

KIC 007362696

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})
007362696-01	OBS	3937.01	4.931268	134.826128	655.9	1.841	27.4	31.1	0.78	5457	3.53	187.84
007362696-02	OBS	No	4.931286	132.032485	416.0	1.615	20.1	21.9	0.78	5457	1.90	187.84
007362696-03	OBS	No	0.566701	131.946144	10.6	3.481	9.7	2.4	0.78	5457	0.25	3361.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362696-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007362696-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007362696-03	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_RESOLVED_OFFSET—EPHEM_MATCH

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

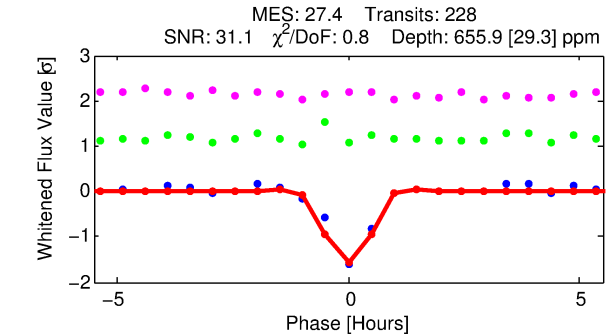
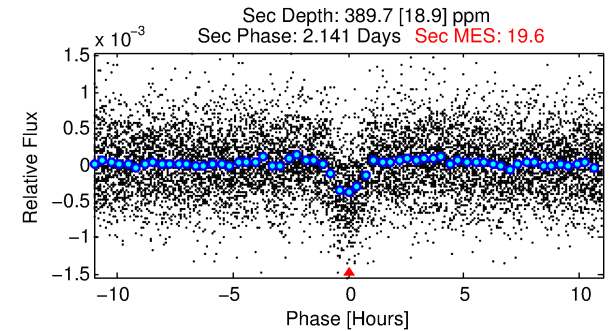
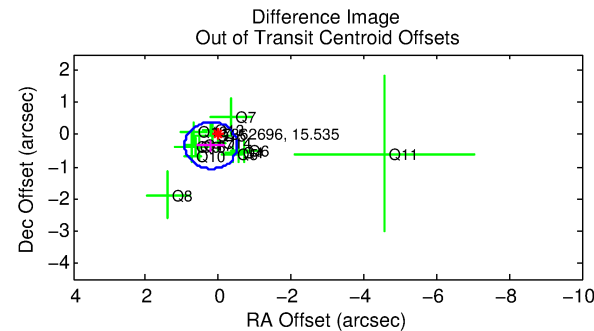
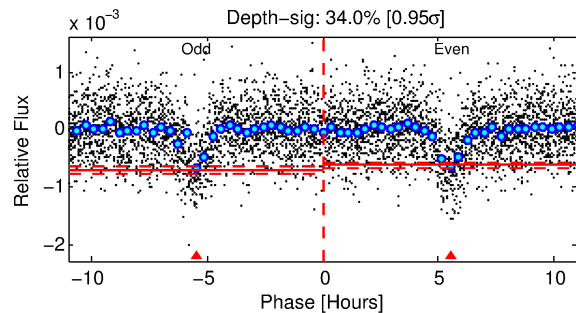
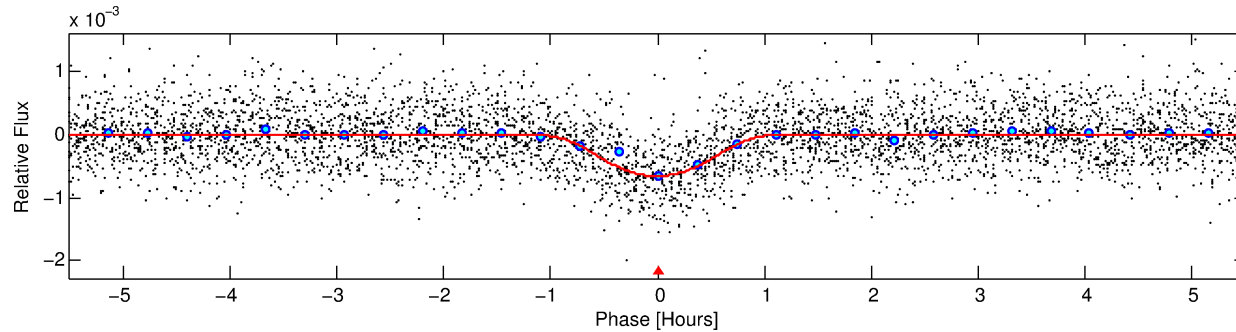
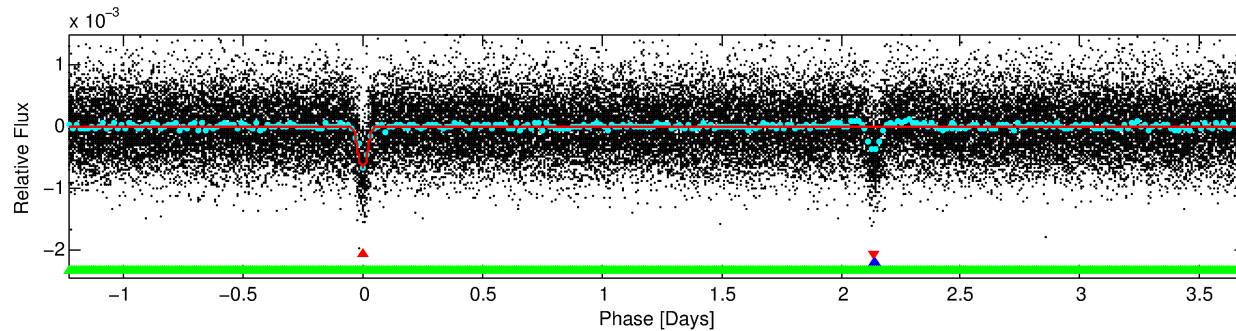
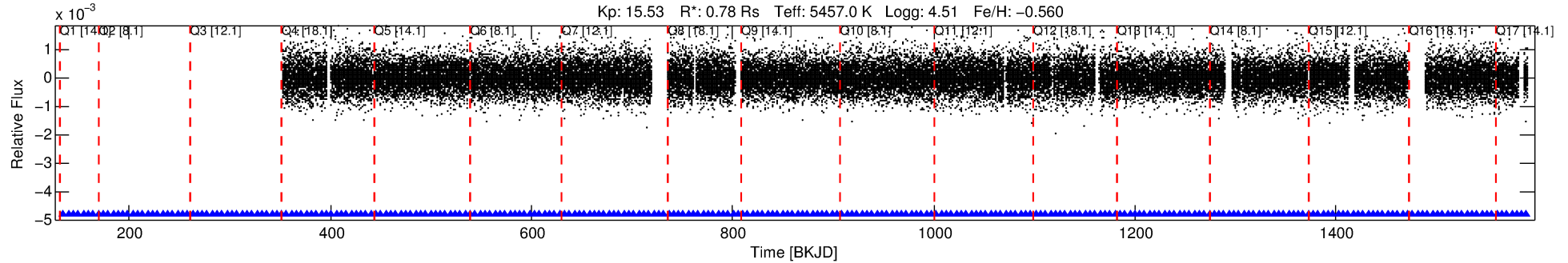
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007362696-01

No Significant Match Found

DV One-Page Summary

KIC: 7362696 Candidate: 1 of 3 Period: 4.931 d
KOI: K03937.01 Corr: 0.966



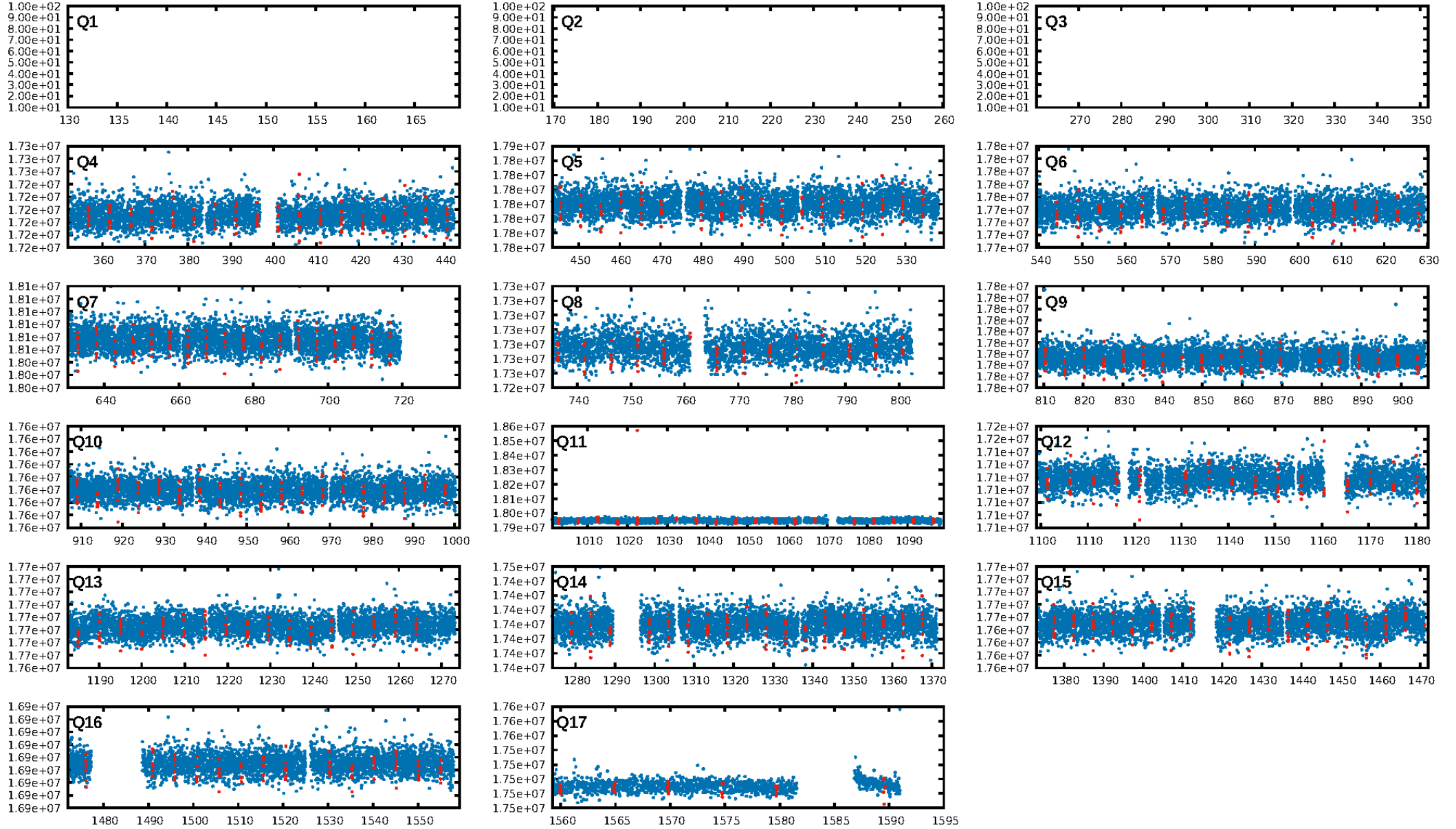
DV Fit Results:

Period = 4.93127 [0.00001] d
Epoch = 134.8261 [0.0014] BKJD
Rp/R* = 0.0415 [0.0556]
a/R* = 6.64 [2.68]
b = 0.99 [0.09]
Seff = 187.84 [47.24]
Teq = 944 [59] K
Rp = 3.53 [4.76] Re
a = 0.0507 [0.0069] AU
Ag = 44.21 [118.79] [0.36 σ]
Teffp = 3763 [2525] K [1.12 σ]

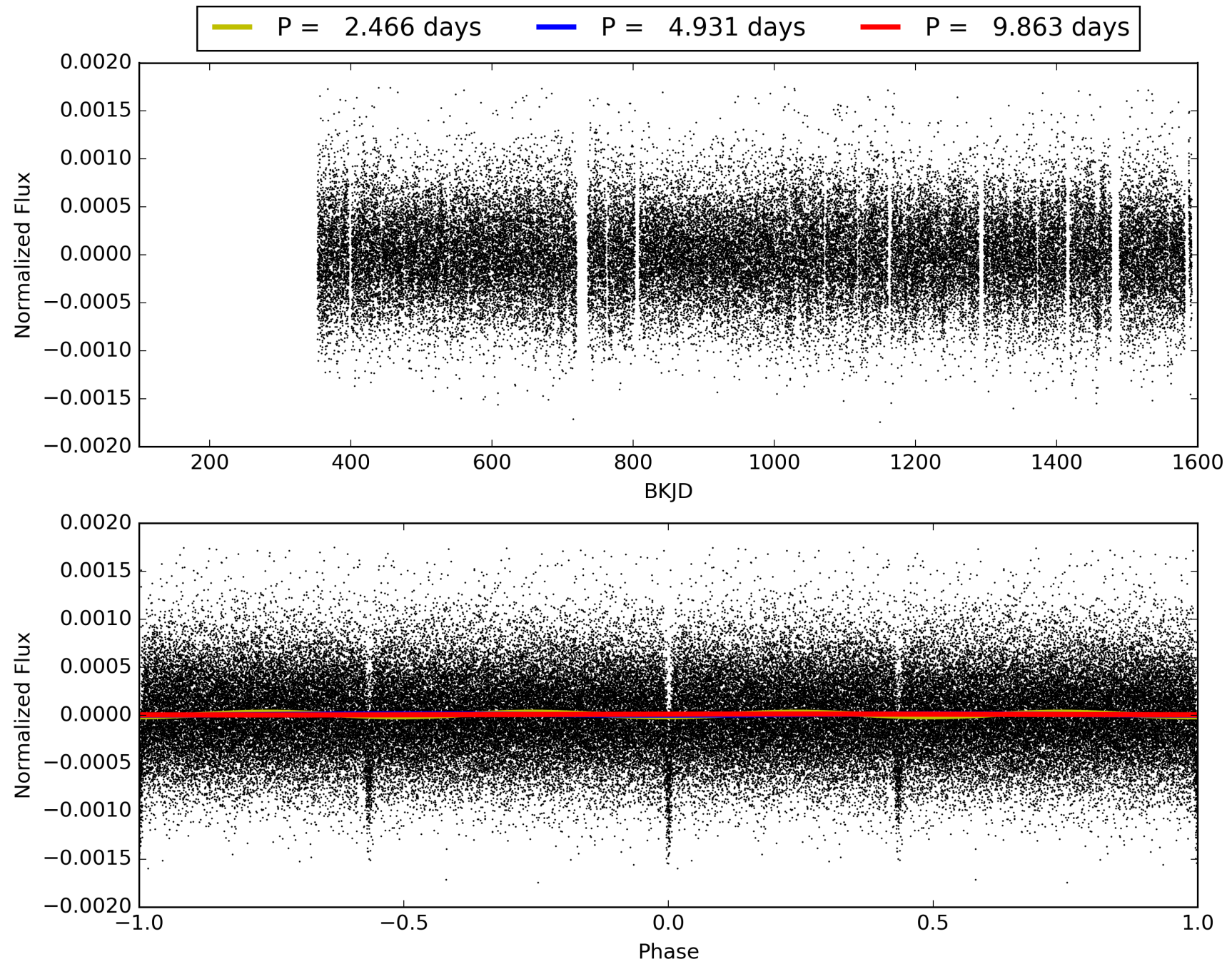
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [26.60 σ]
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.22e-85
RollingBand-fgt: 1.00 [222/222]
GhostDiagnostic-chr: 3.515
Centroid-sig: 0.2%
Centroid-so: 0.621 arcsec [1.40 σ]
OotOffset-rm: 0.396 arcsec [1.63 σ]
KicOffset-rm: 0.209 arcsec [0.60 σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.00 [0/14]

TCE 007362696-01, PDC Light Curves

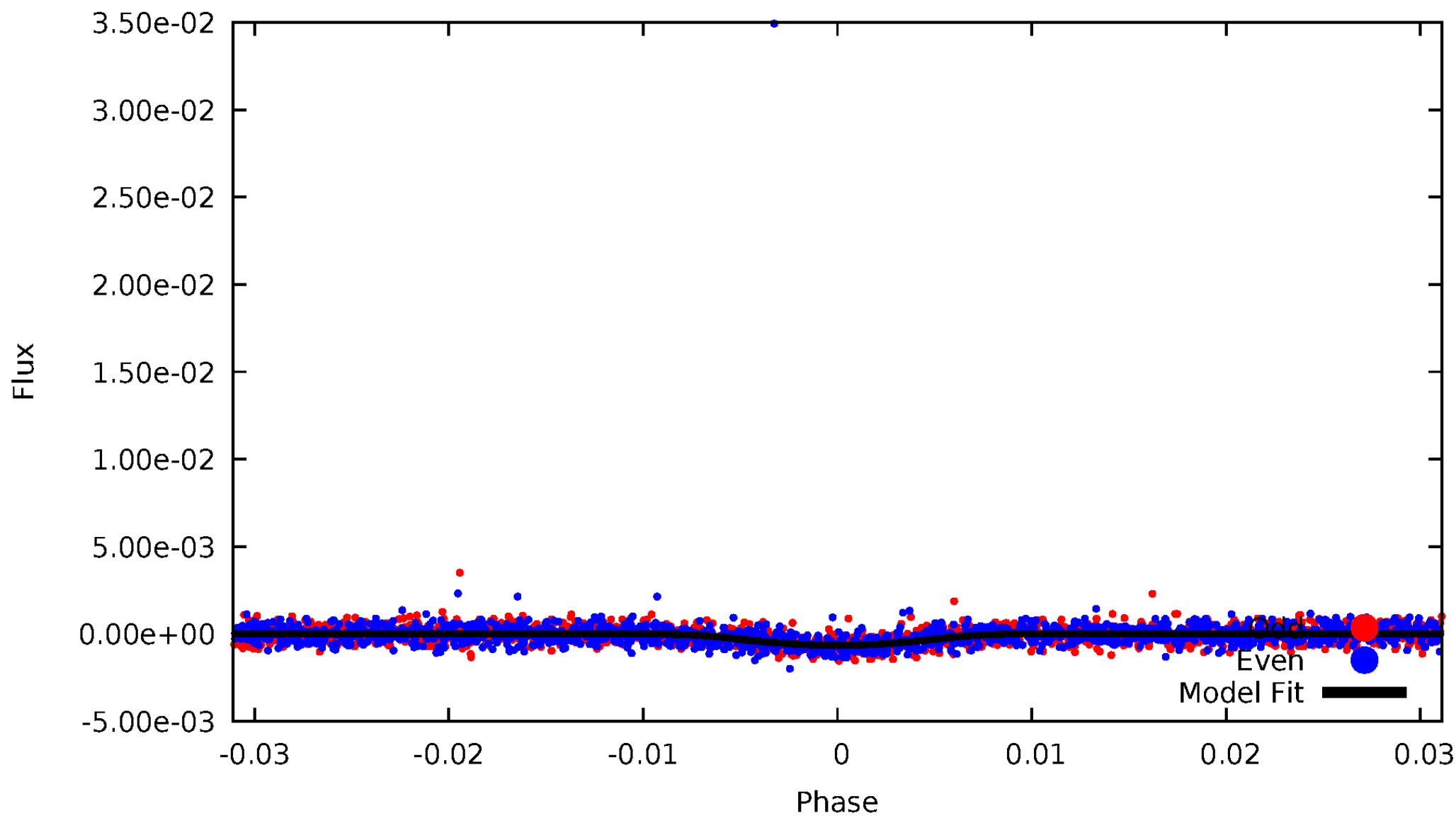


TCE 007362696-01



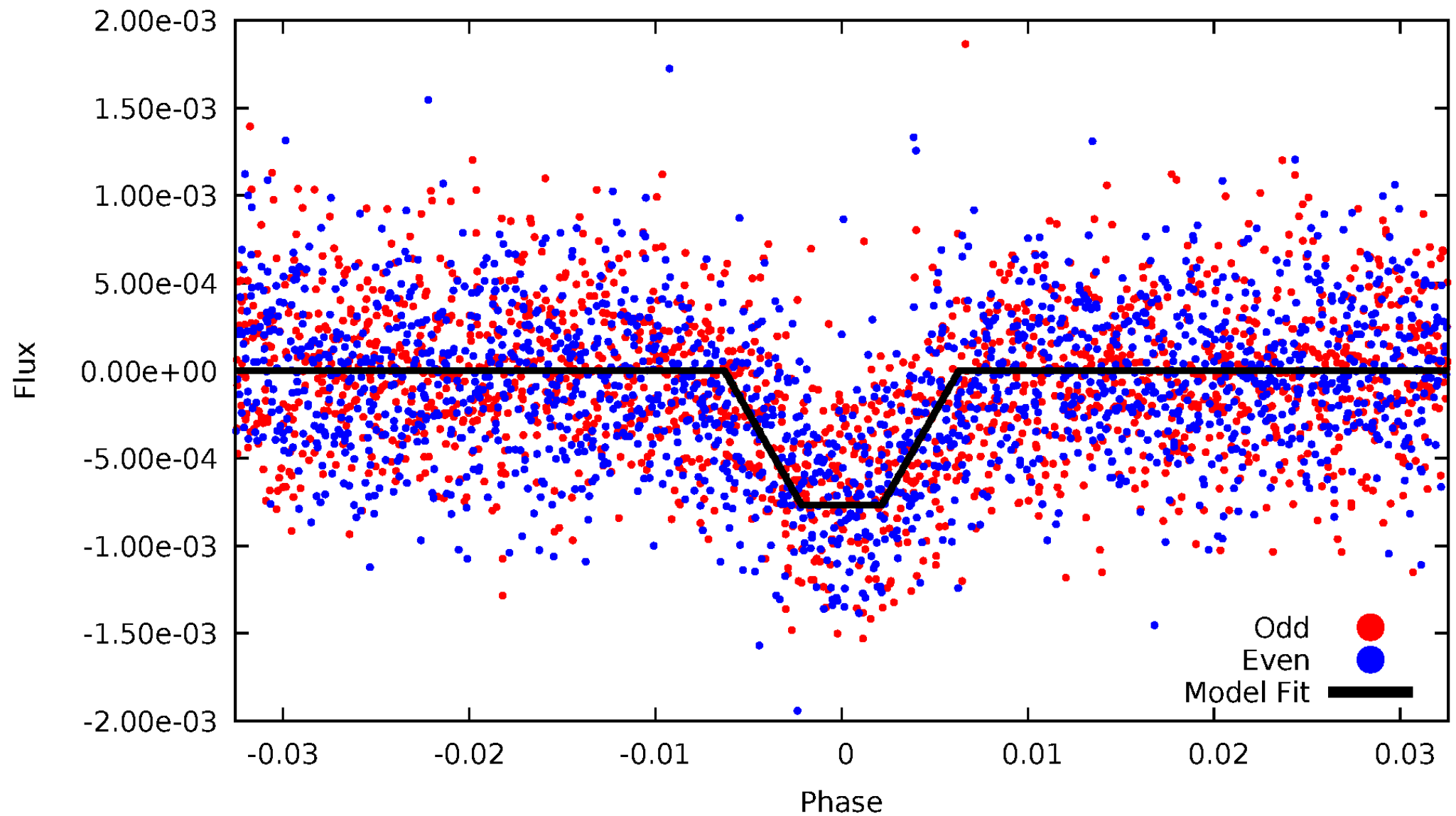
DV Odd/Even

TCE 007362696-01



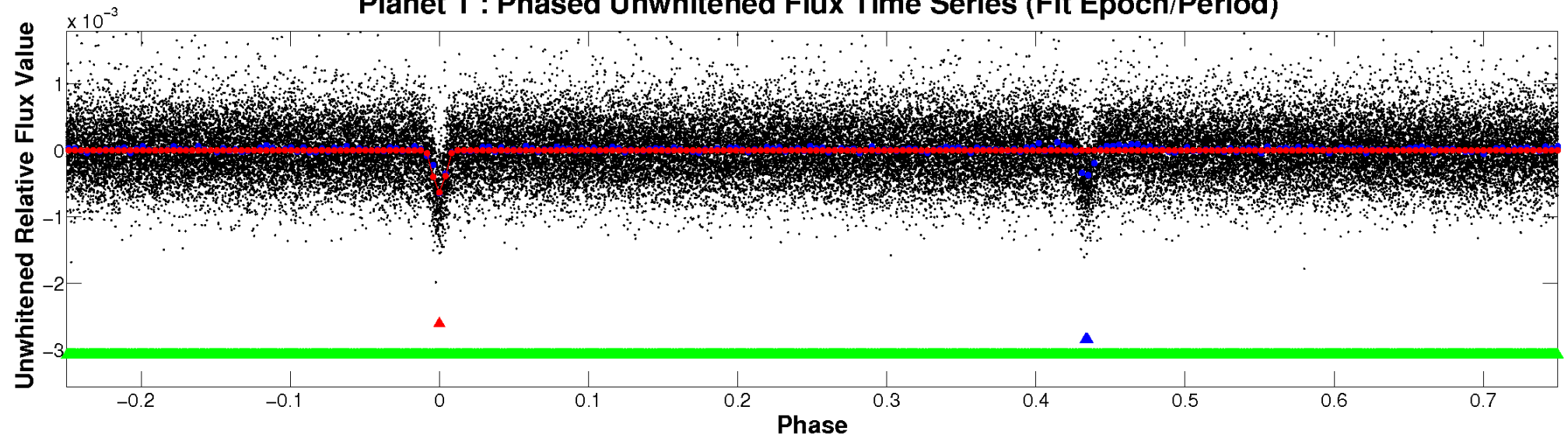
ALT Odd/Even

TCE 007362696-01

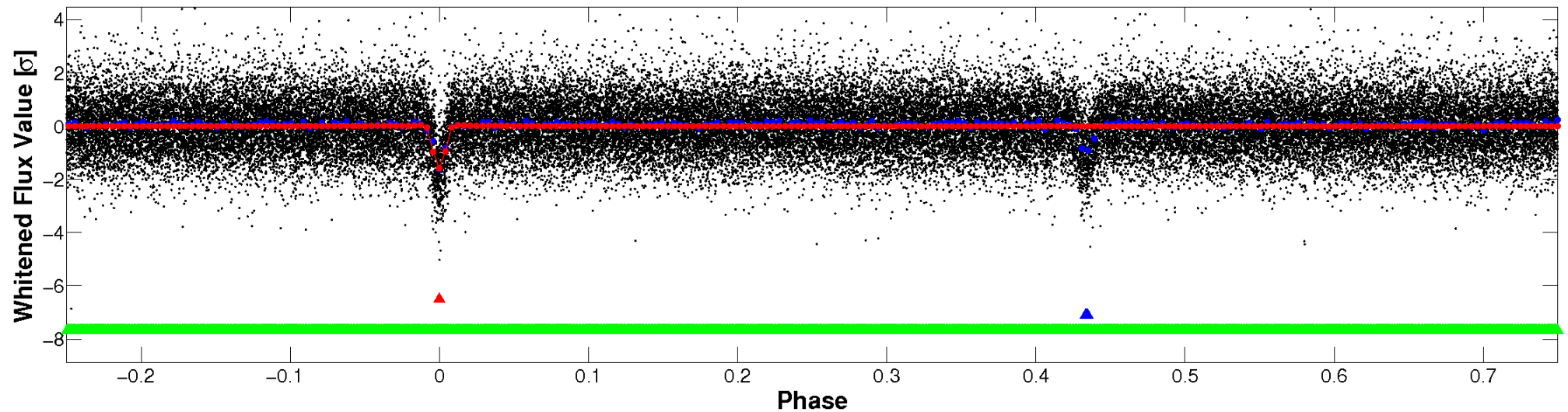


Non-Whitened Vs. Whitened Light Curve

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

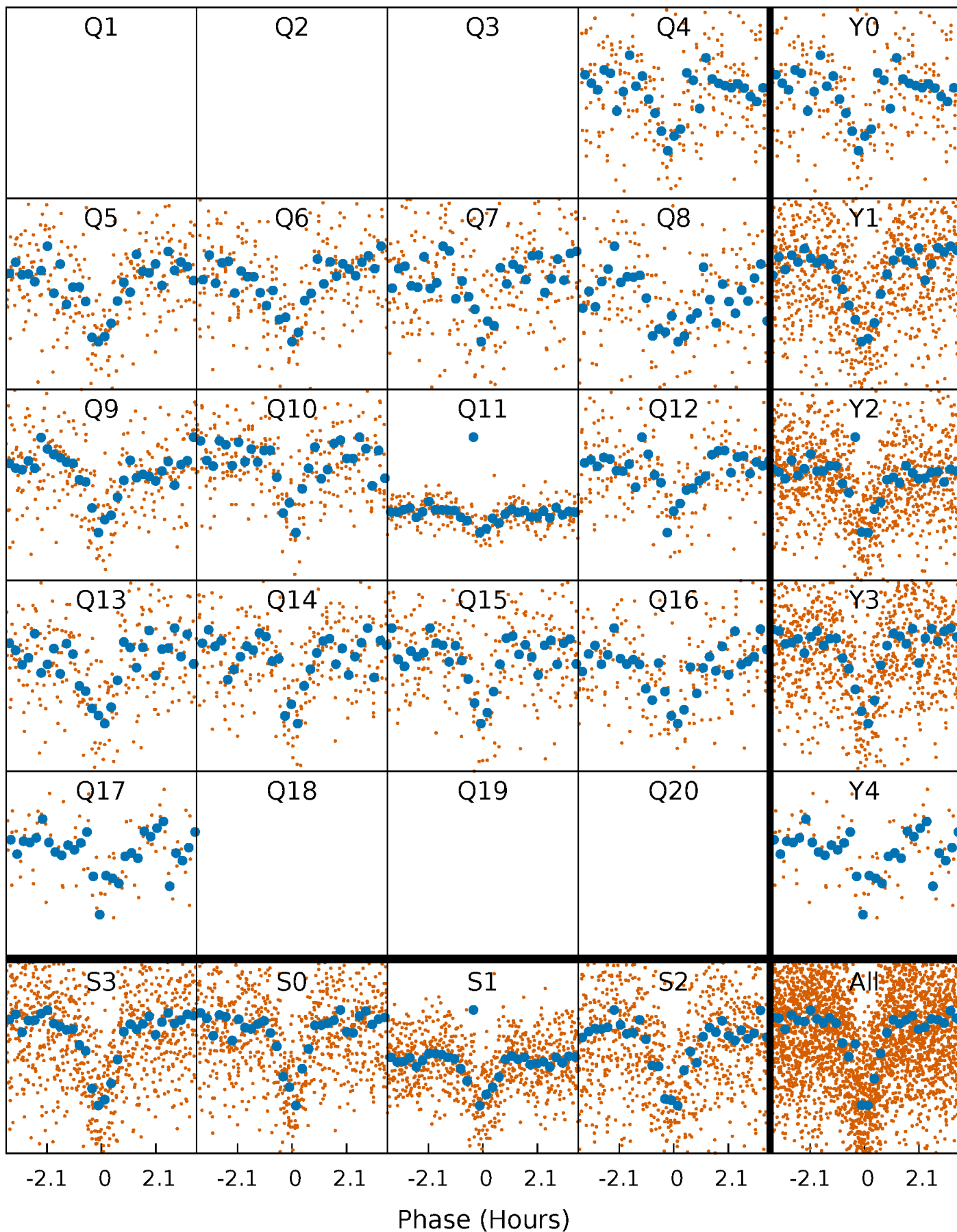


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



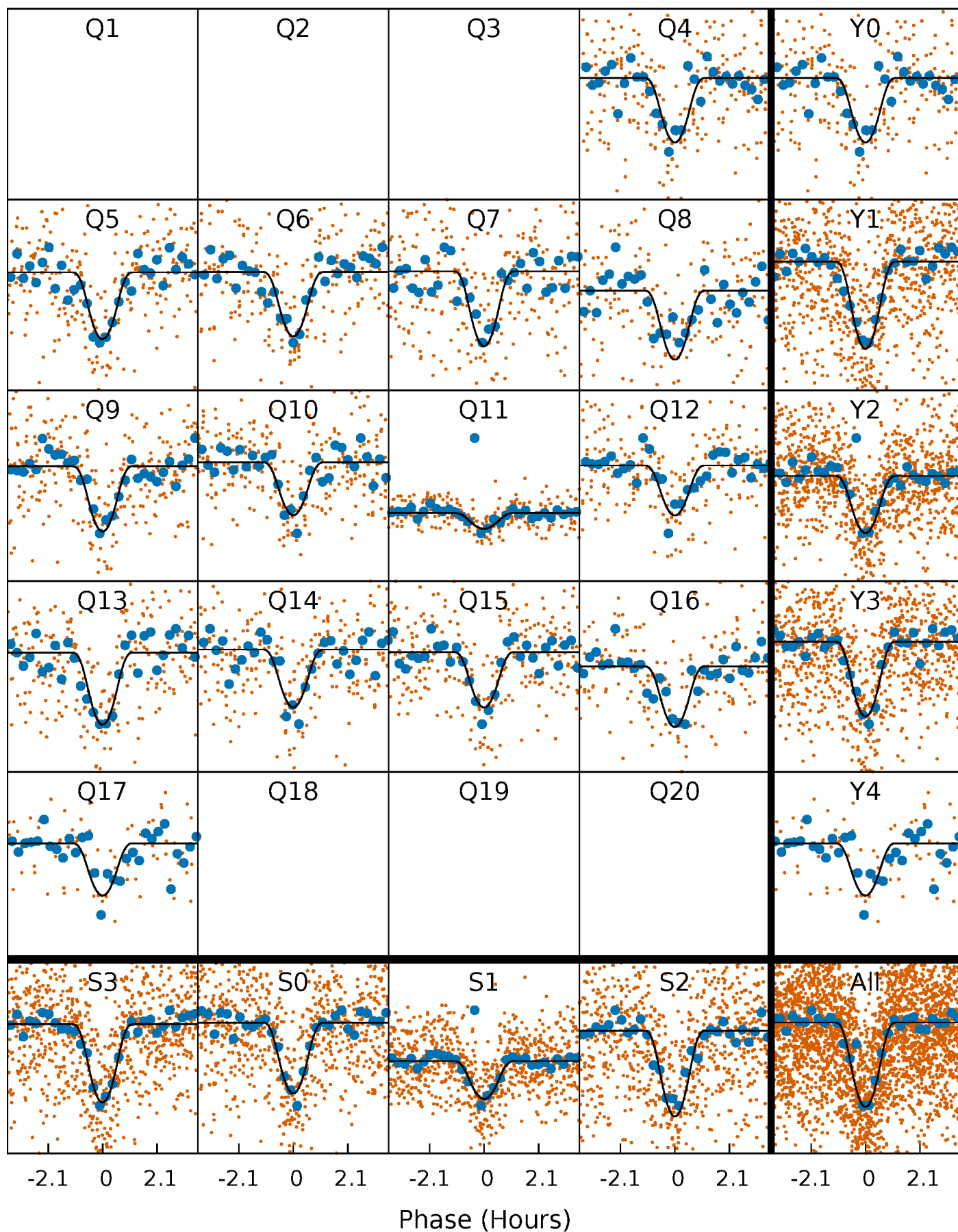
PDC Quarter-Phased Transit Curves

TCE 007362696-01 P= 4.931268 Days $T_0=134.826128$ (BKJD)



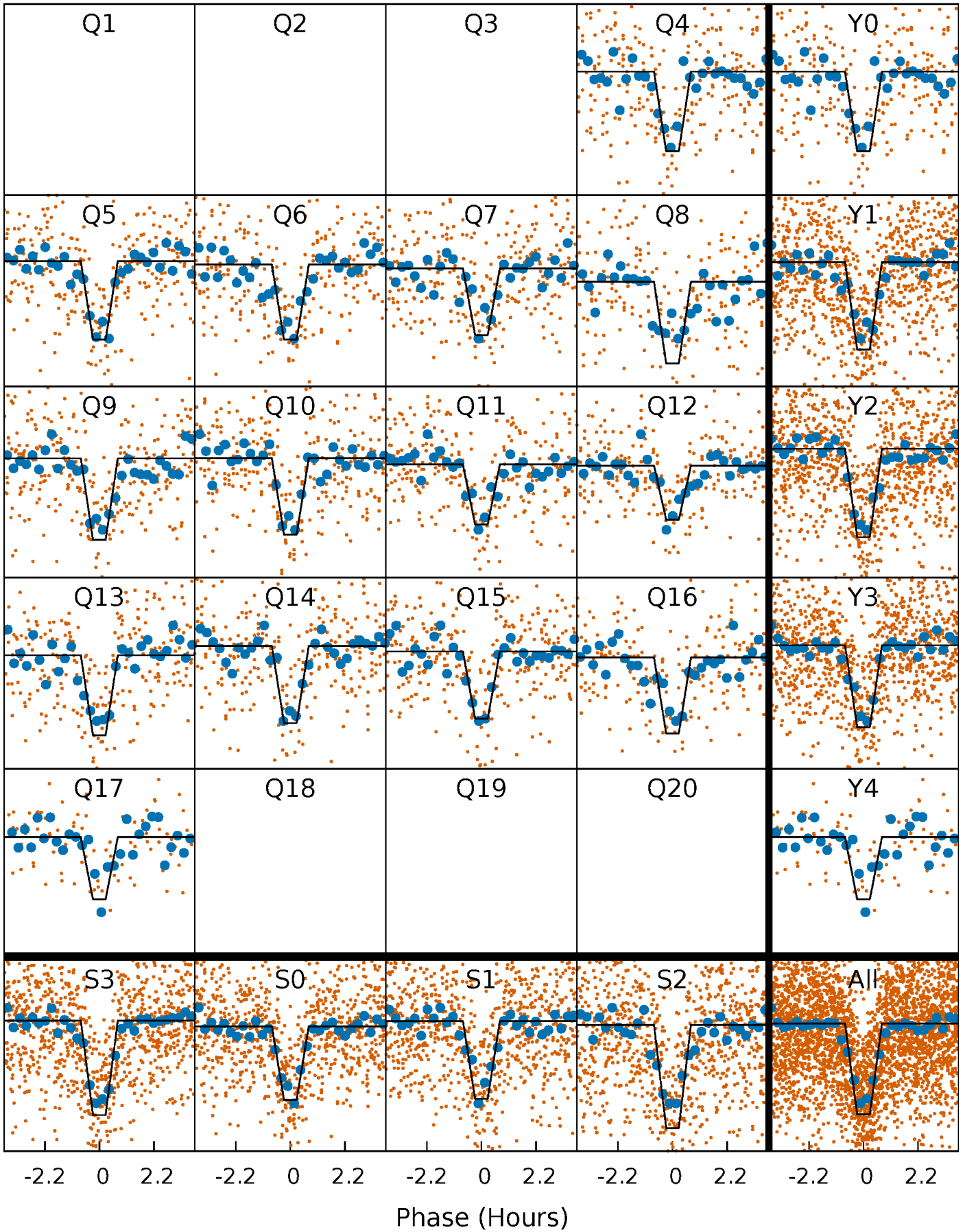
DV Quarter-Phased Transit Curves

TCE 007362696-01 P= 4.931268 Days $T_0=134.826128$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

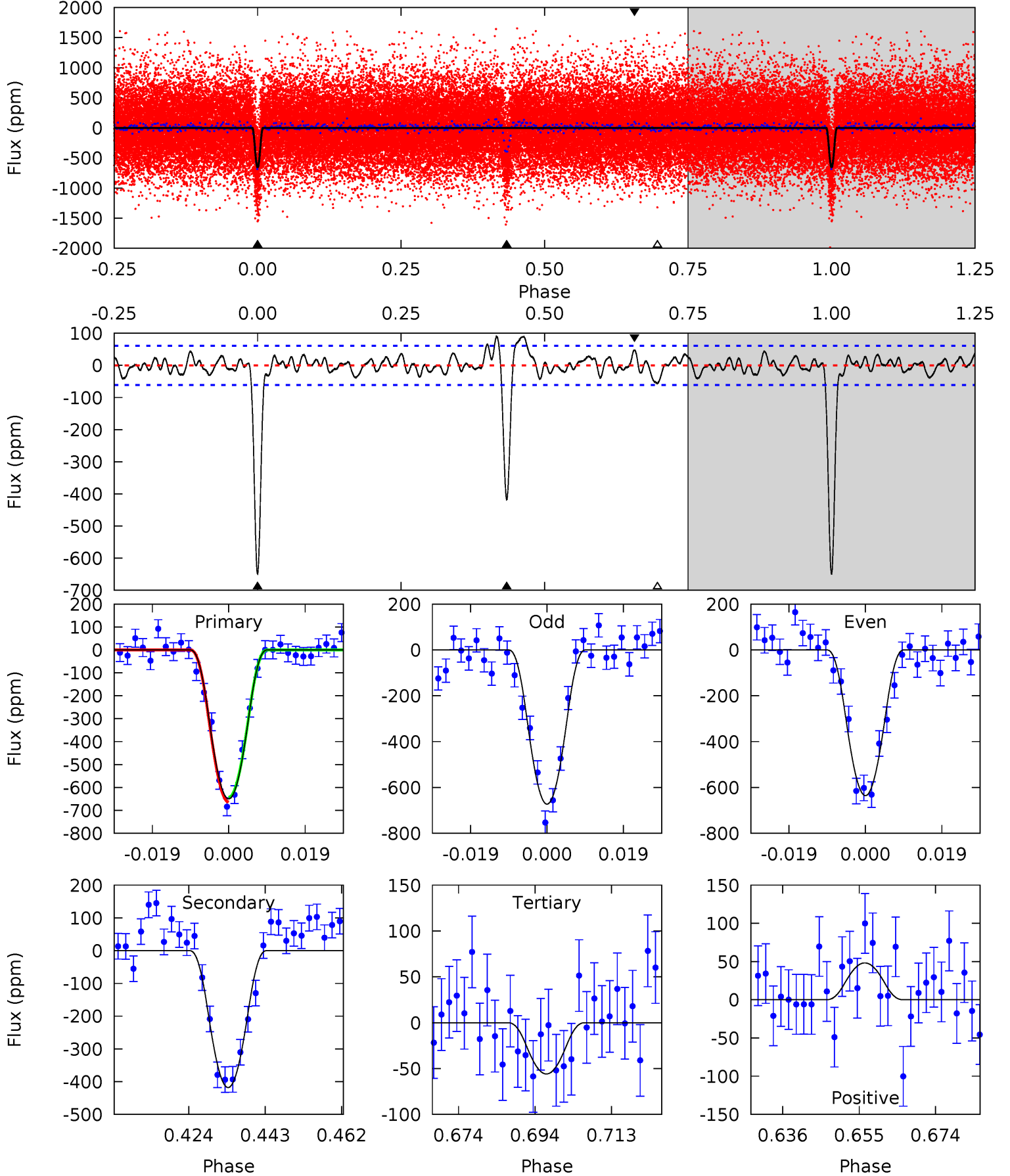
TCE 007362696-01 P= 4.931287 Days $T_0=134.821883$ (BKJD)



DV Model-Shift Uniqueness Test

007362696-01, P = 4.931268 Days, E = 134.826128 Days

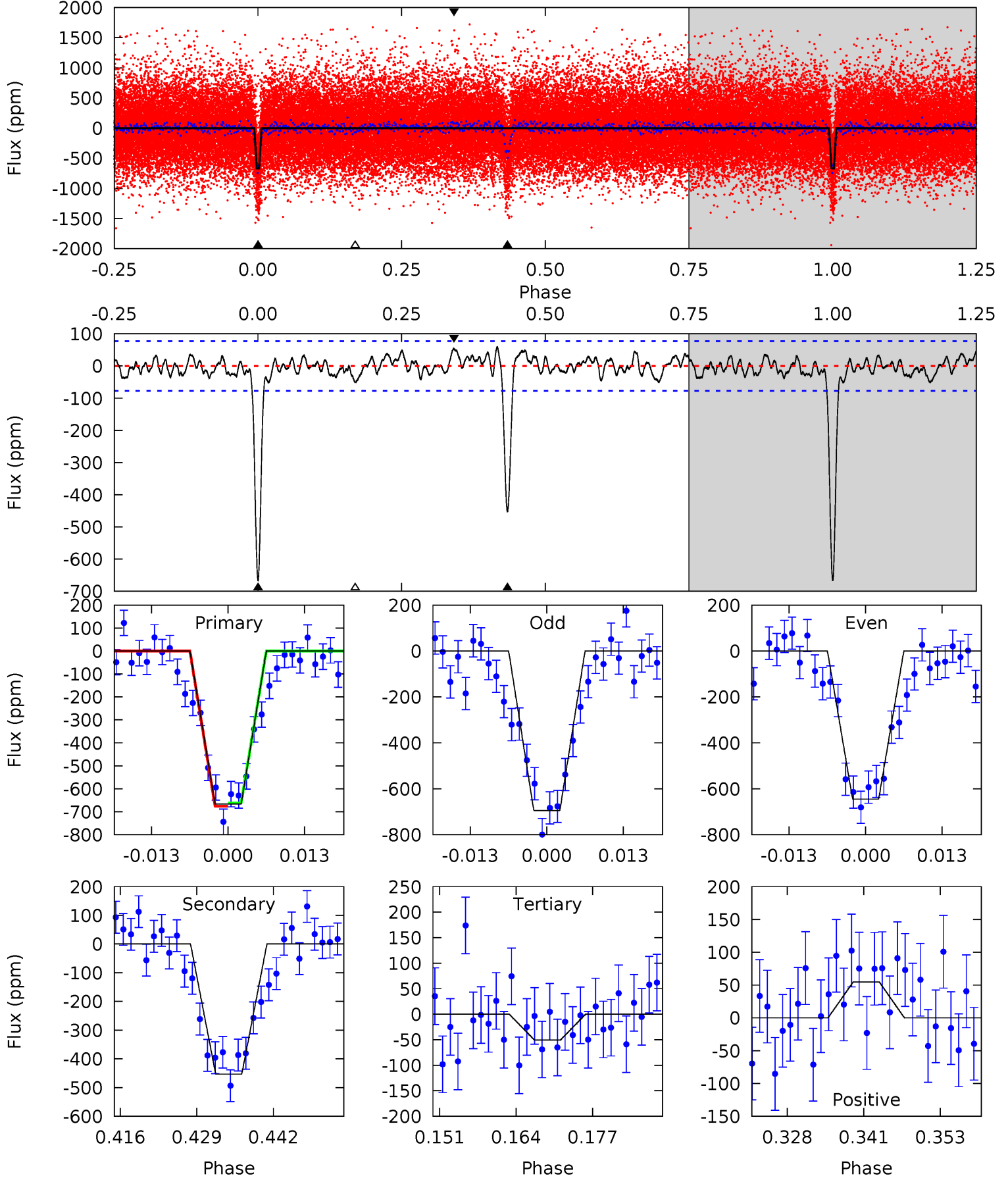
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.2	33.6	4.49	3.87	4.90	2.34	1.82	47.7	48.3	29.1	29.7	1.50	0.84	0.12	0.81



Alt Model-Shift Uniqueness Test

007362696-01, P = 4.931287 Days, E = 134.821883 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.0	29.2	3.26	3.53	4.98	2.49	1.42	39.8	39.5	26.0	25.7	1.61	0.98	0.08	0.48



Stellar Parameters For KIC 007362696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5457^{+209}_{-190}	$4.508^{+0.110}_{-0.110}$	$-0.560^{+0.350}_{-0.300}$	$0.779^{+0.124}_{-0.101}$	$0.712^{+0.104}_{-0.044}$	$2.122^{+1.010}_{-0.683}$
	+4%/-3%	+2%/-2%	+62%/-54%	+16%/-13%	+15%/-6%	+48%/-32%
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 007362696-01 / KOI 3937.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-418 ± 12	$4.83^{+4.32}_{-3.01}$	1320^{+70}_{-73}	3710^{+1766}_{-693}	25^{+158}_{-18}
Alt.	-453 ± 15	$4.48^{+3.97}_{-2.98}$	1325^{+78}_{-73}	3854^{+2065}_{-722}	33^{+241}_{-24}

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

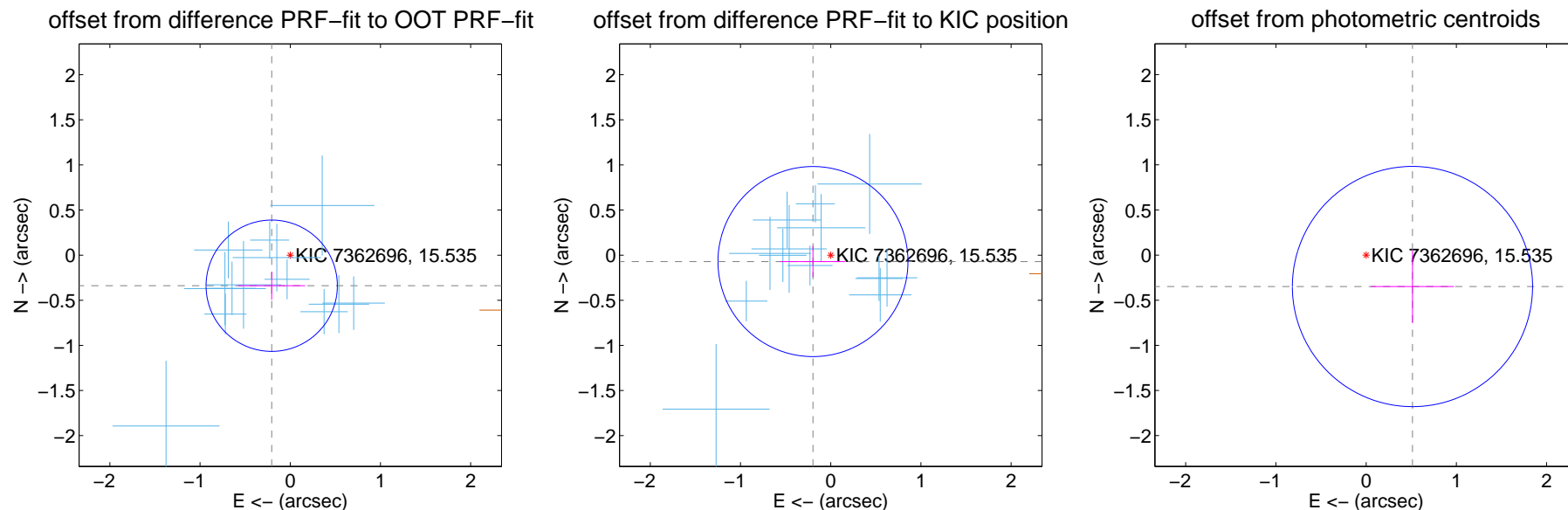
DV Centroid Data

Supplemental centroid analysis for 007362696-01. Kepler magnitude: 15.54. Transit SNR 31.15

There are 13 quarters with good PRF difference image offsets

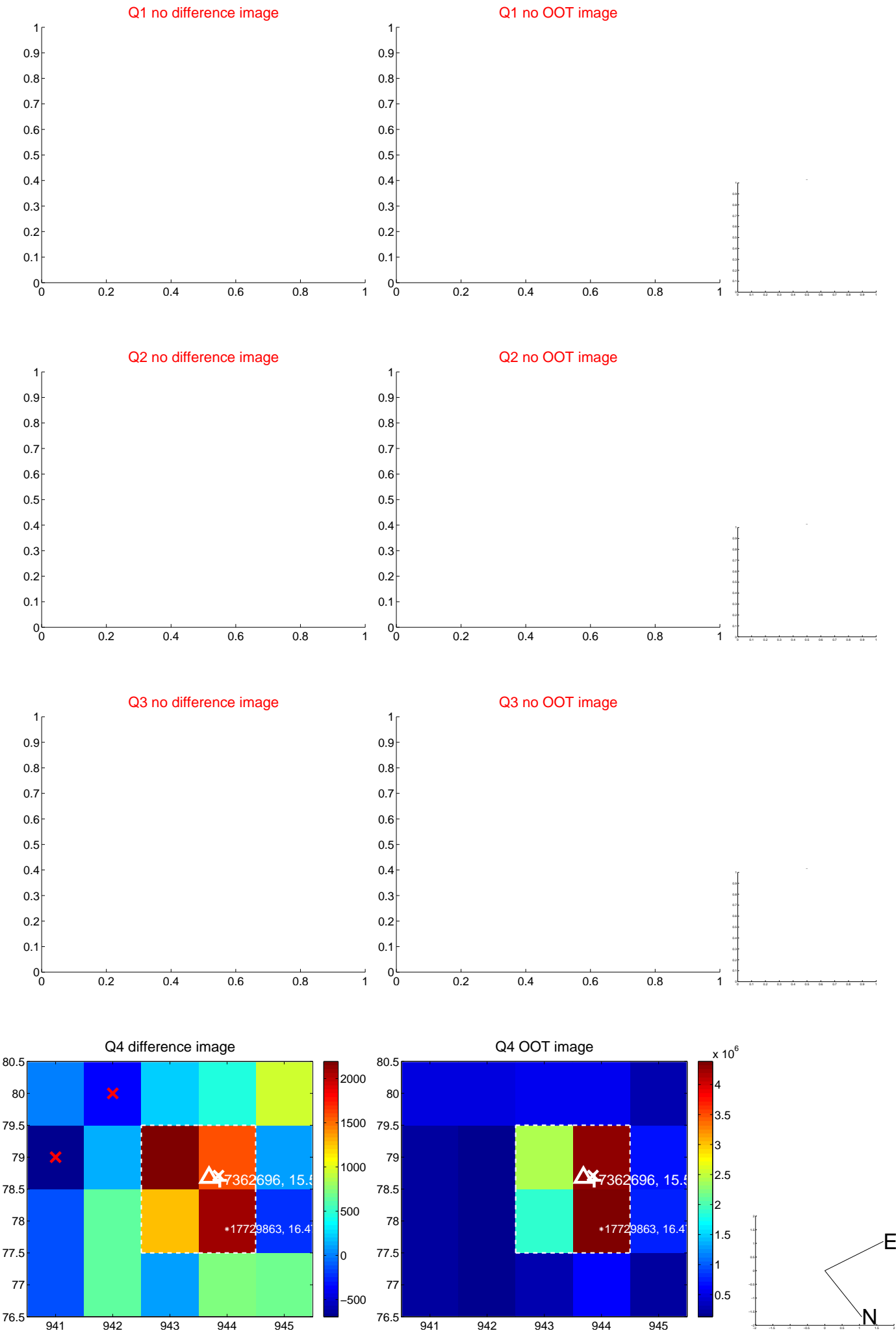
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.396 ± 0.243	1.63	0.206 ± 0.371	-0.339 ± 0.155
PRF-fit source offset from KIC position	0.209 ± 0.351	0.60	0.197 ± 0.360	-0.071 ± 0.172
photometric centroid source offset	0.62 ± 0.44	1.40	-0.51 ± 0.46	-0.35 ± 0.40

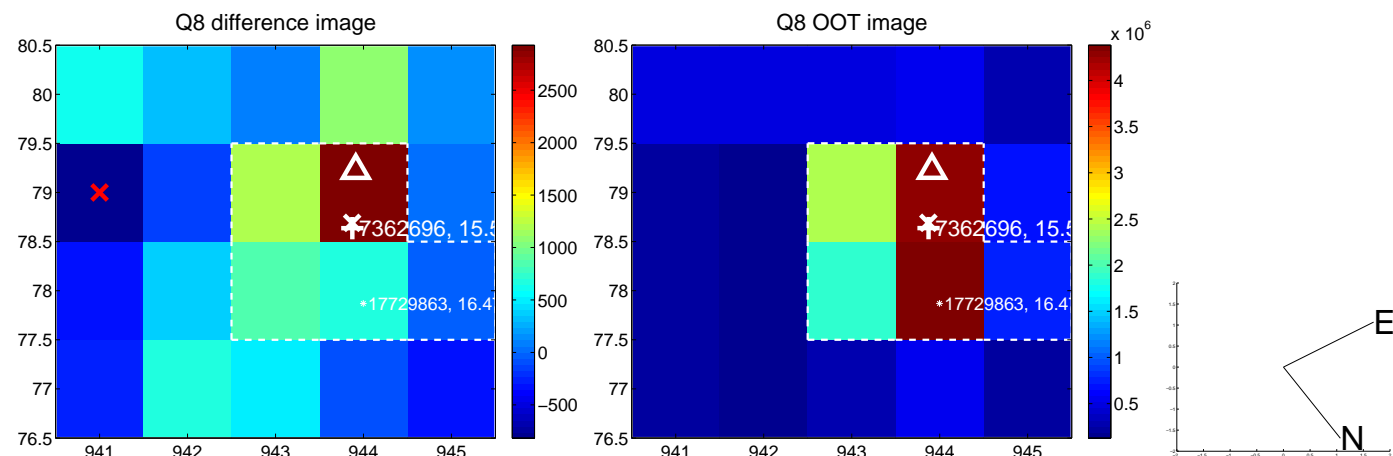
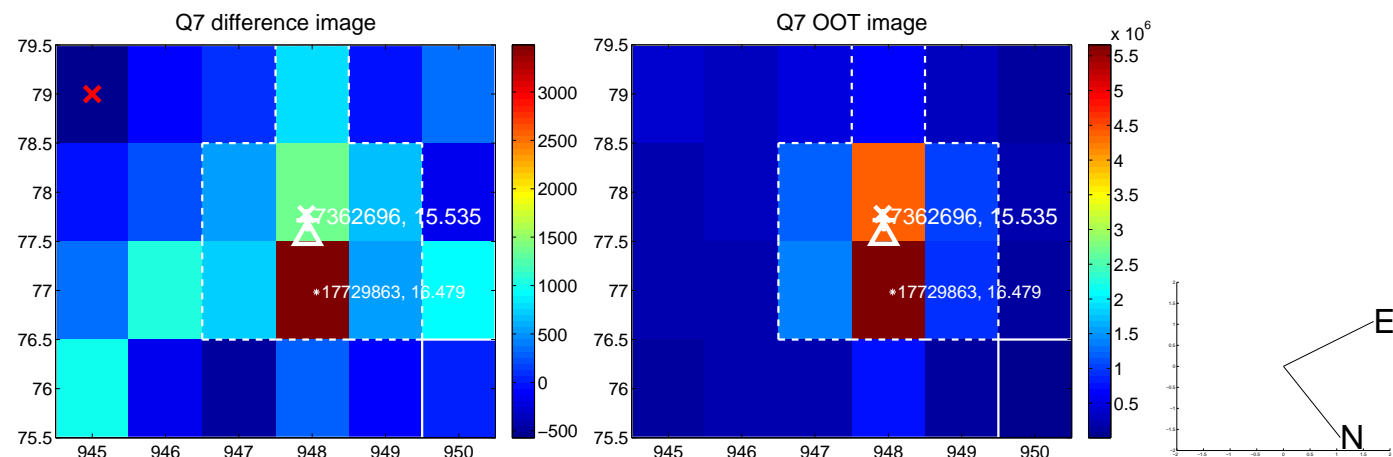
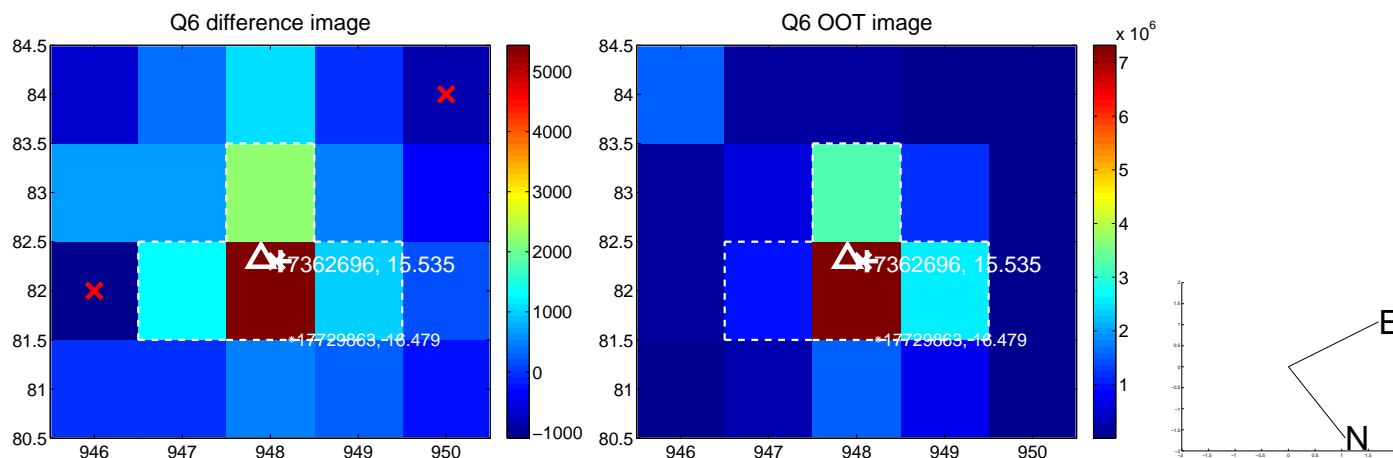
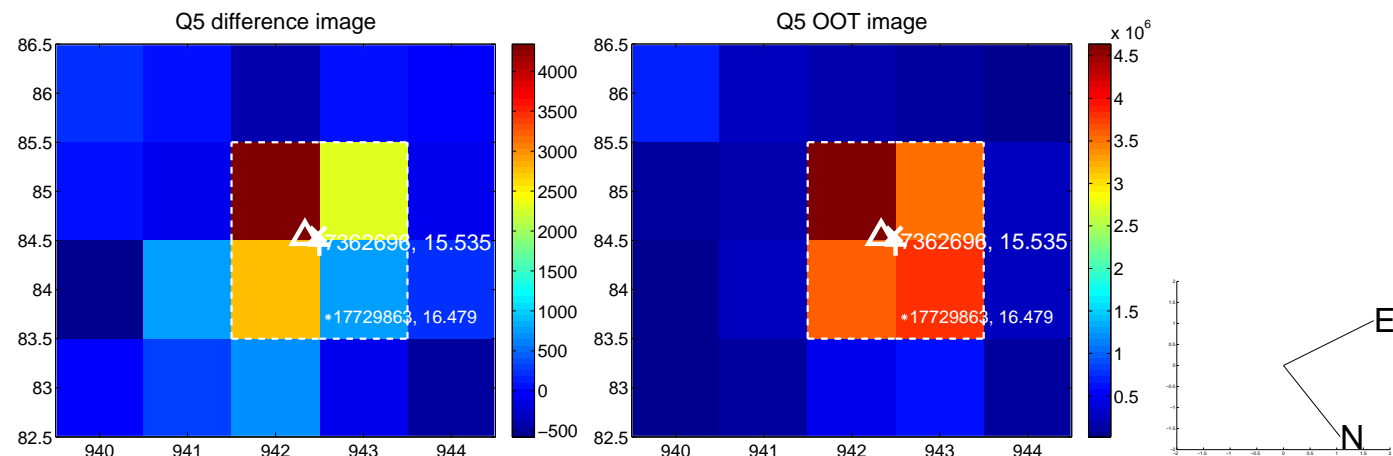


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

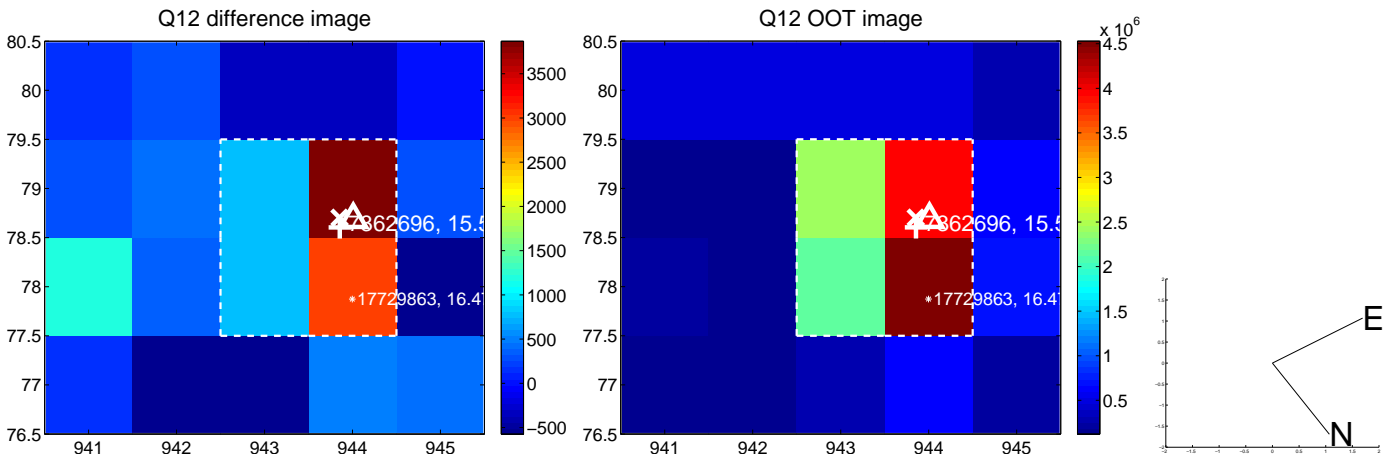
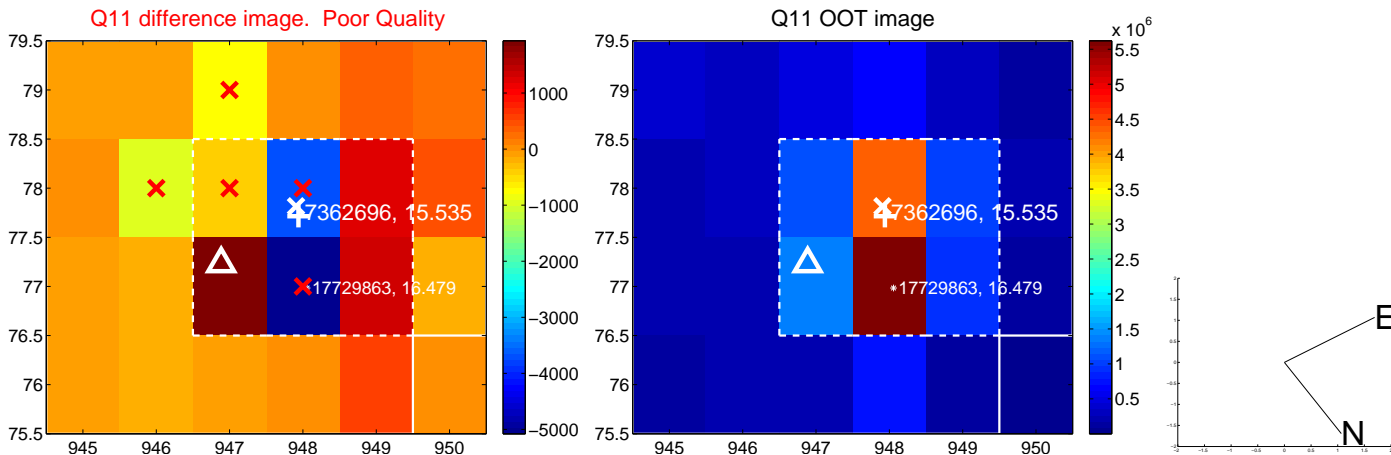
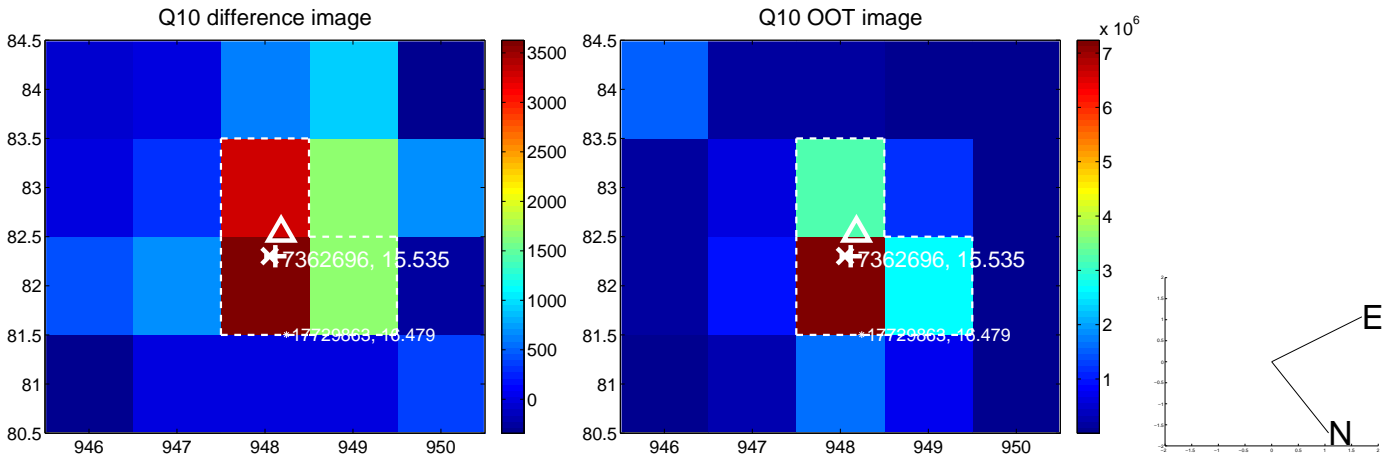
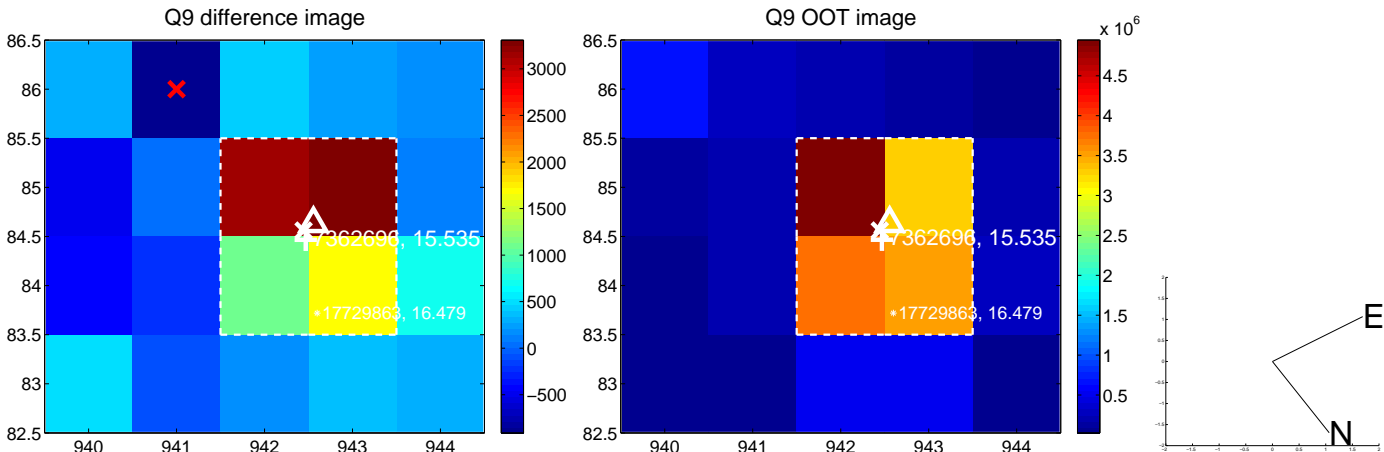
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



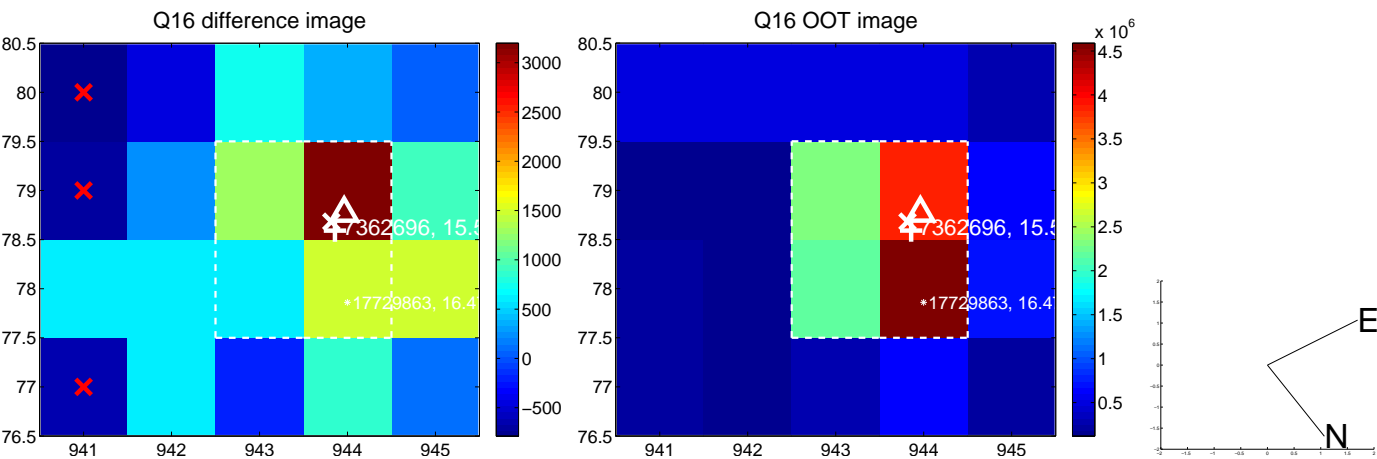
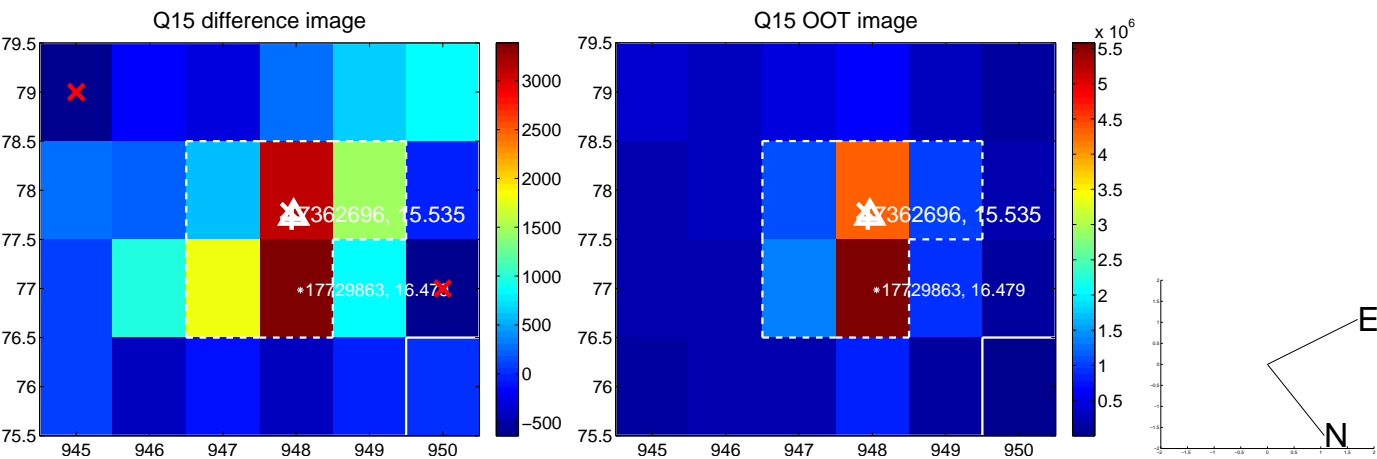
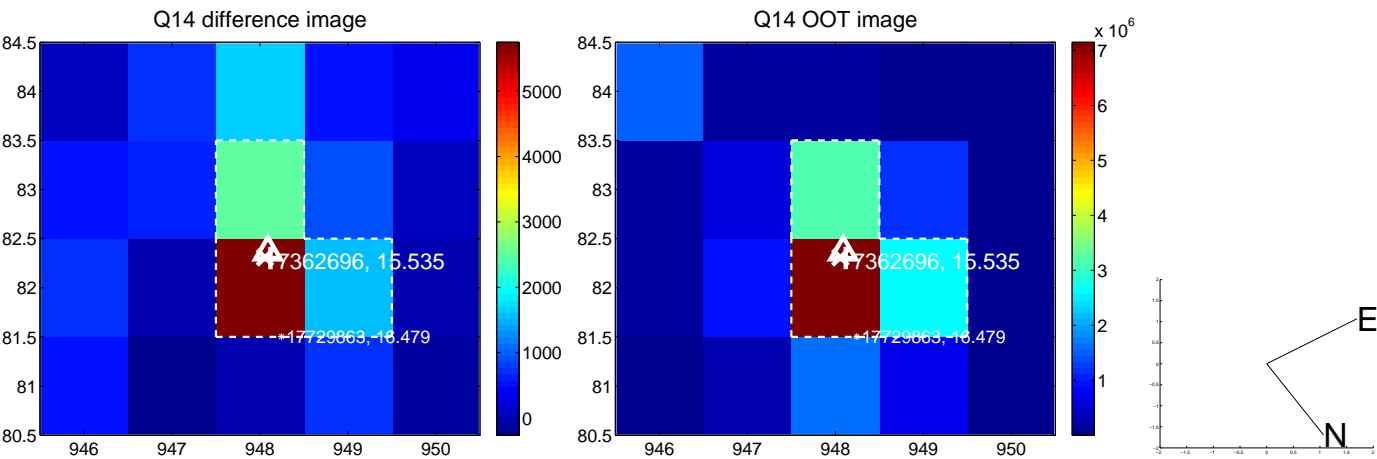
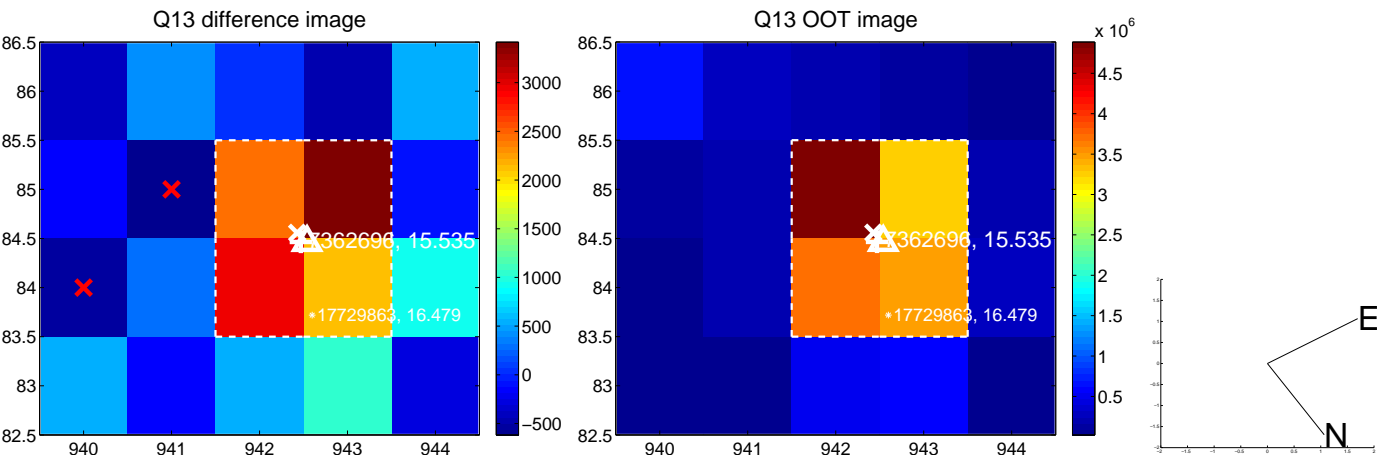
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



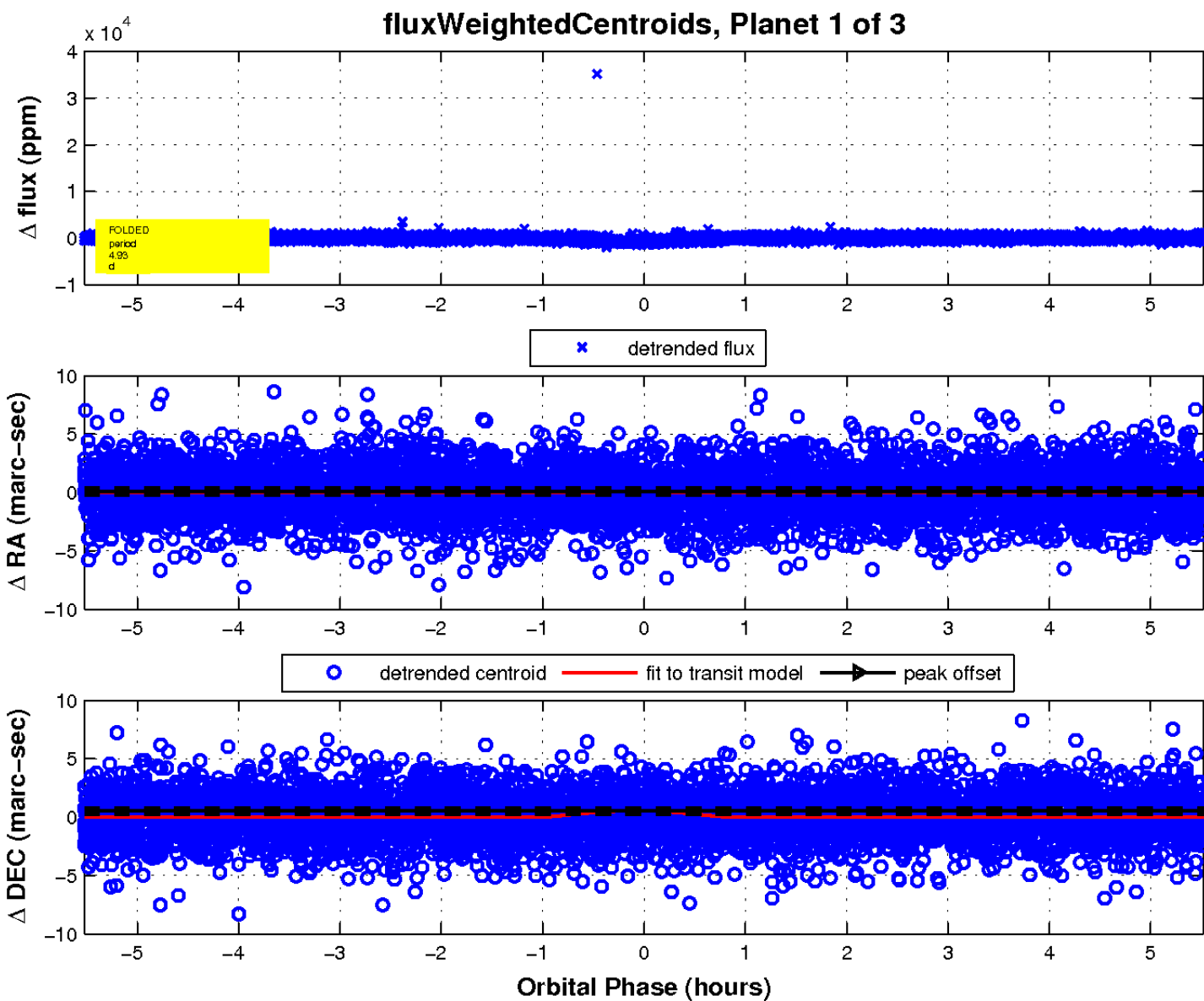
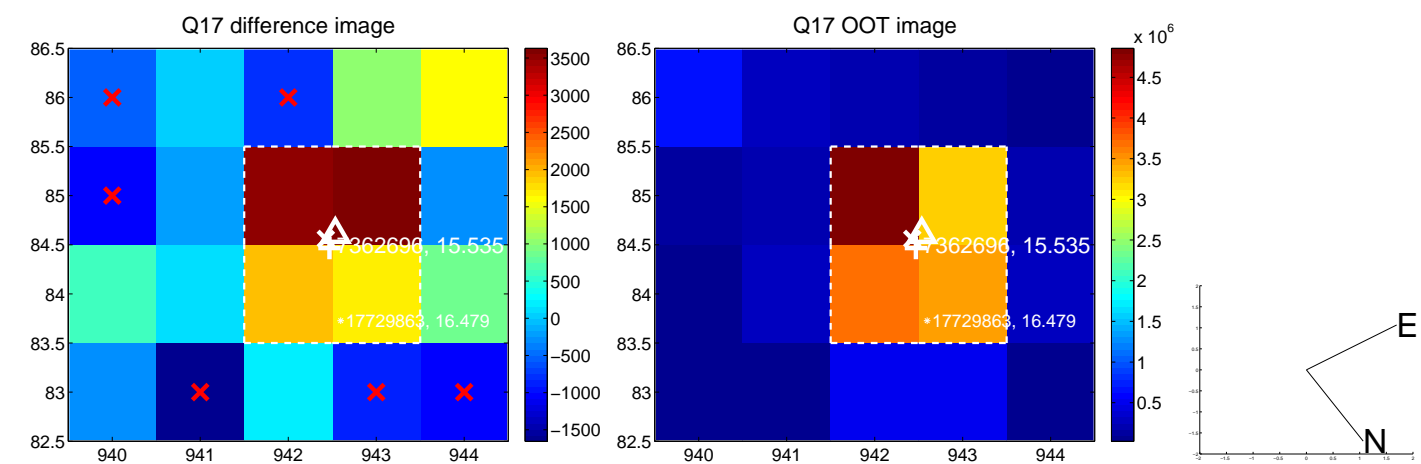
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

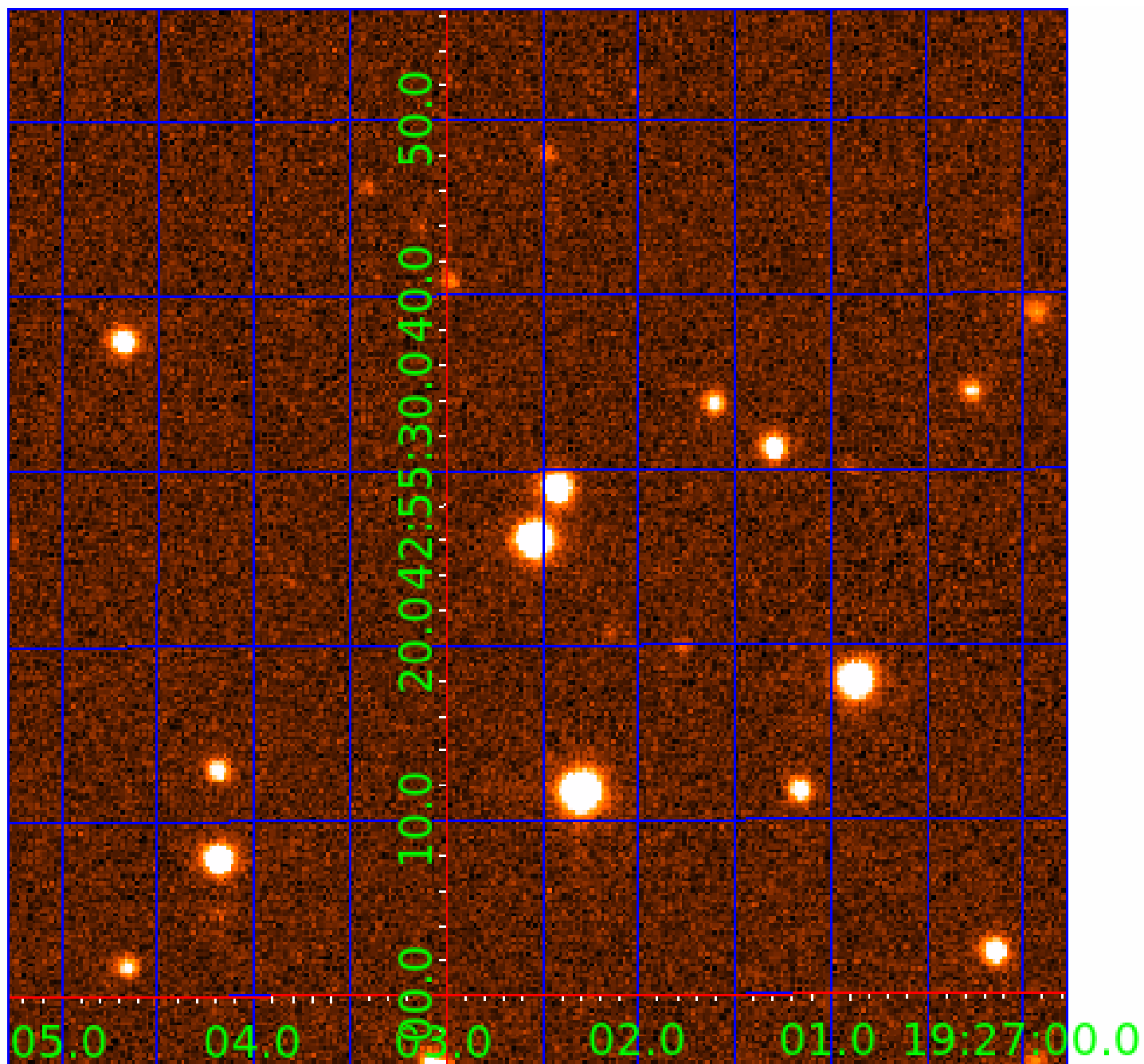


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007362696

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})
007362696-01	OBS	3937.01	4.931268	134.826128	655.9	1.841	27.4	31.1	0.78	5457	3.53	187.84
007362696-02	OBS	No	4.931286	132.032485	416.0	1.615	20.1	21.9	0.78	5457	1.90	187.84
007362696-03	OBS	No	0.566701	131.946144	10.6	3.481	9.7	2.4	0.78	5457	0.25	3361.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362696-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007362696-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007362696-03	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 007362696-02

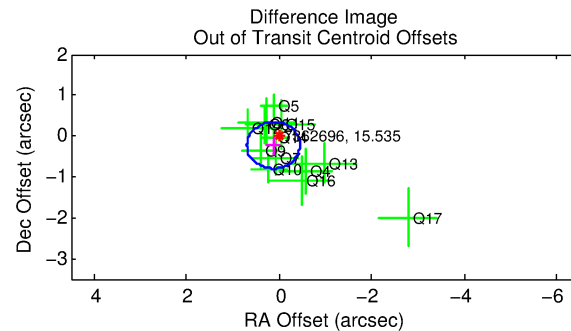
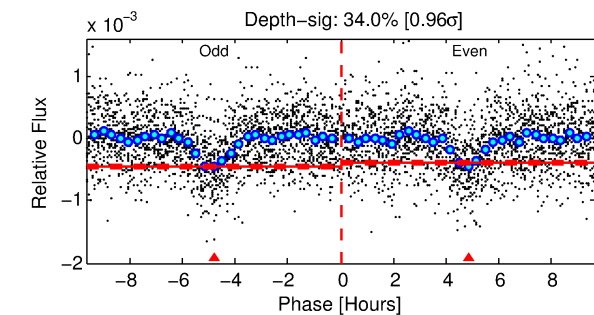
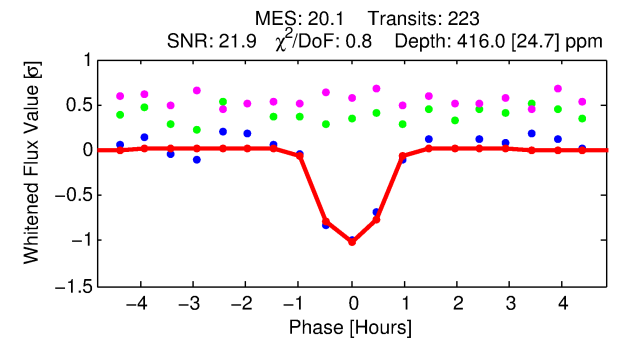
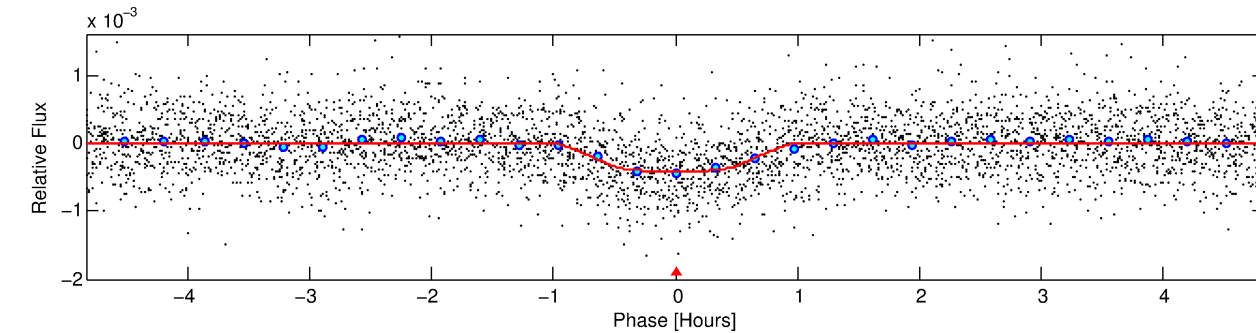
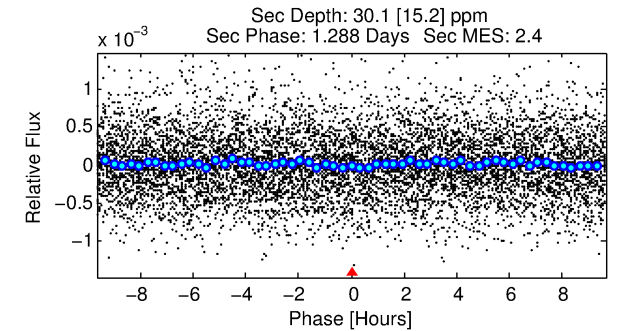
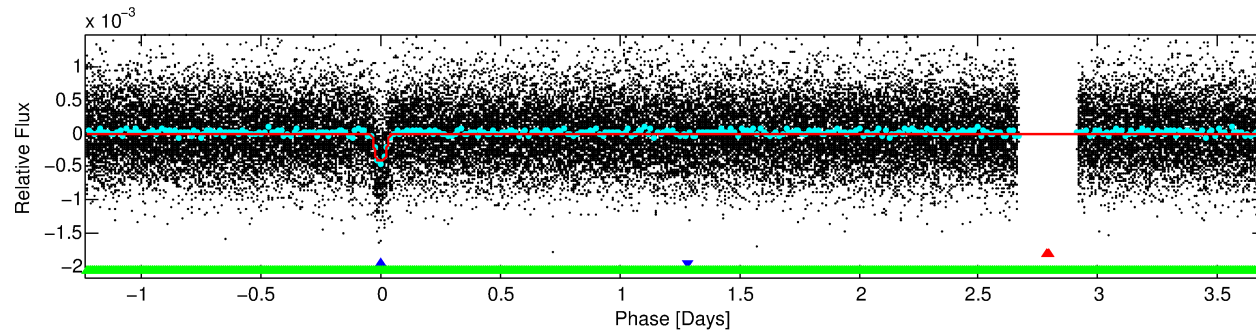
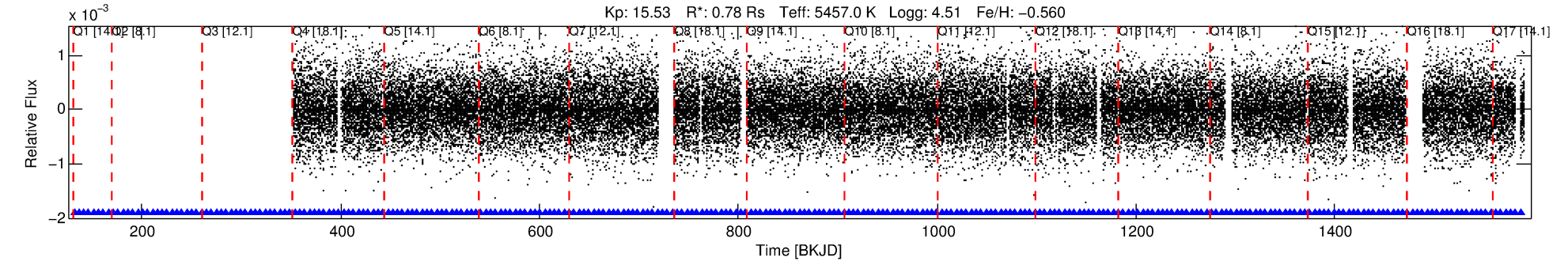
No Significant Match Found

DV One-Page Summary

KIC: 7362696 Candidate: 2 of 3 Period: 4.931 d

KOI: K03937 Corr: No Ephemeris Match

Kp: 15.53 R*: 0.78 Rs Teff: 5457.0 K Logg: 4.51 Fe/H: -0.560



DV Fit Results:

Period = 4.93129 [0.00001] d
Epoch = 132.0325 [0.0017] BKJD
Rp/R* = 0.0223 [0.0070]
a/R* = 11.37 [16.25]
b = 0.90 [0.31]
Seff = 187.84 [47.24]
Teff = 944 [59] K
Rp = 1.90 [0.67] Re
a = 0.0507 [0.0069] AU
Ag = 11.82 [9.81] [1.10σ]
Teffp = 2706 [555] K [3.16σ]

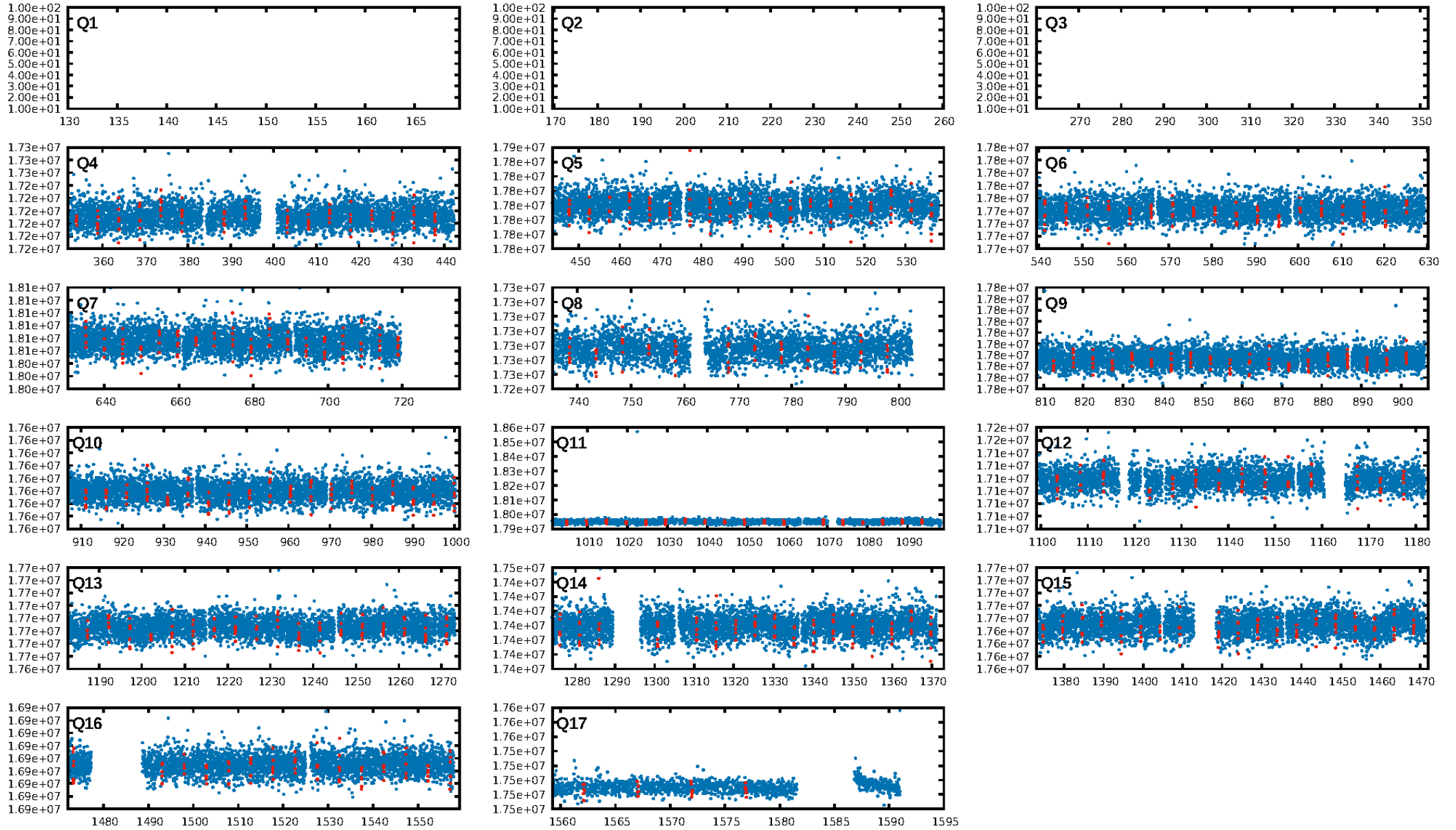
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.14e-53
RollingBand-fgt: 1.00 [219/219]
GhostDiagnostic-chr: 7.358
Centroid-sig: 0.0%
Centroid-so: 1.294 arcsec [2.22σ]
OotOffset-rm: 0.262 arcsec [1.37σ]
KicOffset-rm: 0.126 arcsec [0.46σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.85 [11/13]
DiffImageOverlap-fno: 0.00 [0/14]

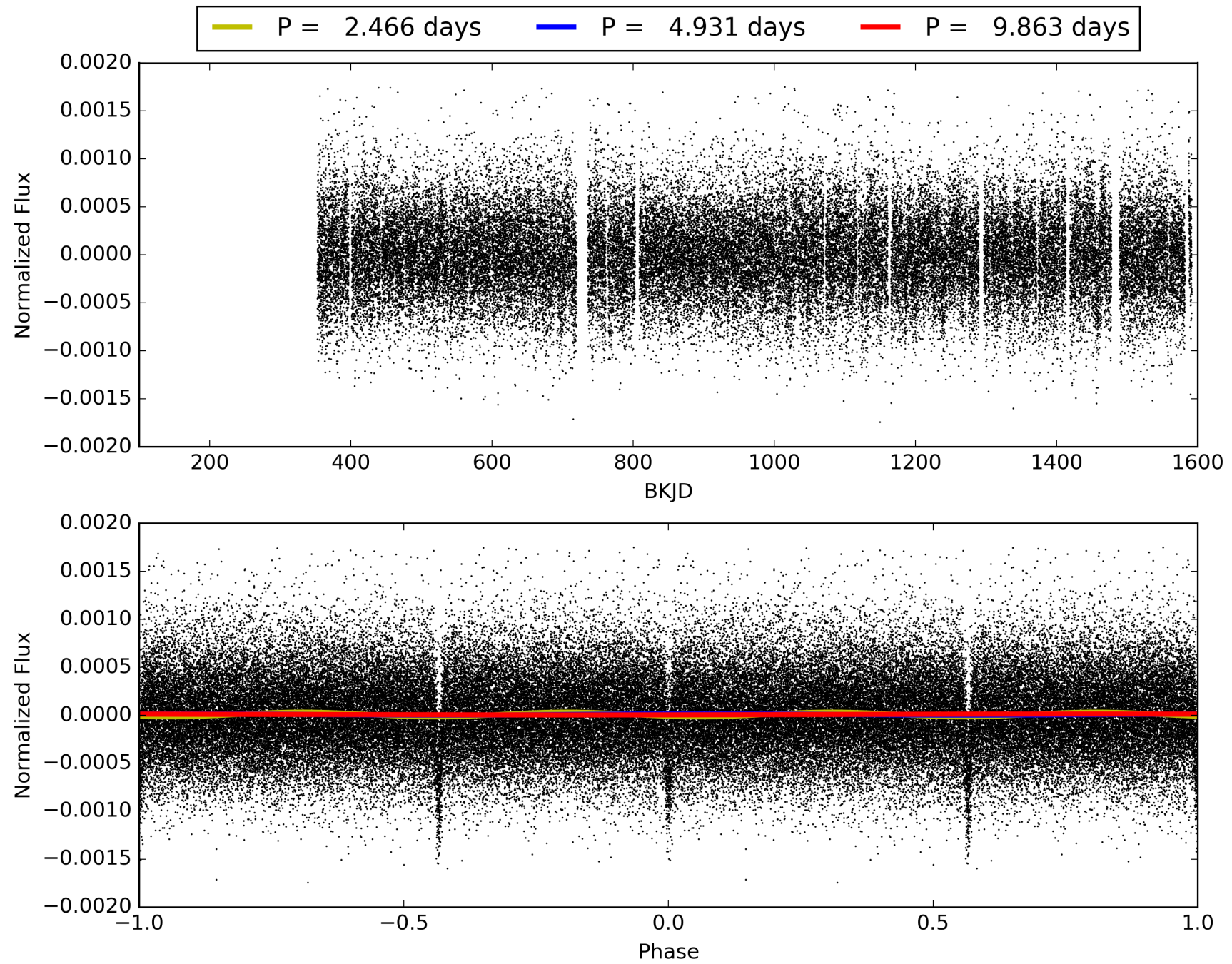
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:46:32 Z

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

TCE 007362696-02, PDC Light Curves

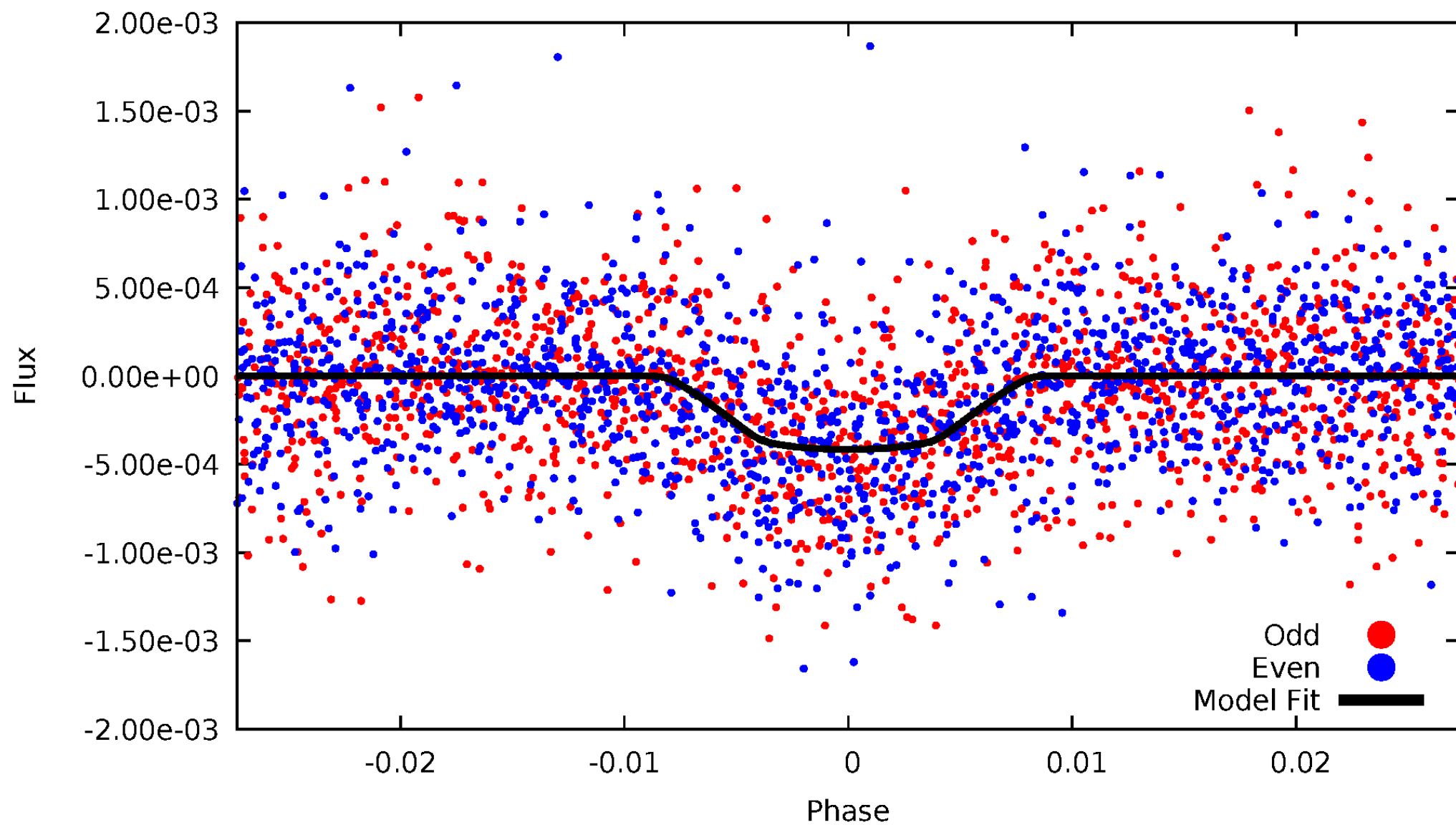


TCE 007362696-02



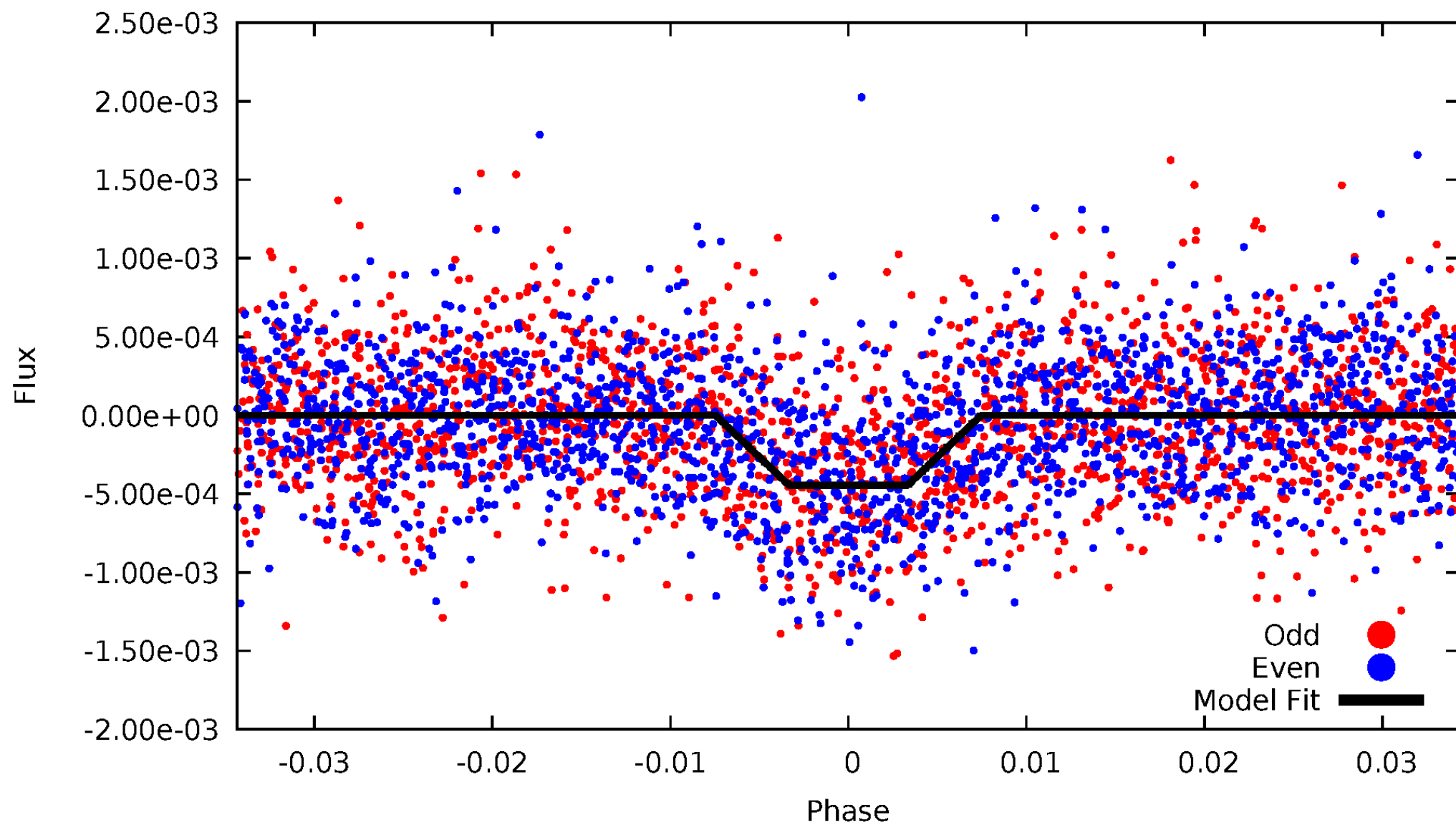
DV Odd/Even

TCE 007362696-02



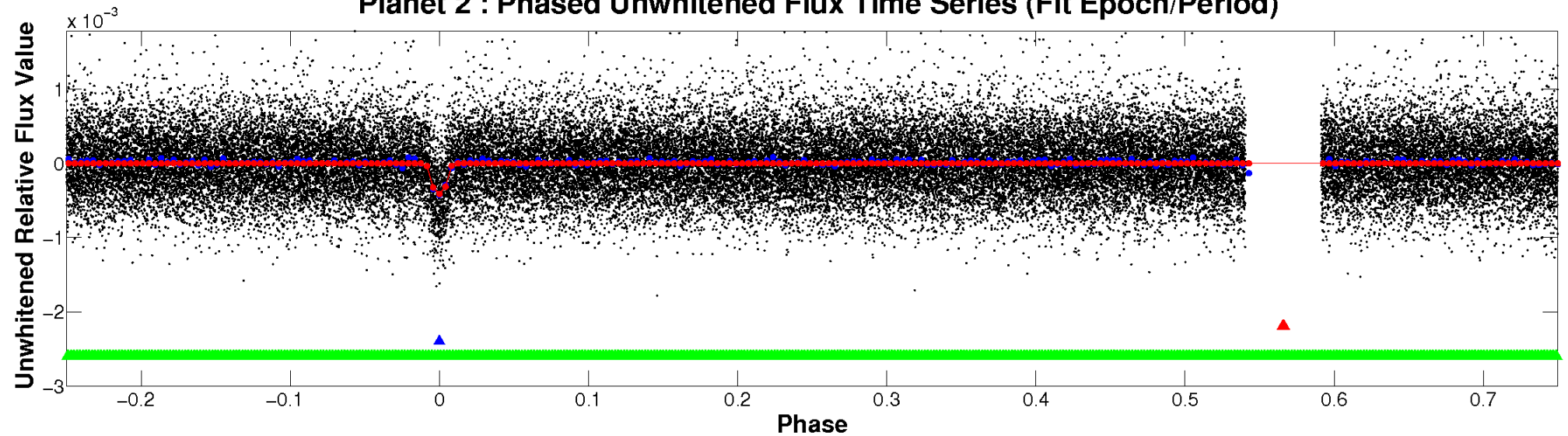
ALT Odd/Even

TCE 007362696-02

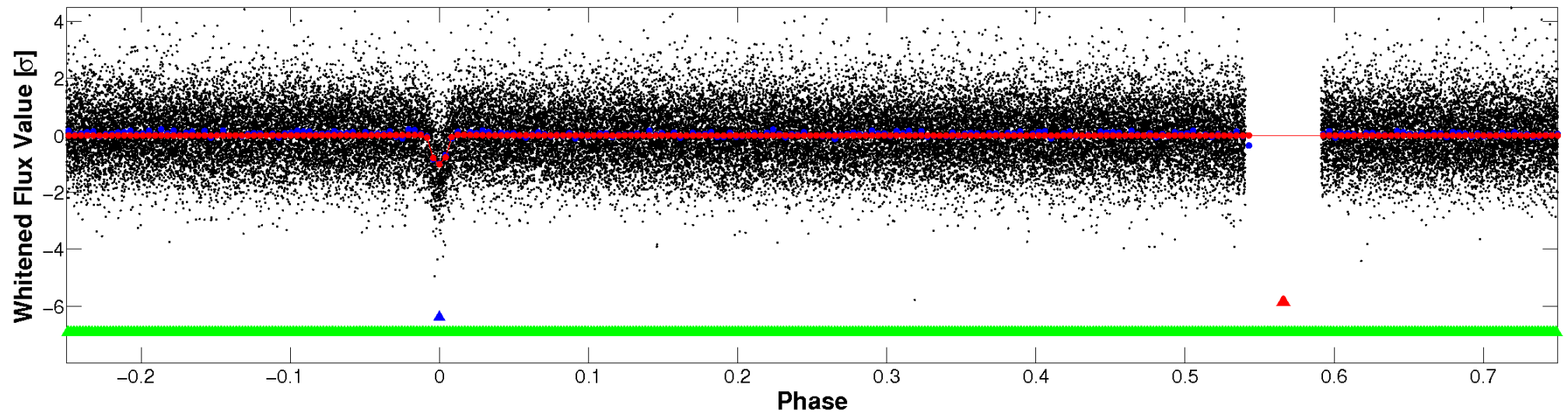


Non-Whitened Vs. Whitened Light Curve

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

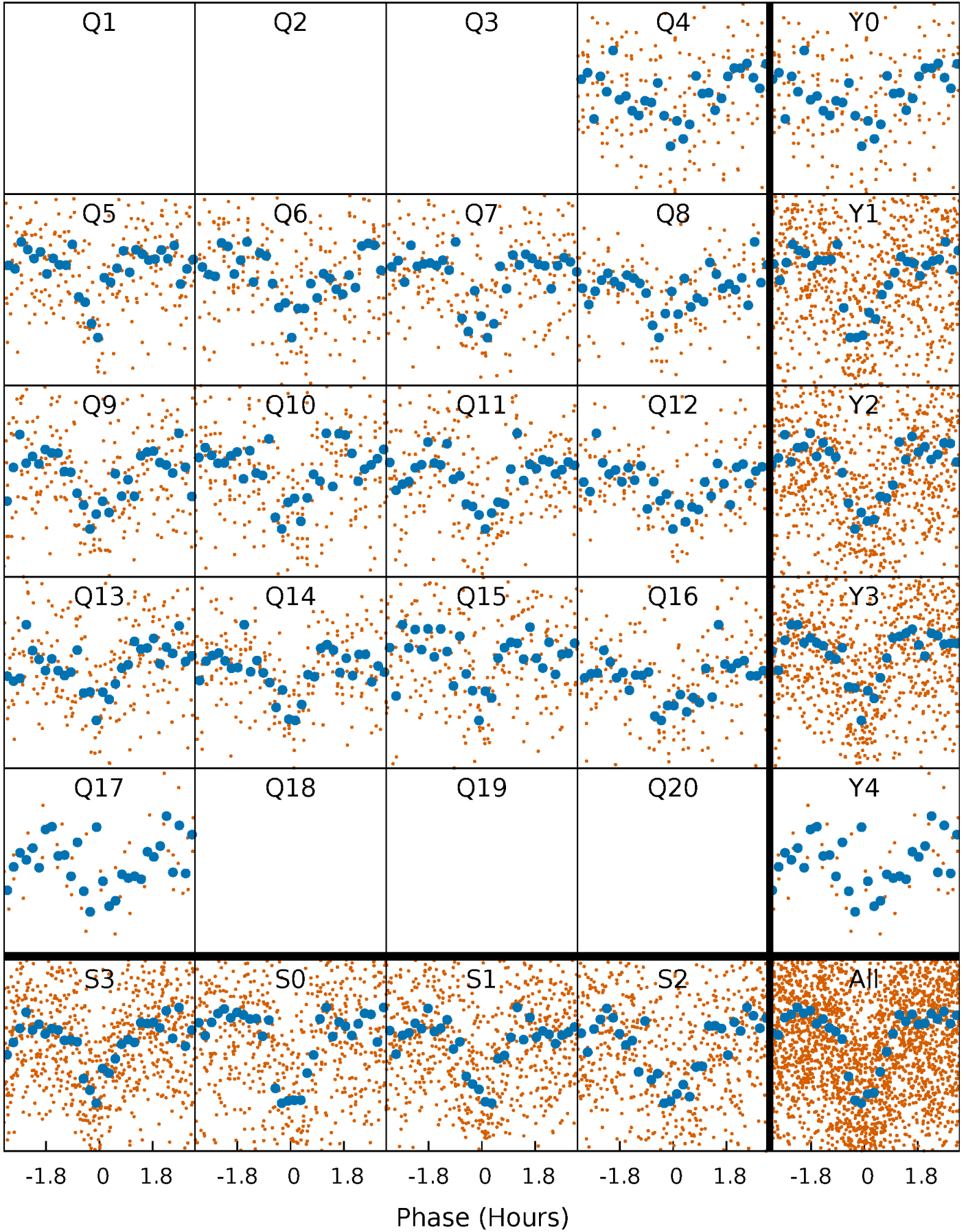


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



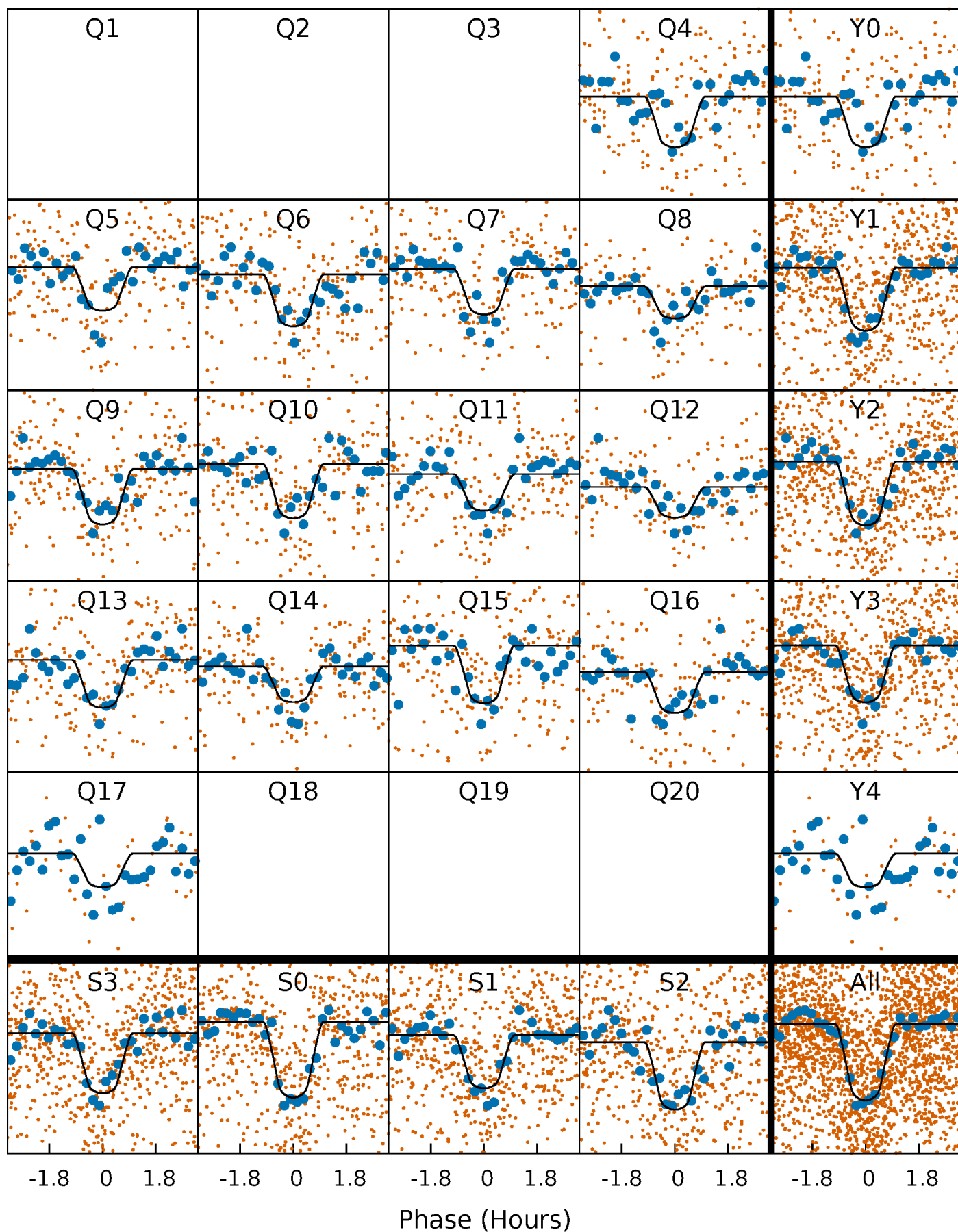
PDC Quarter-Phased Transit Curves

TCE 007362696-02 P= 4.931286 Days $T_0=132.032485$ (BKJD)



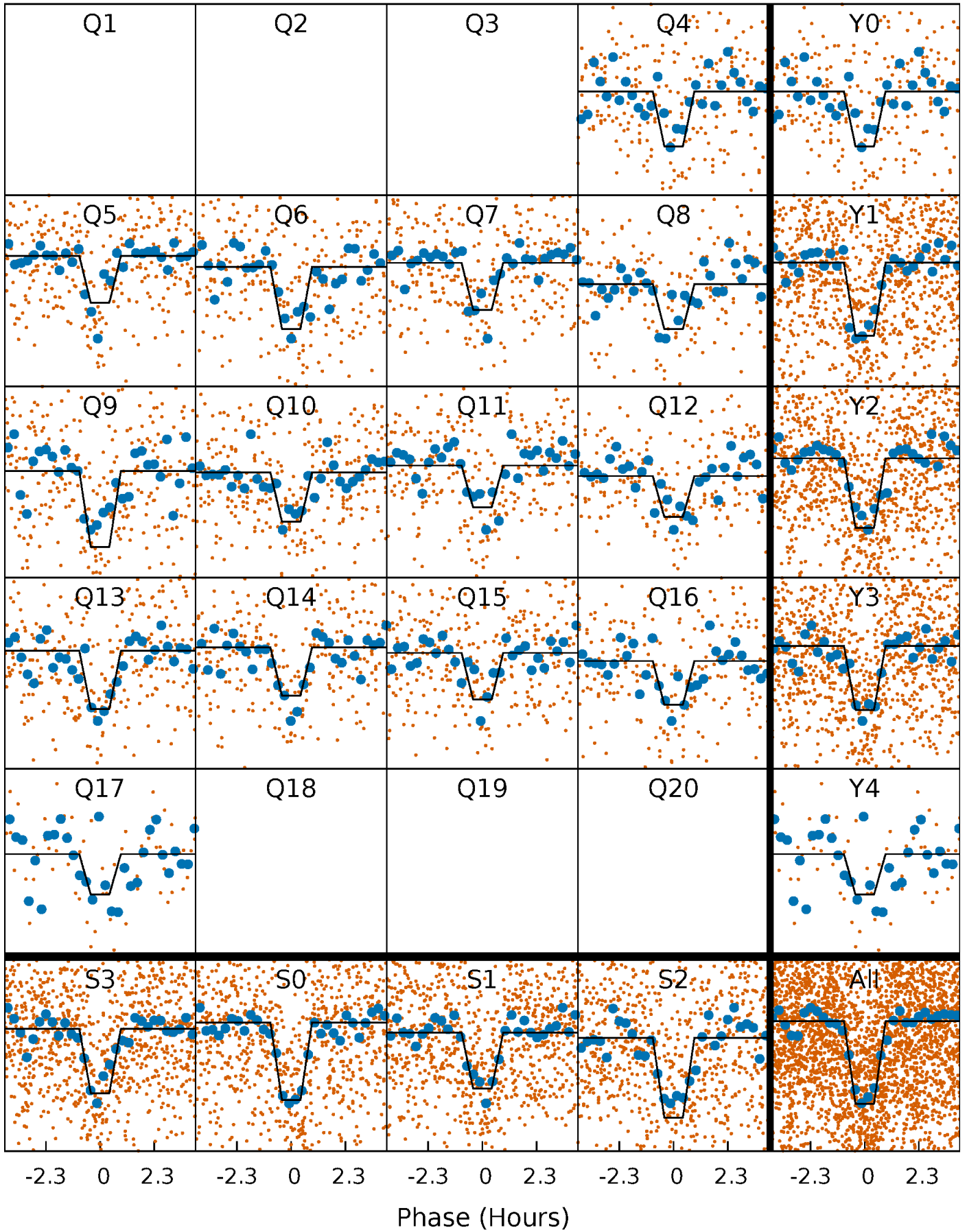
DV Quarter-Phased Transit Curves

TCE 007362696-02 $P = 4.931286$ Days $T_0 = 132.032485$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

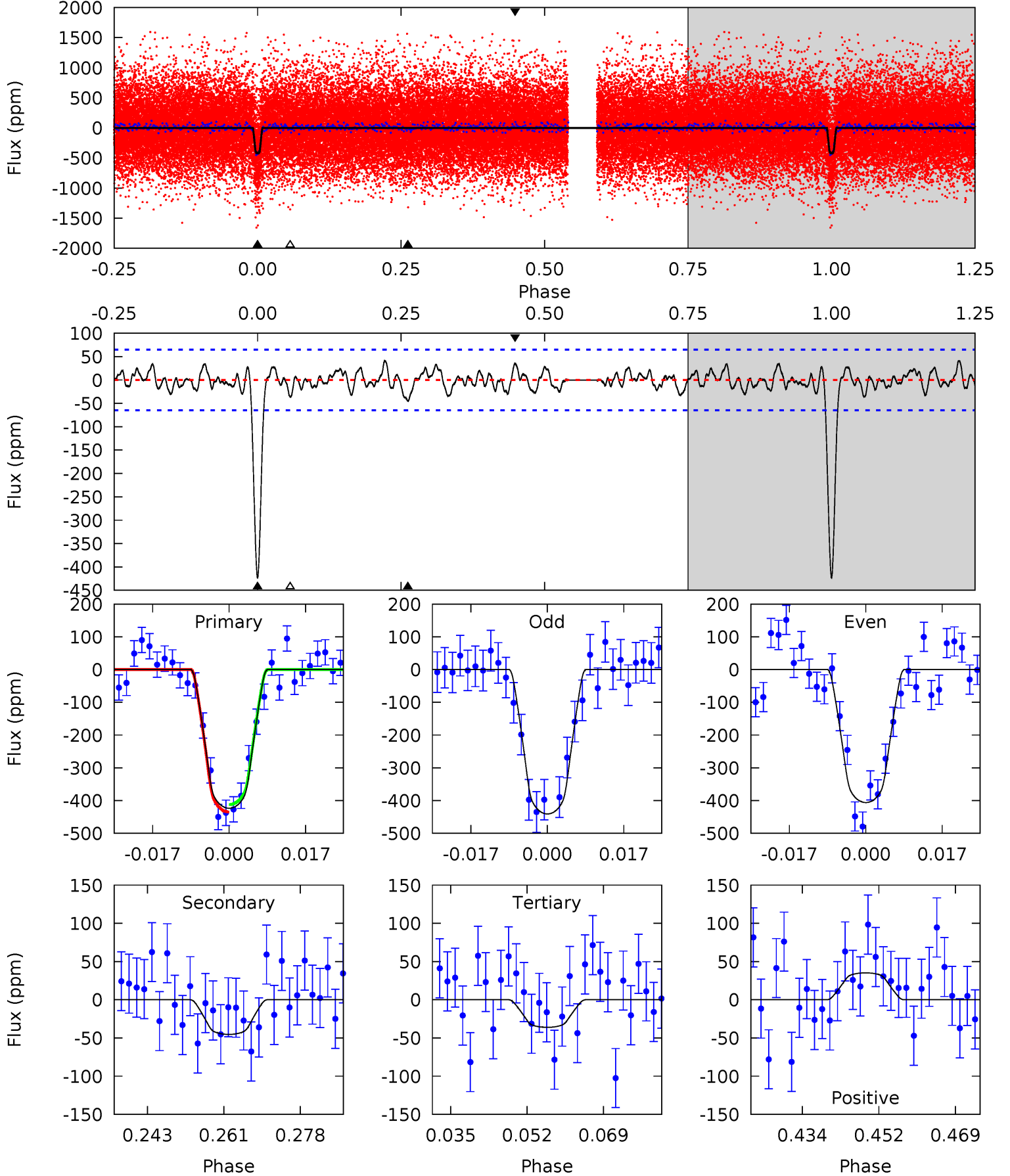
TCE 007362696-02 P= 4.931269 Days $T_0=132.034866$ (BKJD)



DV Model-Shift Uniqueness Test

007362696-02, P = 4.931286 Days, E = 132.032485 Days

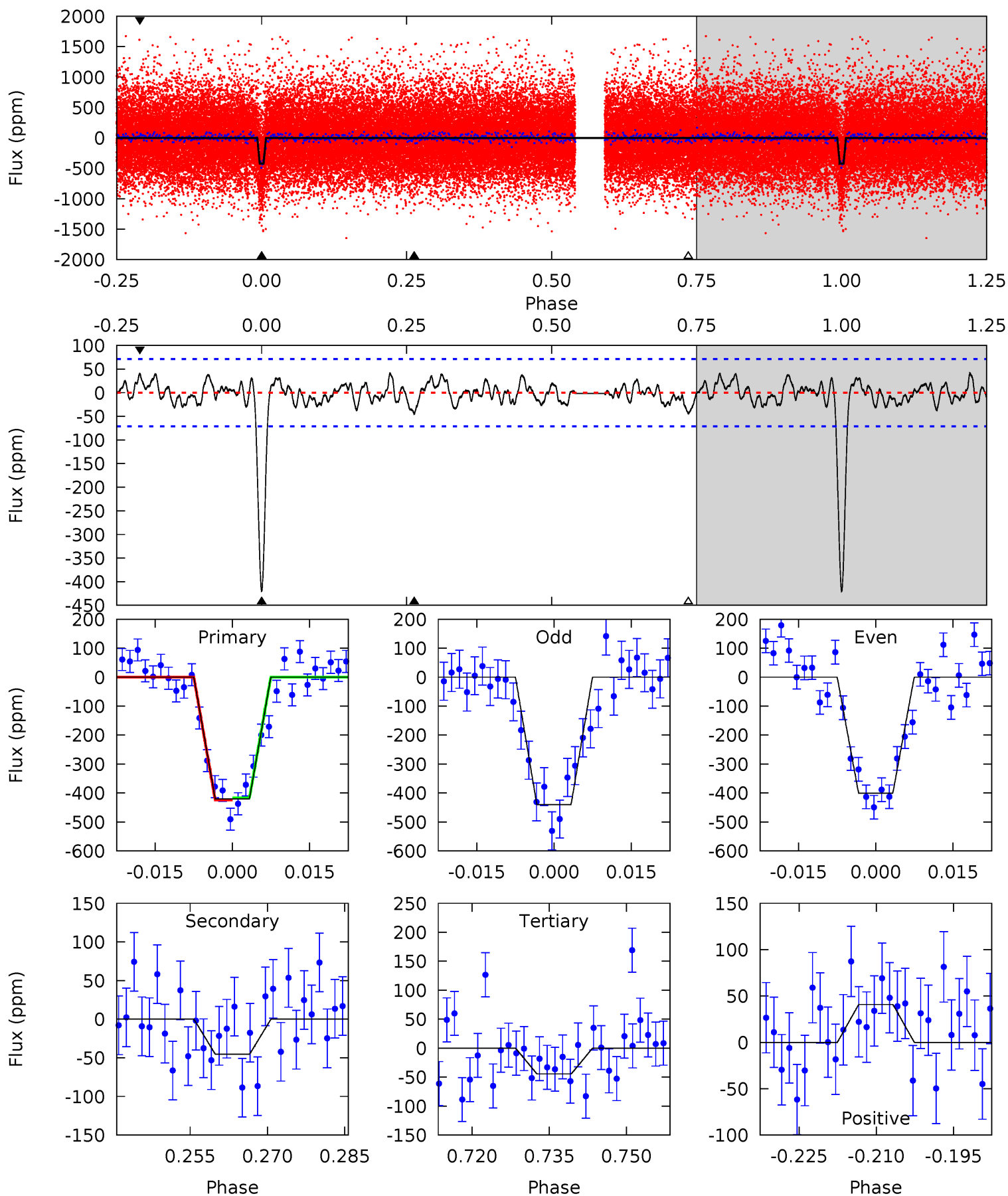
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.1	3.44	2.74	2.67	4.92	2.38	1.16	29.4	29.5	0.70	0.77	1.32	0.97	0.09	0.85



Alt Model-Shift Uniqueness Test

007362696-02, P = 4.931269 Days, E = 132.034866 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.1	3.15	3.08	2.83	4.95	2.43	1.21	26.0	26.3	0.07	0.32	1.36	1.03	0.09	0.26



Stellar Parameters For KIC 007362696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5457^{+209}_{-190}	$4.508^{+0.110}_{-0.110}$	$-0.560^{+0.350}_{-0.300}$	$0.779^{+0.124}_{-0.101}$	$0.712^{+0.104}_{-0.044}$	$2.122^{+1.010}_{-0.683}$
	+4%/-3%	+2%/-2%	+62%/-54%	+16%/-13%	+15%/-6%	+48%/-32%
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 007362696-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 13	$1.92^{+0.63}_{-0.63}$	1319^{+71}_{-66}	3454^{+460}_{-334}	17^{+21}_{-8}
Alt.	-45 ± 14	$1.86^{+0.64}_{-0.64}$	1321^{+74}_{-71}	3489^{+554}_{-372}	18^{+27}_{-9}

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 $A_{obs} \gg 1.0$

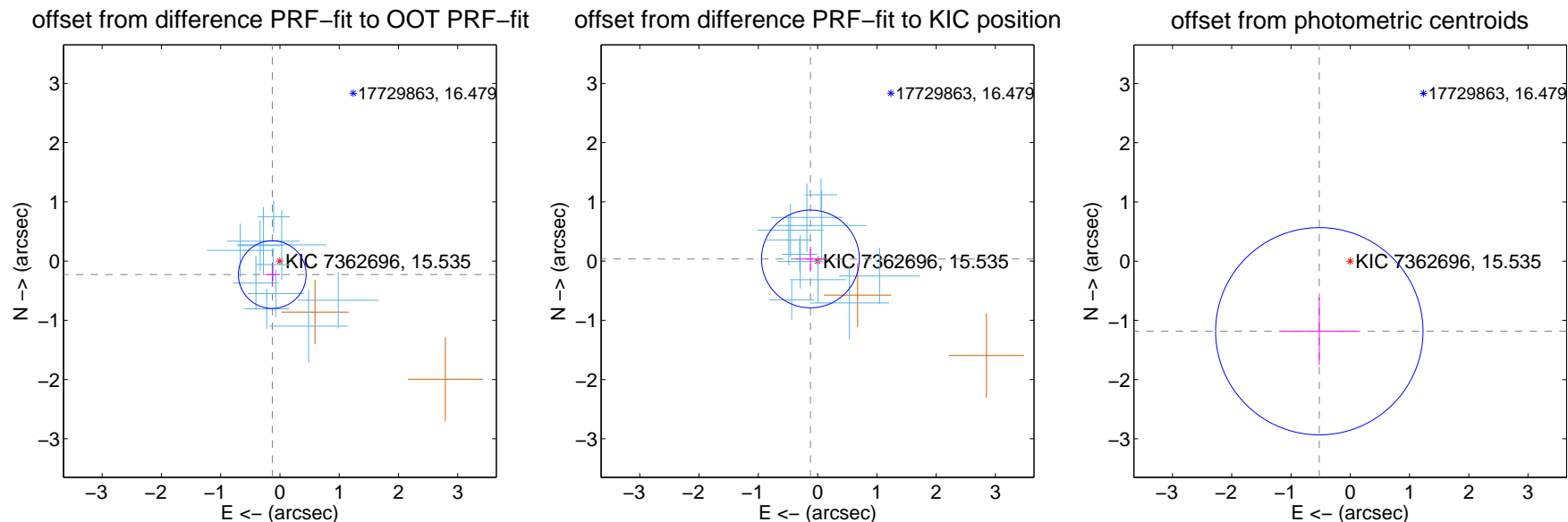
DV Centroid Data

Supplemental centroid analysis for 007362696-02. Kepler magnitude: 15.54. Transit SNR 21.92

There are 11 quarters with good PRF difference image offsets

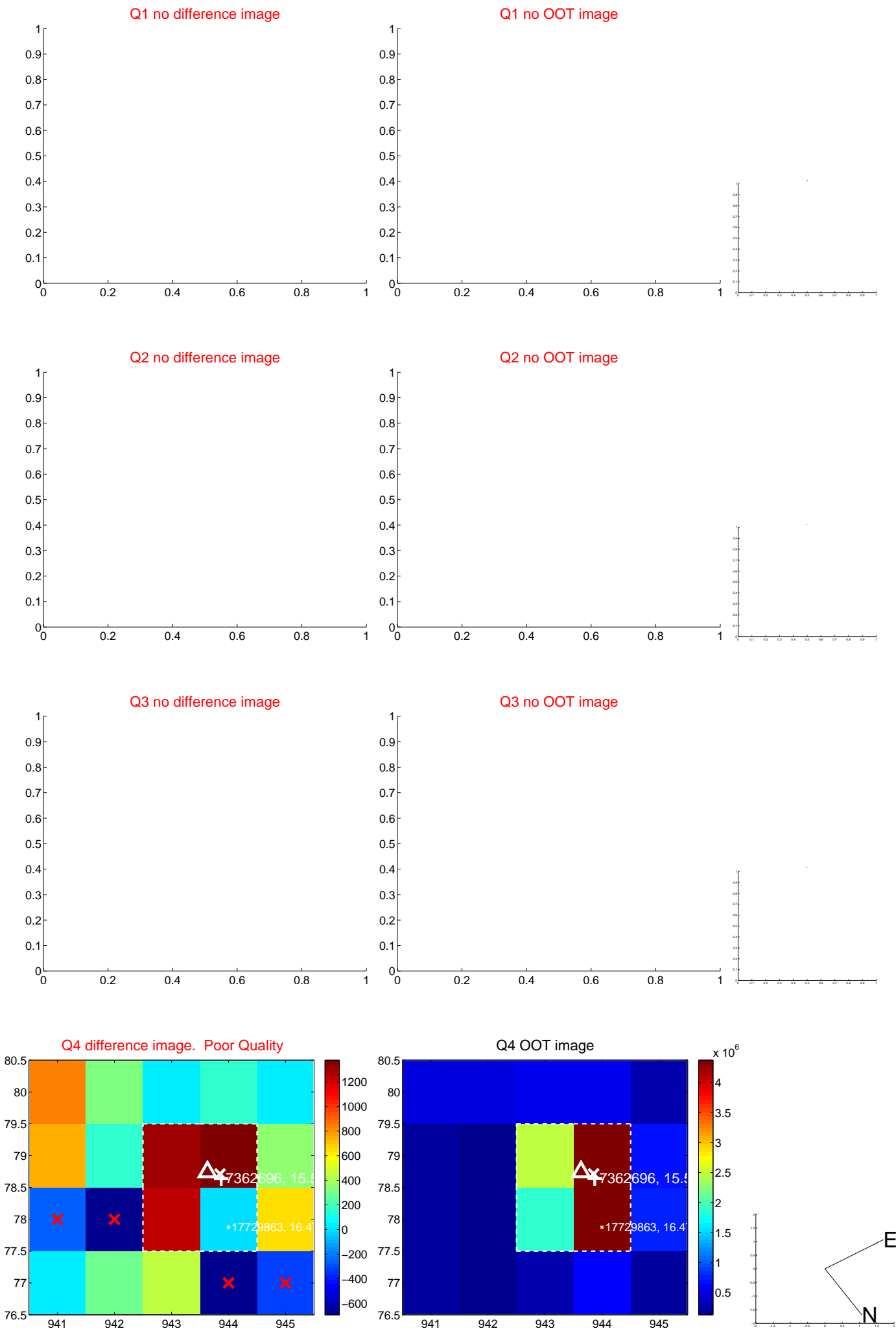
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.262 ± 0.191	1.37	0.129 ± 0.131	-0.228 ± 0.206
PRF-fit source offset from KIC position	0.126 ± 0.275	0.46	0.121 ± 0.243	0.036 ± 0.207
photometric centroid source offset	1.29 ± 0.58	2.22	0.52 ± 0.65	-1.18 ± 0.57

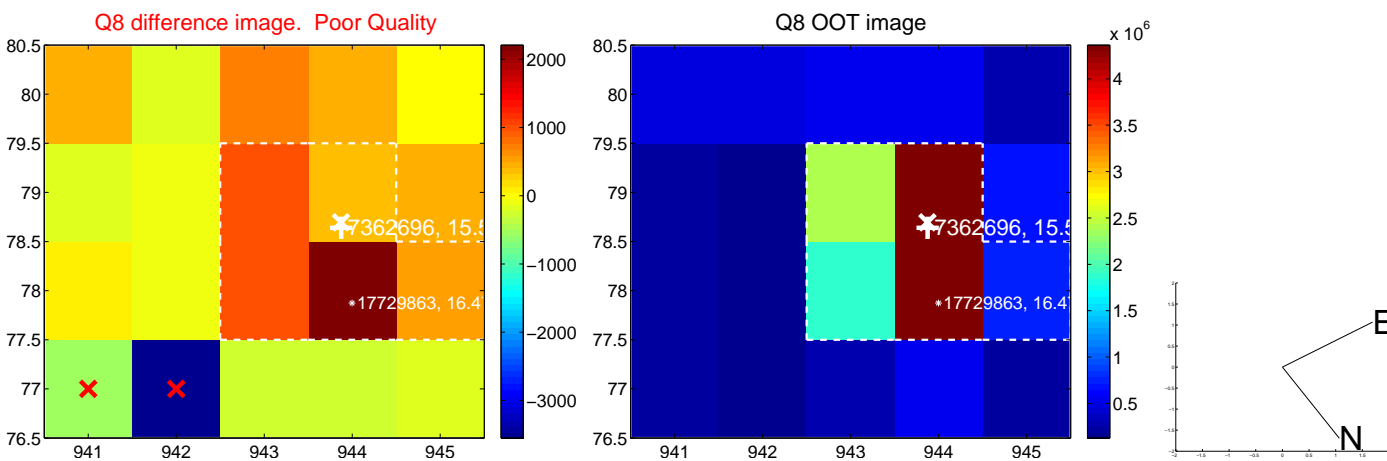
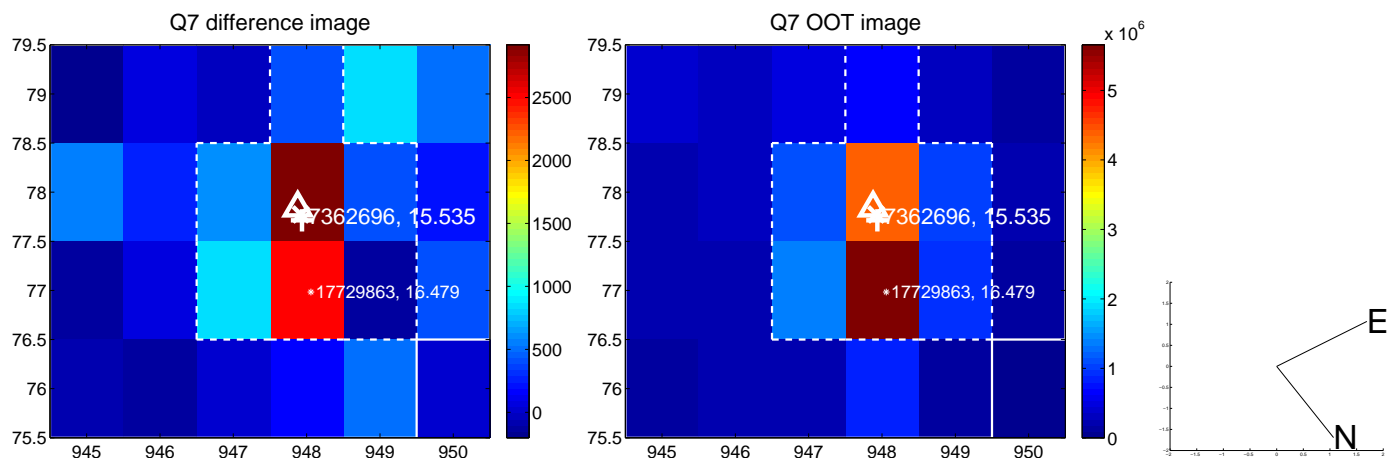
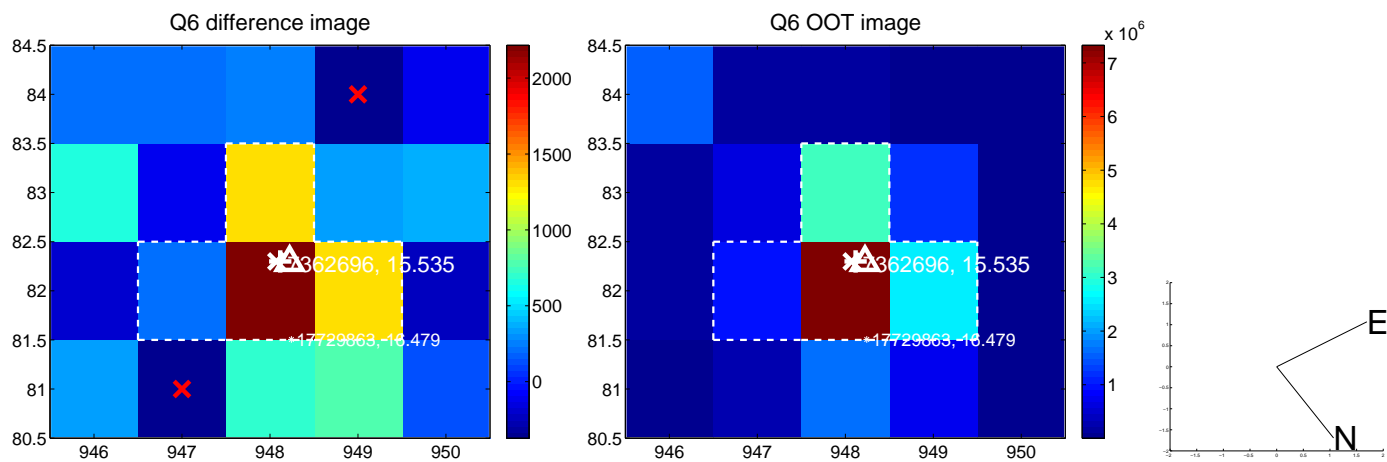
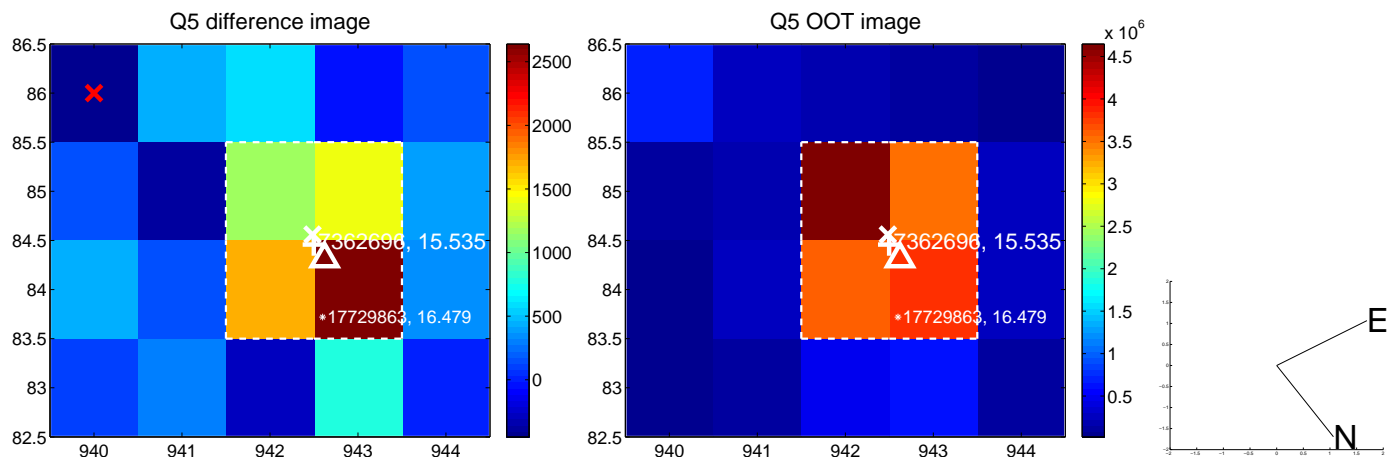


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

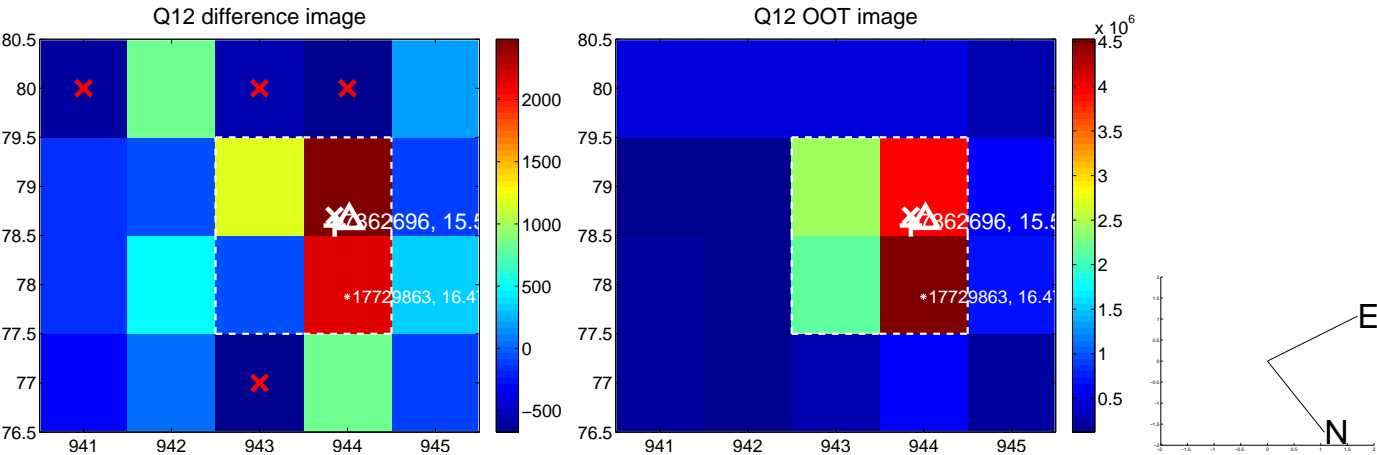
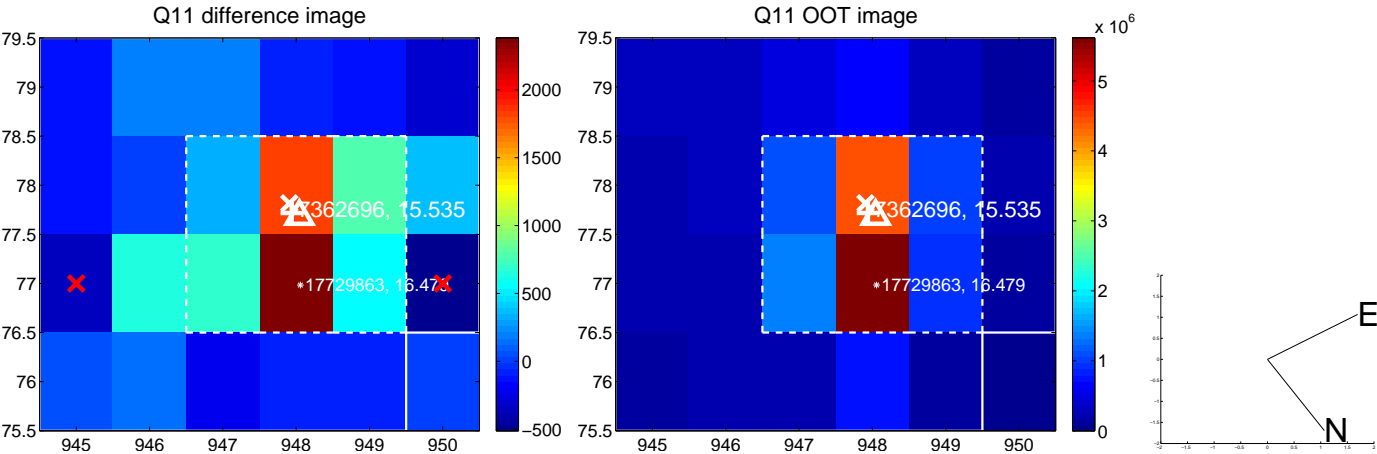
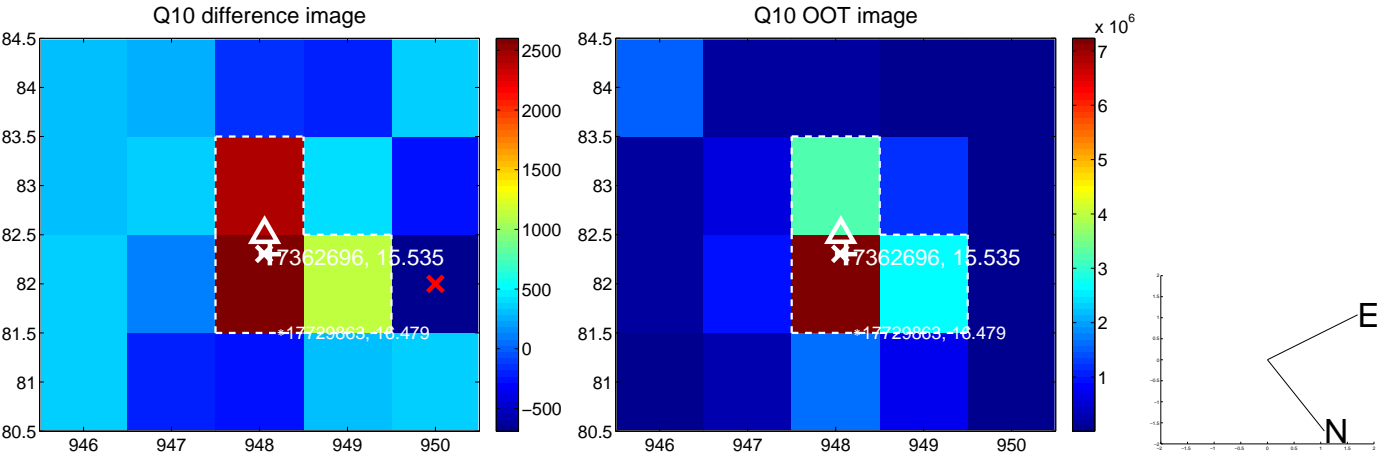
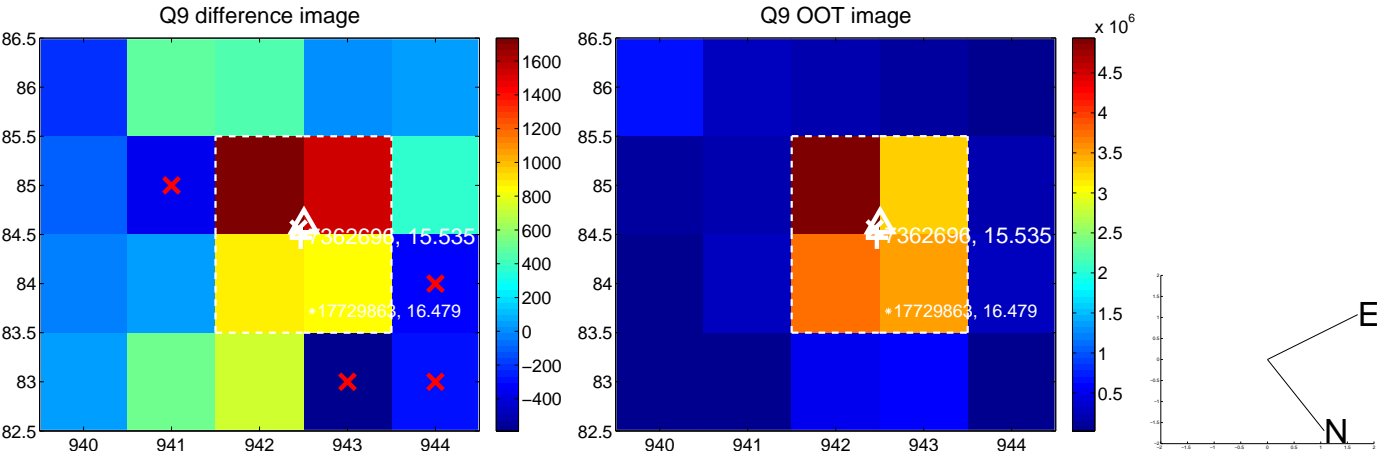
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



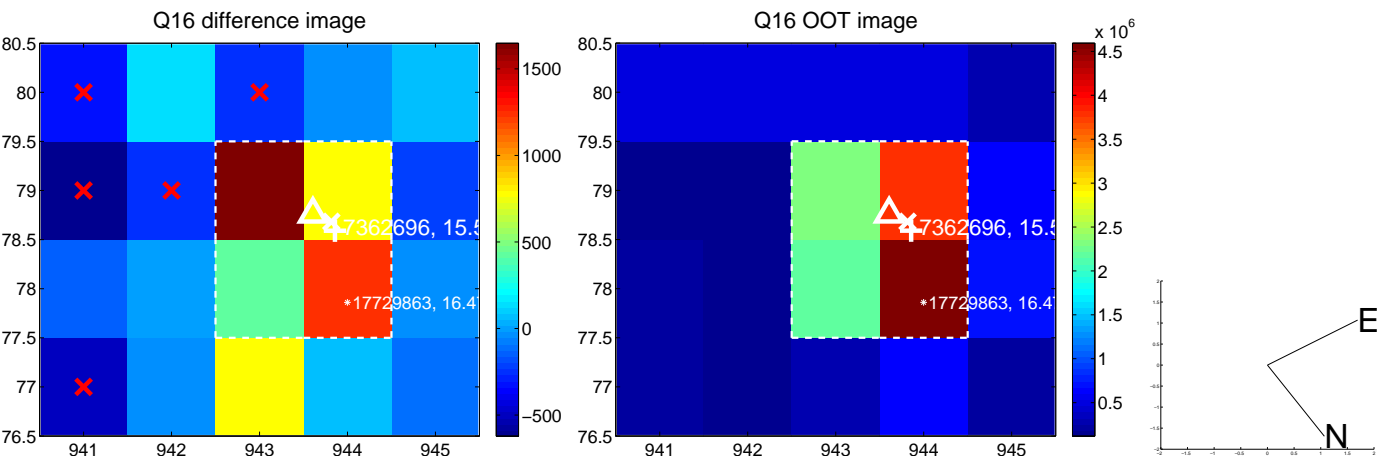
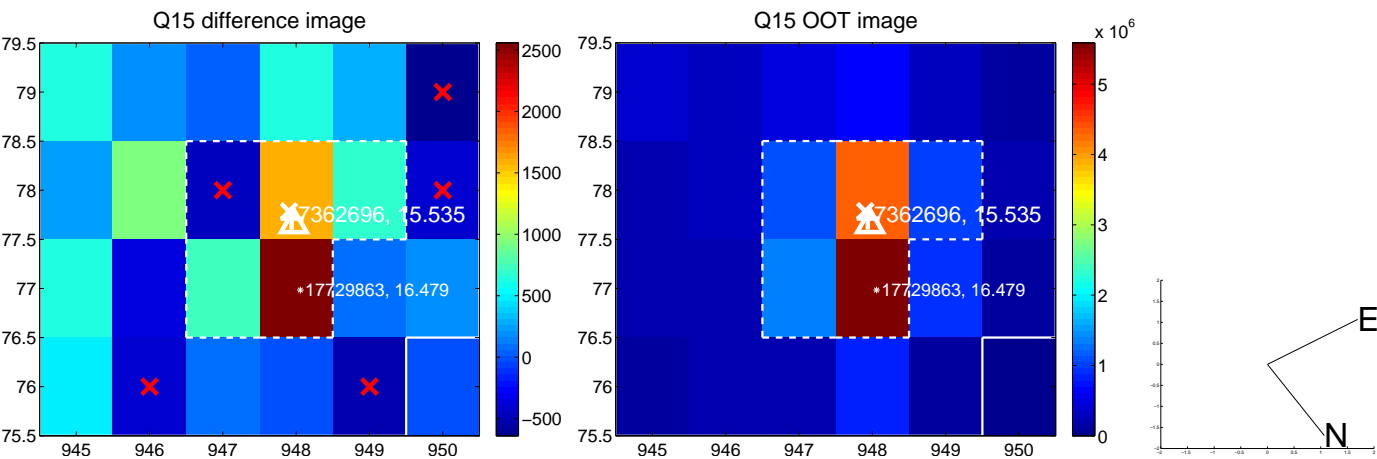
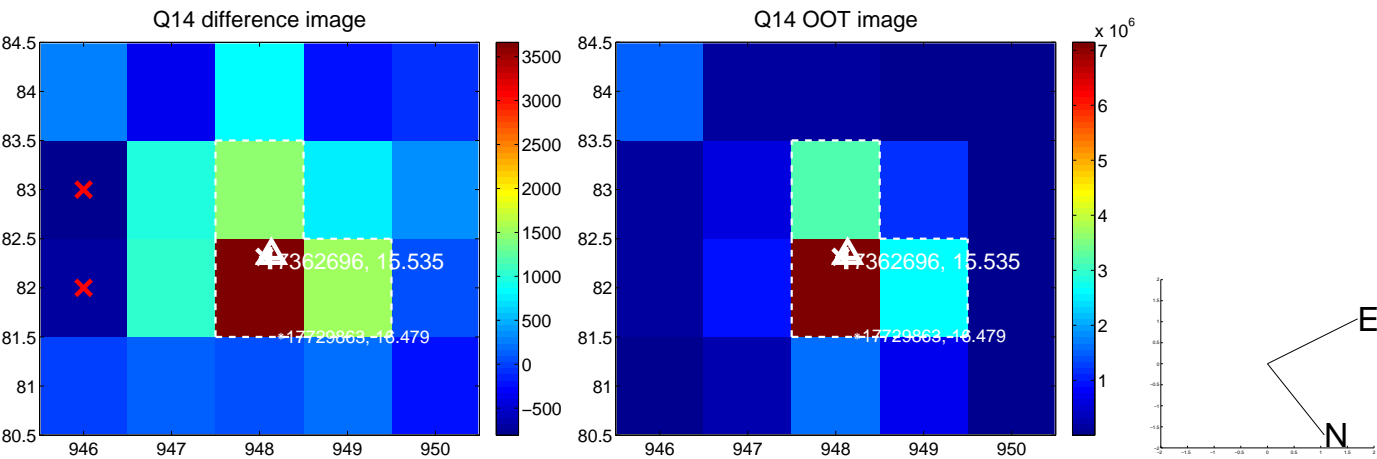
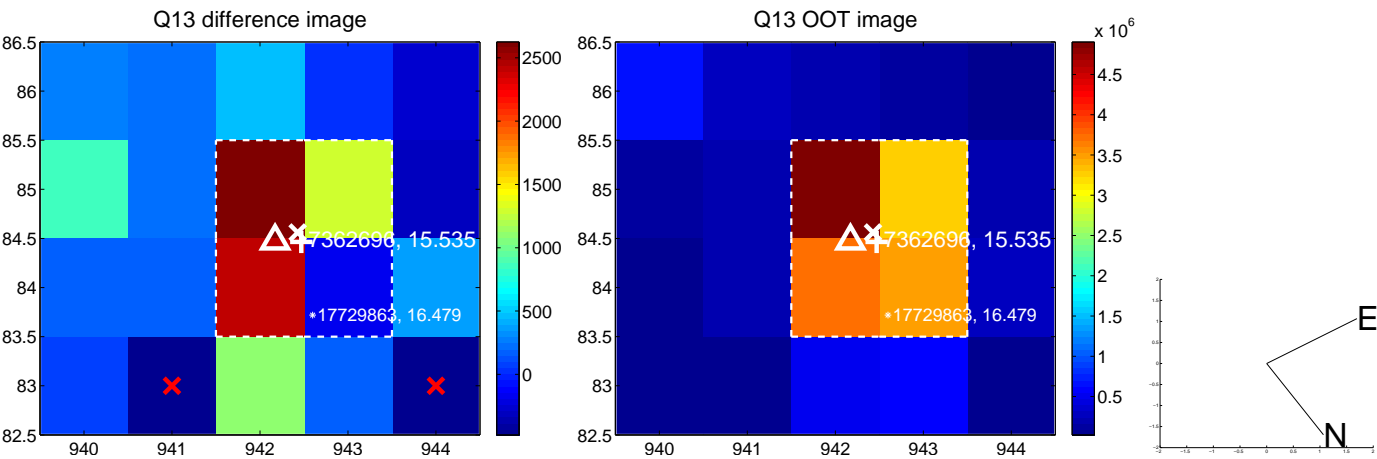
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



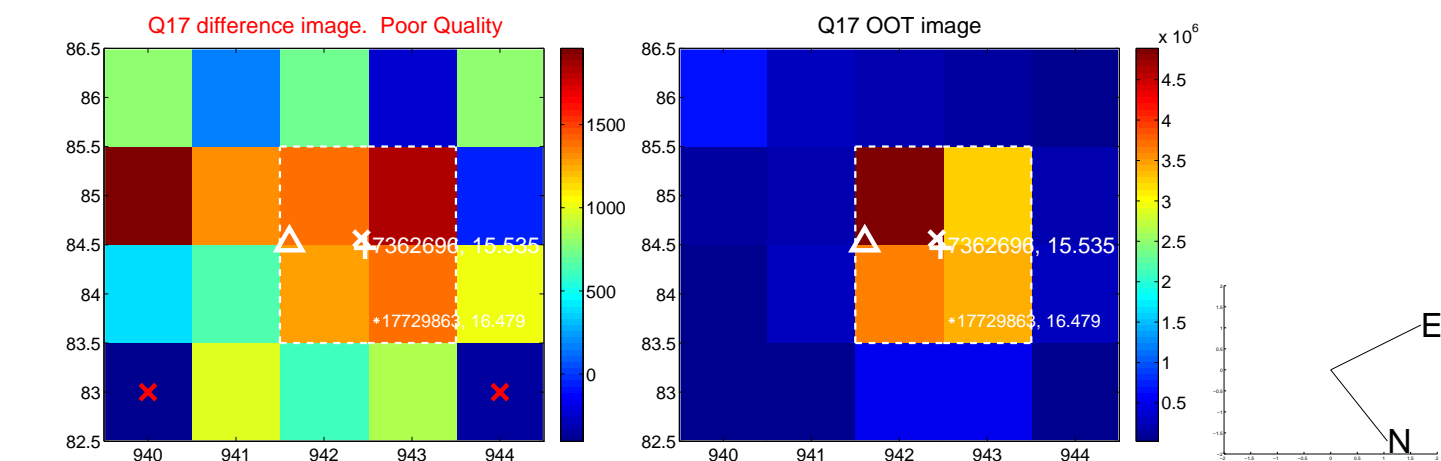
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



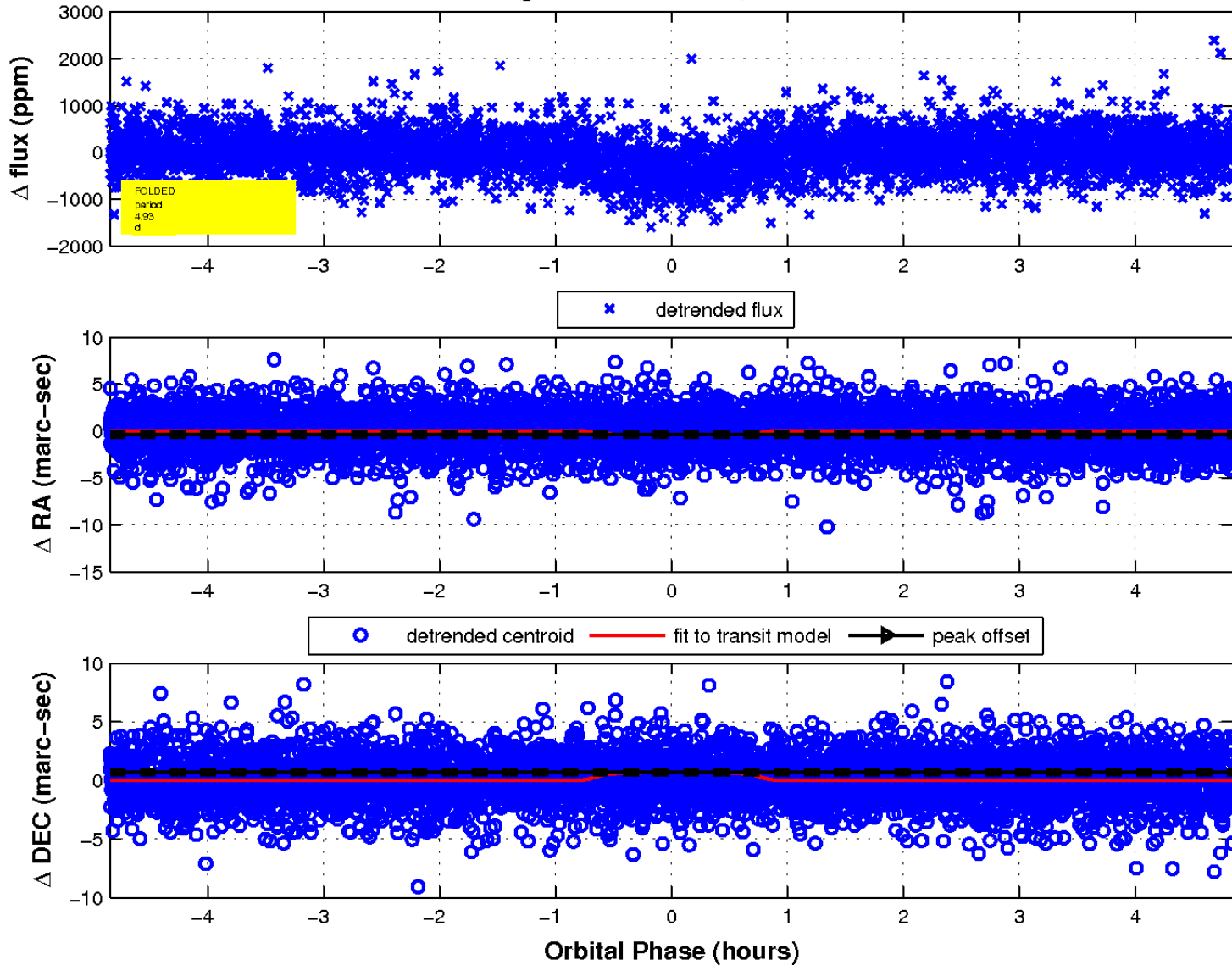
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

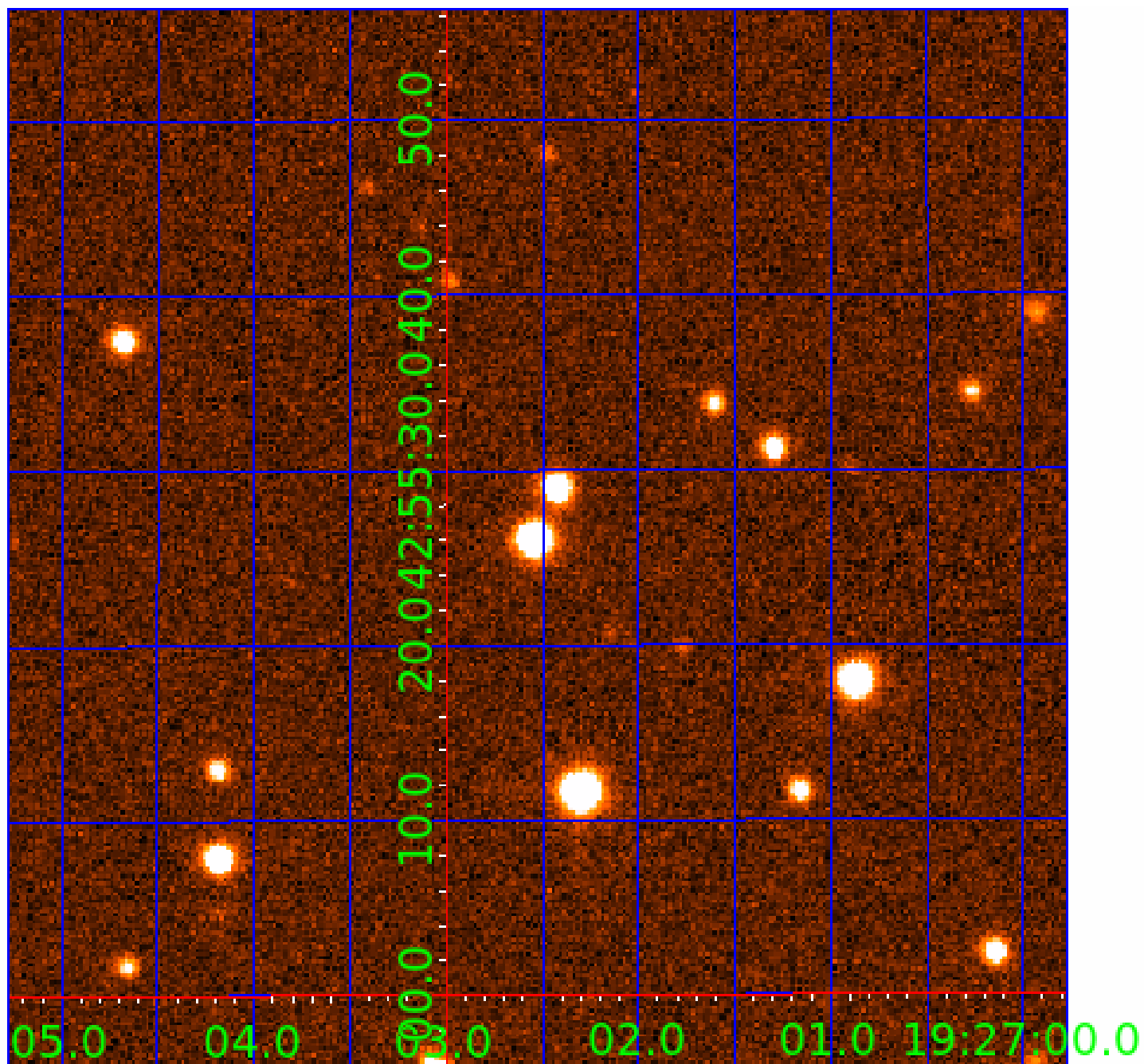


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 007362696

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})
007362696-01	OBS	3937.01	4.931268	134.826128	655.9	1.841	27.4	31.1	0.78	5457	3.53	187.84
007362696-02	OBS	No	4.931286	132.032485	416.0	1.615	20.1	21.9	0.78	5457	1.90	187.84
007362696-03	OBS	No	0.566701	131.946144	10.6	3.481	9.7	2.4	0.78	5457	0.25	3361.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362696-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007362696-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007362696-03	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 007362696-03

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007362696-03	7362696	RR-Lyr-pri	7198959	1:1	1155.4	33	288	7.86	15.53	56663.00	Direct-PRF	0	3.32	8.16

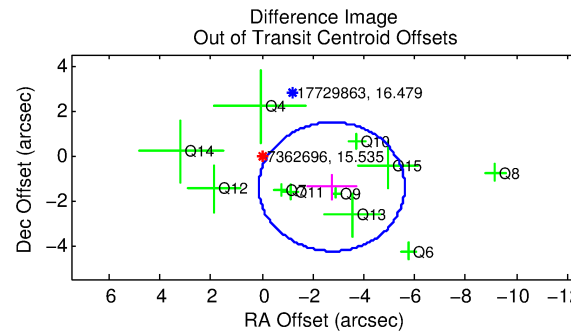
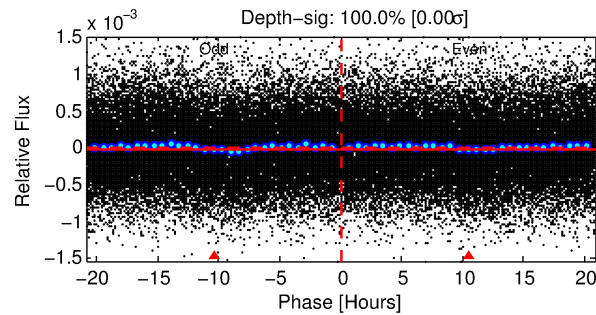
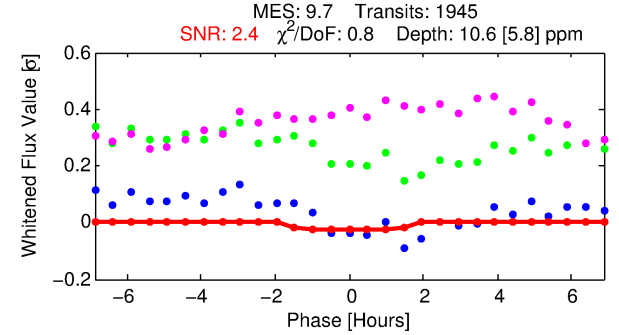
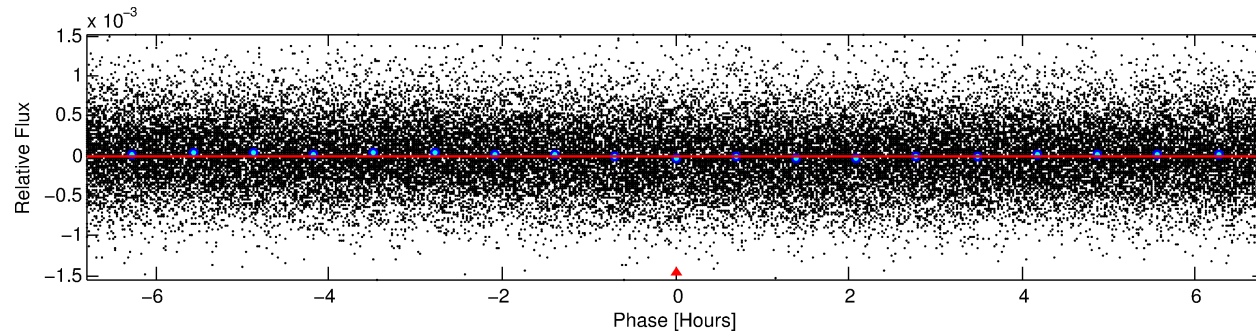
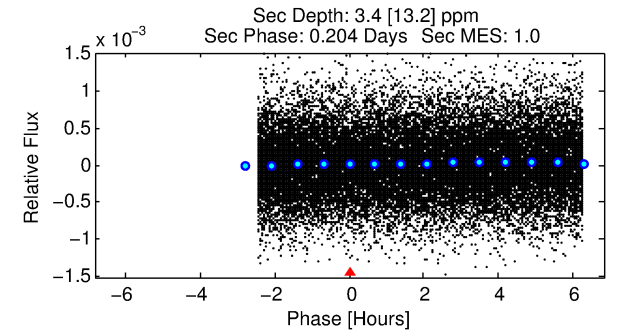
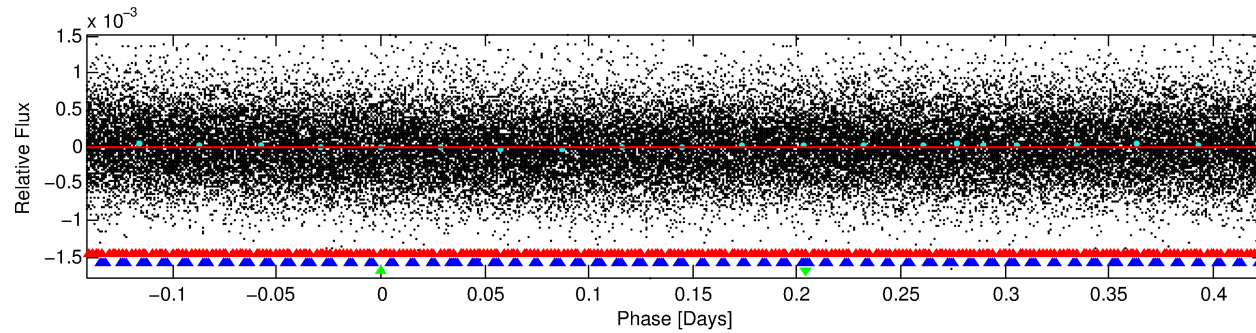
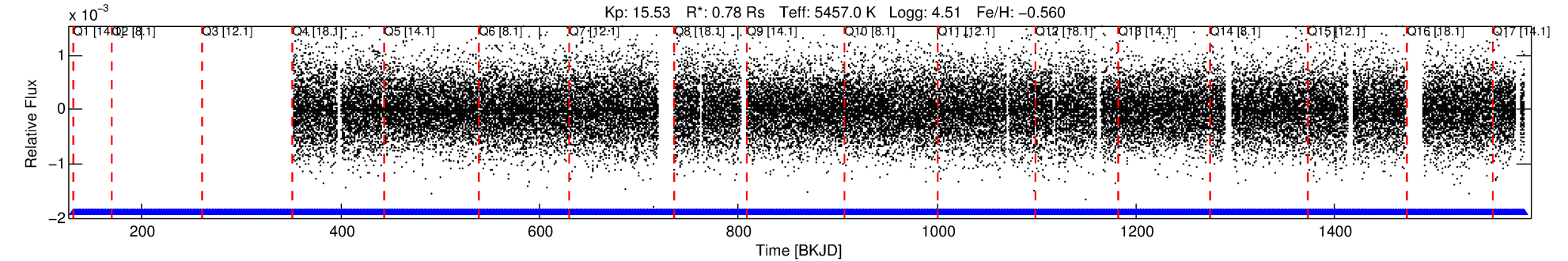
Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7362696 Candidate: 3 of 3 Period: 0.567 d

KOI: K03937 Corr: No Ephemeris Match

Kp: 15.53 R*: 0.78 Rs Teff: 5457.0 K Logg: 4.51 Fe/H: -0.560



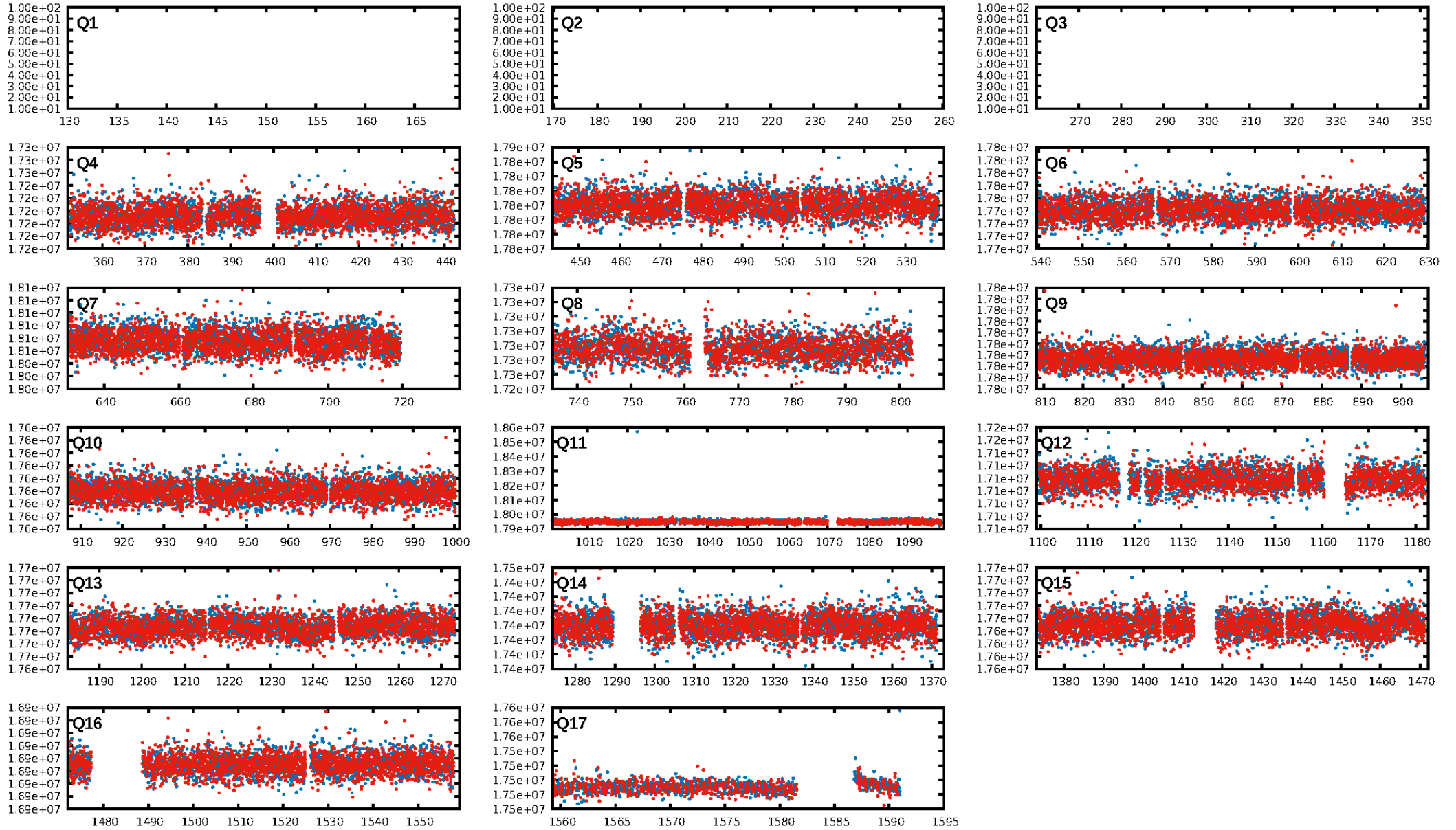
DV Fit Results:

Period = 0.56670 [0.00004] d
Epoch = 131.9461 [0.0176] BKJD
Rp/R* = 0.0030 [0.0221]
a/R* = 1.39 [22.07]
b = 0.10 [328.90]
Seff = 3361.99 [845.48]
Teq = 1942 [122] K
Rp = 0.25 [1.88] Re
a = 0.0120 [0.0016] AU
Ag = 4.29 [66.15] [0.05σ]
Teffp = 4319 [16668] K [0.14σ]

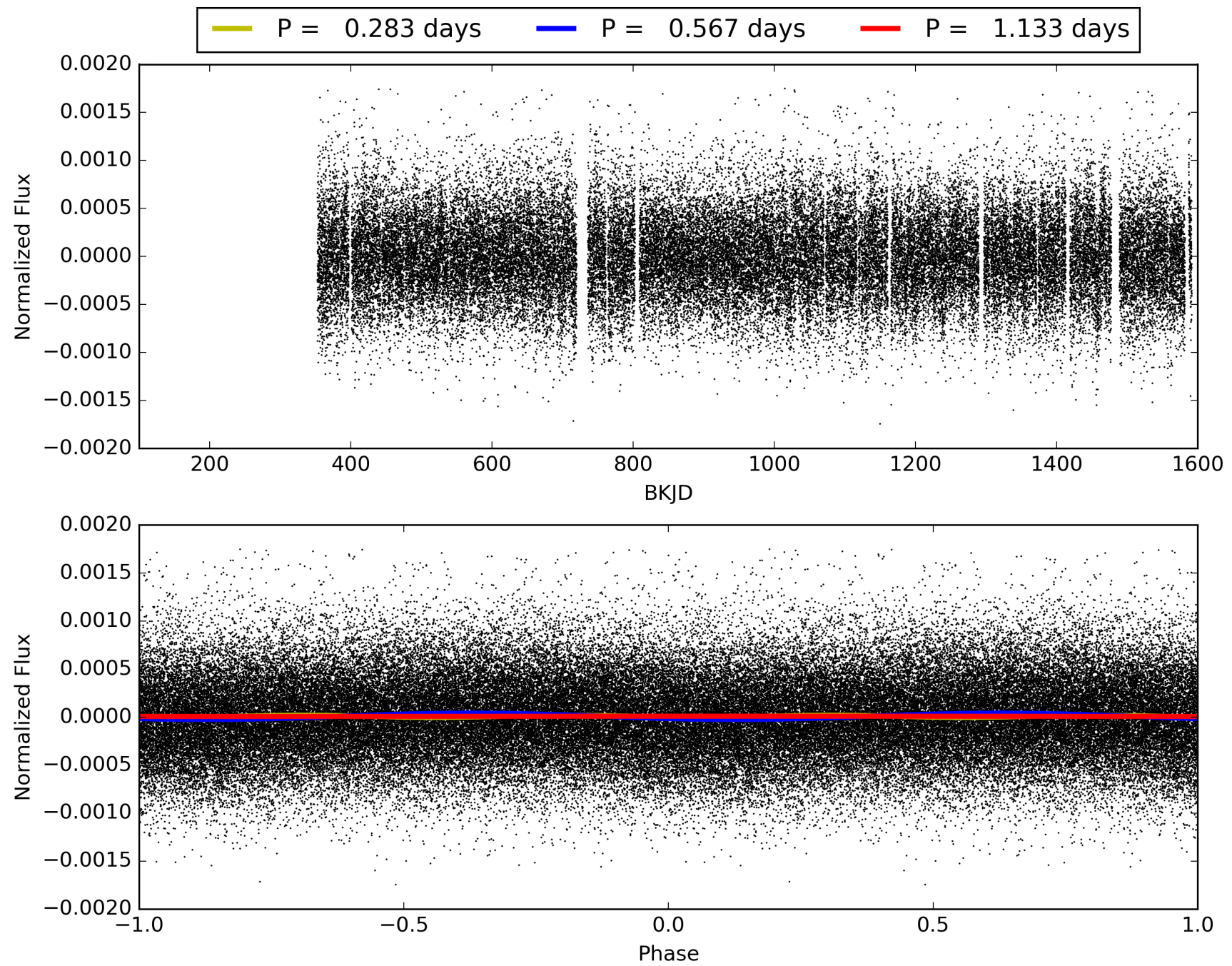
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [26.60σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.15e-20
RollingBand-fgt: 1.00 [1900/1900]
GhostDiagnostic-chr: 0.4968
Centroid-sig: 55.2%
Centroid-so: 3.441 arcsec [0.70σ]
OotOffset-rm: 3.084 arcsec [3.23σ]
KicOffset-rm: 3.017 arcsec [3.06σ]
OotOffset-st: 3/3/3/2 [11]
KicOffset-st: 3/3/3/2 [11]
DiffImageQuality-fgm: 0.00 [0/11]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 007362696-03, PDC Light Curves

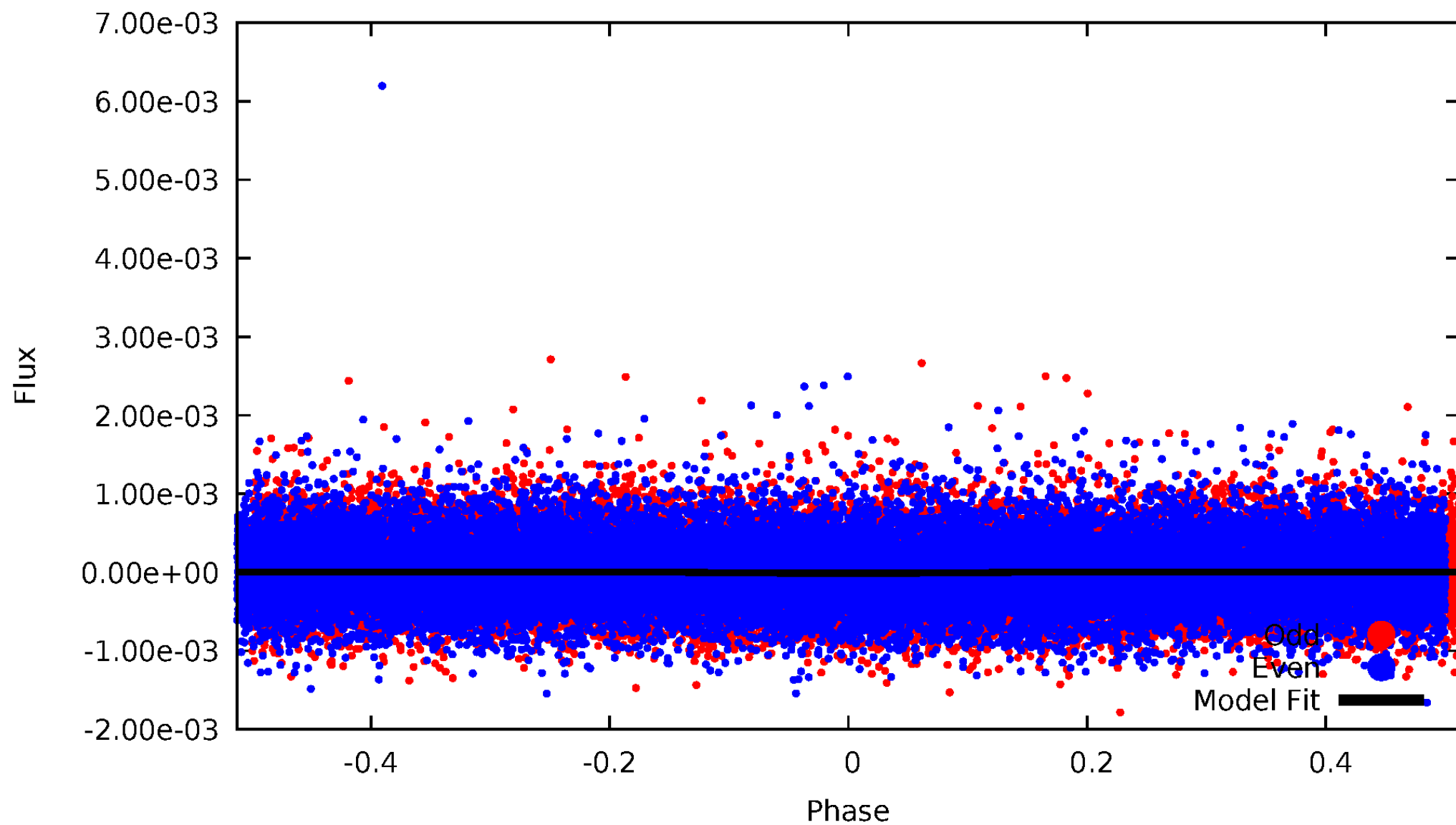


TCE 007362696-03



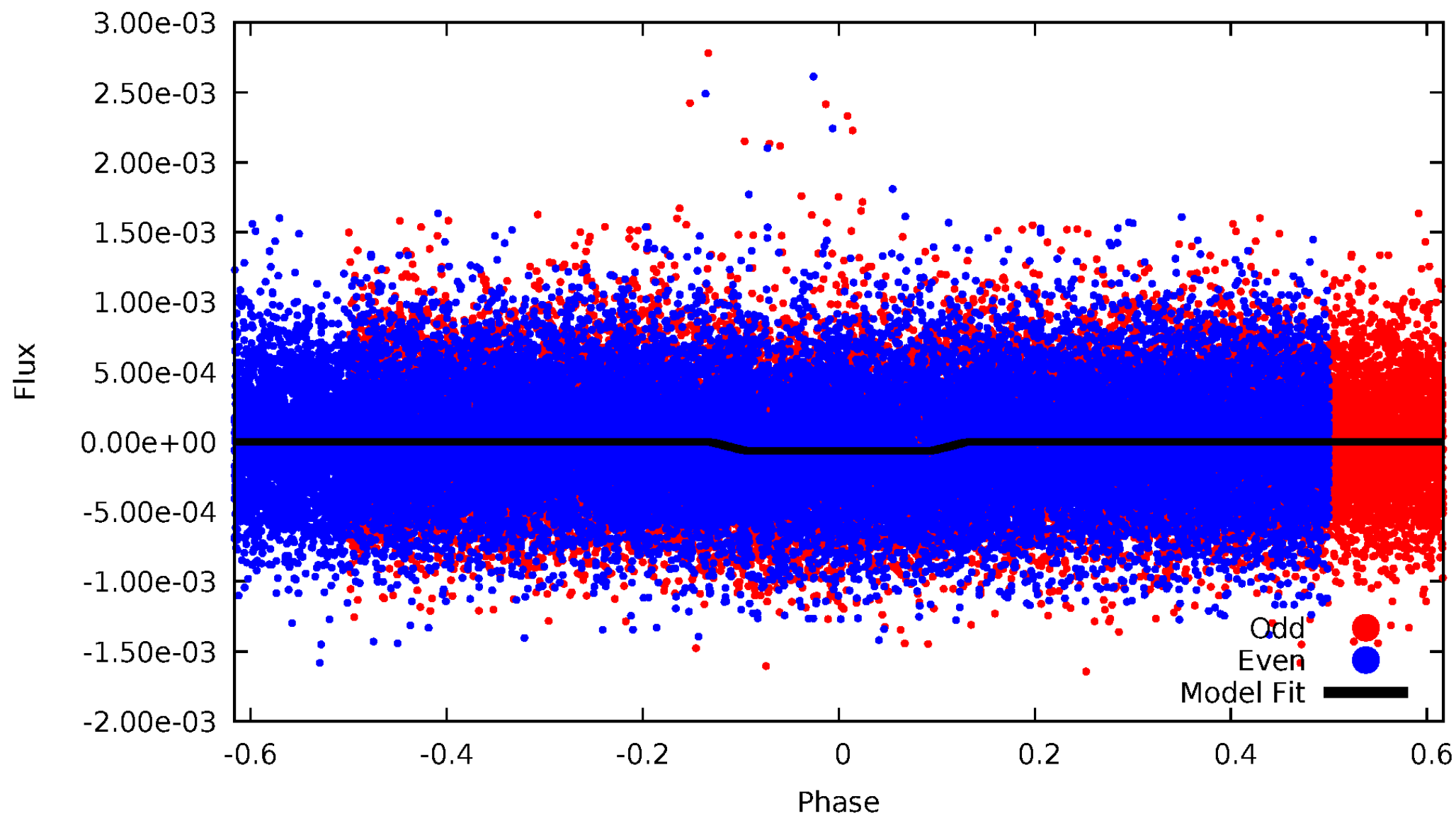
DV Odd/Even

TCE 007362696-03



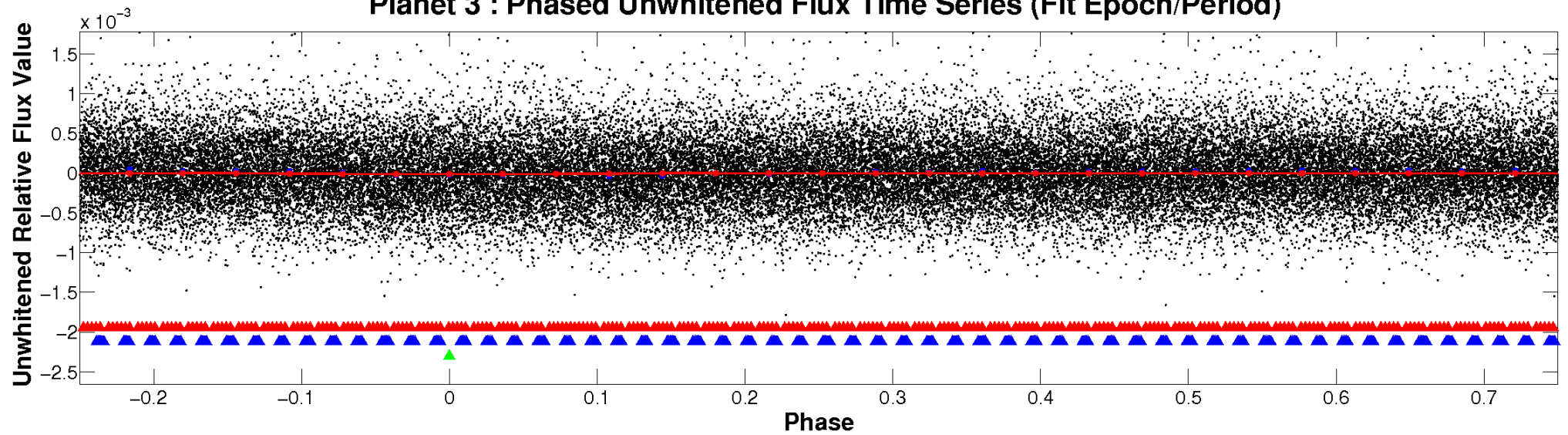
ALT Odd/Even

TCE 007362696-03

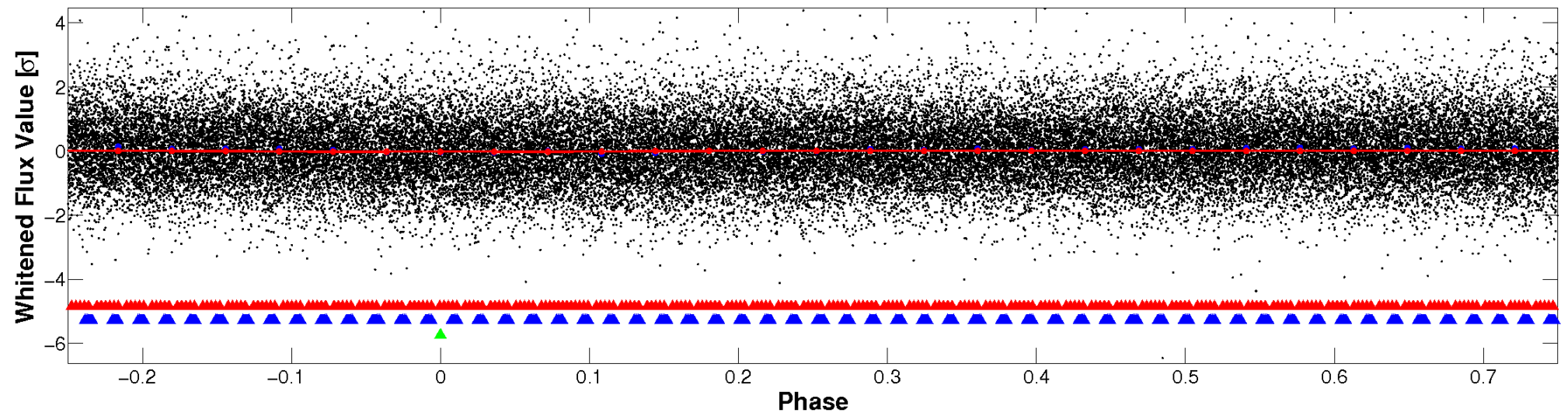


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

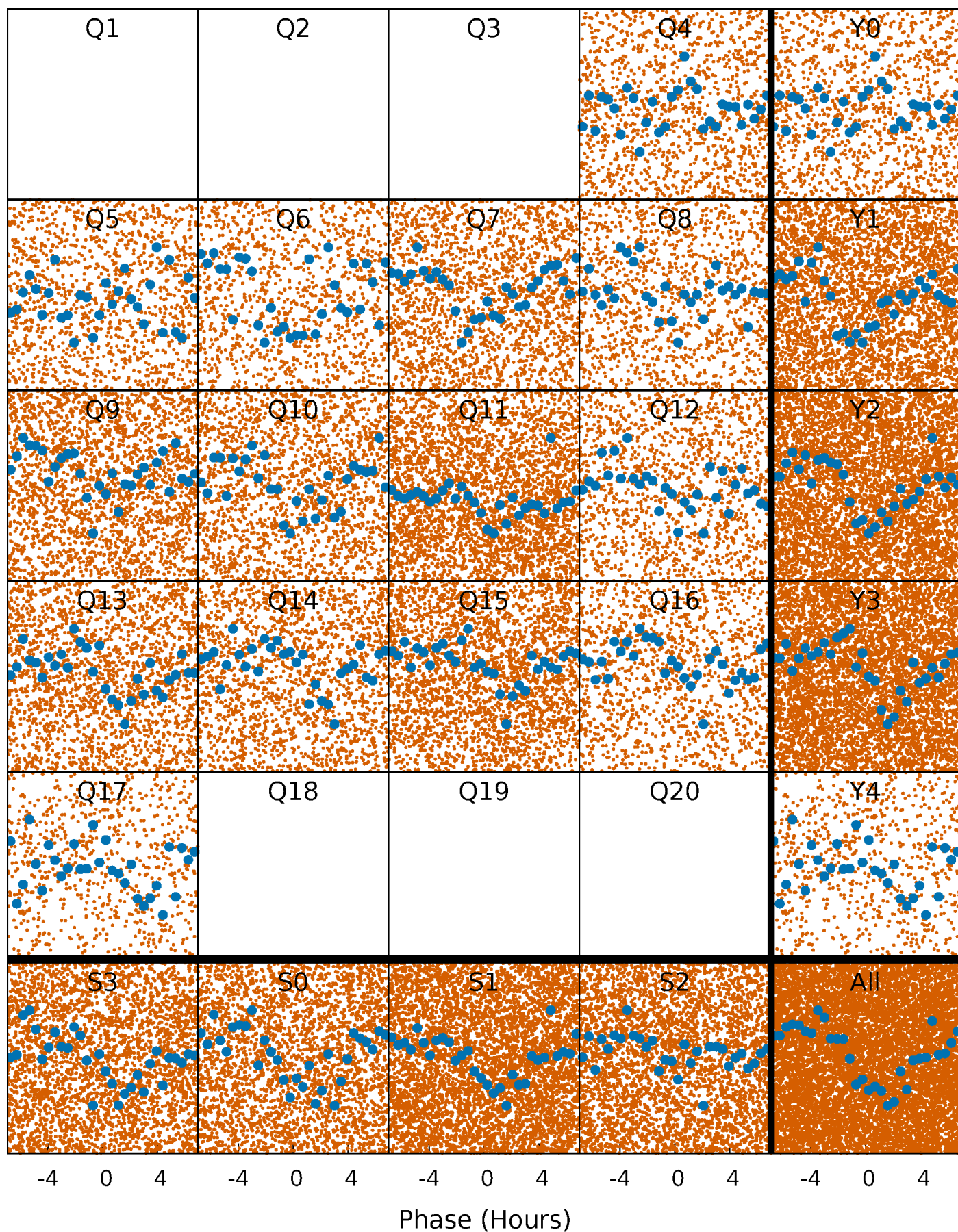


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



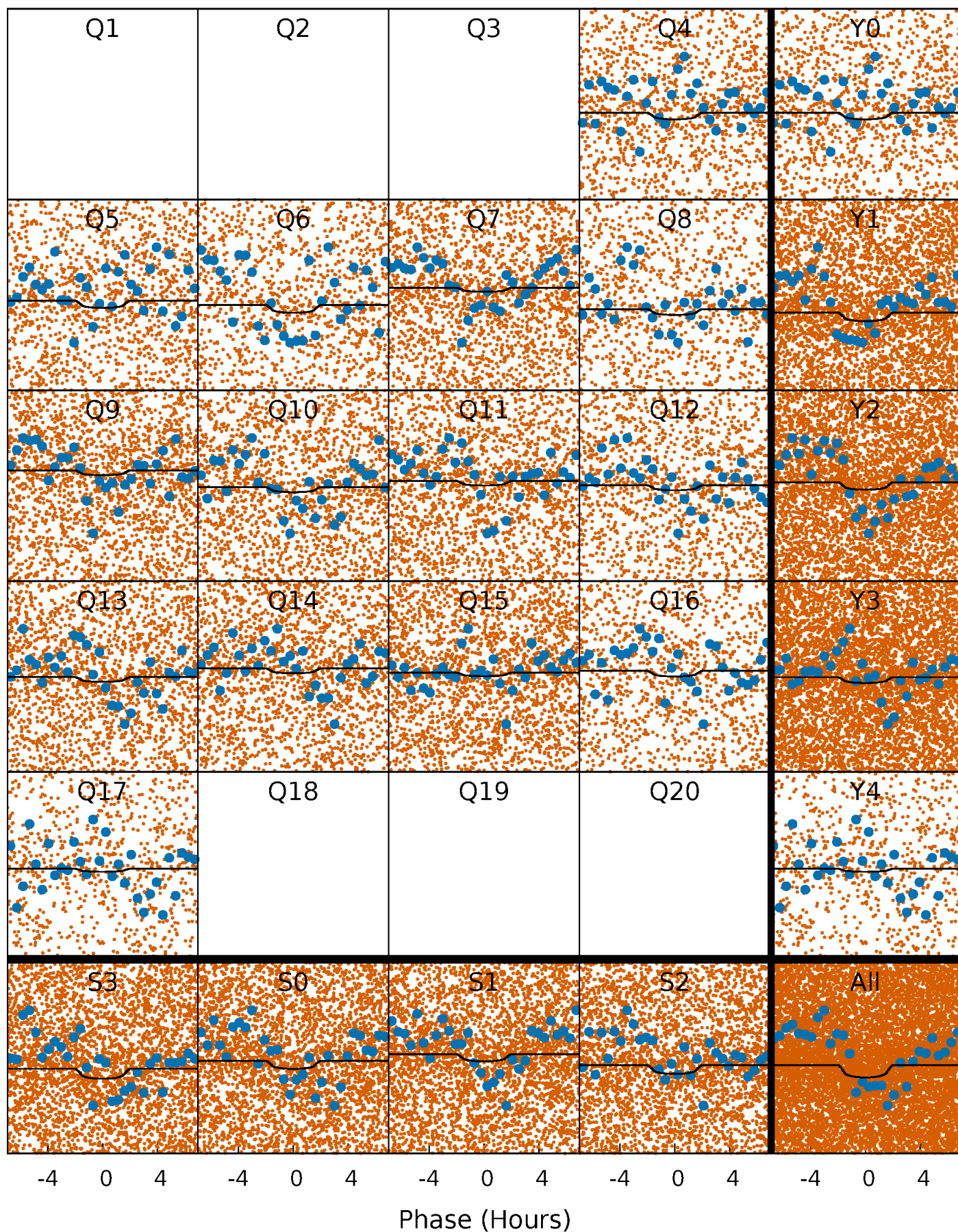
PDC Quarter-Phased Transit Curves

TCE 007362696-03 P= 0.566701 Days $T_0=131.946144$ (BKJD)



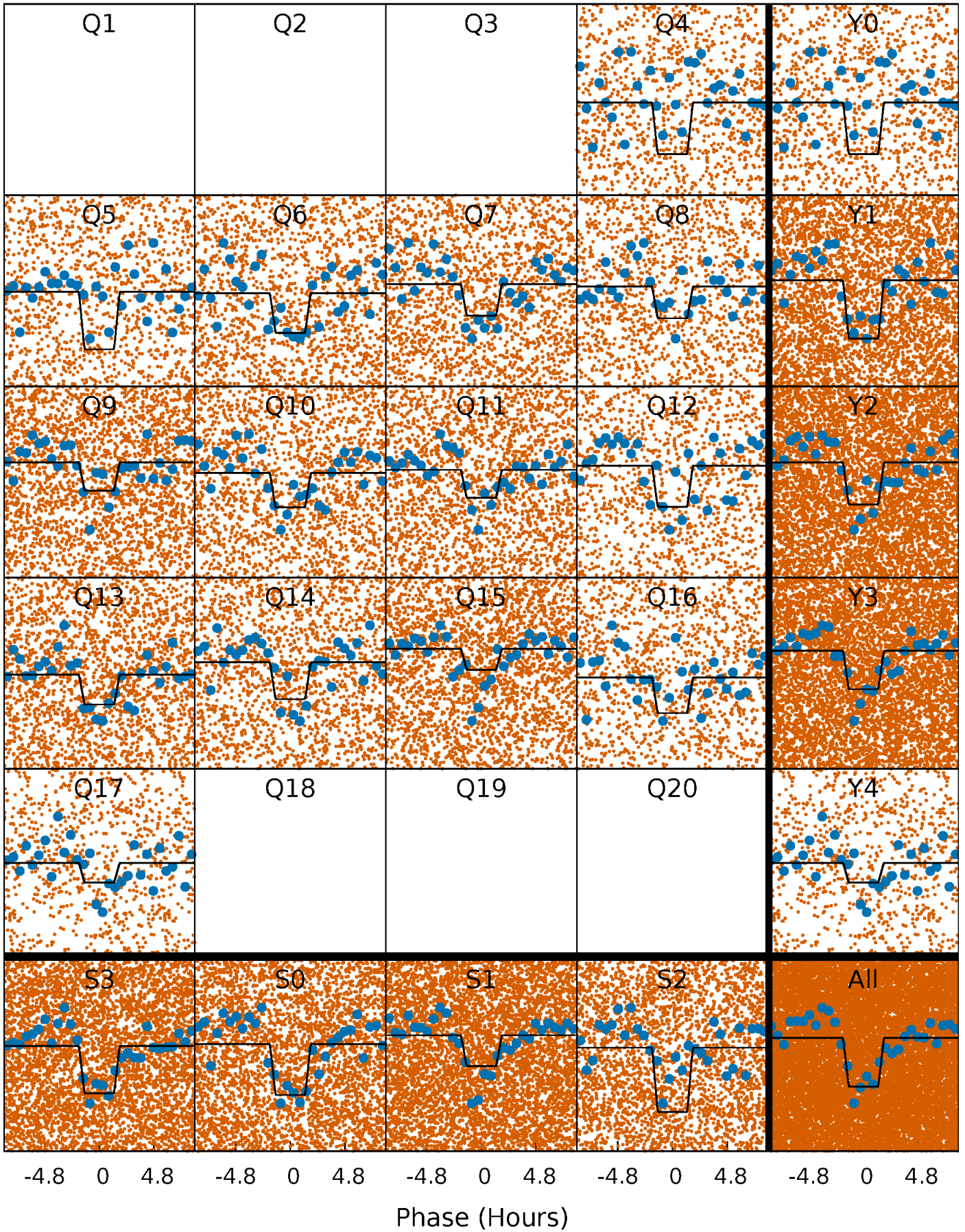
DV Quarter-Phased Transit Curves

TCE 007362696-03 P= 0.566701 Days $T_0=131.946144$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

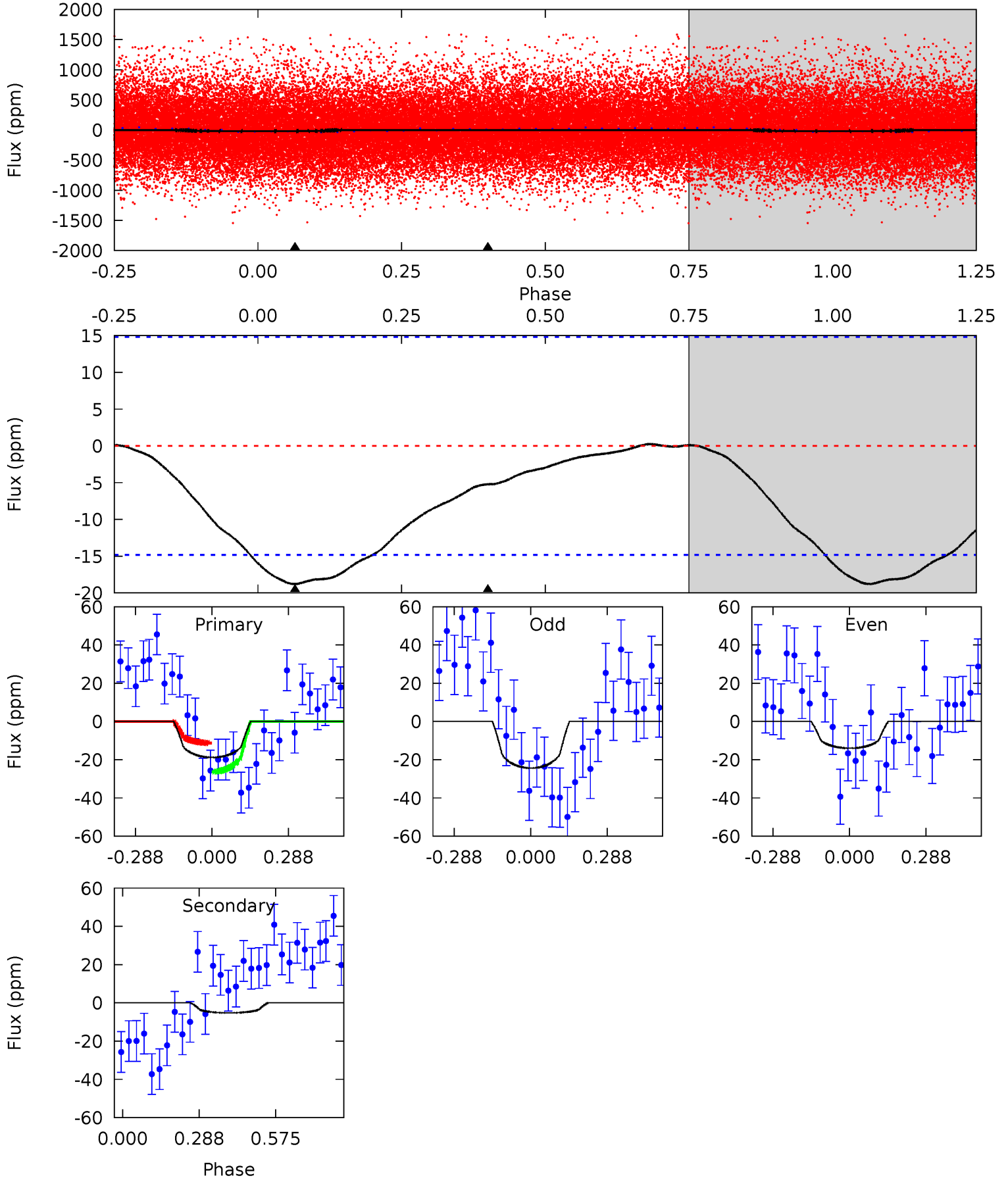
TCE 007362696-03 P= 0.566788 Days $T_0=131.842990$ (BKJD)



DV Model-Shift Uniqueness Test

007362696-03, P = 0.566701 Days, E = 131.946144 Days

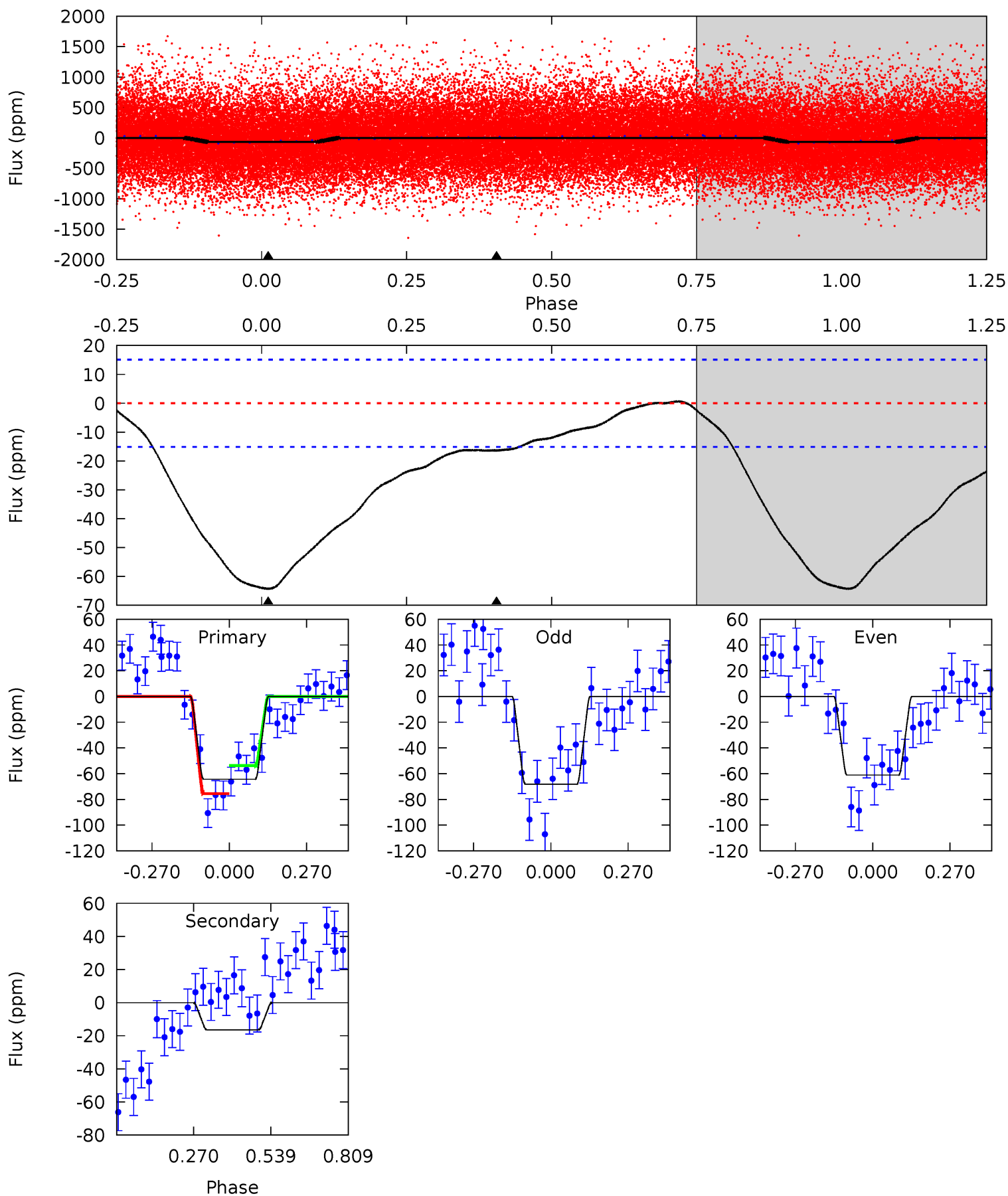
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.50	1.53	0	0	4.34	1.06	0.04	5.50	5.50	1.53	1.53	1.52	0.95	0.01	2.23



Alt Model-Shift Uniqueness Test

007362696-03, P = 0.566788 Days, E = 131.842990 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	4.71	0	0	4.35	1.10	0.32	18.5	18.5	4.71	4.71	1.00	1.02	0.01	3.14



Stellar Parameters For KIC 007362696

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5457^{+209}_{-190}	$4.508^{+0.110}_{-0.110}$	$-0.560^{+0.350}_{-0.300}$	$0.779^{+0.124}_{-0.101}$	$0.712^{+0.104}_{-0.044}$	$2.122^{+1.010}_{-0.683}$
	+4%/-3%	+2%/-2%	+62%/-54%	+16%/-13%	+15%/-6%	+48%/-32%
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 007362696-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 3	$1.44^{+1.44}_{-1.01}$	2712^{+151}_{-132}	-2580^{+6351}_{-332}	$0.172^{+1.931}_{-0.145}$
Alt.	-16 ± 3	$1.60^{+1.47}_{-1.11}$	2706^{+153}_{-130}	2743^{+1873}_{-5431}	$0.483^{+4.899}_{-0.345}$

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

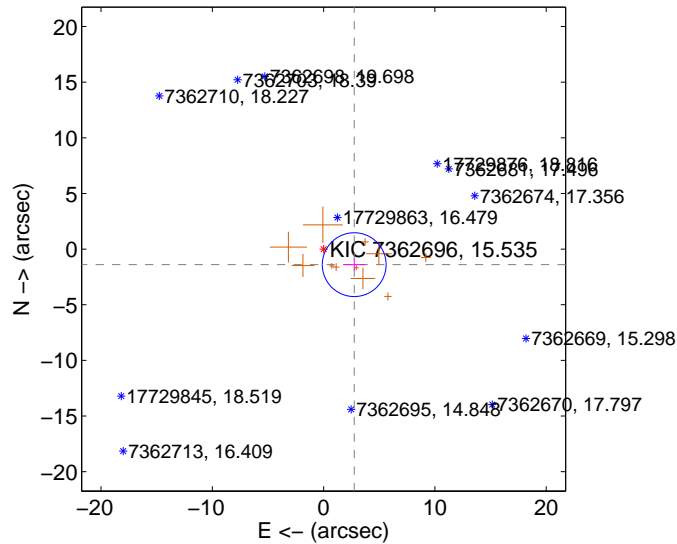
Supplemental centroid analysis for 007362696-03. Kepler magnitude: 15.54. Transit SNR 2.41

There are 0 quarters with good PRF difference image offsets

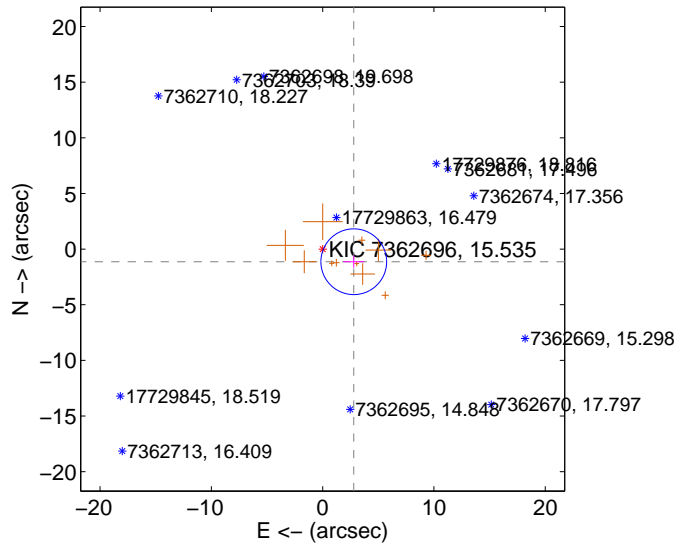
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.084 ± 0.955	3.23	-2.749 ± 0.968	-1.397 ± 0.521
PRF-fit source offset from KIC position	3.017 ± 0.984	3.06	-2.795 ± 0.945	-1.134 ± 0.549
photometric centroid source offset	3.44 ± 4.89	0.70	0.18 ± 5.59	3.44 ± 4.89

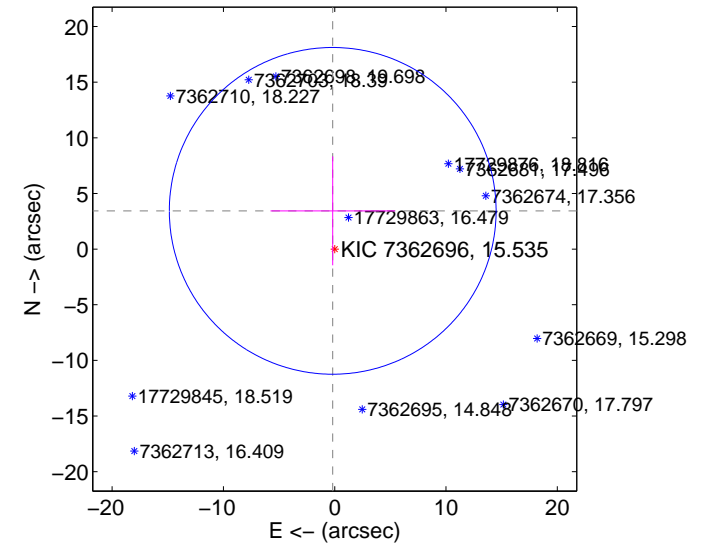
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

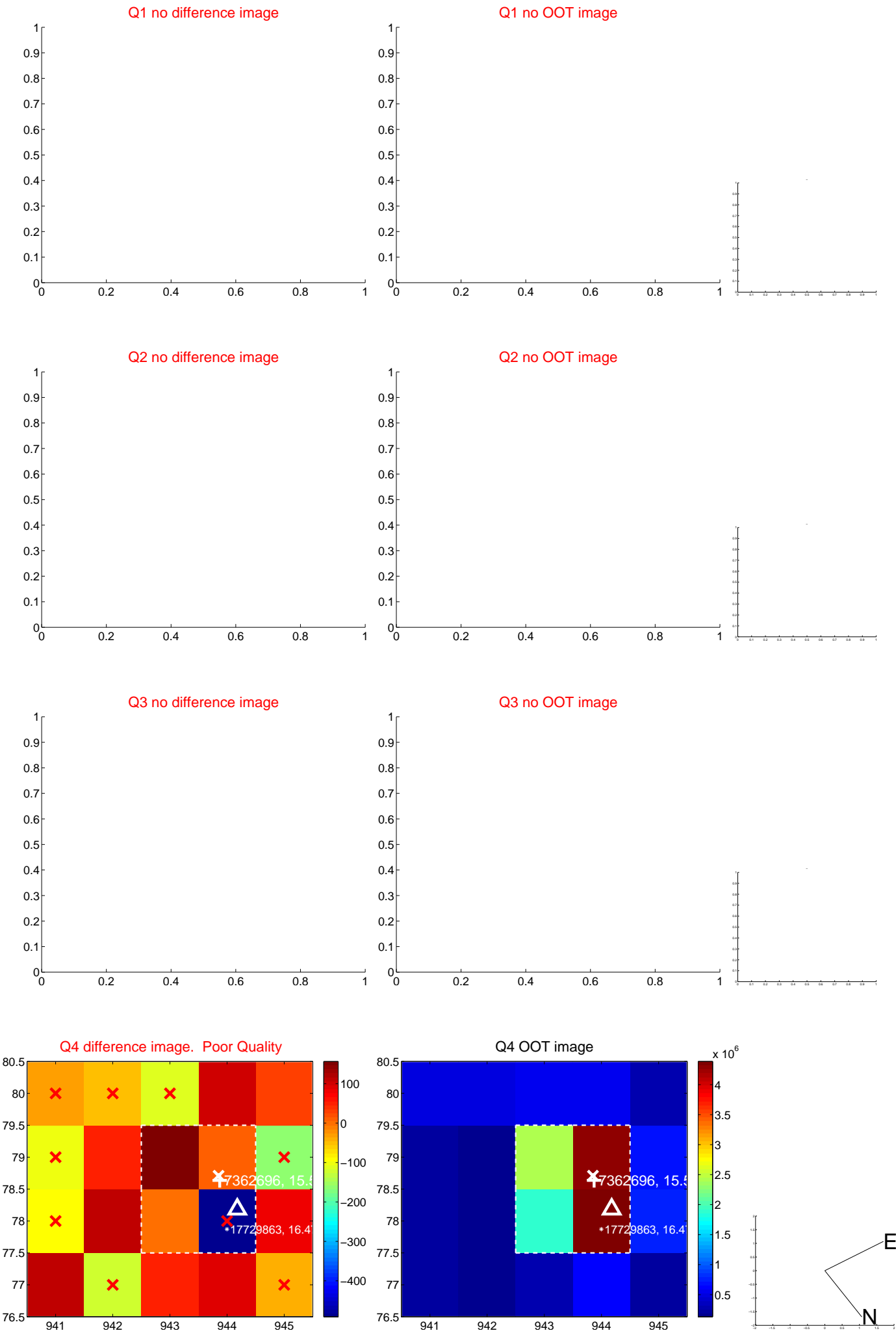


offset from photometric centroids

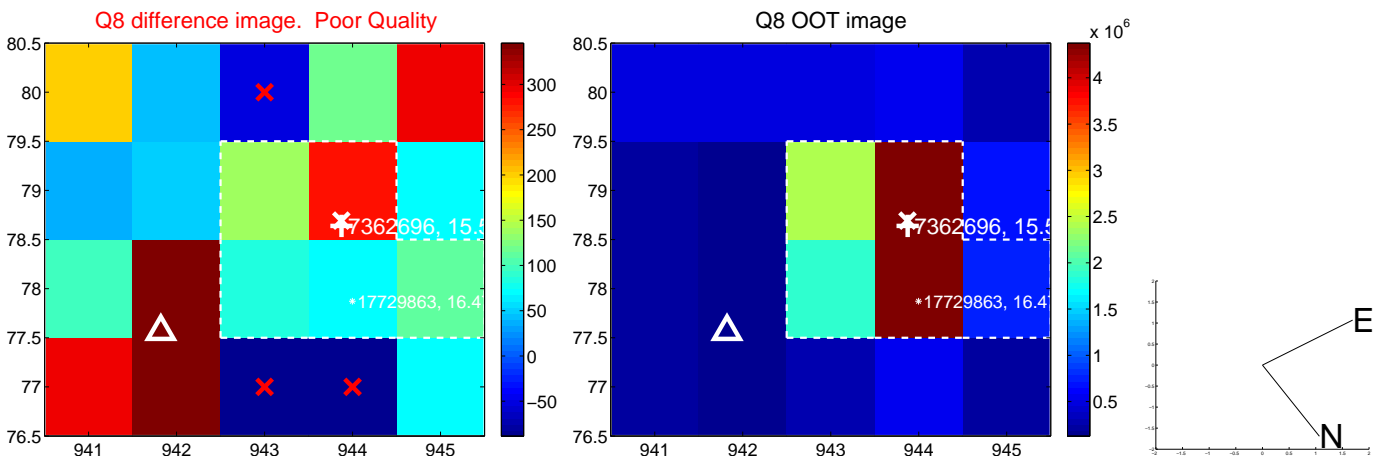
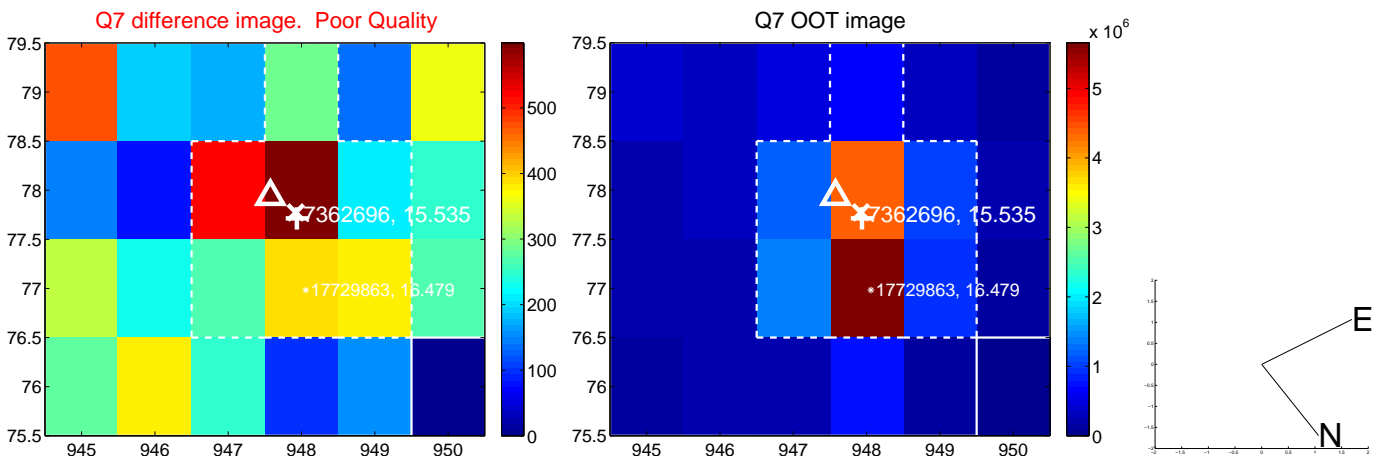
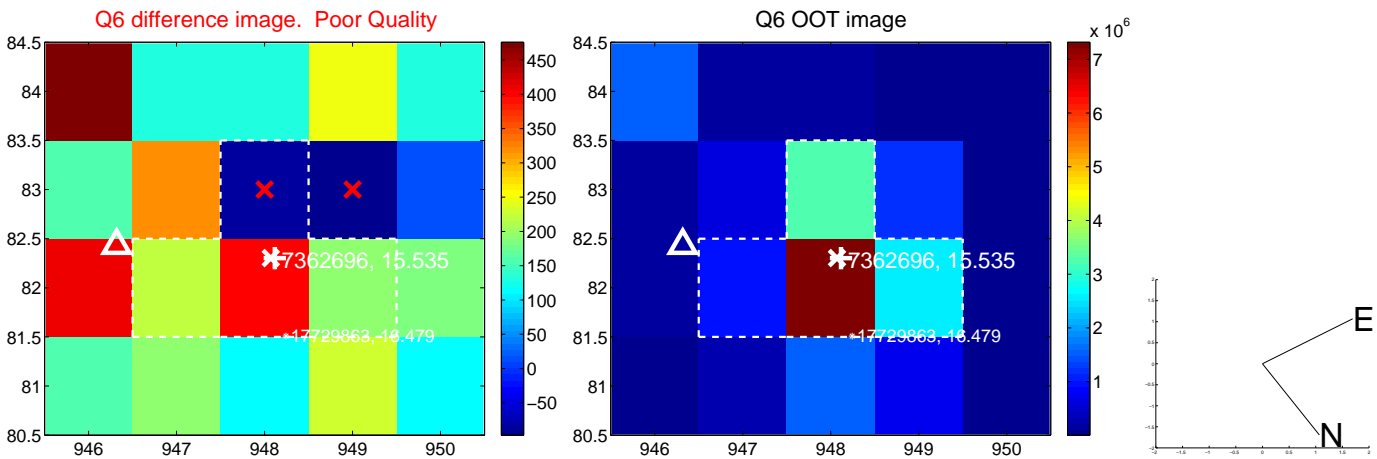
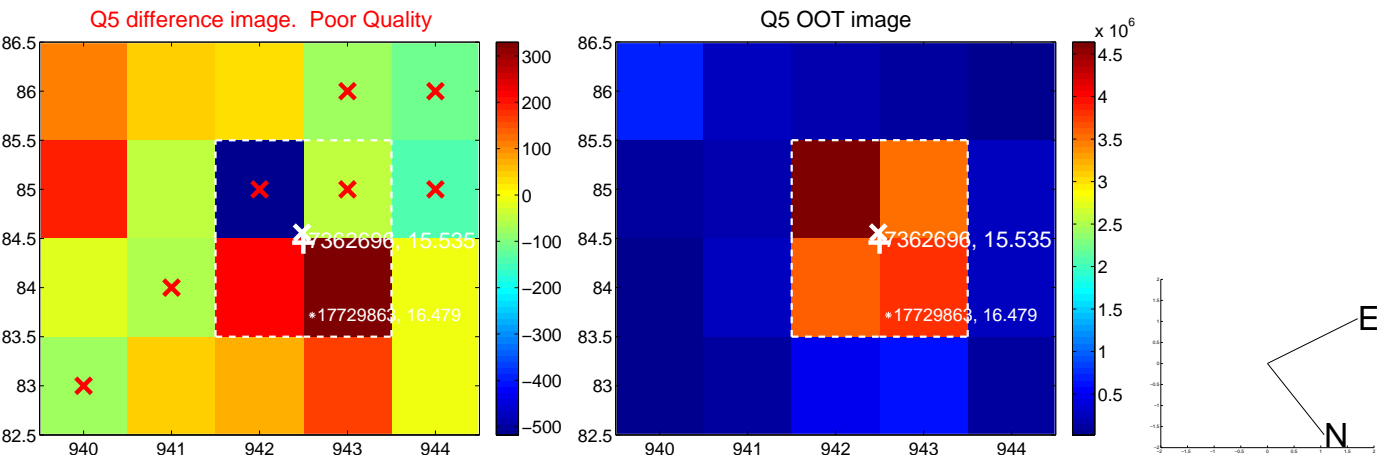


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

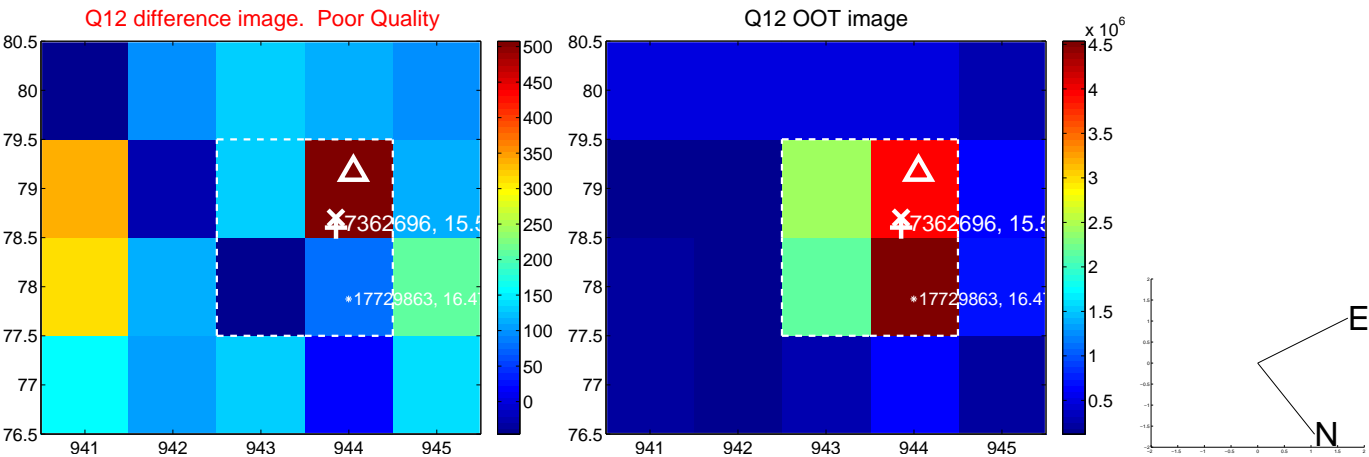
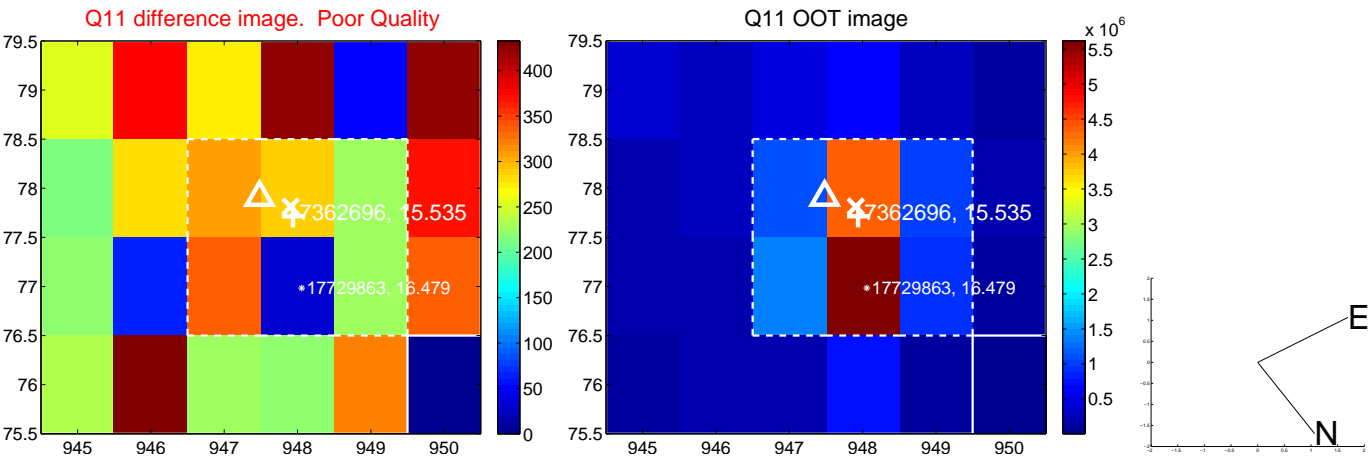
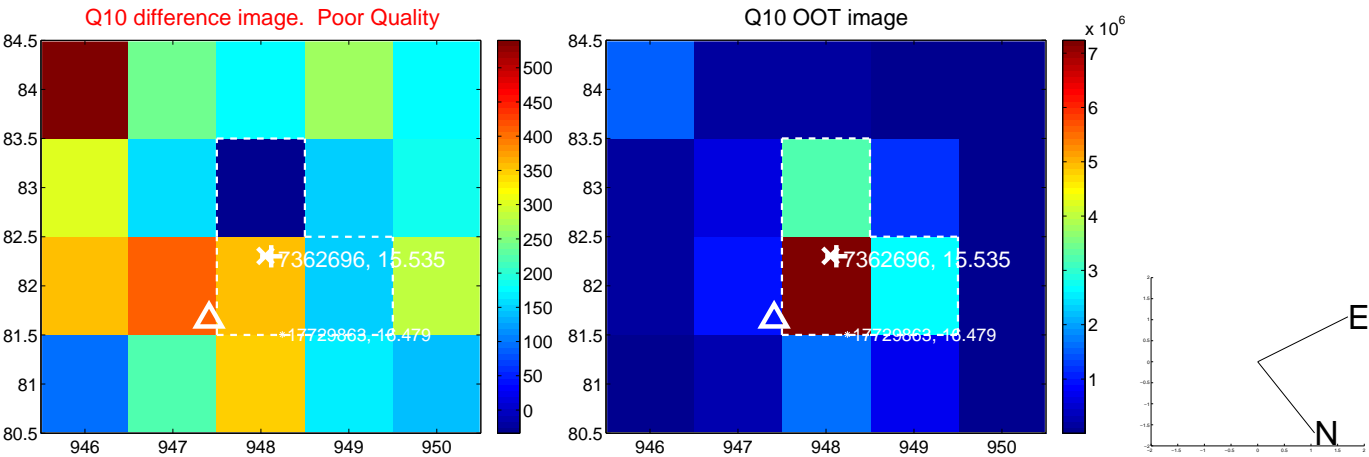
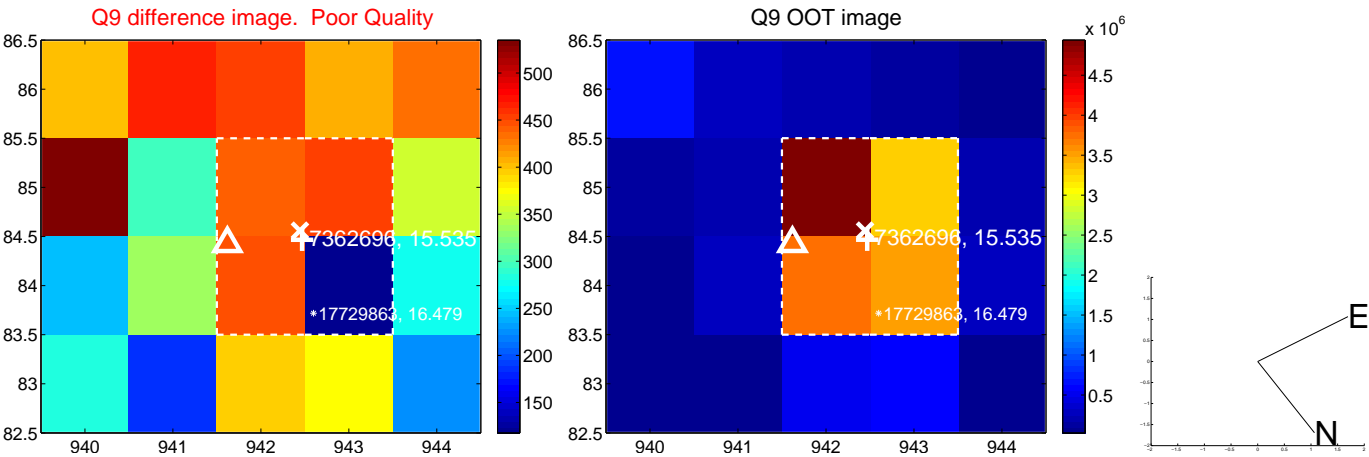
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



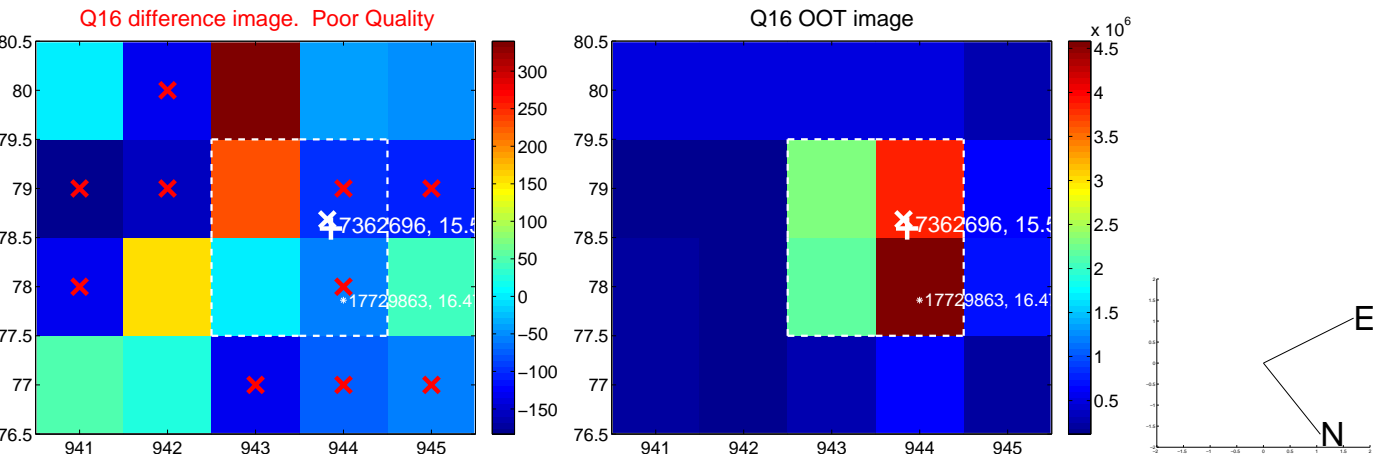
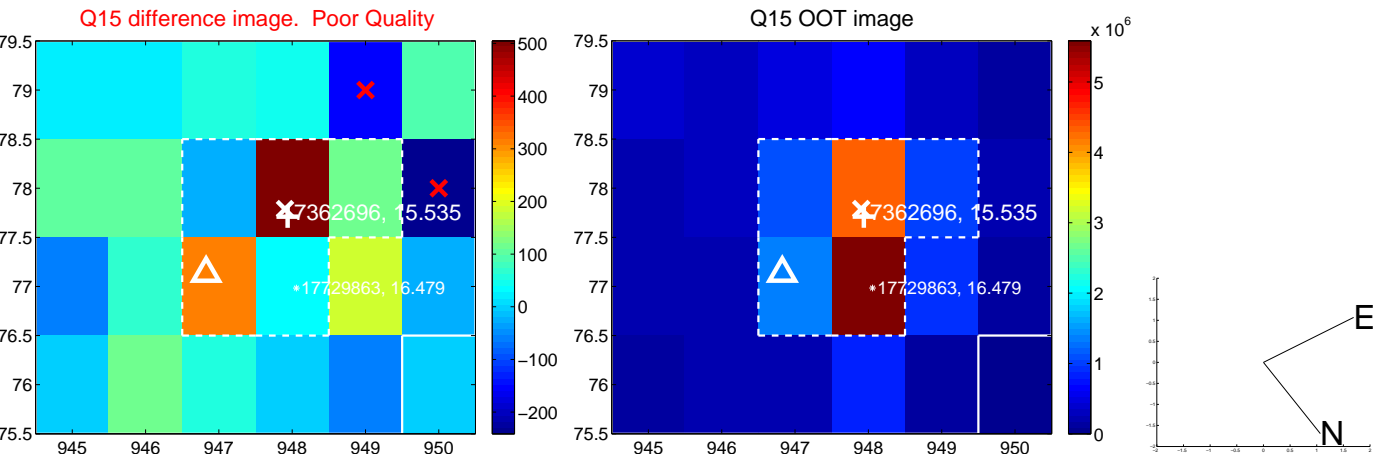
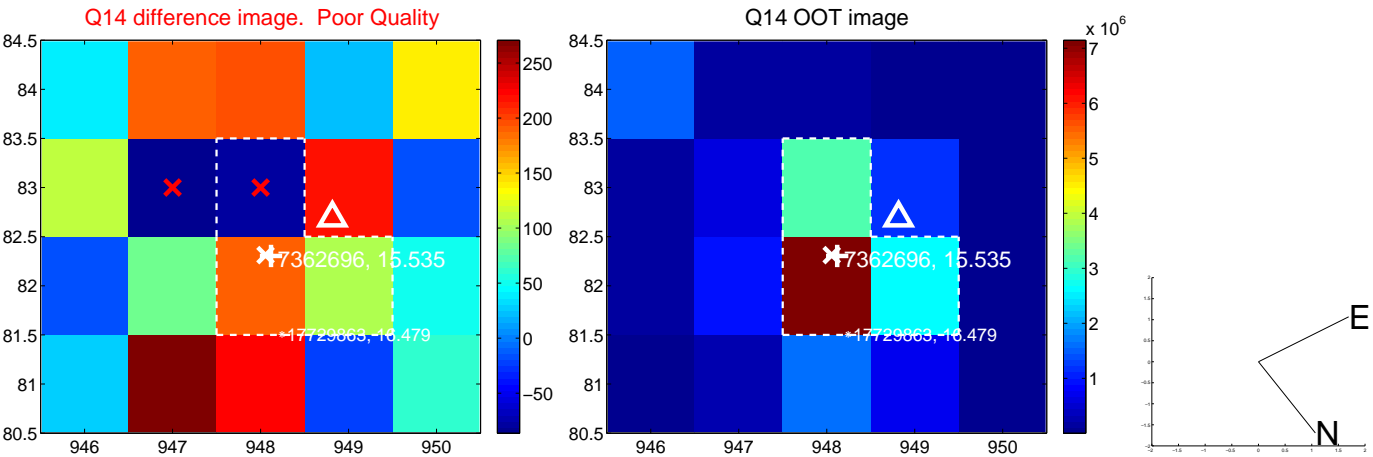
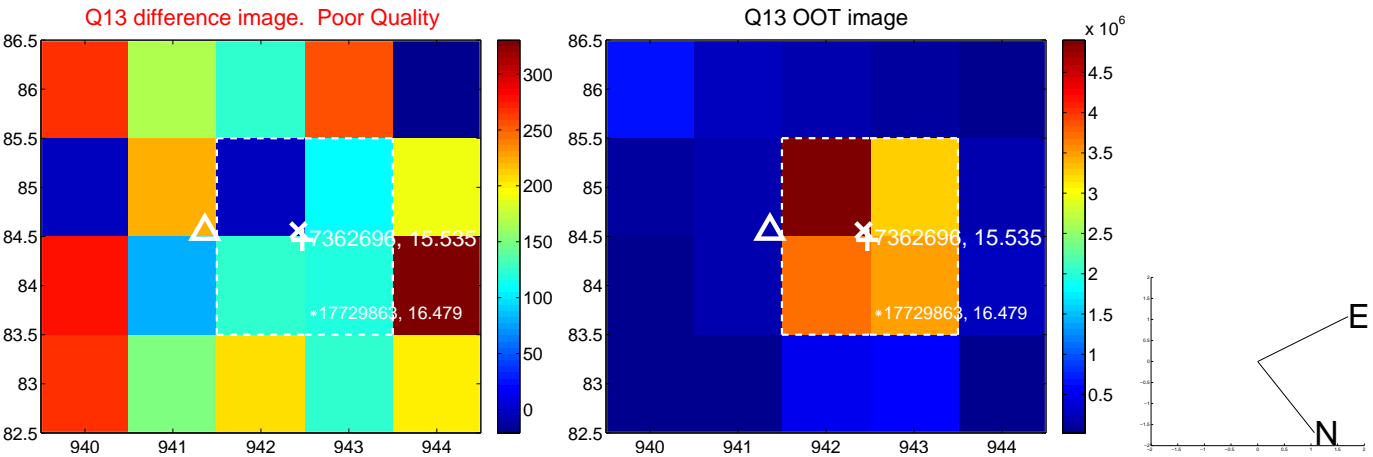
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



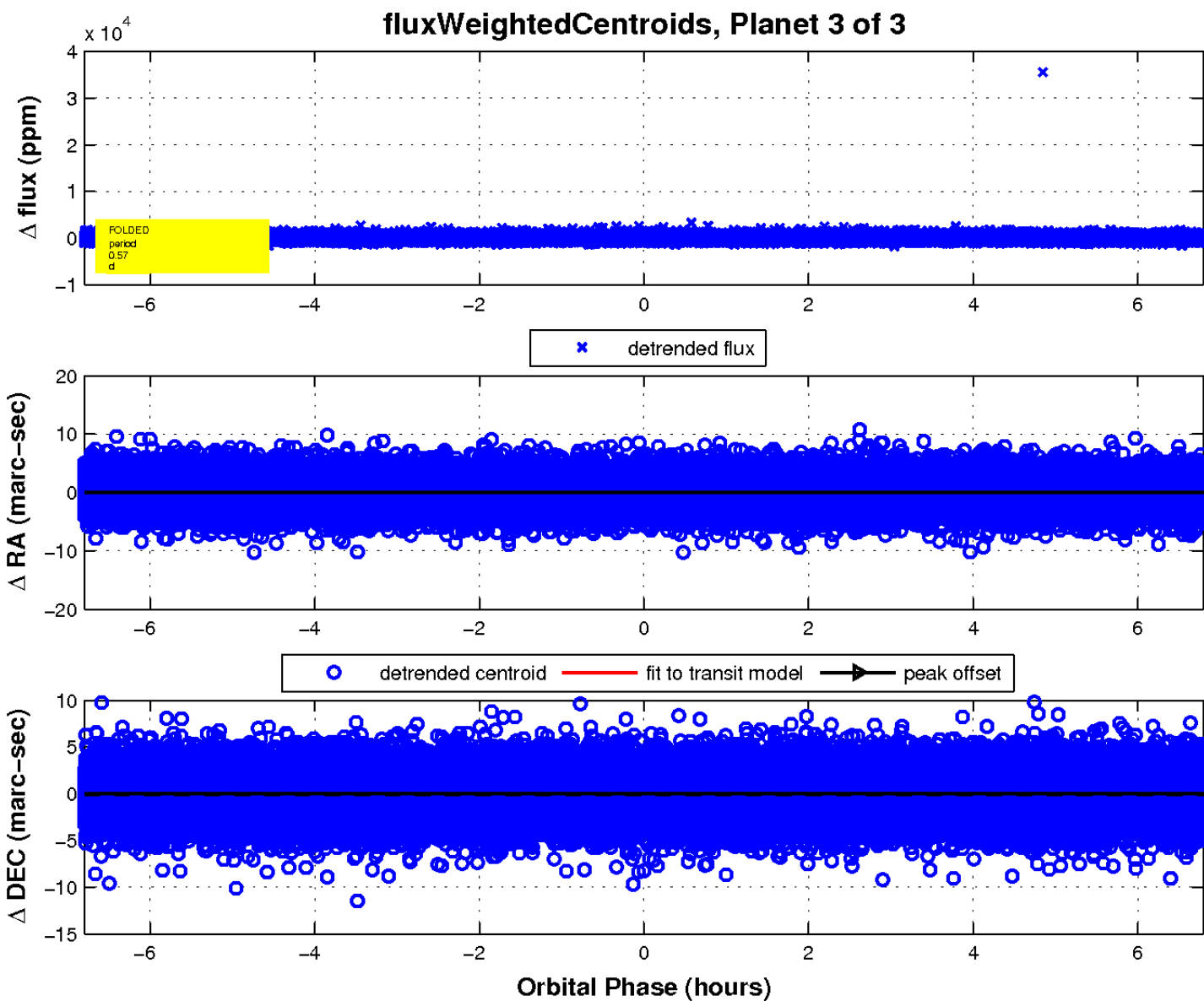
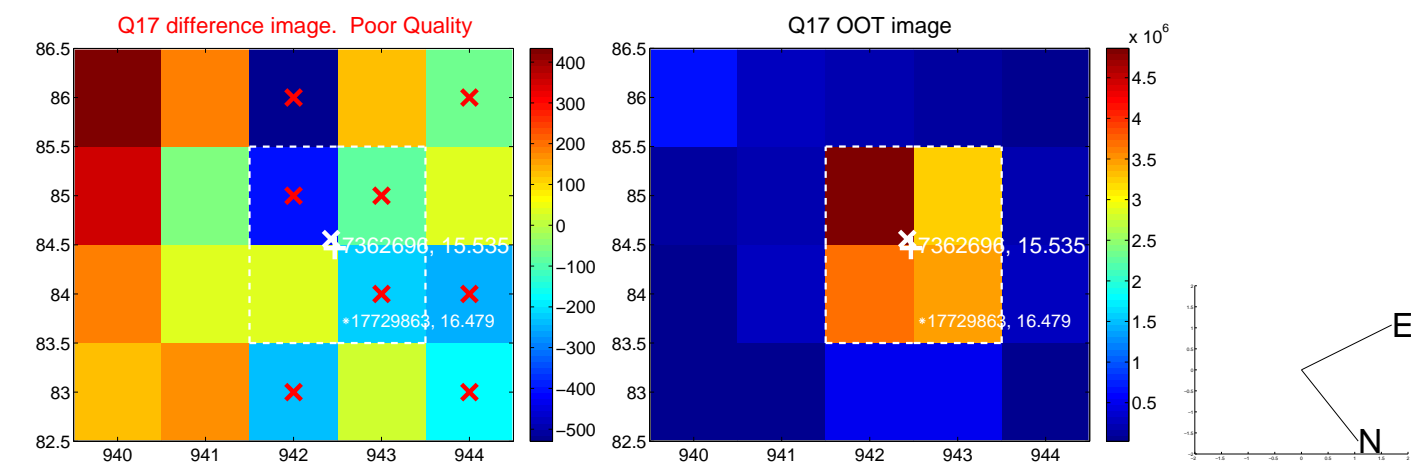
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

