

KIC 006035247

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})
006035247-01	OBS	No	420.950796	337.896435	1109.6	21.322	10.1	9.6	1.06	6112	4.13	1.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006035247-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

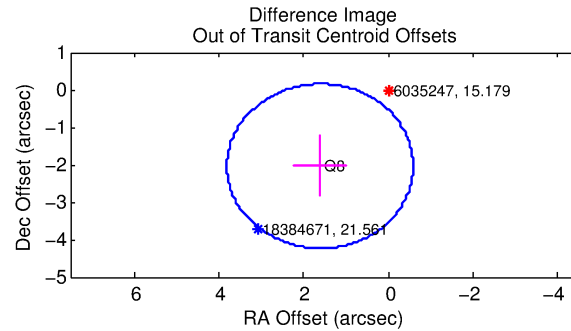
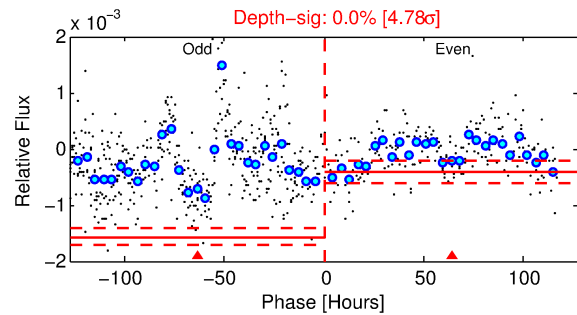
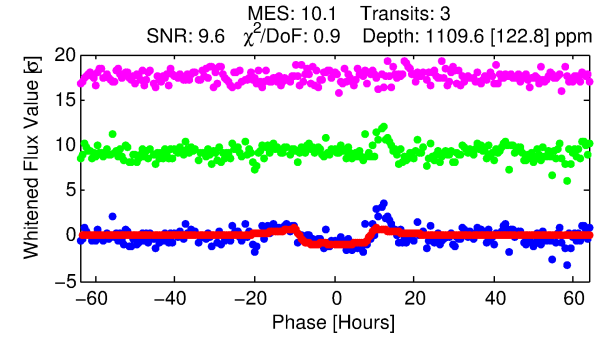
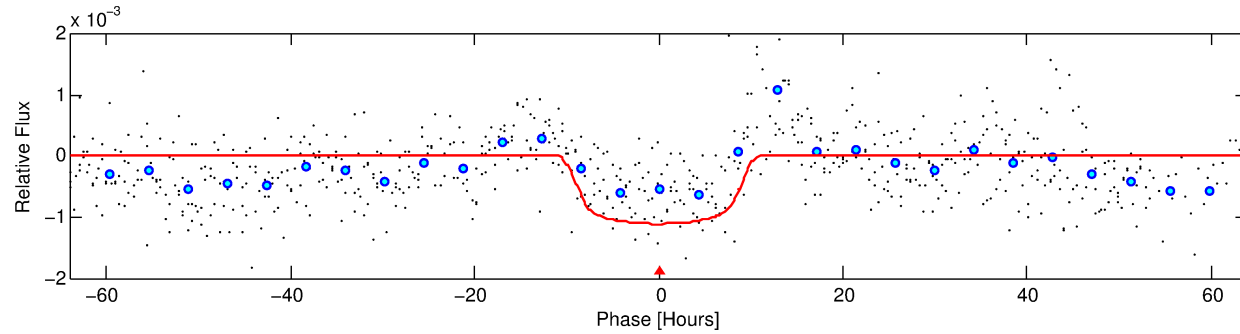
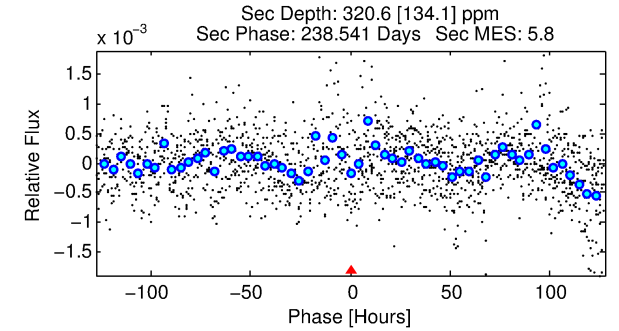
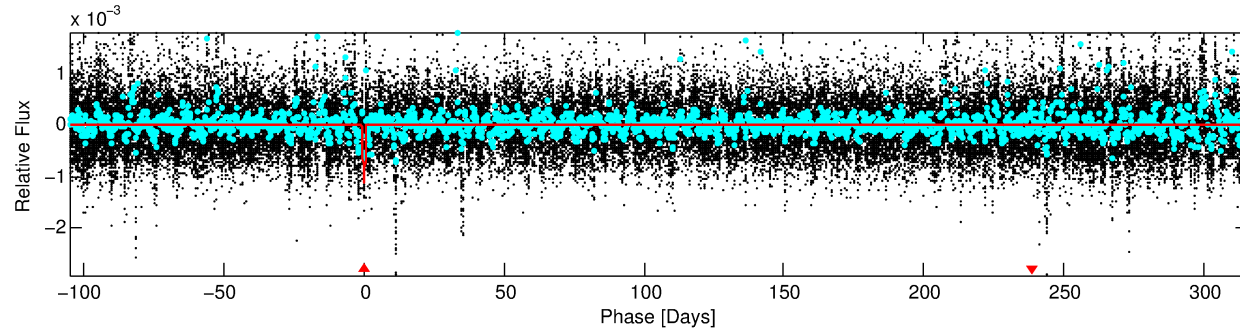
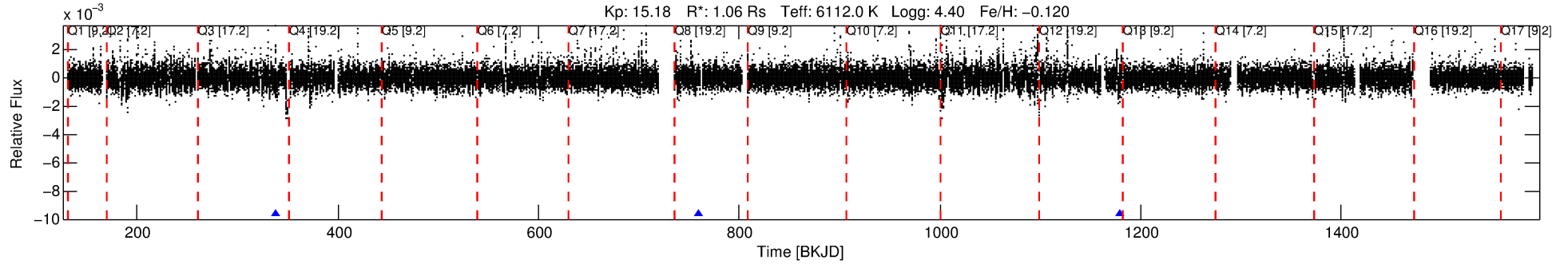
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006035247-01

No Significant Match Found

DV One-Page Summary

KIC: 6035247 Candidate: 1 of 1 Period: 420.951 d



DV Fit Results:

Period = 420.95080 [0.01549] d
Epoch = 337.8964 [0.0202] BKJD
Rp/R* = 0.0357 [0.0025]
a/R* = 79.11 [14.89]
b = 0.89 [0.04]
Seff = 1.14 [0.47]
Teq = 263 [27] K
Rp = 4.13 [1.34] Re
a = 1.1095 [0.2939] AU
Ag = 12734.19 [7460.09] [1.71σ]
Teffp = 4327 [501] K [8.10σ]

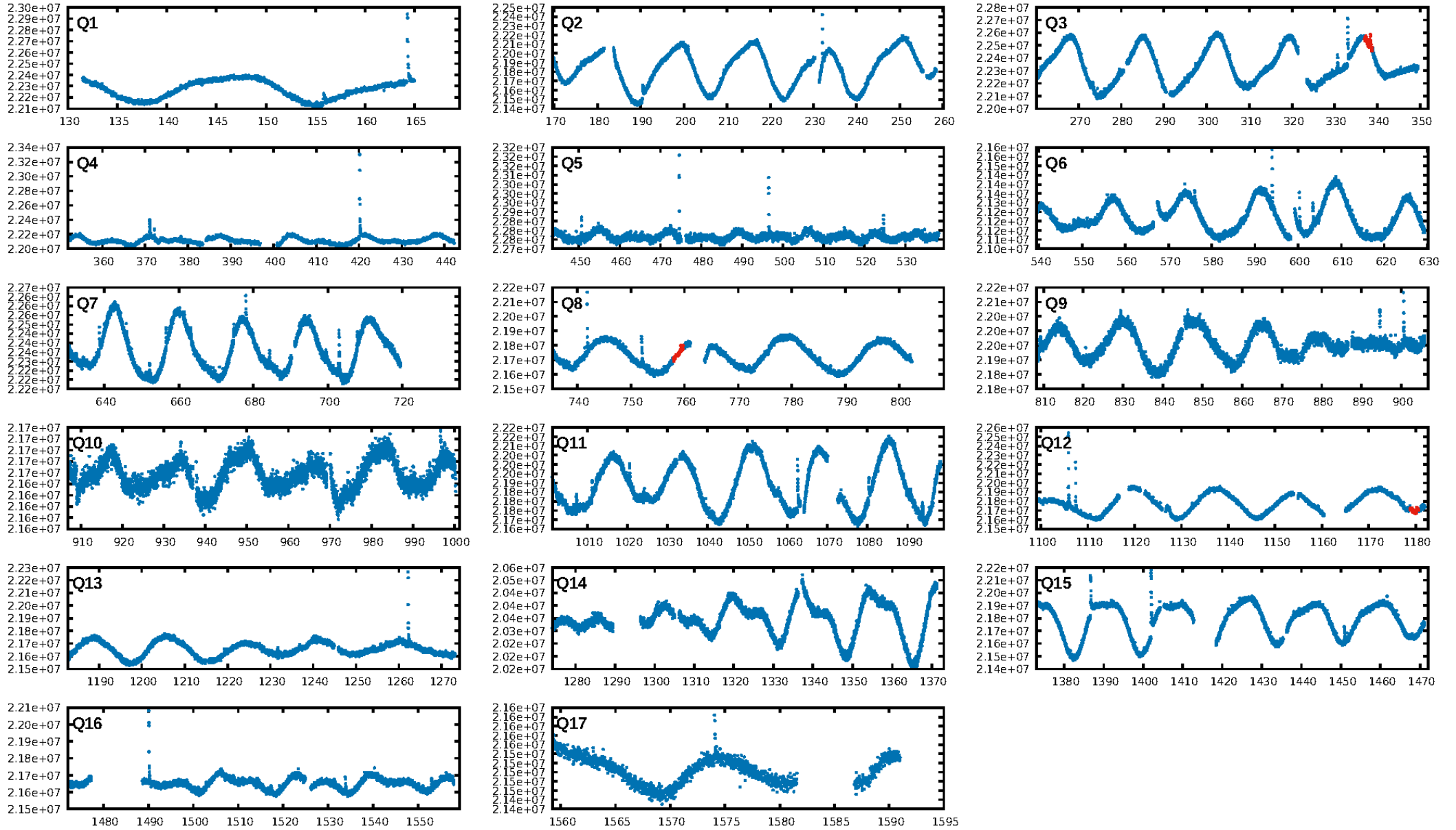
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.80e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.3189
Centroid-sig: 5.8%
Centroid-so: 4.276 arcsec [1.84σ]
OotOffset-rm: 2.597 arcsec [3.54σ]
KicOffset-rm: 2.527 arcsec [3.47σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

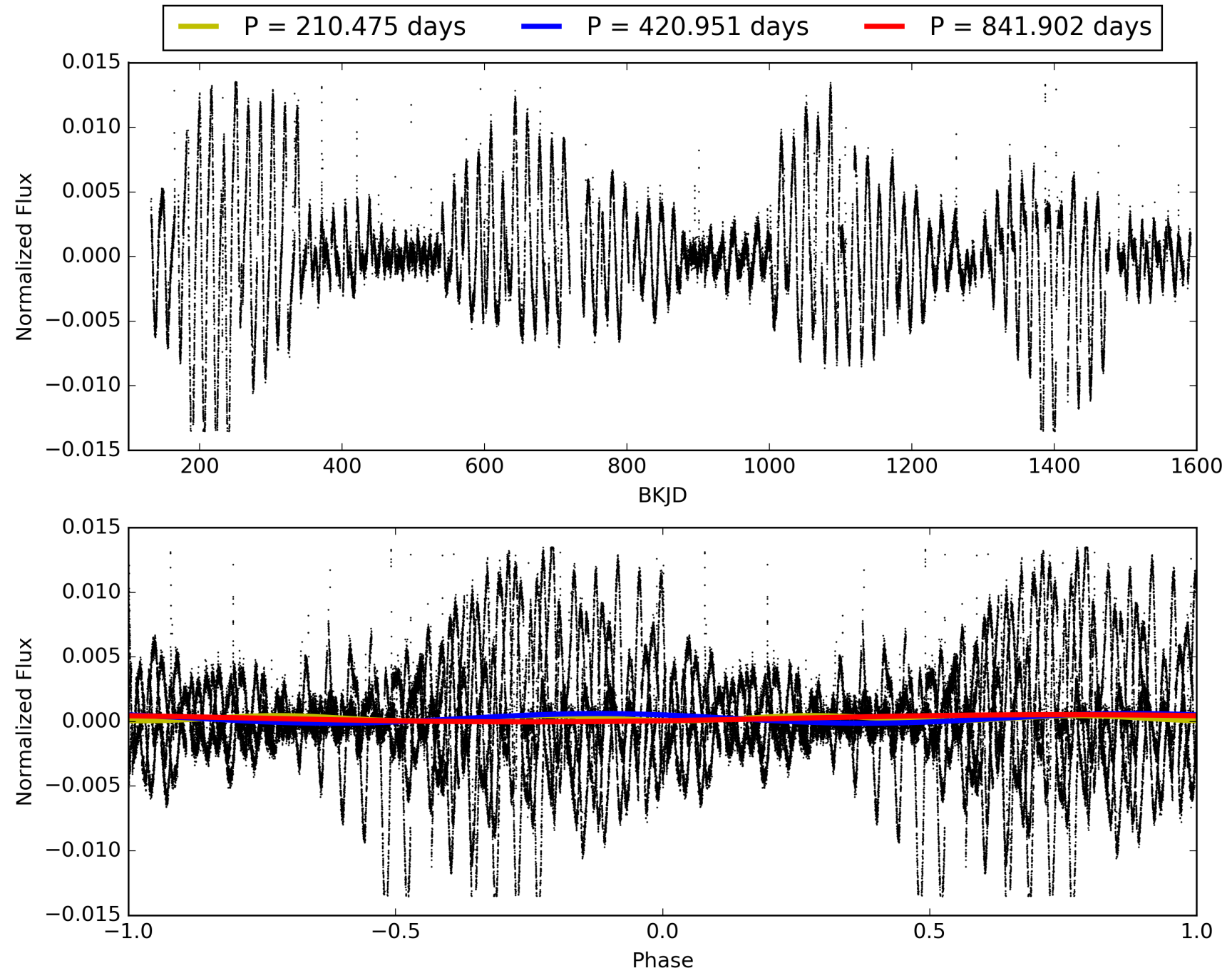
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:46:00 Z

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

TCE 006035247-01, PDC Light Curves

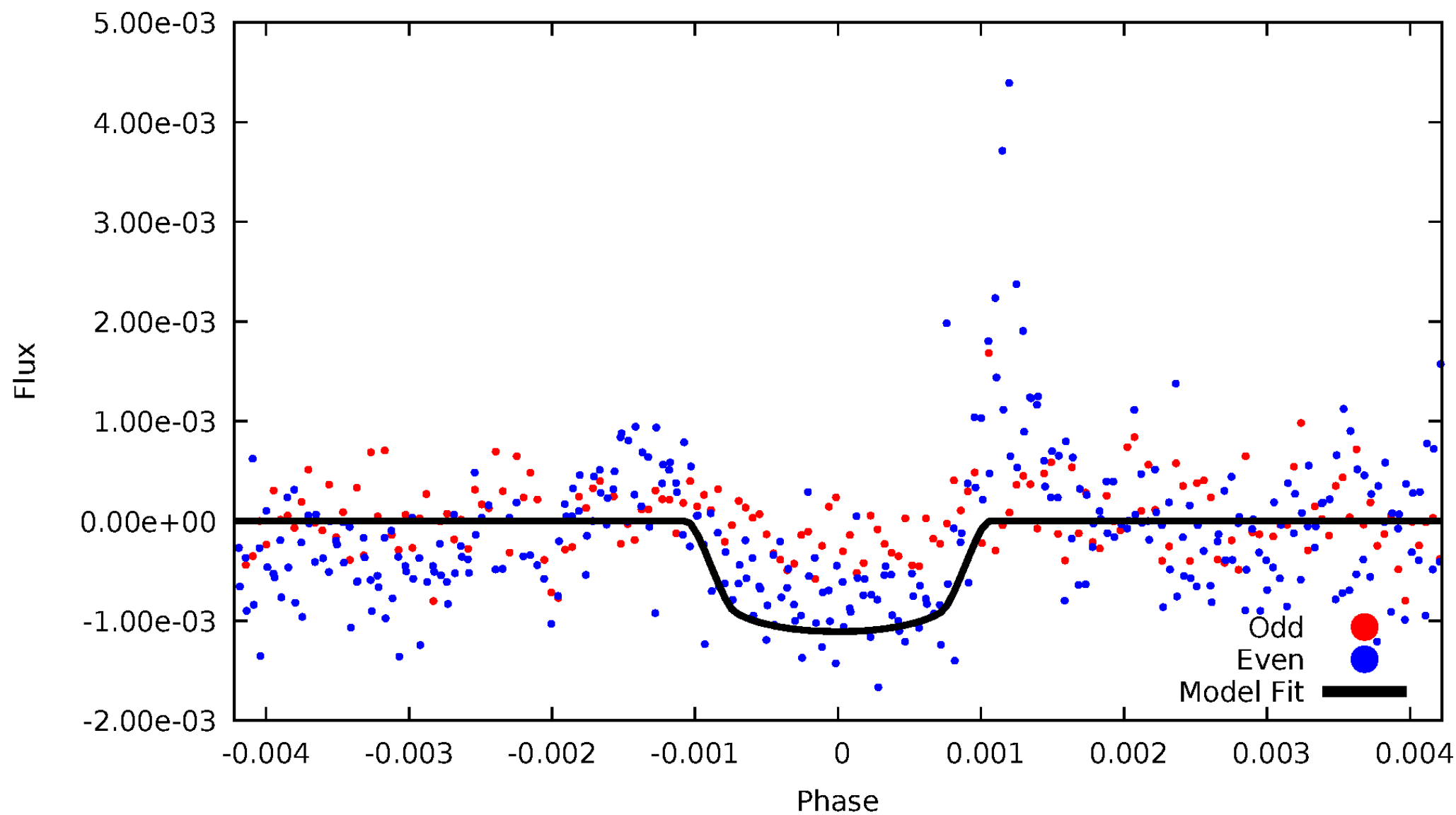


TCE 006035247-01



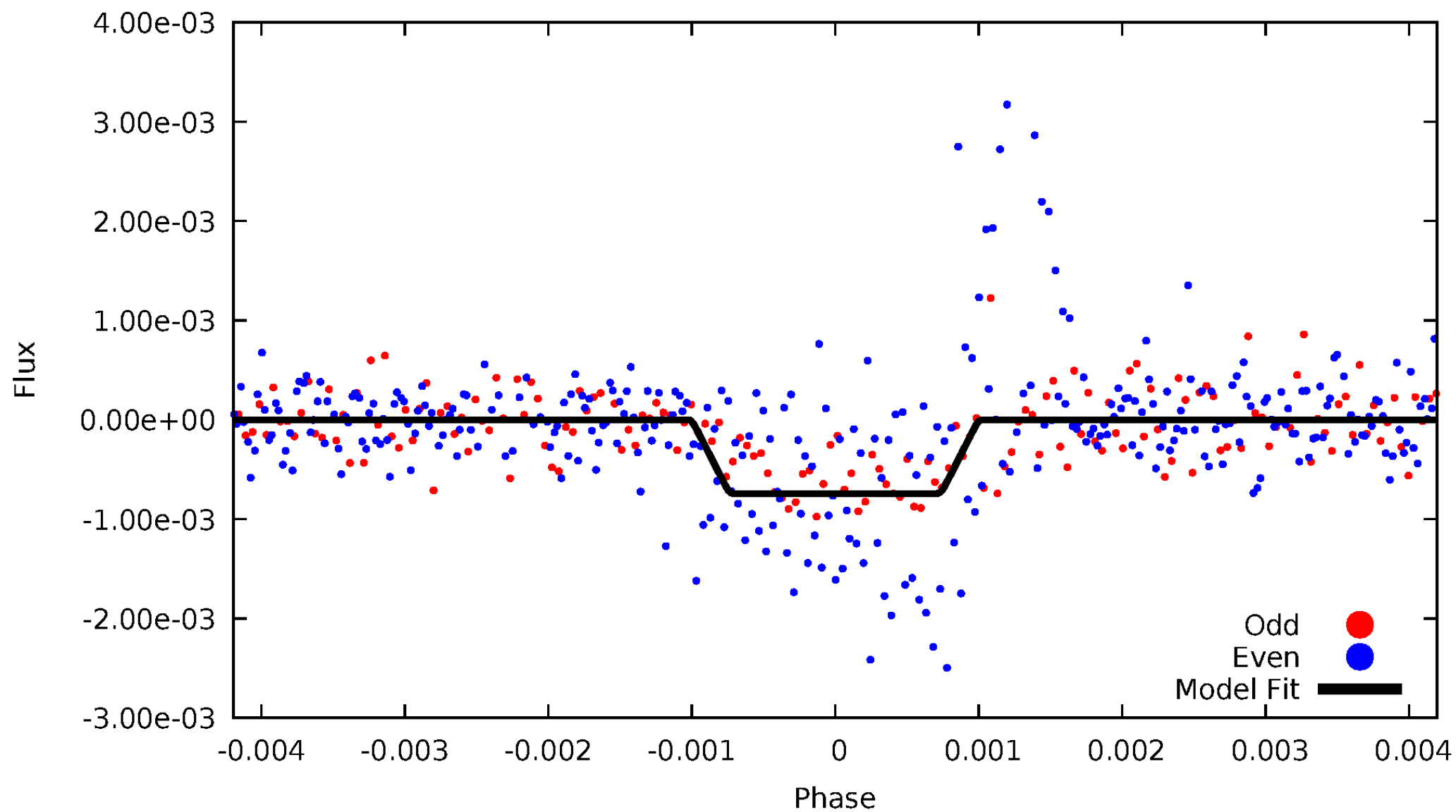
DV Odd/Even

TCE 006035247-01



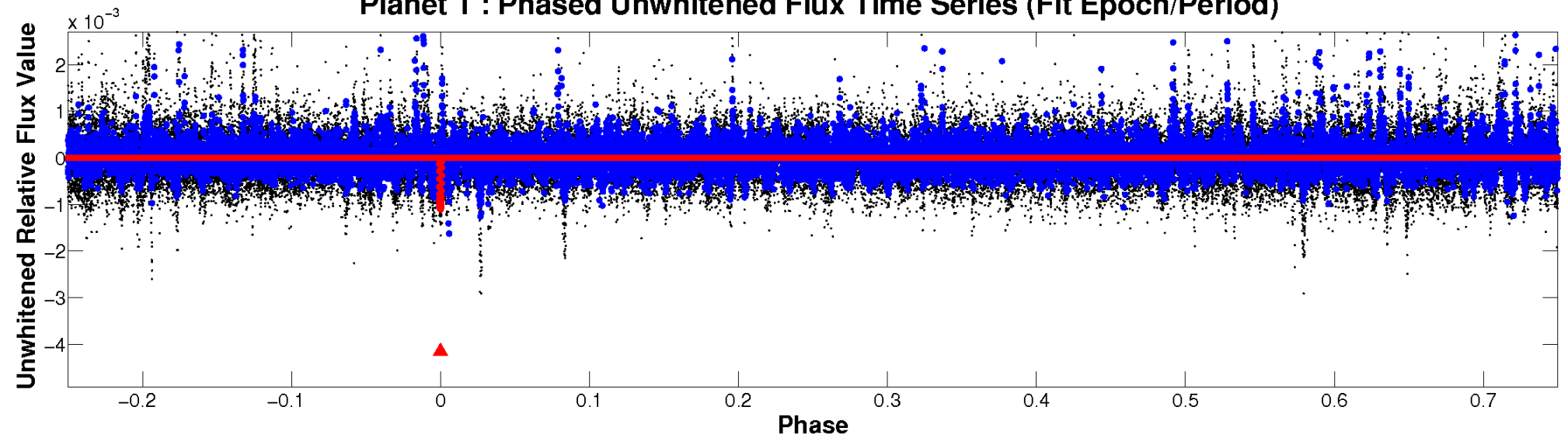
ALT Odd/Even

TCE 006035247-01

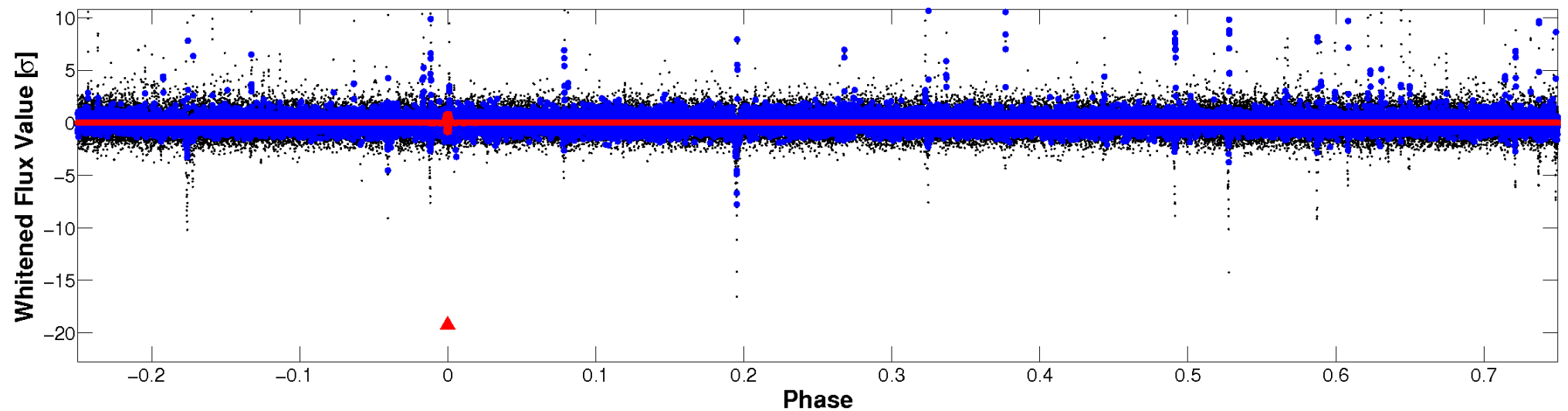


Non-Whitened Vs. Whitened Light Curve

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

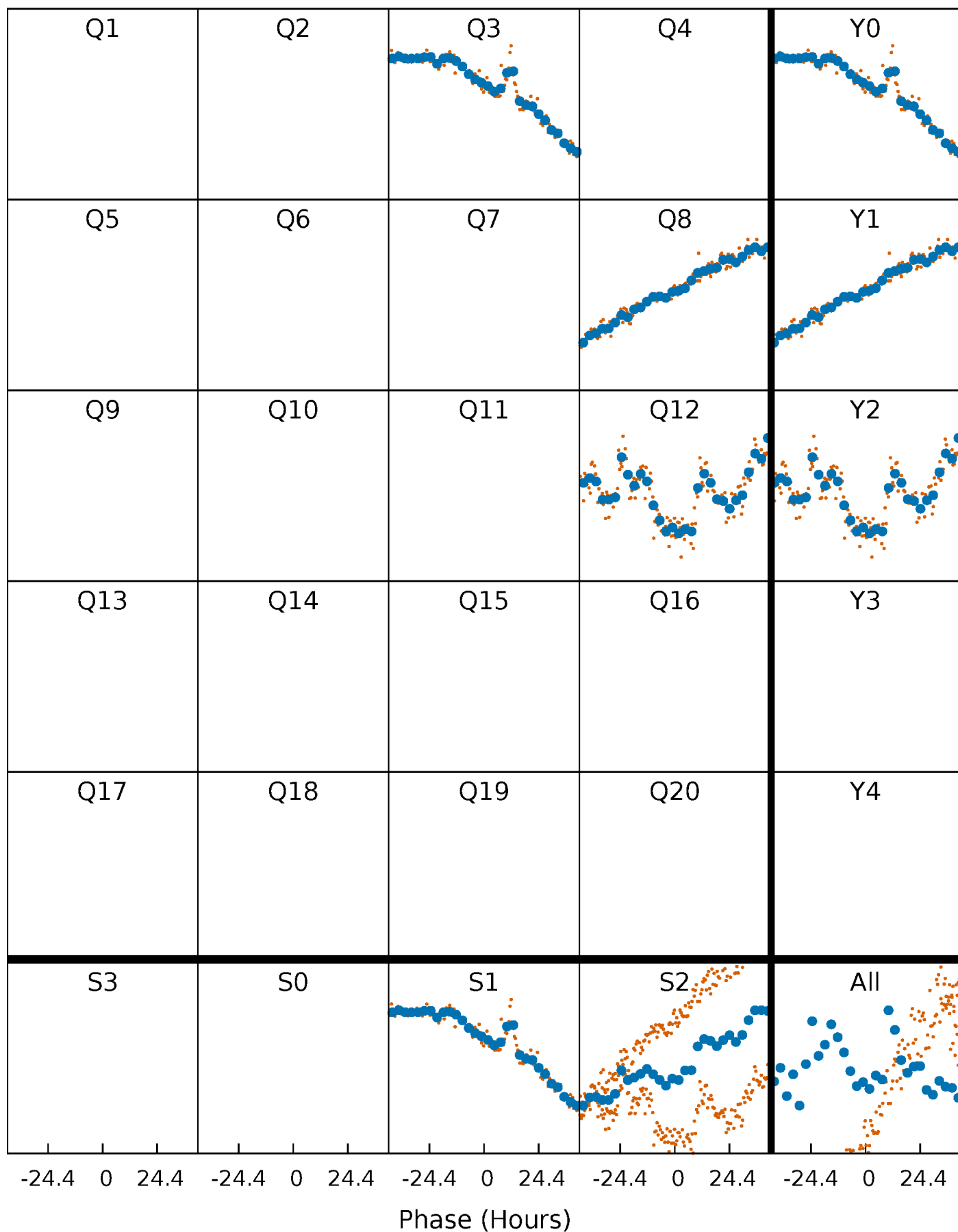


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



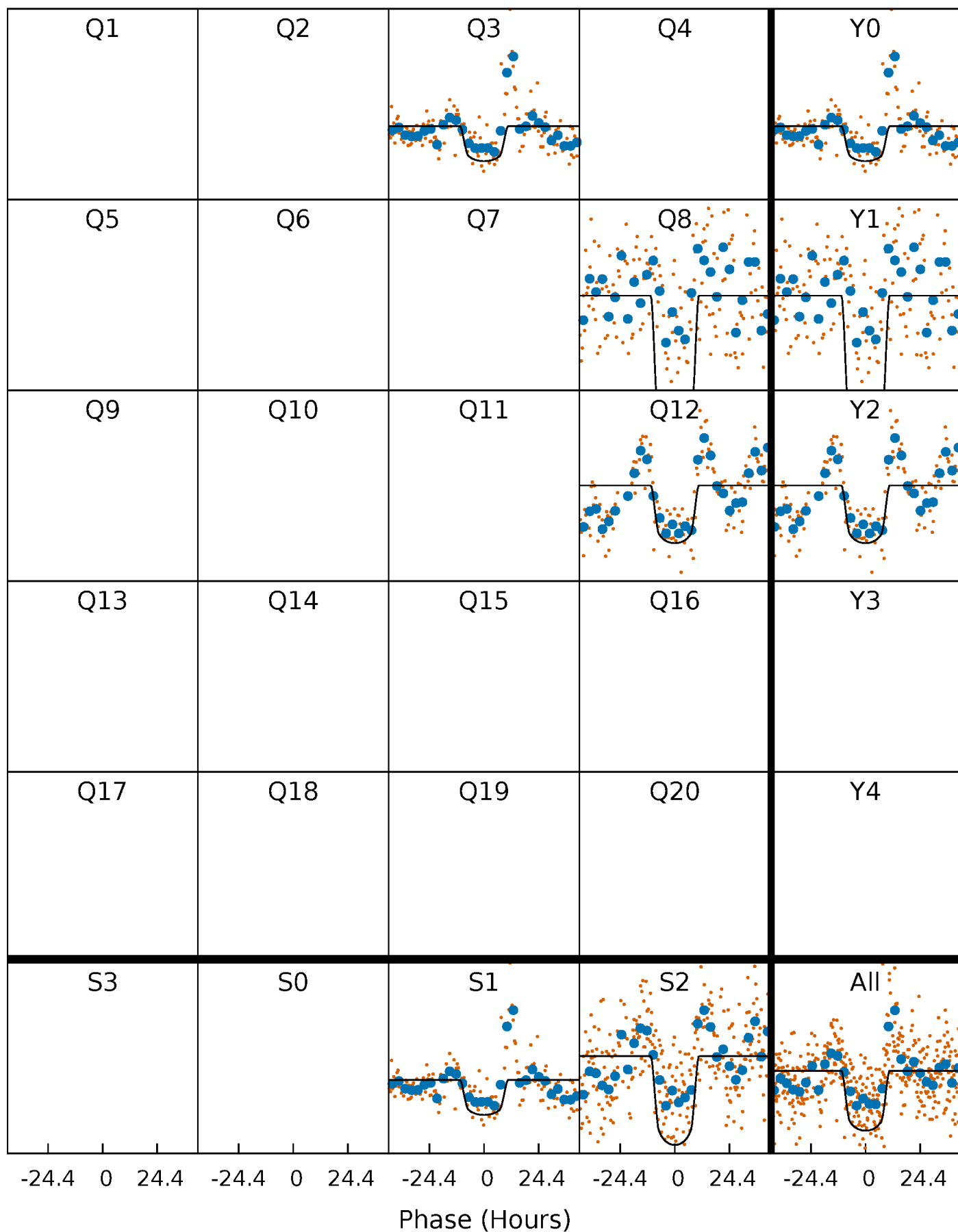
PDC Quarter-Phased Transit Curves

TCE 006035247-01 P=420.950796 Days $T_0=337.896435$ (BKJD)



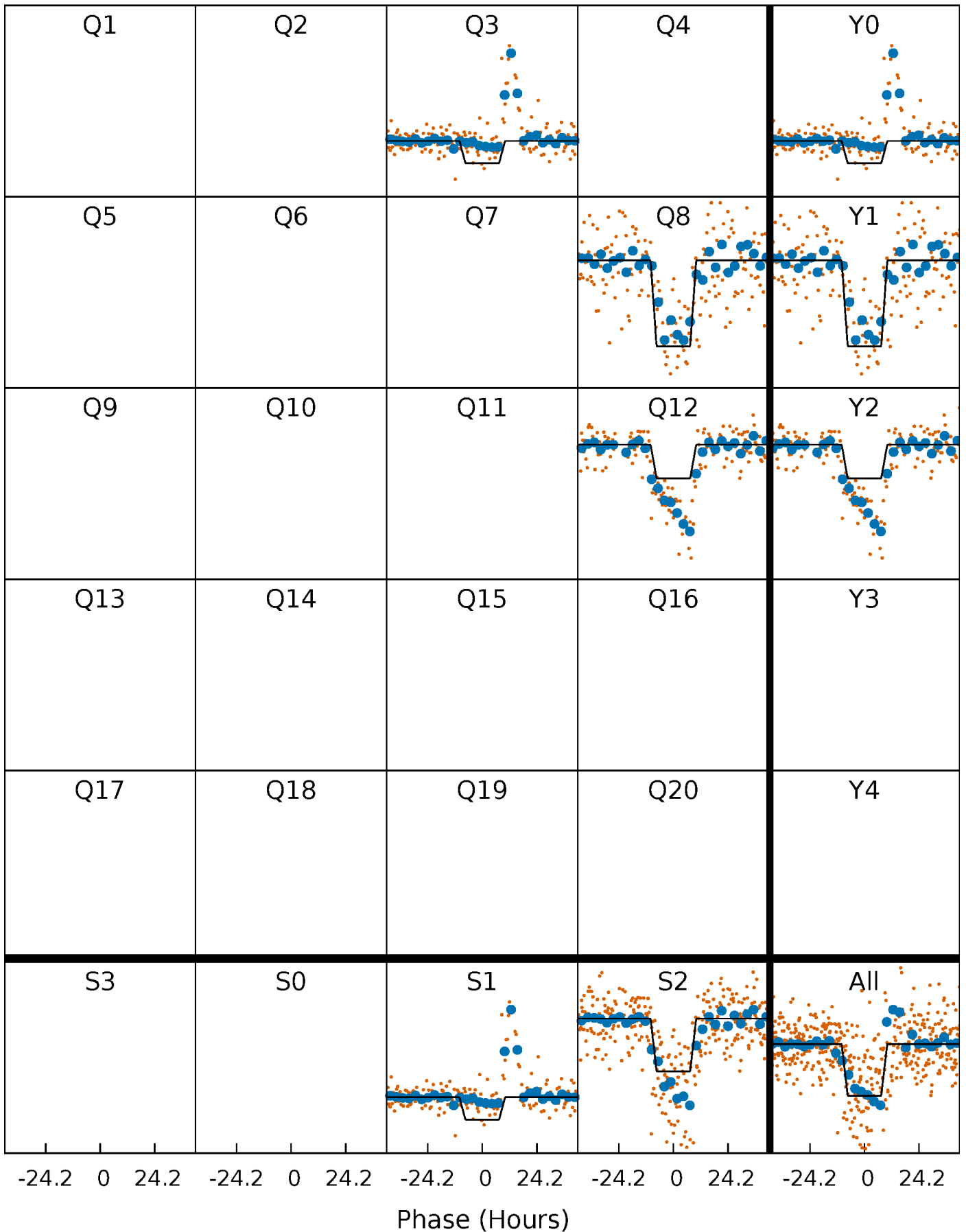
DV Quarter-Phased Transit Curves

TCE 006035247-01 P=420.950796 Days $T_0=337.896435$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

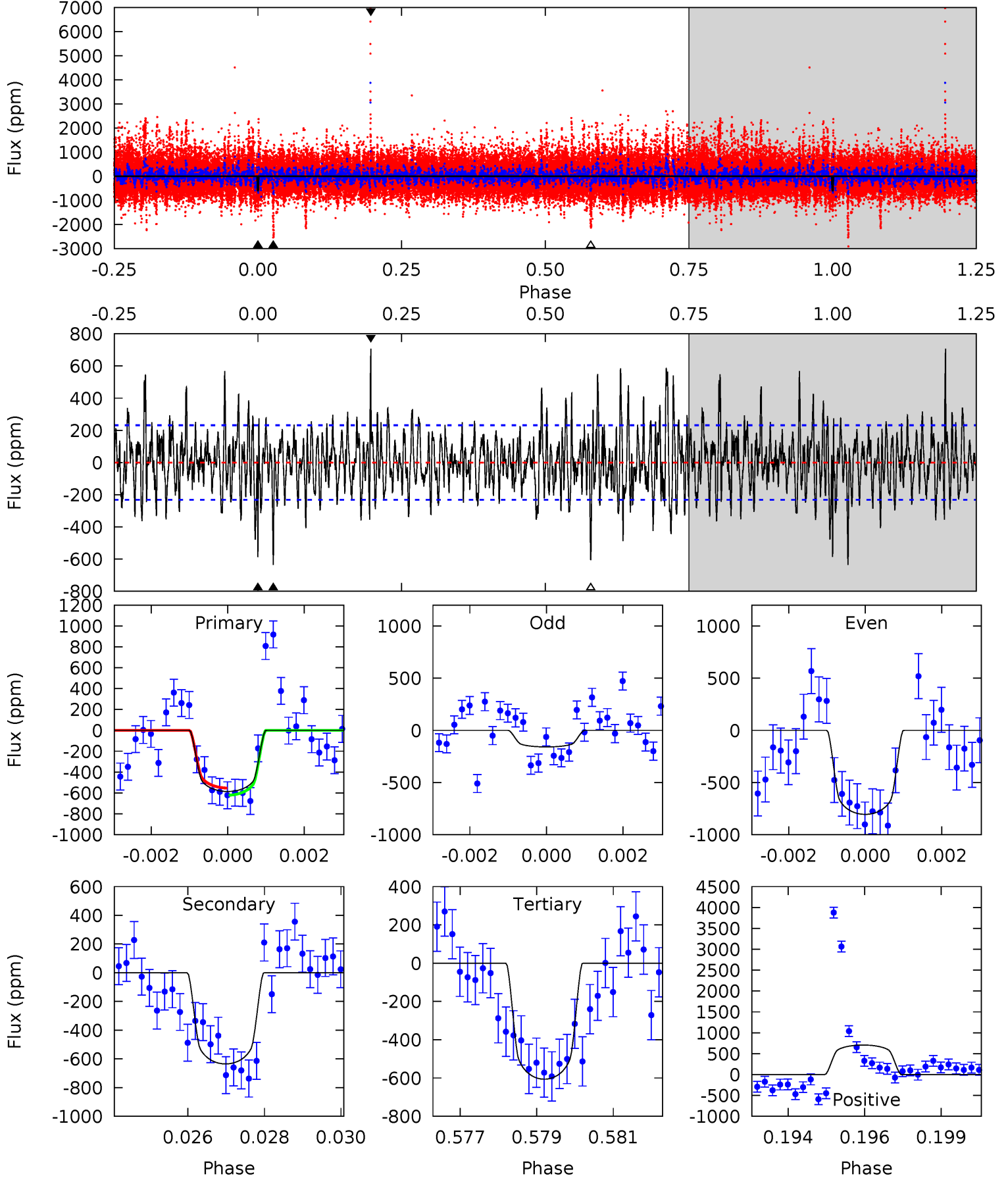
TCE 006035247-01 P=420.979014 Days $T_0=337.855458$ (BKJD)



DV Model-Shift Uniqueness Test

006035247-01, P = 420.950796 Days, E = 337.896435 Days

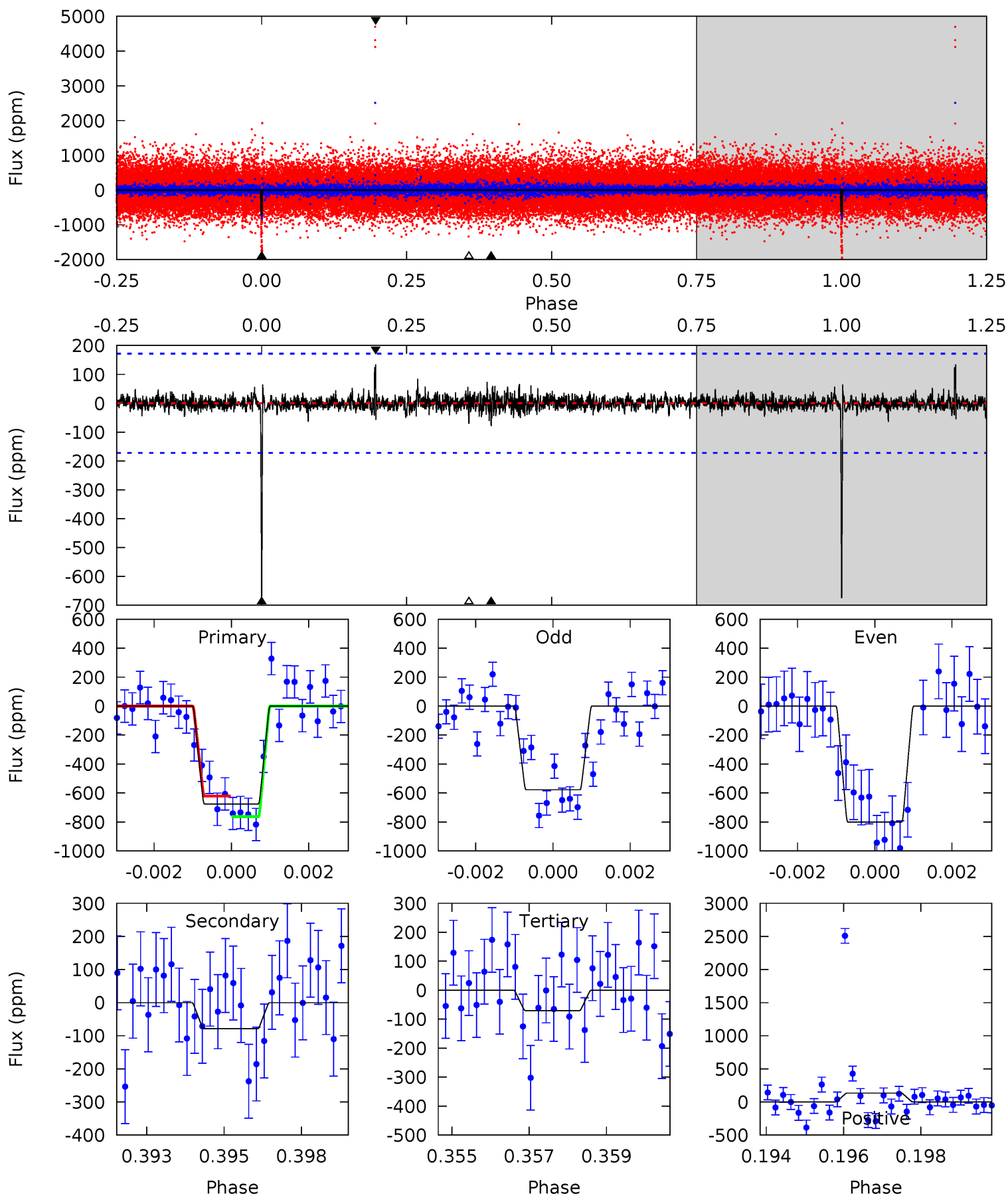
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	14.6	13.9	16.2	5.31	3.07	3.75	-0.46	-2.77	0.67	-1.64	5.92	0.88	0.53	0.80



Alt Model-Shift Uniqueness Test

006035247-01, P = 420.979014 Days, E = 337.855458 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	2.43	2.19	4.15	5.32	3.08	0.50	18.7	16.8	0.25	-1.71	3.28	1.24	0.17	2.19



Stellar Parameters For KIC 006035247

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6112^{+193}_{-214}	$4.400^{+0.090}_{-0.210}$	$-0.120^{+0.250}_{-0.300}$	$1.059^{+0.334}_{-0.143}$	$1.024^{+0.153}_{-0.125}$	$1.214^{+0.472}_{-0.653}$
	+3%/-4%	+2%/-5%	+208%/-250%	+32%/-14%	+15%/-12%	+39%/-54%
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 006035247-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-635 ± 44	$4.21^{+0.76}_{-0.50}$	374^{+27}_{-21}	5197^{+252}_{-223}	23661^{+7087}_{-5890}
Alt.	-79 ± 32	$3.25^{+0.60}_{-0.46}$	374^{+28}_{-22}	3851^{+316}_{-352}	4812^{+3113}_{-2225}

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

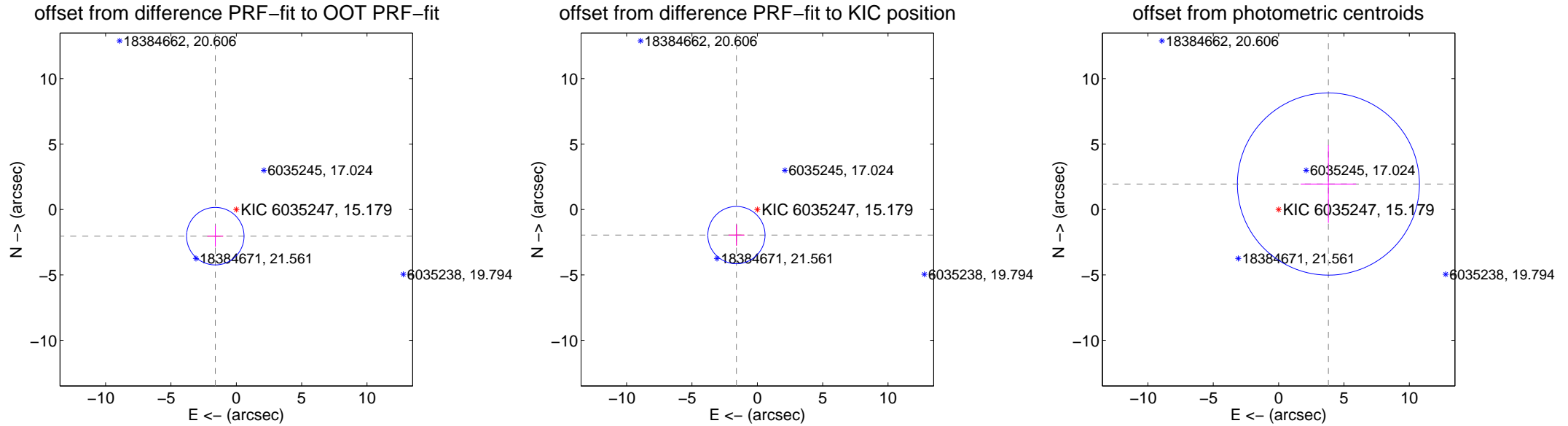
DV Centroid Data

Supplemental centroid analysis for 006035247-01. Kepler magnitude: 15.18. Transit SNR 9.63

There are 0 quarters with good PRF difference image offsets

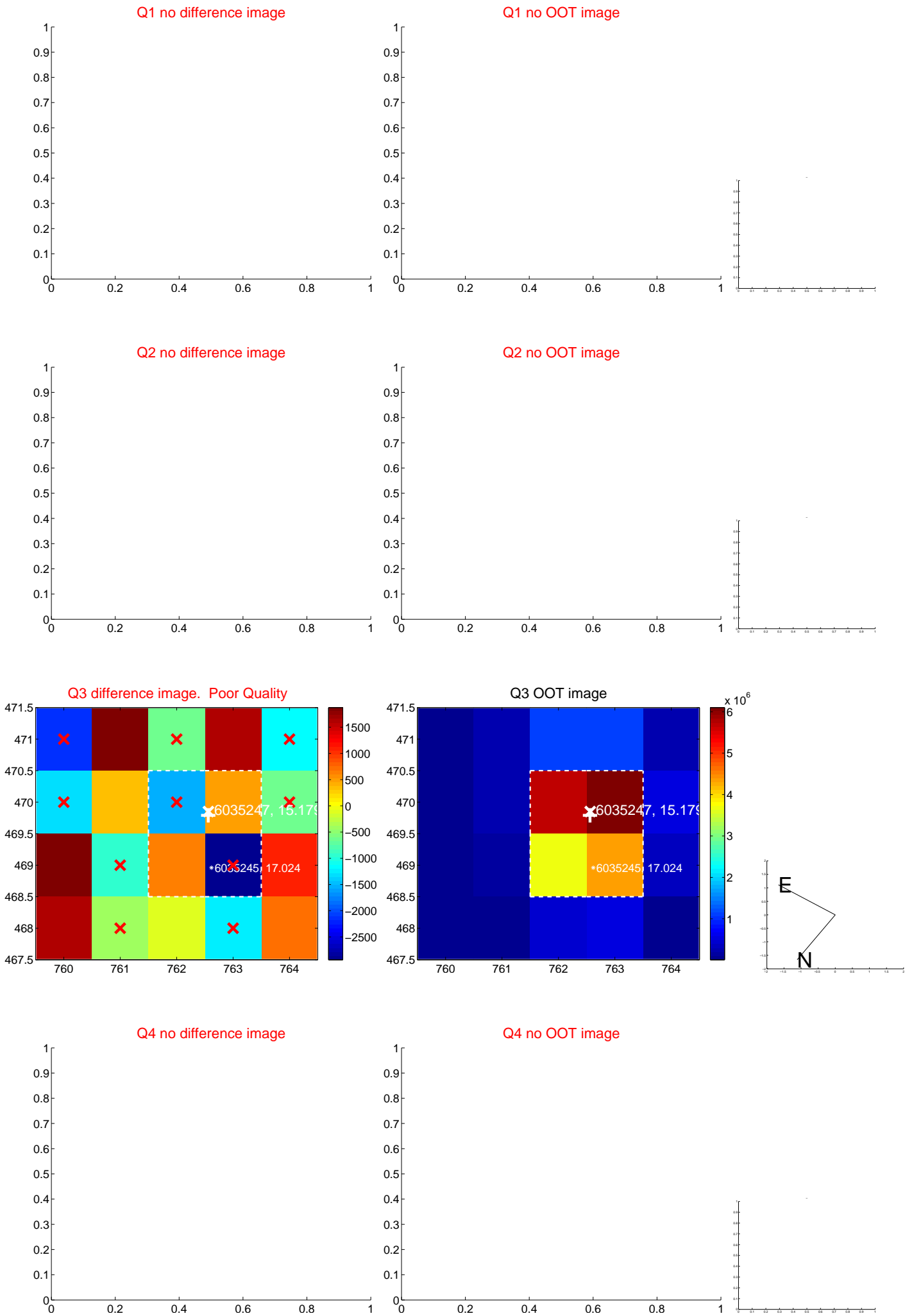
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.597 \pm 0.733	3.54	1.607 \pm 0.601	-2.039 \pm 0.803
PRF-fit source offset from KIC position	2.527 \pm 0.729	3.47	1.598 \pm 0.601	-1.957 \pm 0.803
photometric centroid source offset	4.28 \pm 2.32	1.84	-3.81 \pm 2.12	1.94 \pm 2.97

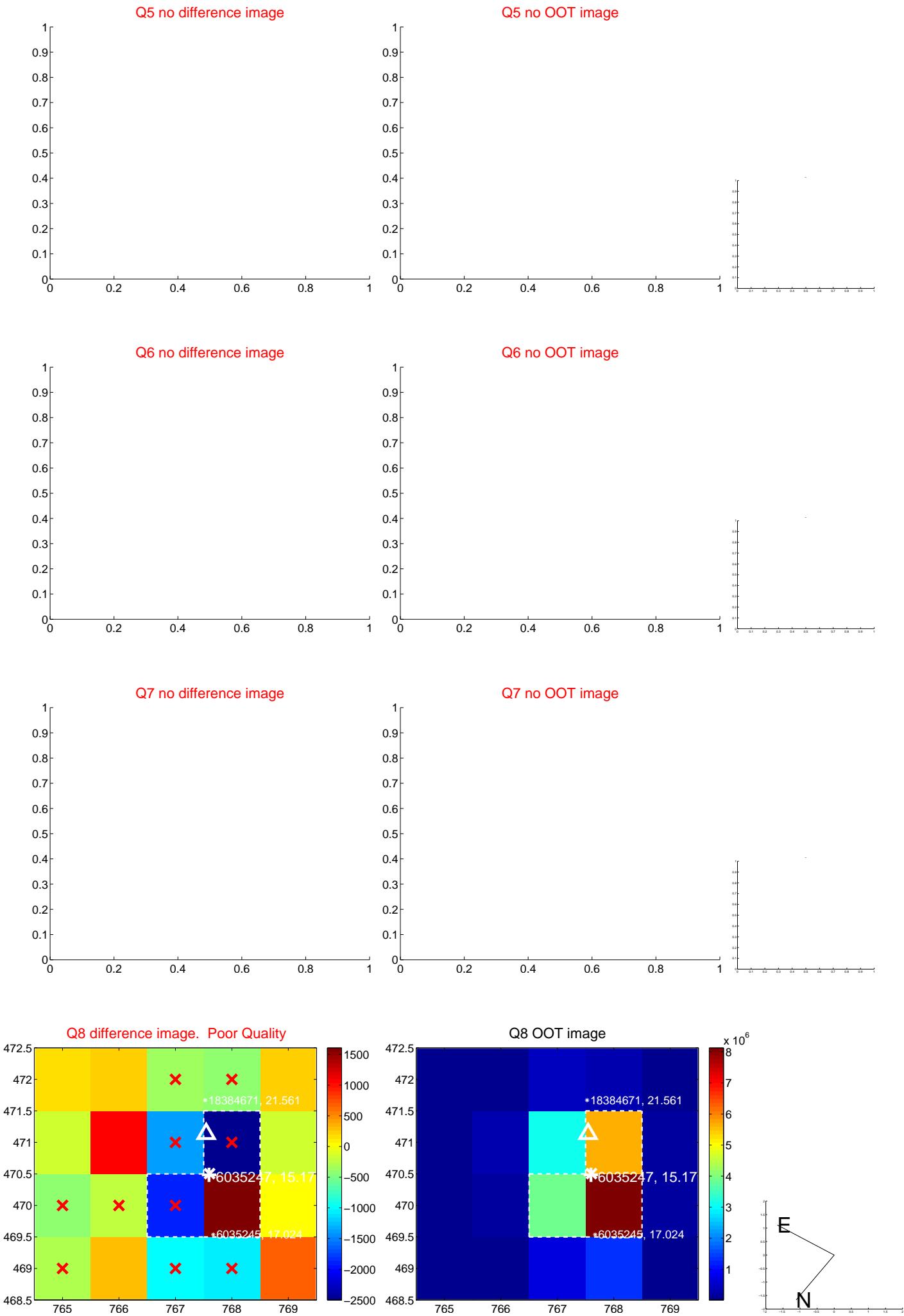


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



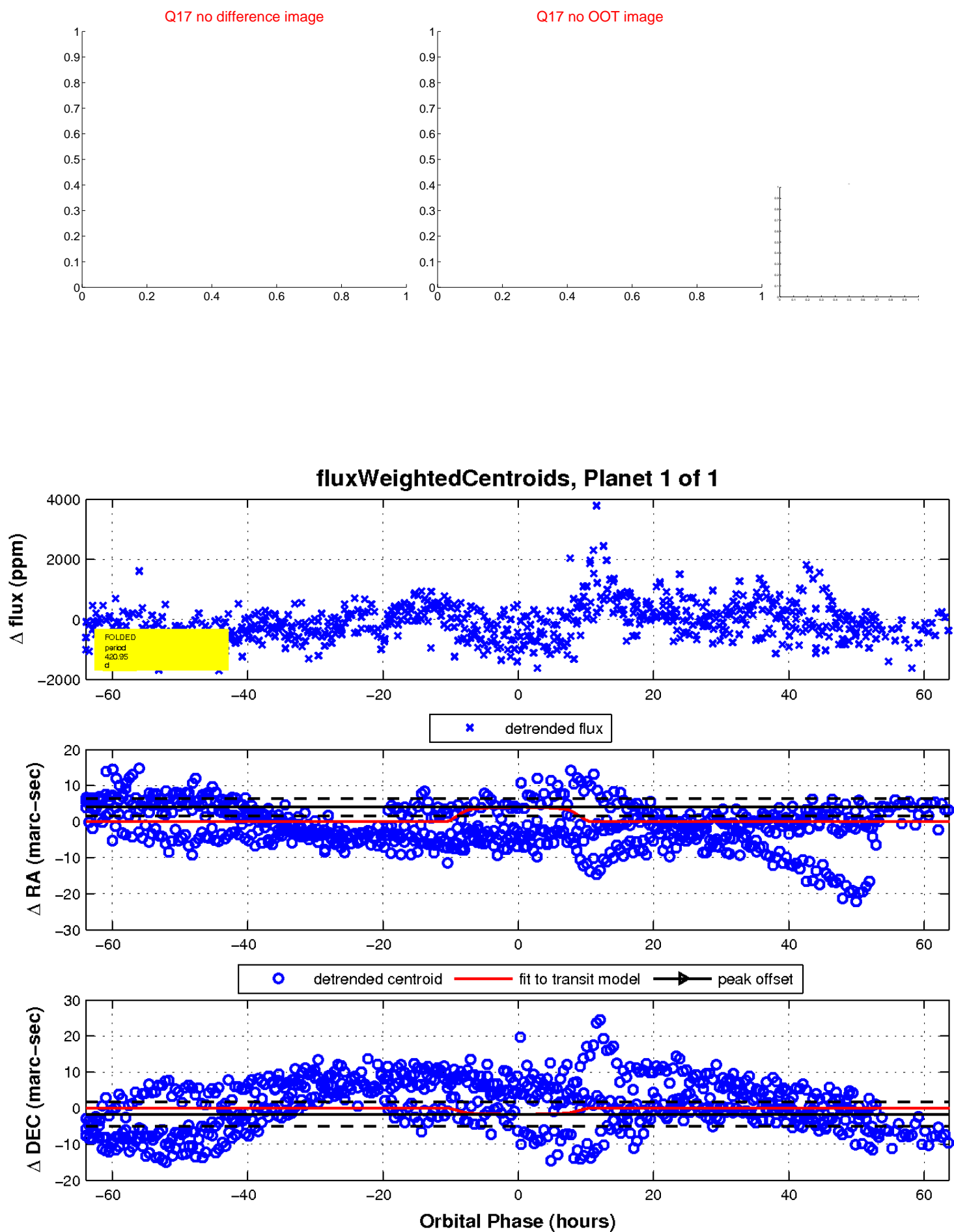
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

