

KIC 011973915

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})
011973915-02	OBS	No	366.461316	212.391523	2245.8	21.977	11.9	7.6	1.00	5780	5.91	0.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011973915-02	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_POS_DV—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.

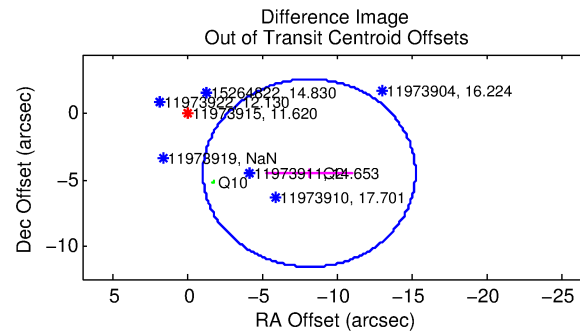
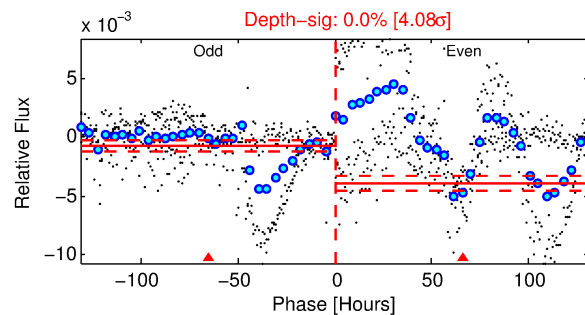
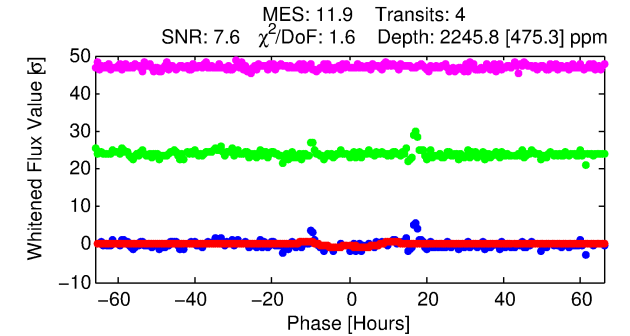
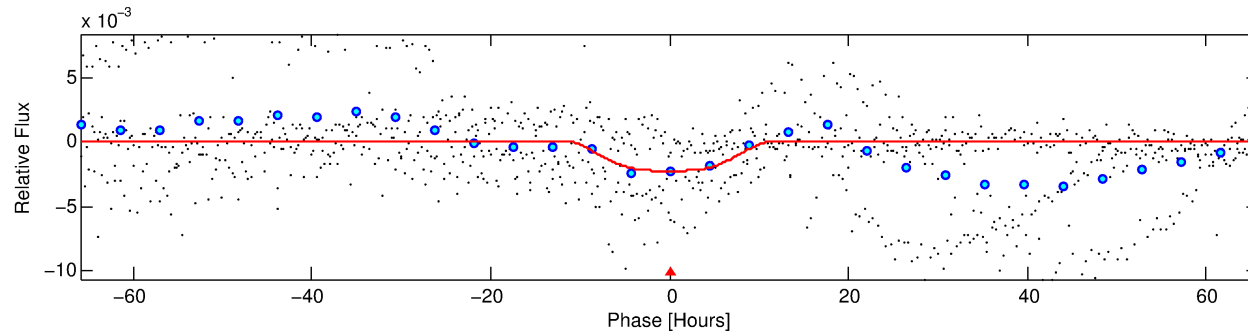
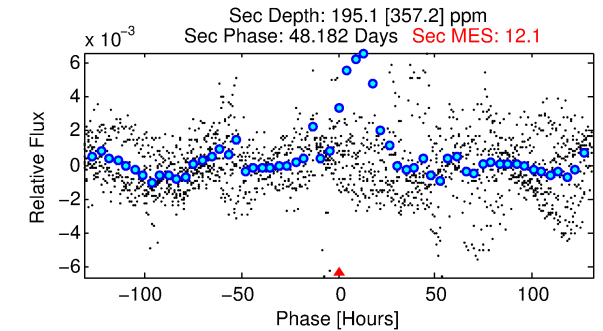
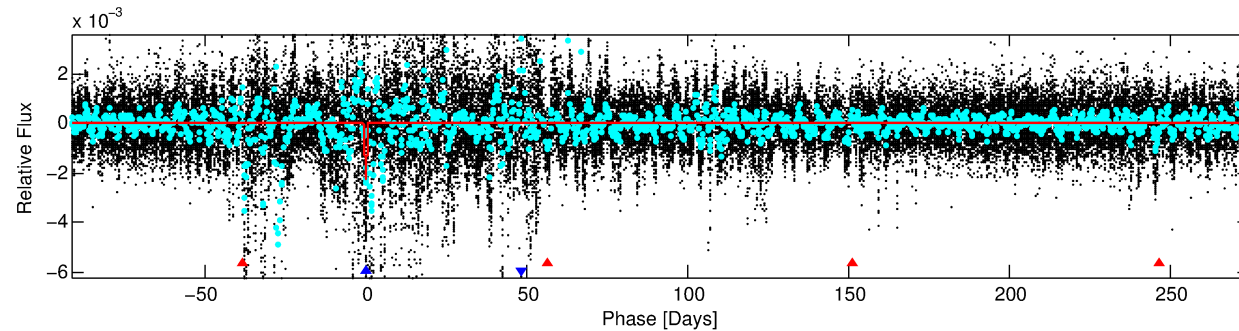
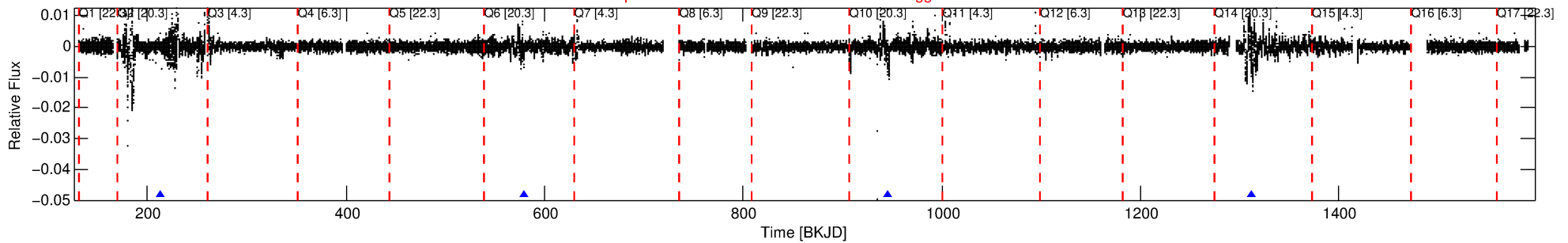
Ephemeris Match Information For 011973915-02

No Significant Match Found

DV One-Page Summary

KIC: 11973915 Candidate: 2 of 2 Period: 366.461 d

Kp: 11.62 R*: 1.00 Rs Teff: 5780.0 K Logg: 4.44 Fe/H: 0.000



DV Fit Results:

Period = 366.46132 [0.02358] d
Epoch = 212.3915 [0.0453] BKJD
Rp/R* = 0.0541 [0.0064]
a/R* = 62.07 [7.87]
b = 0.93 [0.02]
Seff = 1.00 [0.00]
Teq = 255 [0] K
Rp = 5.91 [0.70] Re
a = 1.0024 [0.0000] AU
Ag = 3090.62 [5705.88] [0.54σ]
Teffp = 2936 [1355] K [1.98σ]

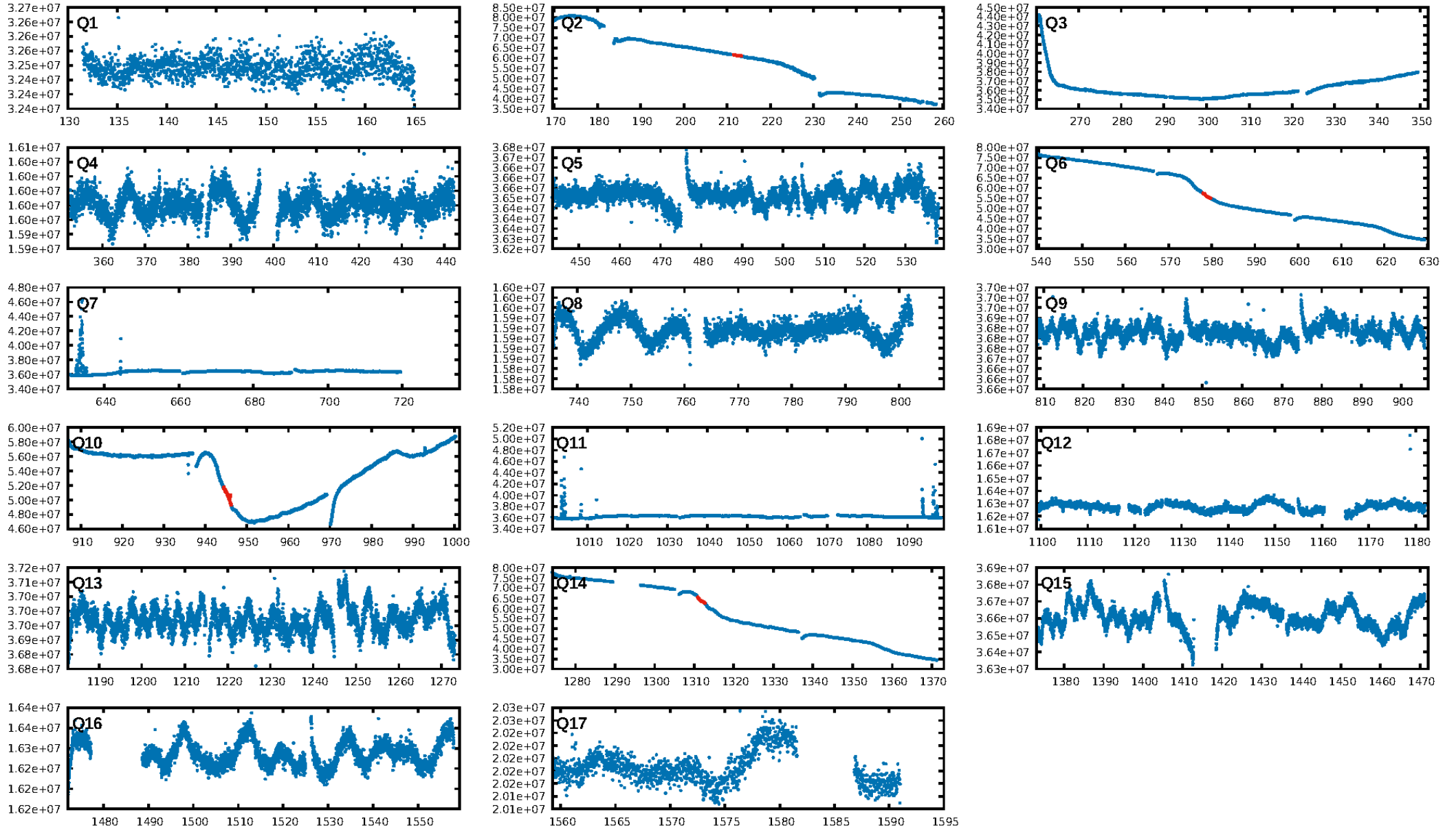
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [86.20σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 32.0%
Bootstrap-pfa: 1.71e-07
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.5508
Centroid-sig: 24.5%
Centroid-so: 5.433 arcsec [7.96σ]
OotOffset-rm: 9.322 arcsec [3.94σ]
KicOffset-rm: 4.638 arcsec [1.38σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

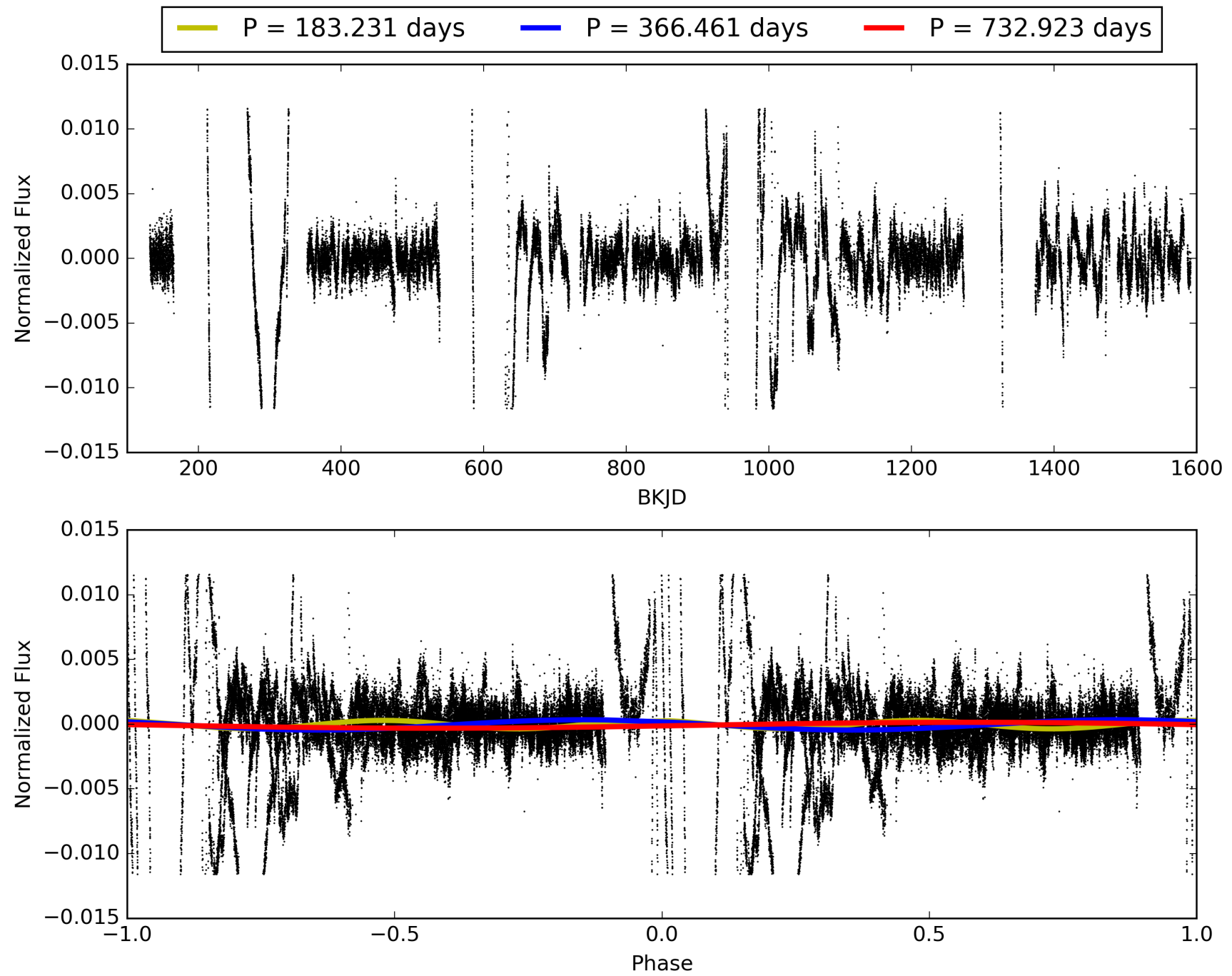
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:40:40 Z

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

TCE 011973915-02, PDC Light Curves

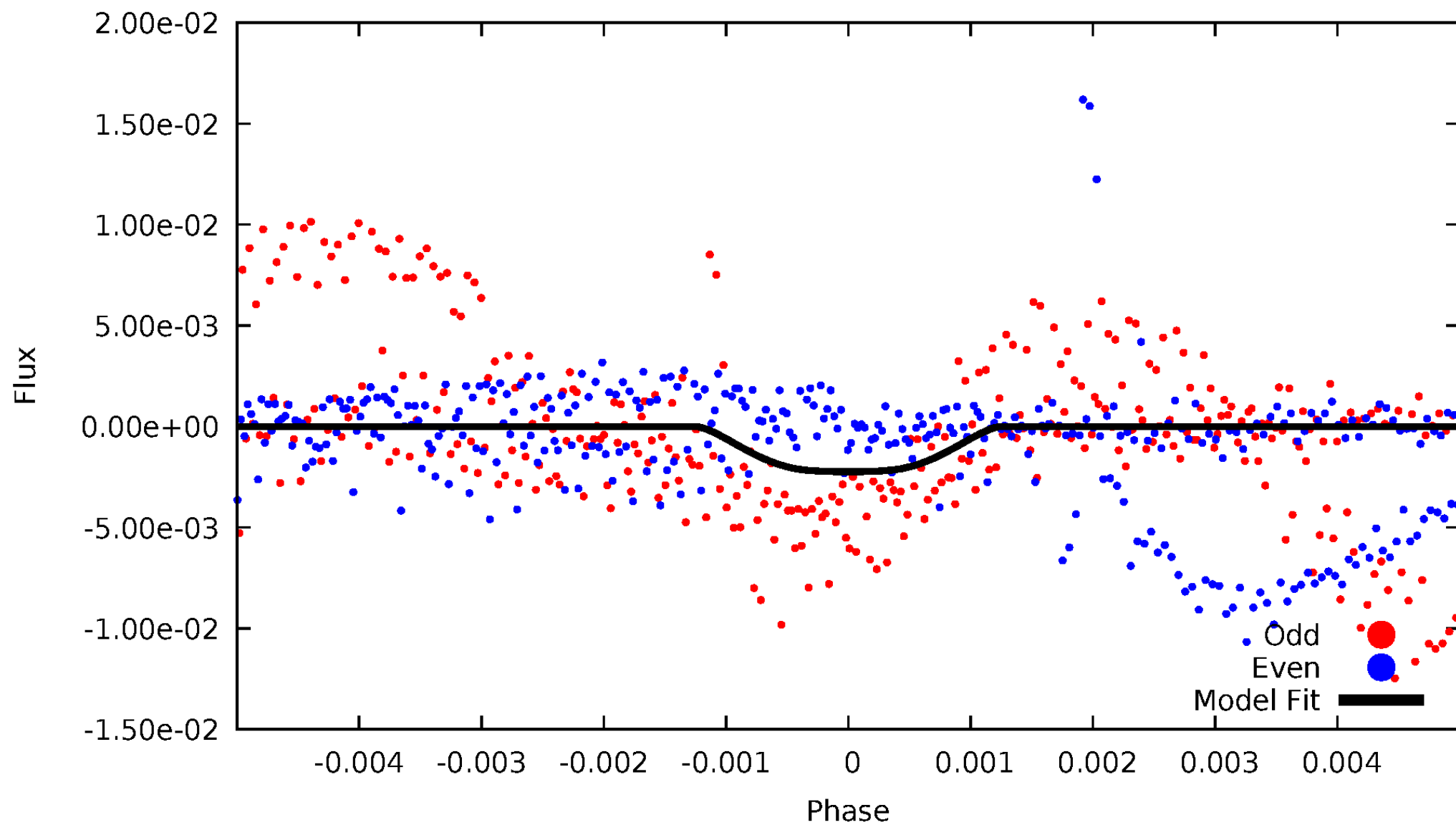


TCE 011973915-02



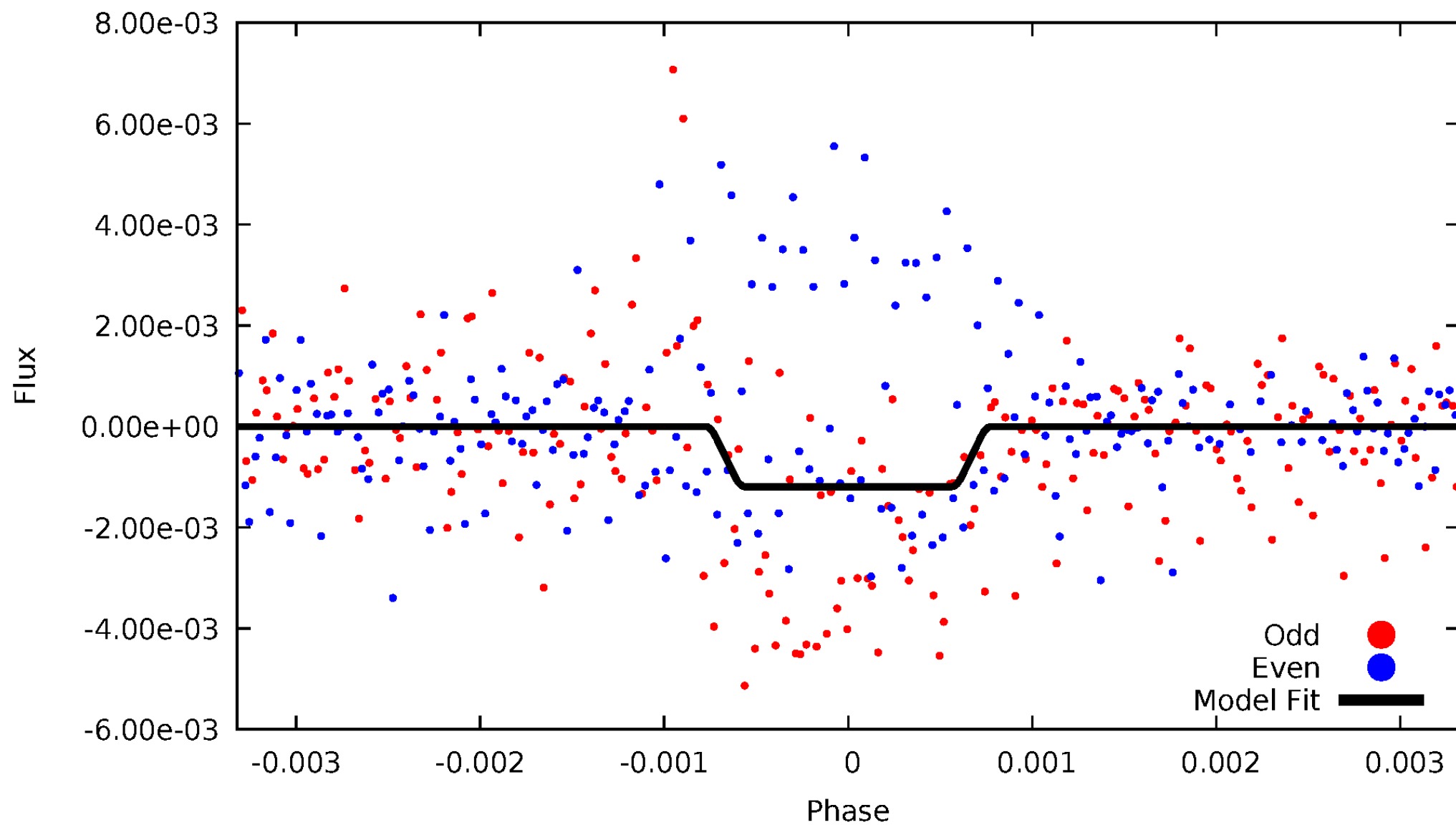
DV Odd/Even

TCE 011973915-02



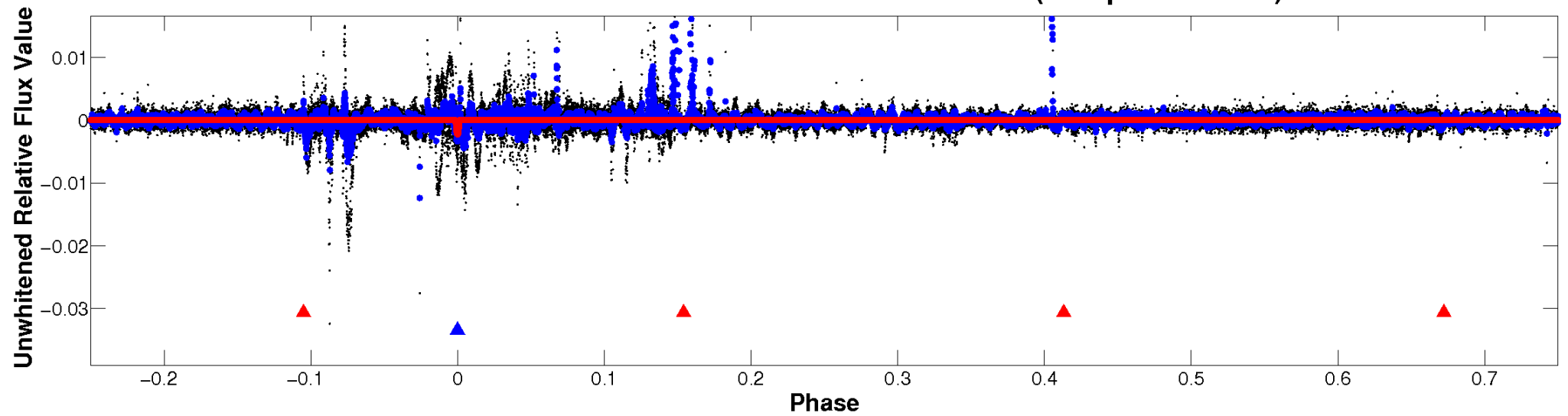
ALT Odd/Even

TCE 011973915-02

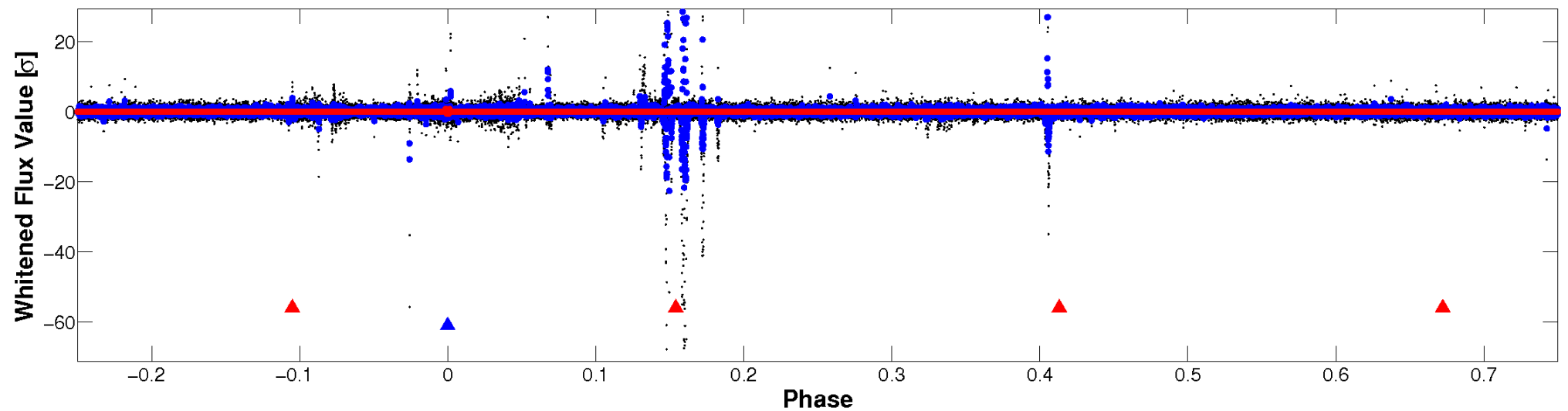


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

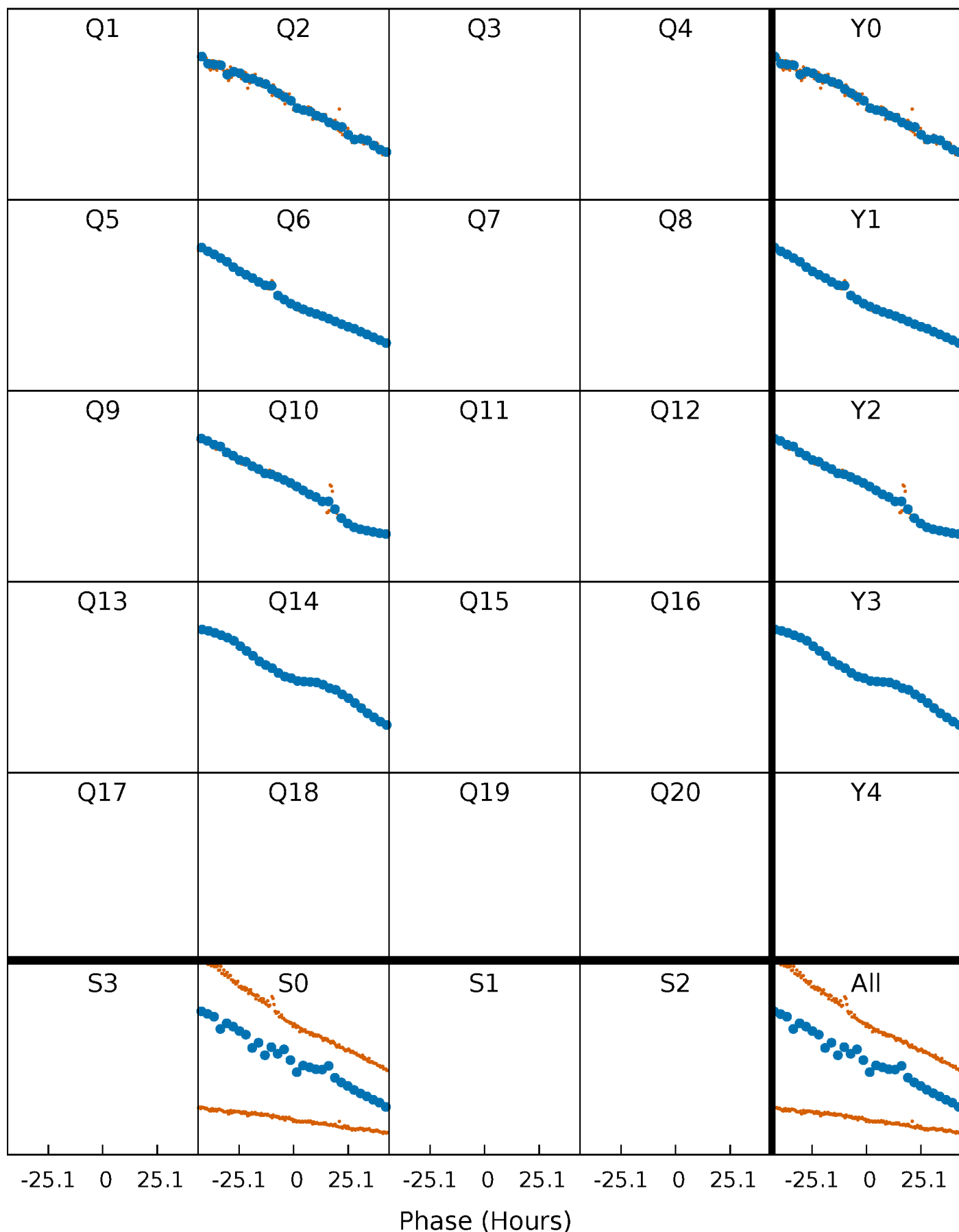


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



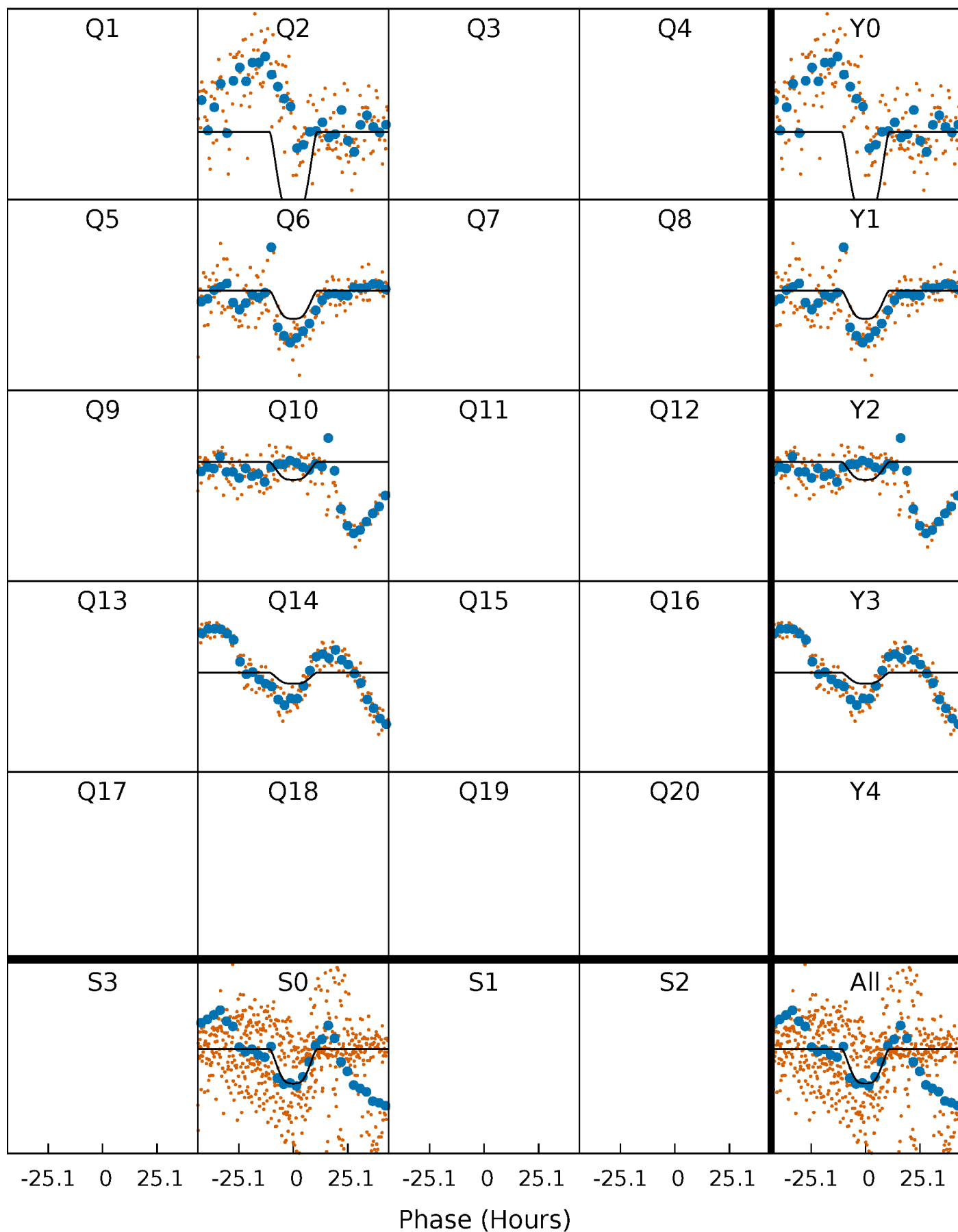
PDC Quarter-Phased Transit Curves

TCE 011973915-02 P=366.461316 Days $T_0=212.391523$ (BKJD)



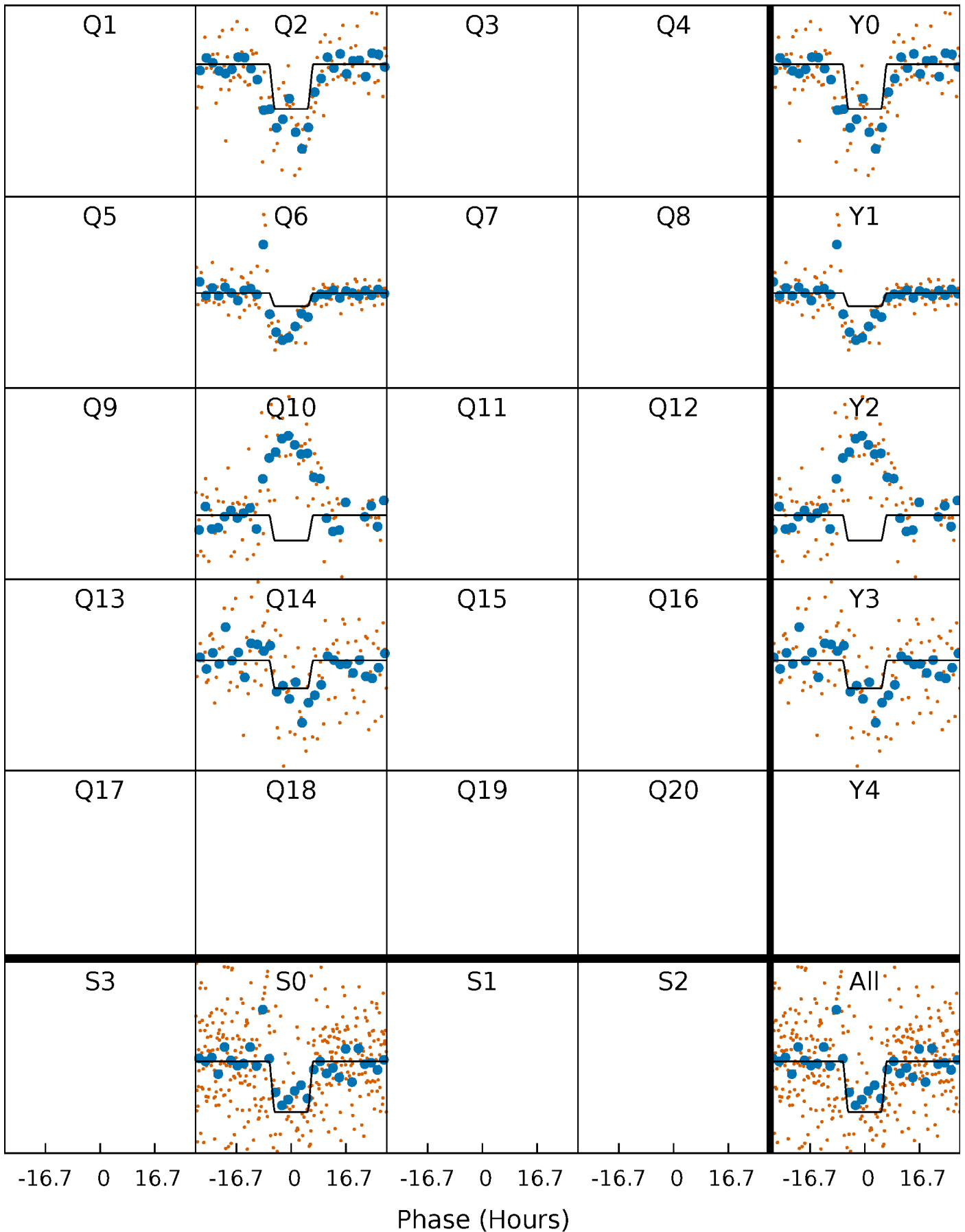
DV Quarter-Phased Transit Curves

TCE 011973915-02 P=366.461316 Days $T_0=212.391523$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

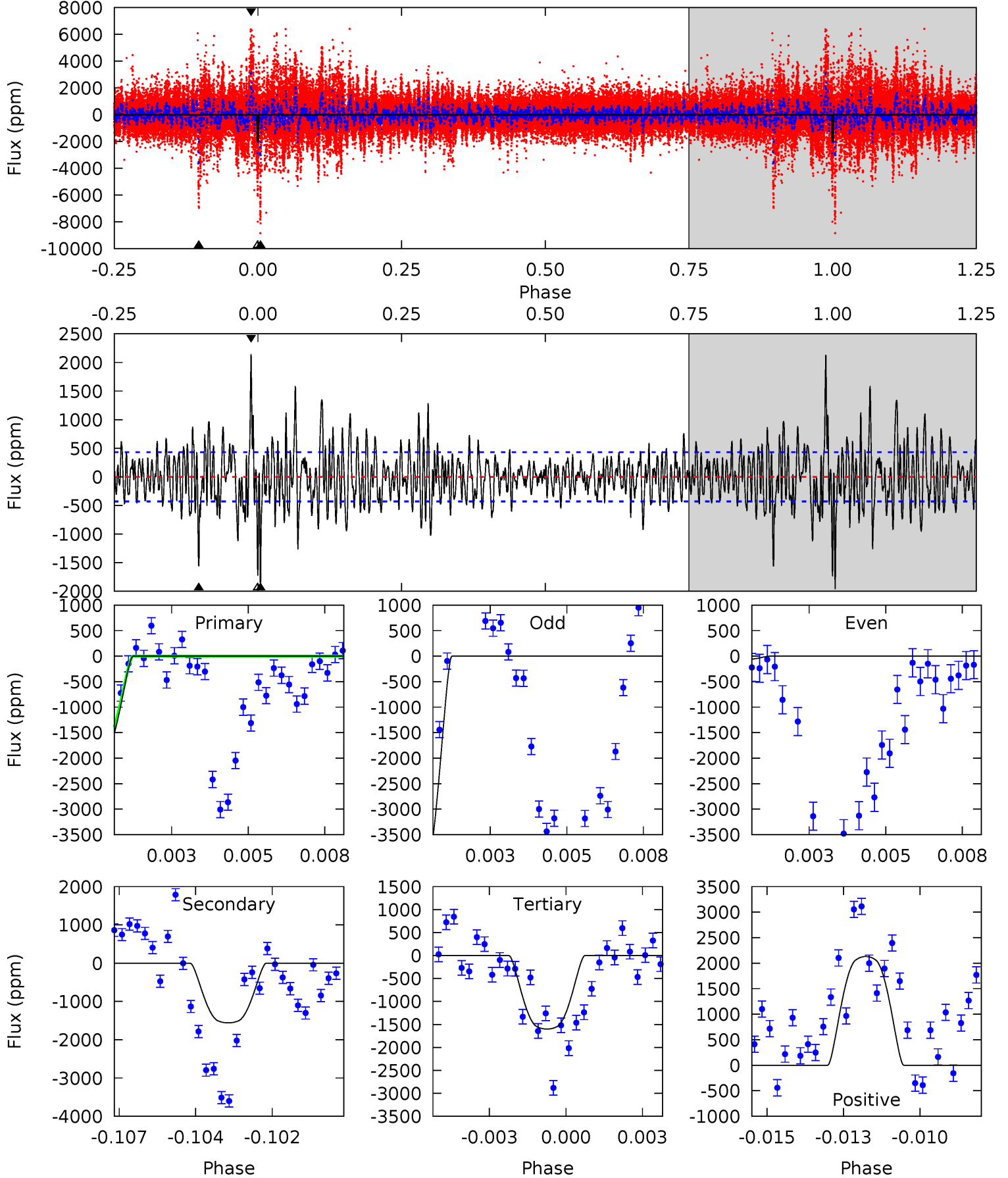
TCE 011973915-02 $P=366.441843$ Days $T_0=212.344898$ (BKJD)



DV Model-Shift Uniqueness Test

011973915-02, P = 366.461316 Days, E = 212.391523 Days

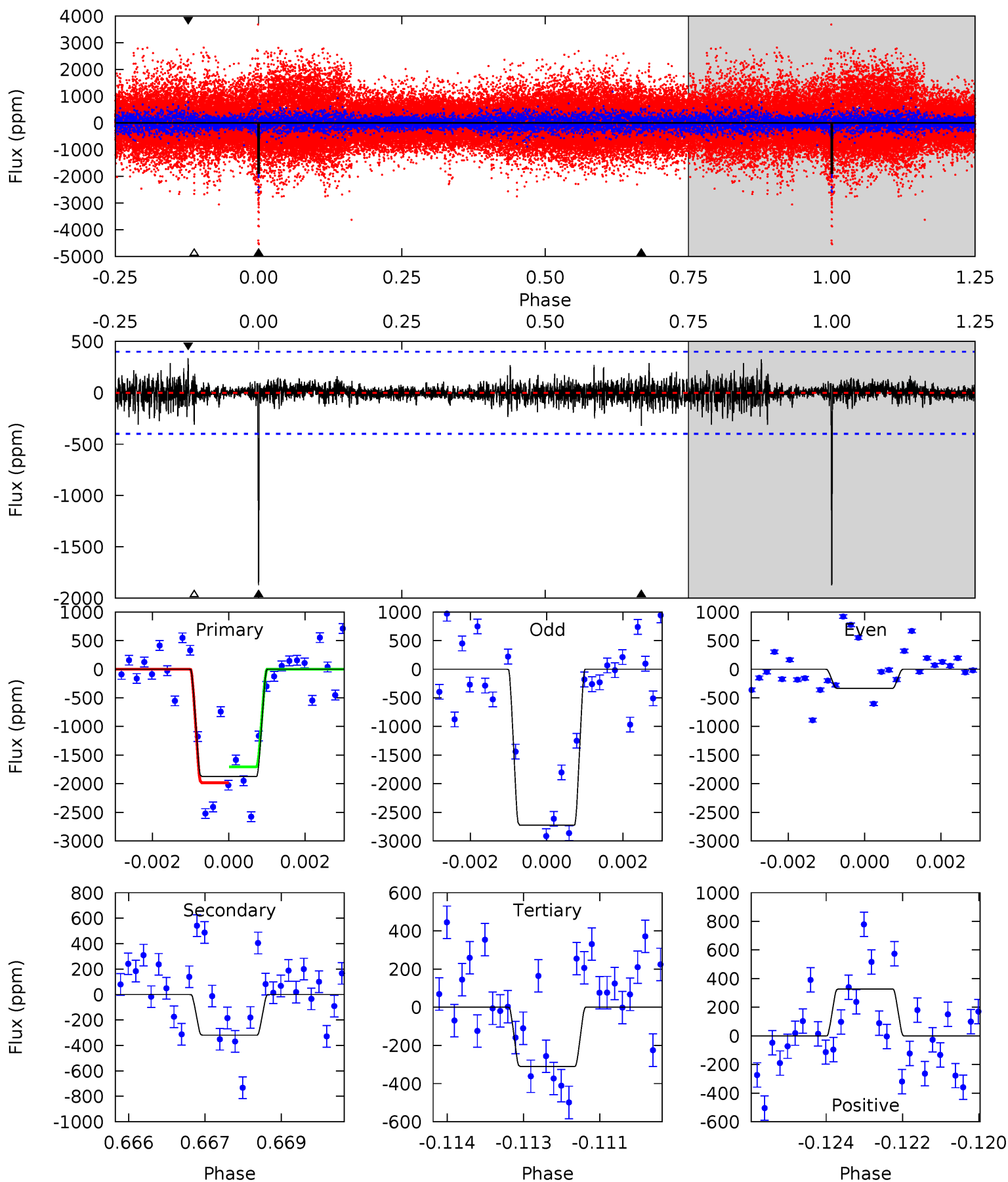
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	19.1	19.6	26.1	5.28	3.02	4.71	4.38	-2.13	-0.51	-7.01	16.9	1.07	0.52	1.84



Alt Model-Shift Uniqueness Test

011973915-02, P = 366.441843 Days, E = 212.344898 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.2	4.30	4.17	4.40	5.37	3.17	0.82	21.0	20.8	0.13	-0.10	18.3	0.49	0.15	1.87



Stellar Parameters For KIC 011973915

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011973915-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1559 ± 82	$5.84^{+0.86}_{-0.70}$	356^{+17}_{-18}	5031^{+347}_{-287}	25080^{+8156}_{-5919}
Alt.	-320 ± 74	$3.77^{+0.72}_{-0.75}$	356^{+18}_{-17}	4380^{+420}_{-382}	12555^{+7554}_{-4776}

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

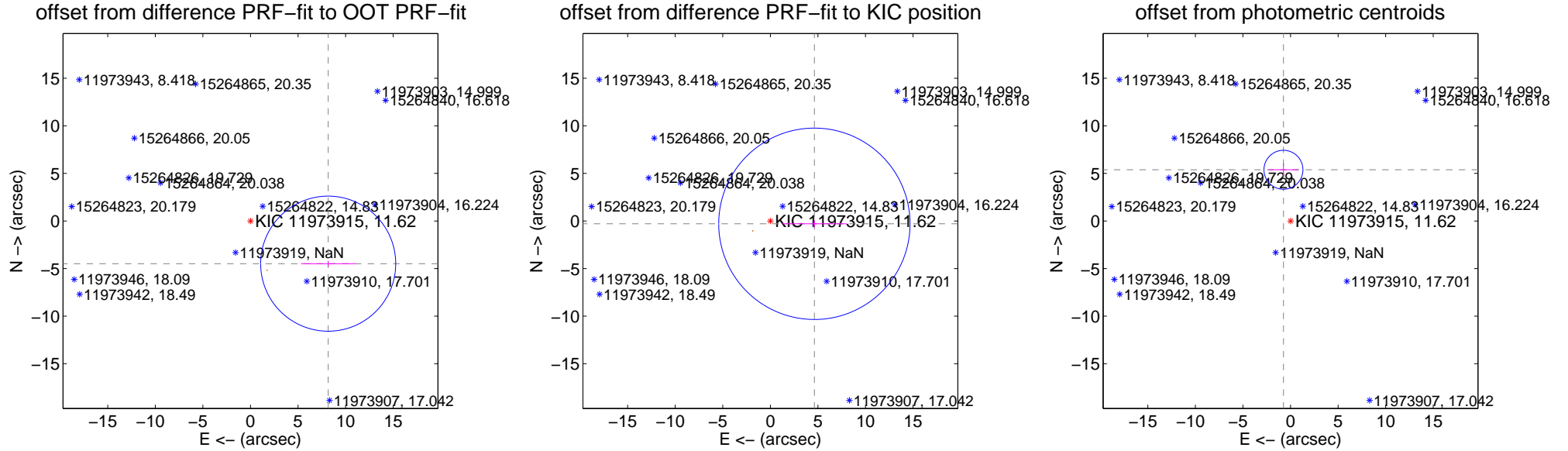
DV Centroid Data

Supplemental centroid analysis for 011973915-02. **Kepler magnitude: 11.62.** Transit SNR 7.65

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.48 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	9.322 ± 2.366	3.94	-8.172 ± 2.862	-4.486 ± 0.304
PRF-fit source offset from KIC position	4.638 ± 3.352	1.38	-4.629 ± 3.383	-0.295 ± 0.383
photometric centroid source offset	5.43 ± 0.68	7.96	0.74 ± 1.57	5.38 ± 0.65



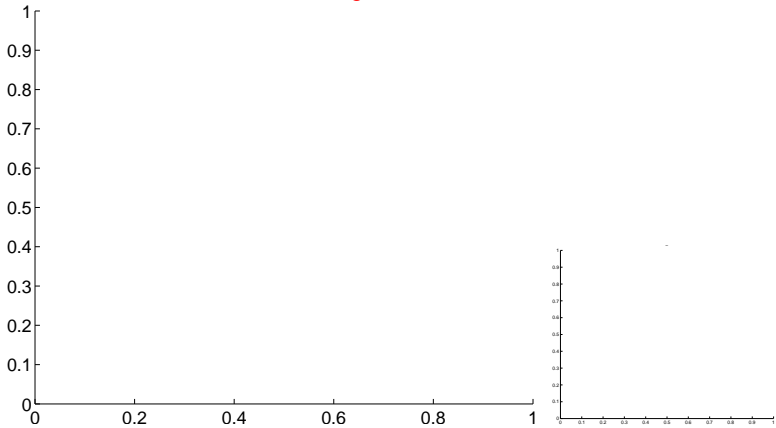
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

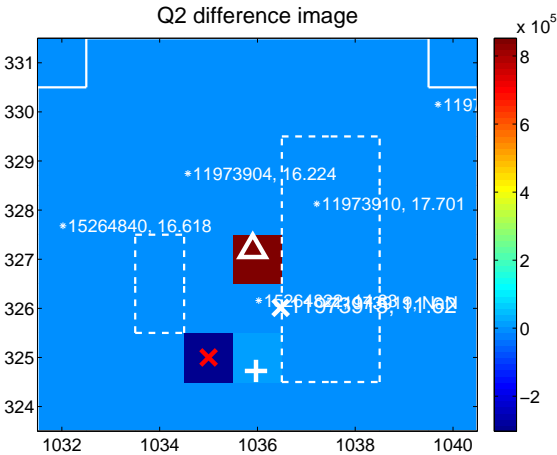
Q1 no difference image



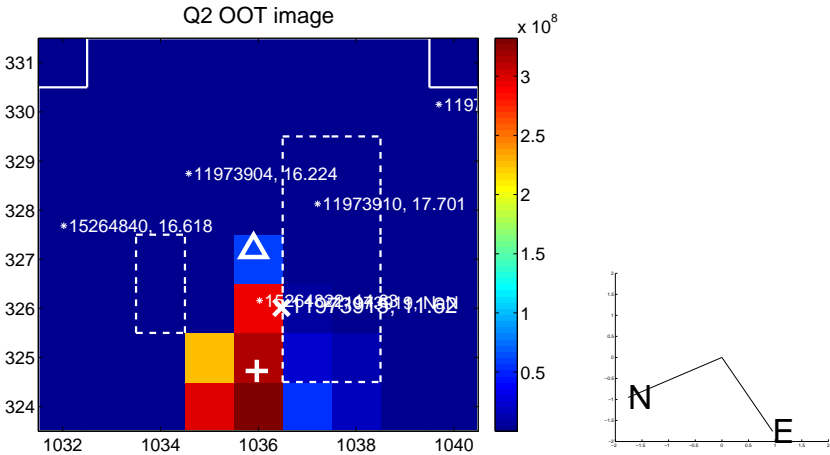
Q1 no OOT image



Q2 difference image



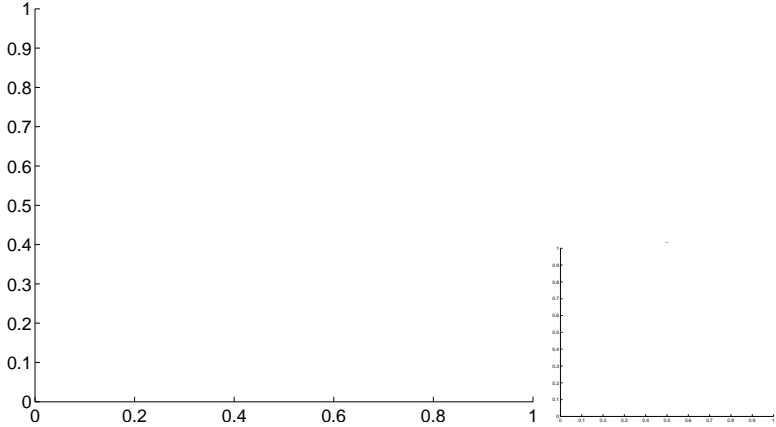
Q2 OOT image



Q3 no difference image



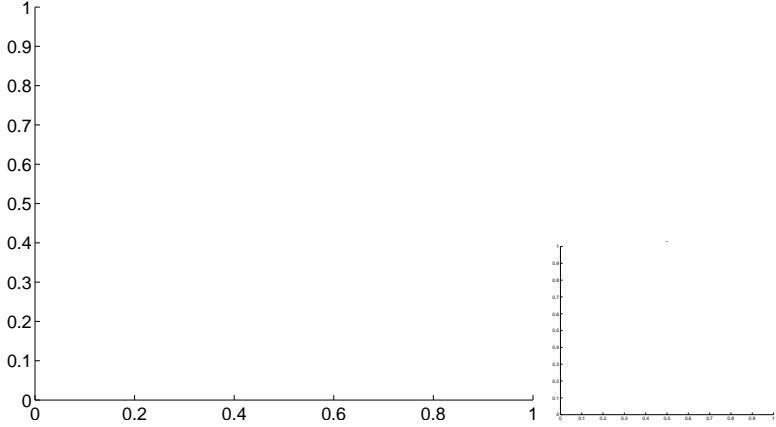
Q3 no OOT image



Q4 no difference image



Q4 no OOT image



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

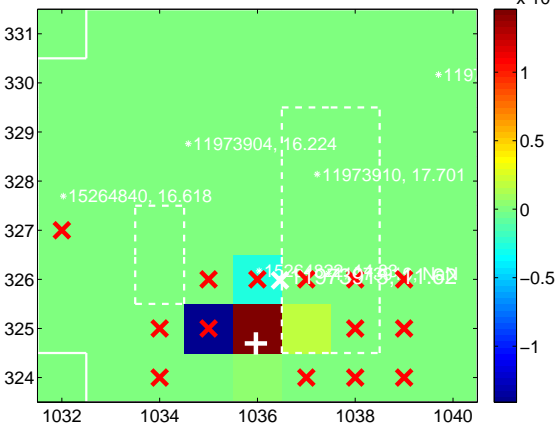
Q5 no difference image



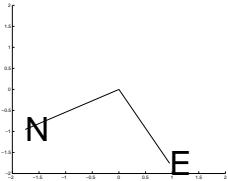
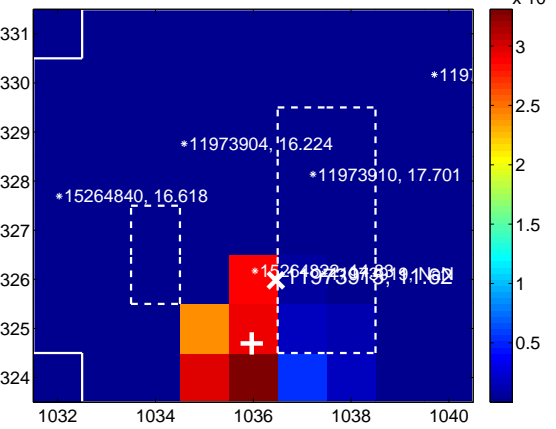
Q5 no OOT image



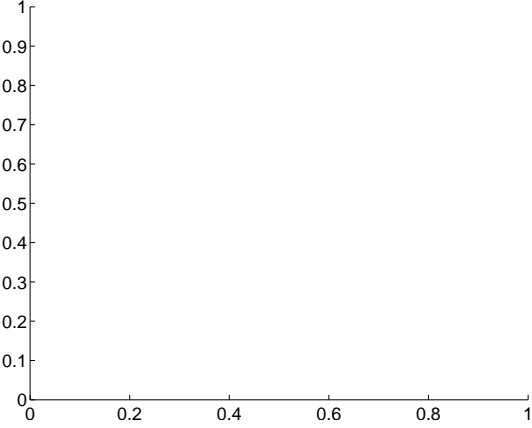
Q6 difference image. Poor Quality



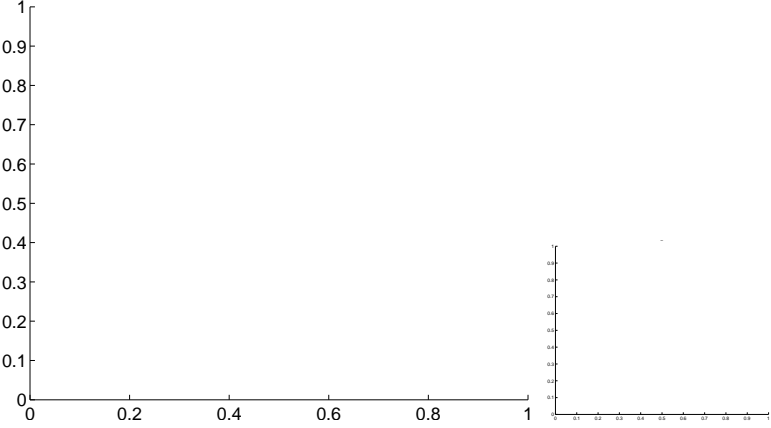
Q6 OOT image



Q7 no difference image



Q7 no OOT image



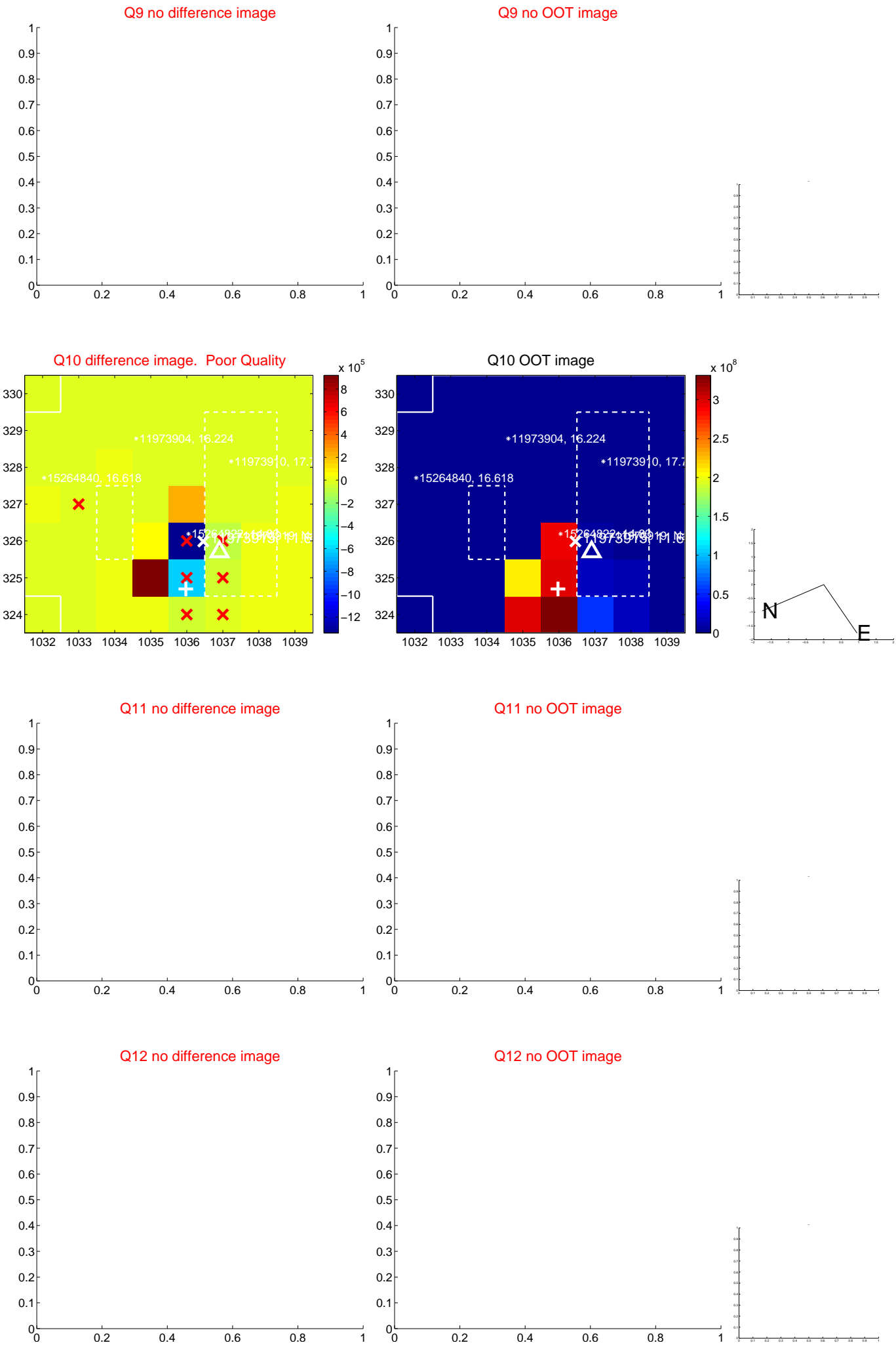
Q8 no difference image



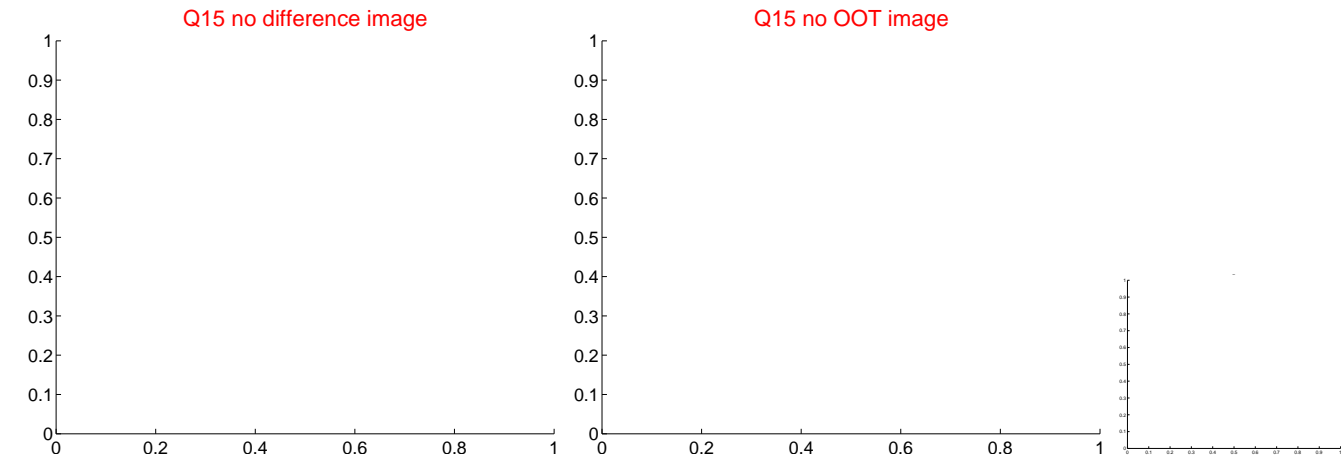
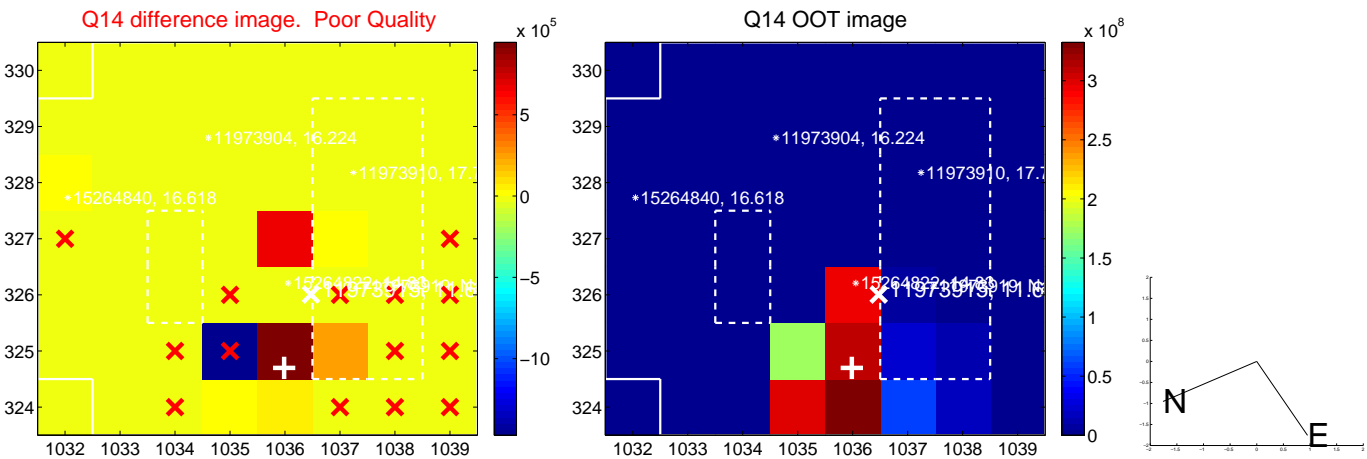
Q8 no OOT image



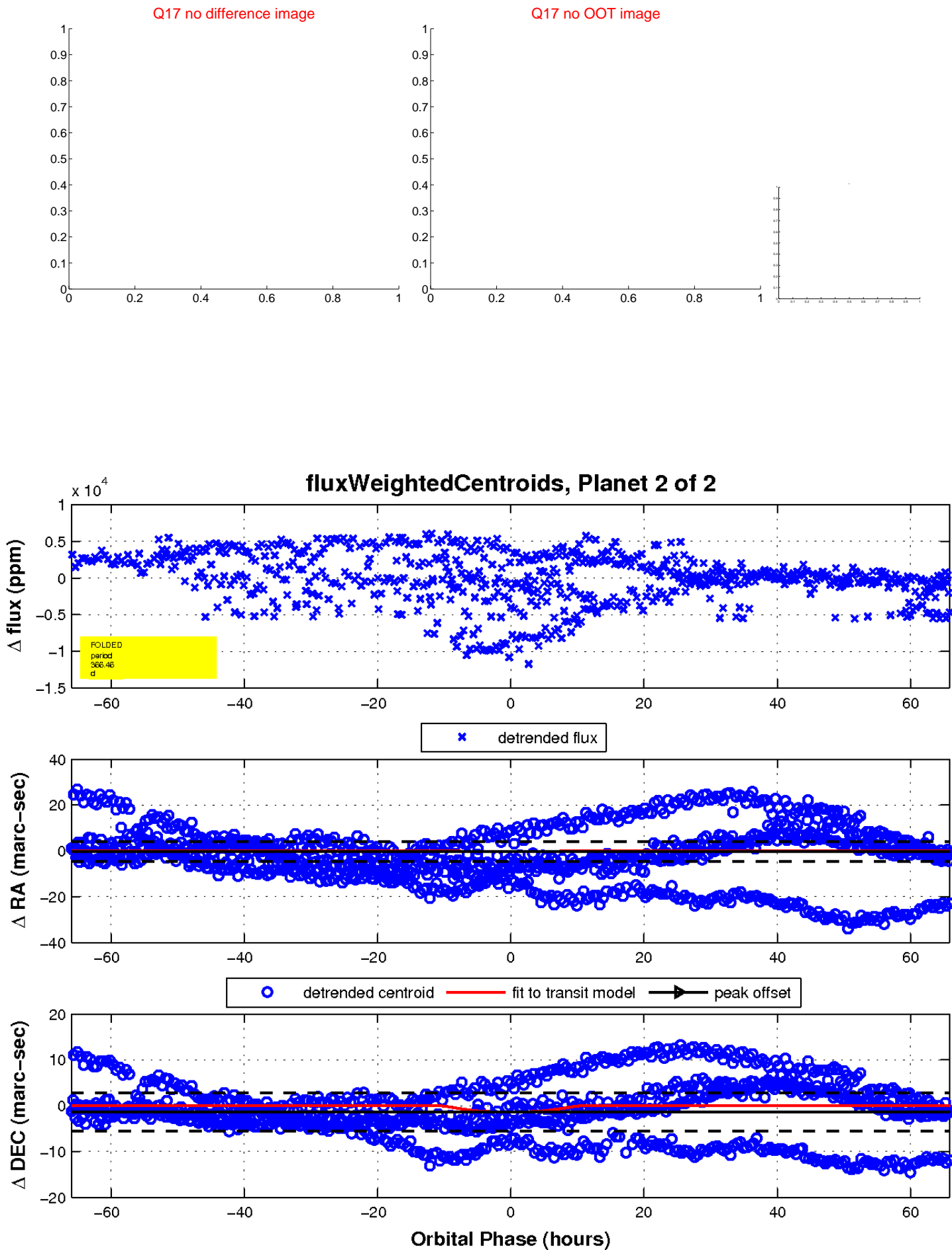
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

