

KIC 010268714

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})
010268714-01	OBS	8202.01	452.615808	495.309959	182.8	19.447	7.7	8.8	1.73	6664	2.48	3.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010268714-01	OBS	FP	0.14	1	0	0	0	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.

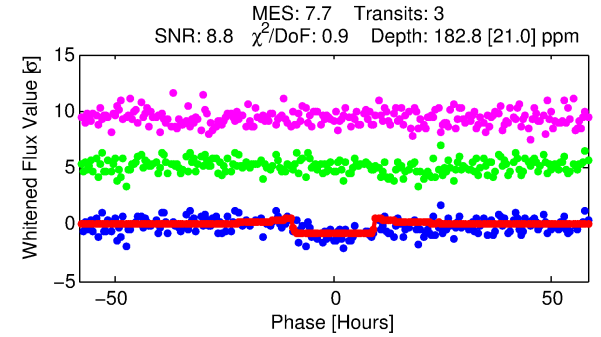
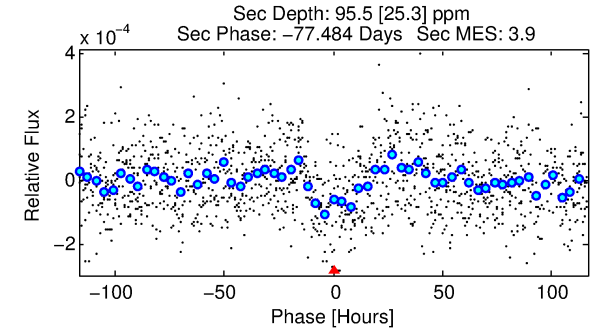
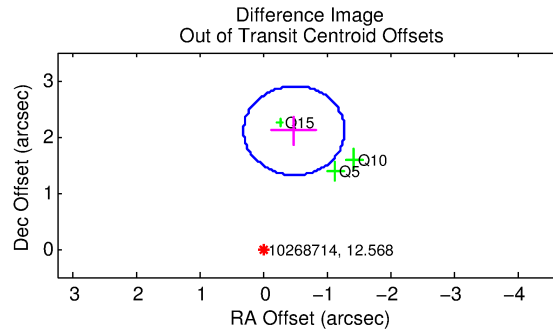
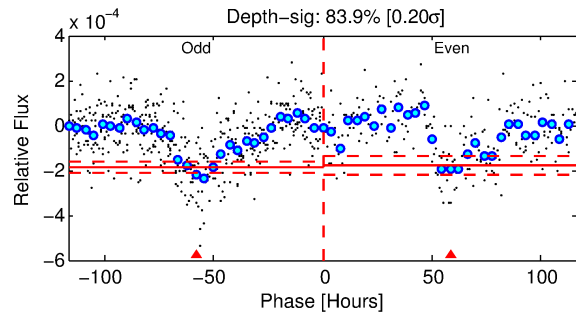
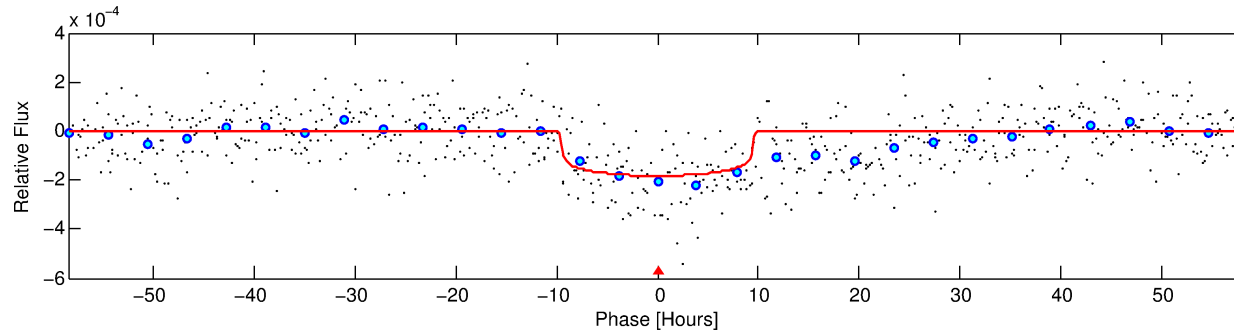
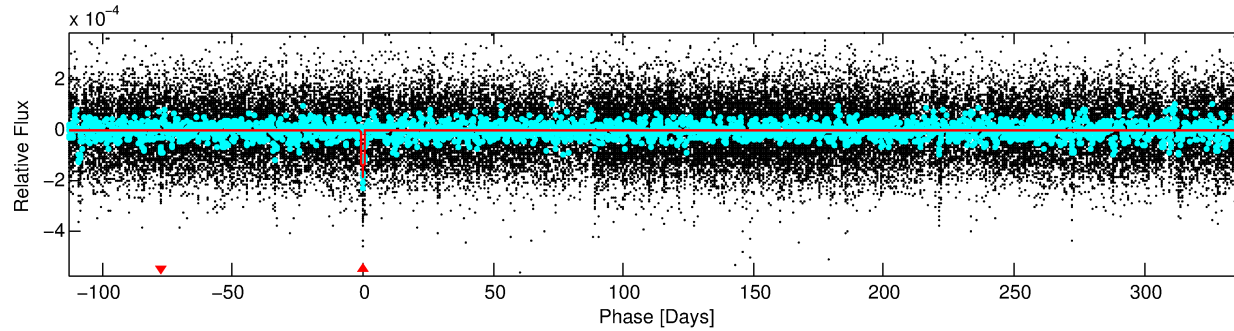
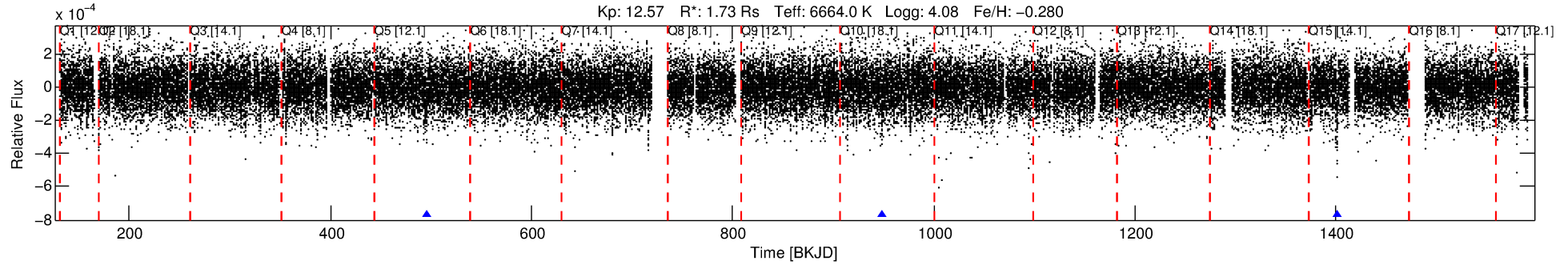
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010268714-01

No Significant Match Found

DV One-Page Summary

KIC: 10268714 Candidate: 1 of 1 Period: 452.616 d



DV Fit Results:

Period = 452.61581 [0.01040] d
Epoch = 495.3100 [0.0137] BKJD
Rp/R* = 0.0131 [0.0024]
a/R* = 136.46 [131.96]
b = 0.66 [0.82]
Seff = 3.34 [1.27]
Teq = 345 [33] K
Rp = 2.48 [0.80] Re
a = 1.2586 [0.2969] AU
Ag = 13510.63 [7823.42] [1.73 σ]
Teffp = 5745 [675] K [7.99 σ]

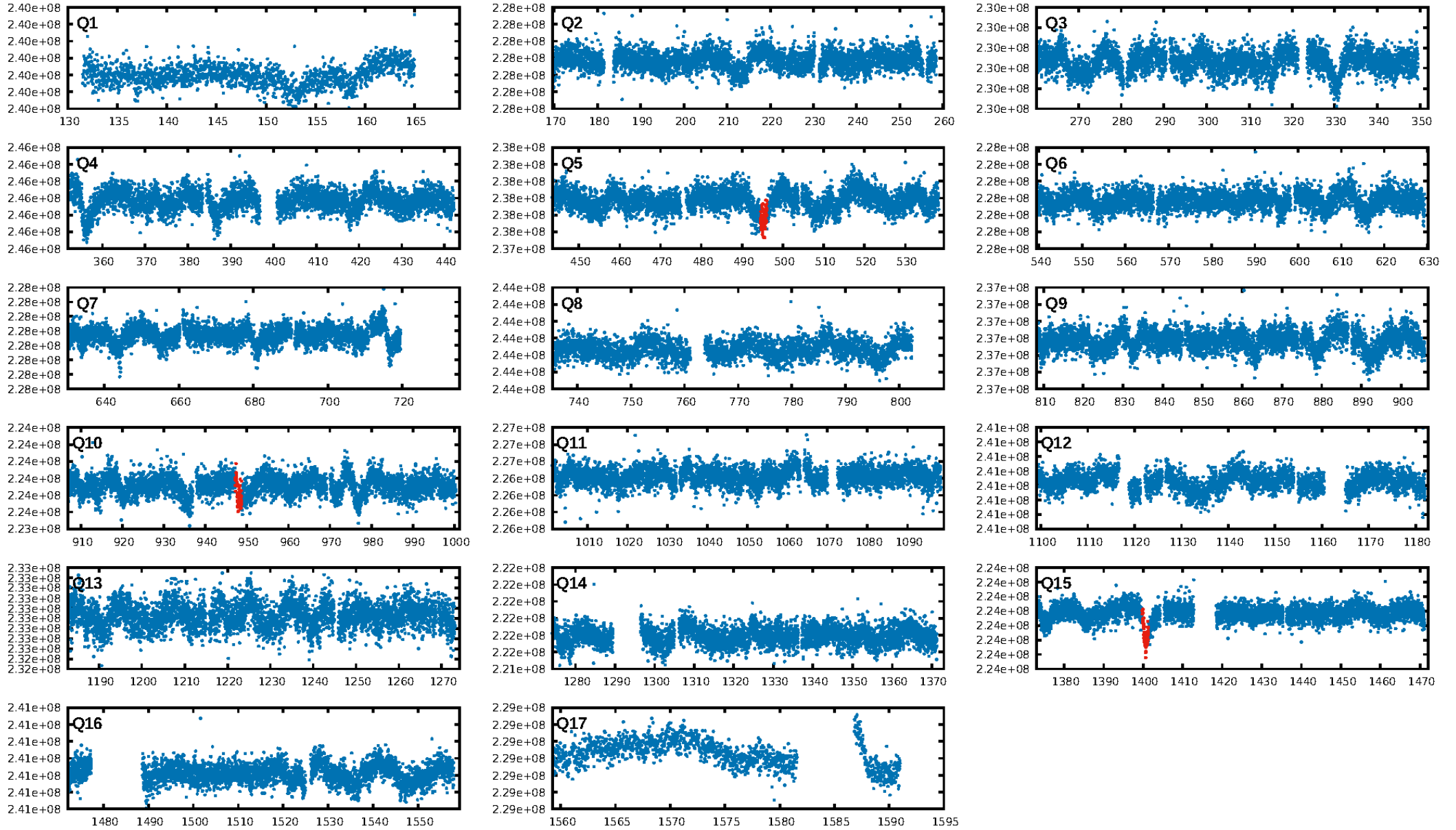
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 33.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.87e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.131
Centroid-sig: 9.0%
Centroid-so: 1.100 arcsec [1.51 σ]
OotOffset-rm: 2.159 arcsec [8.17 σ]
KicOffset-rm: 2.134 arcsec [8.37 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

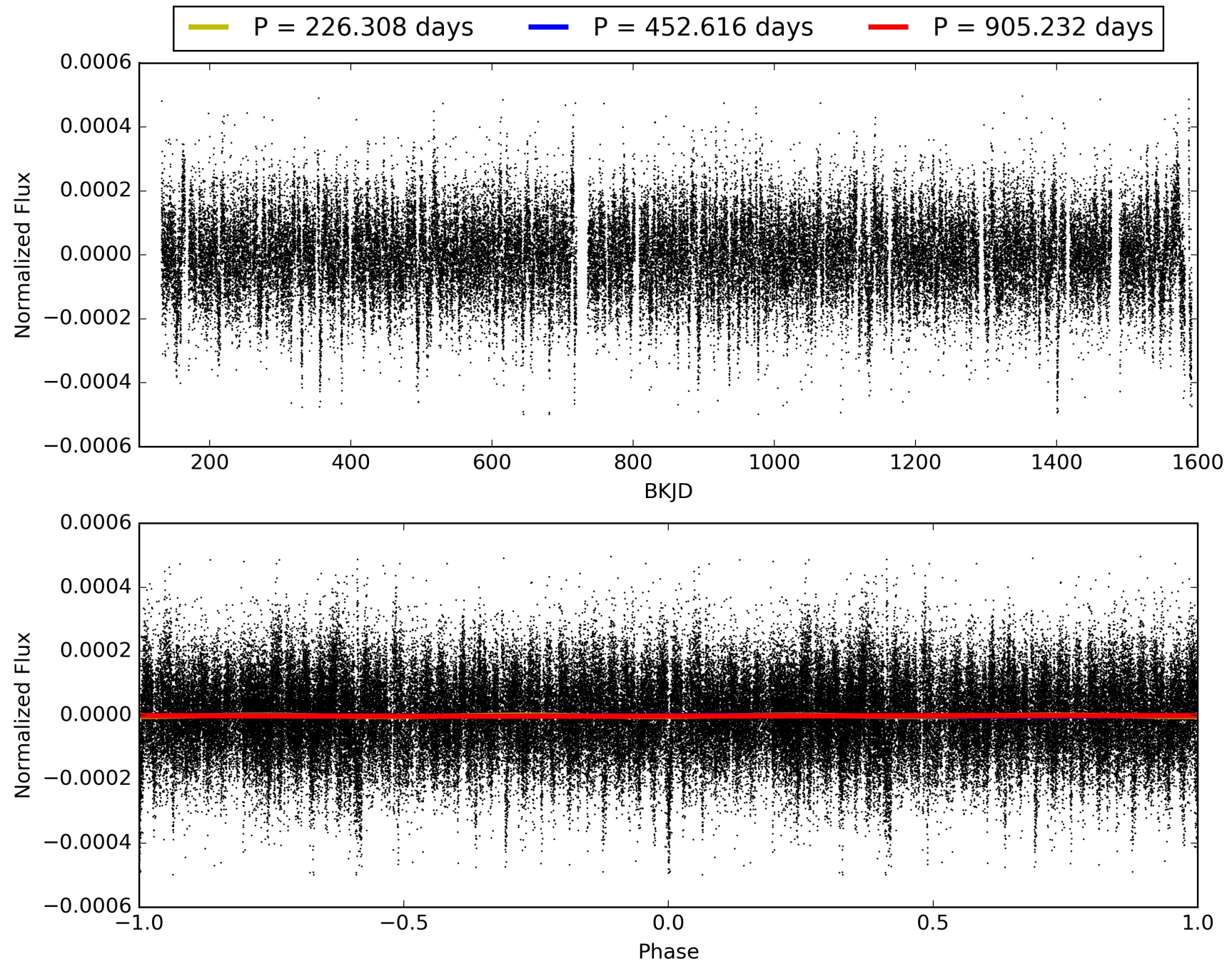
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:38:35 Z

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

TCE 010268714-01, PDC Light Curves

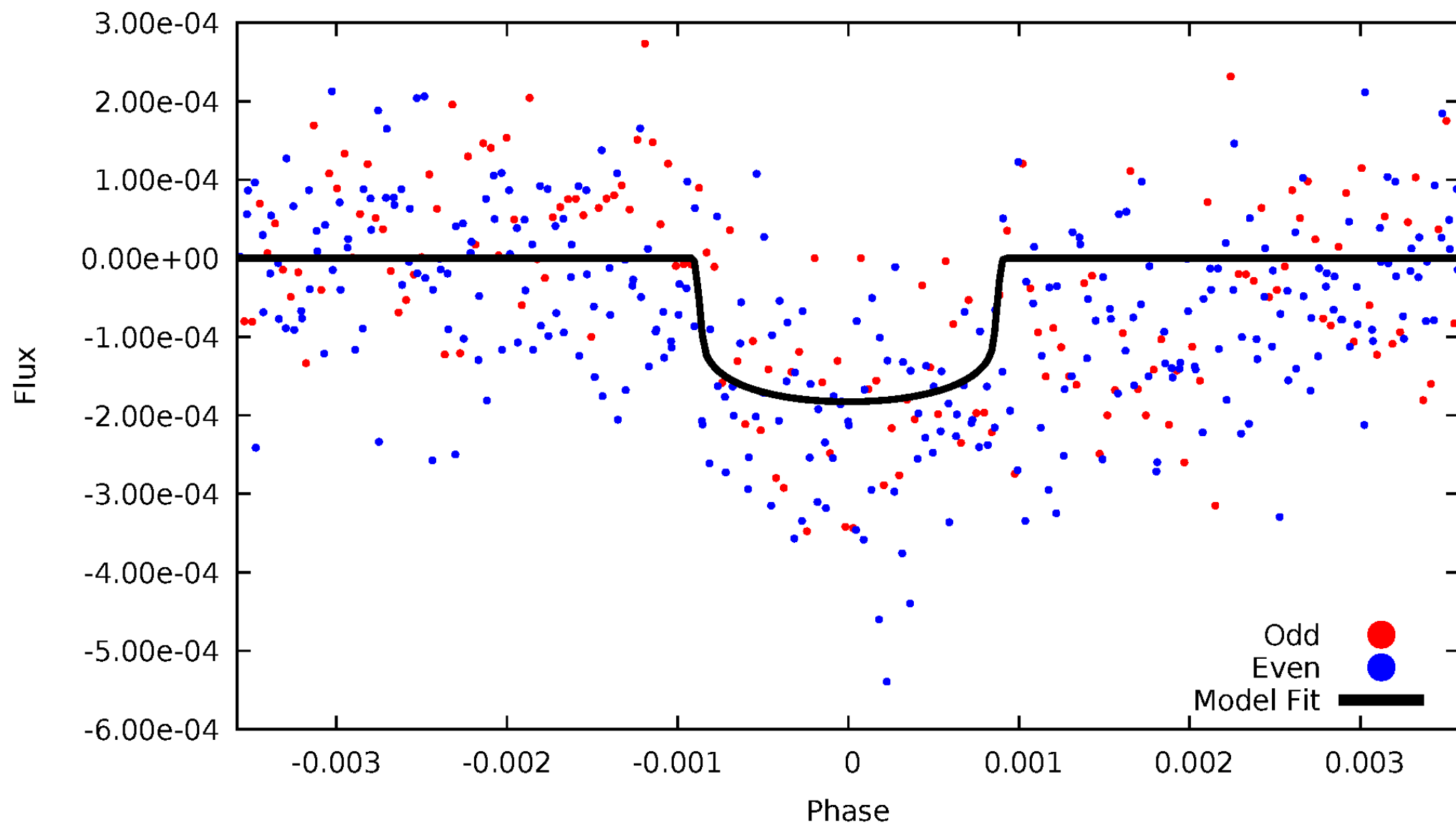


TCE 010268714-01



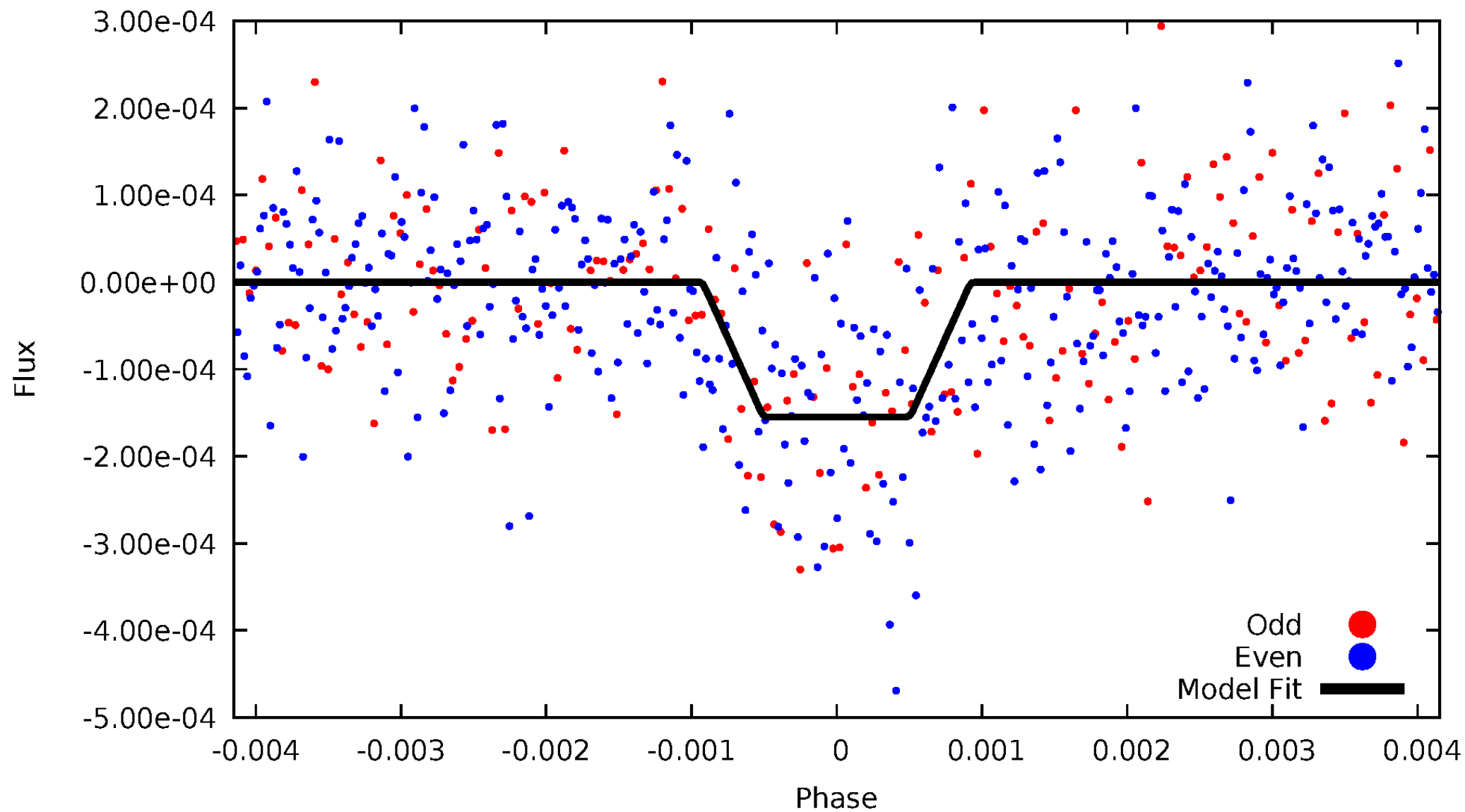
DV Odd/Even

TCE 010268714-01



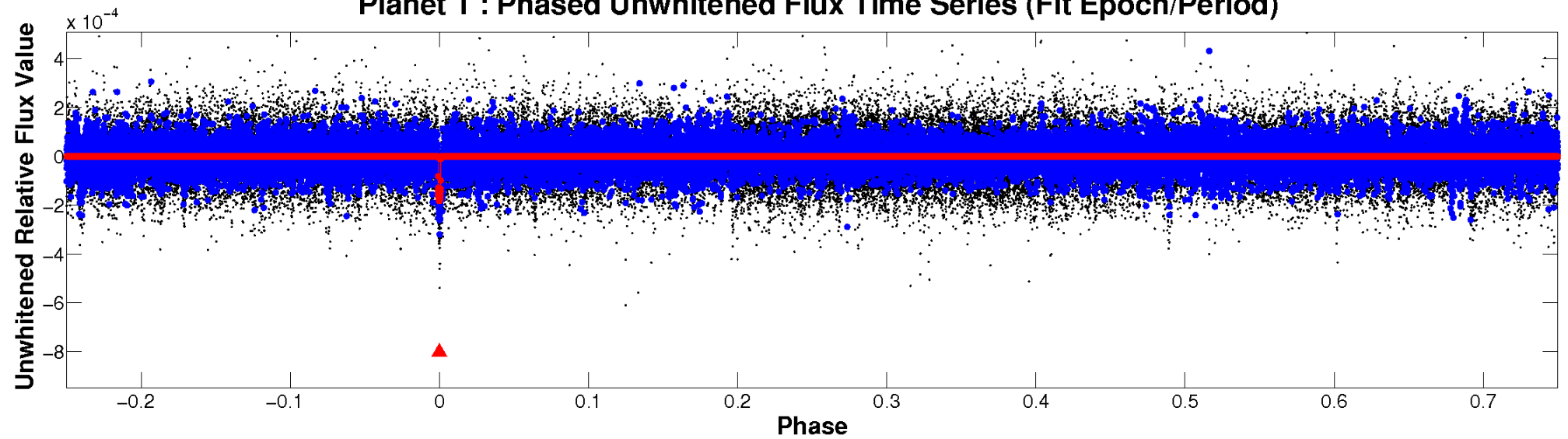
ALT Odd/Even

TCE 010268714-01

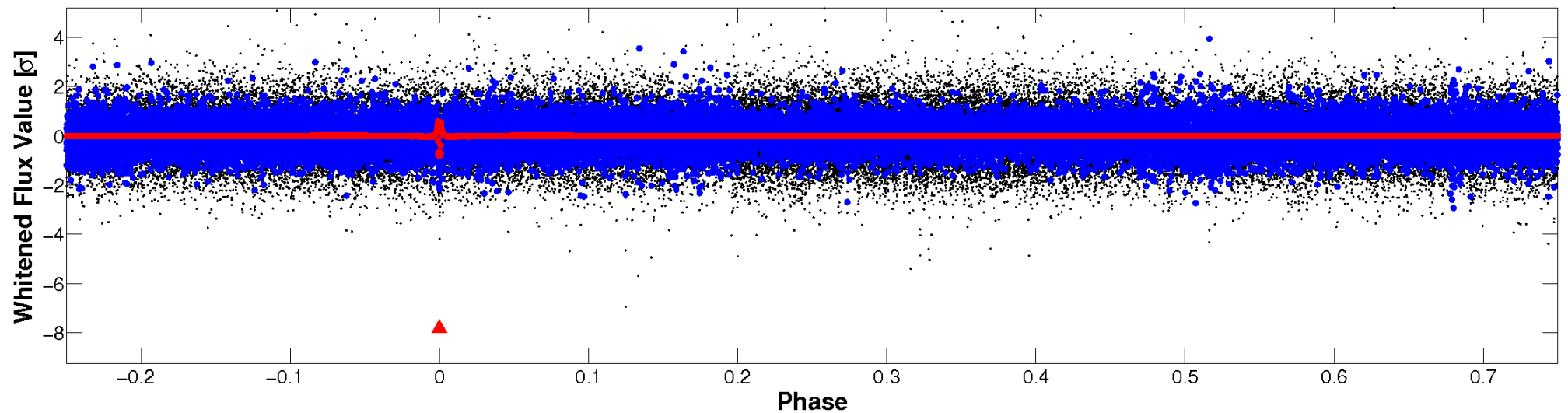


Non-Whitened Vs. Whitened Light Curve

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

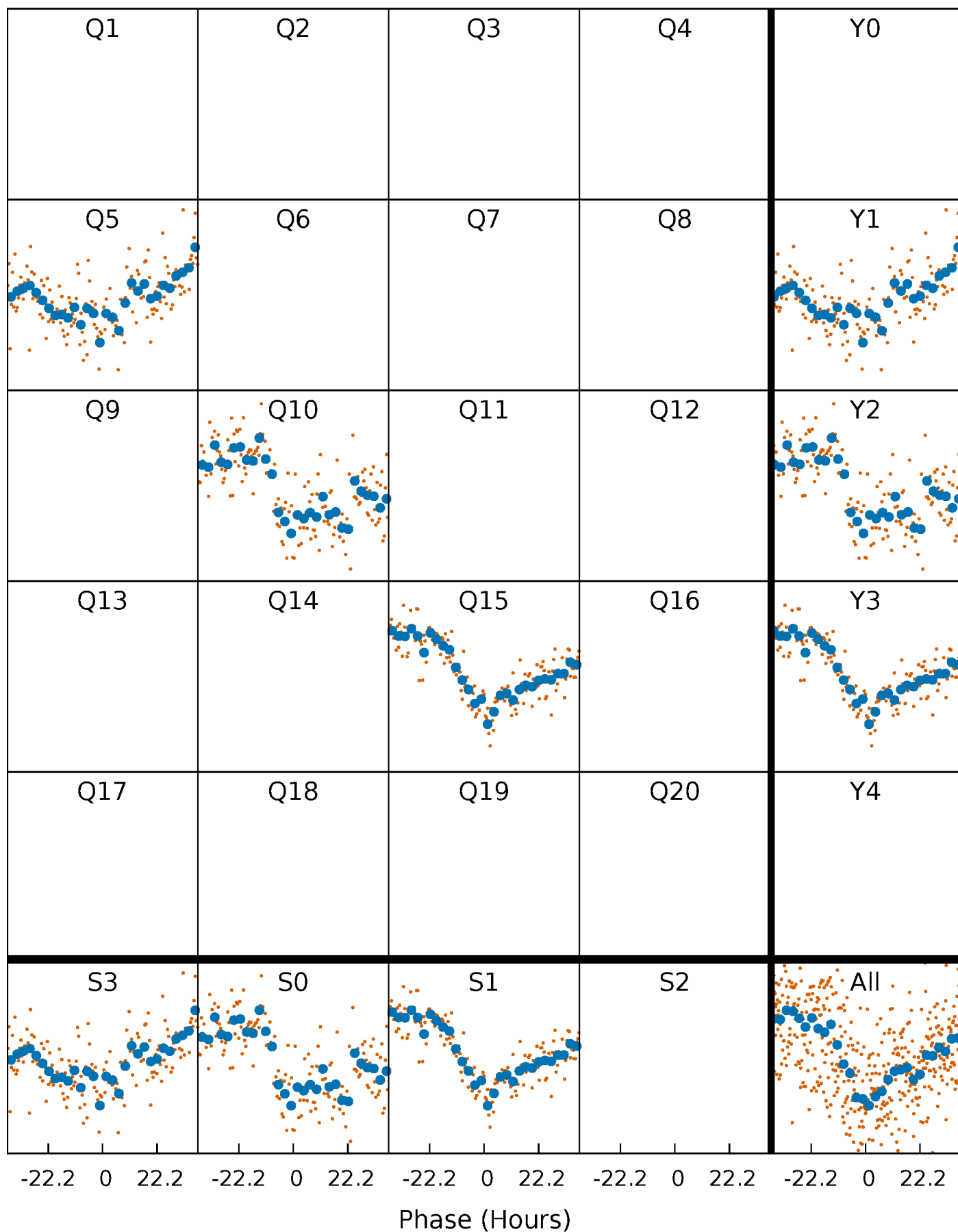


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 010268714-01 P=452.615808 Days $T_0=495.309959$ (BKJD)



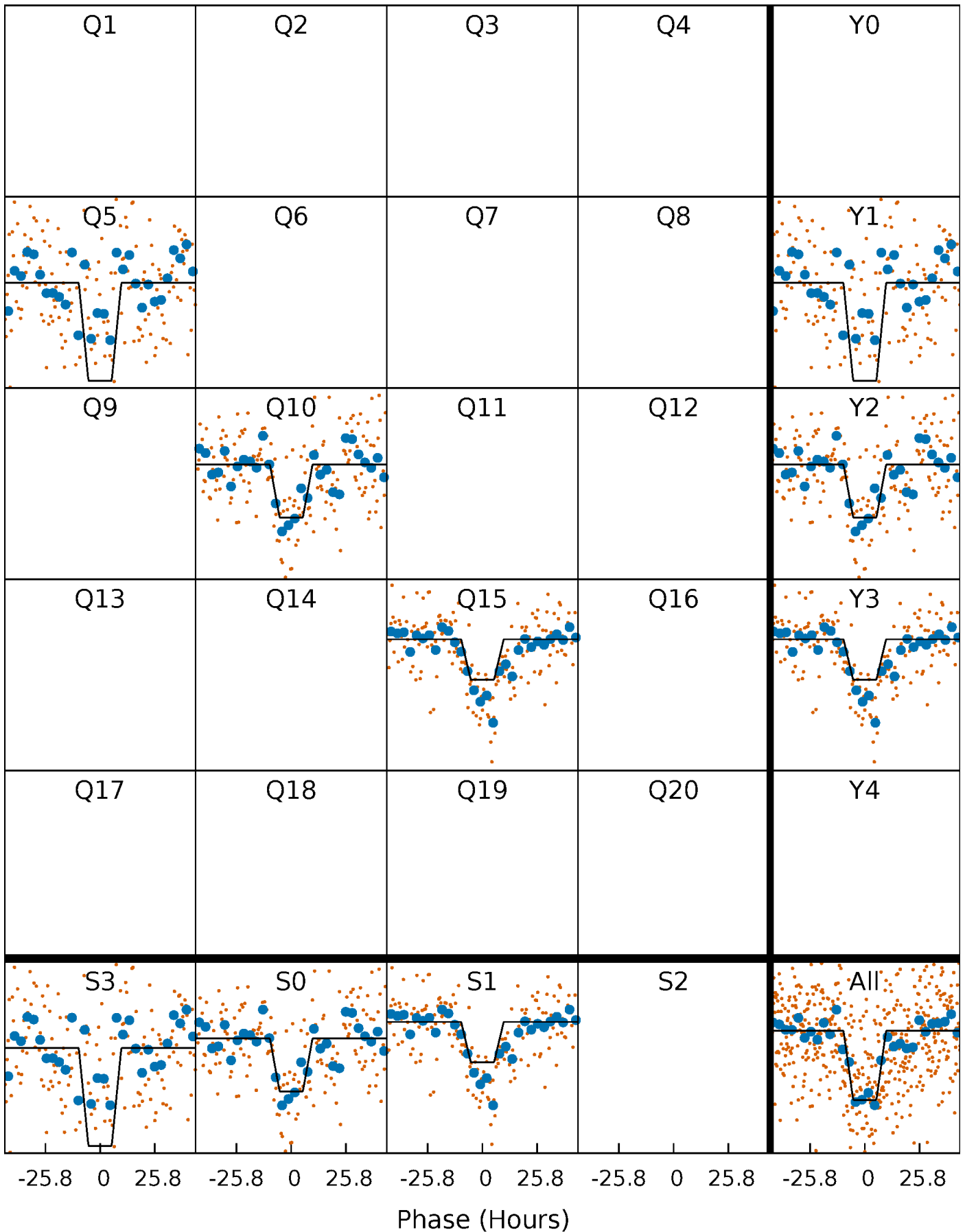
DV Quarter-Phased Transit Curves

TCE 010268714-01 P=452.615808 Days $T_0=495.309959$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

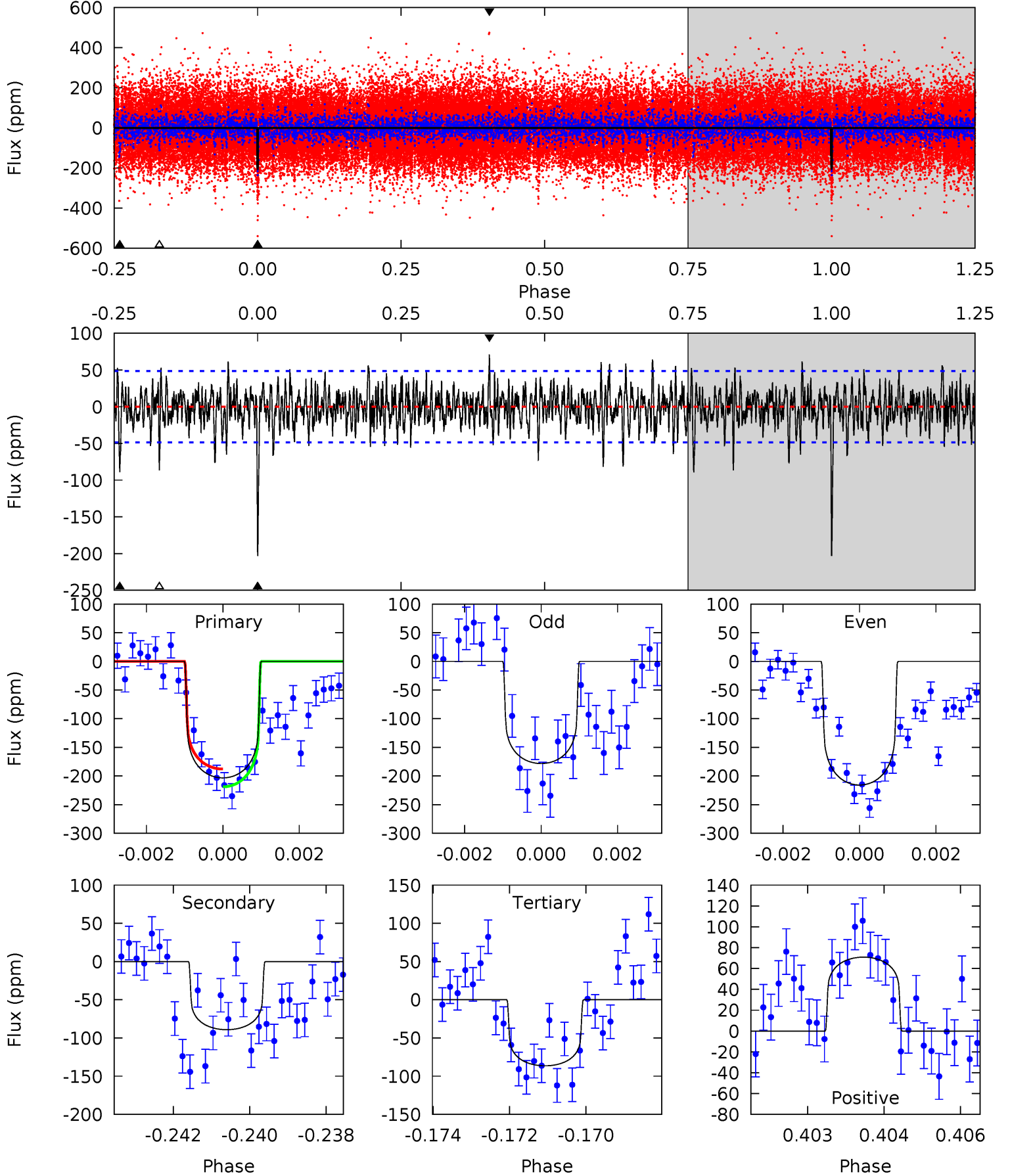
TCE 010268714-01 P=452.528431 Days $T_0=495.400774$ (BKJD)



DV Model-Shift Uniqueness Test

010268714-01, $P = 452.615808$ Days, $E = 42.694151$ Days

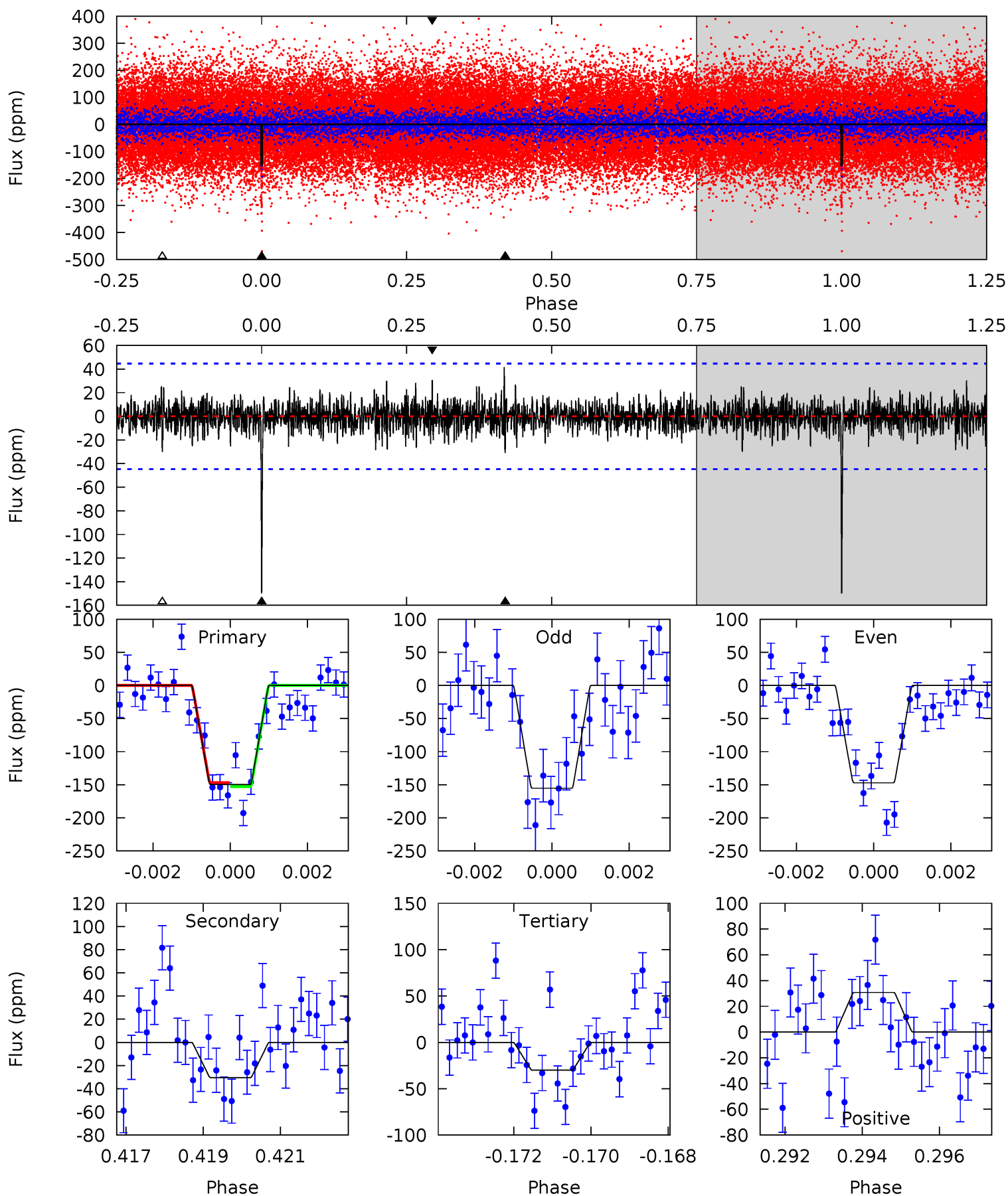
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	9.80	9.50	7.79	5.34	3.12	2.28	12.8	14.6	0.30	2.01	1.94	1.14	0.26	1.71



Alt Model-Shift Uniqueness Test

010268714-01, $P = 452.528431$ Days, $E = 42.872343$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	3.63	3.58	3.67	5.34	3.11	1.02	14.3	14.2	0.05	-0.04	0.46	0.96	0.22	0.35



Stellar Parameters For KIC 010268714

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6664^{+161}_{-202}	$4.075^{+0.204}_{-0.136}$	$-0.280^{+0.250}_{-0.250}$	$1.730^{+0.375}_{-0.458}$	$1.300^{+0.152}_{-0.228}$	$0.354^{+0.400}_{-0.140}$
	+2%/-3%	+5%/-3%	+89%/-89%	+22%/-26%	+12%/-18%	+113%/-39%
Source	PHO1	FLK73	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 010268714-01 / KOI 8202.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-89 ± 9	$2.43^{+0.56}_{-0.51}$	477^{+31}_{-32}	5616^{+592}_{-423}	13083^{+7453}_{-4443}
Alt.	-30 ± 8	$2.28^{+0.59}_{-0.51}$	478^{+29}_{-33}	4591^{+491}_{-433}	4916^{+3907}_{-1986}

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

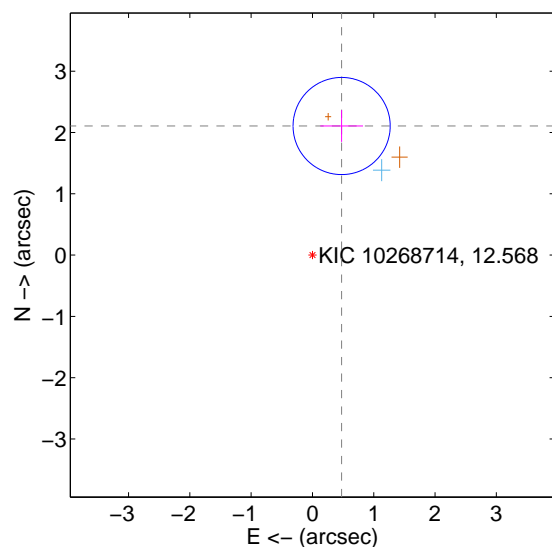
Supplemental centroid analysis for 010268714-01. Kepler magnitude: 12.57. Transit SNR 8.82

There are 1 quarters with good PRF difference image offsets

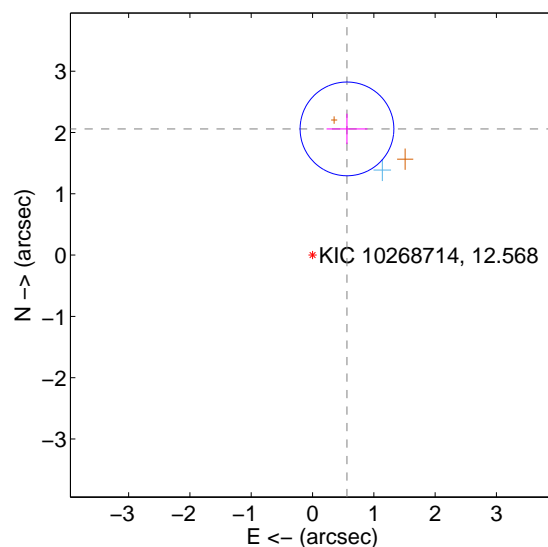
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.159 ± 0.264	8.17	-0.476 ± 0.349	2.106 ± 0.259
PRF-fit source offset from KIC position	2.134 ± 0.255	8.37	-0.562 ± 0.333	2.059 ± 0.248
photometric centroid source offset	1.10 ± 0.73	1.51	-0.70 ± 0.81	-0.84 ± 0.67

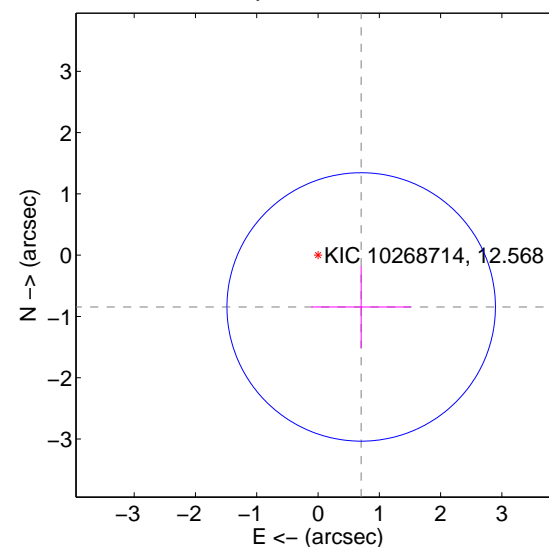
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

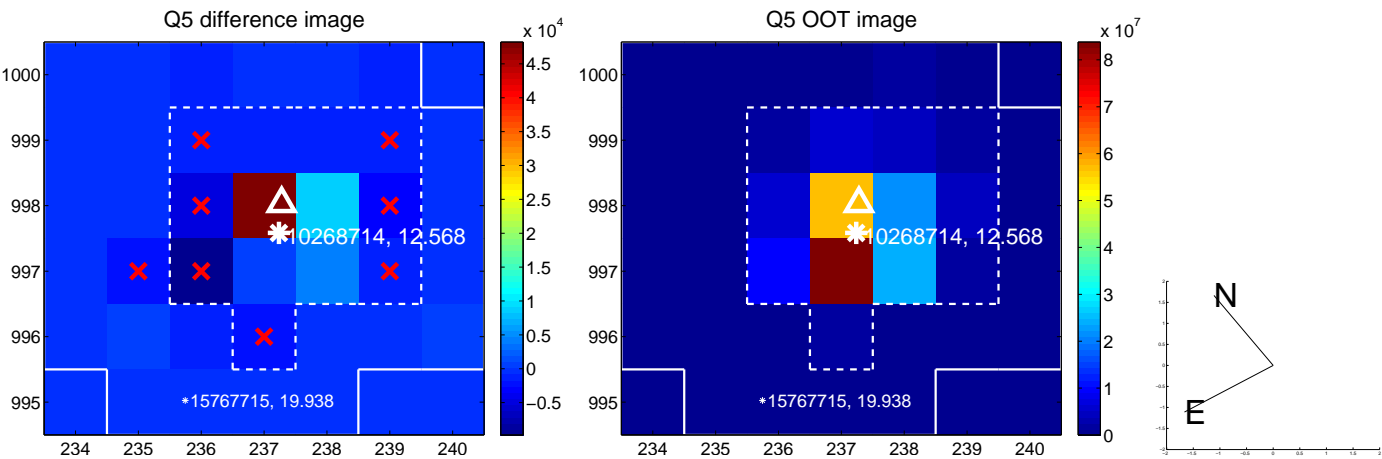


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

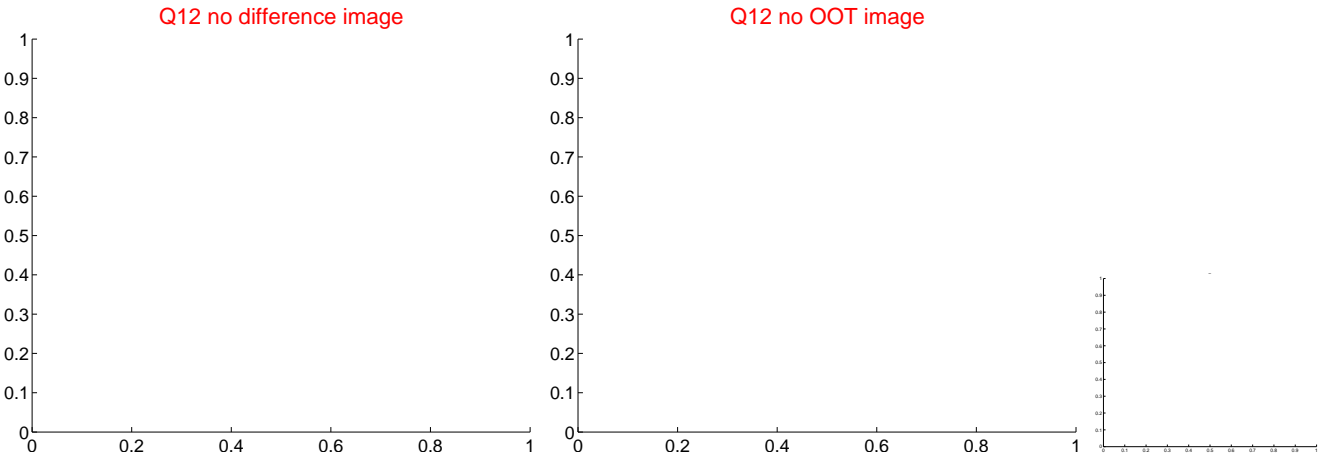
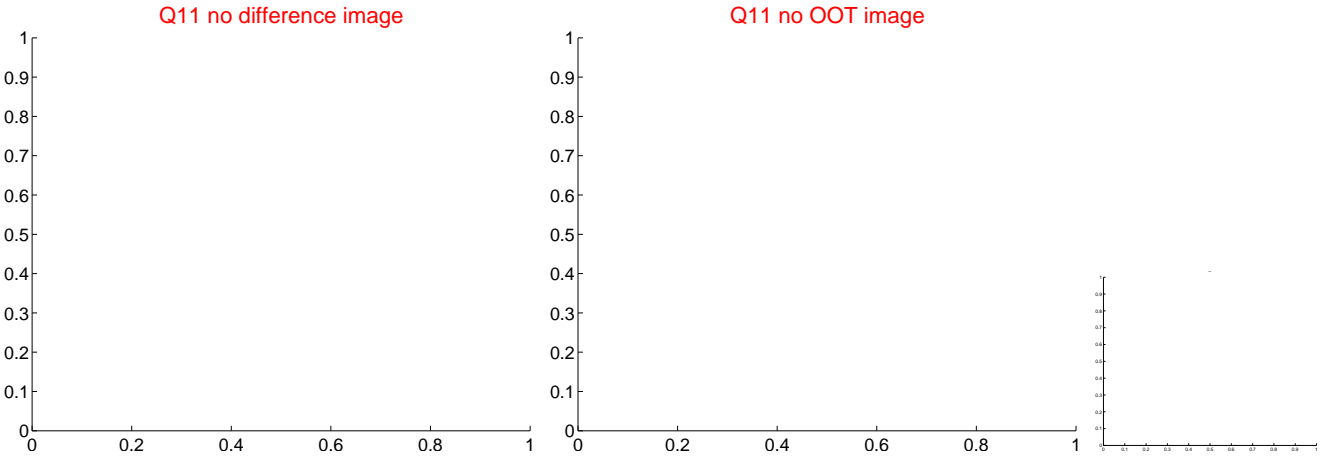
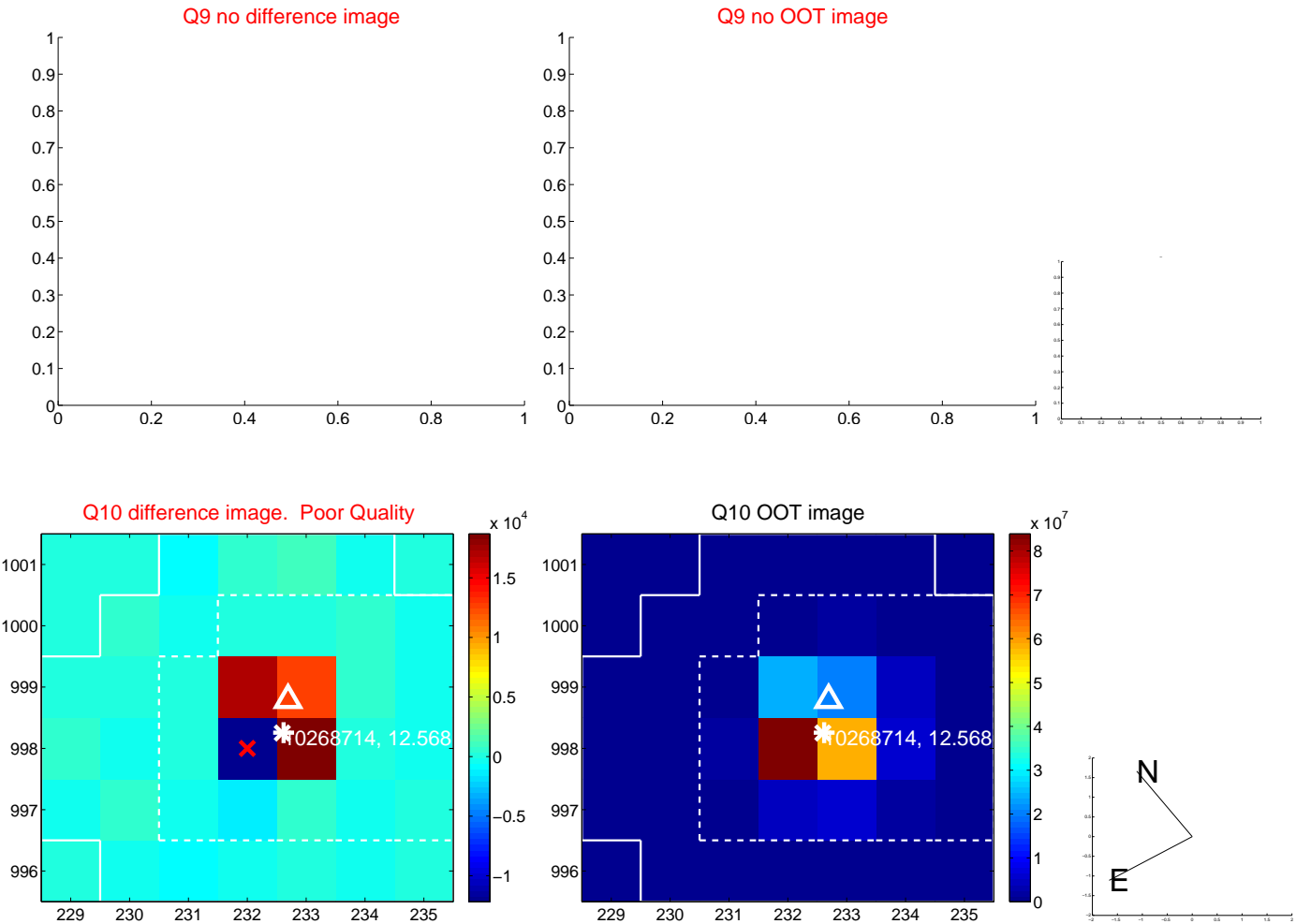
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



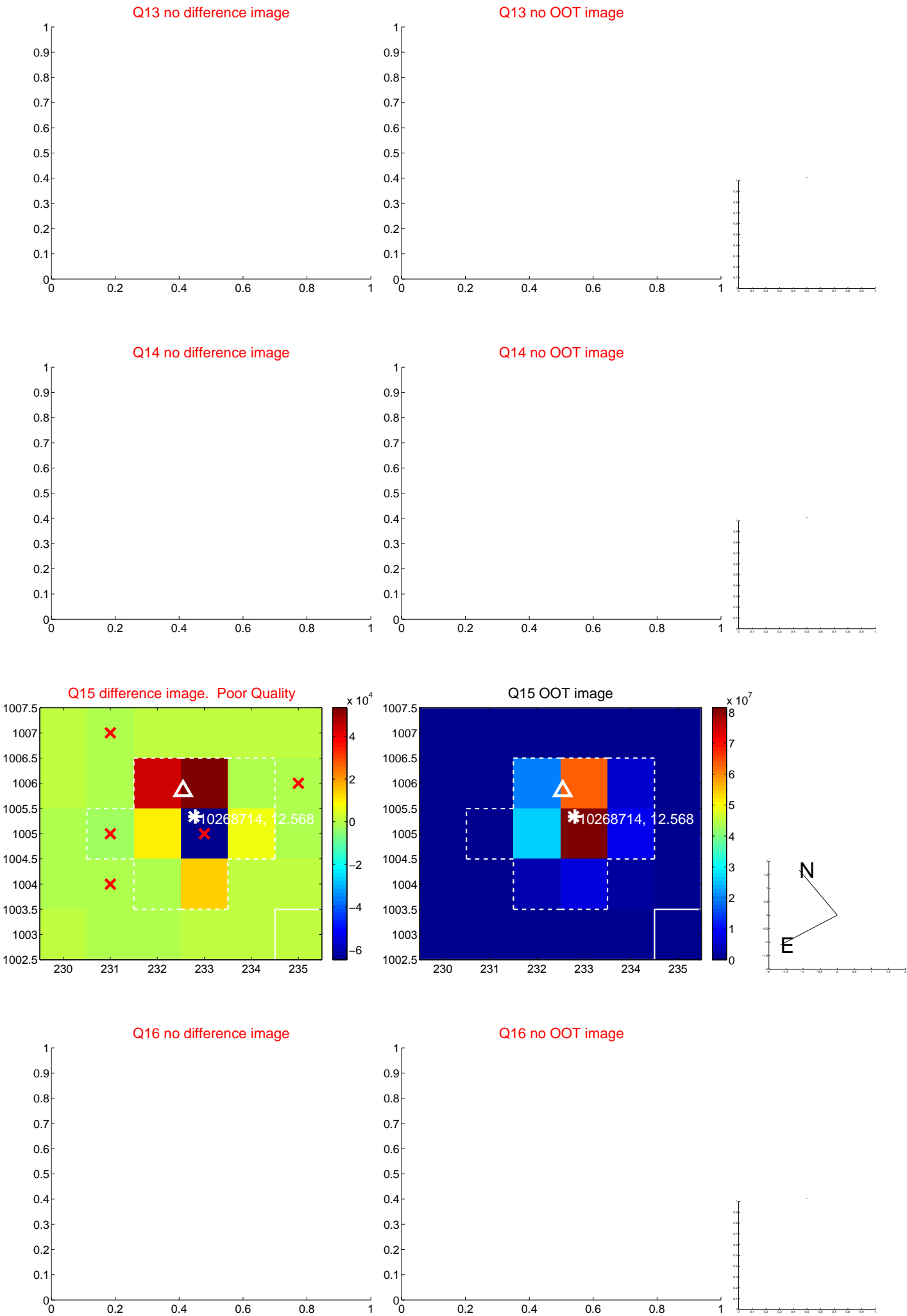
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



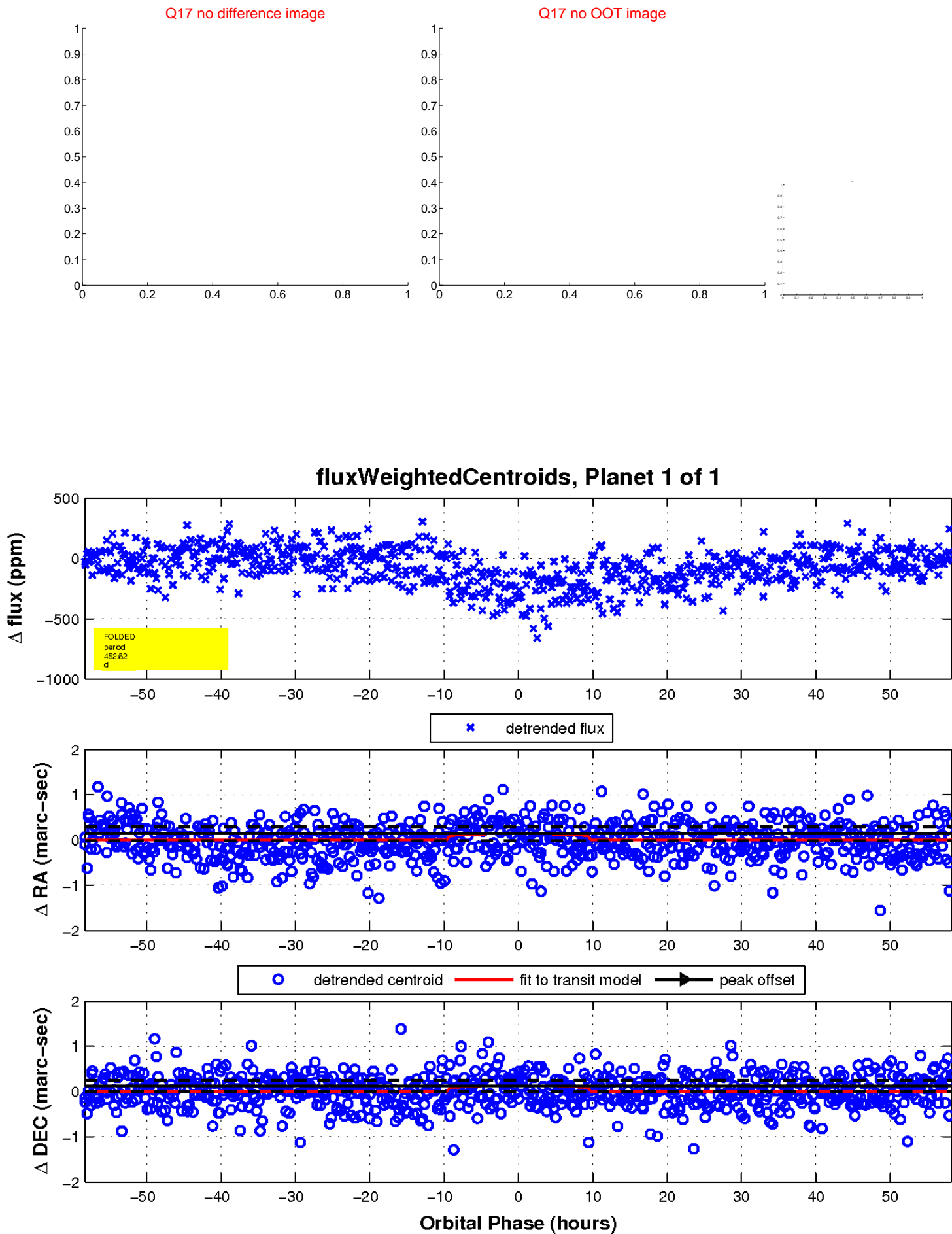
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white \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

