

KIC 006628656

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})
006628656-01	OBS	No	360.035289	373.695311	1124.1	6.028	8.0	7.9	0.59	3978	2.04	0.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006628656-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_SKYE—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.

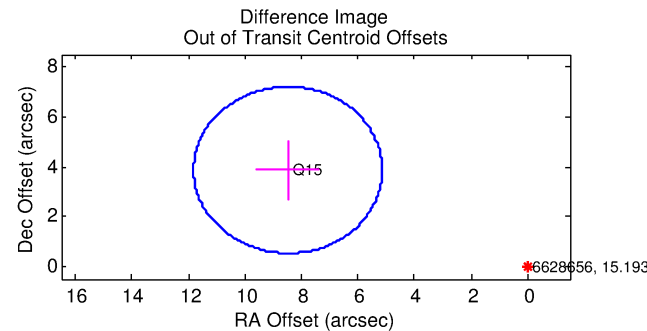
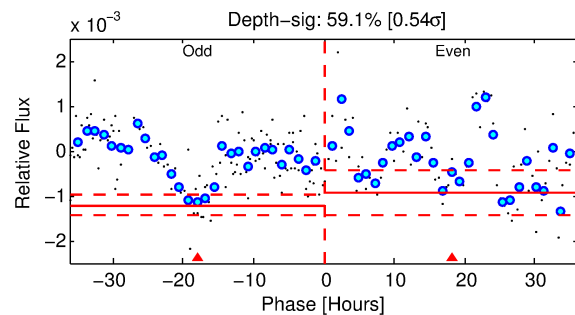
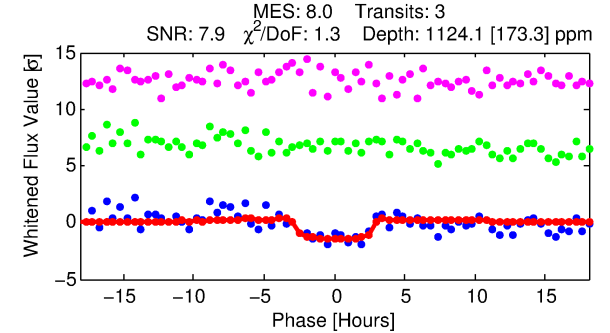
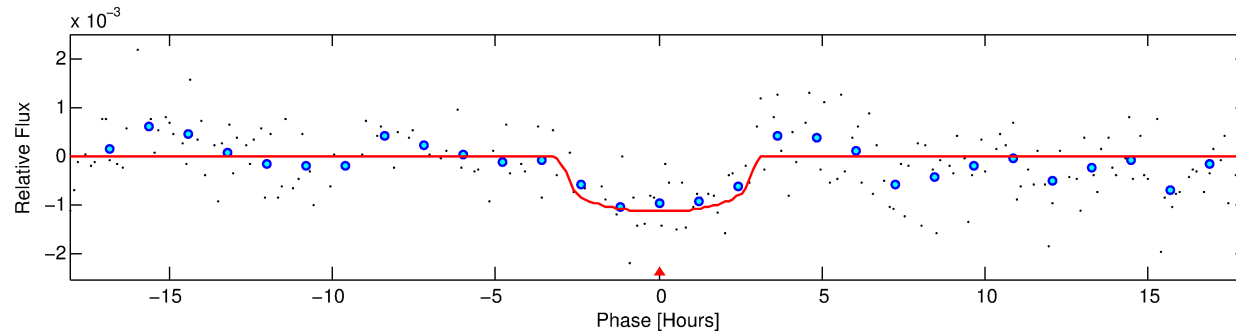
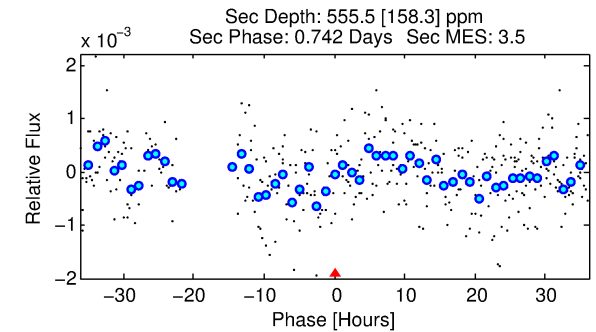
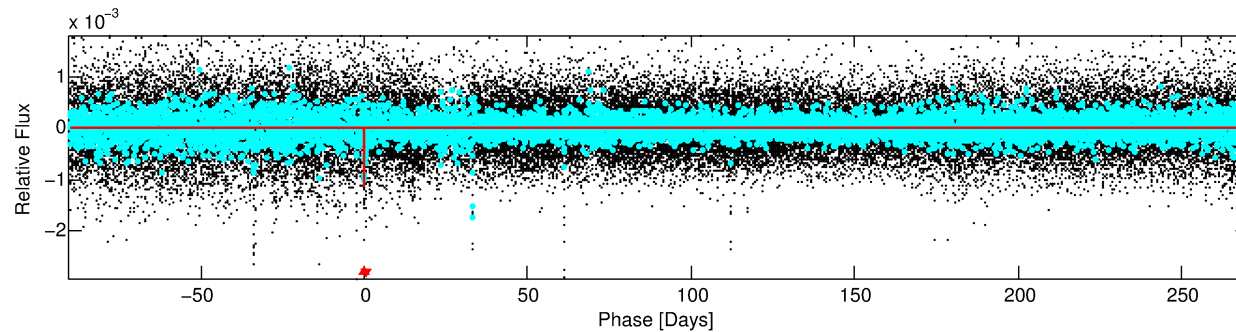
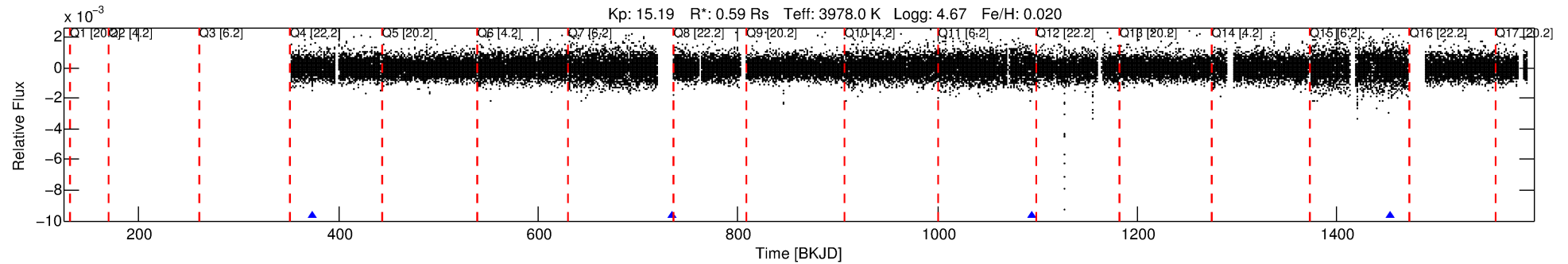
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006628656-01

No Significant Match Found

DV One-Page Summary

KIC: 6628656 Candidate: 1 of 1 Period: 360.035 d



DV Fit Results:

Period = 360.03529 [0.00592] d
Epoch = 373.6953 [0.0109] BKJD
Rp/R* = 0.0318 [0.0335]
a/R* = 383.30 [1500.60]
b = 0.60 [4.22]
Seff = 0.11 [0.02]
Teq = 148 [7] K
Rp = 2.04 [2.17] Re
a = 0.8286 [0.0818] AU
Ag = 50262.81 [107198.38] [0.47σ]
Teffp = 3425 [1828] K [1.79σ]

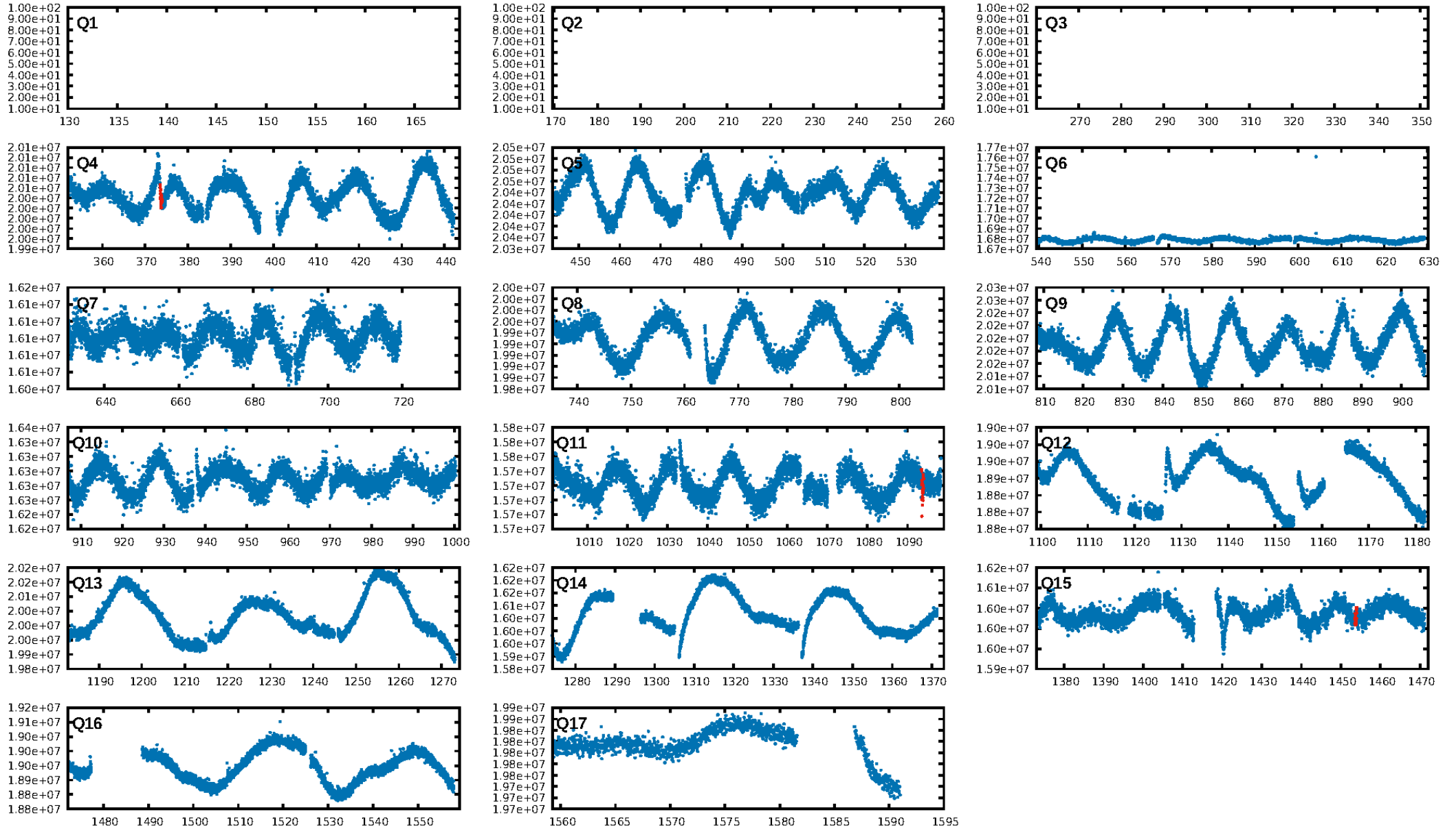
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 32.2%
ModelChiSquareGof-sig: 99.6%
Bootstrap-pfa: 1.74e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.123
Centroid-sig: 14.2%
Centroid-so: 1.510 arcsec [1.34σ]
OotOffset-rm: 9.321 arcsec [8.38σ]
KicOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

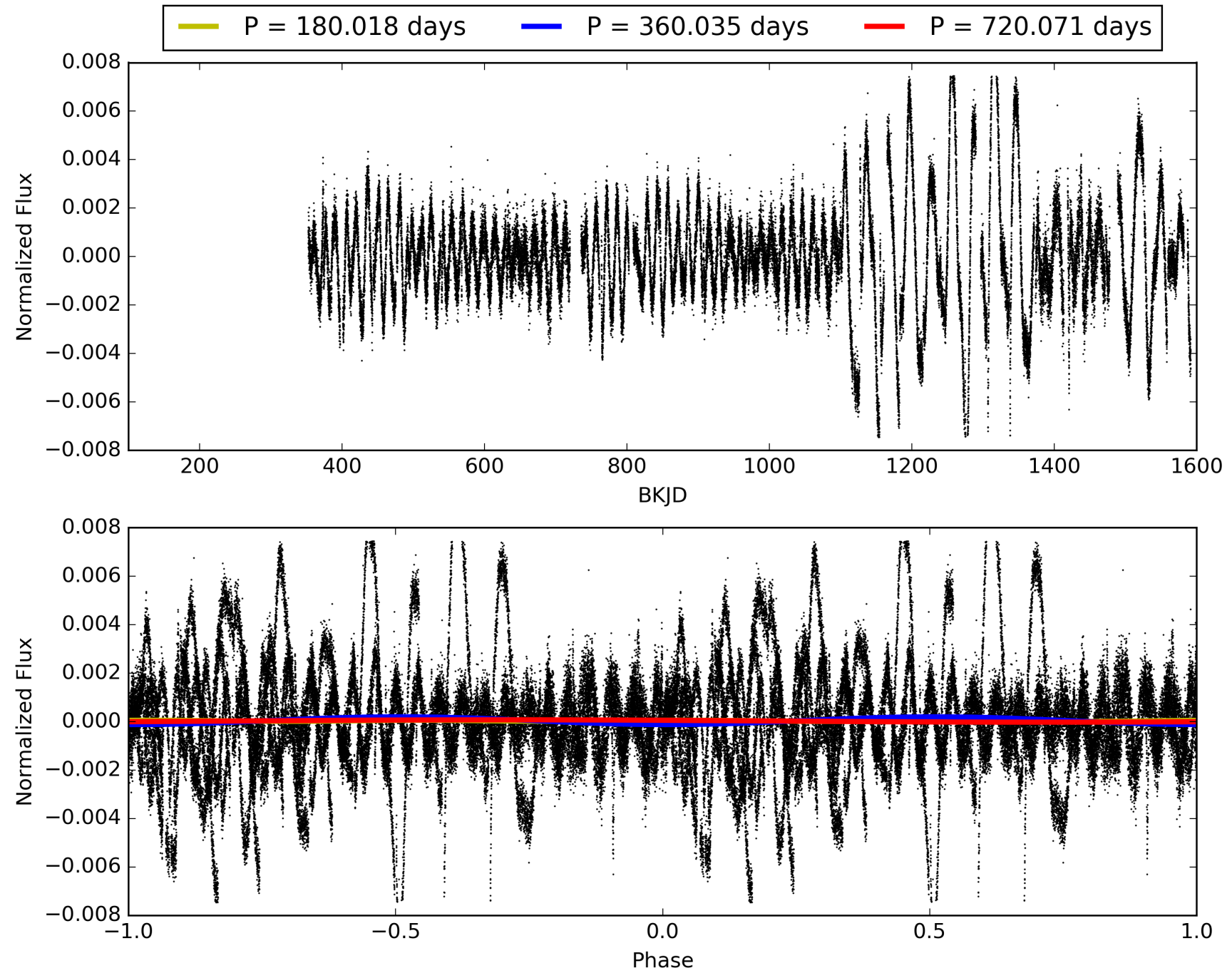
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:47:20 Z

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

TCE 006628656-01, PDC Light Curves

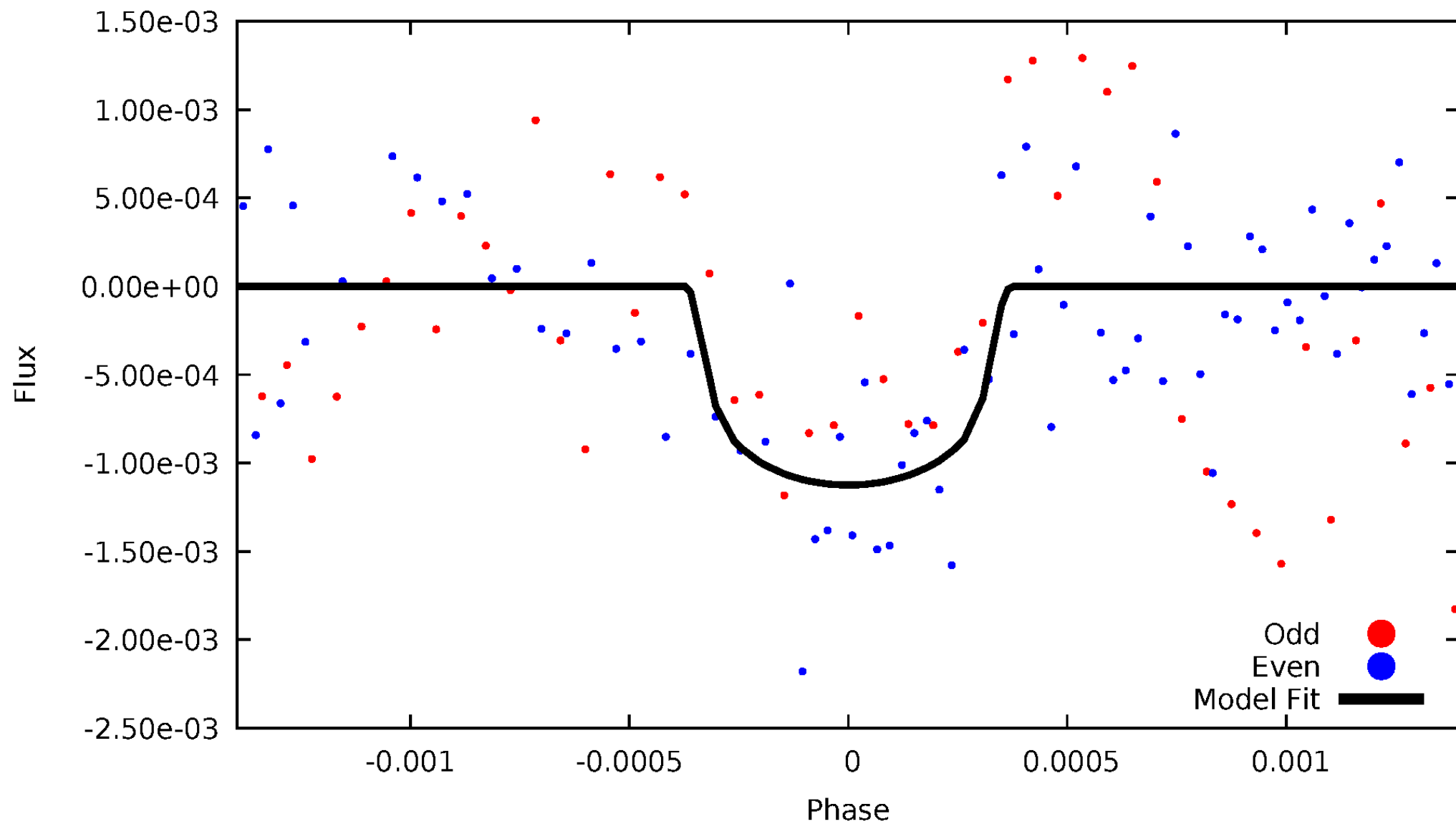


TCE 006628656-01



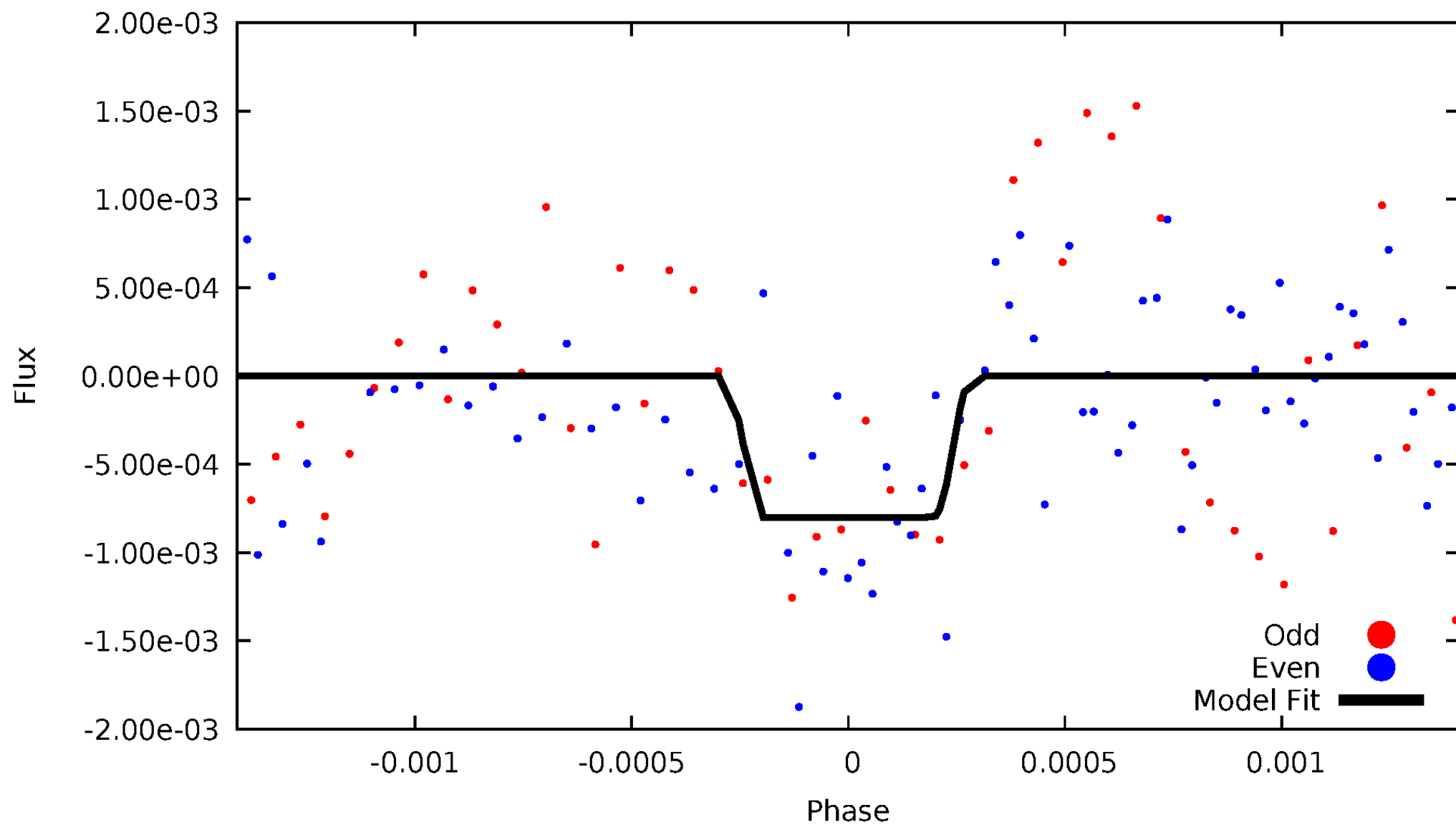
DV Odd/Even

TCE 006628656-01



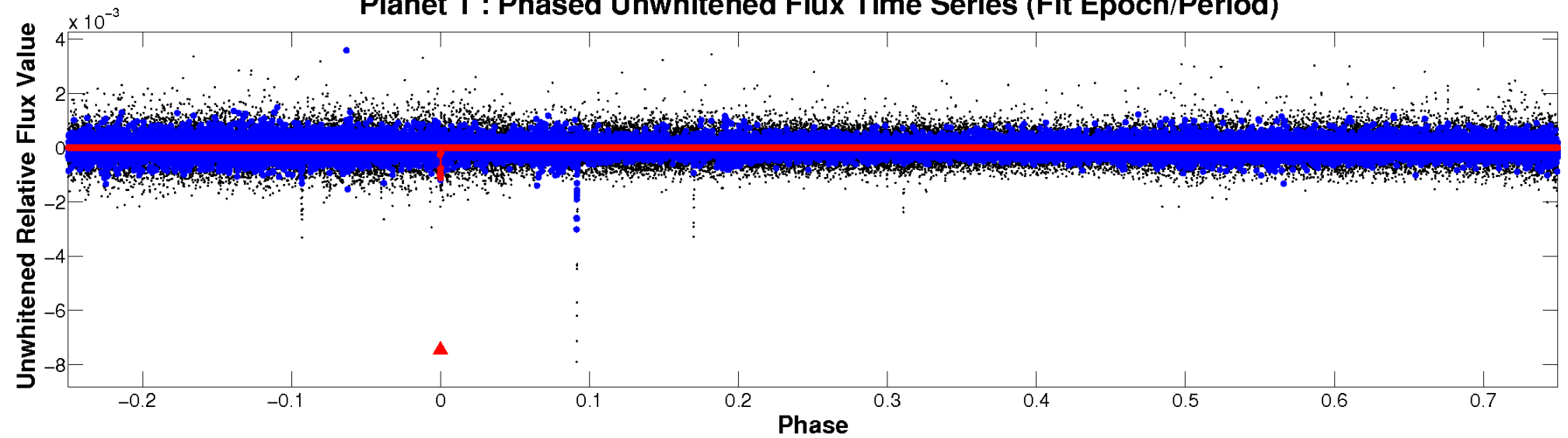
ALT Odd/Even

TCE 006628656-01

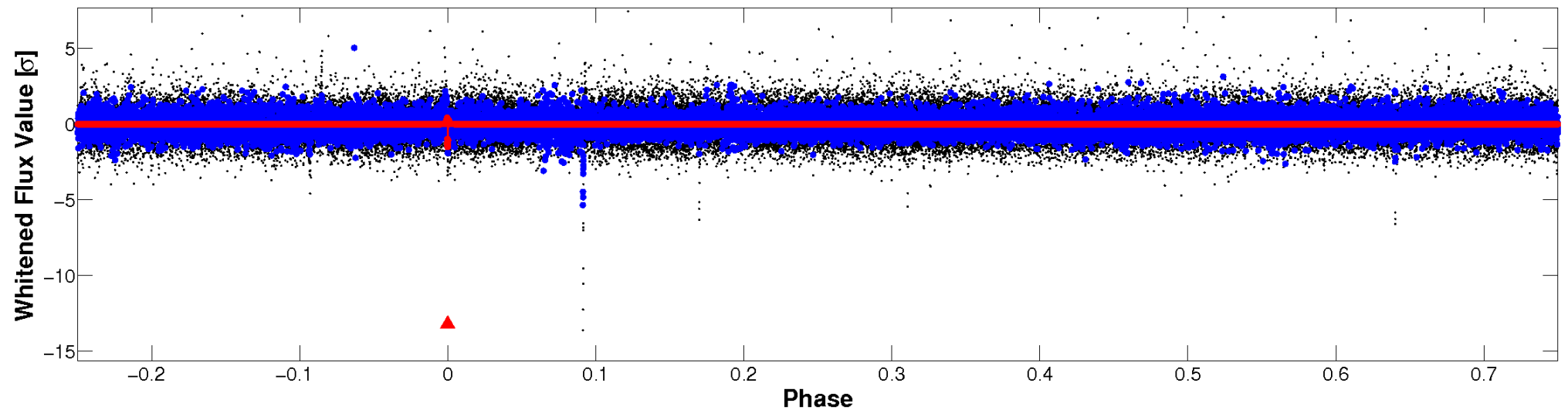


Non-Whitened Vs. Whitened Light Curve

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

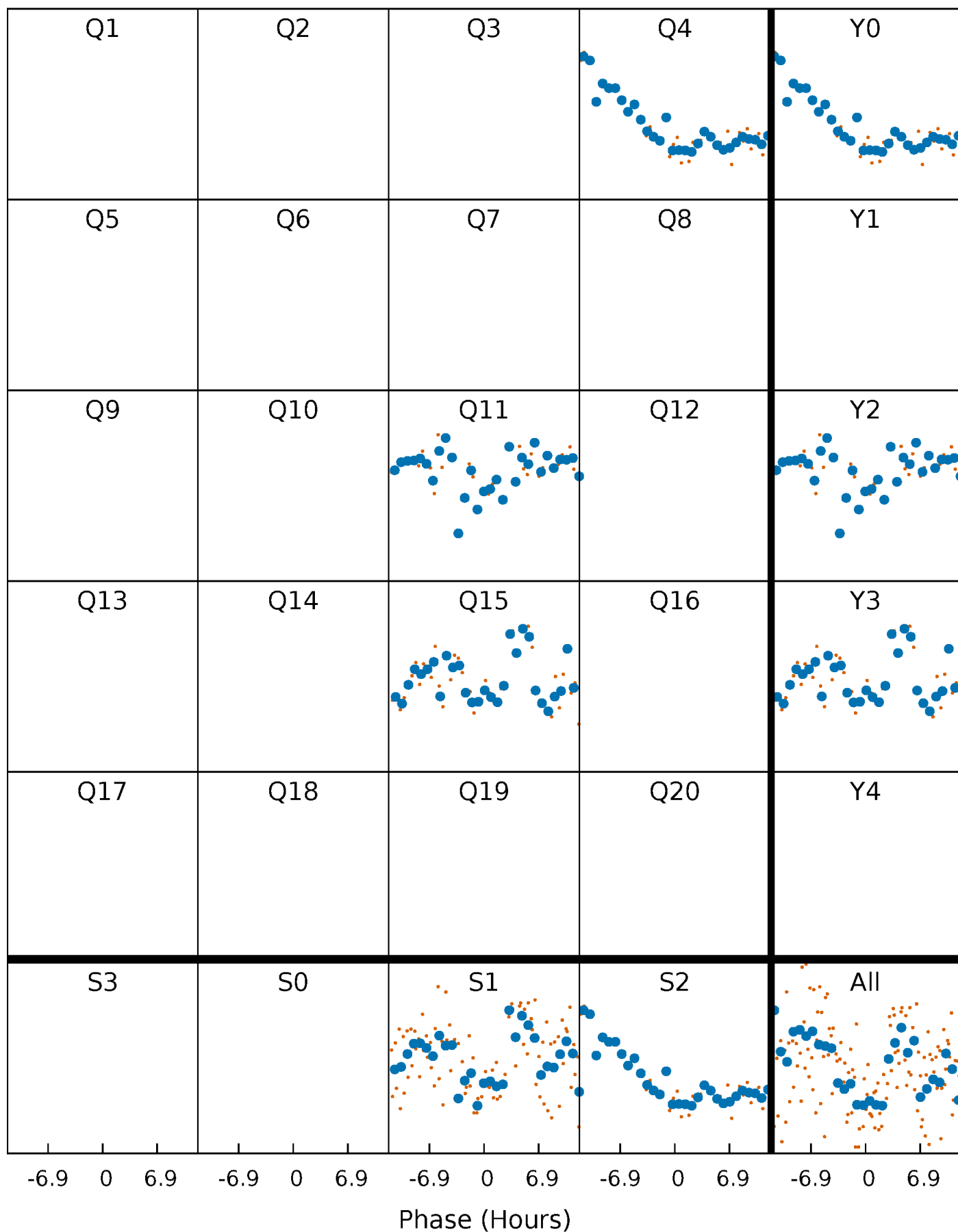


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 006628656-01 P=360.035289 Days $T_0=373.695311$ (BKJD)



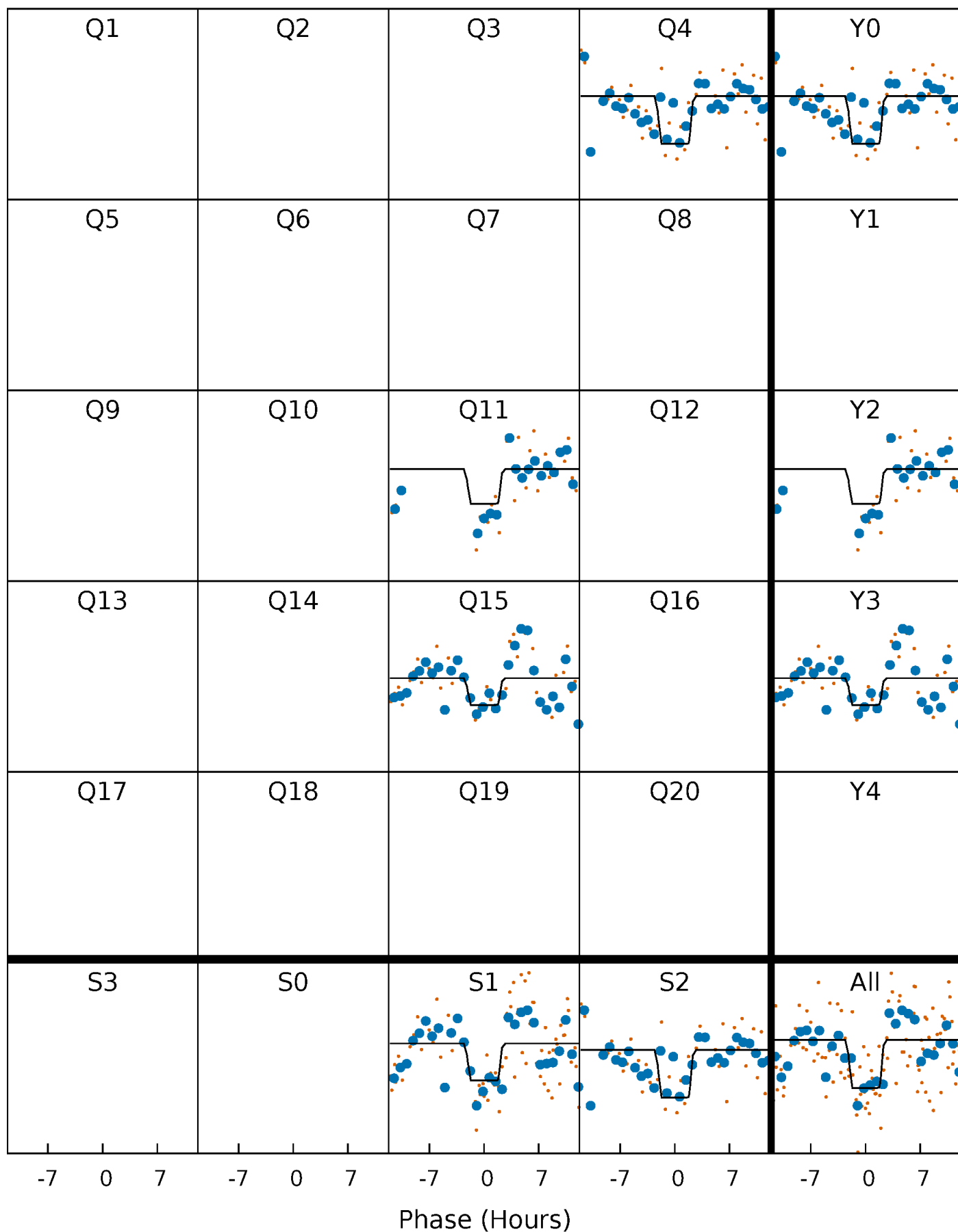
DV Quarter-Phased Transit Curves

TCE 006628656-01 P=360.035289 Days $T_0=373.695311$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

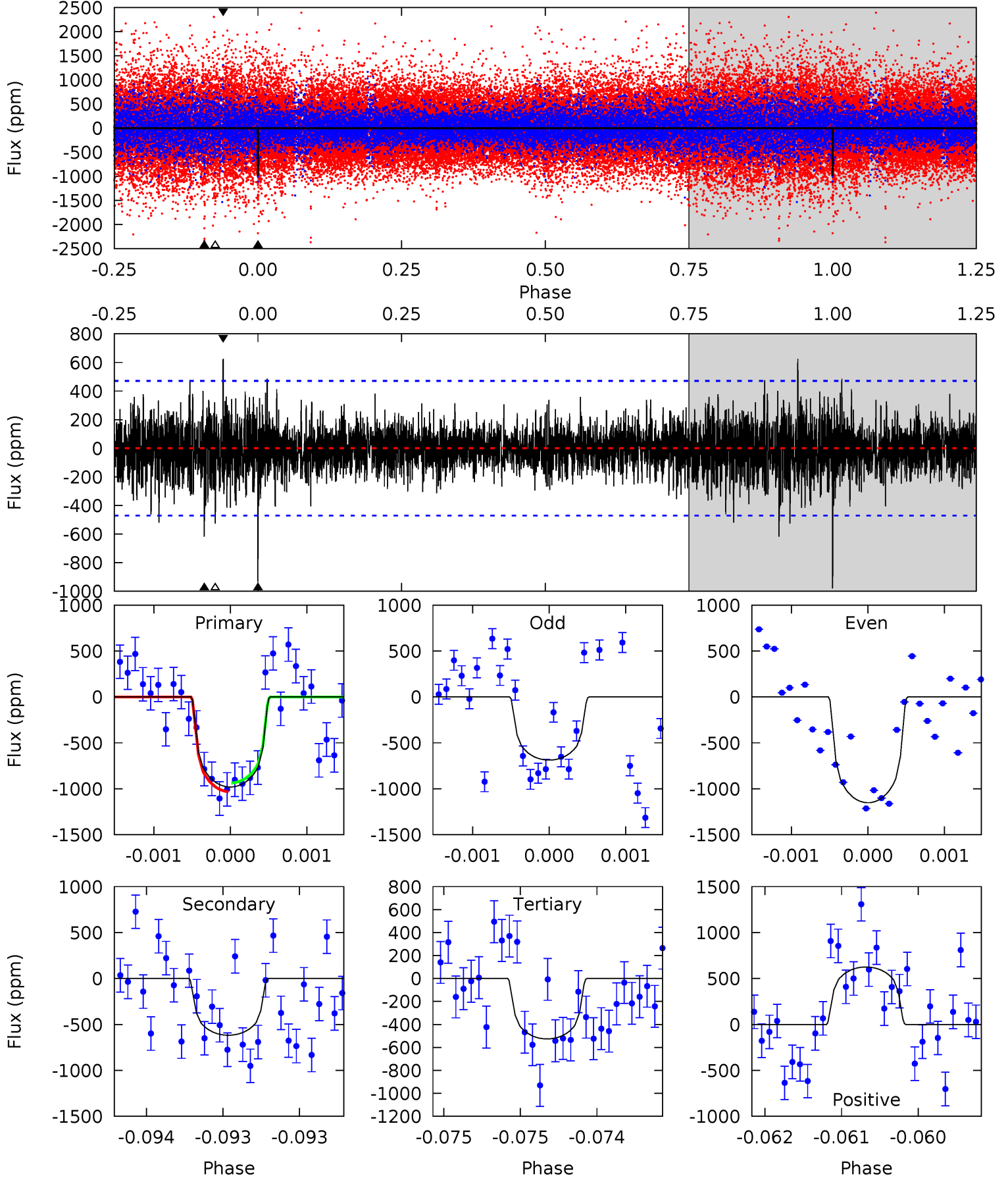
TCE 006628656-01 P=360.025705 Days $T_0=373.718037$ (BKJD)



DV Model-Shift Uniqueness Test

006628656-01, $P = 360.035289$ Days, $E = 13.660022$ Days

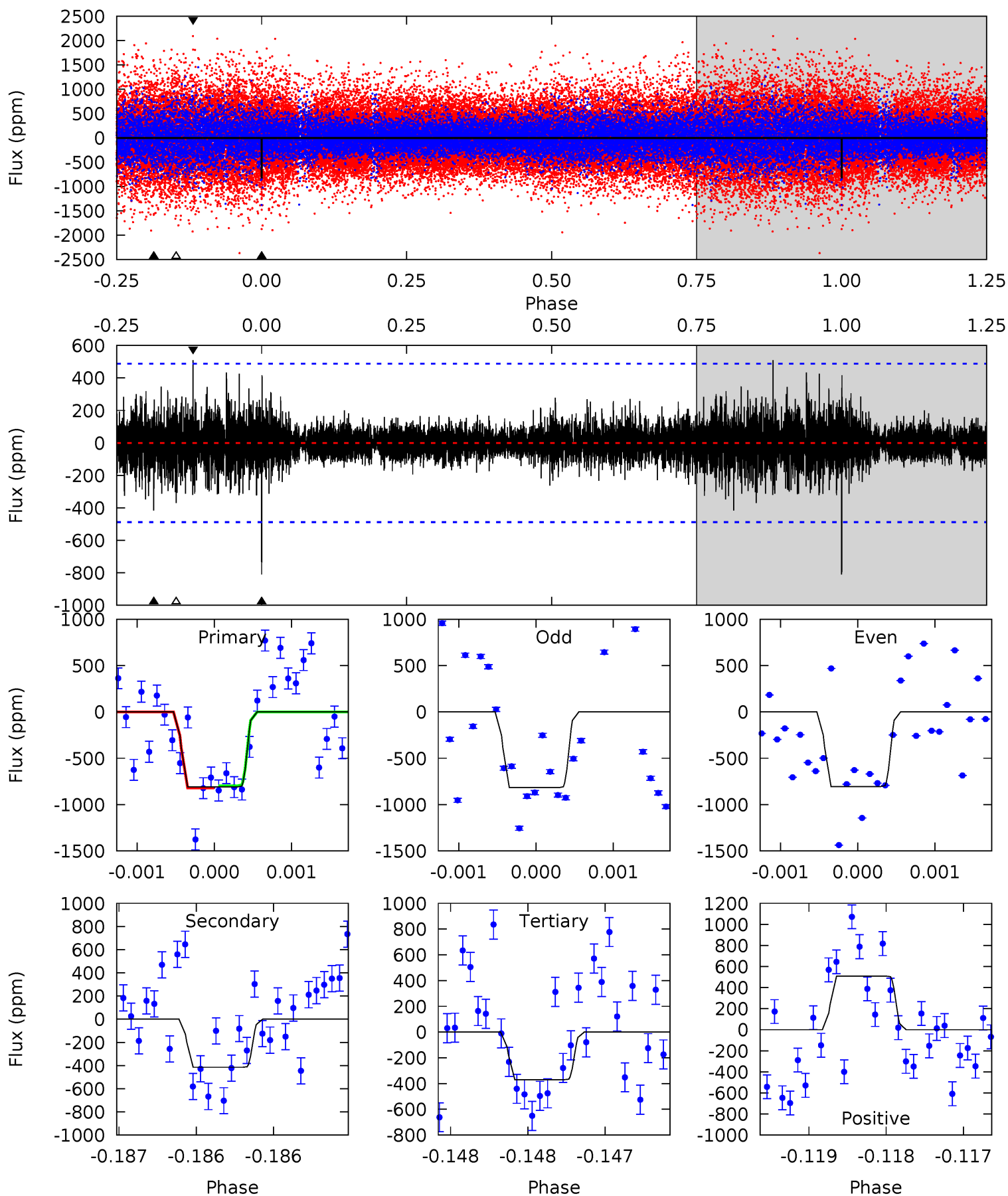
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	7.23	6.16	7.31	5.51	3.38	1.35	5.31	4.16	1.07	-0.08	2.60	1.10	0.39	0.54



Alt Model-Shift Uniqueness Test

006628656-01, $P = 360.025705$ Days, $E = 13.692332$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.21	4.72	4.21	5.79	5.55	3.45	0.92	5.00	3.42	0.52	-1.07	0.07	1.02	0.39	0.12



Stellar Parameters For KIC 006628656

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3978^{+124}_{-152}	$4.665^{+0.063}_{-0.023}$	$0.020^{+0.250}_{-0.300}$	$0.589^{+0.041}_{-0.076}$	$0.585^{+0.050}_{-0.068}$	$4.035^{+1.373}_{-0.446}$
	+3%/-4%	+1%/-0%	+1250%/-1500%	+7%/-13%	+9%/-12%	+34%/-11%
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 006628656-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-618 ± 85	$2.43^{+1.91}_{-1.47}$	205^{+8}_{-9}	3415^{+1339}_{-520}	$39598^{+222952}_{-27521}$
Alt.	-415 ± 88	$2.33^{+1.88}_{-1.49}$	205^{+8}_{-9}	3289^{+1349}_{-548}	$29381^{+176955}_{-20887}$

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 $A_{obs} \gg 1.0$

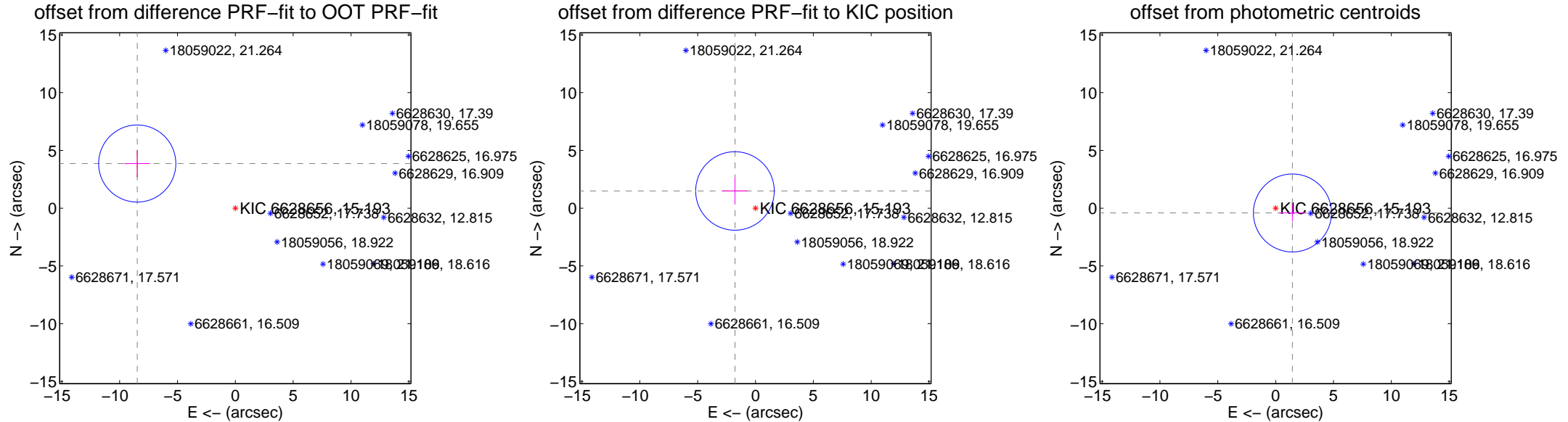
DV Centroid Data

Supplemental centroid analysis for 006628656-01. Kepler magnitude: 15.19. Transit SNR 7.91

There are 0 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 7.12 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.321 \pm 1.112	8.38	8.482 \pm 1.098	3.865 \pm 1.179
PRF-fit source offset from KIC position	2.317 \pm 1.132	2.05	1.775 \pm 1.098	1.489 \pm 1.179
photometric centroid source offset	1.51 \pm 1.12	1.34	-1.45 \pm 1.15	-0.42 \pm 0.74



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.



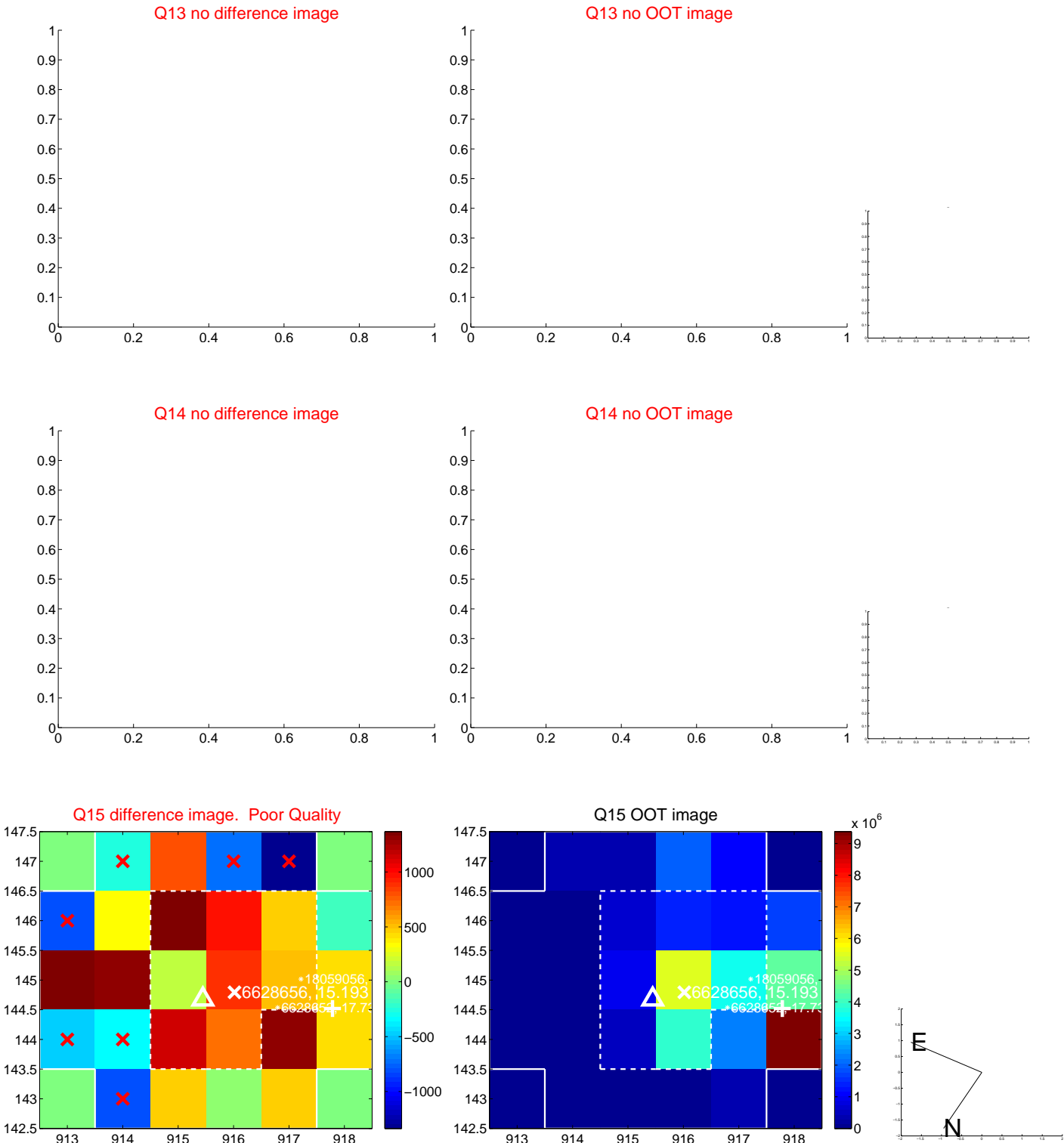
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



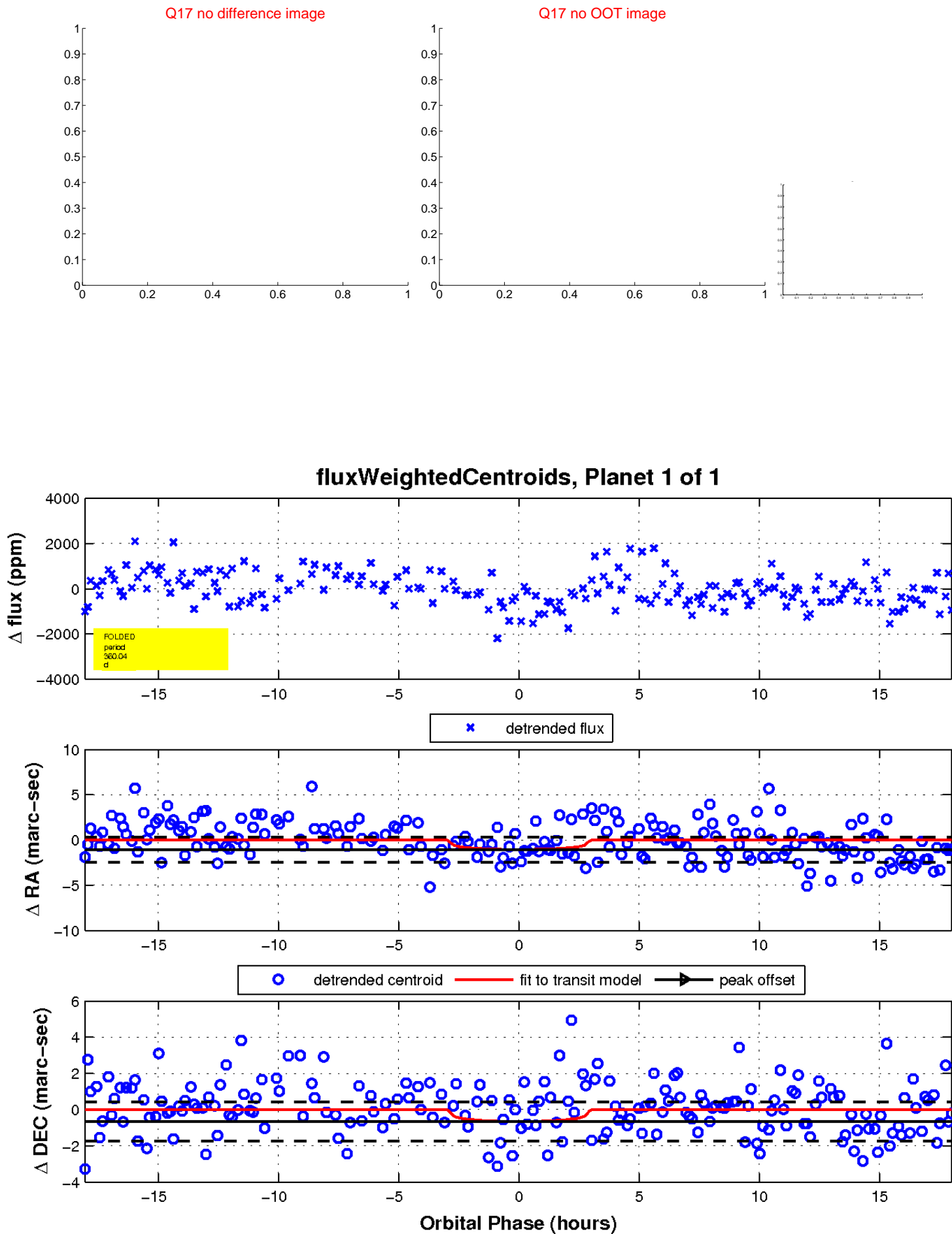
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

