

KIC 008242064

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})
008242064-01	OBS	No	337.562000	288.889665	1051.7	14.012	8.2	7.3	0.35	3487	1.15	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008242064-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—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.

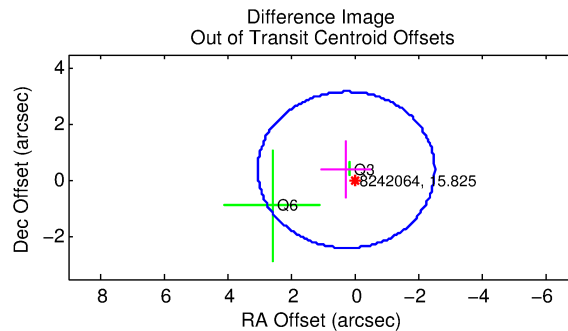
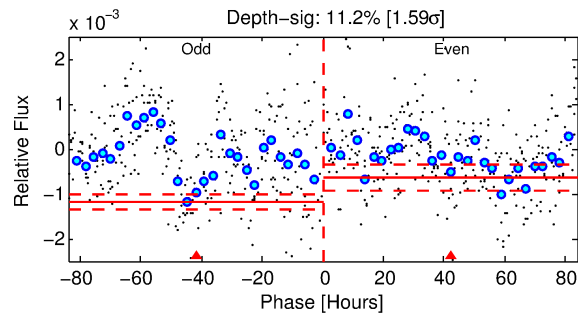
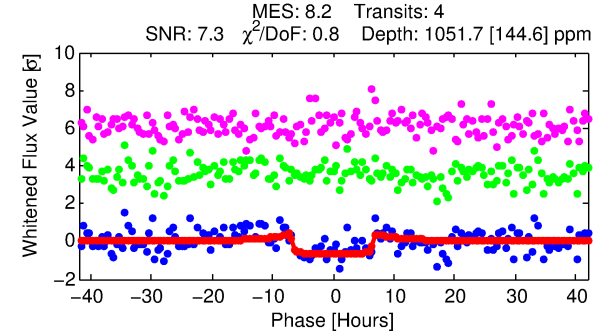
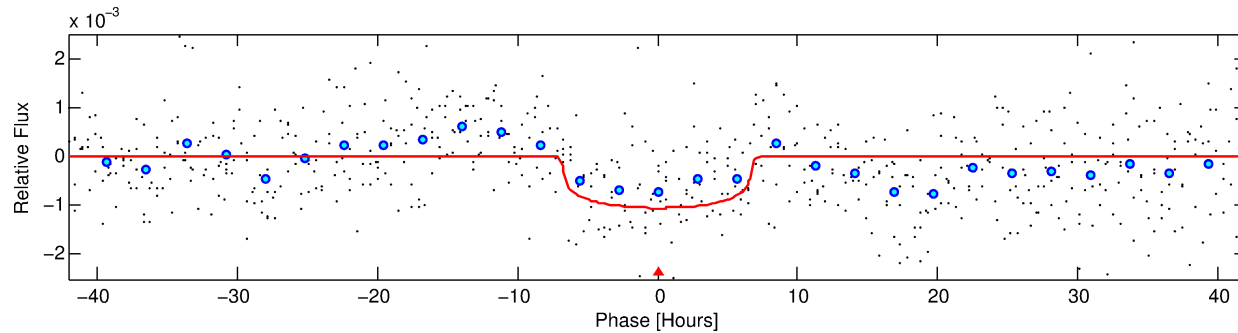
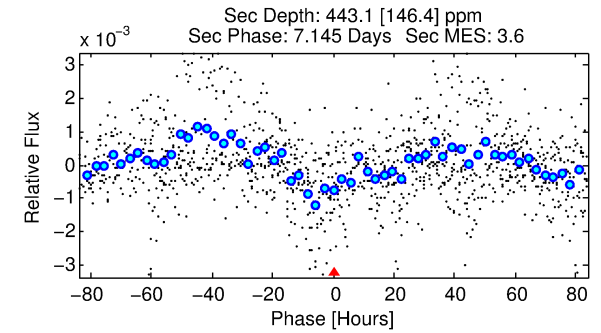
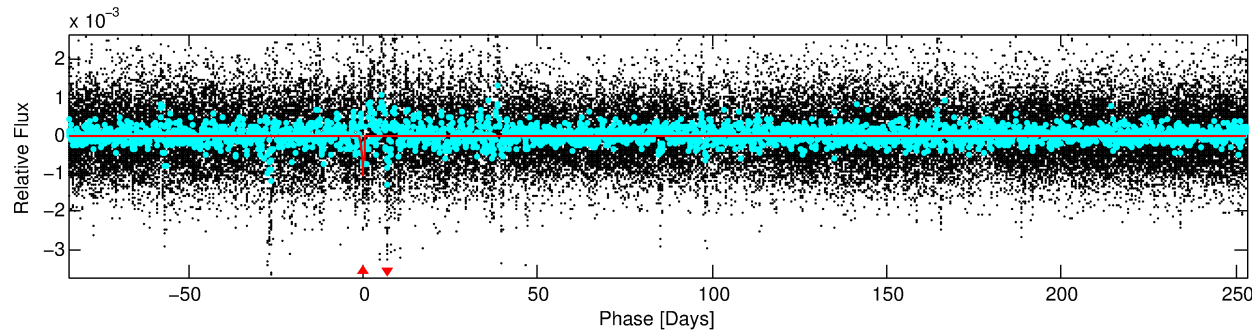
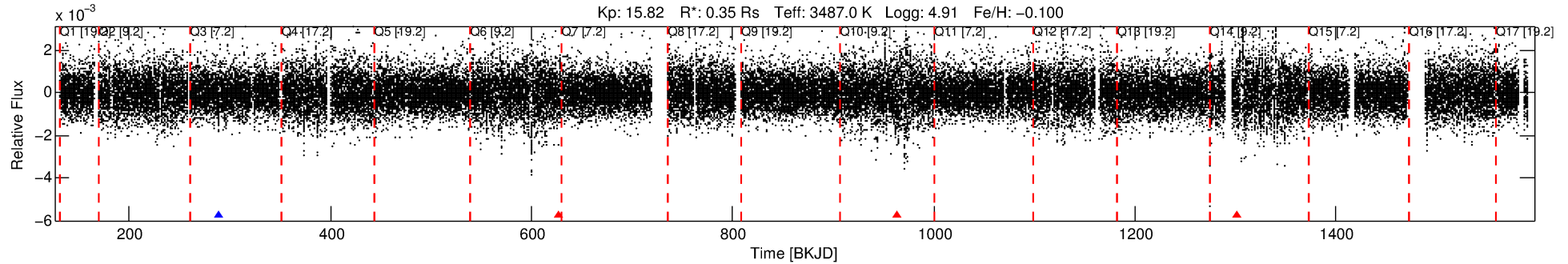
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008242064-01

No Significant Match Found

DV One-Page Summary

KIC: 8242064 Candidate: 1 of 1 Period: 337.562 d



DV Fit Results:

Period = 337.56200 [0.00842] d
Epoch = 288.8897 [0.0158] BKJD
Rp/R* = 0.0303 [0.0119]
a/R* = 165.76 [275.56]
b = 0.50 [2.50]
Seff = 0.04 [0.00]
Teq = 111 [3] K
Rp = 1.15 [0.47] Re
a = 0.6735 [0.0520] AU
Ag = 83501.30 [71482.25] [1.17σ]
Teffp = 2906 [619] K [4.51σ]

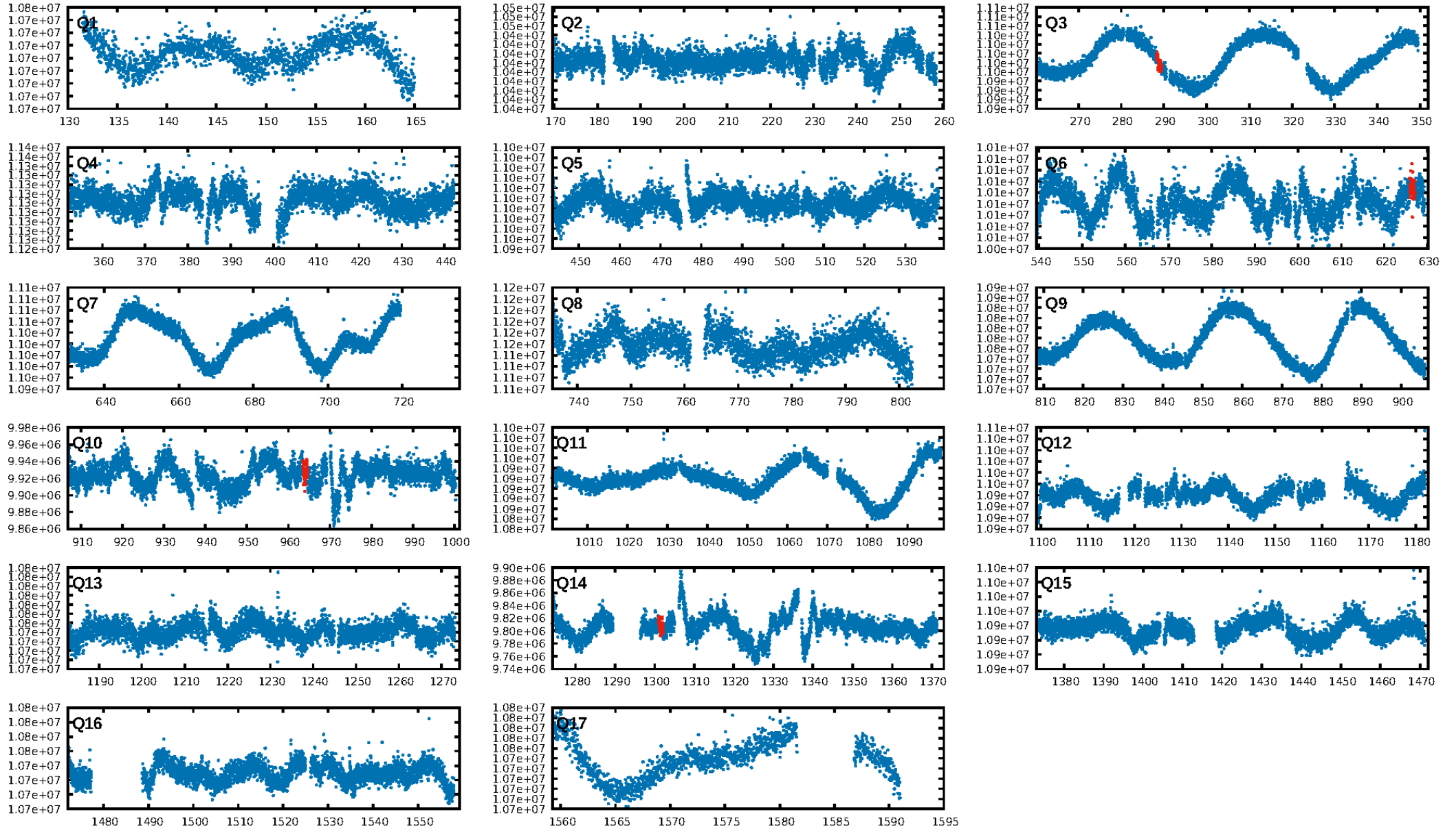
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 32.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.96e-10
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.685
Centroid-sig: 55.9%
Centroid-so: 1.710 arcsec [0.92σ]
OotOffset-rm: 0.460 arcsec [0.50σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 0.924 arcsec [0.95σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

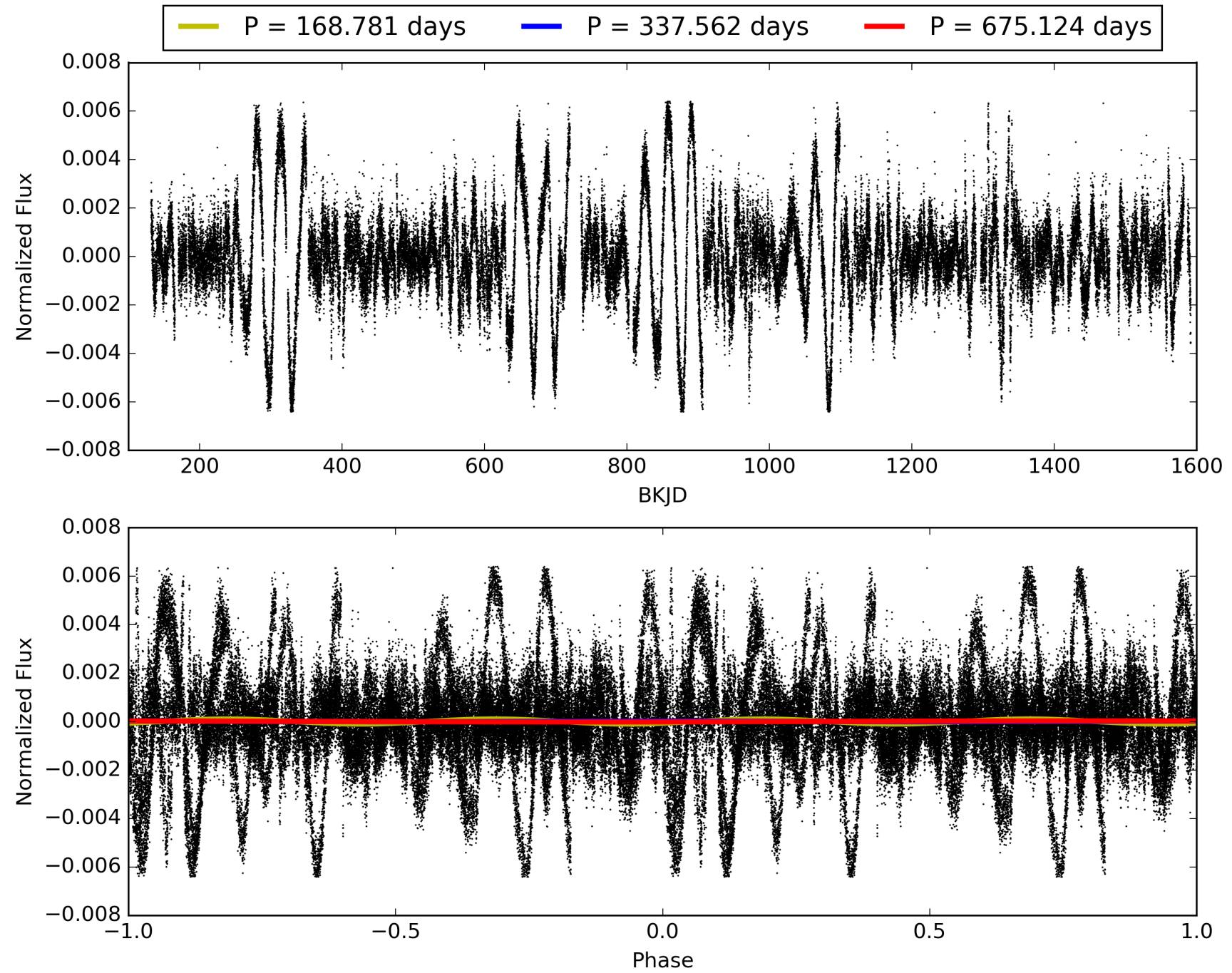
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:19:24 Z

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

TCE 008242064-01, PDC Light Curves

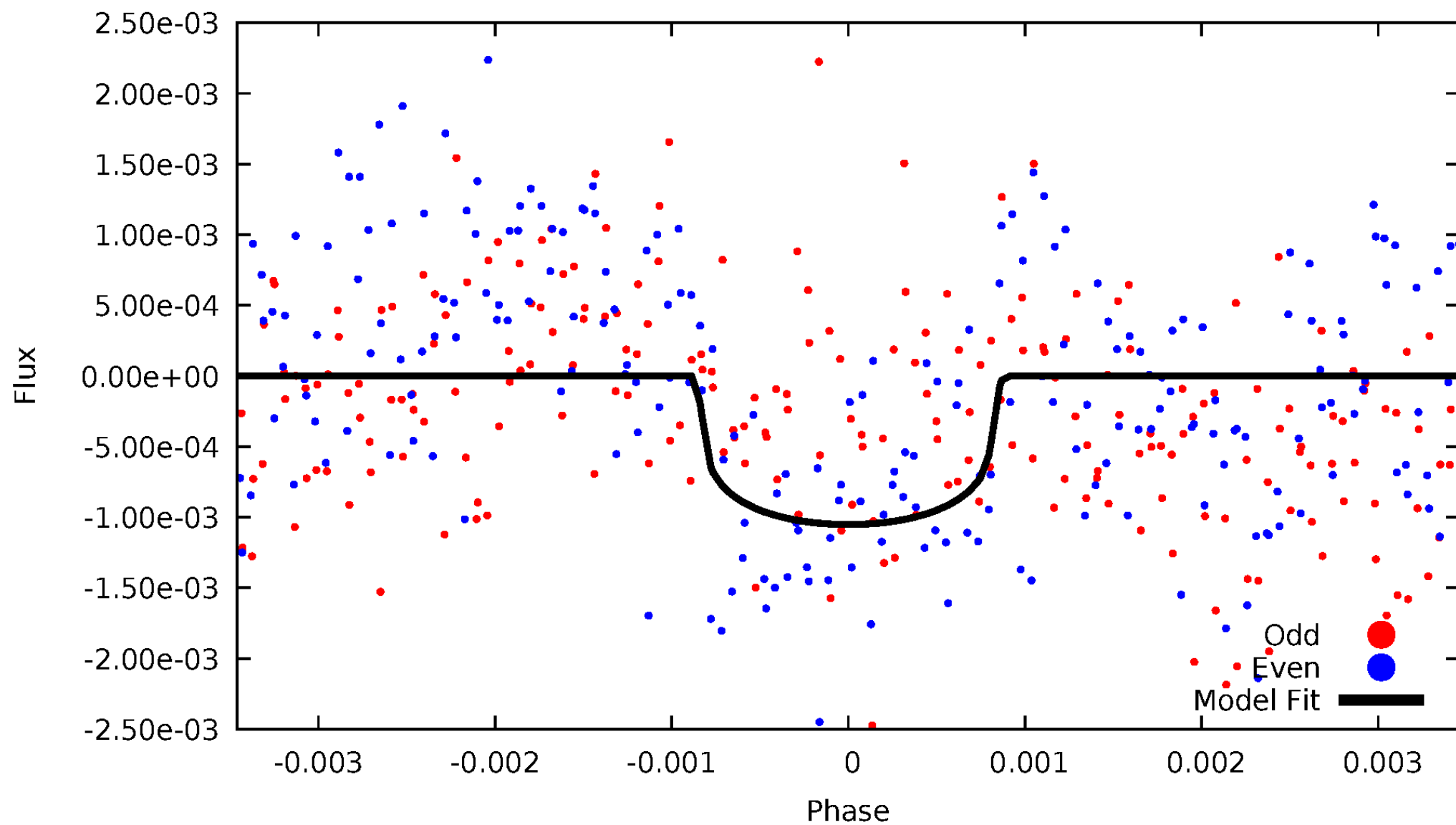


TCE 008242064-01



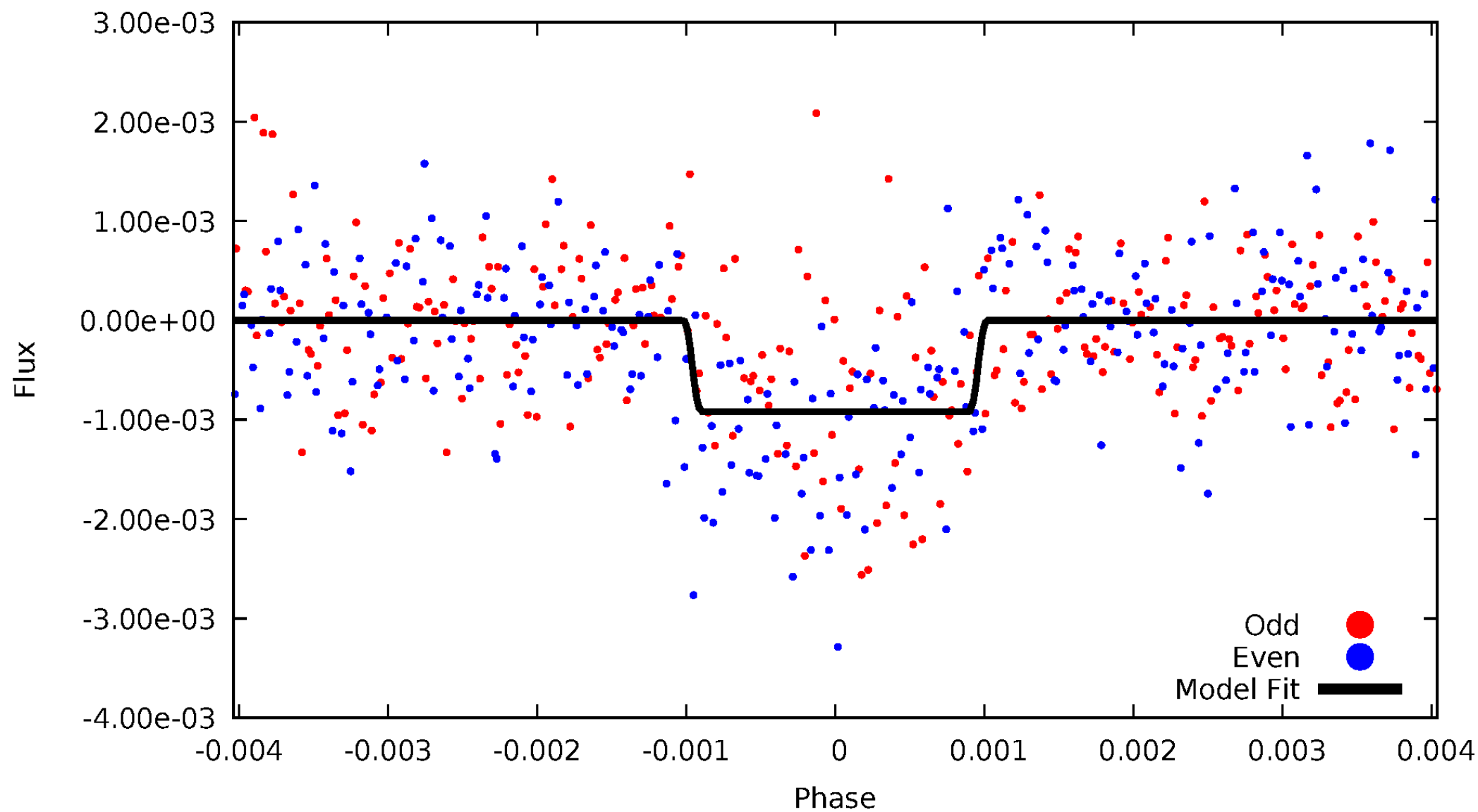
DV Odd/Even

TCE 008242064-01



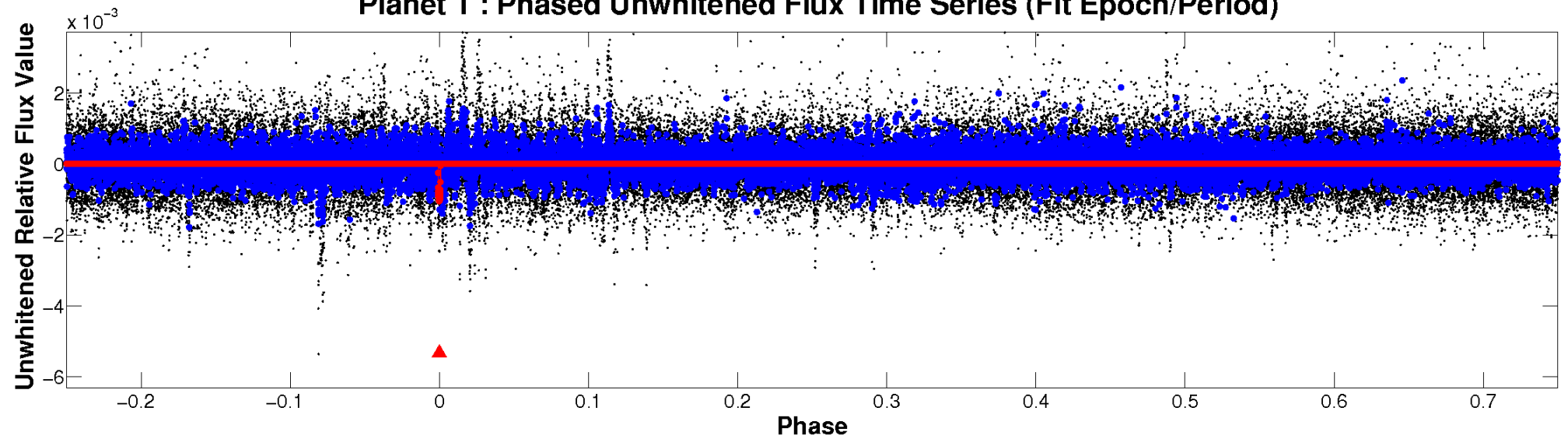
ALT Odd/Even

TCE 008242064-01

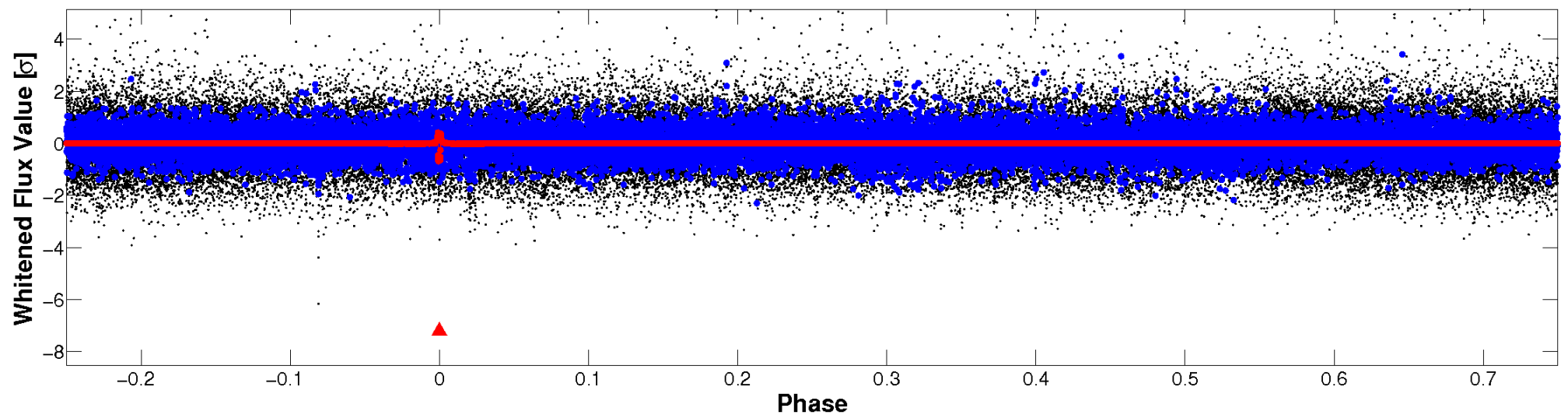


Non-Whitened Vs. Whitened Light Curve

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

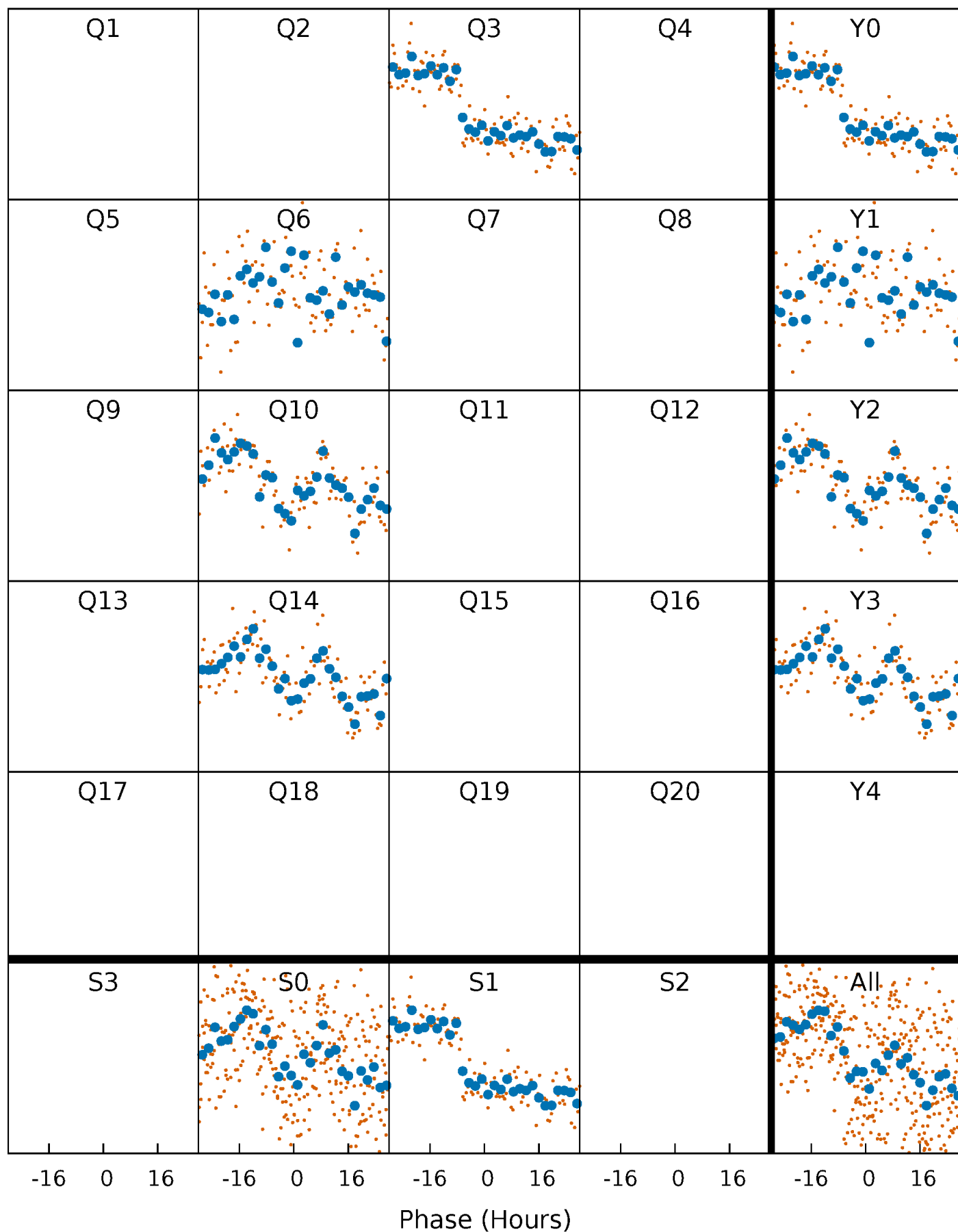


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



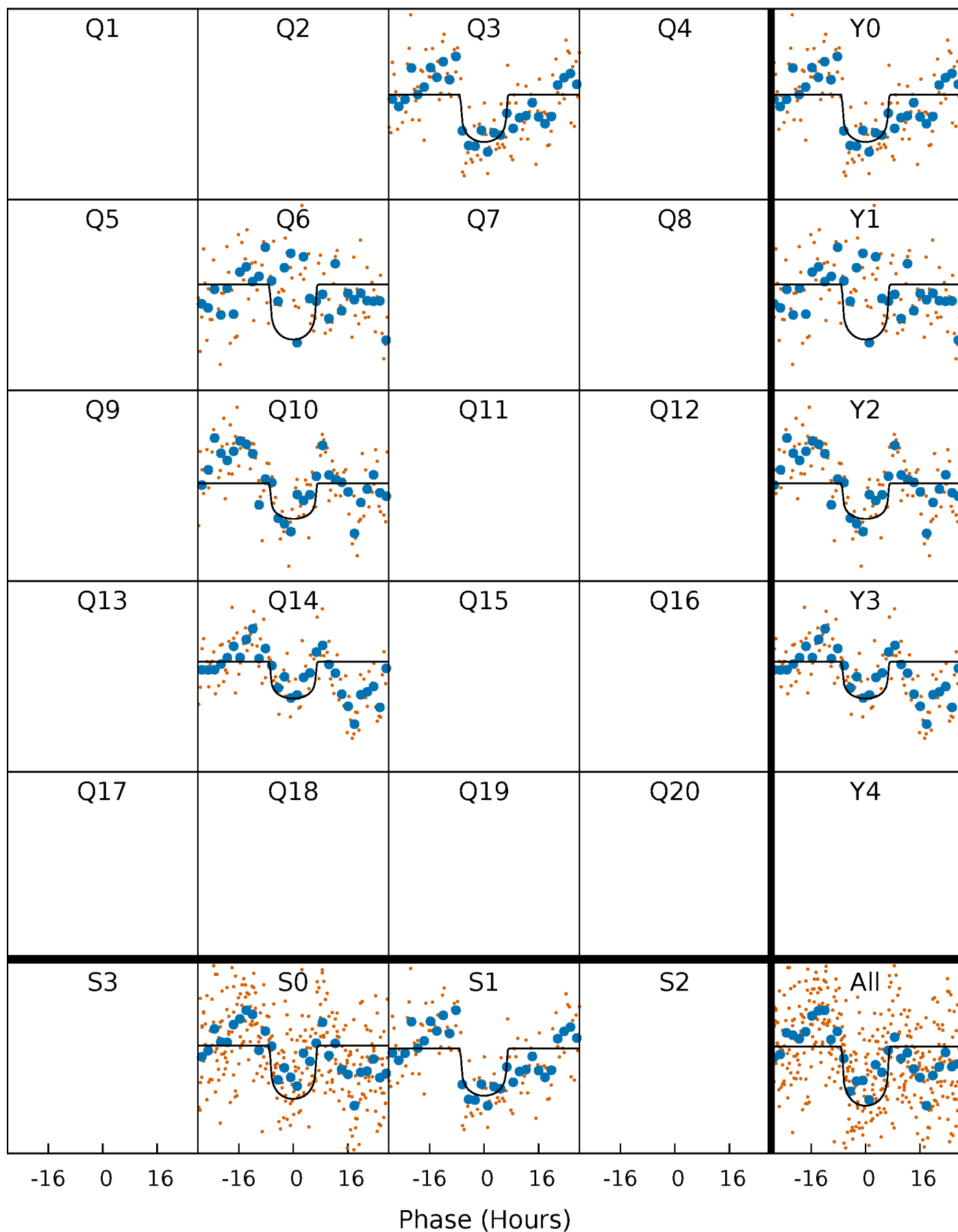
PDC Quarter-Phased Transit Curves

TCE 008242064-01 P=337.562000 Days $T_0=288.889665$ (BKJD)



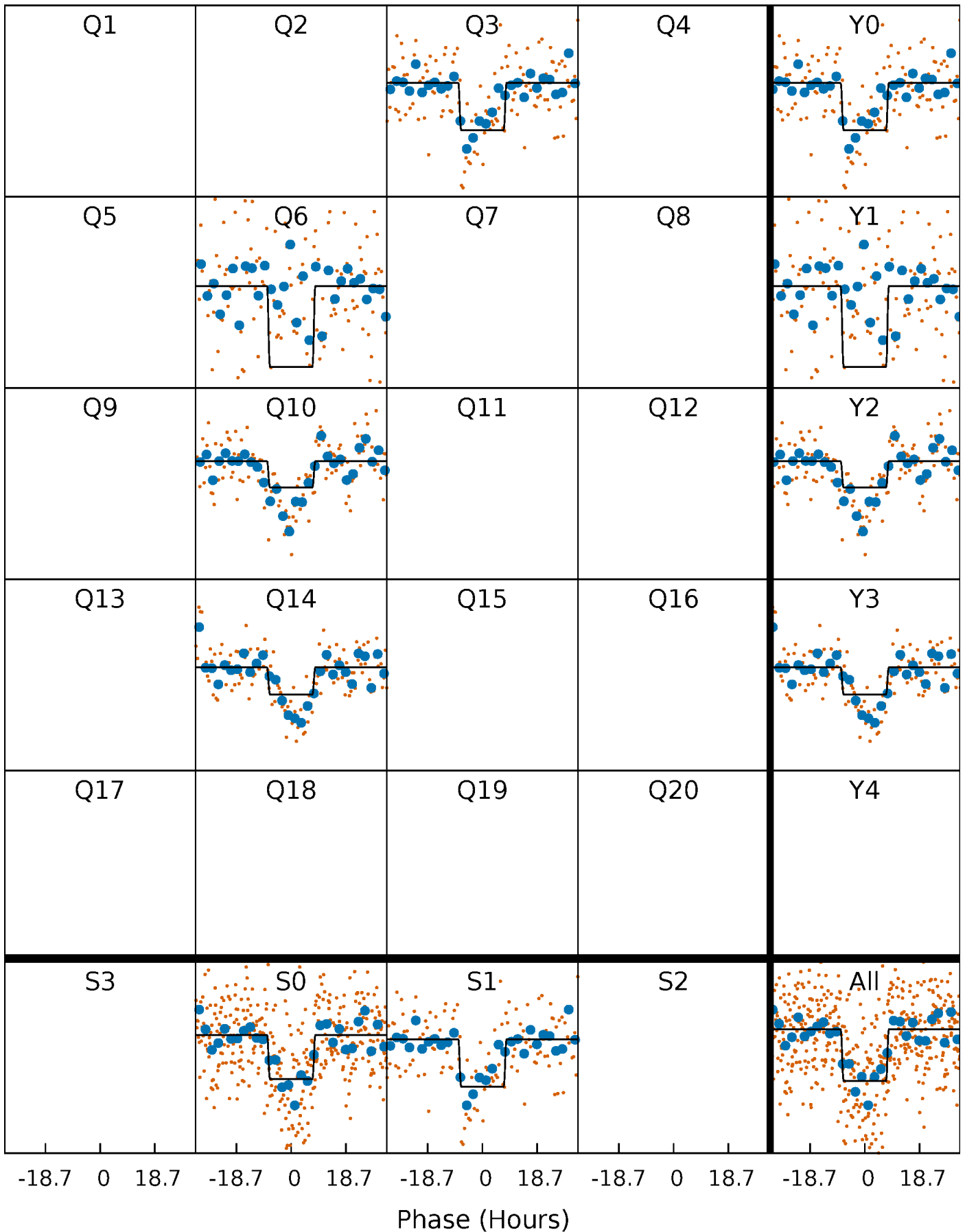
DV Quarter-Phased Transit Curves

TCE 008242064-01 P=337.562000 Days $T_0=288.889665$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

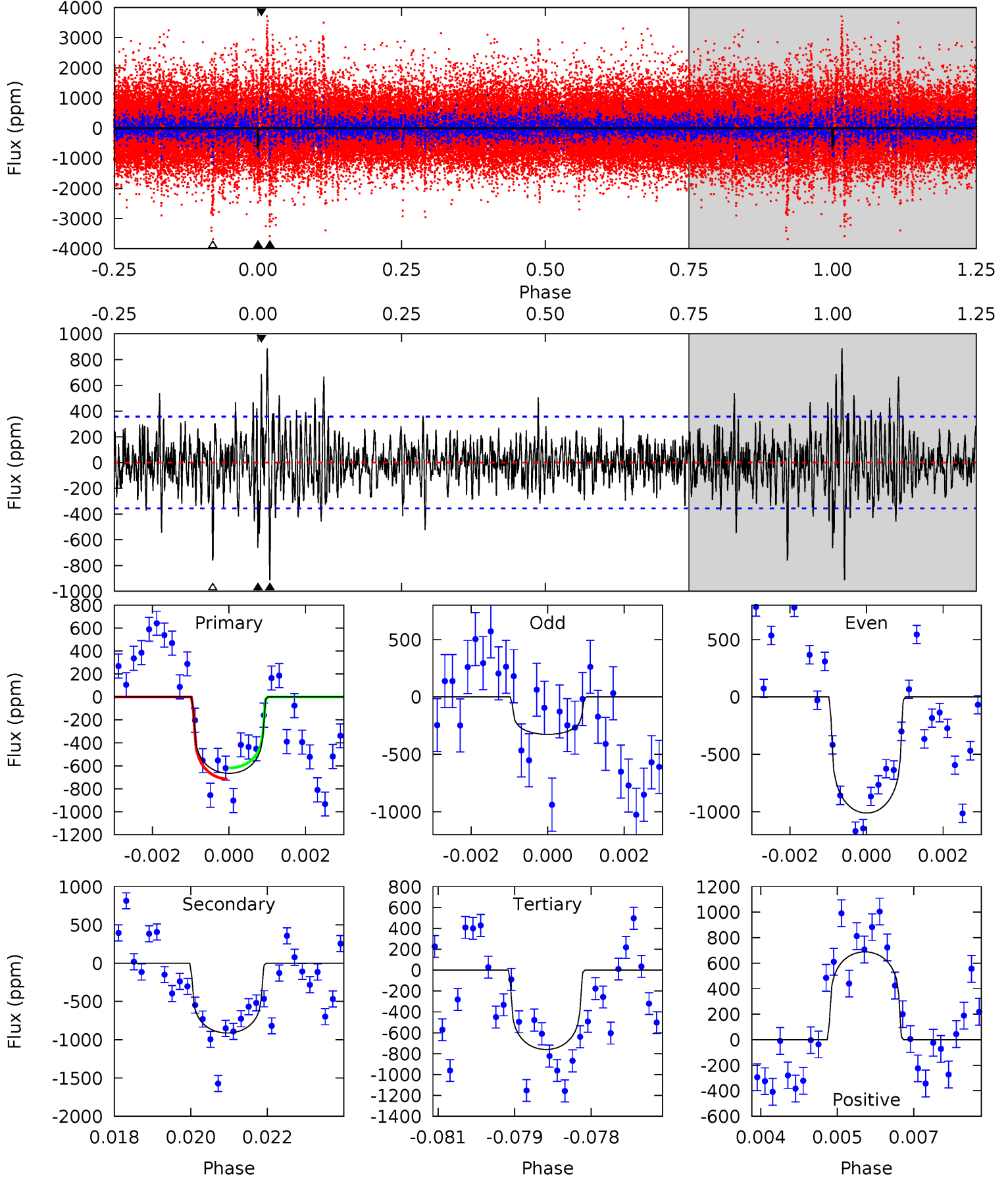
TCE 008242064-01 P=337.514733 Days $T_0=288.923326$ (BKJD)



DV Model-Shift Uniqueness Test

008242064-01, P = 337.562000 Days, E = 288.889665 Days

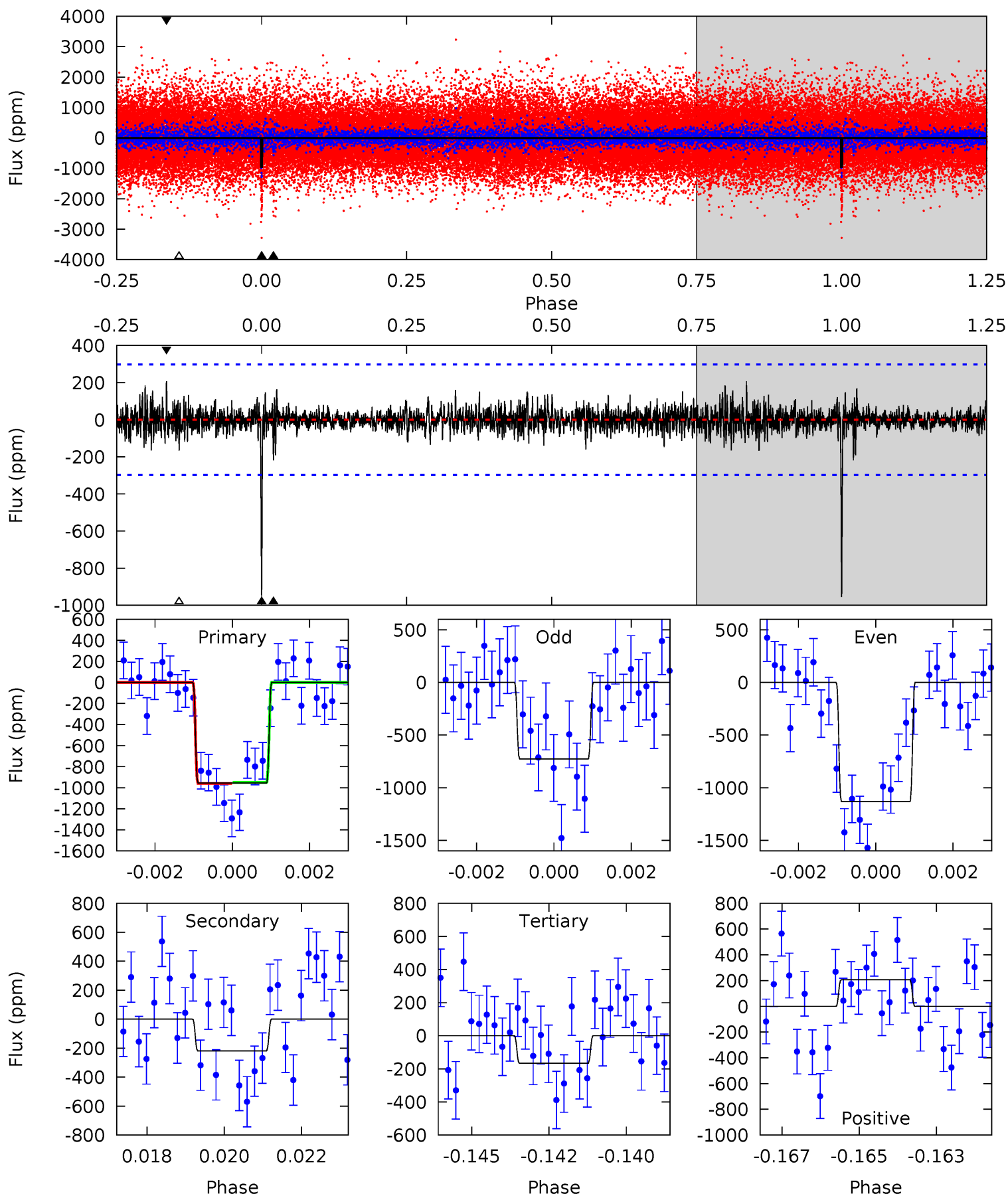
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.99	13.7	11.4	10.3	5.35	3.12	2.29	-1.41	-0.34	2.29	3.36	5.10	0.88	0.49	0.73



Alt Model-Shift Uniqueness Test

008242064-01, P = 337.514733 Days, E = 288.923326 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	3.92	2.98	3.70	5.33	3.09	0.77	14.1	13.4	0.94	0.22	3.66	0.87	0.18	0.08



Stellar Parameters For KIC 008242064

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3487^{+46}_{-46}	$4.908^{+0.040}_{-0.036}$	$-0.100^{+0.100}_{-0.100}$	$0.348^{+0.033}_{-0.037}$	$0.358^{+0.040}_{-0.044}$	$11.990^{+2.865}_{-1.927}$
	+1%/-1%	+1%/-1%	+100%/-100%	+9%/-11%	+11%/-12%	+24%/-16%
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 008242064-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-912 ± 67	$1.21^{+0.42}_{-0.46}$	154^{+3}_{-3}	3425^{+610}_{-303}	$157679^{+253339}_{-73564}$
Alt.	-219 ± 56	$1.16^{+0.47}_{-0.45}$	154^{+4}_{-3}	2812^{+408}_{-253}	39573^{+65319}_{-20237}

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

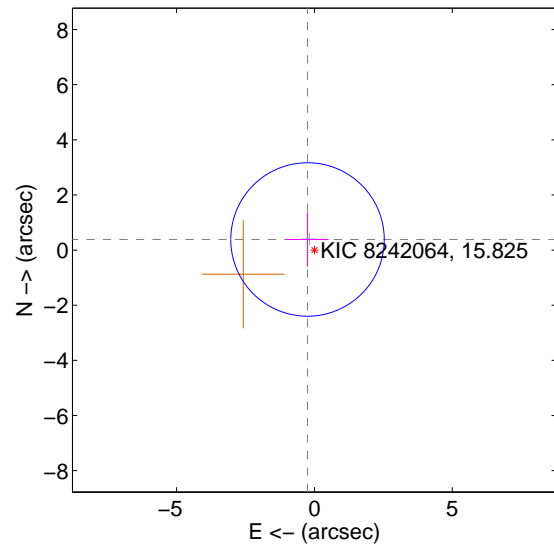
Supplemental centroid analysis for 008242064-01. Kepler magnitude: 15.82. Transit SNR 7.28

There are 1 quarters with good PRF difference image offsets

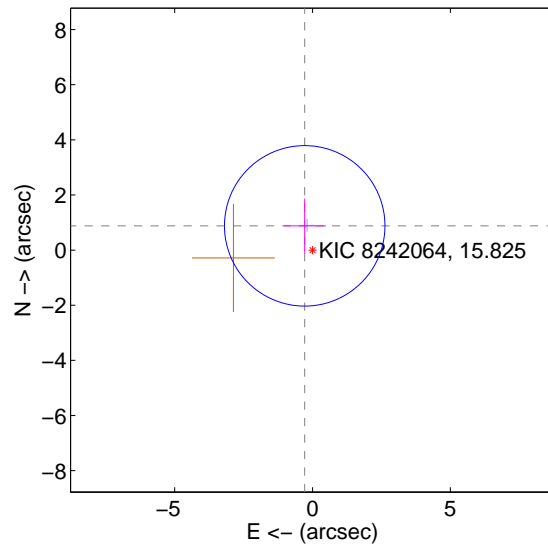
The direct PRF centroid is offset from the target star catalog position by about 0.66 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.460 ± 0.928	0.50	0.252 ± 0.766	0.385 ± 0.989
PRF-fit source offset from KIC position	0.924 ± 0.970	0.95	0.284 ± 0.766	0.880 ± 0.989
photometric centroid source offset	1.71 ± 1.87	0.92	1.33 ± 1.72	1.08 ± 2.07

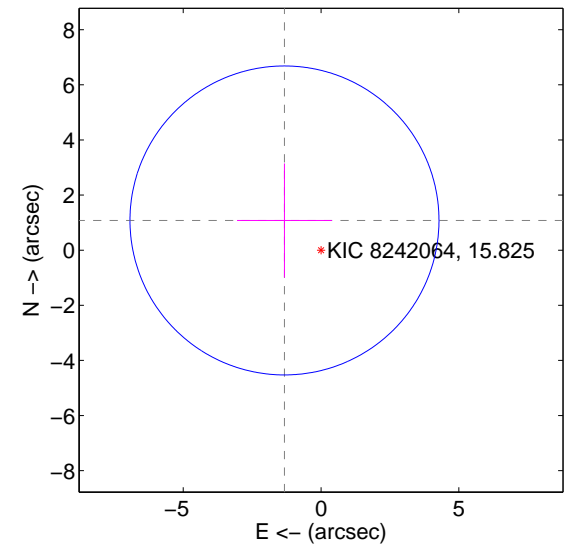
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

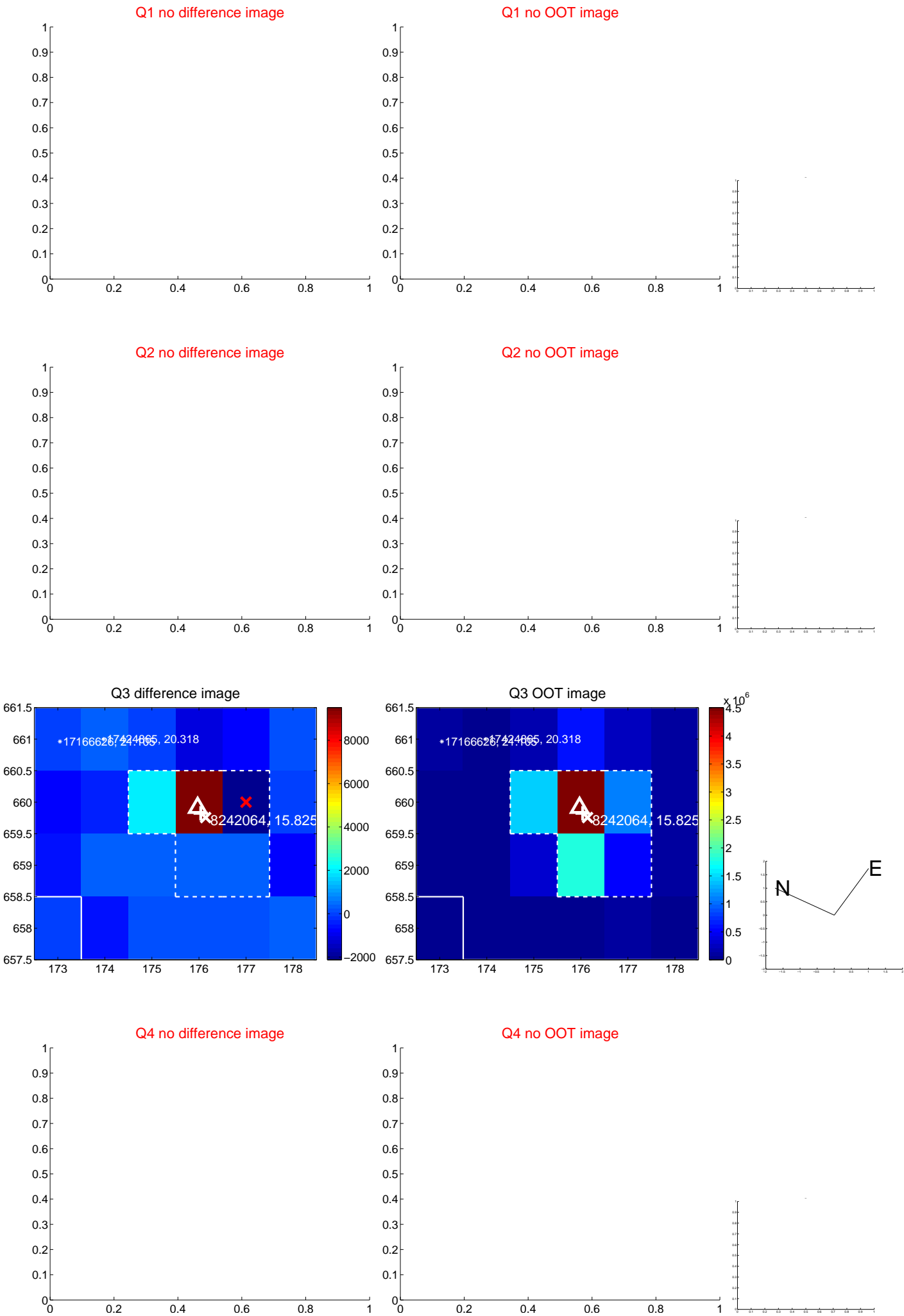


offset from photometric centroids

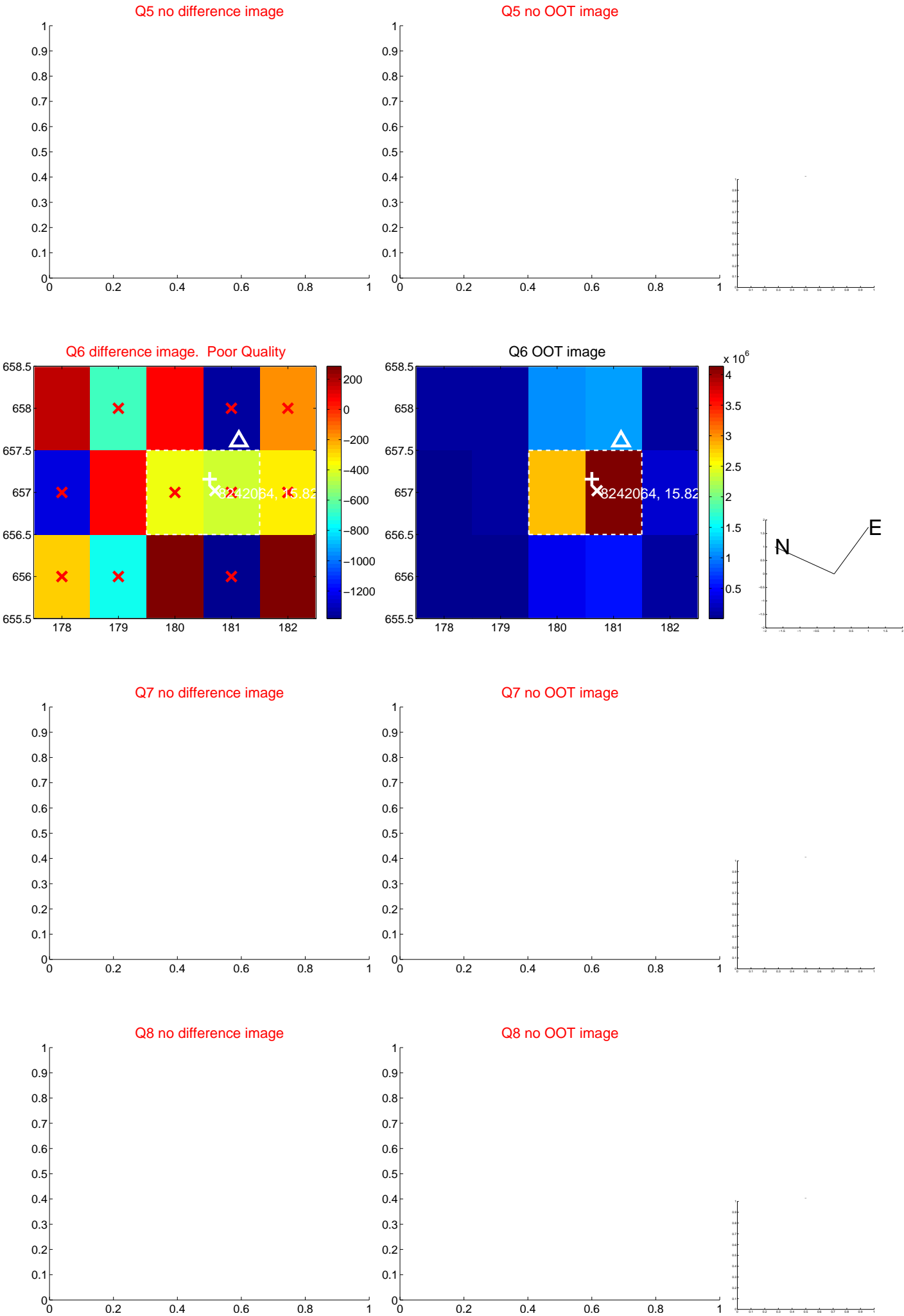


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

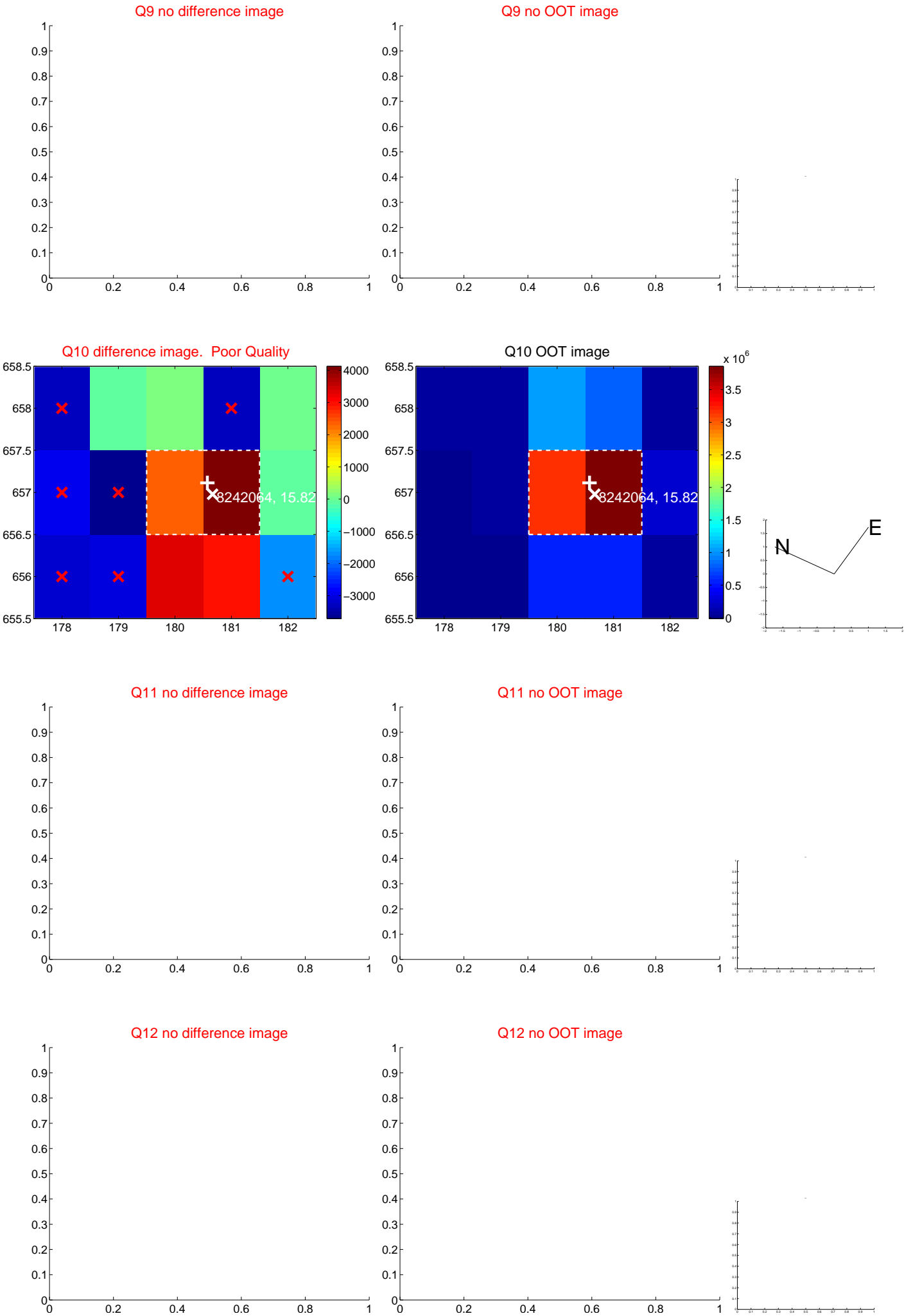
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



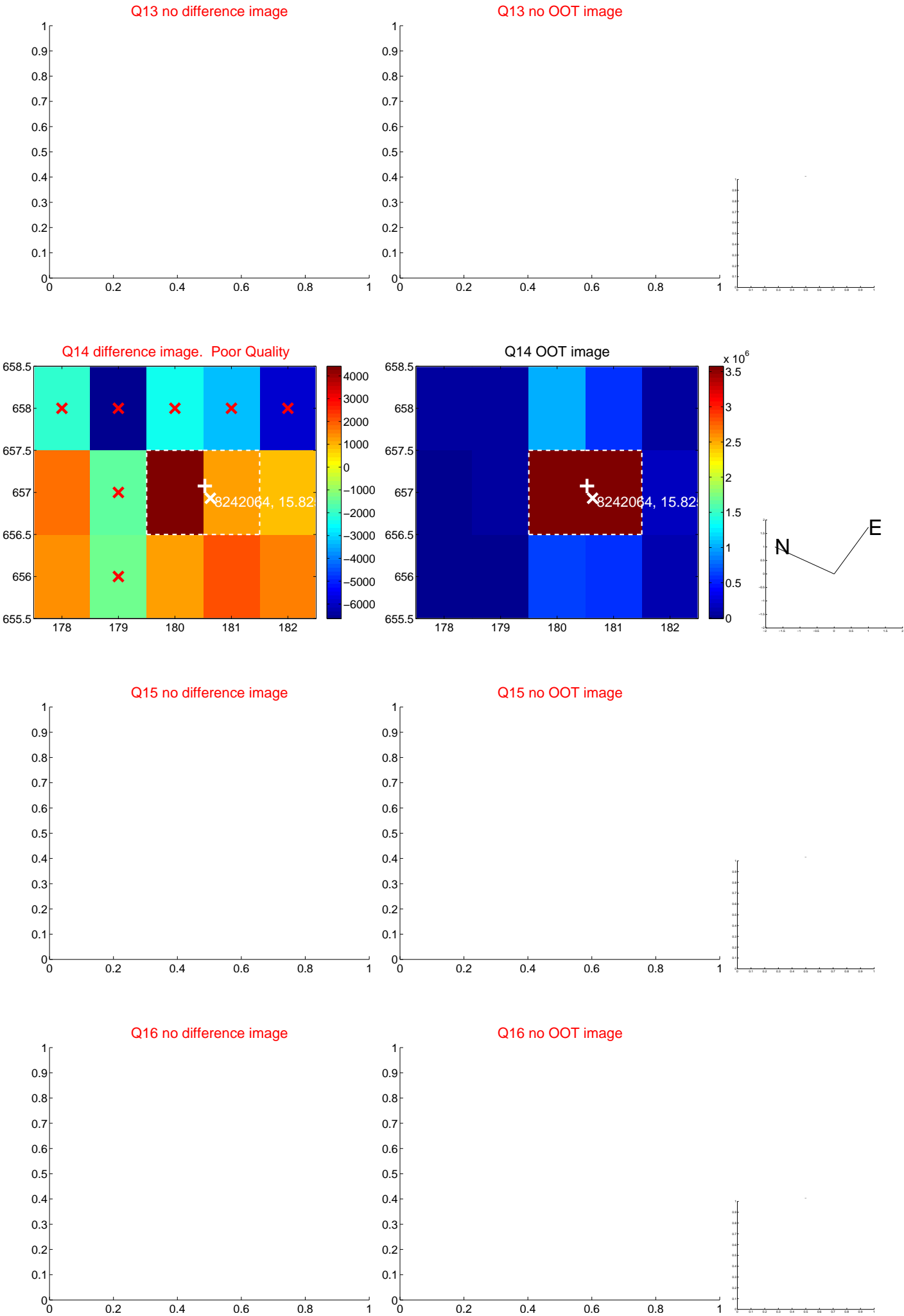
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



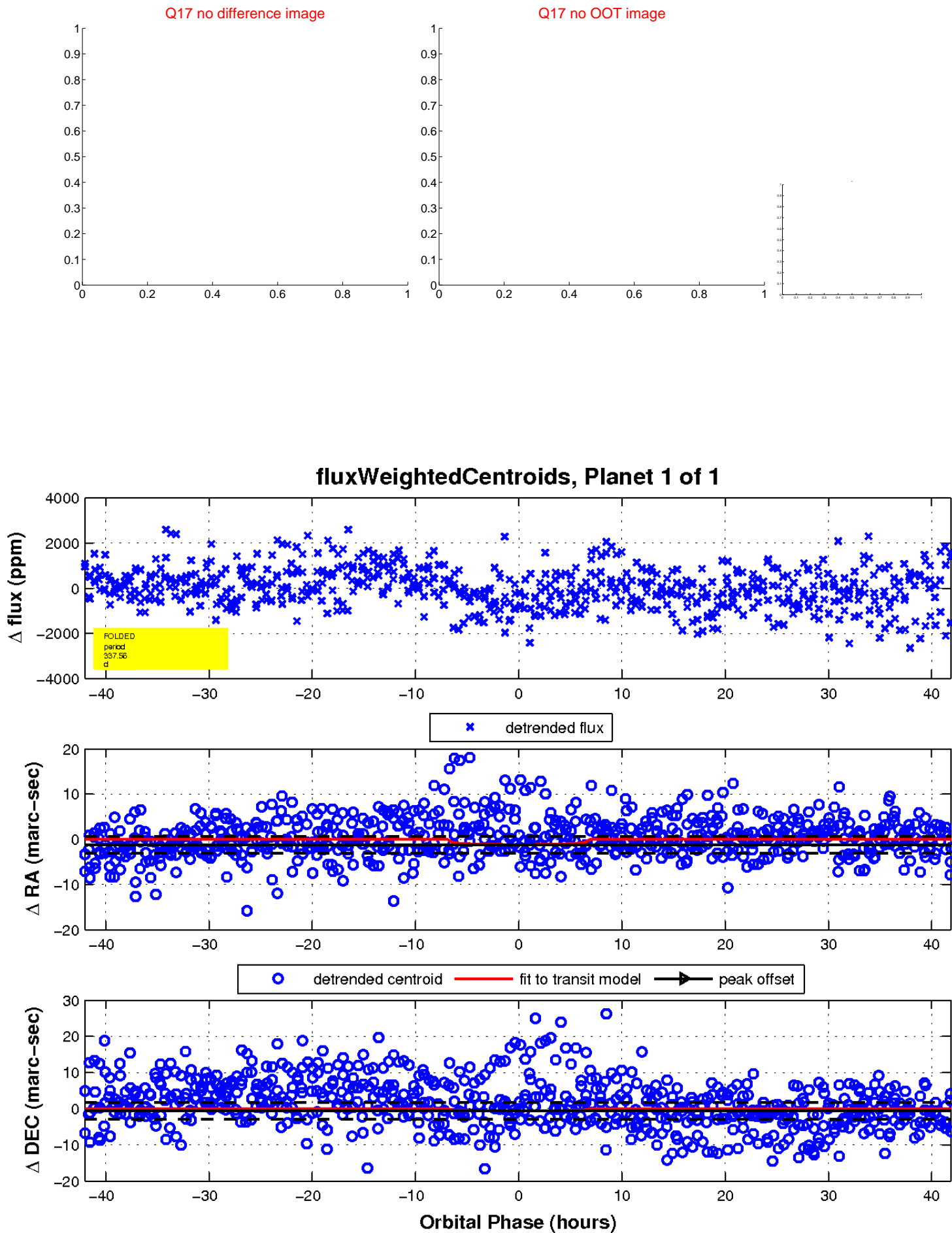
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

