

KIC 008106950

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})
008106950-01	OBS	No	461.898216	402.751420	129.7	7.798	7.7	7.4	1.61	5837	2.12	2.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008106950-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—MOD_NONUNIQU_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.

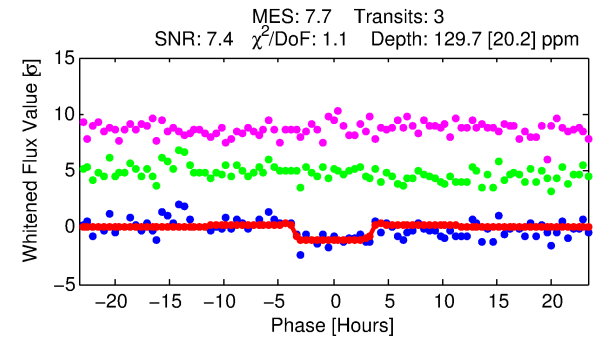
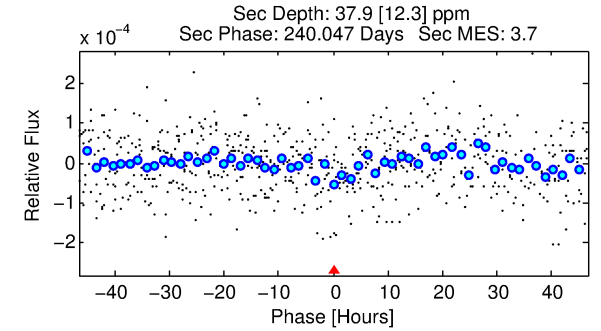
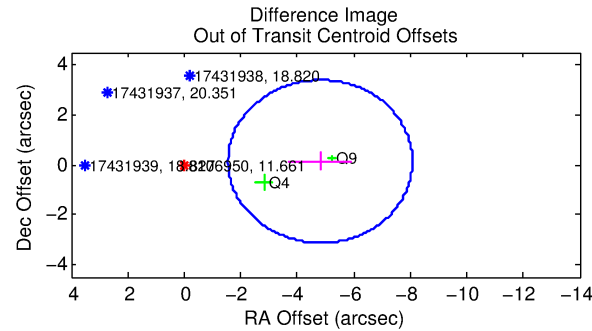
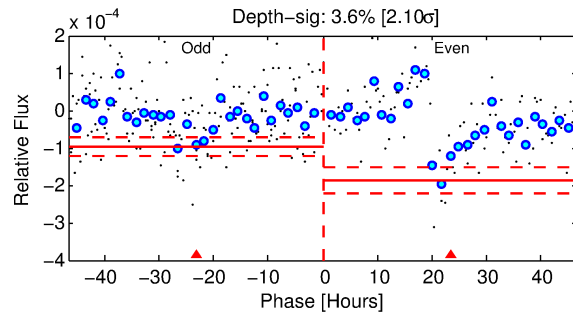
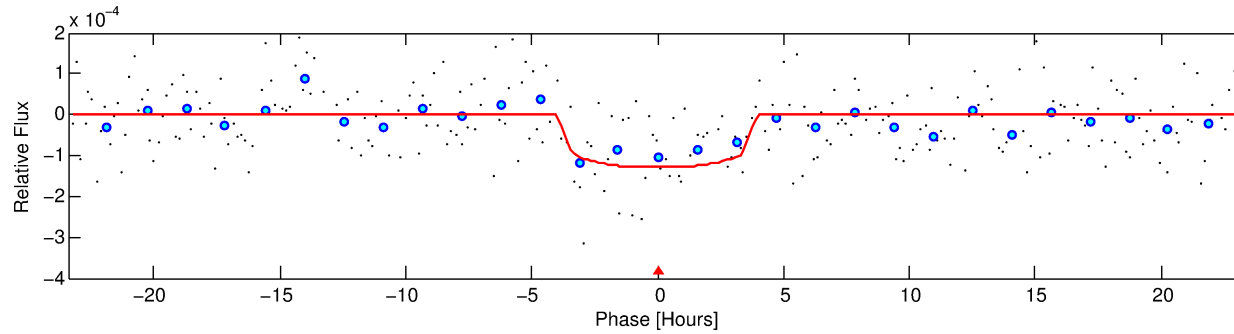
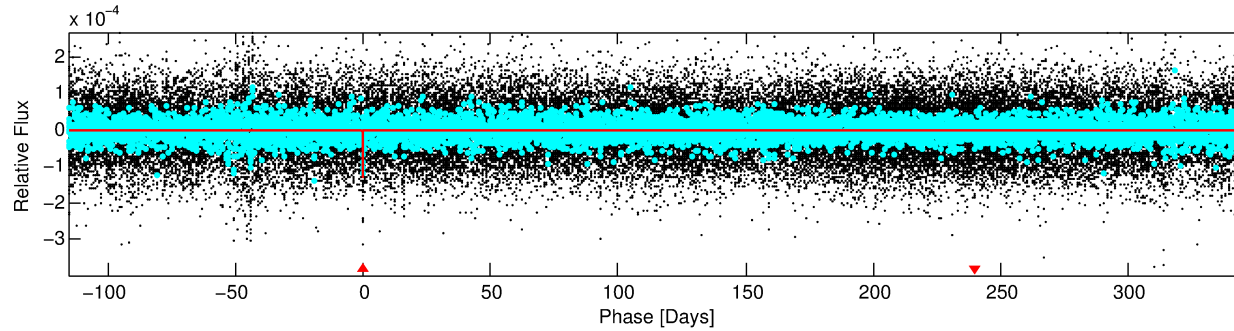
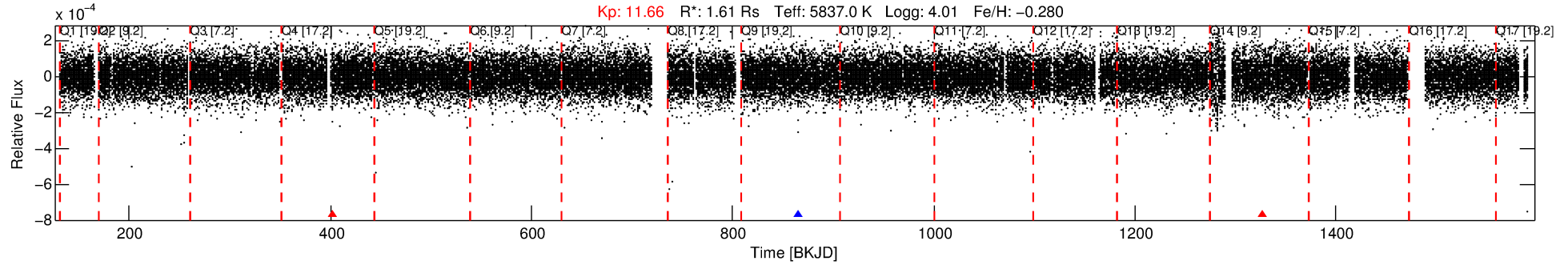
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008106950-01

No Significant Match Found

DV One-Page Summary

KIC: 8106950 Candidate: 1 of 1 Period: 461.898 d



DV Fit Results:

Period = 461.89822 [0.01096] d
Epoch = 402.7514 [0.0132] BKJD
Rp/R* = 0.0120 [0.0058]
a/R* = 232.32 [550.60]
b = 0.87 [0.66]
Seff = 2.02 [0.15]
Teq = 304 [6] K
Rp = 2.12 [1.03] Re
a = 1.1570 [0.0387] AU
Ag = 6203.78 [6322.67] [0.98σ]
Teff = 4173 [1064] K [3.64σ]

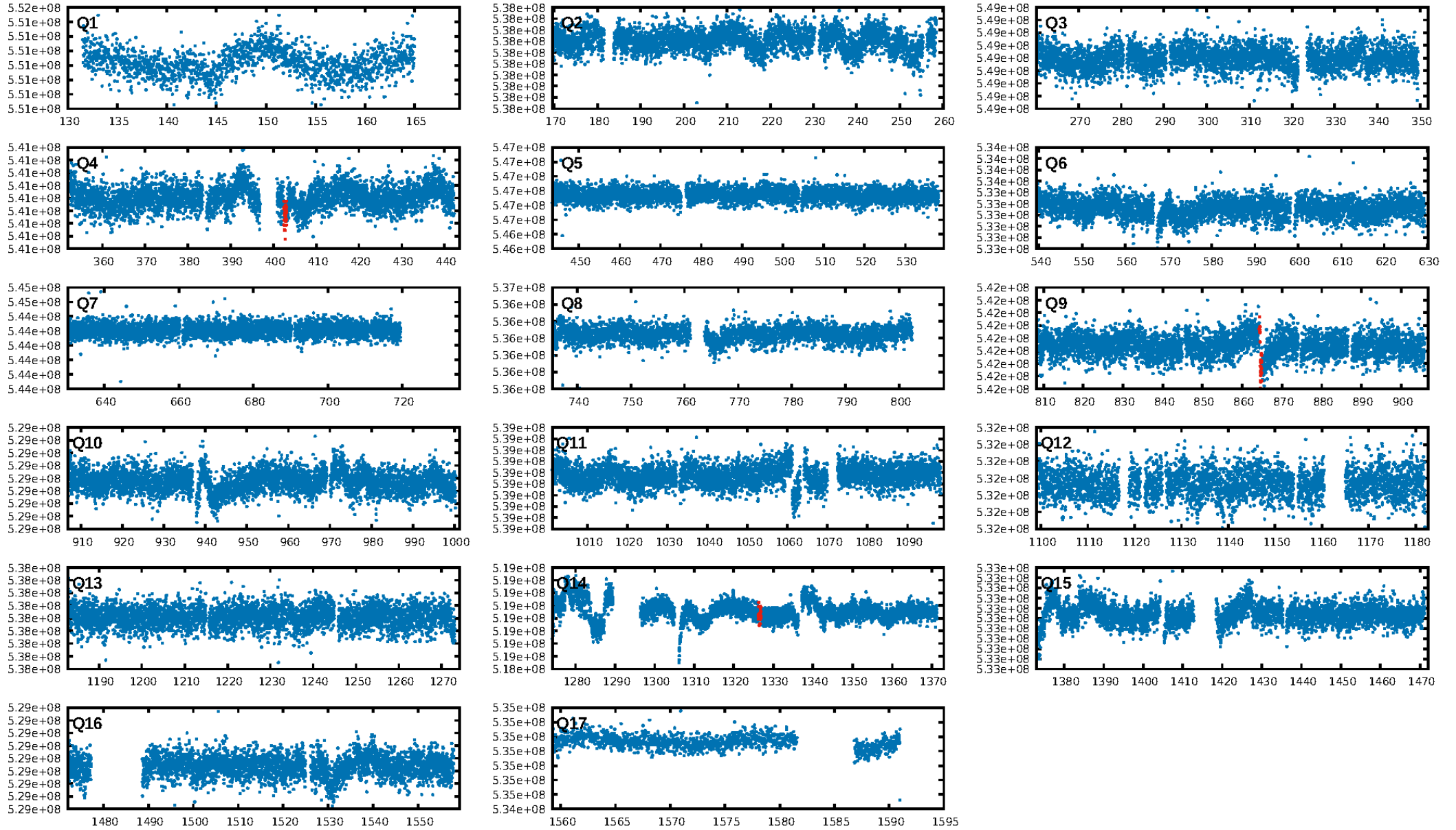
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.5%
ModelChiSquareGof-sig: 95.5%
Bootstrap-pfa: 2.00e-12
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 0.8908
Centroid-sig: 19.1%
Centroid-so: 1.858 arcsec [1.49σ]
OotOffset-rm: 4.815 arcsec [4.43σ]
KicOffset-rm: 5.315 arcsec [4.92σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

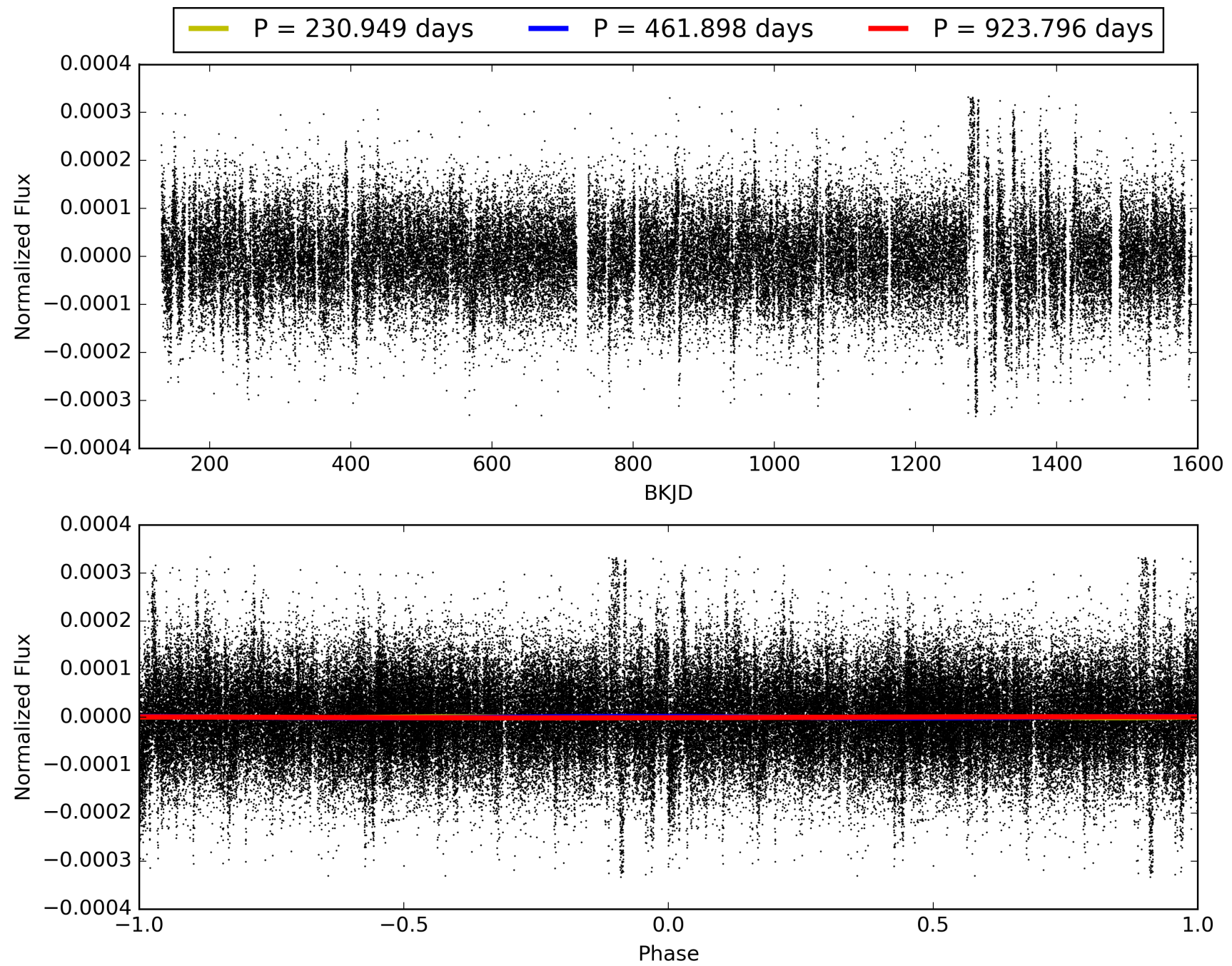
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:29:30 Z

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

TCE 008106950-01, PDC Light Curves

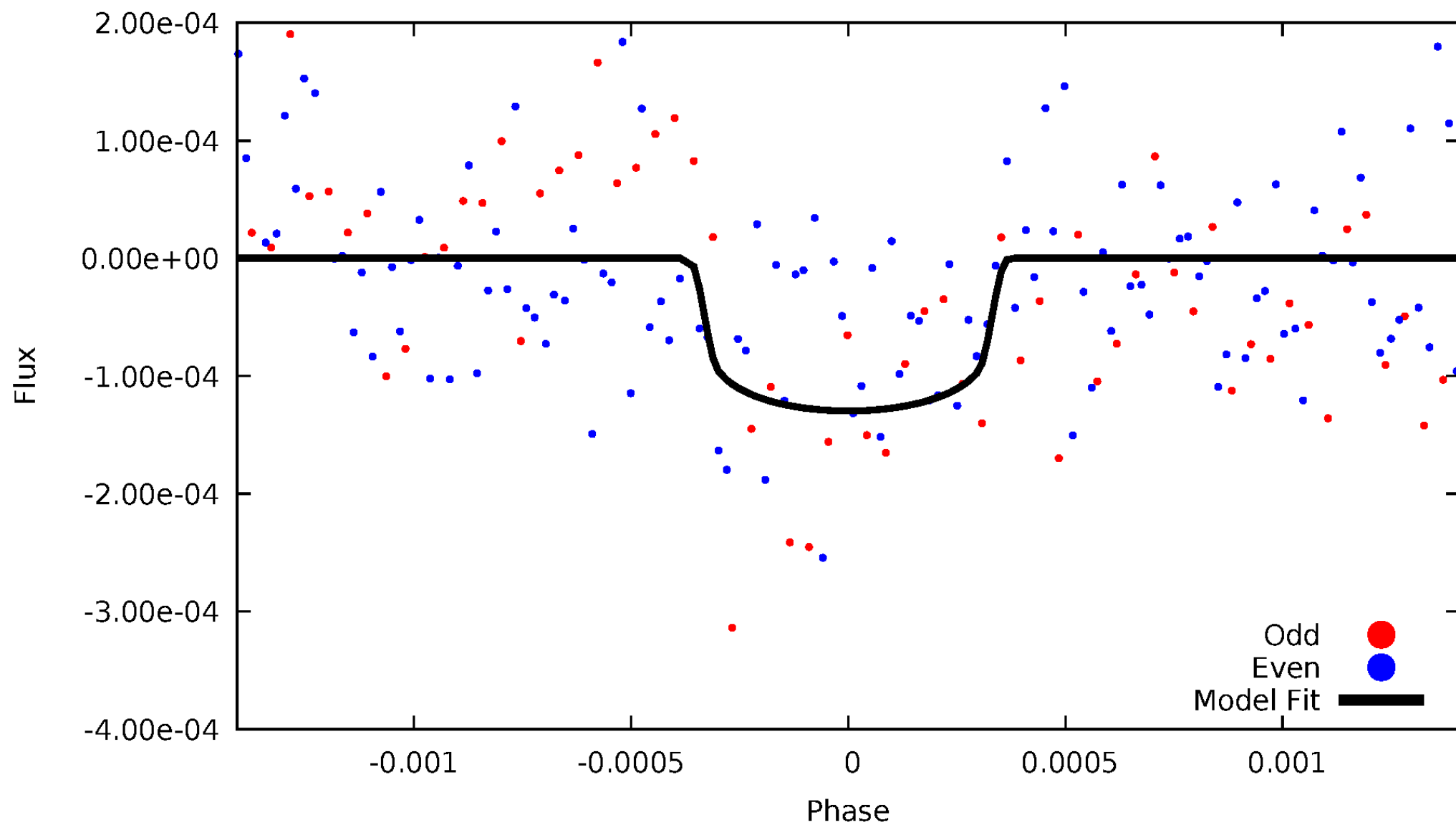


TCE 008106950-01



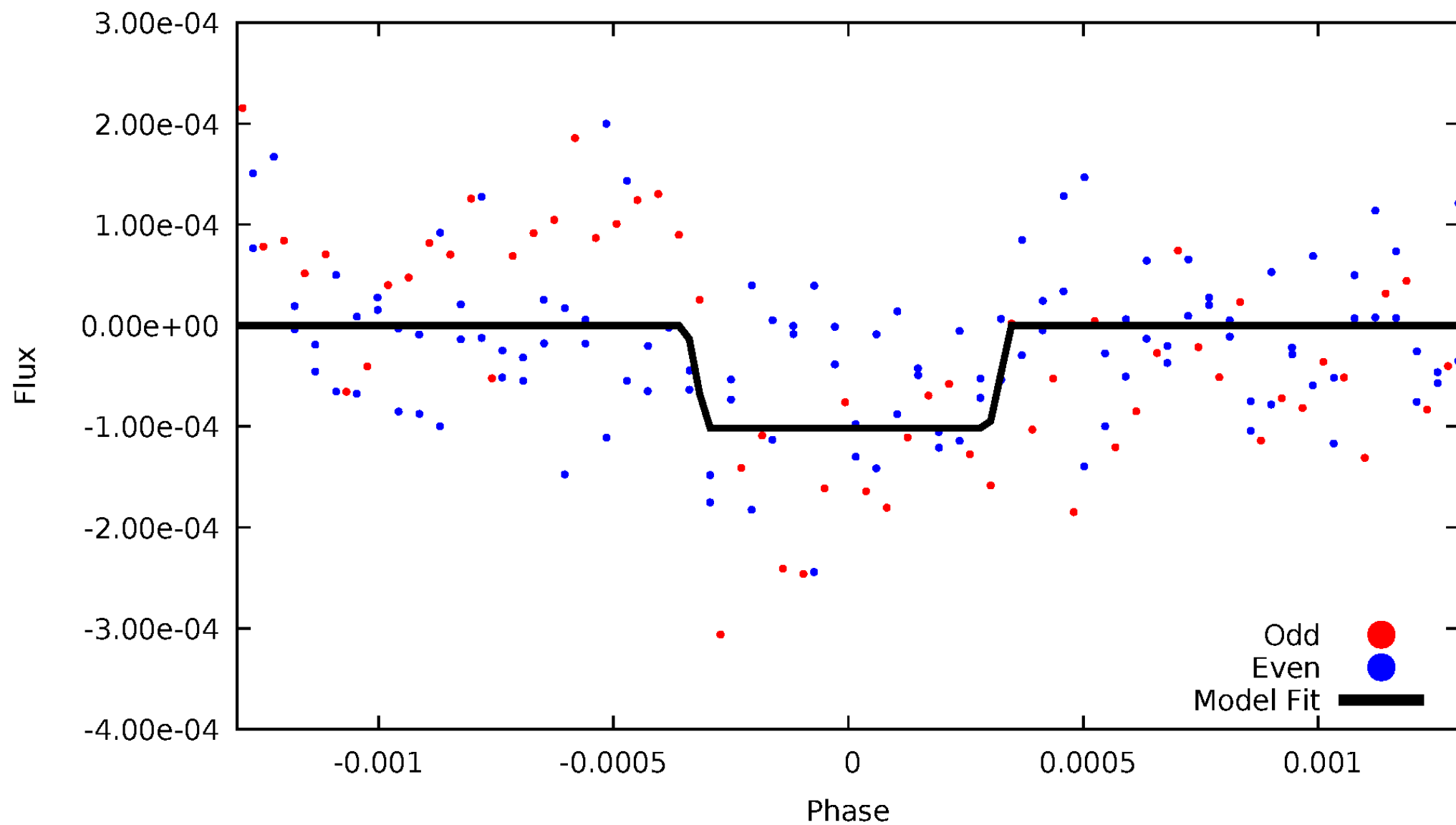
DV Odd/Even

TCE 008106950-01



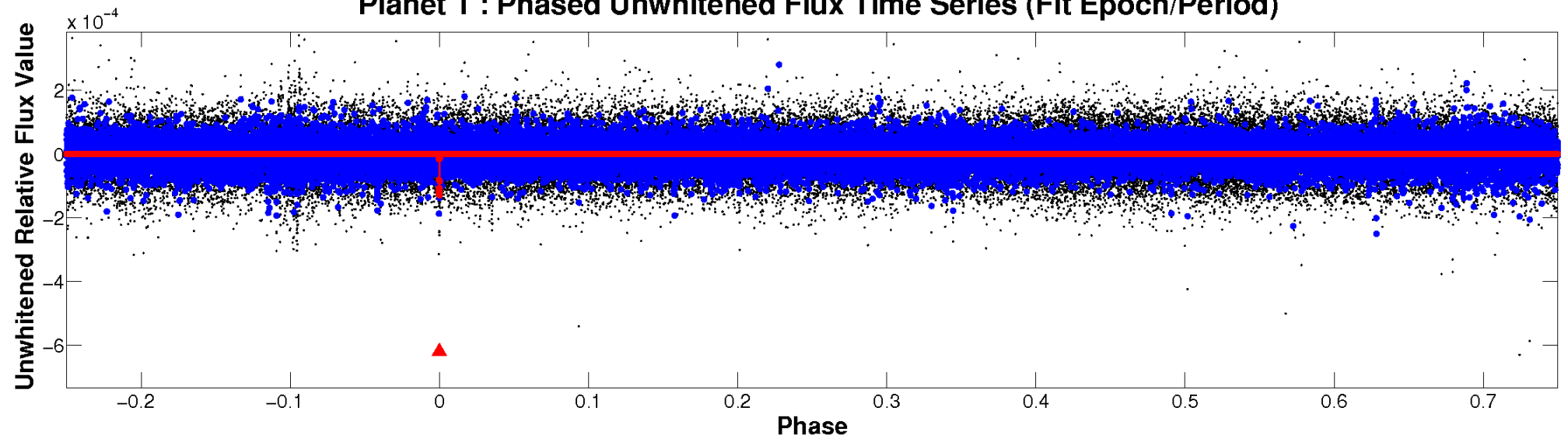
ALT Odd/Even

TCE 008106950-01

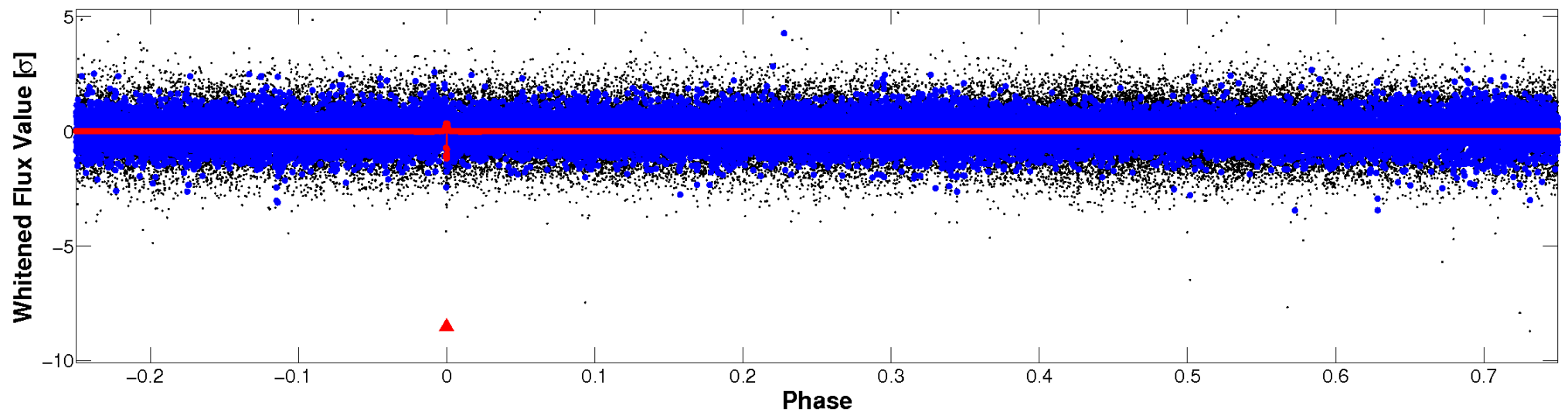


Non-Whitened Vs. Whitened Light Curve

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

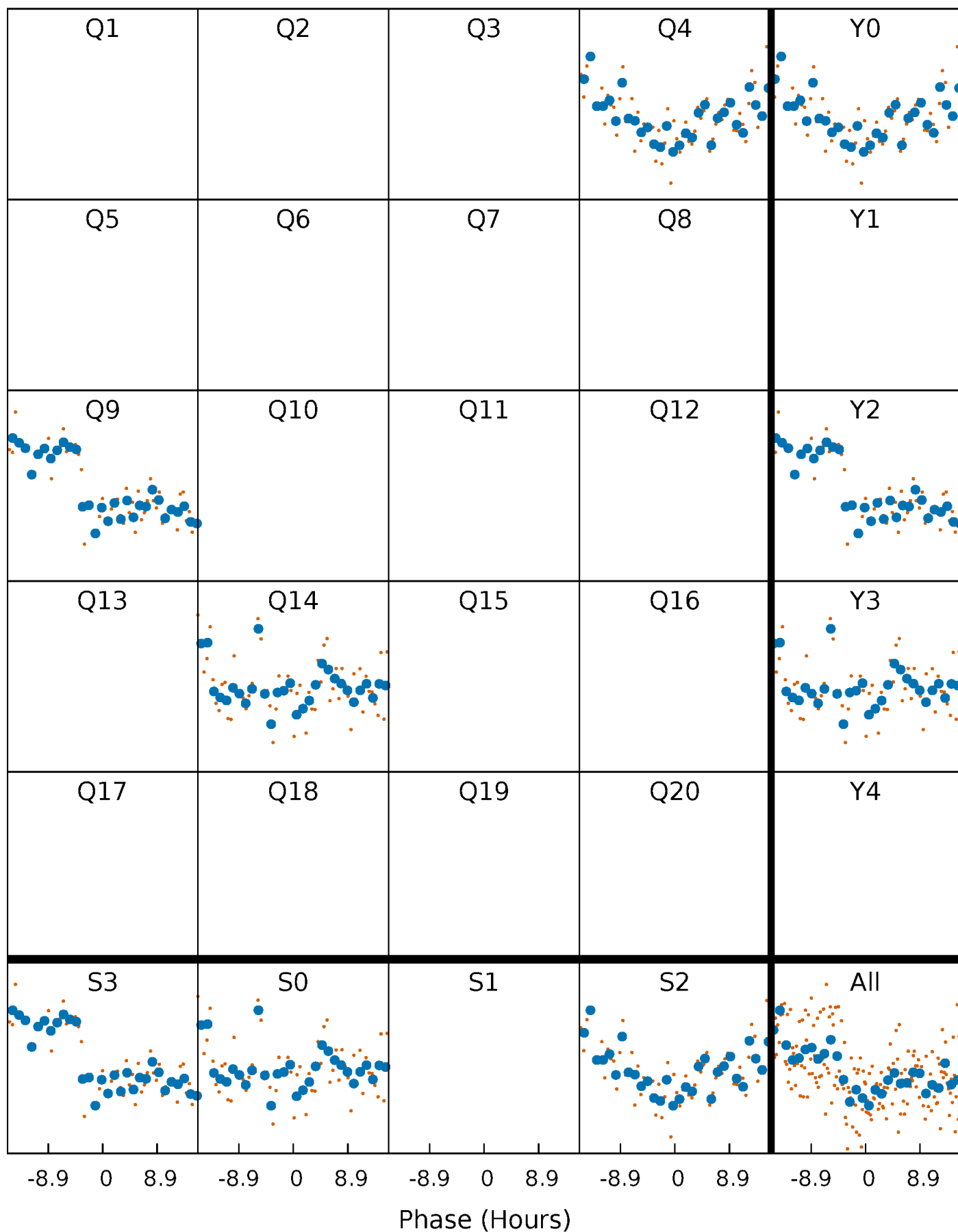


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008106950-01 P=461.898215 Days $T_0=402.751420$ (BKJD)



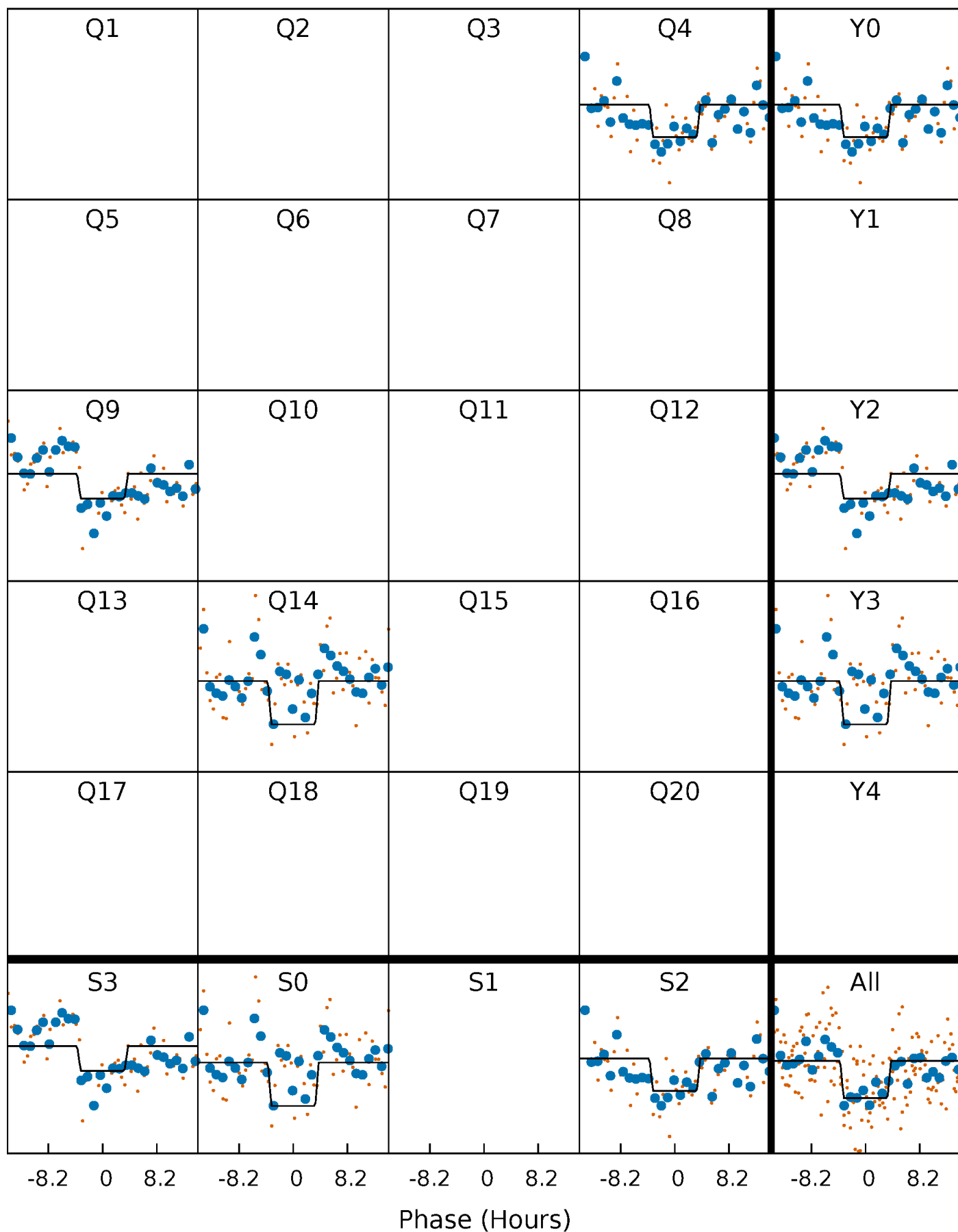
DV Quarter-Phased Transit Curves

TCE 008106950-01 P=461.898215 Days $T_0=402.751420$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

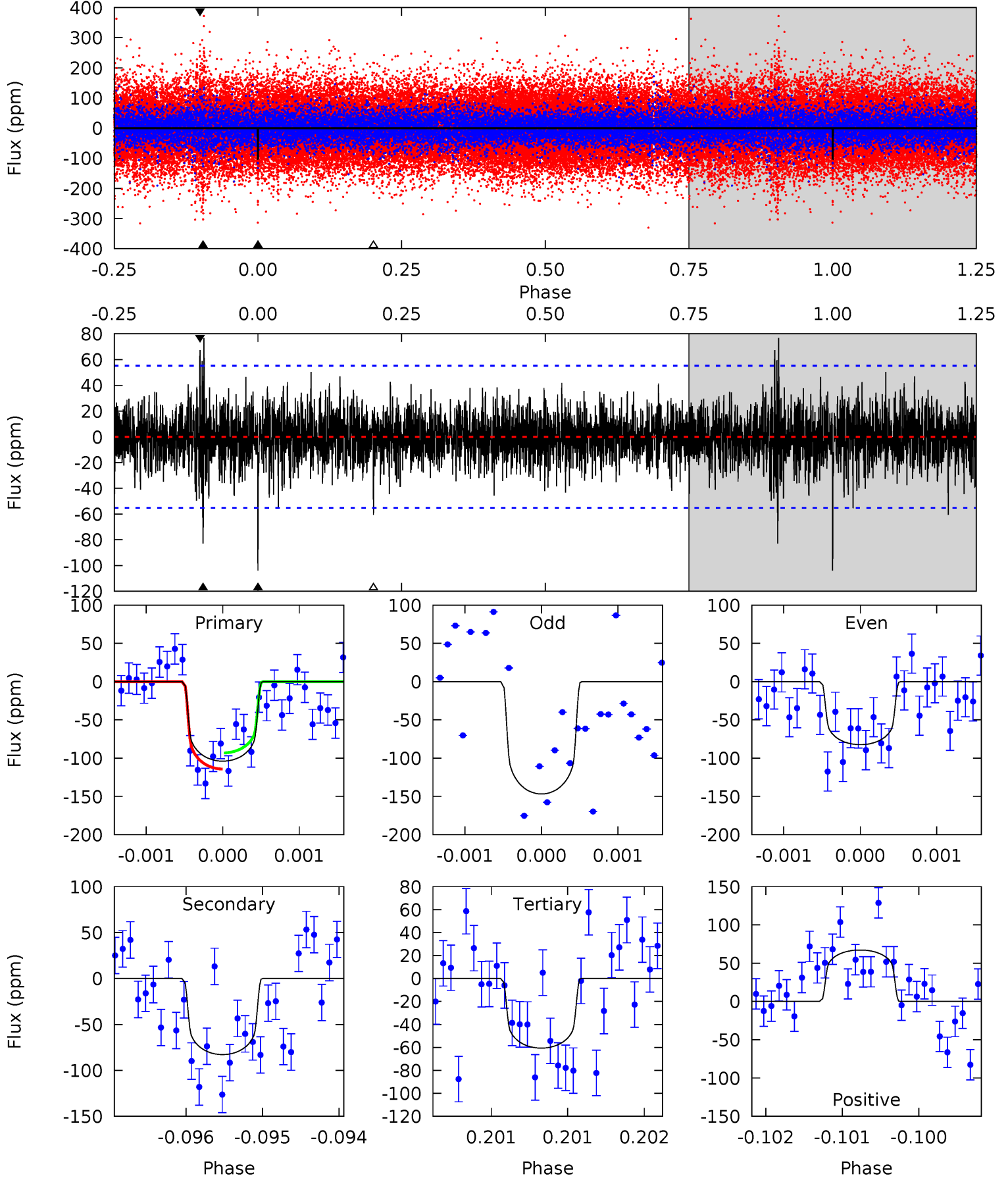
TCE 008106950-01 P=461.893813 Days $T_0=402.758035$ (BKJD)



DV Model-Shift Uniqueness Test

008106950-01, P = 461.898215 Days, E = 402.751420 Days

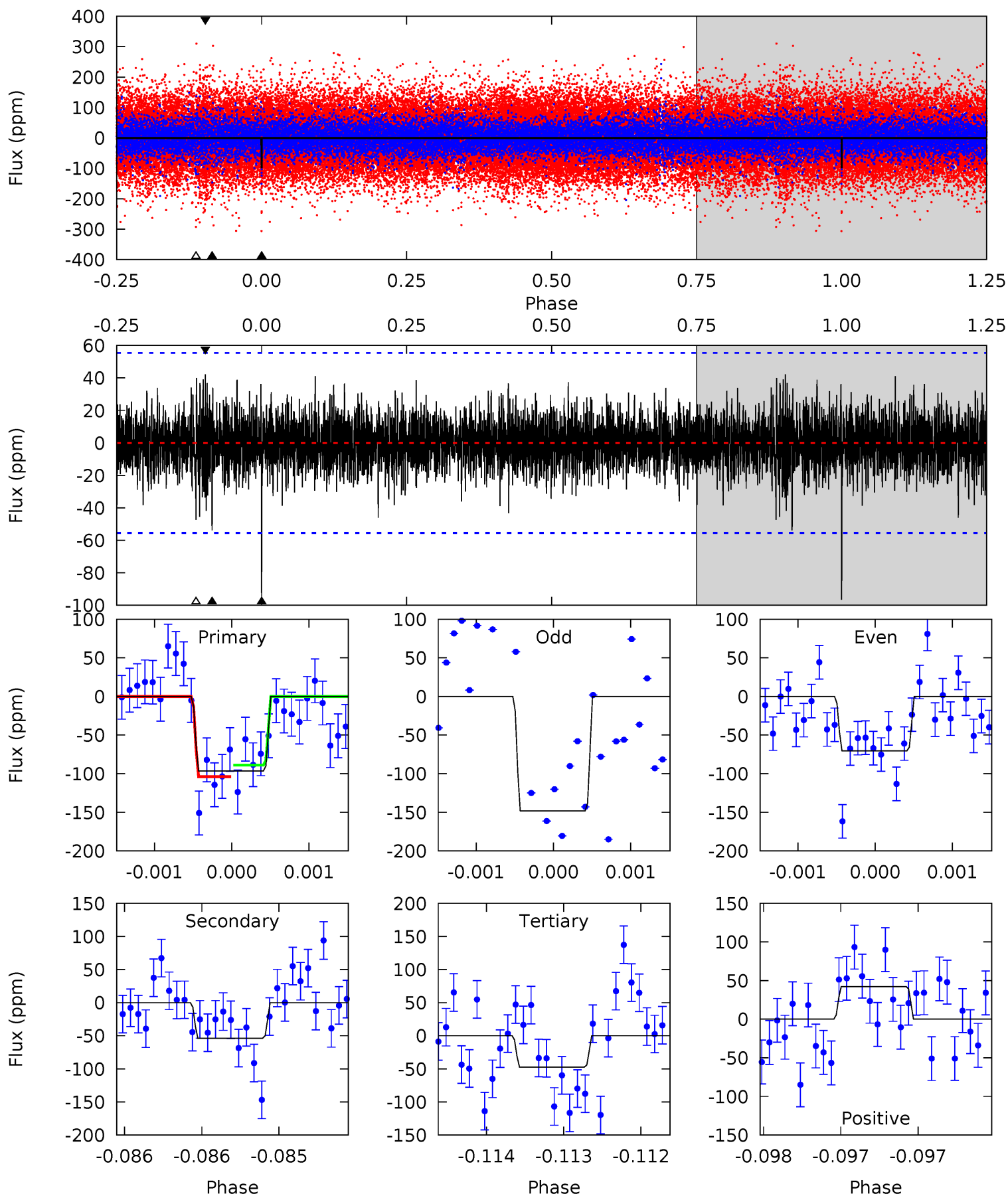
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	8.26	6.05	6.70	5.51	3.38	1.43	4.31	3.66	2.21	1.56	3.05	0.84	0.42	1.05



Alt Model-Shift Uniqueness Test

008106950-01, P = 461.893813 Days, E = 402.758035 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.60	5.34	4.71	4.21	5.52	3.40	1.14	4.89	5.39	0.63	1.14	3.65	0.92	0.30	0.75



Stellar Parameters For KIC 008106950

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5837^{+87}_{-70}	$4.008^{+0.020}_{-0.016}$	$-0.280^{+0.150}_{-0.150}$	$1.614^{+0.072}_{-0.072}$	$0.969^{+0.069}_{-0.069}$	$0.325^{+0.027}_{-0.023}$
	+1%/-1%	+0%/-0%	+54%/-54%	+4%/-4%	+7%/-7%	+8%/-7%
Source	SPE72	AST10	SPE72	DSEP		

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

Secondary Eclipse Parameters for KIC 008106950-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-83 ± 10	$2.24^{+1.00}_{-1.09}$	425^{+7}_{-6}	5048^{+1834}_{-725}	12366^{+32284}_{-6629}
Alt.	-54 ± 10	$1.77^{+0.97}_{-0.84}$	425^{+7}_{-6}	5030^{+1909}_{-772}	12262^{+34894}_{-7110}

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

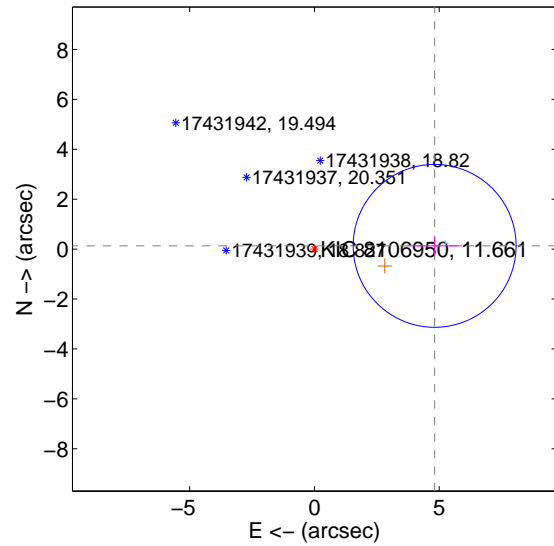
Supplemental centroid analysis for 008106950-01. **Kepler magnitude: 11.66.** Transit SNR 7.41

There are 1 quarters with good PRF difference image offsets

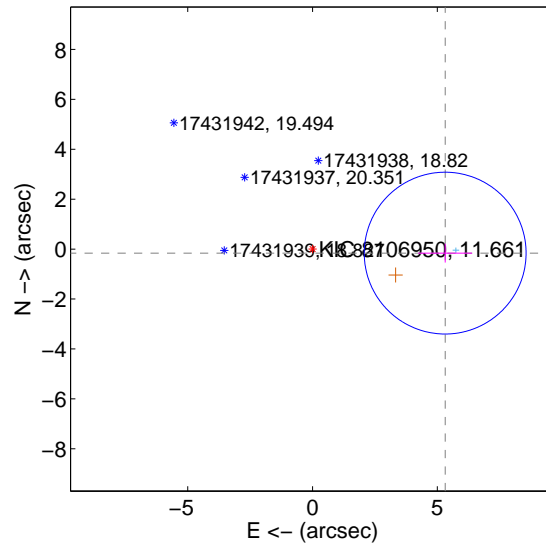
The direct PRF centroid is offset from the target star catalog position by about 0.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.815 ± 1.087	4.43	-4.814 ± 1.088	0.129 ± 0.348
PRF-fit source offset from KIC position	5.315 ± 1.080	4.92	-5.312 ± 1.081	-0.161 ± 0.377
photometric centroid source offset	1.86 ± 1.24	1.49	-0.85 ± 1.19	-1.65 ± 1.26

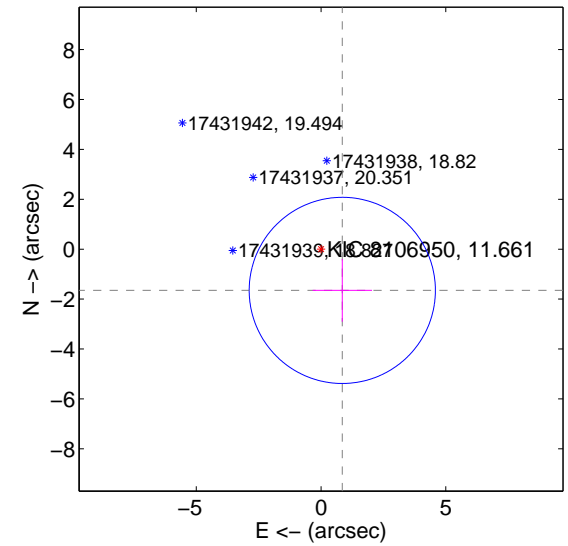
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

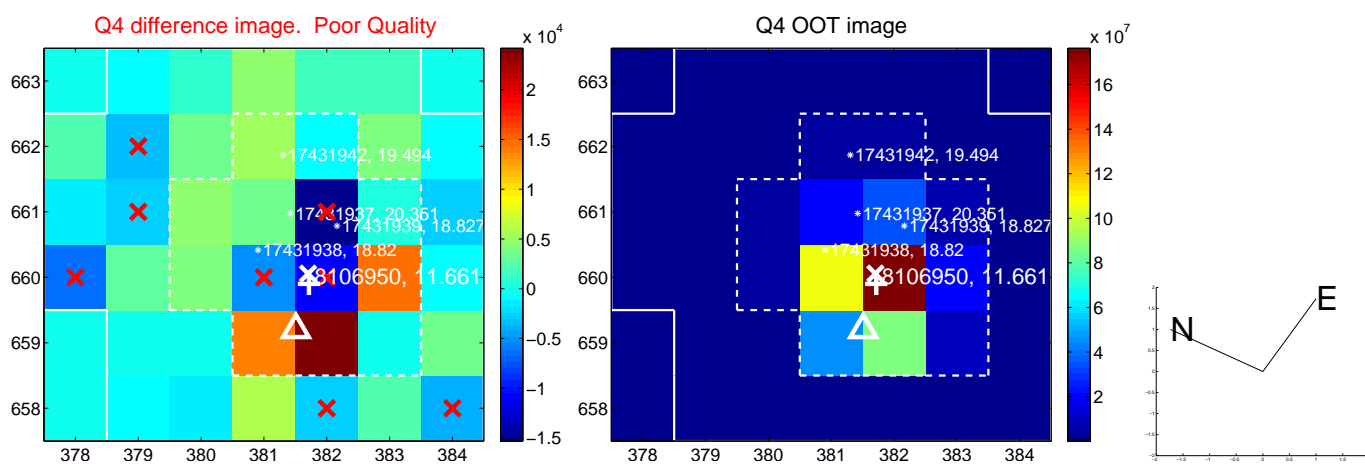


offset from photometric centroids



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.

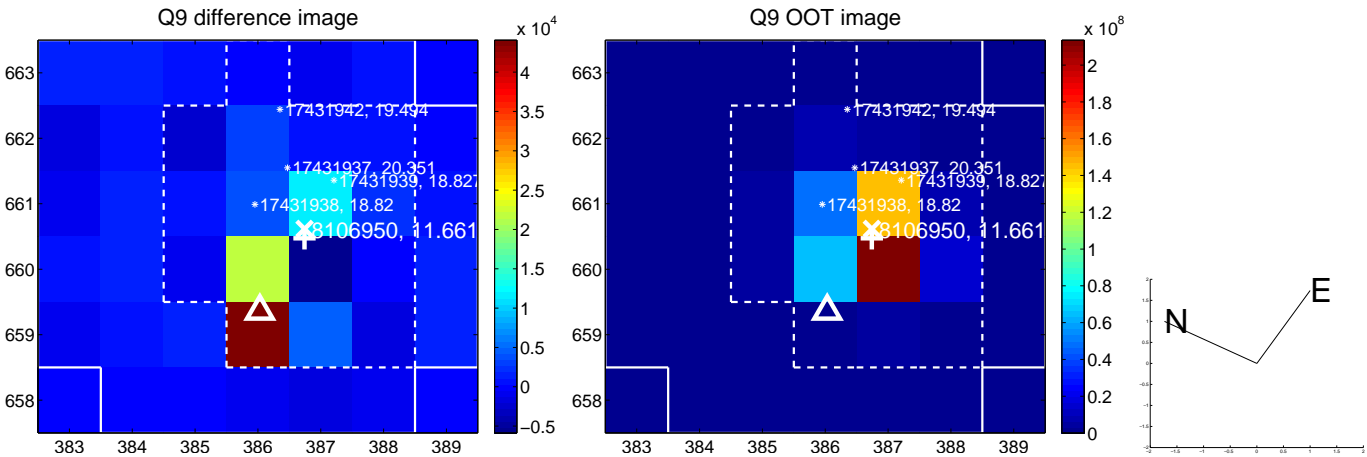
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



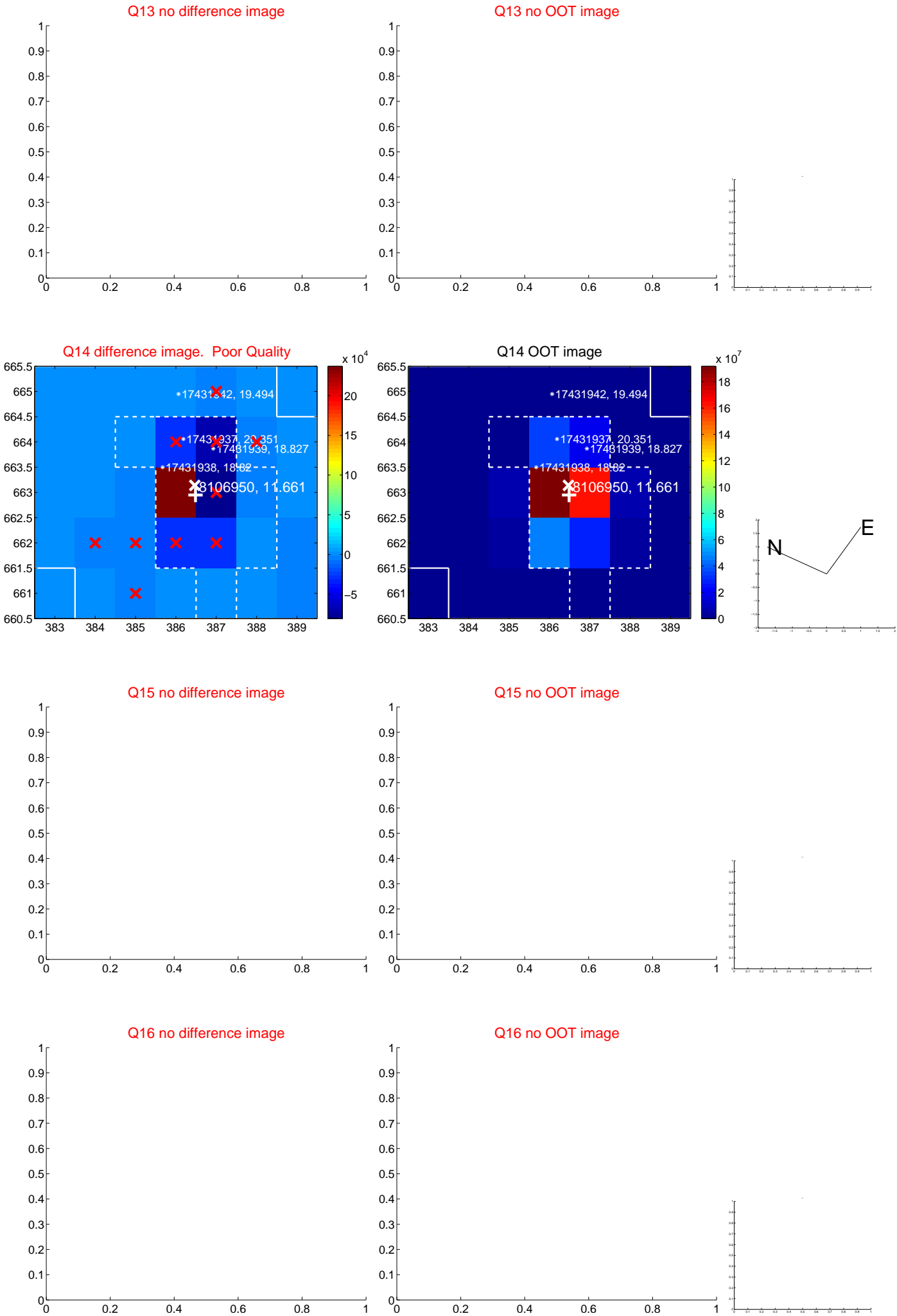
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



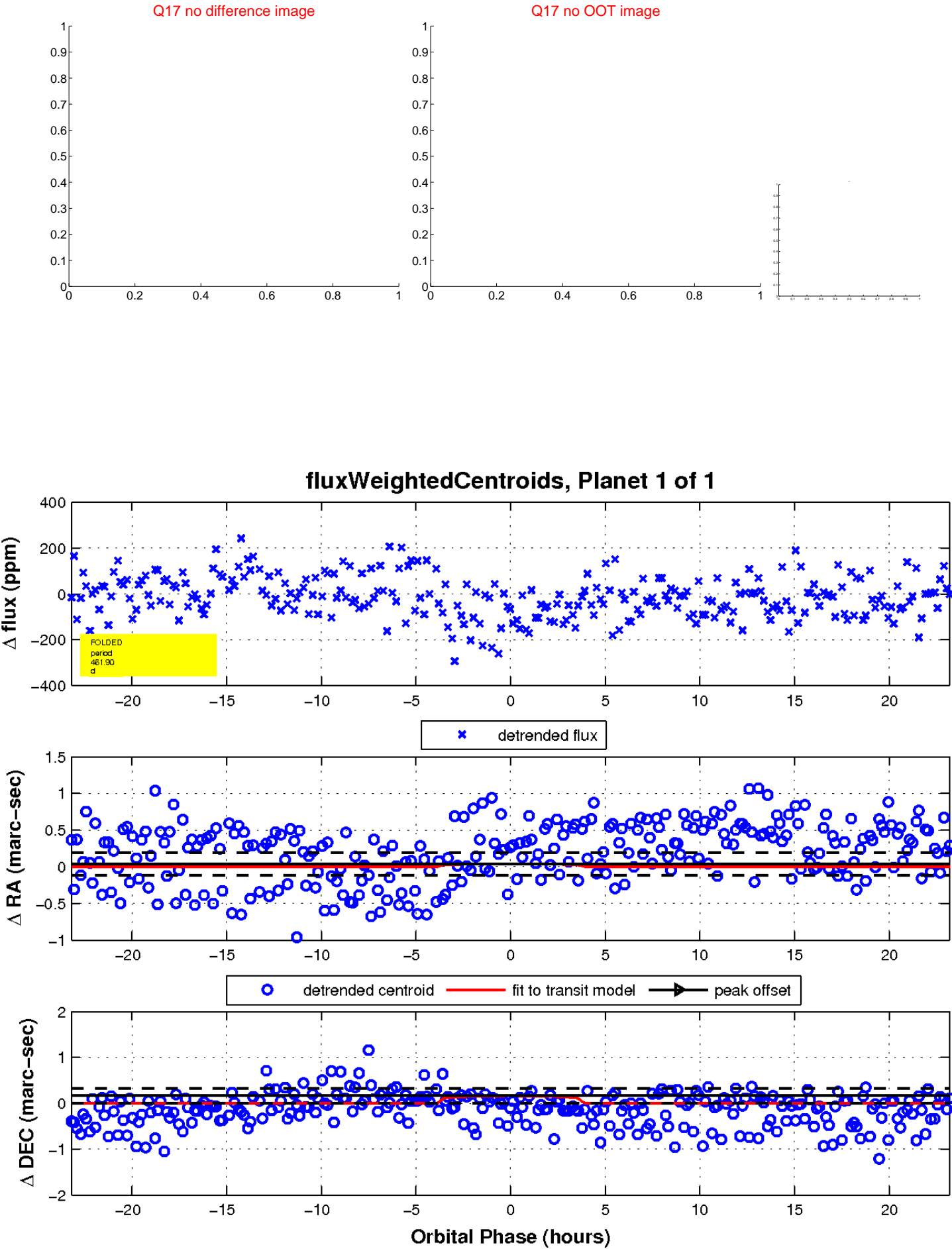
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

