

KIC 008812264

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})
008812264-01	OBS	No	373.984096	173.071165	174.5	15.783	7.1	6.9	1.04	6120	1.47	1.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008812264-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

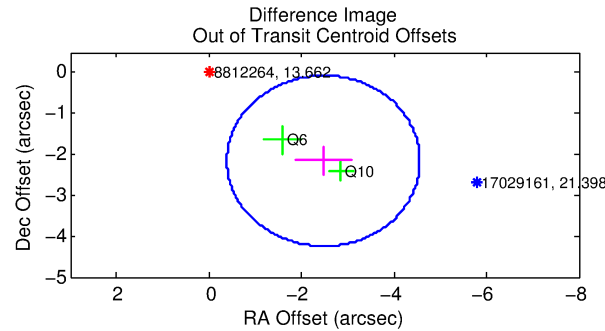
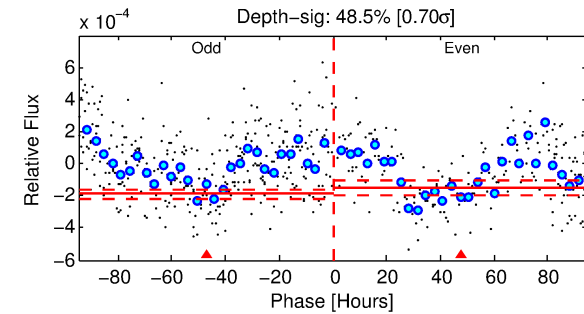
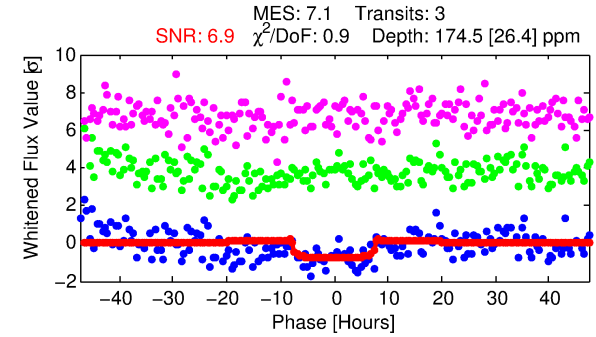
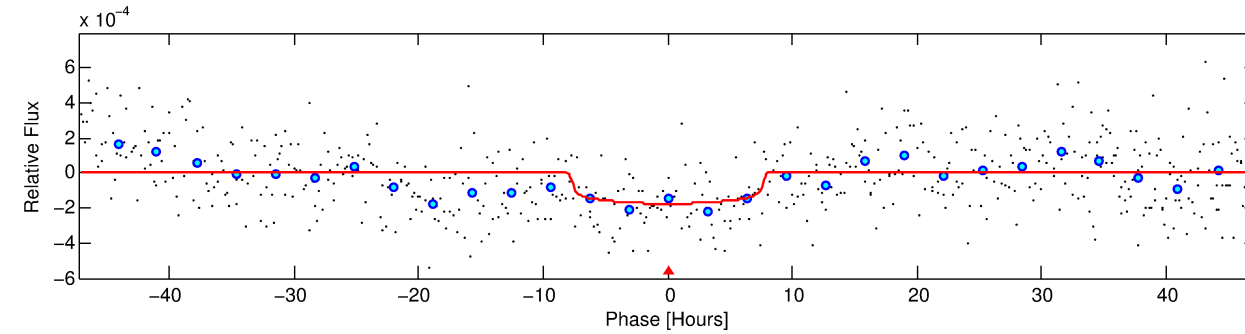
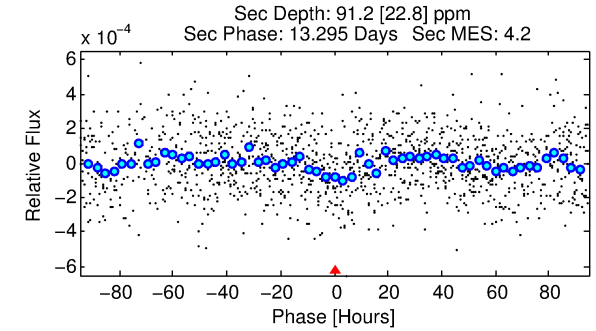
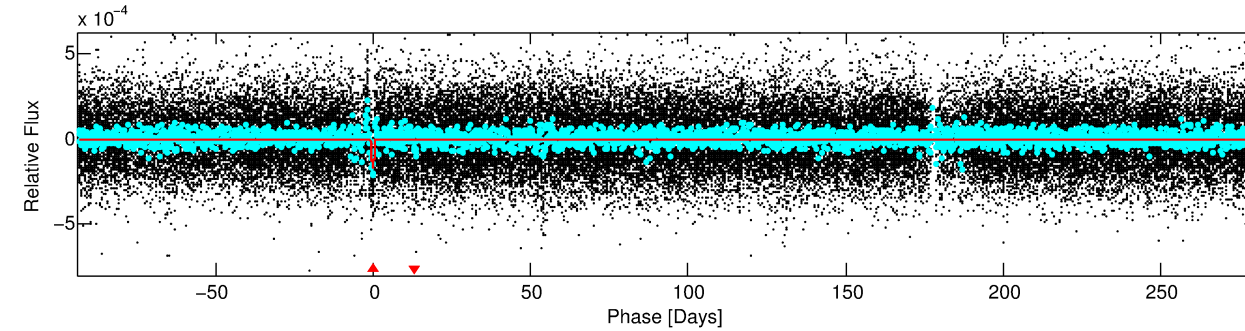
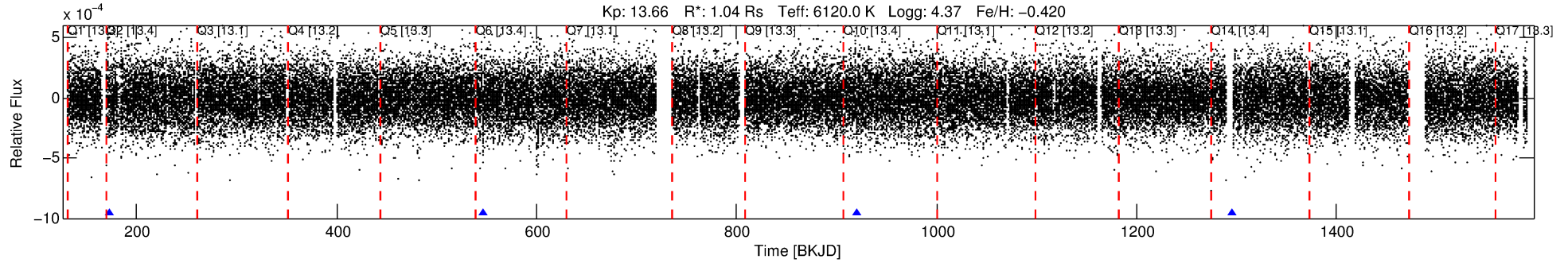
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008812264-01

No Significant Match Found

DV One-Page Summary

KIC: 8812264 Candidate: 1 of 1 Period: 373.984 d



DV Fit Results:

Period = 373.98410 [0.01863] d
Epoch = 173.0712 [0.0266] BKJD
Rp/R* = 0.0129 [0.0070]
a/R* = 134.38 [378.68]
b = 0.69 [2.16]
Seff = 1.40 [0.50]
Teff = 277 [25] K
Rp = 1.47 [0.90] Re
a = 0.9902 [0.2317] AU
Ag = 22746.61 [26516.36] [0.86σ]
Teffp = 5264 [1477] K [3.38σ]

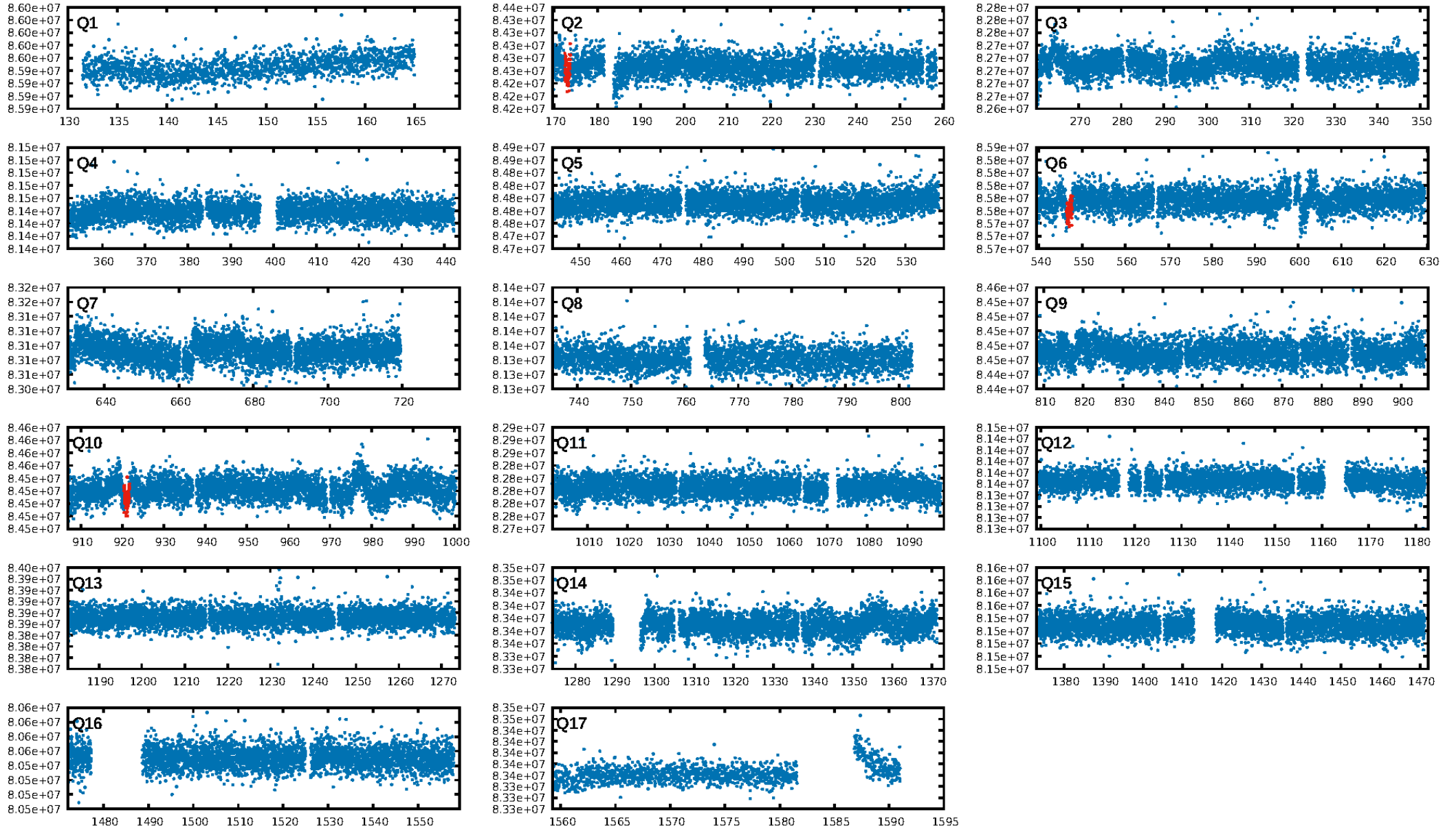
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.31e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3331
Centroid-sig: 5.9%
Centroid-so: 3.217 arcsec [1.31σ]
OotOffset-rm: 3.282 arcsec [4.72σ]
KicOffset-rm: 3.124 arcsec [5.02σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

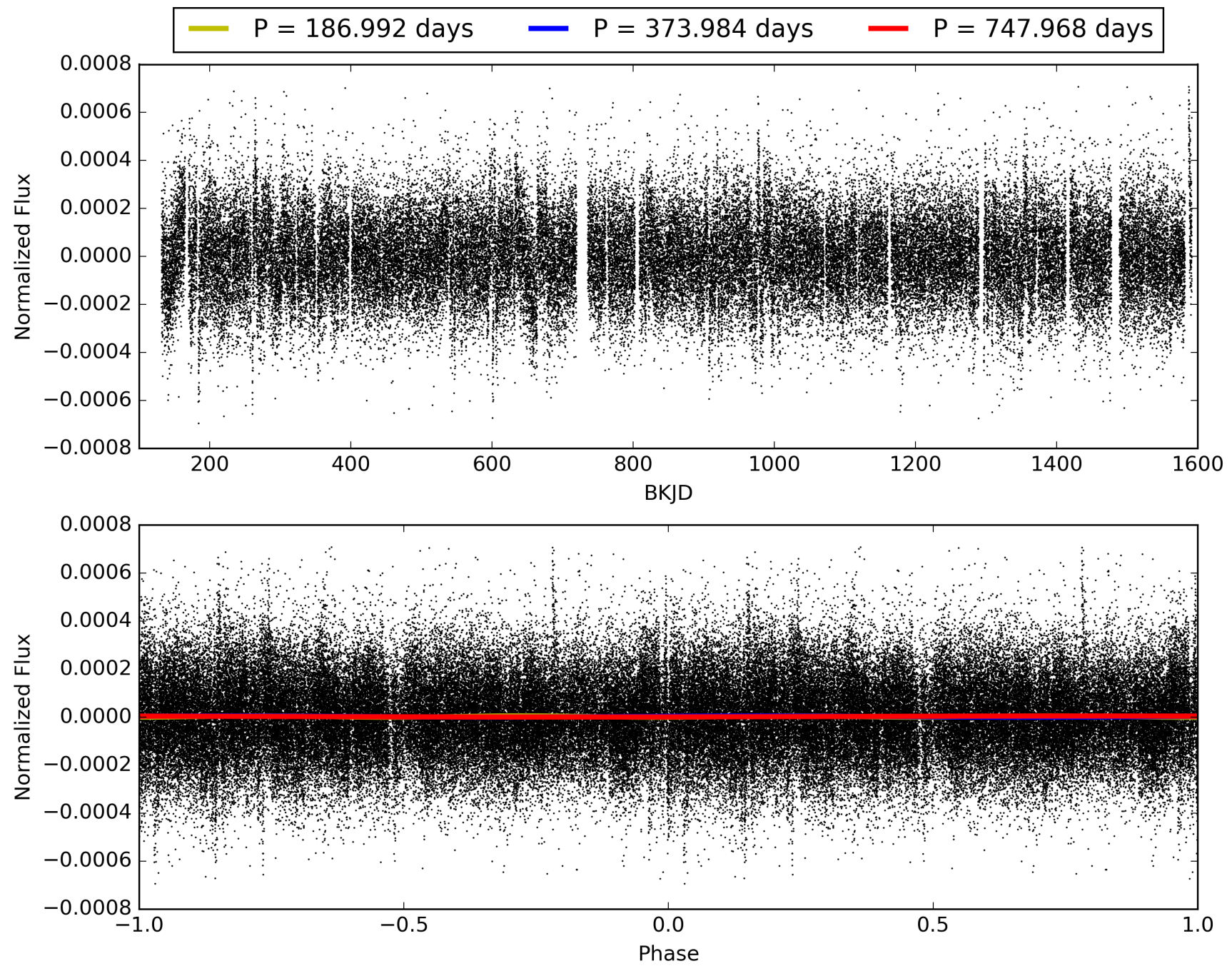
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:10:30 Z

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

TCE 008812264-01, PDC Light Curves

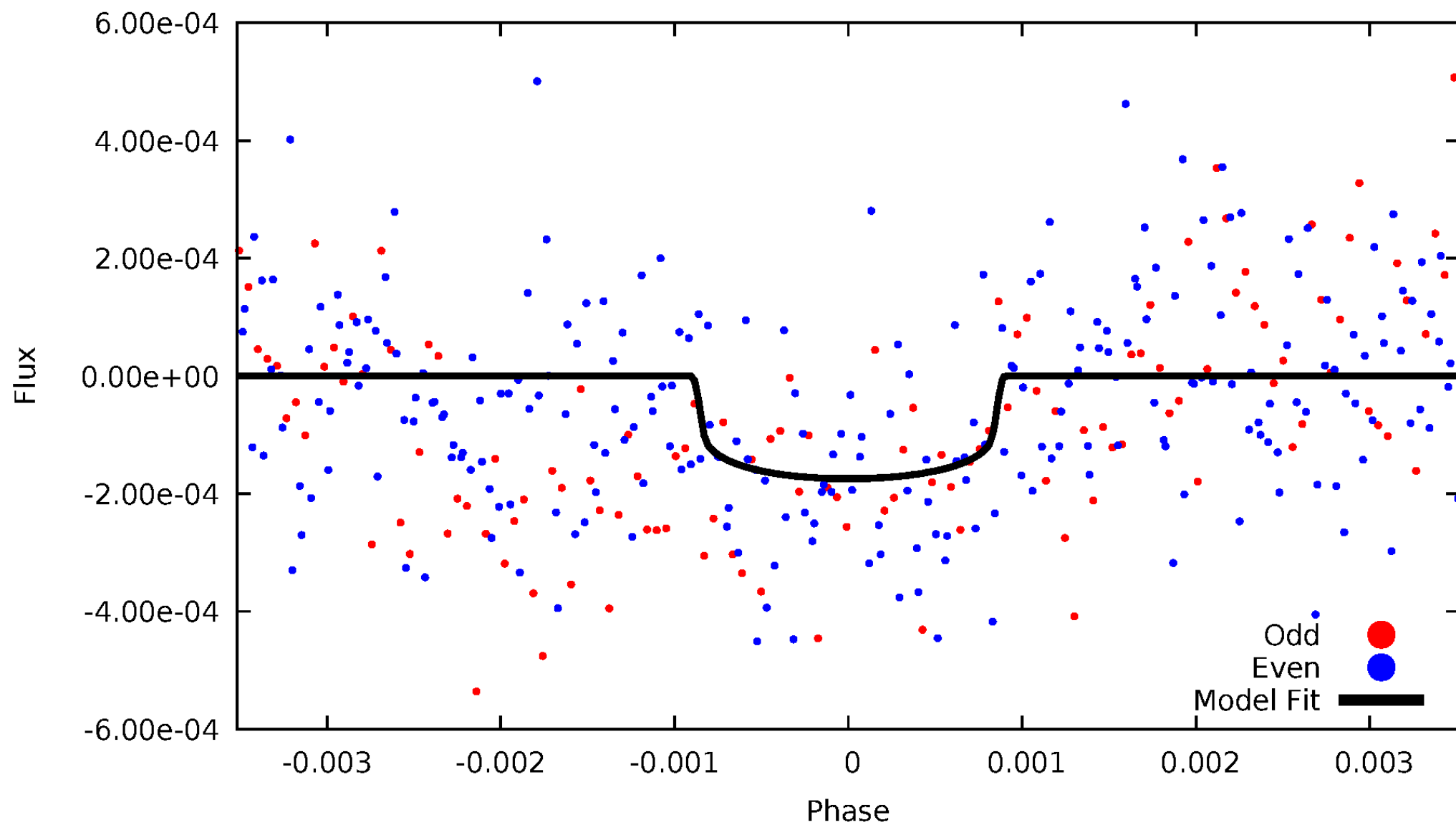


TCE 008812264-01



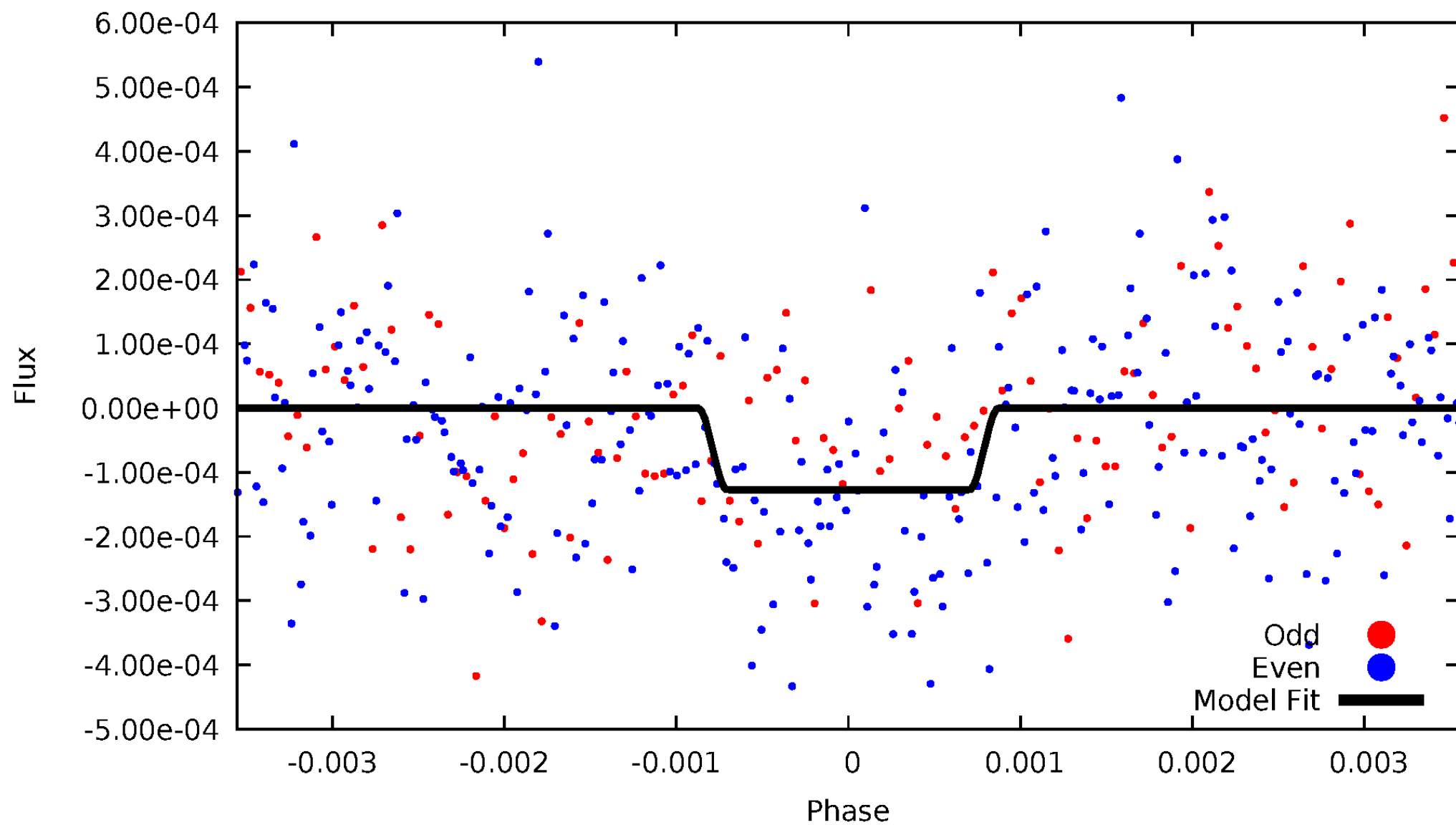
DV Odd/Even

TCE 008812264-01

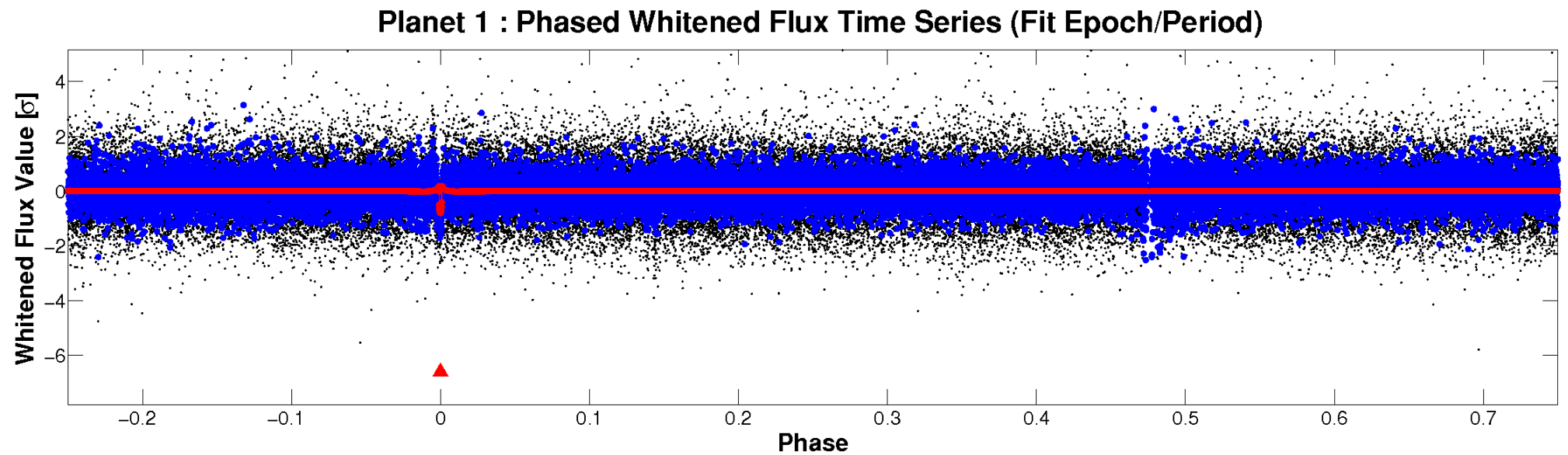
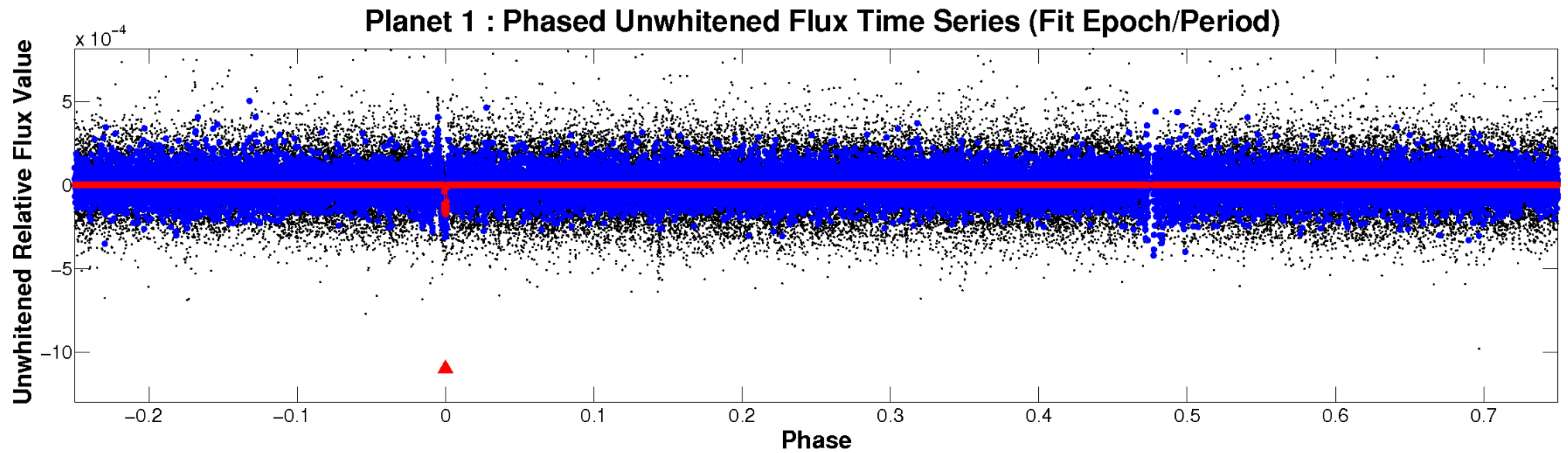


ALT Odd/Even

TCE 008812264-01



Non-Whitened Vs. Whitened Light Curve



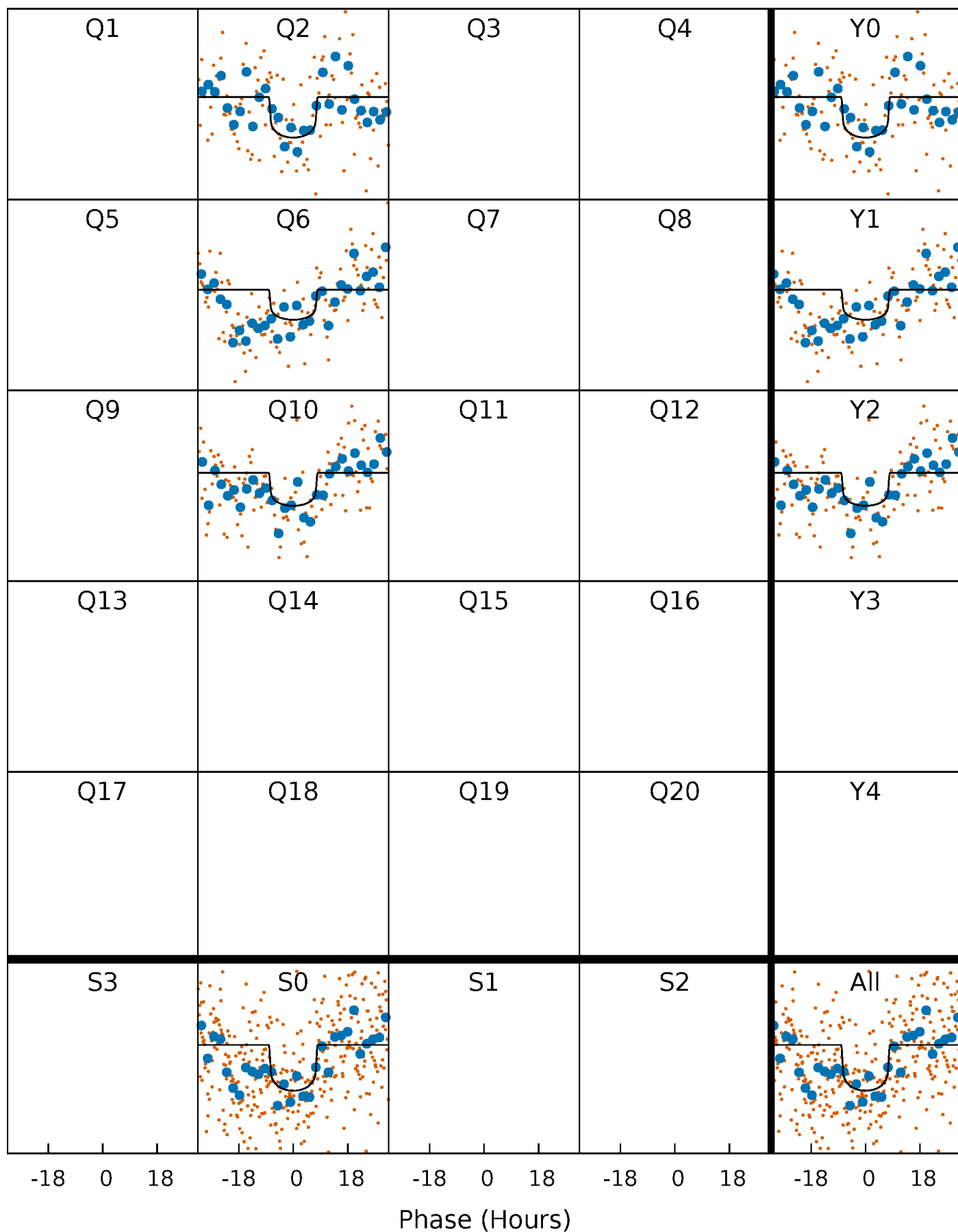
PDC Quarter-Phased Transit Curves

TCE 008812264-01 P=373.984096 Days $T_0=173.071165$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008812264-01 P=373.984096 Days $T_0=173.071165$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

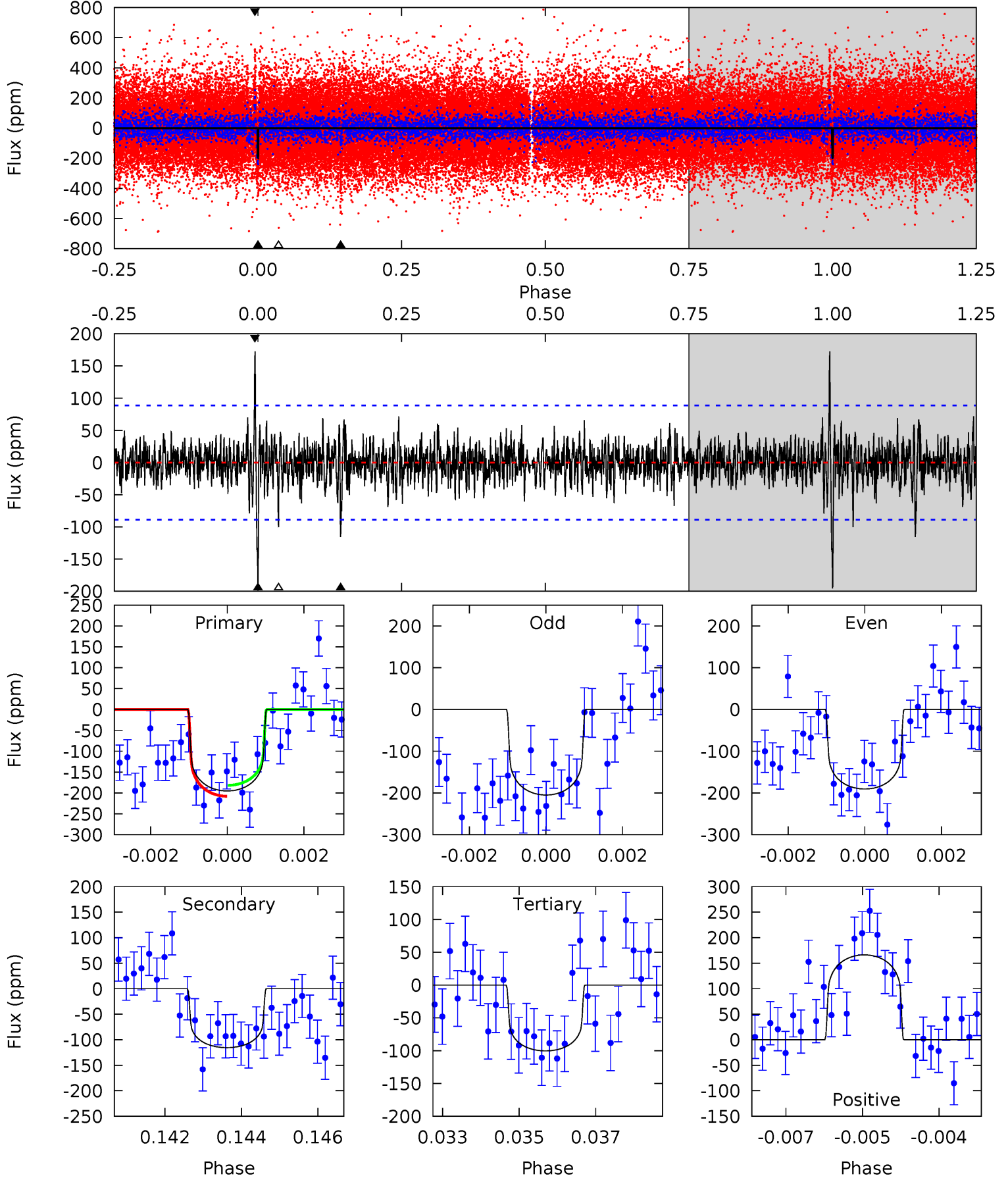
TCE 008812264-01 P=373.988637 Days $T_0=173.075303$ (BKJD)



DV Model-Shift Uniqueness Test

008812264-01, P = 373.984096 Days, E = 173.071165 Days

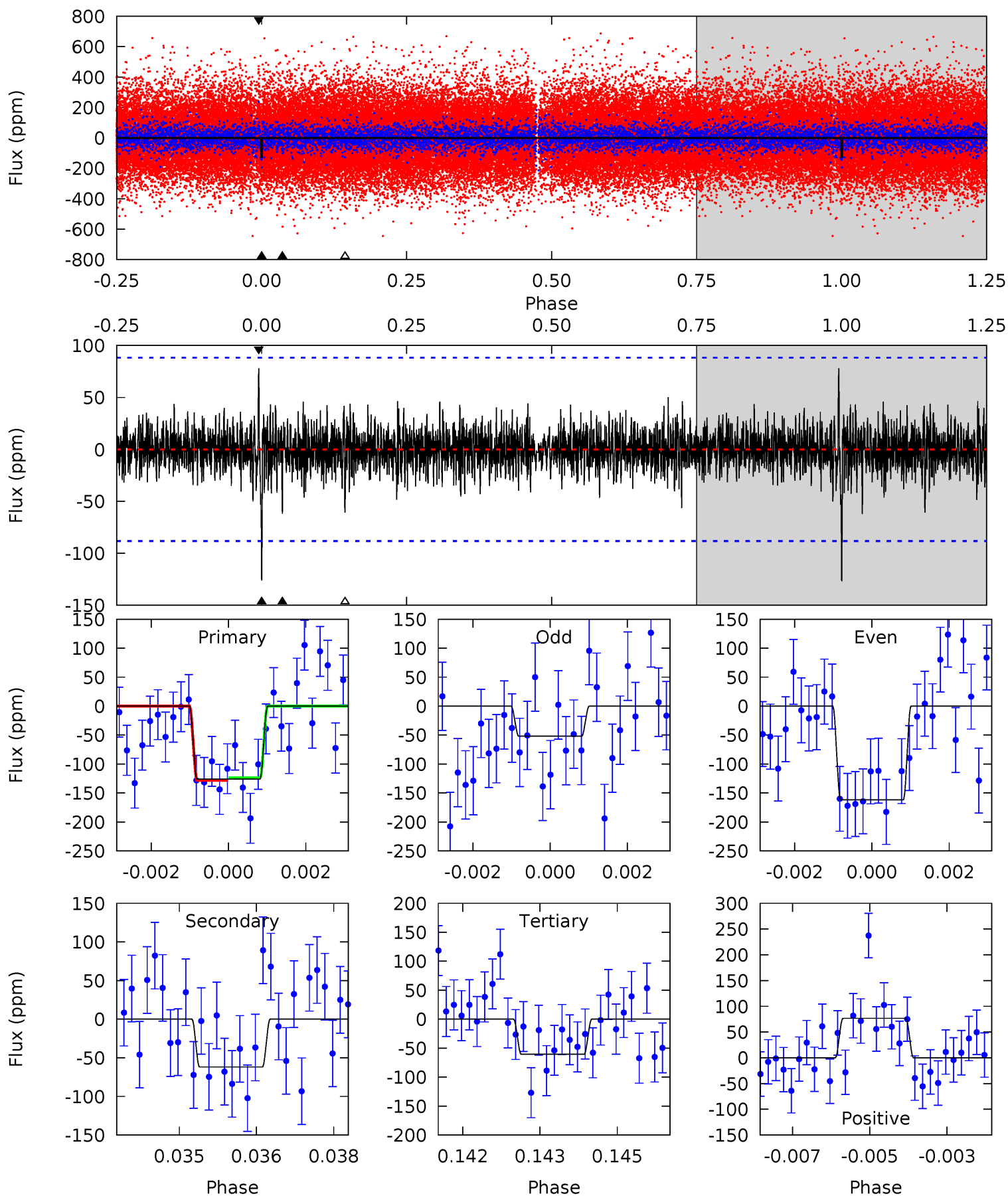
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	6.96	6.05	10.0	5.35	3.13	1.34	5.71	1.74	0.91	-3.06	0.41	0.95	0.47	0.79



Alt Model-Shift Uniqueness Test

008812264-01, P = 373.988637 Days, E = 173.075303 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.65	3.76	3.68	4.65	5.35	3.13	0.91	3.97	3.00	0.08	-0.89	3.13	0.86	0.38	0.15



Stellar Parameters For KIC 008812264

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6120^{+165}_{-184}	$4.367^{+0.132}_{-0.182}$	$-0.420^{+0.300}_{-0.300}$	$1.044^{+0.294}_{-0.181}$	$0.927^{+0.129}_{-0.094}$	$1.146^{+0.670}_{-0.572}$
	+3%/-3%	+3%/-4%	+71%/-71%	+28%/-17%	+14%/-10%	+58%/-50%
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 008812264-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-116 ± 17	$1.50^{+0.82}_{-0.80}$	390^{+27}_{-22}	5591^{+2821}_{-983}	$28999^{+100609}_{-18237}$
Alt.	-62 ± 16	$1.34^{+0.86}_{-0.71}$	389^{+28}_{-21}	5086^{+2273}_{-879}	17729^{+71145}_{-11004}

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

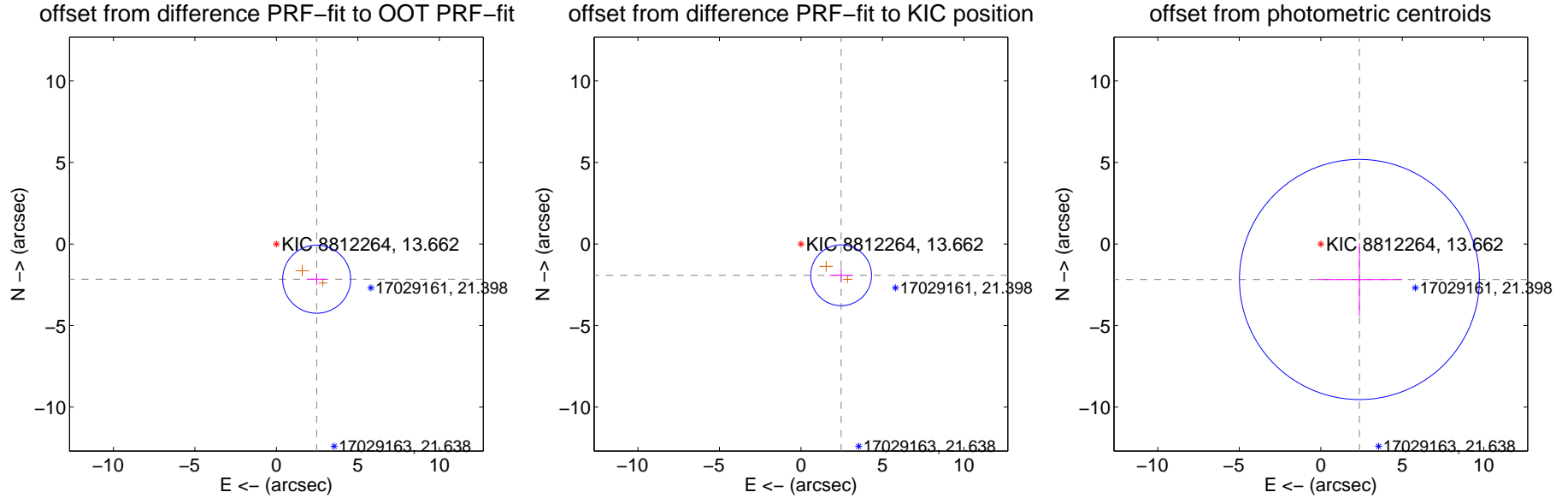
DV Centroid Data

Supplemental centroid analysis for 008812264-01. Kepler magnitude: 13.66. Transit SNR 6.91

There are 0 quarters with good PRF difference image offsets

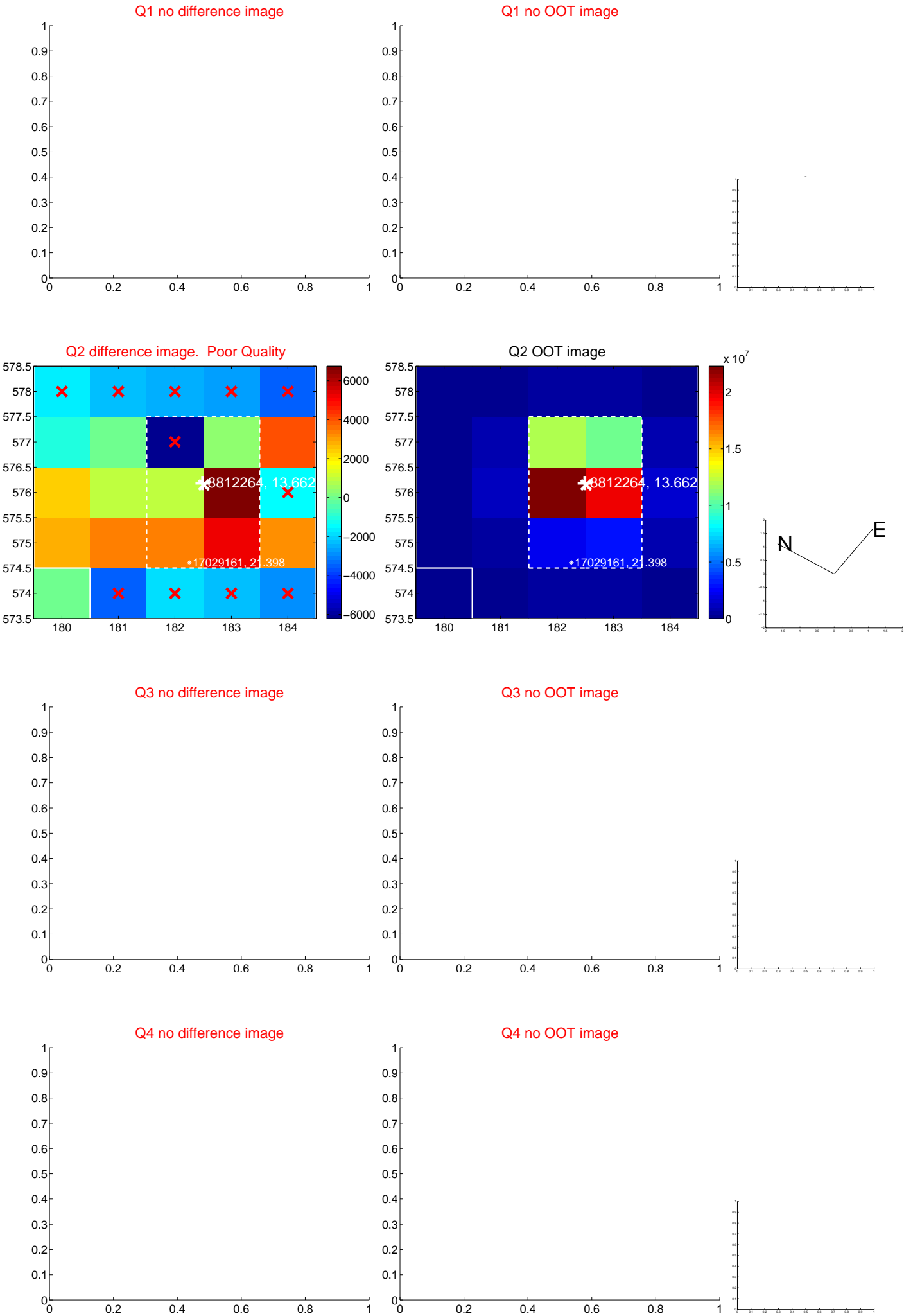
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.282 ± 0.696	4.72	-2.472 ± 0.609	-2.158 ± 0.366
PRF-fit source offset from KIC position	3.124 ± 0.622	5.02	-2.467 ± 0.711	-1.917 ± 0.435
photometric centroid source offset	3.22 ± 2.45	1.31	-2.37 ± 2.62	-2.18 ± 2.24

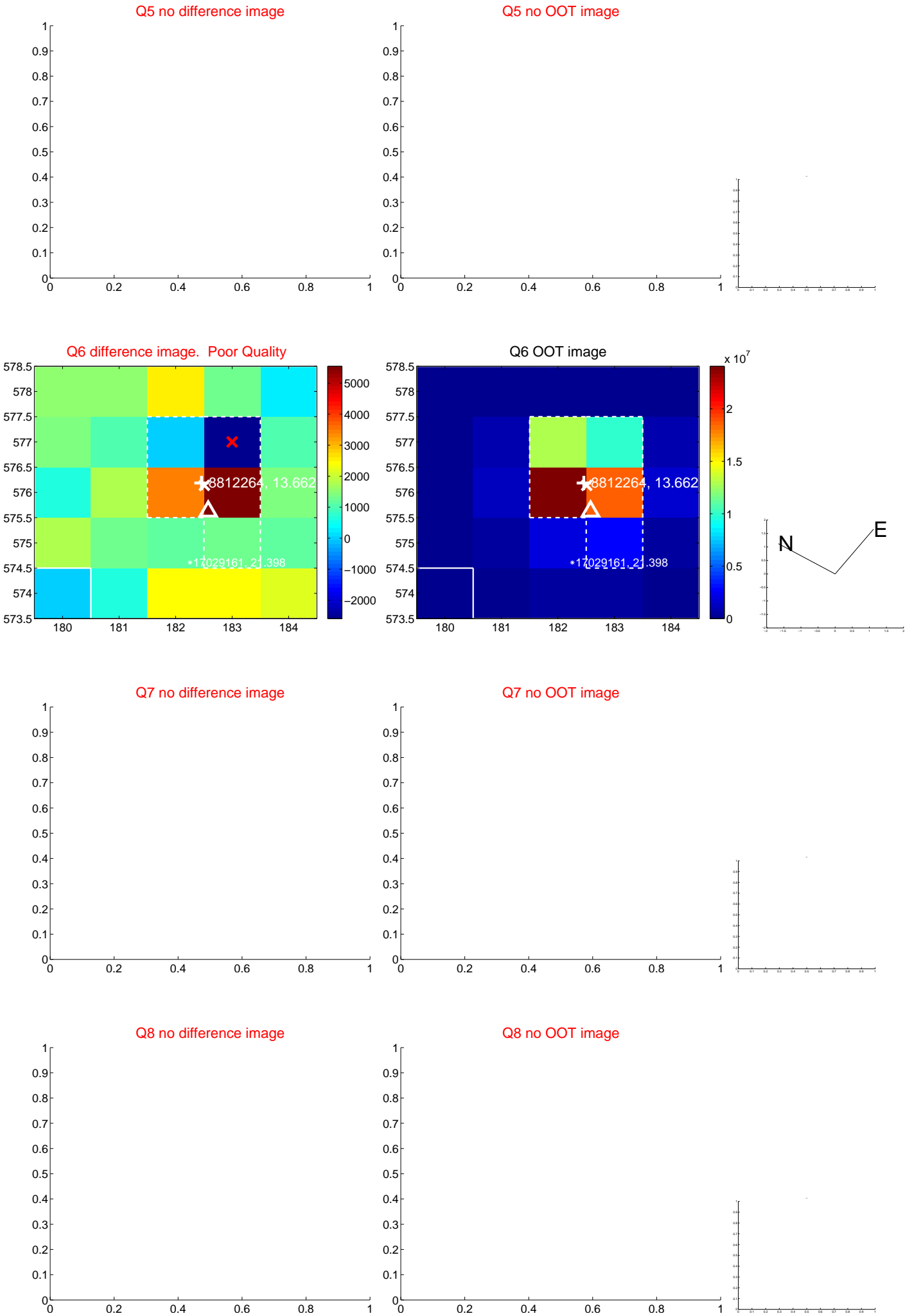


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

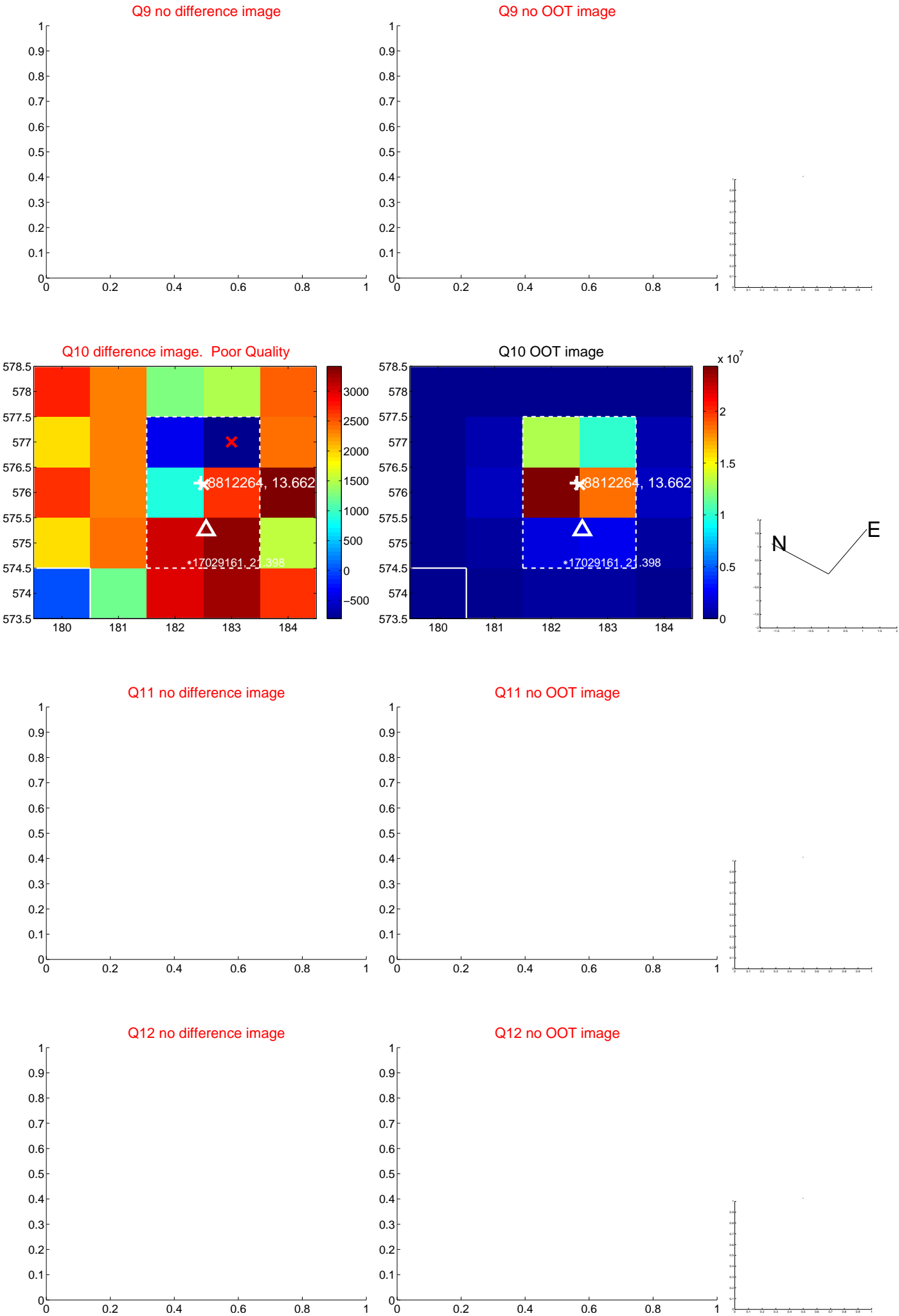
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



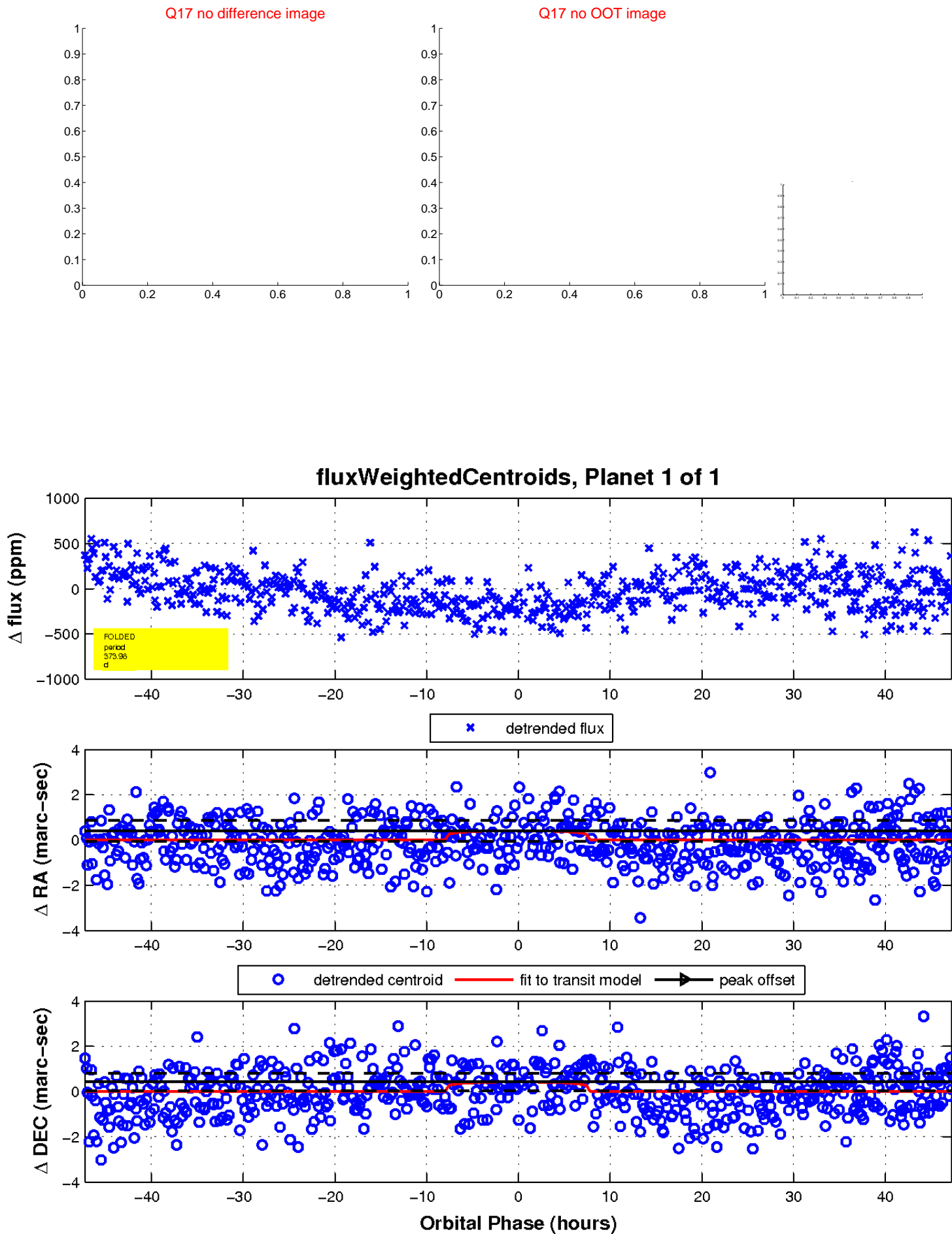
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white \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.



UKIRT Image

Declination

