

KIC 008308229

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})
008308229-01	OBS	No	365.677087	241.476828	952.2	24.434	8.2	10.2	1.01	5718	3.73	1.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008308229-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

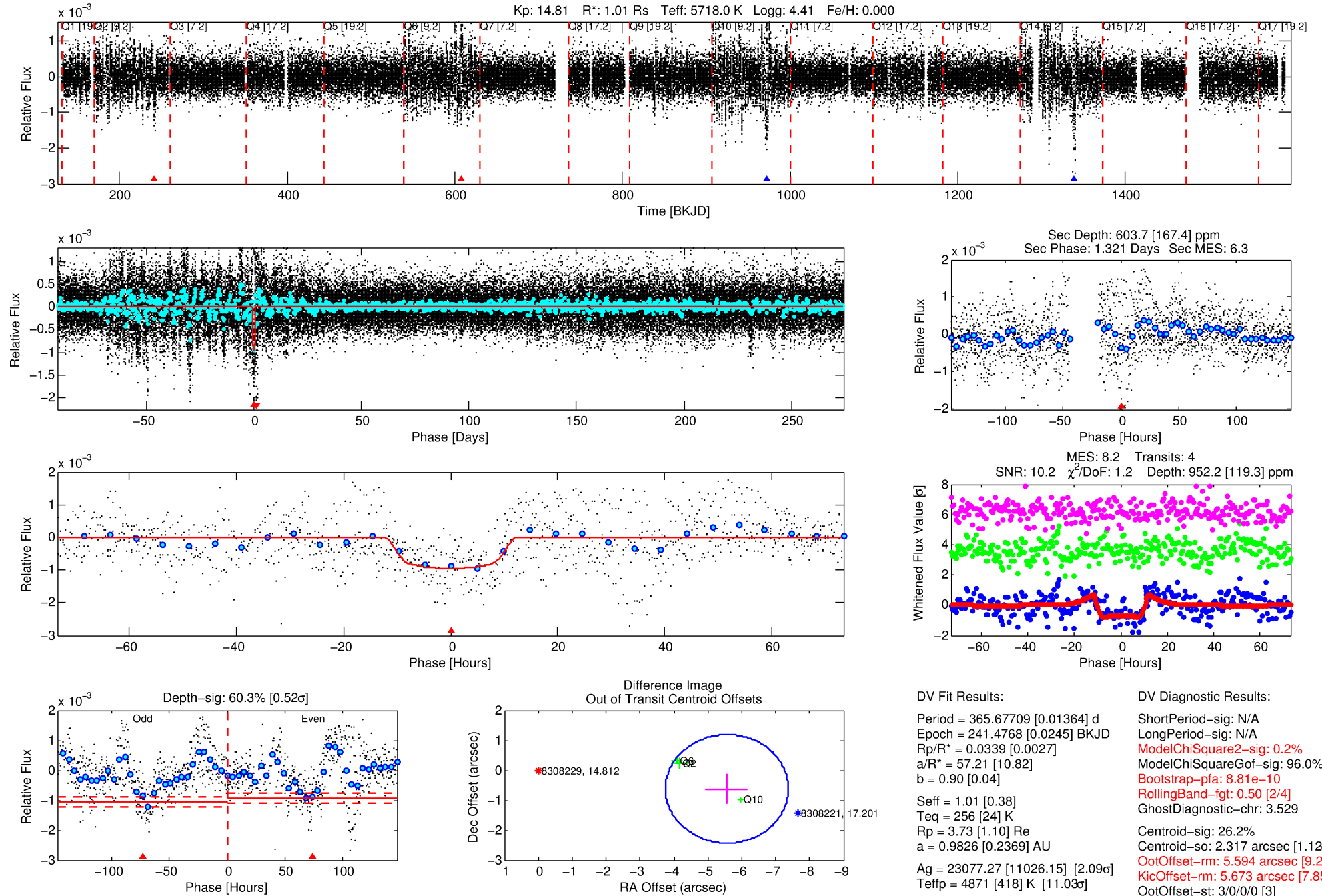
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008308229-01

No Significant Match Found

DV One-Page Summary

KIC: 8308229 Candidate: 1 of 1 Period: 365.677 d



DV Fit Results:

Period = 365.67709 [0.01364] d
Epoch = 241.4768 [0.0245] BKJD
Rp/R* = 0.0339 [0.0027]
a/R* = 57.21 [10.82]
b = 0.90 [0.04]
Seff = 1.01 [0.38]
Teff = 256 [24] K
Rp = 3.73 [1.10] Re
a = 0.9826 [0.2369] AU
Ag = 23077.27 [11026.15] [2.09 σ]
Teffp = 4871 [418] K [11.03 σ]

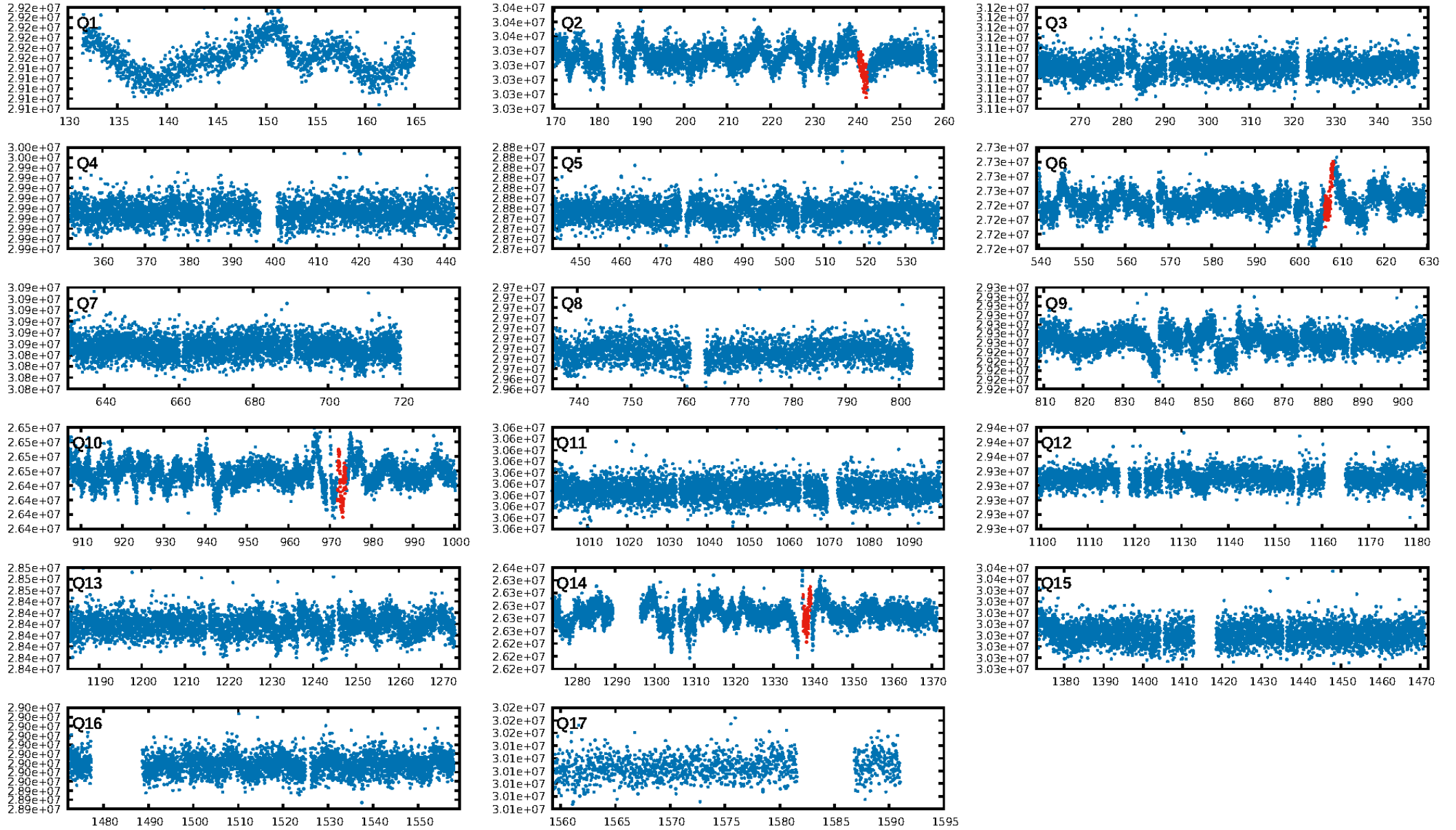
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 96.0%
Bootstrap-pfa: 8.81e-10
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: 3.529
Centroid-sig: 26.2%
Centroid-so: 2.317 arcsec [1.12 σ]
OotOffset-rm: 5.594 arcsec [9.27 σ]
KicOffset-rm: 5.673 arcsec [7.85 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 [3/3]

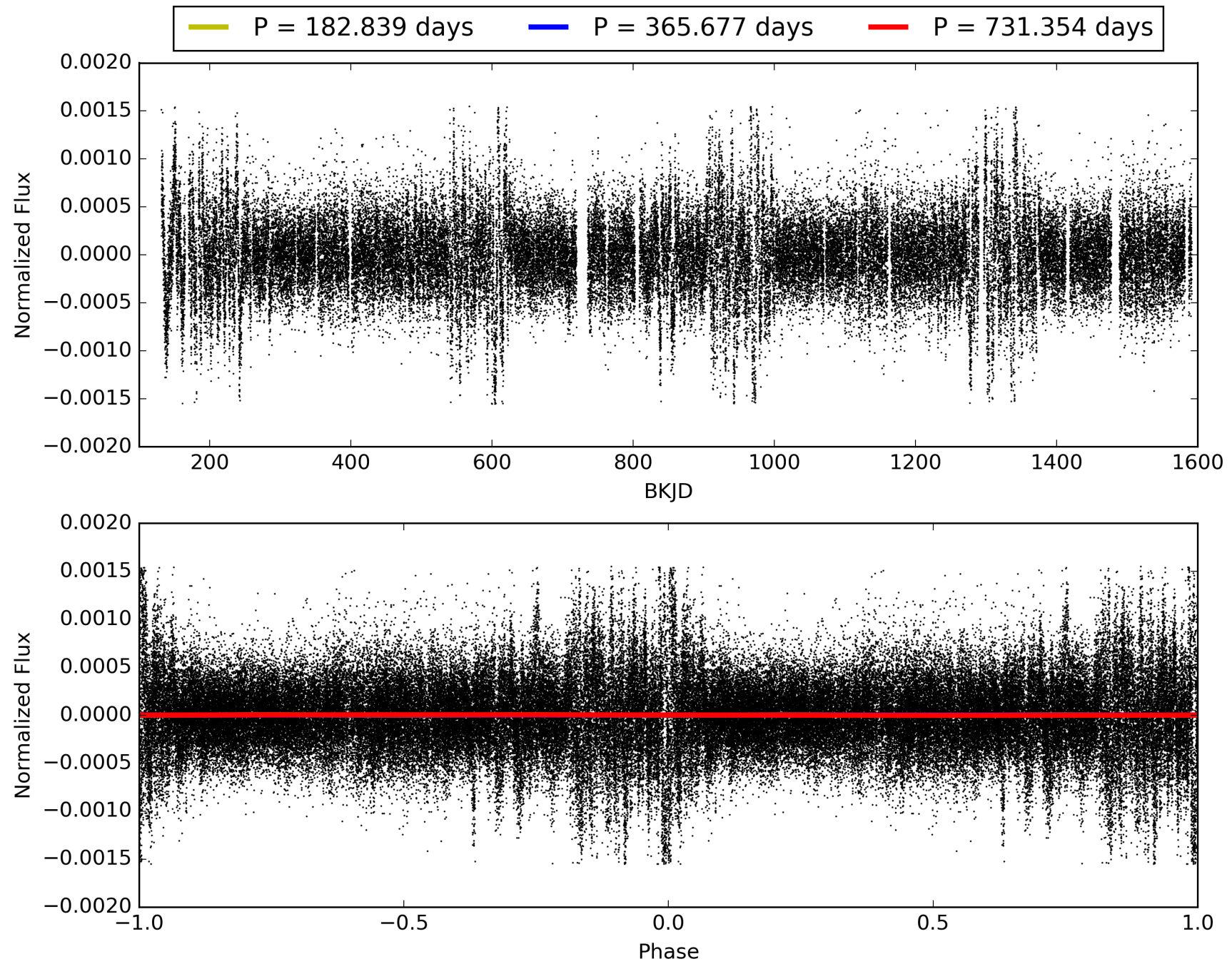
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:56:58 Z

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

TCE 008308229-01, PDC Light Curves

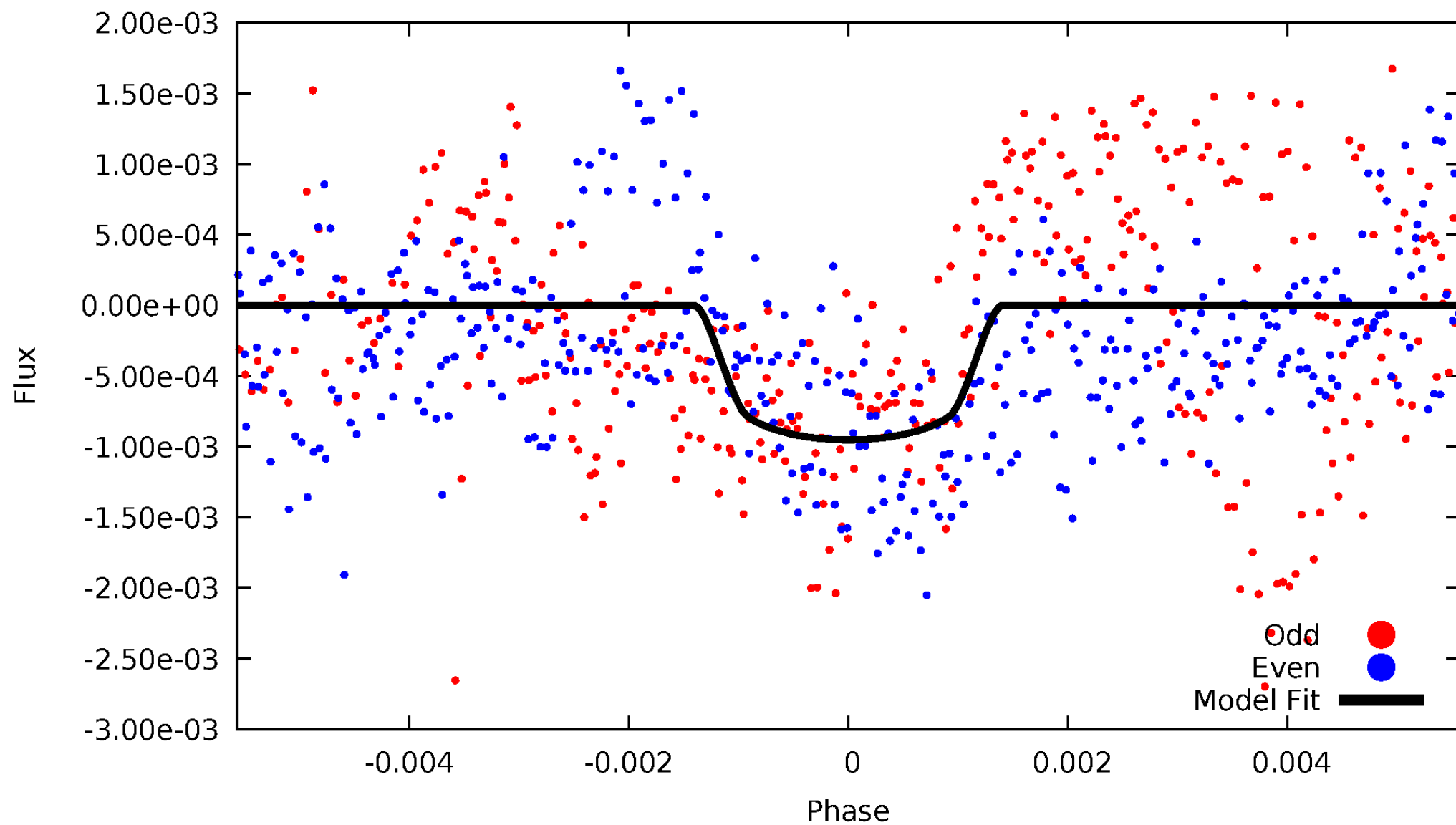


TCE 008308229-01



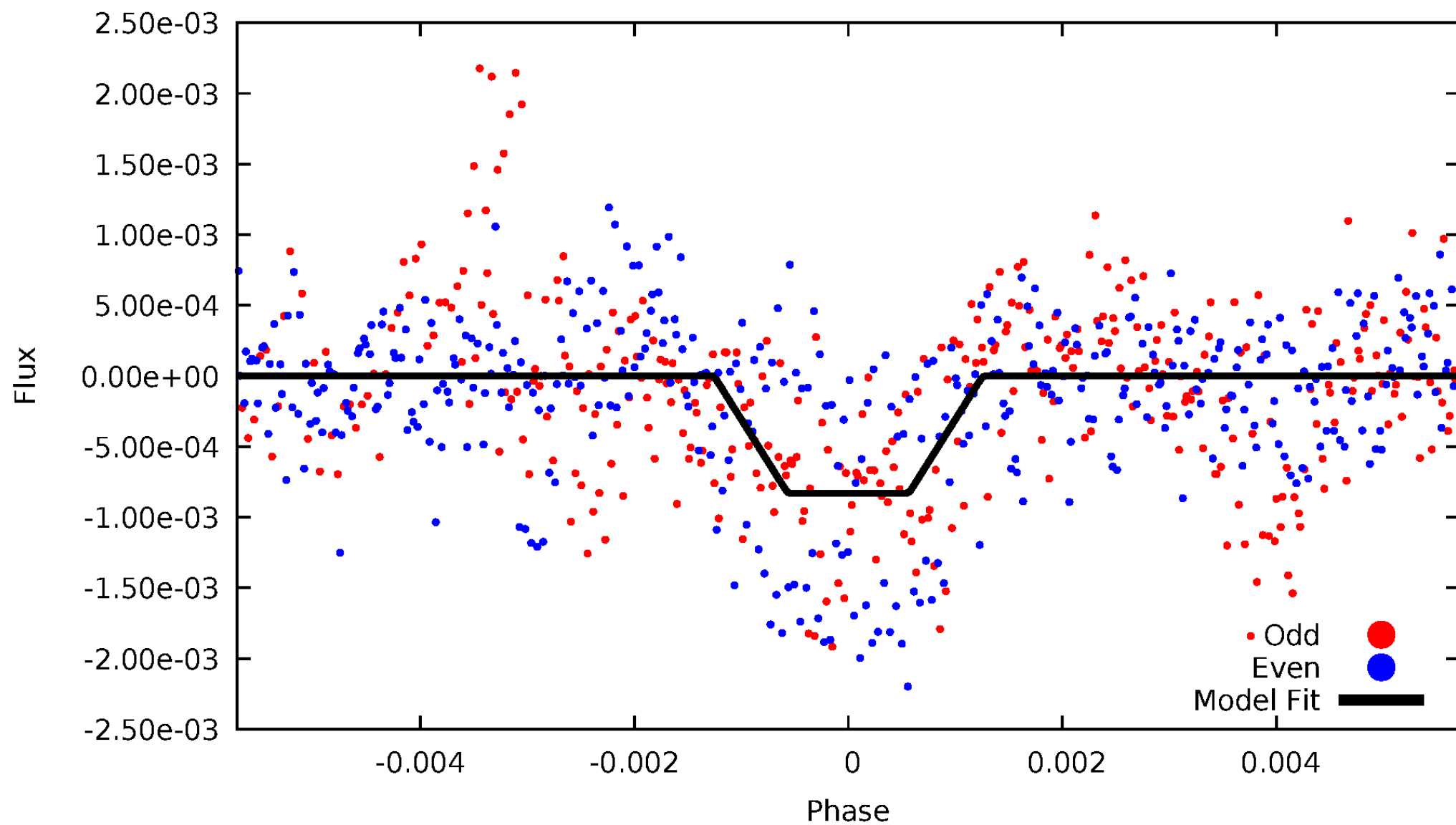
DV Odd/Even

TCE 008308229-01



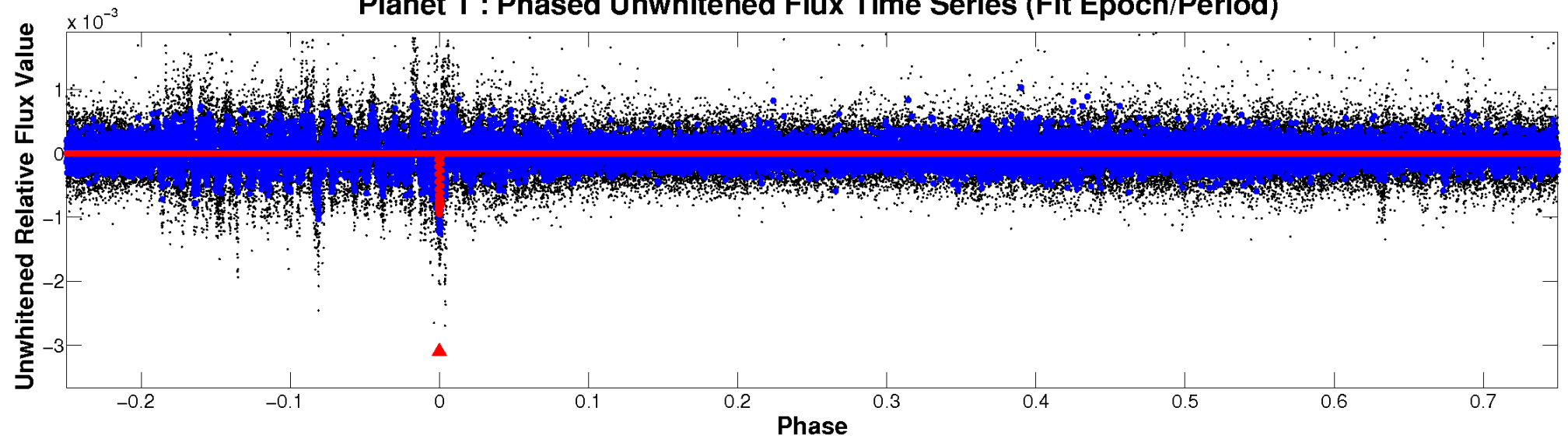
ALT Odd/Even

TCE 008308229-01

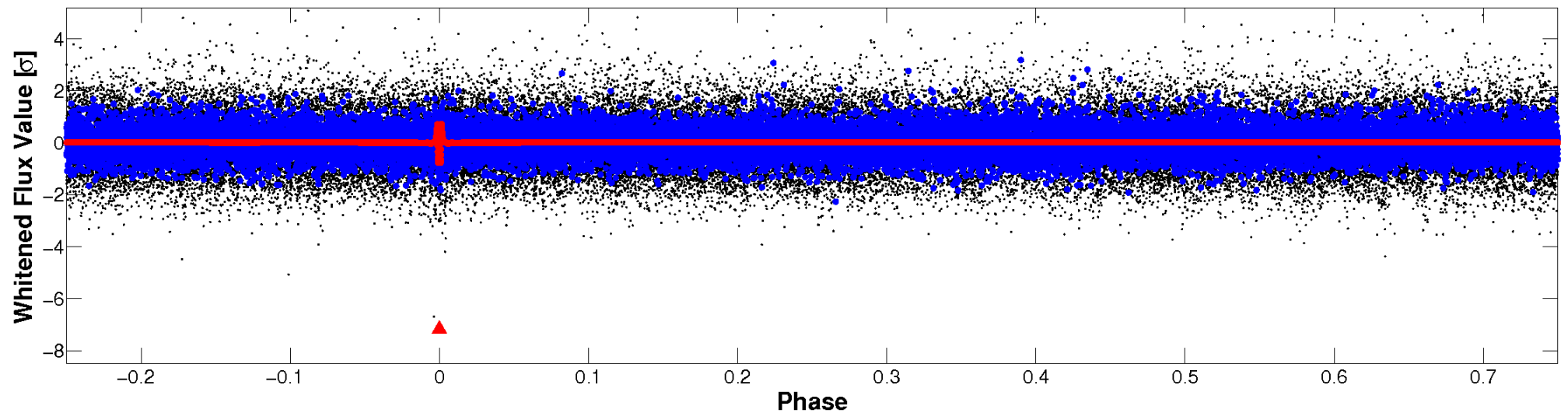


Non-Whitened Vs. Whitened Light Curve

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

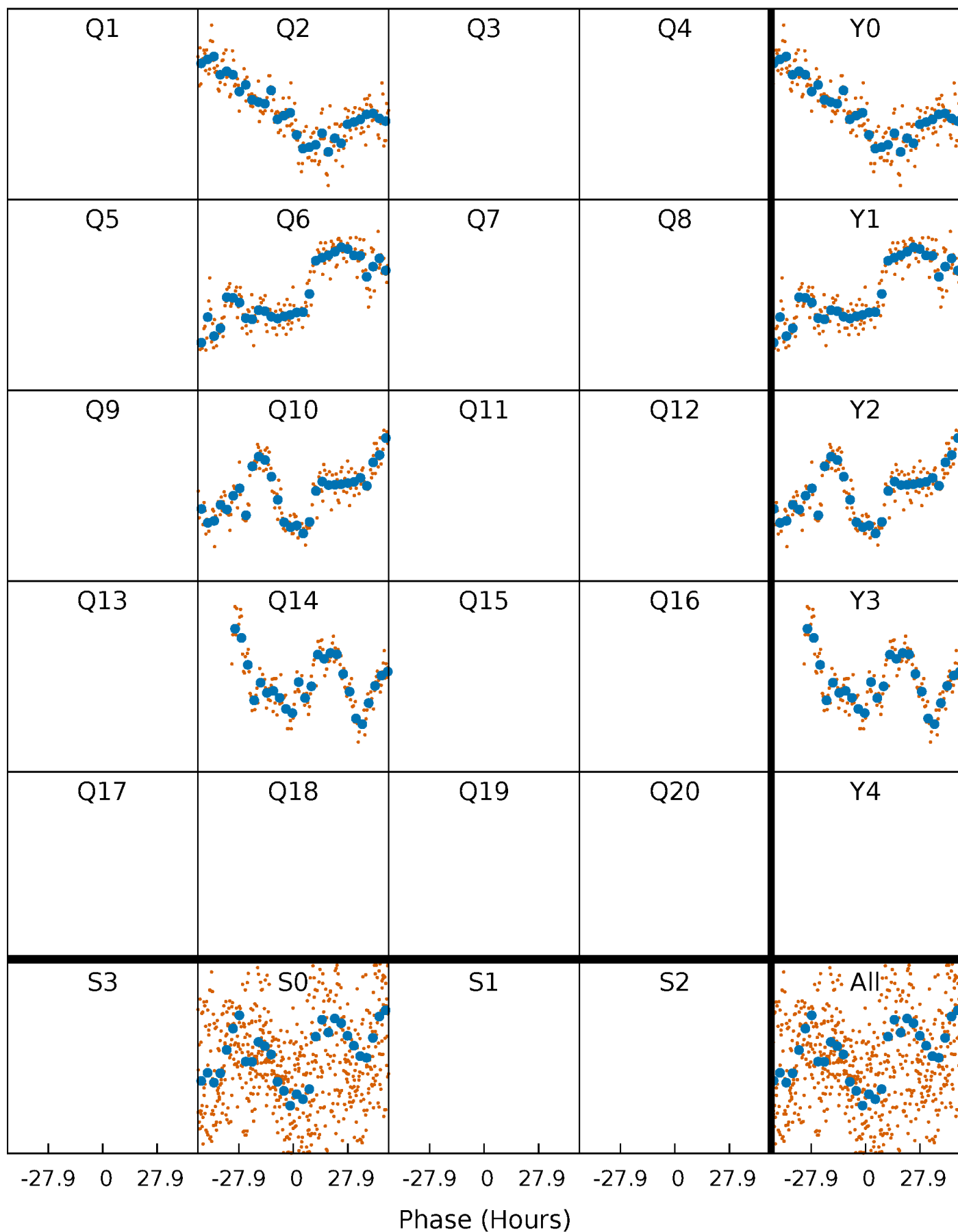


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



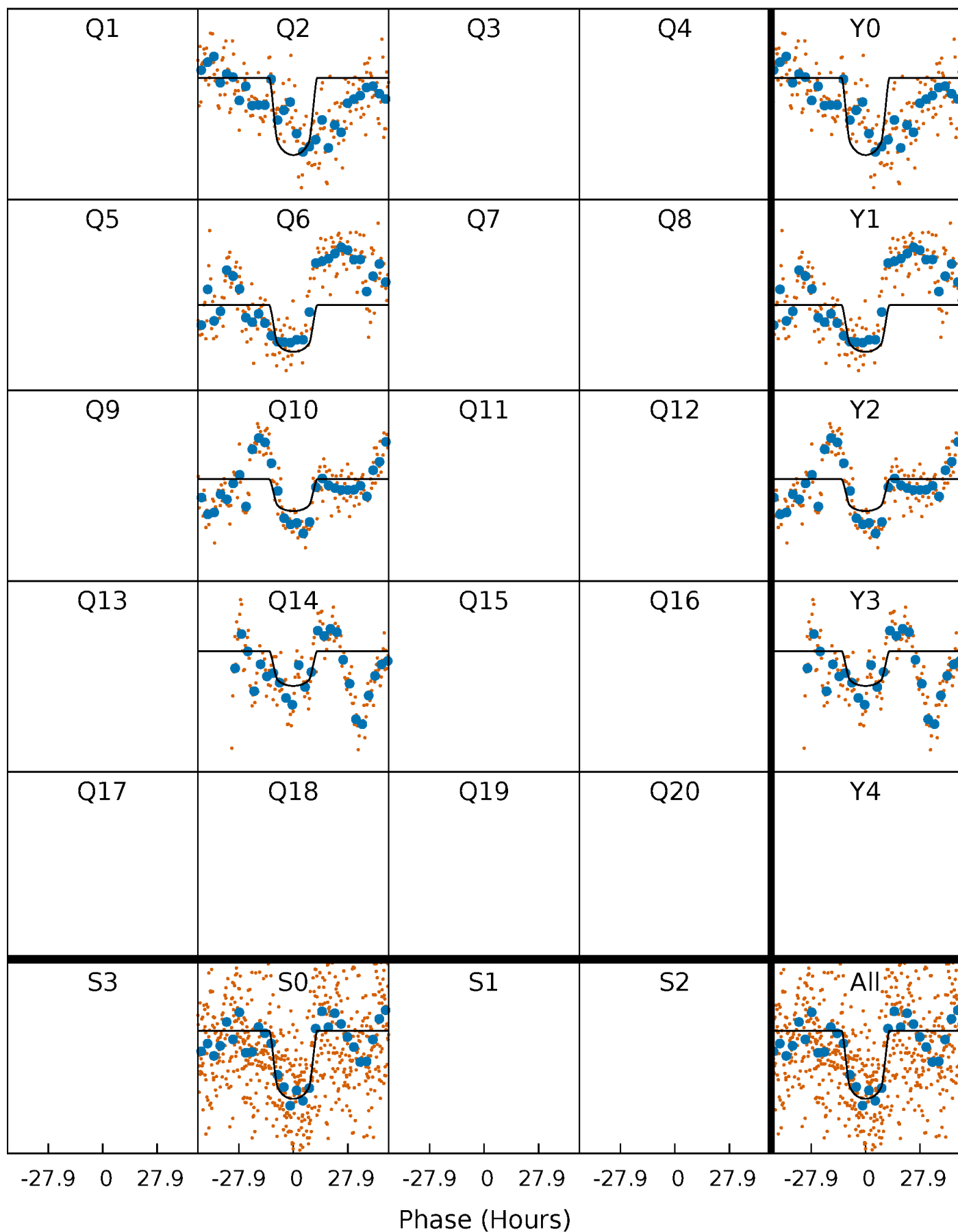
PDC Quarter-Phased Transit Curves

TCE 008308229-01 P=365.677087 Days $T_0=241.476829$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008308229-01 $P=365.677087$ Days $T_0=241.476829$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

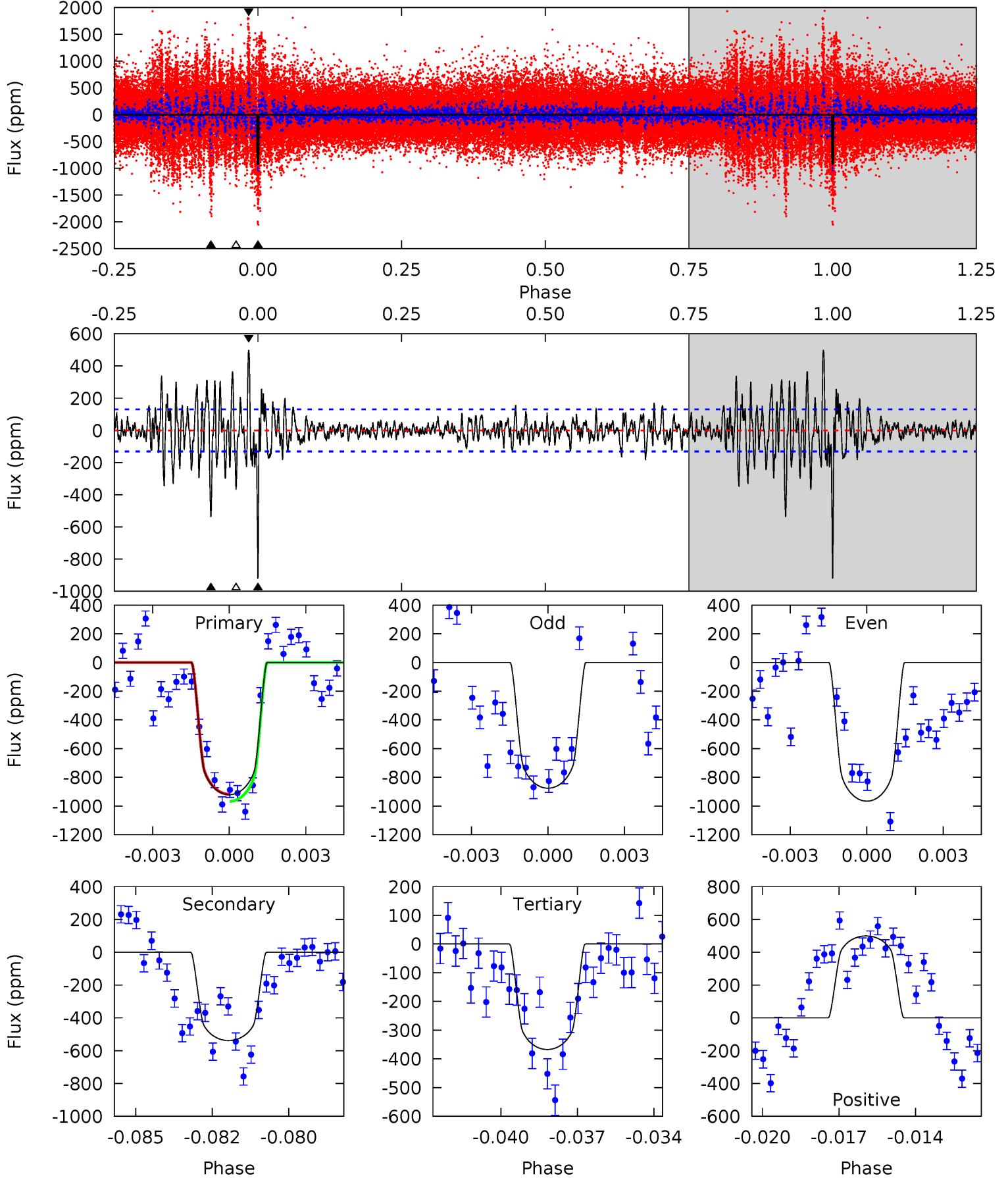
TCE 008308229-01 P=365.631311 Days $T_0=241.626185$ (BKJD)



DV Model-Shift Uniqueness Test

008308229-01, P = 365.677087 Days, E = 241.476829 Days

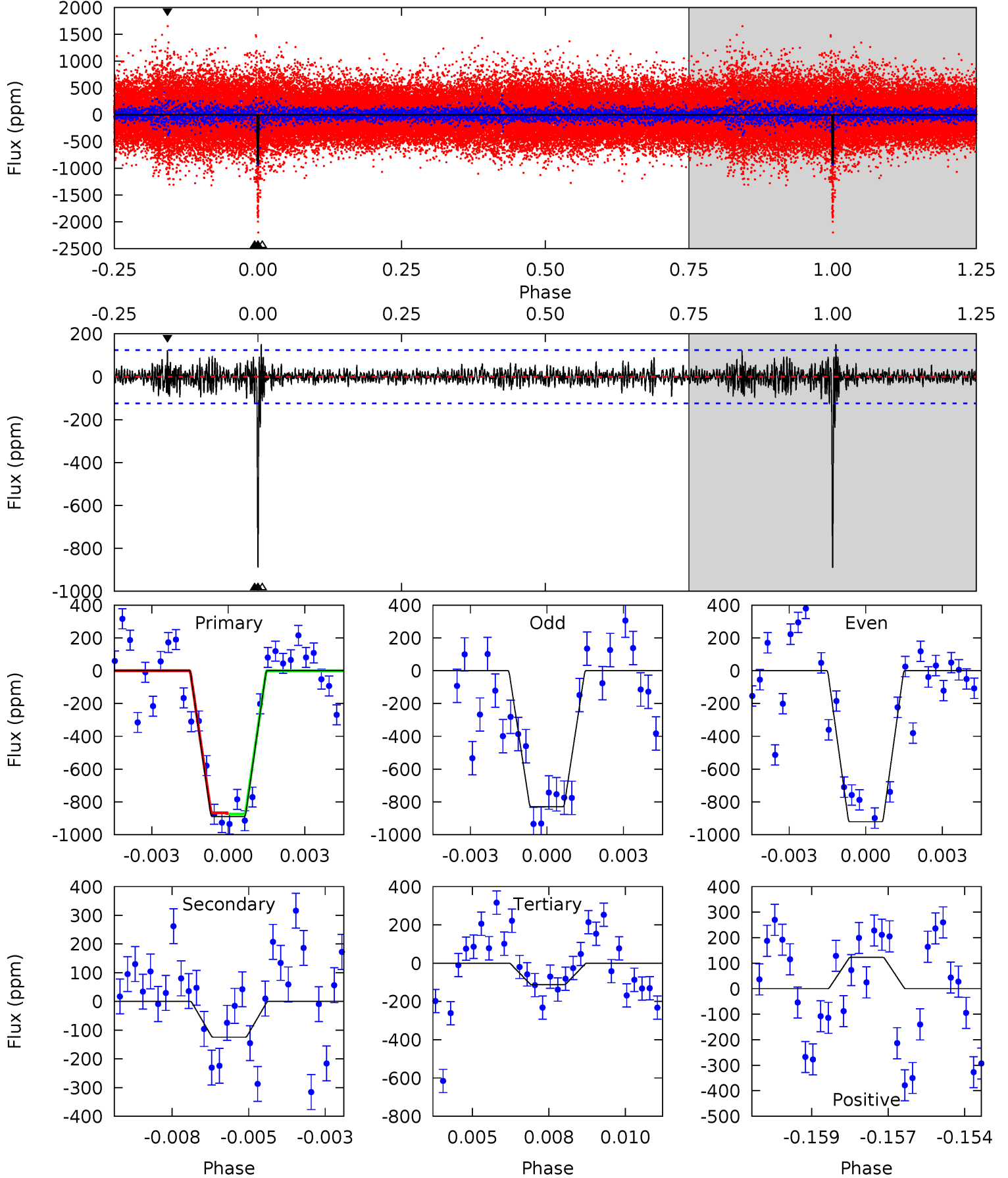
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.2	21.7	14.8	20.1	5.26	2.98	3.54	22.3	17.0	6.89	1.56	1.80	1.05	0.35	0.99



Alt Model-Shift Uniqueness Test

008308229-01, P = 365.631311 Days, E = 241.626185 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.9	5.30	4.79	5.22	5.28	3.02	1.18	33.1	32.7	0.51	0.08	1.96	1.05	0.15	0.15



Stellar Parameters For KIC 008308229

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5718^{+156}_{-173}	$4.406^{+0.105}_{-0.195}$	$0.000^{+0.250}_{-0.300}$	$1.009^{+0.286}_{-0.154}$	$0.946^{+0.125}_{-0.091}$	$1.296^{+0.691}_{-0.609}$
	+3%/-3%	+2%/-4%	+inf%/-inf%	+28%/-15%	+13%/-10%	+53%/-47%
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 008308229-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-538 ± 25	$3.82^{+0.62}_{-0.49}$	361^{+25}_{-19}	4837^{+224}_{-199}	19640^{+5793}_{-5158}
Alt.	-124 ± 23	$3.23^{+0.58}_{-0.44}$	360^{+27}_{-20}	3896^{+207}_{-194}	6129^{+2774}_{-1847}

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

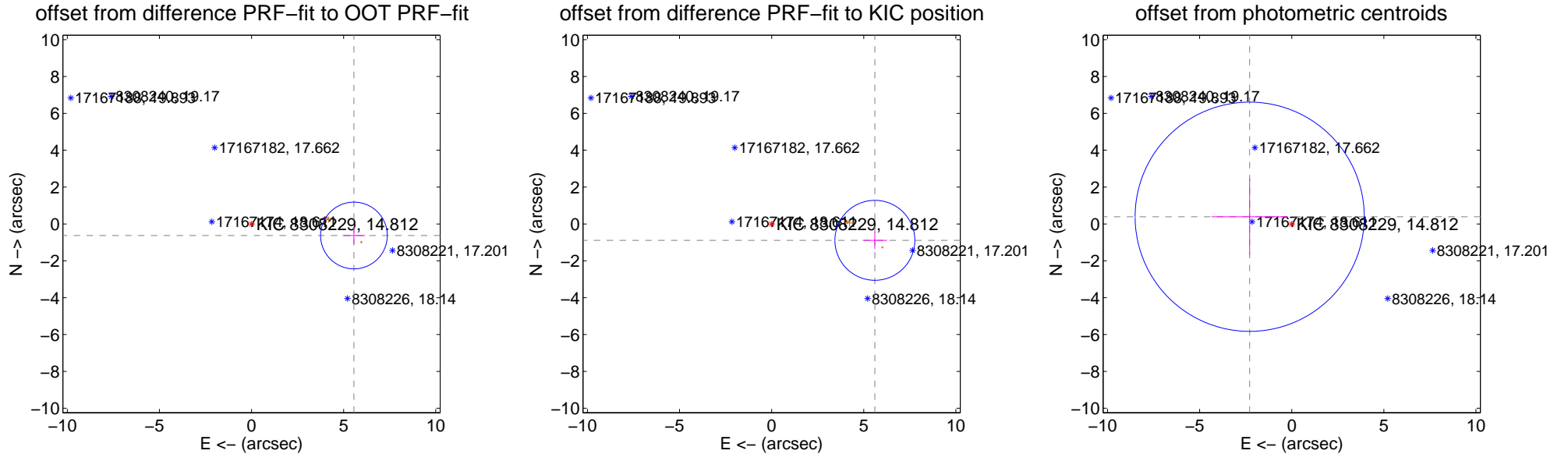
DV Centroid Data

Supplemental centroid analysis for 008308229-01. Kepler magnitude: 14.81. Transit SNR 10.16

There are 0 quarters with good PRF difference image offsets

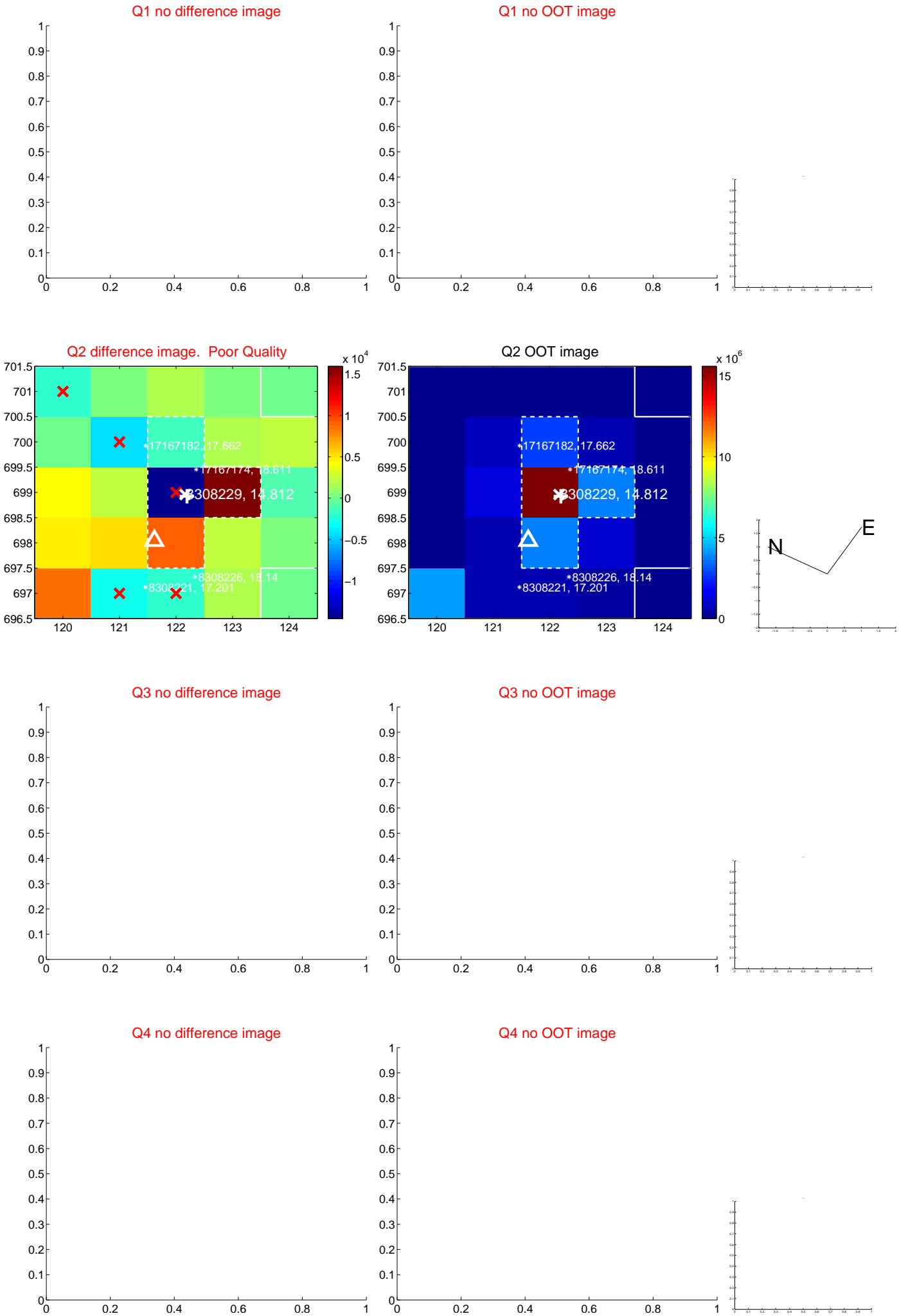
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.594 ± 0.604	9.27	-5.559 ± 0.605	-0.626 ± 0.462
PRF-fit source offset from KIC position	5.673 ± 0.723	7.85	-5.603 ± 0.657	-0.888 ± 0.479
photometric centroid source offset	2.32 ± 2.07	1.12	2.28 ± 2.07	0.39 ± 2.07

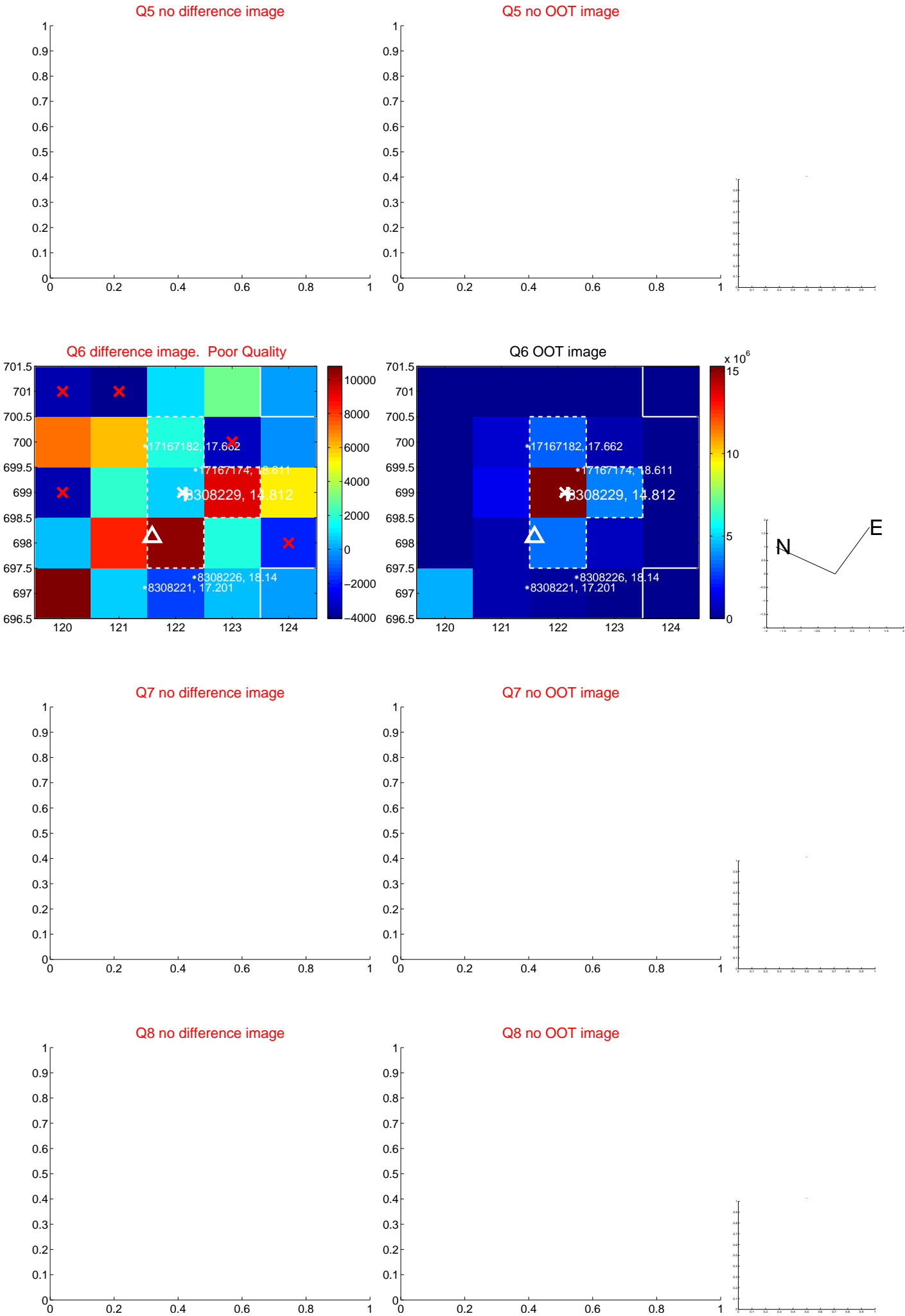


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

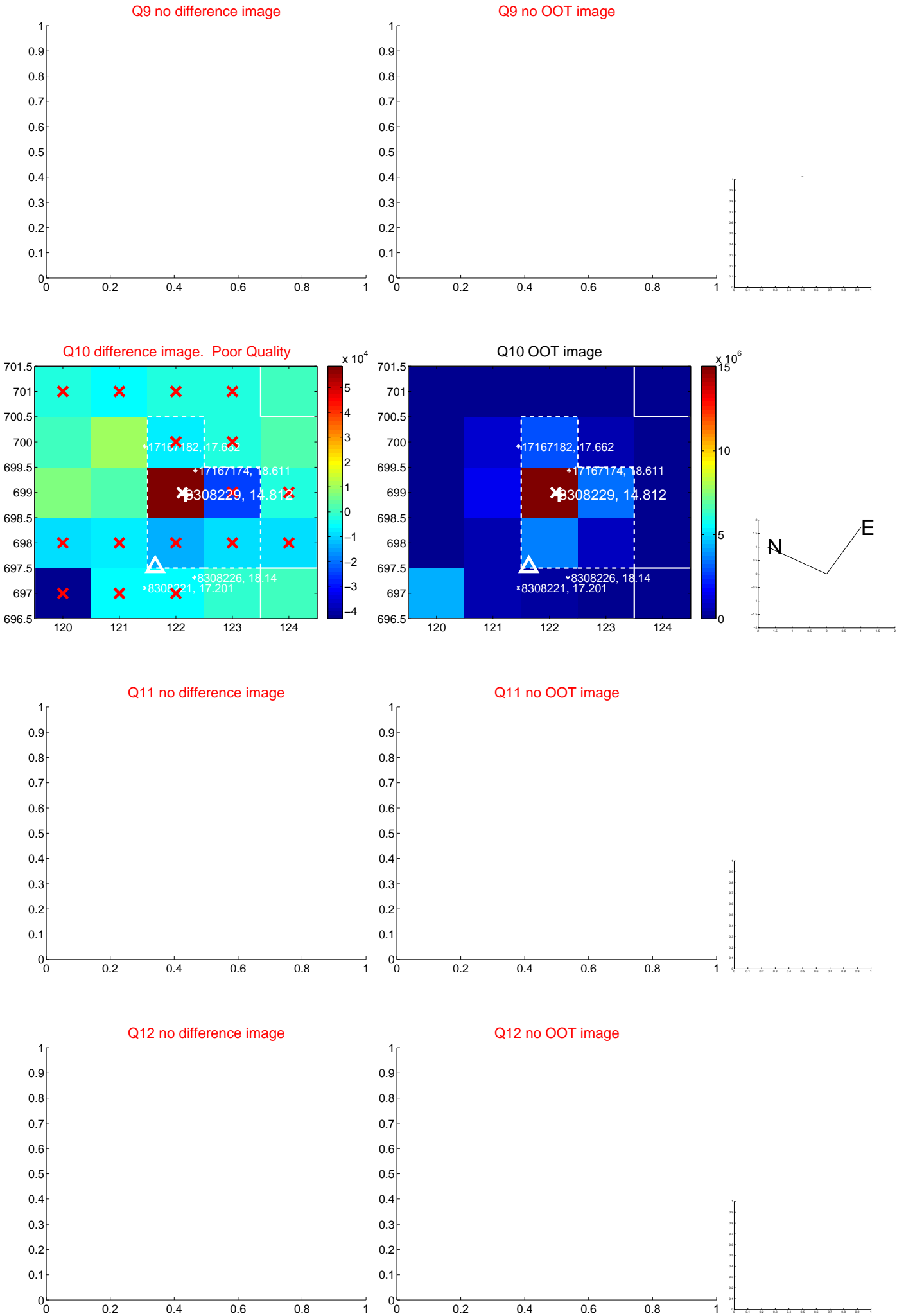
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



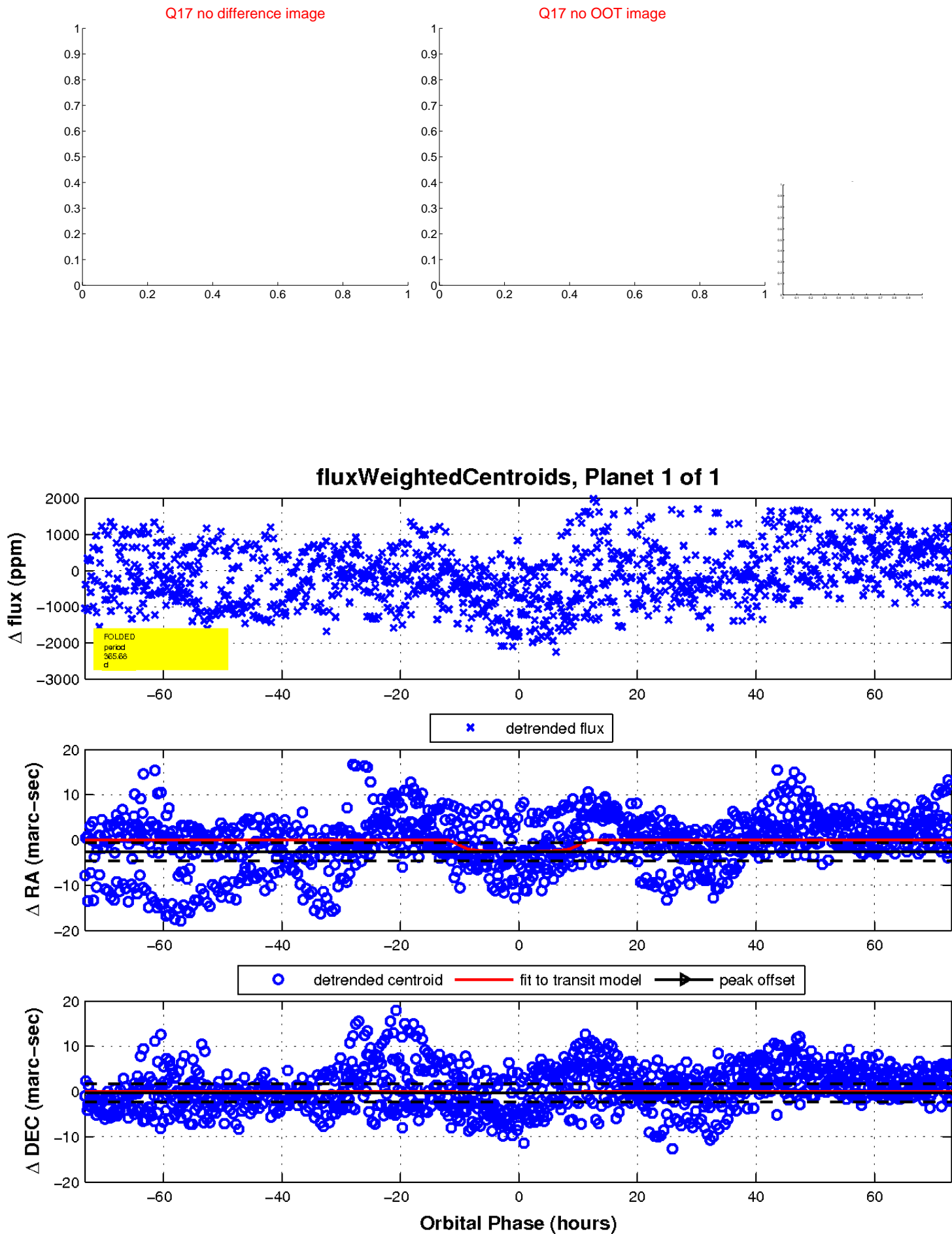
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UKIRT Image

Declination

