

KIC 008107903

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})
008107903-01	OBS	No	1.522219	132.263453	0.2	0.821	9.3	0.0	0.27	3421	0.01	31.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008107903-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

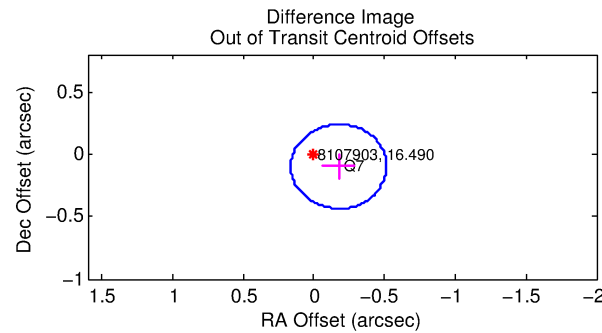
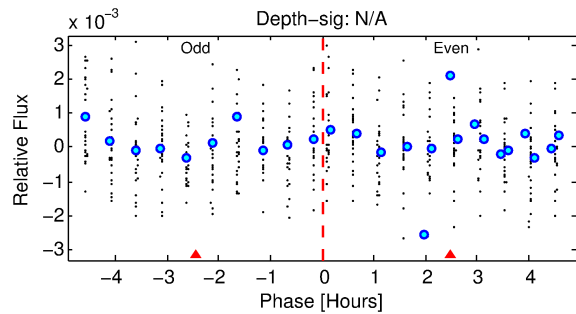
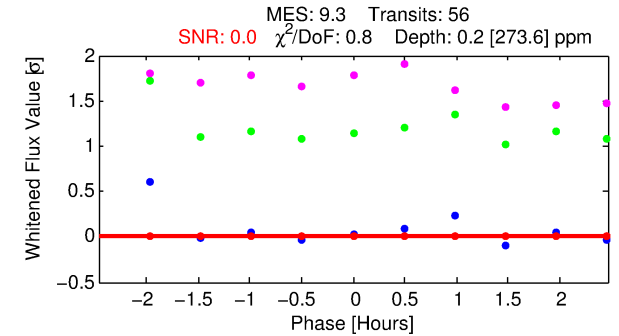
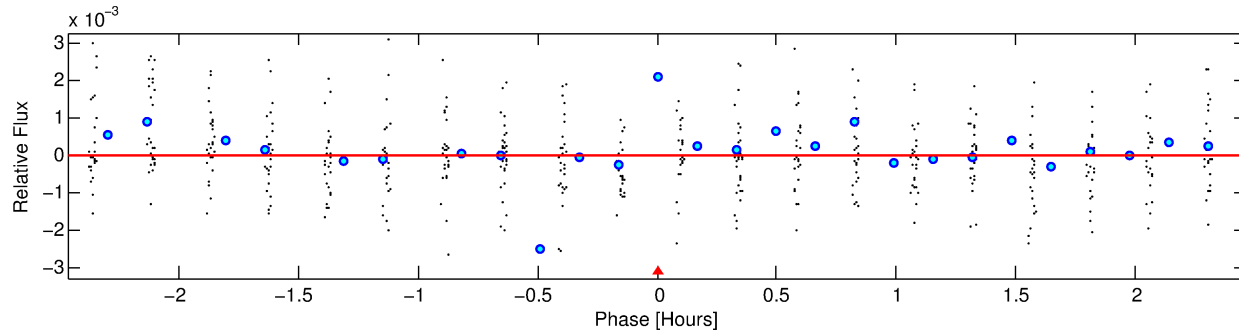
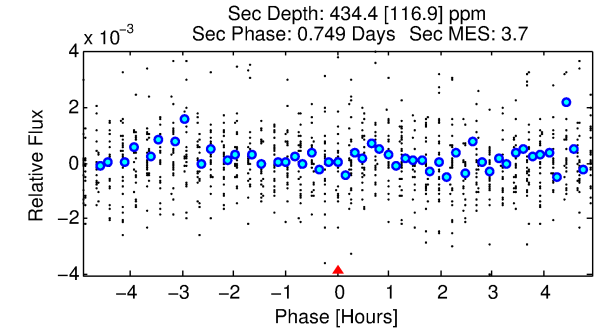
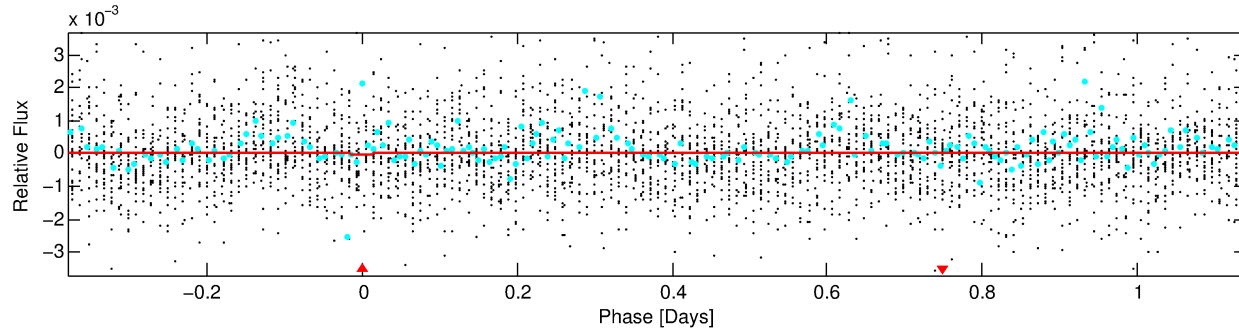
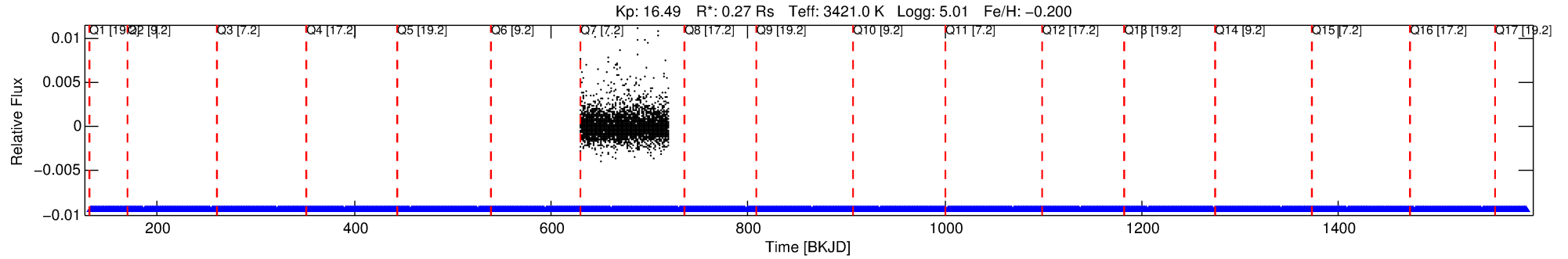
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008107903-01

No Significant Match Found

DV One-Page Summary

KIC: 8107903 Candidate: 1 of 1 Period: 1.522 d



DV Fit Results:

Period = 1.52222 [0.08777] d
Epoch = 132.2635 [11.1958] BKJD
Rp/R* = 0.0004 [1.7086]
a/R* = 14.18 [269069.79]
b = 0.02 [854374.68]
Seff = 31.96 [4.44]
Teq = 606 [21] K
Rp = 0.01 [50.71] Re
a = 0.0169 [0.0015] AU
Ag = 450074.79 [3716684265.91] [0.00σ]
Teffp = 24279 [50123908] K [0.00σ]

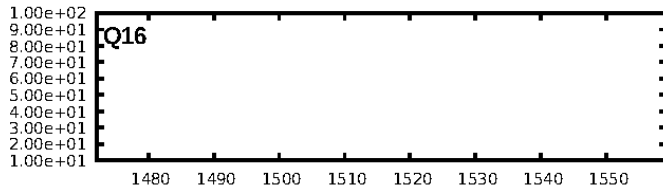
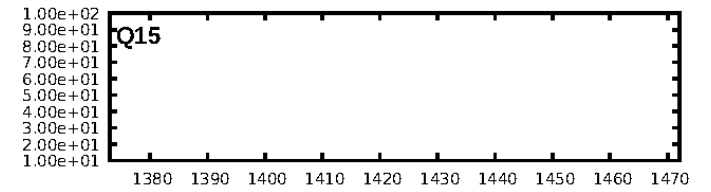
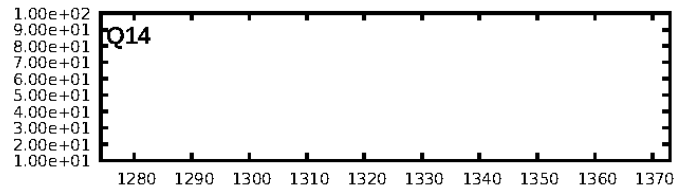
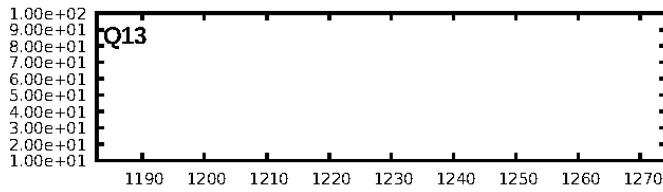
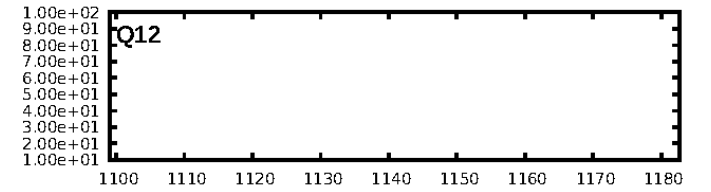
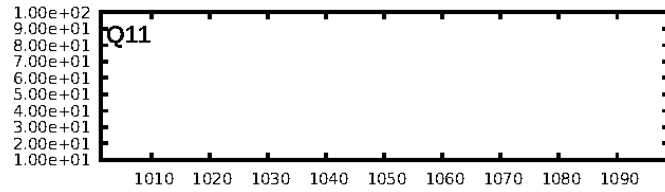
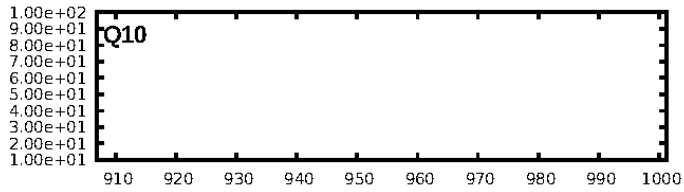
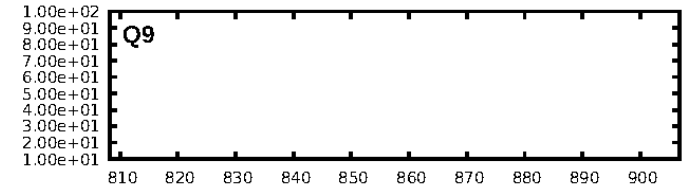
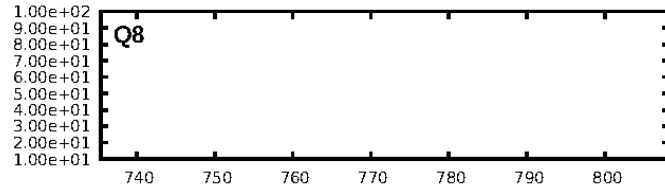
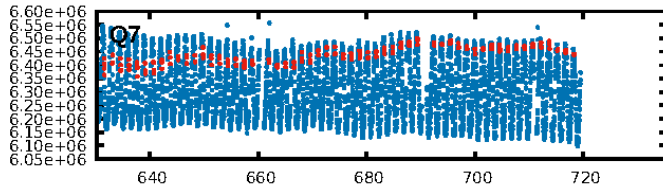
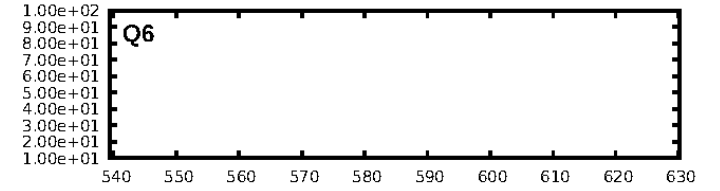
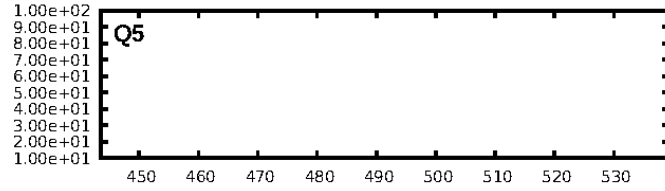
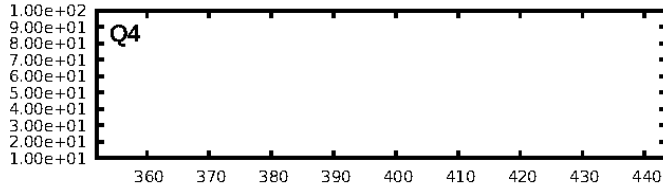
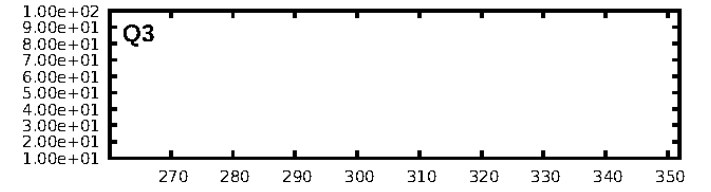
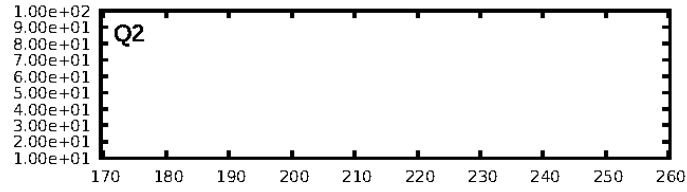
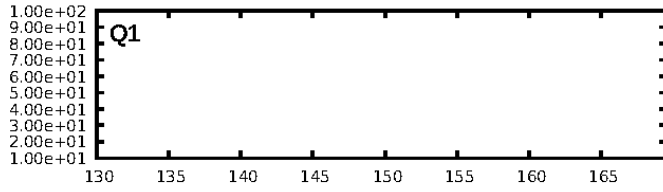
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.95e-13
RollingBand-ftg: 1.00 [56/56]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.201 arcsec [1.79σ]
KicOffset-rm: 0.097 arcsec [0.93σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

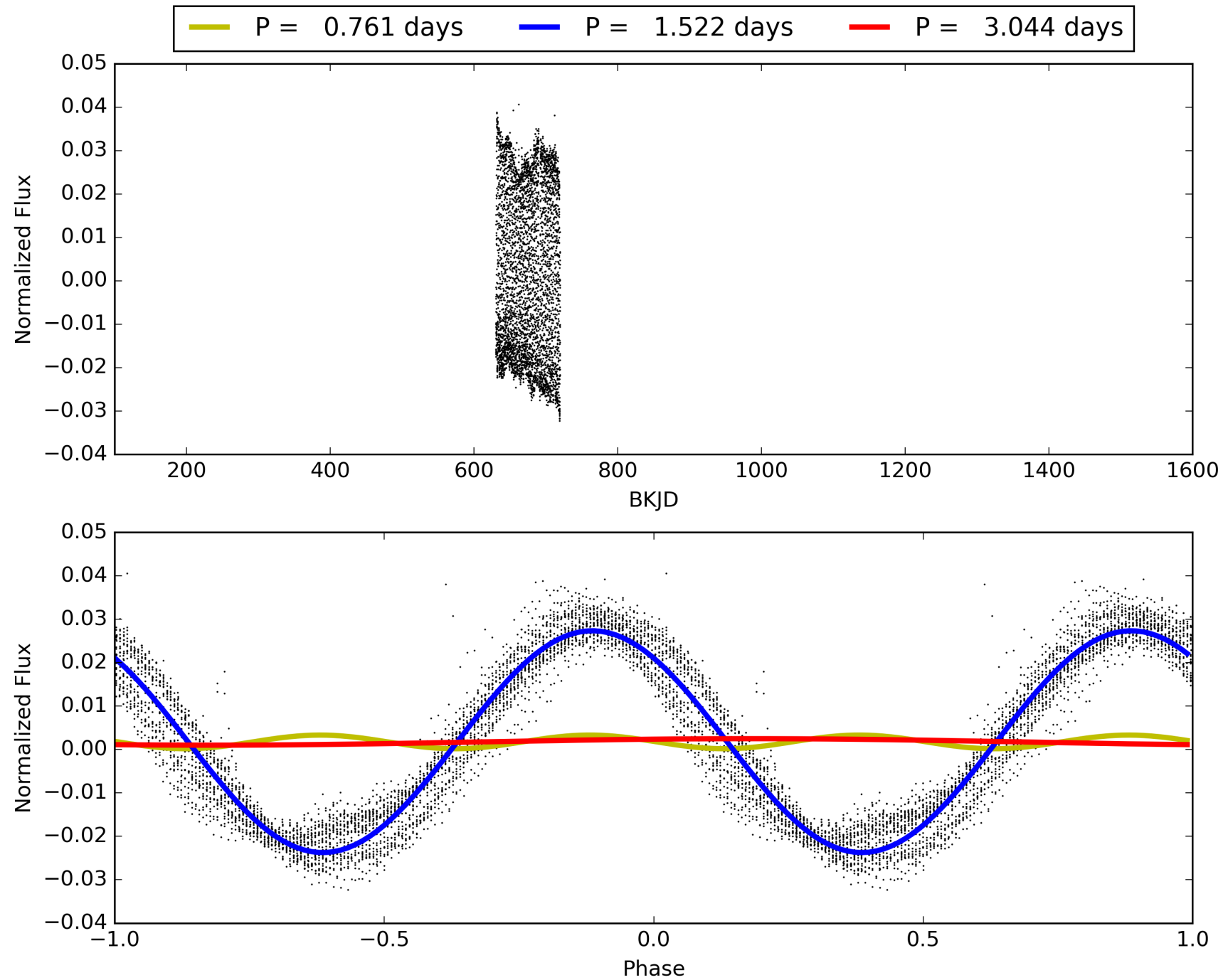
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:07:40 Z

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

TCE 008107903-01, PDC Light Curves

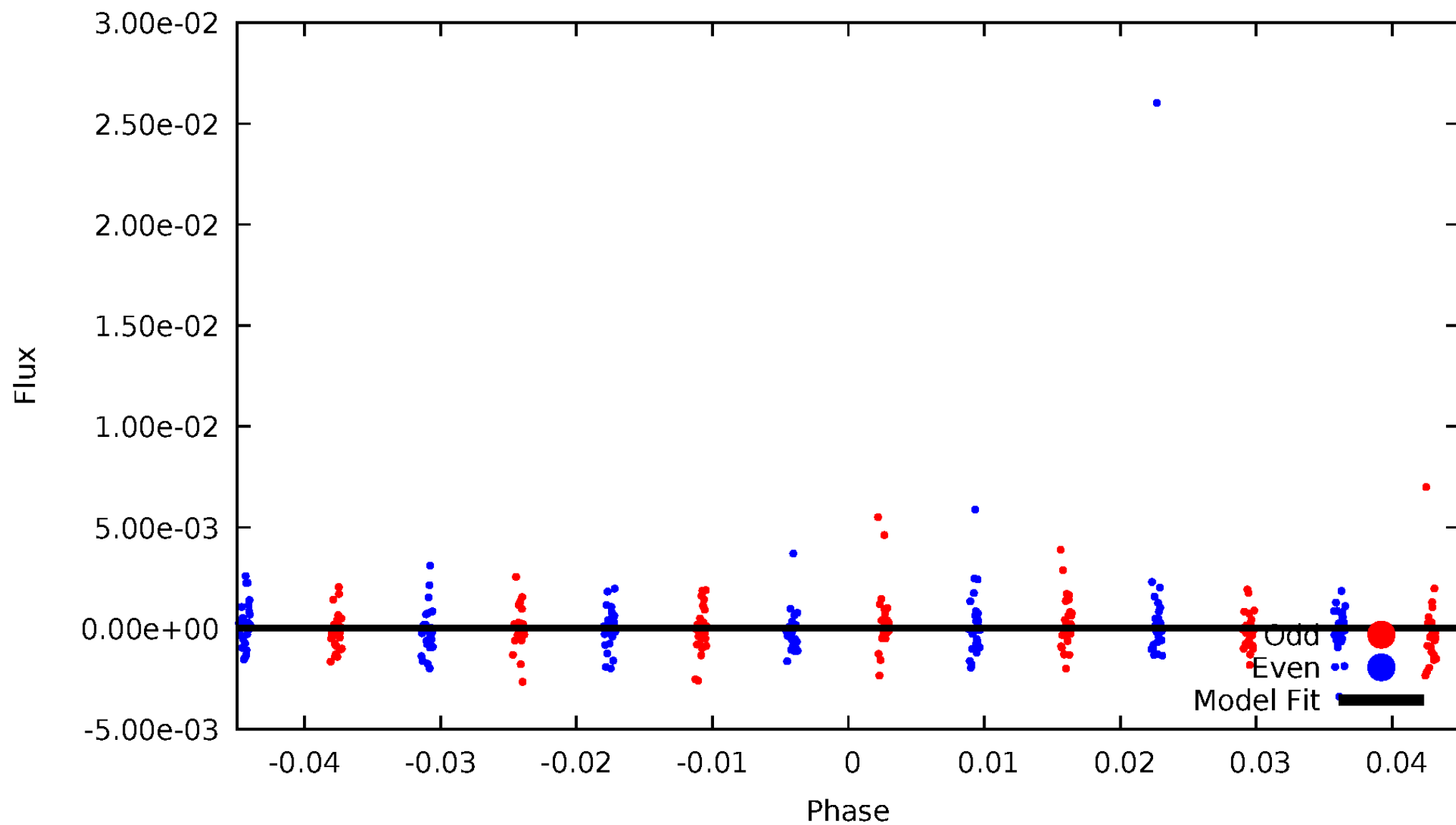


TCE 008107903-01



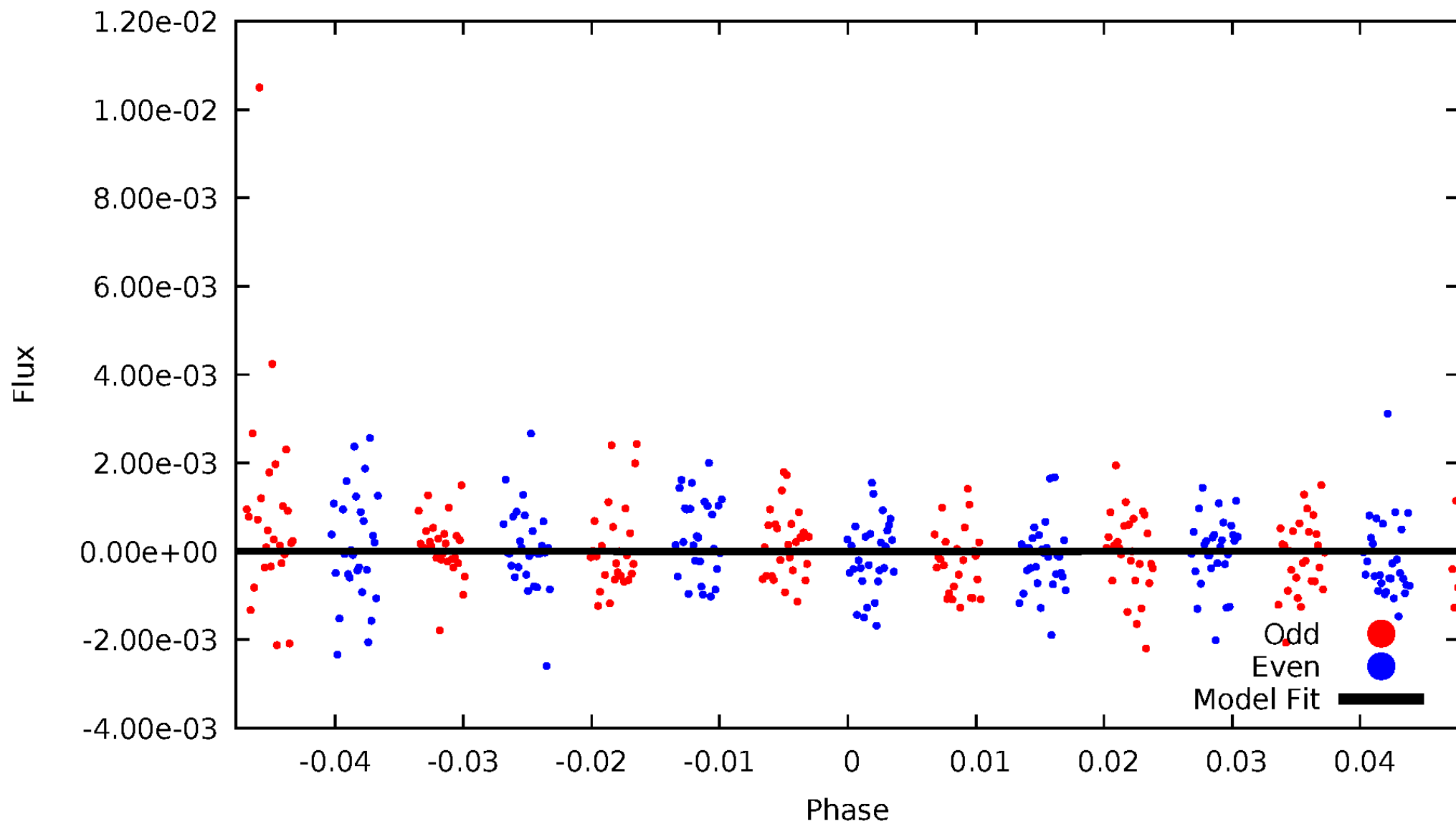
DV Odd/Even

TCE 008107903-01



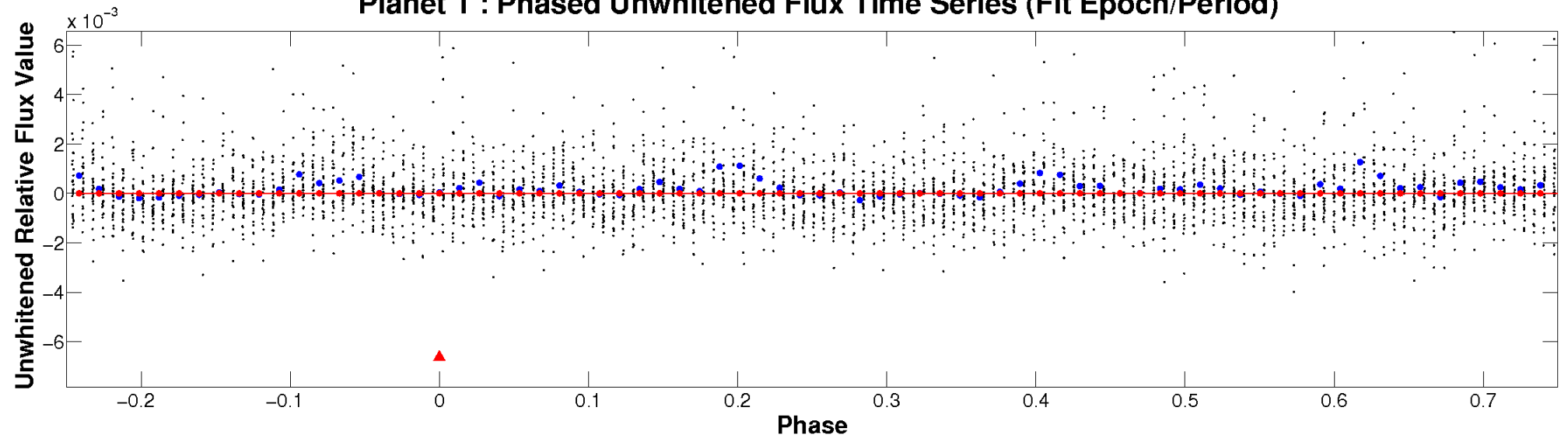
ALT Odd/Even

TCE 008107903-01

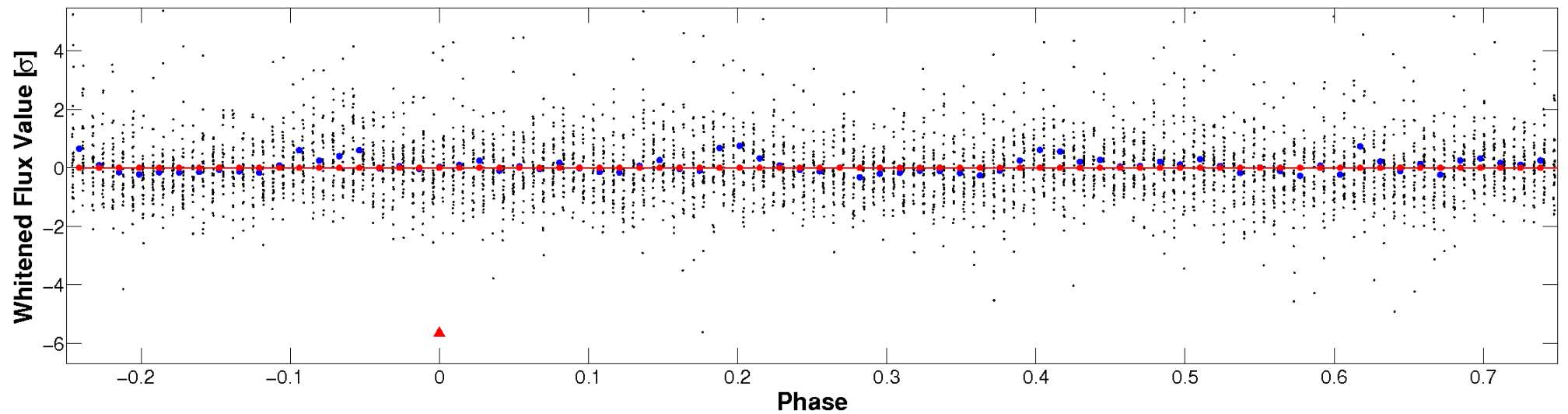


Non-Whitened Vs. Whitened Light Curve

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

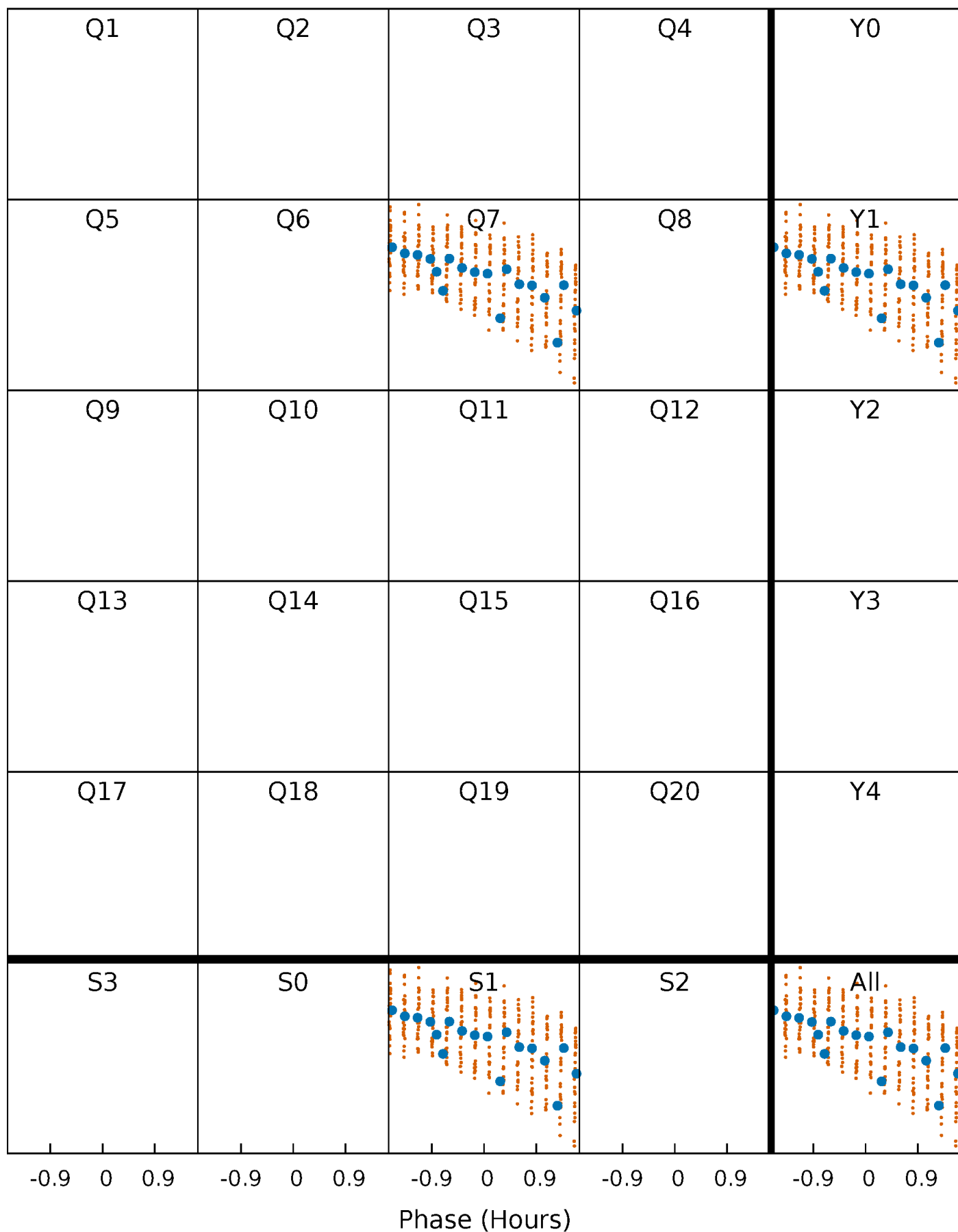


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



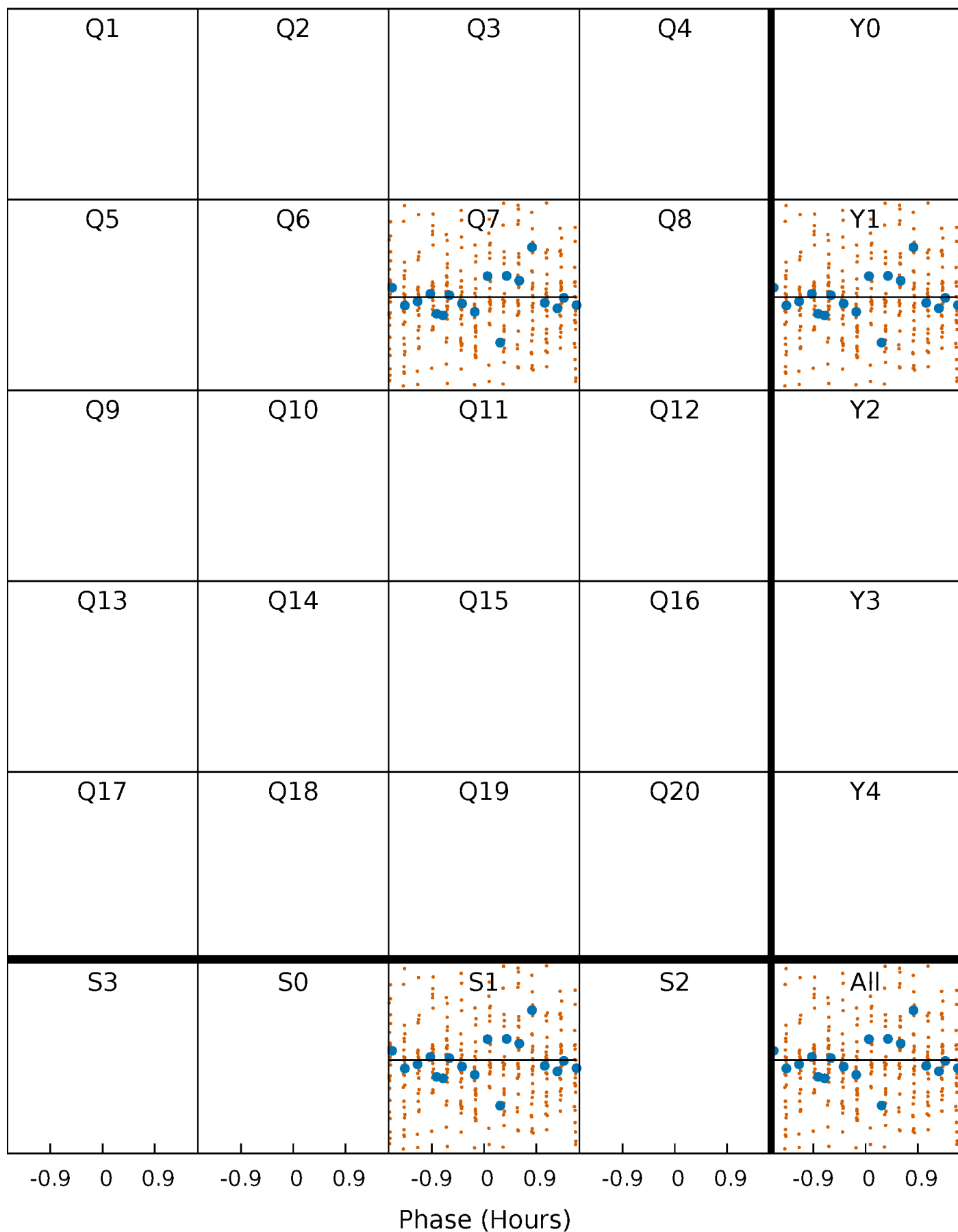
PDC Quarter-Phased Transit Curves

TCE 008107903-01 P= 1.522219 Days $T_0=132.263453$ (BKJD)



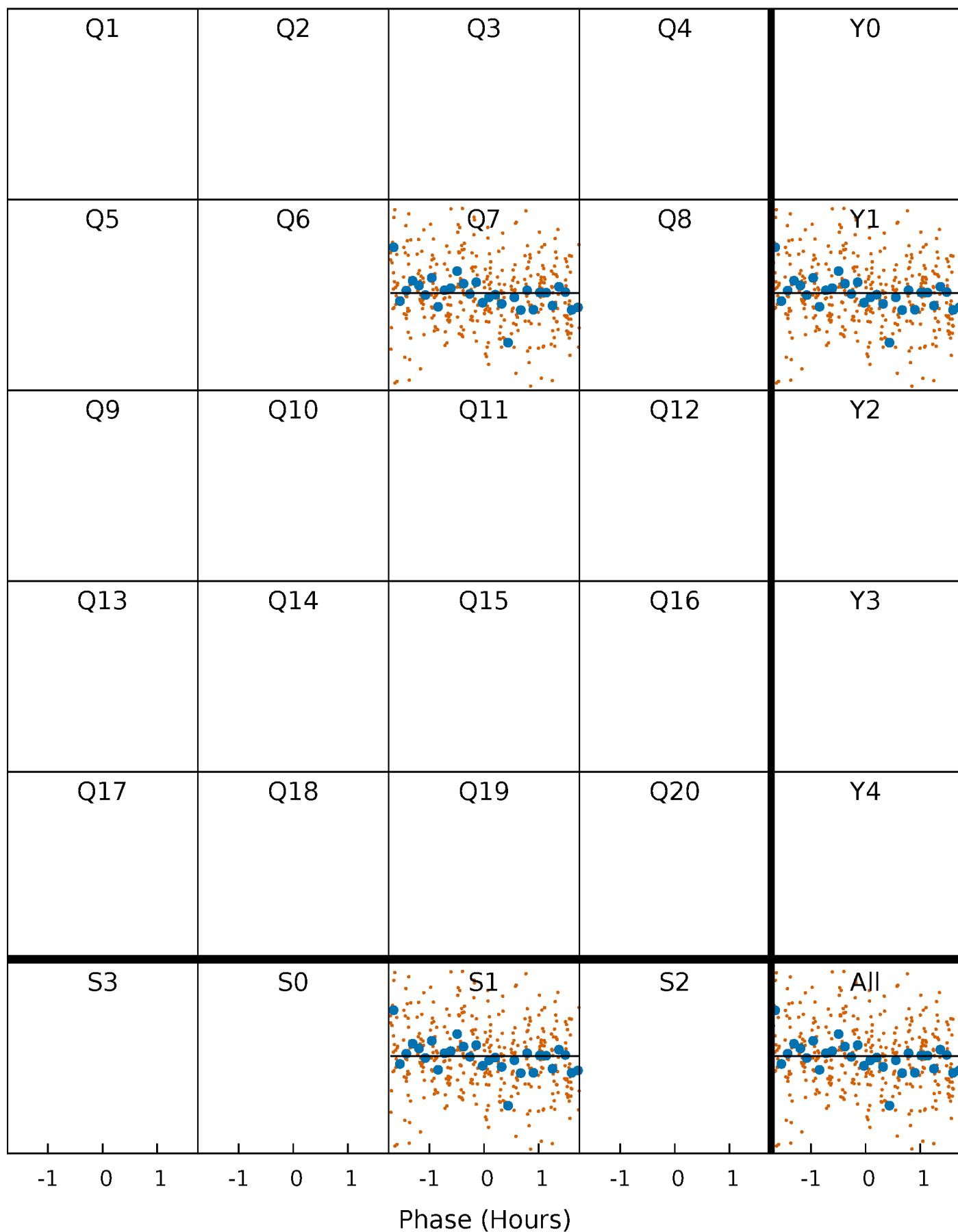
DV Quarter-Phased Transit Curves

TCE 008107903-01 P= 1.522219 Days $T_0=132.263453$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

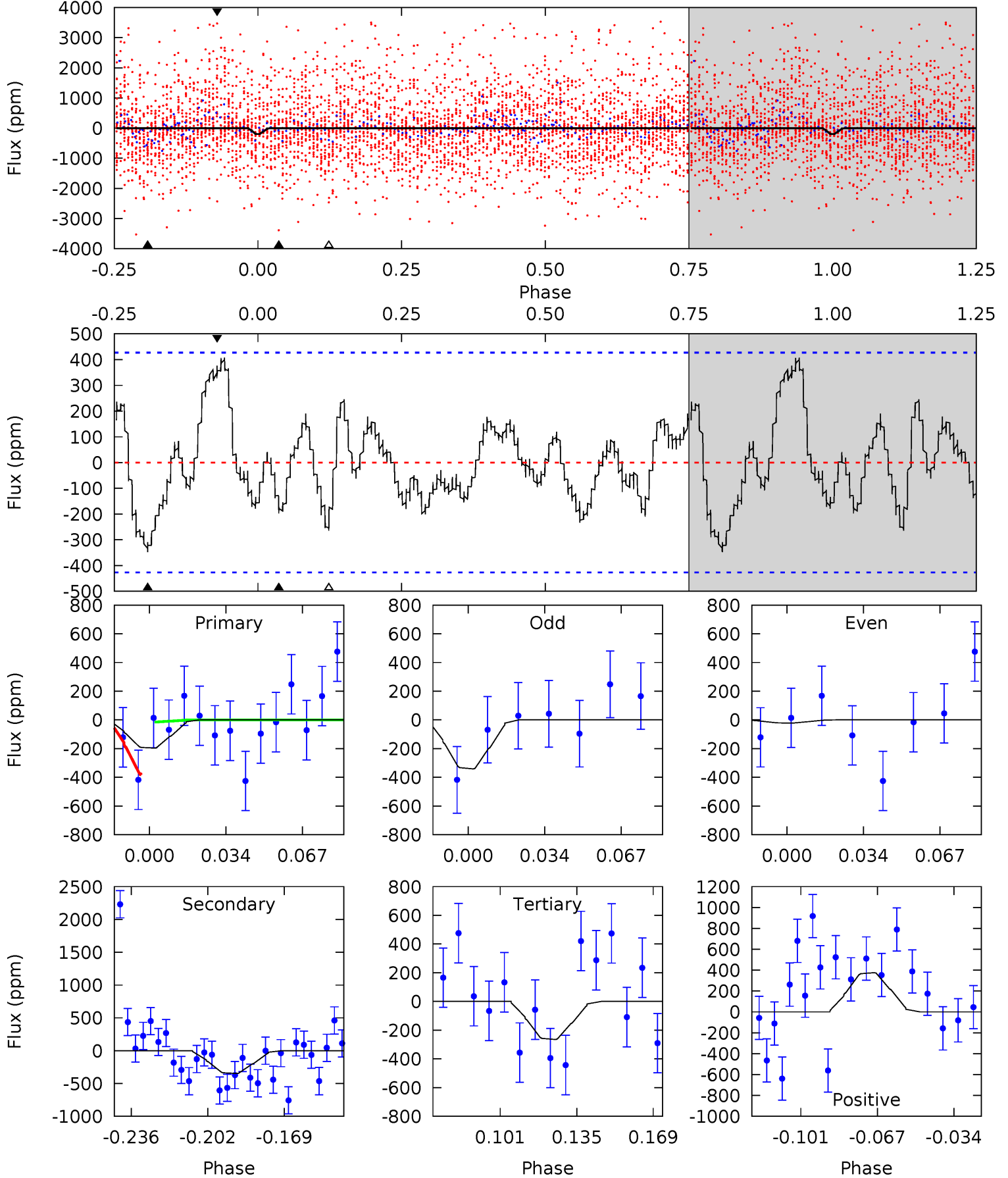
TCE 008107903-01 P= 1.522144 Days $T_0=132.219995$ (BKJD)



DV Model-Shift Uniqueness Test

008107903-01, P = 1.522219 Days, E = 132.263453 Days

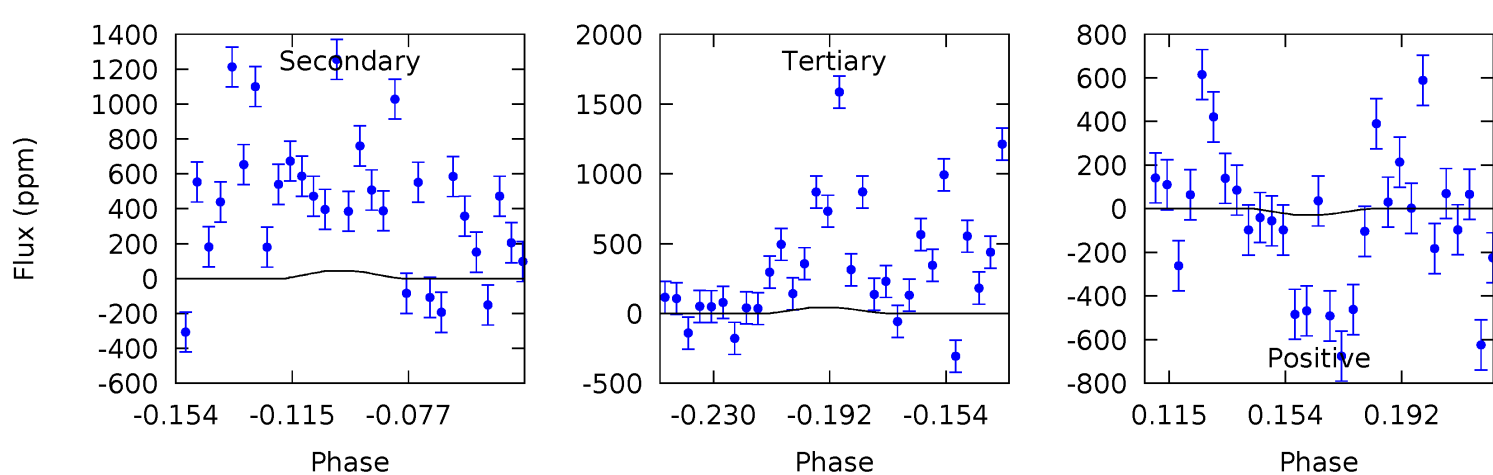
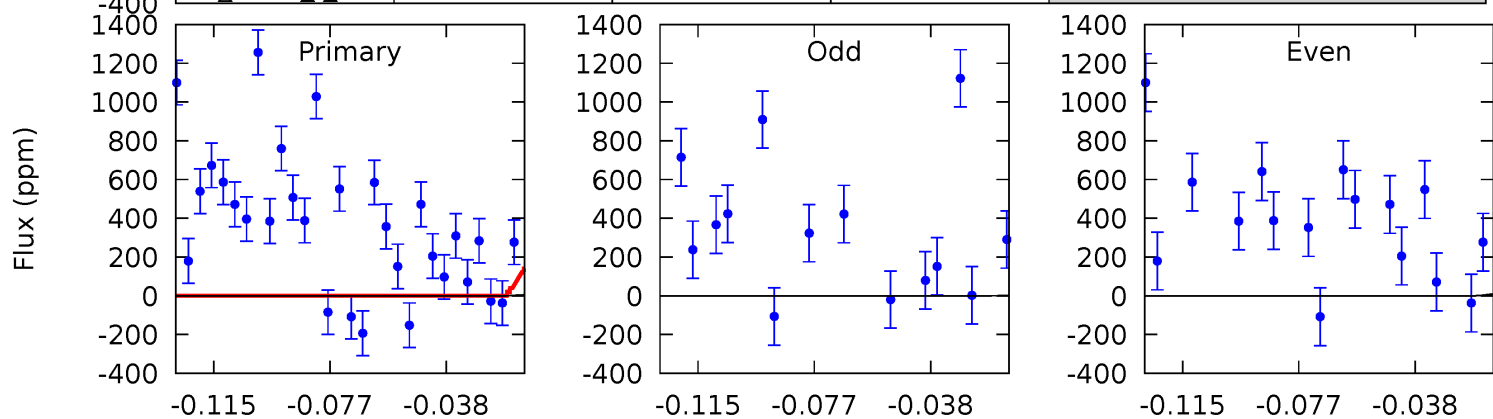
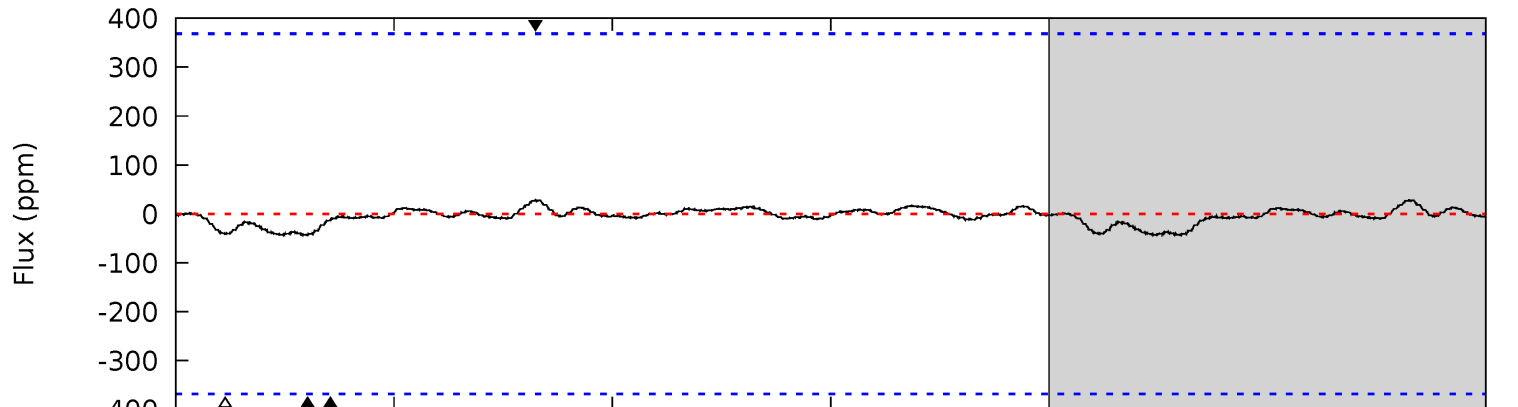
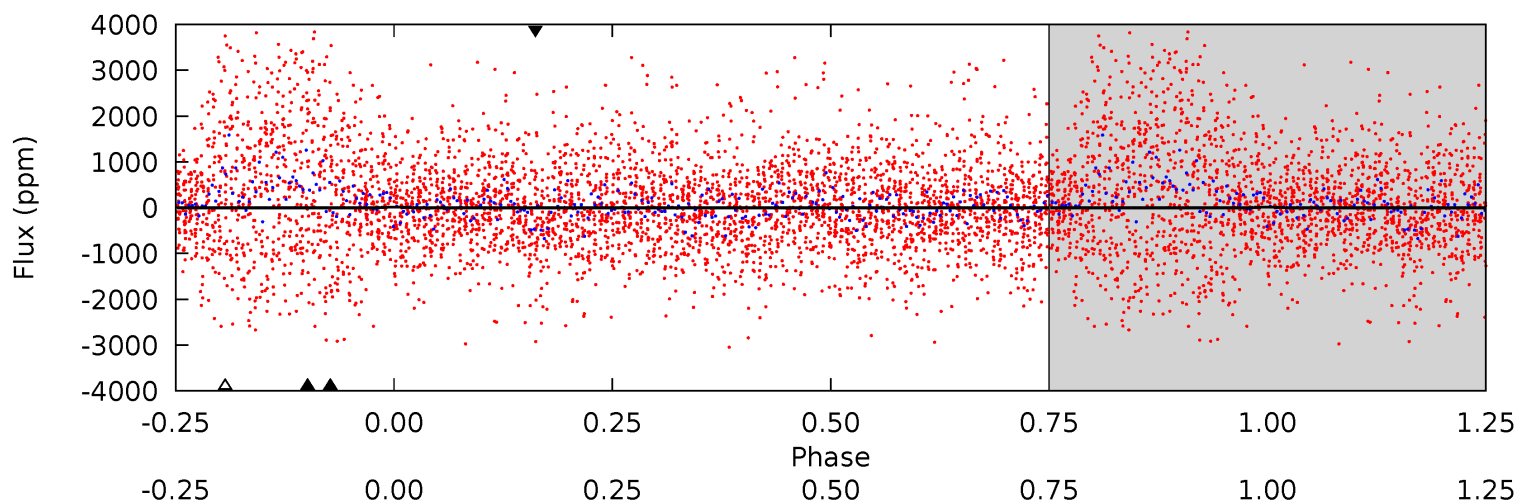
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.21	3.89	2.97	4.21	4.79	2.12	1.50	-0.76	-2.00	0.92	-0.32	1.82	-1.73	0.54	2.08



Alt Model-Shift Uniqueness Test

008107903-01, P = 1.522144 Days, E = 132.219995 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.17	0.57	0.53	0.37	4.76	2.07	0.15	-0.37	-0.20	0.03	0.20	0.11	0.49	0.39	0.54



Stellar Parameters For KIC 008107903

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3421^{+37}_{-47}	$5.009^{+0.032}_{-0.044}$	$-0.200^{+0.100}_{-0.100}$	$0.272^{+0.031}_{-0.031}$	$0.275^{+0.033}_{-0.041}$	$19.360^{+4.182}_{-3.747}$
	+1%/-1%	+1%/-1%	+50%/-50%	+11%/-11%	+12%/-15%	+22%/-19%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 008107903-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-347 ± 89	$33.80^{+38.80}_{-23.57}$	850^{+26}_{-26}	-1613^{+3174}_{-34}	$0.047^{+0.438}_{-0.037}$
Alt.	-44 ± 77	$36.00^{+37.43}_{-25.82}$	848^{+26}_{-24}	-1637^{+33}_{-26}	$0.003^{+0.050}_{-0.007}$

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 $A_{\text{obs}} \gg 1.0$

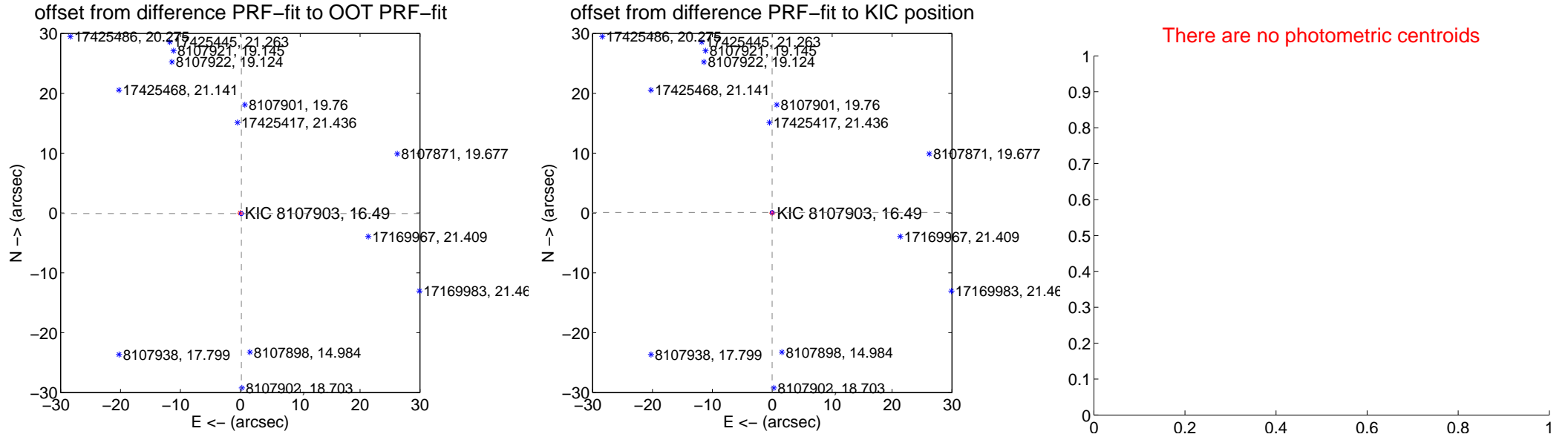
DV Centroid Data

Supplemental centroid analysis for 008107903-01. Kepler magnitude: 16.49. Transit SNR 0.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.201 ± 0.113	1.79	-0.176 ± 0.115	-0.099 ± 0.103
PRF-fit source offset from KIC position	0.097 ± 0.104	0.93	0.026 ± 0.115	0.094 ± 0.103
photometric centroid source offset	—	—	—	—

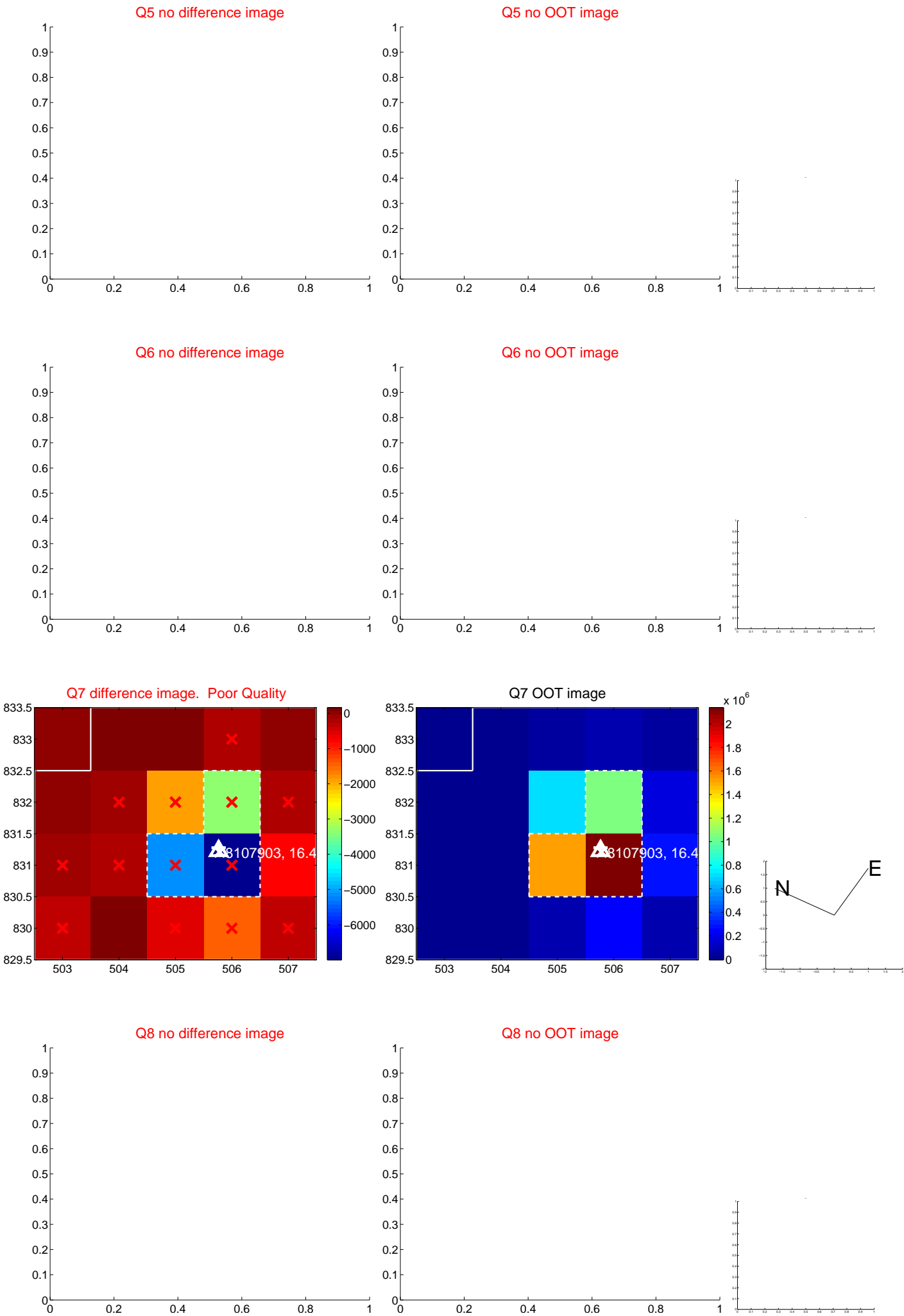


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



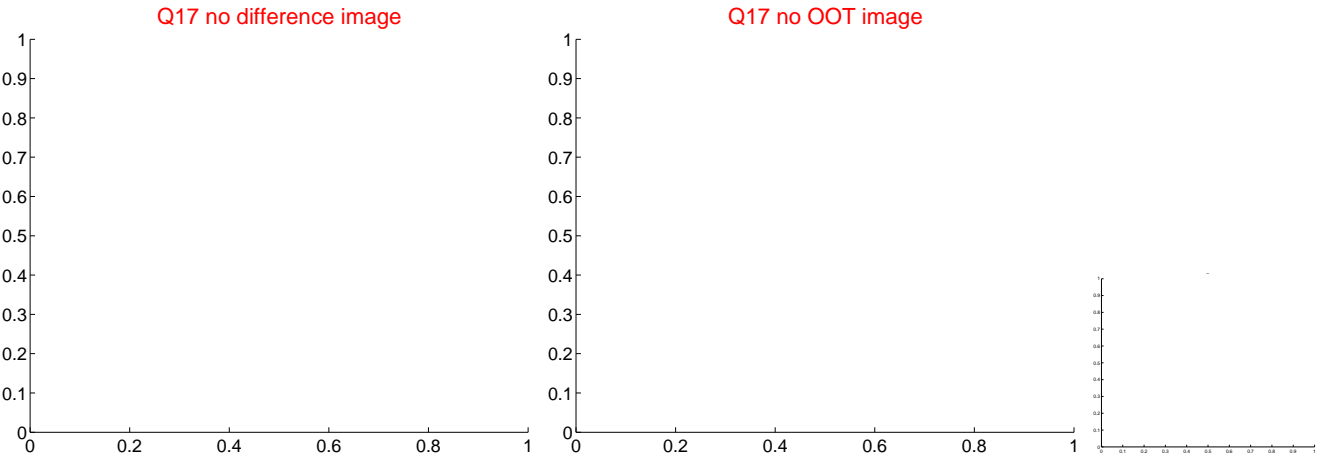
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

