

KIC 005435923

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})
005435923-01	OBS	No	341.145786	267.864520	872.6	15.948	8.0	7.6	0.35	3482	1.05	0.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005435923-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

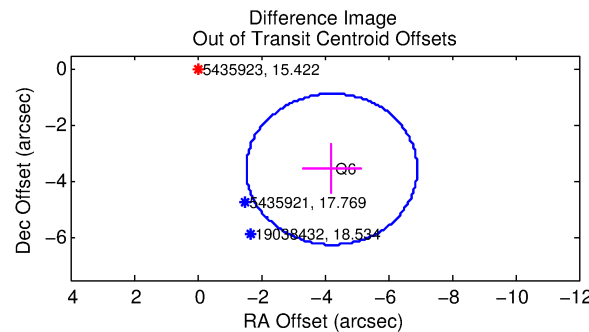
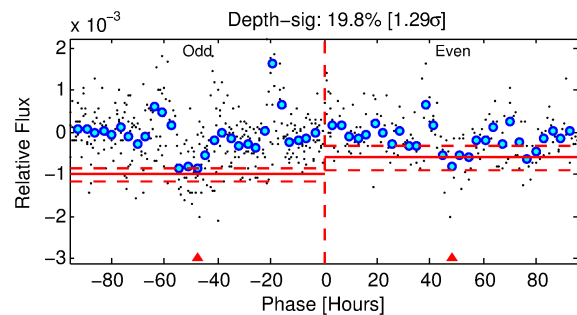
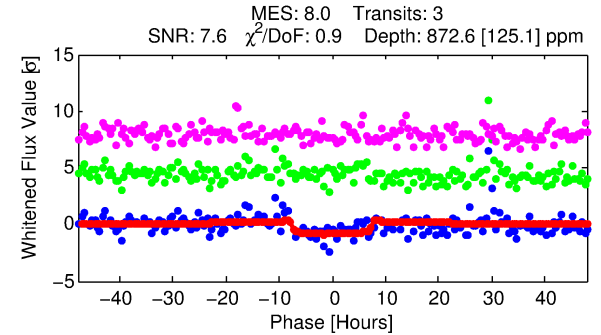
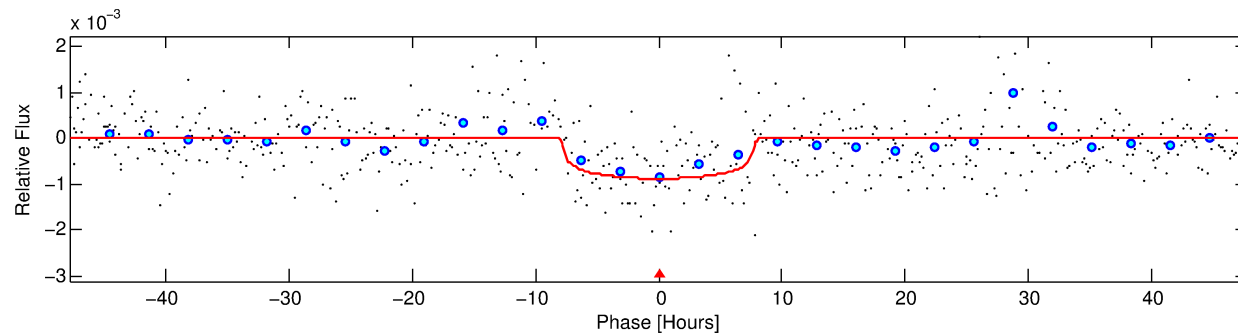
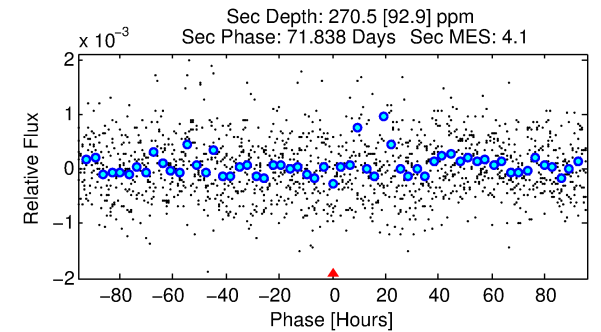
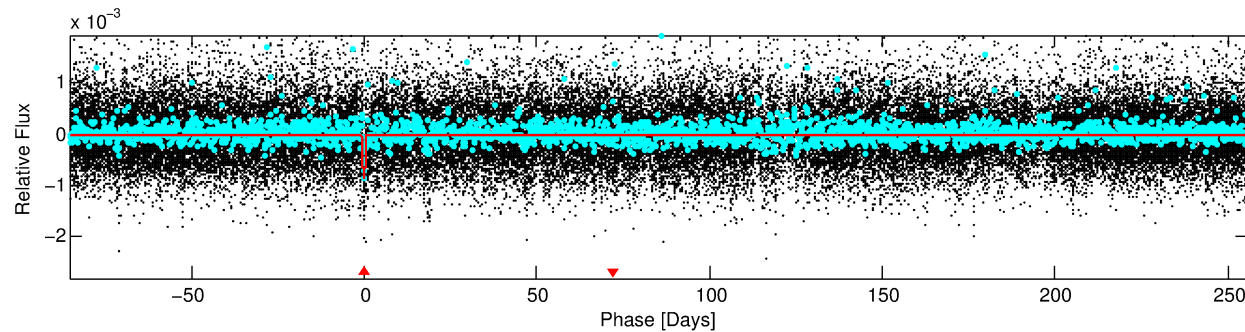
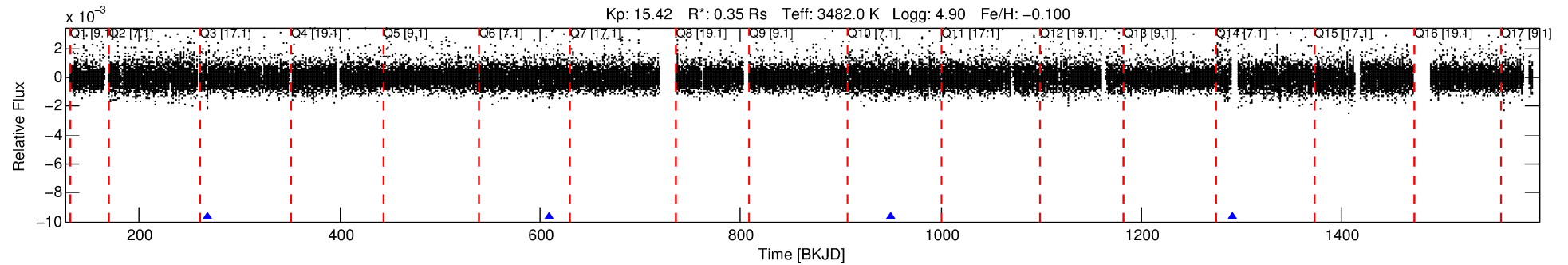
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005435923-01

No Significant Match Found

DV One-Page Summary

KIC: 5435923 Candidate: 1 of 1 Period: 341.146 d



DV Fit Results:

Period = 341.14579 [0.01604] d
Epoch = 267.8645 [0.0249] BKJD
Rp/R* = 0.0276 [0.0133]
a/R* = 145.66 [301.89]
b = 0.51 [2.98]
Seff = 0.03 [0.00]
Teq = 110 [3] K
Rp = 1.05 [0.52] Re
a = 0.6774 [0.0518] AU
Ag = 61604.04 [63086.25] [0.98σ]
Teffp = 2686 [686] K [3.76σ]

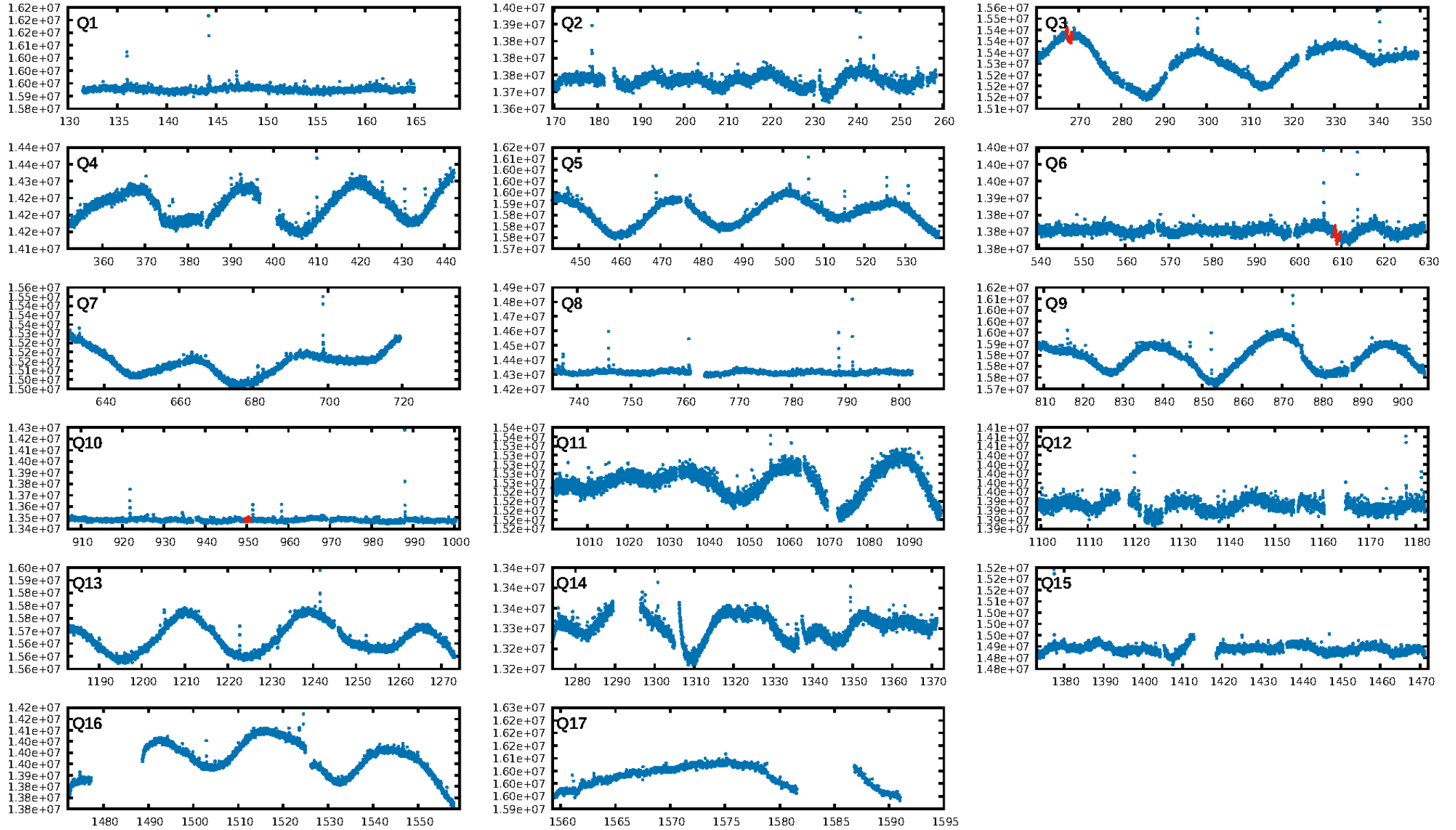
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.96e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -7.532
Centroid-sig: 5.5%
Centroid-so: 1.214 arcsec [1.28σ]
OotOffset-rm: 5.521 arcsec [6.16σ]
KicOffset-rm: 5.550 arcsec [6.18σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

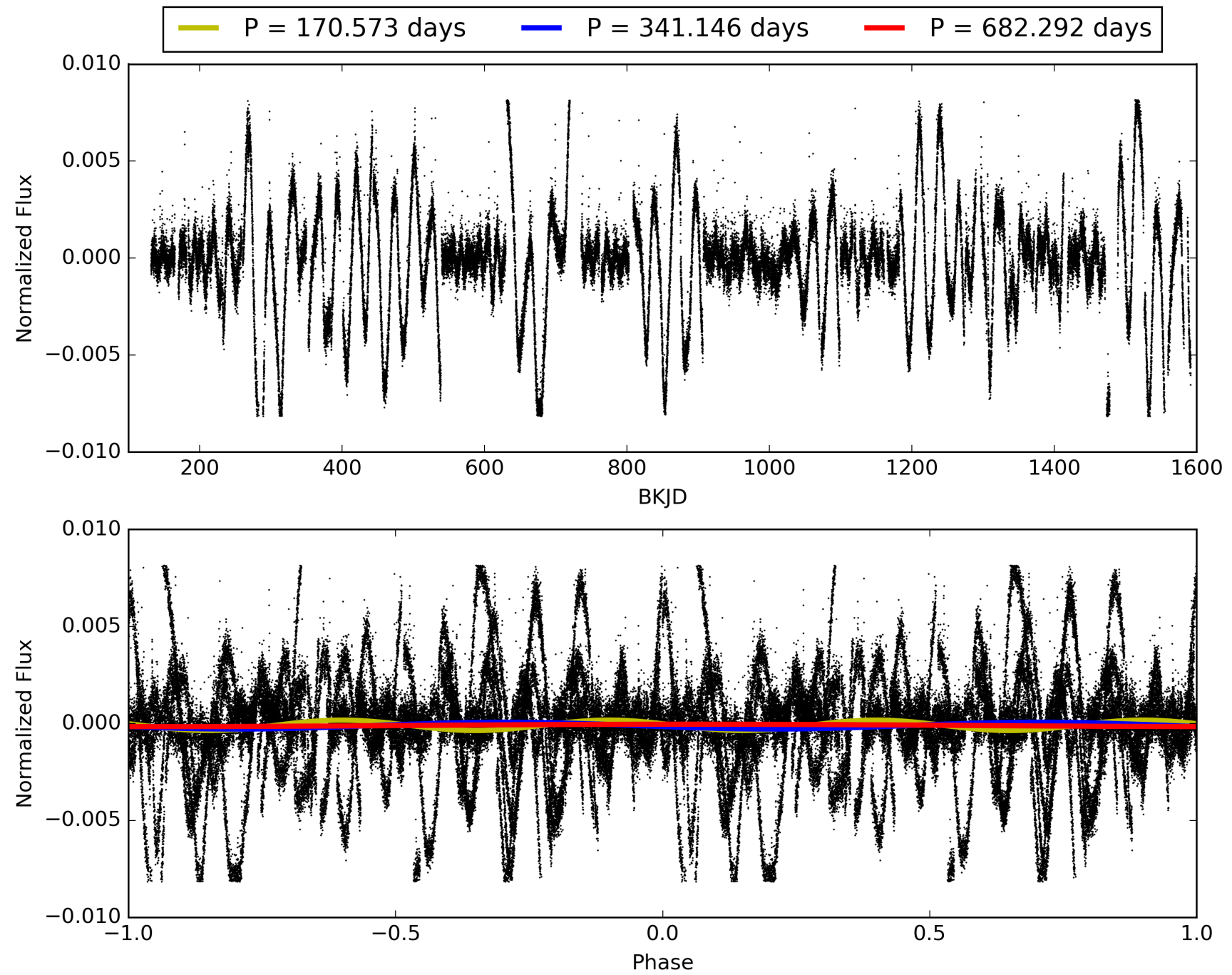
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:14:13 Z

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

TCE 005435923-01, PDC Light Curves

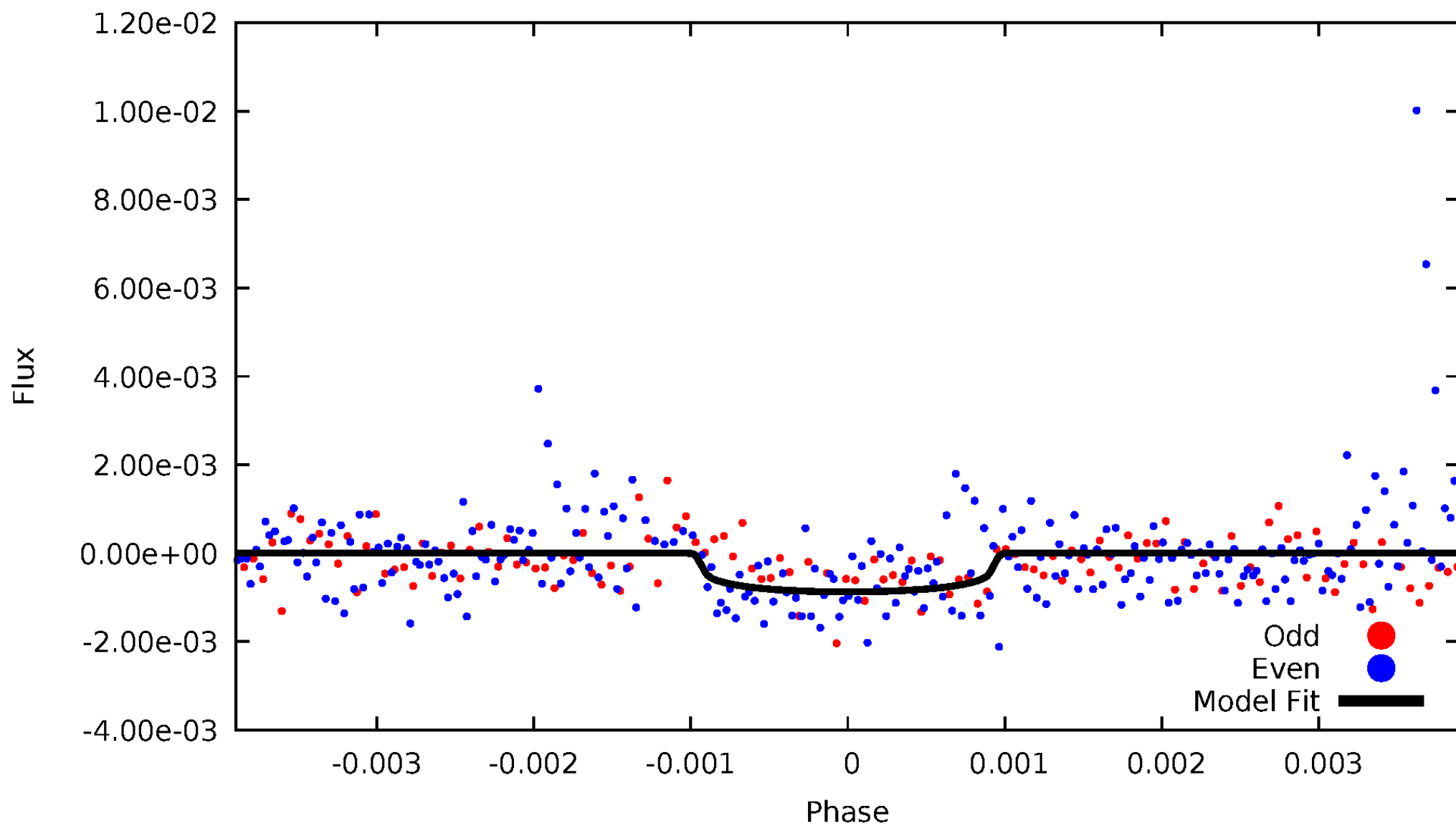


TCE 005435923-01



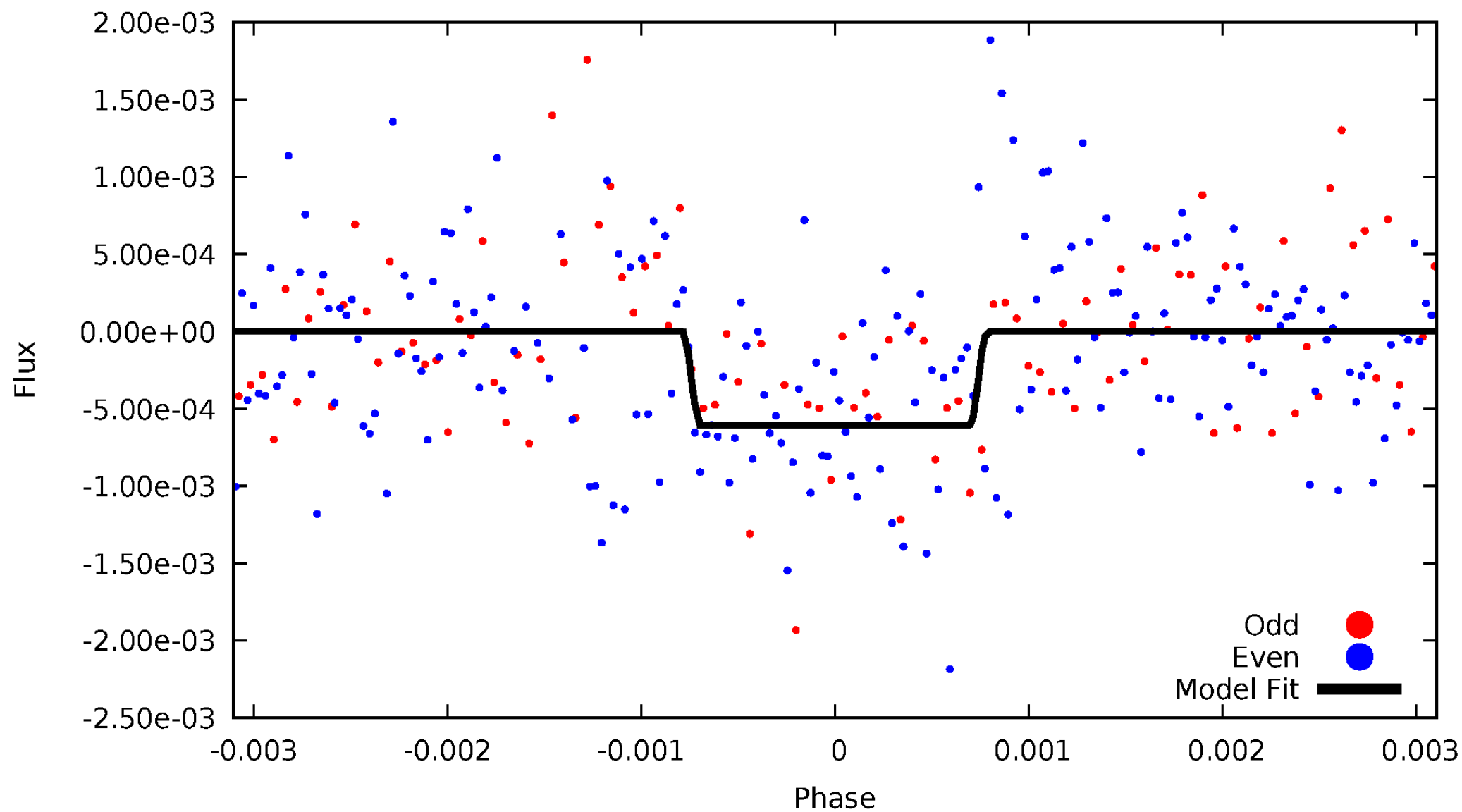
DV Odd/Even

TCE 005435923-01



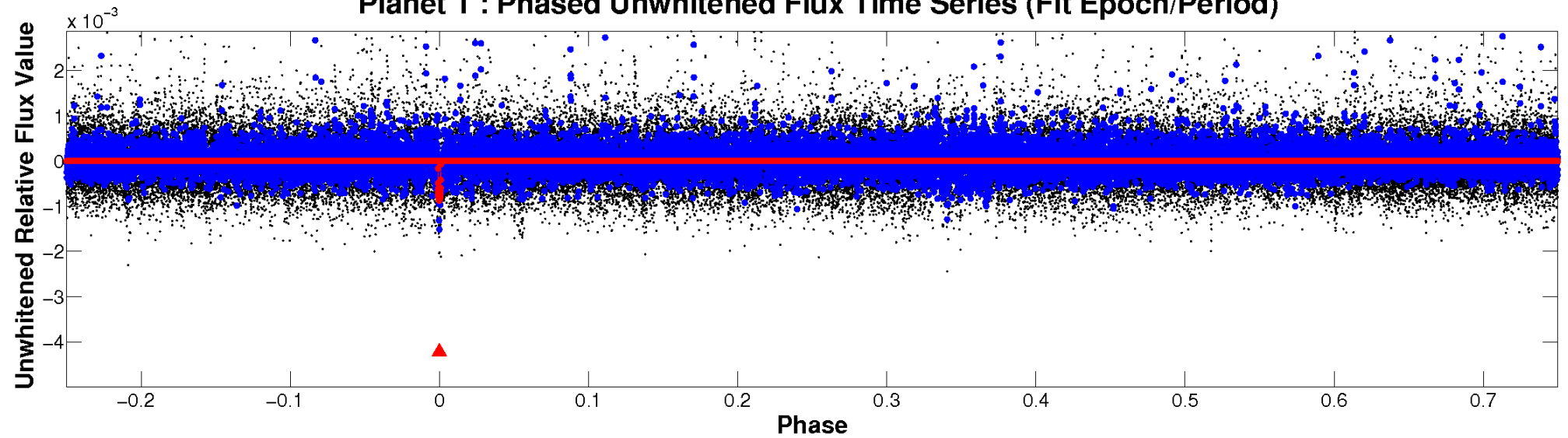
ALT Odd/Even

TCE 005435923-01

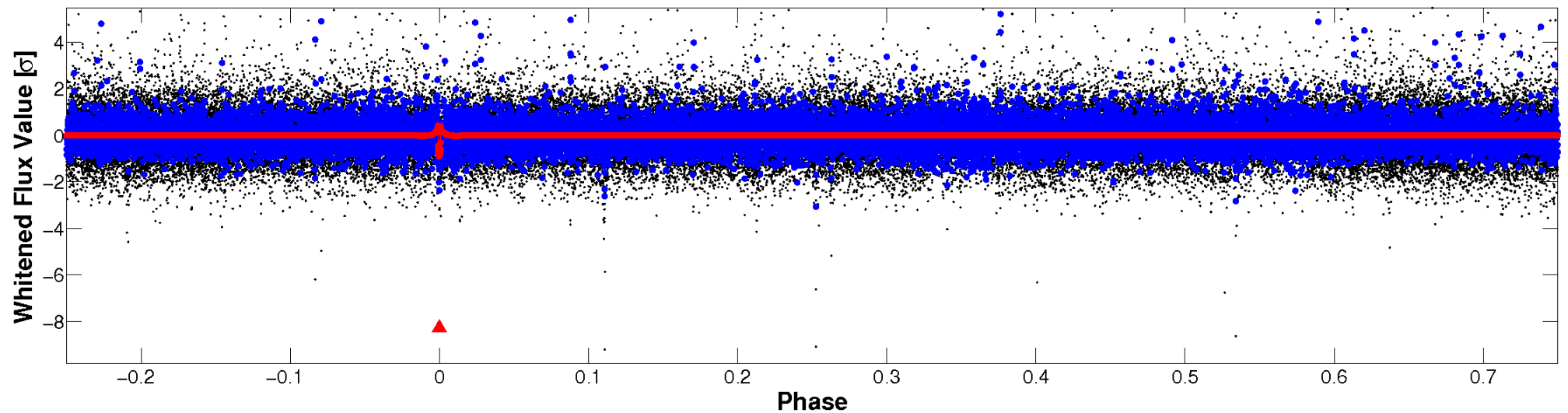


Non-Whitened Vs. Whitened Light Curve

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

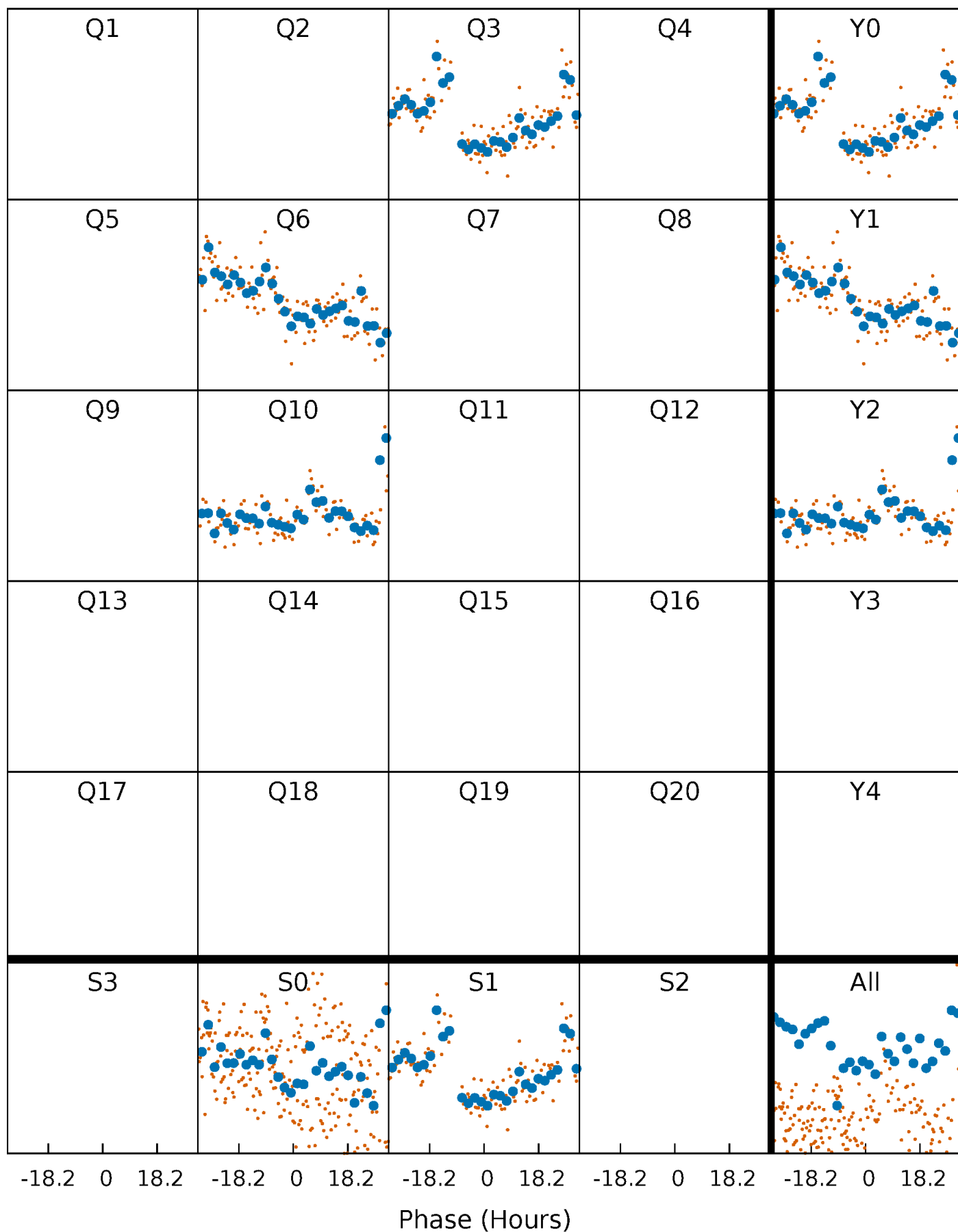


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 005435923-01 P=341.145786 Days $T_0=267.864520$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005435923-01 $P=341.145786$ Days $T_0=267.864520$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

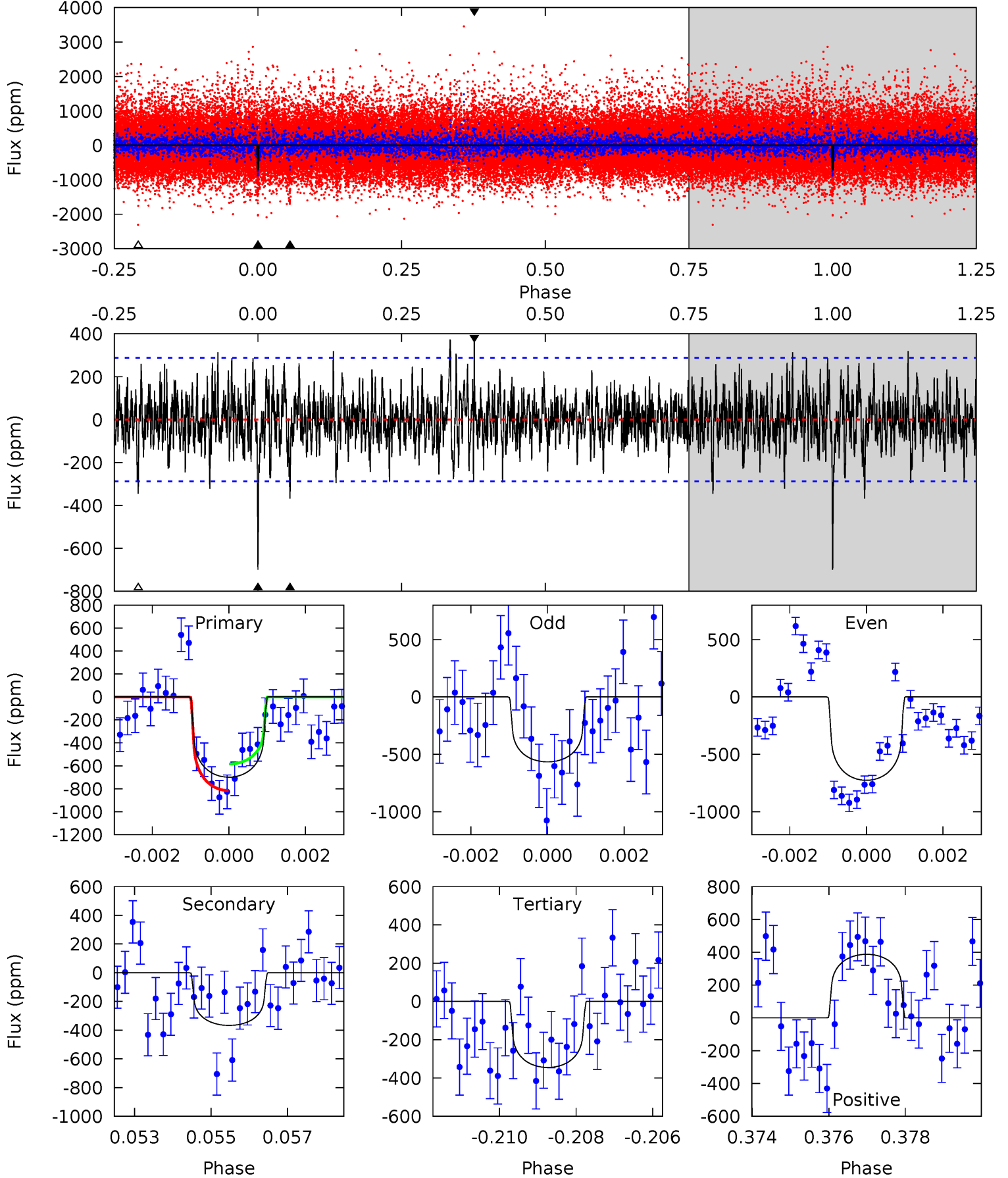
TCE 005435923-01 P=341.063361 Days $T_0=267.991127$ (BKJD)



DV Model-Shift Uniqueness Test

005435923-01, P = 341.145786 Days, E = 267.864520 Days

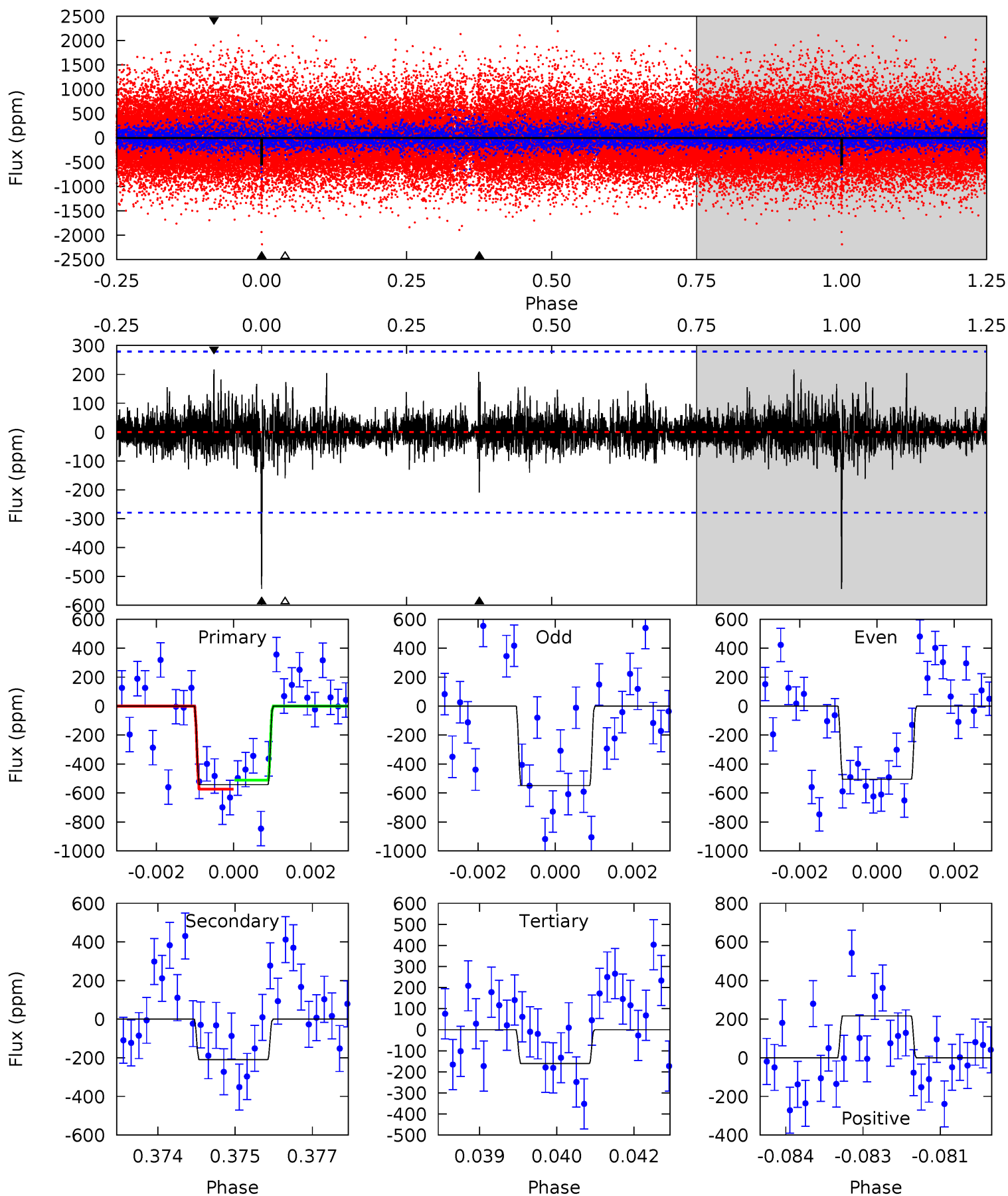
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	6.80	6.39	7.18	5.33	3.09	1.75	6.56	5.78	0.41	-0.38	1.37	1.19	0.36	2.15



Alt Model-Shift Uniqueness Test

005435923-01, P = 341.063361 Days, E = 267.991127 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	4.02	3.08	4.17	5.37	3.16	0.77	7.36	6.27	0.94	-0.15	0.39	0.99	0.29	0.61



Stellar Parameters For KIC 005435923

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3482^{+46}_{-46}	$4.904^{+0.038}_{-0.031}$	$-0.100^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.037}$	$0.357^{+0.038}_{-0.041}$	$11.800^{+2.631}_{-1.605}$
	+1%/-1%	+1%/-1%	+100%/-100%	+9%/-11%	+11%/-11%	+22%/-14%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 005435923-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-367 ± 54	$1.07^{+0.52}_{-0.45}$	154^{+3}_{-3}	3101^{+568}_{-328}	$81869^{+163225}_{-45979}$
Alt.	-209 ± 52	$0.96^{+0.52}_{-0.46}$	154^{+3}_{-3}	2938^{+649}_{-326}	$56008^{+151525}_{-33381}$

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 $A_{\text{obs}} \gg 1.0$

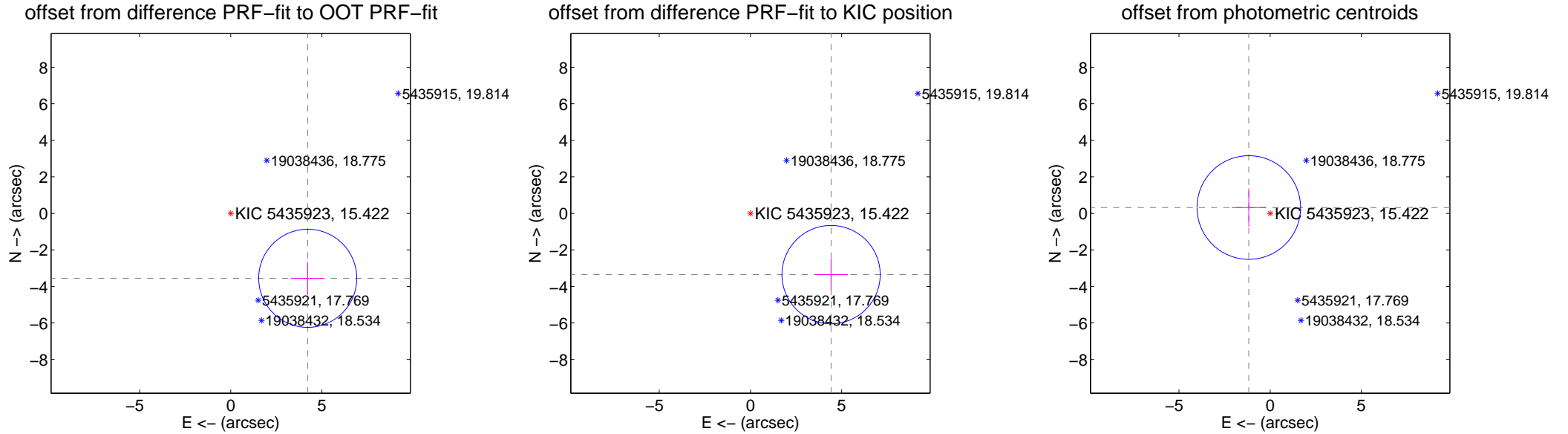
DV Centroid Data

Supplemental centroid analysis for 005435923-01. Kepler magnitude: 15.42. Transit SNR 7.58

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.521 ± 0.896	6.16	-4.222 ± 0.911	-3.557 ± 0.873
PRF-fit source offset from KIC position	5.550 ± 0.898	6.18	-4.421 ± 0.911	-3.355 ± 0.873
photometric centroid source offset	1.21 ± 0.95	1.28	1.17 ± 0.94	0.32 ± 1.05

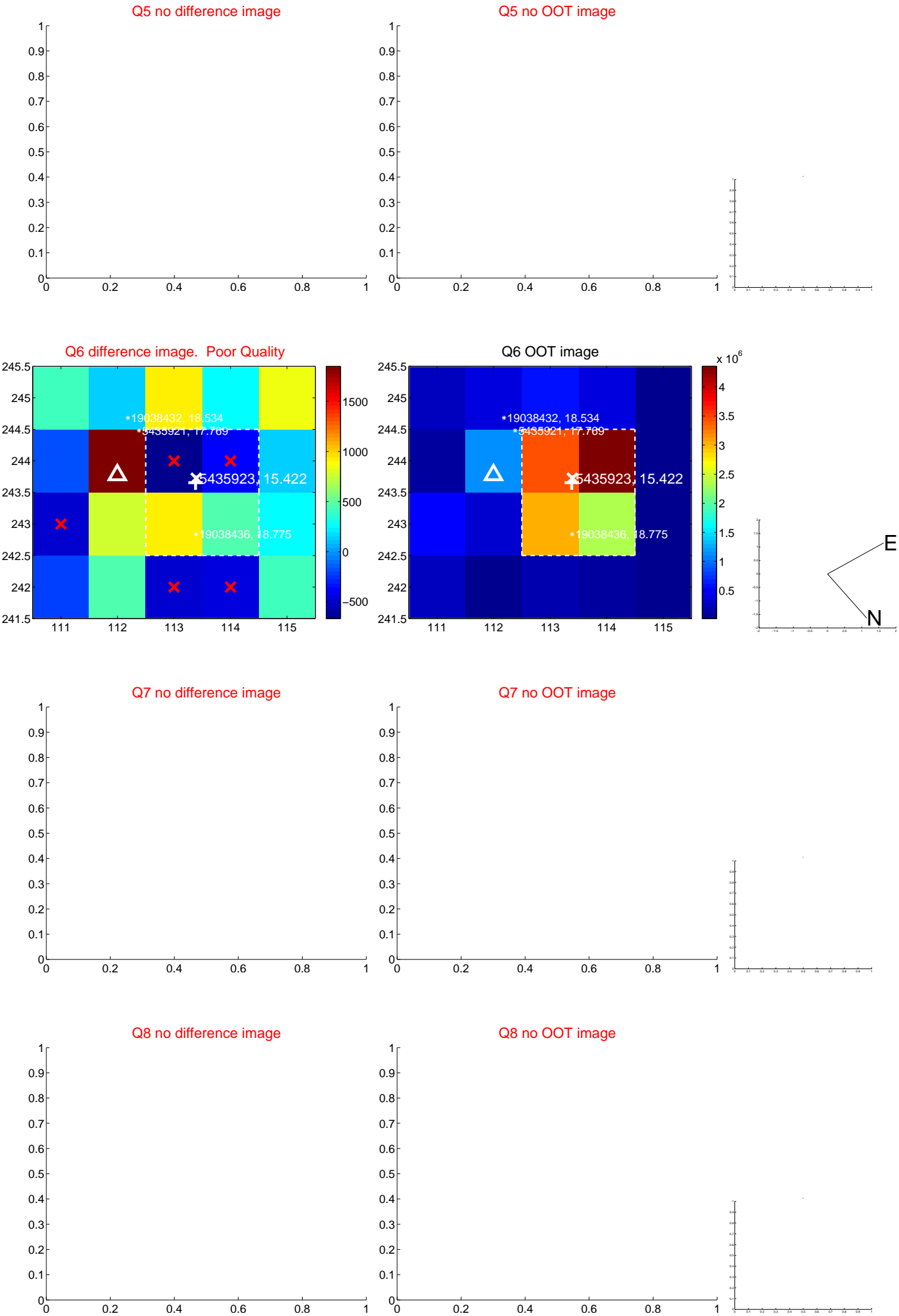


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

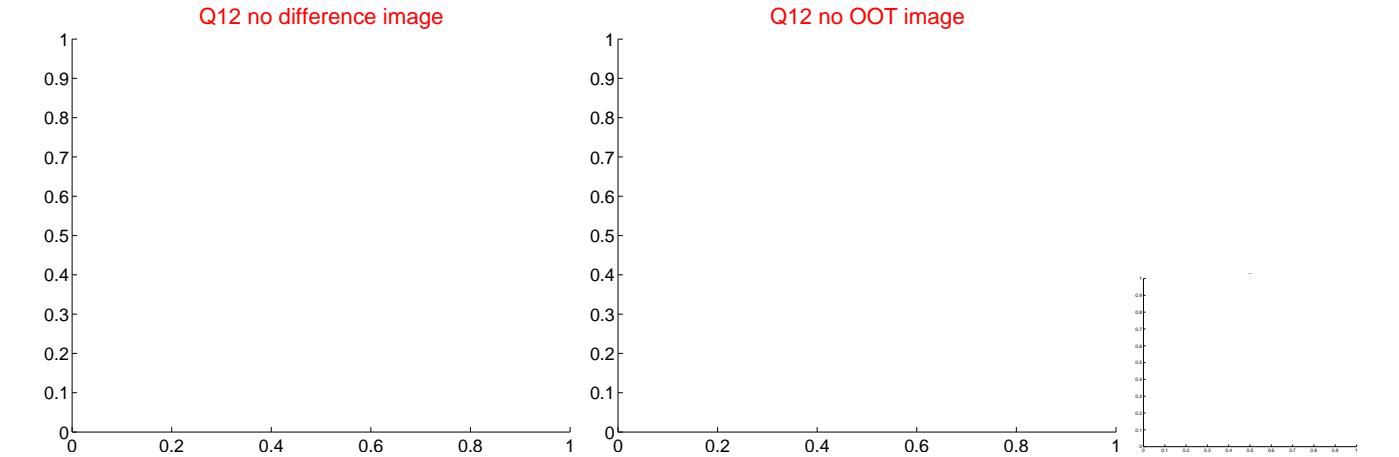
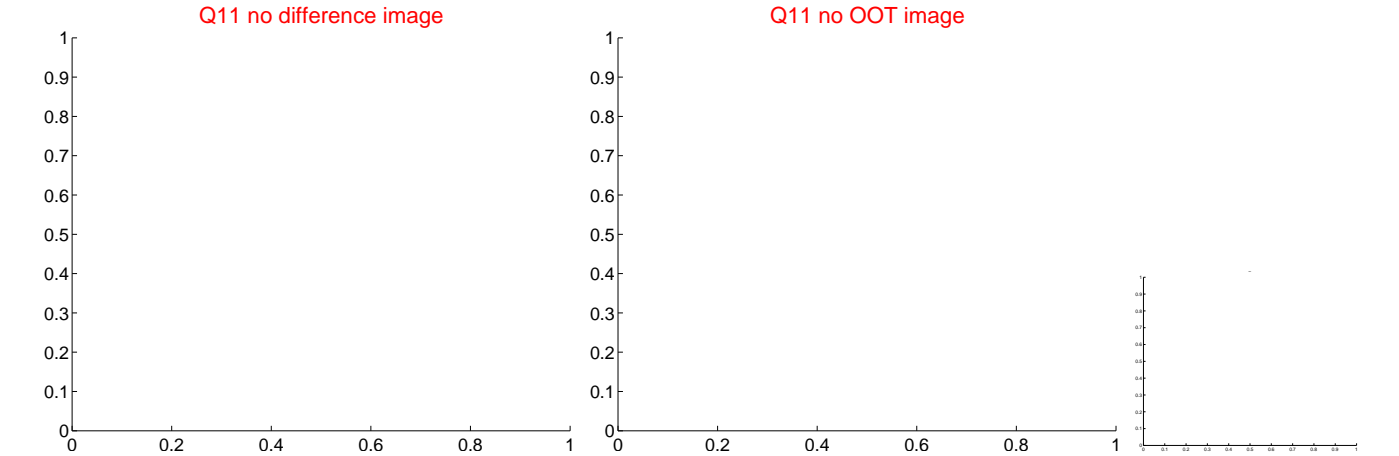
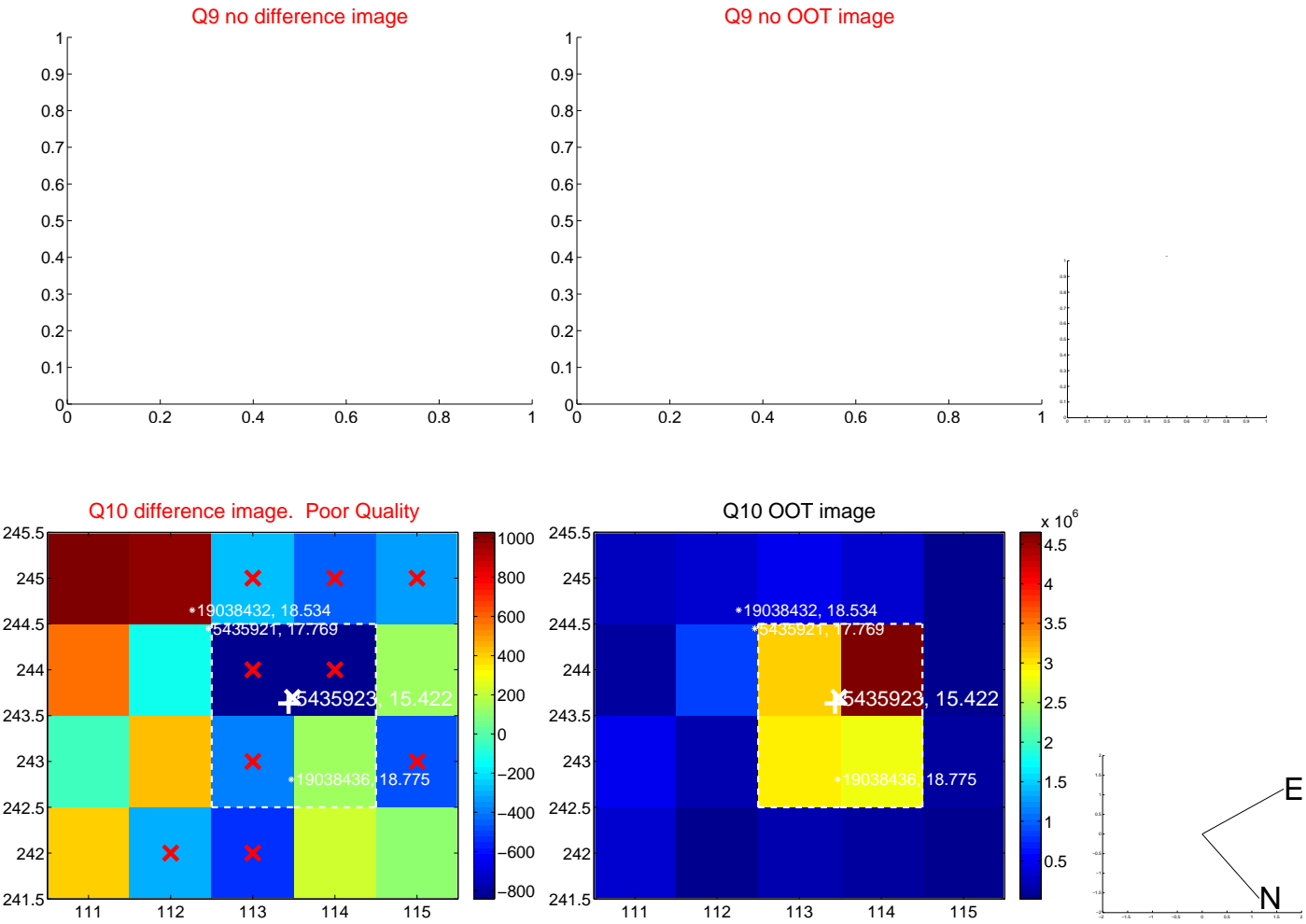
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



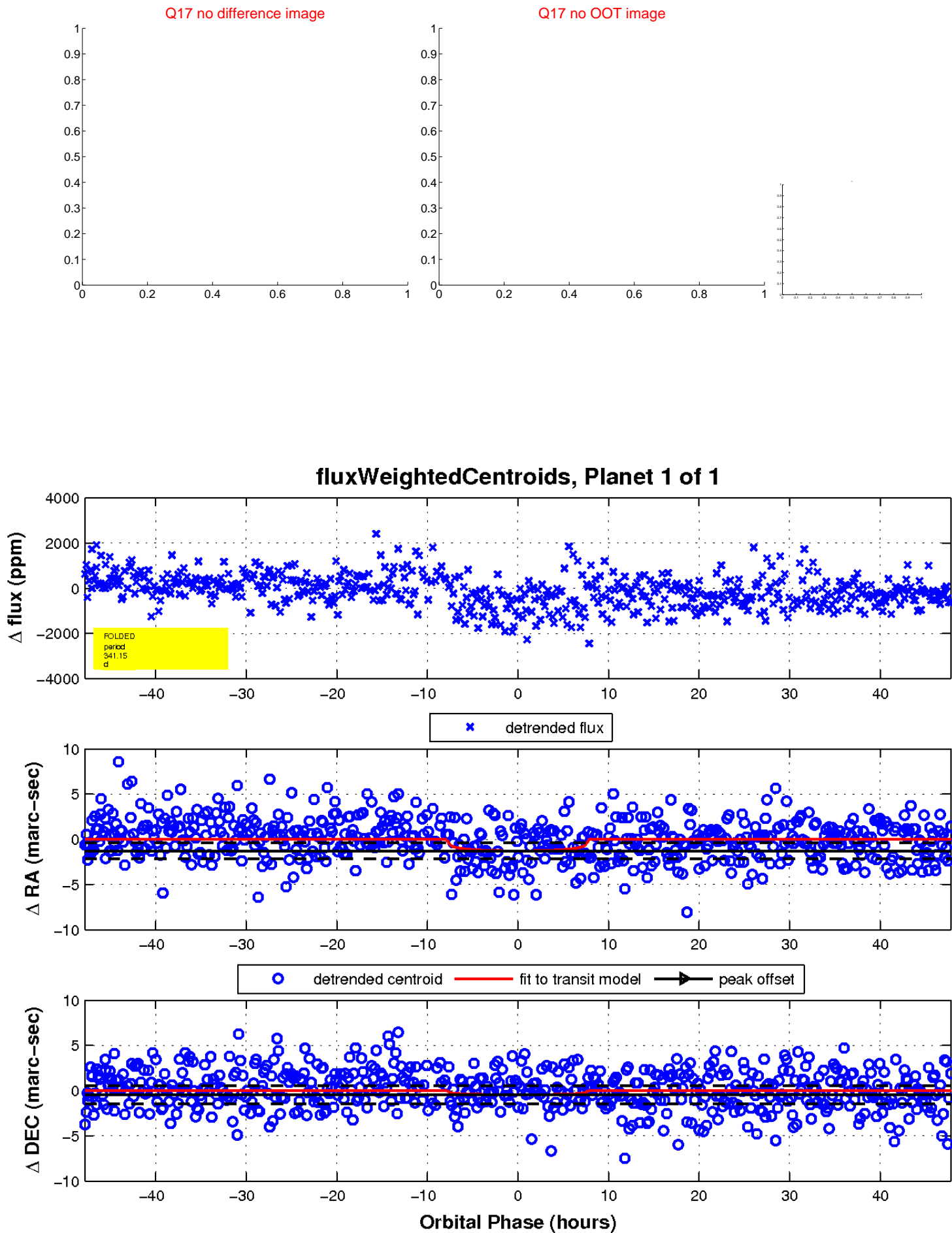
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

