

KIC 005387719

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})
005387719-01	OBS	No	447.951541	339.378827	20.8	8.618	8.6	2.1	2.71	9111	1.43	22.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005387719-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—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.

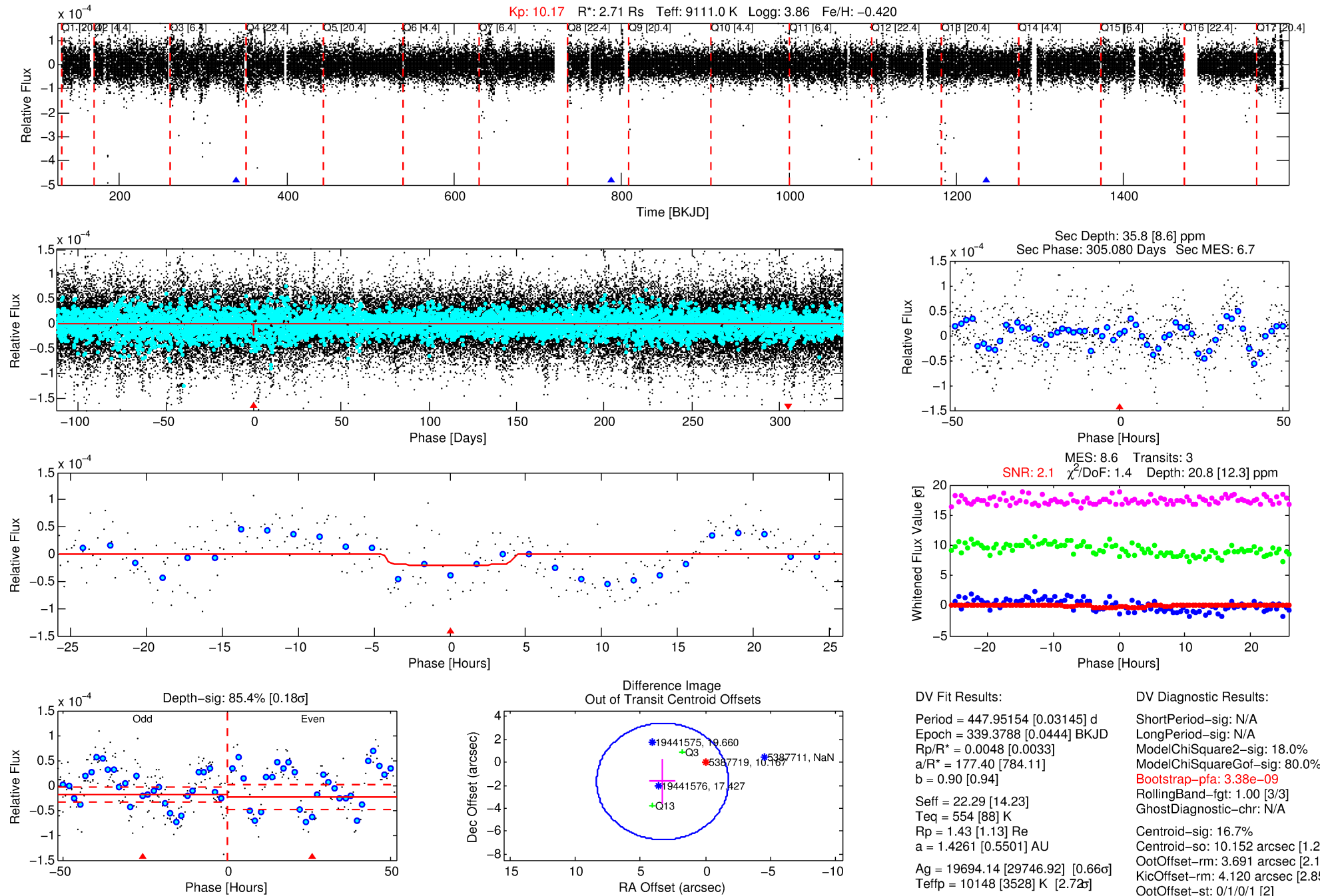
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005387719-01

No Significant Match Found

DV One-Page Summary

KIC: 5387719 Candidate: 1 of 1 Period: 447.952 d



DV Fit Results:

Period = 447.95154 [0.03145] d
Epoch = 339.3788 [0.0444] BKJD
Rp/R* = 0.0048 [0.0033]
a/R* = 177.40 [784.11]
b = 0.90 [0.94]
Seff = 22.29 [14.23]
Teq = 554 [88] K
Rp = 1.43 [1.13] Re
a = 1.4261 [0.5501] AU
Ag = 19694.14 [29746.92] [0.66 σ]
Teff = 10148 [3528] K [2.7 σ]

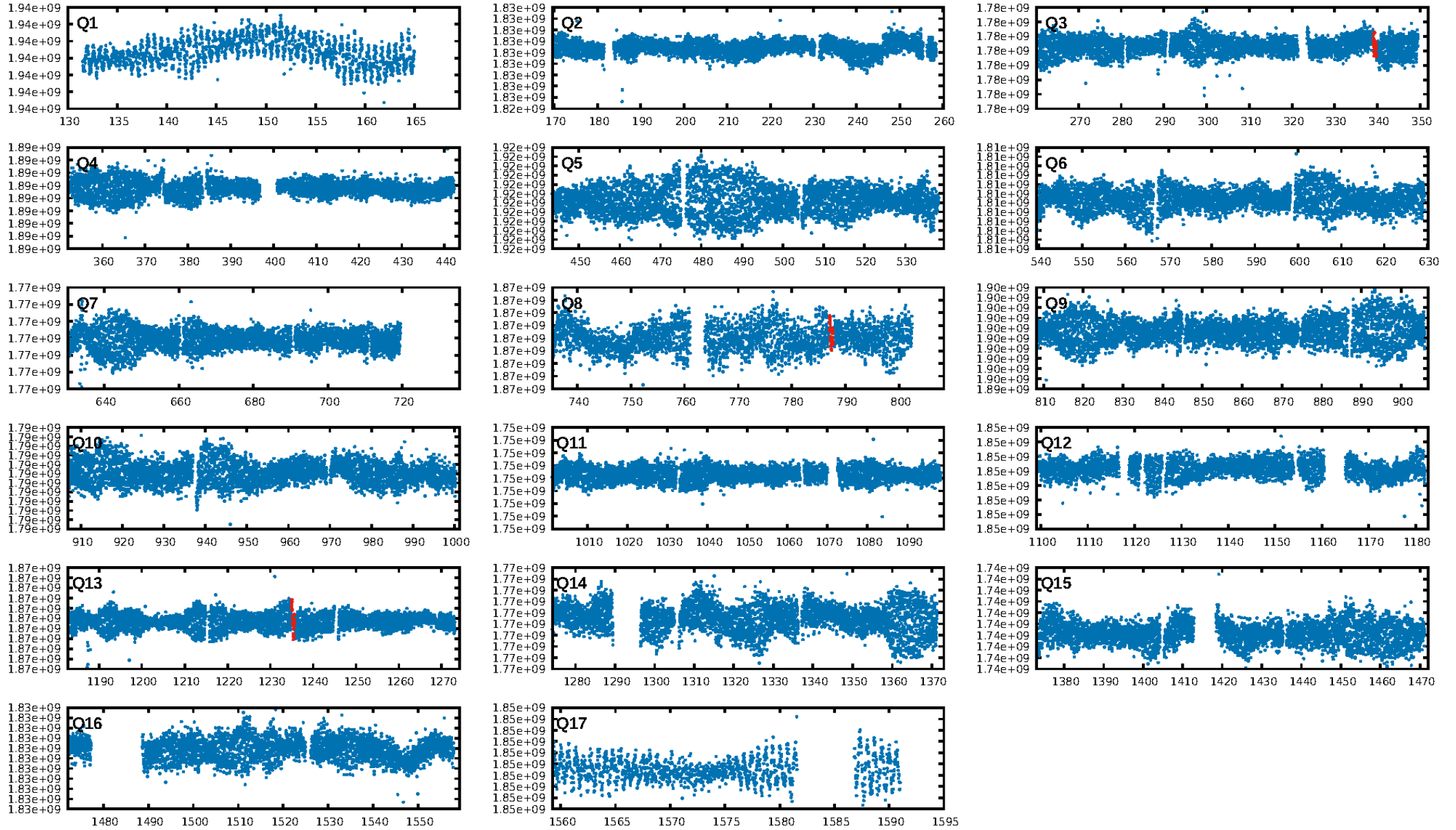
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 18.0%
ModelChiSquareGof-sig: 80.0%
Bootstrap-pfa: 3.38e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: 16.7%
Centroid-so: 10.152 arcsec [1.21 σ]
OotOffset-rm: 3.691 arcsec [2.19 σ]
KicOffset-rm: 4.120 arcsec [2.85 σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

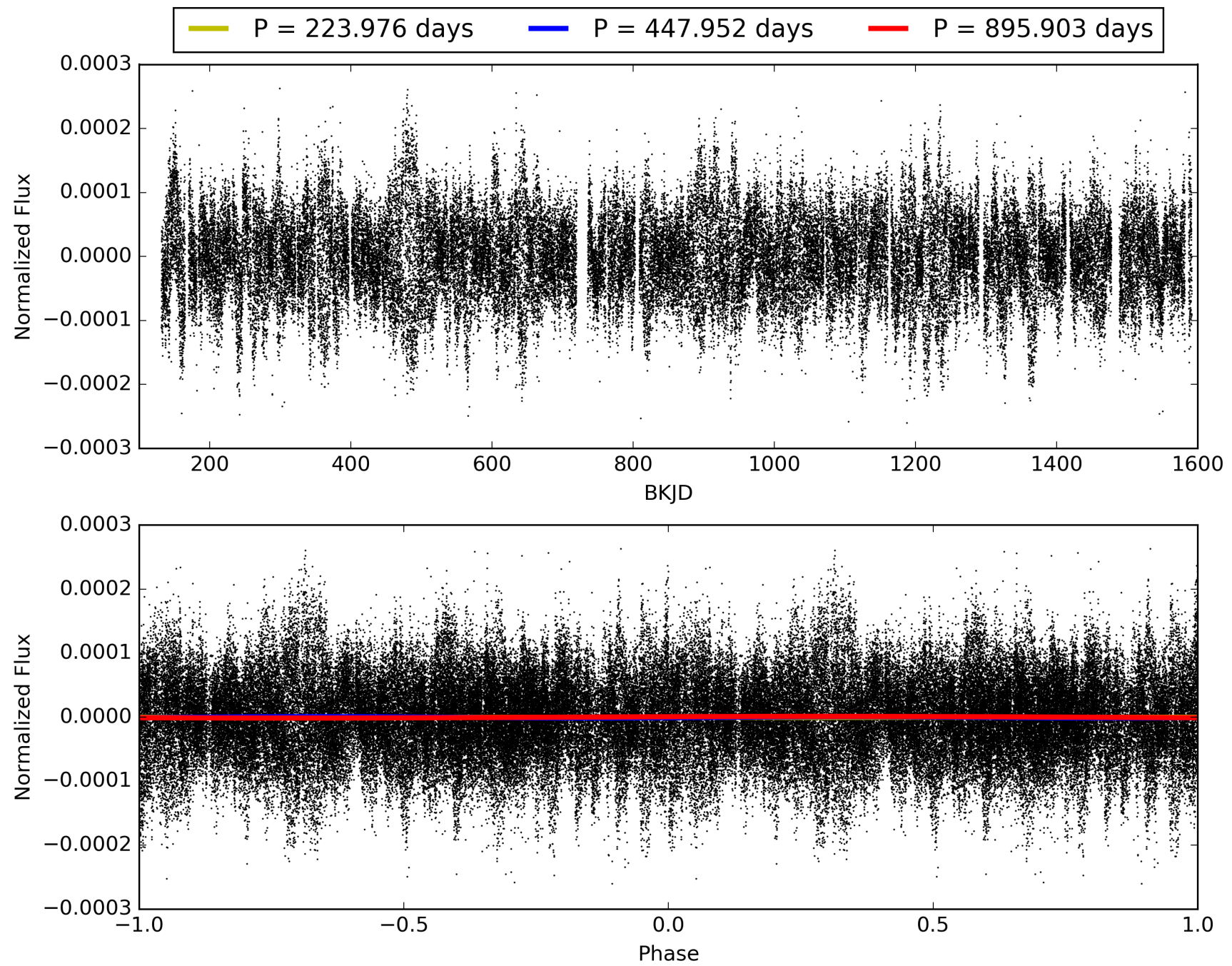
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:17:08 Z

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

TCE 005387719-01, PDC Light Curves

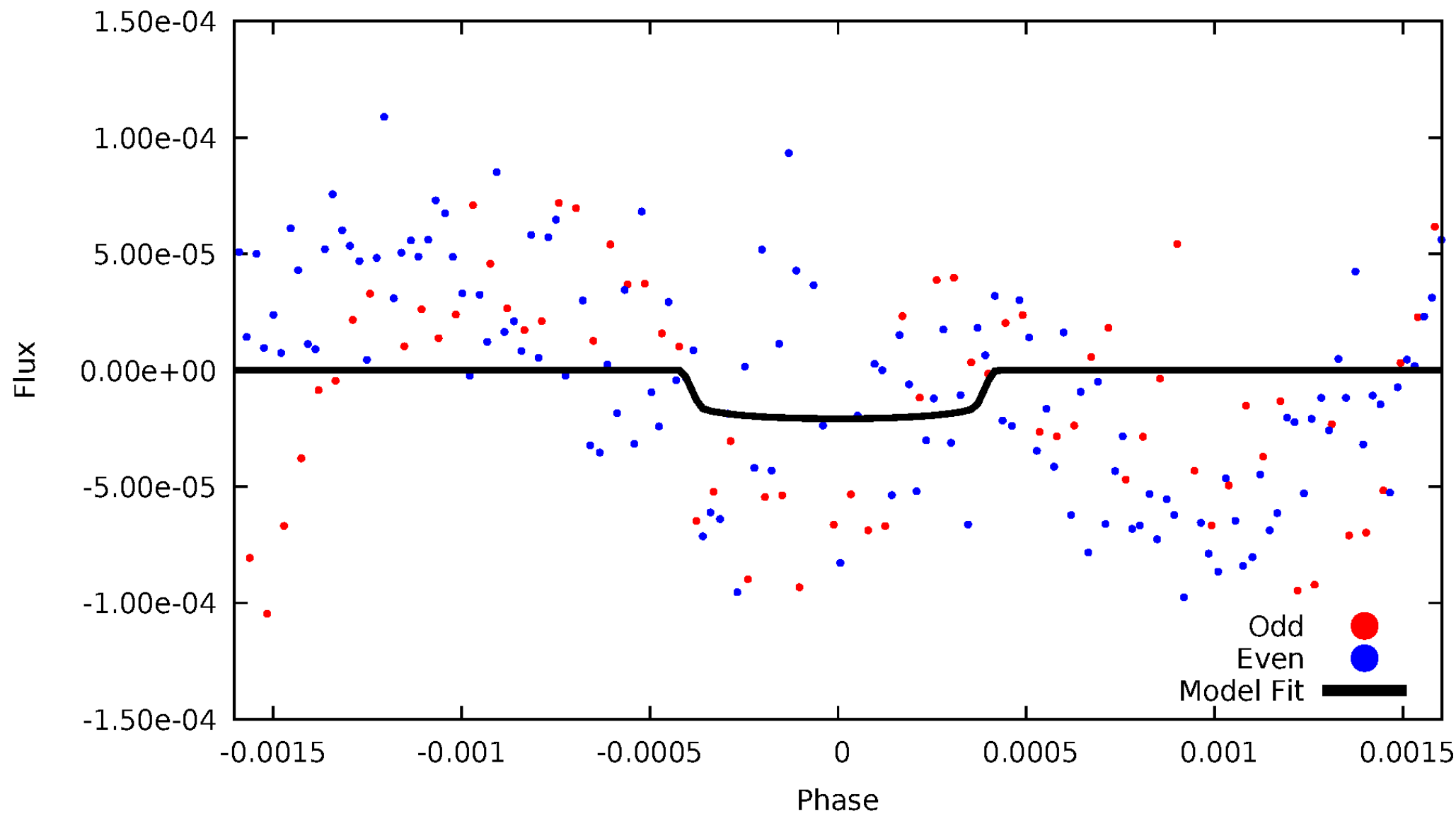


TCE 005387719-01



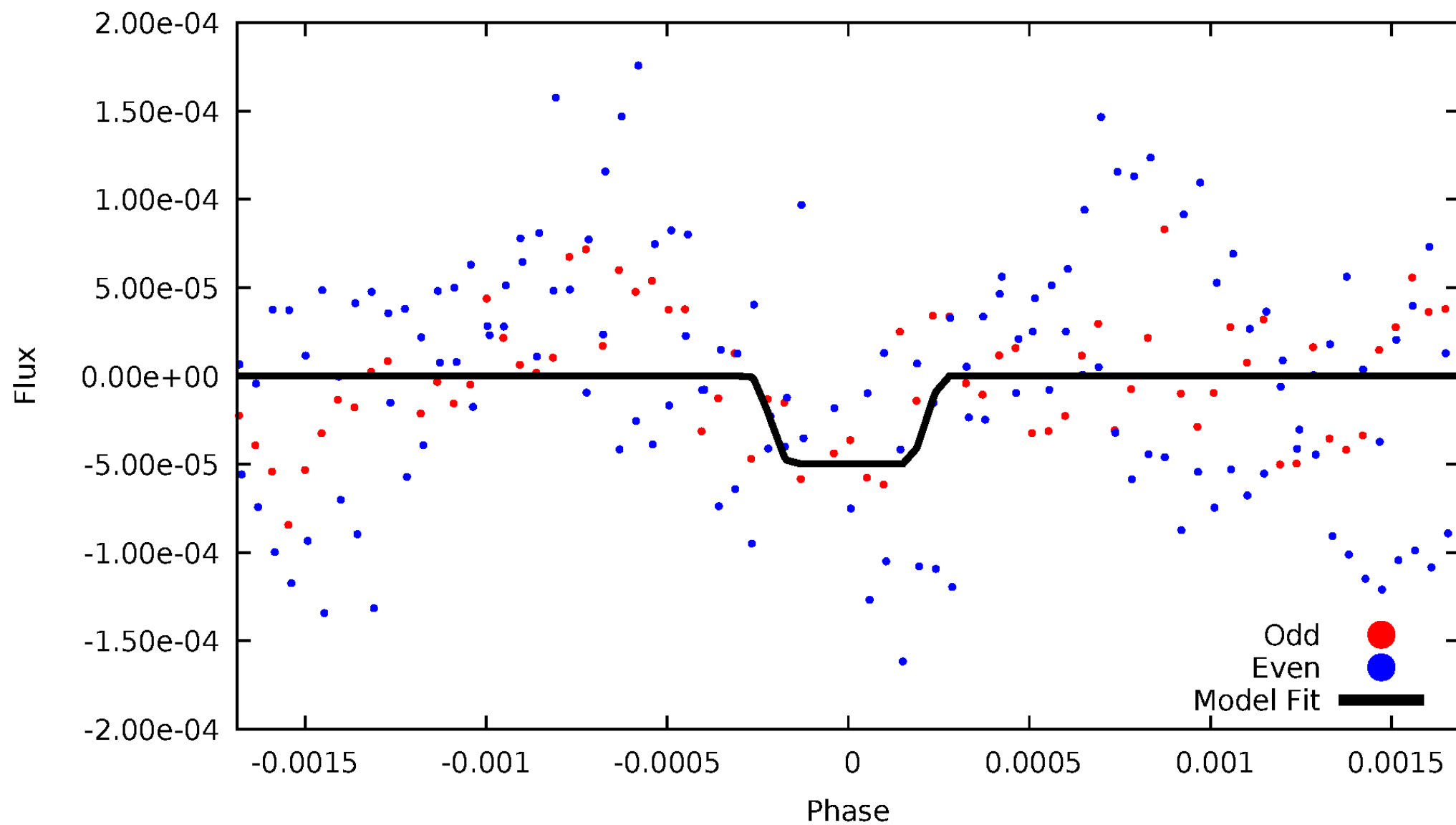
DV Odd/Even

TCE 005387719-01



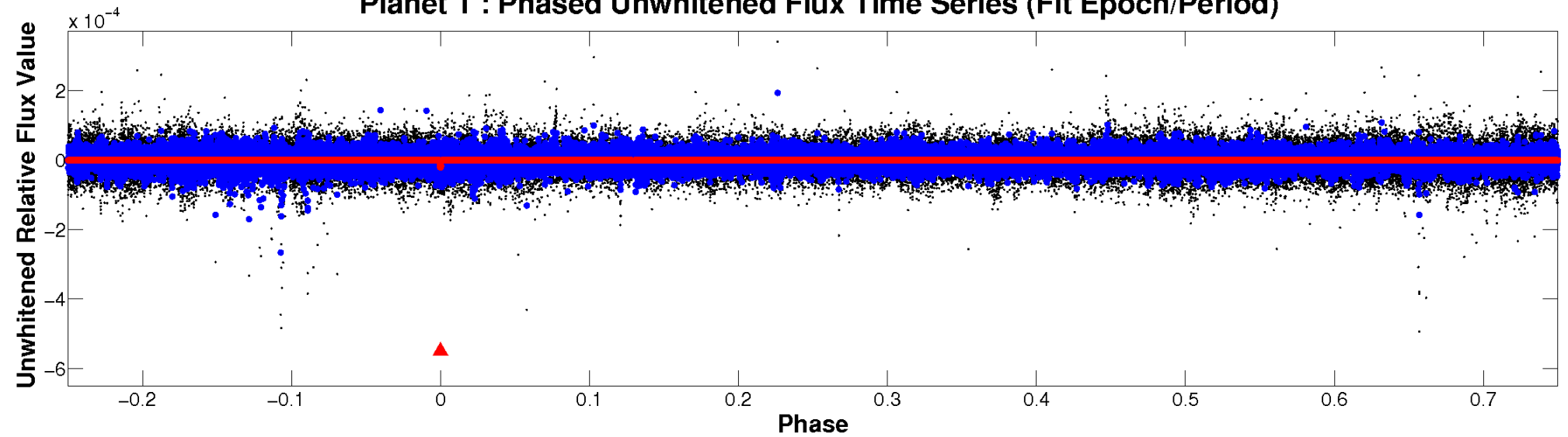
ALT Odd/Even

TCE 005387719-01

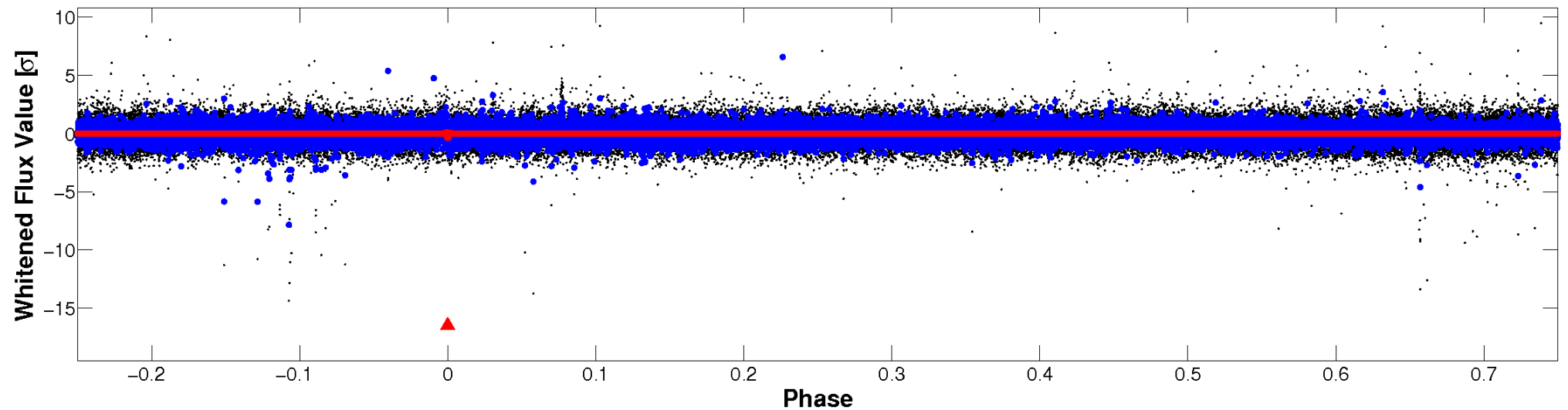


Non-Whitened Vs. Whitened Light Curve

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

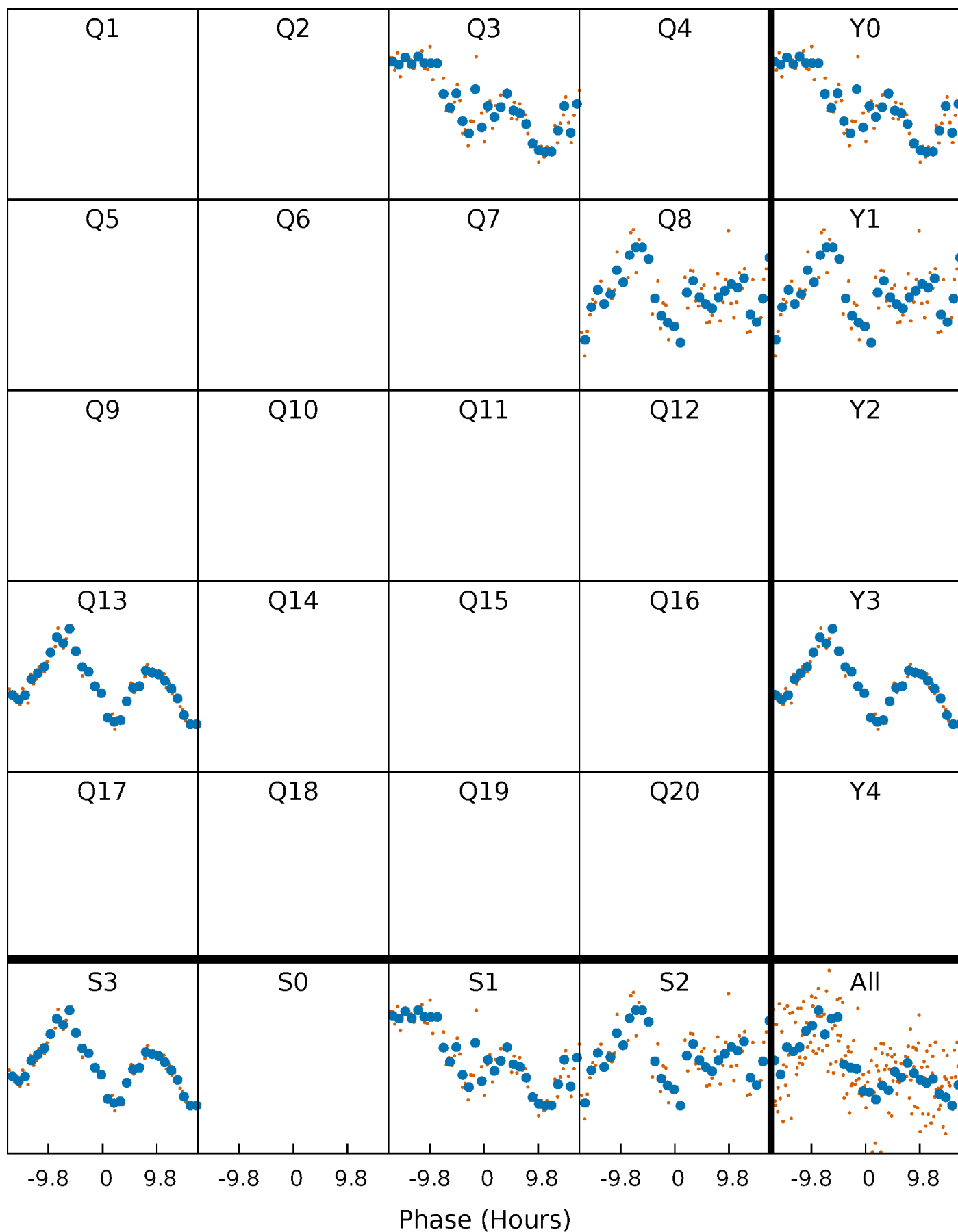


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 005387719-01 P=447.951541 Days $T_0=339.378827$ (BKJD)



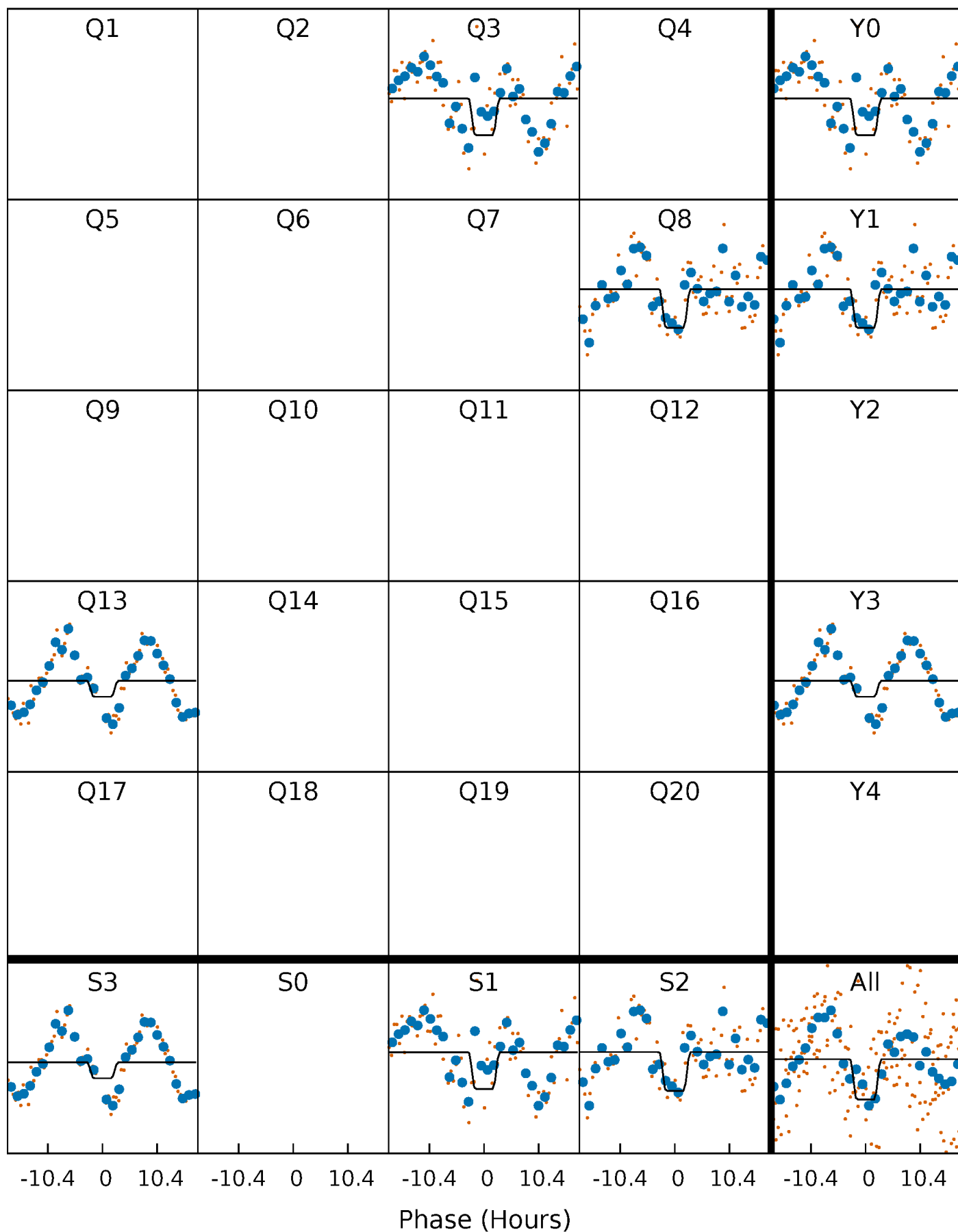
DV Quarter-Phased Transit Curves

TCE 005387719-01 P=447.951541 Days $T_0=339.378827$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

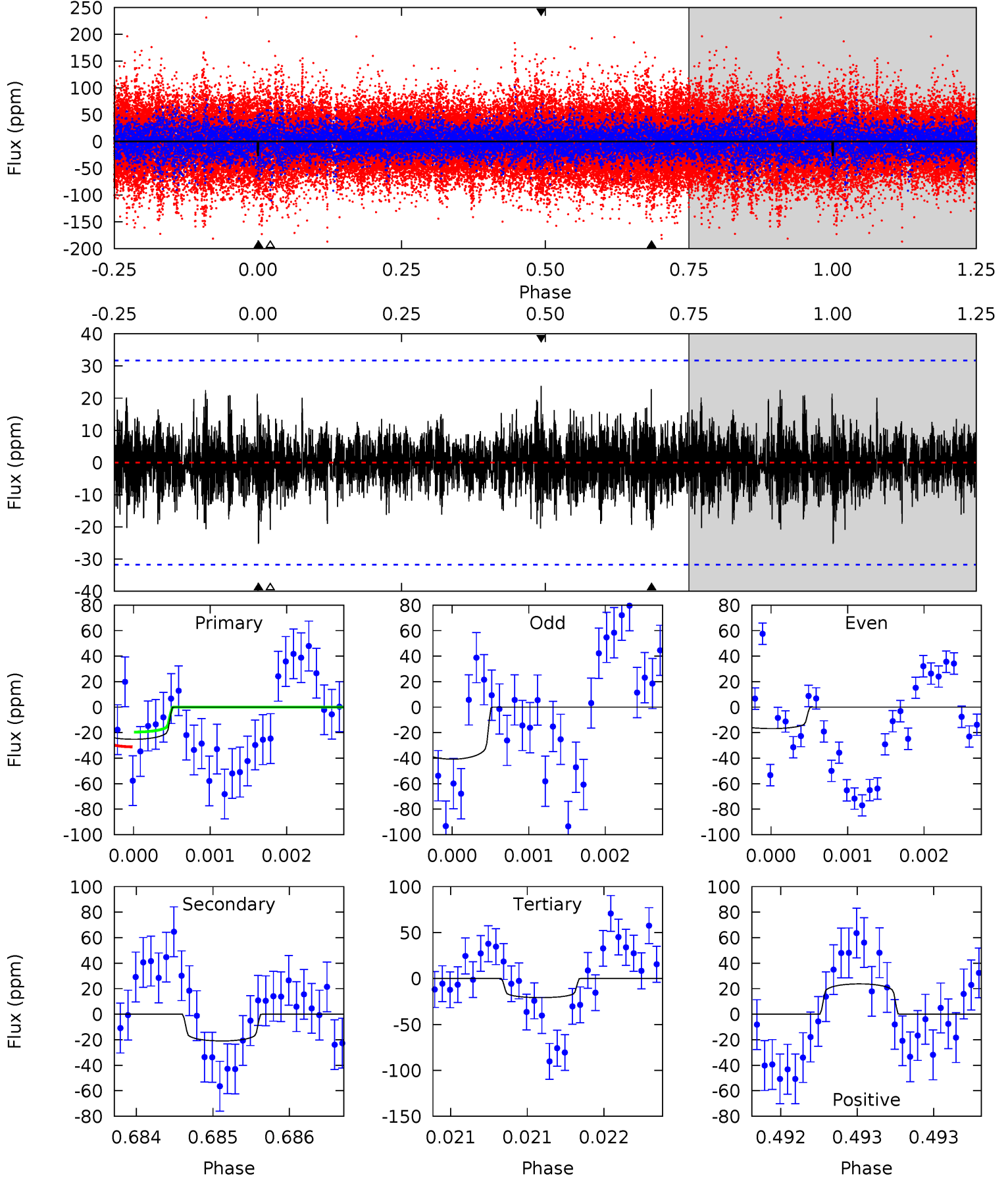
TCE 005387719-01 P=447.964936 Days $T_0=339.378300$ (BKJD)



DV Model-Shift Uniqueness Test

005387719-01, P = 447.951541 Days, E = 339.378827 Days

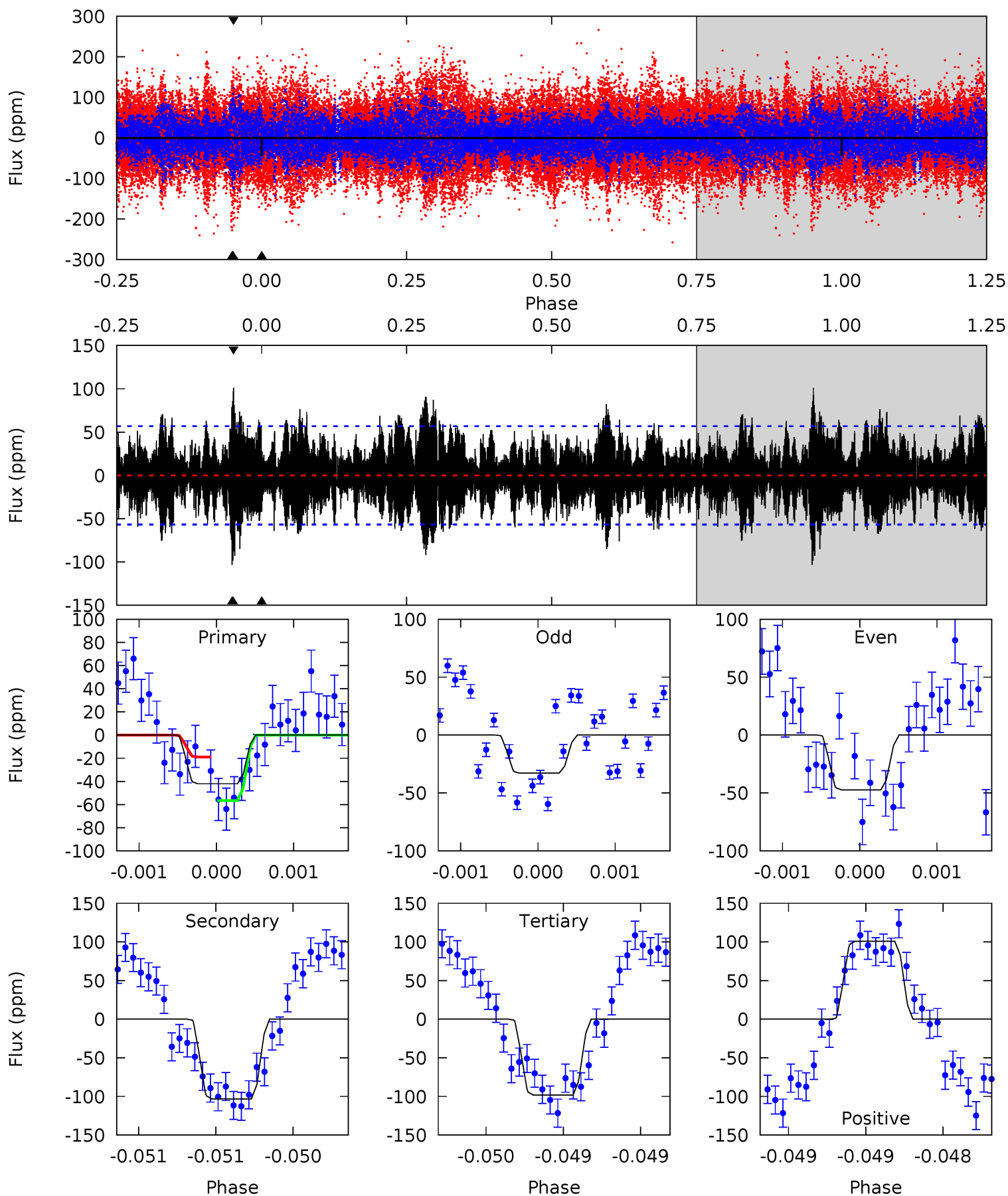
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.36	3.62	3.60	4.11	5.49	3.35	1.08	0.75	0.25	0.02	-0.49	2.03	0.88	0.49	1.00



Alt Model-Shift Uniqueness Test

005387719-01, P = 447.964936 Days, E = 339.378300 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.11	10.1	9.60	9.86	5.56	3.46	2.59	-5.49	-5.75	0.48	0.22	0.67	1.42	0.49	1.82



Stellar Parameters For KIC 005387719

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9111^{+286}_{-394}	$3.857^{+0.360}_{-0.120}$	$-0.420^{+0.550}_{-0.350}$	$2.710^{+0.730}_{-1.094}$	$1.927^{+0.538}_{-0.359}$	$0.136^{+0.401}_{-0.056}$
	+3%/-4%	+9%/-3%	+131%/-83%	+27%/-40%	+28%/-19%	+294%/-41%
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 005387719-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-21 ± 6	$1.42^{+0.97}_{-0.83}$	756^{+58}_{-75}	8373^{+8651}_{-2095}	12200^{+52688}_{-8086}
Alt.	-103 ± 10	$1.95^{+1.06}_{-0.87}$	753^{+61}_{-83}	11935^{+8479}_{-2936}	31569^{+68619}_{-18367}

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

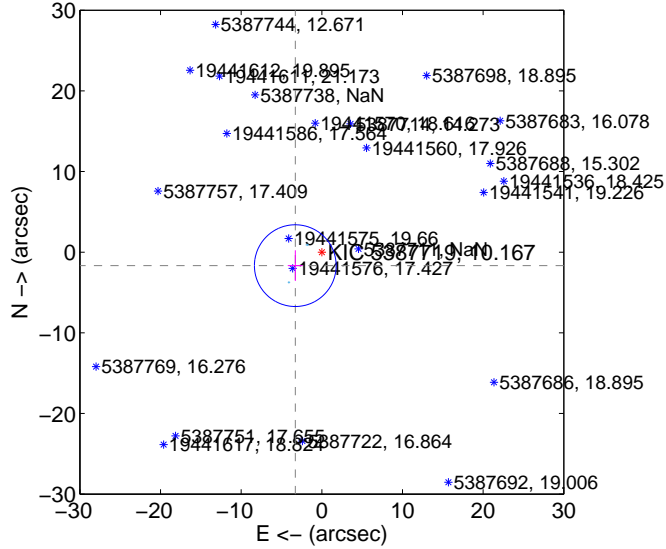
Supplemental centroid analysis for 005387719-01. **Kepler magnitude: 10.17.** Transit SNR 2.12

There are 2 quarters with good PRF difference image offsets

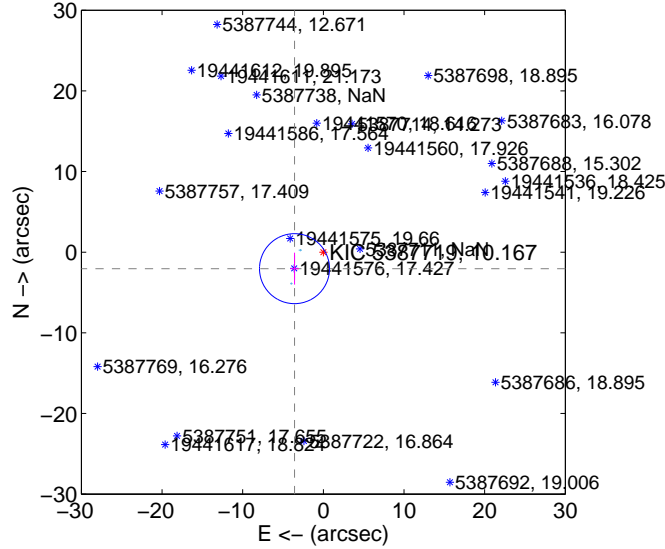
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.691 ± 1.689	2.19	3.291 ± 0.931	-1.671 ± 1.900
PRF-fit source offset from KIC position	4.120 ± 1.446	2.85	3.577 ± 0.536	-2.045 ± 1.982
photometric centroid source offset	10.15 ± 8.37	1.21	-9.01 ± 8.05	-4.69 ± 9.44

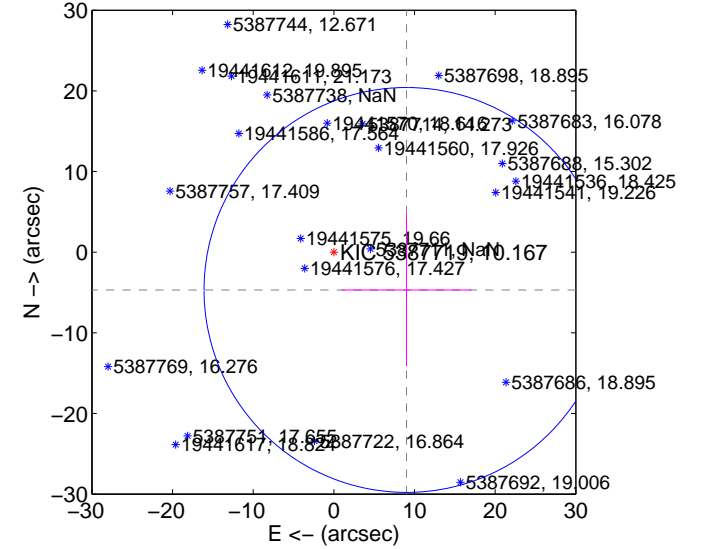
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

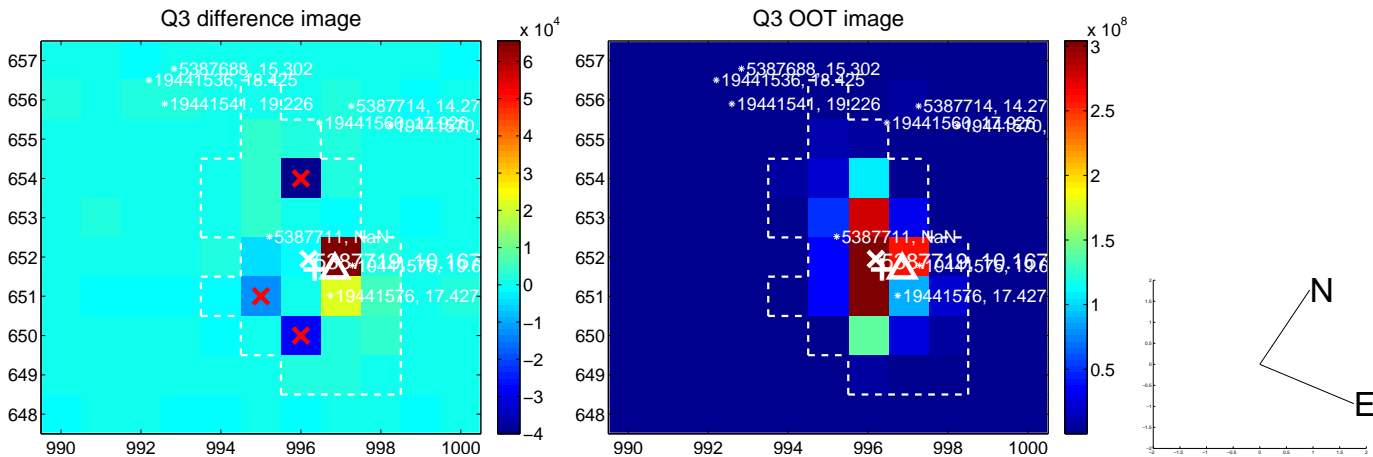


offset from photometric centroids

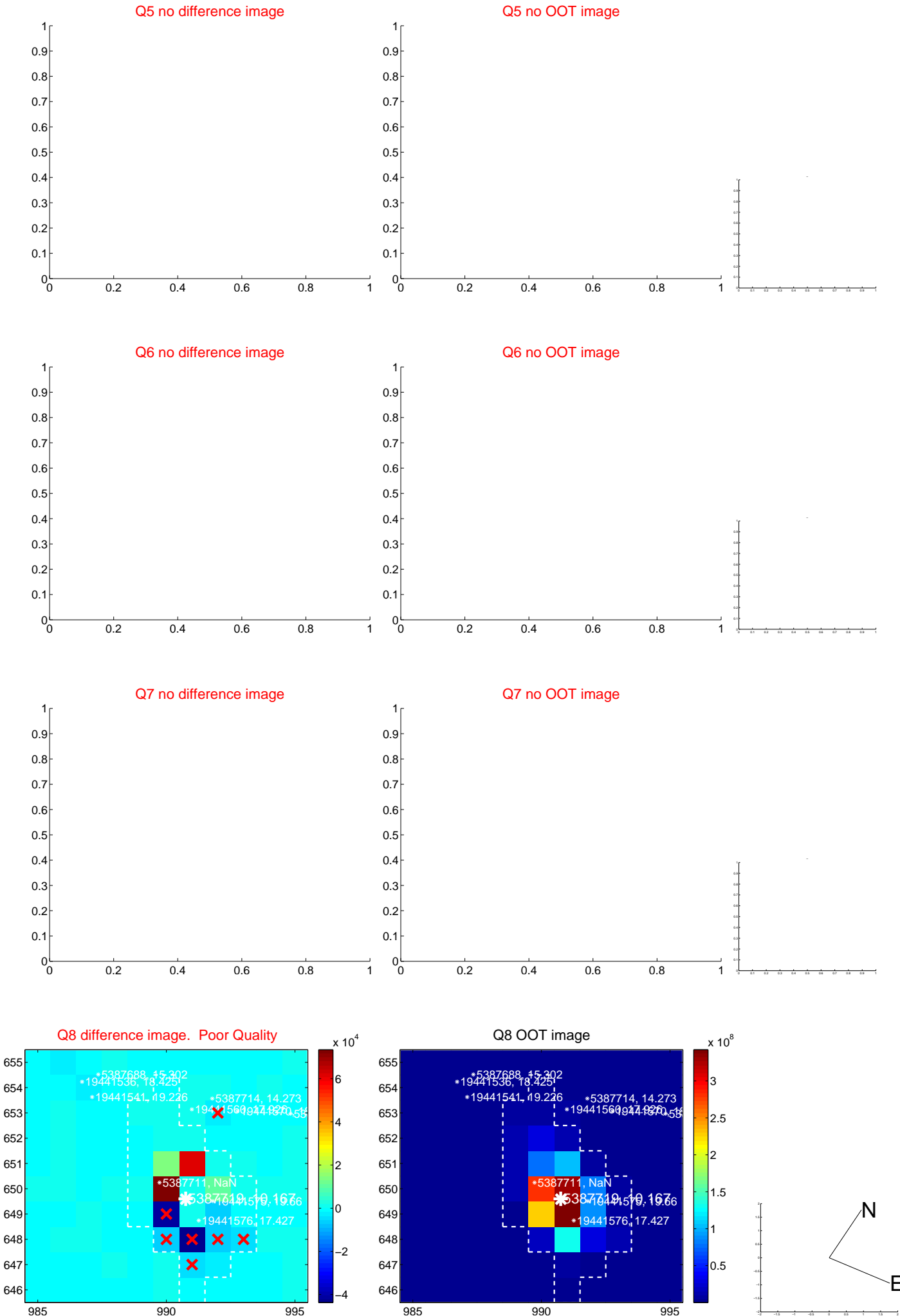


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



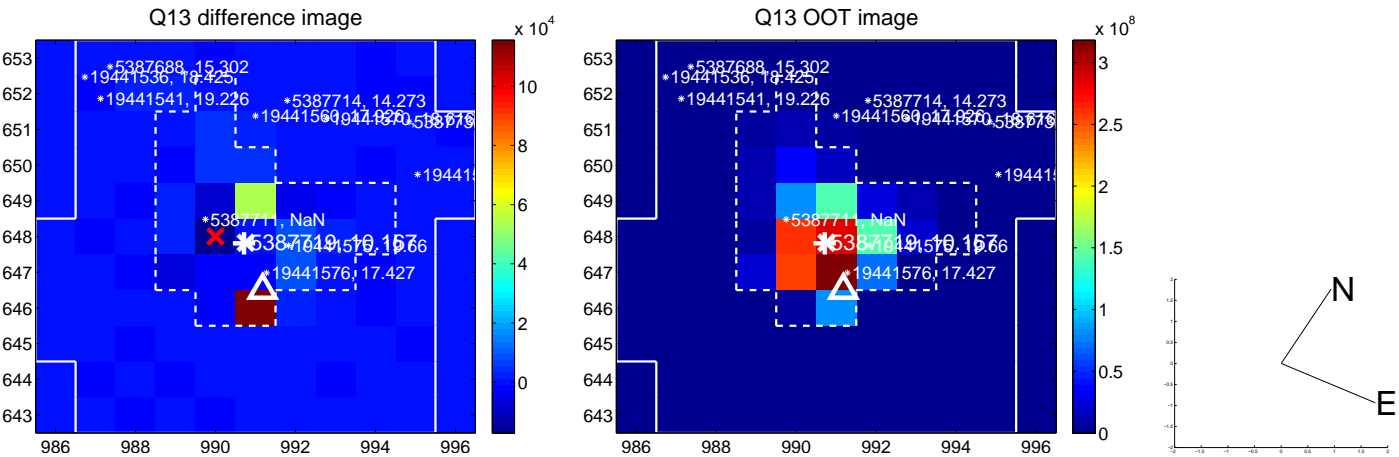
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



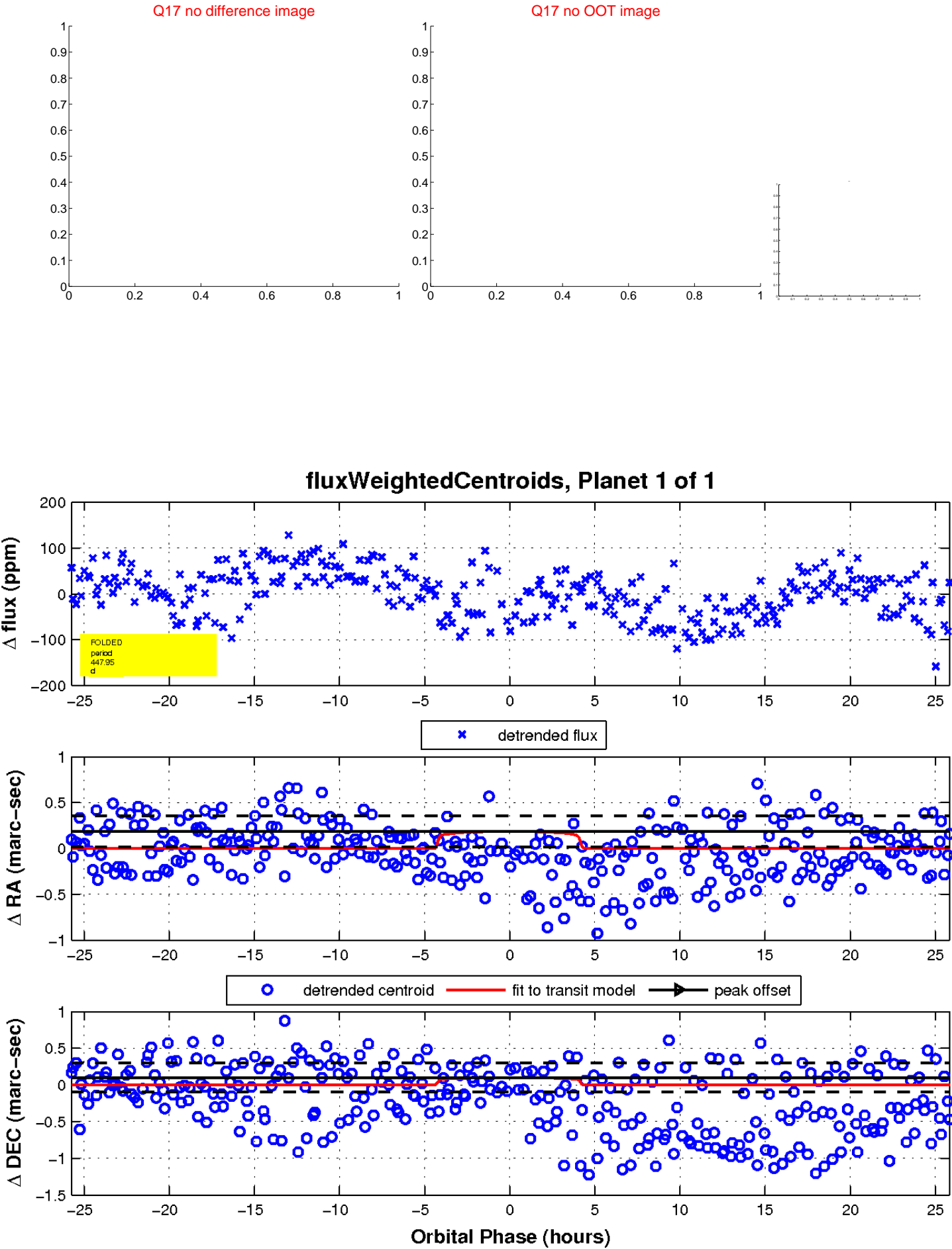
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

