

KIC 008361237

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})
008361237-01	OBS	No	378.515667	175.326318	682.9	28.746	15.0	14.0	0.95	5763	2.80	0.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008361237-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA--LPP_DV--INCONSISTENT_TRANS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

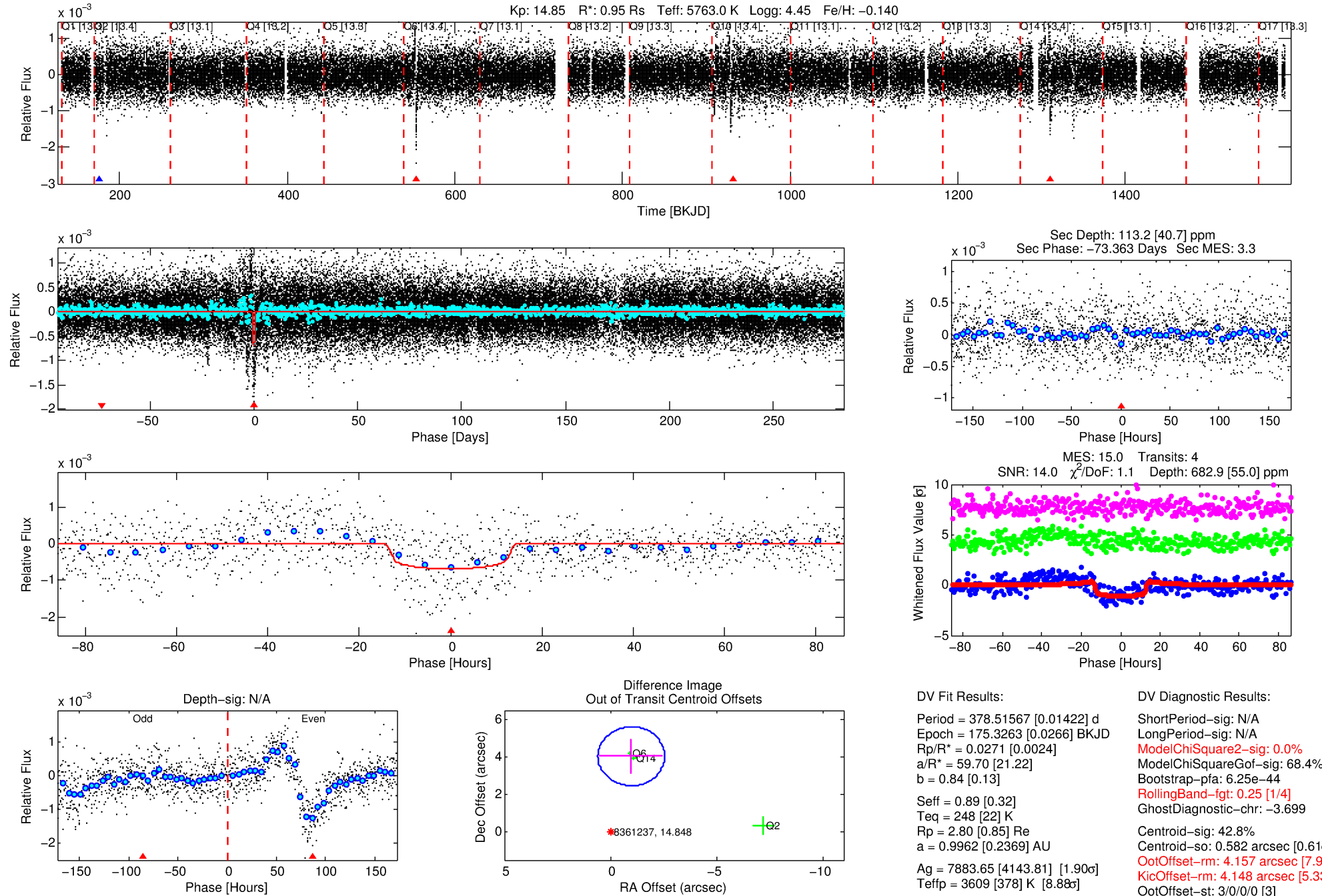
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008361237-01

No Significant Match Found

DV One-Page Summary

KIC: 8361237 Candidate: 1 of 1 Period: 378.516 d



DV Fit Results:

Period = 378.51567 [0.01422] d
Epoch = 175.3263 [0.0266] BKJD
Rp/R* = 0.0271 [0.0024]
a/R* = 59.70 [21.22]
b = 0.84 [0.13]
Seff = 0.89 [0.32]
Teq = 248 [22] K
Rp = 2.80 [0.85] Re
a = 0.9962 [0.2369] AU
Ag = 7883.65 [4143.81] [1.90] σ
Teffp = 3609 [378] K [8.88] σ

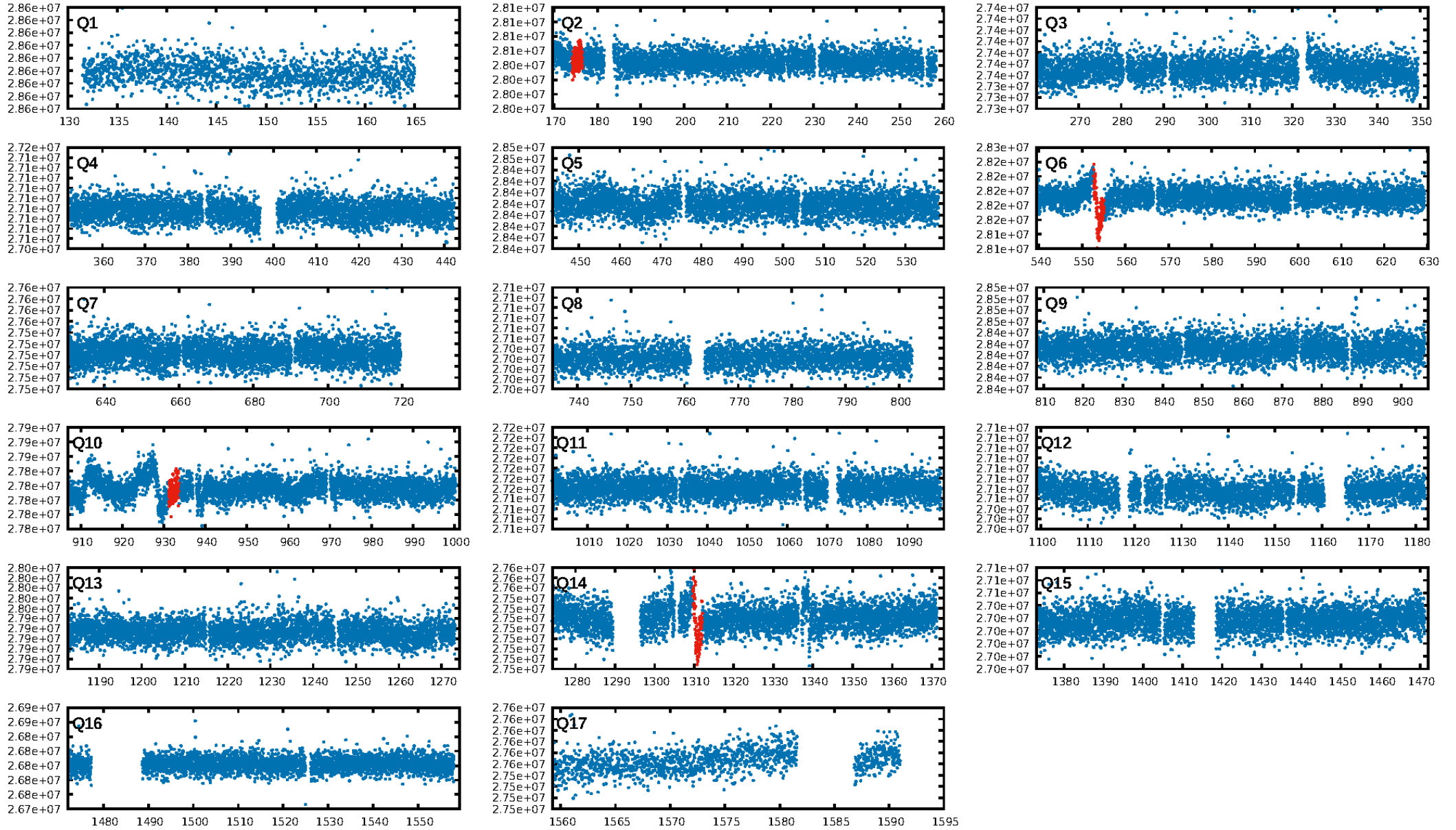
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 68.4%
Bootstrap-pfa: 6.25e-44
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: -3.699
Centroid-sig: 42.8%
Centroid-so: 0.582 arcsec [0.61] σ
OotOffset-rm: 4.157 arcsec [7.92] σ
KicOffset-rm: 4.148 arcsec [5.33] σ
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [4/4]

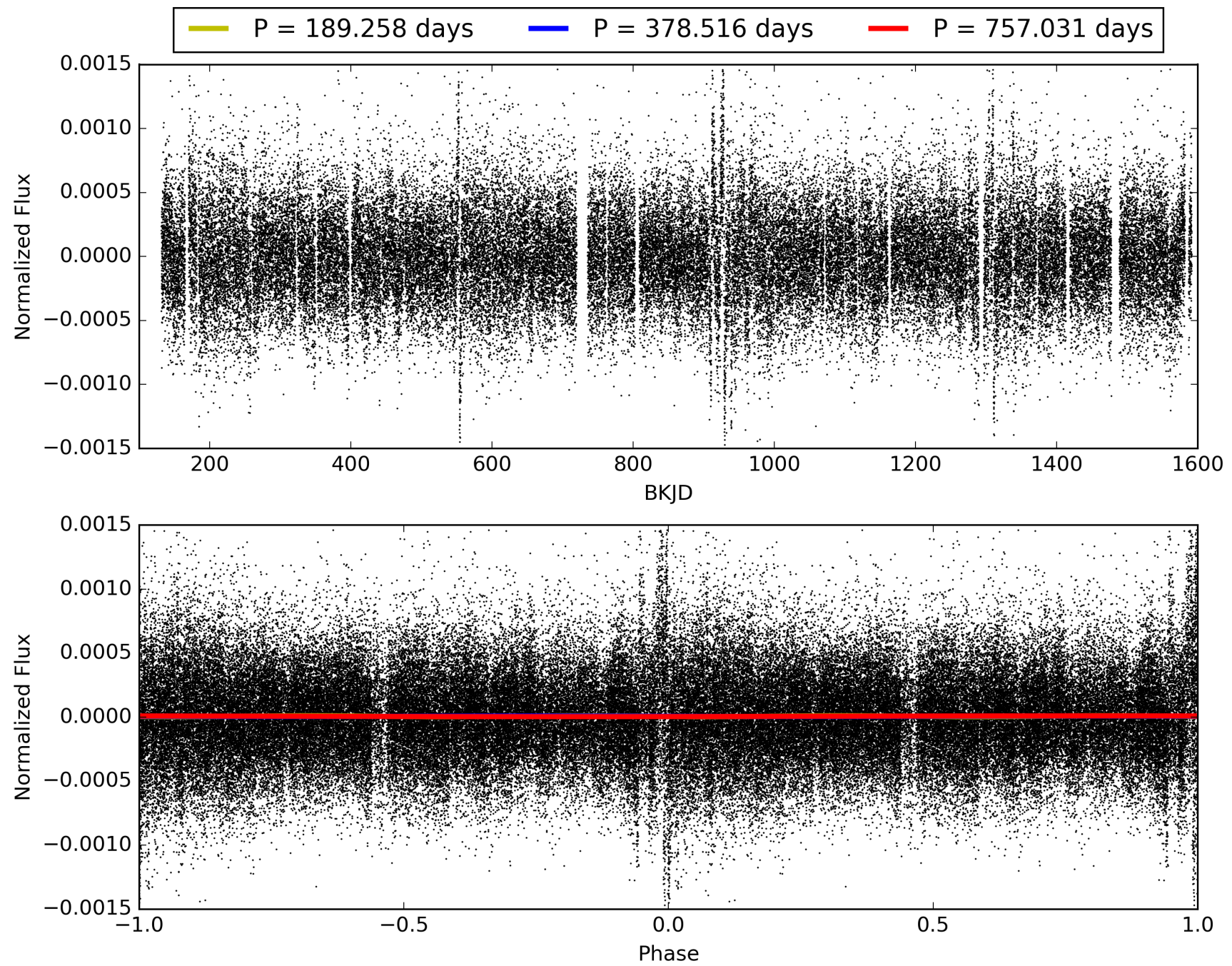
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:11:00 Z

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

TCE 008361237-01, PDC Light Curves

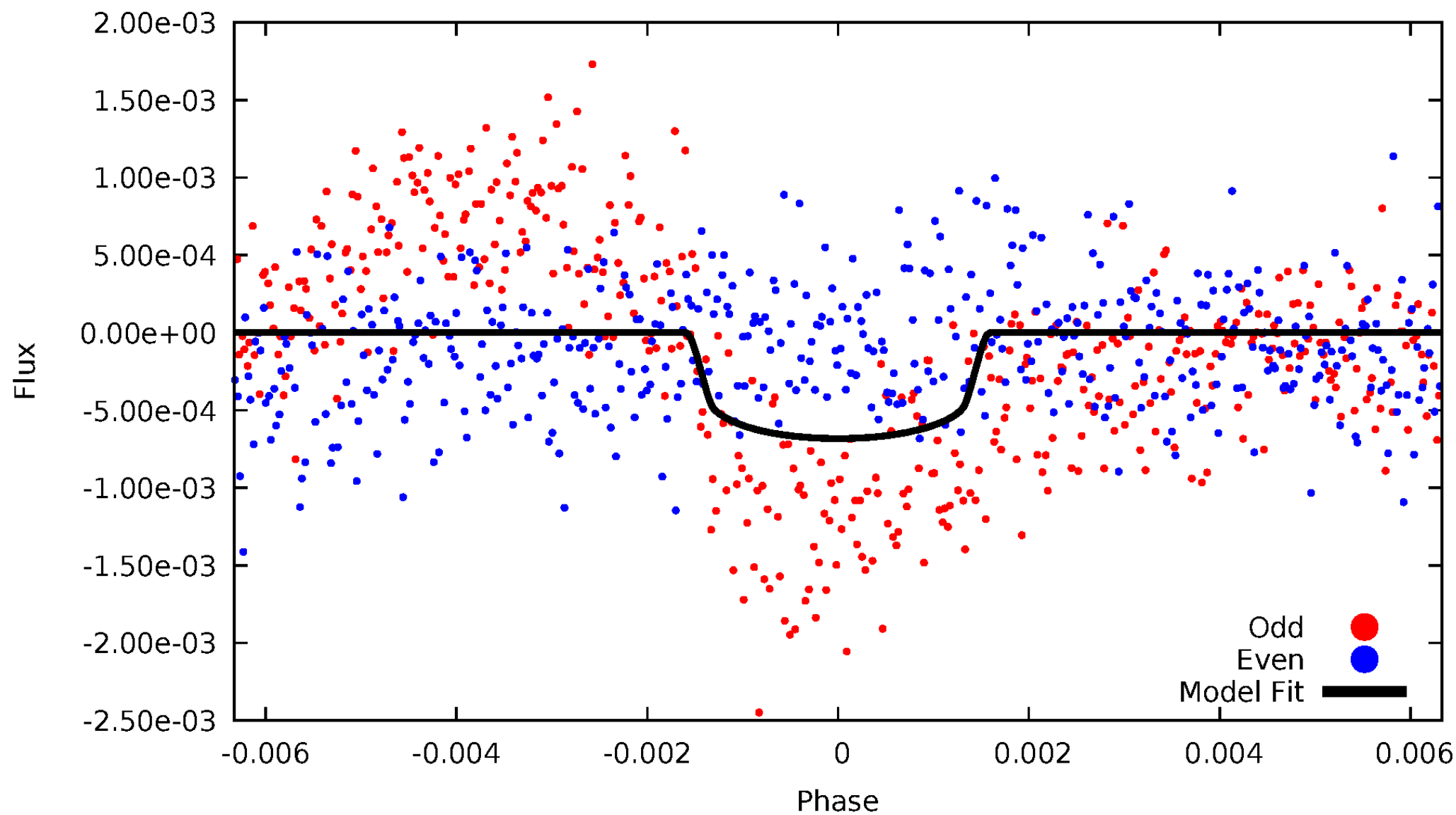


TCE 008361237-01



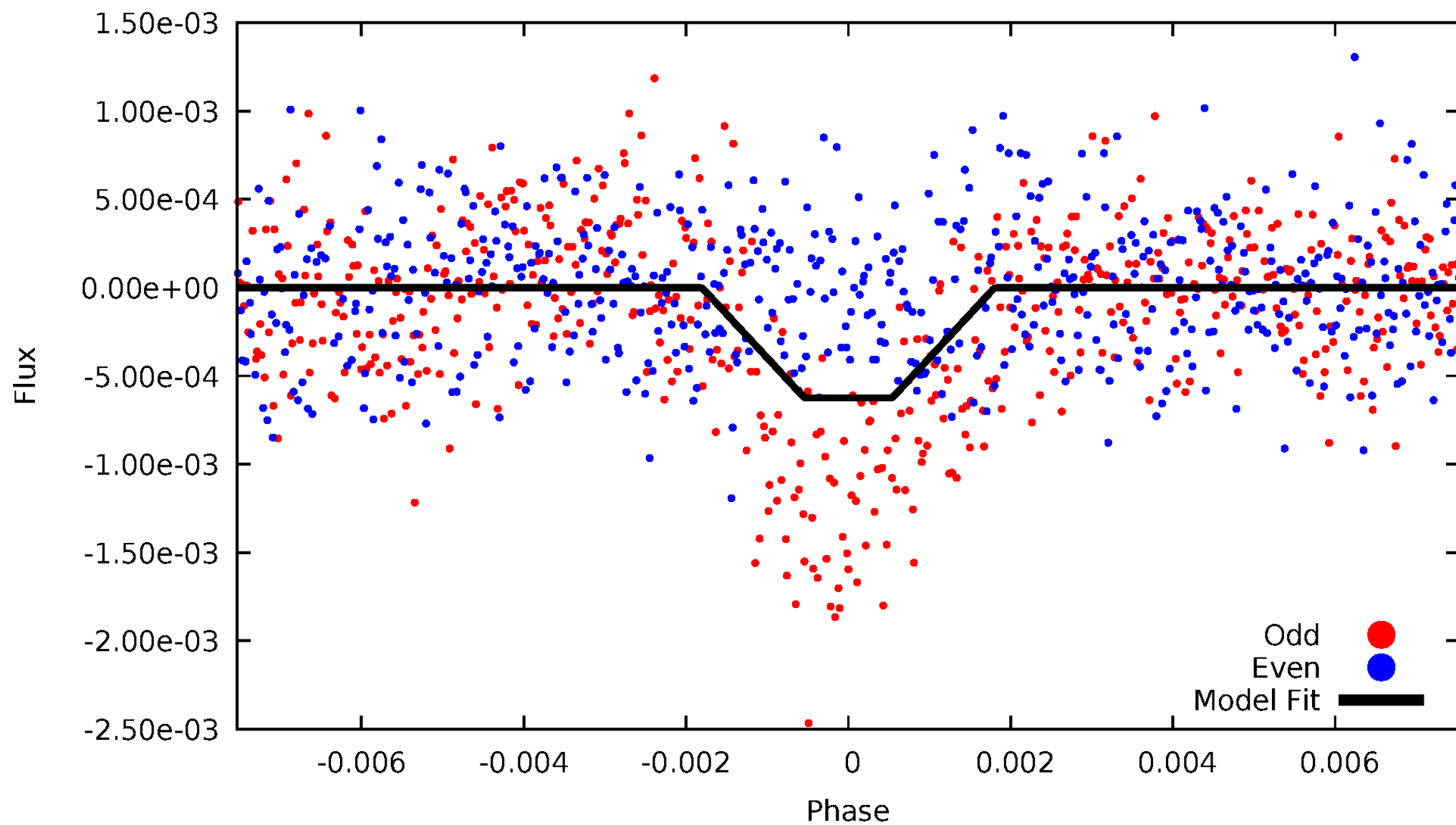
DV Odd/Even

TCE 008361237-01



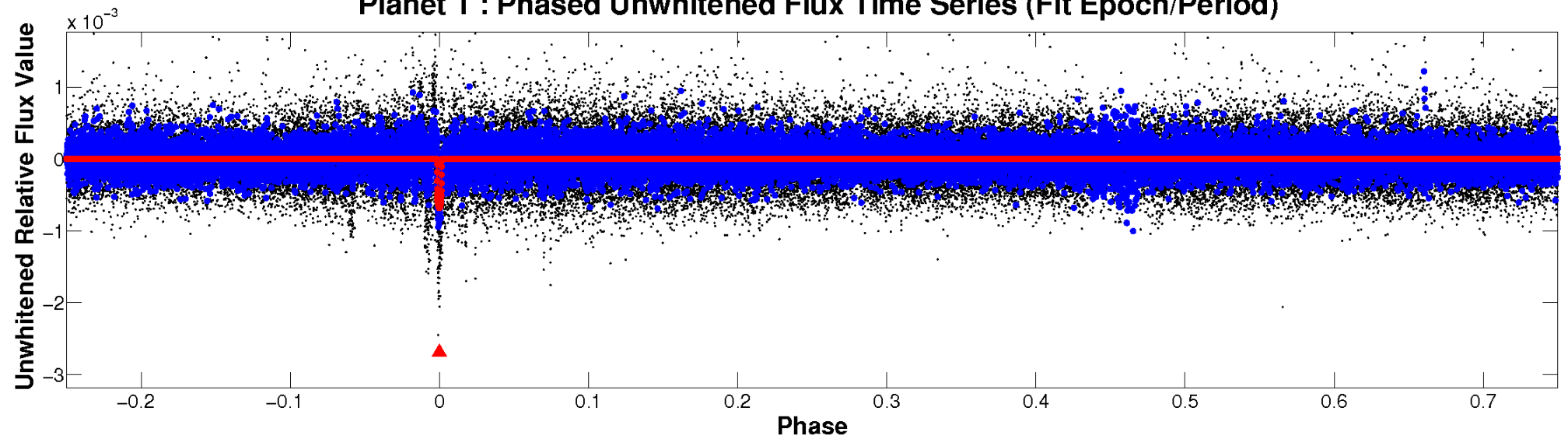
ALT Odd/Even

TCE 008361237-01

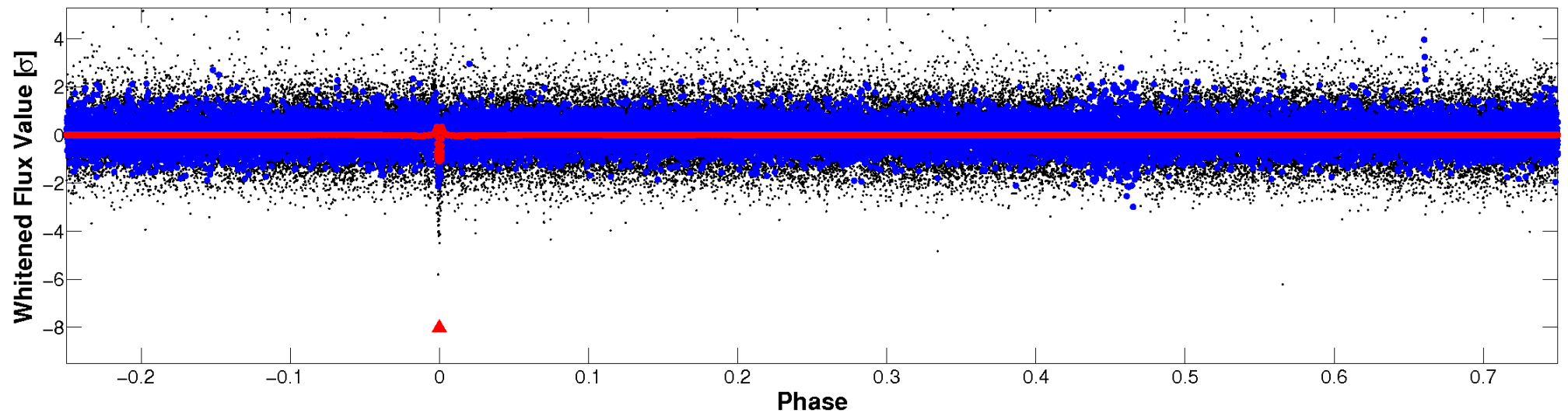


Non-Whitened Vs. Whitened Light Curve

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



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



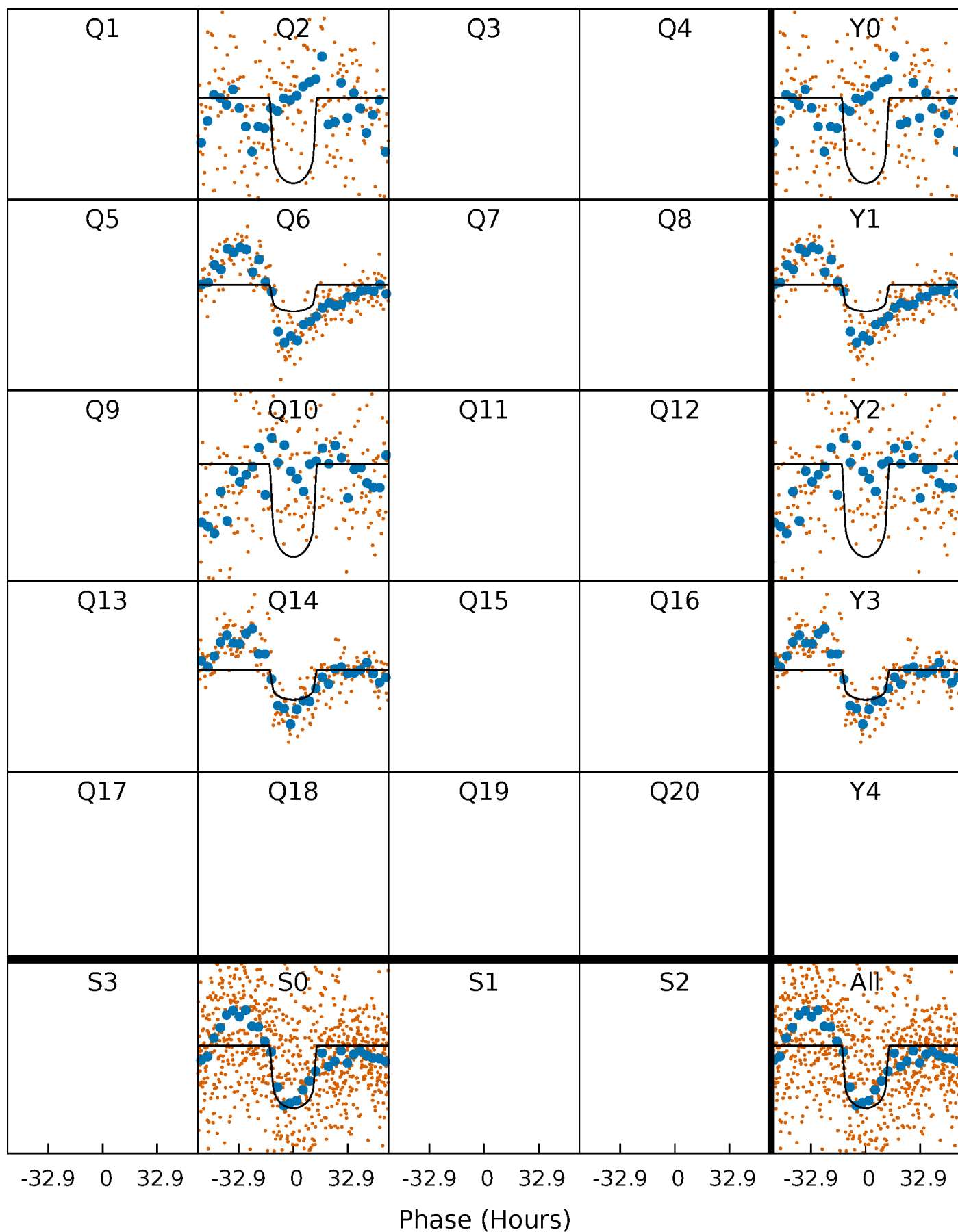
PDC Quarter-Phased Transit Curves

TCE 008361237-01 P=378.515667 Days $T_0=175.326318$ (BKJD)



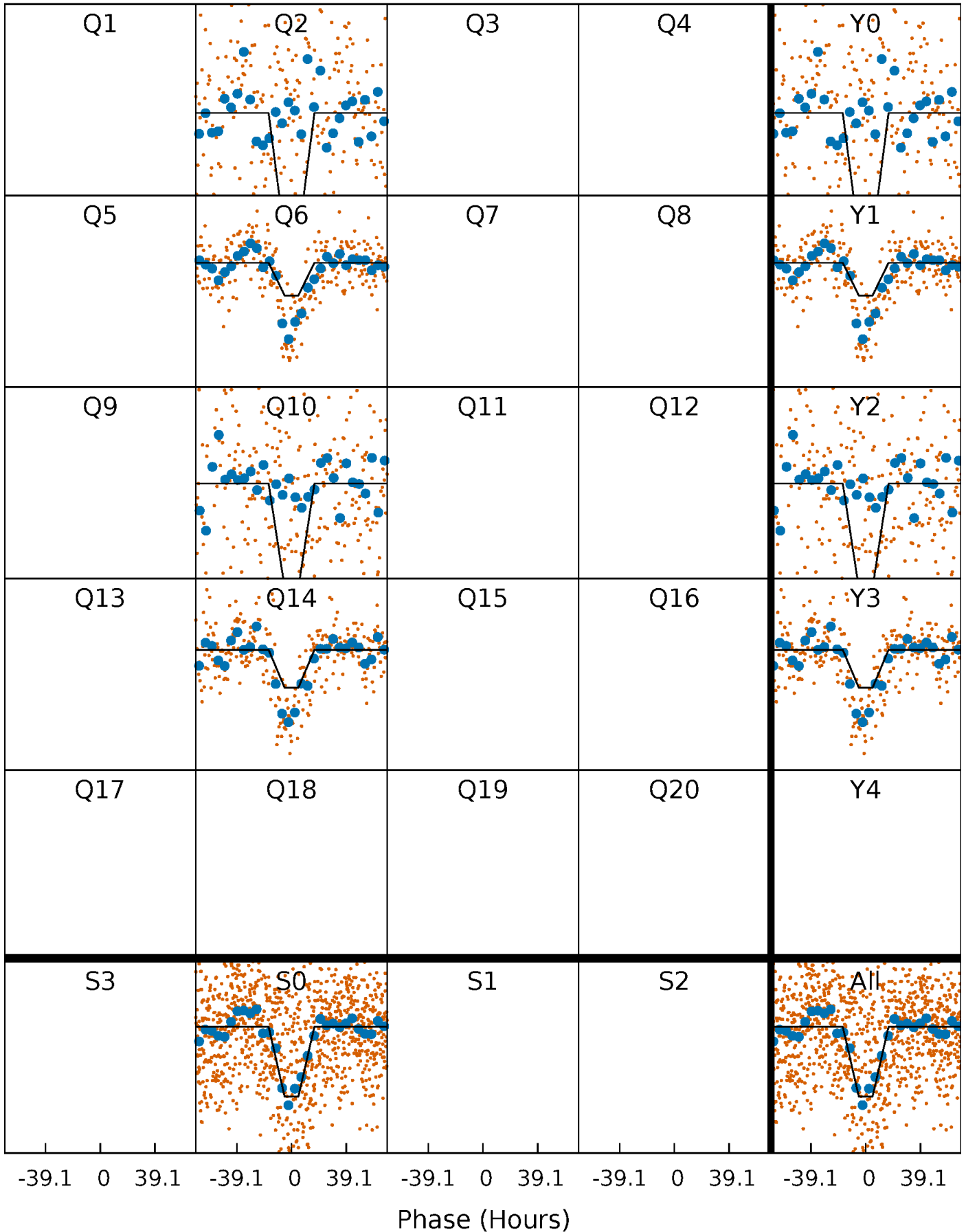
DV Quarter-Phased Transit Curves

TCE 008361237-01 P=378.515667 Days $T_0=175.326318$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

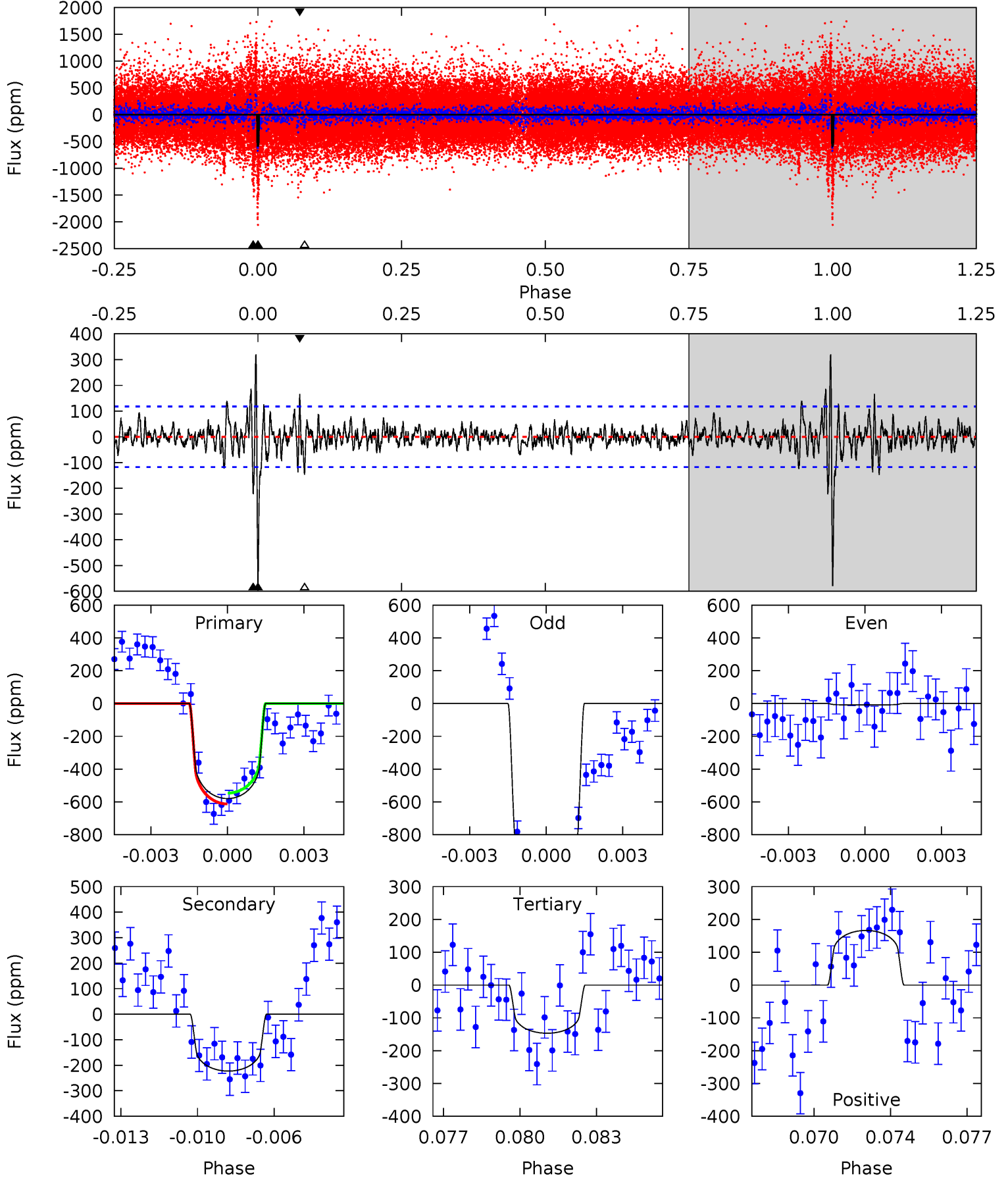
TCE 008361237-01 P=378.545321 Days $T_0=175.167932$ (BKJD)



DV Model-Shift Uniqueness Test

008361237-01, P = 378.515667 Days, E = 175.326318 Days

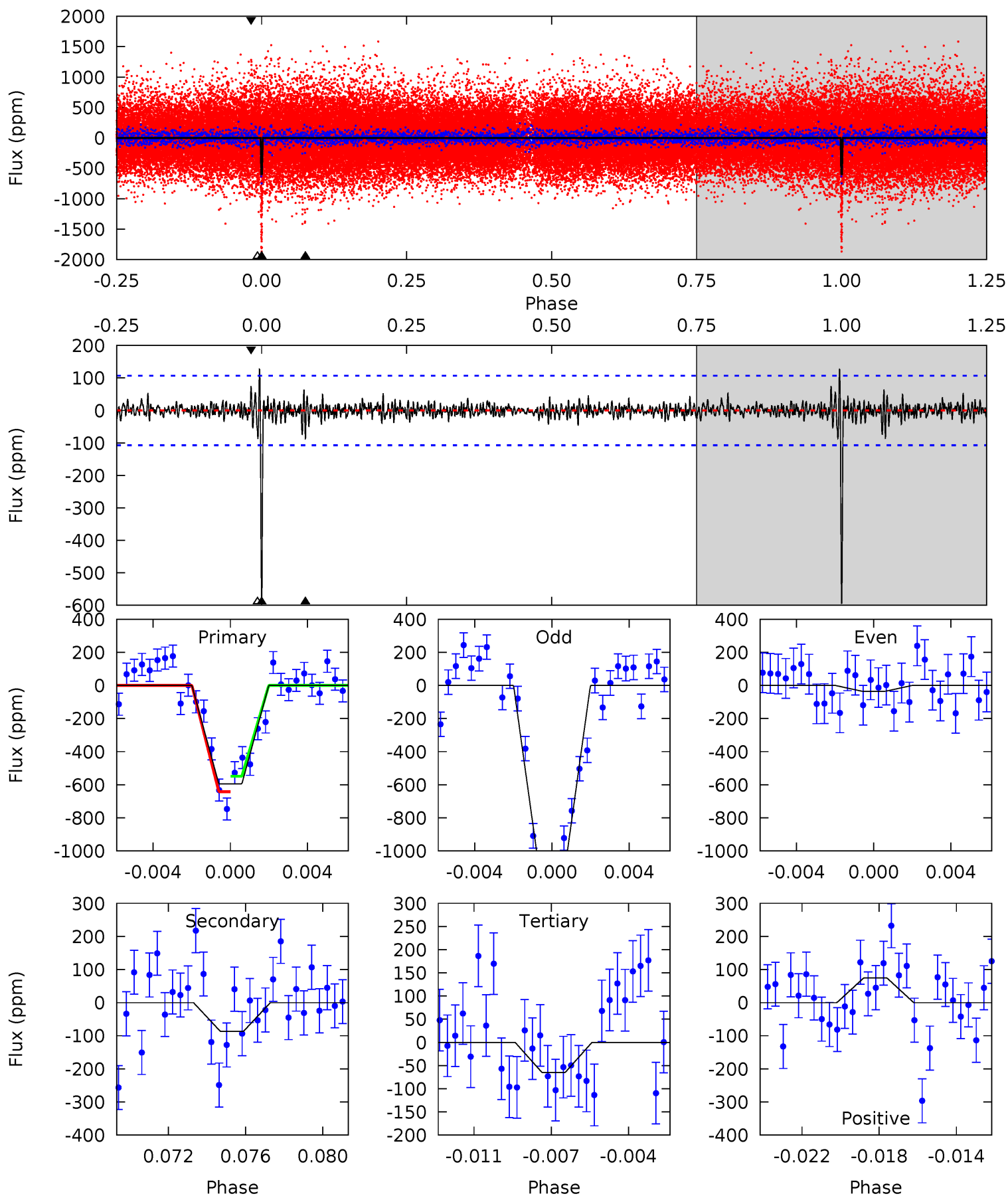
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	9.95	6.56	7.43	5.24	2.95	1.60	19.3	18.5	3.39	2.52	25.8	1.17	0.36	1.48



Alt Model-Shift Uniqueness Test

008361237-01, P = 378.545321 Days, E = 175.167932 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.0	4.24	3.18	3.65	5.22	2.91	0.77	25.9	25.4	1.06	0.59	27.9	1.04	0.18	2.28



Stellar Parameters For KIC 008361237

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5763^{+155}_{-172}	$4.450^{+0.084}_{-0.182}$	$-0.140^{+0.300}_{-0.300}$	$0.946^{+0.273}_{-0.117}$	$0.920^{+0.123}_{-0.092}$	$1.530^{+0.654}_{-0.742}$
	+3%/-3%	+2%/-4%	+214%/-214%	+29%/-12%	+13%/-10%	+43%/-48%
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 008361237-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-223 ± 22	$2.86^{+0.46}_{-0.38}$	350^{+23}_{-17}	4467^{+226}_{-183}	14525^{+5062}_{-3402}
Alt.	-87 ± 20	$2.65^{+0.47}_{-0.33}$	350^{+23}_{-18}	3866^{+216}_{-218}	6566^{+2749}_{-2094}

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

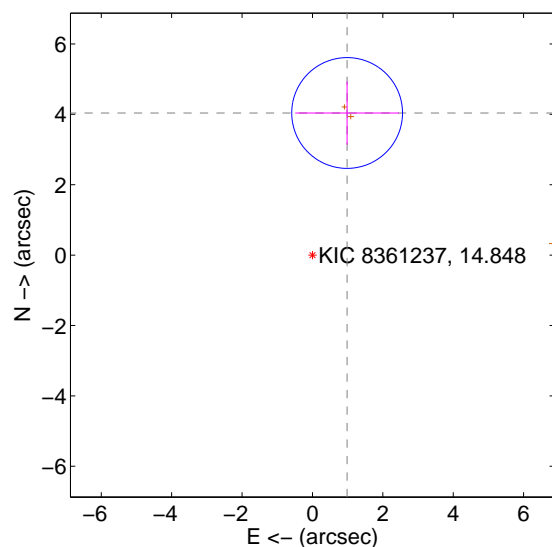
Supplemental centroid analysis for 008361237-01. Kepler magnitude: 14.85. Transit SNR 13.96

There are 0 quarters with good PRF difference image offsets

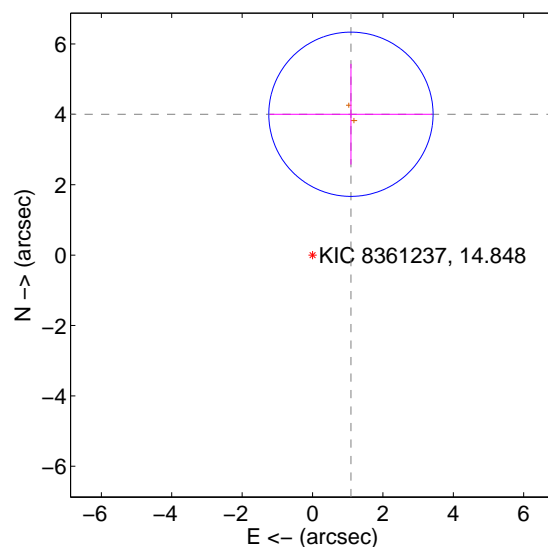
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.157 ± 0.525	7.92	-0.985 ± 1.476	4.038 ± 0.898
PRF-fit source offset from KIC position	4.148 ± 0.778	5.33	-1.091 ± 2.305	4.002 ± 1.430
photometric centroid source offset	0.58 ± 0.96	0.61	0.18 ± 1.19	0.55 ± 0.93

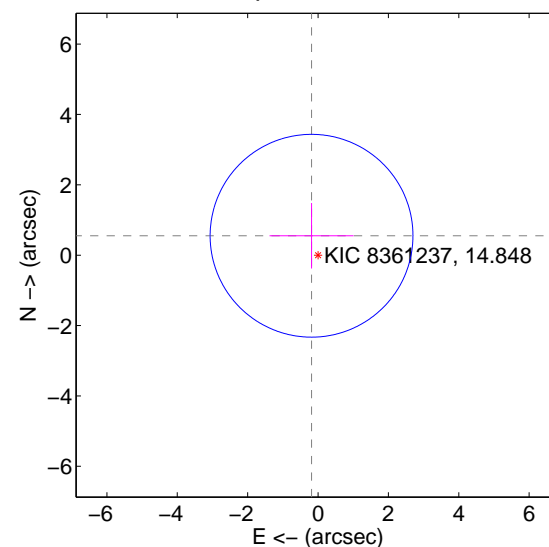
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

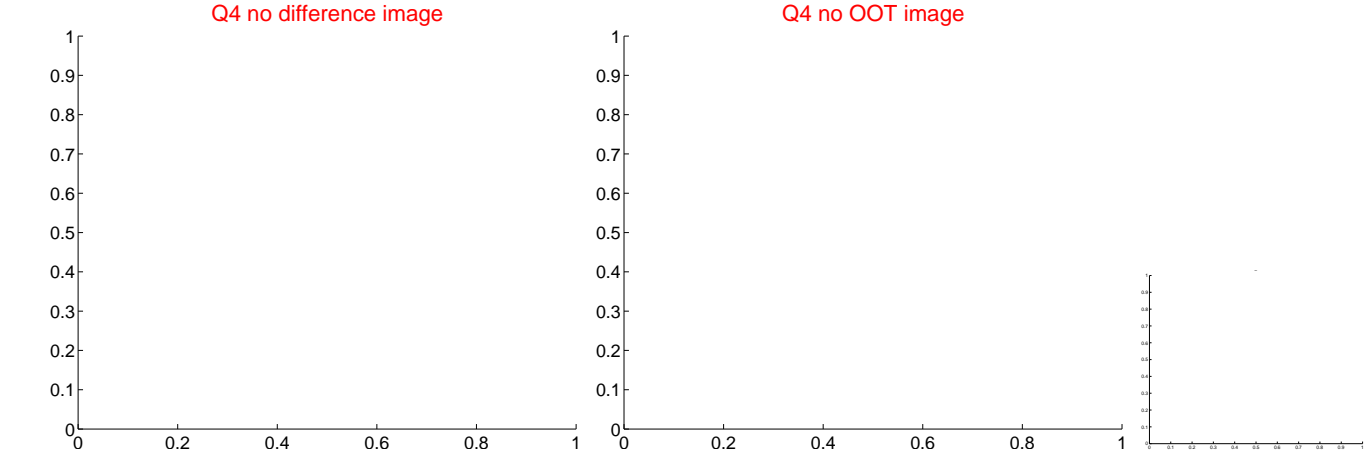
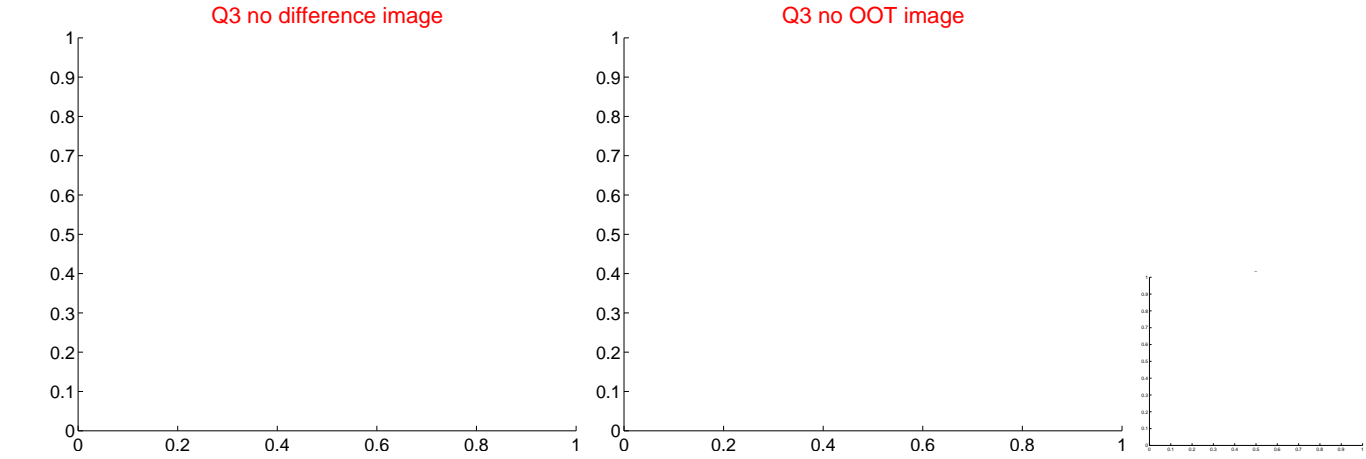
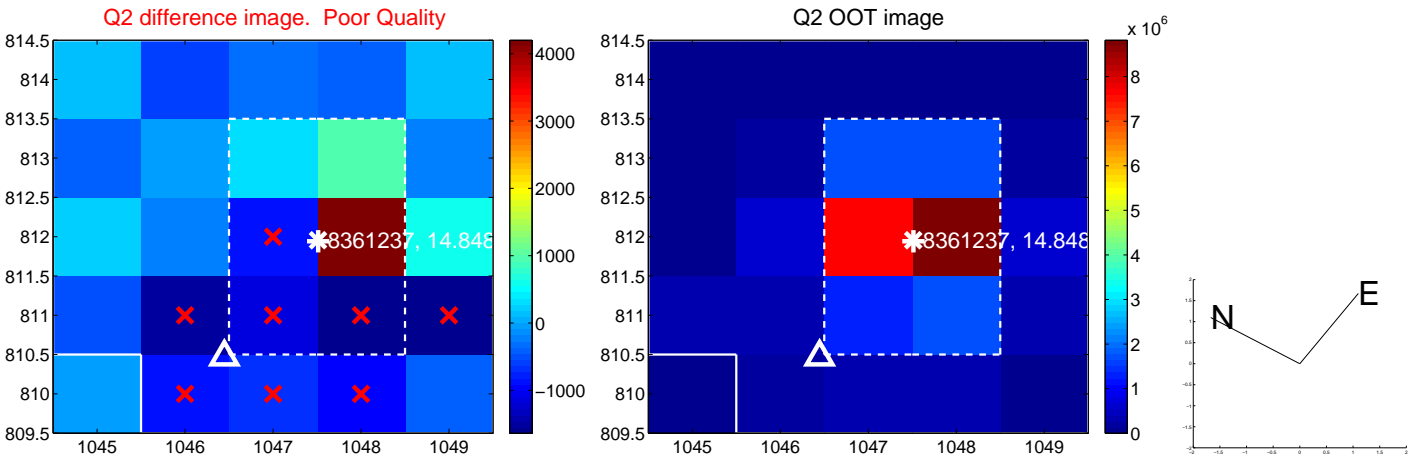
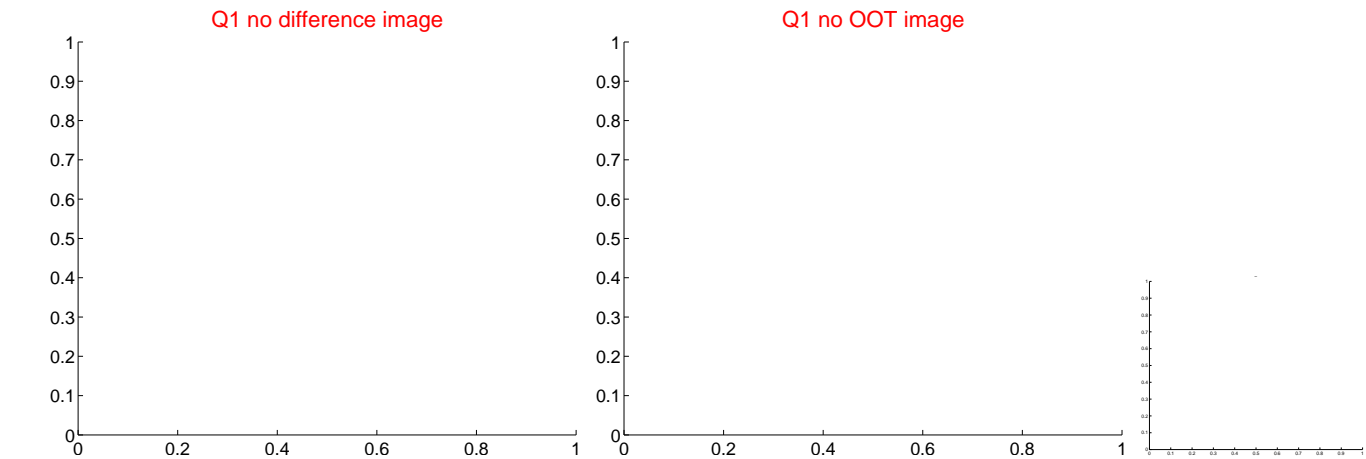


offset from photometric centroids

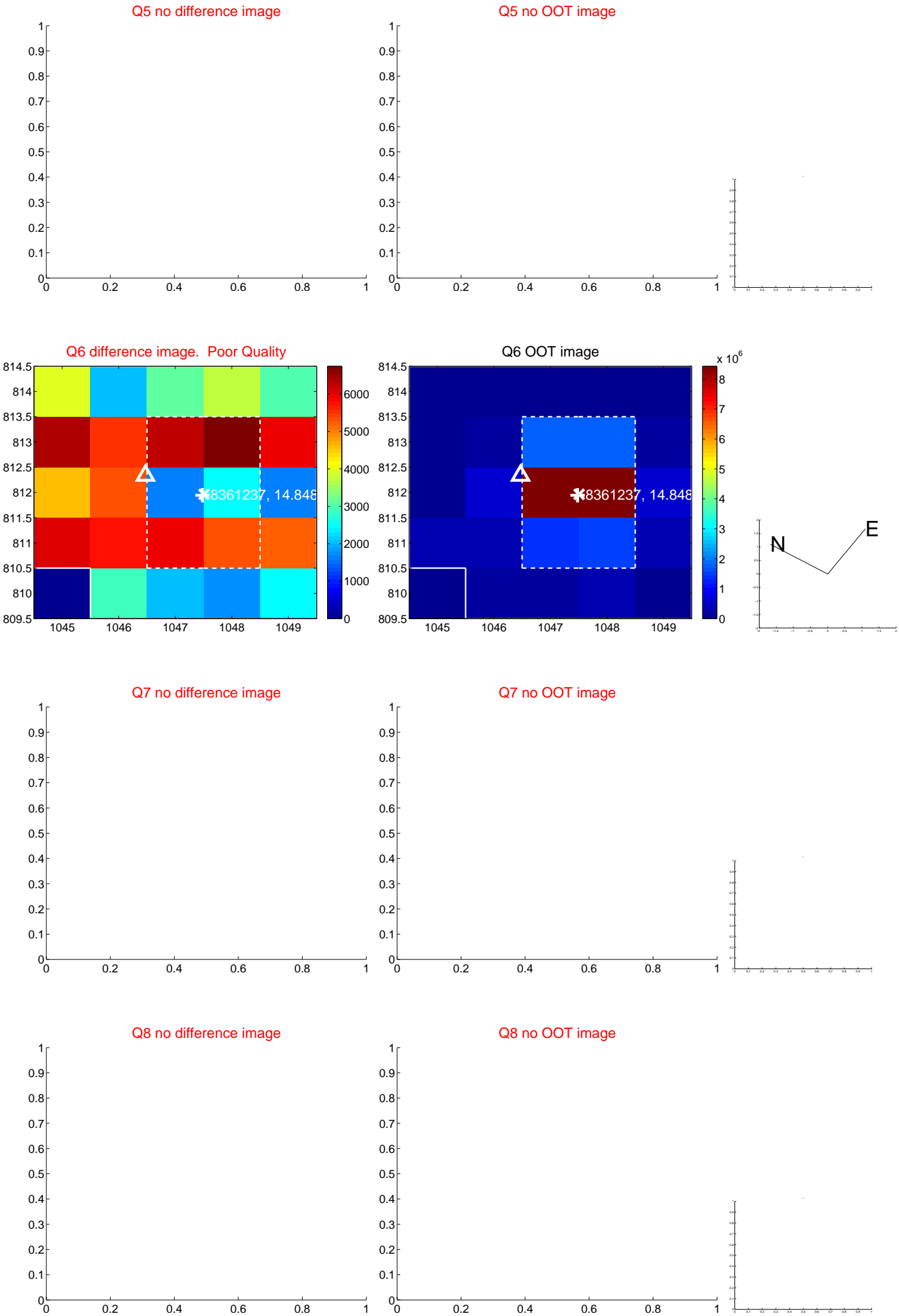


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

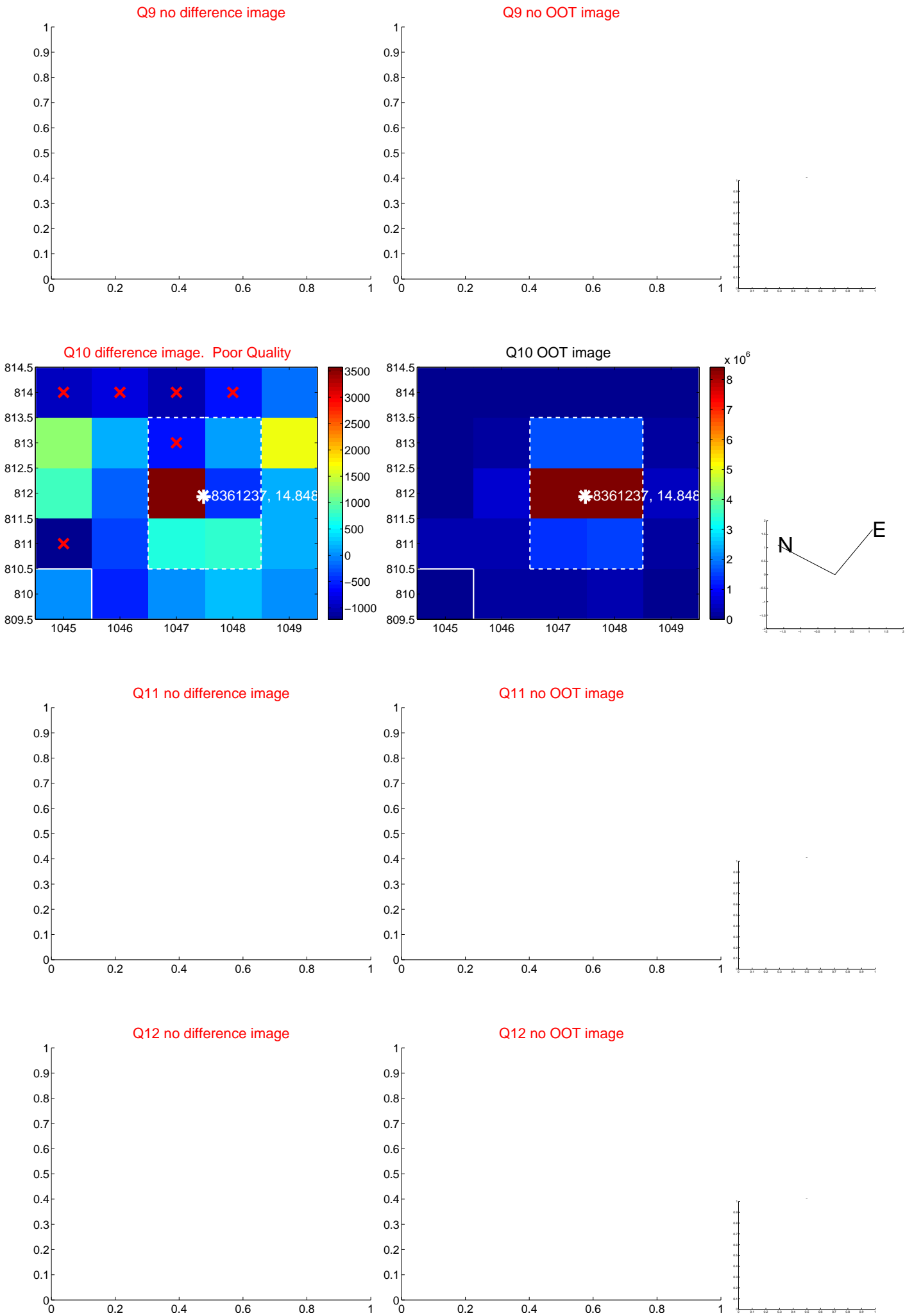
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



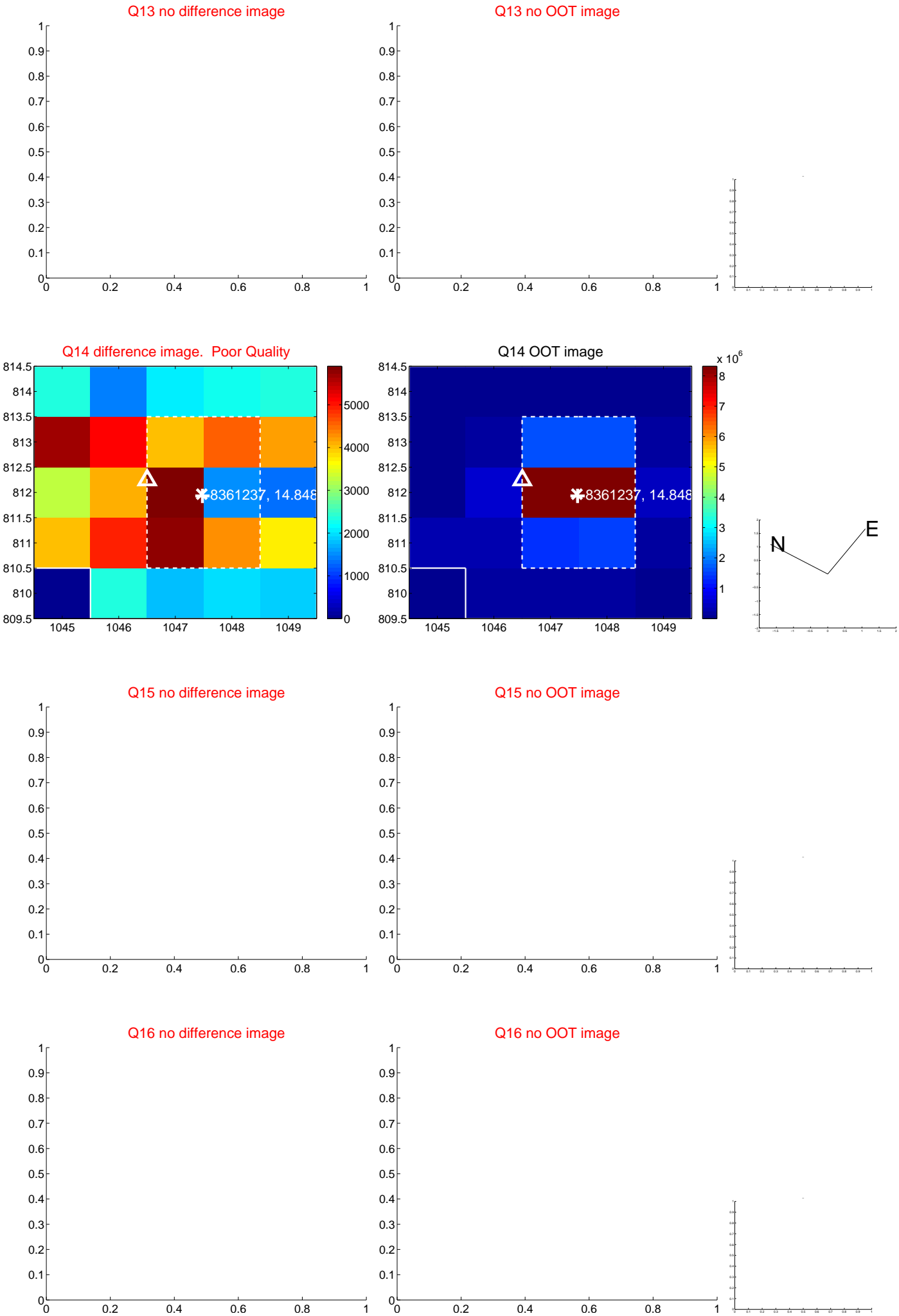
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



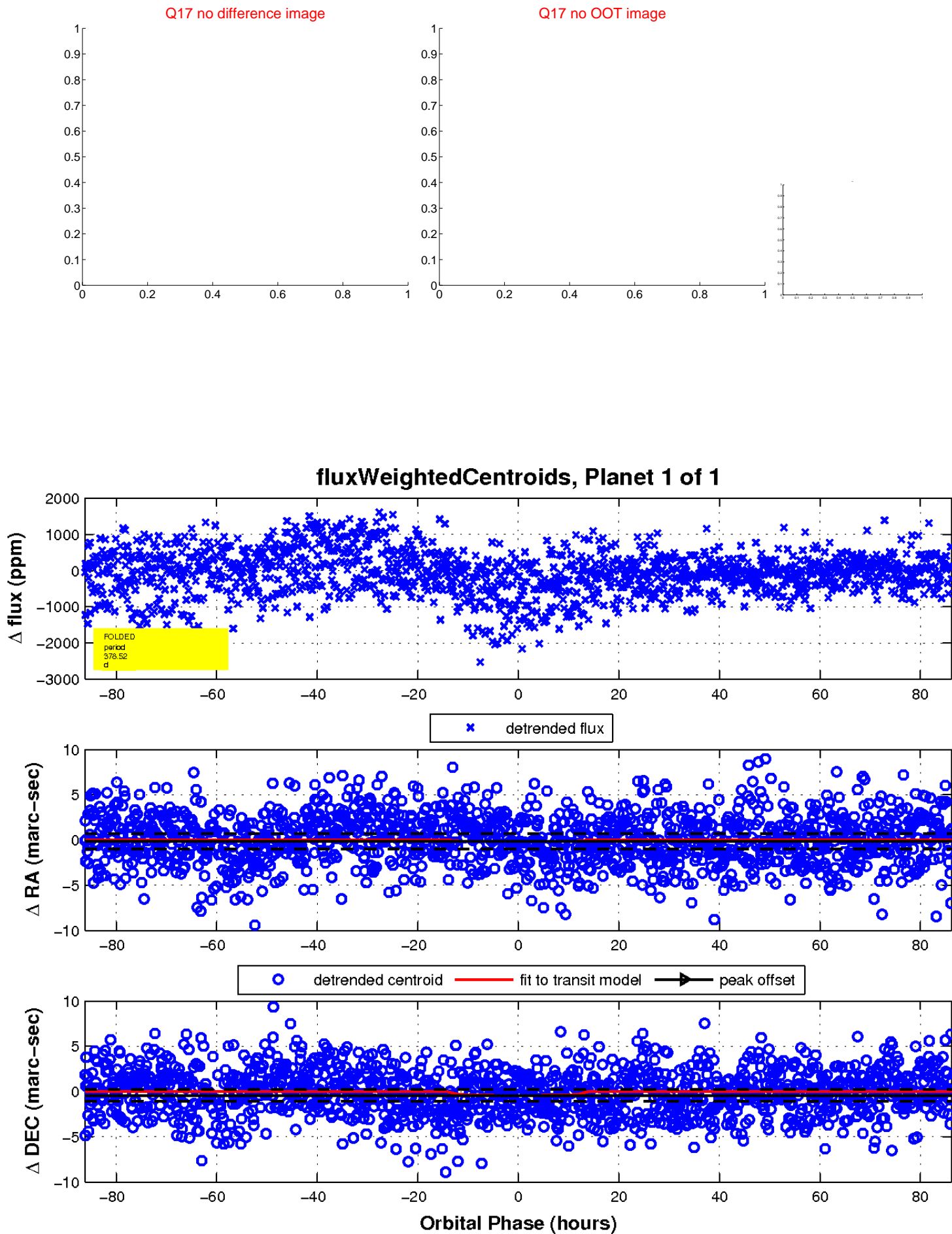
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white ×: 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

