

KIC 005617342

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})
005617342-01	OBS	No	575.646623	208.206910	69.5	20.279	8.5	9.3	3.11	8386	2.91	13.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005617342-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_TER_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

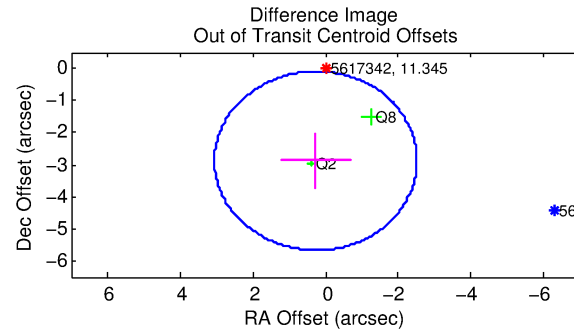
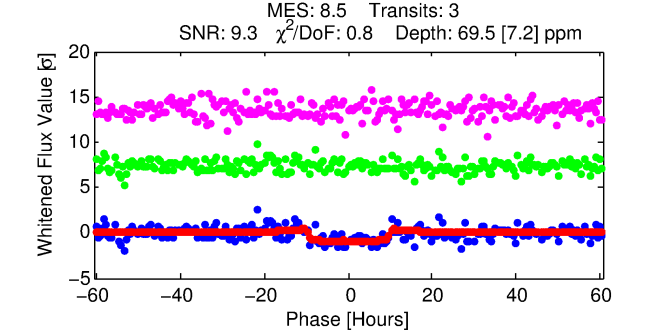
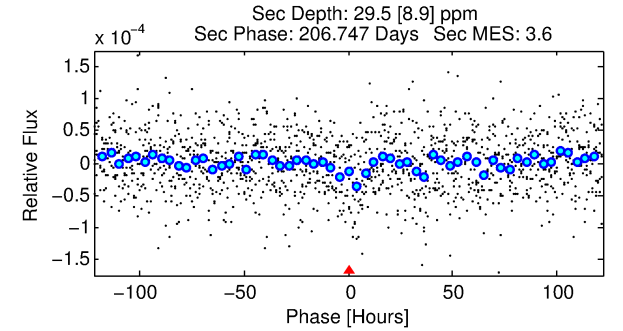
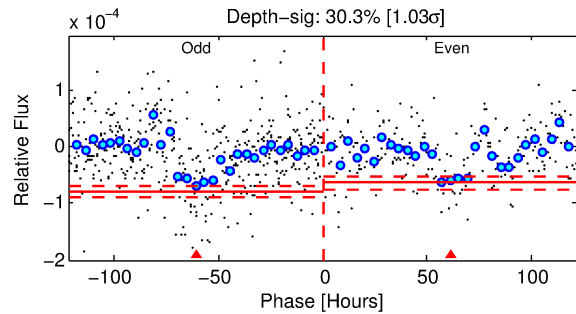
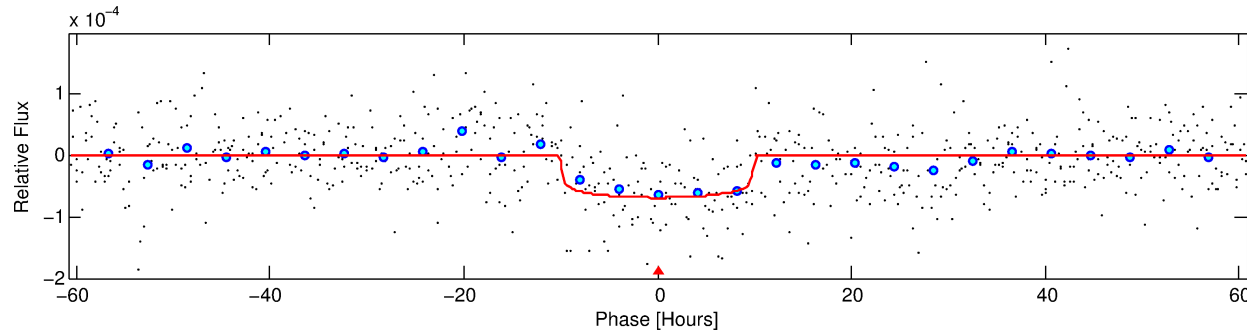
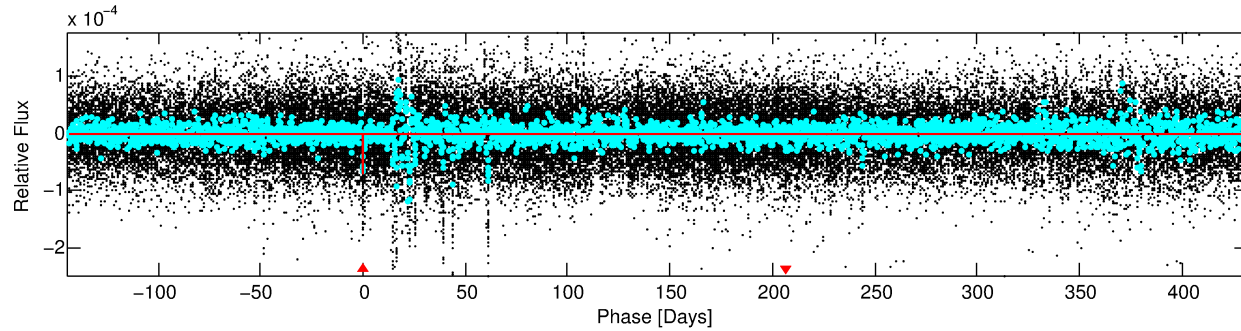
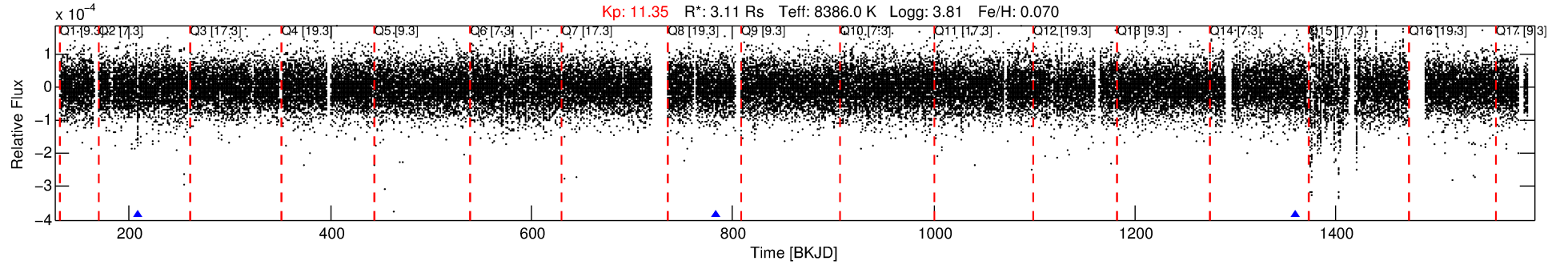
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005617342-01

No Significant Match Found

DV One-Page Summary

KIC: 5617342 Candidate: 1 of 1 Period: 575.647 d



DV Fit Results:

Period = 575.64662 [0.01286] d
Epoch = 208.2069 [0.0157] BKJD
Rp/R* = 0.0086 [0.0010]
a/R* = 119.75 [79.88]
b = 0.84 [0.23]
Seff = 13.42 [9.29]
Teq = 488 [84] K
Rp = 2.91 [1.20] Re
a = 1.7849 [0.6504] AU
Ag = 6117.97 [4205.02] [1.45 σ]
Teffp = 6673 [919] K [6.70 σ]

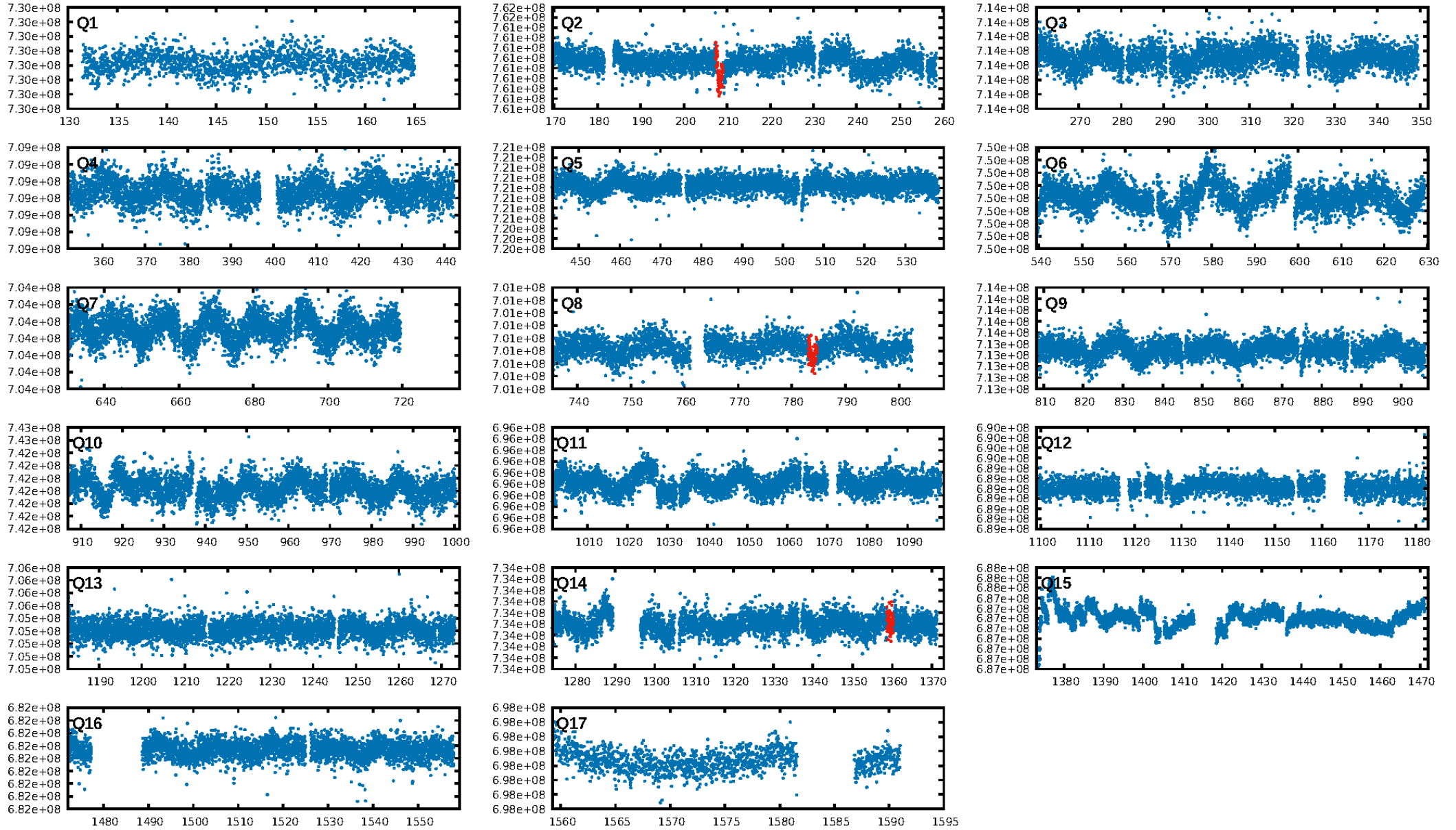
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.24e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 12.08
Centroid-sig: 0.1%
Centroid-so: 5.044 arcsec [2.40 σ]
OotOffset-rm: 2.894 arcsec [3.11 σ]
KicOffset-rm: 2.848 arcsec [6.68 σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

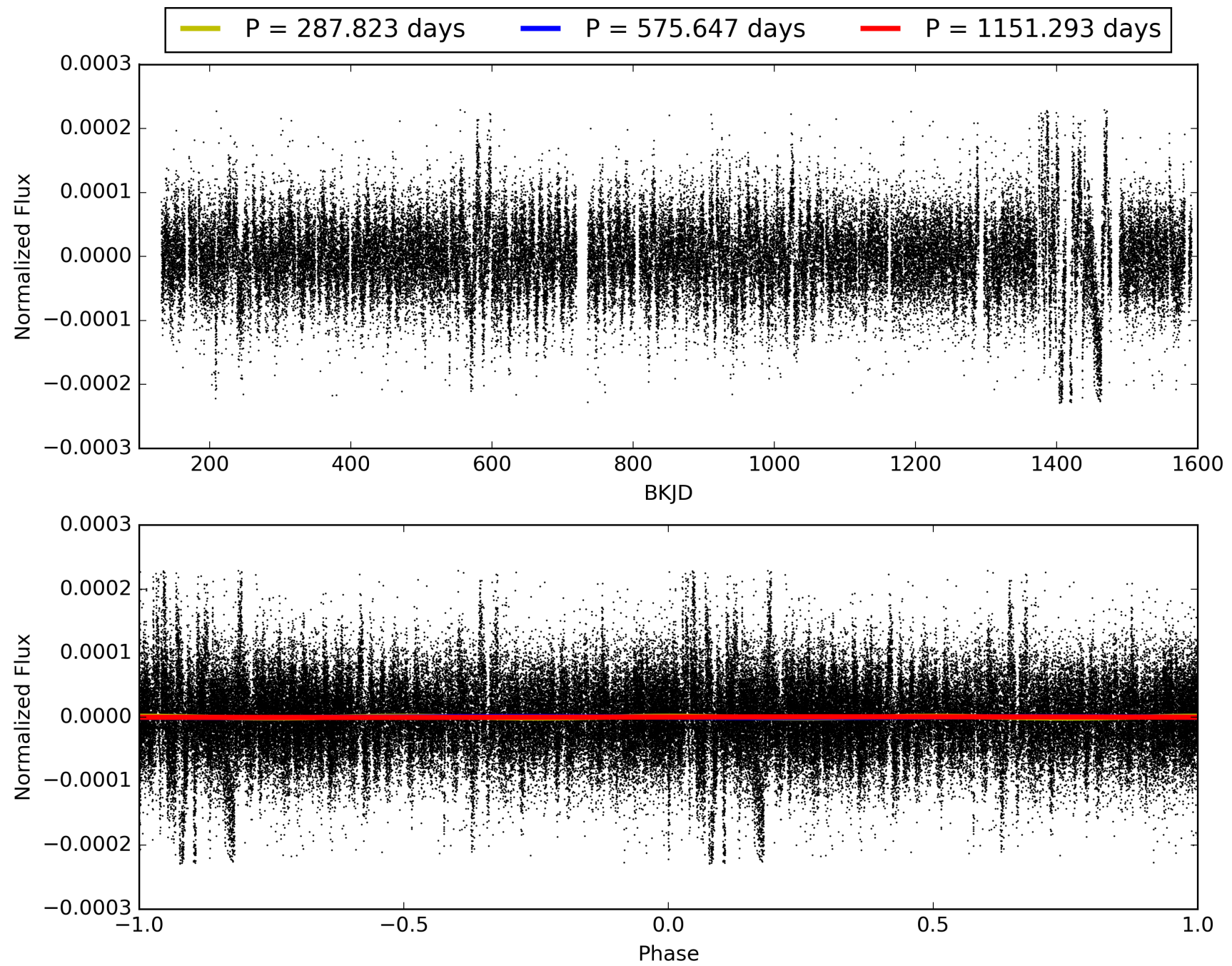
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:46:00 Z

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

TCE 005617342-01, PDC Light Curves

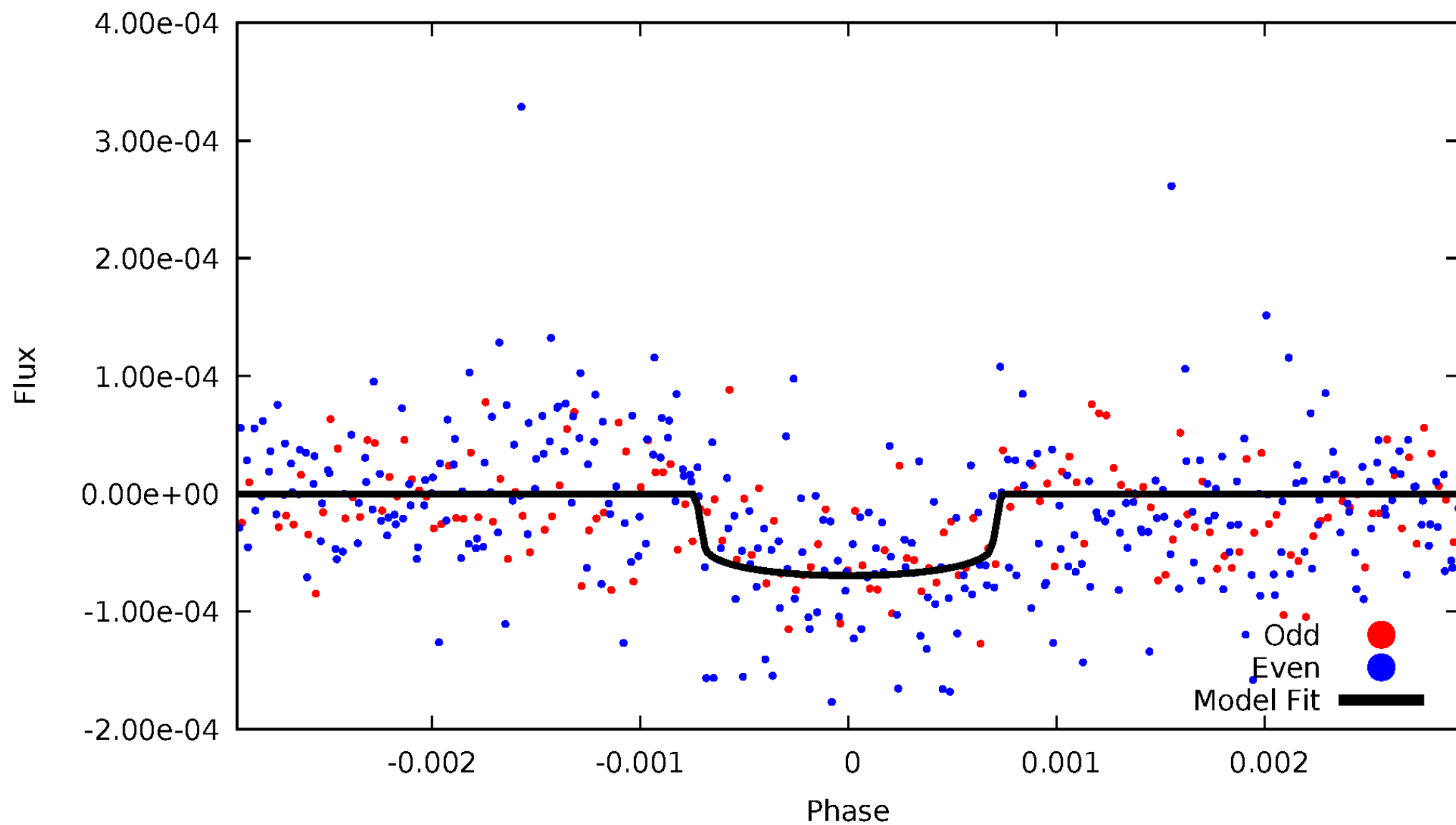


TCE 005617342-01



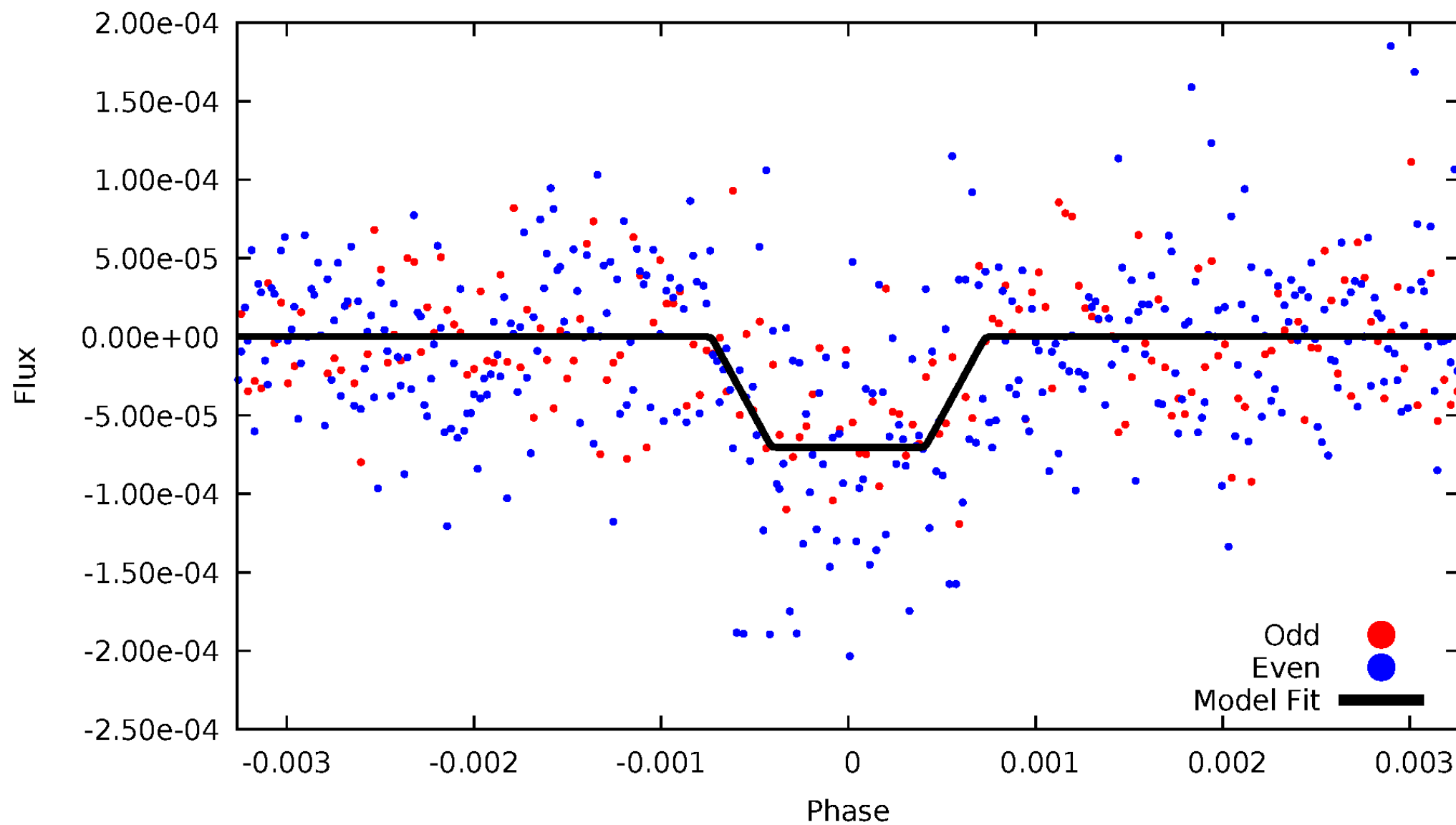
DV Odd/Even

TCE 005617342-01



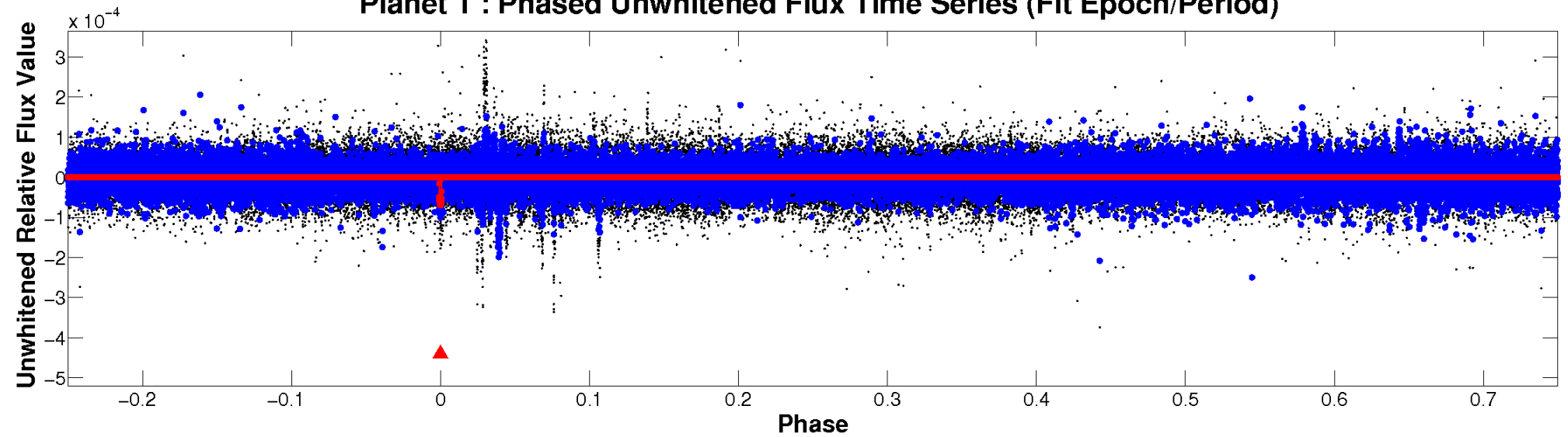
ALT Odd/Even

TCE 005617342-01

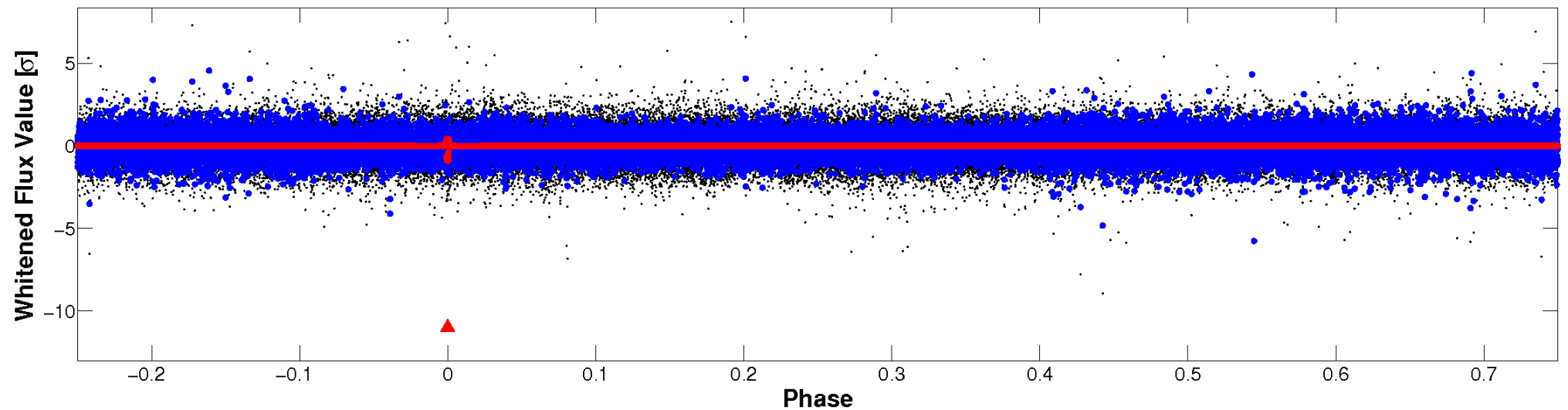


Non-Whitened Vs. Whitened Light Curve

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 005617342-01 P=575.646624 Days $T_0=208.206910$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005617342-01 P=575.646624 Days $T_0=208.206910$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

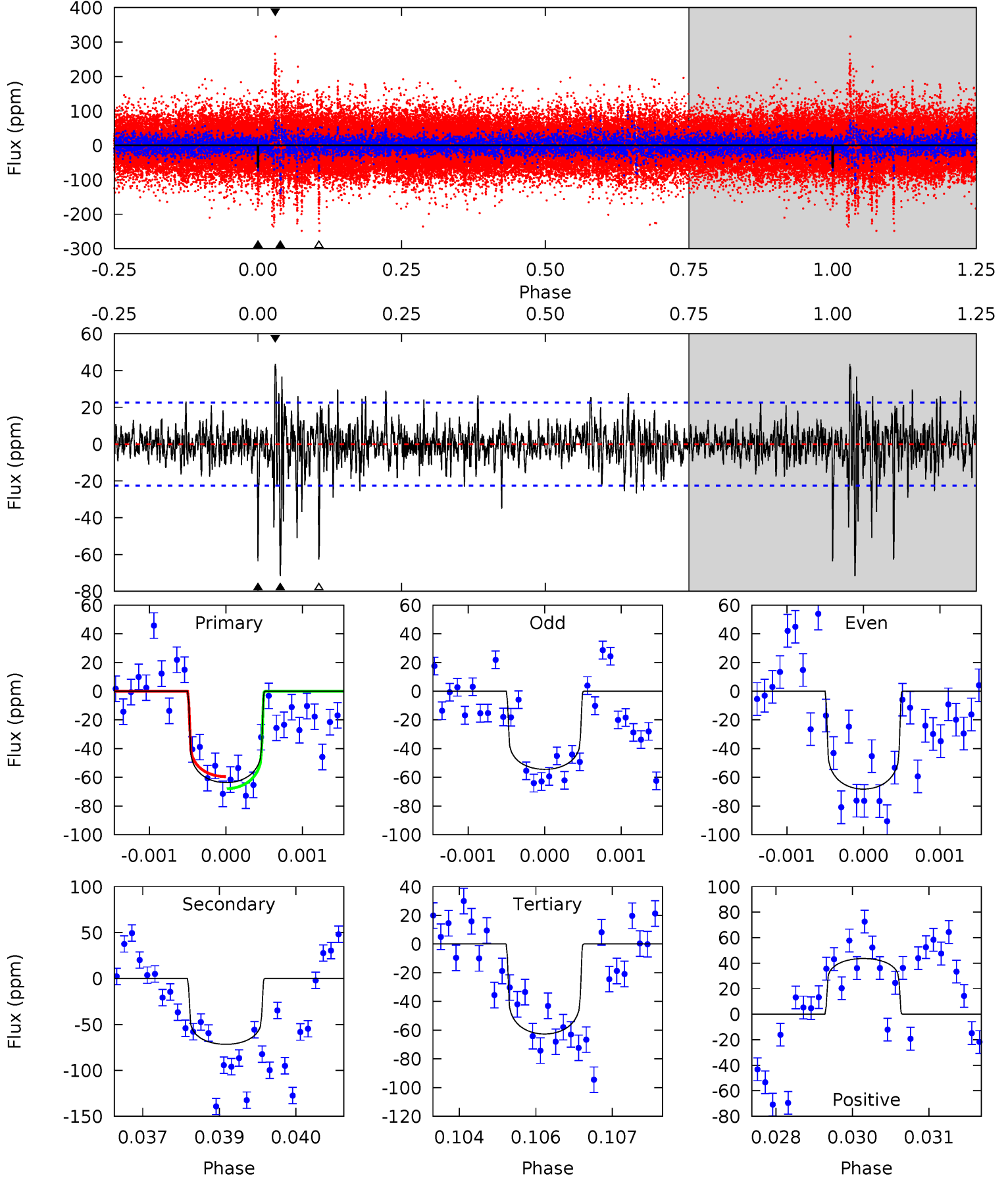
TCE 005617342-01 P=575.722364 Days $T_0=208.156661$ (BKJD)



DV Model-Shift Uniqueness Test

005617342-01, P = 575.646624 Days, E = 208.206910 Days

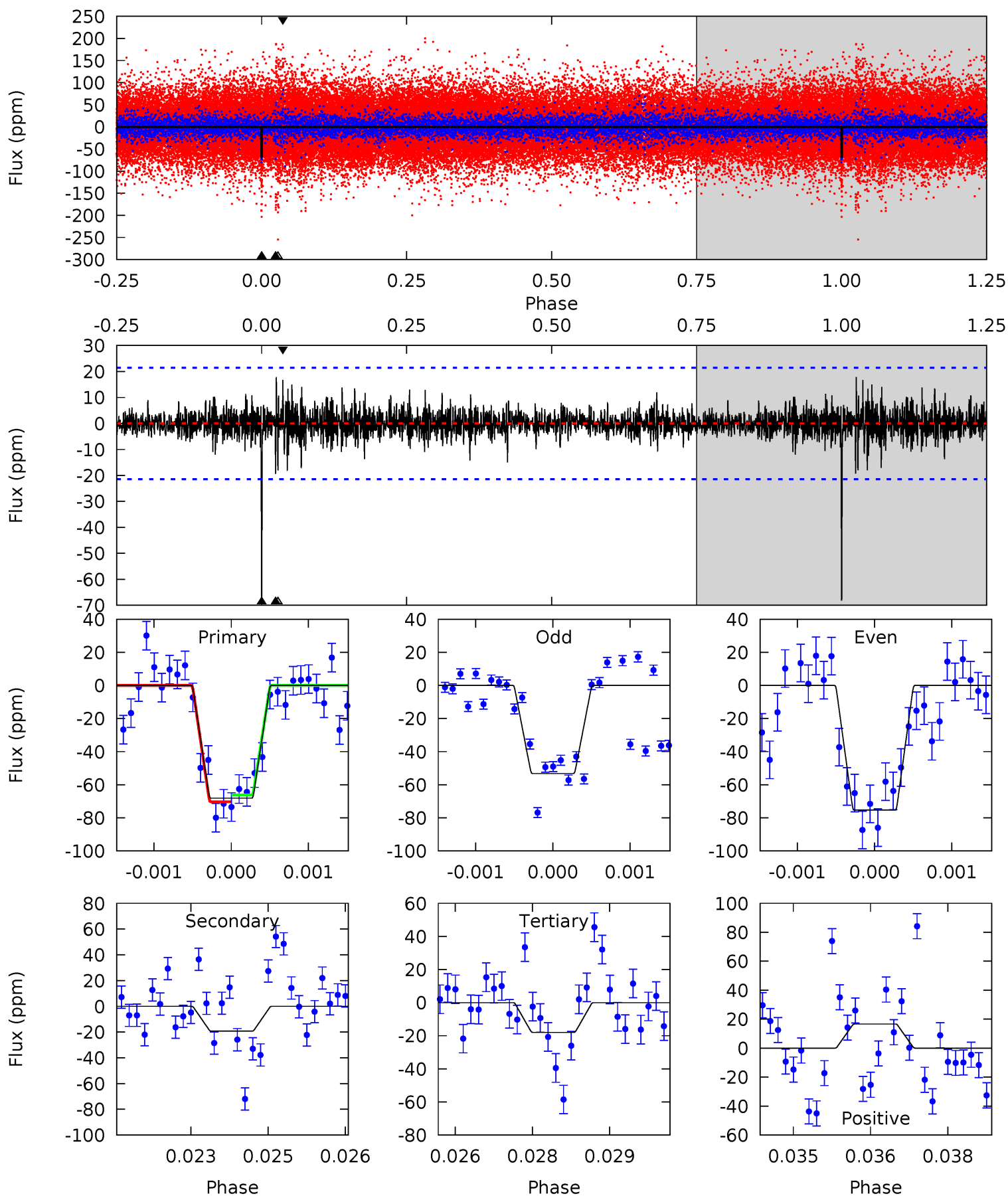
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	17.1	15.0	10.4	5.38	3.18	2.12	0.25	4.80	2.14	6.69	1.55	1.17	0.38	1.00



Alt Model-Shift Uniqueness Test

005617342-01, P = 575.722364 Days, E = 208.156661 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	4.83	4.52	4.18	5.38	3.18	0.95	12.6	12.9	0.31	0.65	2.62	1.28	0.21	0.52



Stellar Parameters For KIC 005617342

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8386^{+445}_{-826}	$3.813^{+0.329}_{-0.141}$	$0.070^{+0.150}_{-0.250}$	$3.106^{+0.714}_{-1.224}$	$2.290^{+0.289}_{-0.674}$	$0.108^{+0.287}_{-0.046}$
	+5%/-10%	+9%/-4%	+214%/-357%	+23%/-39%	+13%/-29%	+267%/-43%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005617342-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-72 ± 4	$2.79^{+0.62}_{-0.61}$	656^{+76}_{-83}	8204^{+916}_{-930}	15999^{+9295}_{-4999}
Alt.	-19 ± 4	$2.74^{+0.58}_{-0.64}$	660^{+69}_{-81}	5790^{+617}_{-529}	4455^{+2976}_{-1517}

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

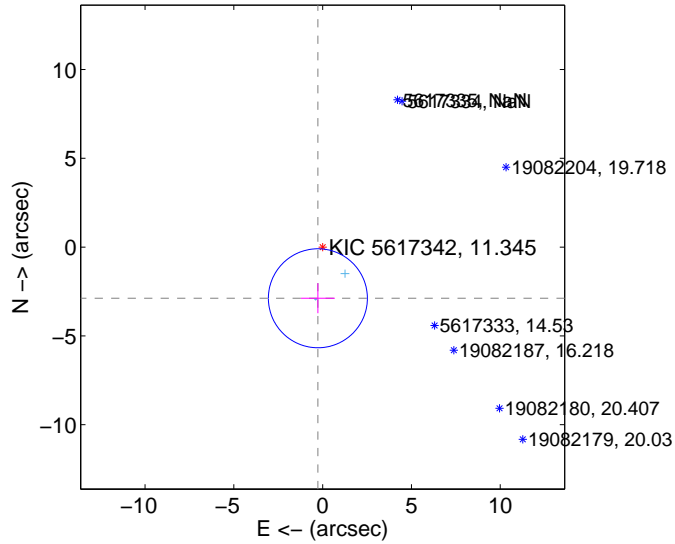
Supplemental centroid analysis for 005617342-01. **Kepler magnitude: 11.35.** Transit SNR 9.30

There are 2 quarters with good PRF difference image offsets

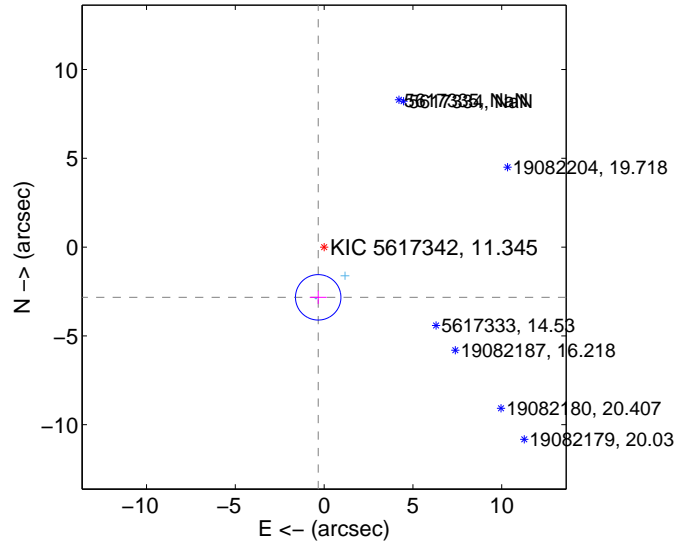
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.894 ± 0.929	3.11	0.268 ± 0.957	-2.881 ± 0.844
PRF-fit source offset from KIC position	2.848 ± 0.427	6.68	0.334 ± 0.476	-2.829 ± 0.375
photometric centroid source offset	5.04 ± 2.10	2.40	4.80 ± 2.12	-1.56 ± 1.91

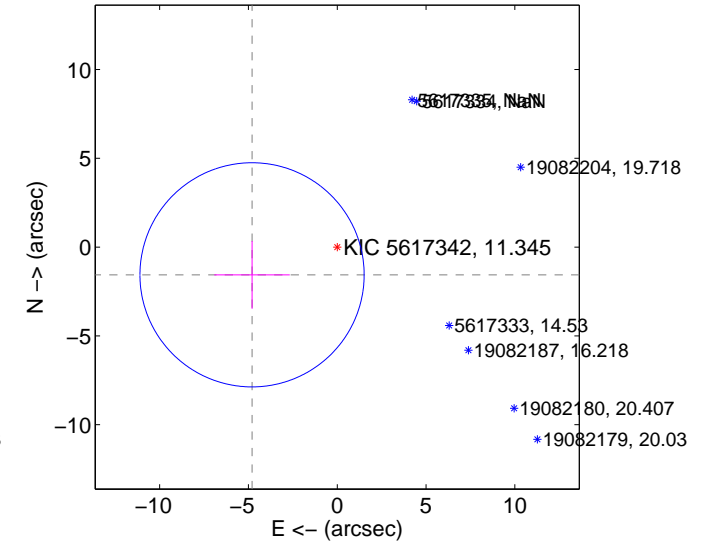
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

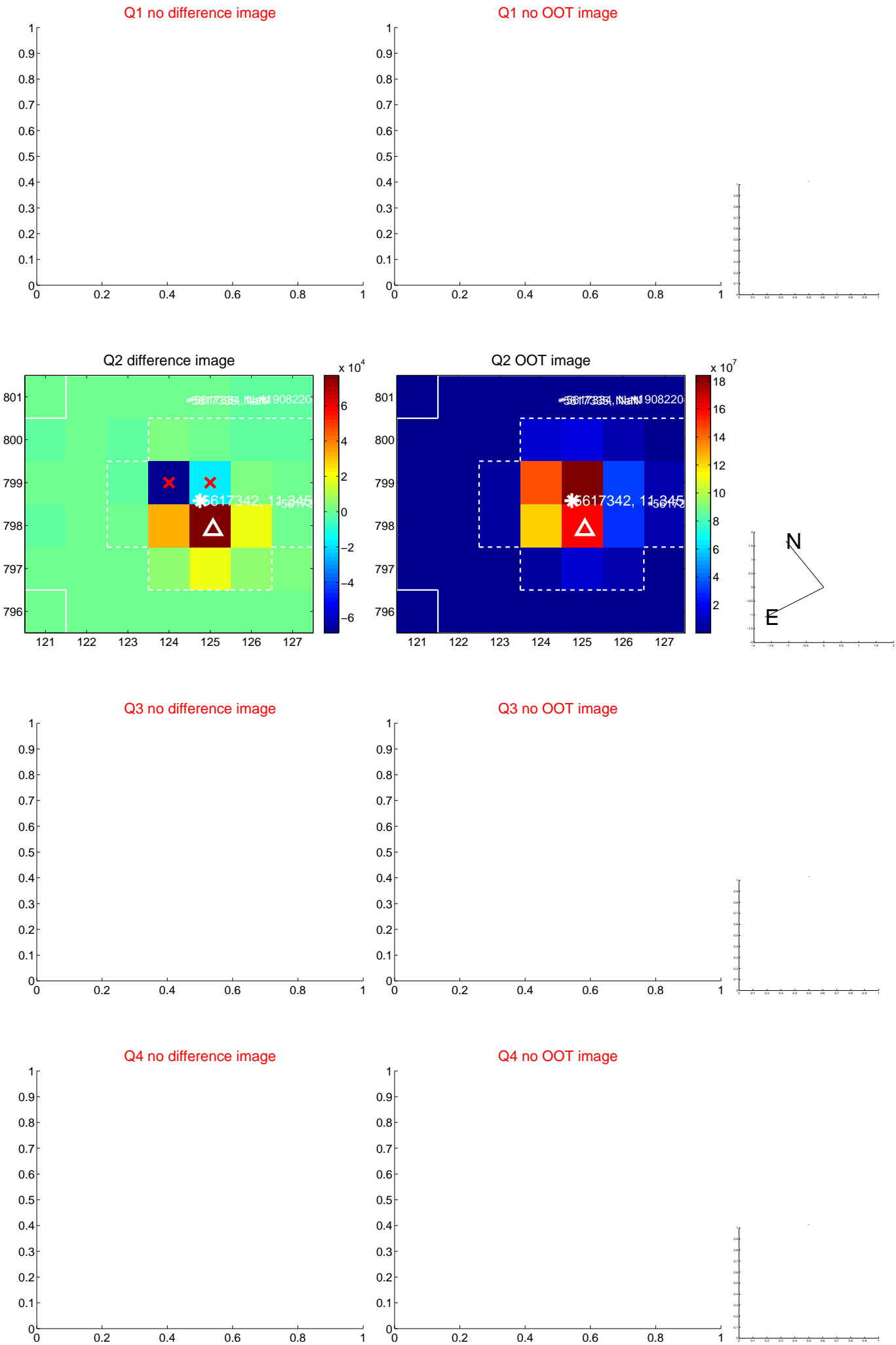


offset from photometric centroids

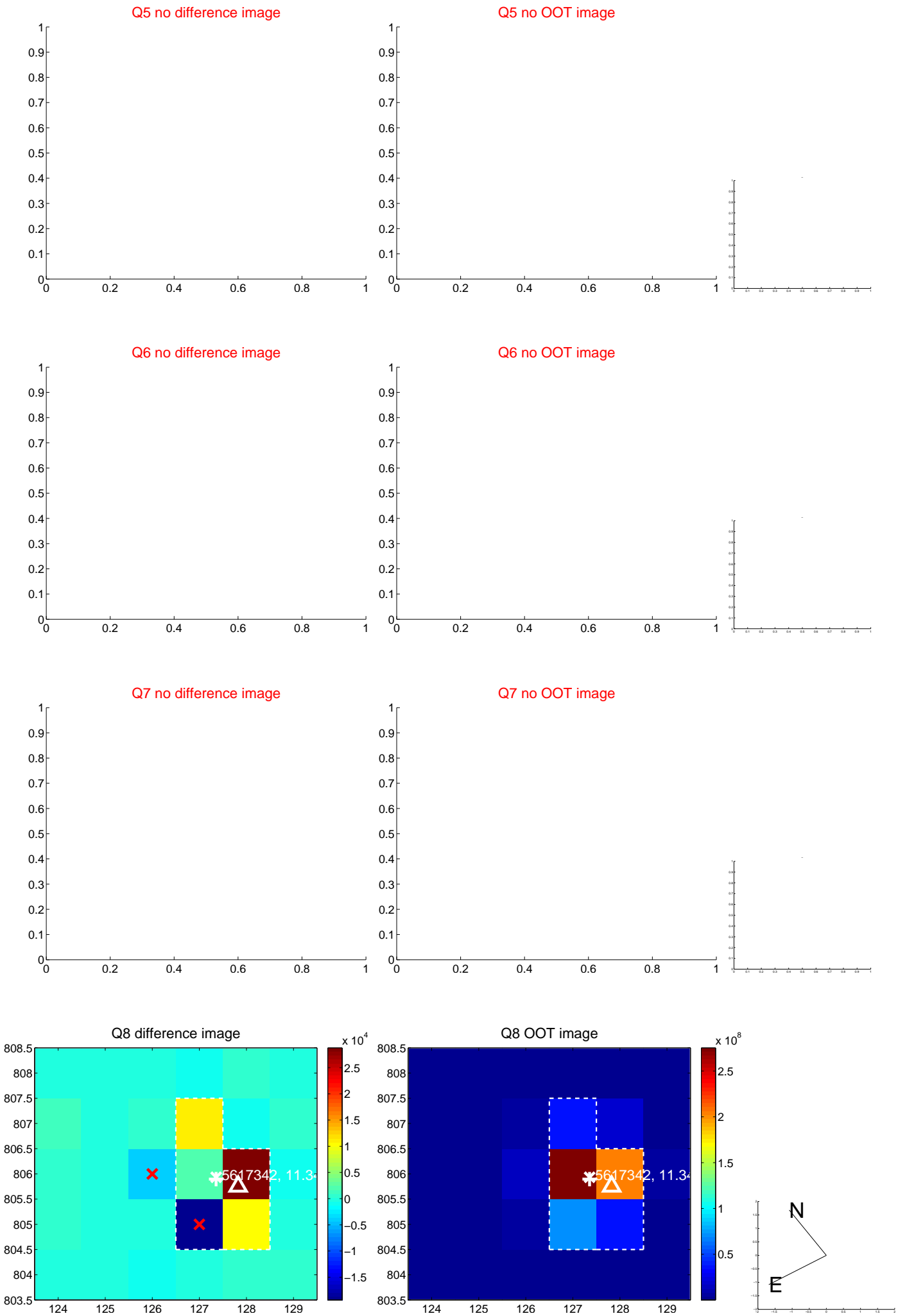


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



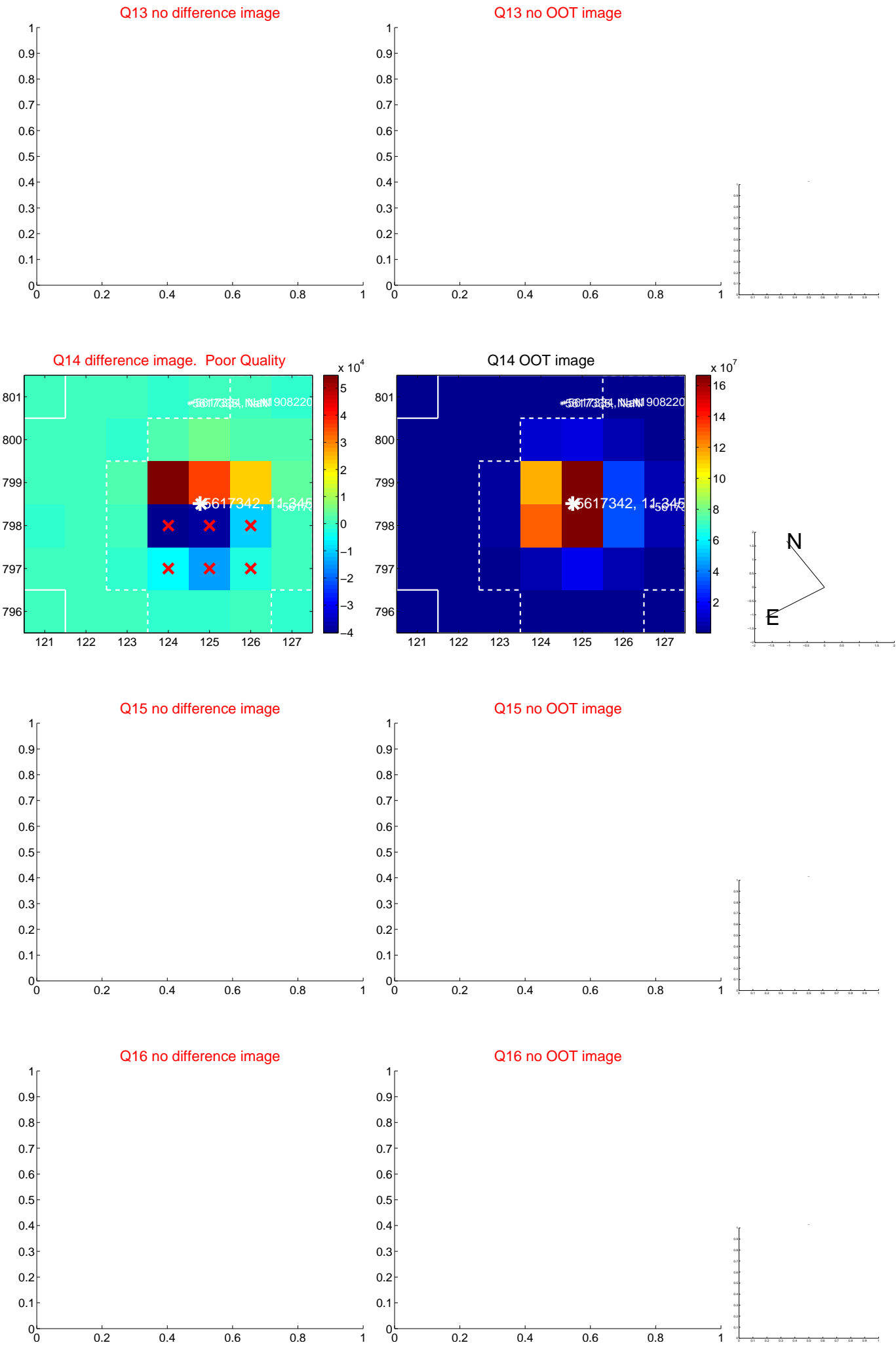
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



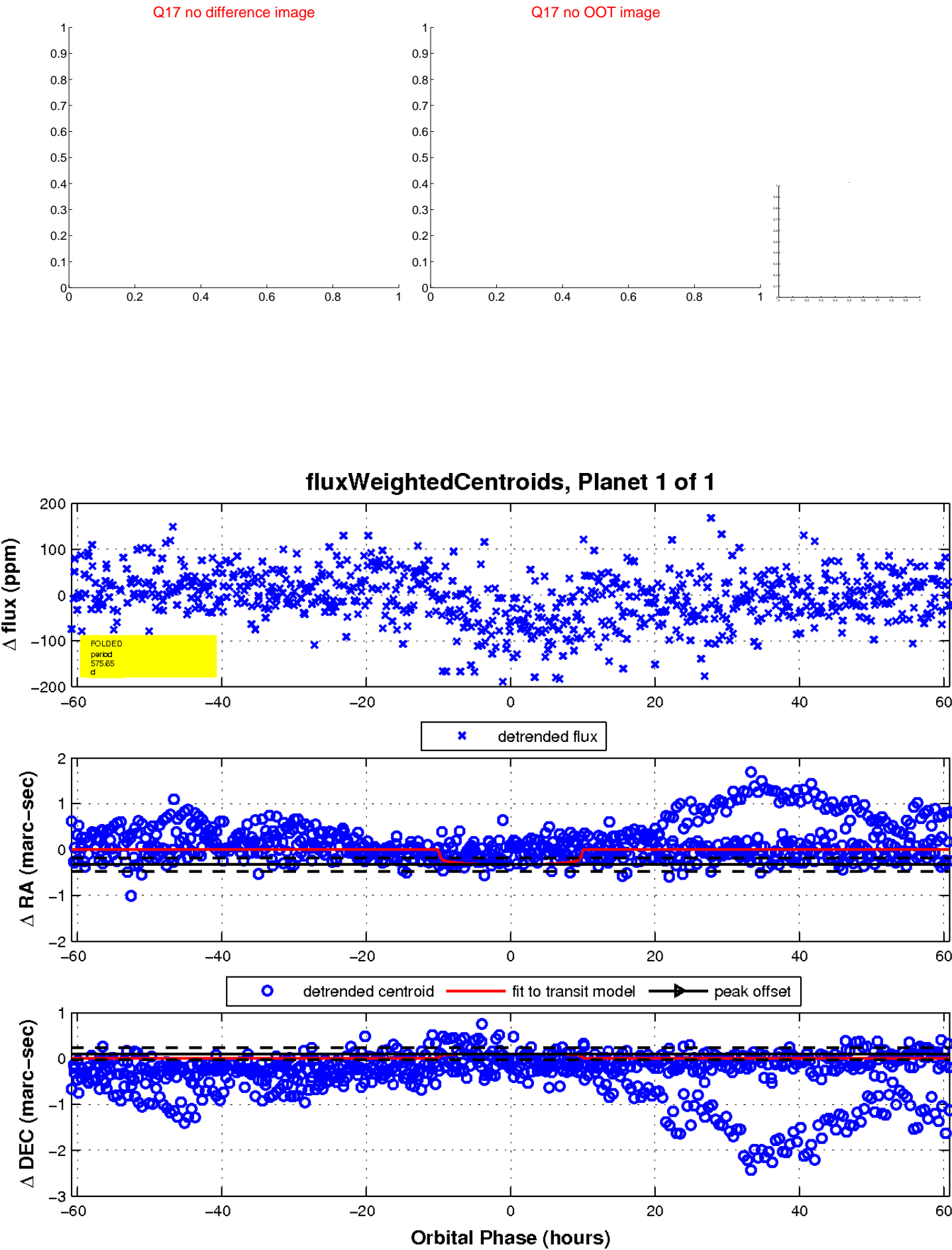
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

