

KIC 006865828

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})
006865828-01	OBS	No	382.313195	420.545392	1442.8	4.395	7.5	7.3	1.04	6173	4.31	1.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006865828-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

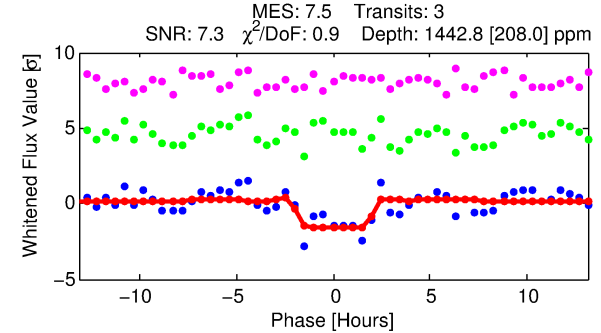
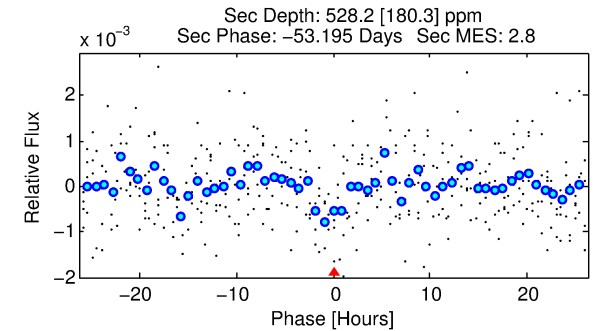
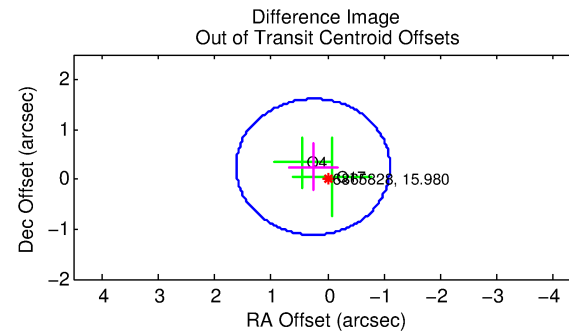
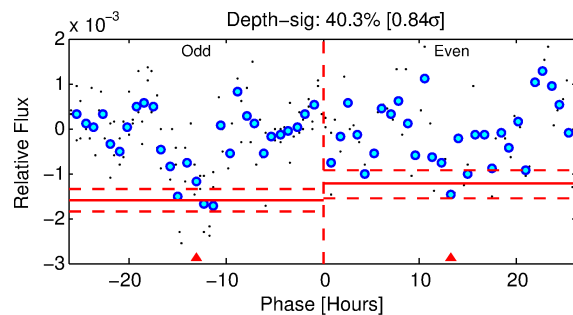
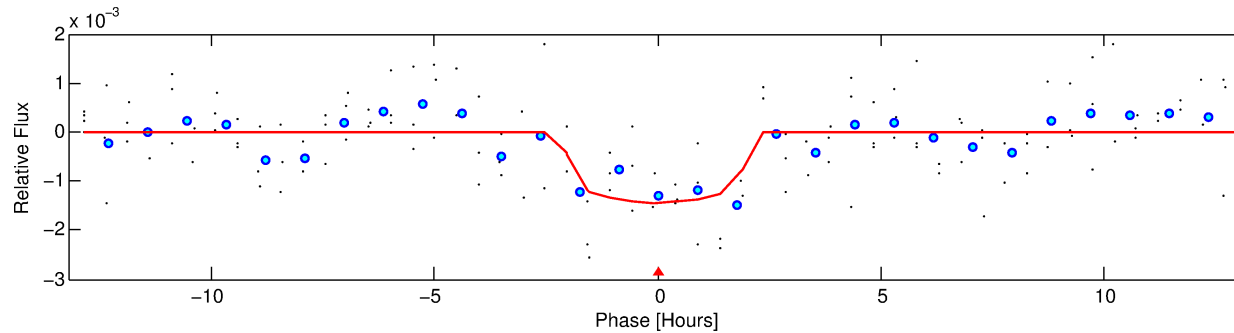
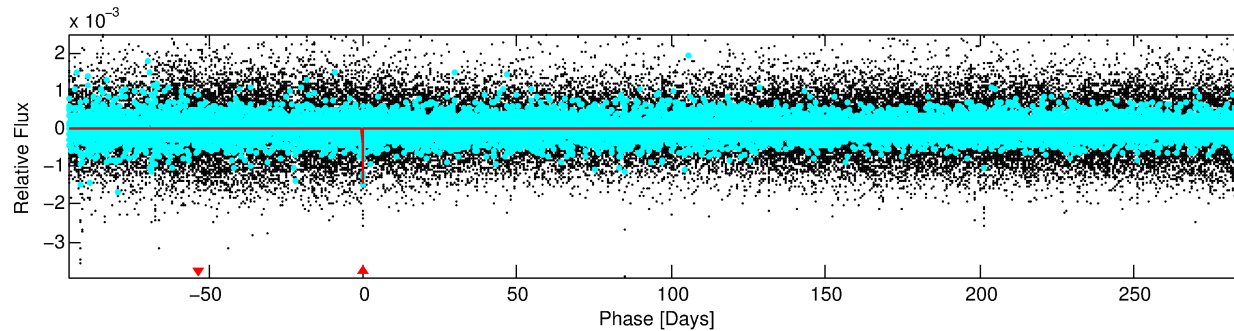
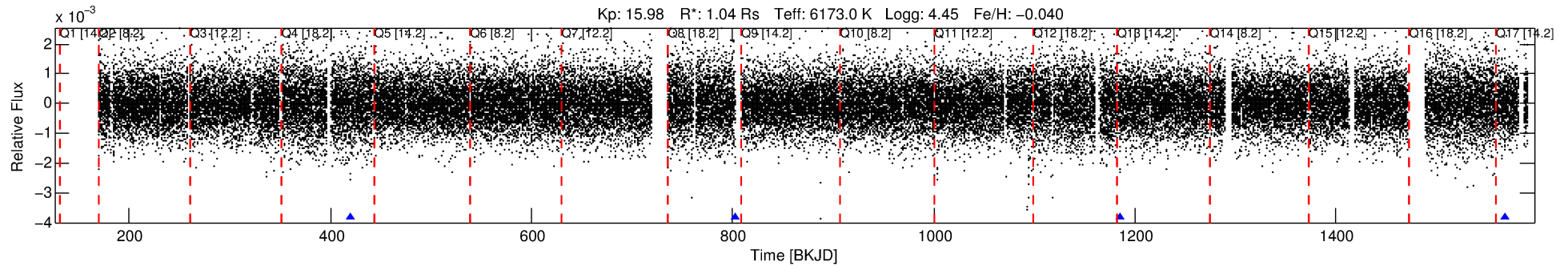
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006865828-01

No Significant Match Found

DV One-Page Summary

KIC: 6865828 Candidate: 1 of 1 Period: 382.313 d



DV Fit Results:

Period = 382.31319 [0.00506] d
Epoch = 420.5454 [0.0120] BKJD
Rp/R* = 0.0380 [0.0458]
a/R* = 468.24 [2818.66]
b = 0.76 [3.33]
Seff = 1.24 [0.51]
Teq = 269 [28] K
Rp = 4.31 [5.38] Re
a = 1.0665 [0.2792] AU
Ag = 17767.59 [43835.39] [0.41 σ]
Teffp = 4803 [2933] K [1.55 σ]

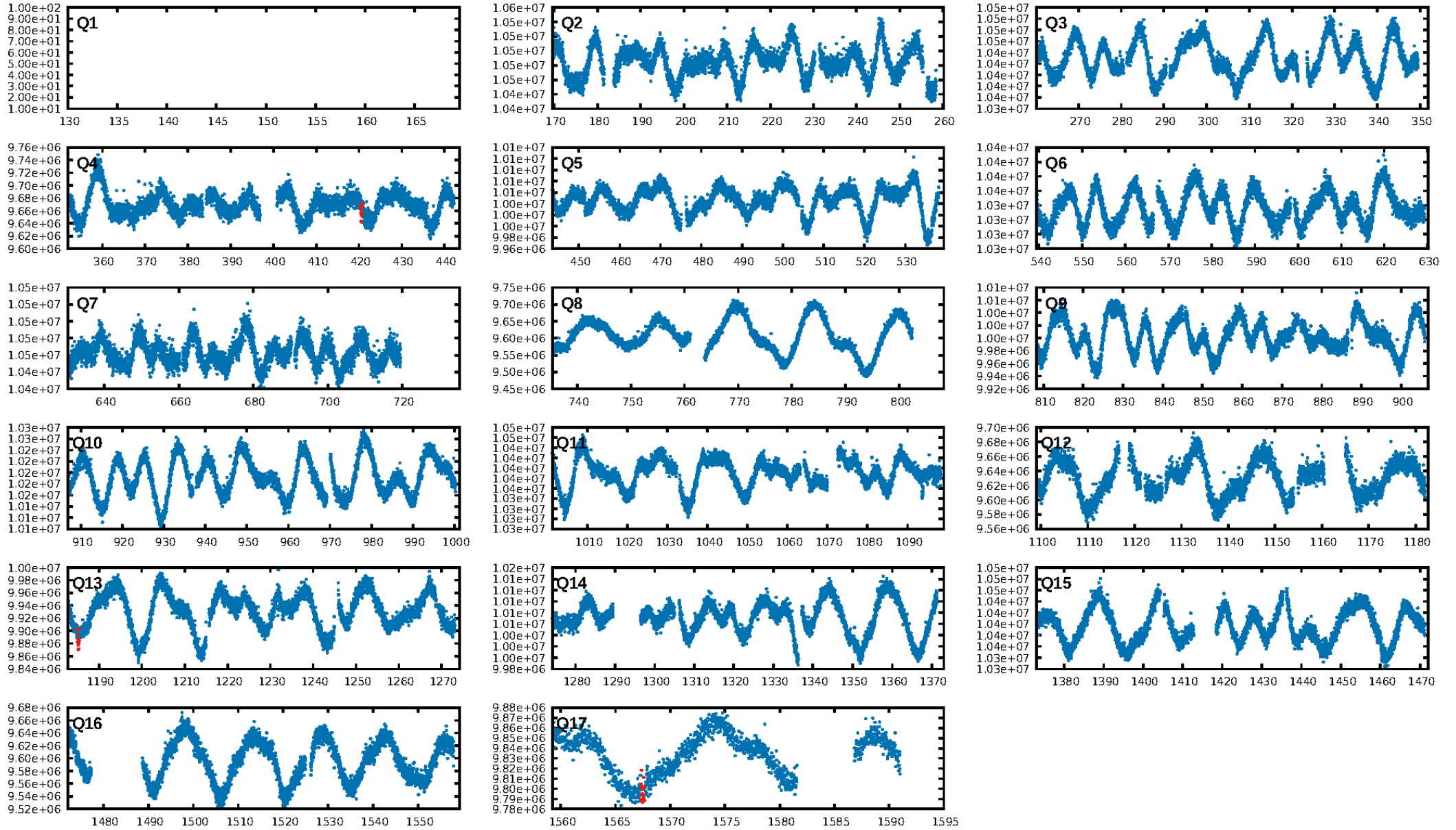
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 54.6%
ModelChiSquareGof-sig: 97.1%
Bootstrap-pfa: 3.01e-09
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -3.779
Centroid-sig: 46.1%
Centroid-so: 1.037 arcsec [0.71 σ]
OotOffset-rm: 0.355 arcsec [0.78 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 0.259 arcsec [0.56 σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

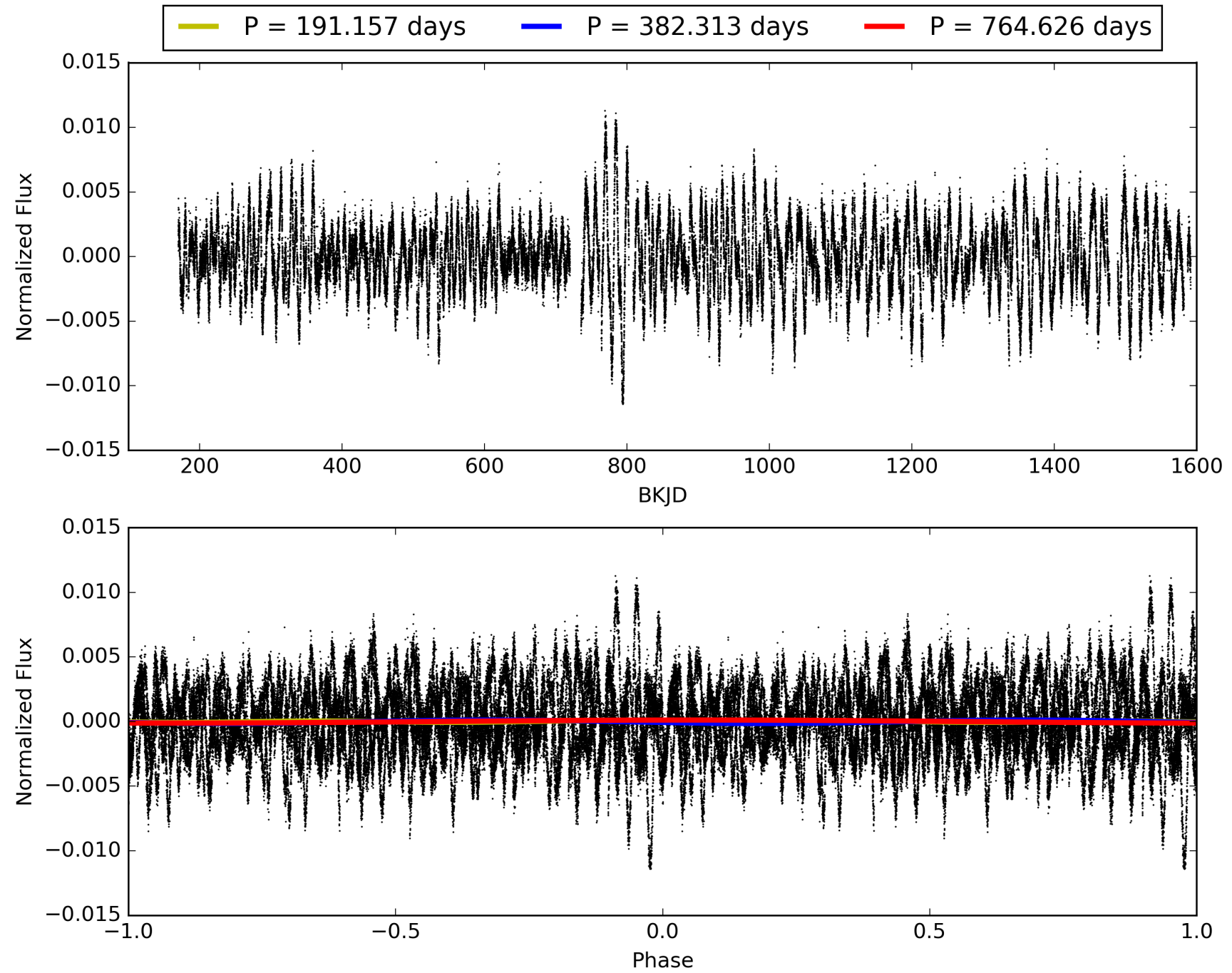
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:37:49 Z

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

TCE 006865828-01, PDC Light Curves

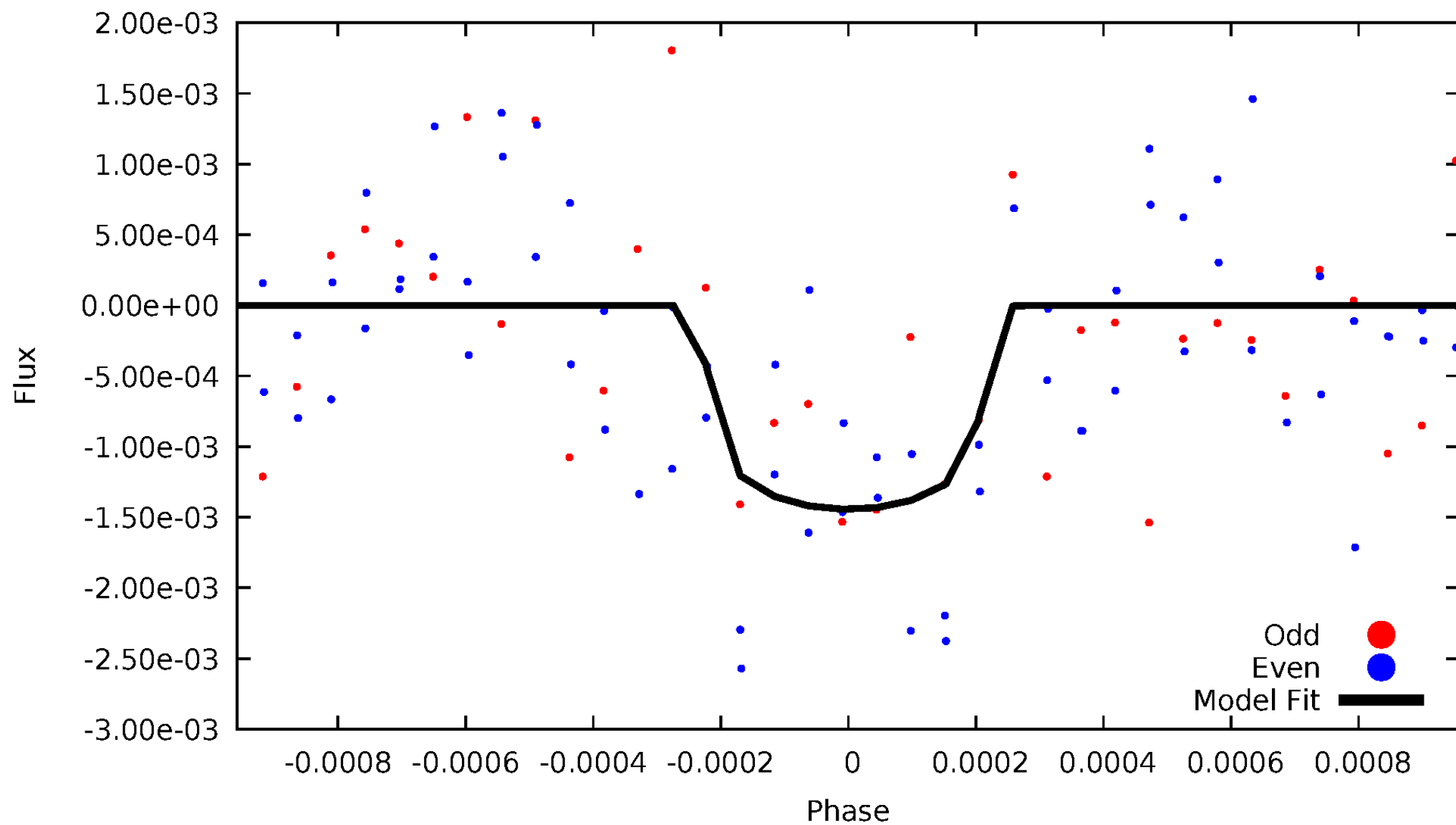


TCE 006865828-01



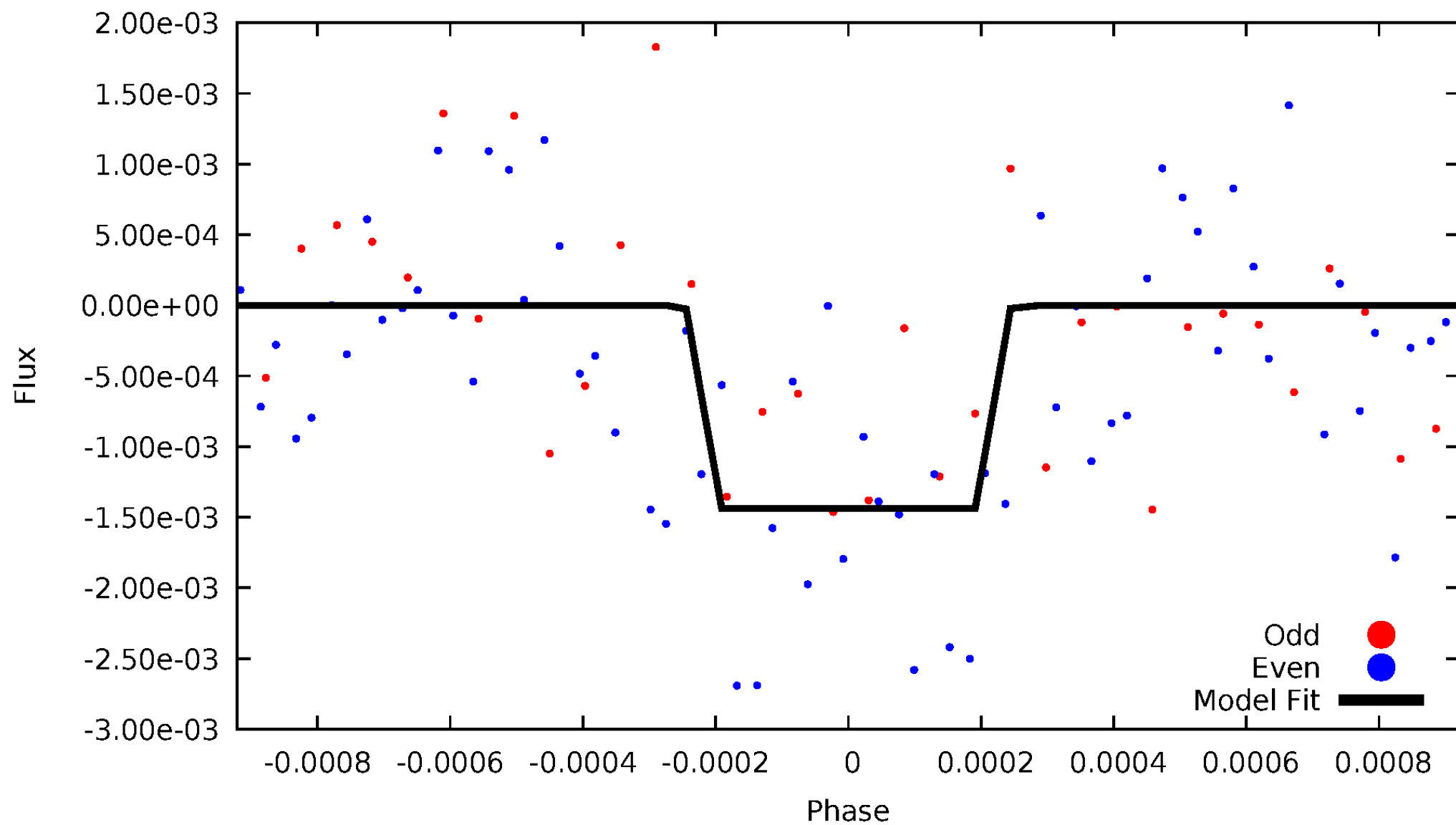
DV Odd/Even

TCE 006865828-01

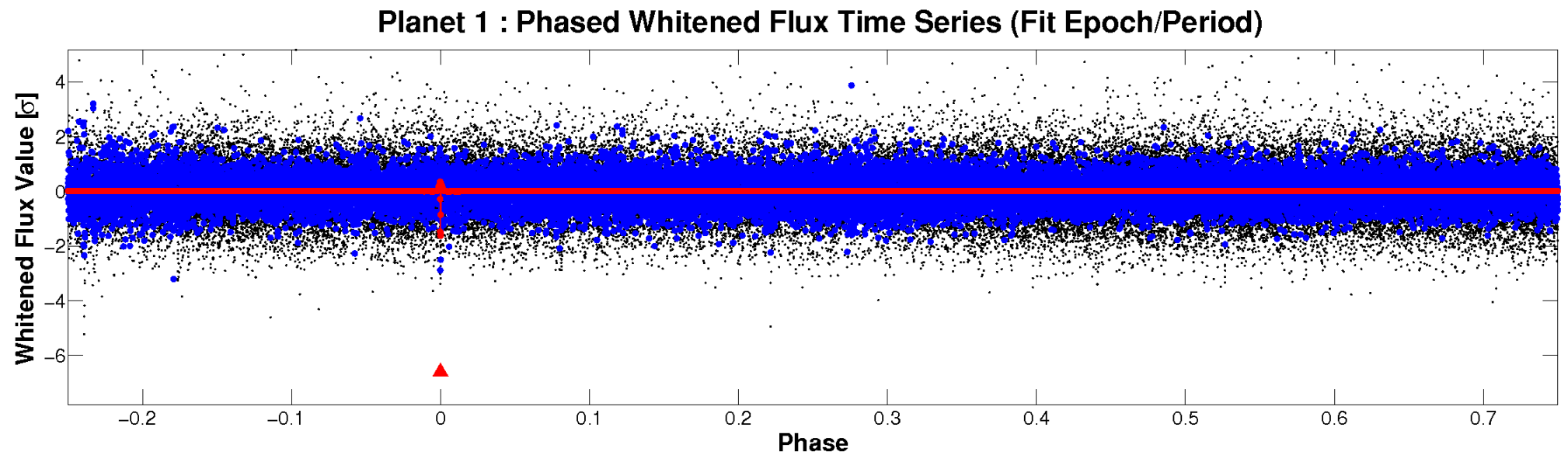
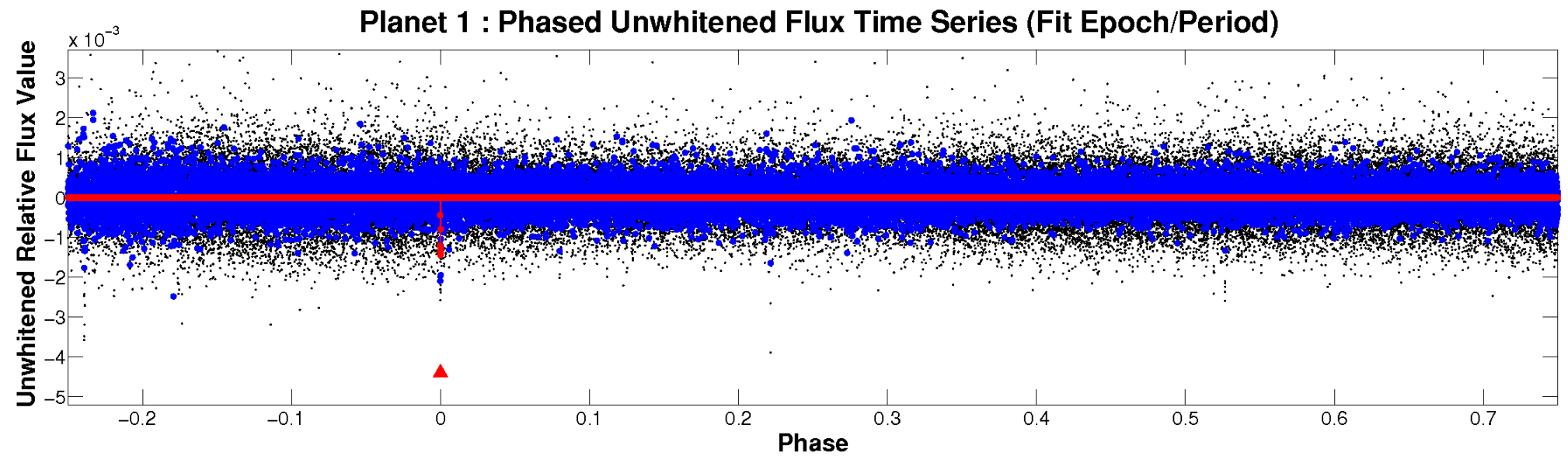


ALT Odd/Even

TCE 006865828-01

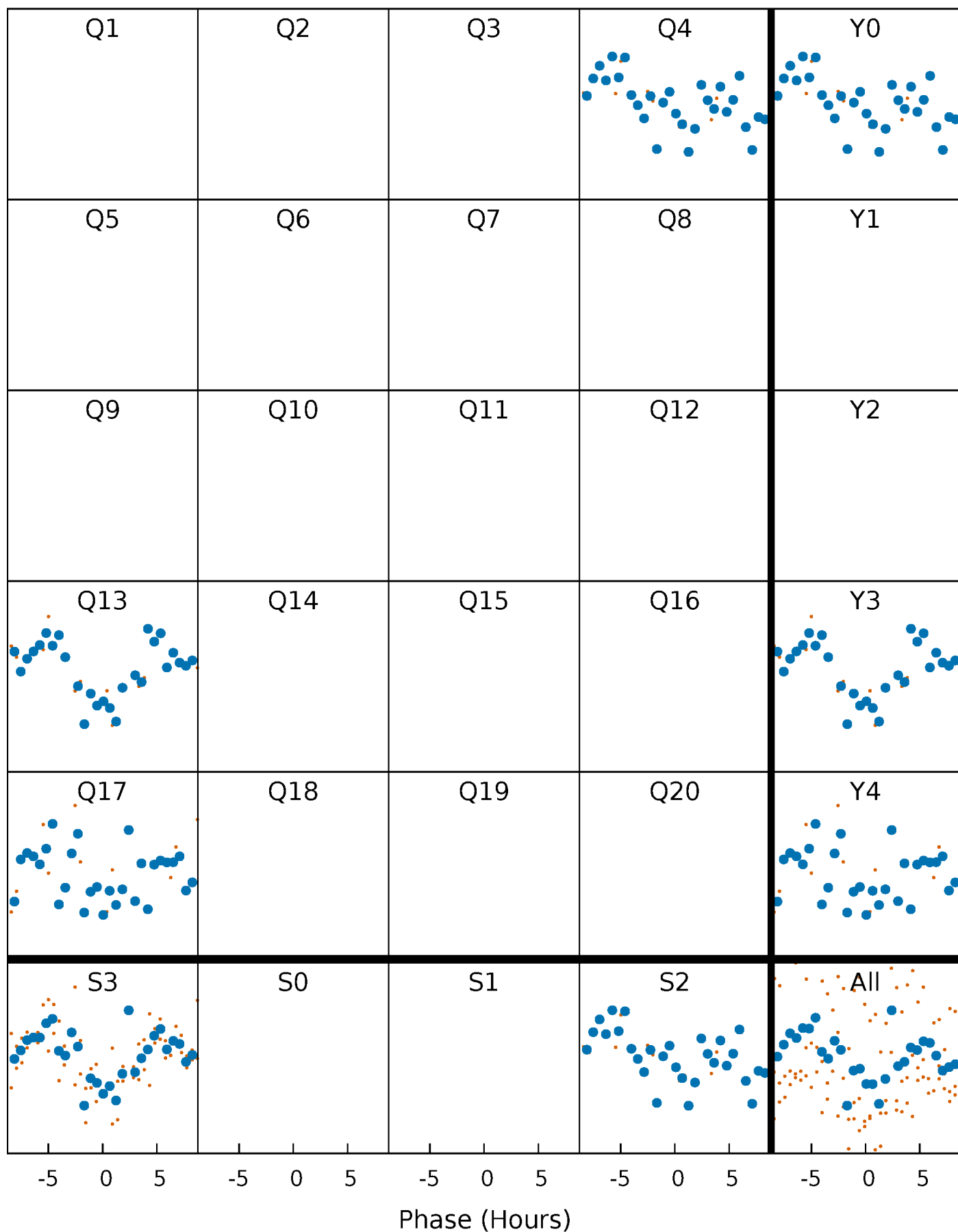


Non-Whitened Vs. Whitened Light Curve



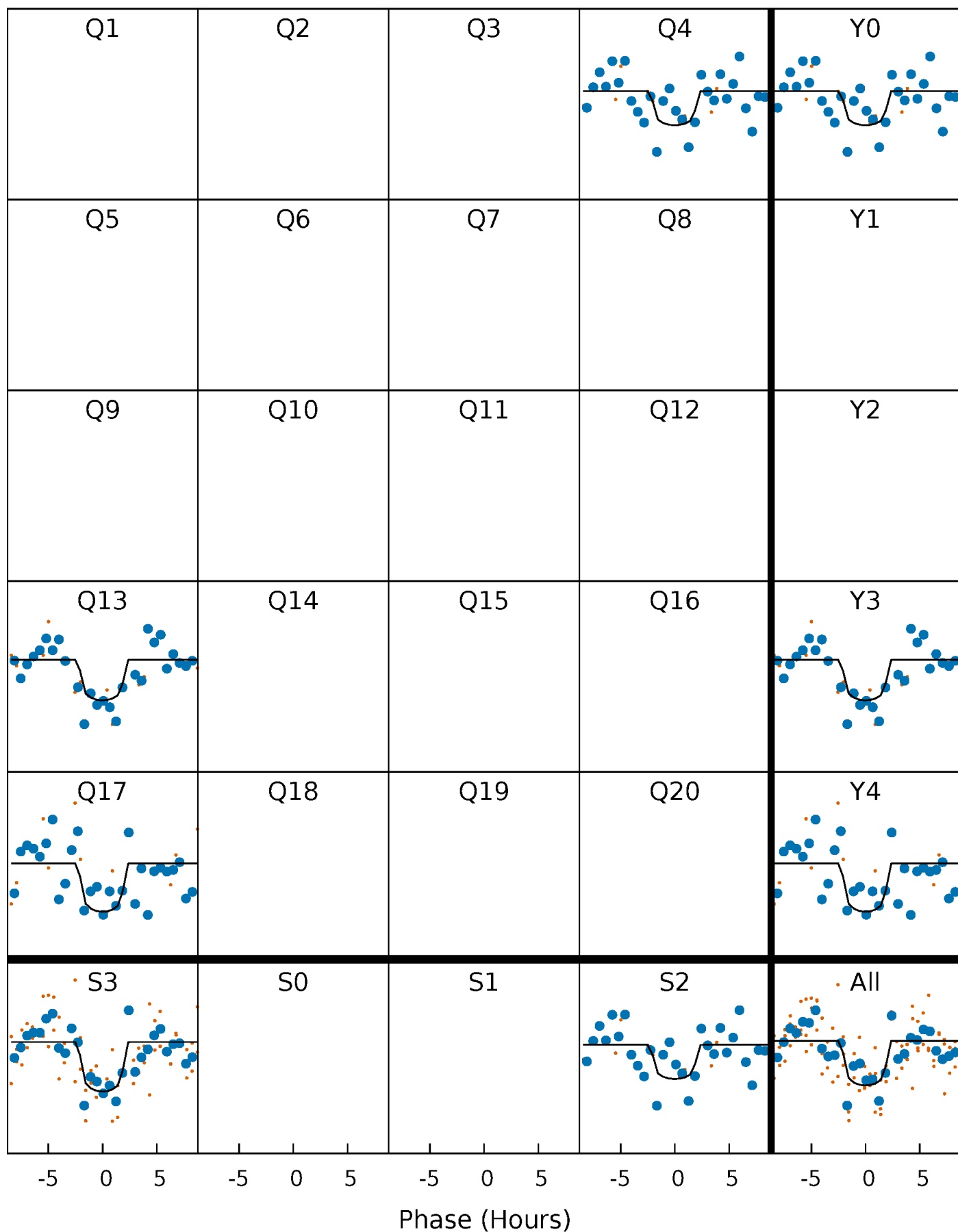
PDC Quarter-Phased Transit Curves

TCE 006865828-01 P=382.313195 Days $T_0=420.545392$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006865828-01 P=382.313195 Days $T_0=420.545392$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

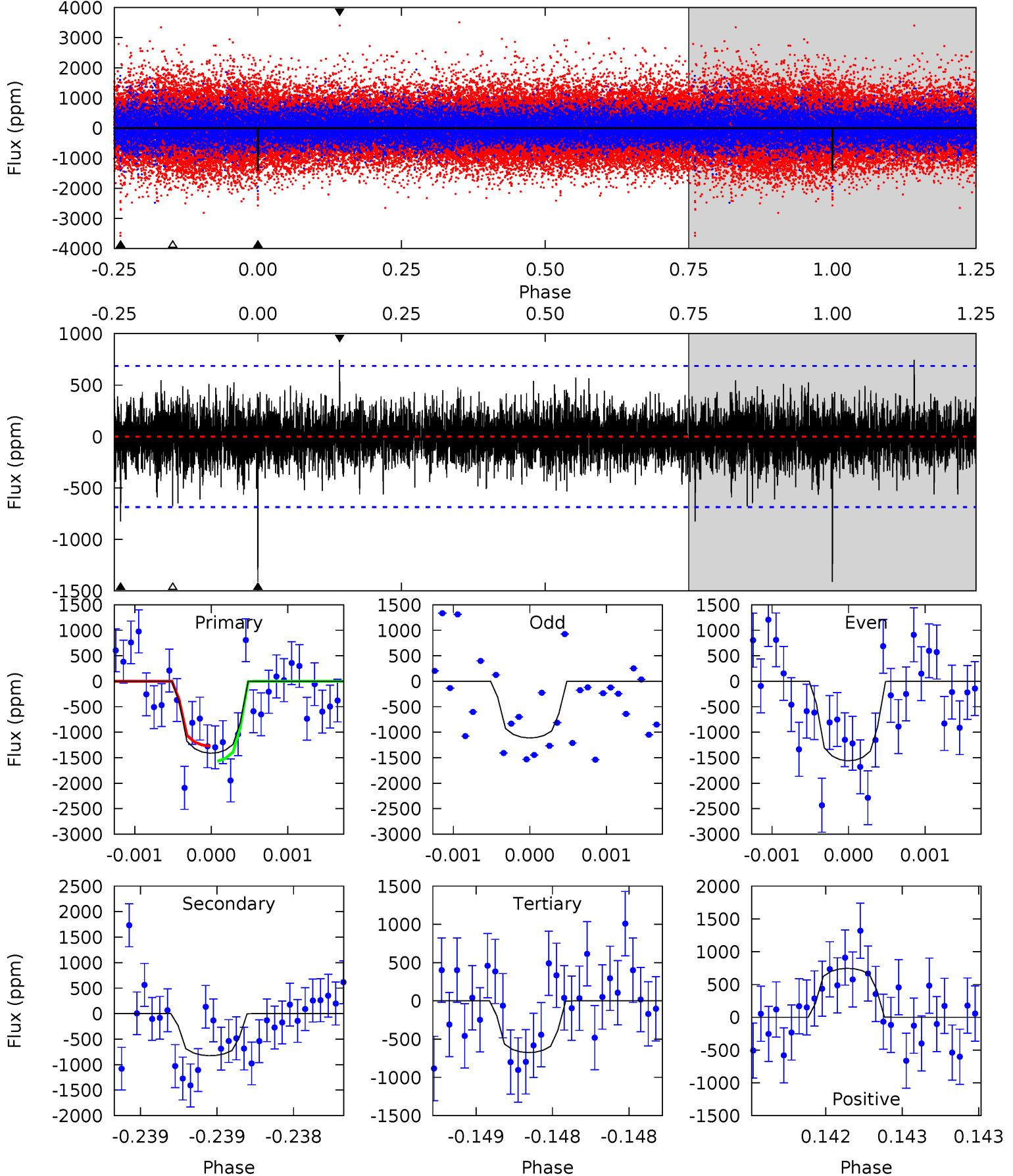
TCE 006865828-01 P=382.318719 Days $T_0=420.533839$ (BKJD)



DV Model-Shift Uniqueness Test

006865828-01, $P = 382.313195$ Days, $E = 38.232197$ Days

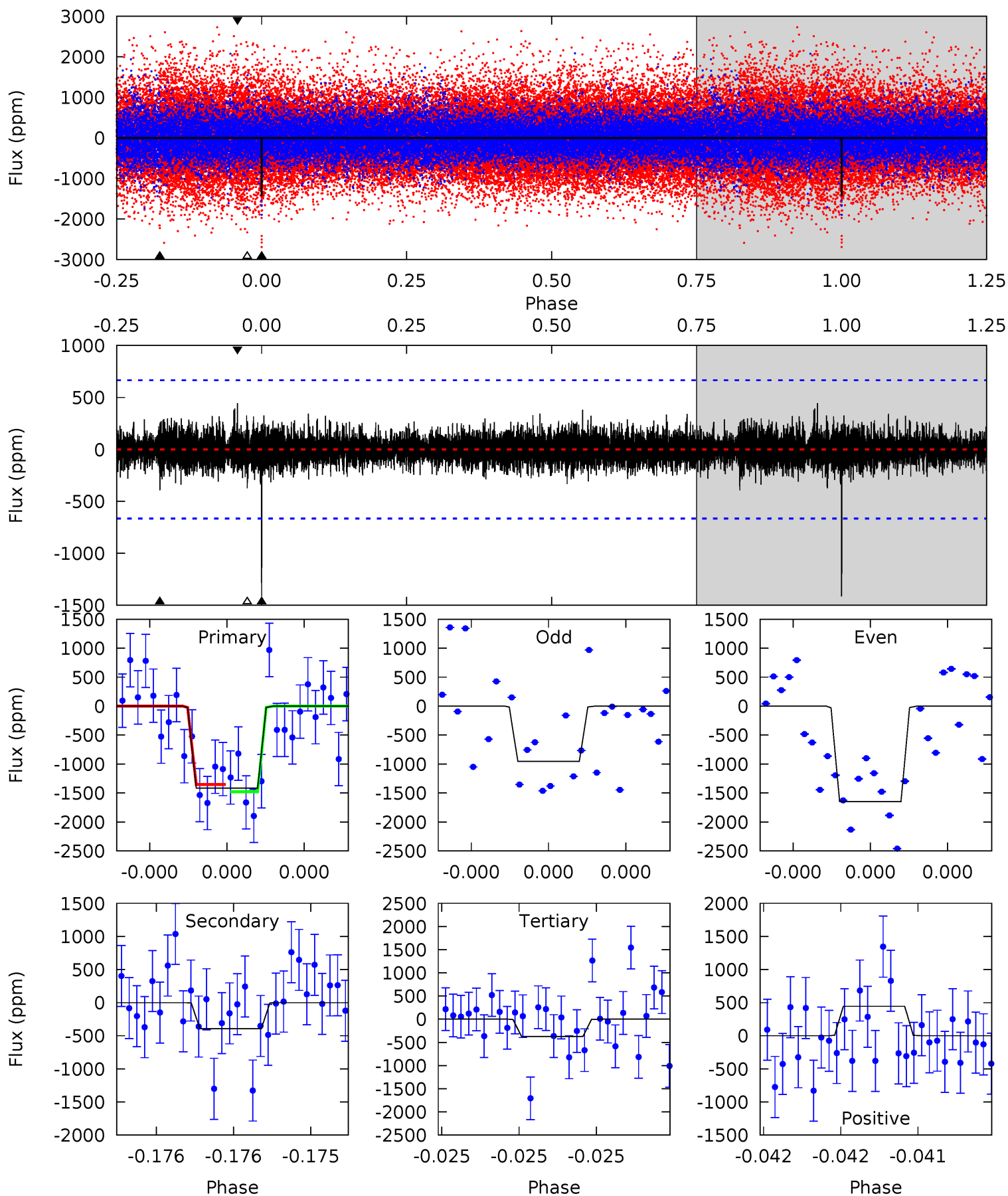
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	6.68	5.48	6.05	5.56	3.46	1.25	5.96	5.39	1.20	0.63	1.70	1.09	0.35	1.21



Alt Model-Shift Uniqueness Test

006865828-01, $P = 382.318719$ Days, $E = 38.215120$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	3.29	3.12	3.72	5.58	3.49	0.78	8.73	8.13	0.18	-0.42	2.68	1.13	0.24	0.53



Stellar Parameters For KIC 006865828

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6173^{+193}_{-236}	$4.447^{+0.052}_{-0.208}$	$-0.040^{+0.250}_{-0.300}$	$1.041^{+0.324}_{-0.130}$	$1.104^{+0.151}_{-0.151}$	$1.379^{+0.393}_{-0.734}$
	+3%/-4%	+1%/-5%	+625%/-750%	+31%/-12%	+14%/-14%	+29%/-53%
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 006865828-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-824 ± 123	$6.00^{+5.44}_{-3.87}$	385^{+29}_{-21}	4789^{+3364}_{-1018}	14146^{+98569}_{-10311}
Alt.	-393 ± 119	$5.84^{+5.26}_{-3.70}$	385^{+28}_{-20}	4146^{+2220}_{-774}	6622^{+42871}_{-4747}

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

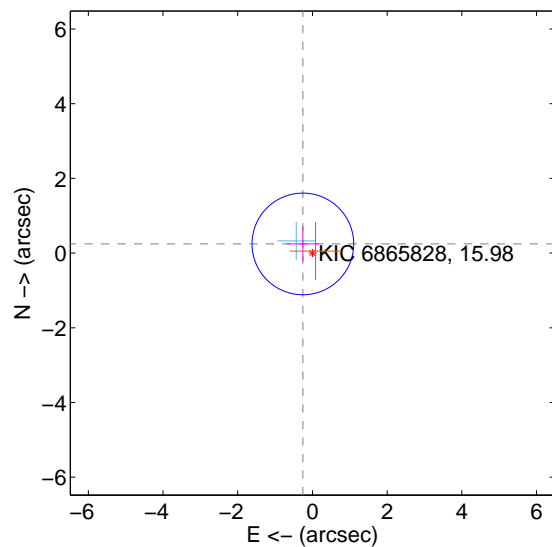
Supplemental centroid analysis for 006865828-01. Kepler magnitude: 15.98. Transit SNR 7.35

There are 1 quarters with good PRF difference image offsets

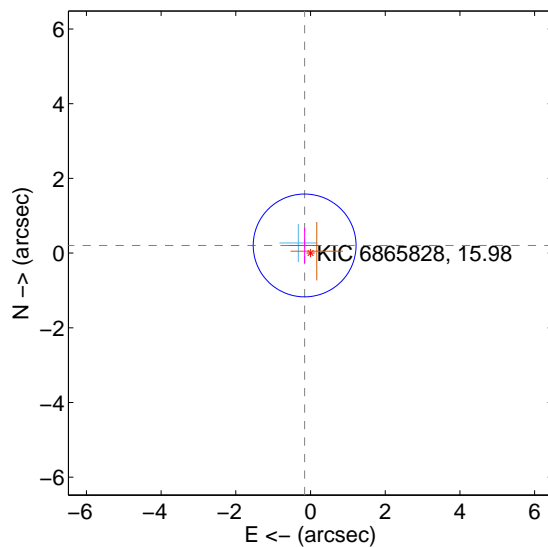
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.355 ± 0.454	0.78	0.257 ± 0.437	0.245 ± 0.471
PRF-fit source offset from KIC position	0.259 ± 0.459	0.56	0.158 ± 0.437	0.205 ± 0.471
photometric centroid source offset	1.04 ± 1.45	0.71	-0.56 ± 1.67	-0.87 ± 1.36

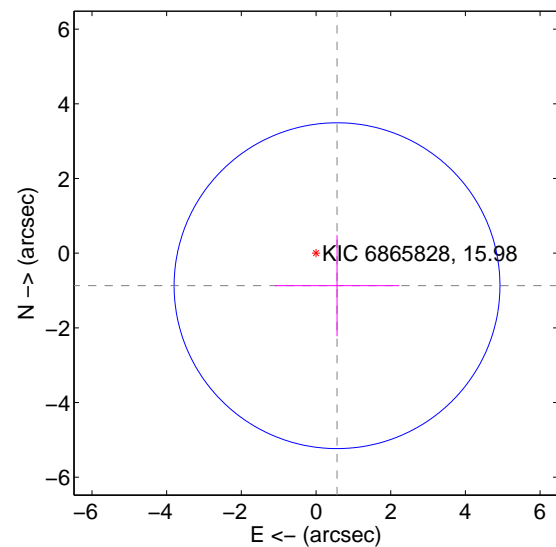
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

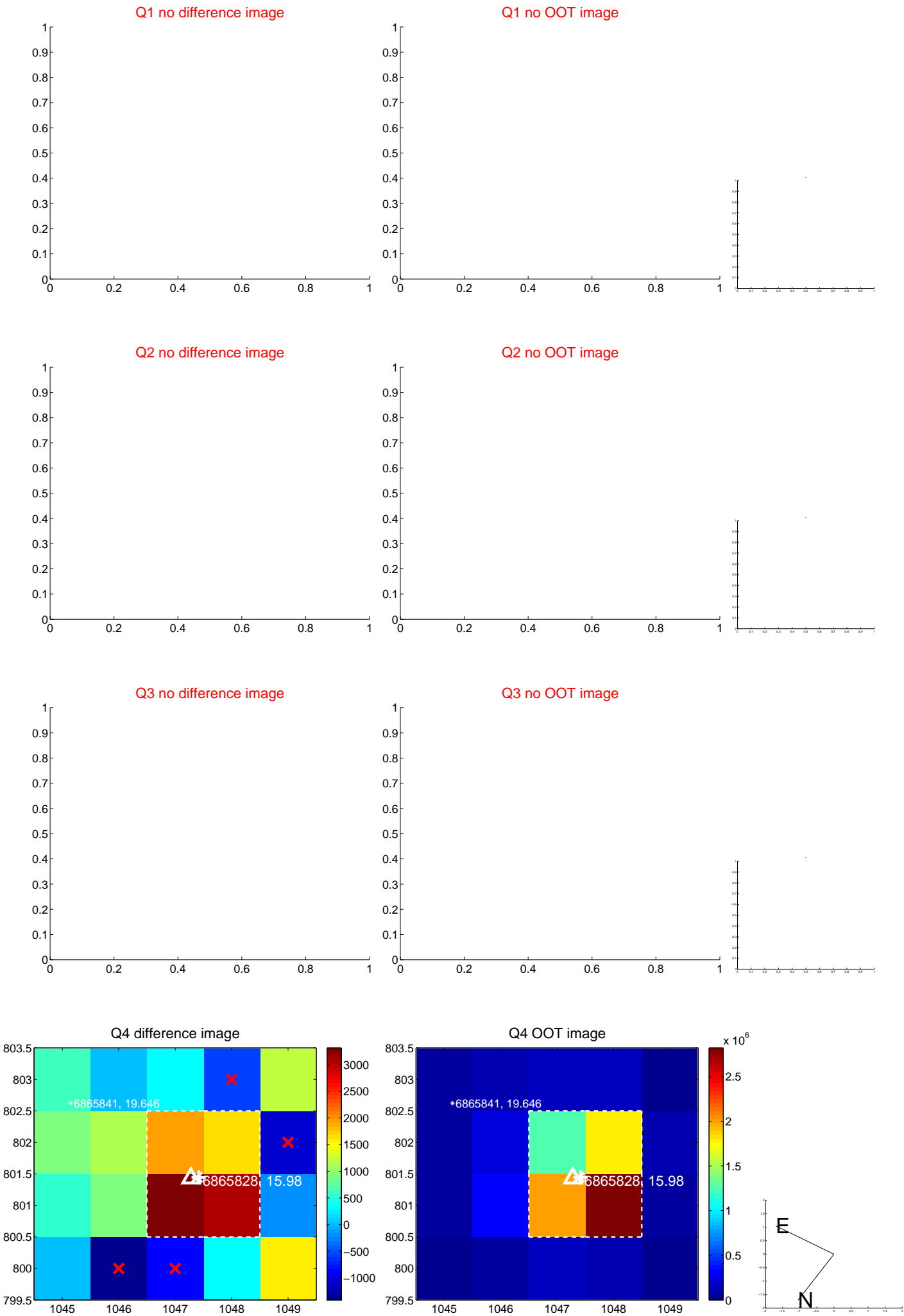


offset from photometric centroids



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.



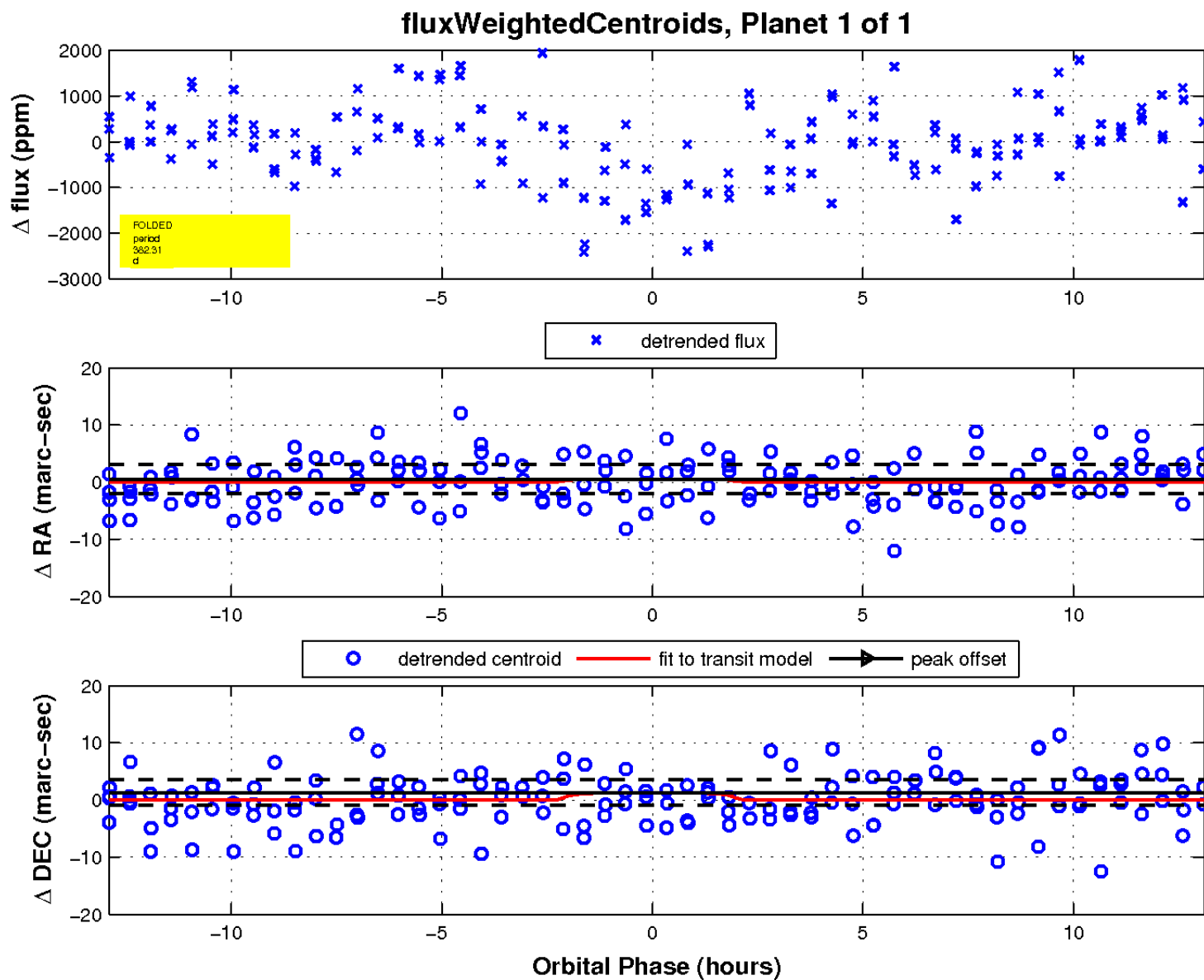
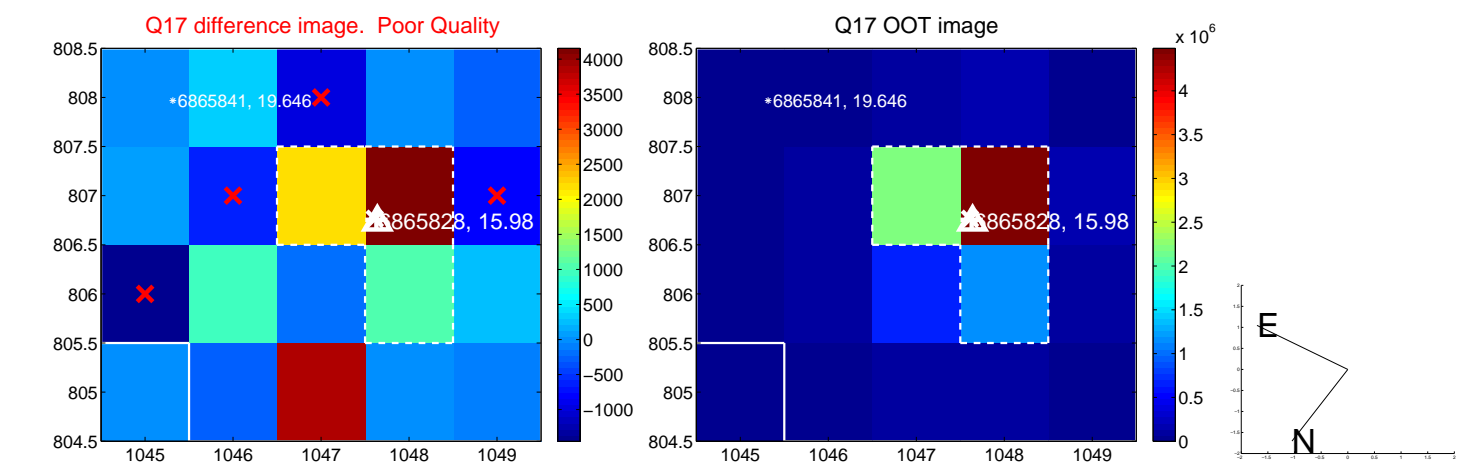
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

