

KIC 004737267

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})
004737267-01	OBS	6117.01	4.761966	134.841664	255776.9	7.500	12535.3	-1.0	3.37	5180	127.42	2226.75
004737267-02	OBS	No	9.523154	140.556250	6265.5	15.000	507.5	-1.0	3.37	5180	26.17	883.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004737267-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
004737267-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—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.

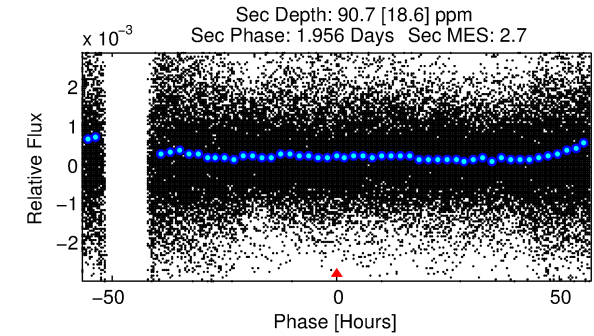
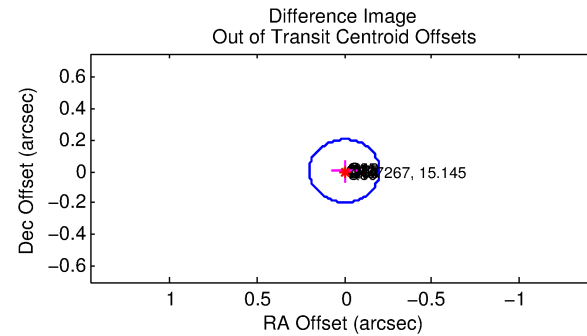
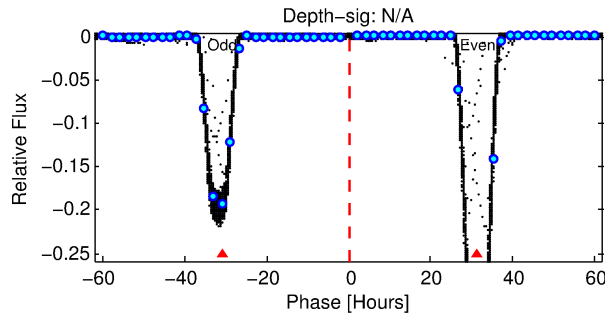
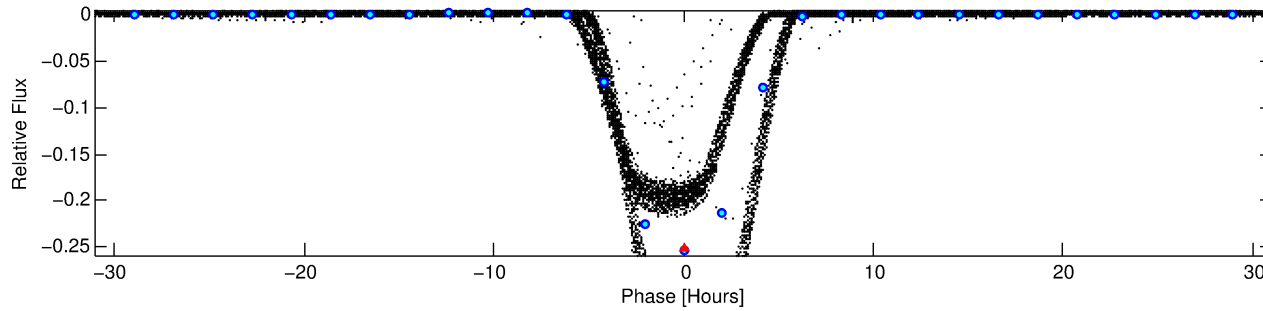
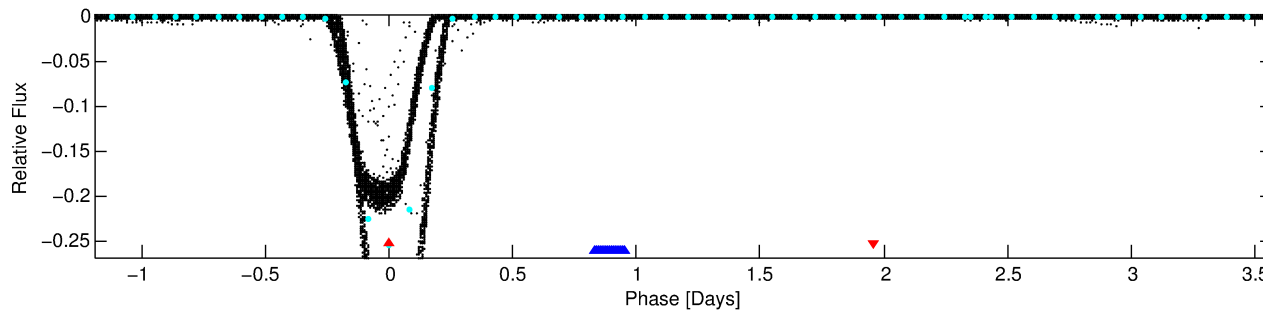
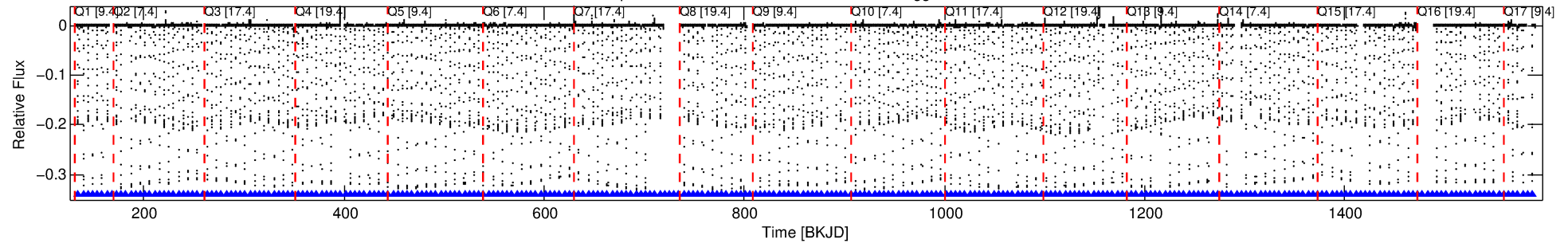
Ephemeris Match Information For 004737267-01

No Significant Match Found

DV One-Page Summary

KIC: 4737267 Candidate: 1 of 2 Period: 4.762 d
KOI: K06117 Corr: No Ephemeris Match

Kp: 15.15 R*: 3.37 Rs Teff: 5180.0 K Logg: 3.43 Fe/H: -0.460



TPS TCE Results:

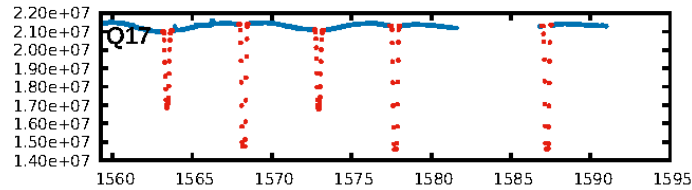
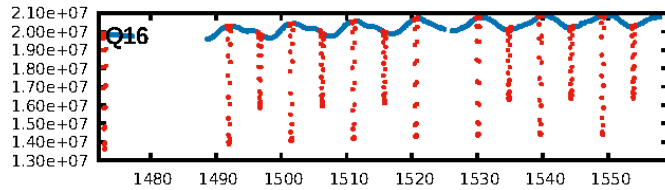
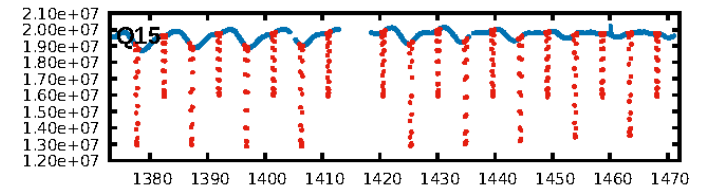
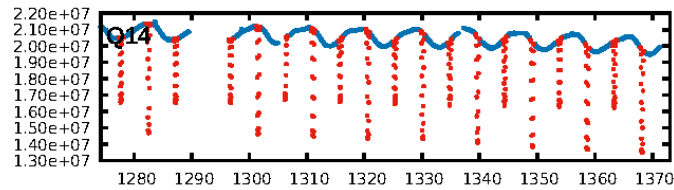
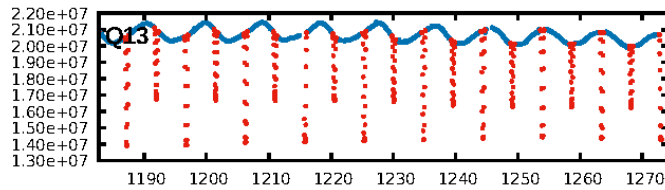
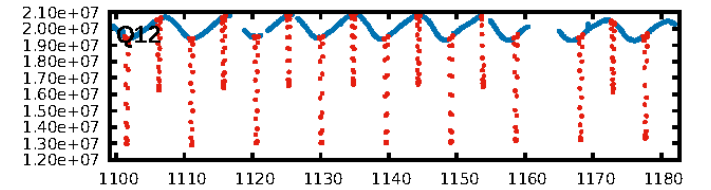
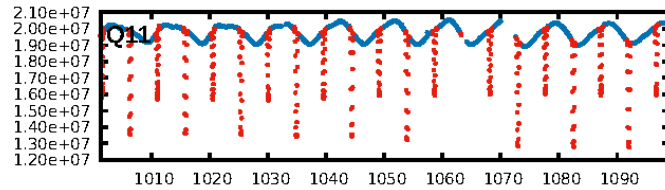
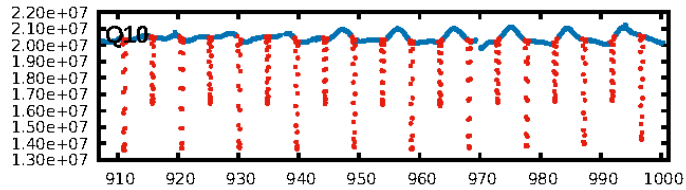
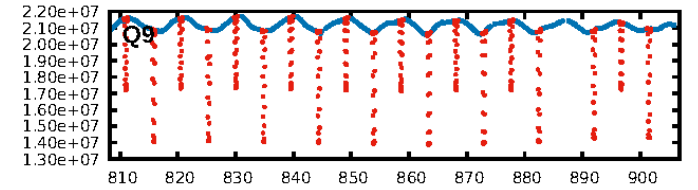
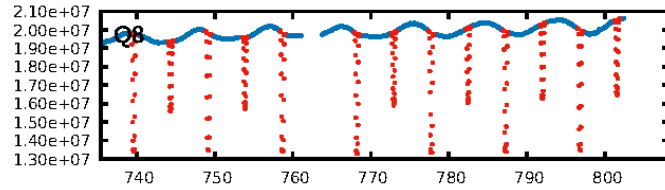
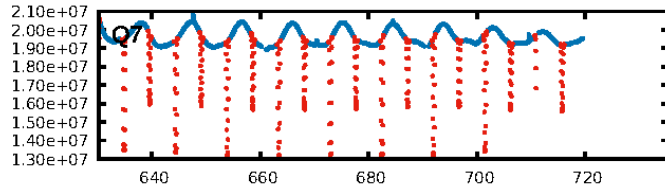
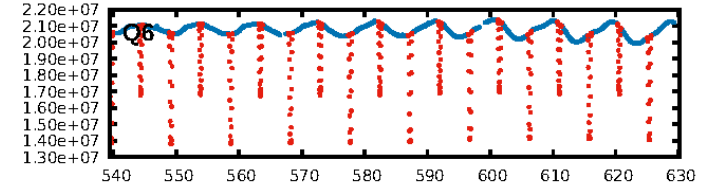
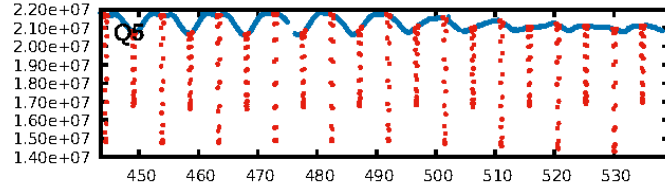
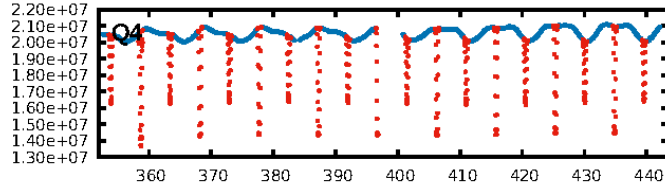
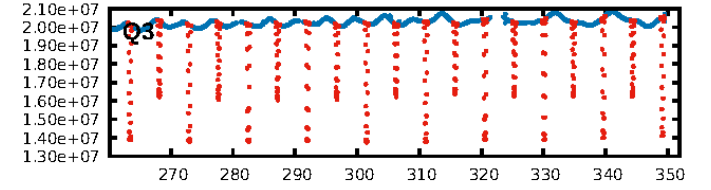
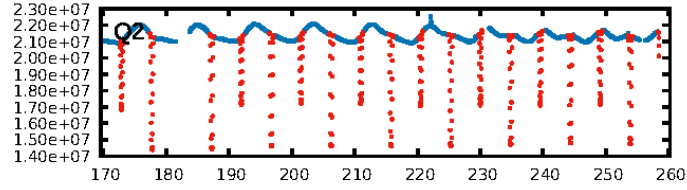
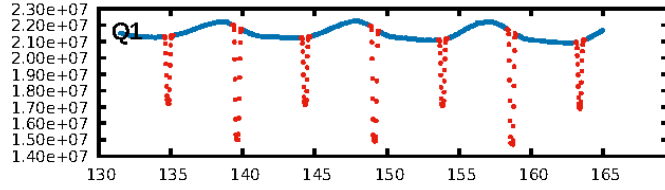
Period = 4.76197 d
Epoch = 134.8417 BKJD

DV fit results are unavailable

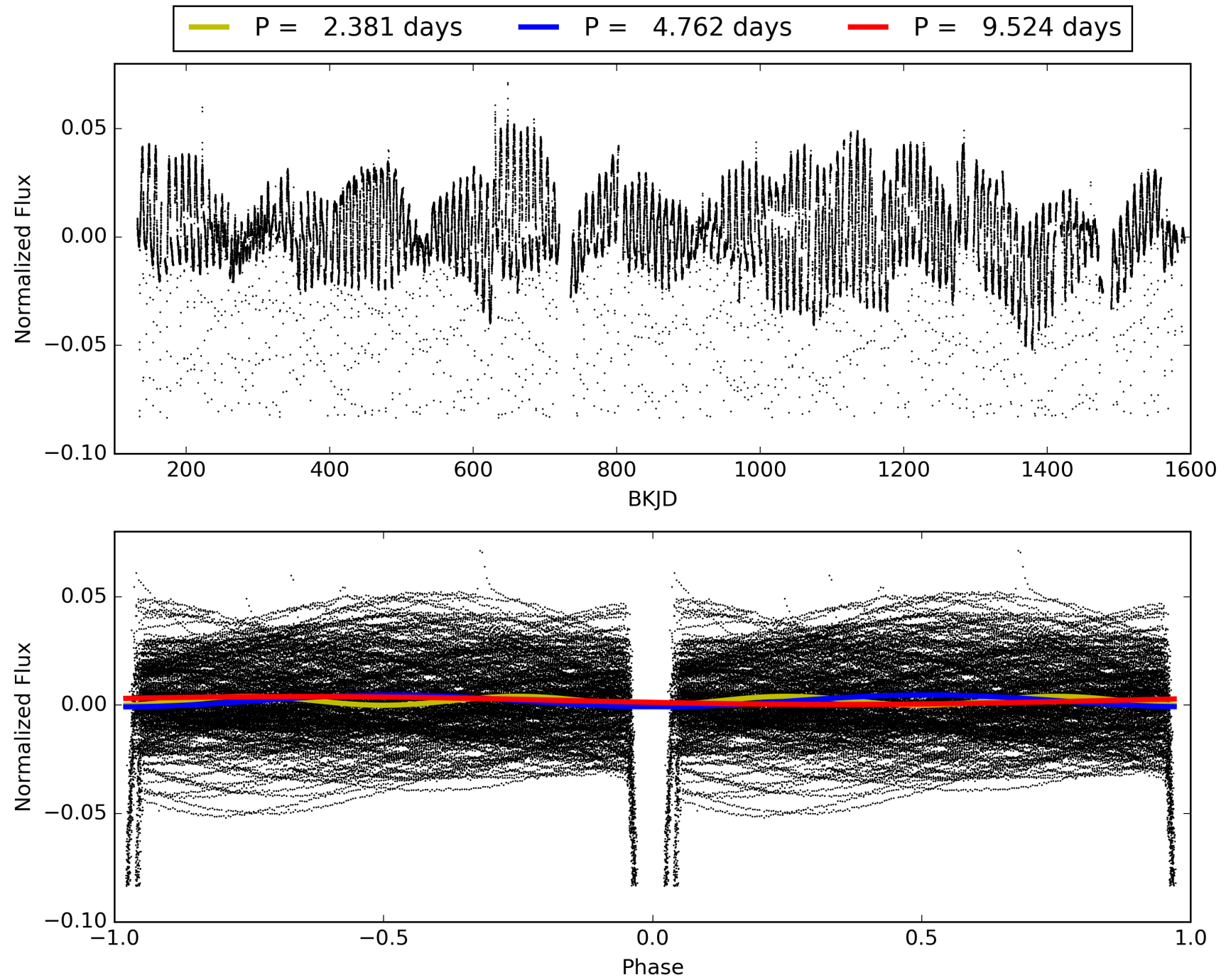
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [6.81 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [272/272]
GhostDiagnostic-chr: 0.8853
Centroid-sig: 0.0%
Centroid-so: 0.127 arcsec [227.98 σ]
OotOffset-rm: 0.005 arcsec [0.07 σ]
KicOffset-rm: 0.055 arcsec [0.82 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 004737267-01, PDC Light Curves

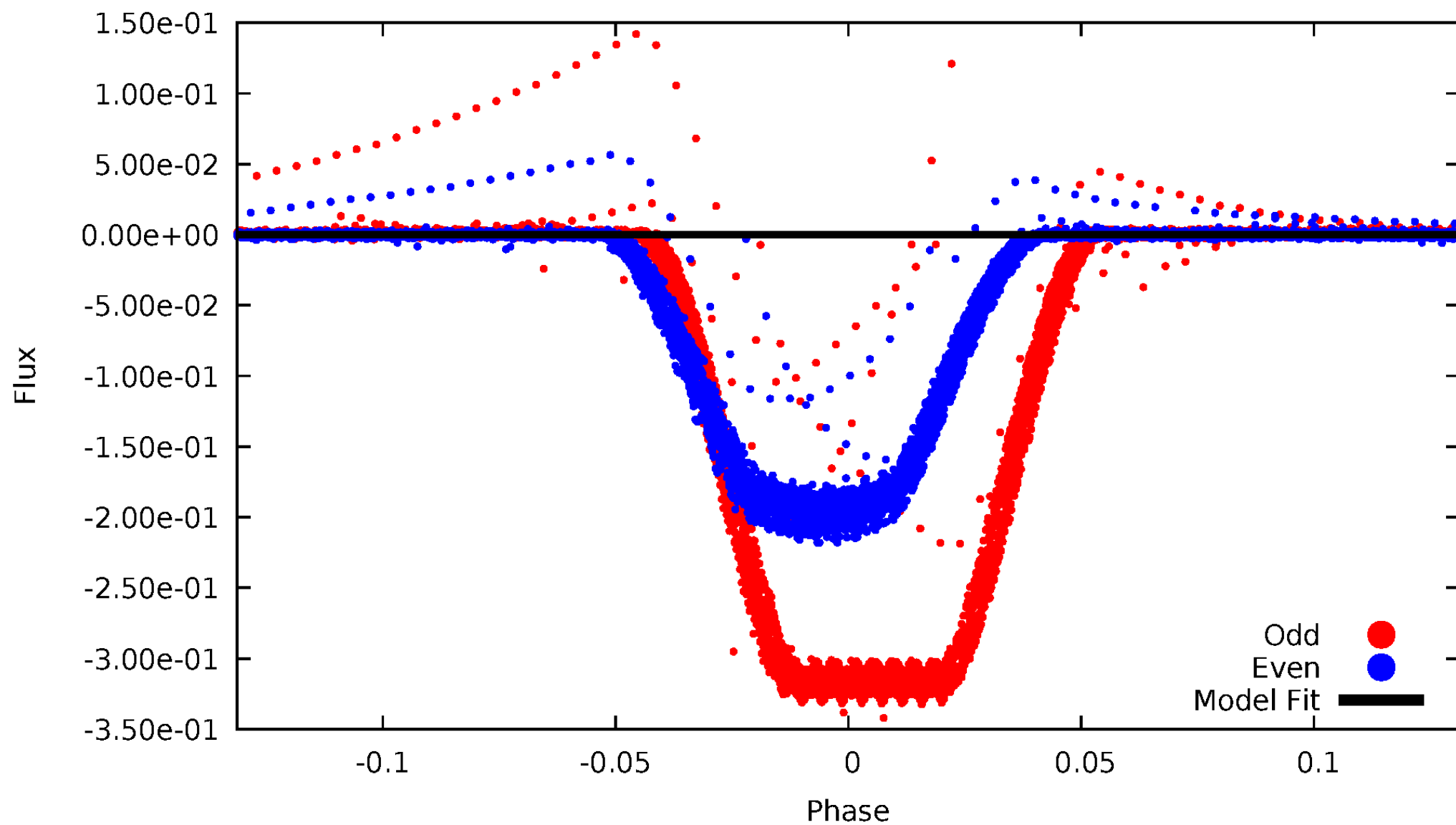


TCE 004737267-01



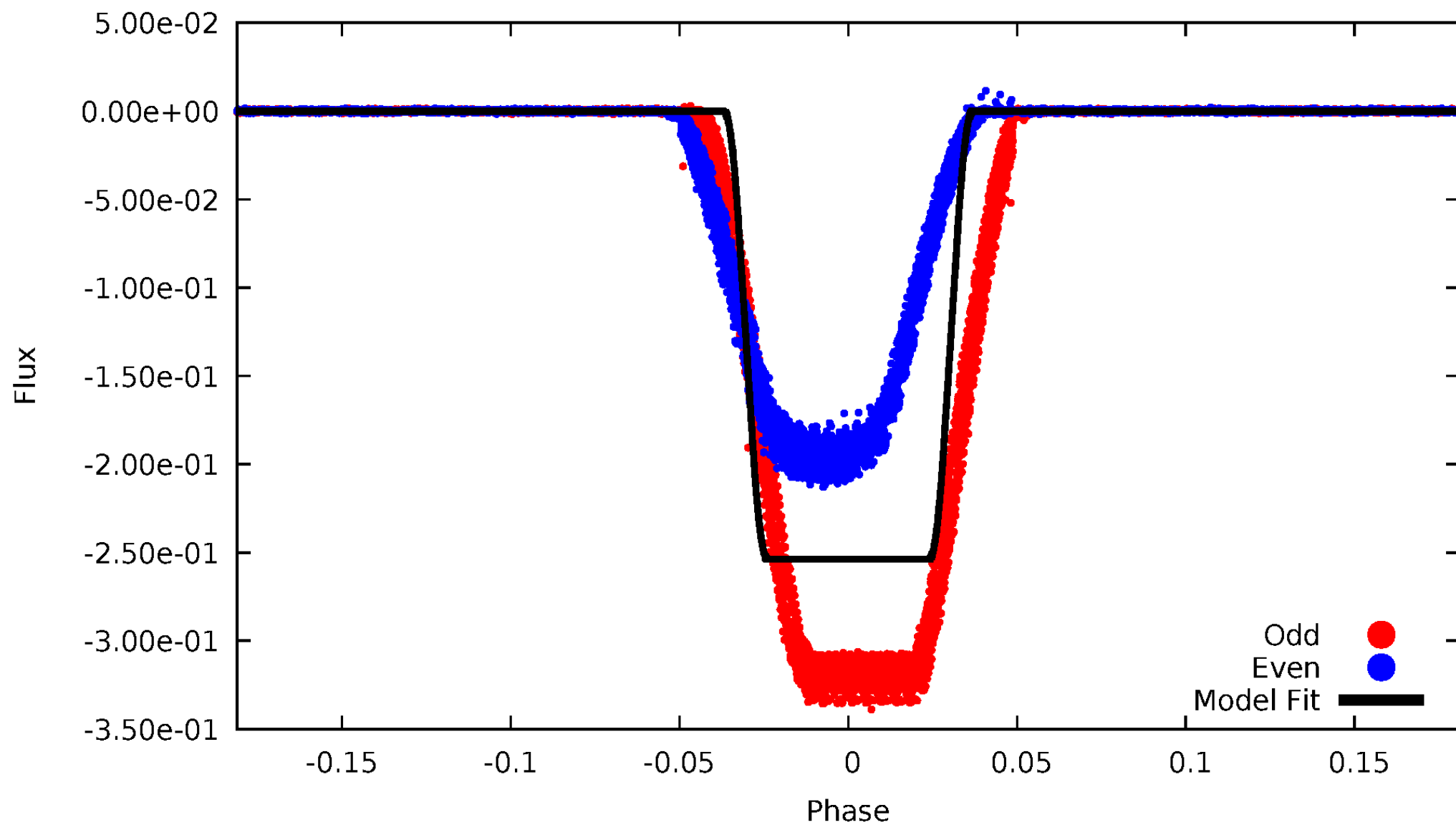
DV Odd/Even

TCE 004737267-01



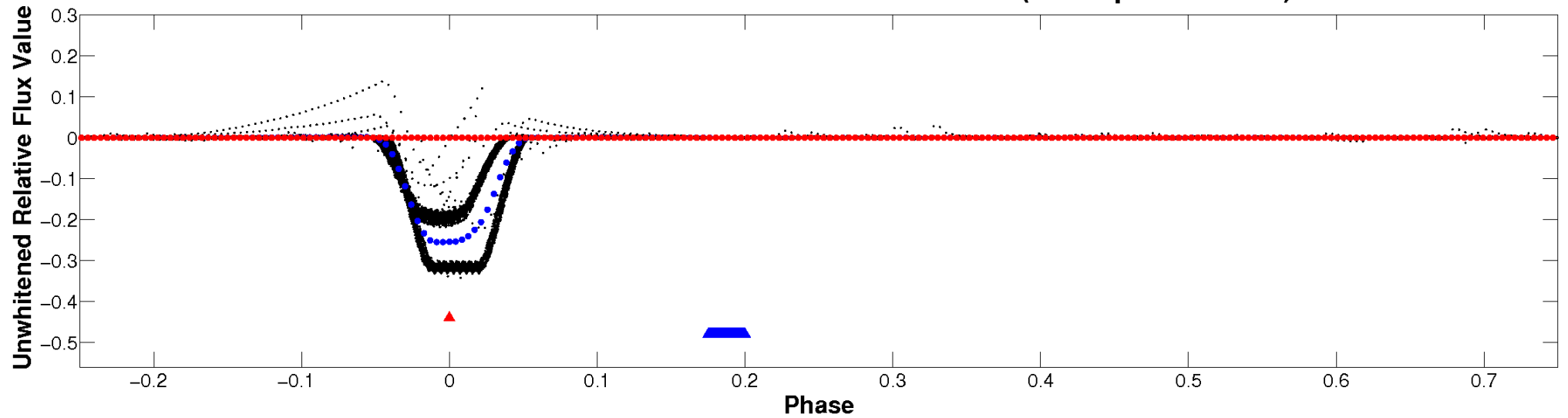
ALT Odd/Even

TCE 004737267-01



Non-Whitened Vs. Whitened Light Curve

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

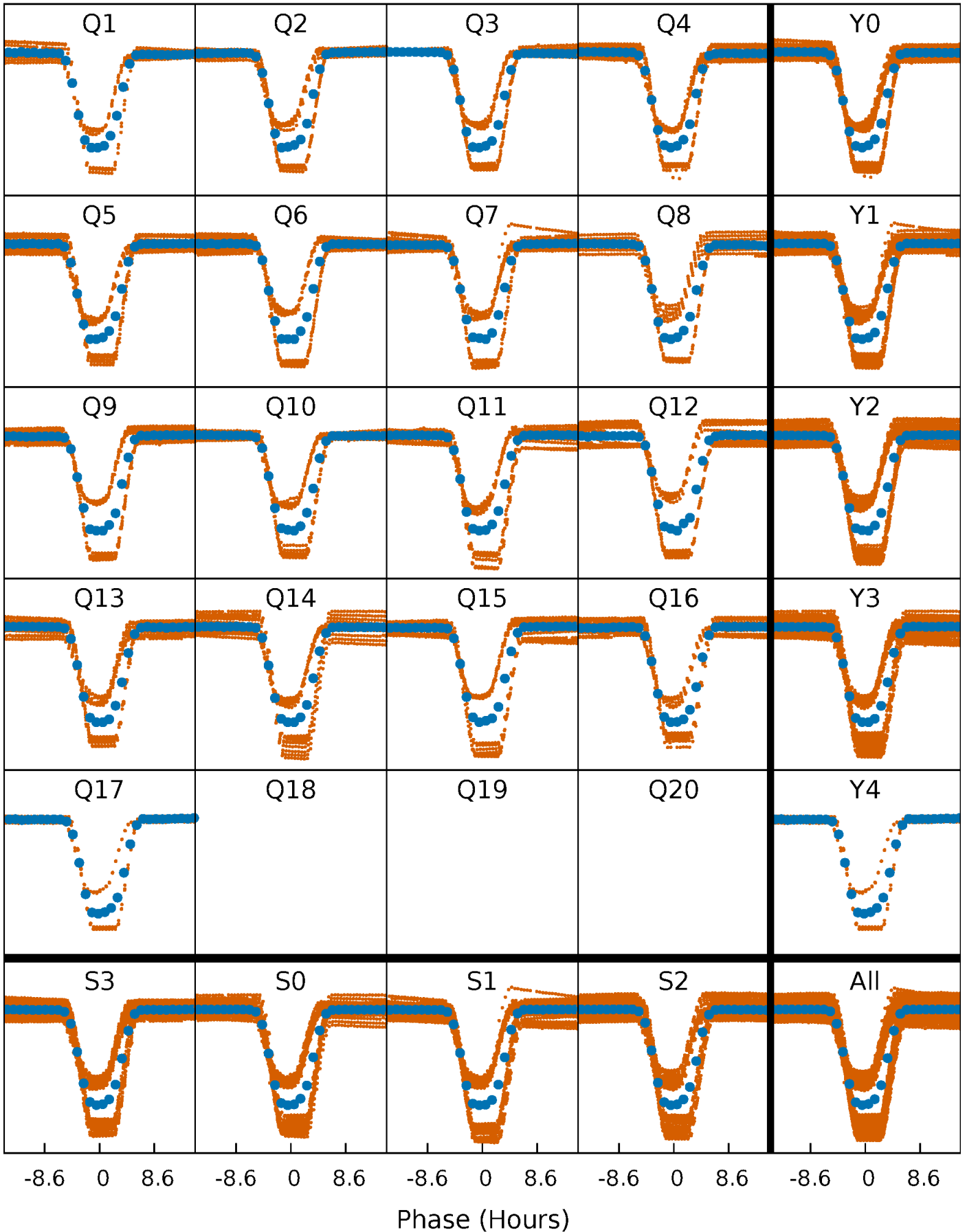


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



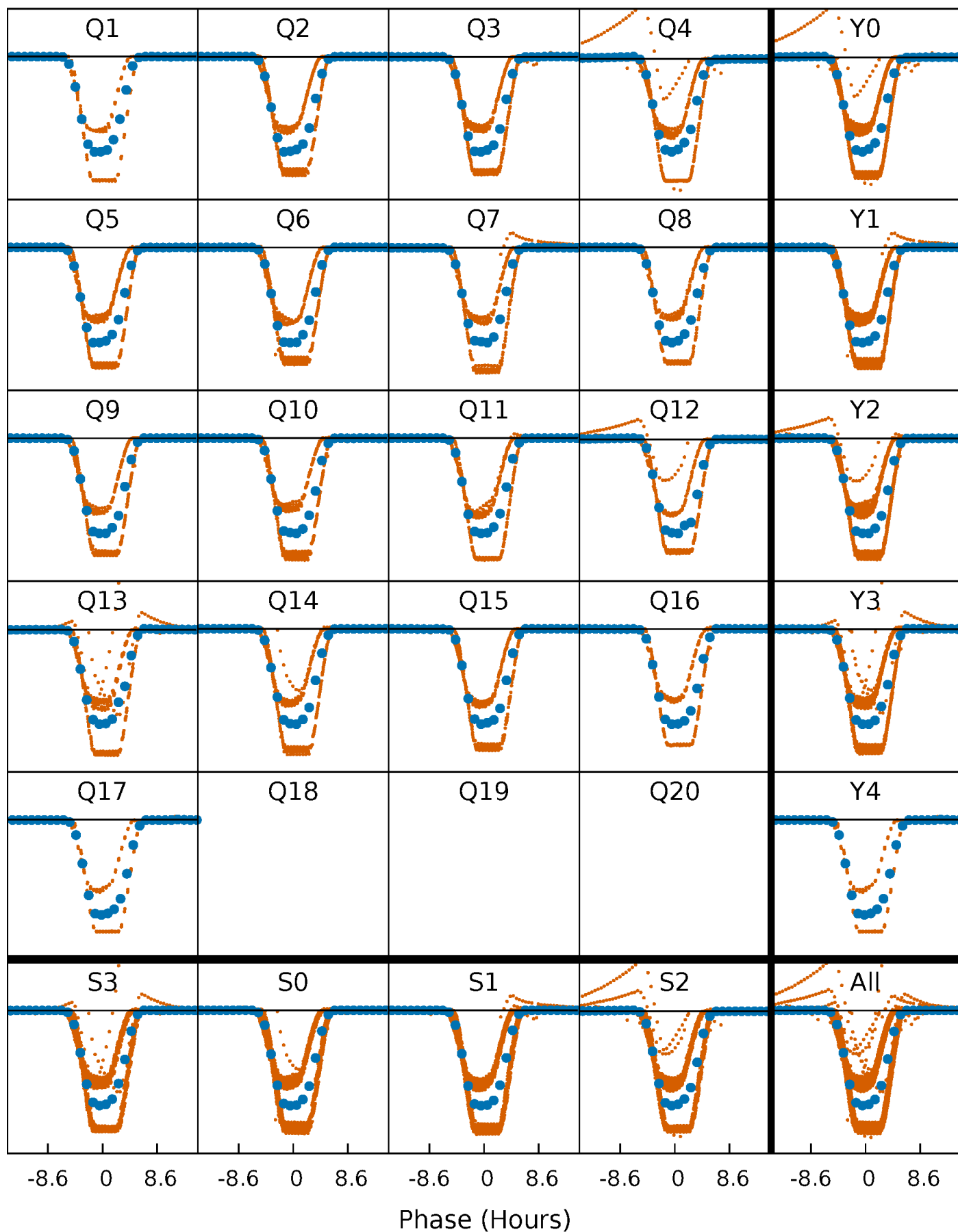
PDC Quarter-Phased Transit Curves

TCE 004737267-01 P= 4.761966 Days $T_0=134.841664$ (BKJD)



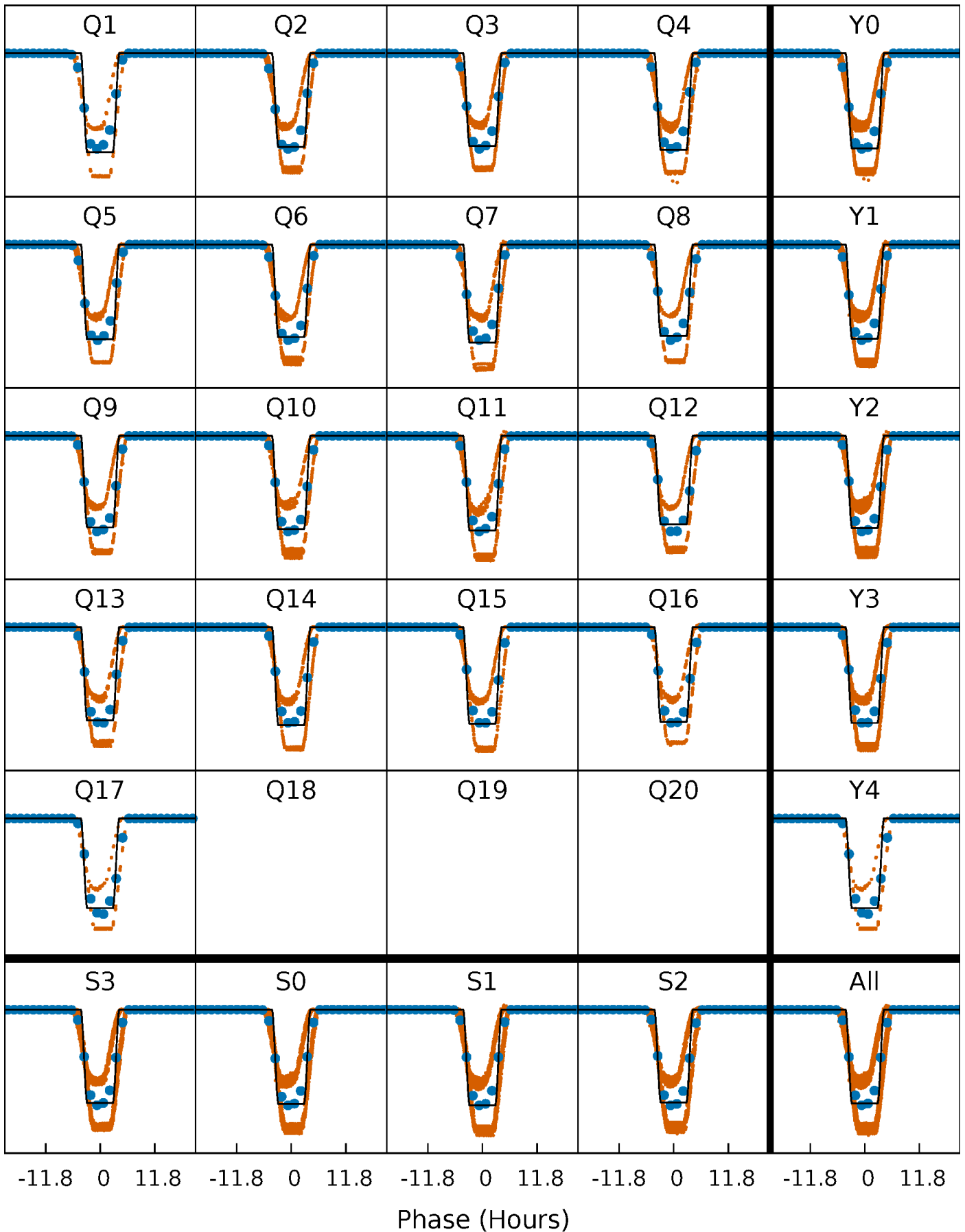
DV Quarter-Phased Transit Curves

TCE 004737267-01 P= 4.761966 Days $T_0=134.841664$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

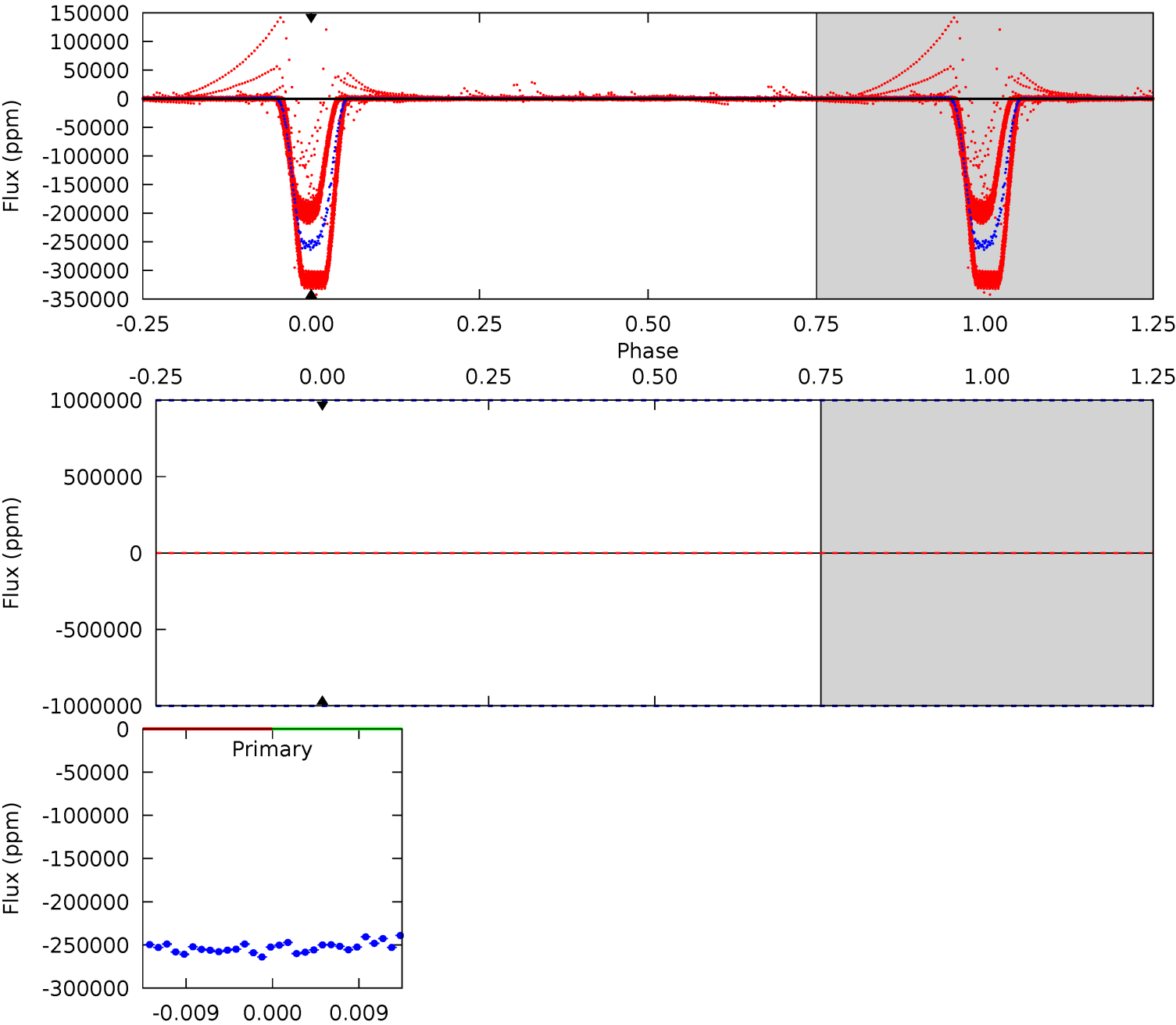
TCE 004737267-01 P= 4.761966 Days $T_0=134.845328$ (BKJD)



DV Model-Shift Uniqueness Test

004737267-01, P = 4.761966 Days, E = 130.079698 Days

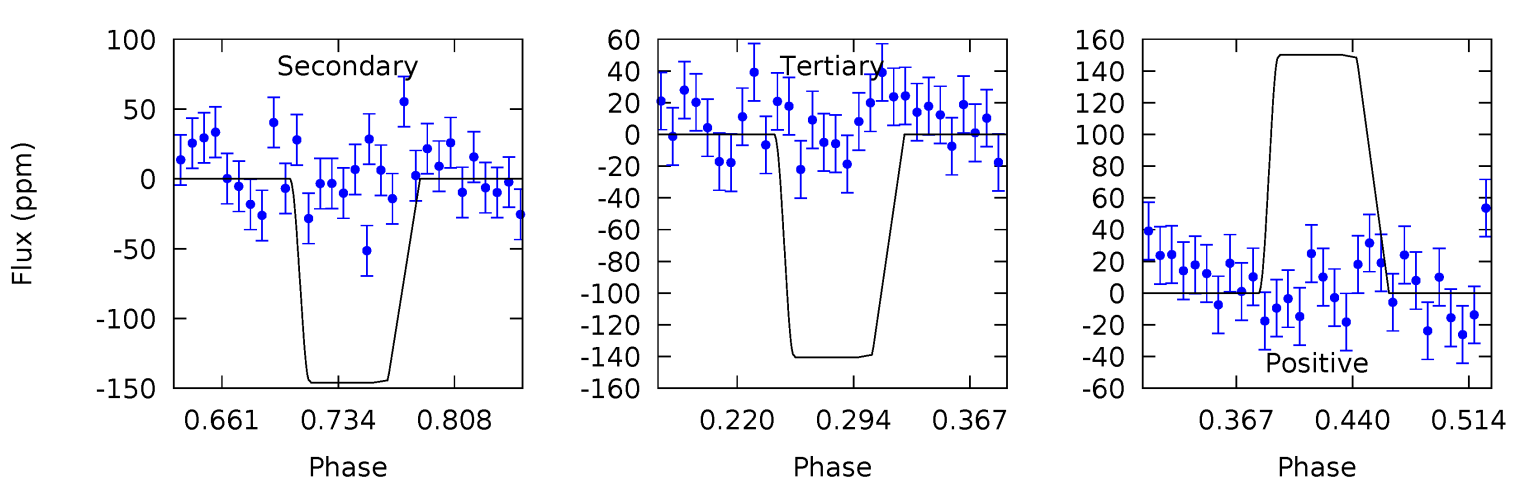
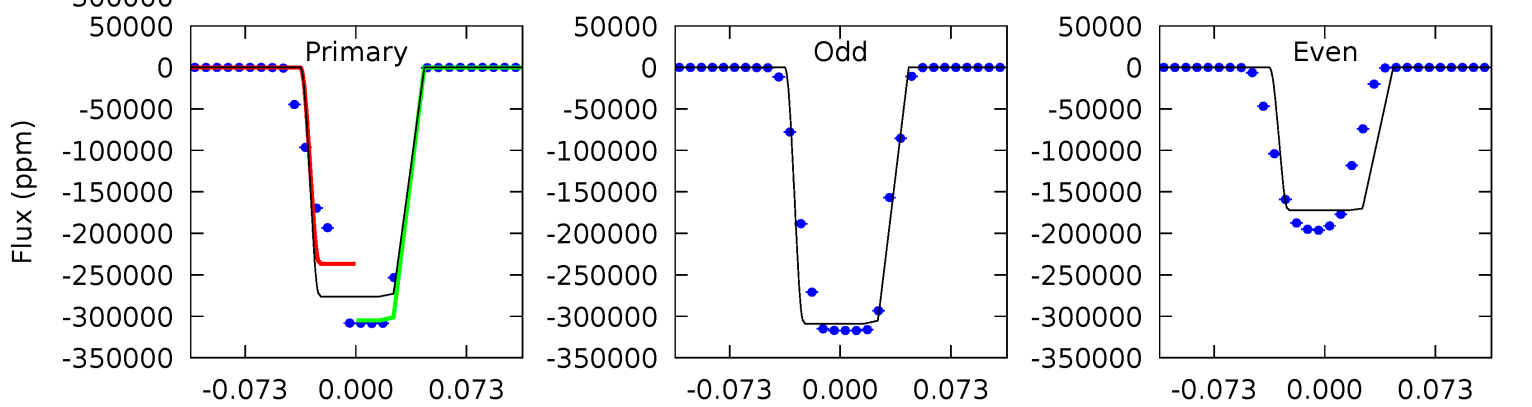
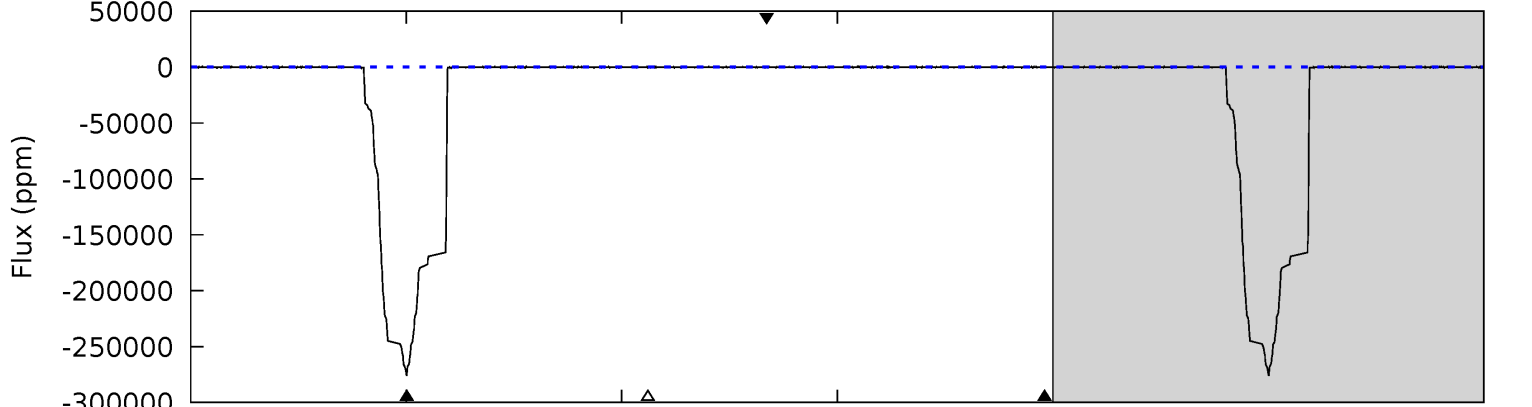
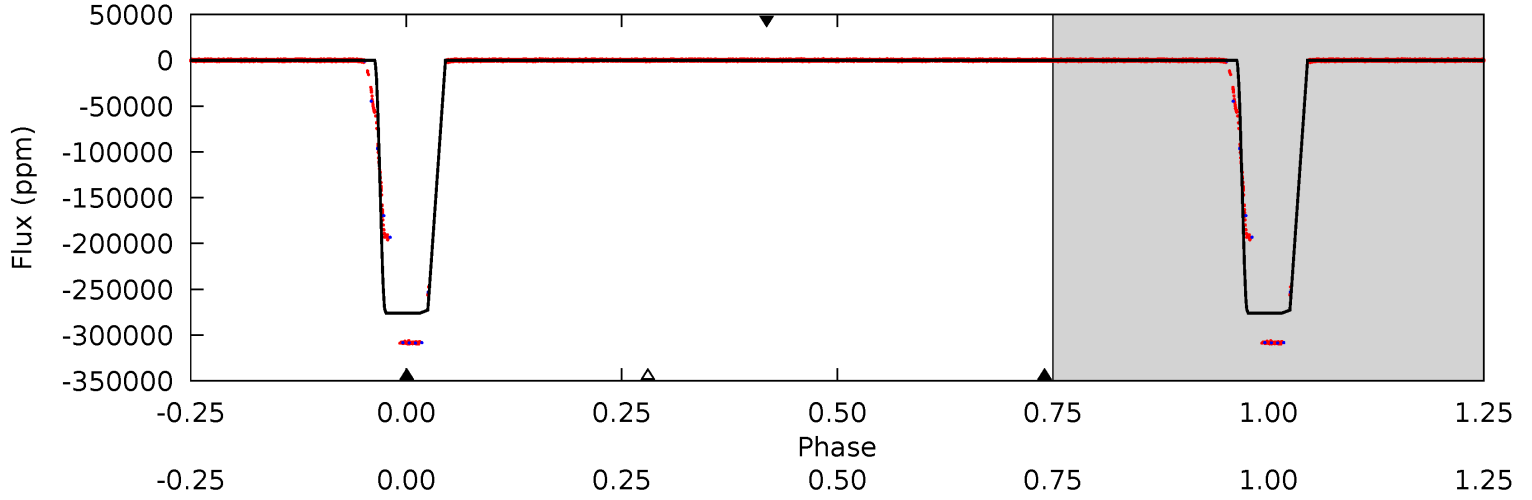
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

004737267-01, P = 4.761966 Days, E = 130.083362 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7590	4.02	3.87	4.13	4.63	1.79	1.20	7586	7586	0.15	-0.11	4540	0.82	0.00	0



Stellar Parameters For KIC 004737267

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5180^{+62}_{-72}	$3.428^{+0.130}_{-0.130}$	$-0.460^{+0.150}_{-0.150}$	$3.371^{+0.641}_{-0.577}$	$1.112^{+0.189}_{-0.189}$	$0.041^{+0.028}_{-0.015}$
	+1%/-1%	+4%/-4%	+33%/-33%	+19%/-17%	+17%/-17%	+67%/-37%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004737267-01 / KOI 6117.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$126.36^{+41.99}_{-37.43}$	2452^{+124}_{-110}	-3135^{+8227}_{-1962}	$-0.427^{+12.570}_{-11.691}$
Alt.	-146 ± 36	$184.26^{+41.08}_{-39.15}$	2458^{+120}_{-115}	-2742^{+69}_{-74}	$0.007^{+0.005}_{-0.003}$

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

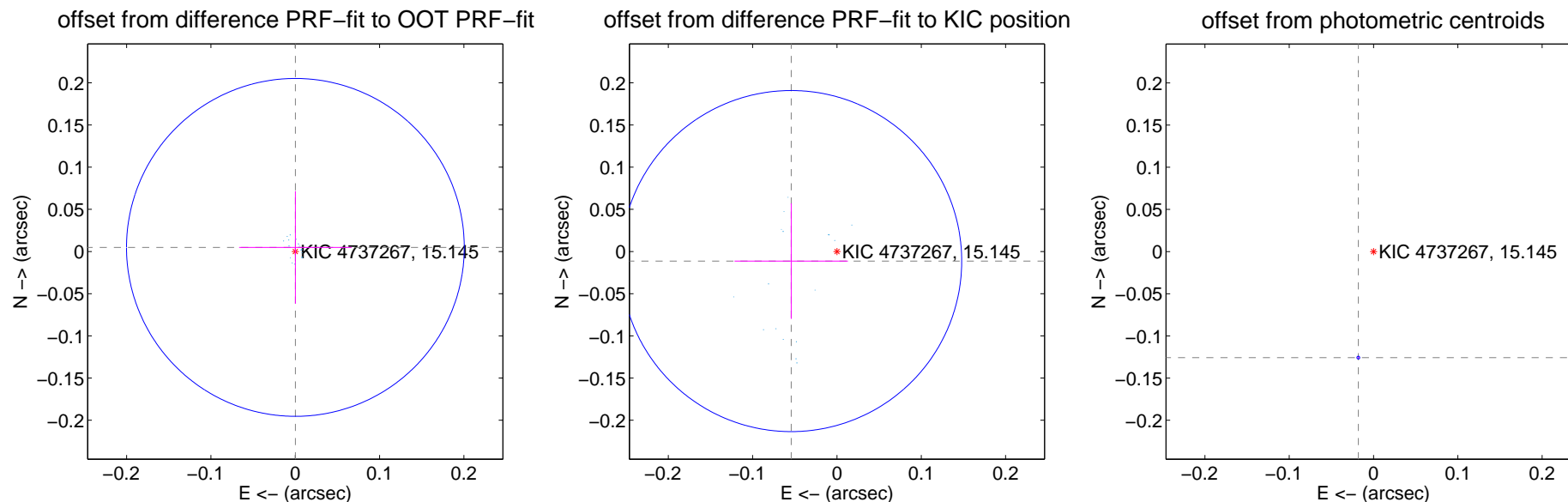
DV Centroid Data

Supplemental centroid analysis for 004737267-01. Kepler magnitude: 15.14. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

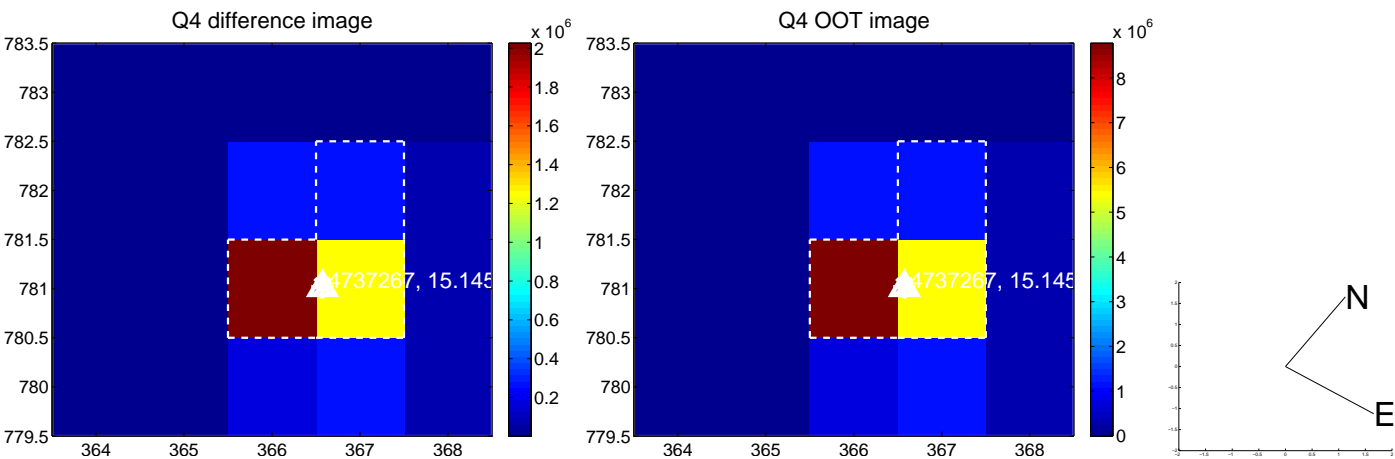
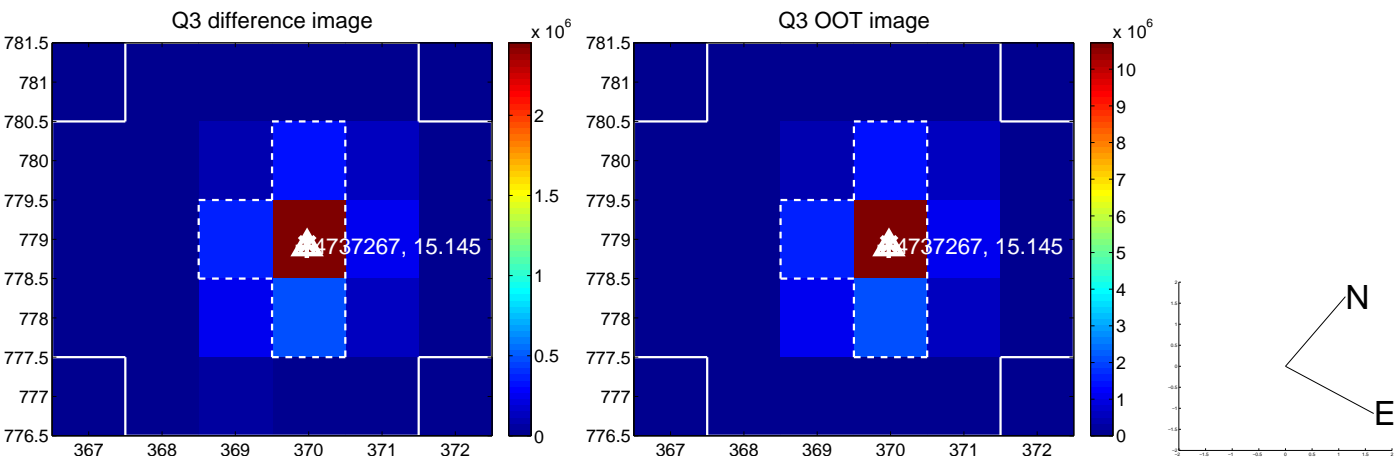
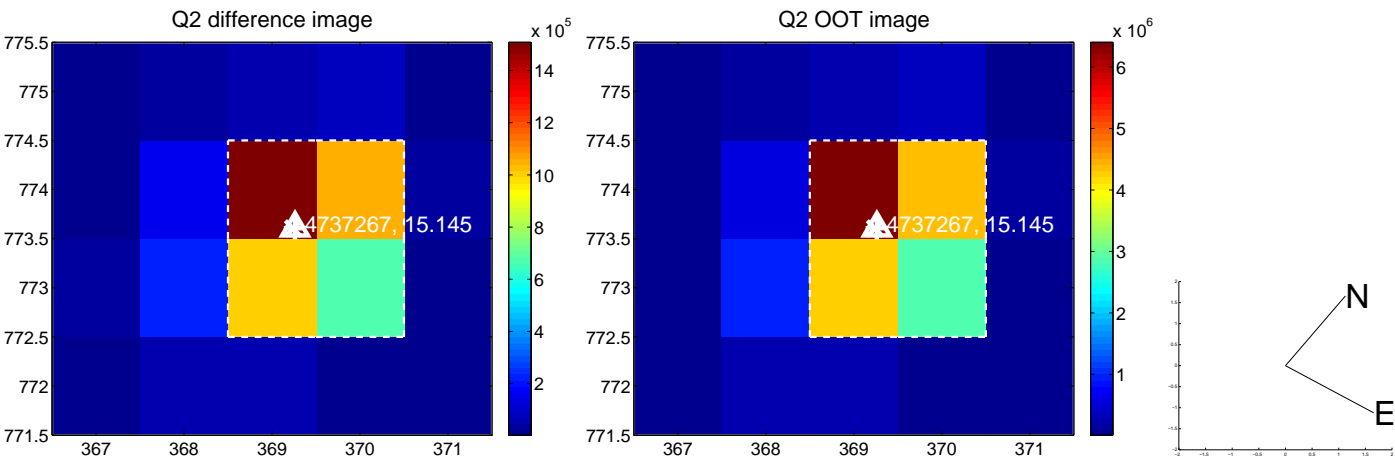
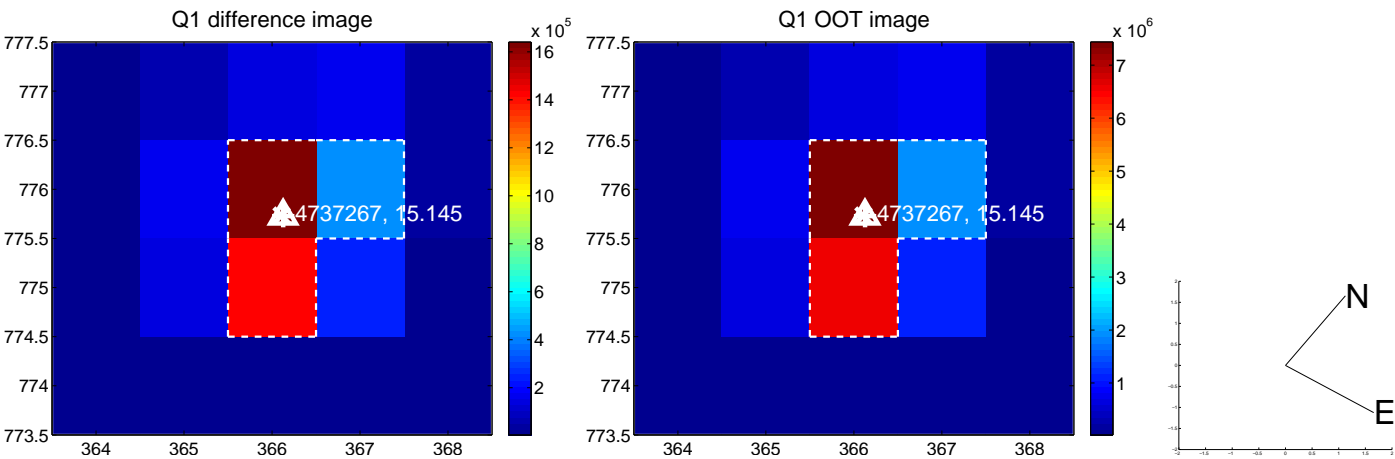
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.005 ± 0.067	0.07	-0.000 ± 0.067	0.005 ± 0.067
PRF-fit source offset from KIC position	0.055 ± 0.067	0.82	0.054 ± 0.067	-0.011 ± 0.069
photometric centroid source offset	0.13 ± 0.00	227.98	0.02 ± 0.00	-0.13 ± 0.00

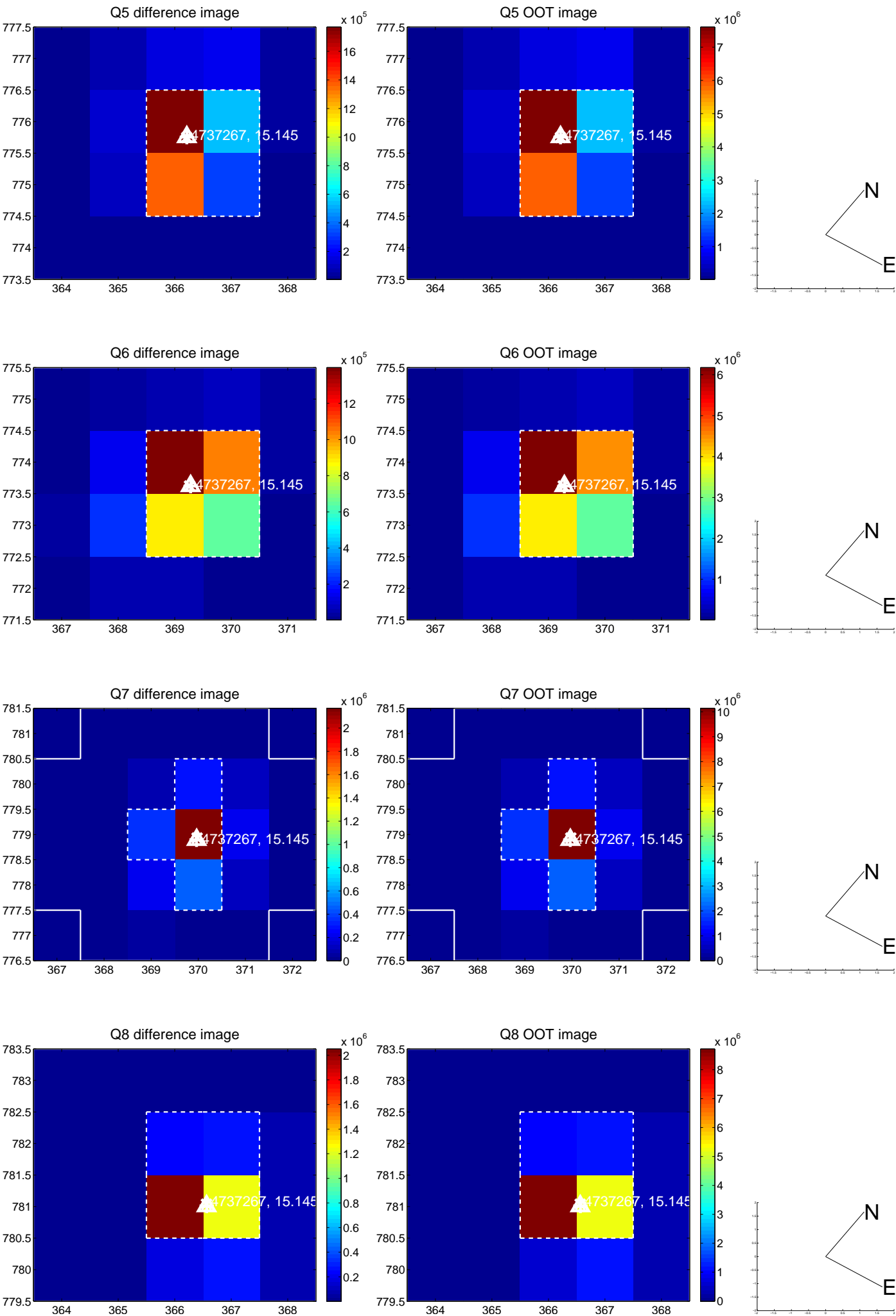


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

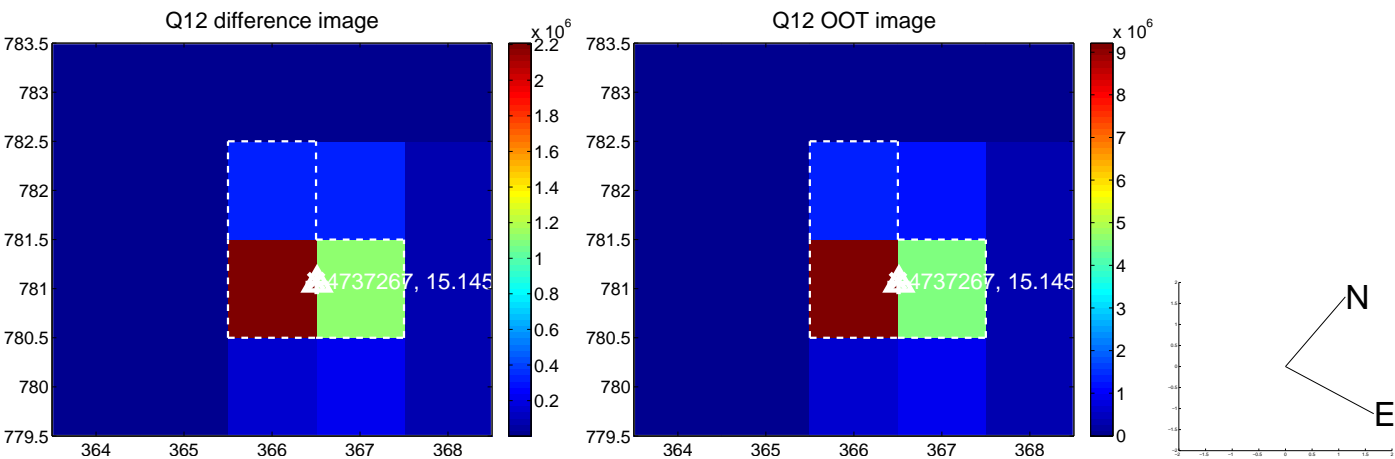
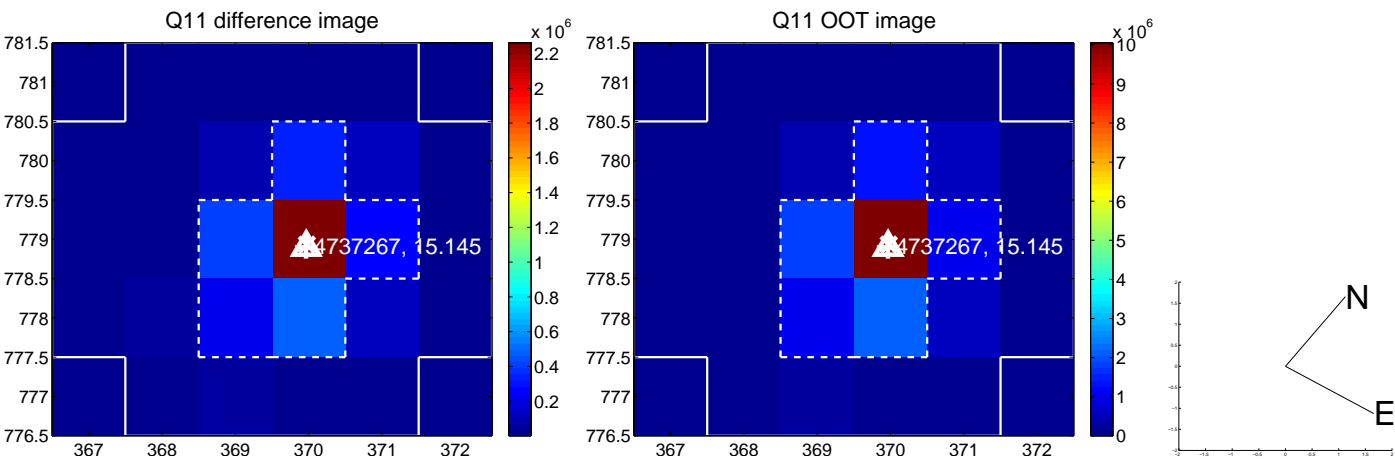
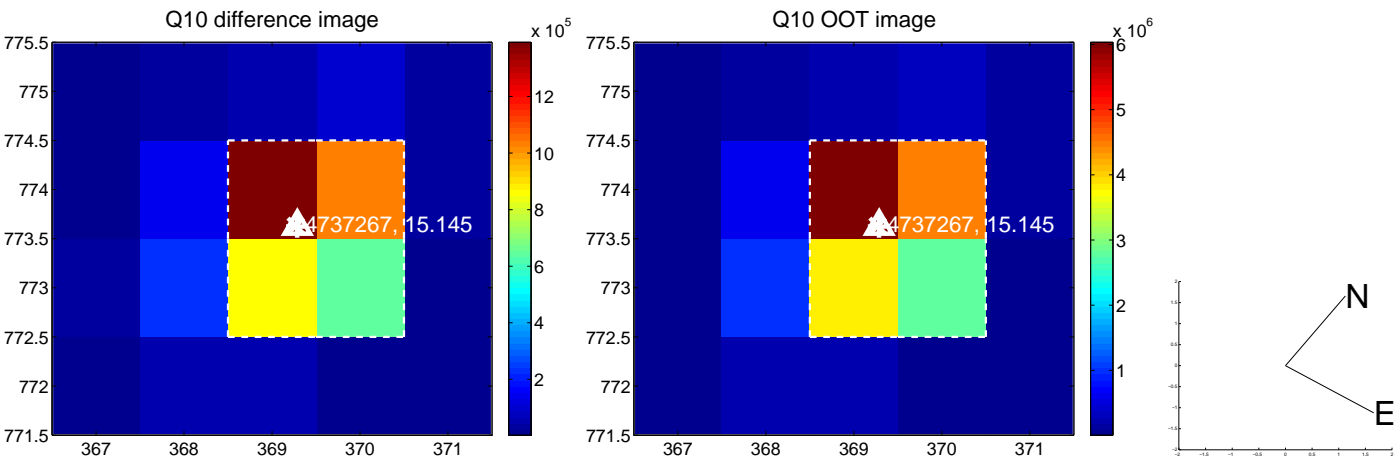
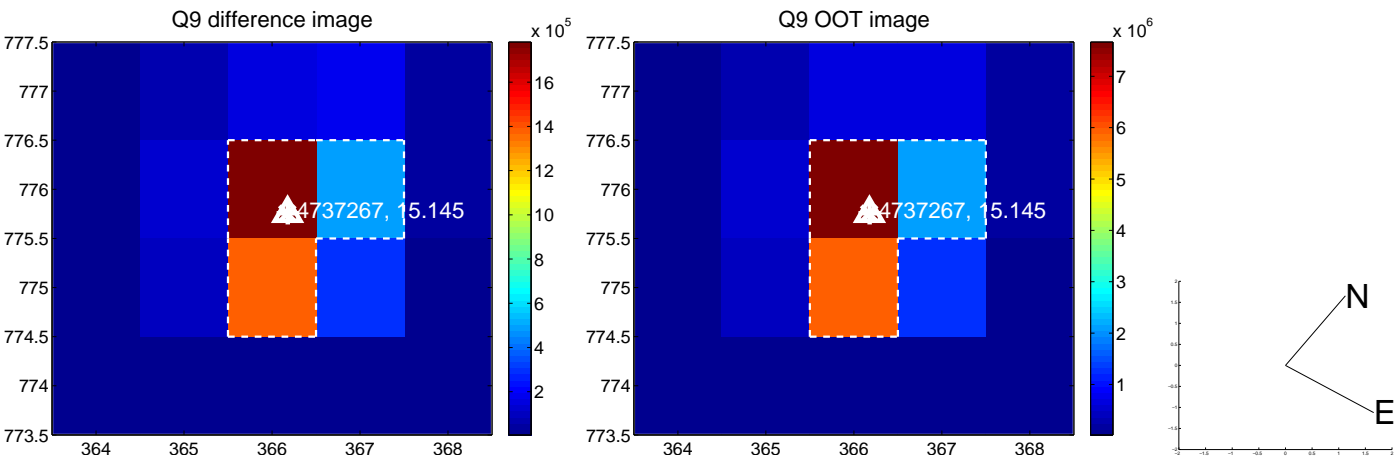
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



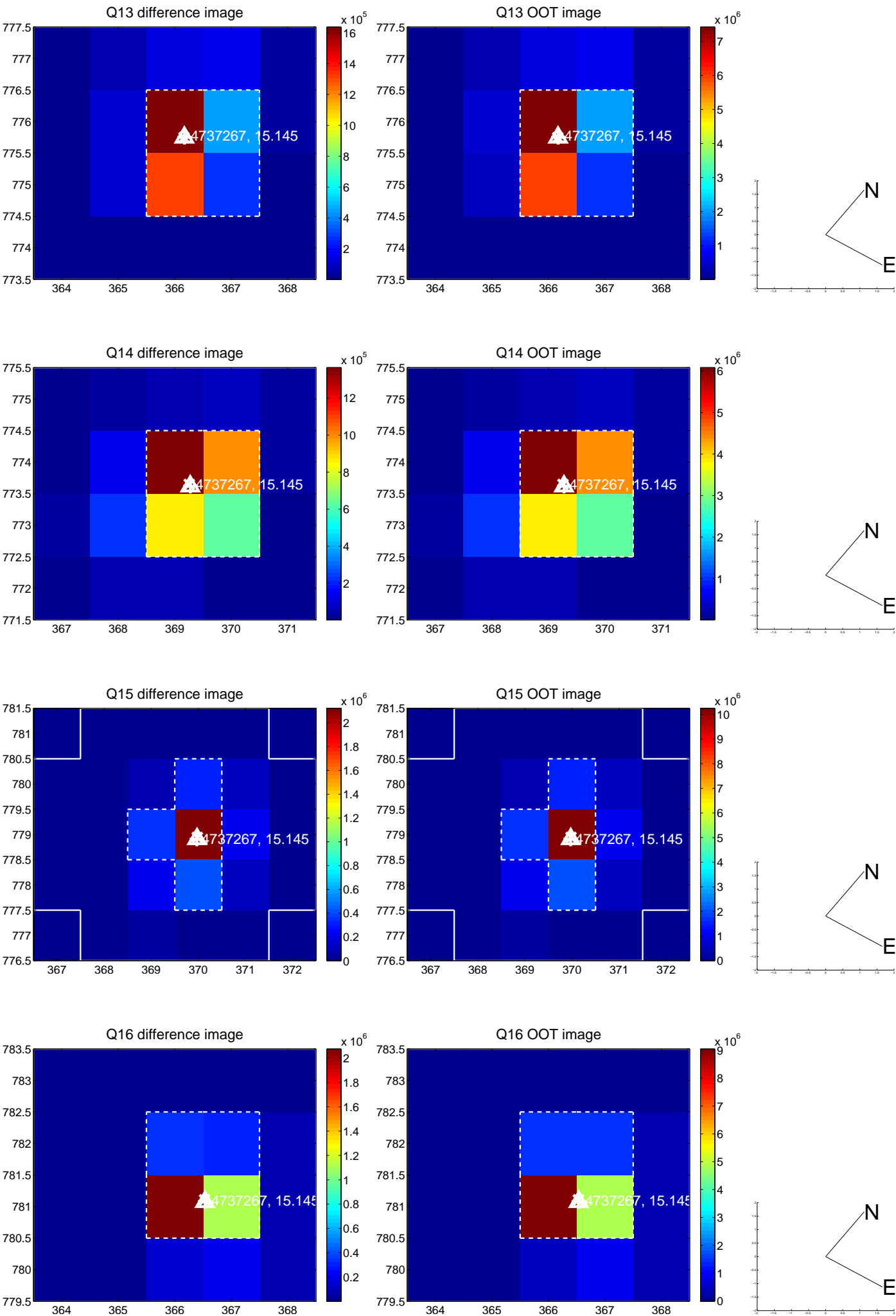
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



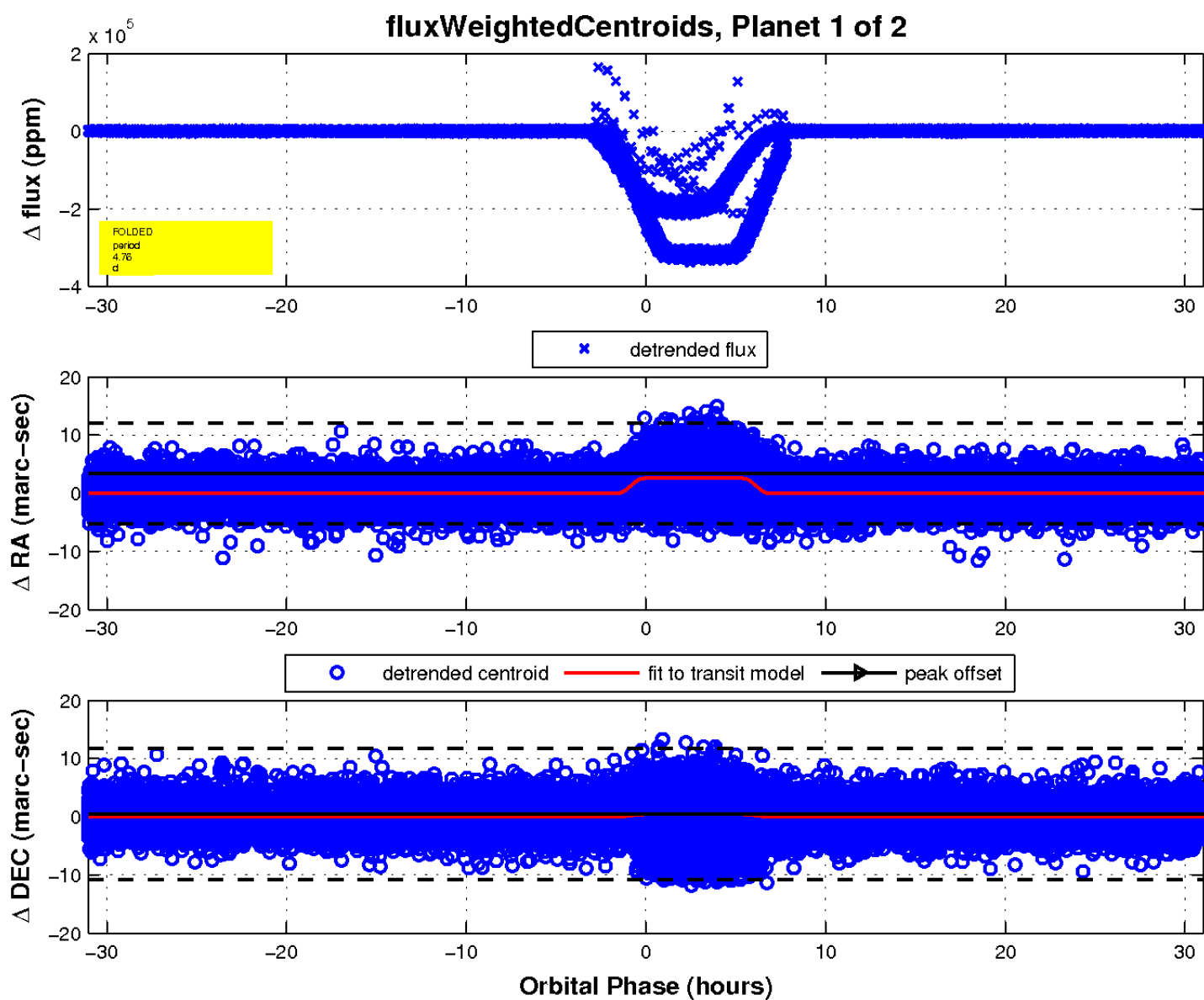
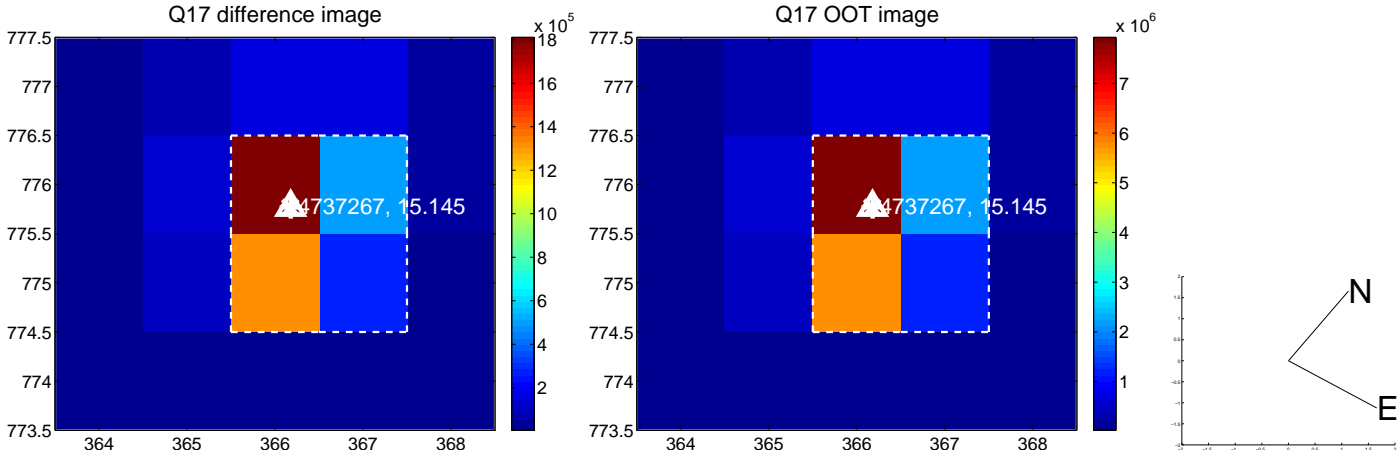
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

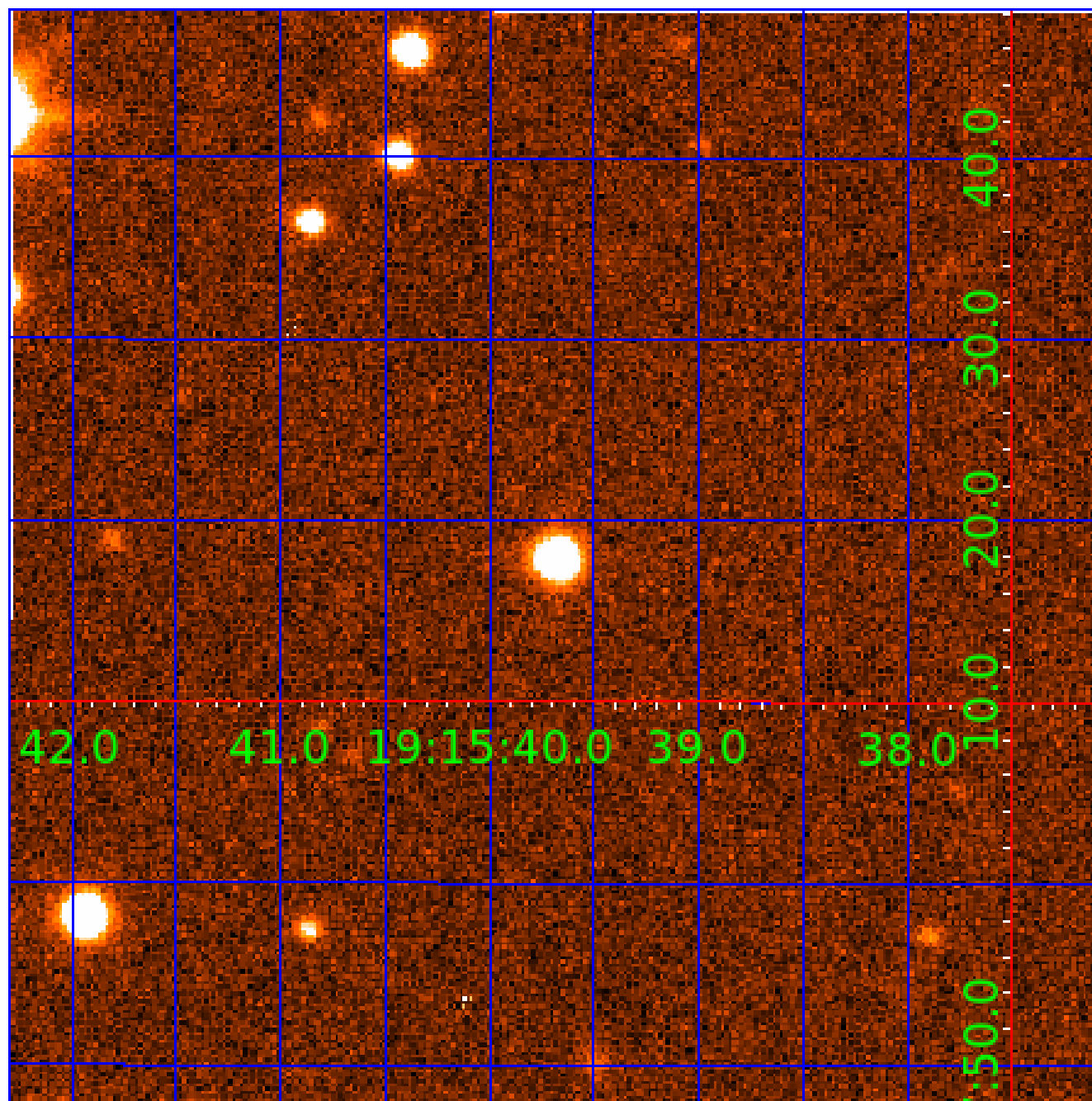


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004737267

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})
004737267-01	OBS	6117.01	4.761966	134.841664	255776.9	7.500	12535.3	-1.0	3.37	5180	127.42	2226.75
004737267-02	OBS	No	9.523154	140.556250	6265.5	15.000	507.5	-1.0	3.37	5180	26.17	883.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004737267-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
004737267-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE—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.

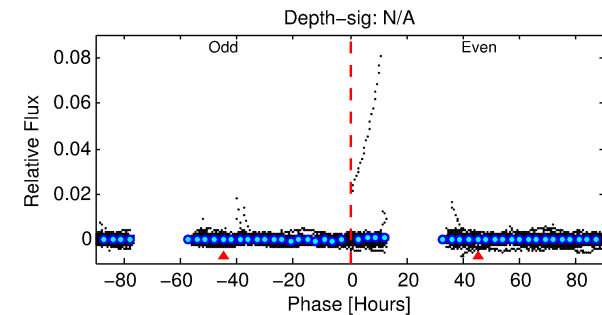
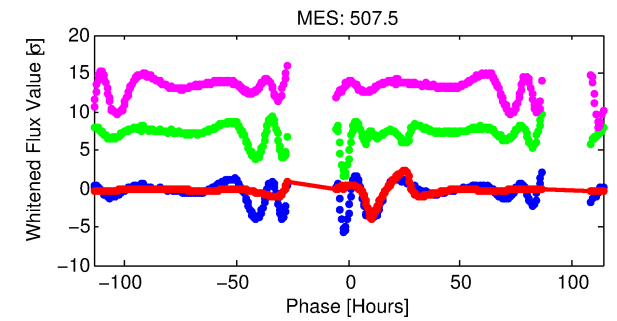
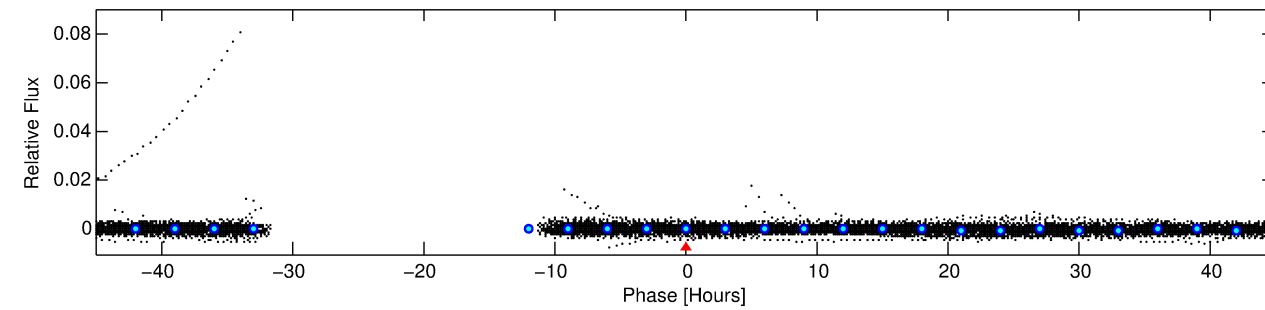
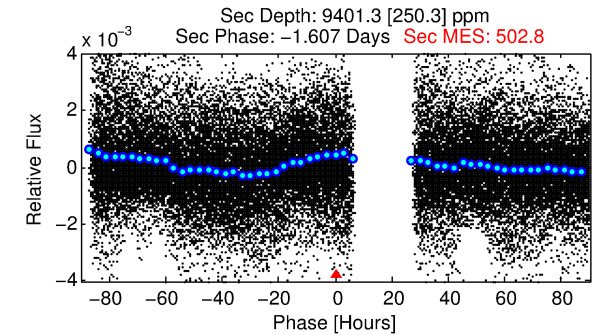
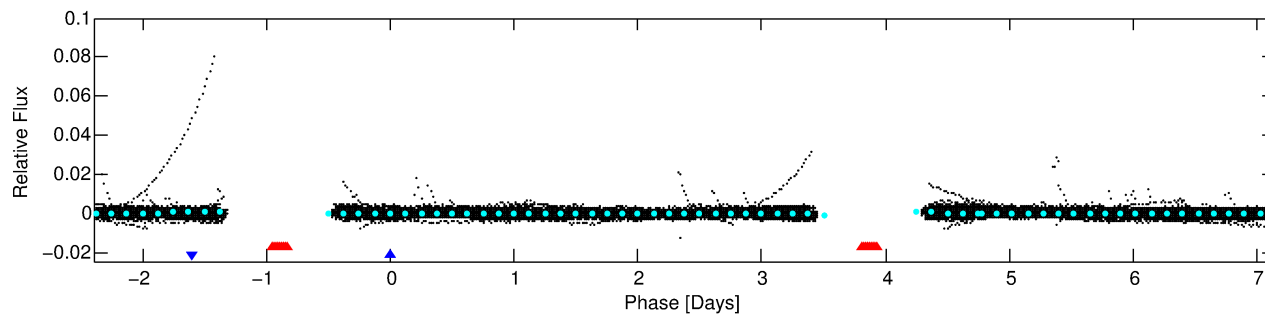
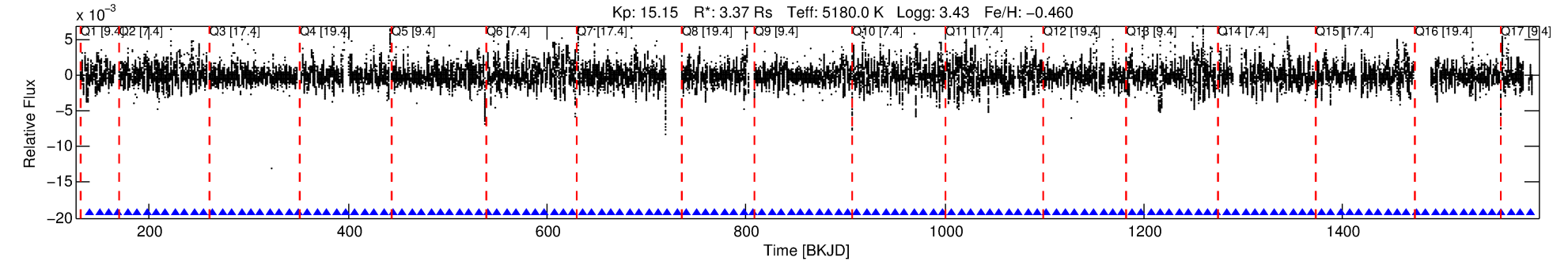
Ephemeris Match Information For 004737267-02

No Significant Match Found

DV One-Page Summary

KIC: 4737267 Candidate: 2 of 2 Period: 9.523 d
KOI: K06117 Corr: No Ephemeris Match

Kp: 15.15 R*: 3.37 Rs Teff: 5180.0 K Logg: 3.43 Fe/H: -0.460



TPS TCE Results:

Period = 9.52315 d
Epoch = 140.5562 BKJD

DV fit results are unavailable

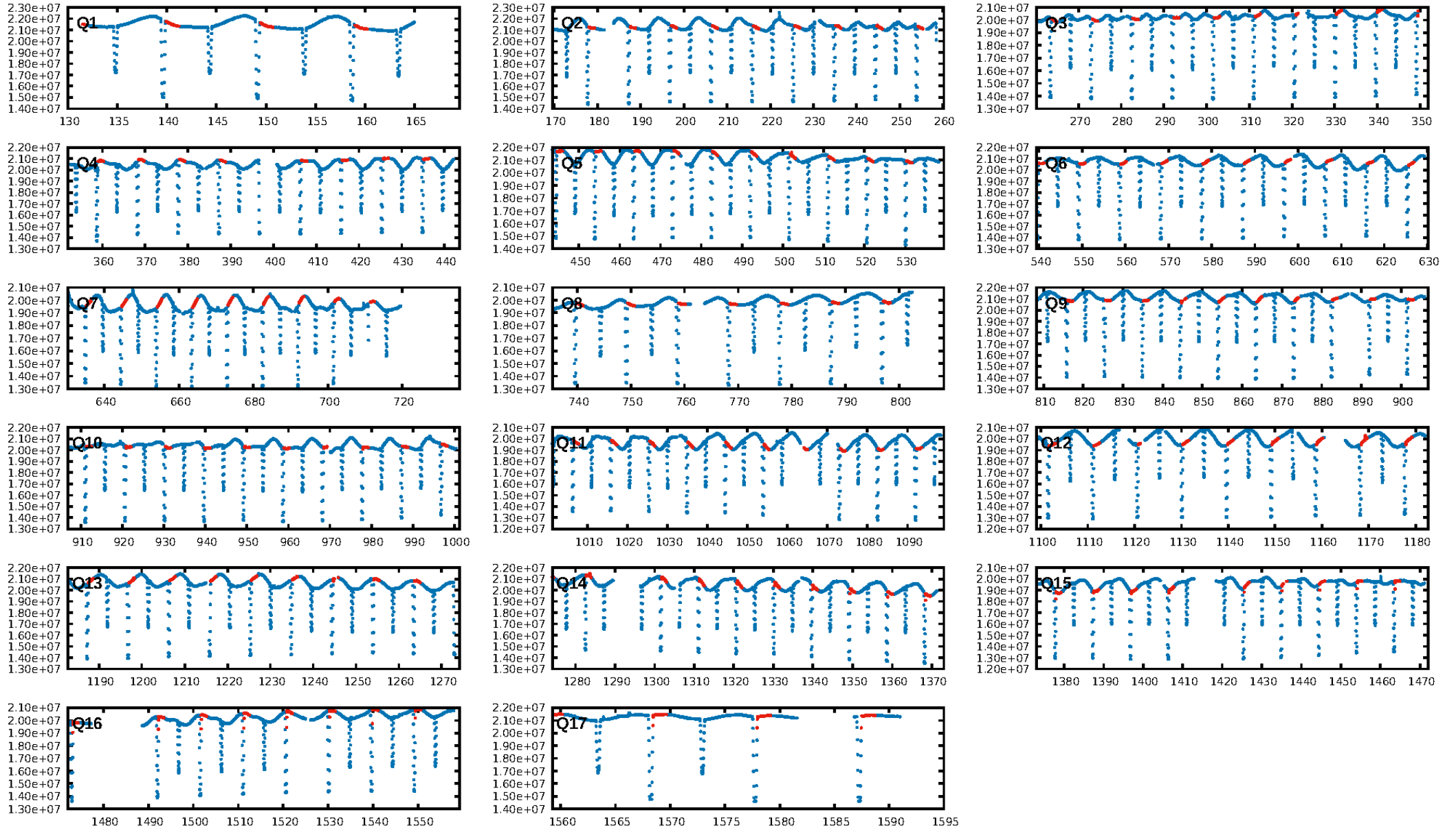
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.81σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

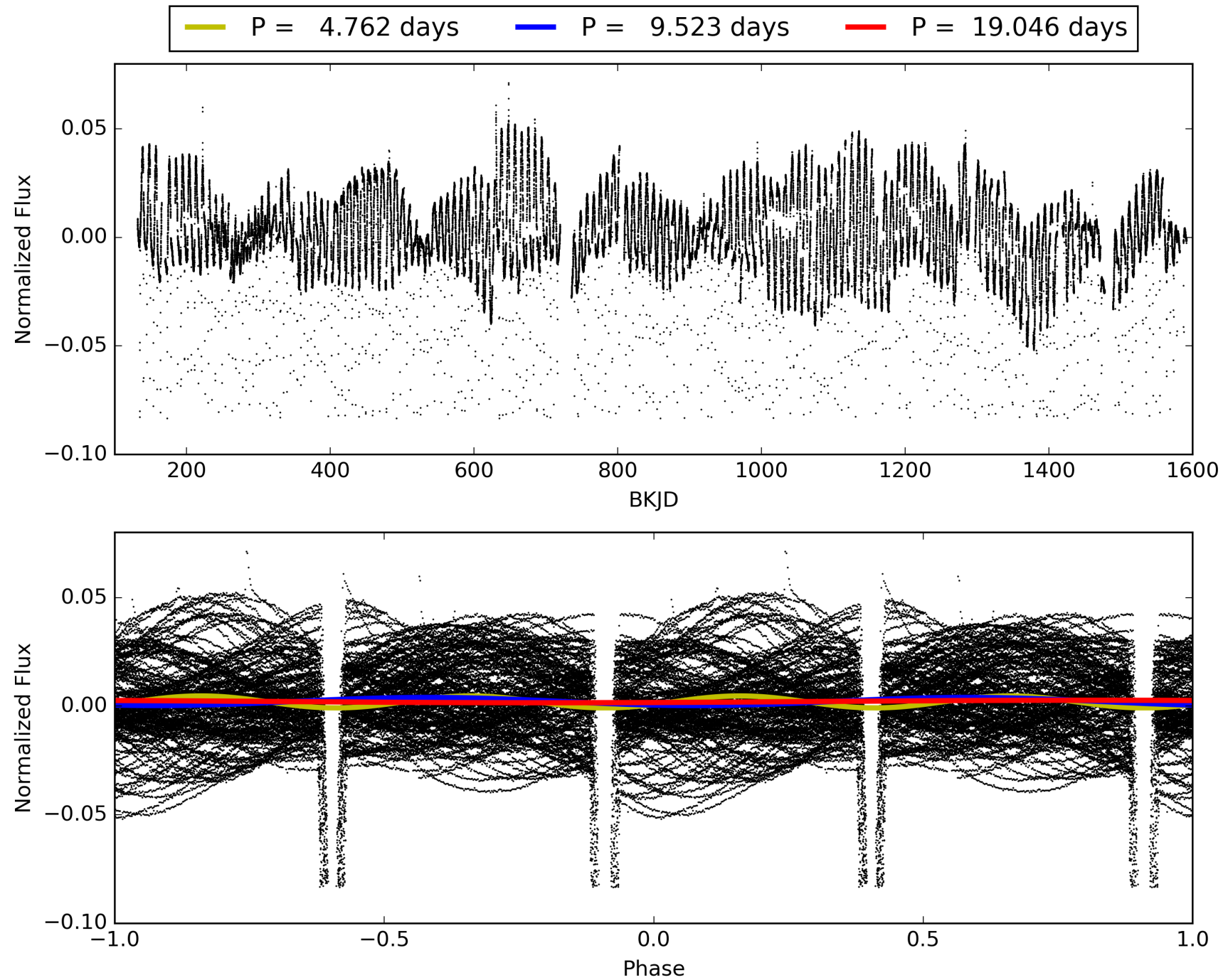
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 00:03:02 Z

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

TCE 004737267-02, PDC Light Curves

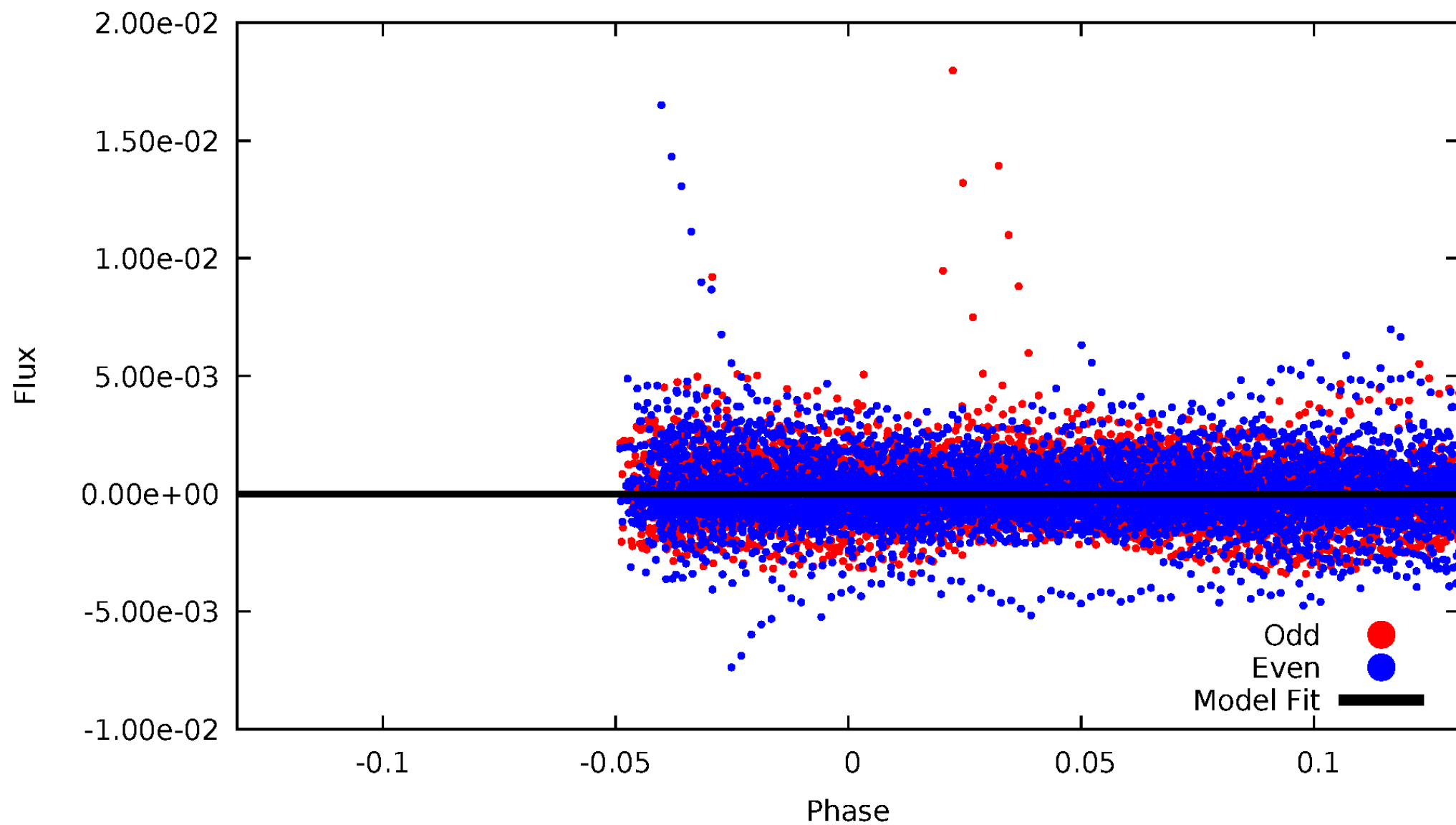


TCE 004737267-02



DV Odd/Even

TCE 004737267-02

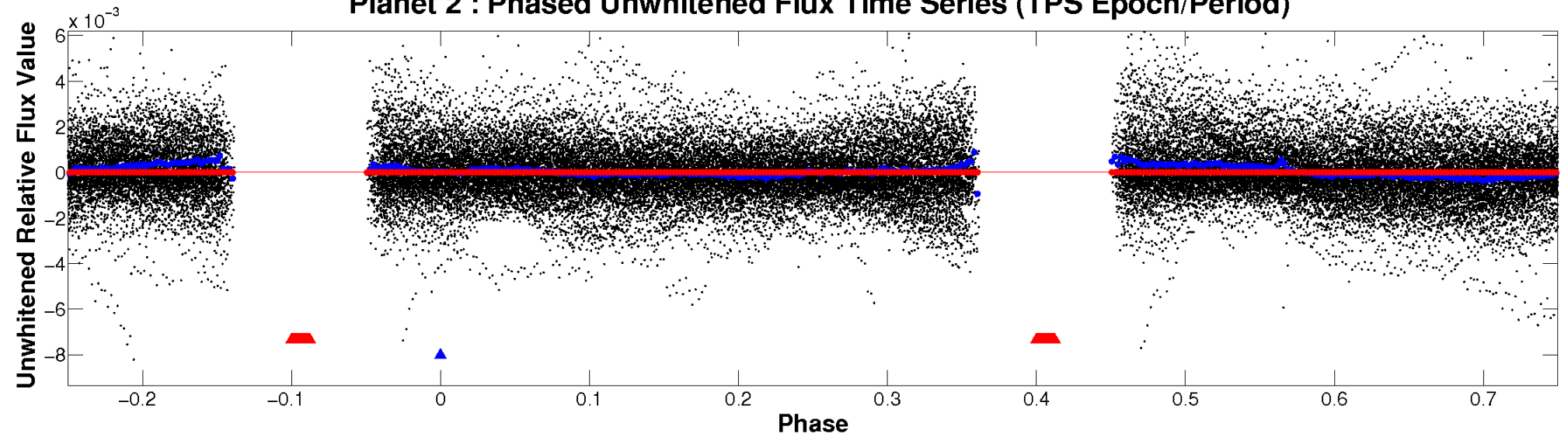


ALT Odd/Even

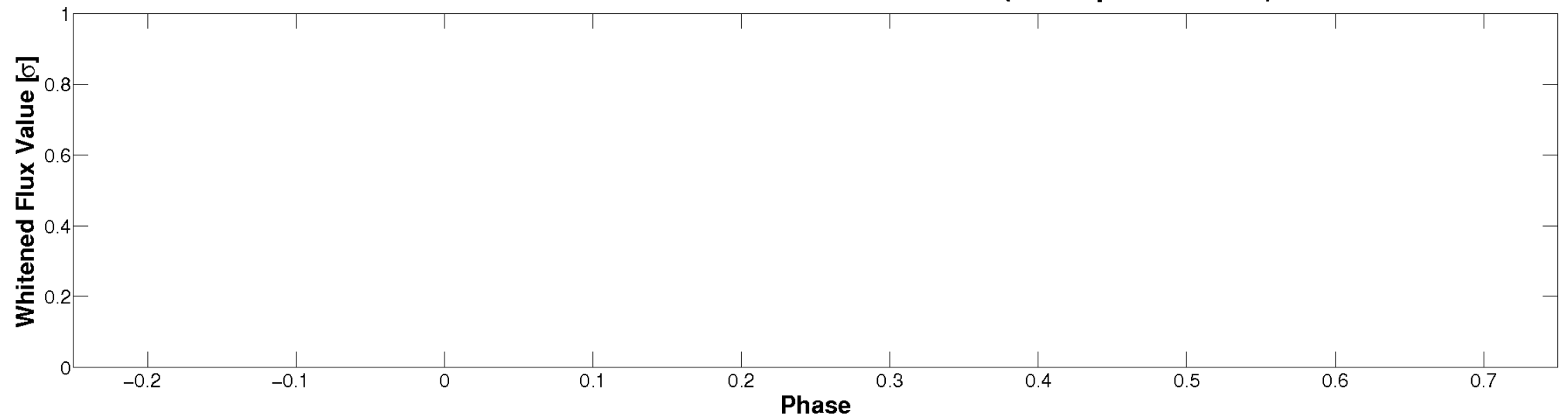
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

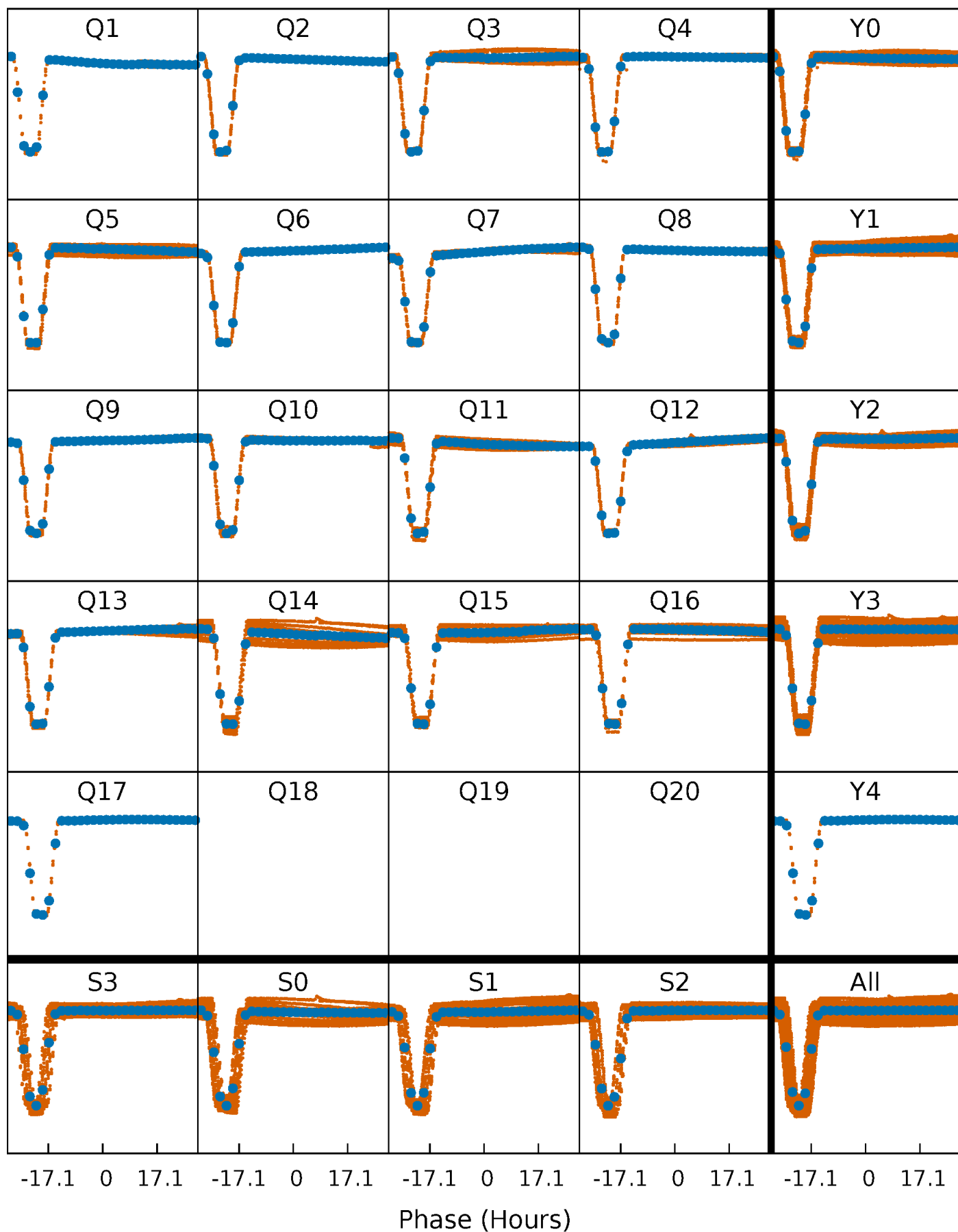


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



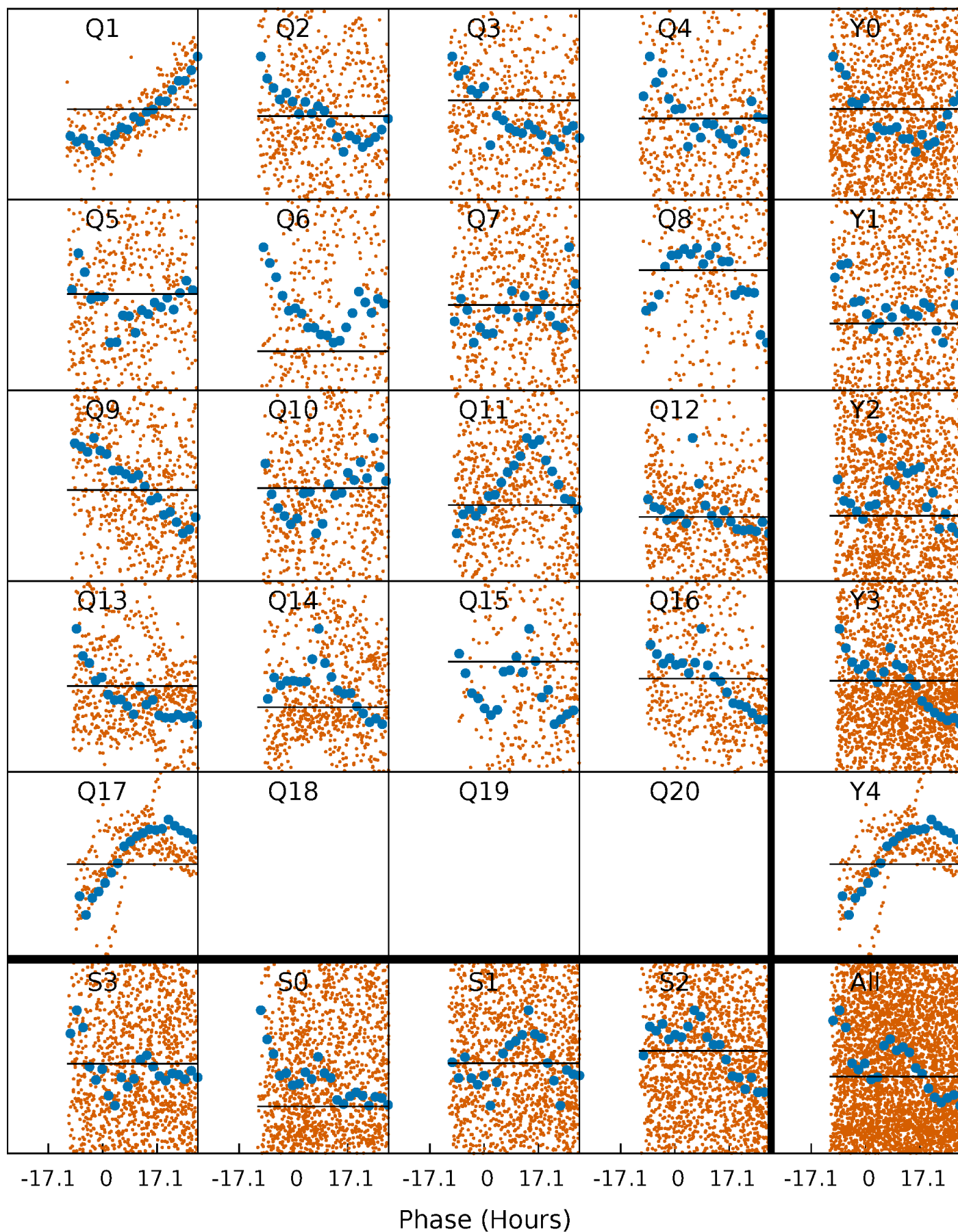
PDC Quarter-Phased Transit Curves

TCE 004737267-02 $P = 9.523154$ Days $T_0 = 140.556250$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 004737267-02 $P = 9.523154$ Days $T_0 = 140.556250$ (BKJD)

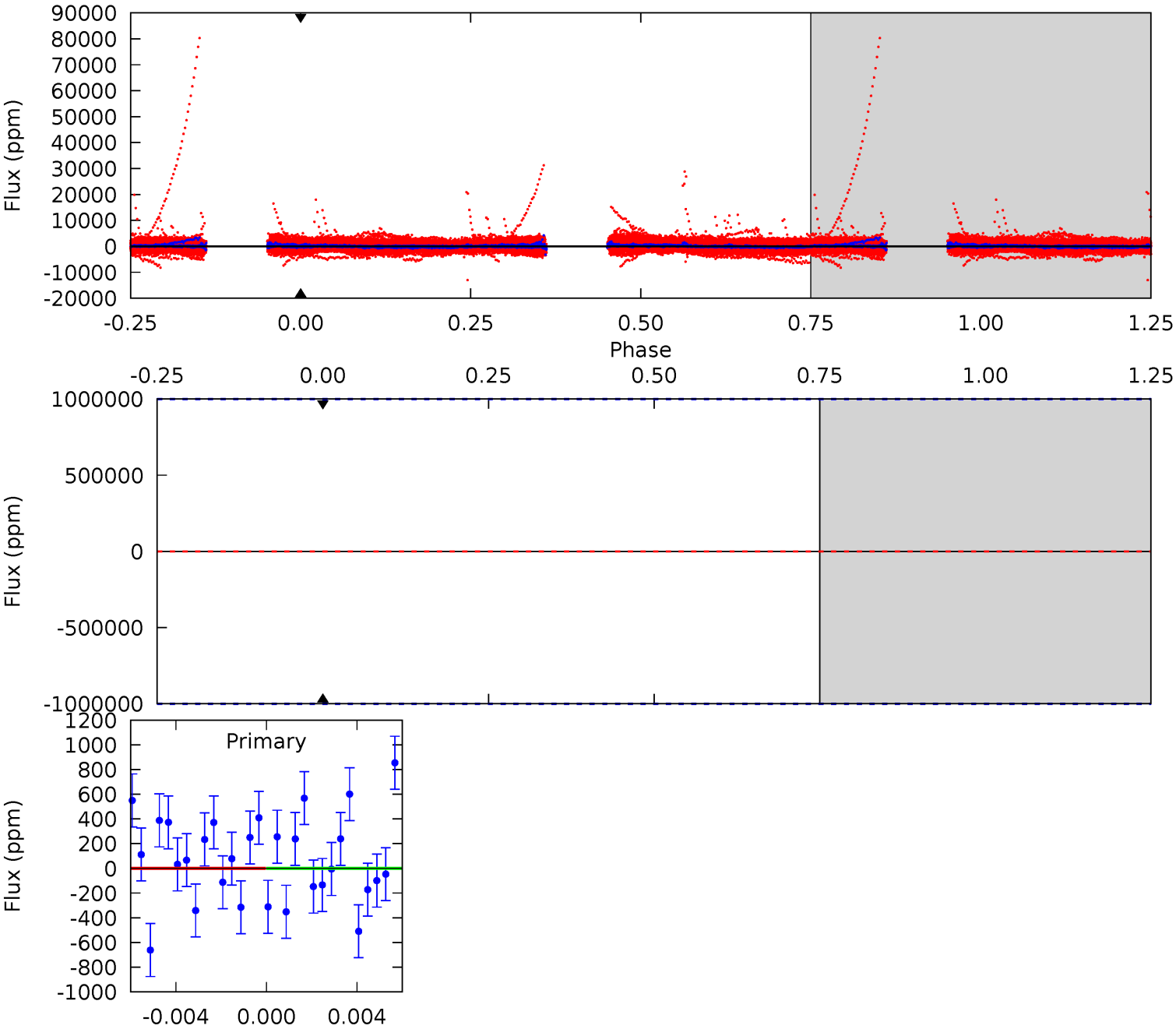


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

004737267-02, P = 9.523154 Days, E = 131.033096 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

This plot does not exist for this TCE.

Stellar Parameters For KIC 004737267

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5180^{+62}_{-72}	$3.428^{+0.130}_{-0.130}$	$-0.460^{+0.150}_{-0.150}$	$3.371^{+0.641}_{-0.577}$	$1.112^{+0.189}_{-0.189}$	$0.041^{+0.028}_{-0.015}$
	+1%/-1%	+4%/-4%	+33%/-33%	+19%/-17%	+17%/-17%	+67%/-37%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004737267-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$38.81^{+30.54}_{-26.44}$	1947^{+101}_{-100}	3631^{+8706}_{-13966}	$4.559^{+610.118}_{-392.907}$
Alt.	N/A	N/A	N/A	N/A	N/A

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

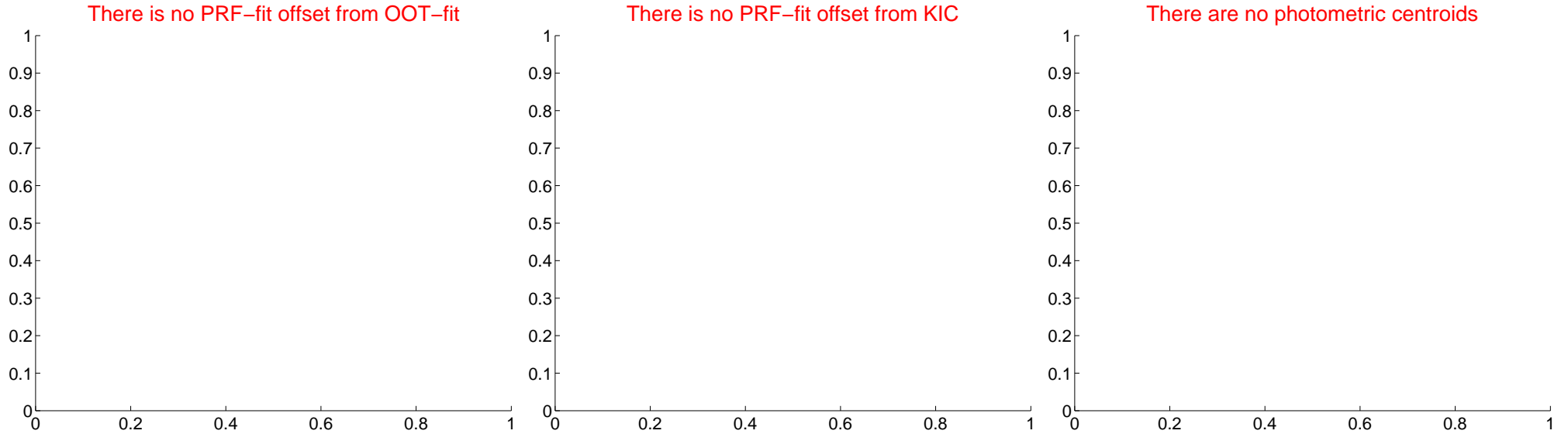
DV Centroid Data

Supplemental centroid analysis for 004737267-02. Kepler magnitude: 15.14. 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 NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

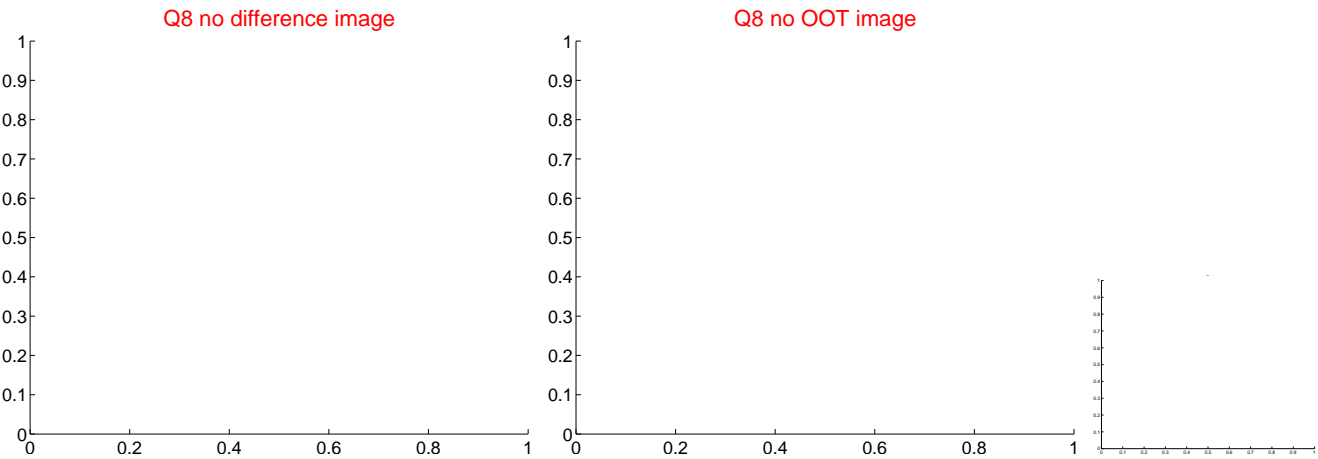
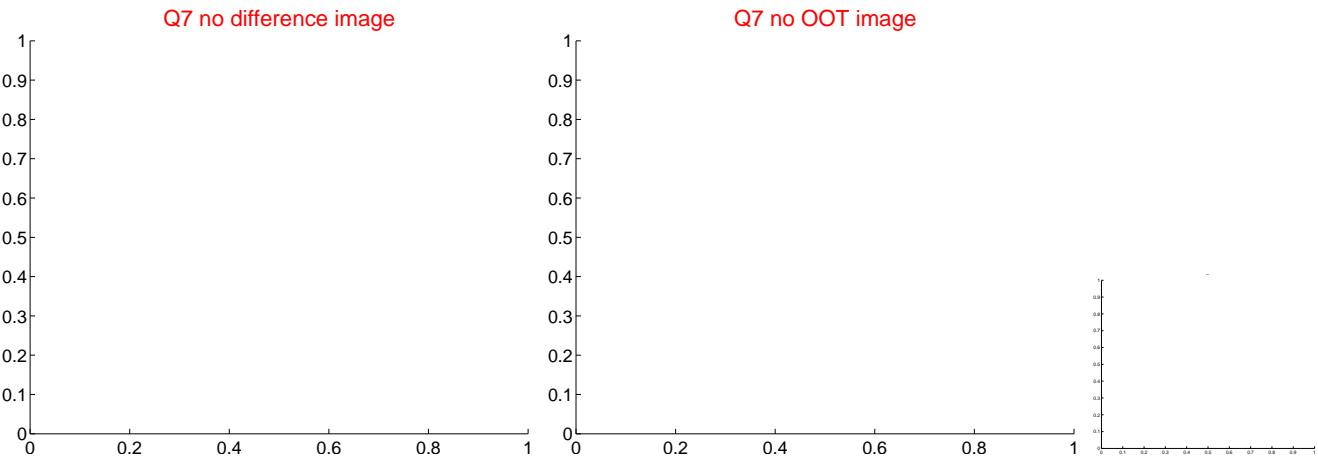
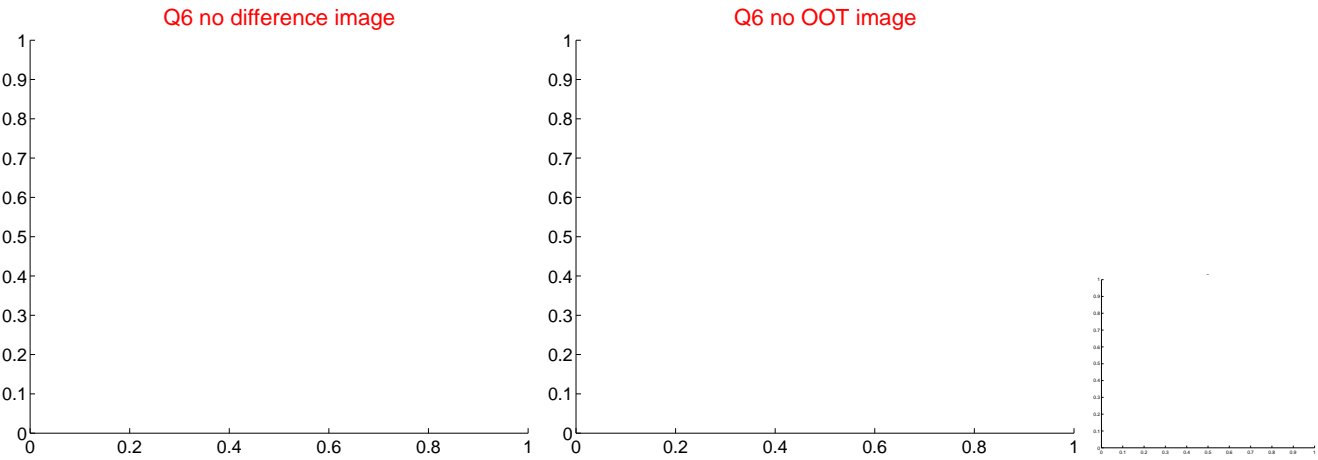
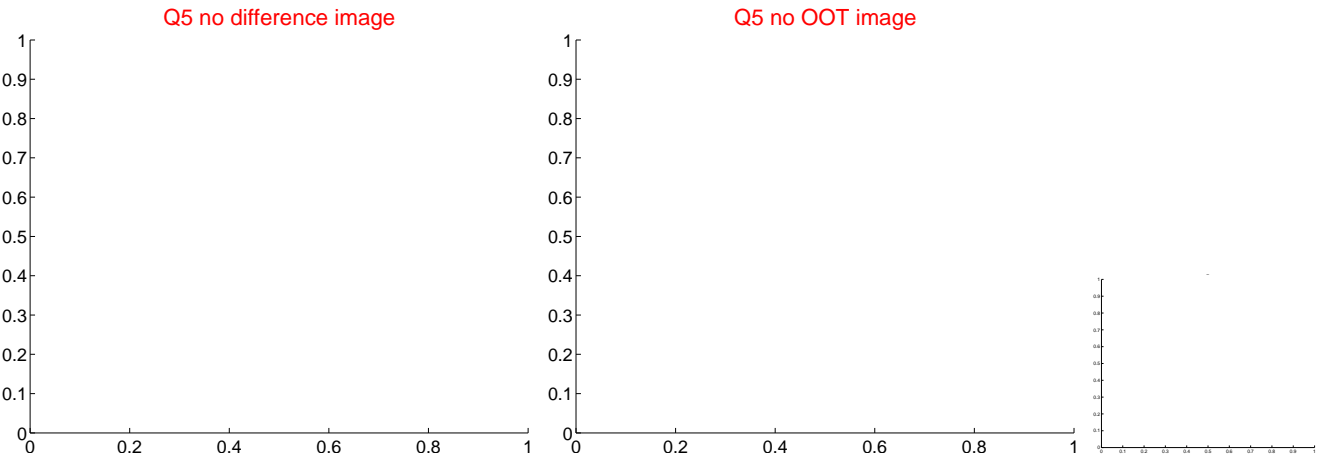


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



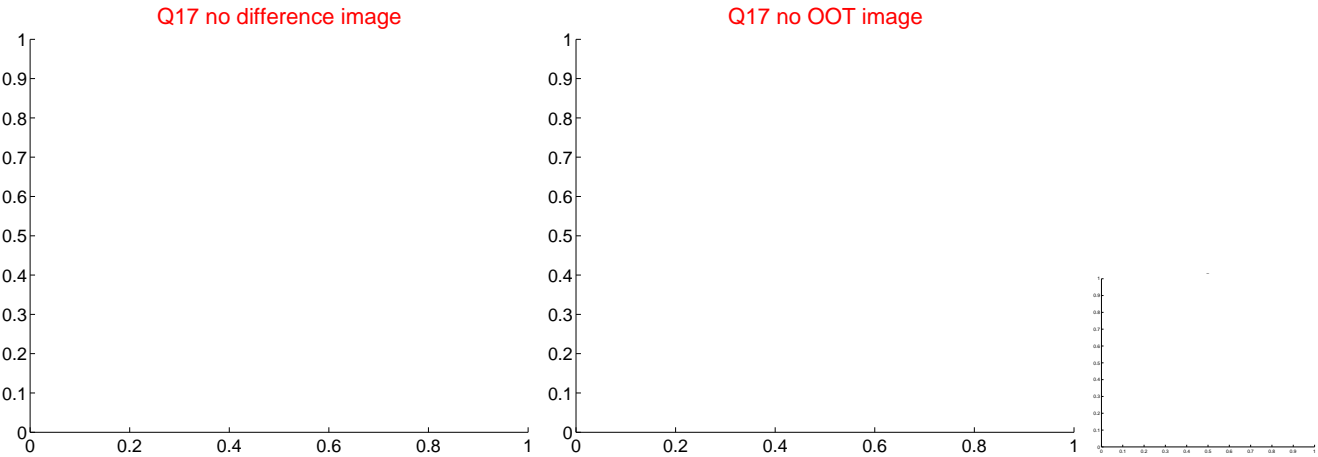
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

