

KIC 001722276

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})
001722276-01	OBS	1008.01	569.935945	248.938445	18723.6	4.205	164.4	94.6	2.06	5367	43.21	1.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001722276-01	OBS	FP	0.00	1	0	0	0	INCONSISTENT_TRANS

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.

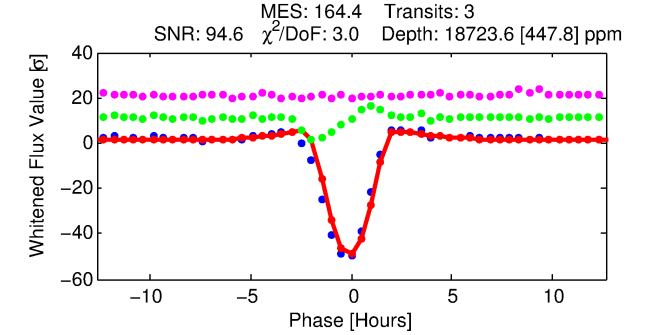
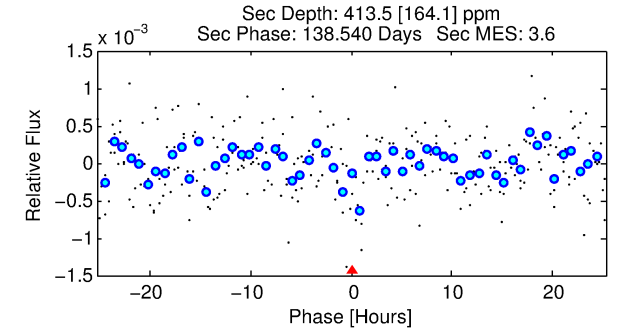
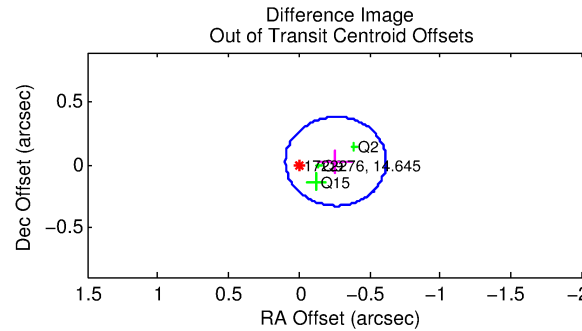
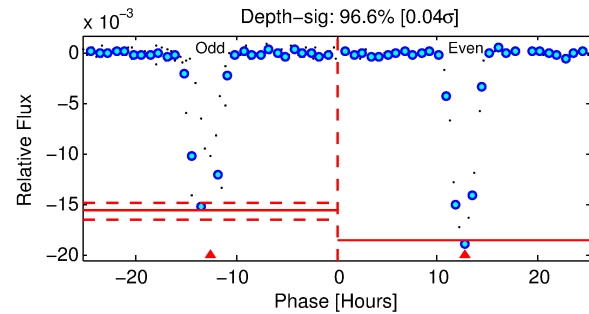
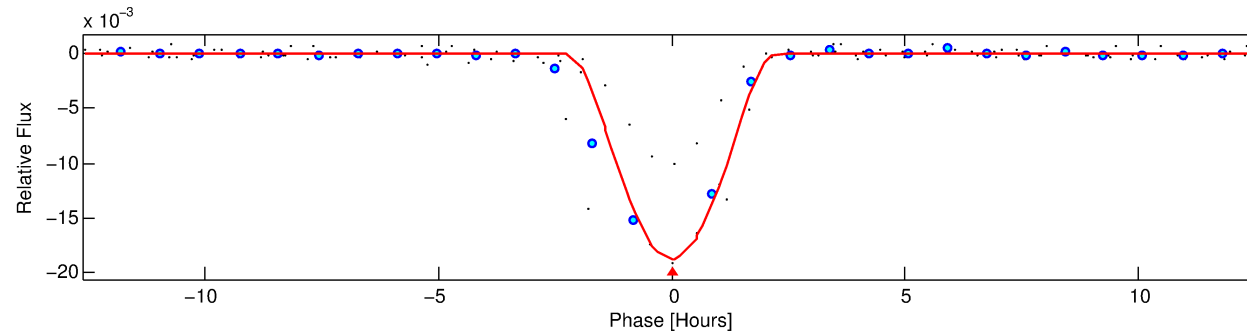
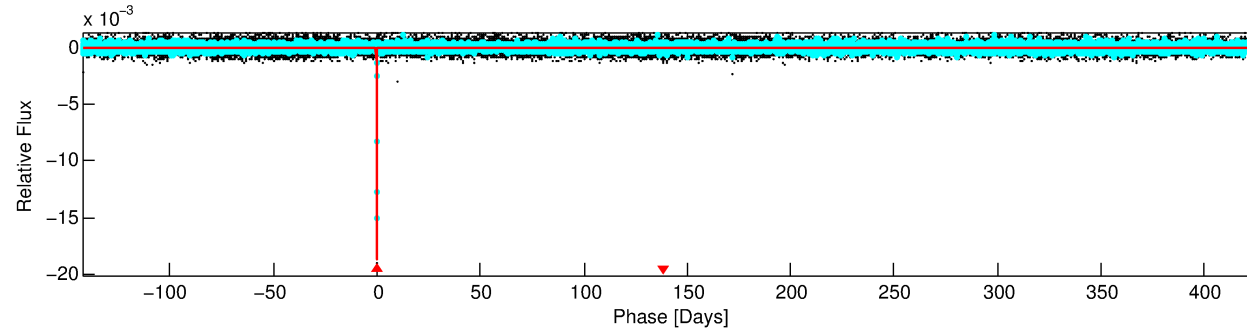
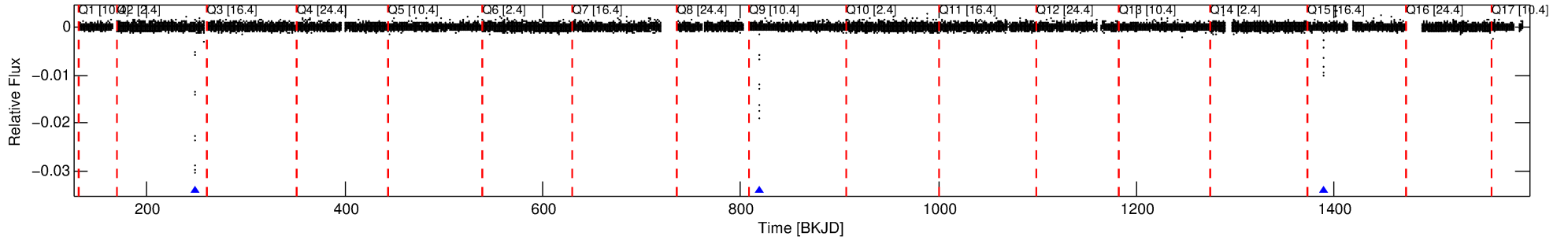
Ephemeris Match Information For 001722276-01

No Significant Match Found

DV One-Page Summary

KIC: 1722276 Candidate: 1 of 1 Period: 569.936 d
KOI: K01008.01 Corr: 0.957

Kp: 14.65 R*: 2.06 Rs Teff: 5367.0 K Logg: 3.78 Fe/H: -0.460



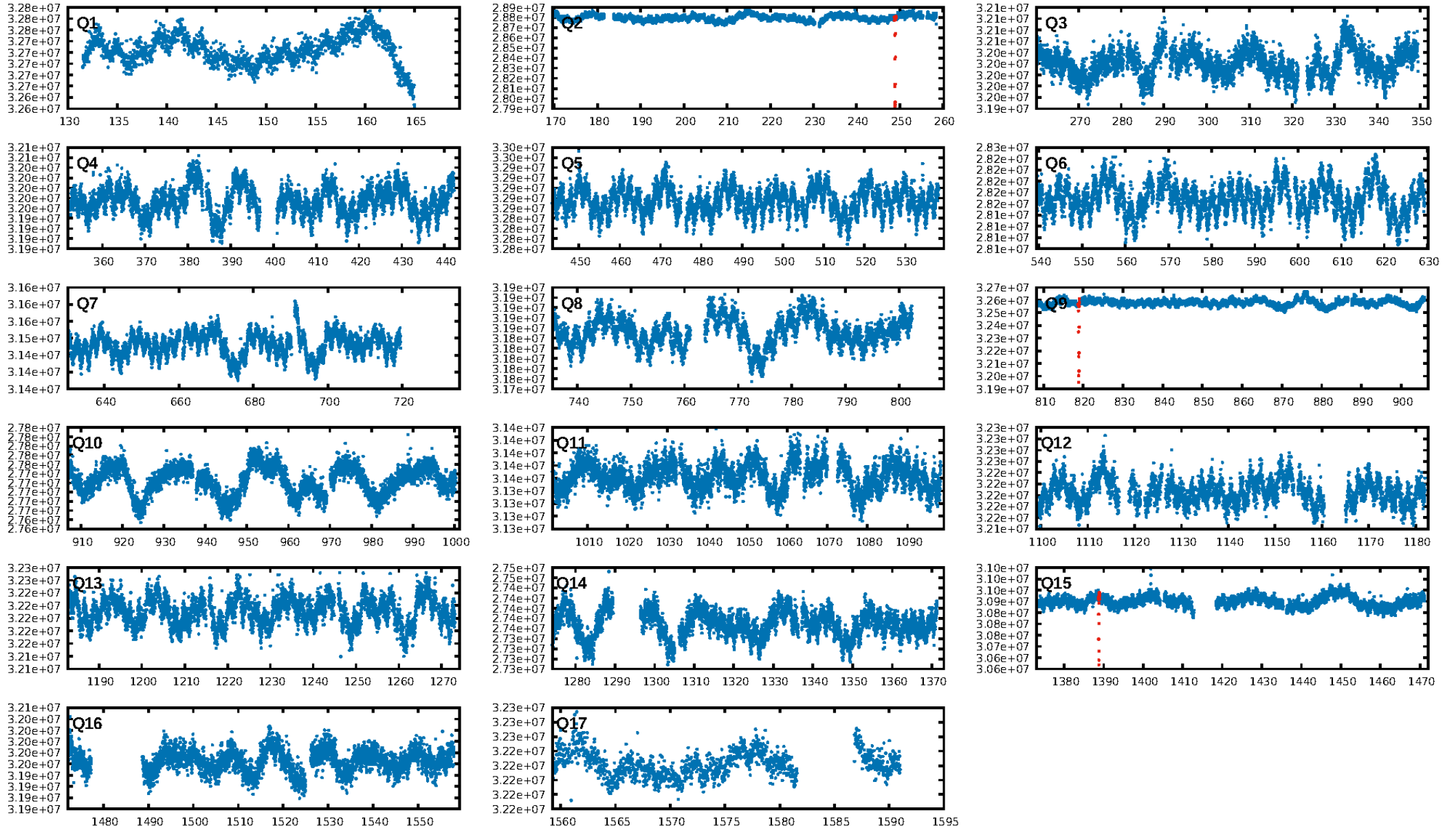
DV Fit Results:

Period = 569.93594 [0.00130] d
Epoch = 248.9384 [0.0017] BKJD
Rp/R* = 0.1925 [0.1364]
a/R* = 741.04 [87.10]
b = 0.95 [0.21]
Seff = 1.81 [0.54]
Teq = 296 [22] K
Rp = 43.21 [32.99] Re
a = 1.3164 [0.2893] AU
Ag = 211.15 [316.71] [0.66σ]
Teffp = 1744 [642] K [2.25σ]

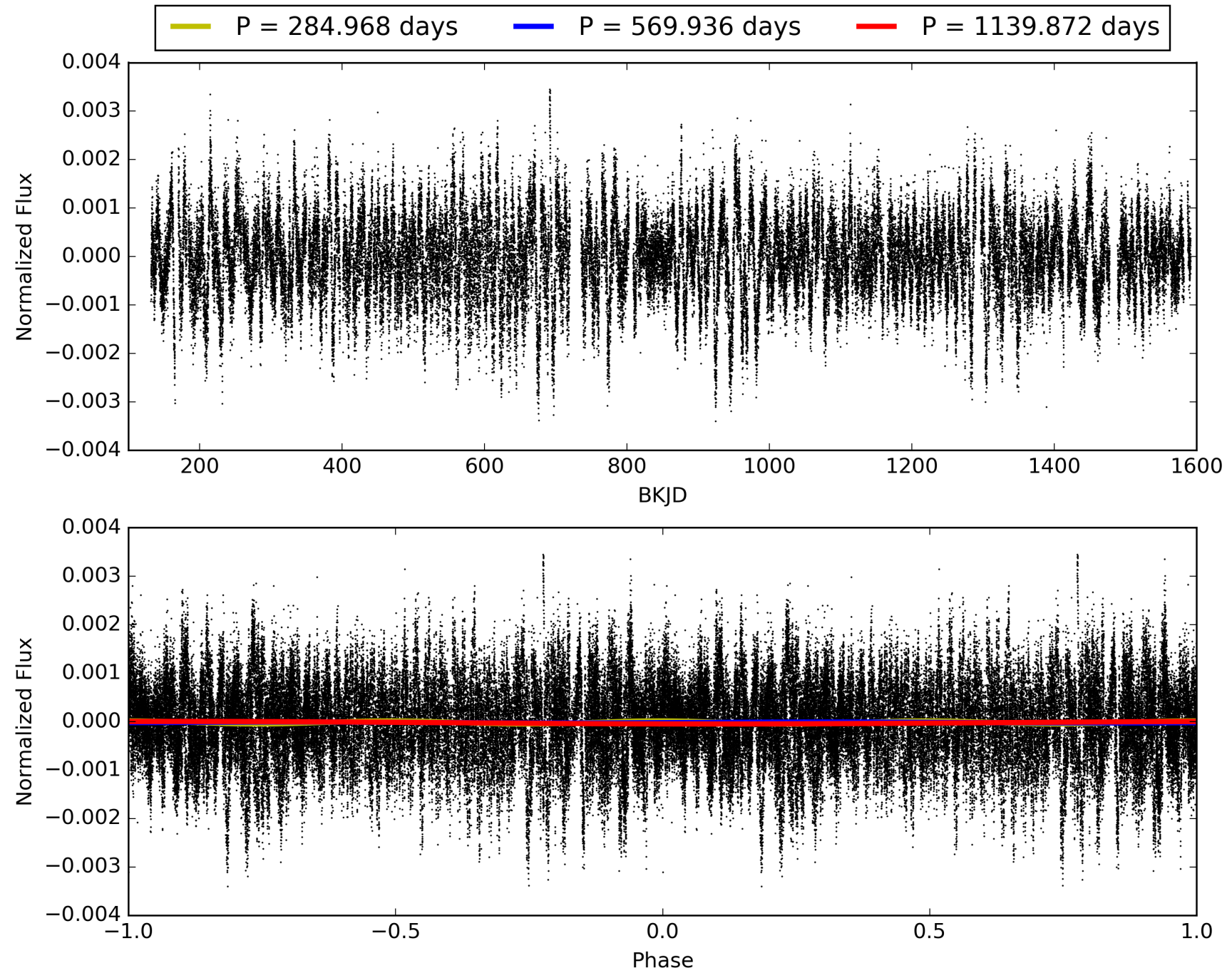
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 76.7%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.006
Centroid-sig: 1.7%
Centroid-so: 1.300 arcsec [15.59σ]
OotOffset-rm: 0.260 arcsec [2.19σ]
KicOffset-rm: 0.182 arcsec [1.77σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 001722276-01, PDC Light Curves

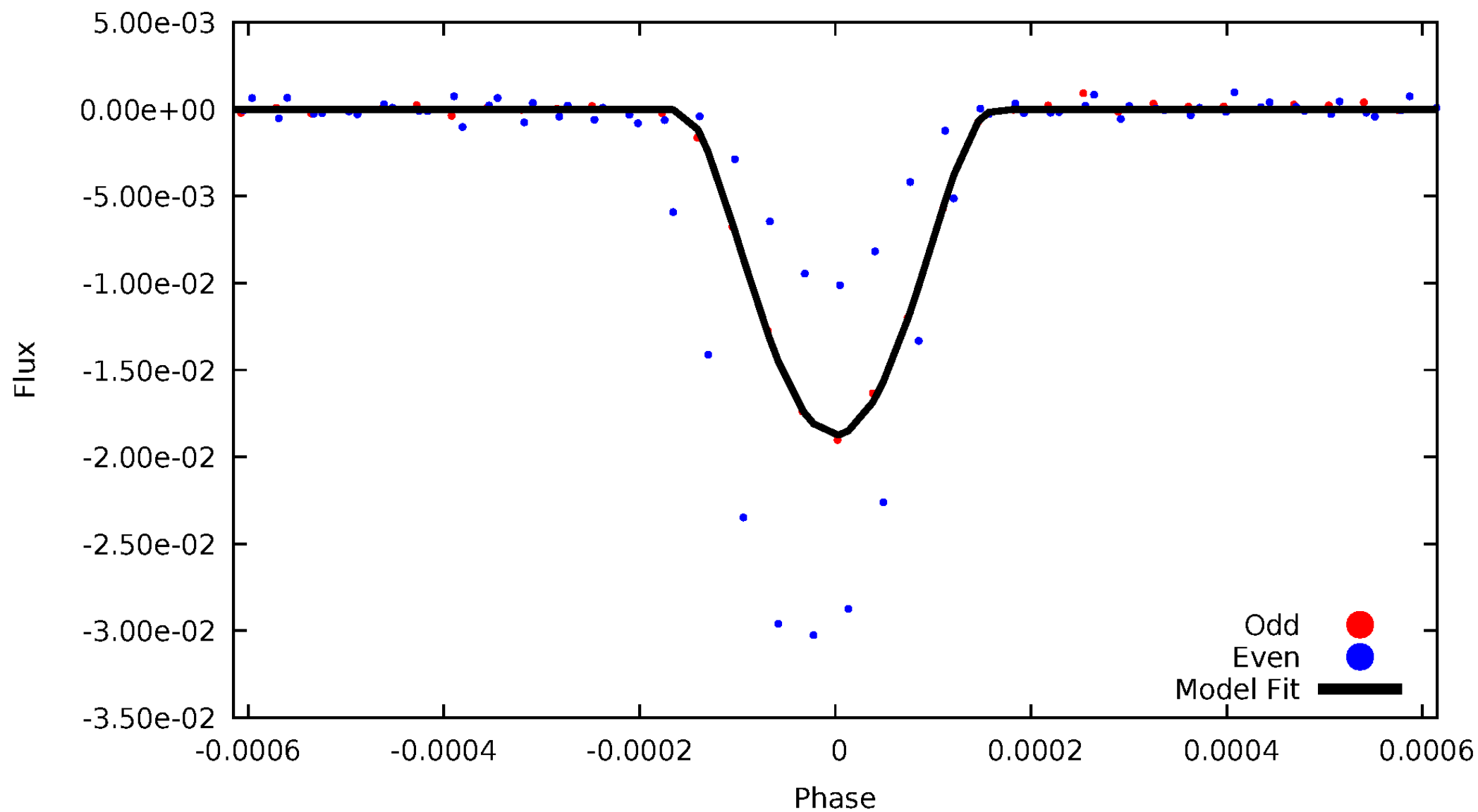


TCE 001722276-01



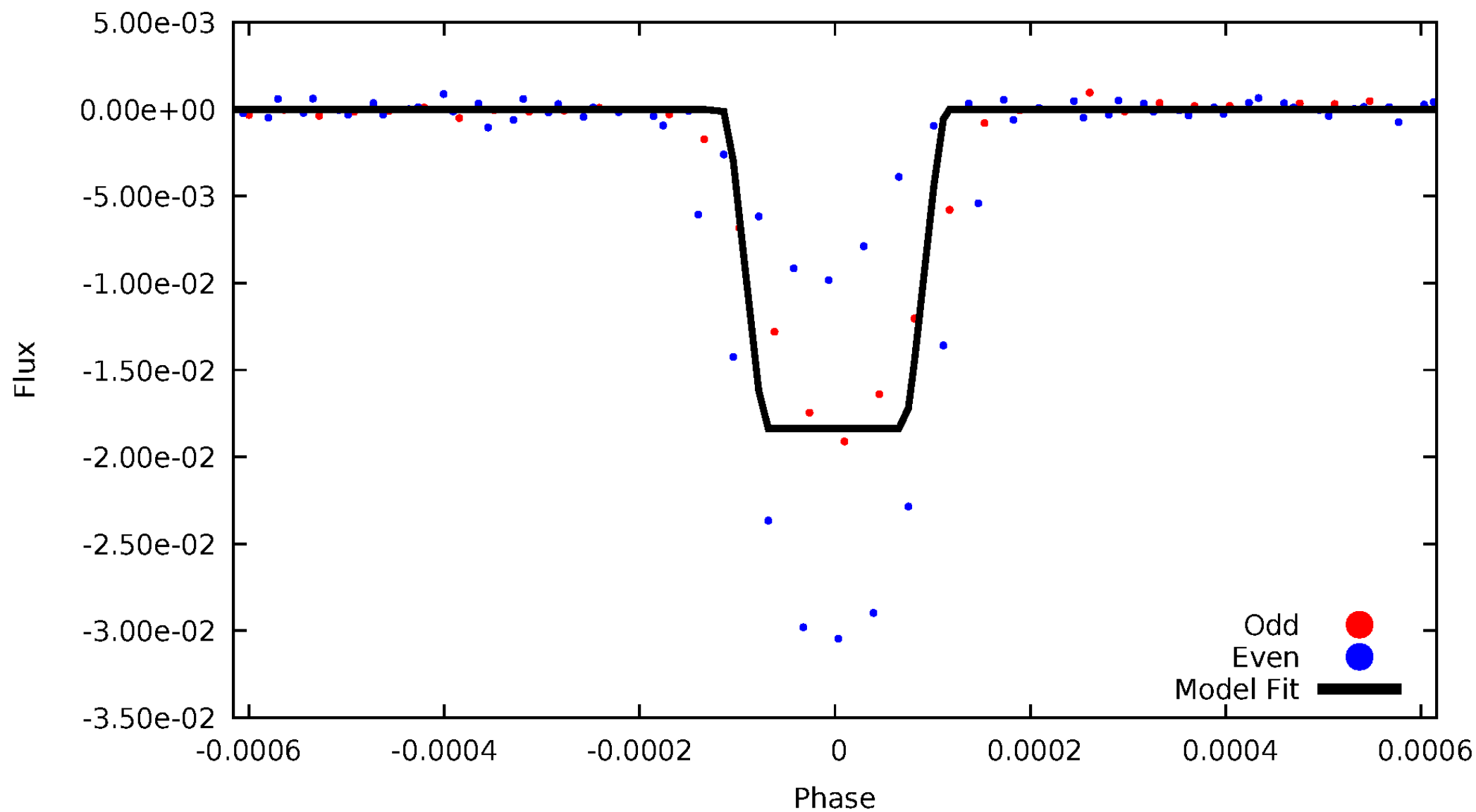
DV Odd/Even

TCE 001722276-01



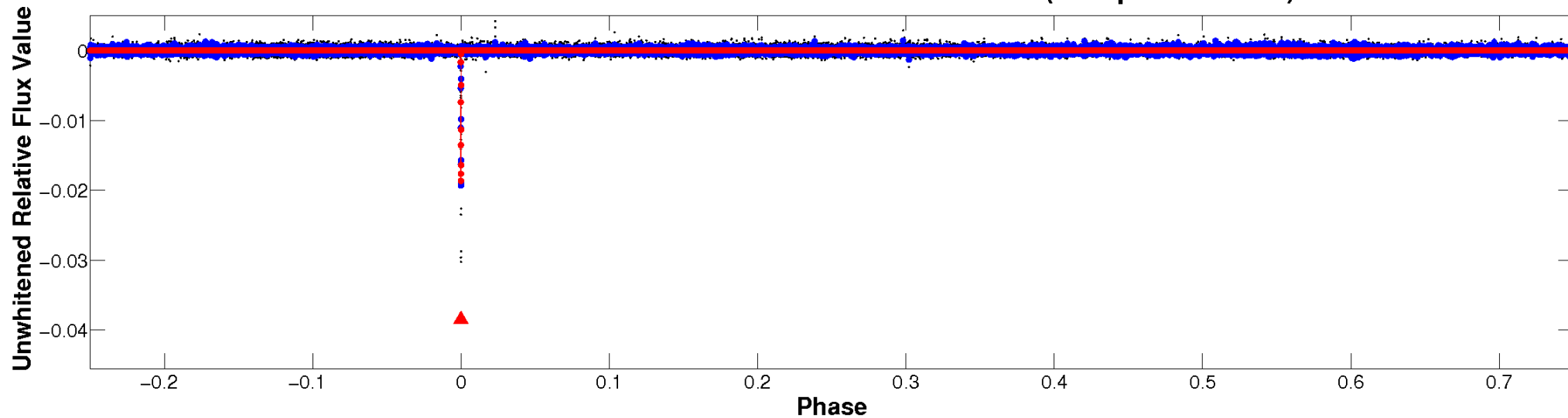
ALT Odd/Even

TCE 001722276-01

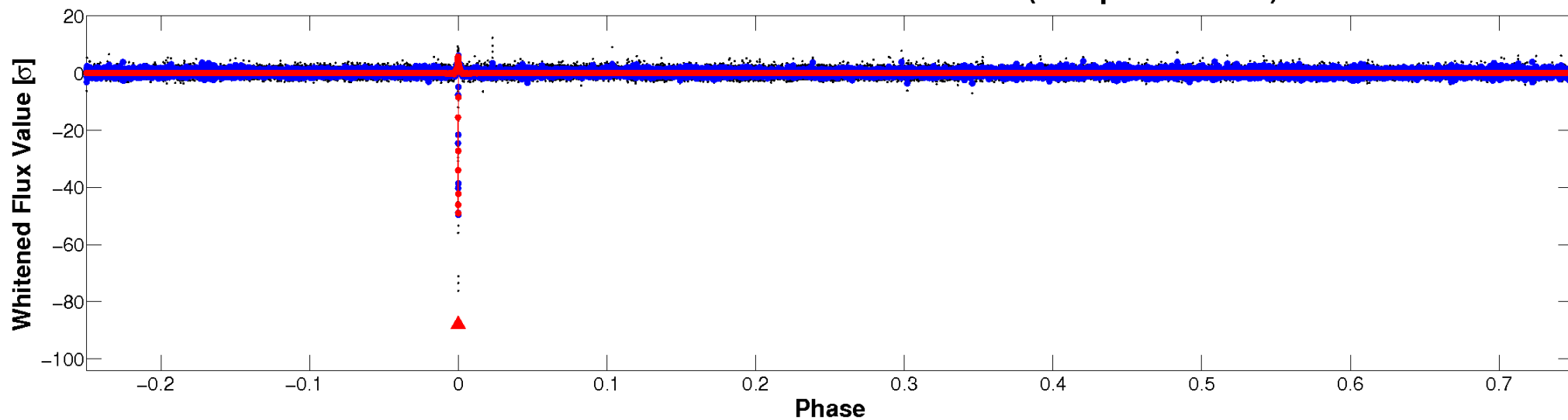


Non-Whitened Vs. Whitened Light Curve

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

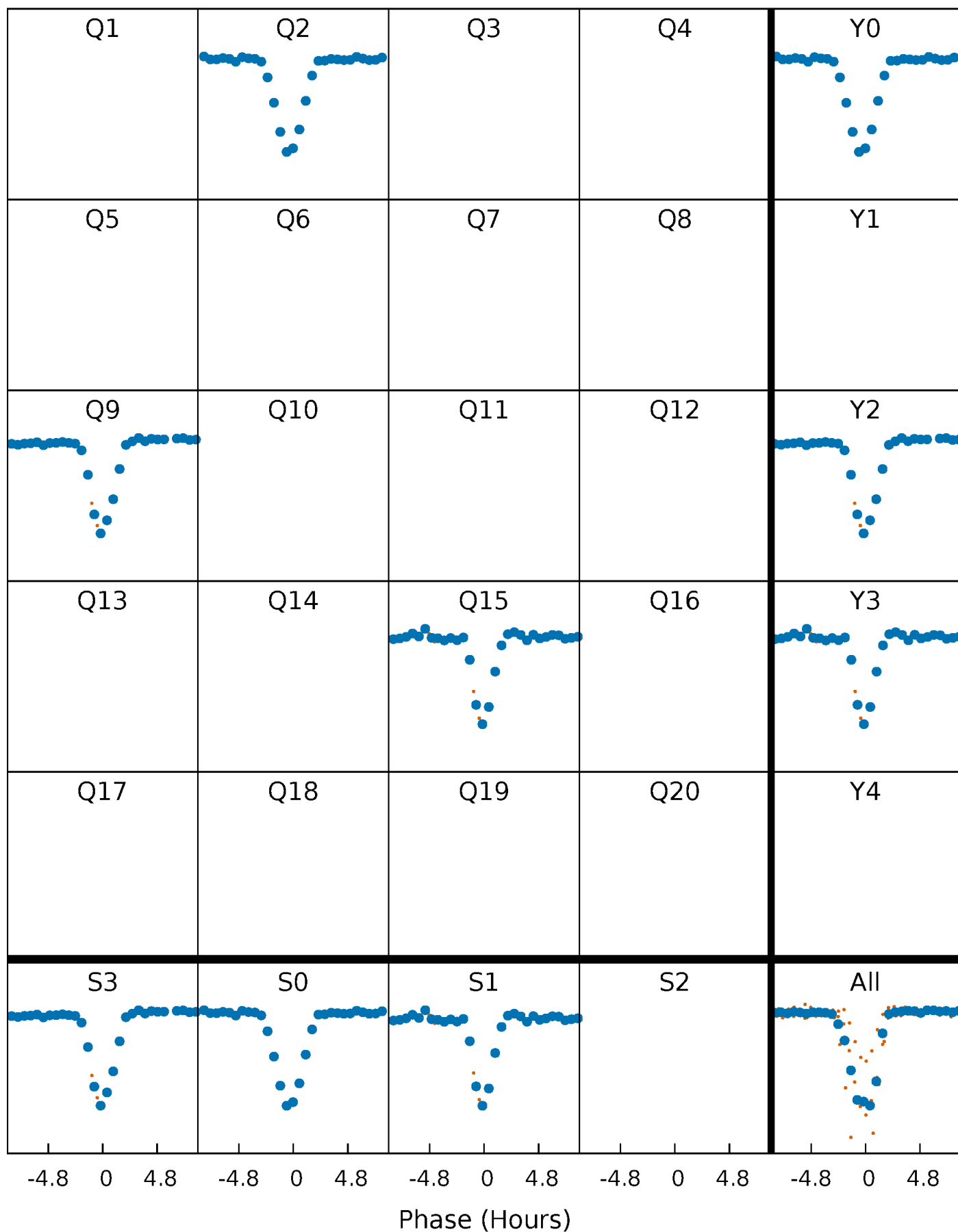


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



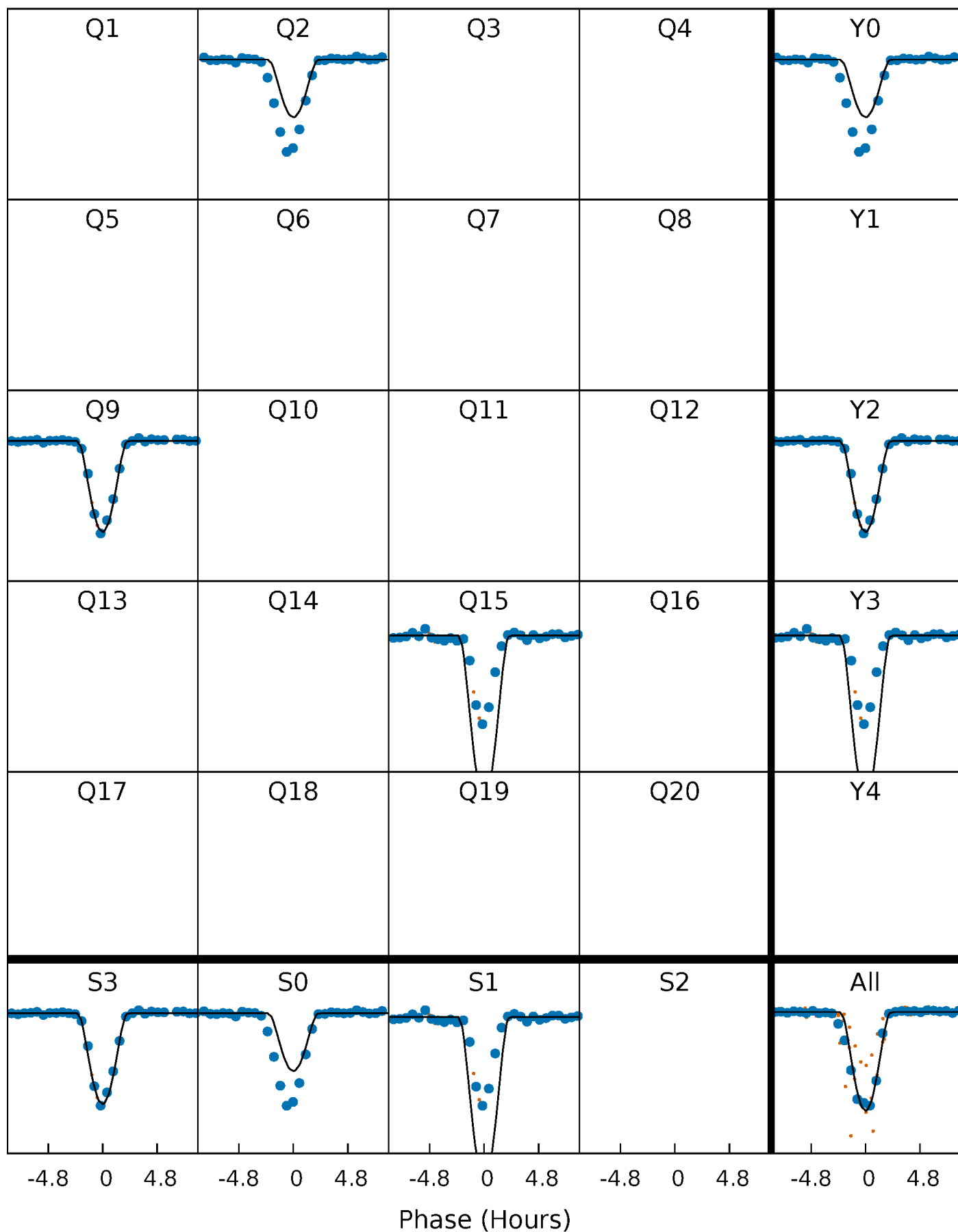
PDC Quarter-Phased Transit Curves

TCE 001722276-01 P=569.935945 Days $T_0=248.938445$ (BKJD)



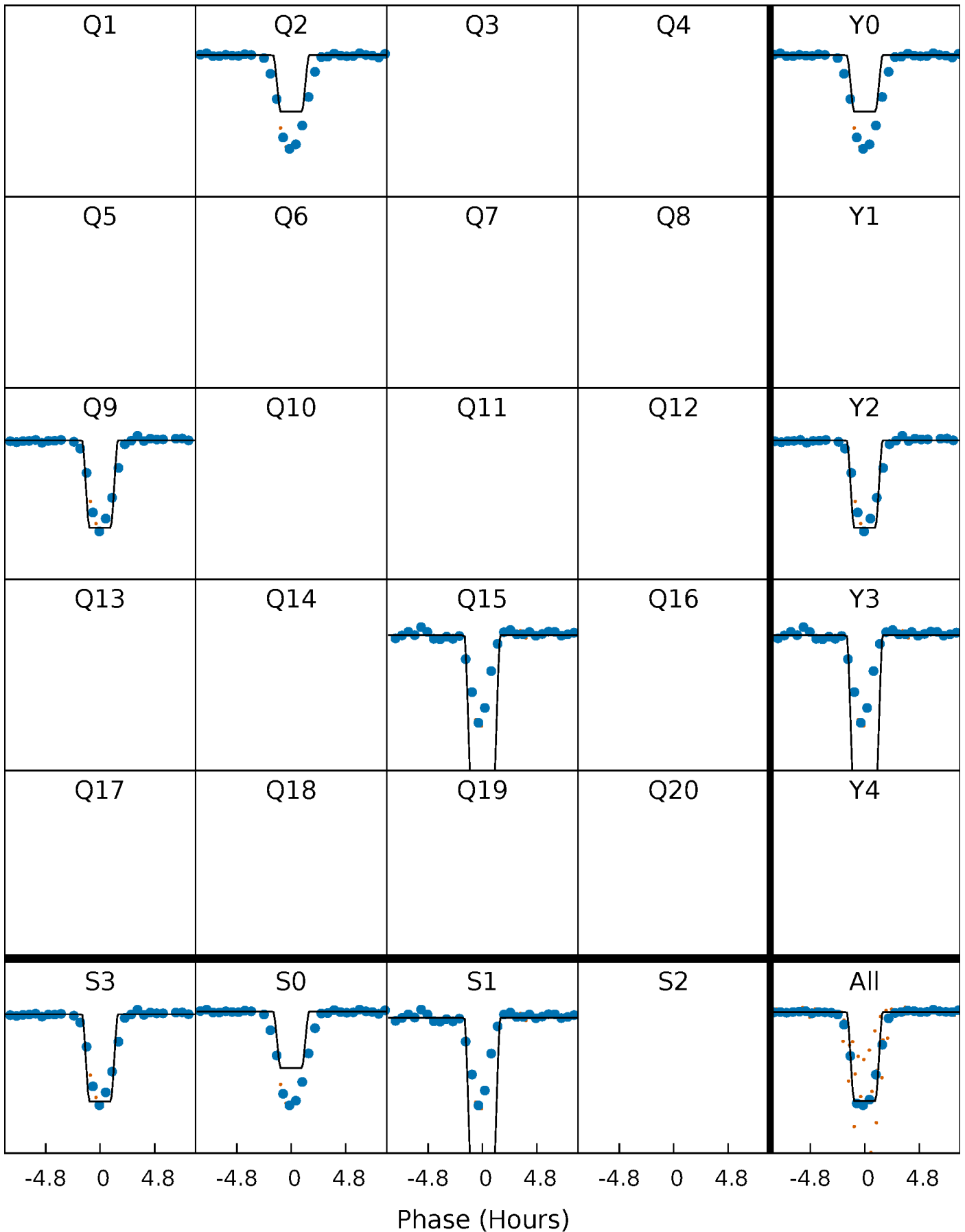
DV Quarter-Phased Transit Curves

TCE 001722276-01 P=569.935945 Days $T_0=248.938445$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

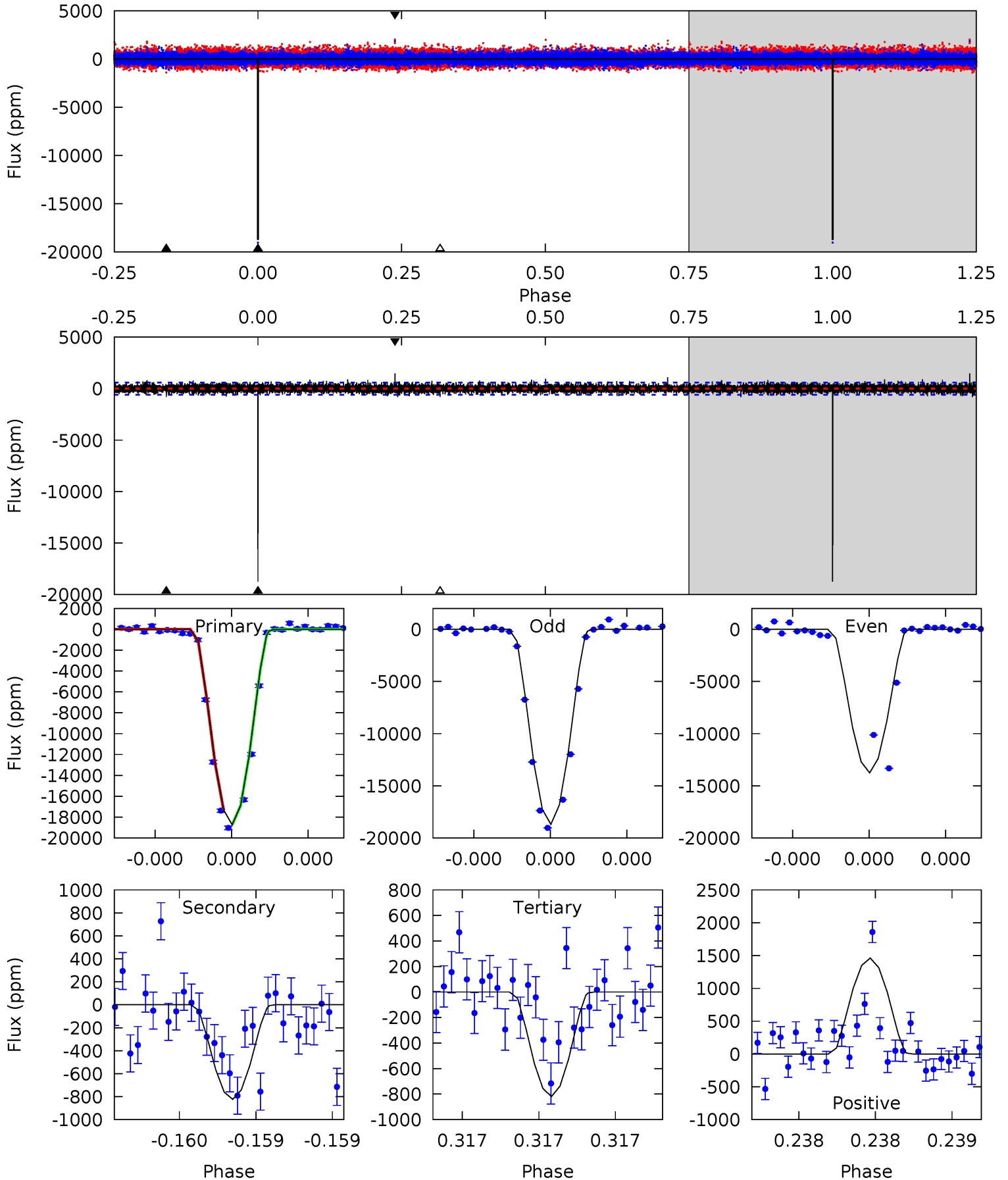
TCE 001722276-01 P=569.946478 Days $T_0=248.923735$ (BKJD)



DV Model-Shift Uniqueness Test

001722276-01, P = 569.935945 Days, E = 248.938445 Days

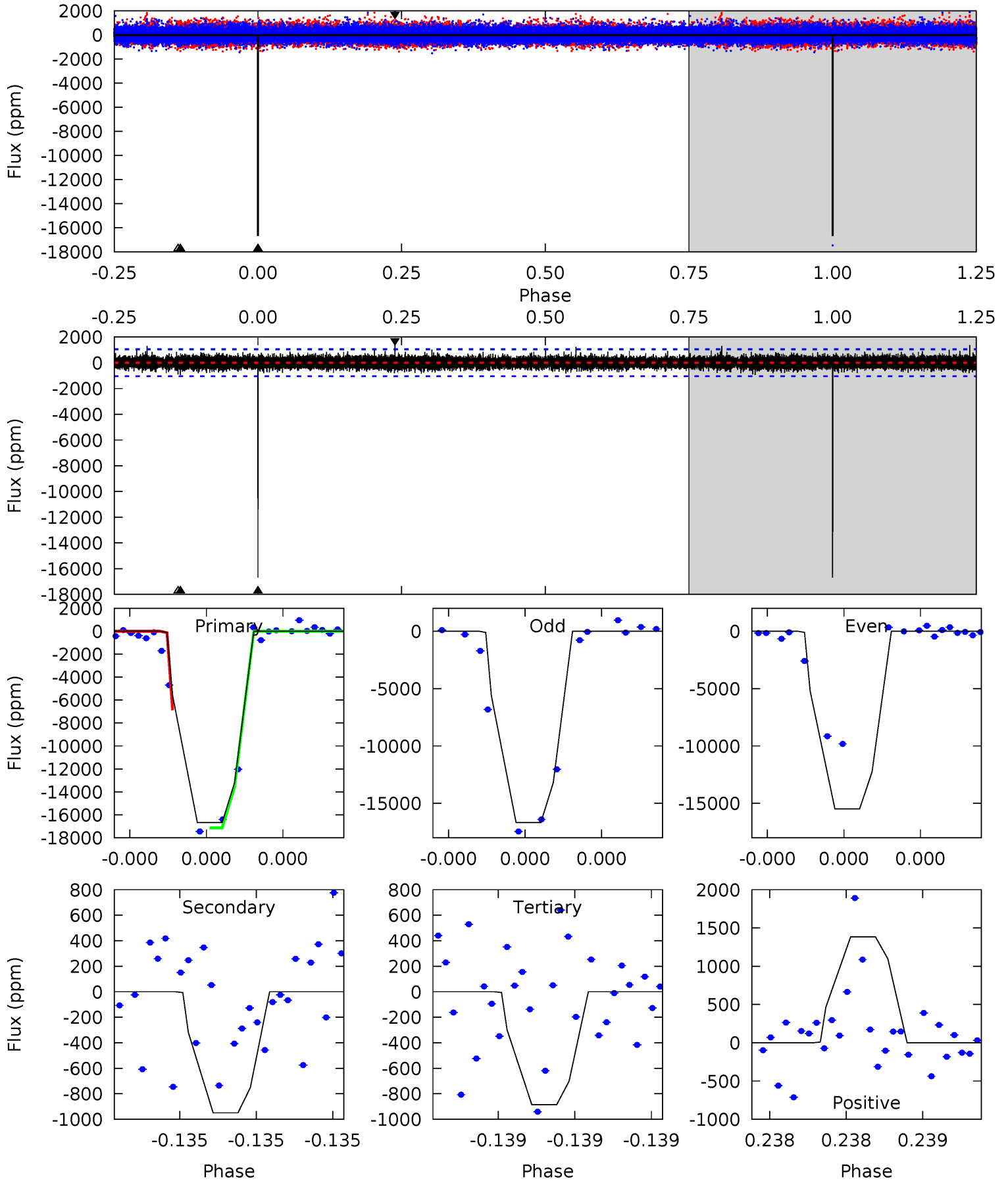
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
178.1	7.83	7.79	13.9	5.65	3.60	1.87	170.3	164.2	0.04	-6.07	24.3	1.07	0.07	0



Alt Model-Shift Uniqueness Test

001722276-01, P = 569.946478 Days, E = 248.923735 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
91.5	5.21	4.86	7.60	5.71	3.69	1.23	86.6	83.9	0.35	-2.39	4.63	1.06	0.08	0



Stellar Parameters For KIC 001722276

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5367^{+75}_{-86}	$3.783^{+0.084}_{-0.144}$	$-0.460^{+0.150}_{-0.150}$	$2.057^{+0.586}_{-0.251}$	$0.935^{+0.195}_{-0.078}$	$0.151^{+0.055}_{-0.066}$
	+1%/-2%	+2%/-4%	+33%/-33%	+28%/-12%	+21%/-8%	+37%/-44%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 001722276-01 / KOI 1008.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-824 ± 105	$45.58^{+29.95}_{-26.35}$	416^{+23}_{-17}	2787^{+829}_{-342}	386^{+1813}_{-249}
Alt.	-949 ± 182	$37.97^{+27.72}_{-23.41}$	416^{+22}_{-16}	2983^{+1077}_{-427}	635^{+3878}_{-427}

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 $A_{obs} \gg 1.0$

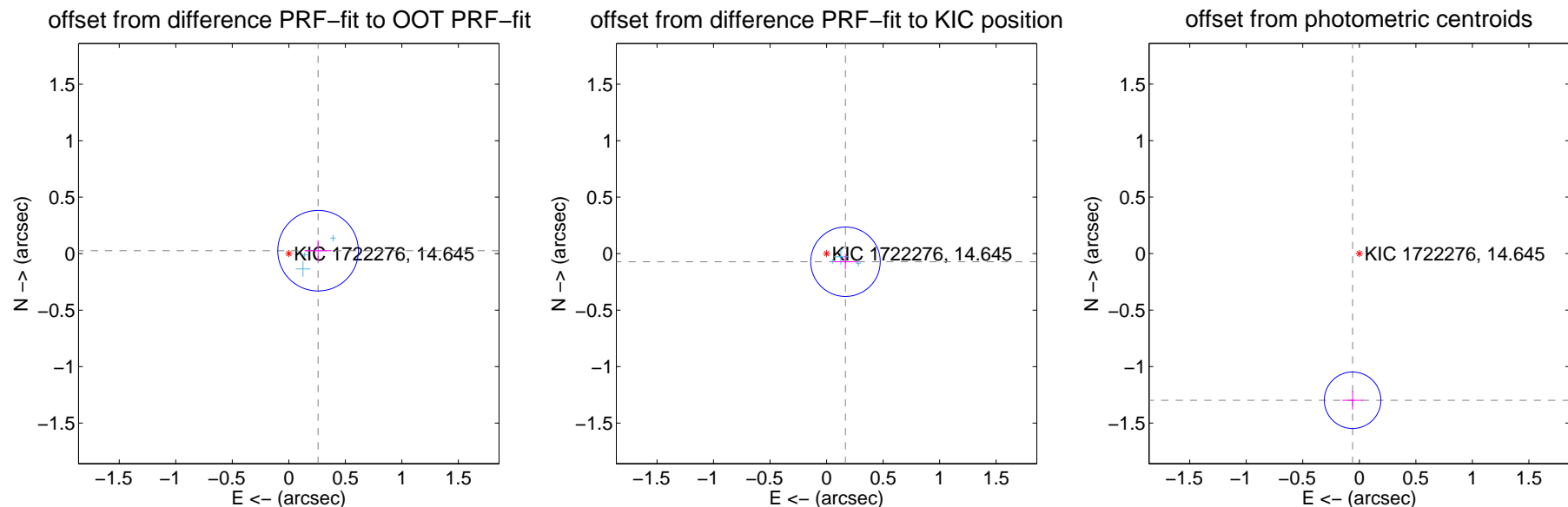
DV Centroid Data

Supplemental centroid analysis for 001722276-01. Kepler magnitude: 14.64. Transit SNR 94.61

There are 3 quarters with good PRF difference image offsets

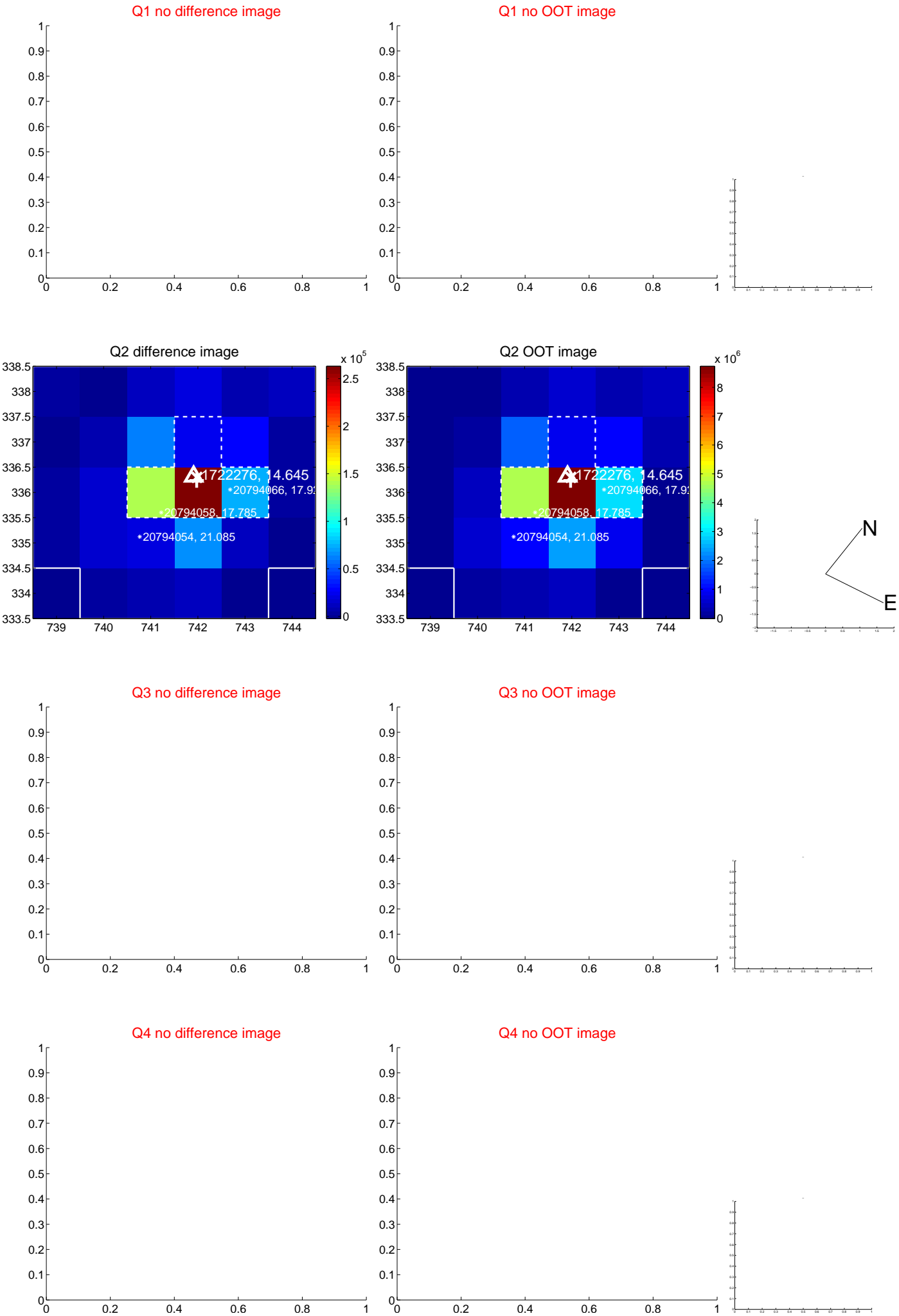
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.260 ± 0.119	2.19	-0.259 ± 0.119	0.026 ± 0.093
PRF-fit source offset from KIC position	0.182 ± 0.102	1.77	-0.167 ± 0.108	-0.071 ± 0.067
photometric centroid source offset	1.30 ± 0.08	15.59	0.06 ± 0.09	-1.30 ± 0.08



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.

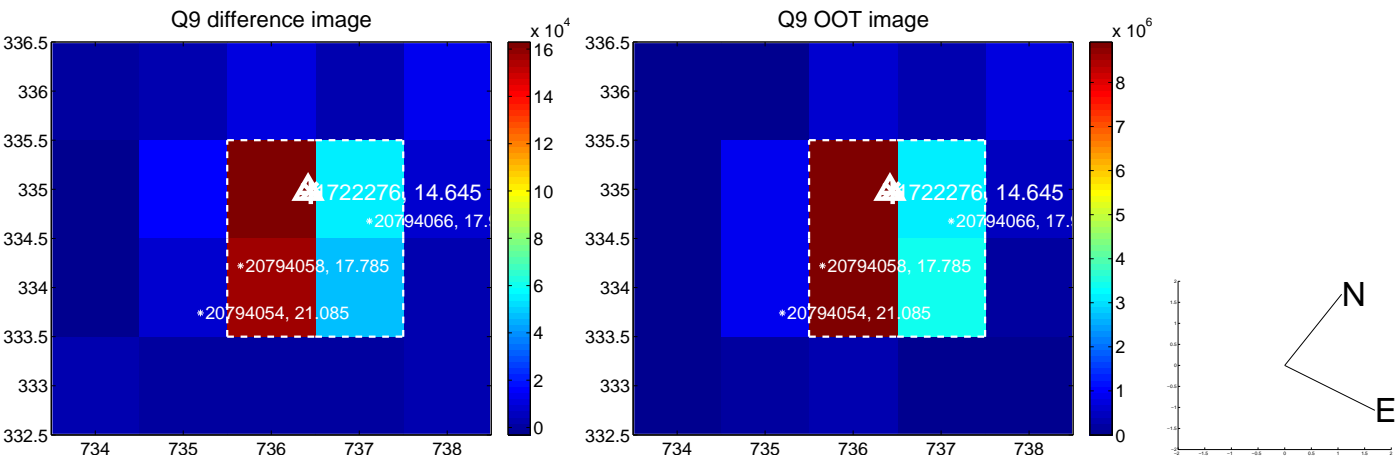
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



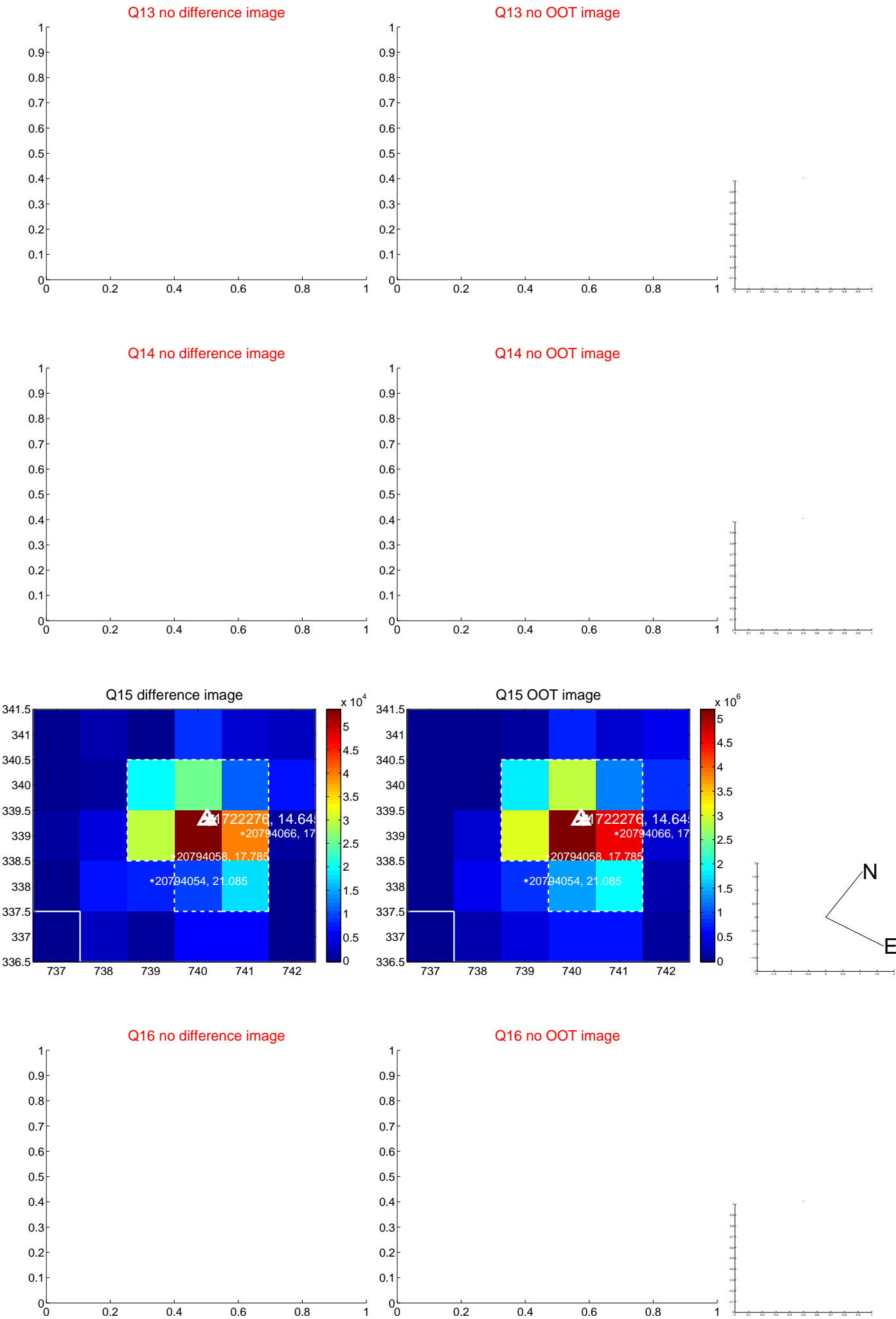
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



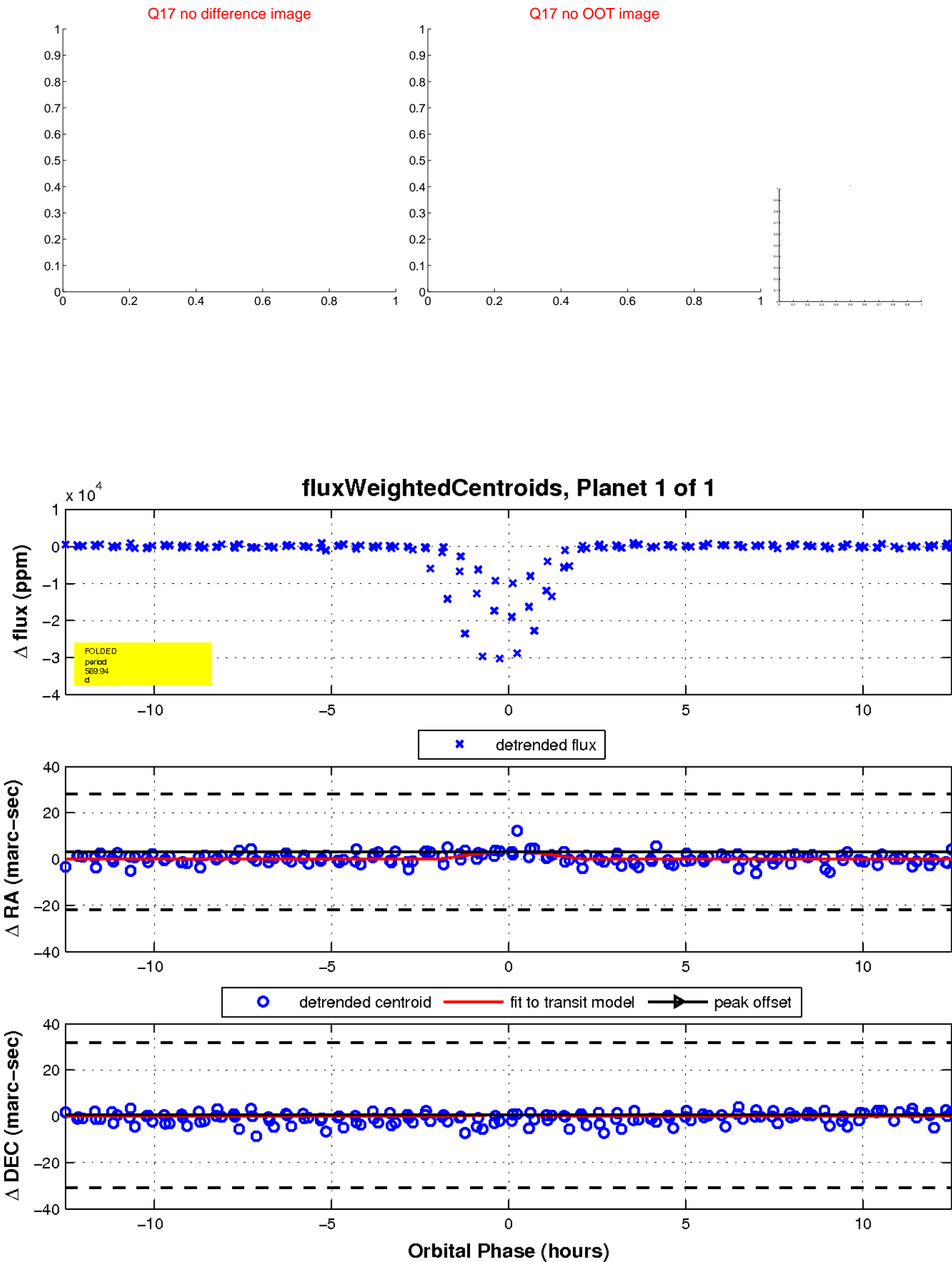
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

