

KIC 009965691

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})
009965691-01	OBS	7267.01	15.684636	133.017936	747.5	43.958	38.8	76.4	2.19	6407	11.45	393.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009965691-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

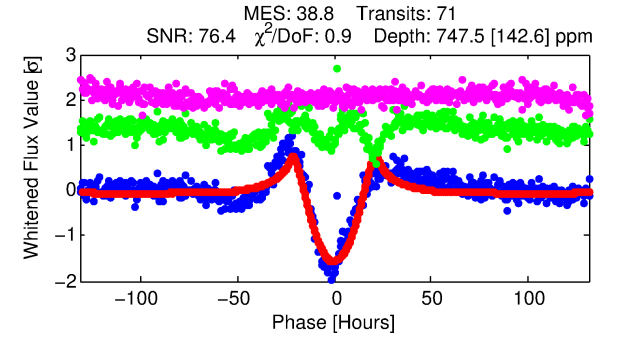
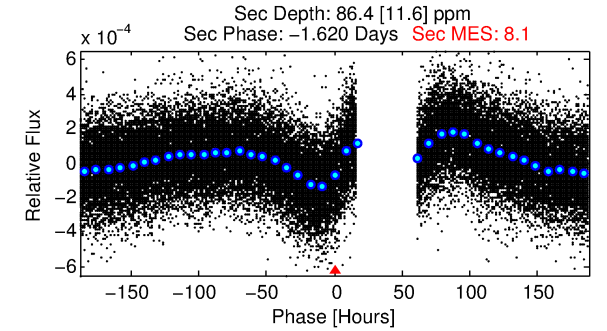
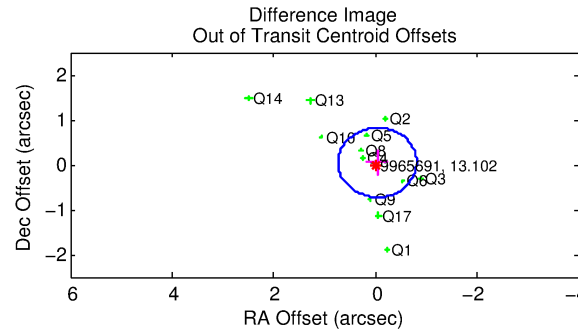
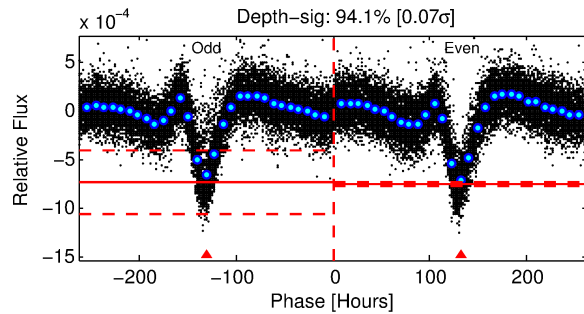
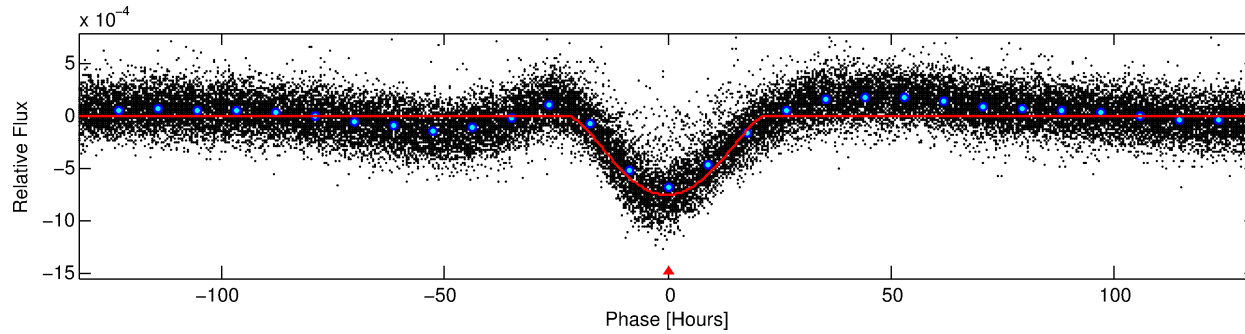
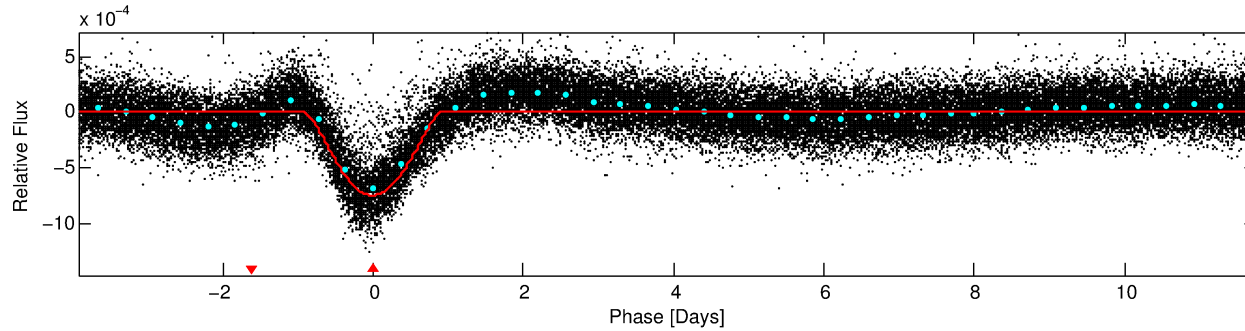
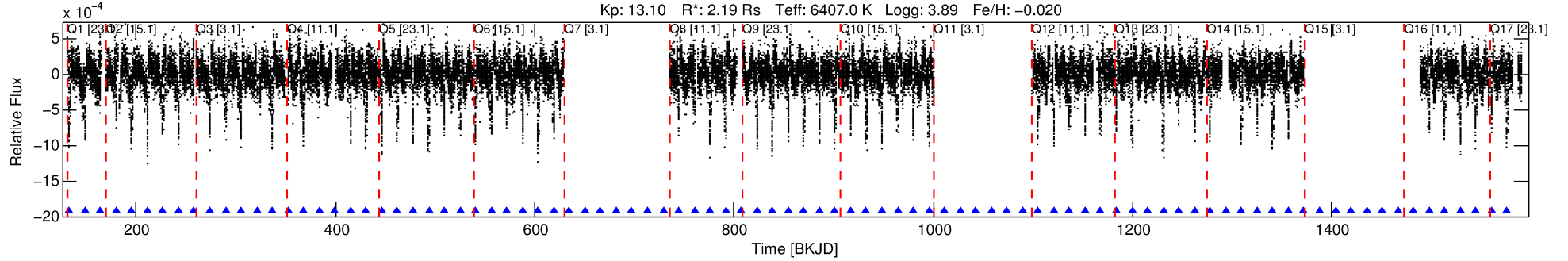
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009965691-01

No Significant Match Found

DV One-Page Summary

KIC: 9965691 Candidate: 1 of 1 Period: 15.685 d
KOI: K07267.01 Corr: 0.797



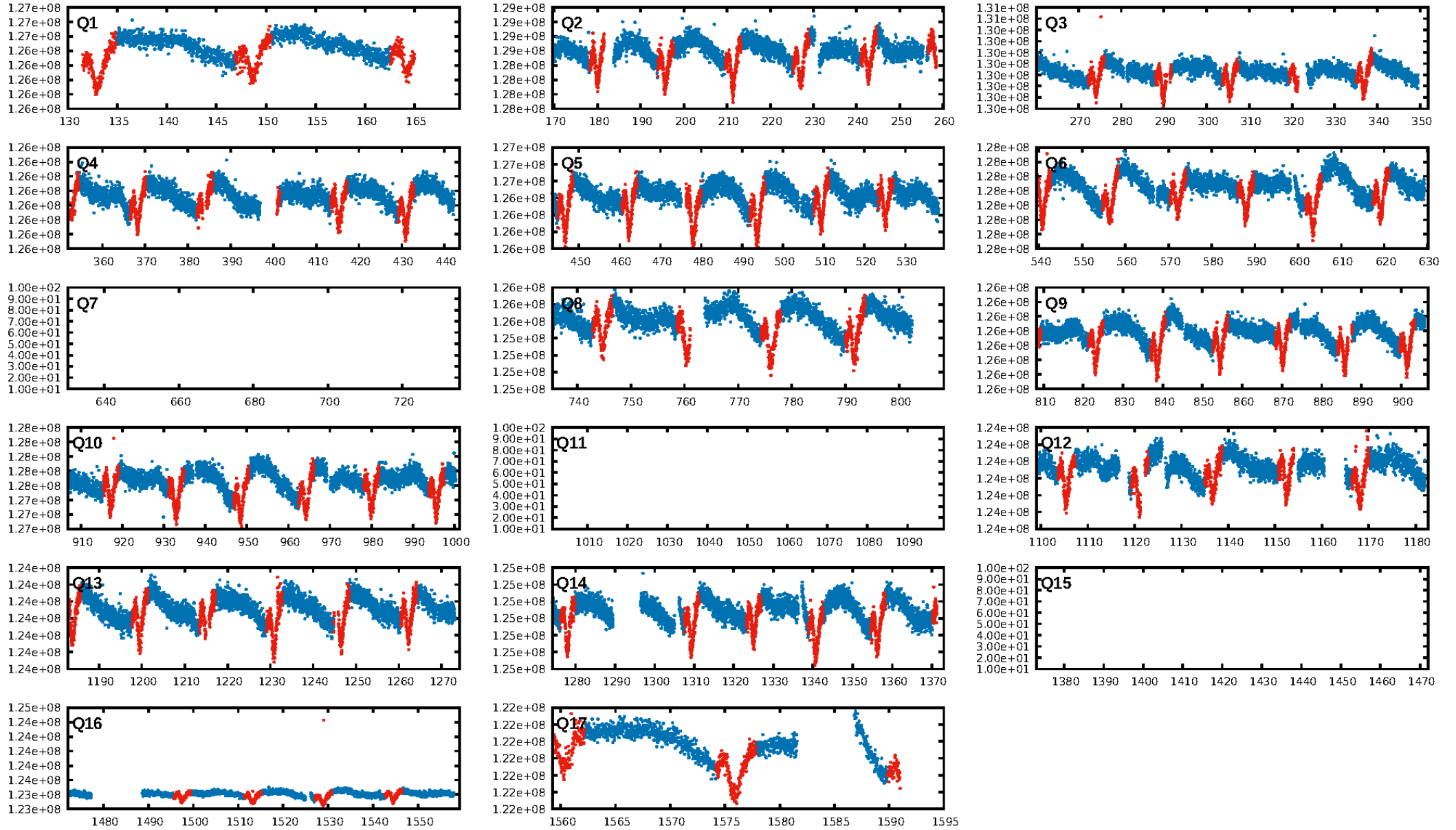
DV Fit Results:

Period = 15.68464 [0.00017] d
Epoch = 133.0179 [0.0084] BKJD
Rp/R* = 0.0479 [0.0092]
a/R* = 1.33 [0.02]
b = 1.00 [0.01]
Seff = 393.83 [189.96]
Teq = 1136 [137] K
Rp = 11.45 [4.26] Re
a = 0.1357 [0.0405] AU
Ag = 6.67 [4.14] [1.37 σ]
Teffp = 2822 [296] K [5.17 σ]

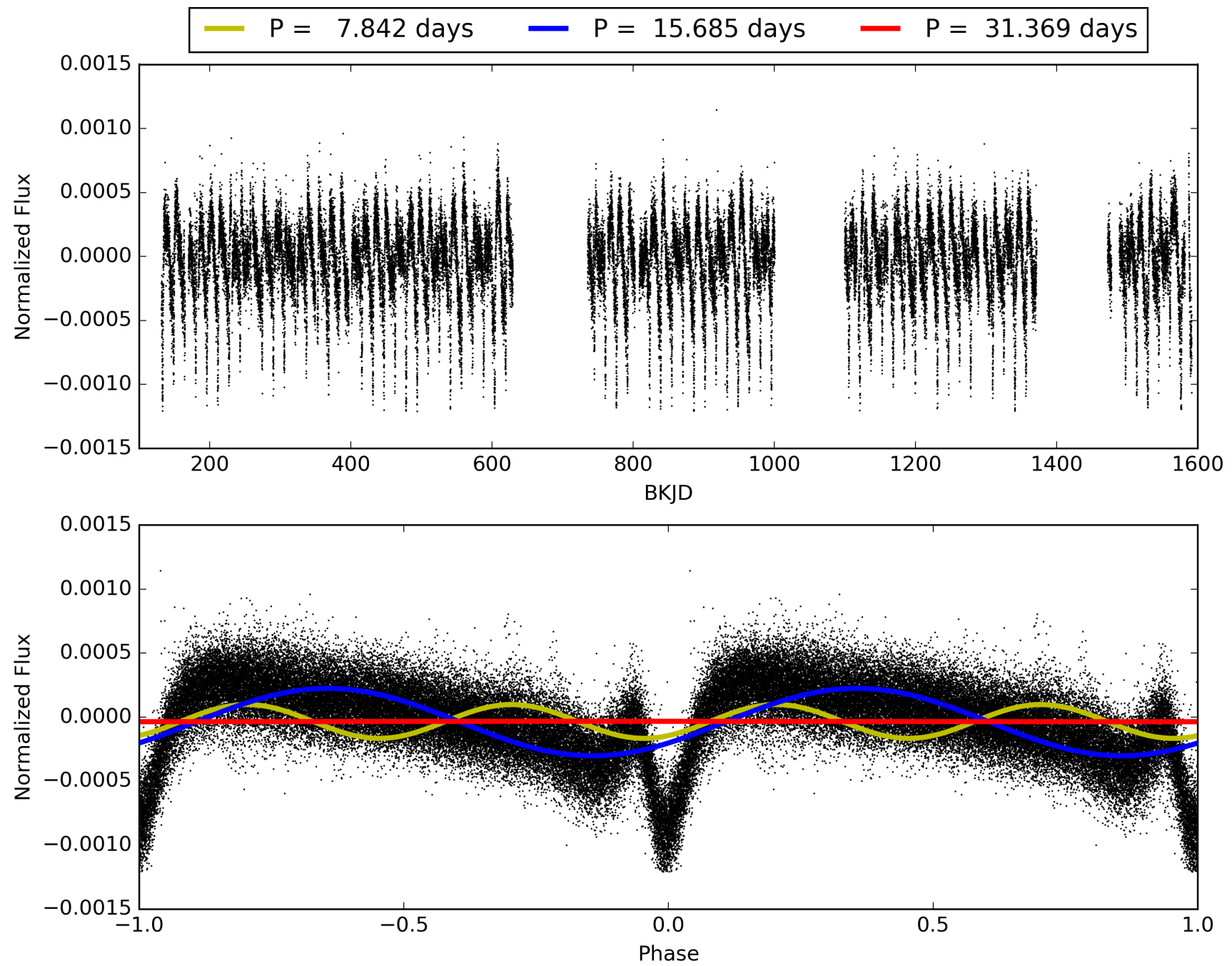
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [65/65]
GhostDiagnostic-chr: 1.754
Centroid-sig: 2.5%
Centroid-so: 0.300 arcsec [5.86 σ]
OotOffset-rm: 0.058 arcsec [0.23 σ]
KicOffset-rm: 0.206 arcsec [0.65 σ]
OotOffset-st: 4/1/2/5 [12]
KicOffset-st: 4/1/2/5 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [12/12]

TCE 009965691-01, PDC Light Curves

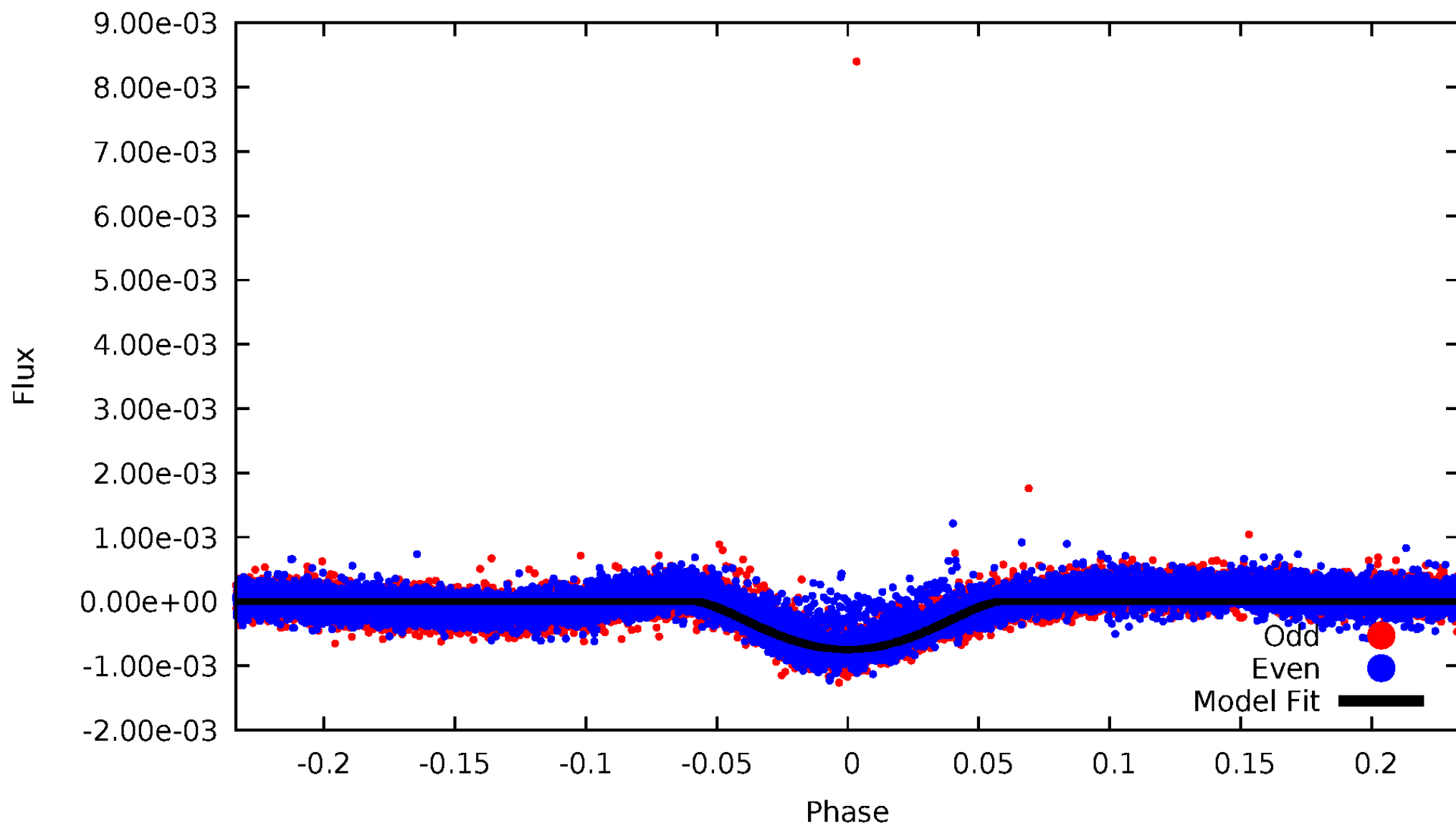


TCE 009965691-01



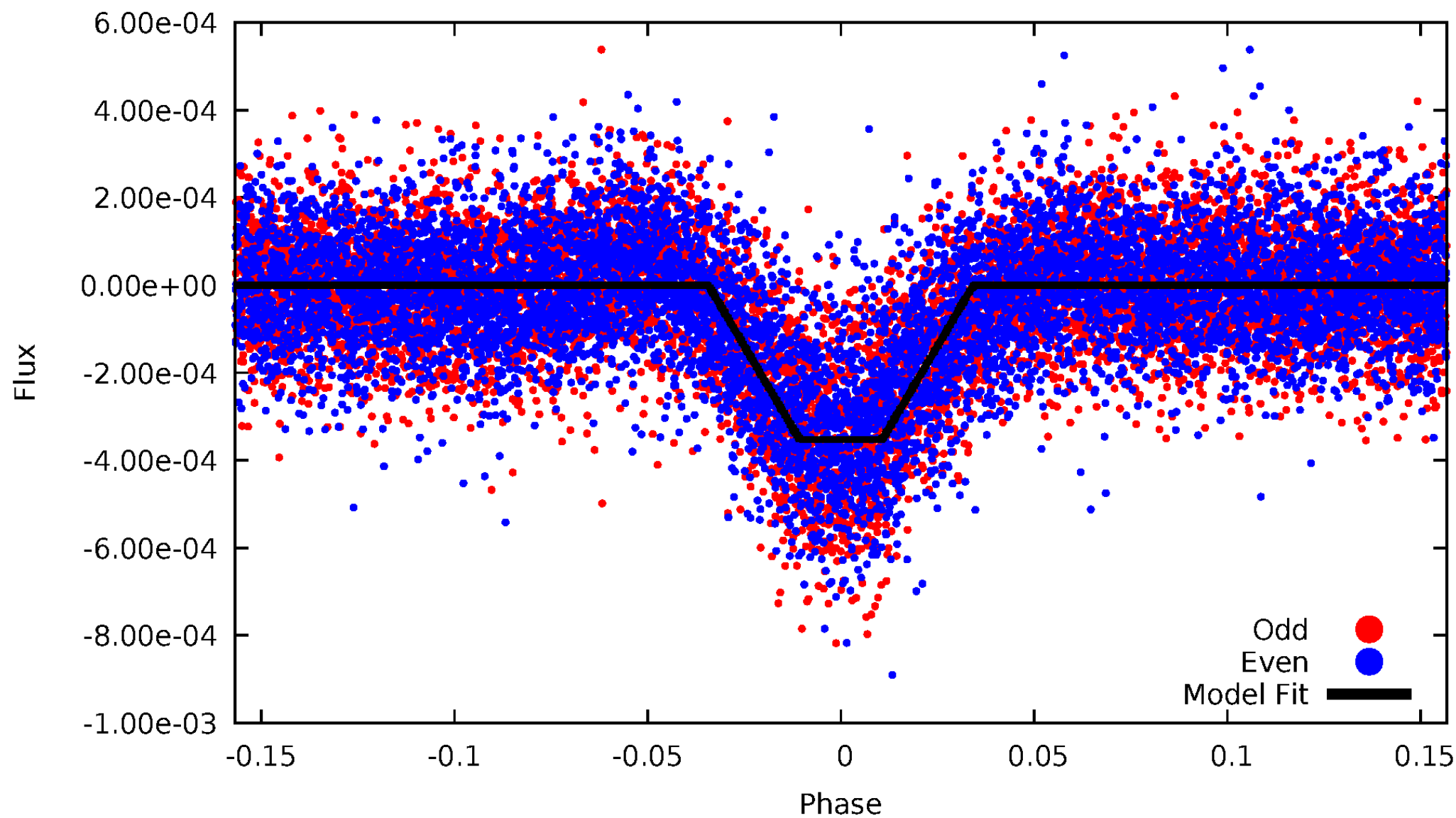
DV Odd/Even

TCE 009965691-01



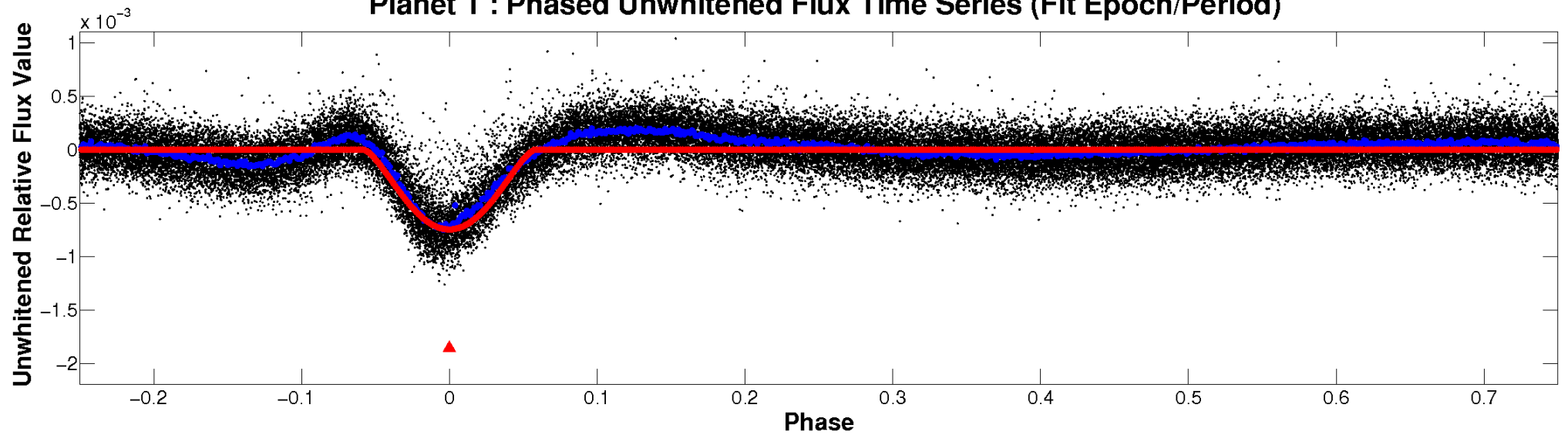
ALT Odd/Even

TCE 009965691-01

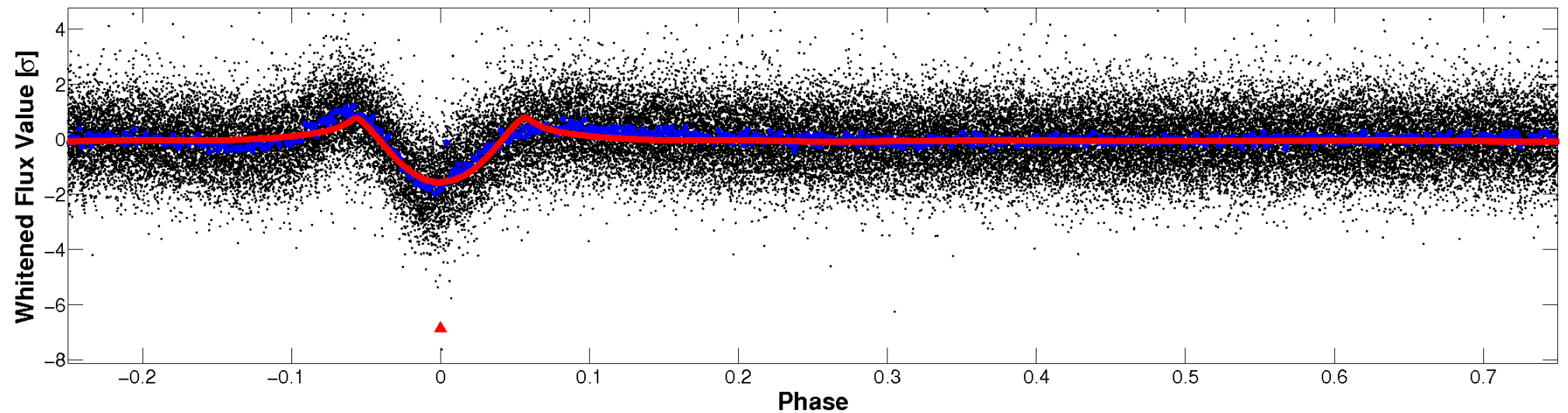


Non-Whitened Vs. Whitened Light Curve

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

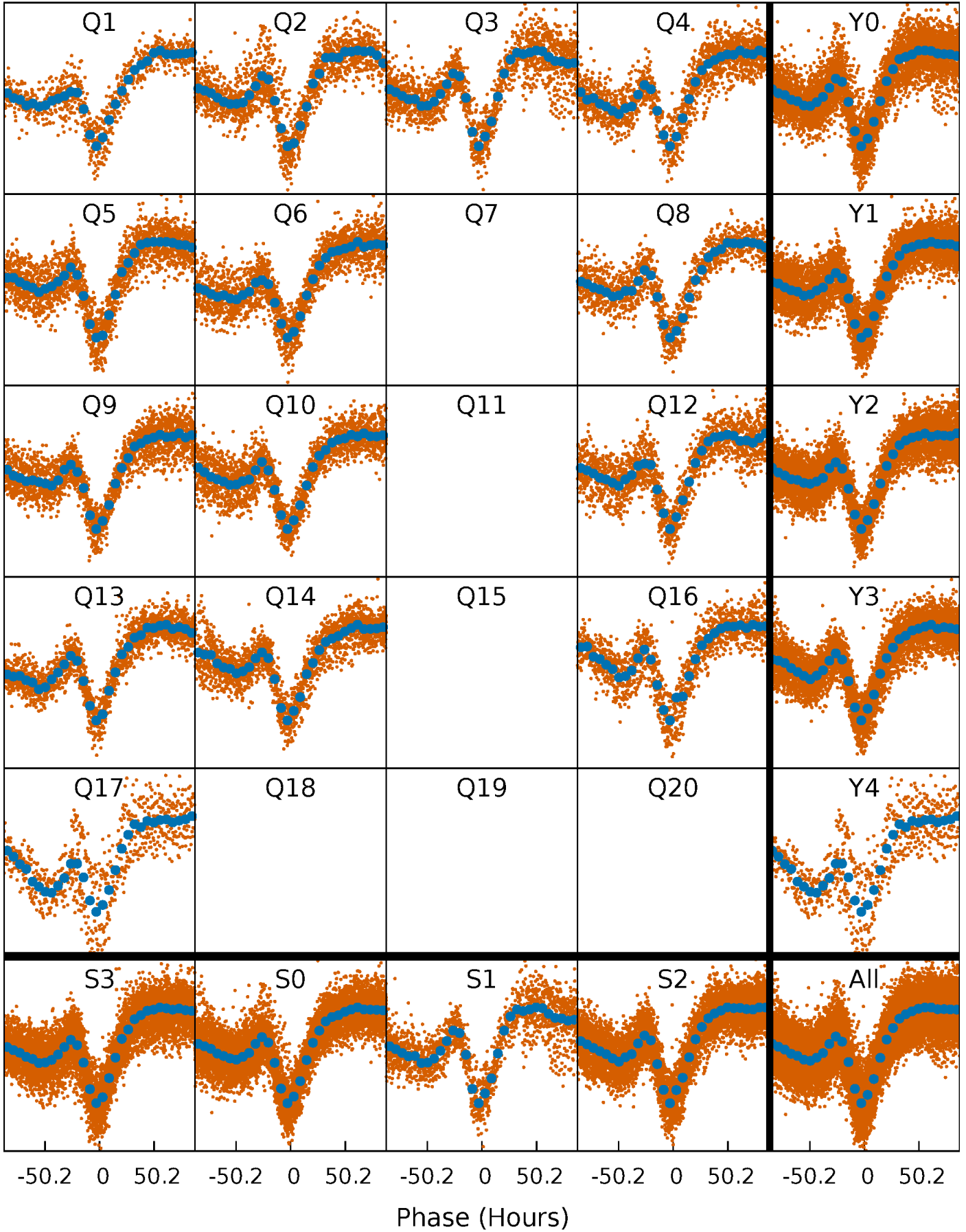


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



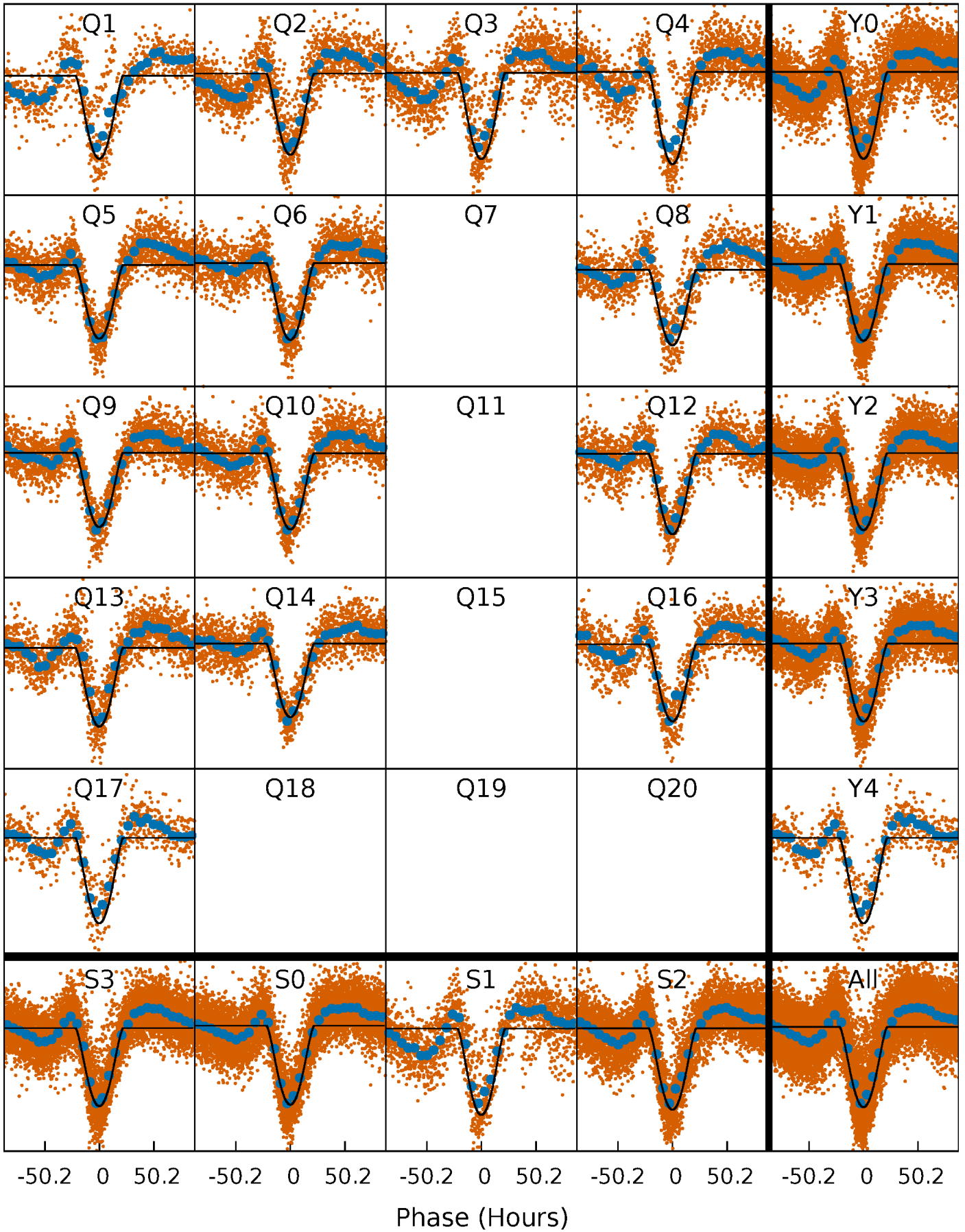
PDC Quarter-Phased Transit Curves

TCE 009965691-01 P= 15.684636 Days $T_0=133.017936$ (BKJD)



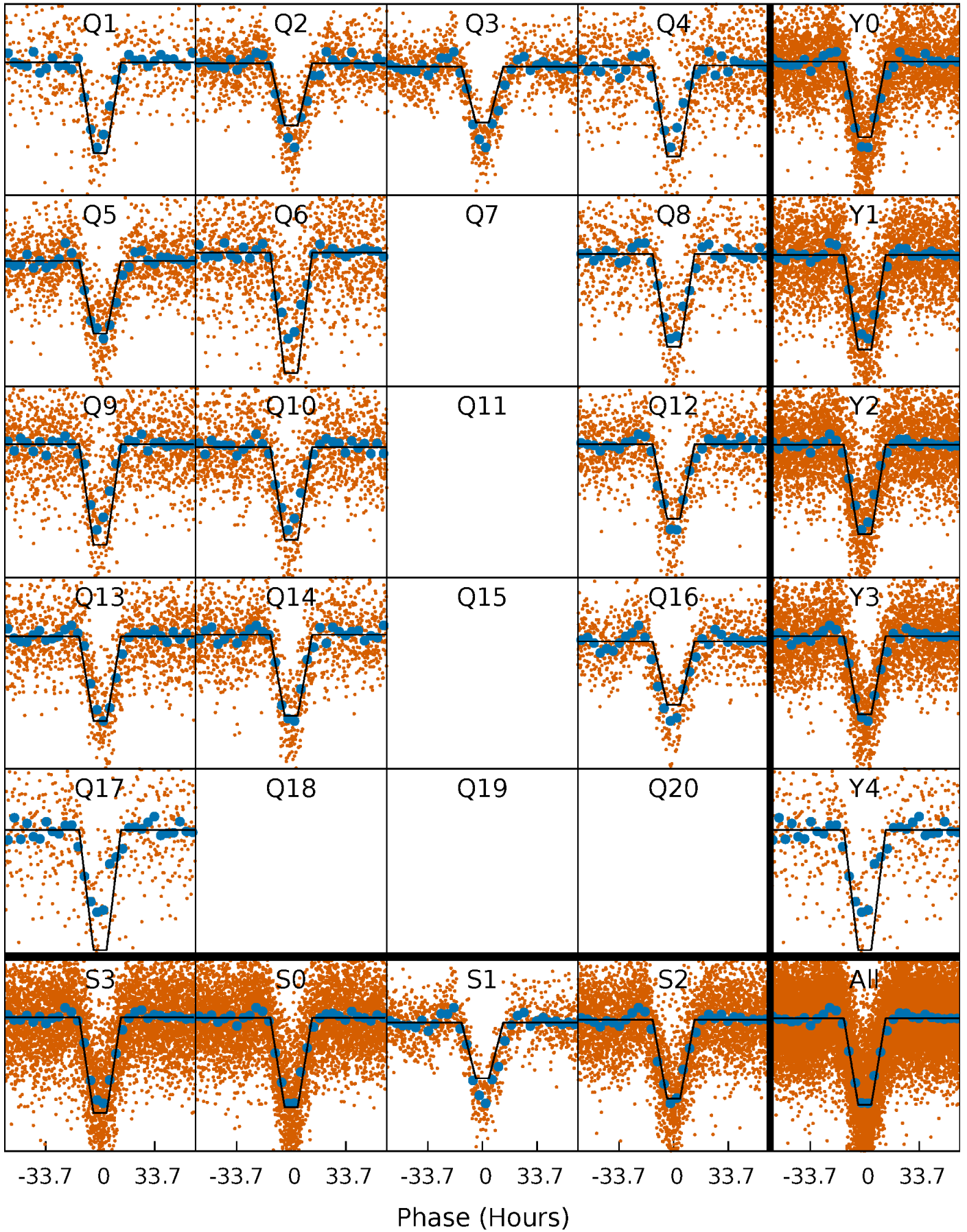
DV Quarter-Phased Transit Curves

TCE 009965691-01 P= 15.684636 Days $T_0=133.017936$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

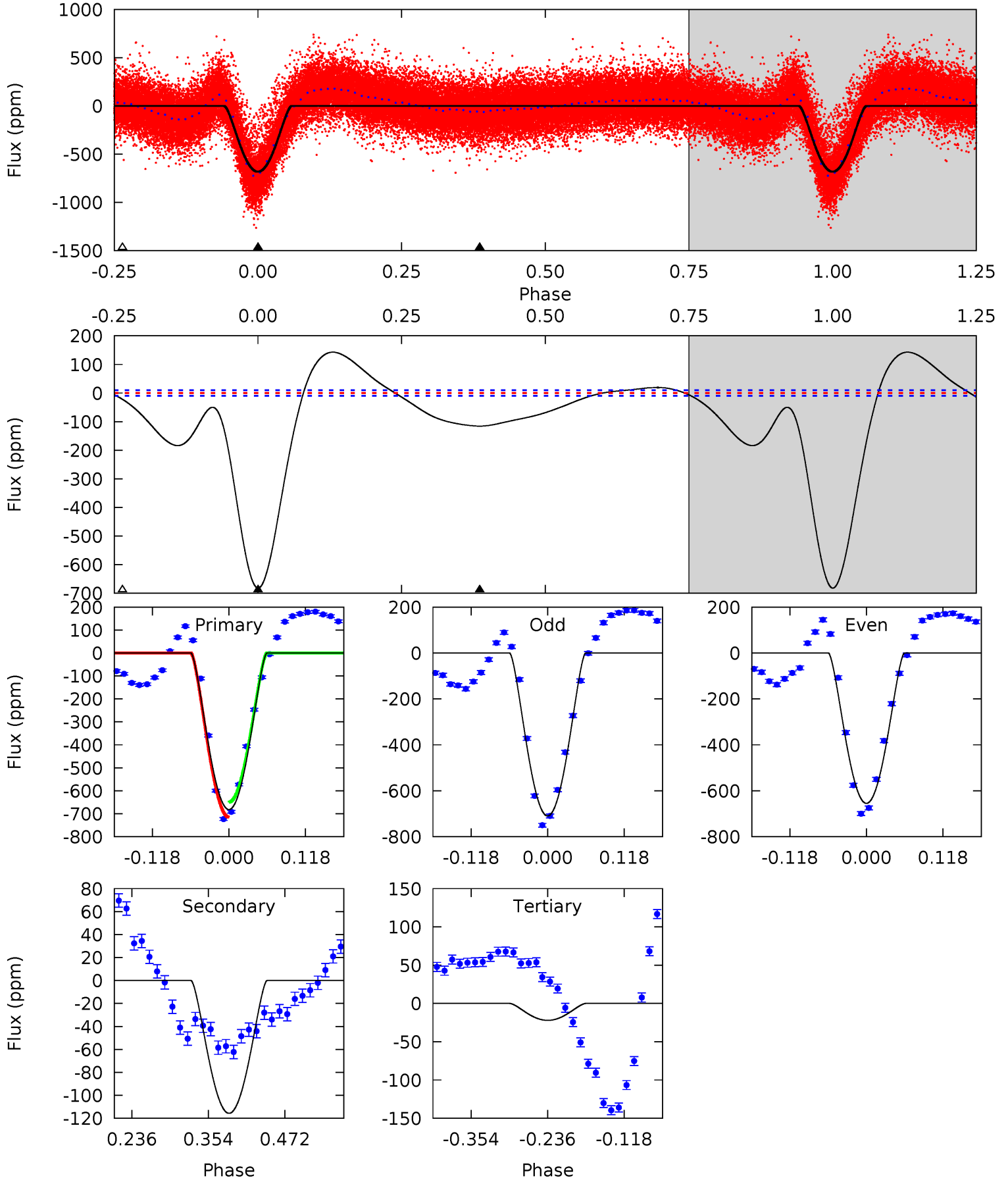
TCE 009965691-01 P= 15.684896 Days $T_0=132.857200$ (BKJD)



DV Model-Shift Uniqueness Test

009965691-01, P = 15.684636 Days, E = 117.333300 Days

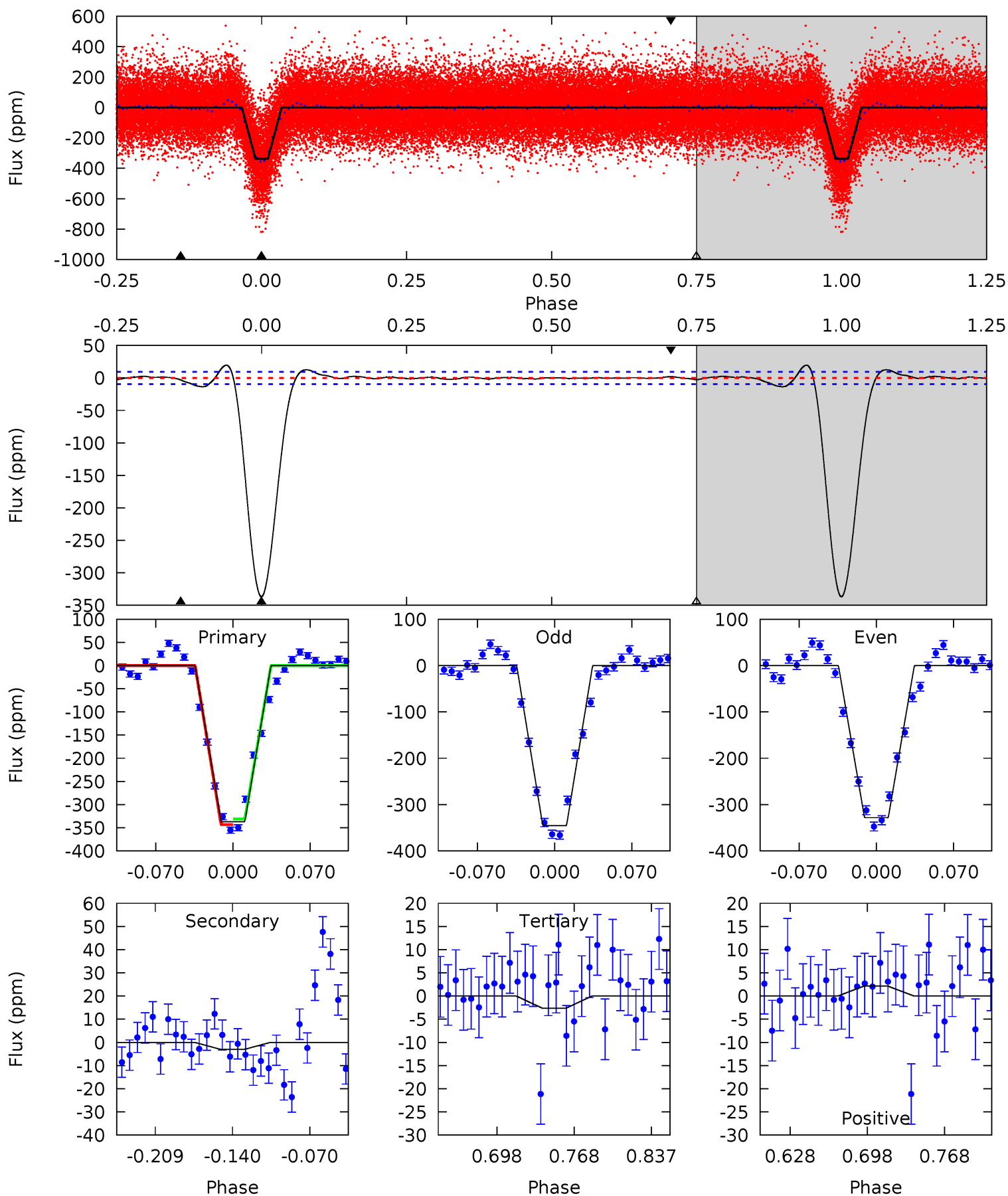
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
311.1	52.8	10.1	0	4.53	1.56	35.4	301.0	311.1	42.7	52.8	12.5	0.93	0.17	14.8



Alt Model-Shift Uniqueness Test

009965691-01, P = 15.684896 Days, E = 117.172304 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
165.9	1.49	1.30	1.06	4.64	1.81	1.14	164.6	164.9	0.19	0.43	4.23	0.95	0.06	3.11



Stellar Parameters For KIC 009965691

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6407^{+174}_{-174}	$3.888^{+0.273}_{-0.117}$	$-0.020^{+0.300}_{-0.250}$	$2.191^{+0.466}_{-0.699}$	$1.355^{+0.223}_{-0.223}$	$0.181^{+0.323}_{-0.064}$
	+3%/-3%	+7%/-3%	+1500%/-1250%	+21%/-32%	+16%/-16%	+178%/-35%
Source	PHO1	FLK73	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 009965691-01 / KOI 7267.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-116 ± 2	$10.96^{+2.96}_{-2.69}$	1566^{+104}_{-119}	3502^{+276}_{-203}	10^{+7}_{-4}
Alt.	-3 ± 2	$4.22^{+2.16}_{-1.94}$	1564^{+101}_{-127}	2603^{+608}_{-822}	$1.556^{+4.252}_{-1.209}$

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 $A_{obs} \gg 1.0$

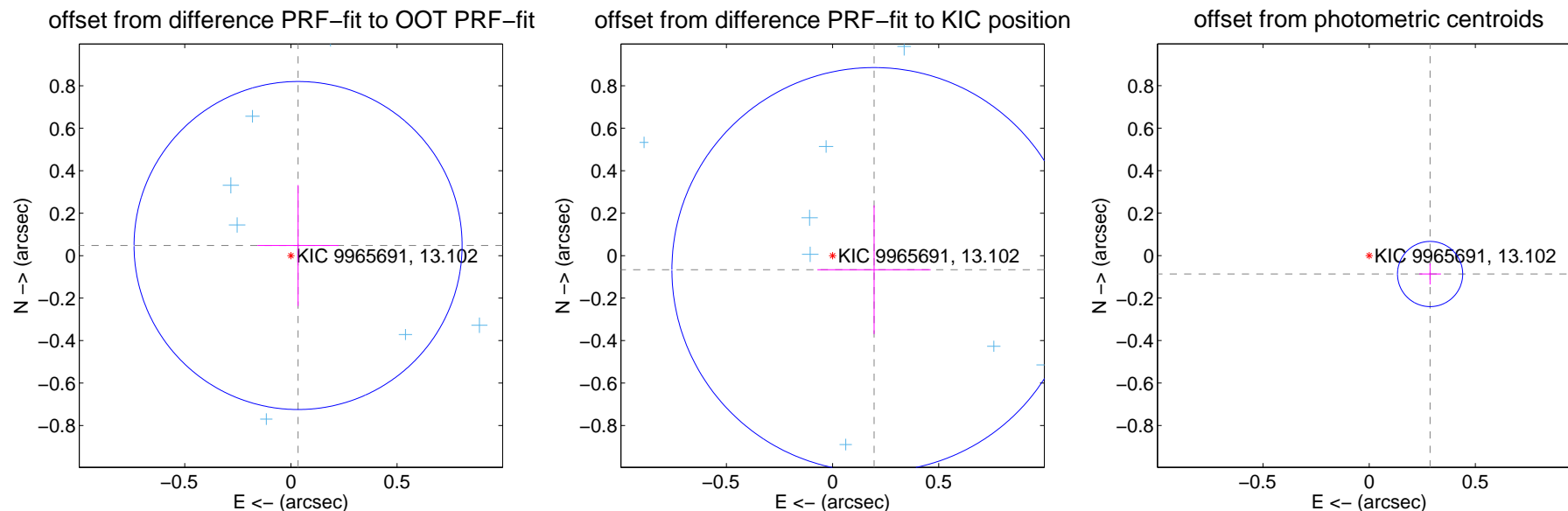
DV Centroid Data

Supplemental centroid analysis for 009965691-01. Kepler magnitude: 13.10. Transit SNR 76.36

There are 12 quarters with good PRF difference image offsets

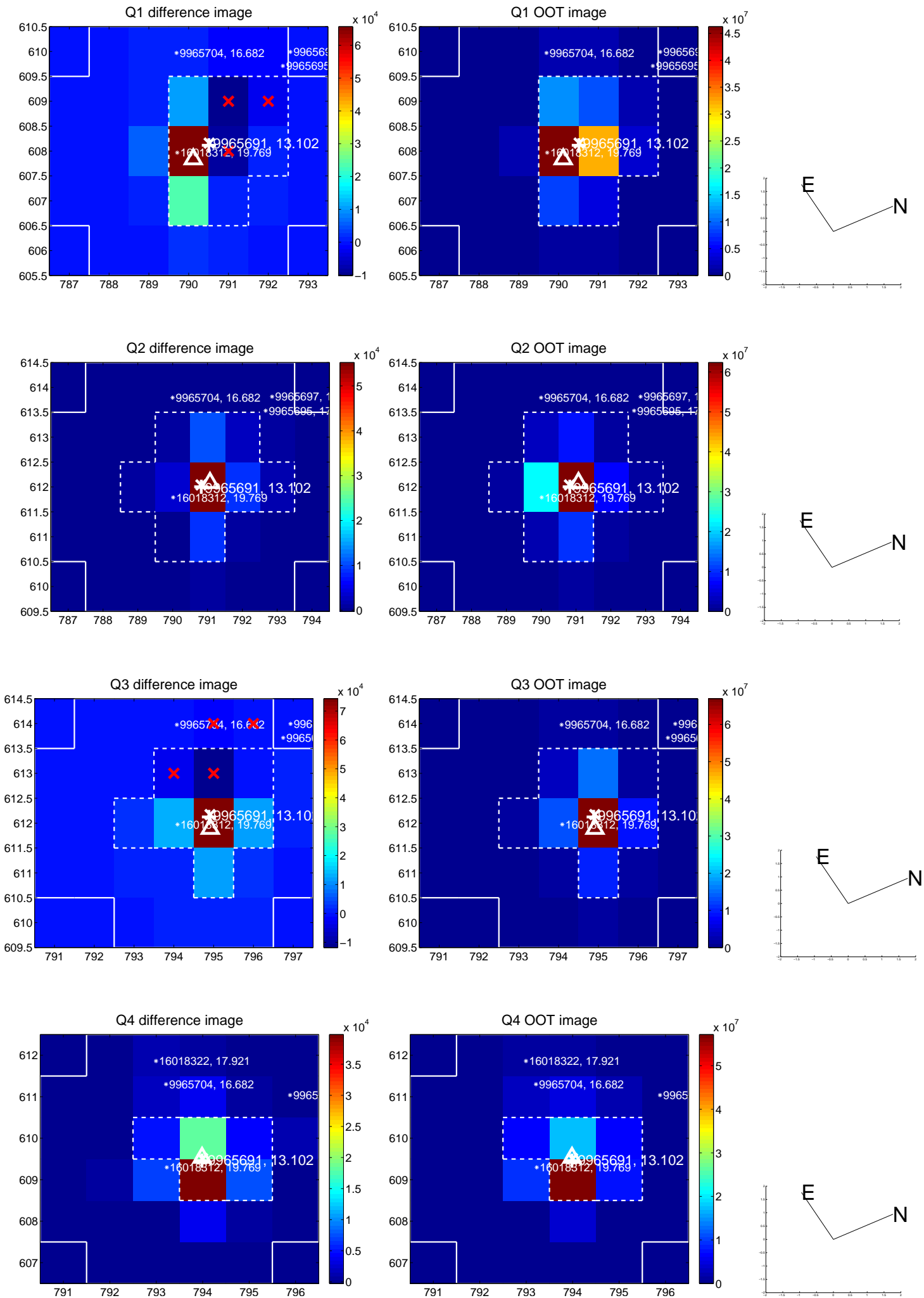
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.058 ± 0.257	0.23	-0.034 ± 0.191	0.048 ± 0.285
PRF-fit source offset from KIC position	0.206 ± 0.317	0.65	-0.195 ± 0.267	-0.066 ± 0.303
photometric centroid source offset	0.30 ± 0.05	5.86	-0.29 ± 0.05	-0.09 ± 0.05

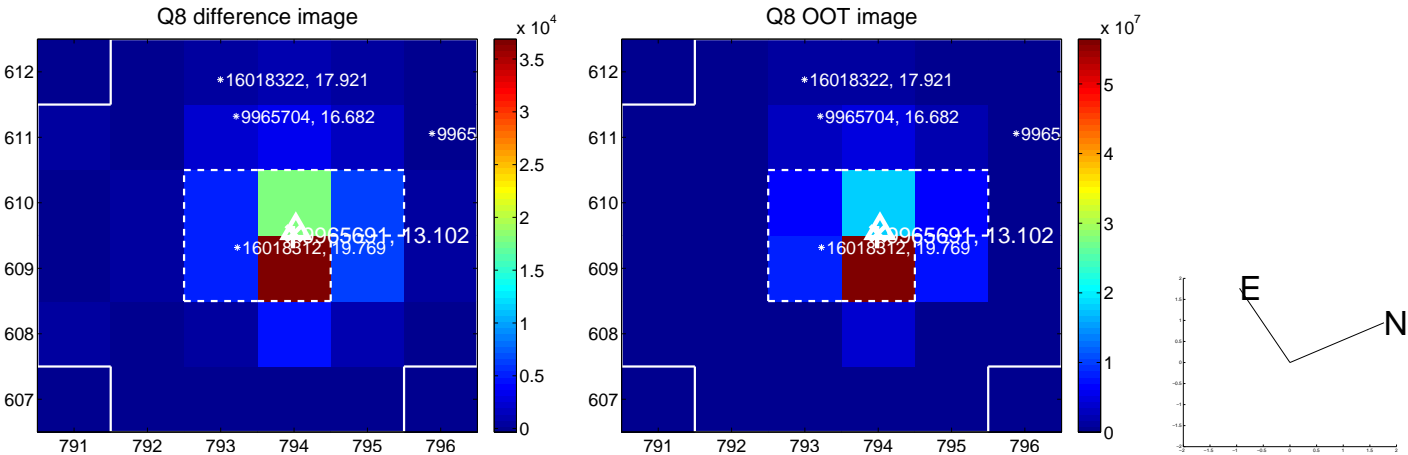
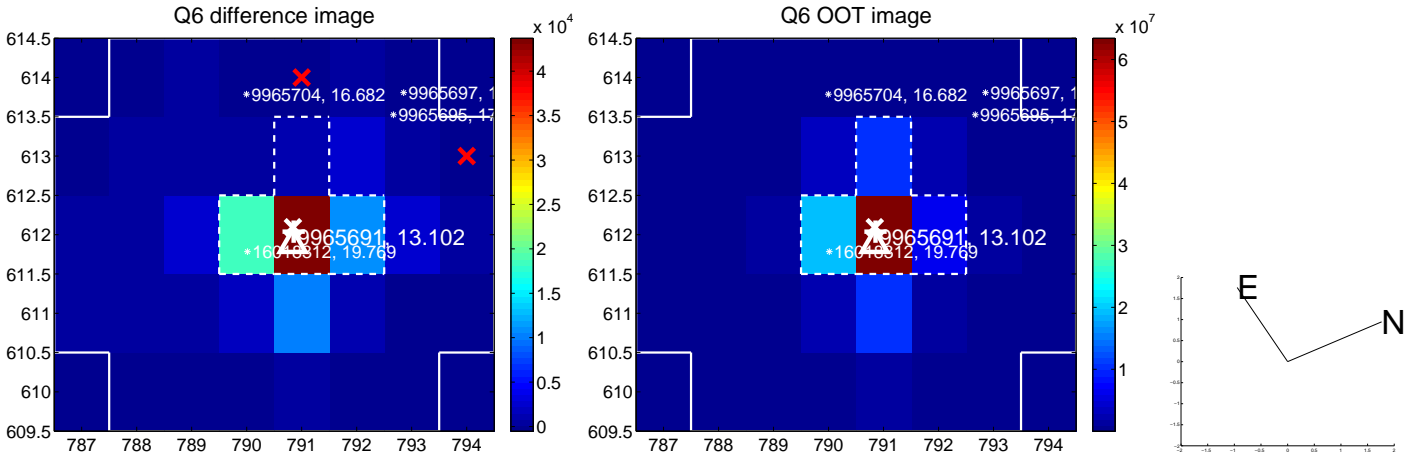
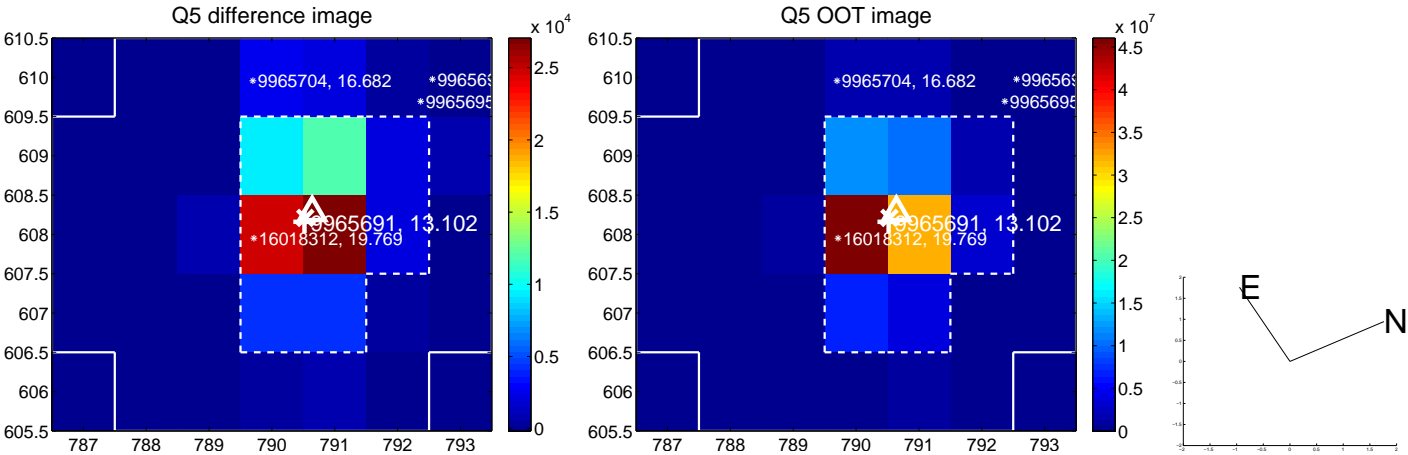


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

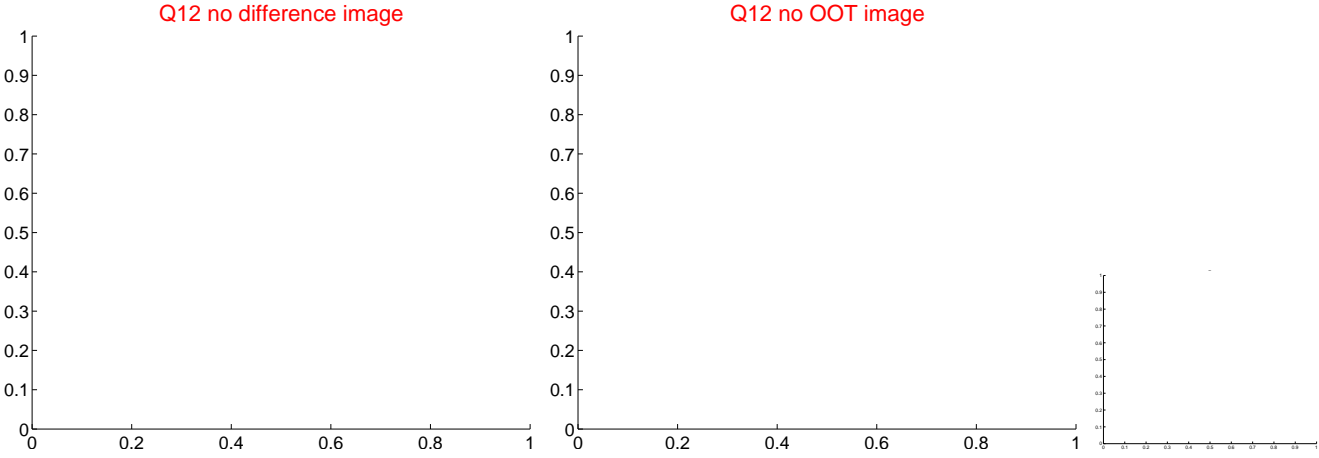
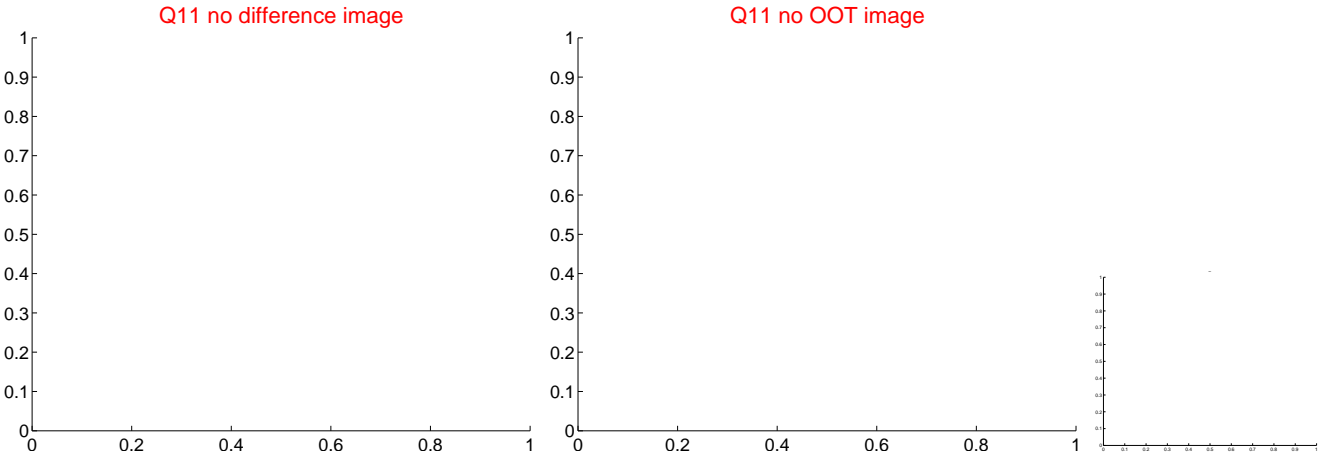
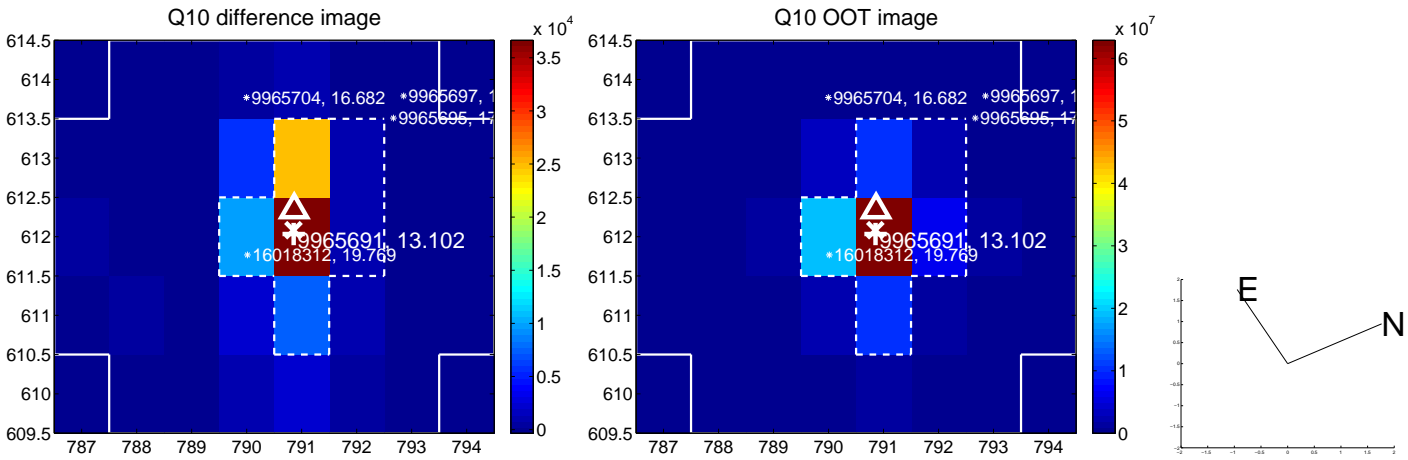
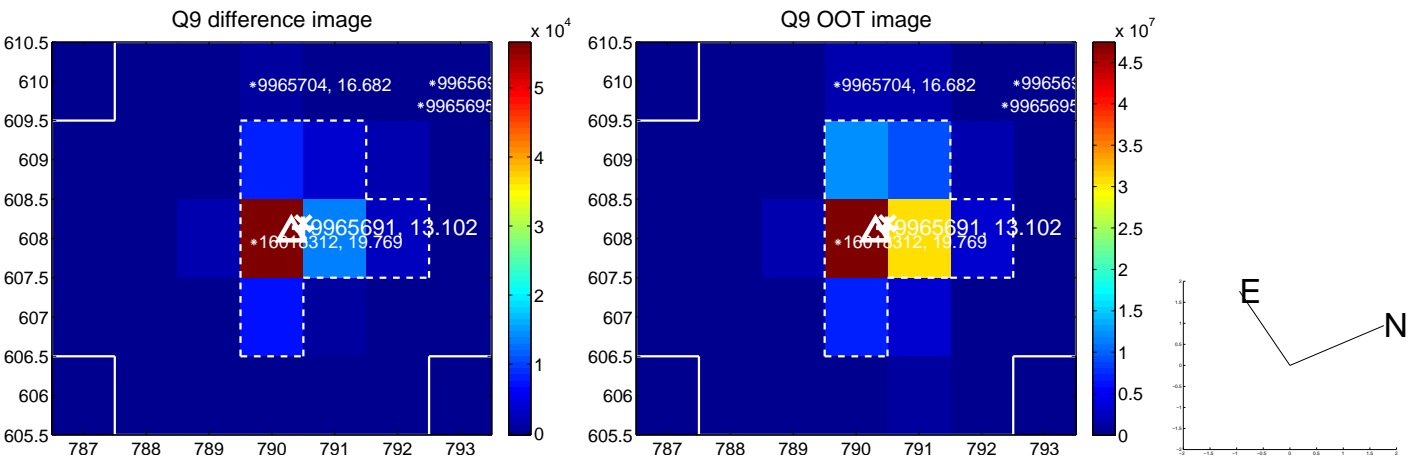
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



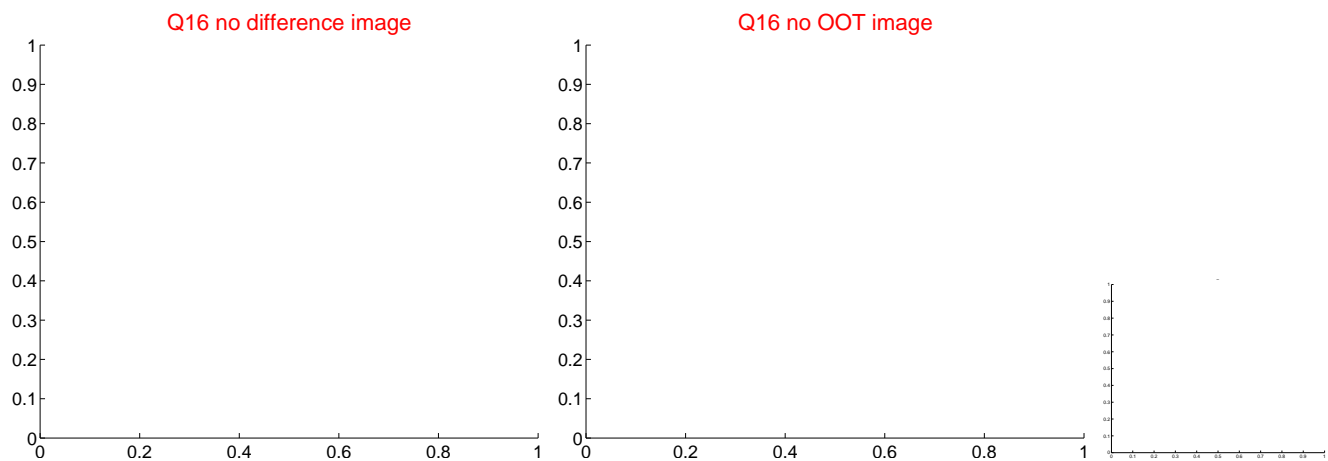
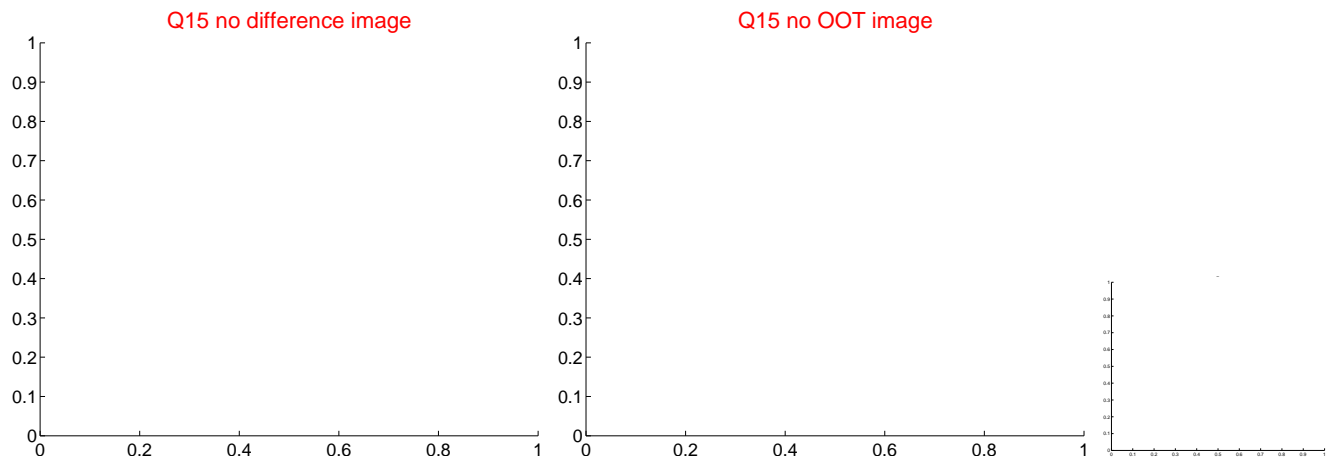
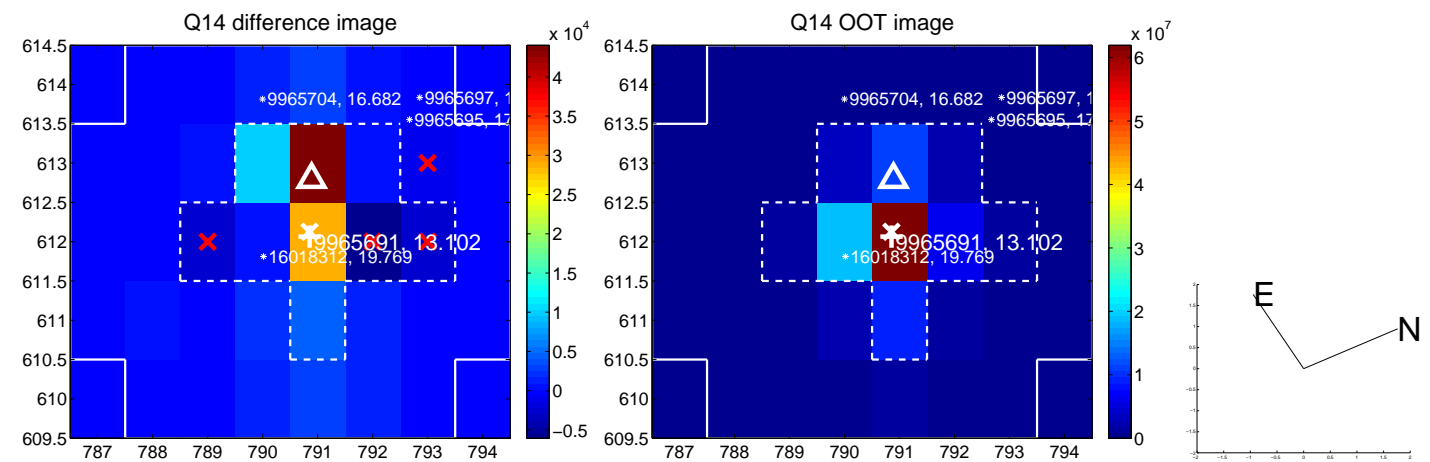
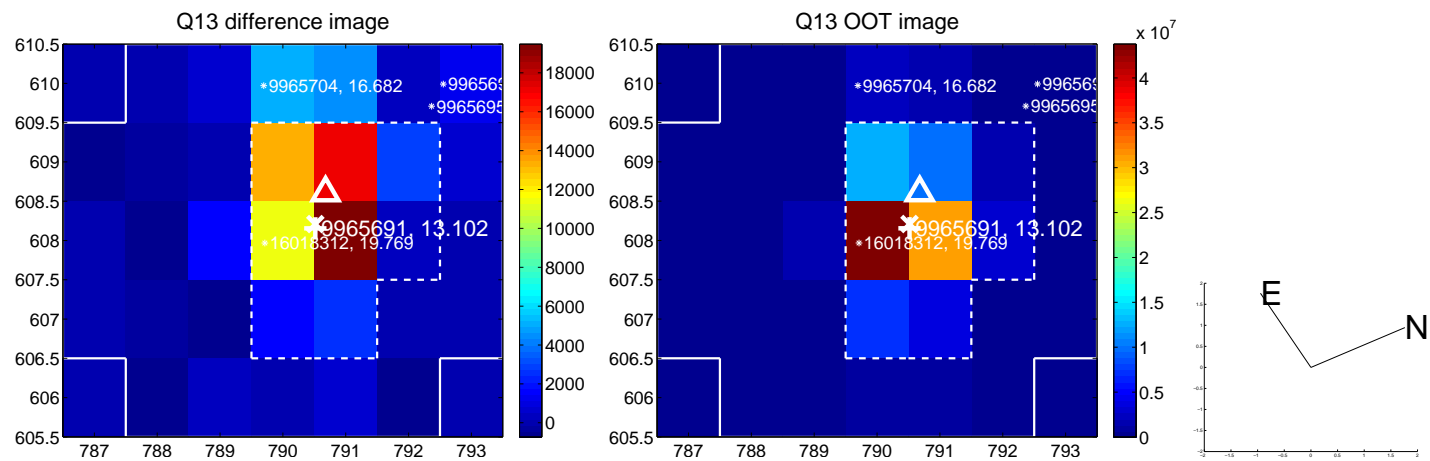
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



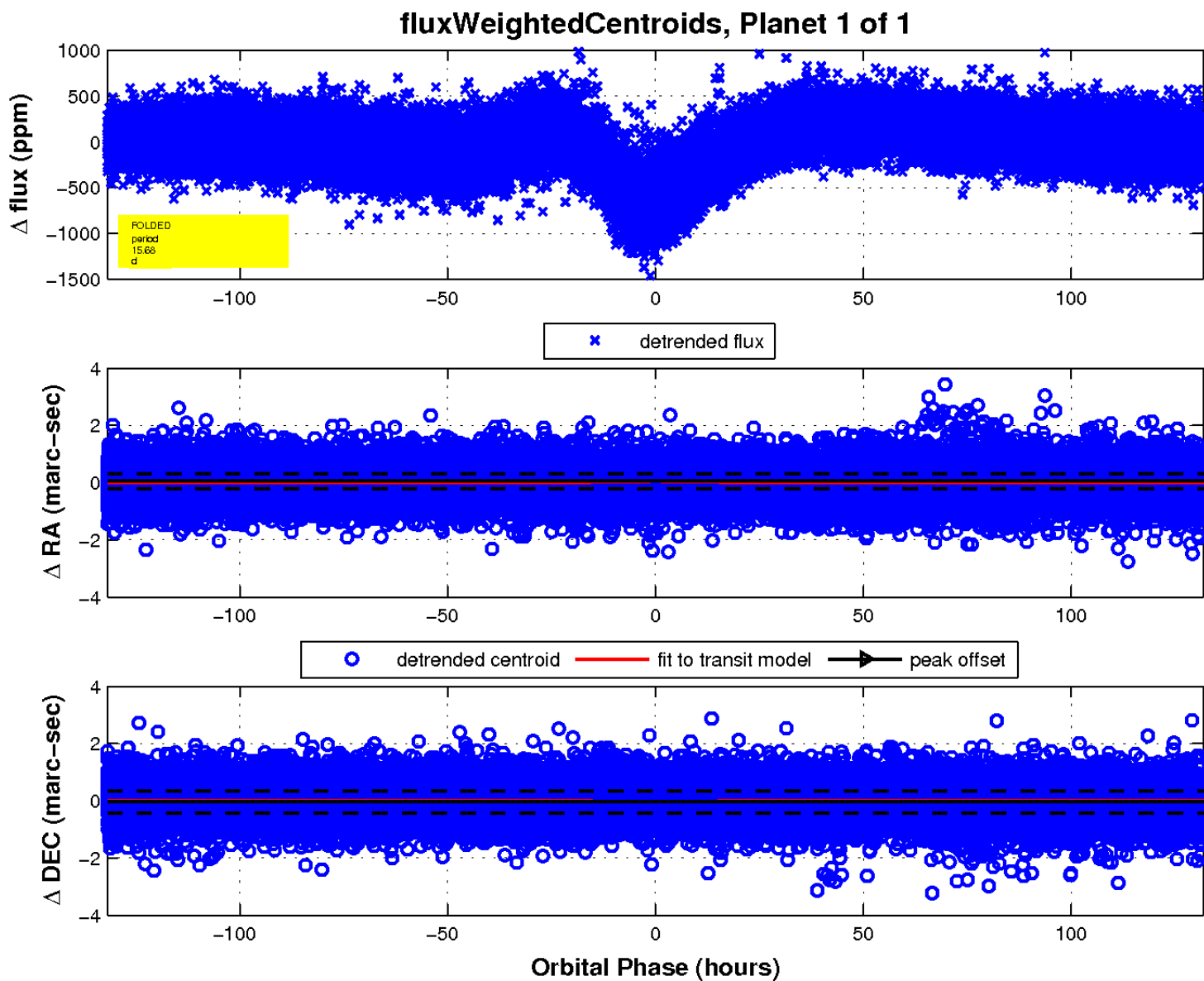
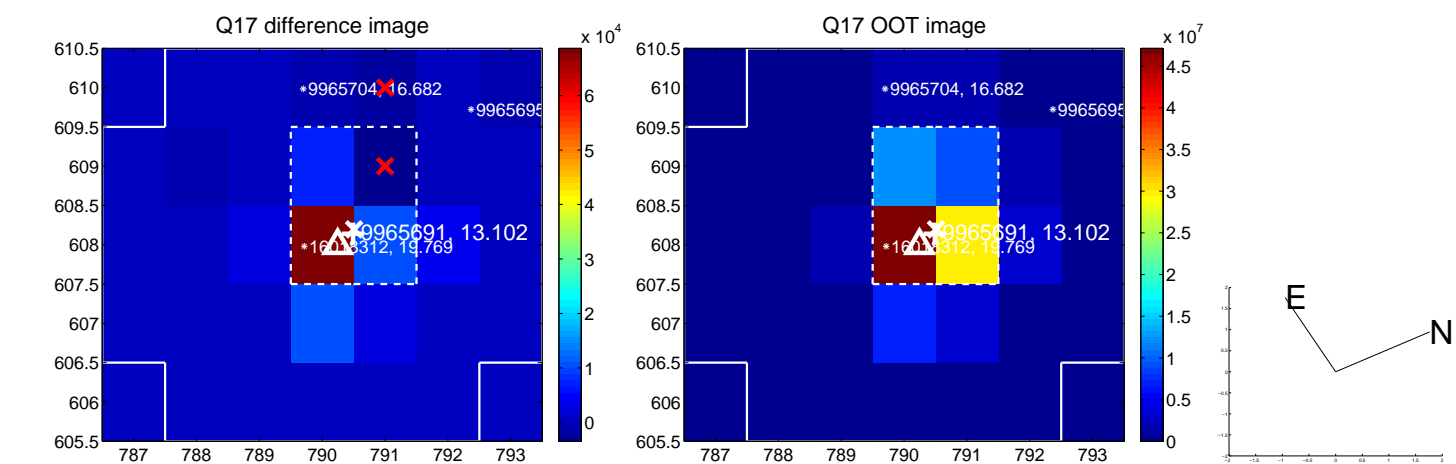
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UKIRT Image

Declination

