

KIC 003660924

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})
003660924-01	OBS	1214.01	4.241579	133.449939	179.2	2.940	14.7	15.9	1.05	5776	1.66	454.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003660924-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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.

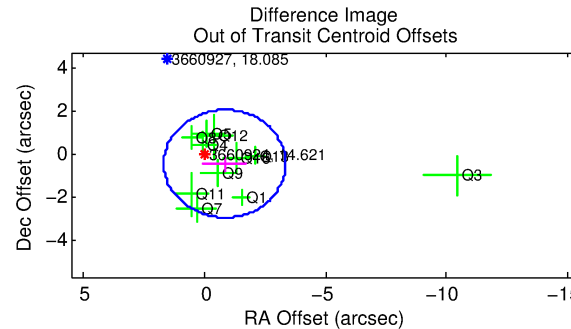
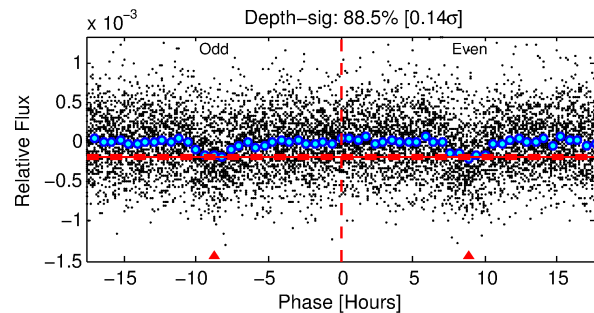
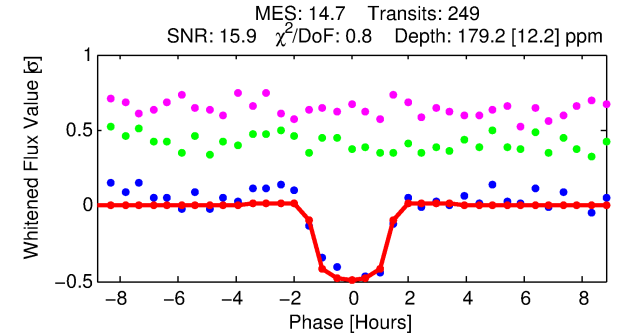
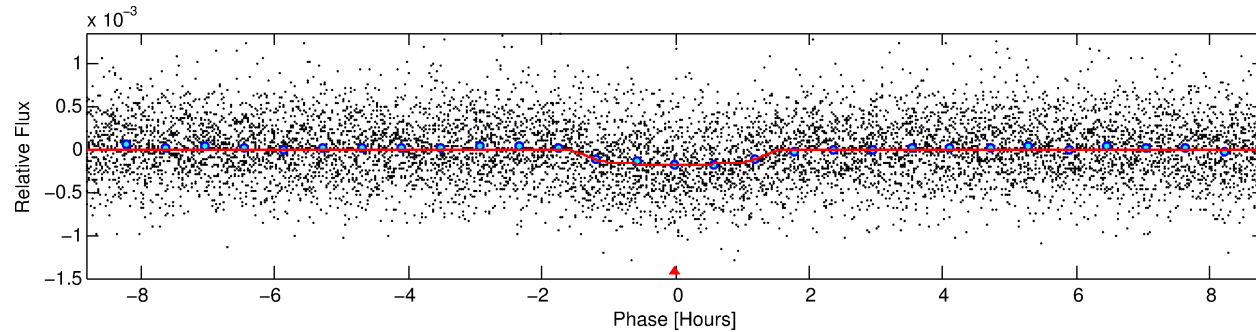
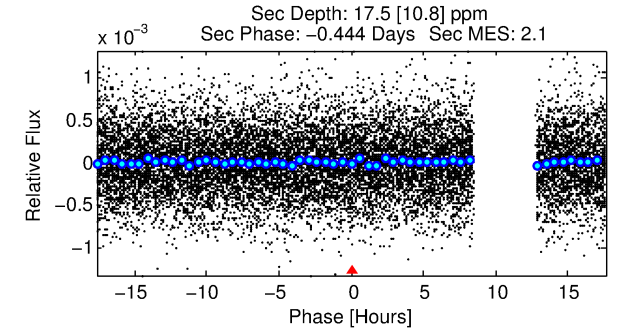
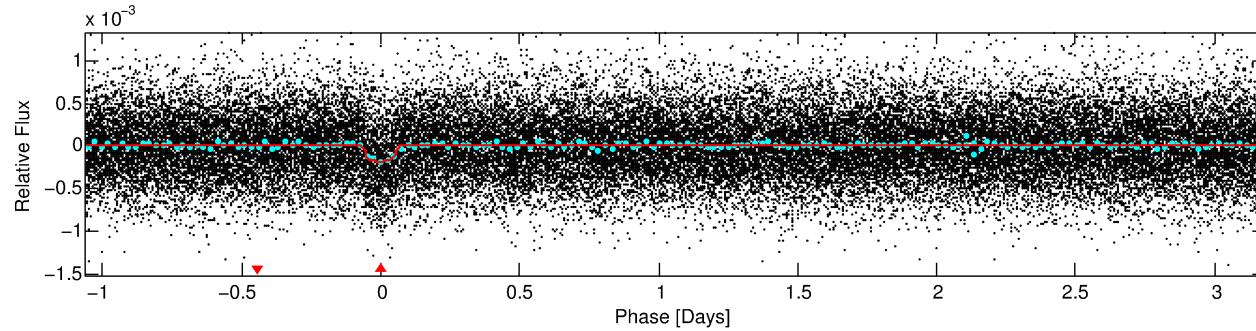
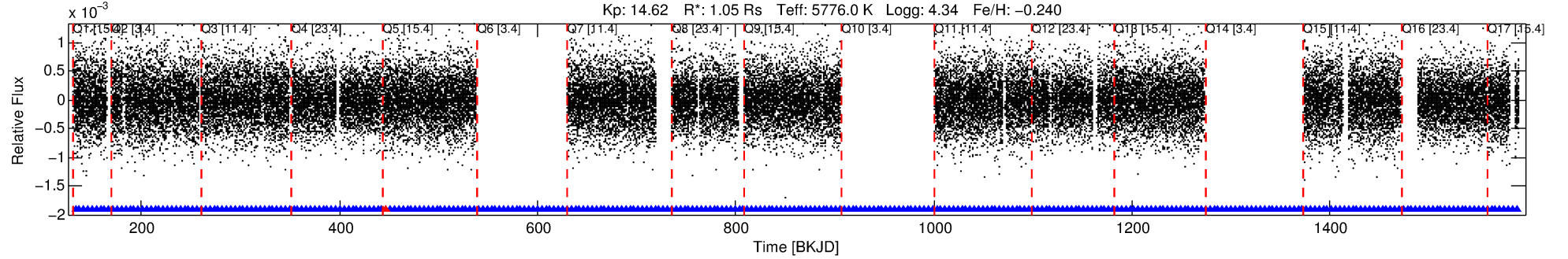
Ephemeris Match Information For 003660924-01

No Significant Match Found

DV One-Page Summary

KIC: 3660924 Candidate: 1 of 1 Period: 4.242 d

KOI: K01214.01 Corr: 0.964



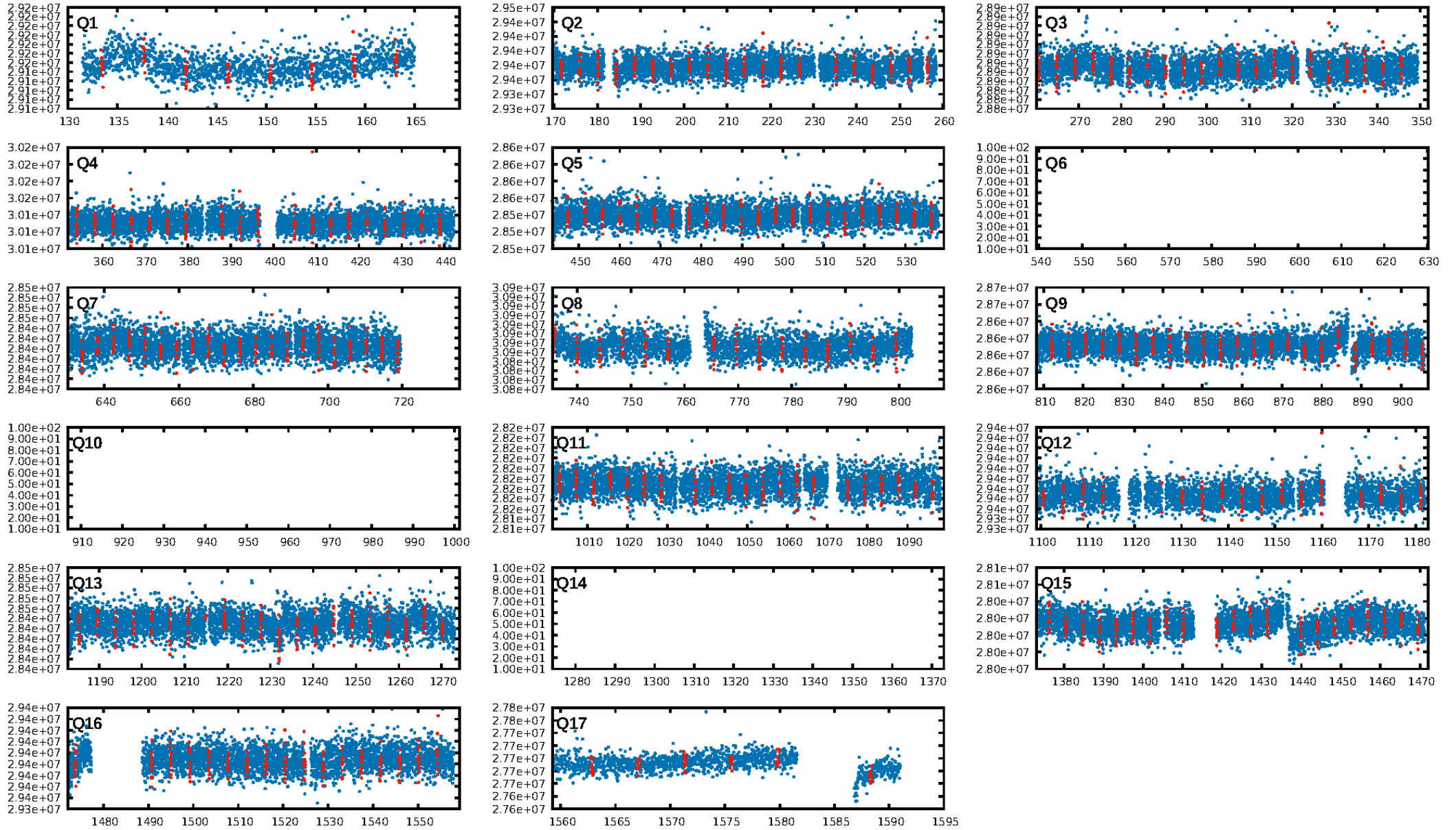
DV Fit Results:

Period = 4.24158 [0.00002] d
Epoch = 133.4499 [0.0032] BKJD
Rp/R* = 0.0145 [0.0056]
a/R* = 5.26 [9.57]
b = 0.90 [0.41]
Seff = 454.29 [162.09]
Teff = 1177 [105] K
Rp = 1.66 [0.78] Re
a = 0.0491 [0.0113] AU
Ag = 8.38 [8.72] [0.85σ]
Teffp = 3097 [767] K [2.48σ]

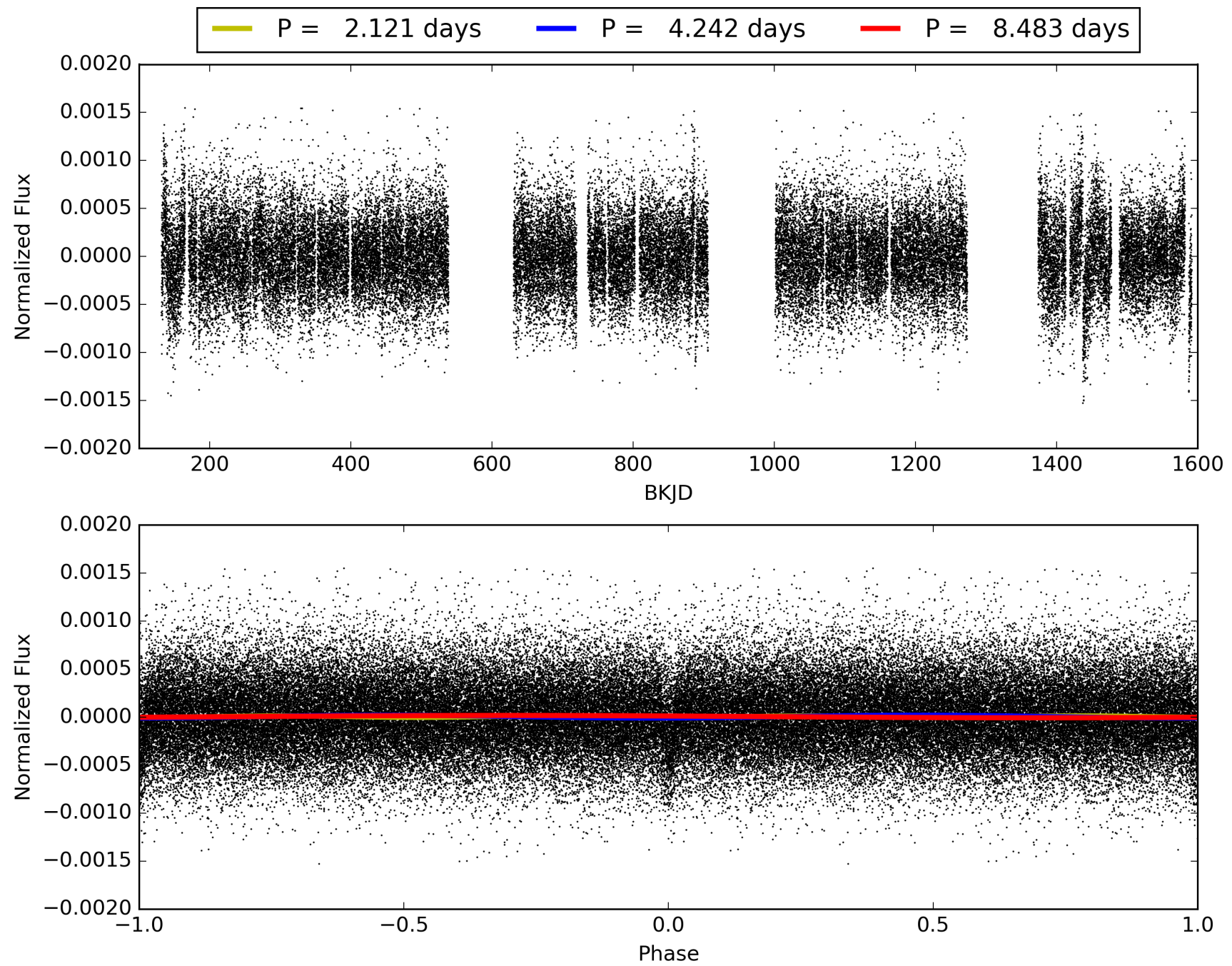
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.47e-49
RollingBand-fgt: 1.00 [234/235]
GhostDiagnostic-chr: 4.289
Centroid-sig: 0.0%
Centroid-so: 2.017 arcsec [2.27σ]
OotOffset-rm: 0.959 arcsec [1.14σ]
KicOffset-rm: 0.503 arcsec [0.53σ]
OotOffset-st: 0/3/4/4 [11]
KicOffset-st: 0/3/4/4 [11]
DiffImageQuality-fgm: 0.91 [10/11]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 003660924-01, PDC Light Curves

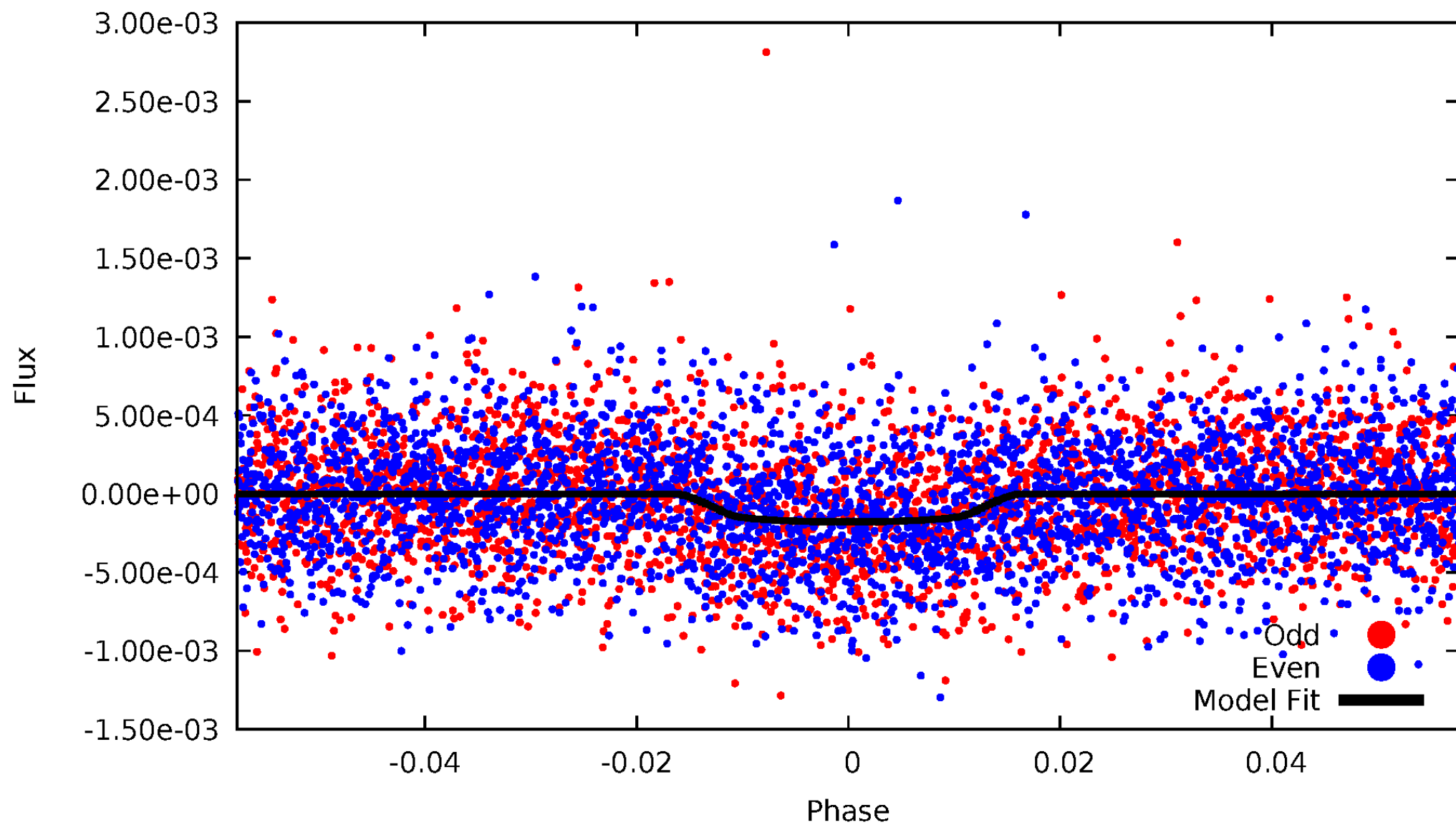


TCE 003660924-01



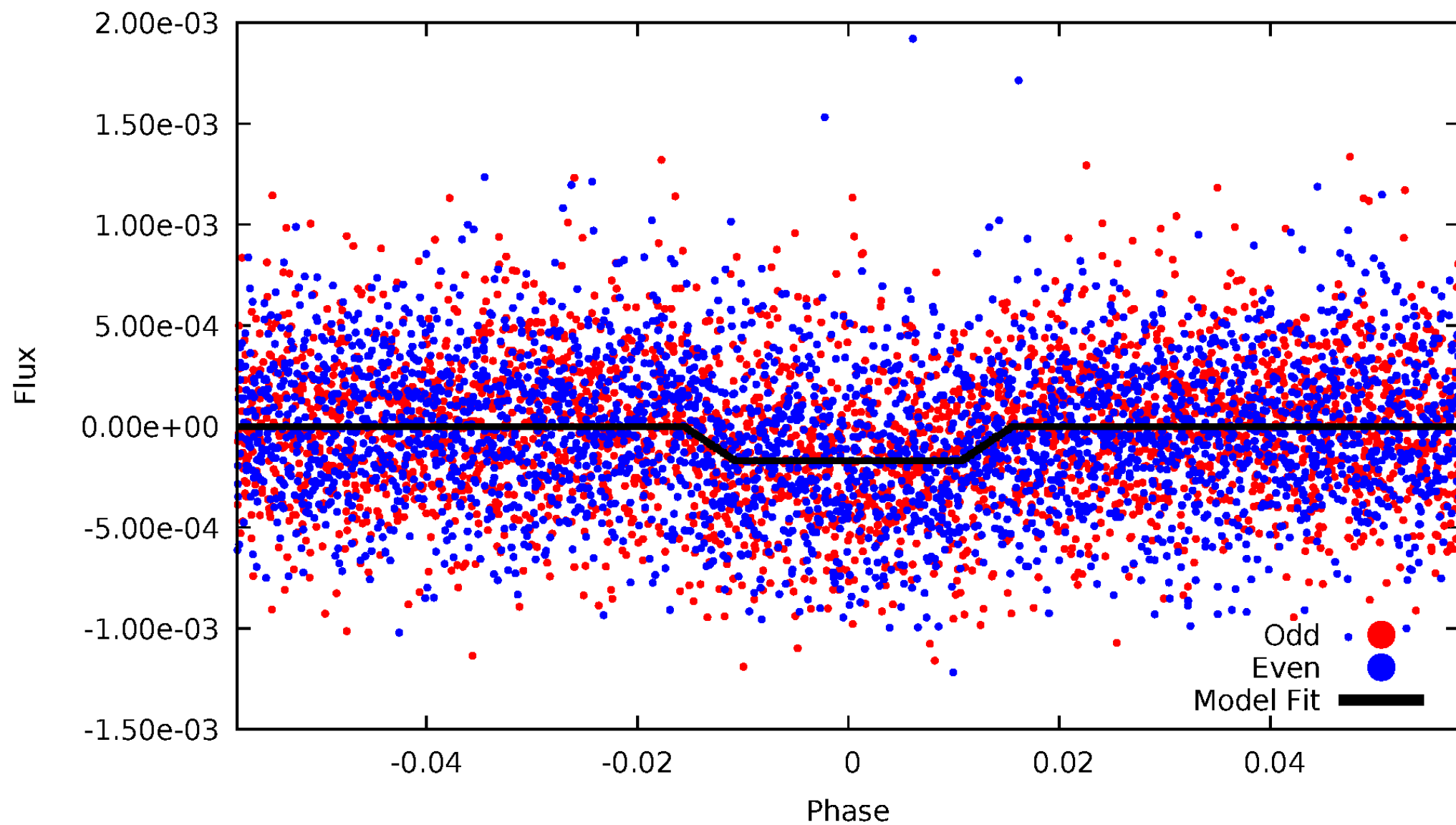
DV Odd/Even

TCE 003660924-01



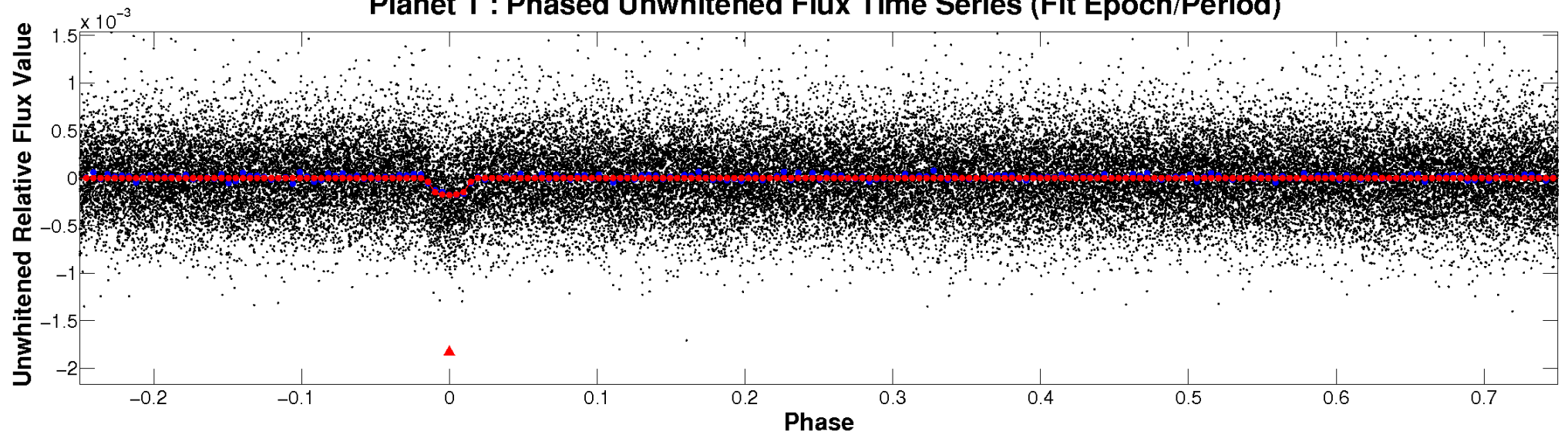
ALT Odd/Even

TCE 003660924-01

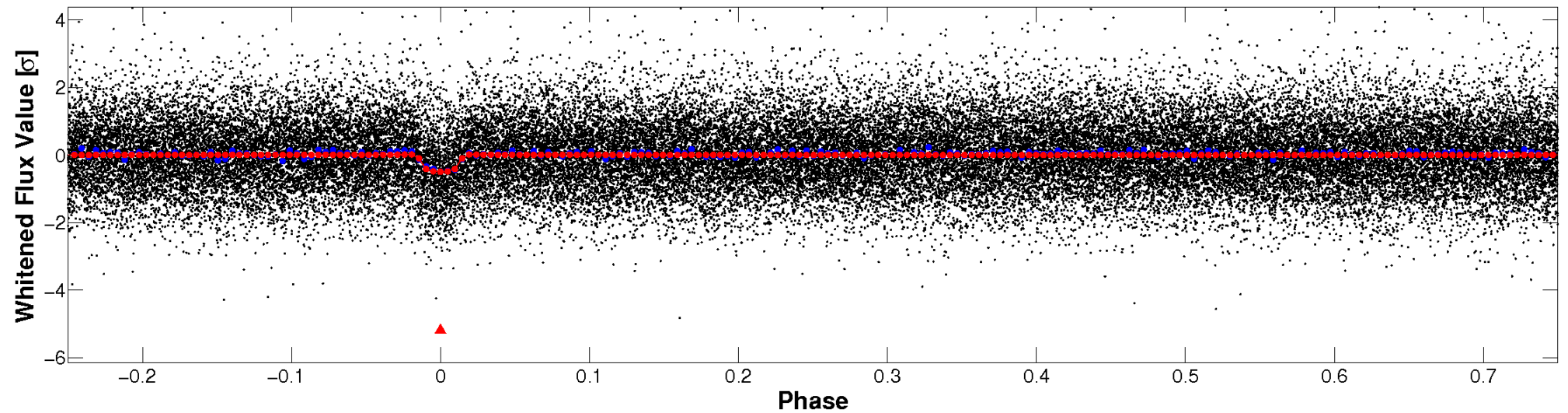


Non-Whitened Vs. Whitened Light Curve

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

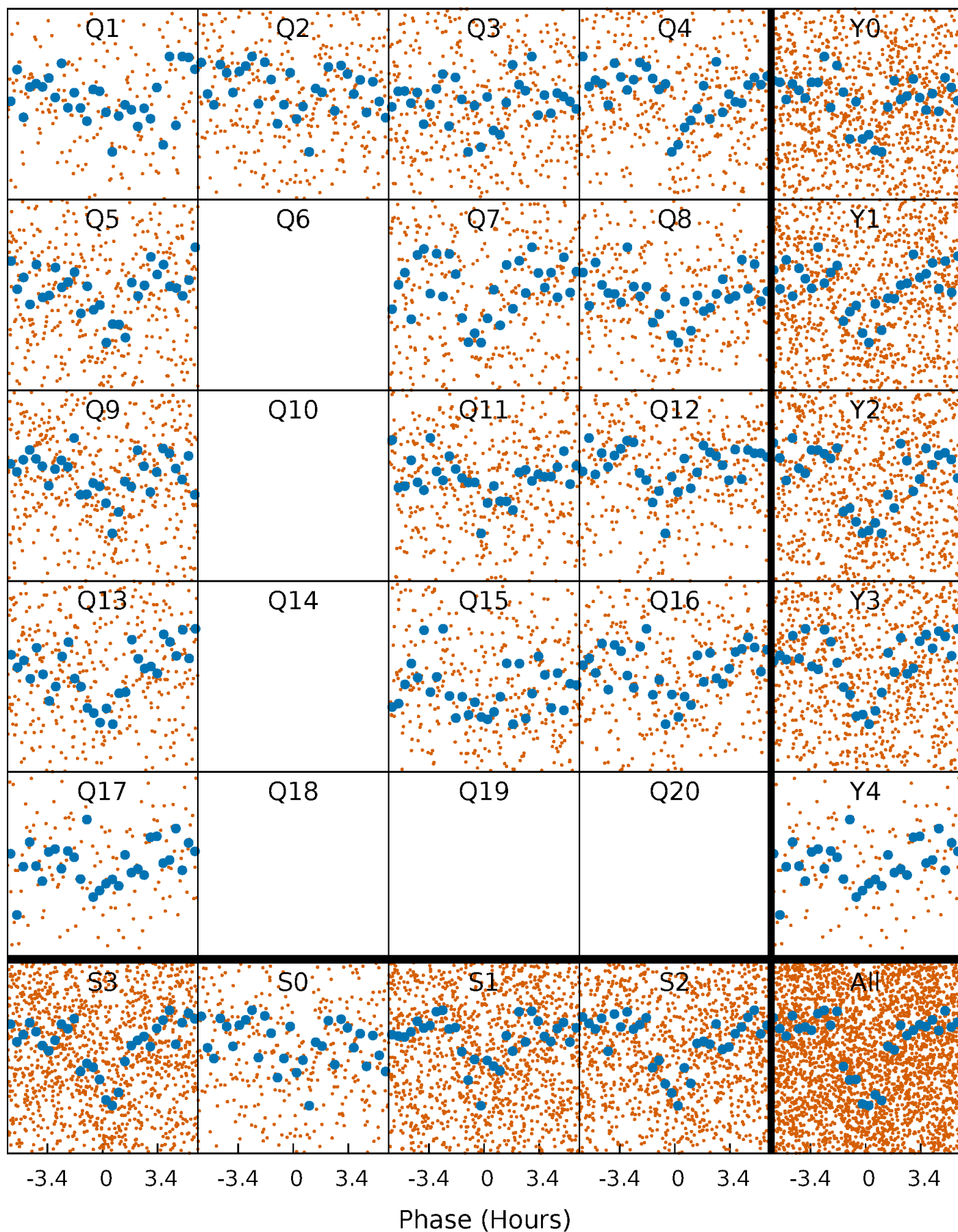


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



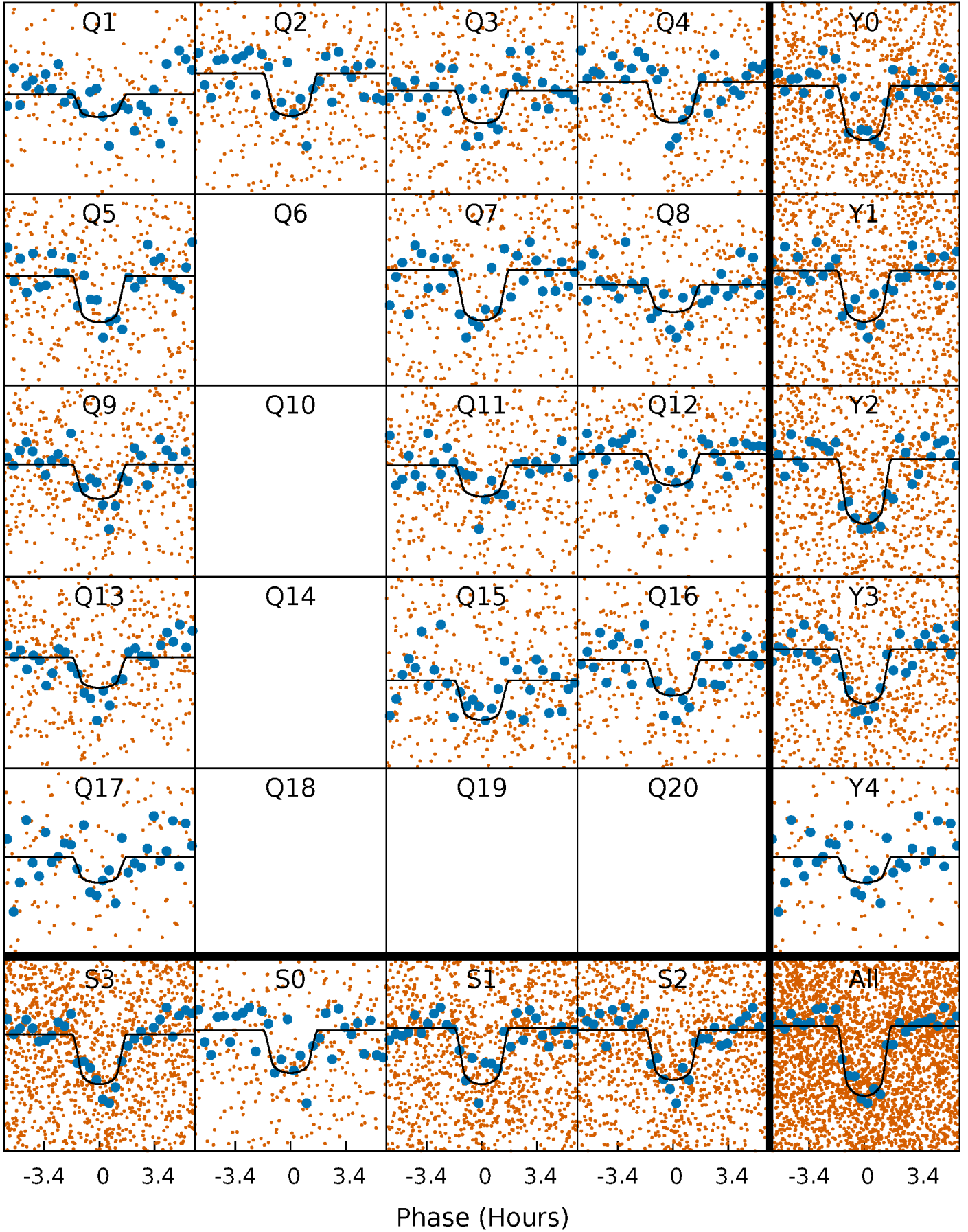
PDC Quarter-Phased Transit Curves

TCE 003660924-01 P= 4.241579 Days $T_0=133.449939$ (BKJD)



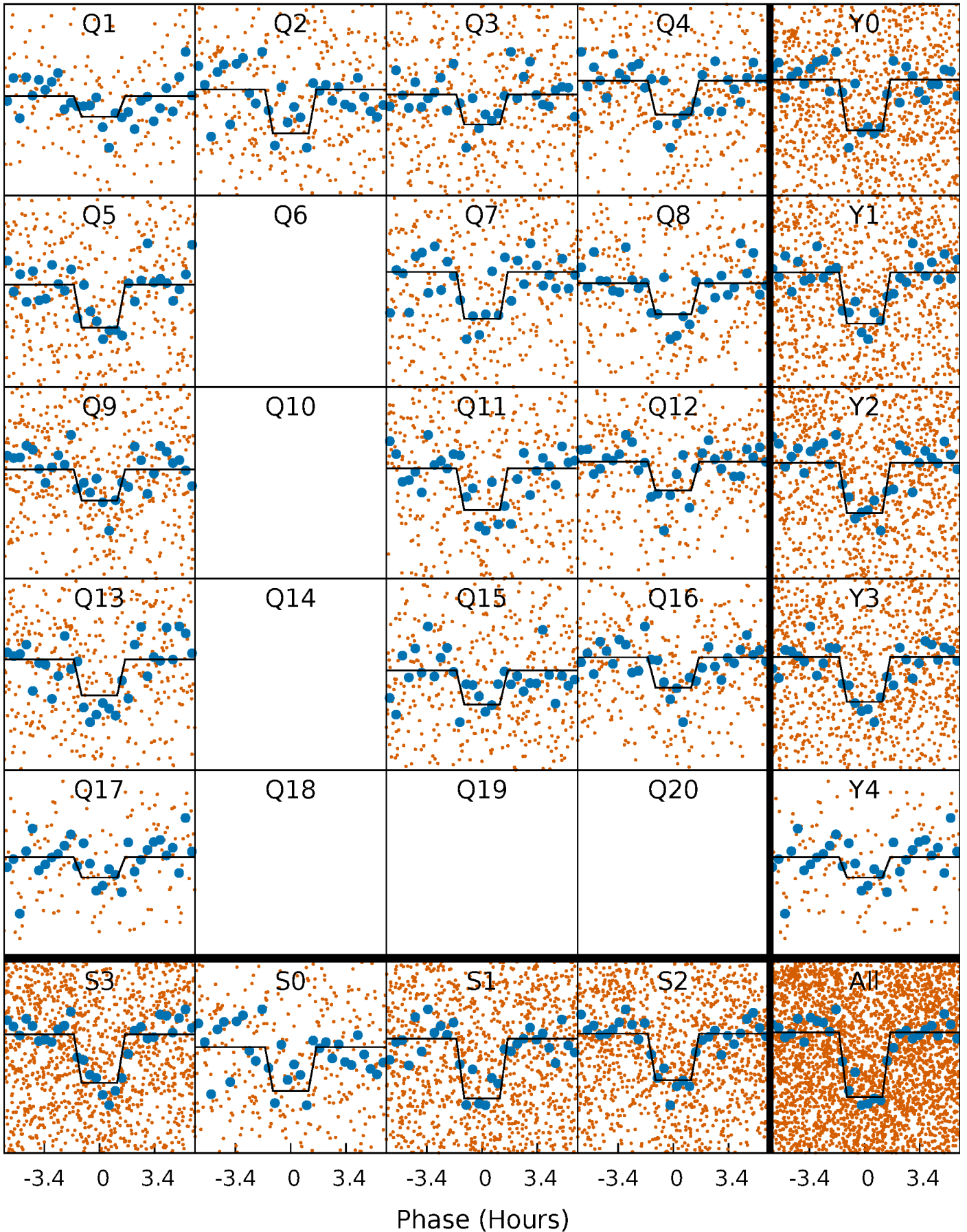
DV Quarter-Phased Transit Curves

TCE 003660924-01 P= 4.241579 Days $T_0=133.449939$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

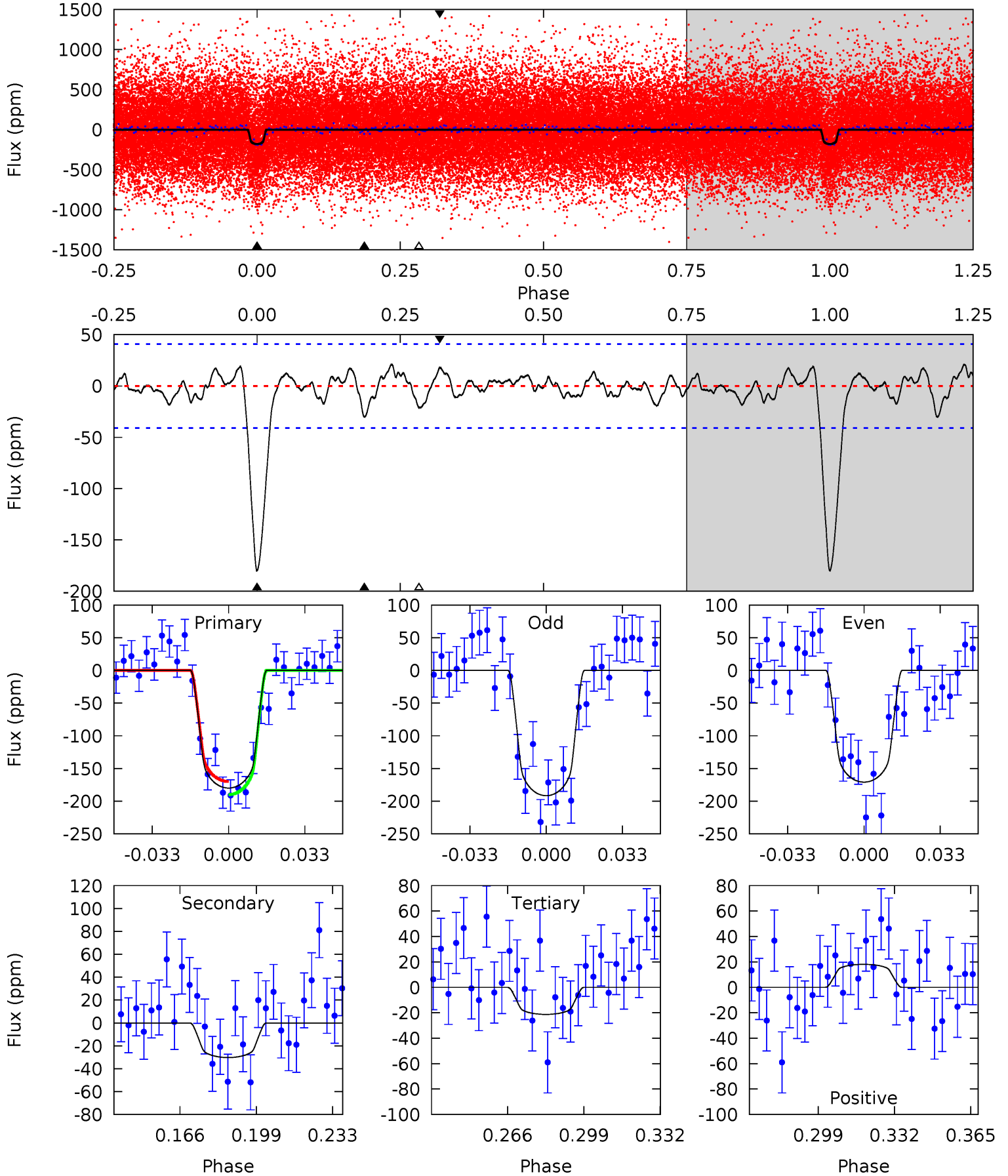
TCE 003660924-01 P= 4.241534 Days $T_0=133.454615$ (BKJD)



DV Model-Shift Uniqueness Test

003660924-01, P = 4.241579 Days, E = 129.208360 Days

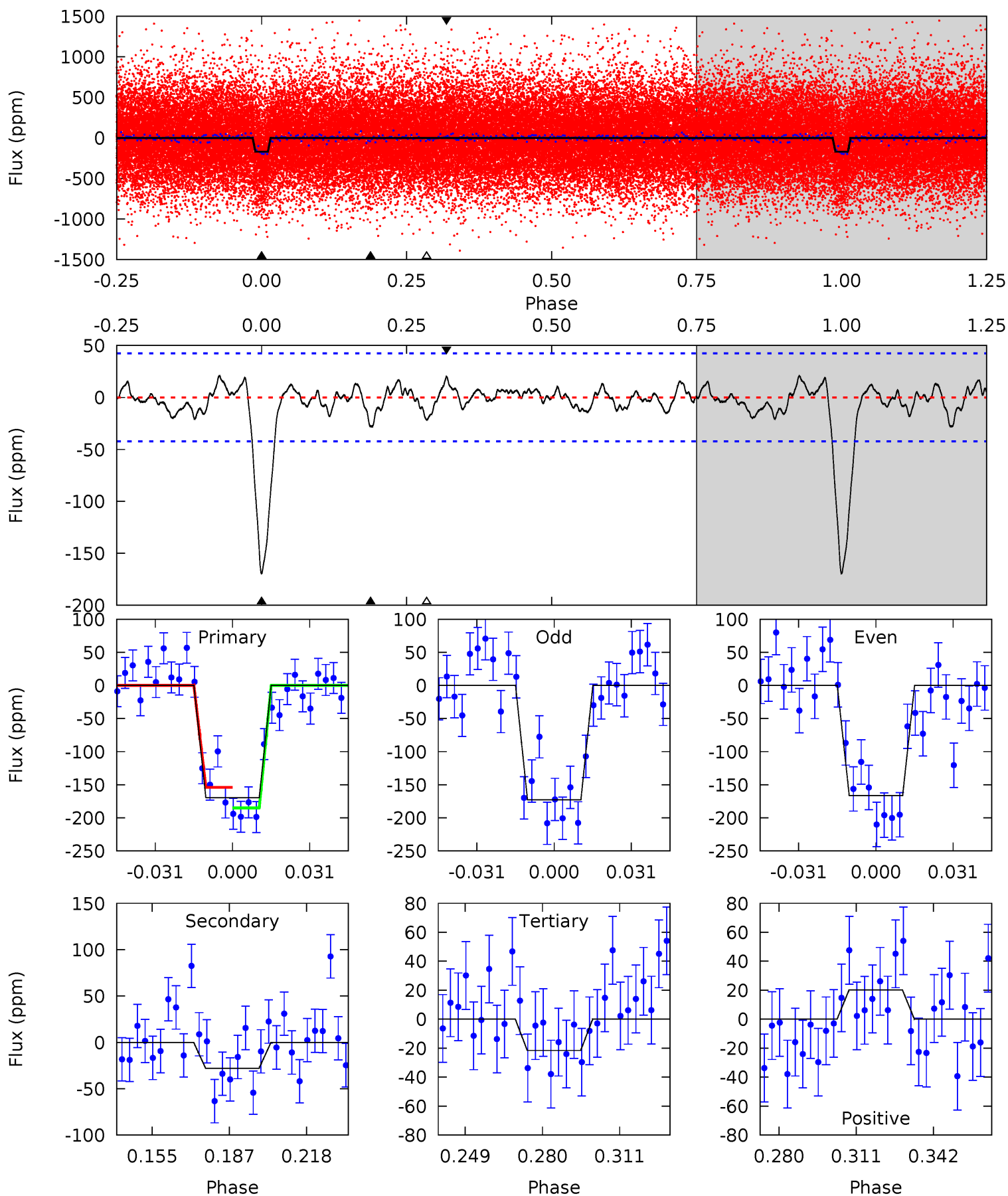
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.1	3.54	2.50	2.12	4.79	2.13	0.98	18.6	19.0	1.05	1.42	1.22	1.00	0.10	1.18



Alt Model-Shift Uniqueness Test

003660924-01, P = 4.241534 Days, E = 129.213081 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	3.18	2.45	2.29	4.80	2.16	0.95	16.8	16.9	0.72	0.89	0.36	1.05	0.11	1.76



Stellar Parameters For KIC 003660924

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5776^{+172}_{-155}	$4.340^{+0.185}_{-0.185}$	$-0.240^{+0.300}_{-0.300}$	$1.047^{+0.283}_{-0.206}$	$0.875^{+0.130}_{-0.080}$	$1.074^{+0.970}_{-0.544}$
	+3%/-3%	+4%/-4%	+125%/-125%	+27%/-20%	+15%/-9%	+90%/-51%
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 003660924-01 / KOI 1214.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-30 ± 9	$1.67^{+0.70}_{-0.68}$	1647^{+127}_{-113}	3858^{+849}_{-441}	14^{+28}_{-7}
Alt.	-28 ± 9	$1.48^{+0.69}_{-0.61}$	1646^{+115}_{-108}	3956^{+1018}_{-519}	17^{+36}_{-9}

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 $A_{obs} \gg 1.0$

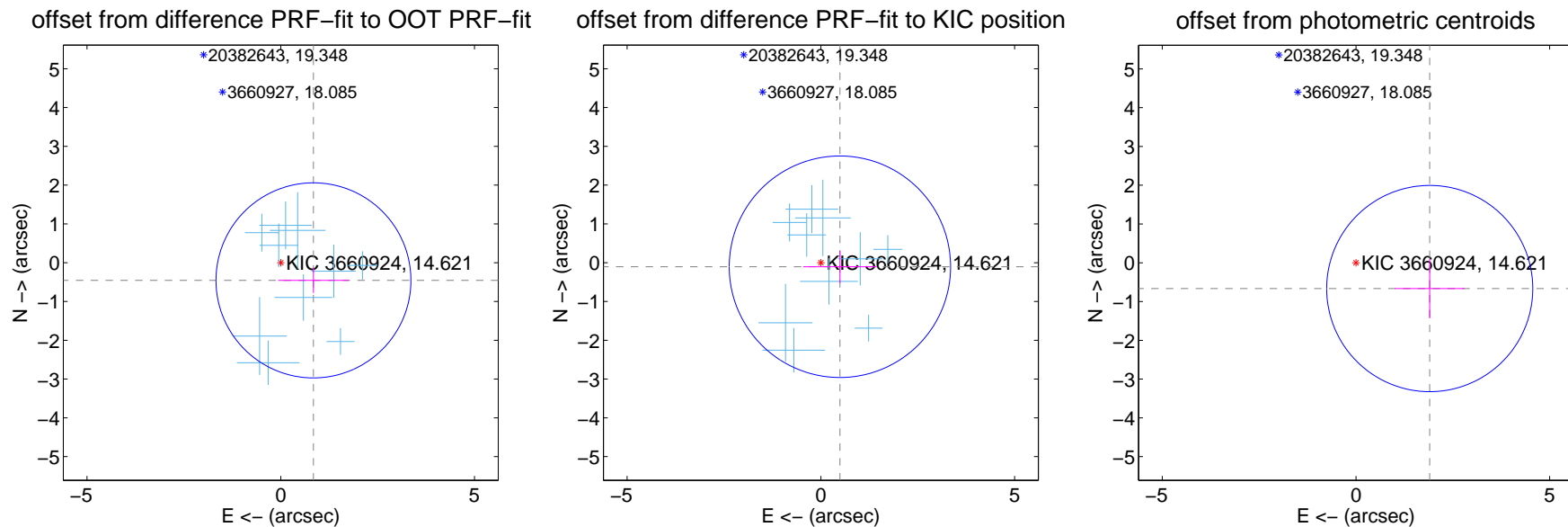
DV Centroid Data

Supplemental centroid analysis for 003660924-01. Kepler magnitude: 14.62. Transit SNR 15.89

There are 10 quarters with good PRF difference image offsets

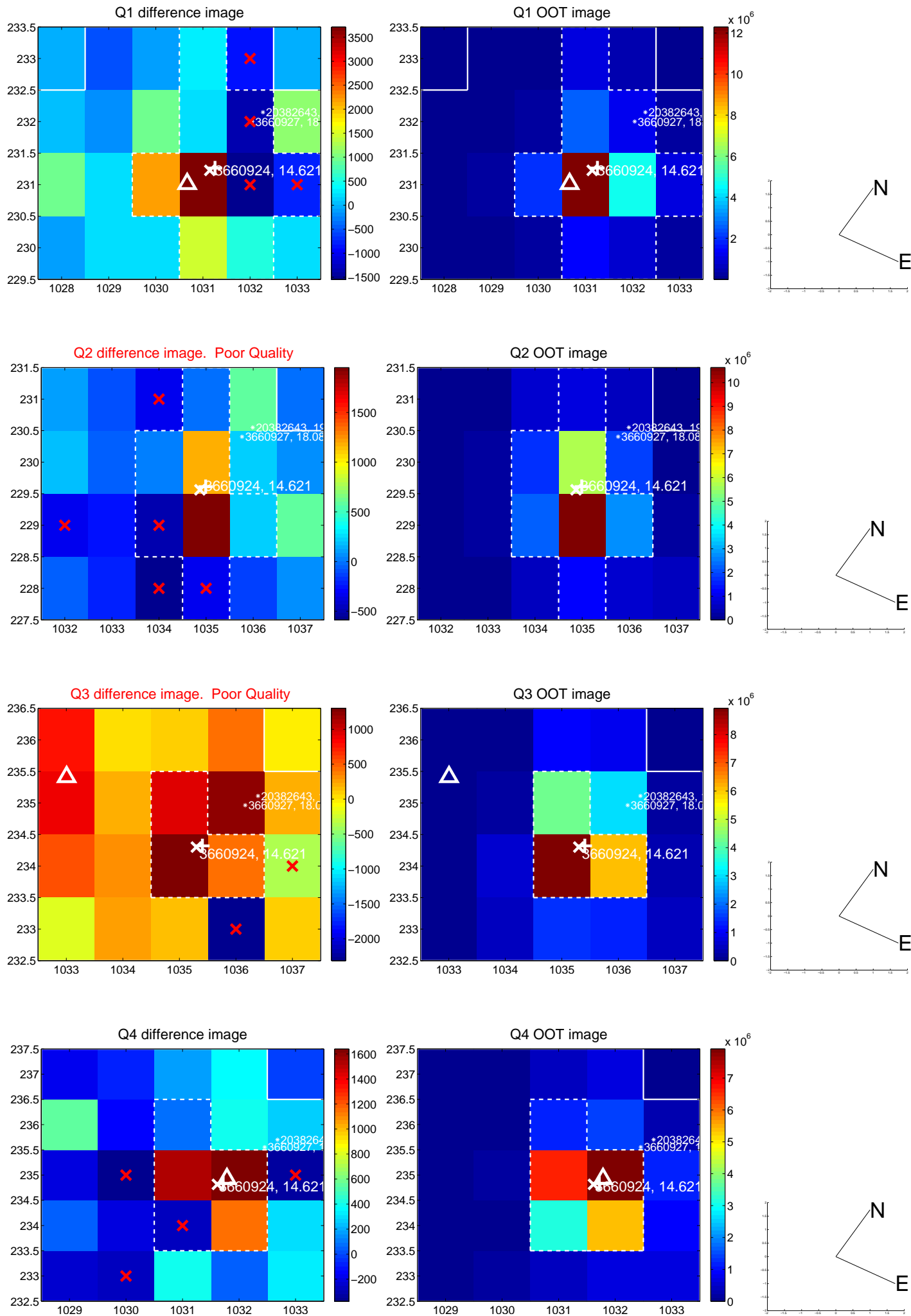
The direct PRF centroid is offset from the target star catalog position by about 0.47 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.959 ± 0.838	1.14	-0.844 ± 0.913	-0.456 ± 0.324
PRF-fit source offset from KIC position	0.503 ± 0.952	0.53	-0.492 ± 0.947	-0.105 ± 0.419
photometric centroid source offset	2.02 ± 0.89	2.27	-1.90 ± 0.90	-0.67 ± 0.77

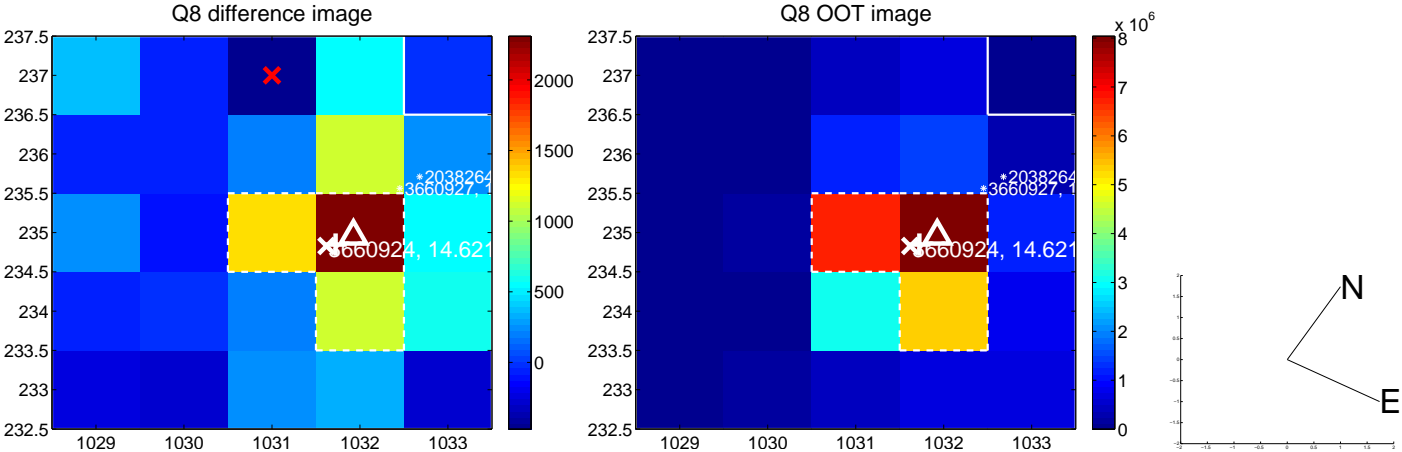
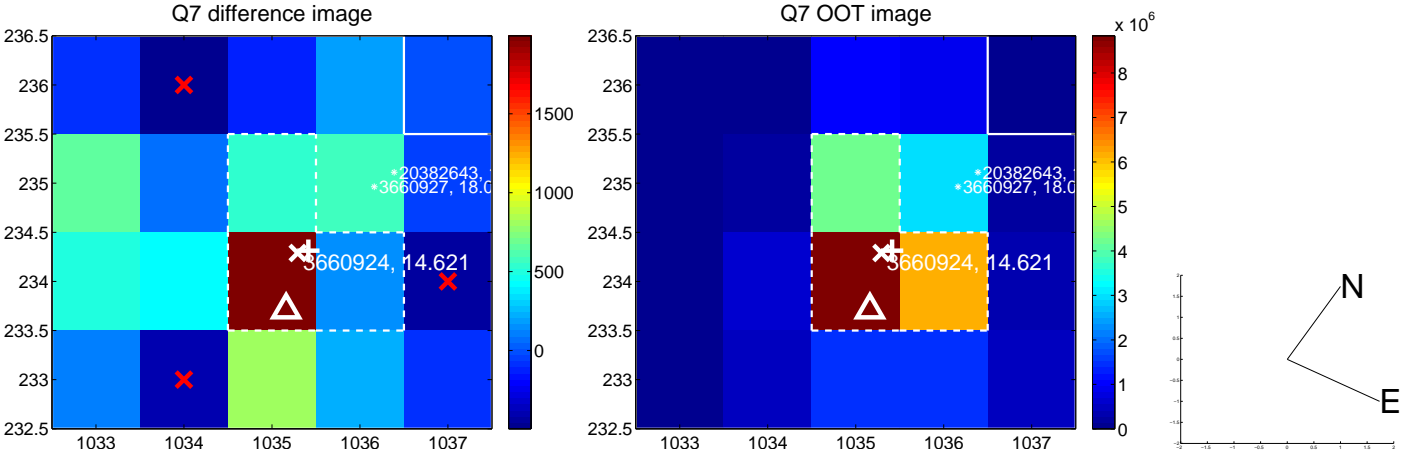
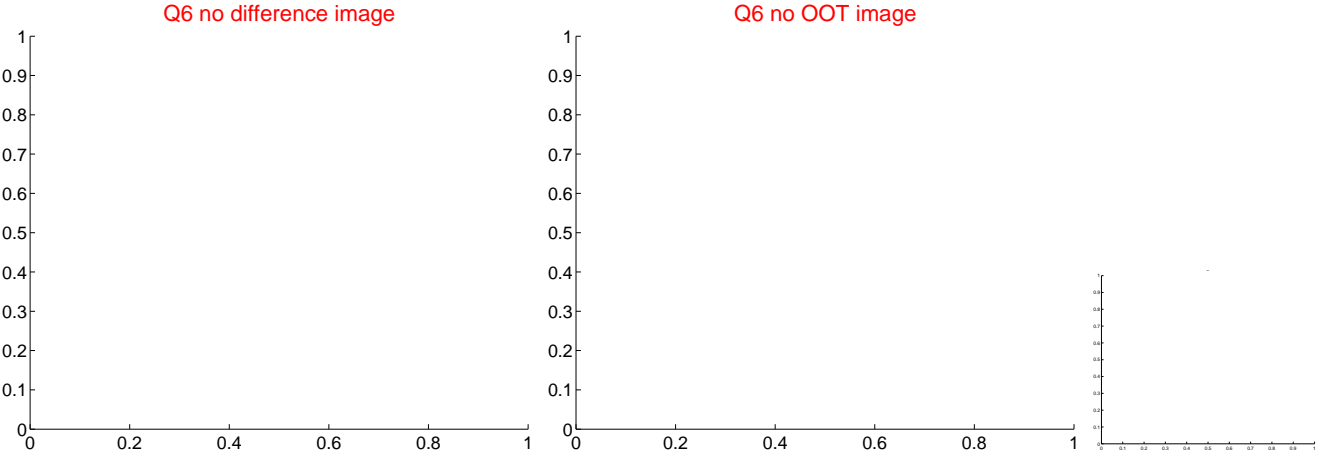
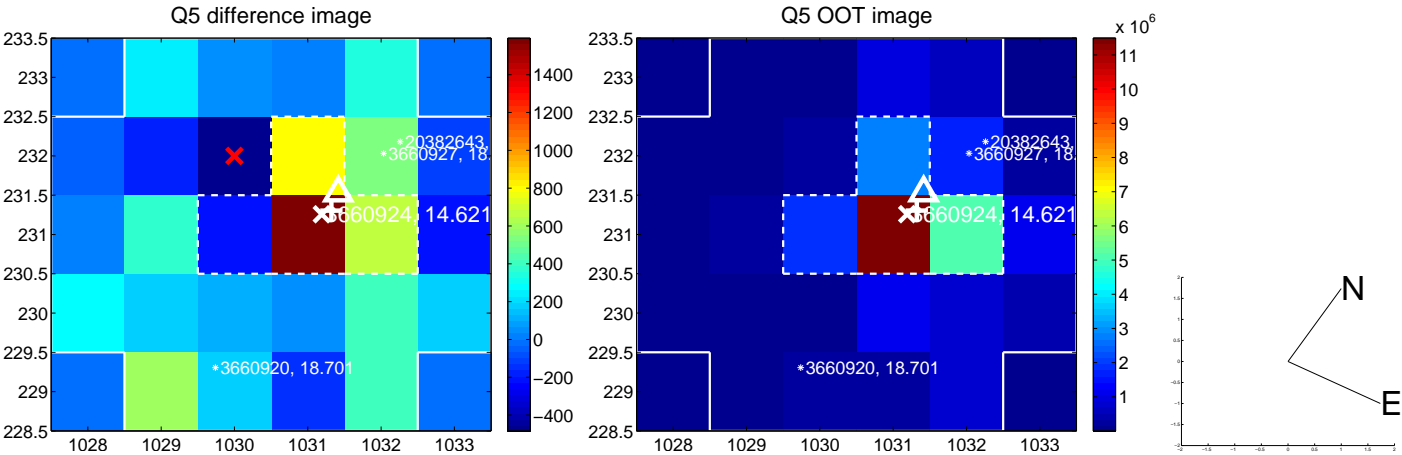


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

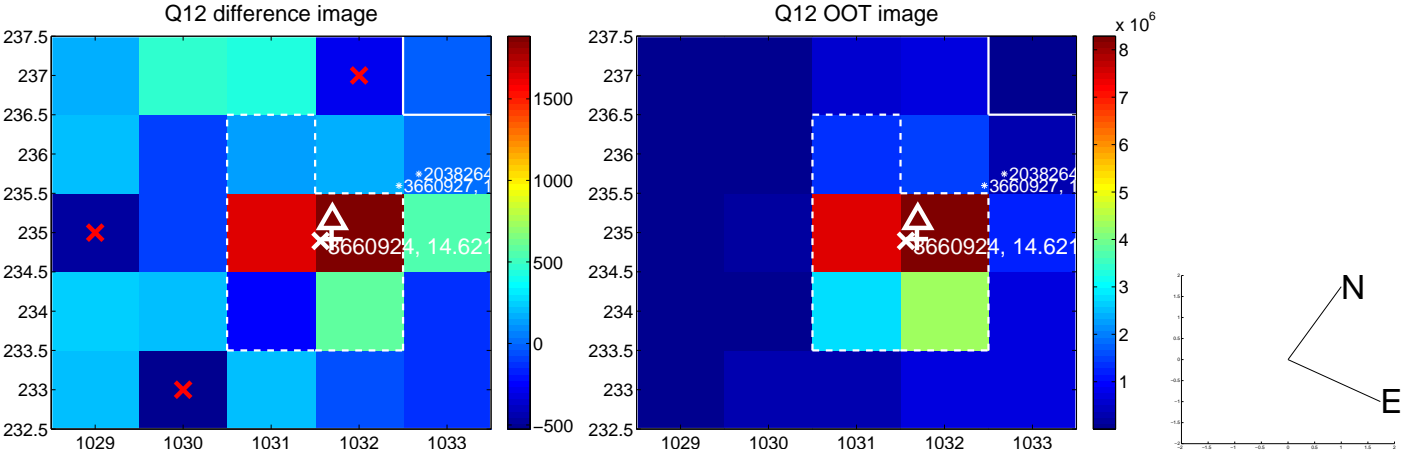
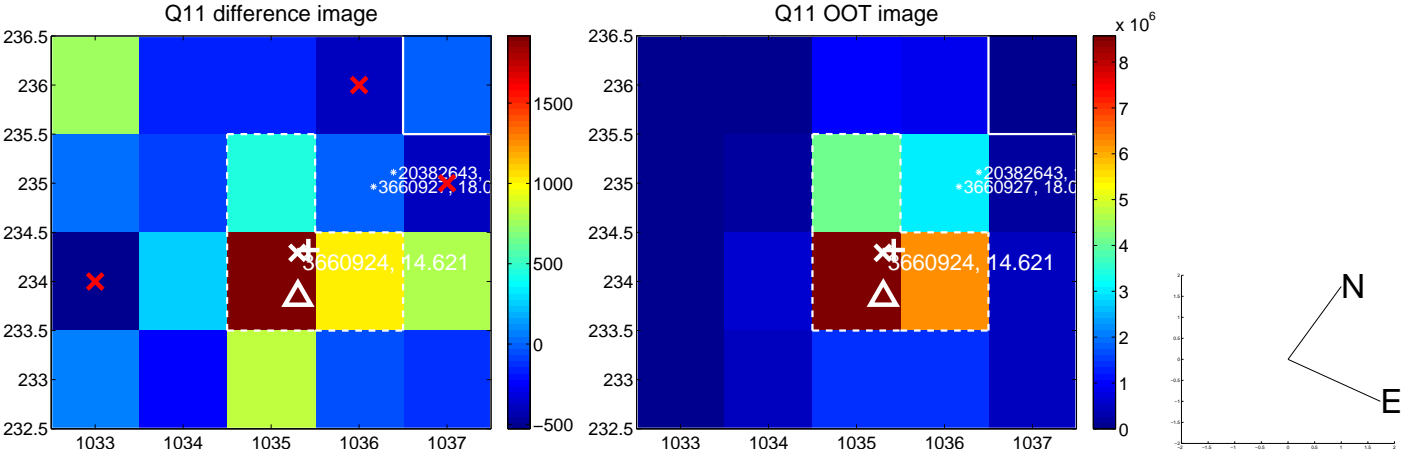
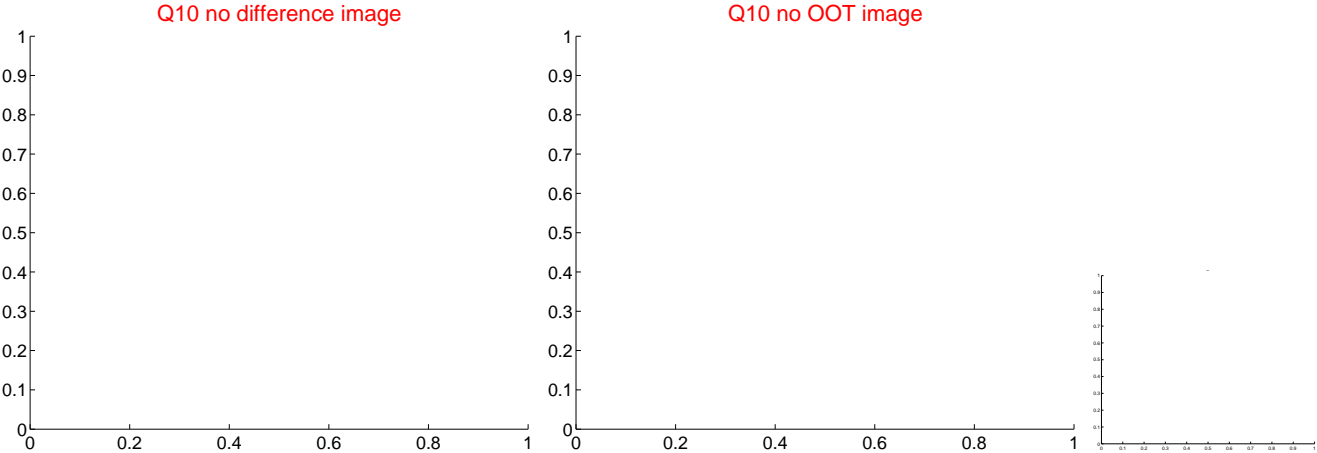
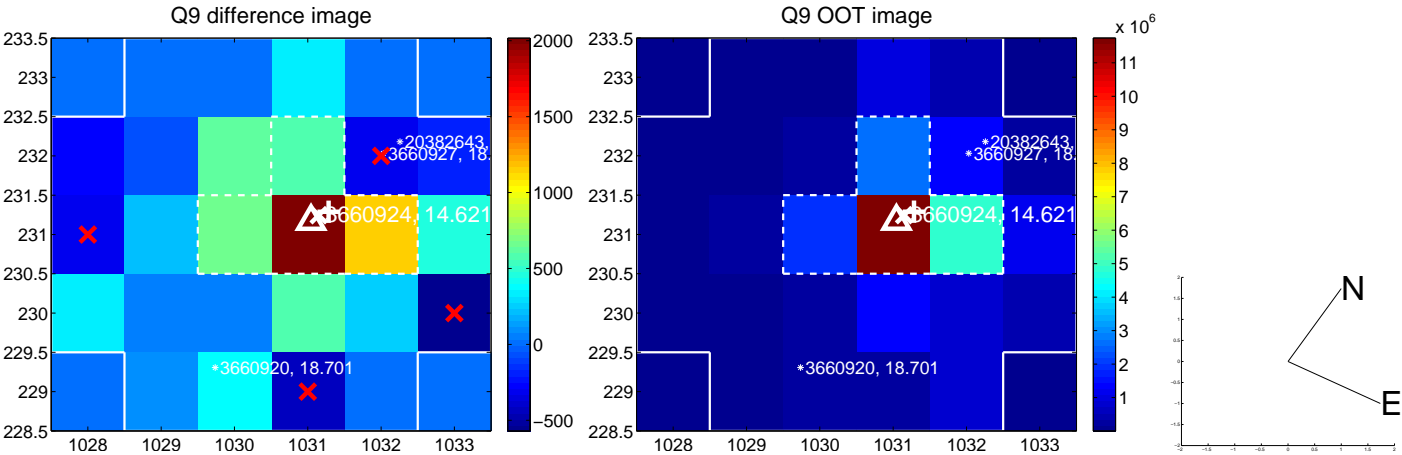
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



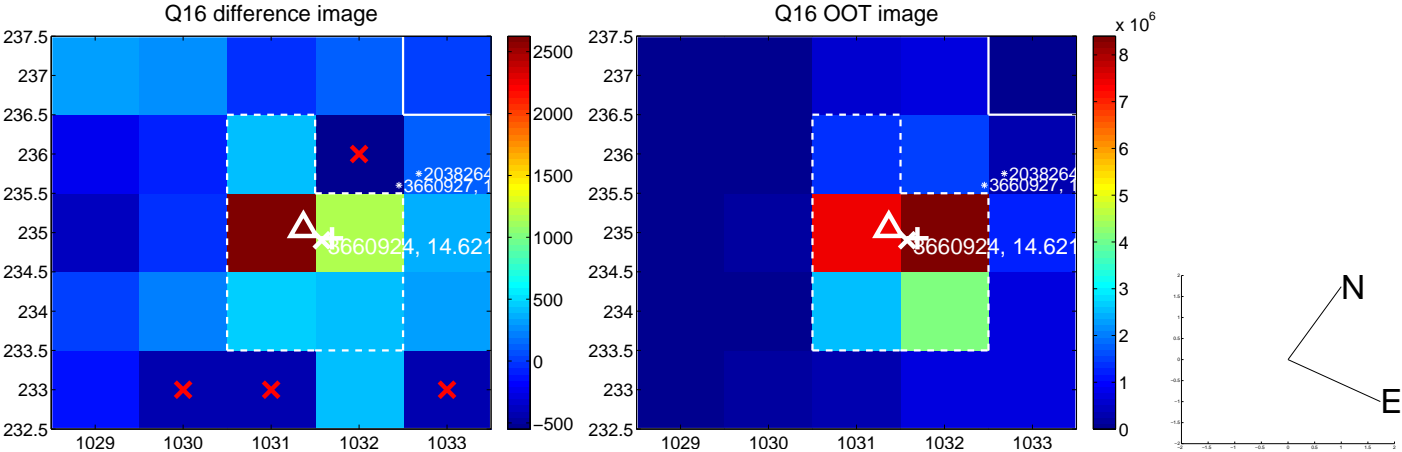
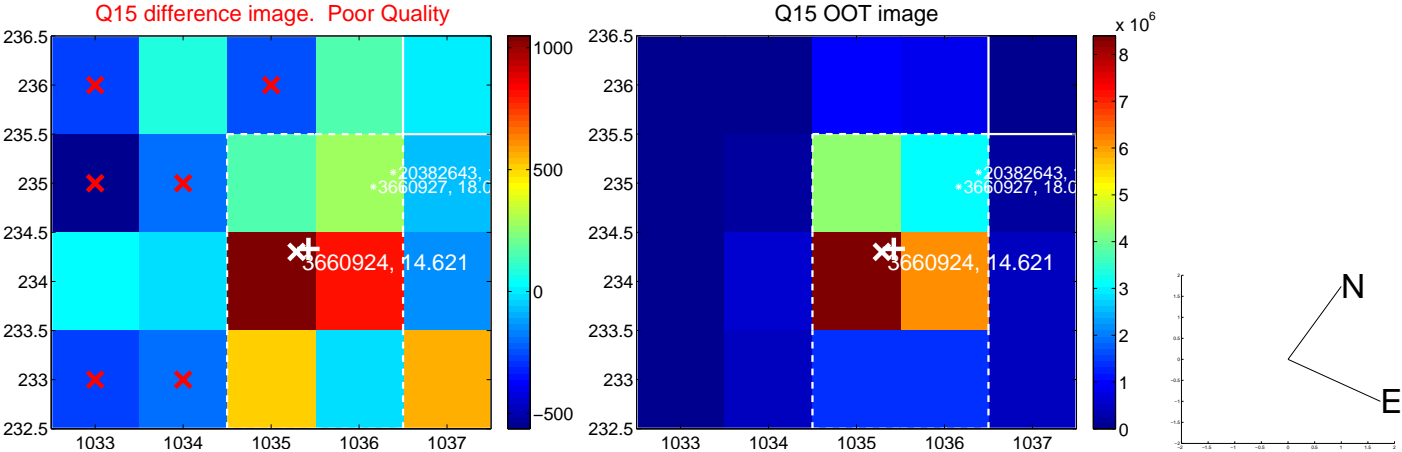
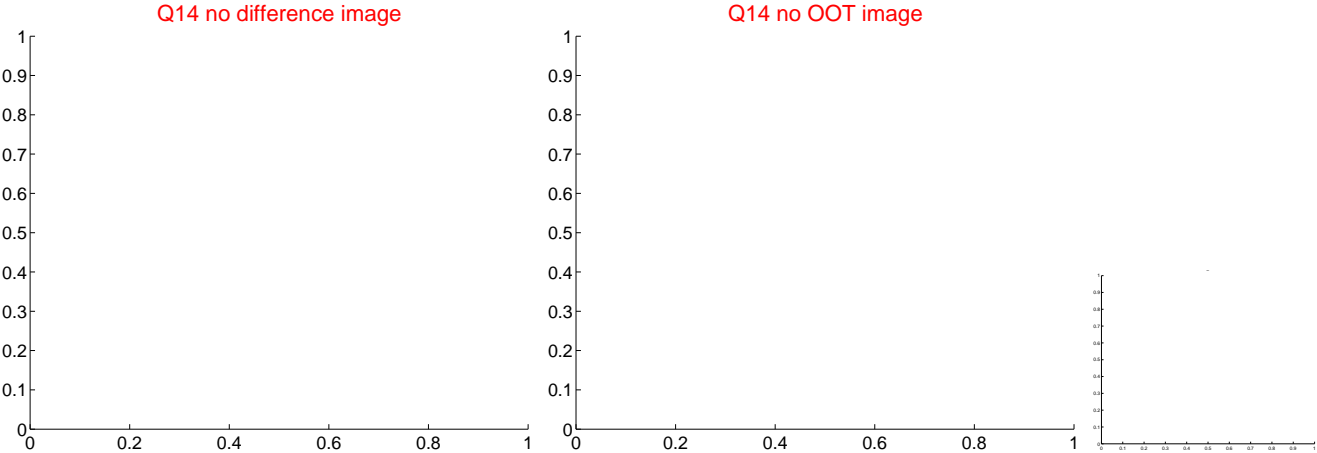
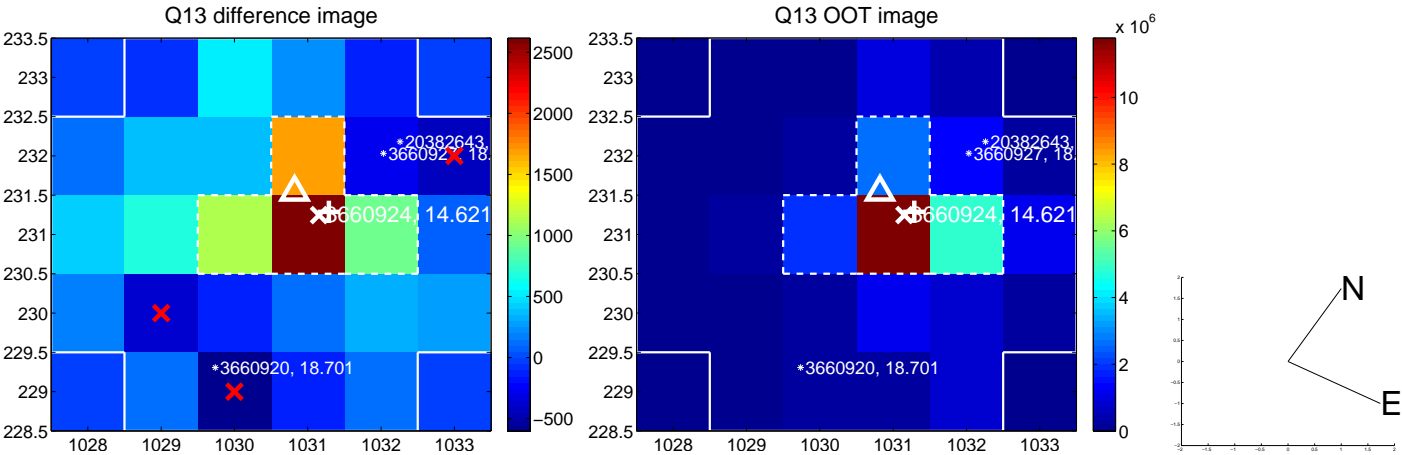
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



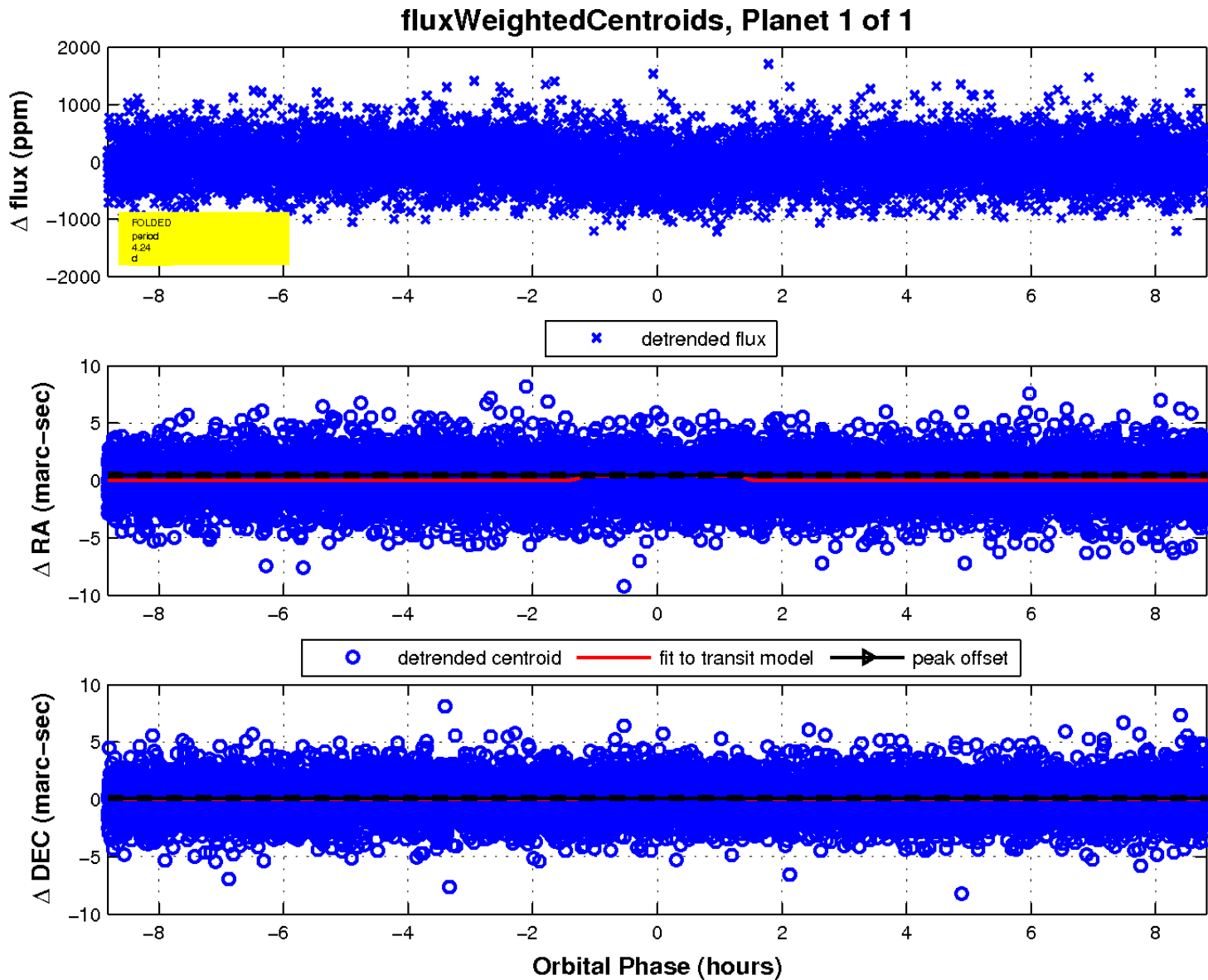
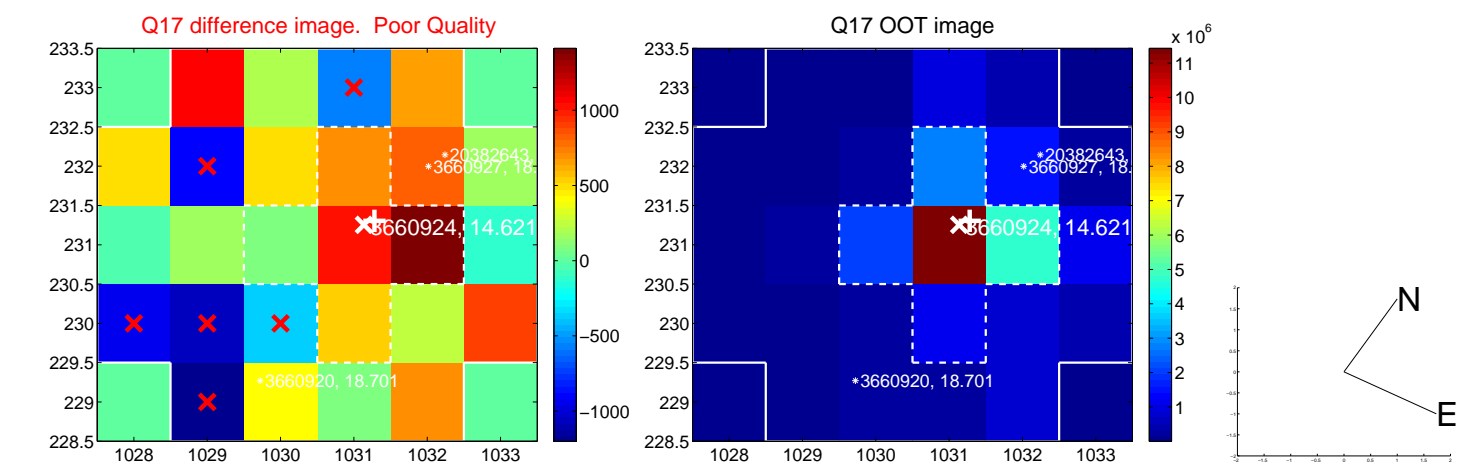
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UKIRT Image

Declination

