

KIC 010214341

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})
010214341-01	OBS	7992.01	277.131153	400.470962	320.3	9.529	8.7	8.1	0.97	6461	1.89	2.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010214341-01	OBS	PC	0.13	0	0	0	0	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.

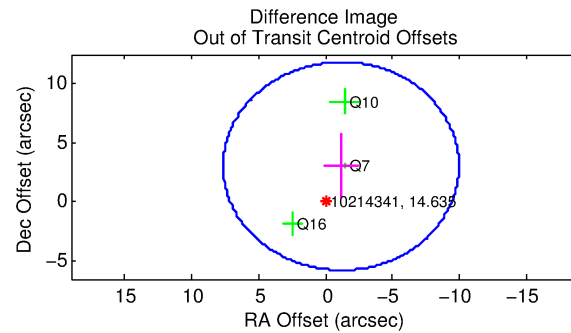
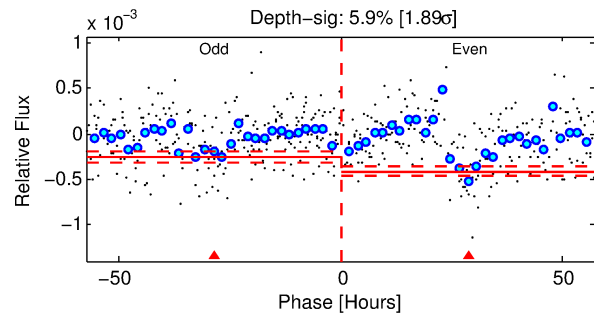
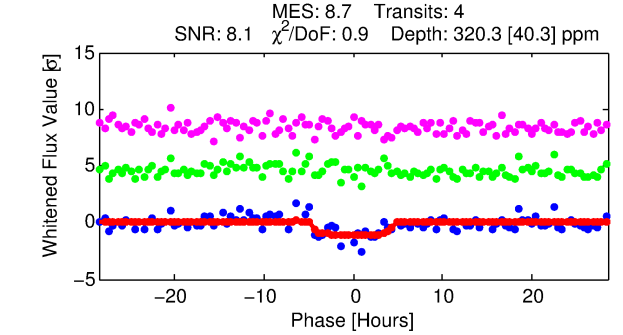
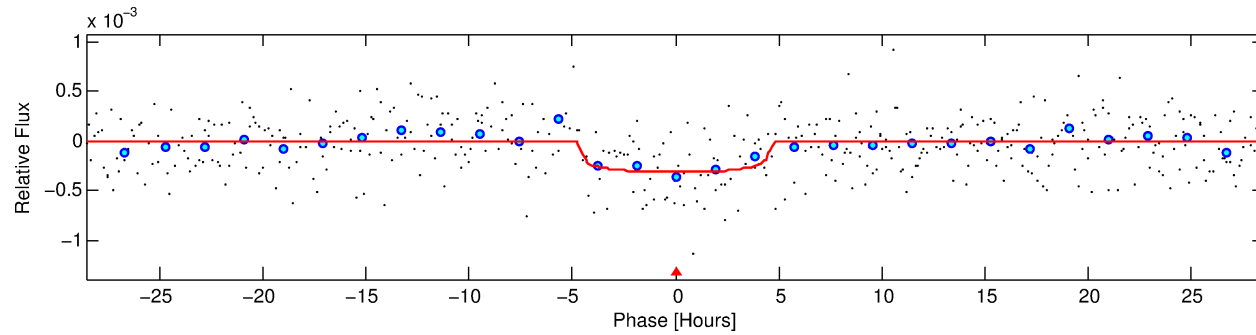
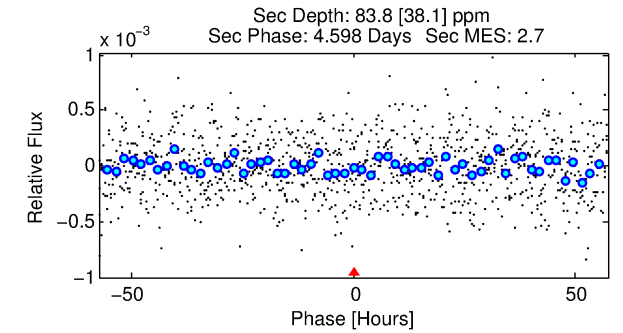
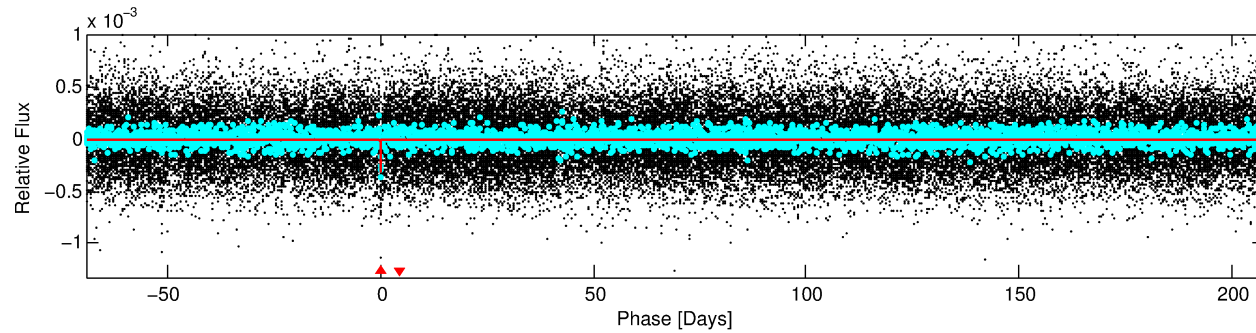
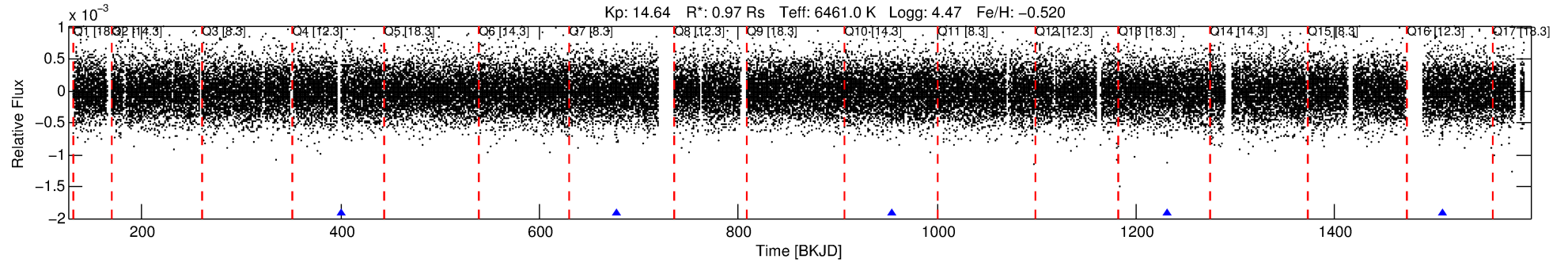
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010214341-01

No Significant Match Found

DV One-Page Summary

KIC: 10214341 Candidate: 1 of 1 Period: 277.131 d



DV Fit Results:

Period = 277.13115 [0.00939] d
Epoch = 400.4710 [0.0245] BKJD
Rp/R* = 0.0179 [0.0079]
a/R* = 150.26 [368.74]
b = 0.76 [1.37]
Seff = 2.09 [0.84]
Teff = 307 [31] K
Rp = 1.89 [1.02] Re
a = 0.8388 [0.2159] AU
Ag = 9058.95 [9663.63] [0.94σ]
Teffp = 4626 [1164] K [3.71σ]

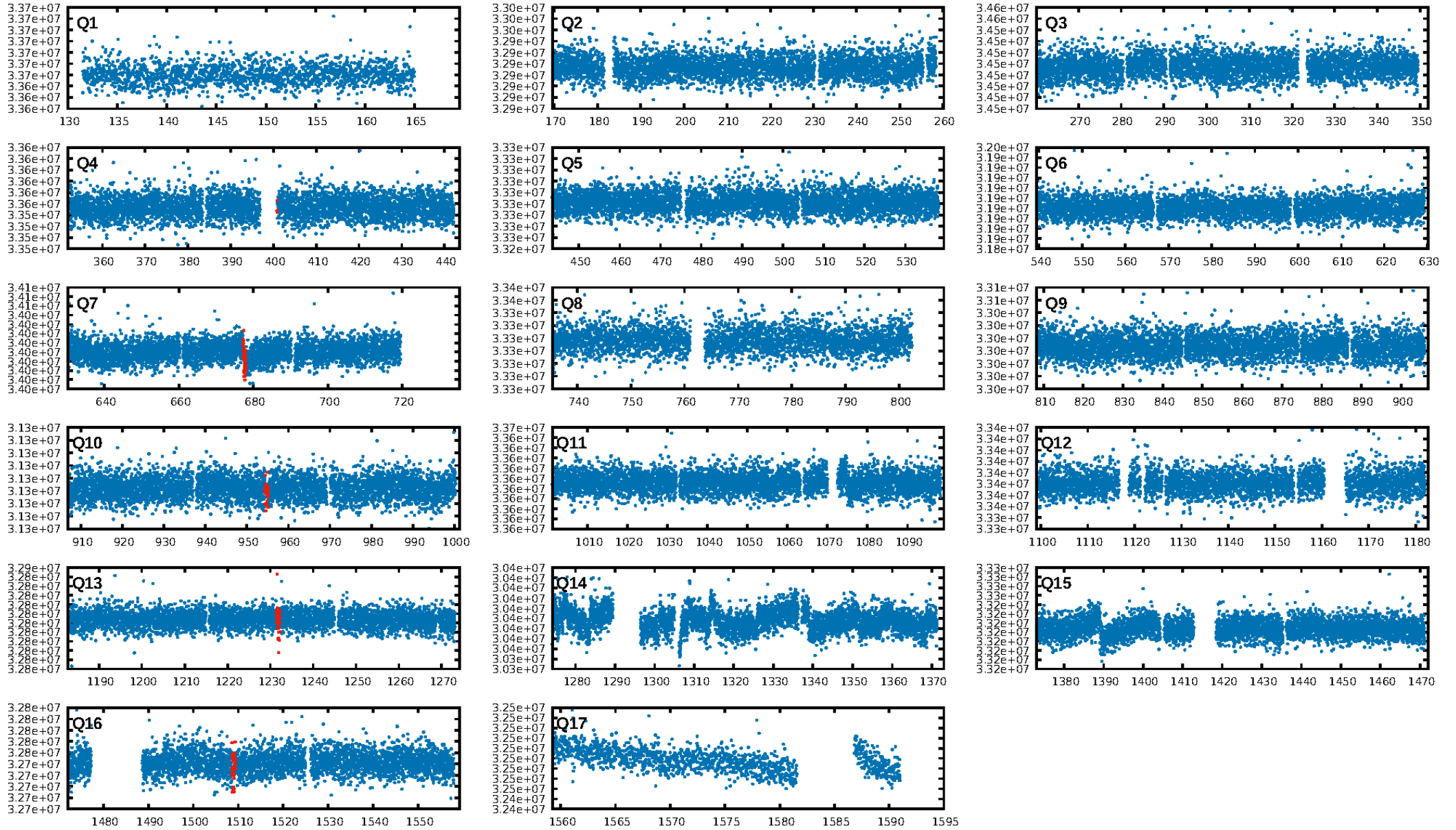
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.4%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 6.02e-18
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.2778
Centroid-sig: 0.7%
Centroid-so: 3.802 arcsec [2.68σ]
OotOffset-rm: 3.255 arcsec [1.11σ]
KicOffset-rm: 2.977 arcsec [0.88σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

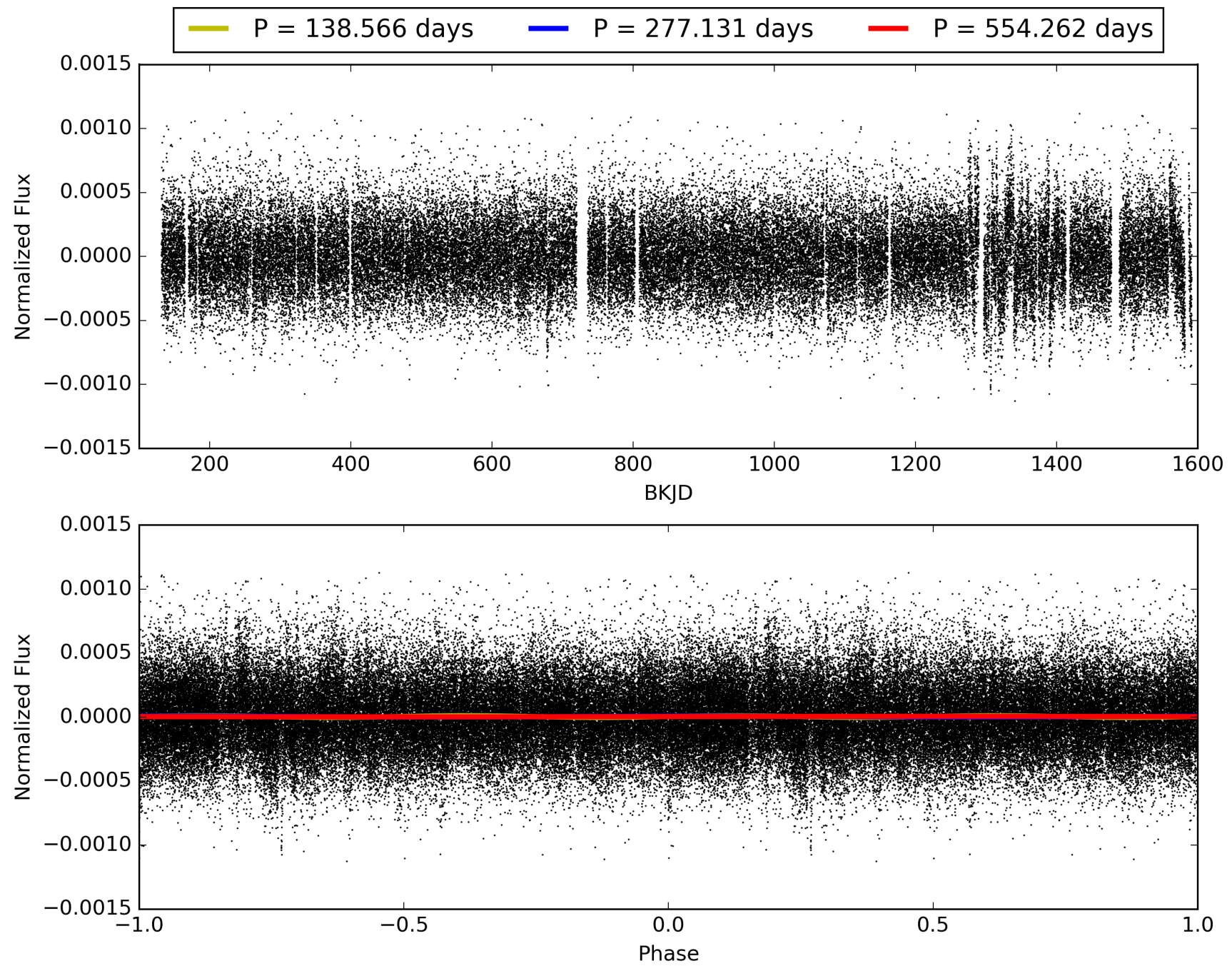
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:54:31 Z

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

TCE 010214341-01, PDC Light Curves

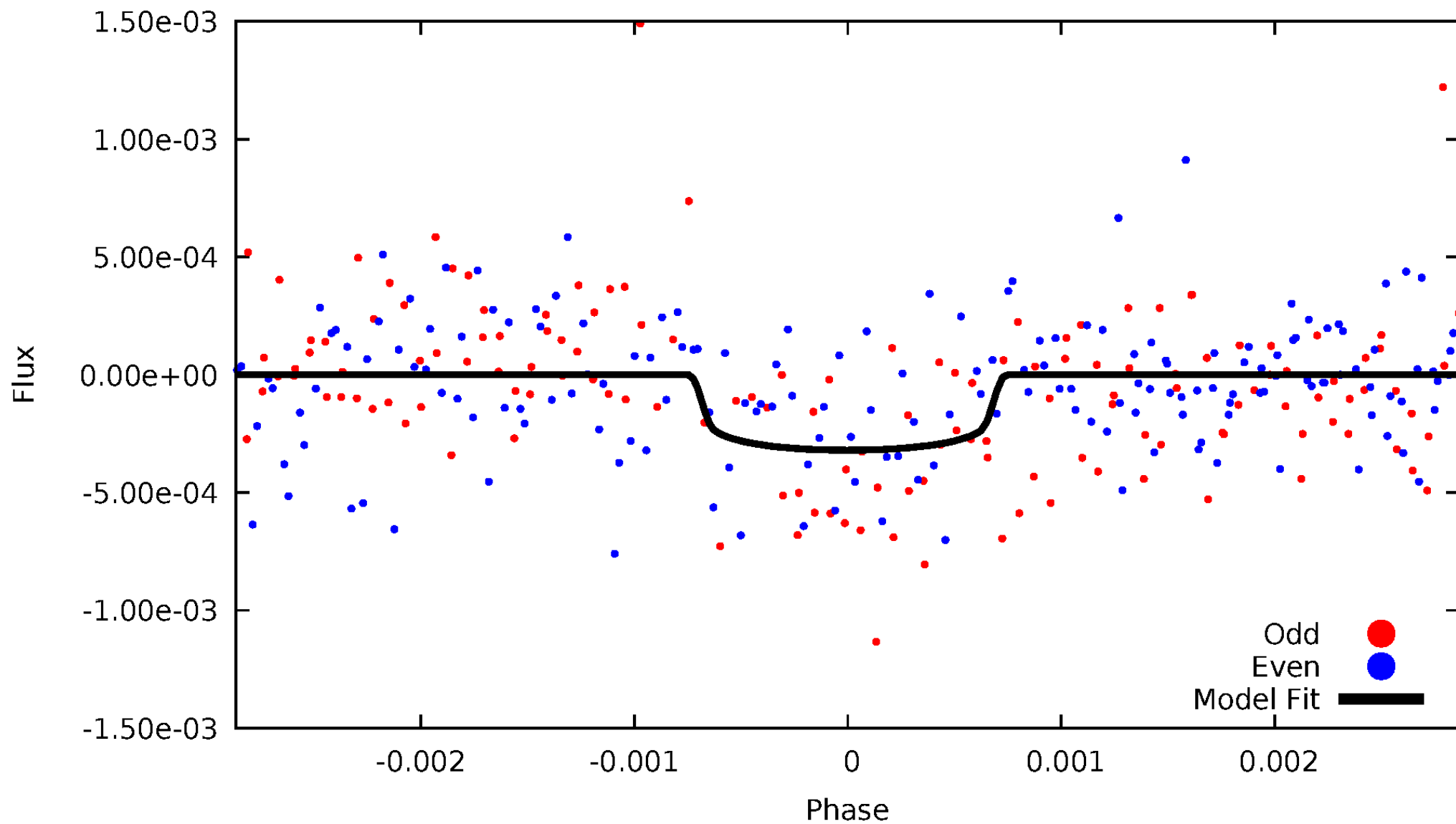


TCE 010214341-01



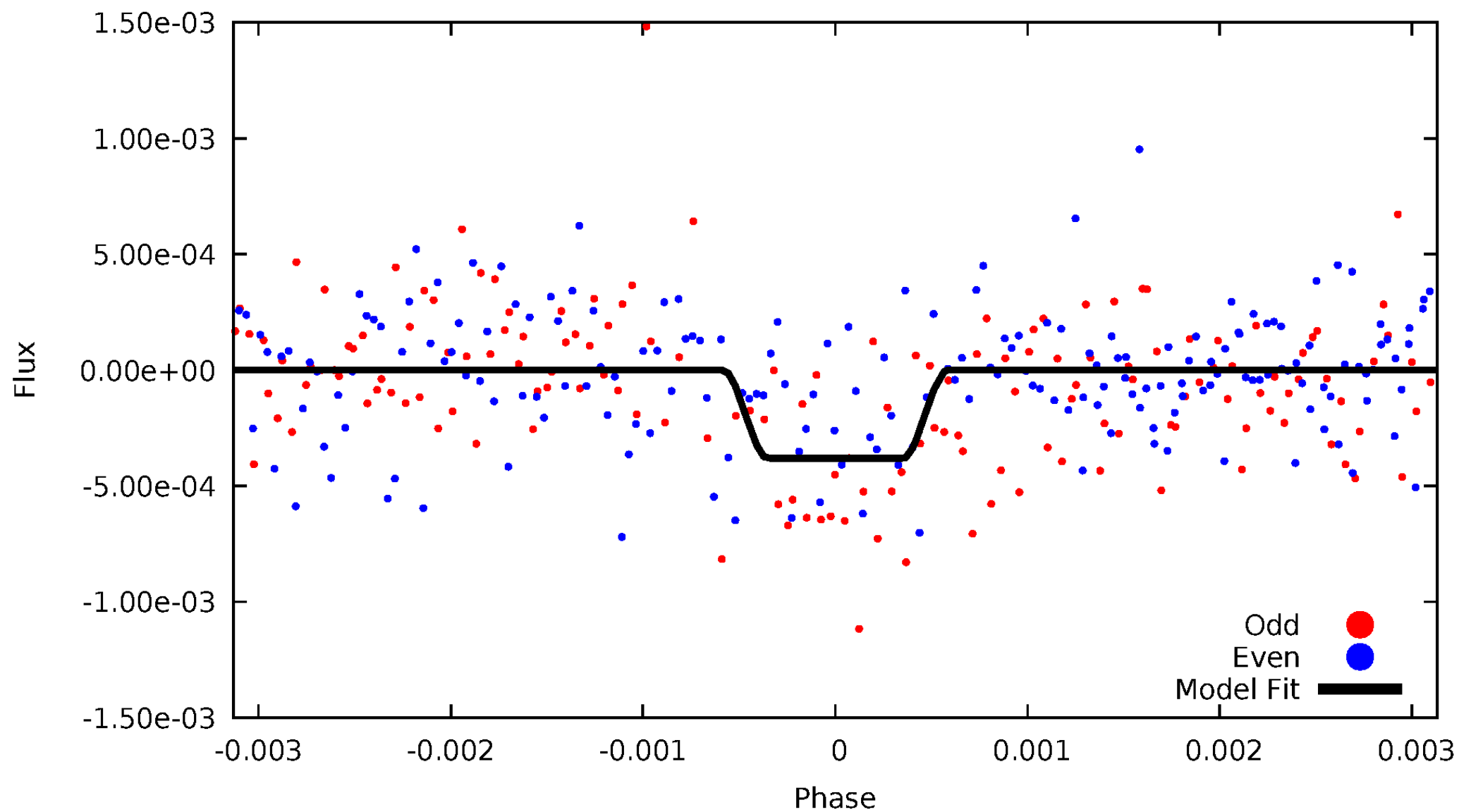
DV Odd/Even

TCE 010214341-01



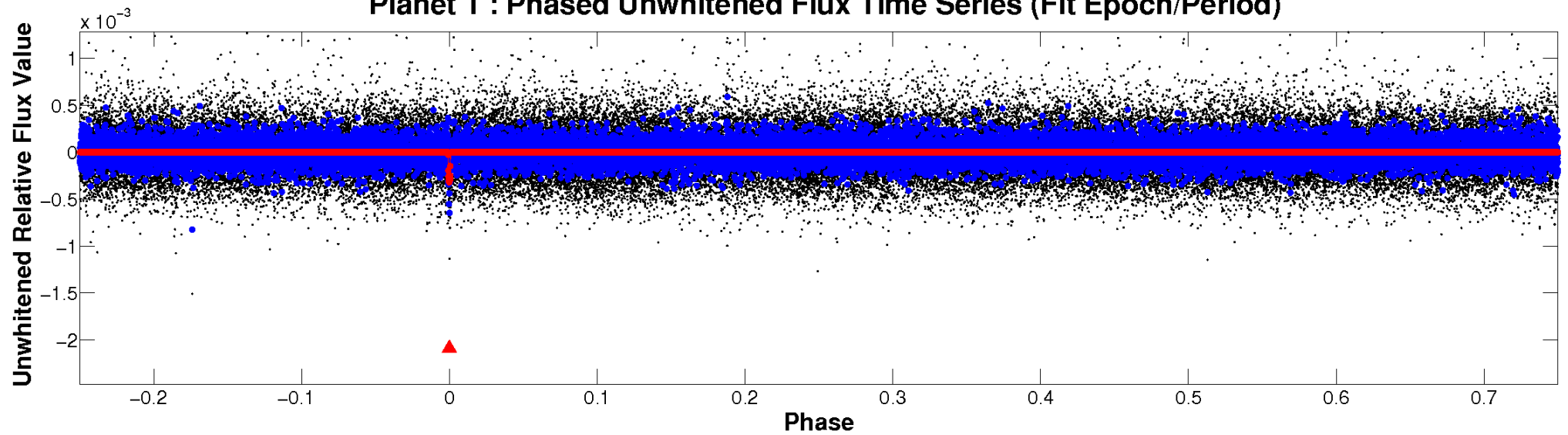
ALT Odd/Even

TCE 010214341-01

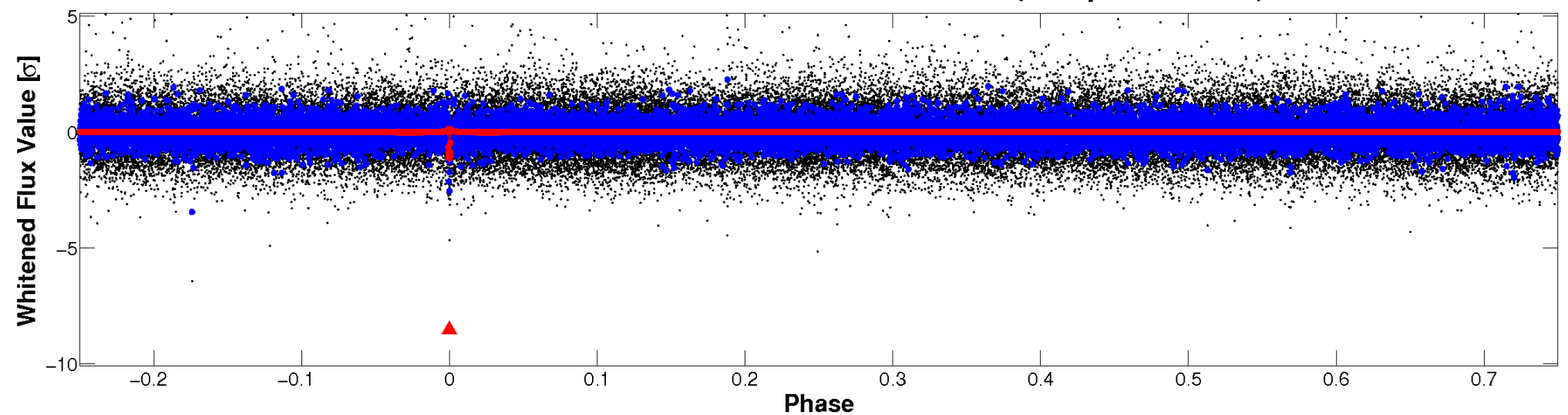


Non-Whitened Vs. Whitened Light Curve

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

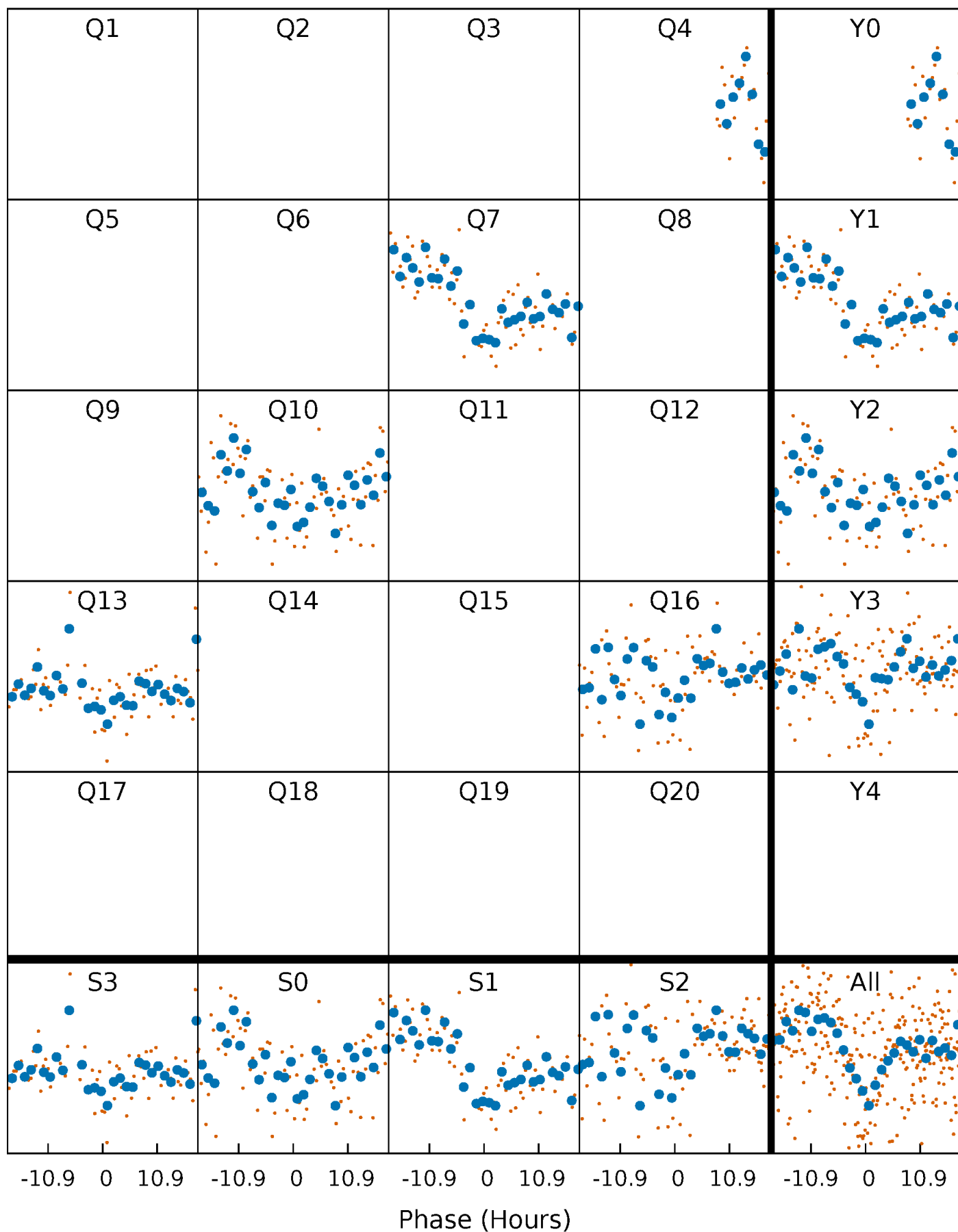


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



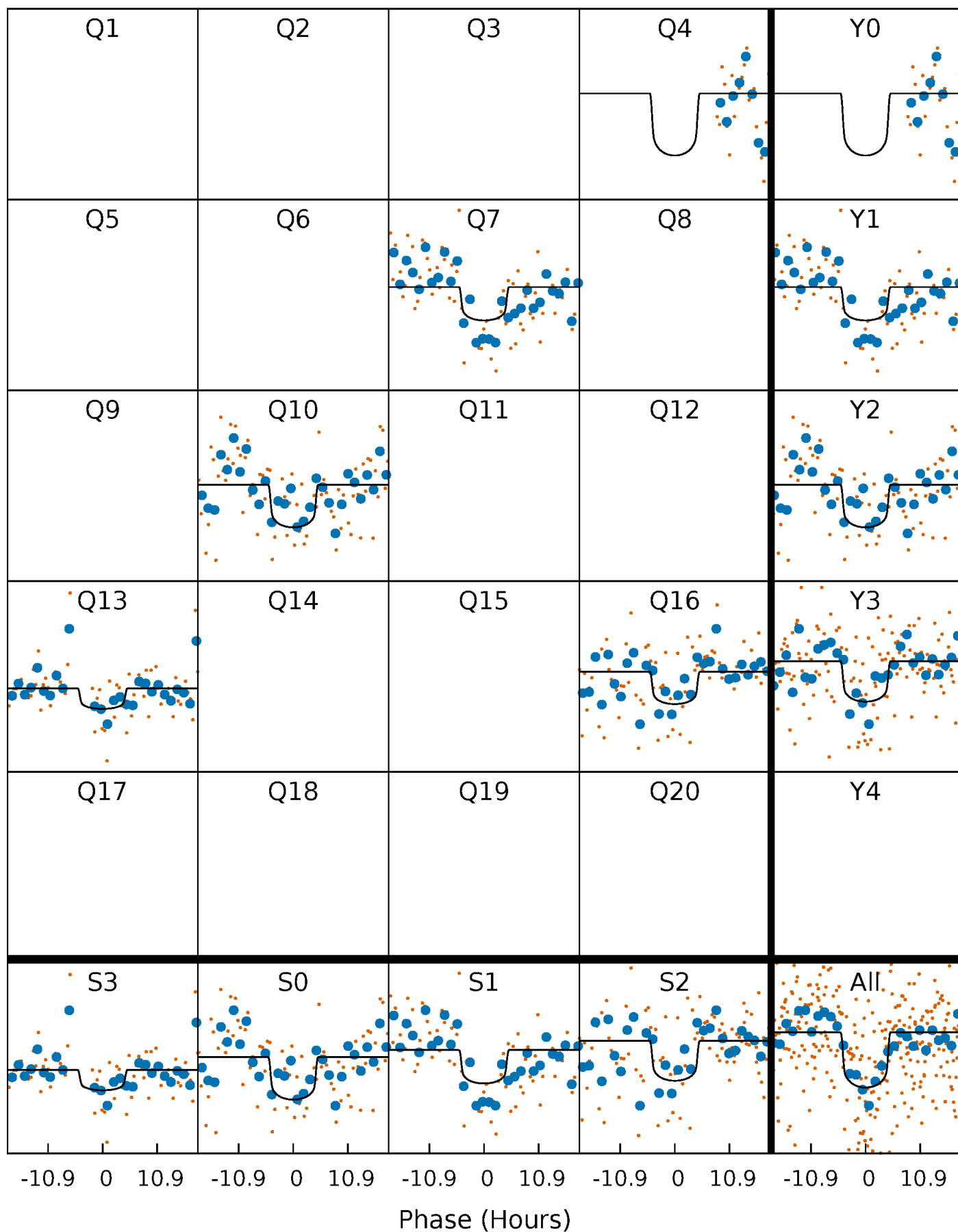
PDC Quarter-Phased Transit Curves

TCE 010214341-01 P=277.131153 Days $T_0=400.470962$ (BKJD)



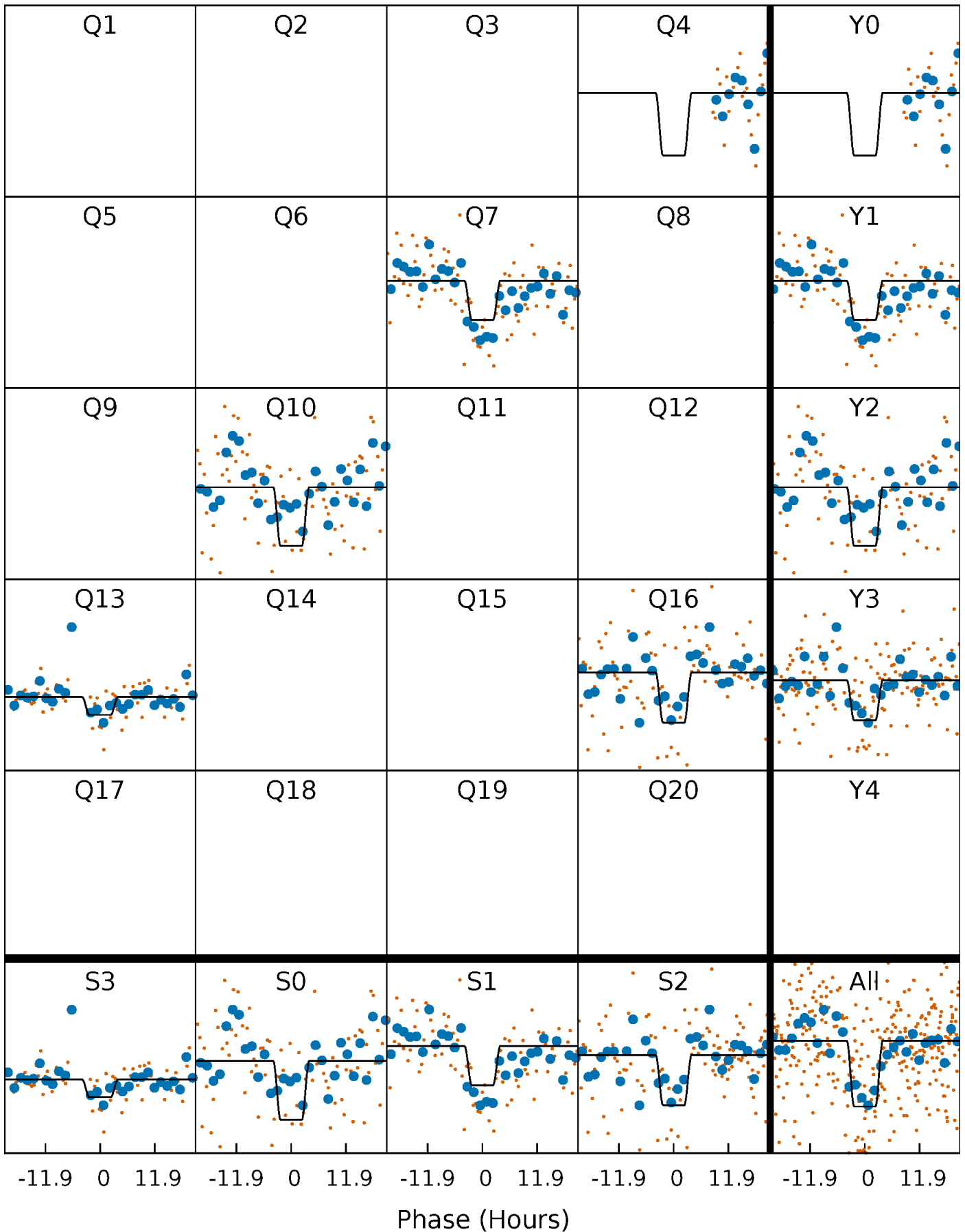
DV Quarter-Phased Transit Curves

TCE 010214341-01 P=277.131153 Days $T_0=400.470962$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

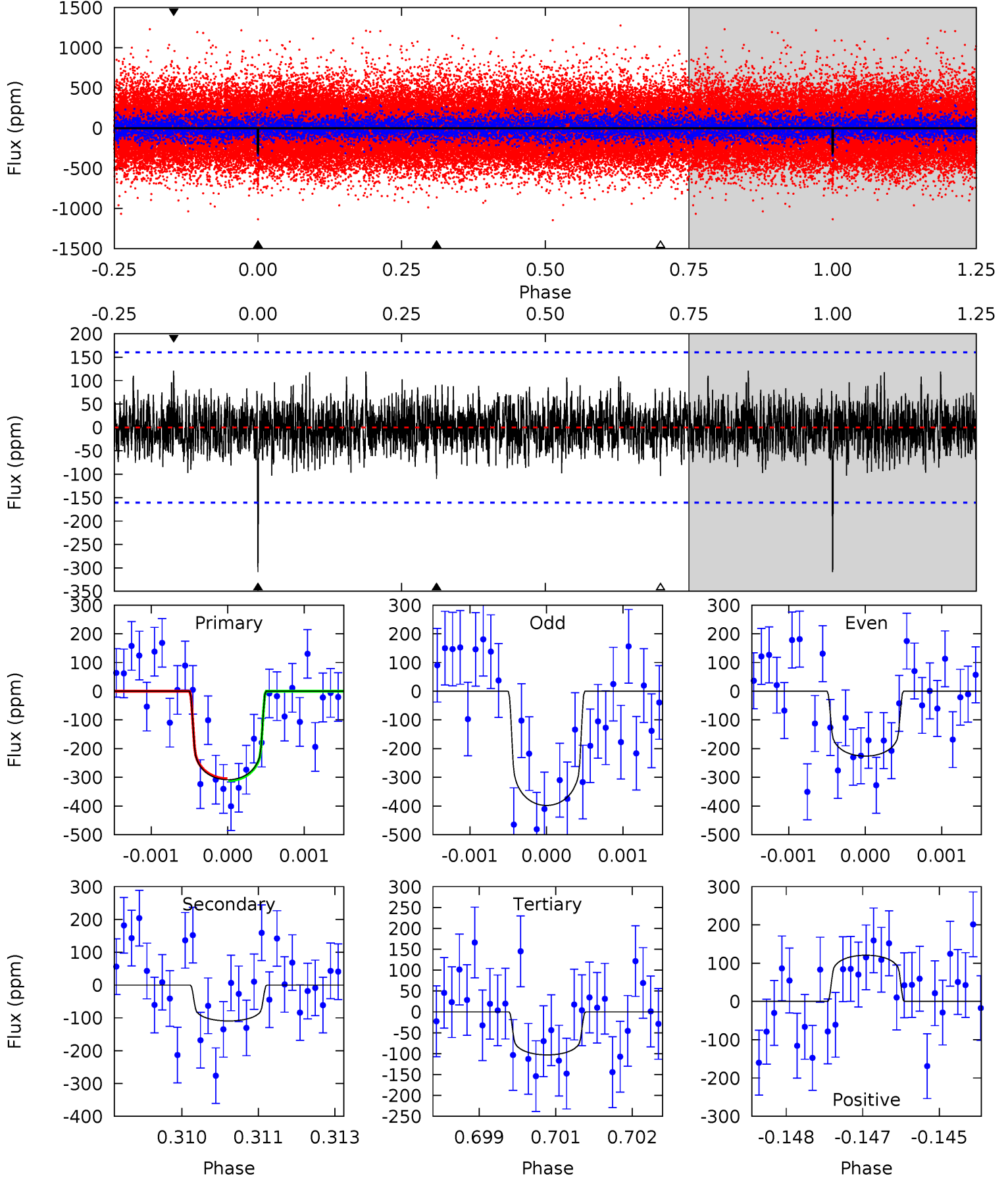
TCE 010214341-01 P=277.133563 Days $T_0=400.466651$ (BKJD)



DV Model-Shift Uniqueness Test

010214341-01, P = 277.131153 Days, E = 123.339809 Days

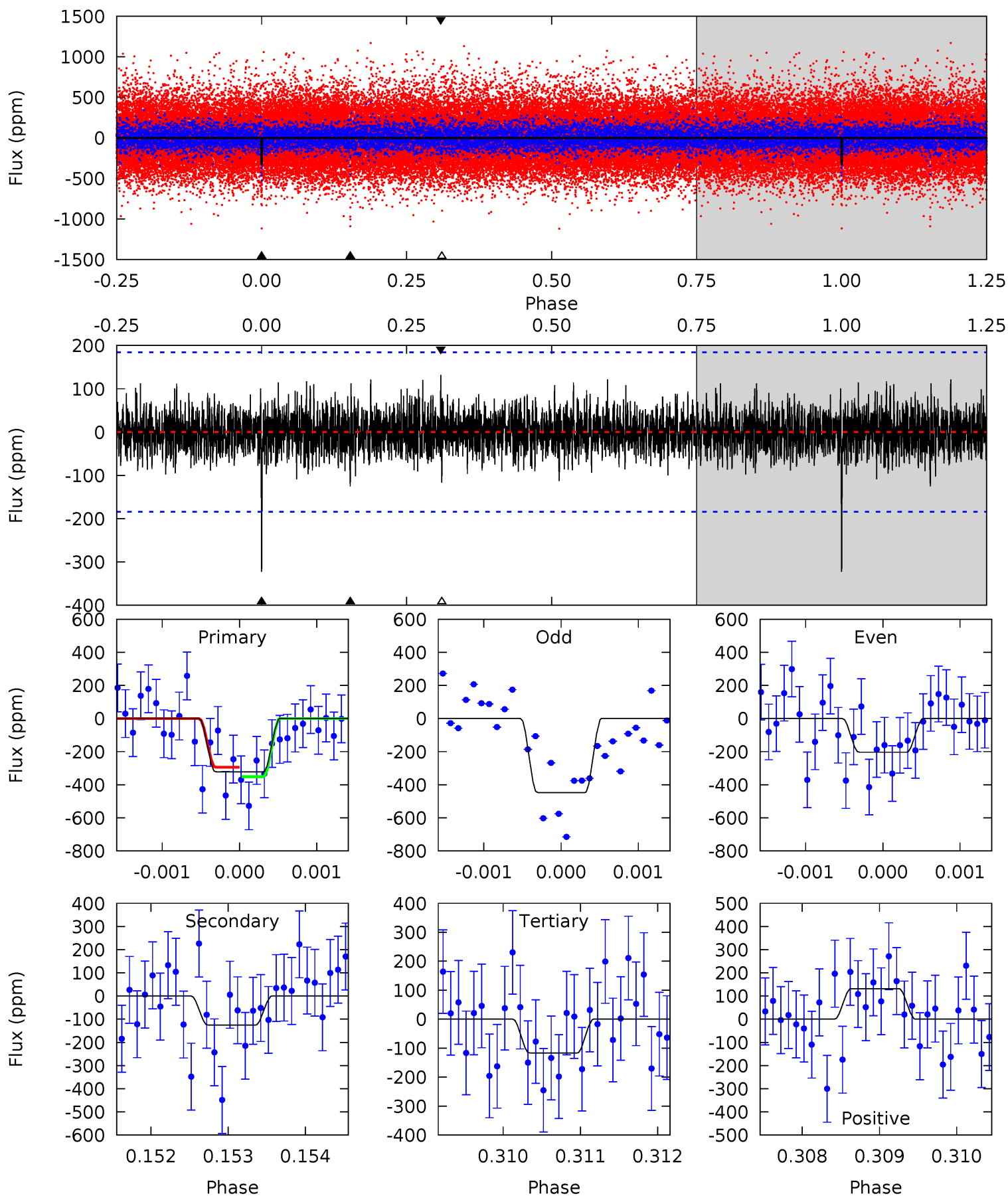
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	3.67	3.45	4.05	5.38	3.18	1.13	6.89	6.29	0.21	-0.38	2.88	1.10	0.28	0.12



Alt Model-Shift Uniqueness Test

010214341-01, P = 277.133563 Days, E = 123.333088 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.51	3.70	3.44	3.88	5.43	3.26	1.01	6.07	5.63	0.26	-0.18	3.59	1.11	0.29	0.83



Stellar Parameters For KIC 010214341

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6461^{+155}_{-213}	$4.474^{+0.052}_{-0.208}$	$-0.520^{+0.300}_{-0.350}$	$0.971^{+0.294}_{-0.098}$	$1.025^{+0.123}_{-0.123}$	$1.575^{+0.424}_{-0.799}$
	+2%/-3%	+1%/-5%	+58%/-67%	+30%/-10%	+12%/-12%	+27%/-51%
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 010214341-01 / KOI 7992.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-109 ± 30	$1.96^{+0.97}_{-0.87}$	438^{+30}_{-21}	5013^{+1592}_{-732}	10614^{+21959}_{-6054}
Alt.	-125 ± 34	$2.13^{+0.95}_{-0.86}$	436^{+28}_{-21}	4964^{+1390}_{-721}	10225^{+19174}_{-5725}

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

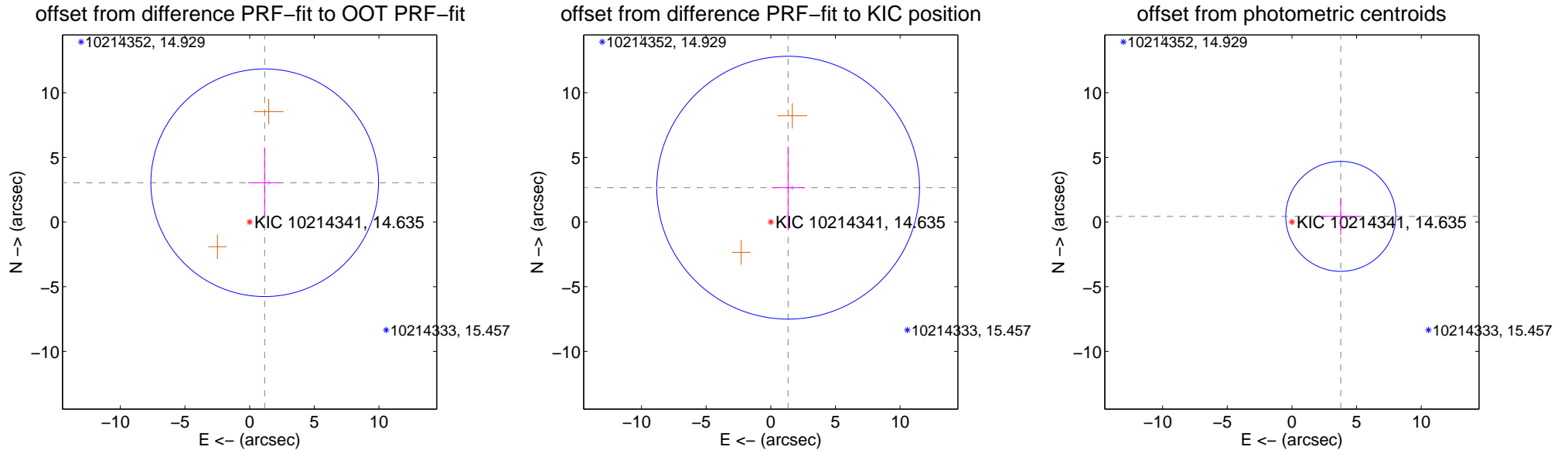
DV Centroid Data

Supplemental centroid analysis for 010214341-01. Kepler magnitude: 14.63. Transit SNR 8.15

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.48 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.255 ± 2.935	1.11	-1.163 ± 1.290	3.040 ± 2.713
PRF-fit source offset from KIC position	2.977 ± 3.388	0.88	-1.342 ± 1.286	2.658 ± 3.189
photometric centroid source offset	3.80 ± 1.42	2.68	-3.78 ± 1.42	0.44 ± 1.45

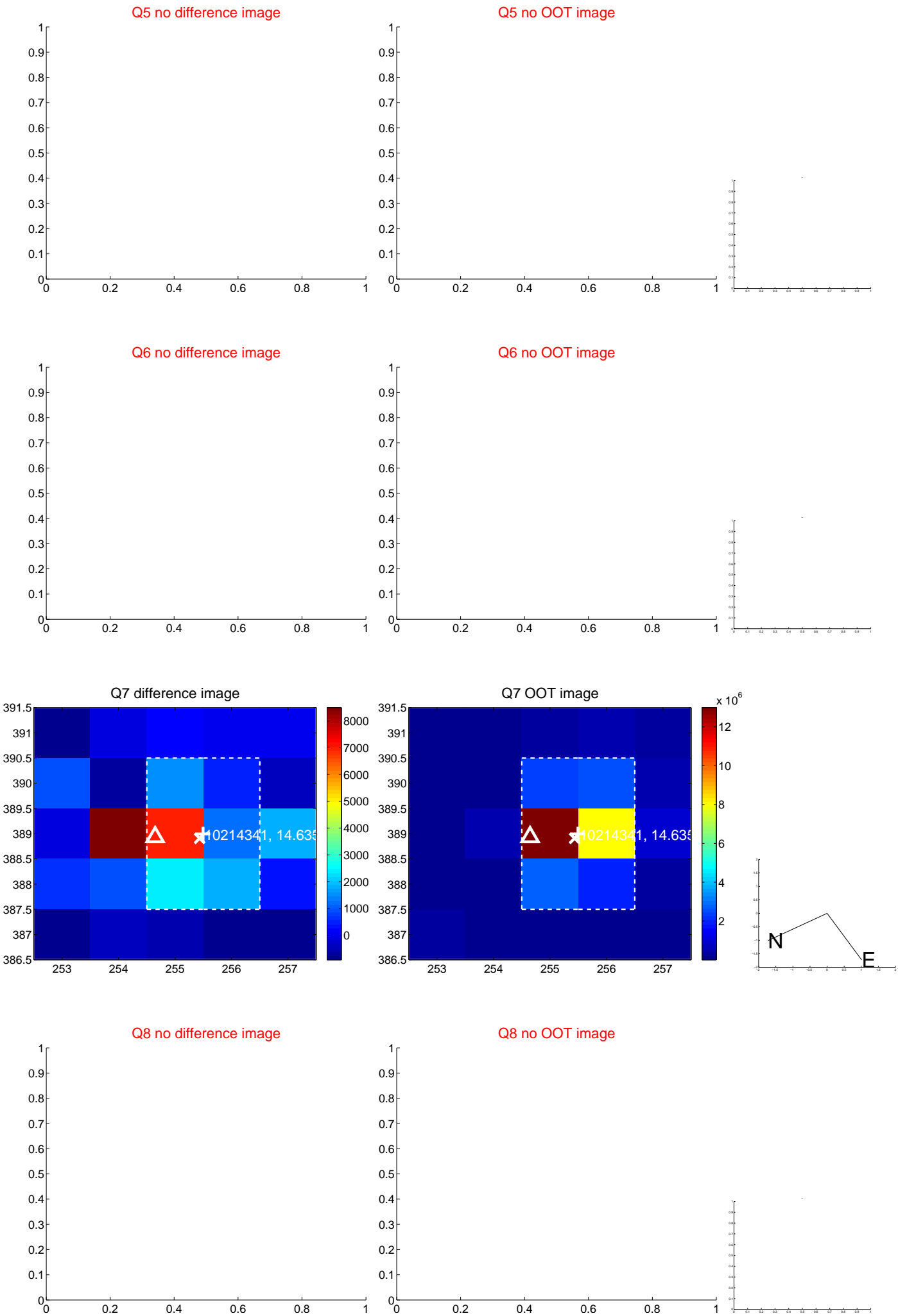


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

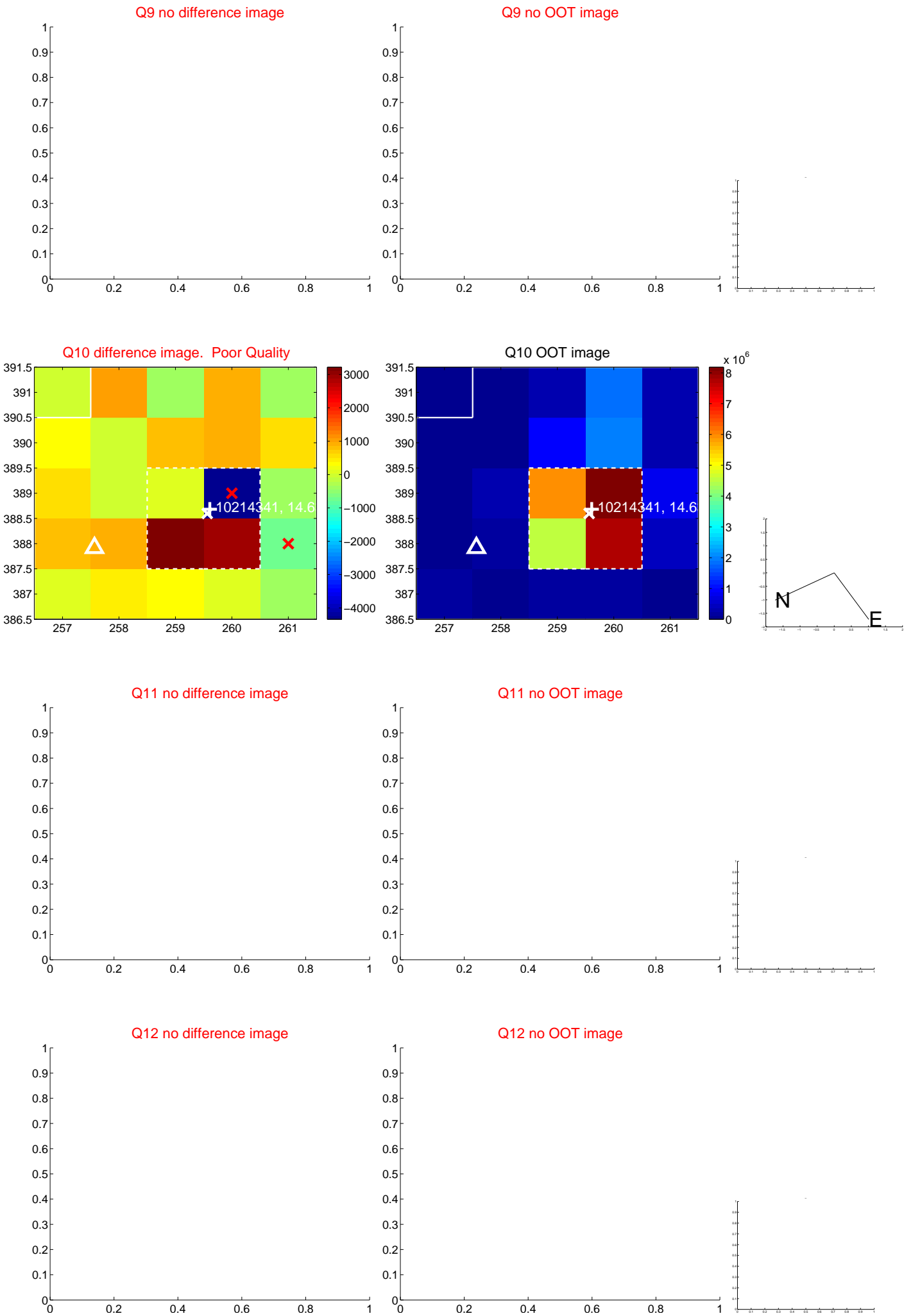
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



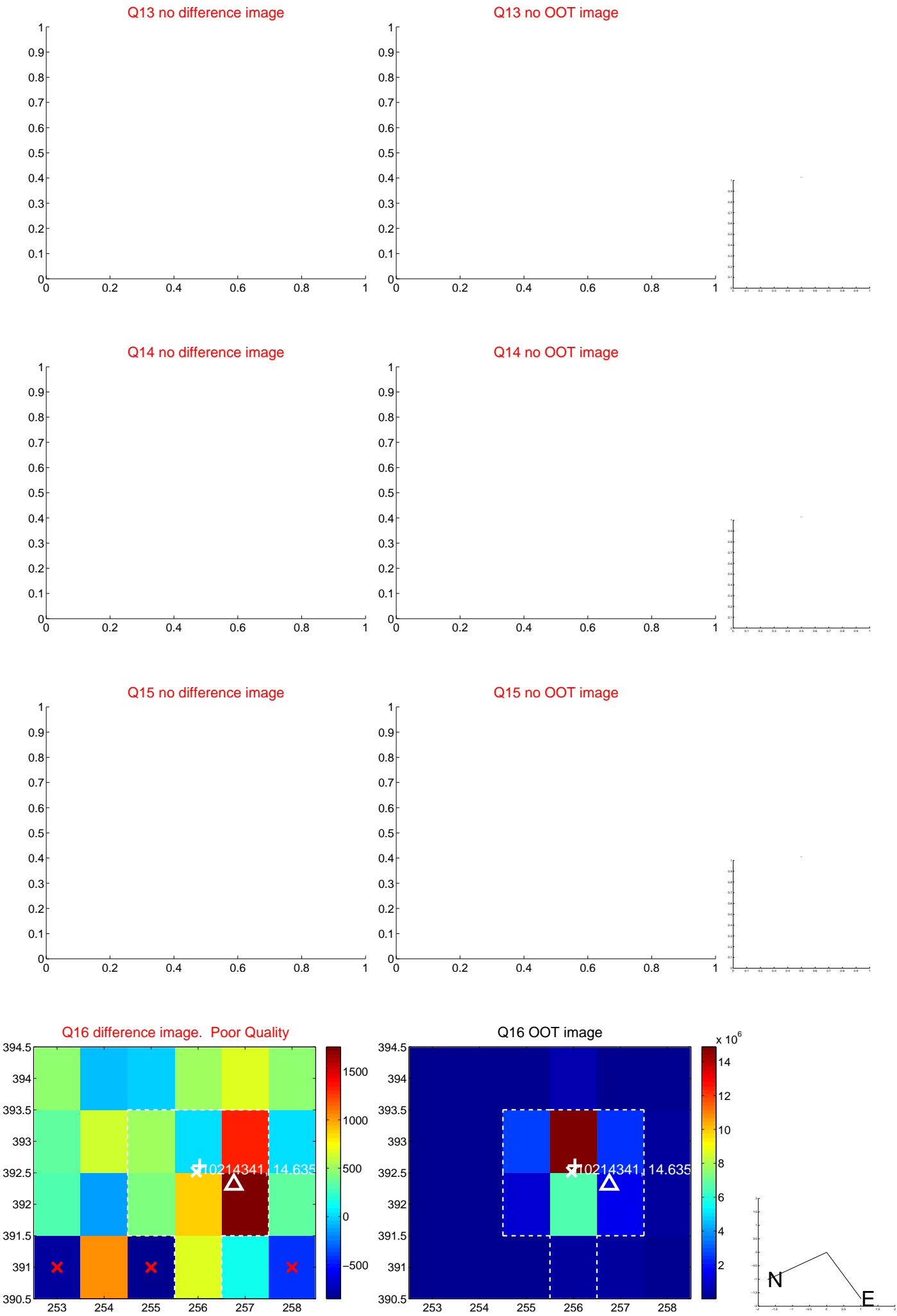
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



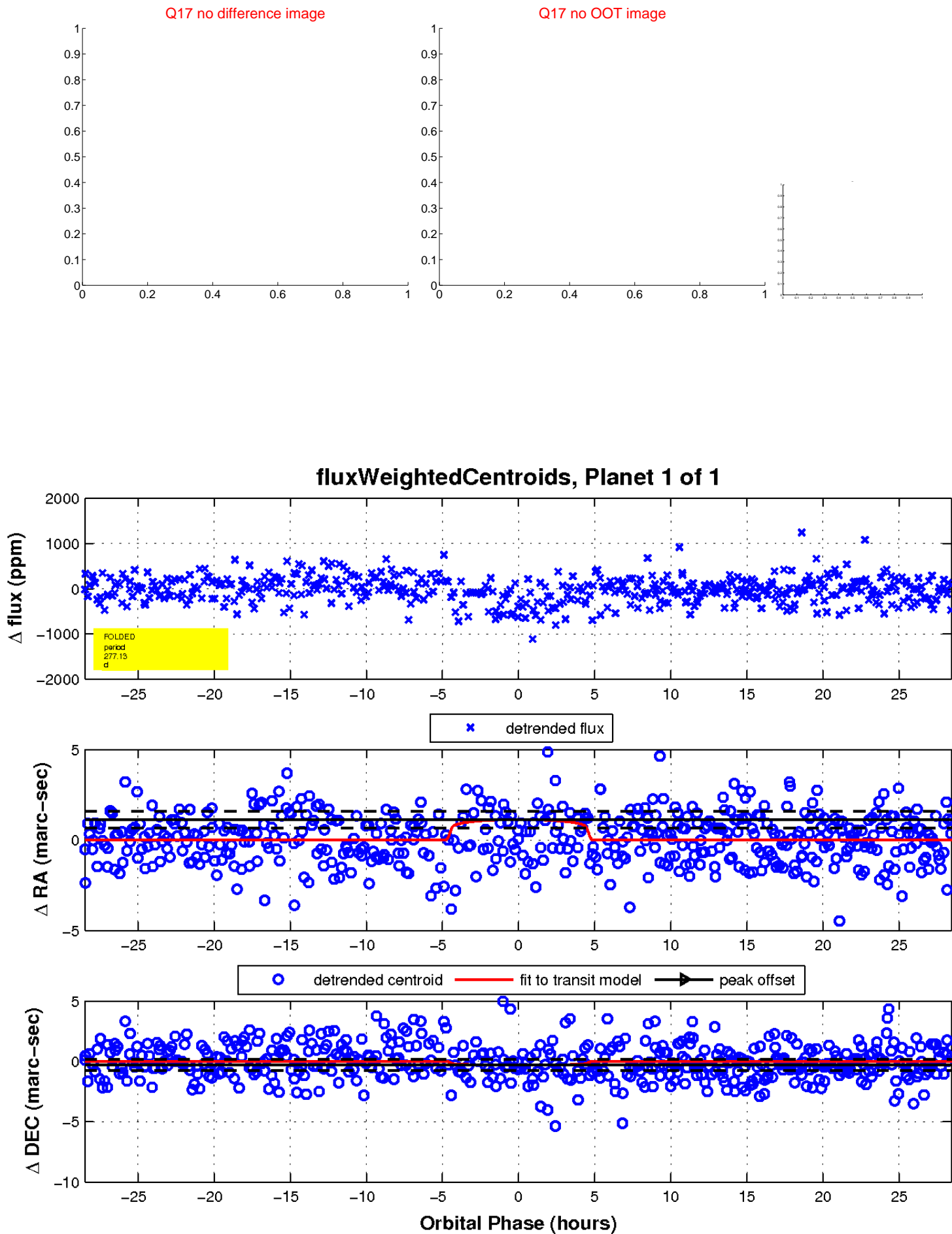
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

