

KIC 005695615

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})
005695615-01	OBS	4756.01	5.416911	133.803876	91.8	4.327	8.7	9.0	1.11	6355	1.22	448.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005695615-01	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.

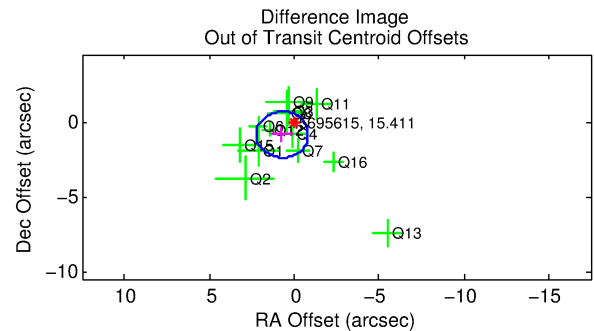
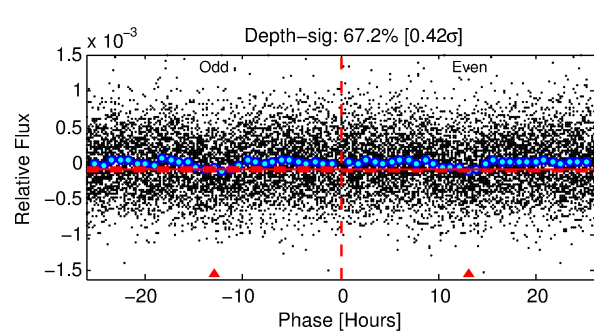
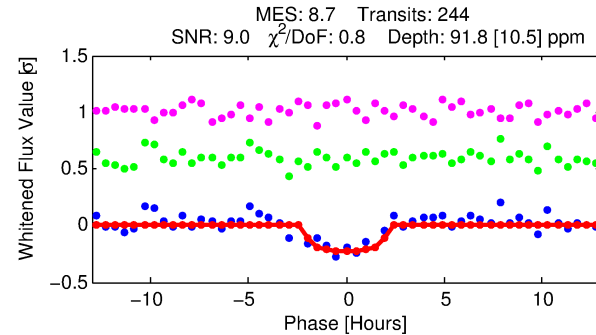
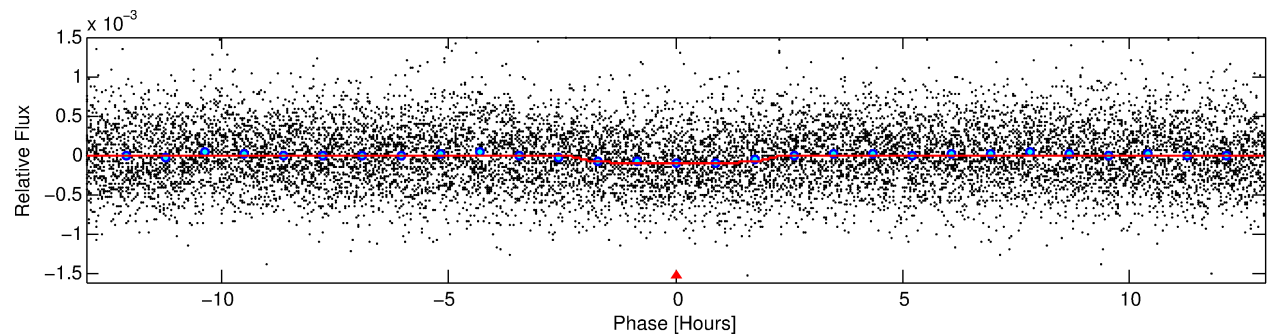
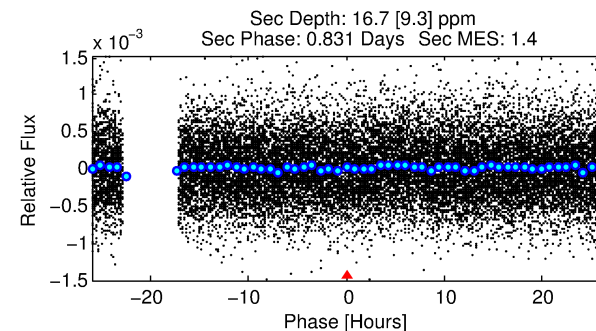
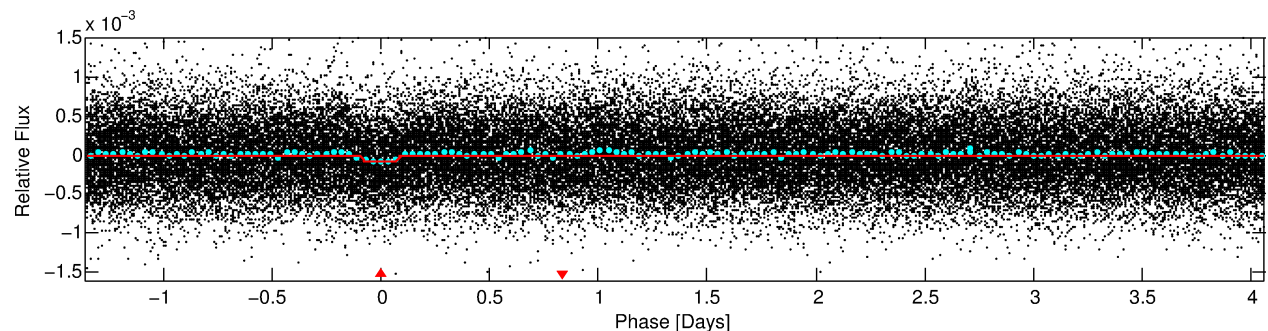
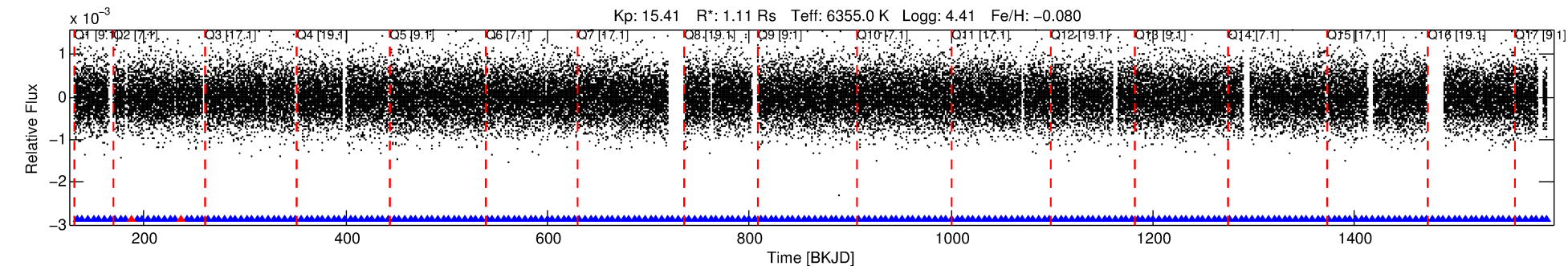
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005695615-01

No Significant Match Found

DV One-Page Summary

KIC: 5695615 Candidate: 1 of 1 Period: 5.417 d
KOI: K04756.01 Corr: 0.985



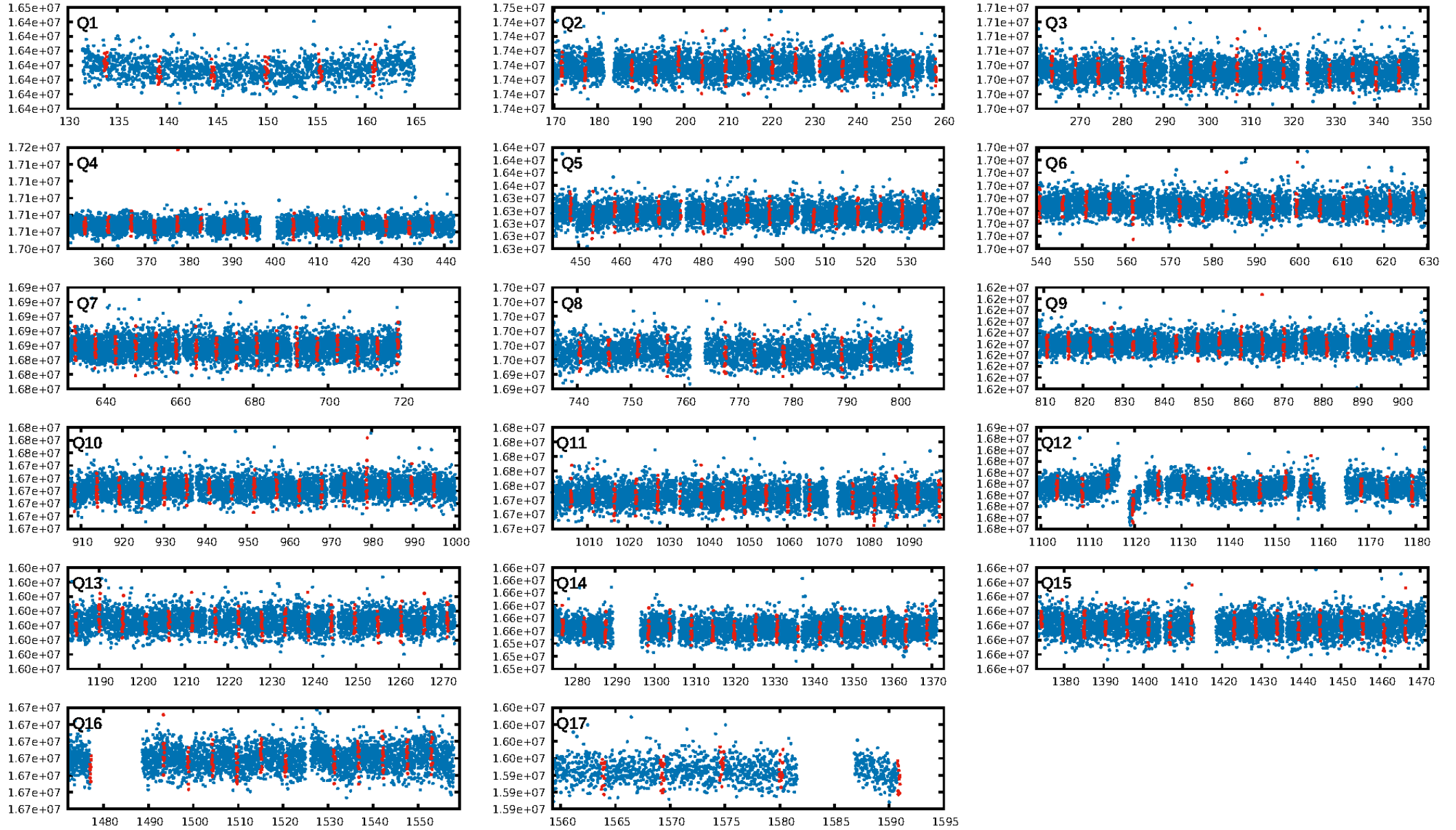
DV Fit Results:

Period = 5.41691 [0.00006] d
Epoch = 133.8039 [0.0080] BKJD
Rp/R* = 0.0101 [0.0059]
a/R* = 5.00 [15.38]
b = 0.87 [0.91]
Seff = 448.11 [187.15]
Teff = 1173 [122] K
Rp = 1.22 [0.82] Re
a = 0.0633 [0.0174] AU
Ag = 24.82 [33.48] [0.71σ]
Teffp = 4049 [1314] K [2.18σ]

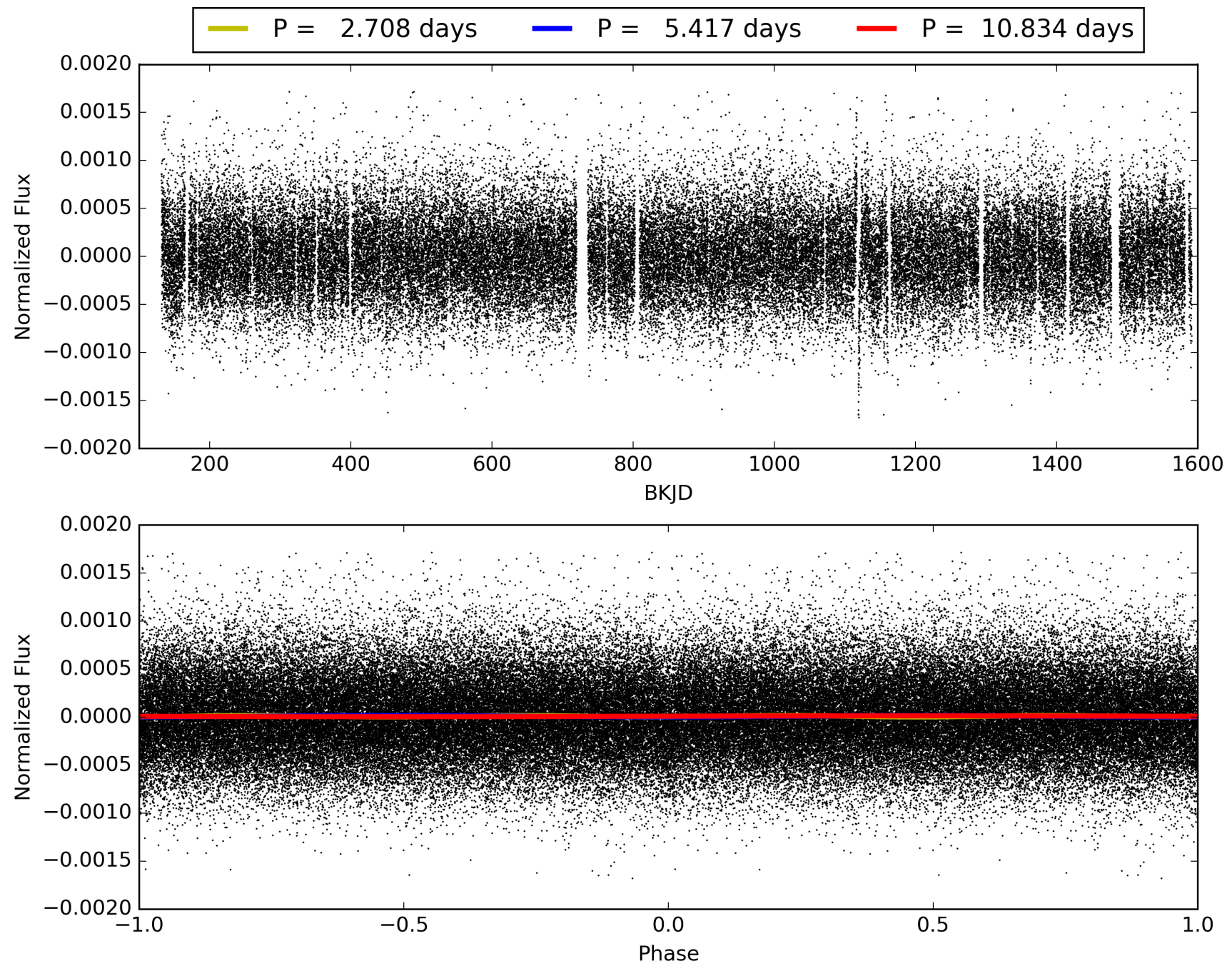
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.37e-18
RollingBand-fgt: 0.99 [231/233]
GhostDiagnostic-chr: 4.8
Centroid-sig: 89.3%
Centroid-so: 0.426 arcsec [0.27σ]
OotOffset-rm: 1.107 arcsec [2.17σ]
KicOffset-rm: 1.185 arcsec [2.35σ]
OotOffset-st: 2/4/4/3 [13]
KicOffset-st: 2/4/4/3 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005695615-01, PDC Light Curves

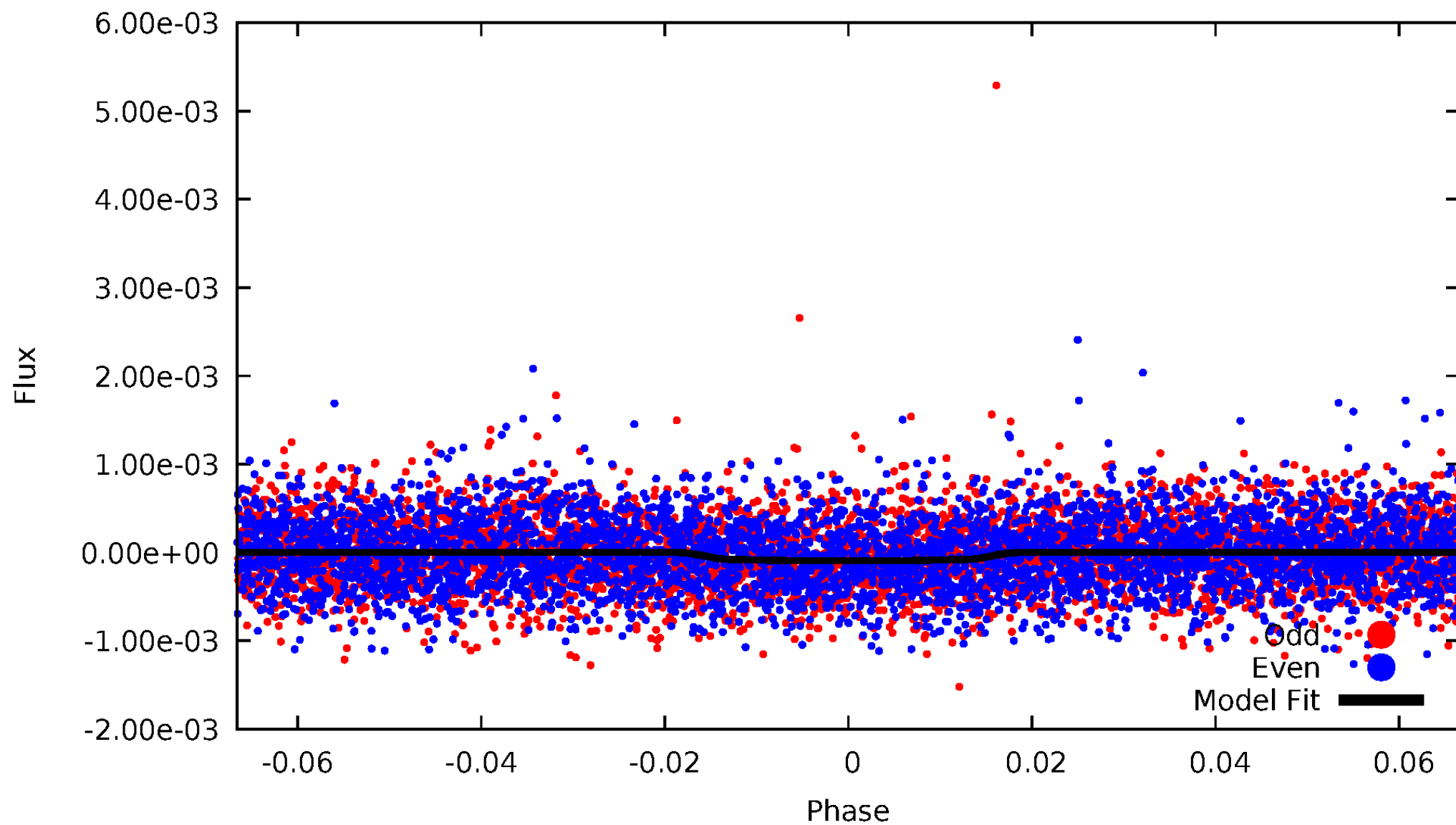


TCE 005695615-01



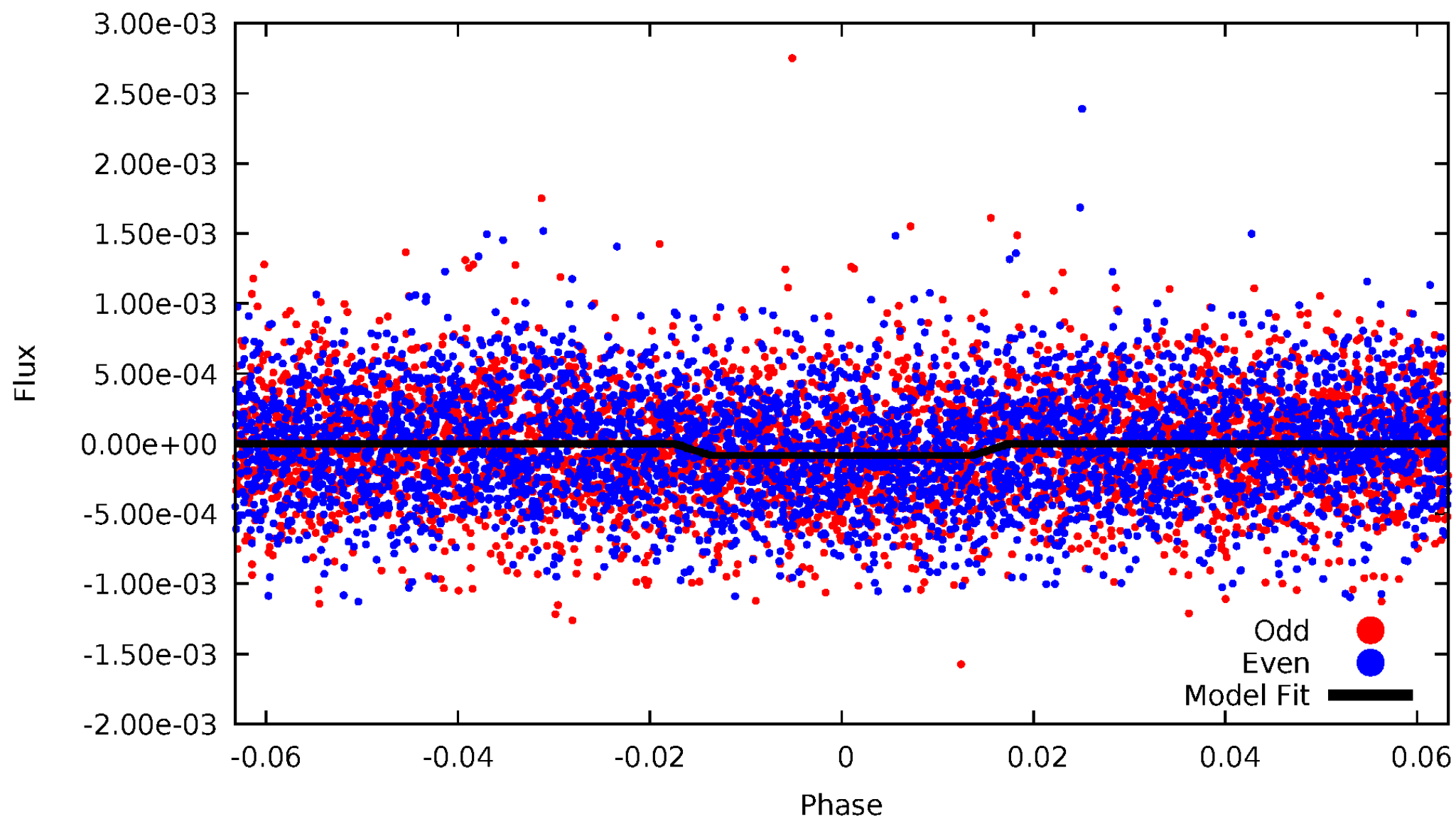
DV Odd/Even

TCE 005695615-01



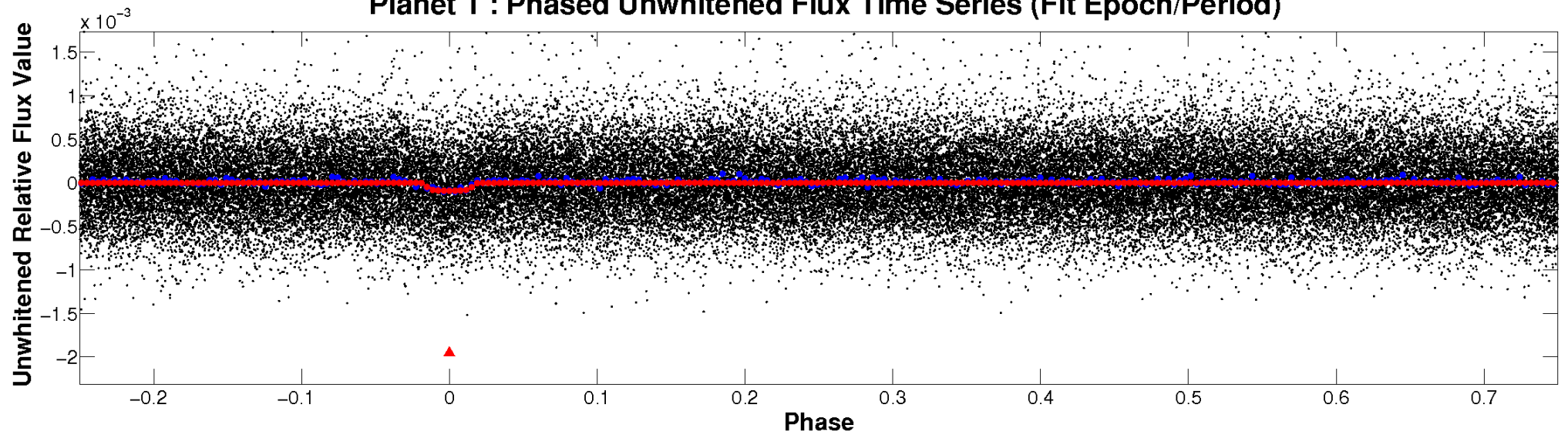
ALT Odd/Even

TCE 005695615-01

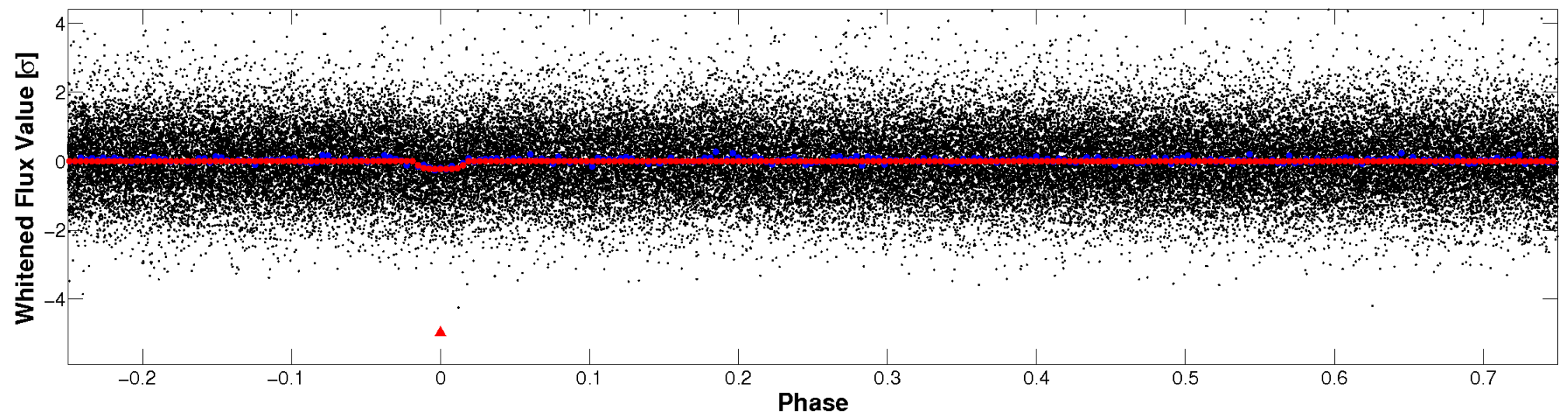


Non-Whitened Vs. Whitened Light Curve

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

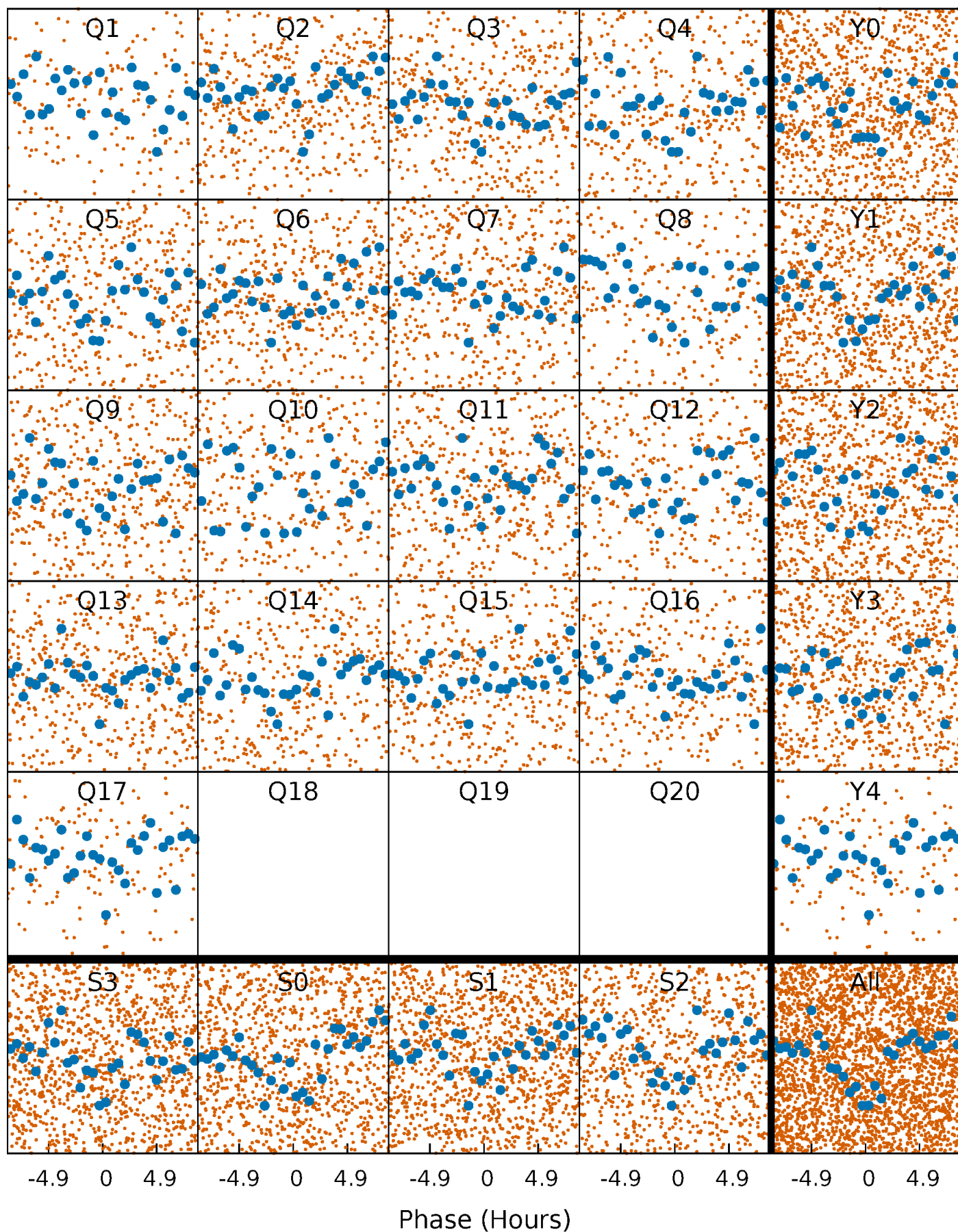


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



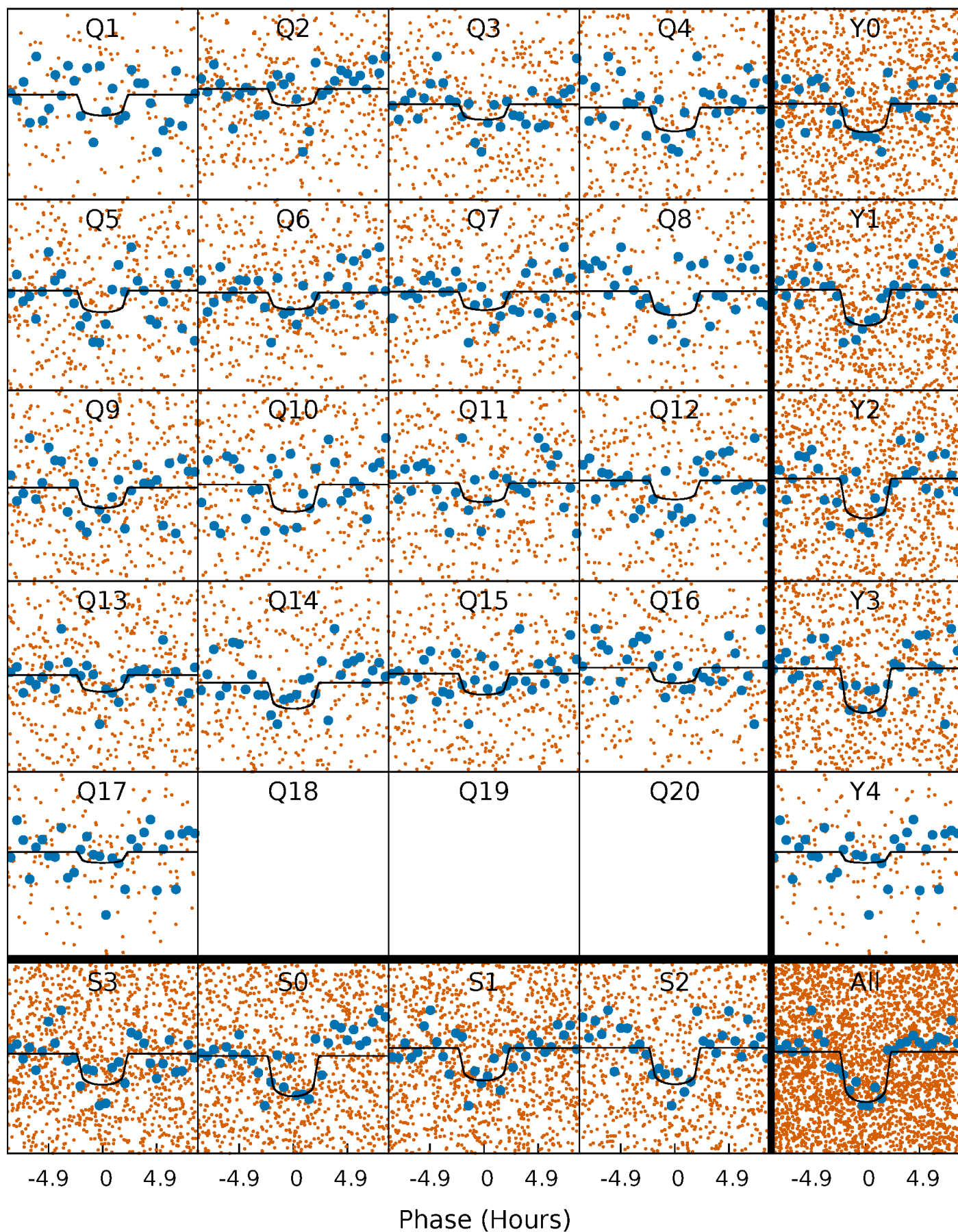
PDC Quarter-Phased Transit Curves

TCE 005695615-01 P= 5.416911 Days $T_0=133.803877$ (BKJD)



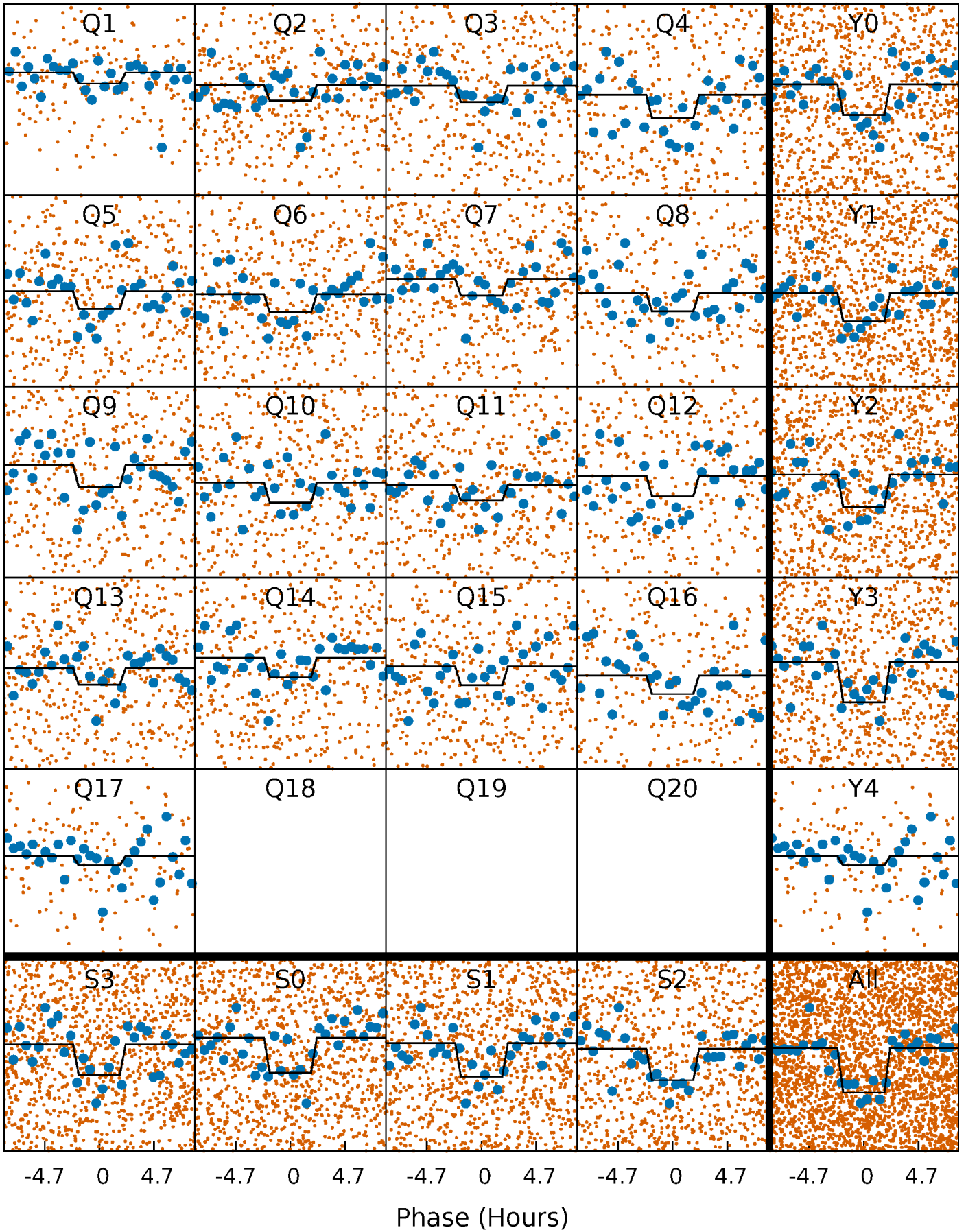
DV Quarter-Phased Transit Curves

TCE 005695615-01 P= 5.416911 Days $T_0=133.803877$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

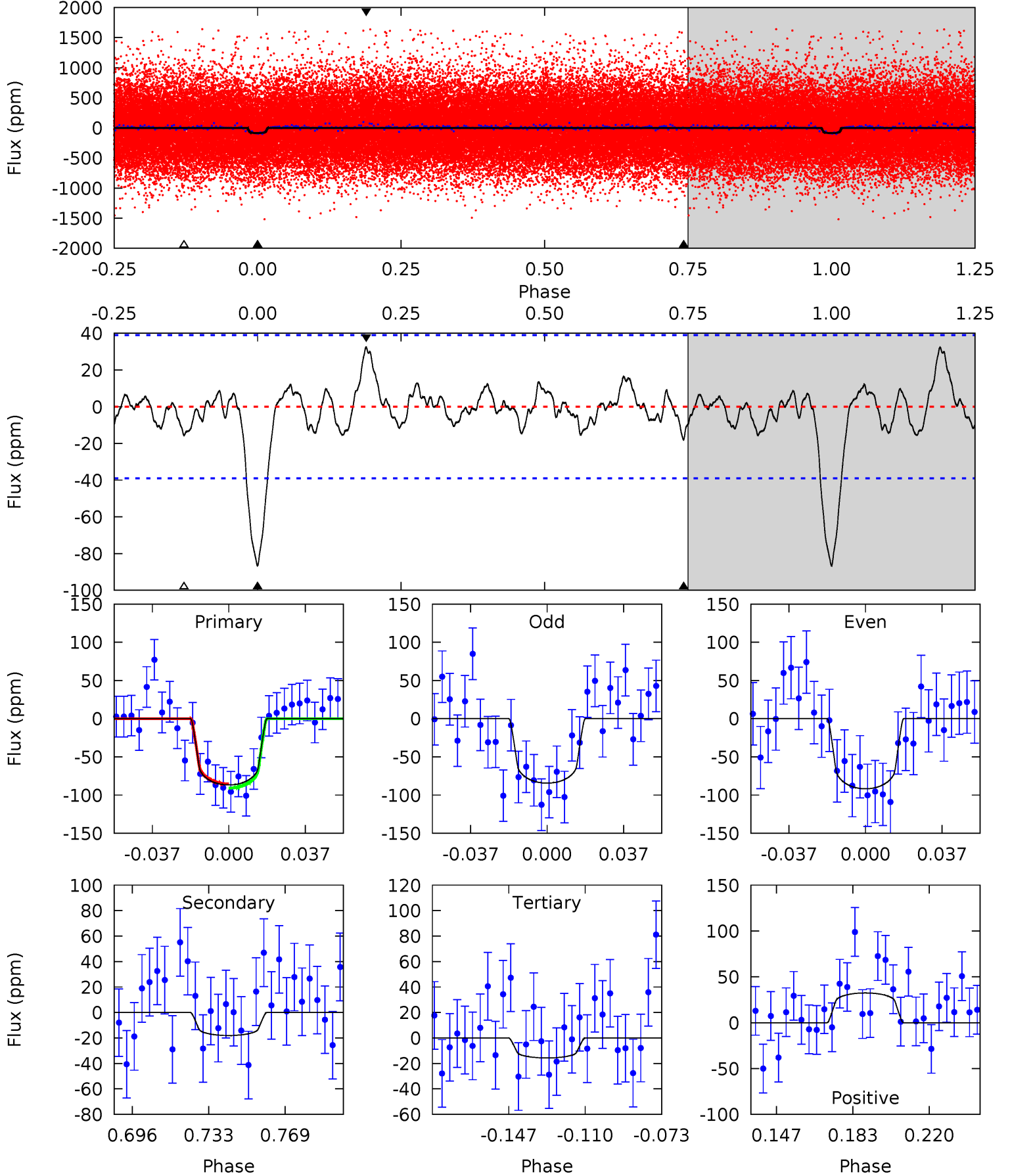
TCE 005695615-01 P= 5.416932 Days $T_0=133.800190$ (BKJD)



DV Model-Shift Uniqueness Test

005695615-01, P = 5.416911 Days, E = 128.386966 Days

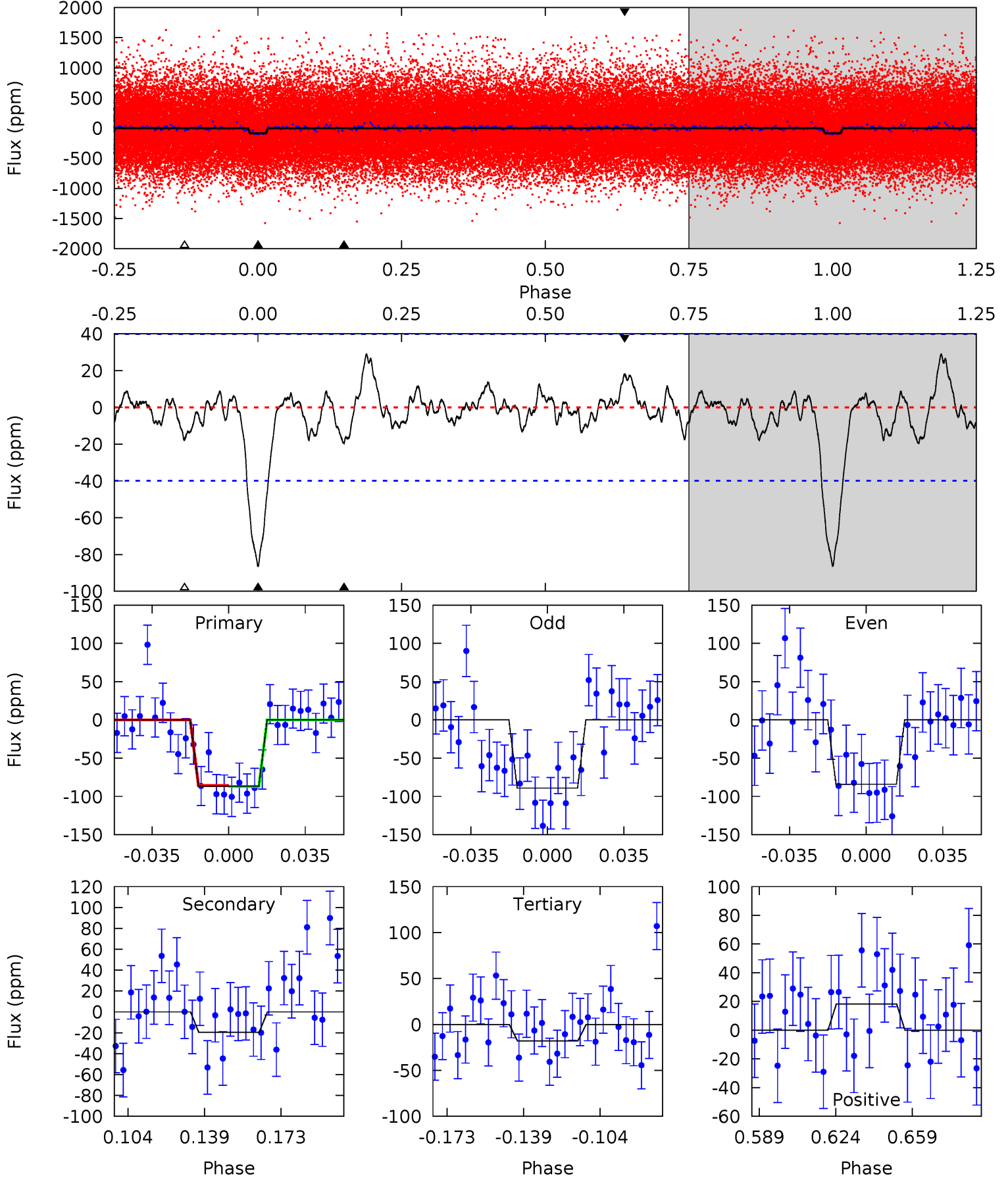
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	2.21	1.92	3.97	4.77	2.09	1.04	8.70	6.65	0.29	-1.76	0.46	0.89	0.27	0.34



Alt Model-Shift Uniqueness Test

005695615-01, P = 5.416932 Days, E = 128.383258 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	2.35	2.15	2.19	4.78	2.11	0.92	8.22	8.18	0.20	0.17	0.31	0.94	0.25	0.09



Stellar Parameters For KIC 005695615

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6355^{+173}_{-230}	$4.410^{+0.070}_{-0.210}$	$-0.080^{+0.250}_{-0.300}$	$1.108^{+0.370}_{-0.123}$	$1.151^{+0.172}_{-0.157}$	$1.191^{+0.358}_{-0.654}$
	+3%/-4%	+2%/-5%	+312%/-375%	+33%/-11%	+15%/-14%	+30%/-55%
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 005695615-01 / KOI 4756.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-18 ± 8	$1.29^{+0.82}_{-0.71}$	1663^{+127}_{-86}	4239^{+1816}_{-727}	22^{+92}_{-15}
Alt.	-20 ± 8	$1.19^{+0.76}_{-0.62}$	1670^{+133}_{-91}	4458^{+1801}_{-825}	29^{+103}_{-20}

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

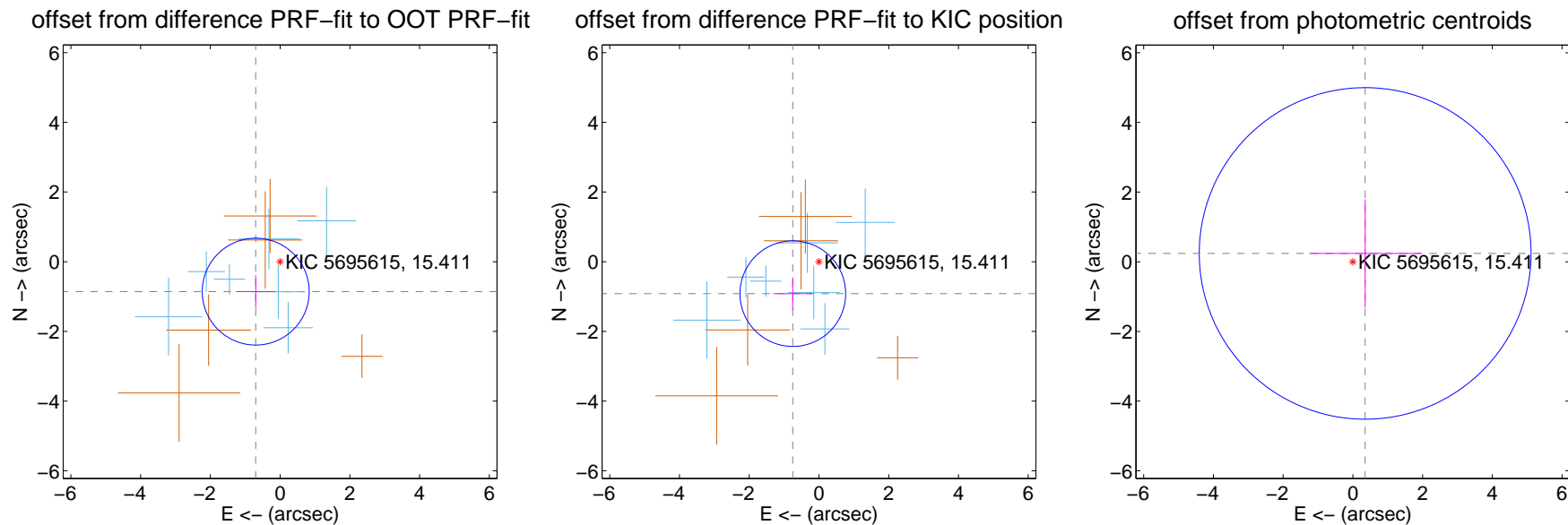
DV Centroid Data

Supplemental centroid analysis for 005695615-01. Kepler magnitude: 15.41. Transit SNR 8.96

There are 7 quarters with good PRF difference image offsets

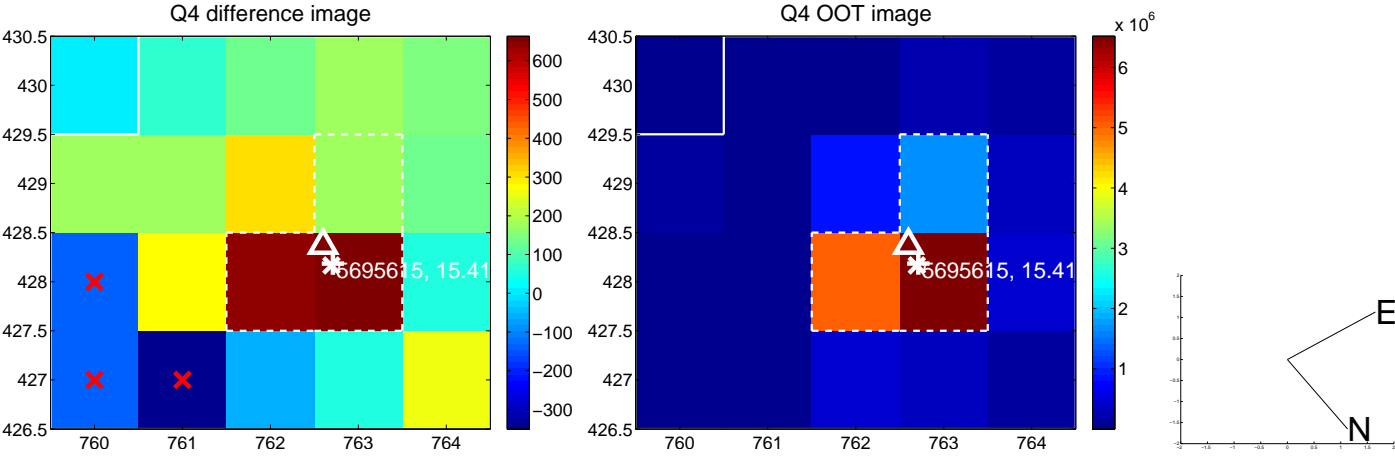
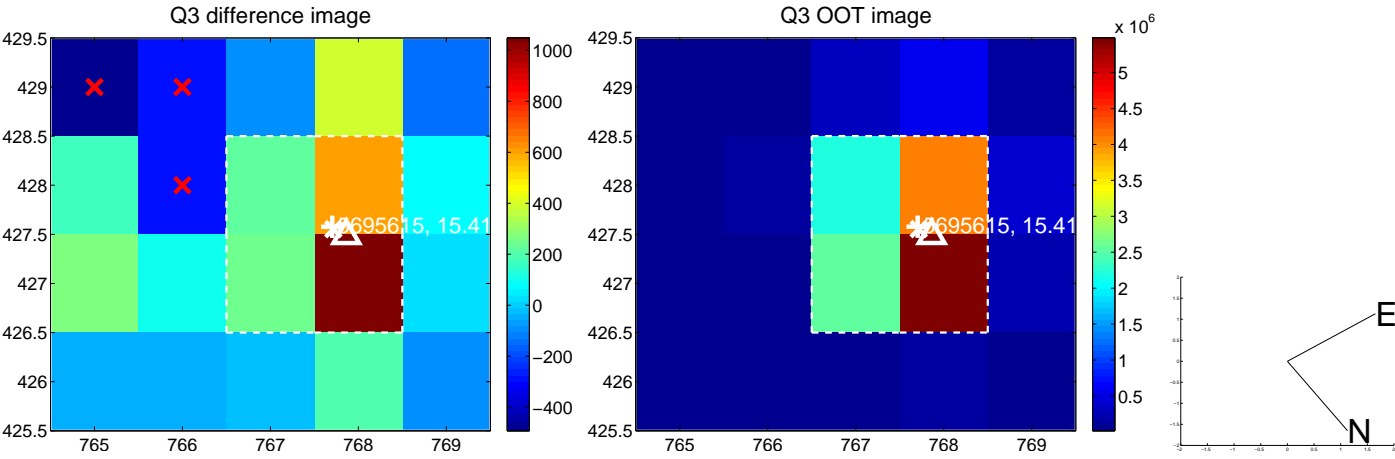
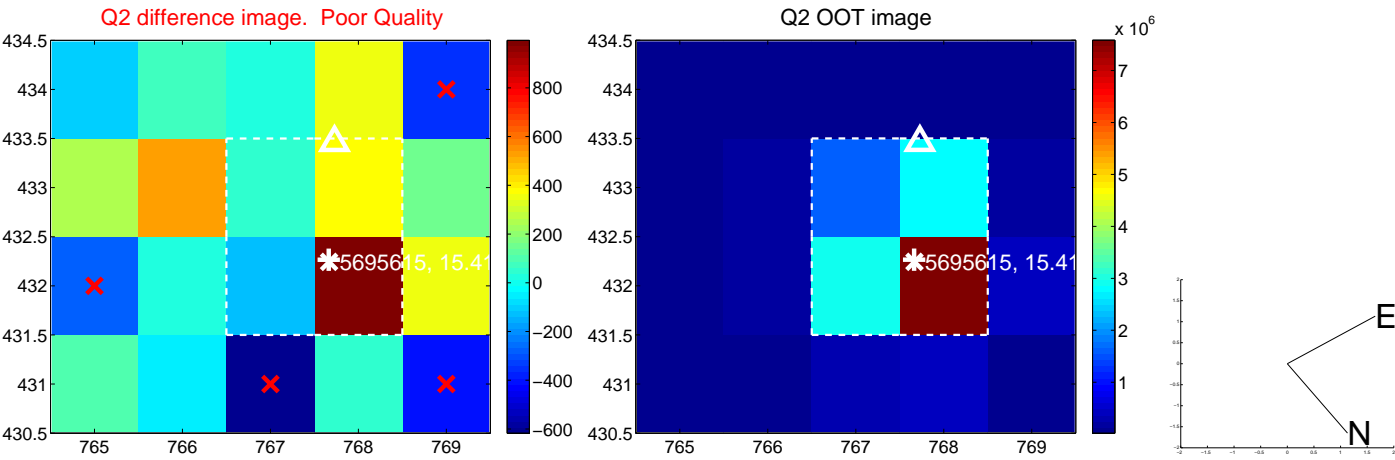
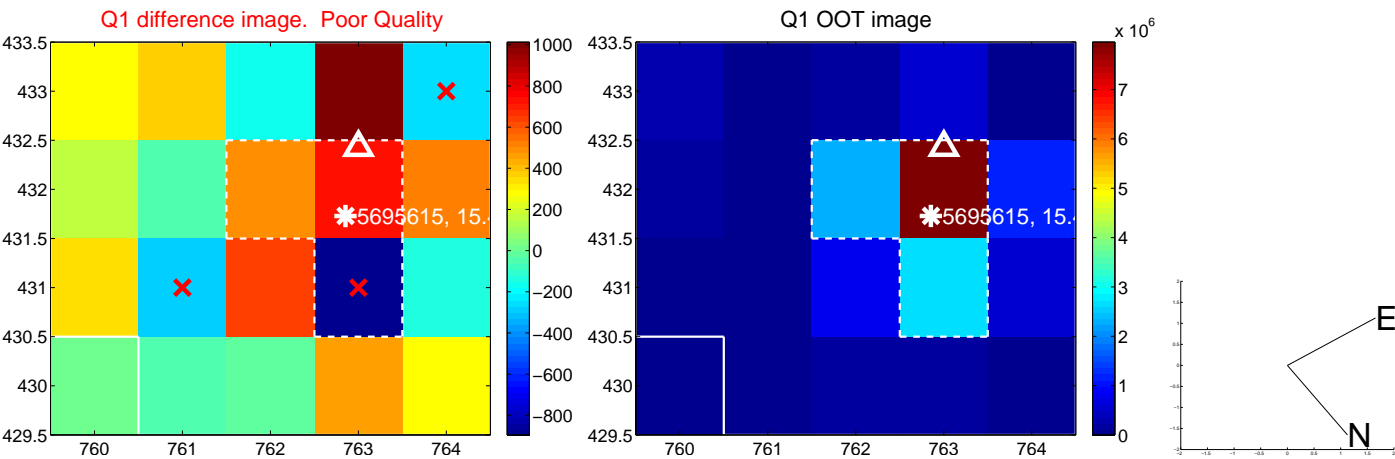
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.107 ± 0.511	2.17	0.699 ± 0.566	-0.859 ± 0.471
PRF-fit source offset from KIC position	1.185 ± 0.505	2.35	0.751 ± 0.558	-0.917 ± 0.466
photometric centroid source offset	0.43 ± 1.59	0.27	-0.35 ± 1.60	0.24 ± 1.55

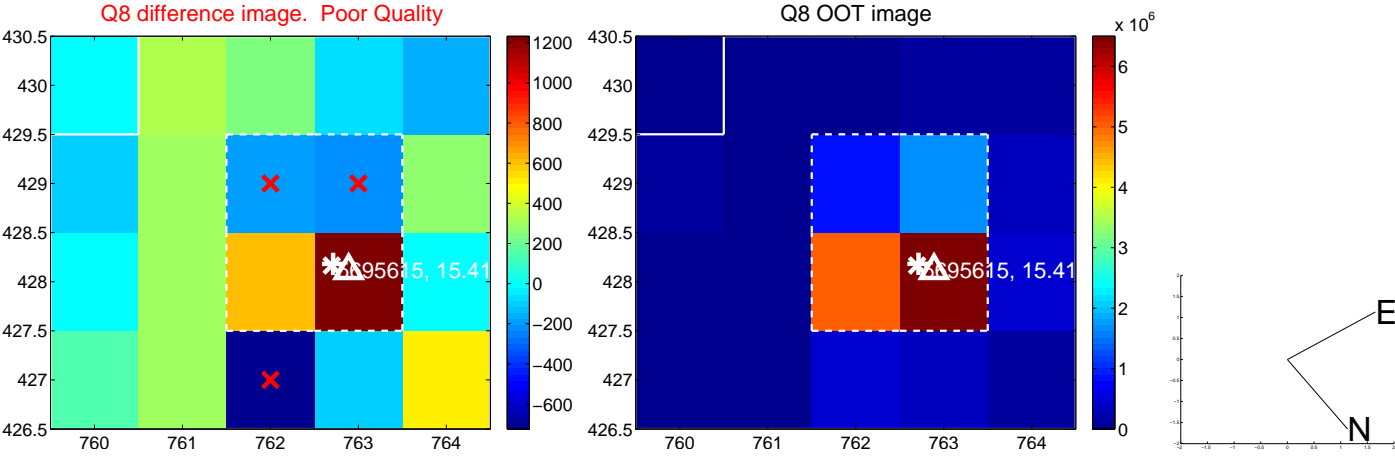
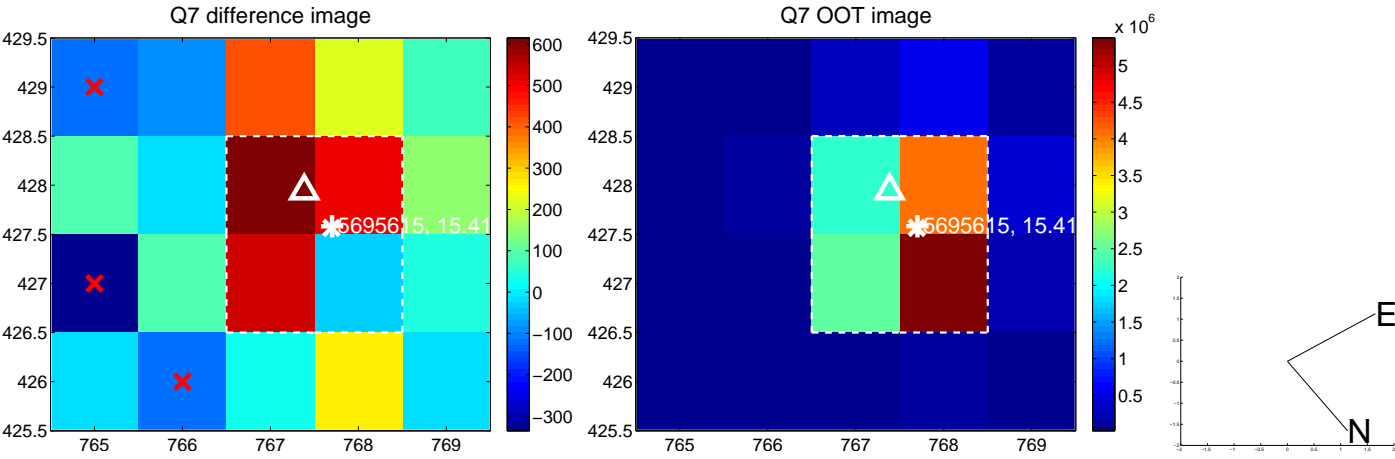
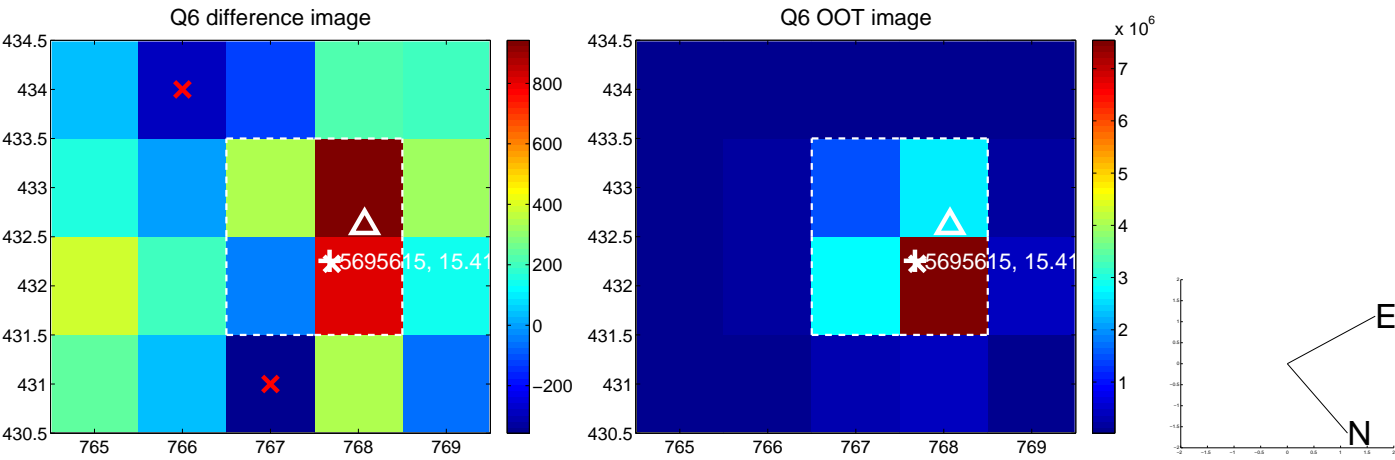
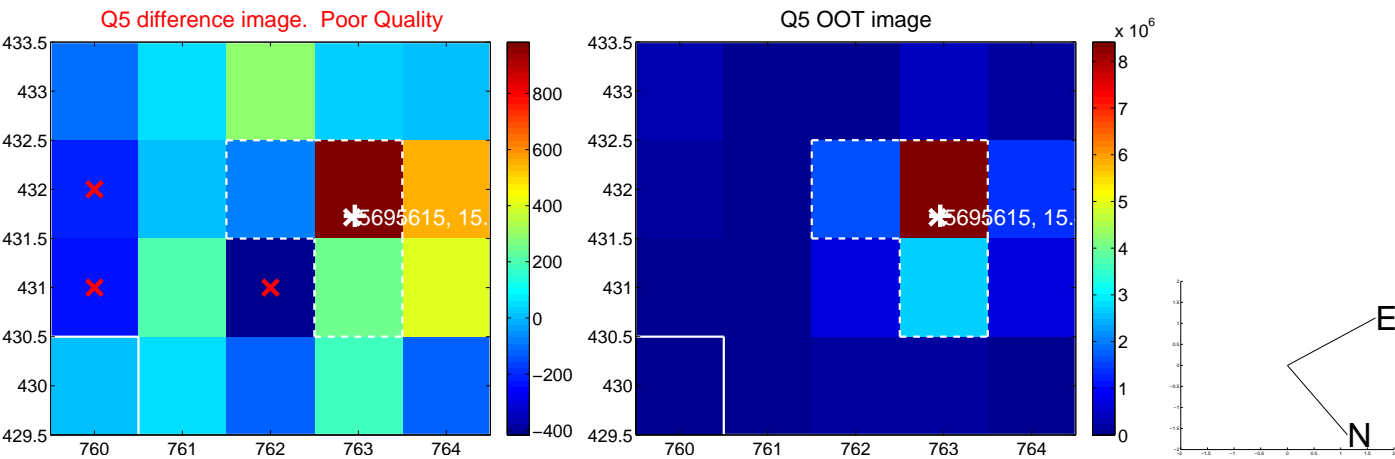


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

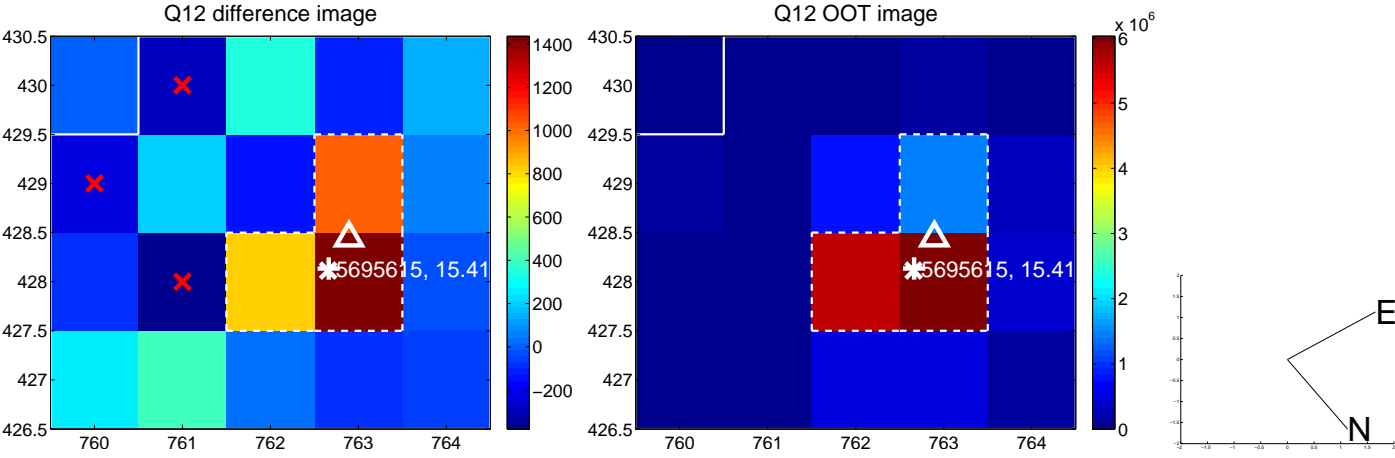
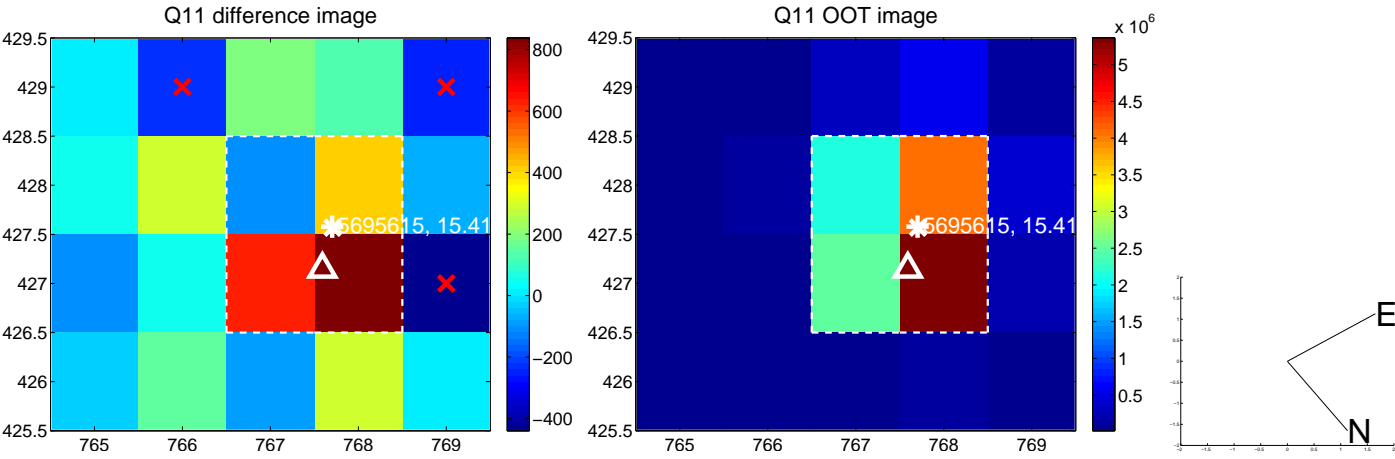
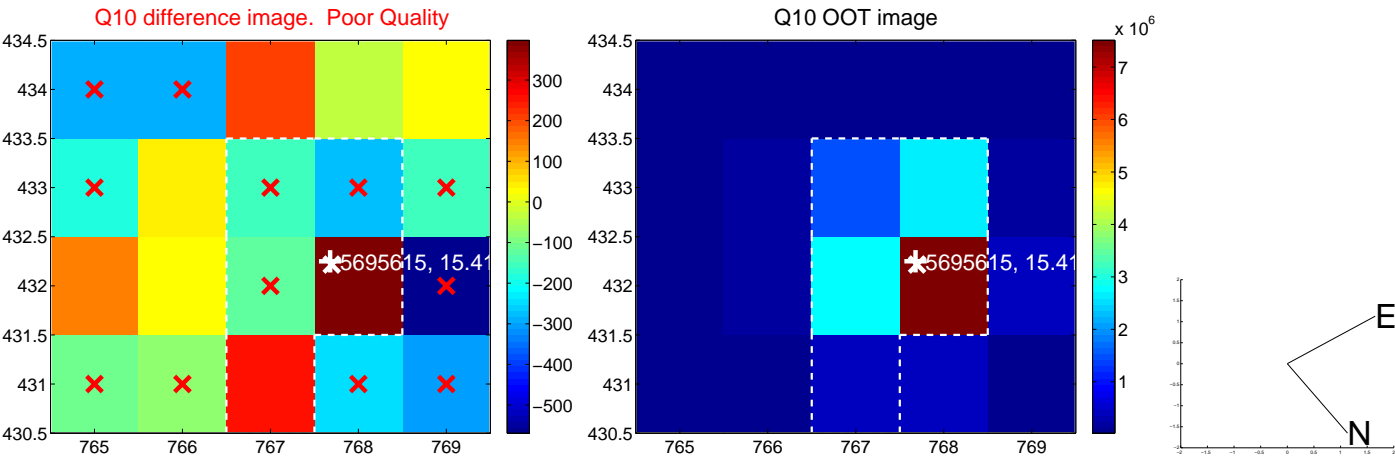
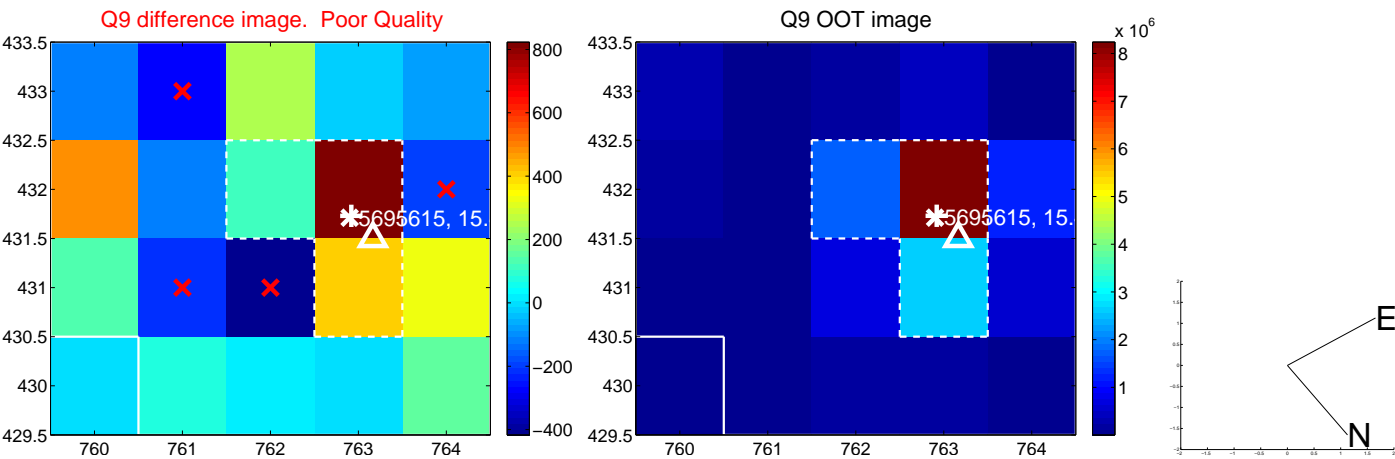
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



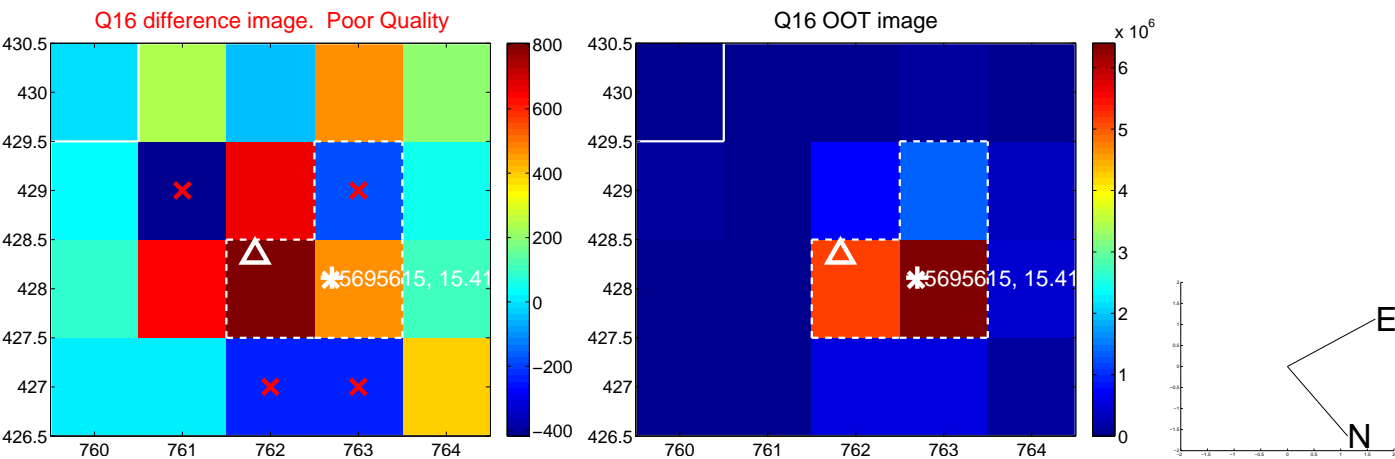
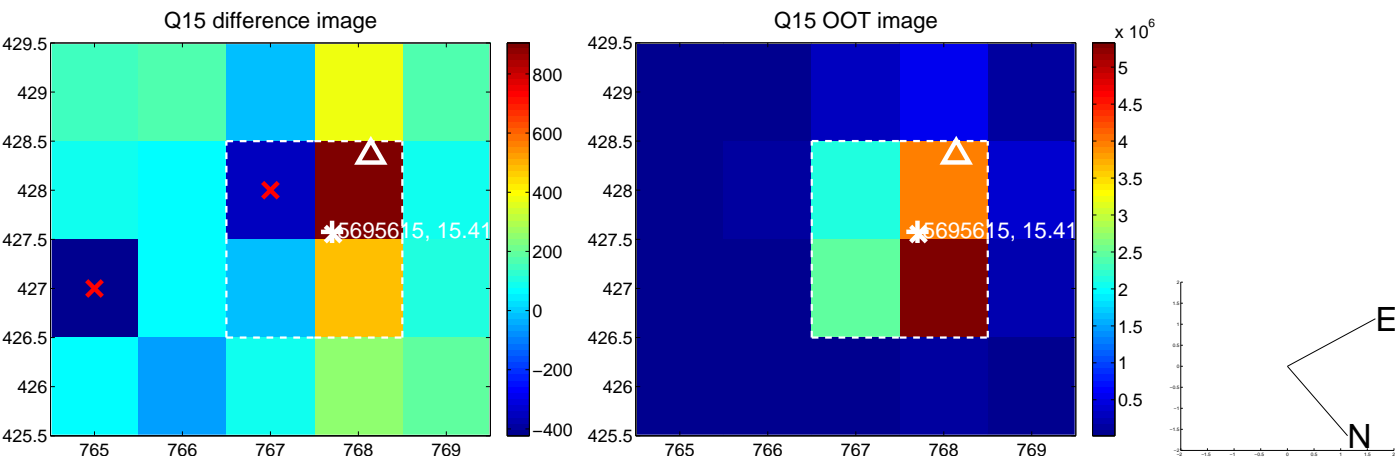
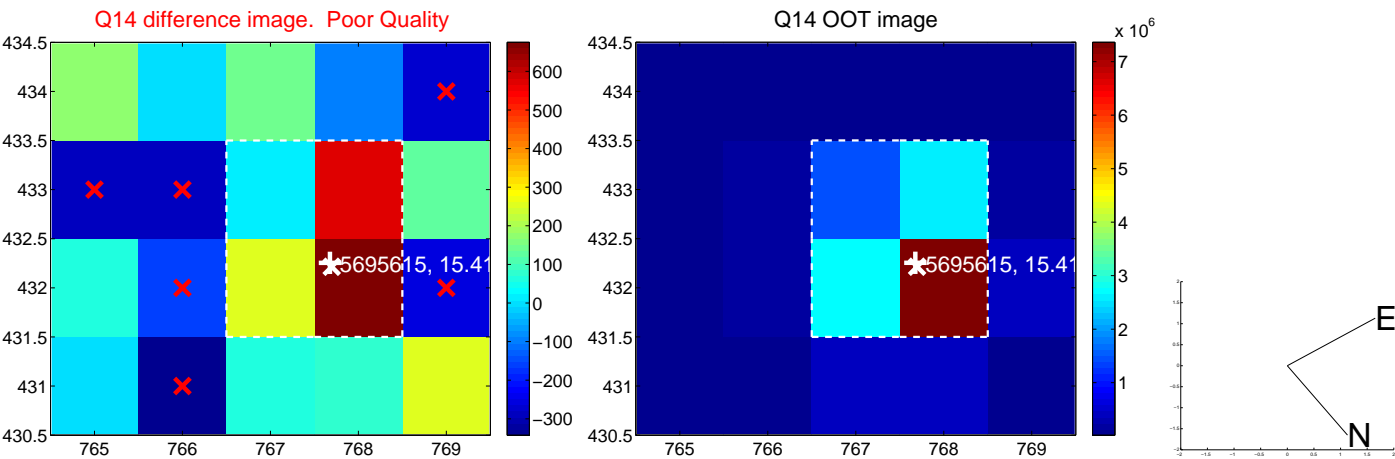
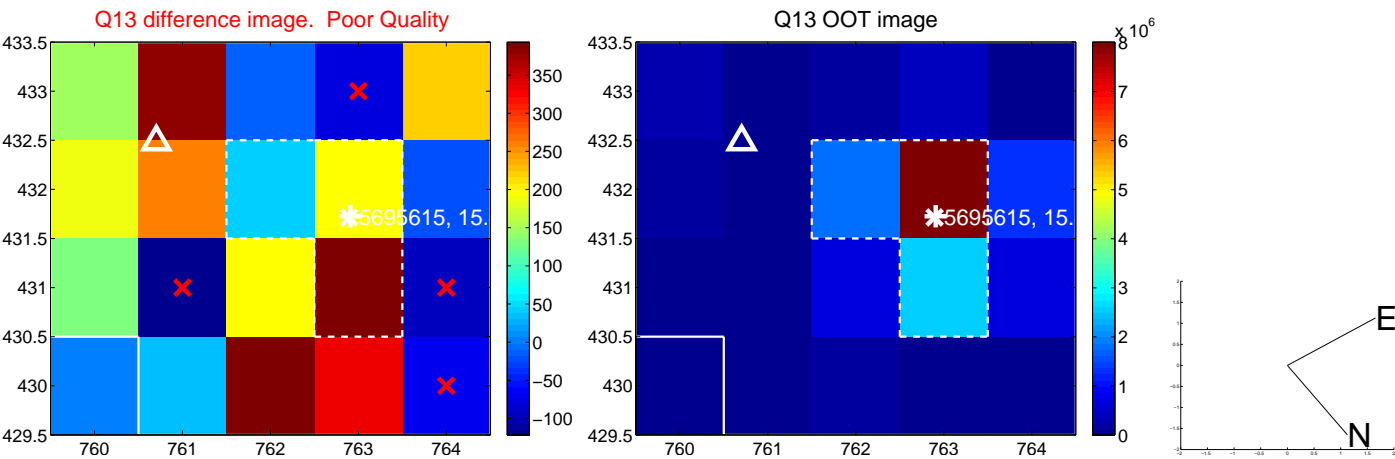
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



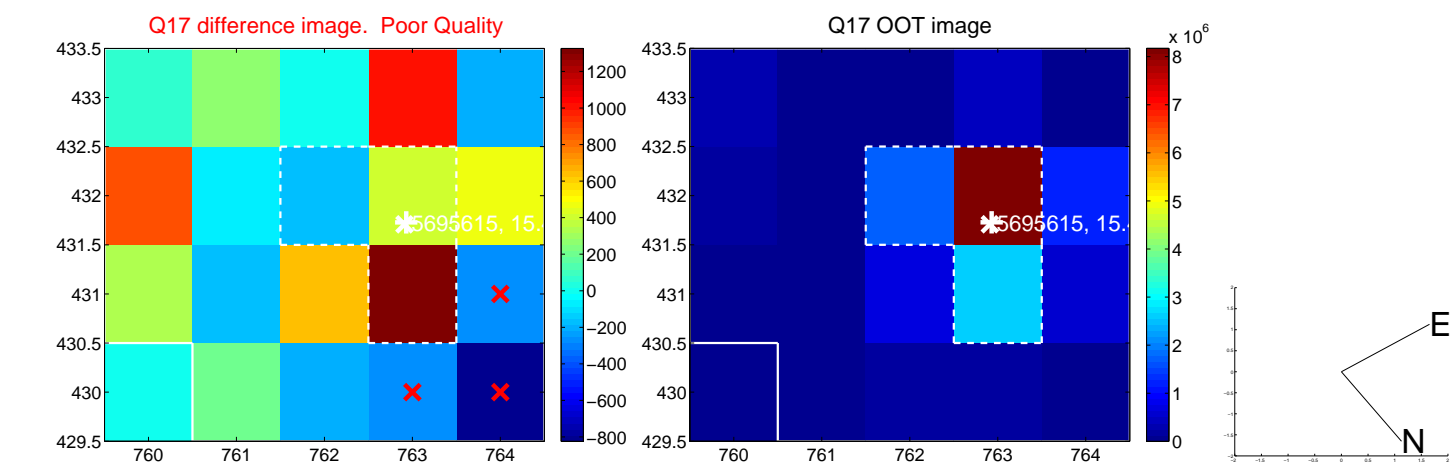
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



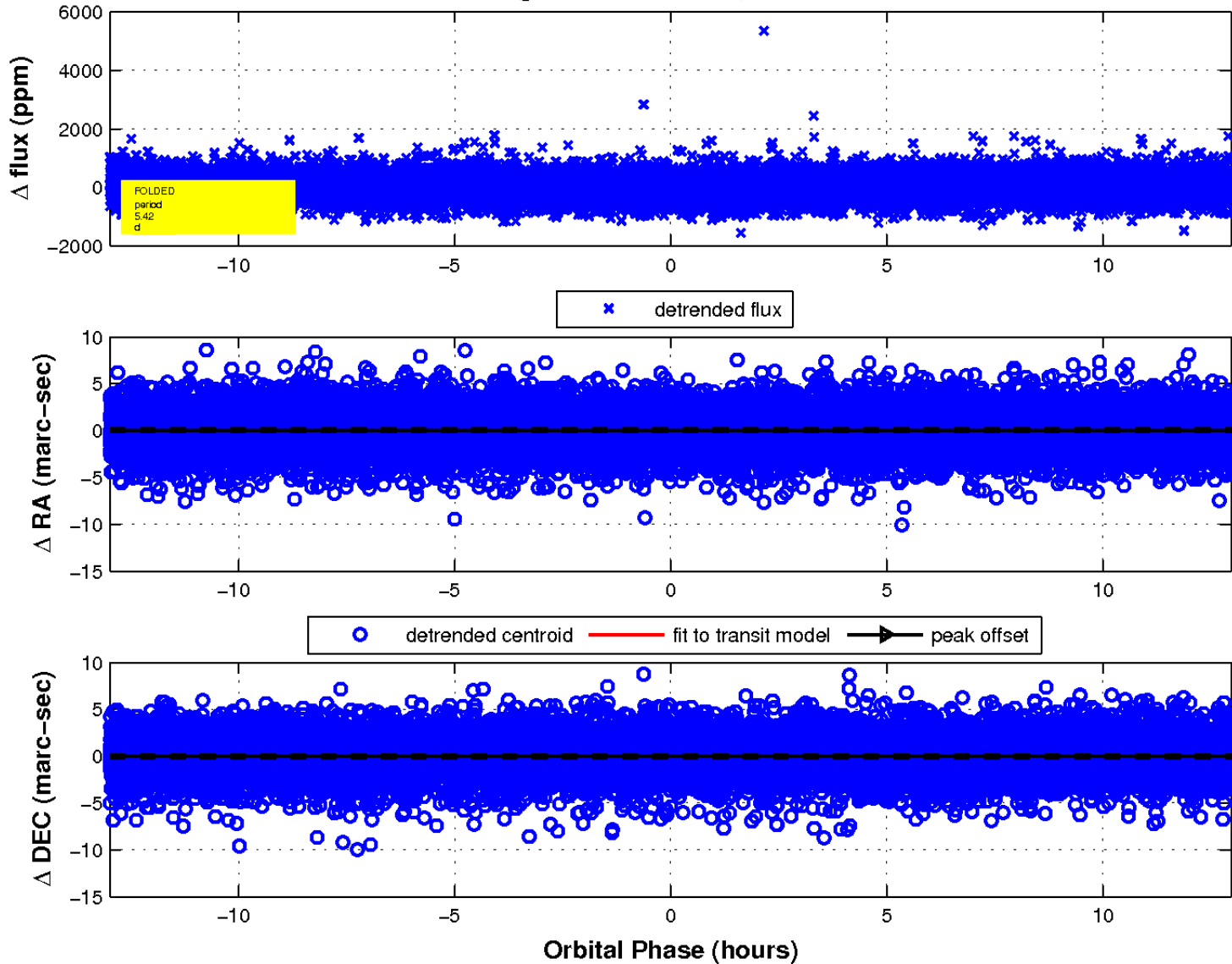
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

