

KIC 008073767

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})
008073767-01	OBS	No	1.731284	133.112578	1.7	14.705	9.5	0.6	1.19	6645	0.16	2836.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008073767-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL — LPP_DV — CENT_SATURATED

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

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

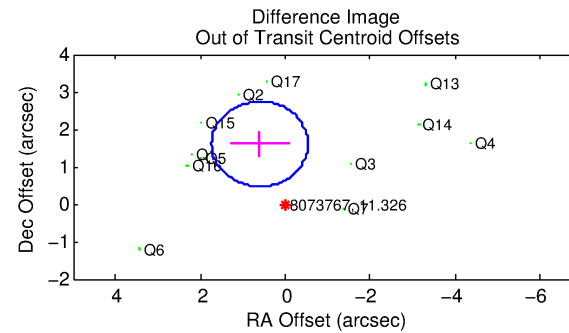
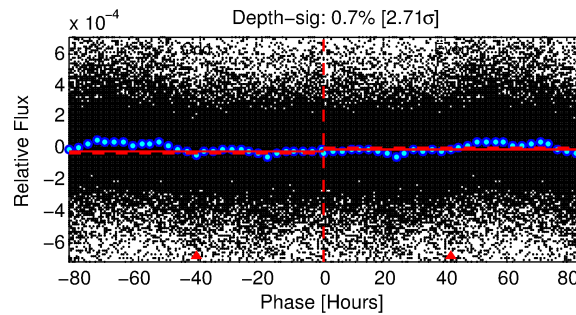
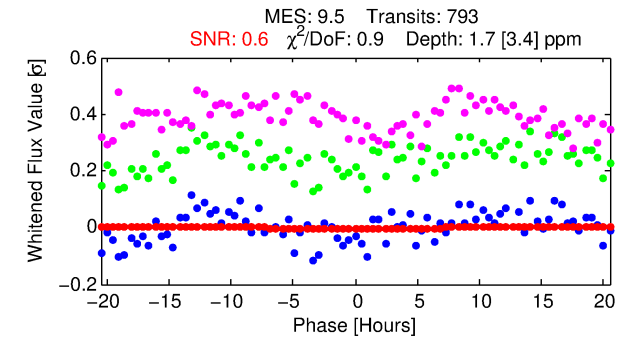
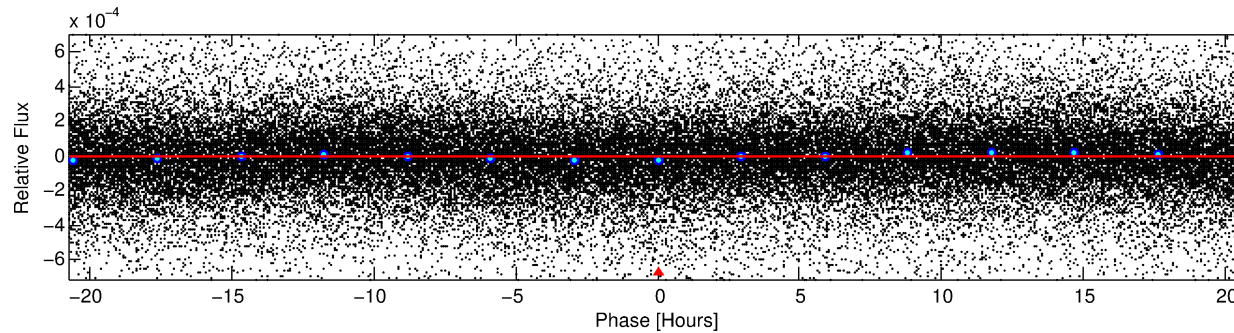
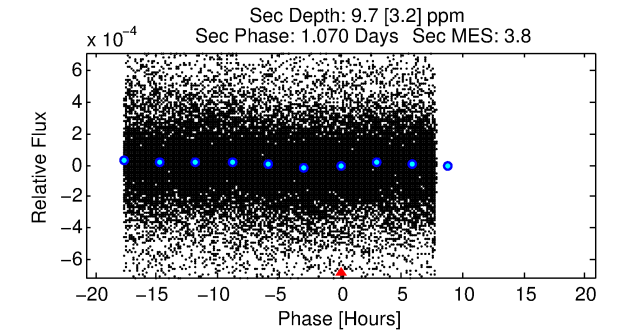
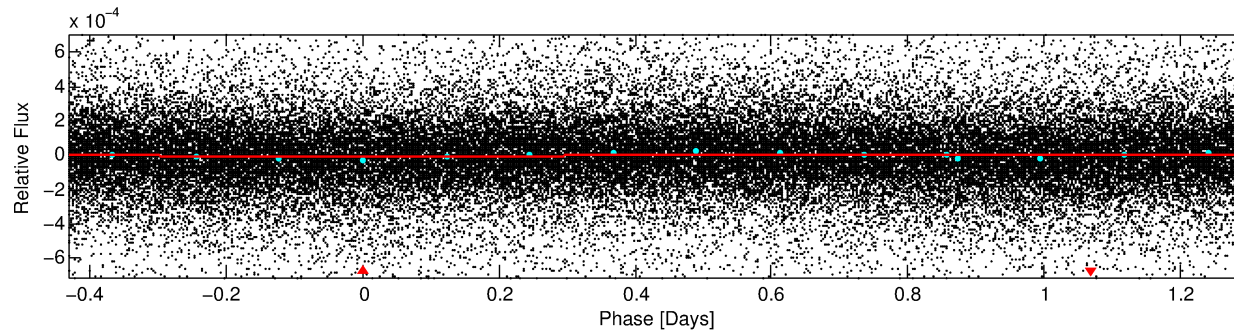
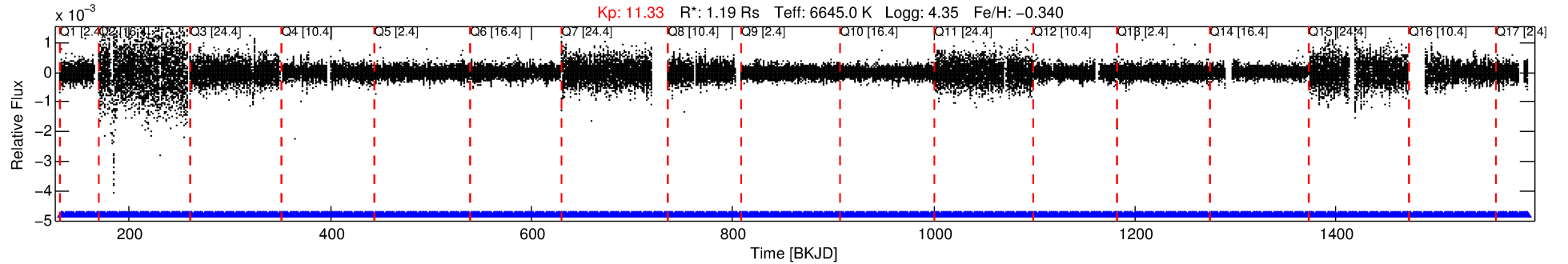
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008073767-01

No Significant Match Found

DV One-Page Summary

KIC: 8073767 Candidate: 1 of 1 Period: 1.731 d



DV Fit Results:

Period = 1.73128 [0.00029] d
Epoch = 133.1126 [0.0728] BKJD
Rp/R* = 0.0012 [0.0080]
a/R* = 1.12 [8.20]
b = 0.01 [2757.80]
Seff = 2836.27 [1107.23]
Teq = 1861 [182] K
Rp = 0.16 [1.04] Re
a = 0.0295 [0.0076] AU
Ag = 188.19 [2487.62] [0.08σ]
Teffp = 10656 [35203] K [0.25σ]

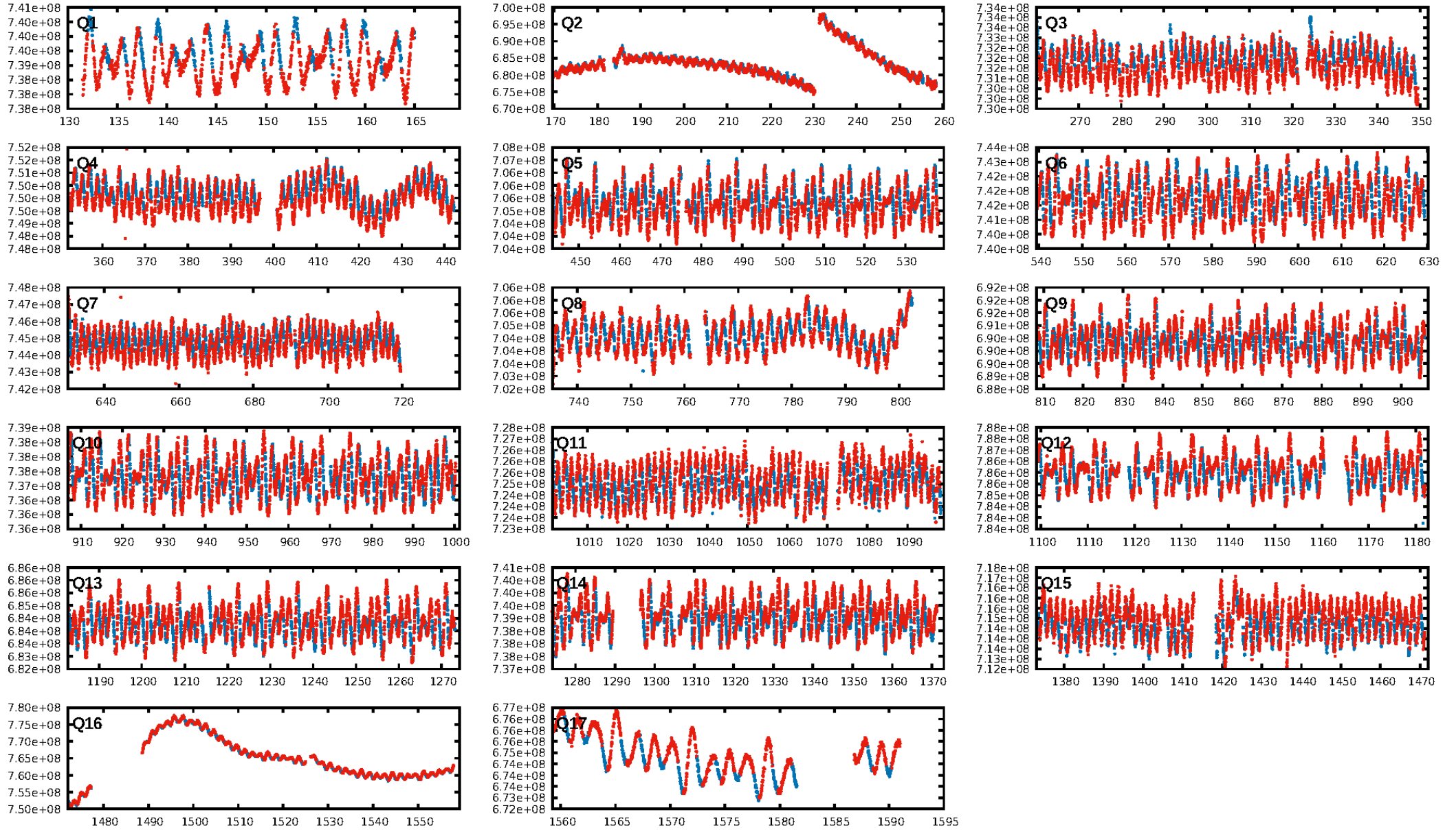
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [757/757]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.713 arcsec [4.53σ]
KicOffset-rm: 1.295 arcsec [1.99σ]
OotOffset-st: 3/3/2/4 [12]
KicOffset-st: 3/3/2/4 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

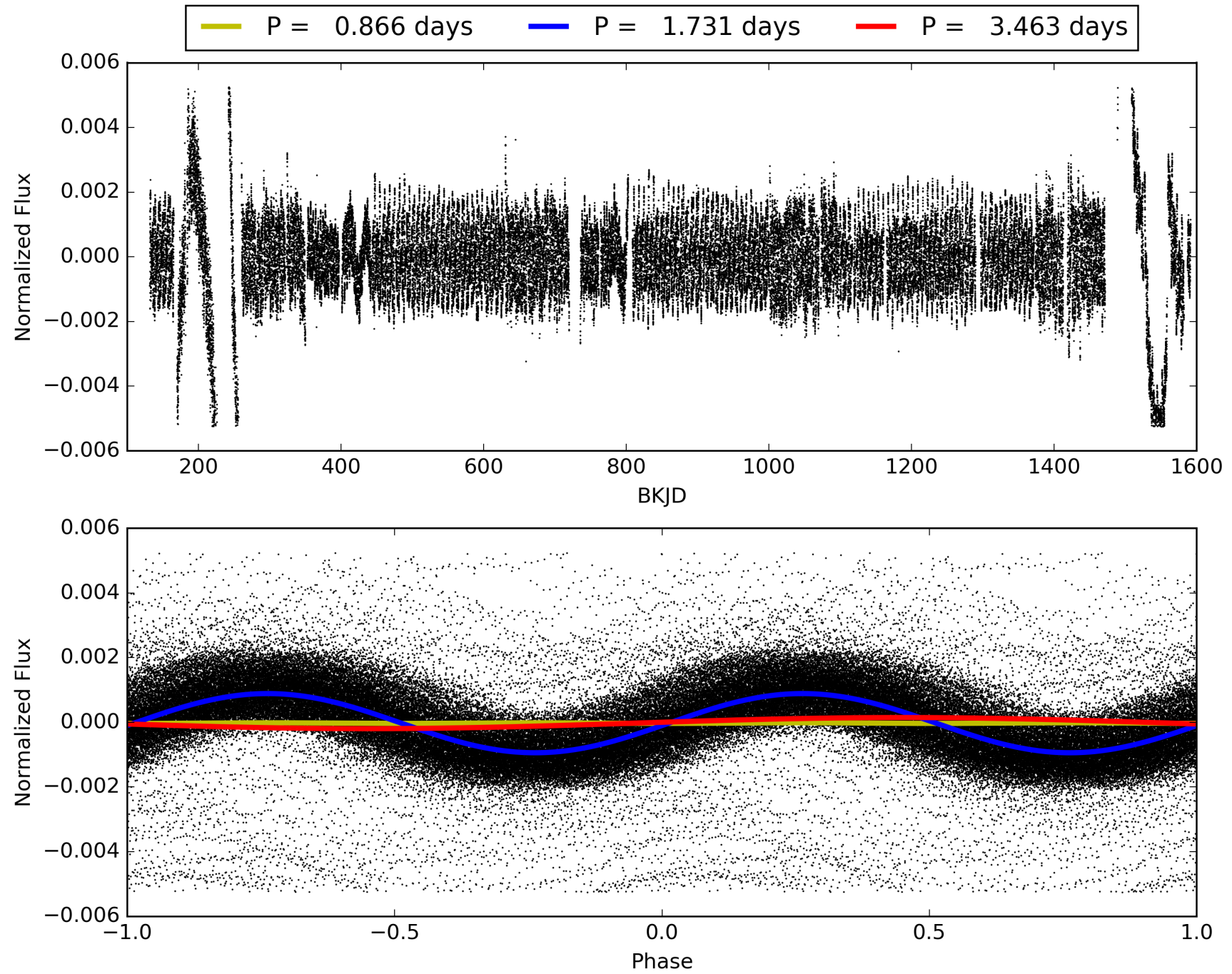
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 08:27:28 Z

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

TCE 008073767-01, PDC Light Curves

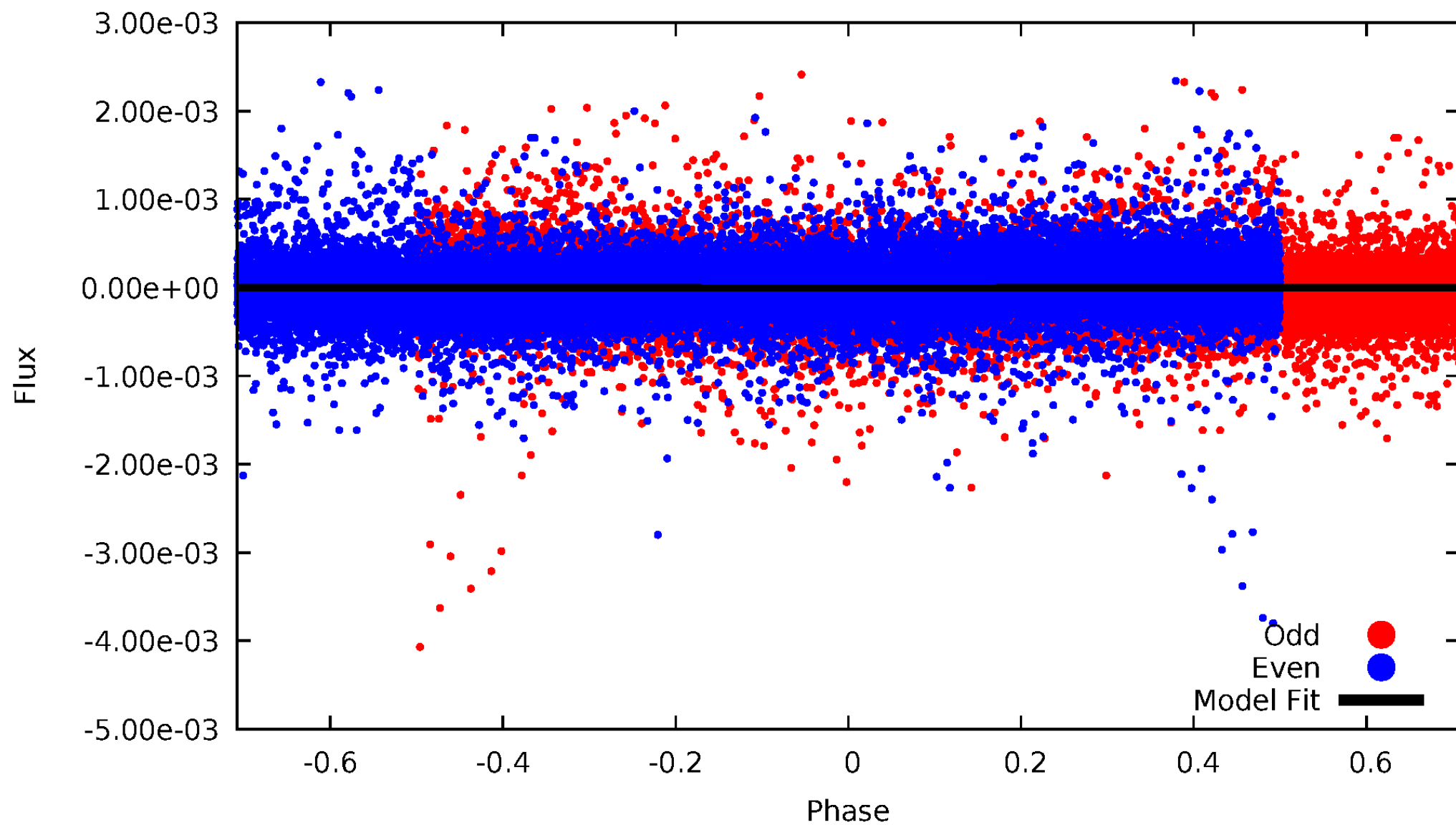


TCE 008073767-01



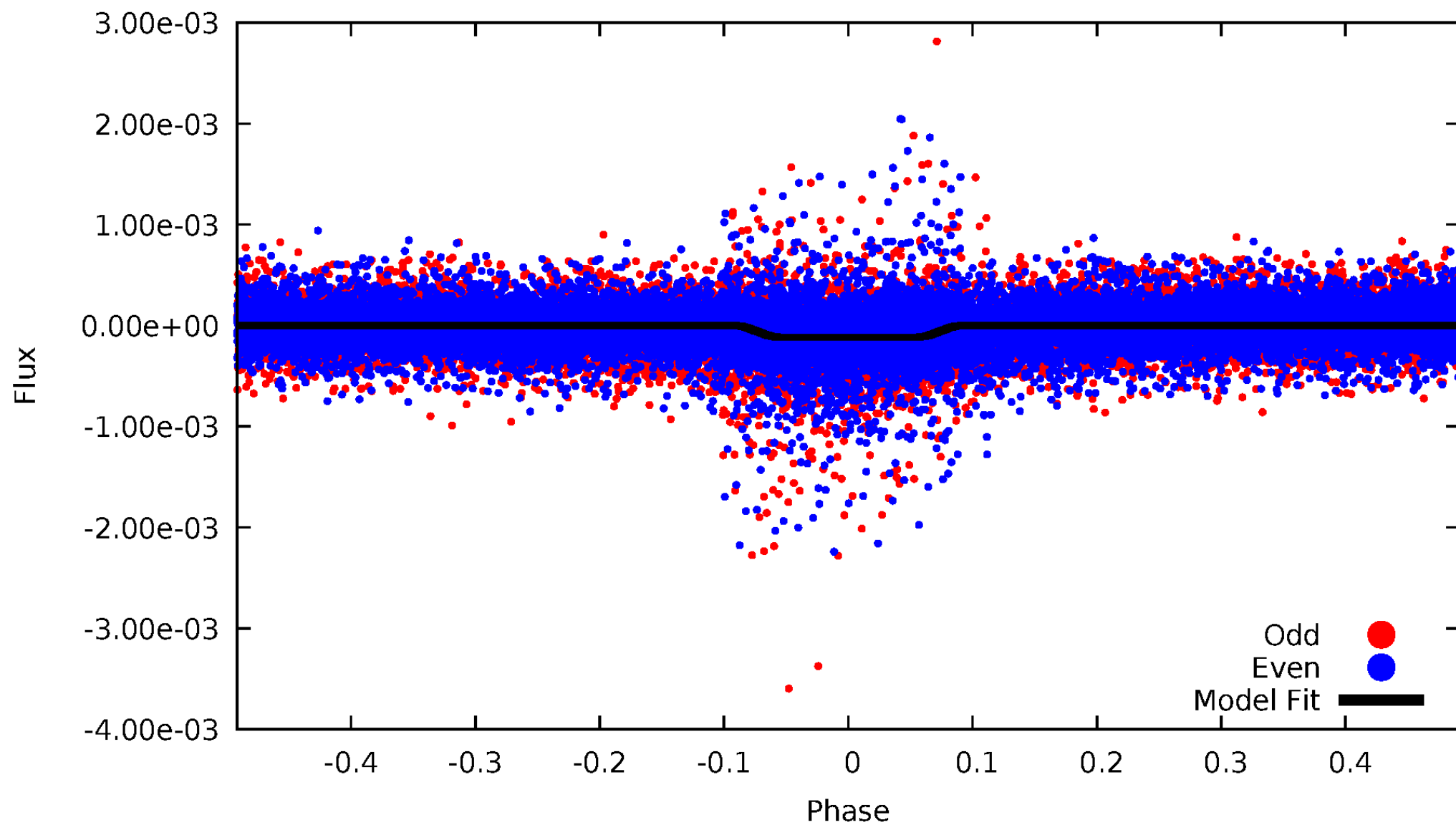
DV Odd/Even

TCE 008073767-01



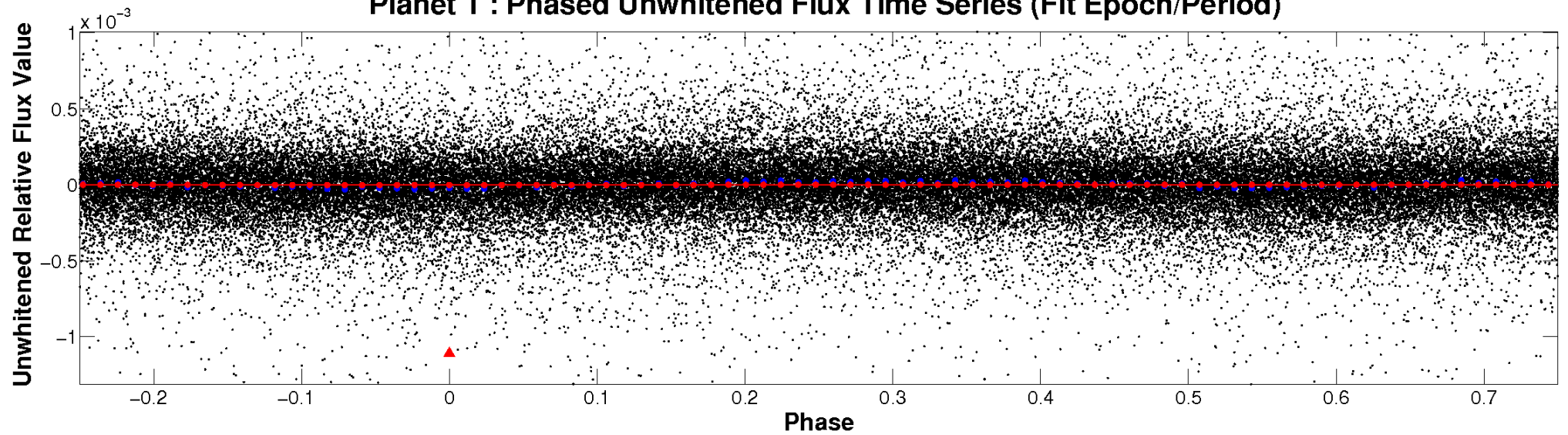
ALT Odd/Even

TCE 008073767-01

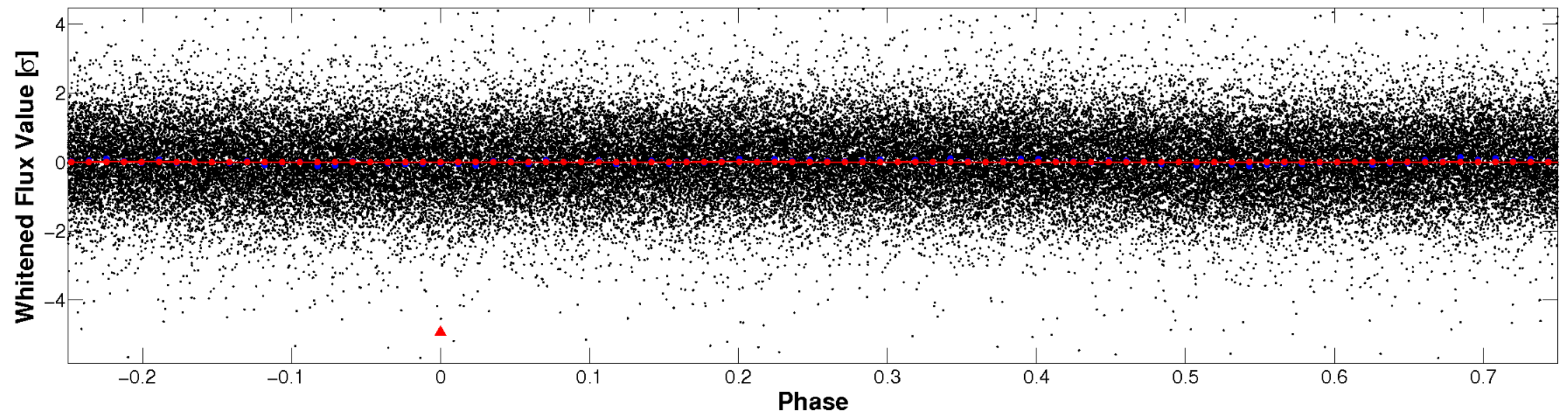


Non-Whitened Vs. Whitened Light Curve

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

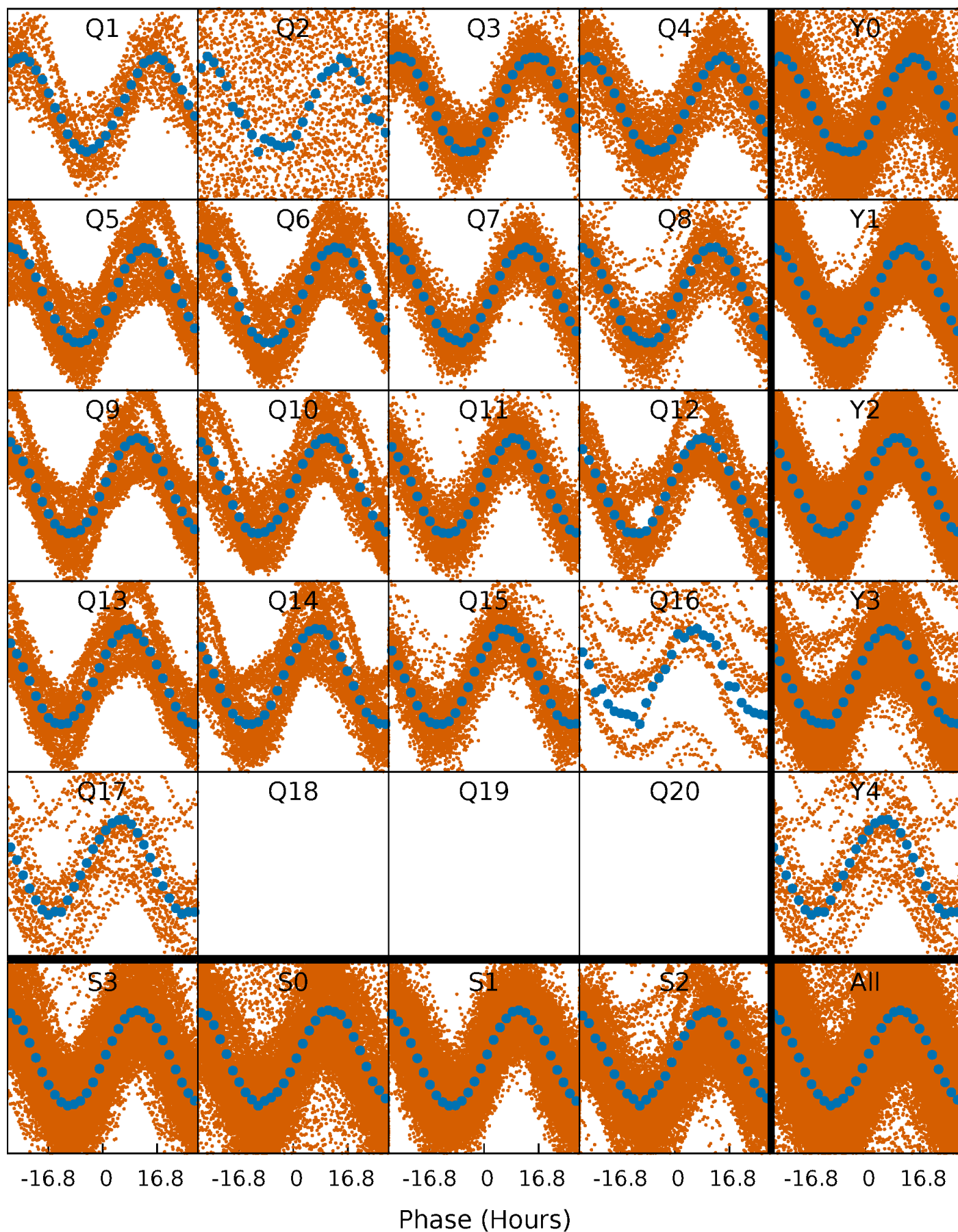


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



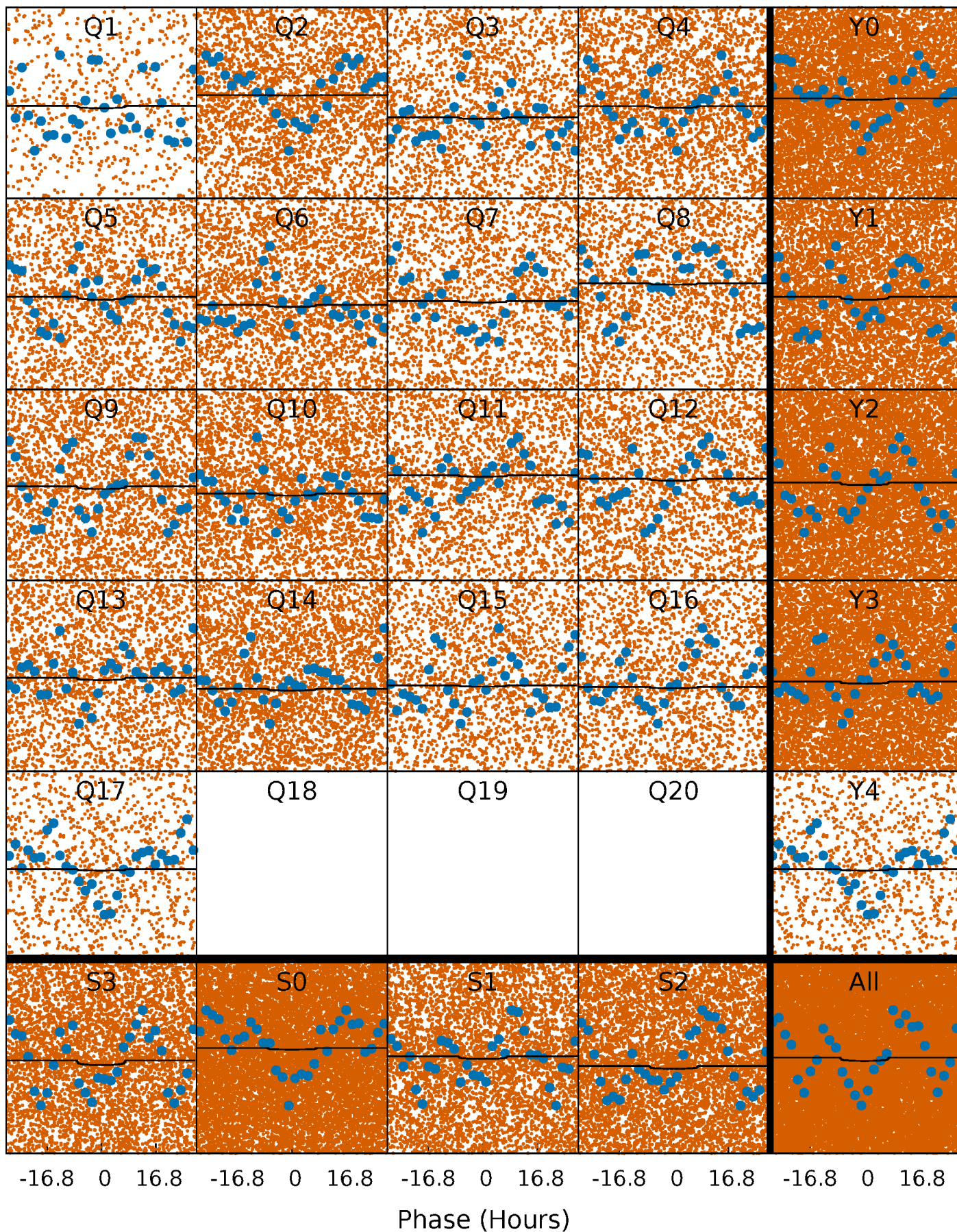
PDC Quarter-Phased Transit Curves

TCE 008073767-01 P= 1.731284 Days $T_0=133.112579$ (BKJD)



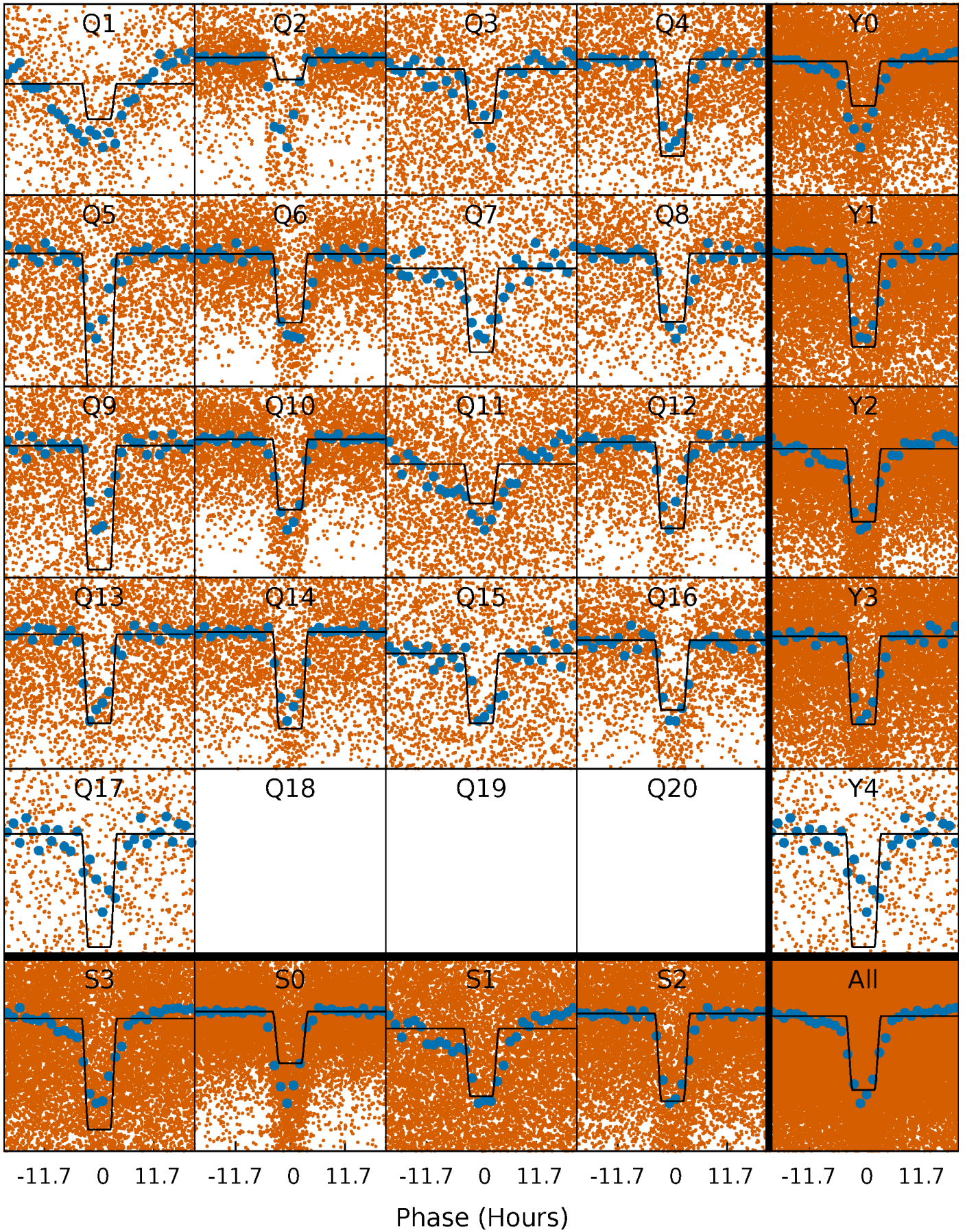
DV Quarter-Phased Transit Curves

TCE 008073767-01 P= 1.731284 Days $T_0=133.112579$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

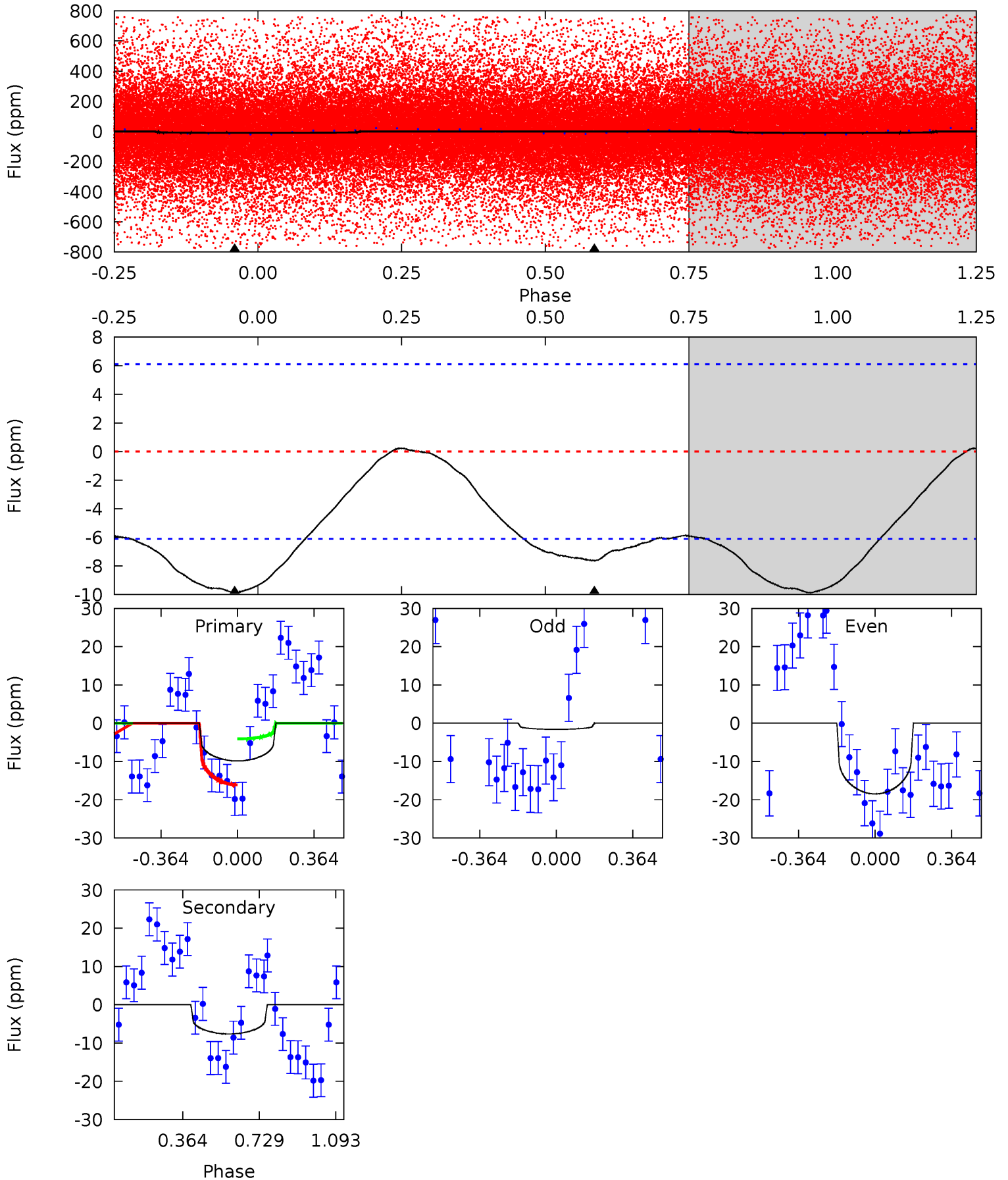
TCE 008073767-01 P= 1.730754 Days $T_0=133.095956$ (BKJD)



DV Model-Shift Uniqueness Test

008073767-01, P = 1.731284 Days, E = 131.381295 Days

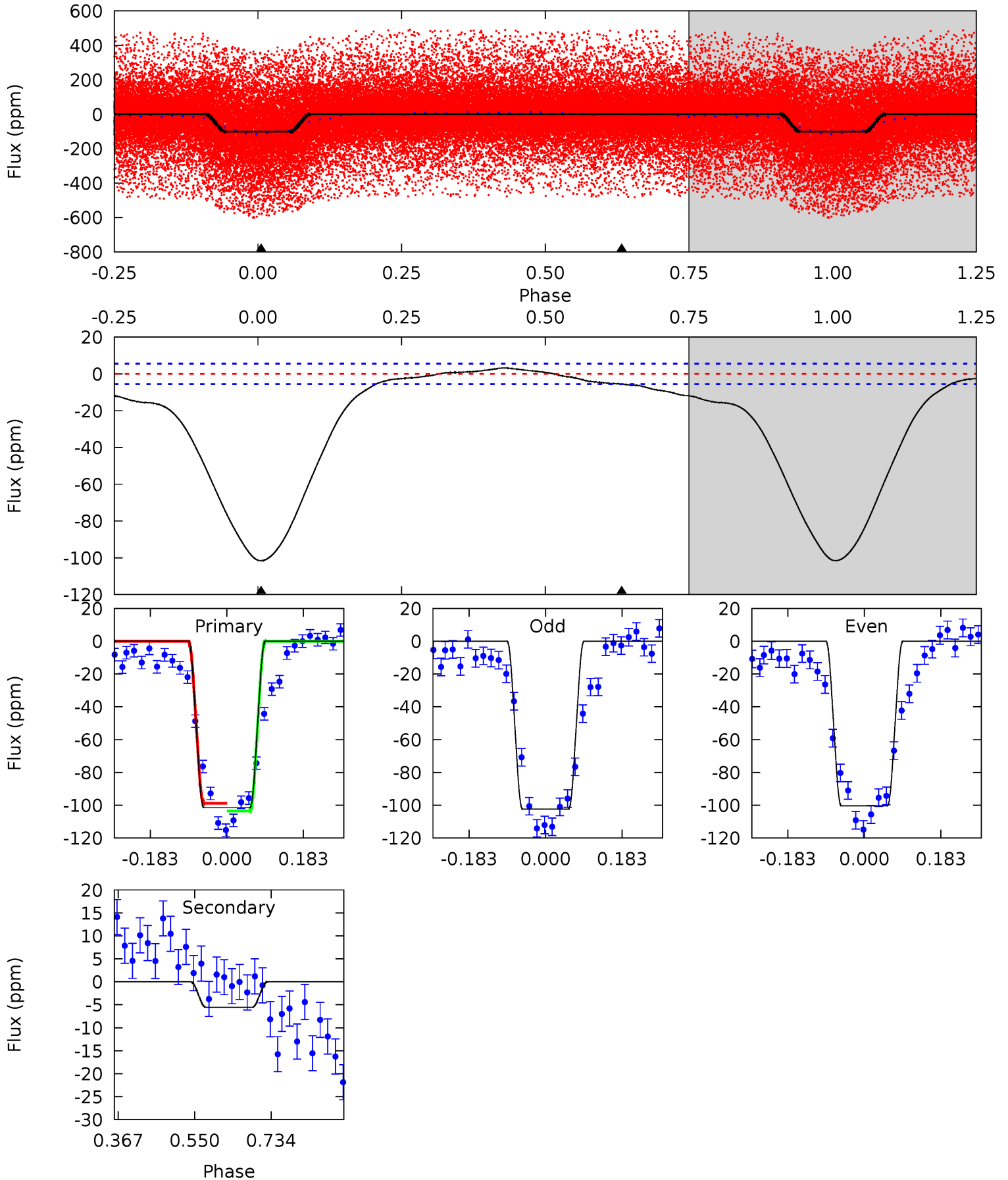
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.93	5.36	0	0	4.29	0.91	0.15	6.93	6.93	5.36	5.36	5.95	1.54	0.02	4.36



Alt Model-Shift Uniqueness Test

008073767-01, P = 1.730754 Days, E = 131.365202 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
81.2	4.45	0	0	4.44	1.33	2.86	81.2	81.2	4.45	4.45	0.79	1.14	0.03	1.89



Stellar Parameters For KIC 008073767

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6645^{+148}_{-198}	$4.346^{+0.081}_{-0.202}$	$-0.340^{+0.250}_{-0.300}$	$1.190^{+0.366}_{-0.157}$	$1.153^{+0.165}_{-0.150}$	$0.964^{+0.357}_{-0.506}$
	+2%/-3%	+2%/-5%	+74%/-88%	+31%/-13%	+14%/-13%	+37%/-52%
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 008073767-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 1	$0.79^{+0.85}_{-0.55}$	2630^{+208}_{-126}	4626^{+3900}_{-1157}	$5.789^{+55.508}_{-4.438}$
Alt.	-6 ± 1	$1.54^{+1.08}_{-0.90}$	2640^{+196}_{-125}	3320^{+1430}_{-992}	$1.094^{+5.177}_{-0.742}$

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

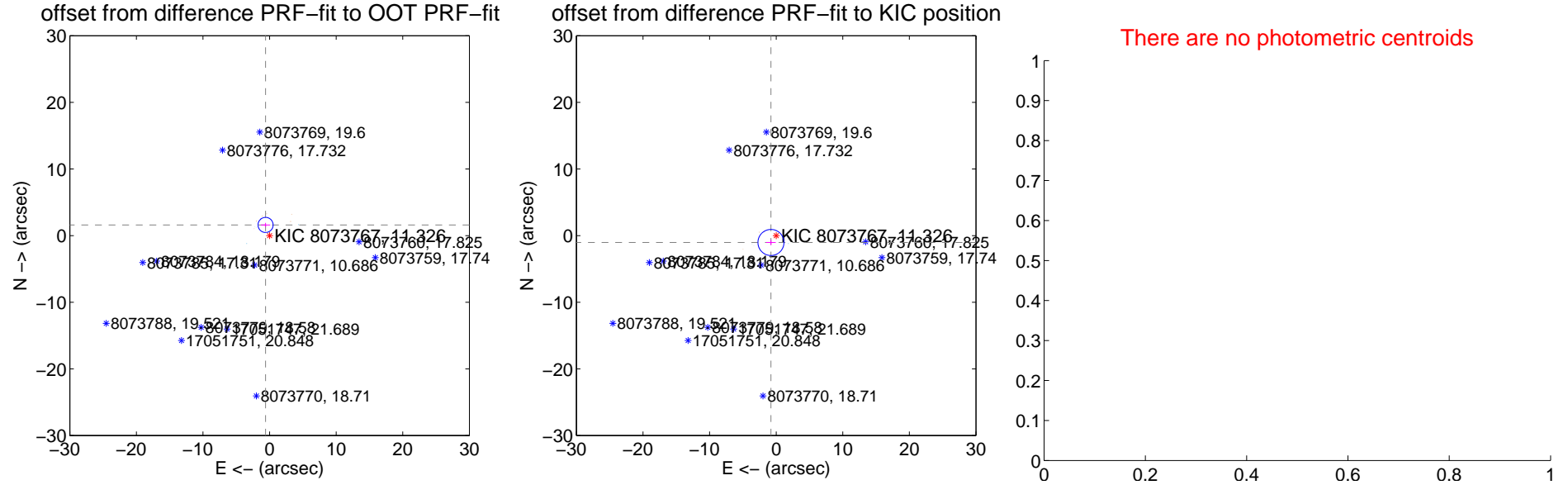
DV Centroid Data

Supplemental centroid analysis for 008073767-01. **Kepler magnitude: 11.33.** Transit SNR 0.62

There are 6 quarters with good PRF difference image offsets

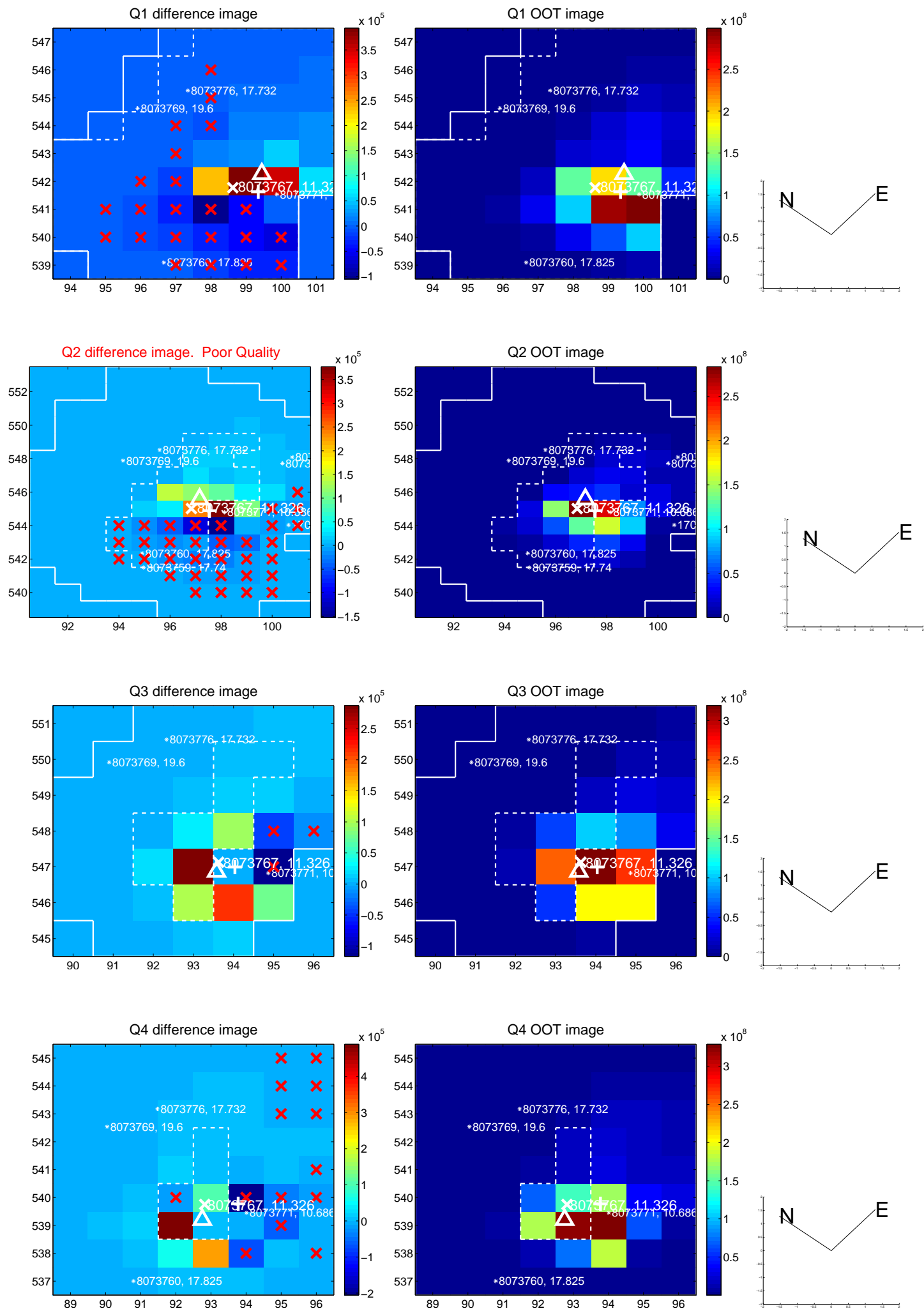
The OOT PRF centroid is offset from the target star catalog position by about 3.04 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.713 \pm 0.378	4.53	0.601 \pm 0.689	1.604 \pm 0.311
PRF-fit source offset from KIC position	1.295 \pm 0.652	1.99	0.786 \pm 0.721	-1.030 \pm 0.393
photometric centroid source offset	—	—	—	—

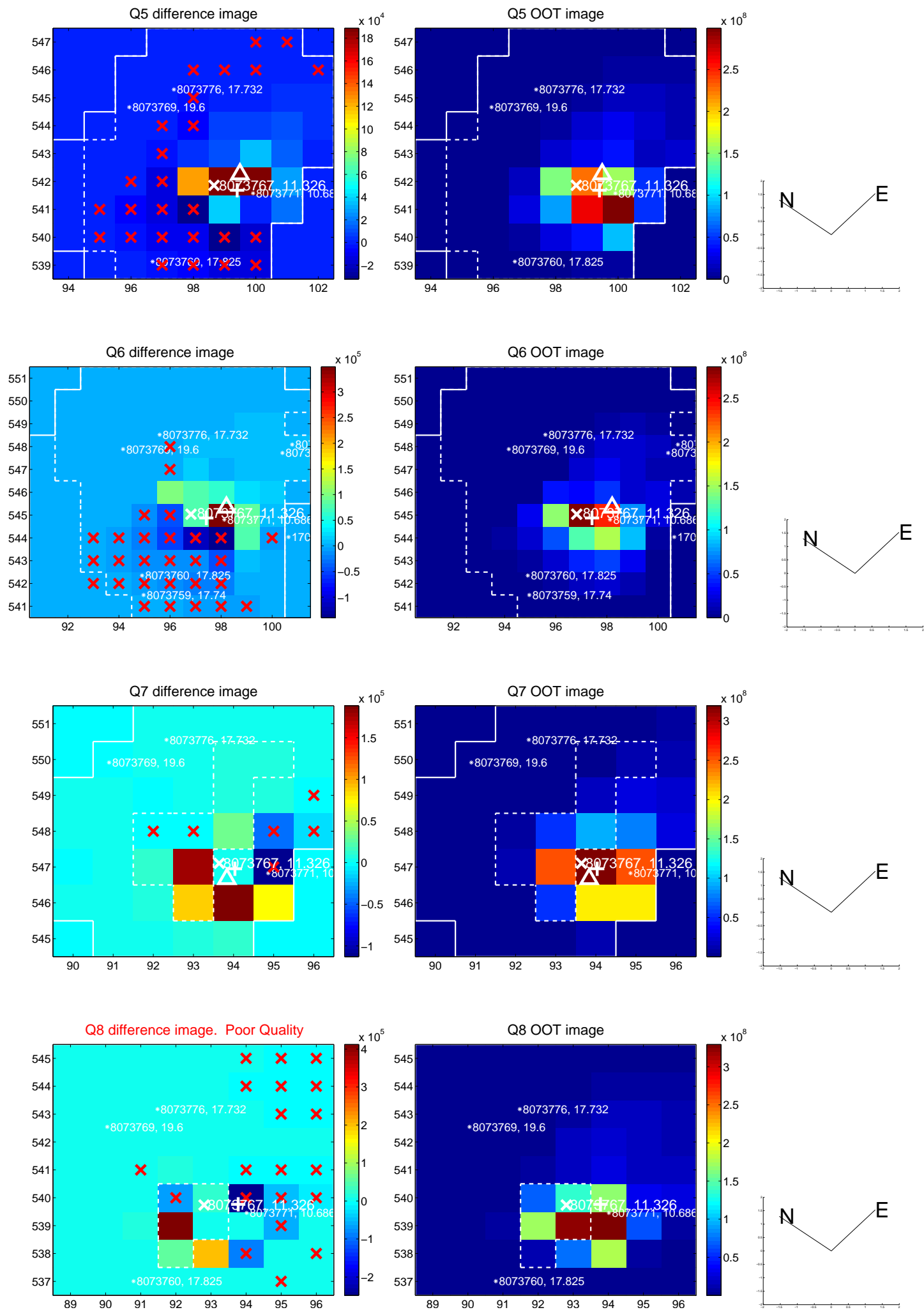


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

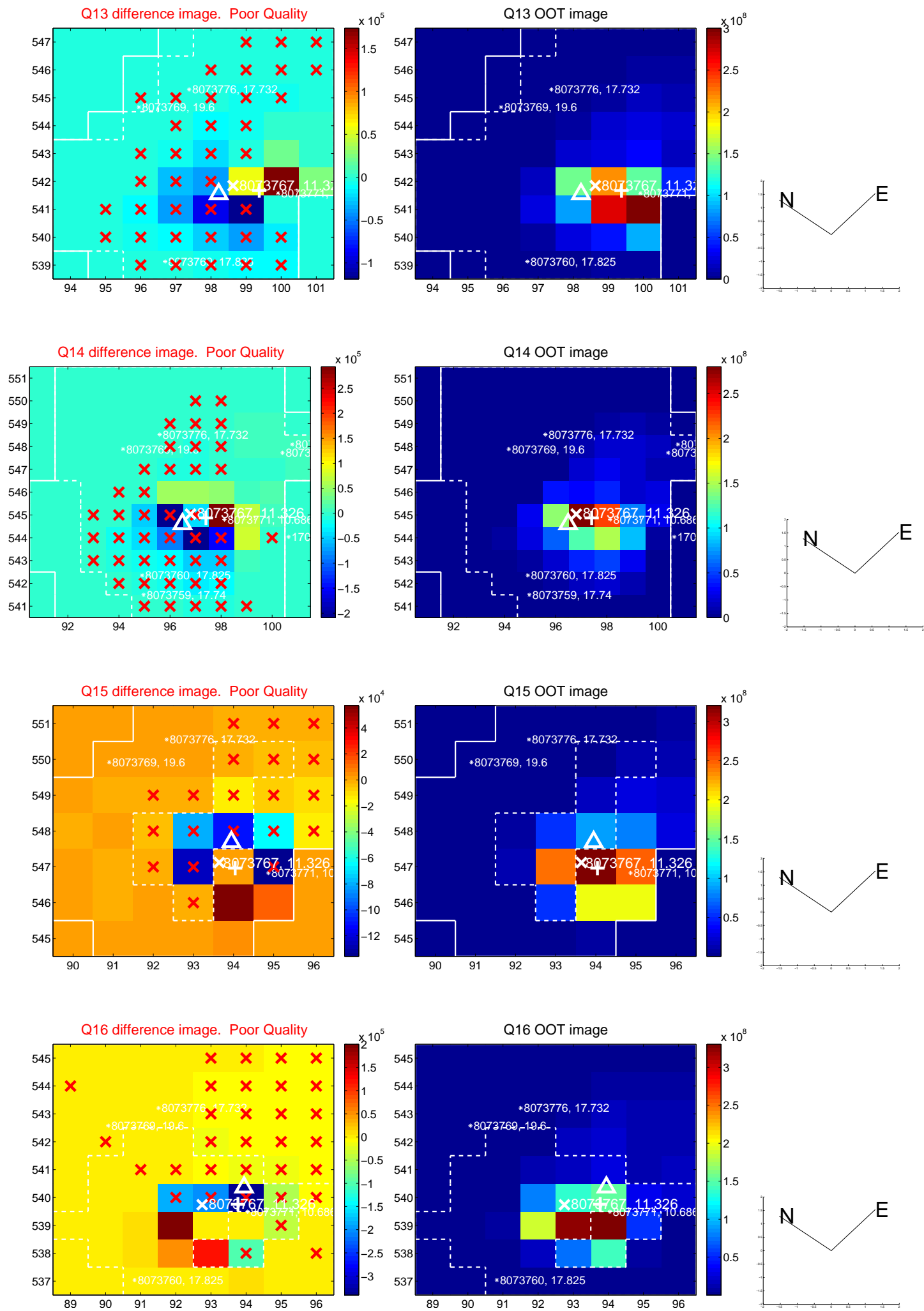
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



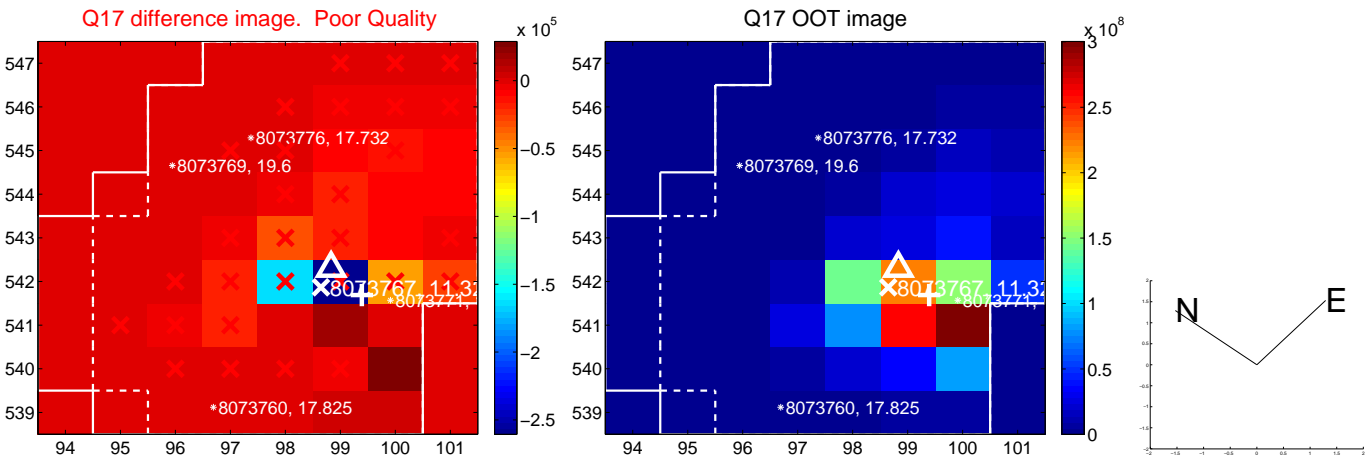
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

