

KIC 003556847

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})
003556847-01	OBS	No	0.939724	132.236231	15.6	2.667	7.6	5.6	2.79	7612	1.29	45759.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003556847-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_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.

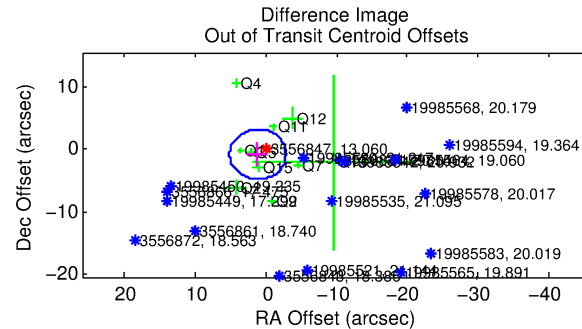
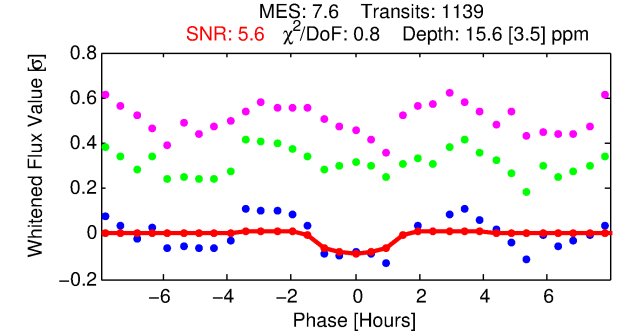
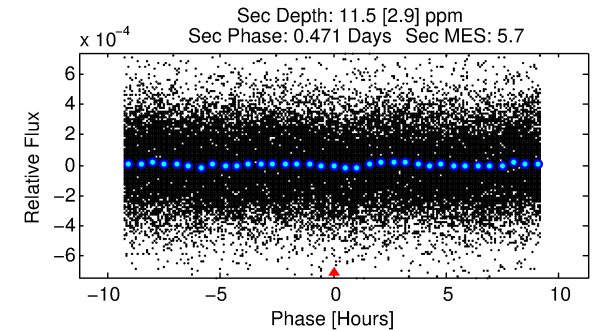
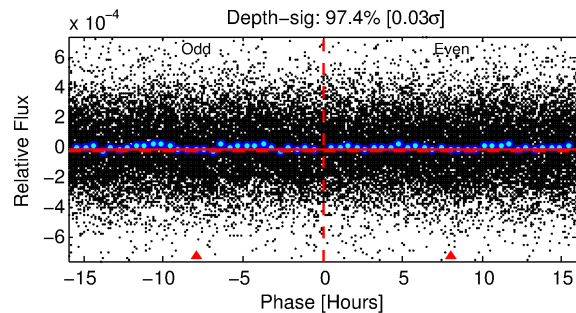
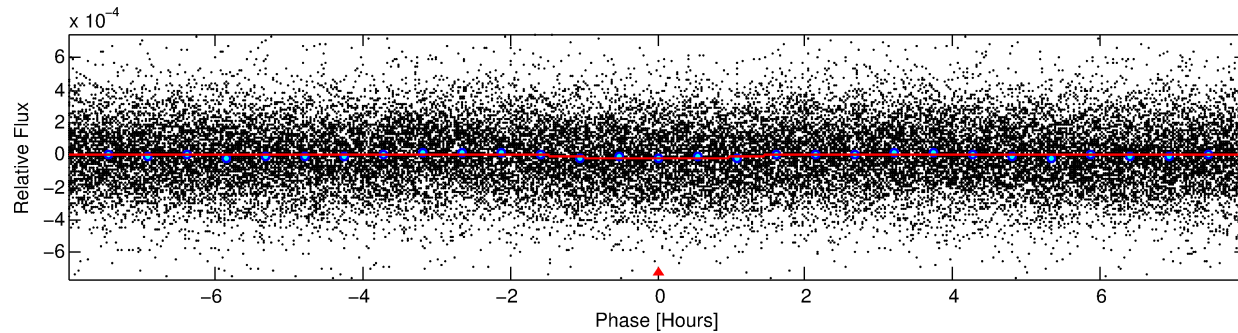
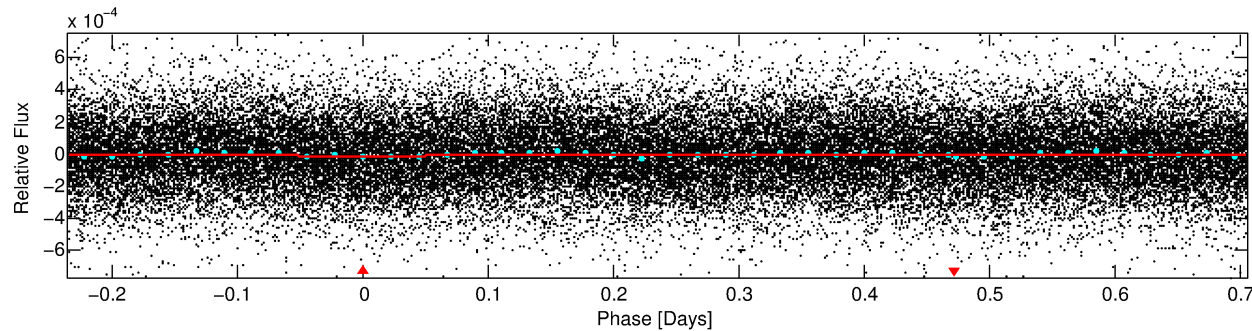
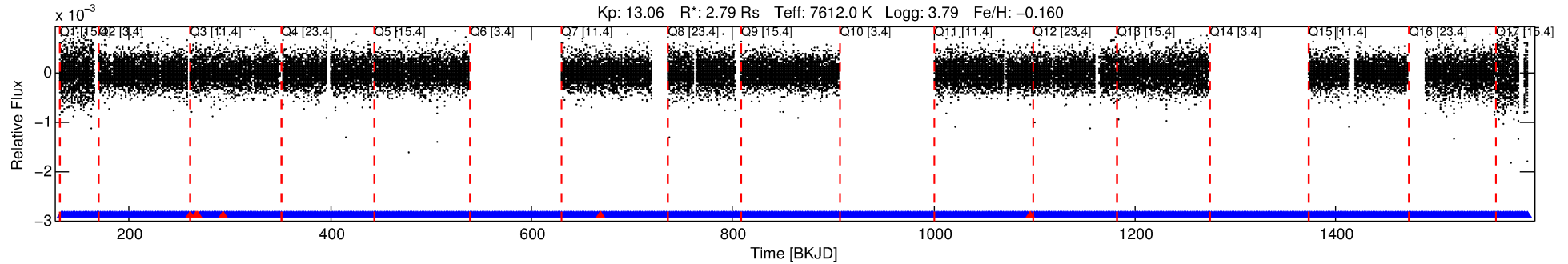
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003556847-01

No Significant Match Found

DV One-Page Summary

KIC: 3556847 Candidate: 1 of 1 Period: 0.940 d



DV Fit Results:

Period = 0.93972 [0.00002] d
Epoch = 132.2362 [0.0062] BKJD
Rp/R* = 0.0042 [0.0025]
a/R* = 1.53 [3.09]
b = 0.90 [0.77]
Seff = 45759.04 [30355.30]
Teq = 3729 [619] K
Rp = 1.29 [0.95] Re
a = 0.0227 [0.0091] AU
Ag = 1.96 [2.71] [0.35σ]
Teffp = 6819 [2113] K [1.40σ]

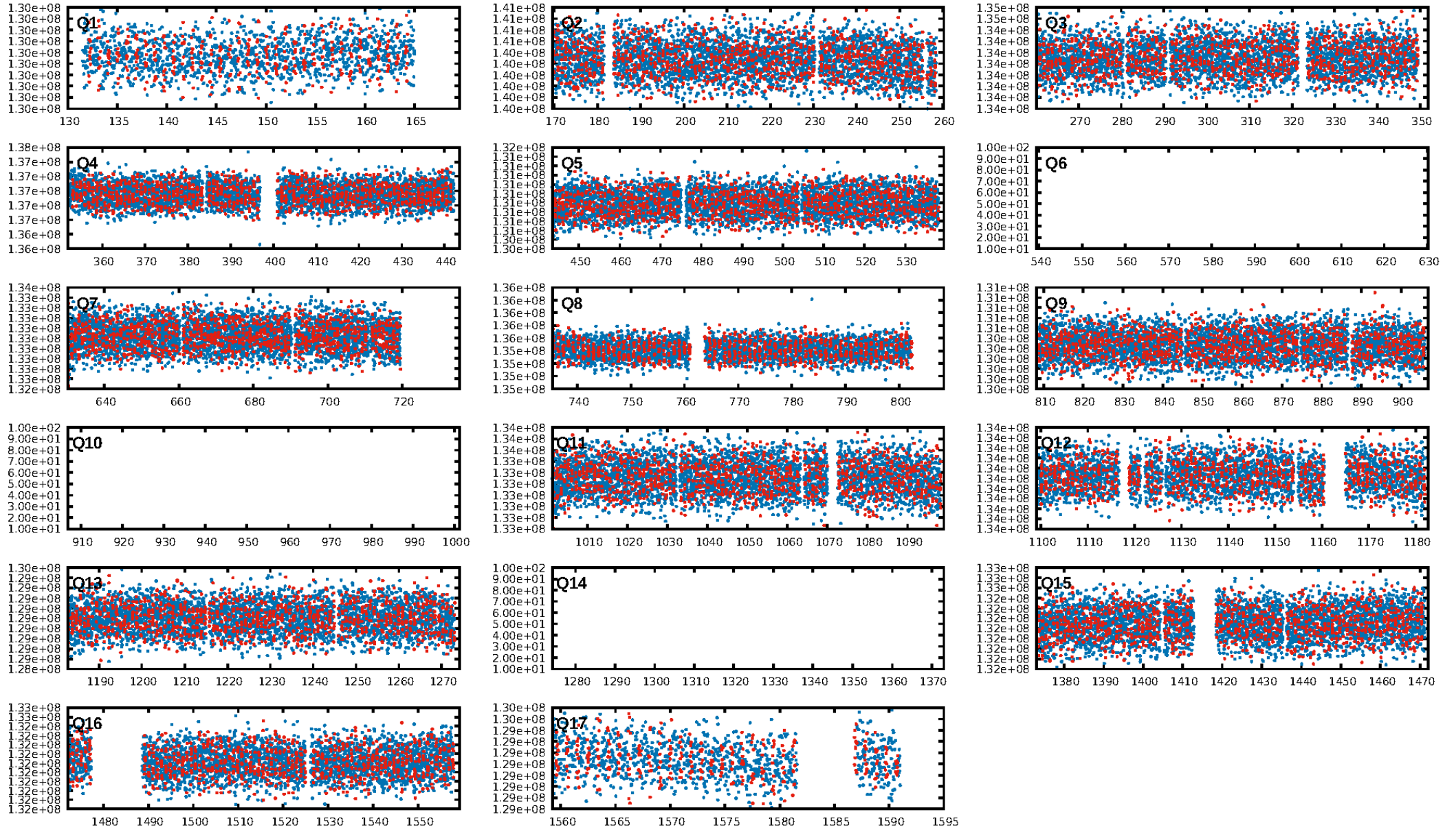
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.05e-14
RollingBand-fgt: 0.99 [1069/1075]
GhostDiagnostic-chr: 1.719
Centroid-sig: 0.0%
Centroid-so: 5.606 arcsec [2.99σ]
OotOffset-rm: 1.412 arcsec [1.06σ]
KicOffset-rm: 1.392 arcsec [1.06σ]
OotOffset-st: 1/3/2/4 [10]
KicOffset-st: 1/3/2/4 [10]
DiffImageQuality-fgm: 0.30 [3/10]
DiffImageOverlap-fno: 1.00 [14/14]

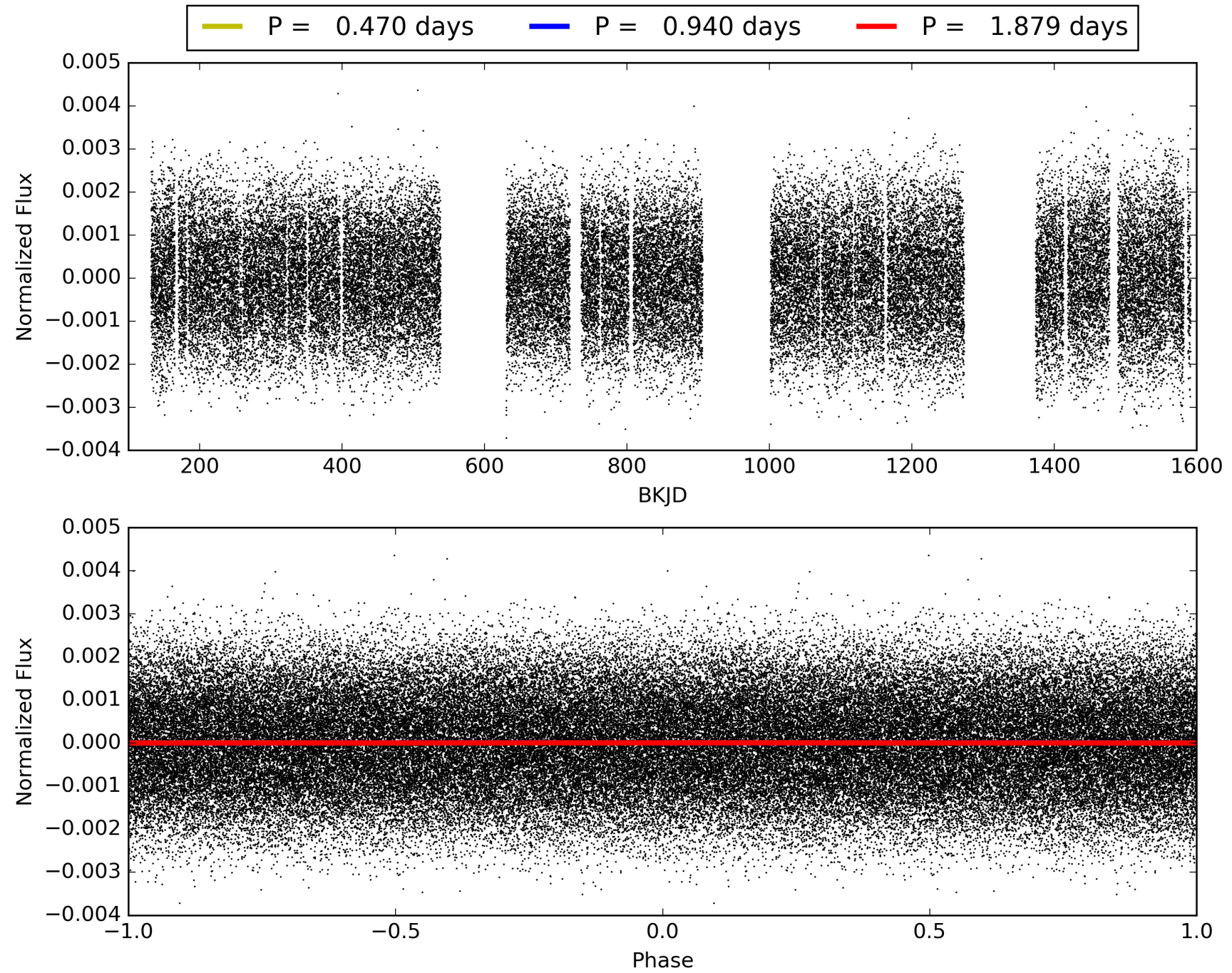
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:36:19 Z

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

TCE 003556847-01, PDC Light Curves

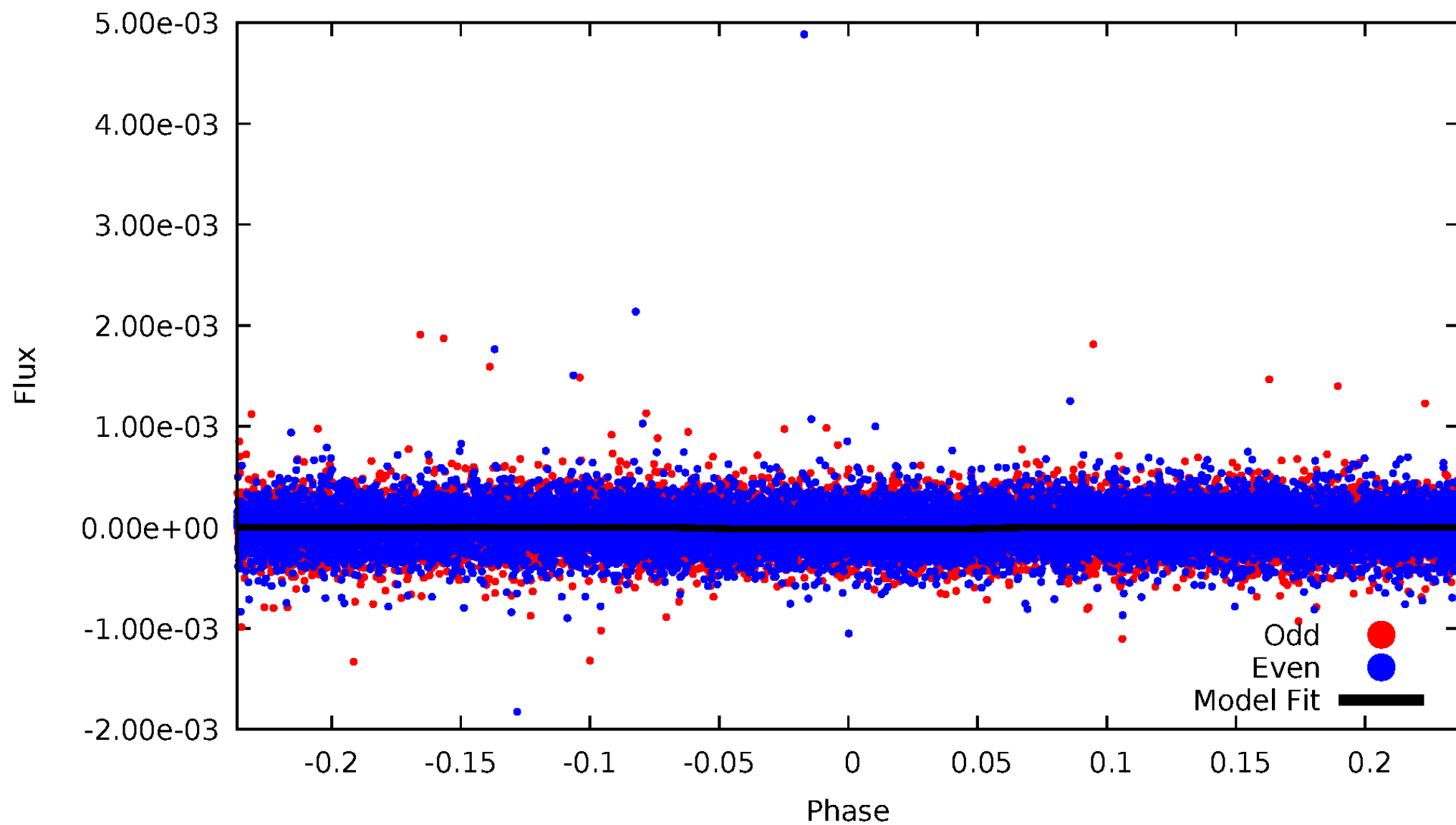


TCE 003556847-01



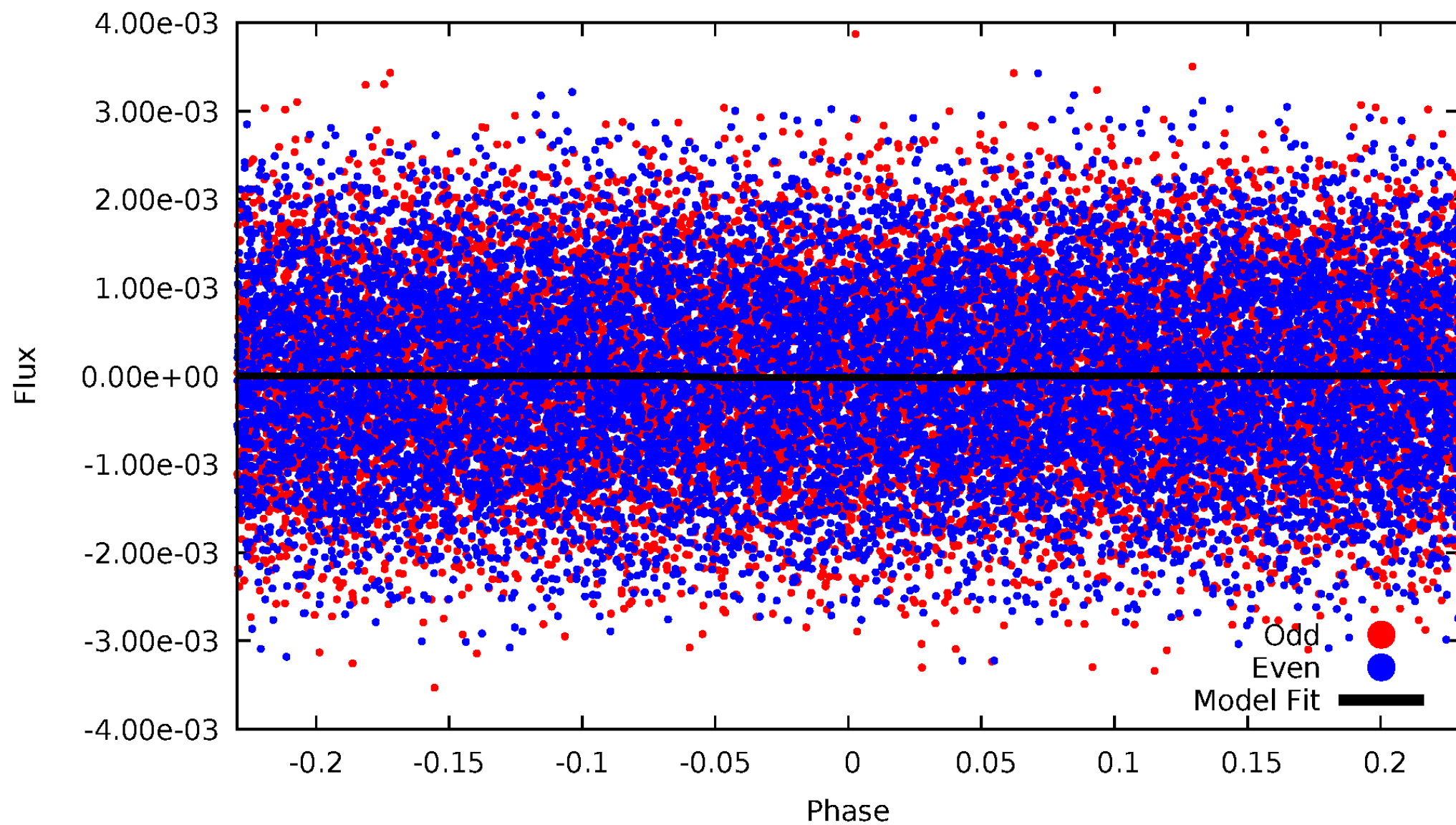
DV Odd/Even

TCE 003556847-01

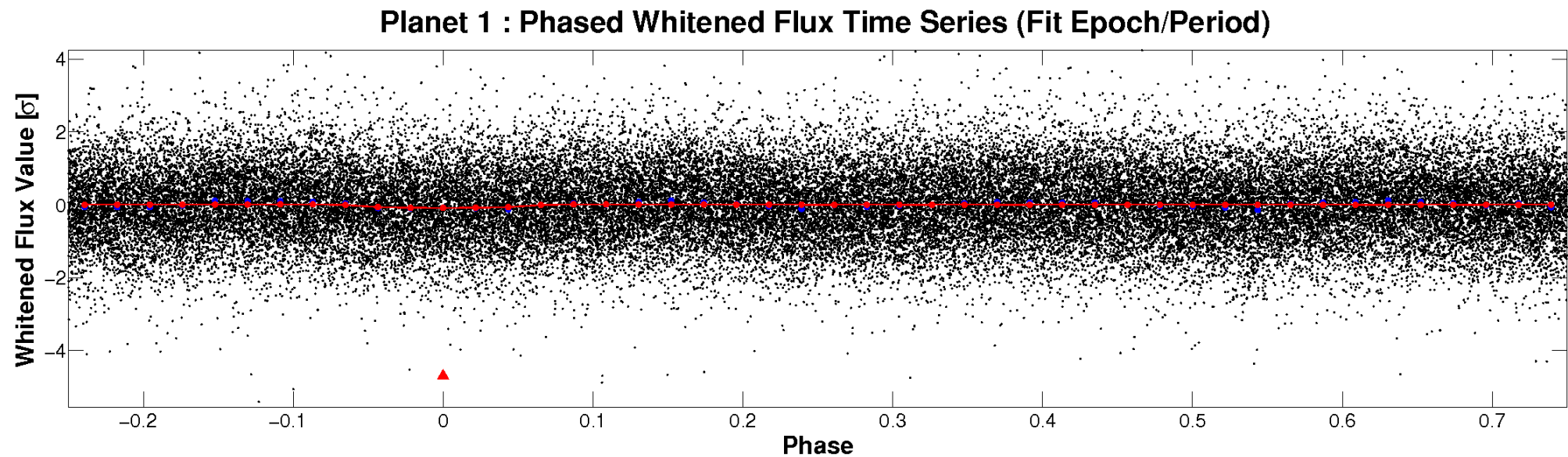
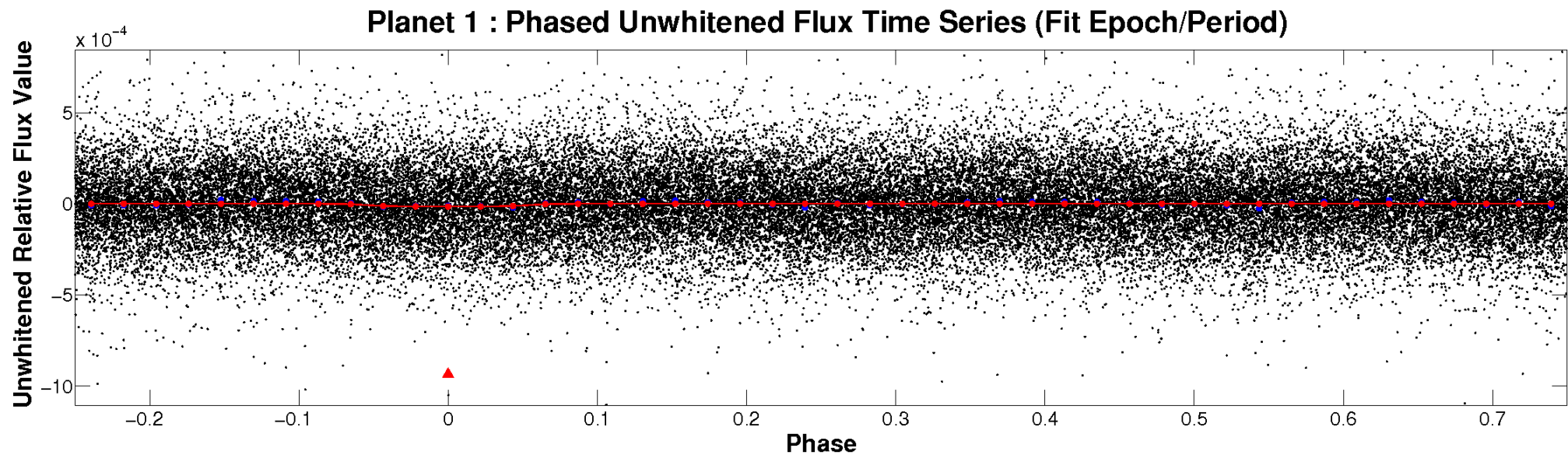


ALT Odd/Even

TCE 003556847-01

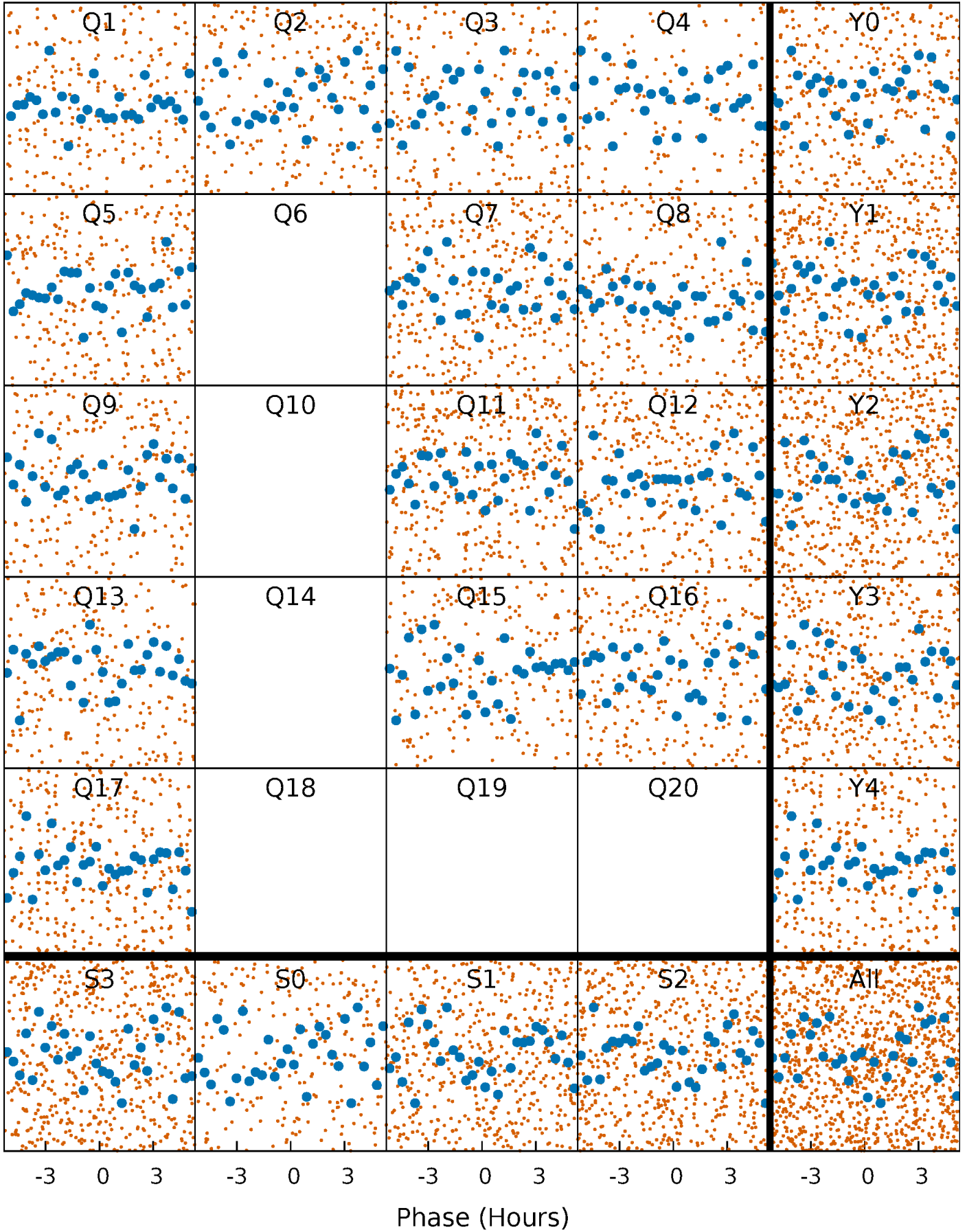


Non-Whitened Vs. Whitened Light Curve



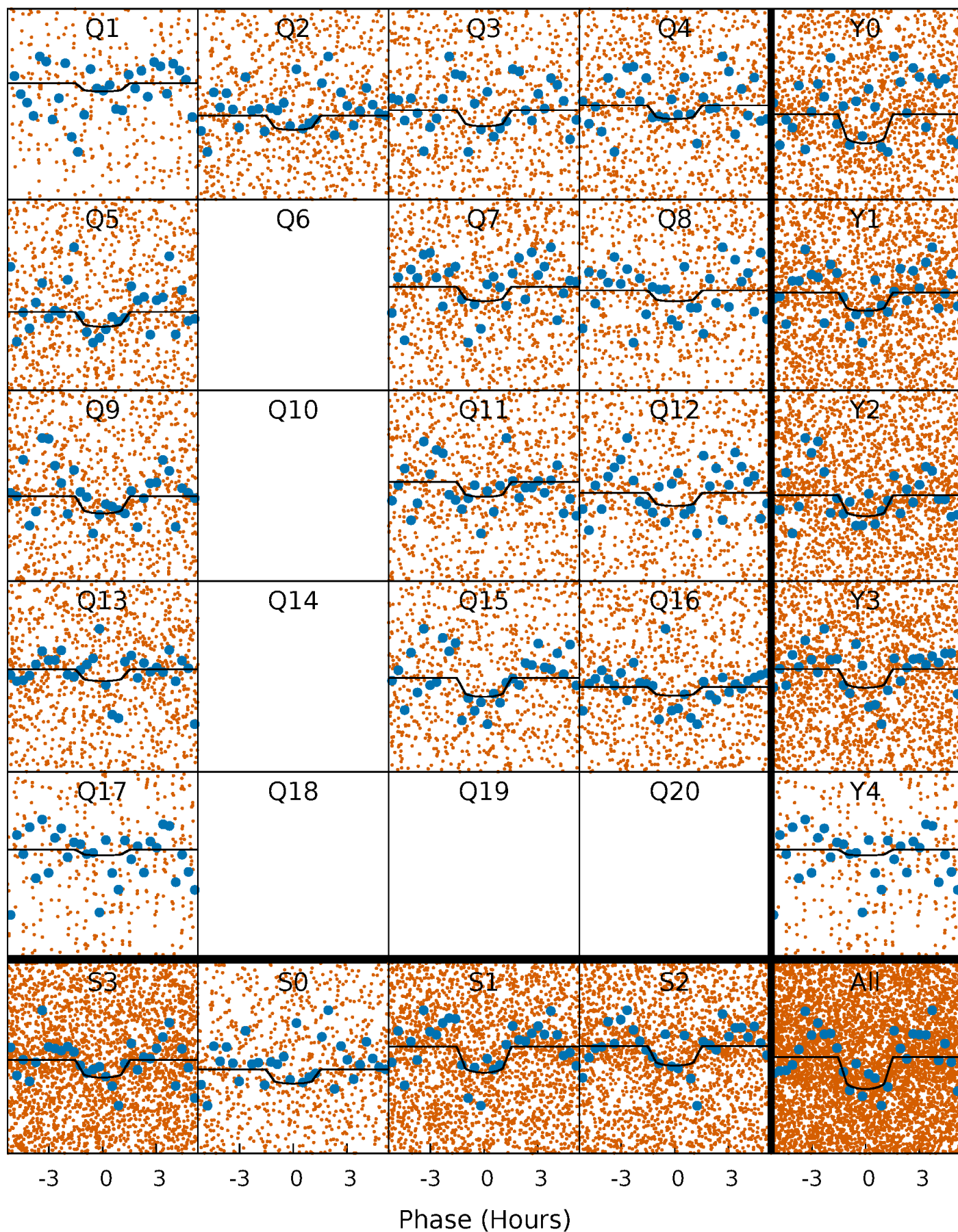
PDC Quarter-Phased Transit Curves

TCE 003556847-01 P= 0.939724 Days $T_0=132.236231$ (BKJD)



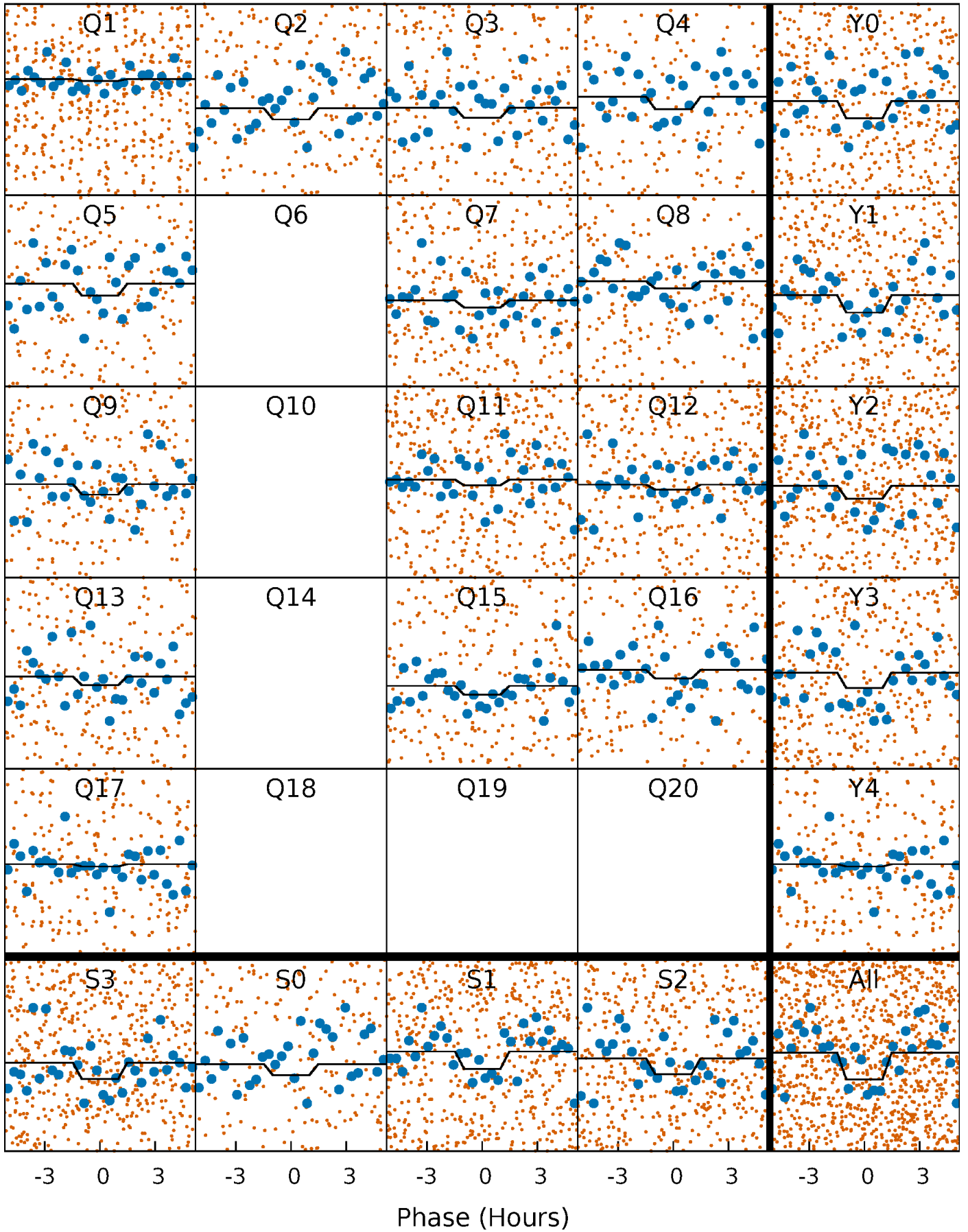
DV Quarter-Phased Transit Curves

TCE 003556847-01 P= 0.939724 Days $T_0=132.236231$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

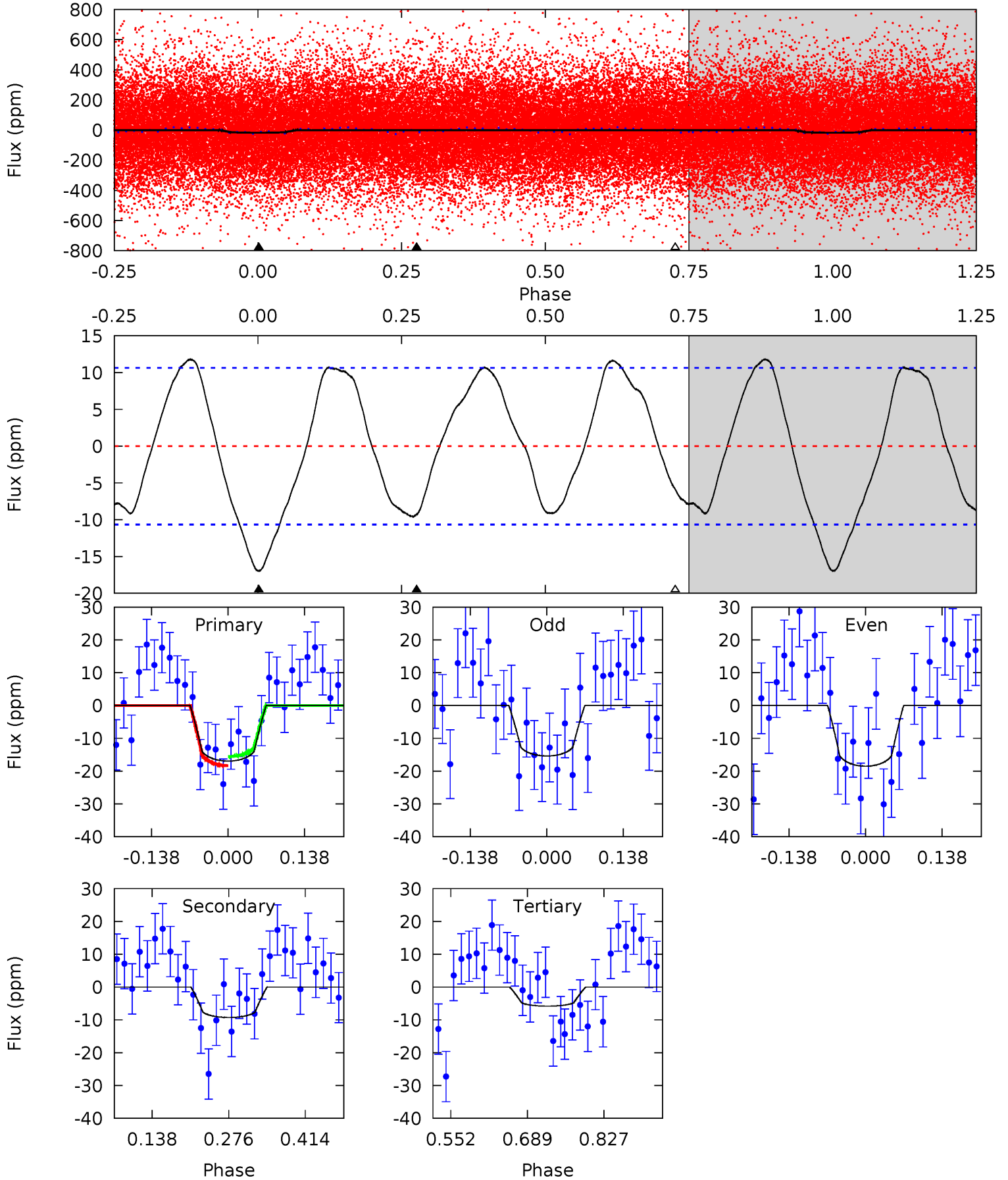
TCE 003556847-01 P= 0.939731 Days $T_0=132.236400$ (BKJD)



DV Model-Shift Uniqueness Test

003556847-01, P = 0.939724 Days, E = 131.296507 Days

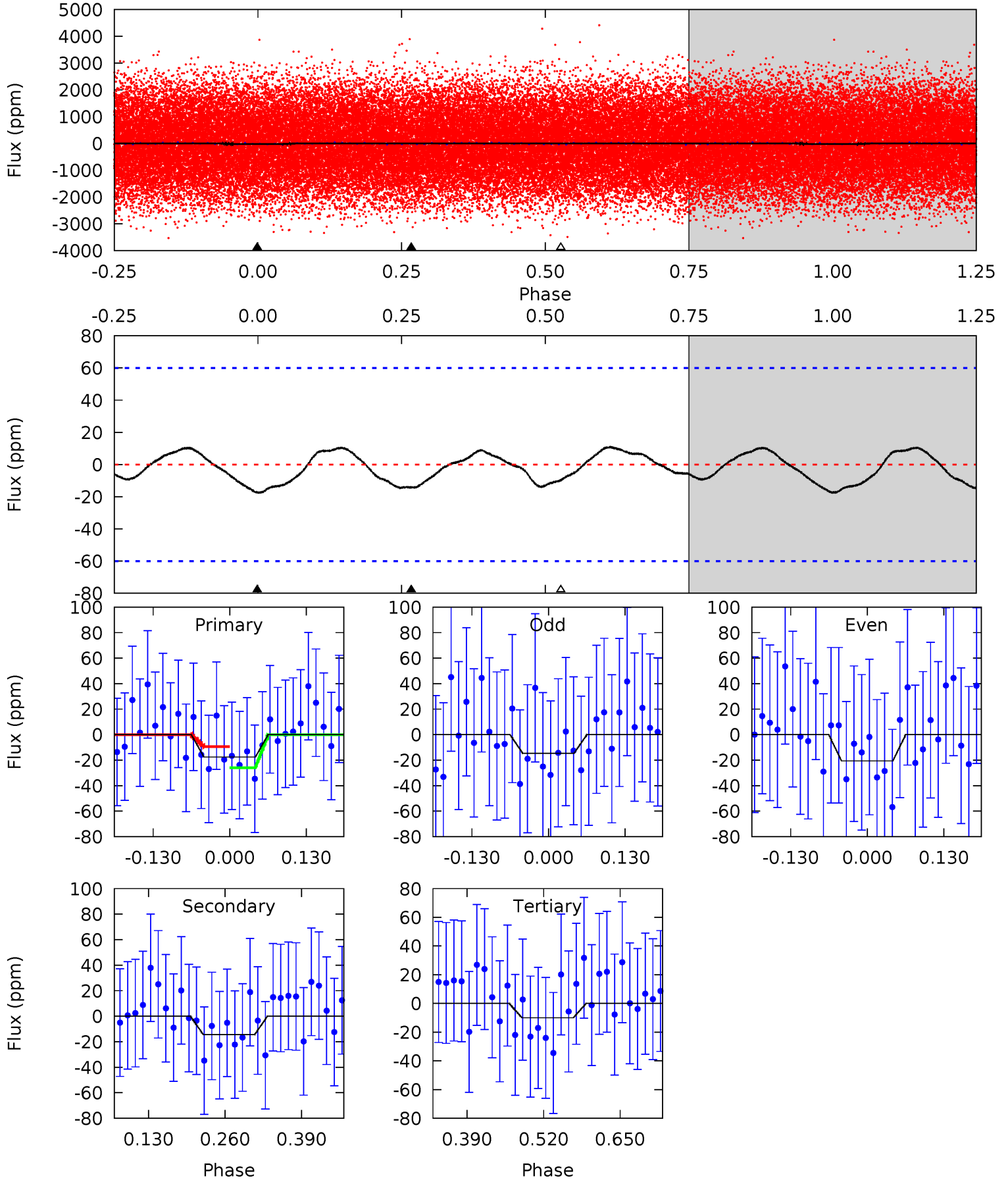
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.16	3.92	2.46	0	4.50	1.48	2.85	4.70	7.16	1.46	3.92	0.65	0.79	0.41	0.58



Alt Model-Shift Uniqueness Test

003556847-01, P = 0.939731 Days, E = 131.296669 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.32	1.08	0.75	0	4.51	1.51	0.53	0.57	1.32	0.33	1.08	0.22	1.05	0.38	0.62



Stellar Parameters For KIC 003556847

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7612^{+211}_{-316}	$3.790^{+0.376}_{-0.094}$	$-0.160^{+0.200}_{-0.350}$	$2.795^{+0.394}_{-1.181}$	$1.755^{+0.194}_{-0.360}$	$0.113^{+0.376}_{-0.032}$
	+3%/-4%	+10%/-2%	+125%/-219%	+14%/-42%	+11%/-21%	+332%/-29%
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 003556847-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 2	$1.20^{+0.84}_{-0.65}$	5061^{+362}_{-537}	5840^{+3516}_{-1551}	$1.705^{+6.692}_{-1.122}$
Alt.	-14 ± 13	$1.18^{+0.83}_{-0.62}$	5102^{+329}_{-560}	6602^{+4833}_{-9970}	$2.475^{+9.911}_{-2.250}$

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 $A_{obs} \gg 1.0$

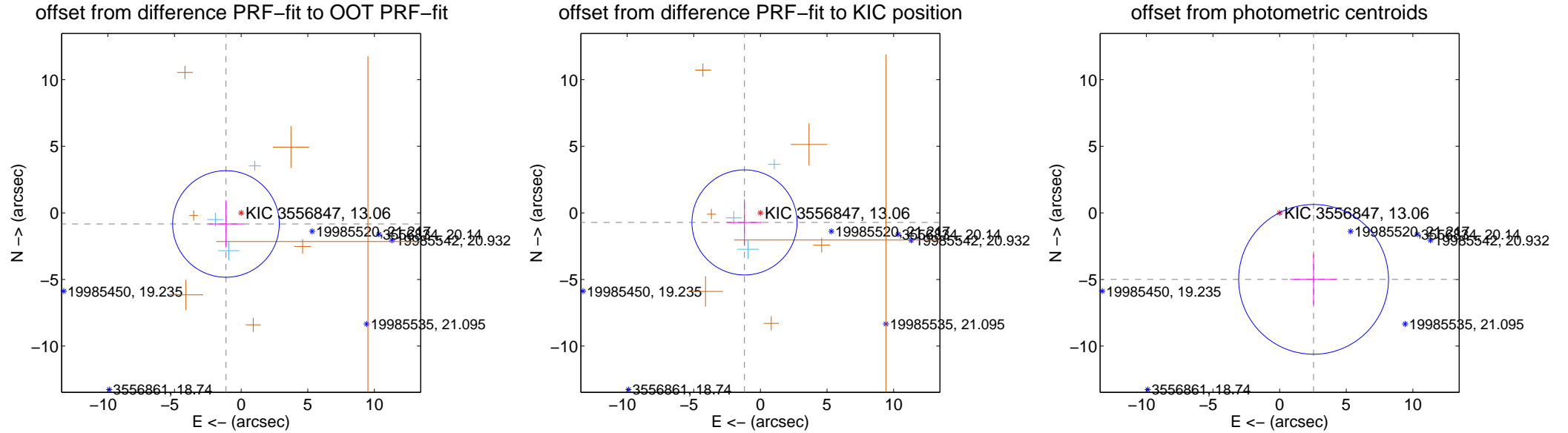
DV Centroid Data

Supplemental centroid analysis for 003556847-01. Kepler magnitude: 13.06. Transit SNR 5.63

There are 3 quarters with good PRF difference image offsets

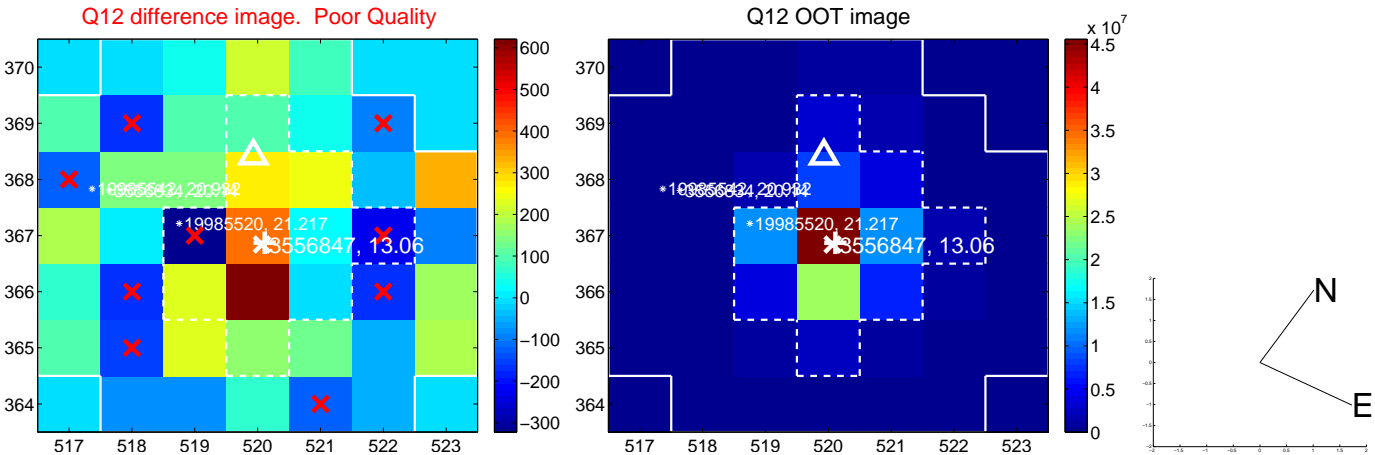
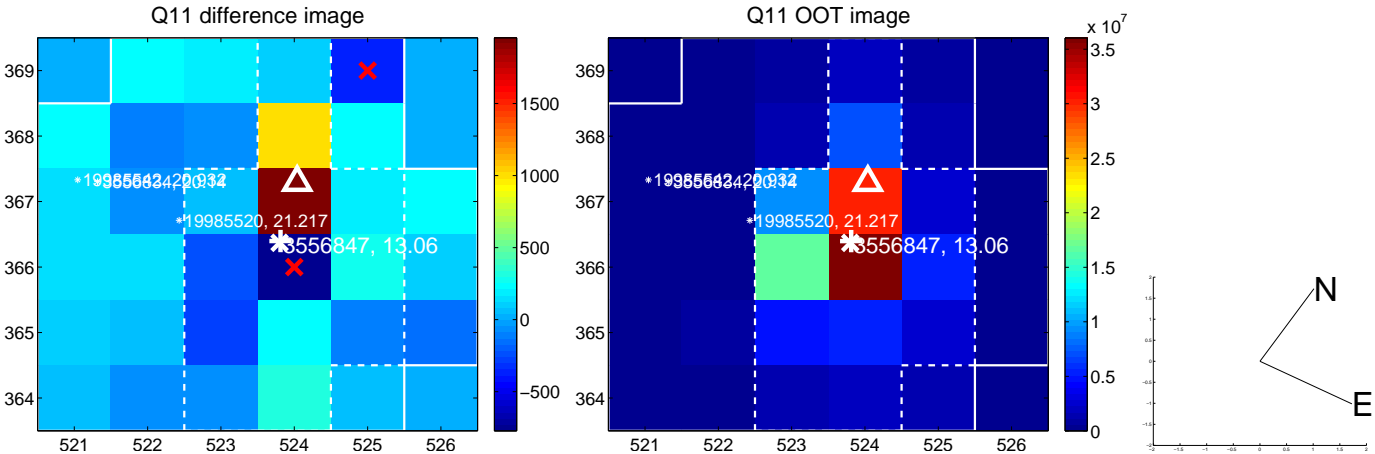
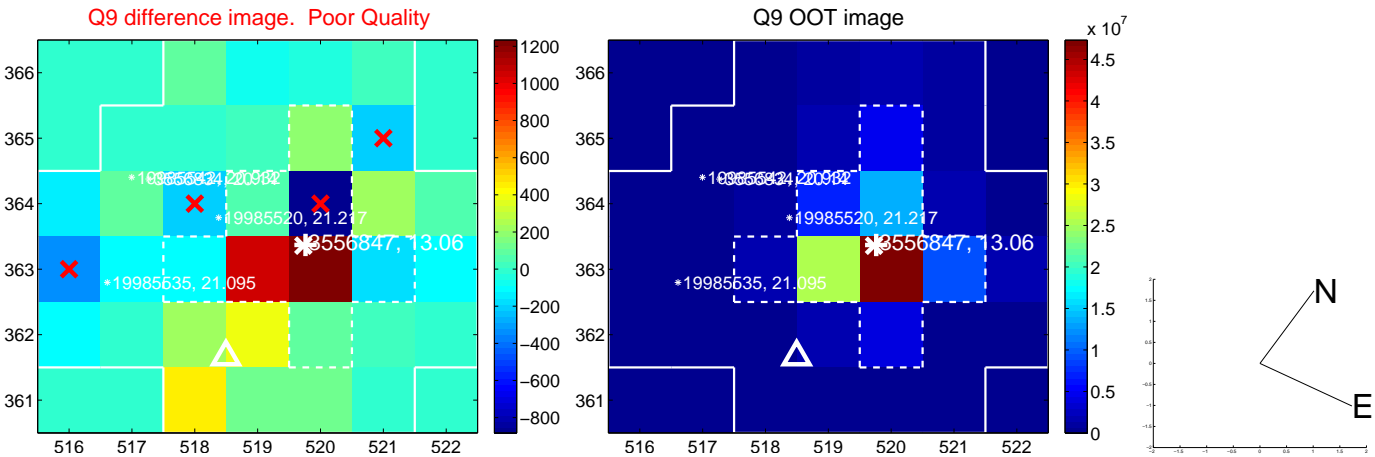
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.412 ± 1.334	1.06	1.140 ± 1.334	-0.833 ± 1.774
PRF-fit source offset from KIC position	1.392 ± 1.315	1.06	1.193 ± 1.318	-0.718 ± 1.738
photometric centroid source offset	5.61 ± 1.87	2.99	-2.55 ± 1.76	-4.99 ± 1.90

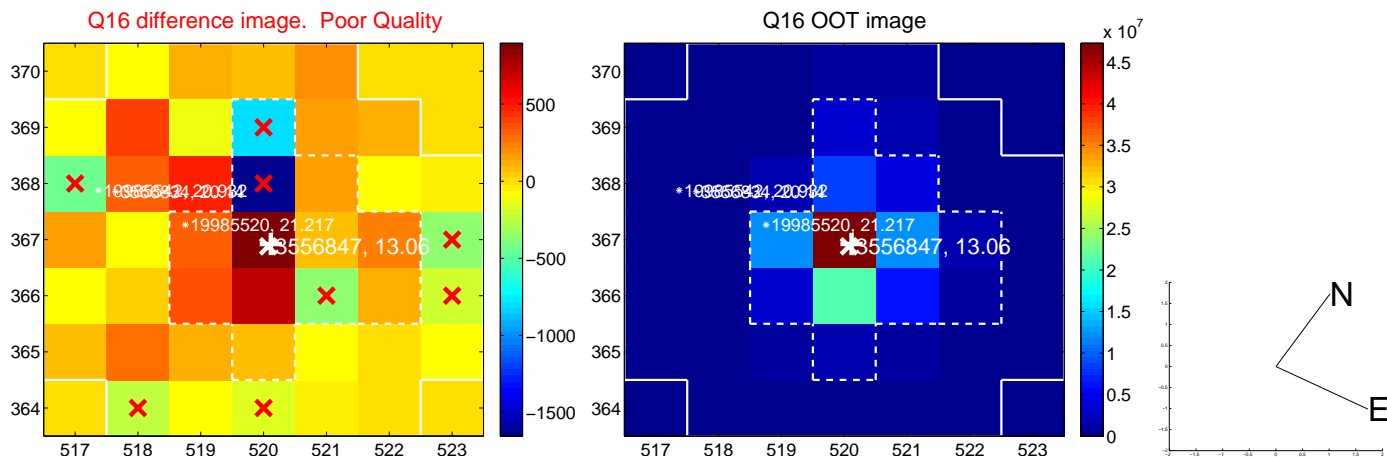
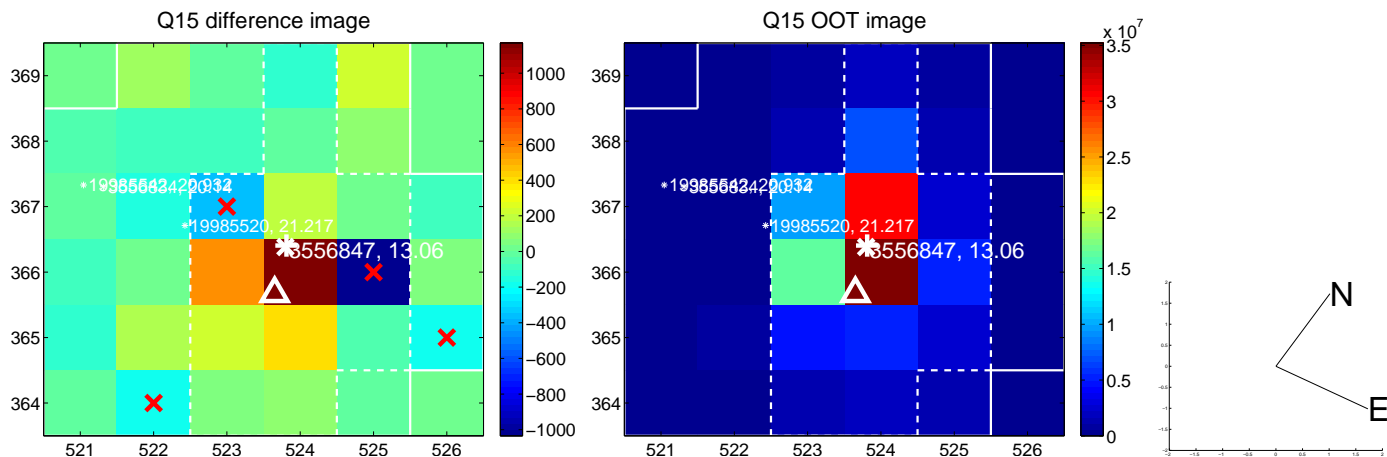
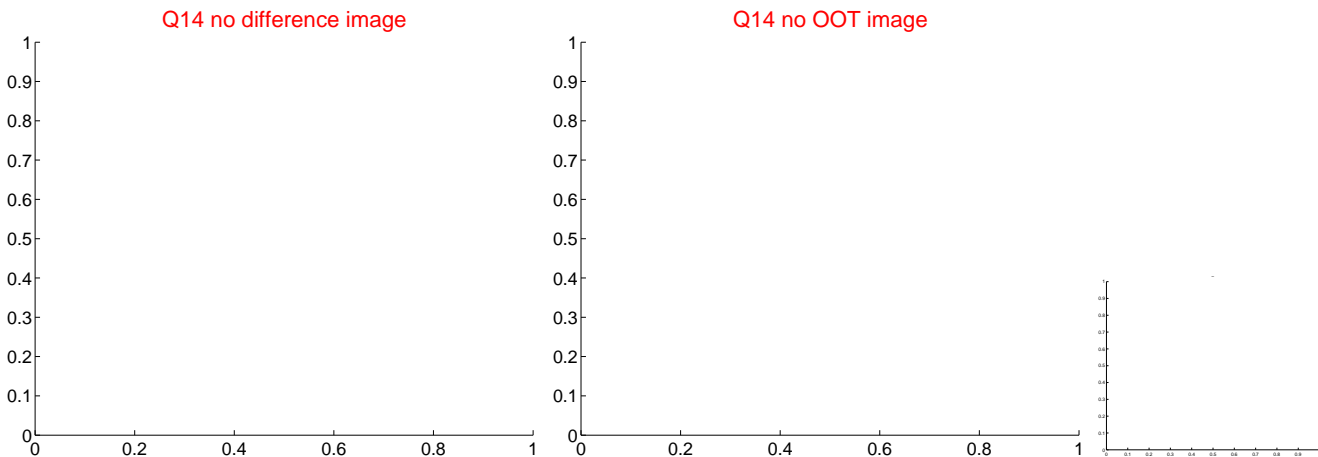
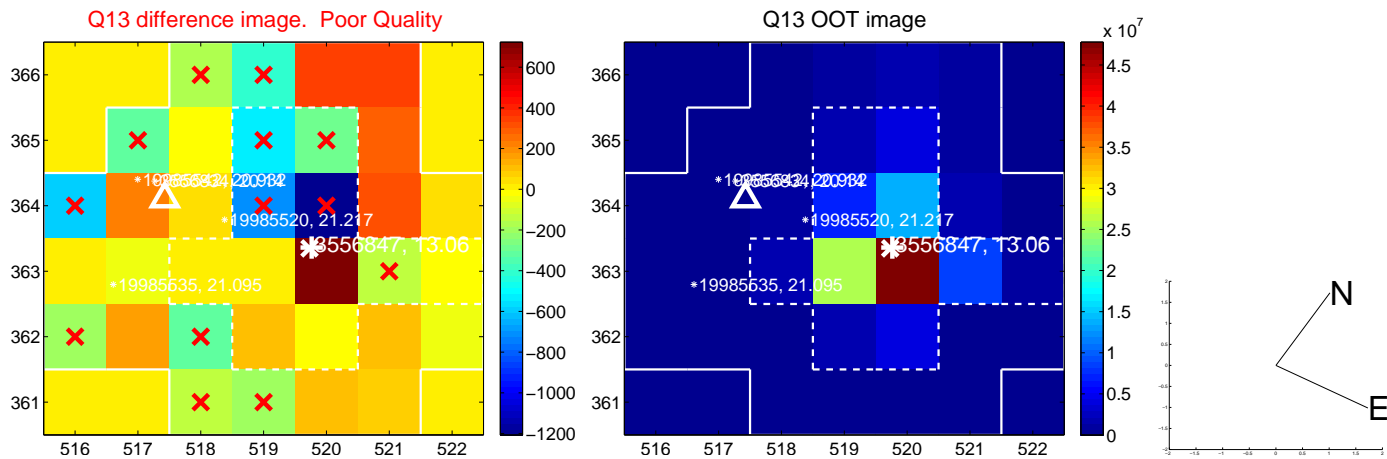


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

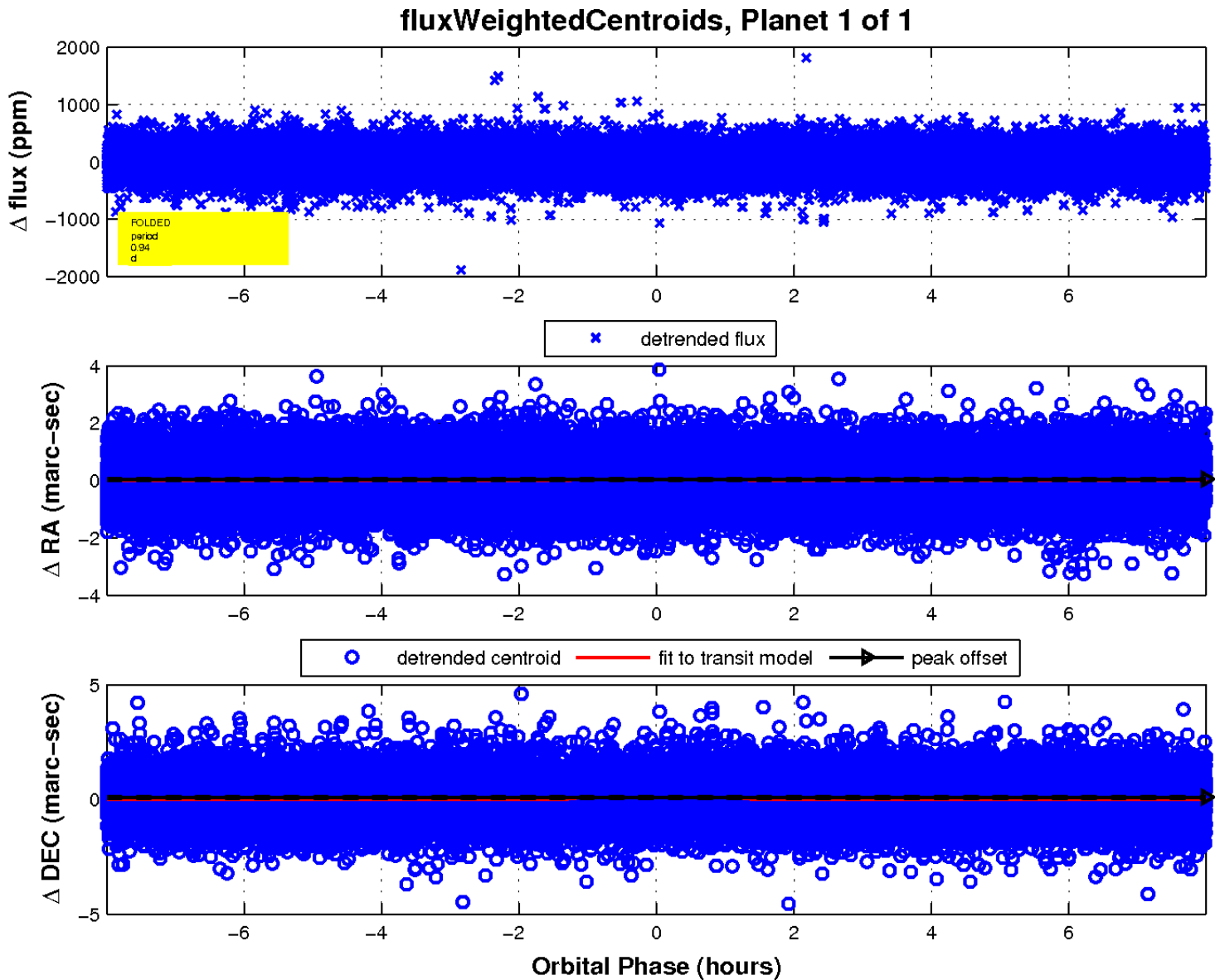
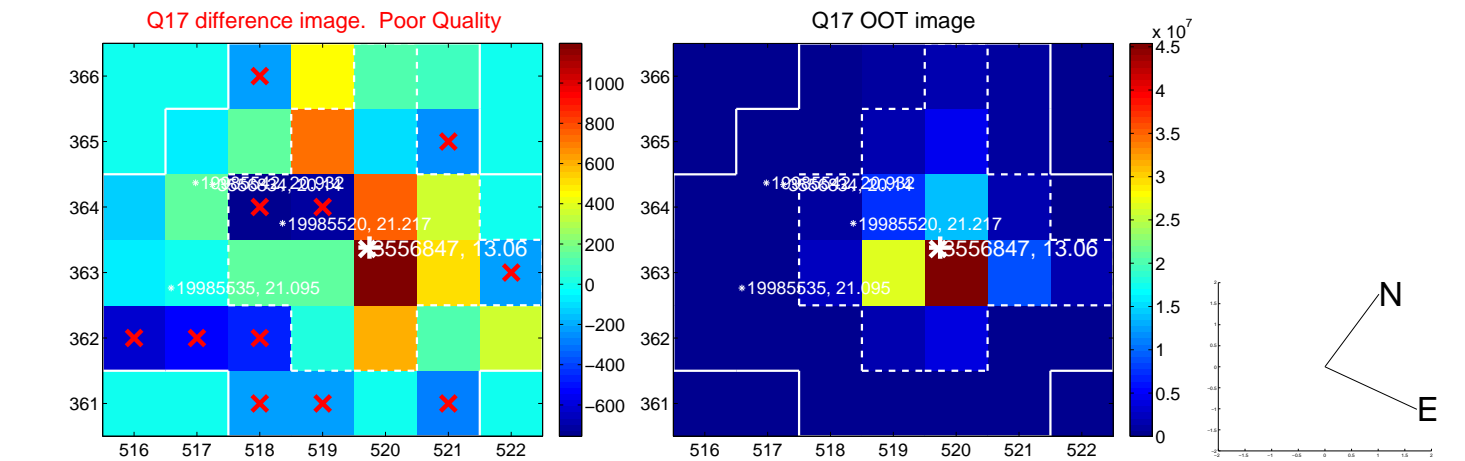
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

