

KIC 006038825

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})
006038825-01	OBS	No	360.230698	160.862049	1494.0	19.331	7.7	8.0	0.85	5818	3.81	0.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006038825-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—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.

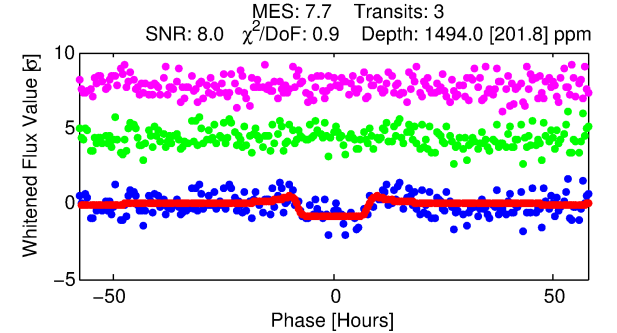
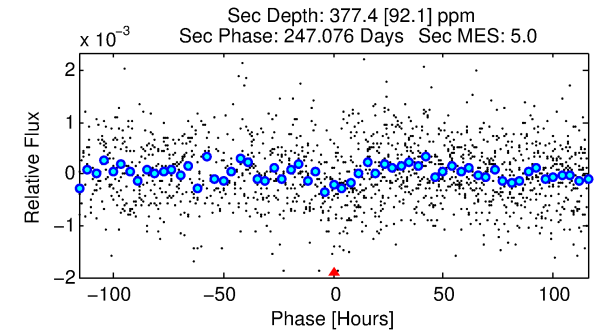
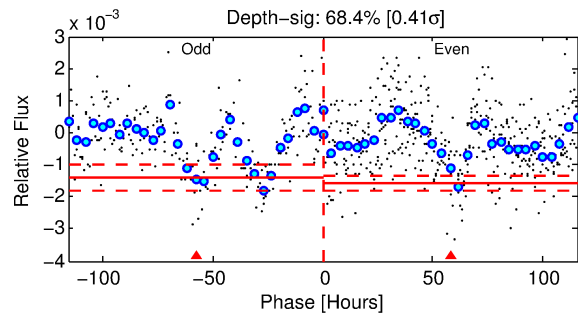
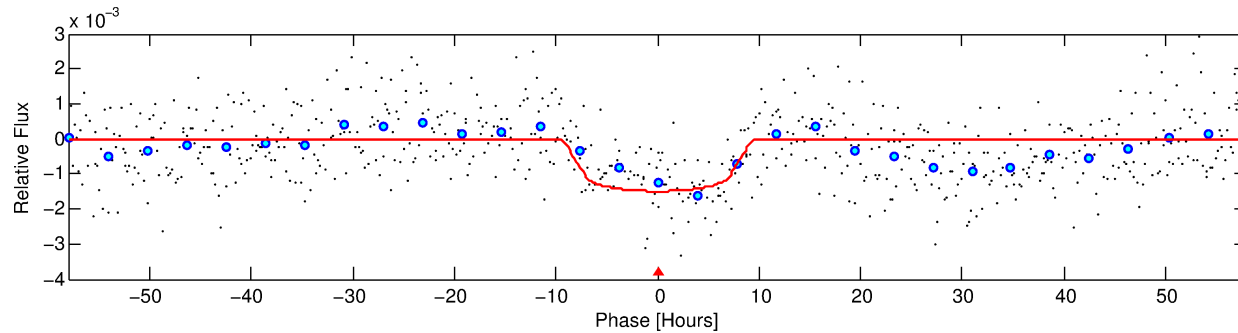
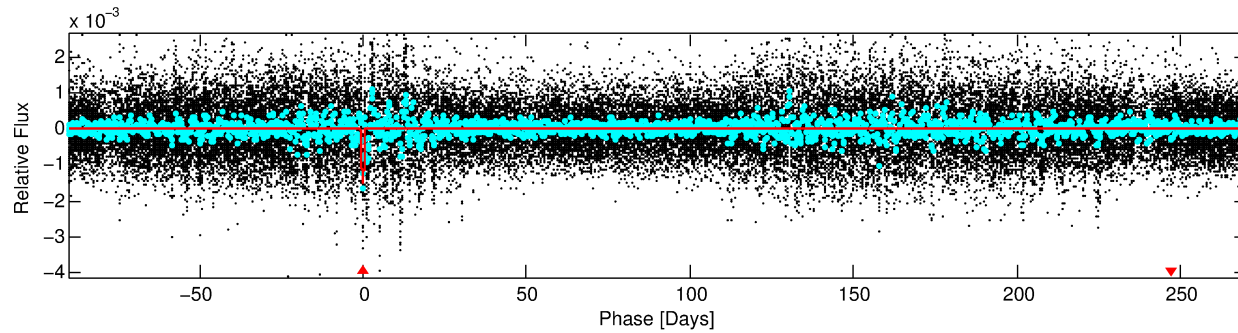
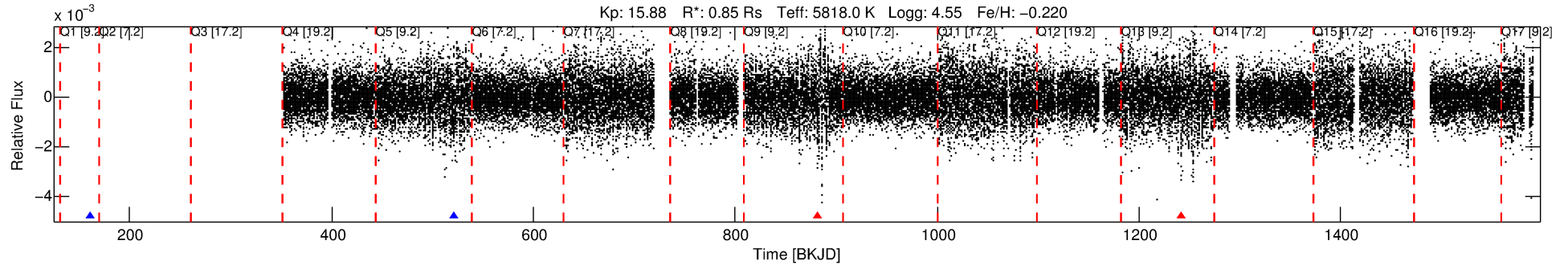
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006038825-01

No Significant Match Found

DV One-Page Summary

KIC: 6038825 Candidate: 1 of 1 Period: 360.231 d



DV Fit Results:

Period = 360.23070 [0.01967] d
Epoch = 160.8620 [0.0411] BKJD
Rp/R* = 0.0412 [0.0039]
a/R* = 79.40 [20.71]
b = 0.88 [0.07]
Seff = 0.78 [0.30]
Teq = 240 [23] K
Rp = 3.82 [1.14] Re
a = 0.9705 [0.2342] AU
Ag = 13435.87 [6320.03] [2.13 σ]
Teffp = 3994 [335] K [11.19 σ]

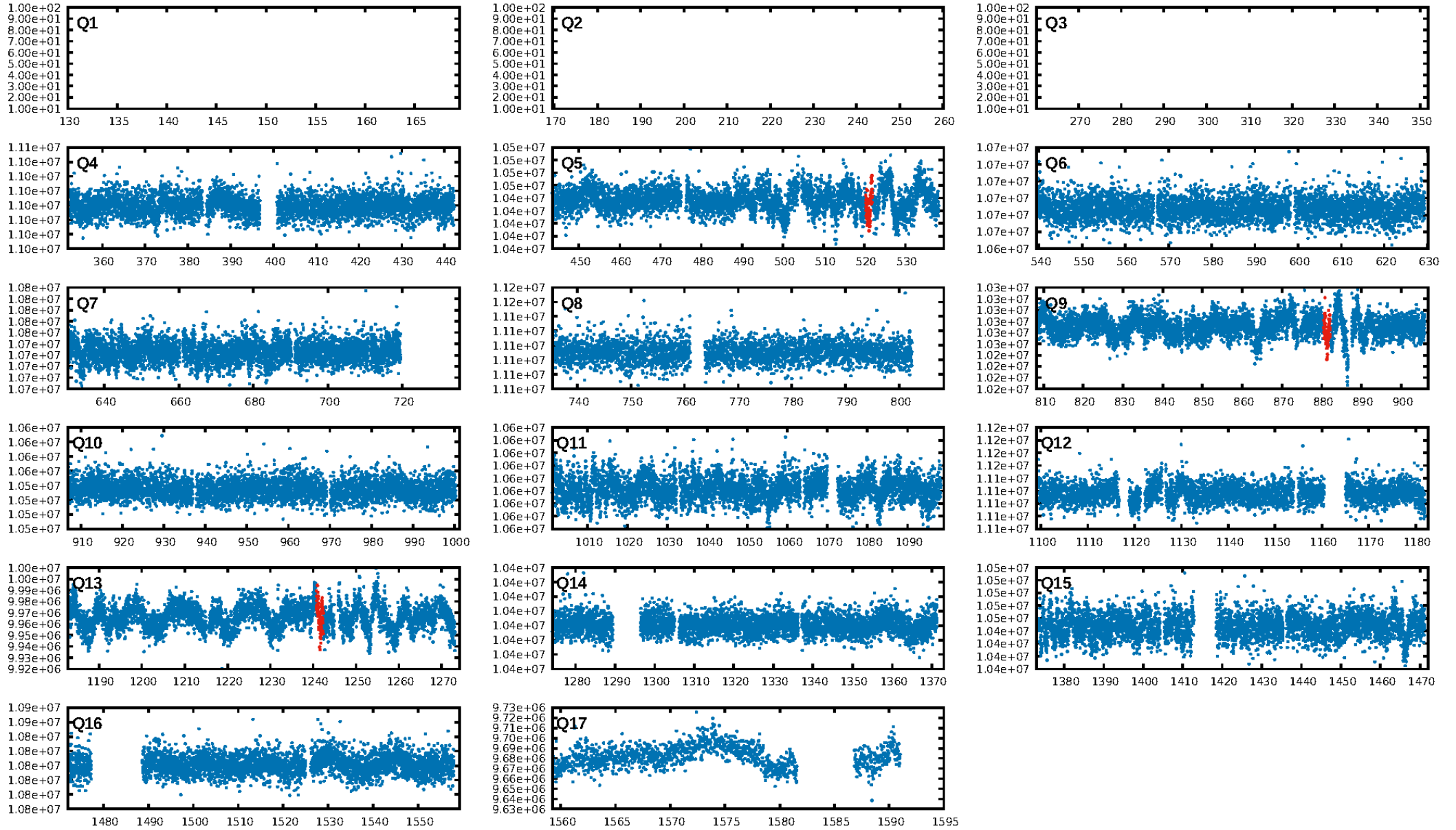
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 72.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.42e-10
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 2.18
Centroid-sig: 21.4%
Centroid-so: 2.988 arcsec [1.09 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

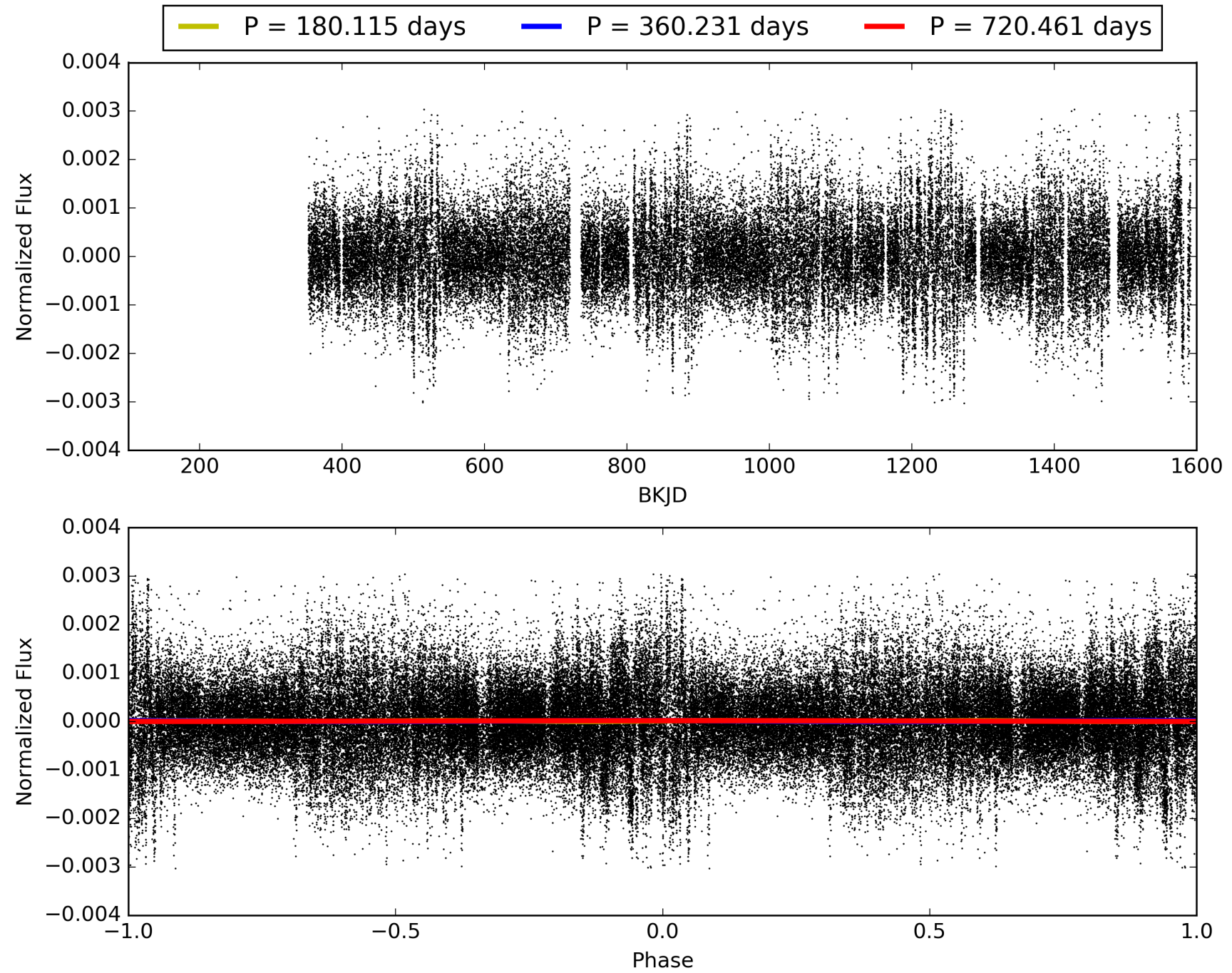
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:04:11 Z

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

TCE 006038825-01, PDC Light Curves

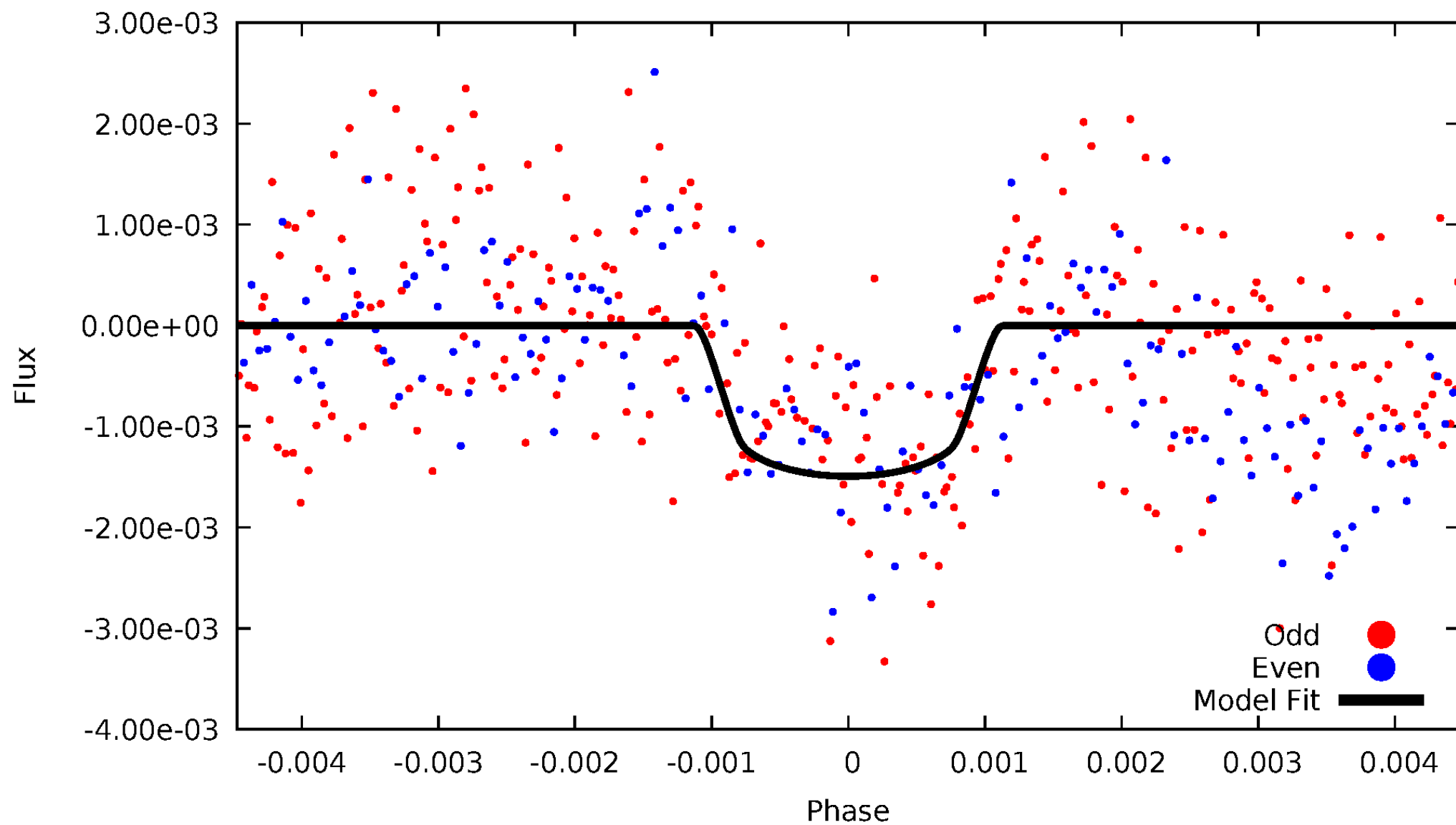


TCE 006038825-01



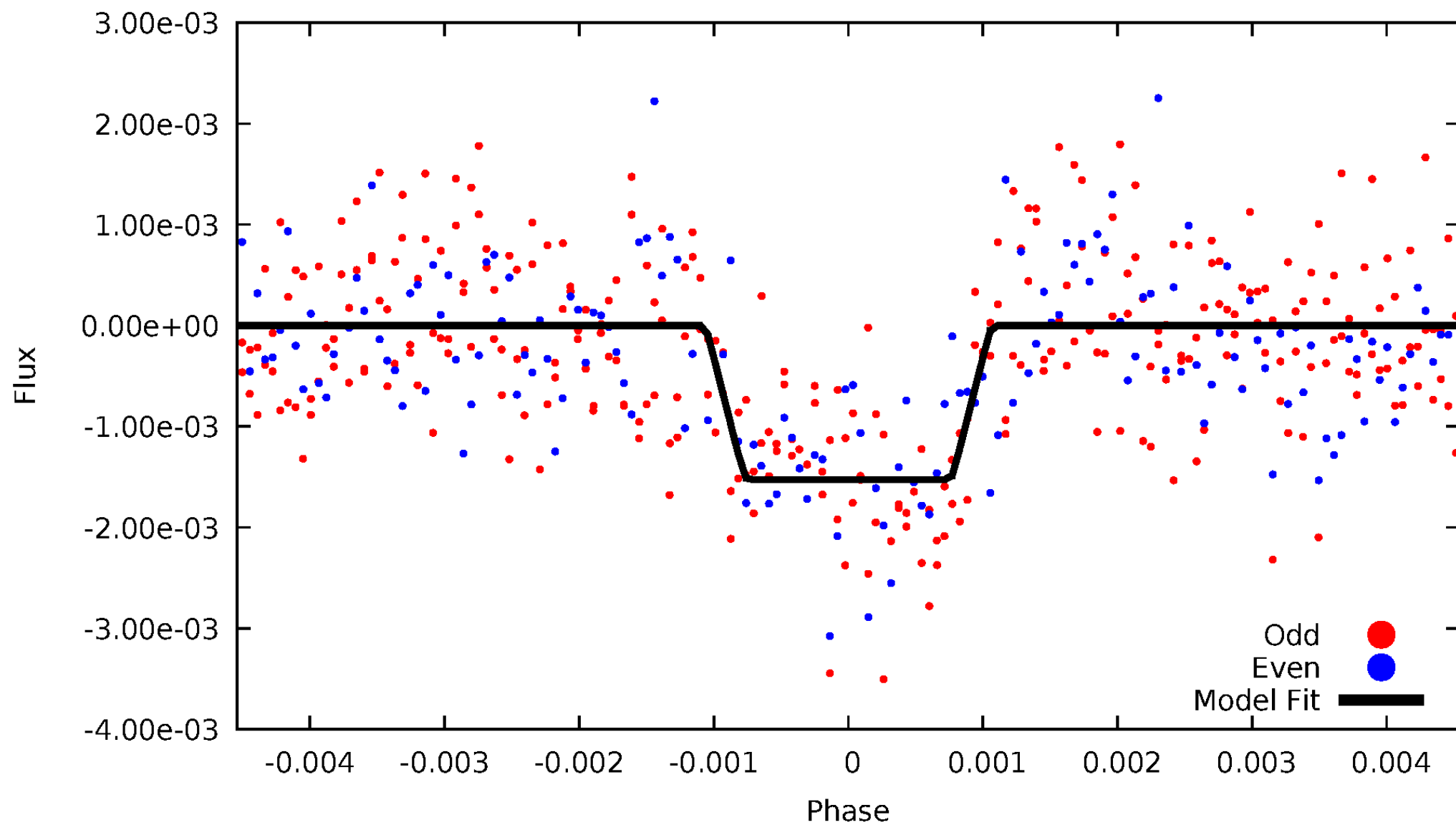
DV Odd/Even

TCE 006038825-01



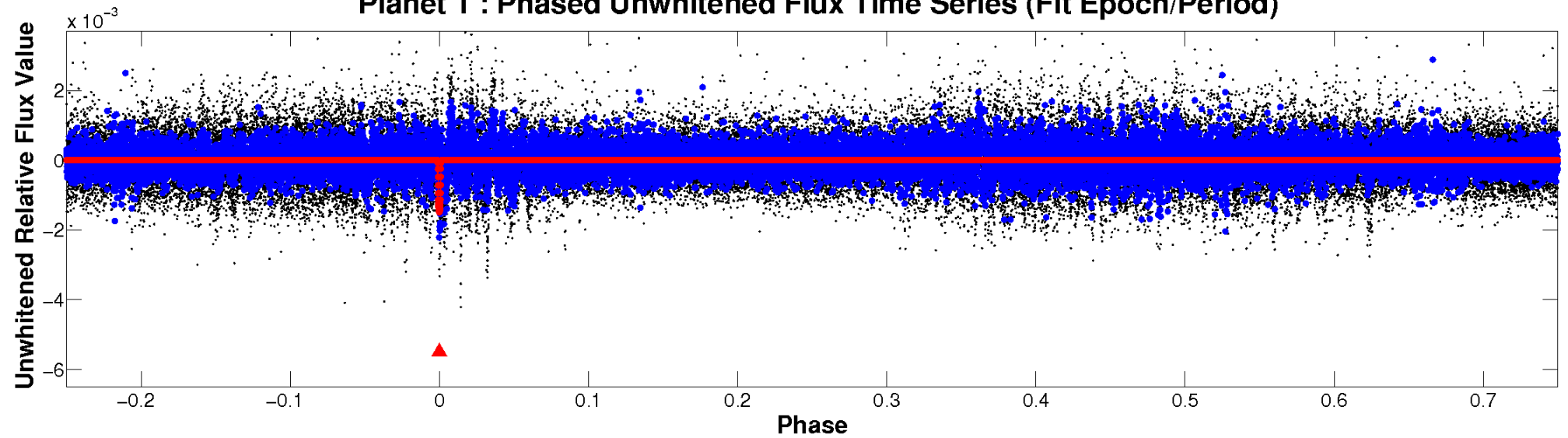
ALT Odd/Even

TCE 006038825-01

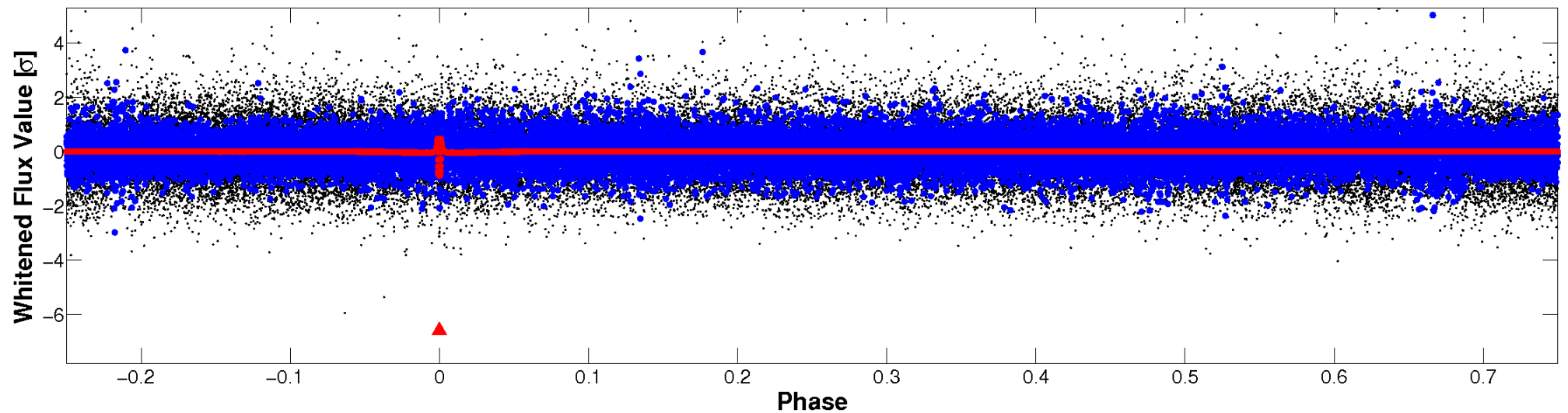


Non-Whitened Vs. Whitened Light Curve

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

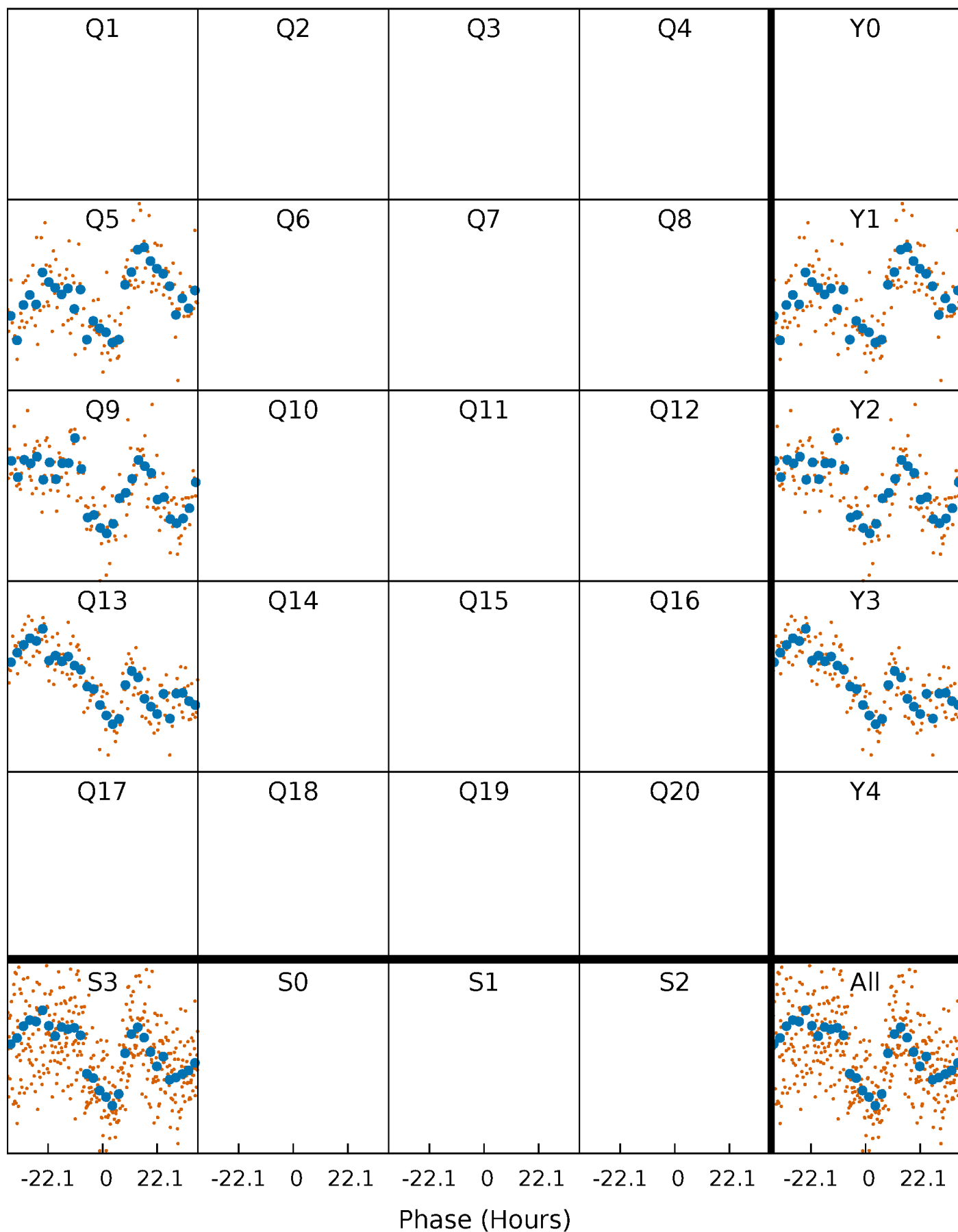


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



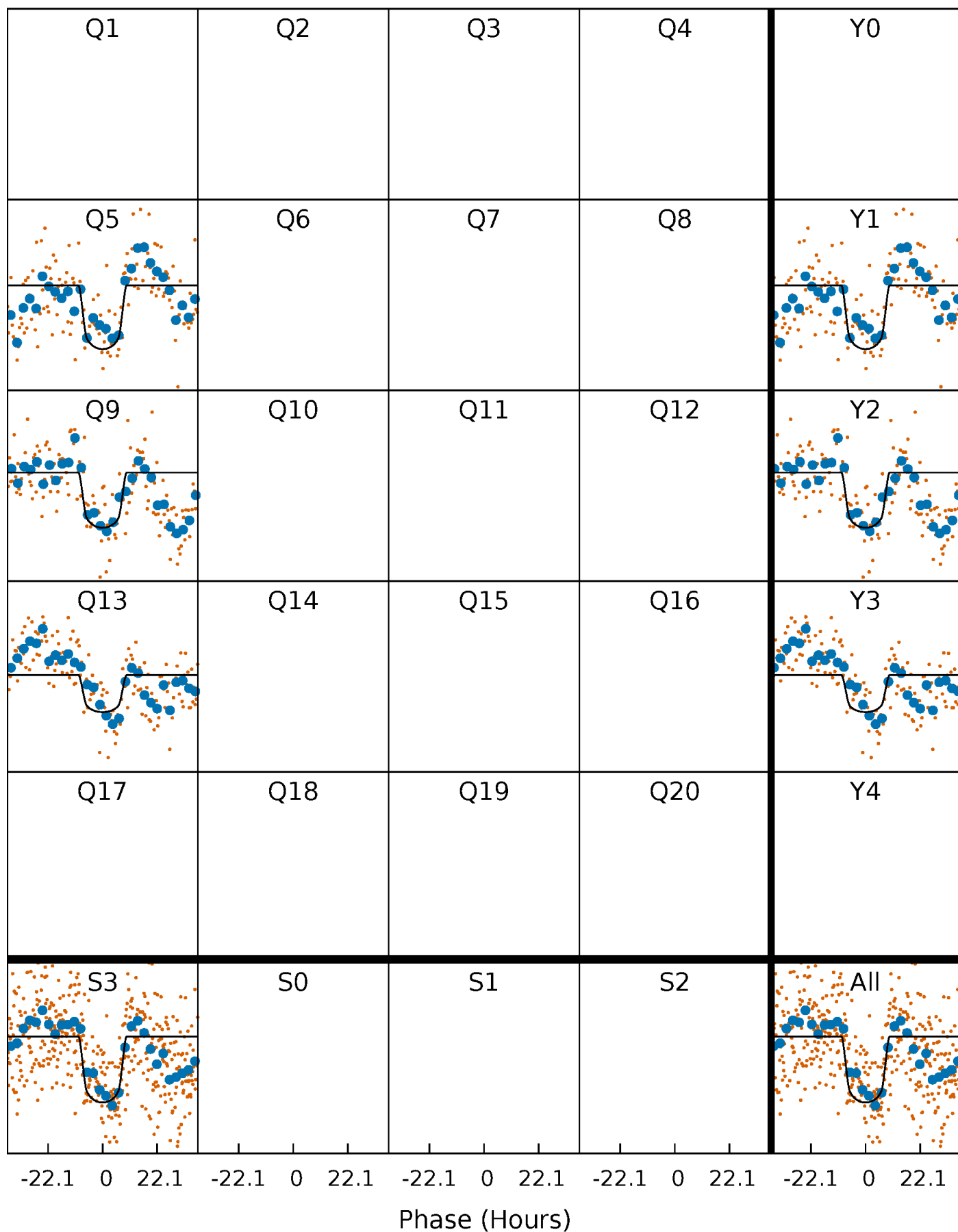
PDC Quarter-Phased Transit Curves

TCE 006038825-01 P=360.230699 Days $T_0=160.862049$ (BKJD)



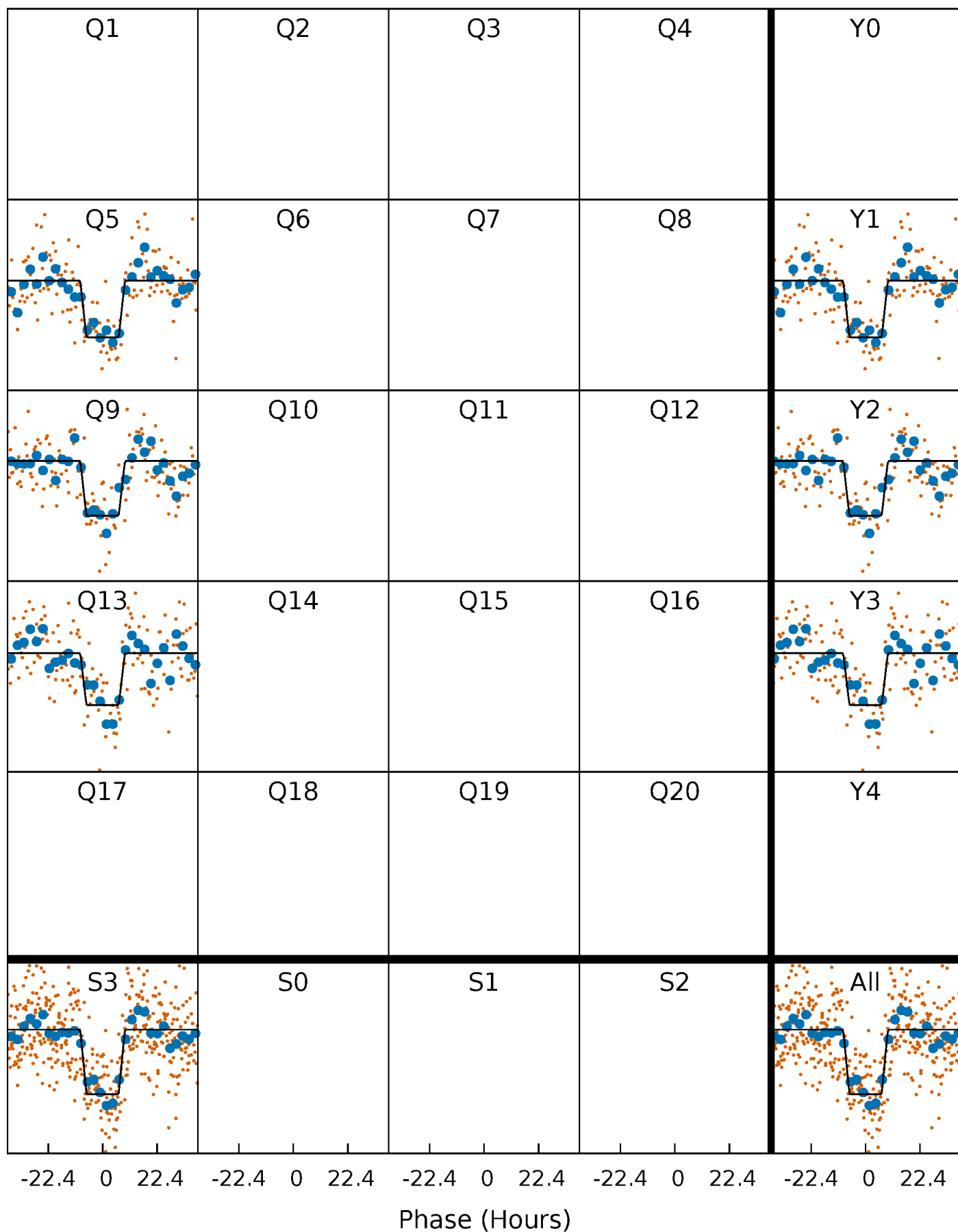
DV Quarter-Phased Transit Curves

TCE 006038825-01 P=360.230699 Days $T_0=160.862049$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

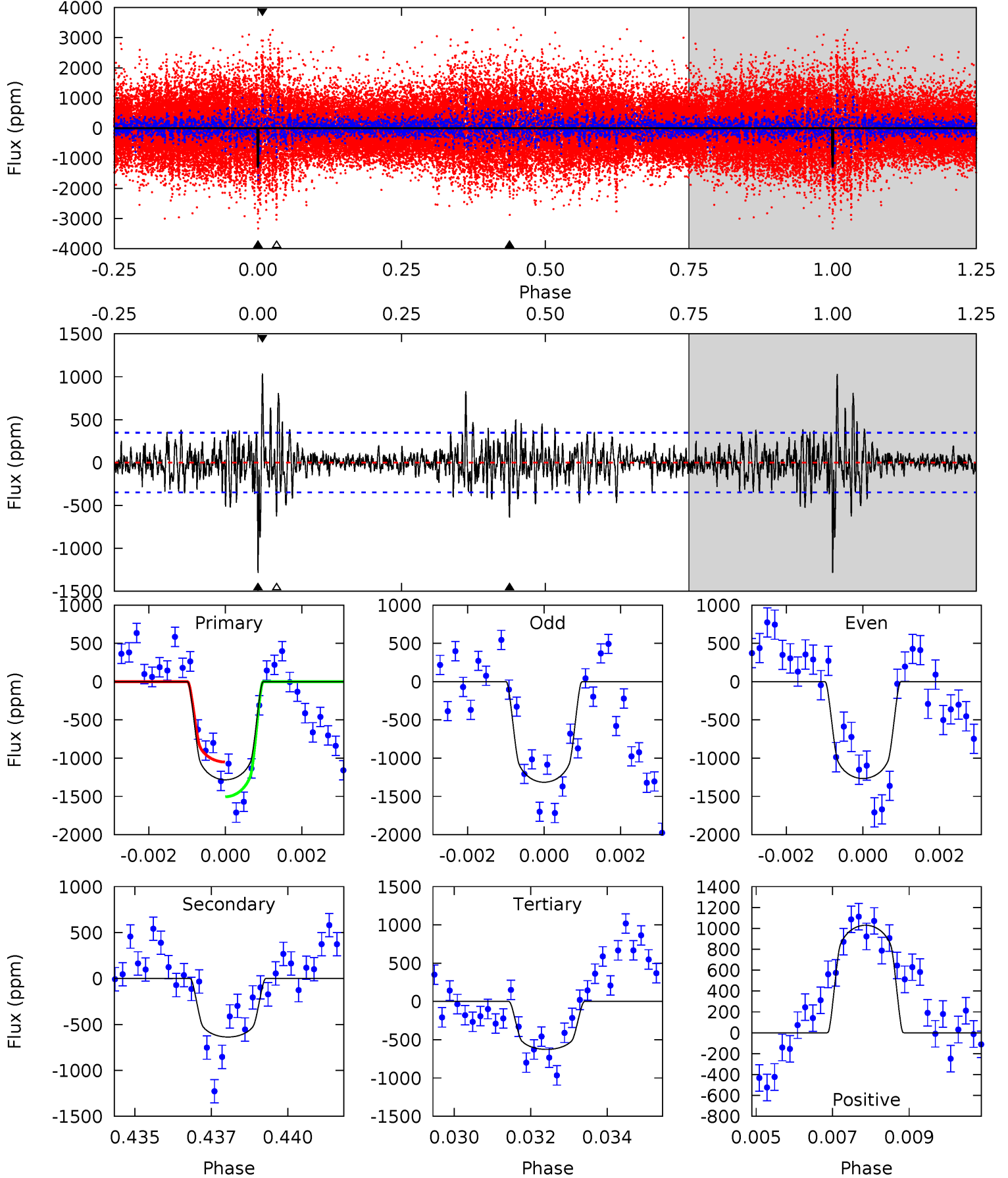
TCE 006038825-01 P=360.223229 Days $T_0=160.885410$ (BKJD)



DV Model-Shift Uniqueness Test

006038825-01, P = 360.230699 Days, E = 160.862049 Days

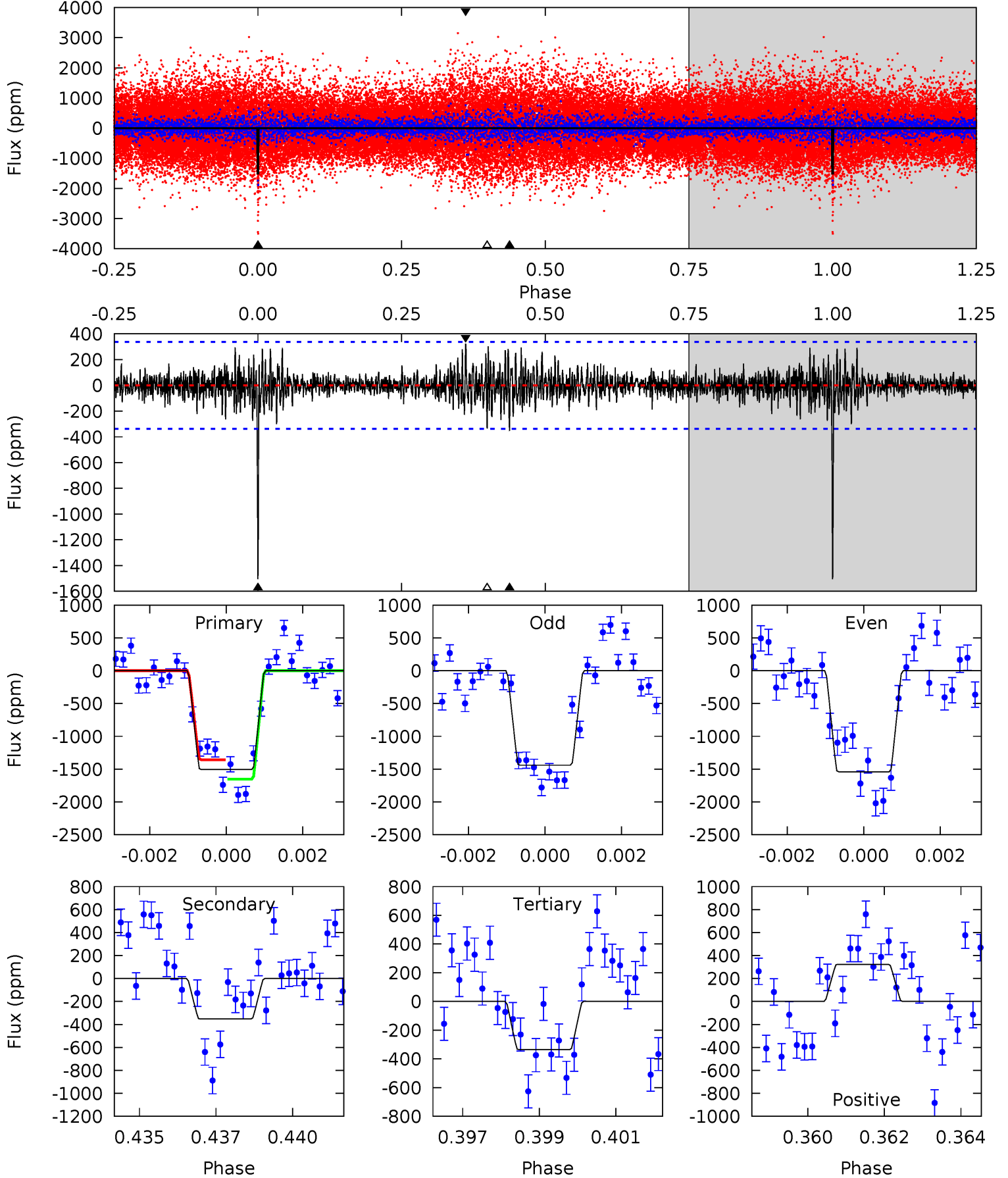
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	9.72	9.55	15.7	5.30	3.05	2.46	10.0	3.86	0.16	-5.99	0.35	0.98	0.45	3.45



Alt Model-Shift Uniqueness Test

006038825-01, P = 360.223229 Days, E = 160.885410 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	5.56	5.29	5.09	5.31	3.07	1.19	18.4	18.6	0.27	0.47	0.75	1.01	0.18	2.33



Stellar Parameters For KIC 006038825

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5818^{+174}_{-191}	$4.554^{+0.046}_{-0.196}$	$-0.220^{+0.300}_{-0.300}$	$0.848^{+0.240}_{-0.080}$	$0.937^{+0.110}_{-0.110}$	$2.166^{+0.411}_{-1.083}$
	+3%/-3%	+1%/-4%	+136%/-136%	+28%/-9%	+12%/-12%	+19%/-50%
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 006038825-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-637 ± 66	$4.01^{+0.66}_{-0.54}$	343^{+24}_{-16}	4691^{+263}_{-242}	20299^{+6663}_{-5558}
Alt.	-353 ± 63	$3.74^{+0.62}_{-0.43}$	341^{+22}_{-16}	4249^{+246}_{-214}	12532^{+4327}_{-3462}

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

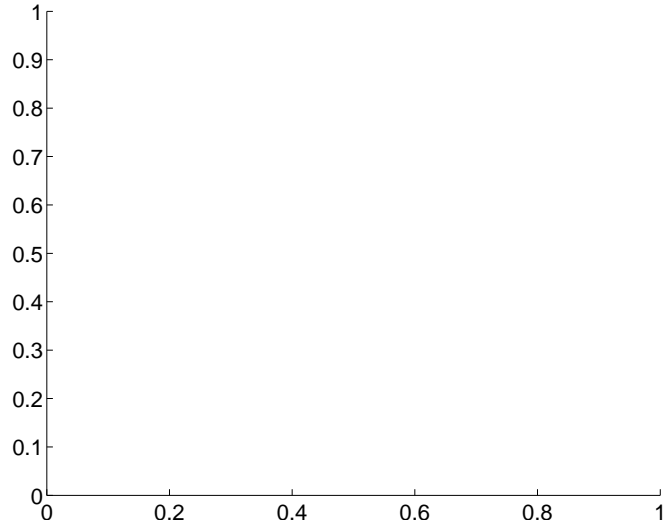
Supplemental centroid analysis for 006038825-01. Kepler magnitude: 15.88. Transit SNR 7.99

There are 0 quarters with good PRF difference image offsets

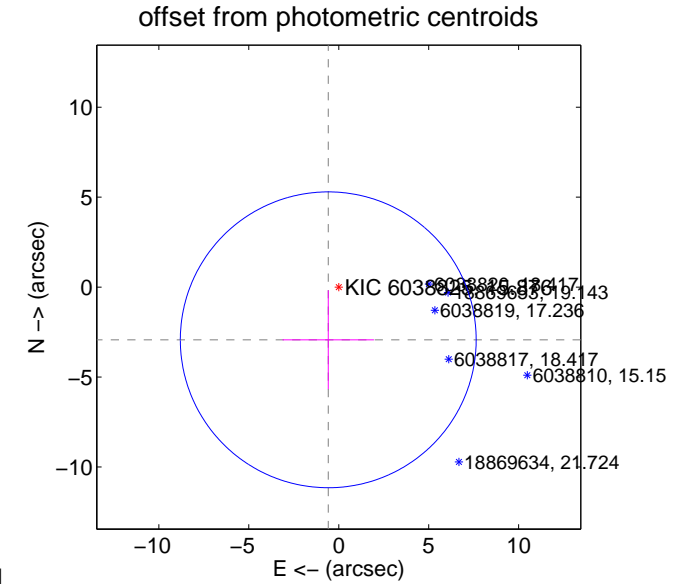
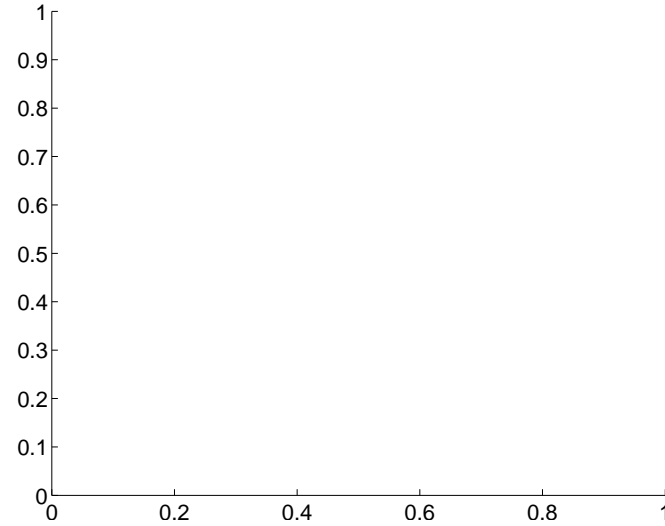
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	2.99 ± 2.74	1.09	0.58 ± 2.54	-2.93 ± 2.75

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

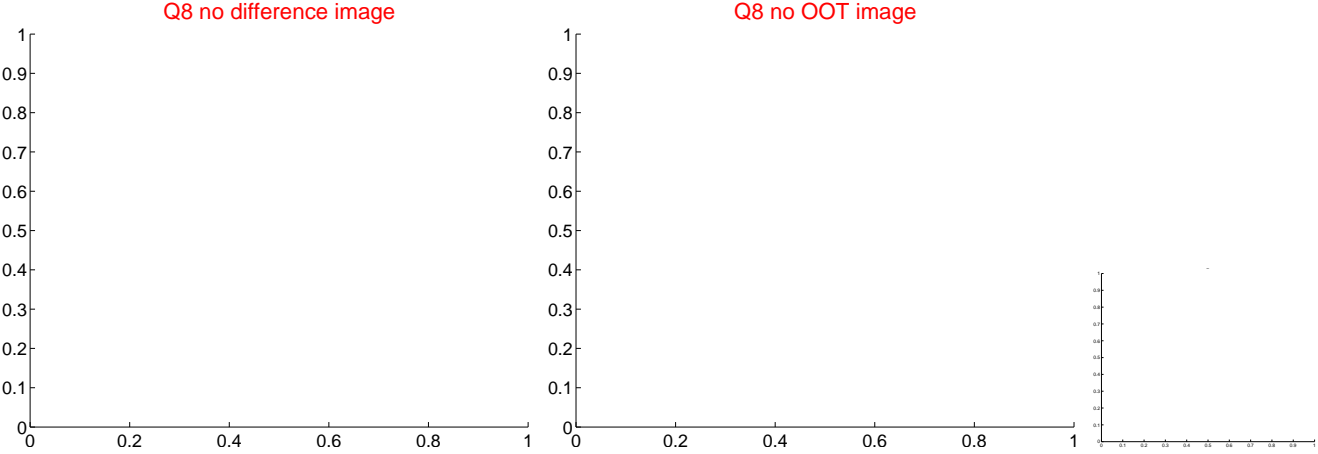
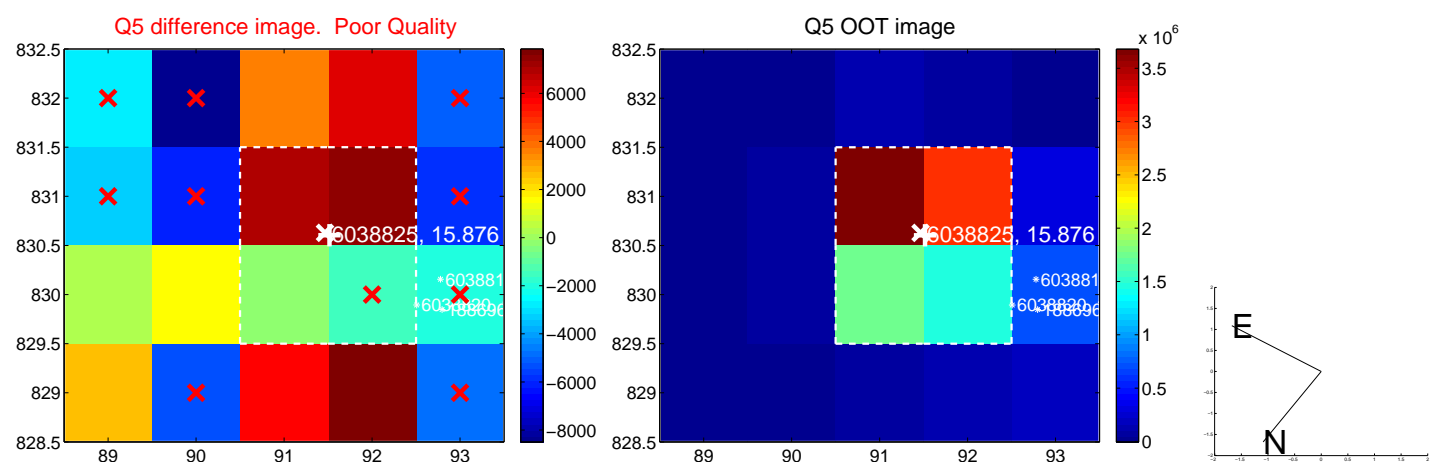


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

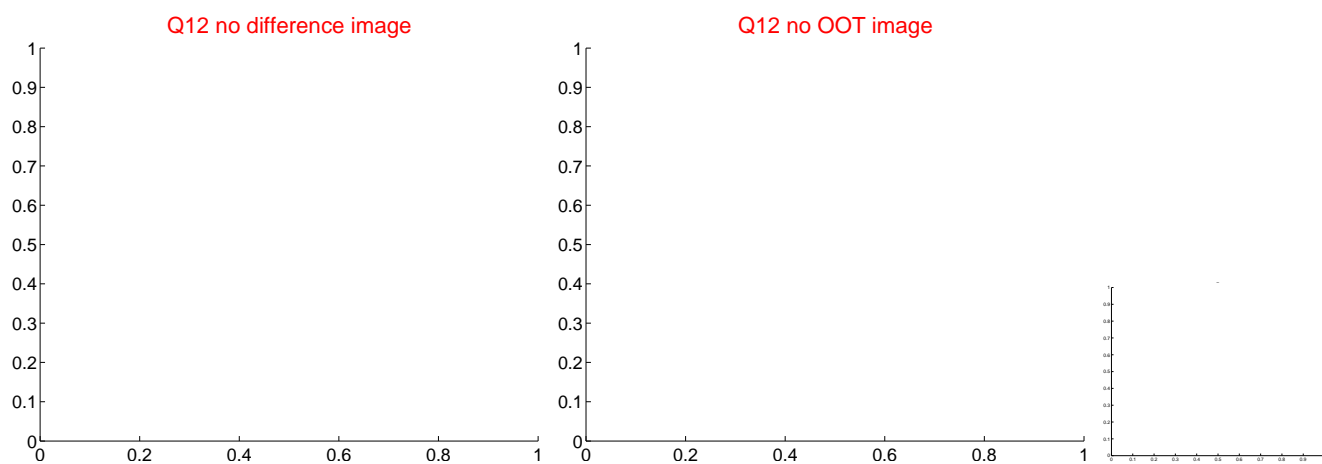
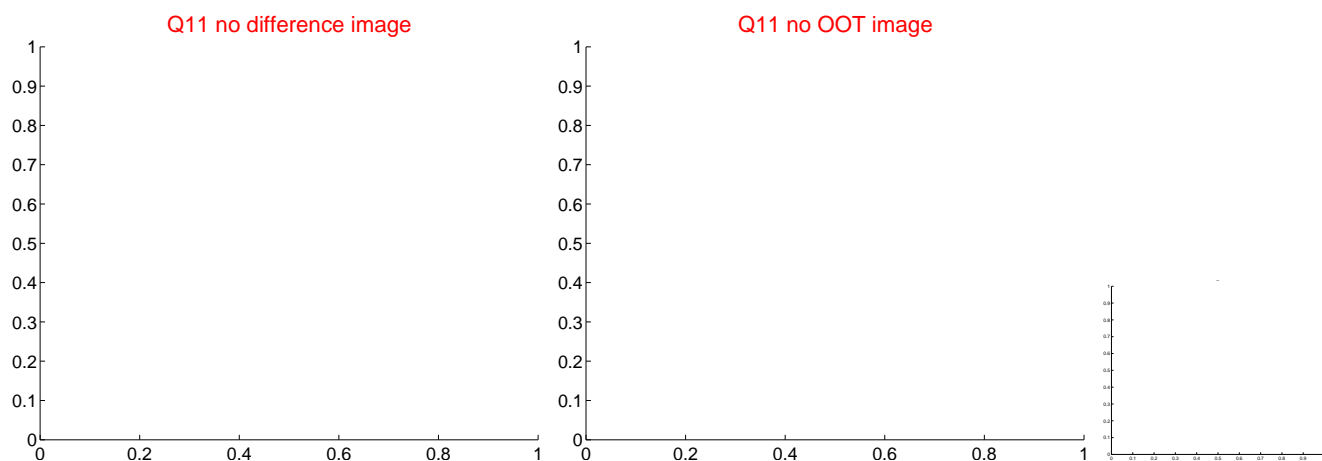
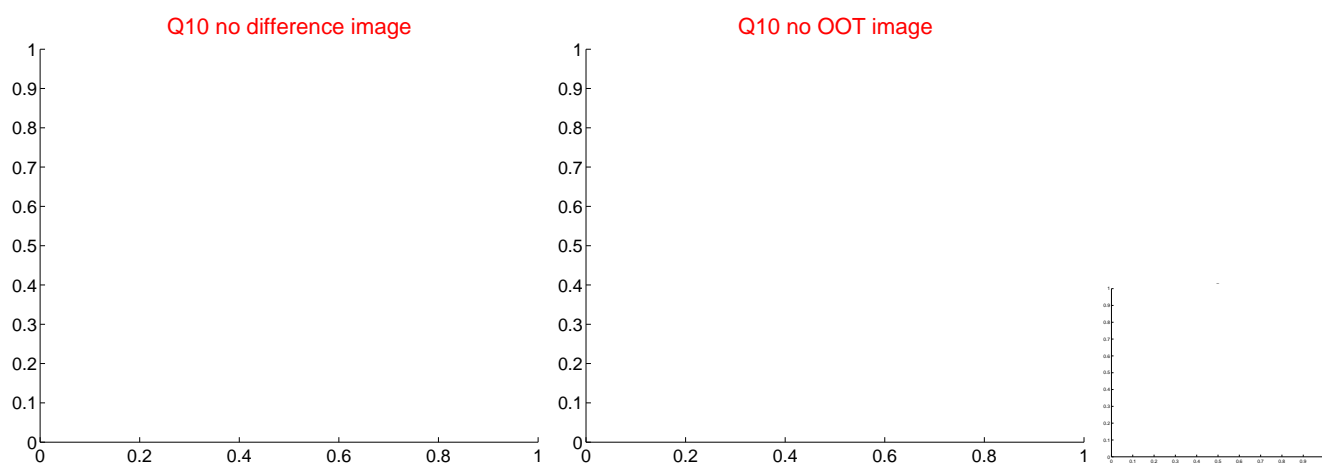
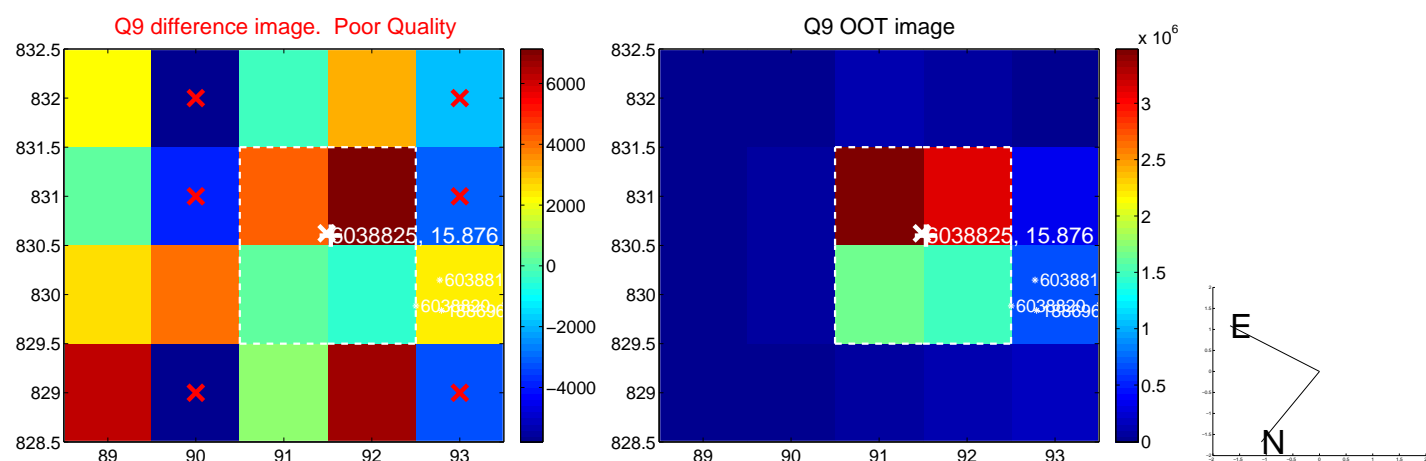
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



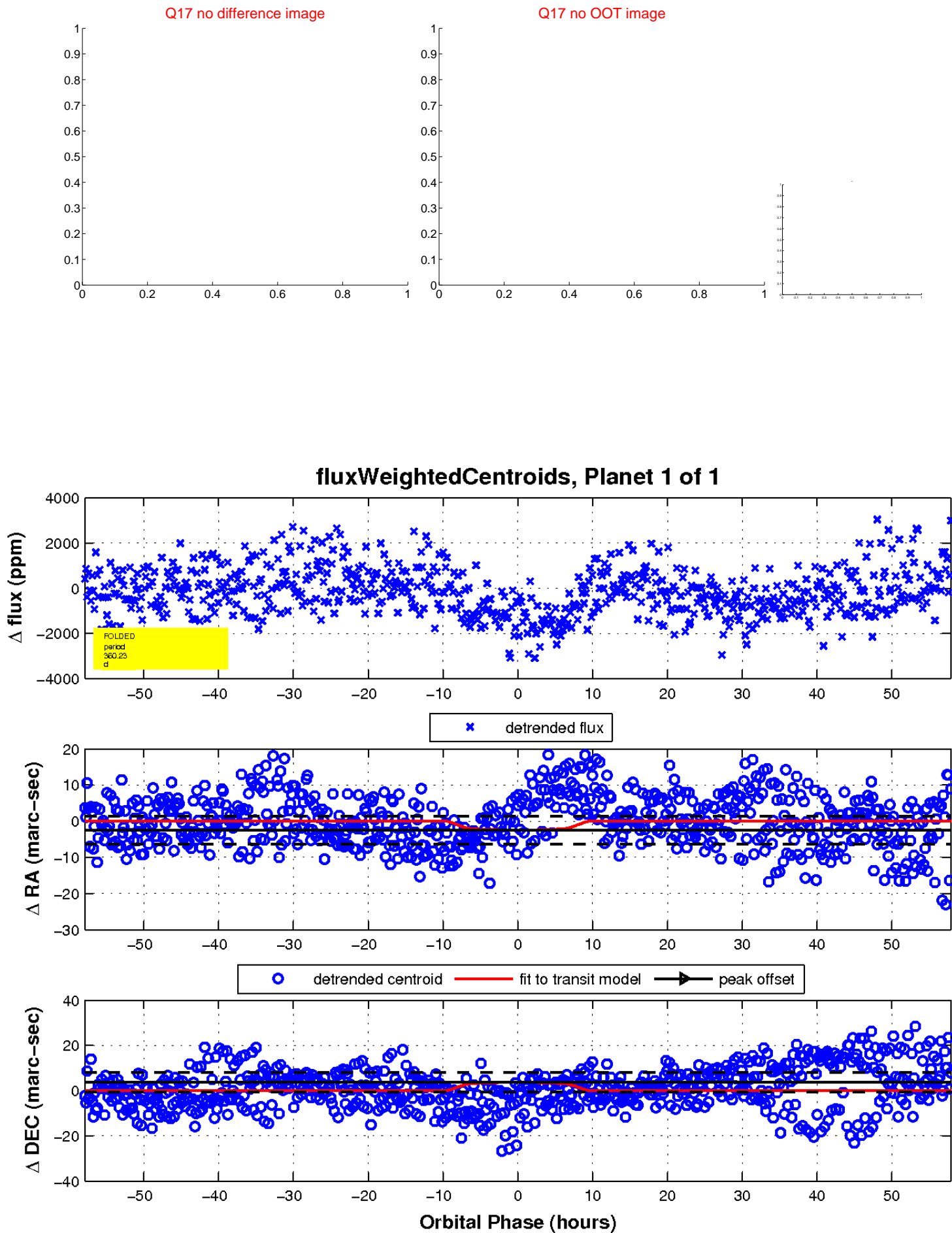
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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UKIRT Image

Declination

