

KIC 003127817

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})
003127817-01	OBS	6308.01	2.163570	132.936198	49380.8	7.484	5531.7	3849.1	1.72	6425	65.06	3762.77
003127817-02	OBS	No	611.882954	281.571653	162.3	12.000	12.1	-1.0	1.72	6425	2.20	2.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003127817-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED
003127817-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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.

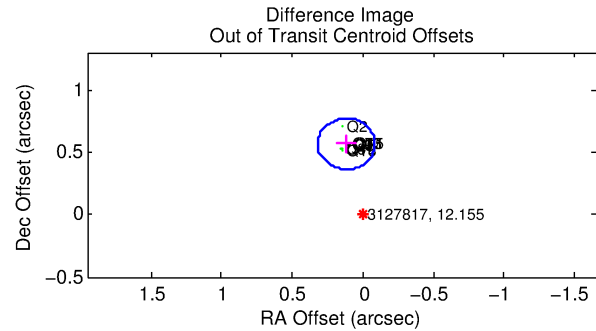
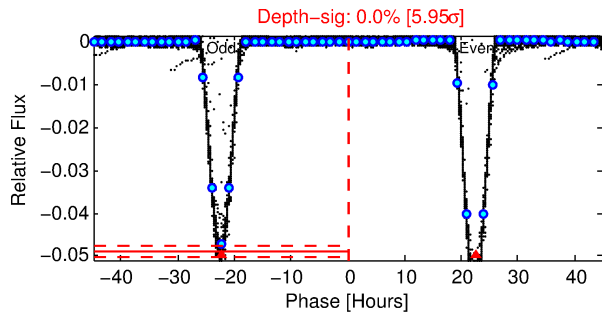
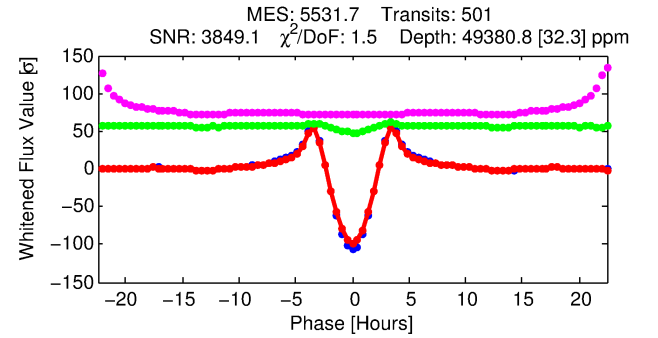
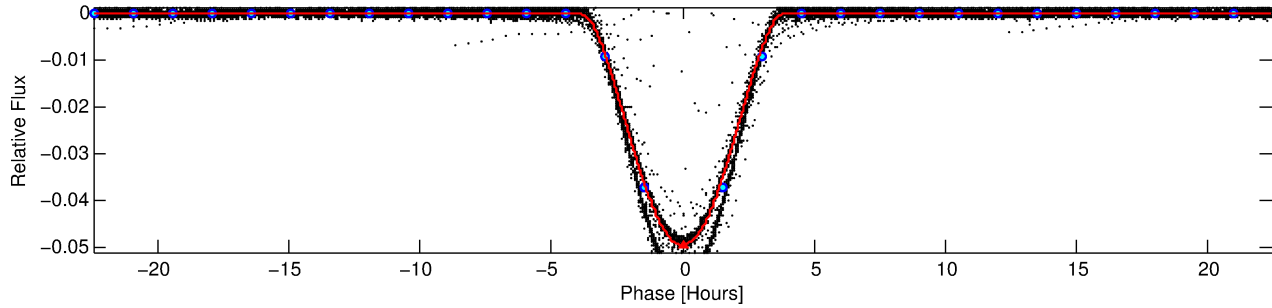
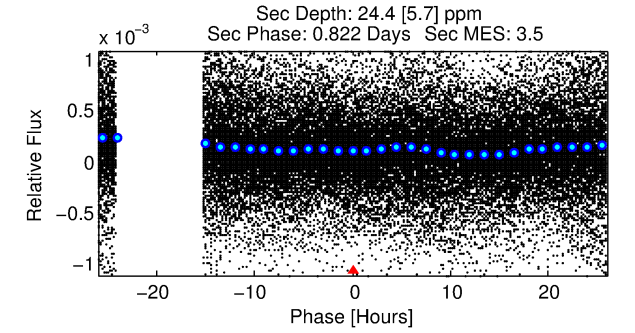
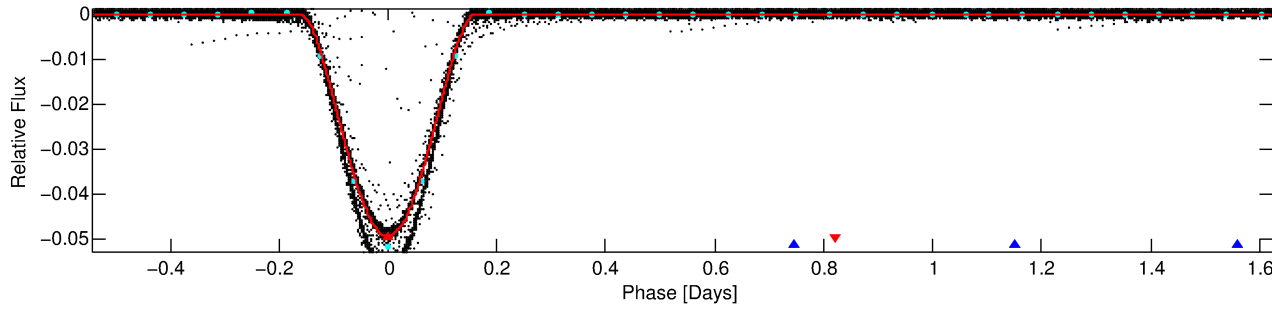
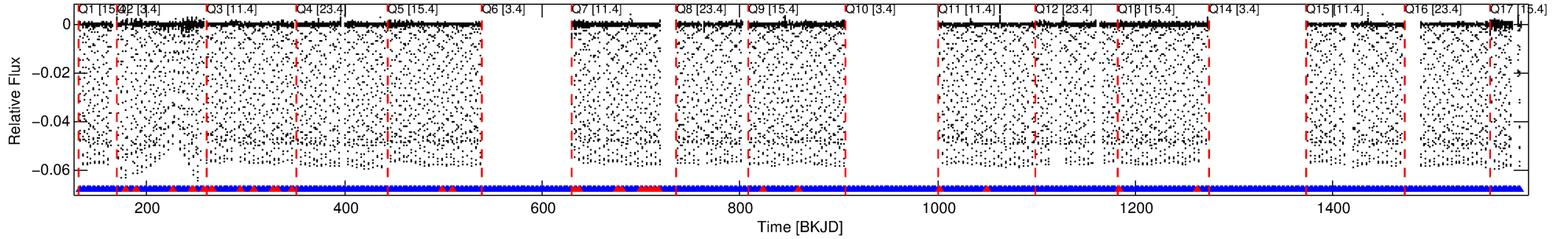
Ephemeris Match Information For 003127817-01

No Significant Match Found

DV One-Page Summary

KIC: 3127817 Candidate: 1 of 2 Period: 2.164 d
KOI: K06308.01 Corr: 0.991

Kp: 12.15 R*: 1.72 Rs Teff: 6425.0 K Logg: 4.04 Fe/H: -0.220



DV Fit Results:

Period = 2.16357 [0.00000] d
Epoch = 132.9362 [0.0000] BKJD
Rp/R* = 0.3470 [0.0027]
a/R* = 2.29 [0.00]
b = 1.00 [0.00]
Seff = 3762.77 [2013.74]
Teq = 1997 [267] K
Rp = 65.06 [22.08] Re
a = 0.0346 [0.0113] AU
Ag = 0.00 [0.00] [-458.68σ]
Teffp = 767 [50] K [-4.52σ]

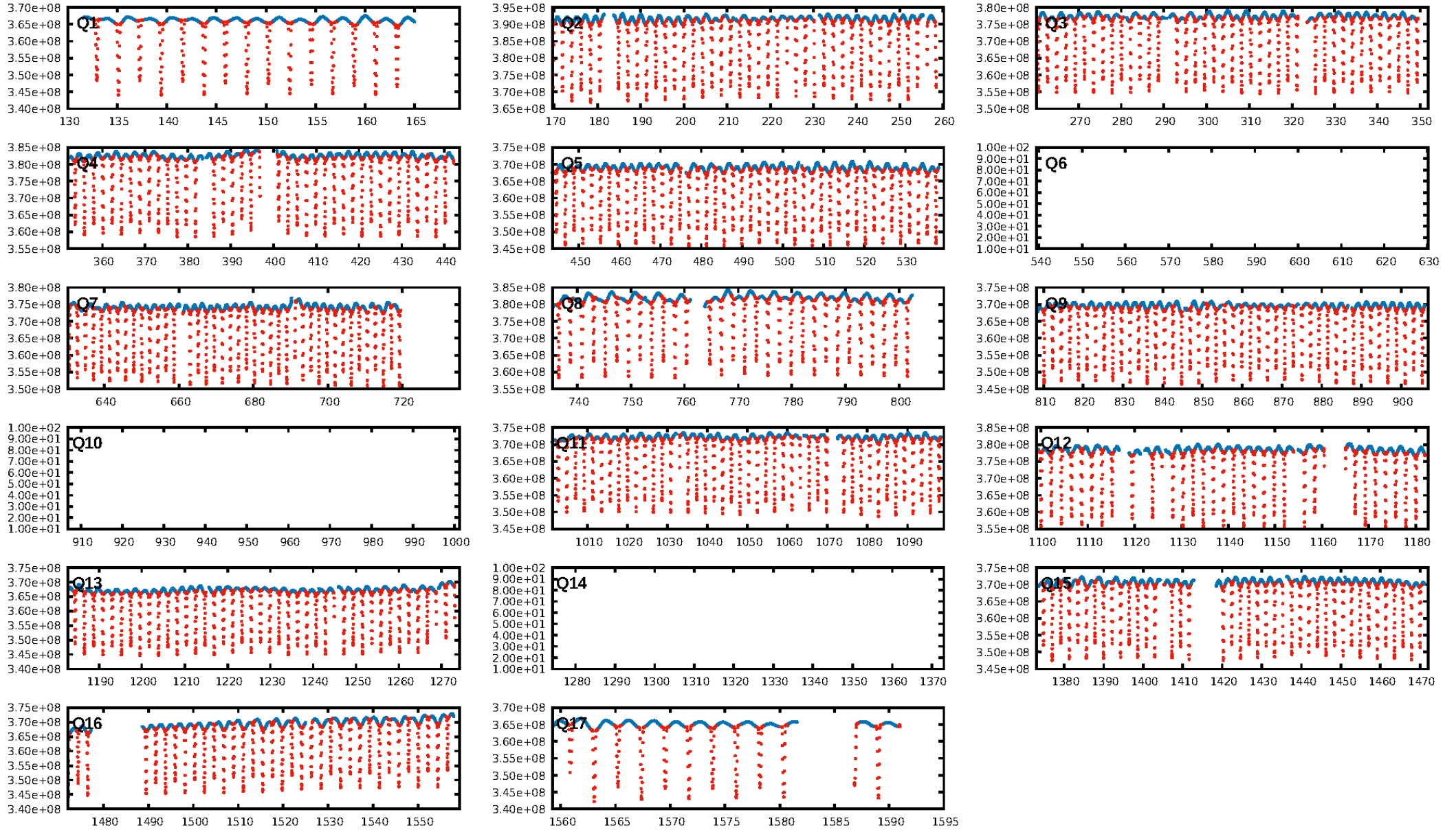
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1034.72σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.94 [444/474]
GhostDiagnostic-chr: 2.554
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.579 arcsec [8.56σ]
KicOffset-rm: 0.509 arcsec [6.93σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

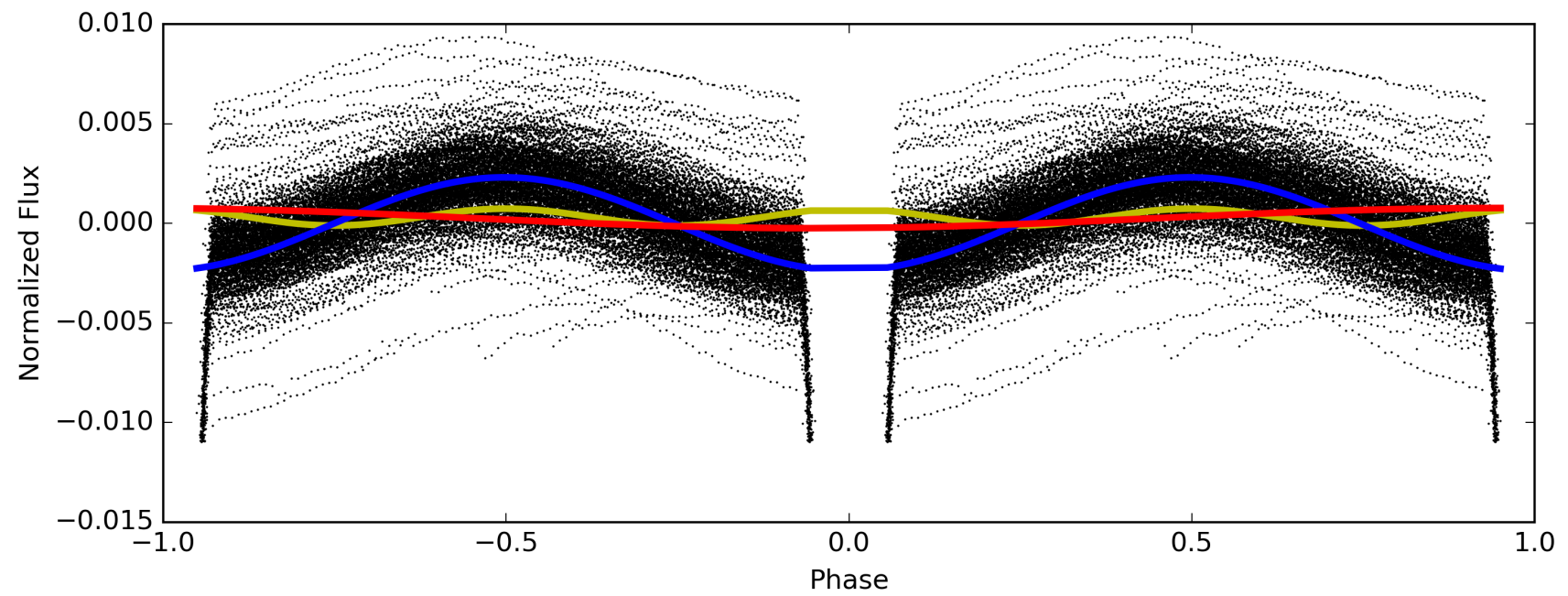
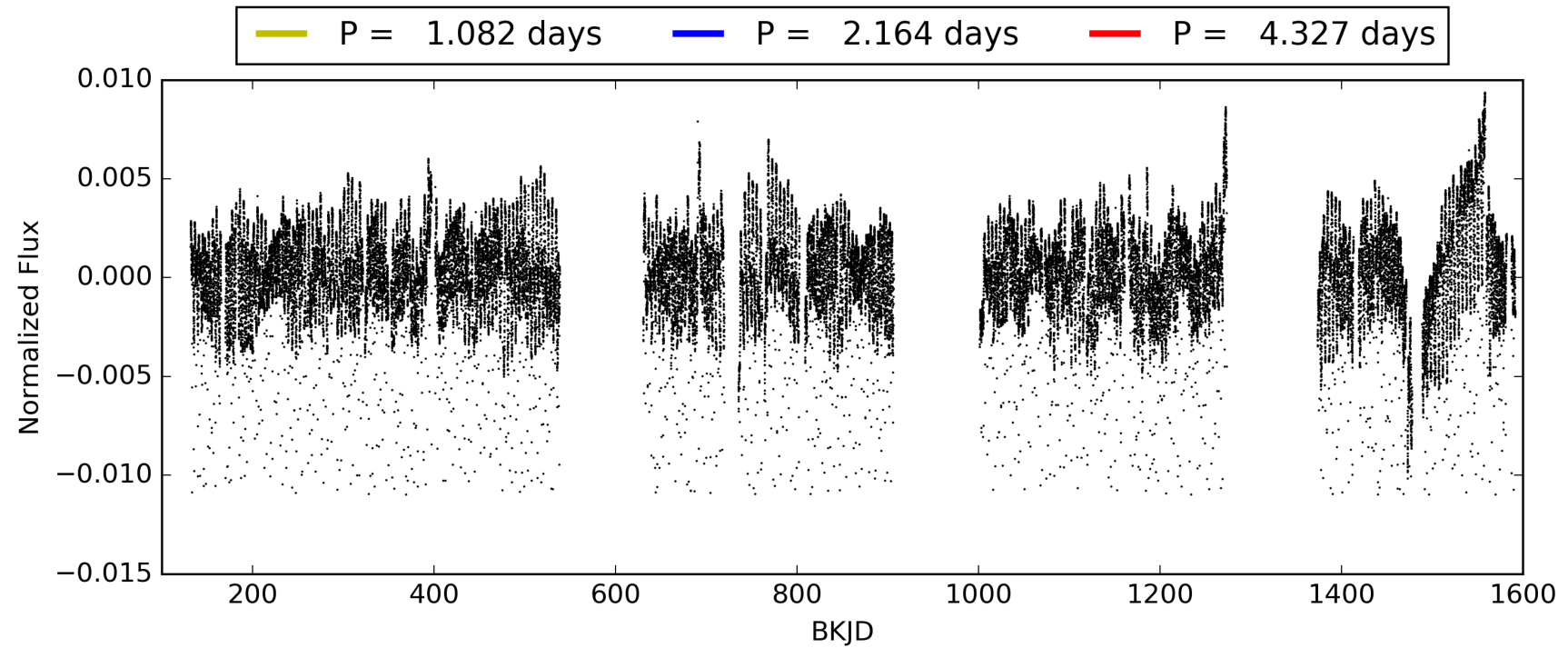
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:54:58 Z

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

TCE 003127817-01, PDC Light Curves

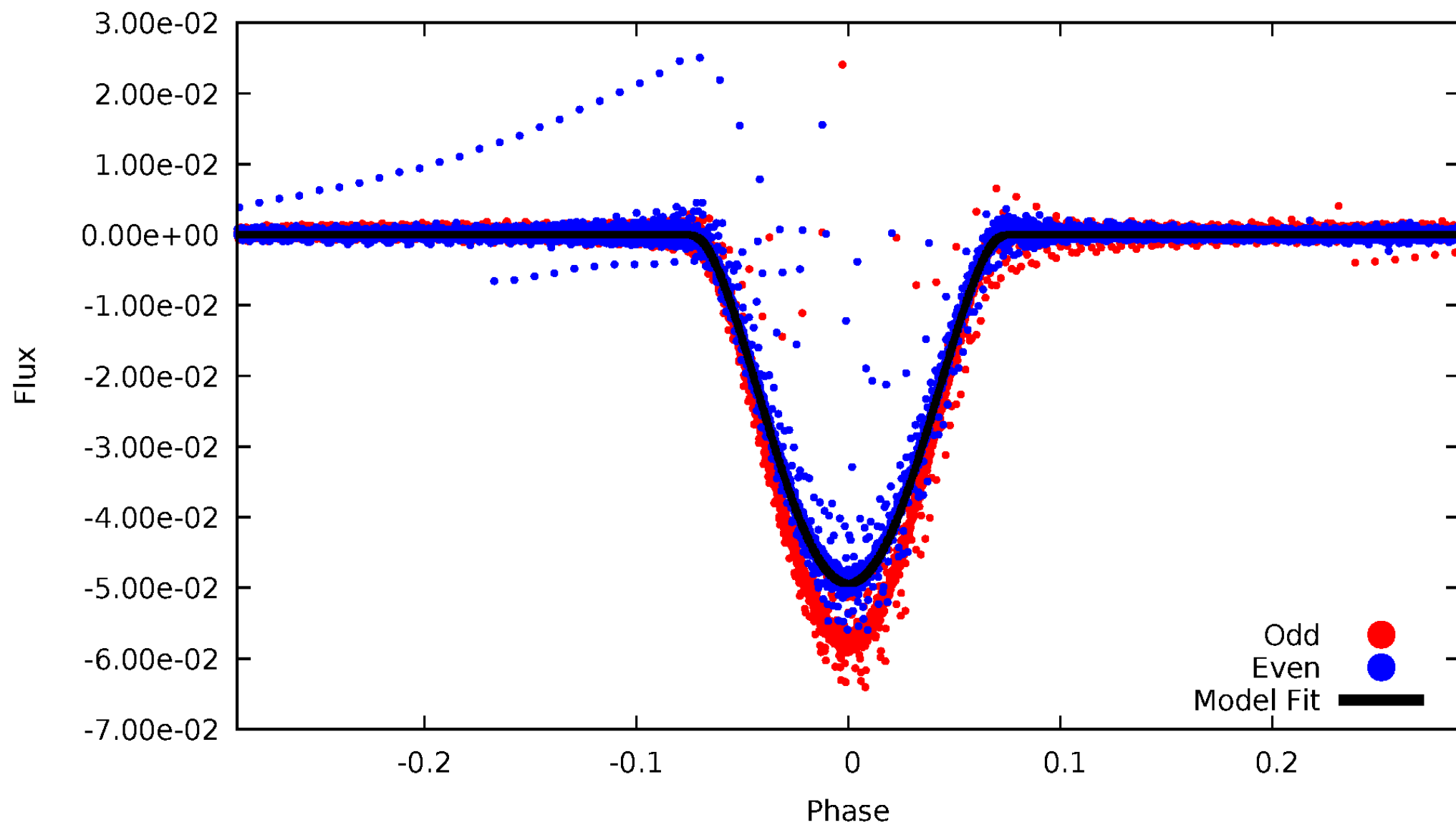


TCE 003127817-01



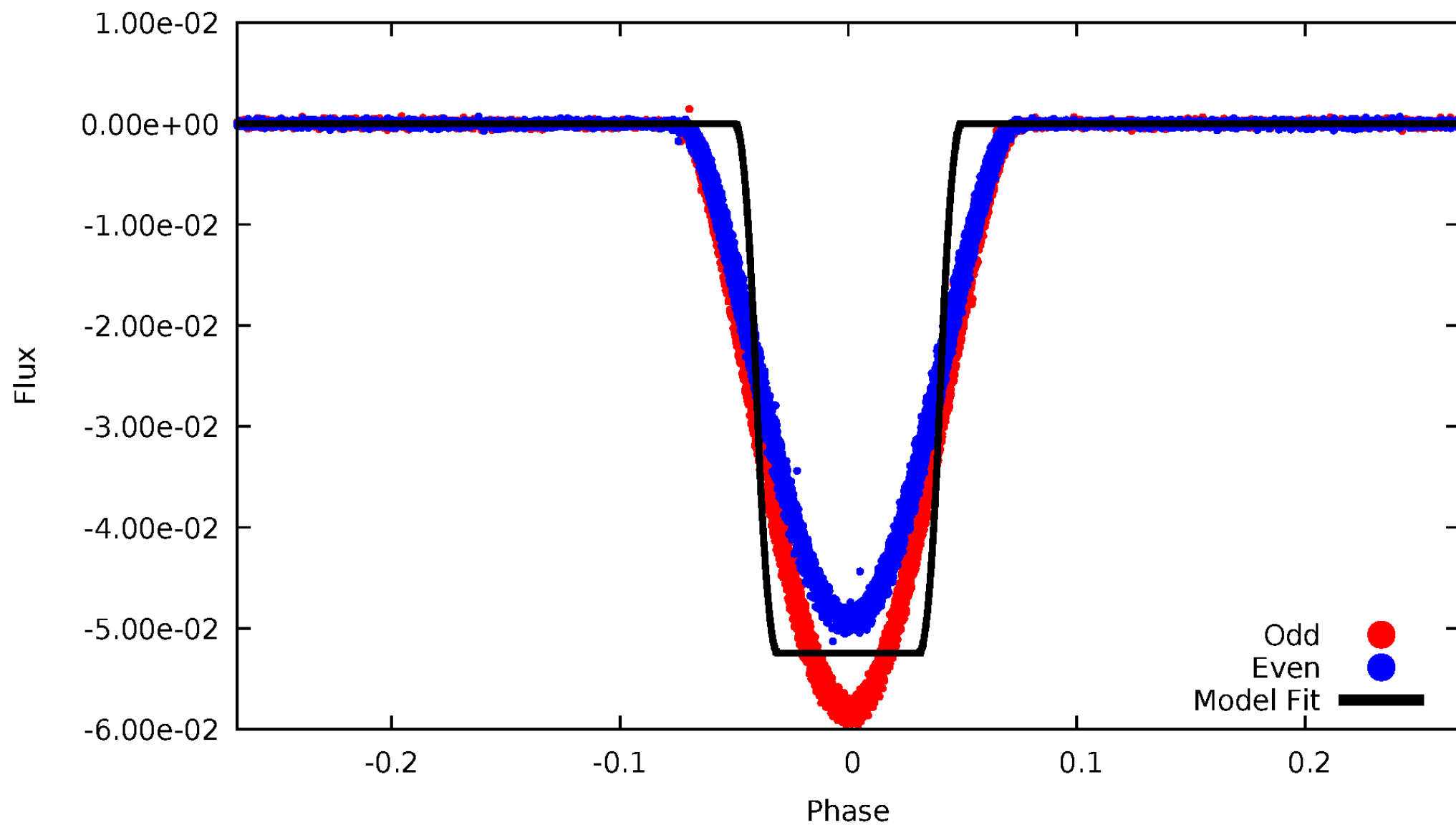
DV Odd/Even

TCE 003127817-01



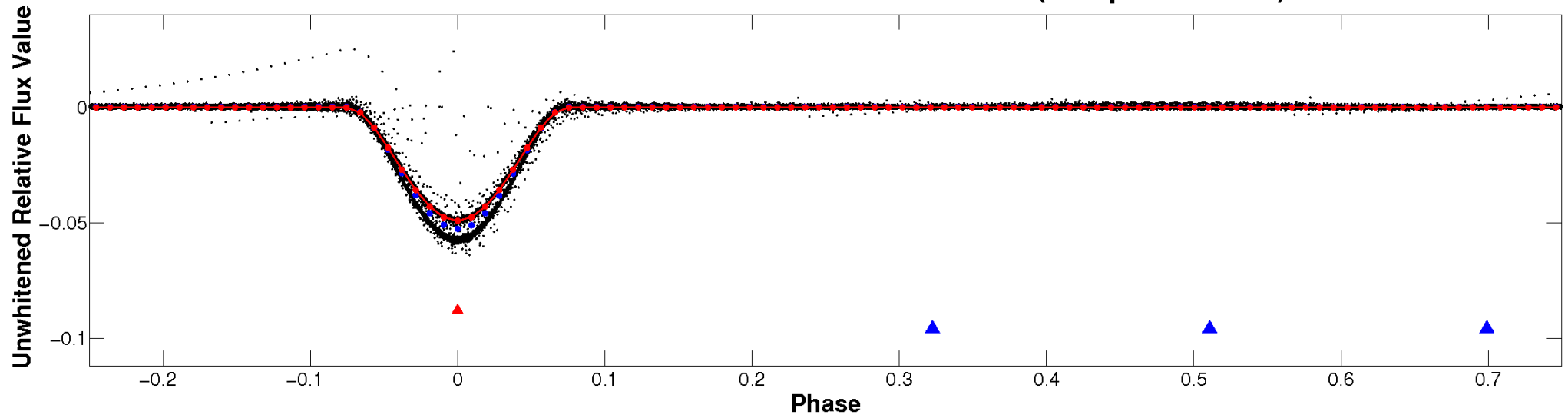
ALT Odd/Even

TCE 003127817-01

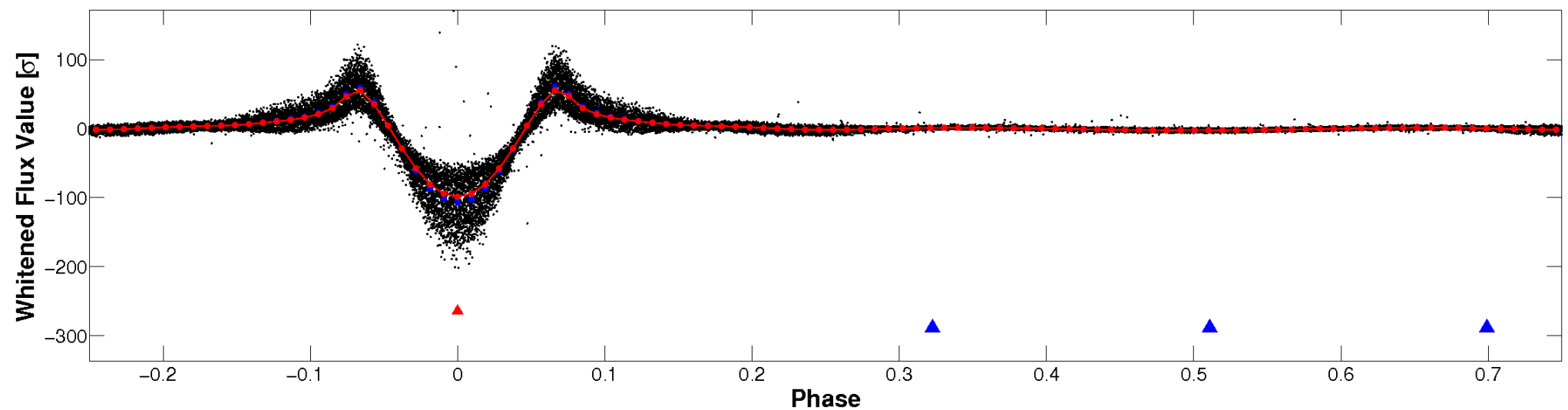


Non-Whitened Vs. Whitened Light Curve

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

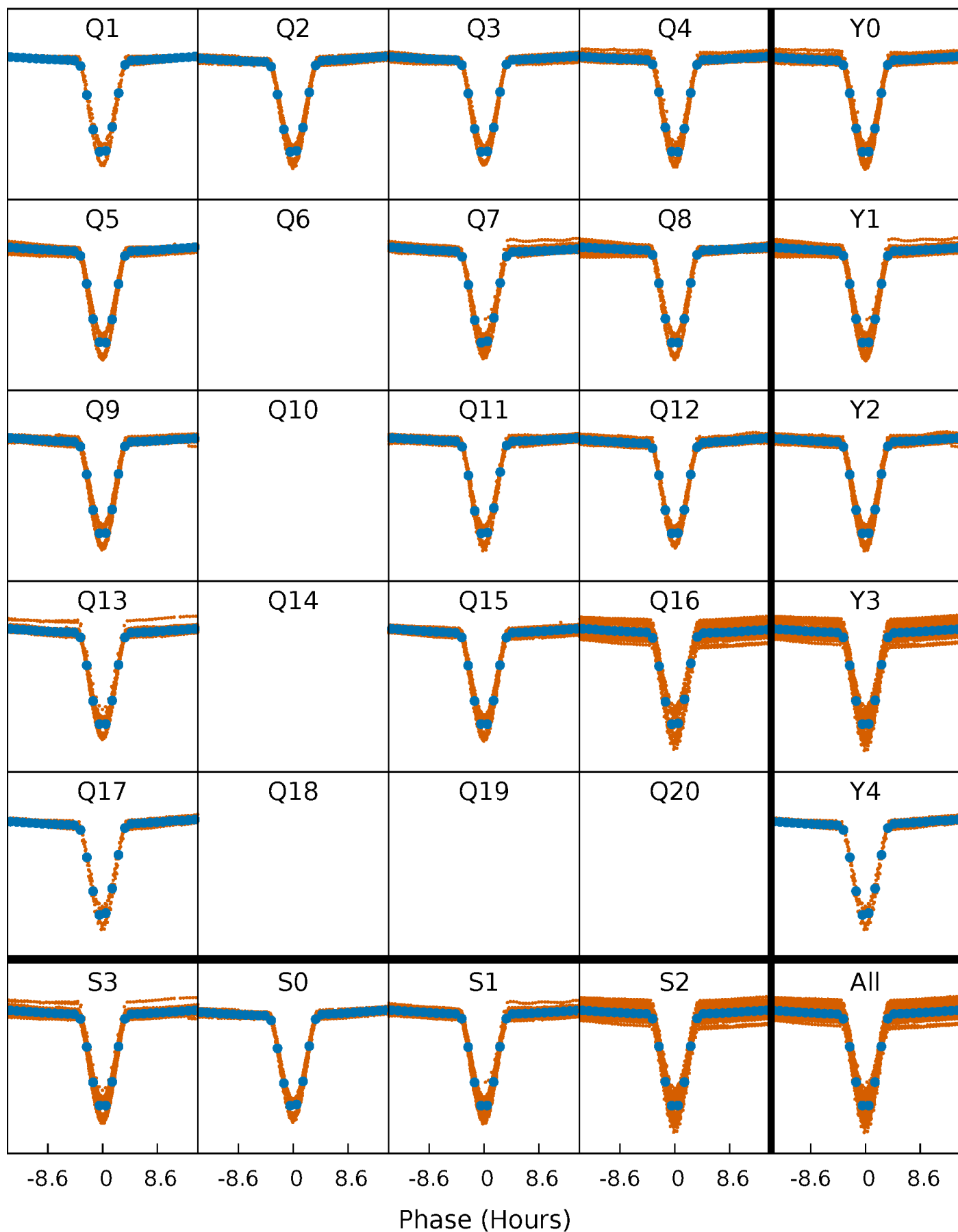


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



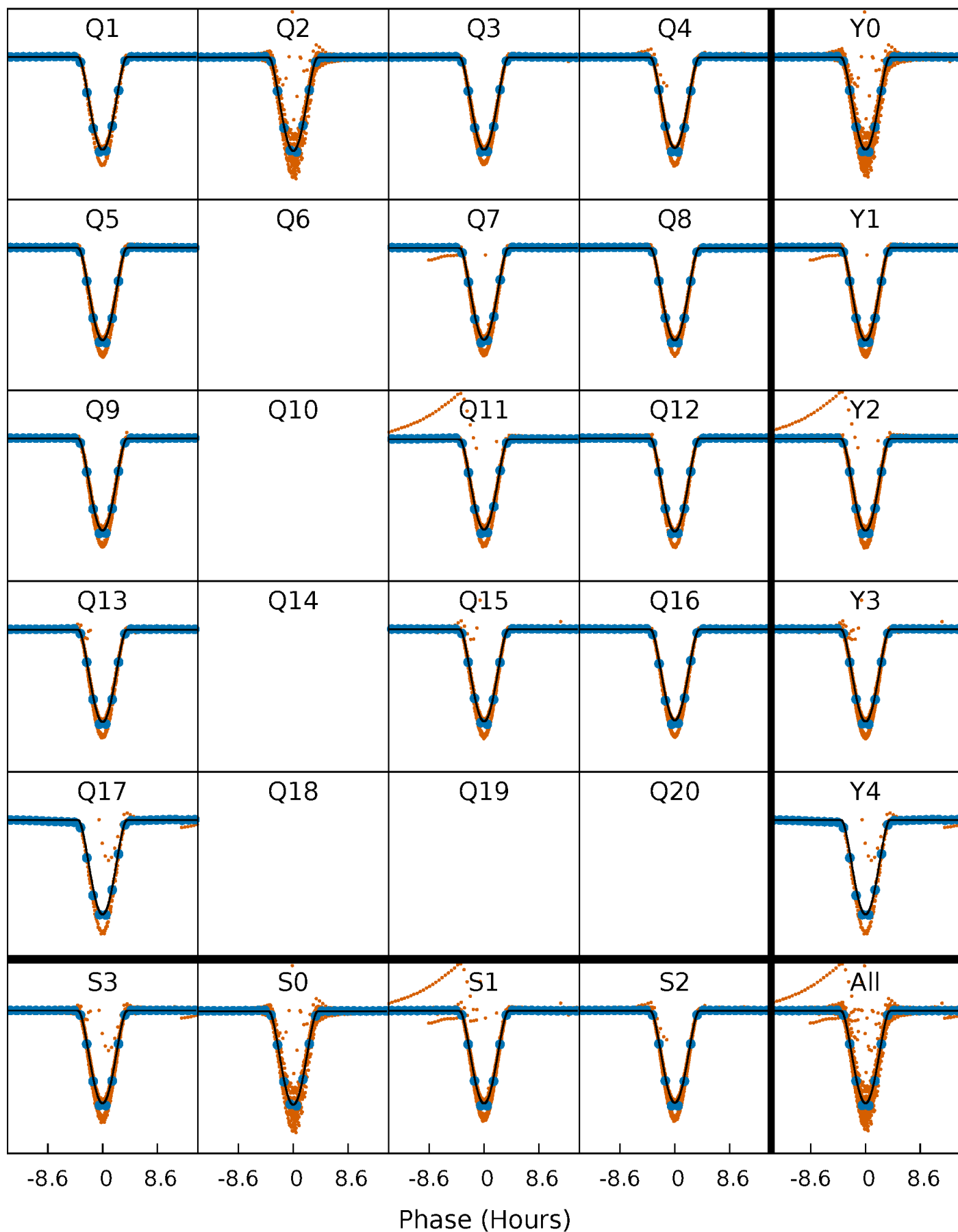
PDC Quarter-Phased Transit Curves

TCE 003127817-01 P= 2.163570 Days $T_0=132.936198$ (BKJD)



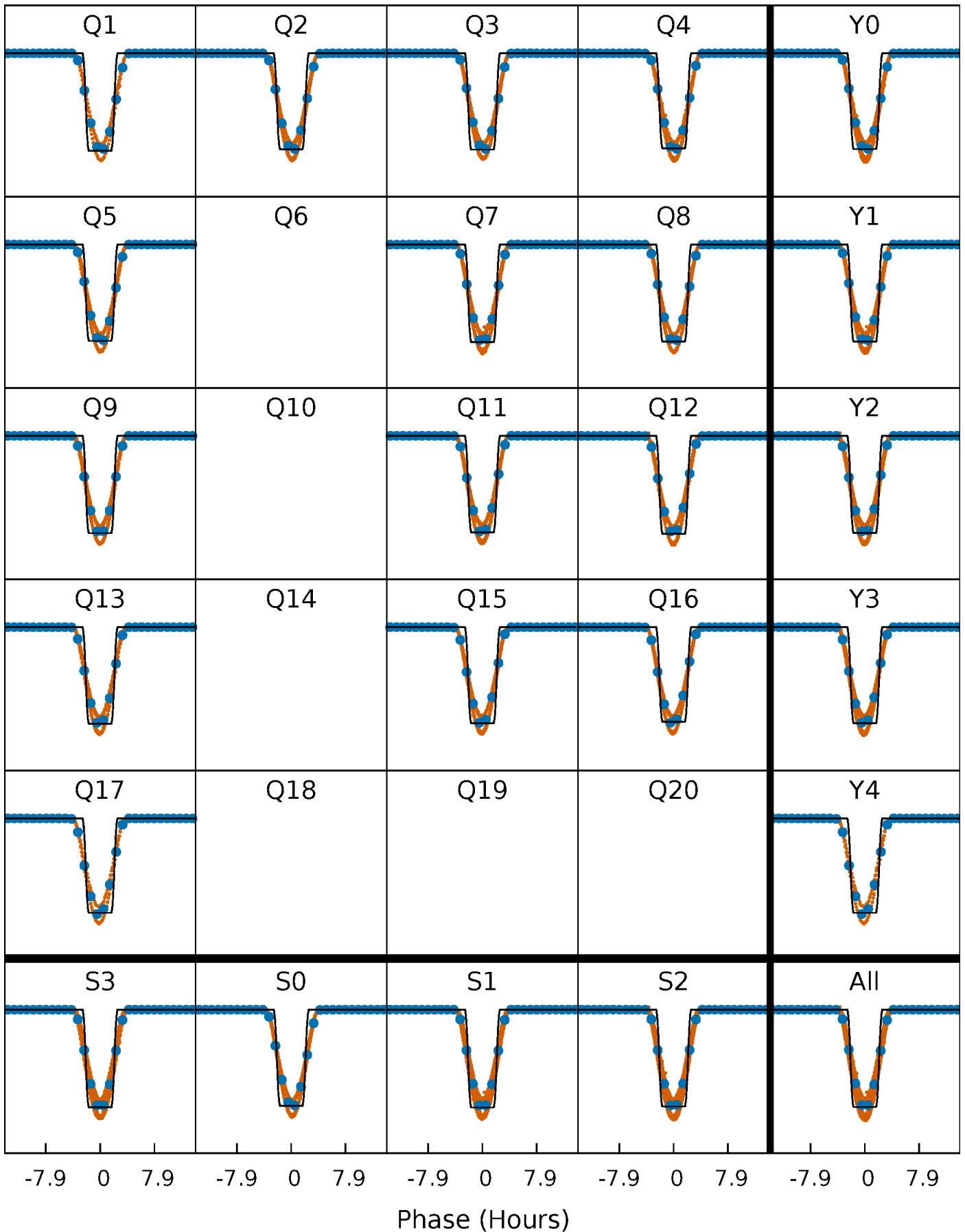
DV Quarter-Phased Transit Curves

TCE 003127817-01 P= 2.163570 Days $T_0=132.936198$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

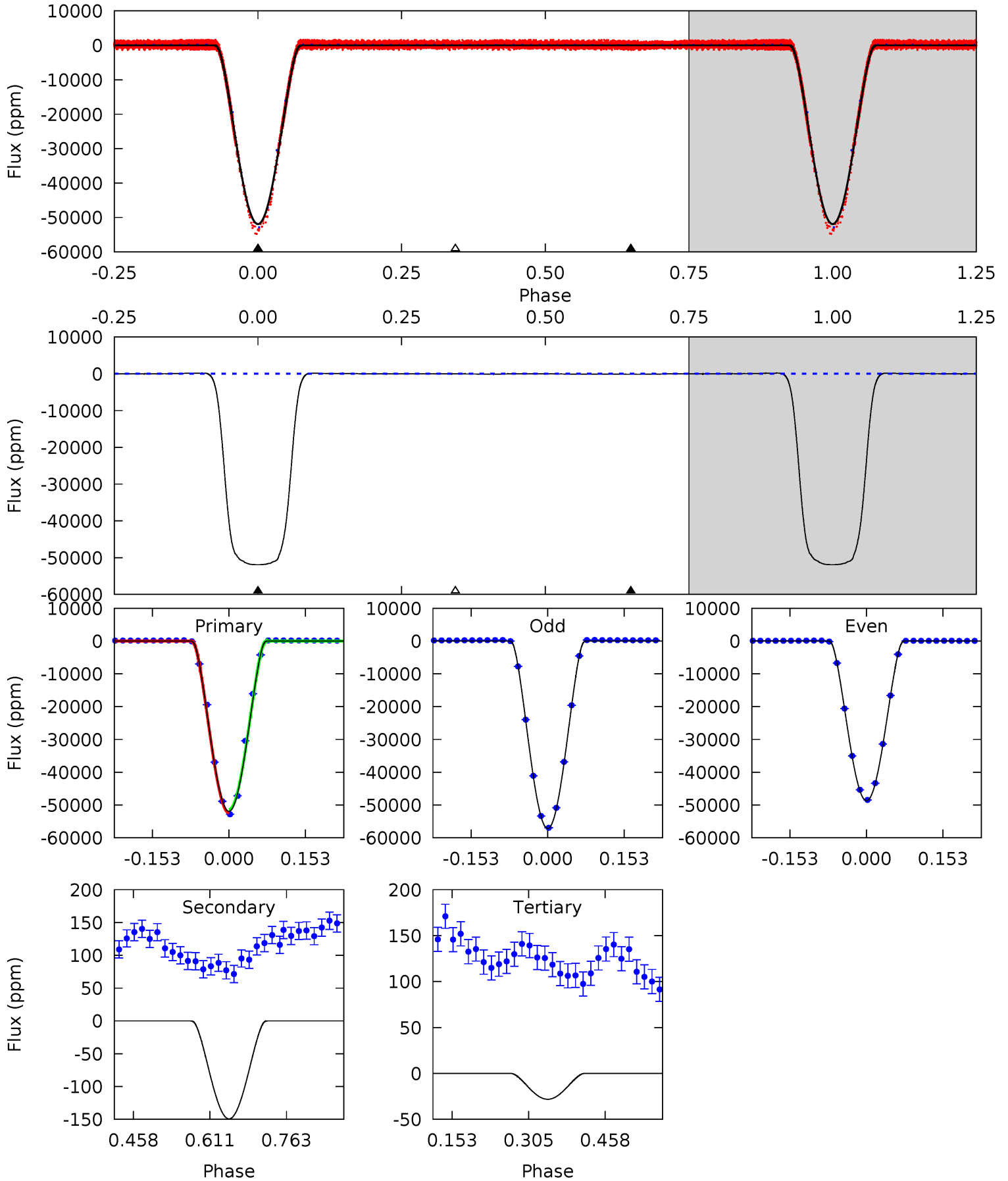
TCE 003127817-01 P= 2.163589 Days $T_0=132.929725$ (BKJD)



DV Model-Shift Uniqueness Test

003127817-01, P = 2.163570 Days, E = 130.772628 Days

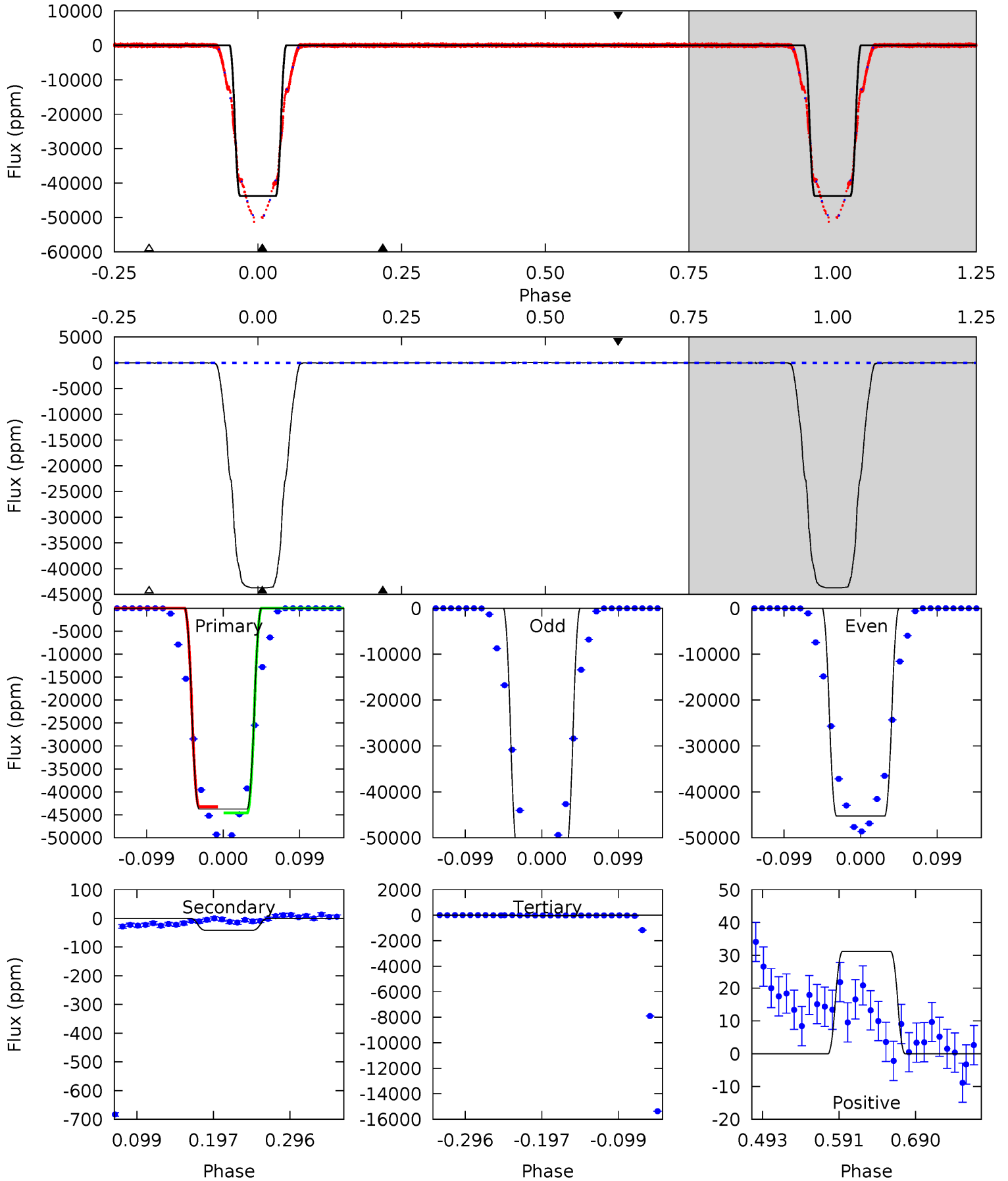
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7493	21.6	4.07	0	4.48	1.43	5.16	7489	7493	17.5	21.6	960.5	1.00	0.00	0



Alt Model-Shift Uniqueness Test

003127817-01, P = 2.163589 Days, E = 130.766136 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5540	5.23	5.20	3.95	4.57	1.65	2.58	5535	5536	0.03	1.28	1131	1.05	0.00	0



Stellar Parameters For KIC 003127817

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6425^{+162}_{-194}	$4.040^{+0.306}_{-0.165}$	$-0.220^{+0.250}_{-0.300}$	$1.718^{+0.477}_{-0.583}$	$1.179^{+0.188}_{-0.188}$	$0.327^{+0.648}_{-0.144}$
	+3%/-3%	+8%/-4%	+114%/-136%	+28%/-34%	+16%/-16%	+198%/-44%
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 003127817-01 / KOI 6308.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-149 ± 7	$63.84^{+10.71}_{-10.88}$	2763^{+207}_{-254}	-2915^{+157}_{-133}	$0.024^{+0.011}_{-0.006}$
Alt.	-41 ± 8	$42.62^{+7.14}_{-7.89}$	2766^{+235}_{-263}	-2932^{+158}_{-143}	$0.015^{+0.007}_{-0.005}$

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 $A_{obs} \gg 1.0$

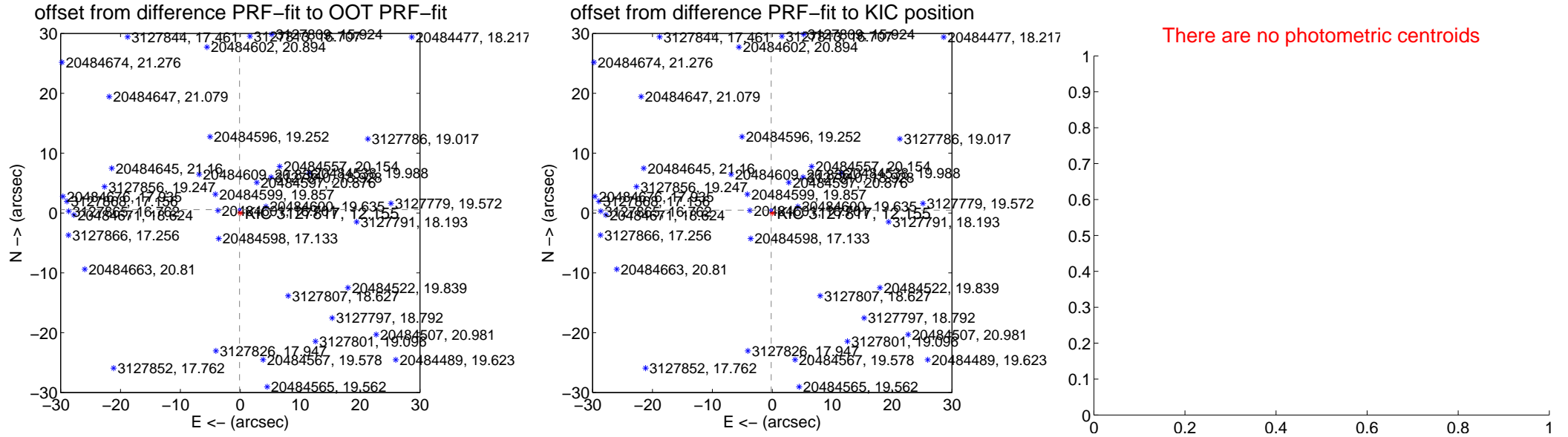
DV Centroid Data

Supplemental centroid analysis for 003127817-01. Kepler magnitude: 12.15. Transit SNR 3849.12

There are 14 quarters with good PRF difference image offsets

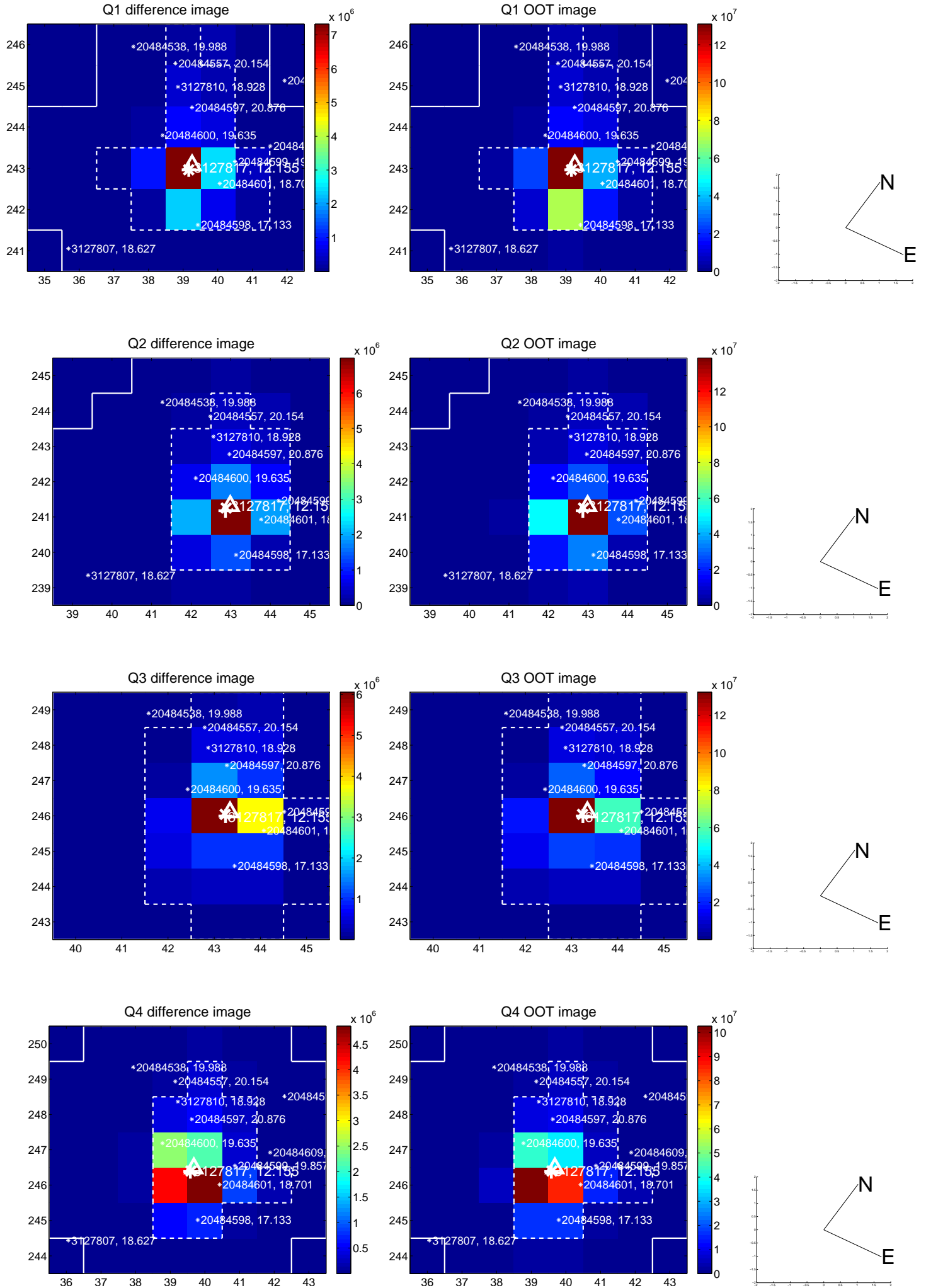
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.579 \pm 0.068	8.56	0.118 \pm 0.067	0.567 \pm 0.068
PRF-fit source offset from KIC position	0.509 \pm 0.073	6.93	0.183 \pm 0.073	0.475 \pm 0.073
photometric centroid source offset	—	—	—	—

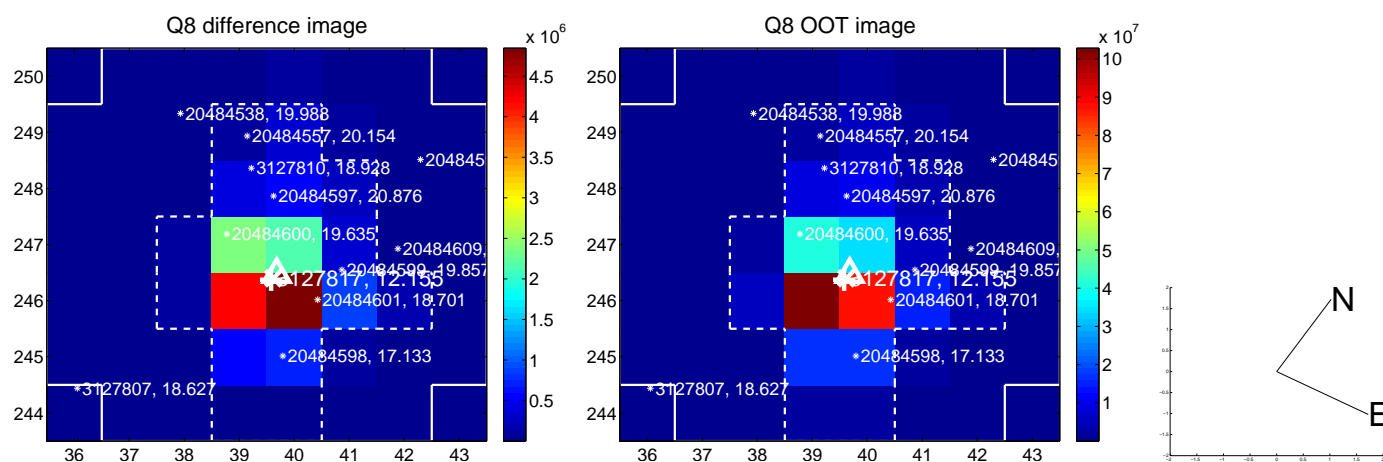
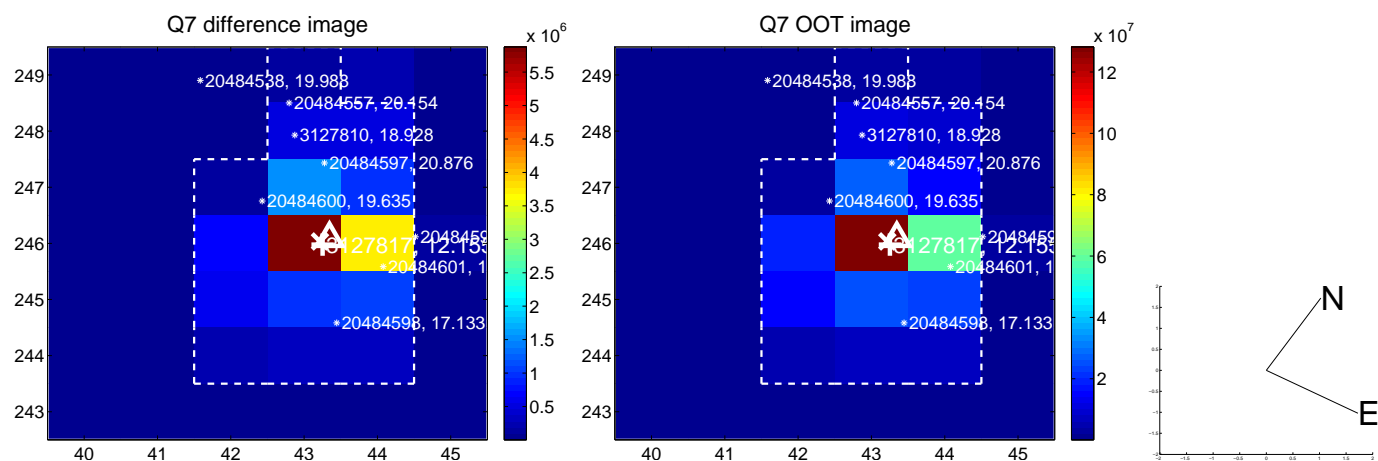
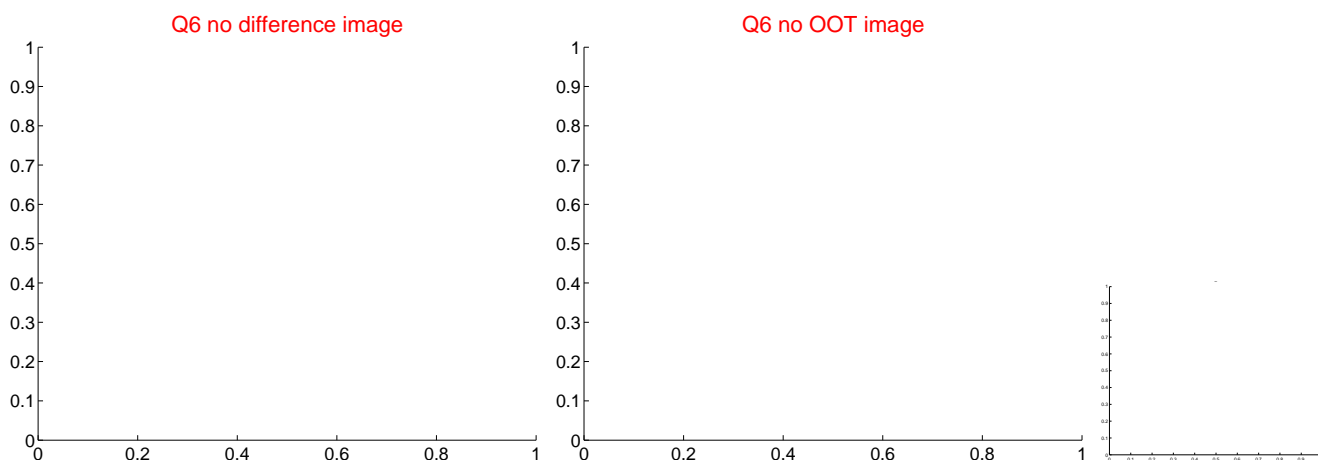
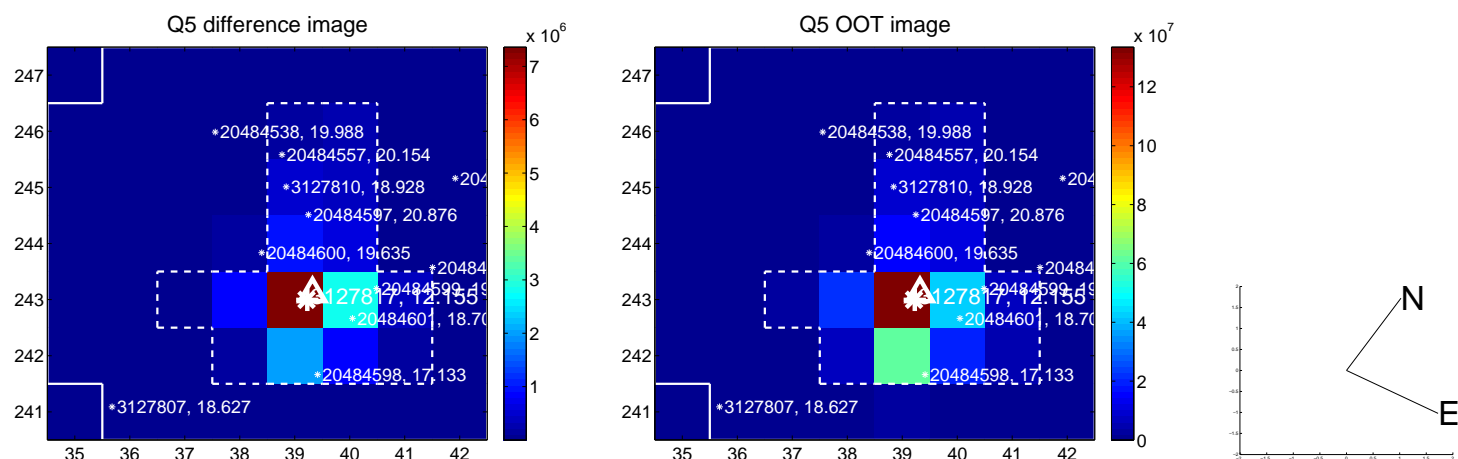


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

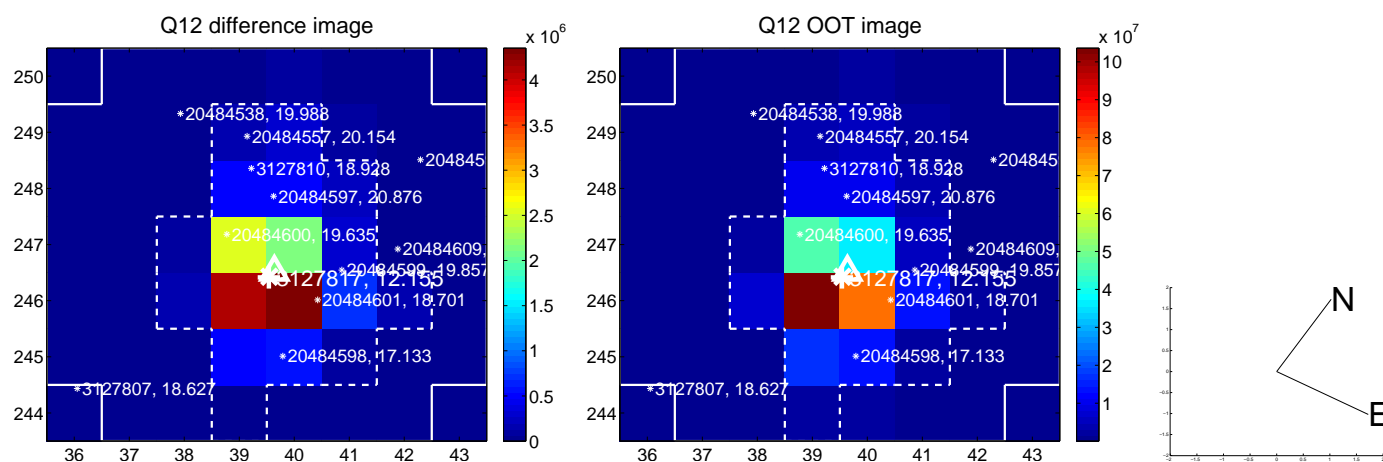
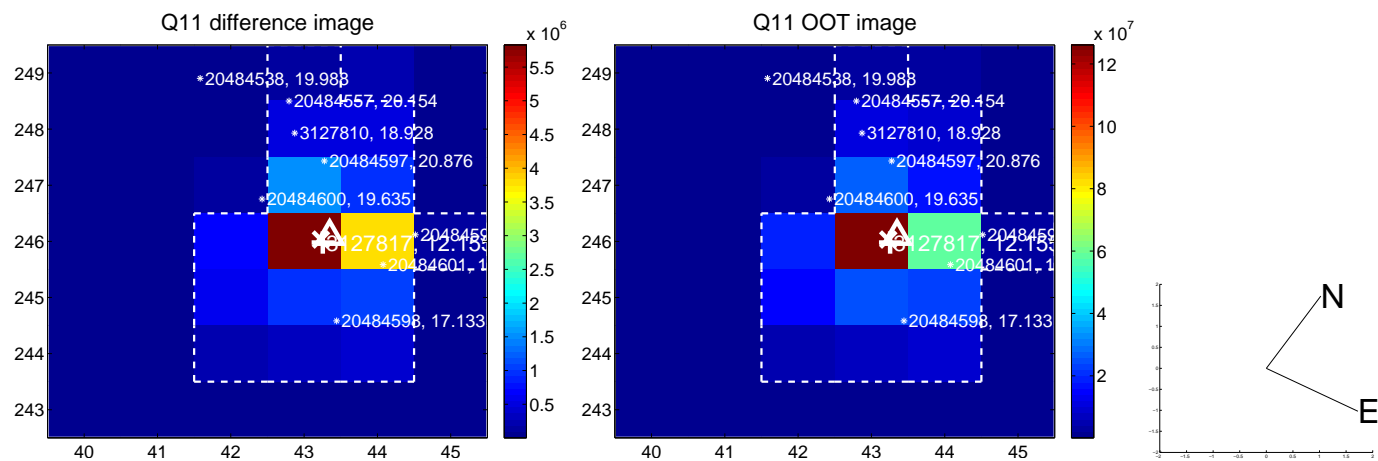
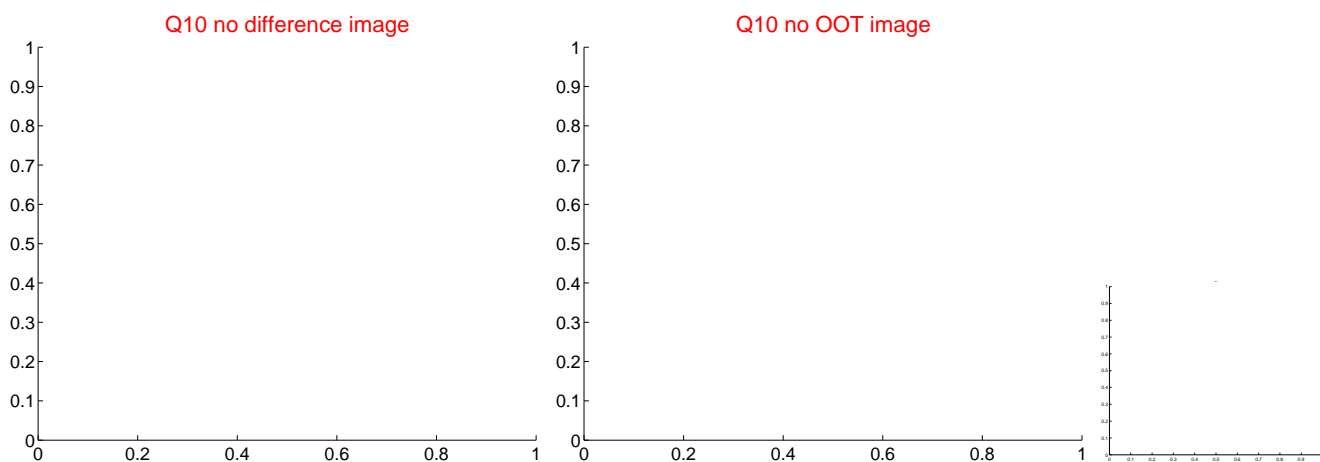
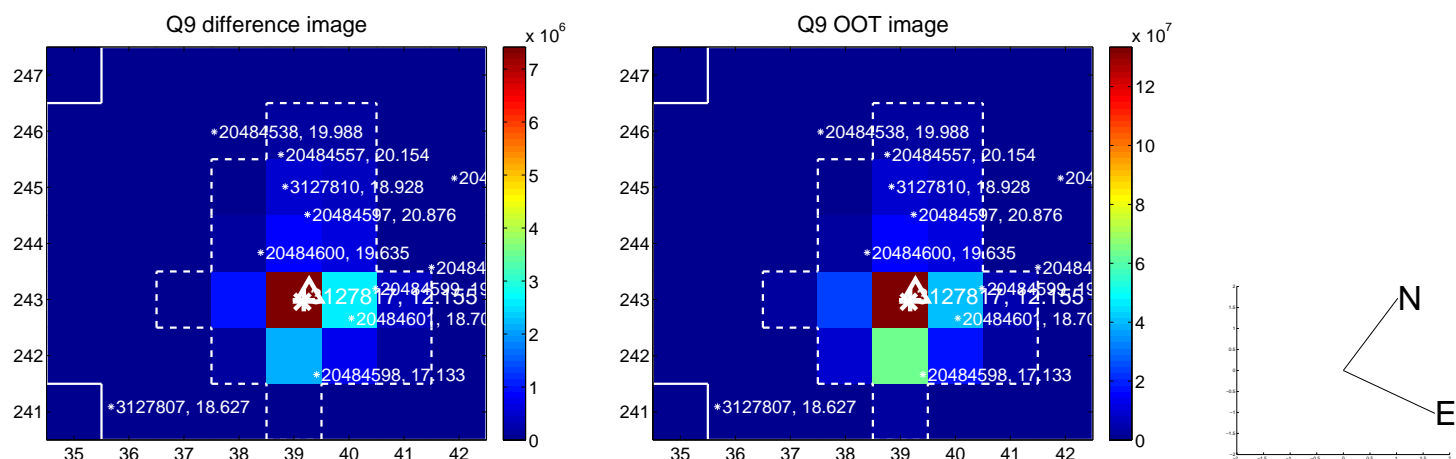
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



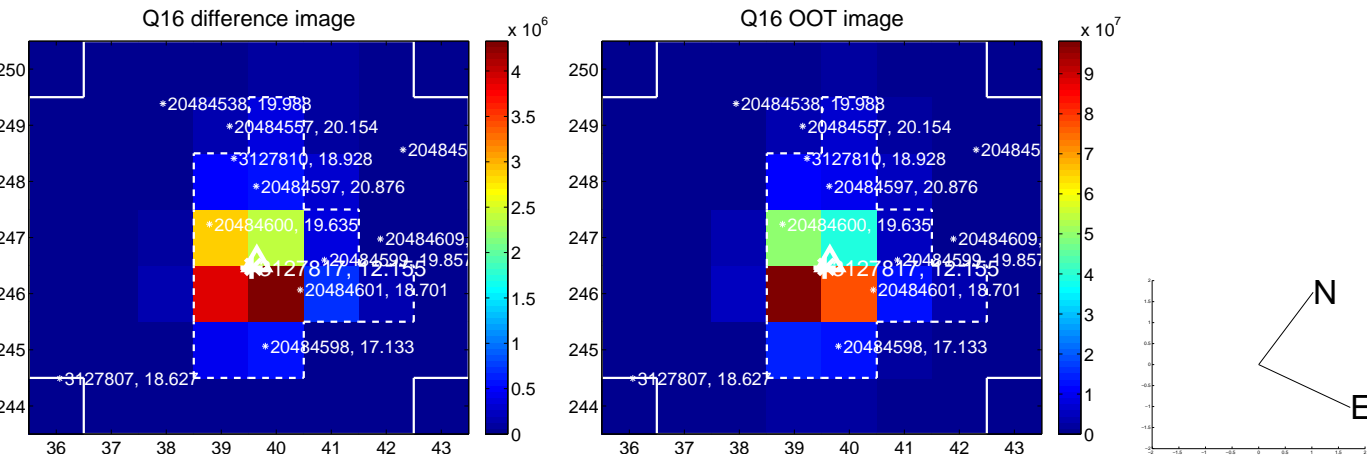
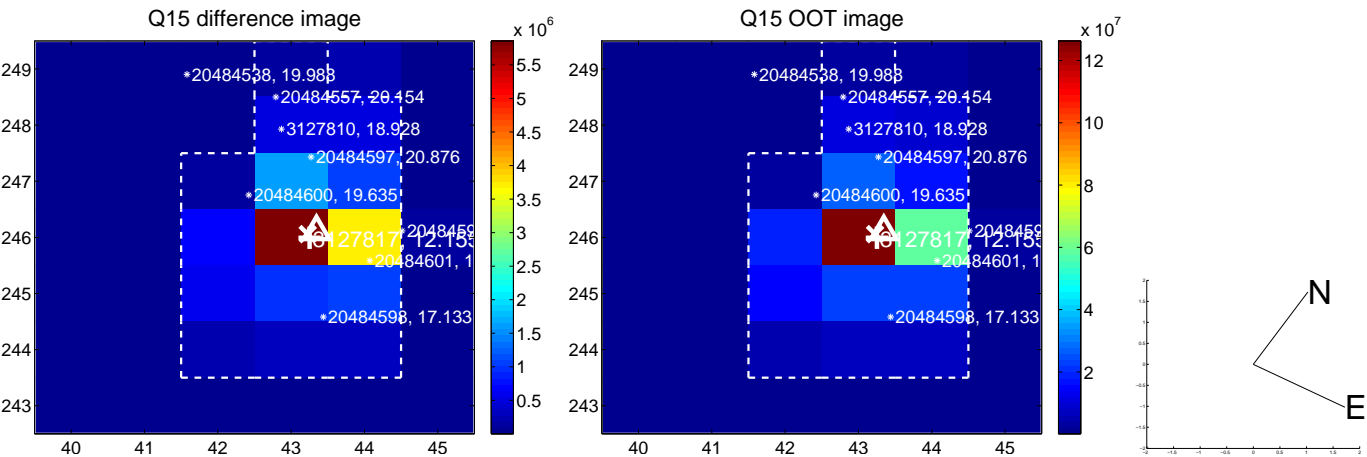
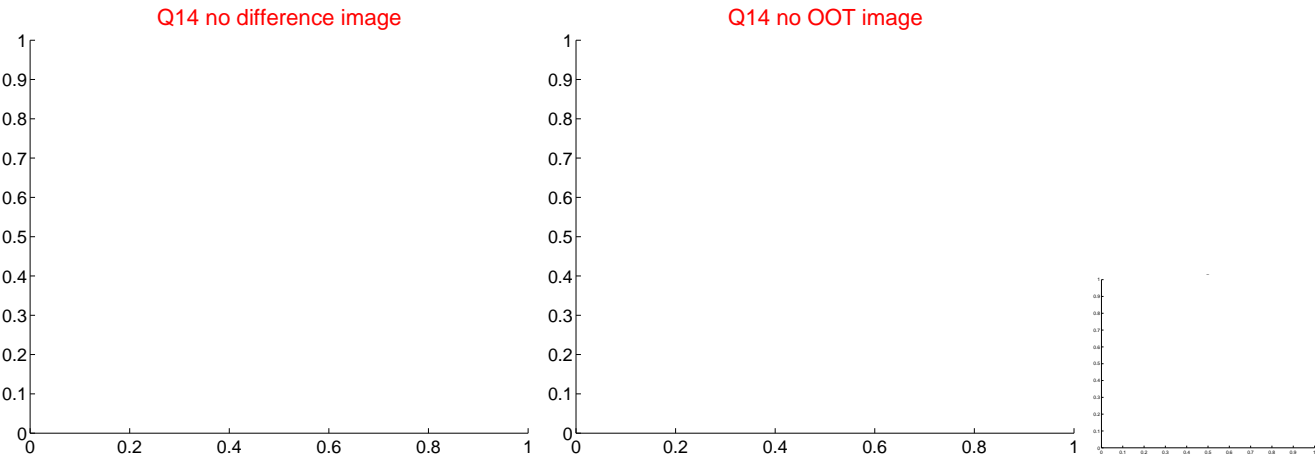
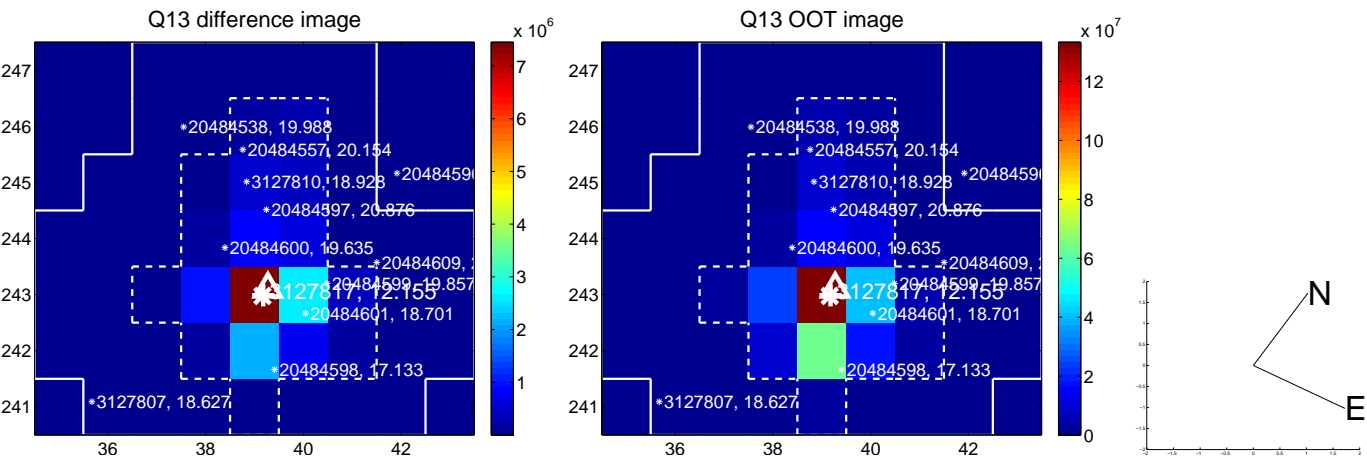
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



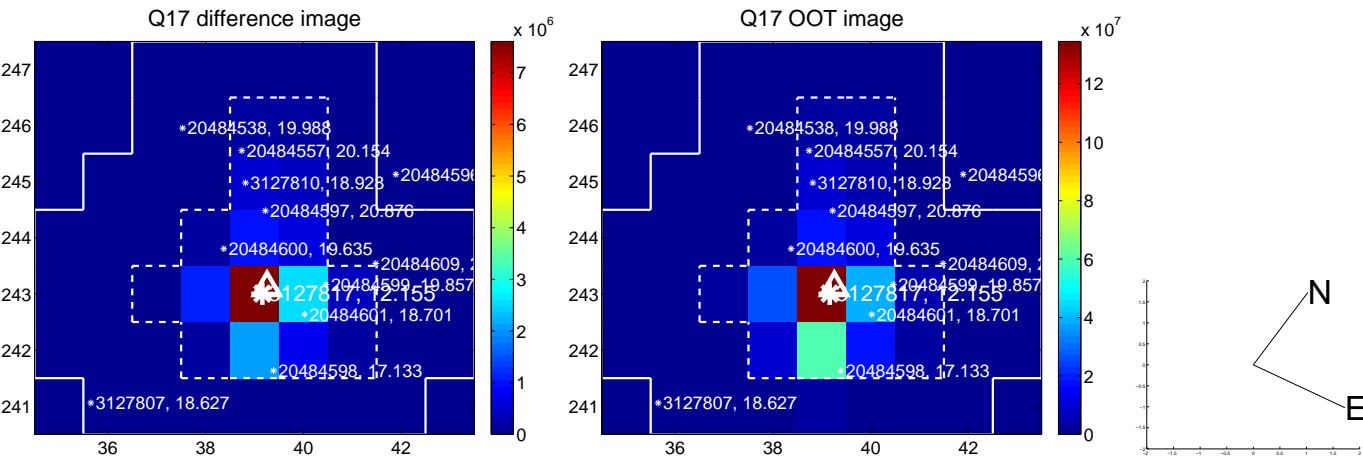
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



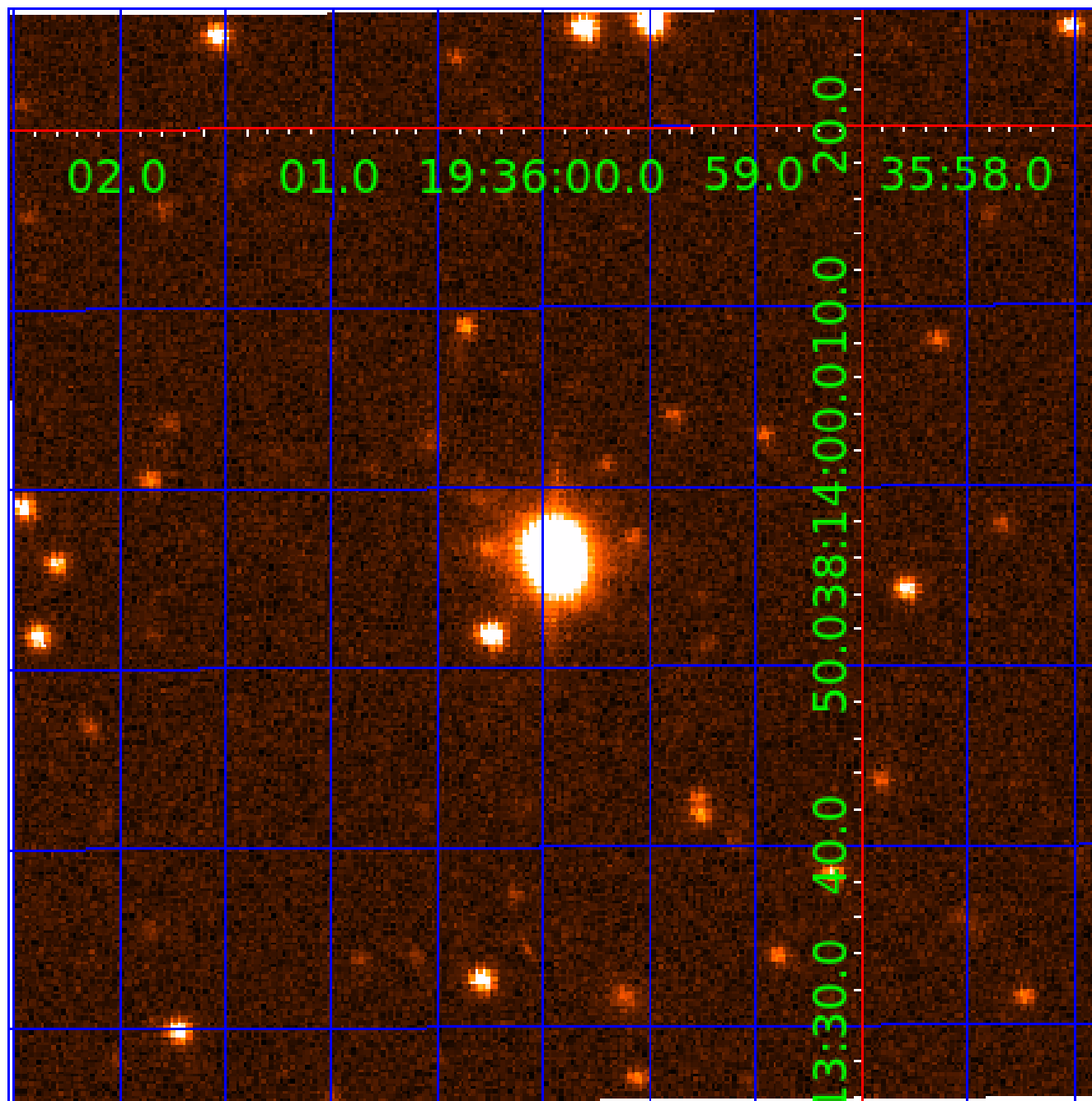
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 003127817

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})
003127817-01	OBS	6308.01	2.163570	132.936198	49380.8	7.484	5531.7	3849.1	1.72	6425	65.06	3762.77
003127817-02	OBS	No	611.882954	281.571653	162.3	12.000	12.1	-1.0	1.72	6425	2.20	2.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003127817-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED
003127817-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_NOFITS

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 003127817-02

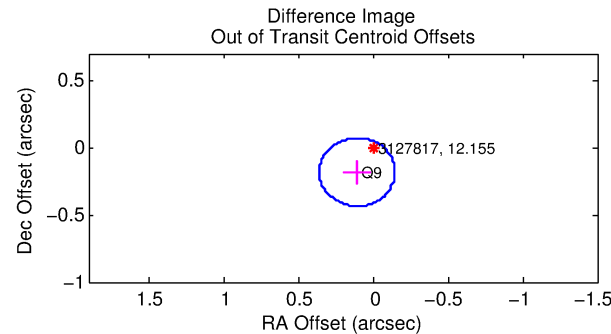
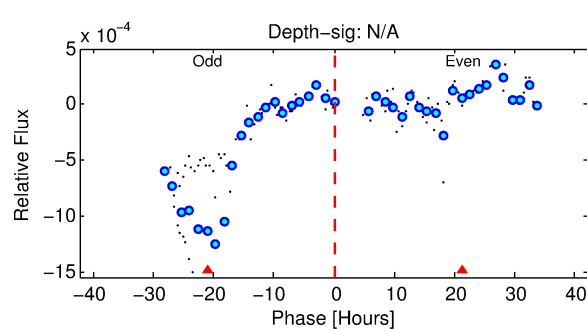
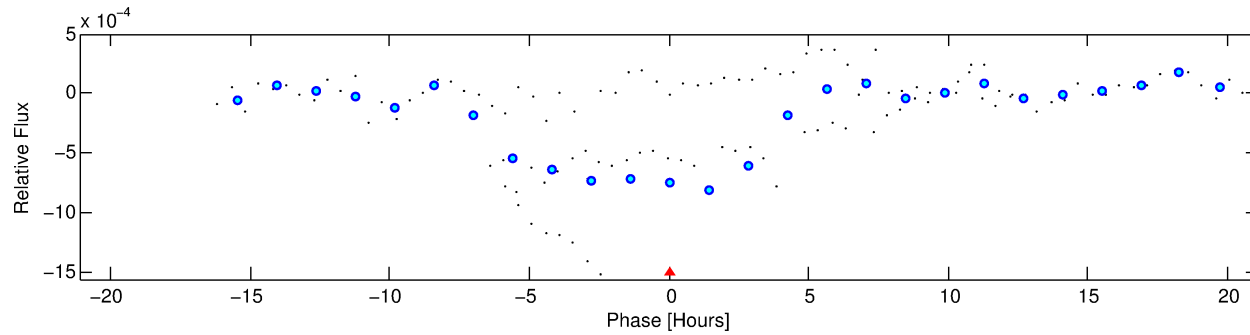
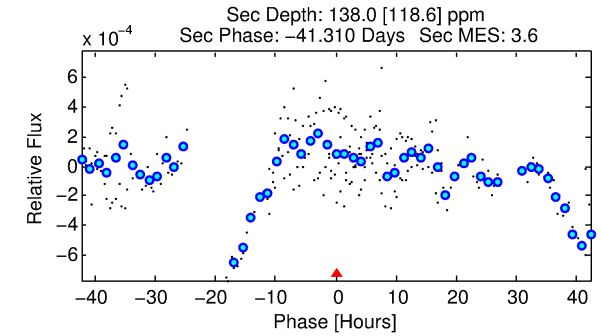
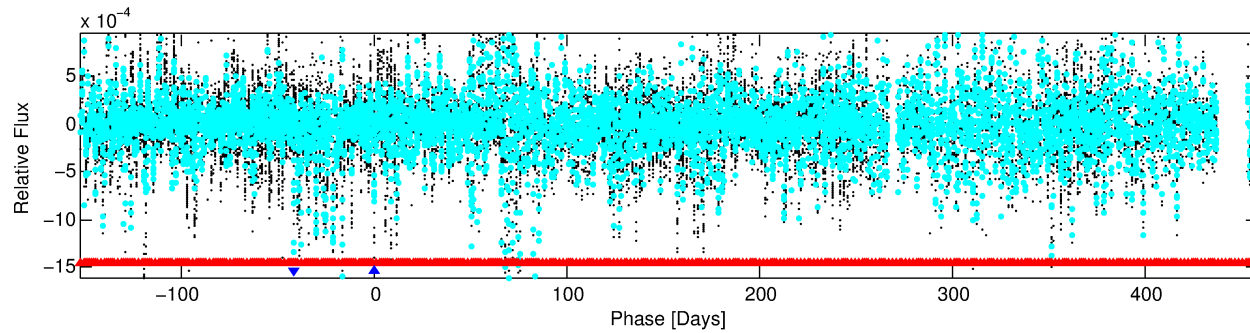
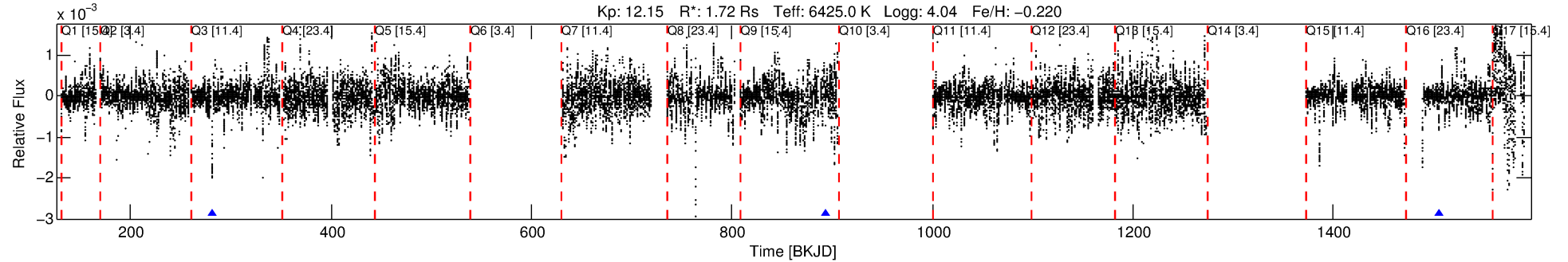
No Significant Match Found

DV One-Page Summary

KIC: 3127817 Candidate: 2 of 2 Period: 611.883 d

KOI: K06308 Corr: No Ephemeris Match

Kp: 12.15 R*: 1.72 Rs Teff: 6425.0 K Logg: 4.04 Fe/H: -0.220



TPS TCE Results:

Period = 611.88295 d
Epoch = 281.5717 BKJD

DV fit results are unavailable

DV Diagnostic Results:

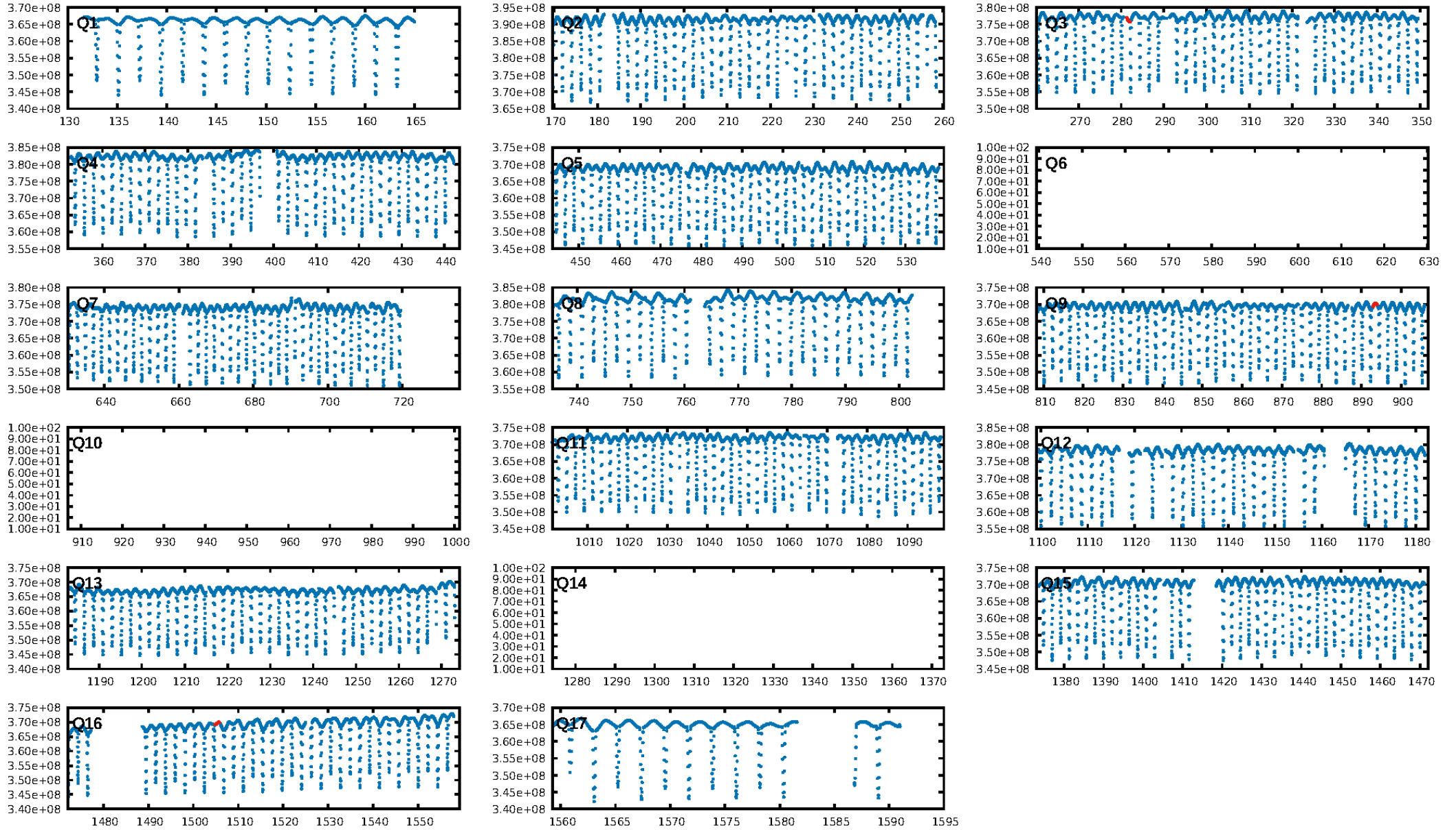
ShortPeriod-sig: 100.0% [1034.72σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.379

Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.211 arcsec [2.49σ]
KicOffset-rm: 0.103 arcsec [1.15σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

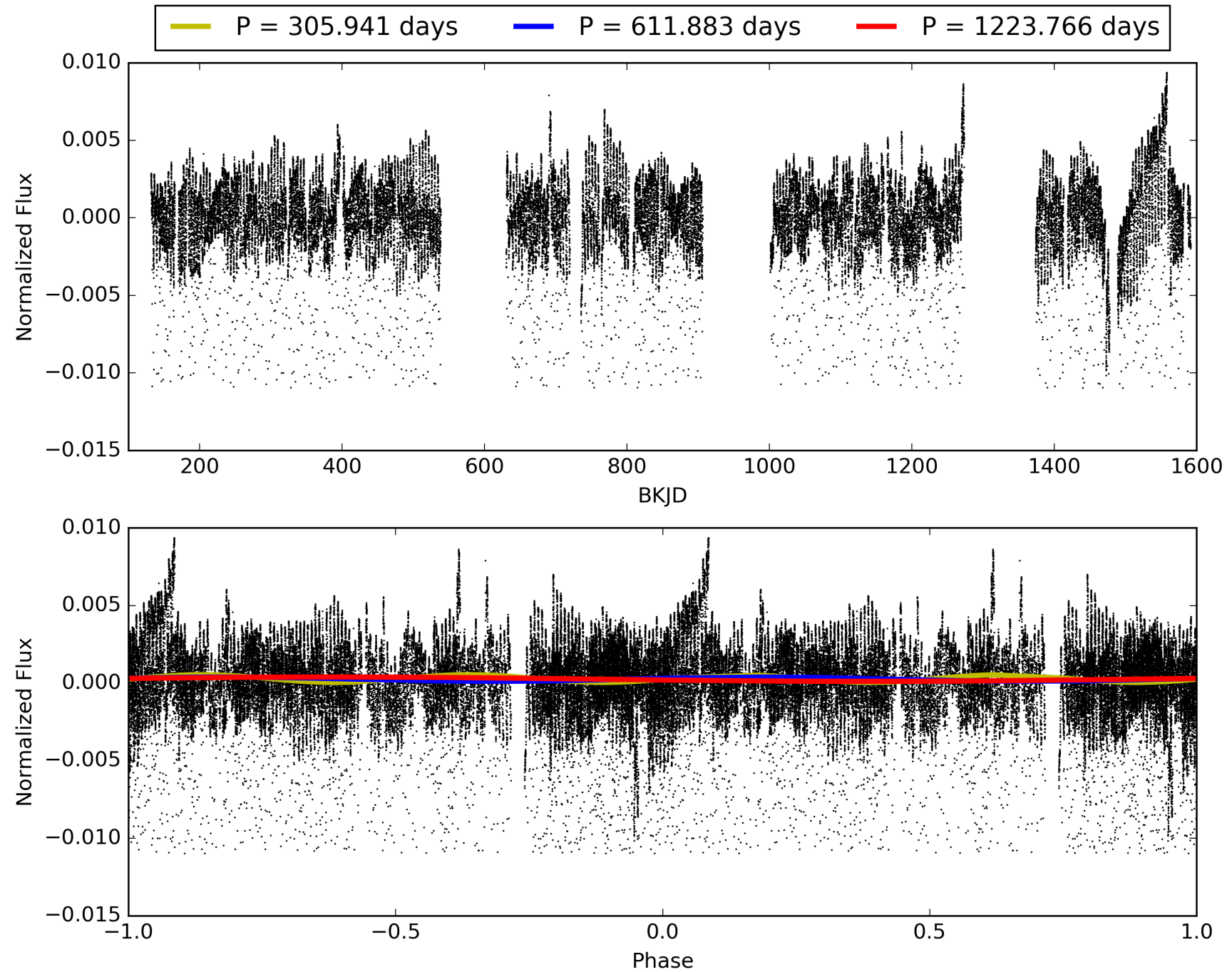
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:55:08 Z

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

TCE 003127817-02, PDC Light Curves

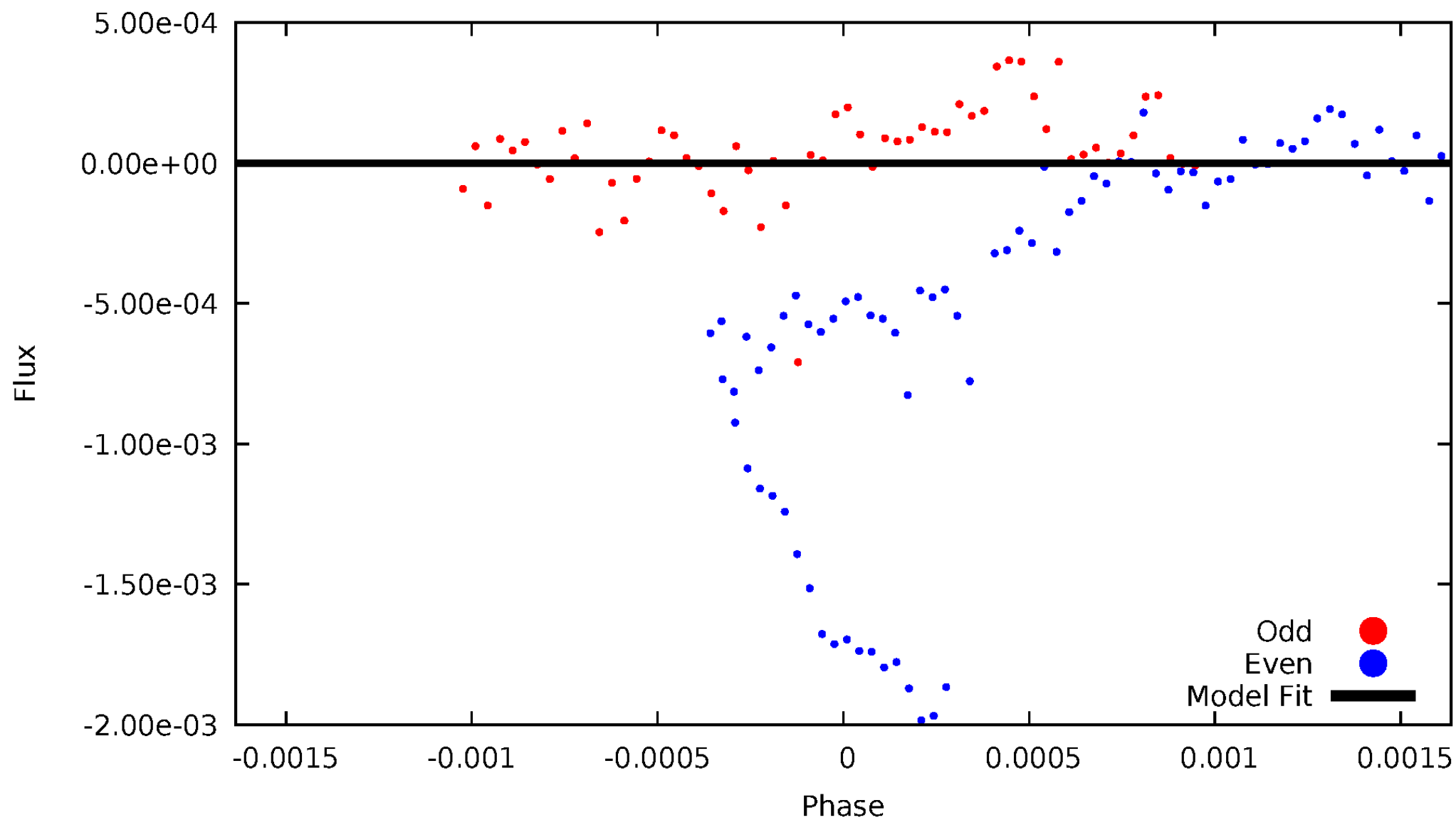


TCE 003127817-02



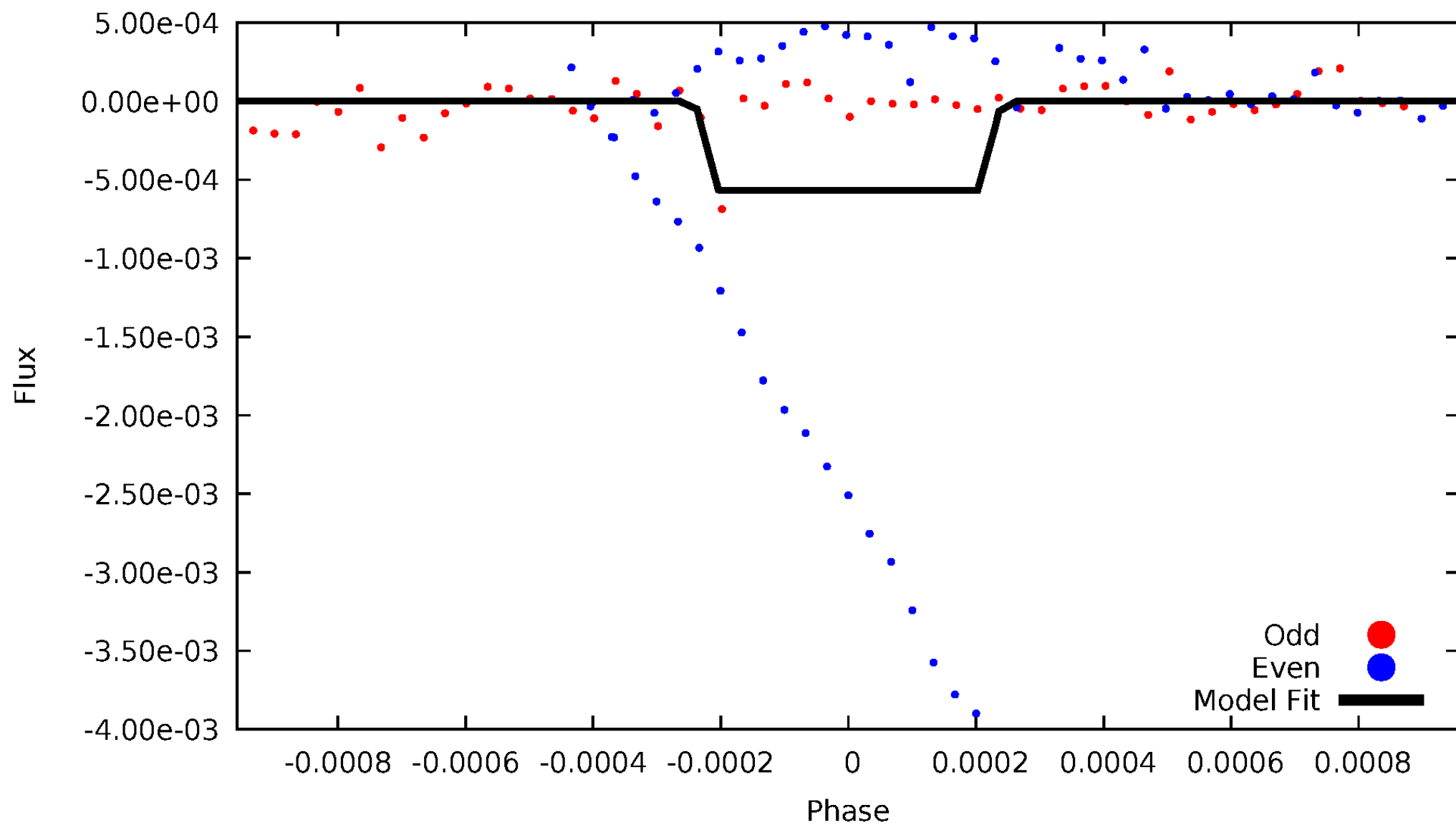
DV Odd/Even

TCE 003127817-02



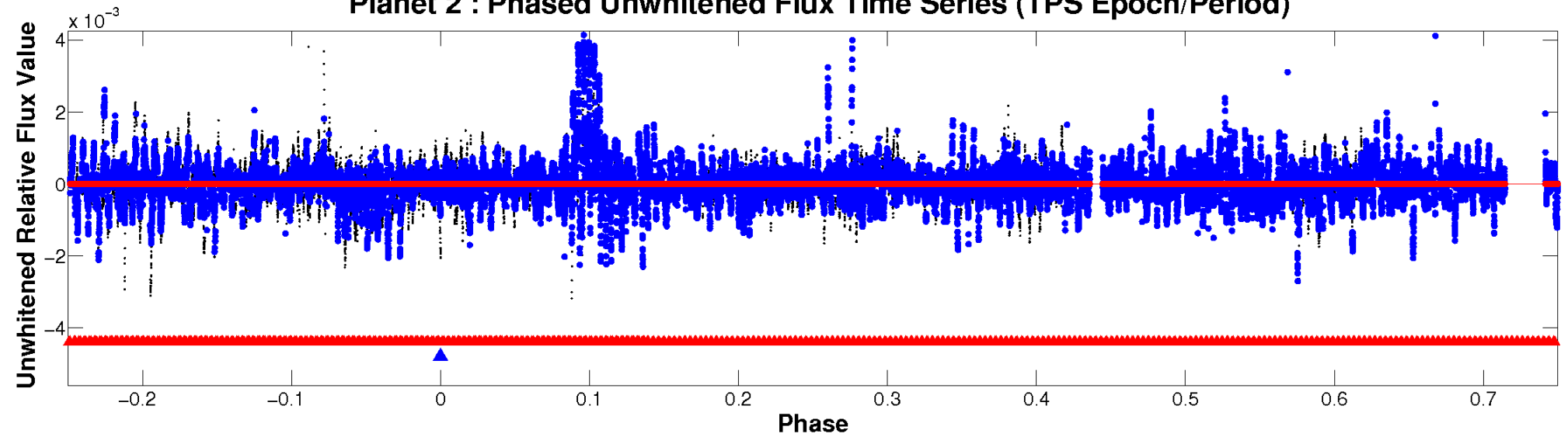
ALT Odd/Even

TCE 003127817-02



Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

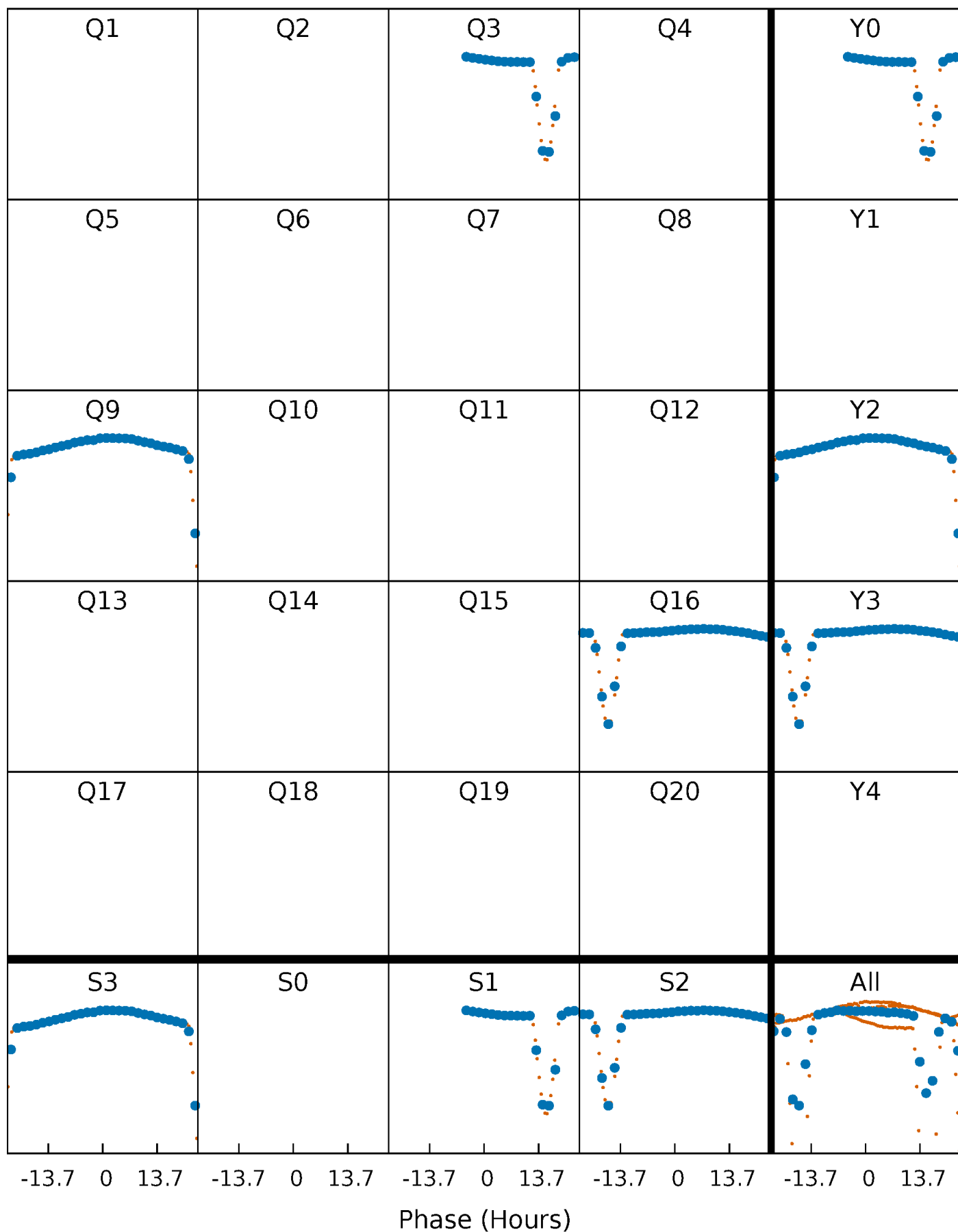


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



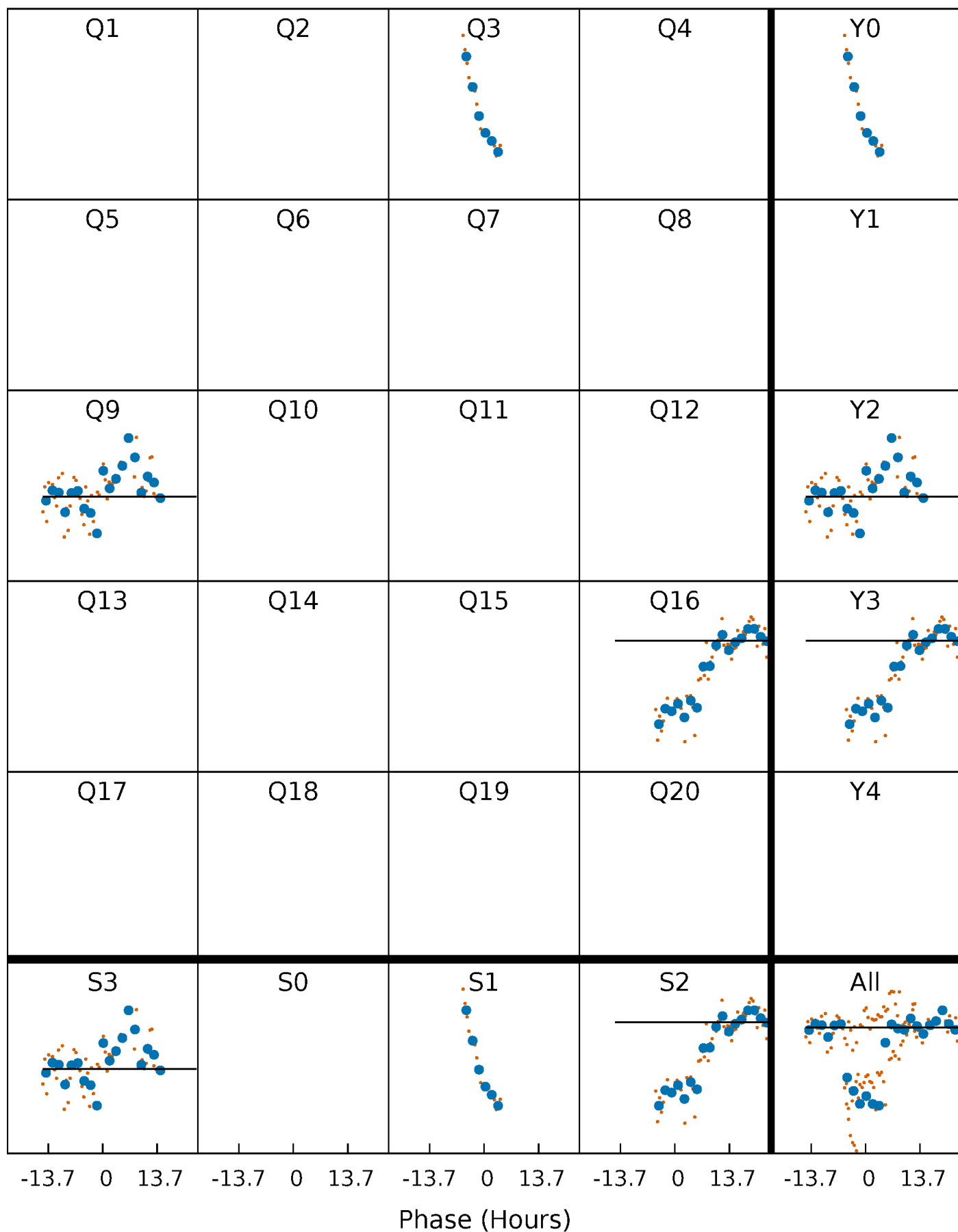
PDC Quarter-Phased Transit Curves

TCE 003127817-02 P=611.882954 Days $T_0=281.571653$ (BKJD)



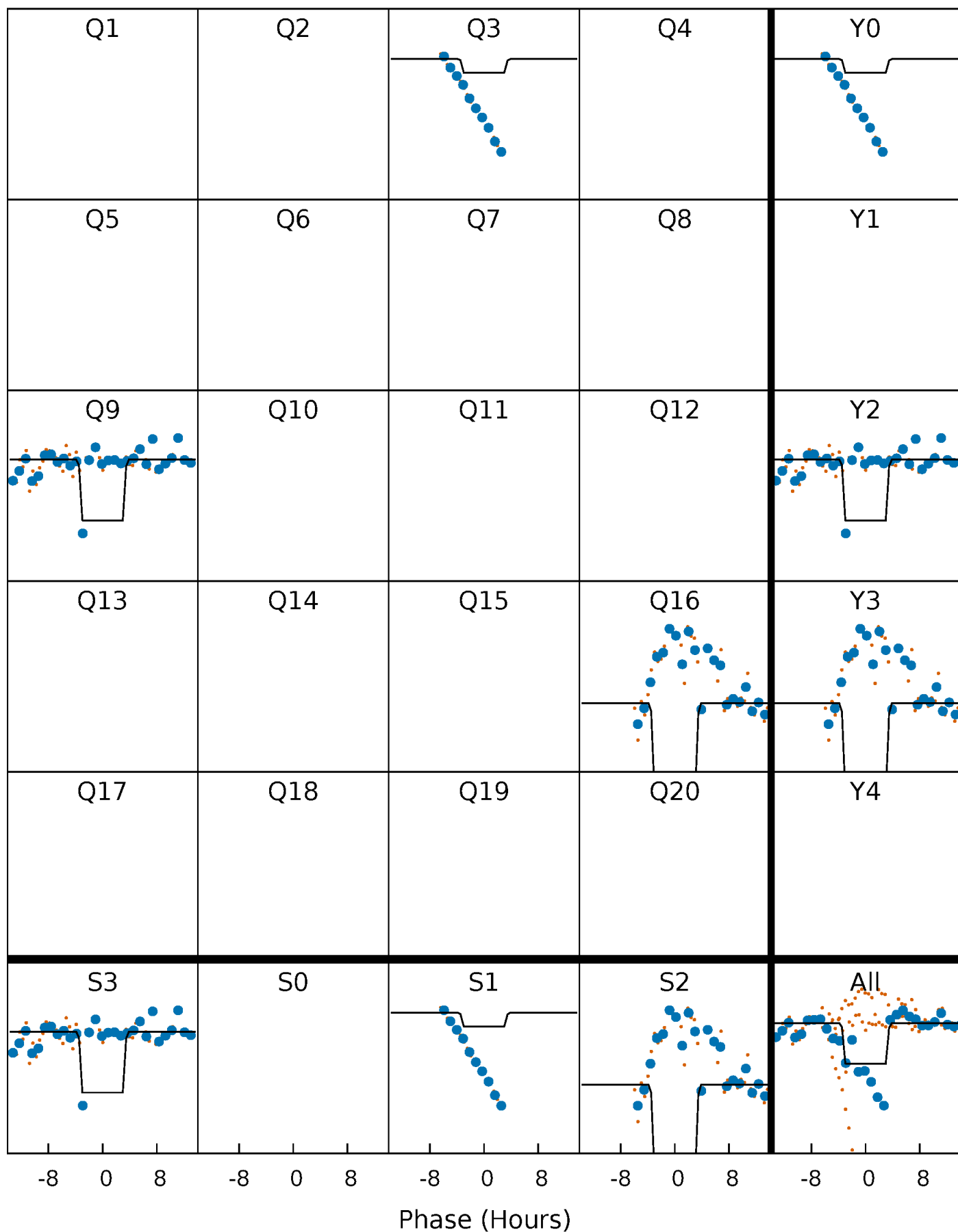
DV Quarter-Phased Transit Curves

TCE 003127817-02 $P=611.882954$ Days $T_0=281.571653$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

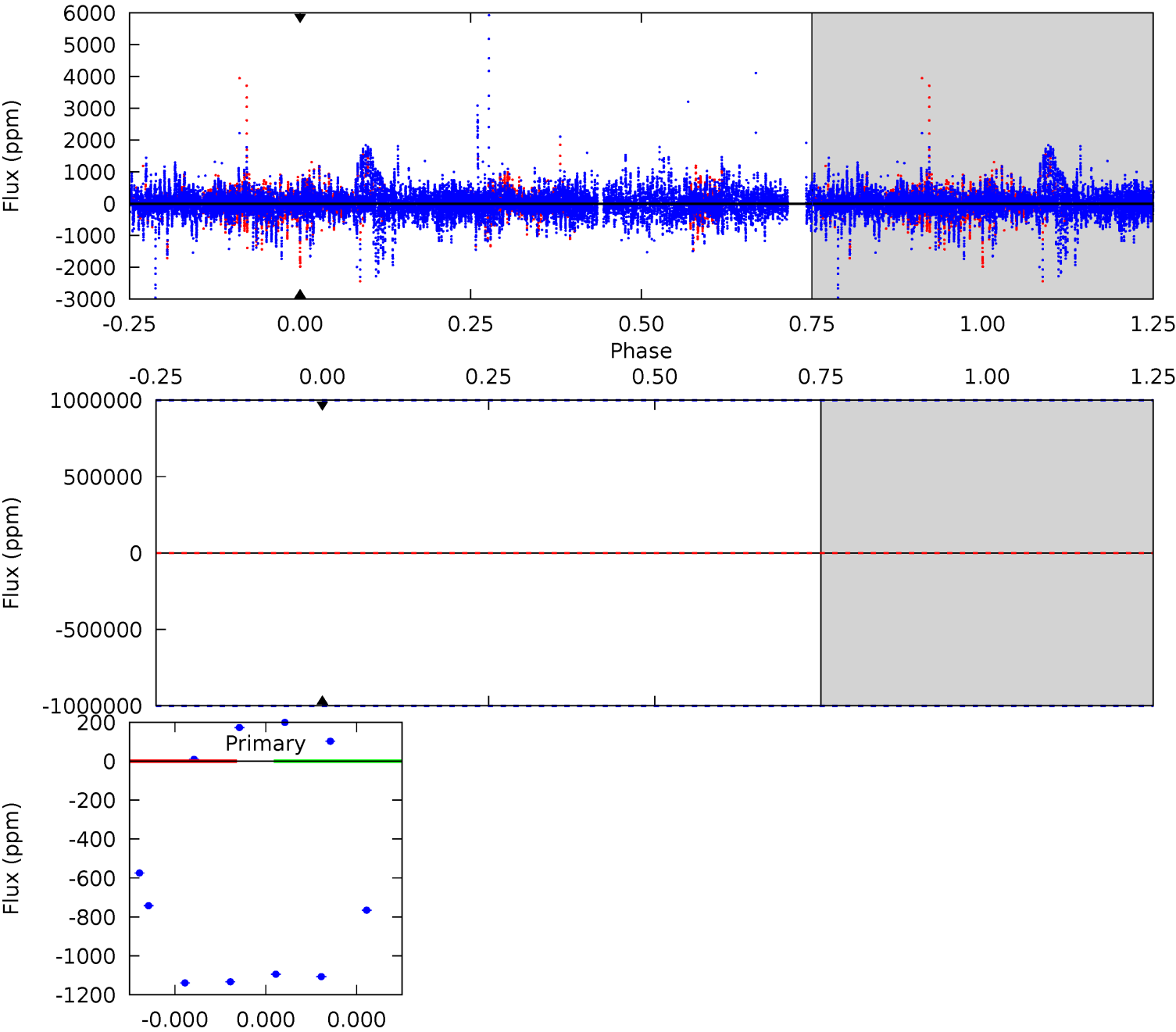
TCE 003127817-02 P=611.882954 Days $T_0=281.618303$ (BKJD)



DV Model-Shift Uniqueness Test

003127817-02, P = 611.882954 Days, E = 281.571653 Days

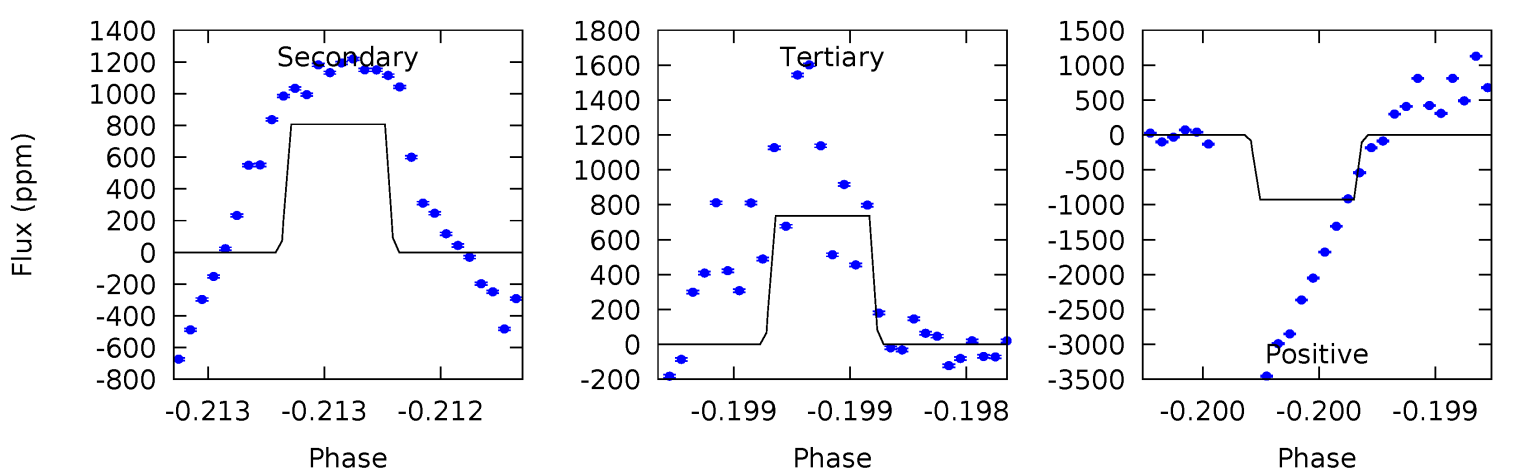
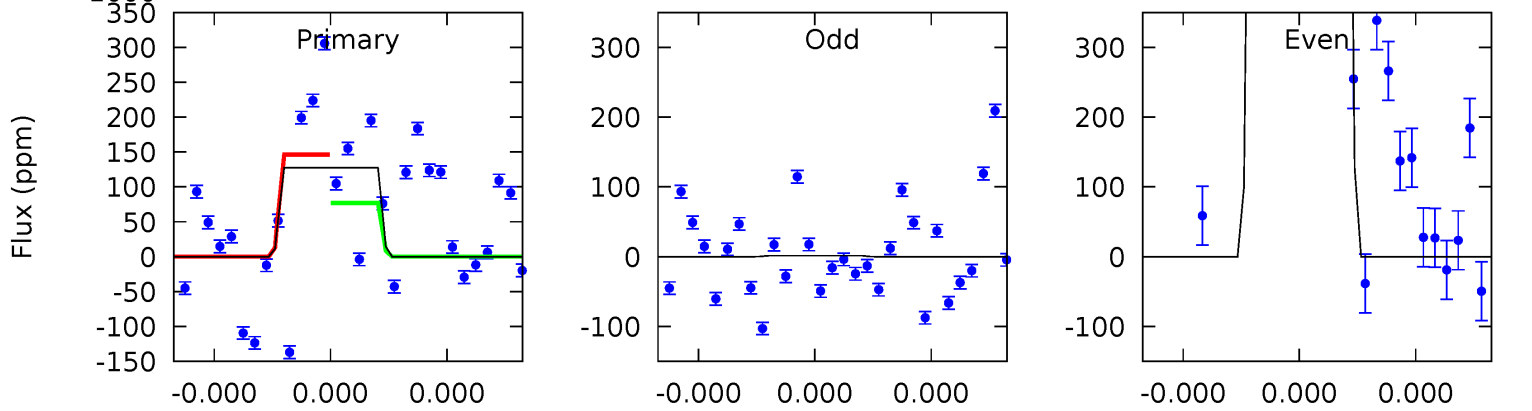
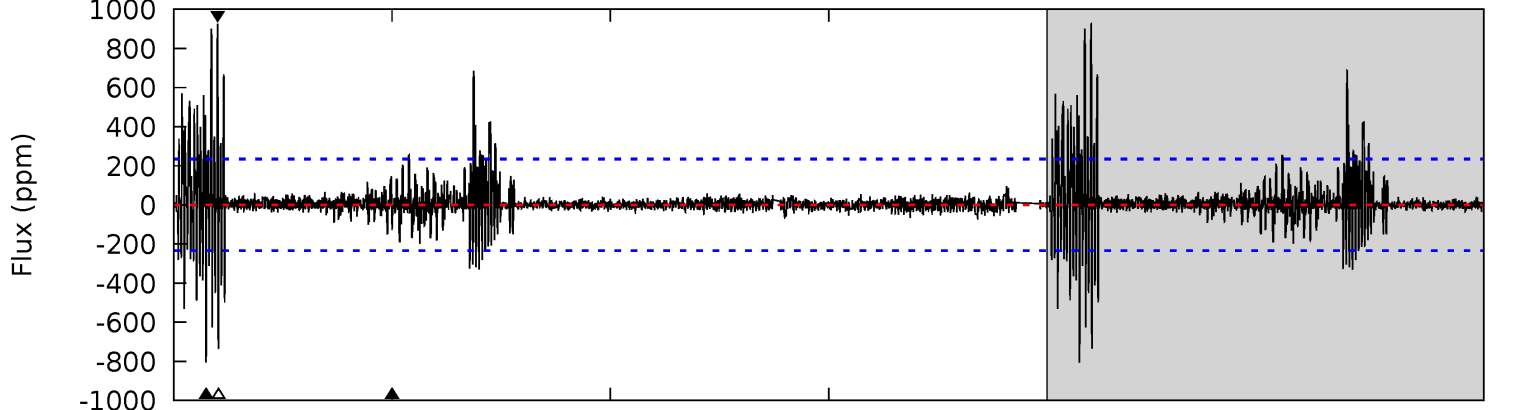
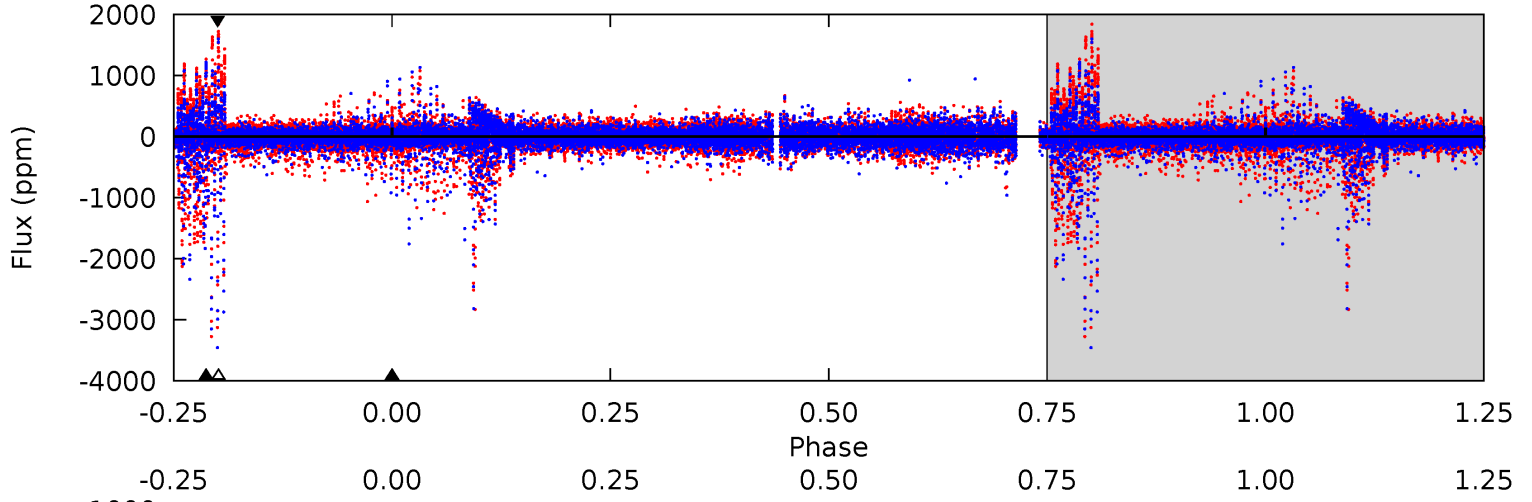
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

003127817-02, P = 611.882954 Days, E = 281.618303 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.04	19.3	17.5	22.1	5.57	3.48	2.05	-14.5	-19.0	1.71	-2.82	16.9	14.8	0.53	0.82



Stellar Parameters For KIC 003127817

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6425^{+162}_{-194}	$4.040^{+0.306}_{-0.165}$	$-0.220^{+0.250}_{-0.300}$	$1.718^{+0.477}_{-0.583}$	$1.179^{+0.188}_{-0.188}$	$0.327^{+0.648}_{-0.144}$
	+3%/-3%	+8%/-4%	+114%/-136%	+28%/-34%	+16%/-16%	+198%/-44%
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 003127817-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$13.32^{+14.15}_{-9.15}$	420^{+34}_{-36}	3272^{+26589}_{-27091}	$893^{+1422910}_{-1016602}$
Alt.	-807 ± 42	$14.13^{+15.05}_{-9.78}$	422^{+33}_{-40}	4183^{+2760}_{-884}	5055^{+47132}_{-3828}

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

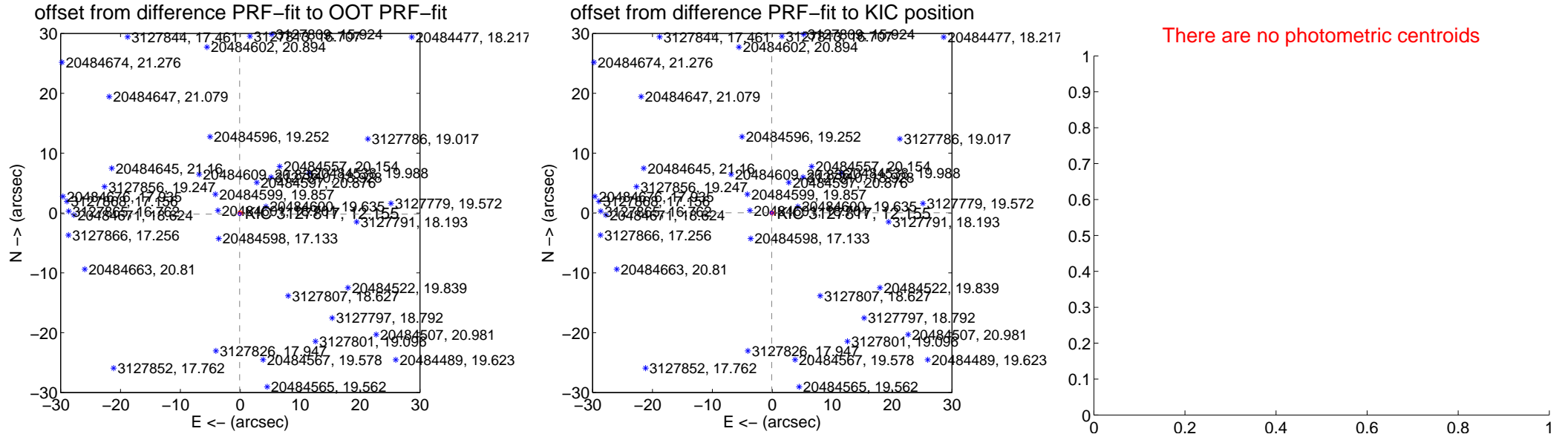
DV Centroid Data

Supplemental centroid analysis for 003127817-02. Kepler magnitude: 12.15. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.211 ± 0.085	2.49	0.106 ± 0.090	-0.182 ± 0.082
PRF-fit source offset from KIC position	0.103 ± 0.090	1.15	0.098 ± 0.090	0.032 ± 0.082
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.

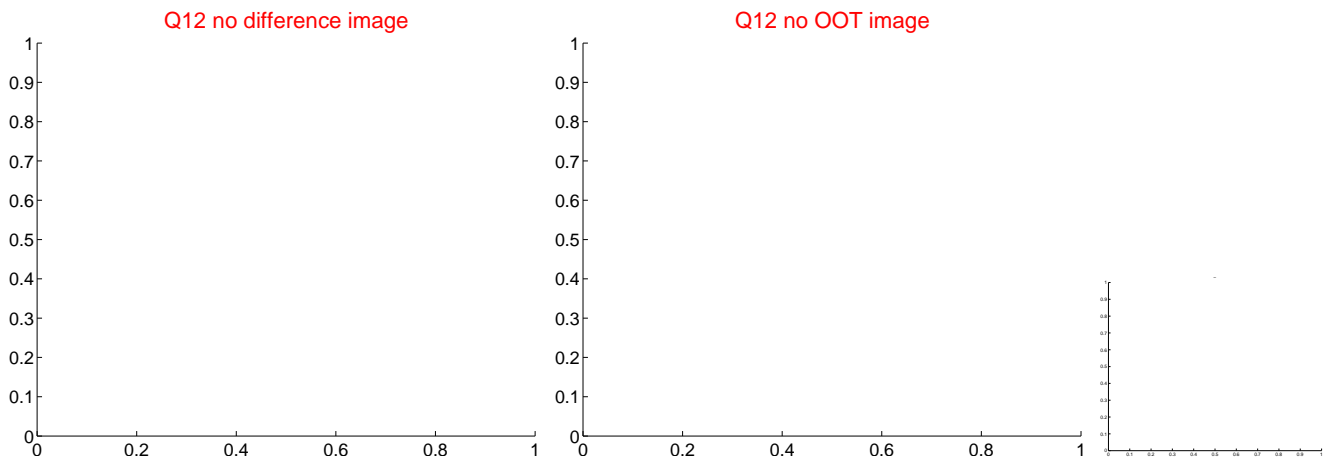
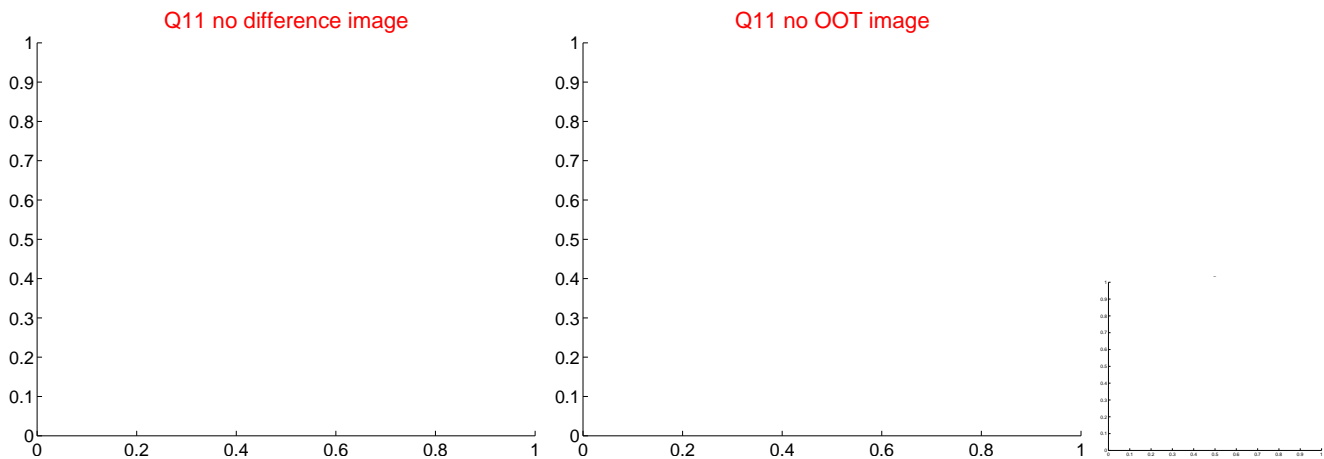
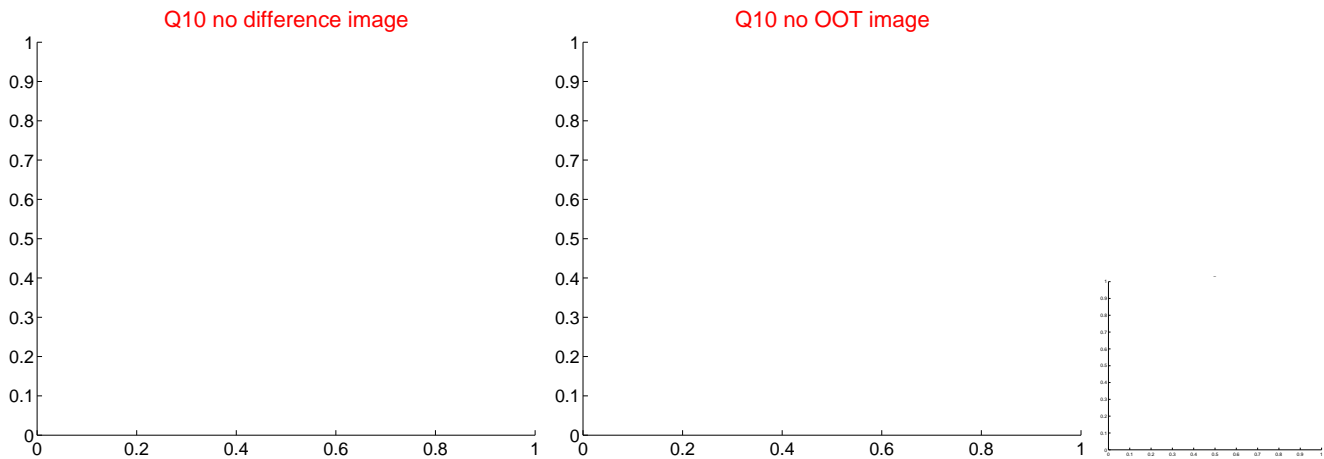
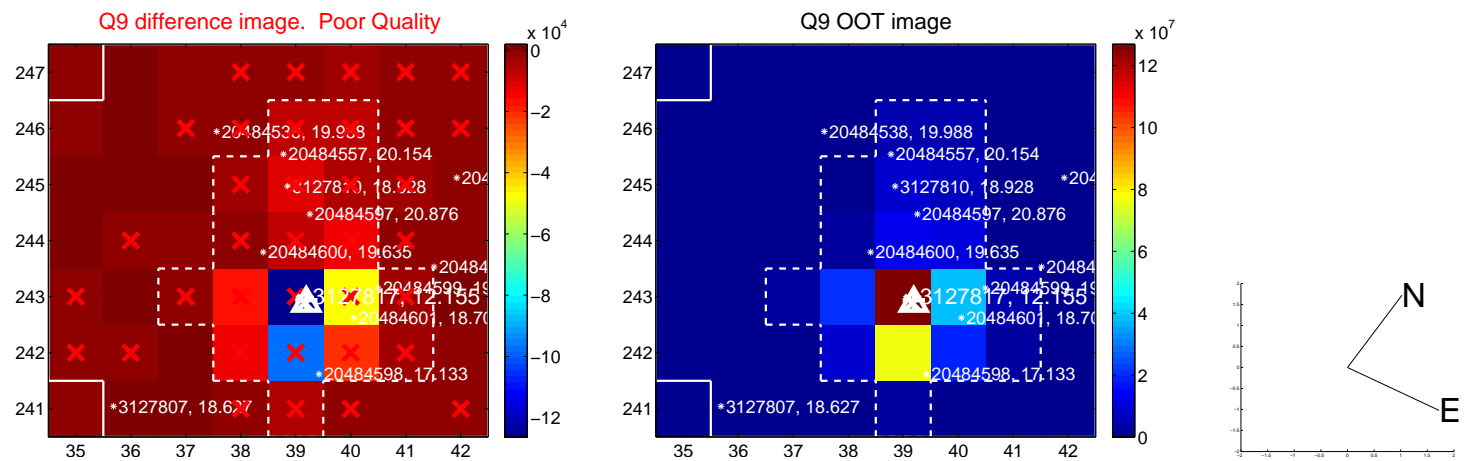
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

