

KIC 008506486

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})
008506486-01	OBS	No	340.623776	269.950368	746.0	11.893	8.1	7.8	0.38	3489	1.07	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008506486-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

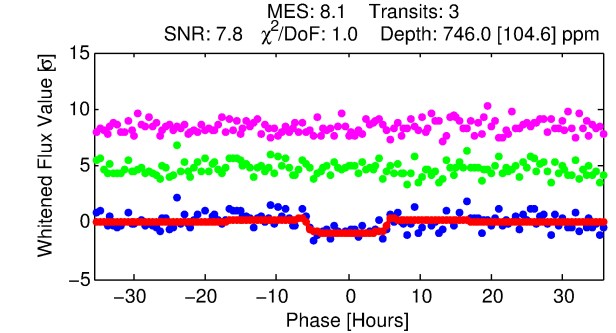
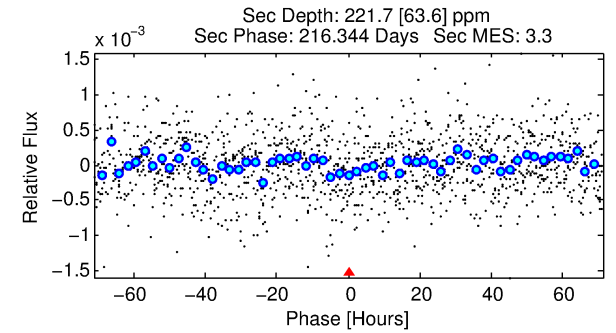
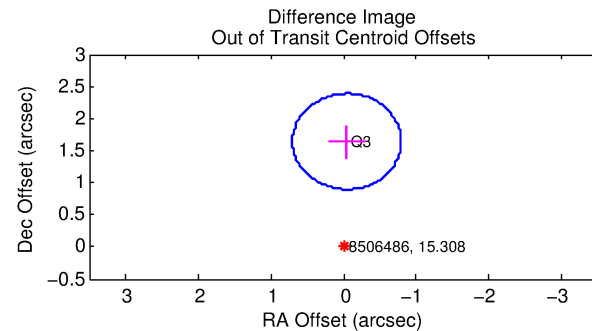
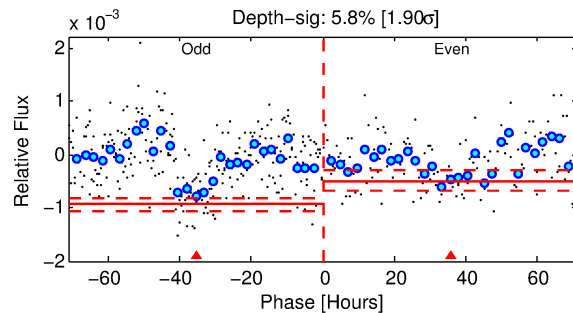
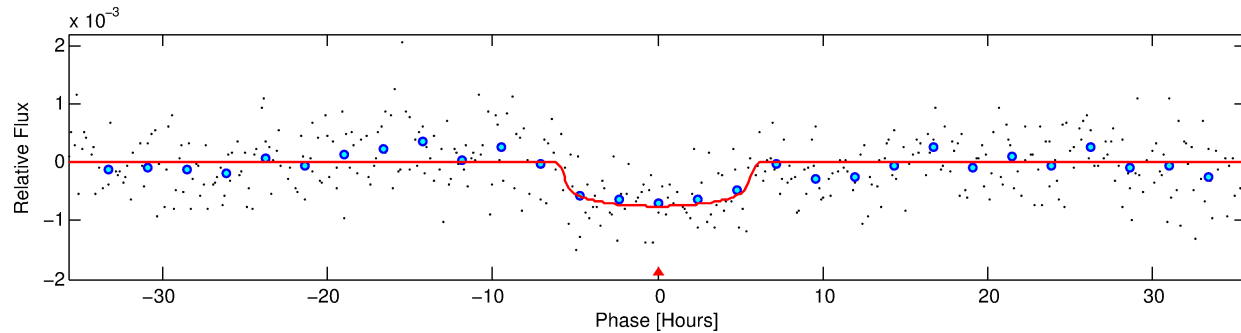
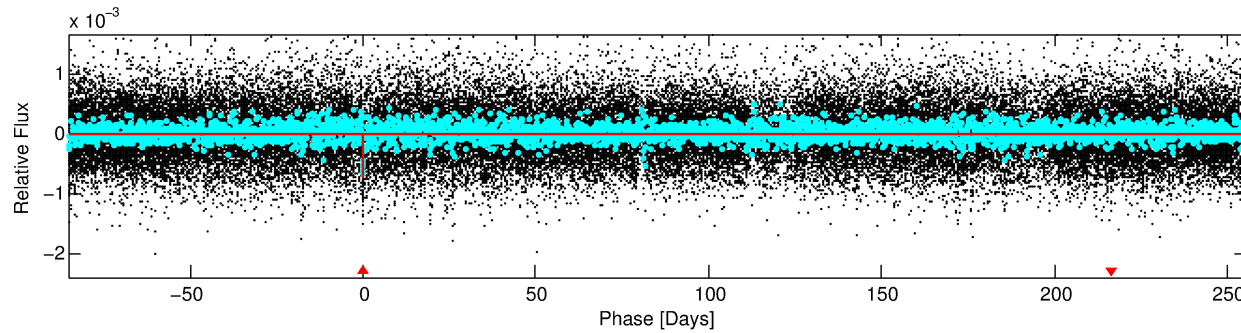
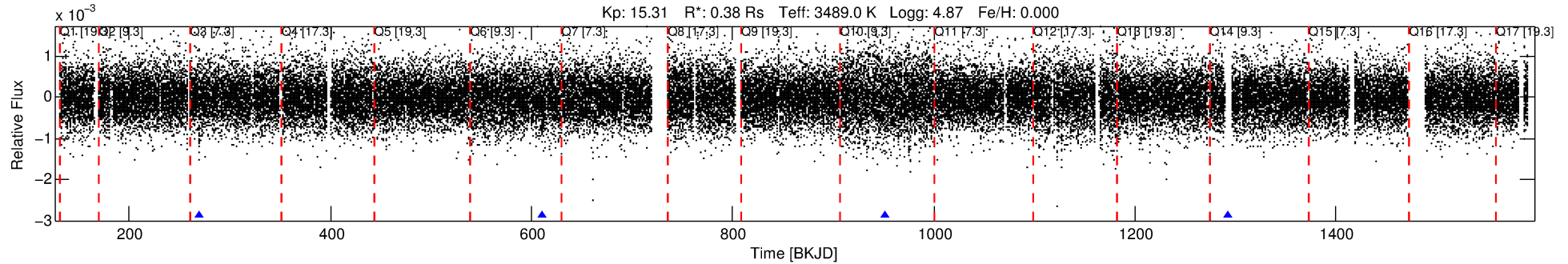
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008506486-01

No Significant Match Found

DV One-Page Summary

KIC: 8506486 Candidate: 1 of 1 Period: 340.624 d



DV Fit Results:

Period = 340.62378 [0.01228] d
Epoch = 269.9504 [0.0162] BKJD
Rp/R* = 0.0260 [0.0131]
a/R* = 181.31 [377.67]
b = 0.60 [2.19]
Seff = 0.04 [0.01]
Teq = 114 [4] K
Rp = 1.07 [0.56] Re
a = 0.6955 [0.0601] AU
Ag = 51118.00 [53853.52] [0.95 σ]
Teffp = 2641 [694] K [3.64 σ]

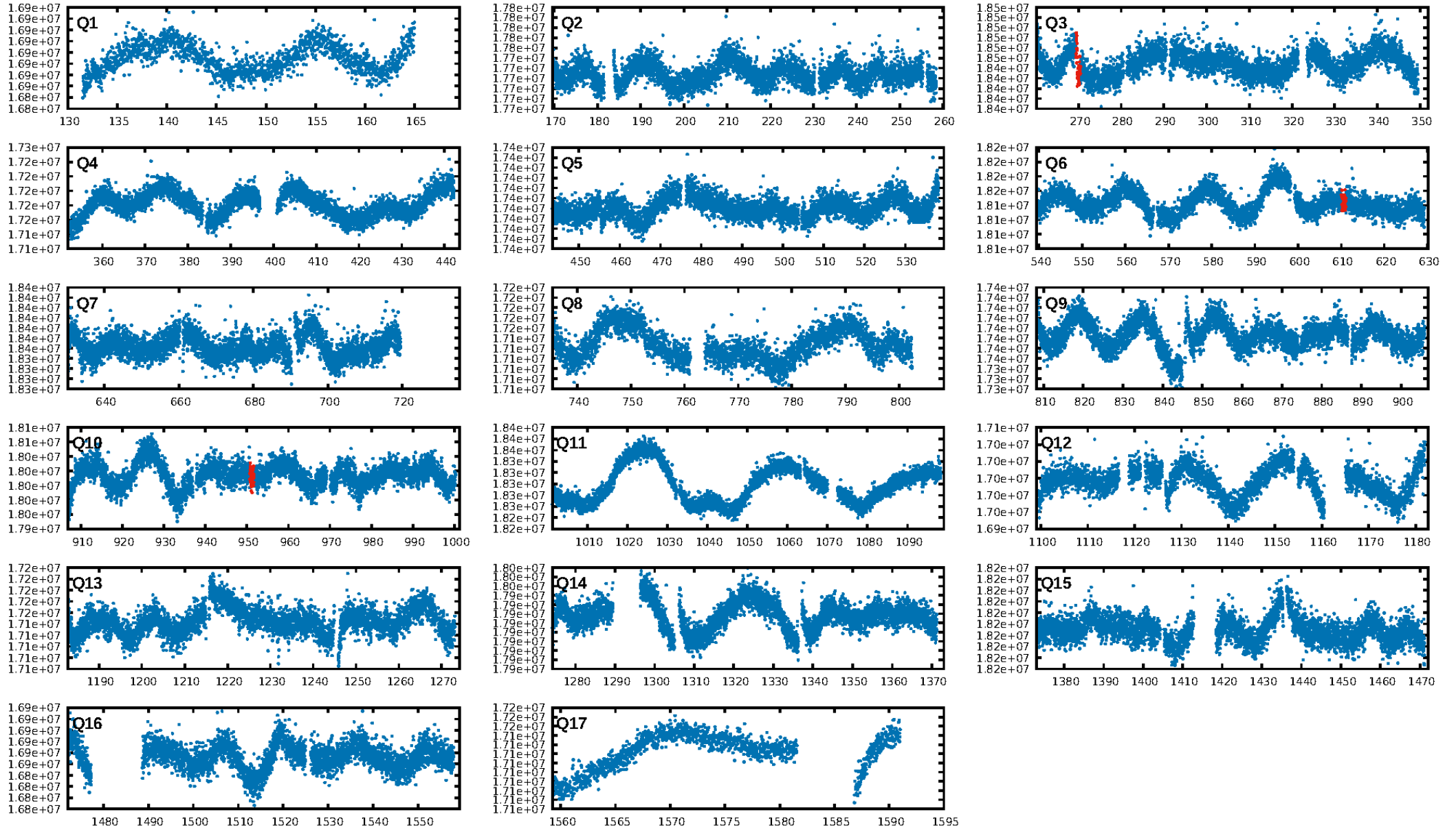
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.96e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.591
Centroid-sig: 61.7%
Centroid-so: 1.944 arcsec [1.55 σ]
OotOffset-rm: 1.643 arcsec [6.61 σ]
KicOffset-rm: 1.612 arcsec [6.48 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

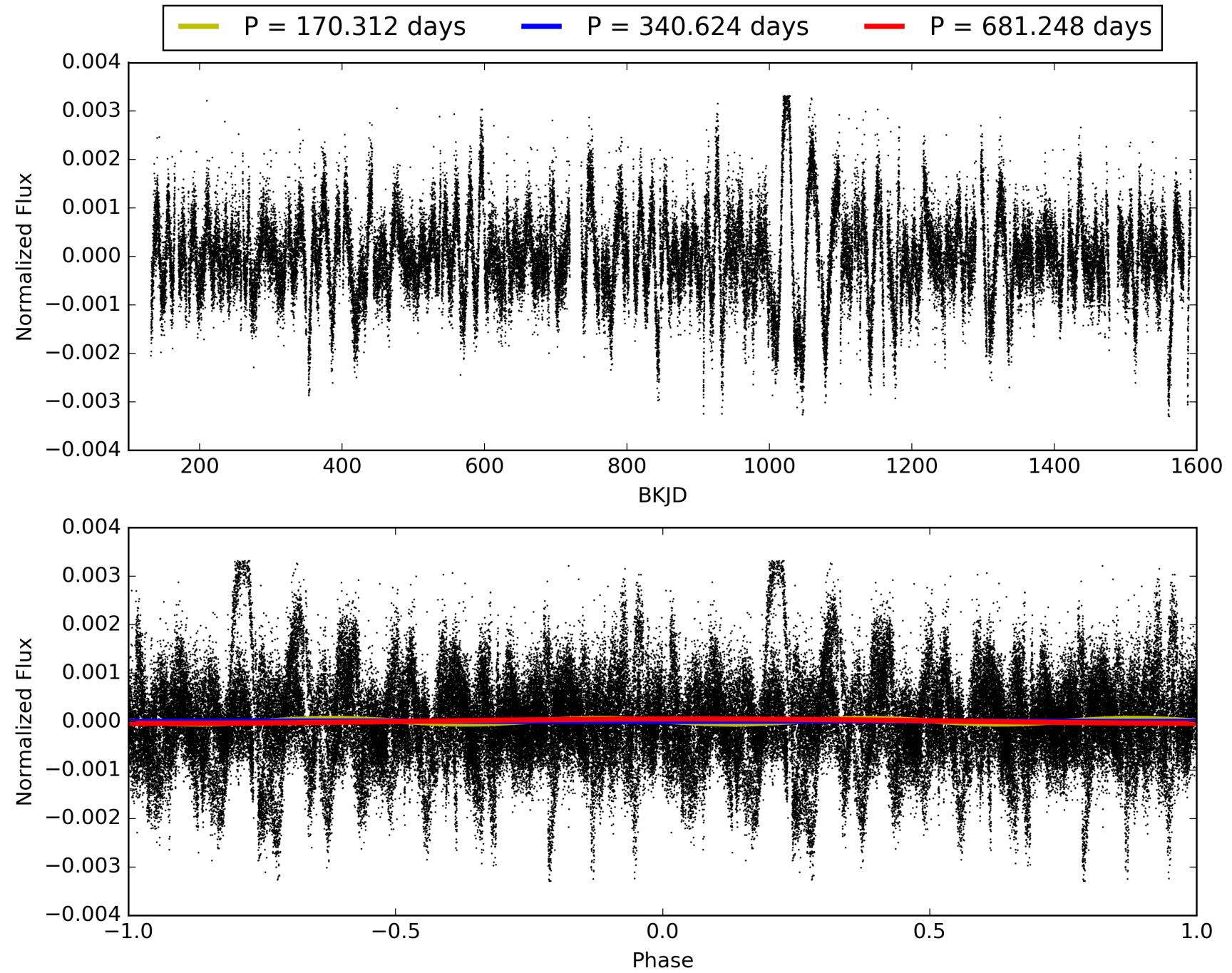
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:52:27 Z

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

TCE 008506486-01, PDC Light Curves

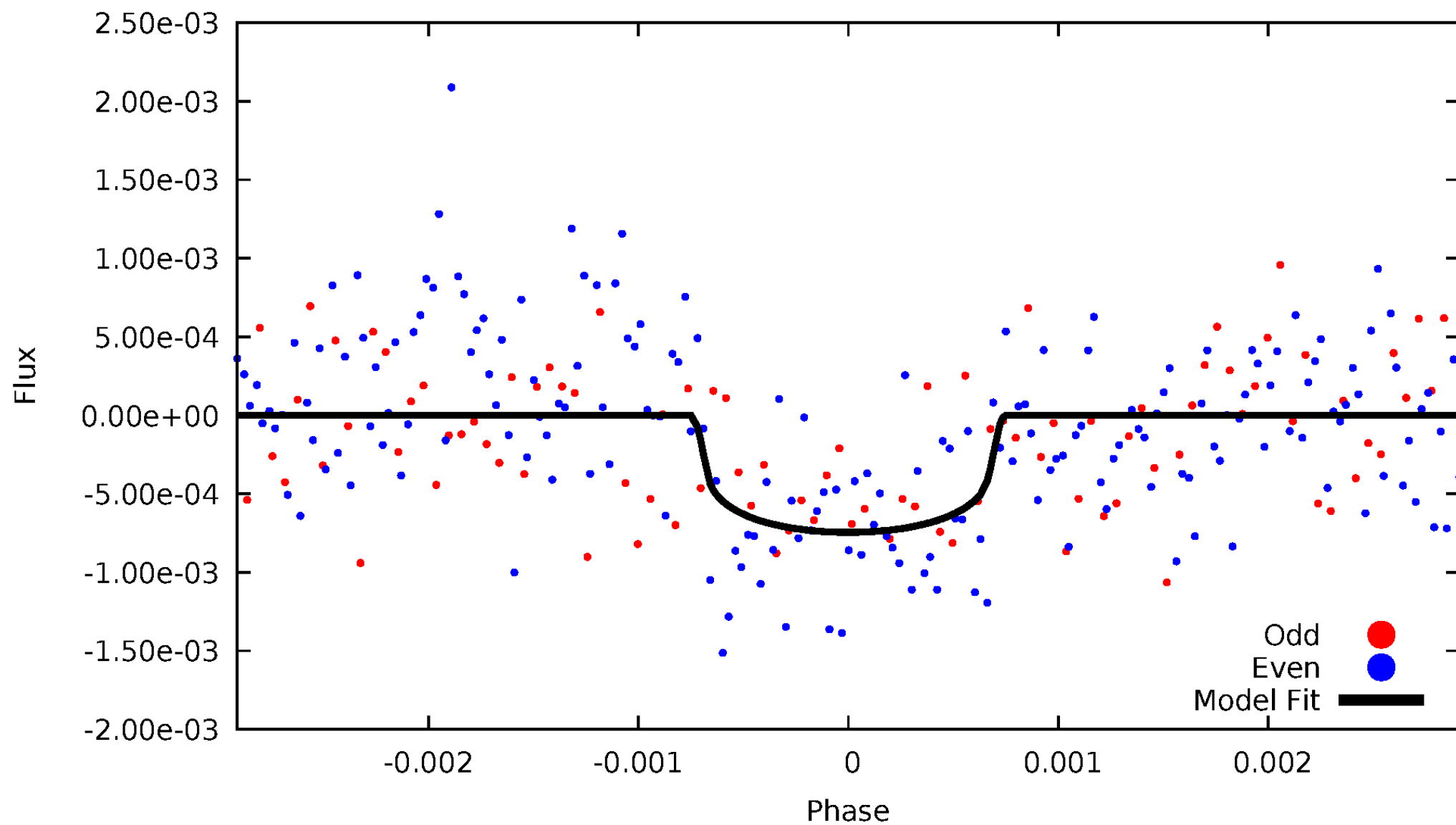


TCE 008506486-01



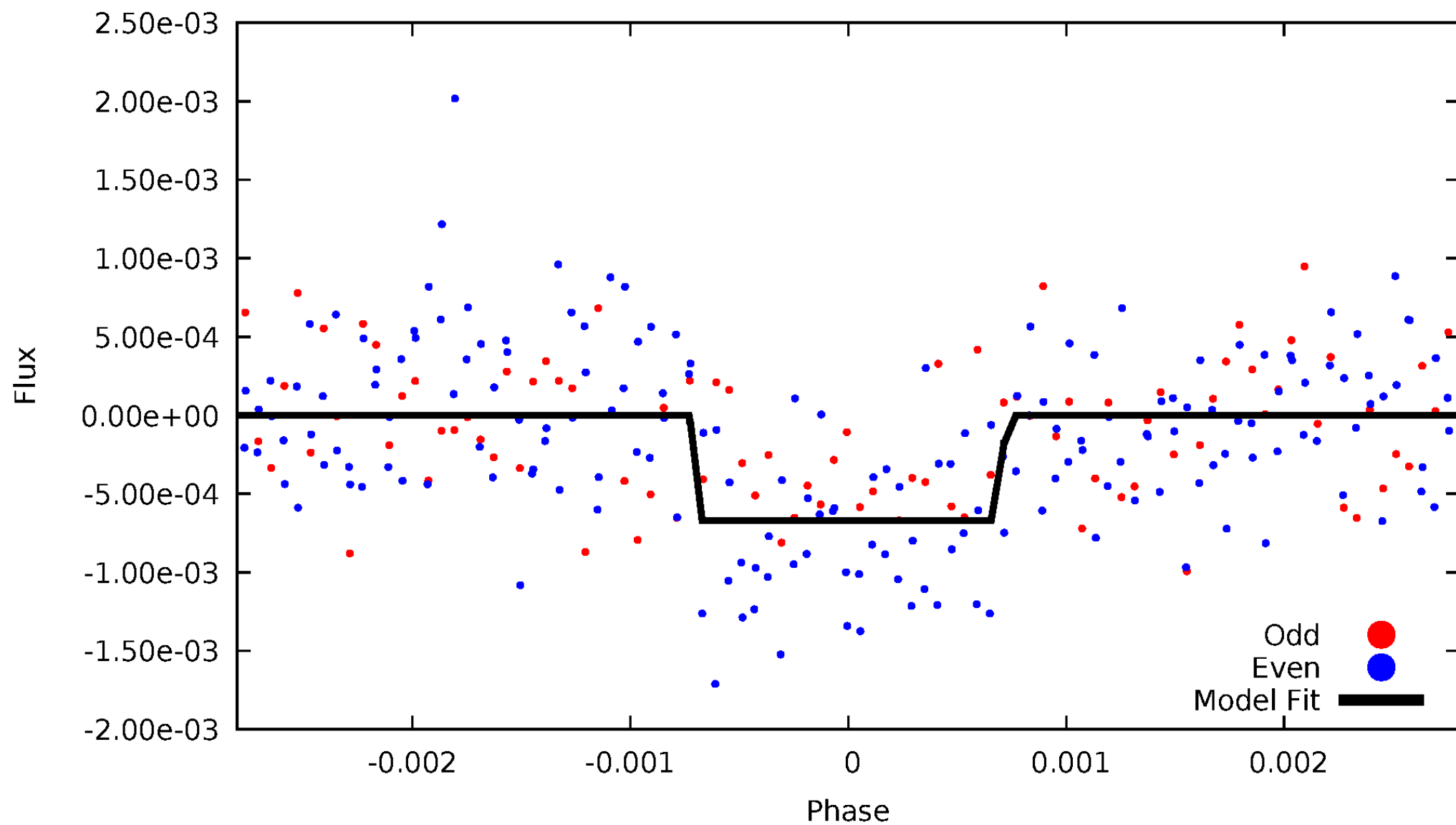
DV Odd/Even

TCE 008506486-01



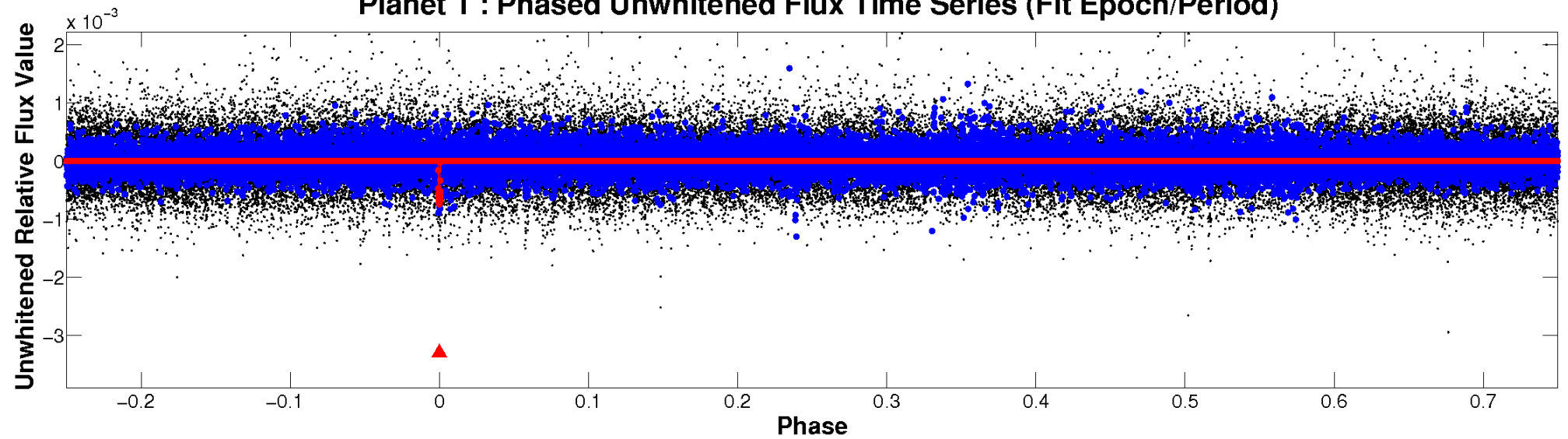
ALT Odd/Even

TCE 008506486-01

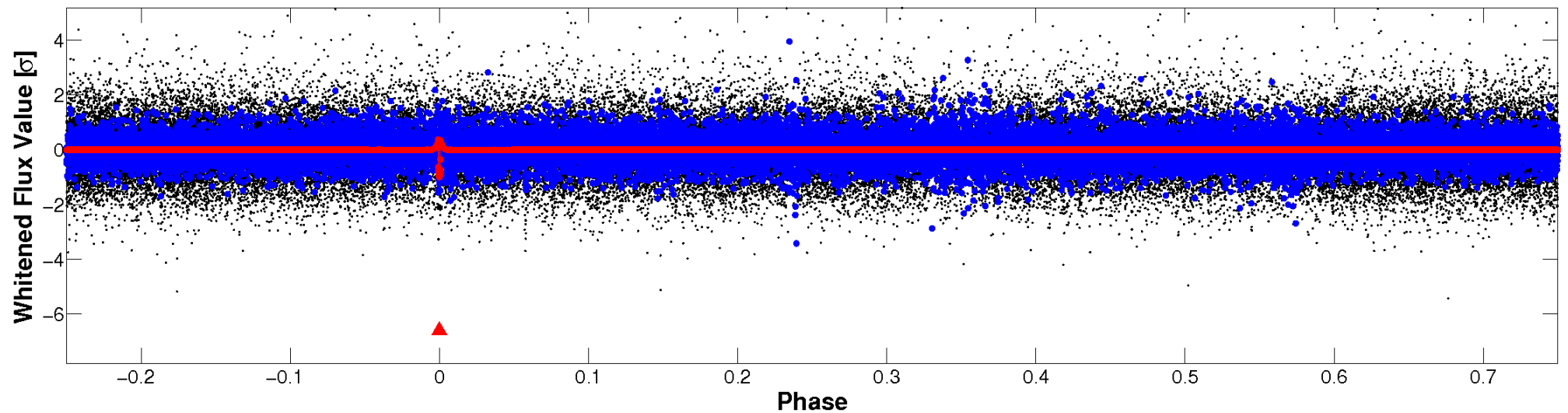


Non-Whitened Vs. Whitened Light Curve

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

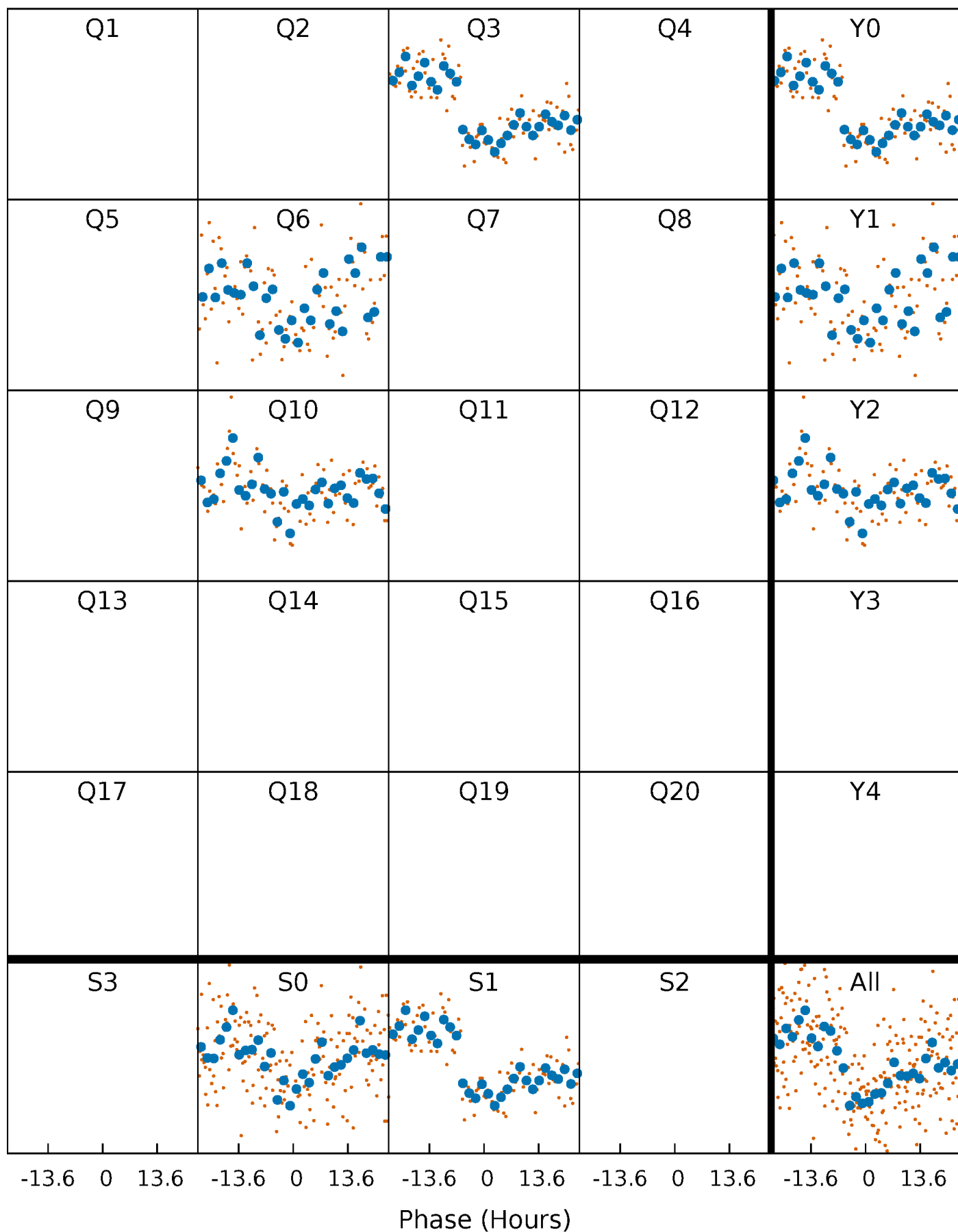


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



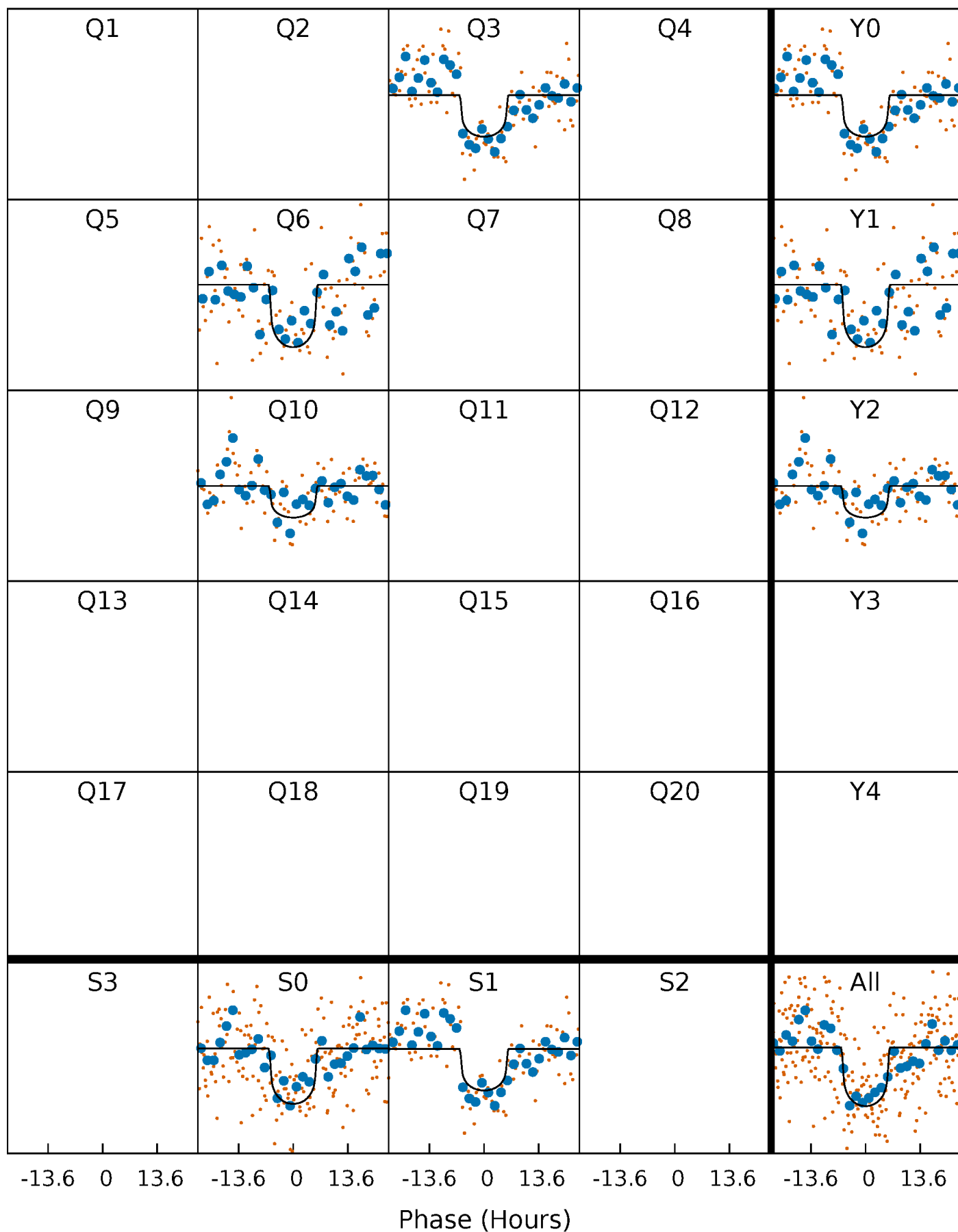
PDC Quarter-Phased Transit Curves

TCE 008506486-01 P=340.623776 Days $T_0=269.950368$ (BKJD)



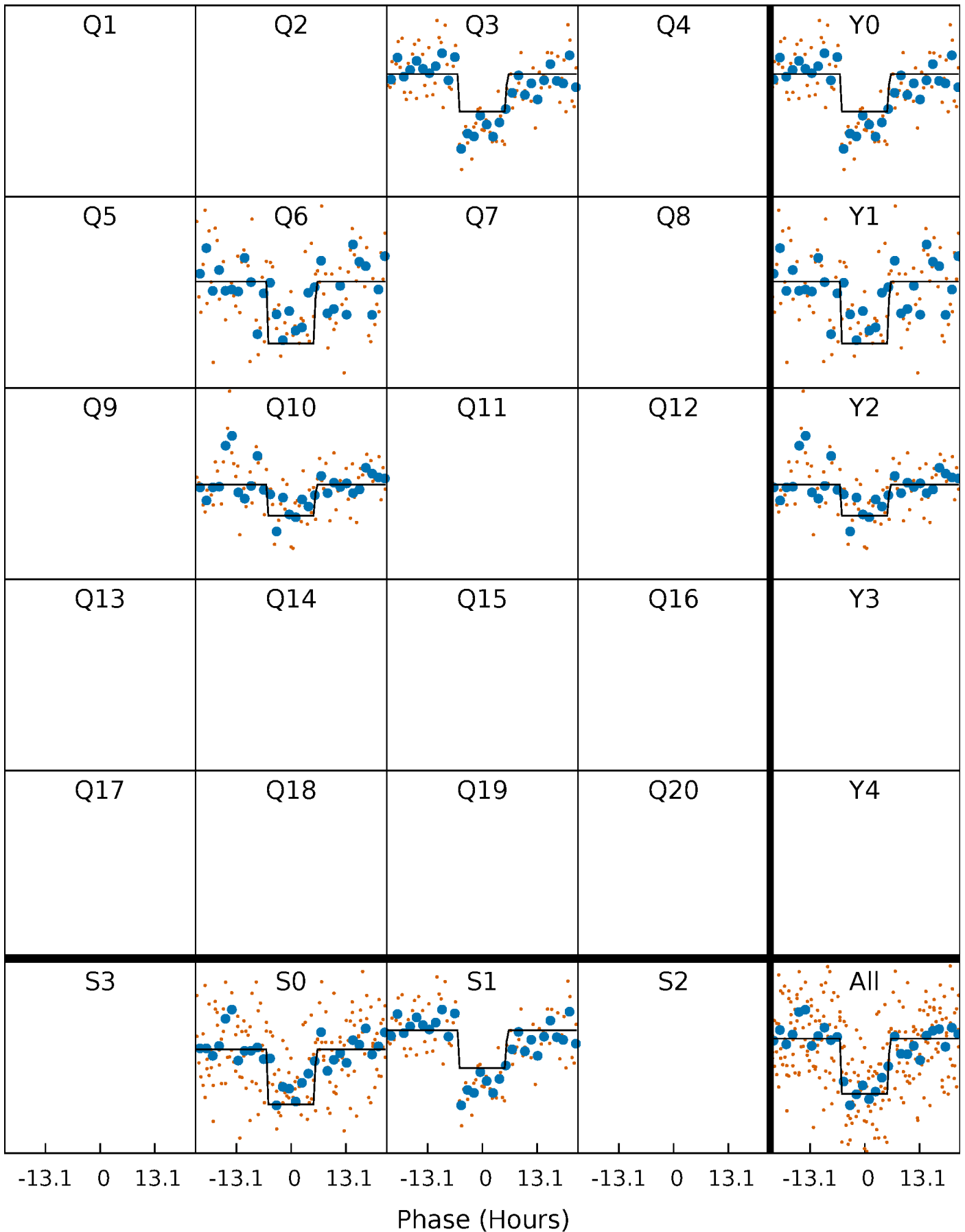
DV Quarter-Phased Transit Curves

TCE 008506486-01 P=340.623776 Days $T_0=269.950368$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

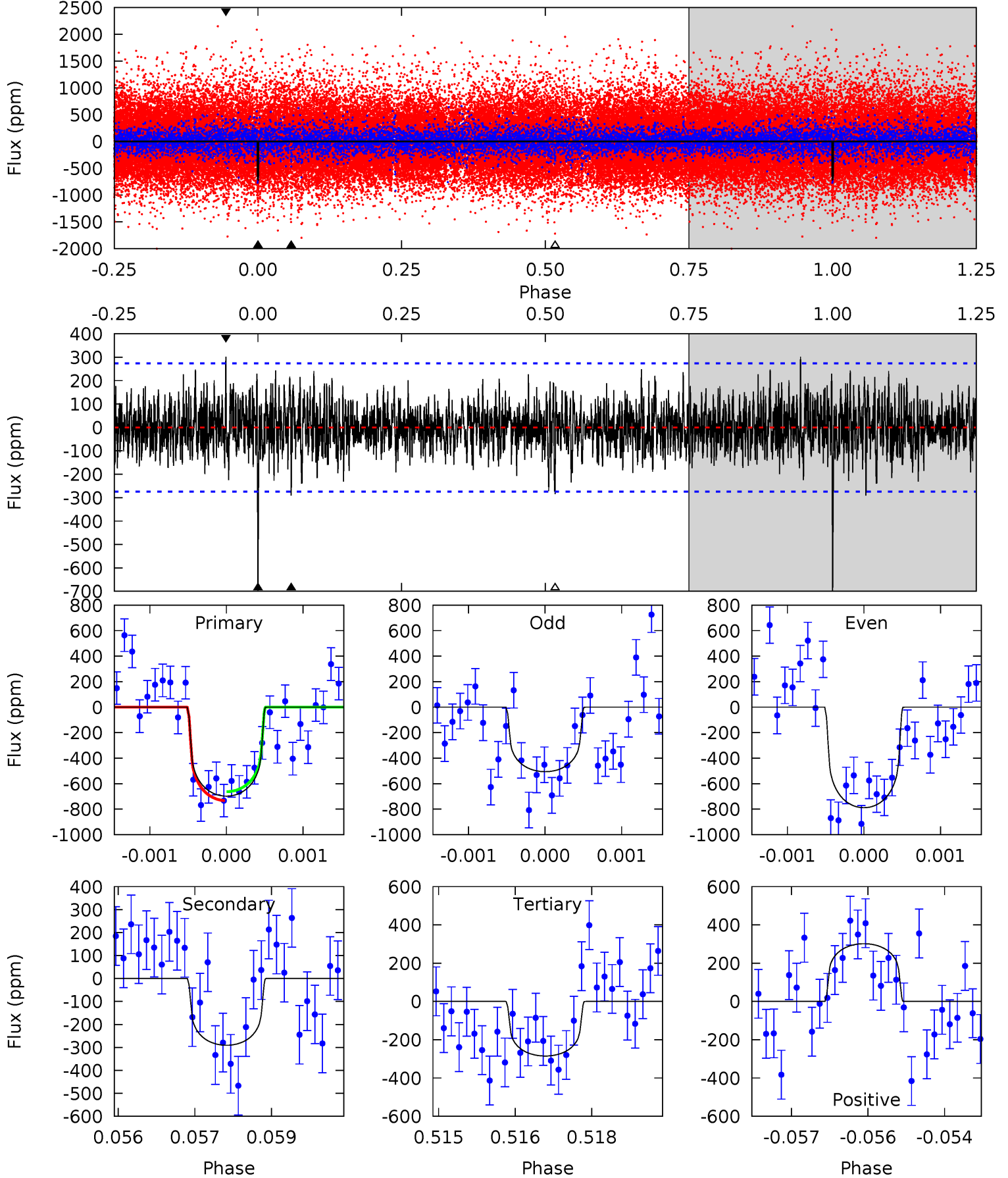
TCE 008506486-01 P=340.607012 Days $T_0=269.954902$ (BKJD)



DV Model-Shift Uniqueness Test

008506486-01, P = 340.623776 Days, E = 269.950368 Days

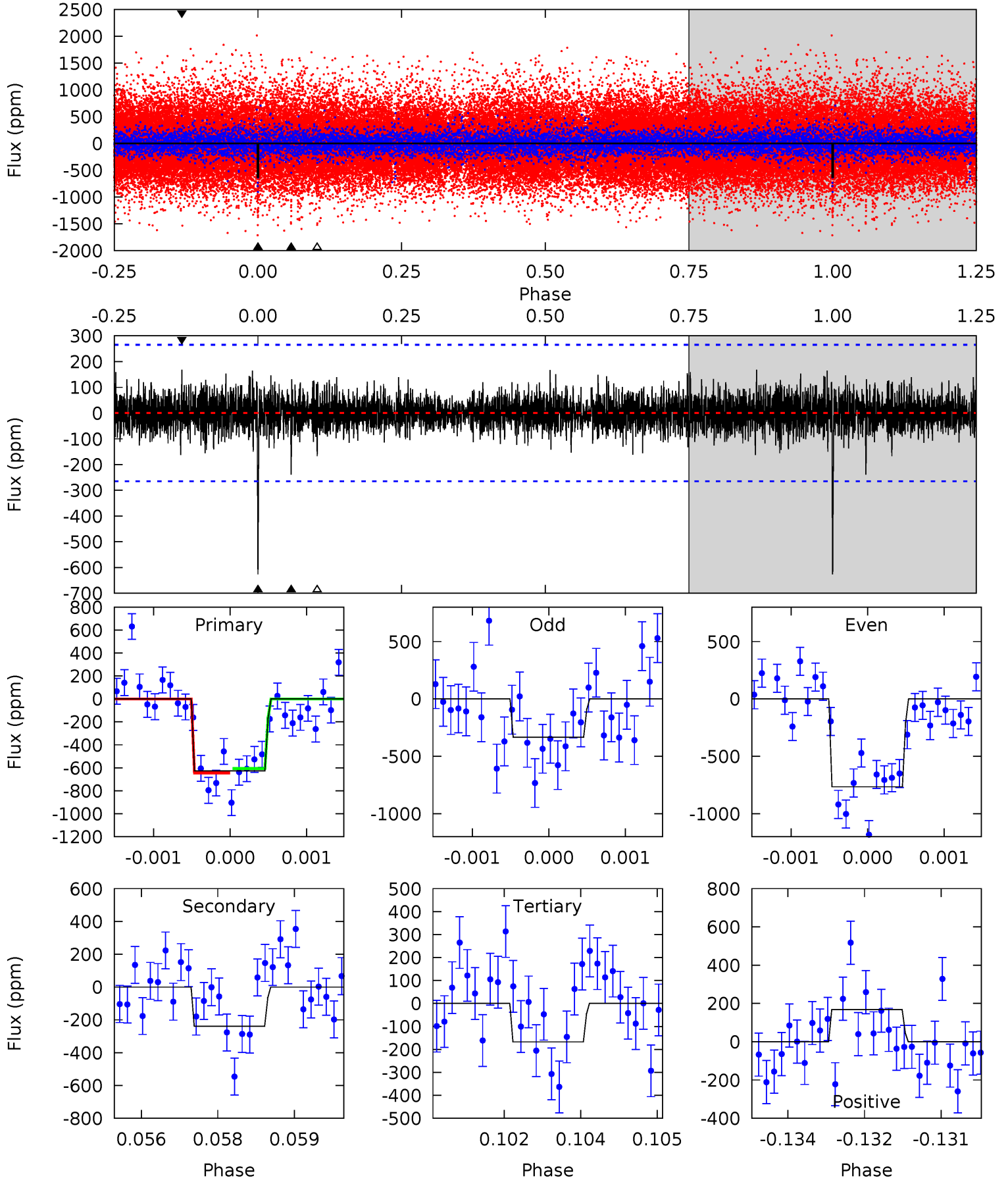
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	5.71	5.60	5.93	5.38	3.18	1.52	8.11	7.78	0.11	-0.21	2.63	1.14	0.30	0.69



Alt Model-Shift Uniqueness Test

008506486-01, P = 340.607012 Days, E = 269.954902 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	4.84	3.40	3.40	5.39	3.19	0.90	9.31	9.31	1.44	1.44	4.13	1.23	0.21	0.39



Stellar Parameters For KIC 008506486

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3489^{+56}_{-63}	$4.868^{+0.050}_{-0.036}$	$0.000^{+0.100}_{-0.100}$	$0.379^{+0.039}_{-0.044}$	$0.388^{+0.042}_{-0.051}$	$10.030^{+2.561}_{-1.528}$
	+2%/-2%	+1%/-1%	+inf%/-inf%	+10%/-12%	+11%/-13%	+26%/-15%
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 008506486-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-291 ± 51	$1.07^{+0.55}_{-0.49}$	158^{+4}_{-5}	3070^{+635}_{-327}	$67360^{+165059}_{-37448}$
Alt.	-239 ± 49	$1.08^{+0.56}_{-0.49}$	158^{+4}_{-4}	2959^{+608}_{-321}	$52688^{+131581}_{-30153}$

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

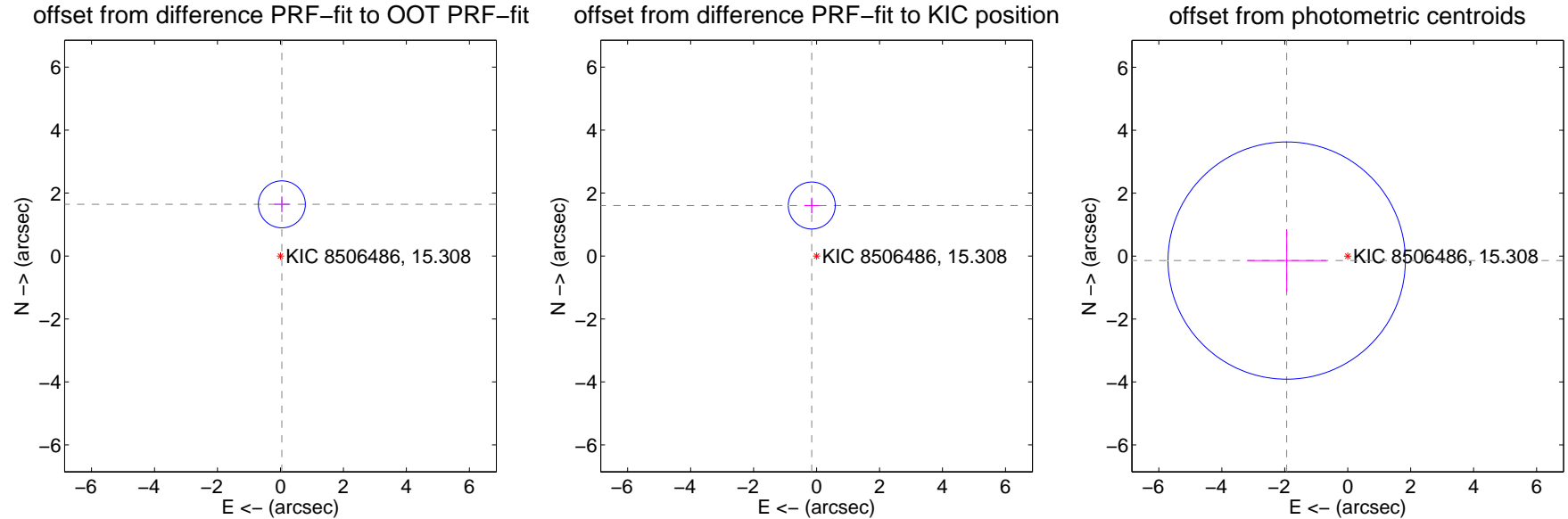
DV Centroid Data

Supplemental centroid analysis for 008506486-01. Kepler magnitude: 15.31. Transit SNR 7.81

There are 1 quarters with good PRF difference image offsets

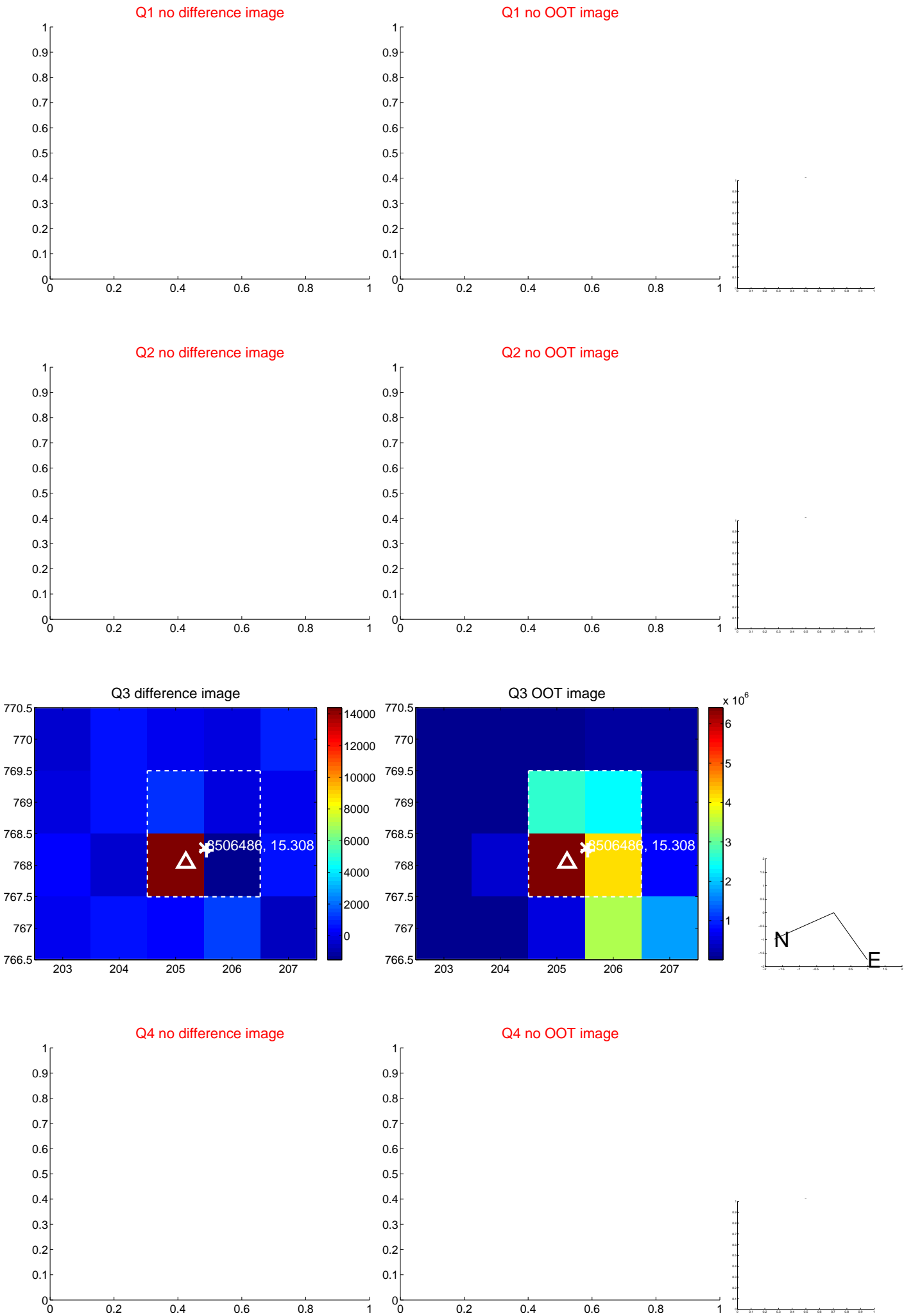
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.643 ± 0.249	6.61	-0.045 ± 0.239	1.642 ± 0.249
PRF-fit source offset from KIC position	1.612 ± 0.249	6.48	0.153 ± 0.239	1.604 ± 0.249
photometric centroid source offset	1.94 ± 1.26	1.55	1.94 ± 1.26	-0.14 ± 0.99

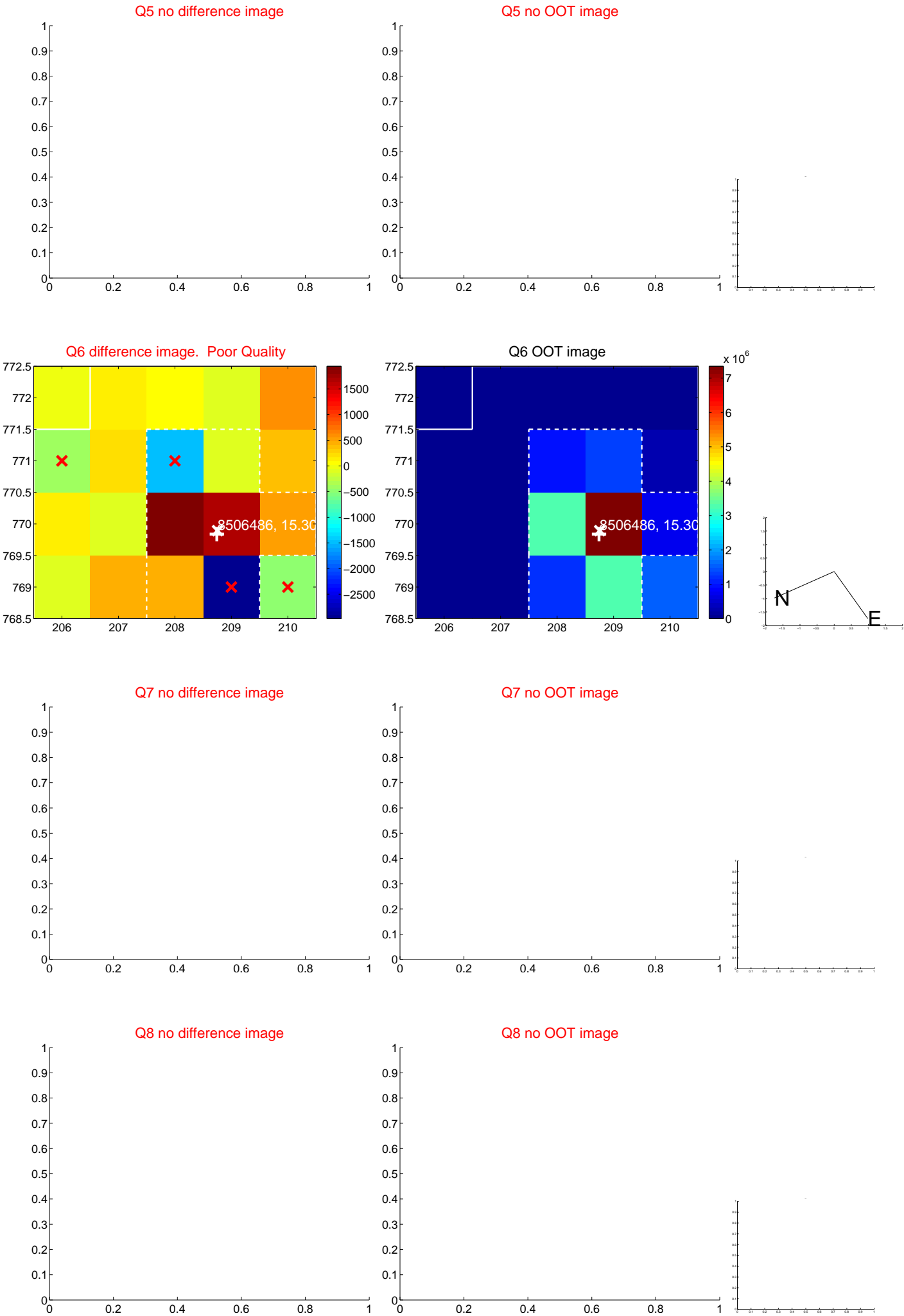


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

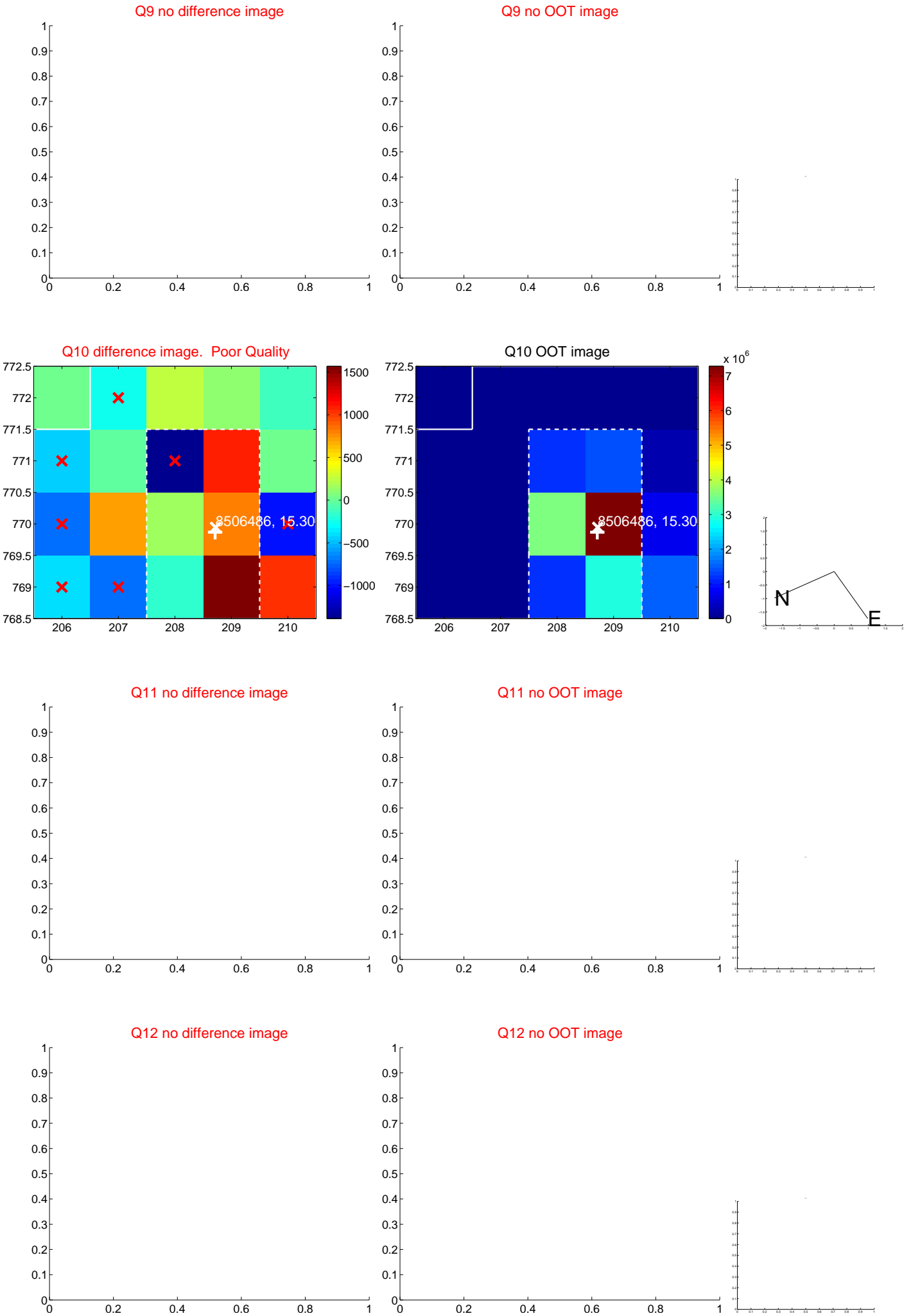
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



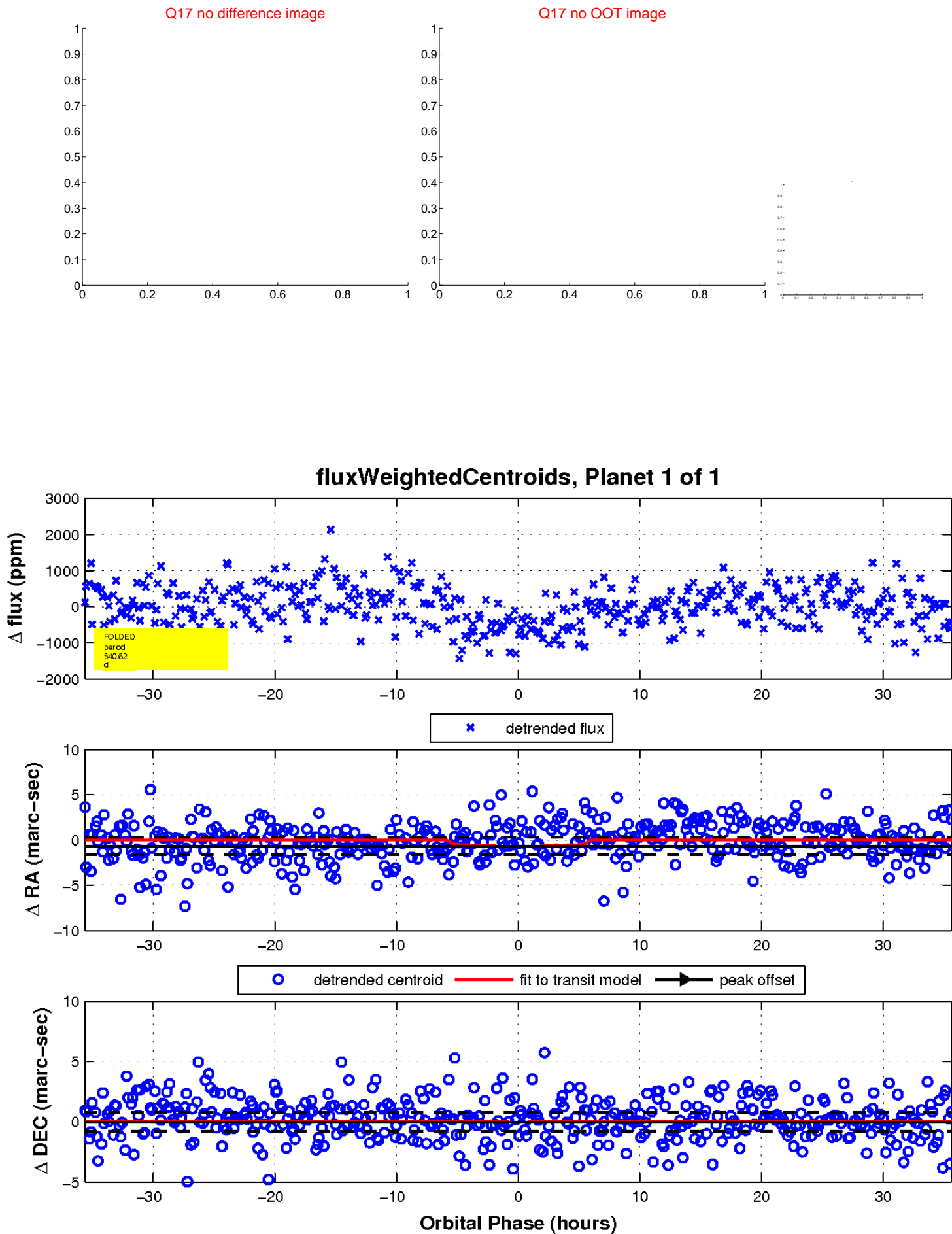
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

