

KIC 008037948

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})
008037948-01	OBS	No	367.074869	238.538365	2167.7	18.948	12.8	12.8	0.84	5700	7.30	0.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008037948-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_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.

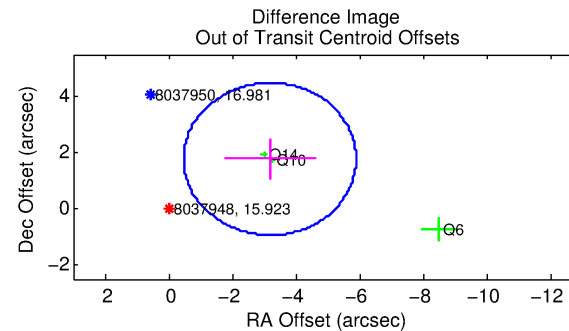
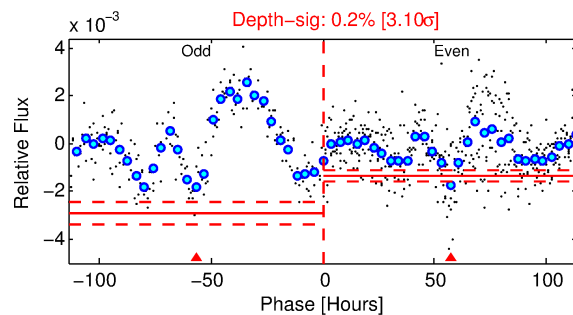
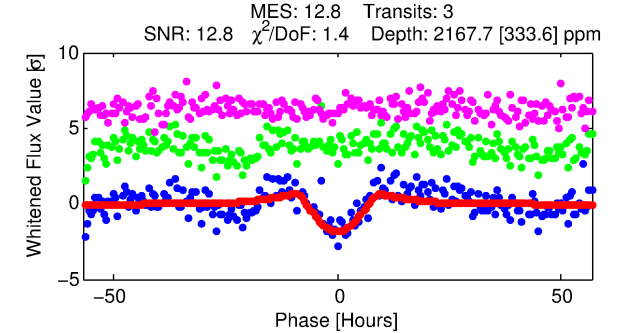
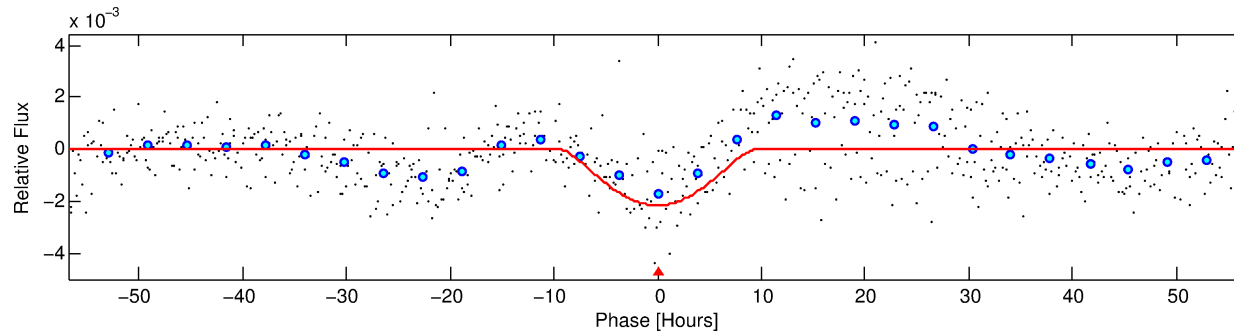
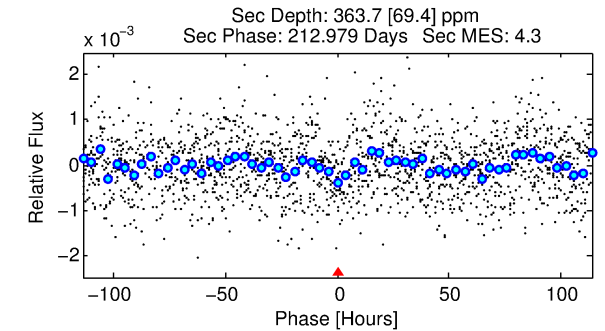
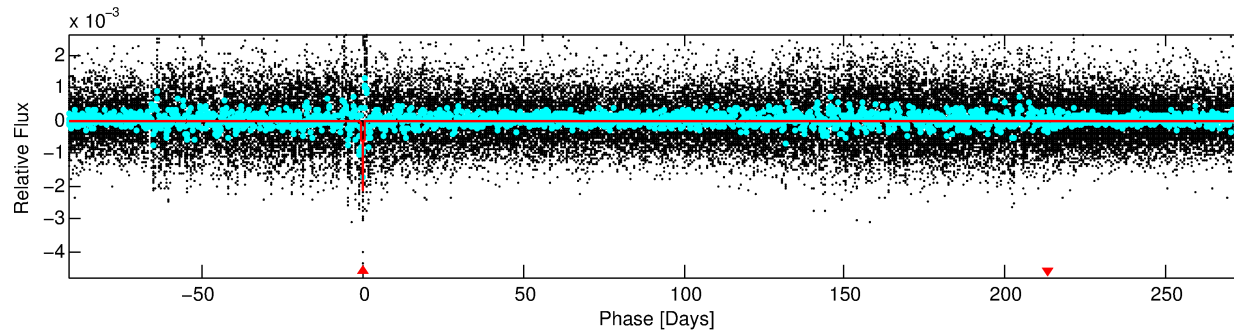
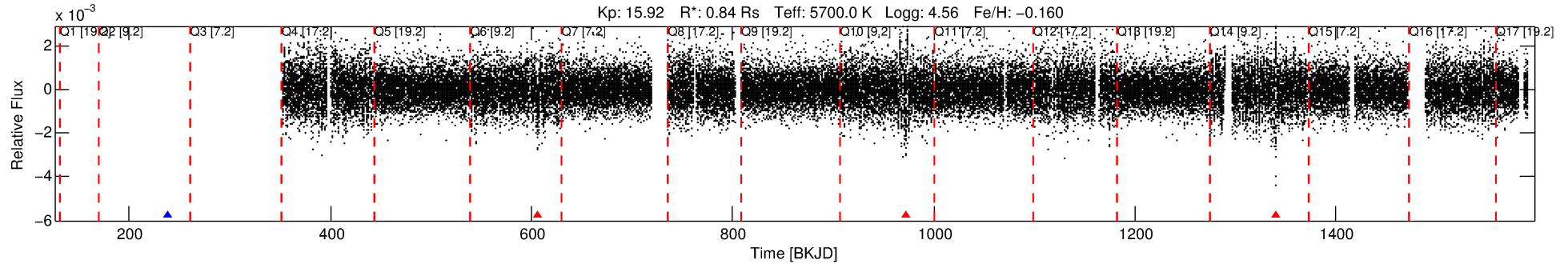
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008037948-01

No Significant Match Found

DV One-Page Summary

KIC: 8037948 Candidate: 1 of 1 Period: 367.075 d



DV Fit Results:

Period = 367.07487 [0.02090] d
Epoch = 238.5384 [0.0432] BKJD
Rp/R* = 0.0798 [0.2068]
a/R* = 61.00 [34.35]
b = 1.00 [0.30]
Seff = 0.69 [0.25]
Teq = 233 [21] K
Rp = 7.30 [19.02] Re
a = 0.9796 [0.2272] AU
Ag = 3604.61 [18732.27] [0.19σ]
Teffp = 2786 [3613] K [0.71σ]

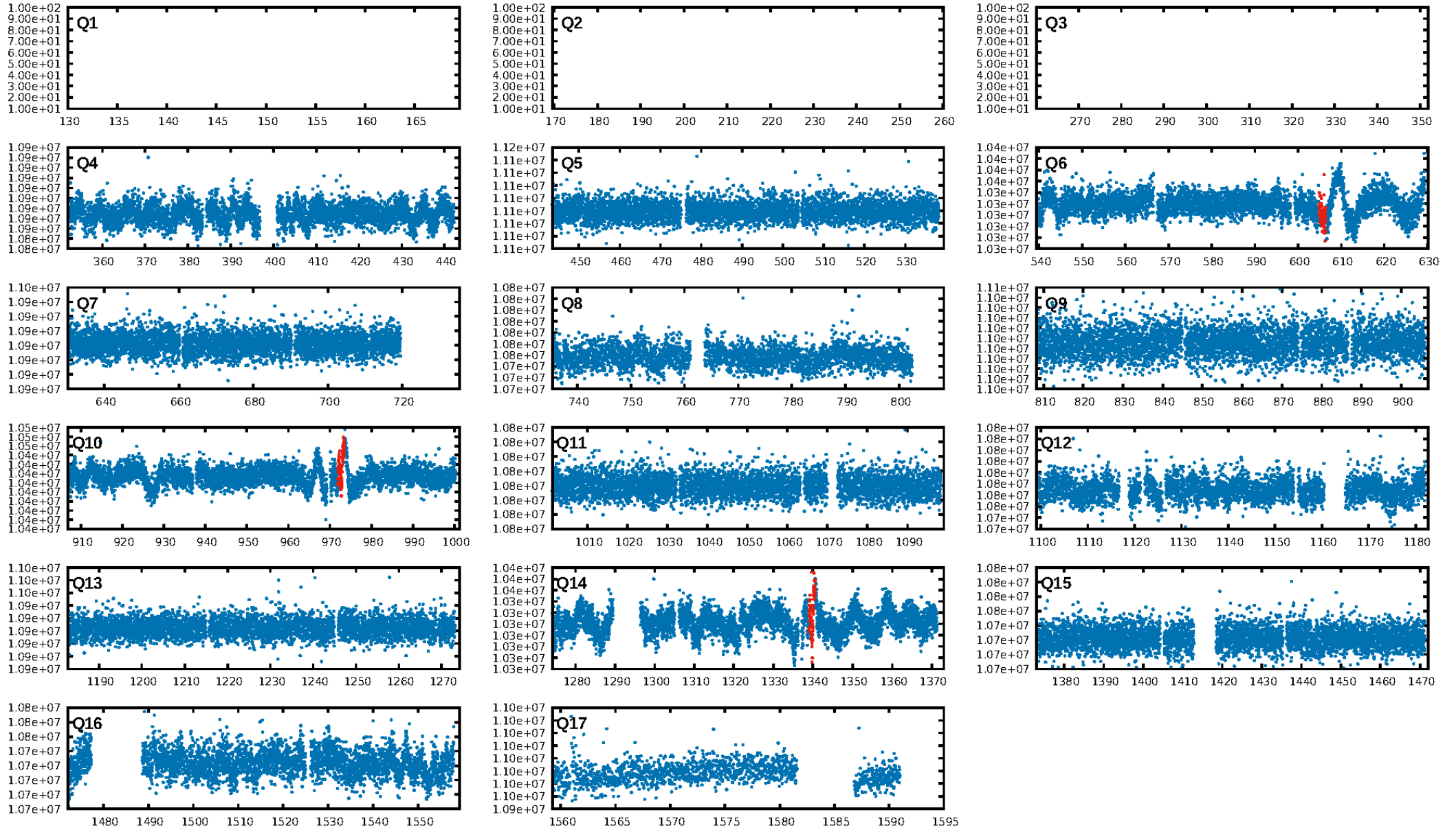
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 52.0%
Bootstrap-pfa: 2.78e-25
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 1.66
Centroid-sig: 0.0%
Centroid-so: 4.269 arcsec [3.36σ]
OotOffset-rm: 3.646 arcsec [4.03σ]
KicOffset-rm: 3.441 arcsec [7.56σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

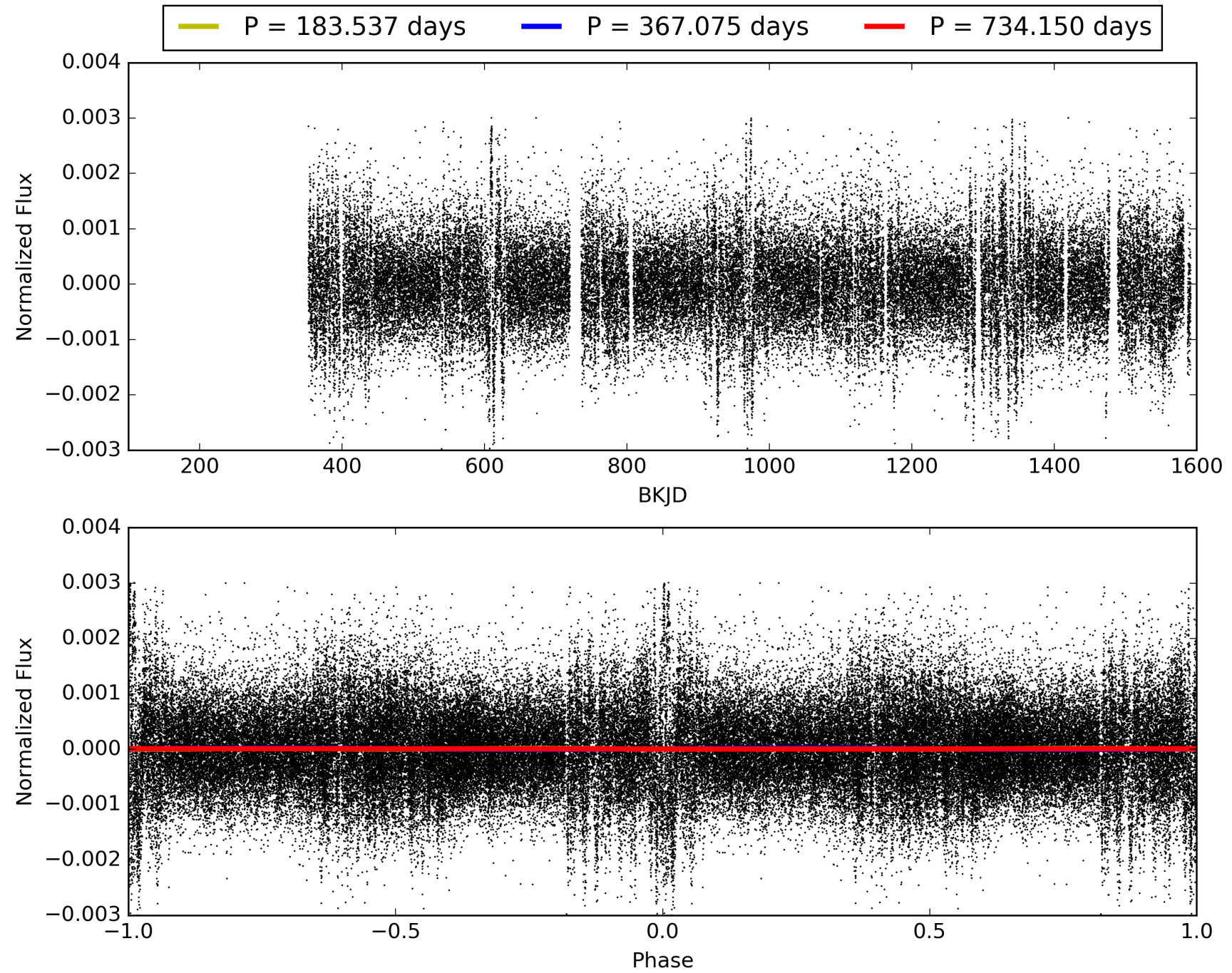
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:39:09 Z

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

TCE 008037948-01, PDC Light Curves

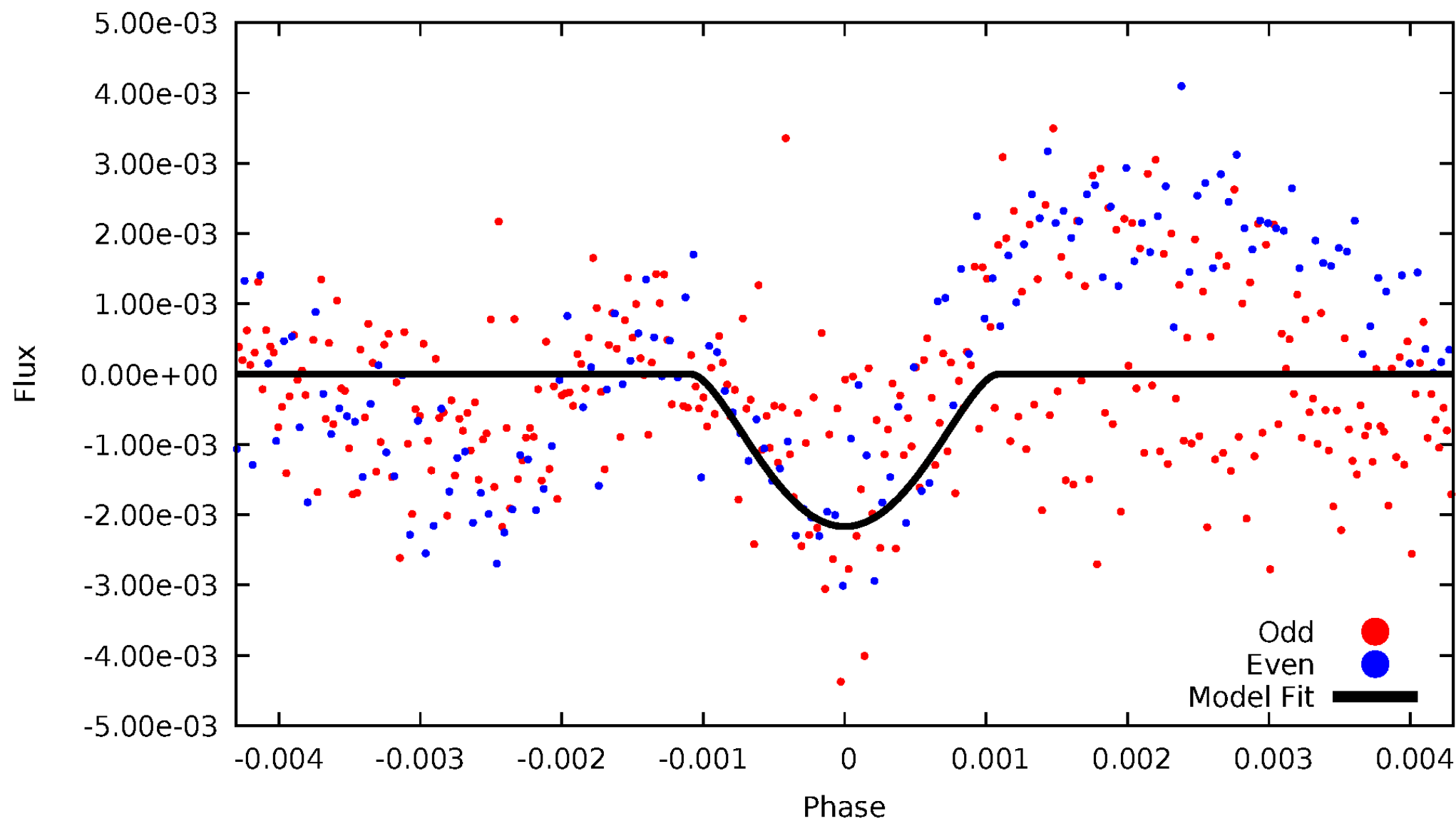


TCE 008037948-01



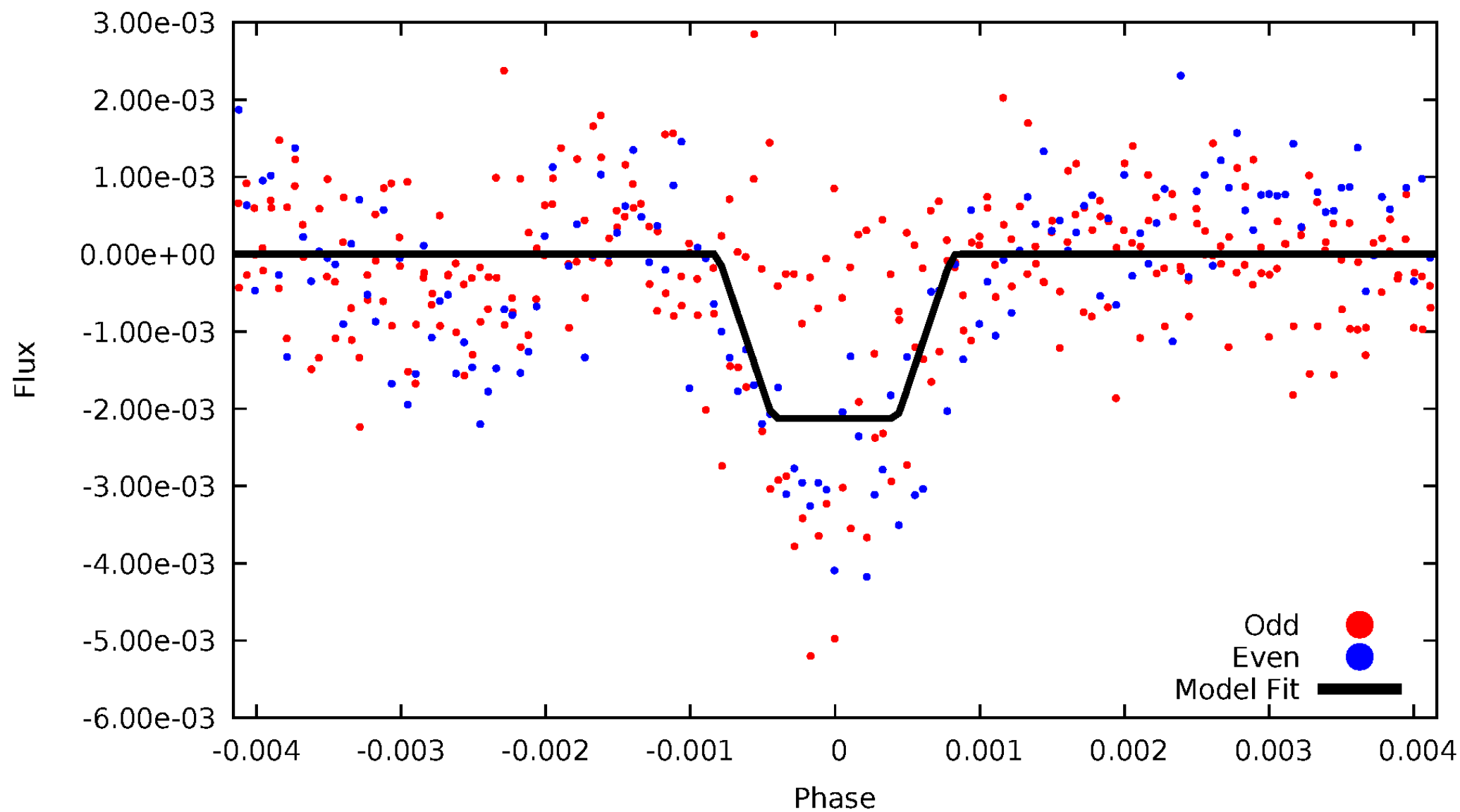
DV Odd/Even

TCE 008037948-01



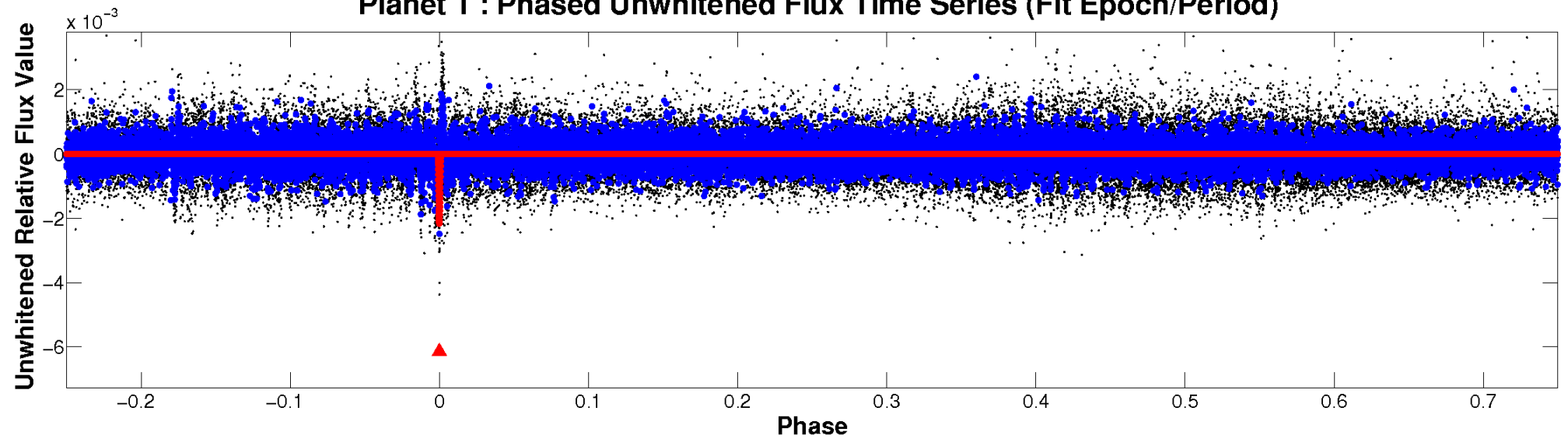
ALT Odd/Even

TCE 008037948-01

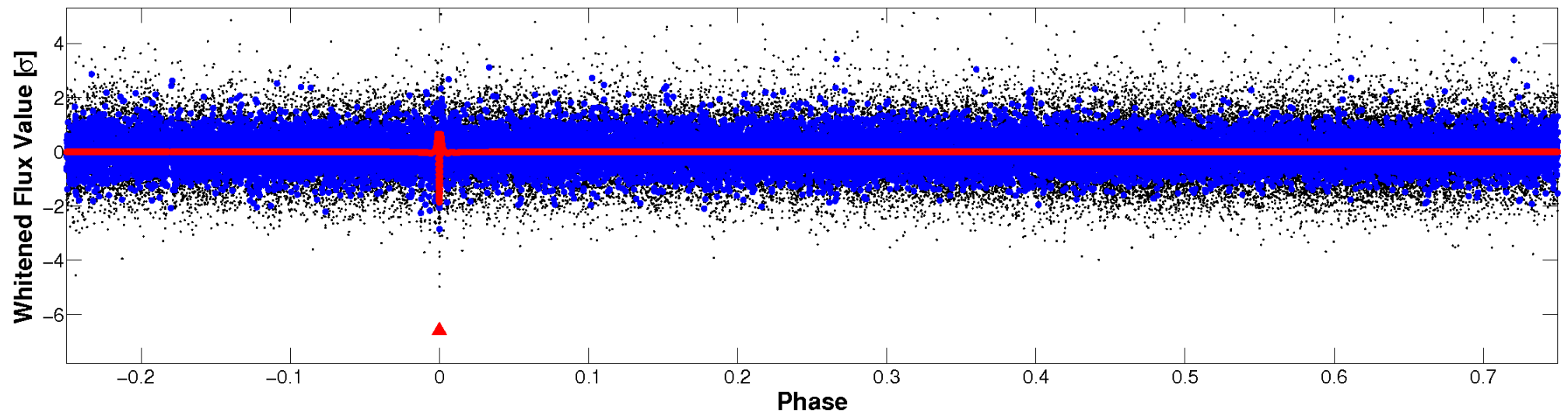


Non-Whitened Vs. Whitened Light Curve

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

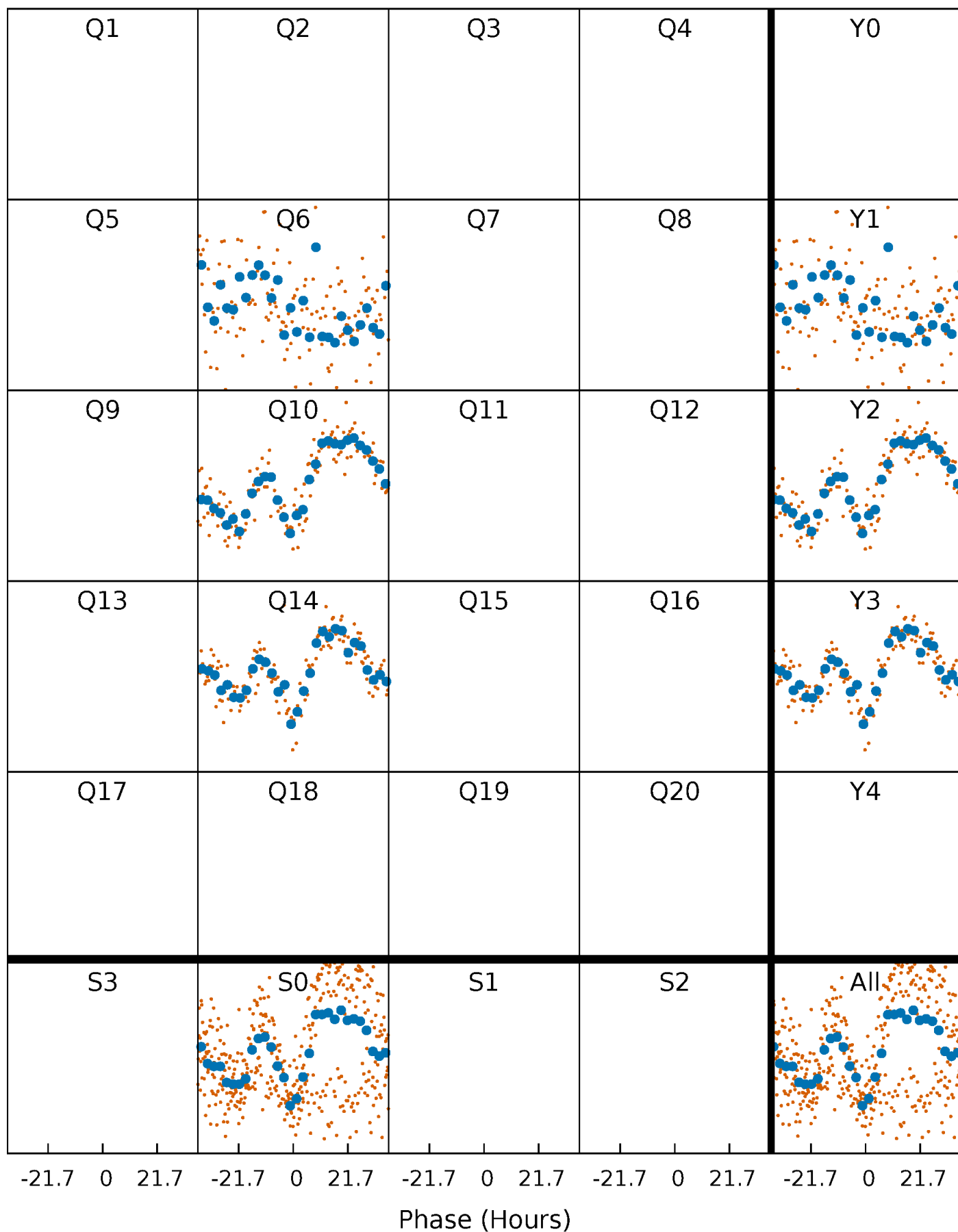


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



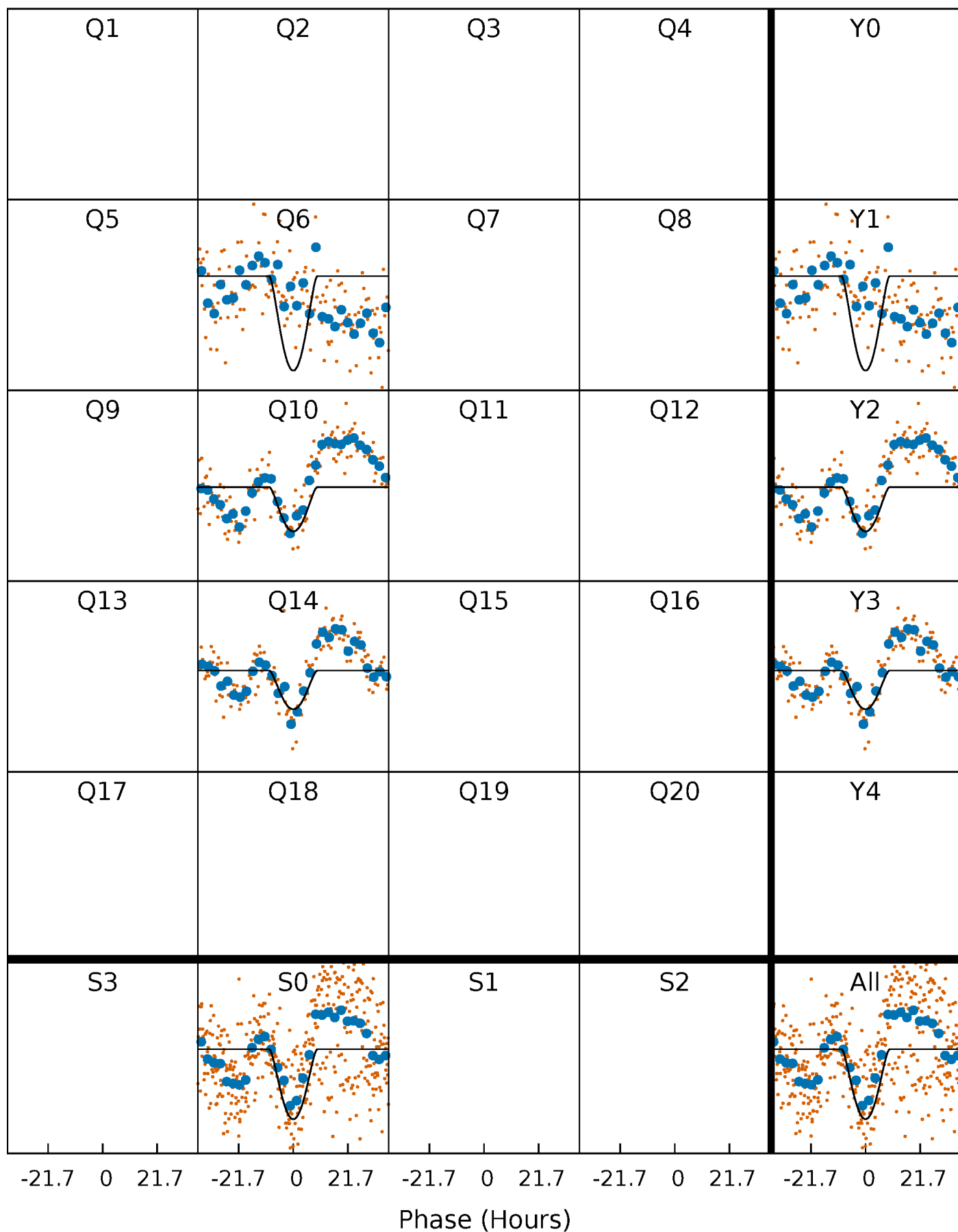
PDC Quarter-Phased Transit Curves

TCE 008037948-01 P=367.074869 Days $T_0=238.538365$ (BKJD)



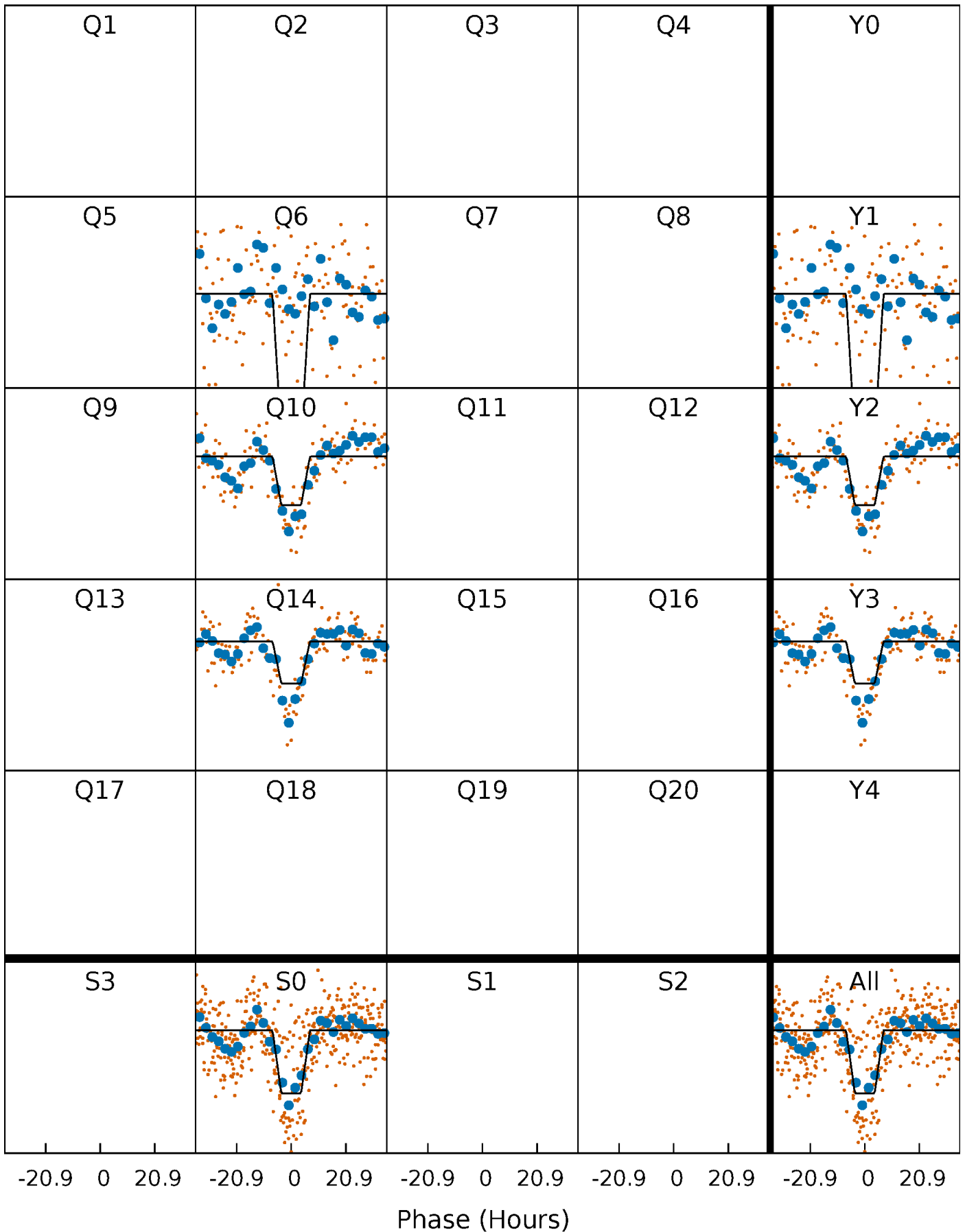
DV Quarter-Phased Transit Curves

TCE 008037948-01 P=367.074869 Days $T_0=238.538365$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

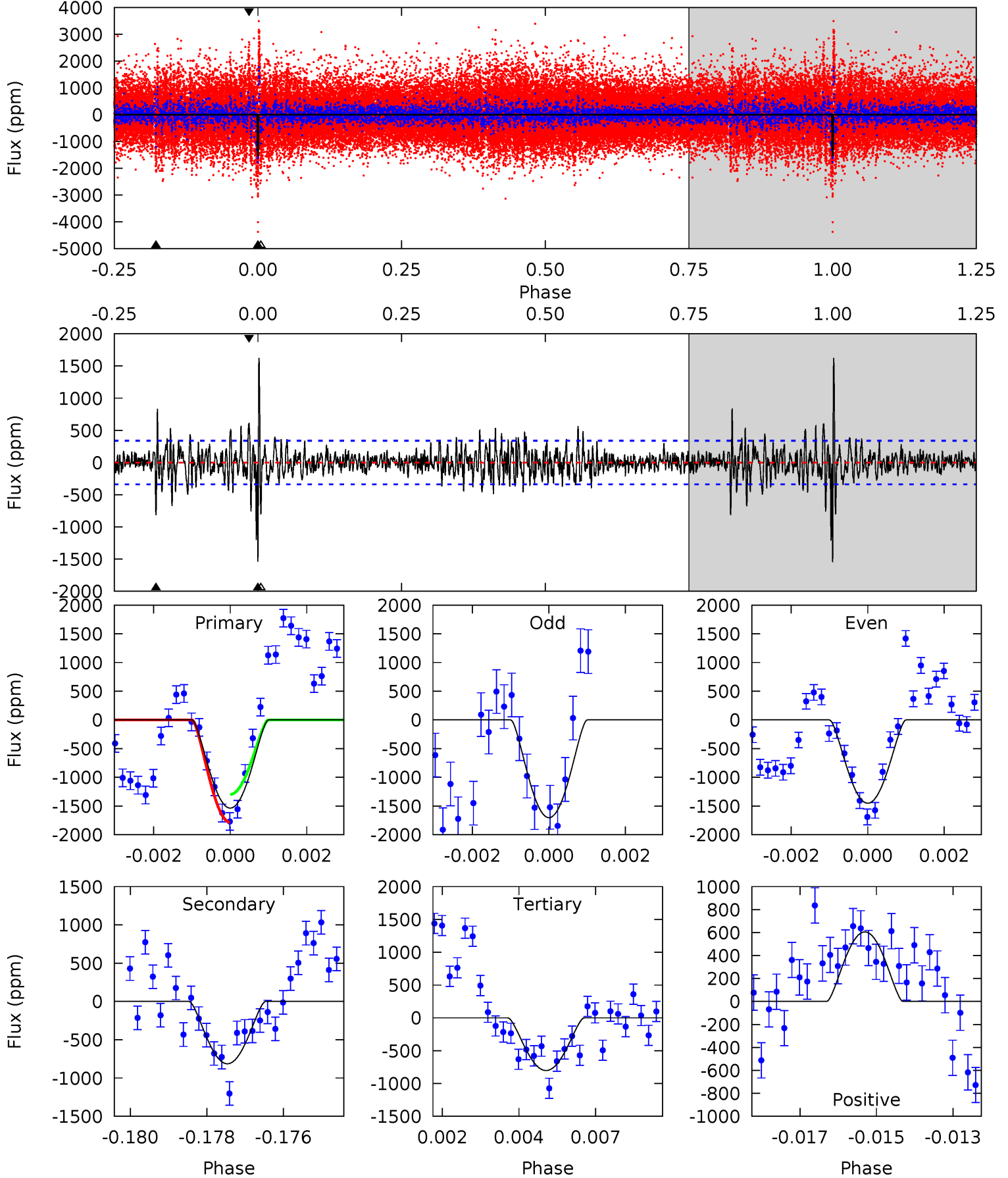
TCE 008037948-01 P=367.129773 Days $T_0=238.425931$ (BKJD)



DV Model-Shift Uniqueness Test

008037948-01, P = 367.074869 Days, E = 238.538365 Days

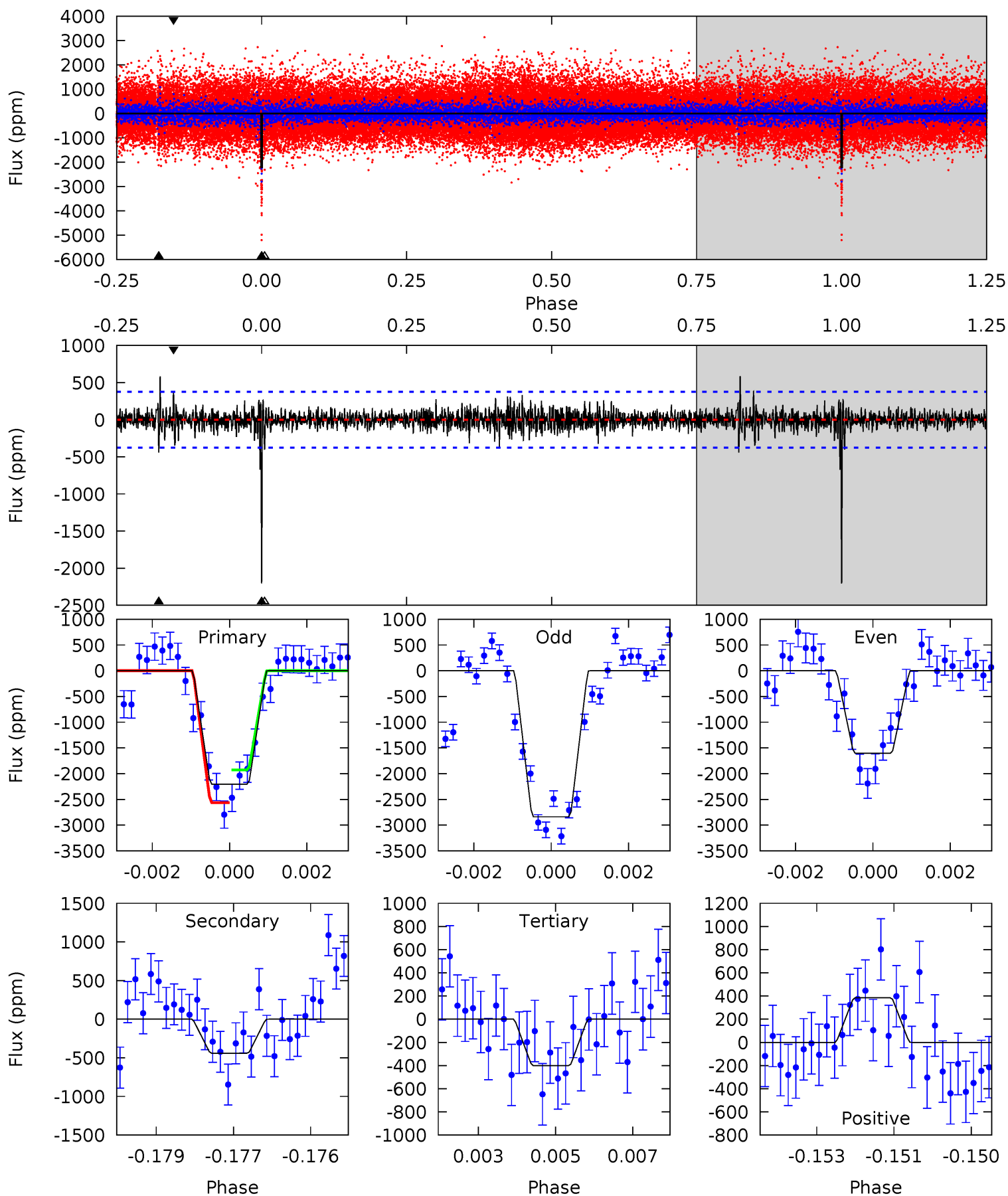
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	12.7	12.6	9.47	5.31	3.07	2.66	11.5	14.6	0.18	3.26	1.83	0.86	0.51	3.81



Alt Model-Shift Uniqueness Test

008037948-01, P = 367.129773 Days, E = 238.425931 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.4	6.28	5.71	5.48	5.35	3.13	1.30	25.7	25.9	0.57	0.80	8.48	0.69	0.21	4.50



Stellar Parameters For KIC 008037948

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5700^{+186}_{-186}	$4.560^{+0.033}_{-0.187}$	$-0.160^{+0.300}_{-0.300}$	$0.838^{+0.229}_{-0.076}$	$0.934^{+0.102}_{-0.112}$	$2.236^{+0.422}_{-1.121}$
	+3%/-3%	+1%/-4%	+188%/-188%	+27%/-9%	+11%/-12%	+19%/-50%
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 008037948-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-814 ± 64	$17.00^{+15.95}_{-11.70}$	334^{+24}_{-16}	2980^{+1354}_{-469}	1431^{+14162}_{-1035}
Alt.	-440 ± 70	$15.02^{+16.72}_{-10.32}$	334^{+21}_{-16}	2838^{+1180}_{-503}	992^{+9659}_{-771}

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 $A_{obs} \gg 1.0$

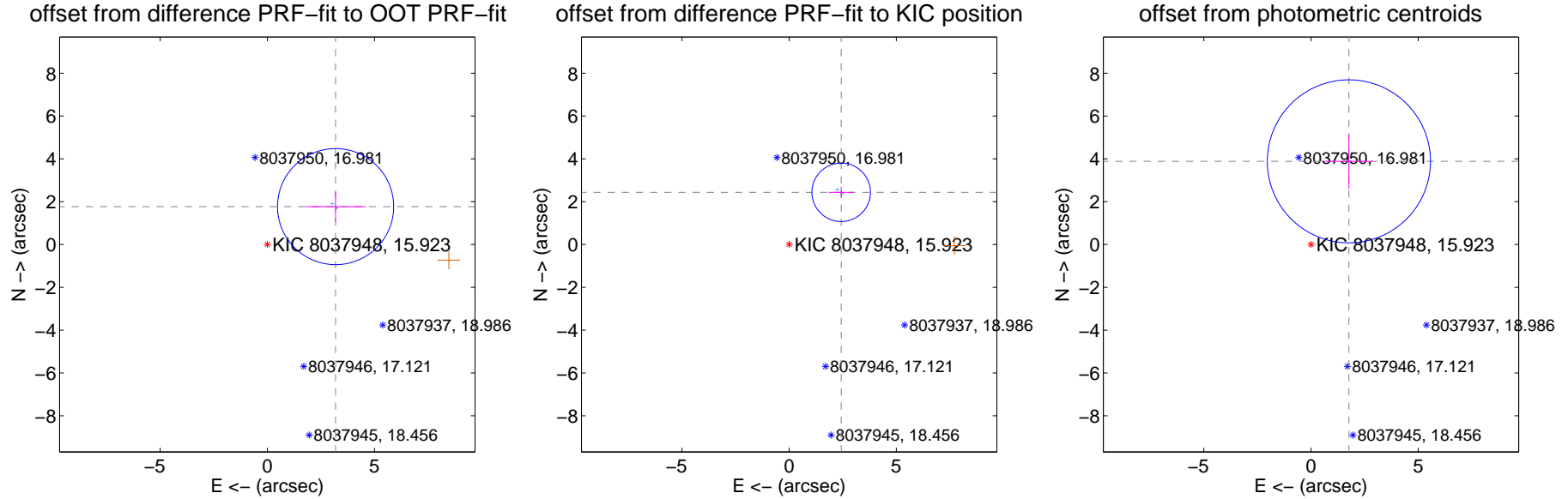
DV Centroid Data

Supplemental centroid analysis for 008037948-01. Kepler magnitude: 15.92. Transit SNR 12.76

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.646 ± 0.904	4.03	-3.187 ± 1.410	1.770 ± 0.684
PRF-fit source offset from KIC position	3.441 ± 0.455	7.56	-2.428 ± 0.590	2.438 ± 0.260
photometric centroid source offset	4.27 ± 1.27	3.36	-1.77 ± 1.14	3.89 ± 1.30

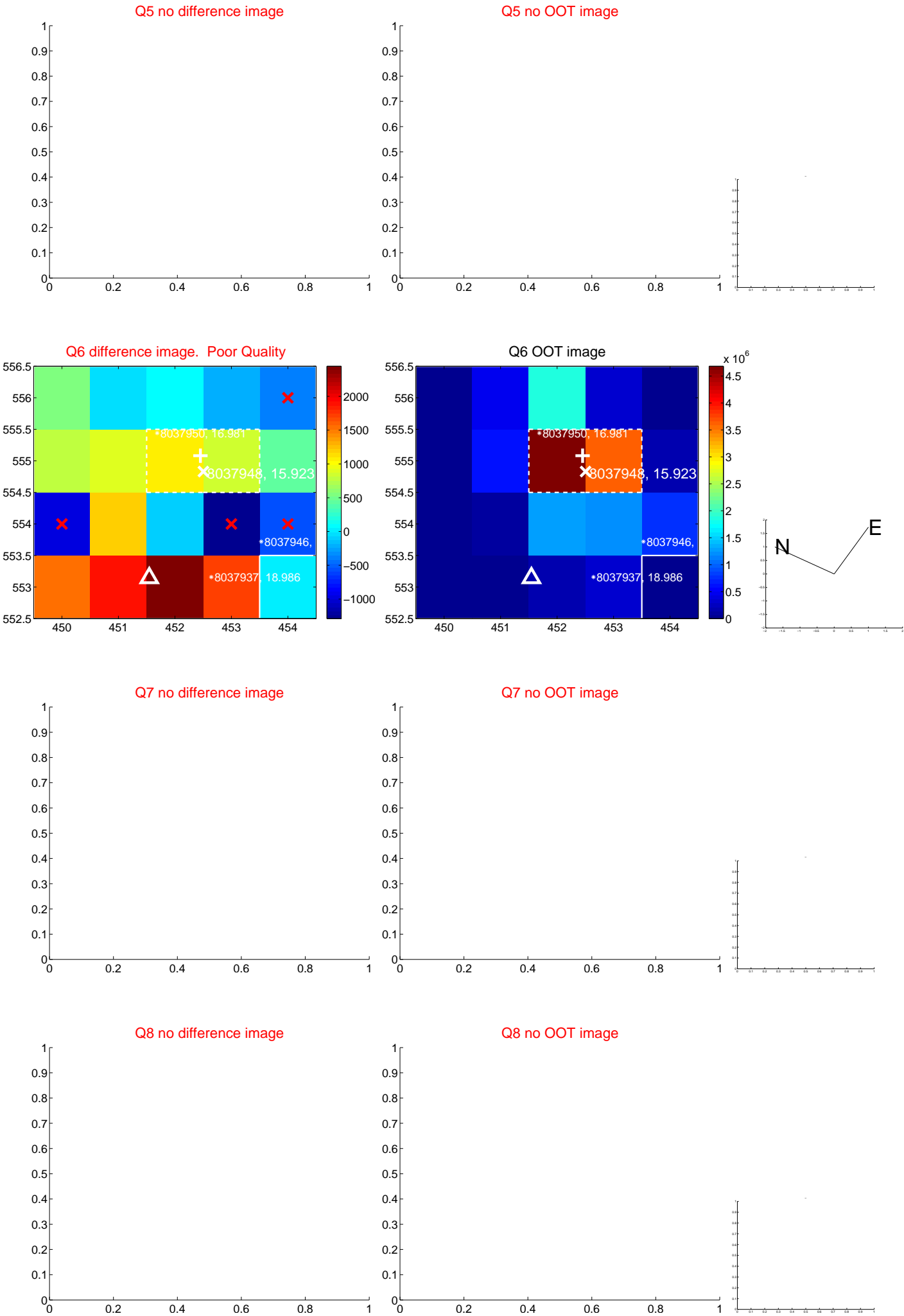


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

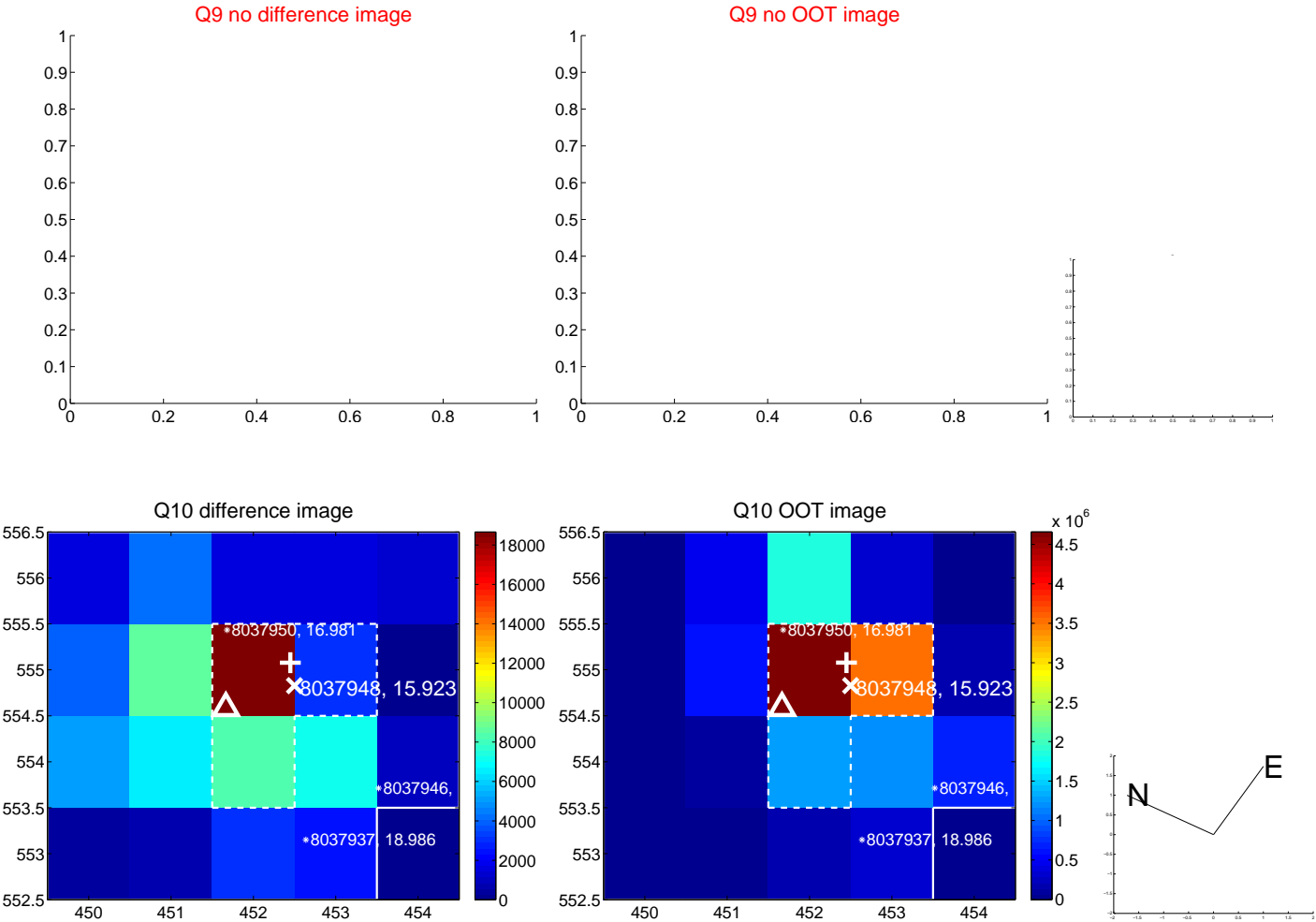
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



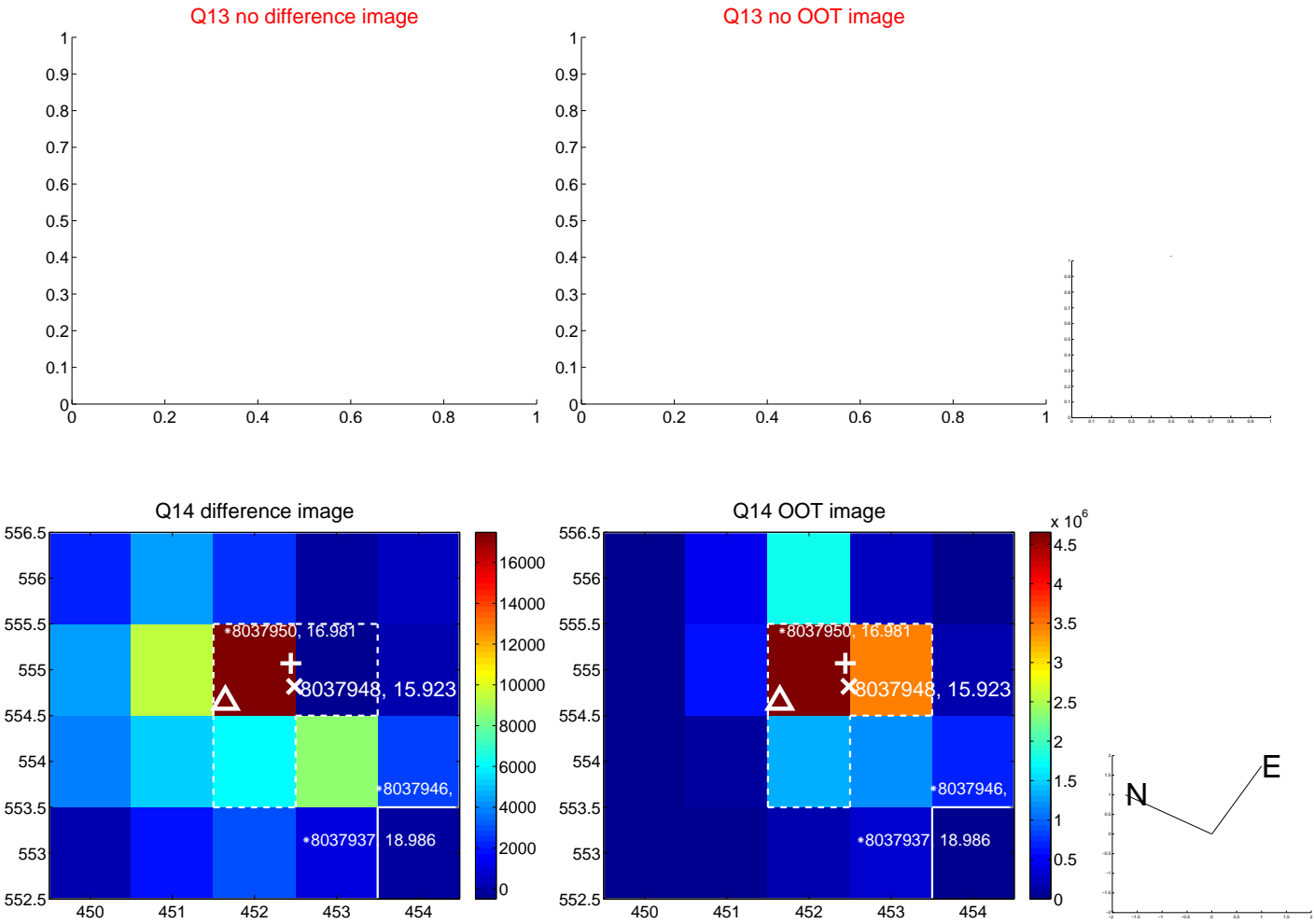
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



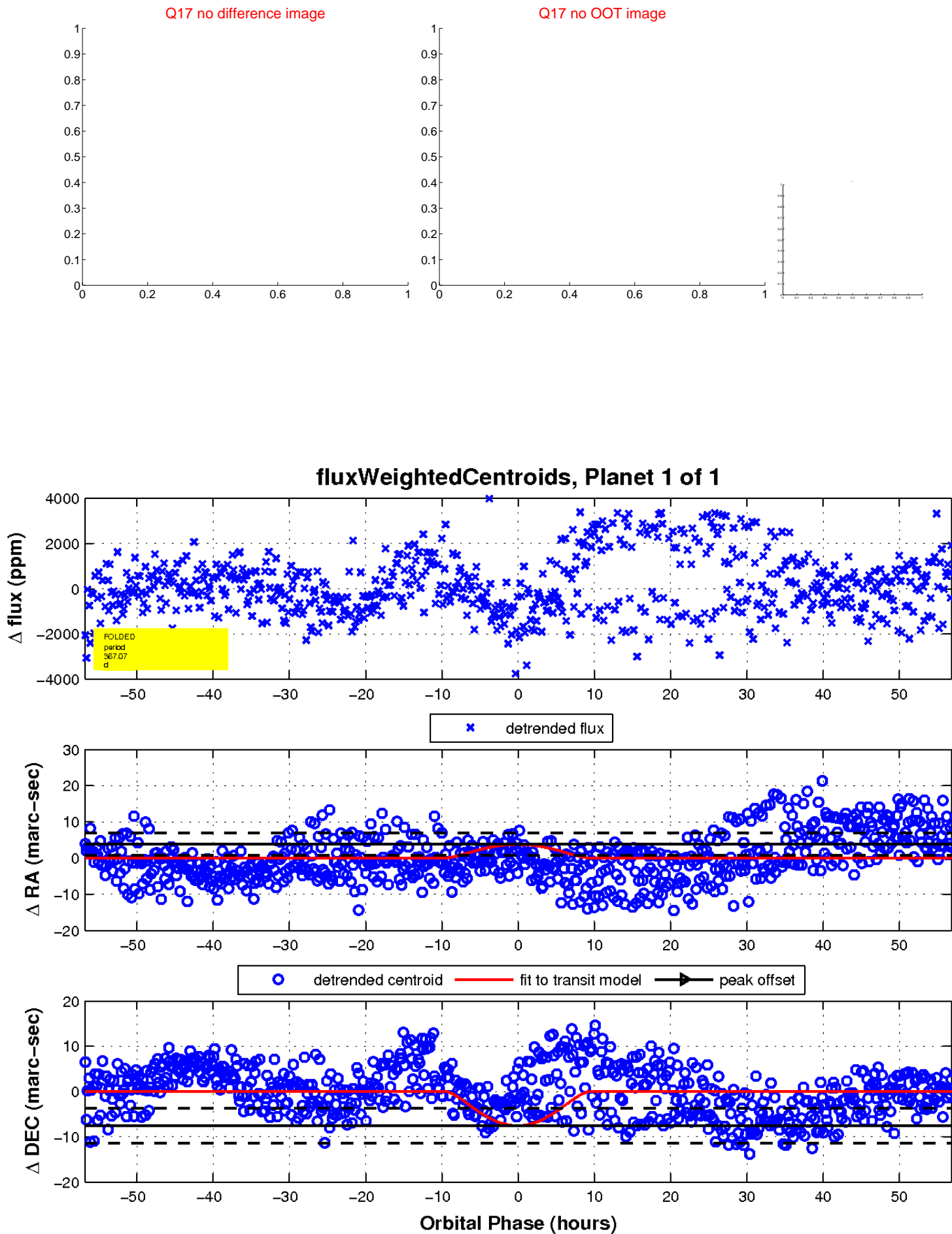
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

