

KIC 011449918

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})
011449918-01	OBS	No	375.486935	300.385709	464.2	20.494	8.9	8.3	0.83	5497	1.85	0.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011449918-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--CENT_FEW_DIFFS

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

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

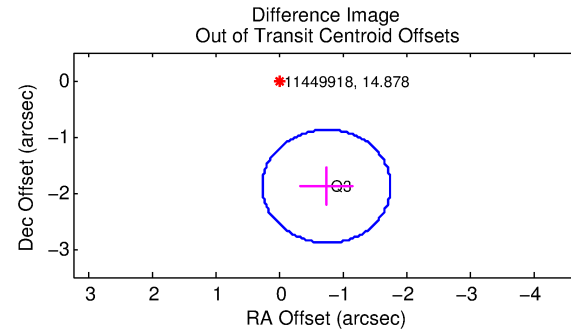
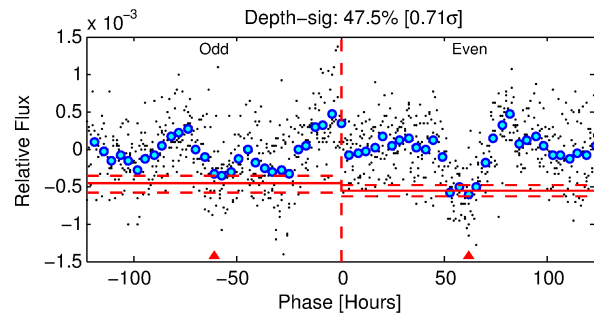
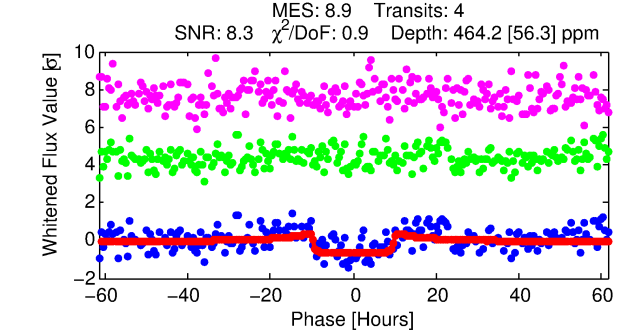
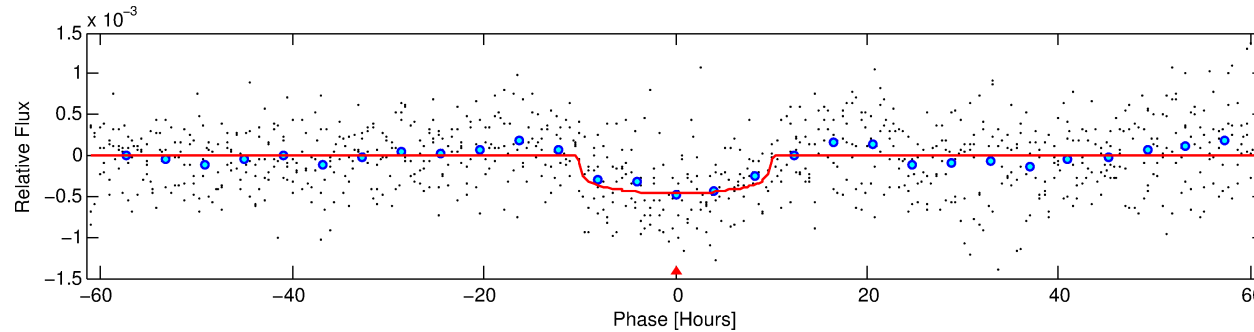
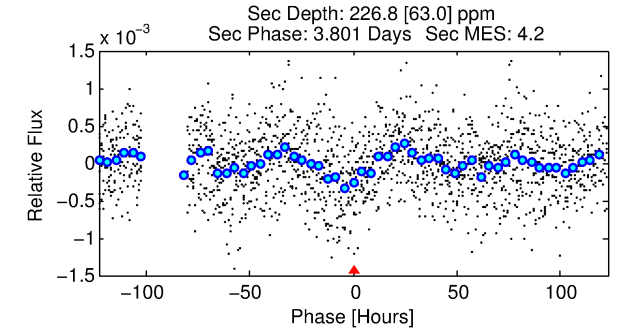
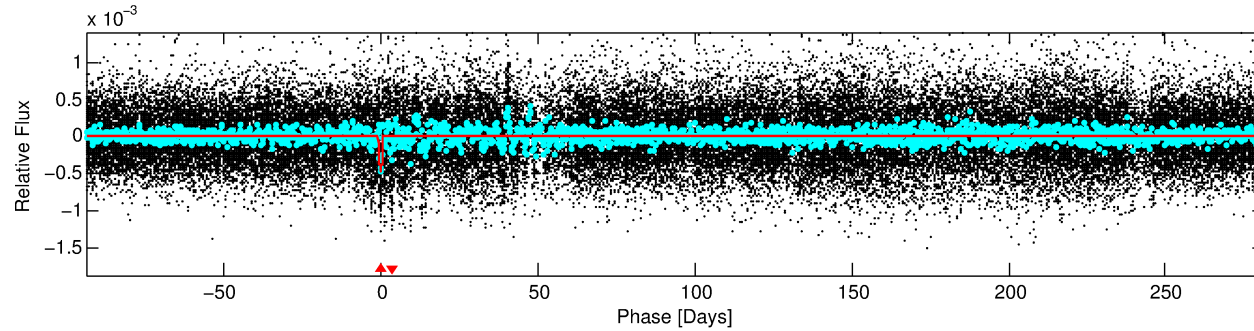
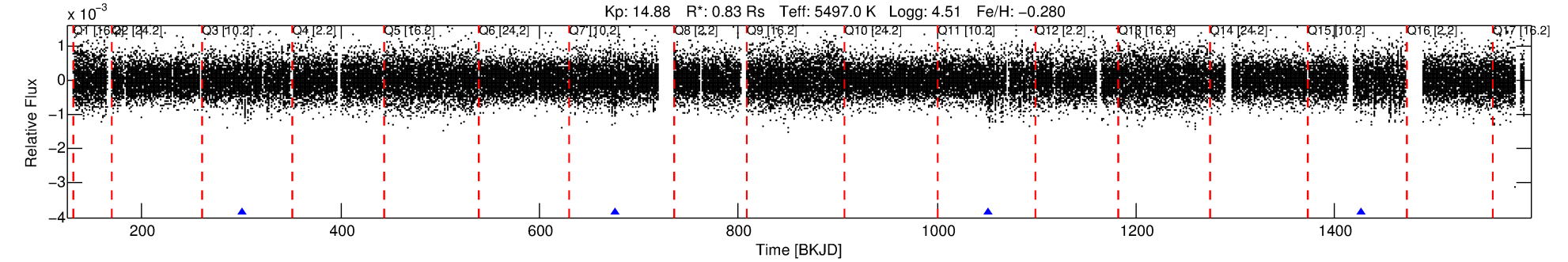
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011449918-01

No Significant Match Found

DV One-Page Summary

KIC: 11449918 Candidate: 1 of 1 Period: 375.487 d
KOI: K04362 Corr: No Ephemeris Match



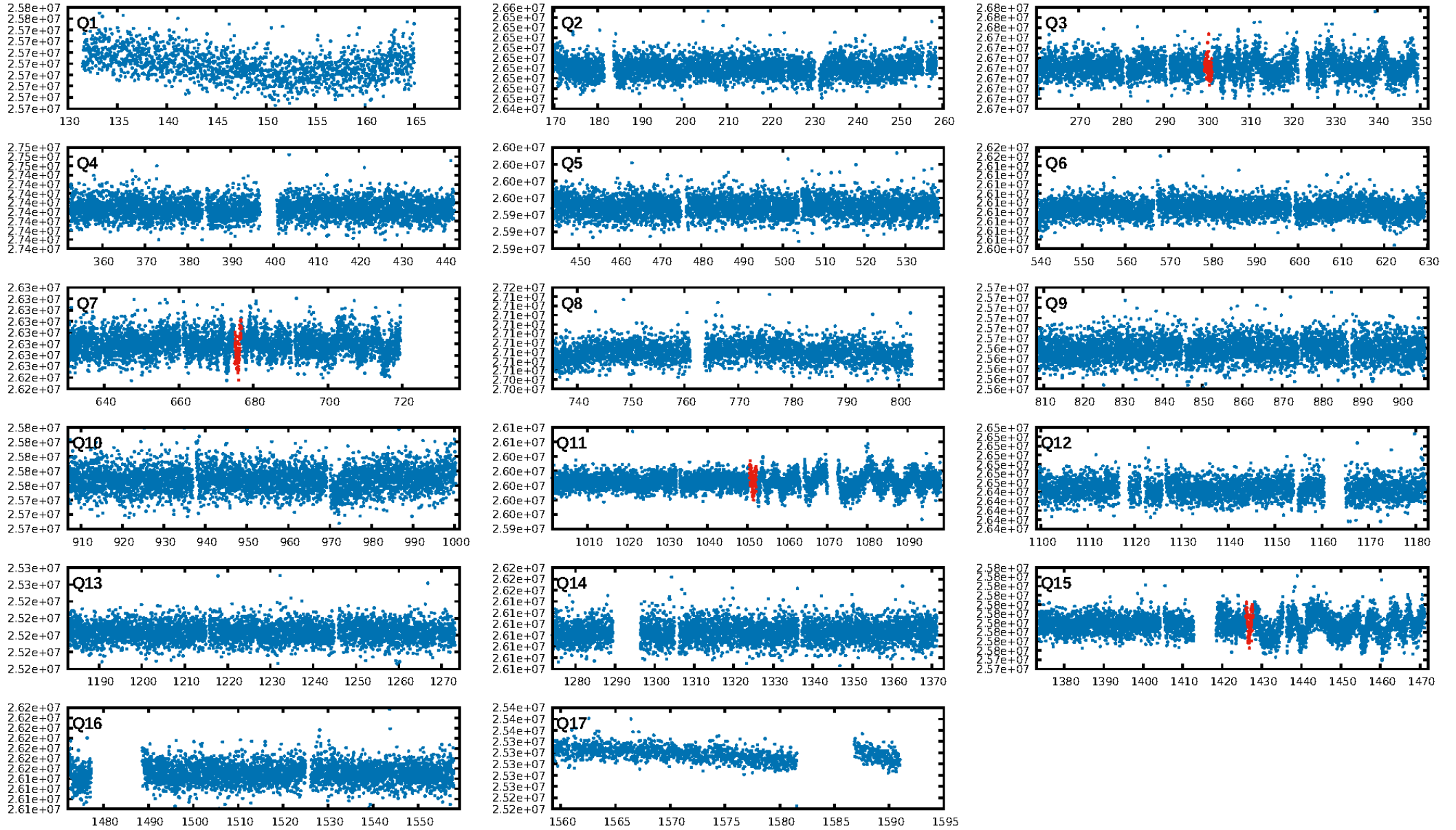
DV Fit Results:

Period = 375.48694 [0.01052] d
Epoch = 300.3857 [0.0193] BKJD
Rp/R* = 0.0206 [0.0054]
a/R* = 114.44 [120.47]
b = 0.61 [1.10]
Seff = 0.62 [0.16]
Teff = 227 [15] K
Rp = 1.85 [0.61] Re
a = 0.9472 [0.1545] AU
Ag = 32537.60 [20789.43] [1.57 σ]
Teffp = 4705 [714] K [6.27 σ]

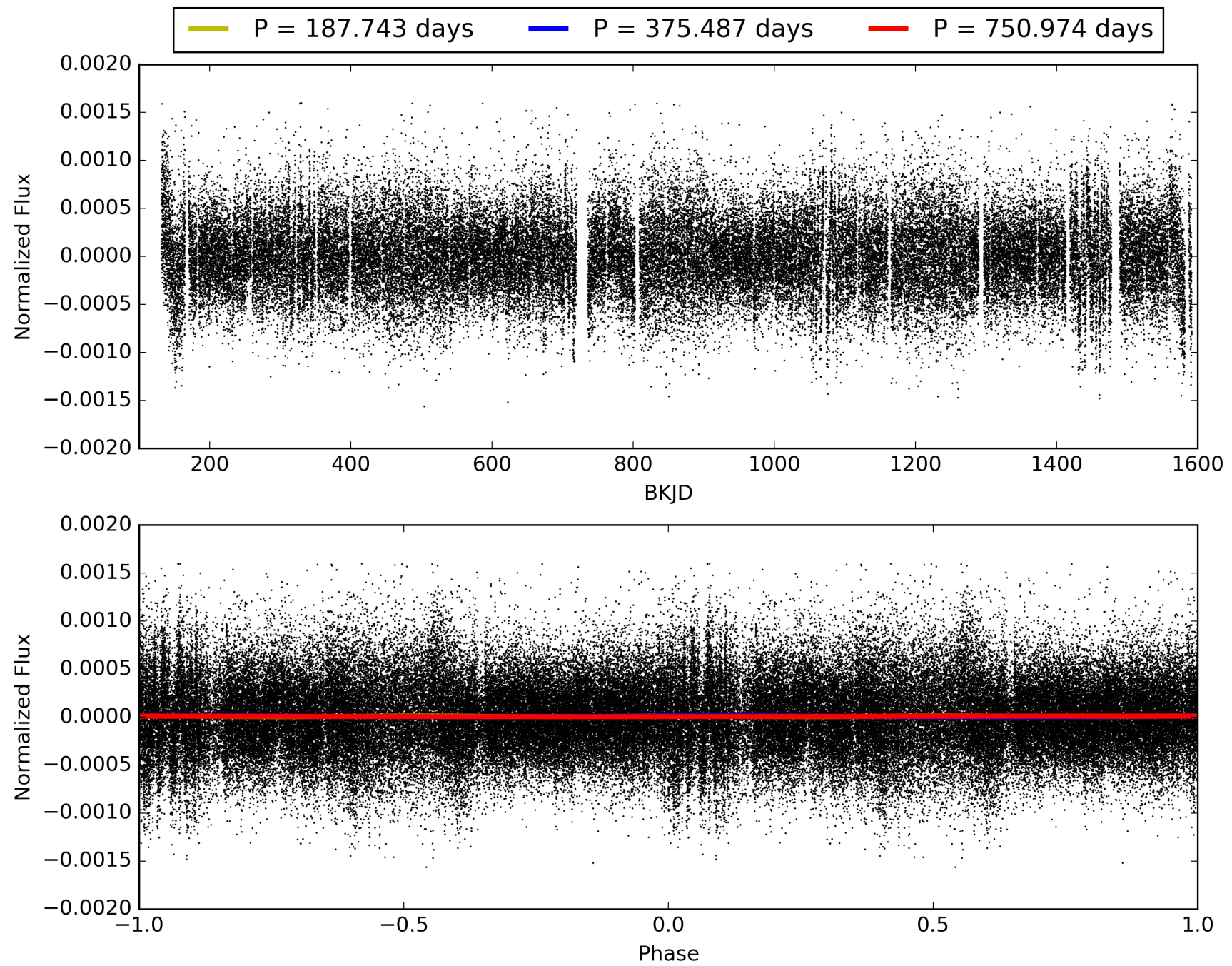
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.57e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.062
Centroid-sig: 0.4%
Centroid-so: 2.419 arcsec [1.56 σ]
OotOffset-rm: 2.024 arcsec [6.02 σ]
KicOffset-rm: 1.985 arcsec [5.79 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 011449918-01, PDC Light Curves

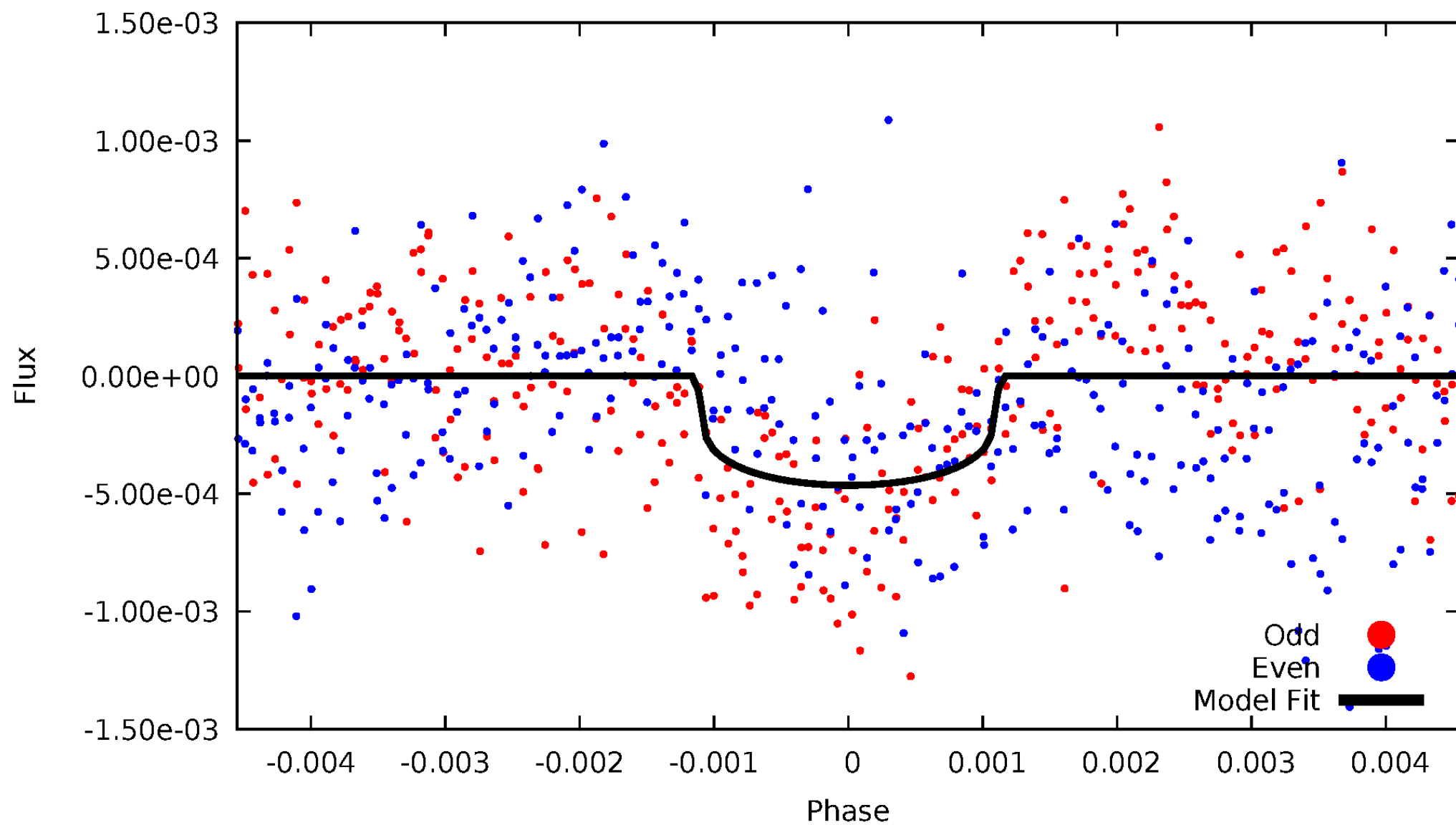


TCE 011449918-01



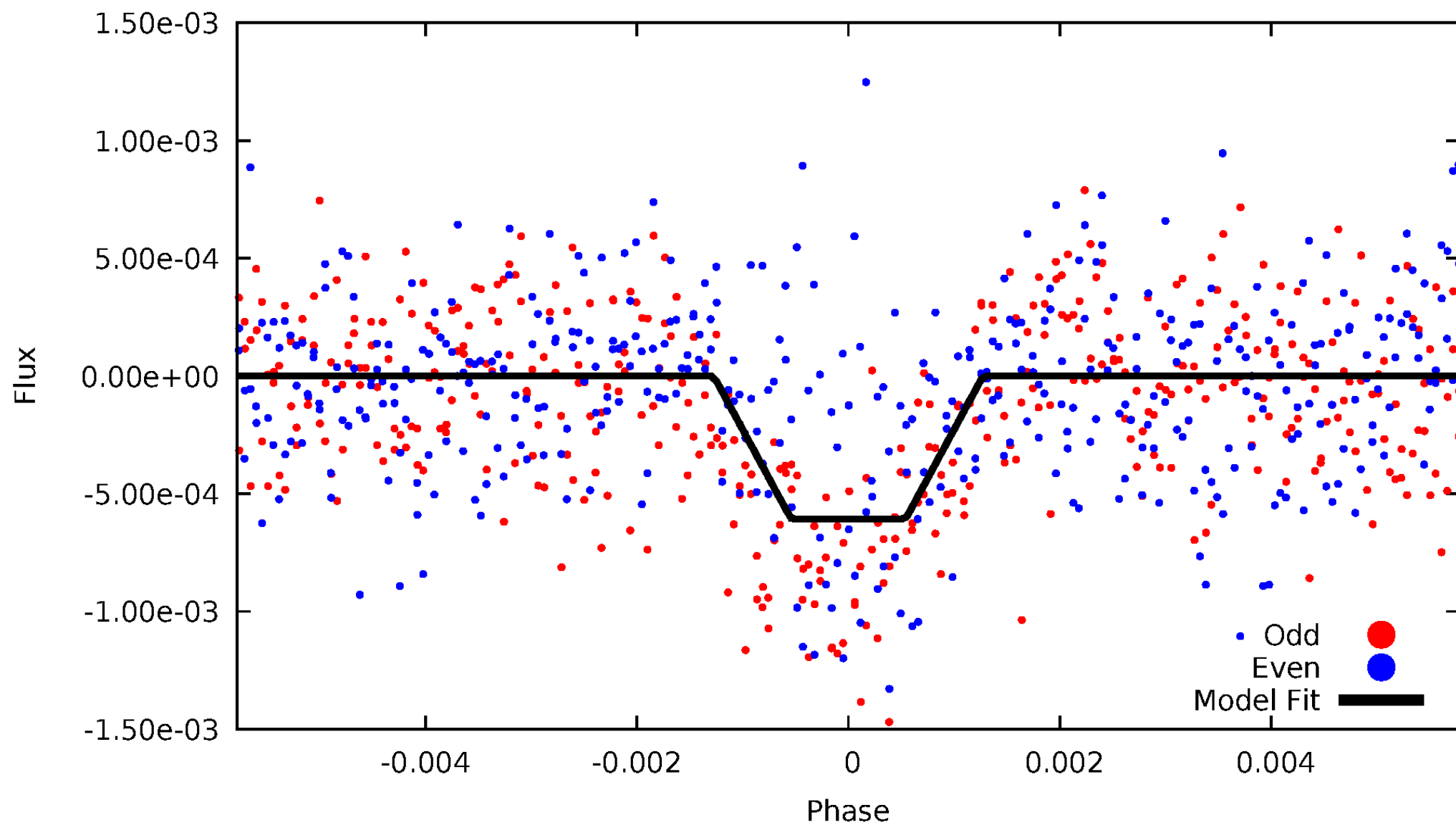
DV Odd/Even

TCE 011449918-01



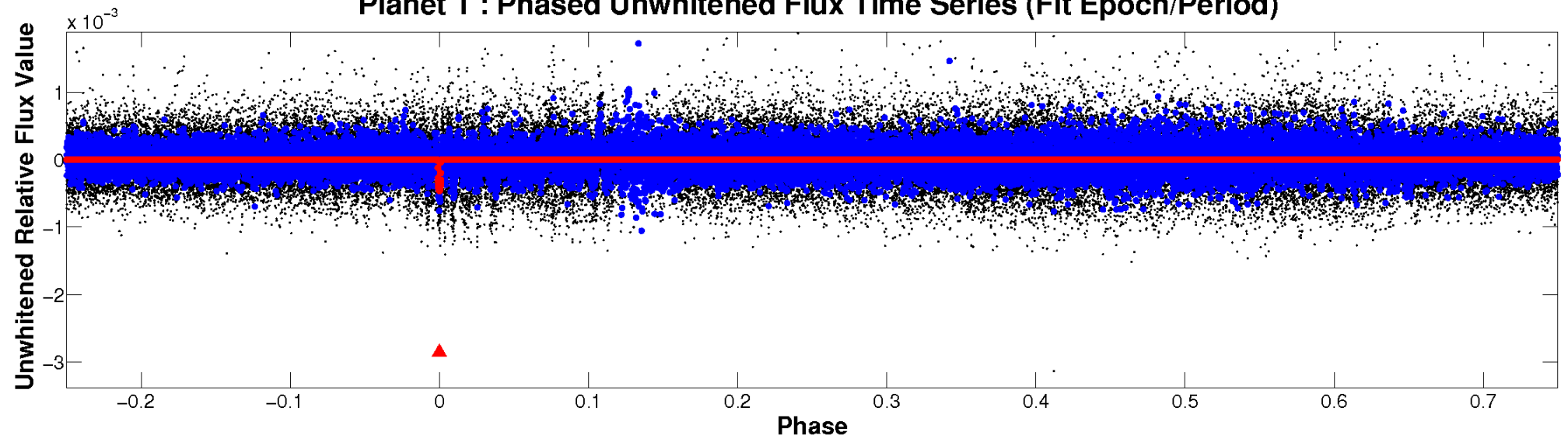
ALT Odd/Even

TCE 011449918-01

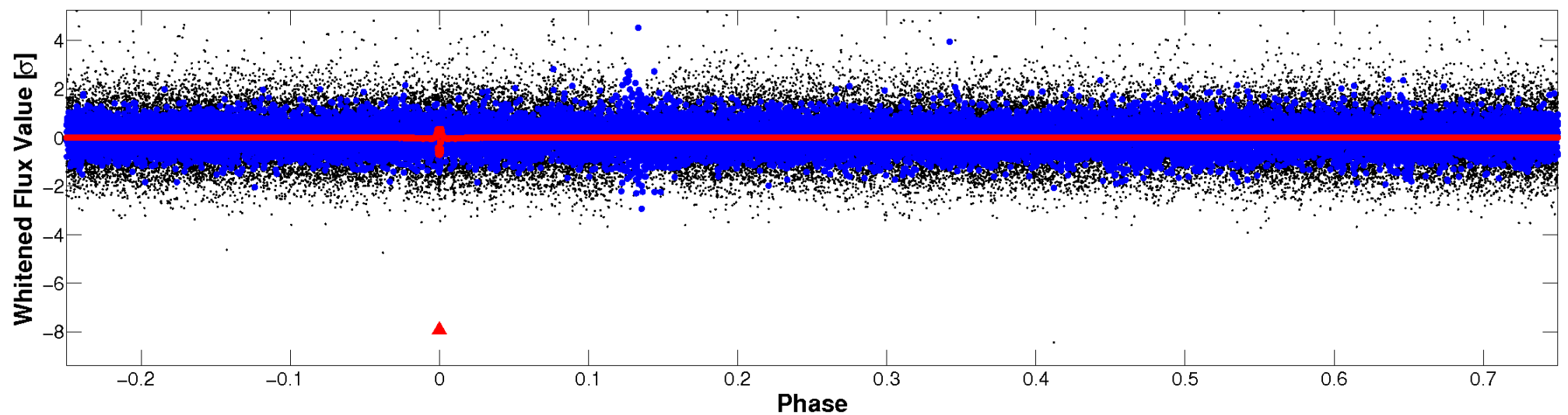


Non-Whitened Vs. Whitened Light Curve

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

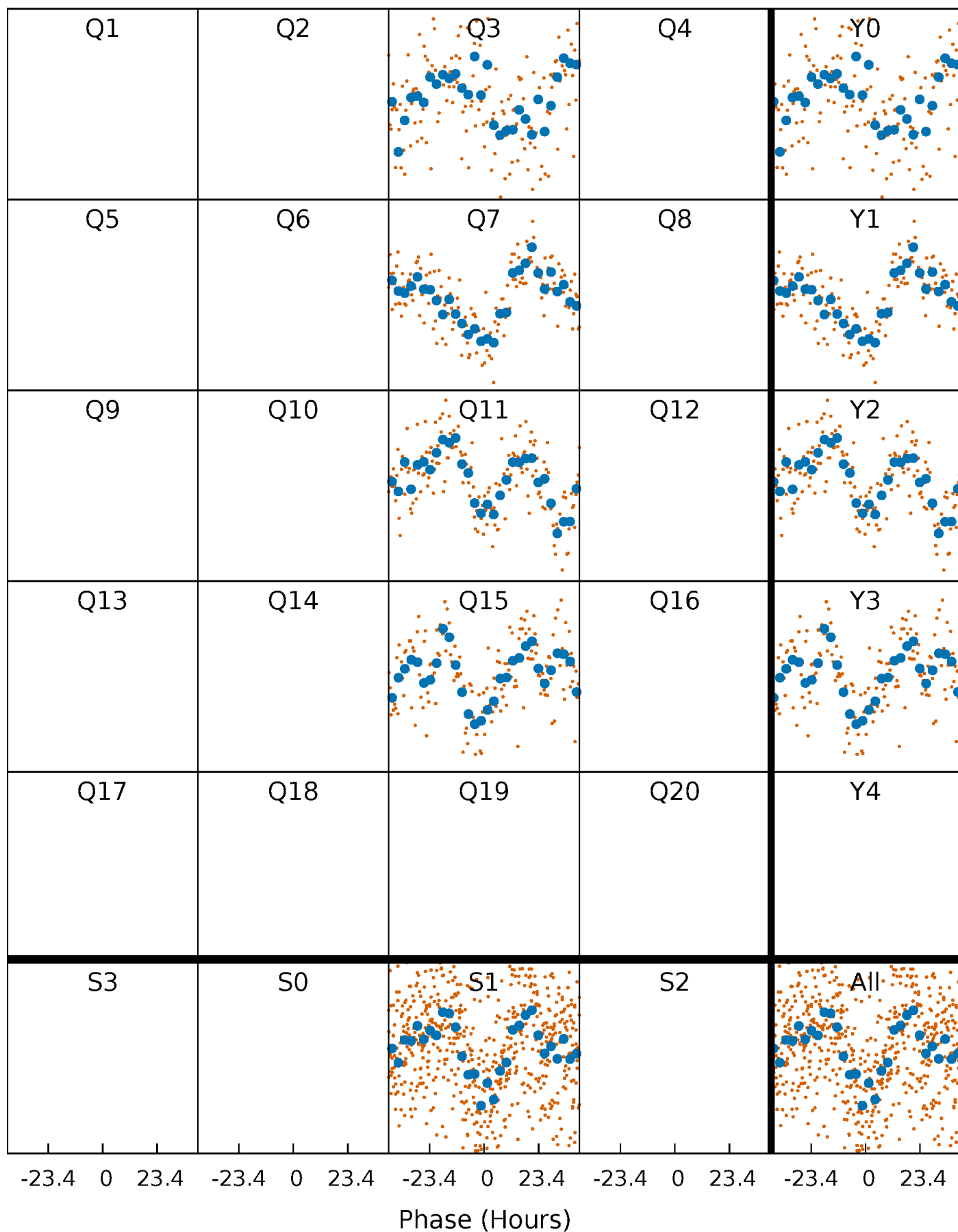


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



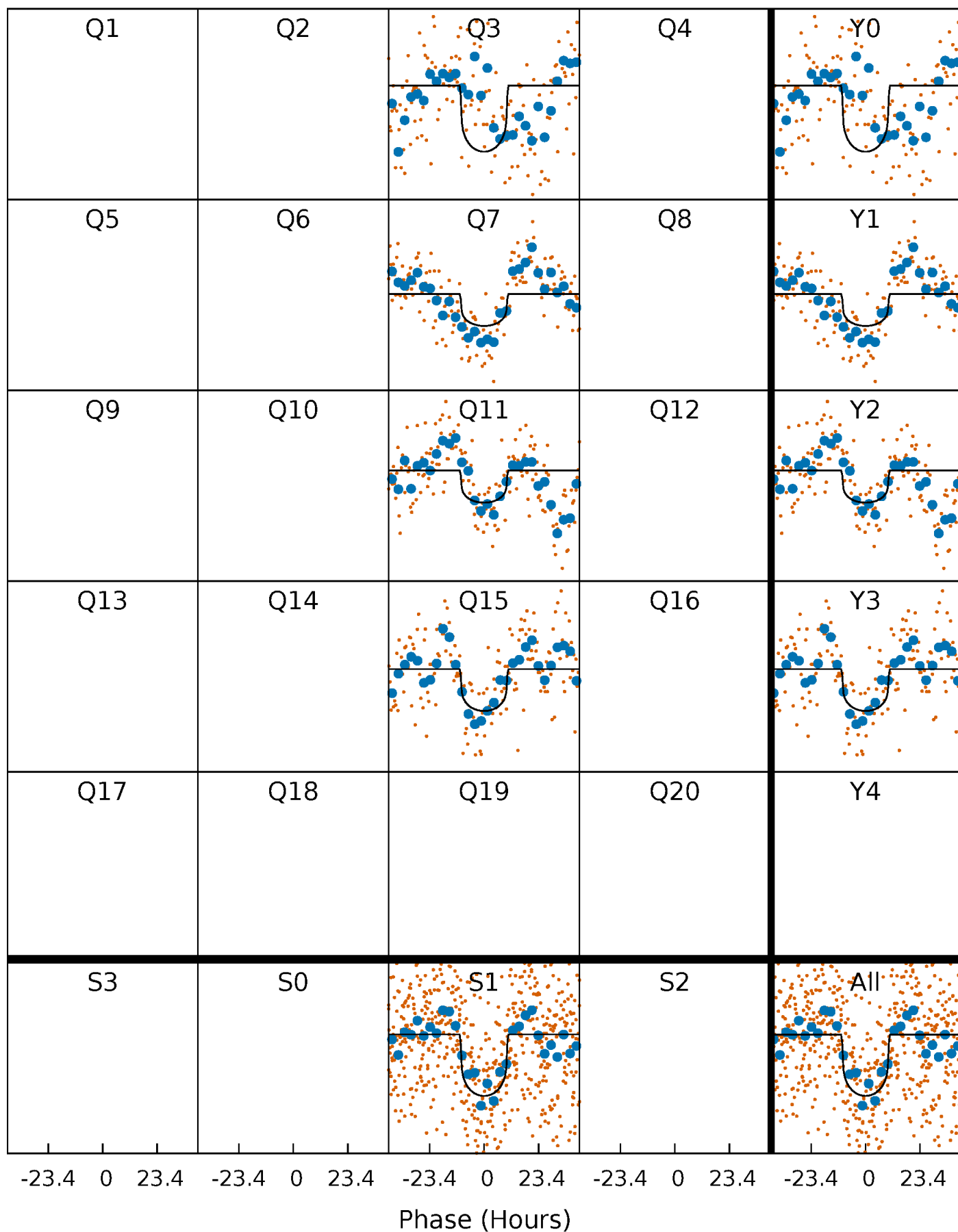
PDC Quarter-Phased Transit Curves

TCE 011449918-01 P=375.486935 Days $T_0=300.385709$ (BKJD)



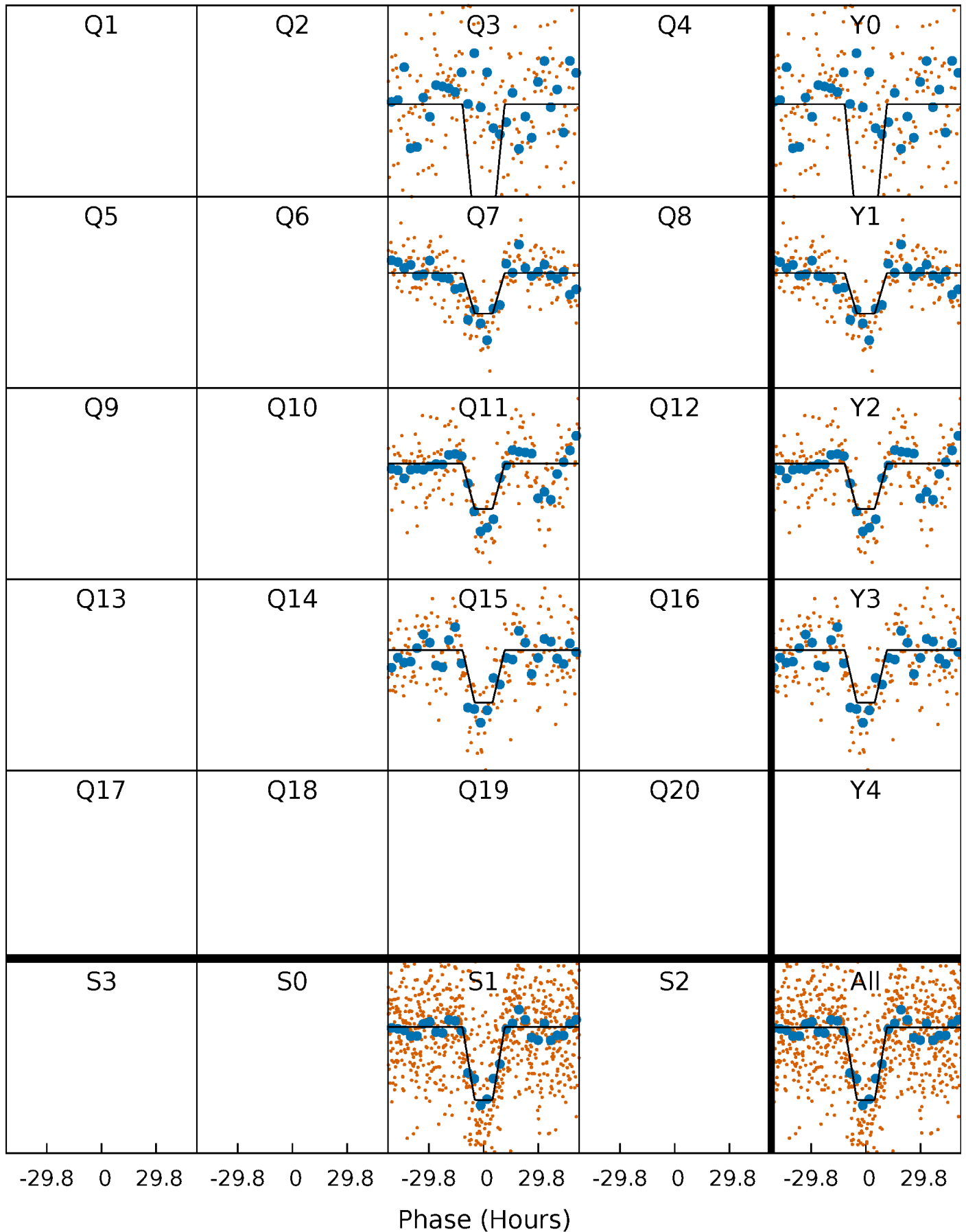
DV Quarter-Phased Transit Curves

TCE 011449918-01 P=375.486935 Days $T_0=300.385709$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

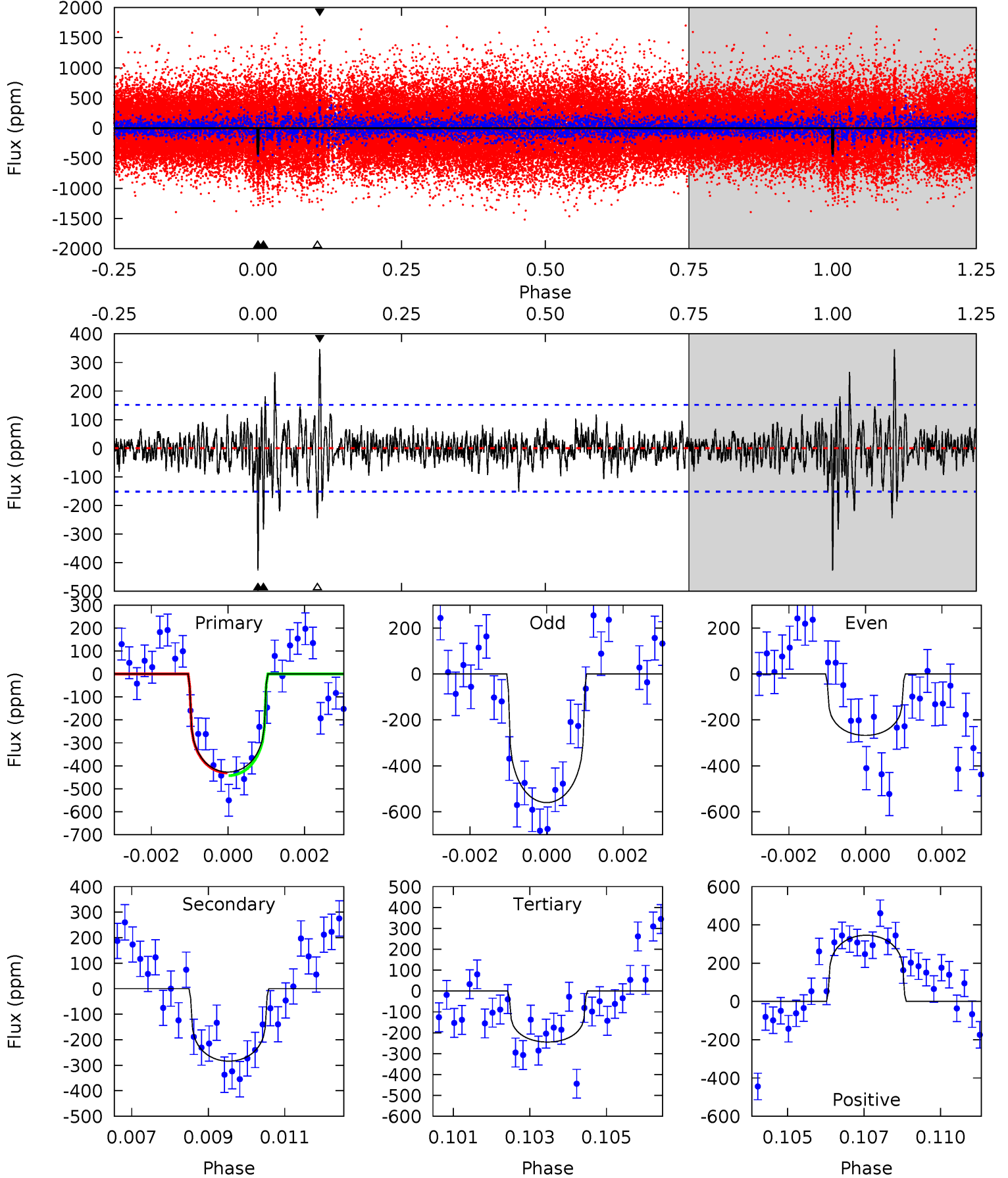
TCE 011449918-01 P=375.466665 Days $T_0=300.435338$ (BKJD)



DV Model-Shift Uniqueness Test

011449918-01, P = 375.486935 Days, E = 300.385709 Days

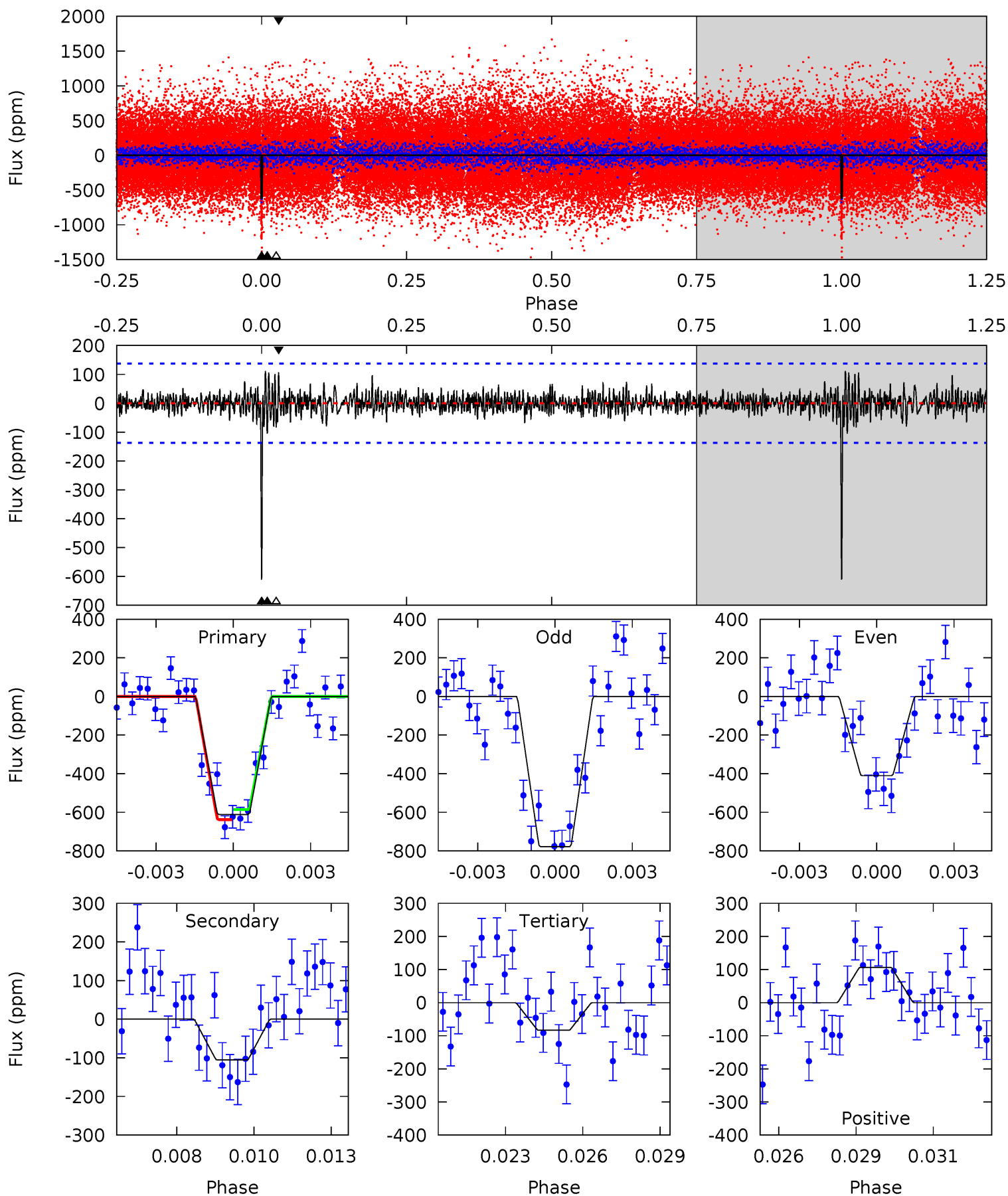
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	9.92	8.54	12.1	5.31	3.06	1.72	6.39	2.84	1.38	-2.17	5.13	0.91	0.45	0.21



Alt Model-Shift Uniqueness Test

011449918-01, P = 375.466665 Days, E = 300.435338 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.5	4.05	3.21	4.10	5.28	3.01	0.94	20.3	19.4	0.84	-0.05	7.09	0.74	0.15	1.01



Stellar Parameters For KIC 011449918

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5497^{+166}_{-149}	$4.508^{+0.084}_{-0.126}$	$-0.280^{+0.300}_{-0.300}$	$0.827^{+0.163}_{-0.100}$	$0.806^{+0.102}_{-0.065}$	$2.004^{+0.703}_{-0.725}$
	+3%/-3%	+2%/-3%	+107%/-107%	+20%/-12%	+13%/-8%	+35%/-36%
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 011449918-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-284 ± 29	$1.89^{+0.54}_{-0.52}$	318^{+17}_{-13}	5018^{+793}_{-478}	40027^{+34108}_{-16401}
Alt.	-105 ± 26	$2.26^{+0.56}_{-0.54}$	319^{+19}_{-14}	3895^{+408}_{-332}	10302^{+7789}_{-4382}

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

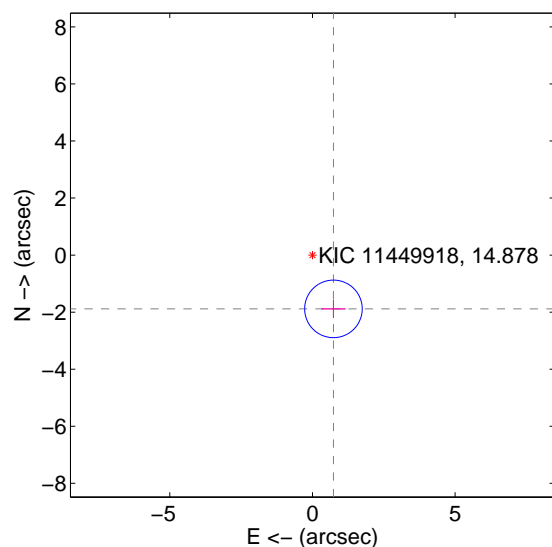
Supplemental centroid analysis for 011449918-01. Kepler magnitude: 14.88. Transit SNR 8.32

There are 0 quarters with good PRF difference image offsets

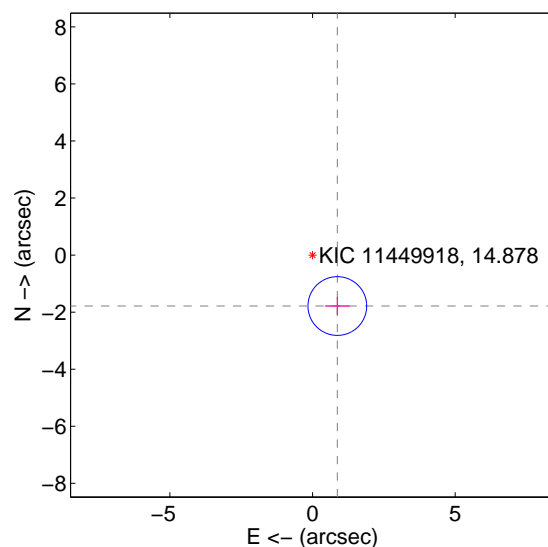
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.024 ± 0.336	6.02	-0.736 ± 0.425	-1.885 ± 0.321
PRF-fit source offset from KIC position	1.985 ± 0.343	5.79	-0.869 ± 0.425	-1.785 ± 0.321
photometric centroid source offset	2.42 ± 1.55	1.56	0.64 ± 1.44	2.33 ± 1.56

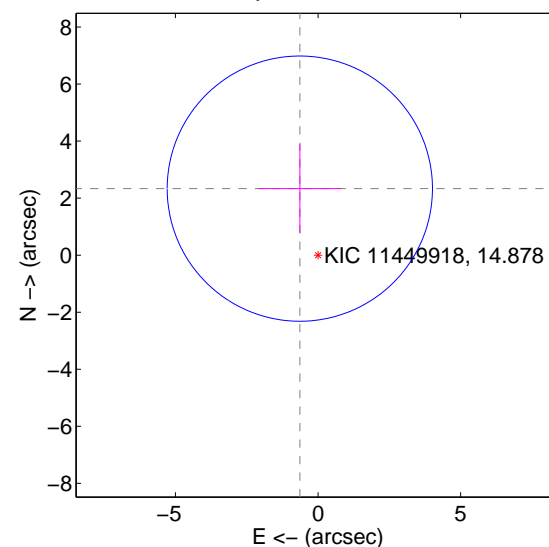
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

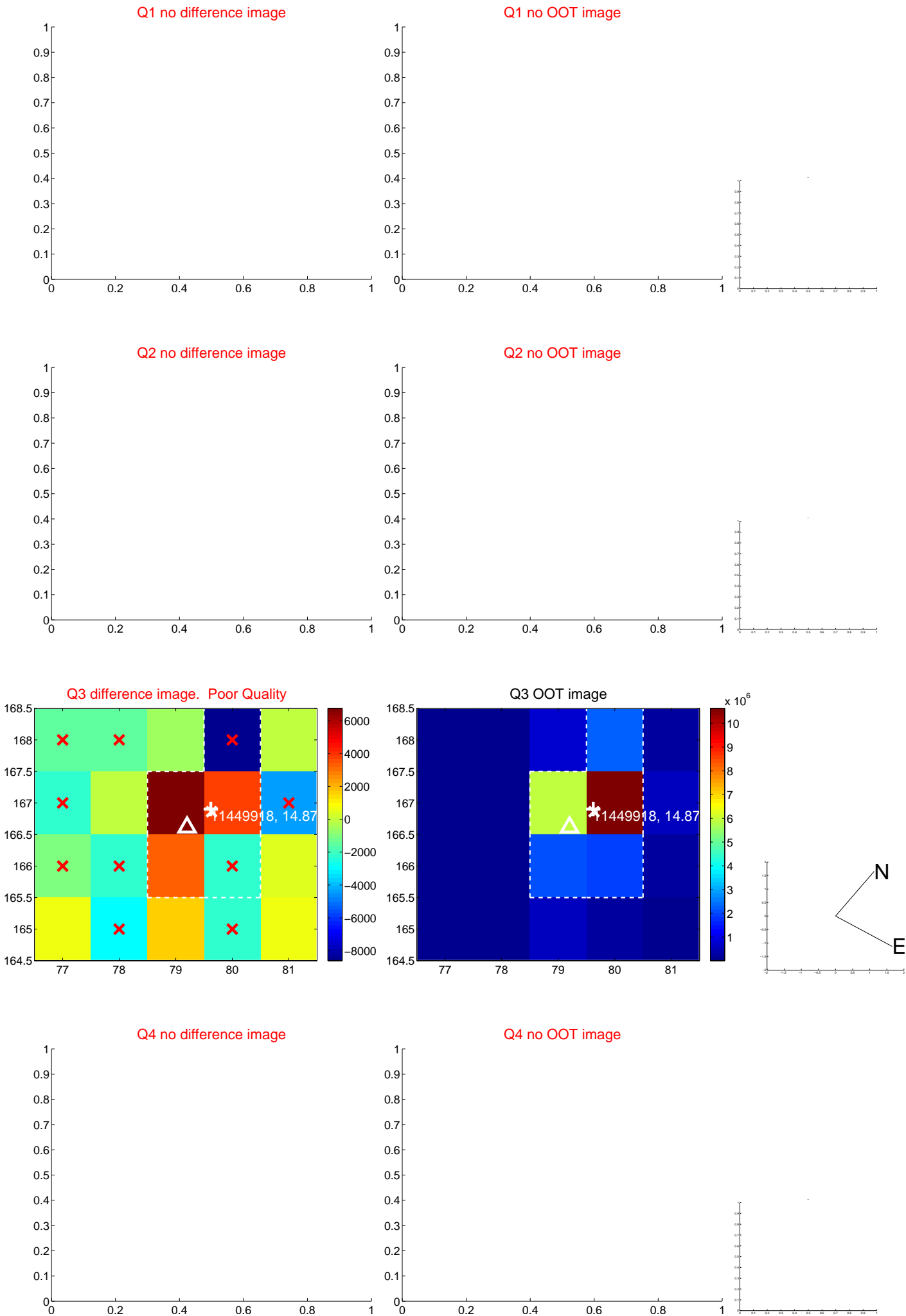


offset from photometric centroids

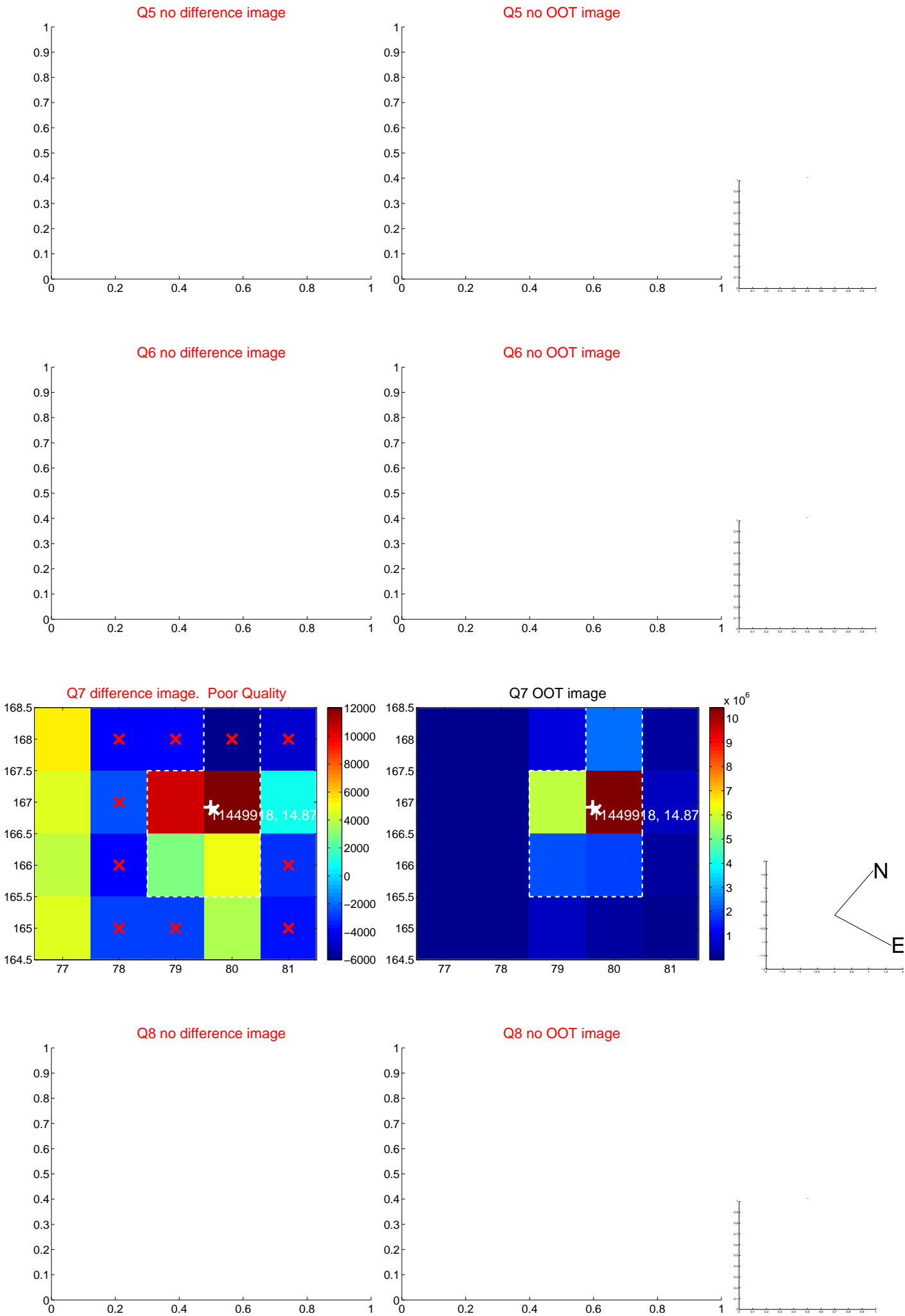


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

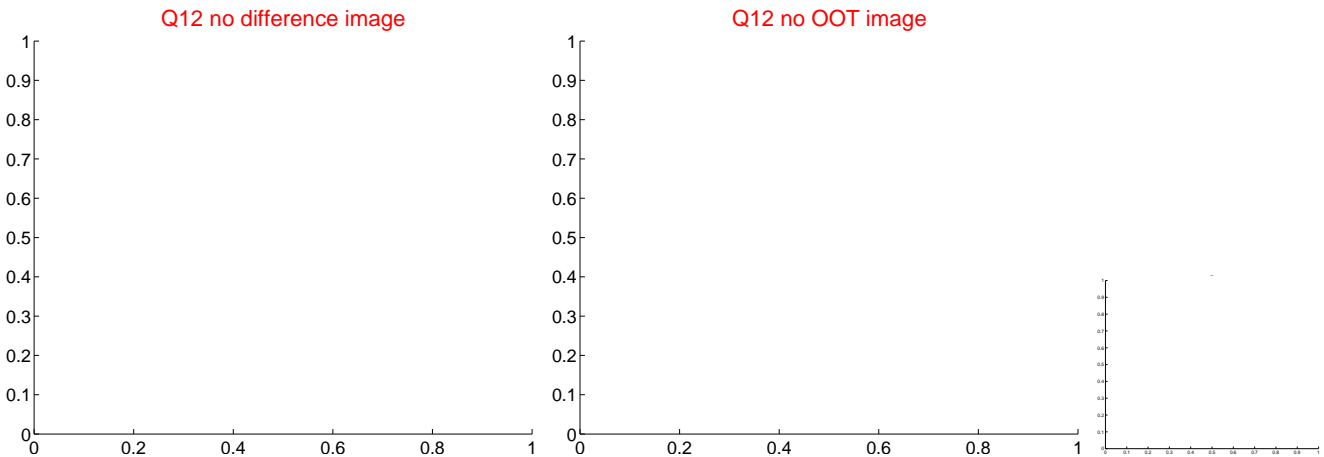
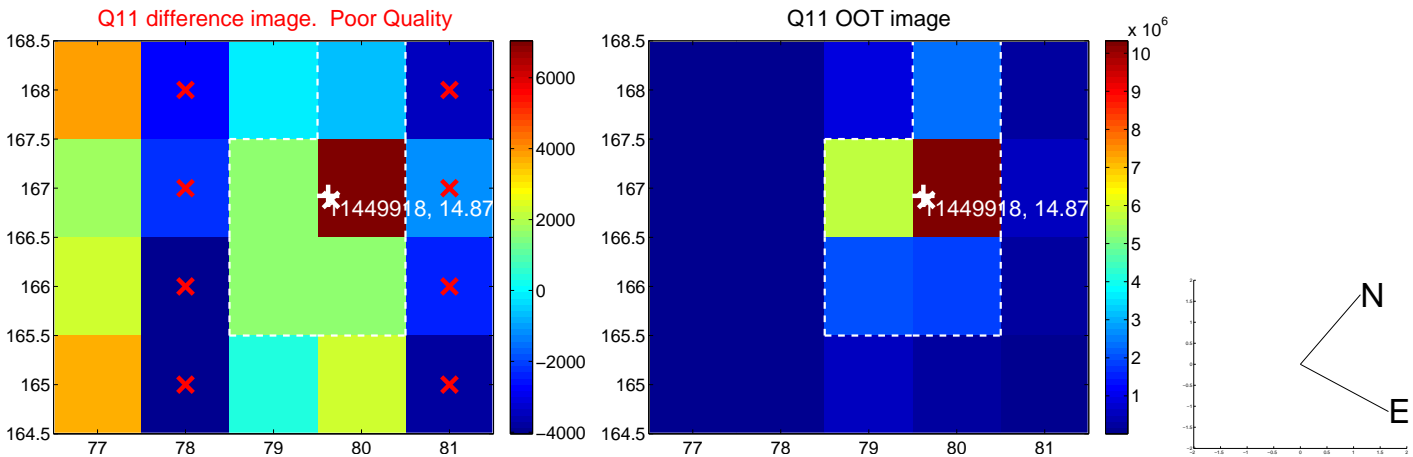
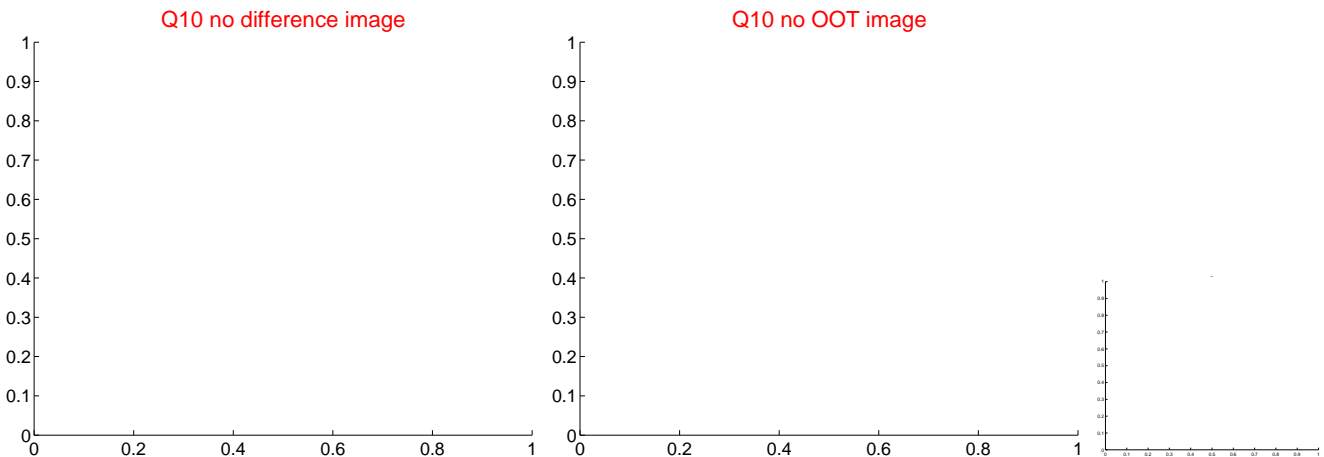
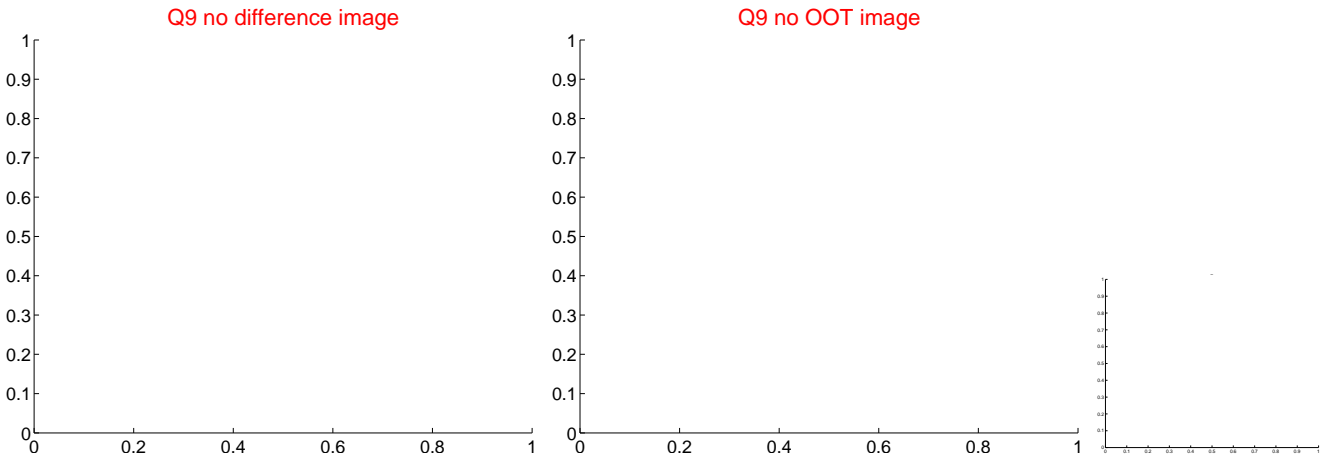
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



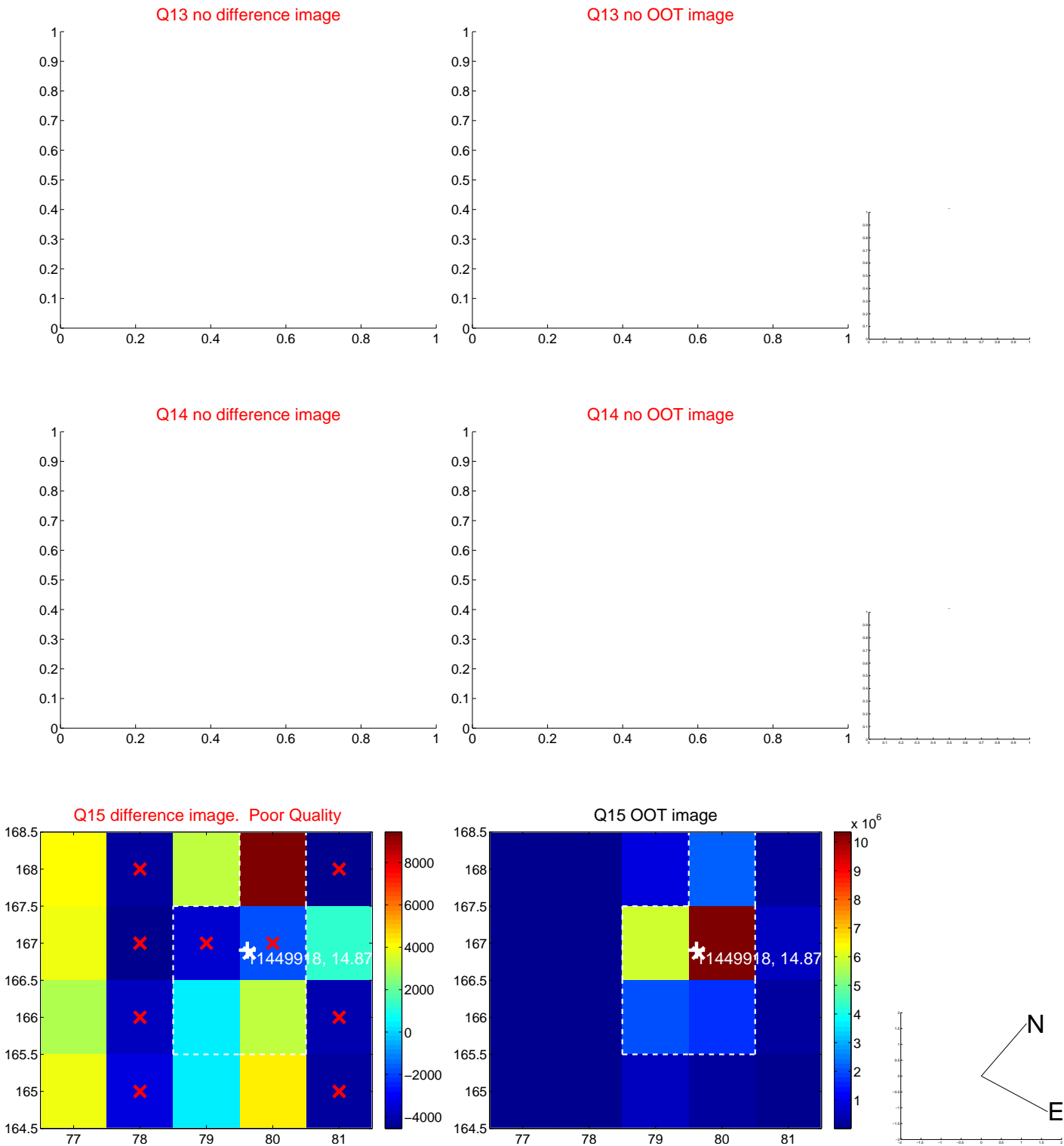
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



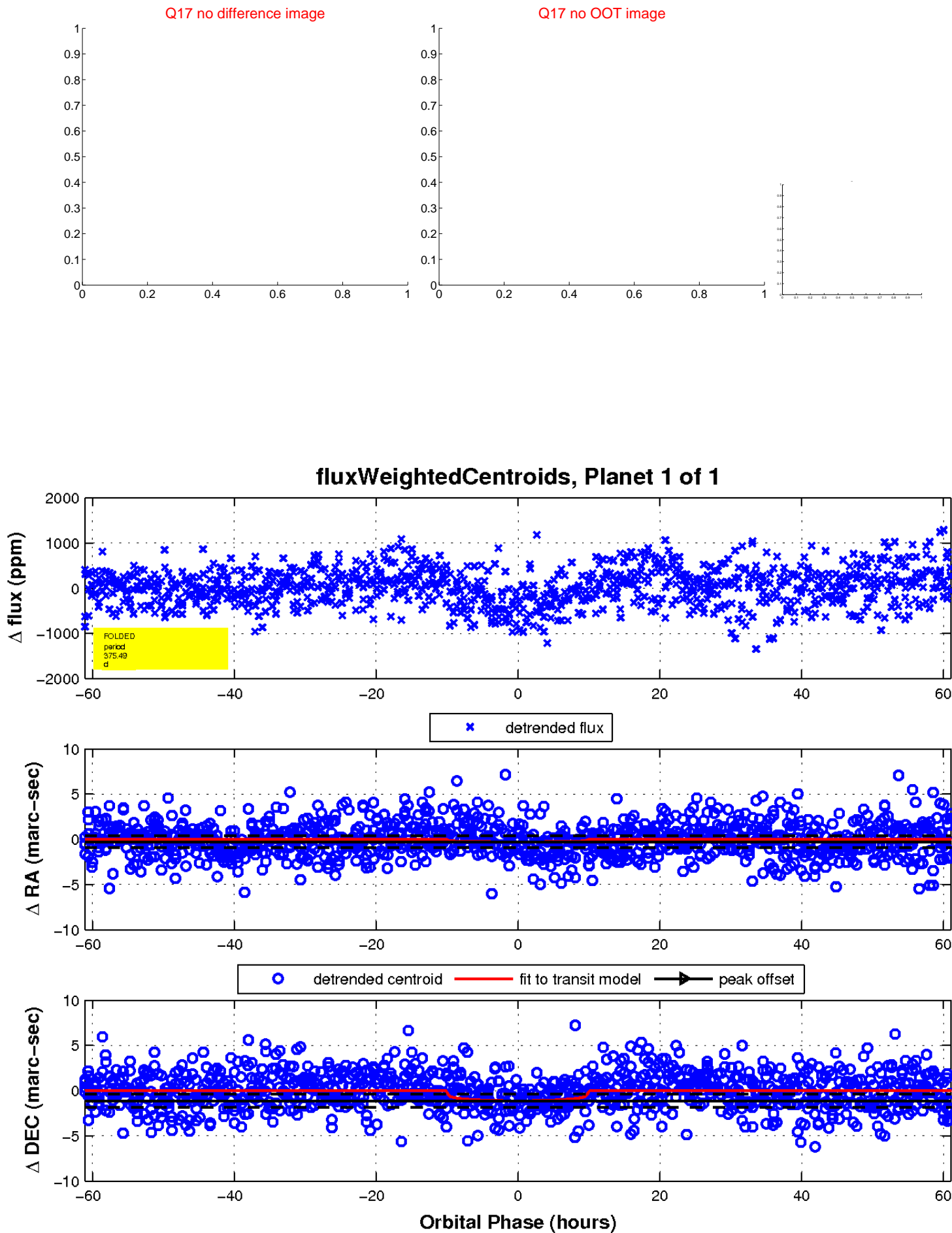
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

