

KIC 008007688

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})
008007688-01	OBS	No	449.354386	195.051168	859.5	4.359	7.8	6.0	0.93	5425	3.53	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008007688-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

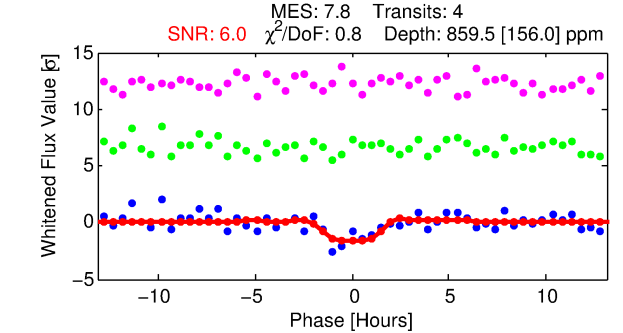
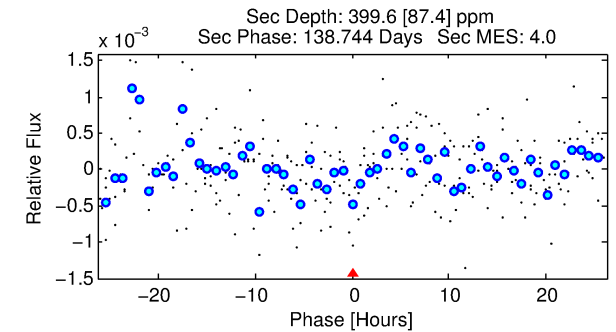
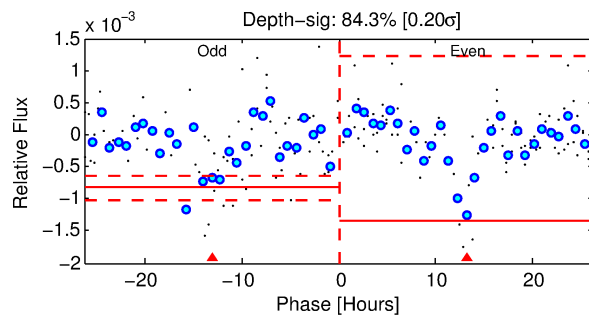
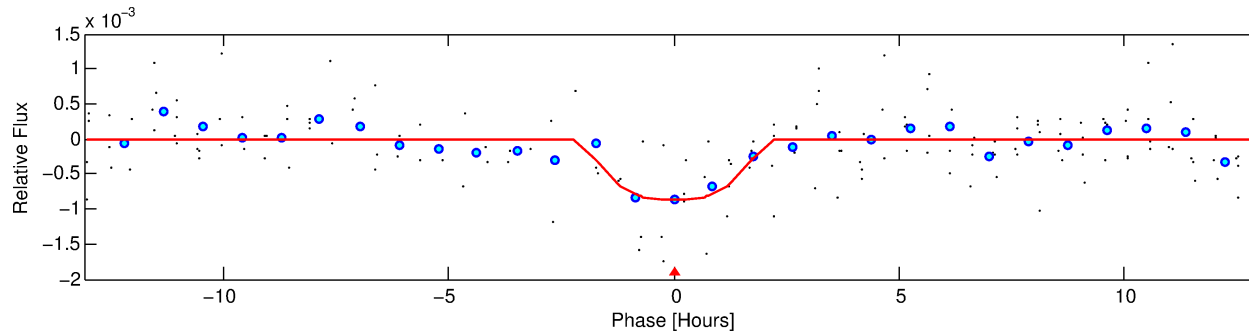
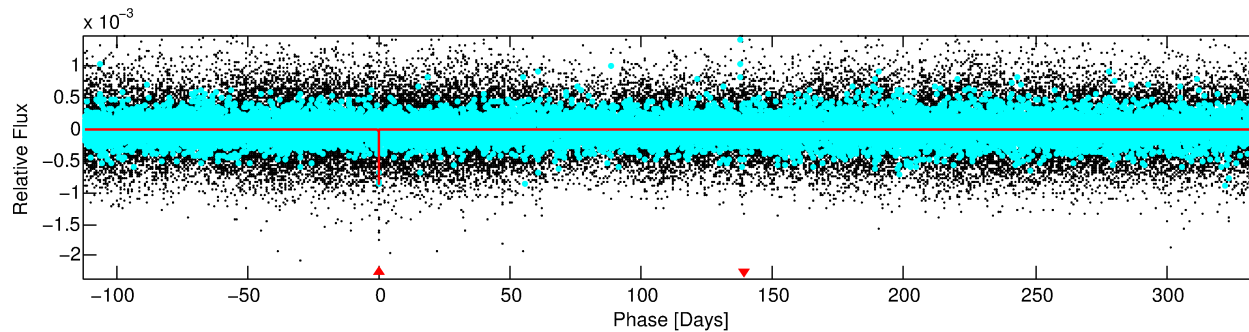
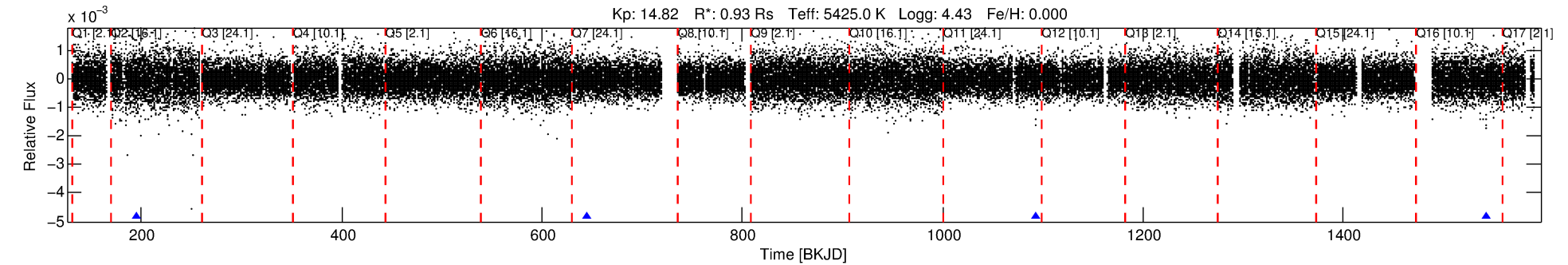
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008007688-01

No Significant Match Found

DV One-Page Summary

KIC: 8007688 Candidate: 1 of 1 Period: 449.354 d



DV Fit Results:

Period = 449.35439 [0.00684] d
Epoch = 195.0512 [0.0143] BKJD
Rp/R* = 0.0348 [0.0048]
a/R* = 324.03 [116.92]
b = 0.95 [0.04]
Seff = 0.56 [0.18]
Teq = 221 [17] K
Rp = 3.53 [0.93] Re
a = 1.0900 [0.2108] AU
Ag = 20967.24 [9530.37] [2.20 σ]
Teffp = 4111 [383] K [10.14 σ]

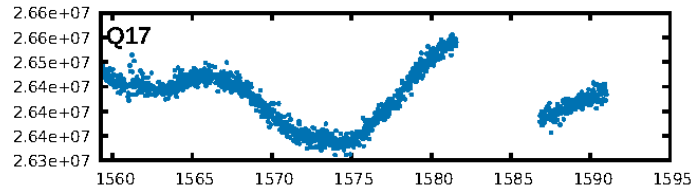
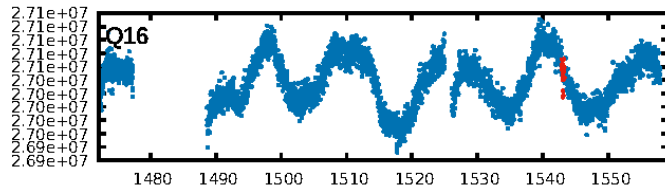
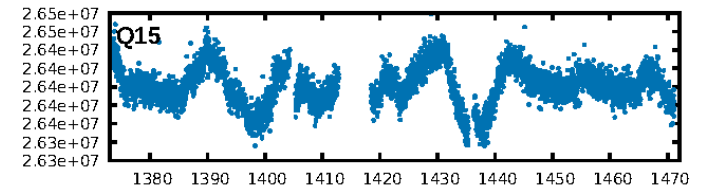
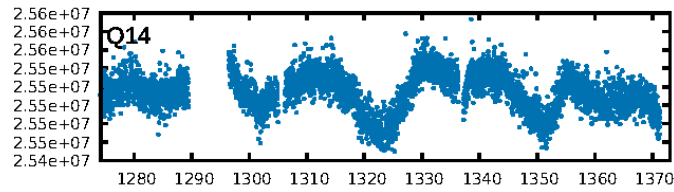
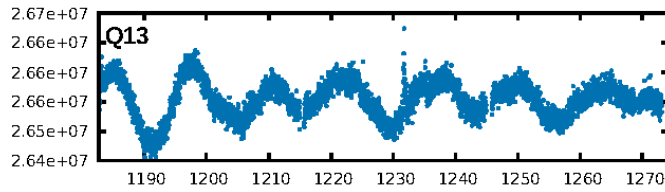
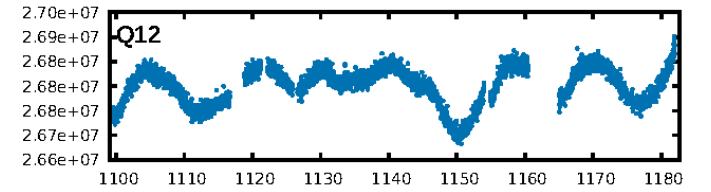
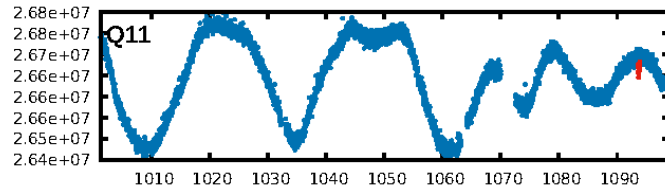
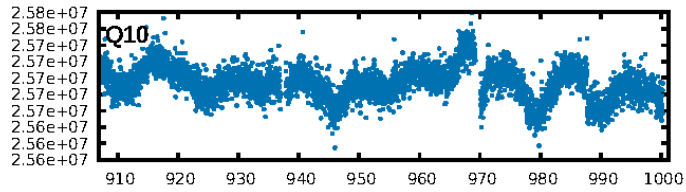
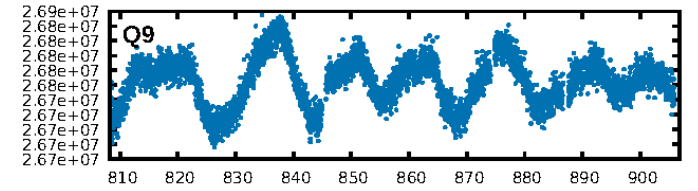
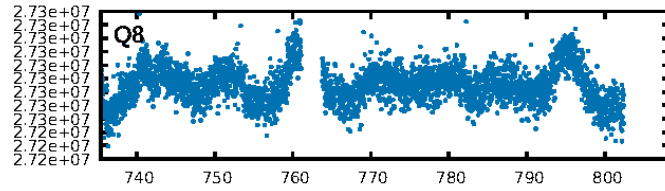
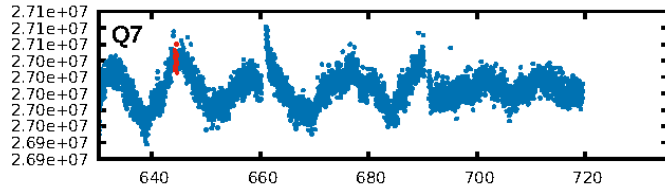
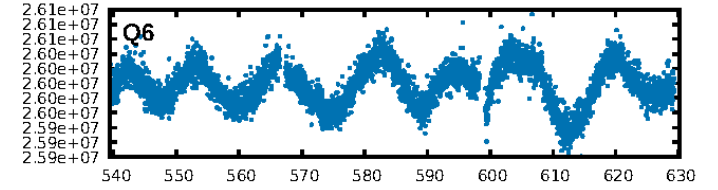
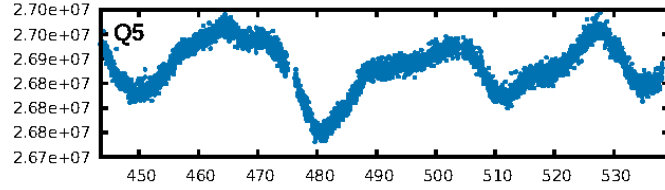
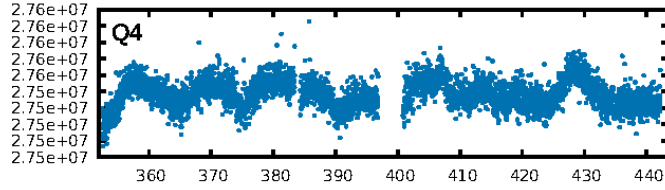
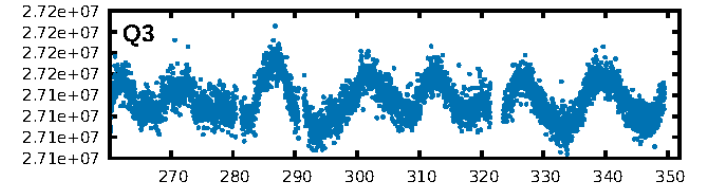
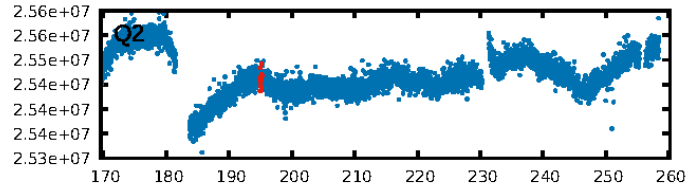
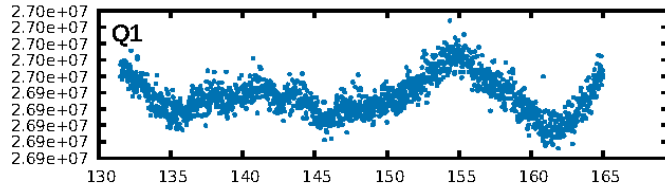
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.7%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 6.07e-12
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -3.764
Centroid-sig: 74.5%
Centroid-so: 0.680 arcsec [0.61 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

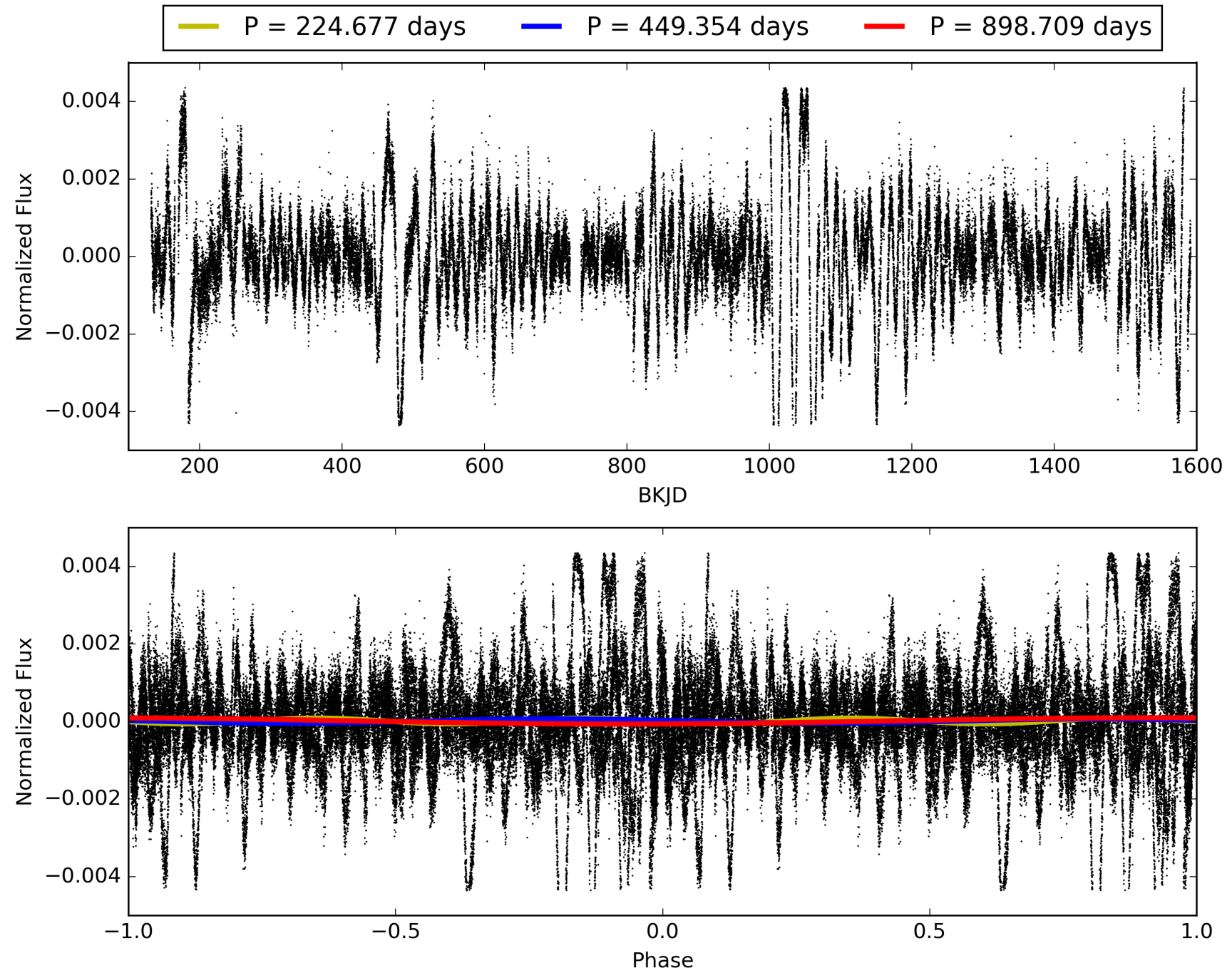
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:53:34 Z

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

TCE 008007688-01, PDC Light Curves

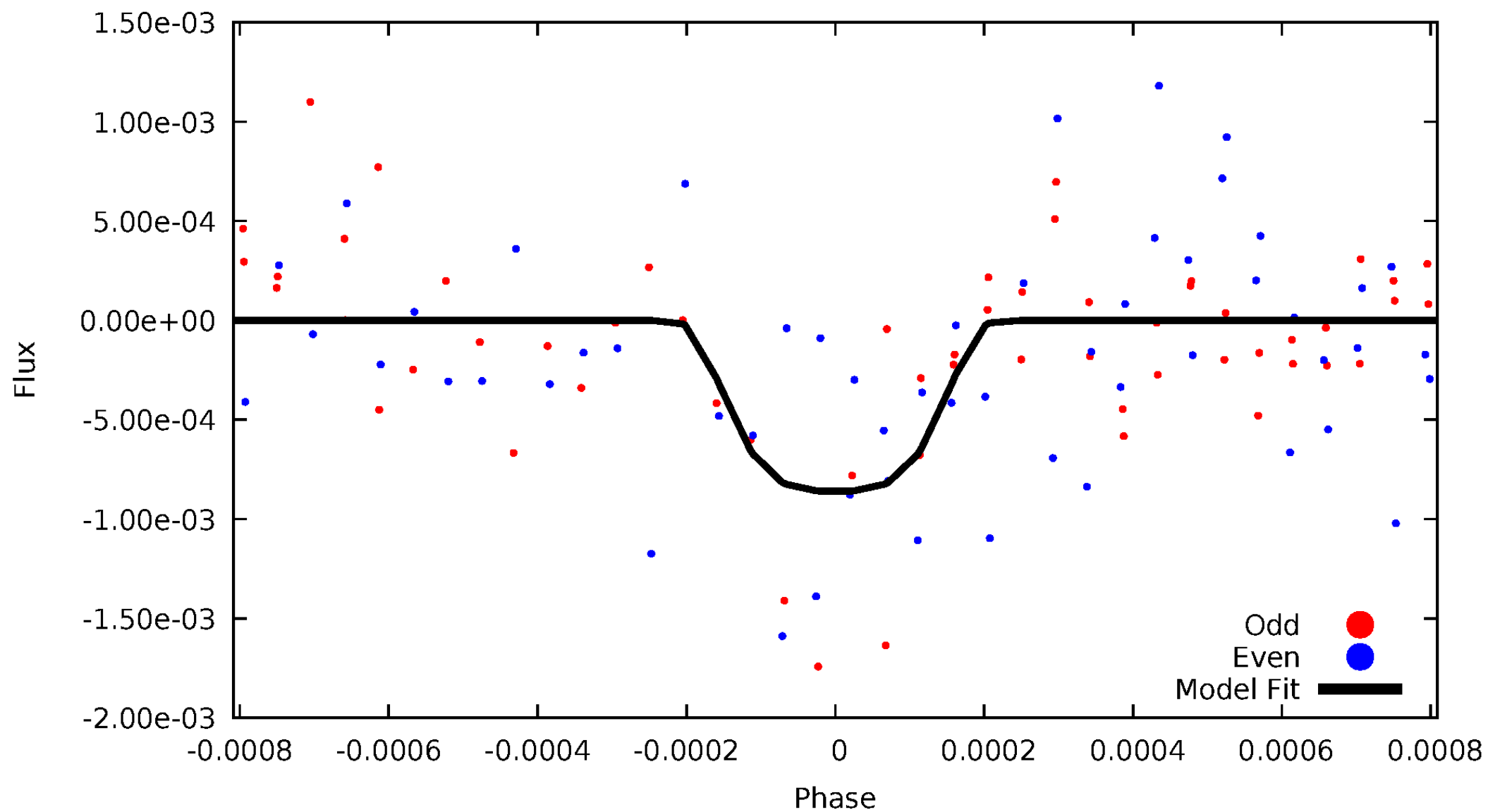


TCE 008007688-01



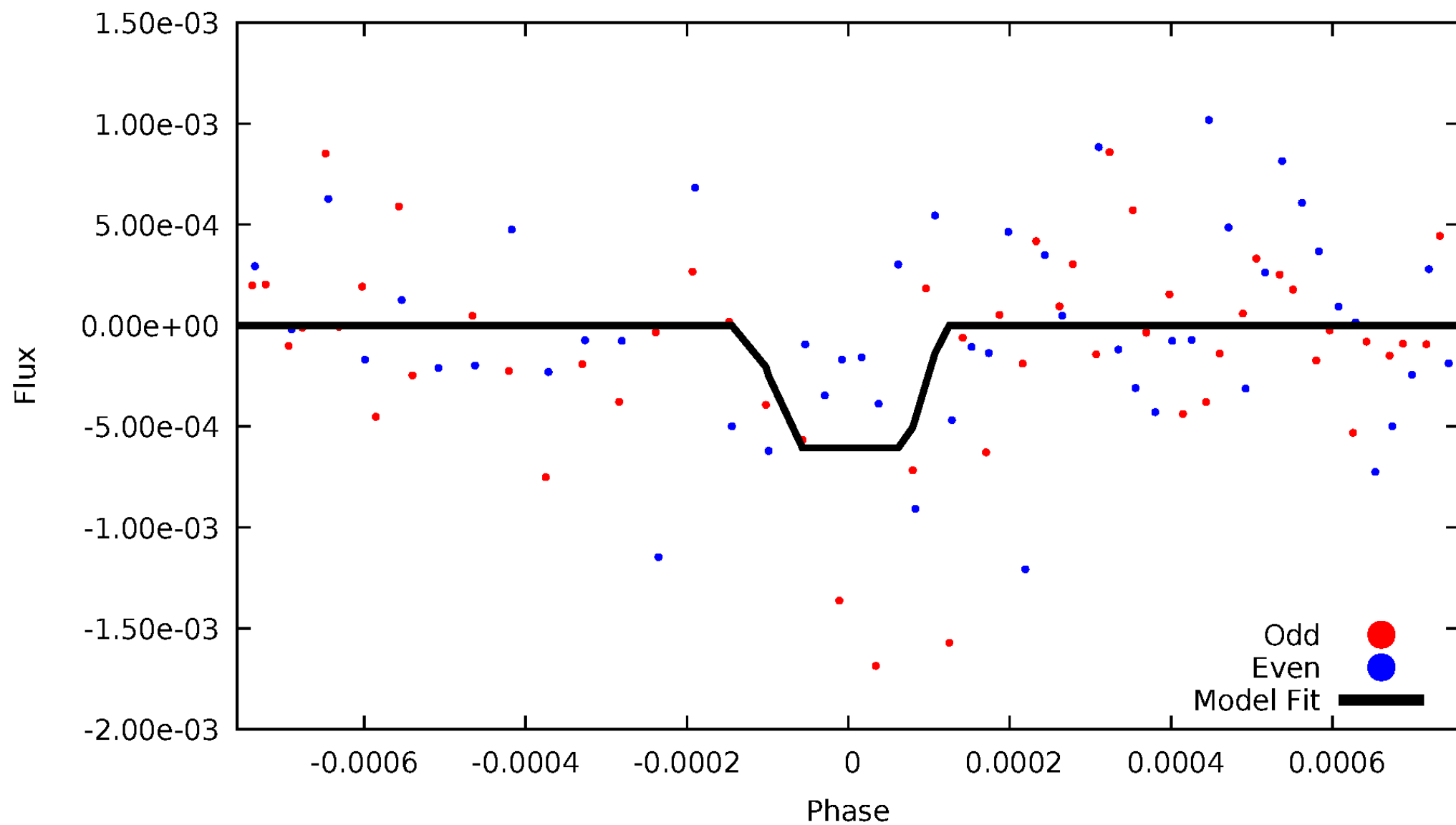
DV Odd/Even

TCE 008007688-01



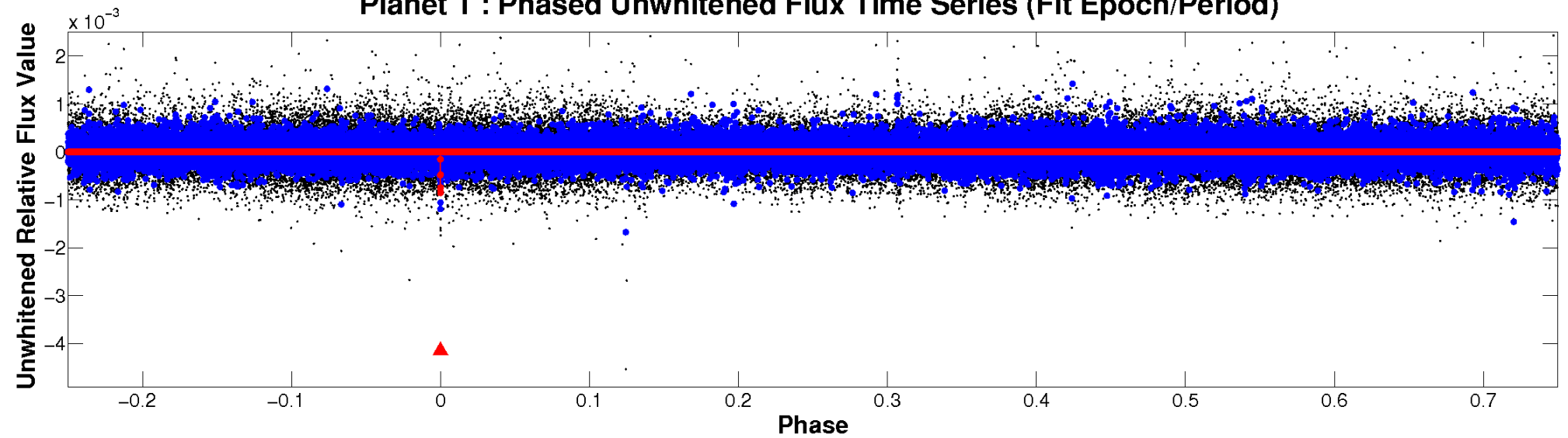
ALT Odd/Even

TCE 008007688-01

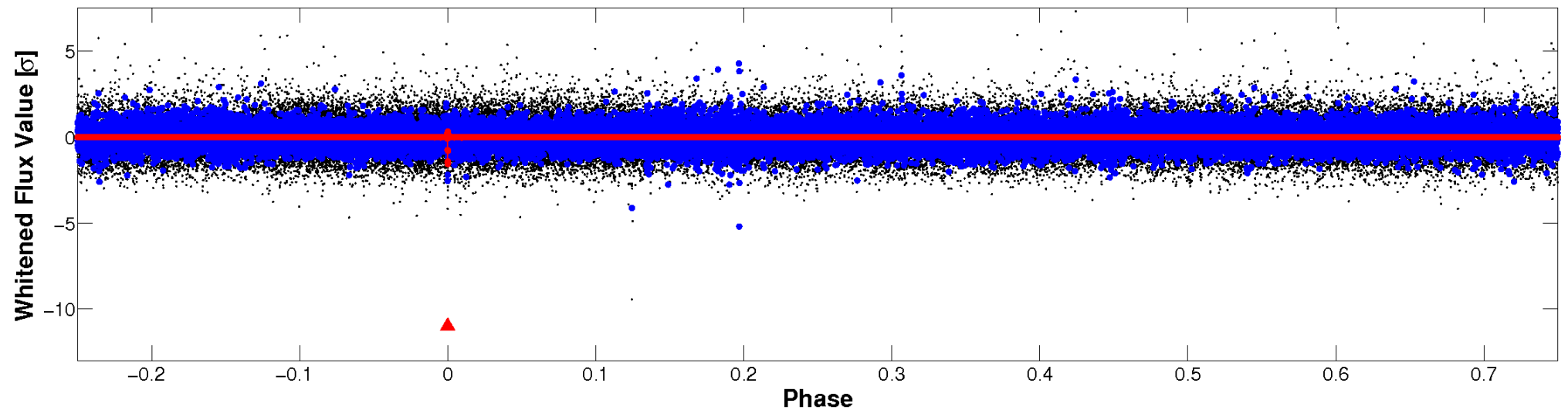


Non-Whitened Vs. Whitened Light Curve

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

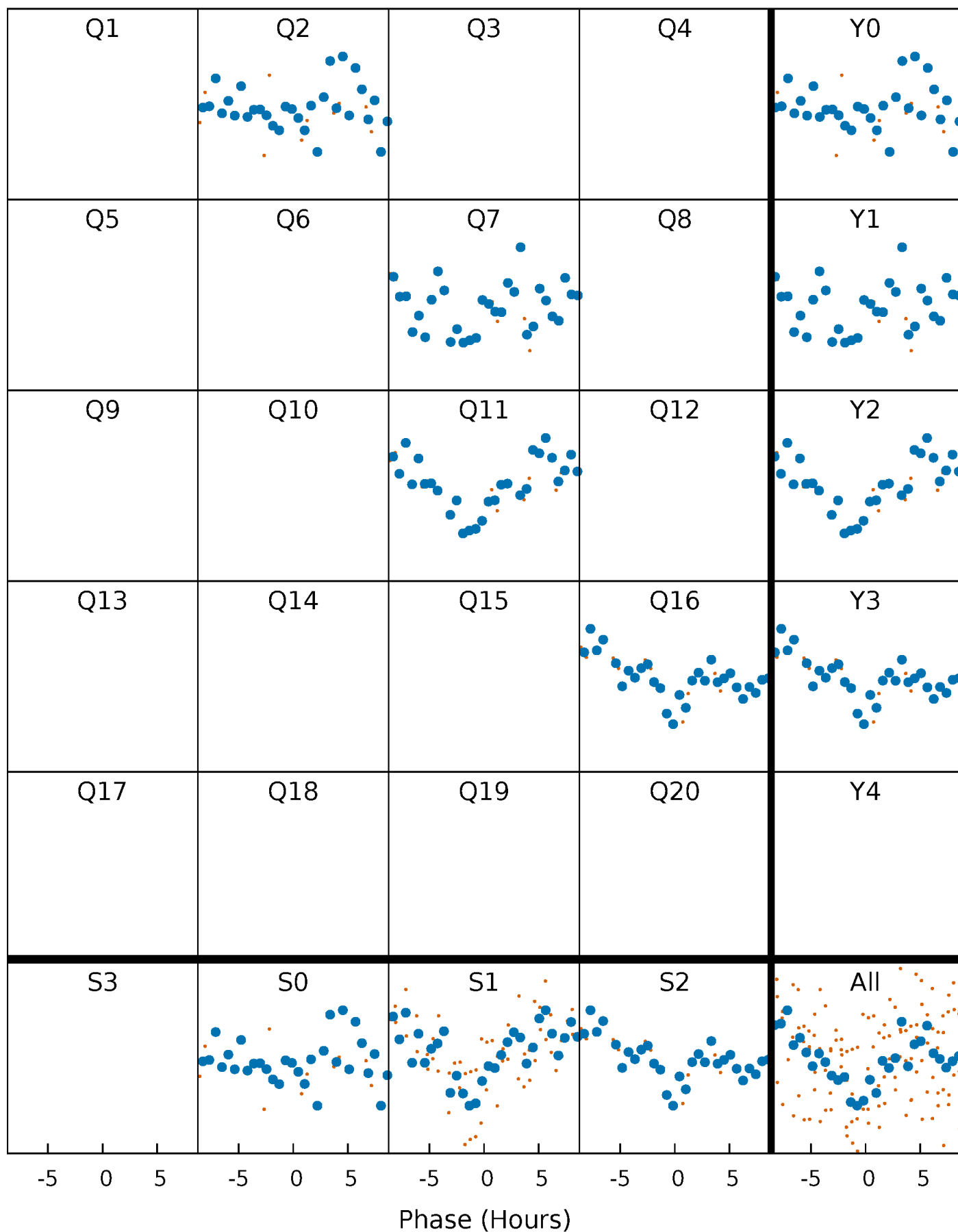


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



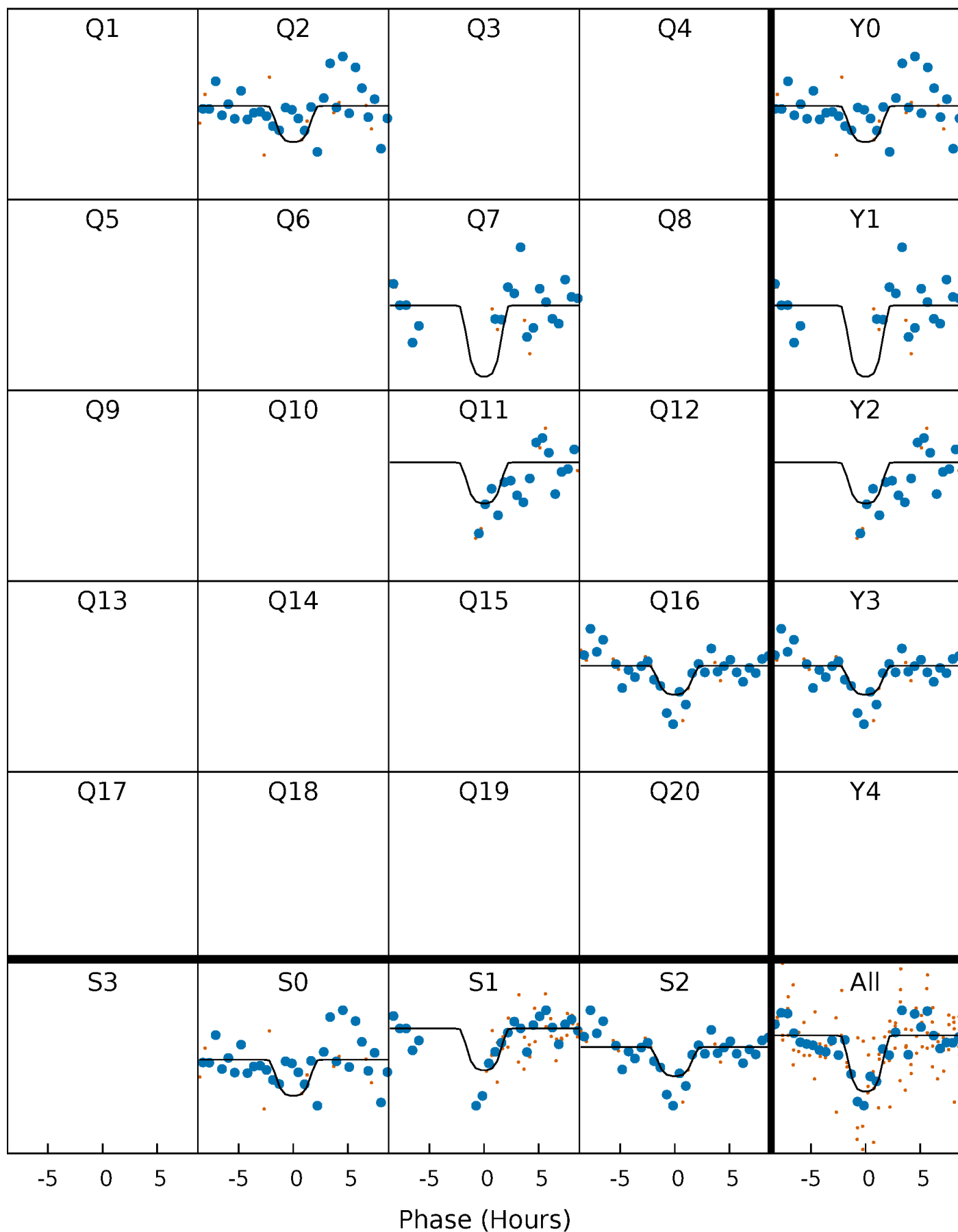
PDC Quarter-Phased Transit Curves

TCE 008007688-01 P=449.354386 Days $T_0=195.051168$ (BKJD)



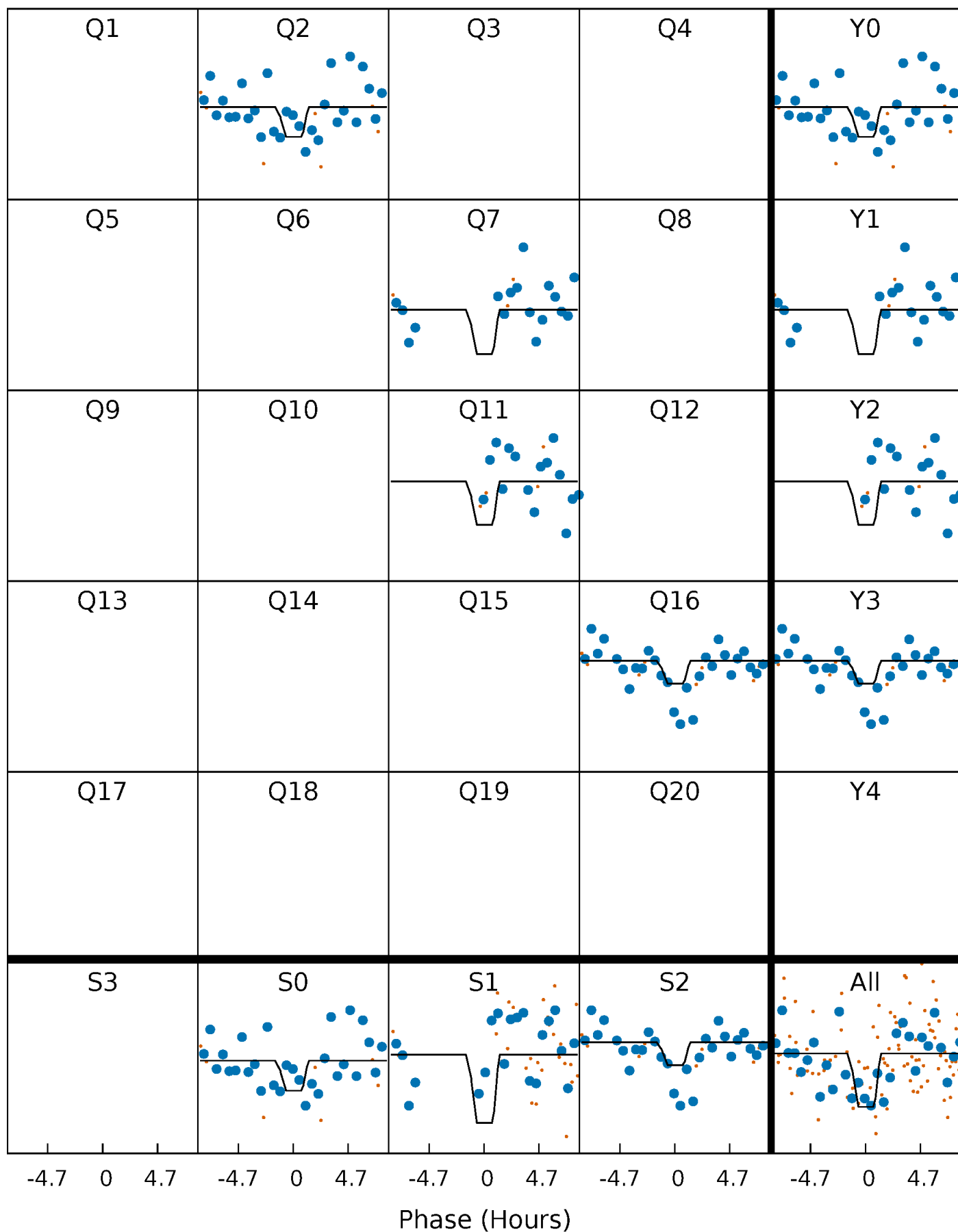
DV Quarter-Phased Transit Curves

TCE 008007688-01 P=449.354386 Days $T_0=195.051168$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

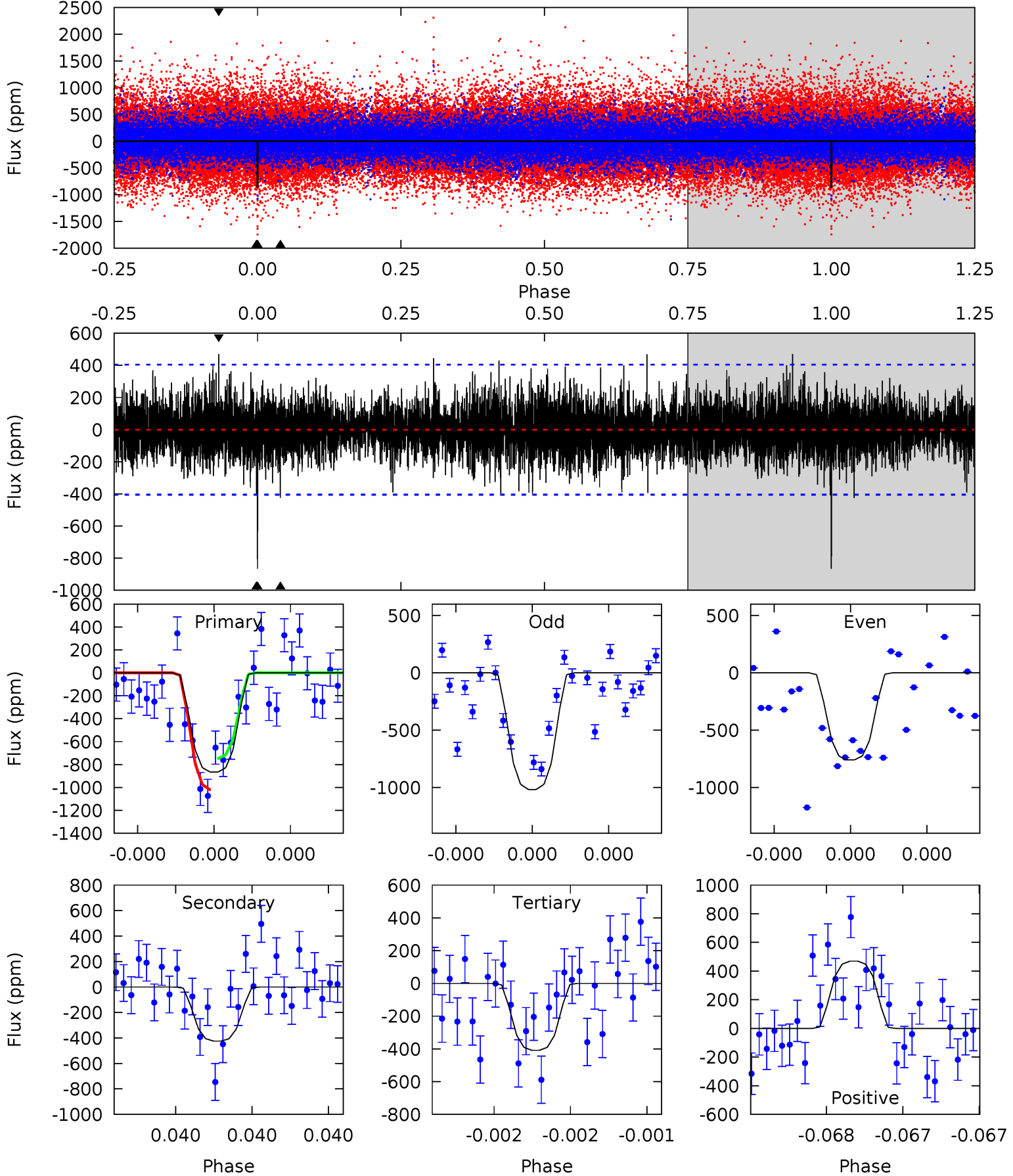
TCE 008007688-01 P=449.347607 Days $T_0=195.045784$ (BKJD)



DV Model-Shift Uniqueness Test

008007688-01, P = 449.354386 Days, E = 195.051168 Days

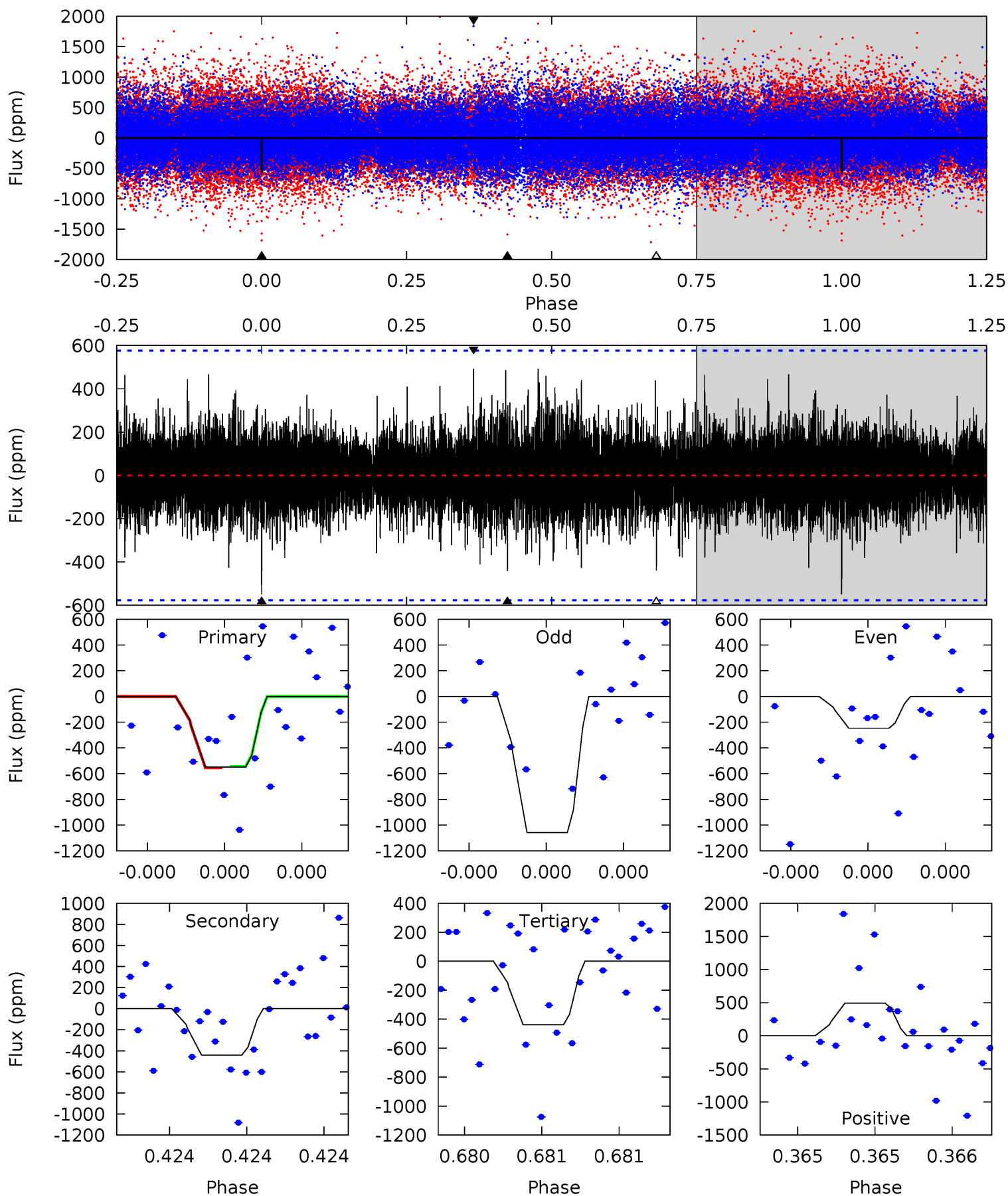
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	5.87	5.65	6.49	5.59	3.51	1.52	6.33	5.48	0.22	-0.62	1.77	0.97	0.35	1.81



Alt Model-Shift Uniqueness Test

008007688-01, P = 449.347607 Days, E = 195.045784 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.43	4.36	4.35	4.86	5.71	3.69	1.08	1.08	0.56	0.01	-0.51	3.87	1.25	0.47	0.05



Stellar Parameters For KIC 008007688

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5425^{+163}_{-146}	$4.434^{+0.116}_{-0.159}$	$0.000^{+0.300}_{-0.250}$	$0.929^{+0.209}_{-0.122}$	$0.854^{+0.111}_{-0.074}$	$1.501^{+0.747}_{-0.688}$
	+3%/-3%	+3%/-4%	+inf%/-inf%	+22%/-13%	+13%/-9%	+50%/-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 008007688-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-424 ± 72	$3.60^{+0.64}_{-0.61}$	310^{+20}_{-14}	4356^{+345}_{-276}	21795^{+9729}_{-7345}
Alt.	-440 ± 101	$2.54^{+0.58}_{-0.53}$	311^{+19}_{-16}	5039^{+636}_{-438}	44418^{+31801}_{-17320}

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

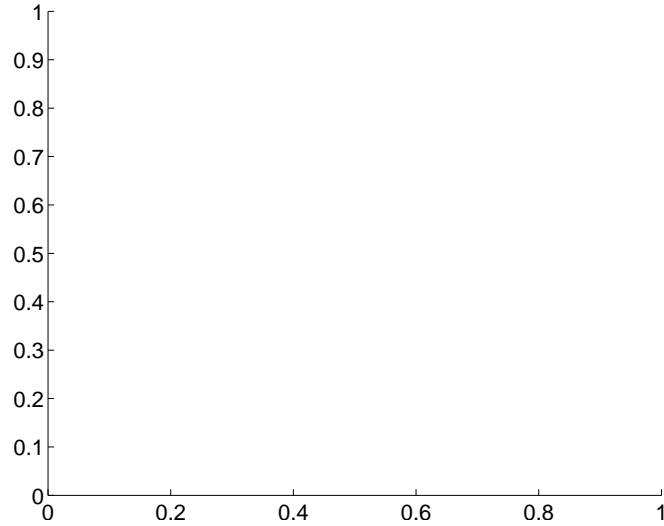
Supplemental centroid analysis for 008007688-01. Kepler magnitude: 14.82. Transit SNR 6.01

There are 0 quarters with good PRF difference image offsets

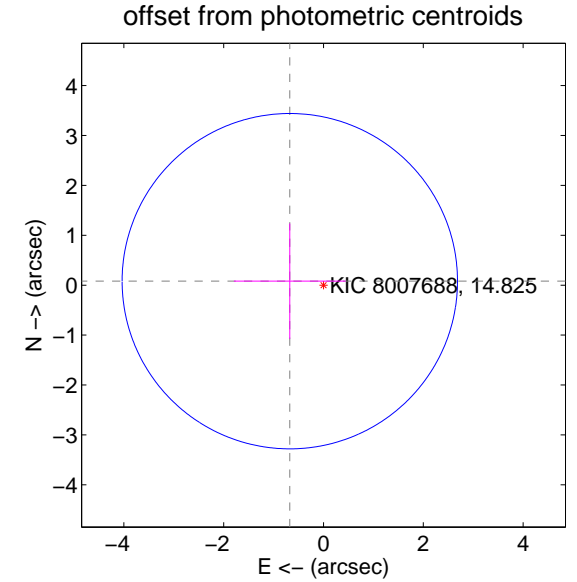
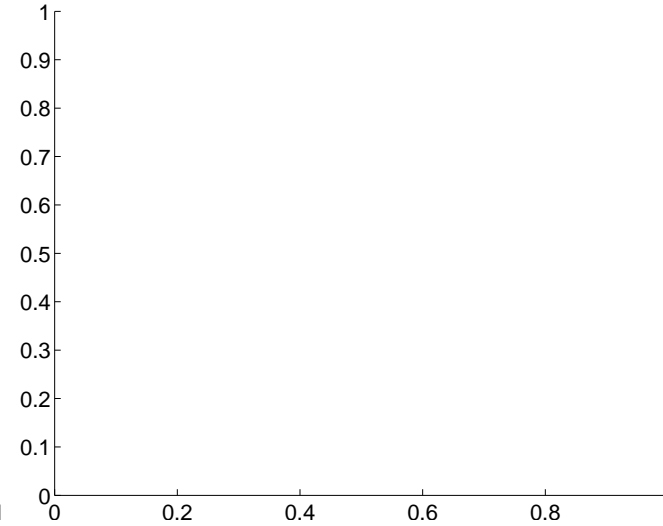
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.68 ± 1.12	0.61	0.68 ± 1.12	0.08 ± 1.15

There is no PRF-fit offset from OOT-fit

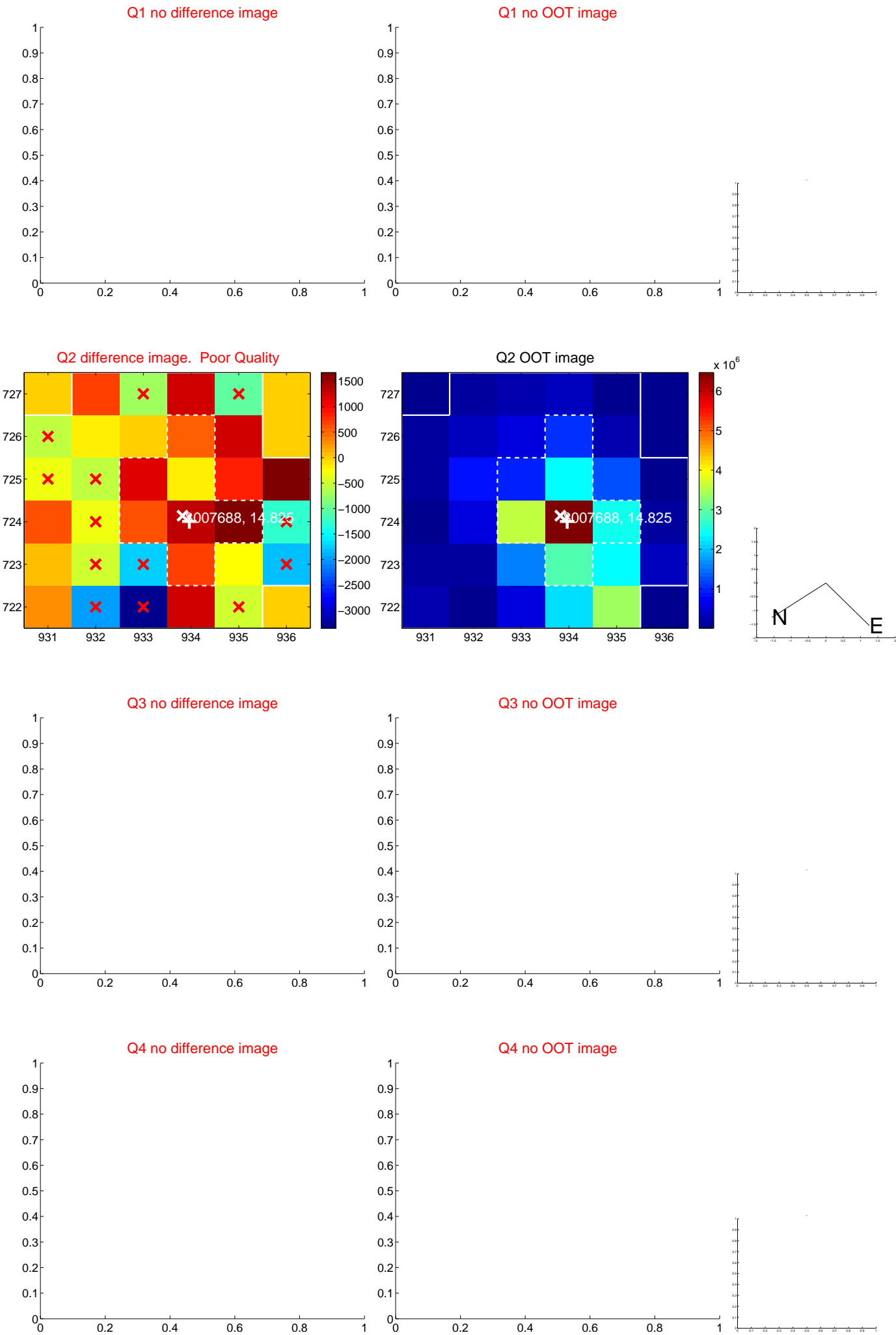


There is no PRF-fit offset from KIC



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.



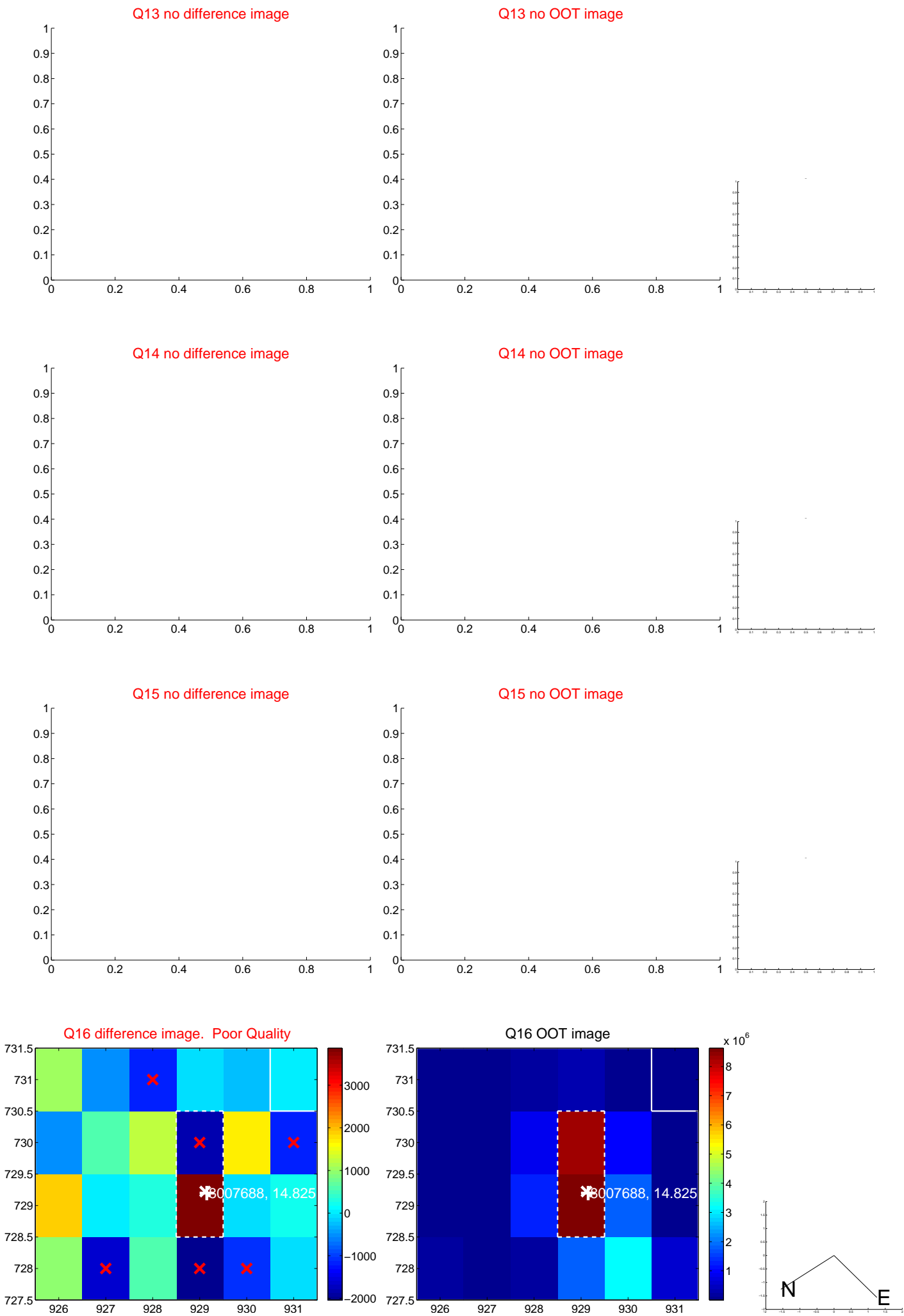
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



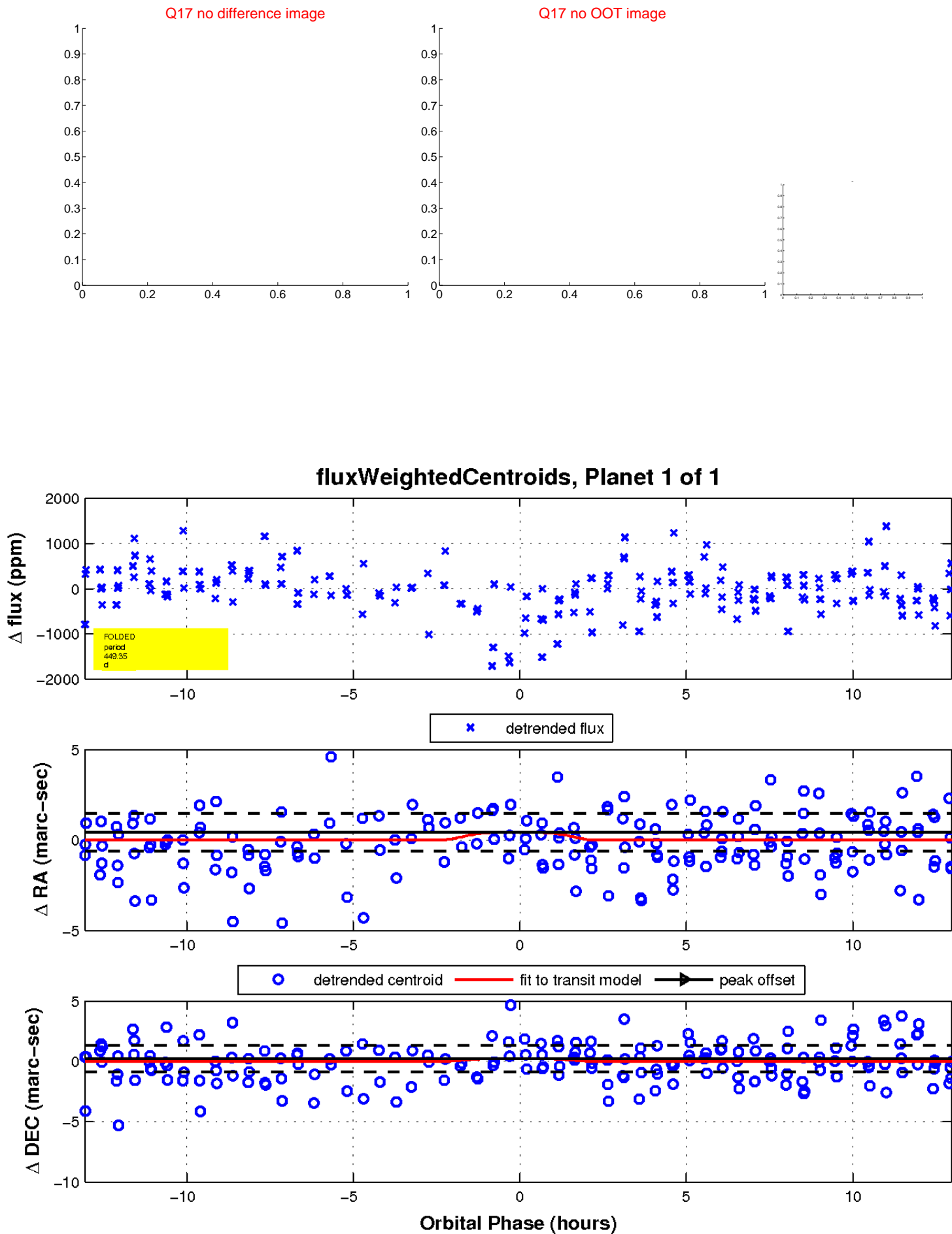
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

