

KIC 007213874

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})
007213874-01	OBS	No	576.545359	408.208557	688.1	6.530	8.3	5.6	1.00	5780	2.94	0.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007213874-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED

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

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

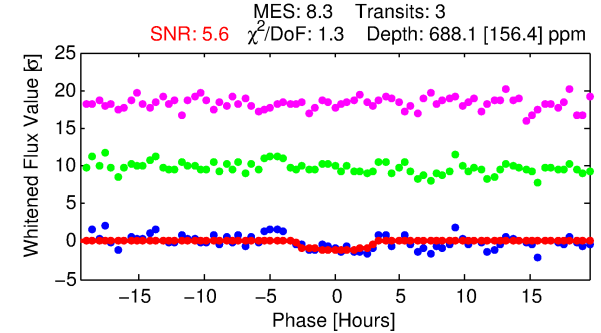
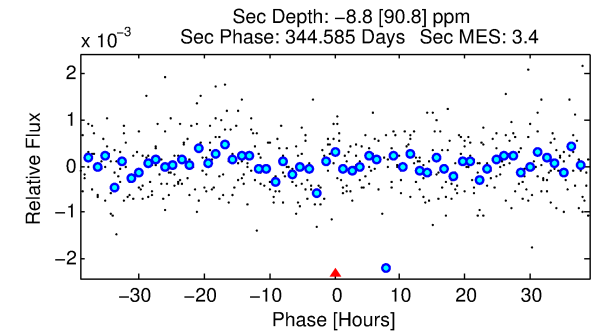
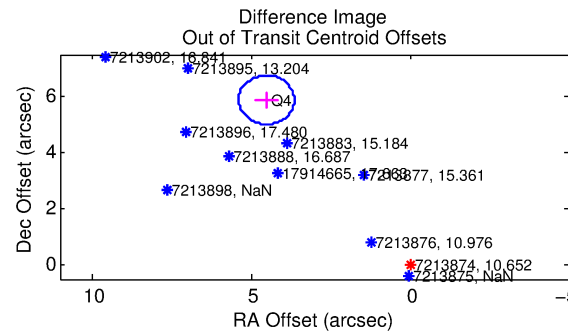
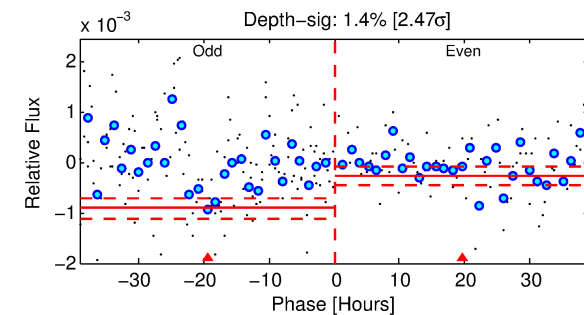
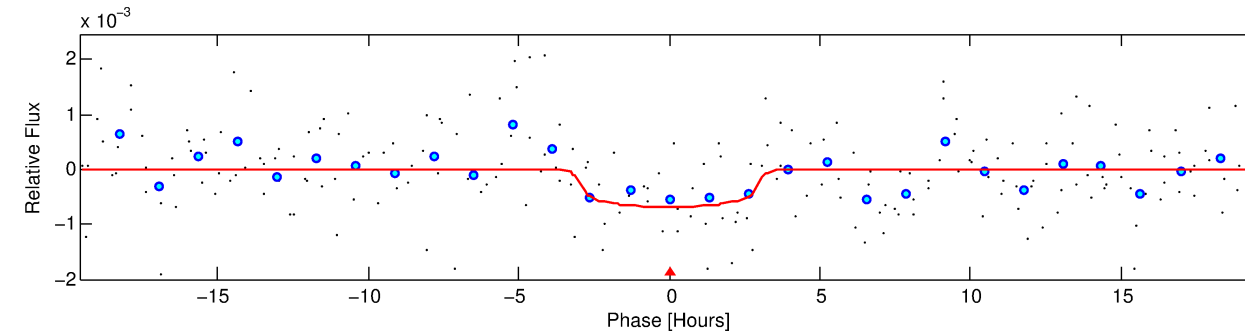
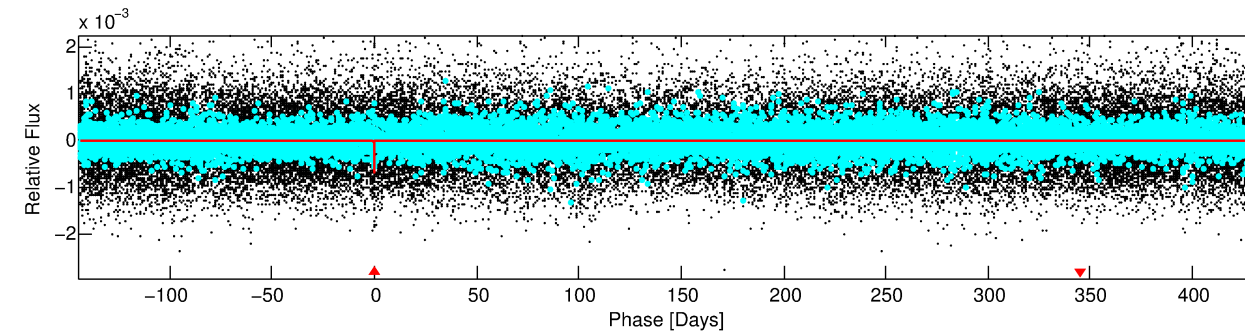
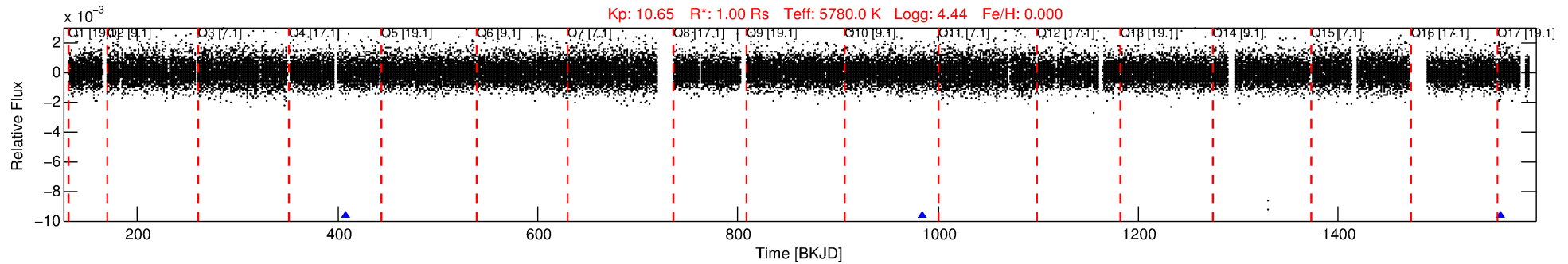
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007213874-01

No Significant Match Found

DV One-Page Summary

KIC: 7213874 Candidate: 1 of 1 Period: 576.545 d



DV Fit Results:

Period = 576.54536 [0.01934] d
Epoch = 408.2086 [0.0236] BKJD
Rp/R* = 0.0270 [0.0169]
a/R* = 415.86 [1121.67]
b = 0.82 [1.09]
Seff = 0.54 [0.00]
Teq = 219 [0] K
Rp = 2.95 [1.85] Re
a = 1.3560 [0.0000] AU
Ag = N/A
Teffp = N/A

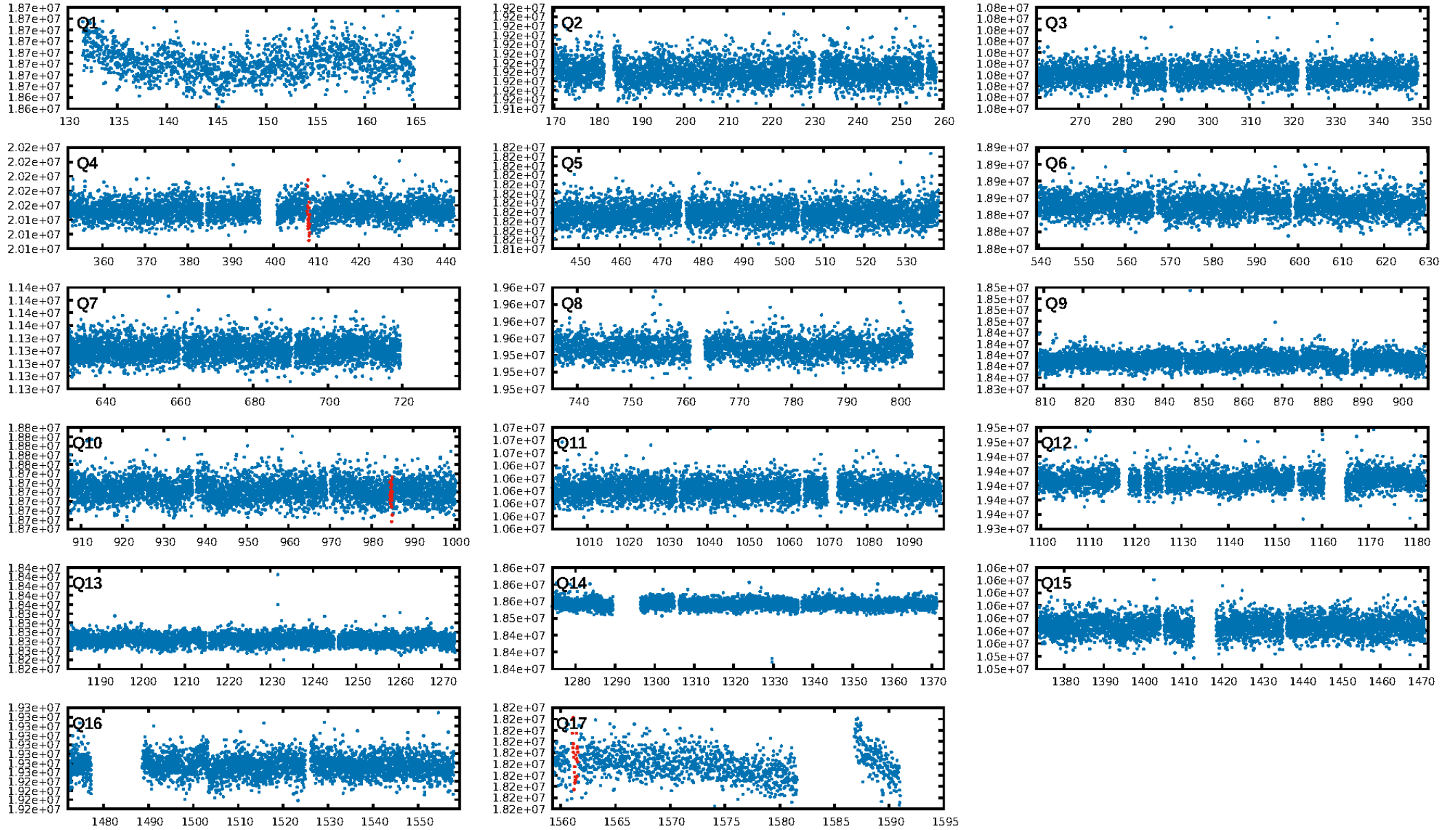
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.9%
ModelChiSquareGof-sig: 93.1%
Bootstrap-pfa: 5.57e-10
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: N/A
Centroid-sig: 15.8%
Centroid-so: 2.841 arcsec [1.31 σ]
OotOffset-rm: 7.411 arcsec [25.42 σ]
KicOffset-rm: 5.554 arcsec [19.03 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

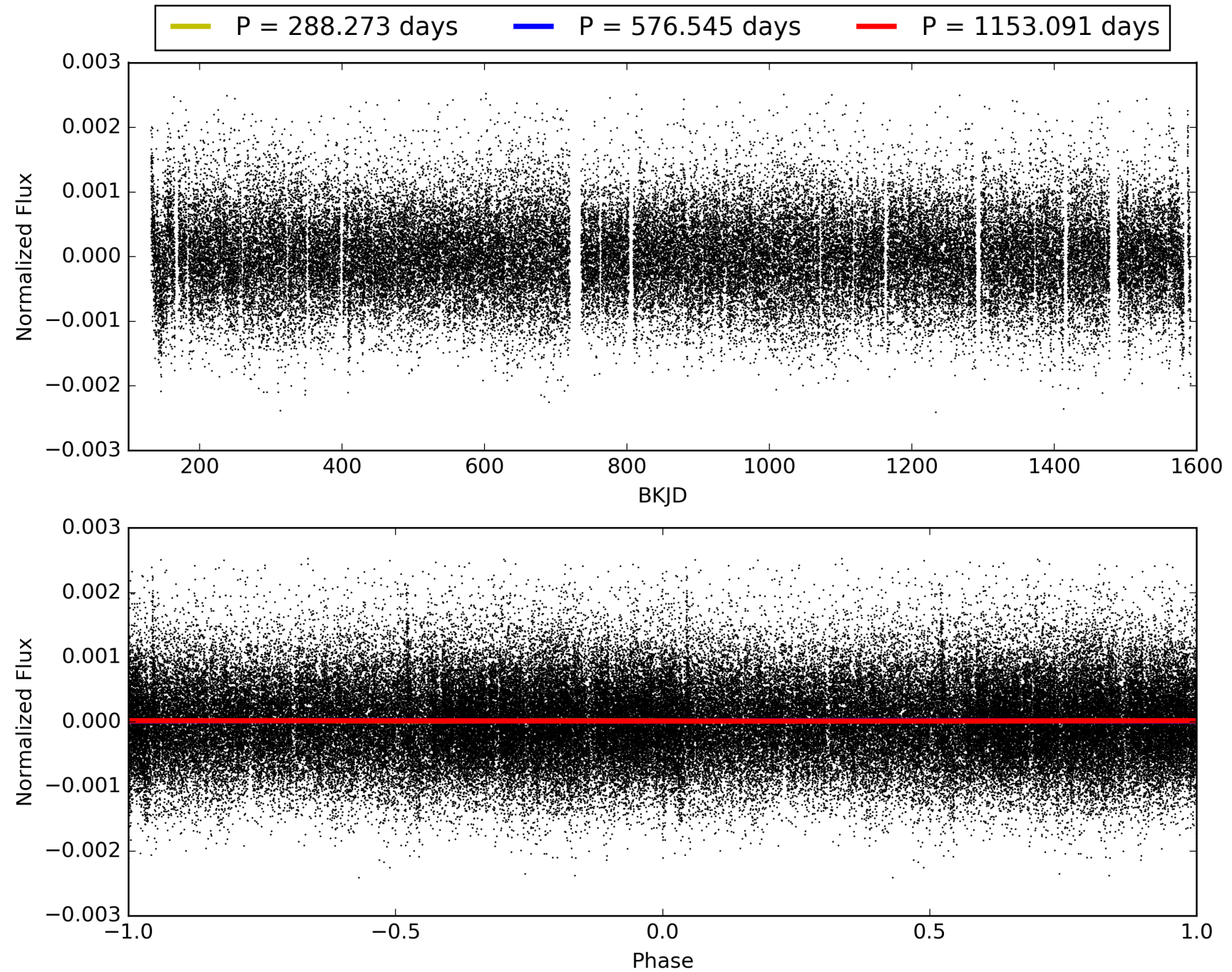
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:36:45 Z

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

TCE 007213874-01, PDC Light Curves

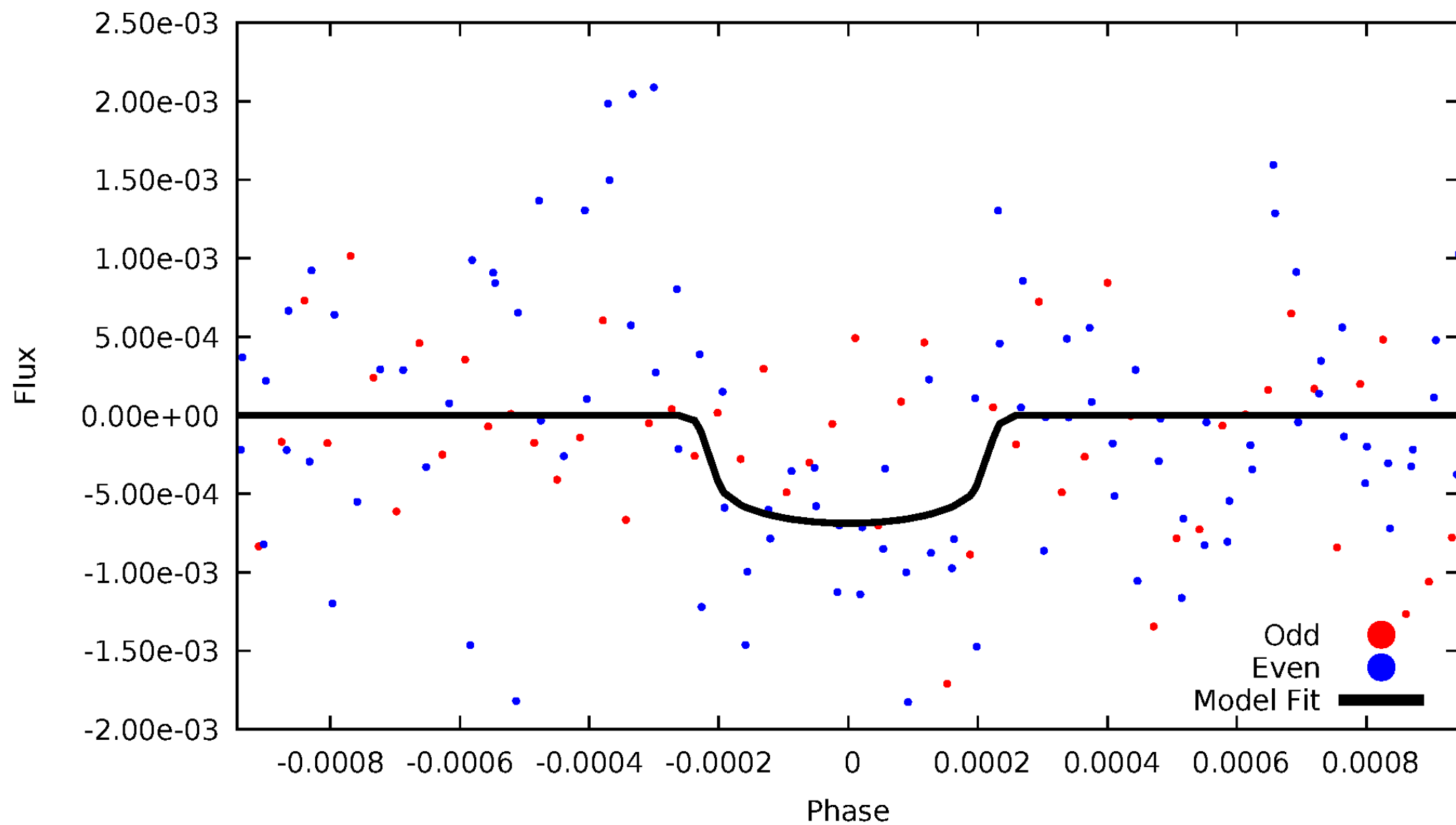


TCE 007213874-01



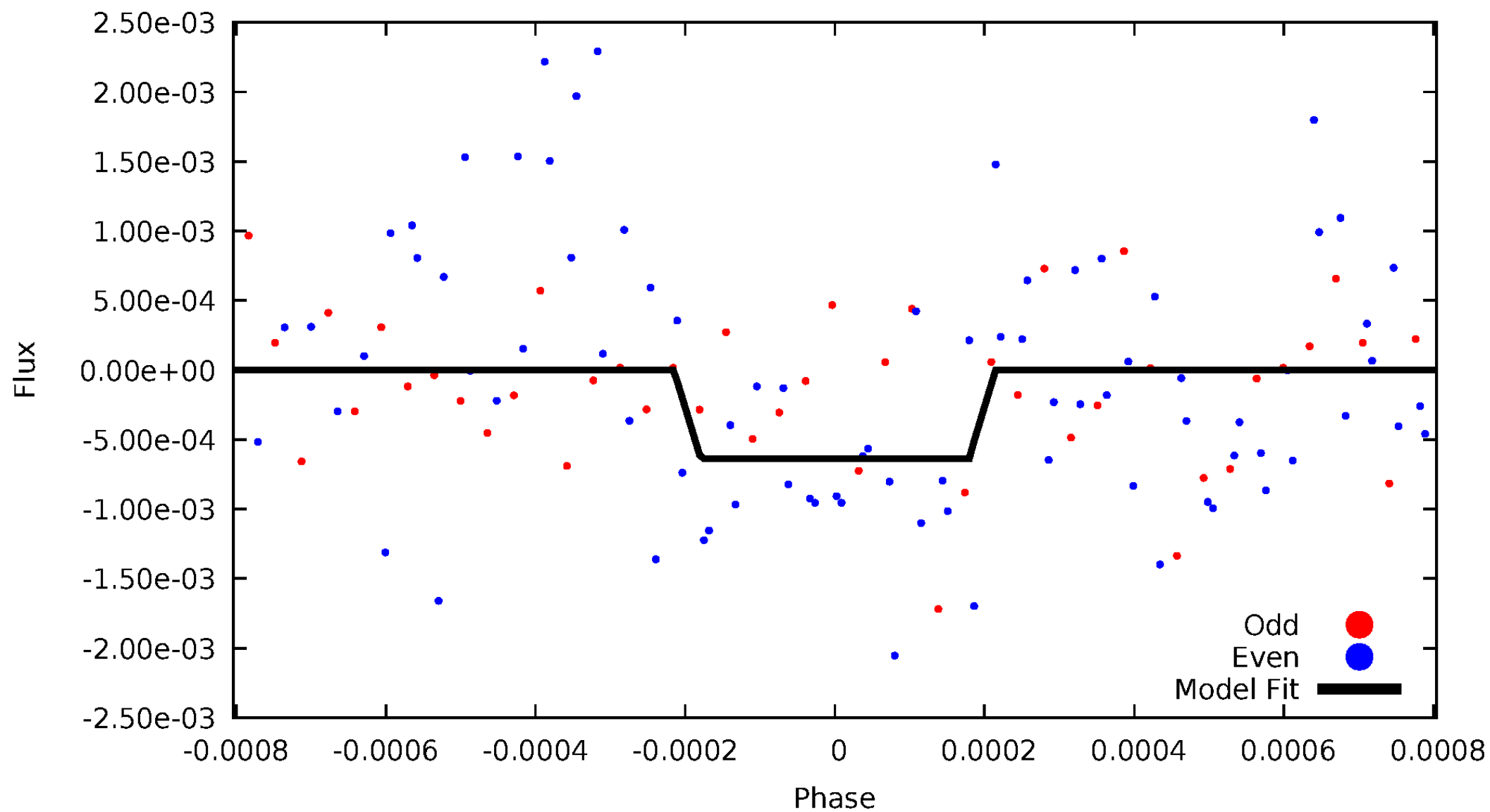
DV Odd/Even

TCE 007213874-01

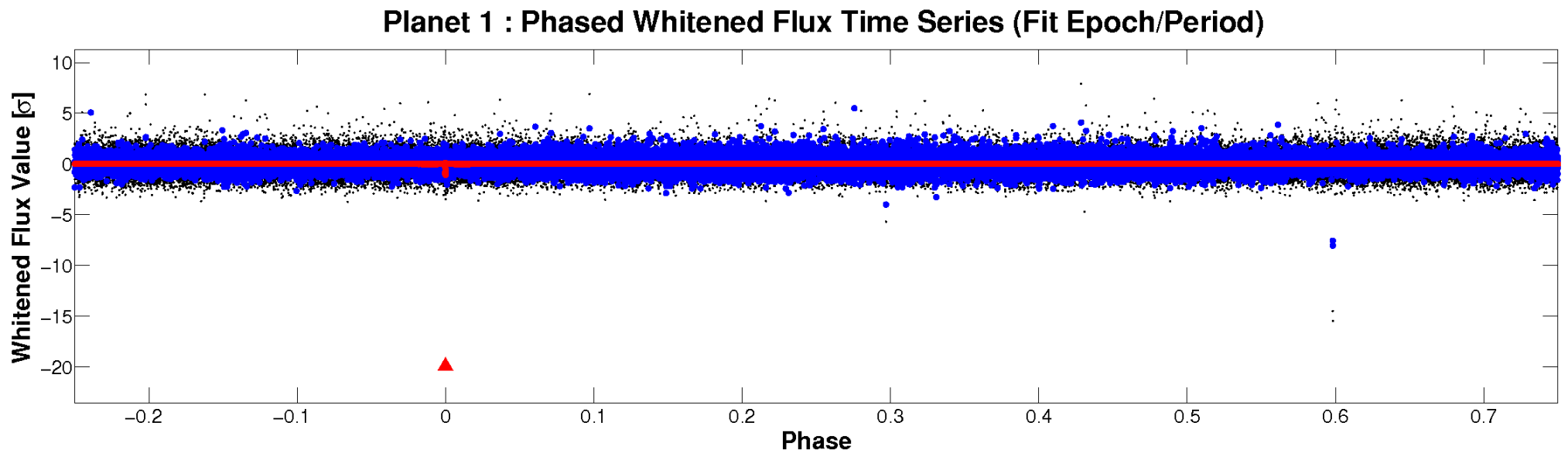
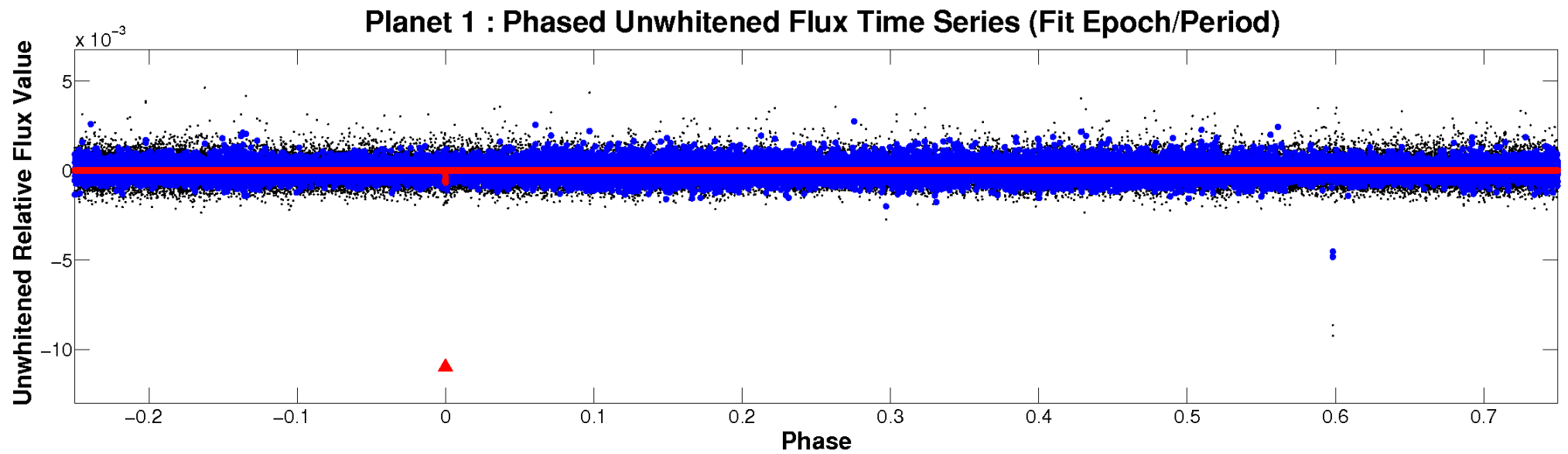


ALT Odd/Even

TCE 007213874-01

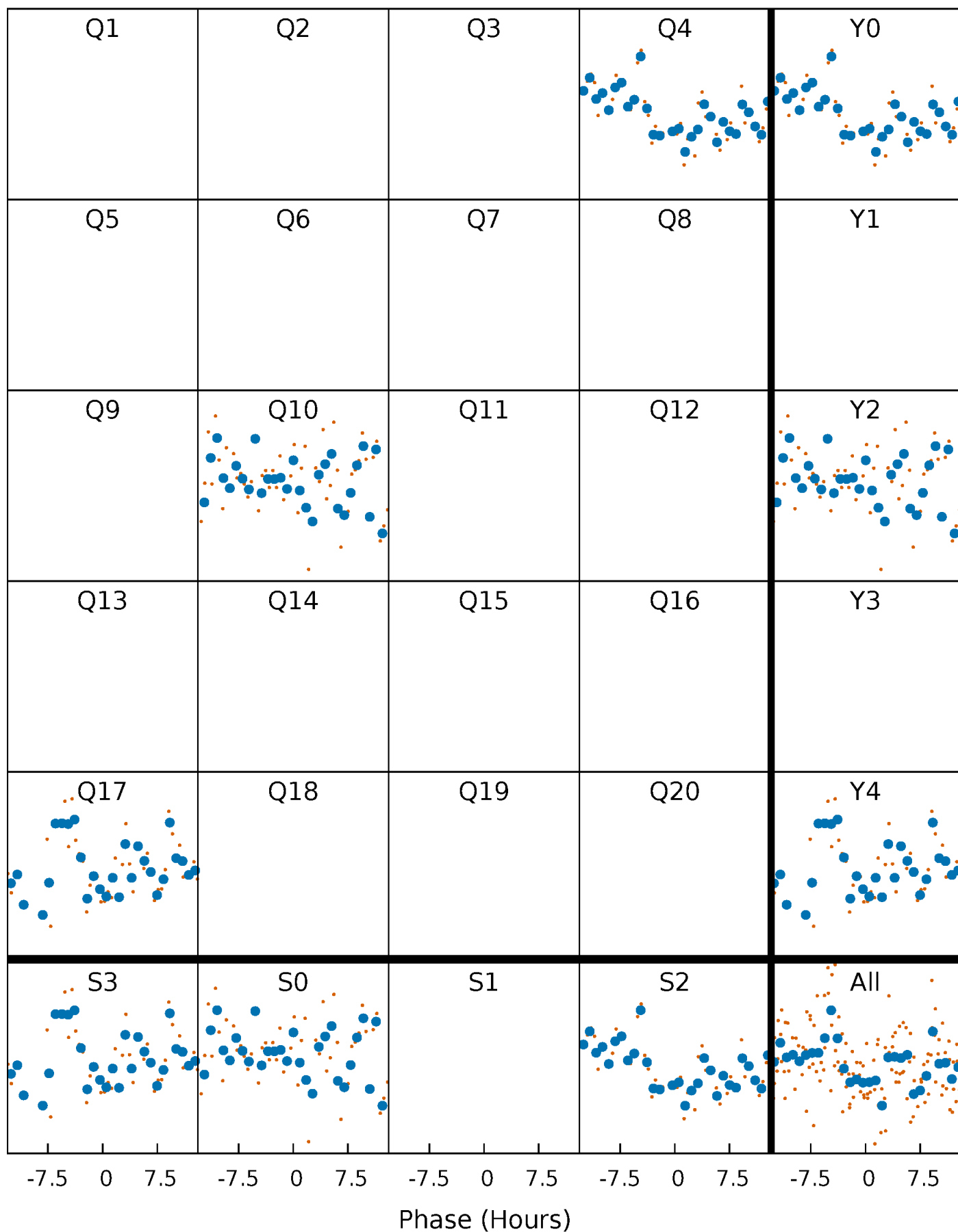


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 007213874-01 P=576.545359 Days $T_0=408.208557$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007213874-01 P=576.545359 Days $T_0=408.208557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

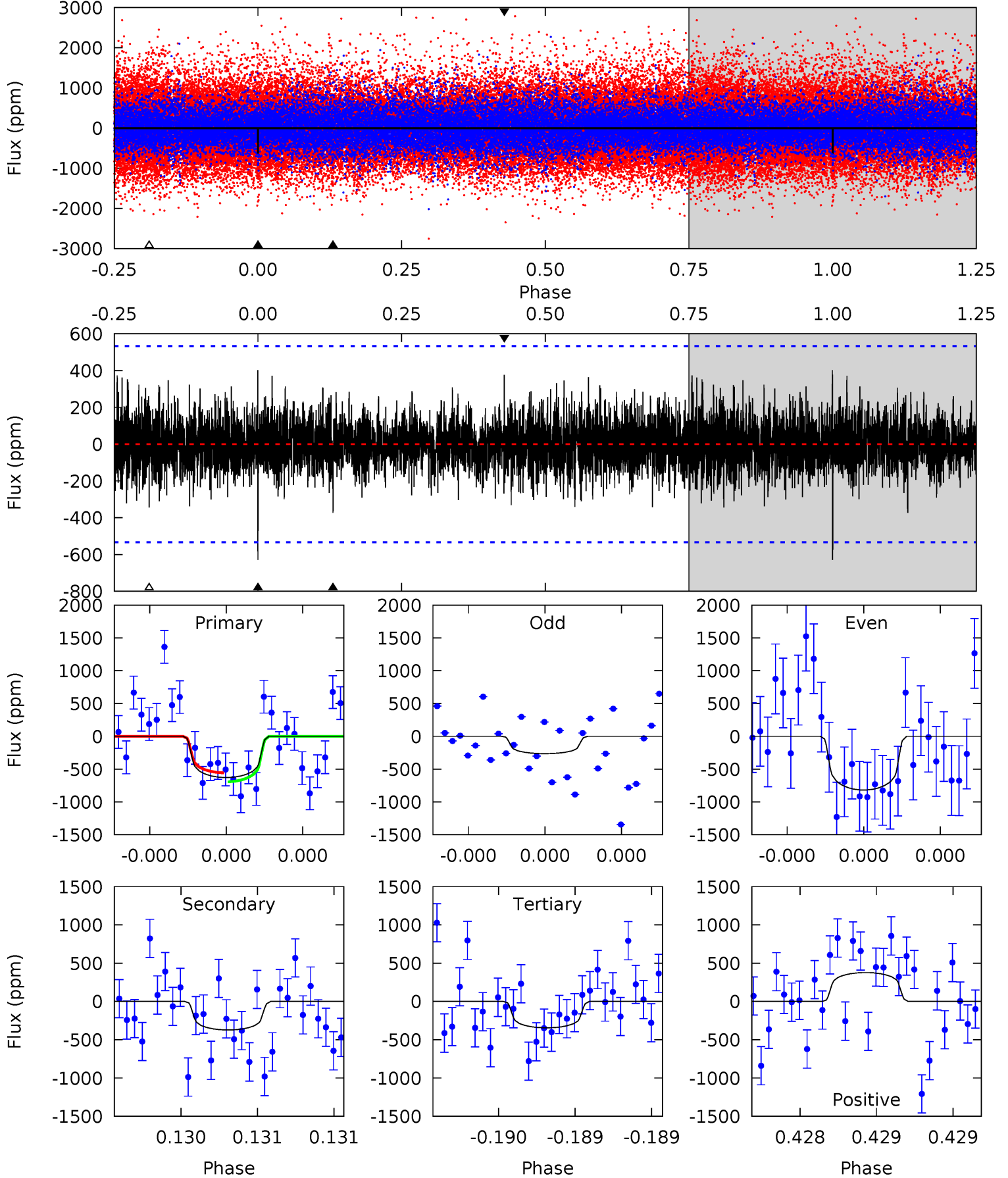
TCE 007213874-01 P=576.546518 Days $T_0=408.215687$ (BKJD)



DV Model-Shift Uniqueness Test

007213874-01, P = 576.545359 Days, E = 408.208557 Days

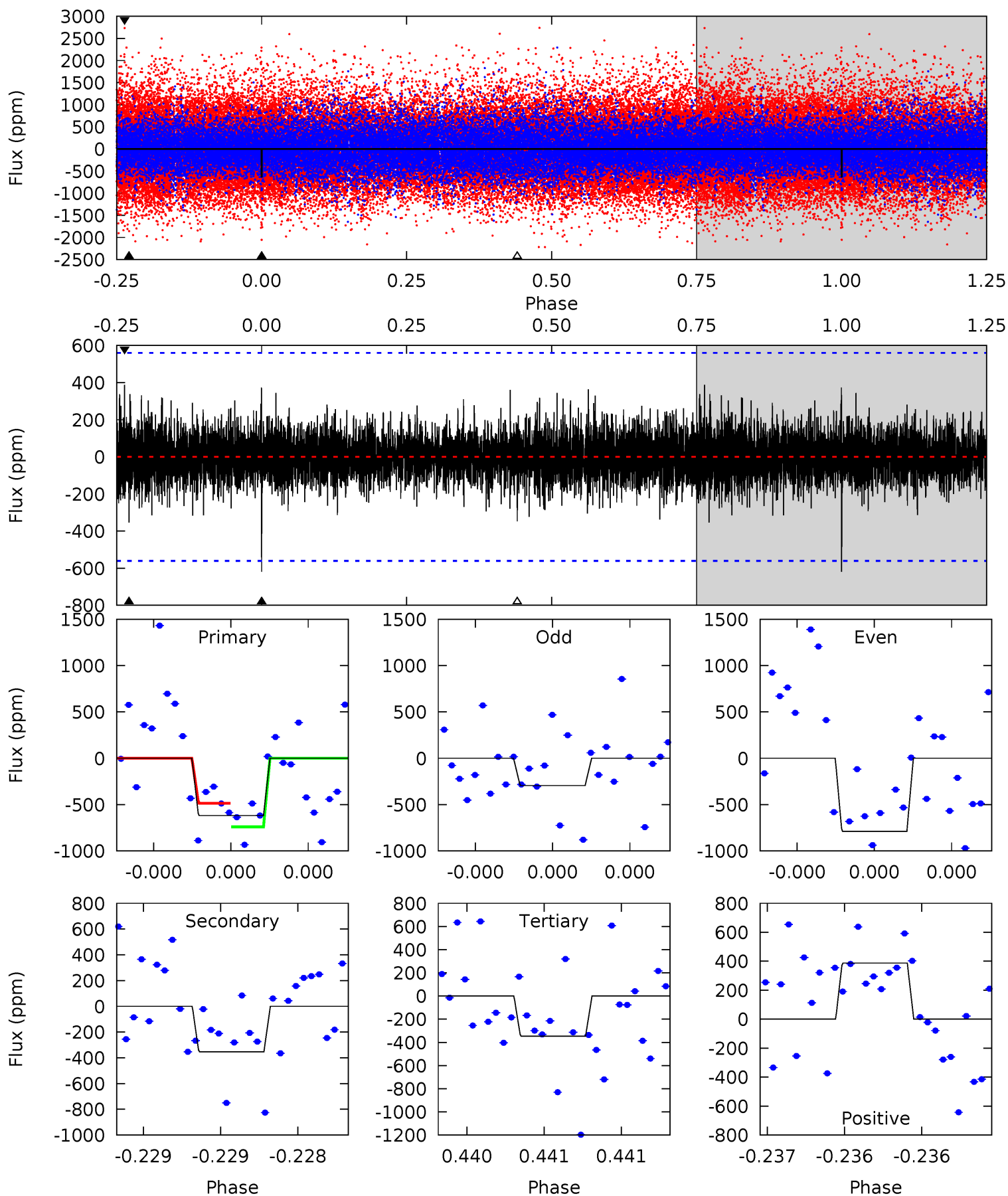
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.58	3.90	3.61	3.95	5.59	3.50	1.07	2.97	2.63	0.29	-0.05	2.77	0.93	0.39	0.71



Alt Model-Shift Uniqueness Test

007213874-01, P = 576.546518 Days, E = 408.215687 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.19	3.54	3.47	3.87	5.60	3.52	0.93	2.72	2.32	0.07	-0.34	2.38	1.35	0.38	1.28



Stellar Parameters For KIC 007213874

	$T_{\text{eff}}(K)$	$\log(g)$	[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 007213874-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-372 ± 96	$3.04^{+1.86}_{-1.70}$	308^{+14}_{-15}	4864^{+2517}_{-825}	$38889^{+166027}_{-24254}$
Alt.	-354 ± 100	$2.78^{+1.82}_{-1.68}$	306^{+15}_{-15}	5023^{+2897}_{-978}	$44990^{+241929}_{-30057}$

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 $A_{obs} \gg 1.0$

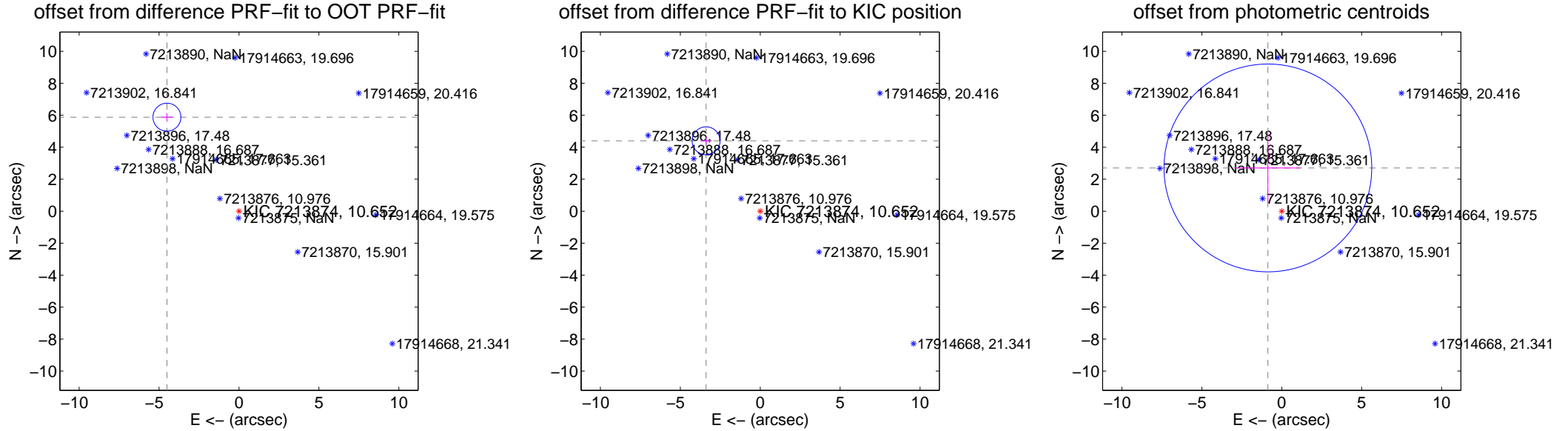
DV Centroid Data

Supplemental centroid analysis for 007213874-01. **Kepler magnitude: 10.65.** Transit SNR 5.64

There are 1 quarters with good PRF difference image offsets

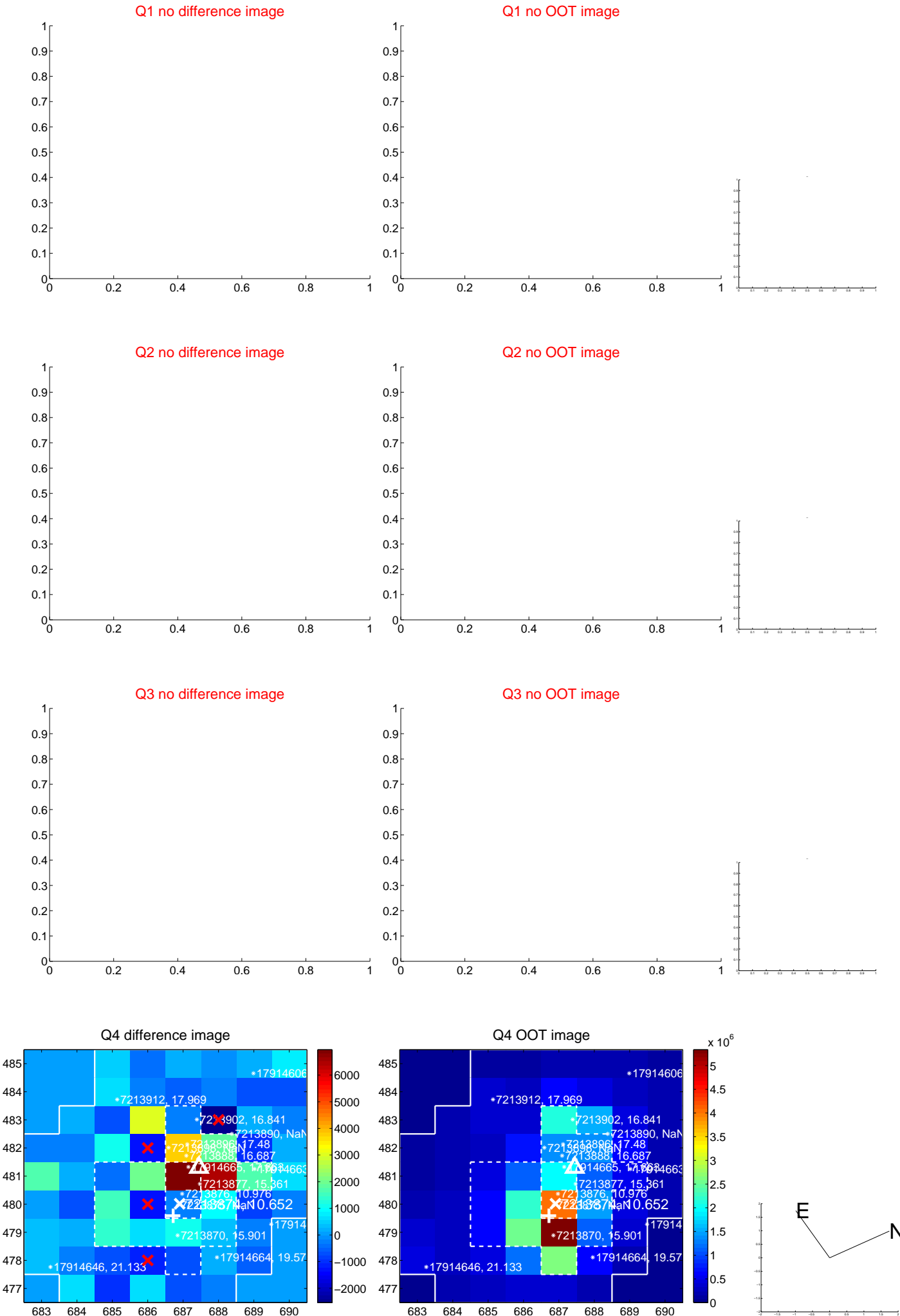
The direct PRF centroid is offset from the target star catalog position by about 1.86 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.411 ± 0.292	25.42	4.509 ± 0.350	5.882 ± 0.251
PRF-fit source offset from KIC position	5.554 ± 0.292	19.03	3.388 ± 0.350	4.401 ± 0.251
photometric centroid source offset	2.84 ± 2.17	1.31	0.87 ± 2.01	2.71 ± 2.18



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.

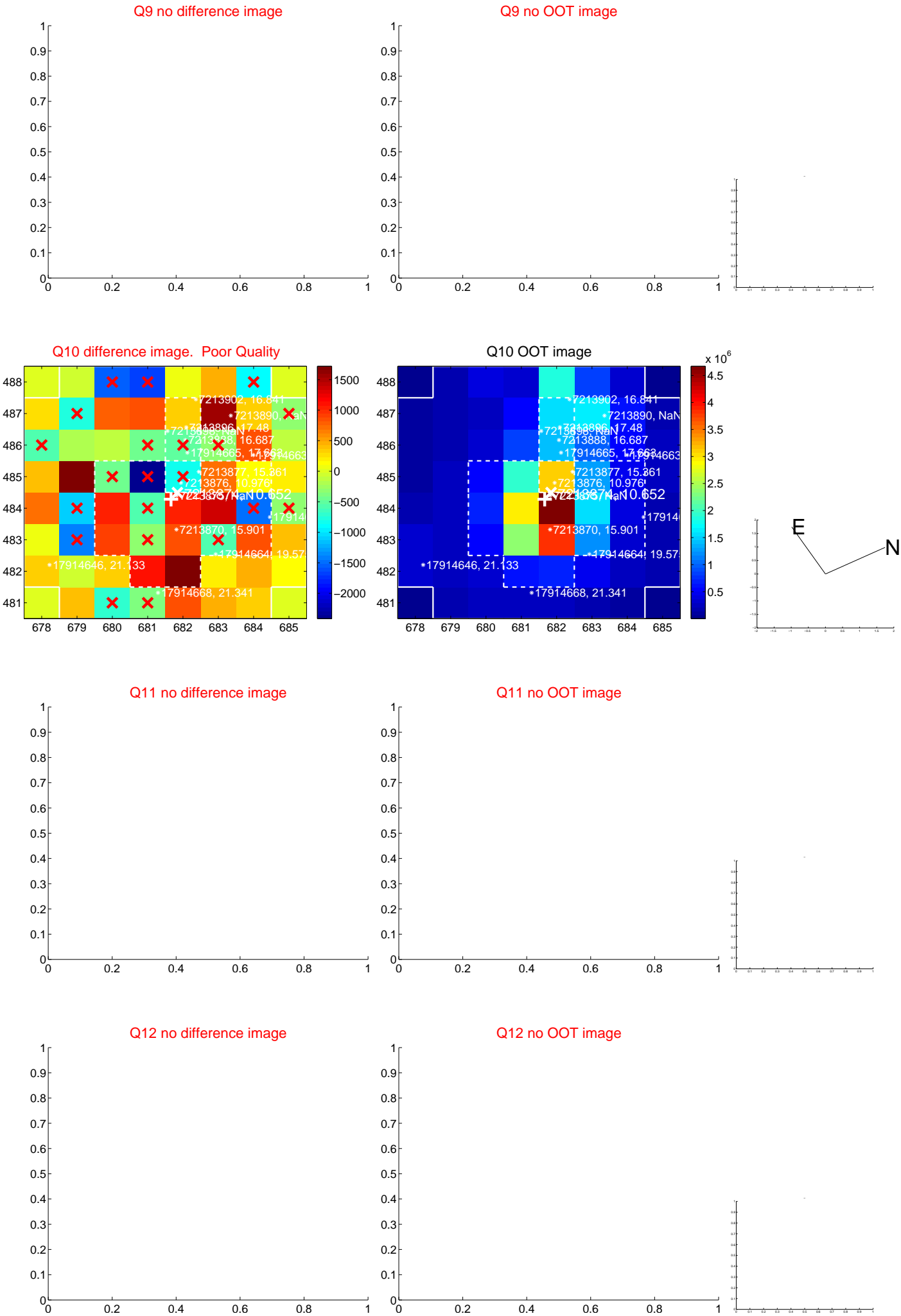
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



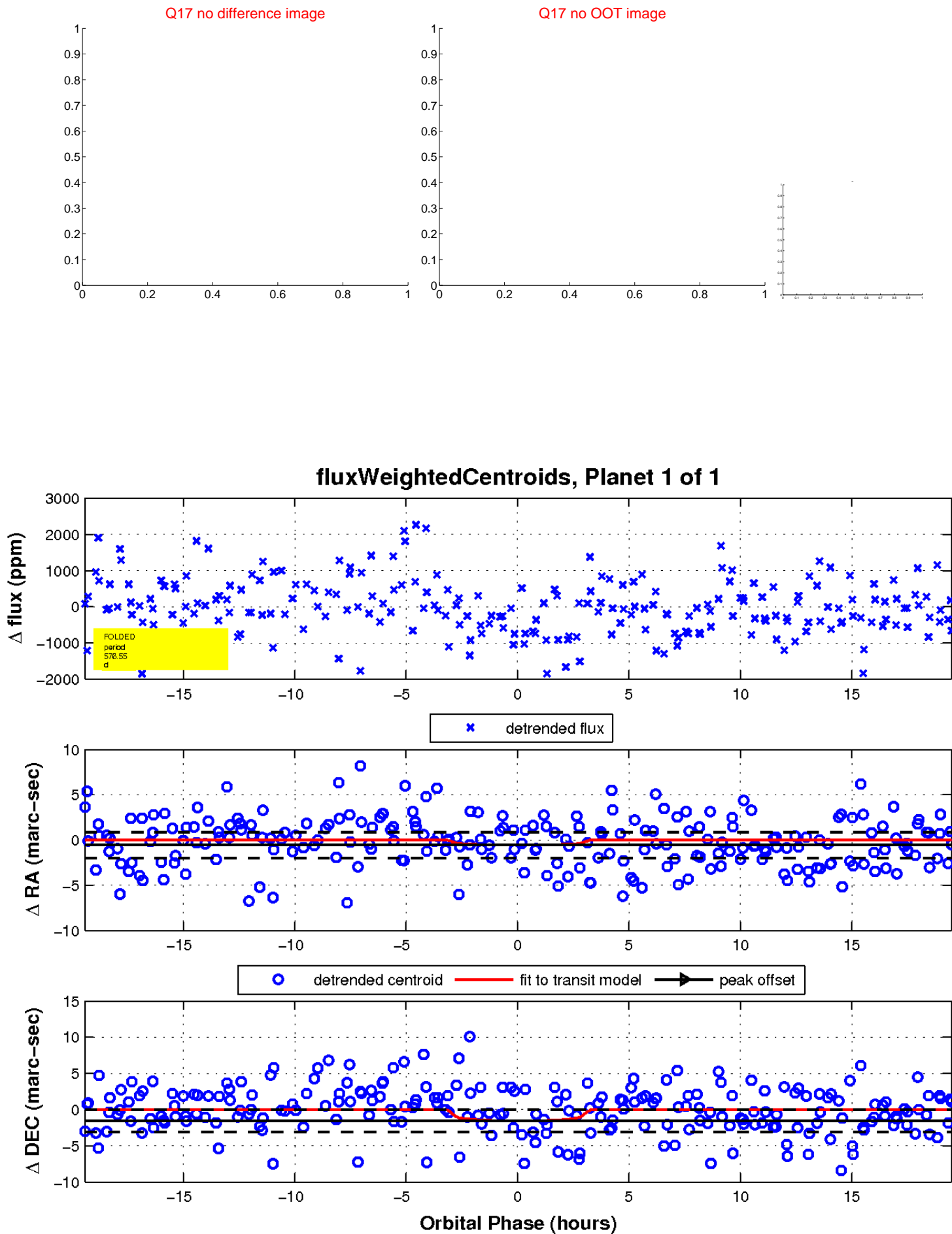
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

