

KIC 005876918

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})
005876918-01	OBS	No	448.313531	466.334075	171.0	32.339	7.6	8.2	1.44	5988	1.97	1.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005876918-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—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.

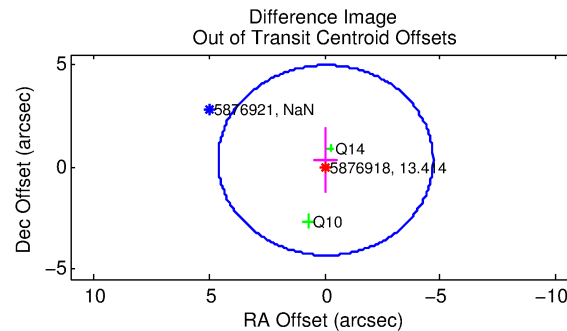
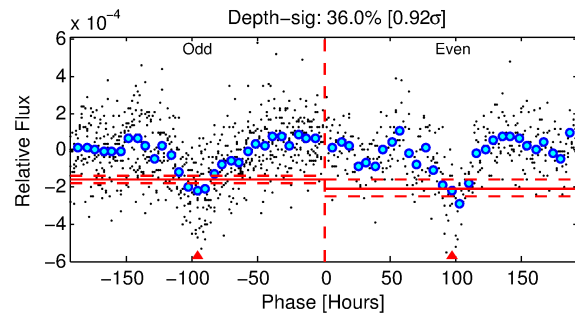
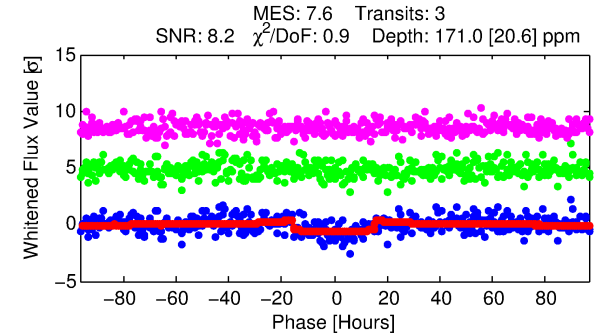
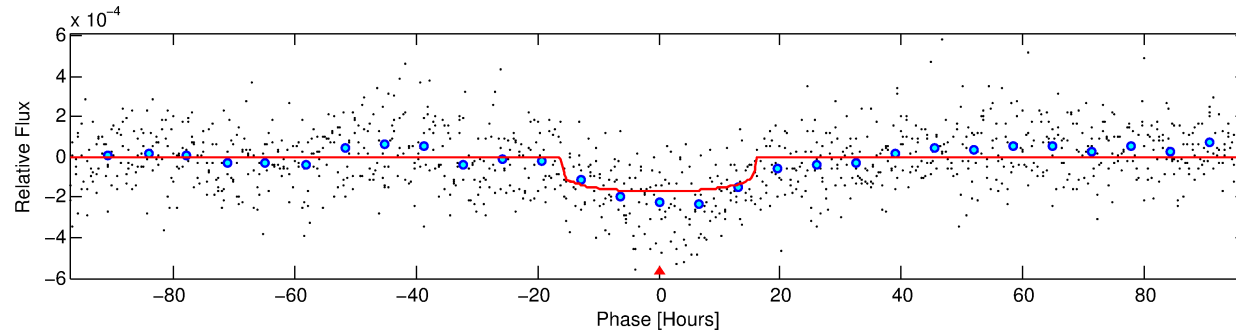
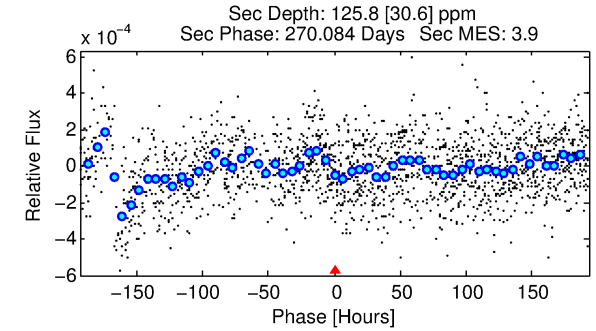
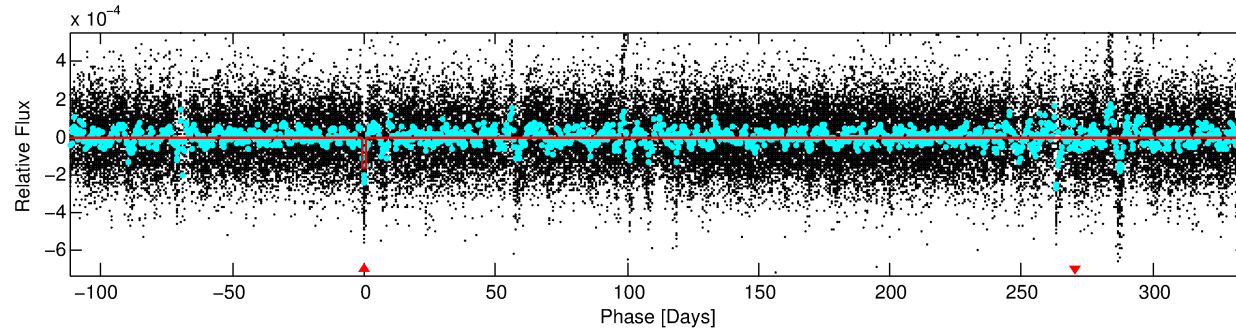
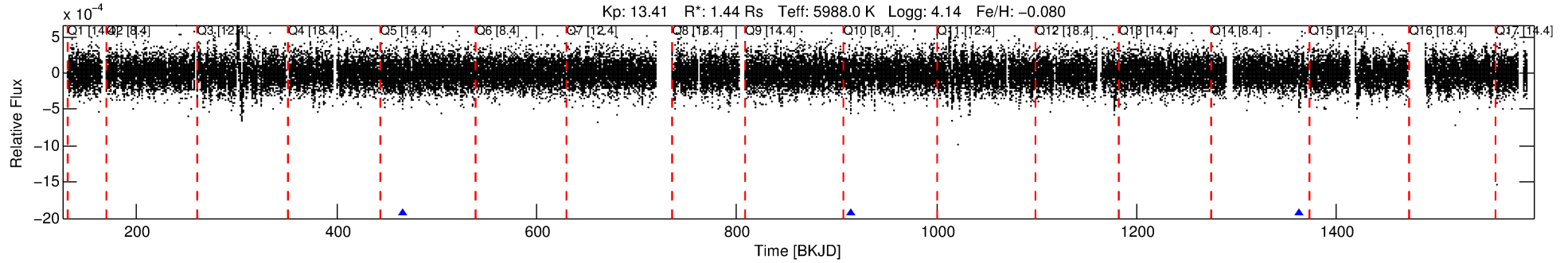
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005876918-01

No Significant Match Found

DV One-Page Summary

KIC: 5876918 Candidate: 1 of 1 Period: 448.314 d



DV Fit Results:

Period = 448.31353 [0.01829] d
Epoch = 466.3341 [0.0247] BKJD
Rp/R* = 0.0125 [0.0030]
a/R* = 85.20 [93.04]
b = 0.61 [1.11]
Seff = 1.76 [0.87]
Teq = 294 [36] K
Rp = 1.96 [0.73] Re
a = 1.1628 [0.3368] AU
Ag = 24227.59 [17333.28] [1.40σ]
Teffp = 5663 [773] K [6.94σ]

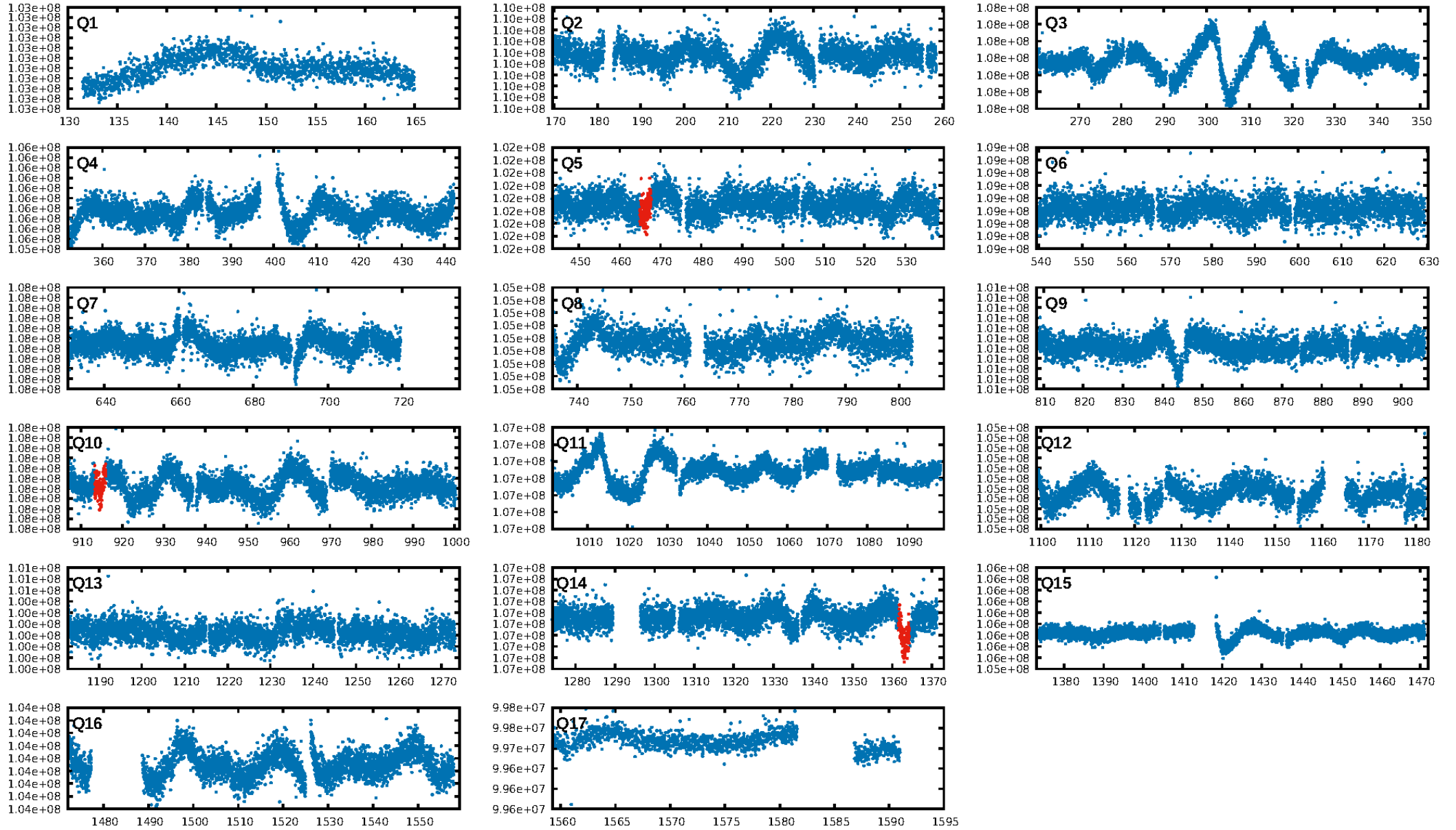
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.88e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 9.866
Centroid-sig: 15.9%
Centroid-so: 0.963 arcsec [0.97σ]
OotOffset-rm: 0.316 arcsec [0.20σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-rm: 0.140 arcsec [0.11σ]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

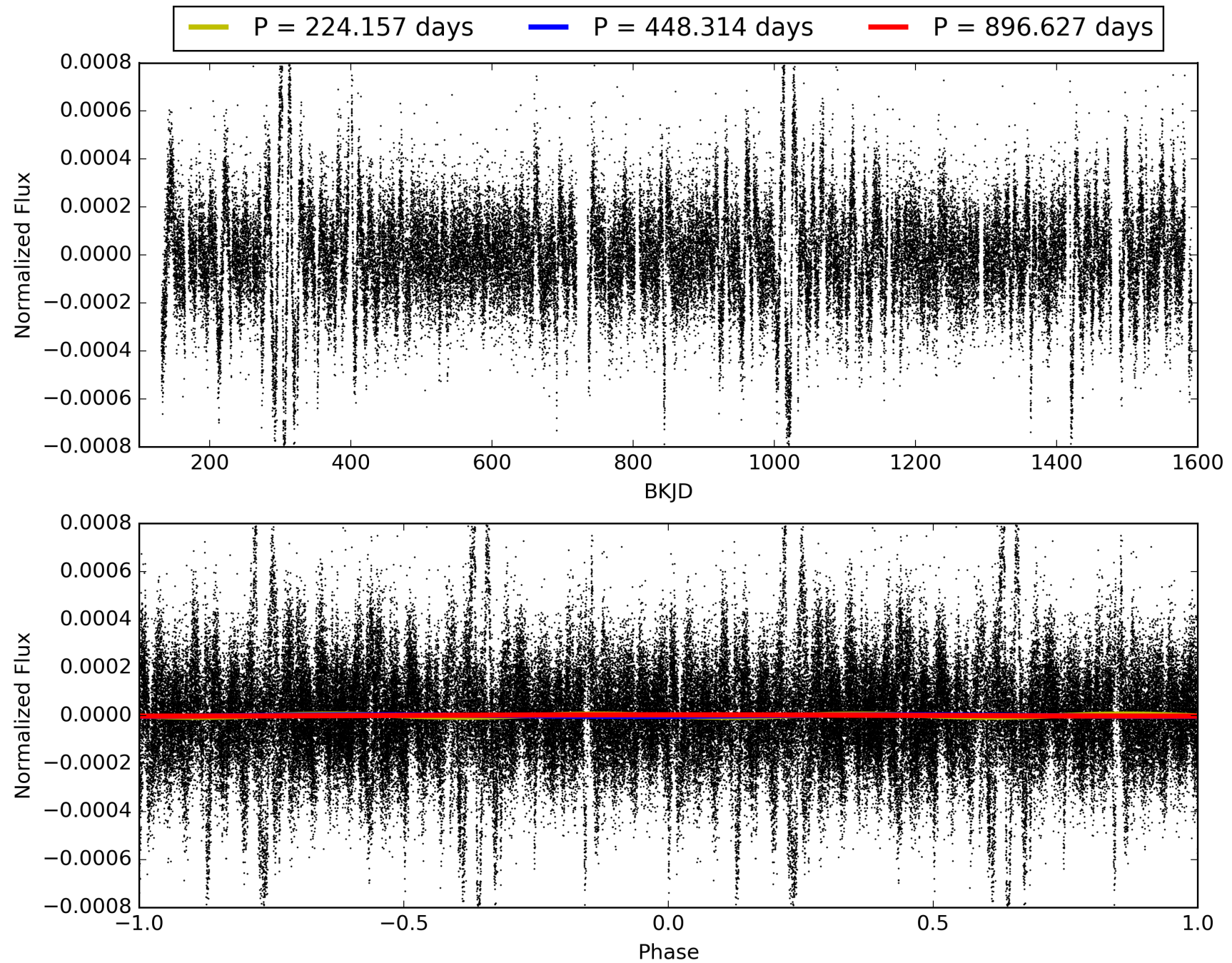
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:43:18 Z

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

TCE 005876918-01, PDC Light Curves

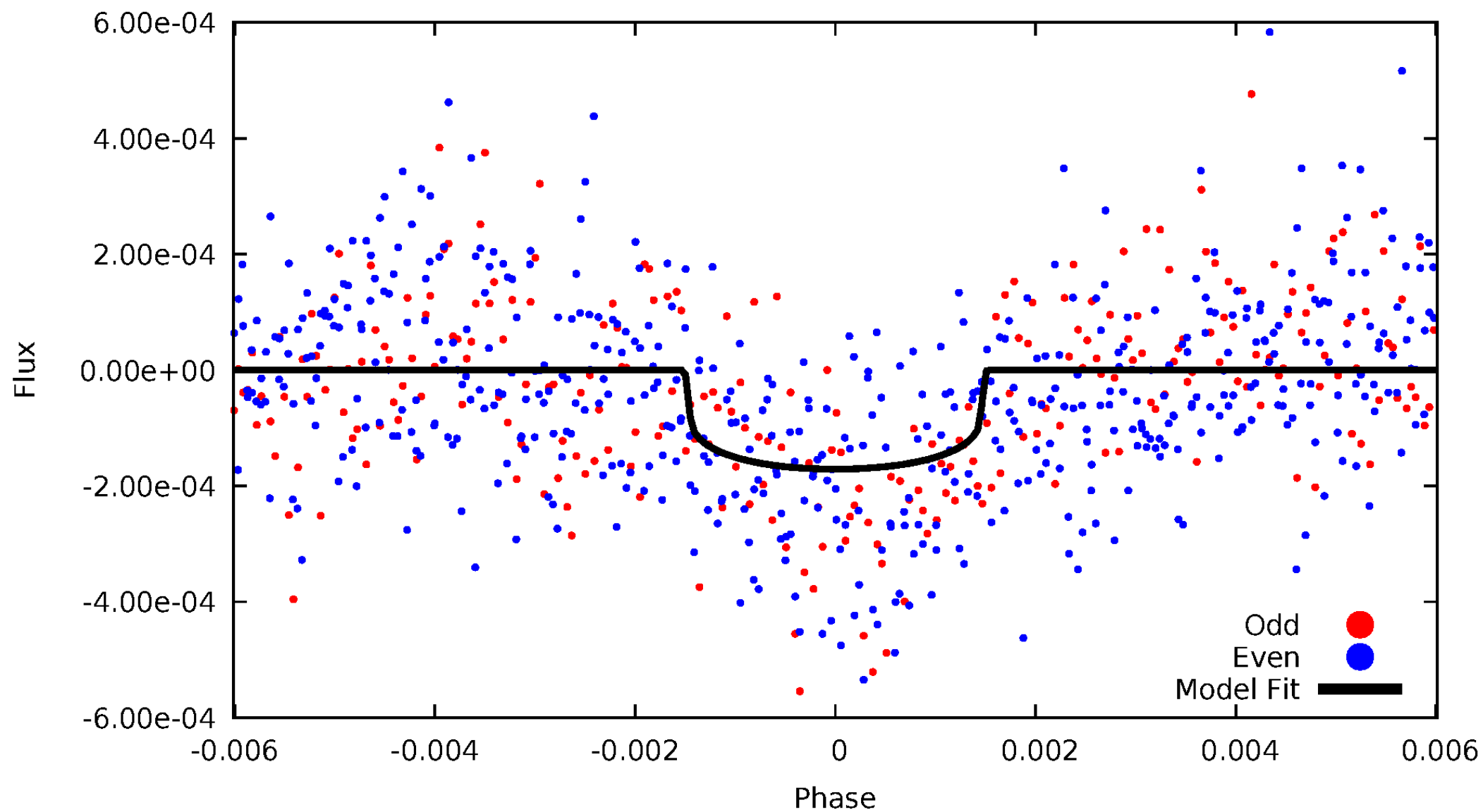


TCE 005876918-01



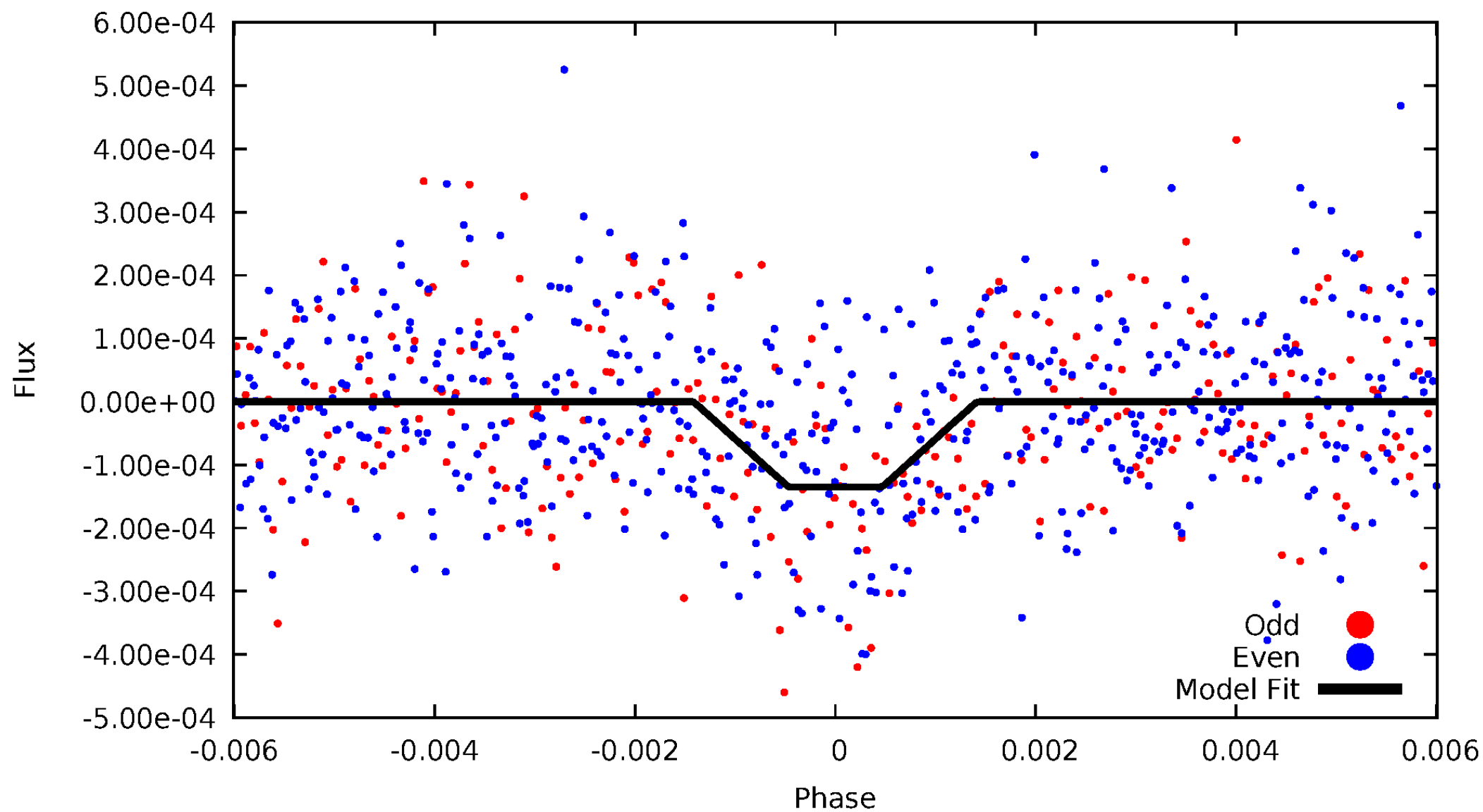
DV Odd/Even

TCE 005876918-01



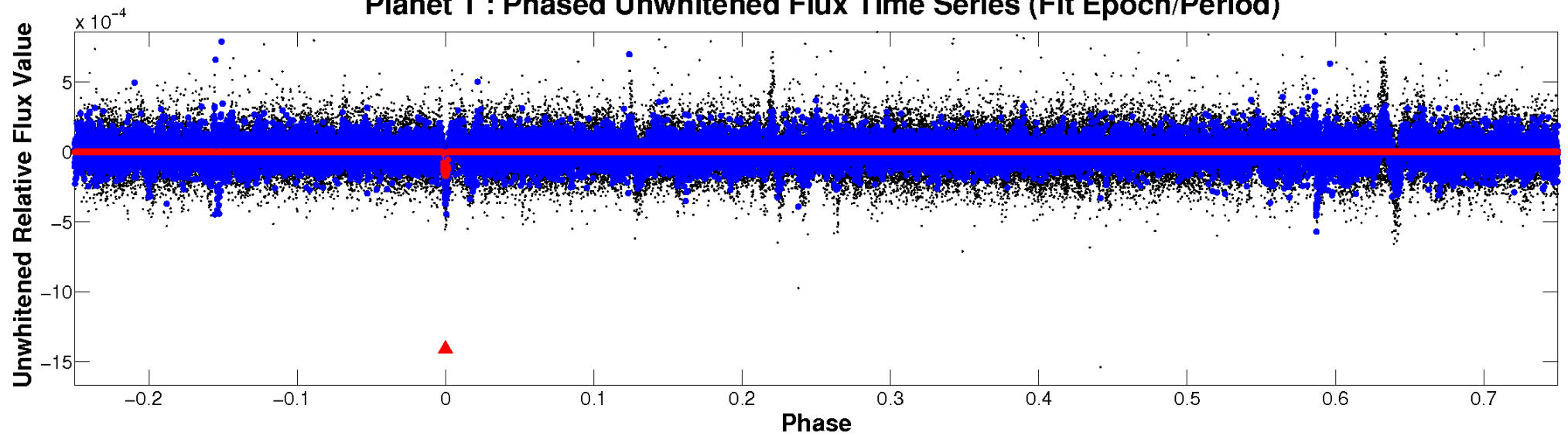
ALT Odd/Even

TCE 005876918-01

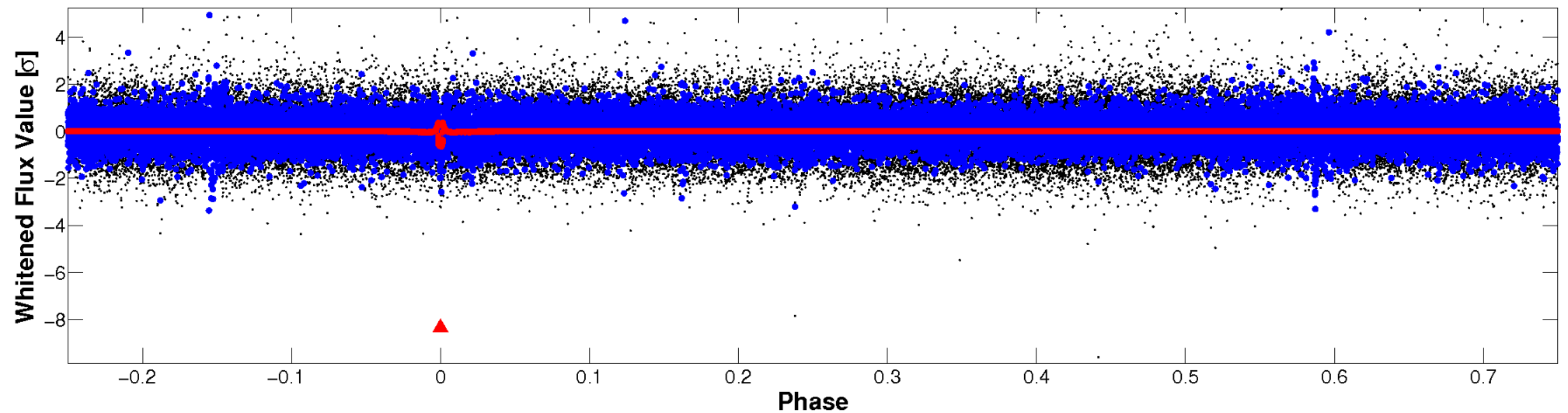


Non-Whitened Vs. Whitened Light Curve

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



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



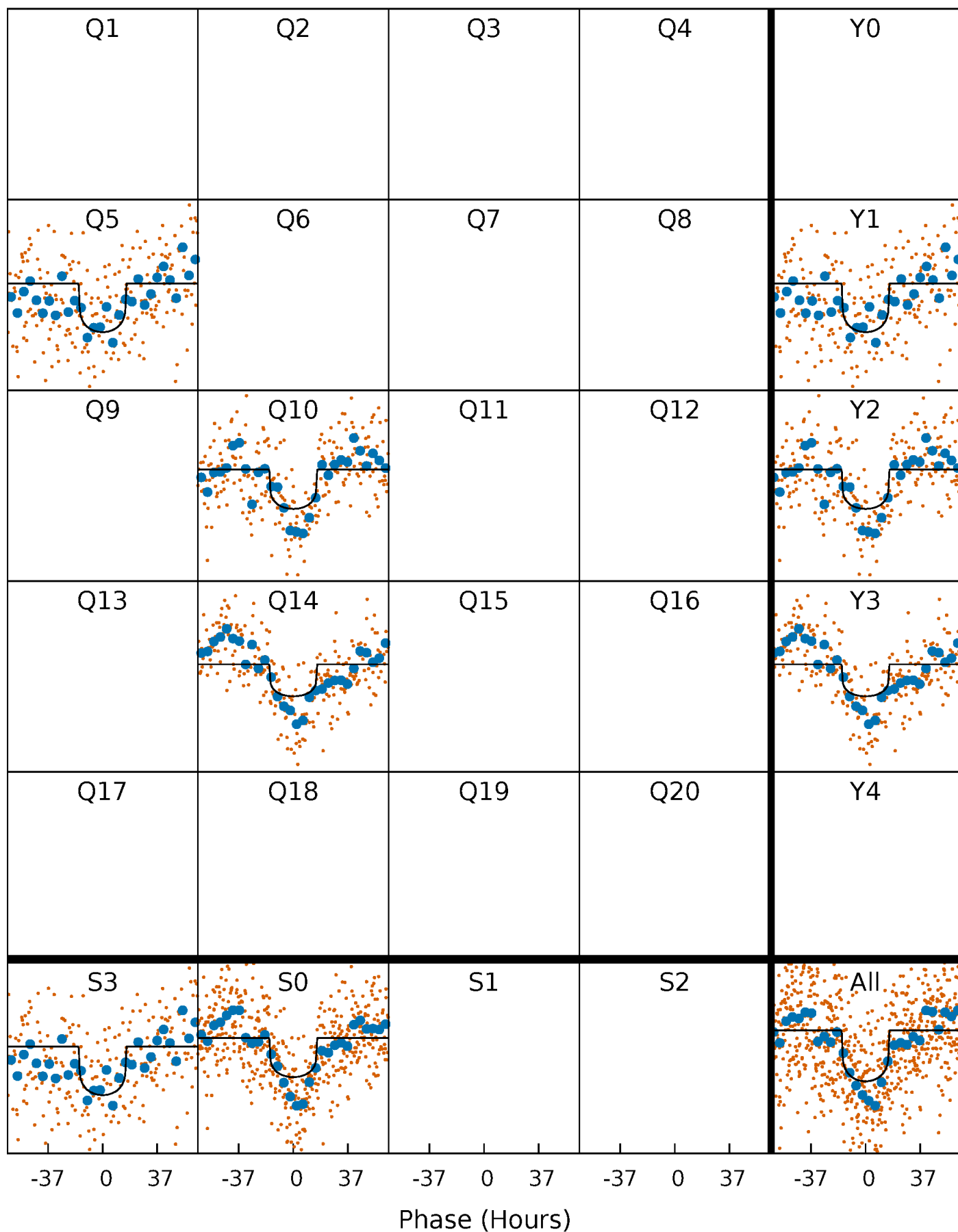
PDC Quarter-Phased Transit Curves

TCE 005876918-01 P=448.313531 Days $T_0=466.334074$ (BKJD)



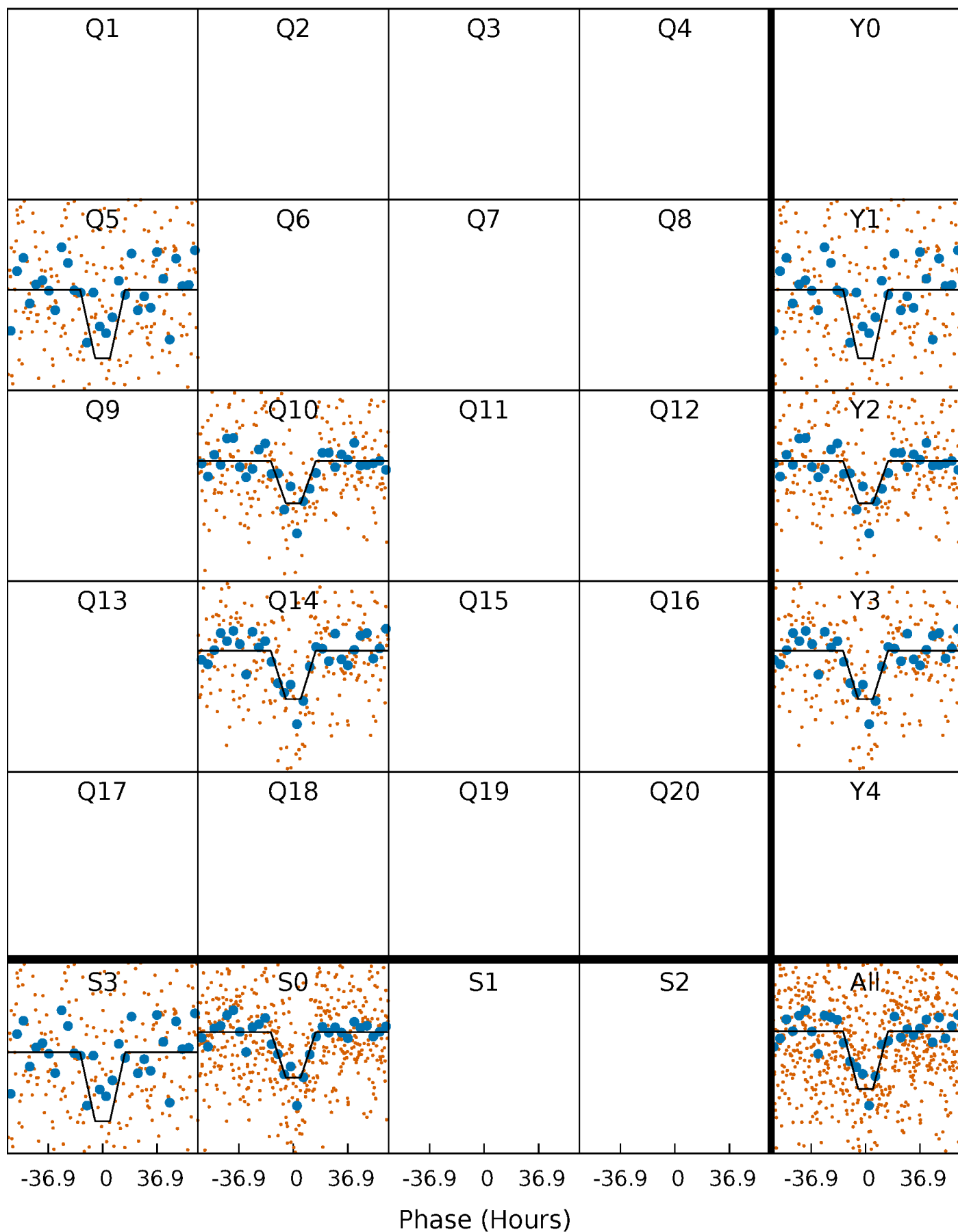
DV Quarter-Phased Transit Curves

TCE 005876918-01 P=448.313531 Days $T_0=466.334074$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

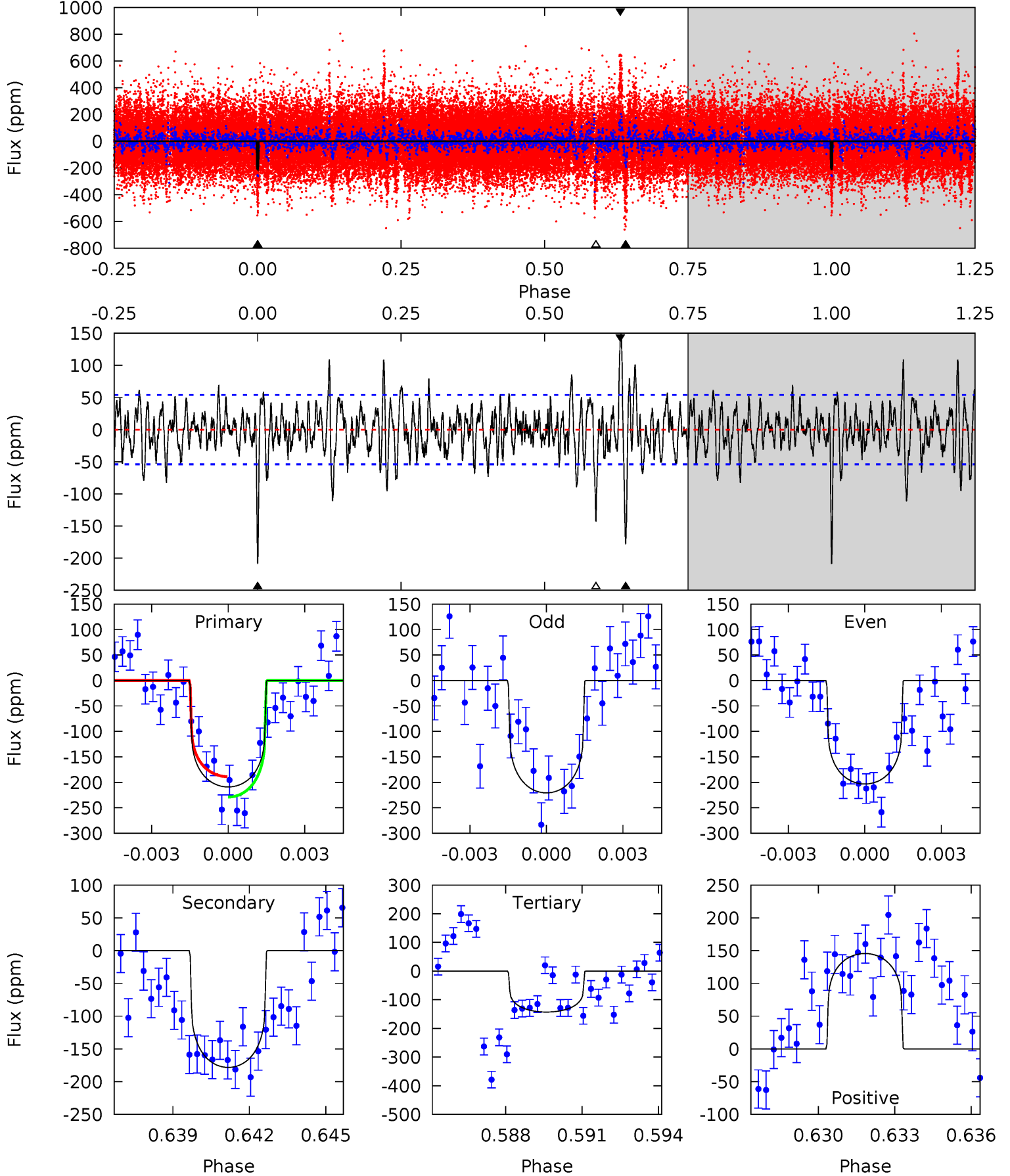
TCE 005876918-01 P=448.251006 Days $T_0=466.465604$ (BKJD)



DV Model-Shift Uniqueness Test

005876918-01, P = 448.313531 Days, E = 18.020543 Days

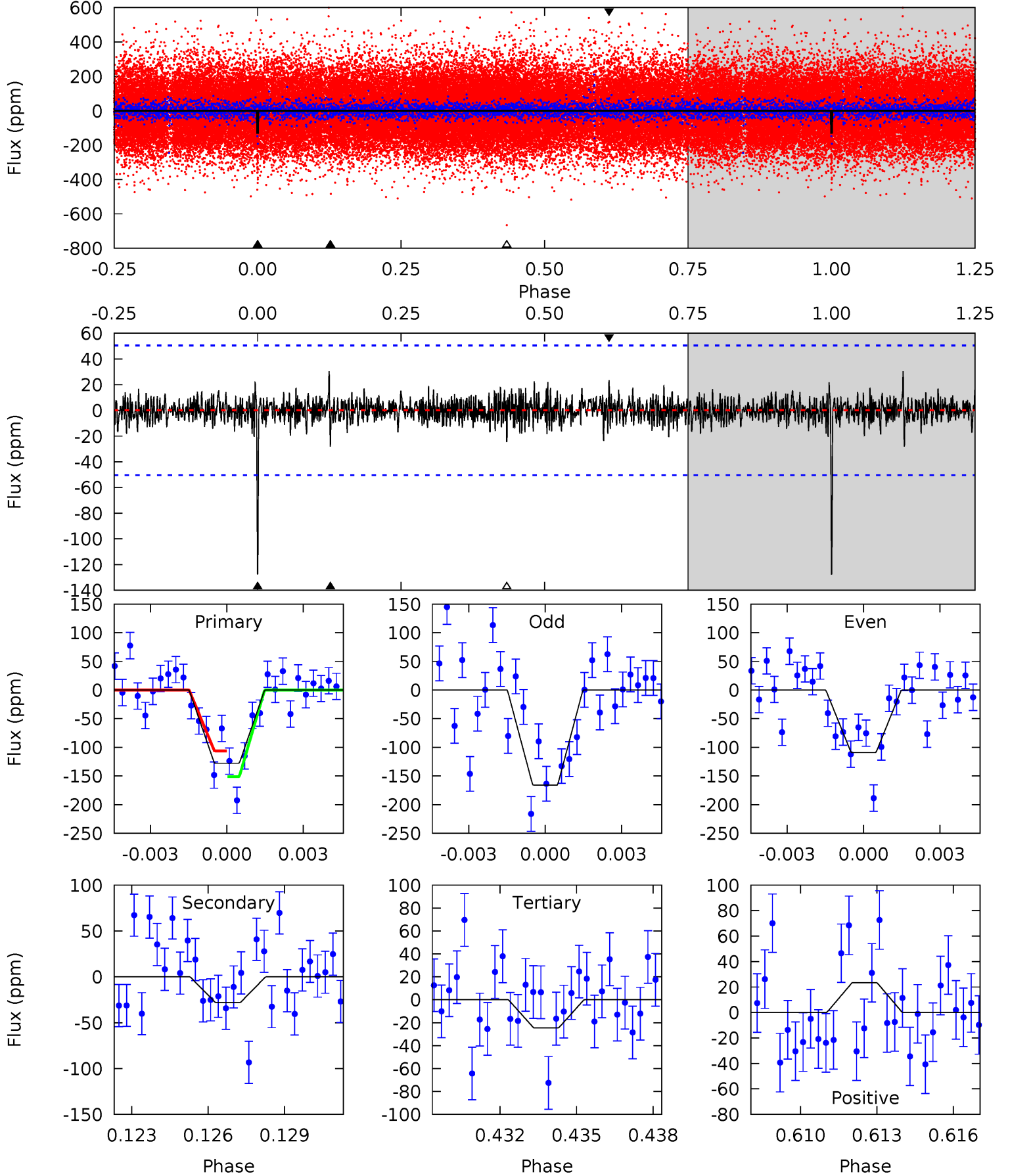
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.3	17.3	13.9	14.2	5.25	2.97	3.11	6.43	6.18	3.44	3.18	0.80	0.95	0.42	1.94



Alt Model-Shift Uniqueness Test

005876918-01, P = 448.251006 Days, E = 18.214598 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	2.93	2.56	2.44	5.26	2.98	0.71	10.8	10.9	0.36	0.48	2.80	0.82	0.19	2.34



Stellar Parameters For KIC 005876918

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5988^{+163}_{-181}	$4.142^{+0.286}_{-0.154}$	$-0.080^{+0.300}_{-0.300}$	$1.436^{+0.407}_{-0.407}$	$1.043^{+0.159}_{-0.145}$	$0.496^{+0.882}_{-0.229}$
	+3%/-3%	+7%/-4%	+375%/-375%	+28%/-28%	+15%/-14%	+178%/-46%
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 005876918-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-178 ± 10	$1.90^{+0.56}_{-0.55}$	404^{+30}_{-38}	6159^{+996}_{-660}	36680^{+35219}_{-14445}
Alt.	-28 ± 10	$1.73^{+0.58}_{-0.49}$	405^{+32}_{-35}	4291^{+573}_{-485}	6928^{+7486}_{-3630}

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

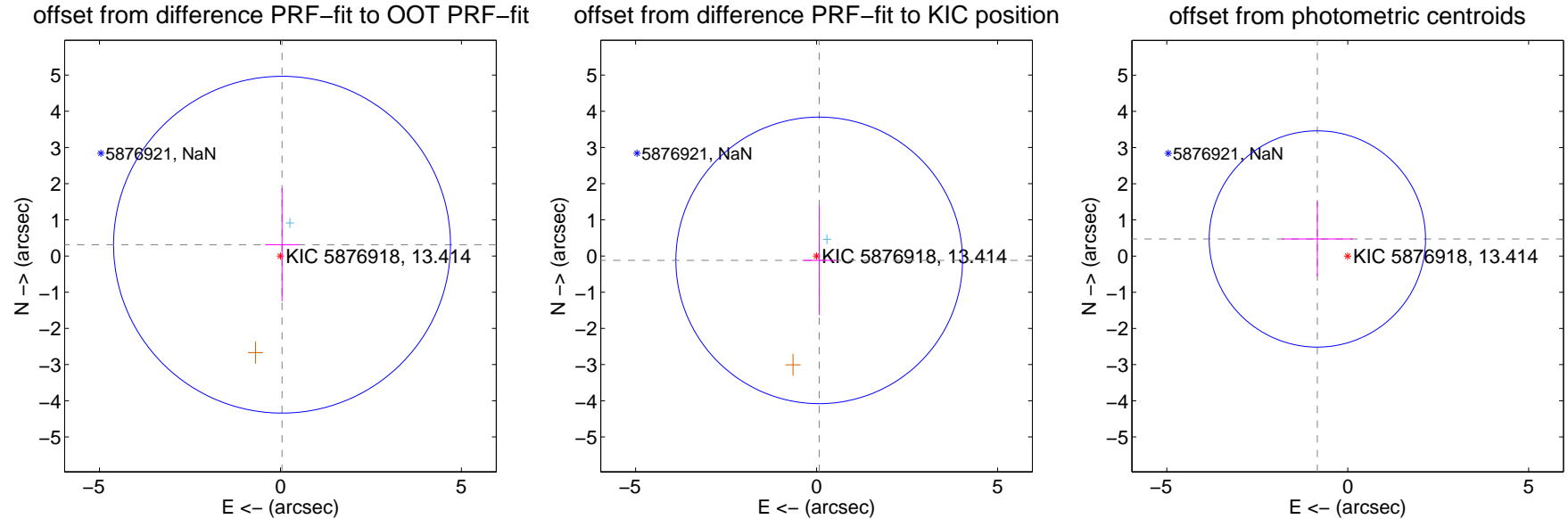
DV Centroid Data

Supplemental centroid analysis for 005876918-01. Kepler magnitude: 13.41. Transit SNR 8.24

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.316 ± 1.551	0.20	-0.043 ± 0.472	0.313 ± 1.565
PRF-fit source offset from KIC position	0.140 ± 1.320	0.11	-0.072 ± 0.465	-0.120 ± 1.515
photometric centroid source offset	0.96 ± 1.00	0.97	0.84 ± 0.98	0.47 ± 1.04

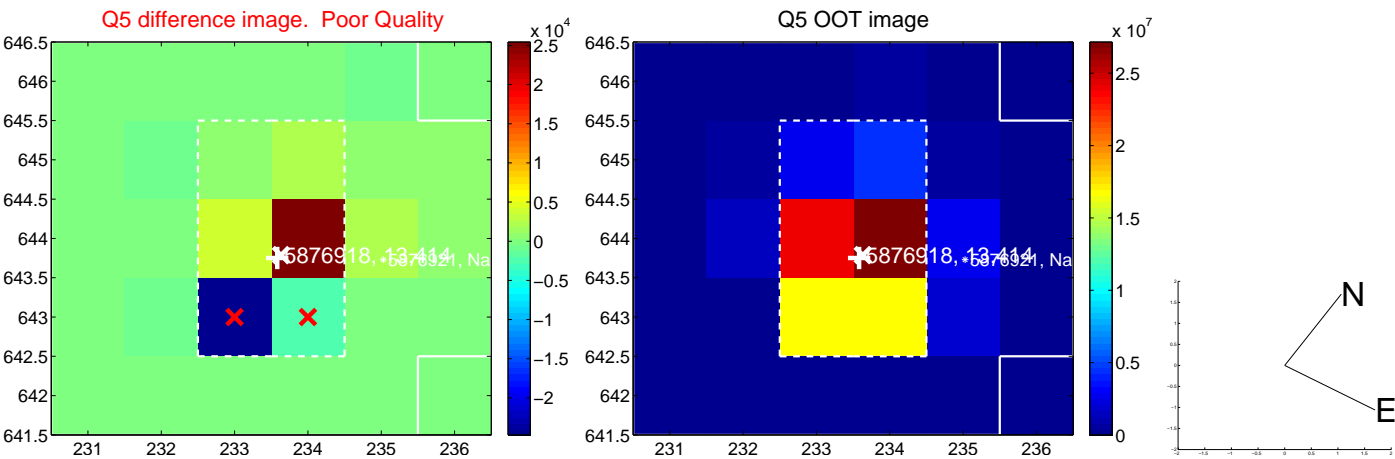


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

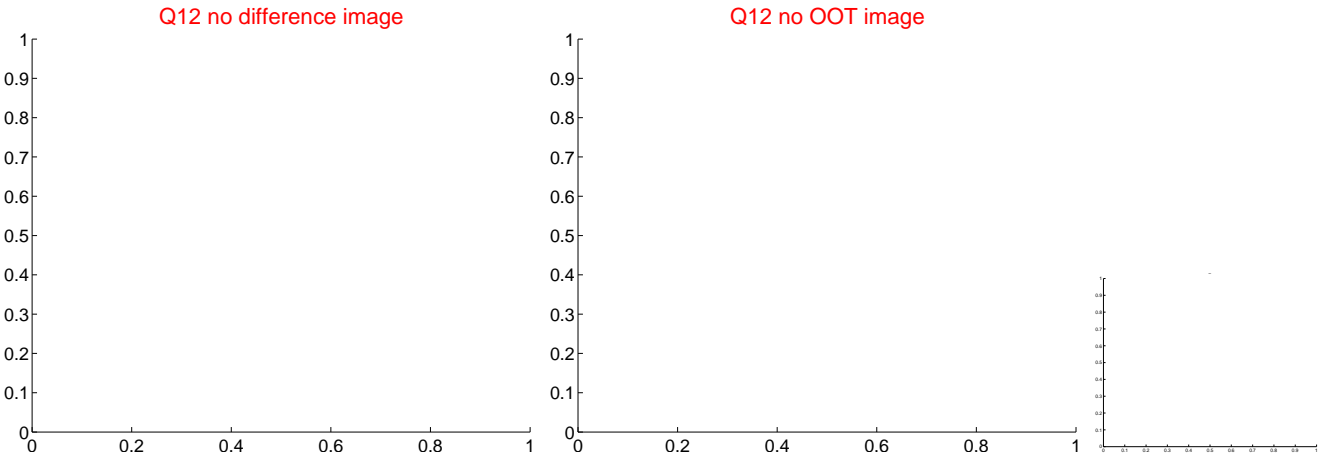
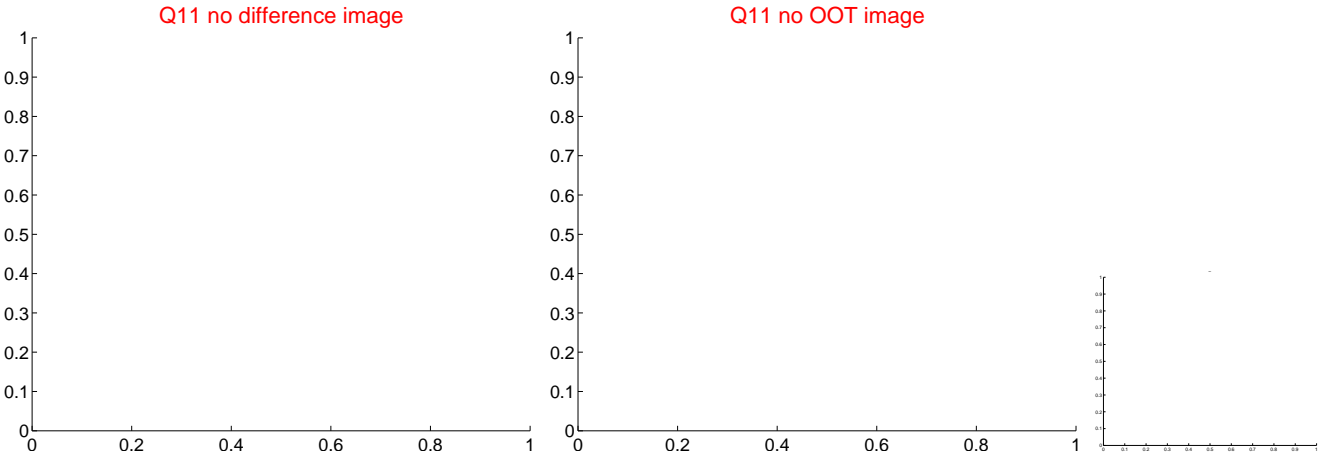
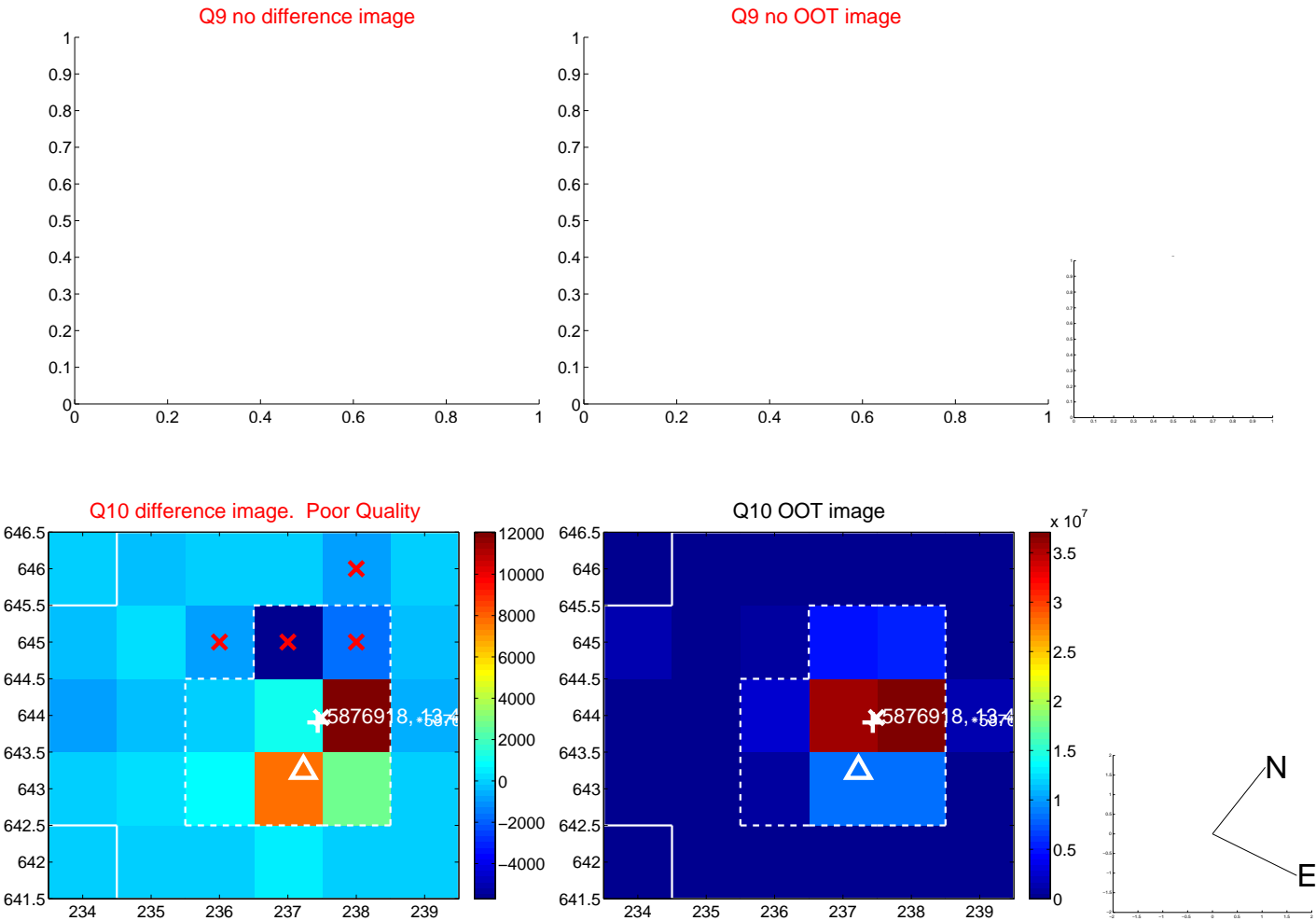
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



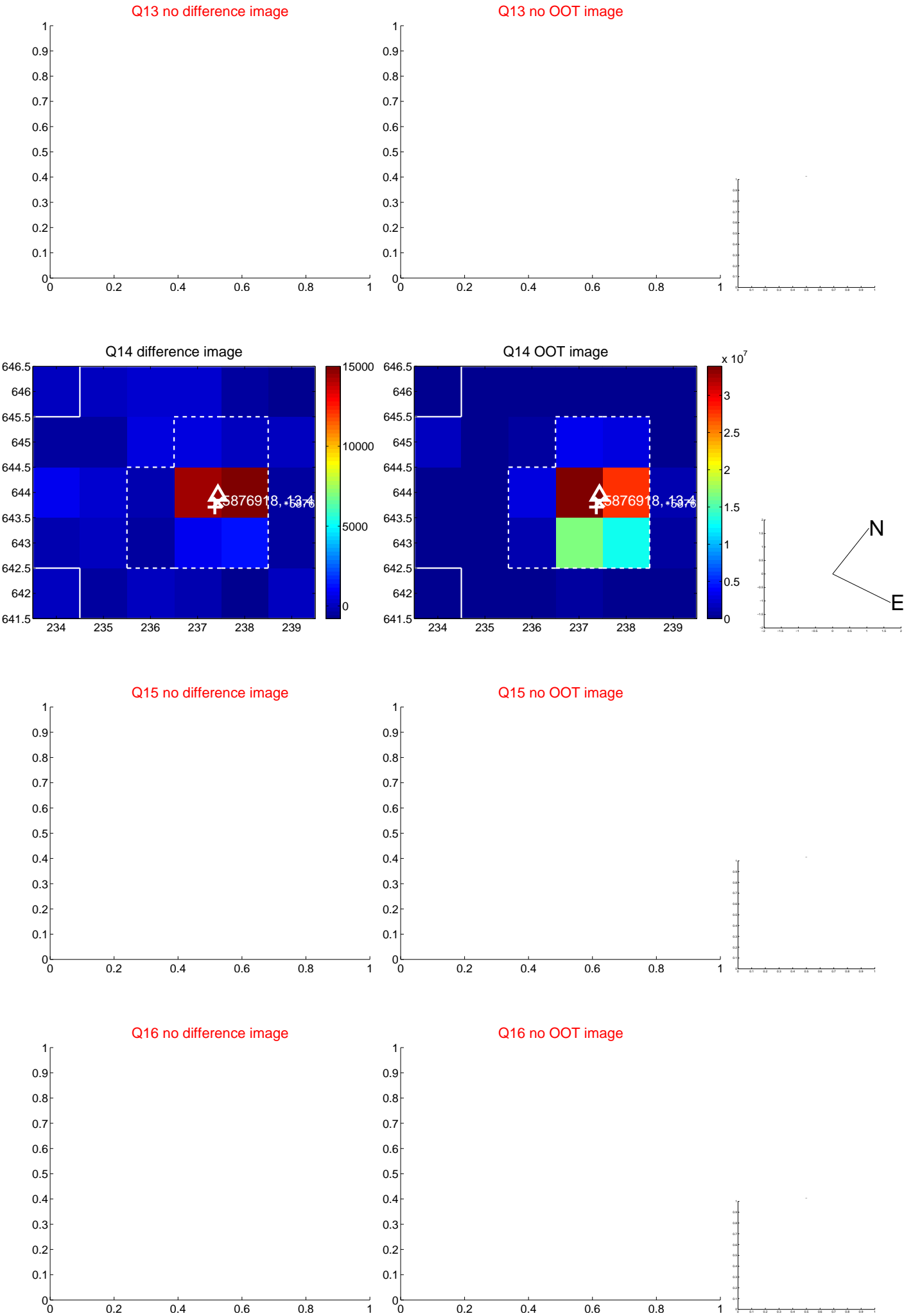
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



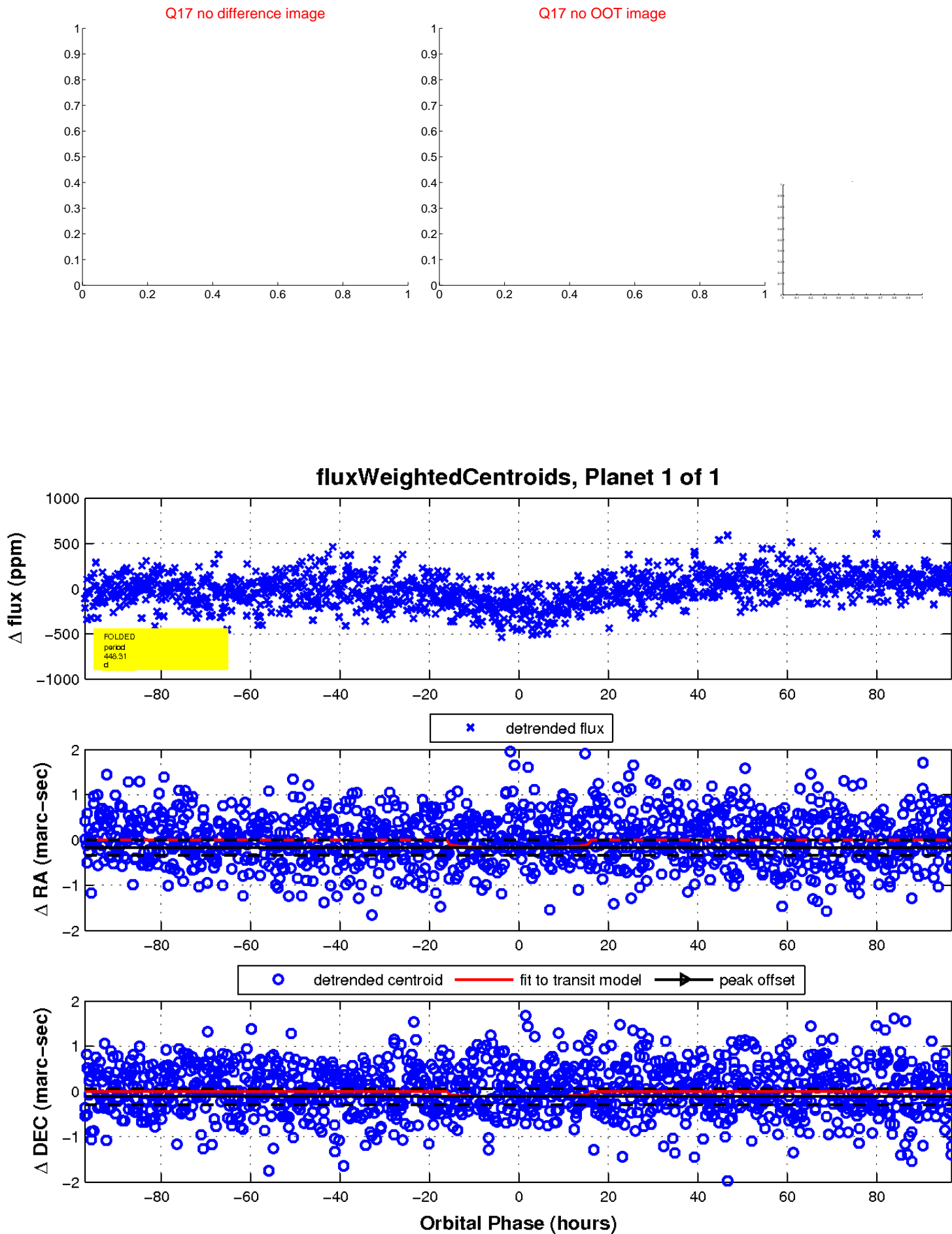
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

