

KIC 006186964

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})
006186964-01	OBS	2839.01	2.164552	131.836484	479.7	1.294	15.5	17.4	0.55	3941	1.24	89.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006186964-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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 006186964-01

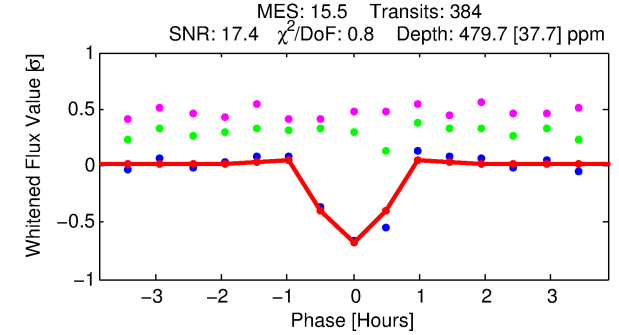
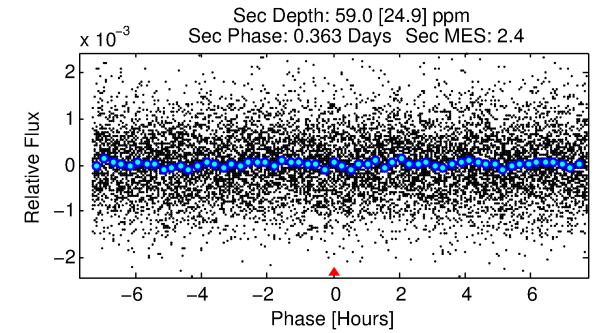
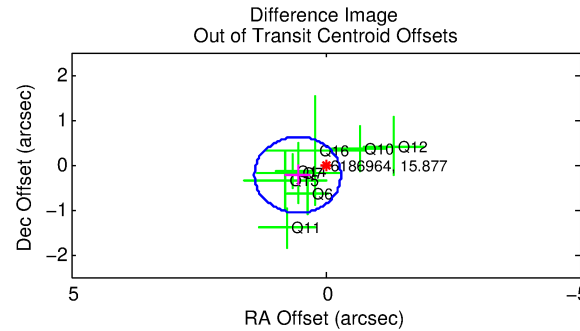
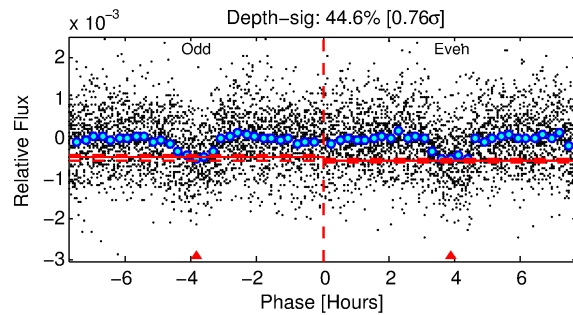
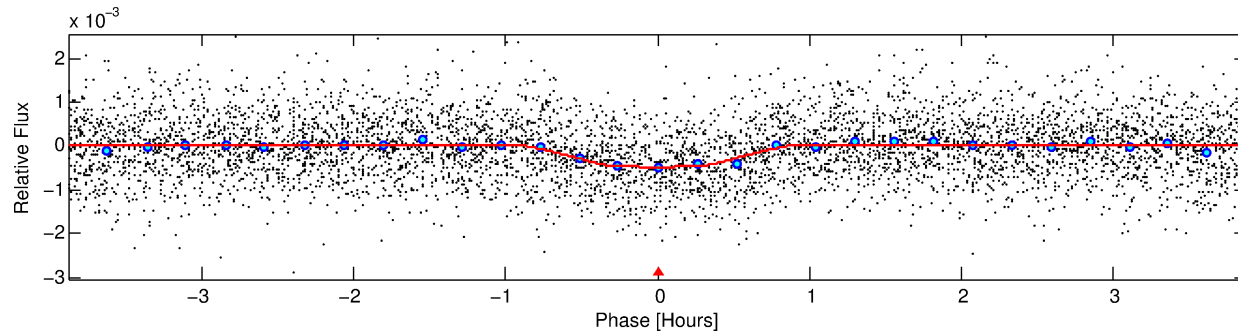
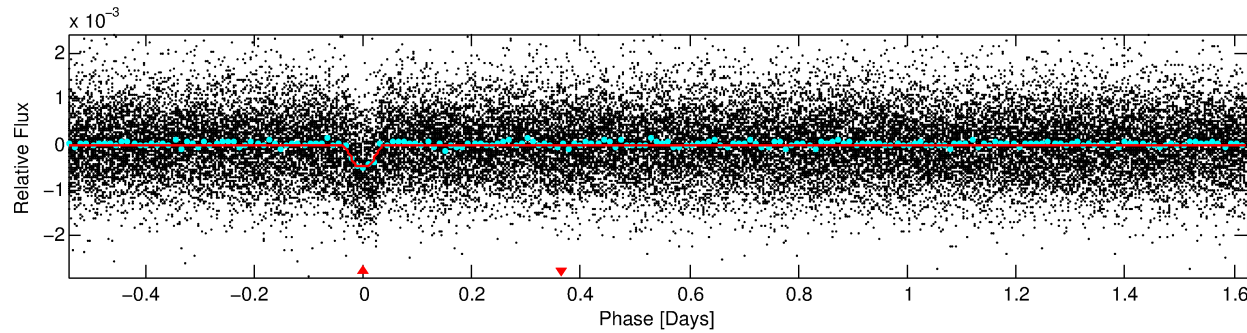
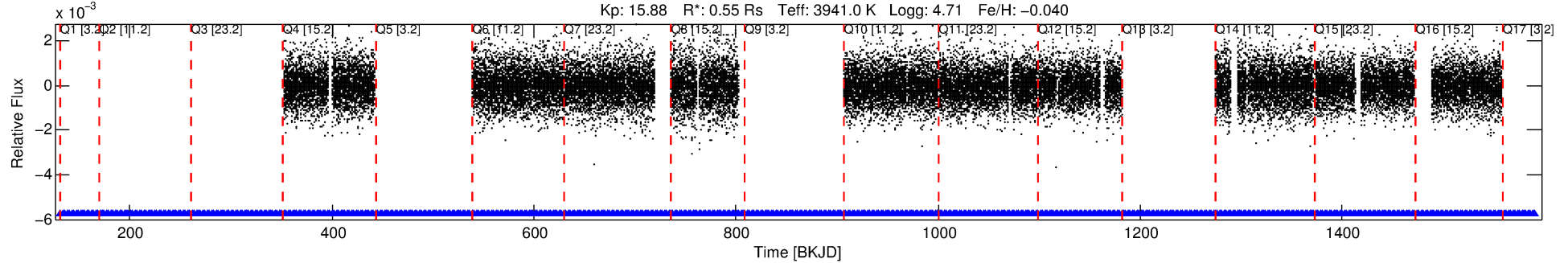
No Significant Match Found

DV One-Page Summary

KIC: 6186964 Candidate: 1 of 1 Period: 2.165 d

KOI: K02839.01 Corr: 0.932

Kp: 15.88 R*: 0.55 Rs Teff: 3941.0 K Logg: 4.71 Fe/H: -0.040



DV Fit Results:

Period = 2.16455 [0.00001] d
Epoch = 131.8365 [0.0012] BKJD
Rp/R* = 0.0205 [0.0116]
a/R* = 11.39 [24.35]
b = 0.50 [3.29]
Seff = 89.09 [8.65]
Teff = 783 [19] K
Rp = 1.24 [0.70] Re
a = 0.0273 [0.0011] AU
Ag = 15.72 [18.98] [0.78σ]
Teffp = 2412 [729] K [2.23σ]

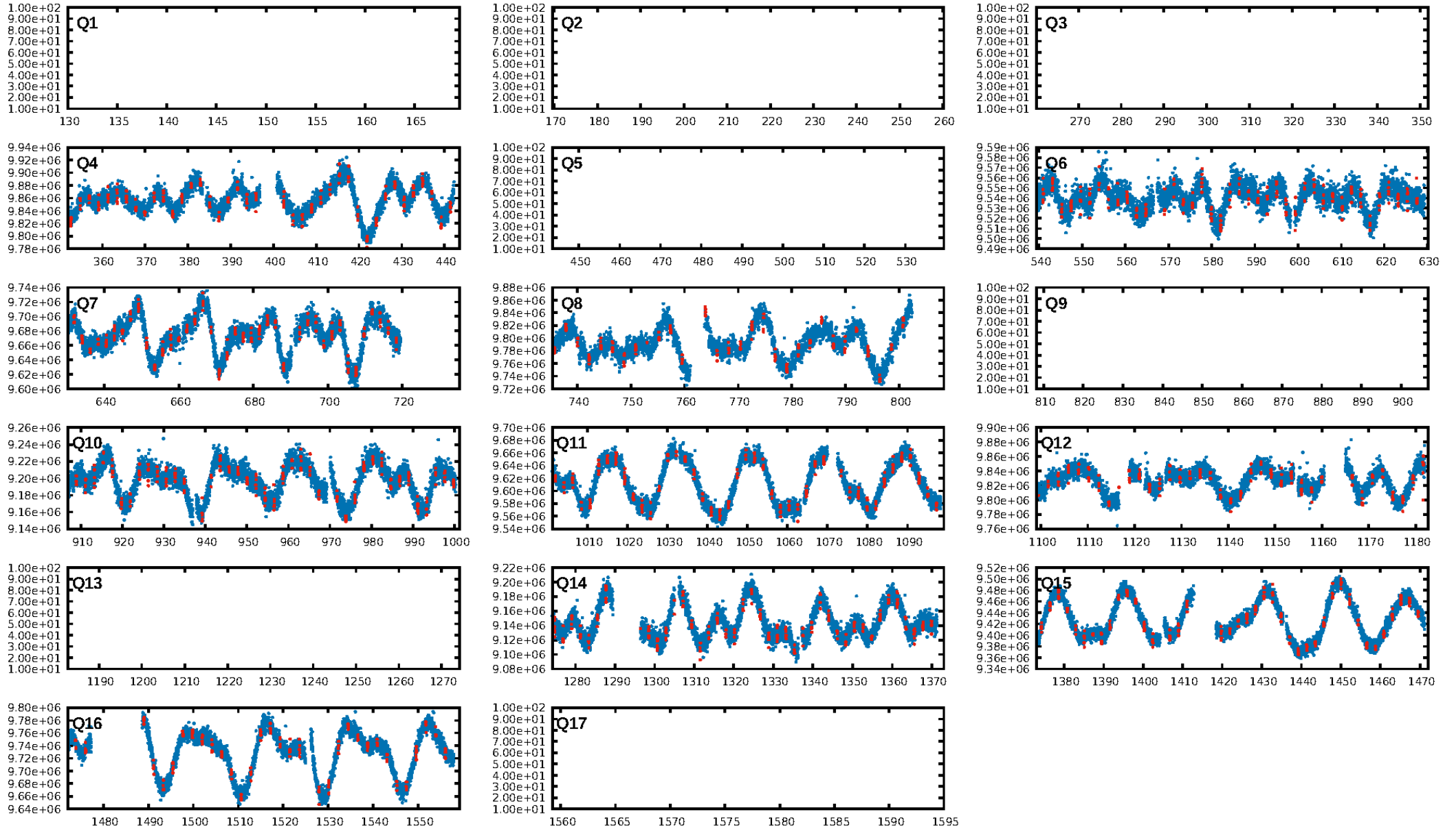
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.00e-53
RollingBand-fgt: 1.00 [384/384]
GhostDiagnostic-chr: 387.3
Centroid-sig: 0.1%
Centroid-so: 1.231 arcsec [2.01σ]
OotOffset-rm: 0.596 arcsec [2.11σ]
KicOffset-rm: 0.432 arcsec [1.48σ]
OotOffset-st: 3/3/2/0 [8]
KicOffset-st: 3/3/4/0 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 1.00 [10/10]

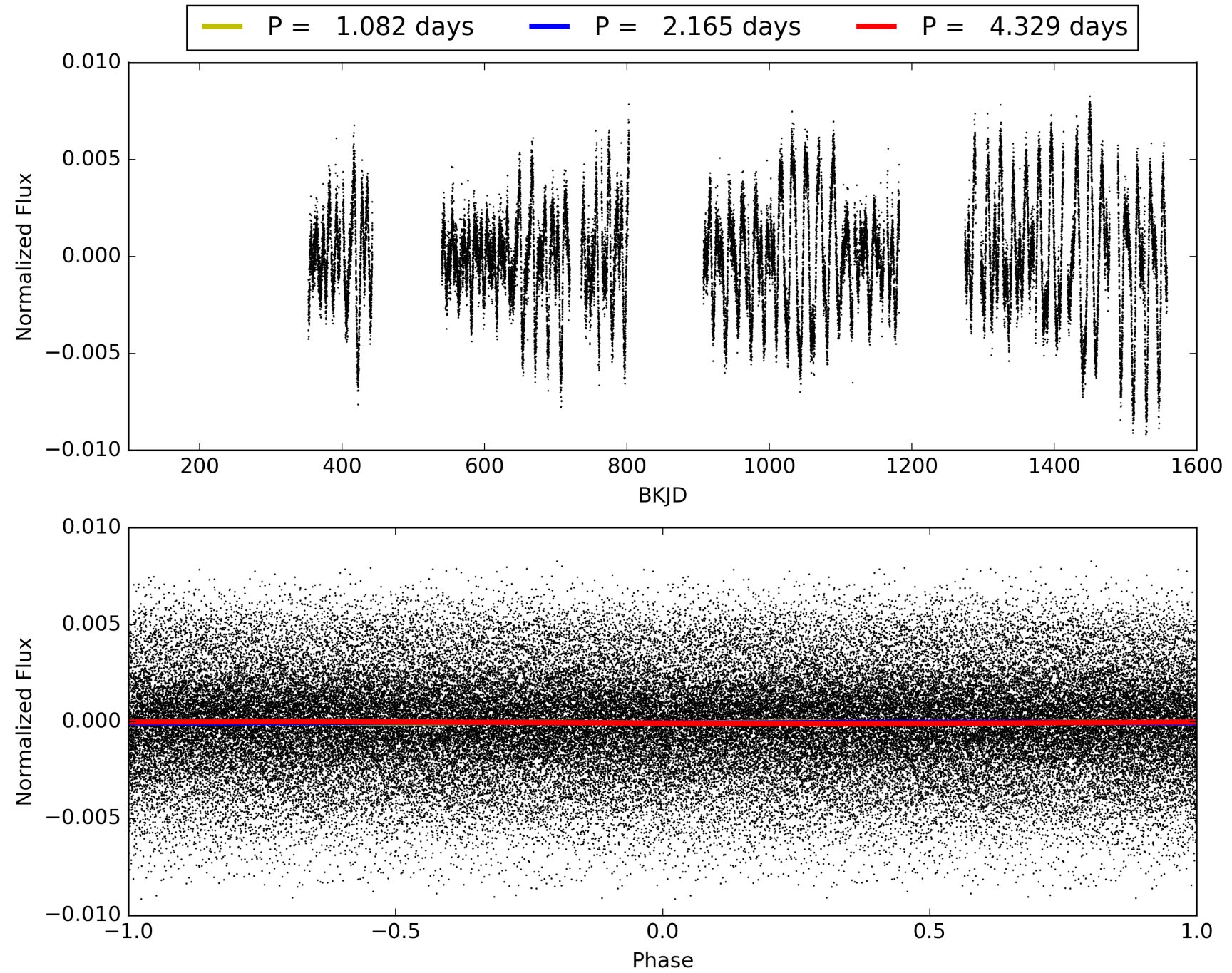
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:35:08 Z

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

TCE 006186964-01, PDC Light Curves

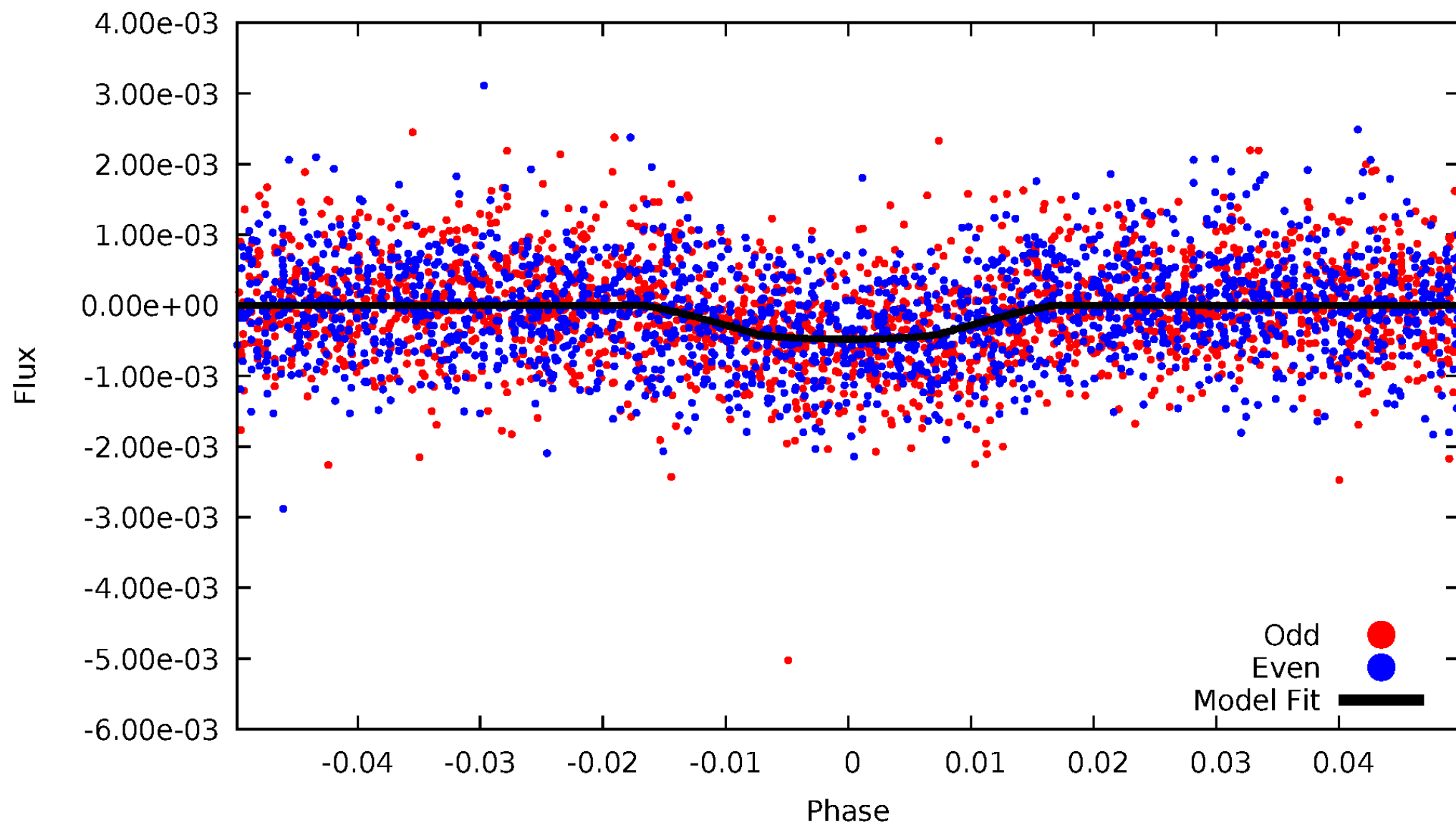


TCE 006186964-01



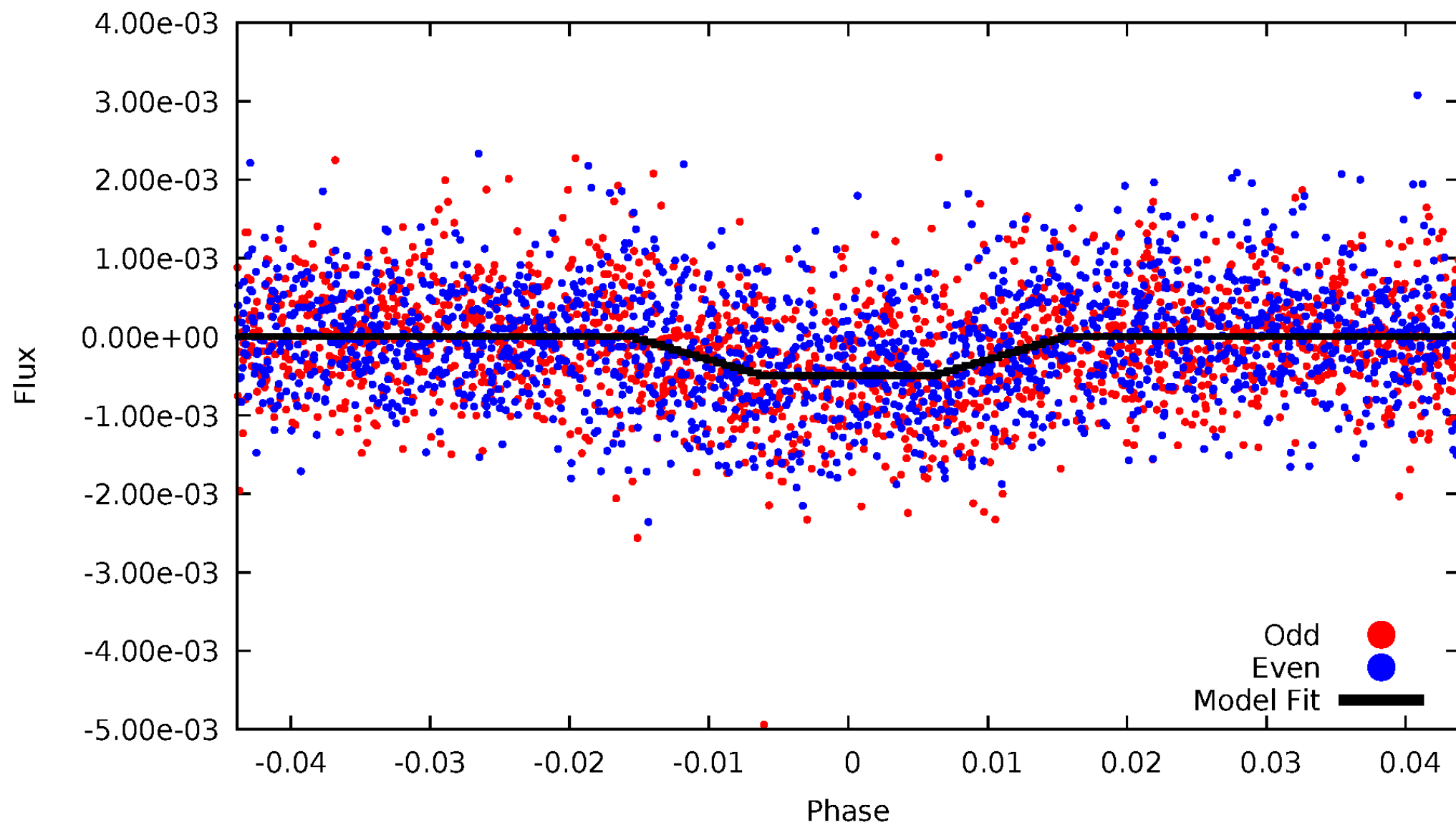
DV Odd/Even

TCE 006186964-01

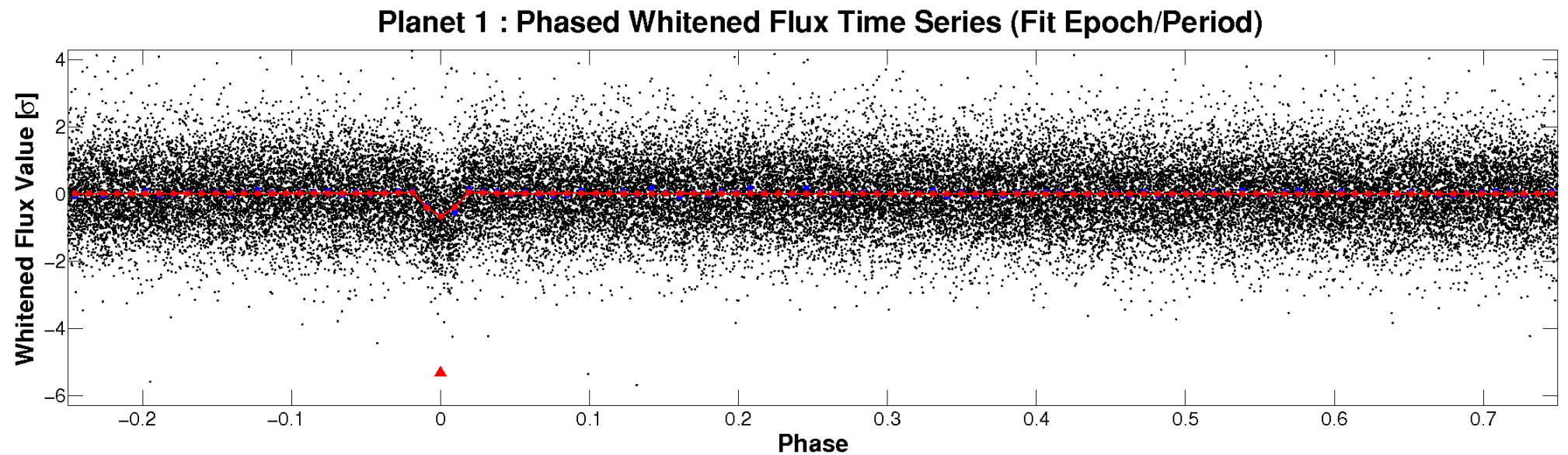
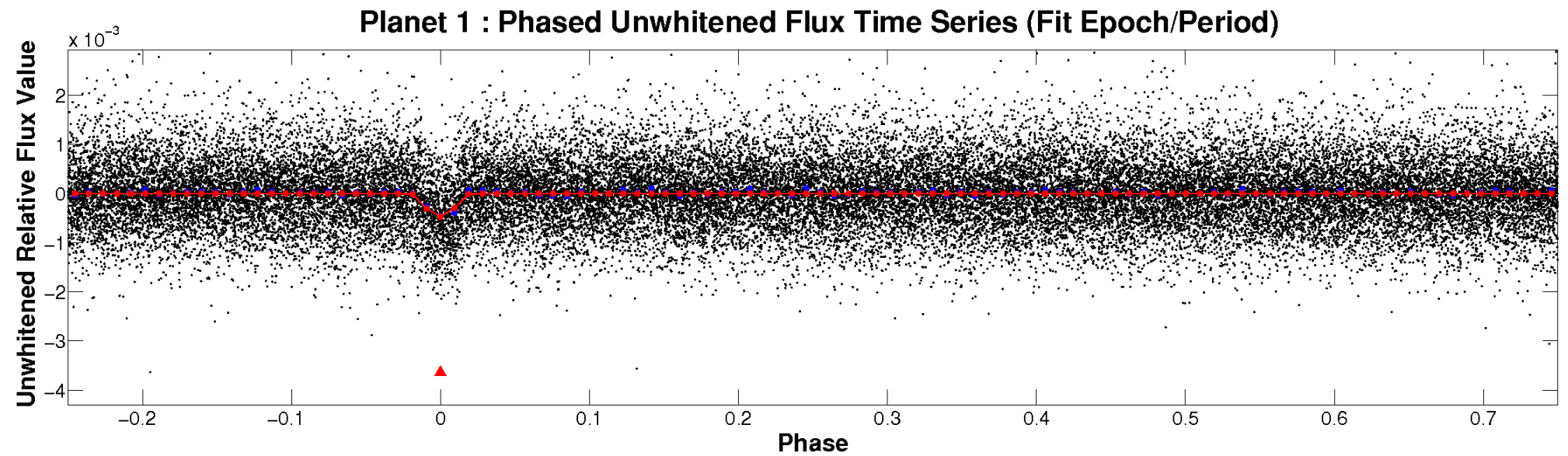


ALT Odd/Even

TCE 006186964-01

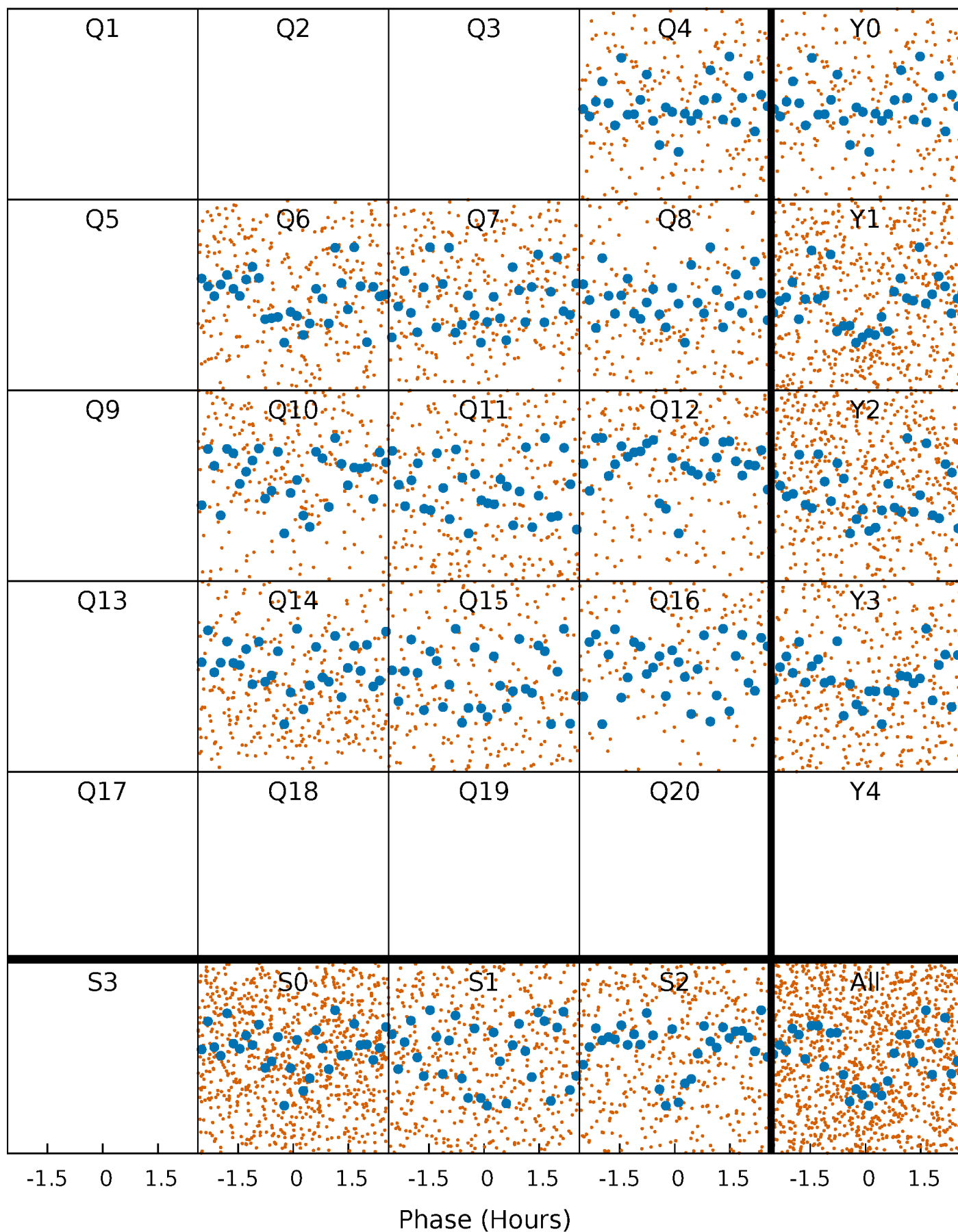


Non-Whitened Vs. Whitened Light Curve



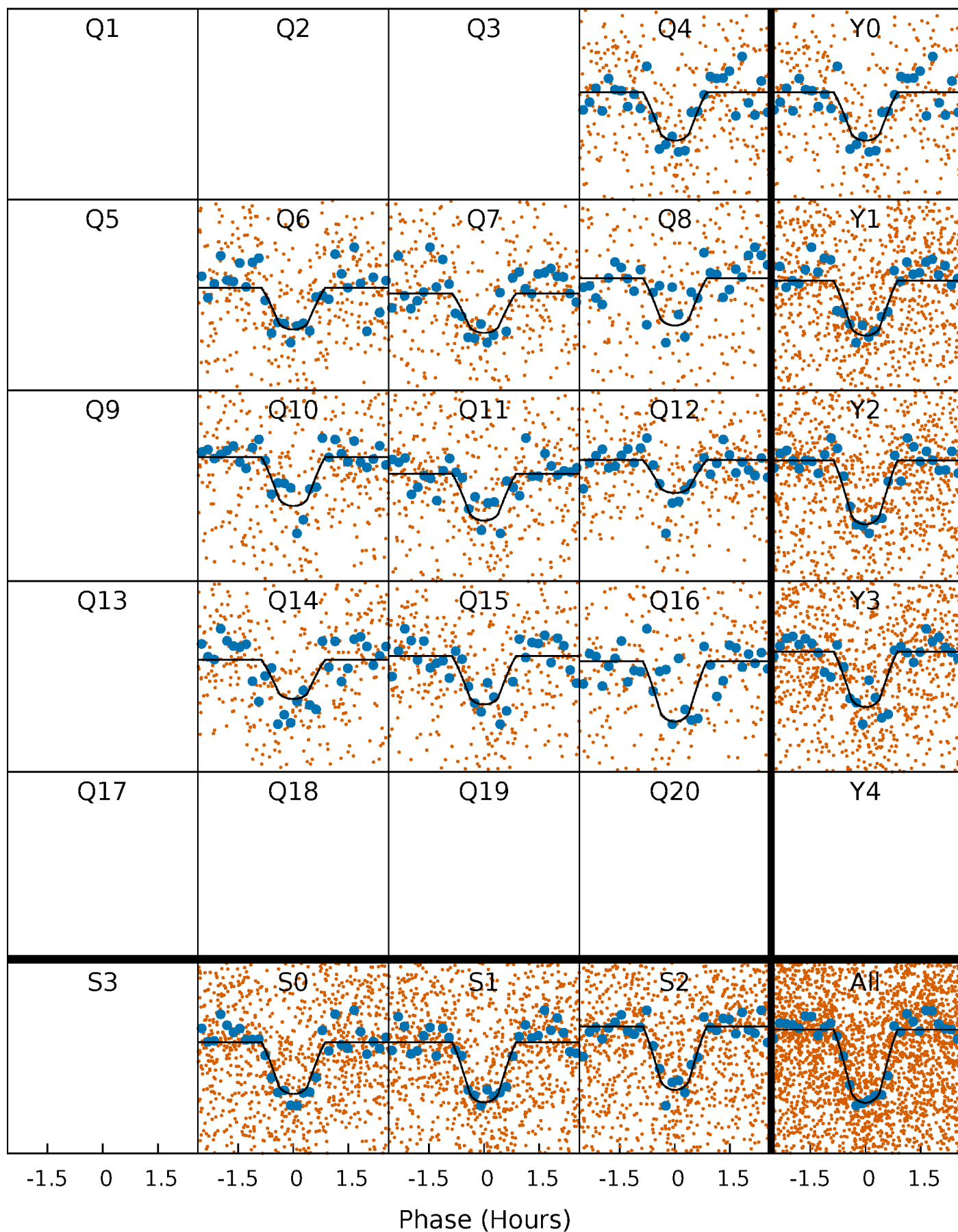
PDC Quarter-Phased Transit Curves

TCE 006186964-01 P= 2.164552 Days $T_0=131.836484$ (BKJD)



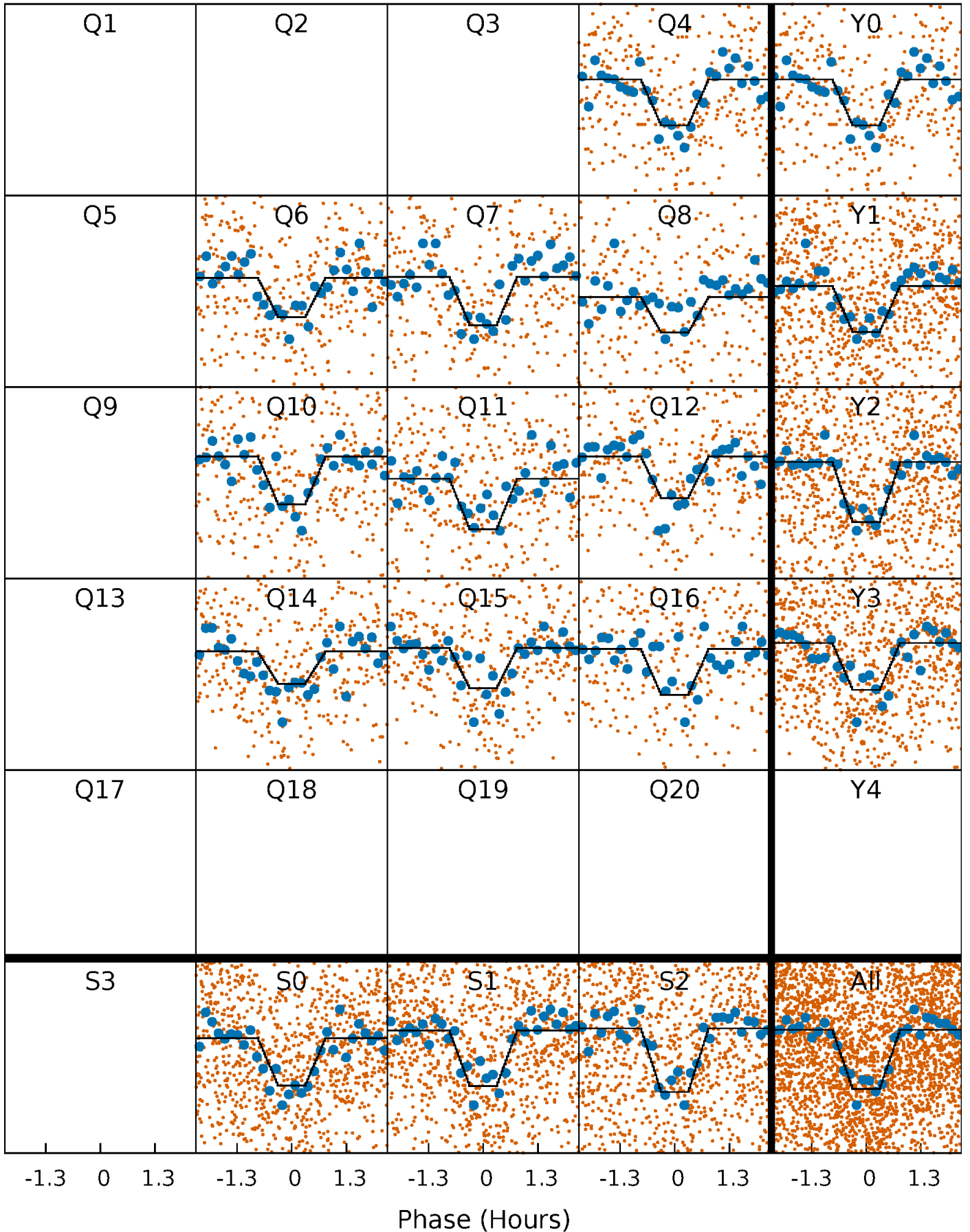
DV Quarter-Phased Transit Curves

TCE 006186964-01 P= 2.164552 Days $T_0=131.836484$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

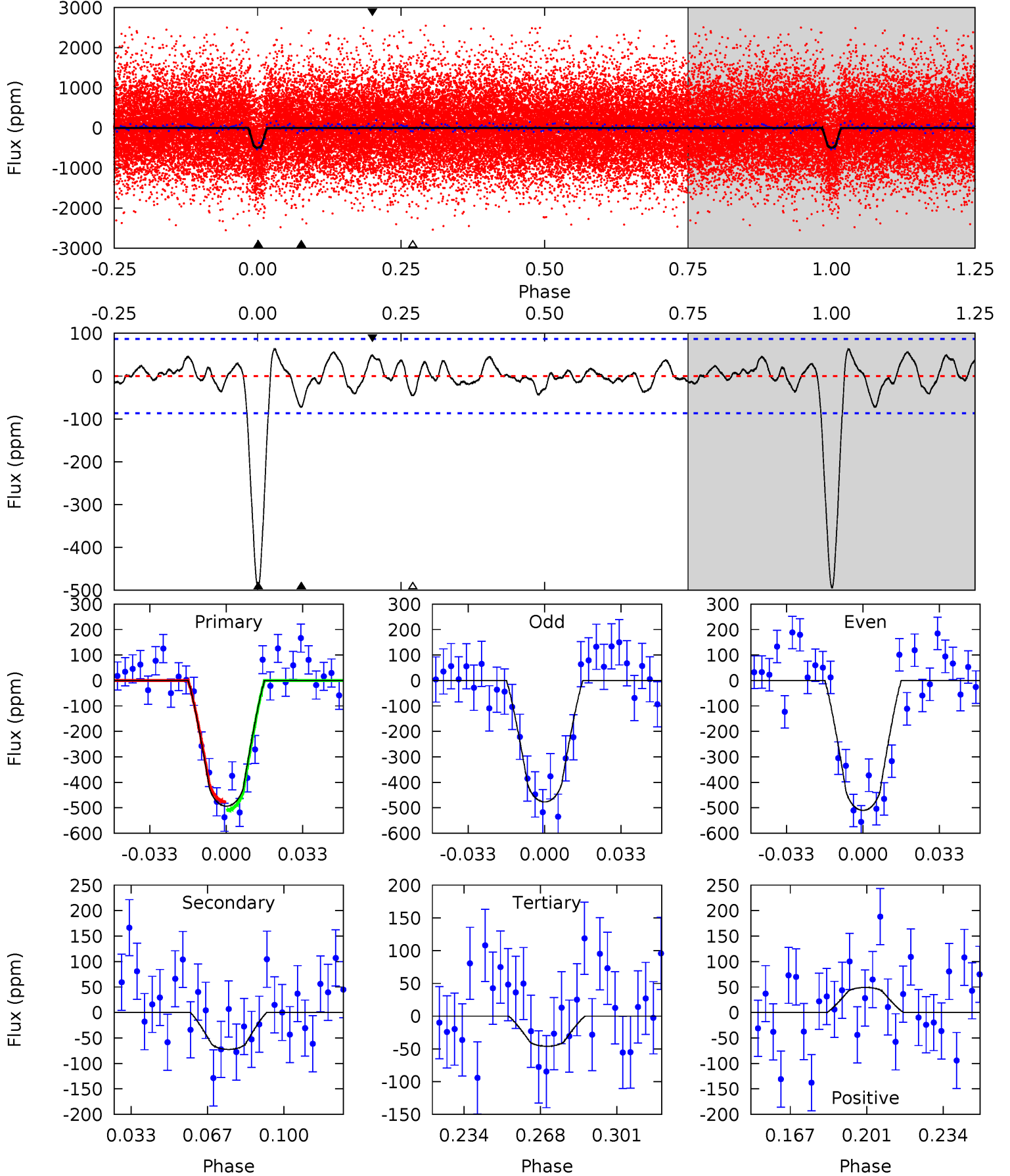
TCE 006186964-01 P= 2.164558 Days $T_0=131.836417$ (BKJD)



DV Model-Shift Uniqueness Test

006186964-01, P = 2.164552 Days, E = 131.836484 Days

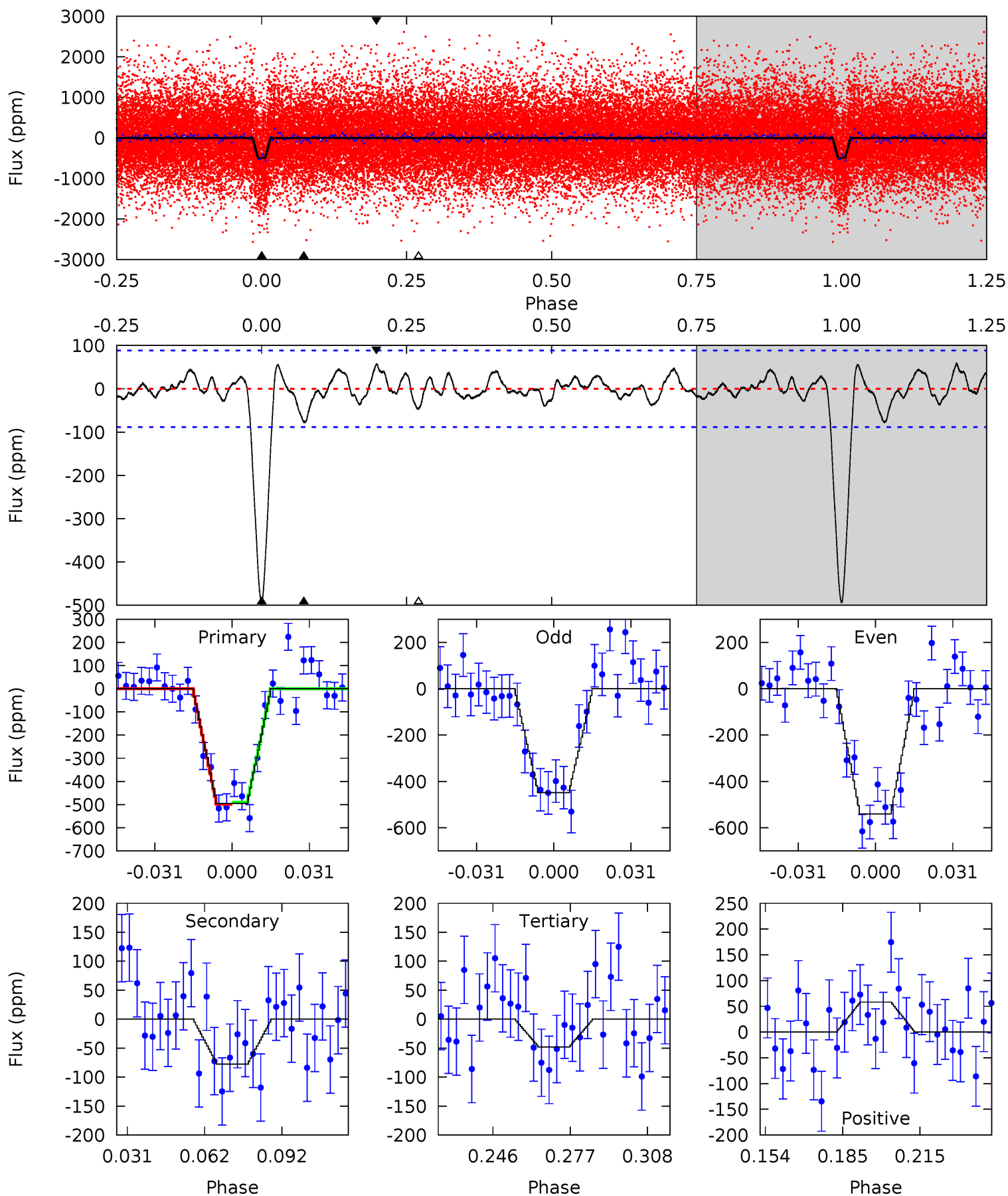
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.3	4.01	2.55	2.72	4.79	2.13	1.16	24.7	24.6	1.46	1.29	0.92	0.97	0.11	0.92



Alt Model-Shift Uniqueness Test

006186964-01, P = 2.164558 Days, E = 131.836417 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.9	4.21	2.59	3.17	4.81	2.16	1.13	24.3	23.7	1.61	1.04	2.49	0.92	0.11	0.28



Stellar Parameters For KIC 006186964

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3941^{+71}_{-78}	$4.713^{+0.025}_{-0.028}$	$-0.040^{+0.150}_{-0.150}$	$0.554^{+0.030}_{-0.030}$	$0.578^{+0.026}_{-0.038}$	$4.795^{+0.582}_{-0.519}$
	+2%/-2%	+1%/-1%	+375%/-375%	+5%/-5%	+4%/-7%	+12%/-11%
Source	SPE70	PHO2	SPE70	DSEP		

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

Secondary Eclipse Parameters for KIC 006186964-01 / KOI 2839.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-73 ± 18	$1.27^{+0.67}_{-0.68}$	1094^{+23}_{-24}	2963^{+771}_{-348}	19^{+65}_{-11}
Alt.	-77 ± 18	$1.39^{+0.72}_{-0.69}$	1093^{+24}_{-24}	2909^{+670}_{-336}	16^{+49}_{-9}

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

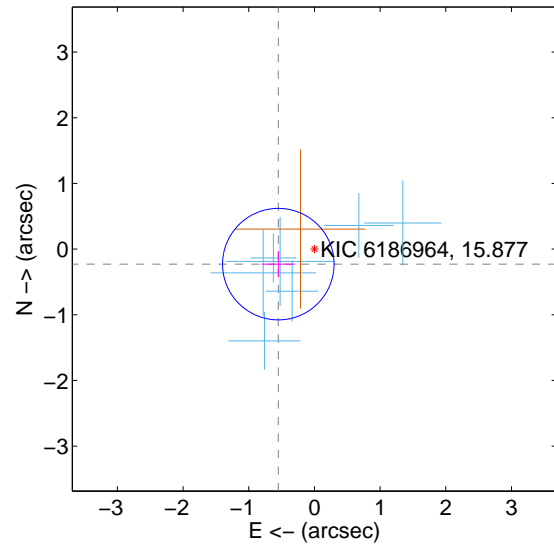
Supplemental centroid analysis for 006186964-01. Kepler magnitude: 15.88. Transit SNR 17.41

There are 8 quarters with good PRF difference image offsets

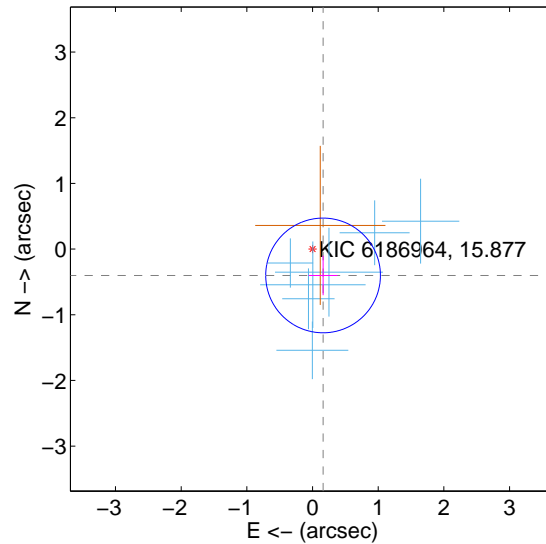
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.596 ± 0.283	2.11	0.550 ± 0.255	-0.229 ± 0.201
PRF-fit source offset from KIC position	0.432 ± 0.291	1.48	-0.161 ± 0.219	-0.401 ± 0.301
photometric centroid source offset	1.23 ± 0.61	2.01	-0.53 ± 0.75	1.11 ± 0.58

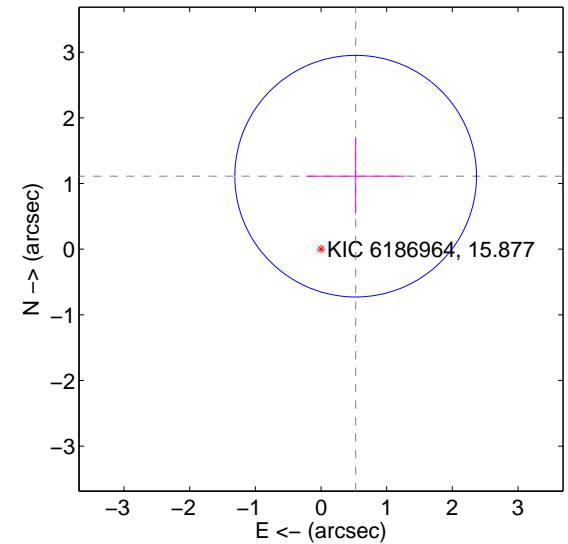
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

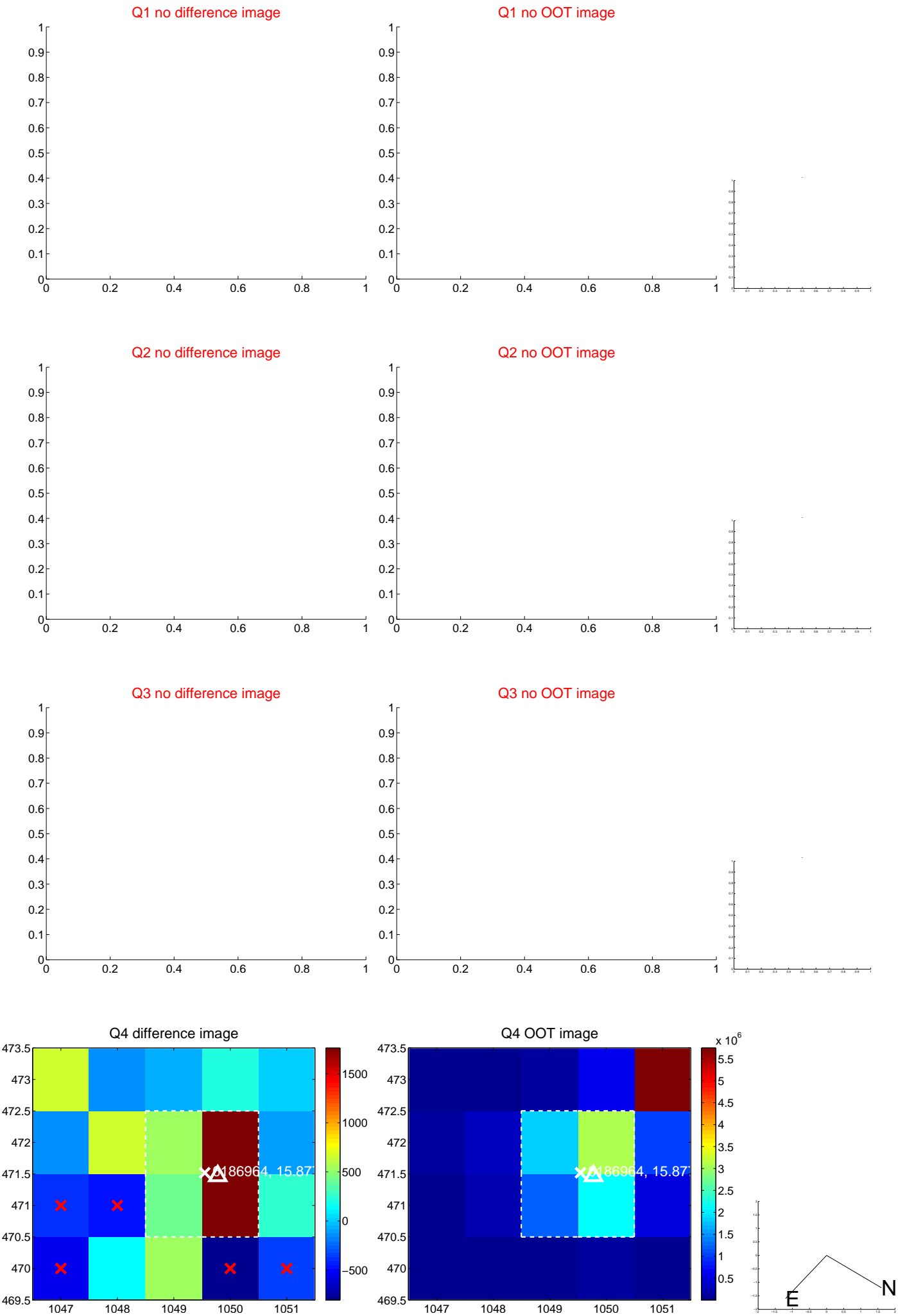


offset from photometric centroids

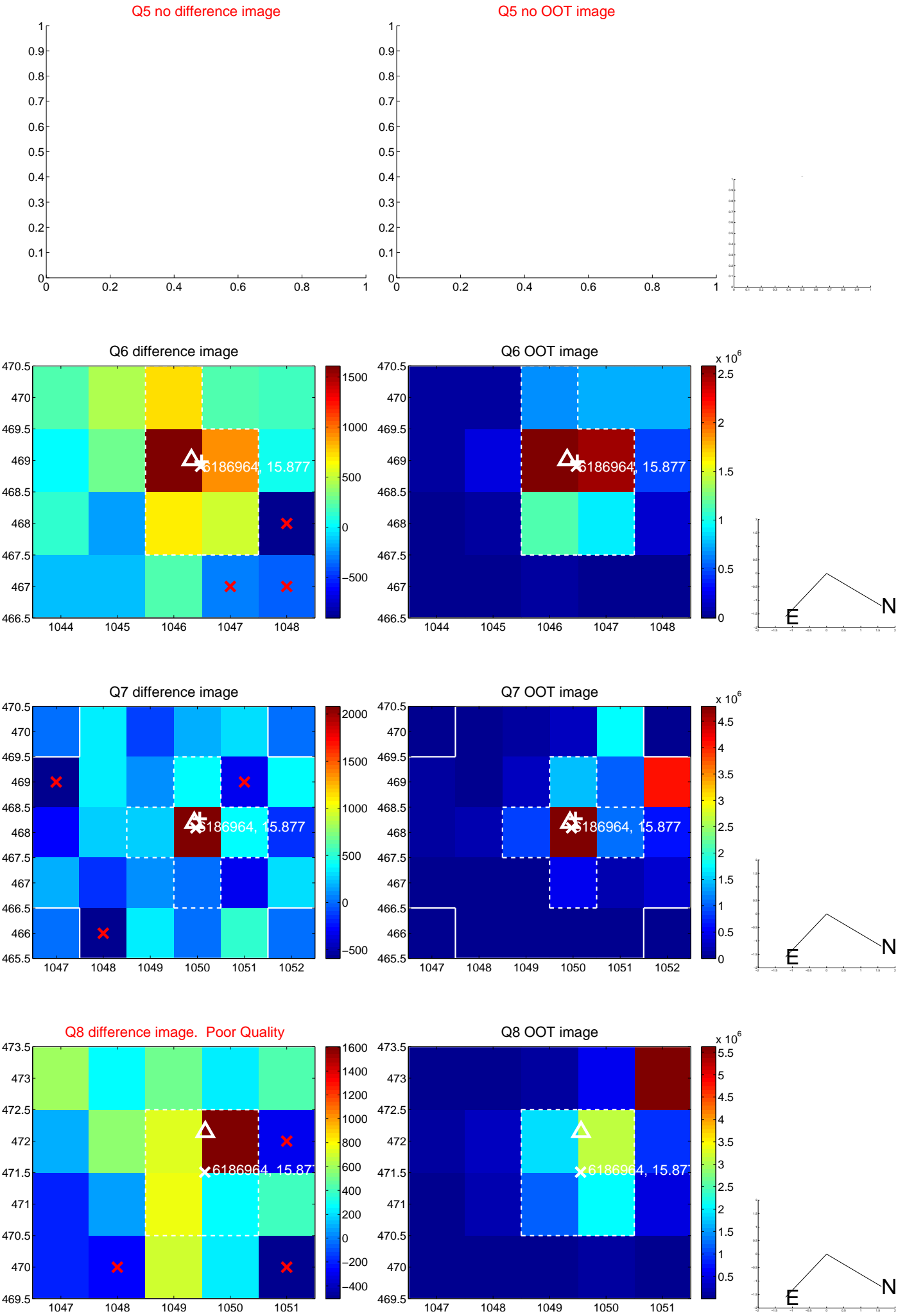


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

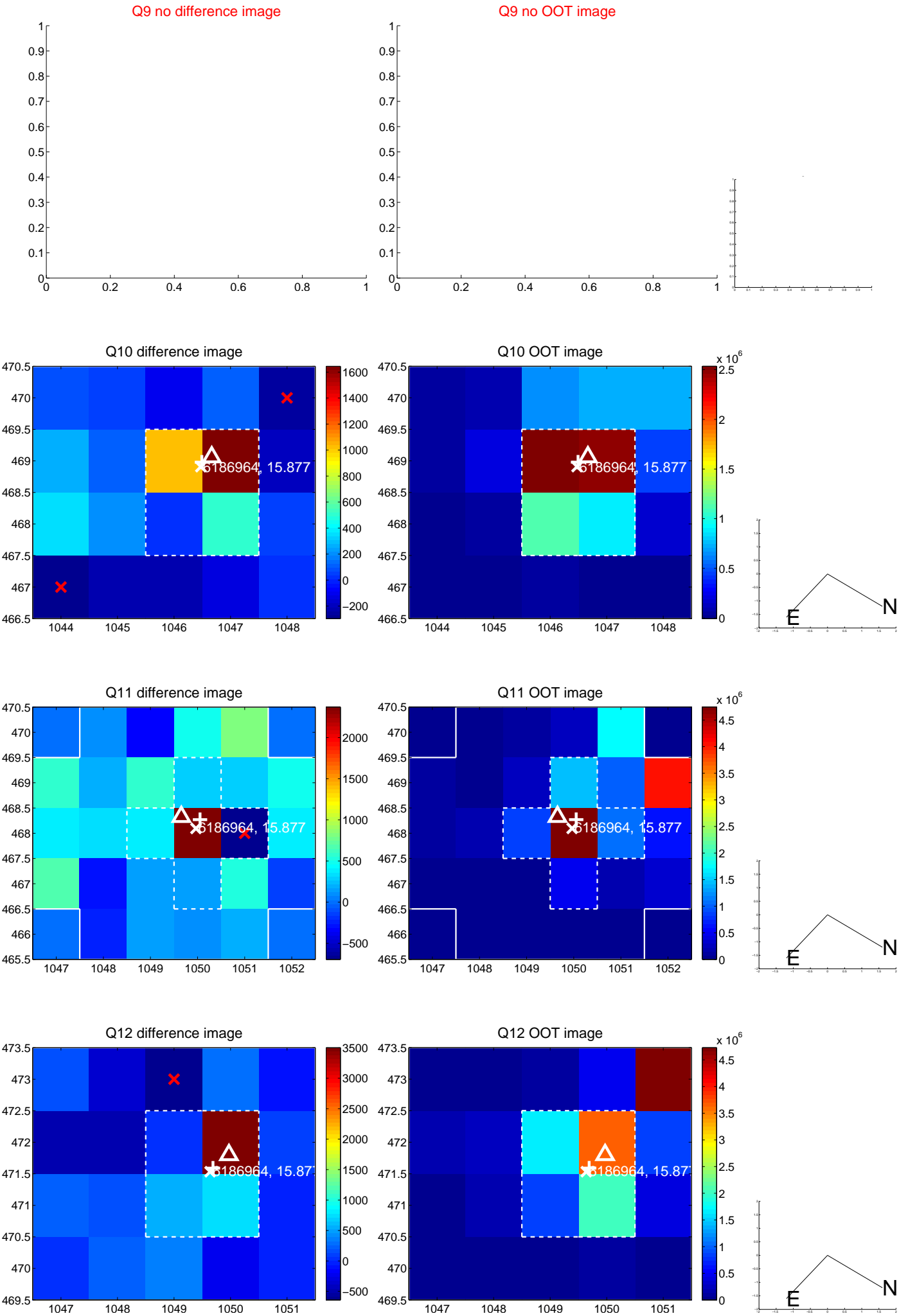
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



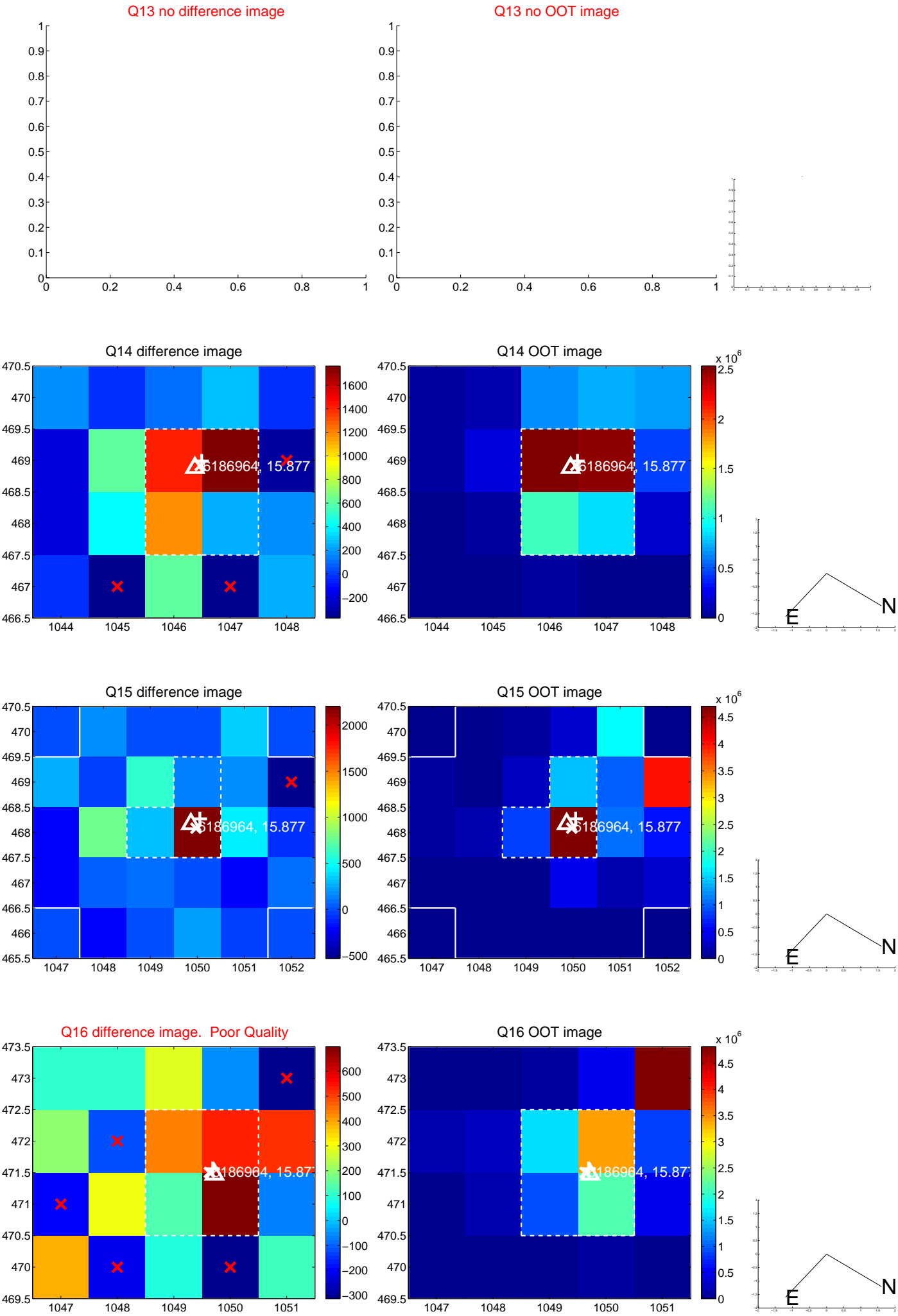
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



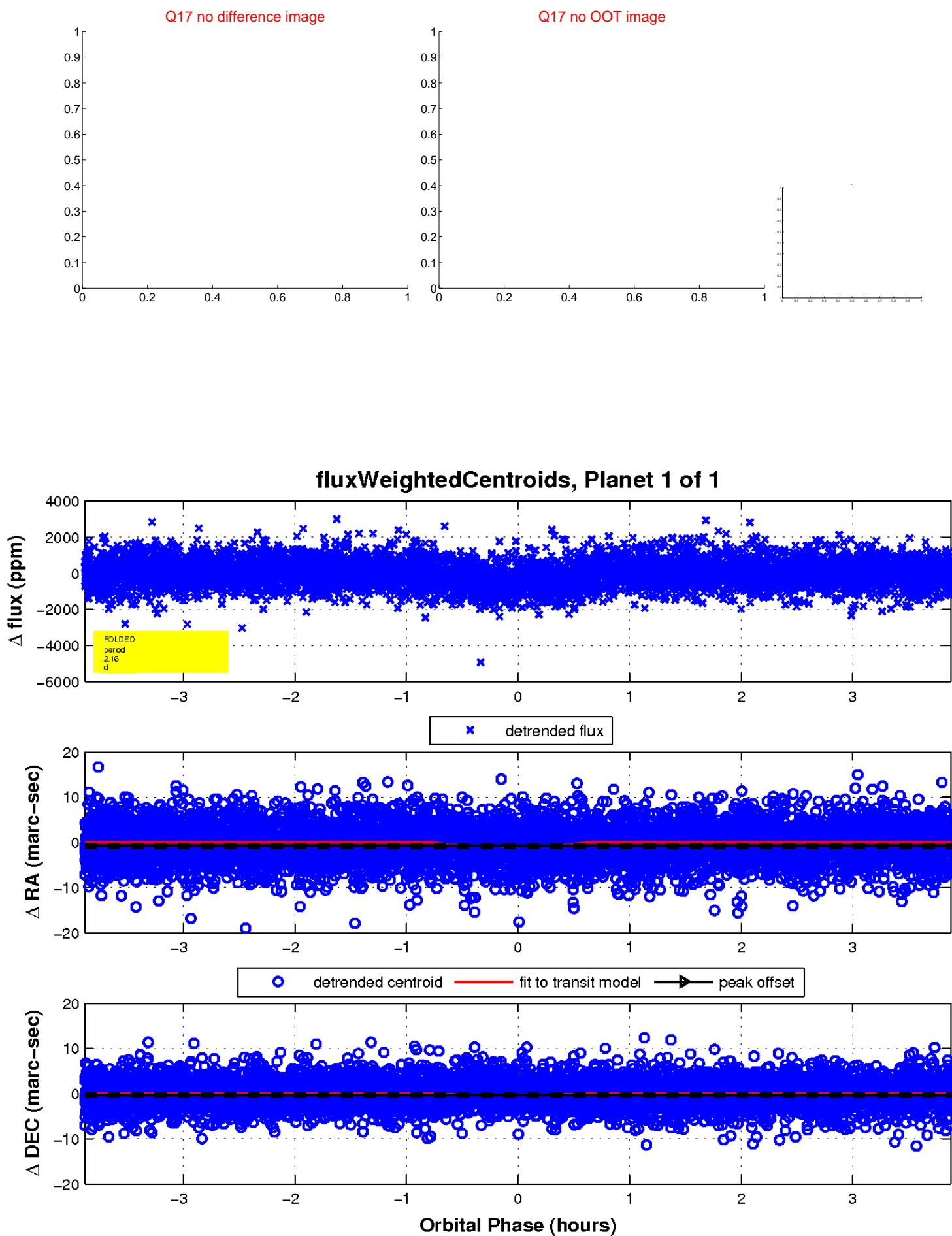
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

