

KIC 011868592

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})
011868592-01	OBS	No	332.051616	152.756014	12.8	3.977	26.3	1.1	9.84	4969	4.62	37.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011868592-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—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.

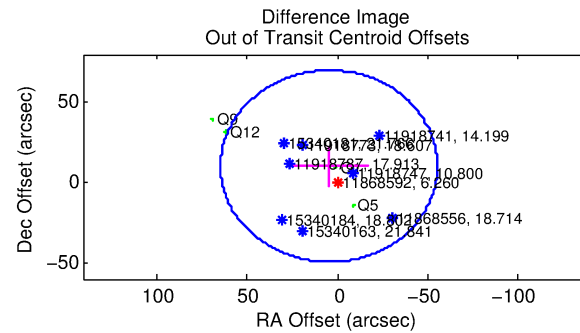
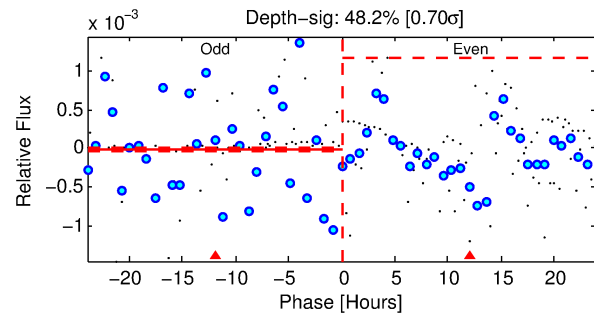
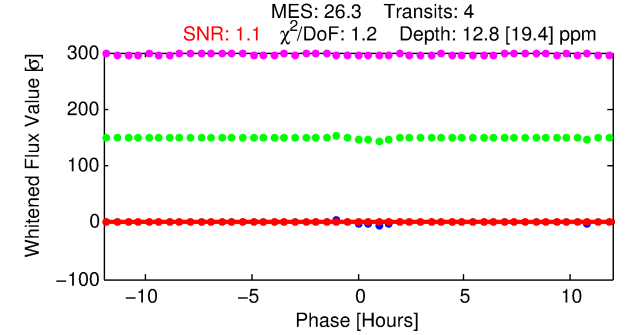
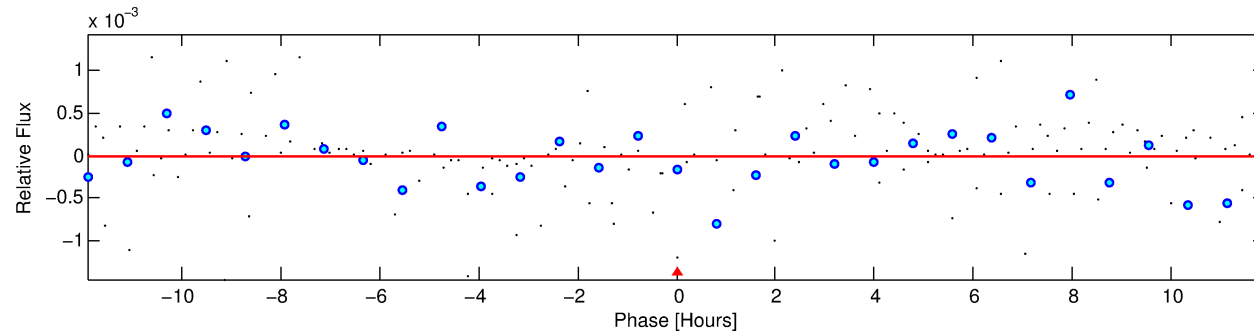
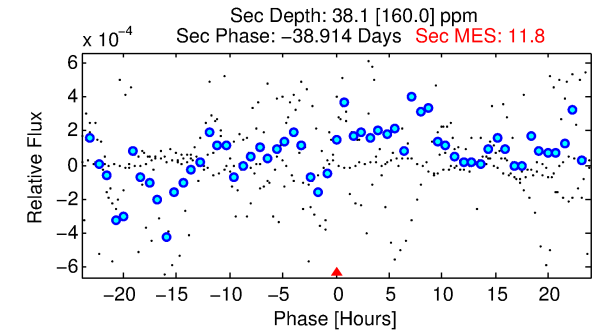
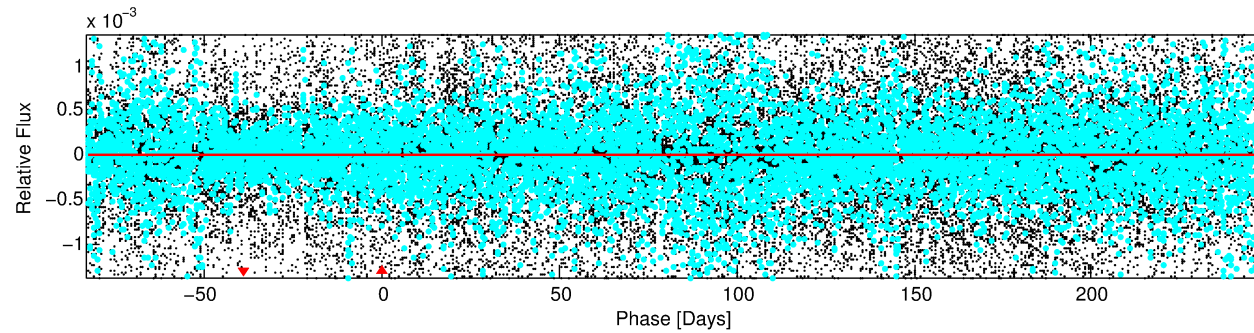
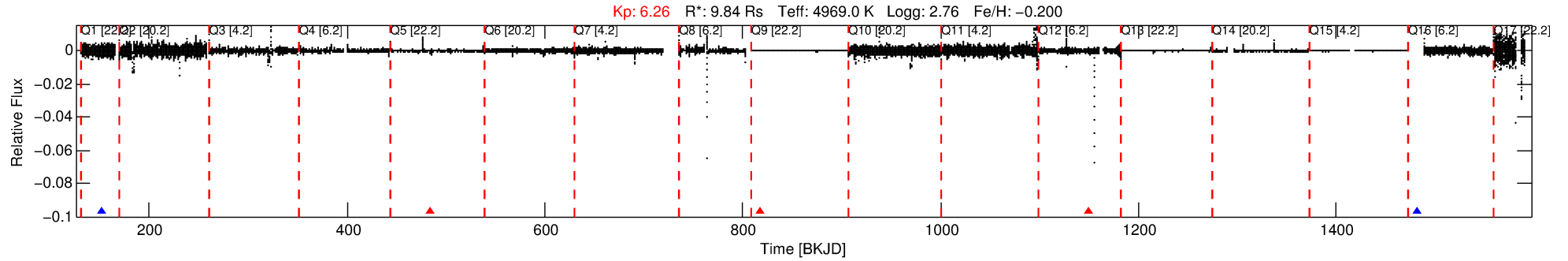
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011868592-01

No Significant Match Found

DV One-Page Summary

KIC: 11868592 Candidate: 1 of 1 Period: 332.052 d



DV Fit Results:

Period = 332.05162 [0.14182] d
Epoch = 152.7560 [0.2520] BKJD
Rp/R* = 0.0043 [0.0401]
a/R* = 206.12 [9063.20]
b = 0.95 [4.57]
Seff = 37.60 [30.75]
Teq = 631 [129] K
Rp = 4.62 [43.12] Re
a = 1.1865 [0.5974] AU
Ag = 1382.85 [26440.81] [0.05σ]
Teff = 5953 [28433] K [0.19σ]

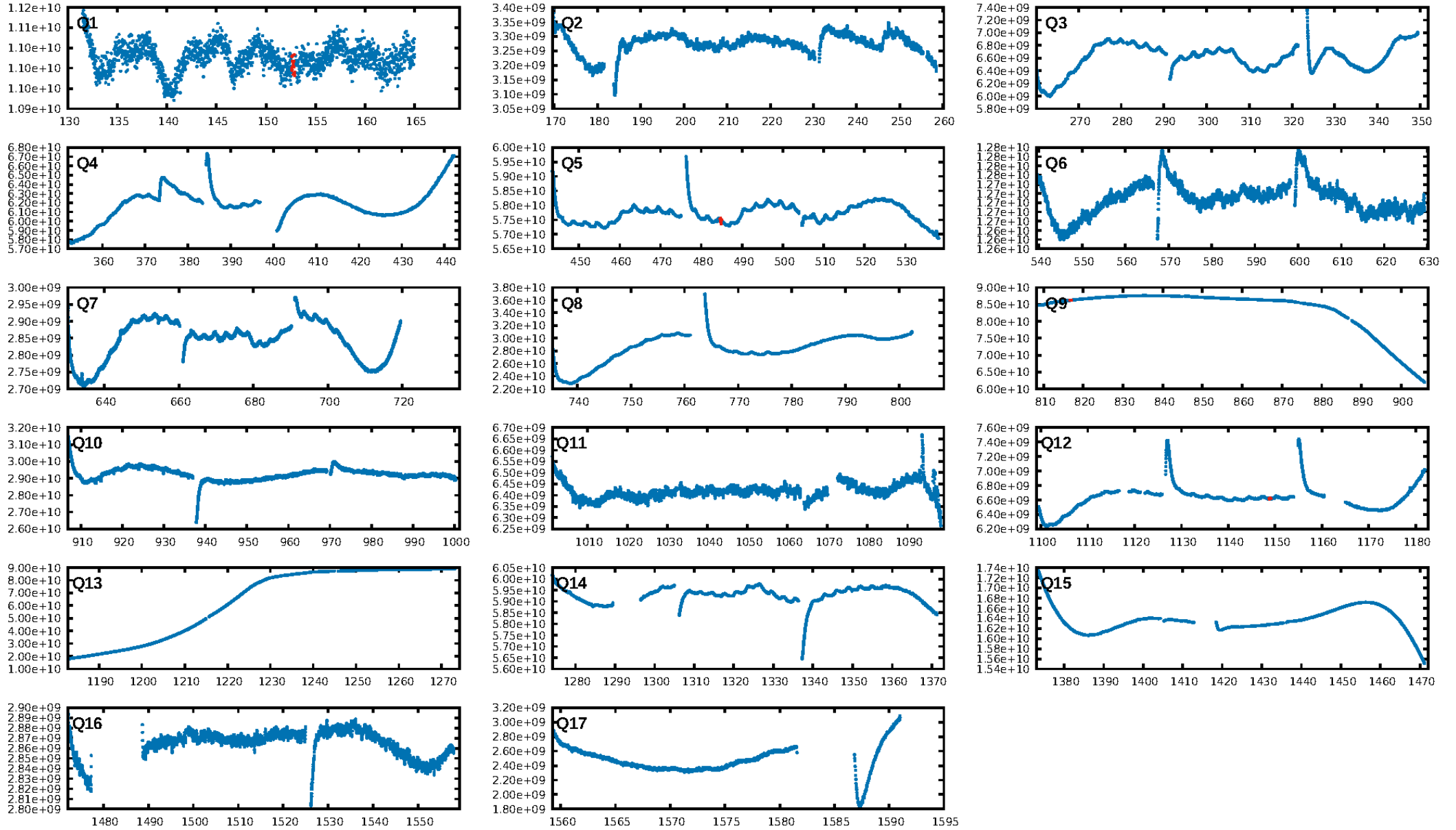
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 64.1%
ModelChiSquareGof-sig: 97.6%
Bootstrap-pfa: 4.56e-14
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 384.772 arcsec [1.05σ]
OotOffset-rm: 11.290 arcsec [0.56σ]
KicOffset-rm: 9.193 arcsec [0.58σ]
OotOffset-st: 0/0/1/3 [4]
KicOffset-st: 0/0/1/3 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [4/4]

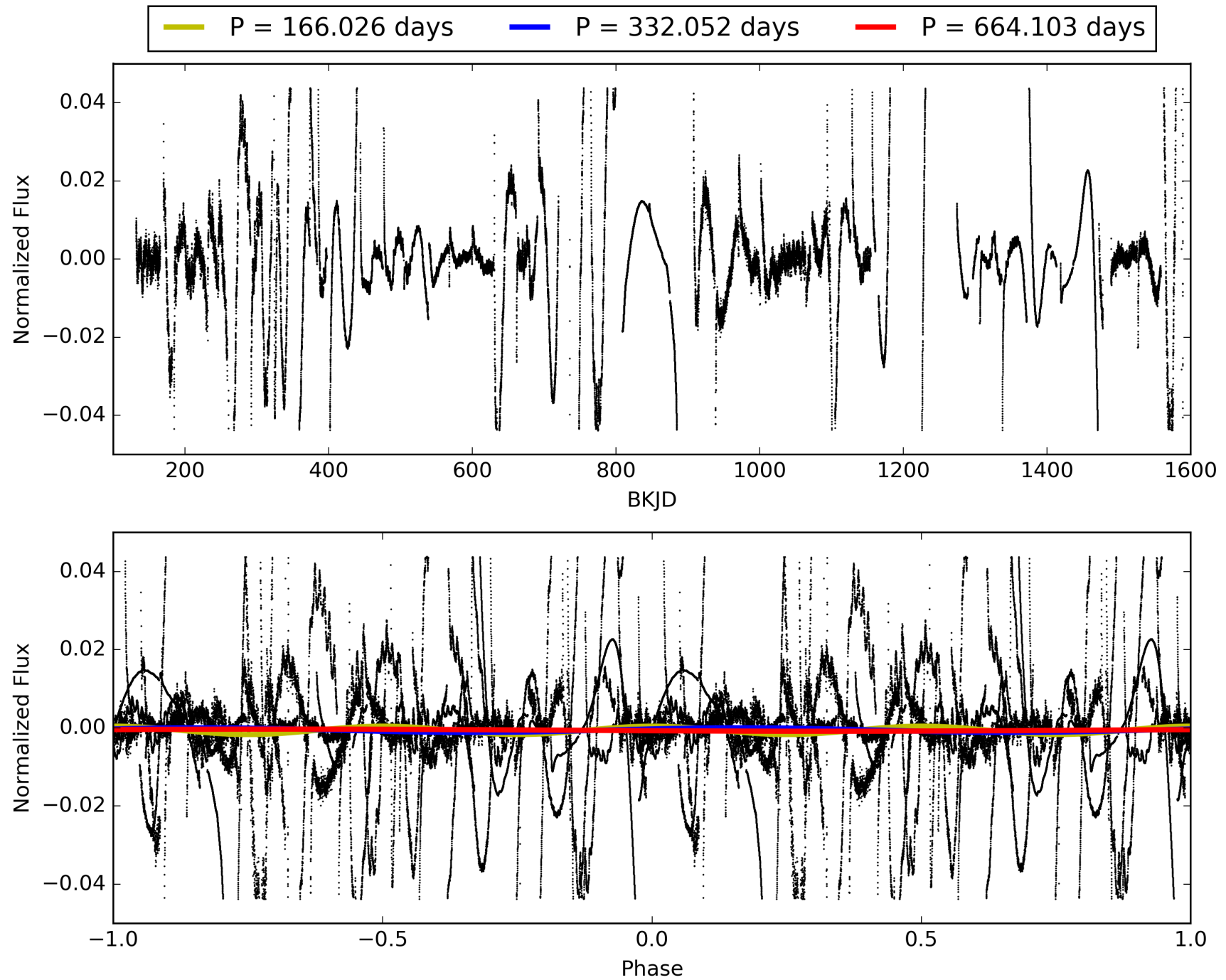
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:14:42 Z

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

TCE 011868592-01, PDC Light Curves

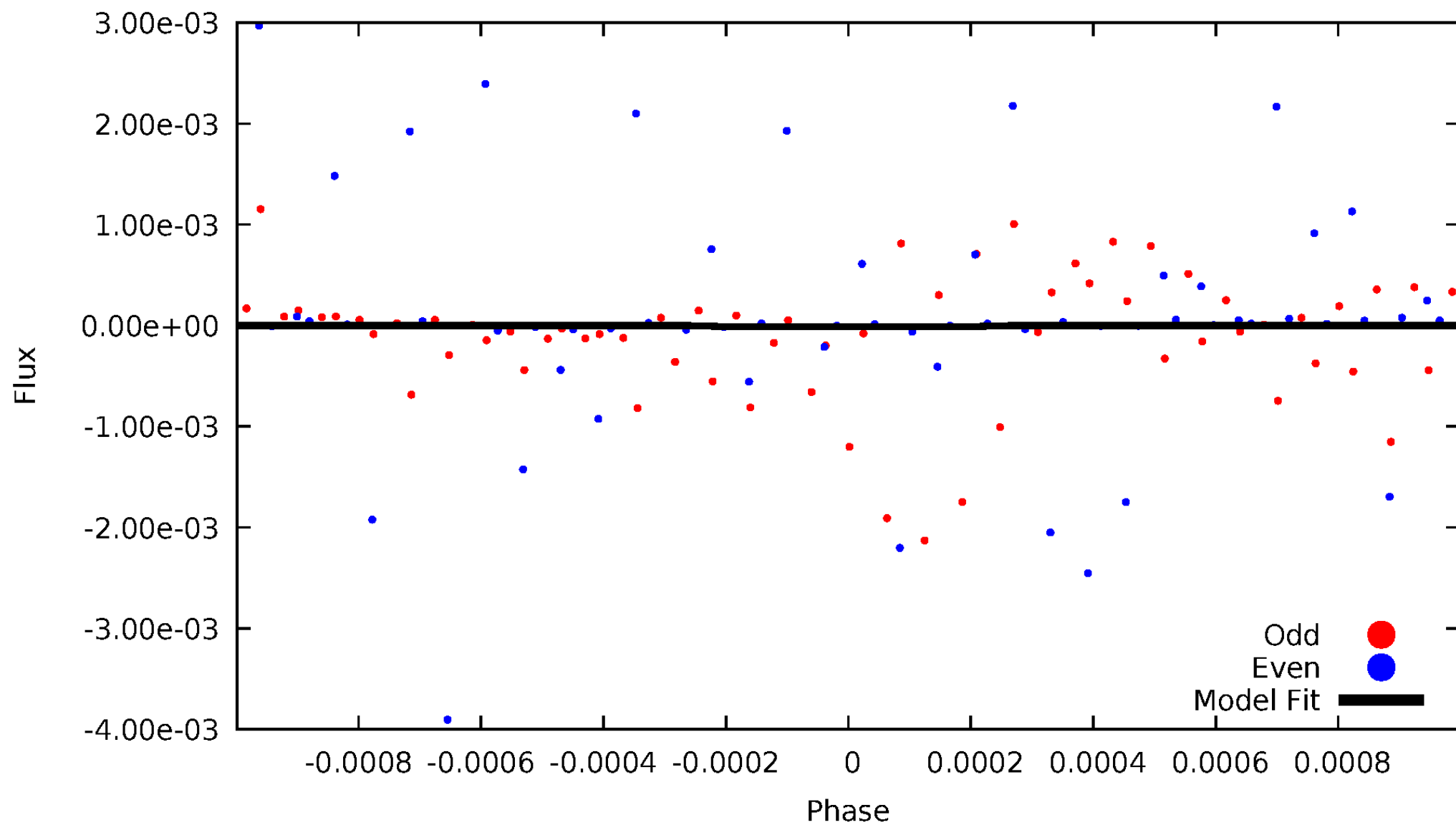


TCE 011868592-01



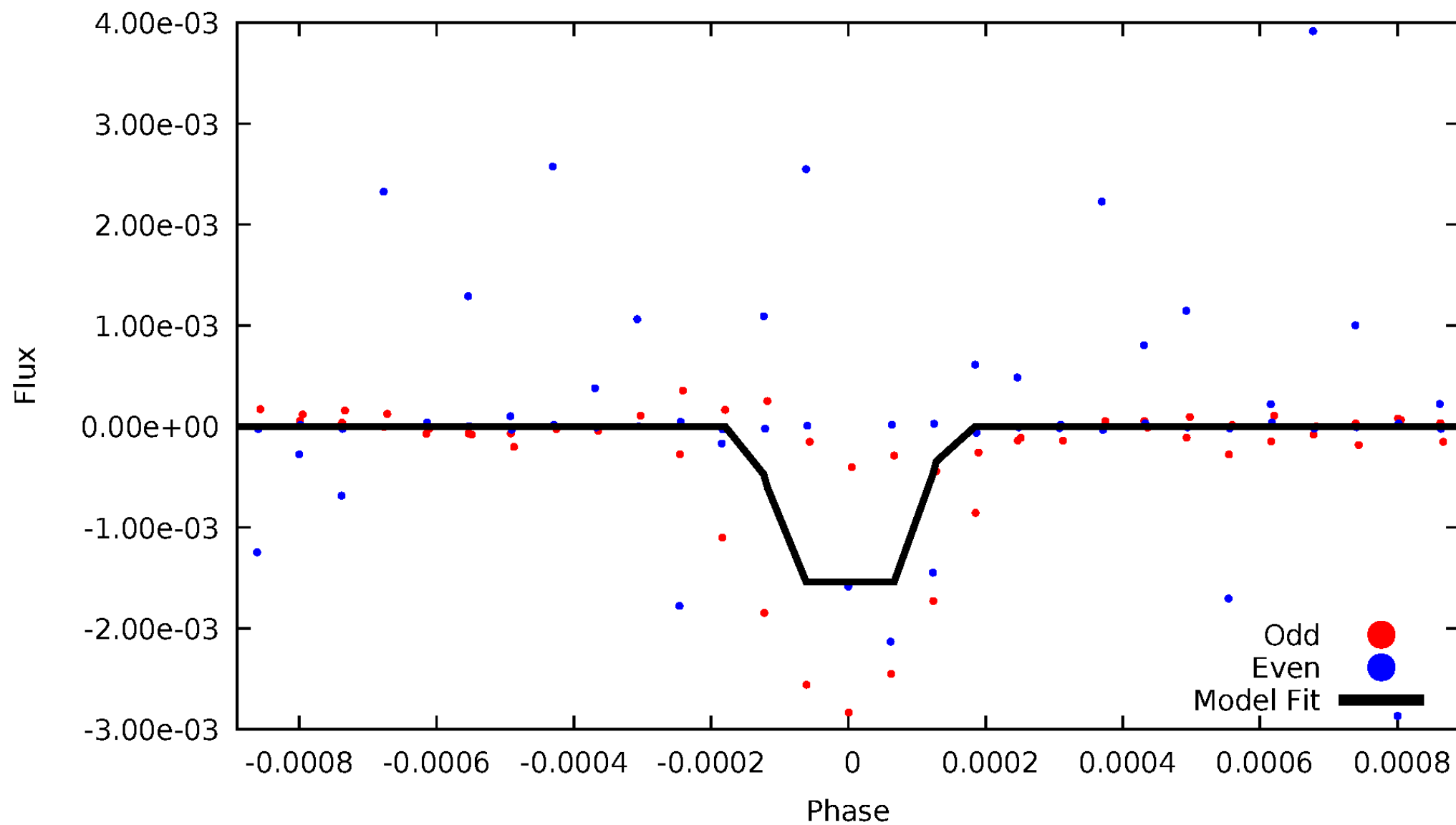
DV Odd/Even

TCE 011868592-01



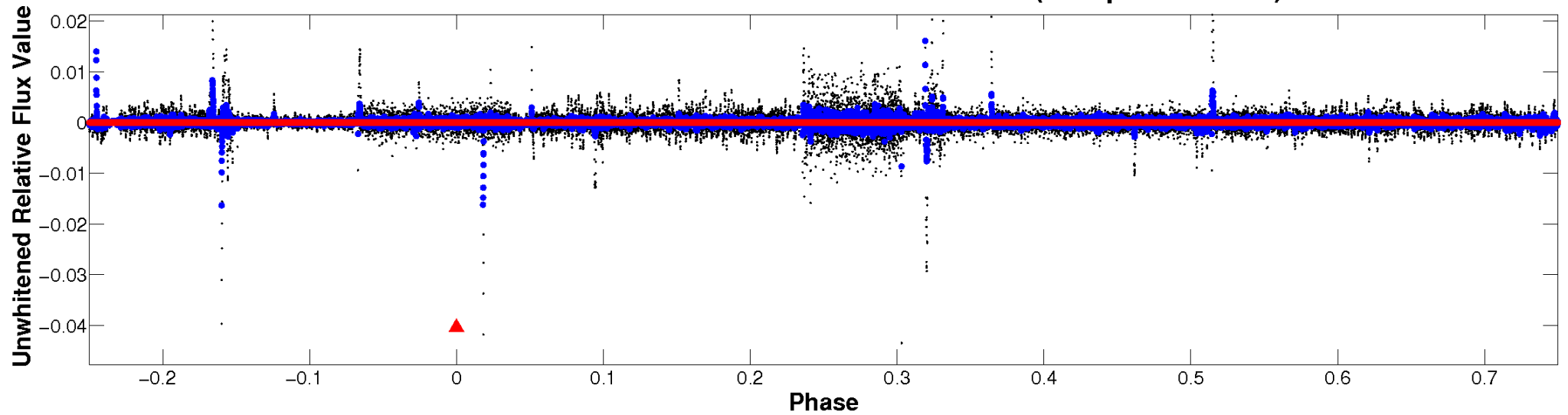
ALT Odd/Even

TCE 011868592-01

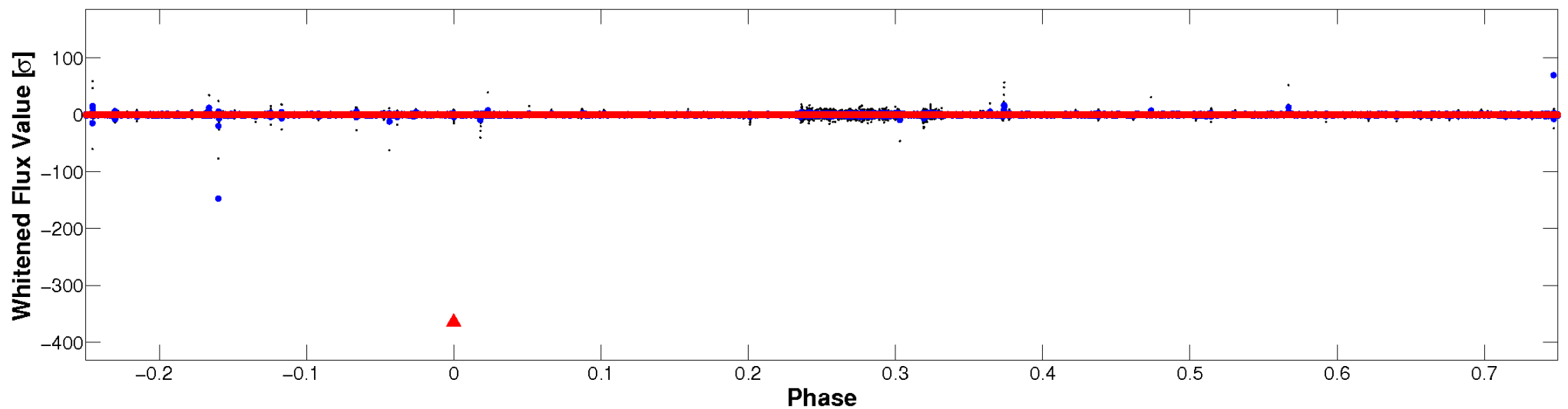


Non-Whitened Vs. Whitened Light Curve

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

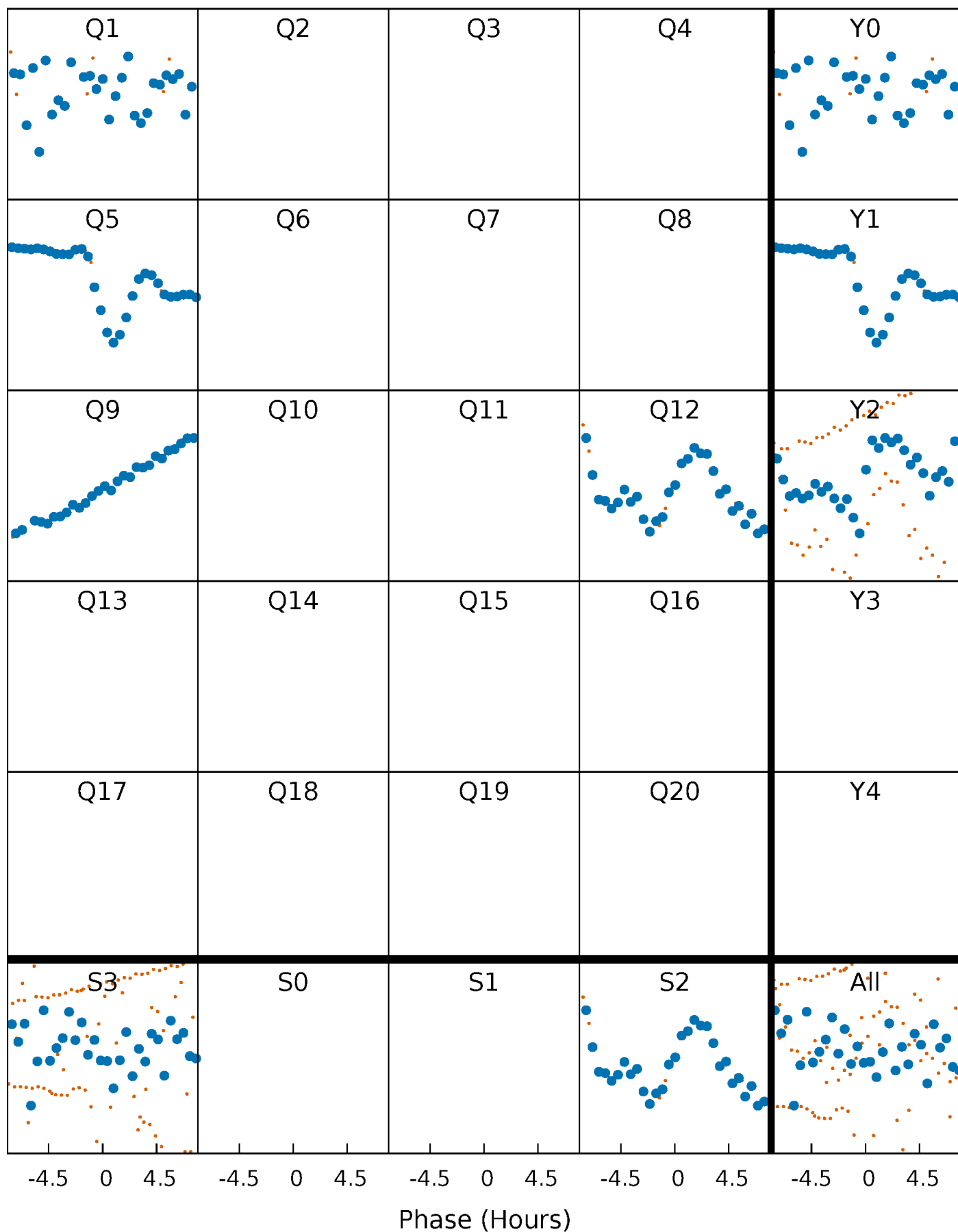


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 011868592-01 P=332.051616 Days $T_0=152.756014$ (BKJD)



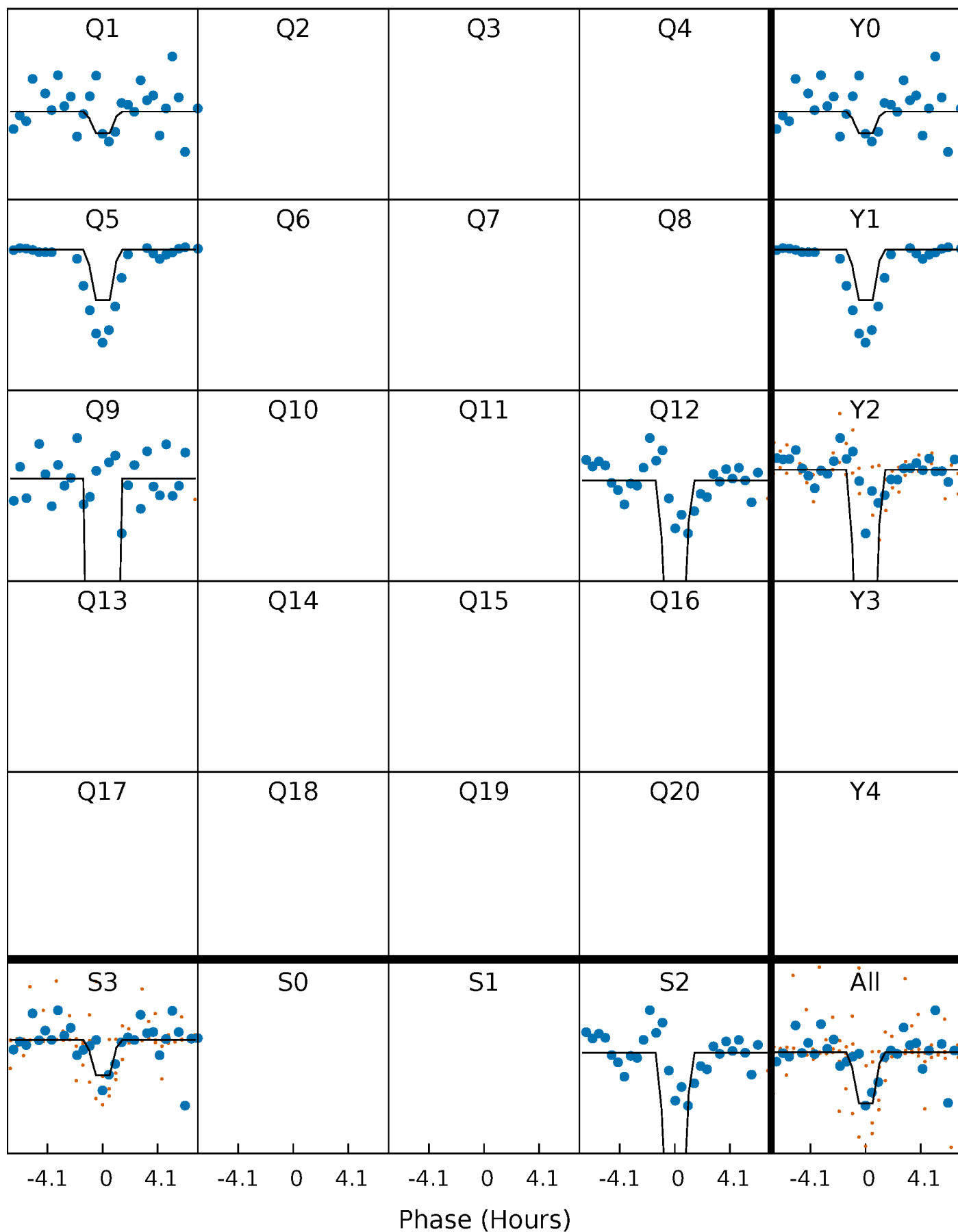
DV Quarter-Phased Transit Curves

TCE 011868592-01 P=332.051616 Days $T_0=152.756014$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

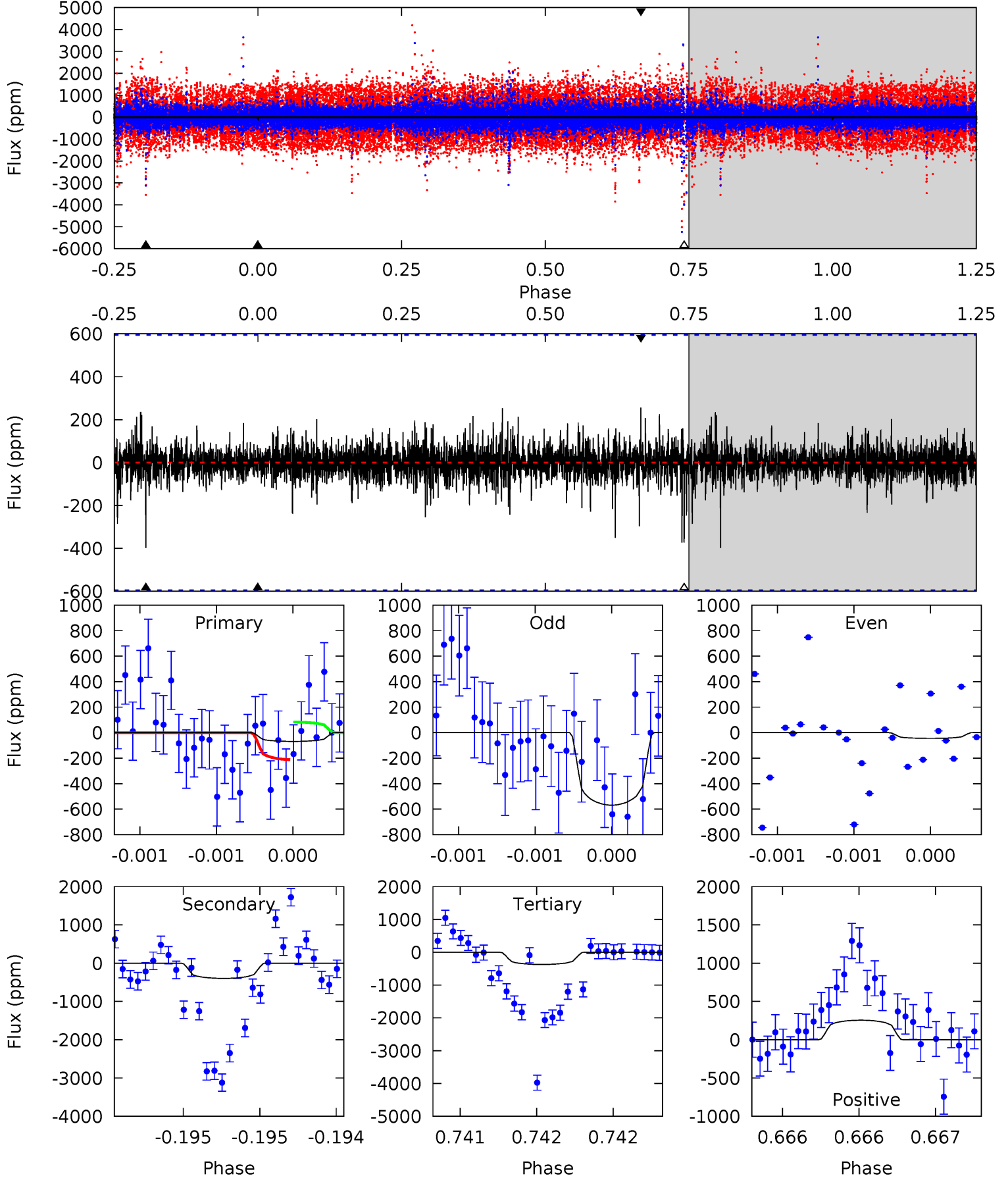
TCE 011868592-01 P=331.983179 Days $T_0=152.865623$ (BKJD)



DV Model-Shift Uniqueness Test

011868592-01, P = 332.051616 Days, E = 152.756014 Days

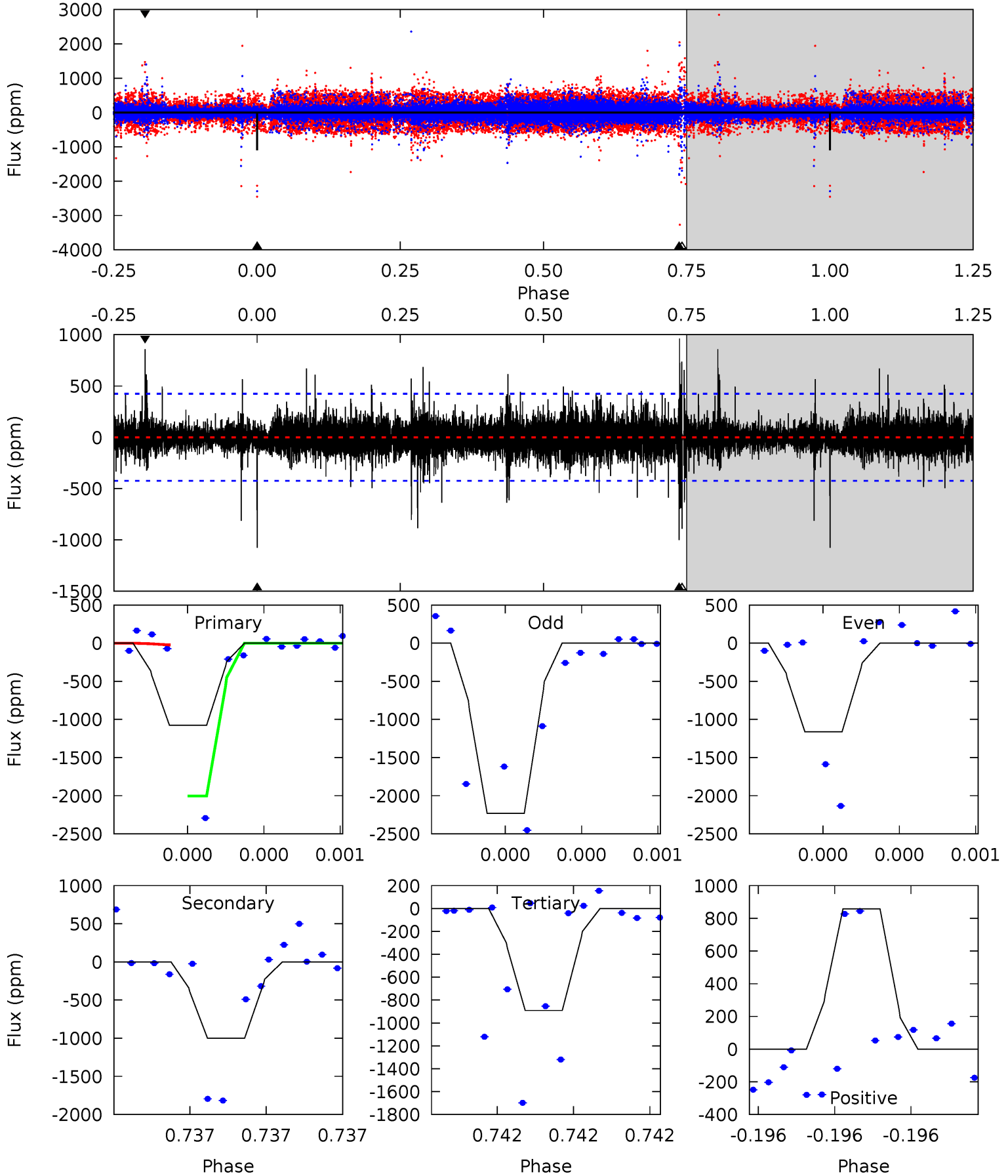
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.64	3.72	3.48	2.39	5.57	3.47	0.52	-2.84	-1.75	0.23	1.33	1.73	-17.6	0.39	0.62



Alt Model-Shift Uniqueness Test

011868592-01, P = 331.983179 Days, E = 152.865623 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	13.4	12.0	11.5	5.69	3.66	1.32	2.48	2.93	1.48	1.92	4.99	2.60	0.47	14.5



Stellar Parameters For KIC 011868592

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4969^{+117}_{-161}	$2.757^{+0.475}_{-0.256}$	$-0.200^{+0.250}_{-0.300}$	$9.844^{+3.418}_{-5.127}$	$2.021^{+0.927}_{-1.020}$	$0.003^{+0.015}_{-0.002}$
	+2%/-3%	+17%/-9%	+125%/-150%	+35%/-52%	+46%/-50%	+501%/-63%
Source	KIC0	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 011868592-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-397 ± 107	$28.12^{+32.01}_{-20.18}$	871^{+92}_{-115}	4359^{+3541}_{-986}	414^{+4399}_{-329}
Alt.	-1001 ± 75	$48.54^{+45.57}_{-32.07}$	874^{+94}_{-115}	4196^{+2340}_{-727}	320^{+2273}_{-225}

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 $A_{obs} \gg 1.0$

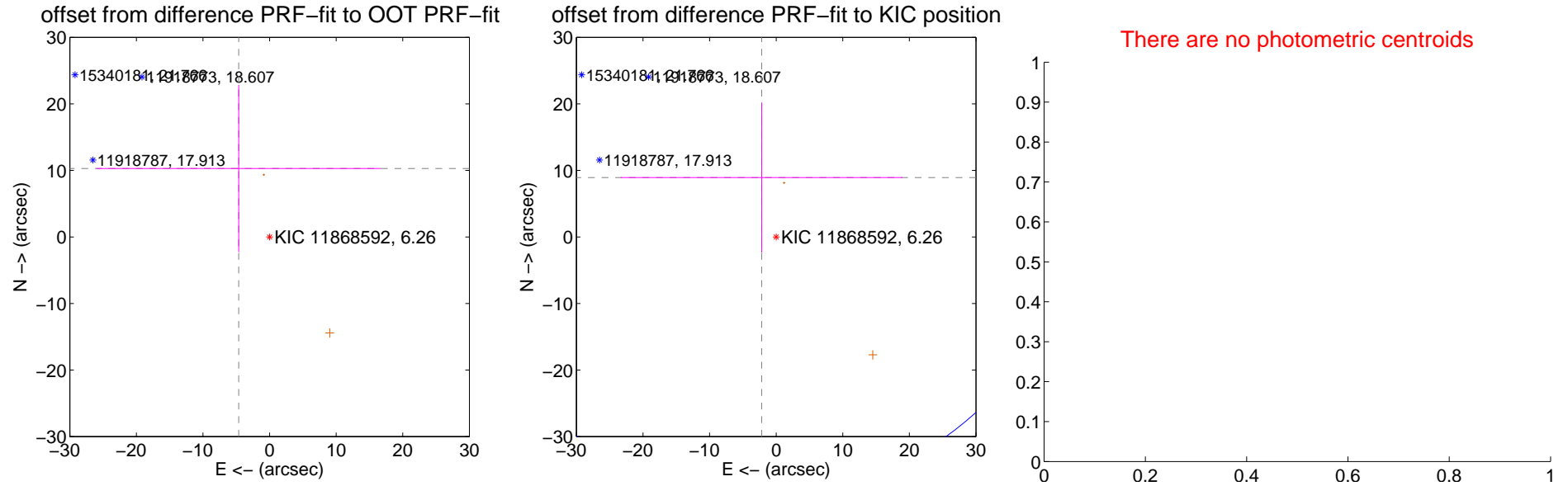
DV Centroid Data

Supplemental centroid analysis for 011868592-01. **Kepler magnitude: 6.26.** Transit SNR 1.12

There are 0 quarters with good PRF difference image offsets

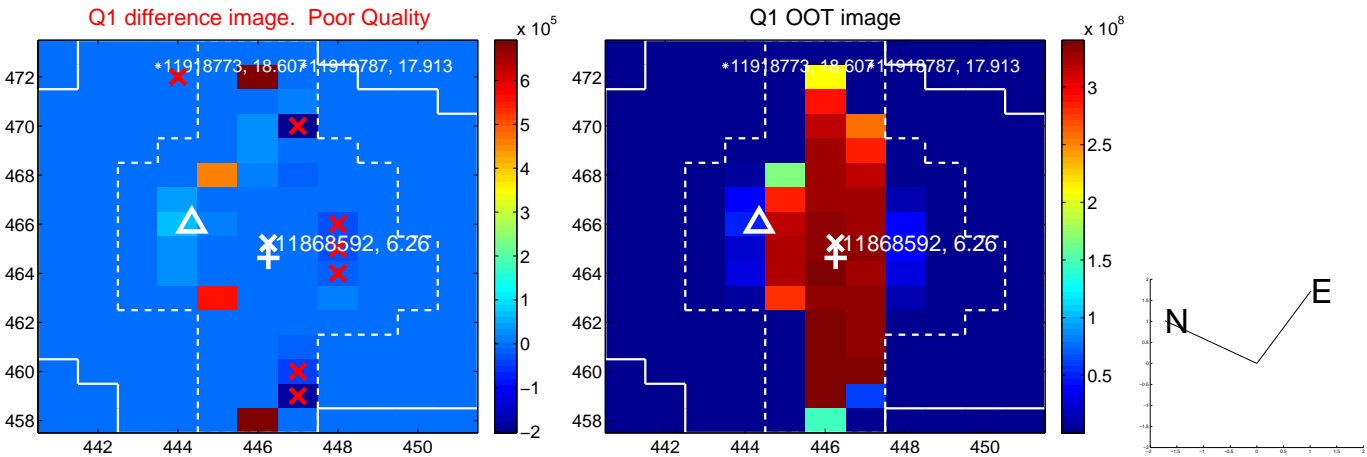
The OOT PRF centroid is offset from the target star catalog position by about 6.99 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.290 ± 20.042	0.56	4.642 ± 21.357	10.292 ± 12.556
PRF-fit source offset from KIC position	9.193 ± 15.920	0.58	2.186 ± 21.165	8.929 ± 11.266
photometric centroid source offset	—	—	—	—

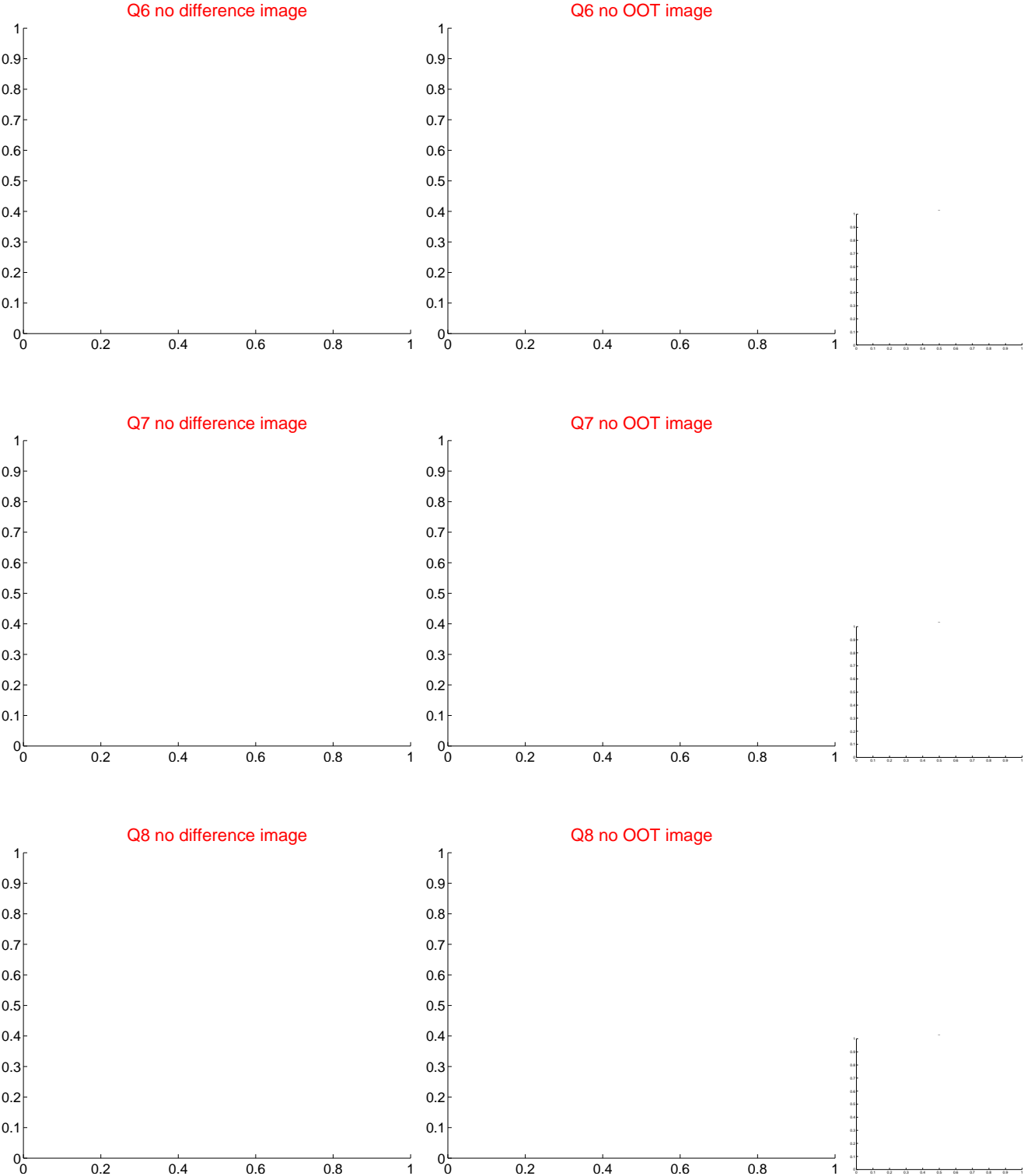
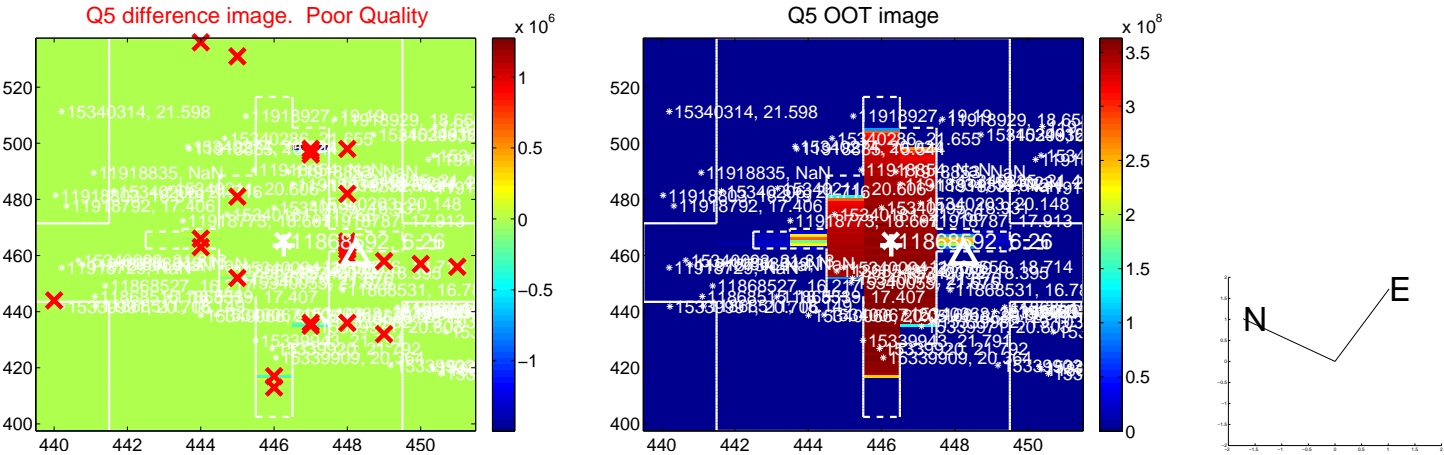


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

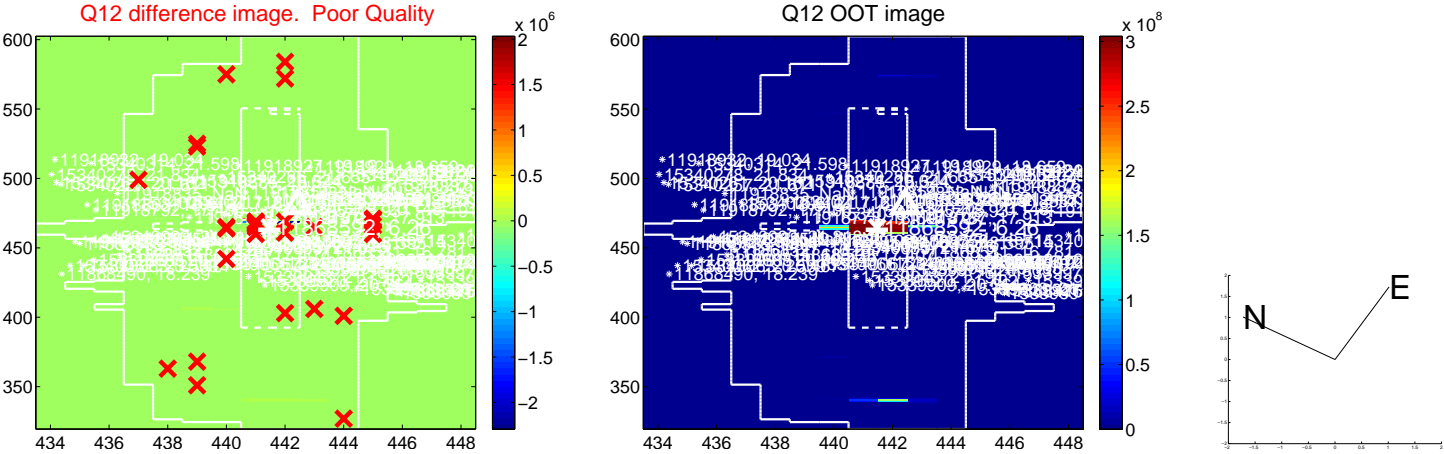
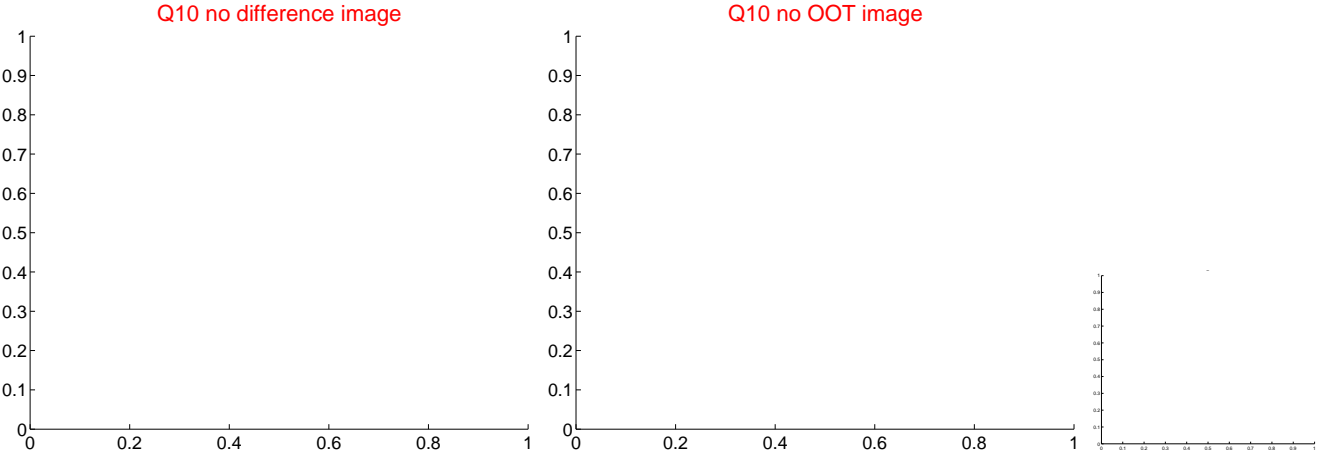
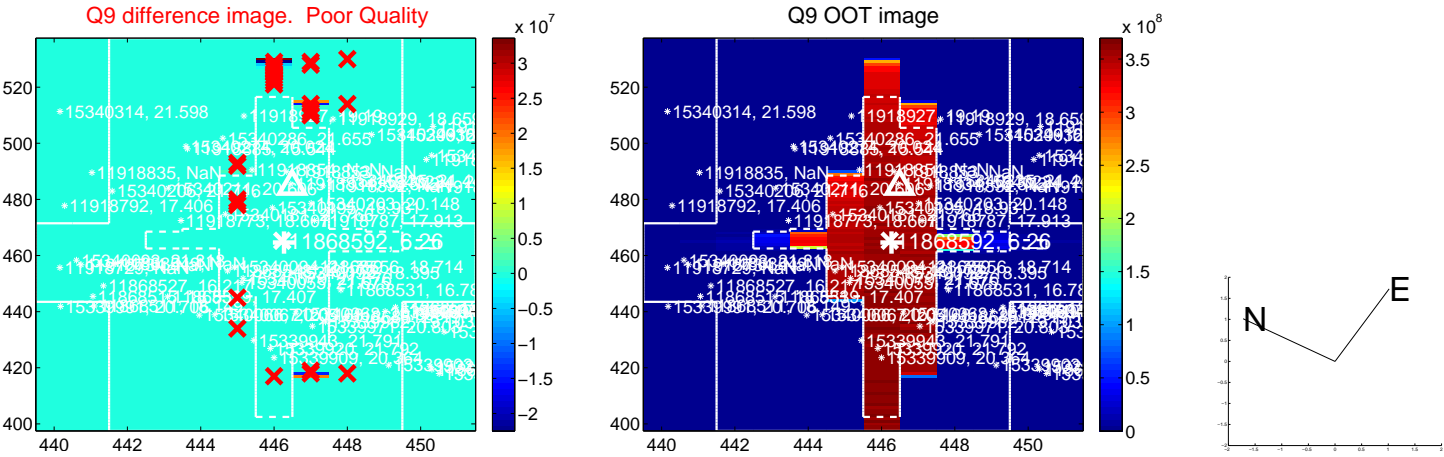
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



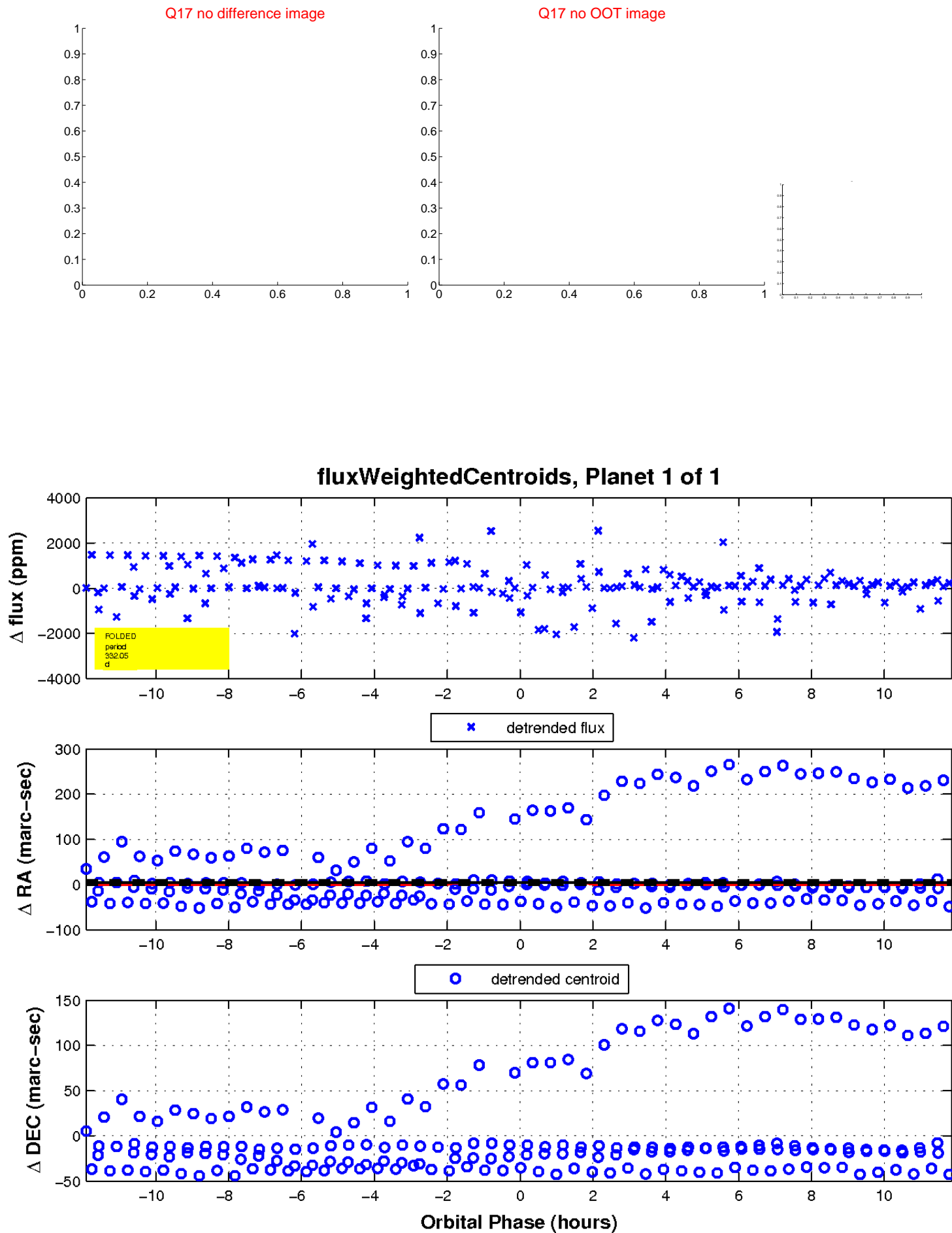
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

