

KIC 007676846

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})
007676846-01	OBS	No	370.470268	501.110364	251.2	5.593	7.2	7.2	1.33	6577	2.34	2.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007676846-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

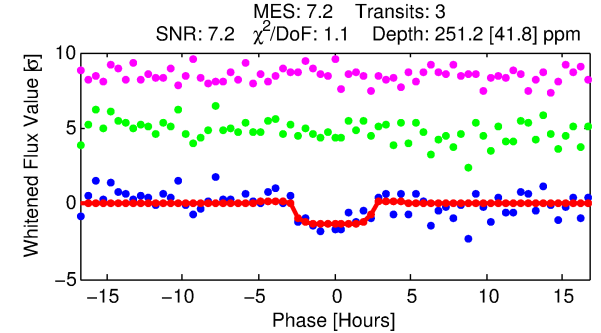
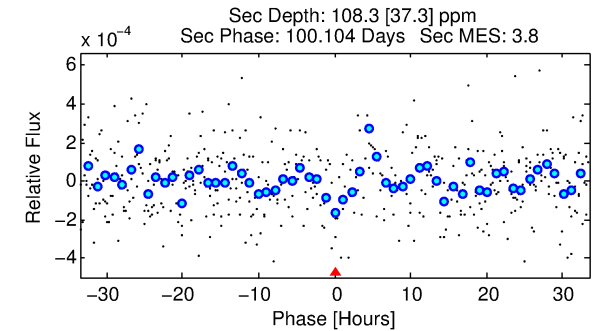
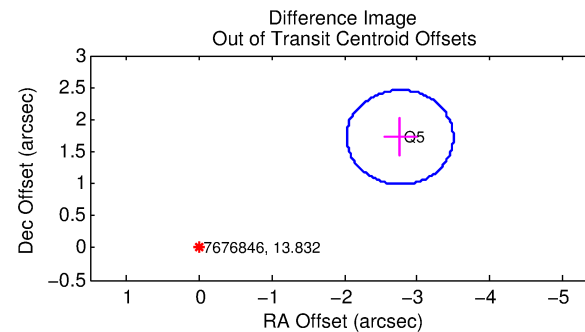
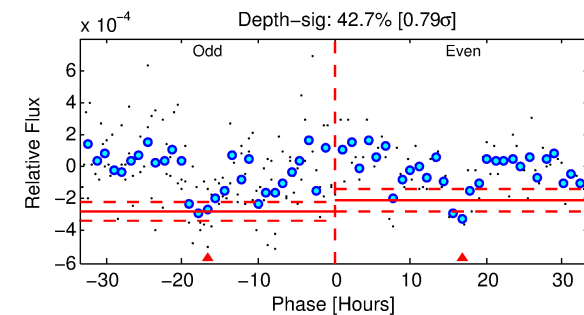
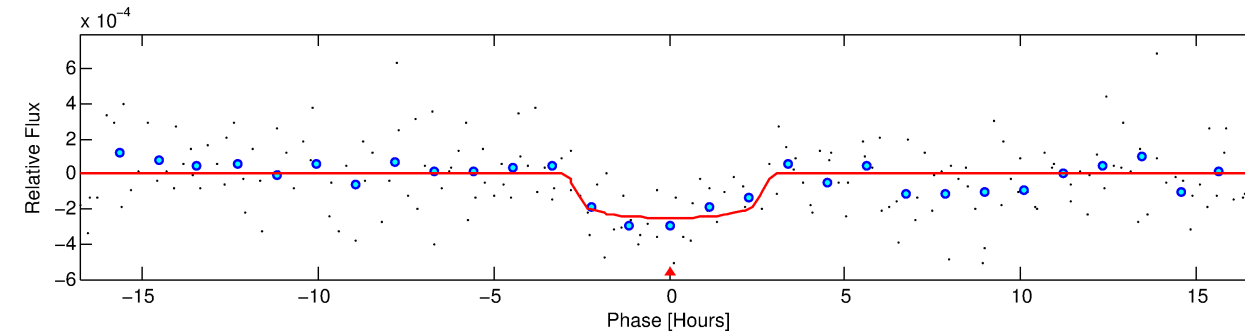
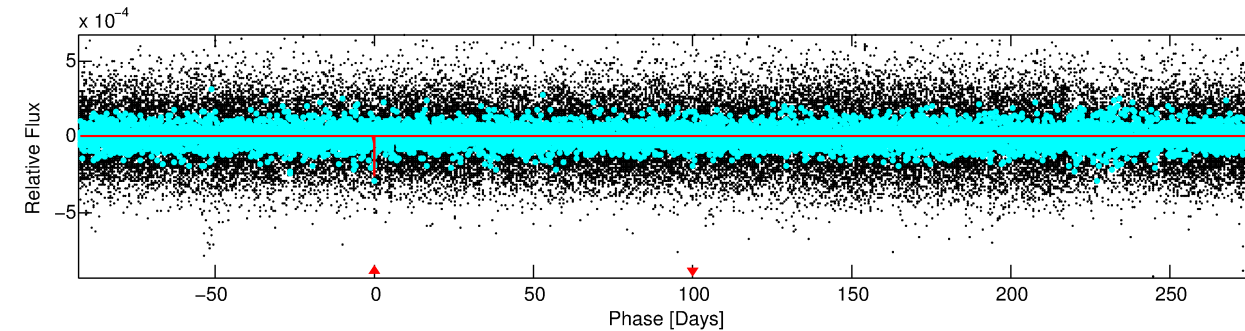
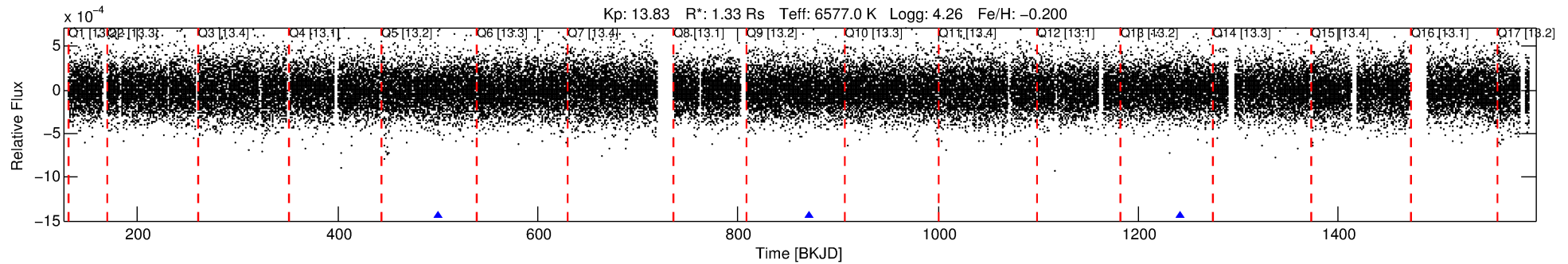
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007676846-01

No Significant Match Found

DV One-Page Summary

KIC: 7676846 Candidate: 1 of 1 Period: 370.470 d



DV Fit Results:

Period = 370.47027 [0.01162] d
Epoch = 501.1104 [0.0154] BKJD
Rp/R* = 0.0161 [0.0237]
a/R* = 309.83 [2561.47]
b = 0.81 [3.53]
Seff = 2.60 [1.02]
Teq = 324 [32] K
Rp = 2.34 [3.52] Re
a = 1.0709 [0.2727] AU
Ag = 12444.92 [37106.30] [0.34 σ]
Teffp = 5286 [3914] K [1.27 σ]

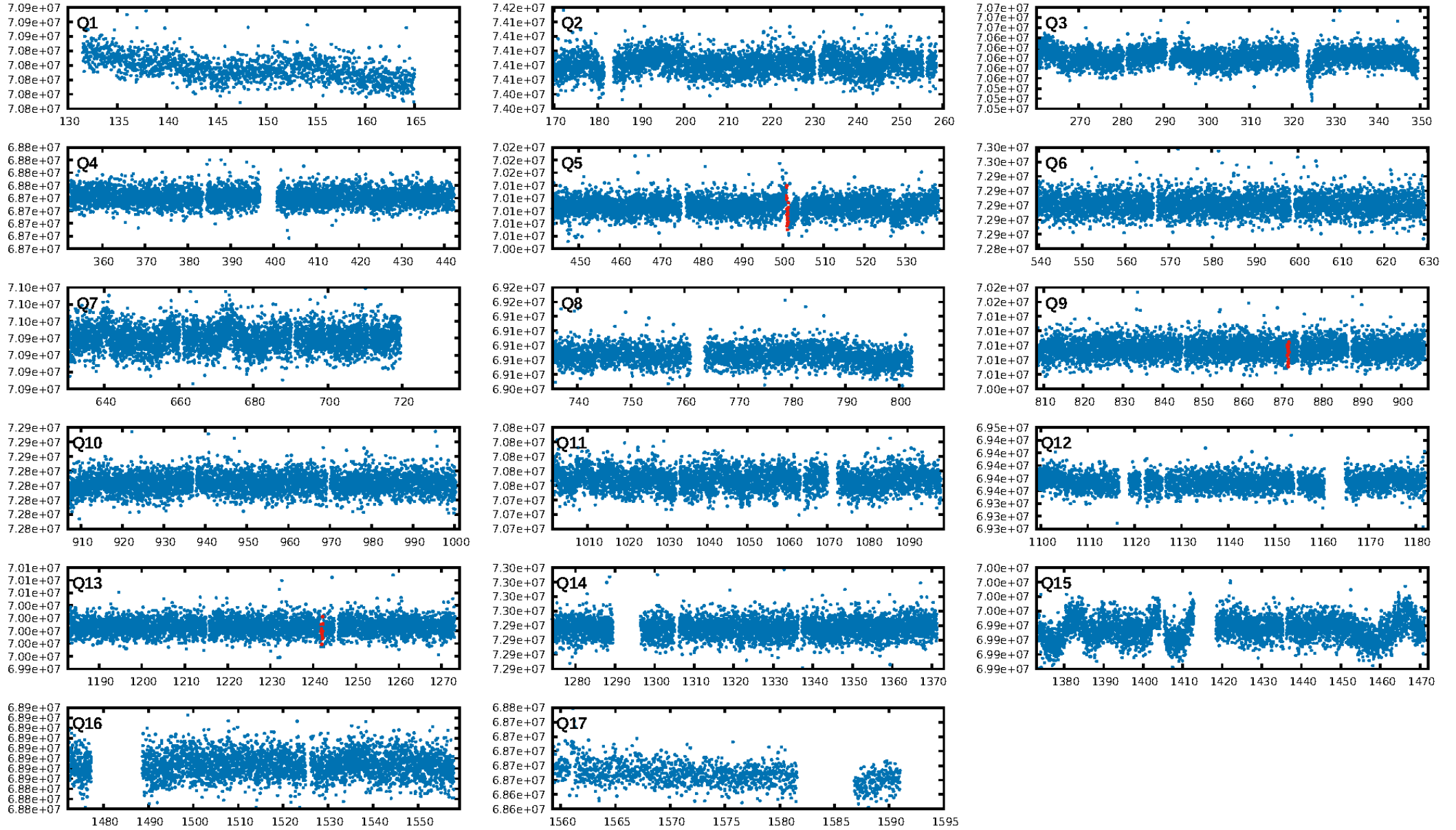
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.1%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 3.93e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.83
Centroid-sig: 41.2%
Centroid-so: 1.752 arcsec [0.91 σ]
OotOffset-rm: 3.257 arcsec [13.31 σ]
KicOffset-rm: 3.311 arcsec [13.20 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

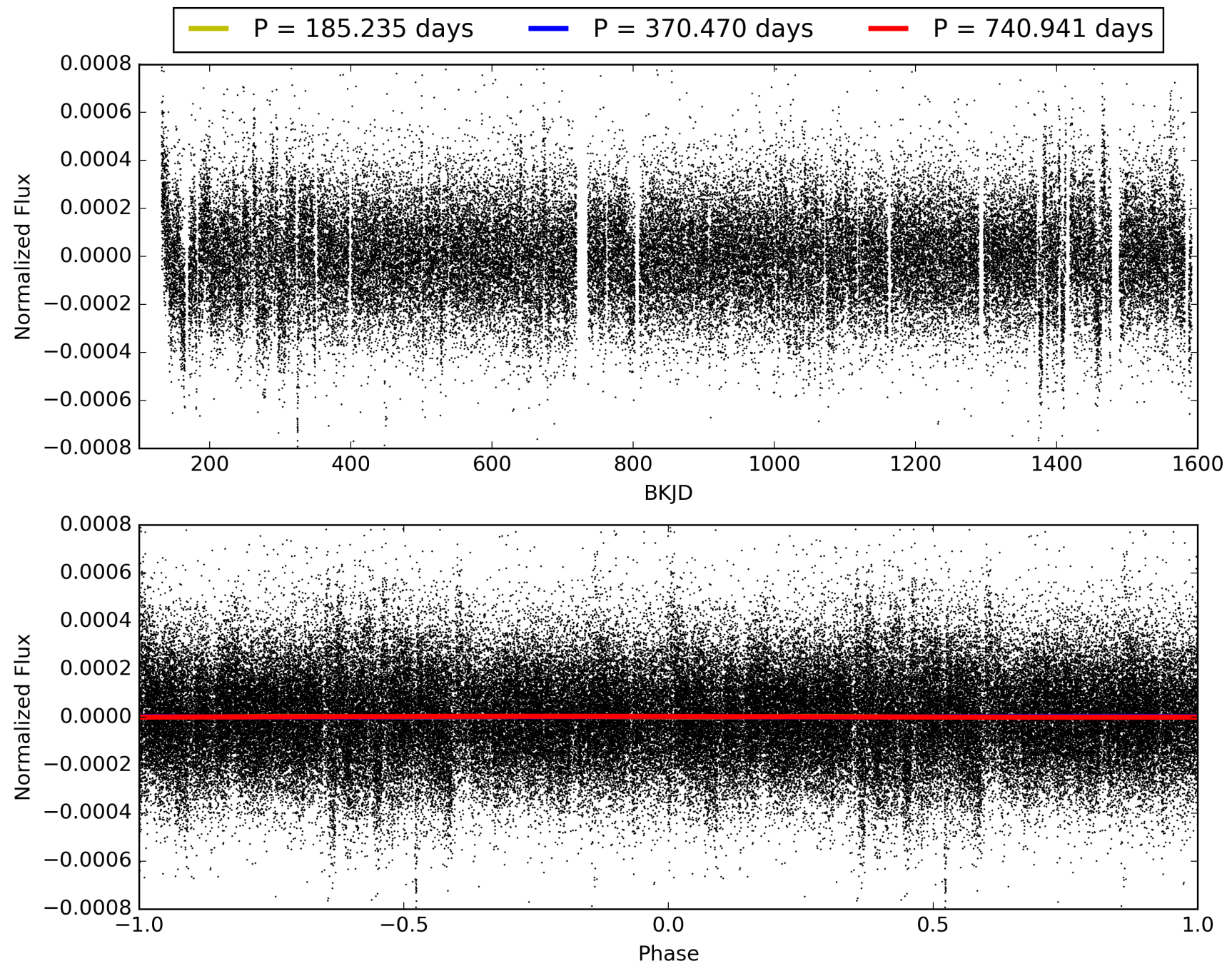
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:30:00 Z

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

TCE 007676846-01, PDC Light Curves

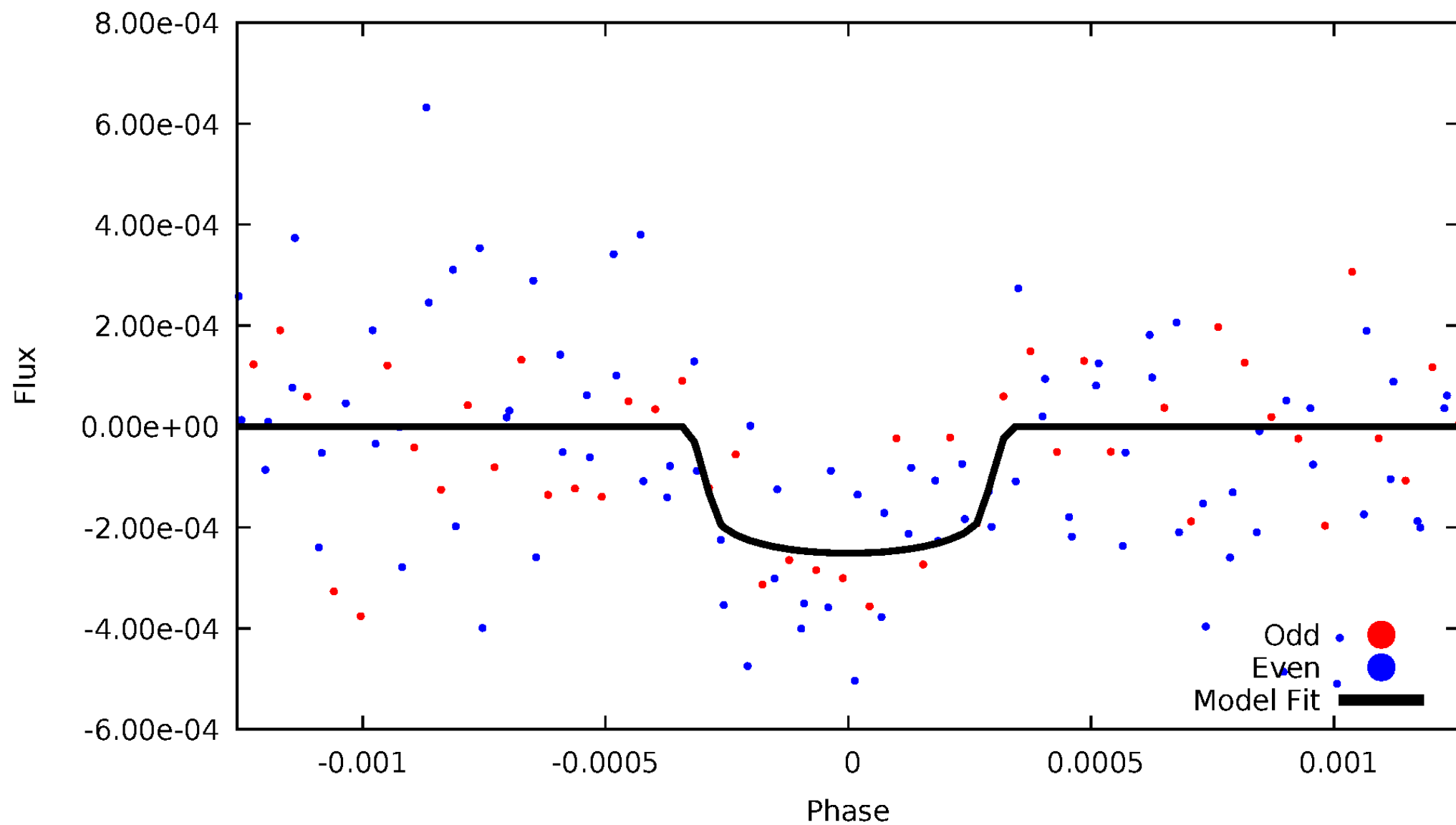


TCE 007676846-01



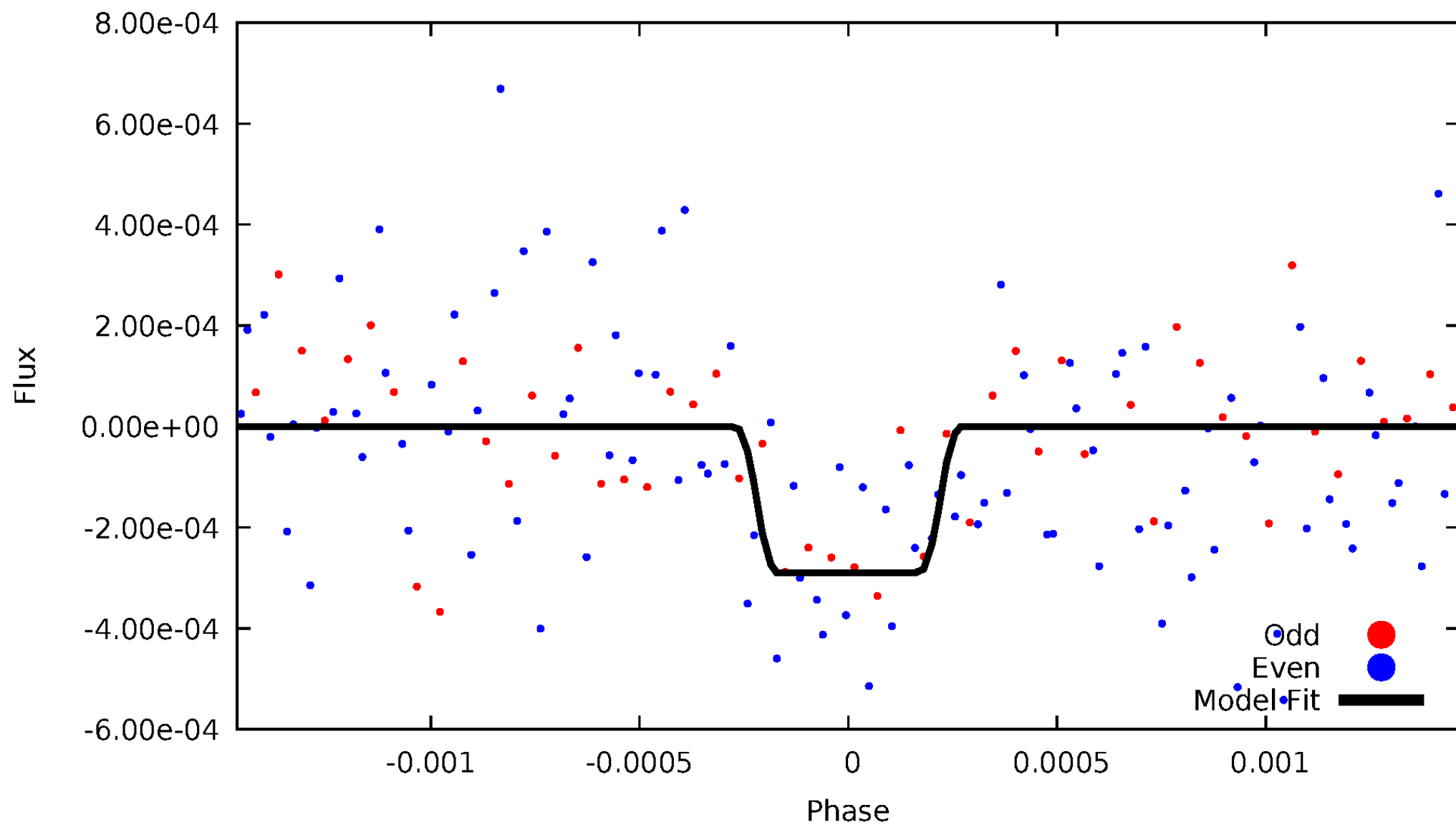
DV Odd/Even

TCE 007676846-01



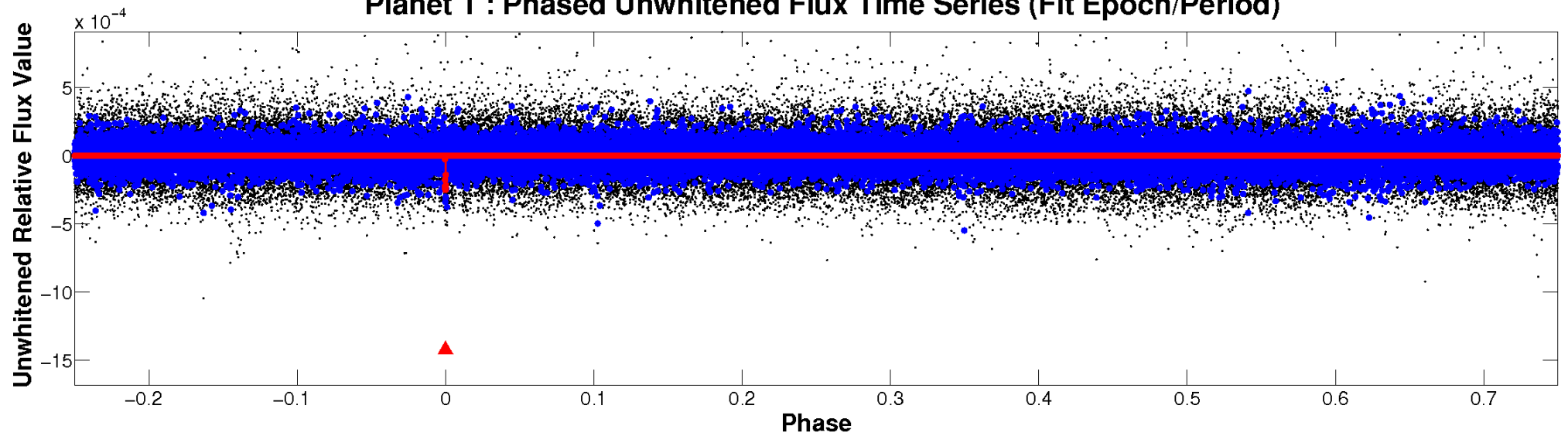
ALT Odd/Even

TCE 007676846-01

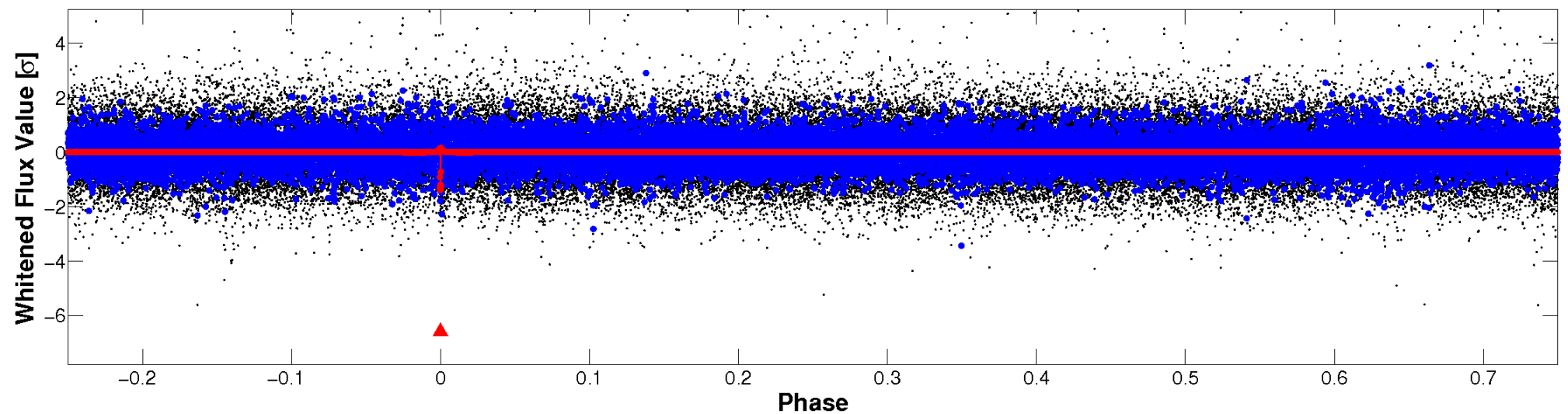


Non-Whitened Vs. Whitened Light Curve

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

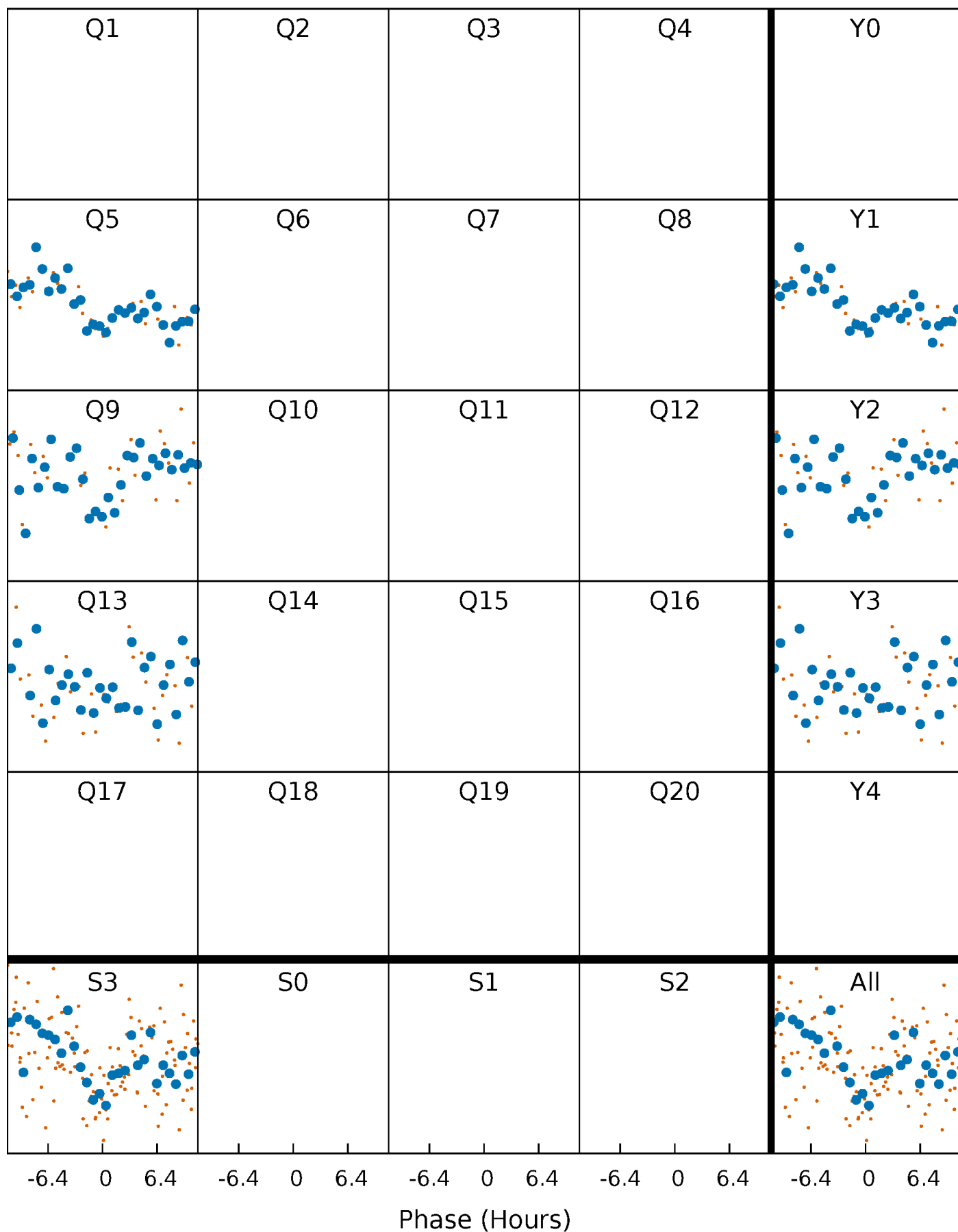


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007676846-01 P=370.470268 Days $T_0=501.110364$ (BKJD)



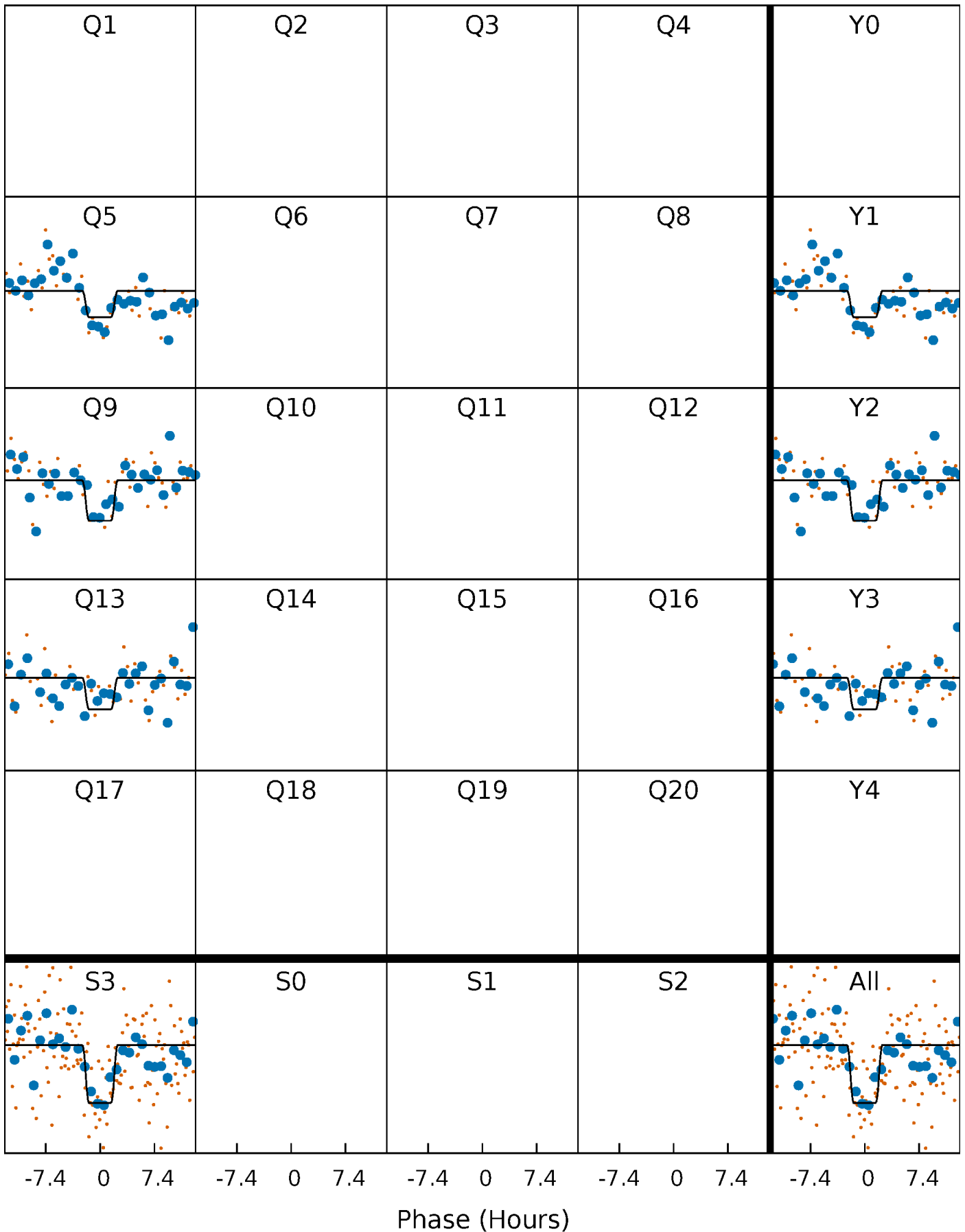
DV Quarter-Phased Transit Curves

TCE 007676846-01 P=370.470268 Days $T_0=501.110364$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

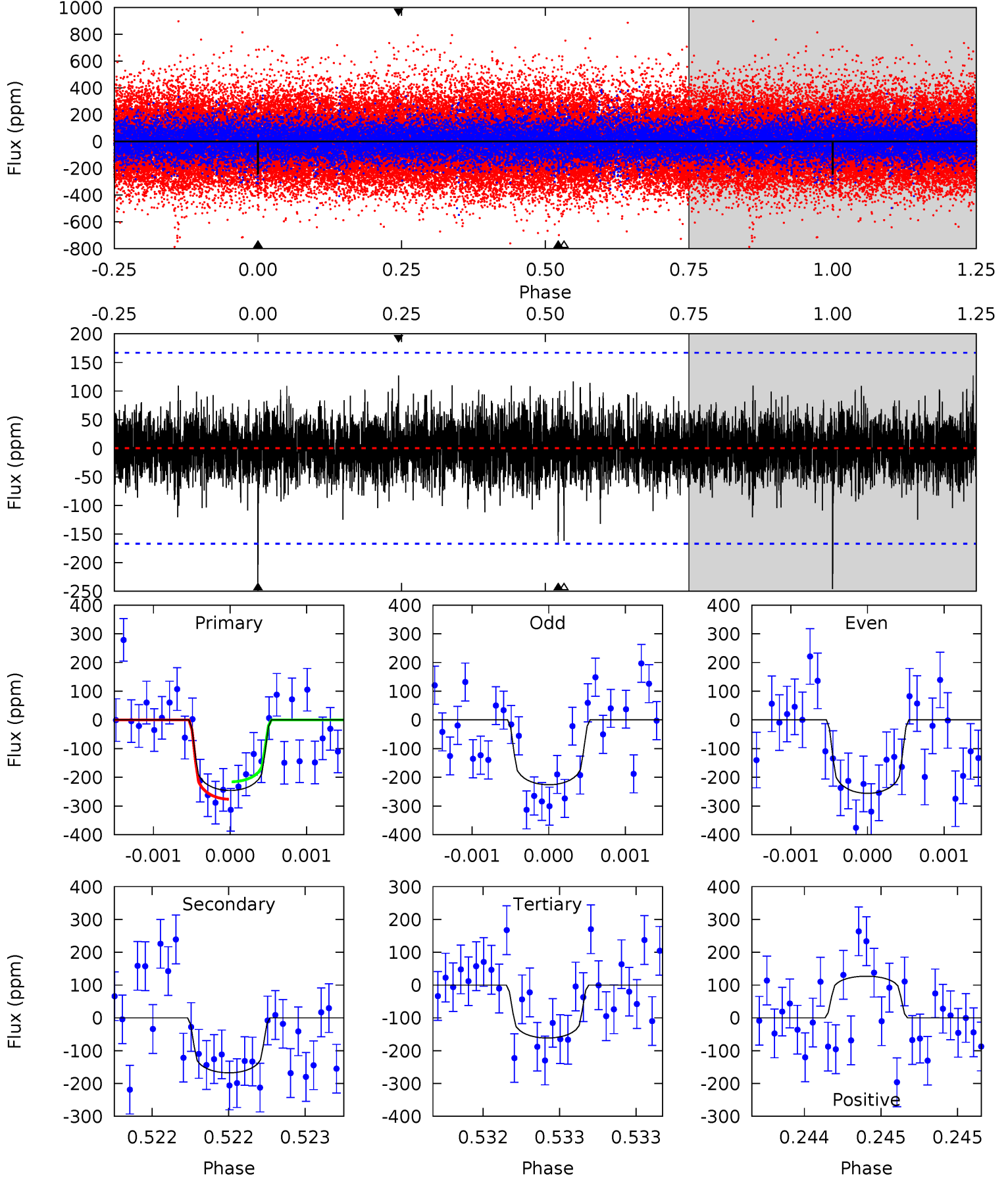
TCE 007676846-01 P=370.474065 Days $T_0=501.096979$ (BKJD)



DV Model-Shift Uniqueness Test

007676846-01, P = 370.470268 Days, E = 130.640096 Days

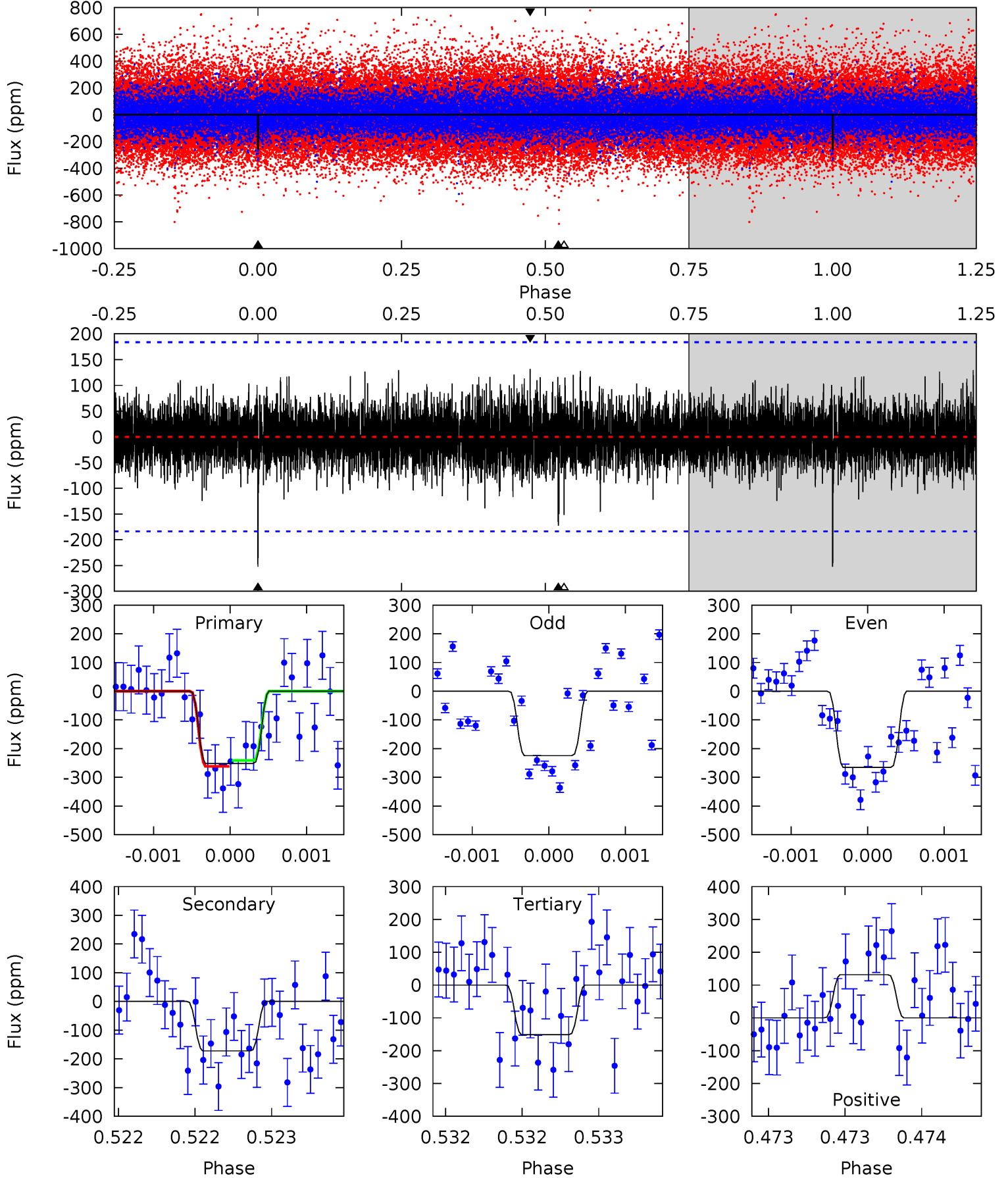
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.15	5.55	5.35	4.21	5.53	3.42	1.09	2.80	3.94	0.20	1.34	0.47	1.09	0.34	1.01



Alt Model-Shift Uniqueness Test

007676846-01, P = 370.474065 Days, E = 130.622914 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.64	5.22	4.58	3.99	5.56	3.46	1.07	3.06	3.65	0.64	1.23	0.59	1.12	0.34	0.32



Stellar Parameters For KIC 007676846

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6577^{+155}_{-214}	$4.265^{+0.109}_{-0.202}$	$-0.200^{+0.250}_{-0.300}$	$1.333^{+0.404}_{-0.218}$	$1.197^{+0.192}_{-0.174}$	$0.711^{+0.430}_{-0.363}$
	+2%/-3%	+3%/-5%	+125%/-150%	+30%/-16%	+16%/-15%	+60%/-51%
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 007676846-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-167 ± 30	$3.55^{+2.85}_{-2.41}$	458^{+36}_{-26}	4965^{+4019}_{-1038}	8503^{+74921}_{-6099}
Alt.	-172 ± 33	$3.65^{+3.18}_{-2.35}$	459^{+33}_{-28}	4929^{+3467}_{-1035}	7762^{+52489}_{-5525}

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

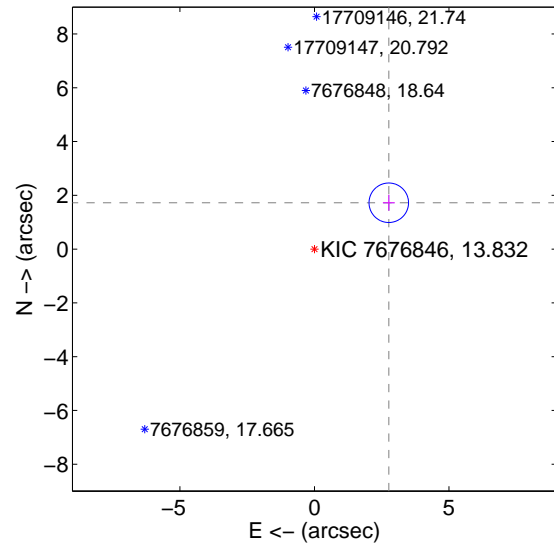
Supplemental centroid analysis for 007676846-01. Kepler magnitude: 13.83. Transit SNR 7.16

There are 1 quarters with good PRF difference image offsets

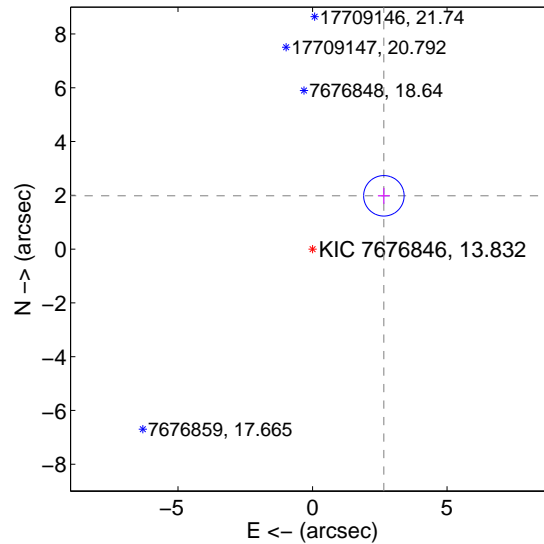
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.257 ± 0.245	13.31	-2.764 ± 0.221	1.723 ± 0.296
PRF-fit source offset from KIC position	3.311 ± 0.251	13.20	-2.653 ± 0.221	1.981 ± 0.296
photometric centroid source offset	1.75 ± 1.92	0.91	1.33 ± 2.05	-1.14 ± 1.71

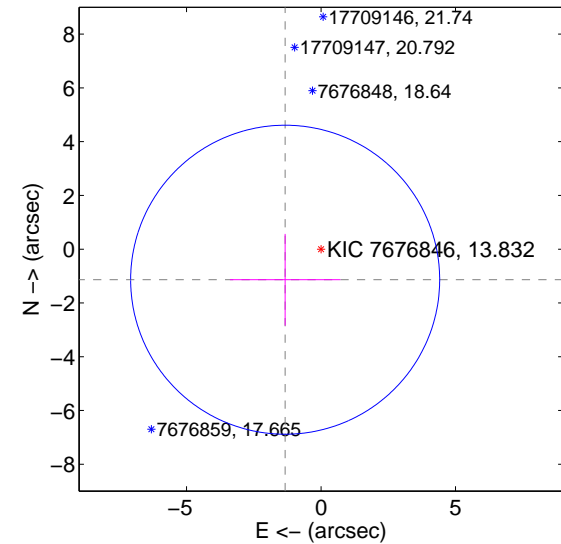
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

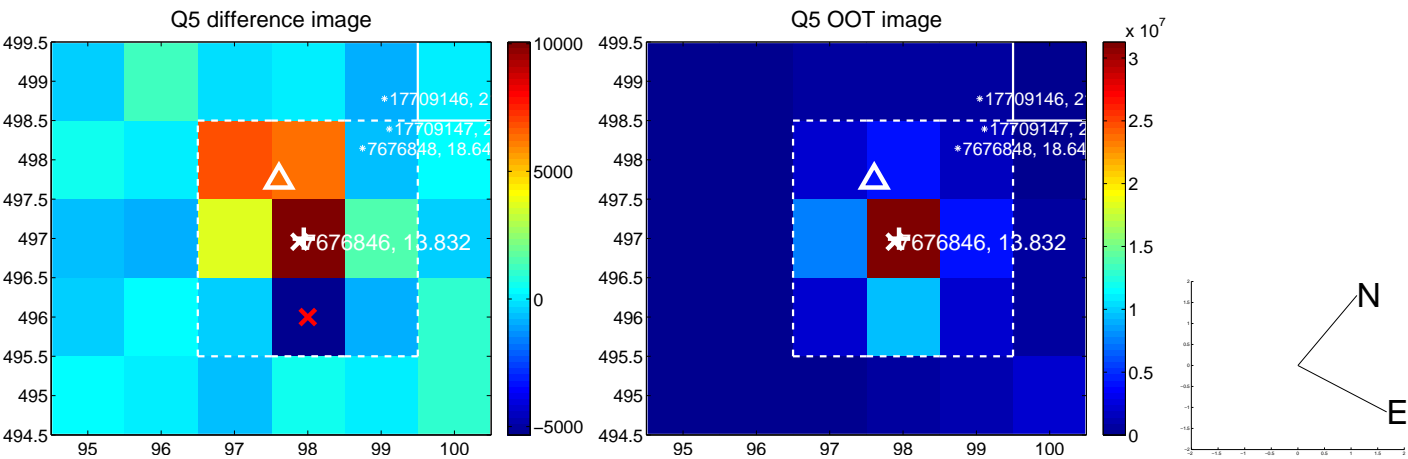


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

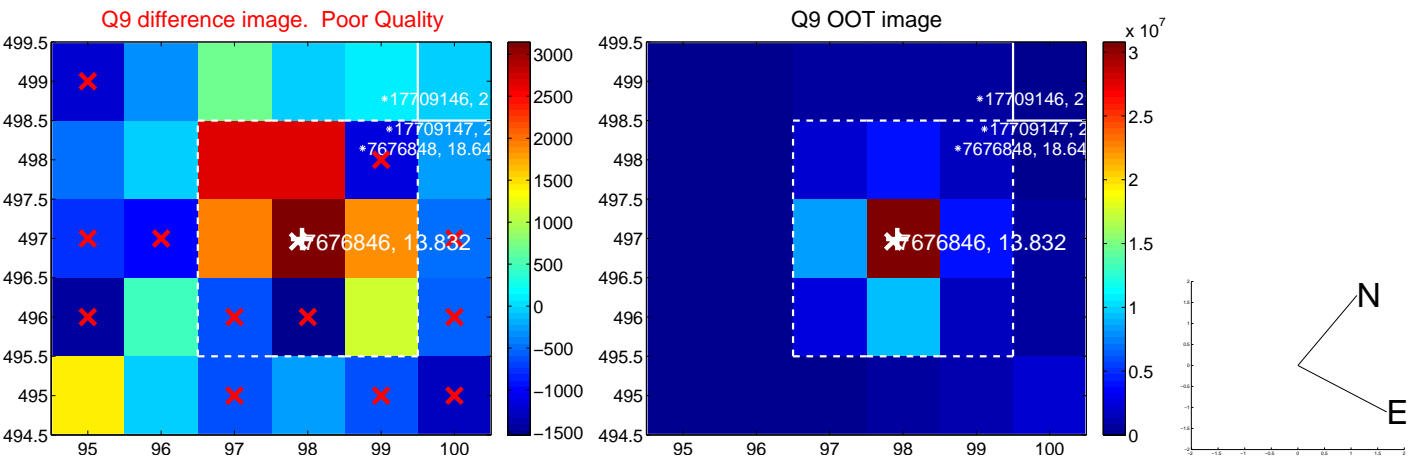
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



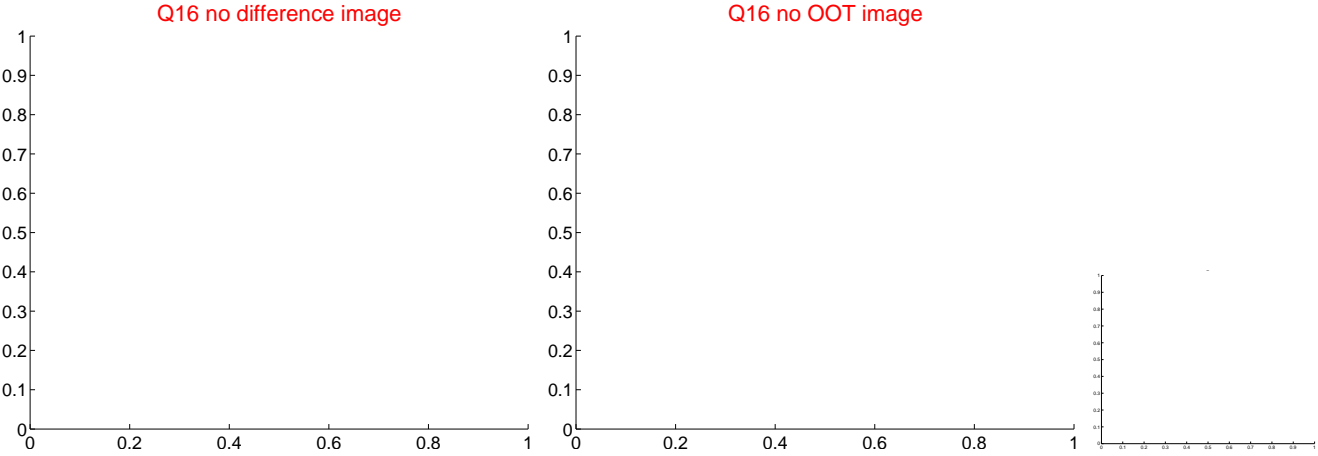
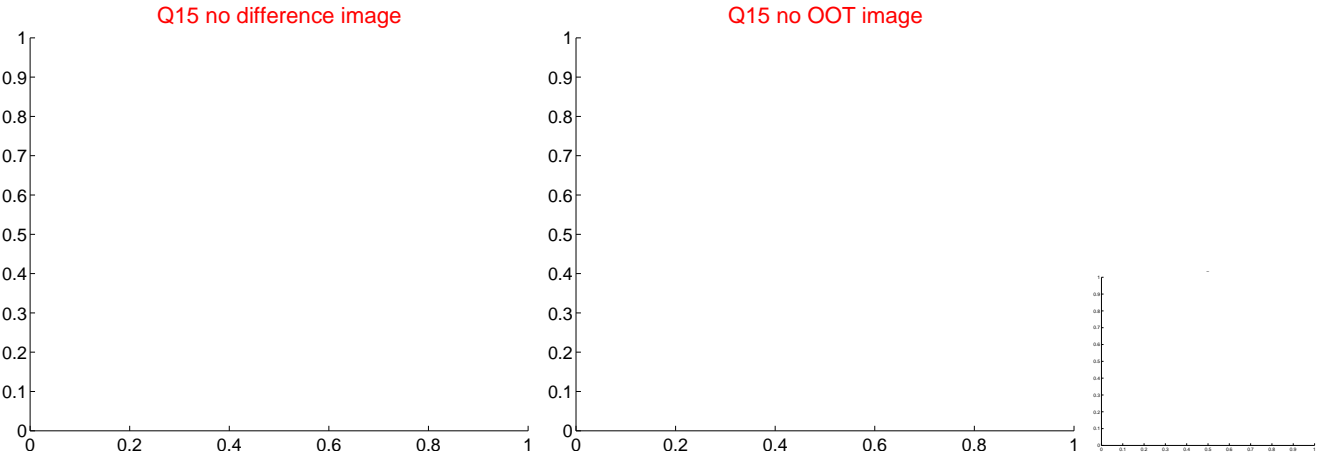
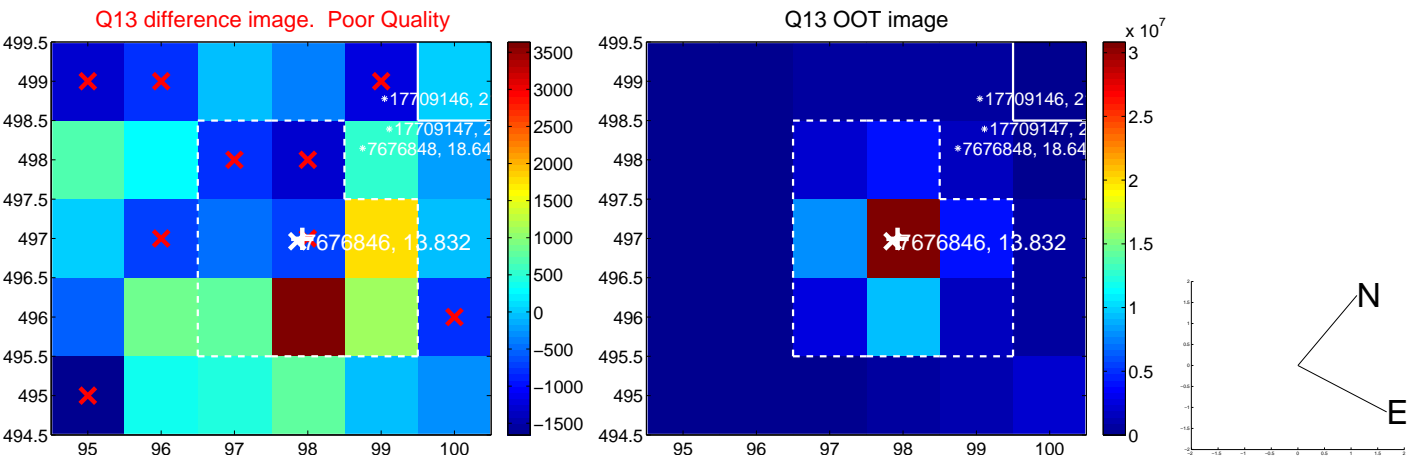
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



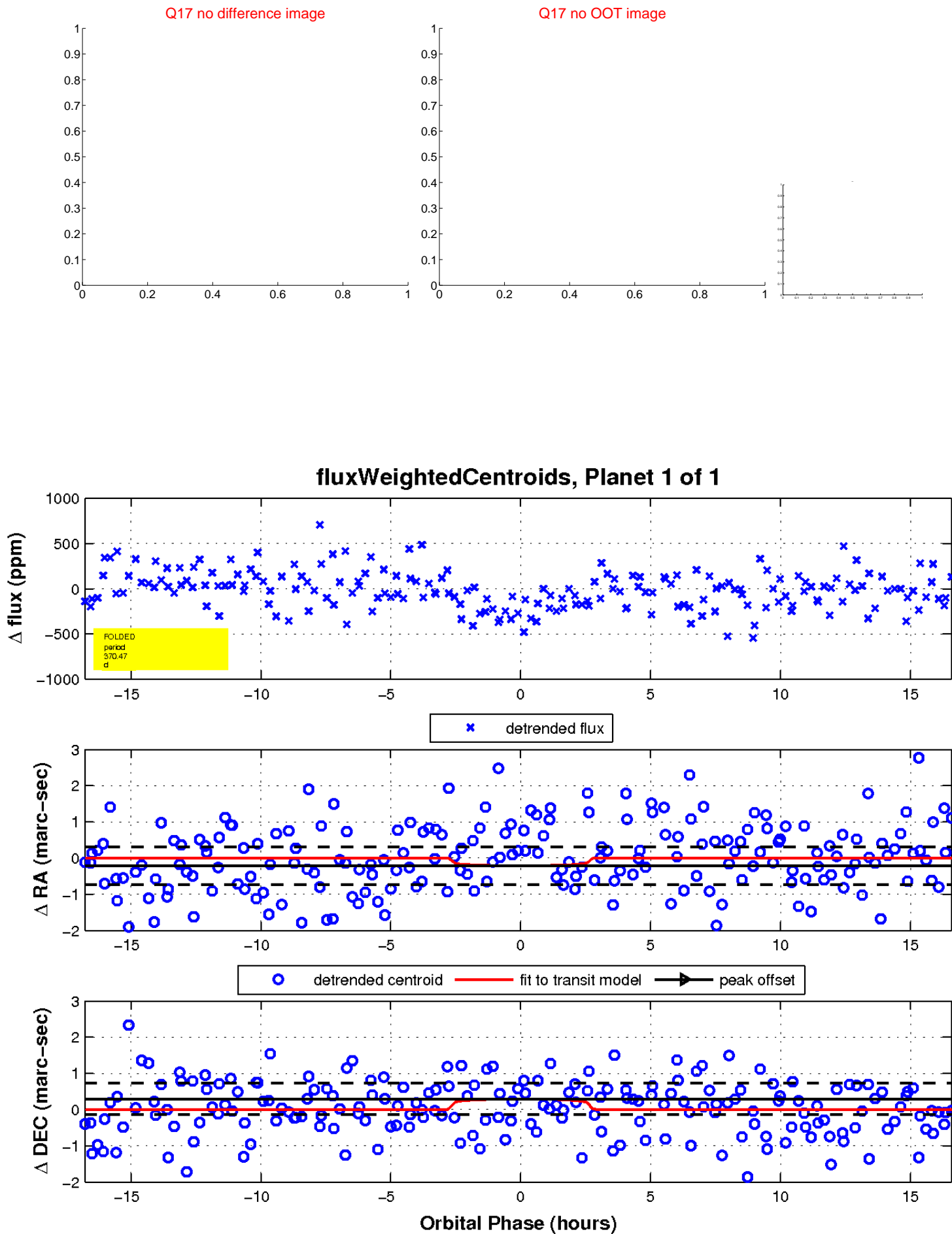
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

