

KIC 008760121

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})
008760121-01	OBS	No	433.904904	463.833446	2159.8	4.763	12.7	6.2	0.61	4938	5.50	0.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008760121-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

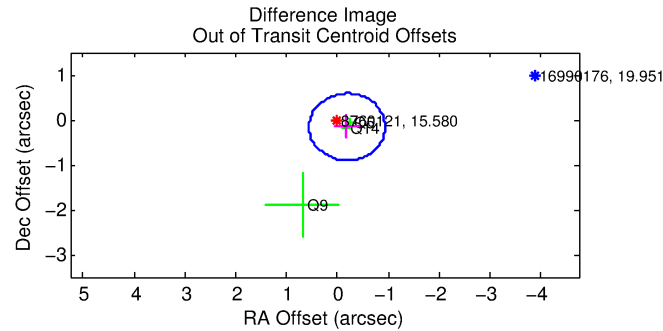
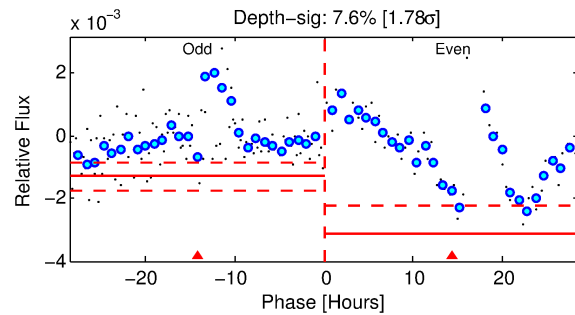
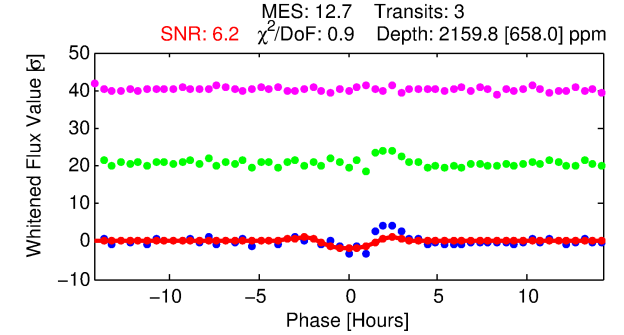
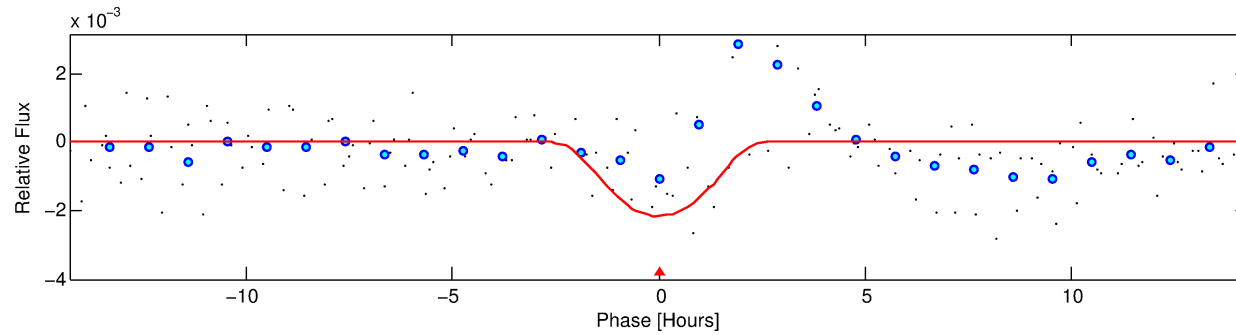
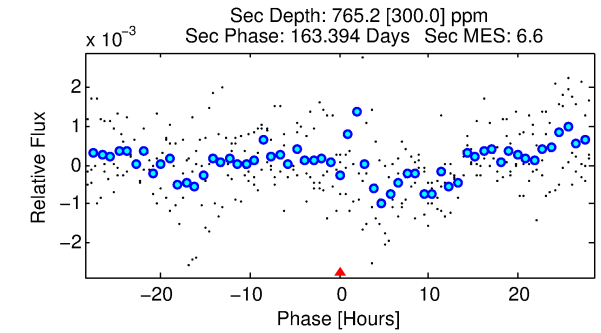
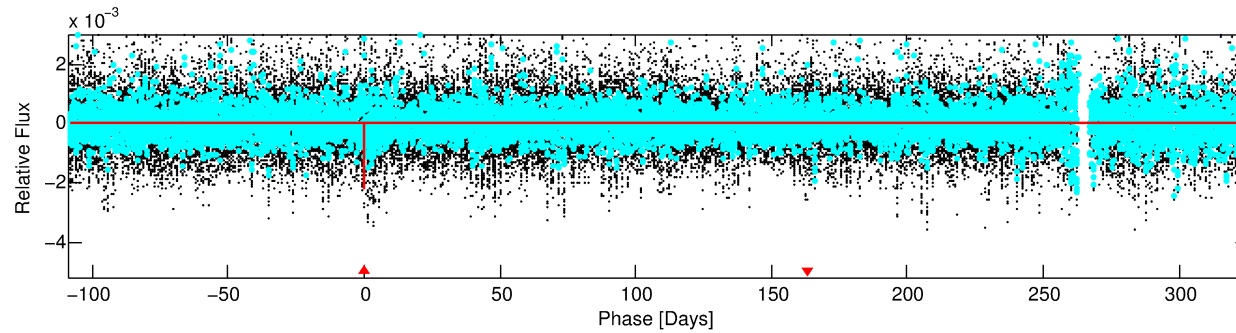
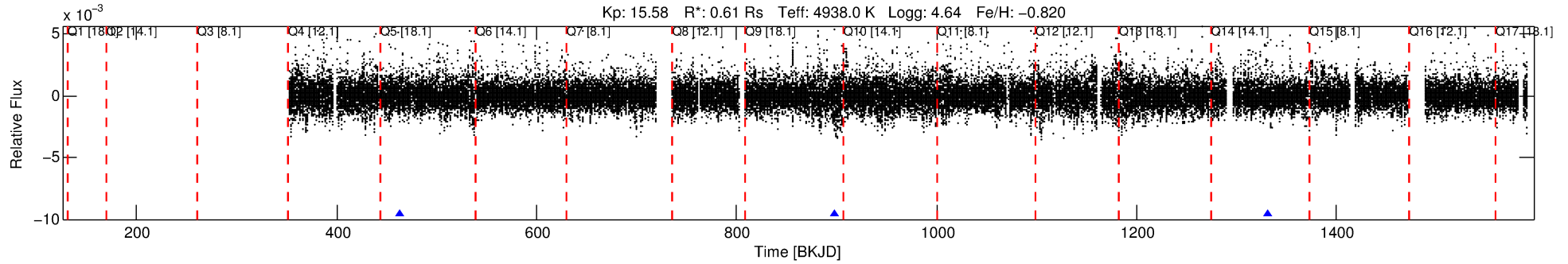
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008760121-01

No Significant Match Found

DV One-Page Summary

KIC: 8760121 Candidate: 1 of 1 Period: 433.905 d



DV Fit Results:

Period = 433.90490 [0.00936] d
Epoch = 463.8334 [0.0119] BKJD
Rp/R* = 0.0822 [0.3757]
a/R* = 290.66 [280.52]
b = 1.00 [0.55]
Seff = 0.22 [0.04]
Teq = 175 [8] K
Rp = 5.50 [25.13] Re
a = 0.9490 [0.0700] AU
Ag = 12550.65 [114880.01] [0.11 σ]
Teffp = 2865 [6557] K [0.41 σ]

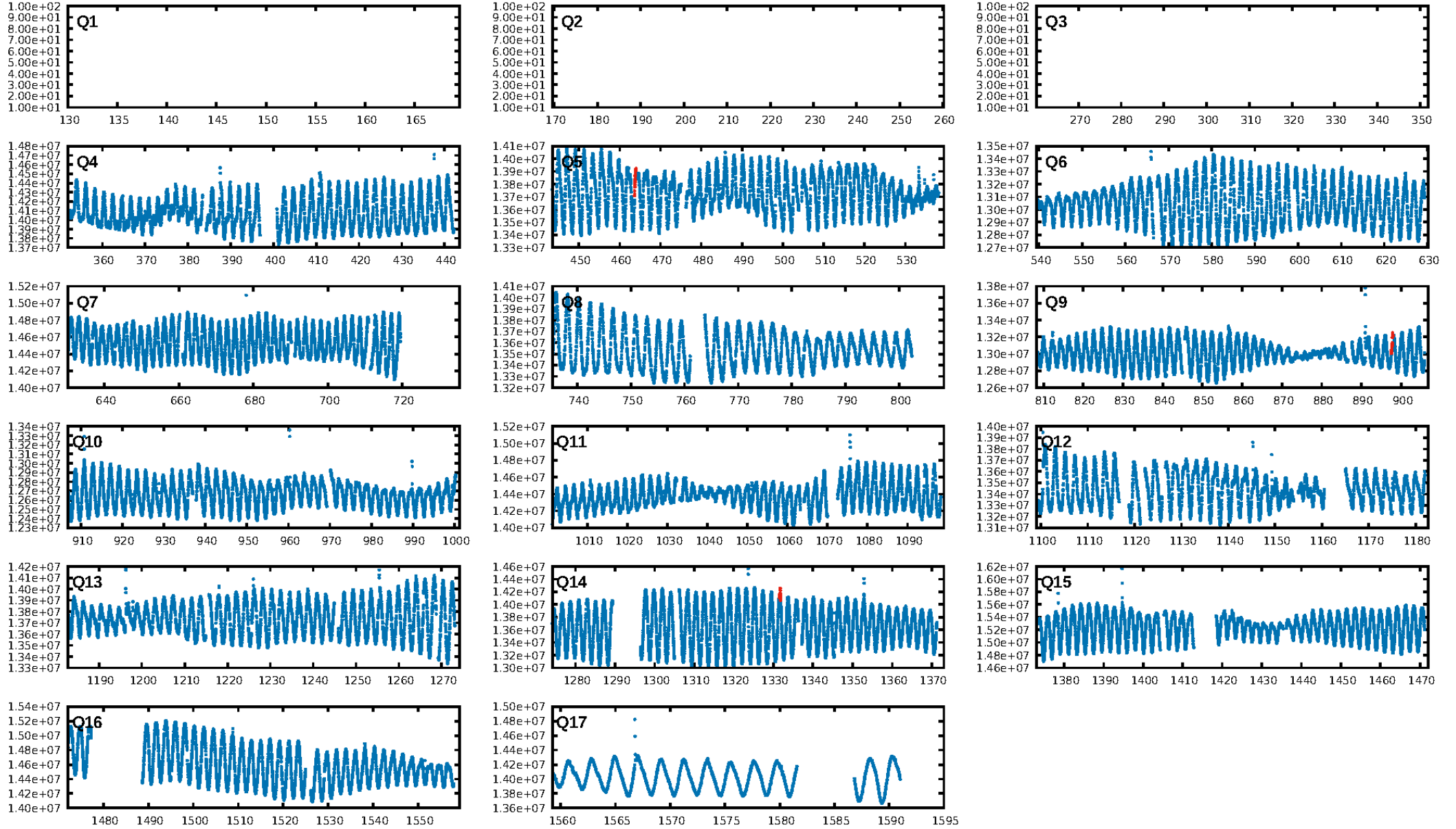
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 13.7%
ModelChiSquareGof-sig: 96.6%
Bootstrap-pfa: 5.87e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.104
Centroid-sig: 91.7%
Centroid-so: 0.074 arcsec [0.07 σ]
OotOffset-rm: 0.248 arcsec [1.00 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-rm: 0.479 arcsec [1.92 σ]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

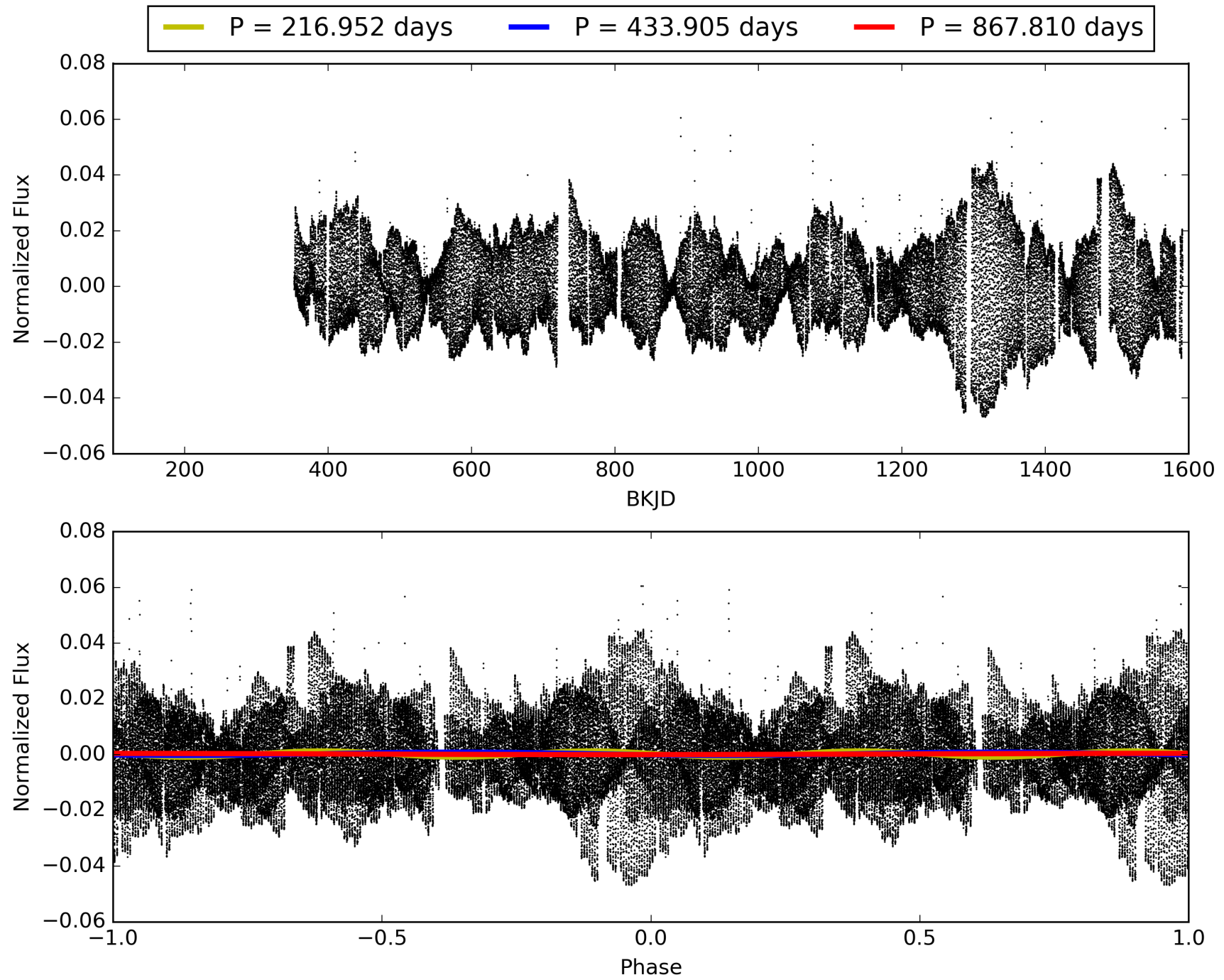
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:10:03 Z

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

TCE 008760121-01, PDC Light Curves

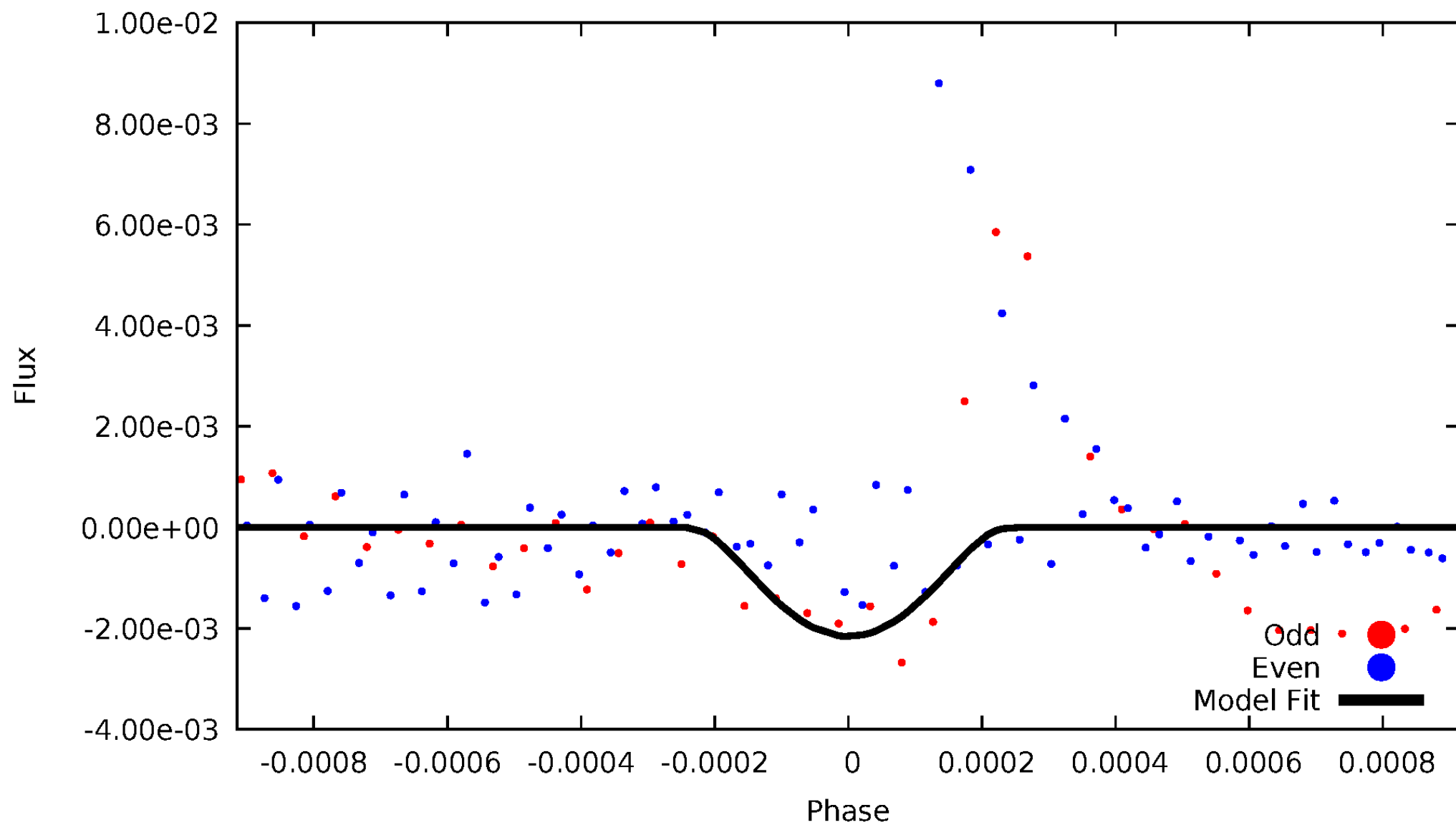


TCE 008760121-01



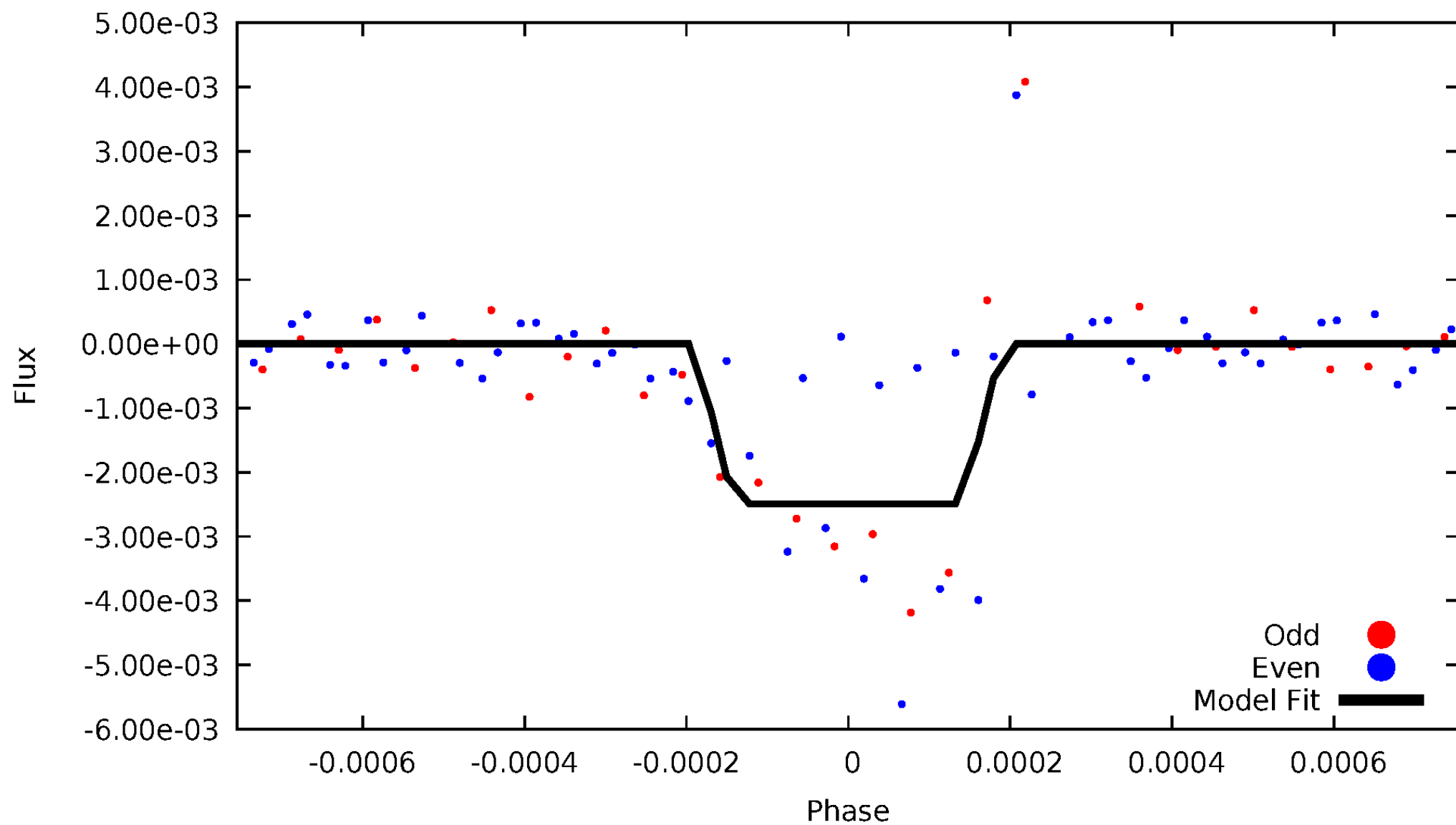
DV Odd/Even

TCE 008760121-01



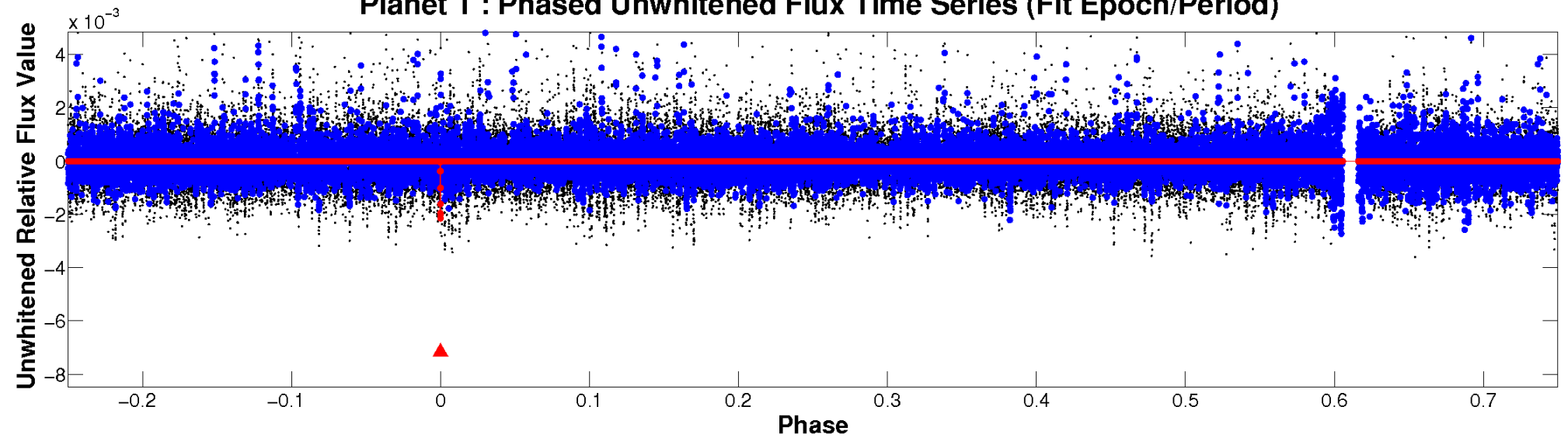
ALT Odd/Even

TCE 008760121-01

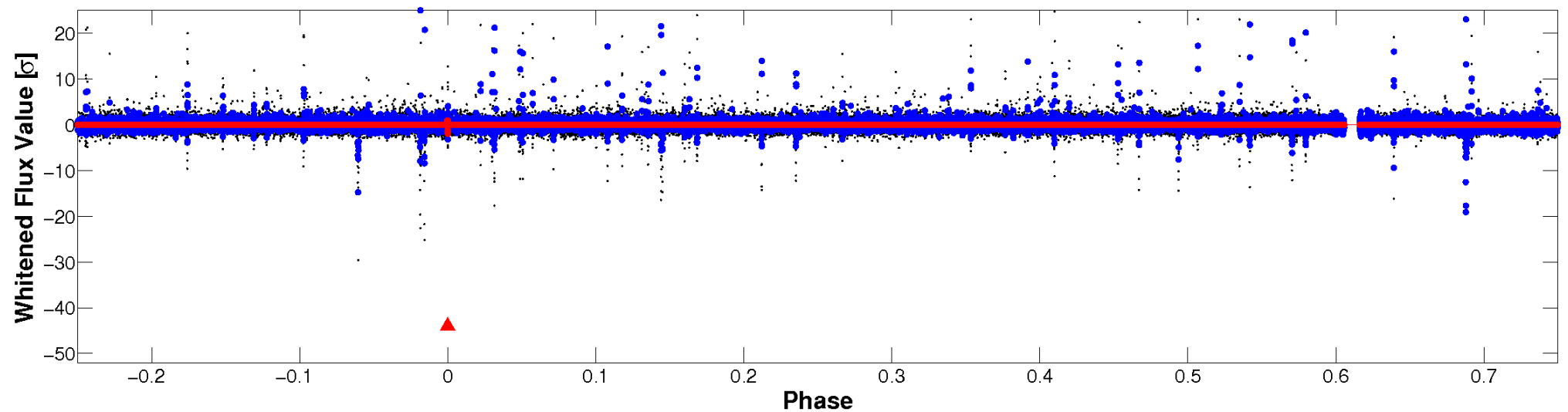


Non-Whitened Vs. Whitened Light Curve

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

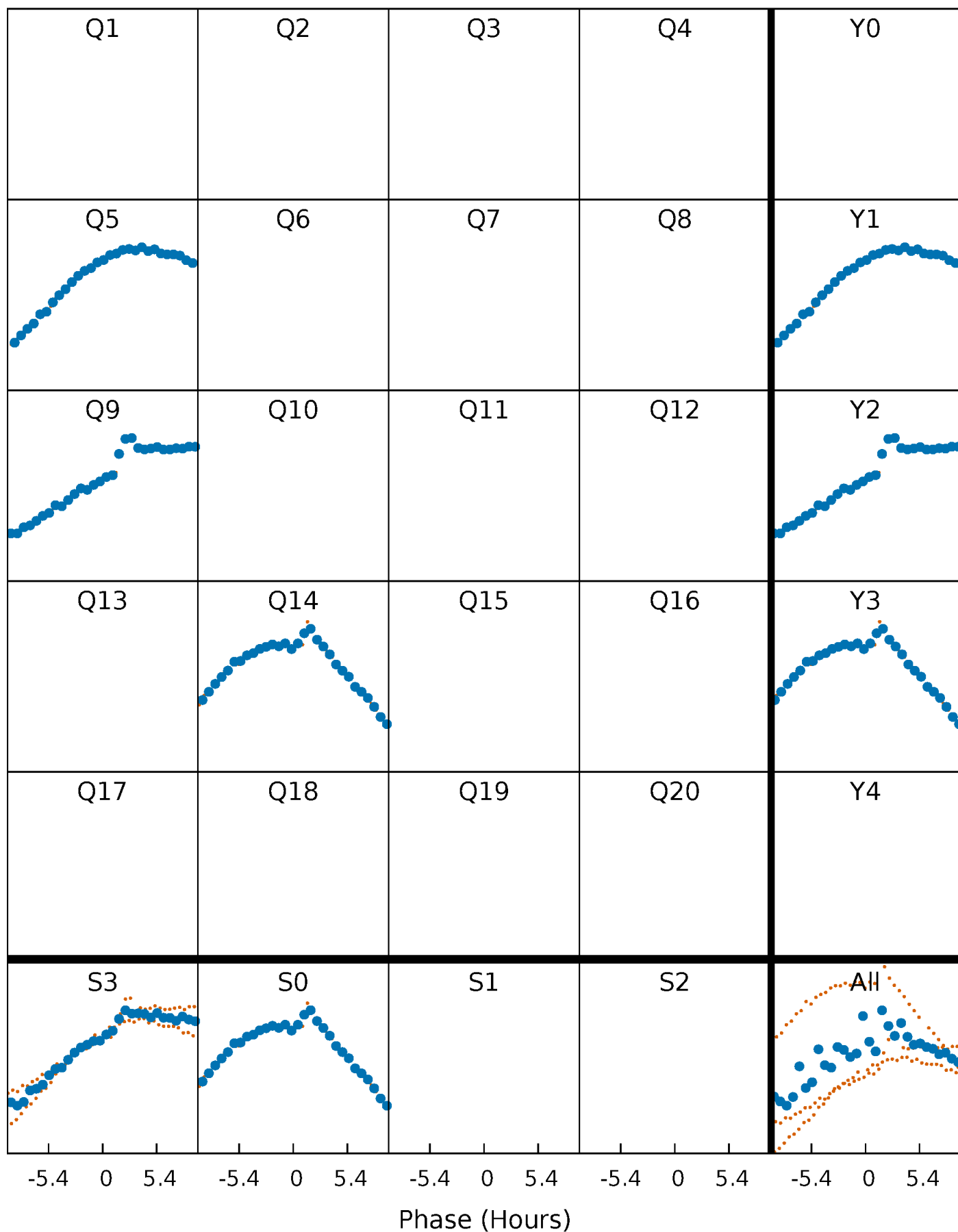


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



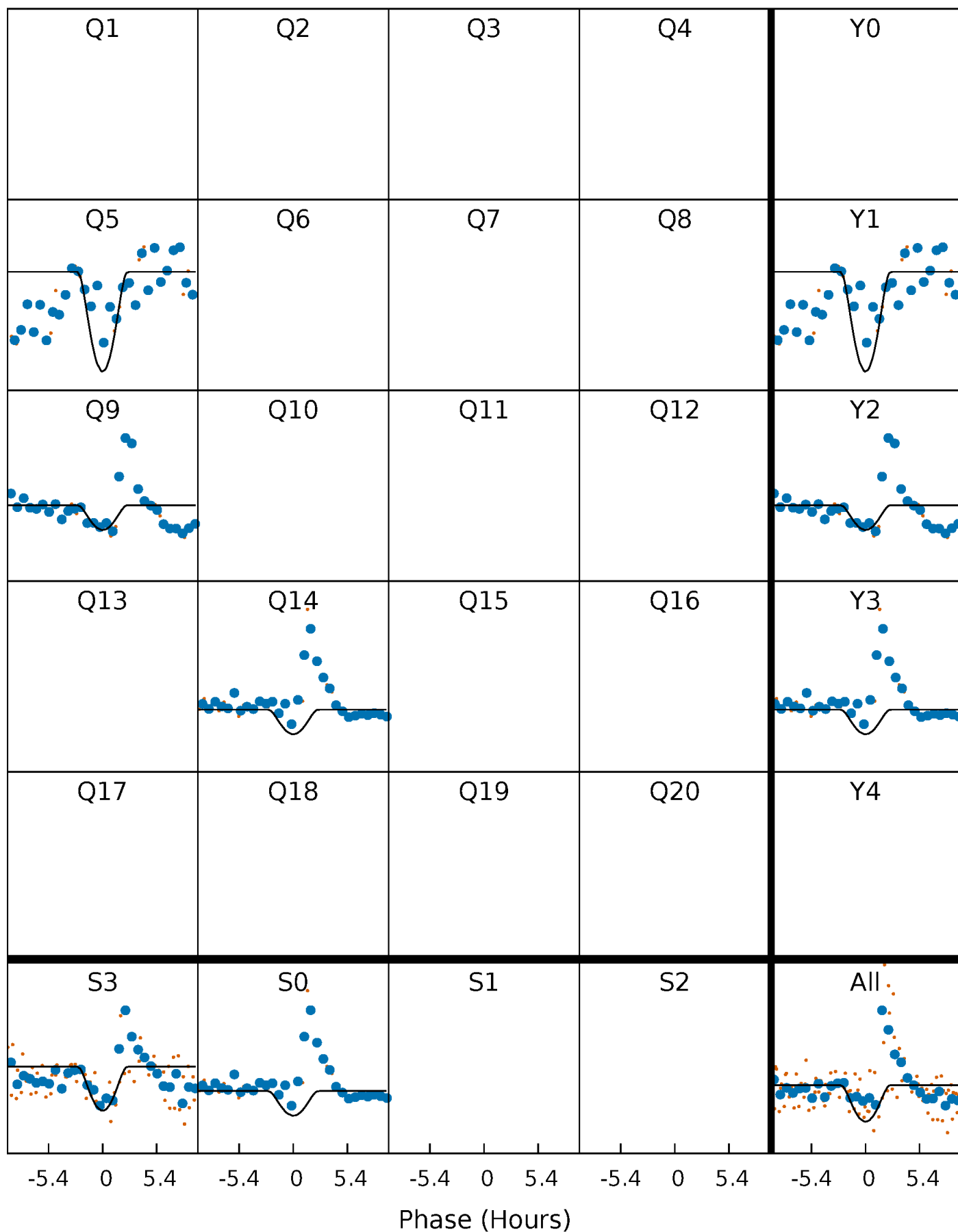
PDC Quarter-Phased Transit Curves

TCE 008760121-01 P=433.904904 Days $T_0=463.833446$ (BKJD)



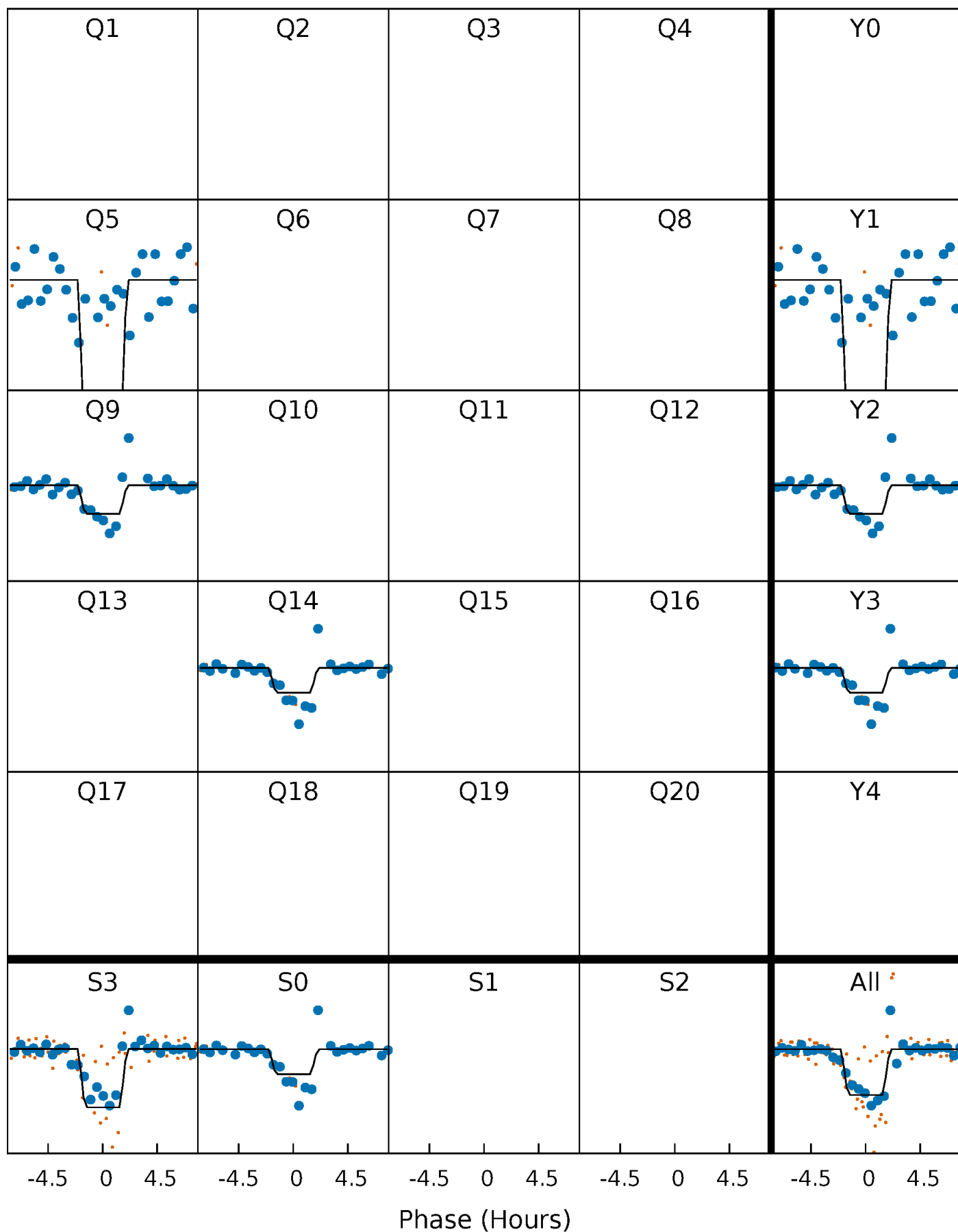
DV Quarter-Phased Transit Curves

TCE 008760121-01 $P=433.904904$ Days $T_0=463.833446$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

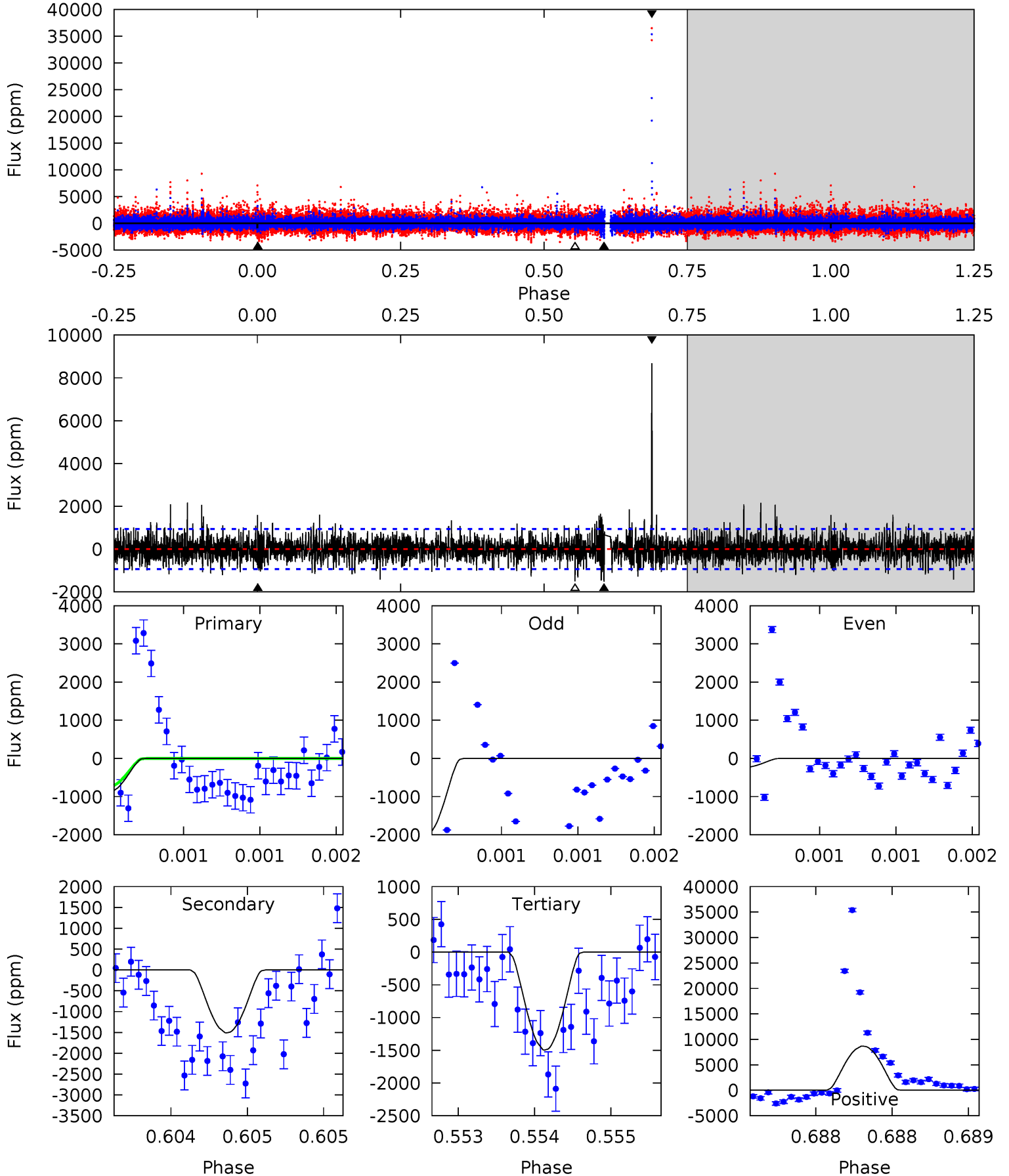
TCE 008760121-01 P=433.872591 Days $T_0=463.866937$ (BKJD)



DV Model-Shift Uniqueness Test

008760121-01, P = 433.904904 Days, E = 29.928542 Days

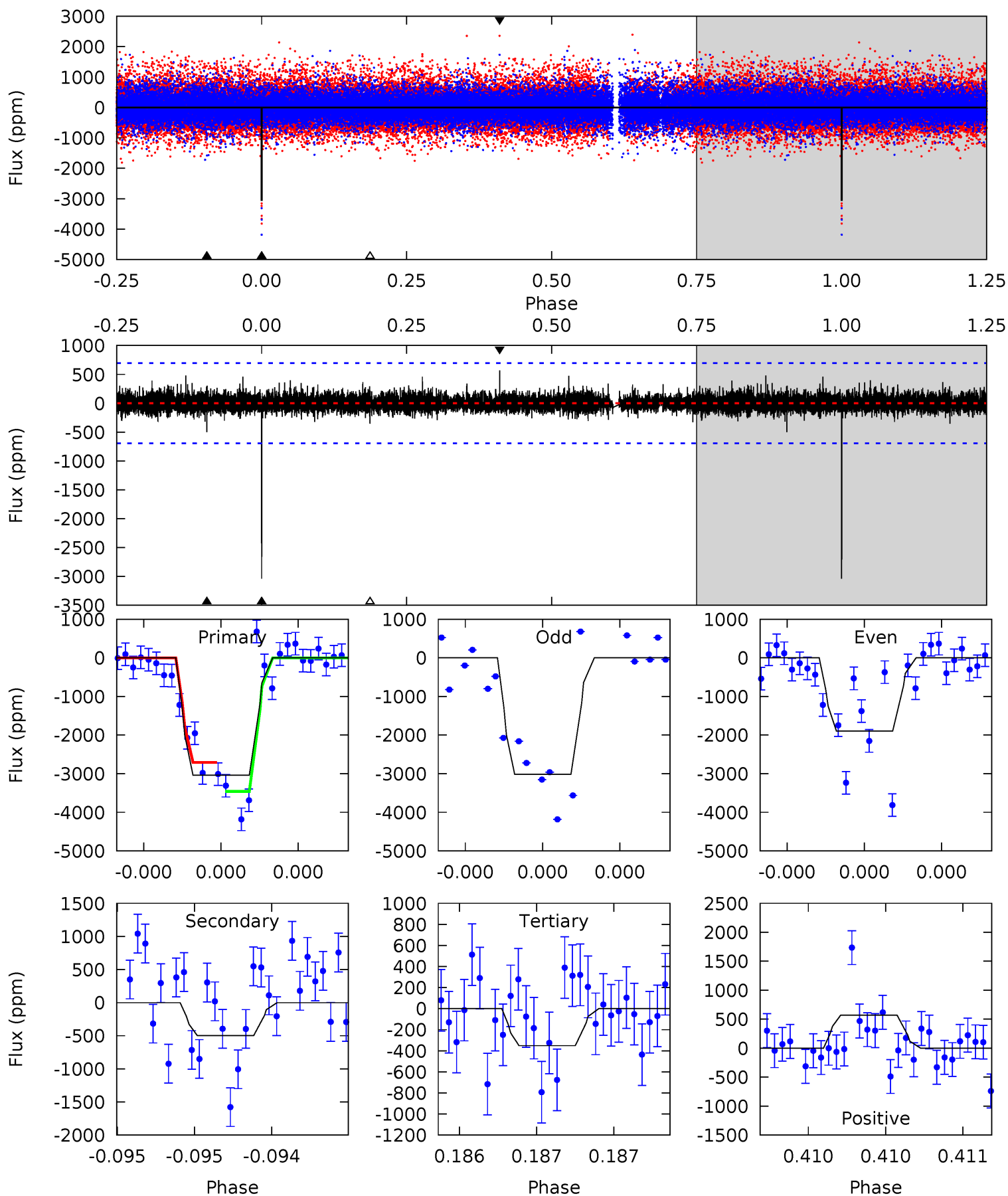
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.35	9.00	8.93	51.7	5.57	3.48	2.43	-3.58	-46.4	0.08	-42.7	3.96	0.47	0.85	0.85



Alt Model-Shift Uniqueness Test

008760121-01, P = 433.872591 Days, E = 29.994346 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.7	4.05	2.85	4.63	5.64	3.58	0.67	21.8	20.0	1.19	-0.58	5.05	0.77	0.16	0



Stellar Parameters For KIC 008760121

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4938^{+177}_{-177}	$4.645^{+0.060}_{-0.035}$	$-0.820^{+0.300}_{-0.300}$	$0.613^{+0.053}_{-0.053}$	$0.605^{+0.060}_{-0.030}$	$3.697^{+0.895}_{-0.601}$
	+4%/-4%	+1%/-1%	+37%/-37%	+9%/-9%	+10%/-5%	+24%/-16%
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 008760121-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1512 ± 168	$19.00^{+20.08}_{-13.29}$	243^{+10}_{-9}	2585^{+1116}_{-389}	2013^{+23235}_{-1528}
Alt.	-498 ± 123	$18.90^{+18.91}_{-12.78}$	243^{+10}_{-10}	2264^{+759}_{-317}	656^{+6153}_{-489}

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 $A_{obs} \gg 1.0$

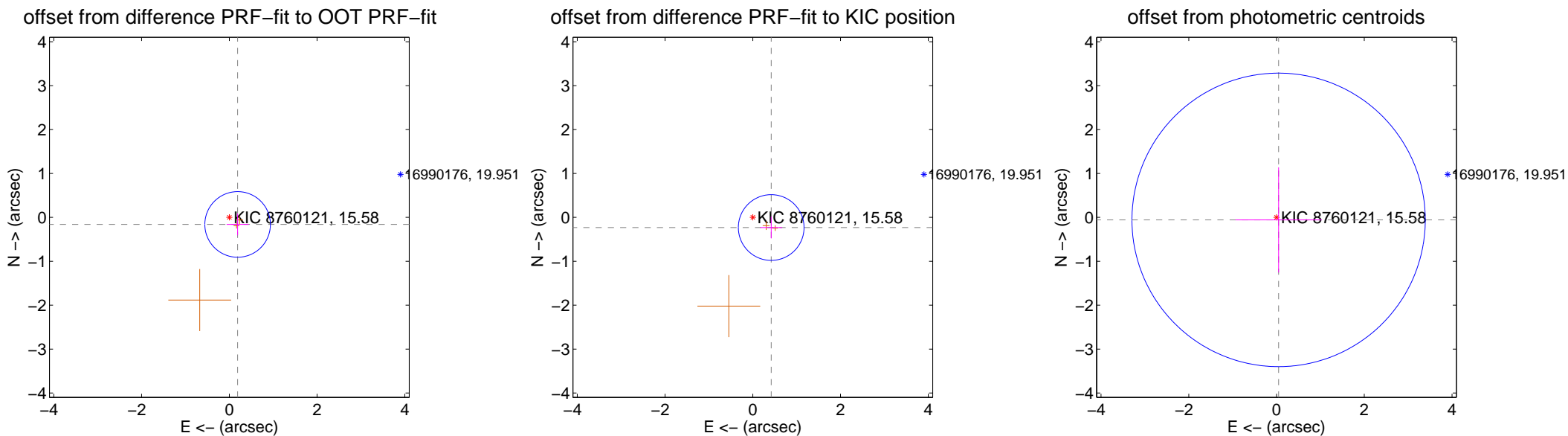
DV Centroid Data

Supplemental centroid analysis for 008760121-01. Kepler magnitude: 15.58. Transit SNR 6.20

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.248 ± 0.249	1.00	-0.189 ± 0.250	-0.161 ± 0.248
PRF-fit source offset from KIC position	0.479 ± 0.250	1.92	-0.419 ± 0.250	-0.231 ± 0.248
photometric centroid source offset	0.07 ± 1.11	0.07	-0.05 ± 0.98	-0.06 ± 1.20

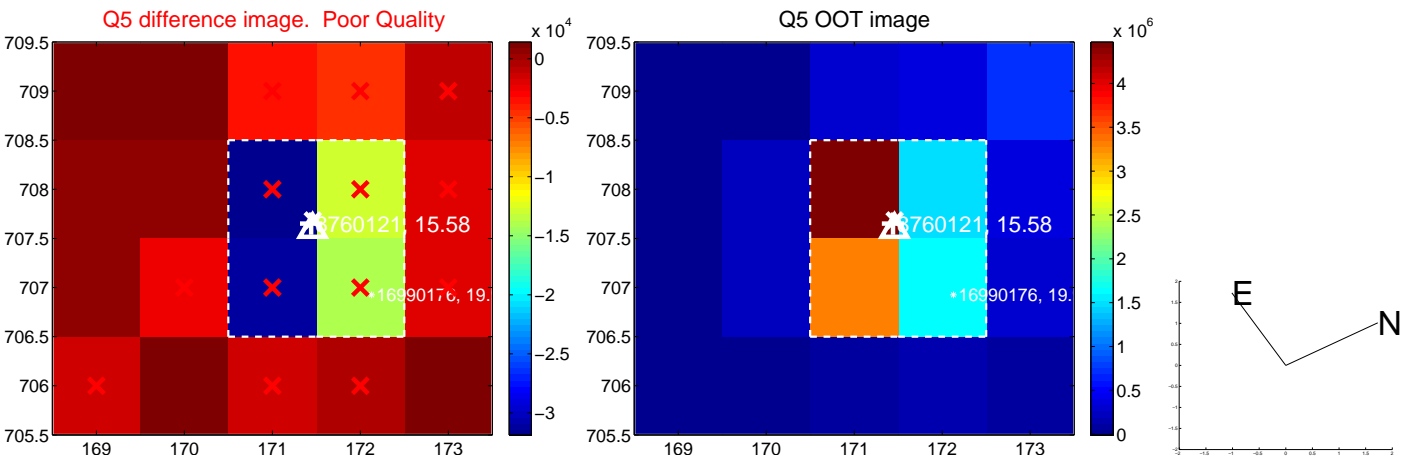


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

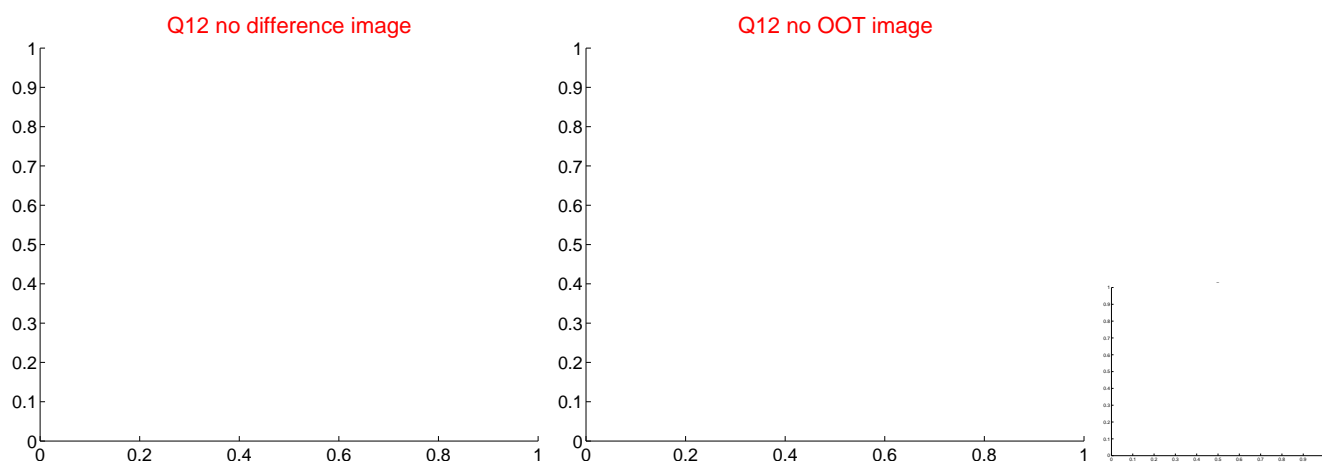
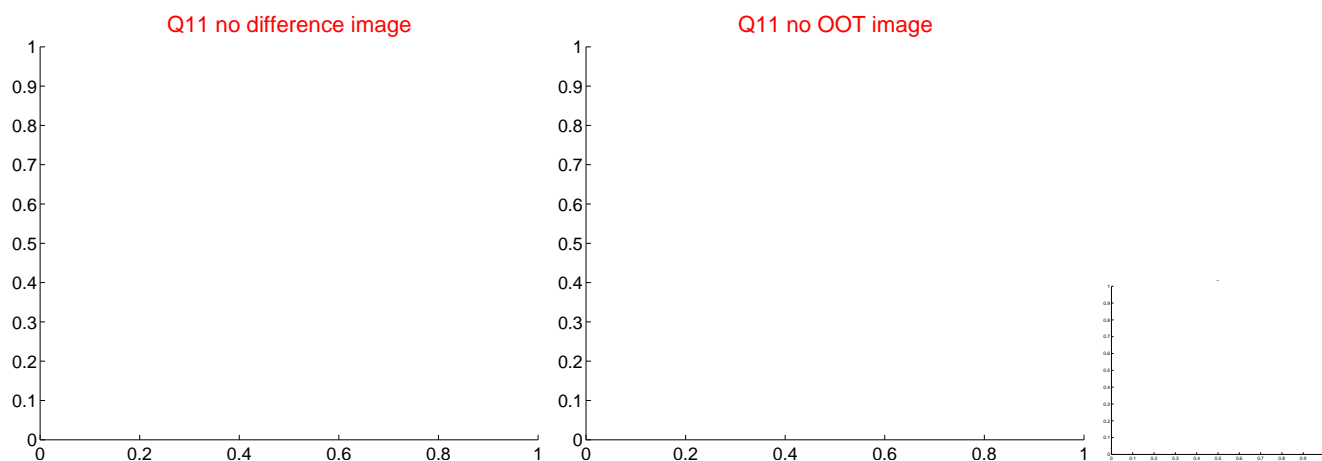
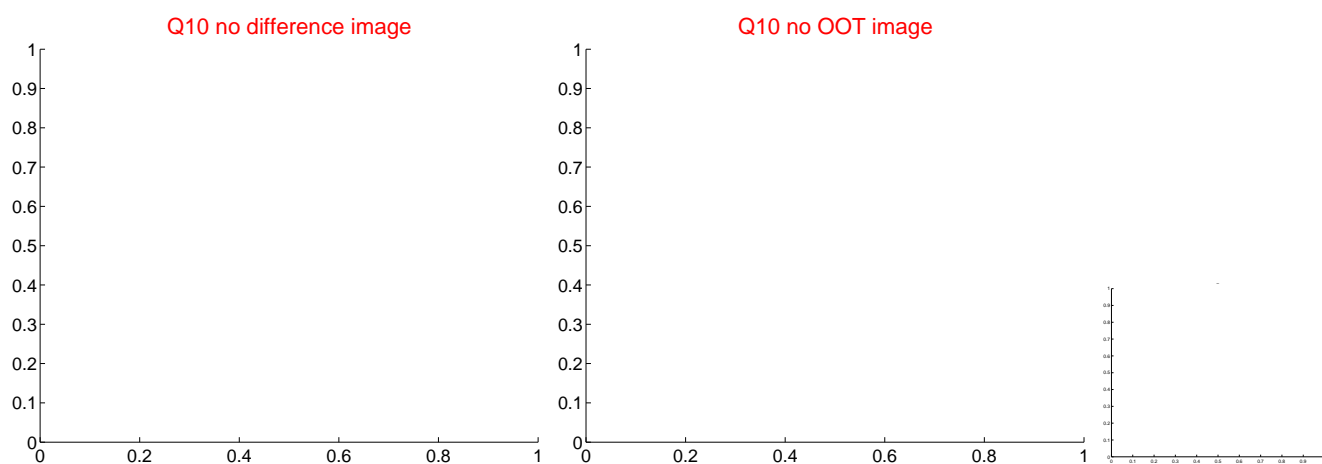
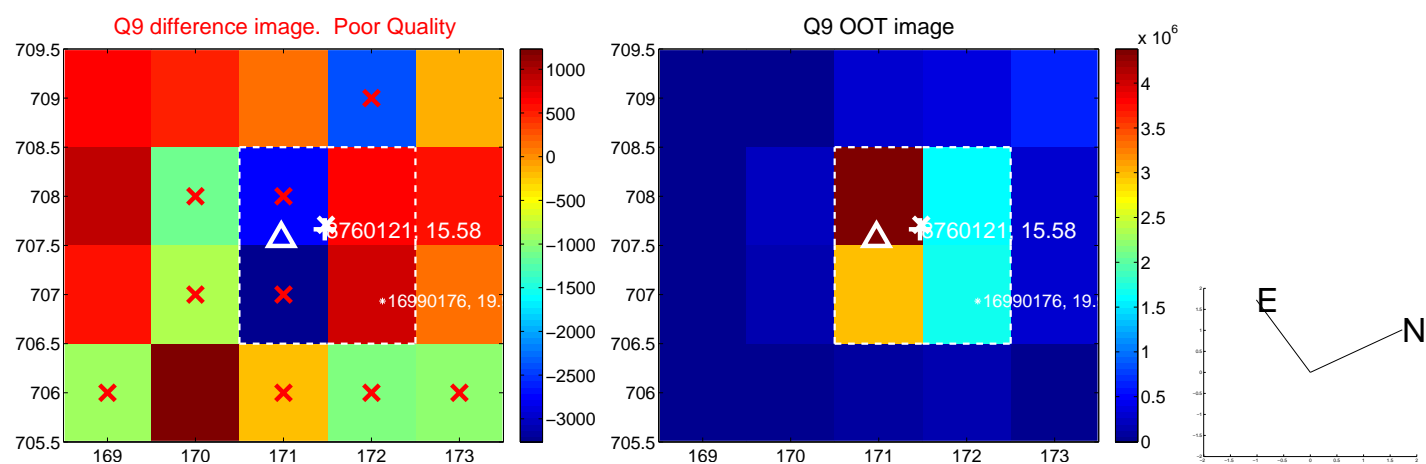
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



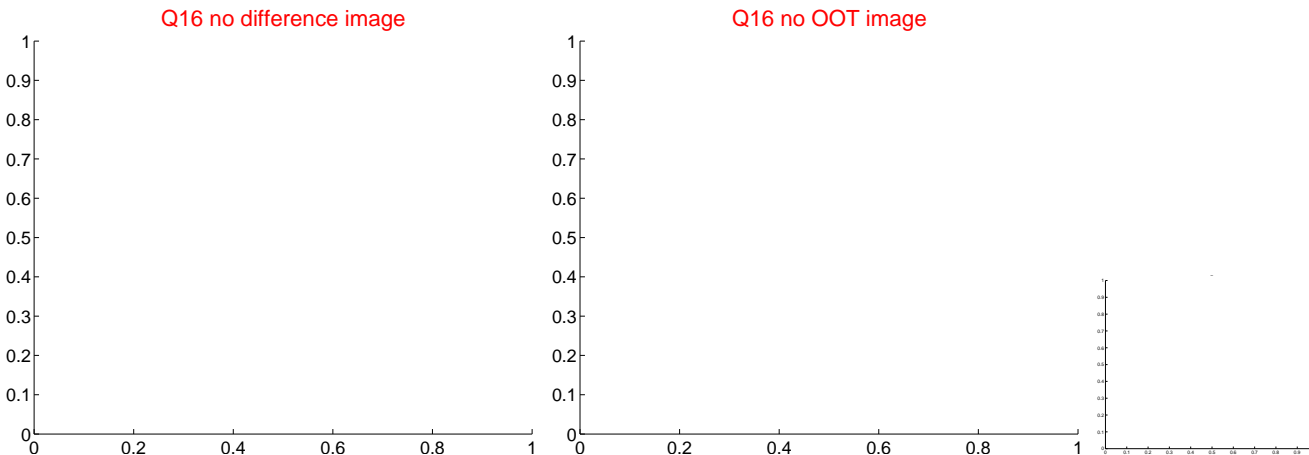
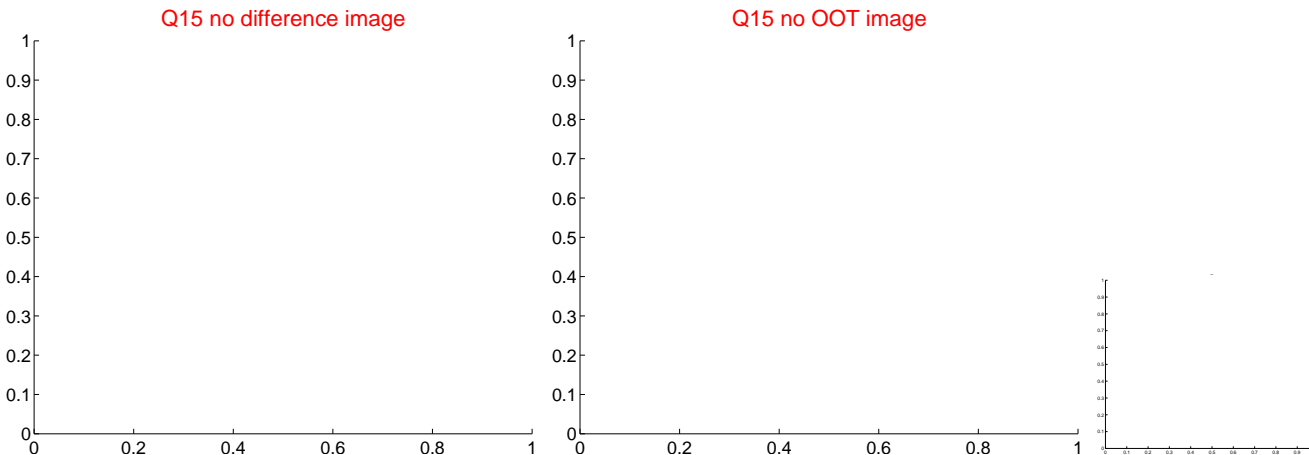
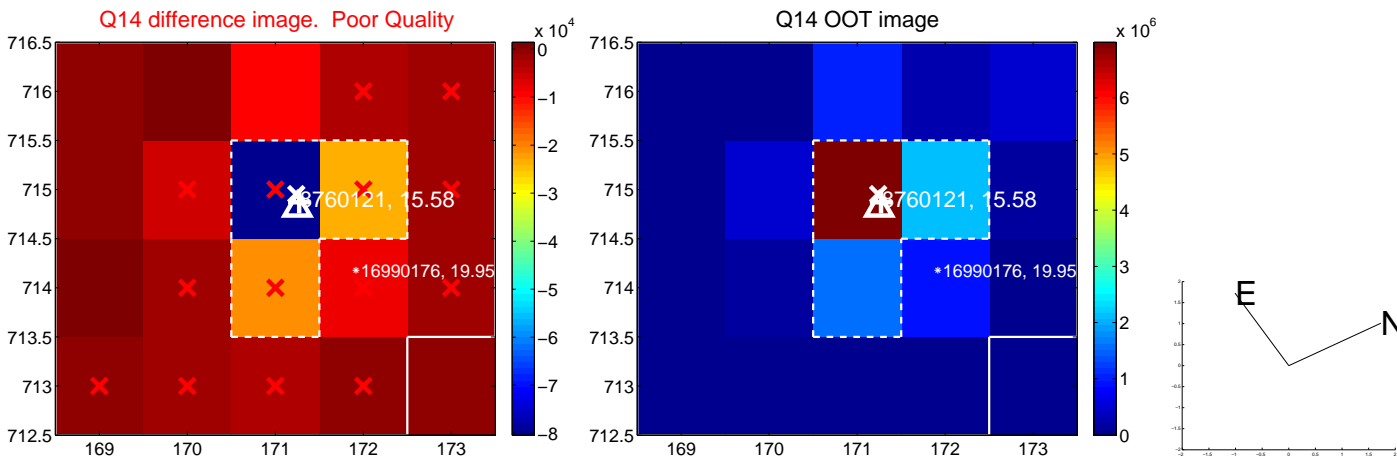
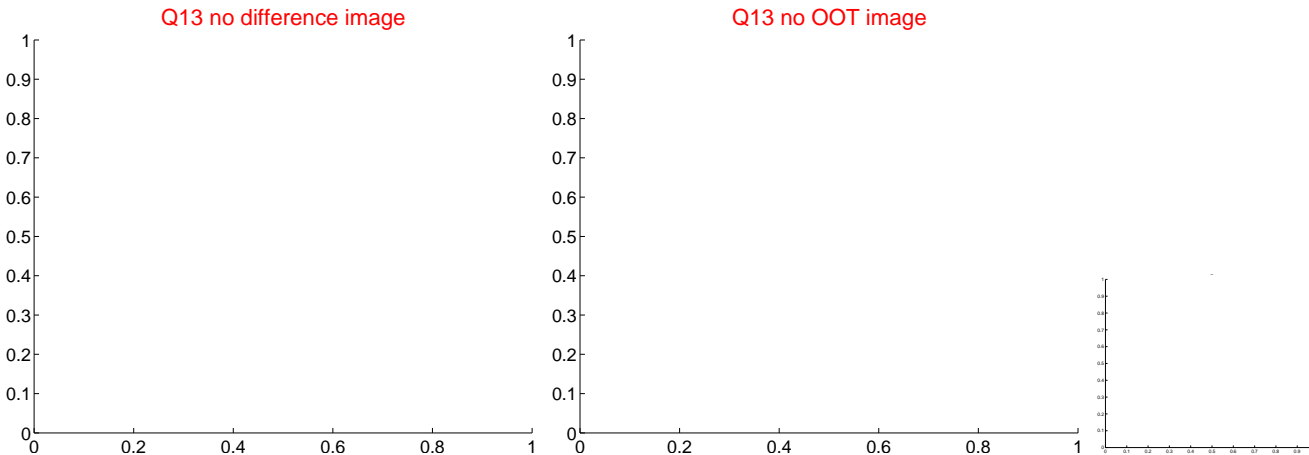
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



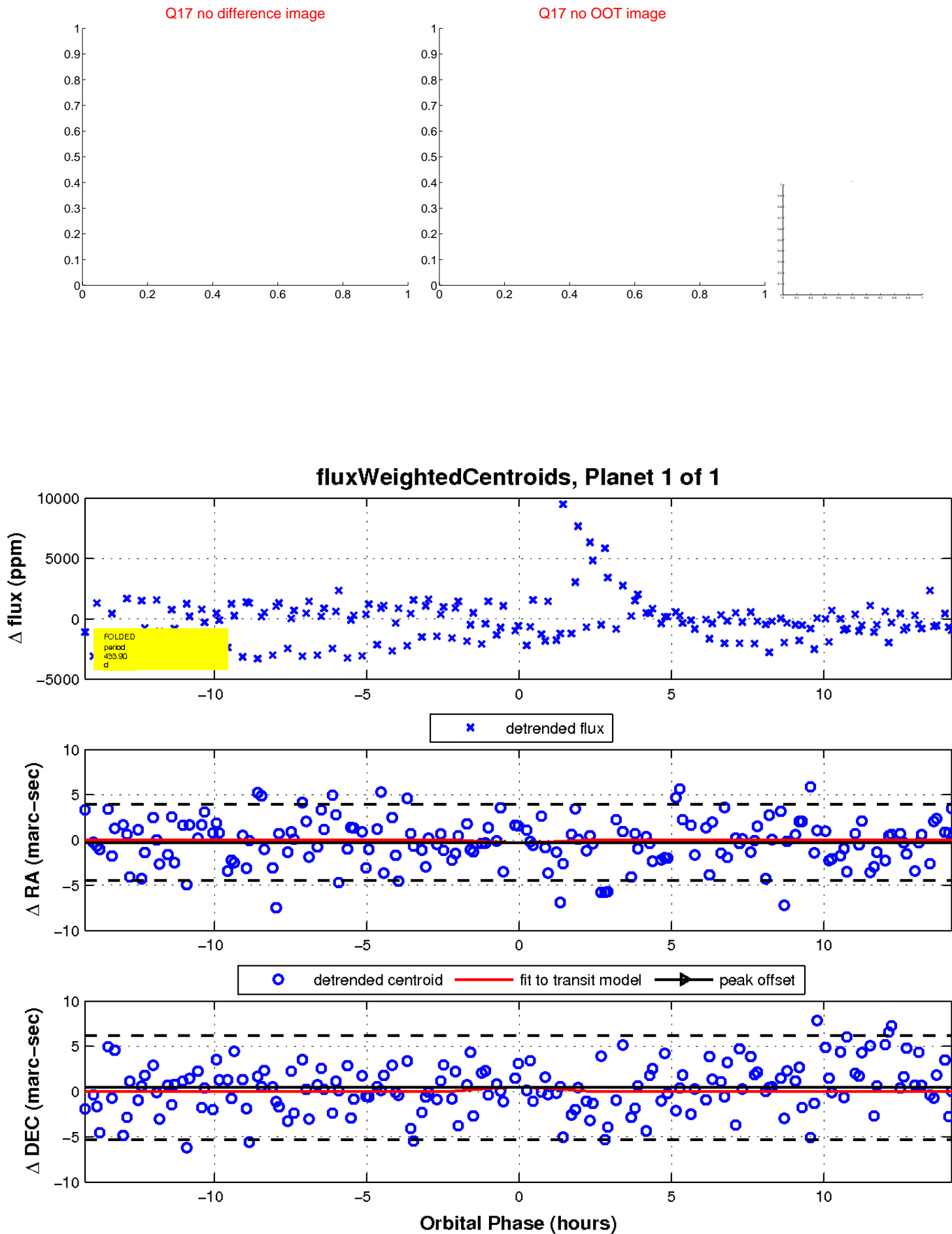
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

