

KIC 011507705

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})
011507705-01	OBS	No	292.386235	149.911176	173.9	3.224	8.7	7.5	1.40	6367	2.22	3.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011507705-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

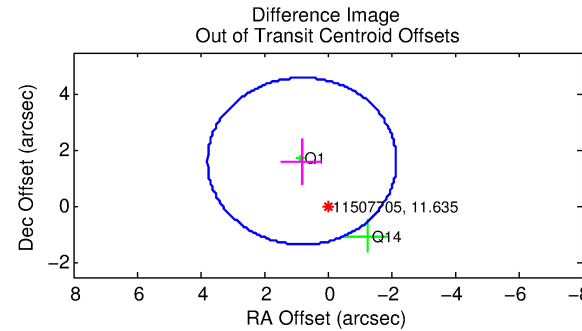
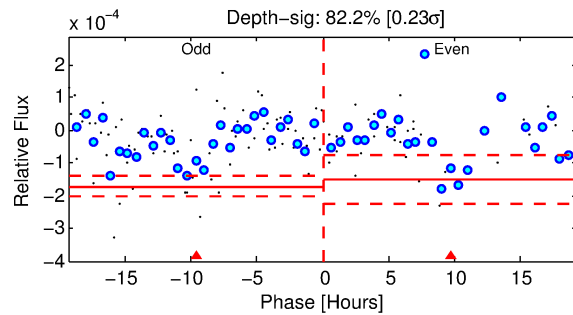
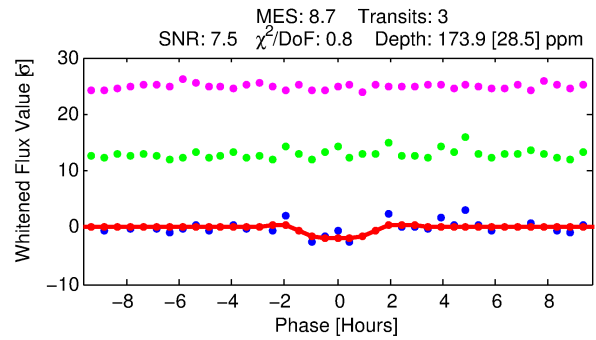
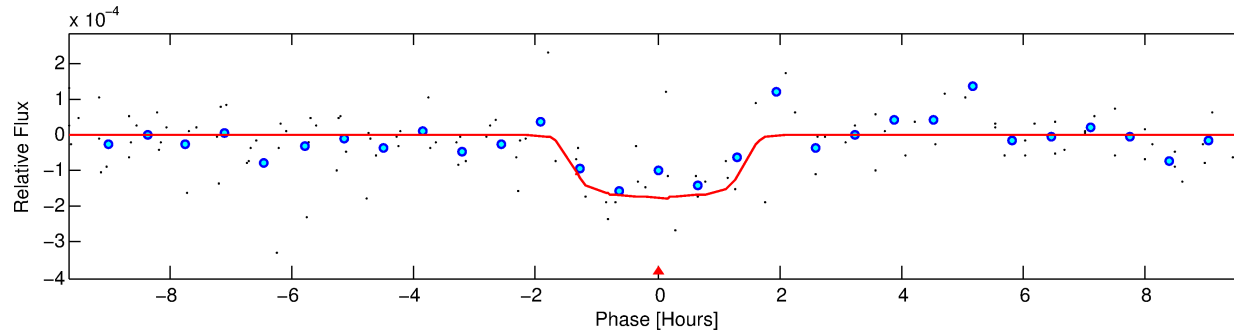
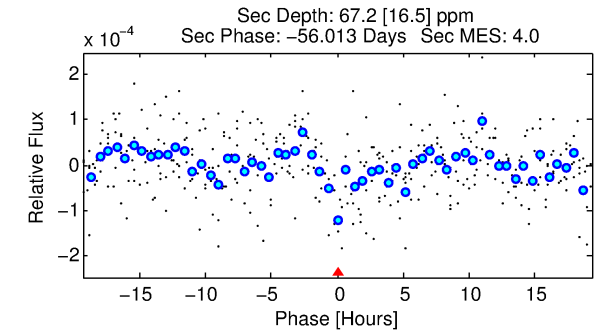
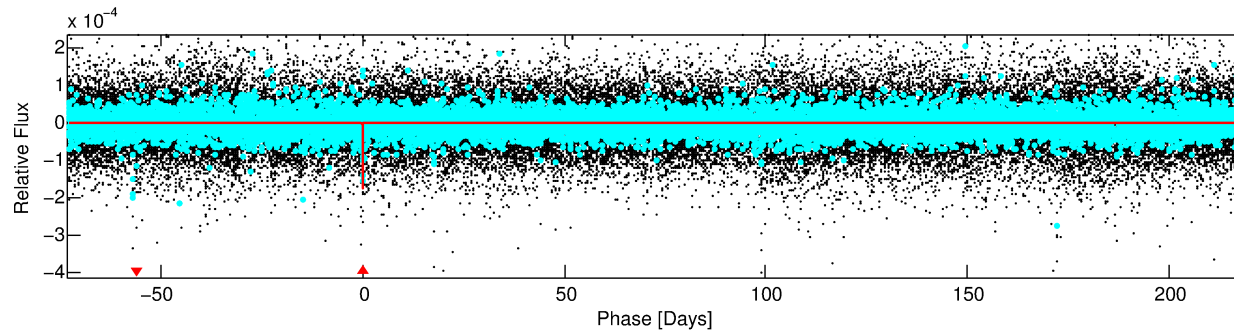
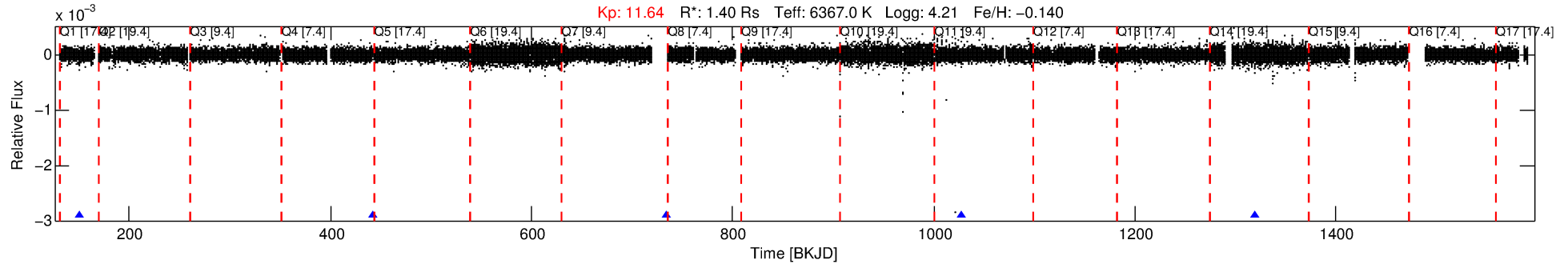
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011507705-01

No Significant Match Found

DV One-Page Summary

KIC: 11507705 Candidate: 1 of 1 Period: 292.386 d



DV Fit Results:

Period = 292.38624 [0.00317] d
Epoch = 149.9112 [0.0085] BKJD
 $R_p/R^* = 0.0146$ [0.0051]
 $a/R^* = 282.99$ [528.40]
 $b = 0.93$ [0.28]
 $\text{Seff} = 3.48$ [0.82]
 $T_{\text{eq}} = 348$ [20] K
 $R_p = 2.22$ [0.87] R_{e}
 $a = 0.9072$ [0.1369] AU
 $A_g = 6181.98$ [4824.32] [1.28σ]
 $T_{\text{eff}} = 4775$ [892] K [4.96σ]

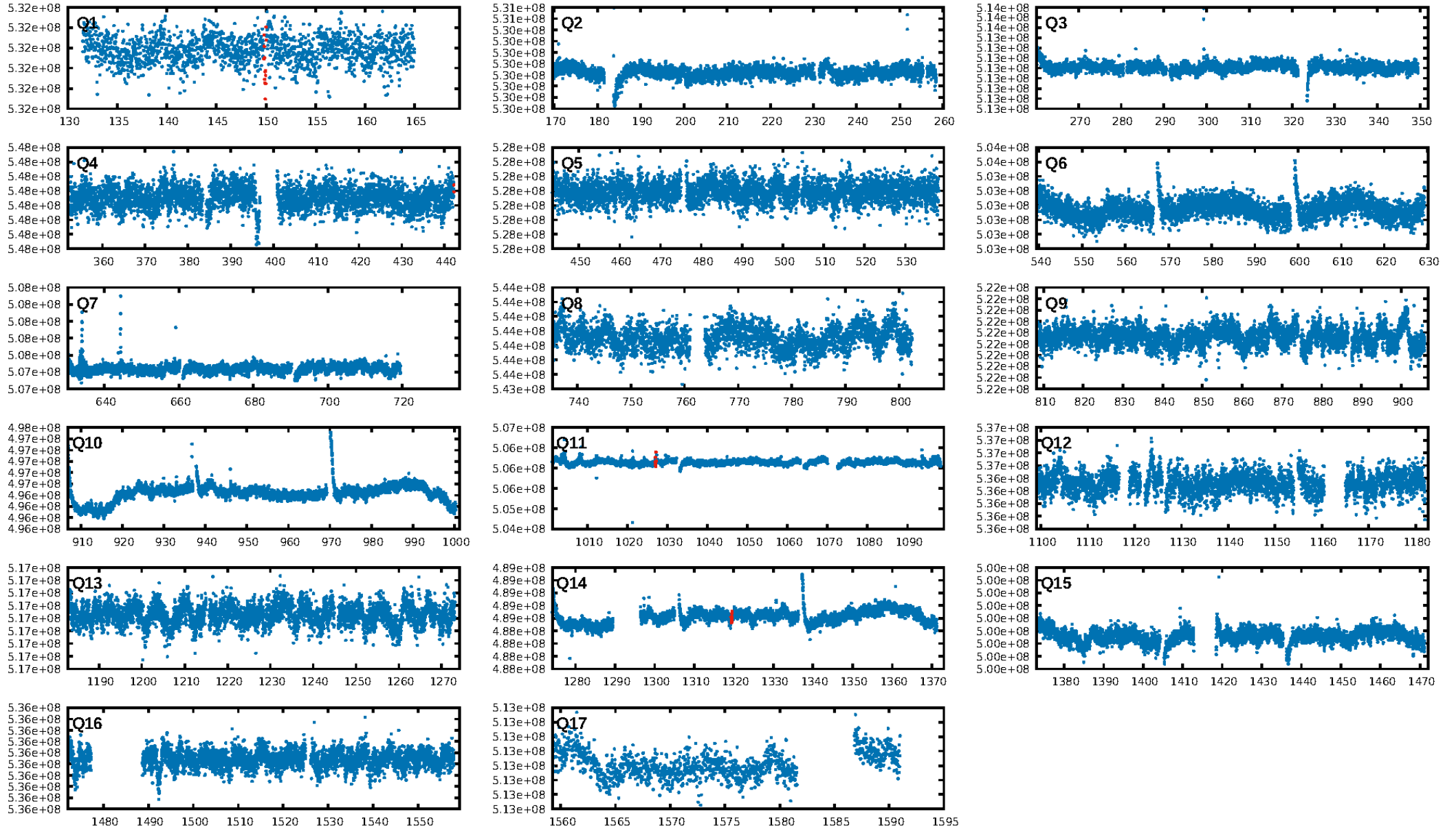
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 84.8%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 6.19e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 1.763
Centroid-sig: 58.6%
Centroid-so: 0.919 arcsec [0.82σ]
OotOffset-rm: 1.812 arcsec [1.83σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 2.018 arcsec [2.19σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

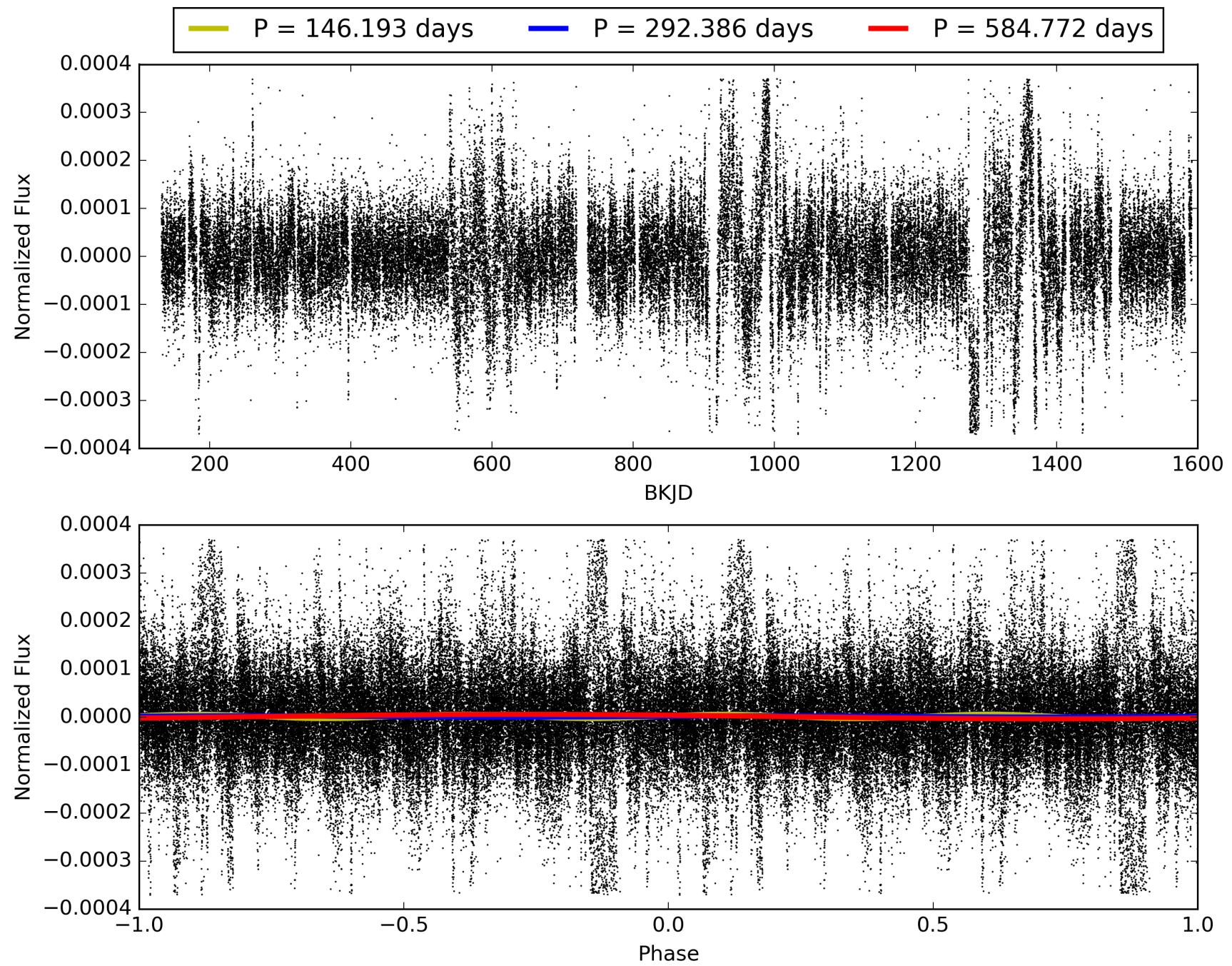
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:19:03 Z

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

TCE 011507705-01, PDC Light Curves

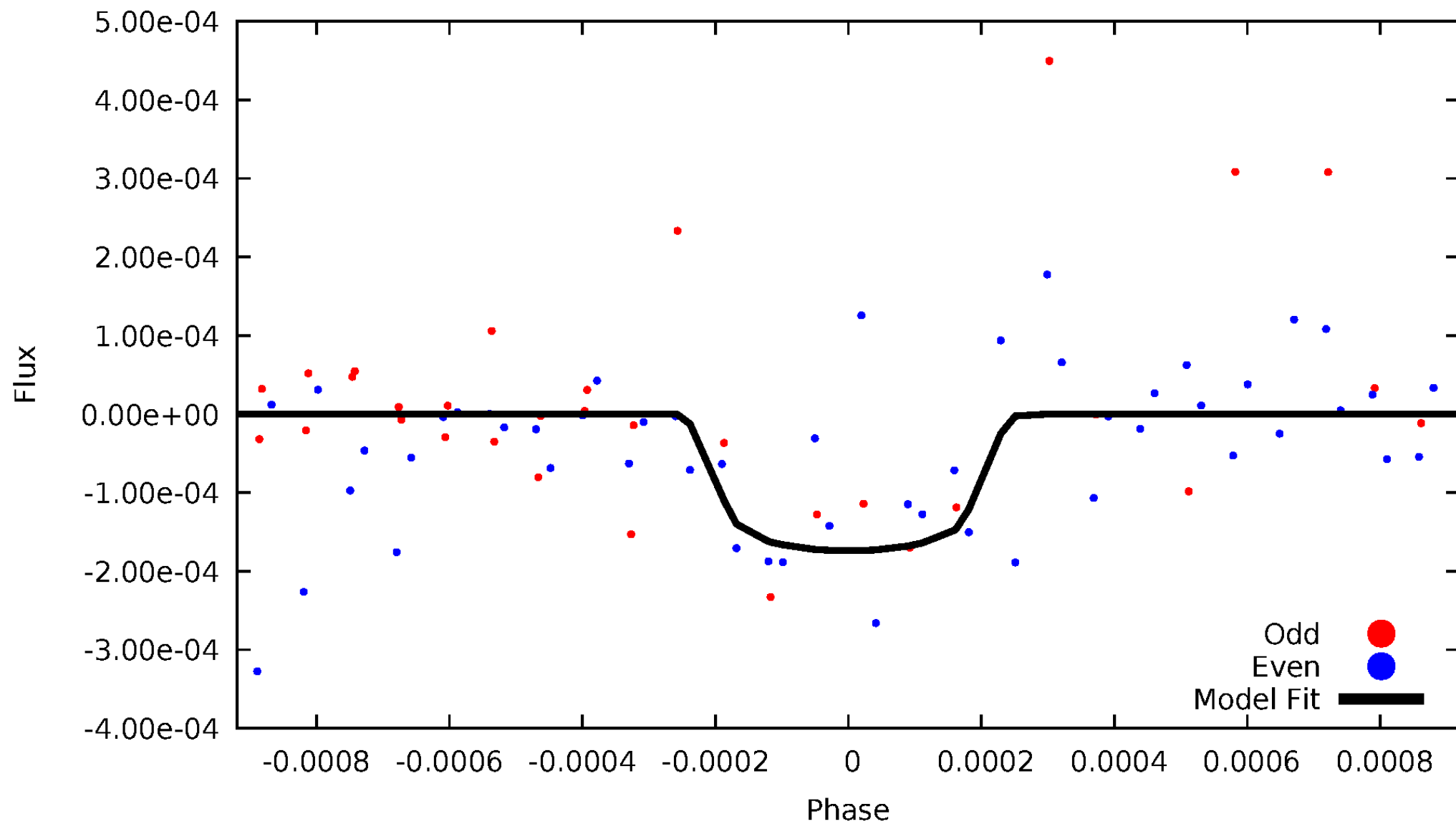


TCE 011507705-01



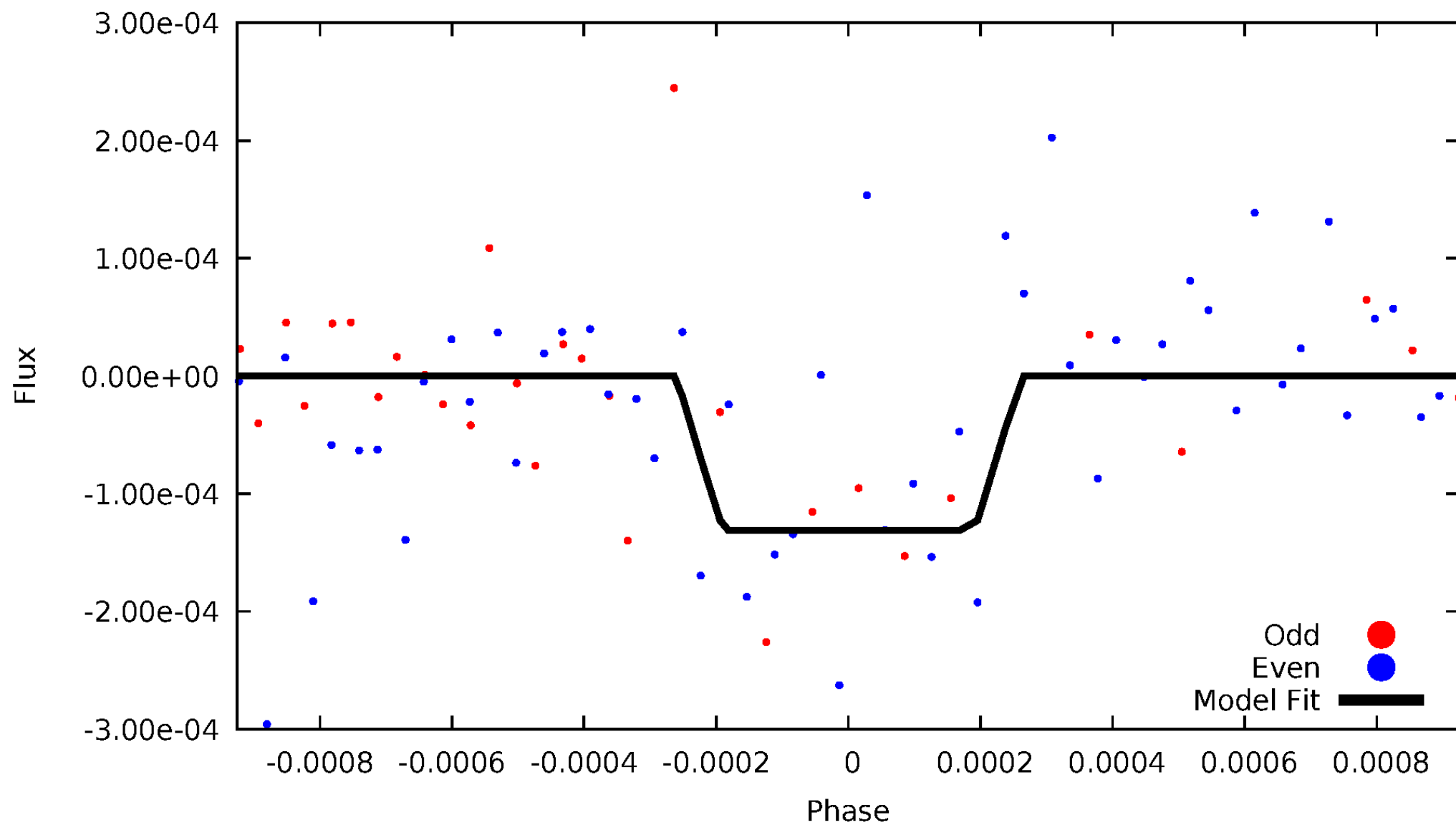
DV Odd/Even

TCE 011507705-01



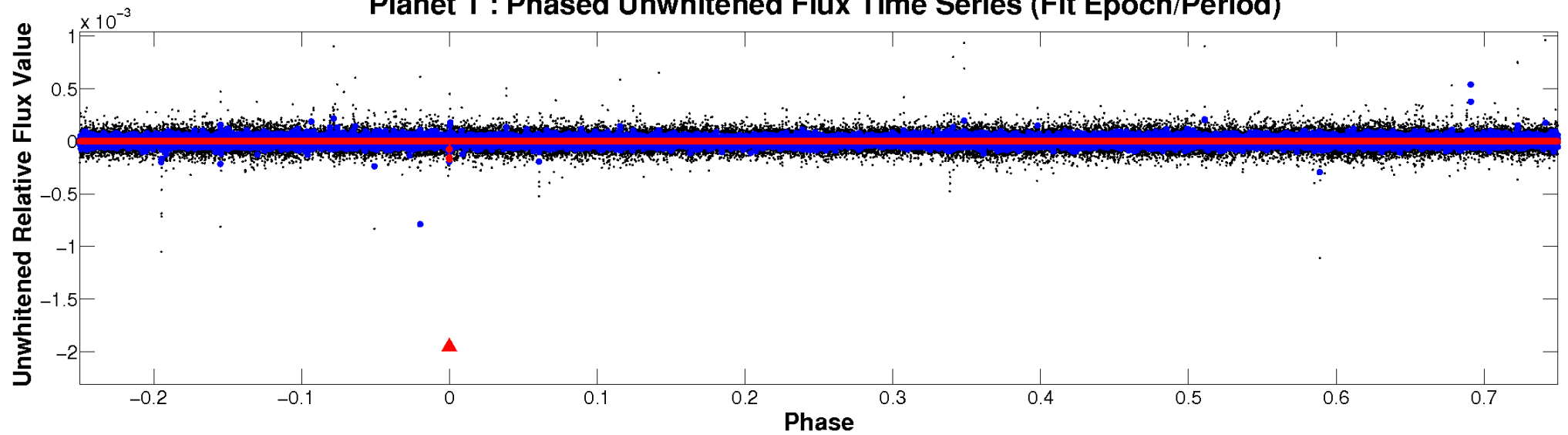
ALT Odd/Even

TCE 011507705-01

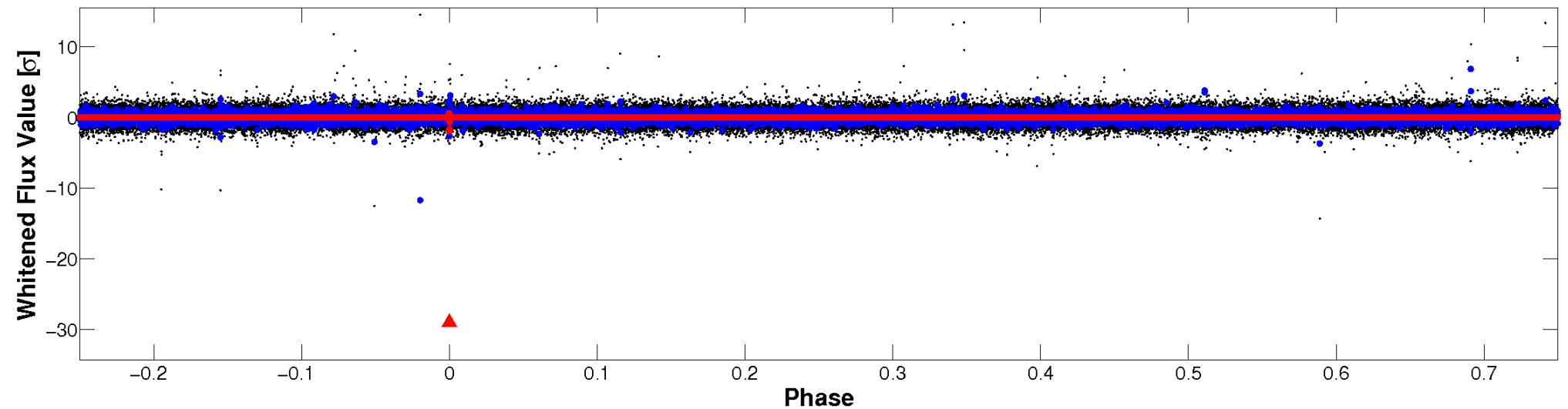


Non-Whitened Vs. Whitened Light Curve

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

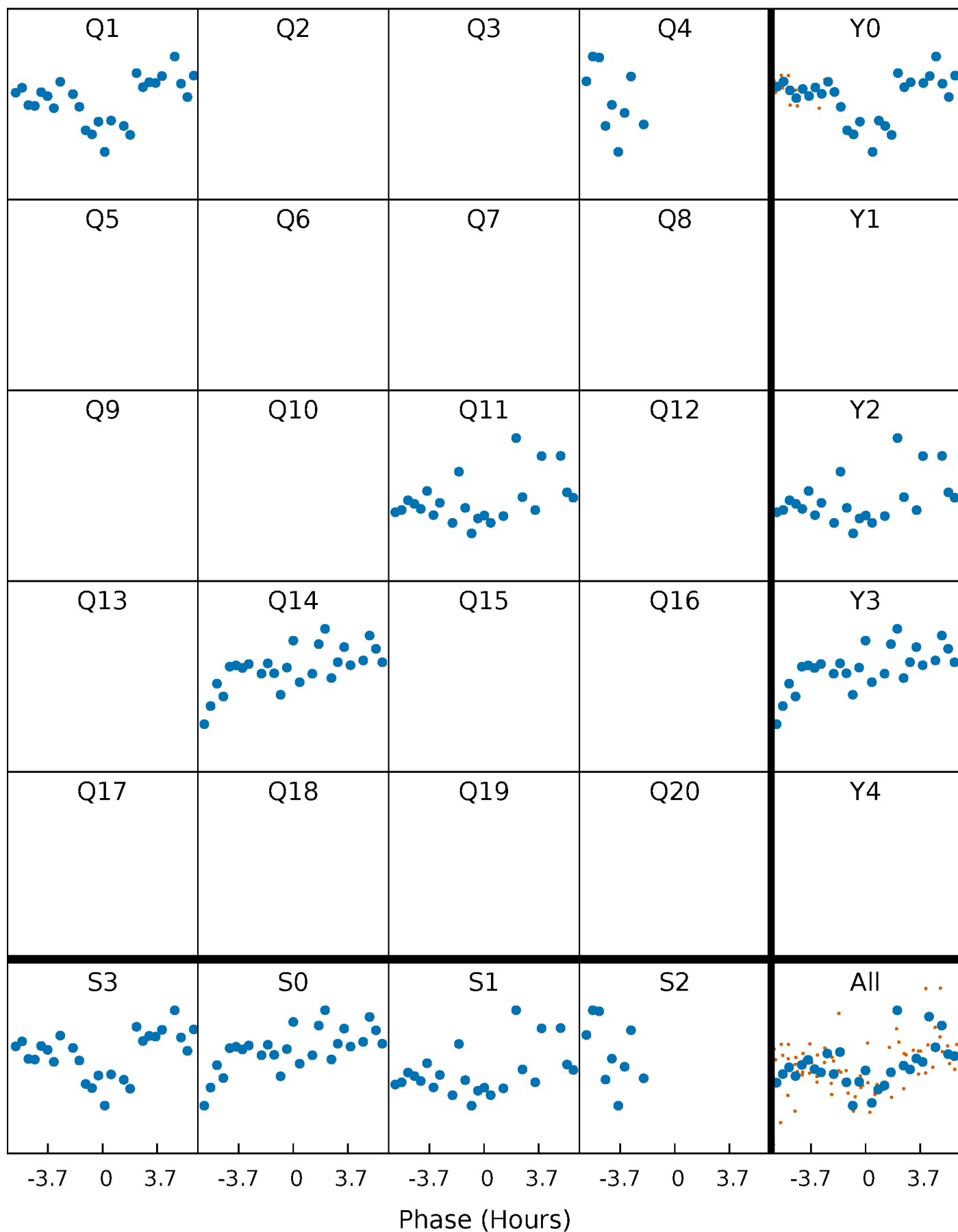


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



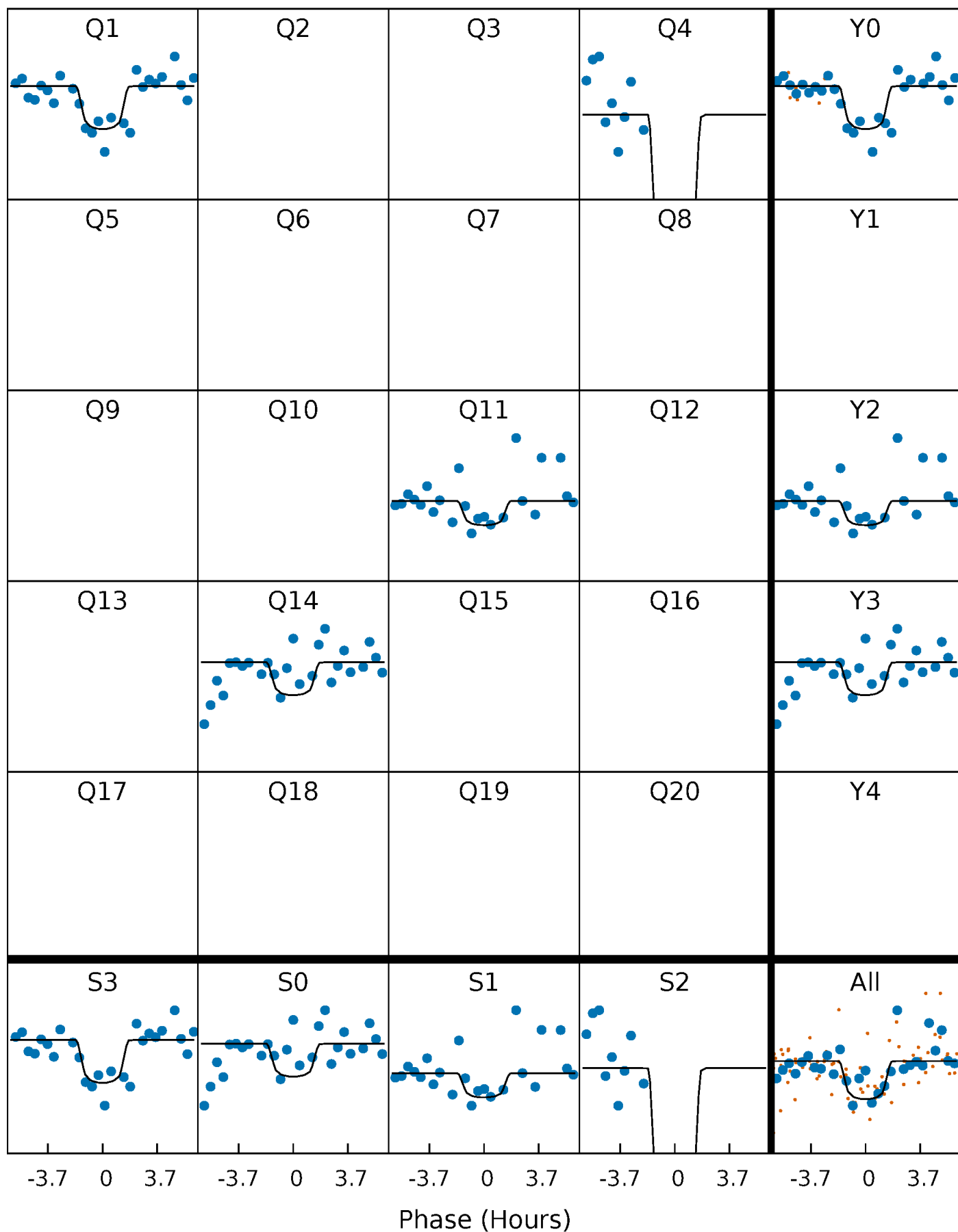
PDC Quarter-Phased Transit Curves

TCE 011507705-01 P=292.386235 Days $T_0=149.911176$ (BKJD)



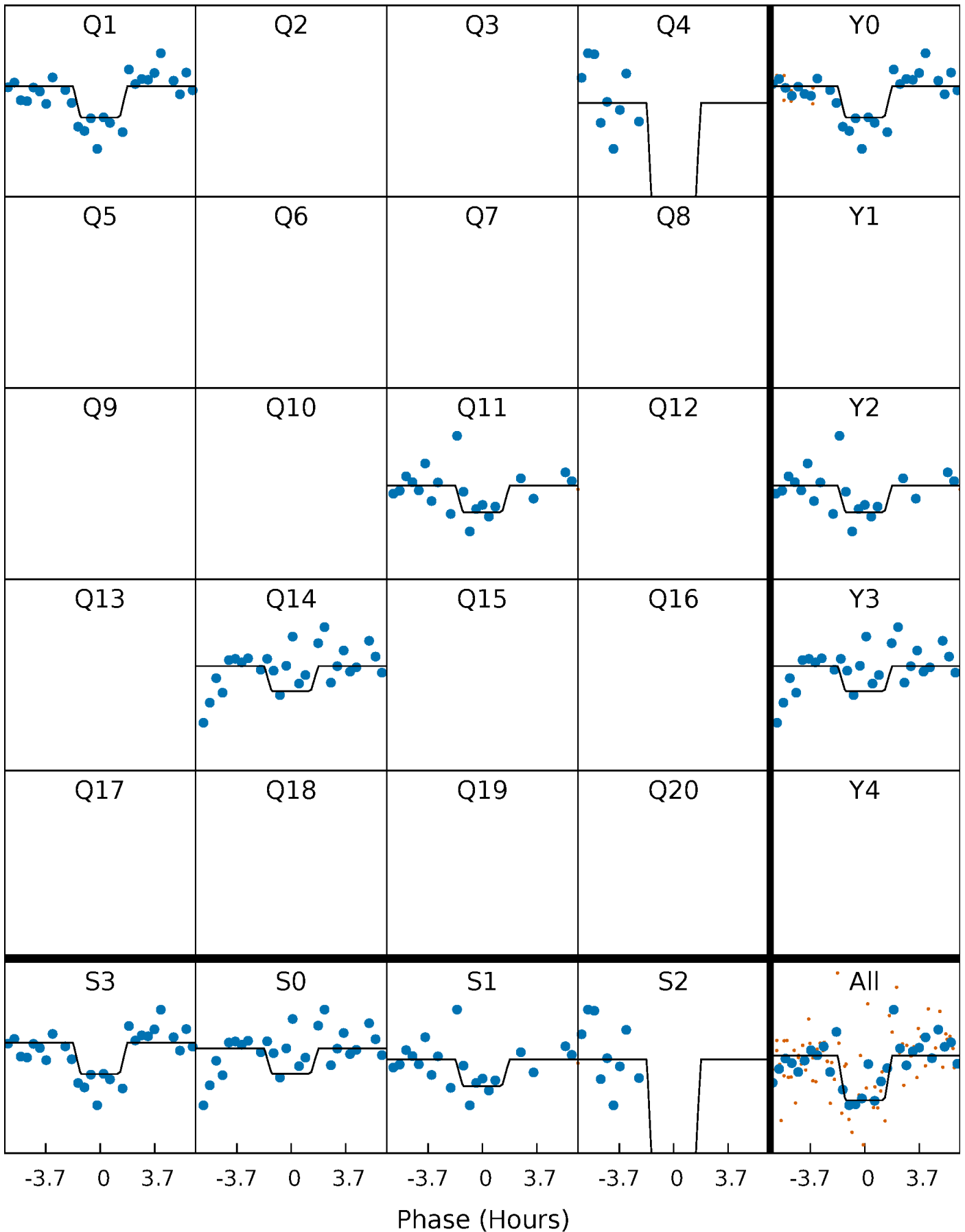
DV Quarter-Phased Transit Curves

TCE 011507705-01 P=292.386235 Days $T_0=149.911176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

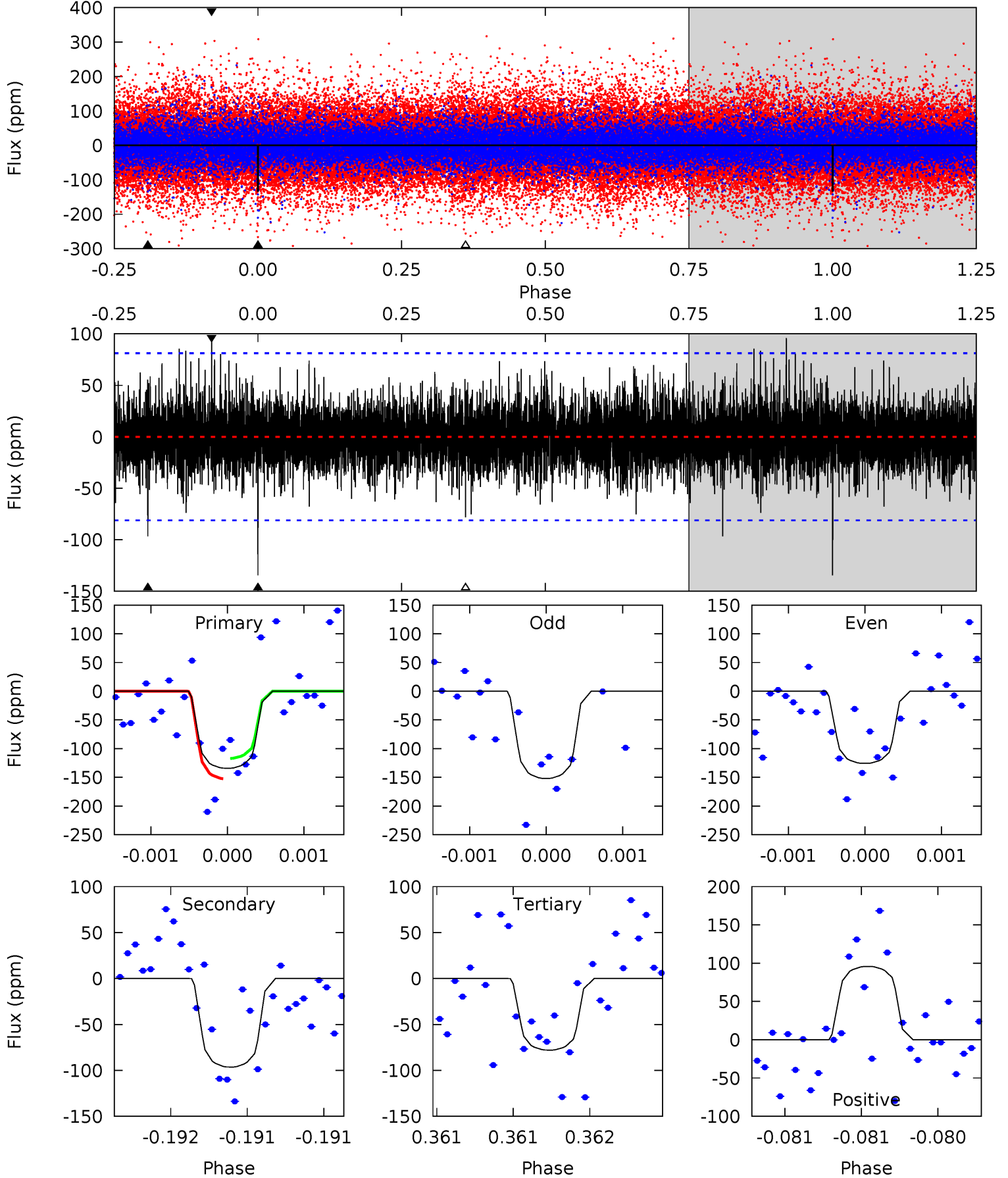
TCE 011507705-01 P=292.381563 Days $T_0=149.927297$ (BKJD)



DV Model-Shift Uniqueness Test

011507705-01, P = 292.386235 Days, E = 149.911176 Days

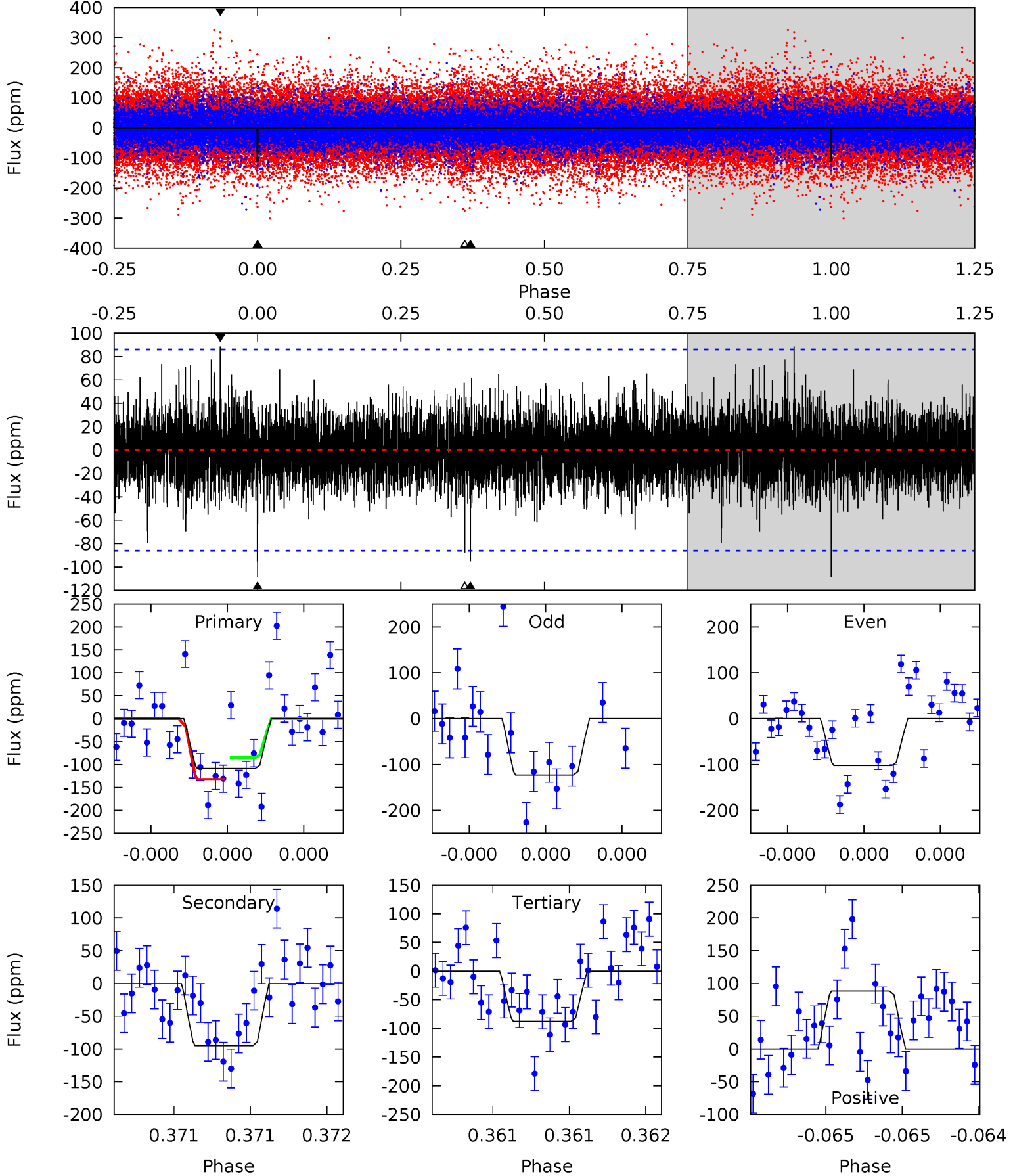
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.22	6.62	5.35	6.58	5.57	3.48	1.36	3.87	2.65	1.26	0.04	0.83	0.88	0.42	1.22



Alt Model-Shift Uniqueness Test

011507705-01, P = 292.381563 Days, E = 149.927297 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.06	6.17	5.67	5.74	5.59	3.50	1.16	1.40	1.33	0.50	0.43	0.63	0.89	0.45	1.55



Stellar Parameters For KIC 011507705

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6367^{+76}_{-76}	$4.215^{+0.130}_{-0.117}$	$-0.140^{+0.150}_{-0.150}$	$1.395^{+0.237}_{-0.237}$	$1.164^{+0.095}_{-0.095}$	$0.604^{+0.391}_{-0.201}$
	+1%/-1%	+3%/-3%	+107%/-107%	+17%/-17%	+8%/-8%	+65%/-33%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 011507705-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-96 ± 15	$2.22^{+0.78}_{-0.76}$	487^{+22}_{-23}	5231^{+1176}_{-631}	8915^{+12053}_{-4302}
Alt.	-95 ± 15	$1.75^{+0.76}_{-0.76}$	486^{+22}_{-21}	5884^{+2020}_{-893}	14024^{+29339}_{-7162}

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

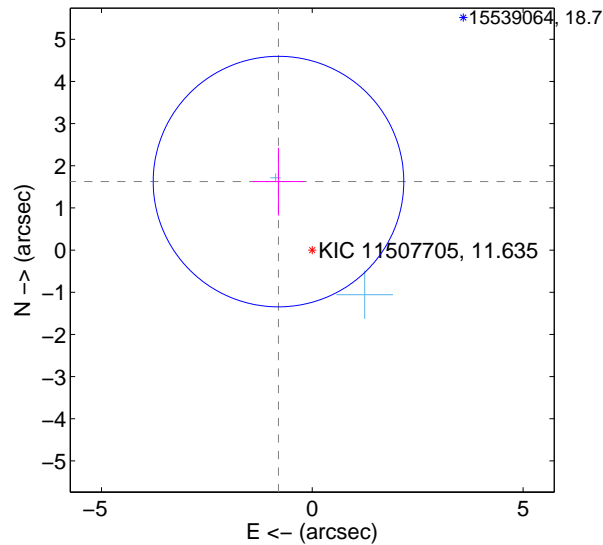
Supplemental centroid analysis for 011507705-01. **Kepler magnitude: 11.63.** Transit SNR 7.50

There are 2 quarters with good PRF difference image offsets

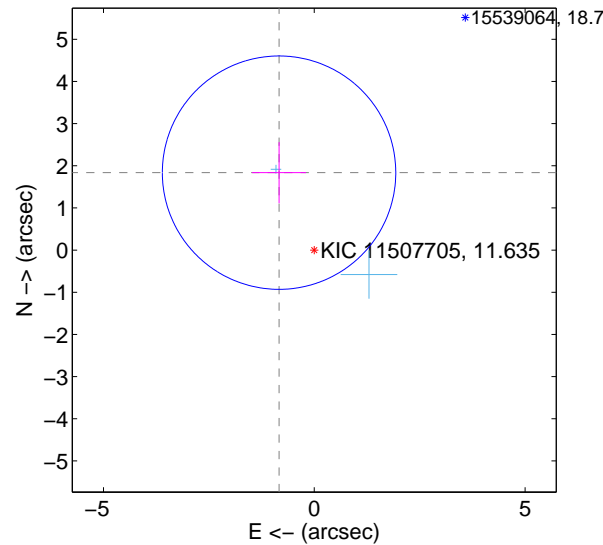
The direct PRF centroid is offset from the target star catalog position by about 0.48 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.812 ± 0.990	1.83	0.802 ± 0.614	1.625 ± 0.803
PRF-fit source offset from KIC position	2.018 ± 0.922	2.19	0.836 ± 0.640	1.836 ± 0.724
photometric centroid source offset	0.92 ± 1.12	0.82	0.04 ± 0.90	0.92 ± 1.12

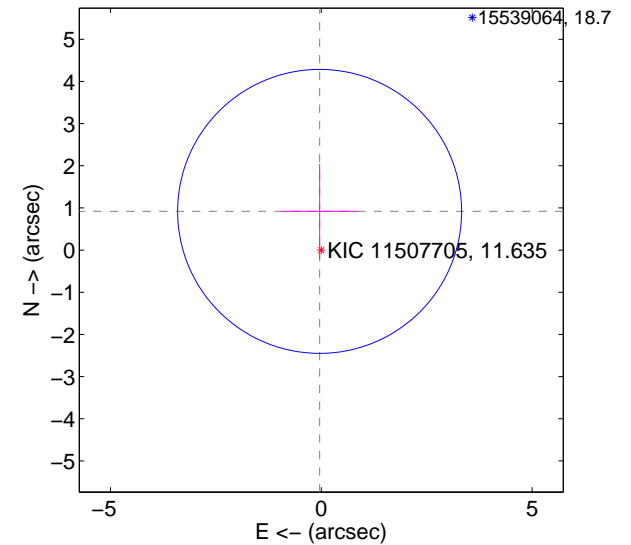
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

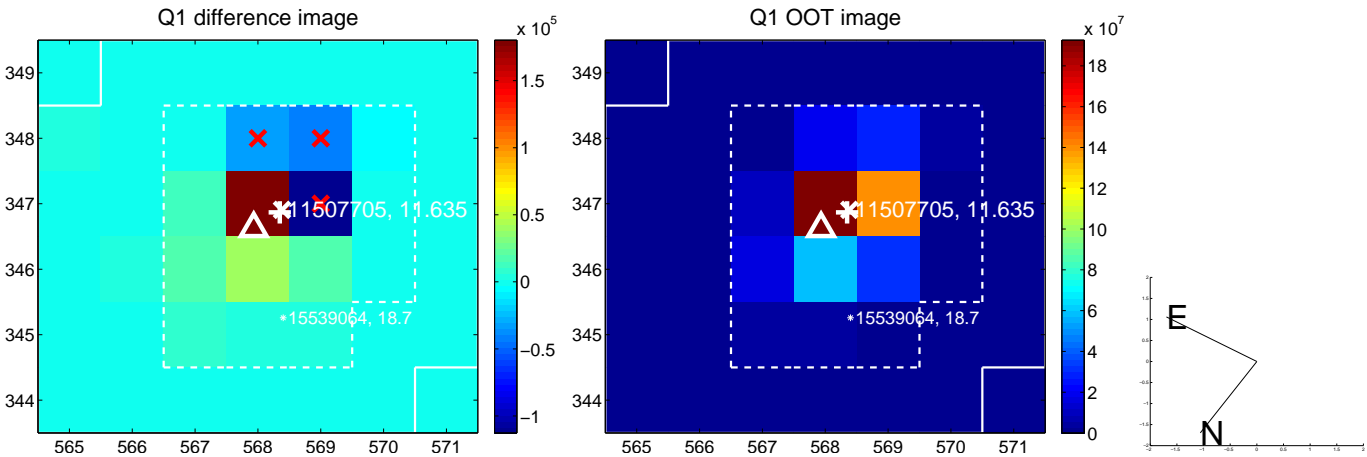


offset from photometric centroids



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.



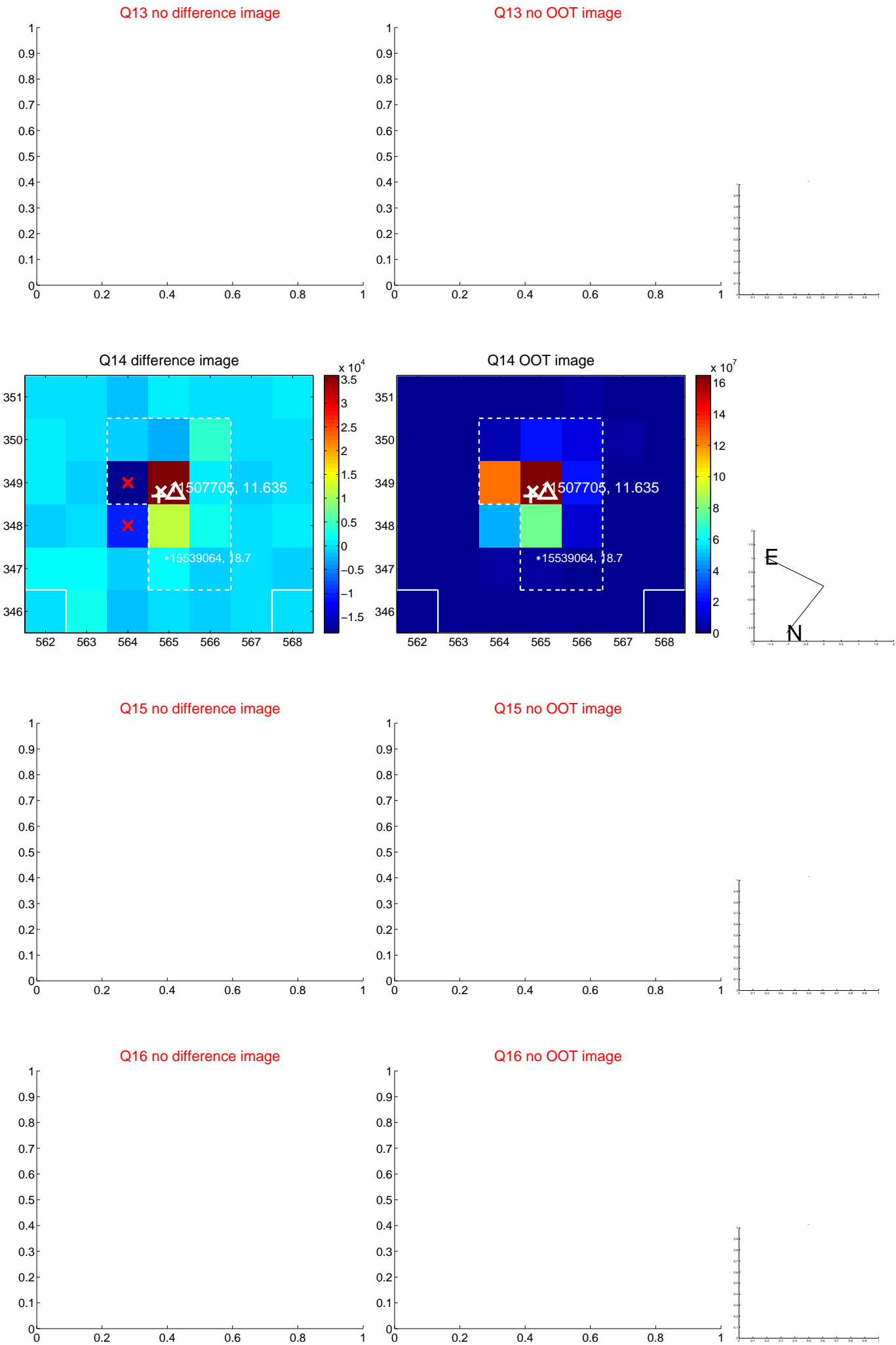
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



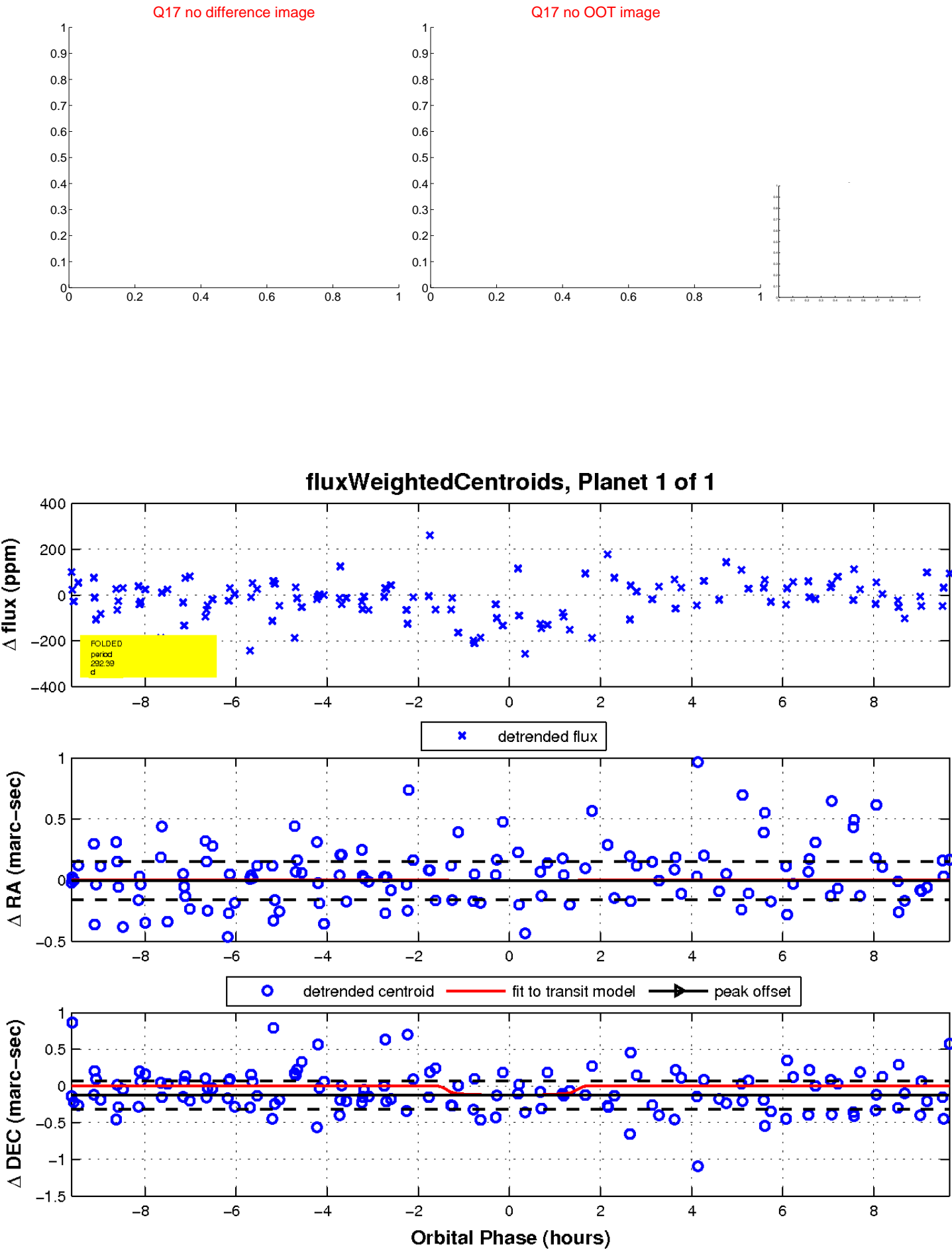
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

