

KIC 005706341

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})
005706341-01	OBS	No	326.174424	187.872776	411.2	12.164	21.0	9.8	8.37	5284	19.46	38.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005706341-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_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.

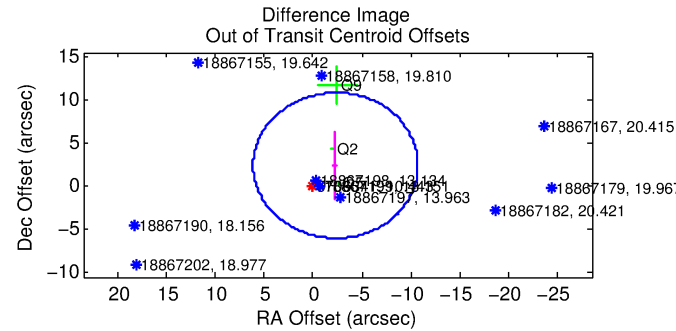
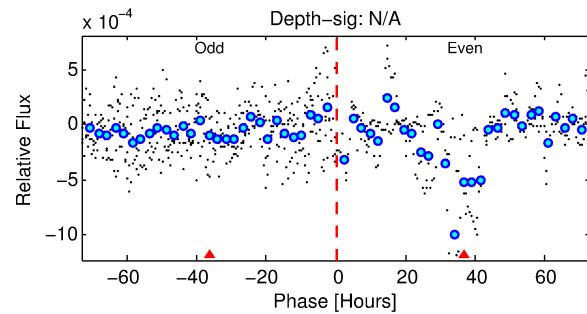
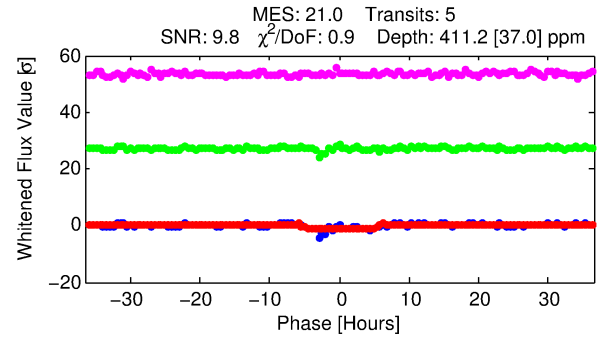
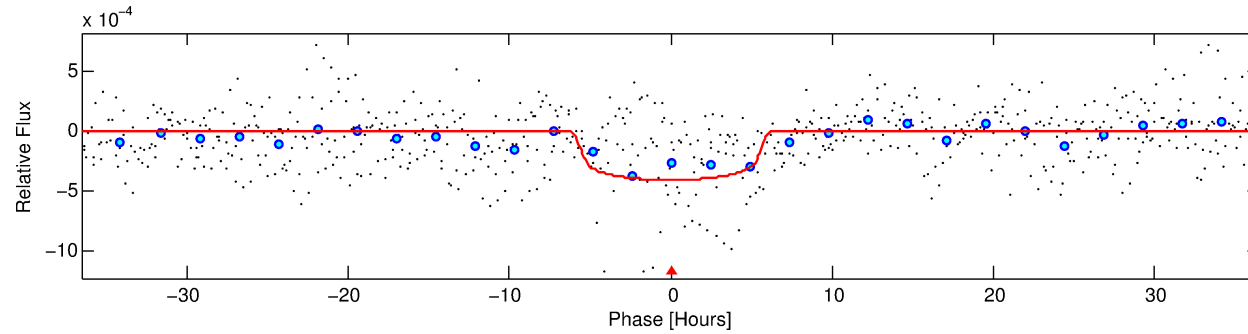
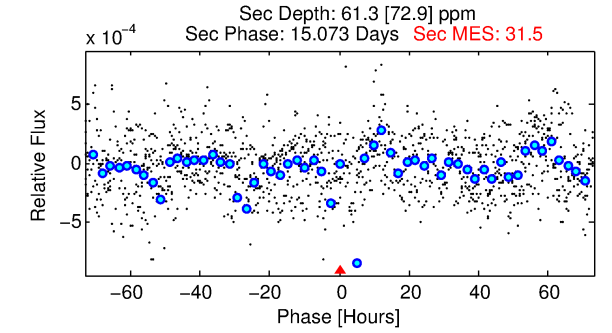
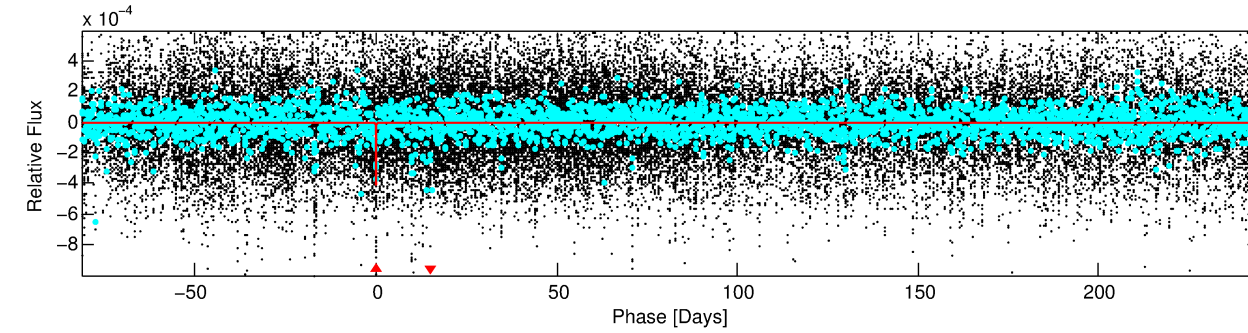
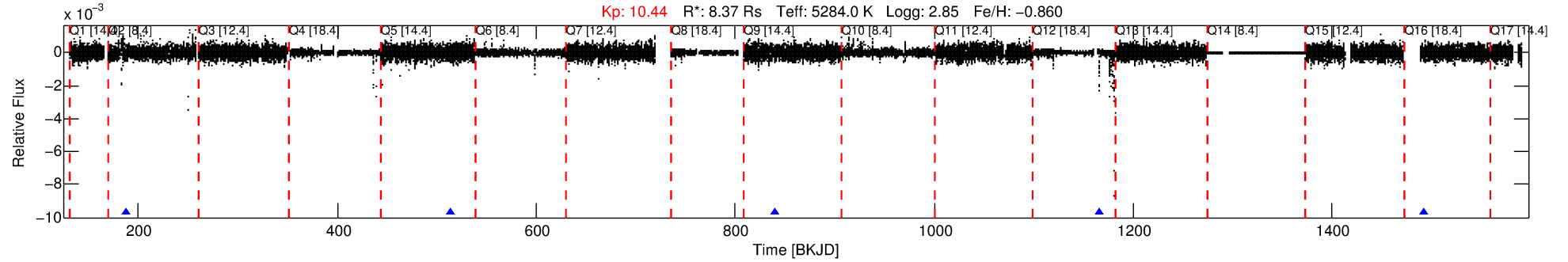
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005706341-01

No Significant Match Found

DV One-Page Summary

KIC: 5706341 Candidate: 1 of 1 Period: 326.174 d



DV Fit Results:

Period = 326.17442 [0.00390] d
Epoch = 187.8728 [0.0111] BKJD
Rp/R* = 0.0213 [0.0014]
a/R* = 113.33 [22.86]
b = 0.86 [0.06]
Seff = 38.00 [6.42]
Teq = 633 [27] K
Rp = 19.46 [4.52] Re
a = 1.1341 [0.1706] AU
Ag = 114.61 [138.14] [0.82 σ]
Teffp = 3203 [958] K [2.68 σ]

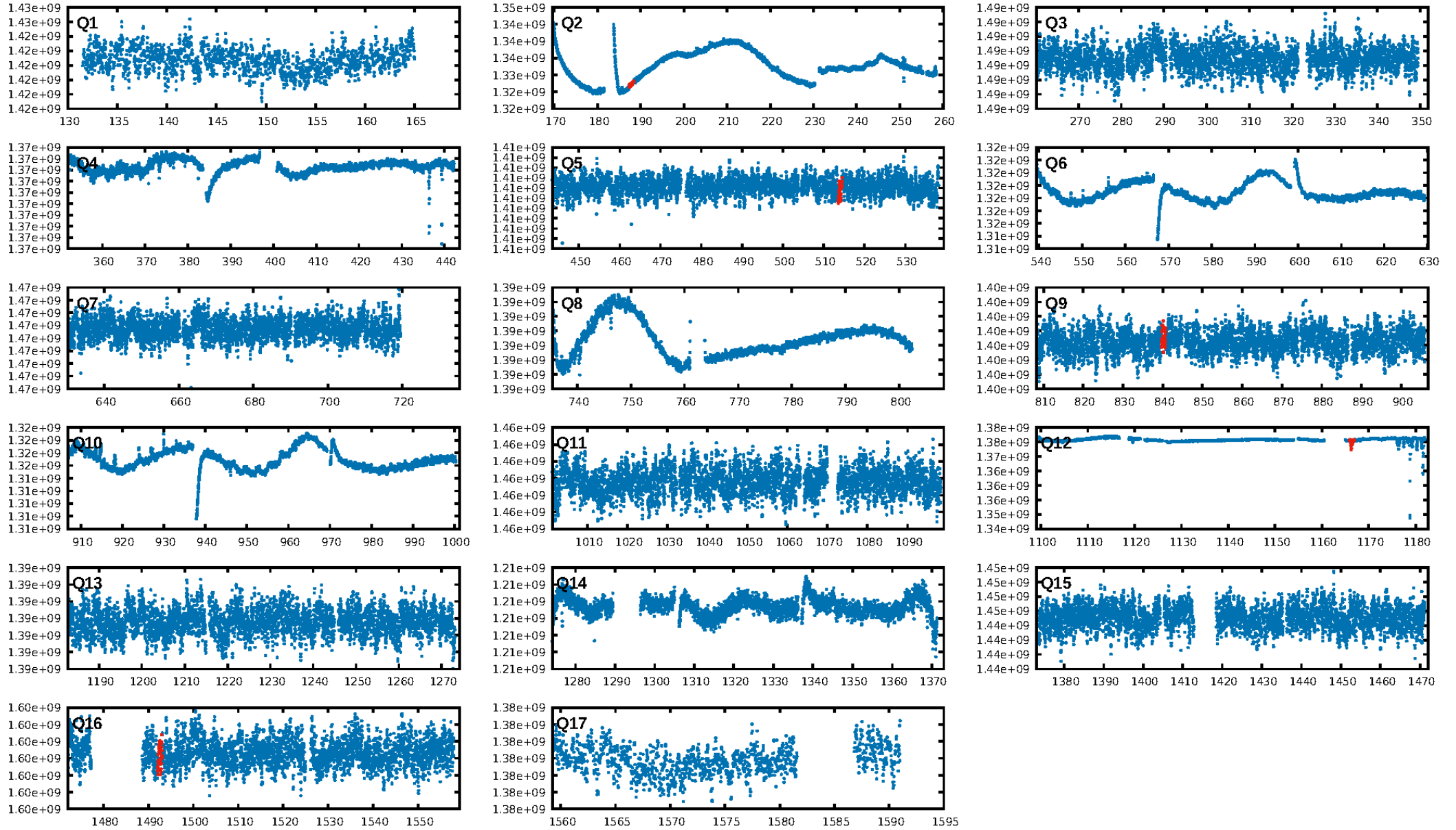
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 4.67e-09
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 2.467
Centroid-sig: 68.8%
Centroid-so: 0.181 arcsec [0.31 σ]
OotOffset-rm: 3.321 arcsec [1.18 σ]
KicOffset-rm: 3.634 arcsec [1.64 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [4/4]

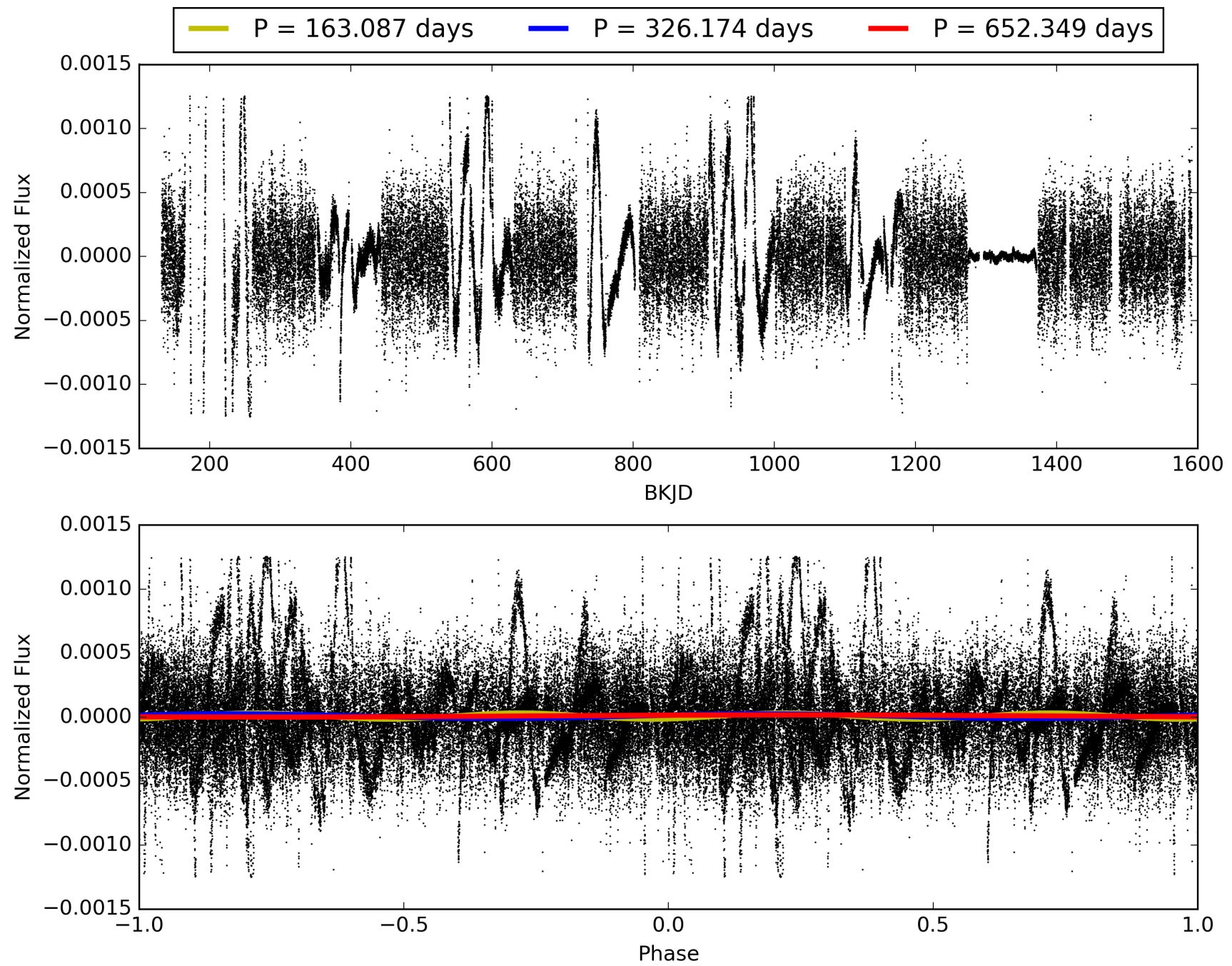
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:41:03 Z

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

TCE 005706341-01, PDC Light Curves

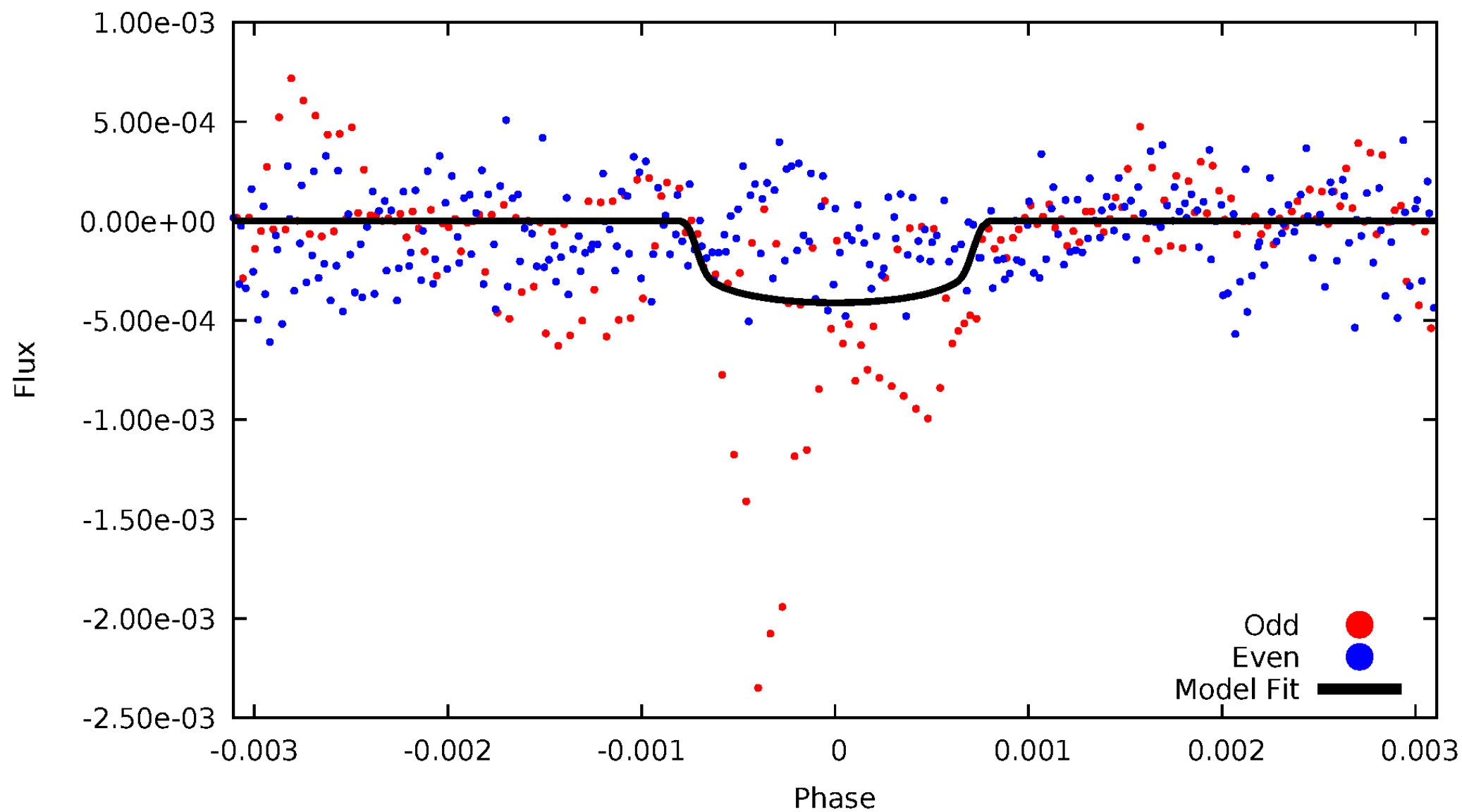


TCE 005706341-01



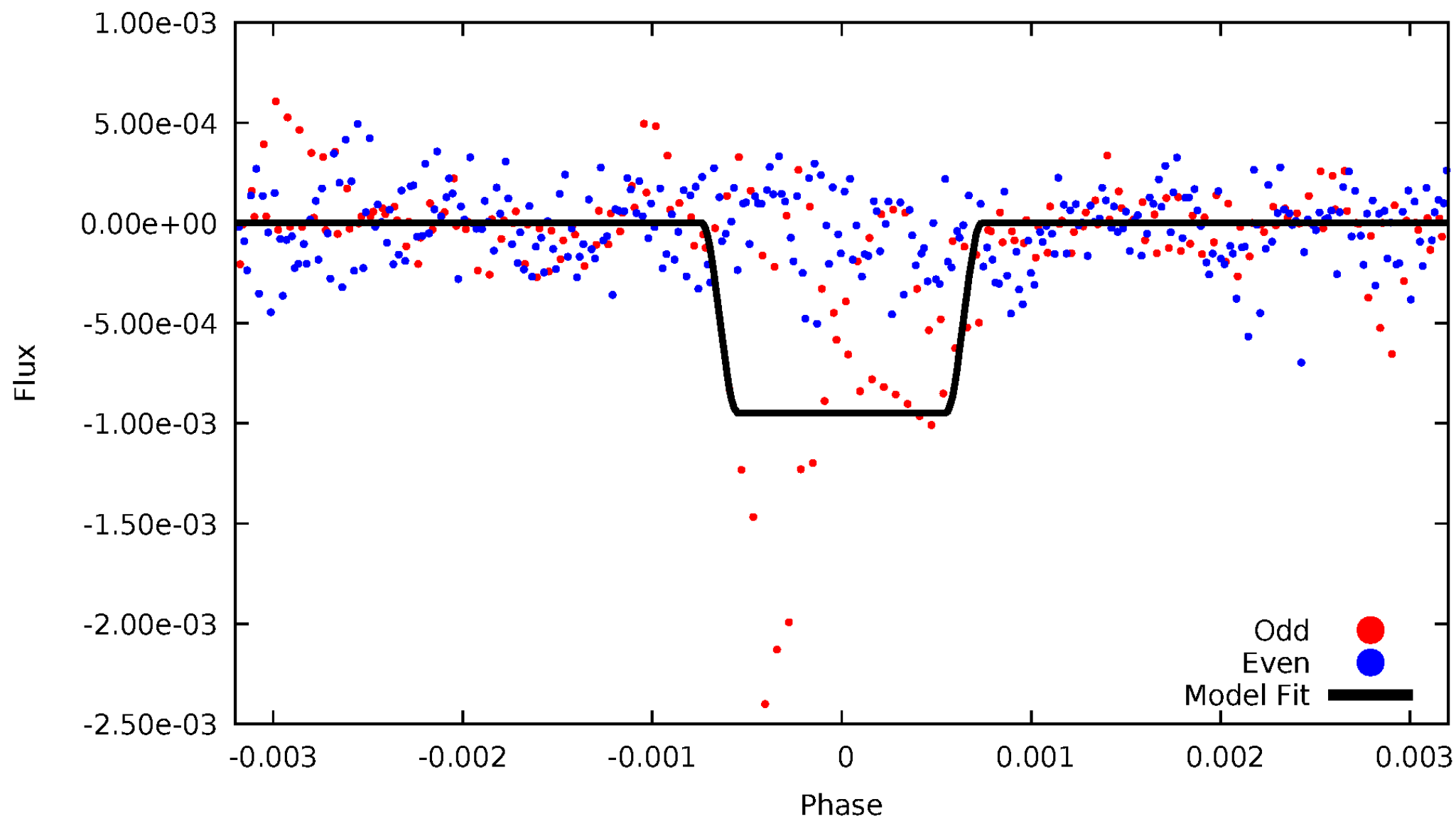
DV Odd/Even

TCE 005706341-01



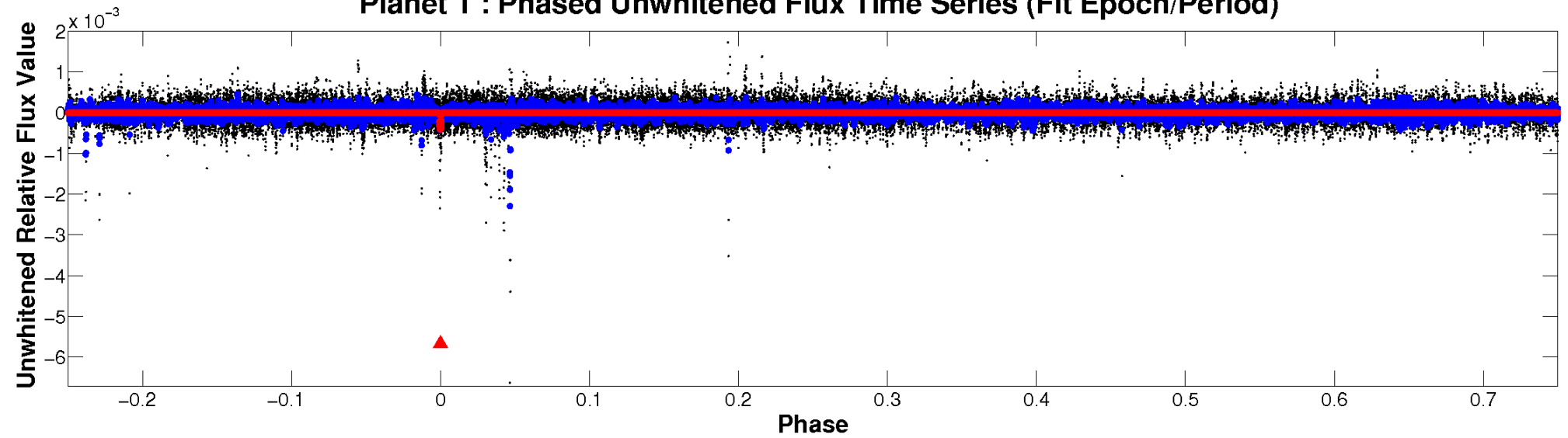
ALT Odd/Even

TCE 005706341-01

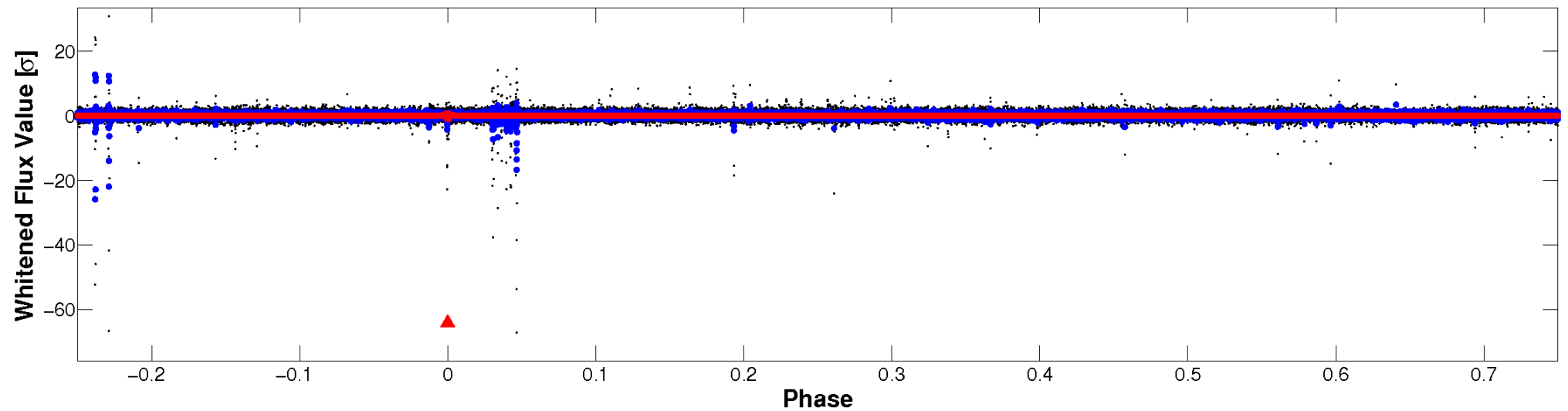


Non-Whitened Vs. Whitened Light Curve

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

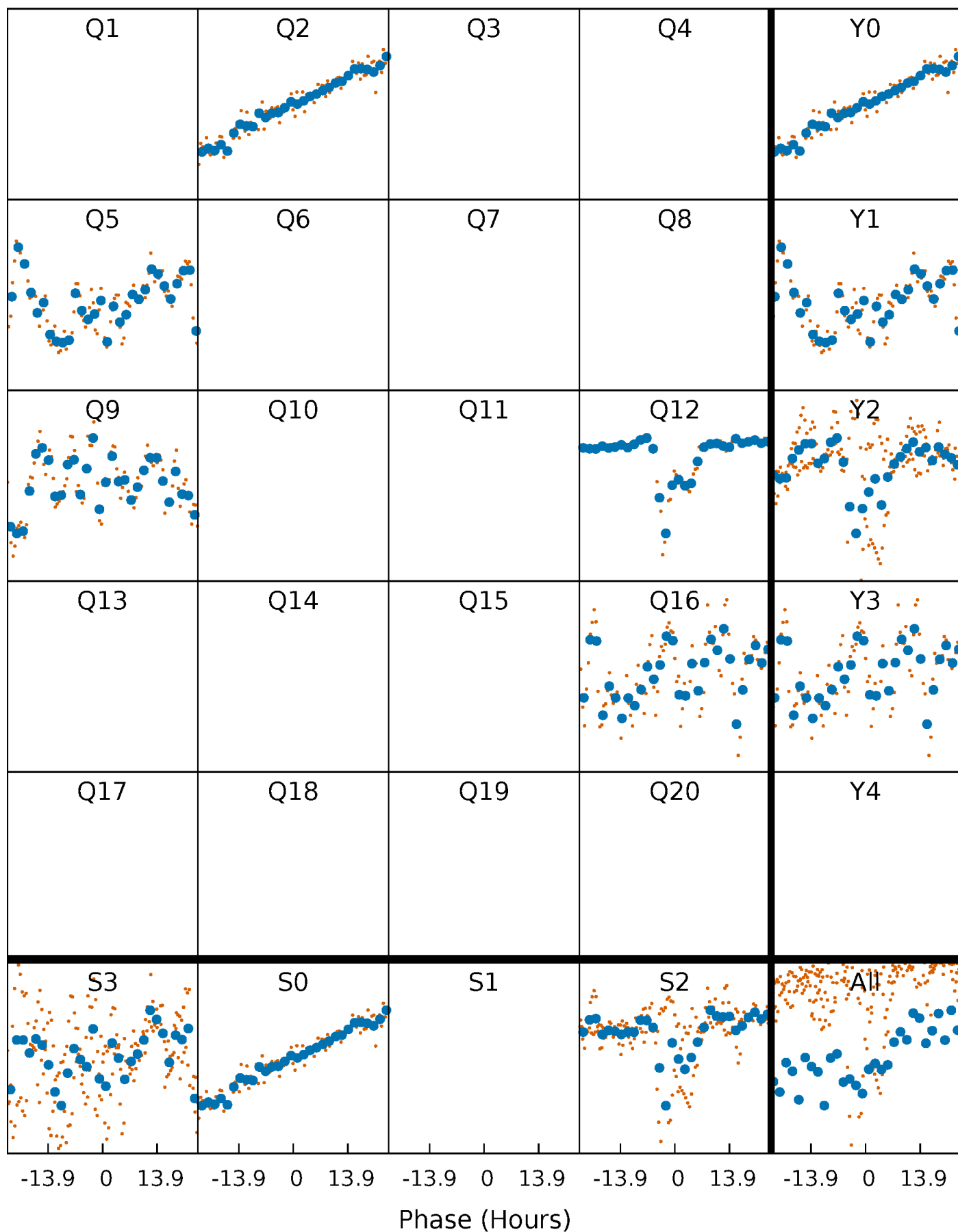


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



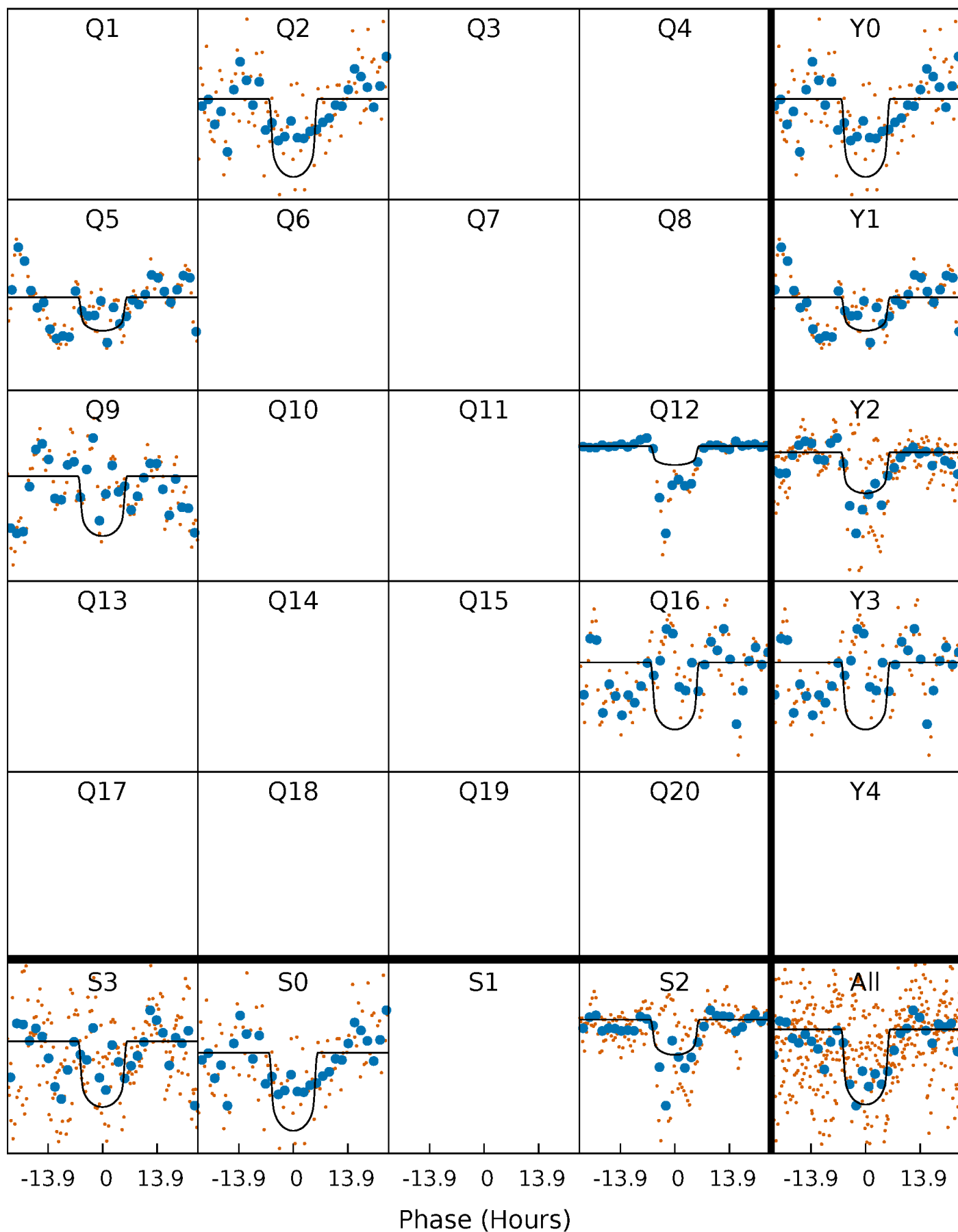
PDC Quarter-Phased Transit Curves

TCE 005706341-01 P=326.174424 Days $T_0=187.872776$ (BKJD)



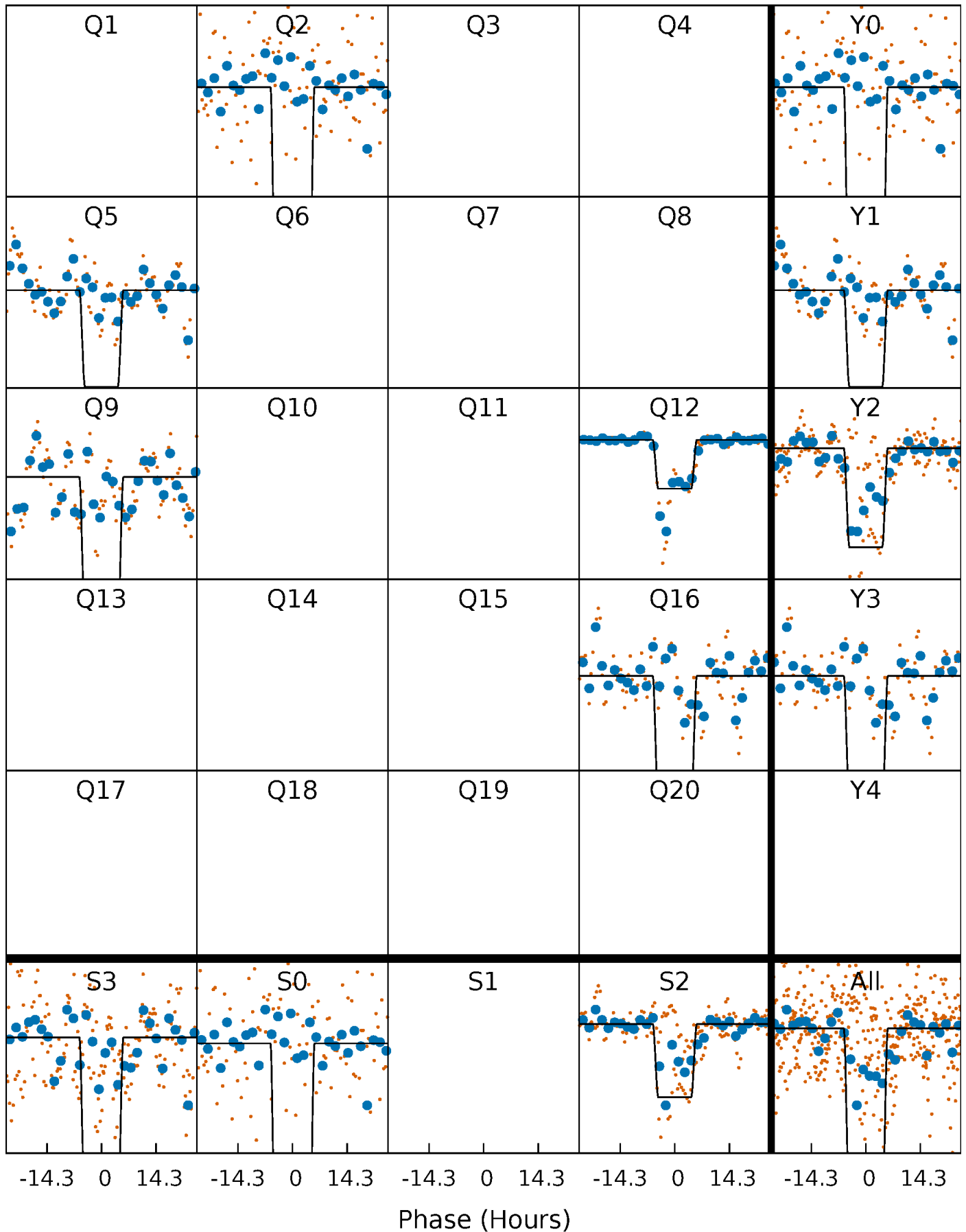
DV Quarter-Phased Transit Curves

TCE 005706341-01 P=326.174424 Days $T_0=187.872776$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

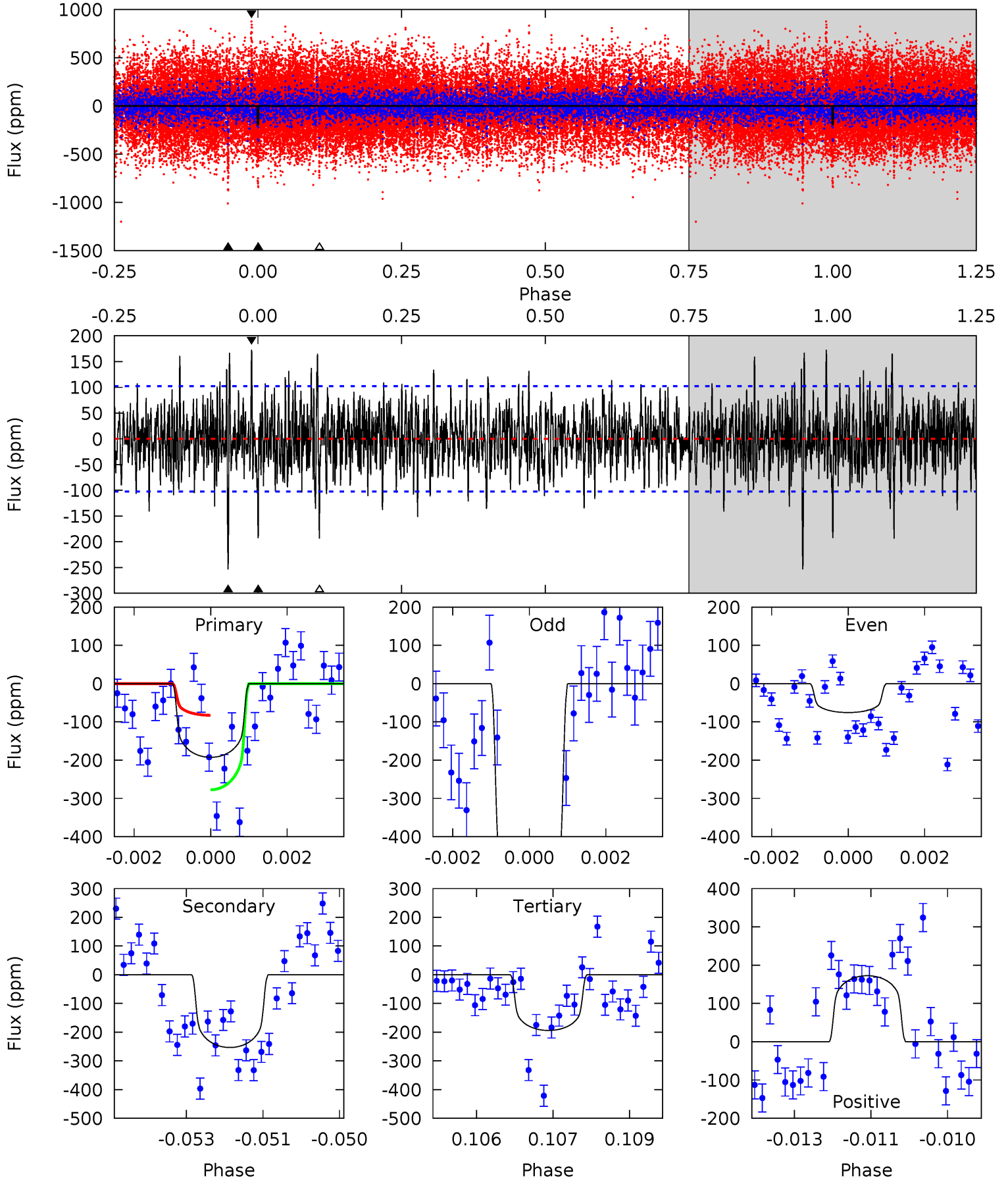
TCE 005706341-01 P=326.146862 Days $T_0=187.957904$ (BKJD)



DV Model-Shift Uniqueness Test

005706341-01, $P = 326.174424$ Days, $E = 187.872776$ Days

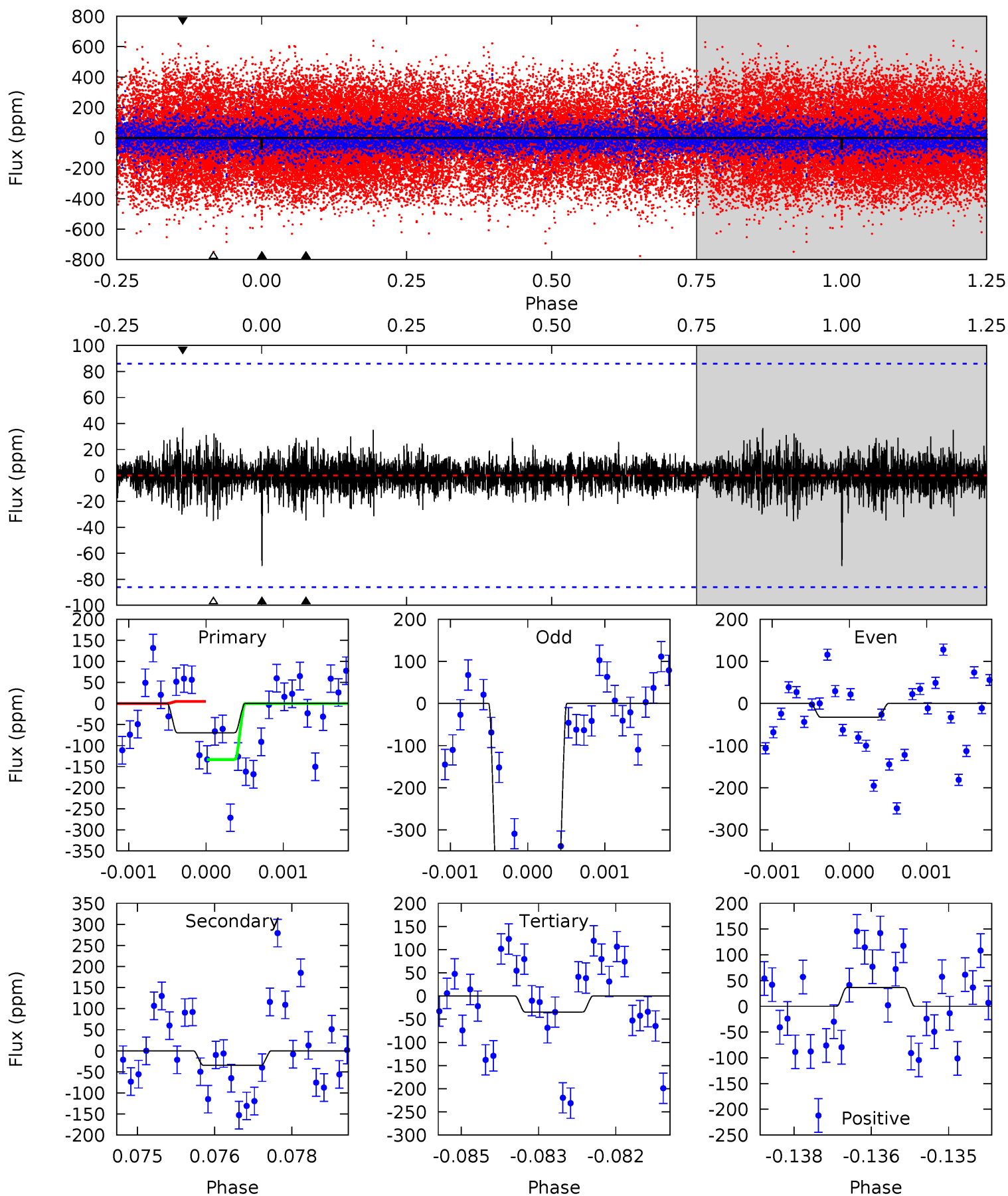
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	13.3	10.2	9.05	5.37	3.16	2.42	-0.07	1.05	3.11	4.24	14.0	1.57	0.41	5.18



Alt Model-Shift Uniqueness Test

005706341-01, P = 326.146862 Days, E = 187.957904 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	2.17	2.17	2.28	5.38	3.18	0.53	2.20	2.09	0.00	-0.11	16.7	3.29	0.34	4.06



Stellar Parameters For KIC 005706341

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5284^{+47}_{-87}	$2.855^{+0.030}_{-0.030}$	$-0.860^{+0.150}_{-0.350}$	$8.365^{+0.329}_{-1.865}$	$1.824^{+0.080}_{-0.761}$	$0.004^{+0.001}_{-0.000}$
	+1%/-2%	+1%/-1%	+17%/-41%	+4%/-22%	+4%/-42%	+34%/-7%
Source	PHO56	AST56	PHO56	DSEP		

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

Secondary Eclipse Parameters for KIC 005706341-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-253 ± 19	$19.61^{+1.44}_{-1.46}$	885^{+13}_{-18}	4661^{+161}_{-142}	473^{+77}_{-67}
Alt.	-35 ± 16	$28.51^{+1.50}_{-1.90}$	885^{+13}_{-20}	2965^{+170}_{-254}	31^{+14}_{-16}

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

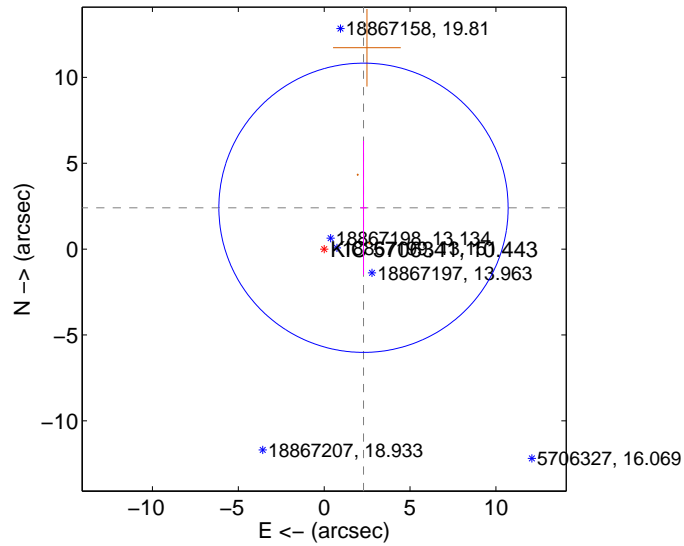
Supplemental centroid analysis for 005706341-01. **Kepler magnitude: 10.44.** Transit SNR 9.76

There are 0 quarters with good PRF difference image offsets

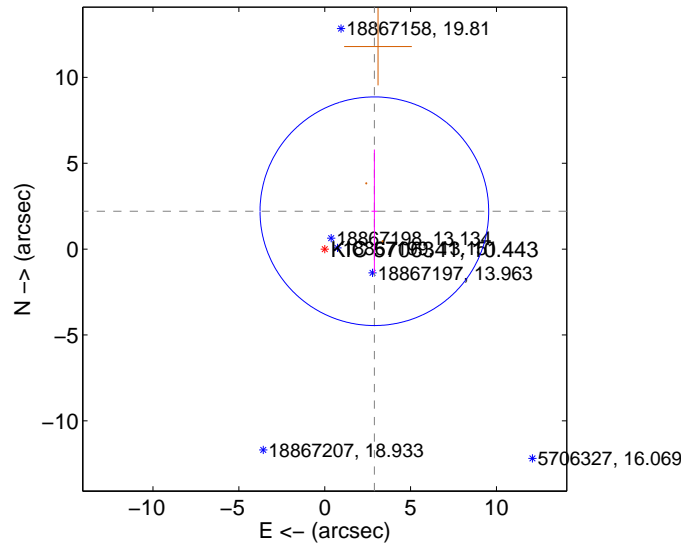
The direct PRF centroid is offset from the target star catalog position by about 0.62 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.321 ± 2.807	1.18	-2.289 ± 0.188	2.406 ± 3.901
PRF-fit source offset from KIC position	3.634 ± 2.219	1.64	-2.889 ± 0.165	2.205 ± 3.591
photometric centroid source offset	0.18 ± 0.59	0.31	0.06 ± 0.42	-0.17 ± 0.61

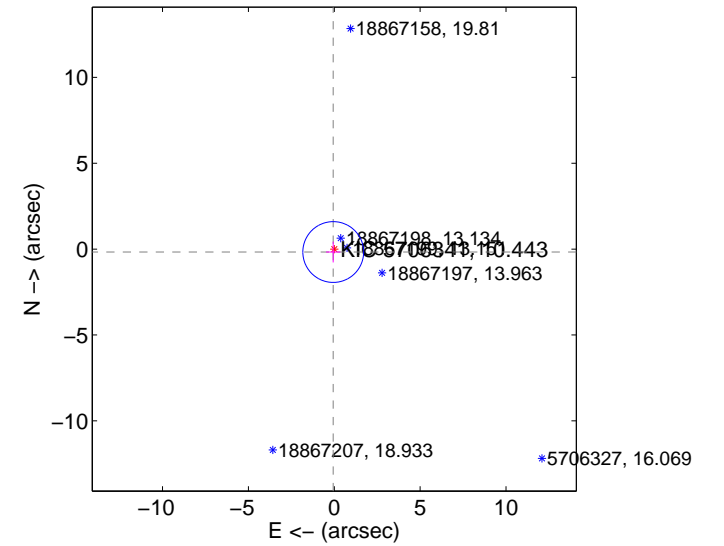
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

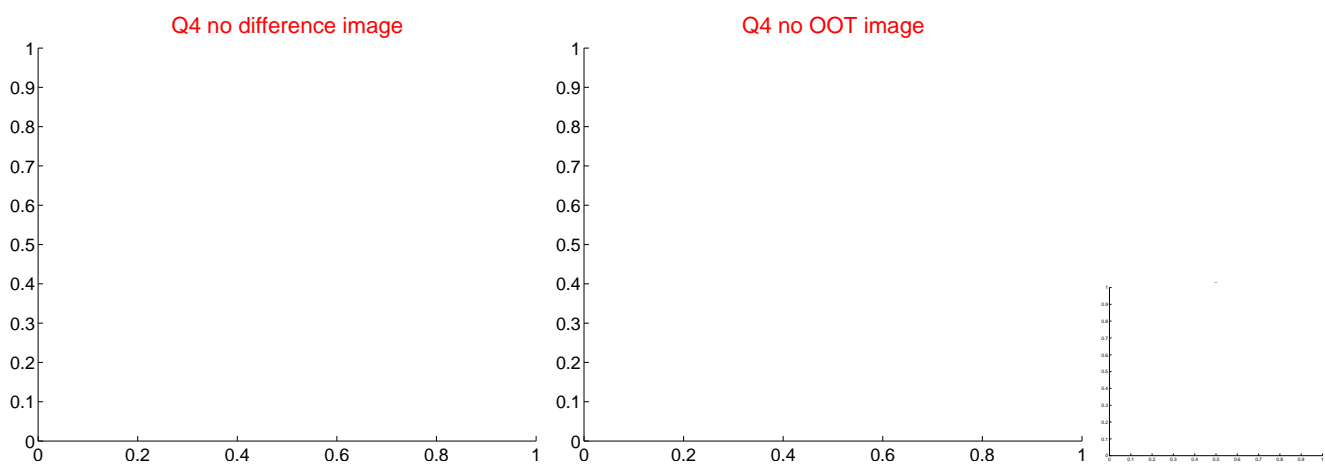
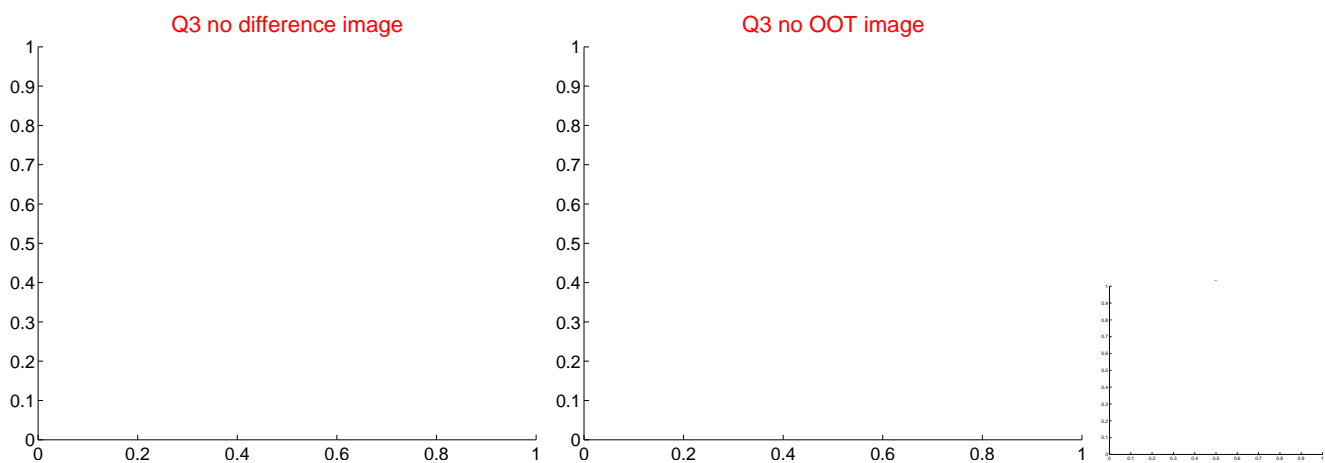
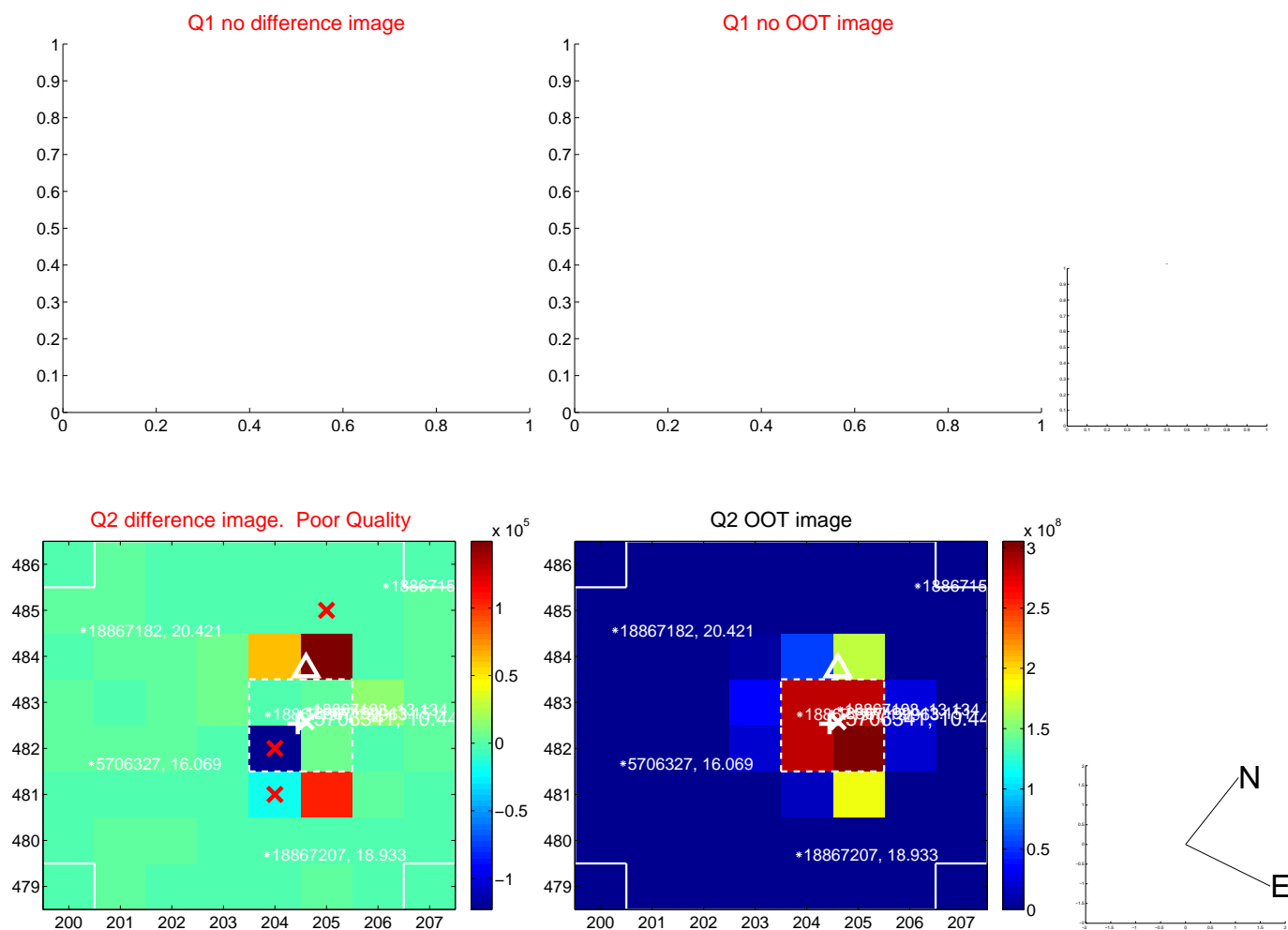


offset from photometric centroids

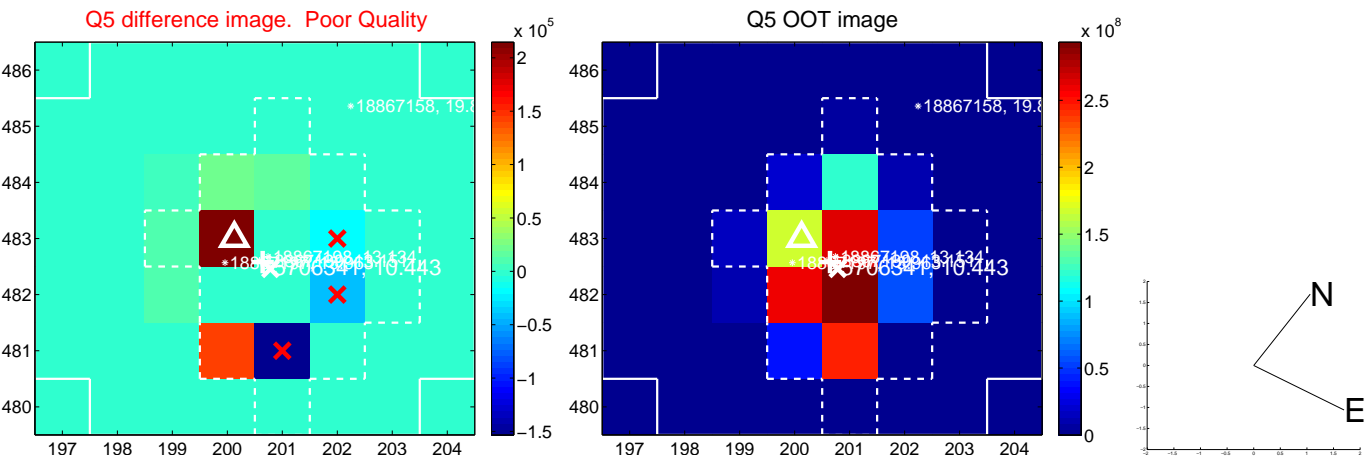


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

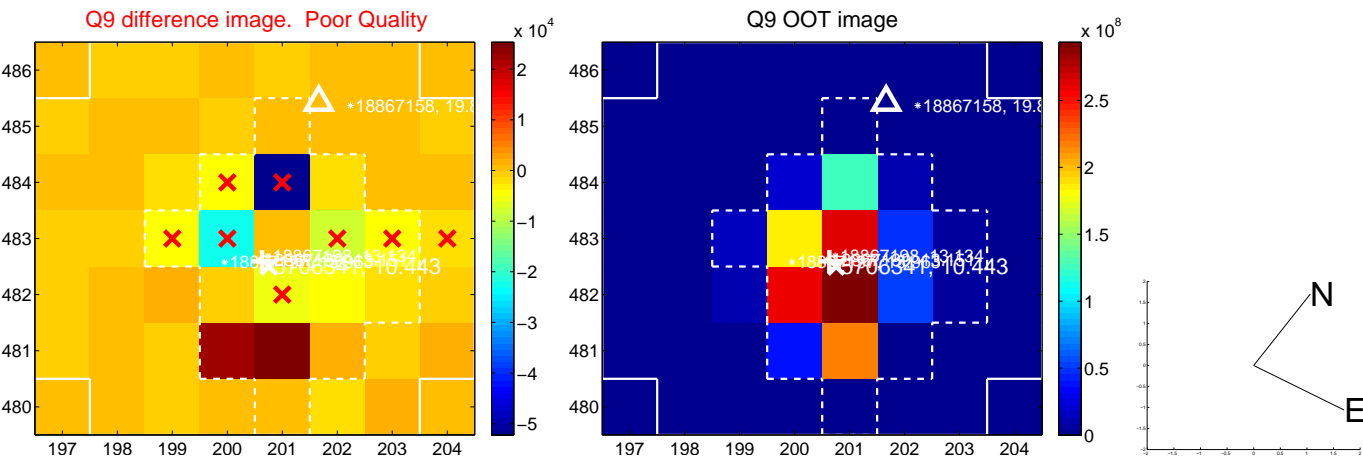
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



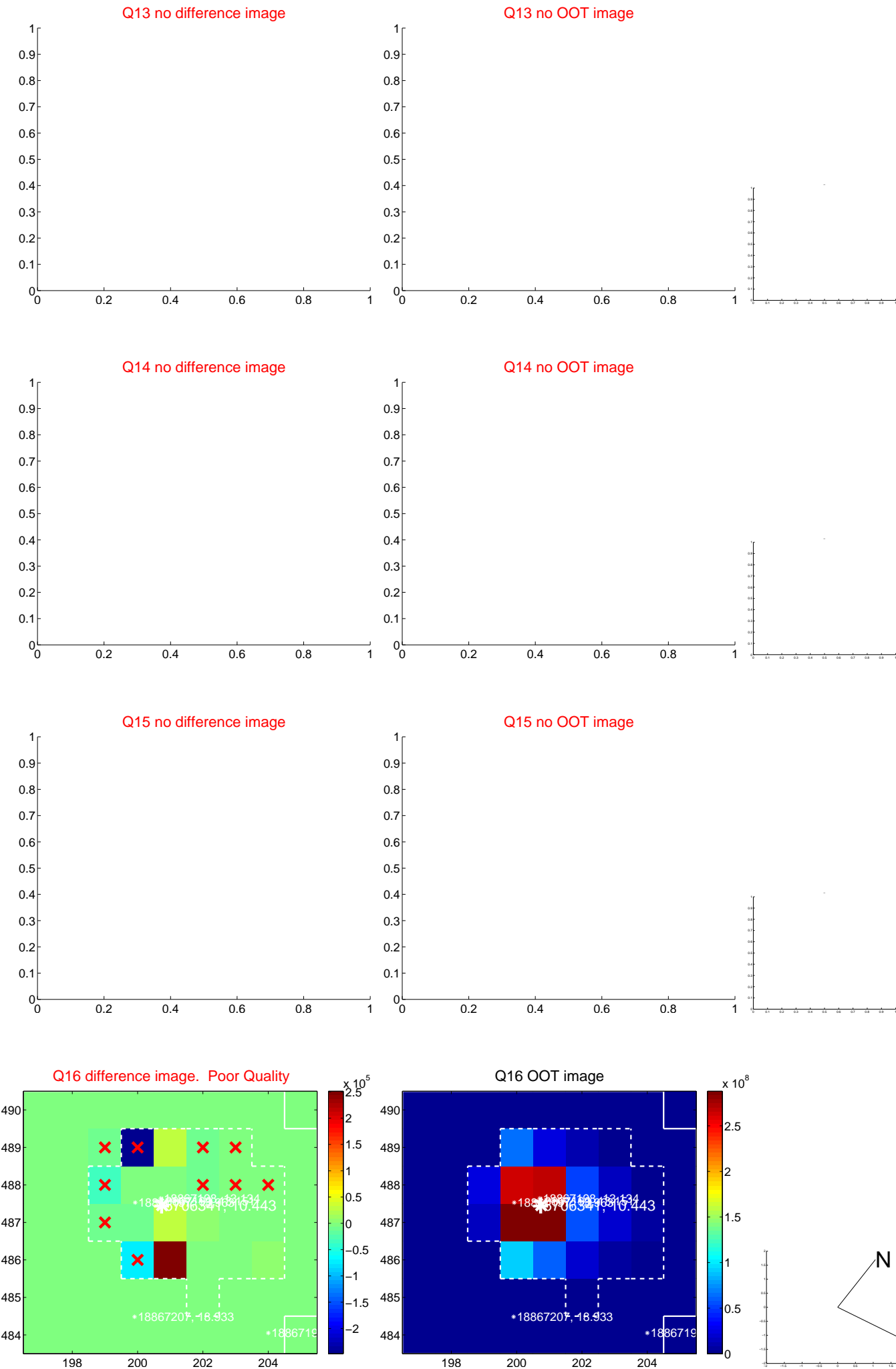
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



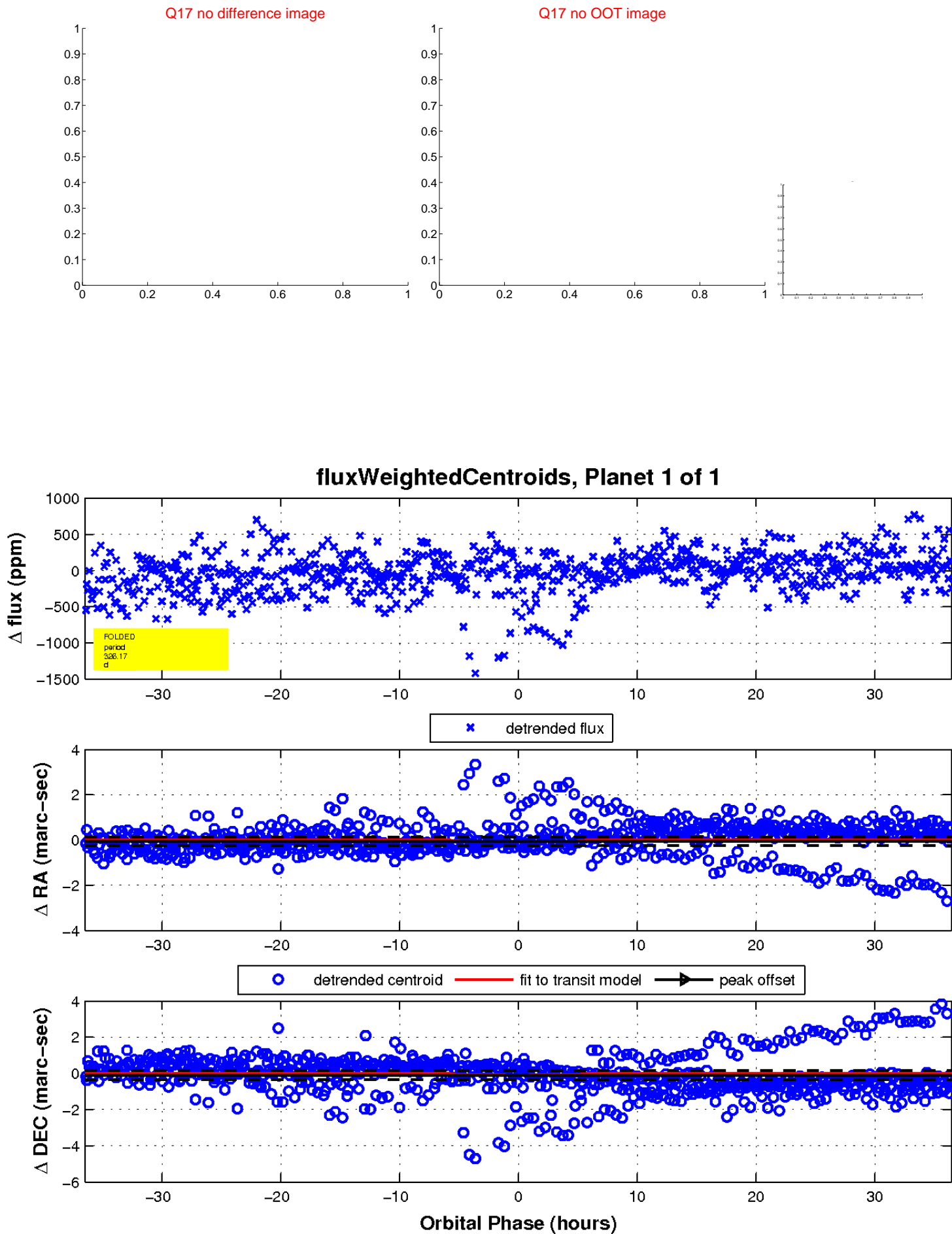
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

