

KIC 011499958

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})
011499958-01	OBS	No	150.827908	240.526285	599.0	3.857	7.2	7.0	10.58	4888	28.36	114.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011499958-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_ALT

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

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

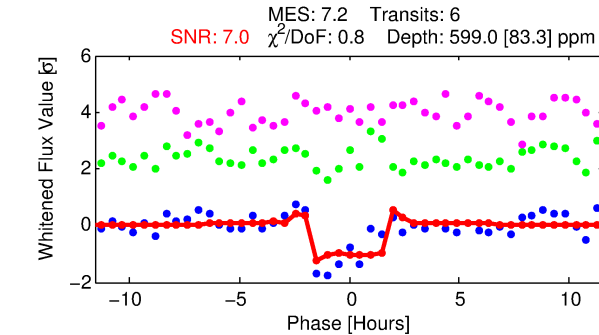
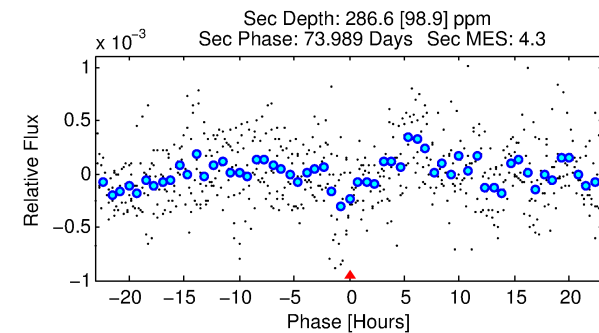
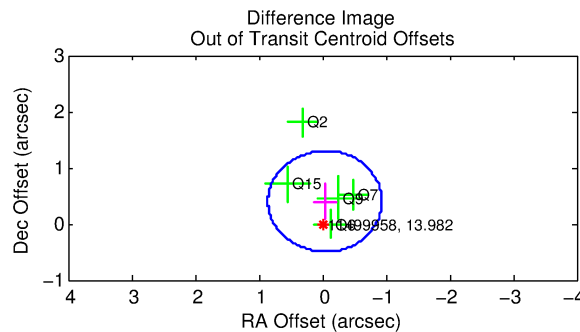
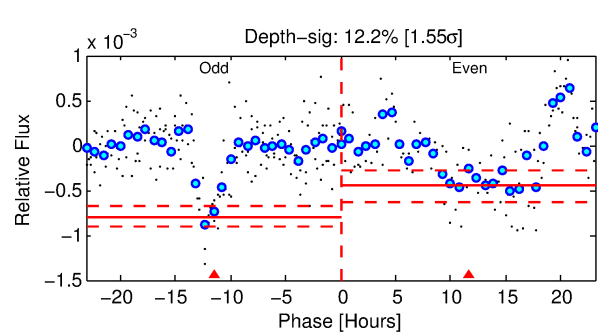
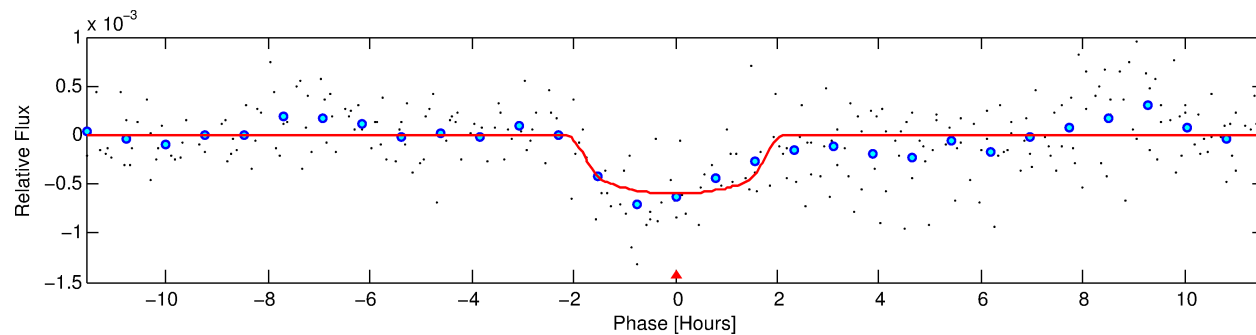
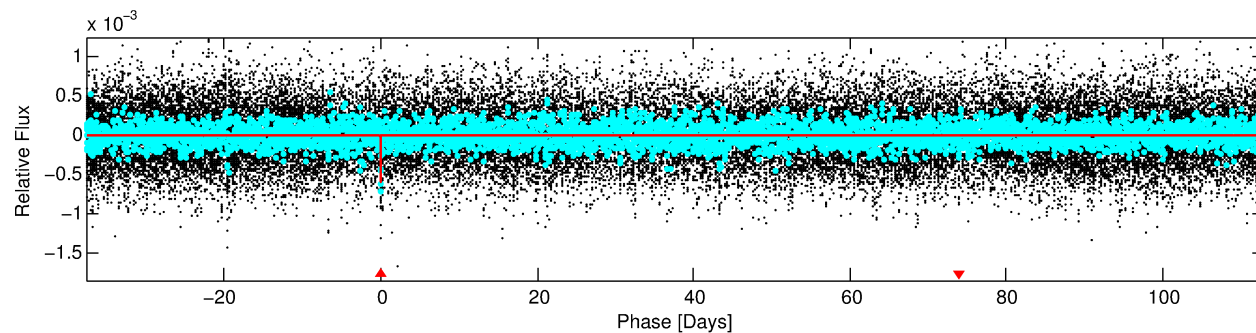
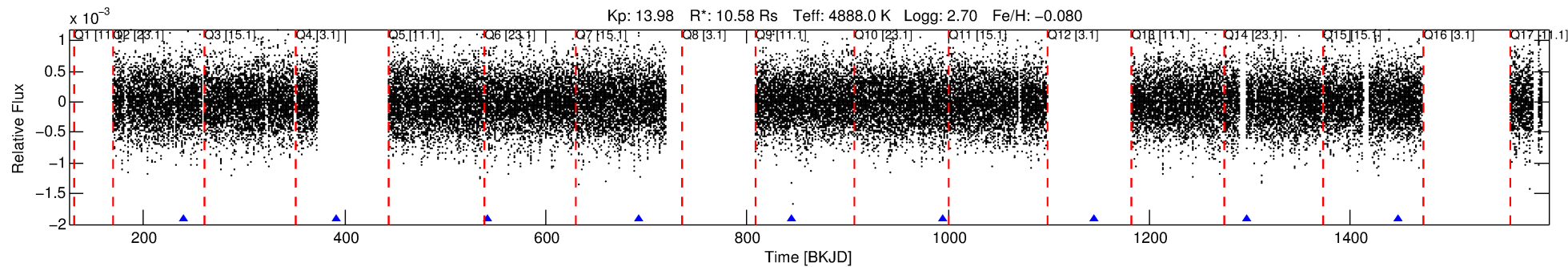
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011499958-01

No Significant Match Found

DV One-Page Summary

KIC: 11499958 Candidate: 1 of 1 Period: 150.828 d



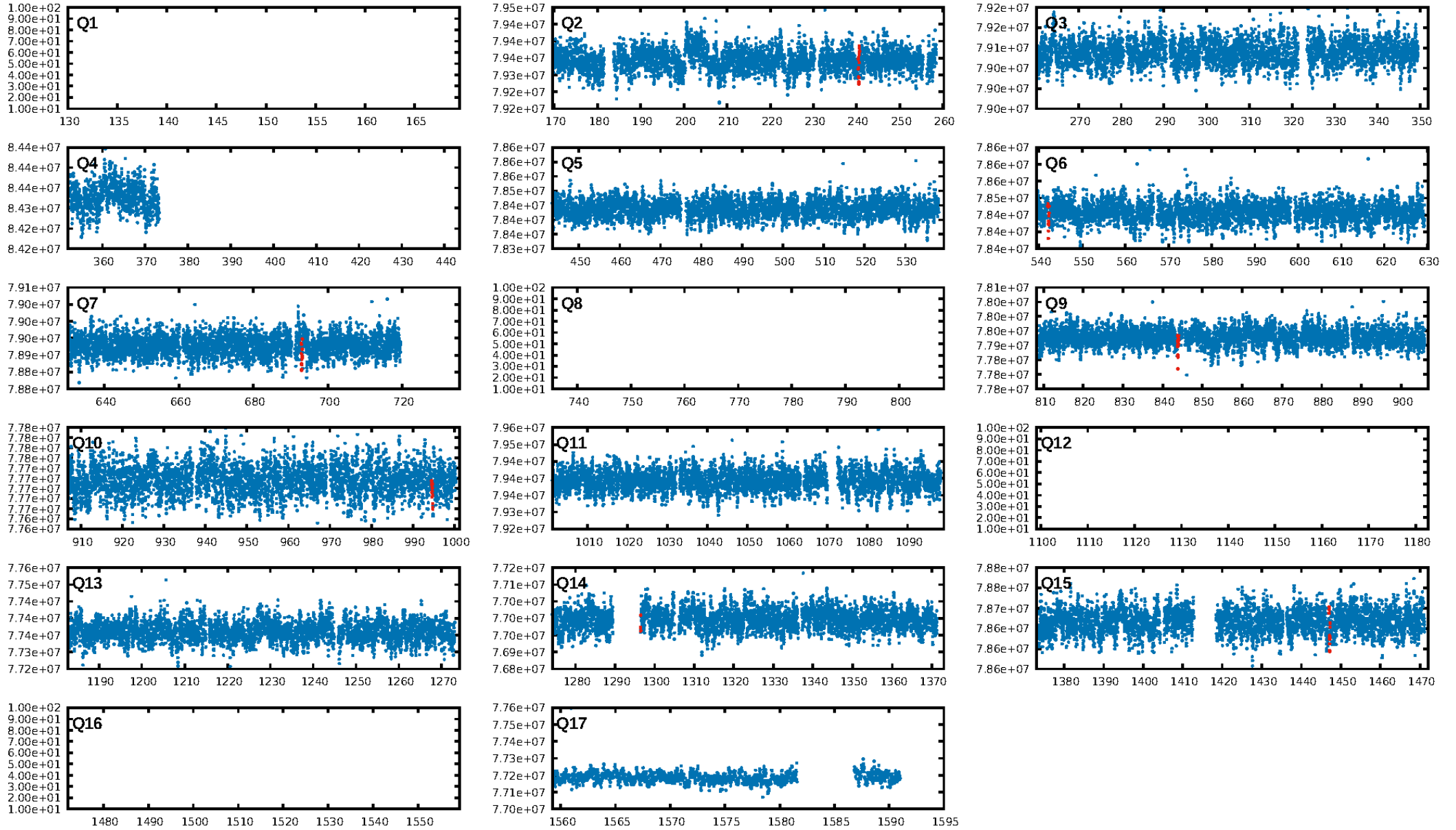
DV Fit Results:

Period = 150.82791 [0.00128] d
Epoch = 240.5263 [0.0055] BKJD
Rp/R* = 0.0246 [0.0132]
a/R* = 205.69 [388.40]
b = 0.76 [1.07]
Seff = 114.75 [25.95]
Teff = 835 [47] K
Rp = 28.36 [17.02] Re
a = 0.7063 [0.1284] AU
Ag = 97.82 [111.64] [0.87 σ]
Teffp = 4058 [1150] K [2.80 σ]

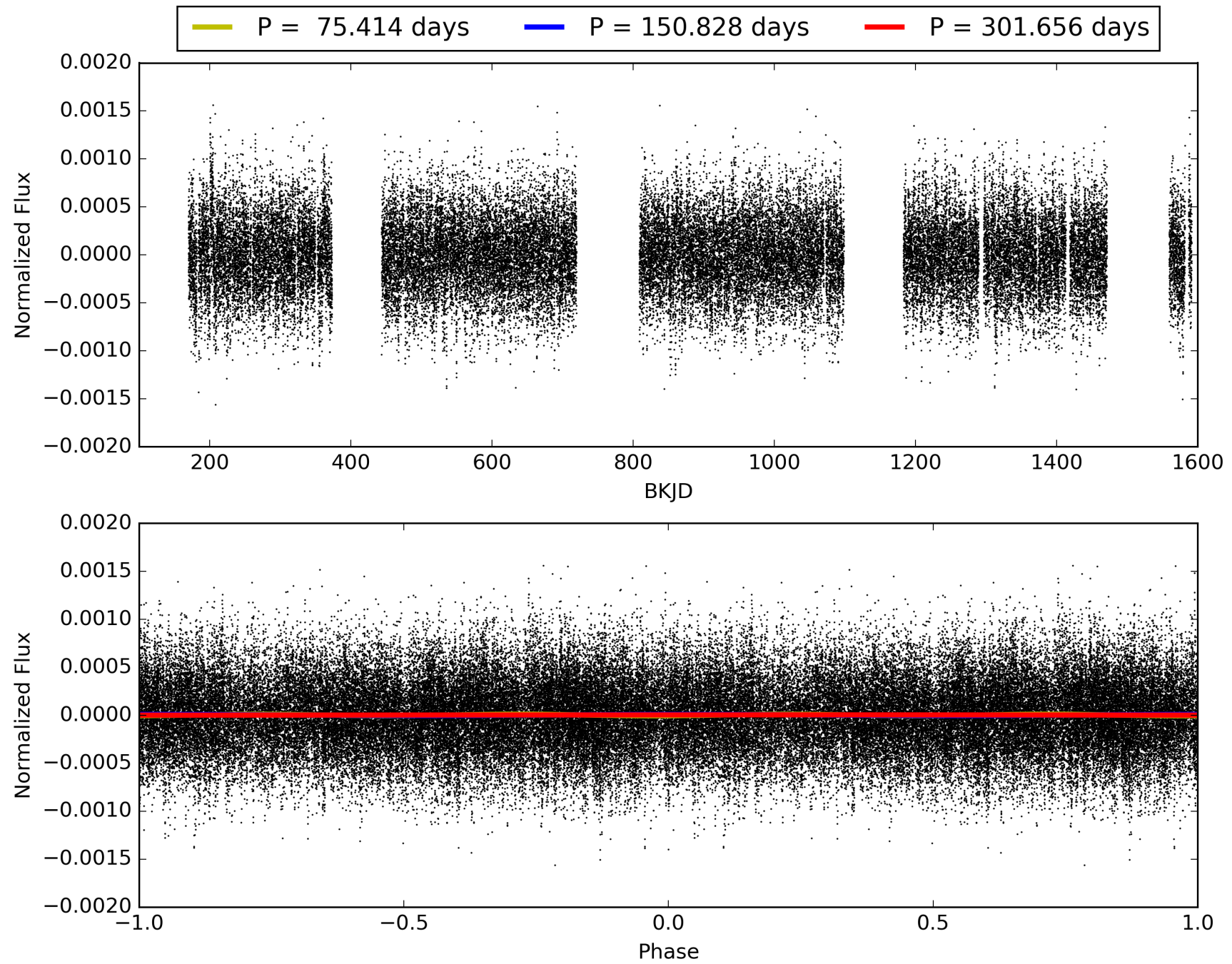
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 69.0%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: 3.86e-09
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -144.8
Centroid-sig: 5.4%
Centroid-so: 0.807 arcsec [1.24 σ]
OotOffset-rm: 0.402 arcsec [1.35 σ]
KicOffset-rm: 0.654 arcsec [2.17 σ]
OotOffset-st: 2/2/0/1 [5]
KicOffset-st: 2/2/0/1 [5]
DiffImageQuality-fgm: 1.00 [5/5]
DiffImageOverlap-fno: 1.00 [6/6]

TCE 011499958-01, PDC Light Curves

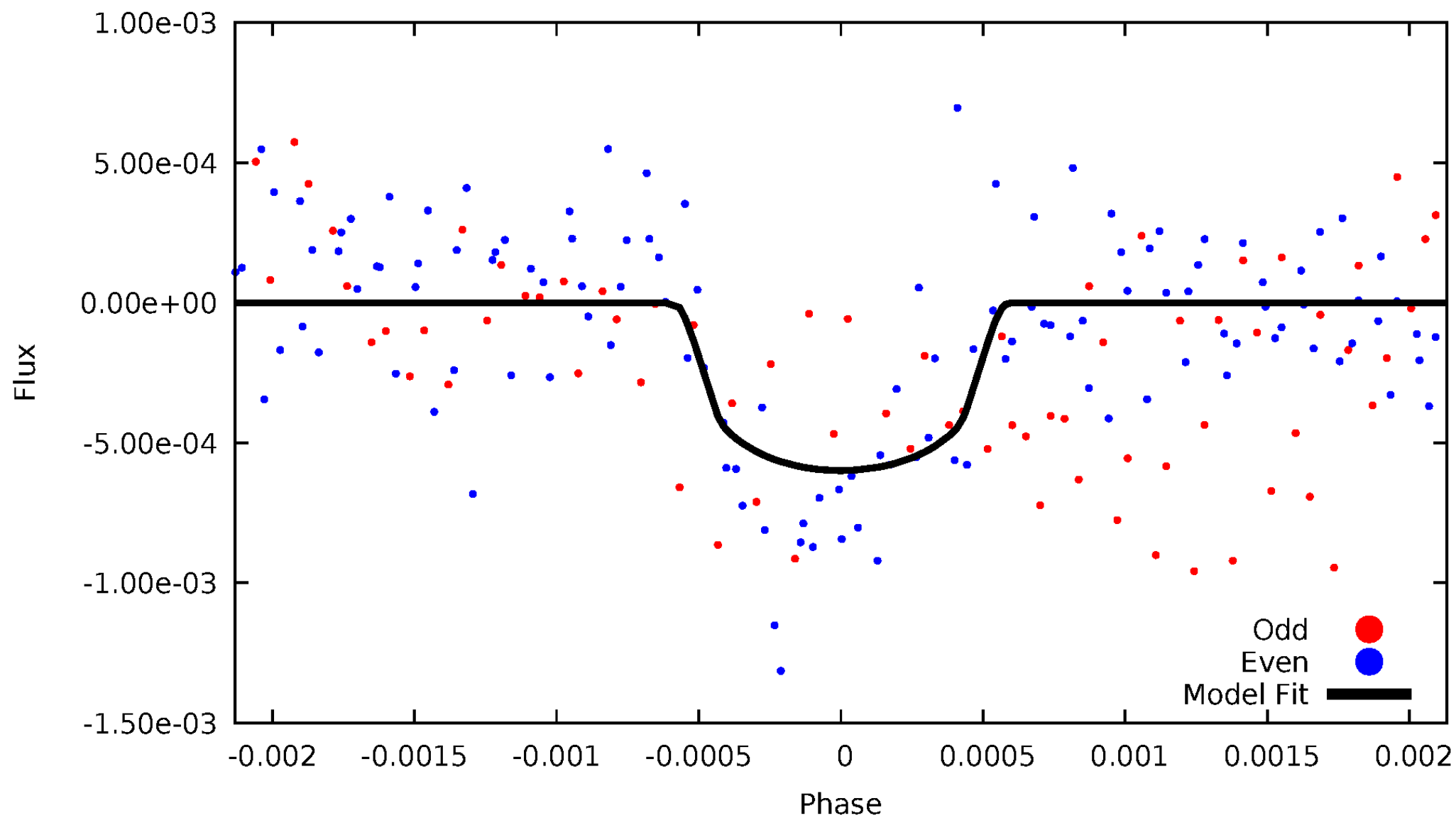


TCE 011499958-01



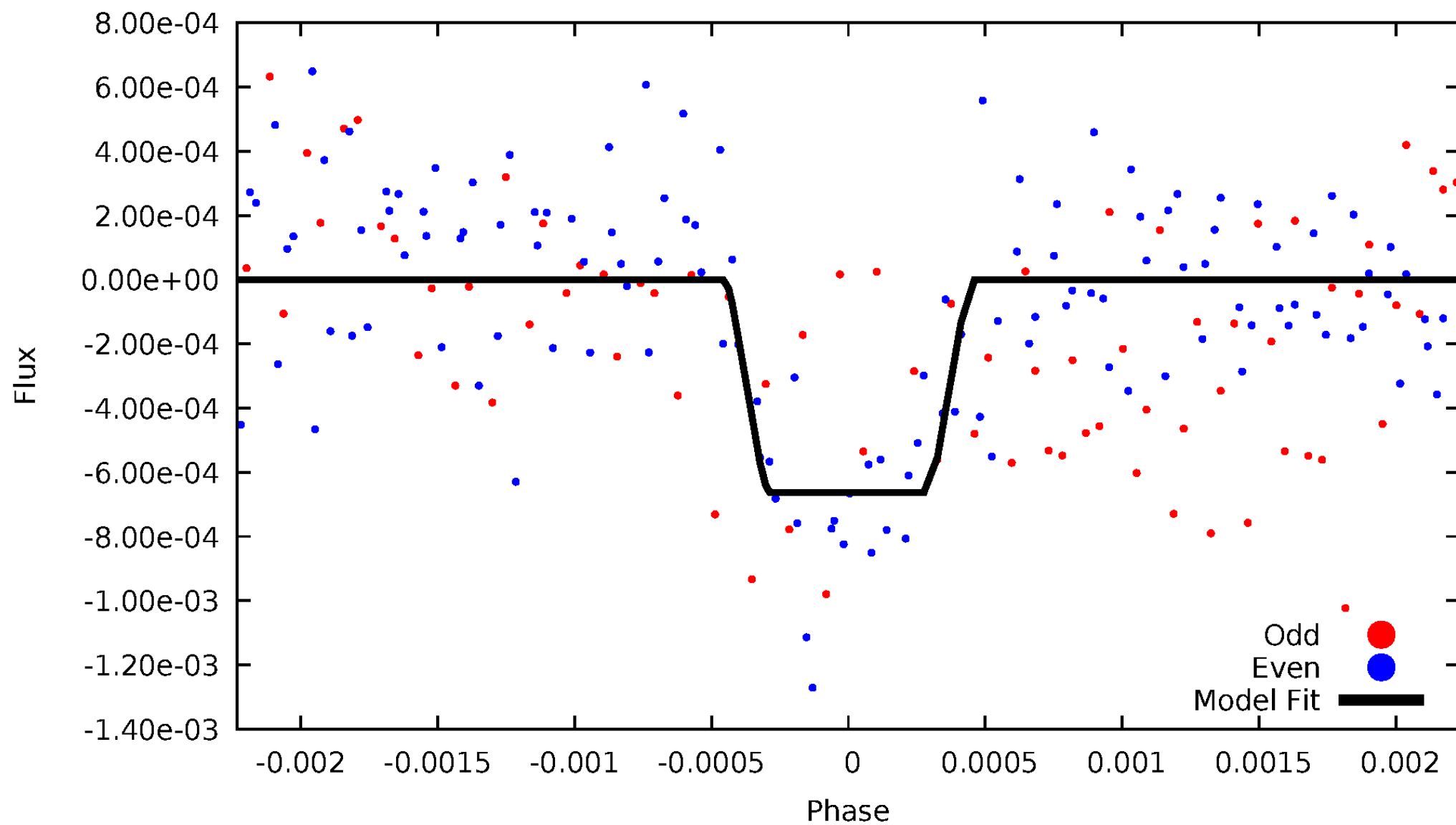
DV Odd/Even

TCE 011499958-01



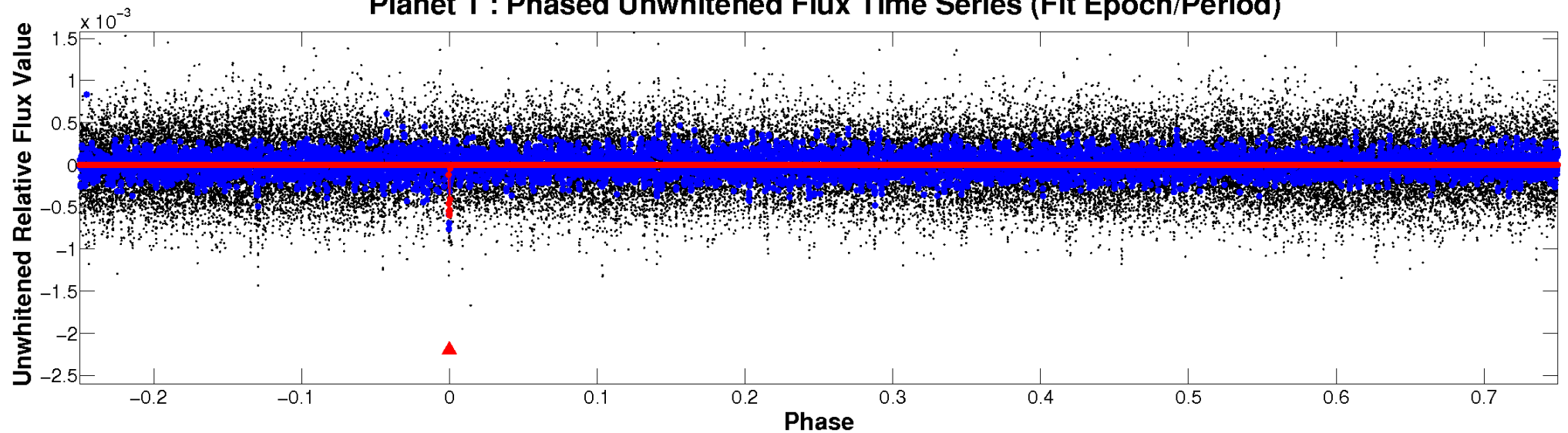
ALT Odd/Even

TCE 011499958-01

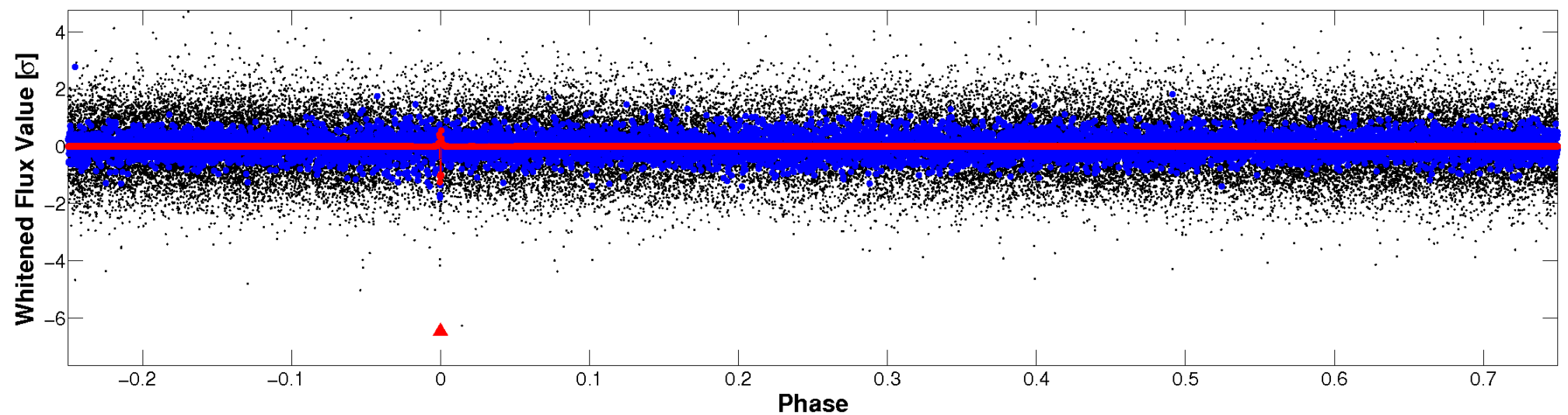


Non-Whitened Vs. Whitened Light Curve

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

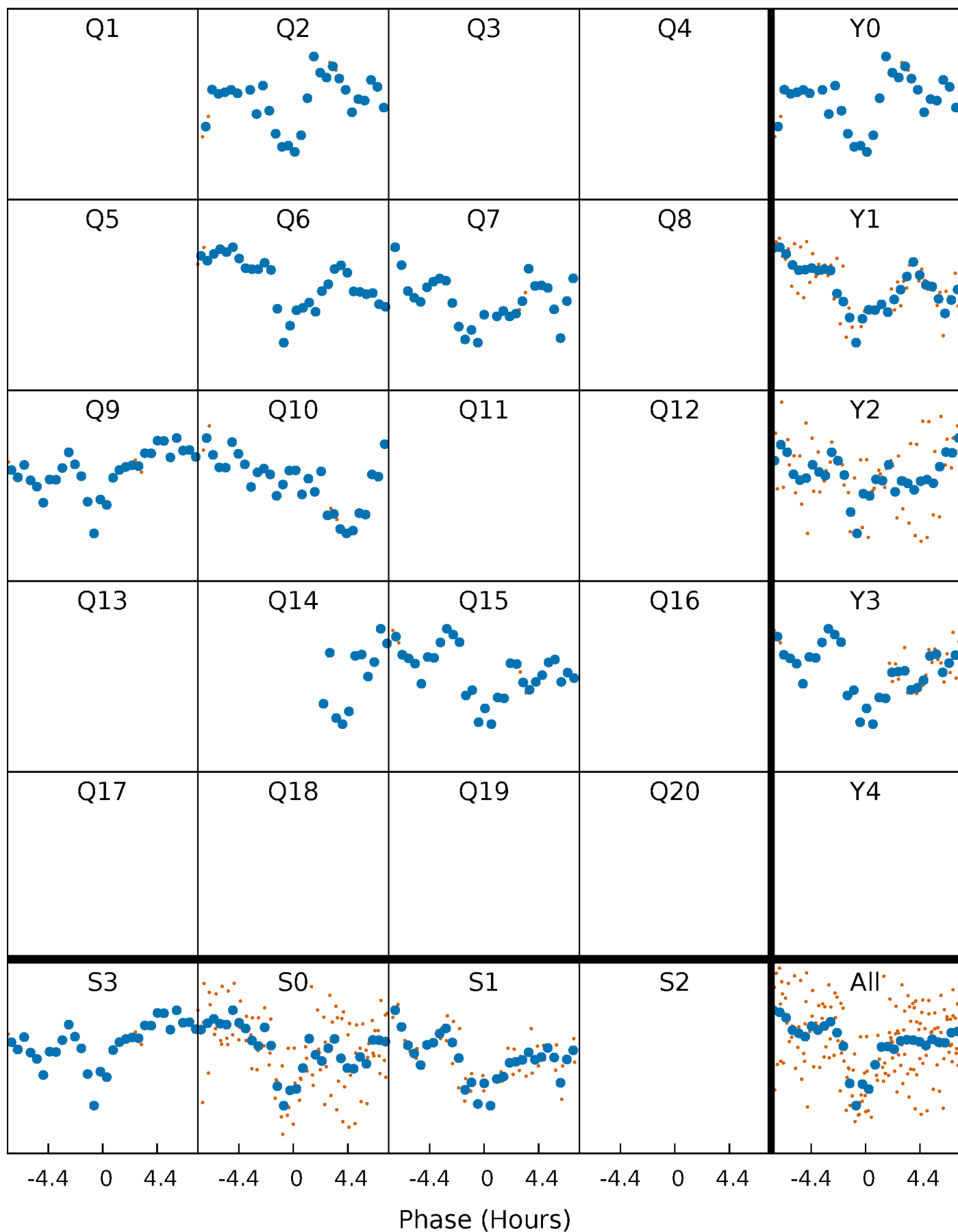


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



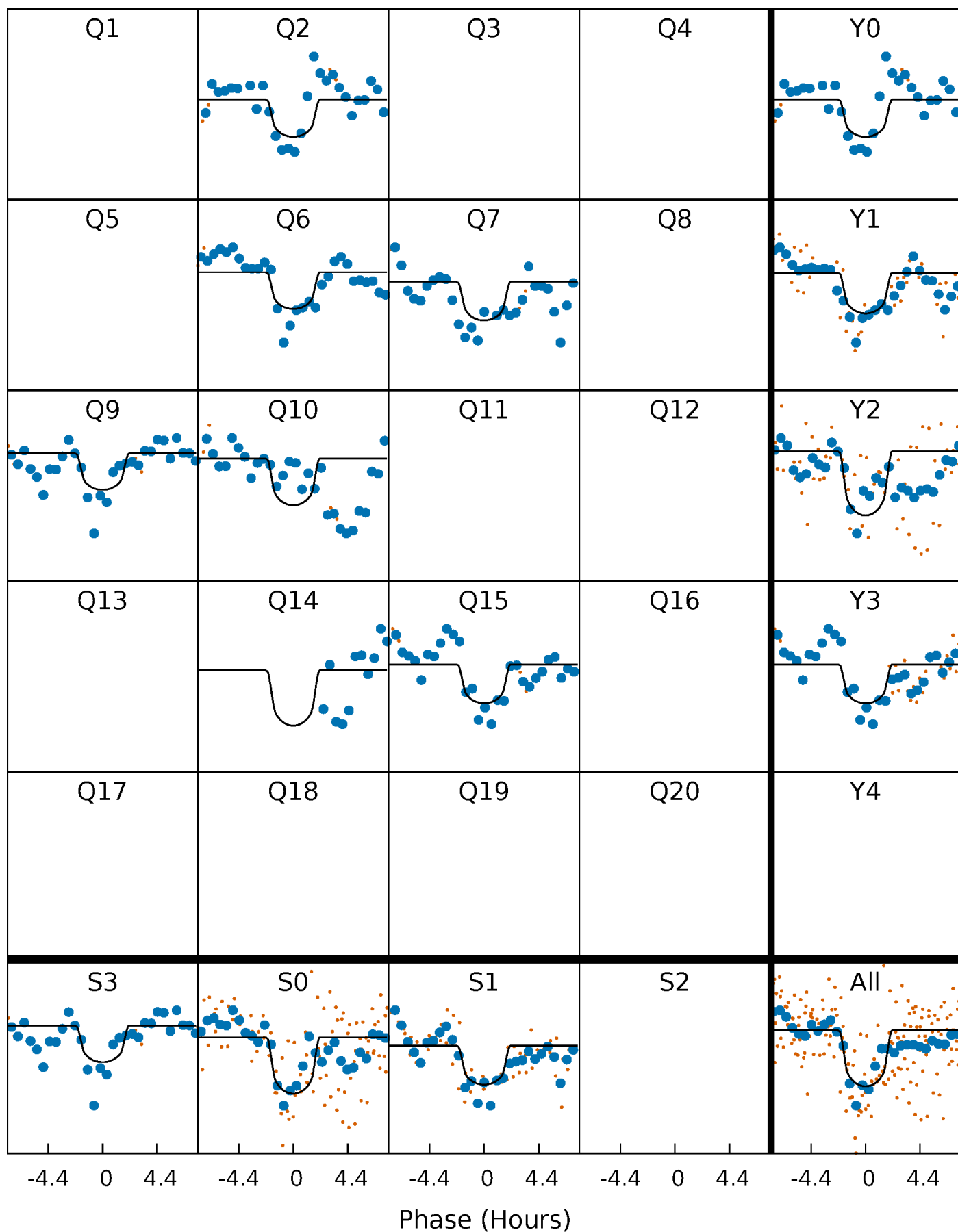
PDC Quarter-Phased Transit Curves

TCE 011499958-01 P=150.827908 Days $T_0=240.526285$ (BKJD)



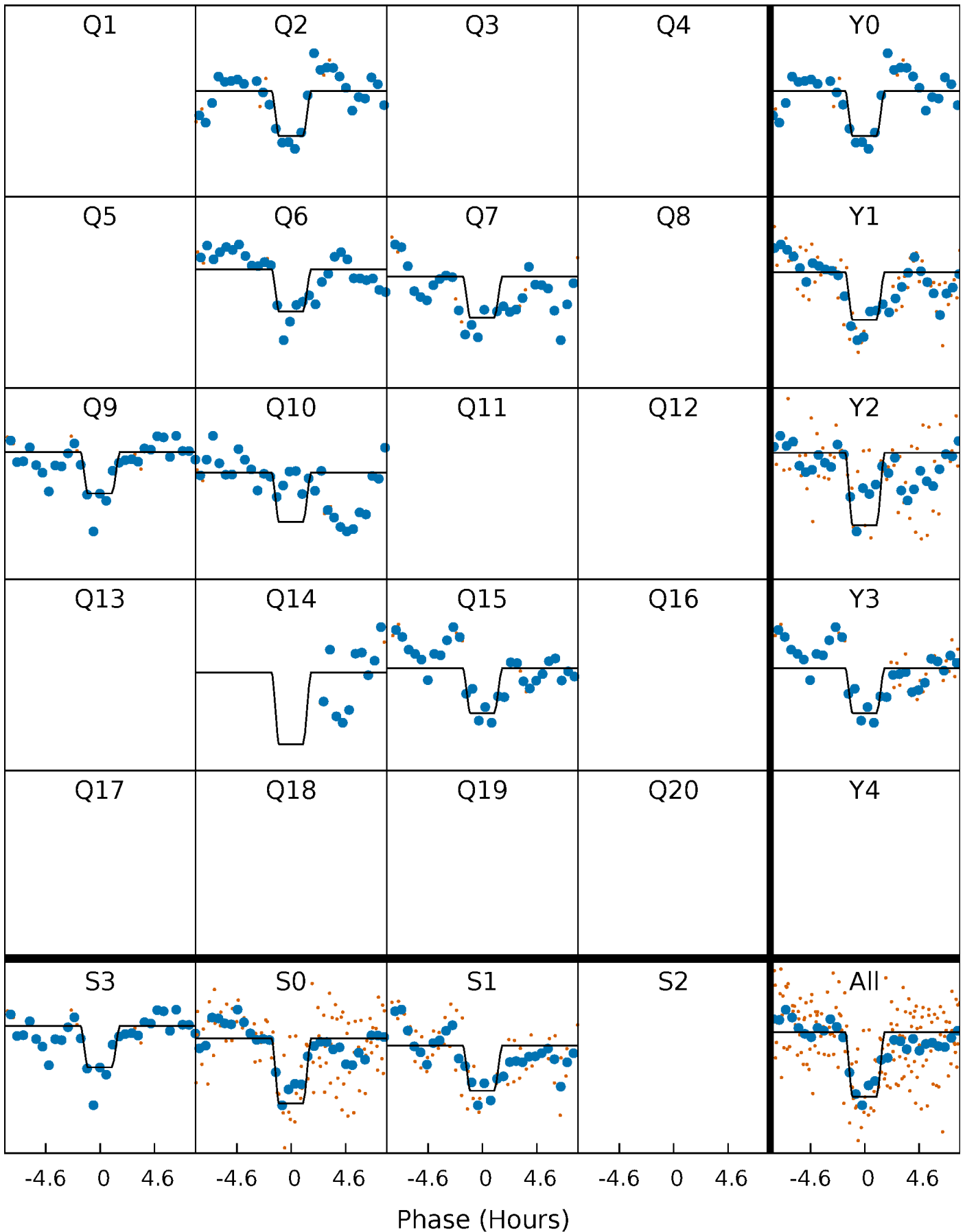
DV Quarter-Phased Transit Curves

TCE 011499958-01 P=150.827908 Days $T_0=240.526285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

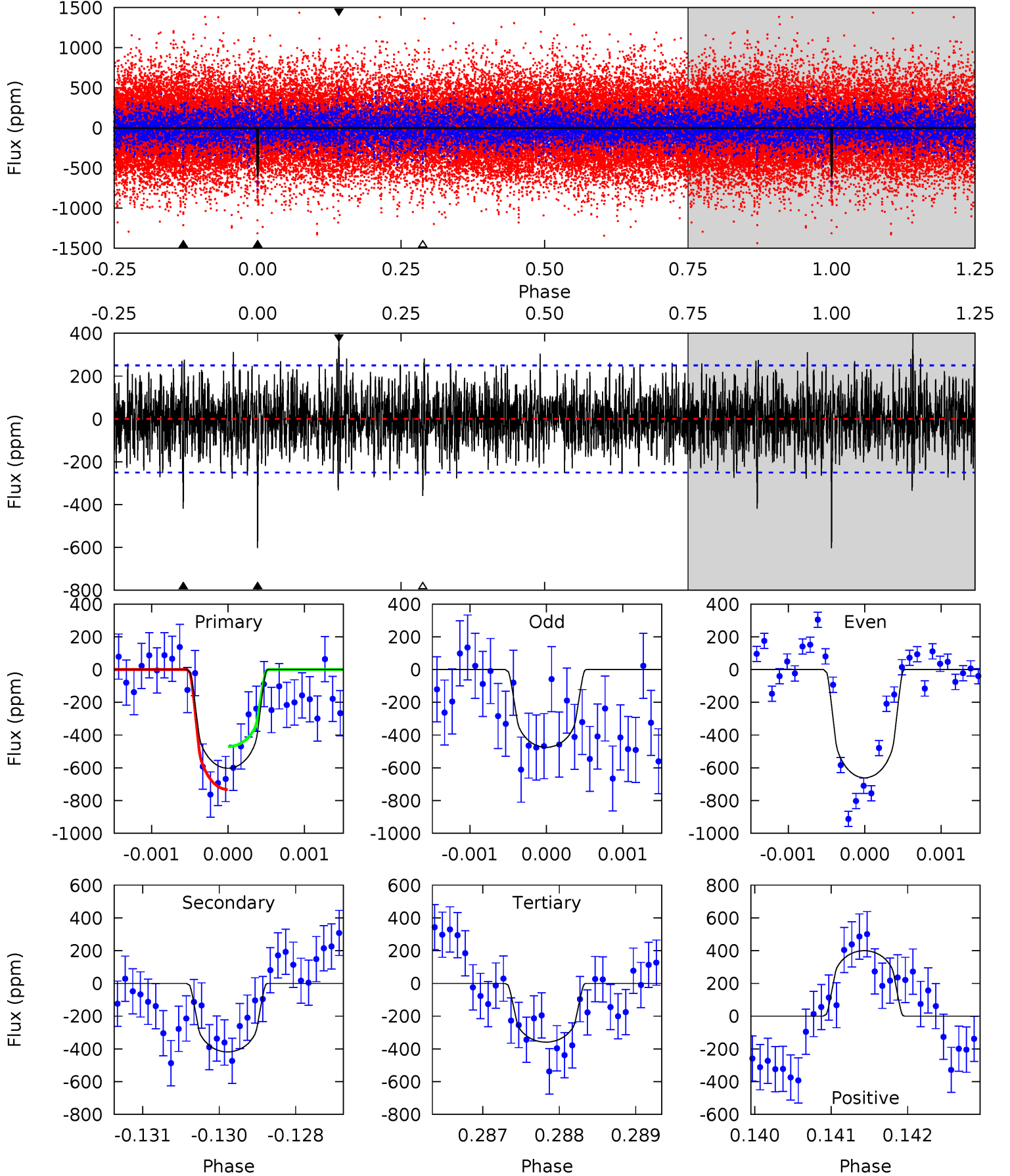
TCE 011499958-01 P=150.827917 Days $T_0=240.514085$ (BKJD)



DV Model-Shift Uniqueness Test

011499958-01, P = 150.827908 Days, E = 89.698377 Days

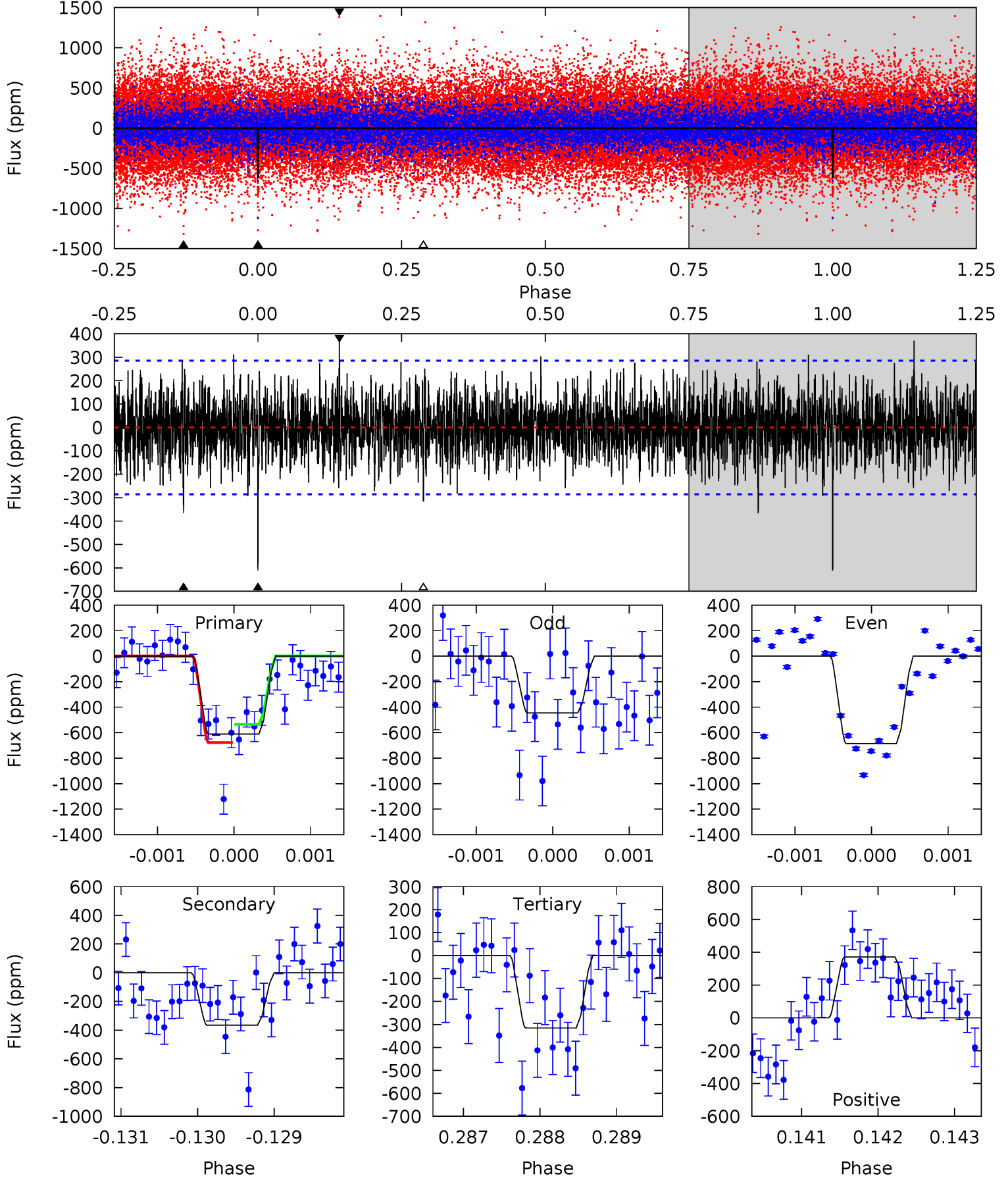
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	9.08	7.79	8.68	5.43	3.25	2.14	5.30	4.41	1.29	0.40	1.88	0.87	0.40	2.85



Alt Model-Shift Uniqueness Test

011499958-01, P = 150.827917 Days, E = 89.686168 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	7.01	6.06	7.12	5.48	3.34	1.80	5.66	4.60	0.96	-0.10	2.12	0.88	0.38	1.36



Stellar Parameters For KIC 011499958

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4888^{+86}_{-157}	$2.704^{+0.030}_{-0.030}$	$-0.080^{+0.200}_{-0.300}$	$10.580^{+1.908}_{-2.861}$	$2.066^{+0.762}_{-0.932}$	$0.002^{+0.001}_{-0.000}$
	+2%/-3%	+1%/-1%	+250%/-375%	+18%/-27%	+37%/-45%	+40%/-13%
Source	PHO54	AST54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011499958-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-418 ± 46	$28.97^{+16.76}_{-13.89}$	1168^{+36}_{-44}	4517^{+1432}_{-670}	139^{+371}_{-81}
Alt.	-366 ± 52	$31.07^{+16.44}_{-16.73}$	1166^{+36}_{-43}	4267^{+1520}_{-562}	103^{+347}_{-55}

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 $A_{obs} \gg 1.0$

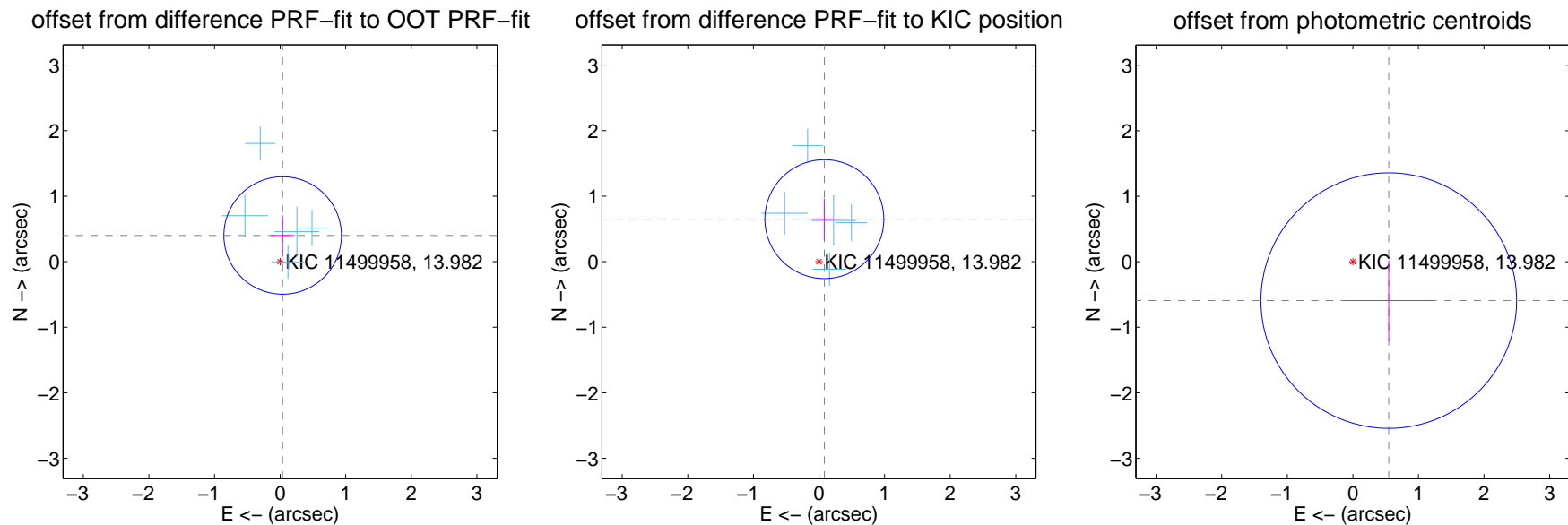
DV Centroid Data

Supplemental centroid analysis for 011499958-01. Kepler magnitude: 13.98. Transit SNR 7.02

There are 5 quarters with good PRF difference image offsets

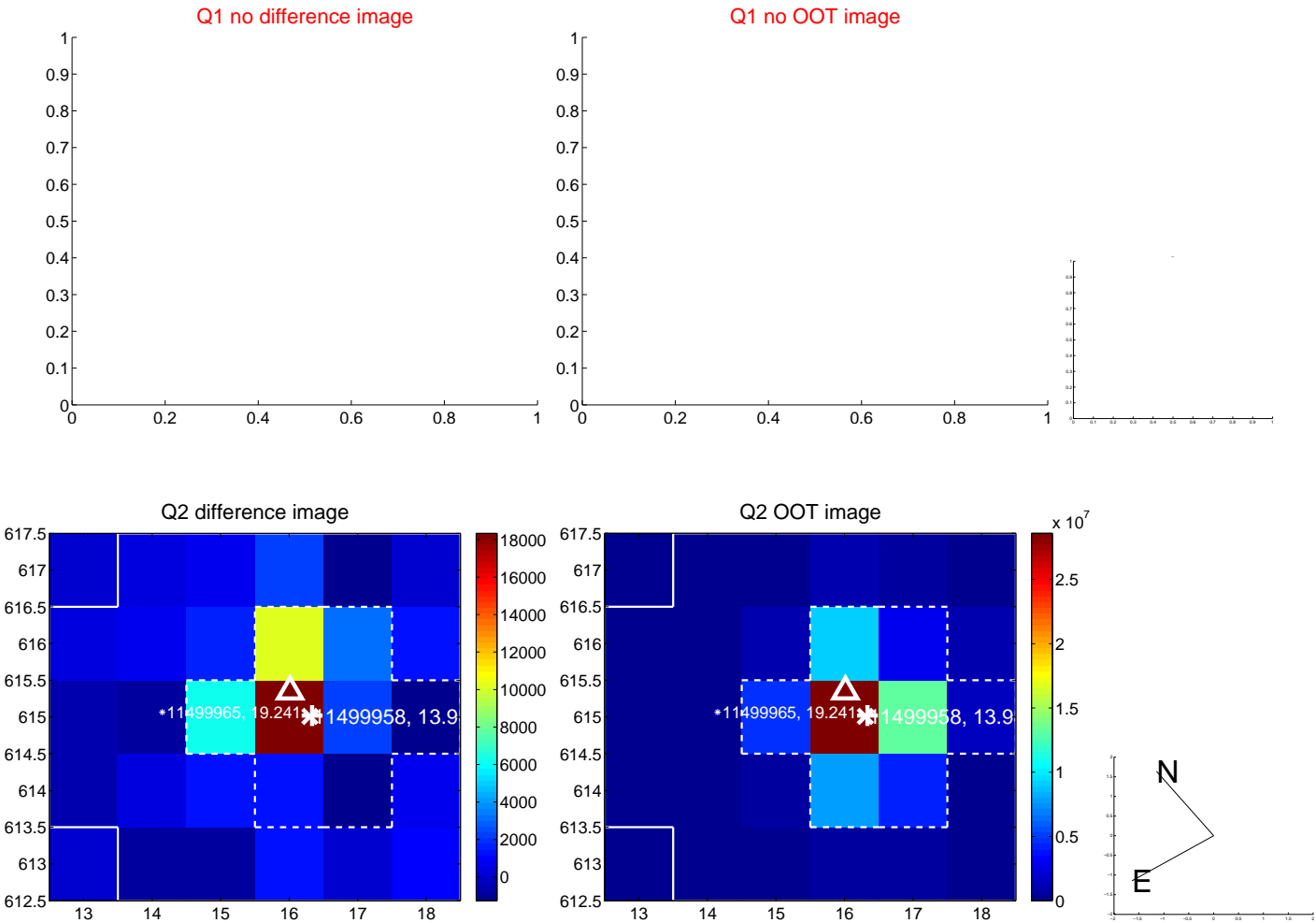
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.402 ± 0.299	1.35	-0.039 ± 0.181	0.400 ± 0.307
PRF-fit source offset from KIC position	0.654 ± 0.302	2.17	-0.082 ± 0.175	0.649 ± 0.313
photometric centroid source offset	0.81 ± 0.65	1.24	-0.55 ± 0.69	-0.59 ± 0.62

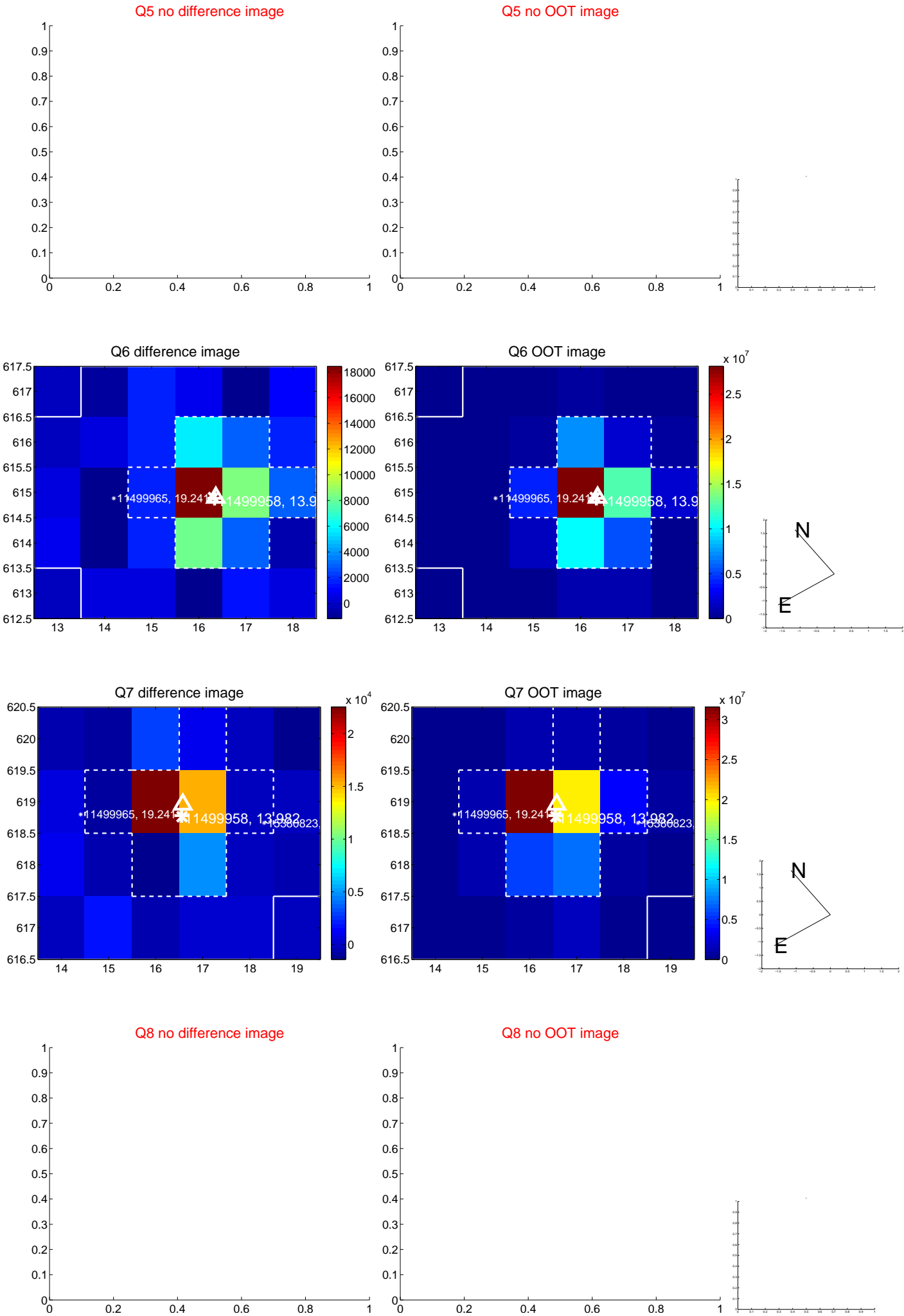


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

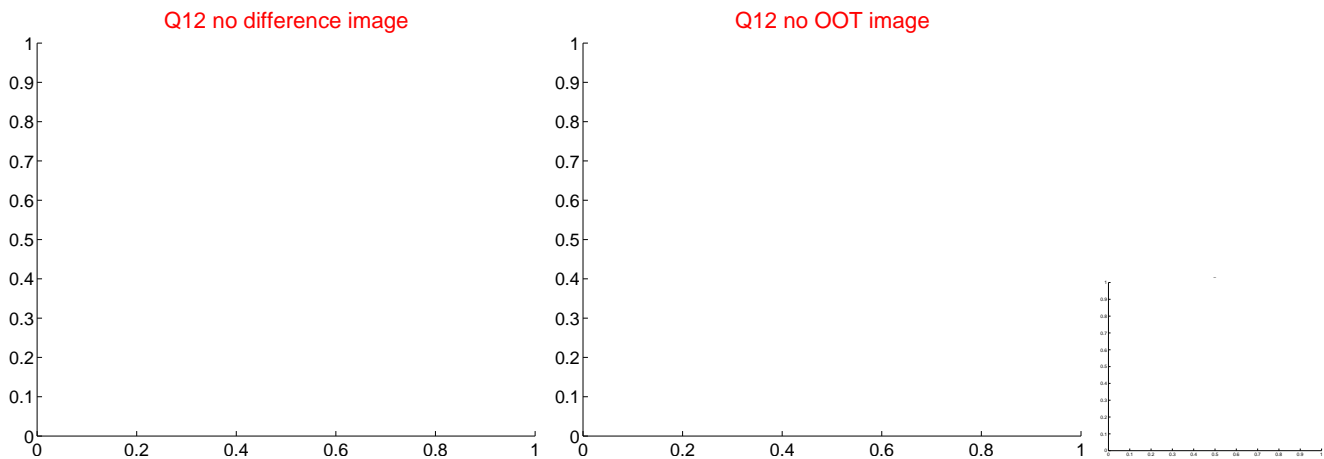
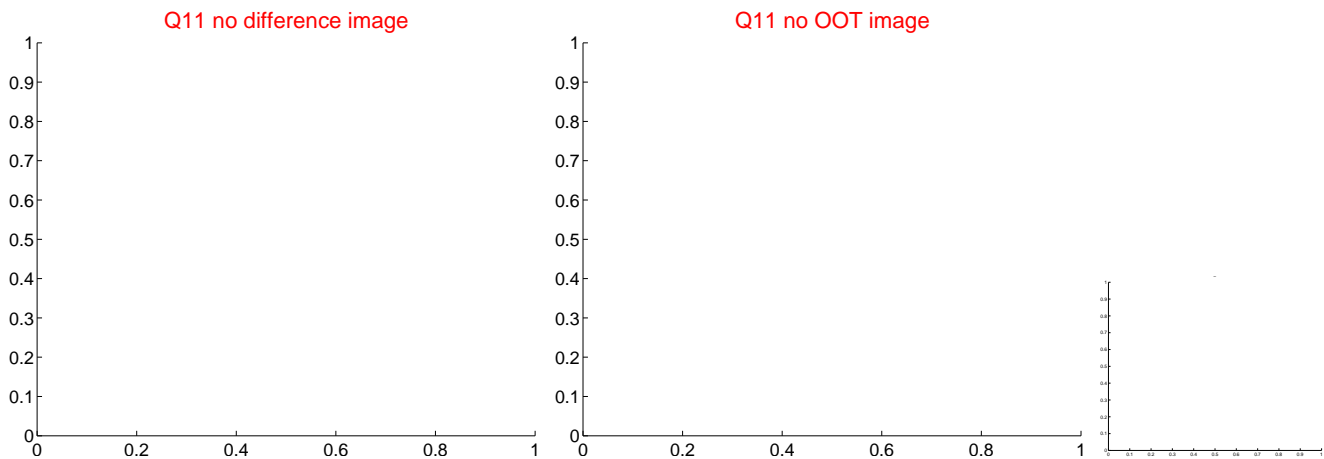
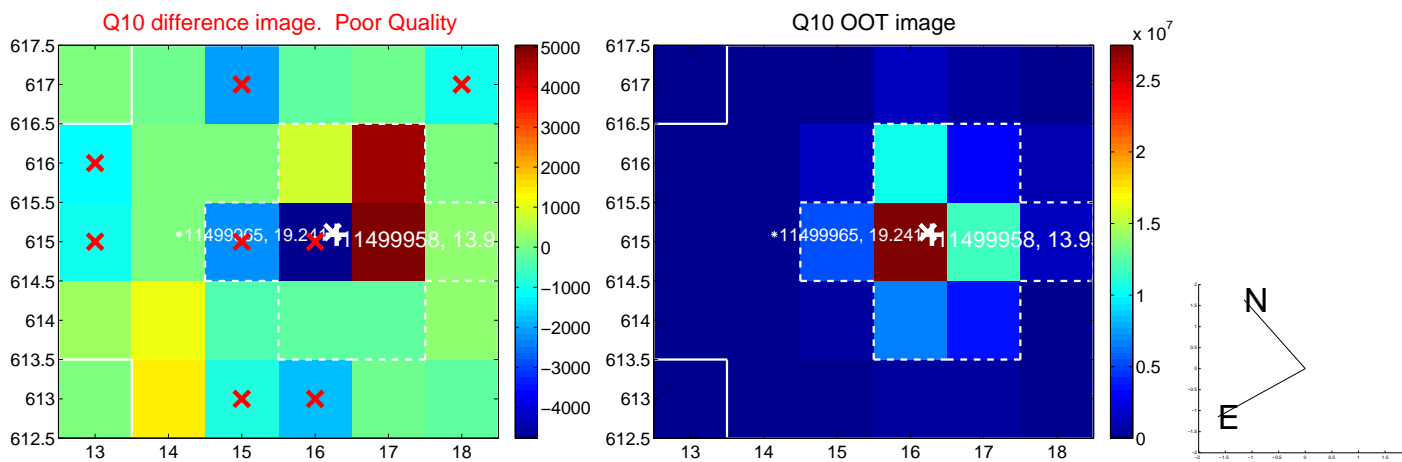
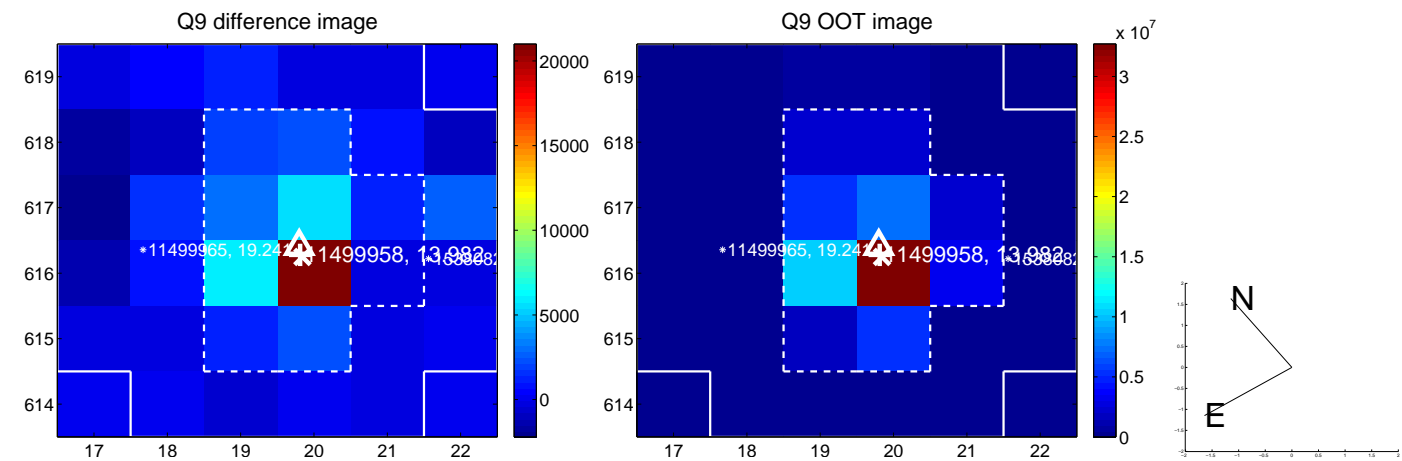
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



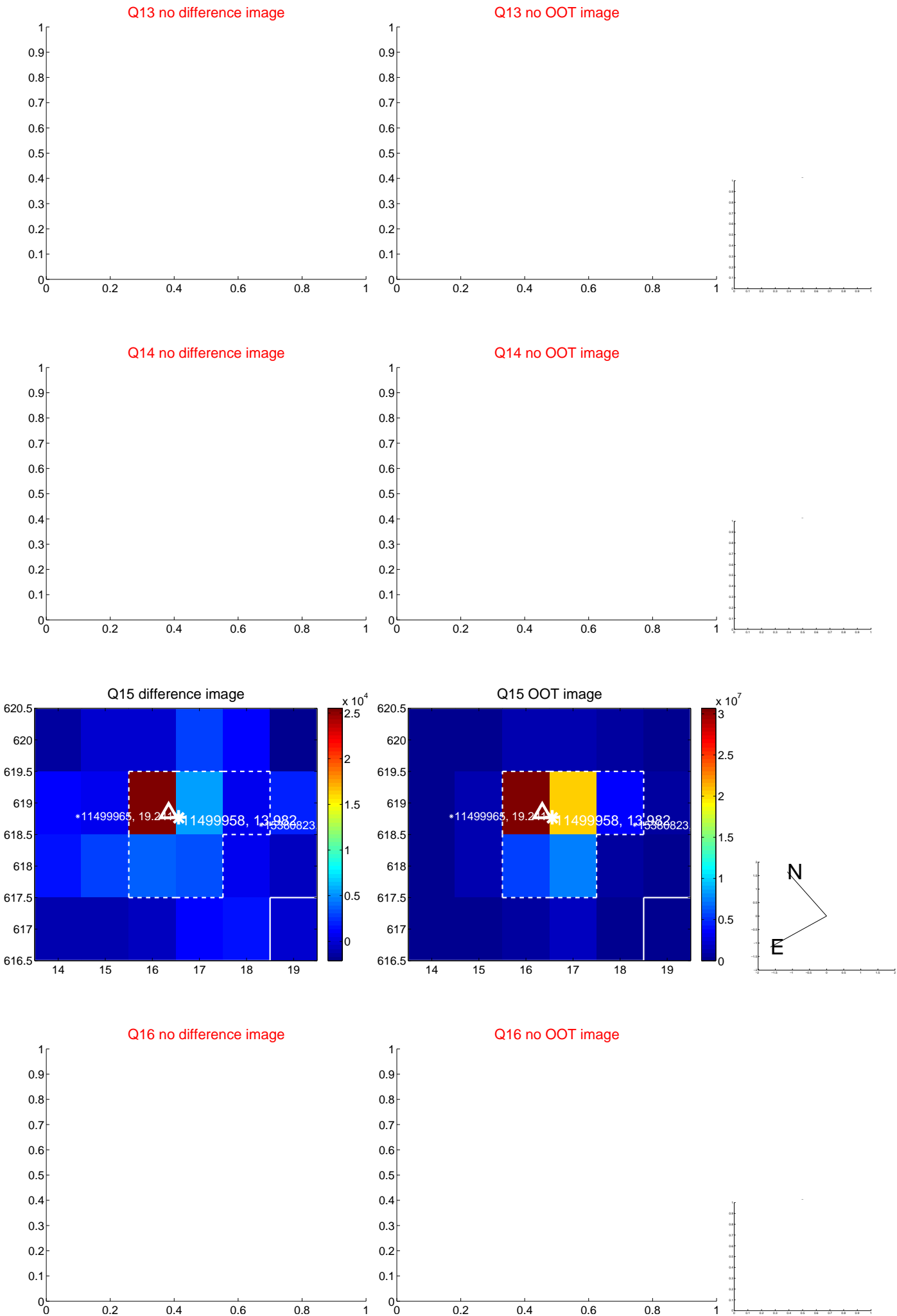
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



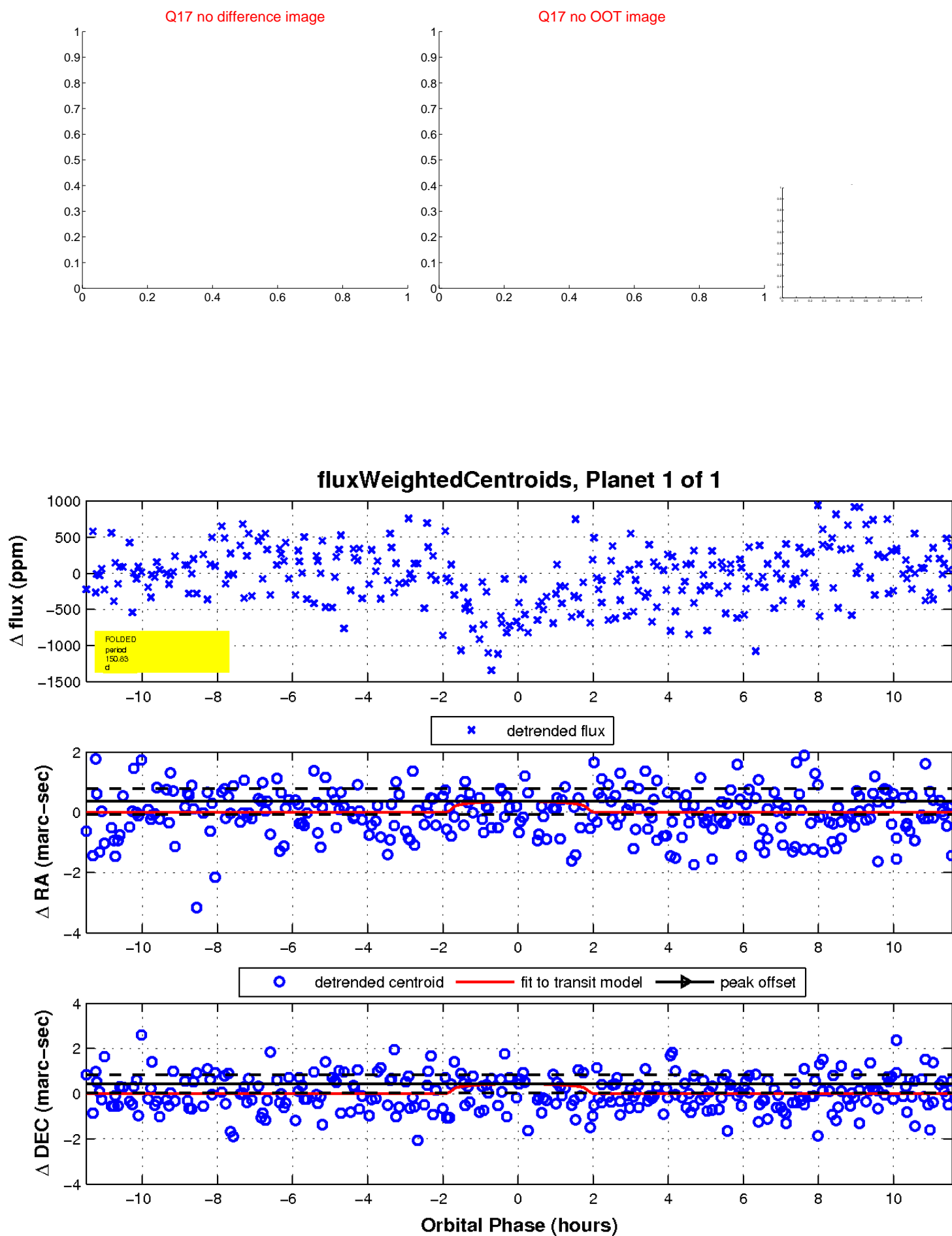
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

