

KIC 006530836

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})
006530836-01	OBS	No	330.993980	431.871790	467.9	6.635	7.8	7.1	0.84	5985	1.98	1.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006530836-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

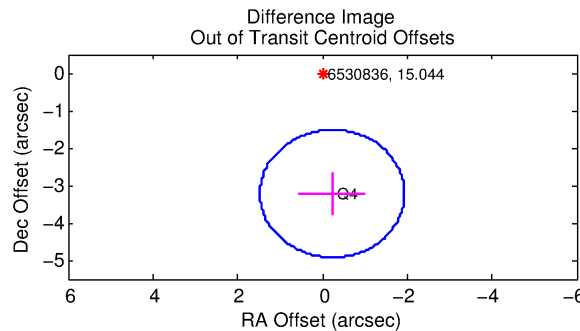
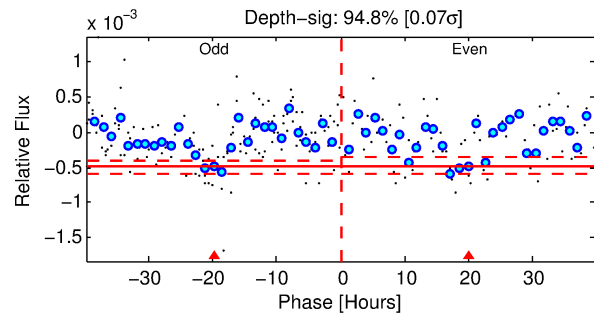
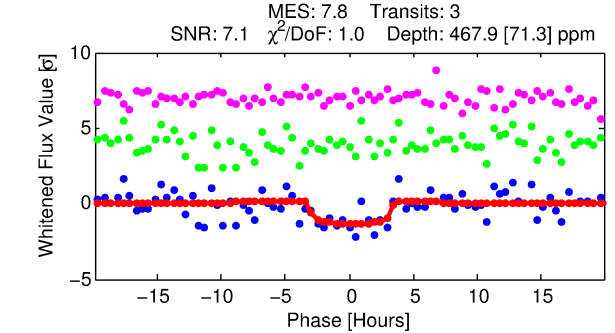
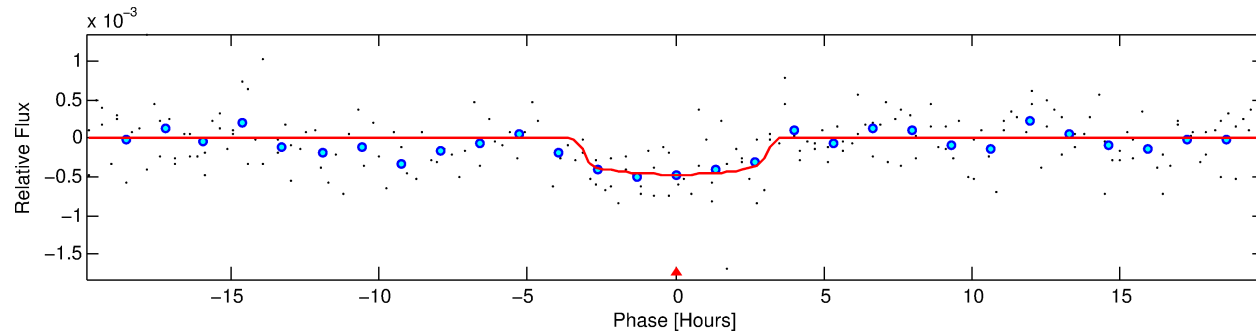
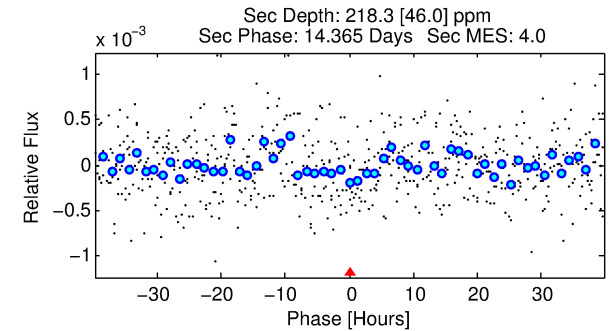
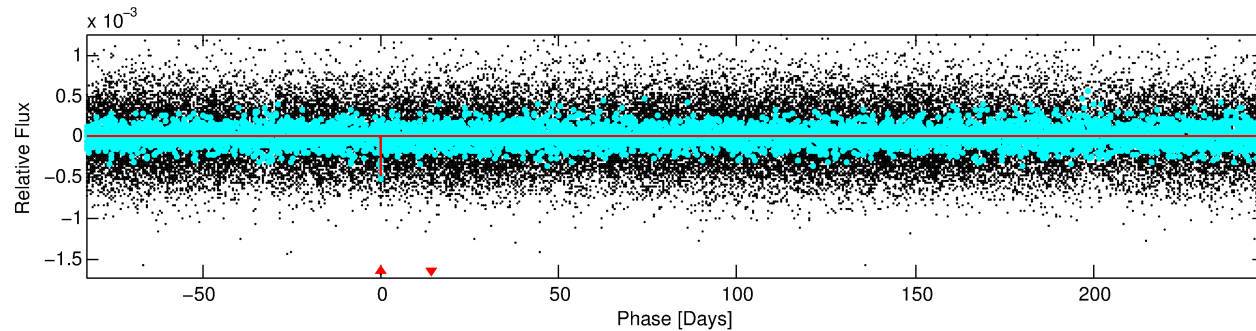
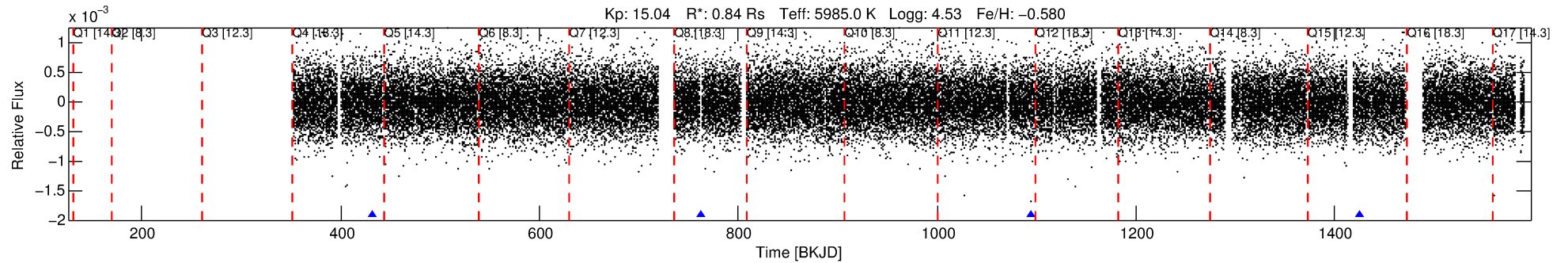
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006530836-01

No Significant Match Found

DV One-Page Summary

KIC: 6530836 Candidate: 1 of 1 Period: 330.994 d



DV Fit Results:

Period = 330.99398 [0.00694] d
Epoch = 431.8718 [0.0141] BKJD
Rp/R* = 0.0216 [0.0177]
a/R* = 256.90 [1084.72]
b = 0.77 [2.28]
Seff = 1.01 [0.36]
Teq = 256 [23] K
Rp = 1.98 [1.70] Re
a = 0.8914 [0.1978] AU
Ag = 24412.14 [41077.22] [0.59 σ]
Teffp = 4945 [2047] K [2.29 σ]

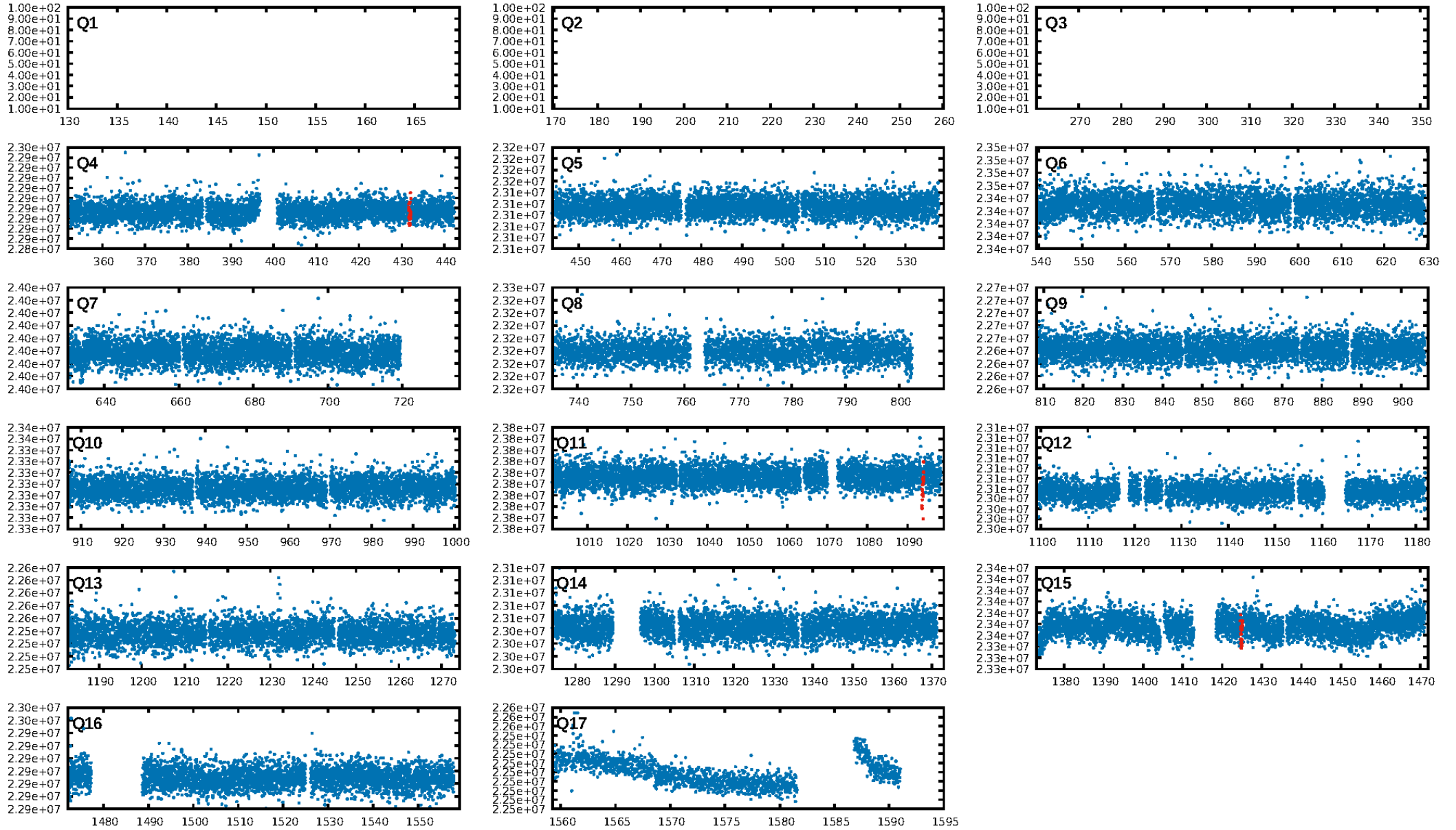
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 23.2%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 3.25e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.063
Centroid-sig: 30.6%
Centroid-so: 1.406 arcsec [0.92 σ]
OotOffset-rm: 3.231 arcsec [5.69 σ]
KicOffset-rm: 3.297 arcsec [5.82 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

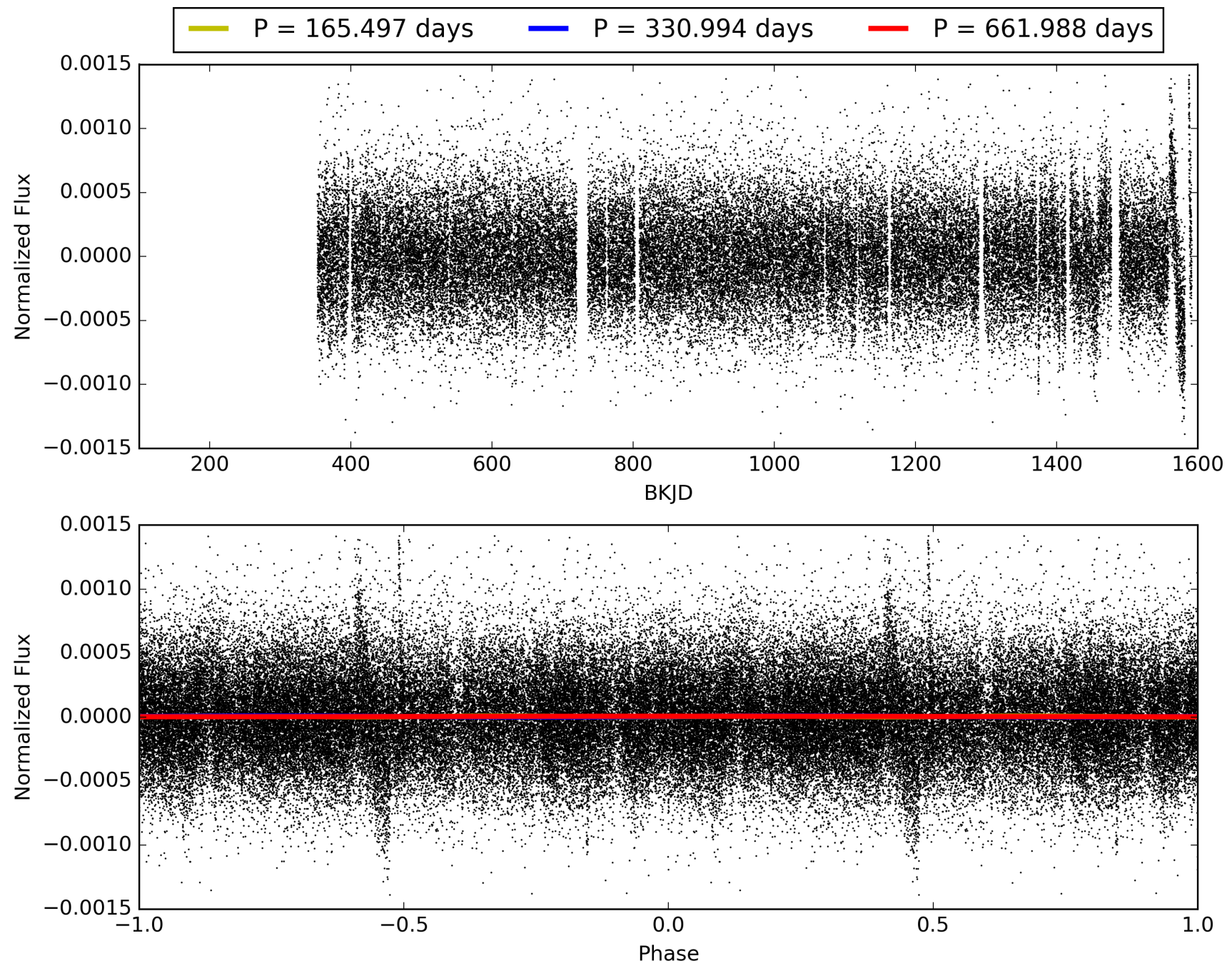
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:21:28 Z

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

TCE 006530836-01, PDC Light Curves

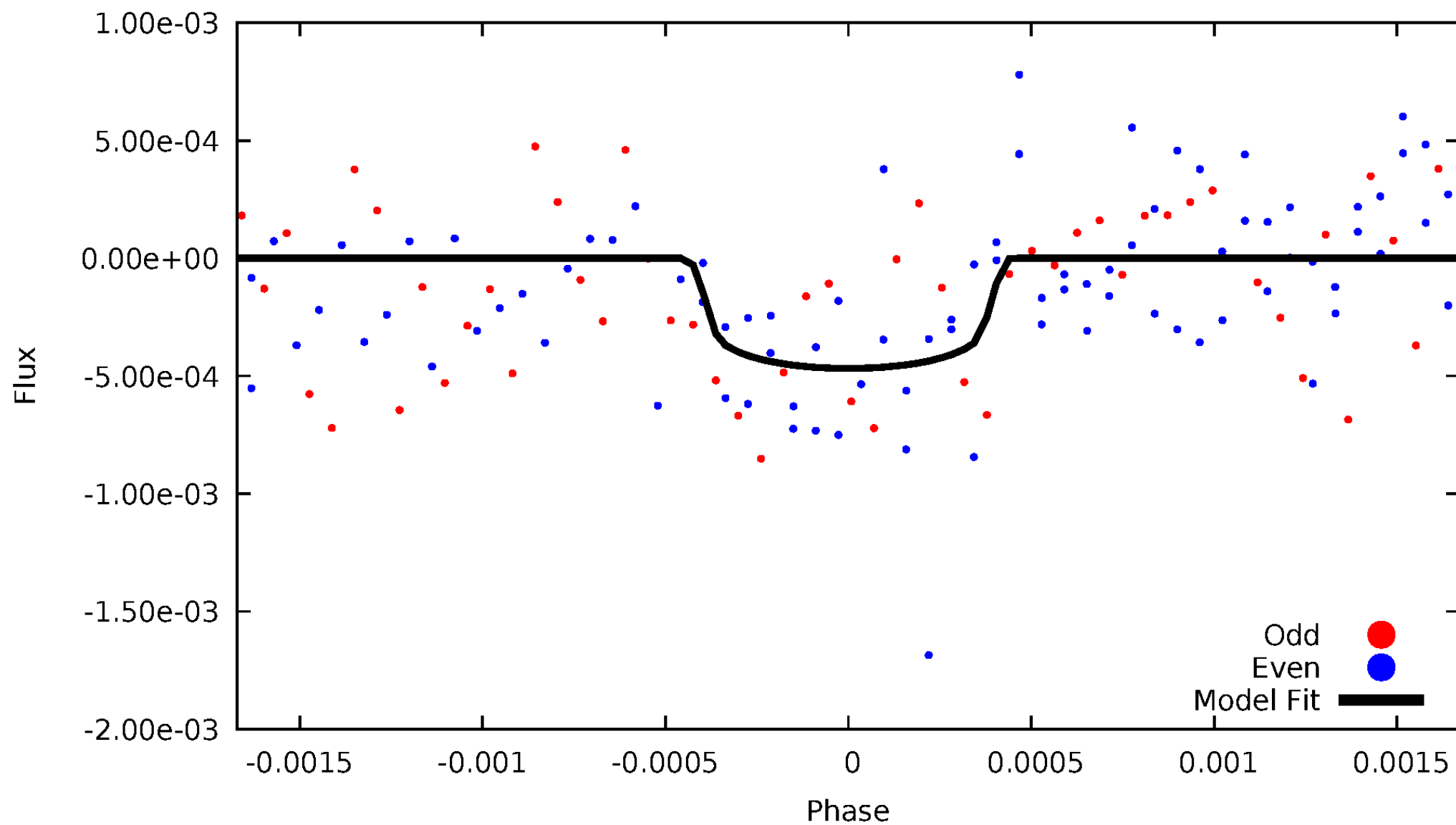


TCE 006530836-01



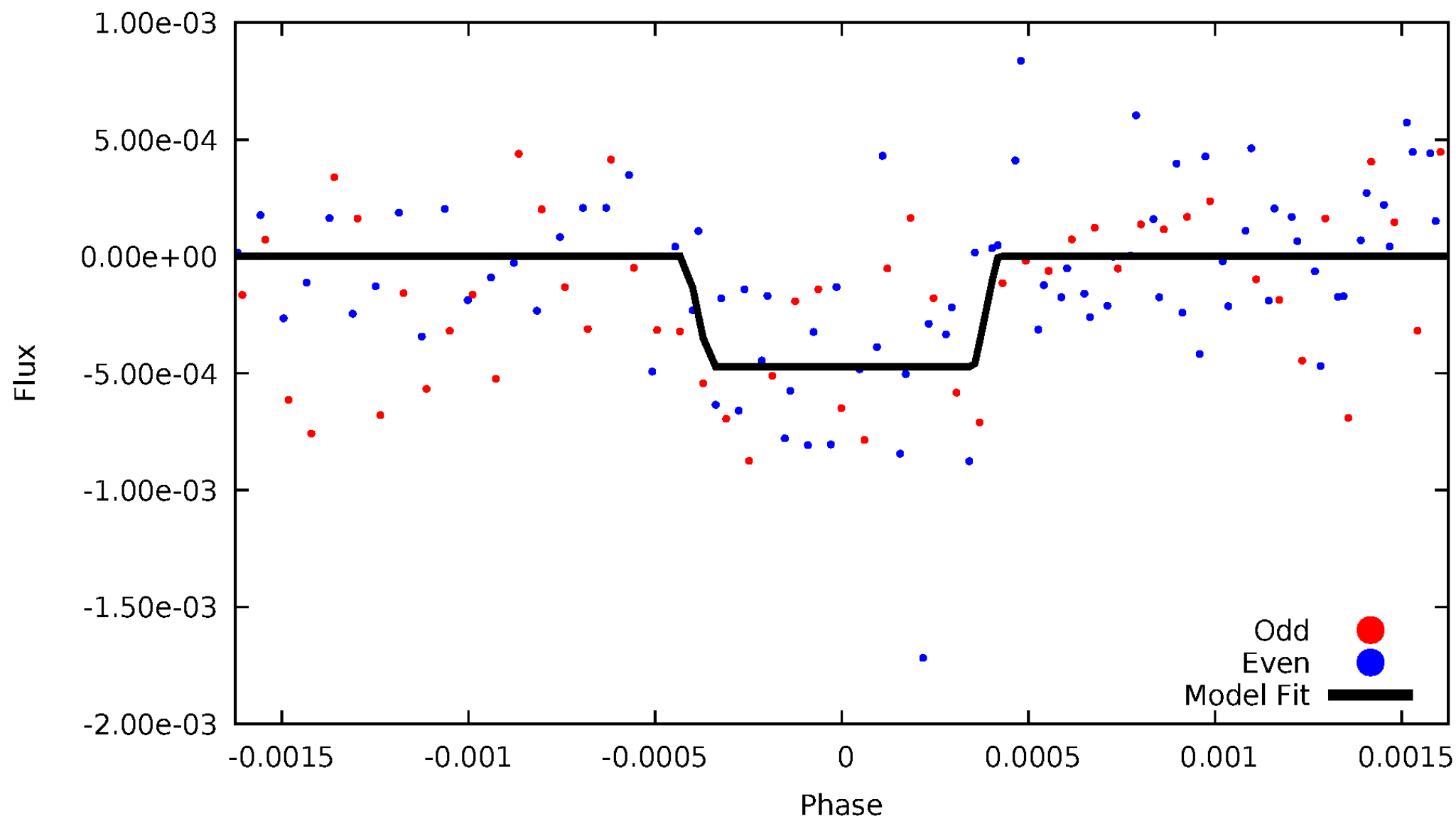
DV Odd/Even

TCE 006530836-01

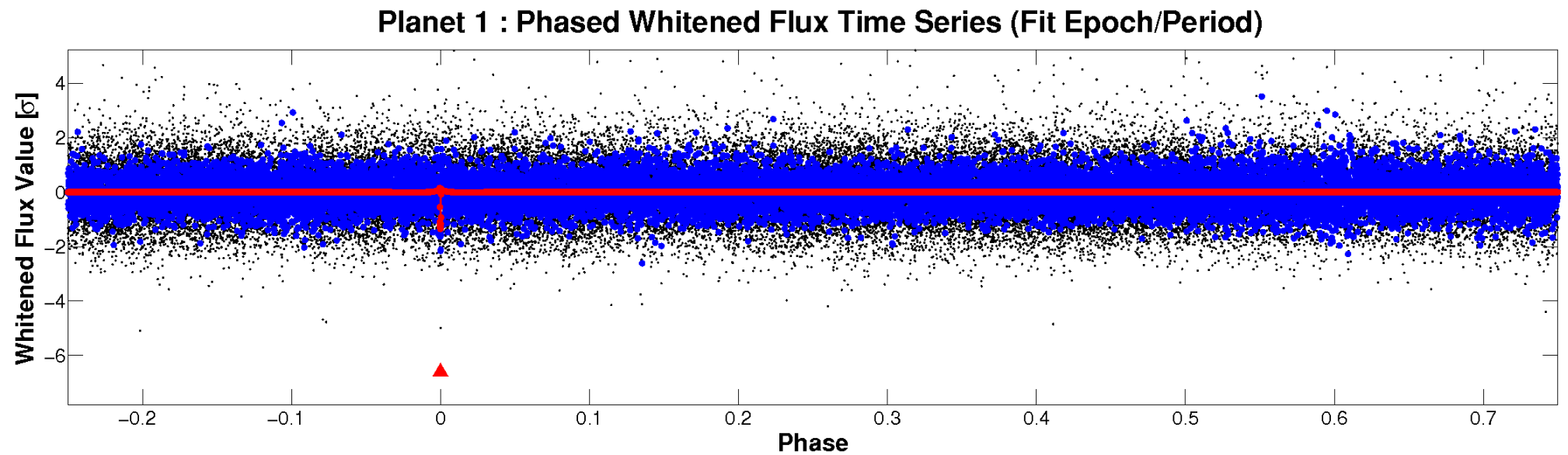
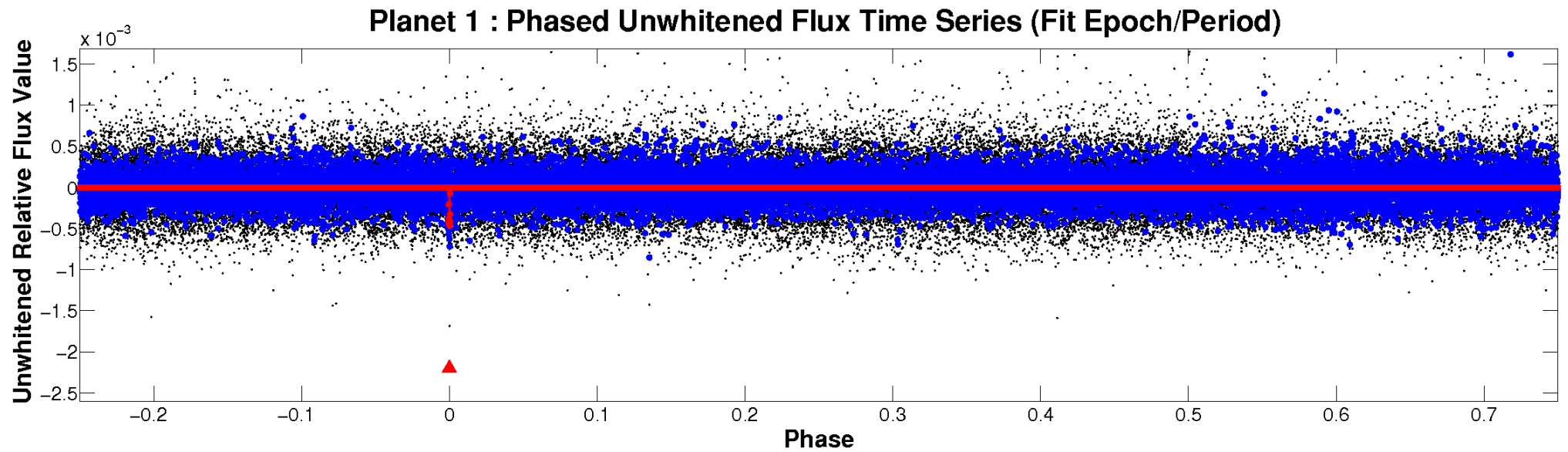


ALT Odd/Even

TCE 006530836-01

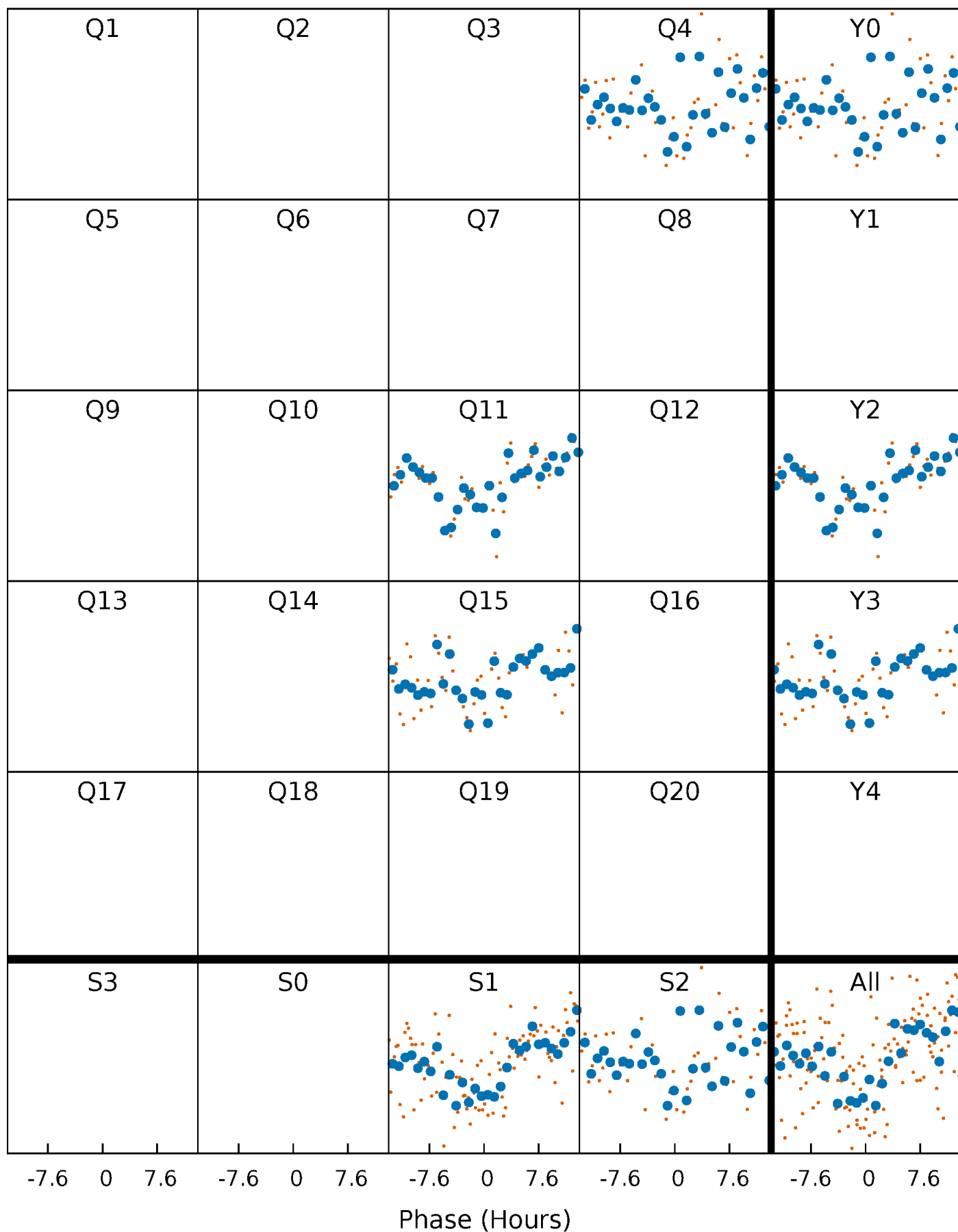


Non-Whitened Vs. Whitened Light Curve



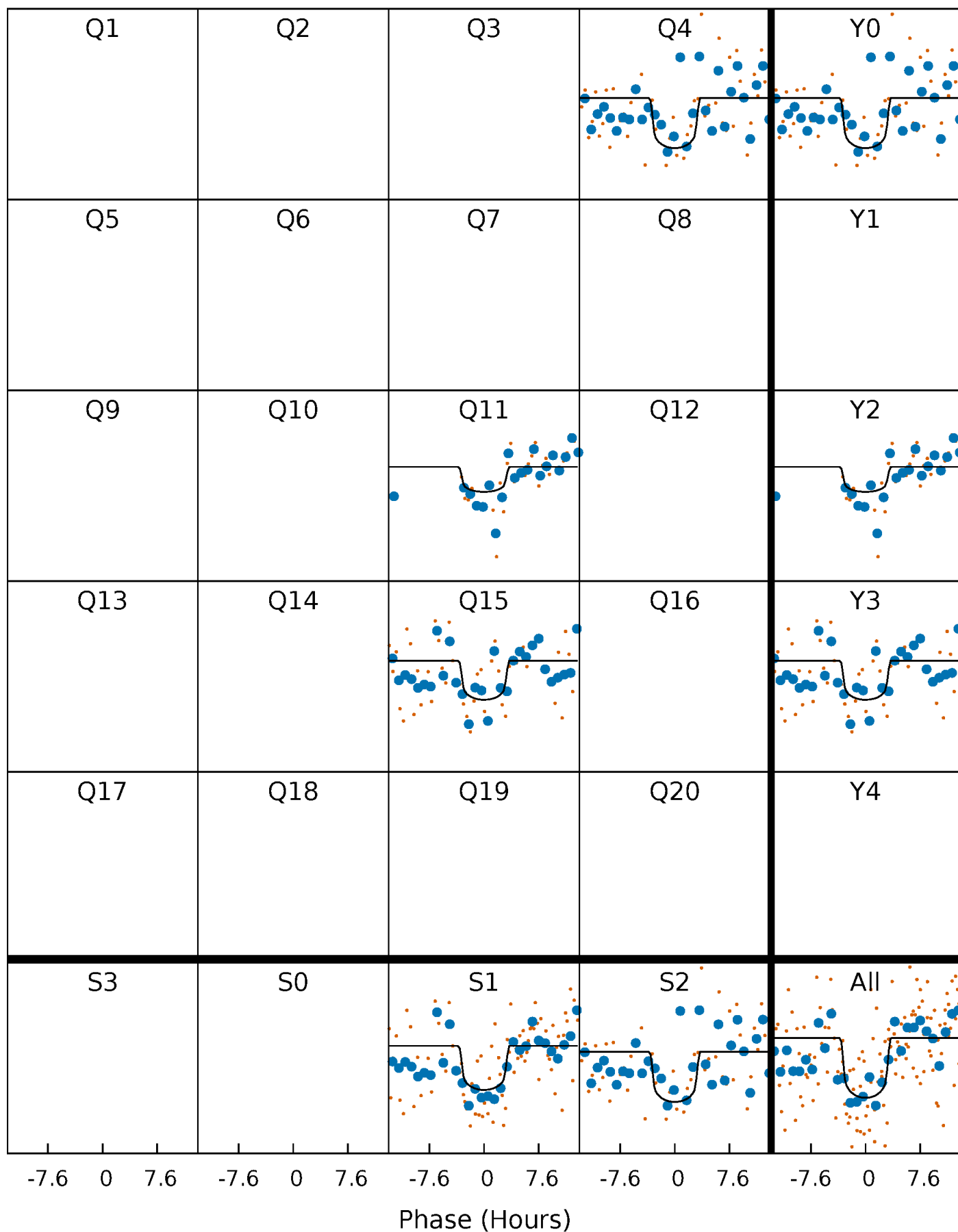
PDC Quarter-Phased Transit Curves

TCE 006530836-01 P=330.993980 Days $T_0=431.871790$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006530836-01 P=330.993980 Days $T_0=431.871790$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

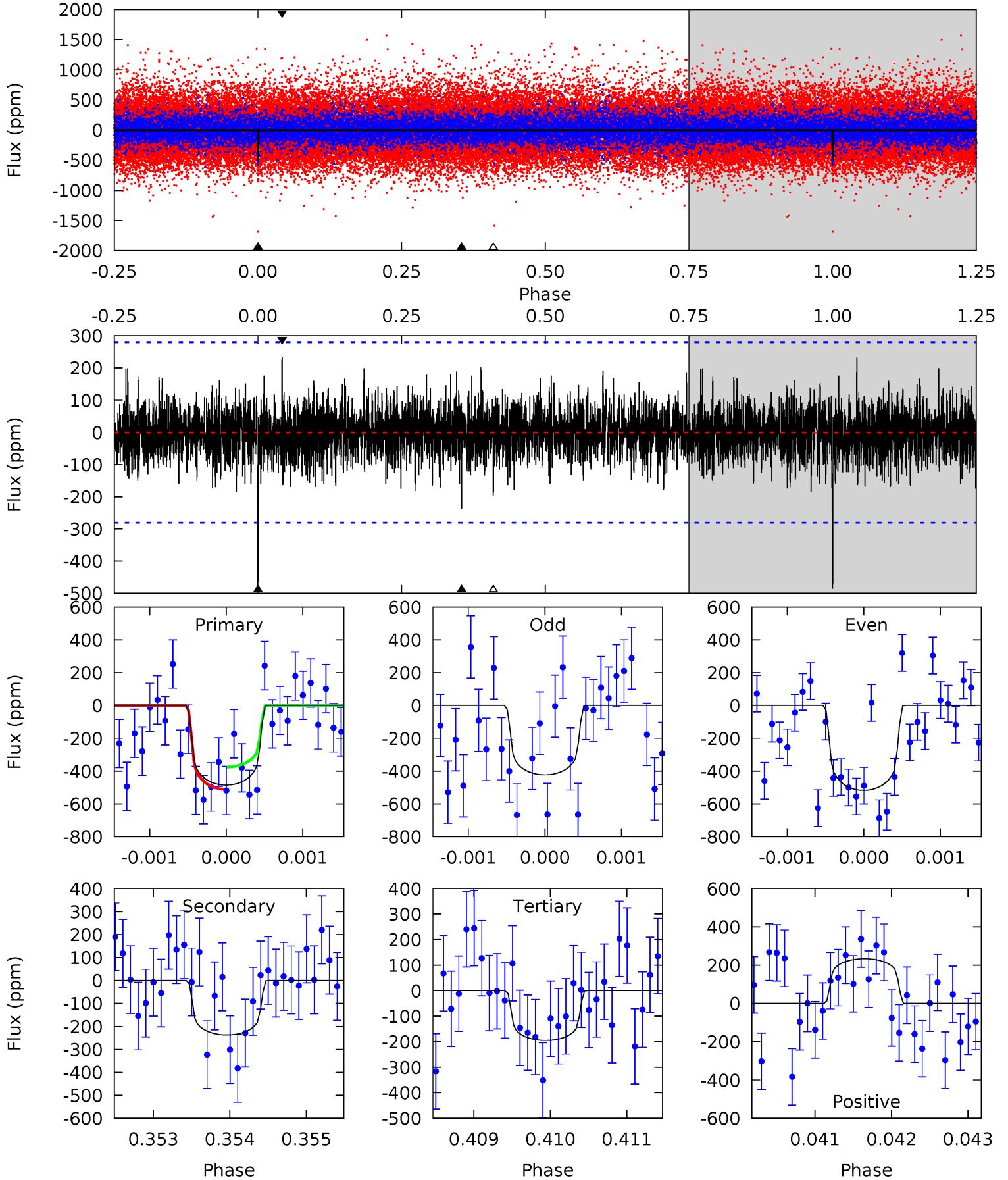
TCE 006530836-01 P=330.996427 Days $T_0=431.867474$ (BKJD)



DV Model-Shift Uniqueness Test

006530836-01, P = 330.993980 Days, E = 100.877810 Days

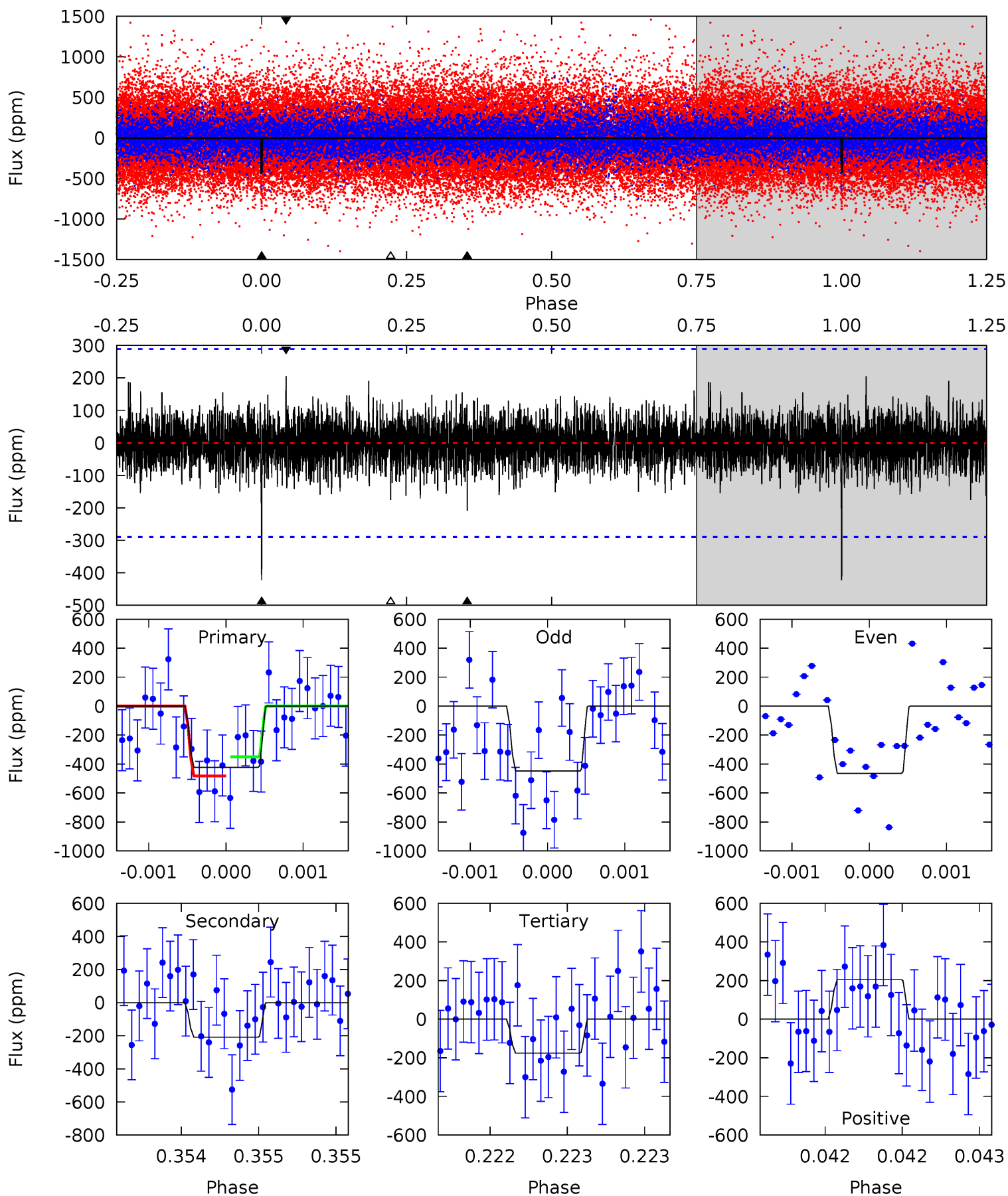
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.48	4.63	3.81	4.56	5.48	3.33	1.09	5.68	4.92	0.83	0.07	0.87	1.17	0.32	1.31



Alt Model-Shift Uniqueness Test

006530836-01, P = 330.996427 Days, E = 100.871047 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.02	3.96	3.33	3.89	5.49	3.35	0.93	4.69	4.13	0.63	0.06	0.15	1.04	0.33	1.25



Stellar Parameters For KIC 006530836

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5985^{+197}_{-197}	$4.528^{+0.060}_{-0.180}$	$-0.580^{+0.300}_{-0.300}$	$0.837^{+0.218}_{-0.078}$	$0.862^{+0.099}_{-0.081}$	$2.071^{+0.627}_{-0.947}$
	+3%/-3%	+1%/-4%	+52%/-52%	+26%/-9%	+11%/-9%	+30%/-46%
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 006530836-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-237 ± 51	$2.23^{+1.70}_{-1.33}$	364^{+22}_{-17}	4930^{+3078}_{-965}	$20045^{+105871}_{-13727}$
Alt.	-209 ± 53	$2.25^{+1.60}_{-1.42}$	363^{+25}_{-17}	4758^{+2932}_{-866}	17774^{+99141}_{-11877}

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

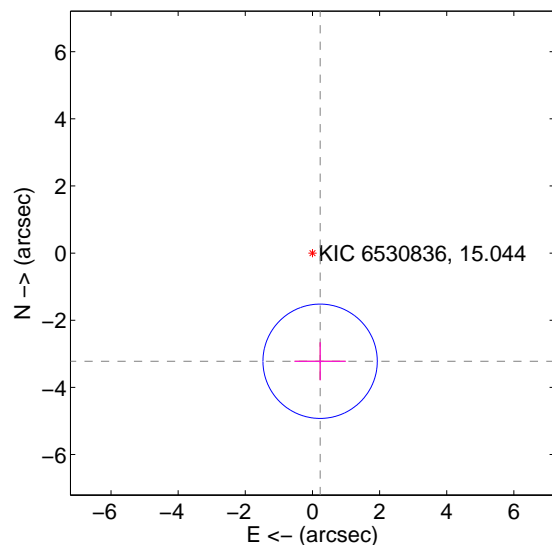
Supplemental centroid analysis for 006530836-01. Kepler magnitude: 15.04. Transit SNR 7.12

There are 0 quarters with good PRF difference image offsets

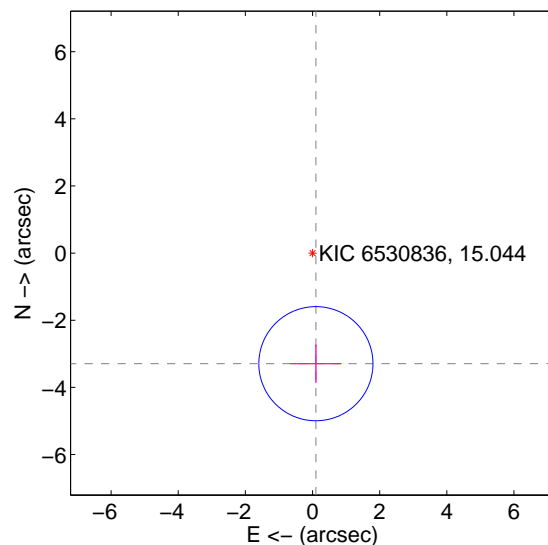
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.231 ± 0.568	5.69	-0.229 ± 0.762	-3.223 ± 0.567
PRF-fit source offset from KIC position	3.297 ± 0.567	5.82	-0.100 ± 0.762	-3.295 ± 0.567
photometric centroid source offset	1.41 ± 1.53	0.92	-1.41 ± 1.53	-0.02 ± 1.62

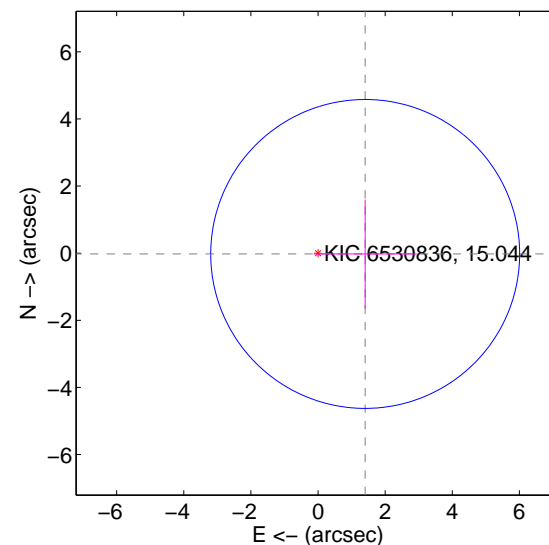
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

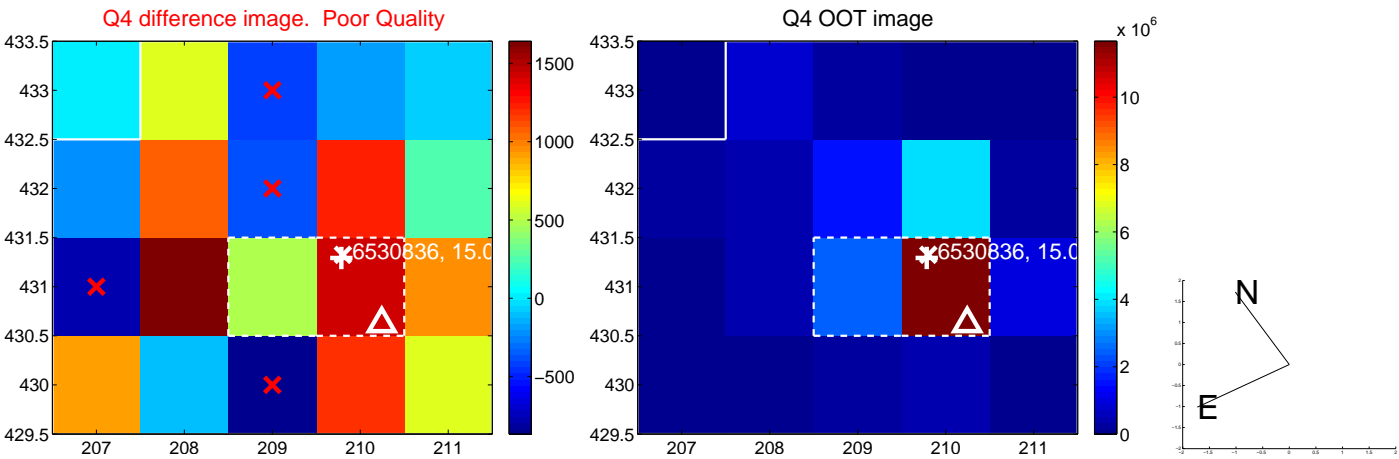


offset from photometric centroids



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.



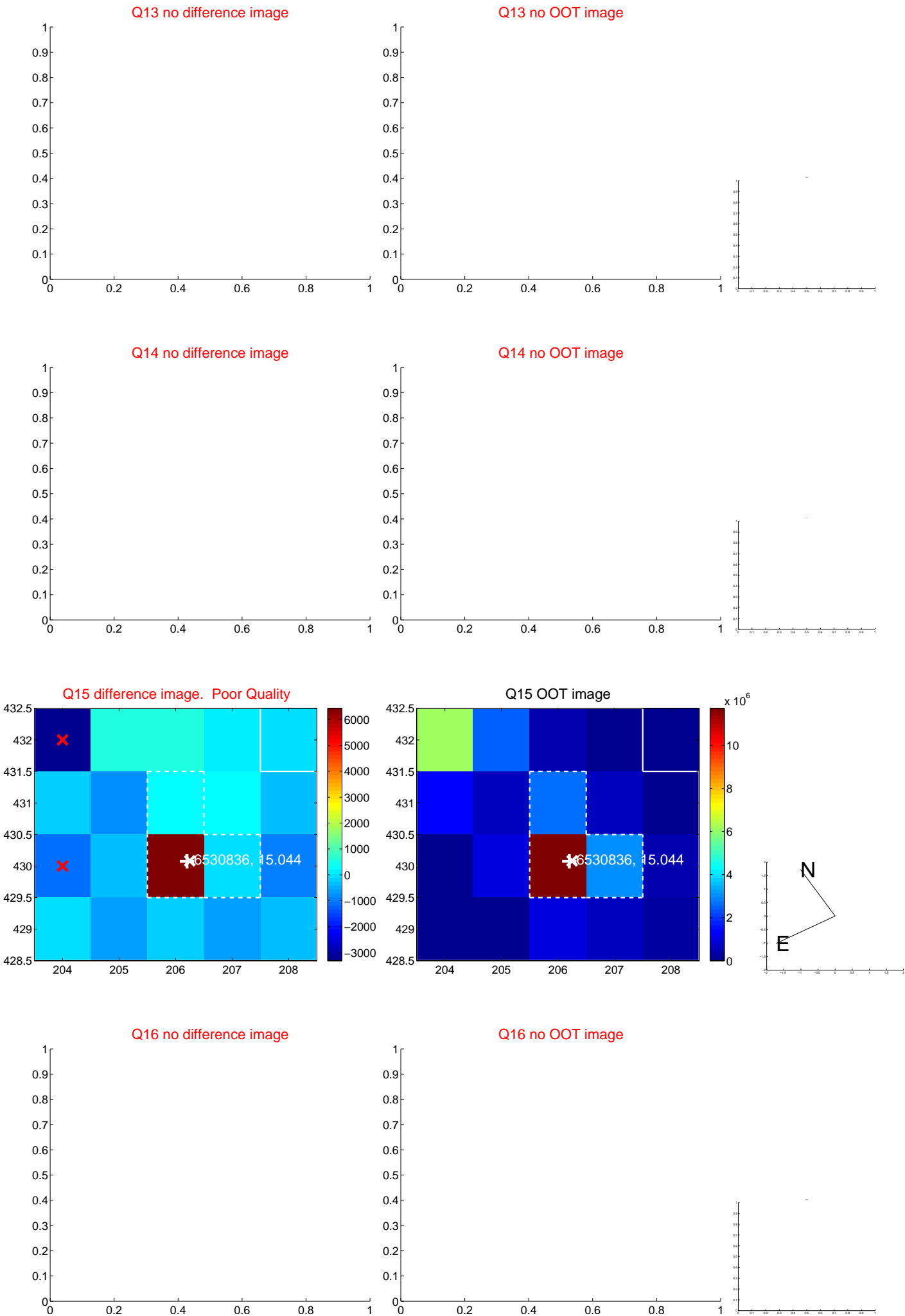
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



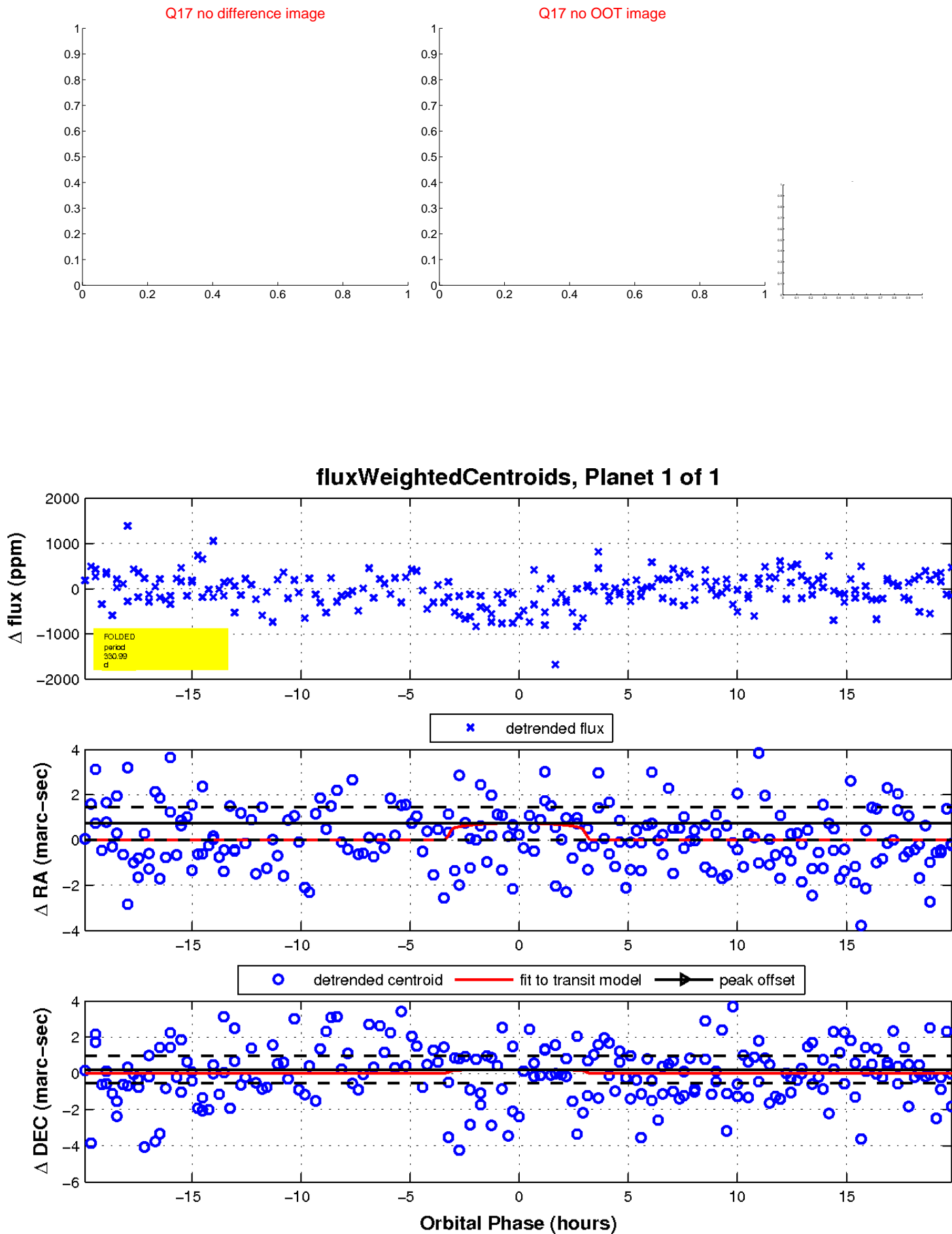
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

