

KIC 003219400

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})
003219400-01	OBS	No	332.520684	343.343609	915.8	12.704	7.4	7.1	0.56	3964	1.77	0.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003219400-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

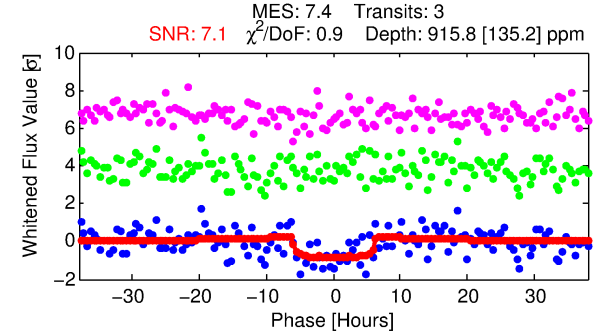
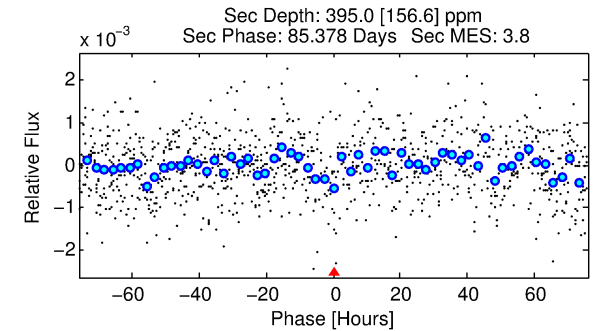
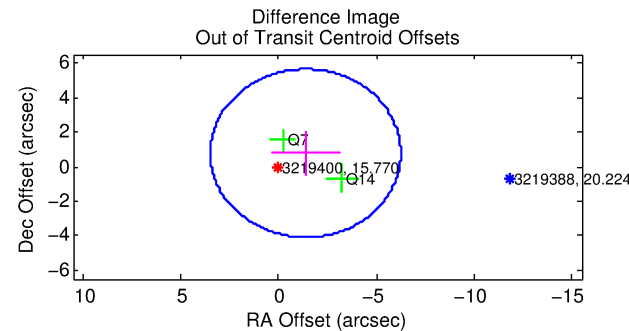
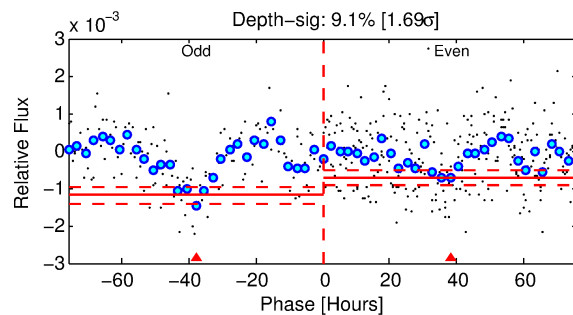
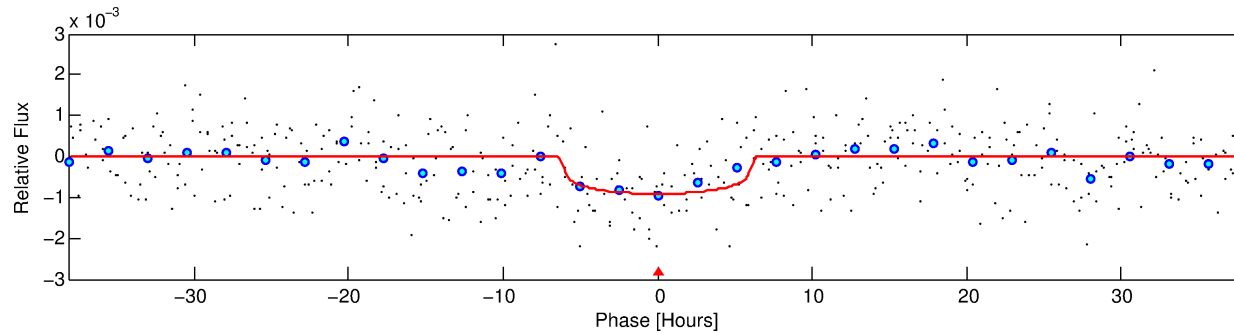
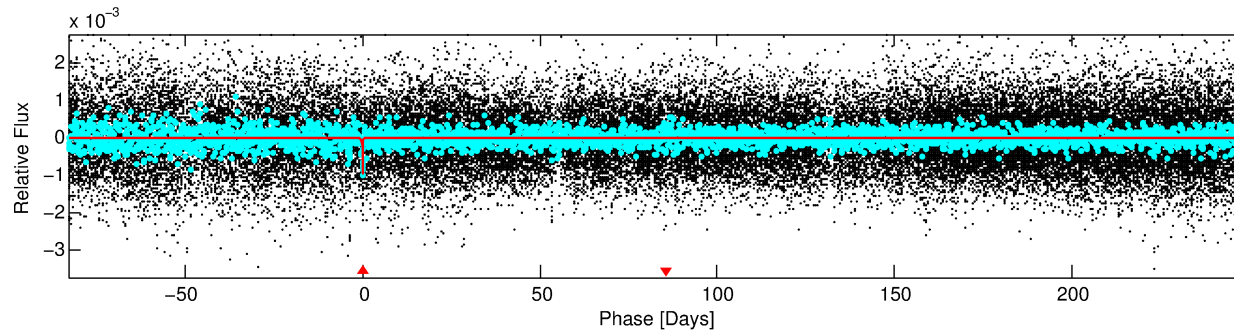
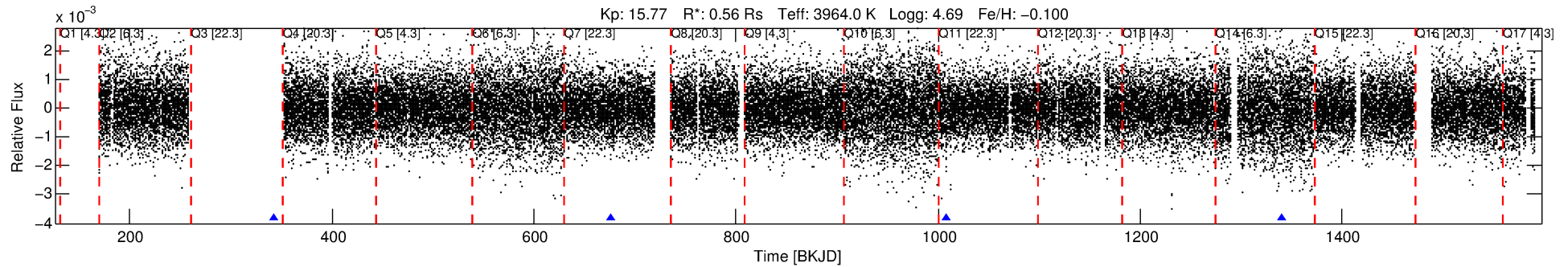
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003219400-01

No Significant Match Found

DV One-Page Summary

KIC: 3219400 Candidate: 1 of 1 Period: 332.521 d



DV Fit Results:

Period = 332.52068 [0.01721] d
Epoch = 343.3436 [0.0332] BKJD
Rp/R* = 0.0288 [0.0165]
a/R* = 166.90 [382.79]
b = 0.60 [2.45]
Seff = 0.12 [0.01]
Teq = 149 [4] K
Rp = 1.77 [1.02] Re
a = 0.7776 [0.0423] AU
Ag = 41902.79 [50879.22] [0.82 σ]
Teffp = 3295 [1000] K [3.15 σ]

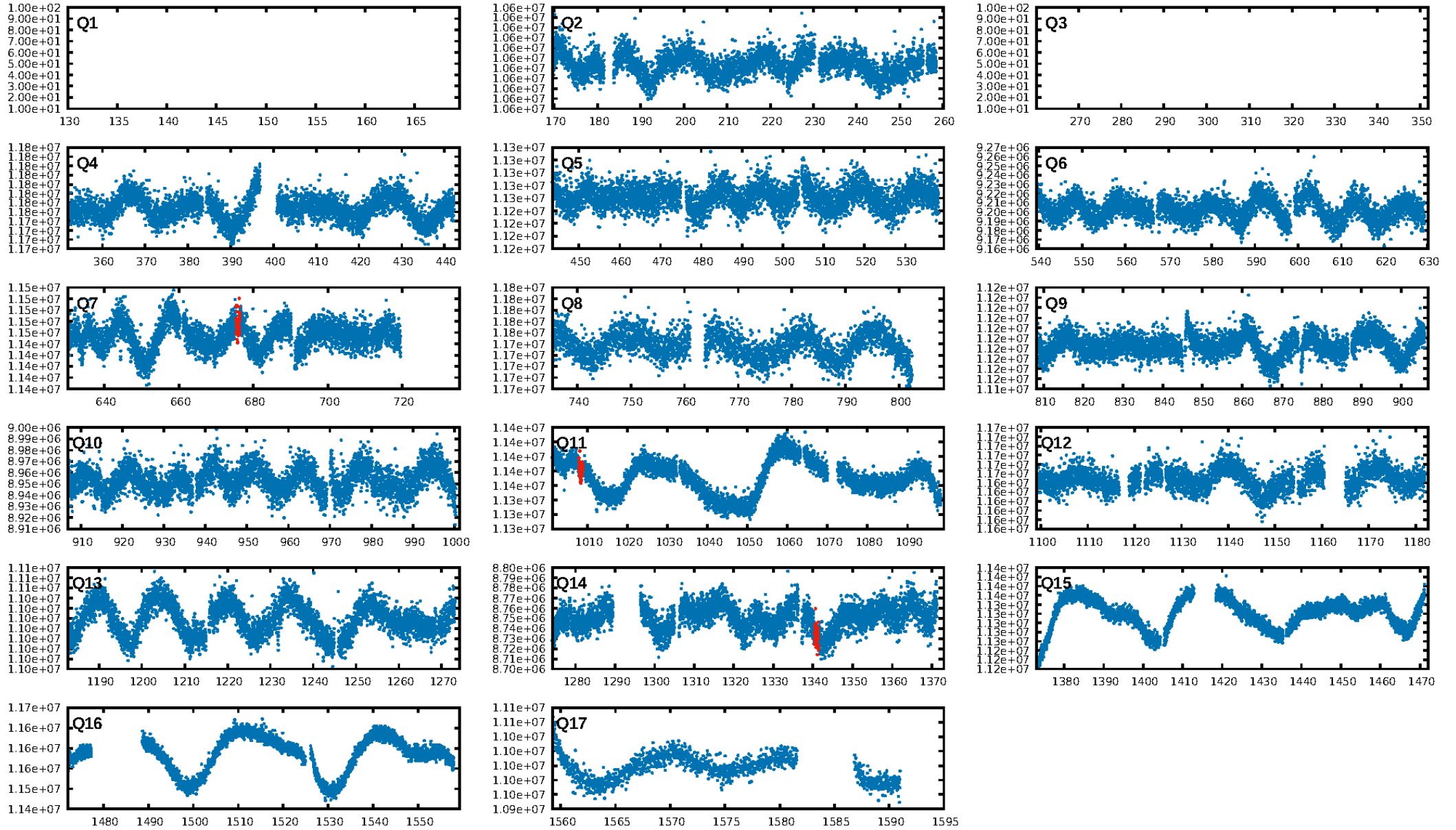
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.8%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 1.78e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.675
Centroid-sig: 37.2%
Centroid-so: 0.800 arcsec [0.69 σ]
OotOffset-rm: 1.580 arcsec [0.97 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 1.463 arcsec [0.97 σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

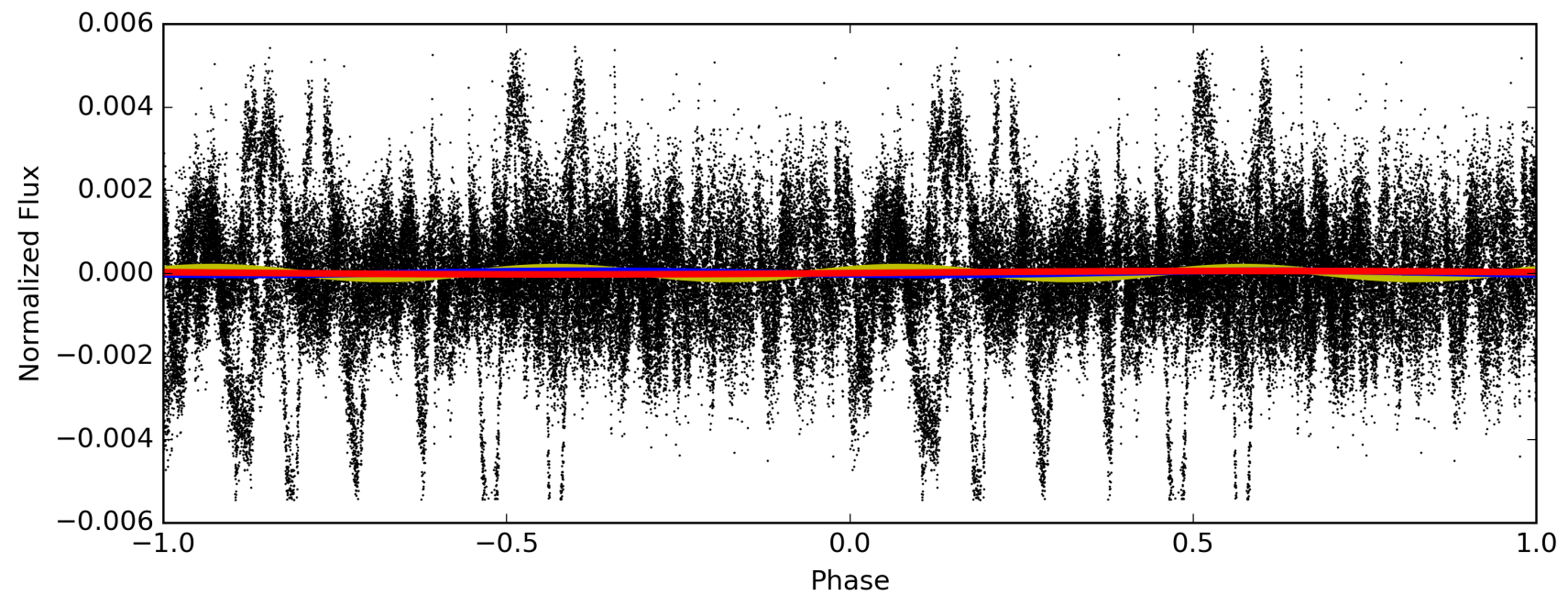
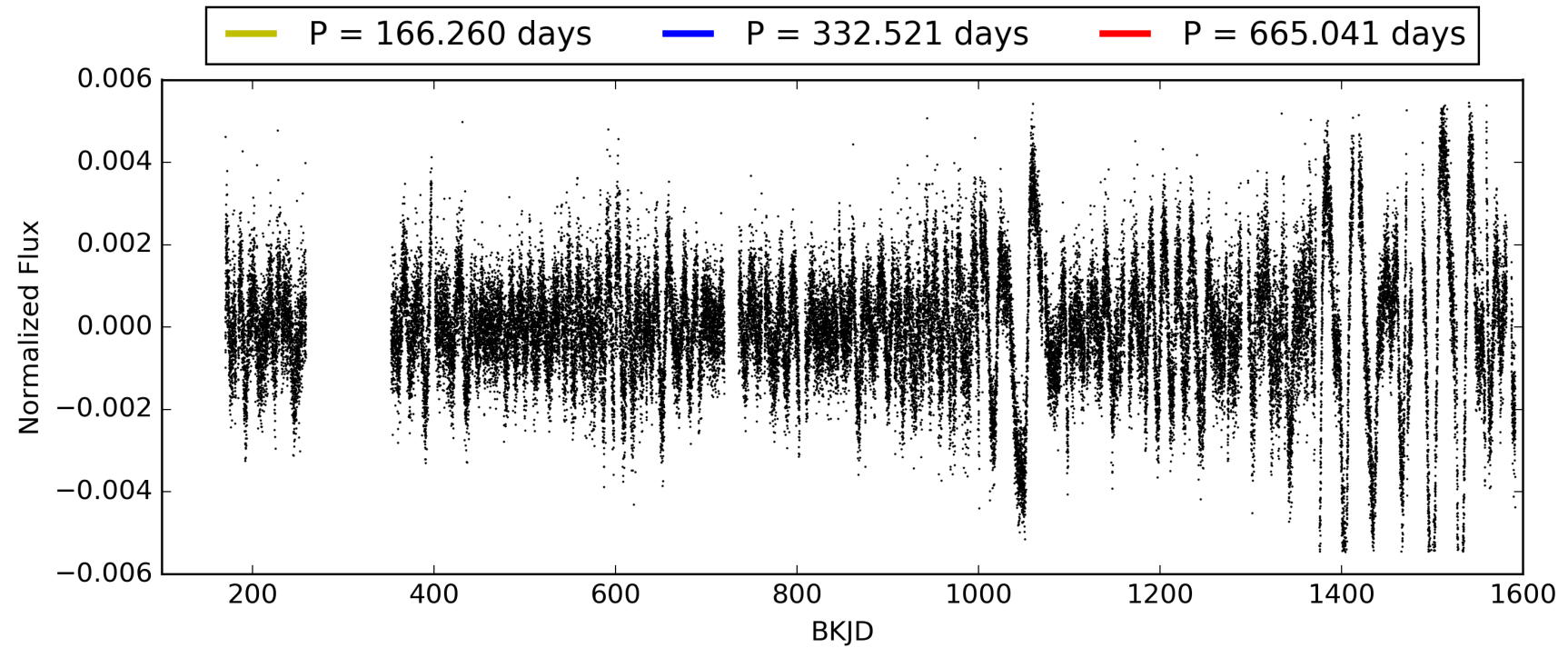
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:57:43 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003219400-01, PDC Light Curves

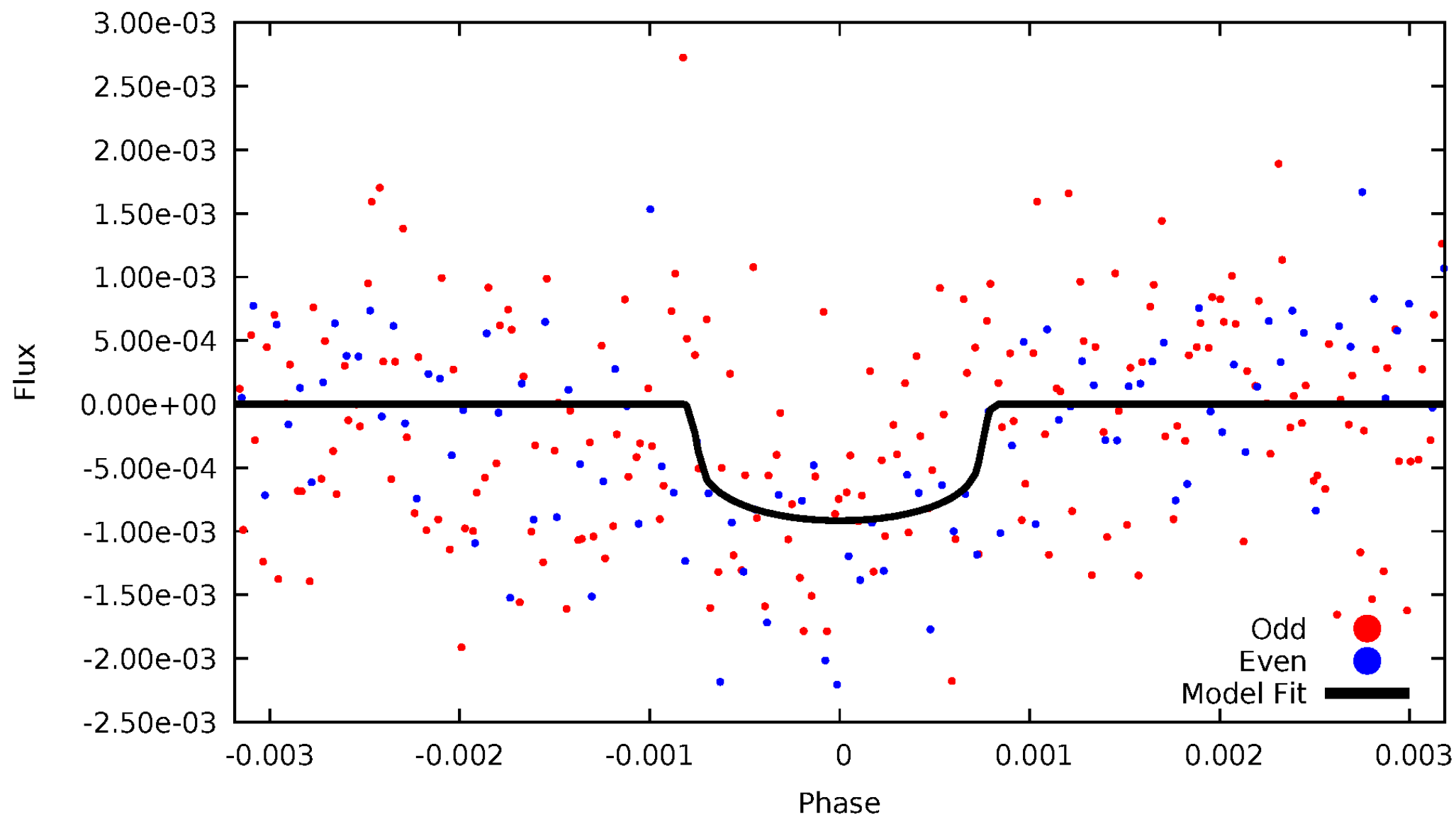


TCE 003219400-01



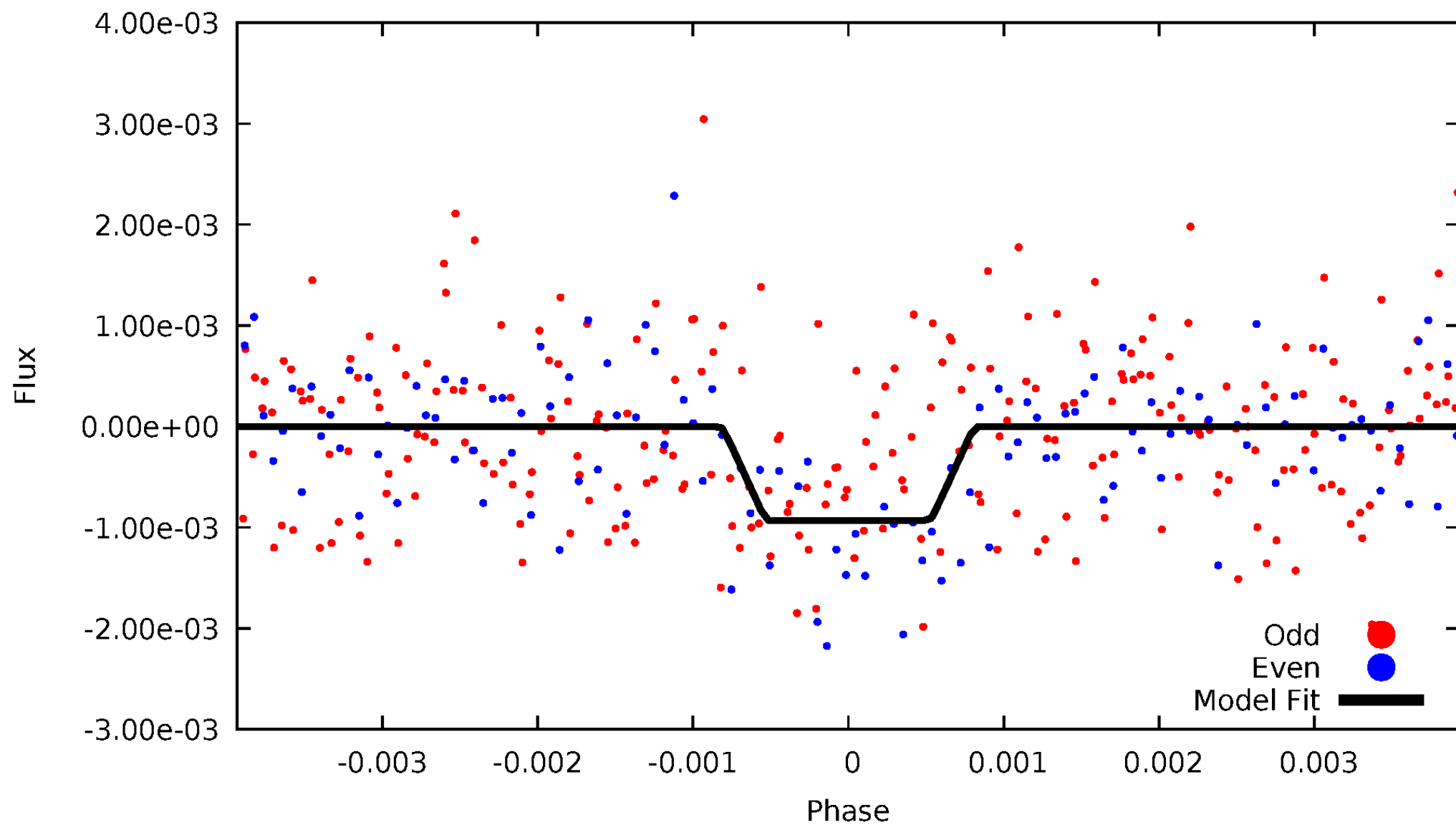
DV Odd/Even

TCE 003219400-01

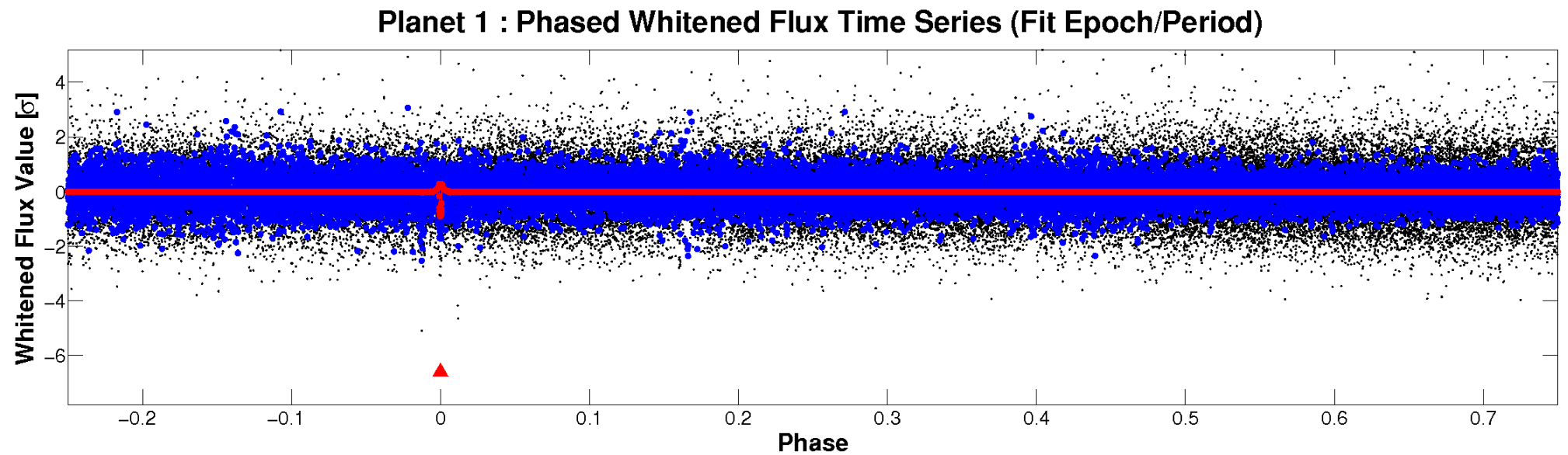
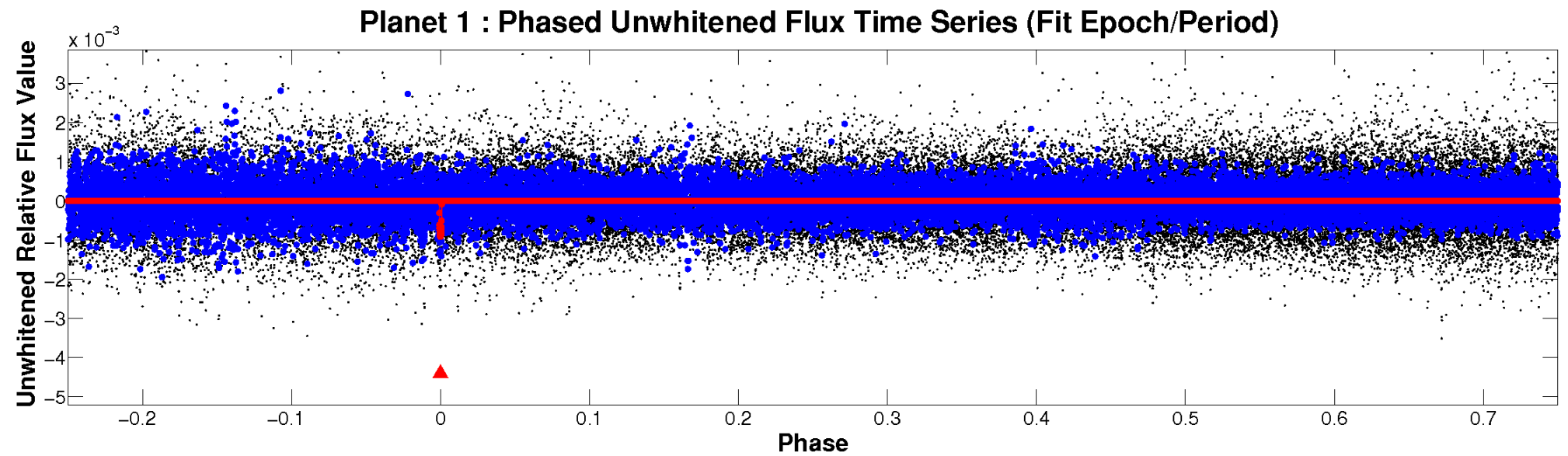


ALT Odd/Even

TCE 003219400-01



Non-Whitened Vs. Whitened Light Curve



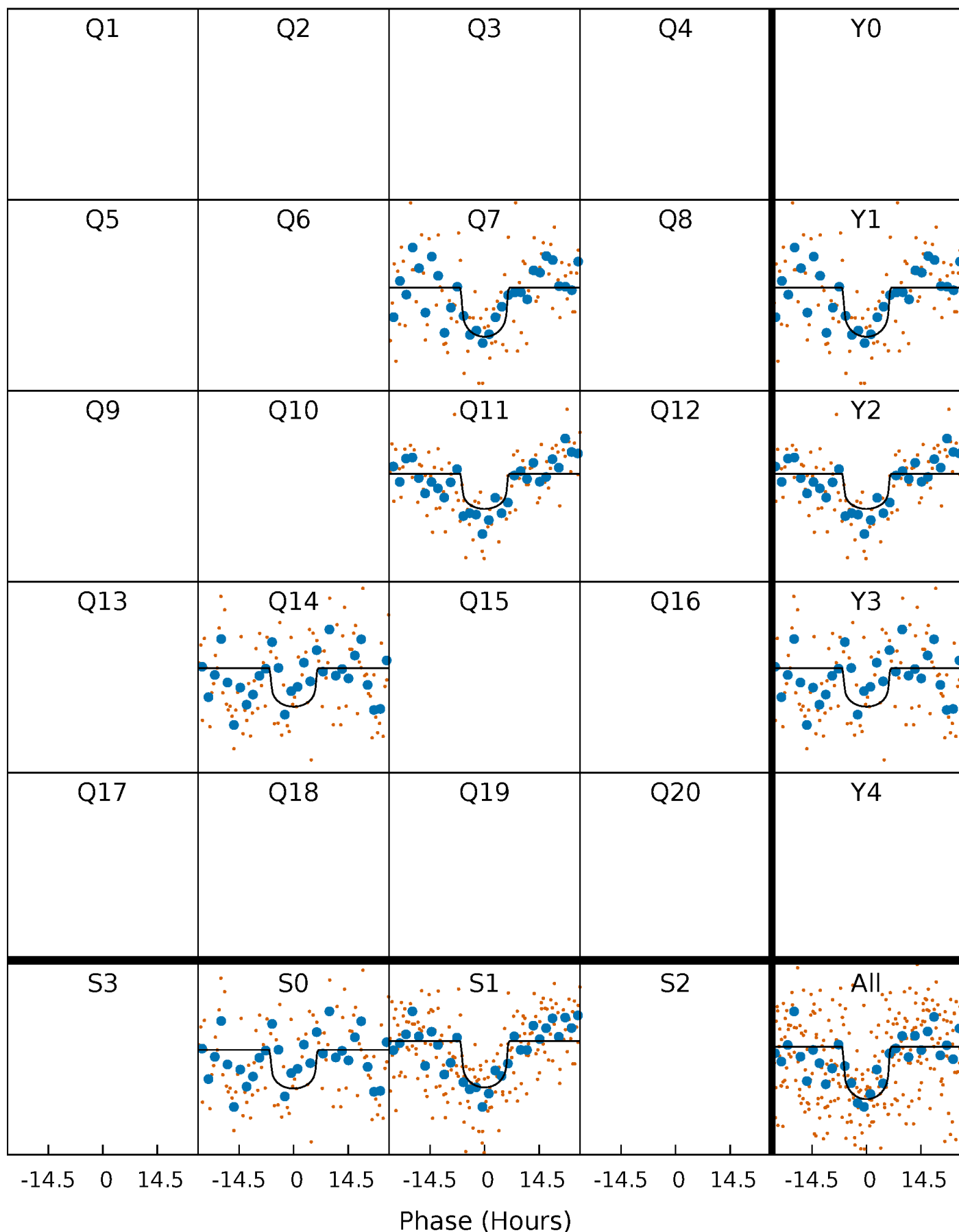
PDC Quarter-Phased Transit Curves

TCE 003219400-01 P=332.520684 Days $T_0=343.343609$ (BKJD)



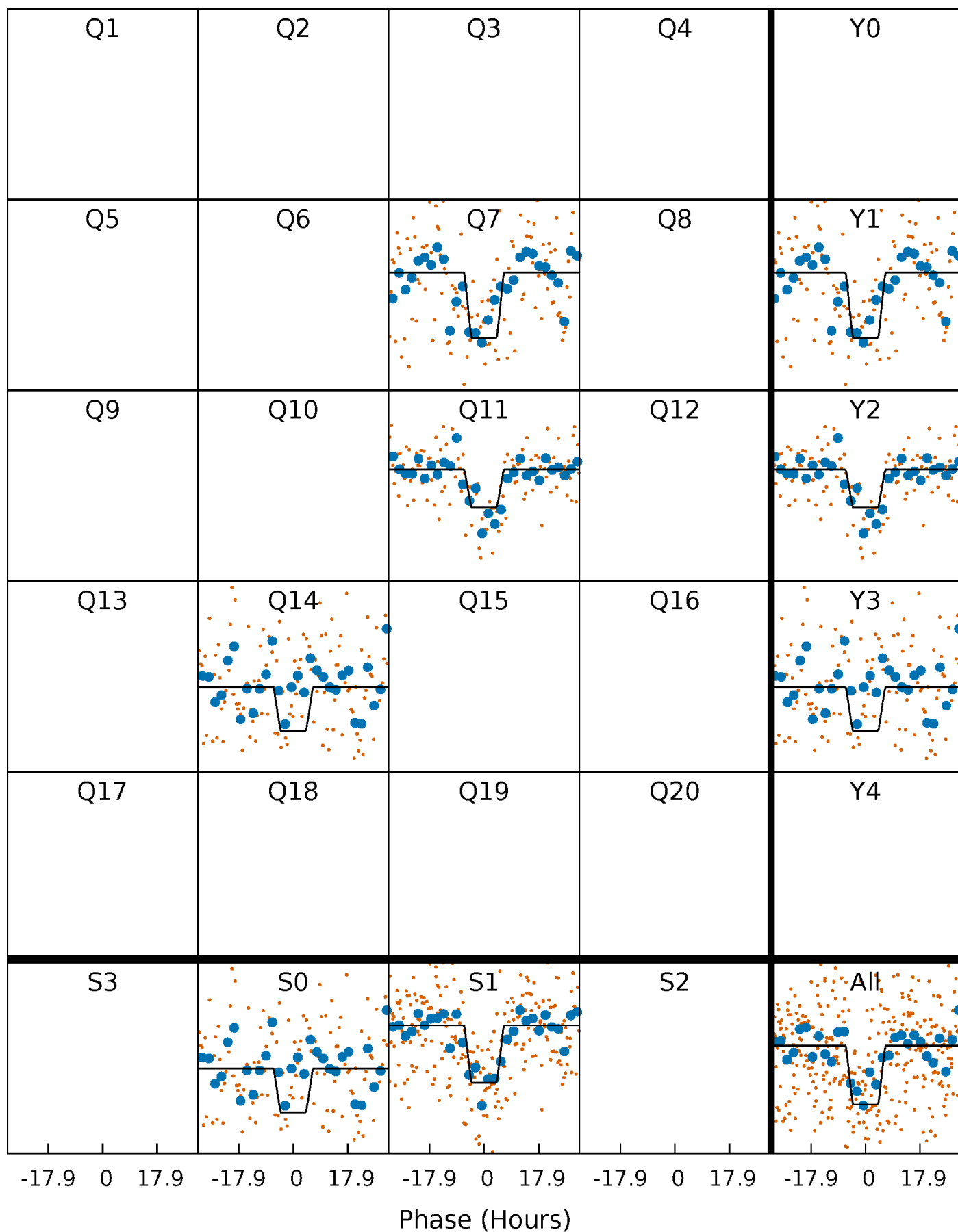
DV Quarter-Phased Transit Curves

TCE 003219400-01 P=332.520684 Days $T_0=343.343609$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

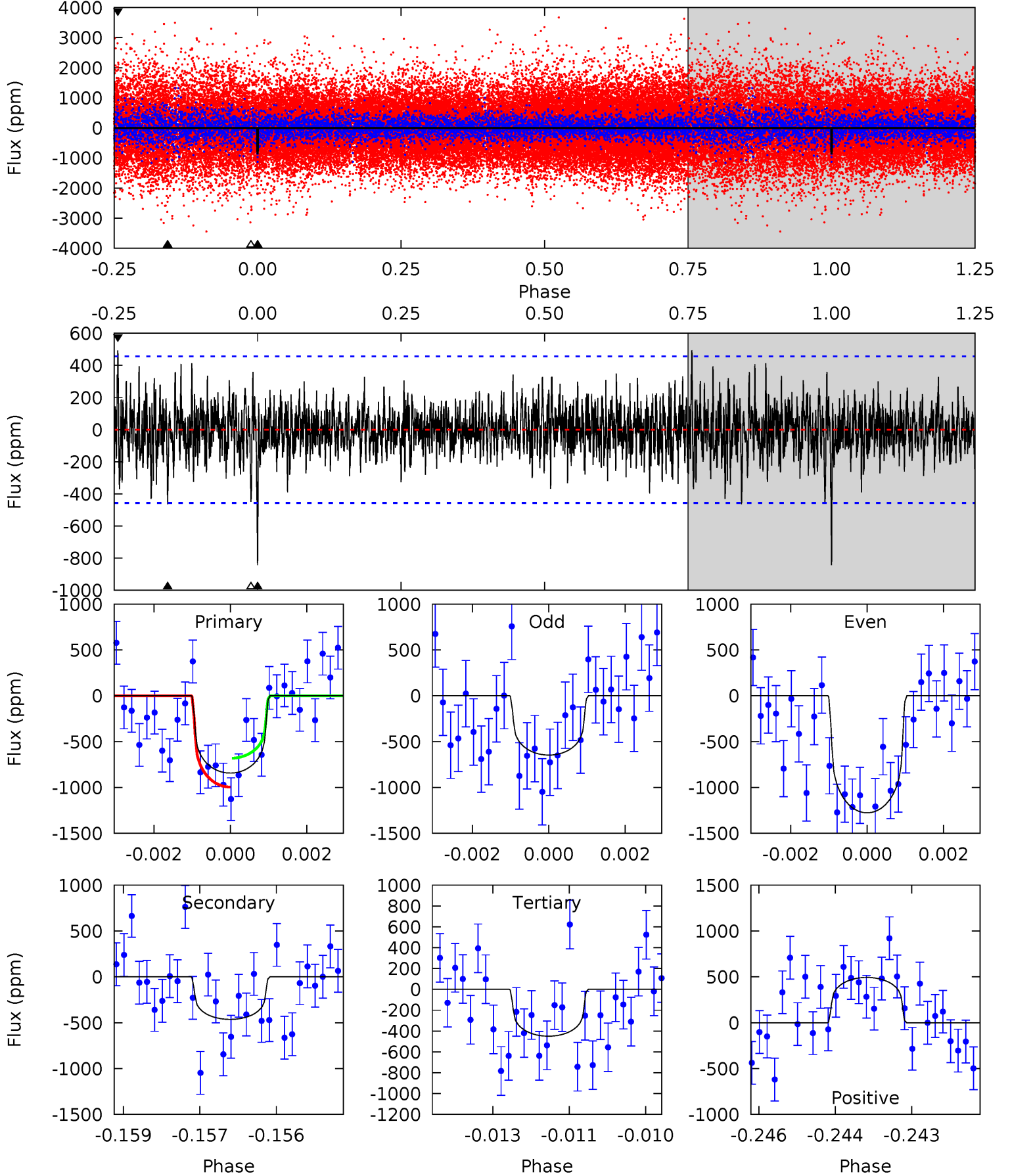
TCE 003219400-01 P=332.515322 Days $T_0=343.395565$ (BKJD)



DV Model-Shift Uniqueness Test

003219400-01, P = 332.520684 Days, E = 10.822925 Days

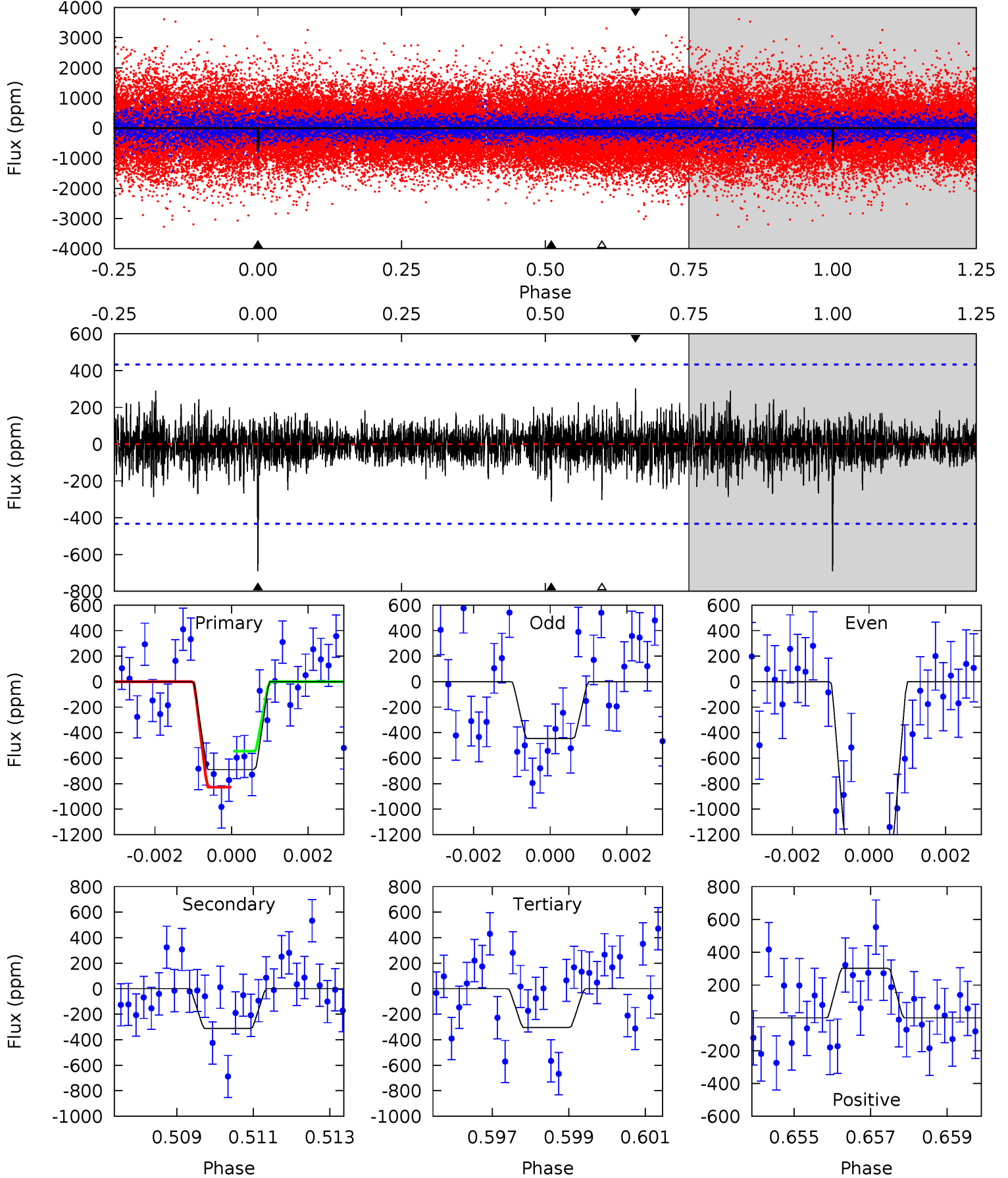
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.92	5.46	5.29	5.80	5.37	3.15	1.38	4.63	4.12	0.17	-0.34	3.46	0.99	0.37	1.85



Alt Model-Shift Uniqueness Test

003219400-01, $P = 332.515322$ Days, $E = 10.880243$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.55	3.86	3.77	3.75	5.36	3.15	0.89	4.78	4.81	0.09	0.11	4.57	0.92	0.30	1.75



Stellar Parameters For KIC 003219400

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3964^{+63}_{-71}	$4.689^{+0.035}_{-0.020}$	$-0.100^{+0.200}_{-0.200}$	$0.564^{+0.030}_{-0.040}$	$0.565^{+0.037}_{-0.037}$	$4.448^{+0.731}_{-0.429}$
	+2%/-2%	+1%/-0%	+200%/-200%	+5%/-7%	+7%/-7%	+16%/-10%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 003219400-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-464 ± 85	$1.81^{+1.03}_{-0.97}$	207^{+4}_{-5}	3547^{+1138}_{-442}	$45620^{+177997}_{-26297}$
Alt.	-311 ± 81	$1.90^{+1.02}_{-0.99}$	207^{+4}_{-4}	3276^{+933}_{-405}	28359^{+92347}_{-17172}

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 $A_{\text{obs}} \gg 1.0$

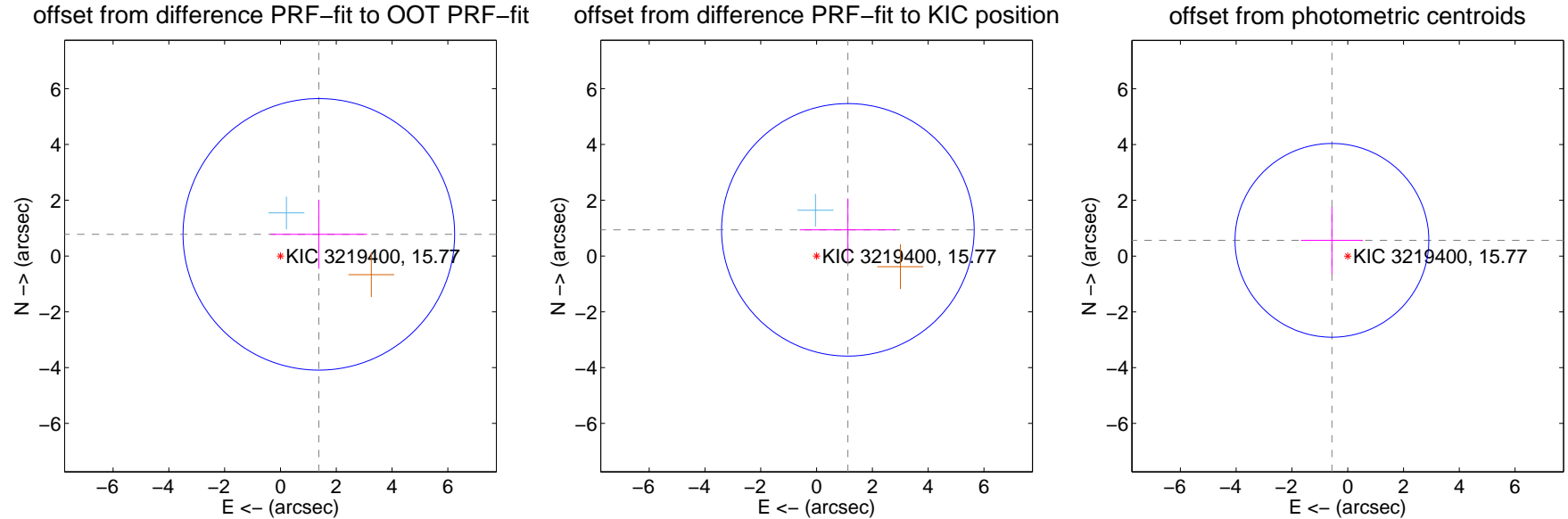
DV Centroid Data

Supplemental centroid analysis for 003219400-01. Kepler magnitude: 15.77. Transit SNR 7.05

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.580 ± 1.623	0.97	-1.376 ± 1.728	0.777 ± 1.234
PRF-fit source offset from KIC position	1.463 ± 1.509	0.97	-1.122 ± 1.727	0.939 ± 1.127
photometric centroid source offset	0.80 ± 1.16	0.69	0.57 ± 1.11	0.57 ± 1.20

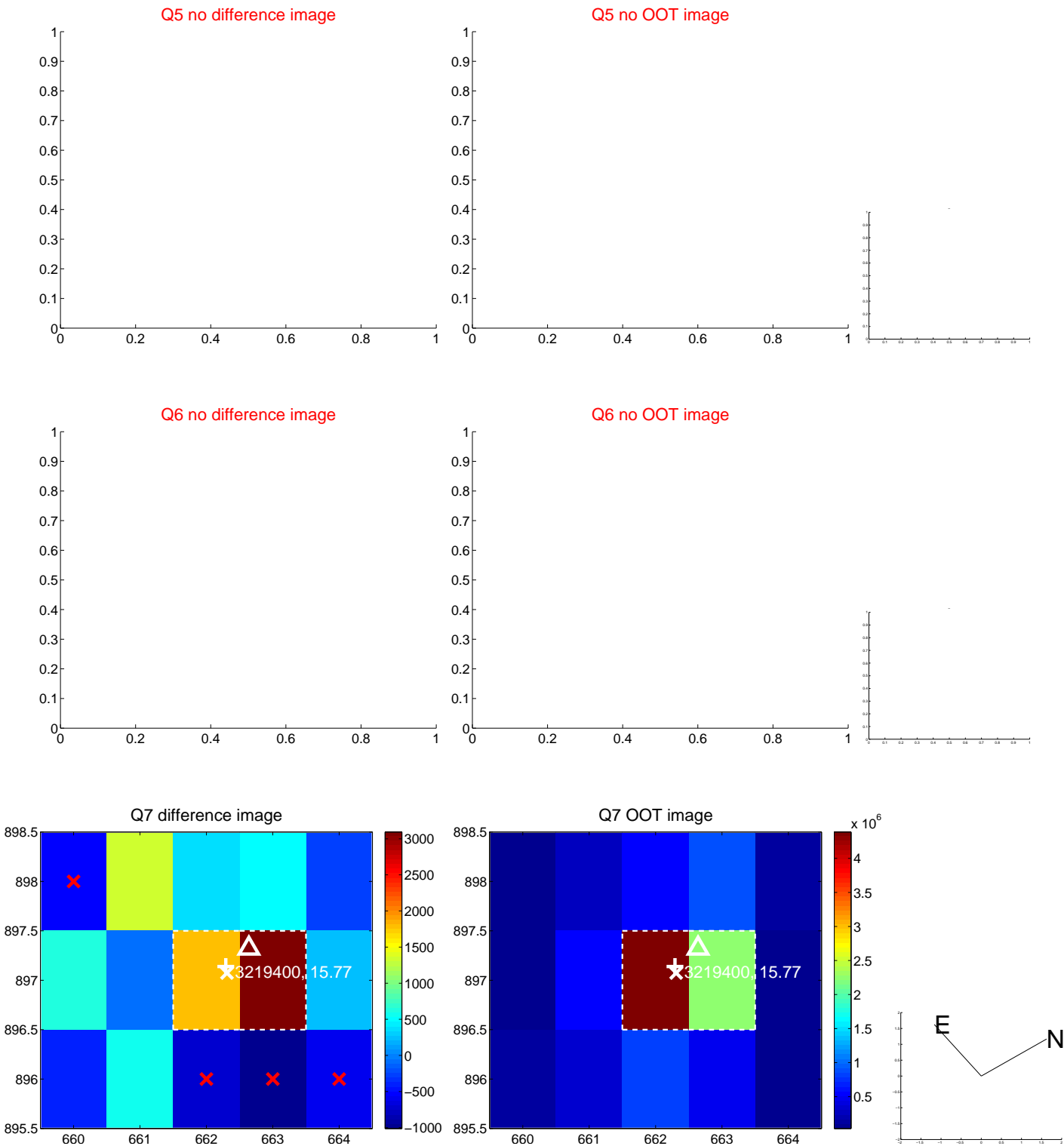


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



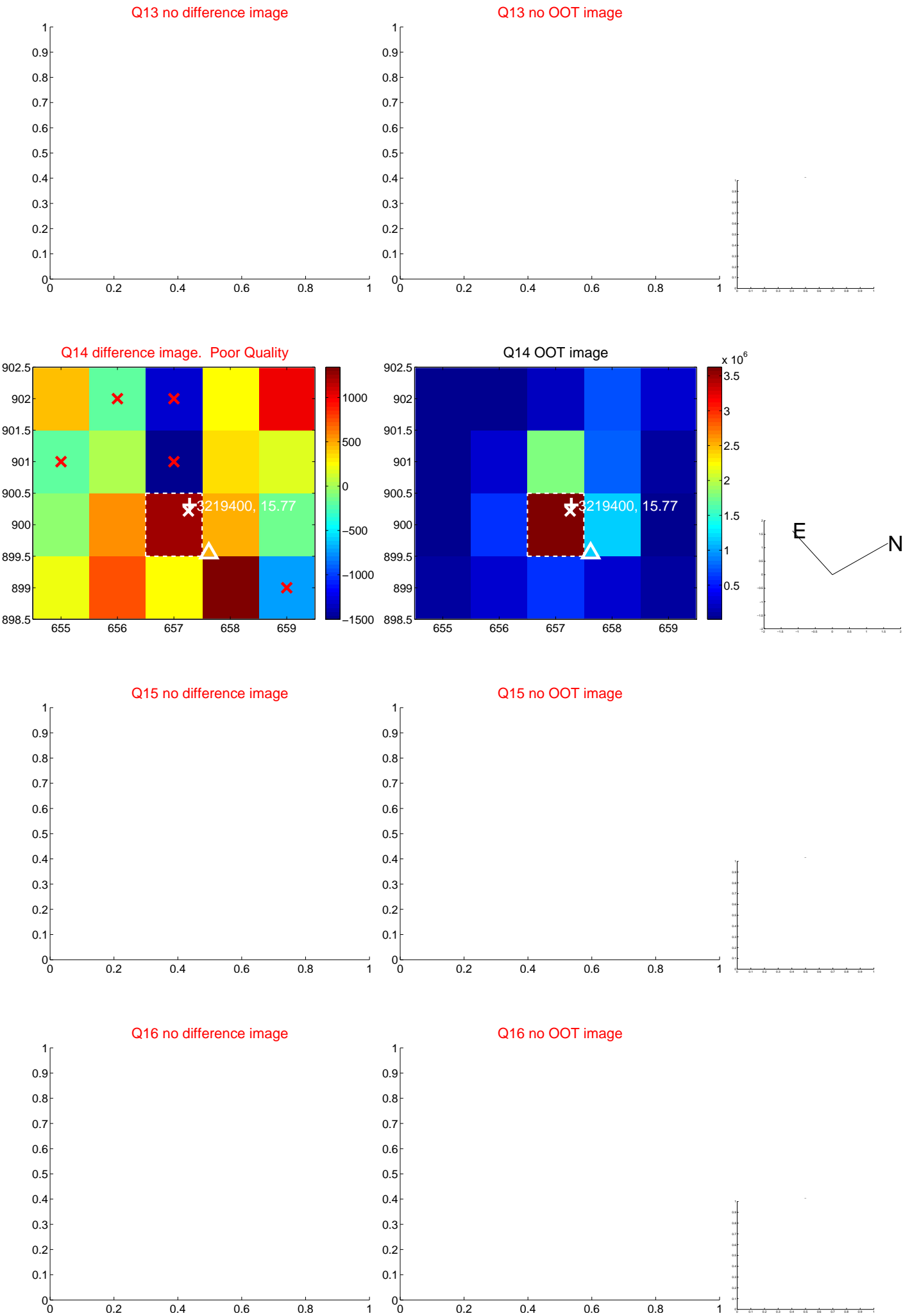
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



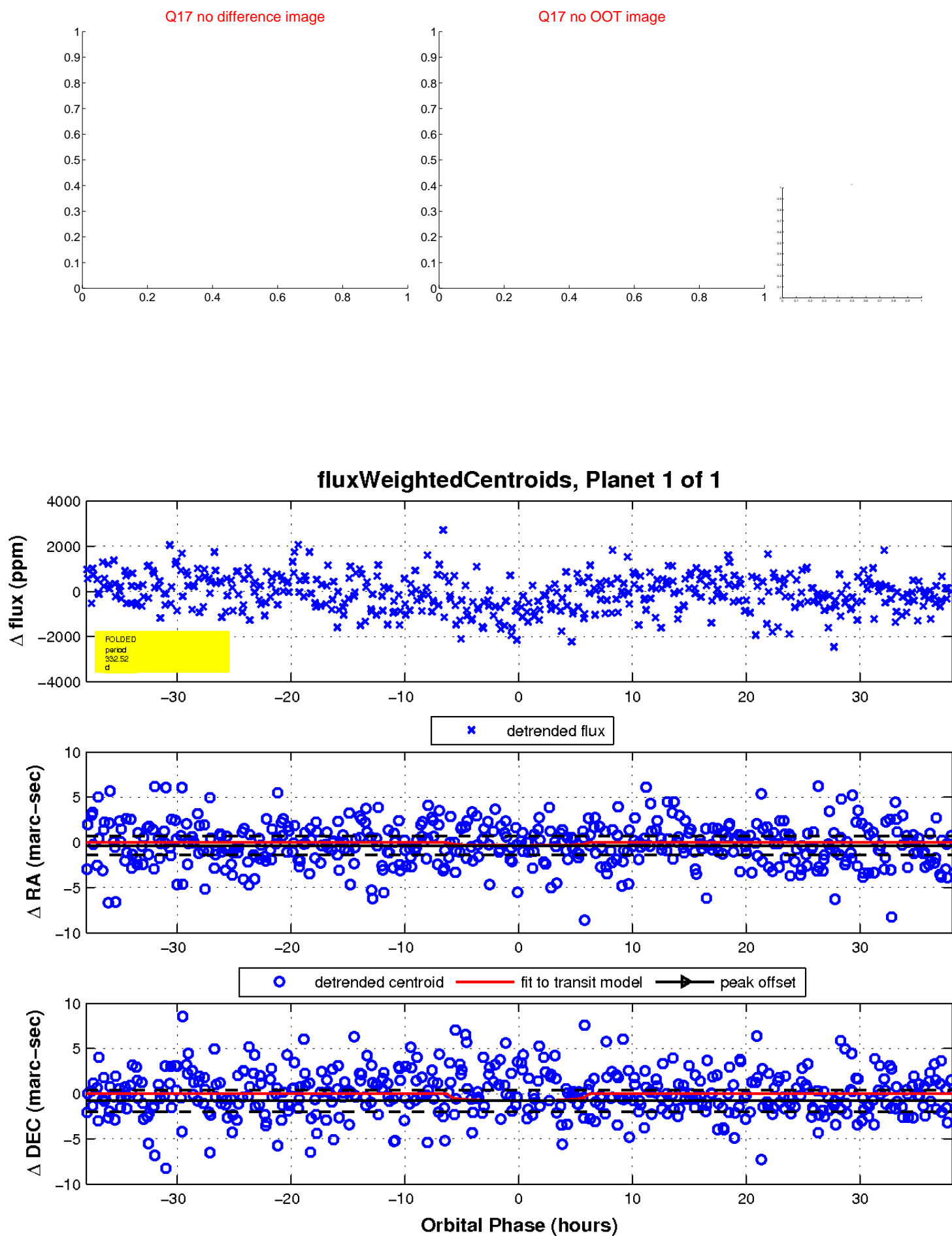
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

