

KIC 009762713

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})
009762713-01	OBS	No	598.874731	314.658027	482.7	10.877	21.8	13.1	1.79	7186	7.26	2.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009762713-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—MOD_TER_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.

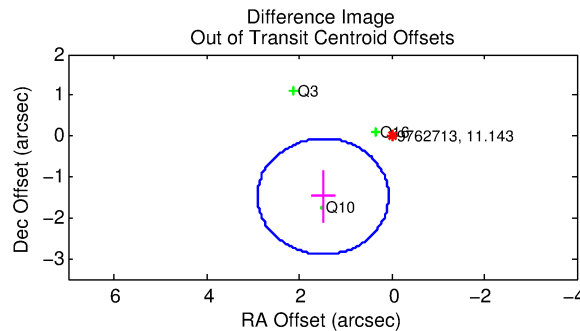
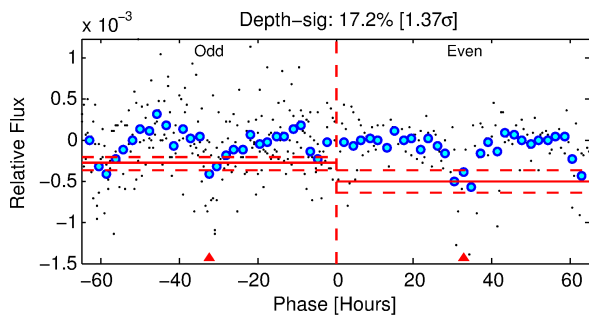
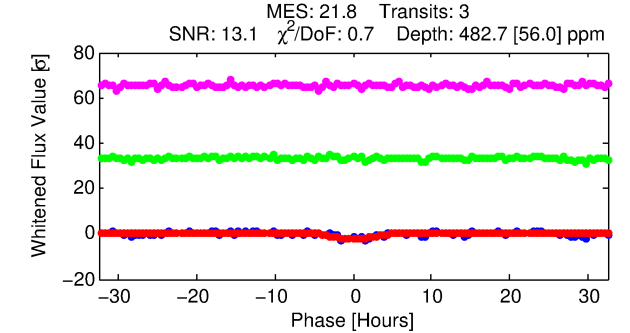
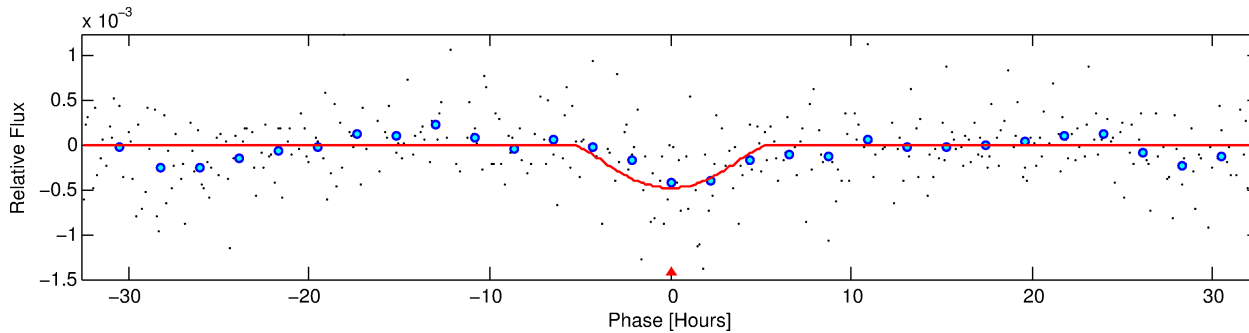
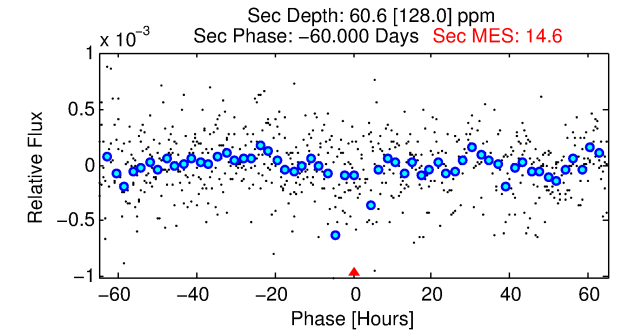
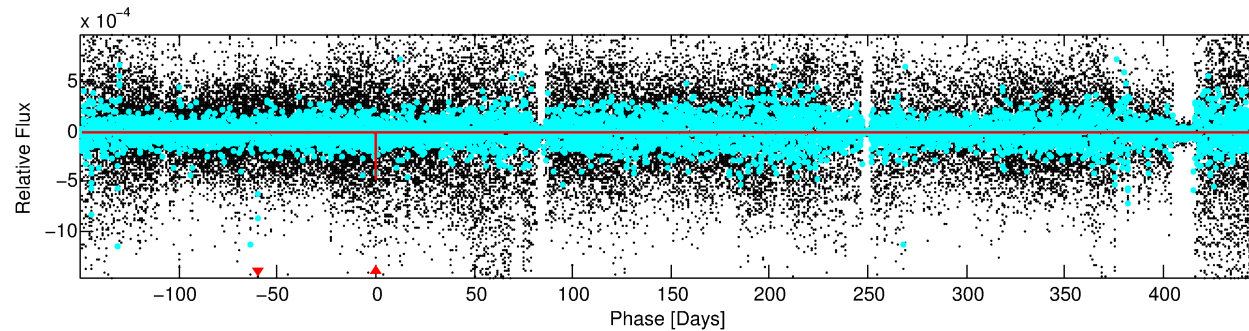
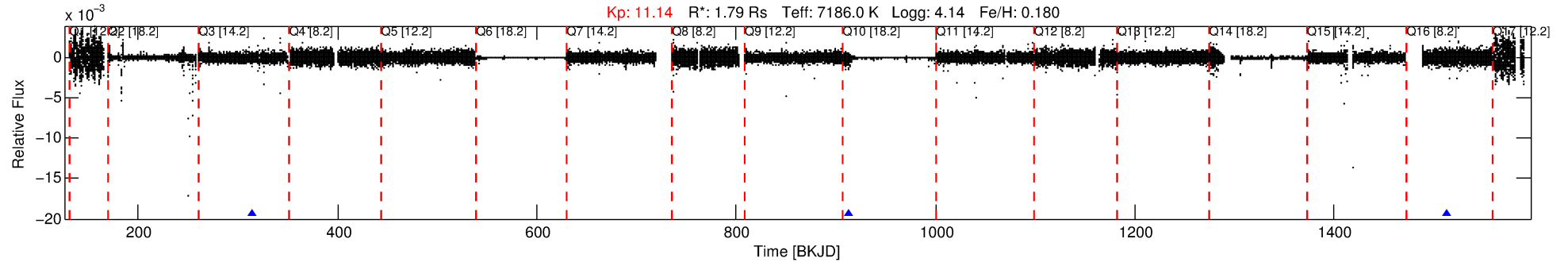
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009762713-01

No Significant Match Found

DV One-Page Summary

KIC: 9762713 Candidate: 1 of 1 Period: 598.875 d



DV Fit Results:

Period = 598.87473 [0.02118] d
Epoch = 314.6580 [0.0223] BKJD
 $R_p/R^* = 0.0373$ [0.0870]
 $a/R^* = 118.20$ [74.41]
 $b = 1.00$ [0.13]
 $S_{\text{eff}} = 2.86$ [1.13]
 $T_{\text{eq}} = 332$ [33] K
 $R_p = 7.26$ [17.12] R_e
 $a = 1.6312$ [0.4238] AU
 $A_g = 1684.01$ [8654.69] [0.19σ]
 $T_{\text{eff}} = 3285$ [4212] K [0.70σ]

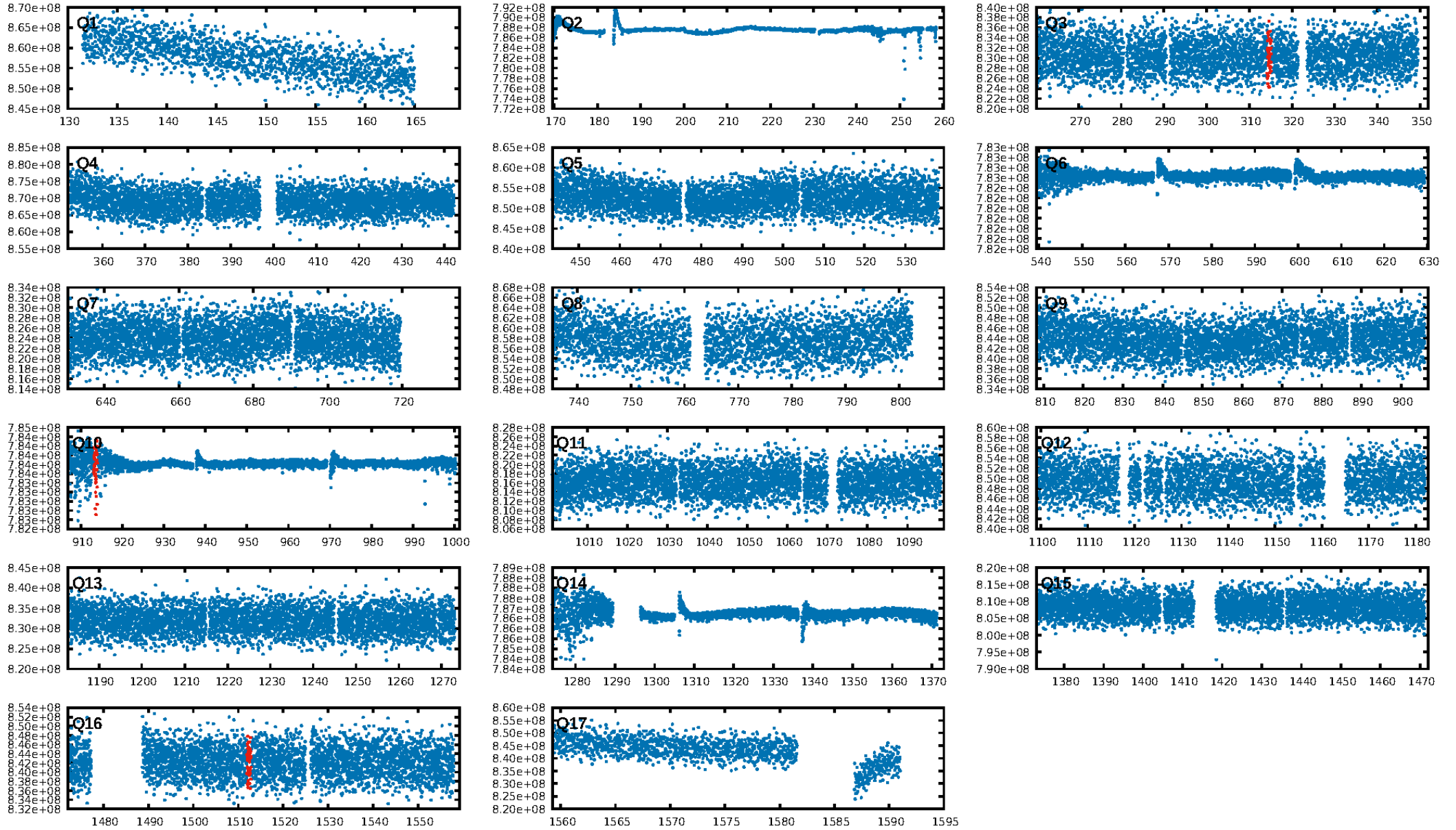
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 32.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.91e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -16.62
Centroid-sig: 45.9%
Centroid-so: 0.299 arcsec [0.70σ]
OotOffset-rm: 2.099 arcsec [4.44σ]
KicOffset-rm: 2.427 arcsec [4.18σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

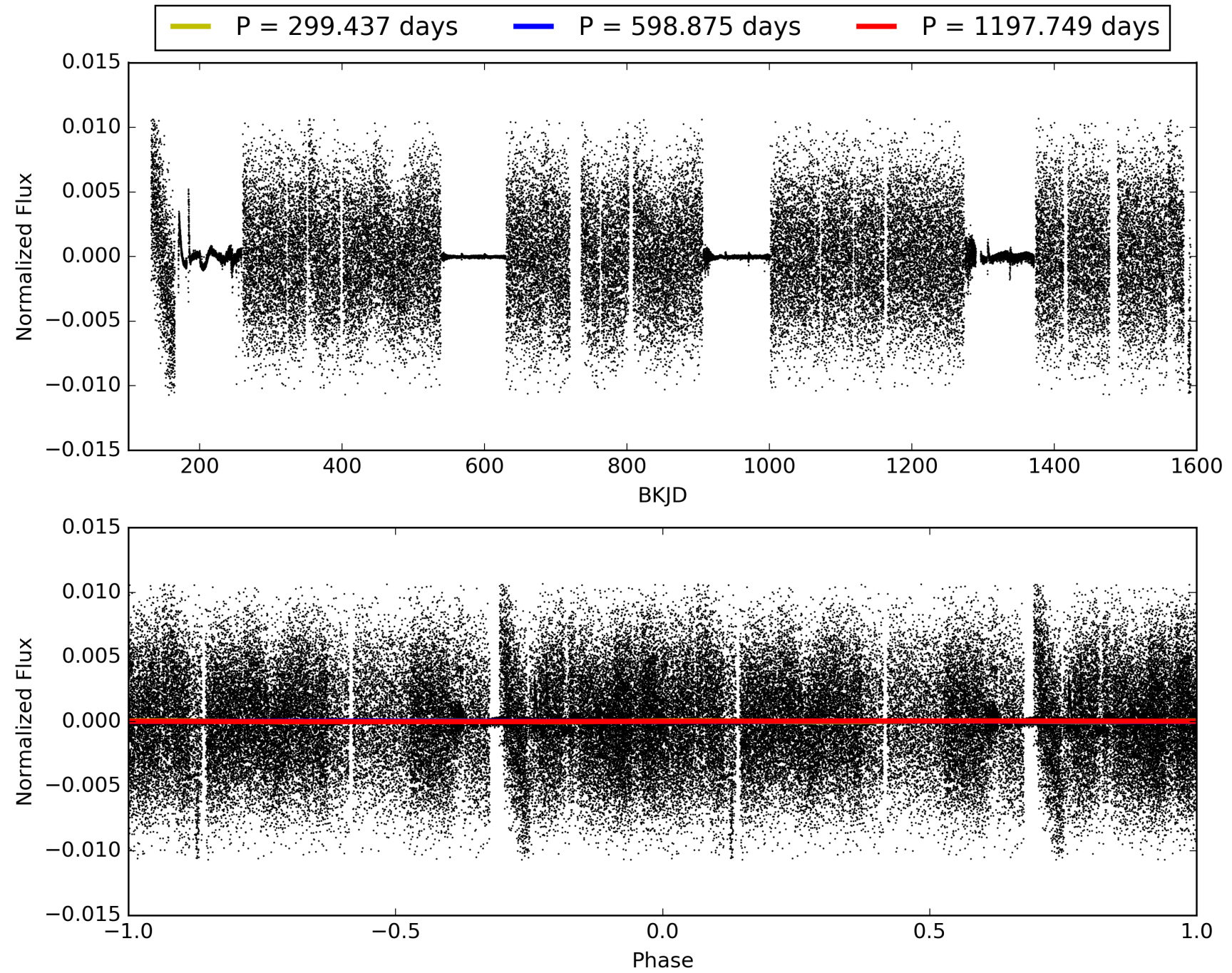
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:53:53 Z

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

TCE 009762713-01, PDC Light Curves

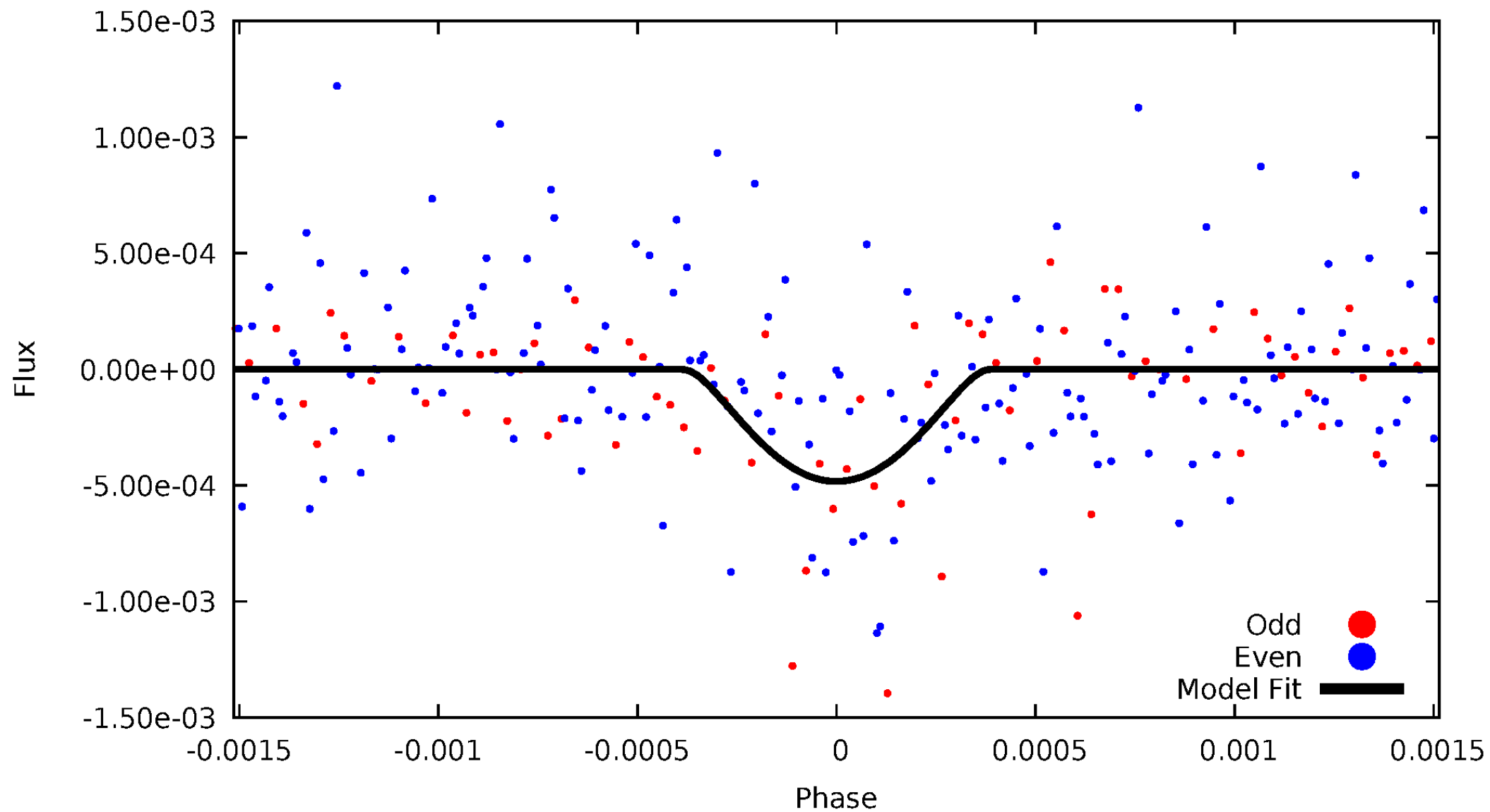


TCE 009762713-01



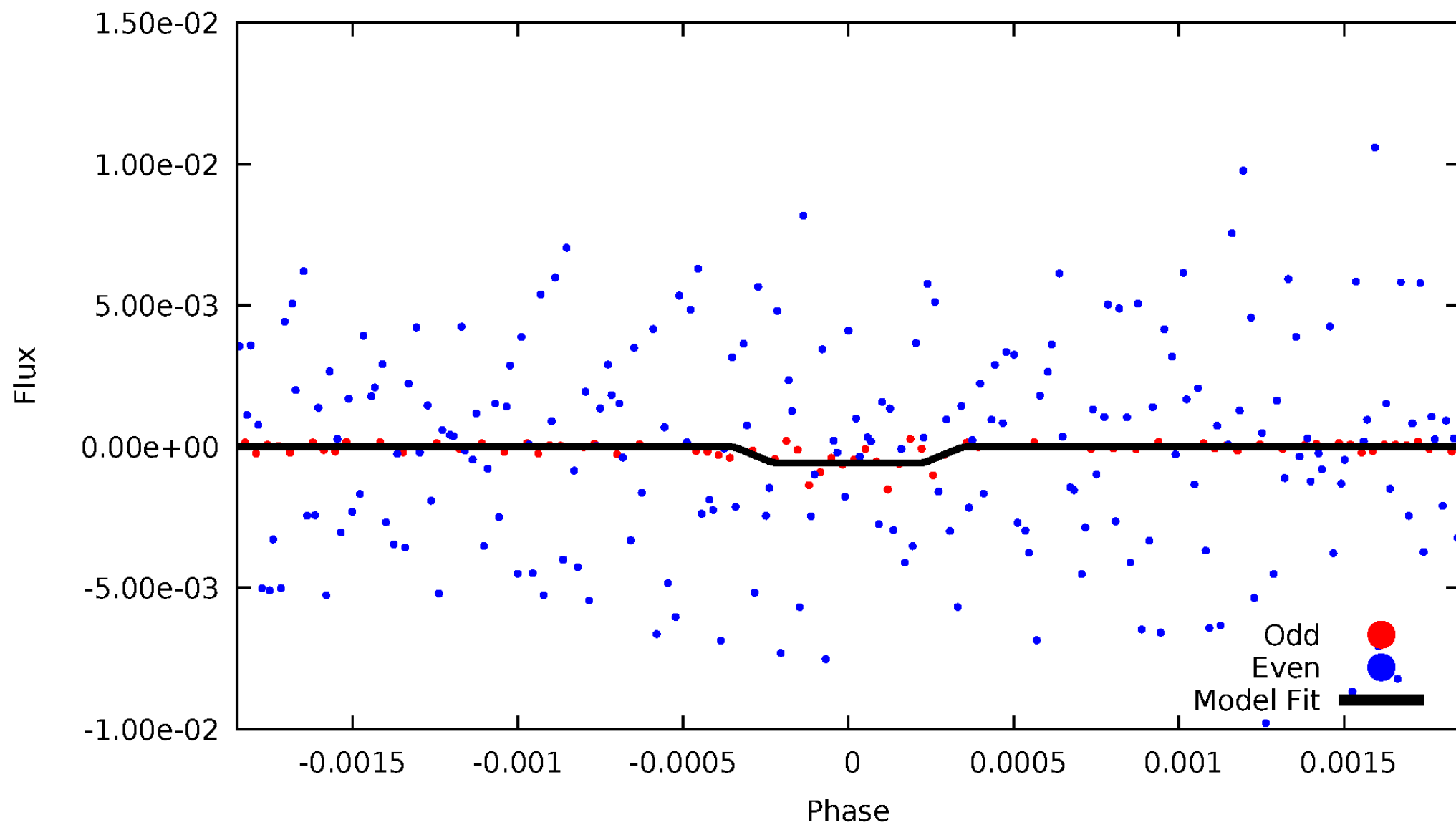
DV Odd/Even

TCE 009762713-01

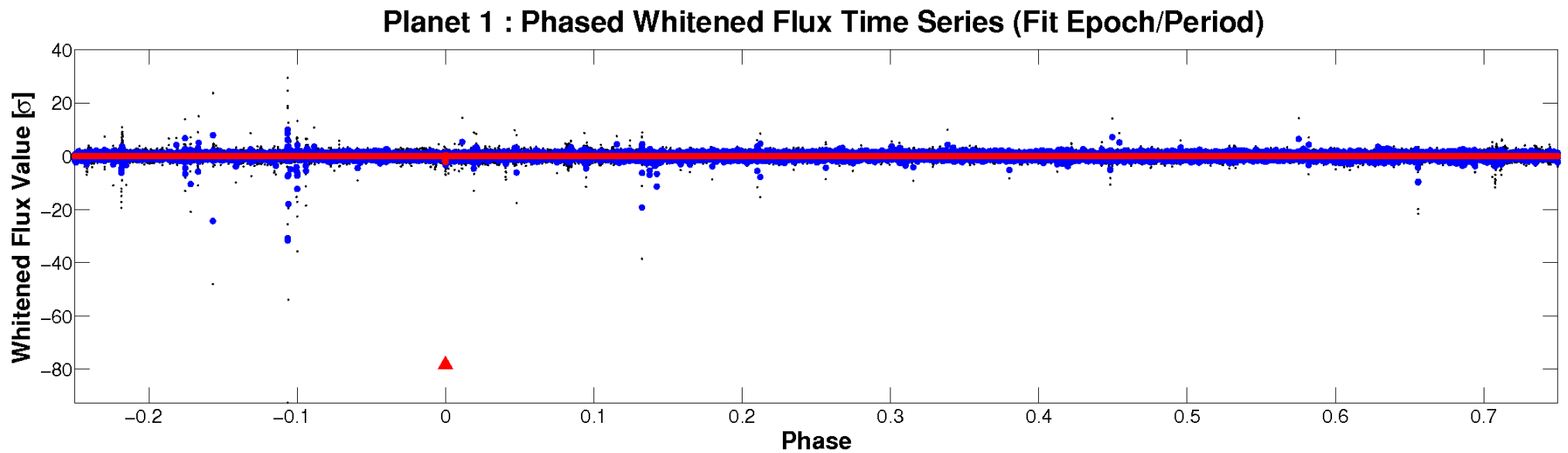
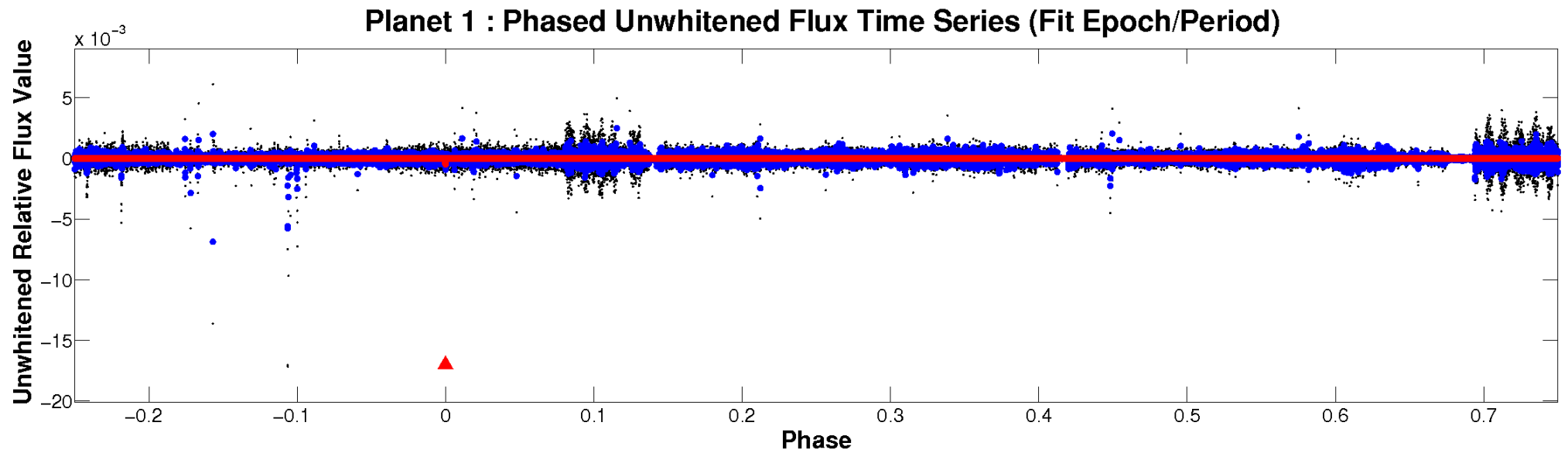


ALT Odd/Even

TCE 009762713-01



Non-Whitened Vs. Whitened Light Curve



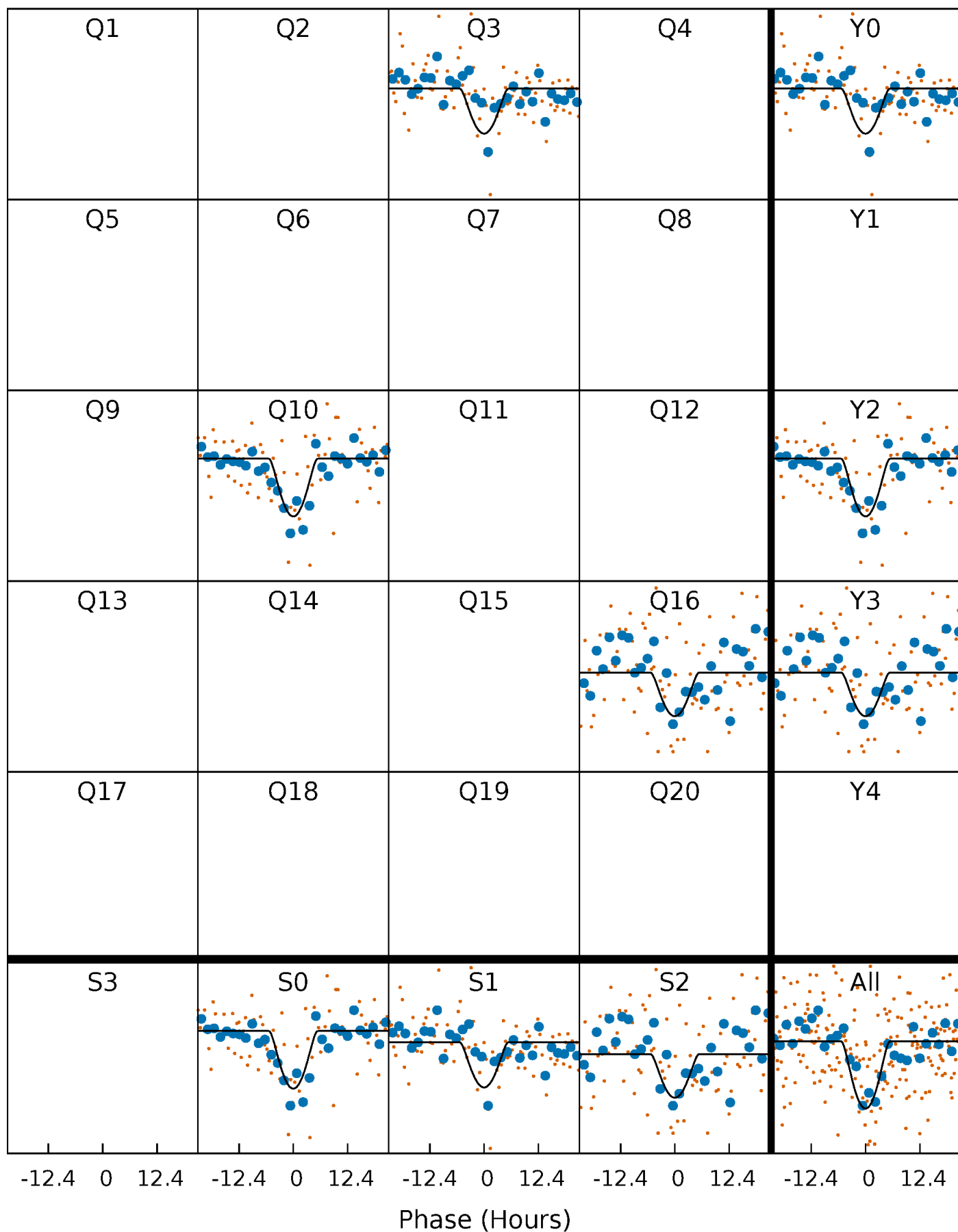
PDC Quarter-Phased Transit Curves

TCE 009762713-01 P=598.874732 Days $T_0=314.658027$ (BKJD)



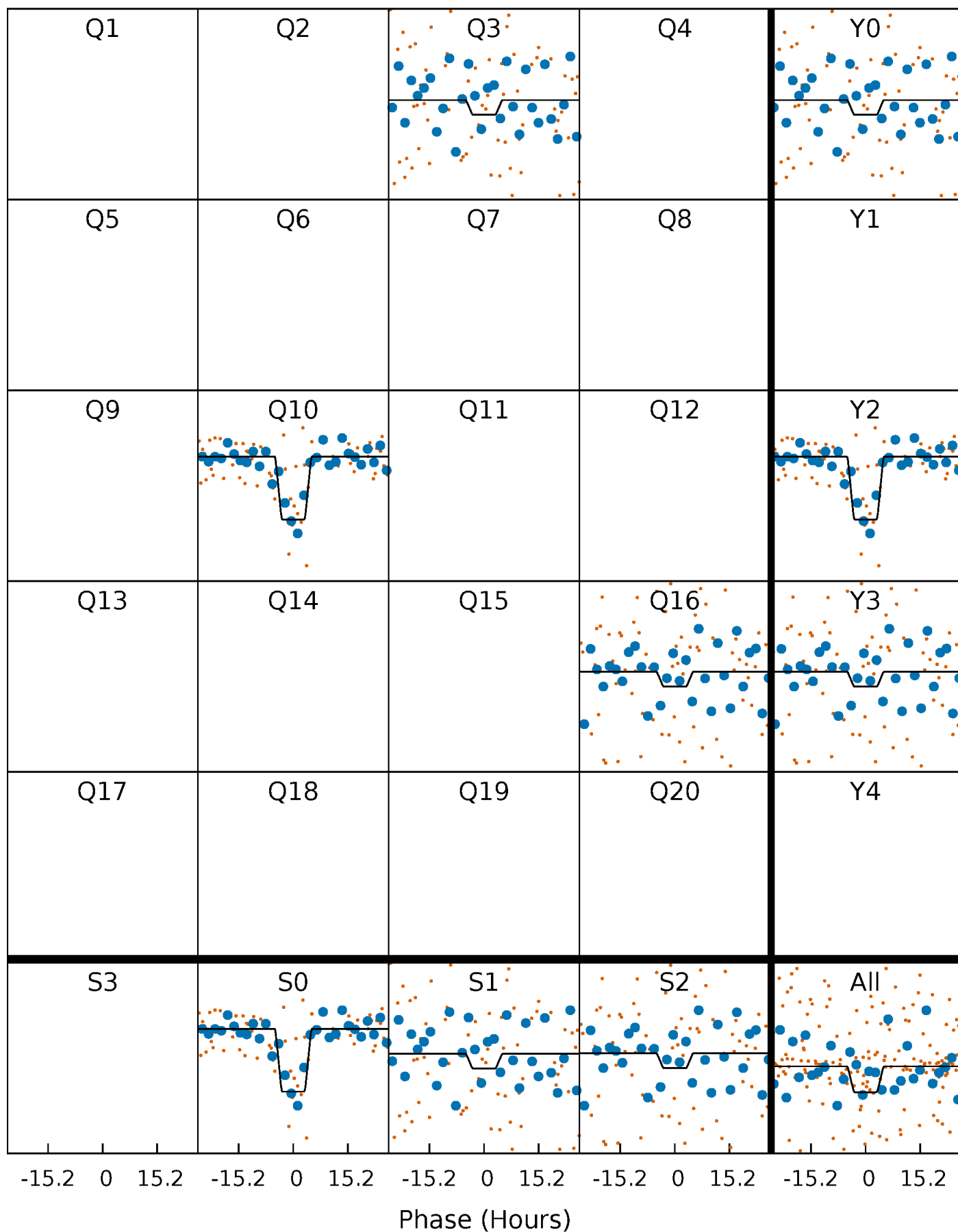
DV Quarter-Phased Transit Curves

TCE 009762713-01 P=598.874732 Days $T_0=314.658027$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

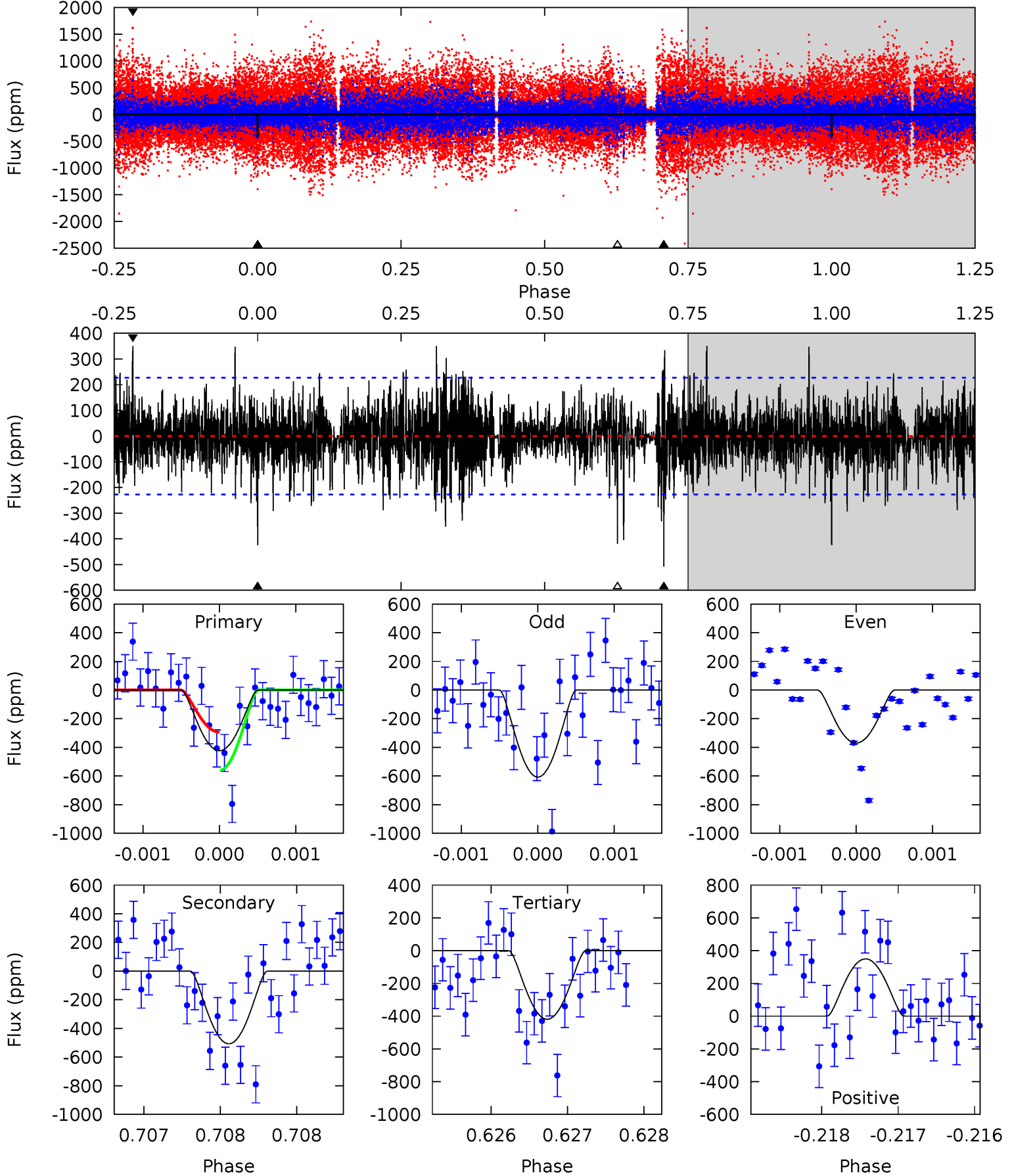
TCE 009762713-01 P=598.839532 Days $T_0=314.698411$ (BKJD)



DV Model-Shift Uniqueness Test

009762713-01, P = 598.874732 Days, E = 314.658027 Days

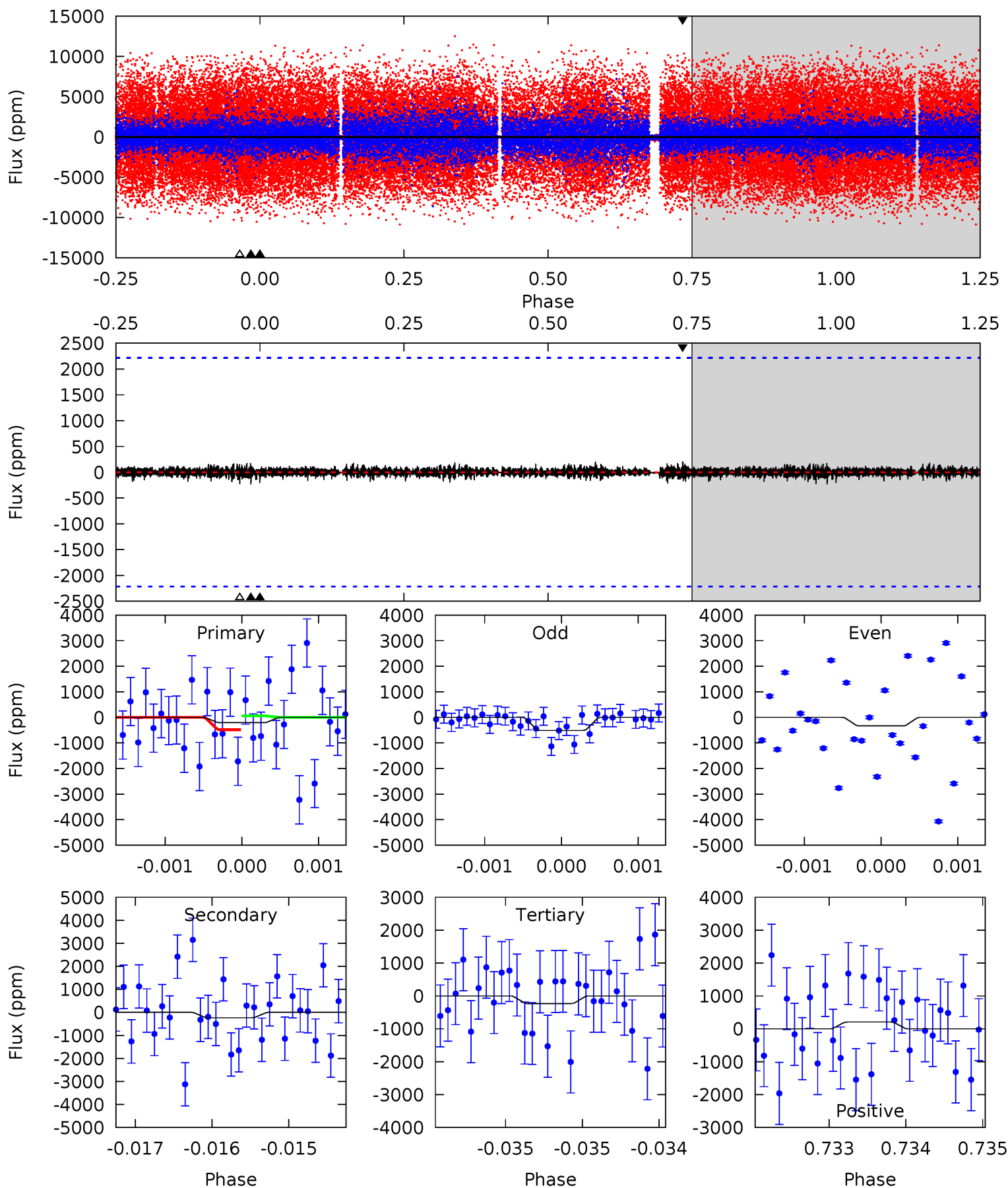
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	12.3	10.1	8.47	5.50	3.36	2.05	0.12	1.79	2.13	3.81	2.66	1.13	0.41	3.24



Alt Model-Shift Uniqueness Test

009762713-01, P = 598.839532 Days, E = 314.698411 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.51	0.58	0.57	0.51	5.51	3.38	0.12	-0.06	0.00	0.01	0.07	0.20	1.08	0.47	0.53



Stellar Parameters For KIC 009762713

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7186^{+171}_{-257}	$4.142^{+0.090}_{-0.195}$	$0.180^{+0.150}_{-0.350}$	$1.786^{+0.569}_{-0.306}$	$1.615^{+0.204}_{-0.204}$	$0.399^{+0.194}_{-0.206}$
	+2%/-4%	+2%/-5%	+83%/-194%	+32%/-17%	+13%/-13%	+49%/-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 009762713-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-507 ± 41	$14.95^{+14.15}_{-9.84}$	469^{+36}_{-26}	4150^{+2544}_{-839}	3250^{+24945}_{-2417}
Alt.	-233 ± 402	$14.43^{+14.63}_{-9.83}$	468^{+35}_{-26}	3474^{+2199}_{-6780}	1111^{+13511}_{-1877}

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 $A_{obs} \gg 1.0$

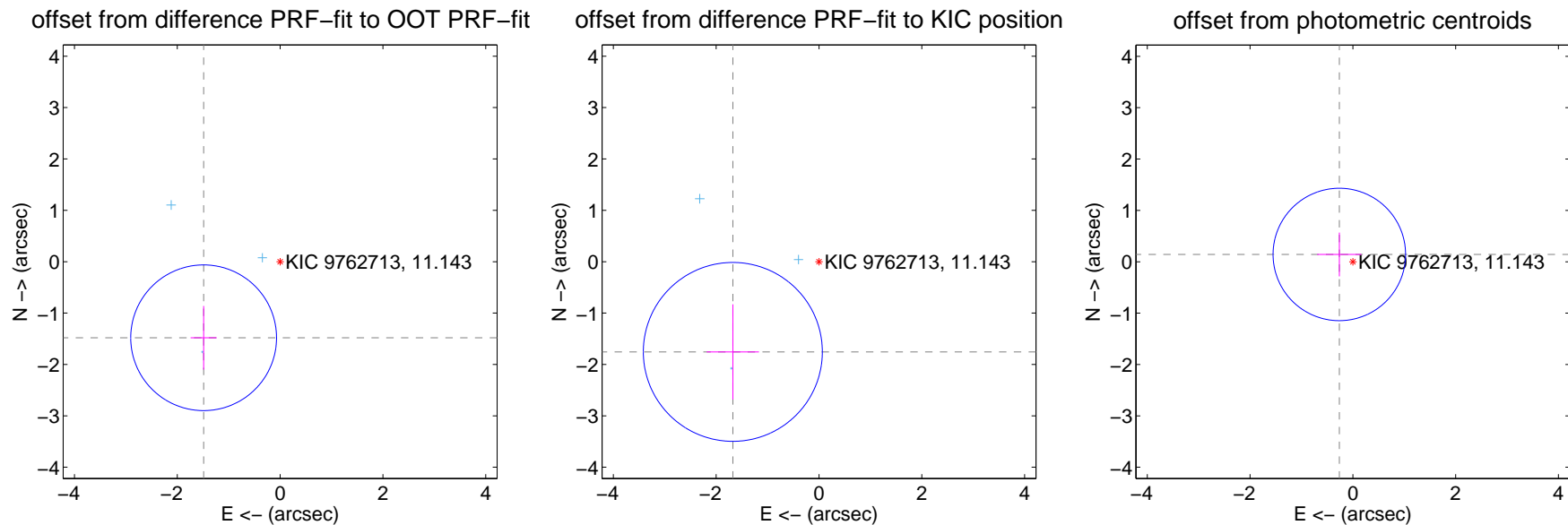
DV Centroid Data

Supplemental centroid analysis for 009762713-01. **Kepler magnitude: 11.14.** Transit SNR 13.10

There are 3 quarters with good PRF difference image offsets

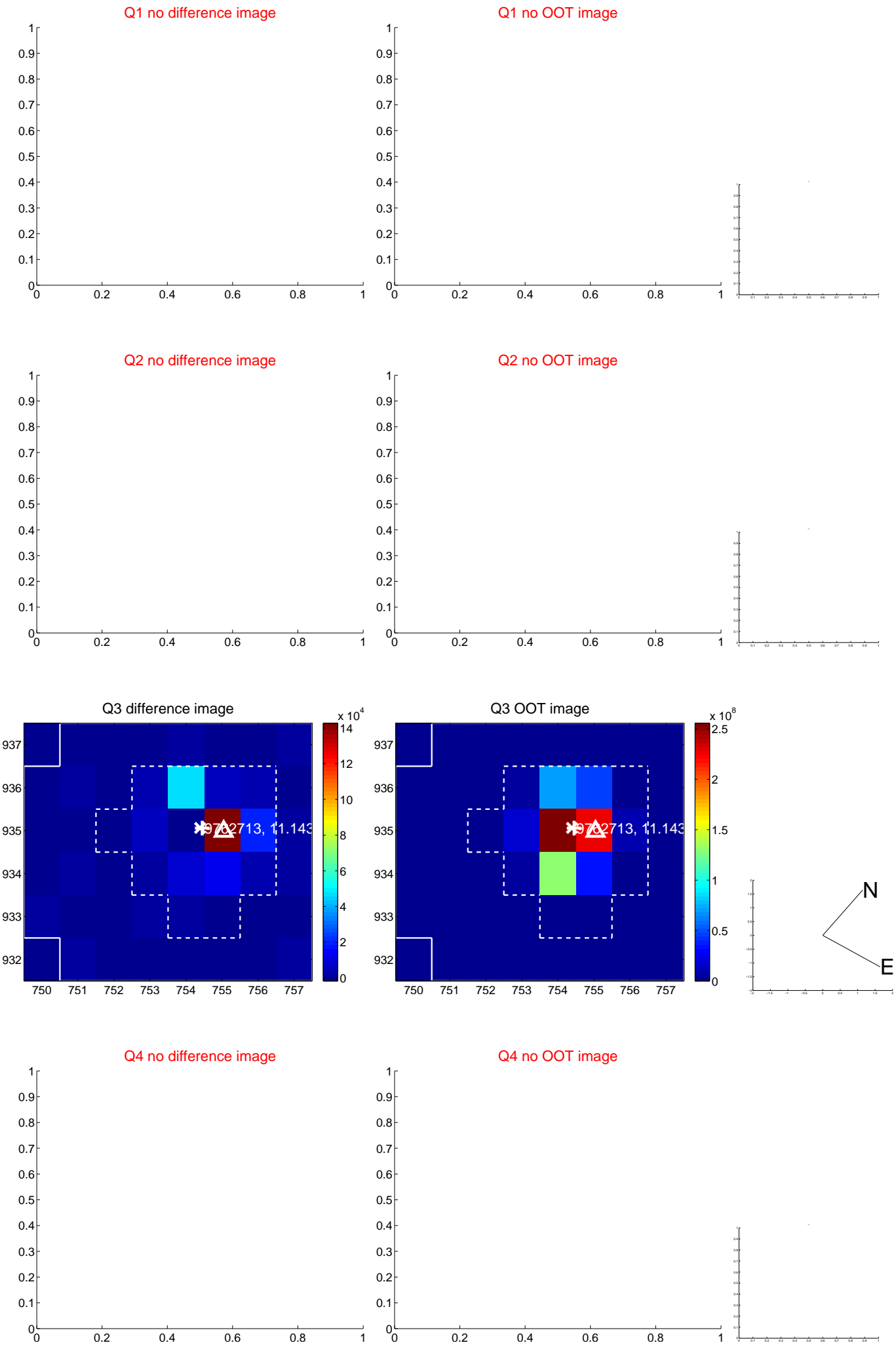
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.099 ± 0.473	4.44	1.487 ± 0.254	-1.481 ± 0.620
PRF-fit source offset from KIC position	2.427 ± 0.580	4.18	1.676 ± 0.509	-1.756 ± 0.925
photometric centroid source offset	0.30 ± 0.43	0.70	0.26 ± 0.43	0.14 ± 0.43

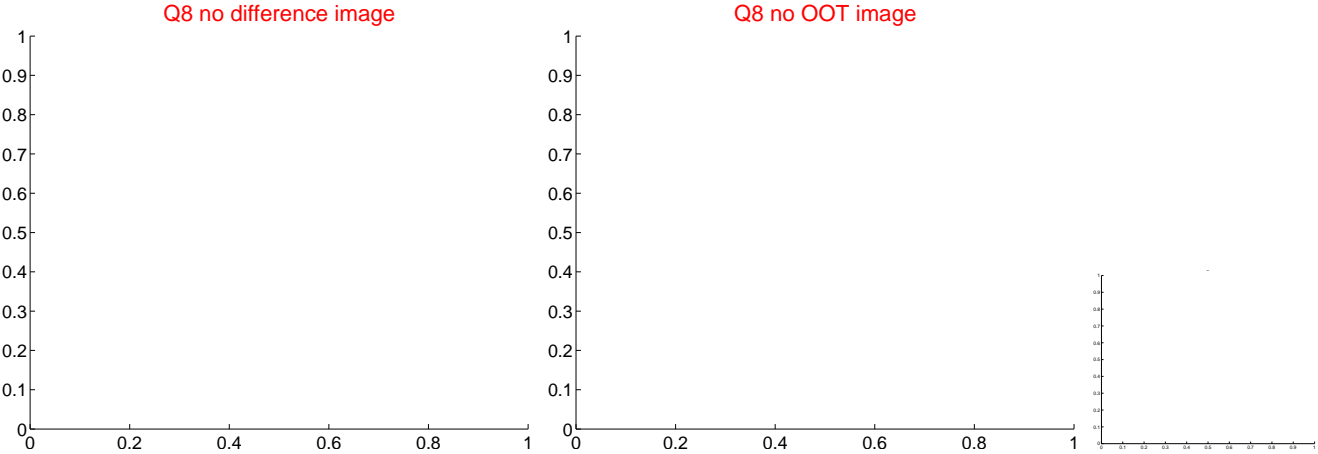


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

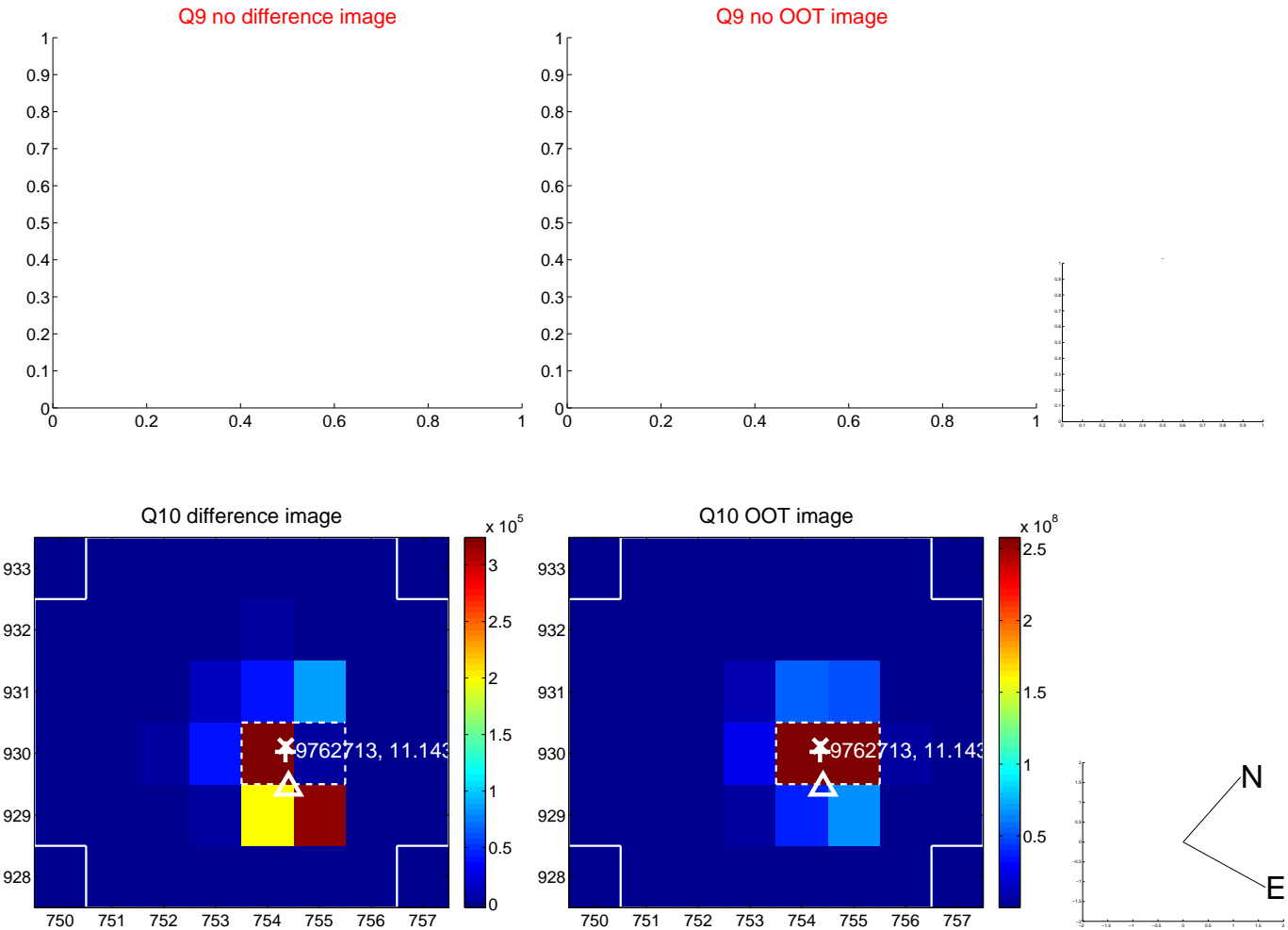
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



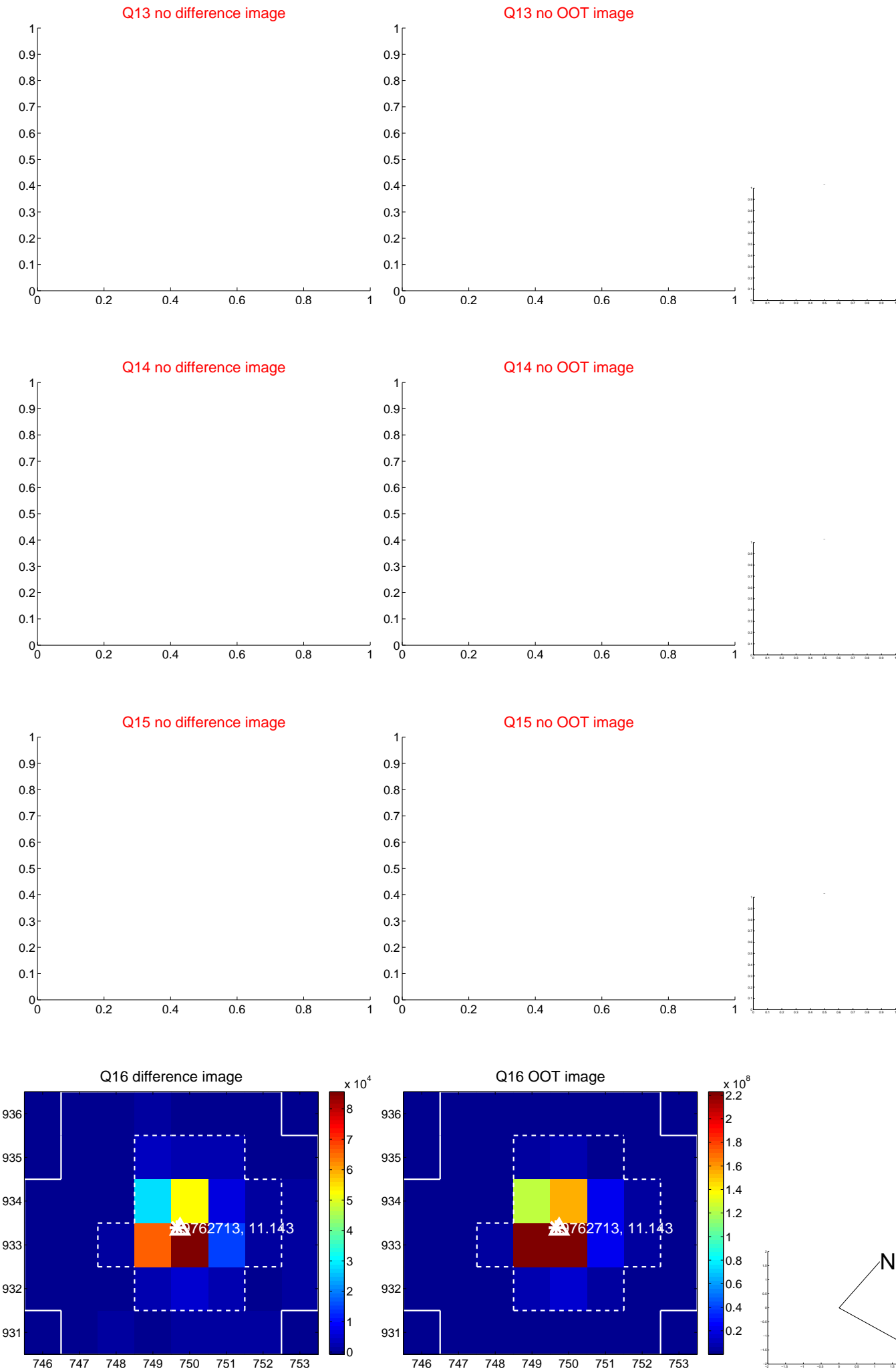
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



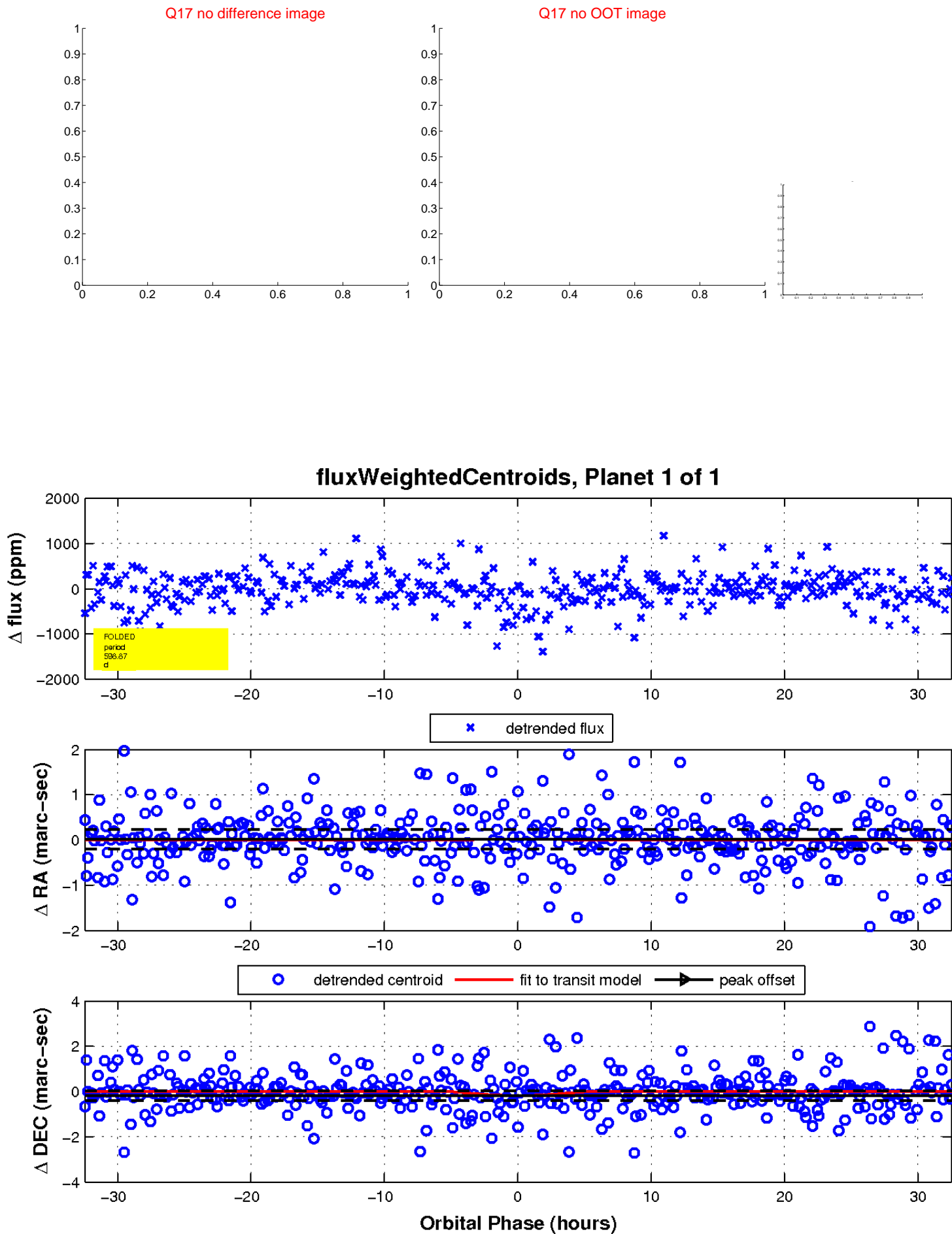
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

