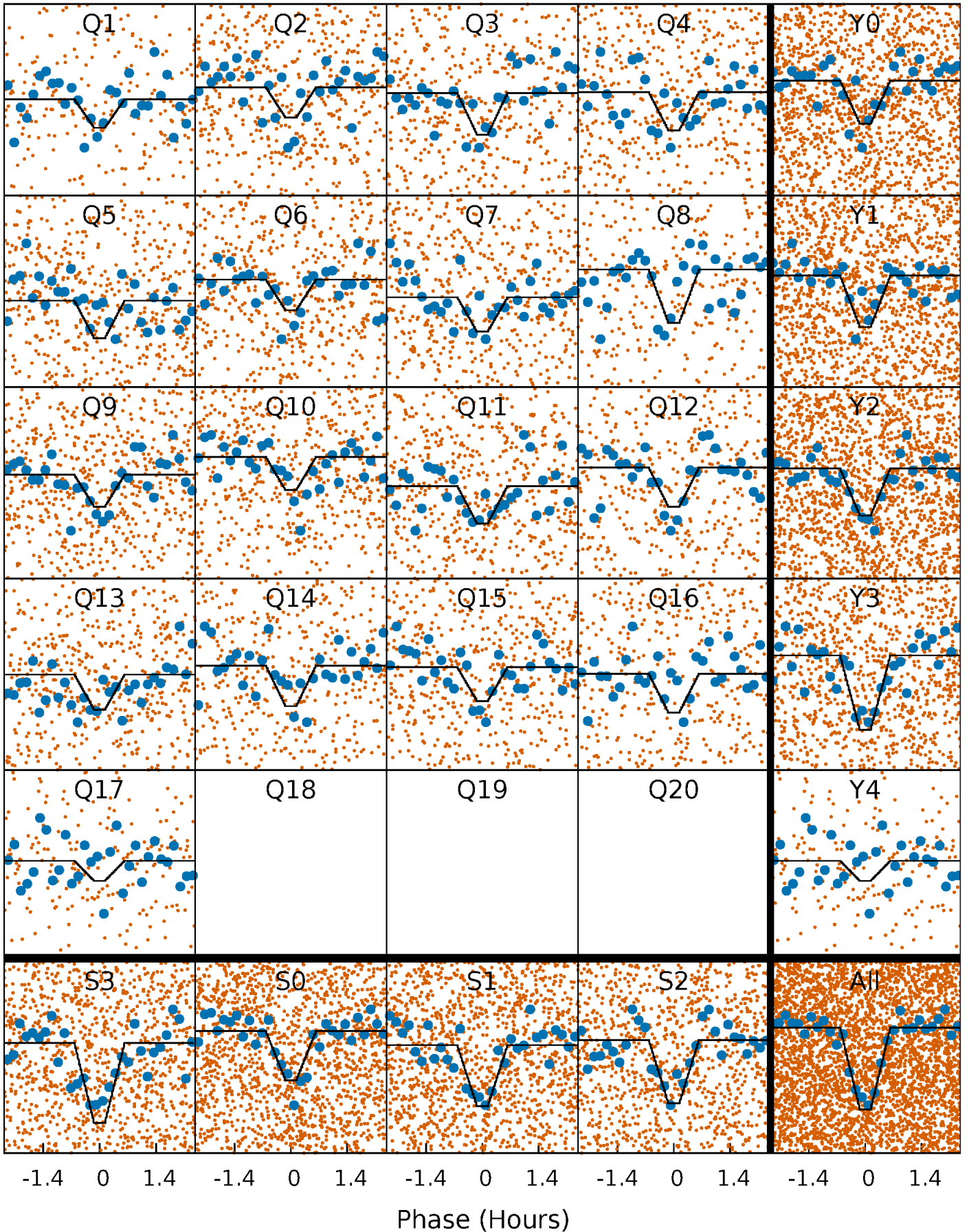
DV Quarter-Phased Transit Curves

TCE 011518201-01 P= 1.236860 Days $T_0=132.180284$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

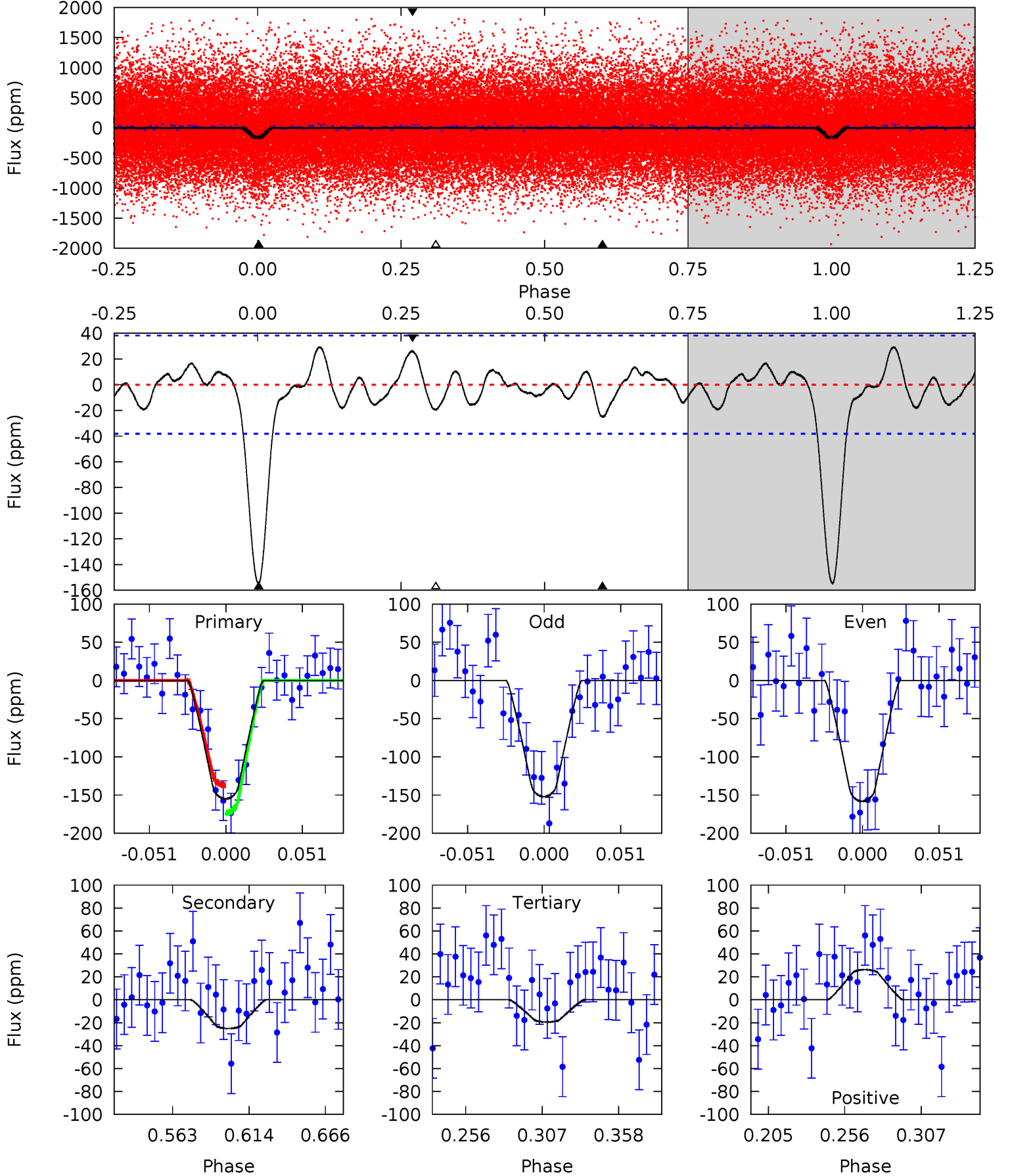
TCE 011518201-01 P= 1.236863 Days $T_0=132.179624$ (BKJD)



DV Model-Shift Uniqueness Test

011518201-01, P = 1.236860 Days, E = 130.943424 Days

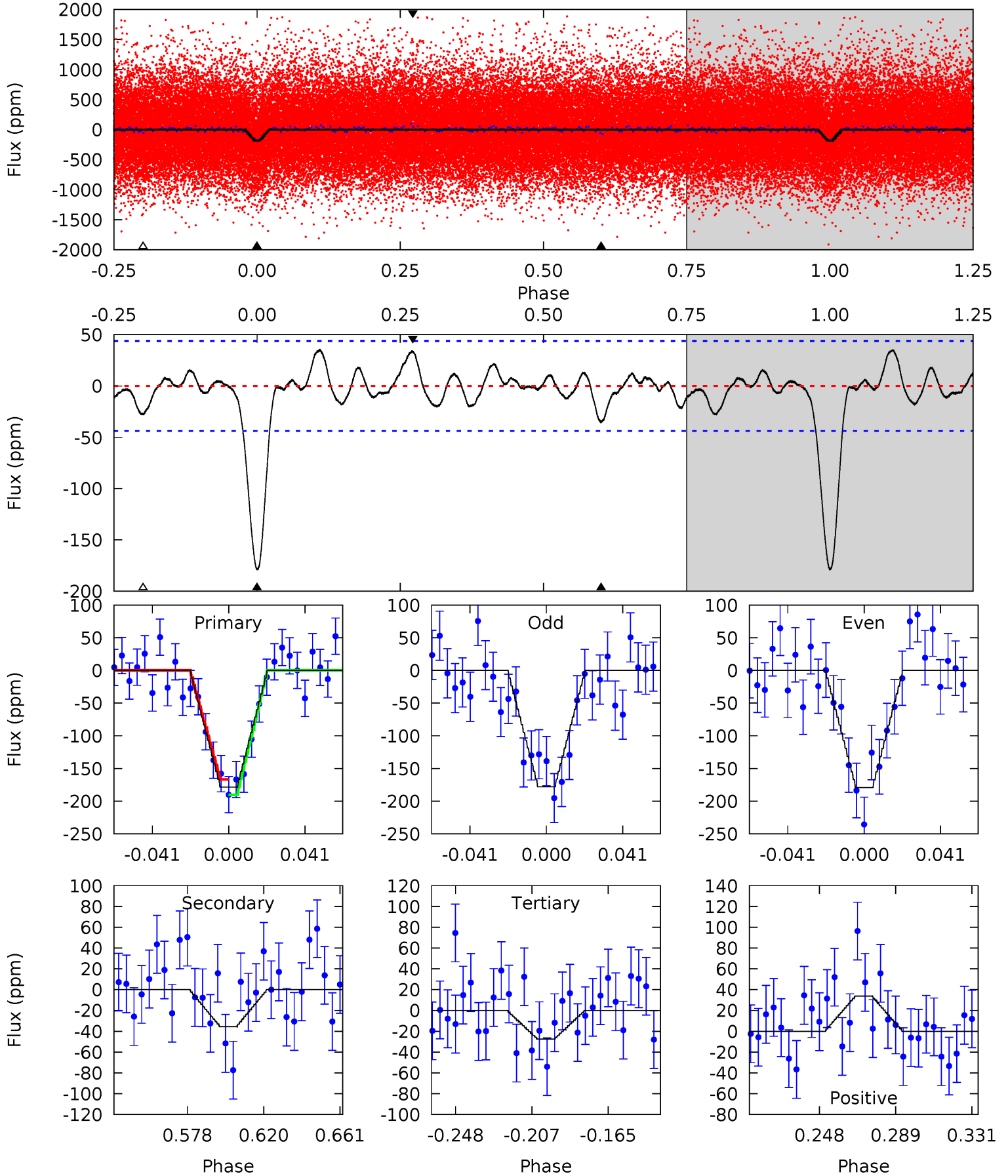
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.1	3.08	2.39	3.23	4.70	1.95	1.30	16.7	15.8	0.69	-0.15	0.38	0.85	0.16	2.24



Alt Model-Shift Uniqueness Test

011518201-01, P = 1.236863 Days, E = 130.942761 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	3.84	2.99	3.65	4.75	2.04	1.31	16.4	15.7	0.85	0.19	0.06	0.87	0.16	1.29



Stellar Parameters For KIC 011518201

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5621^{+169}_{-169}	$4.514^{+0.058}_{-0.173}$	$-0.060^{+0.300}_{-0.300}$	$0.879^{+0.233}_{-0.093}$	$0.921^{+0.104}_{-0.095}$	$1.908^{+0.465}_{-0.915}$
	+3%/-3%	+1%/-4%	+500%/-500%	+27%/-11%	+11%/-10%	+24%/-48%
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 011518201-01 / KOI 3104.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 8	$1.48^{+0.72}_{-0.69}$	2230^{+138}_{-104}	3610^{+1006}_{-538}	$2.964^{+7.776}_{-1.730}$
Alt.	-35 ± 9	$1.40^{+0.70}_{-0.73}$	2225^{+137}_{-101}	3914^{+1387}_{-593}	$4.709^{+15.338}_{-2.761}$

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

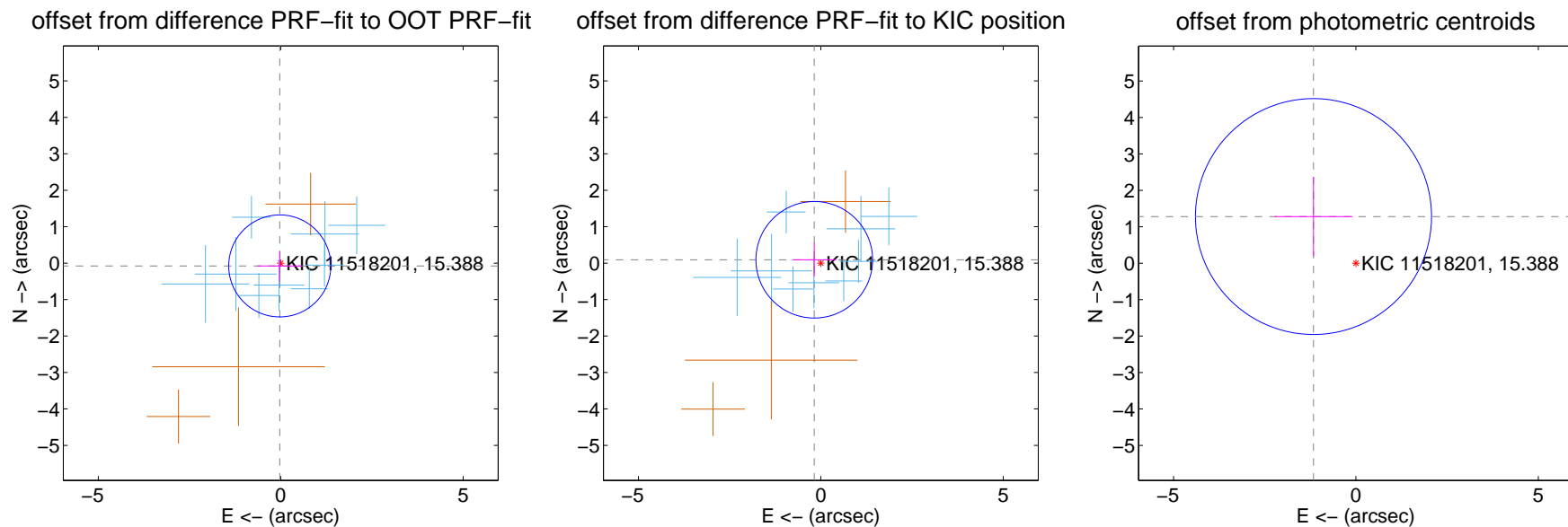
DV Centroid Data

Supplemental centroid analysis for 011518201-01. Kepler magnitude: 15.39. Transit SNR 13.56

There are 9 quarters with good PRF difference image offsets

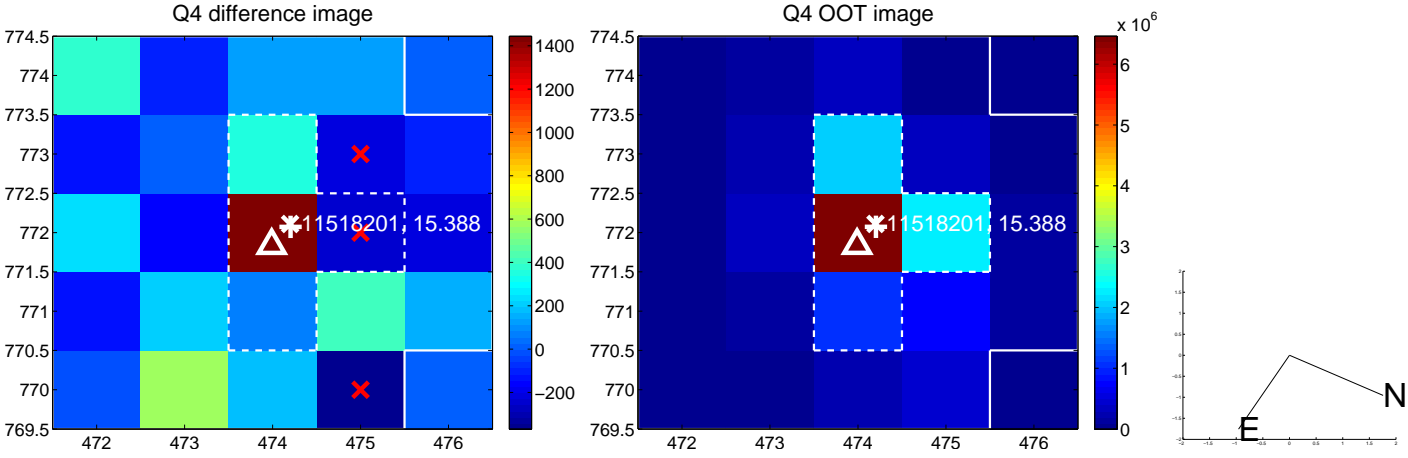
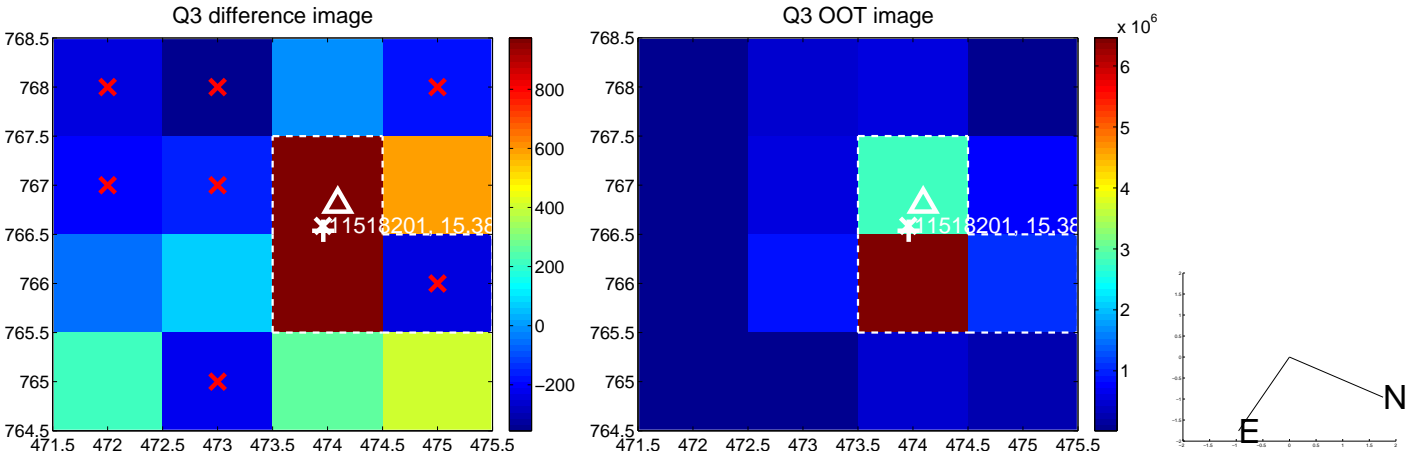
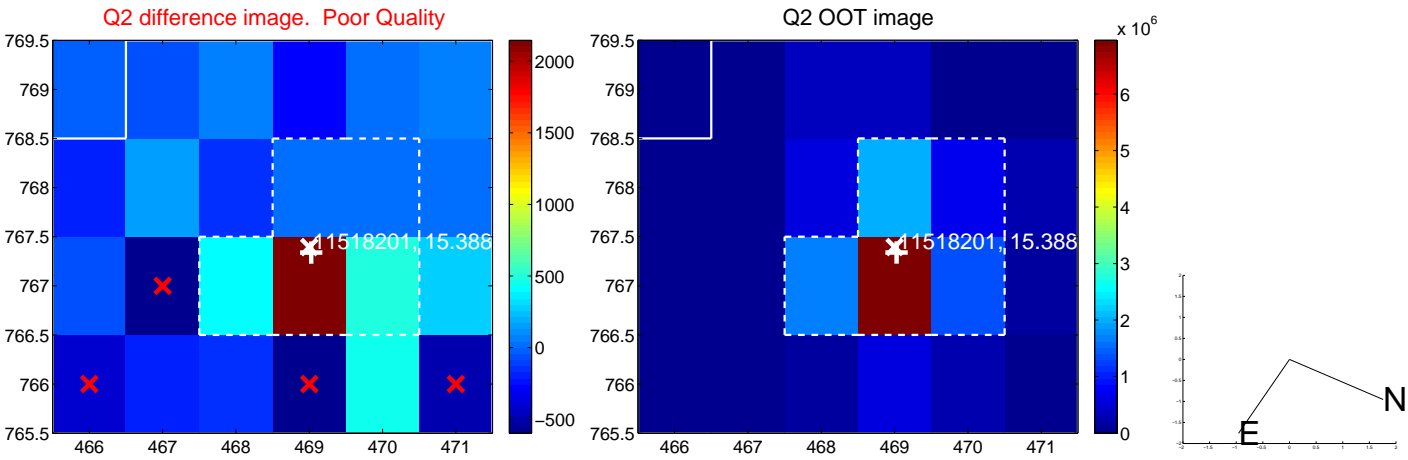
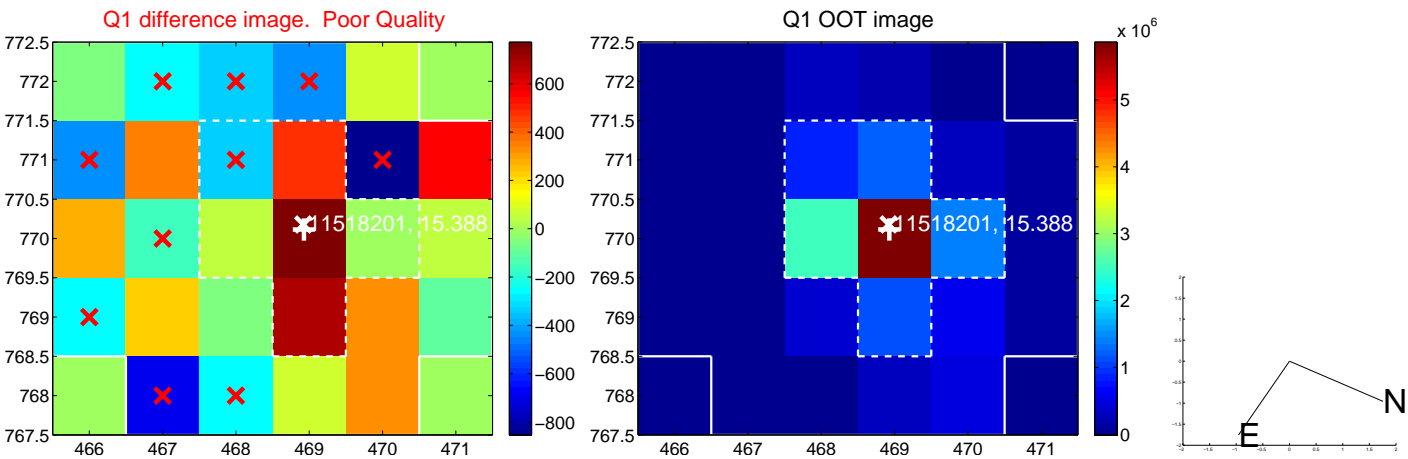
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.081 ± 0.466	0.17	0.027 ± 0.610	-0.076 ± 0.412
PRF-fit source offset from KIC position	0.203 ± 0.533	0.38	0.181 ± 0.599	0.092 ± 0.462
photometric centroid source offset	1.73 ± 1.08	1.60	1.16 ± 1.07	1.28 ± 1.09

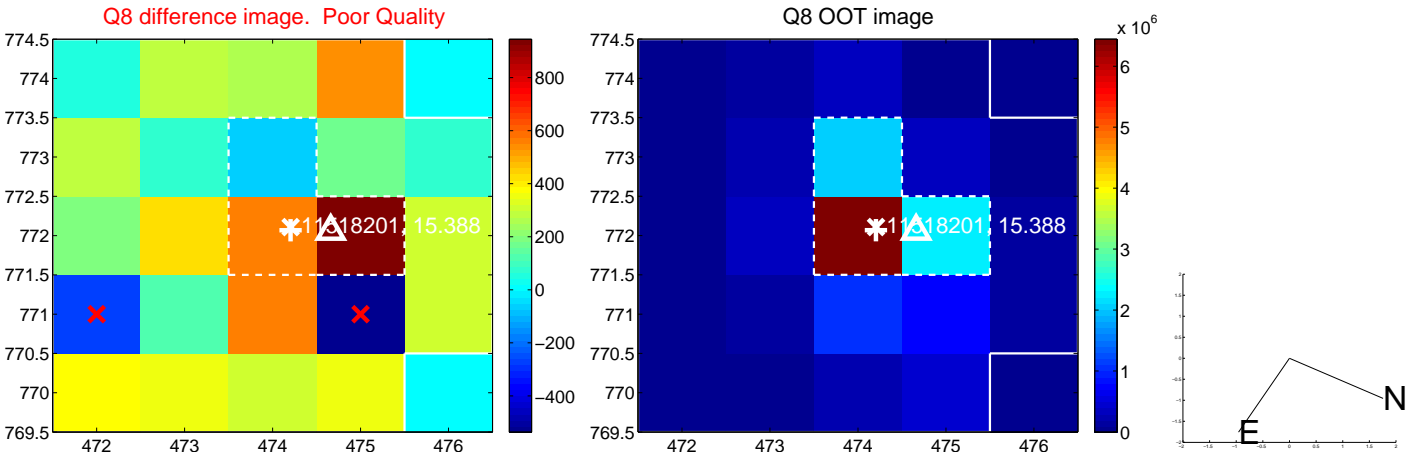
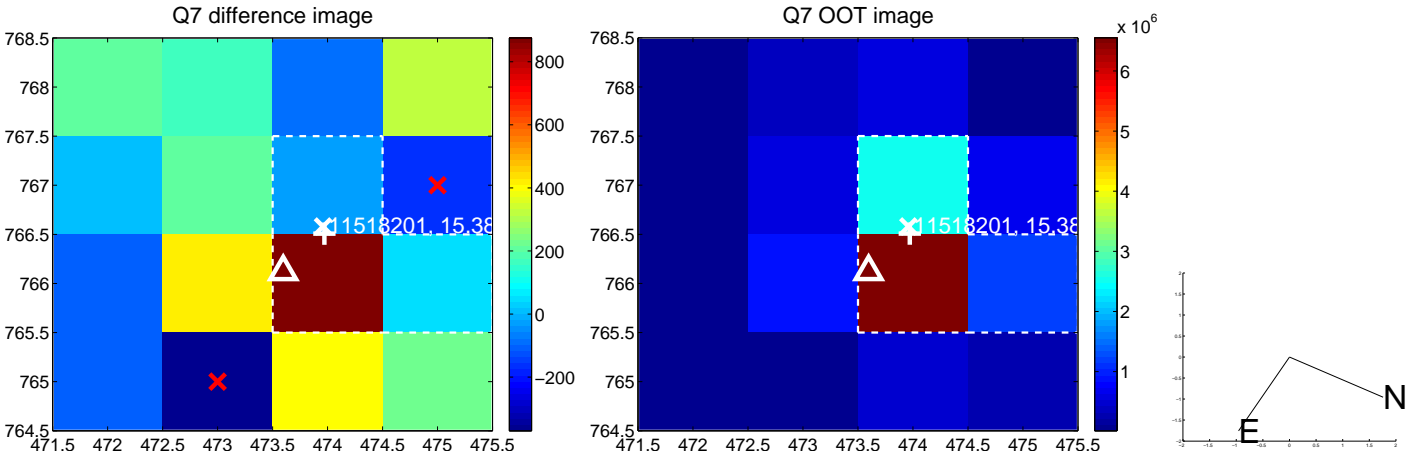
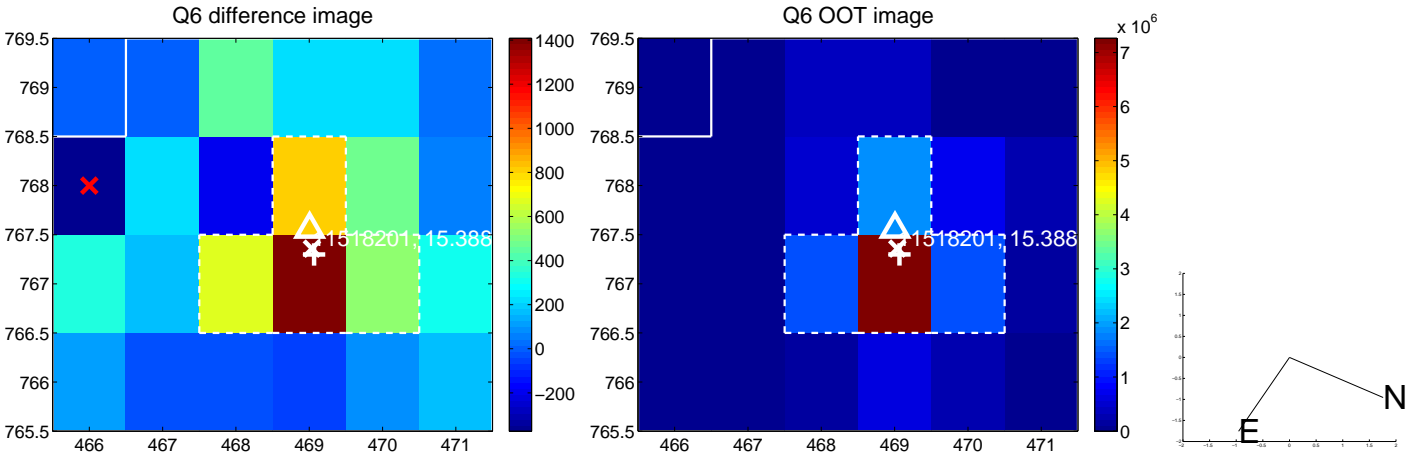
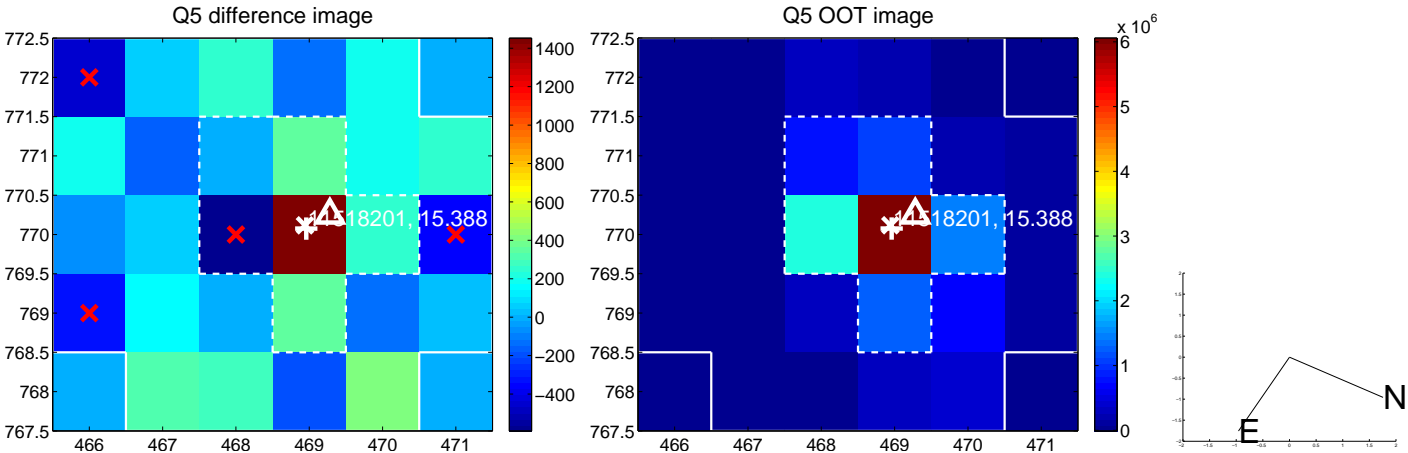


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

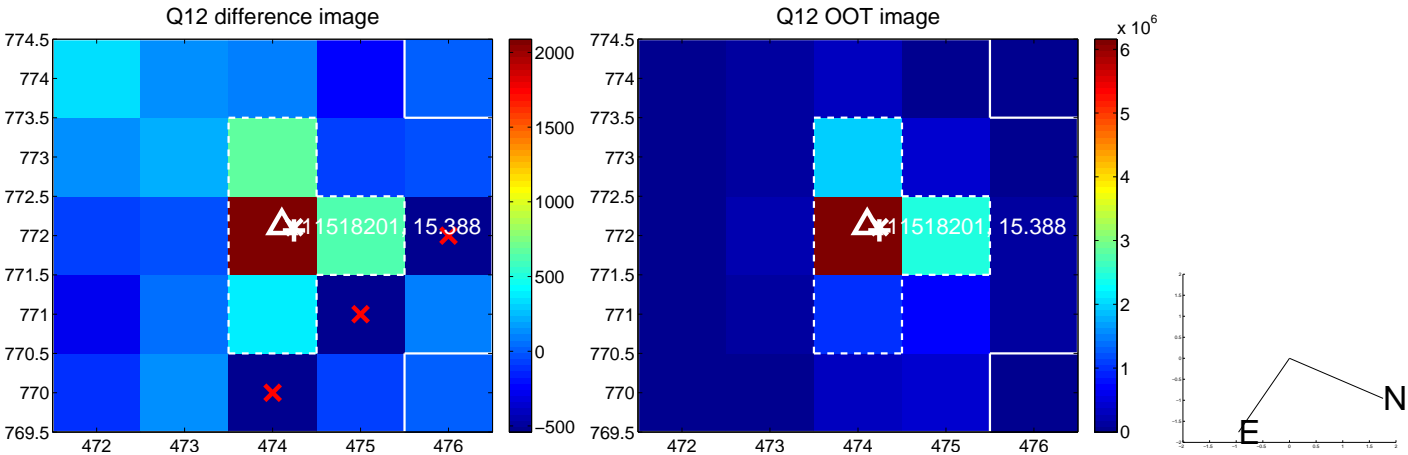
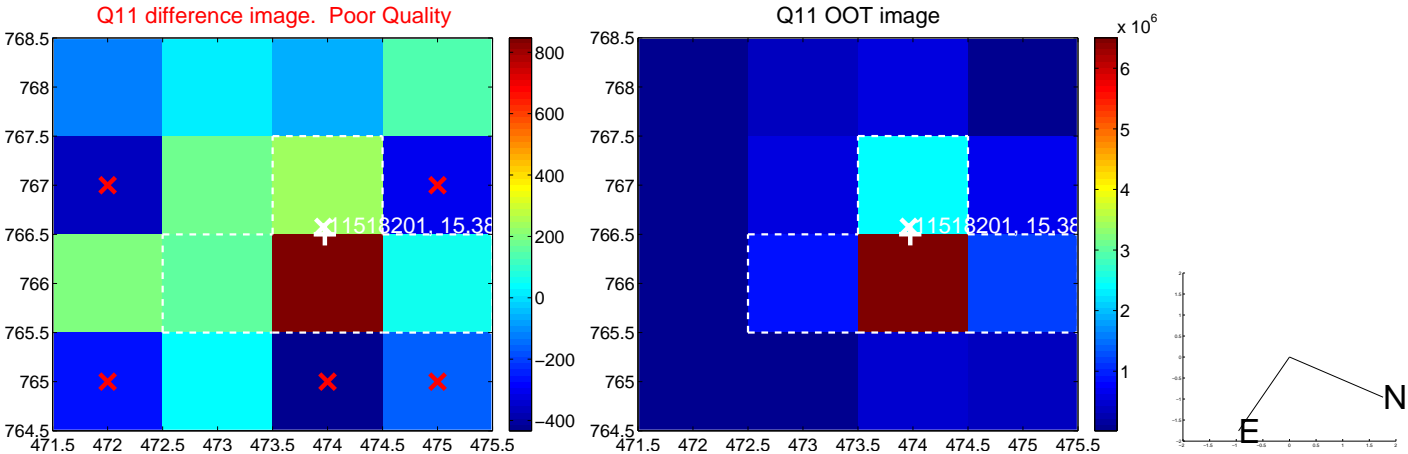
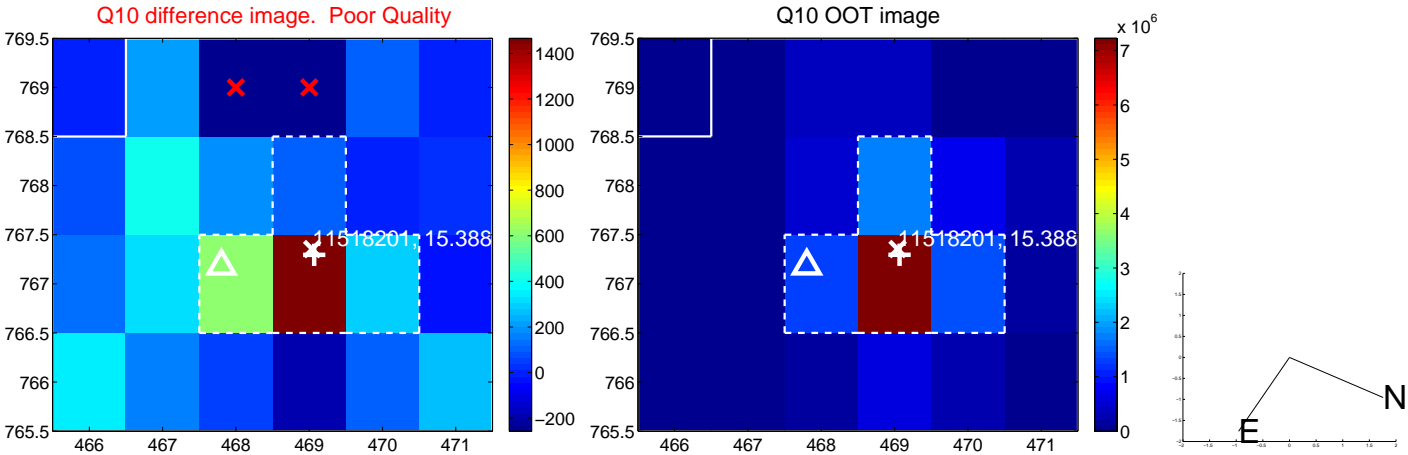
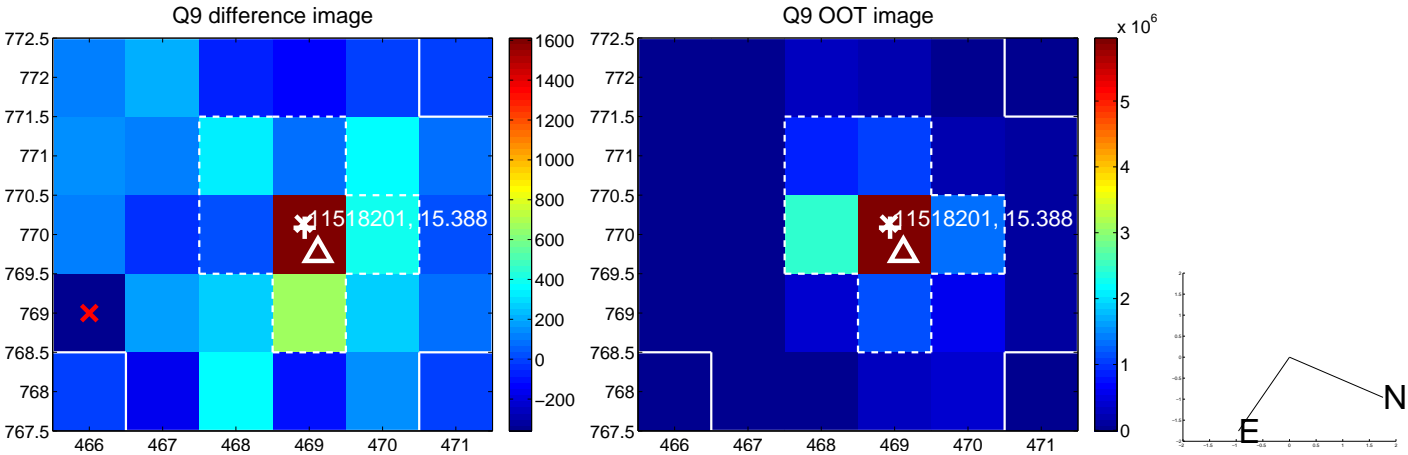
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



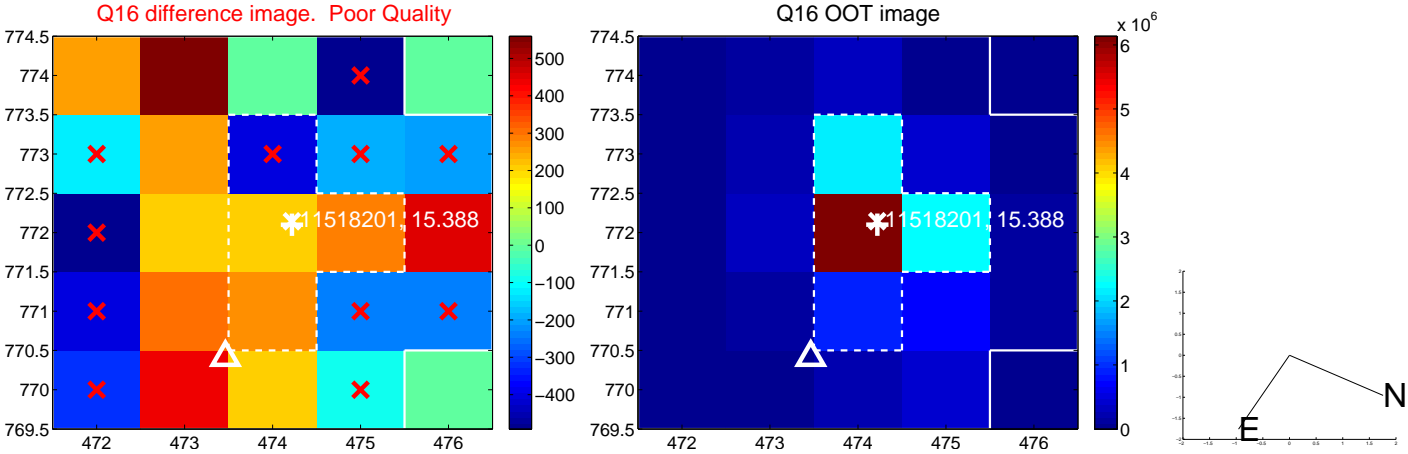
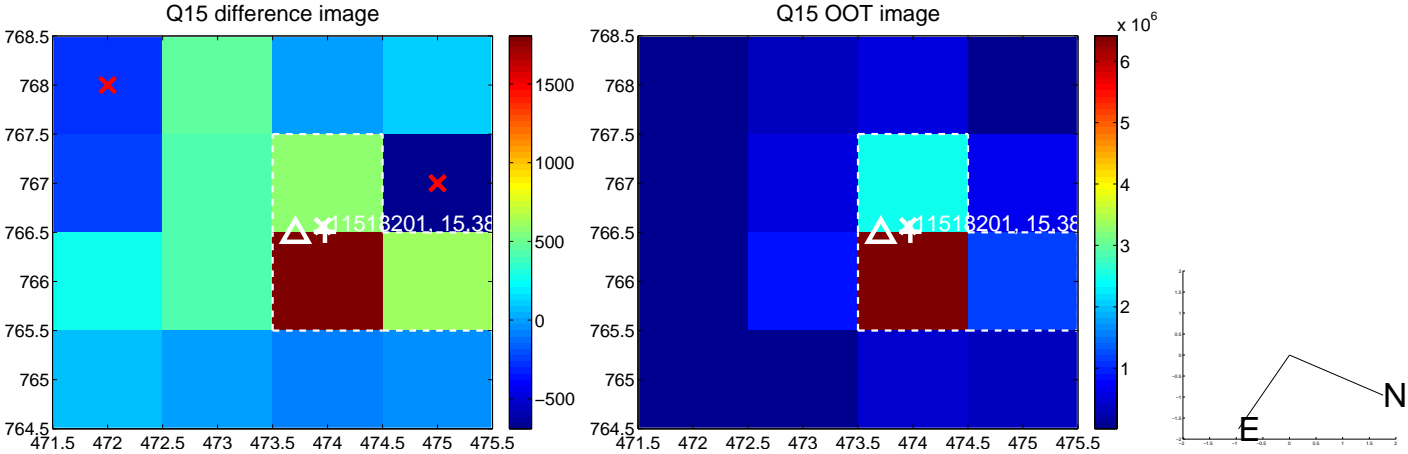
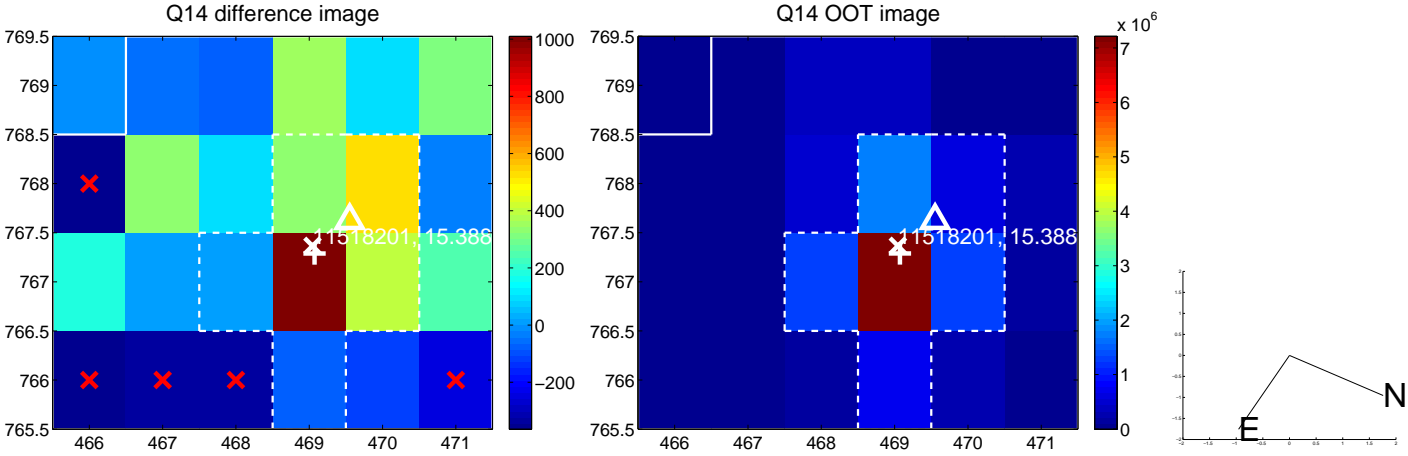
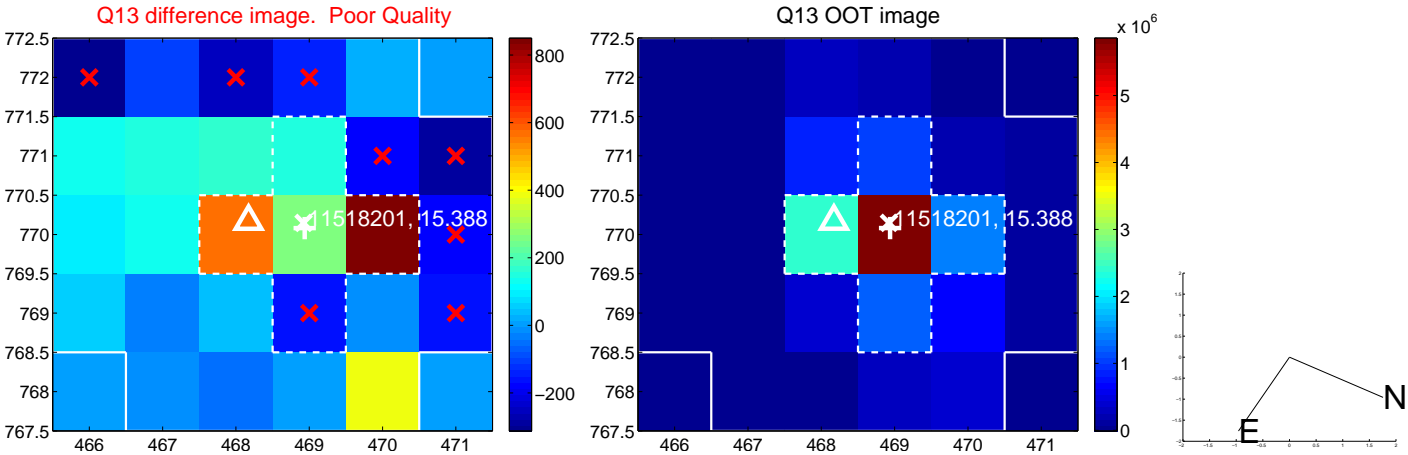
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



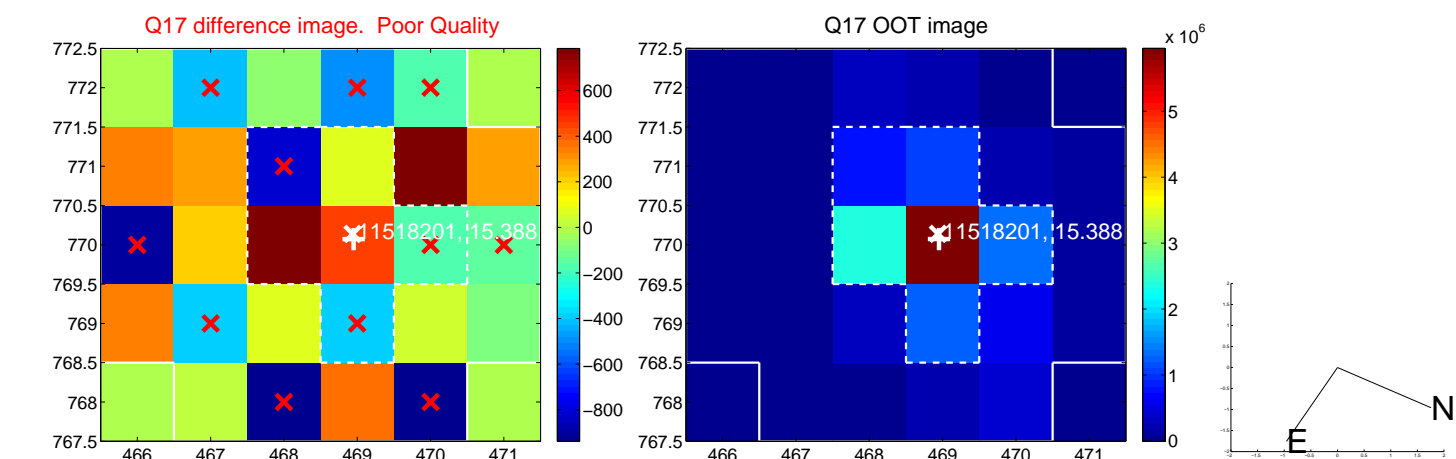
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



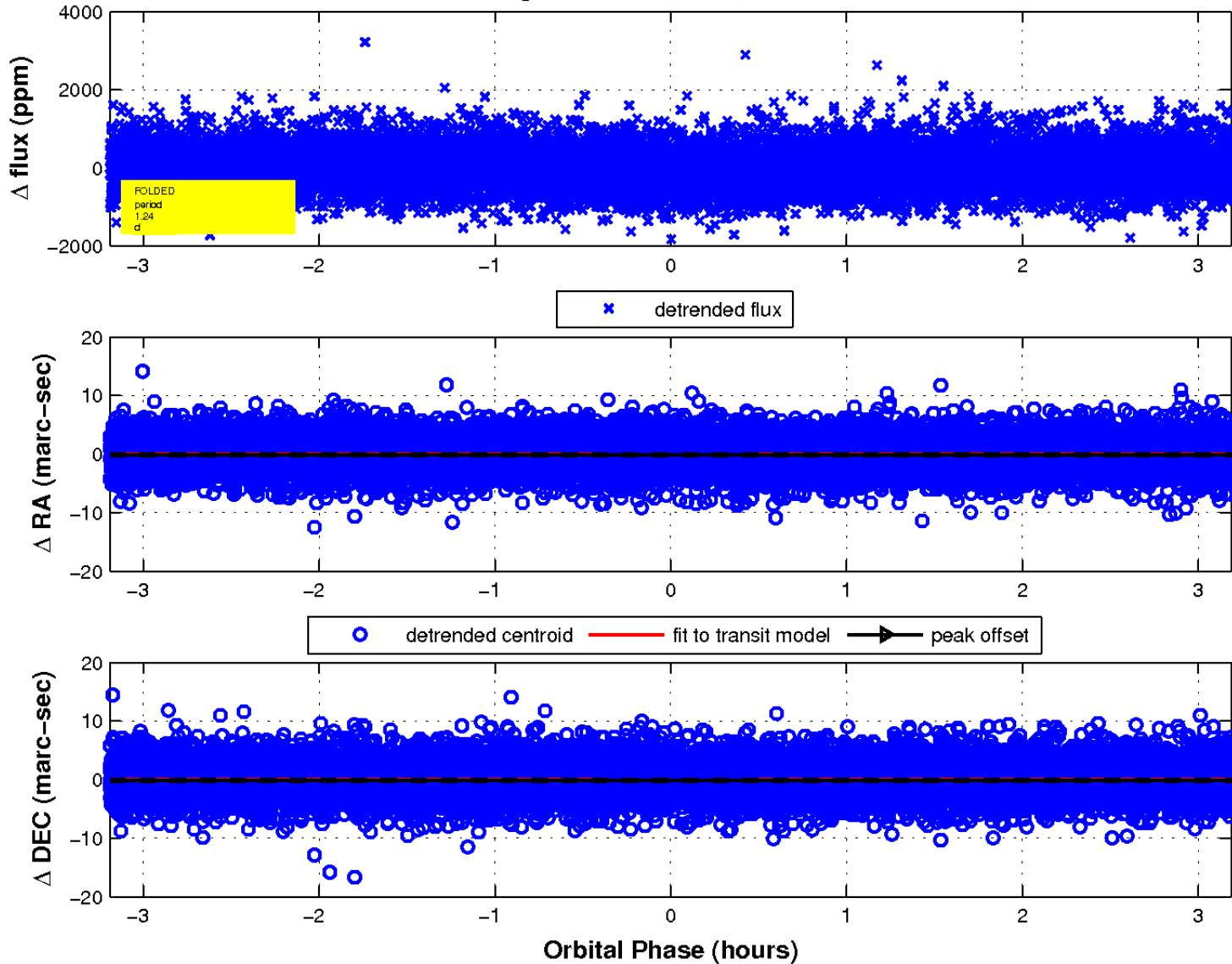
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

