

KIC 011922778

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})
011922778-01	OBS	3408.01	65.428050	176.266194	321.2	9.555	13.7	14.2	0.93	6014	1.81	9.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011922778-01	OBS	PC	0.86	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.

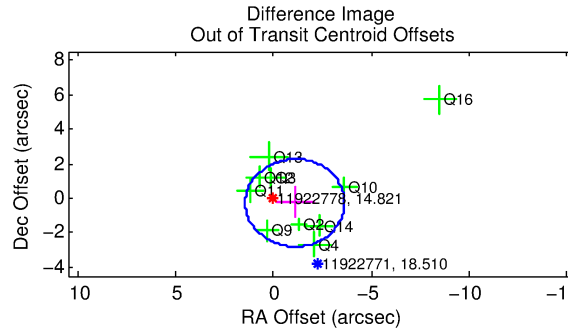
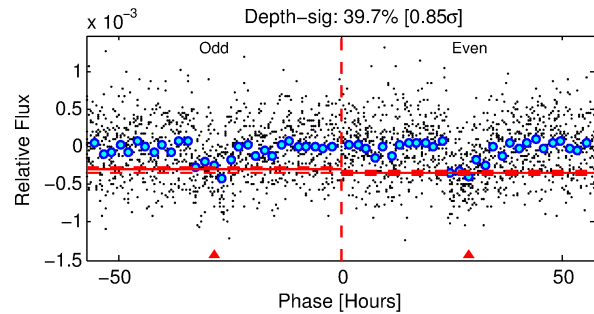
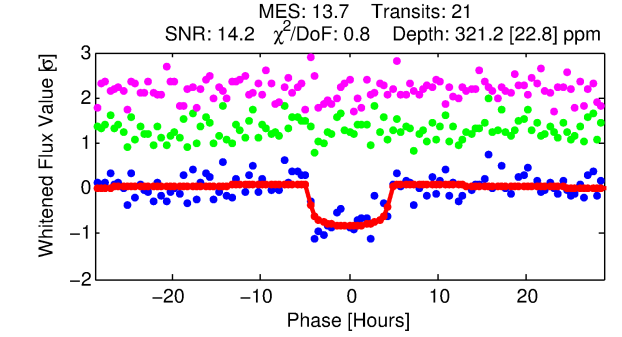
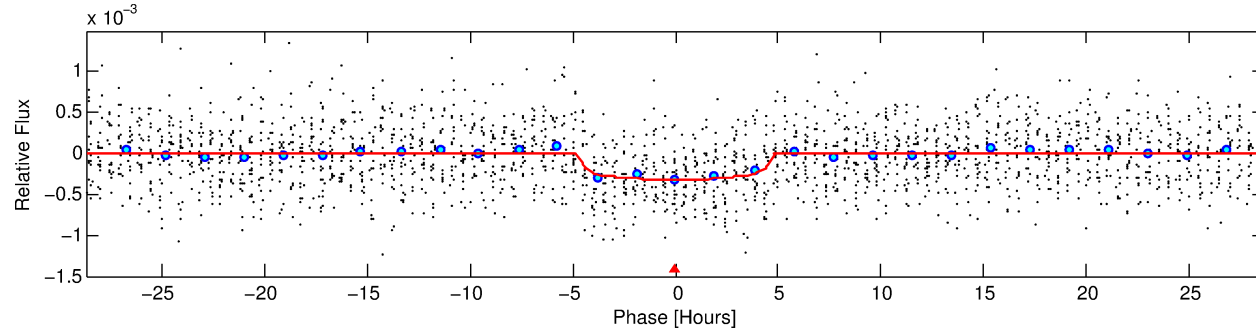
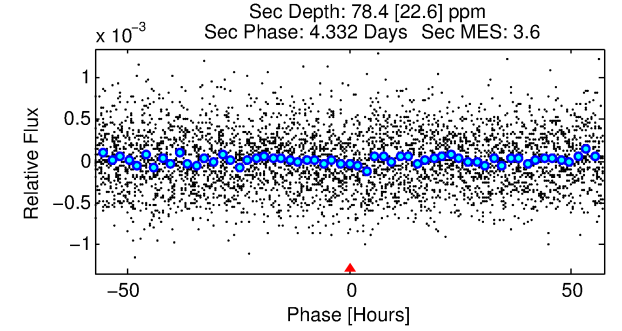
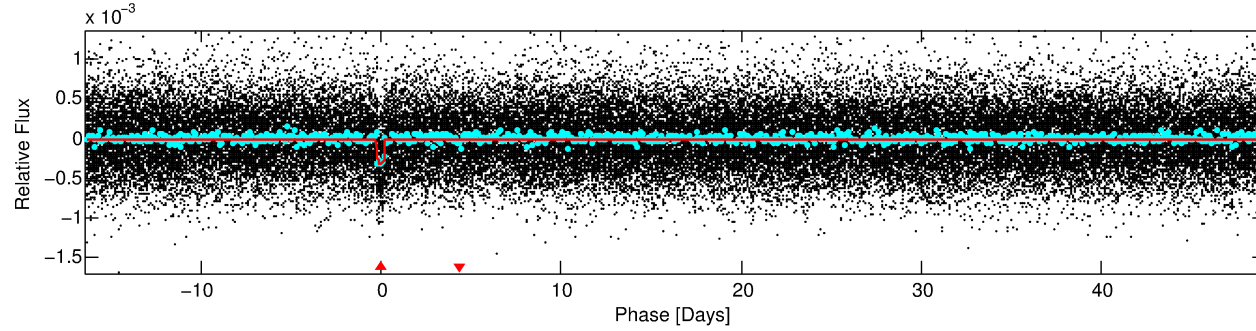
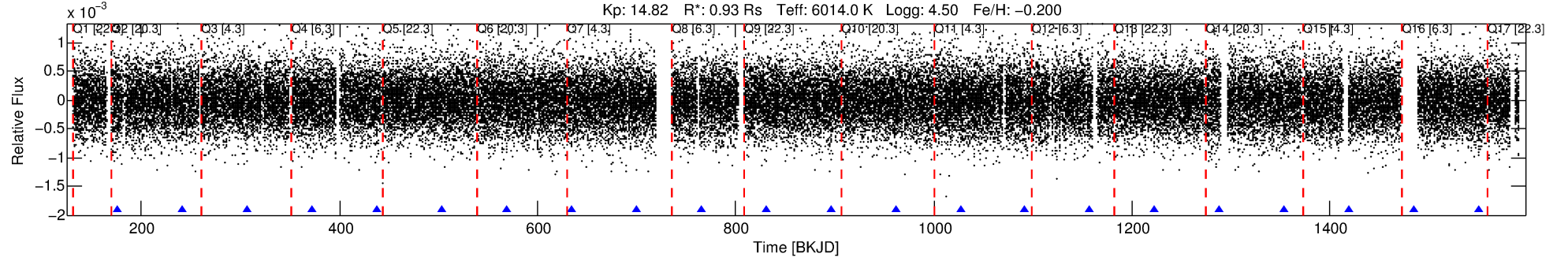
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011922778-01

No Significant Match Found

DV One-Page Summary

KIC: 11922778 Candidate: 1 of 1 Period: 65.428 d
KOI: K03408.01 Corr: 0.990



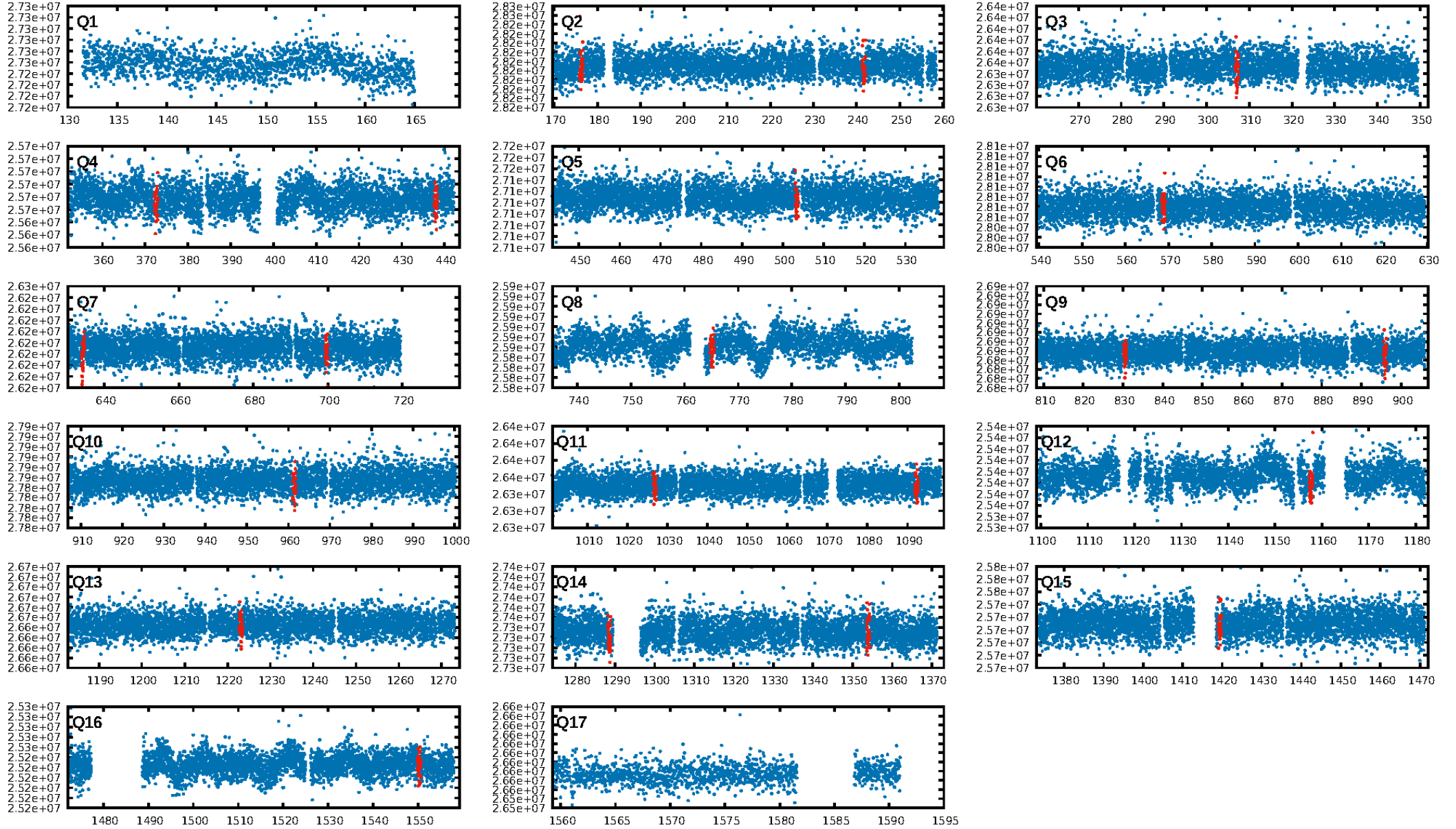
DV Fit Results:

Period = 65.42805 [0.00097] d
Epoch = 176.2662 [0.0115] BKJD
Rp/R* = 0.0179 [0.0049]
a/R* = 35.54 [48.12]
b = 0.76 [0.76]
Seff = 9.96 [4.19]
Teff = 453 [48] K
Rp = 1.81 [0.76] Re
a = 0.3176 [0.0858] AU
Ag = 1334.21 [985.94] [1.35 σ]
Teffp = 4233 [673] K [5.60 σ]

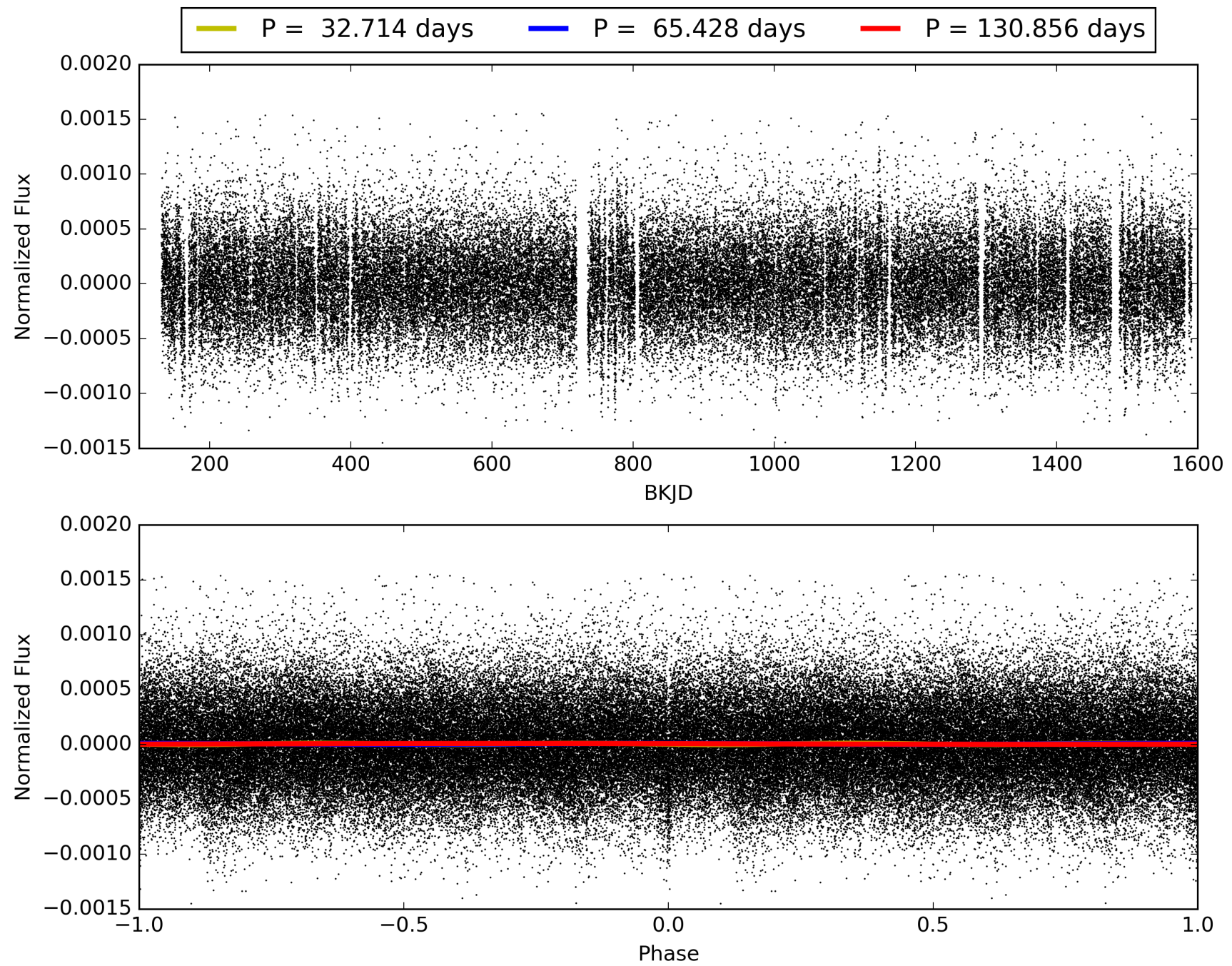
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.54e-42
RollingBand-fgt: 1.00 [21/21]
GhostDiagnostic-chr: 2.599
Centroid-sig: 2.3%
Centroid-so: 1.934 arcsec [1.62 σ]
OotOffset-rm: 1.125 arcsec [1.33 σ]
KicOffset-rm: 1.210 arcsec [1.54 σ]
OotOffset-st: 3/2/3/2 [10]
KicOffset-st: 3/2/3/2 [10]
DiffImageQuality-fgm: 0.60 [6/10]
DiffImageOverlap-fno: 1.00 [11/11]

TCE 011922778-01, PDC Light Curves

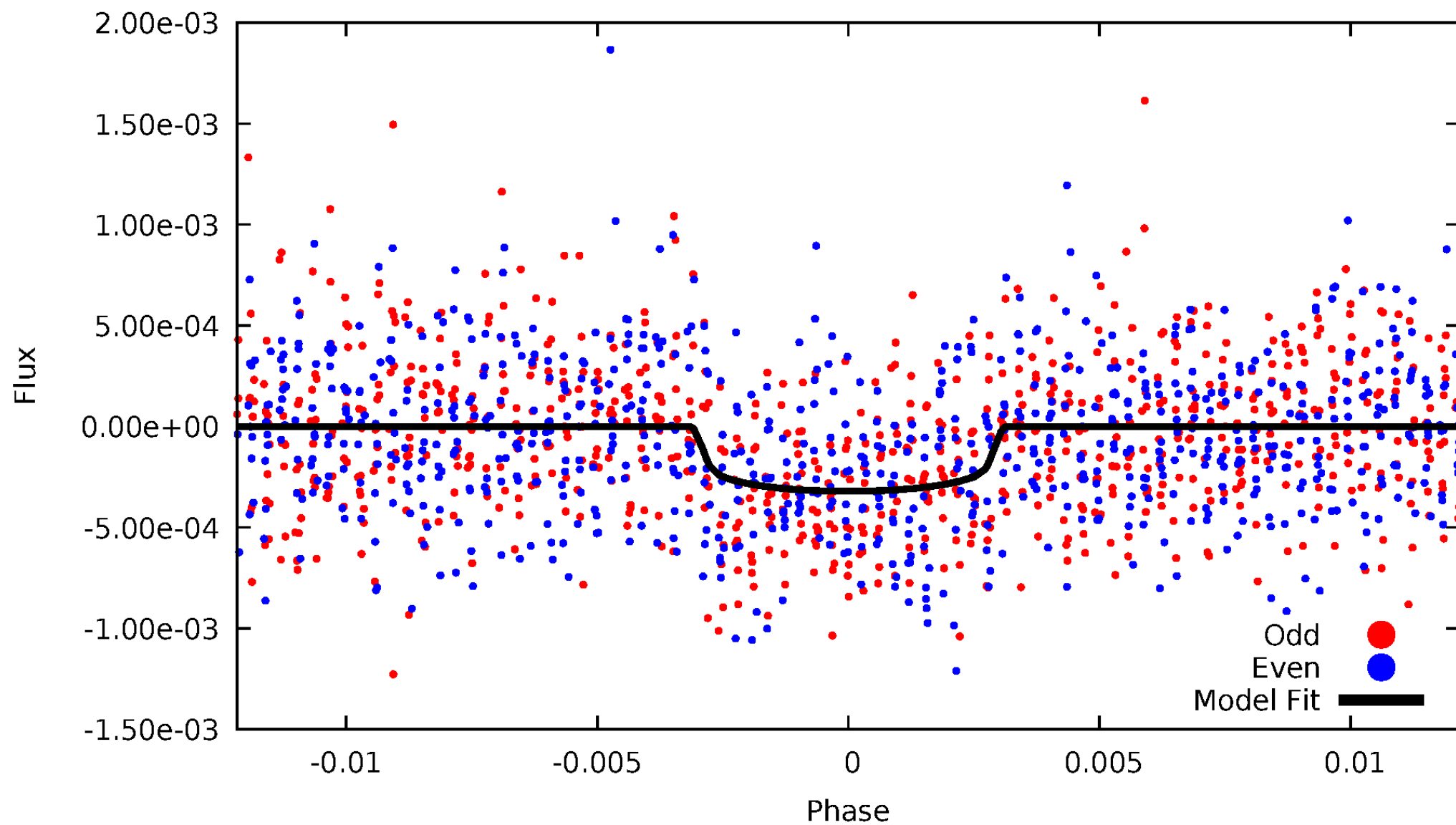


TCE 011922778-01



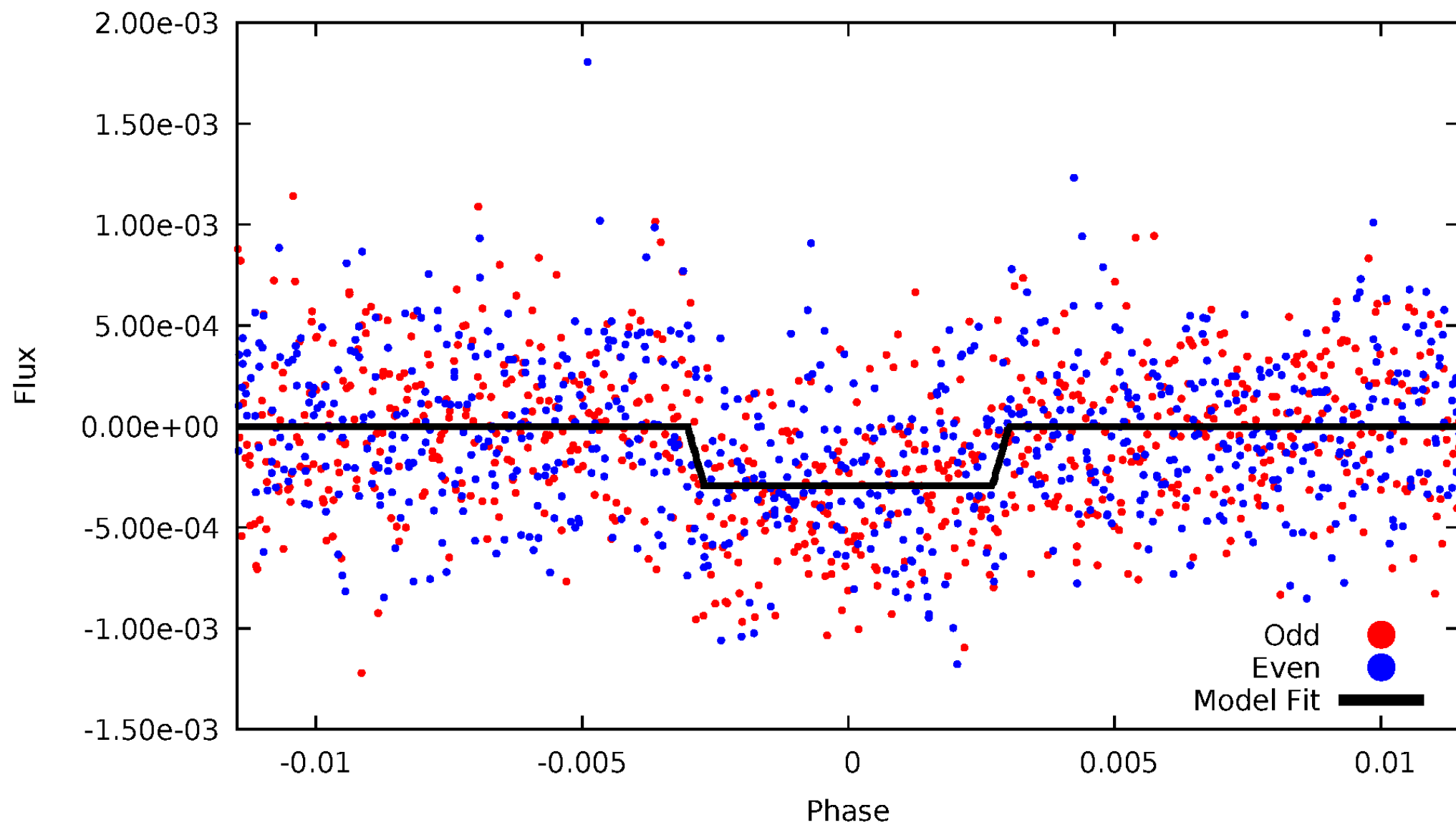
DV Odd/Even

TCE 011922778-01



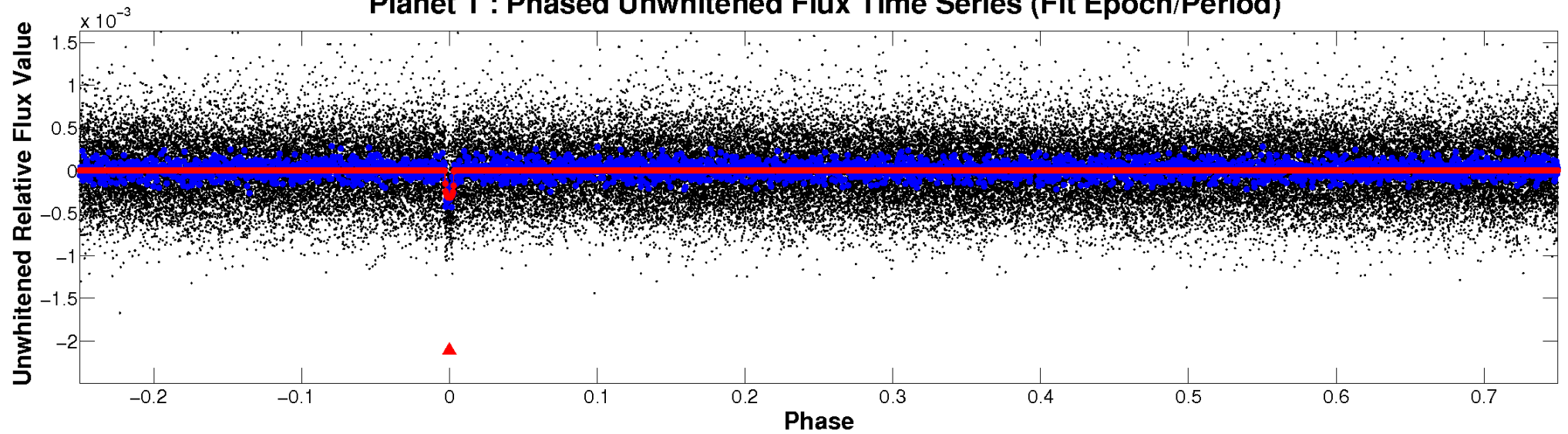
ALT Odd/Even

TCE 011922778-01

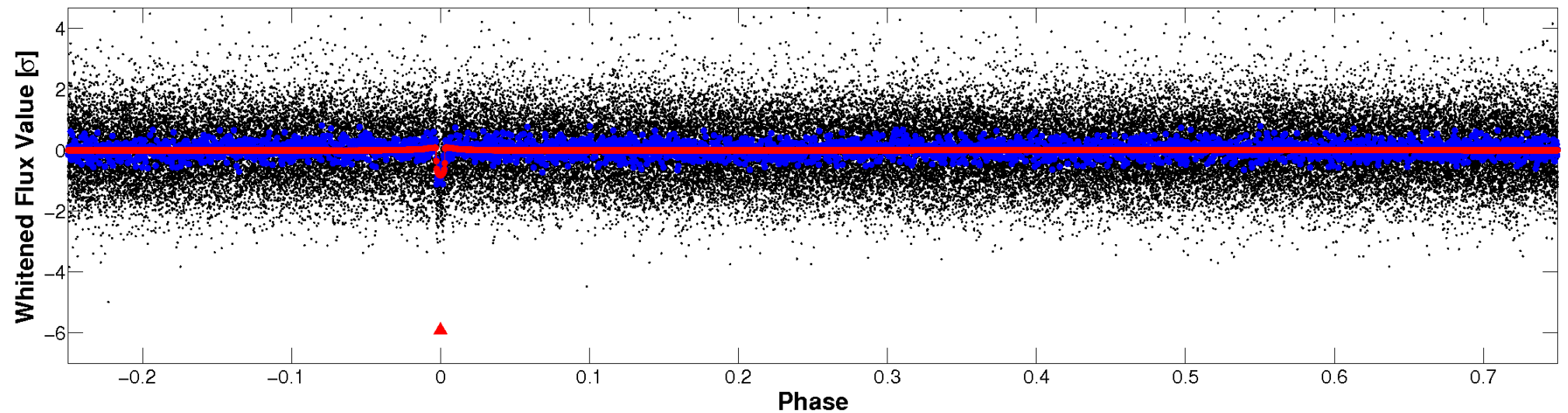


Non-Whitened Vs. Whitened Light Curve

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

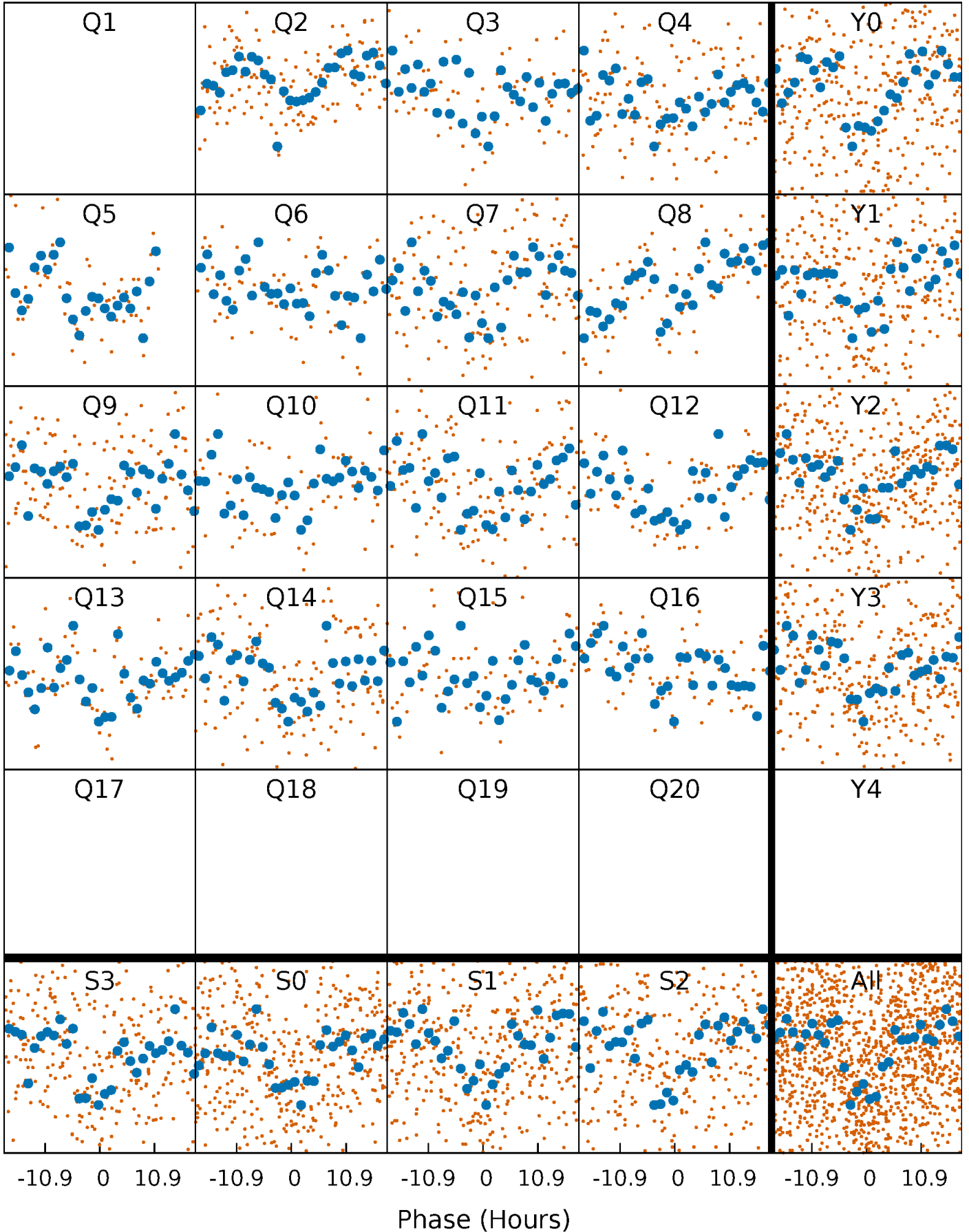


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



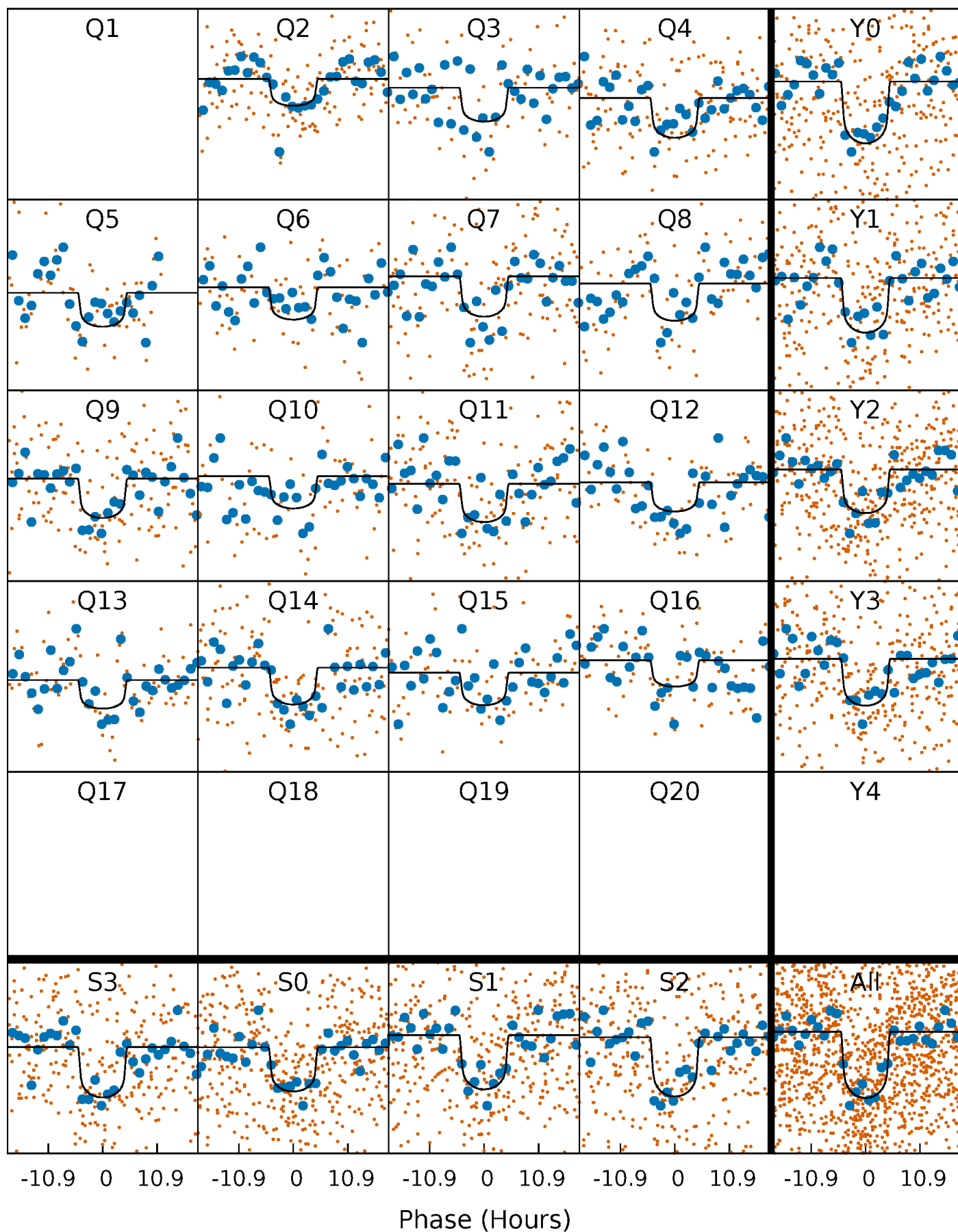
PDC Quarter-Phased Transit Curves

TCE 011922778-01 P= 65.428050 Days $T_0=176.266194$ (BKJD)



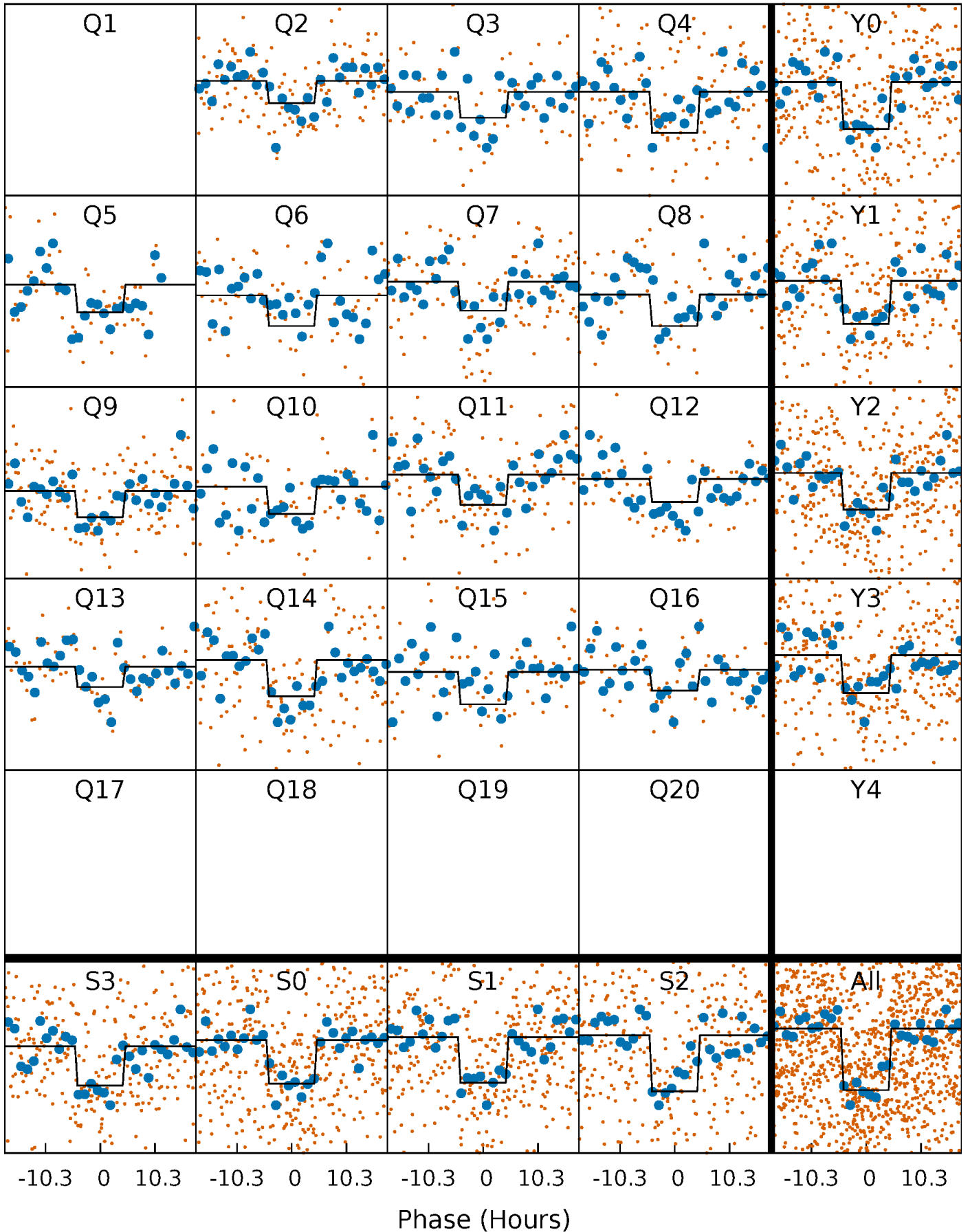
DV Quarter-Phased Transit Curves

TCE 011922778-01 P= 65.428050 Days $T_0=176.266194$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

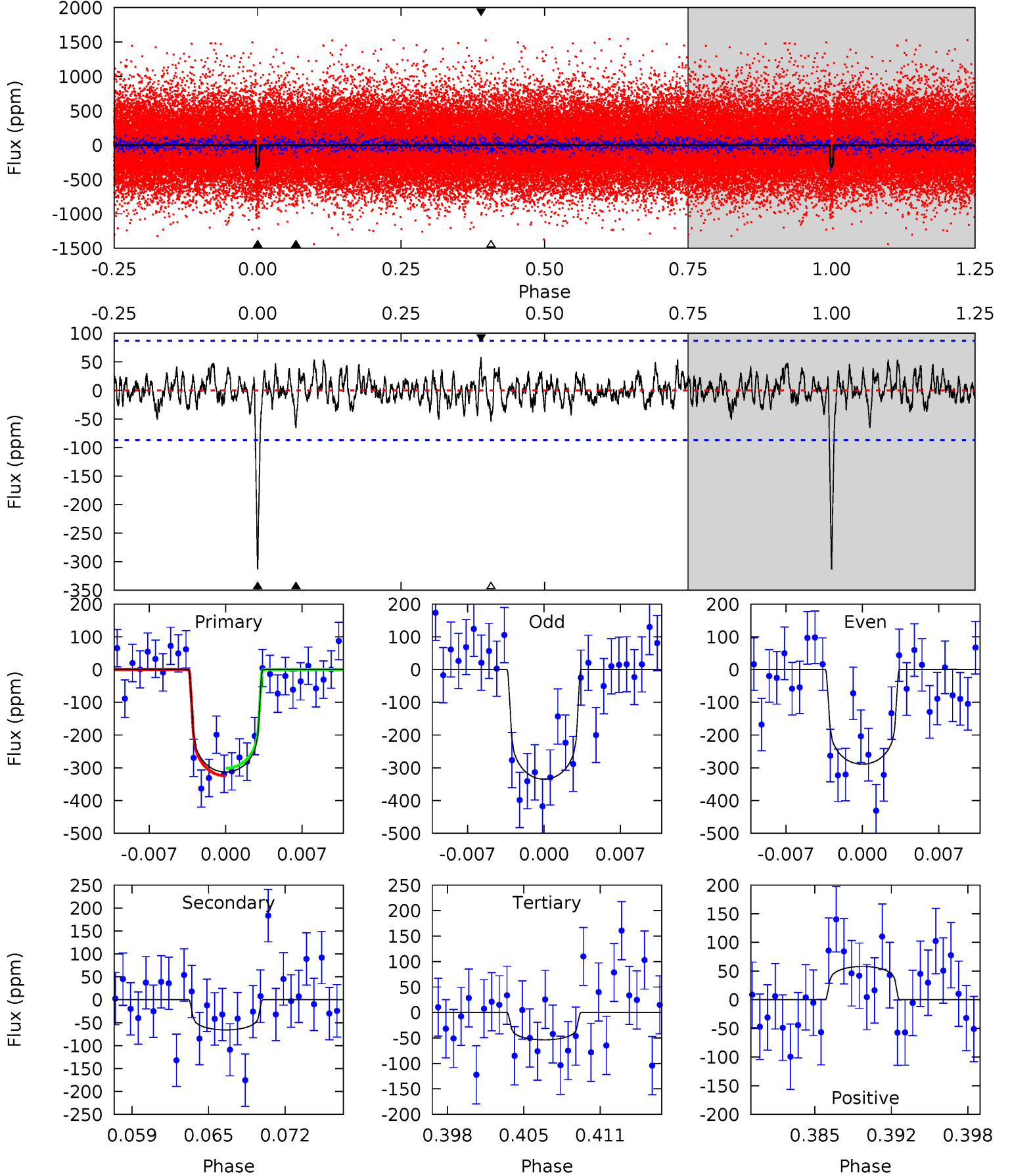
TCE 011922778-01 P= 65.427571 Days $T_0=176.276700$ (BKJD)



DV Model-Shift Uniqueness Test

011922778-01, P = 65.428050 Days, E = 110.838144 Days

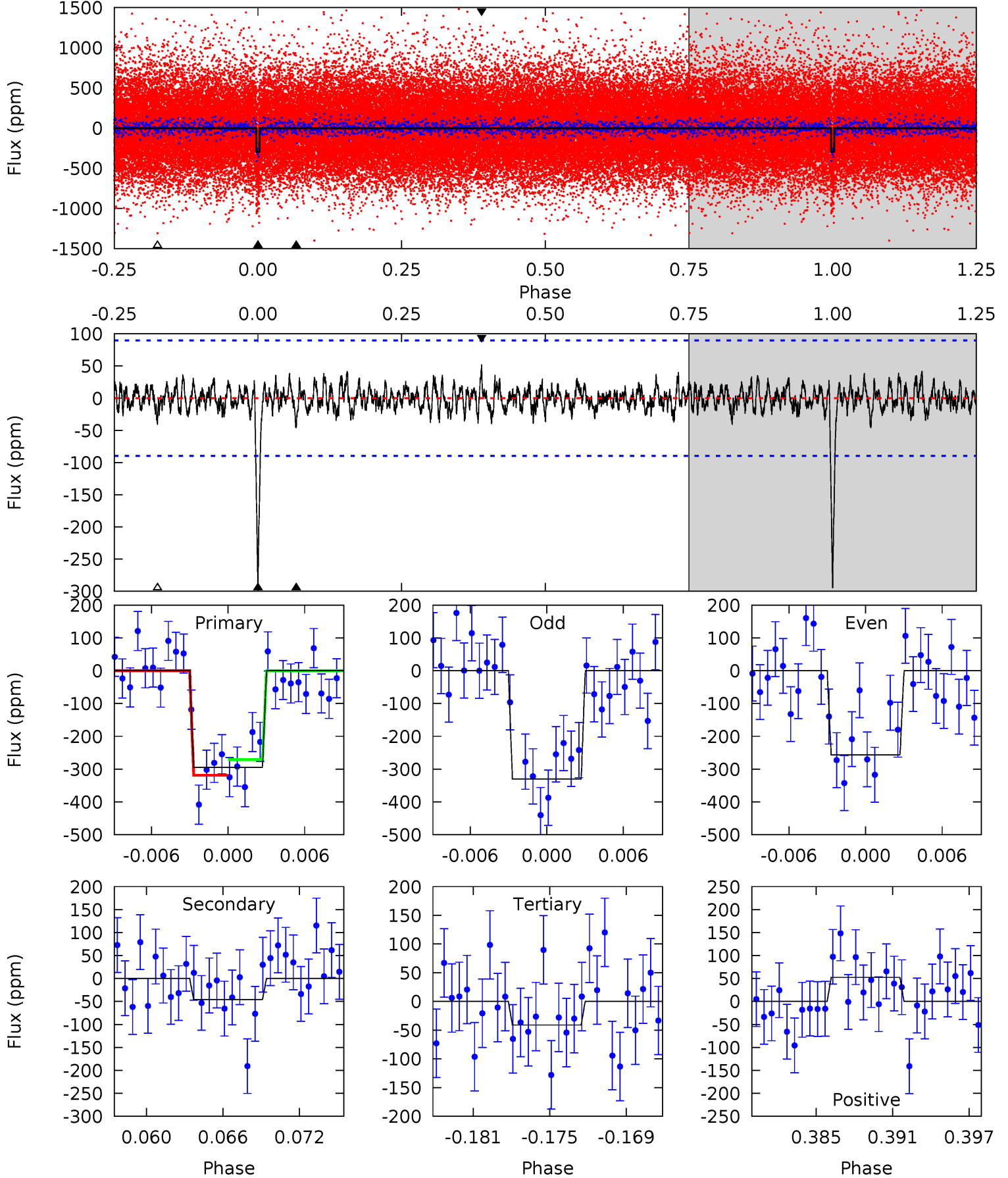
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	3.87	3.15	3.41	5.11	2.72	1.08	15.2	15.0	0.71	0.46	1.35	1.01	0.16	0.69



Alt Model-Shift Uniqueness Test

011922778-01, P = 65.427571 Days, E = 110.849129 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	2.63	2.35	2.99	5.12	2.75	0.83	14.5	13.9	0.29	-0.36	2.09	1.14	0.15	1.36



Stellar Parameters For KIC 011922778

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6014^{+162}_{-198}	$4.504^{+0.052}_{-0.221}$	$-0.200^{+0.300}_{-0.300}$	$0.926^{+0.292}_{-0.097}$	$0.998^{+0.131}_{-0.131}$	$1.770^{+0.480}_{-0.946}$
	+3%/-3%	+1%/-5%	+150%/-150%	+32%/-10%	+13%/-13%	+27%/-53%
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 011922778-01 / KOI 3408.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-66 ± 17	$1.89^{+0.61}_{-0.55}$	647^{+50}_{-31}	4275^{+650}_{-423}	958^{+1056}_{-443}
Alt.	-46 ± 18	$1.79^{+0.62}_{-0.53}$	647^{+49}_{-33}	4071^{+659}_{-479}	754^{+892}_{-401}

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

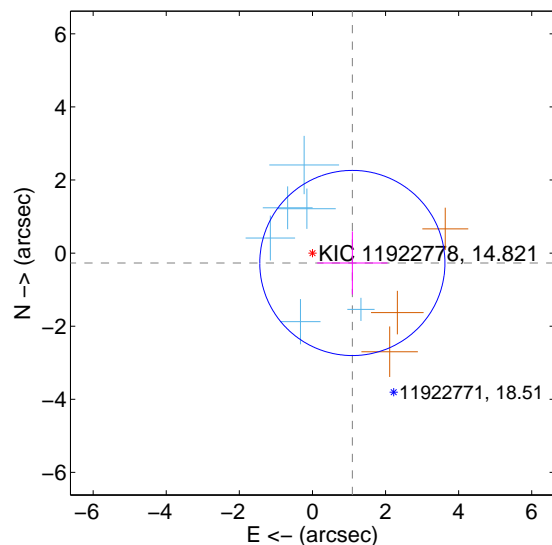
Supplemental centroid analysis for 011922778-01. Kepler magnitude: 14.82. Transit SNR 14.23

There are 6 quarters with good PRF difference image offsets

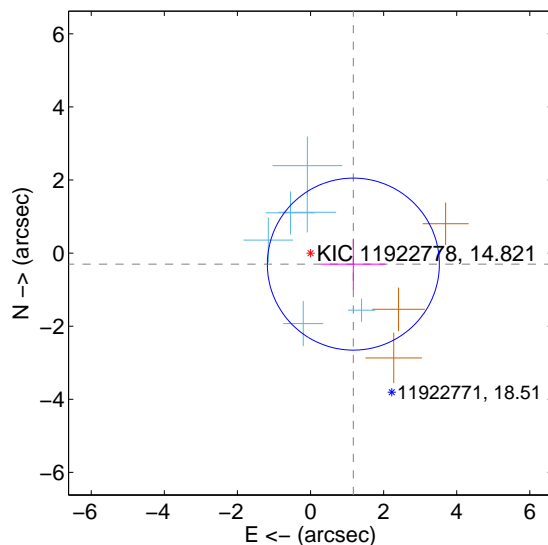
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.125 ± 0.844	1.33	-1.092 ± 0.963	-0.270 ± 0.862
PRF-fit source offset from KIC position	1.210 ± 0.784	1.54	-1.172 ± 0.875	-0.302 ± 0.698
photometric centroid source offset	1.93 ± 1.19	1.62	-0.32 ± 1.06	1.91 ± 1.20

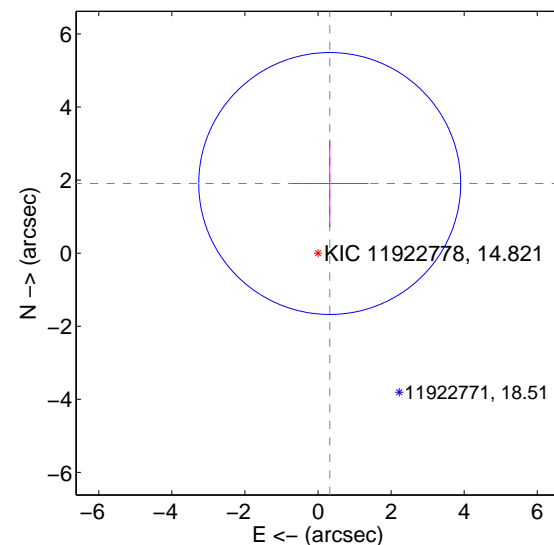
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

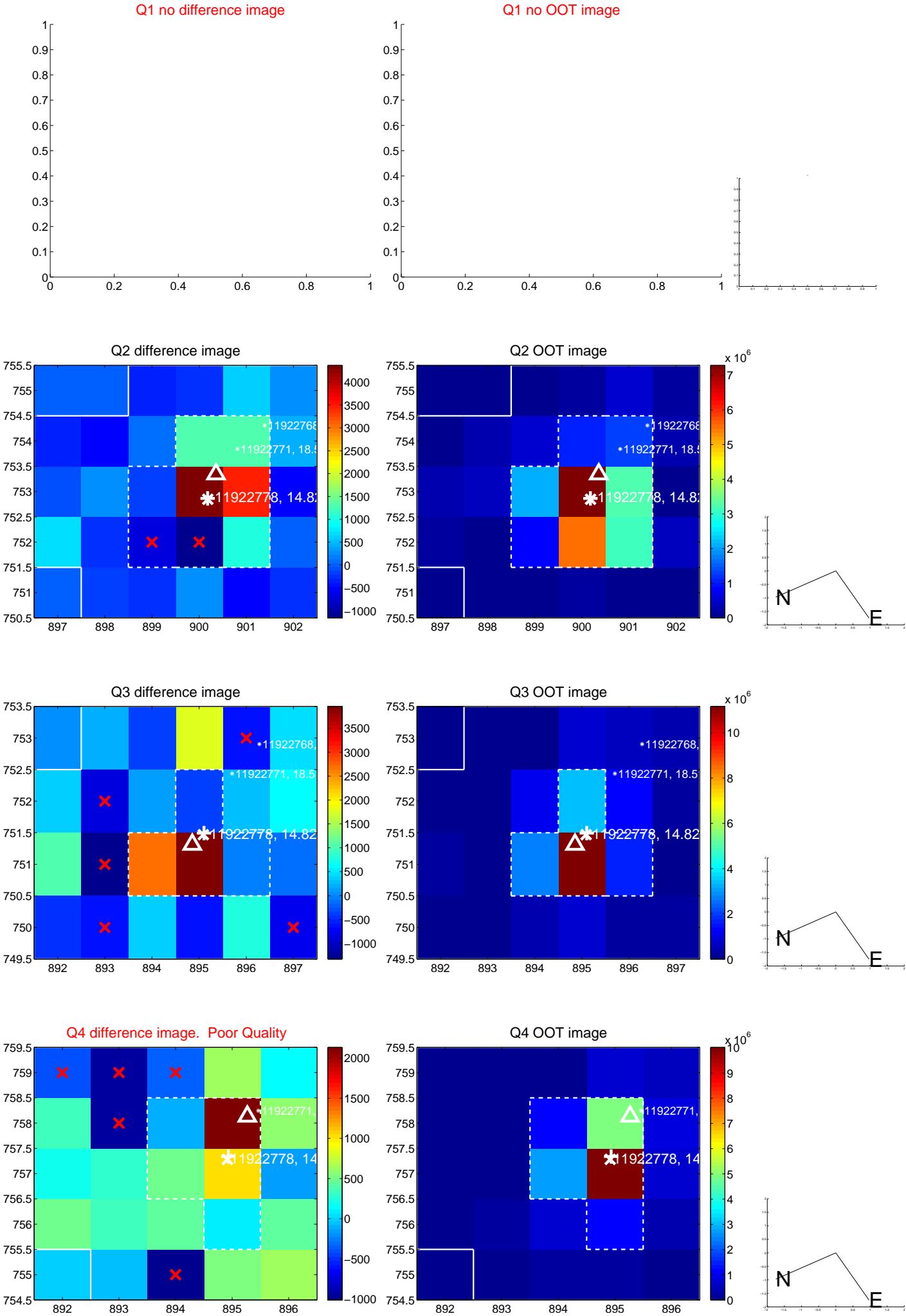


offset from photometric centroids

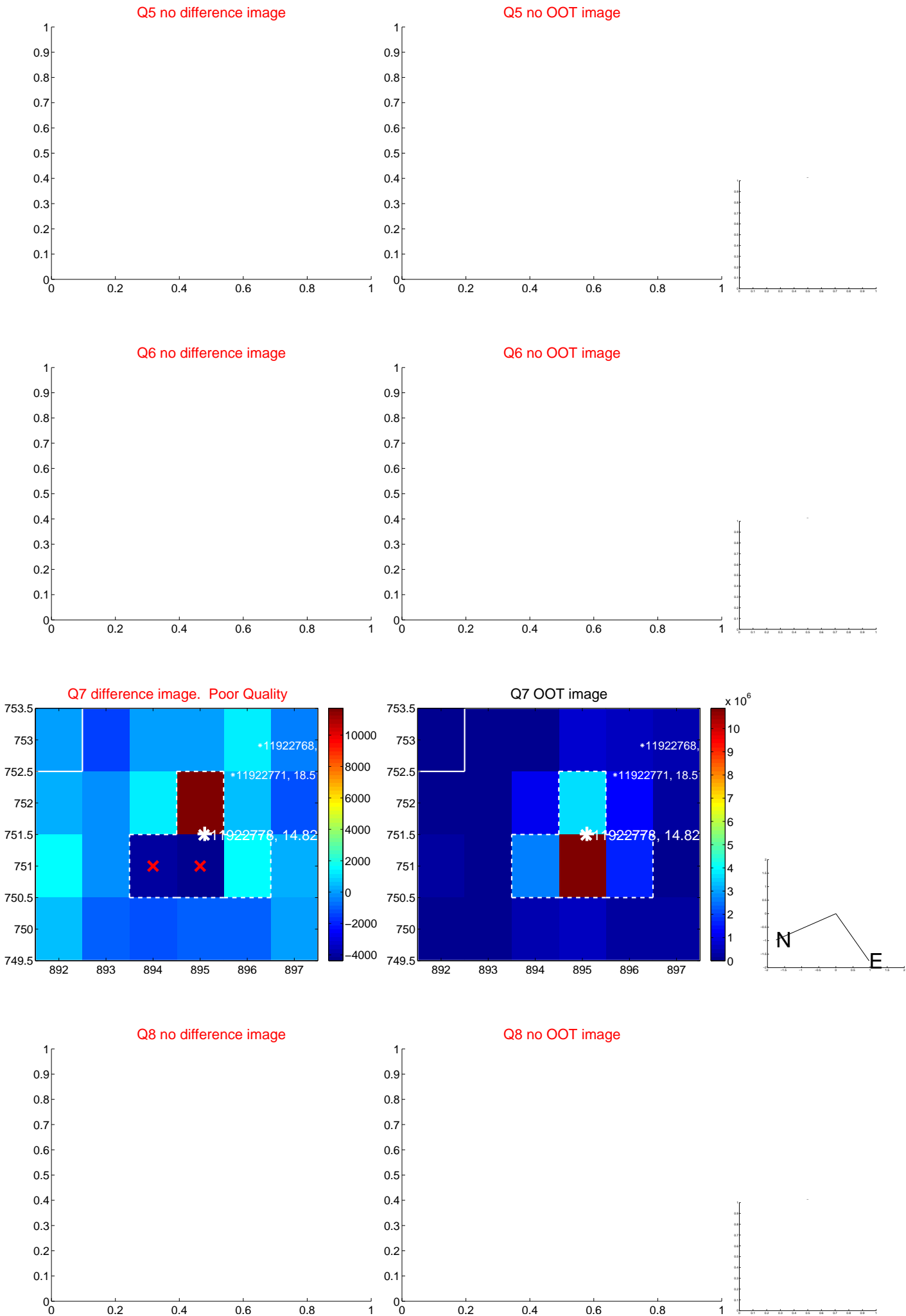


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

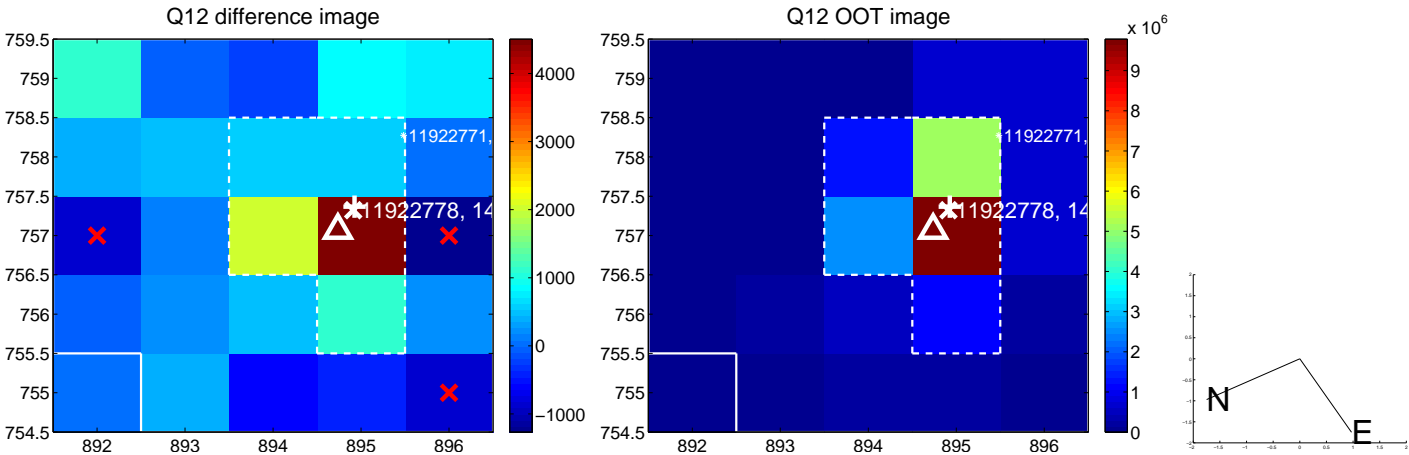
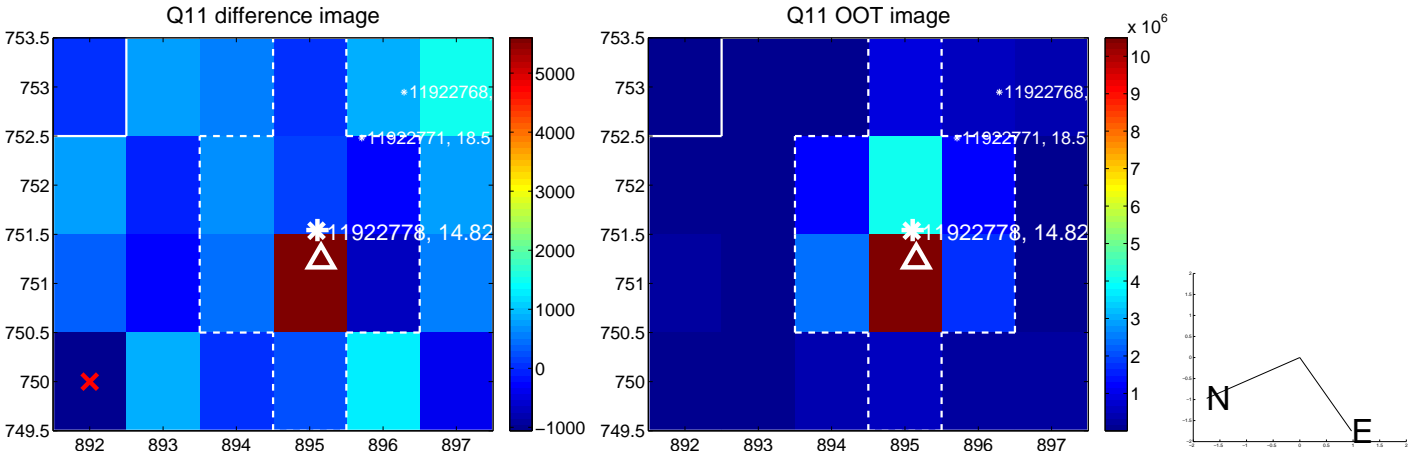
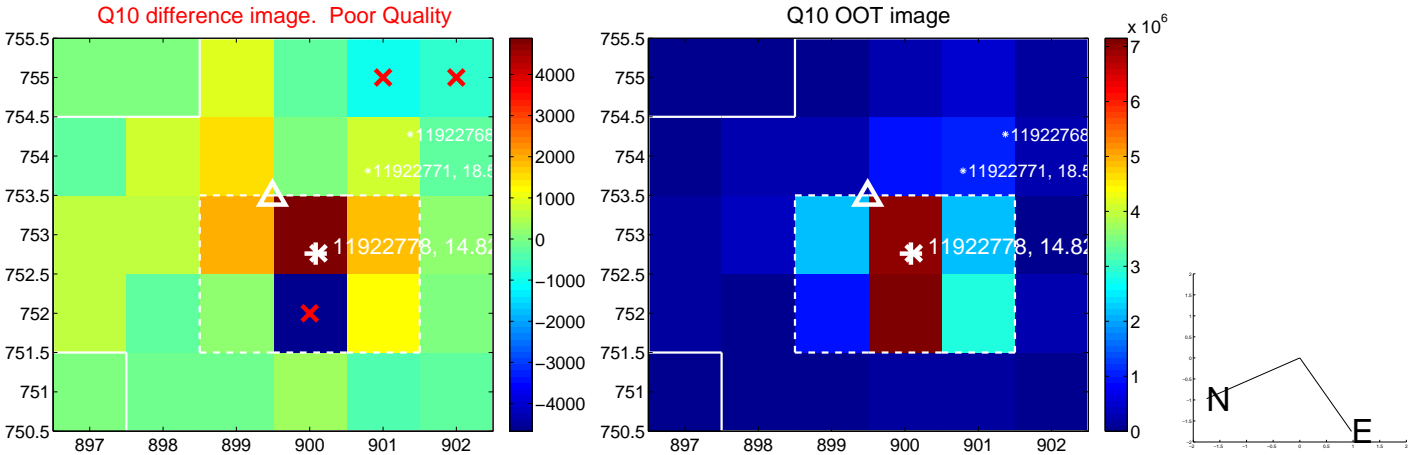
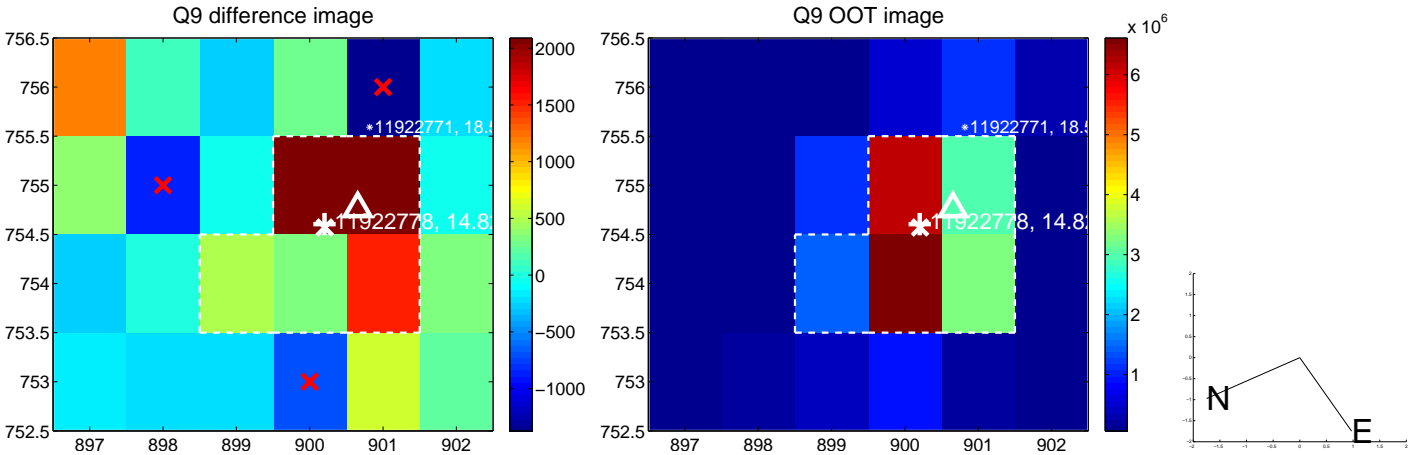
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



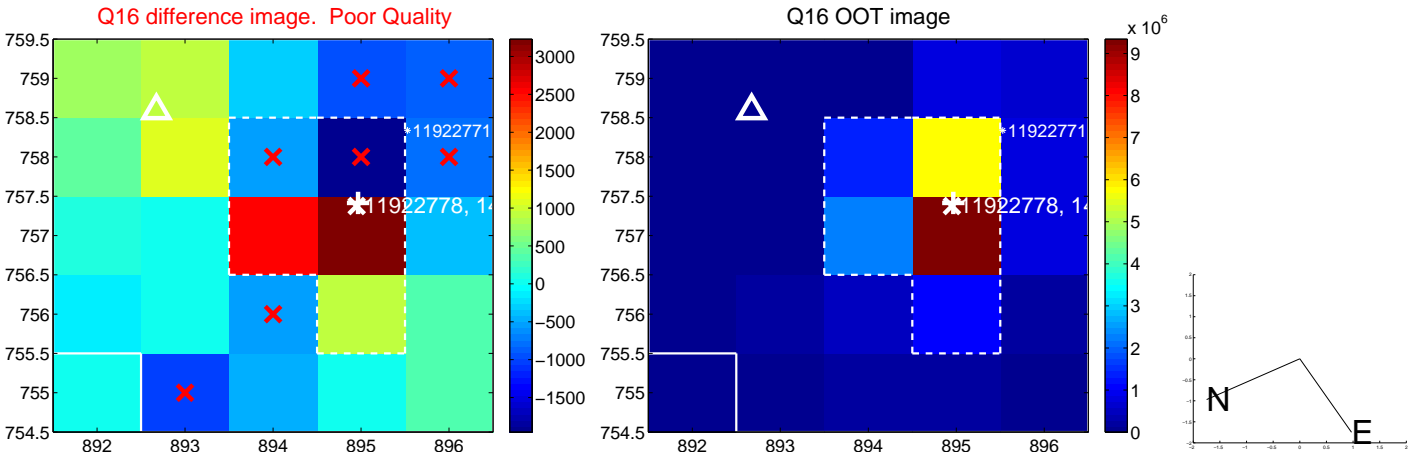
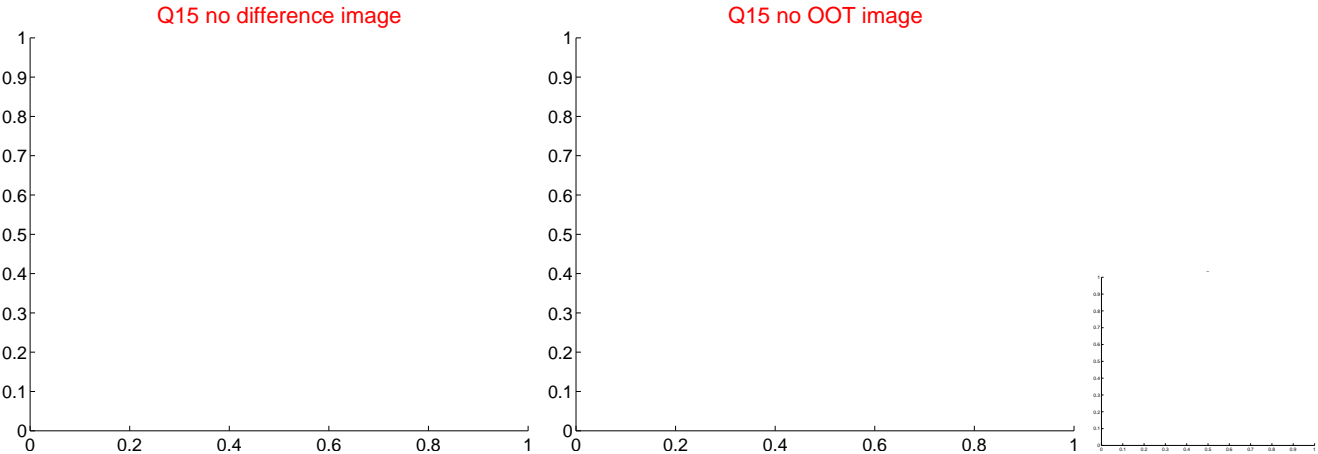
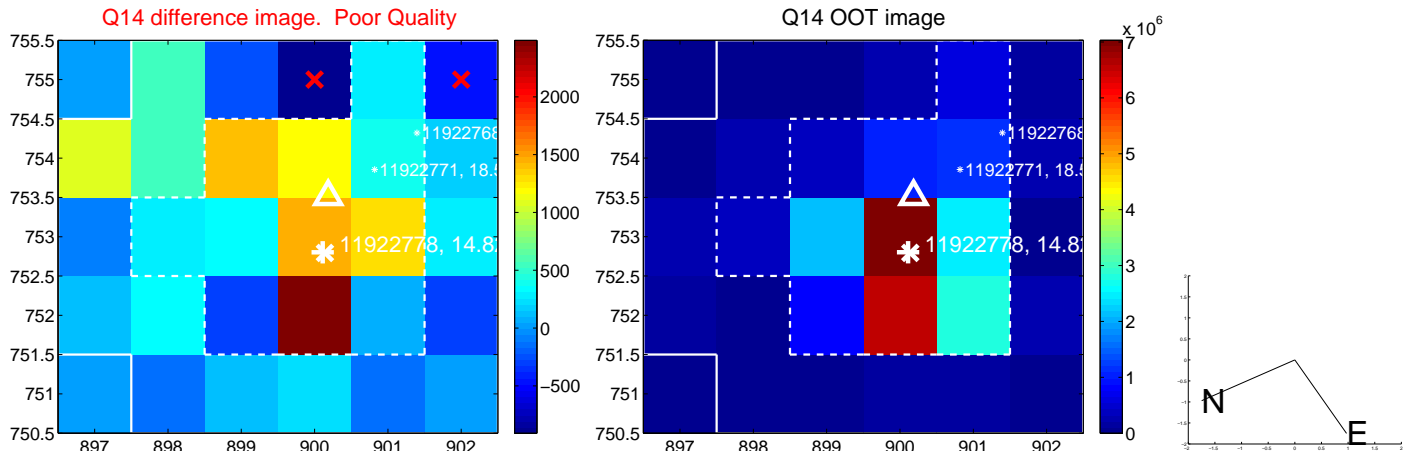
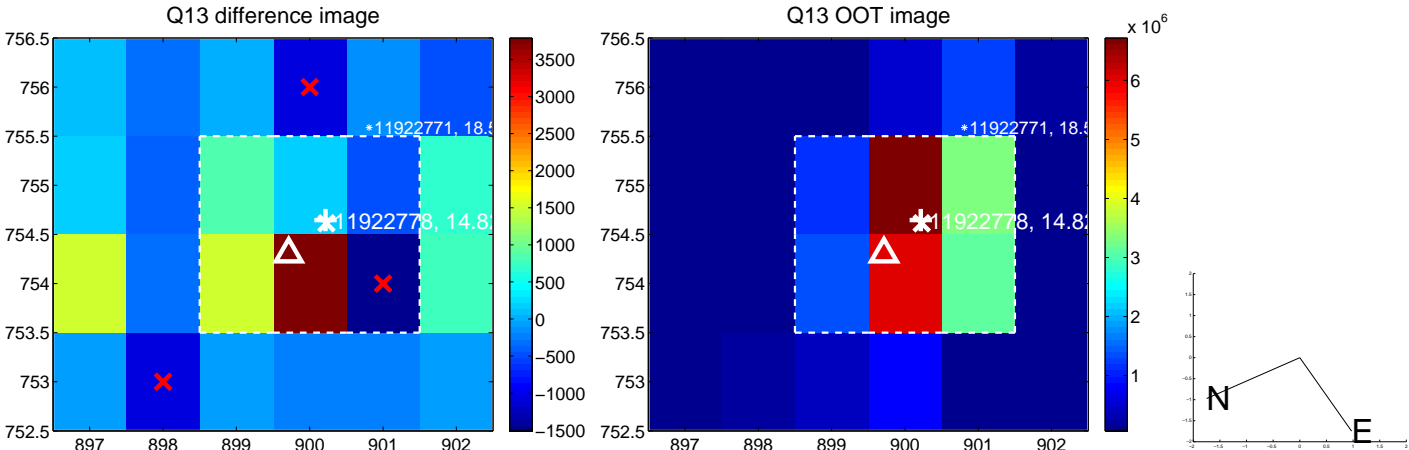
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



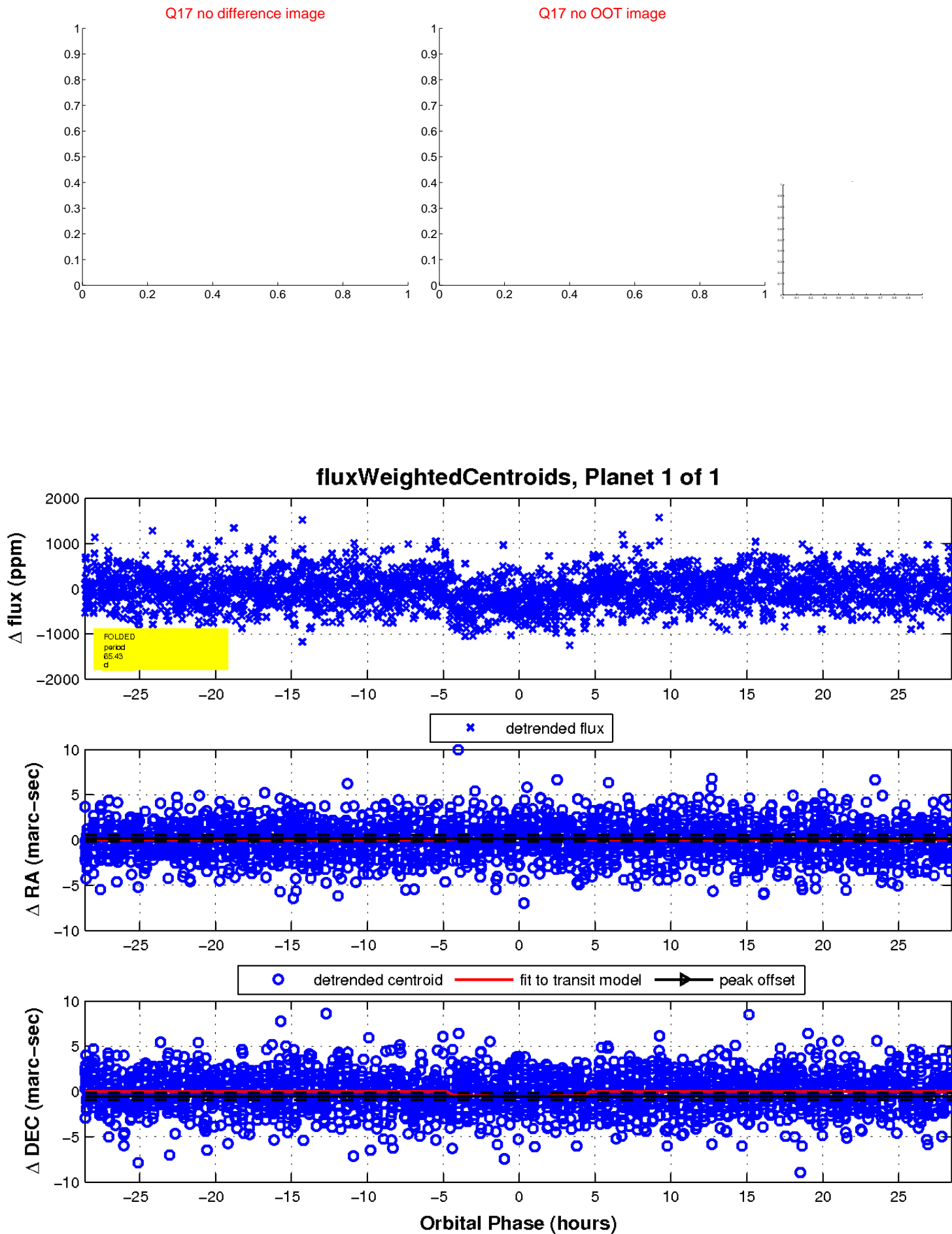
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UKIRT Image

Declination

