

KIC 005896387

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})
005896387-01	OBS	No	603.706899	191.788378	306.0	3.906	16.9	4.8	1.02	5767	1.97	0.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005896387-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV— MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

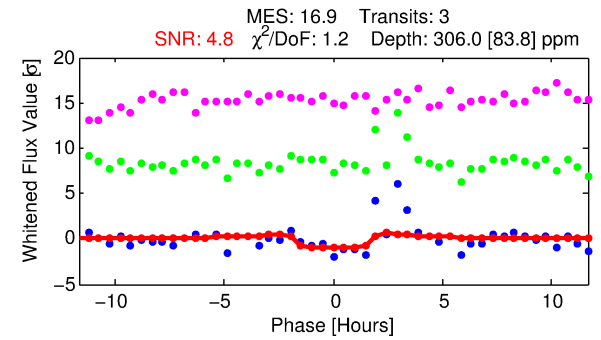
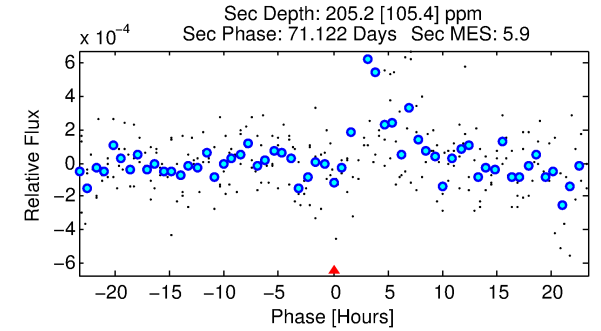
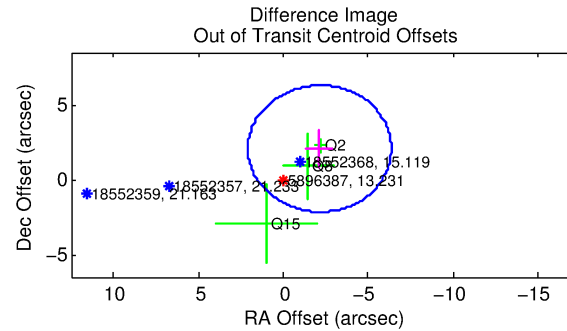
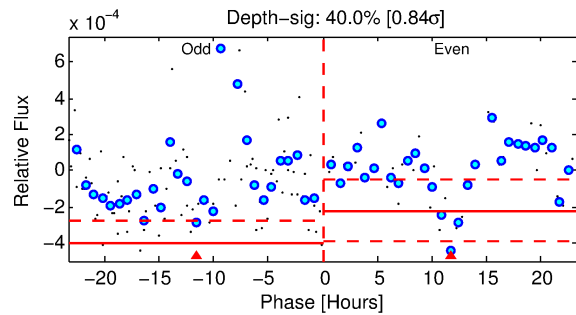
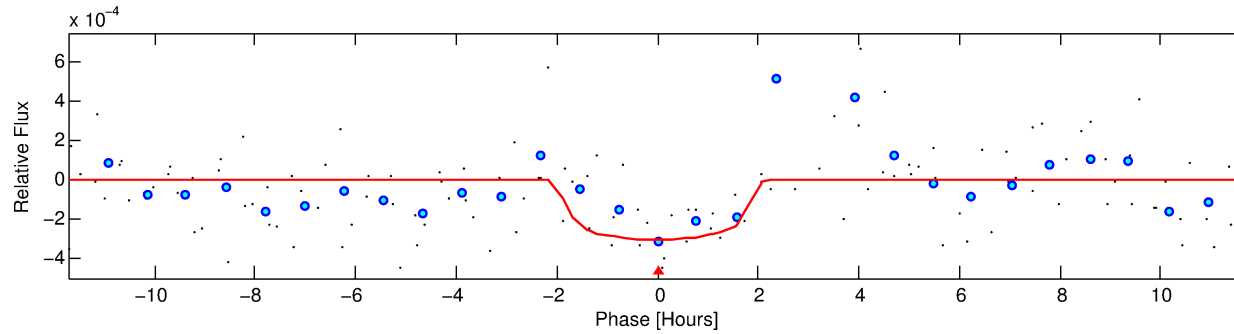
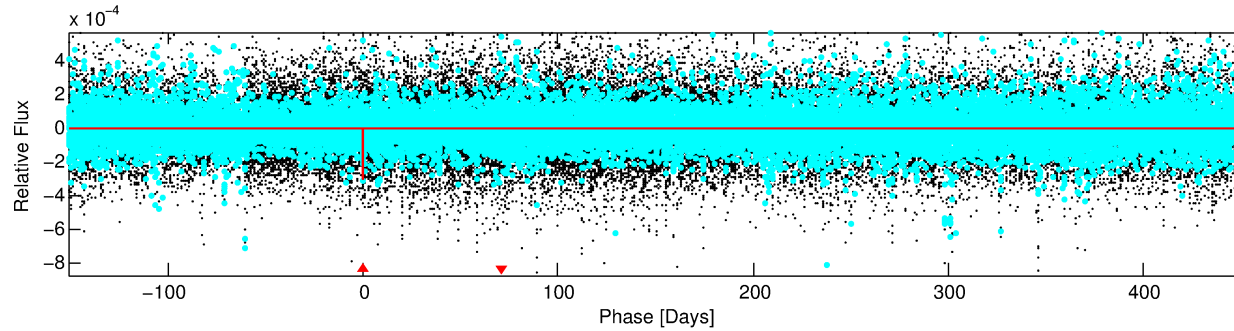
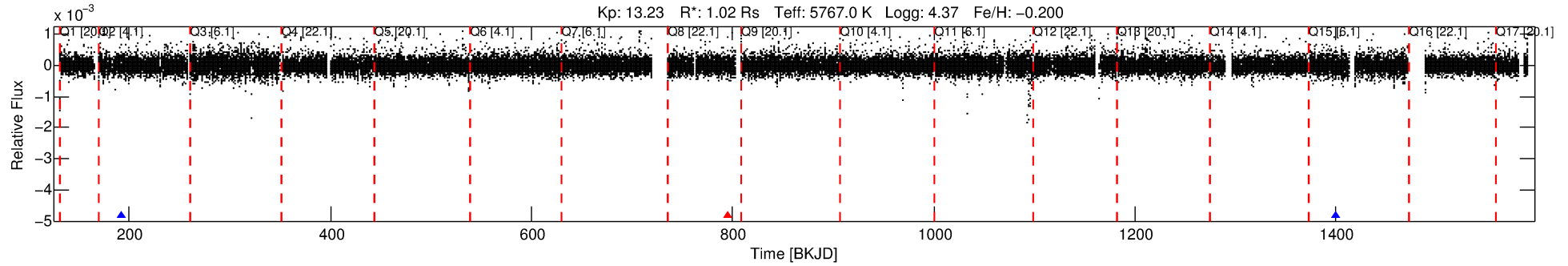
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005896387-01

No Significant Match Found

DV One-Page Summary

KIC: 5896387 Candidate: 1 of 1 Period: 603.707 d



DV Fit Results:

Period = 603.70690 [0.01026] d
Epoch = 191.7884 [0.0140] BKJD
Rp/R* = 0.0177 [0.0275]
a/R* = 763.89 [5399.13]
b = 0.79 [3.50]
Seff = 0.57 [0.20]
Teq = 222 [20] K
Rp = 1.97 [3.11] Re
a = 1.3436 [0.3116] AU
Ag = 52564.46 [166852.03] [0.32σ]
Teffp = 5192 [4099] K [1.21σ]

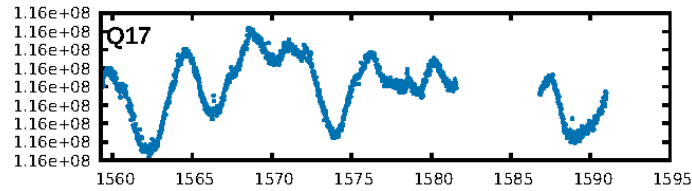
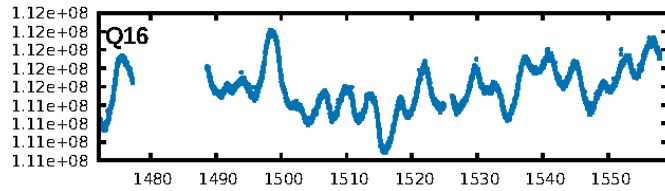
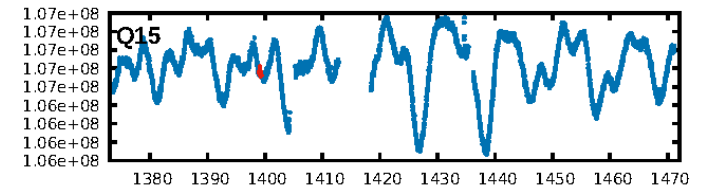
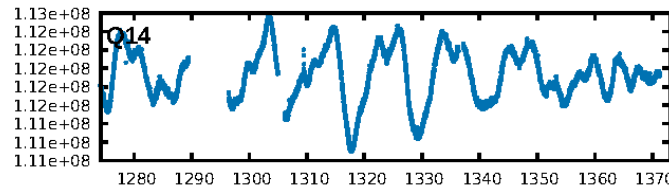
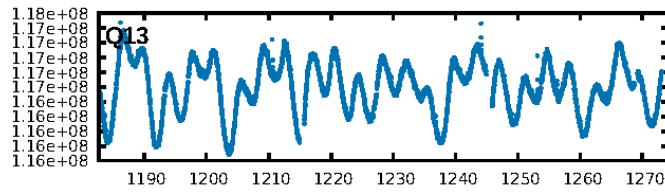
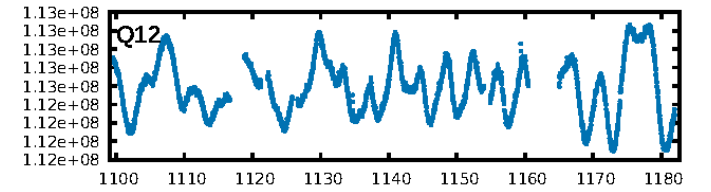
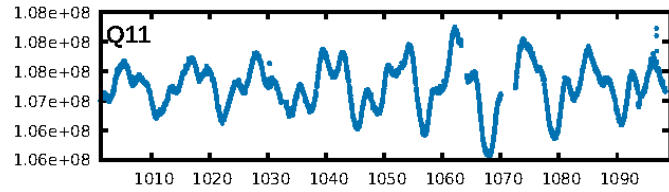
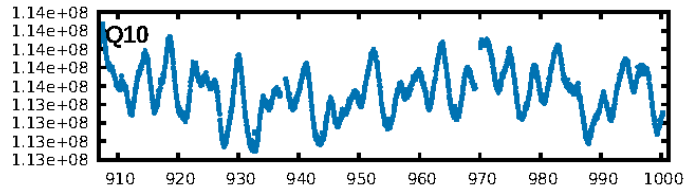
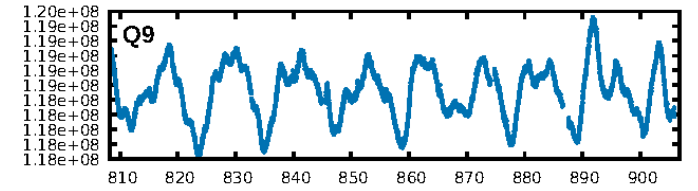
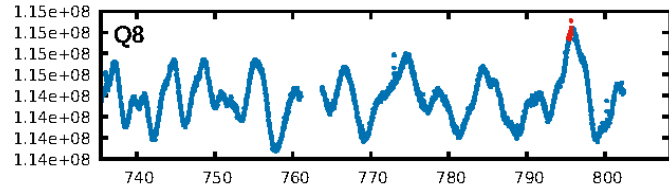
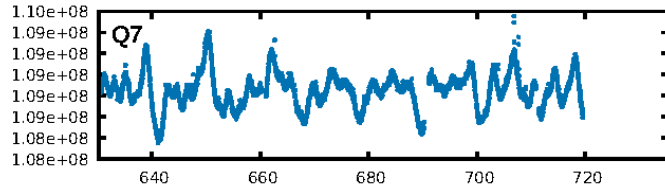
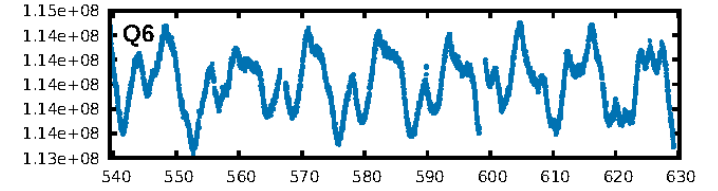
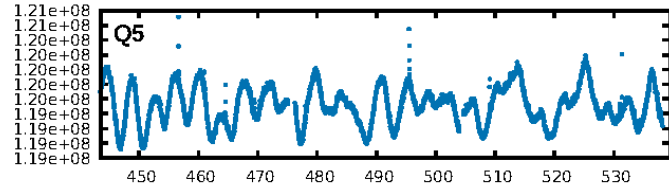
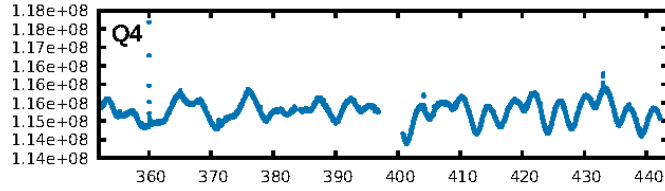
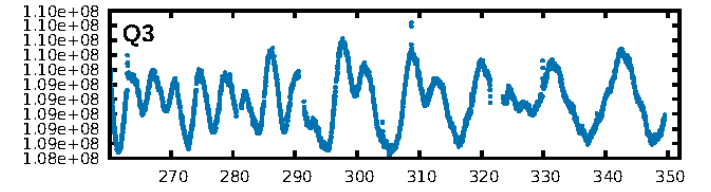
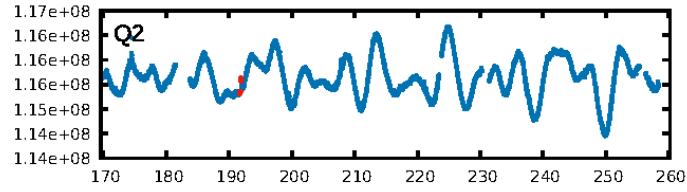
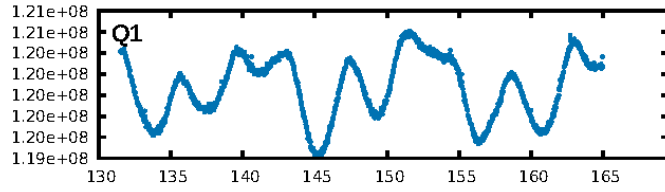
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 59.8%
Bootstrap-pfa: 1.18e-16
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 0.4439
Centroid-sig: 48.1%
Centroid-so: 1.137 arcsec [0.70σ]
OotOffset-rm: 2.987 arcsec [2.12σ]
KicOffset-rm: 2.775 arcsec [2.47σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

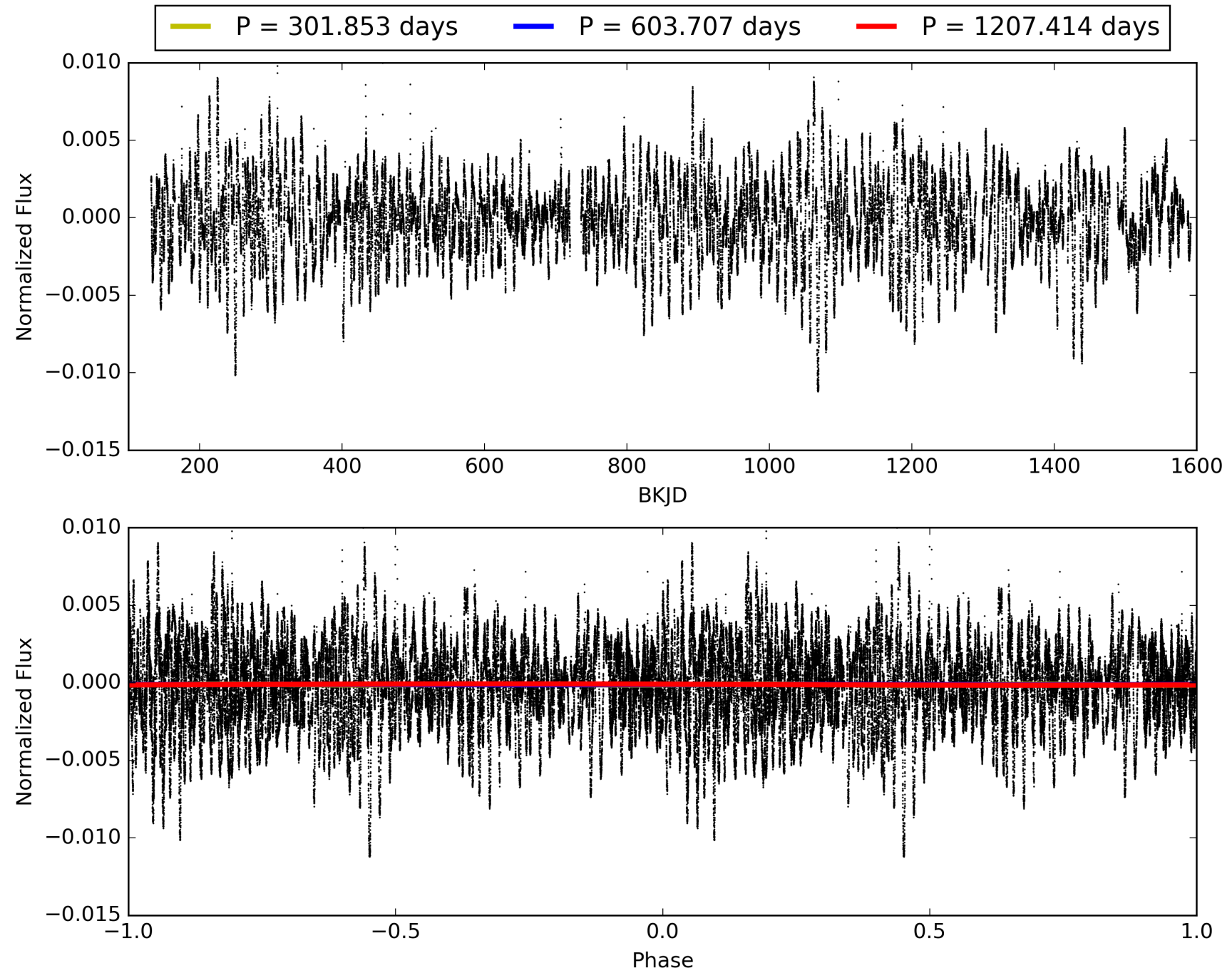
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:30:06 Z

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

TCE 005896387-01, PDC Light Curves

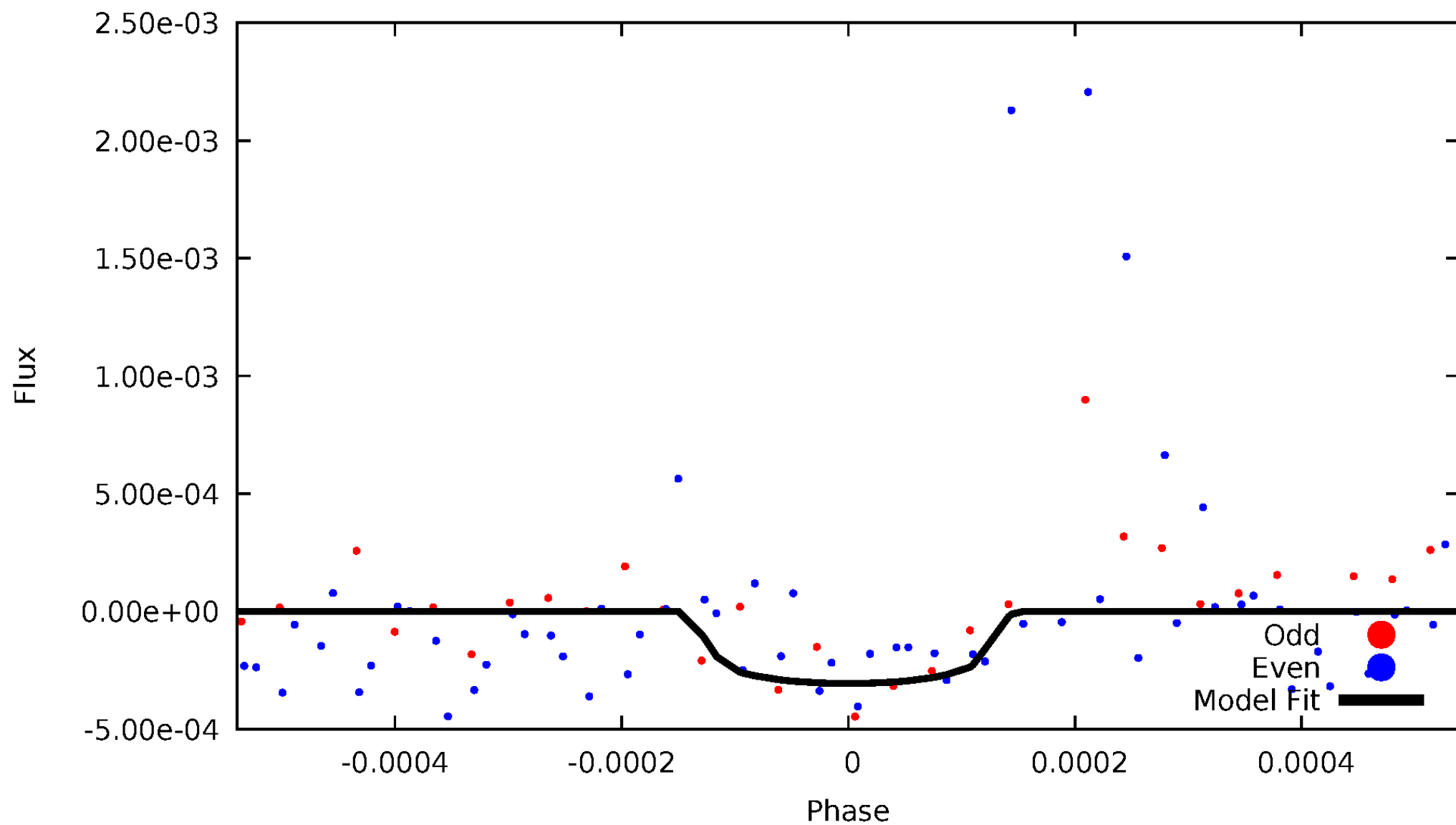


TCE 005896387-01



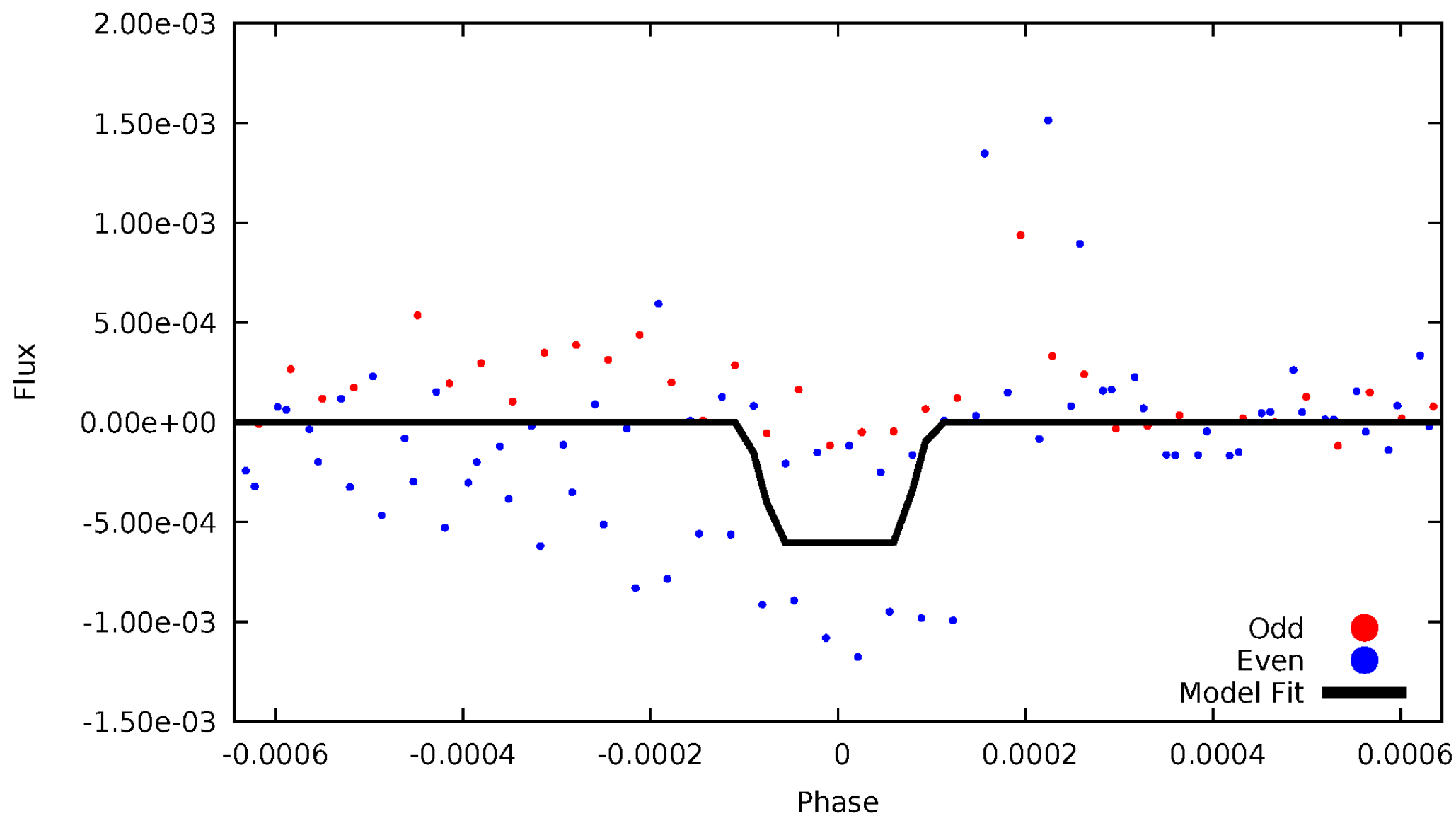
DV Odd/Even

TCE 005896387-01

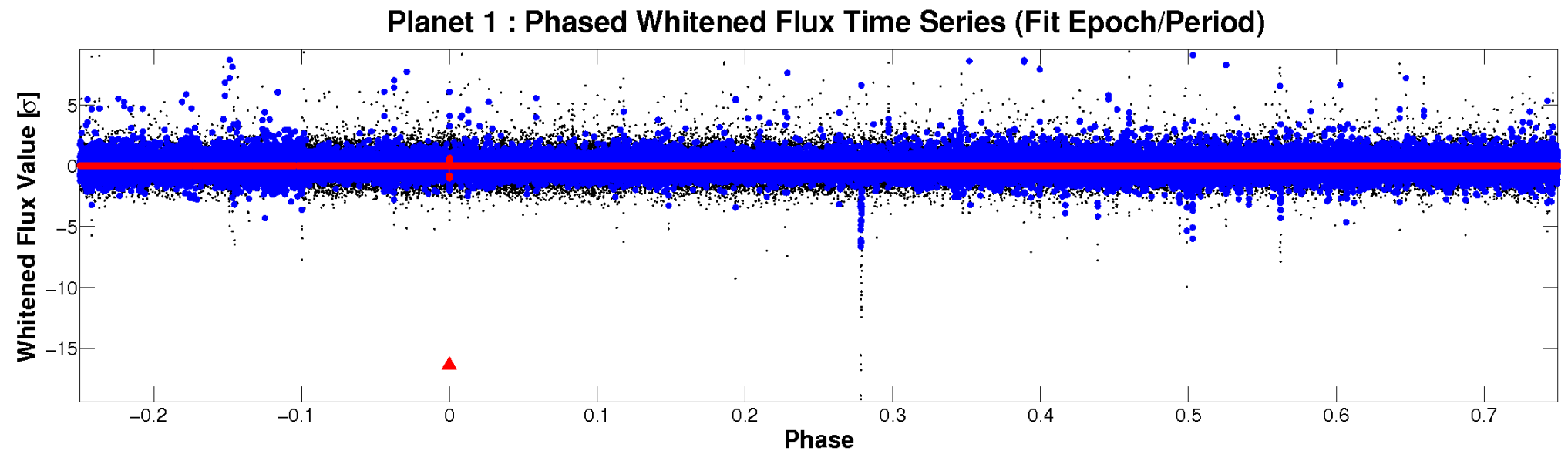
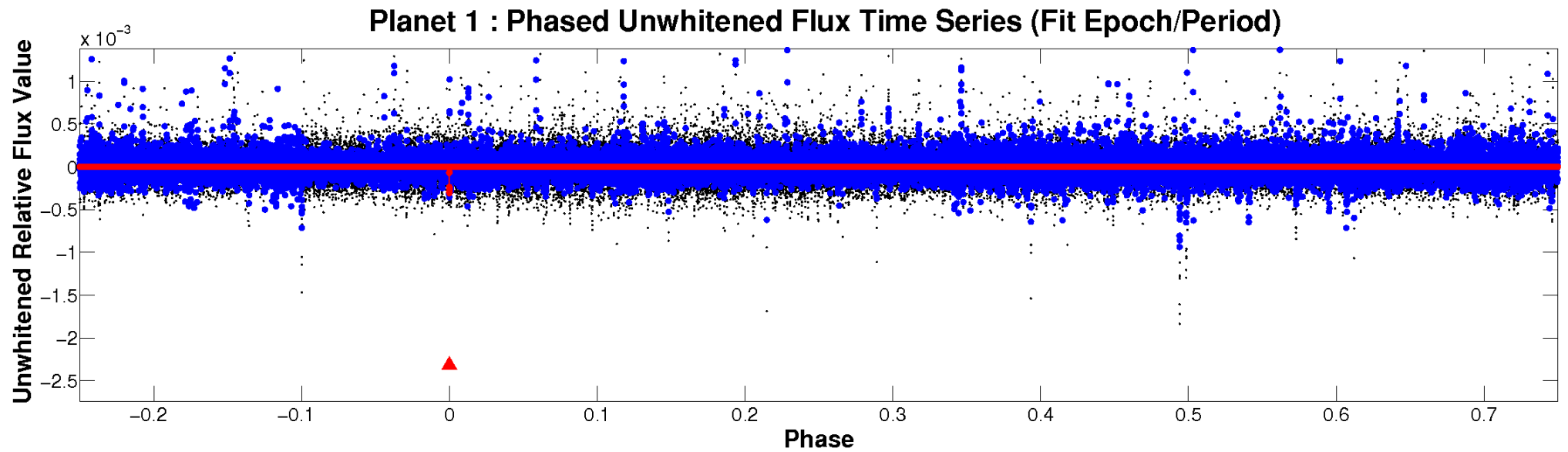


ALT Odd/Even

TCE 005896387-01

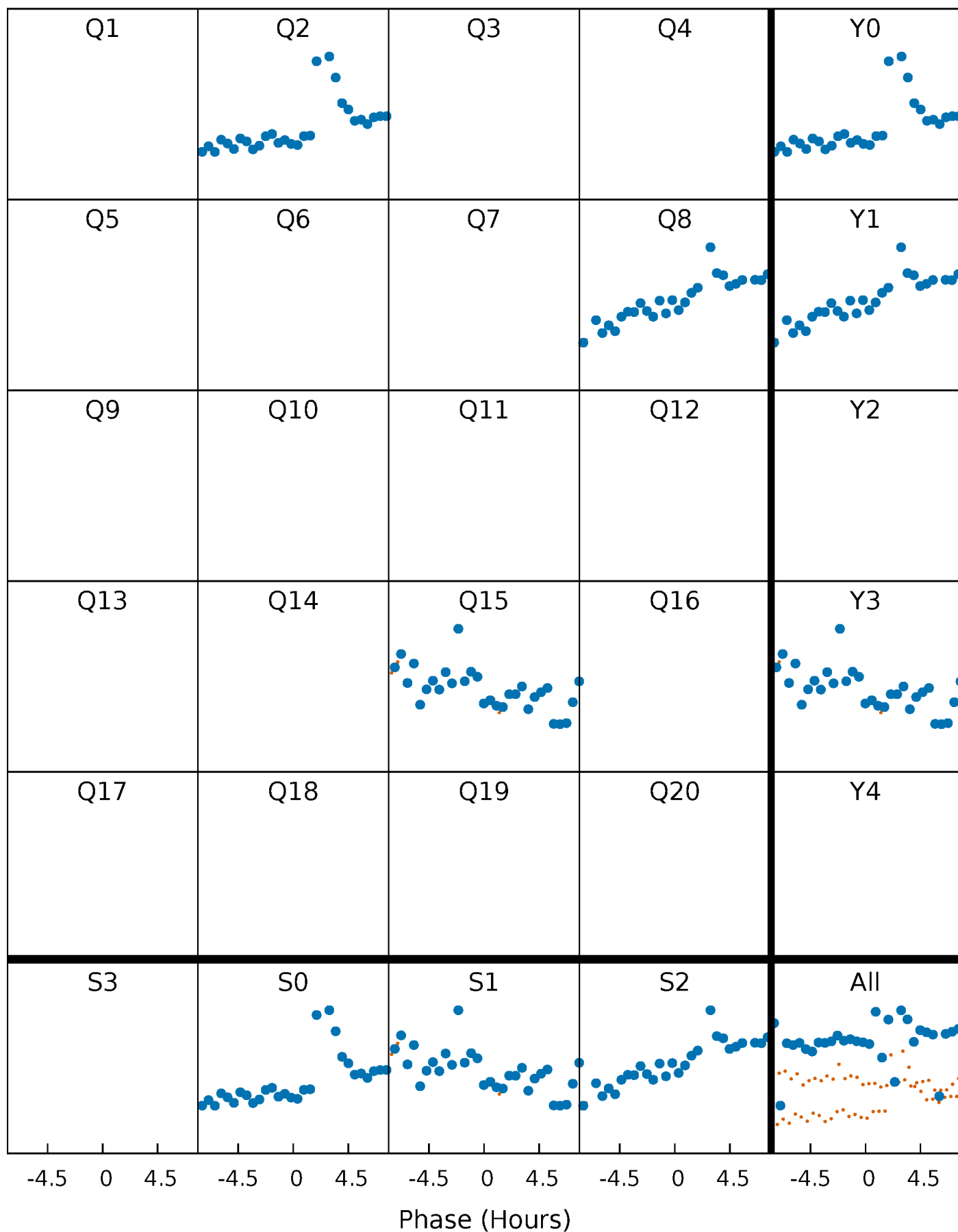


Non-Whitened Vs. Whitened Light Curve



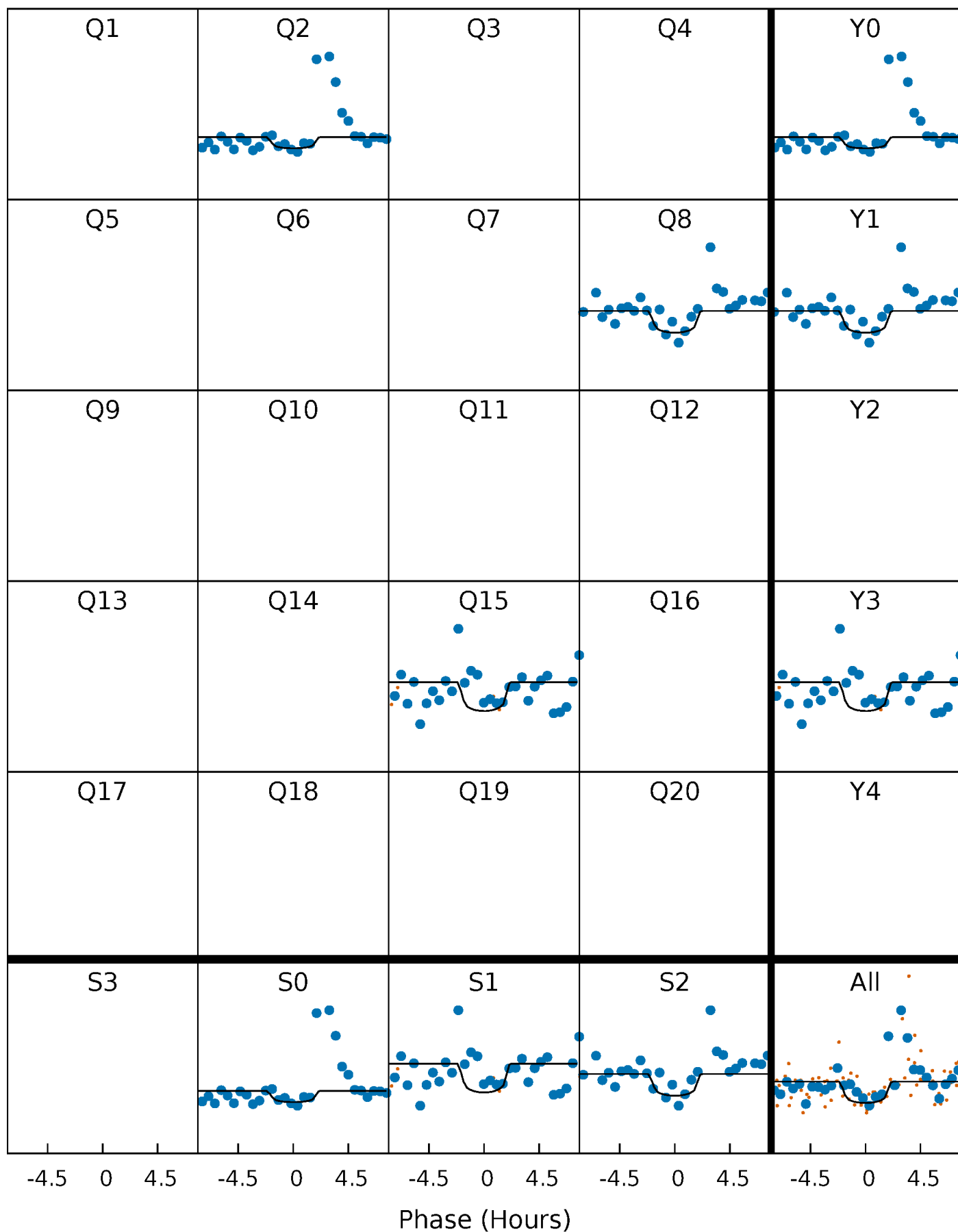
PDC Quarter-Phased Transit Curves

TCE 005896387-01 P=603.706899 Days $T_0=191.788378$ (BKJD)



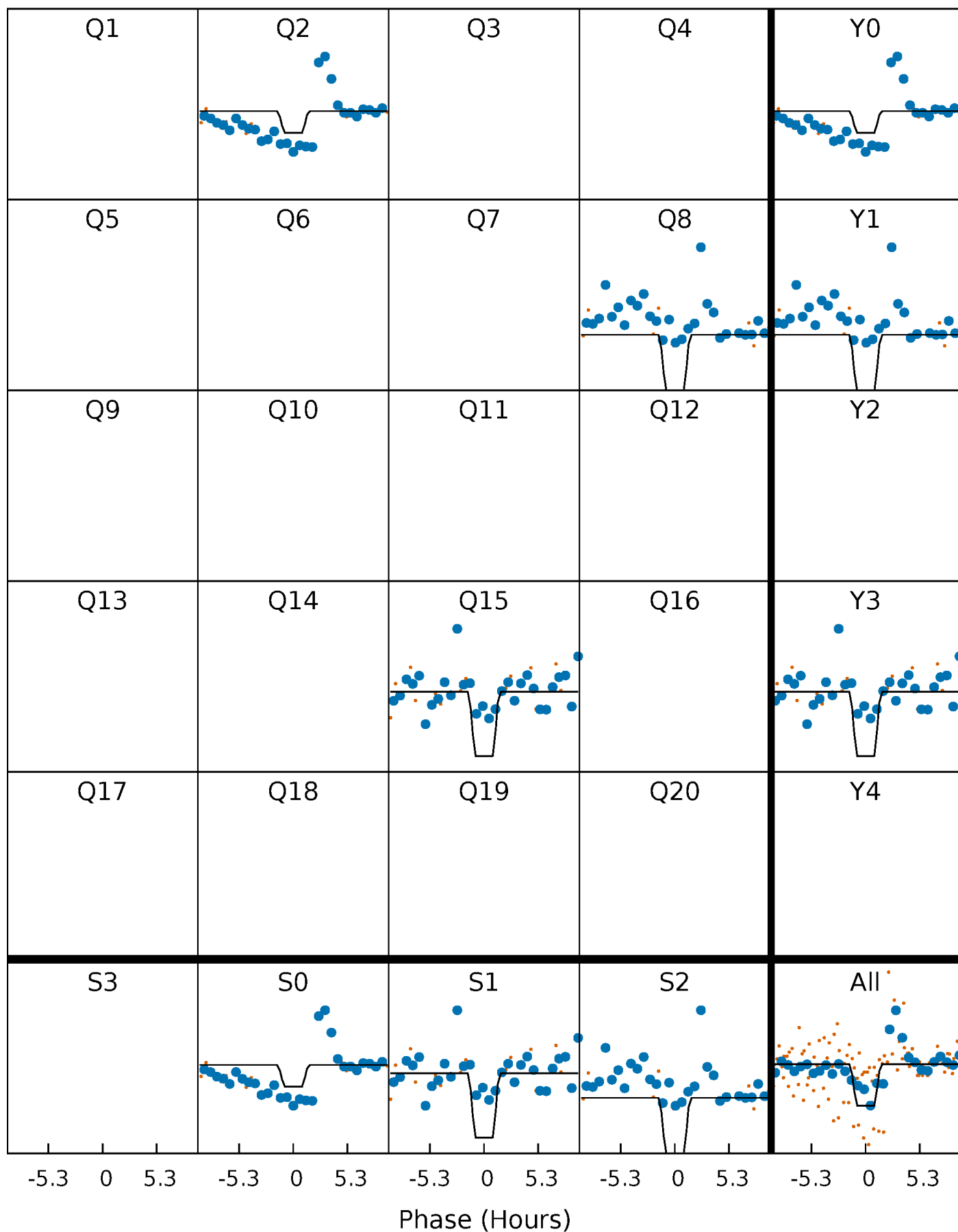
DV Quarter-Phased Transit Curves

TCE 005896387-01 P=603.706899 Days $T_0=191.788378$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

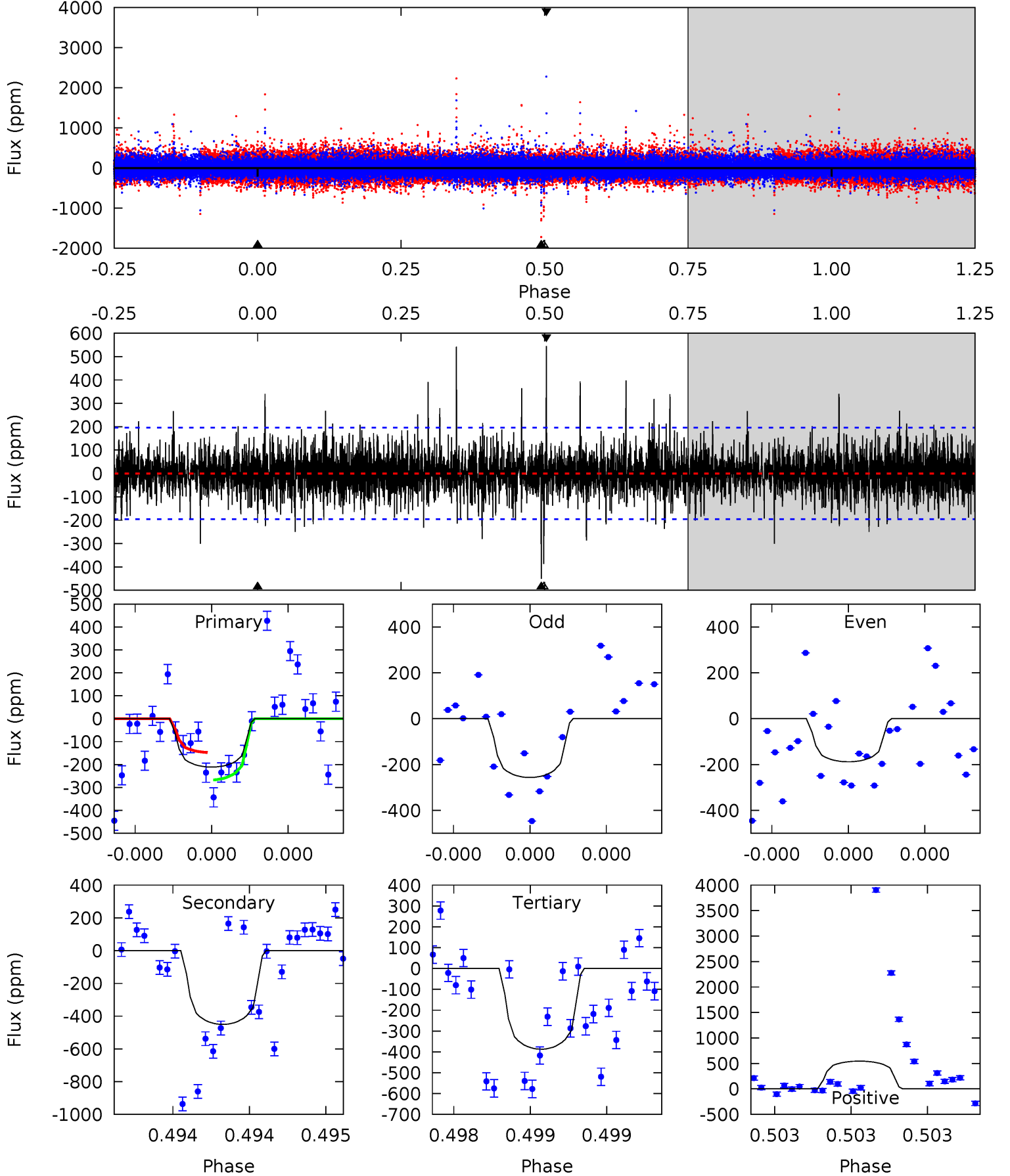
TCE 005896387-01 P=603.723153 Days $T_0=191.780758$ (BKJD)



DV Model-Shift Uniqueness Test

005896387-01, P = 603.706899 Days, E = 191.788378 Days

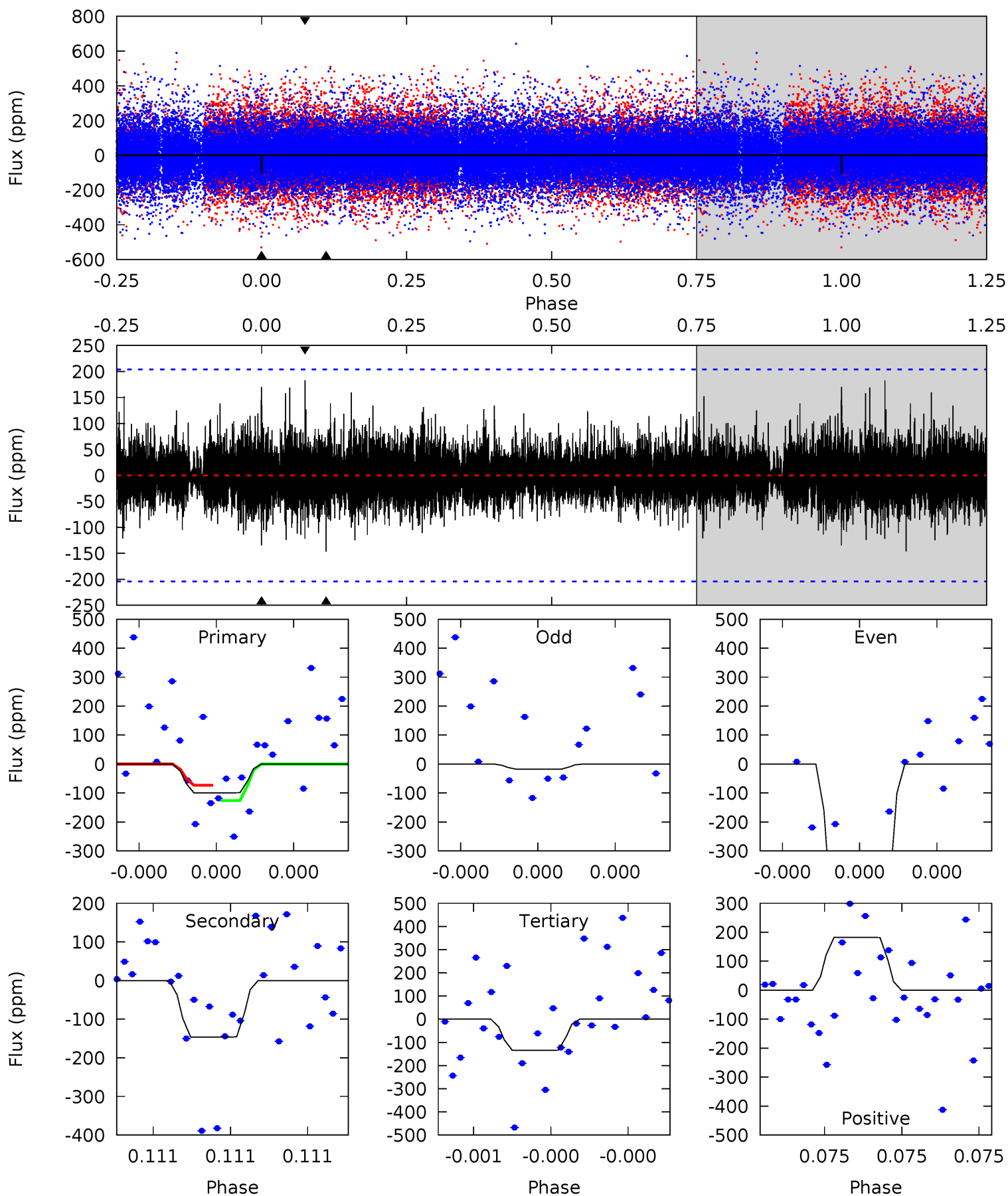
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.12	13.1	11.2	15.8	5.68	3.64	1.83	-5.10	-9.68	1.83	-2.75	0.86	0.85	0.55	1.74



Alt Model-Shift Uniqueness Test

005896387-01, P = 603.723153 Days, E = 191.780758 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.79	4.11	3.78	5.13	5.74	3.73	0.83	-0.98	-2.34	0.34	-1.02	9.91	2.40	0.56	0.74



Stellar Parameters For KIC 005896387

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5767^{+155}_{-155}	$4.368^{+0.153}_{-0.187}$	$-0.200^{+0.300}_{-0.300}$	$1.021^{+0.279}_{-0.186}$	$0.888^{+0.131}_{-0.076}$	$1.174^{+0.842}_{-0.563}$
	+3%/-3%	+4%/-4%	+150%/-150%	+27%/-18%	+15%/-9%	+72%/-48%
Source	PHO1	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 005896387-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-450 ± 34	$3.16^{+2.81}_{-2.24}$	312^{+21}_{-19}	5109^{+4916}_{-1098}	$45486^{+485758}_{-32734}$
Alt.	-146 ± 36	$3.69^{+2.83}_{-2.40}$	311^{+23}_{-18}	3864^{+2093}_{-657}	10940^{+71903}_{-7588}

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

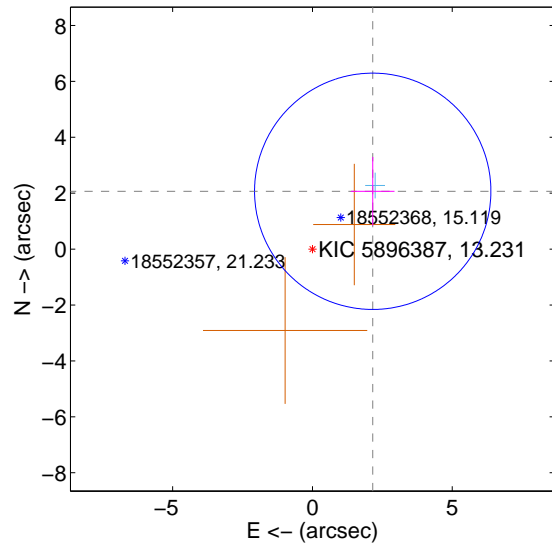
Supplemental centroid analysis for 005896387-01. Kepler magnitude: 13.23. Transit SNR 4.75

There are 1 quarters with good PRF difference image offsets

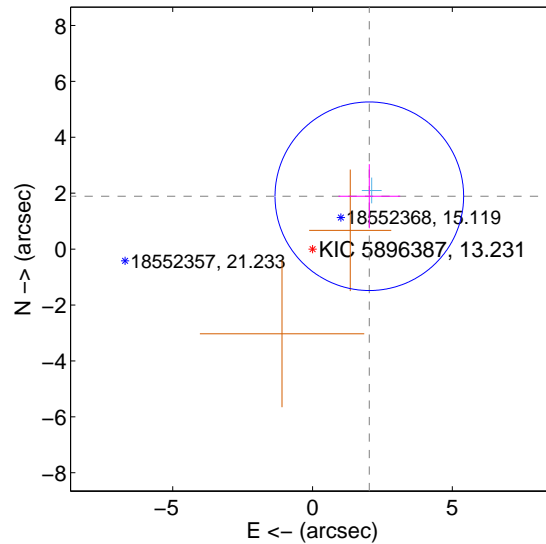
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.987 ± 1.409	2.12	-2.156 ± 0.778	2.068 ± 1.227
PRF-fit source offset from KIC position	2.775 ± 1.124	2.47	-2.032 ± 1.103	1.891 ± 1.148
photometric centroid source offset	1.14 ± 1.62	0.70	0.16 ± 1.74	-1.13 ± 1.61

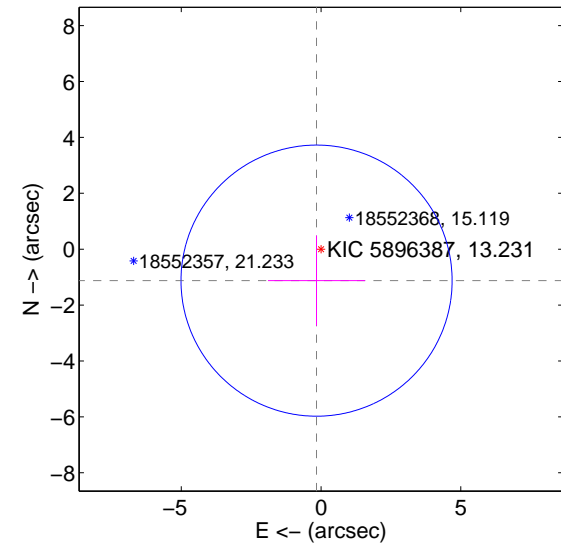
offset from difference PRF-fit to OOT PRF-fit



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.

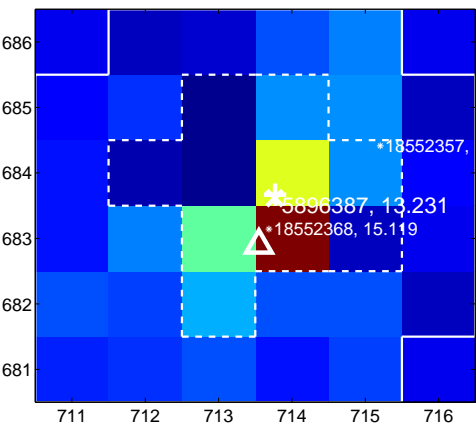
Q1 no difference image



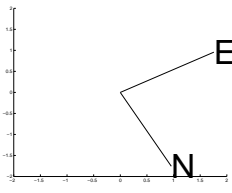
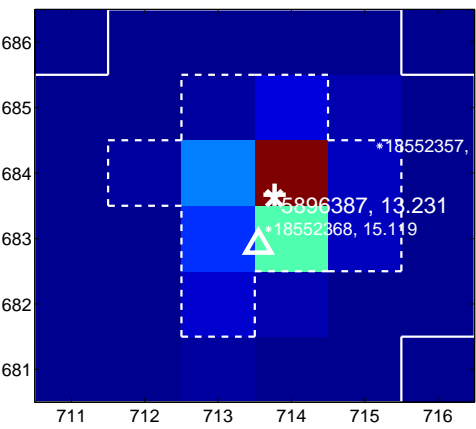
Q1 no OOT image



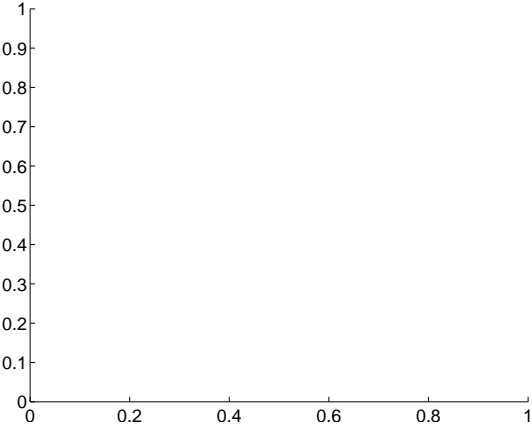
Q2 difference image



Q2 OOT image



Q3 no difference image



Q3 no OOT image



Q4 no difference image



Q4 no OOT image



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

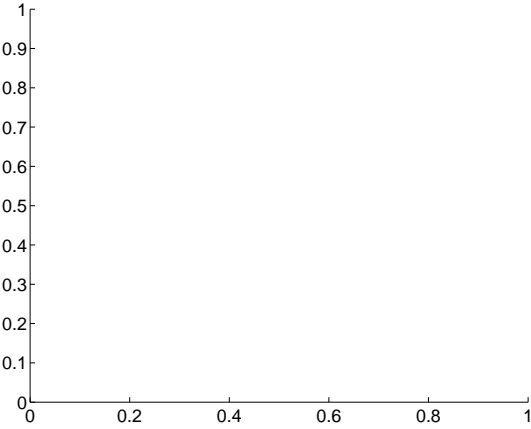
Q5 no difference image



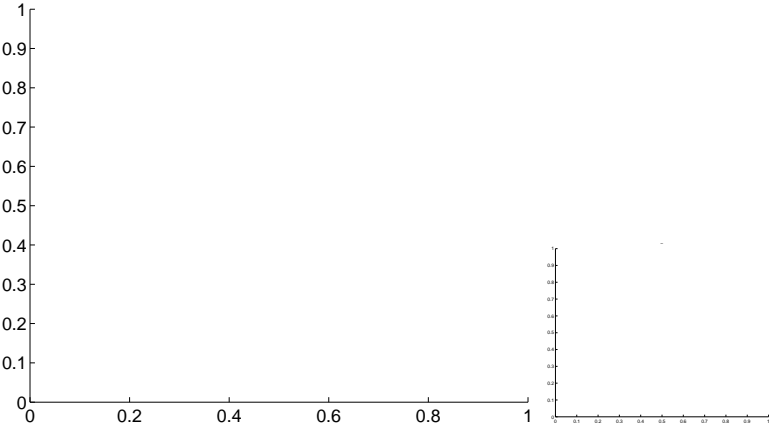
Q5 no OOT image



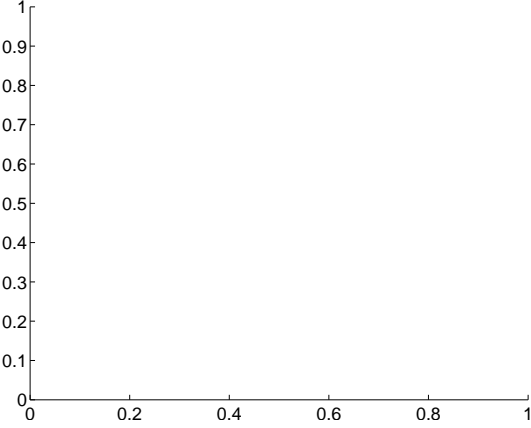
Q6 no difference image



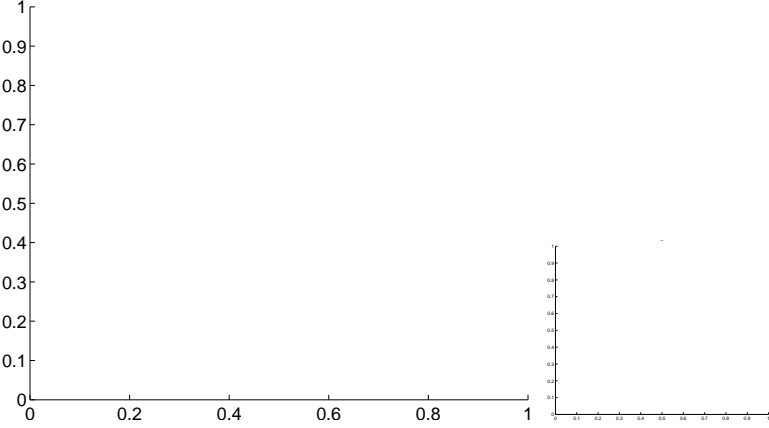
Q6 no OOT image



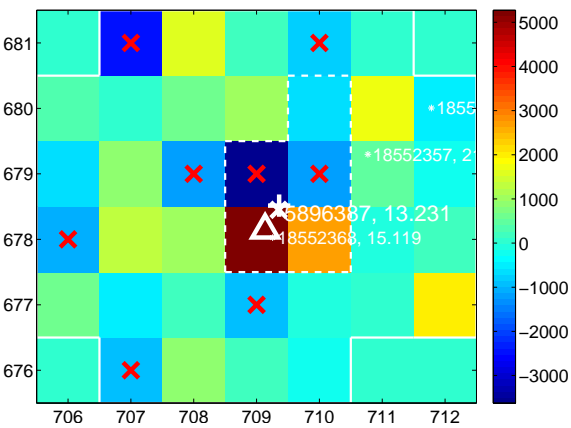
Q7 no difference image



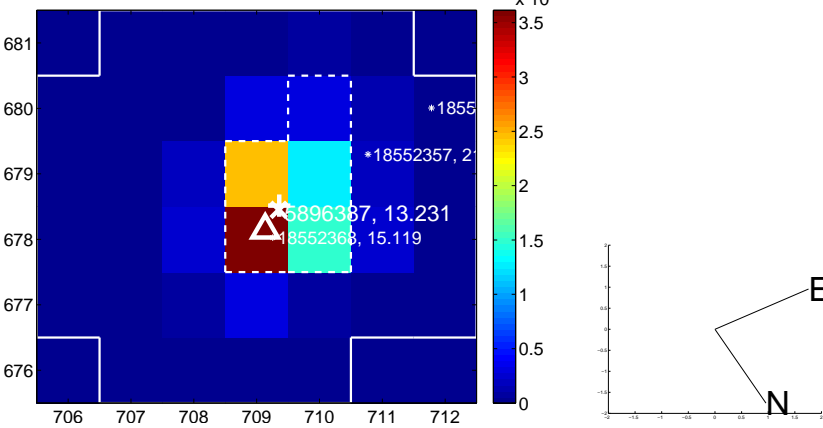
Q7 no OOT image



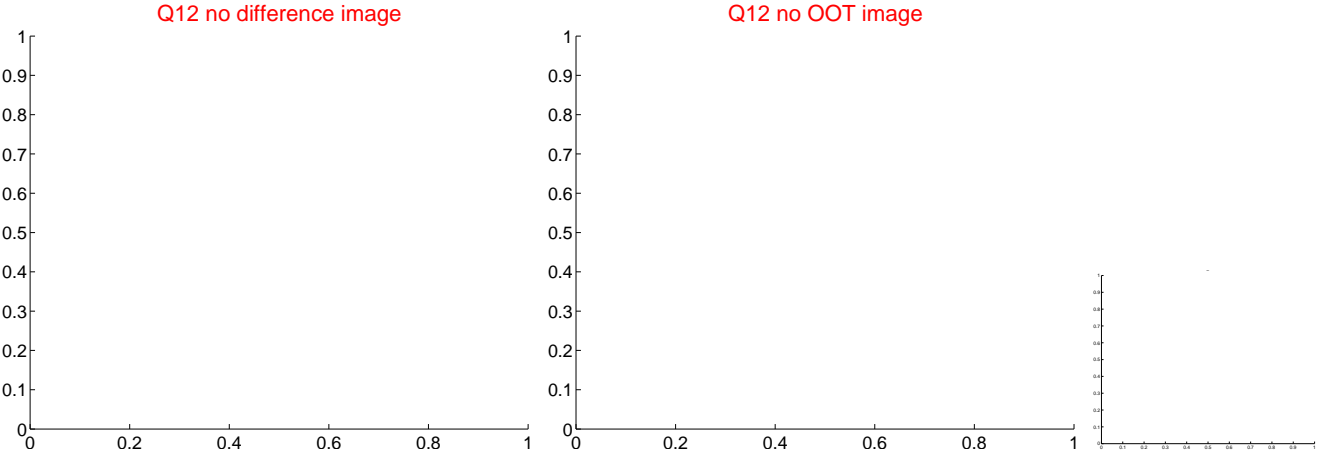
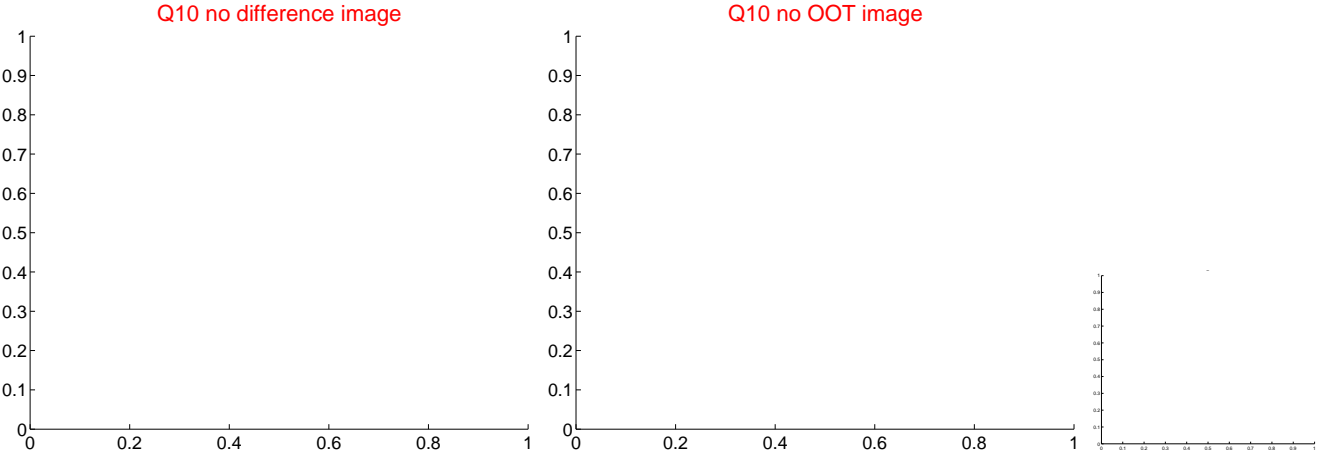
Q8 difference image. Poor Quality



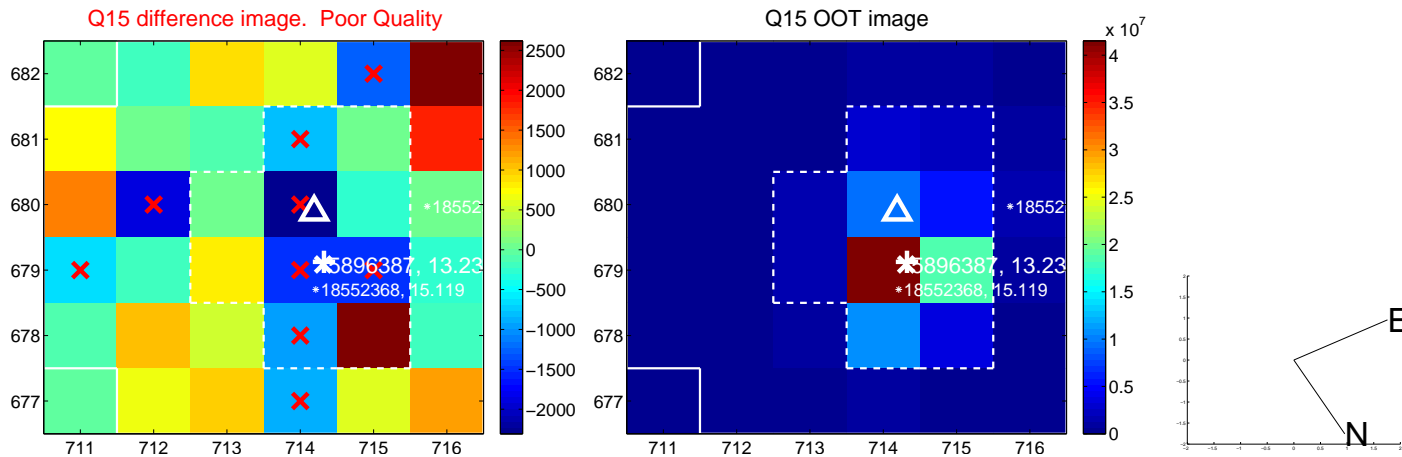
Q8 OOT image



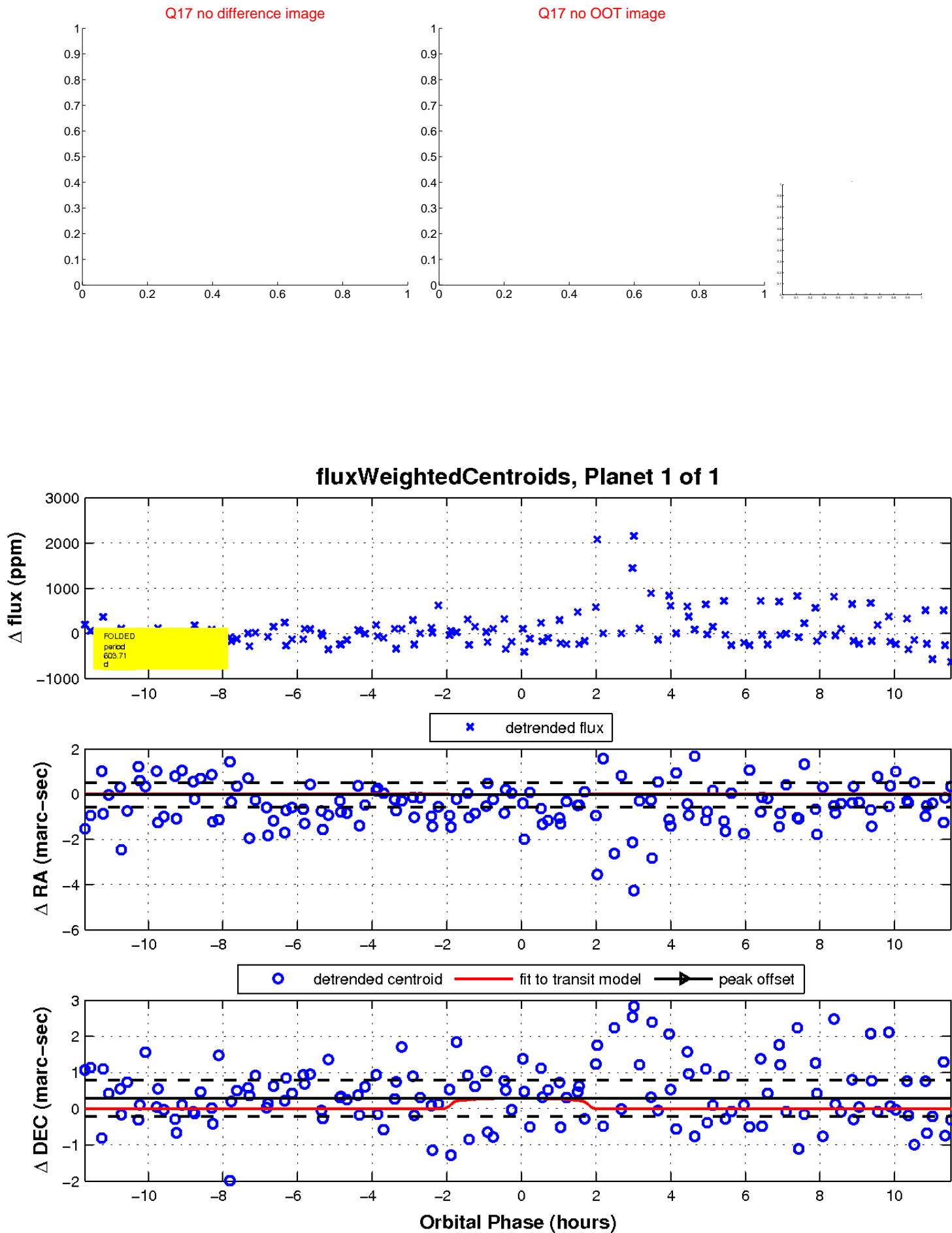
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

