

KIC 011904306

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})
011904306-01	OBS	No	255.794547	377.544059	64.0	9.979	13.8	8.7	2.63	7286	2.38	21.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011904306-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

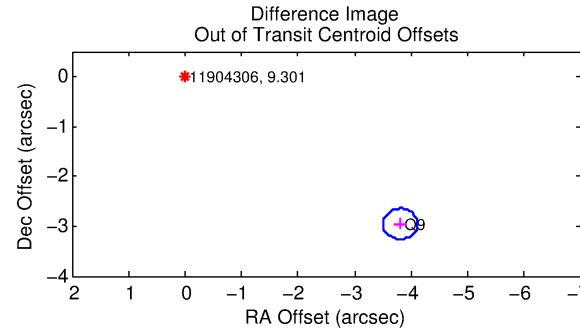
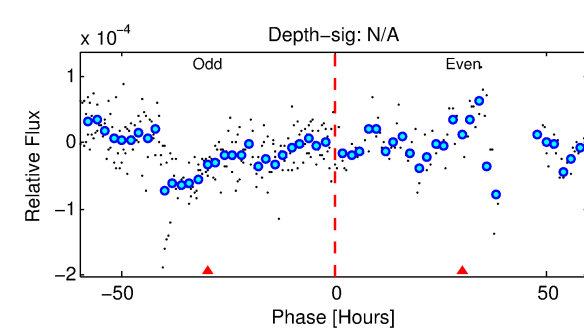
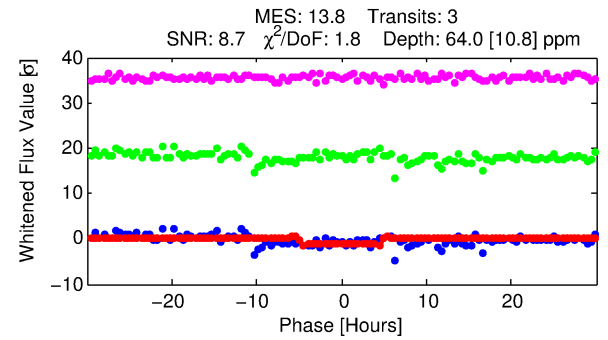
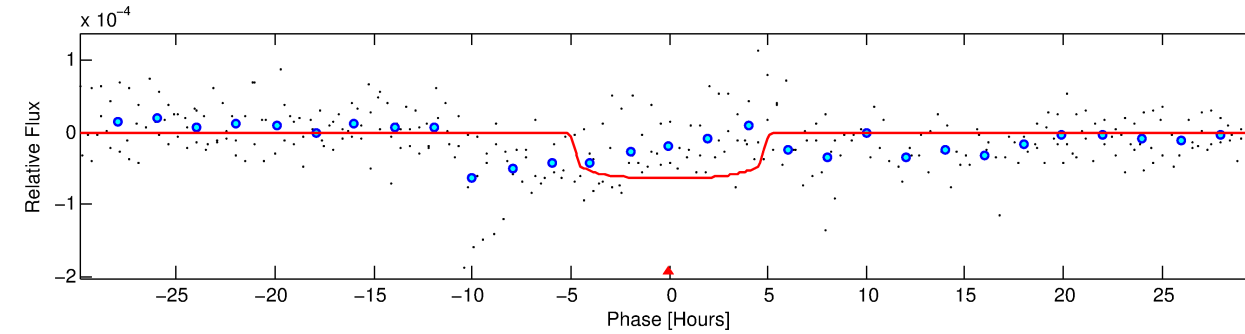
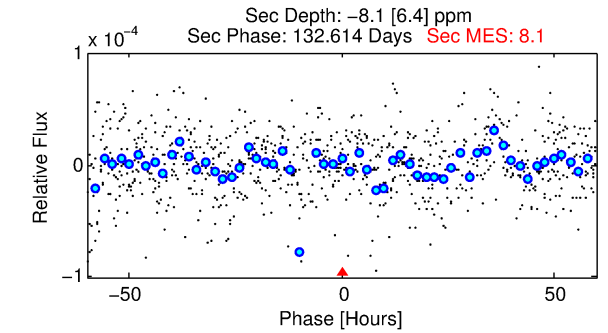
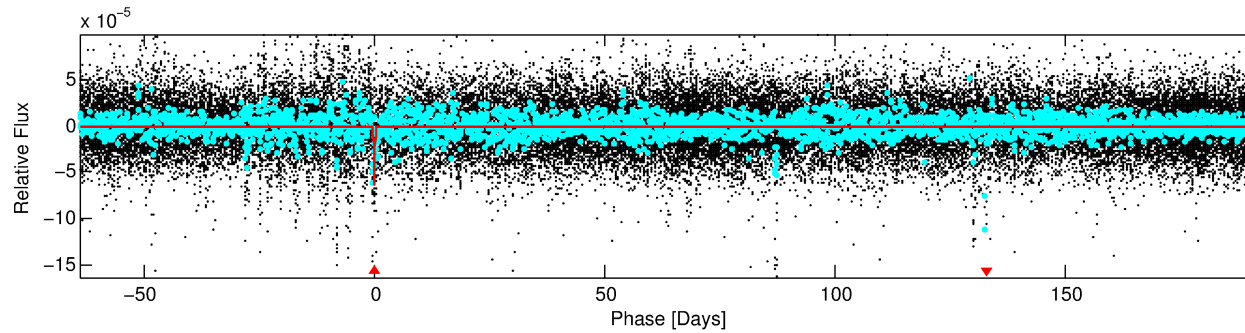
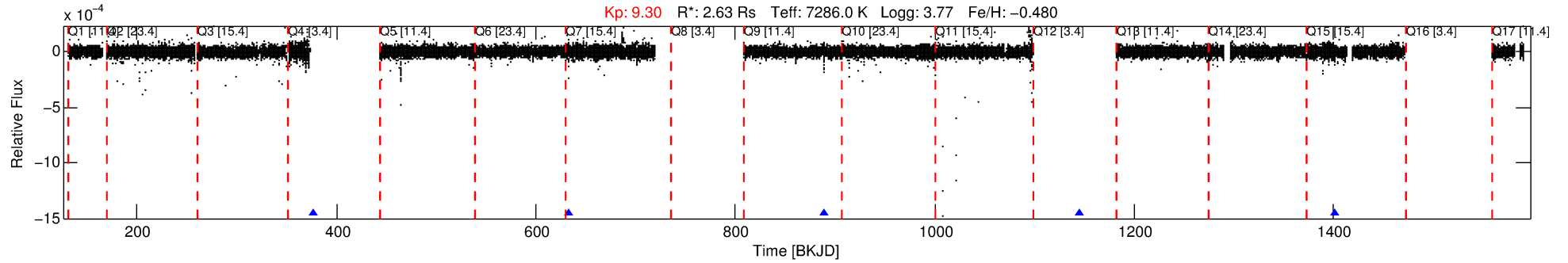
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011904306-01

No Significant Match Found

DV One-Page Summary

KIC: 11904306 Candidate: 1 of 1 Period: 255.795 d



DV Fit Results:

Period = 255.79455 [0.00541] d
Epoch = 377.5441 [0.0157] BKJD
 $R_p/R^* = 0.0083 [0.0032]$
 $a/R^* = 104.23 [238.98]$
 $b = 0.86 [0.72]$
 $\text{Seff} = 21.48 [17.50]$
 $T_{\text{eq}} = 549 [112] \text{ K}$
 $R_p = 2.38 [1.46] R_e$
 $a = 0.9028 [0.4380] \text{ AU}$
 $\text{Ag} = \text{N/A}$
 $T_{\text{effp}} = \text{N/A}$

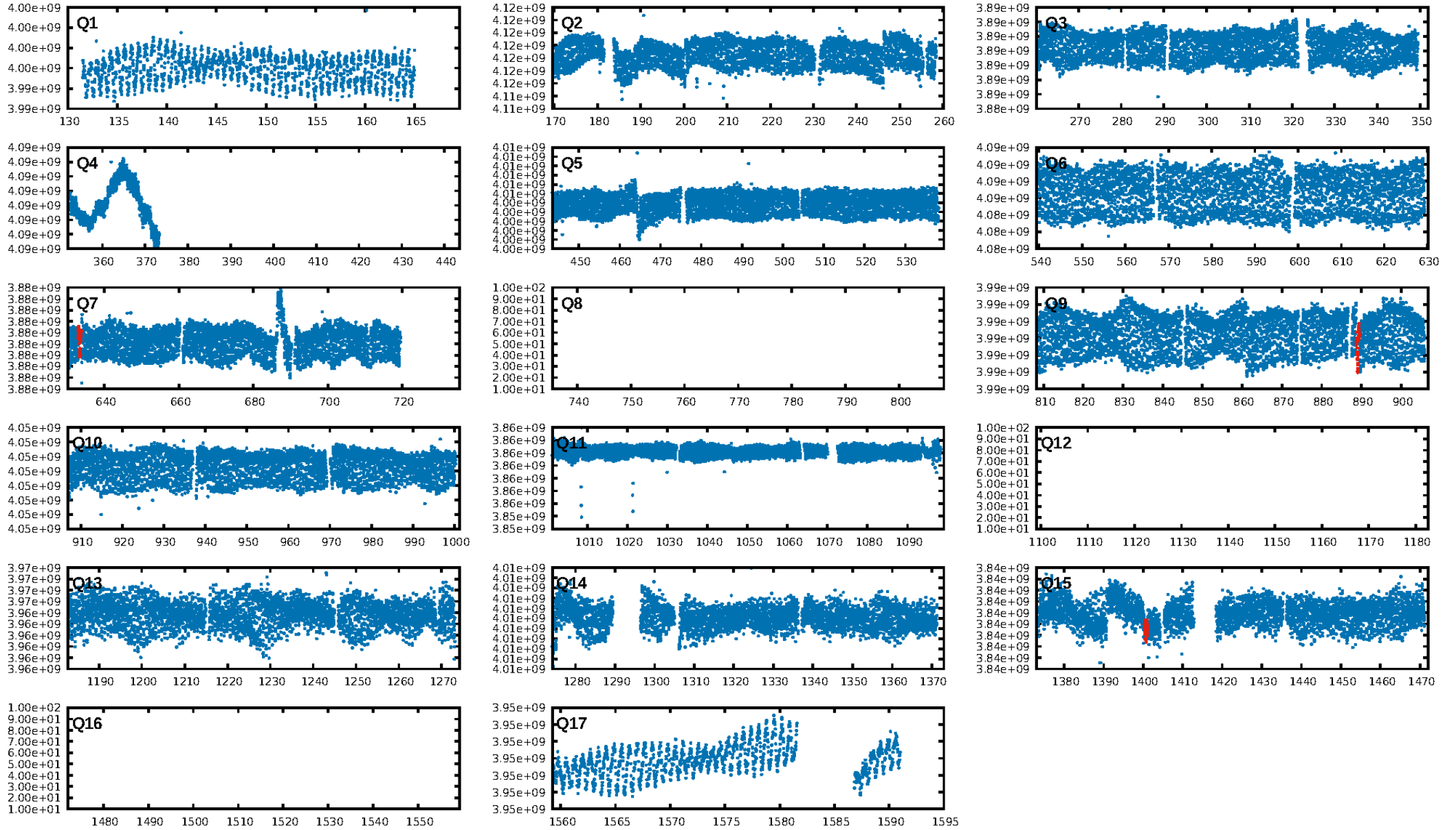
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 61.7%
Bootstrap-pfa: $6.12\text{e-}16$
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: 1.718 arcsec [0.60σ]
OotOffset-rm: 4.816 arcsec [47.07σ]
KicOffset-rm: 3.860 arcsec [37.61σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

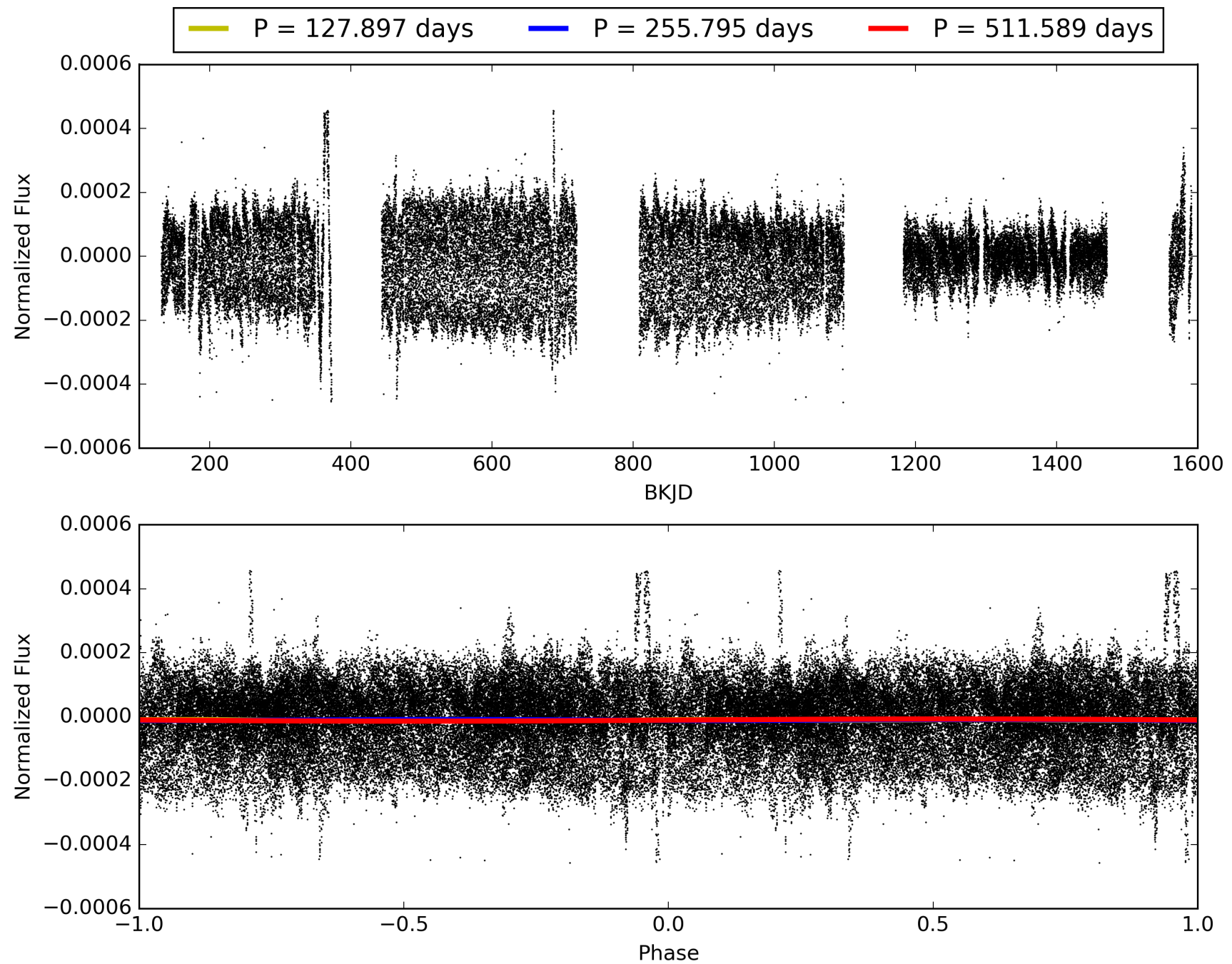
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 21:01:56 Z

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

TCE 011904306-01, PDC Light Curves

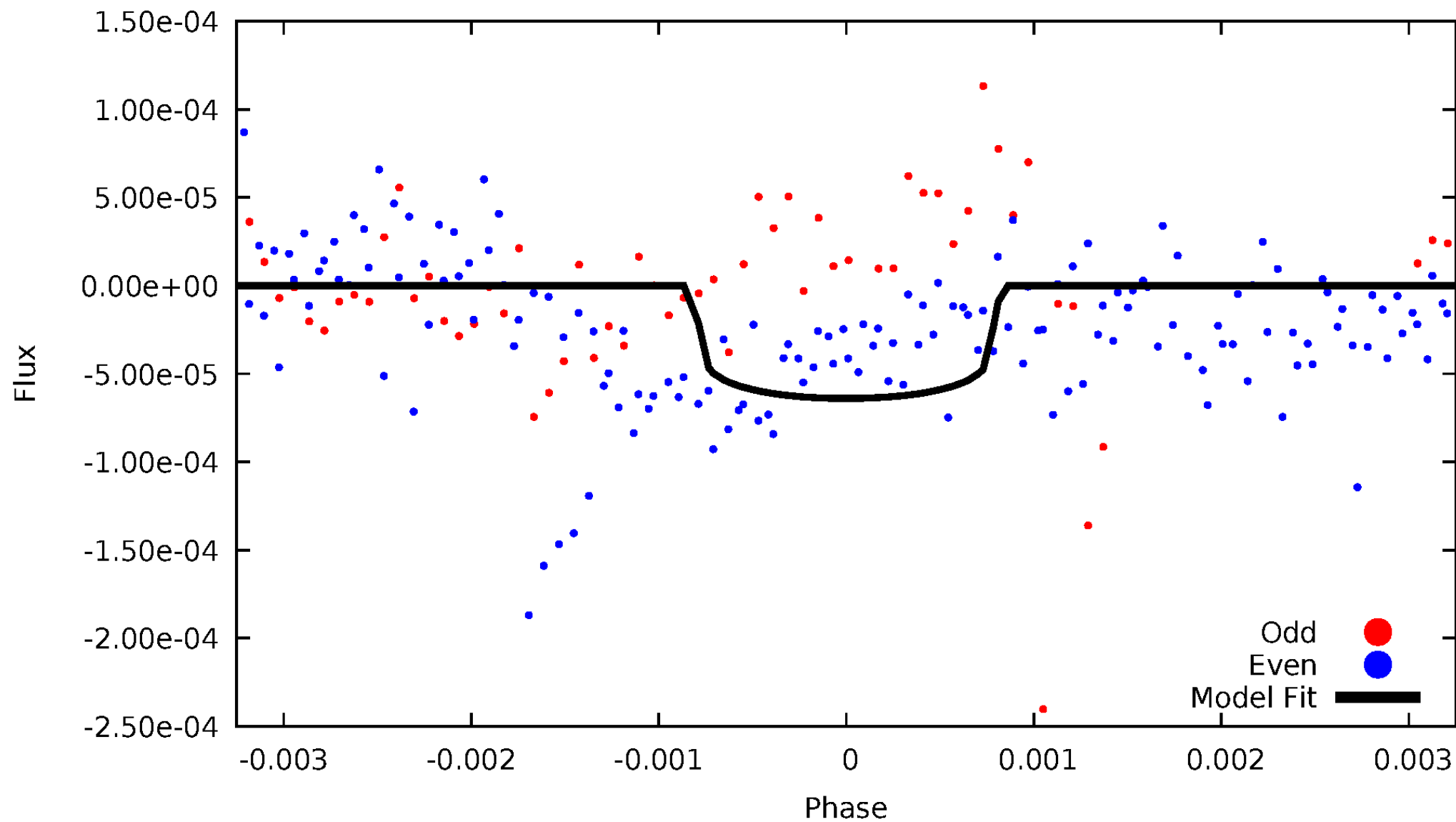


TCE 011904306-01



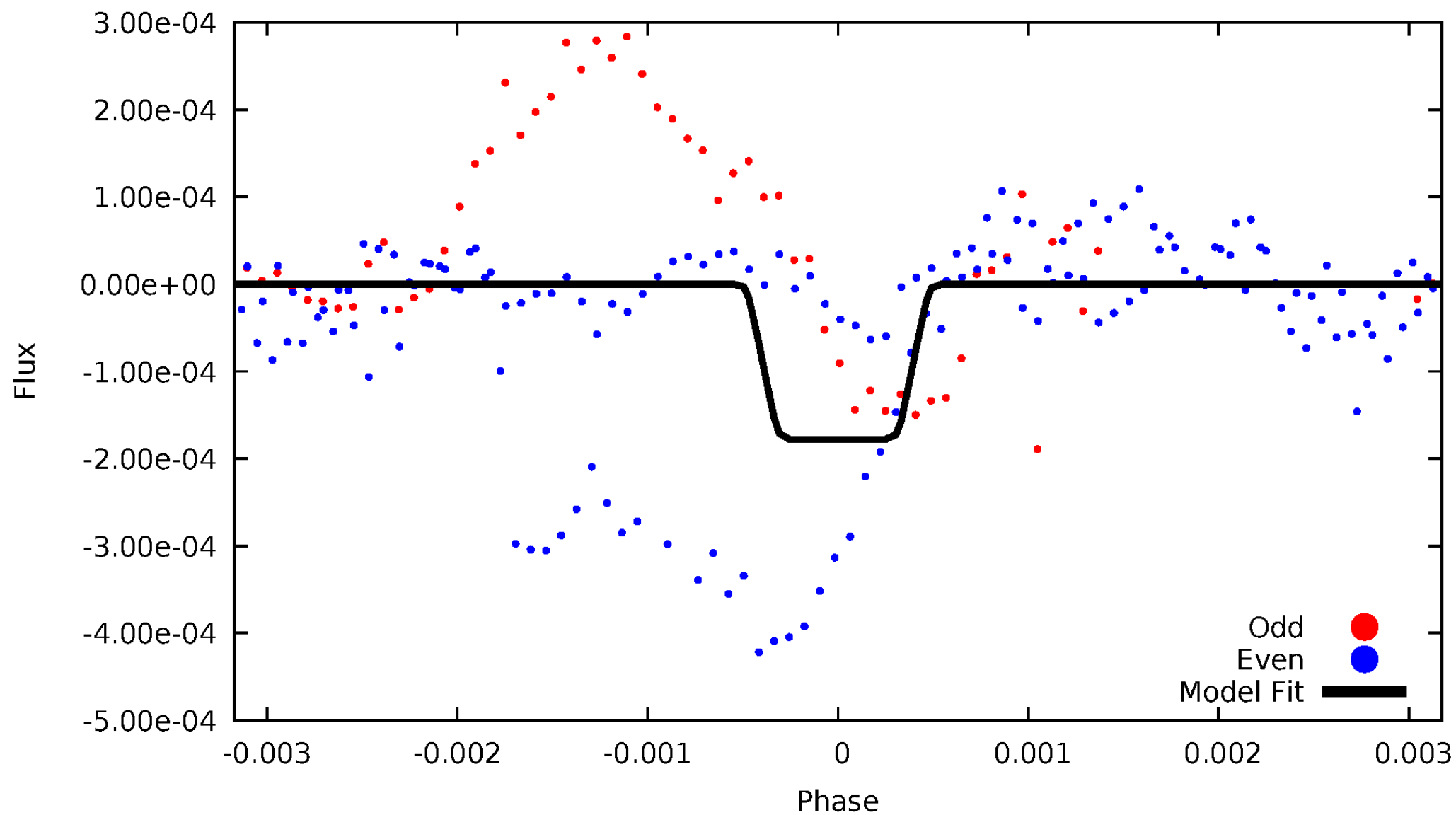
DV Odd/Even

TCE 011904306-01



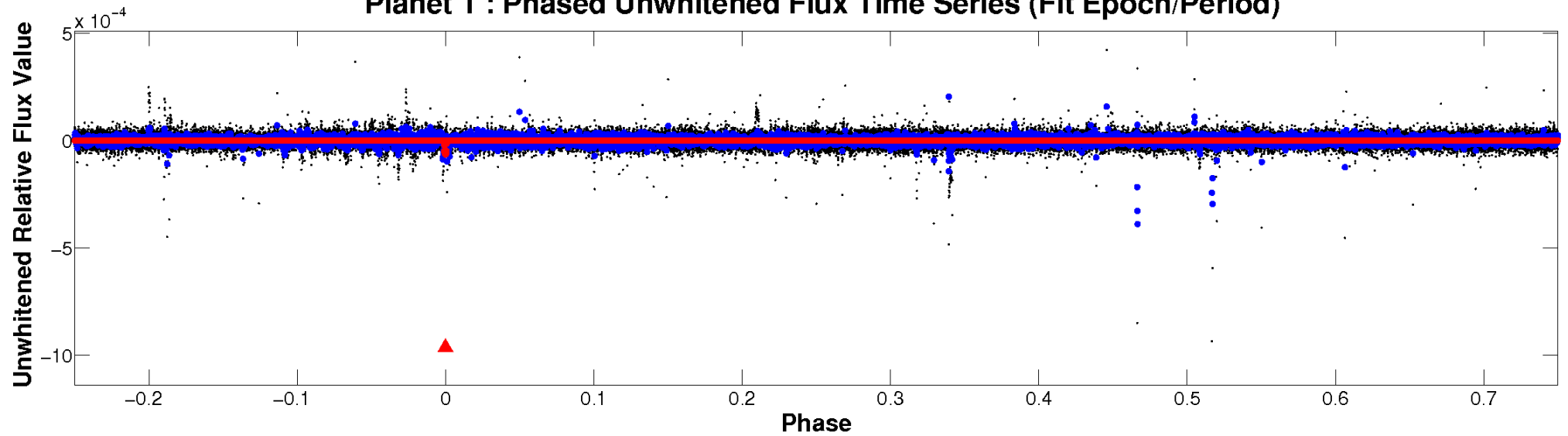
ALT Odd/Even

TCE 011904306-01

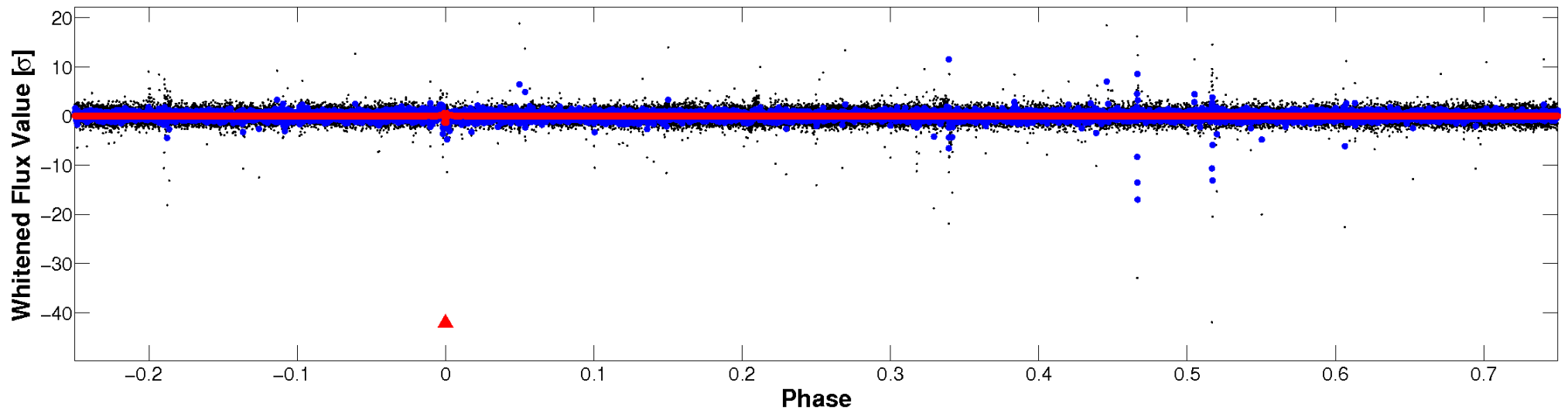


Non-Whitened Vs. Whitened Light Curve

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

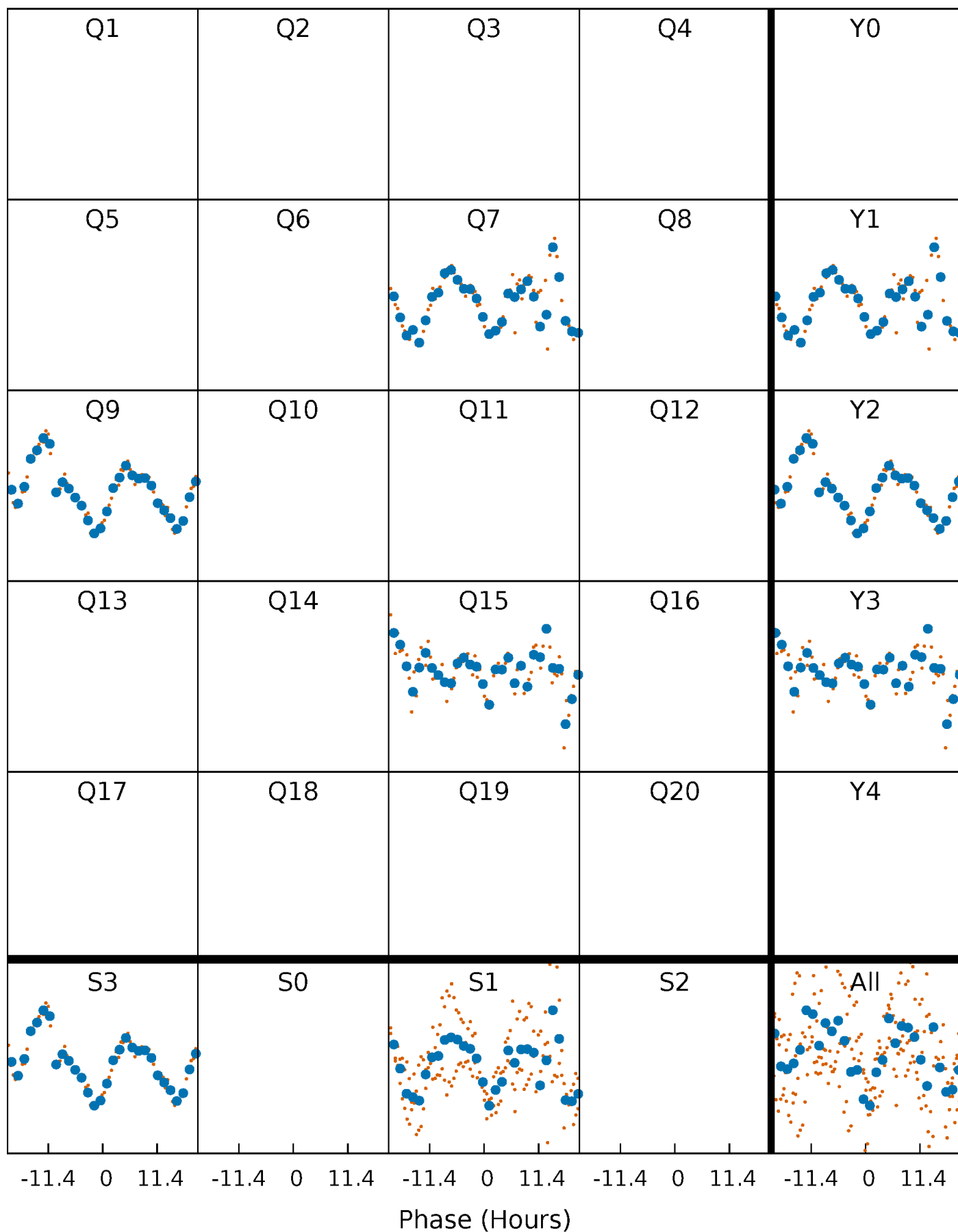


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



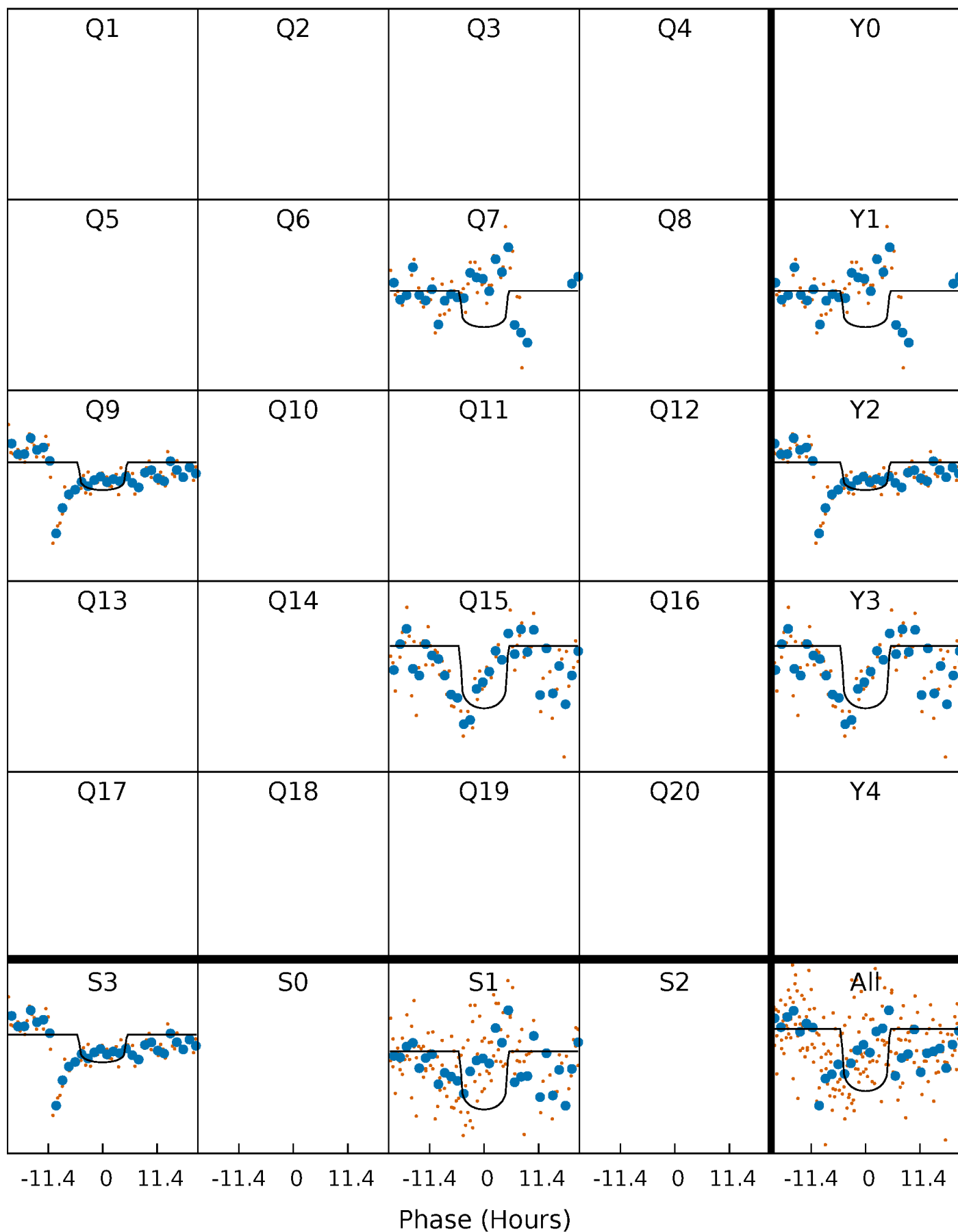
PDC Quarter-Phased Transit Curves

TCE 011904306-01 P=255.794547 Days $T_0=377.544059$ (BKJD)



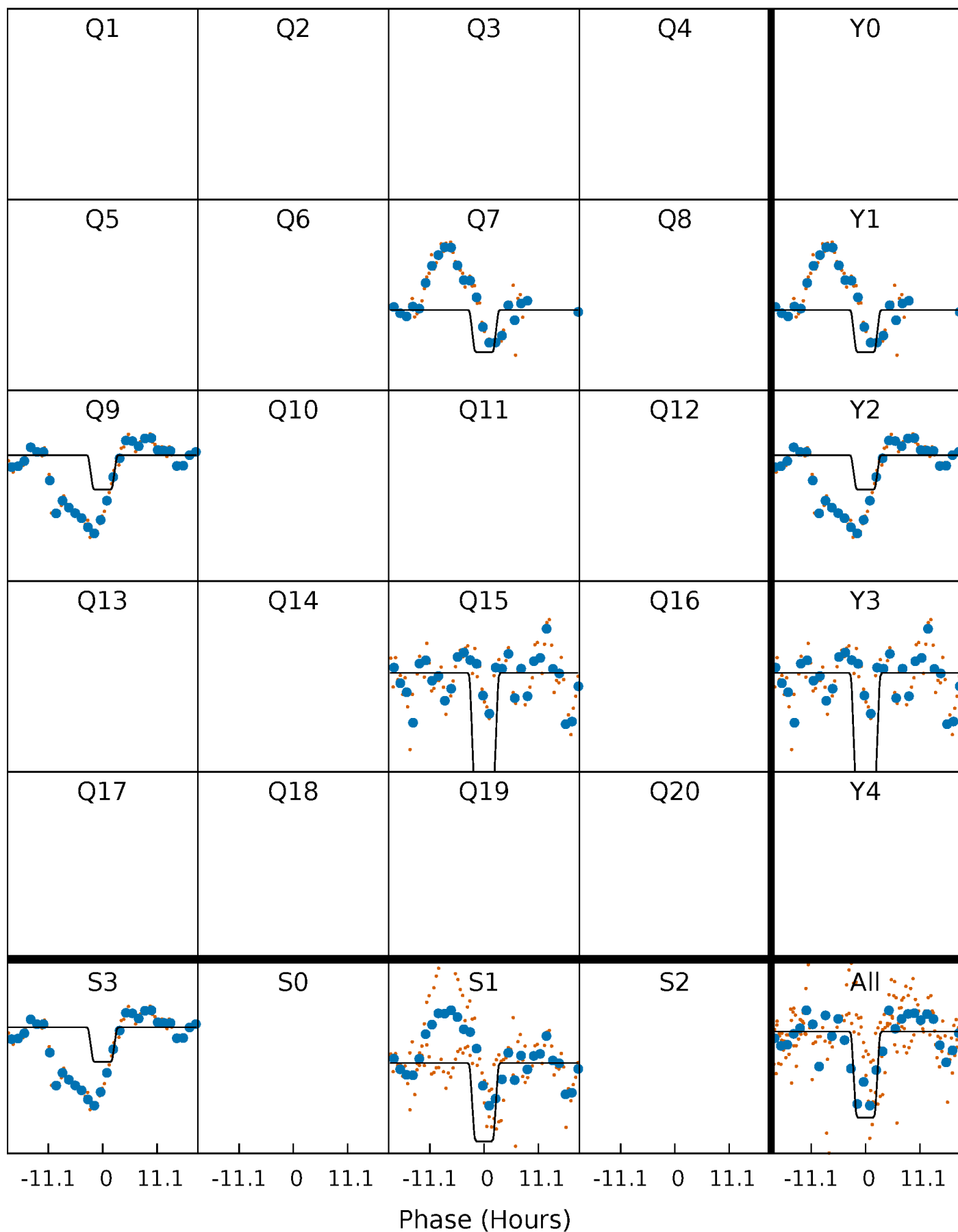
DV Quarter-Phased Transit Curves

TCE 011904306-01 $P=255.794547$ Days $T_0=377.544059$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

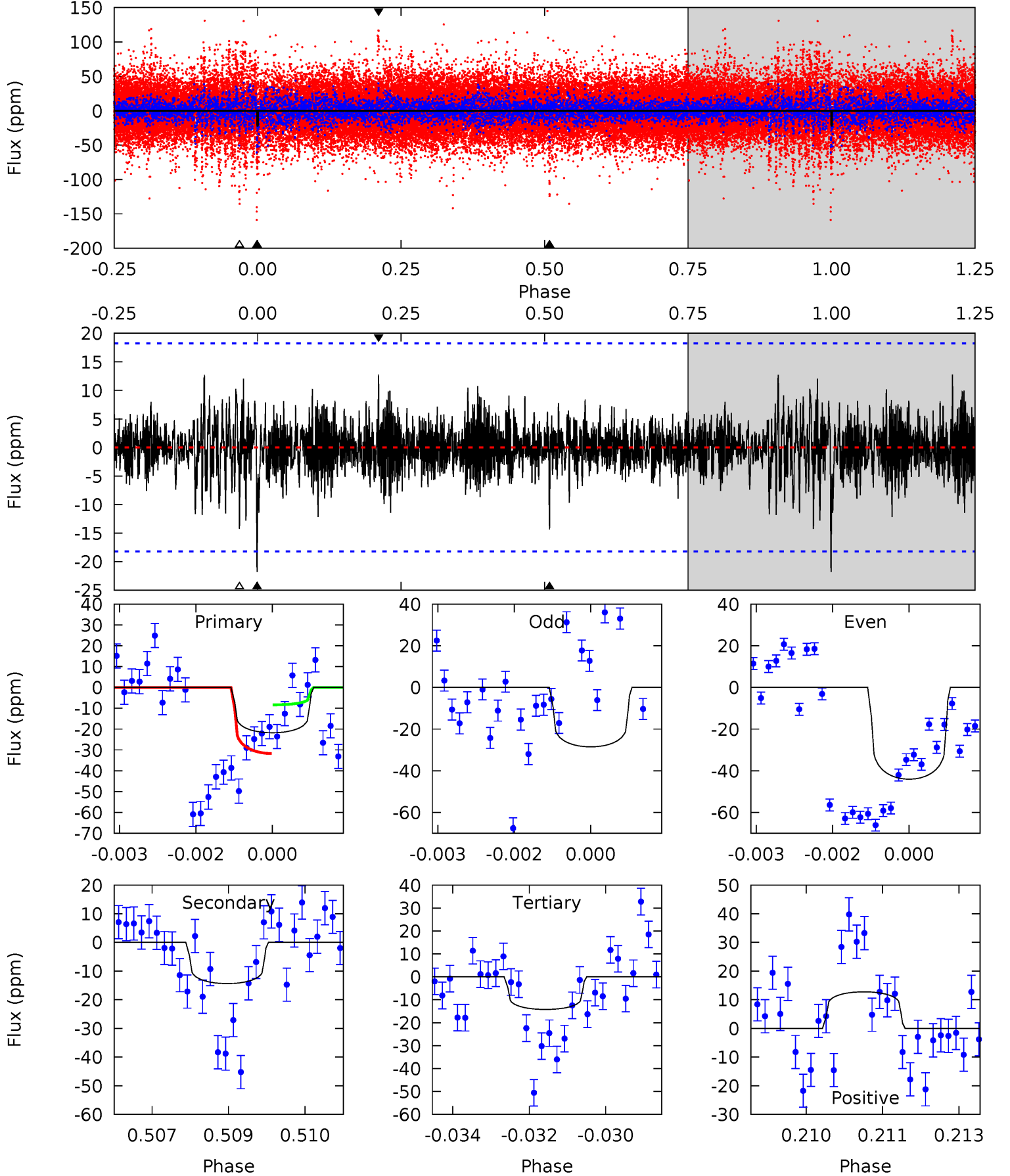
TCE 011904306-01 P=255.794115 Days $T_0=377.545285$ (BKJD)



DV Model-Shift Uniqueness Test

011904306-01, P = 255.794547 Days, E = 121.749512 Days

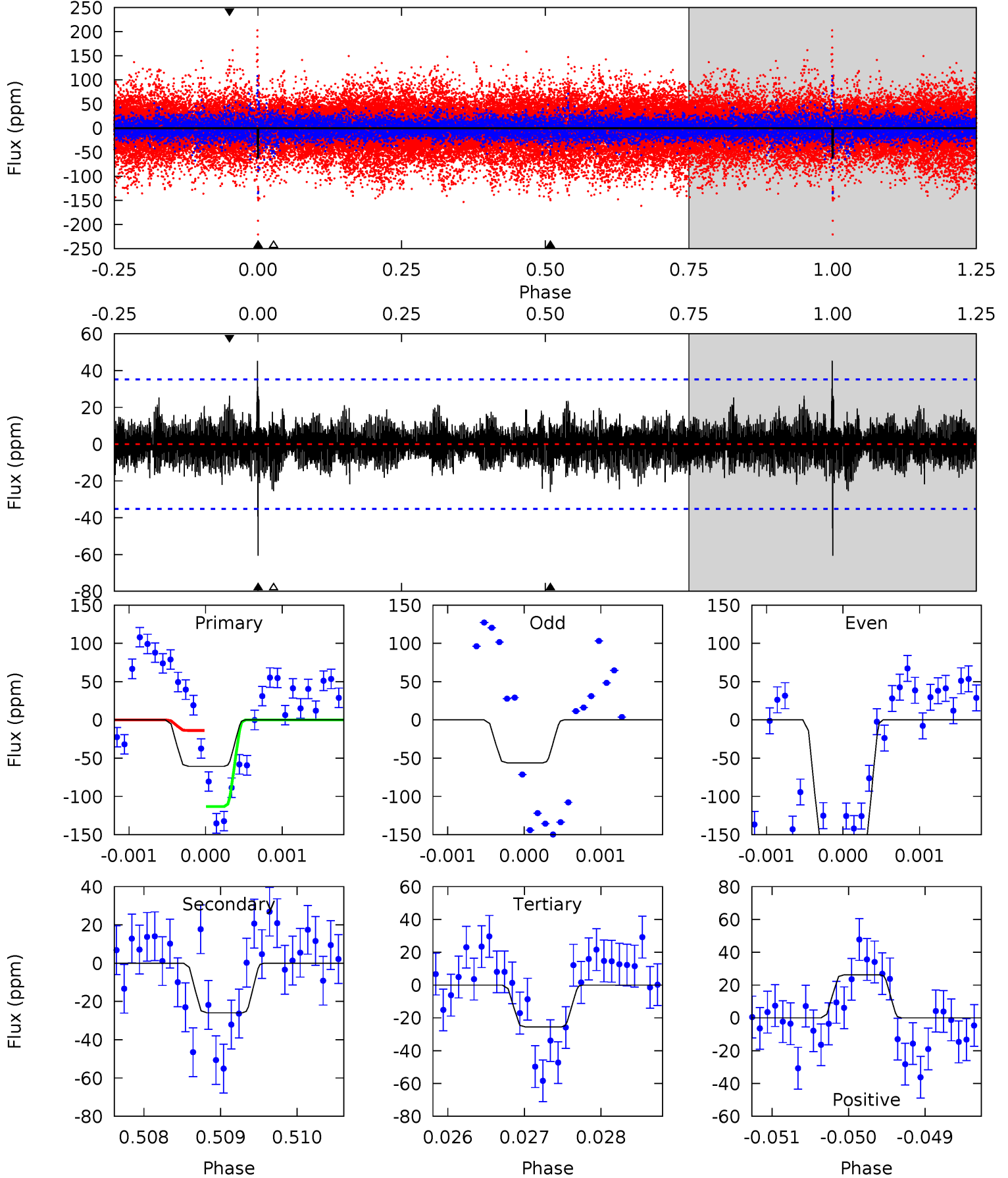
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.41	4.23	4.20	3.76	5.37	3.16	1.00	2.22	2.65	0.04	0.47	2.19	0.47	0.37	3.49



Alt Model-Shift Uniqueness Test

011904306-01, P = 255.794115 Days, E = 121.751170 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.37	4.00	3.95	4.06	5.44	3.28	1.08	5.42	5.31	0.06	-0.06	8.95	2.32	0.43	7.68



Stellar Parameters For KIC 011904306

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7286^{+230}_{-307}	$3.773^{+0.476}_{-0.084}$	$-0.480^{+0.250}_{-0.300}$	$2.633^{+0.420}_{-1.261}$	$1.500^{+0.188}_{-0.350}$	$0.116^{+0.568}_{-0.040}$
	+3%/-4%	+13%/-2%	+52%/-62%	+16%/-48%	+13%/-23%	+491%/-35%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011904306-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-14 ± 3	$2.08^{+0.94}_{-0.90}$	735^{+53}_{-85}	4967^{+1371}_{-656}	1431^{+3087}_{-772}
Alt.	-26 ± 6	$3.47^{+1.12}_{-0.98}$	743^{+53}_{-83}	4578^{+606}_{-443}	916^{+986}_{-387}

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

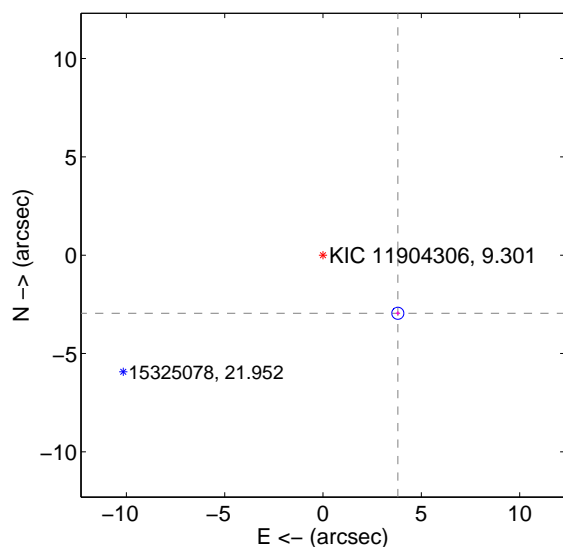
Supplemental centroid analysis for 011904306-01. **Kepler magnitude: 9.30.** Transit SNR 8.73

There are 0 quarters with good PRF difference image offsets

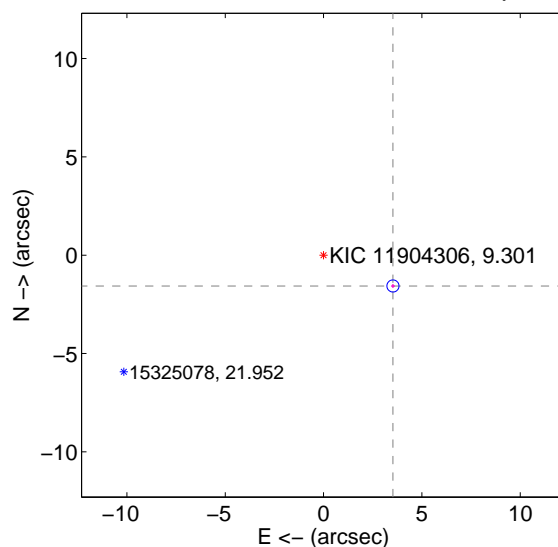
The direct PRF centroid is offset from the target star catalog position by about 1.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.816 ± 0.102	47.07	-3.803 ± 0.103	-2.955 ± 0.101
PRF-fit source offset from KIC position	3.860 ± 0.103	37.61	-3.528 ± 0.103	-1.567 ± 0.101
photometric centroid source offset	1.72 ± 2.85	0.60	-1.64 ± 2.79	-0.50 ± 3.35

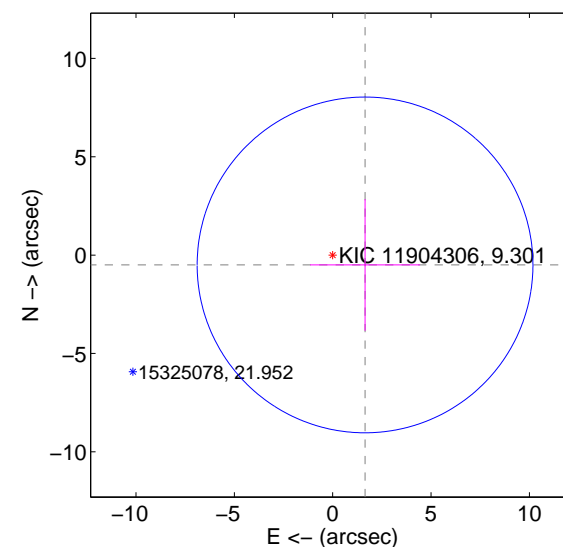
offset from difference PRF-fit to OOT PRF-fit



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.

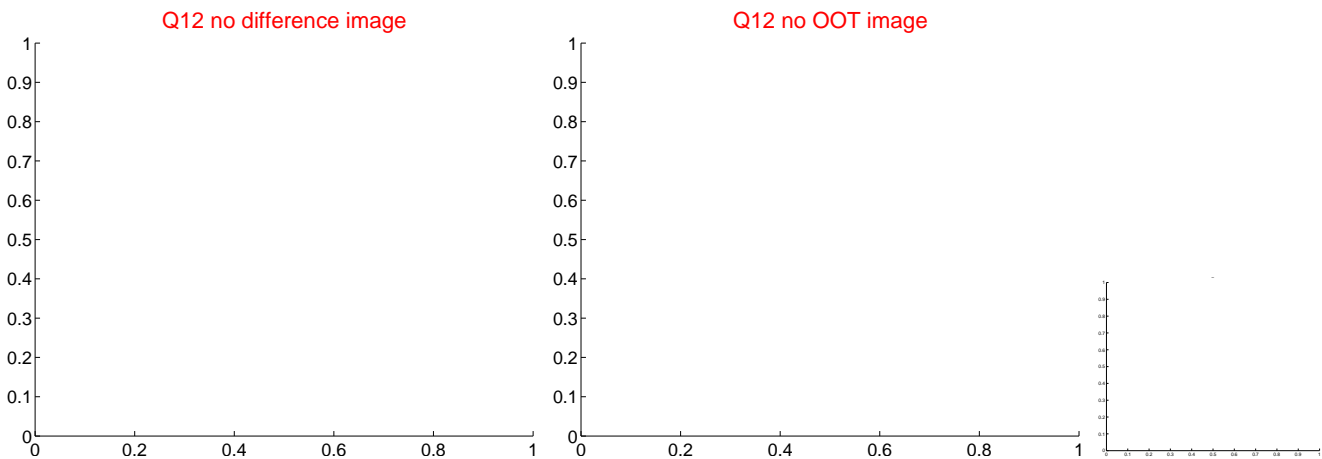
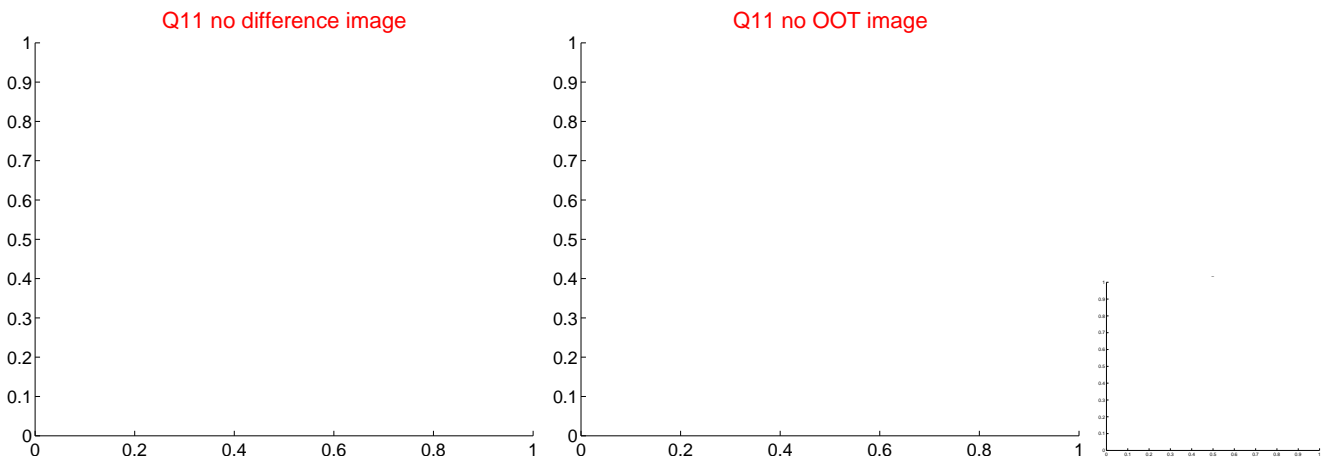
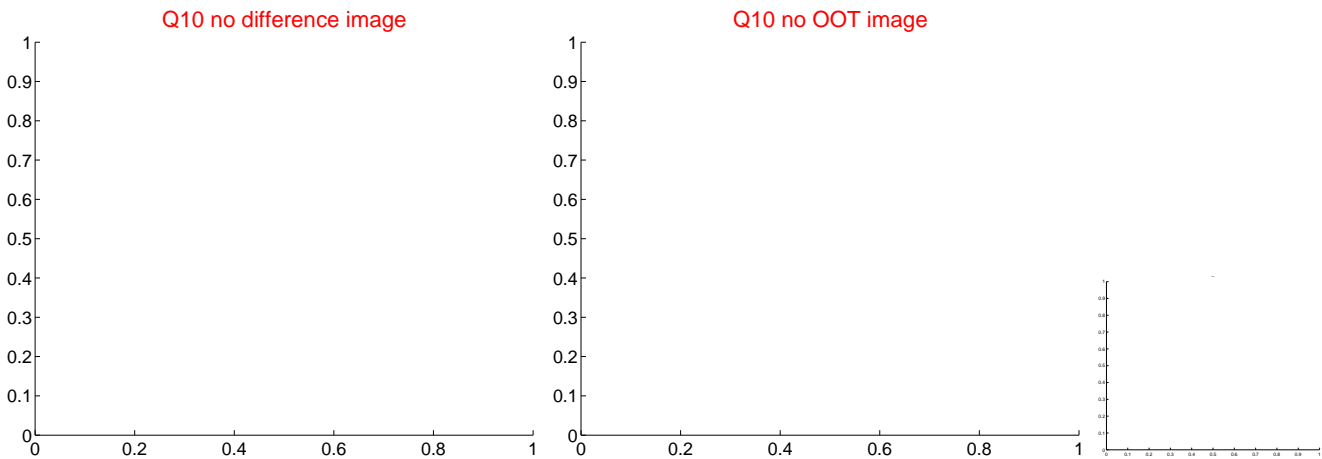
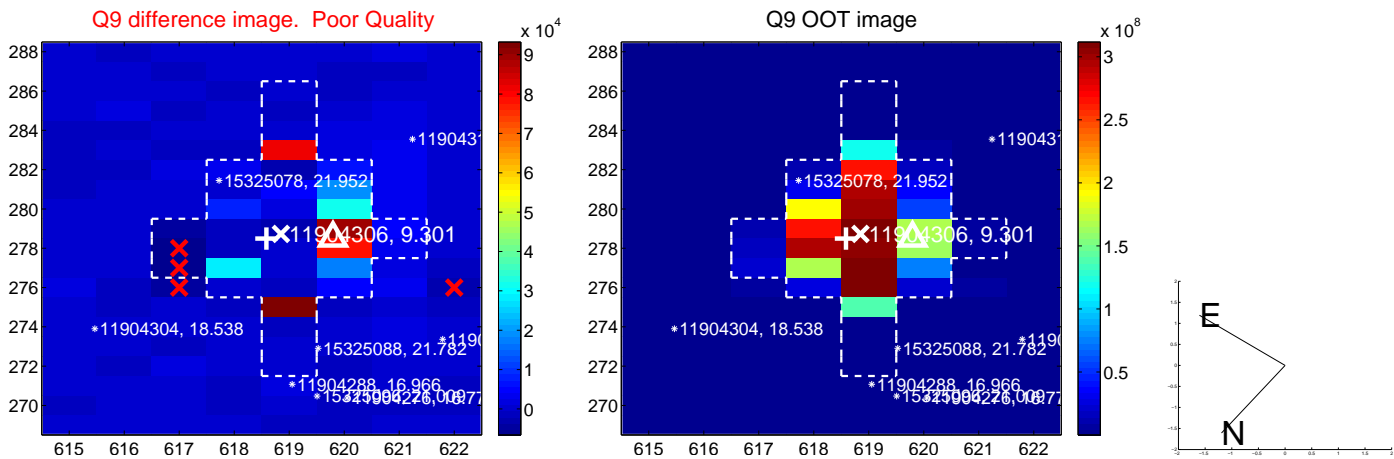
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q13 no difference image



Q13 no OOT image



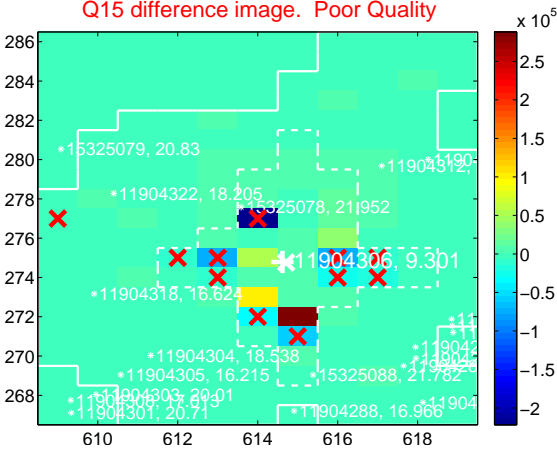
Q14 no difference image



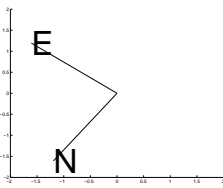
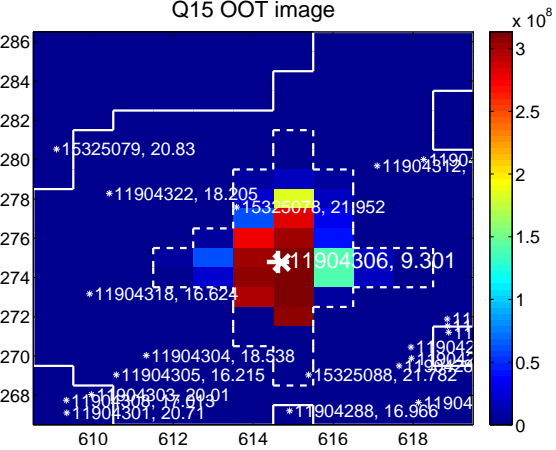
Q14 no OOT image



Q15 difference image. Poor Quality



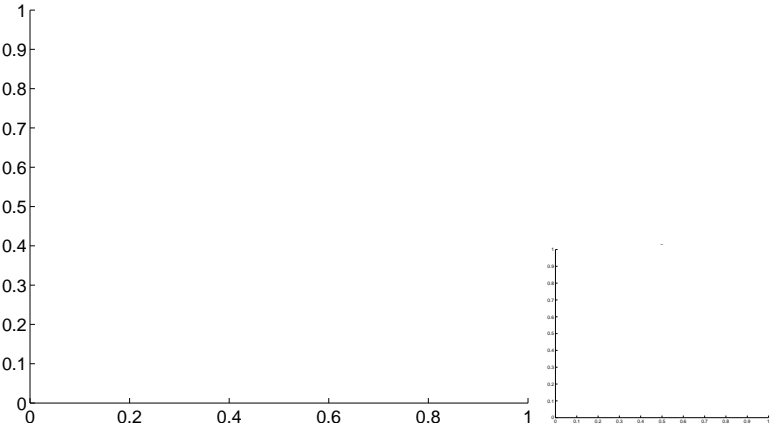
Q15 OOT image



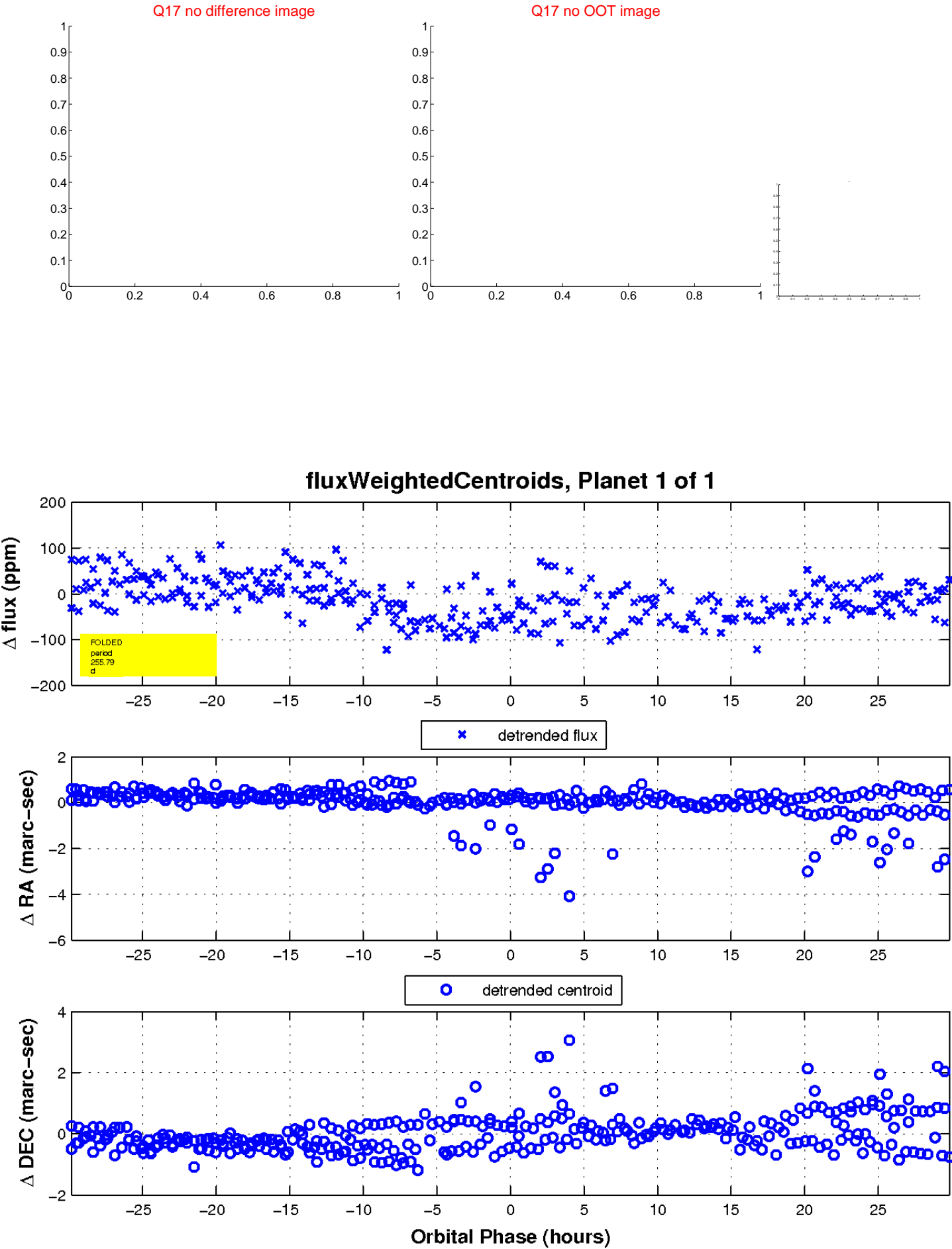
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

