

KIC 003113266

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})
003113266-01	OBS	1088.01	0.995868	132.343851	3434.3	0.909	85.1	167.5	0.71	5286	5.04	1128.07
003113266-02	OBS	No	0.995861	131.848876	3074.2	0.762	134.2	157.3	0.71	5286	4.92	1128.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003113266-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET
003113266-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_UNRESOLVED_OFFSET

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.

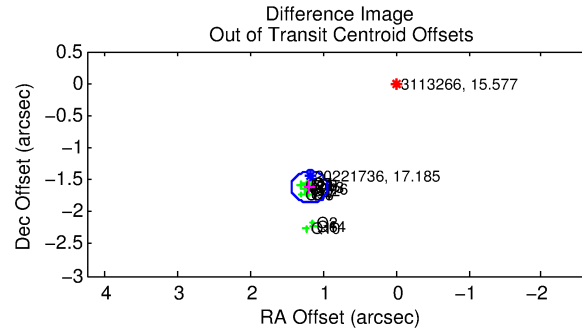
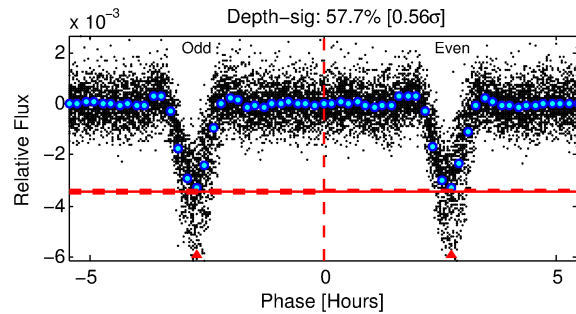
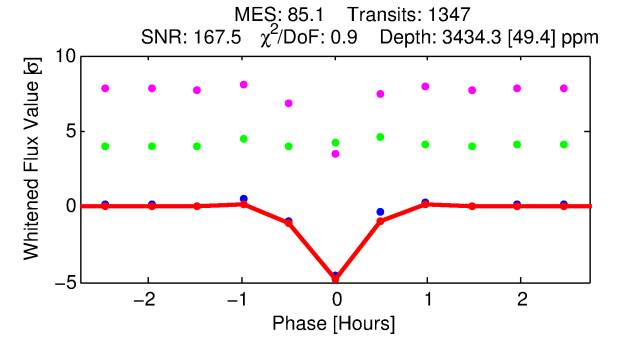
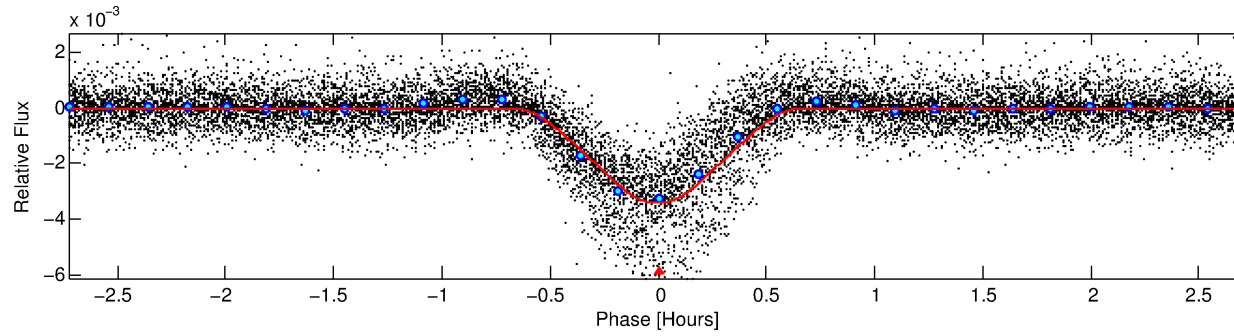
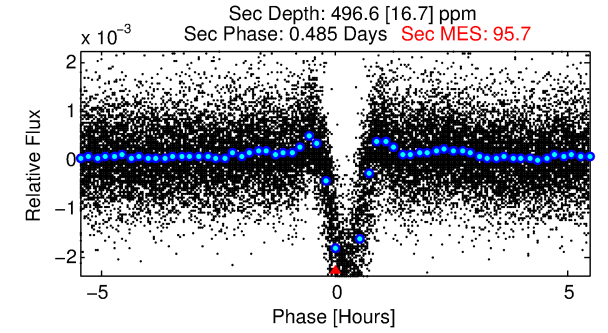
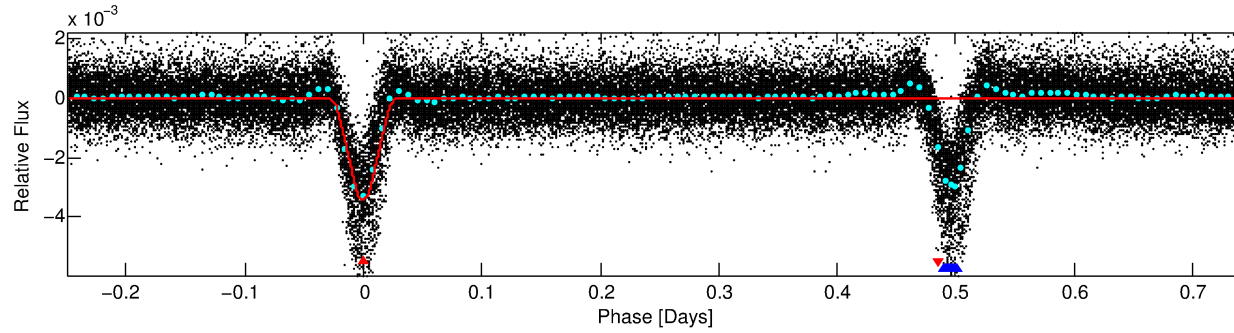
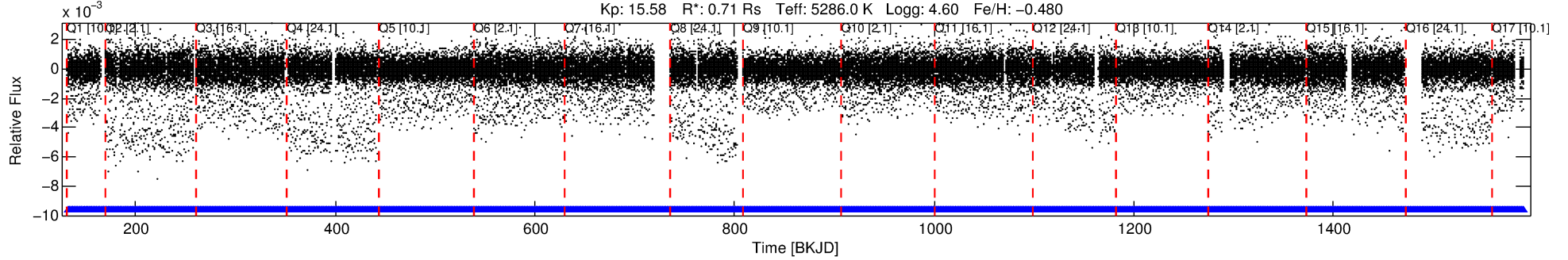
Ephemeris Match Information For 003113266-01

No Significant Match Found

DV One-Page Summary

KIC: 3113266 Candidate: 1 of 2 Period: 0.996 d
KOI: K01088 Corr: No Ephemeris Match

Kp: 15.58 R*: 0.71 Rs Teff: 5286.0 K Logg: 4.60 Fe/H: -0.480



DV Fit Results:

Period = 0.99587 [0.00000] d
Epoch = 132.3439 [0.0001] BKJD
Rp/R* = 0.0654 [0.0021]
a/R* = 4.99 [0.46]
b = 0.89 [0.03]
Seff = 1128.07 [211.31]
Teff = 1478 [69] K
Rp = 5.04 [0.73] Re
a = 0.0176 [0.0019] AU
Ag = 3.33 [0.54] [4.34σ]
Teffp = 3086 [108] K [12.56σ]

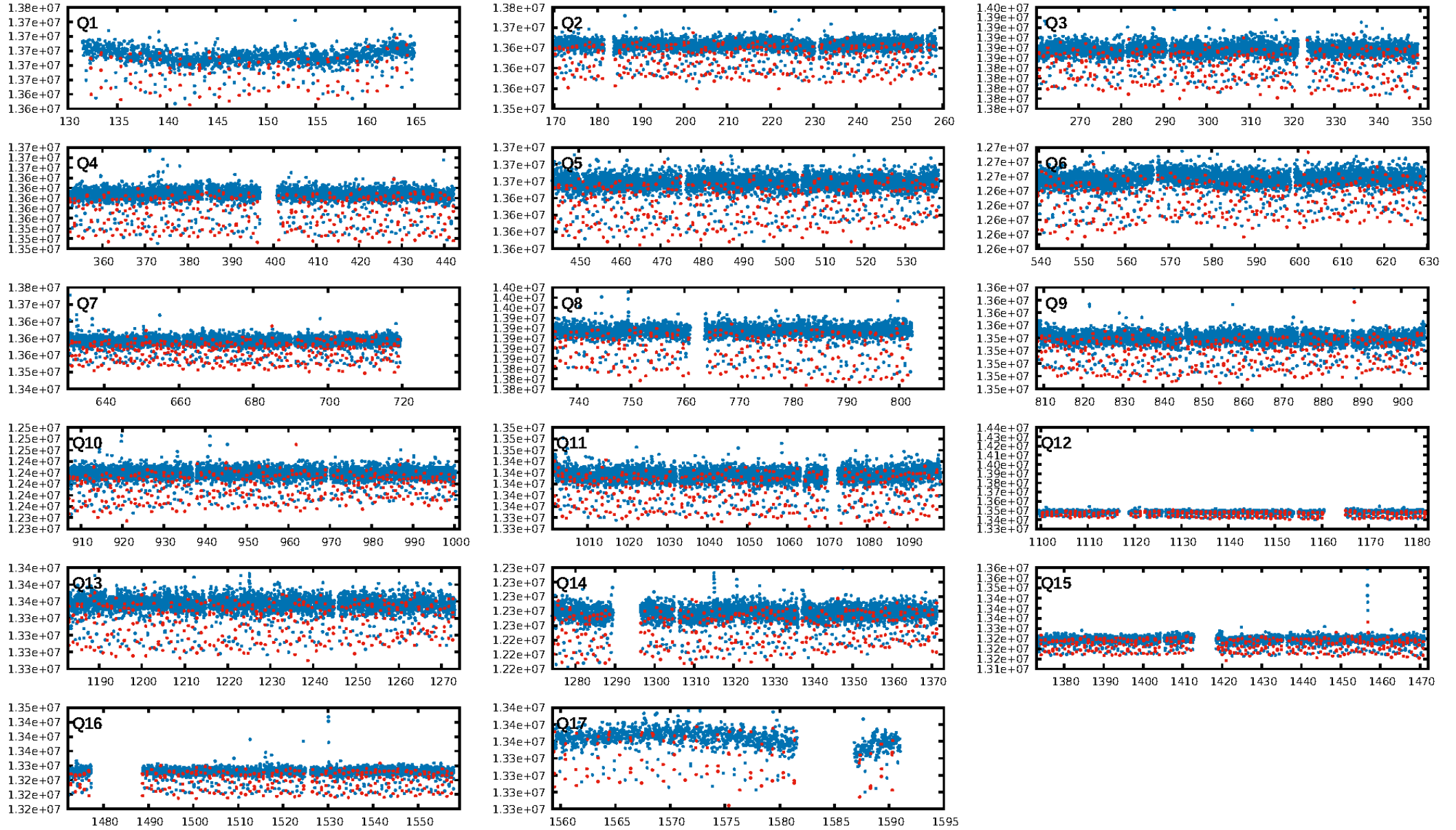
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [1287/1287]
GhostDiagnostic-chr: 1.52
Centroid-sig: 0.0%
Centroid-so: 0.978 arcsec [15.63σ]
OotOffset-rm: 2.002 arcsec [24.04σ]
KicOffset-rm: 1.977 arcsec [28.26σ]
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]

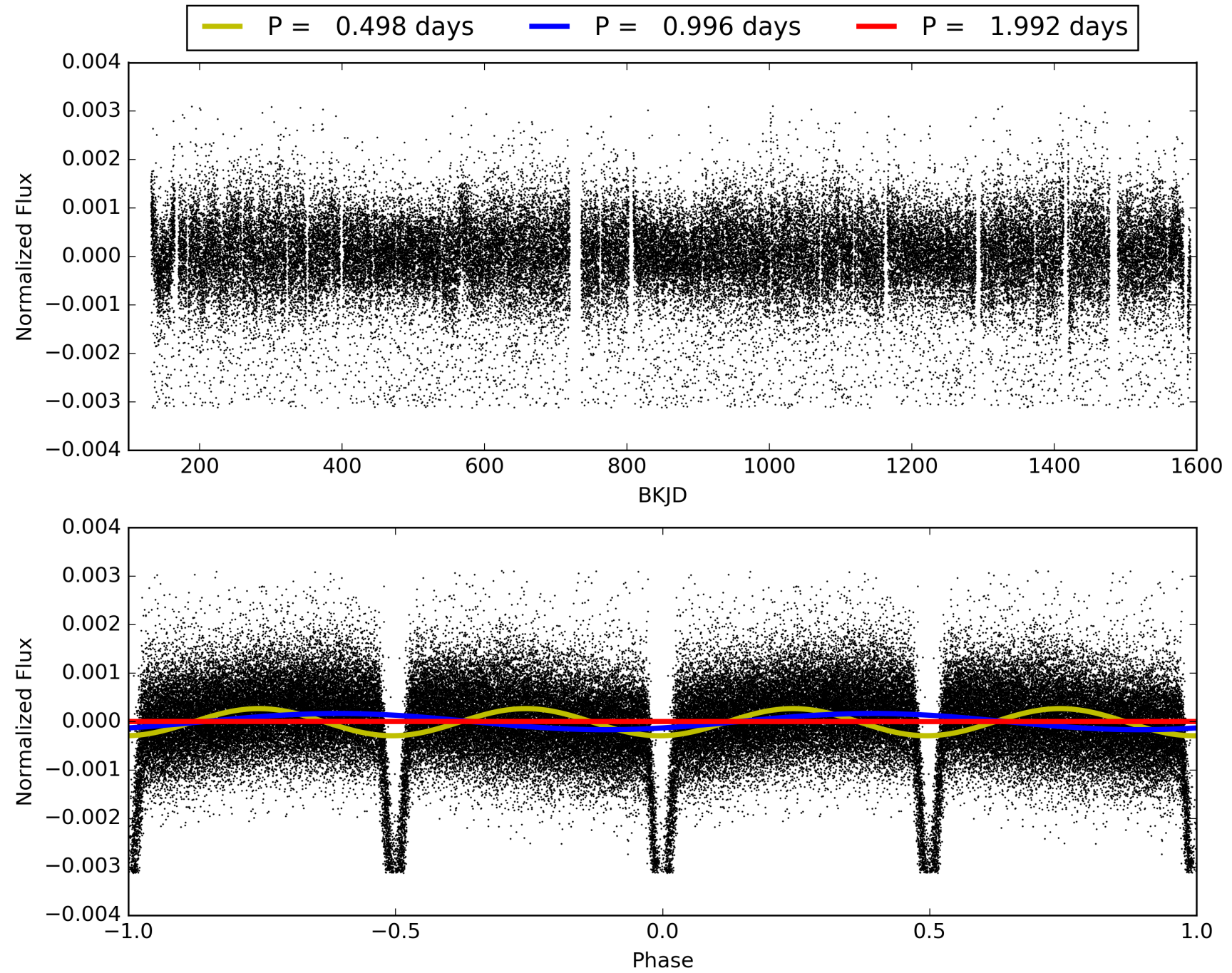
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:06:48 Z

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

TCE 003113266-01, PDC Light Curves

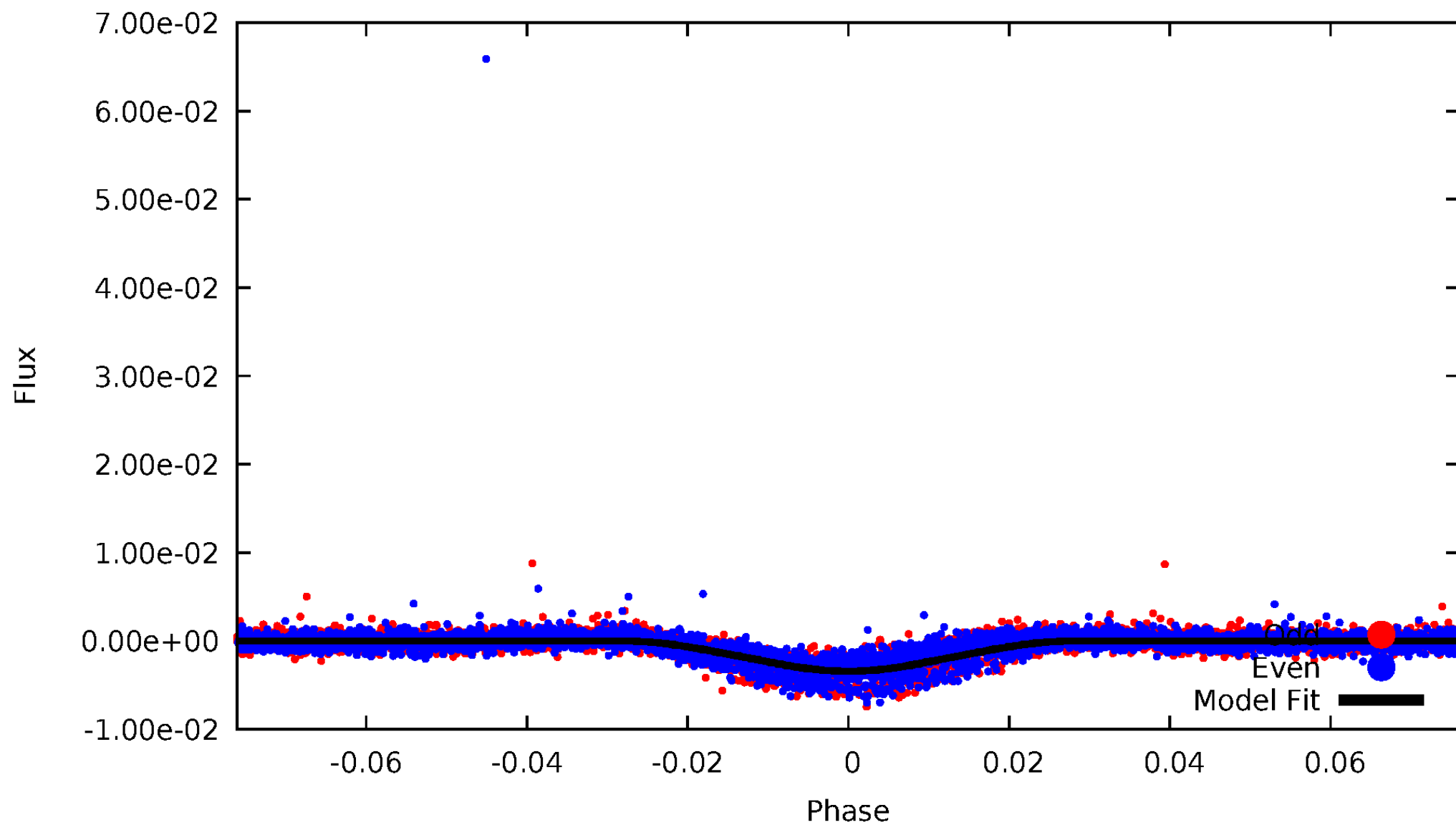


TCE 003113266-01



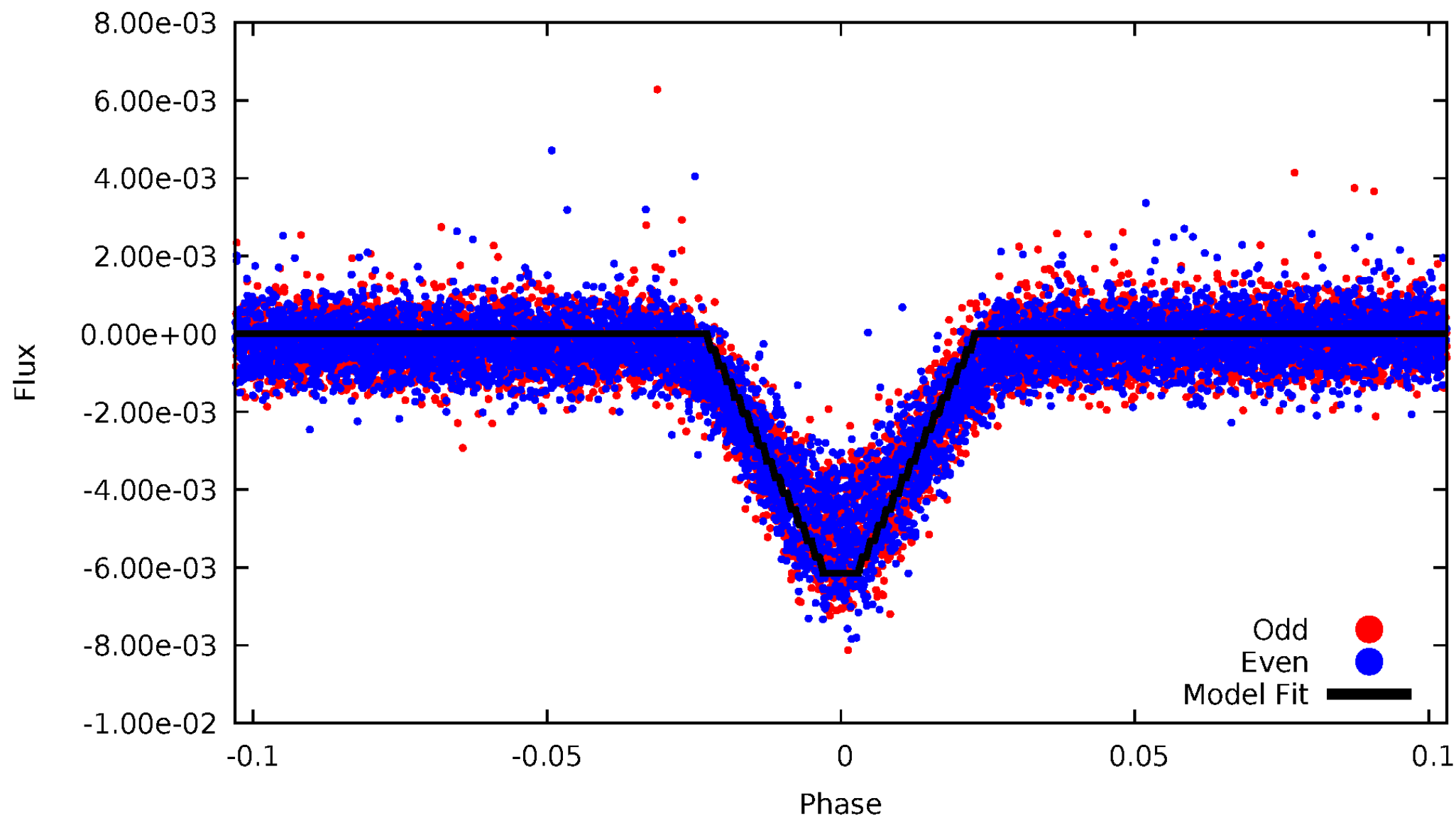
DV Odd/Even

TCE 003113266-01



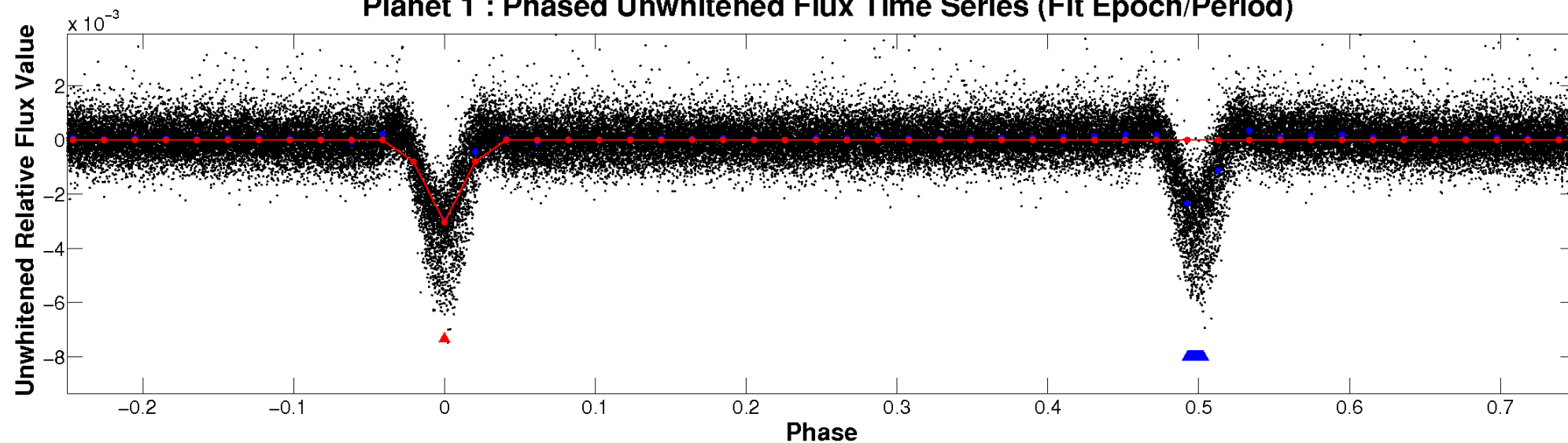
ALT Odd/Even

TCE 003113266-01

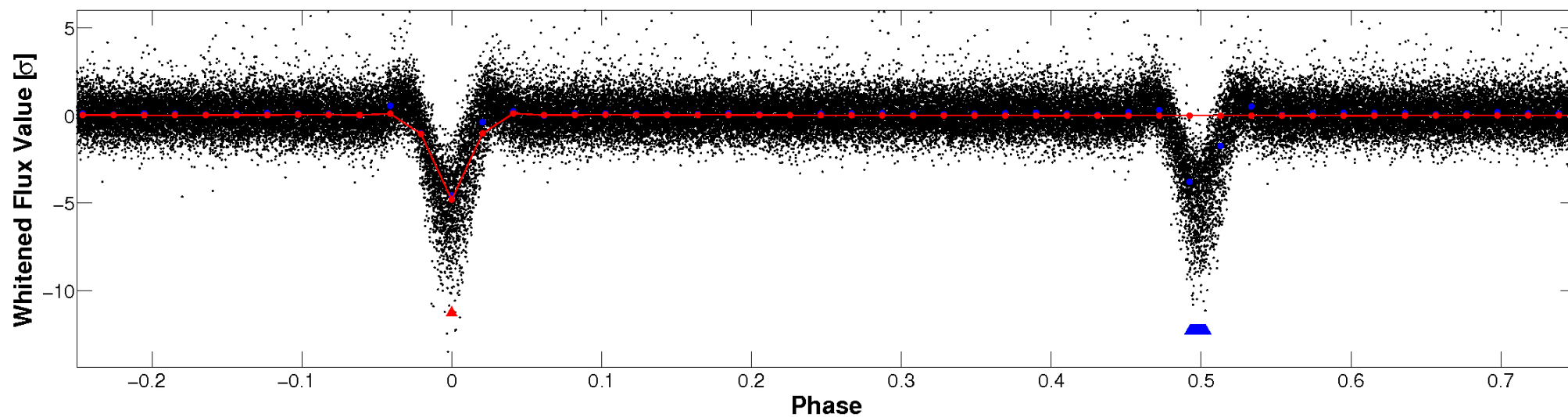


Non-Whitened Vs. Whitened Light Curve

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

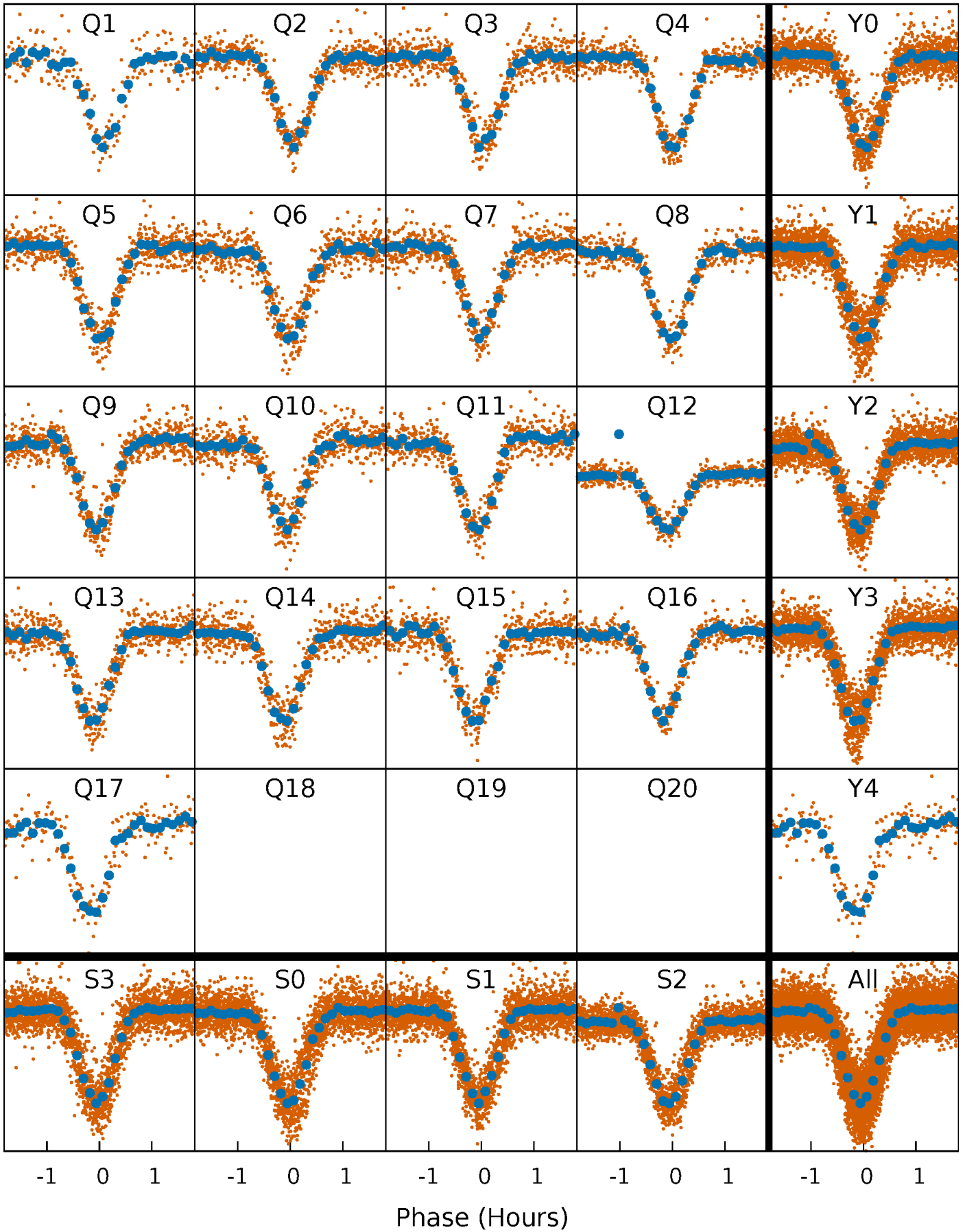


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



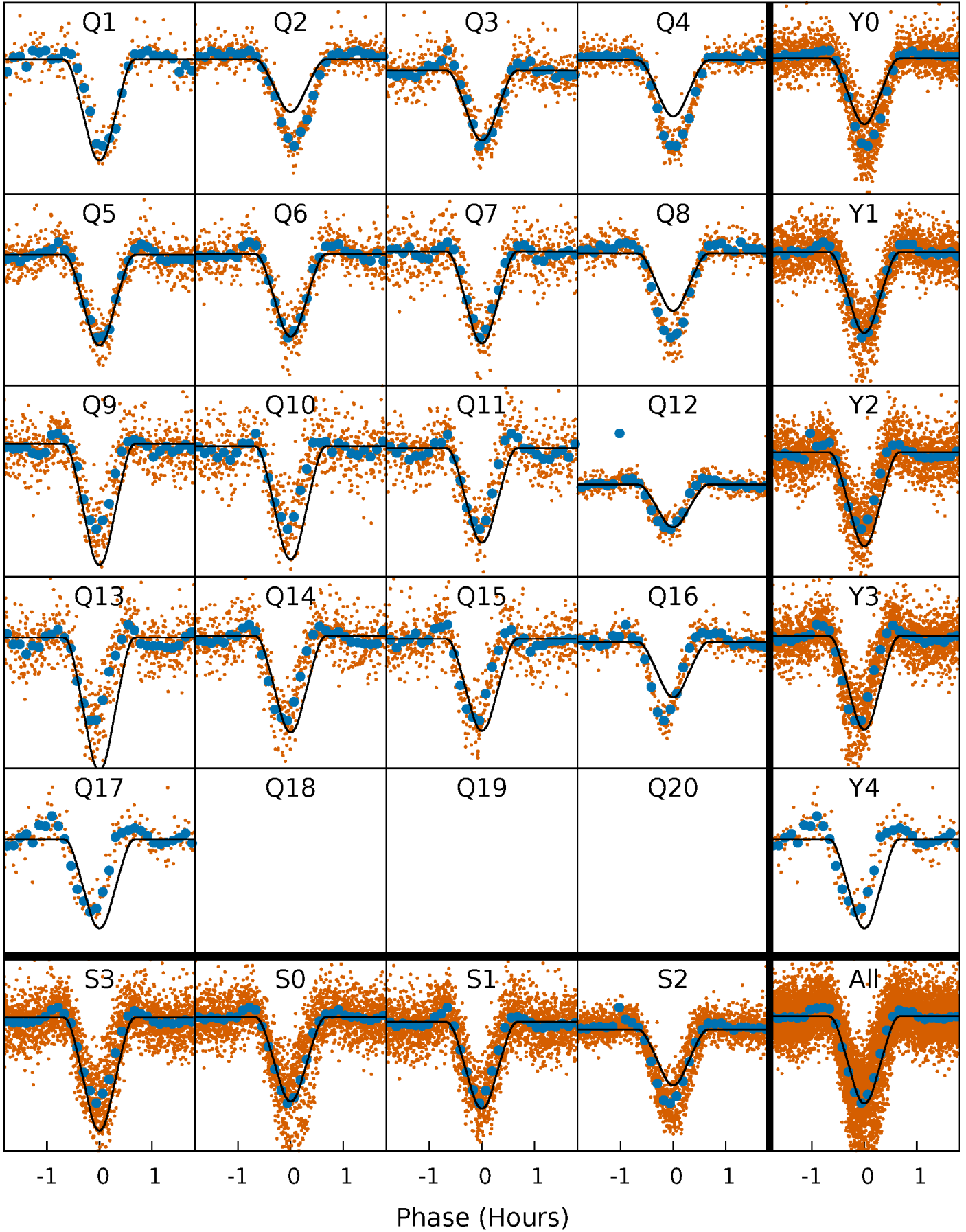
PDC Quarter-Phased Transit Curves

TCE 003113266-01 P= 0.995868 Days $T_0=132.343851$ (BKJD)



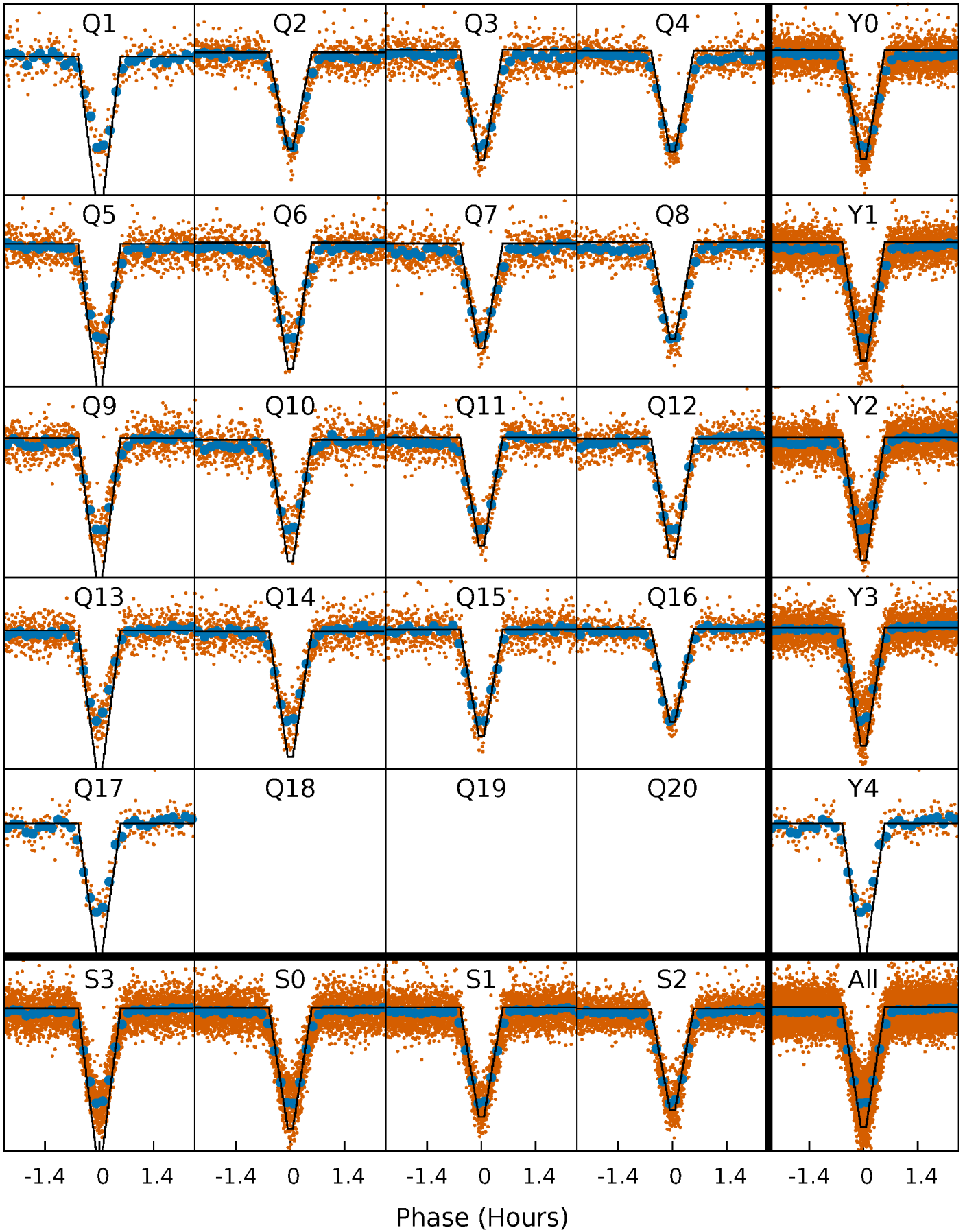
DV Quarter-Phased Transit Curves

TCE 003113266-01 P= 0.995868 Days $T_0=132.343851$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

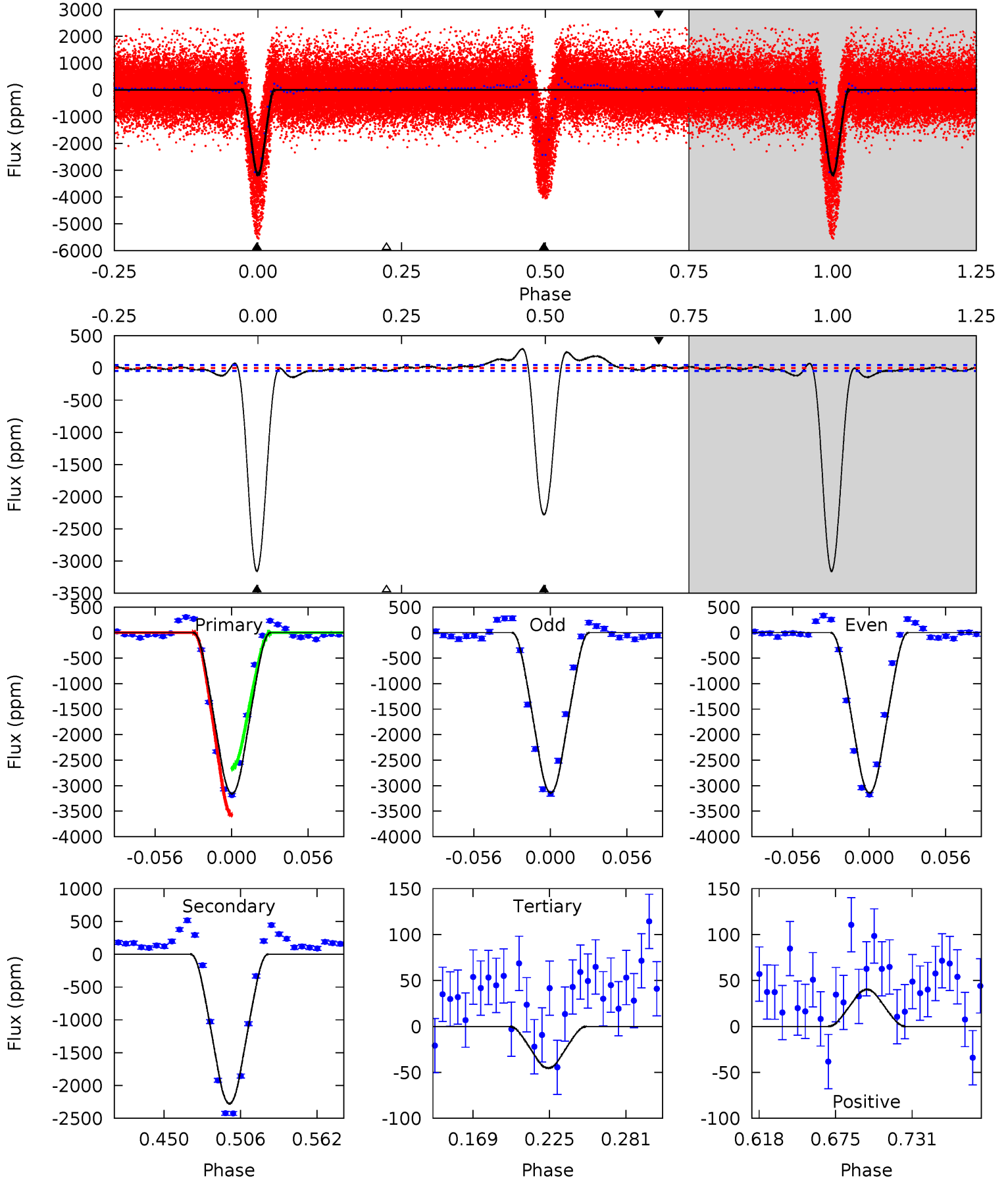
TCE 003113266-01 P= 0.995864 Days $T_0=132.345350$ (BKJD)



DV Model-Shift Uniqueness Test

003113266-01, P = 0.995868 Days, E = 131.347983 Days

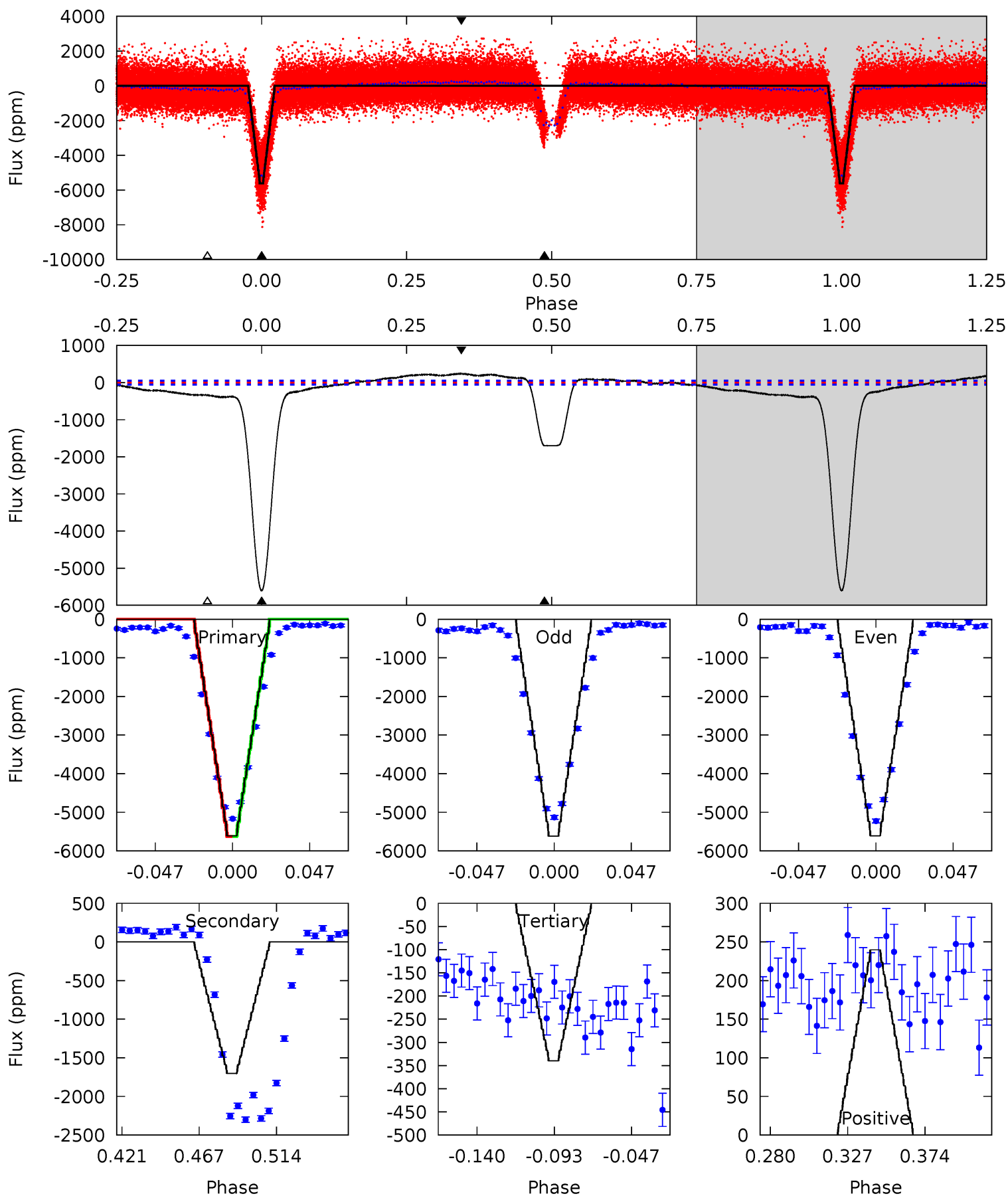
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
323.8	233.5	4.66	4.12	4.68	1.91	6.22	319.2	319.7	228.8	229.3	0.10	1.07	0.09	47.6



Alt Model-Shift Uniqueness Test

003113266-01, P = 0.995864 Days, E = 131.349486 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
486.2	147.6	29.5	20.8	4.72	1.99	15.8	456.7	465.4	118.1	126.8	0.44	1.00	0.04	0.04



Stellar Parameters For KIC 003113266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5286^{+158}_{-158}	$4.604^{+0.045}_{-0.071}$	$-0.480^{+0.300}_{-0.300}$	$0.706^{+0.100}_{-0.062}$	$0.731^{+0.088}_{-0.059}$	$2.921^{+0.629}_{-0.742}$
	+3%/-3%	+1%/-2%	+62%/-62%	+14%/-9%	+12%/-8%	+22%/-25%
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 003113266-01 / KOI 1088.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2277 ± 10	$5.09^{+0.40}_{-0.30}$	2077^{+85}_{-79}	4613^{+140}_{-132}	15^{+2}_{-2}
Alt.	-1703 ± 12	$6.10^{+0.45}_{-0.37}$	2072^{+90}_{-78}	4064^{+105}_{-111}	$7.785^{+0.883}_{-0.843}$

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 $A_{obs} \gg 1.0$

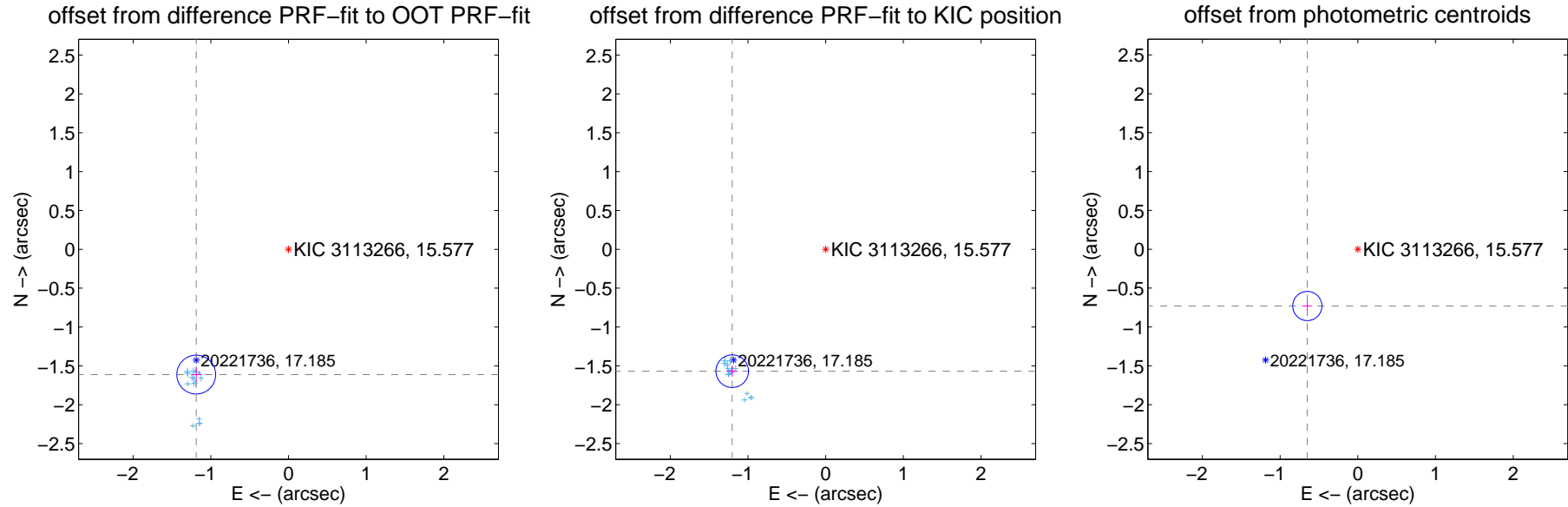
DV Centroid Data

Supplemental centroid analysis for 003113266-01. Kepler magnitude: 15.58. Transit SNR 167.46

There are 17 quarters with good PRF difference image offsets

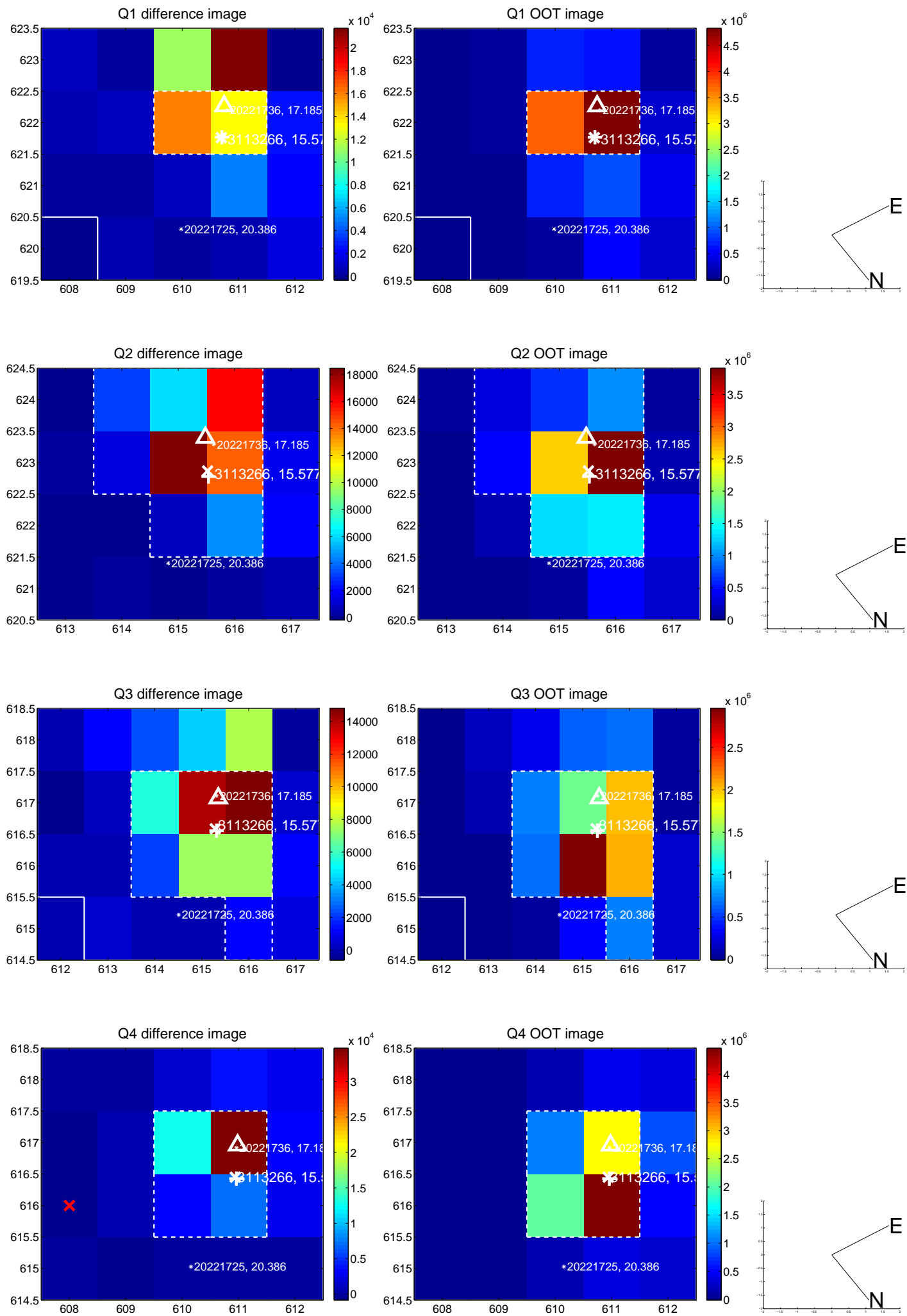
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.002 ± 0.083	24.04	1.188 ± 0.068	-1.612 ± 0.093
PRF-fit source offset from KIC position	1.977 ± 0.070	28.26	1.203 ± 0.071	-1.568 ± 0.070
photometric centroid source offset	0.98 ± 0.06	15.63	0.65 ± 0.06	-0.73 ± 0.06

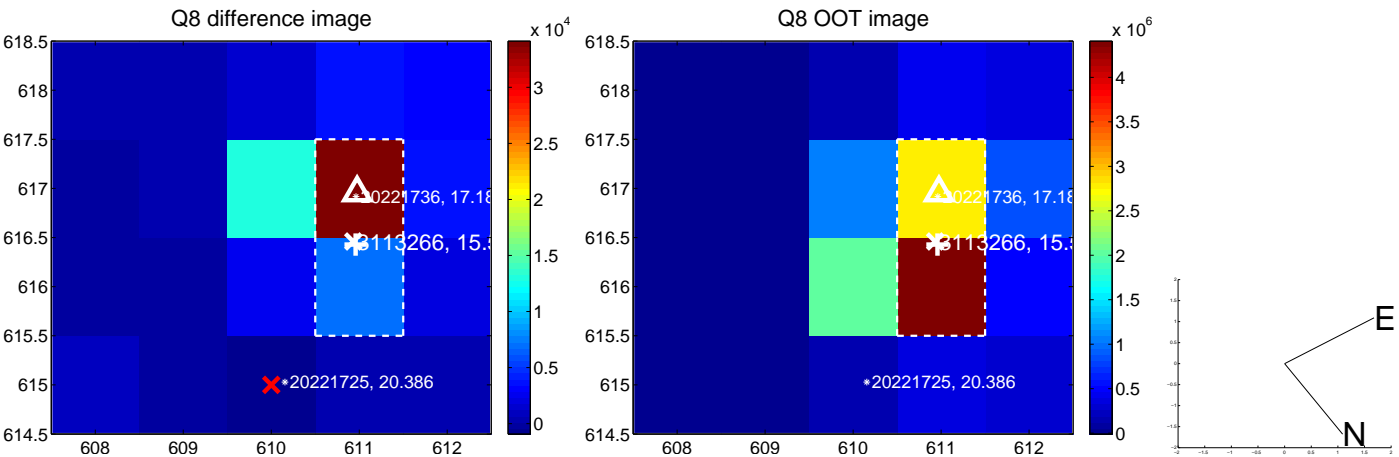
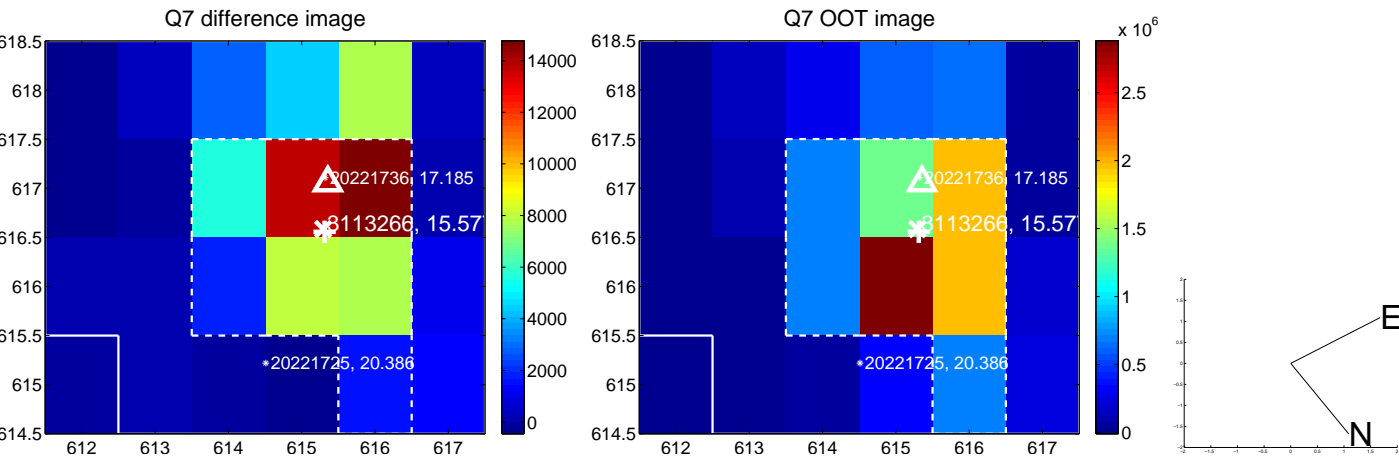
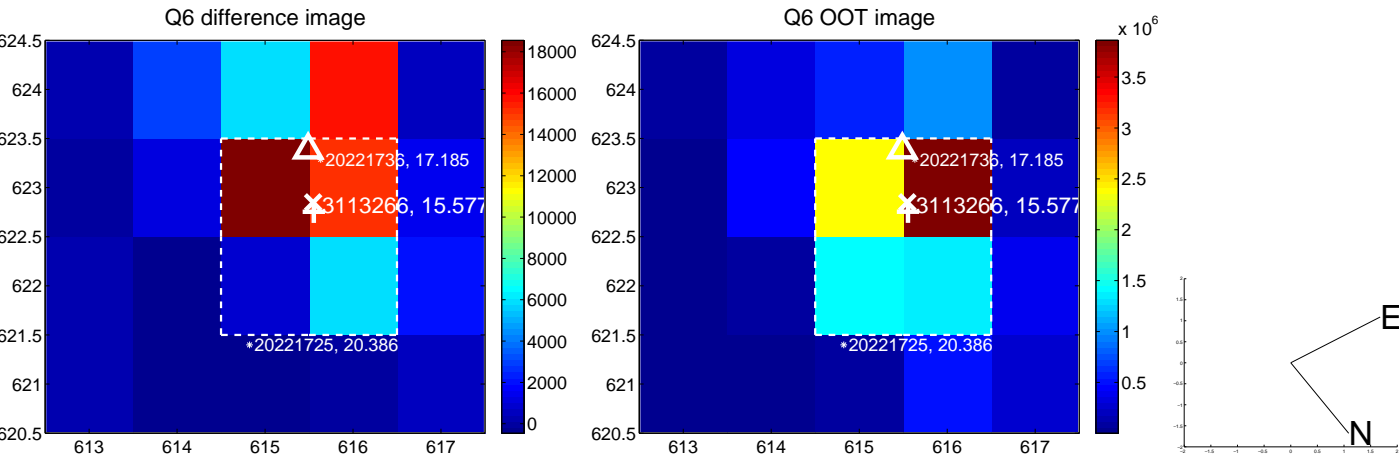
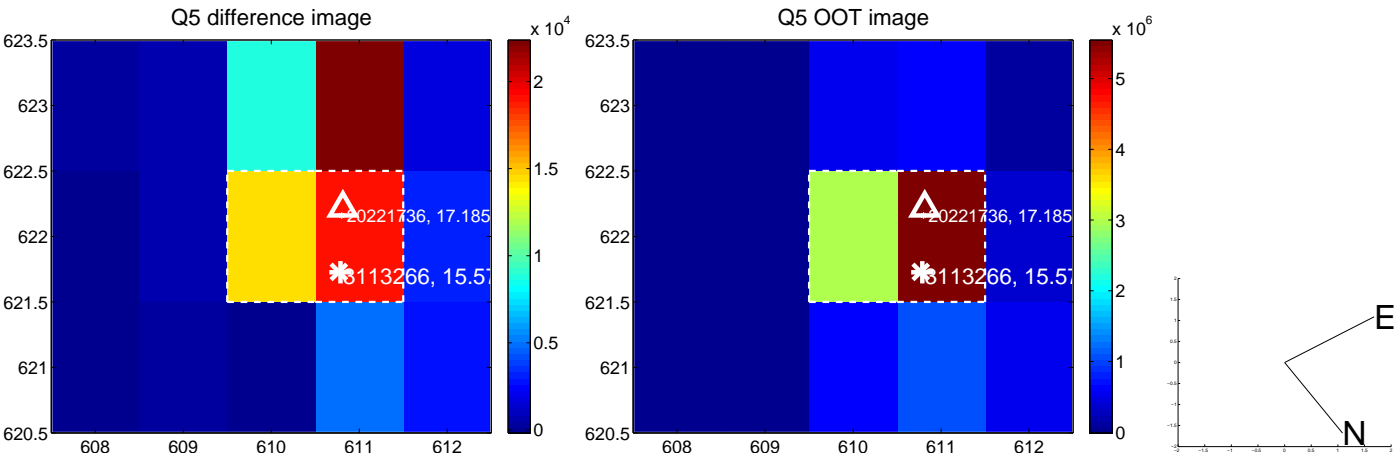


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

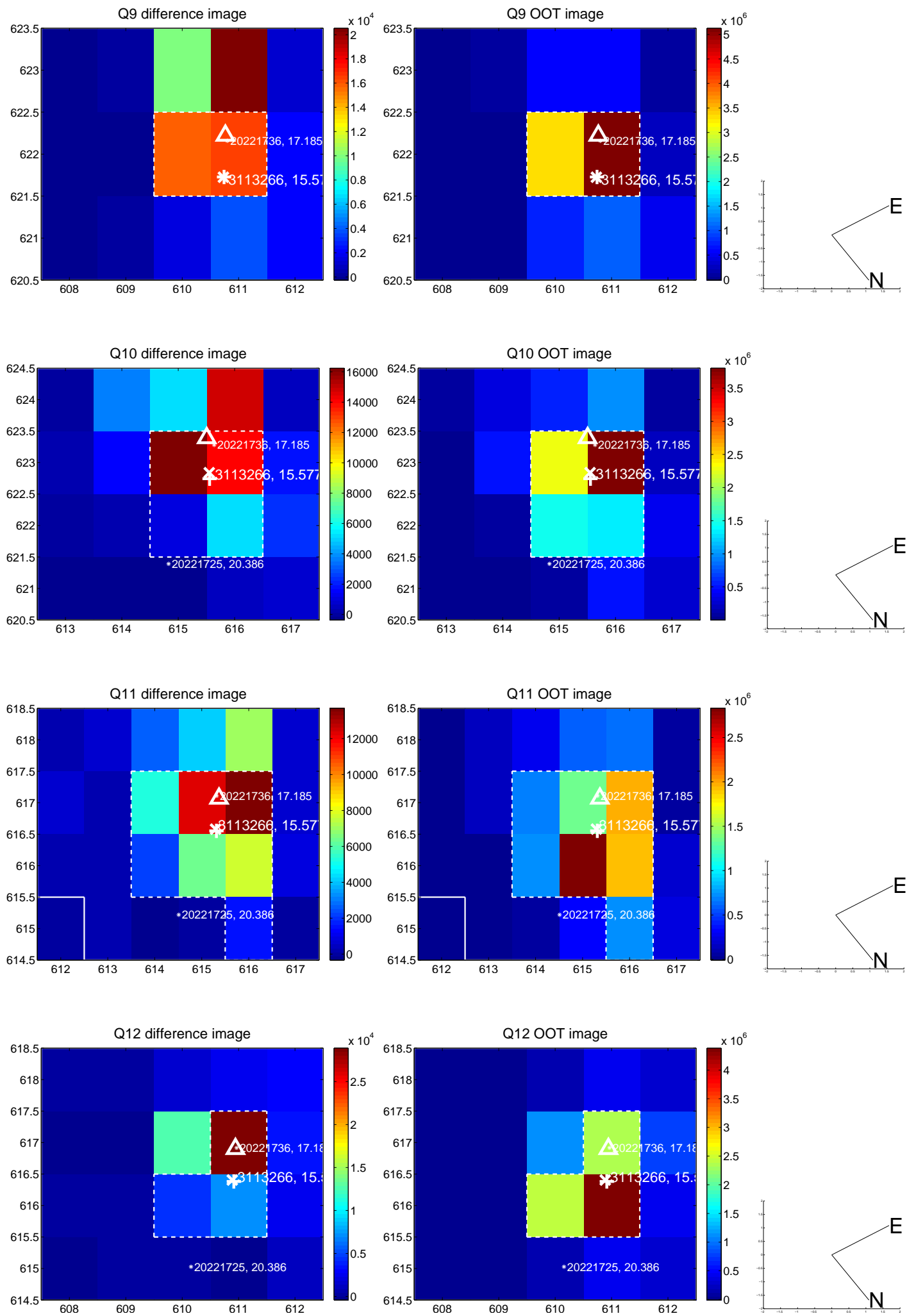
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



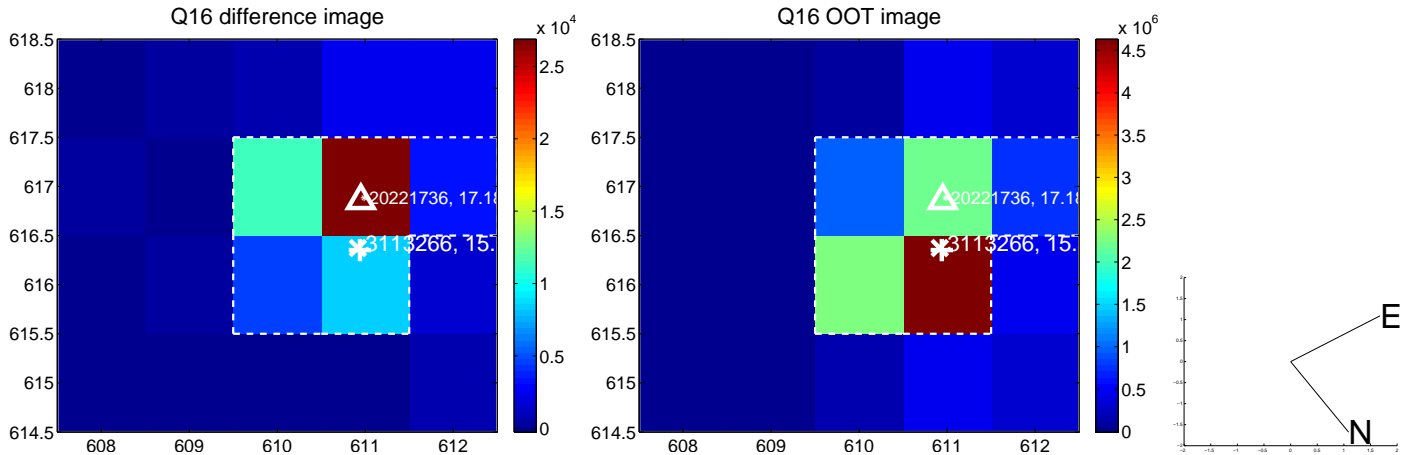
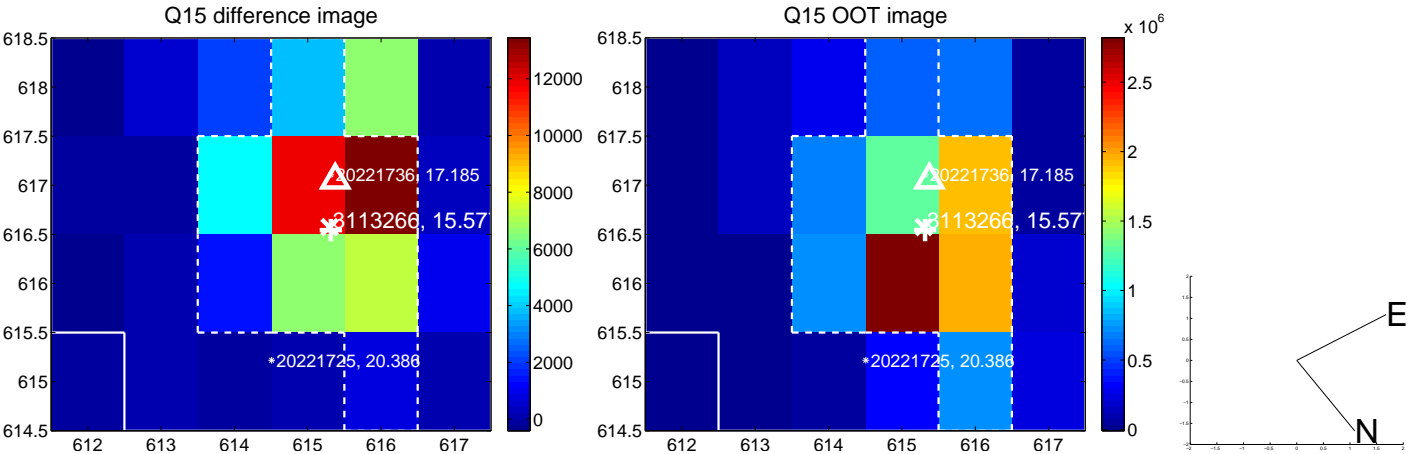
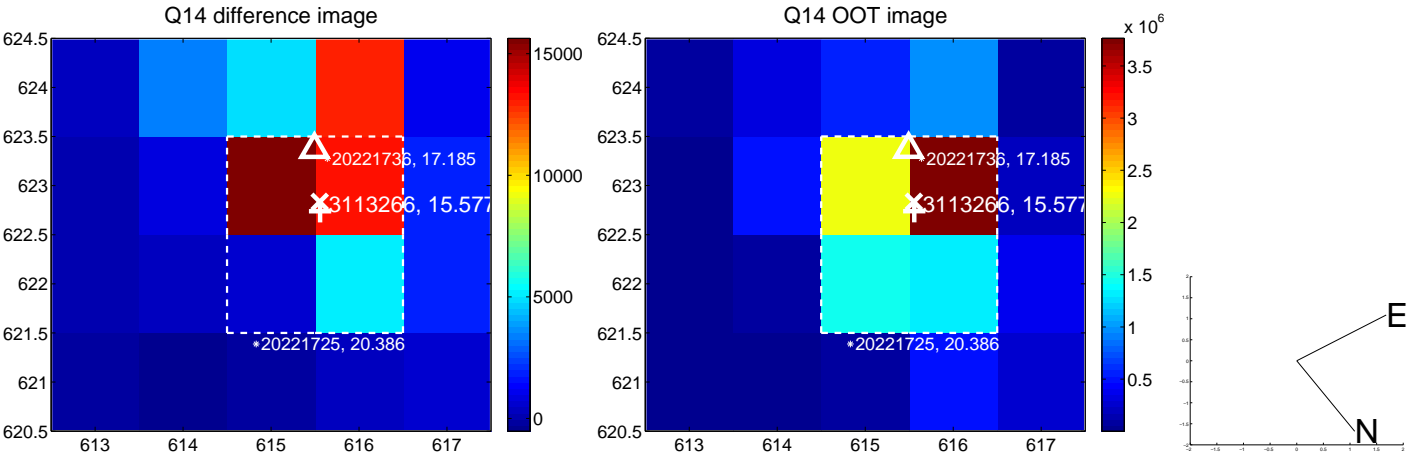
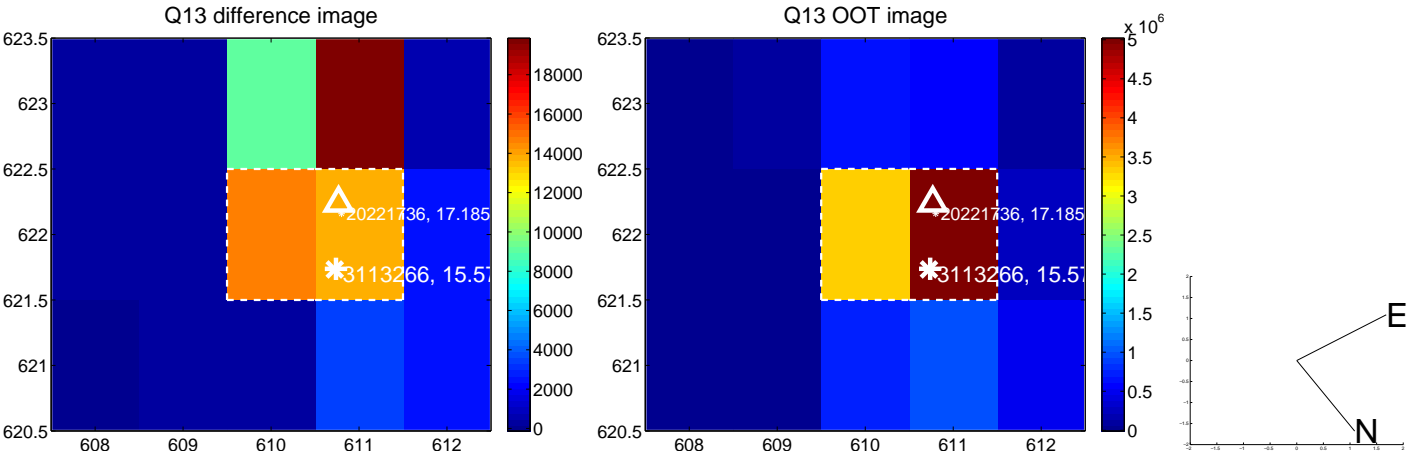
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



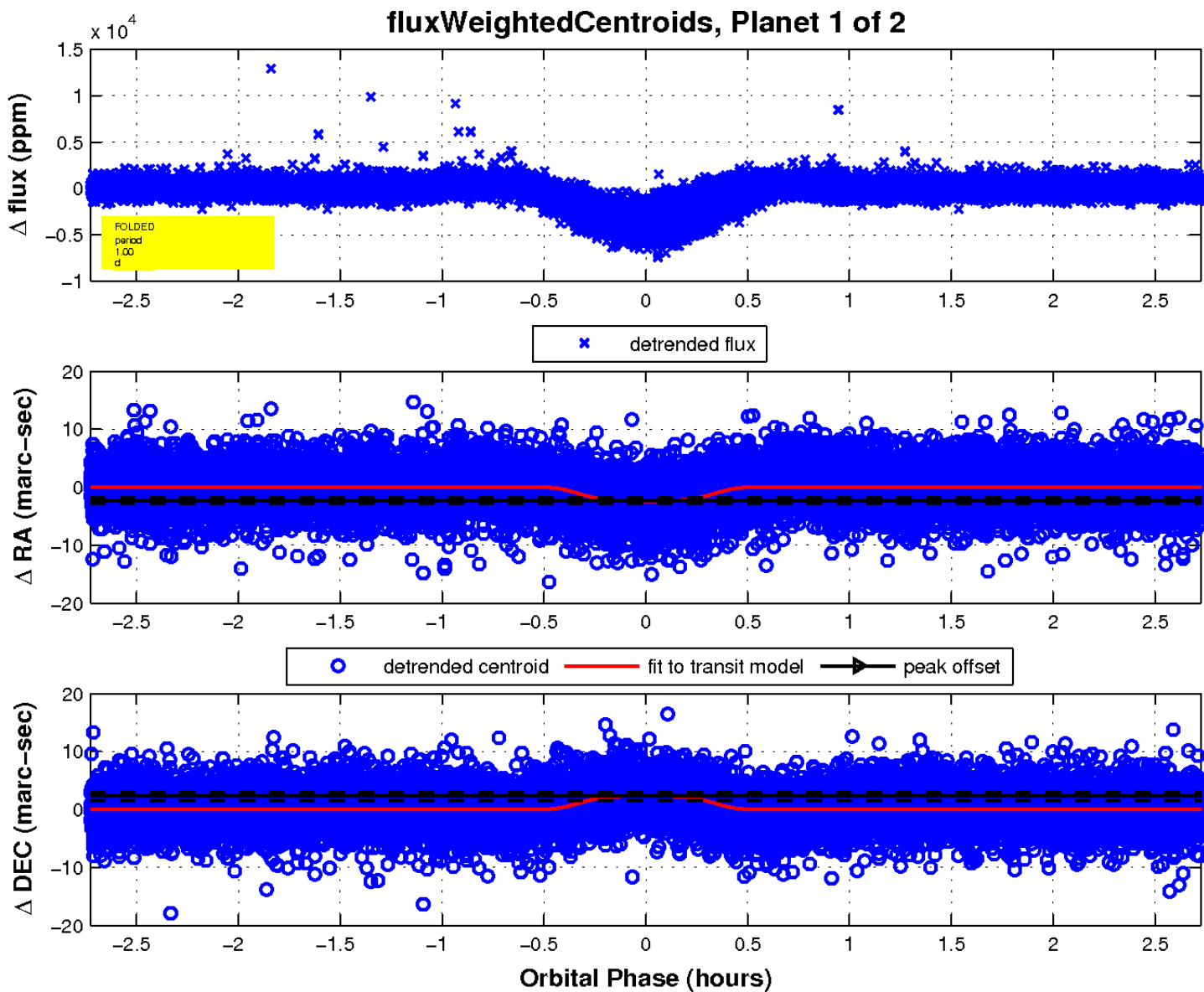
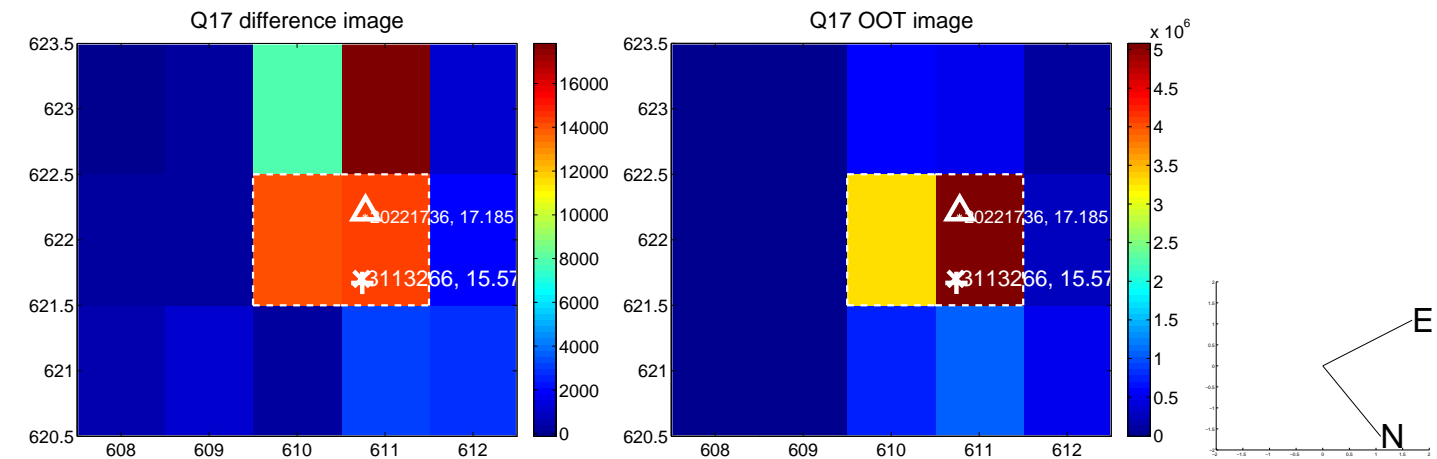
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

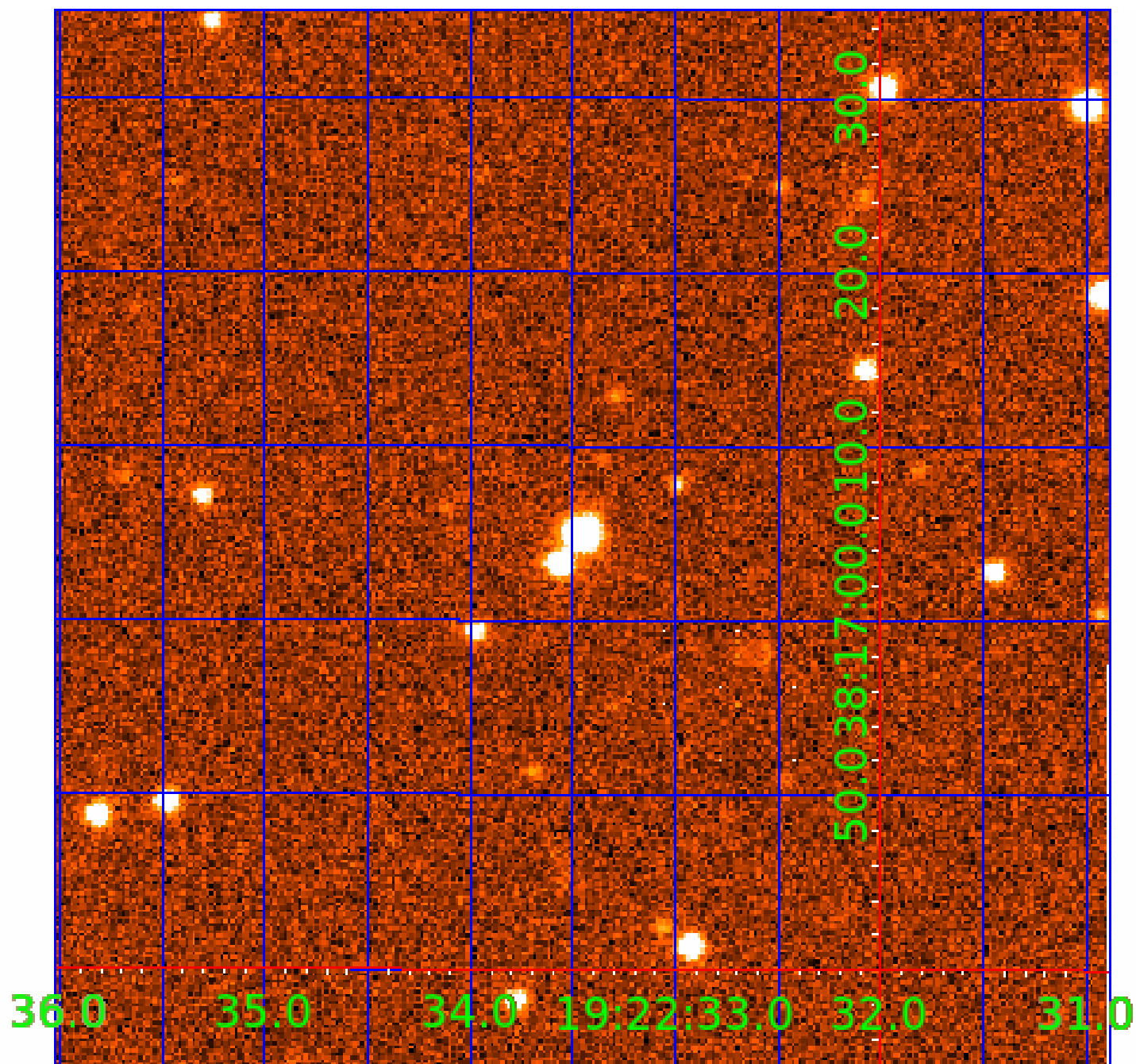


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 003113266

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})
003113266-01	OBS	1088.01	0.995868	132.343851	3434.3	0.909	85.1	167.5	0.71	5286	5.04	1128.07
003113266-02	OBS	No	0.995861	131.848876	3074.2	0.762	134.2	157.3	0.71	5286	4.92	1128.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003113266-01	OBS	FP	0.00	0	1	1	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE—CENT_UNRESOLVED_OFFSET
003113266-02	OBS	FP	0.00	1	1	1	0	IS_SEC_TCE—CENT_UNRESOLVED_OFFSET

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.

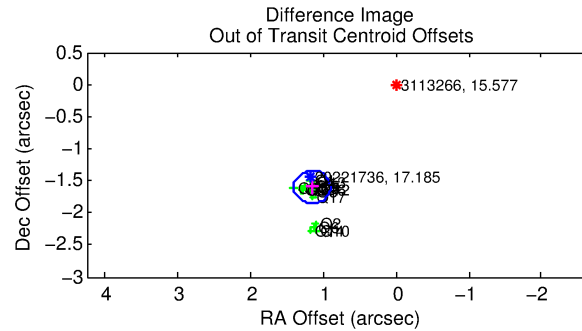
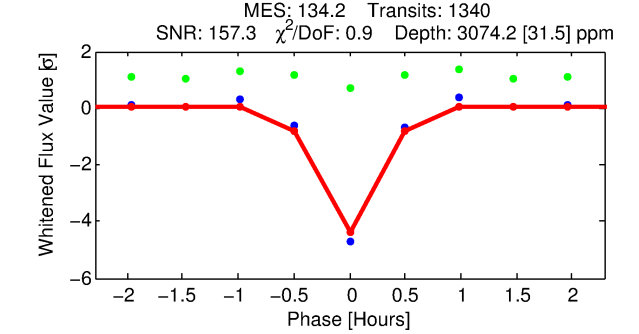
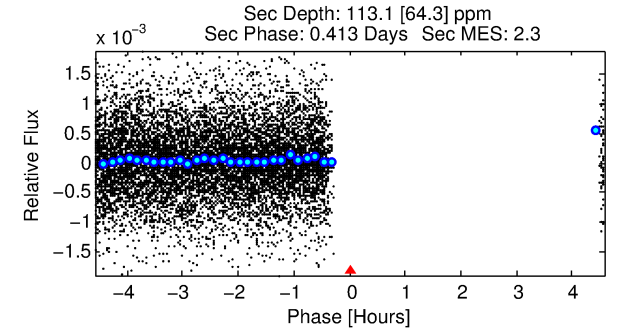
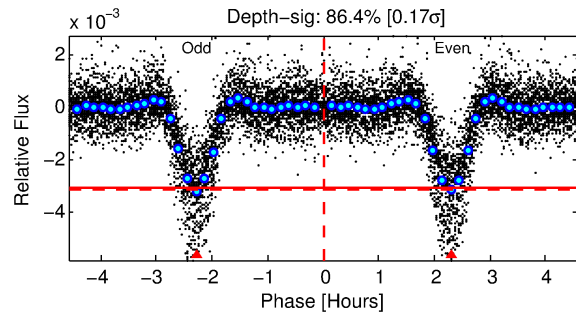
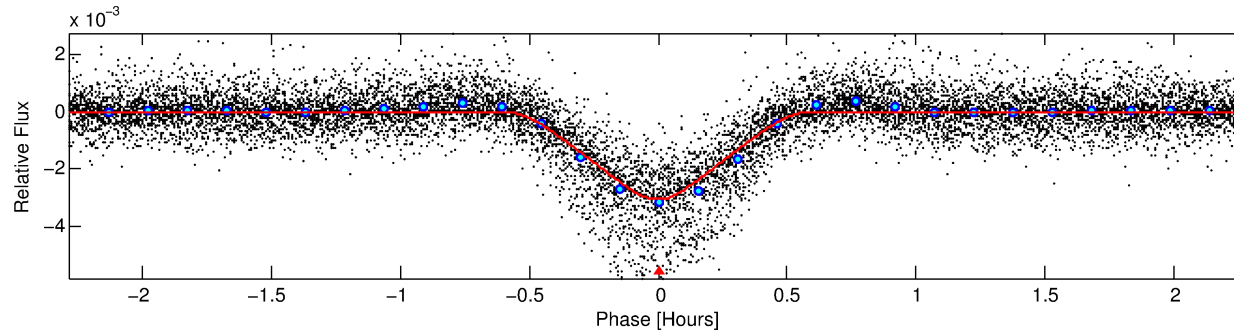
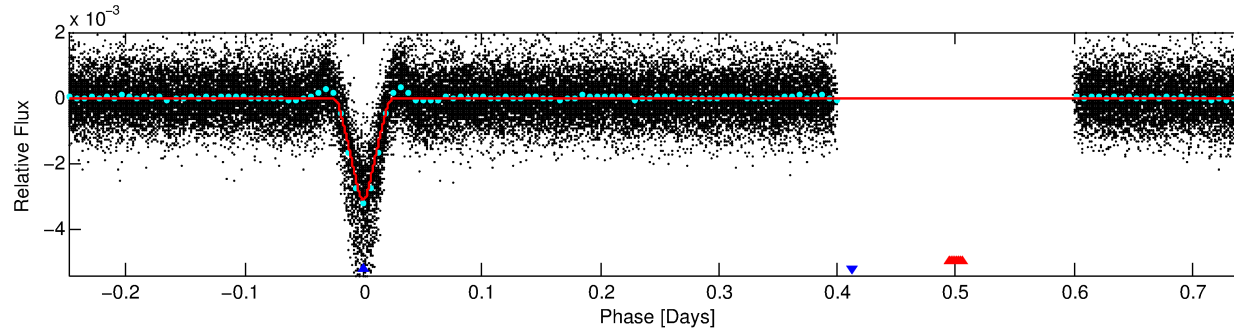
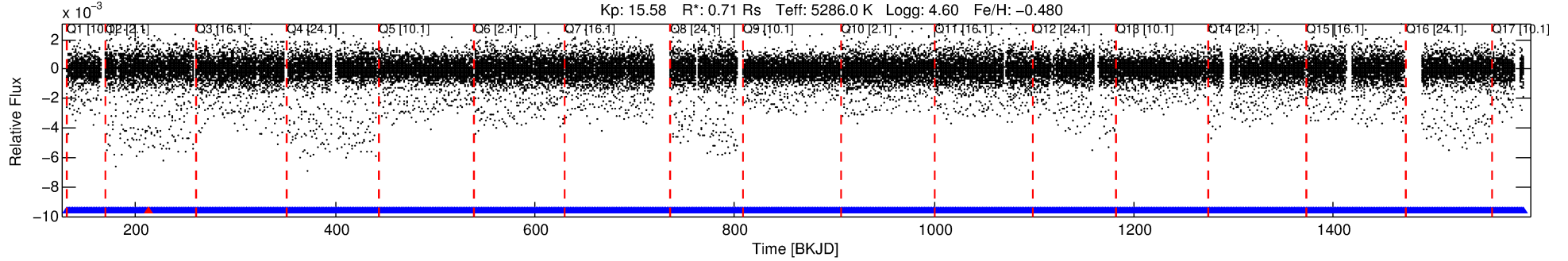
Ephemeris Match Information For 003113266-02

No Significant Match Found

DV One-Page Summary

KIC: 3113266 Candidate: 2 of 2 Period: 0.996 d
KOI: K01088 Corr: No Ephemeris Match

Kp: 15.58 R*: 0.71 Rs Teff: 5286.0 K Logg: 4.60 Fe/H: -0.480



DV Fit Results:

Period = 0.99586 [0.00000] d
Epoch = 131.8489 [0.0001] BKJD
Rp/R* = 0.0638 [0.0024]
a/R* = 5.74 [0.56]
b = 0.90 [0.02]
Seff = 1128.08 [211.32]
Teq = 1478 [69] K
Rp = 4.92 [0.72] Re
a = 0.0176 [0.0019] AU
Ag = 0.80 [0.47] [-0.43σ]
Teffp = 2158 [316] K [2.10σ]

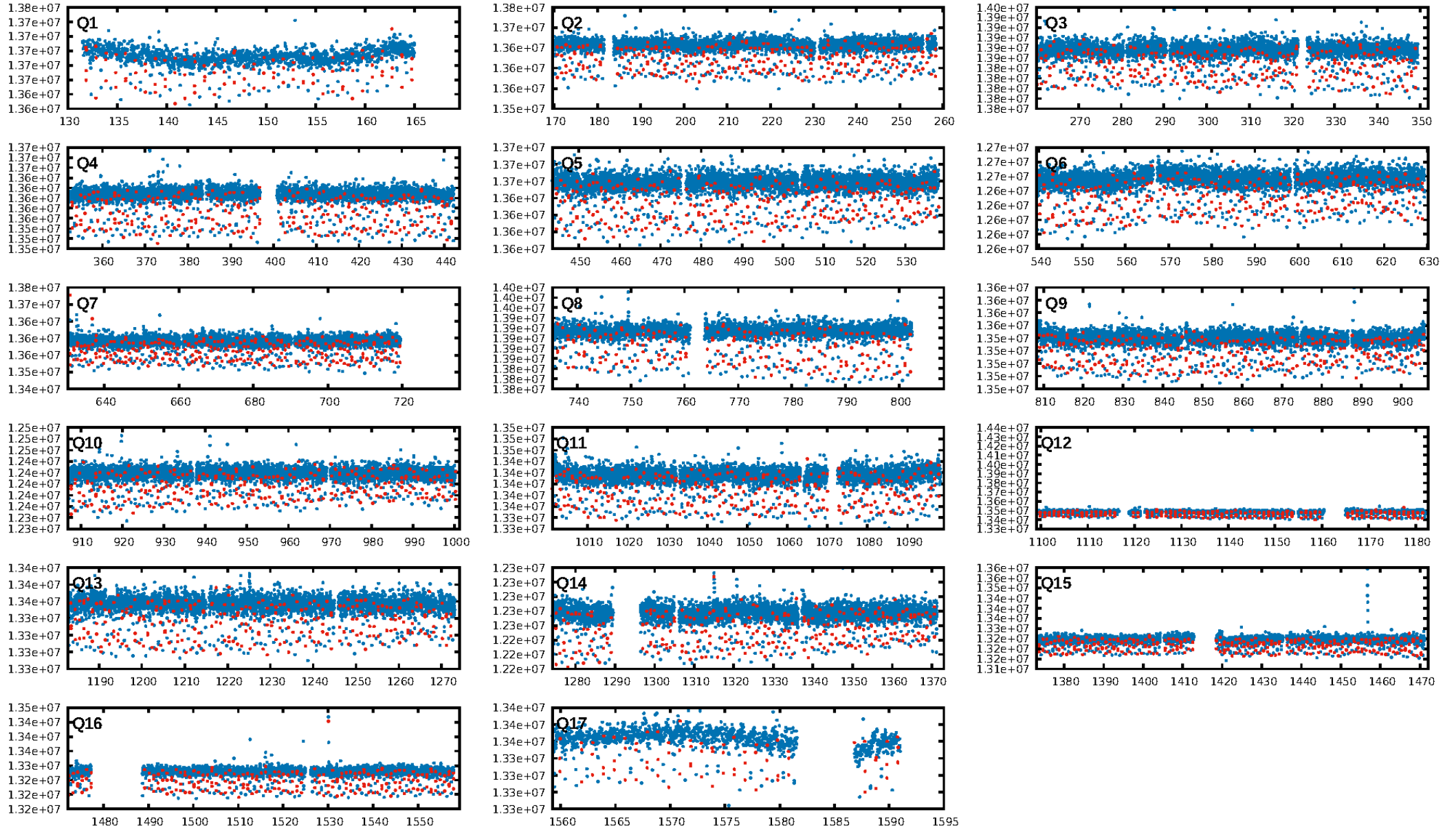
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [1279/1280]
GhostDiagnostic-chr: 1.923
Centroid-sig: 0.0%
Centroid-so: 0.775 arcsec [10.28σ]
OotOffset-rm: 1.973 arcsec [23.44σ]
KicOffset-rm: 1.941 arcsec [27.31σ]
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]

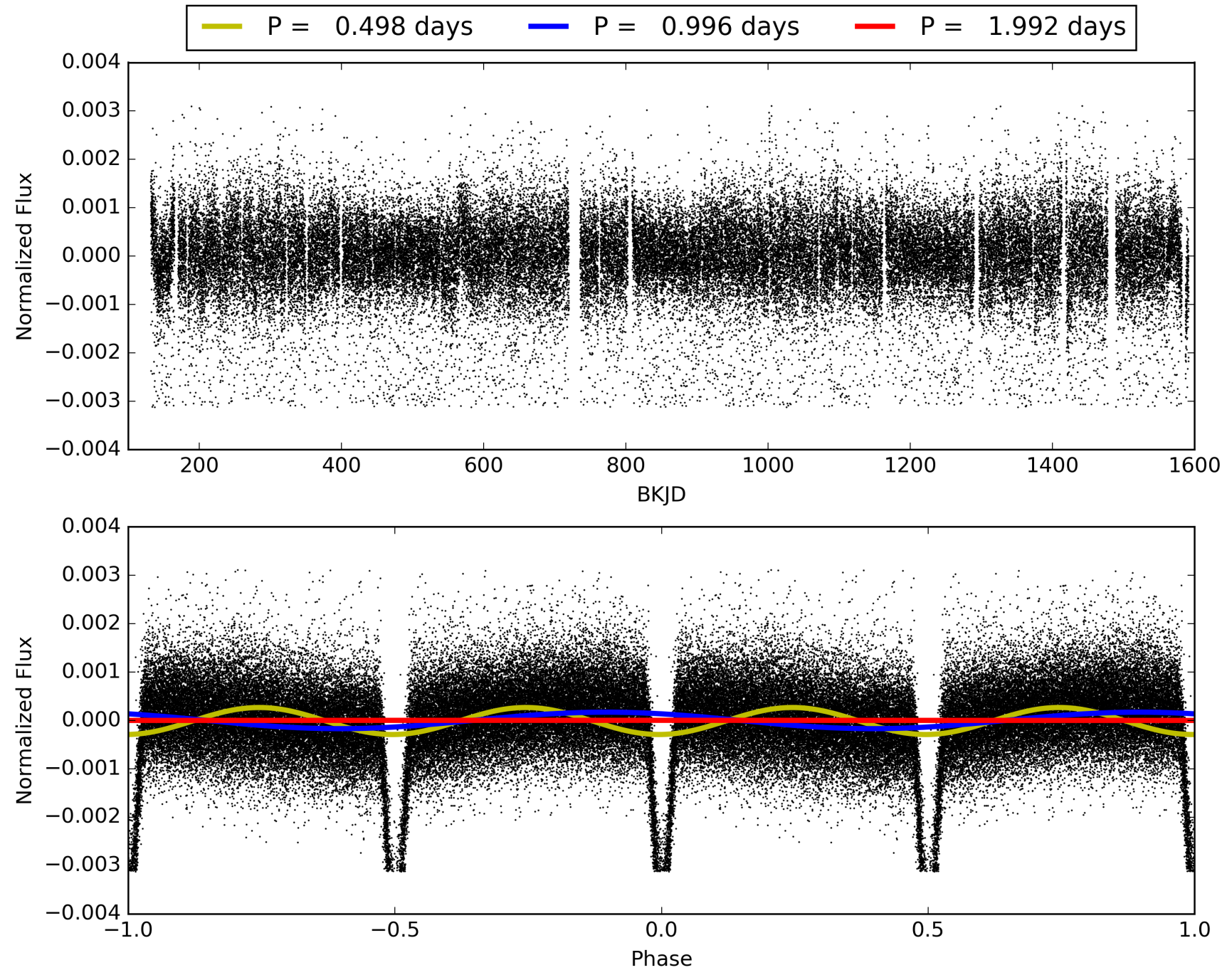
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 07:06:56 Z

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

TCE 003113266-02, PDC Light Curves

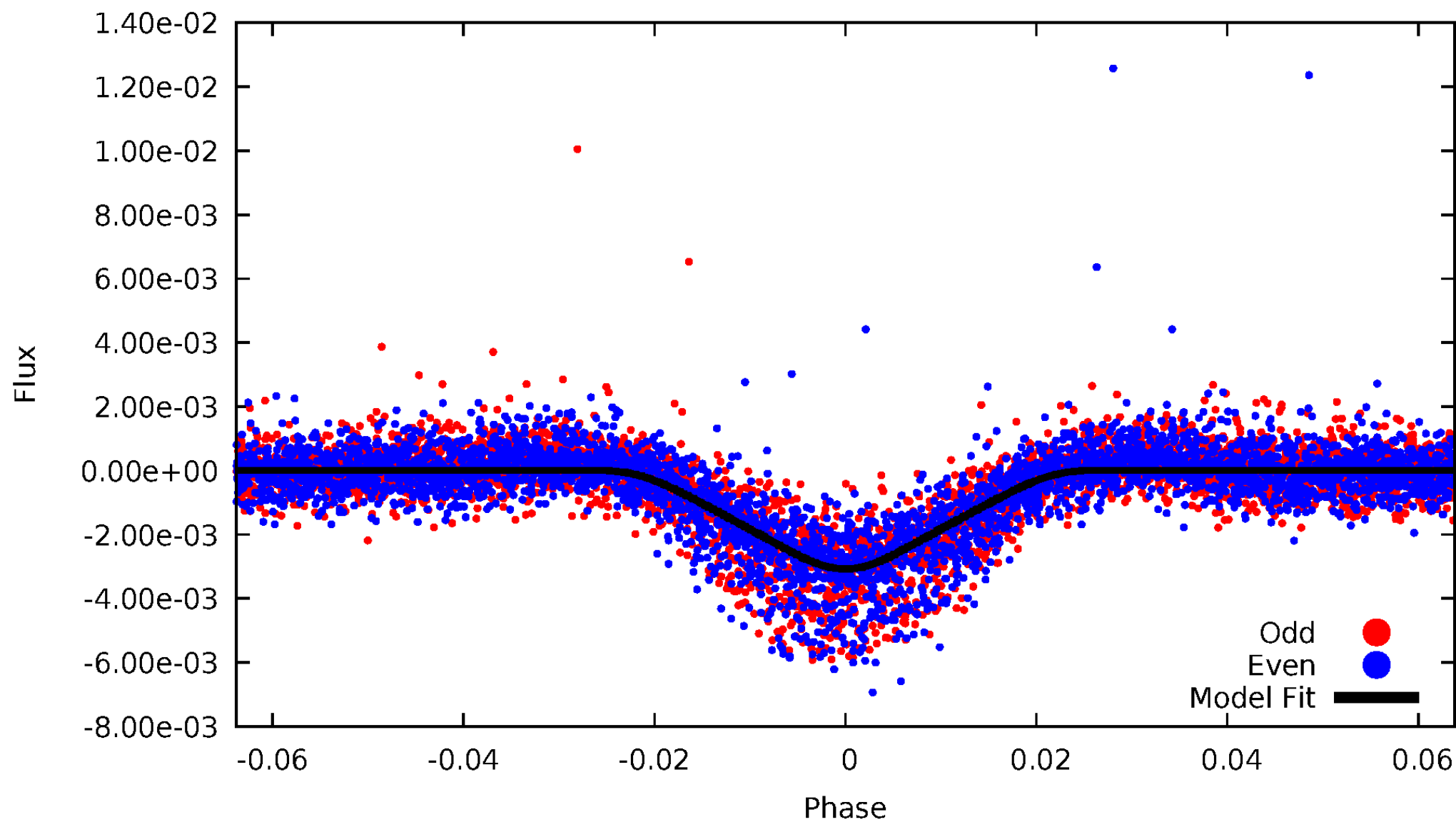


TCE 003113266-02



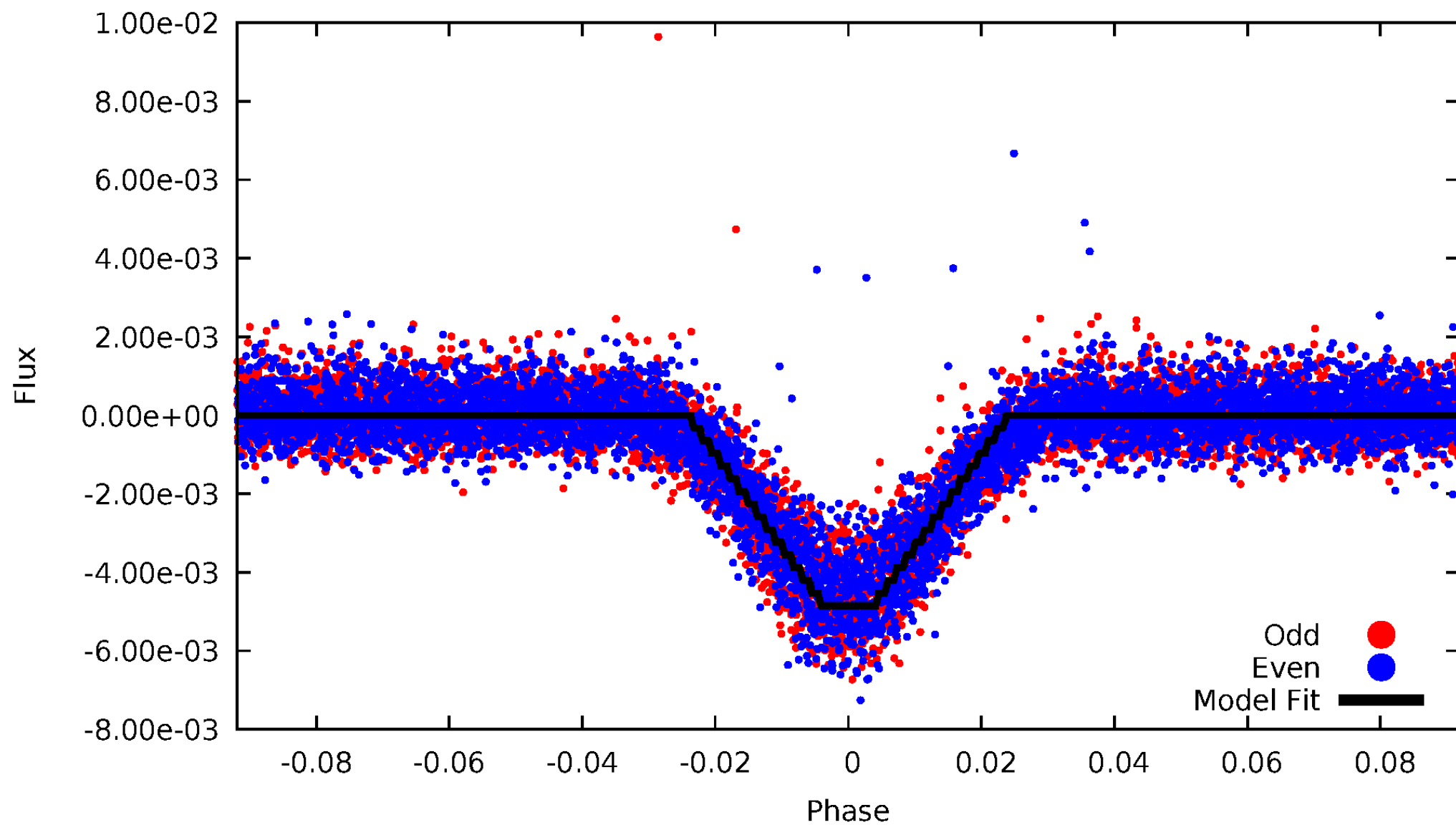
DV Odd/Even

TCE 003113266-02



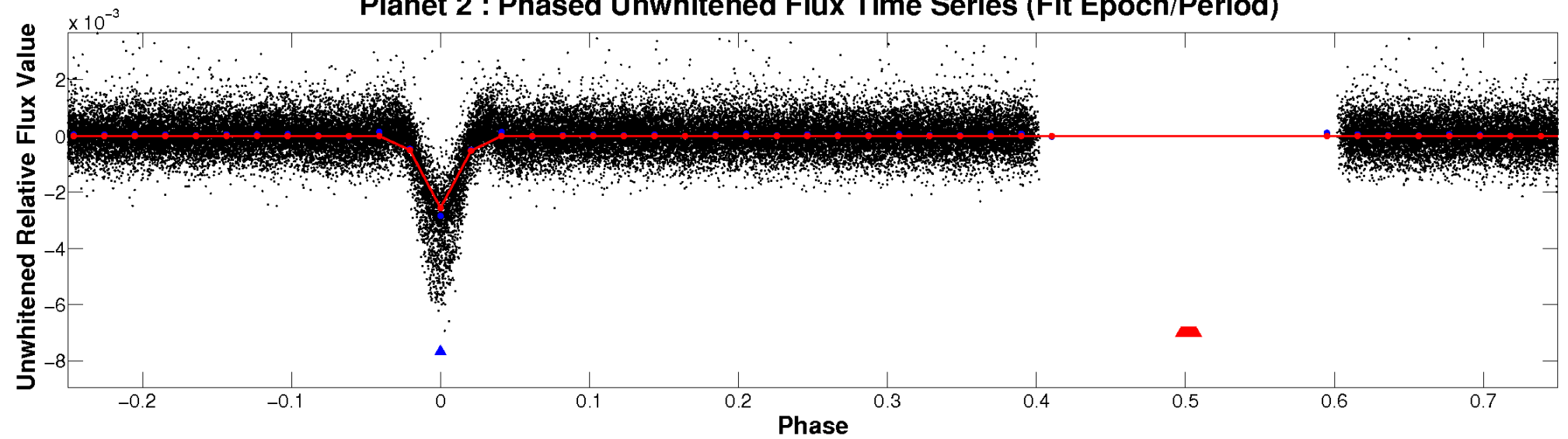
ALT Odd/Even

TCE 003113266-02

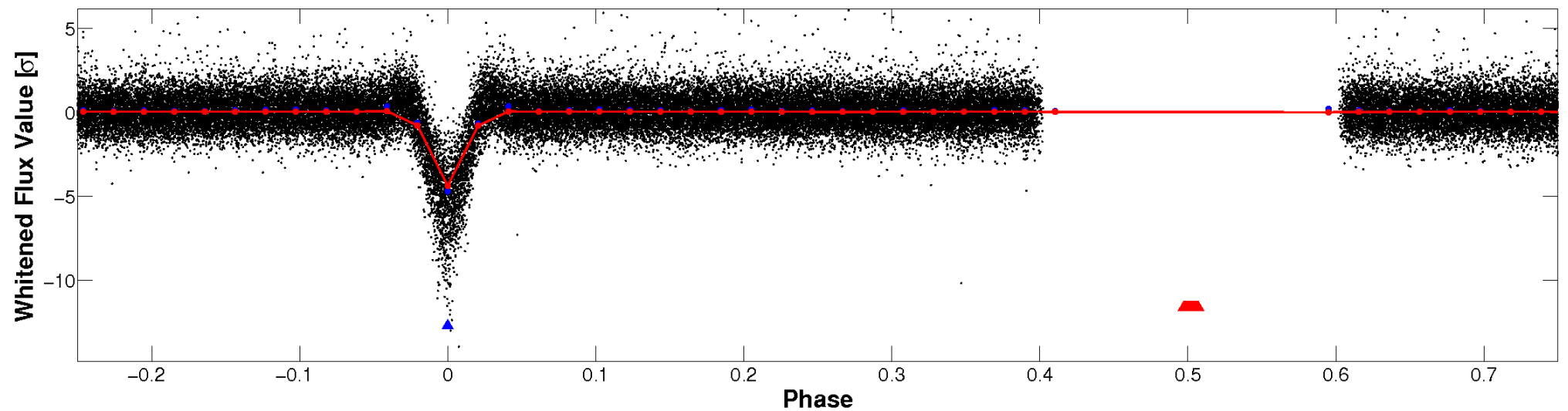


Non-Whitened Vs. Whitened Light Curve

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

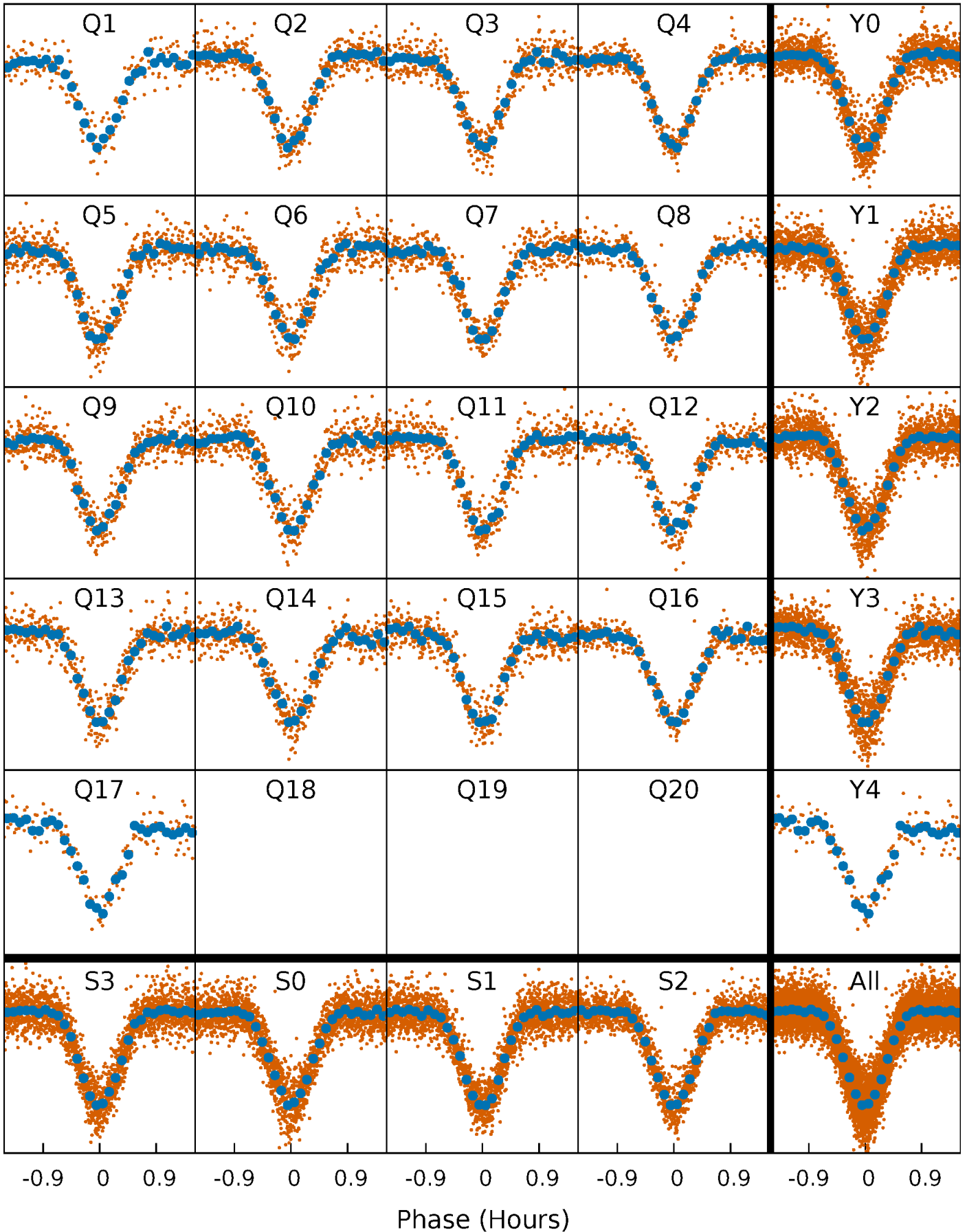


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



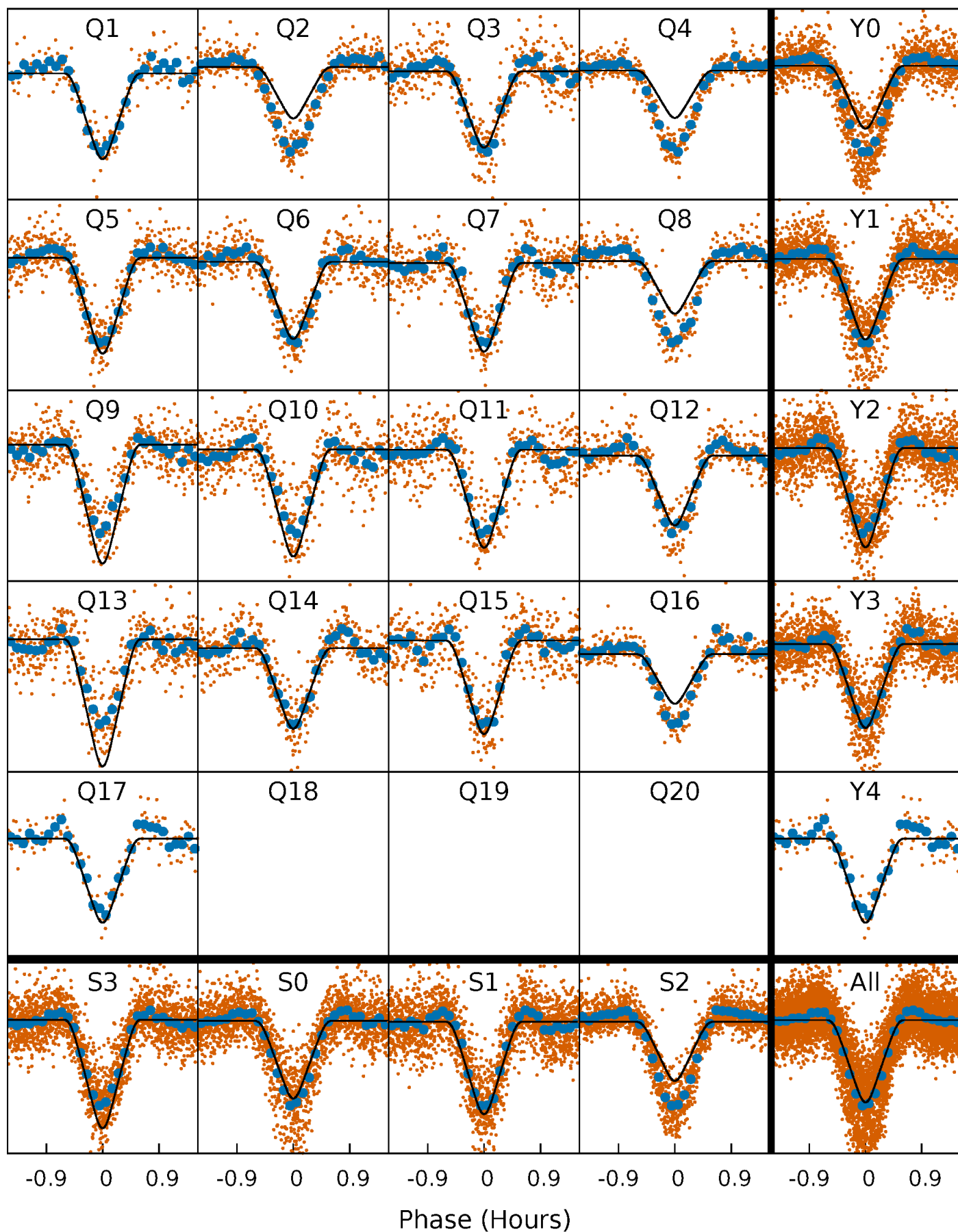
PDC Quarter-Phased Transit Curves

TCE 003113266-02 P= 0.995861 Days $T_0=131.848876$ (BKJD)



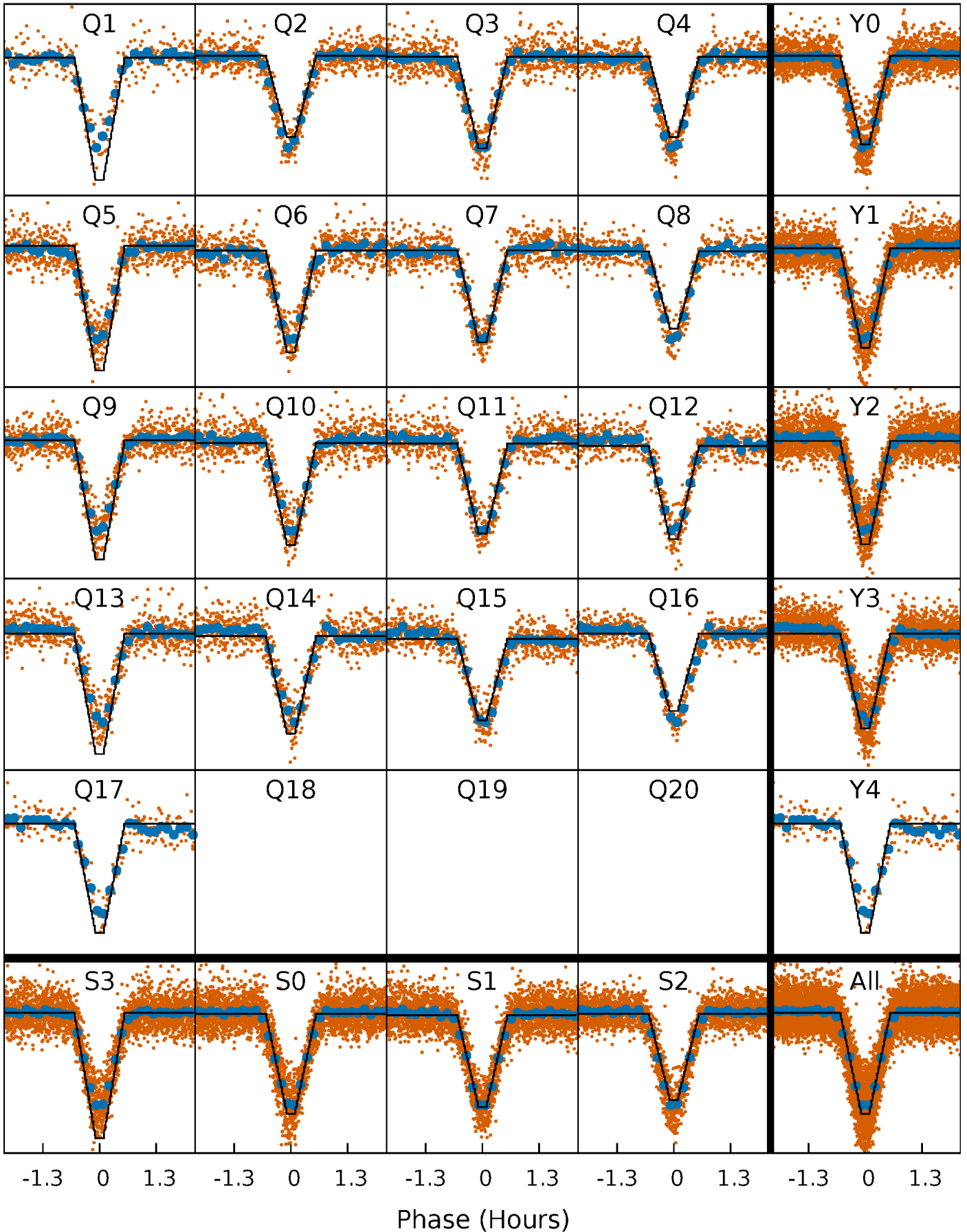
DV Quarter-Phased Transit Curves

TCE 003113266-02 P= 0.995861 Days $T_0=131.848876$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

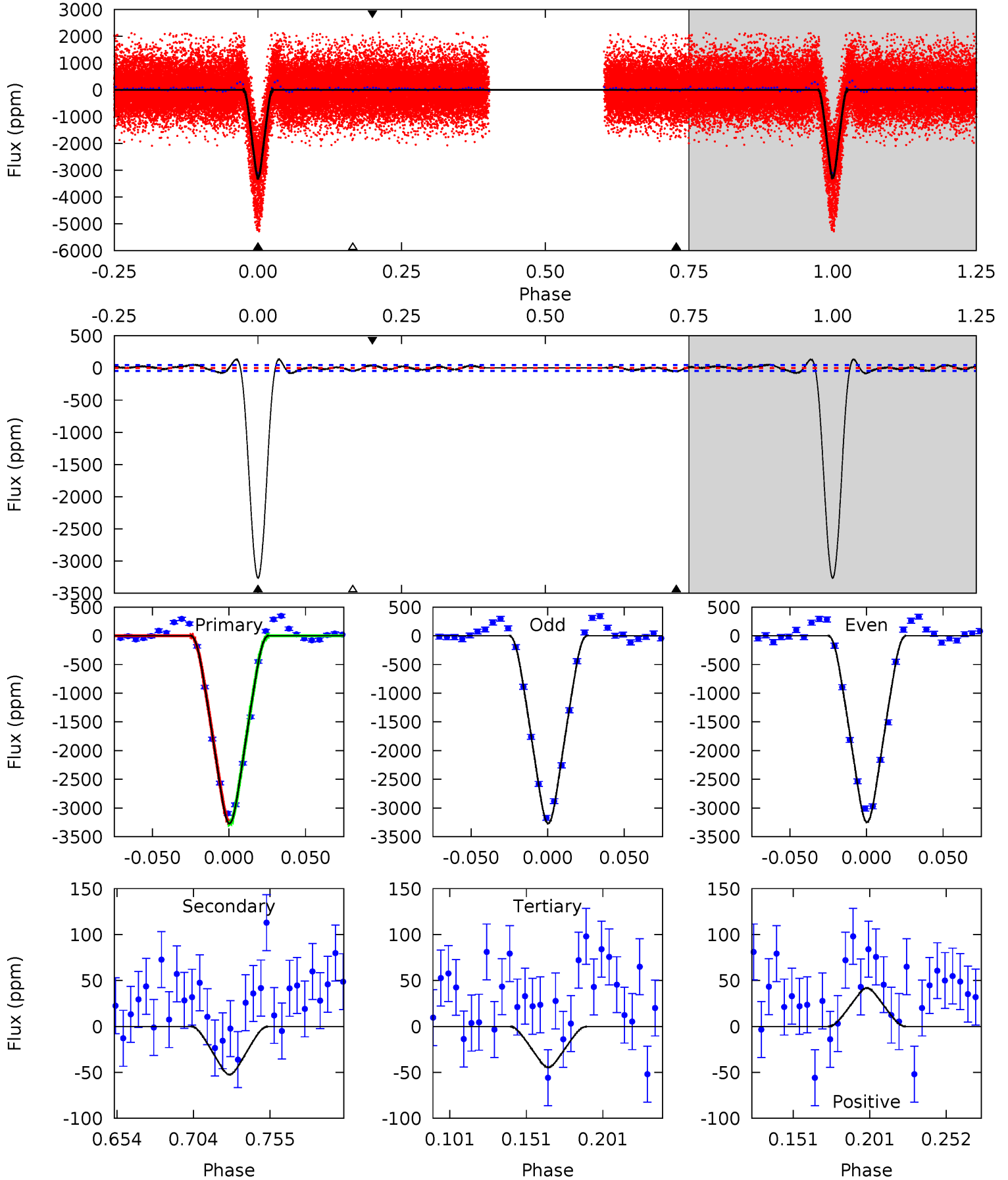
TCE 003113266-02 P= 0.995859 Days $T_0=131.850370$ (BKJD)



DV Model-Shift Uniqueness Test

003113266-02, P = 0.995861 Days, E = 130.853015 Days

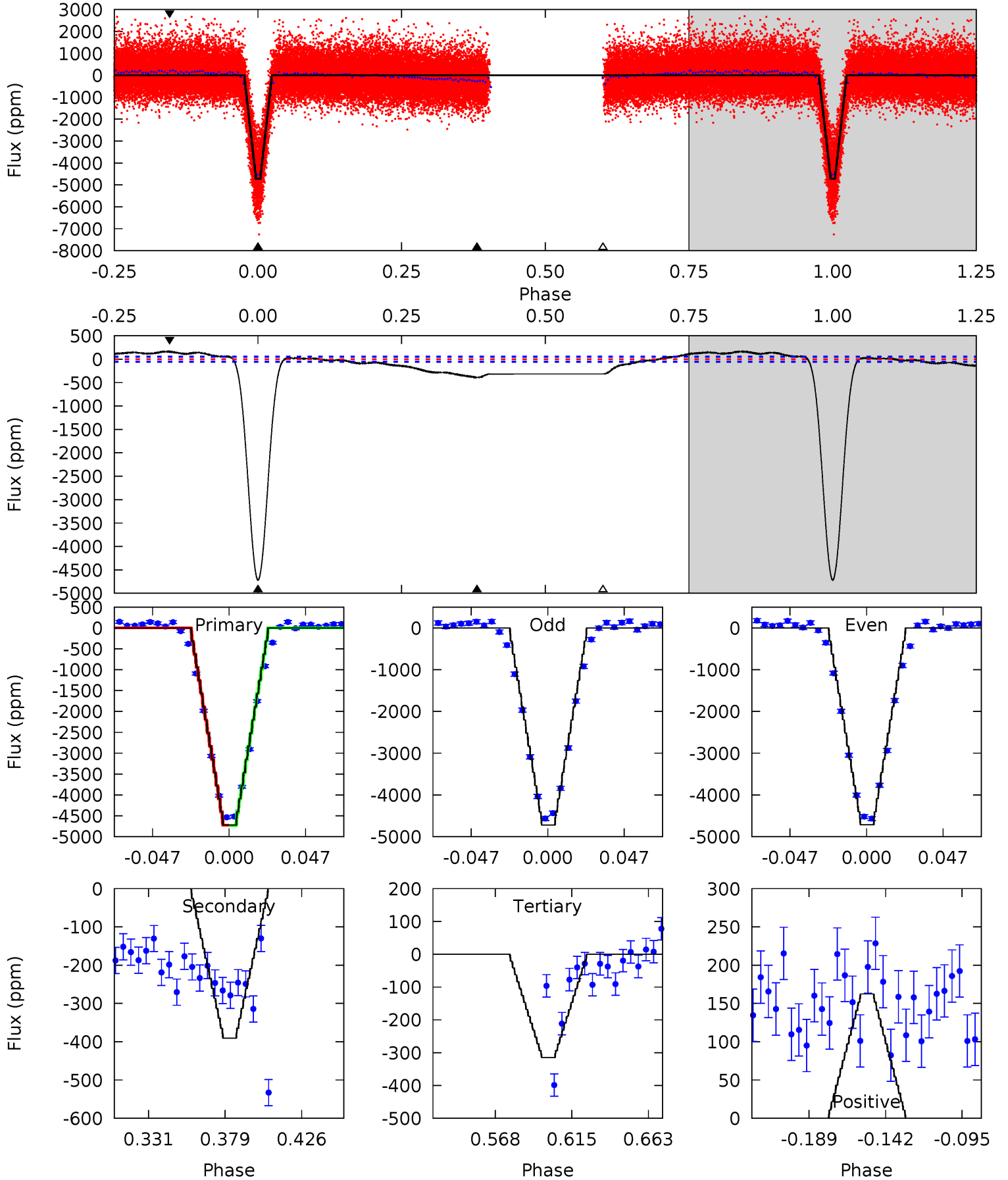
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
325.7	5.22	4.43	4.16	4.71	1.96	2.64	321.2	321.5	0.78	1.05	1.00	1.10	0.04	1.28



Alt Model-Shift Uniqueness Test

003113266-02, P = 0.995859 Days, E = 130.854511 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
420.5	34.8	28.1	14.5	4.72	1.98	11.4	392.5	406.1	6.77	20.4	0.16	1.00	0.03	0.30



Stellar Parameters For KIC 003113266

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5286^{+158}_{-158}	$4.604^{+0.045}_{-0.071}$	$-0.480^{+0.300}_{-0.300}$	$0.706^{+0.100}_{-0.062}$	$0.731^{+0.088}_{-0.059}$	$2.921^{+0.629}_{-0.742}$
	+3%/-3%	+1%/-2%	+62%/-62%	+14%/-9%	+12%/-8%	+22%/-25%
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 003113266-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-52 ± 10	$4.95^{+0.40}_{-0.31}$	2074^{+81}_{-67}	2101^{+210}_{-3986}	$0.360^{+0.084}_{-0.079}$
Alt.	-391 ± 11	$5.41^{+0.44}_{-0.32}$	2075^{+92}_{-72}	3261^{+81}_{-76}	$2.262^{+0.250}_{-0.285}$

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 $A_{obs} \gg 1.0$

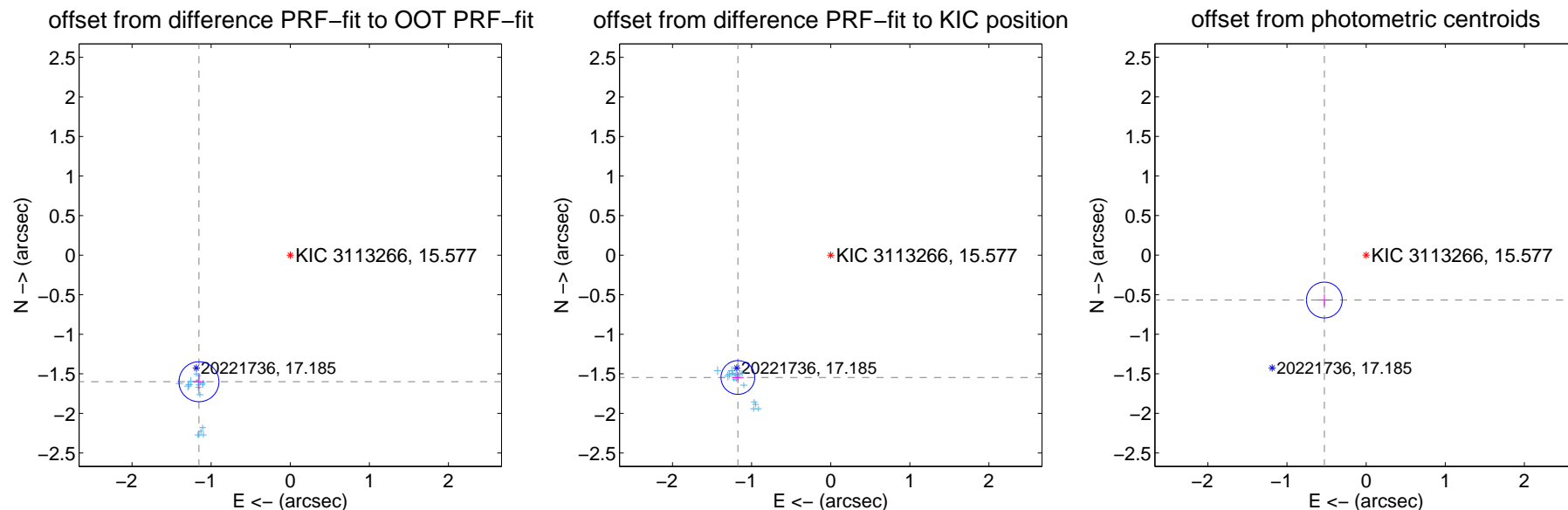
DV Centroid Data

Supplemental centroid analysis for 003113266-02. Kepler magnitude: 15.58. Transit SNR 157.35

There are 17 quarters with good PRF difference image offsets

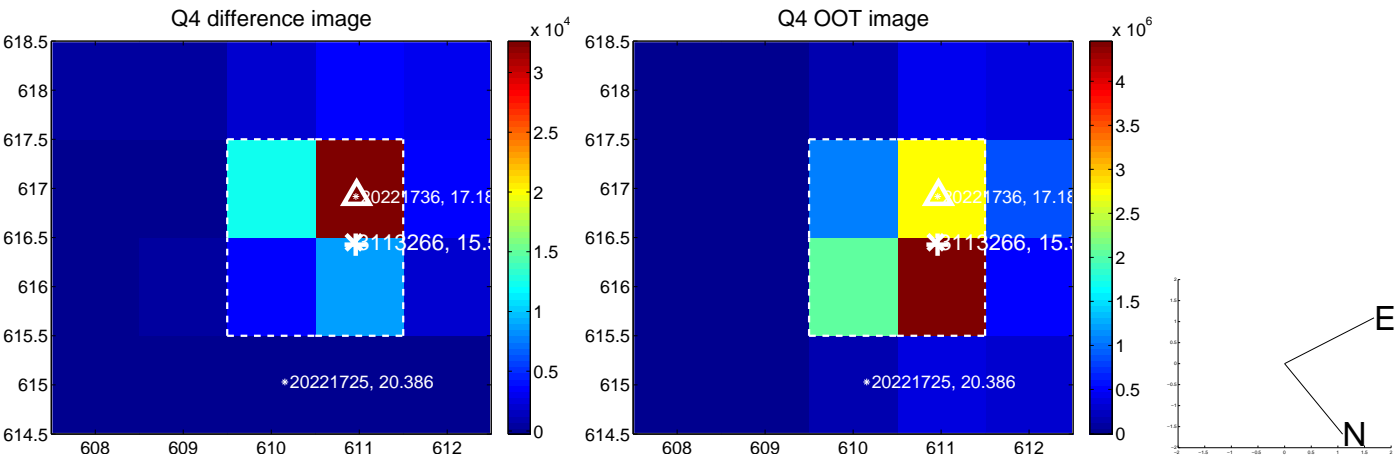
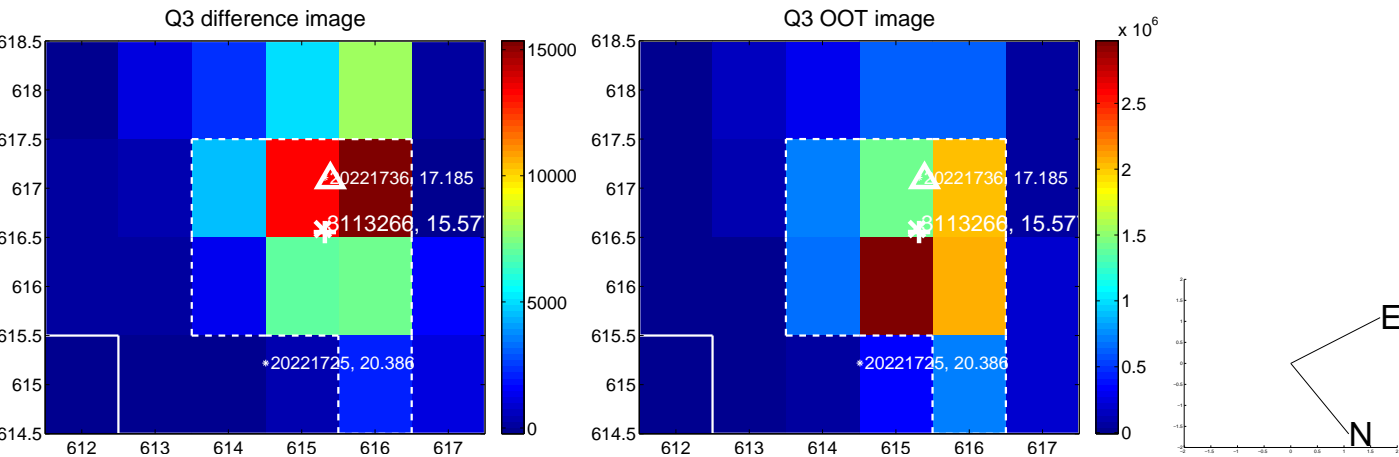
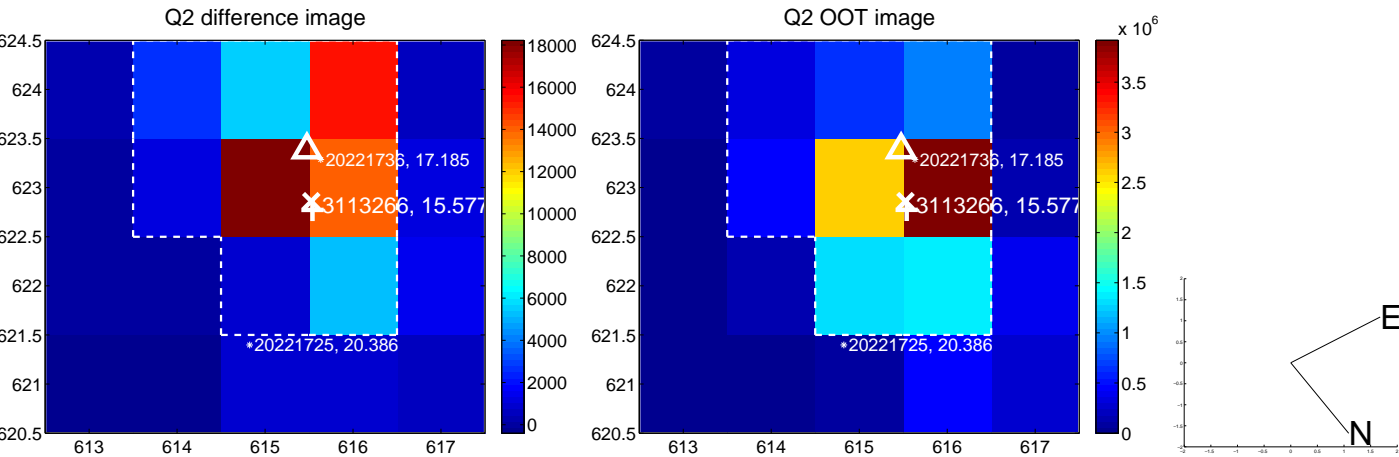
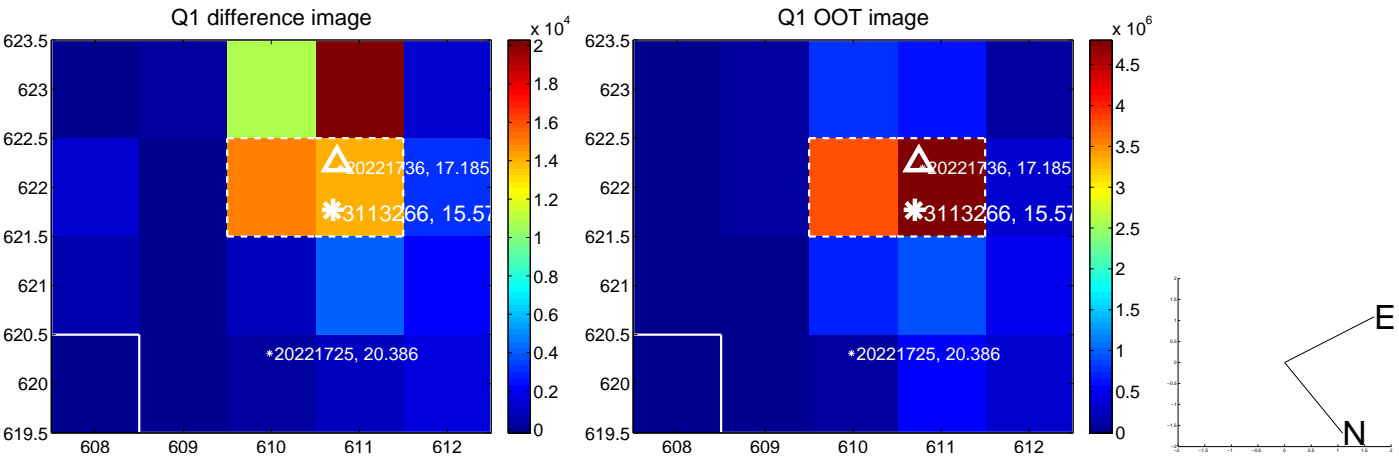
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.973 ± 0.084	23.44	1.154 ± 0.070	-1.600 ± 0.095
PRF-fit source offset from KIC position	1.941 ± 0.071	27.31	1.174 ± 0.074	-1.546 ± 0.069
photometric centroid source offset	0.78 ± 0.08	10.28	0.53 ± 0.08	-0.57 ± 0.07

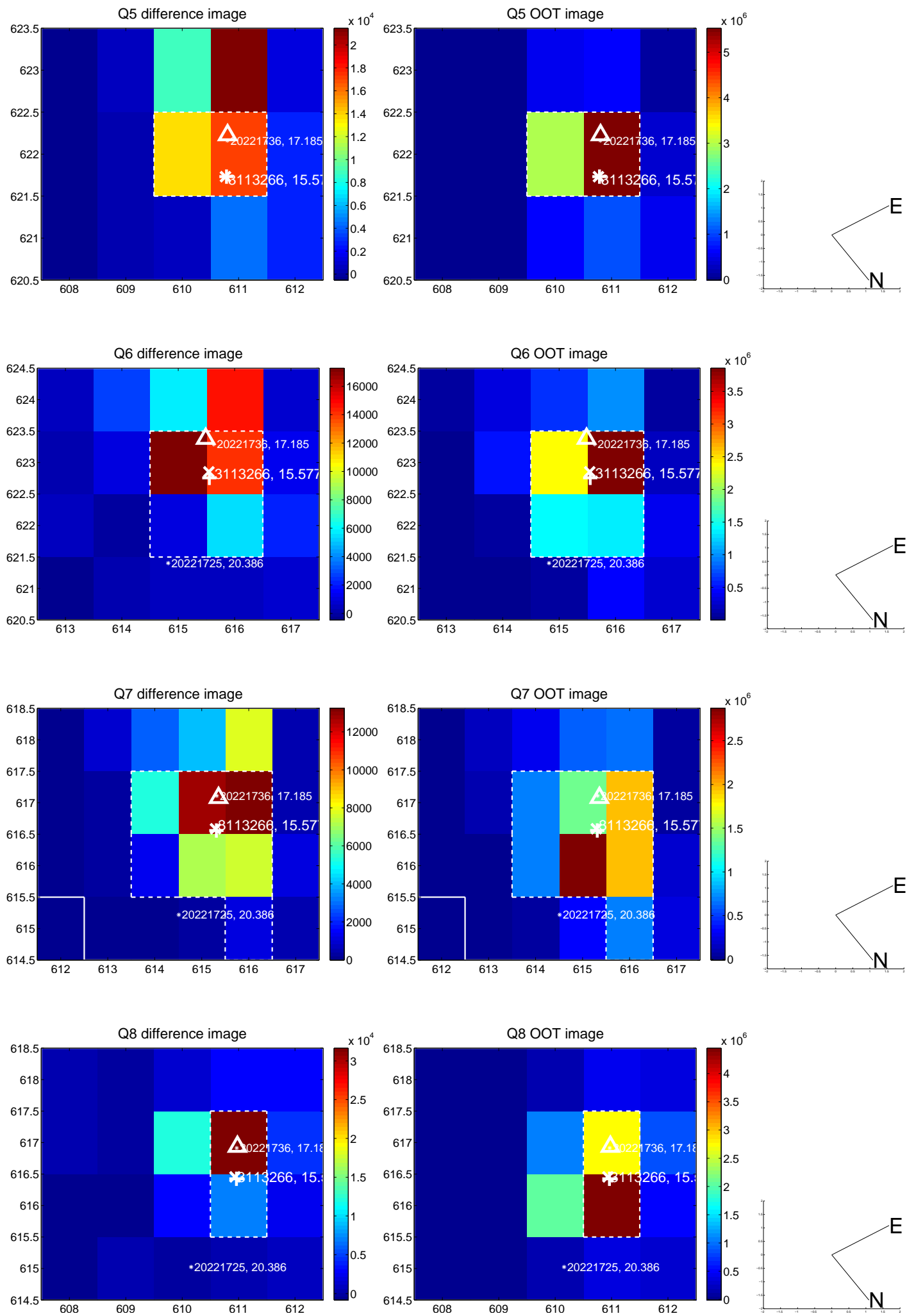


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

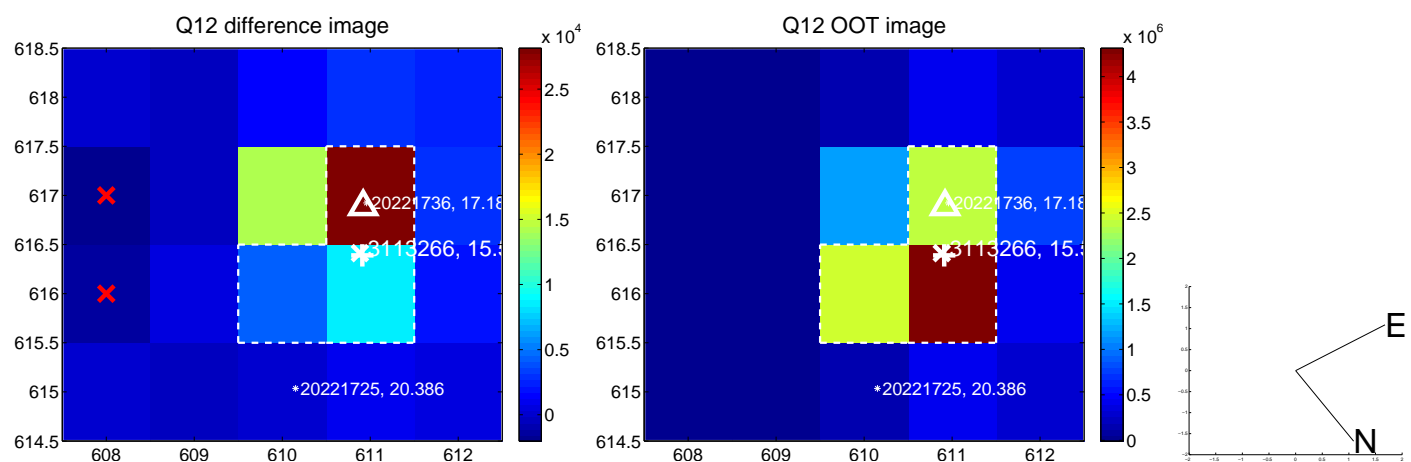
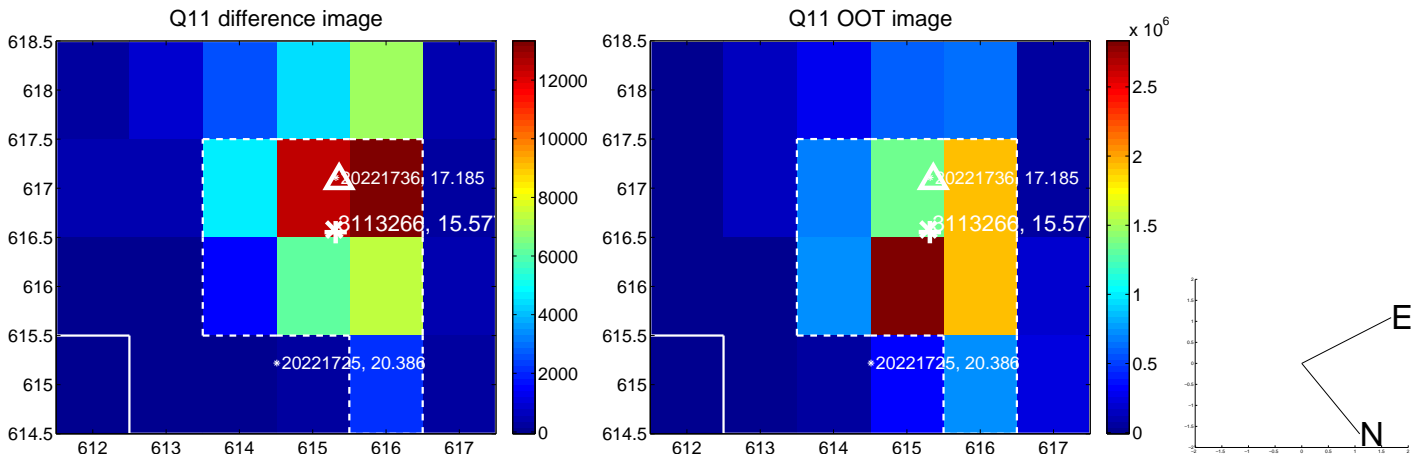
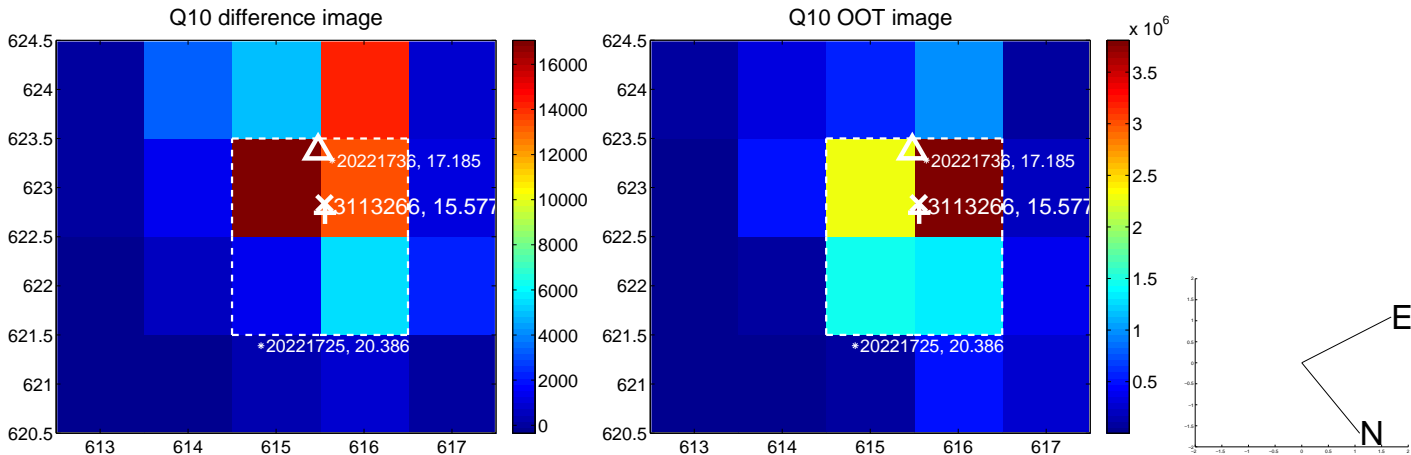
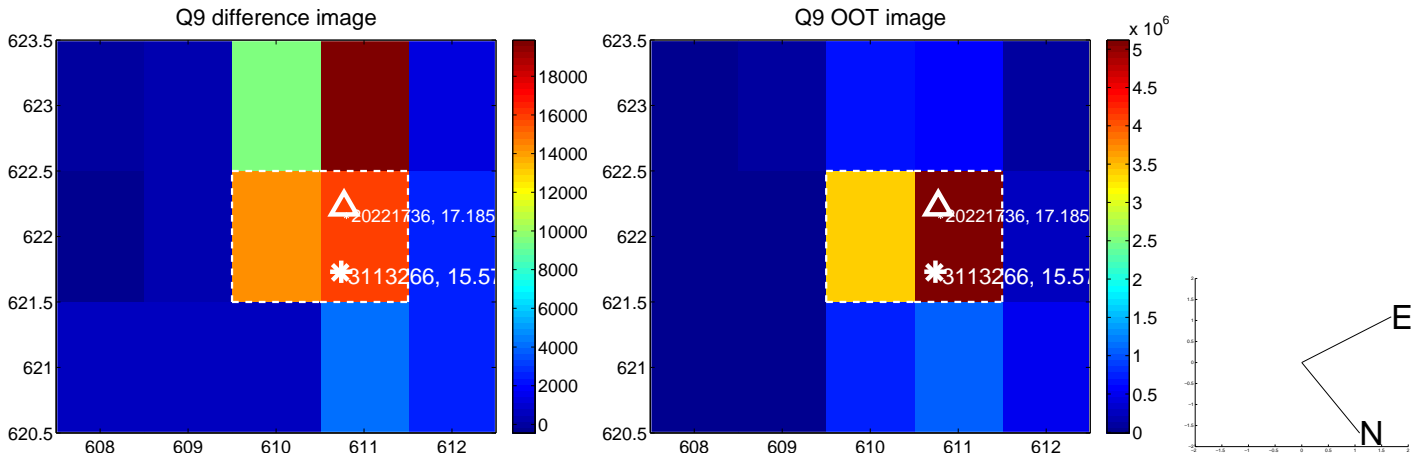
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



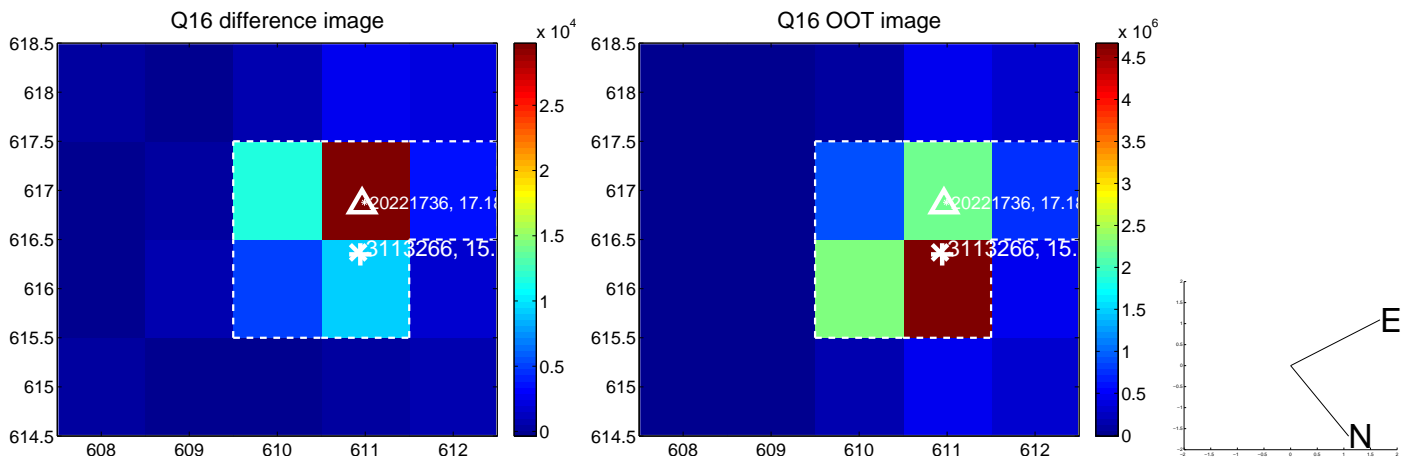
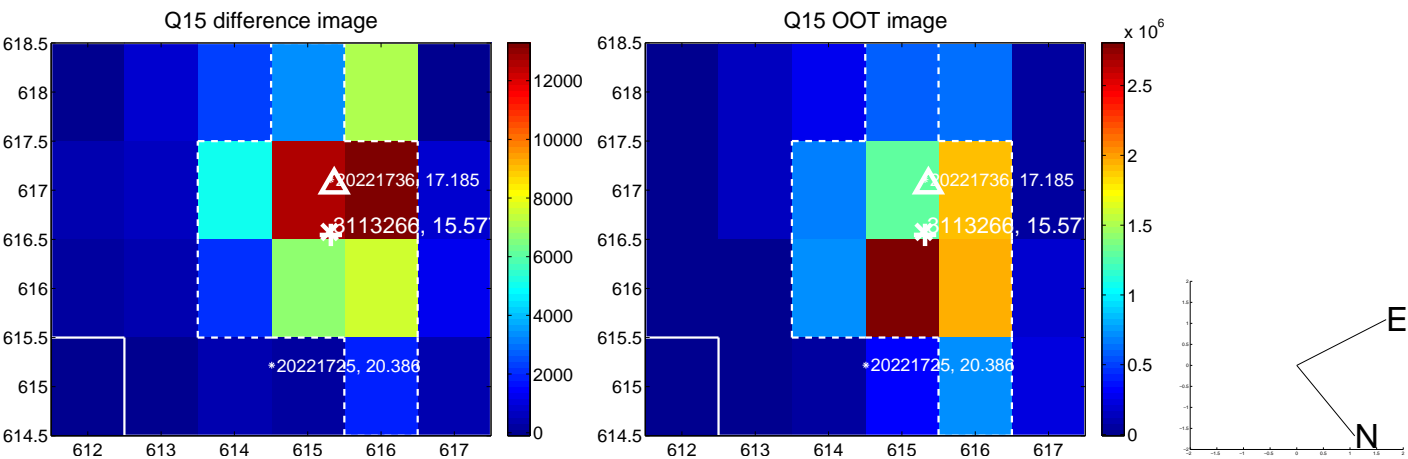
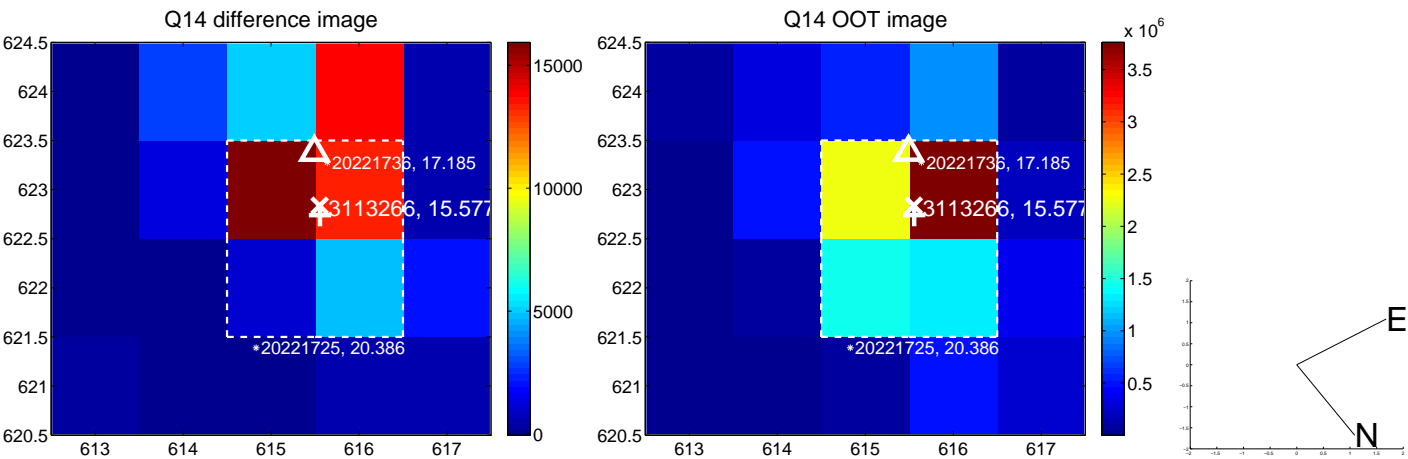
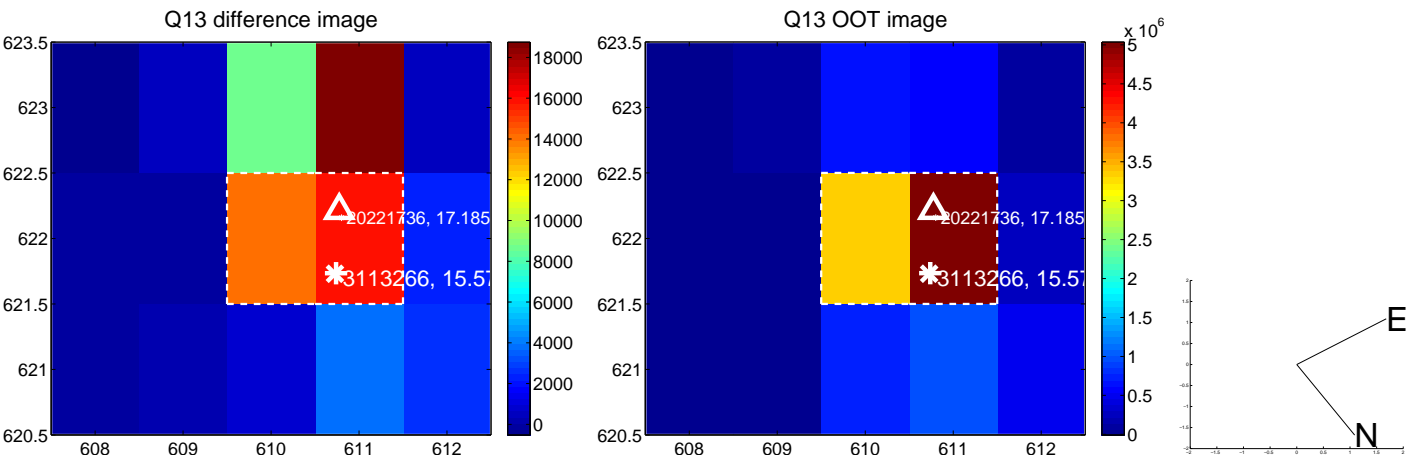
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



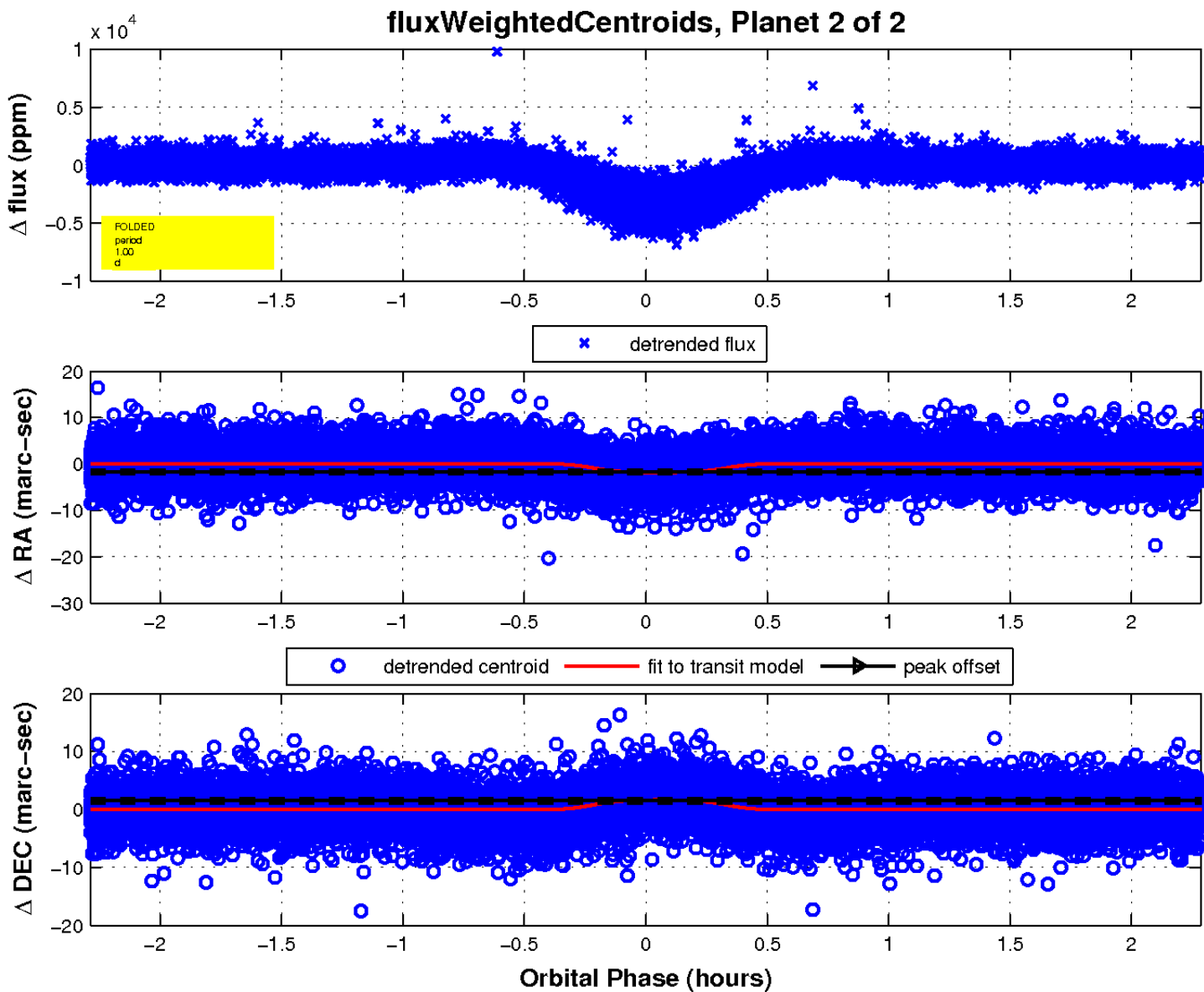
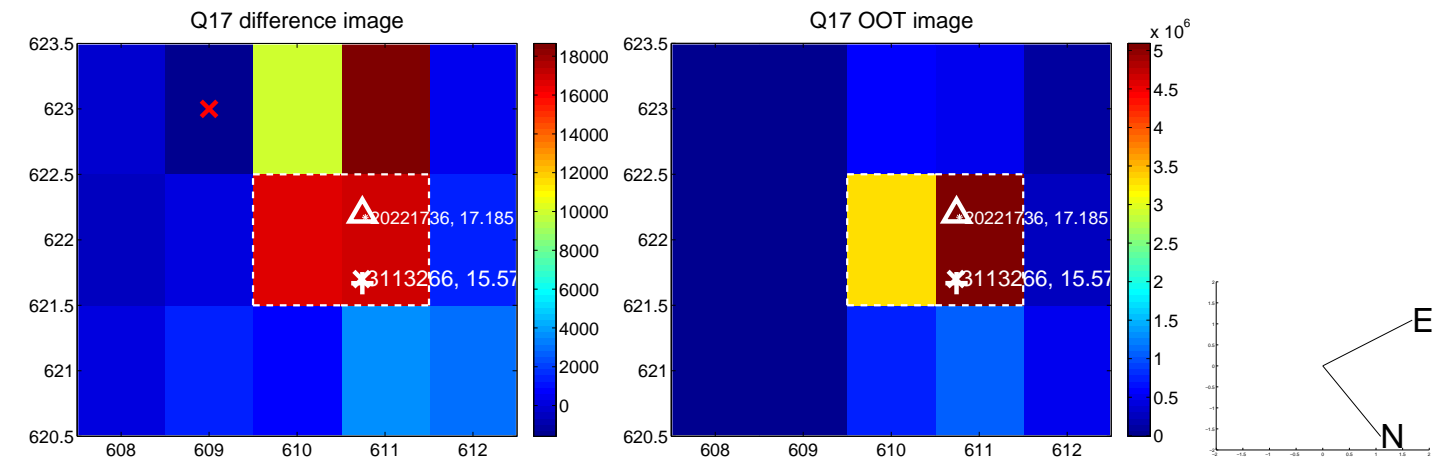
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

