

KIC 008693728

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})
008693728-01	OBS	No	279.427097	162.547825	215.5	22.317	11.4	8.6	154.30	3274	538.74	3259.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008693728-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

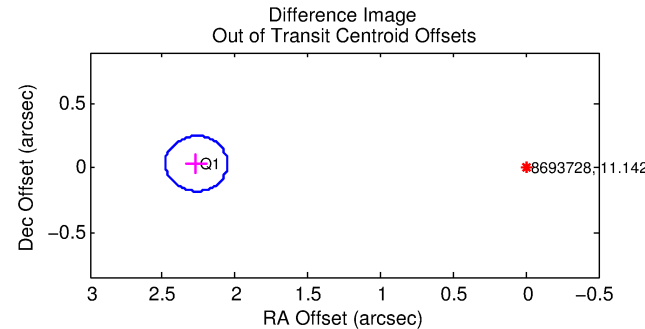
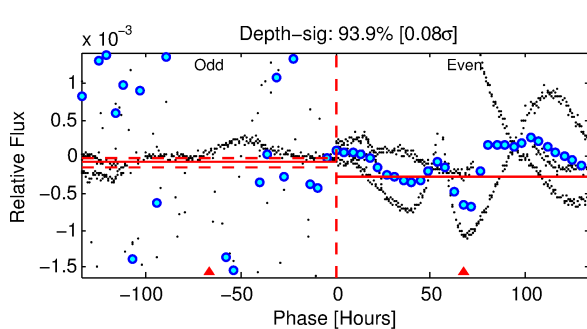
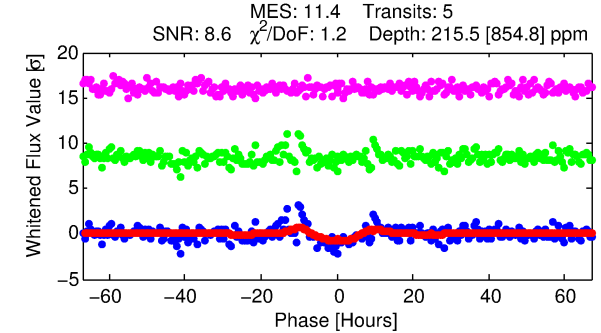
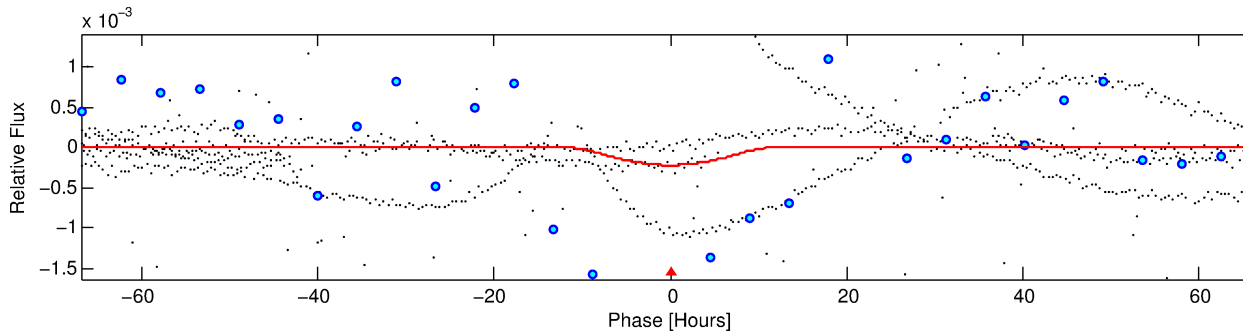
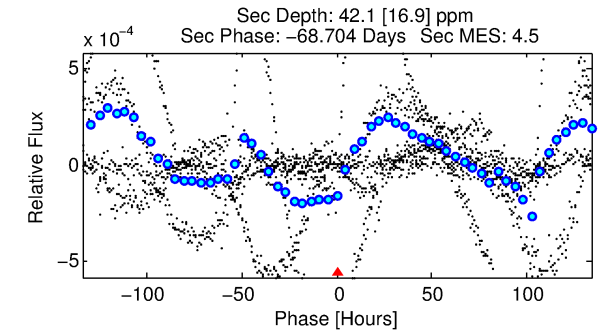
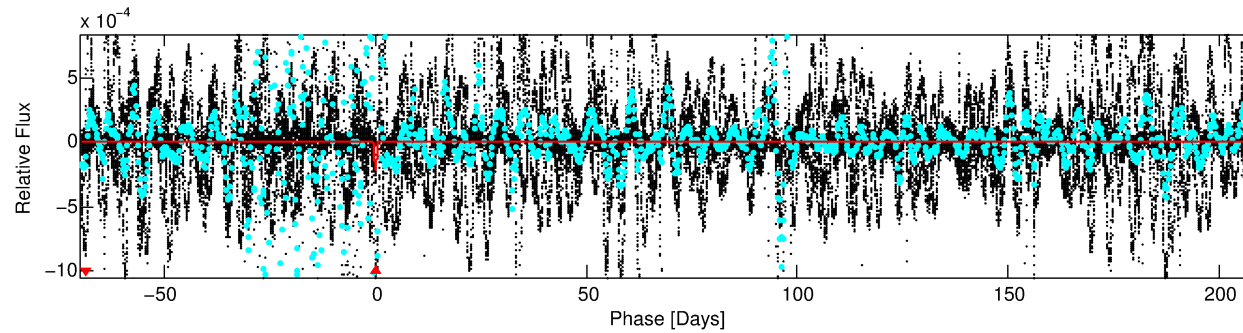
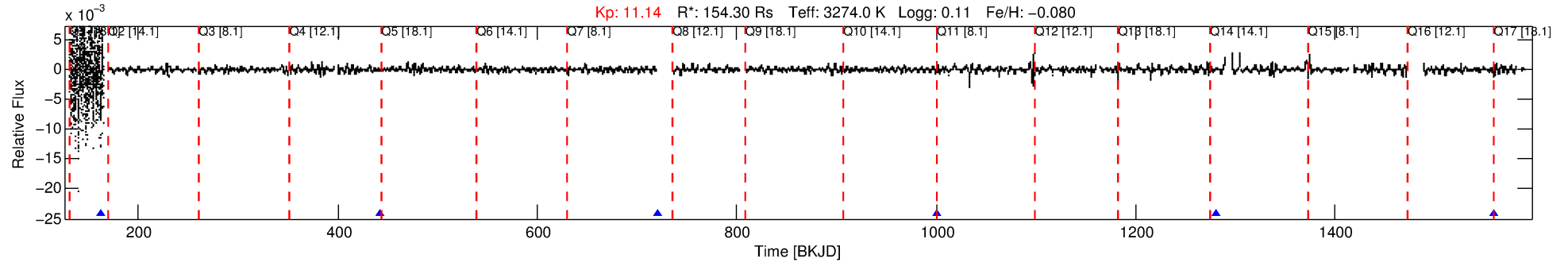
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008693728-01

No Significant Match Found

DV One-Page Summary

KIC: 8693728 Candidate: 1 of 1 Period: 279.427 d



DV Fit Results:

Period = 279.42710 [0.01046] d
Epoch = 162.5478 [0.0399] BKJD
Rp/R* = 0.0320 [0.0515]
a/R* = 24.41 [9.48]
b = 1.00 [0.15]
Seff = 3259.02 [1148.69]
Teq = 1927 [170] K
Rp = 538.74 [872.24] Re
a = 0.8672 [0.1659] AU
Ag = 0.06 [0.20] [-4.80σ]
Teffp = 1475 [1197] K [-0.37σ]

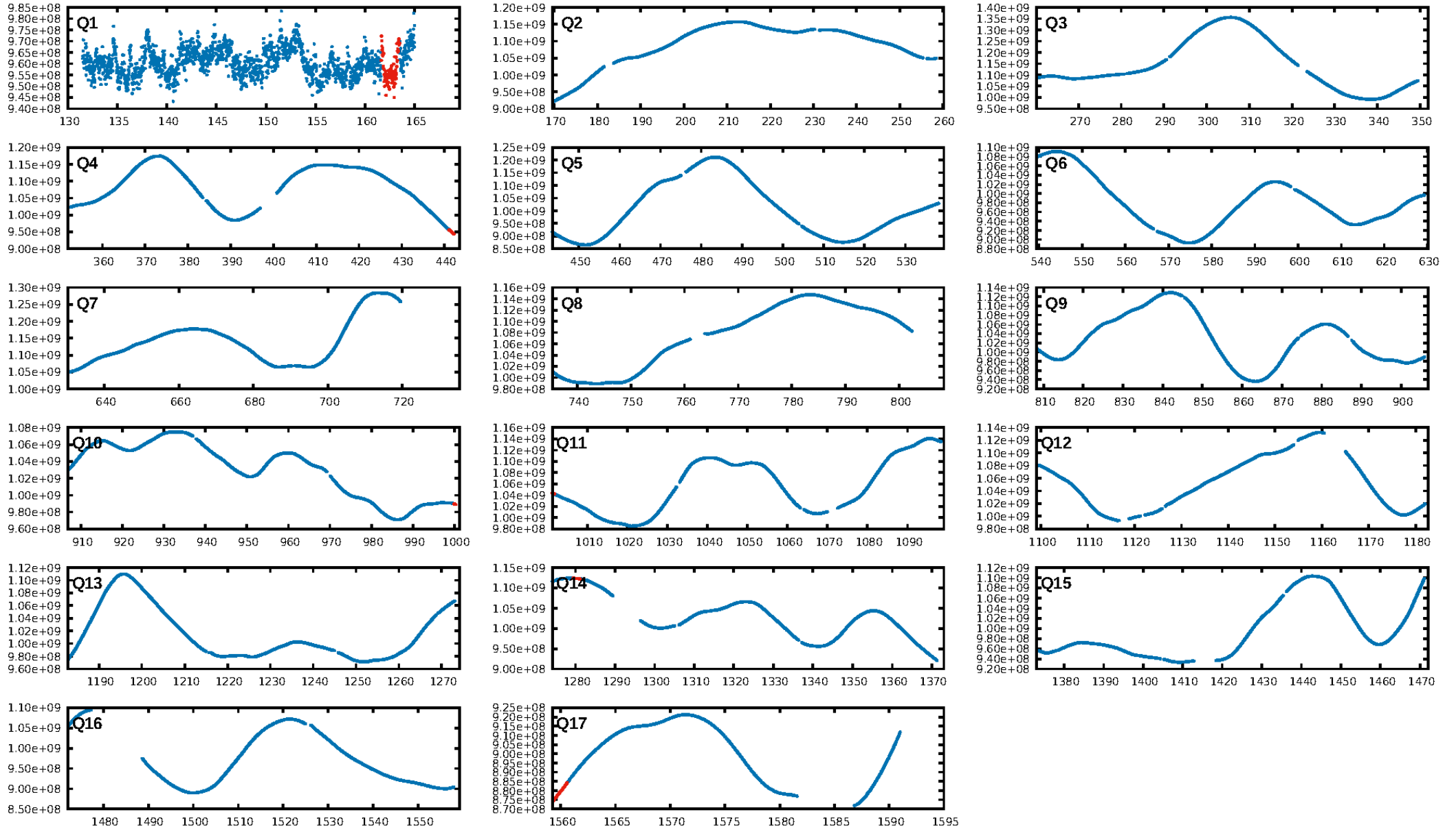
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 9.69e-05
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.534
Centroid-sig: 43.4%
Centroid-so: 1.294 arcsec [1.04σ]
OotOffset-rm: 2.268 arcsec [31.67σ]
KicOffset-rm: 2.507 arcsec [35.02σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

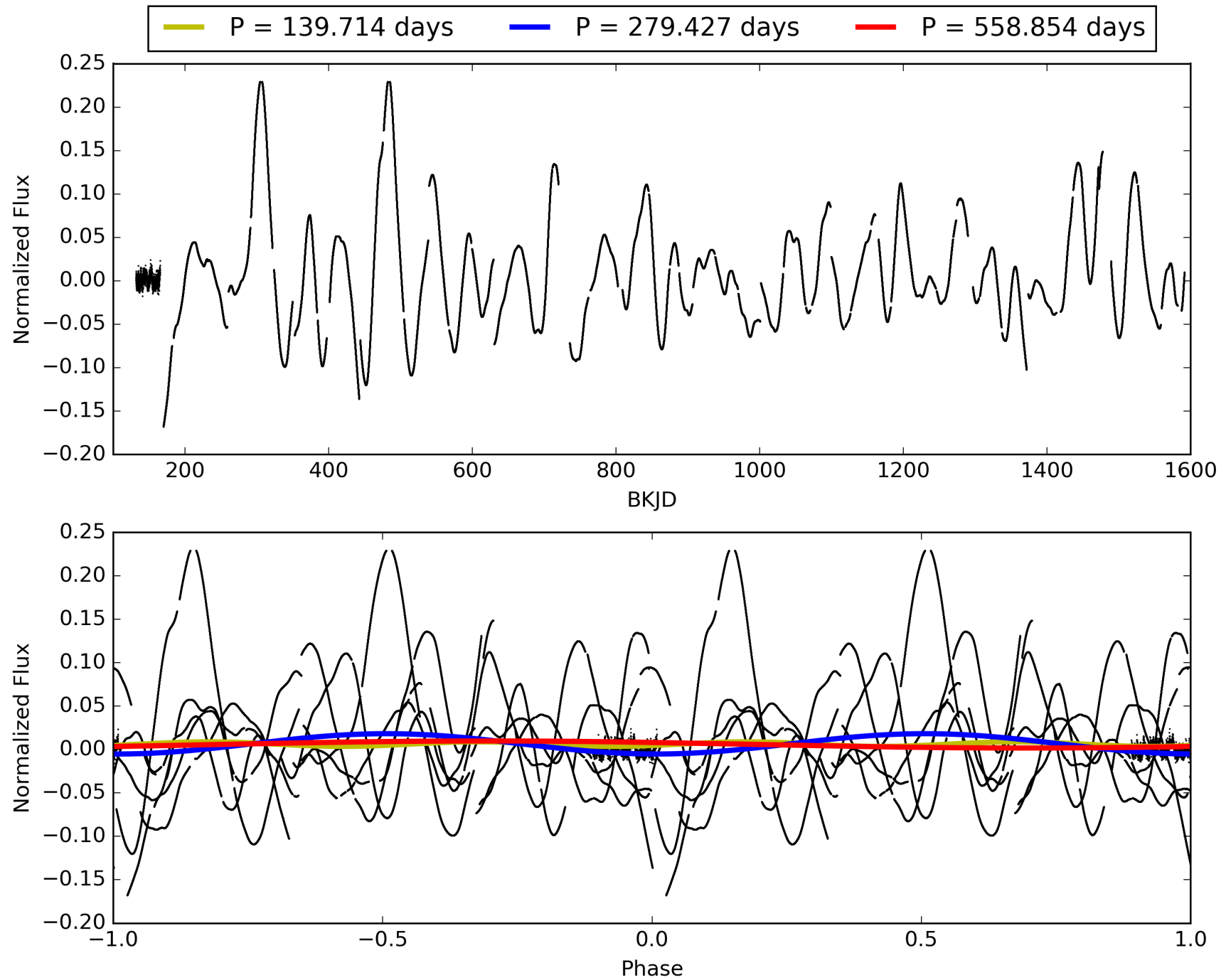
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:42:51 Z

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

TCE 008693728-01, PDC Light Curves

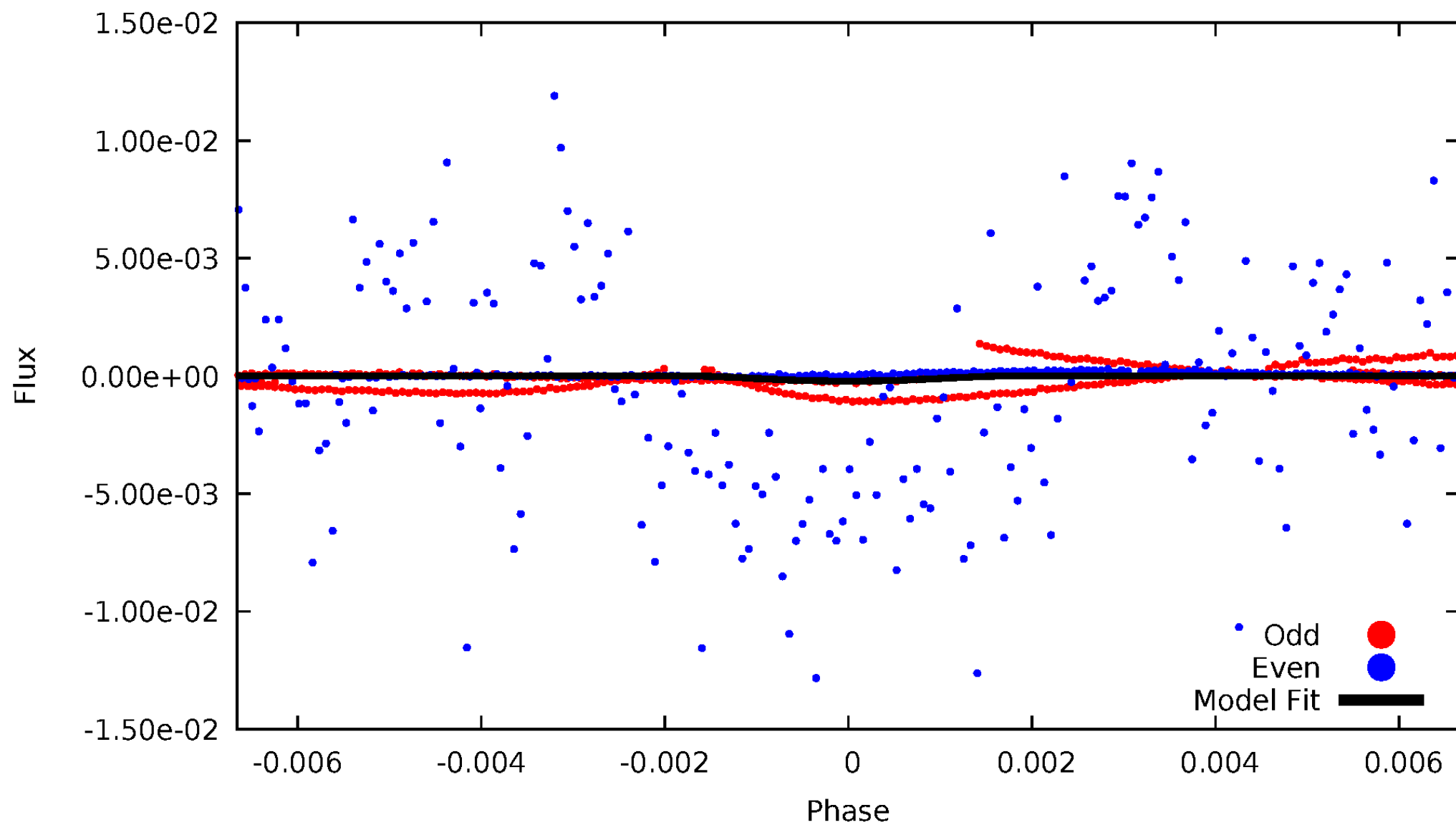


TCE 008693728-01



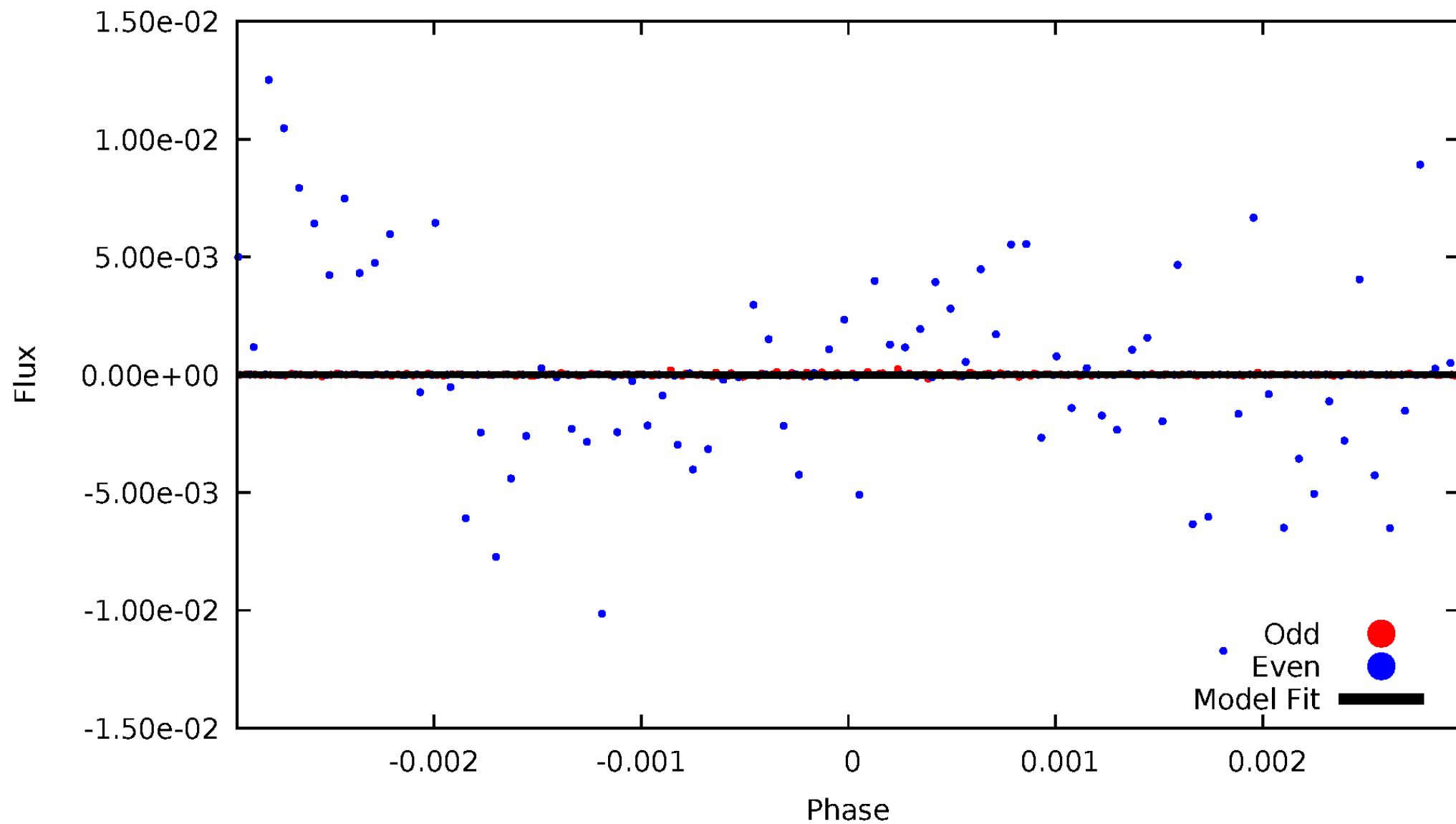
DV Odd/Even

TCE 008693728-01

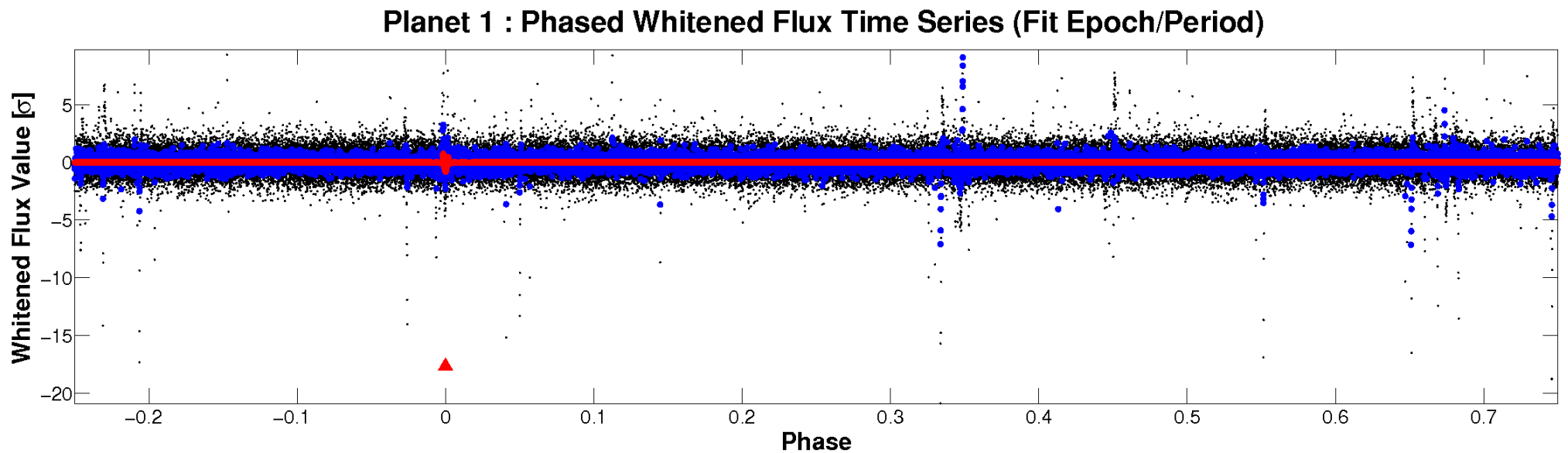
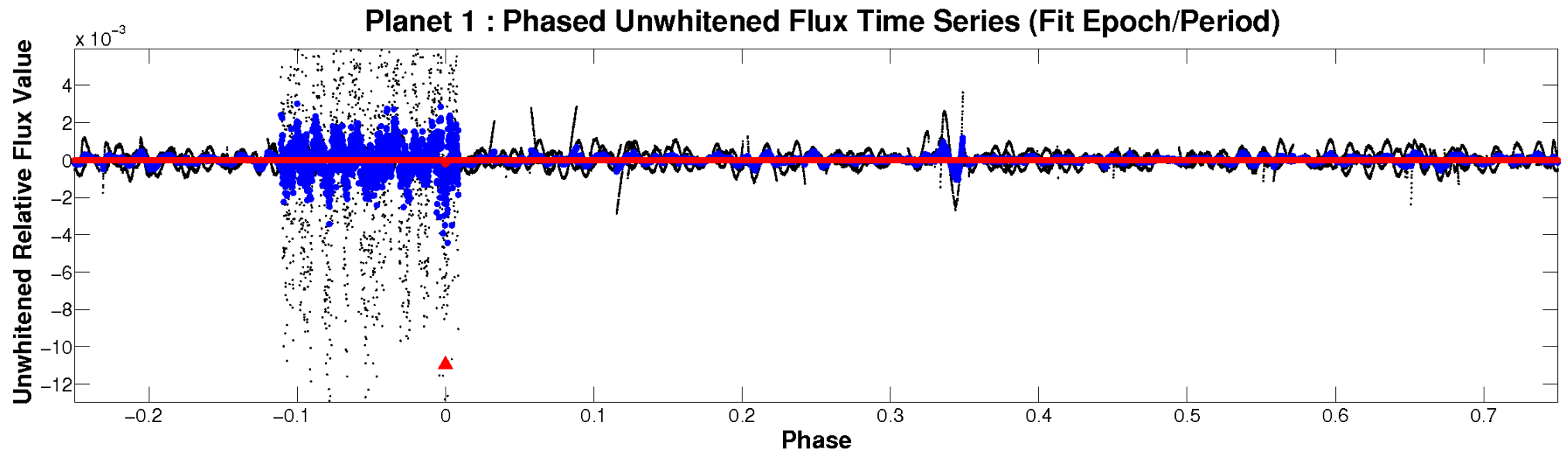


ALT Odd/Even

TCE 008693728-01



Non-Whitened Vs. Whitened Light Curve



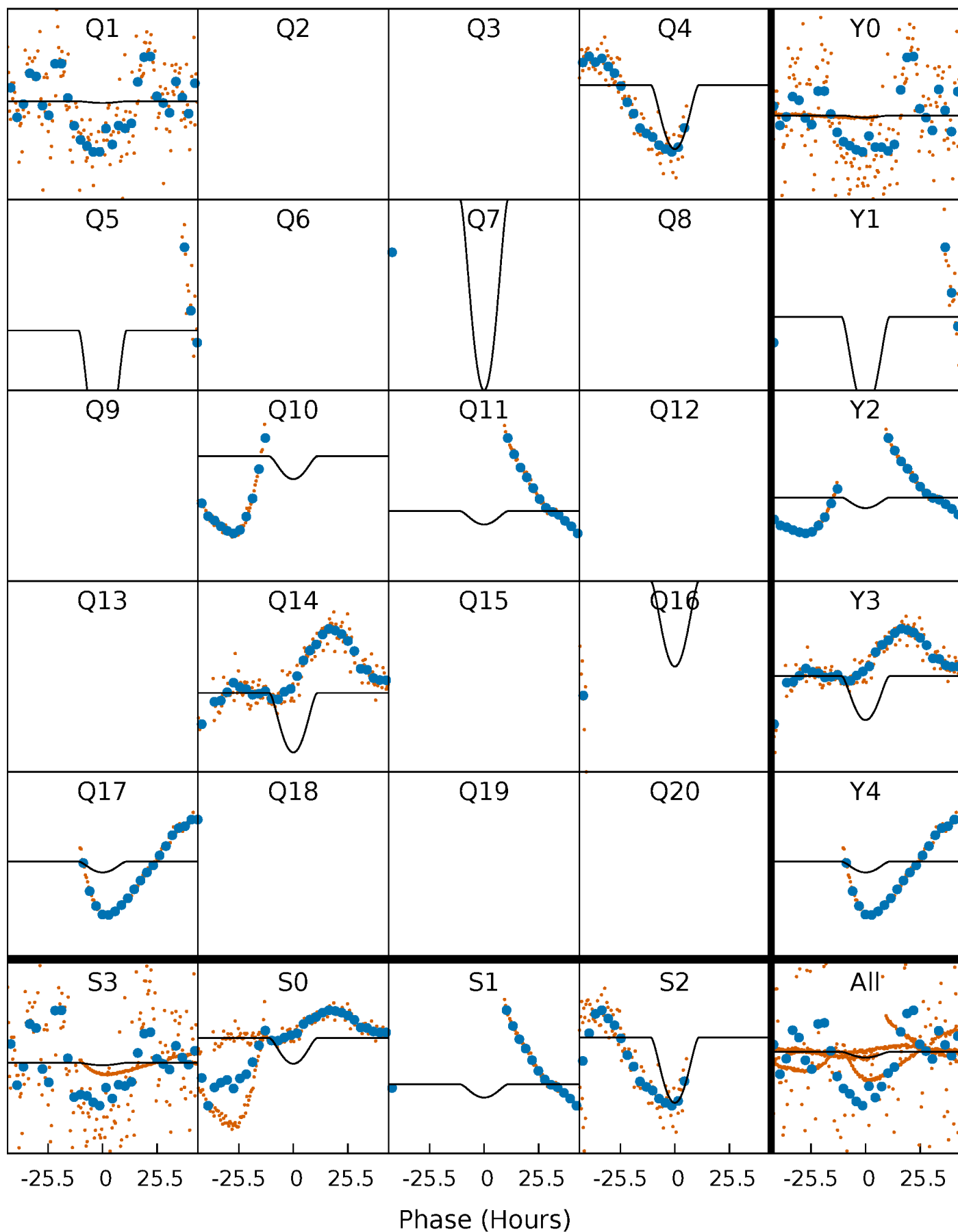
PDC Quarter-Phased Transit Curves

TCE 008693728-01 P=279.427097 Days $T_0=162.547825$ (BKJD)



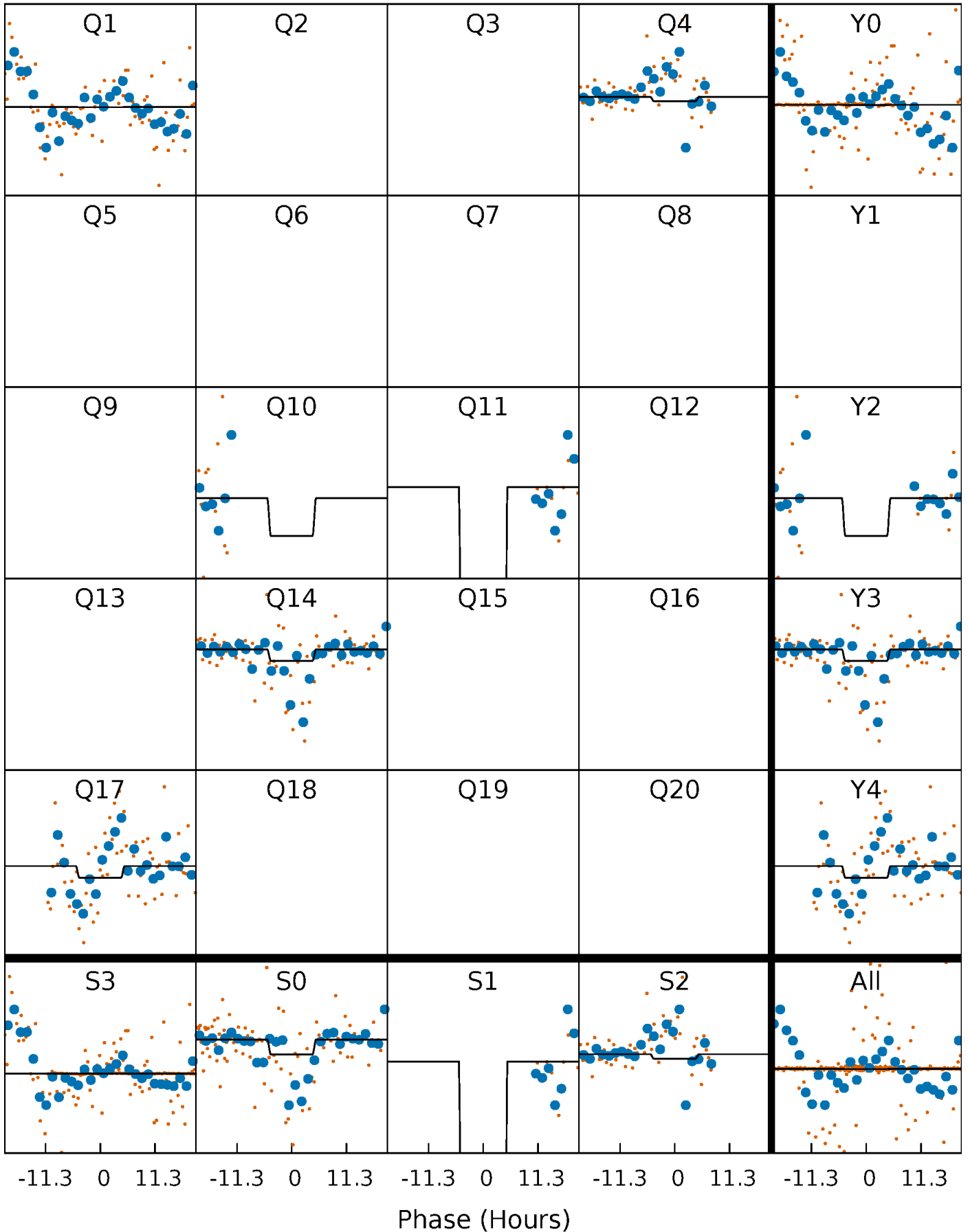
DV Quarter-Phased Transit Curves

TCE 008693728-01 P=279.427097 Days $T_0=162.547825$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

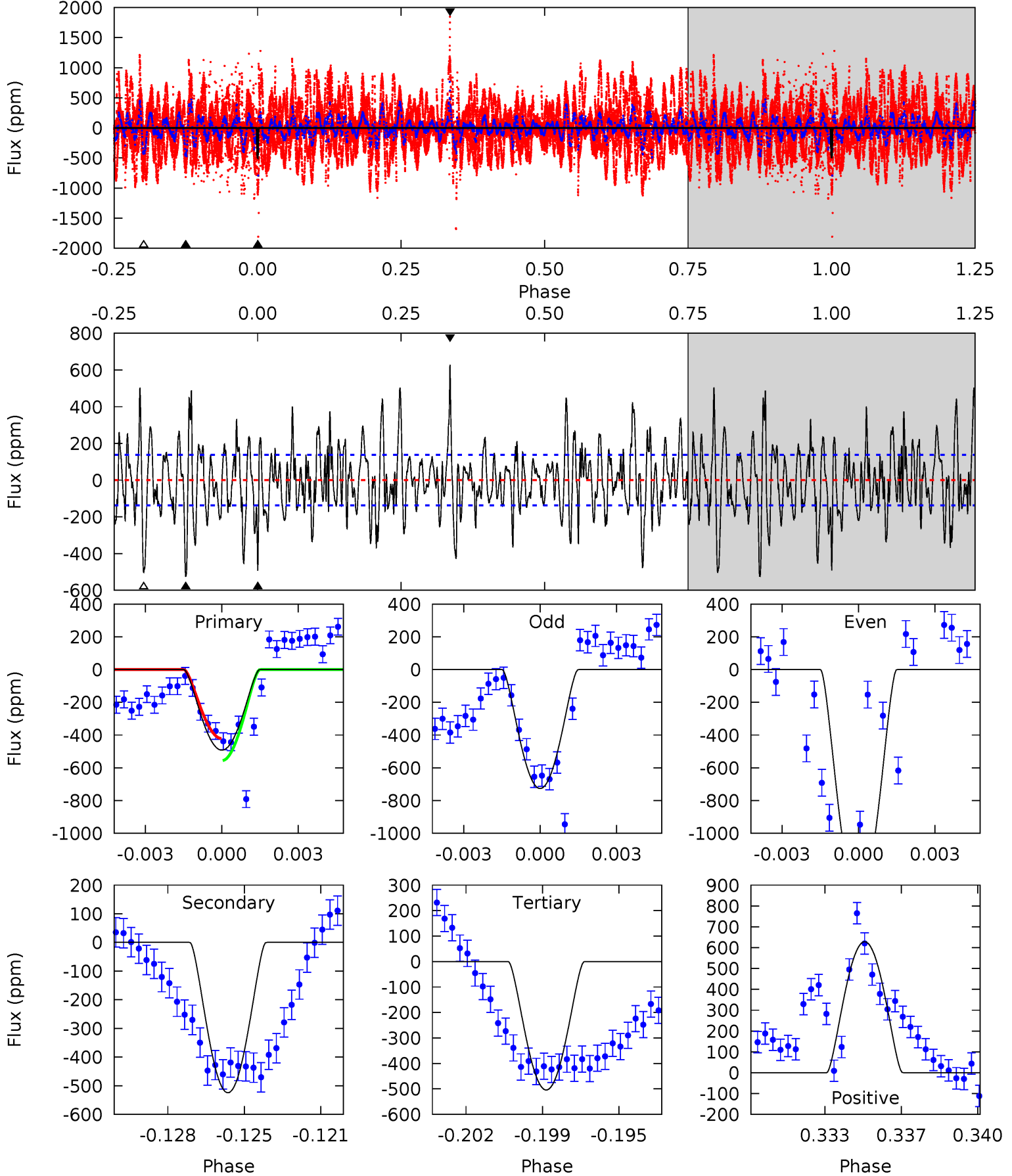
TCE 008693728-01 P=279.456178 Days $T_0=162.434613$ (BKJD)



DV Model-Shift Uniqueness Test

008693728-01, P = 279.427097 Days, E = 162.547825 Days

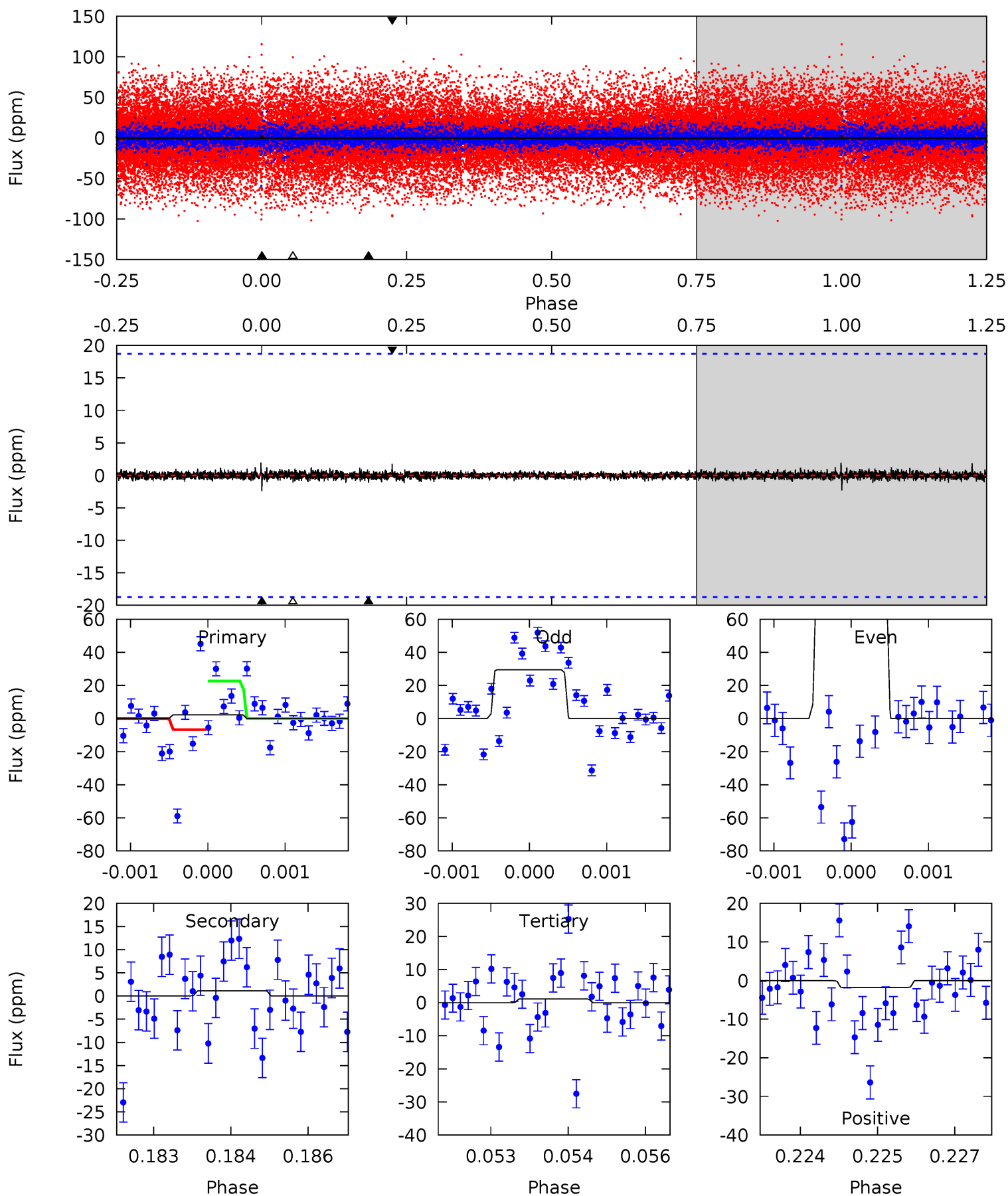
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	20.0	19.2	23.9	5.23	2.93	6.15	-0.45	-5.18	0.78	-3.95	12.8	-5.61	0.54	2.57



Alt Model-Shift Uniqueness Test

008693728-01, P = 279.456178 Days, E = 162.434613 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.66	0.32	0.32	0.51	5.38	3.18	0.08	0.34	0.15	0.00	-0.19	3.13	8.16	0.46	0



Stellar Parameters For KIC 008693728

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3274^{+117}_{-78}	$0.108^{+0.195}_{-0.052}$	$-0.080^{+0.250}_{-0.150}$	$154.296^{+9.192}_{-27.576}$	$1.114^{+0.207}_{-0.128}$	$0.000^{+0.000}_{-0.000}$
	+4%/-2%	+181%/-48%	+312%/-188%	+6%/-18%	+19%/-11%	+86%/-14%
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 008693728-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-524 ± 26	$800.93^{+746.62}_{-554.16}$	2663^{+114}_{-138}	2094^{+1604}_{-4589}	$0.343^{+3.392}_{-0.251}$
Alt.	-1 ± 3	$580.87^{+656.23}_{-400.58}$	2651^{+124}_{-153}	-2607^{+110}_{-103}	$0.001^{+0.014}_{-0.003}$

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

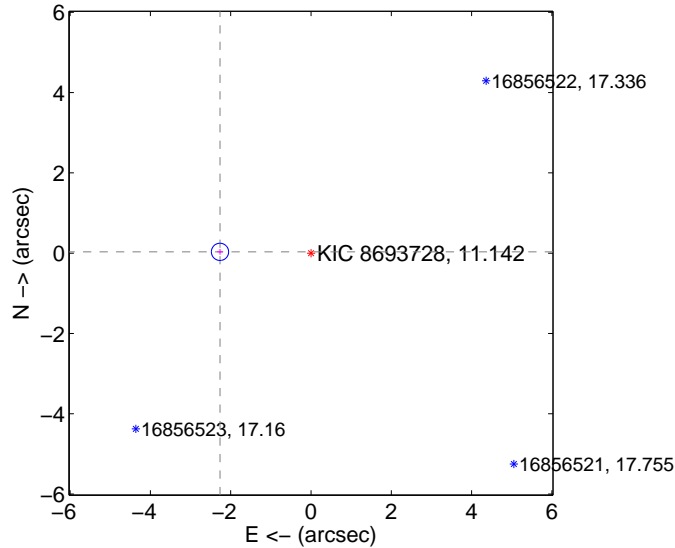
Supplemental centroid analysis for 008693728-01. **Kepler magnitude: 11.14.** Transit SNR 8.64

There are 1 quarters with good PRF difference image offsets

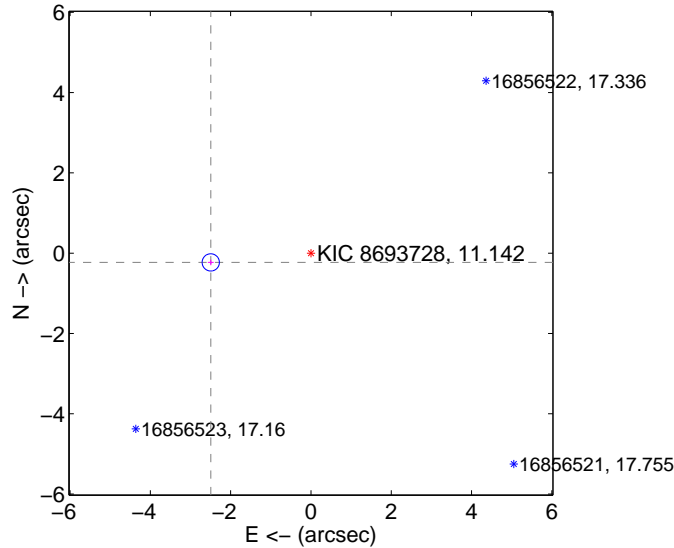
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.268 ± 0.072	31.67	2.267 ± 0.072	0.033 ± 0.070
PRF-fit source offset from KIC position	2.507 ± 0.072	35.02	2.496 ± 0.072	-0.230 ± 0.070
photometric centroid source offset	1.29 ± 1.24	1.04	-0.85 ± 1.15	-0.98 ± 1.31

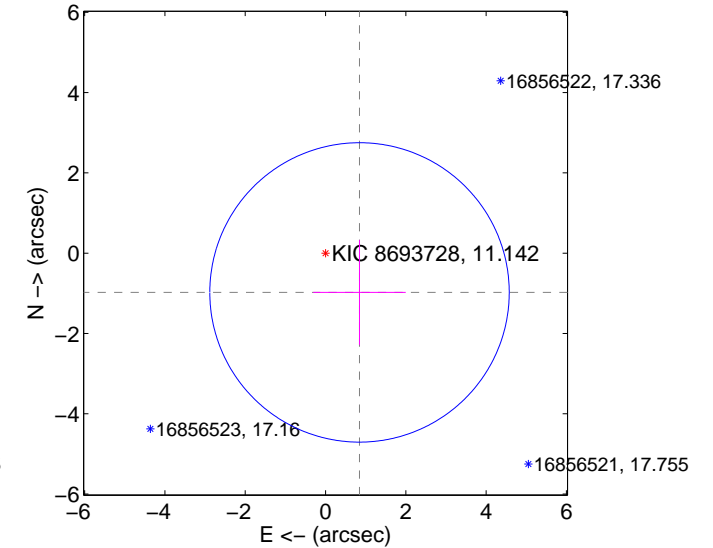
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

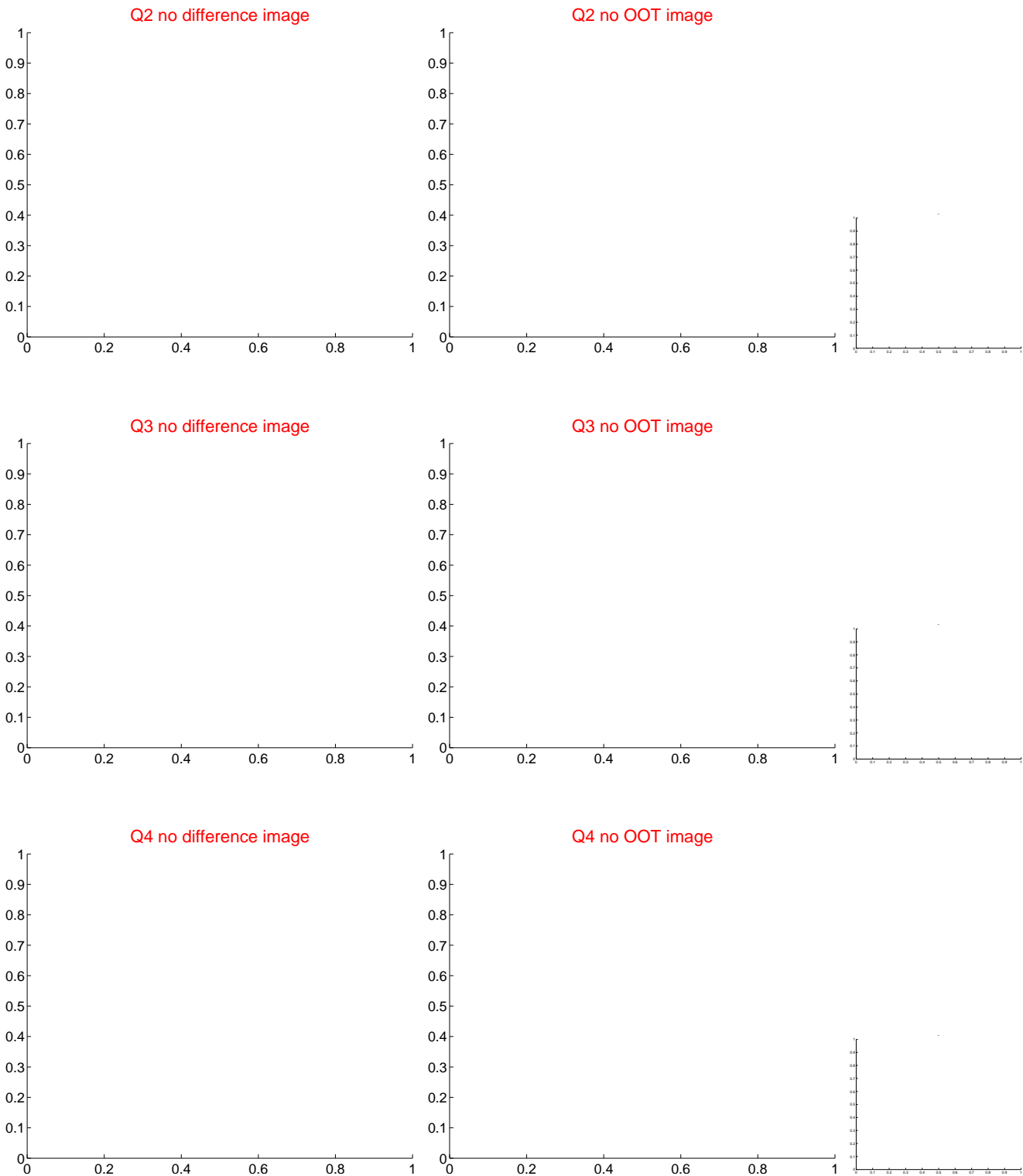
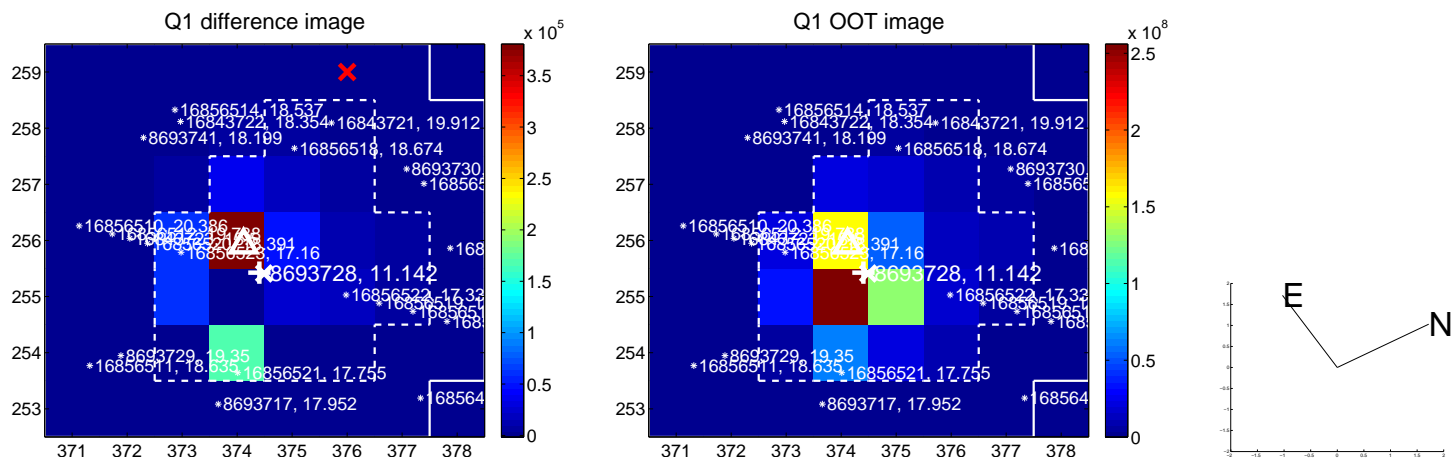


offset from photometric centroids



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.



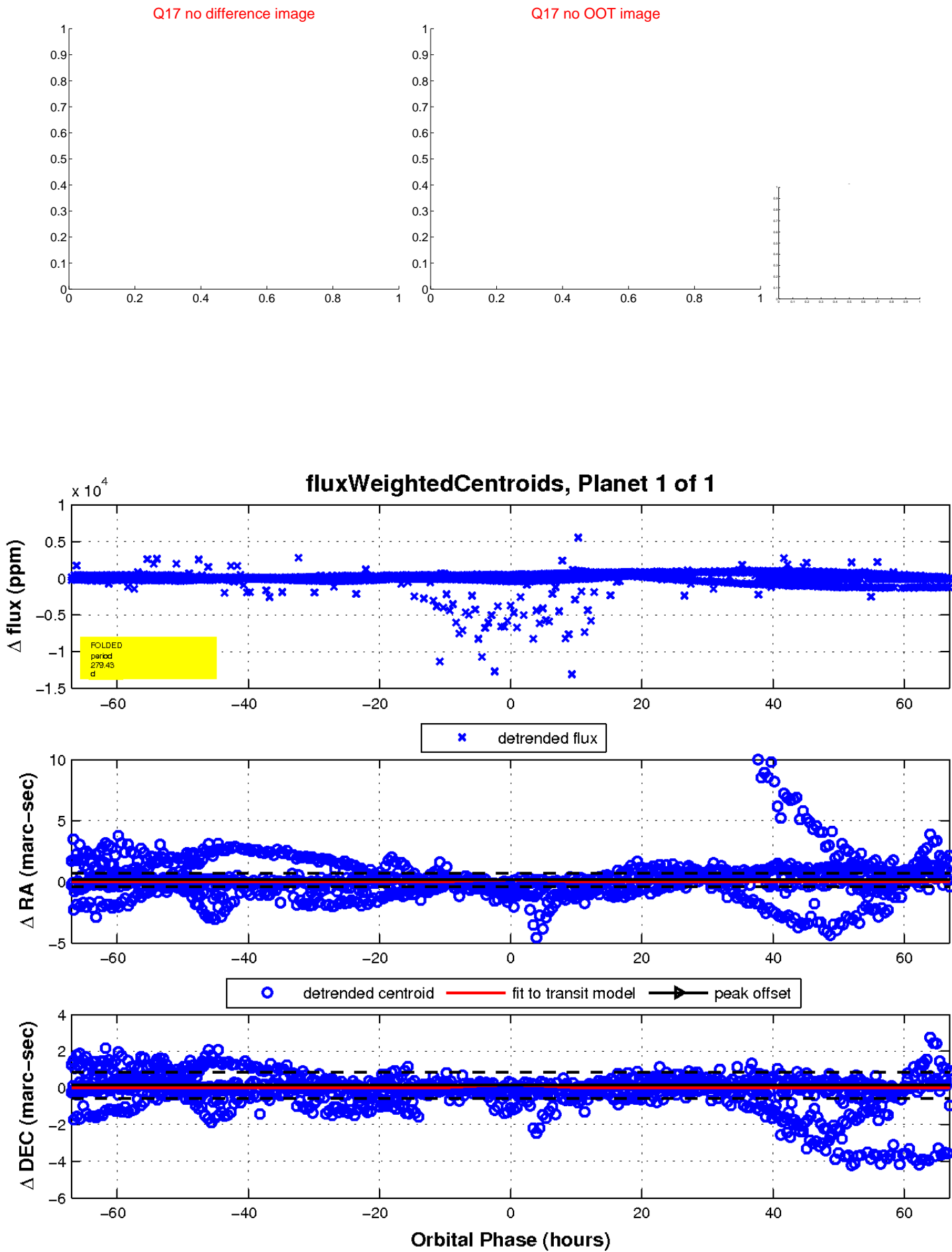
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

