

KIC 007830637

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})
007830637-01	OBS	1454.01	121.599231	211.480366	50025.1	11.117	1680.1	1236.4	0.85	6036	19.77	3.88
007830637-02	OBS	No	121.599145	137.275770	10529.9	15.071	263.1	261.5	0.85	6036	14.81	3.88
007830637-03	OBS	No	392.519808	344.695018	340.4	16.076	7.8	7.4	0.85	6036	1.66	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007830637-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007830637-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007830637-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—CENT_FEW_DIFFS

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

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

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

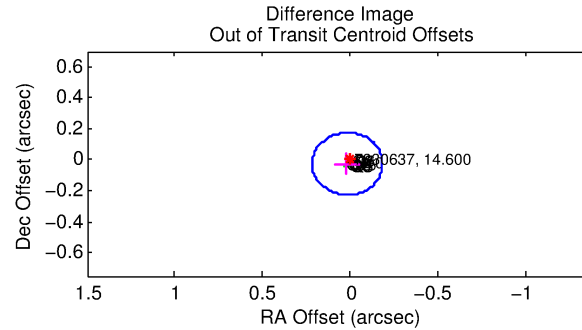
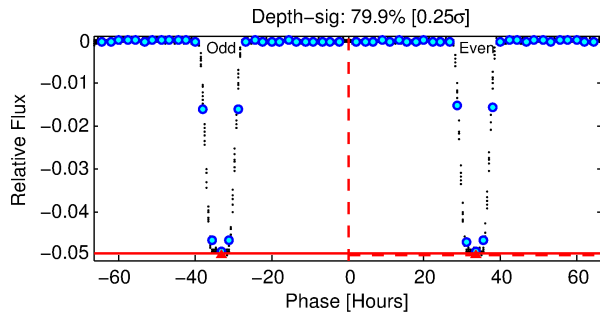
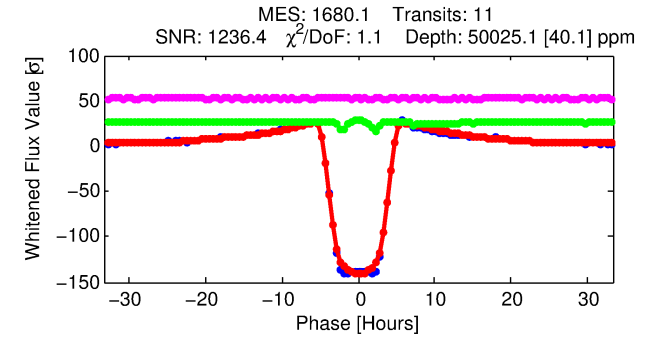
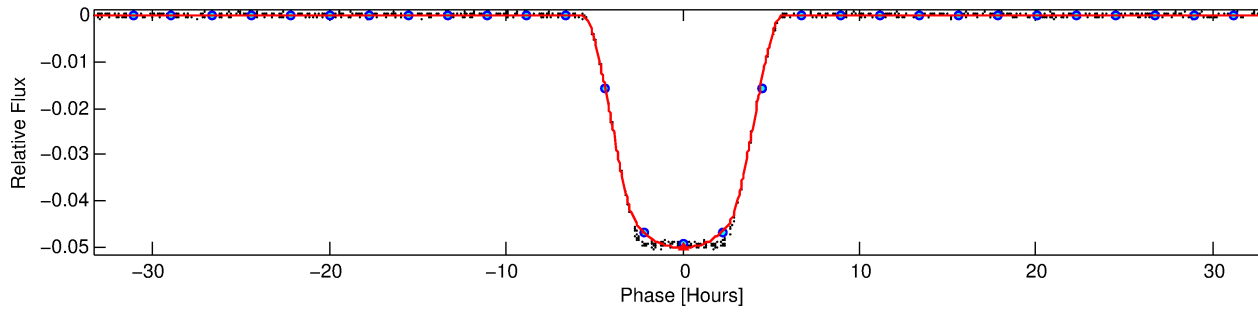
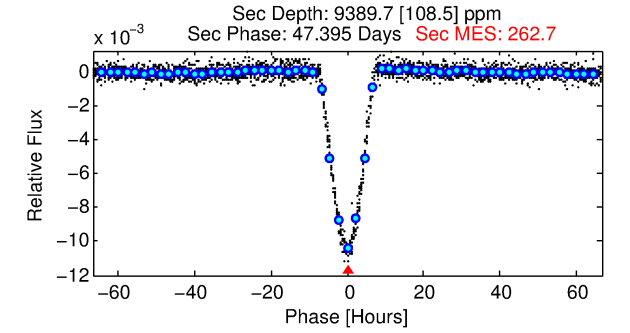
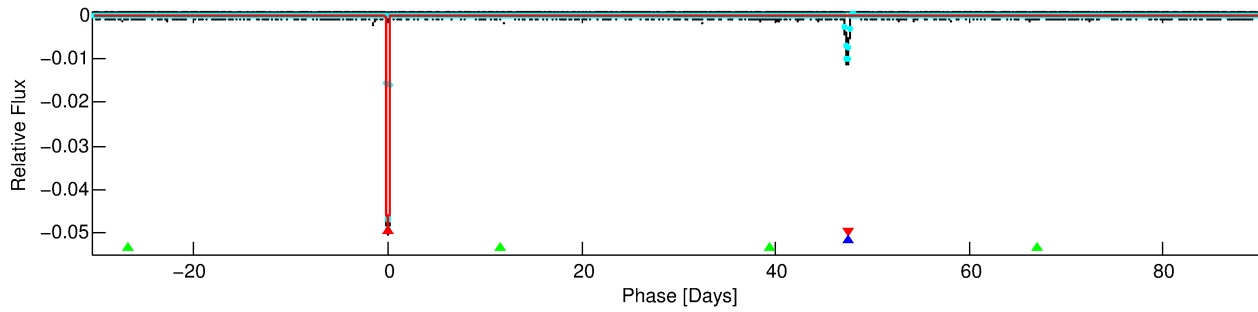
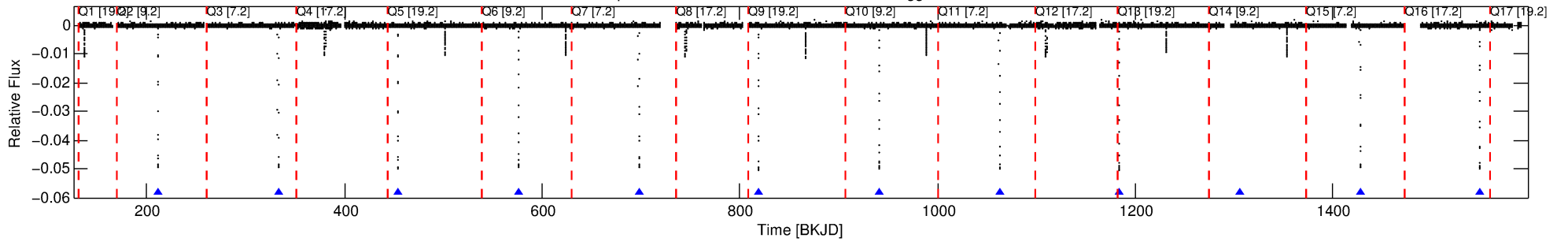
Ephemeris Match Information For 007830637-01

No Significant Match Found

DV One-Page Summary

KIC: 7830637 Candidate: 1 of 3 Period: 121.599 d
KOI: K01454 Corr: No Ephemeris Match

Kp: 14.60 R*: 0.85 Rs Teff: 6036.0 K Logg: 4.55 Fe/H: -0.440



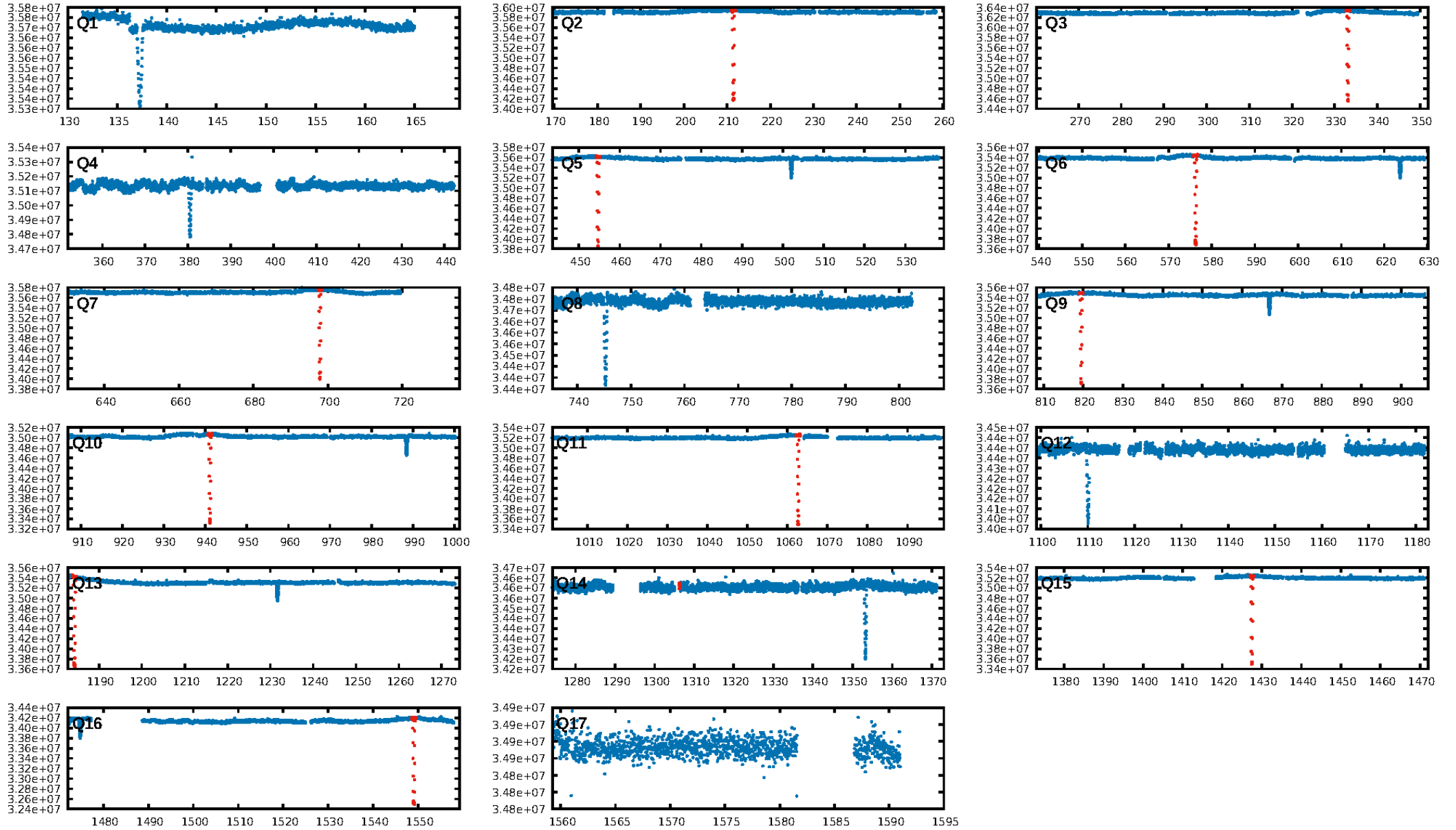
DV Fit Results:

Period = 121.59923 [0.00002] d
Epoch = 211.4804 [0.0001] BKJD
Rp/R* = 0.2139 [0.0001]
a/R* = 89.92 [0.16]
b = 0.56 [0.00]
Seff = 3.88 [1.43]
Teq = 358 [33] K
Rp = 19.77 [5.55] Re
a = 0.4691 [0.1118] AU
Ag = 2908.88 [1016.42] [2.86σ]
Teffp = 4063 [121] K [29.53σ]

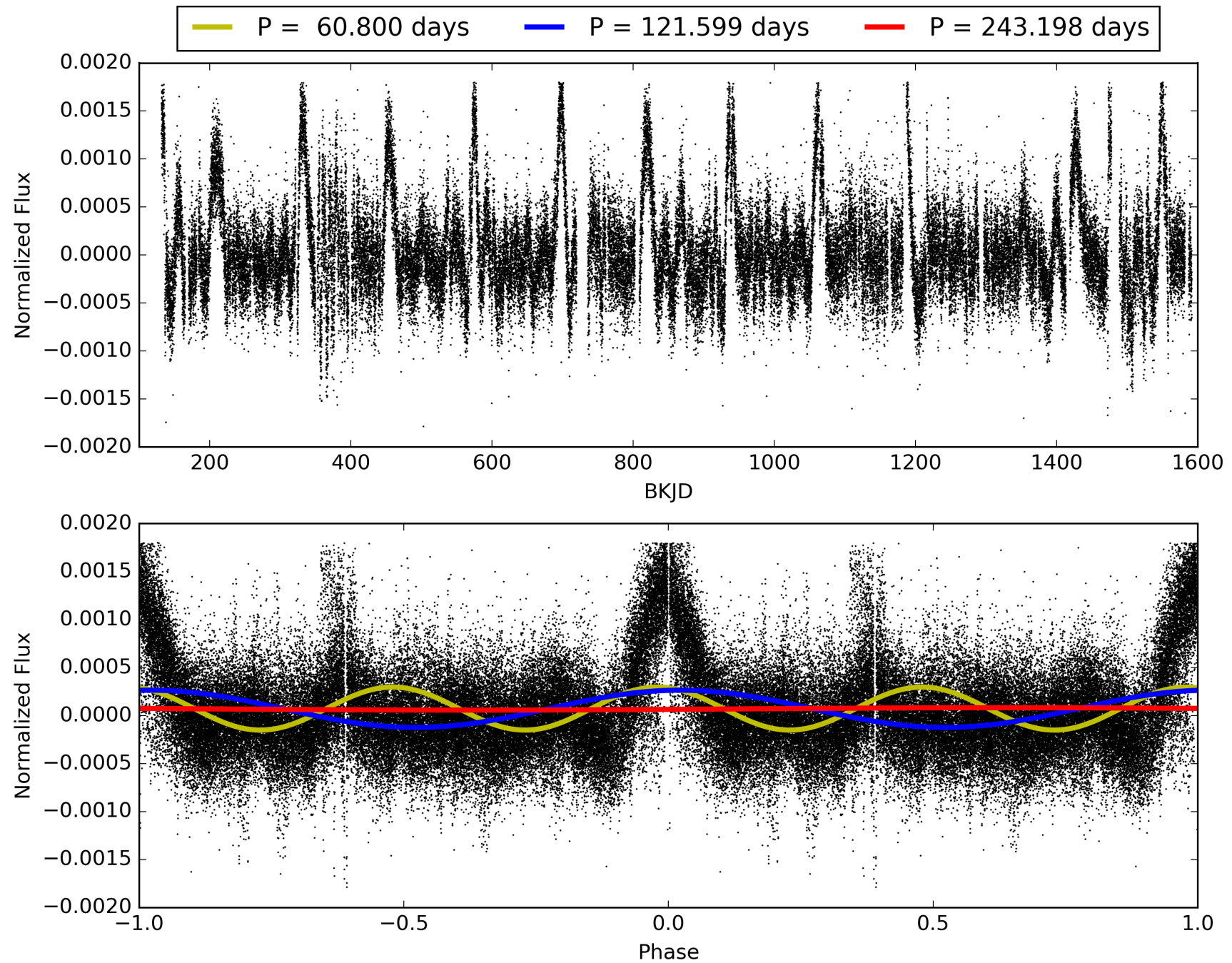
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [332.66σ]
ModelChiSquare2-sig: 3.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 5.446
Centroid-sig: 0.0%
Centroid-so: 0.072 arcsec [8.59σ]
OotOffset-rm: 0.031 arcsec [0.47σ]
OotOffset-st: 3/3/0/2 [8]
KicOffset-rm: 0.048 arcsec [0.69σ]
KicOffset-st: 3/3/0/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 007830637-01, PDC Light Curves

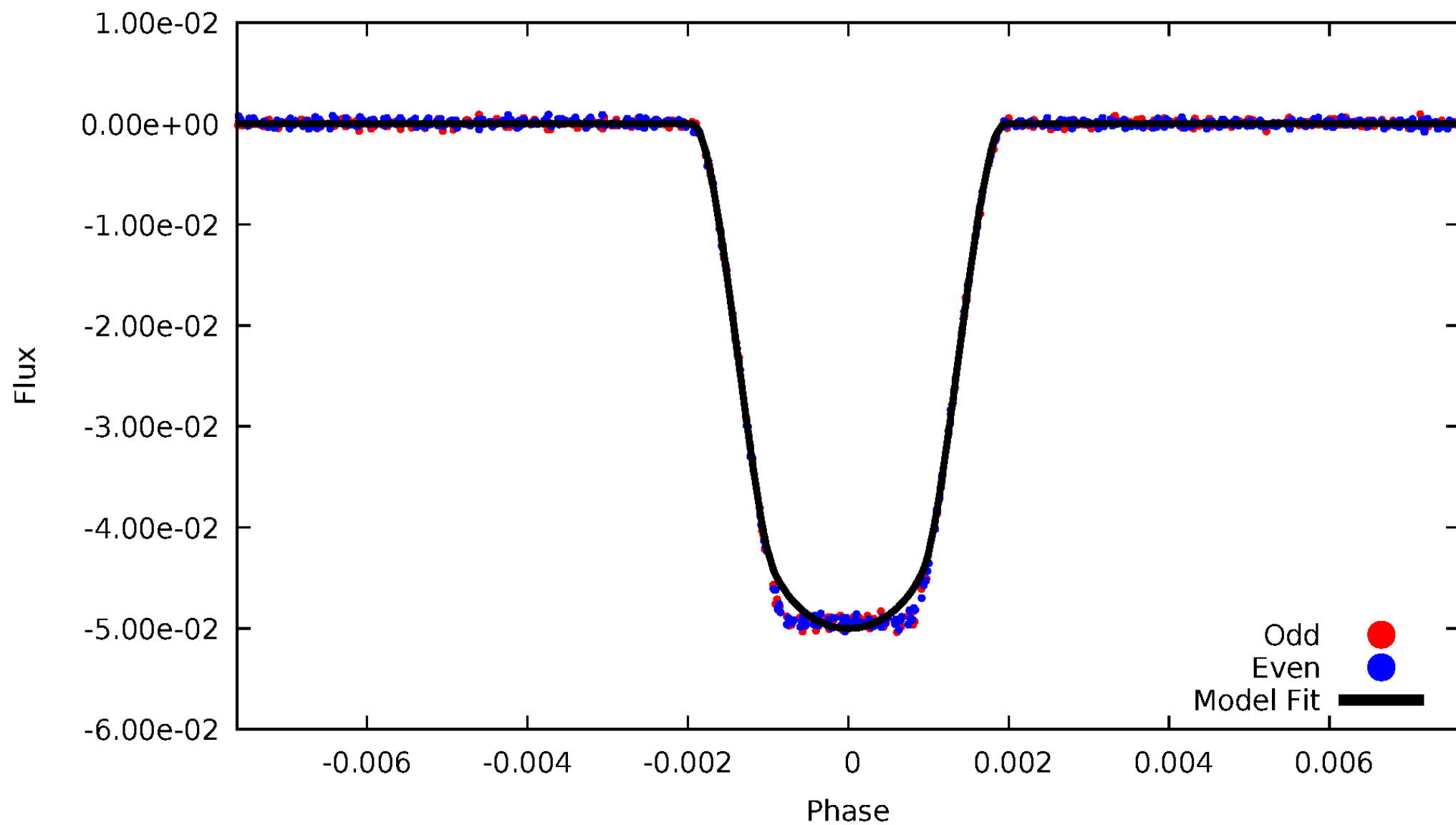


TCE 007830637-01



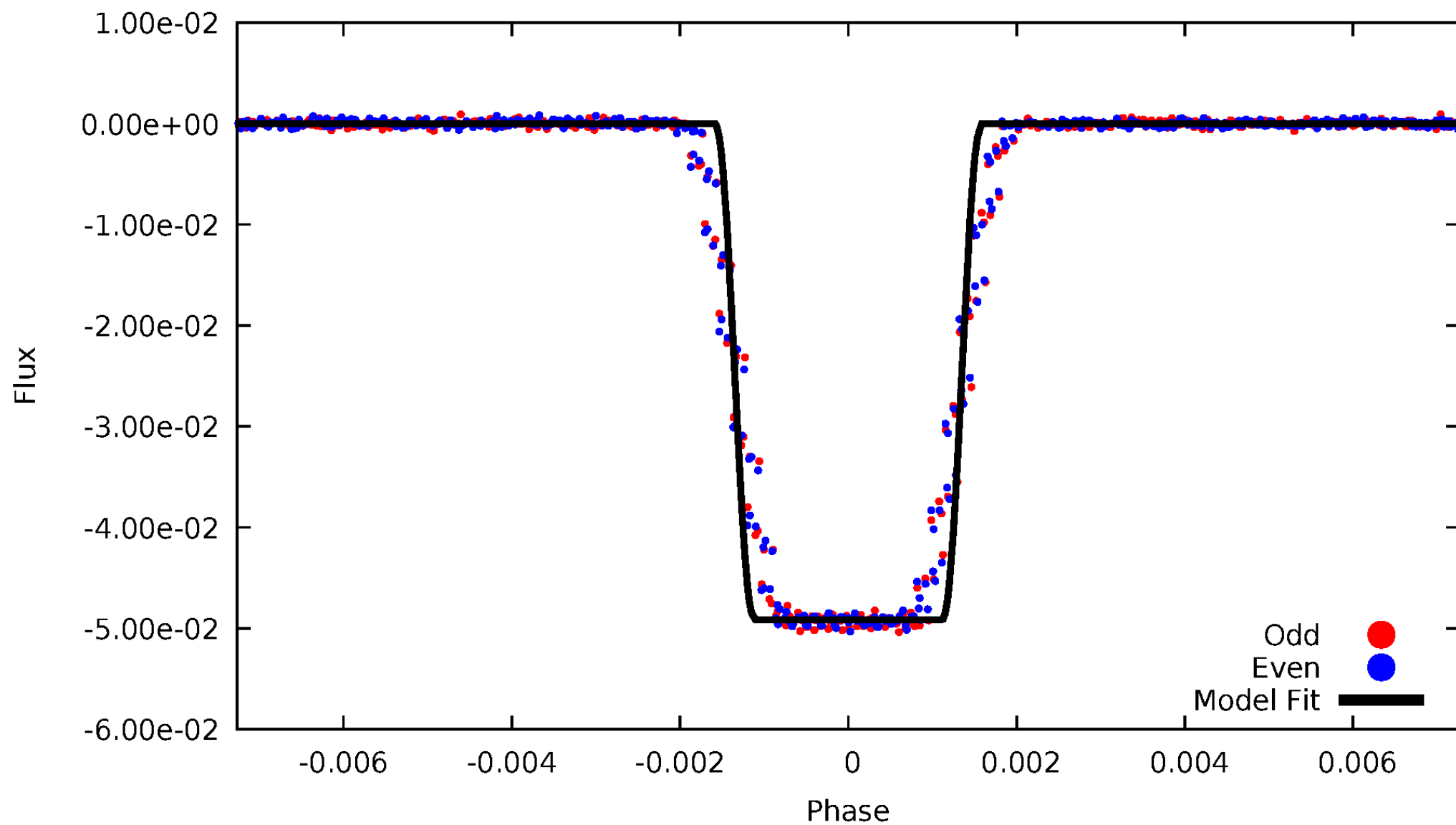
DV Odd/Even

TCE 007830637-01



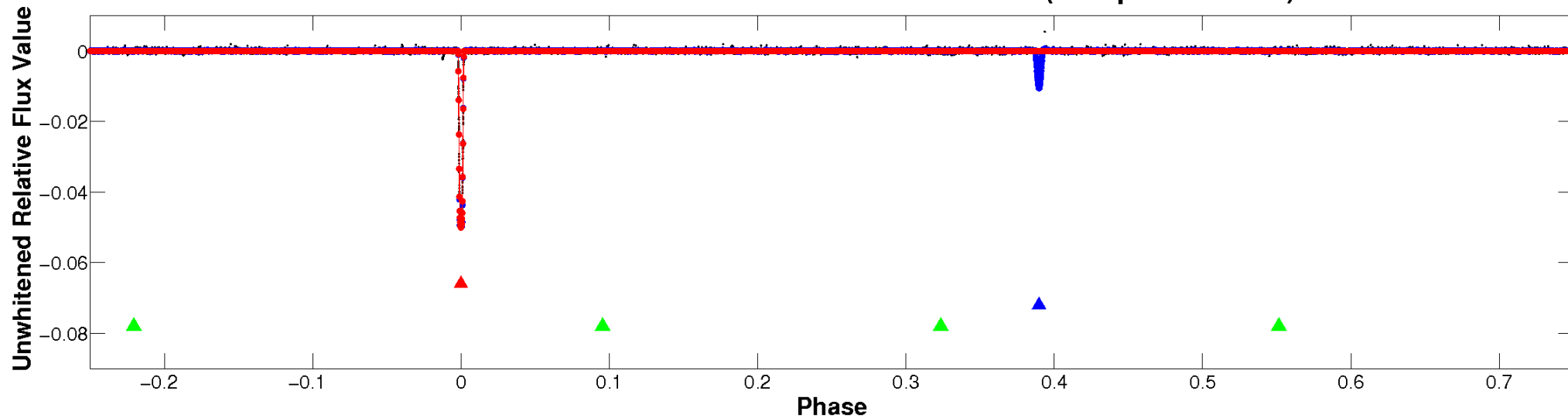
ALT Odd/Even

TCE 007830637-01

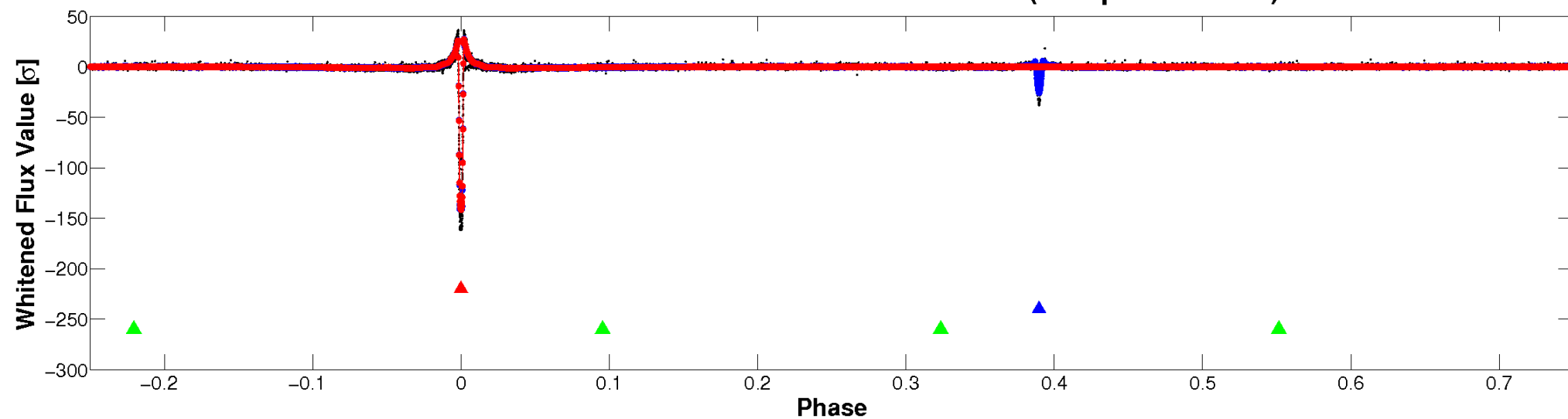


Non-Whitened Vs. Whitened Light Curve

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

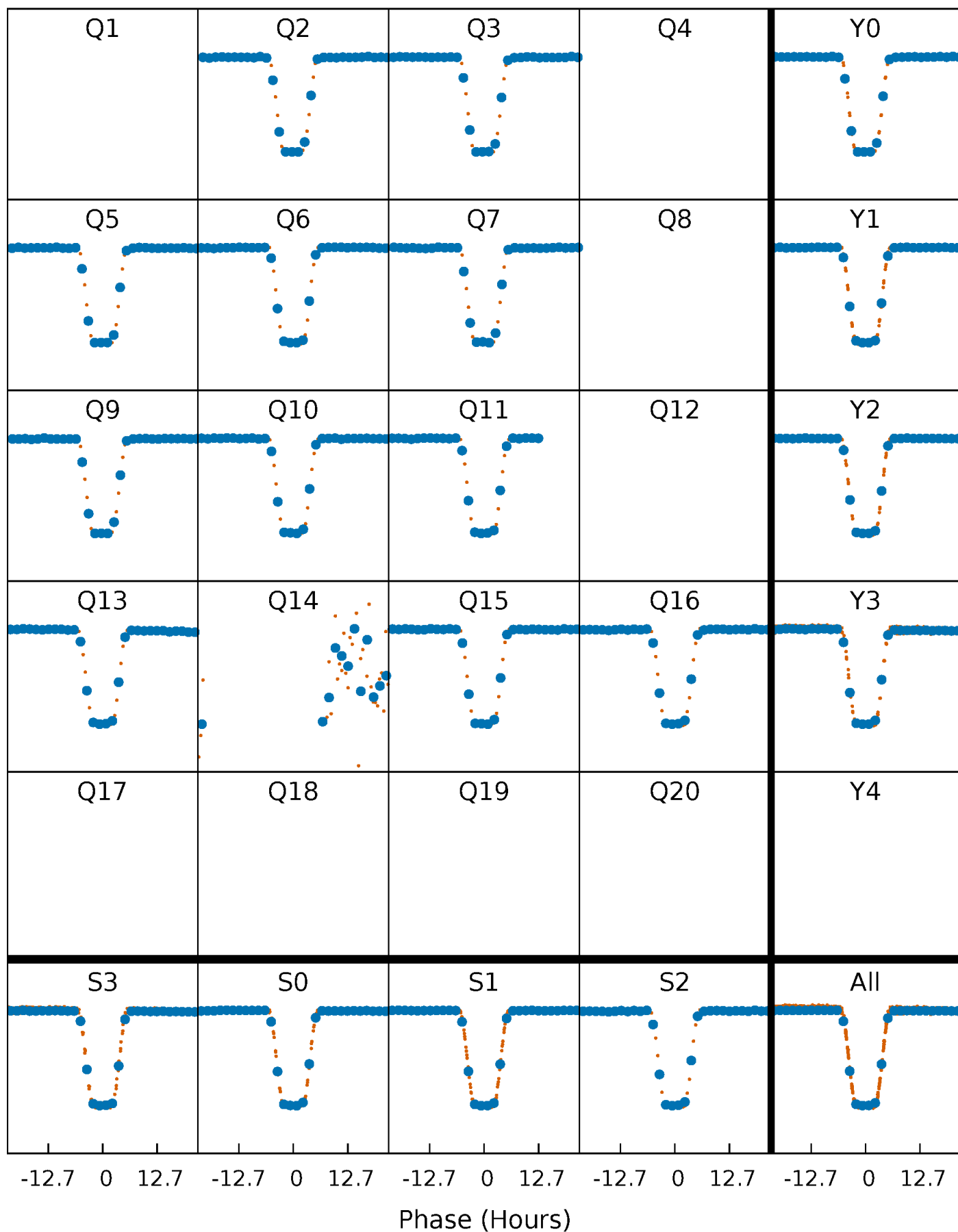


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



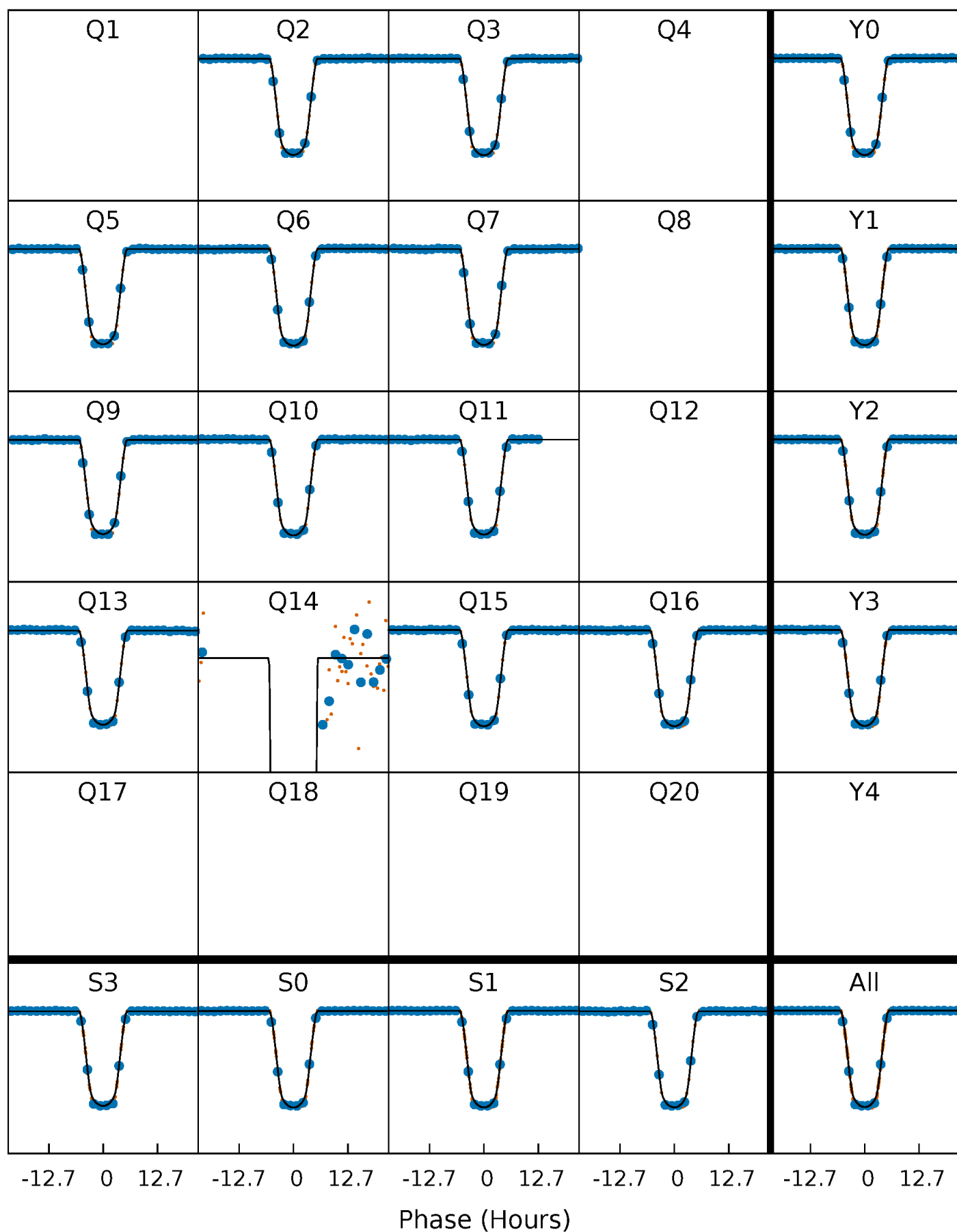
PDC Quarter-Phased Transit Curves

TCE 007830637-01 P=121.599231 Days $T_0=211.480366$ (BKJD)



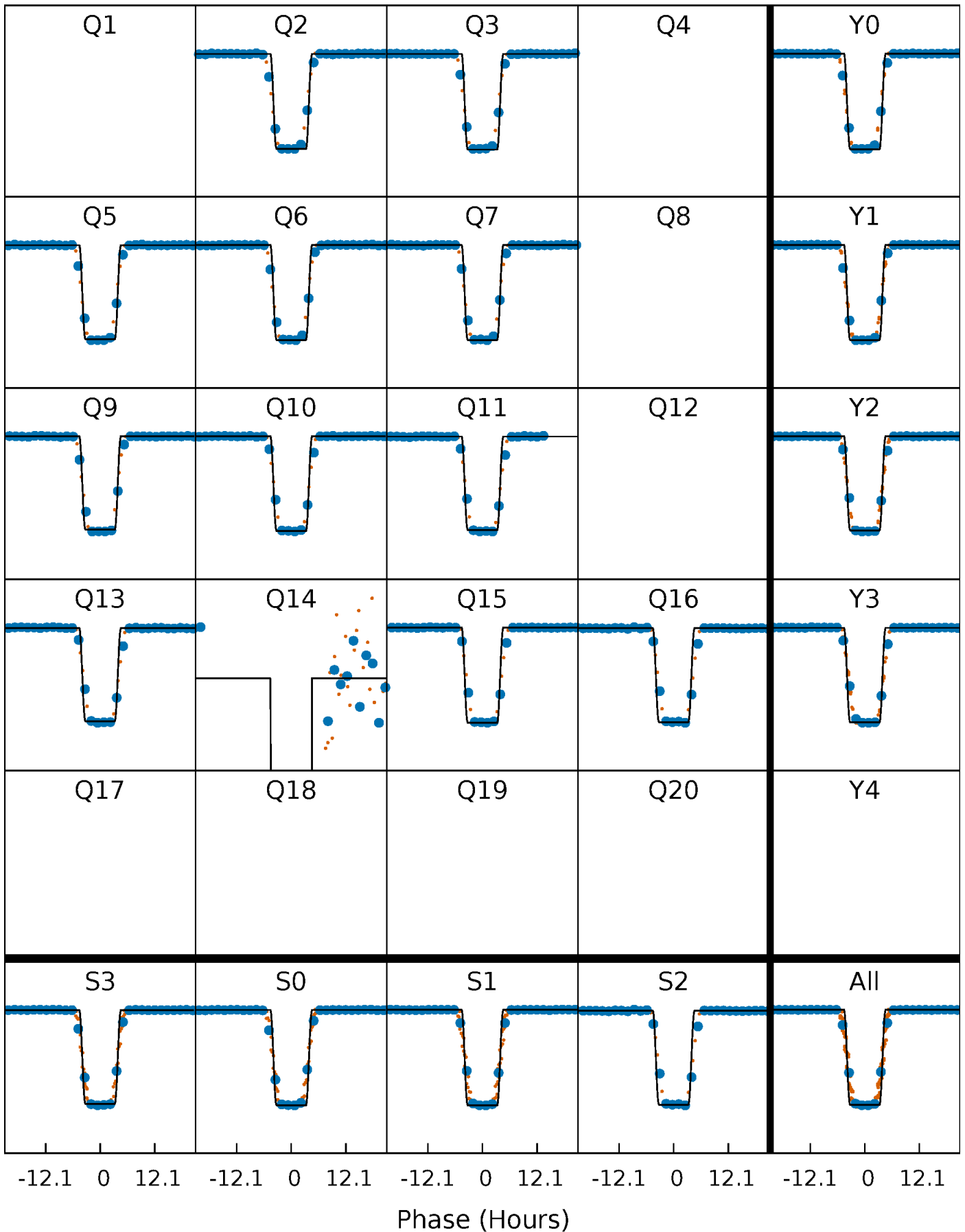
DV Quarter-Phased Transit Curves

TCE 007830637-01 P=121.599231 Days $T_0=211.480366$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

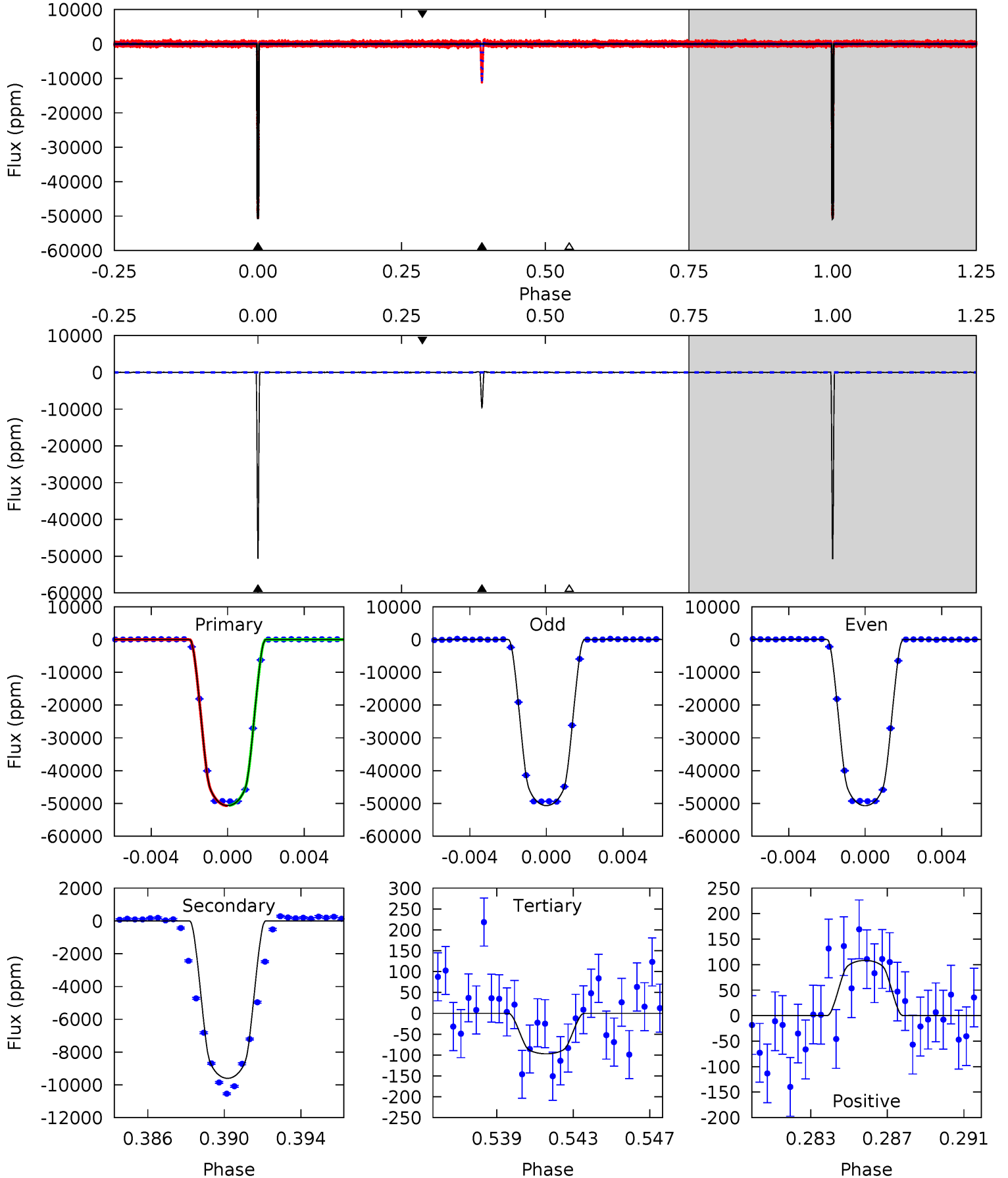
TCE 007830637-01 P=121.596501 Days $T_0=211.494259$ (BKJD)



DV Model-Shift Uniqueness Test

007830637-01, P = 121.599231 Days, E = 89.881135 Days

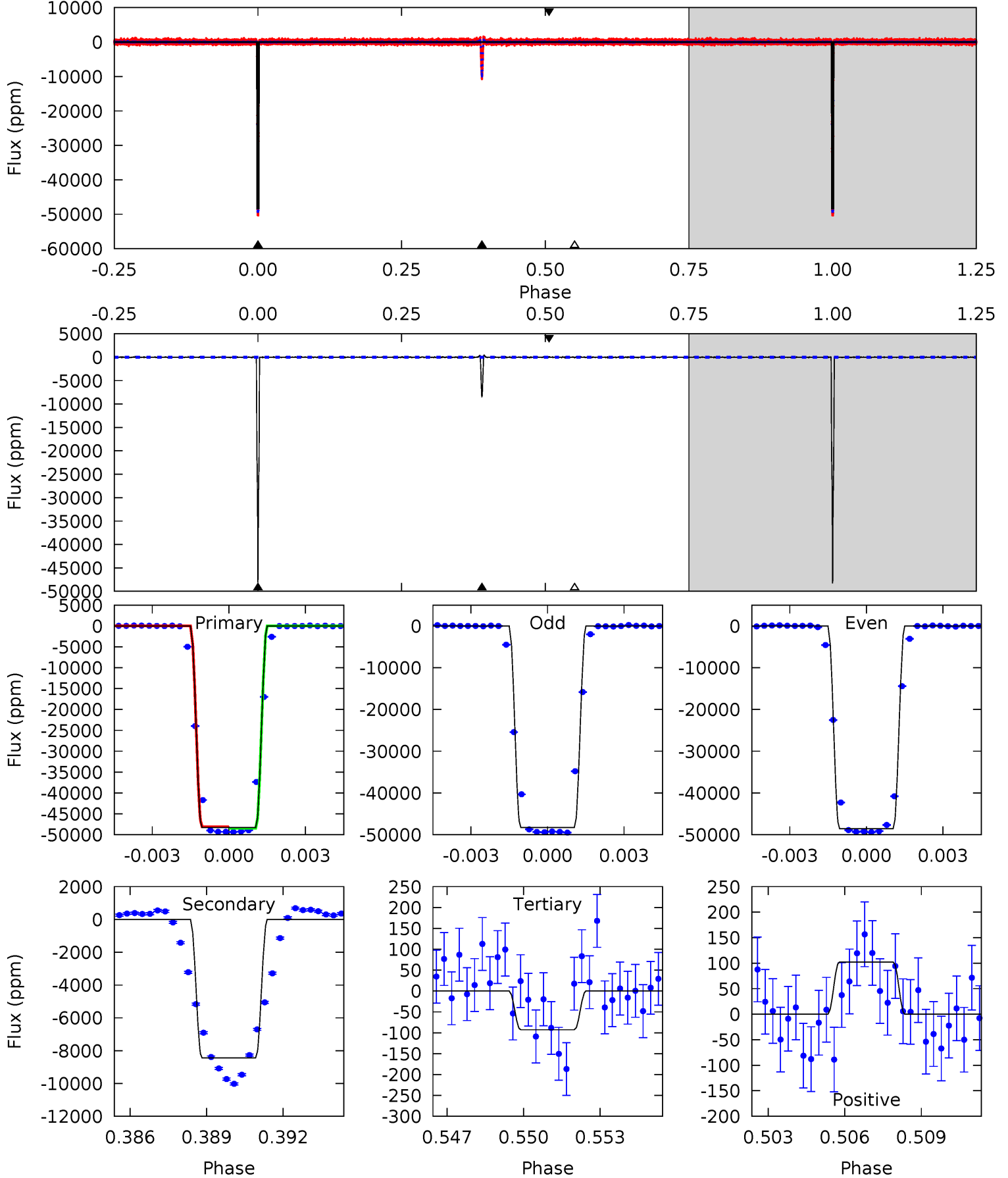
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2871	543.9	5.50	6.13	5.20	2.88	2.08	2866	2865	538.4	537.8	1.06	1.00	0.00	0.82



Alt Model-Shift Uniqueness Test

007830637-01, P = 121.596501 Days, E = 89.897758 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2050	358.7	3.94	4.35	5.24	2.95	1.37	2047	2046	354.8	354.4	6.52	1.00	0.01	4.59



Stellar Parameters For KIC 007830637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6036^{+161}_{-179}	$4.551^{+0.036}_{-0.192}$	$-0.440^{+0.300}_{-0.300}$	$0.847^{+0.238}_{-0.074}$	$0.931^{+0.098}_{-0.109}$	$2.160^{+0.422}_{-1.110}$
	+3%/-3%	+1%/-4%	+68%/-68%	+28%/-9%	+11%/-12%	+20%/-51%
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 007830637-01 / KOI 1454.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9600 ± 18	$20.39^{+3.07}_{-1.49}$	512^{+35}_{-22}	4325^{+94}_{-90}	2793^{+328}_{-632}
Alt.	-8446 ± 24	$21.20^{+3.20}_{-1.52}$	513^{+32}_{-22}	4170^{+83}_{-90}	2270^{+280}_{-507}

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 $A_{obs} \gg 1.0$

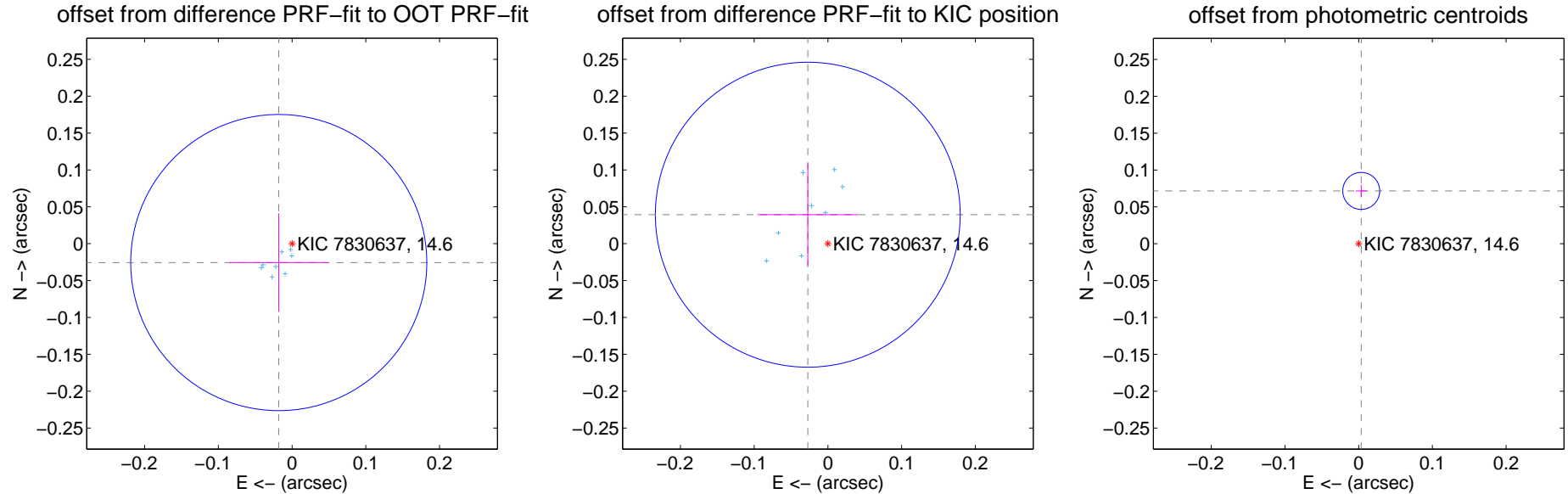
DV Centroid Data

Supplemental centroid analysis for 007830637-01. Kepler magnitude: 14.60. Transit SNR 1236.39

There are 8 quarters with good PRF difference image offsets

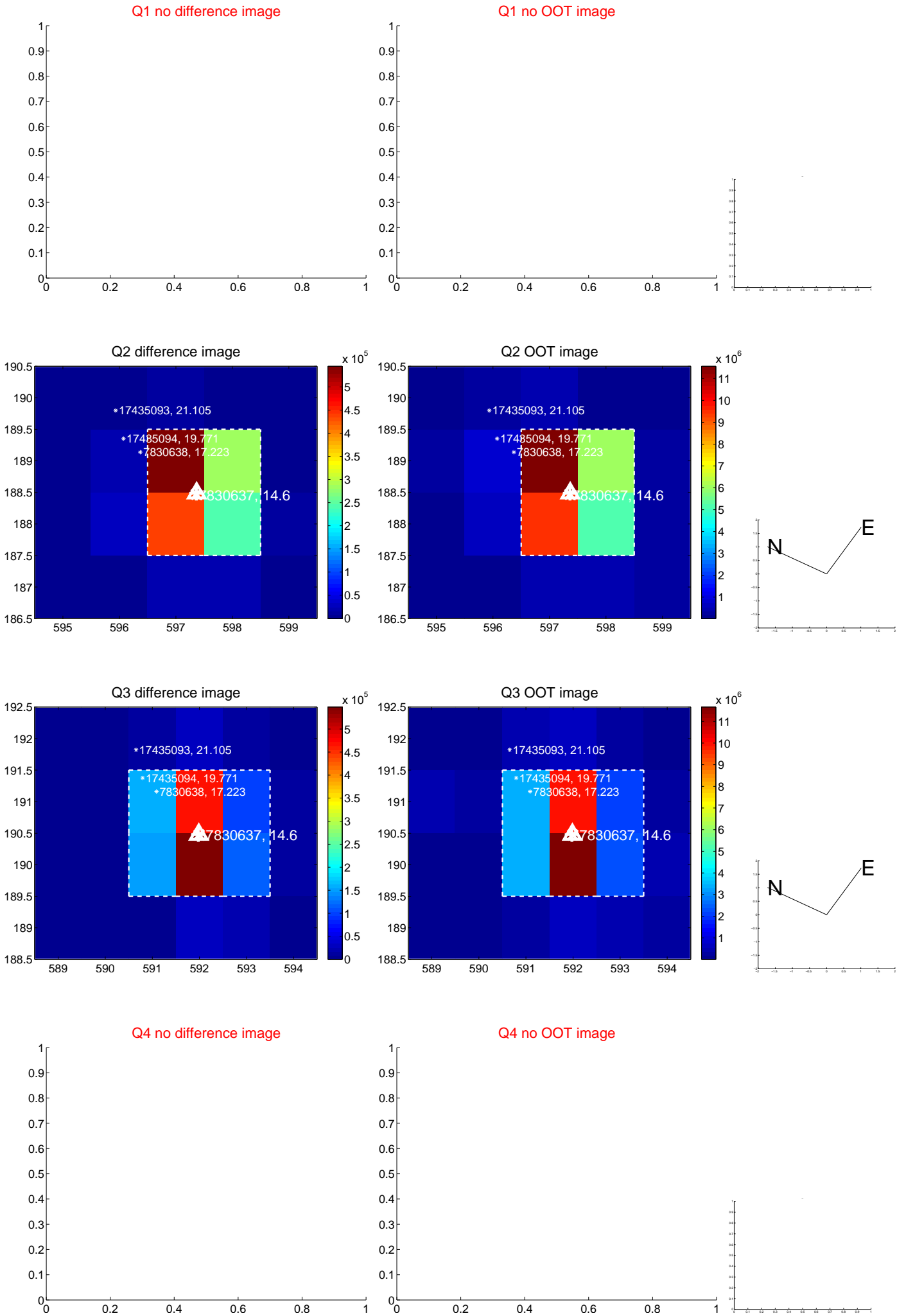
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.031 ± 0.067	0.47	0.018 ± 0.067	-0.026 ± 0.067
PRF-fit source offset from KIC position	0.048 ± 0.069	0.69	0.027 ± 0.068	0.039 ± 0.069
photometric centroid source offset	0.07 ± 0.01	8.59	-0.00 ± 0.01	0.07 ± 0.01

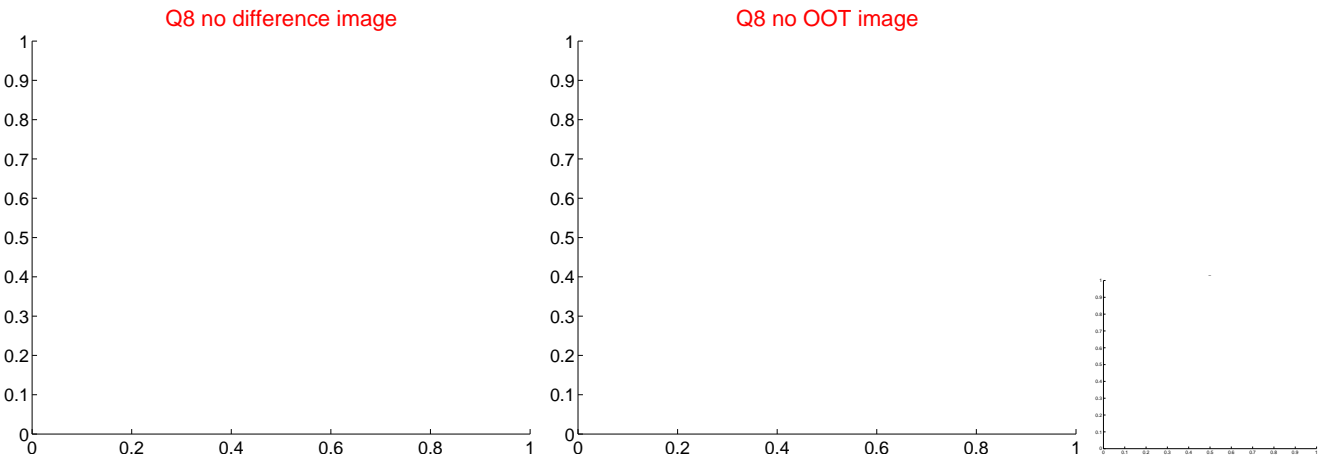
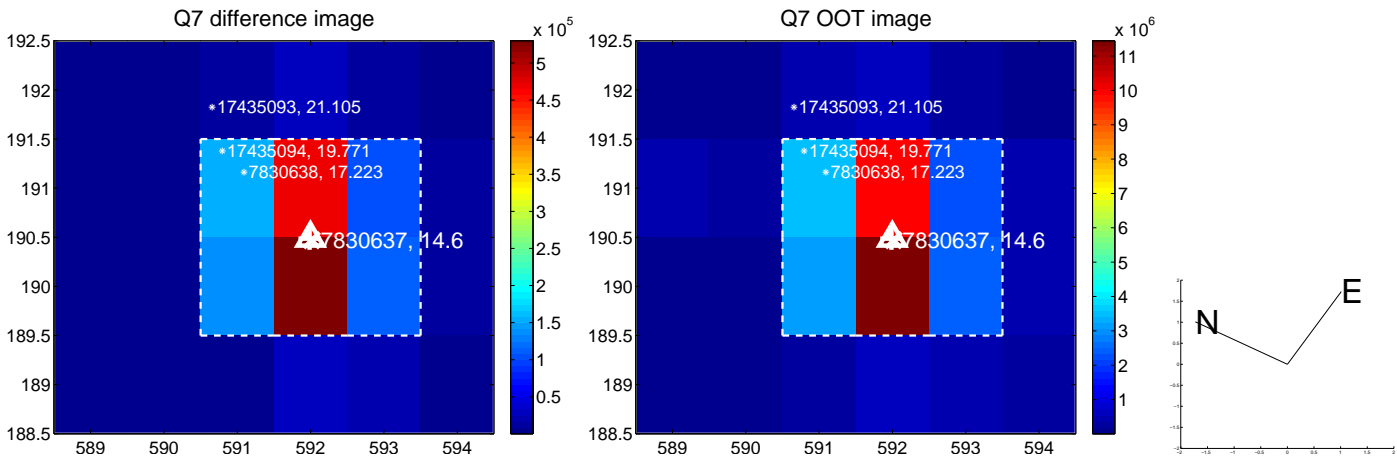
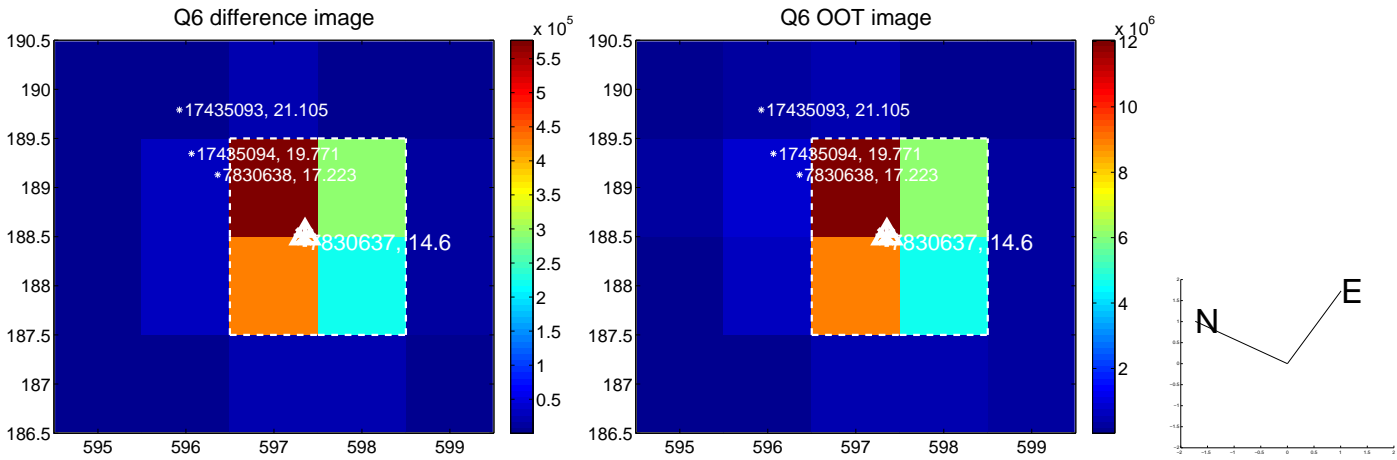
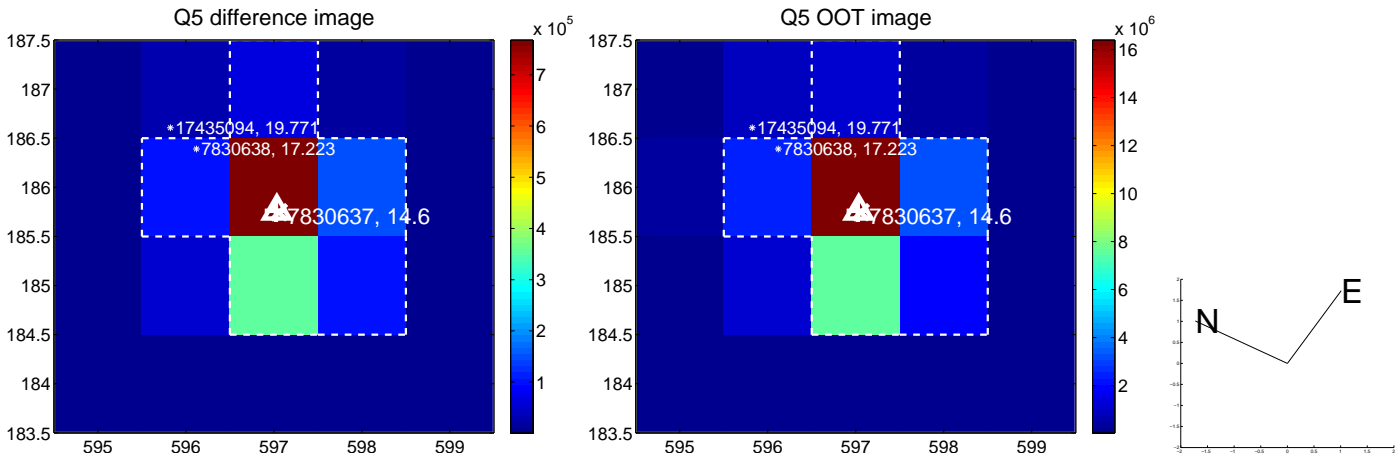


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

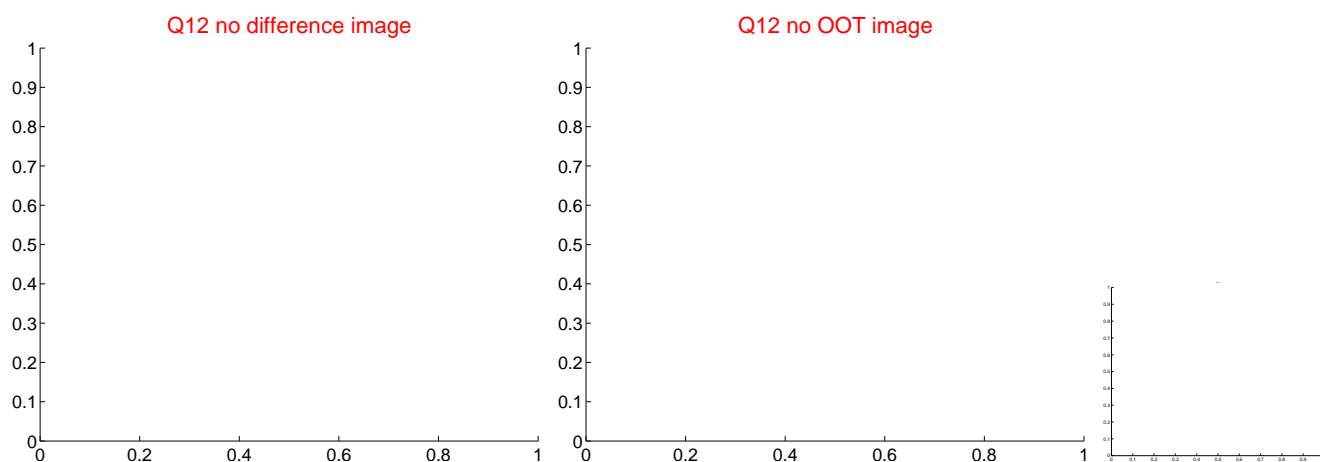
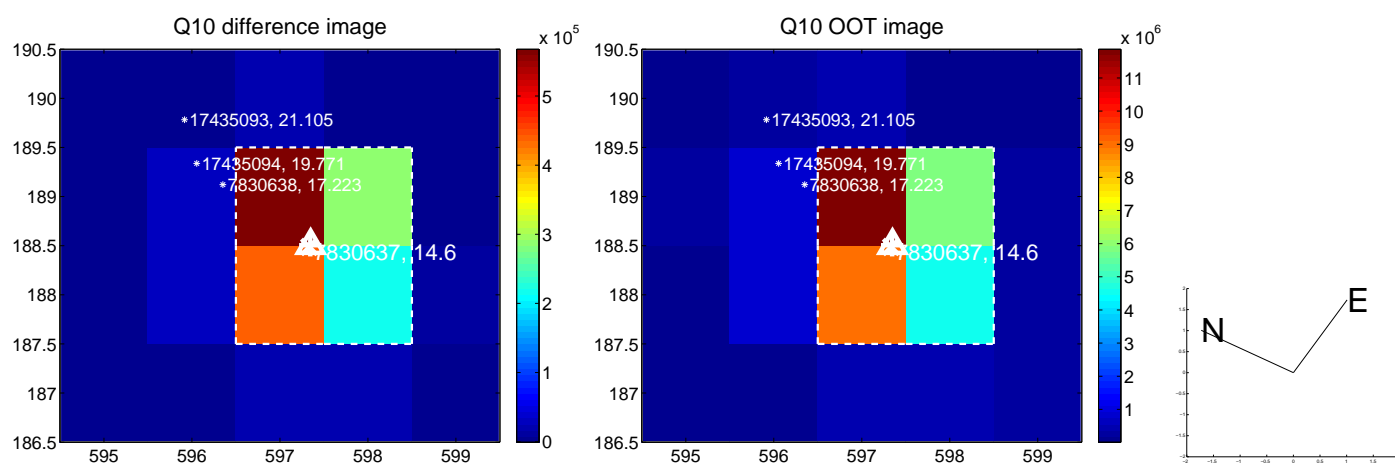
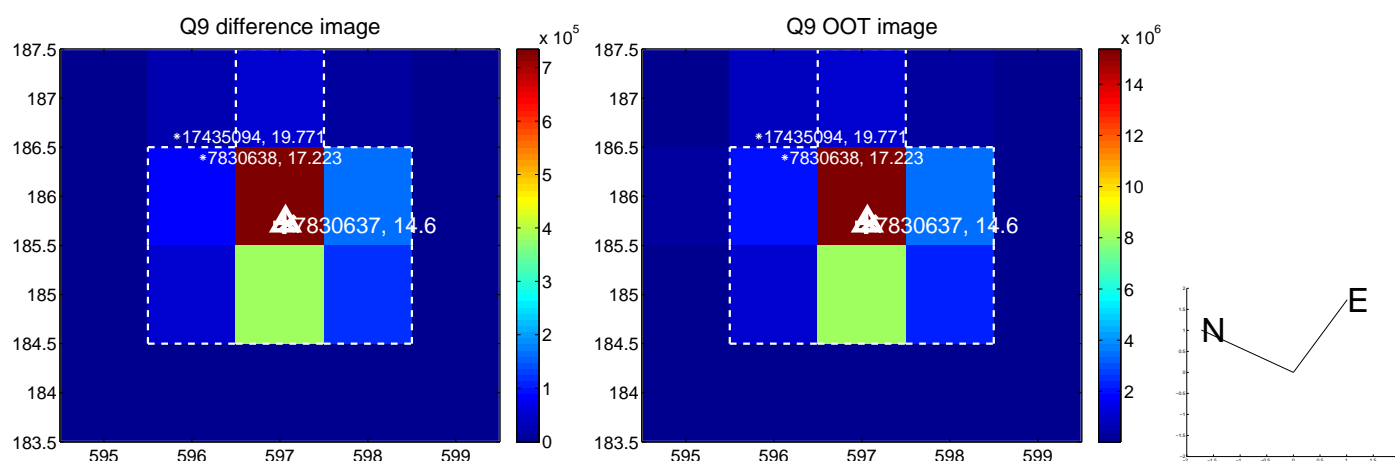
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



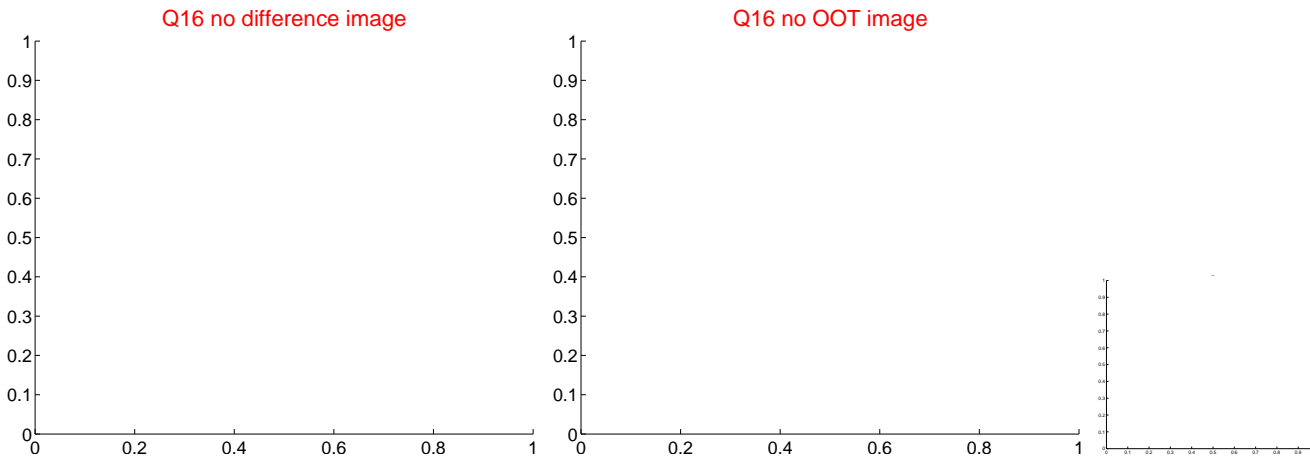
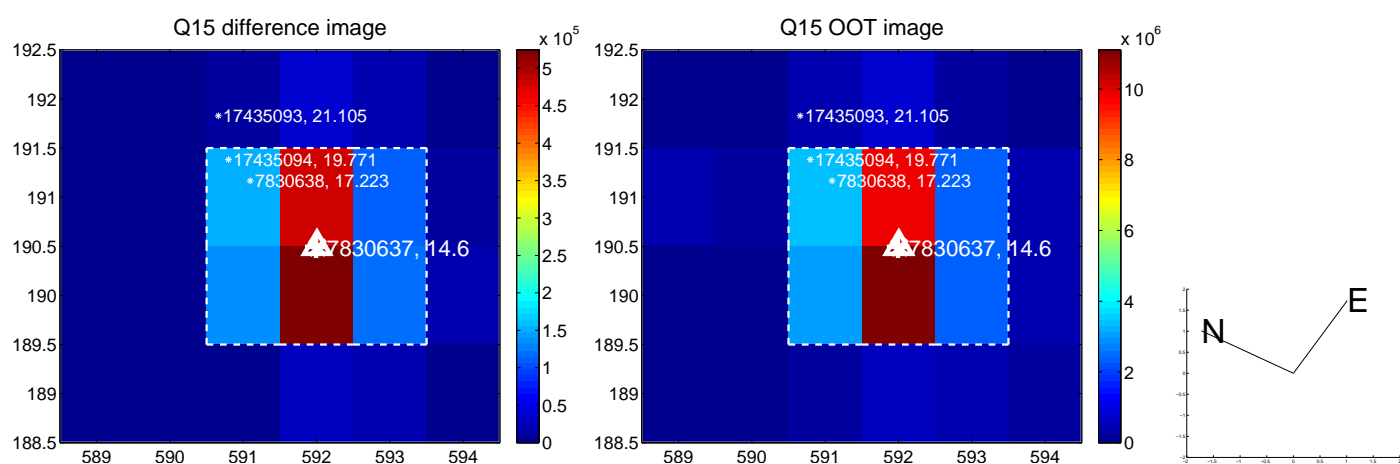
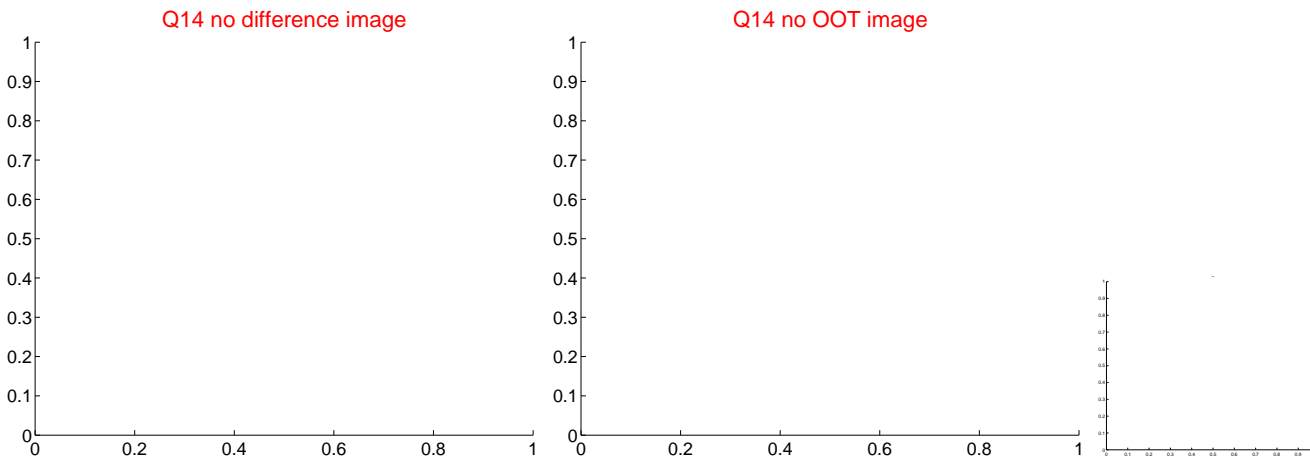
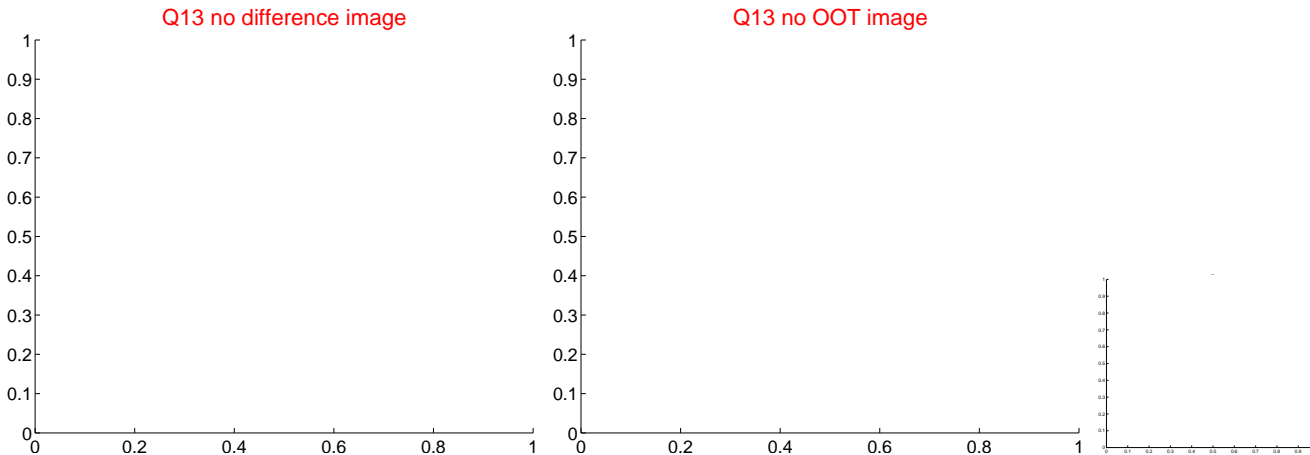
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



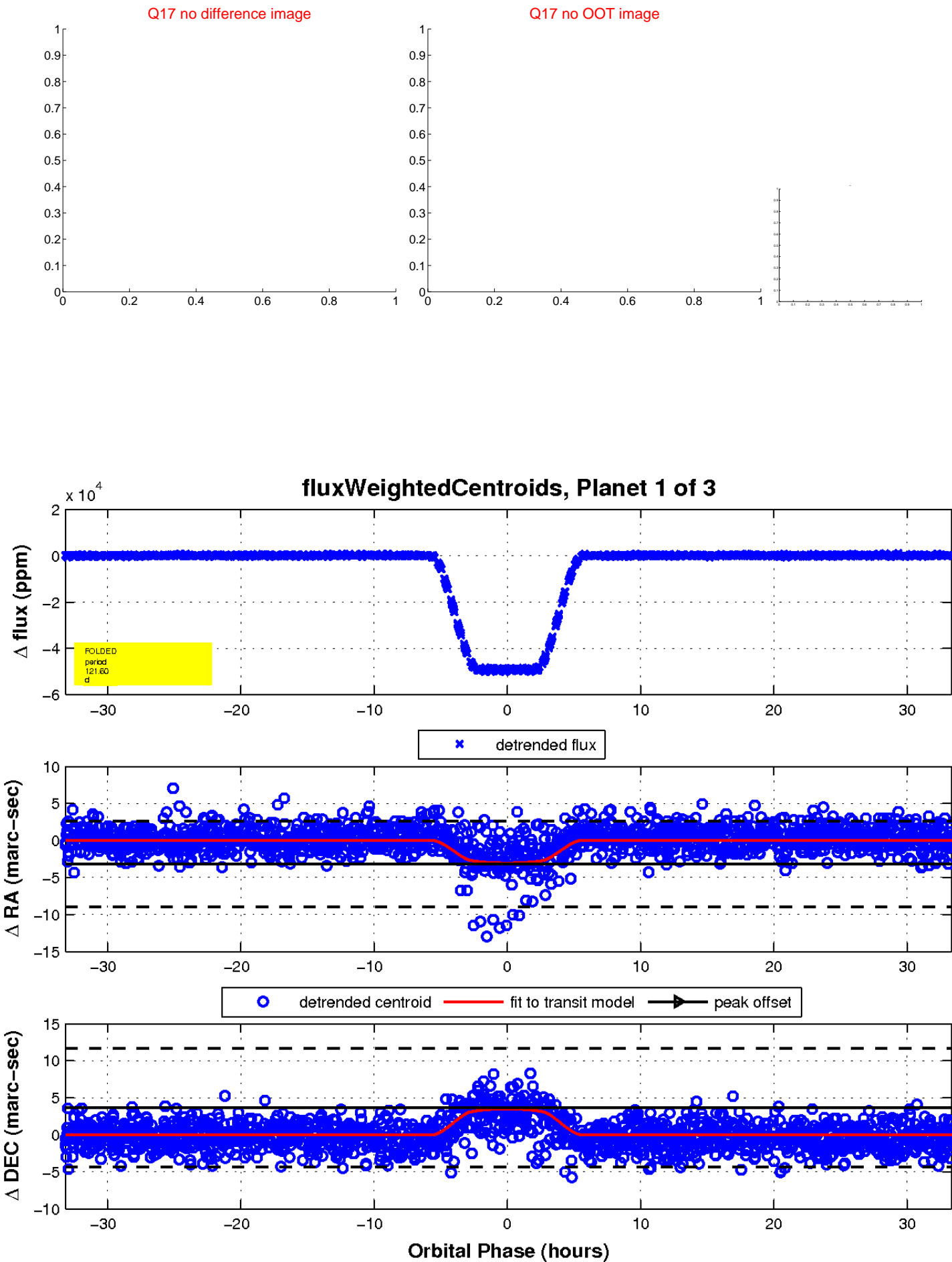
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

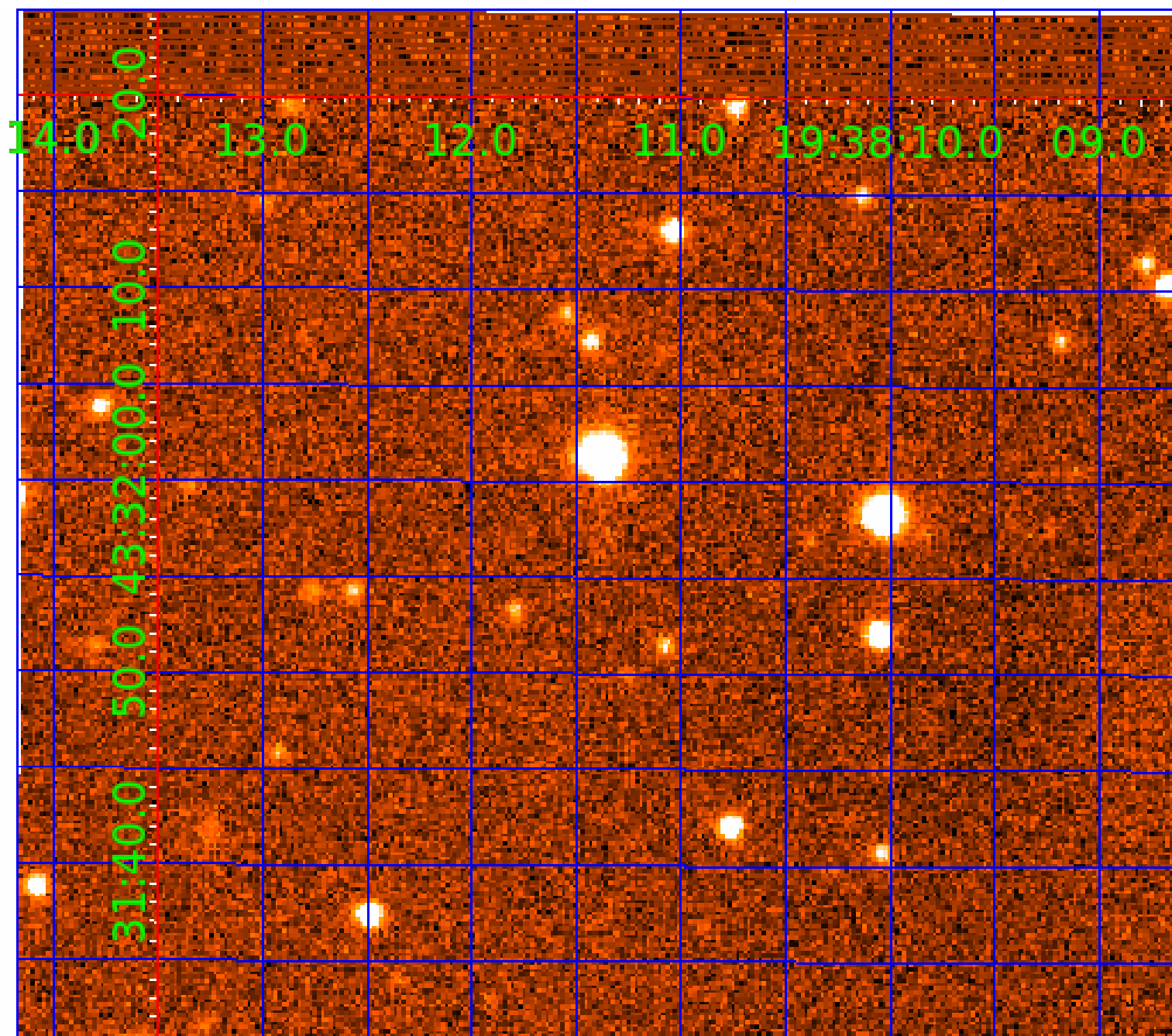


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007830637

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})
007830637-01	OBS	1454.01	121.599231	211.480366	50025.1	11.117	1680.1	1236.4	0.85	6036	19.77	3.88
007830637-02	OBS	No	121.599145	137.275770	10529.9	15.071	263.1	261.5	0.85	6036	14.81	3.88
007830637-03	OBS	No	392.519808	344.695018	340.4	16.076	7.8	7.4	0.85	6036	1.66	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007830637-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007830637-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007830637-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—CENT_FEW_DIFFS

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

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

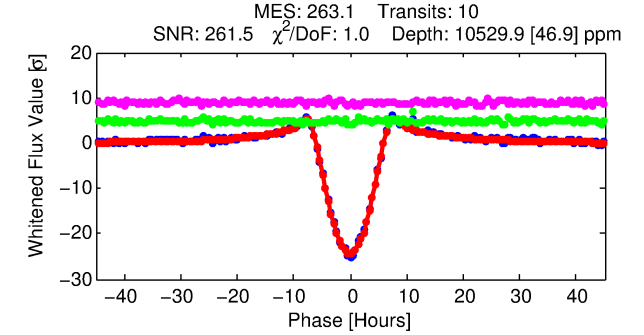
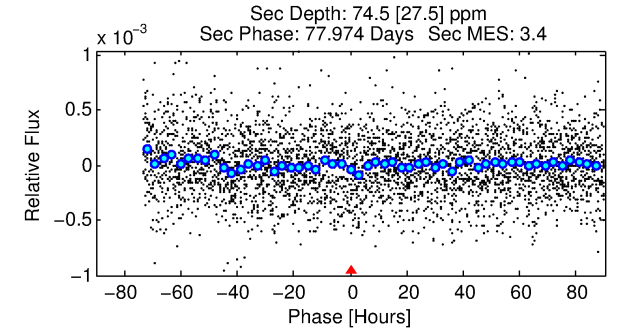
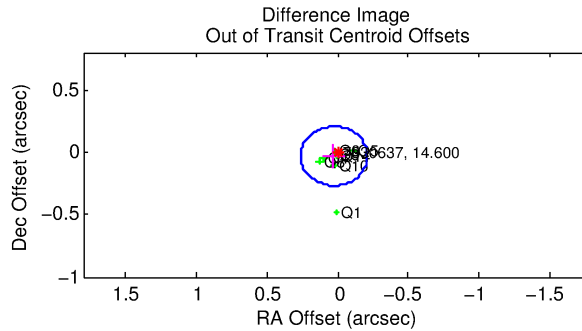
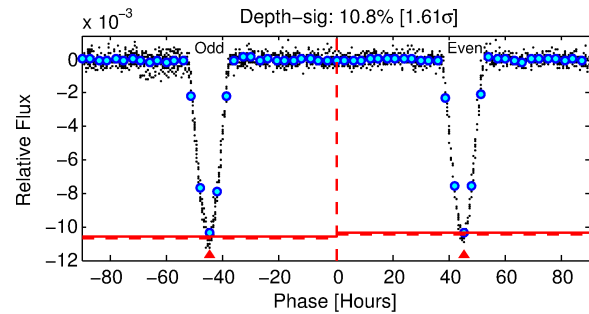
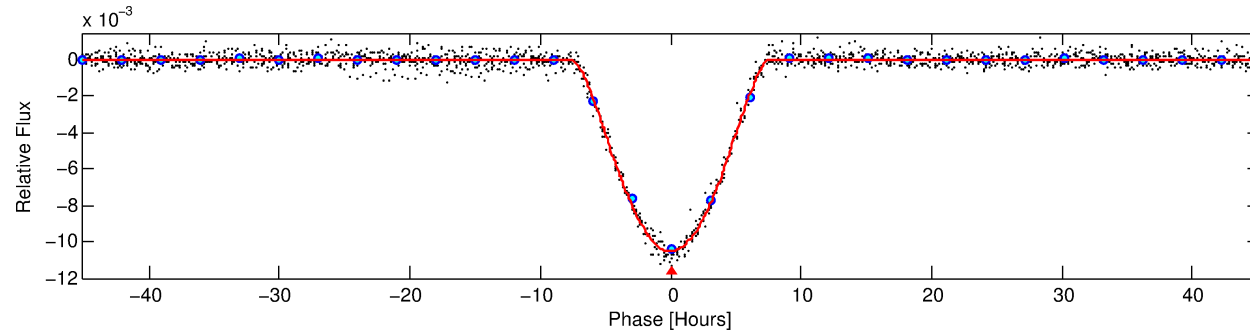
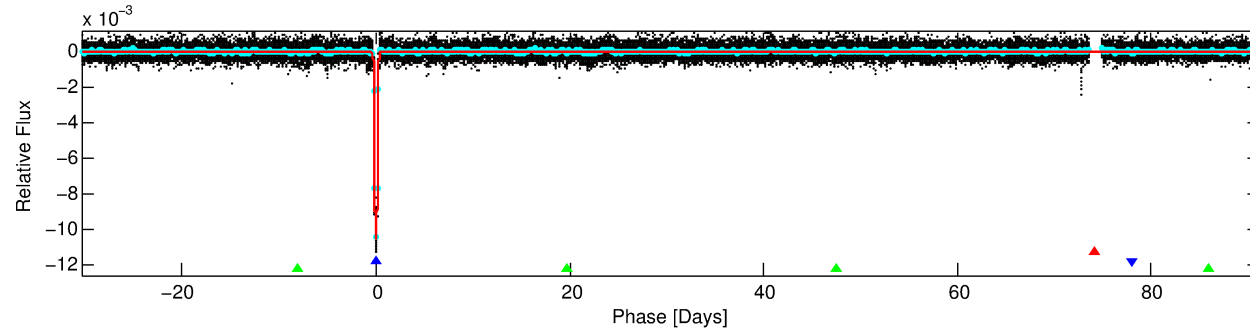
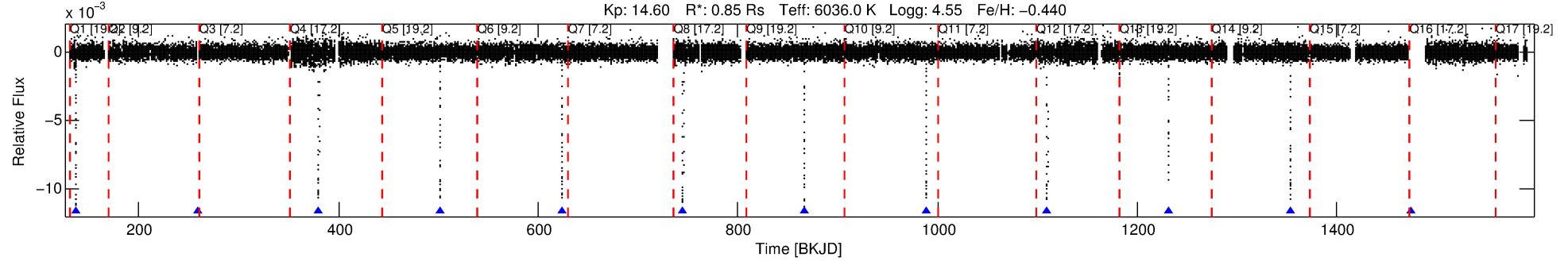
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007830637-02

No Significant Match Found

DV One-Page Summary

KIC: 7830637 Candidate: 2 of 3 Period: 121.599 d
KOI: K01454.01 Corr: 0.992



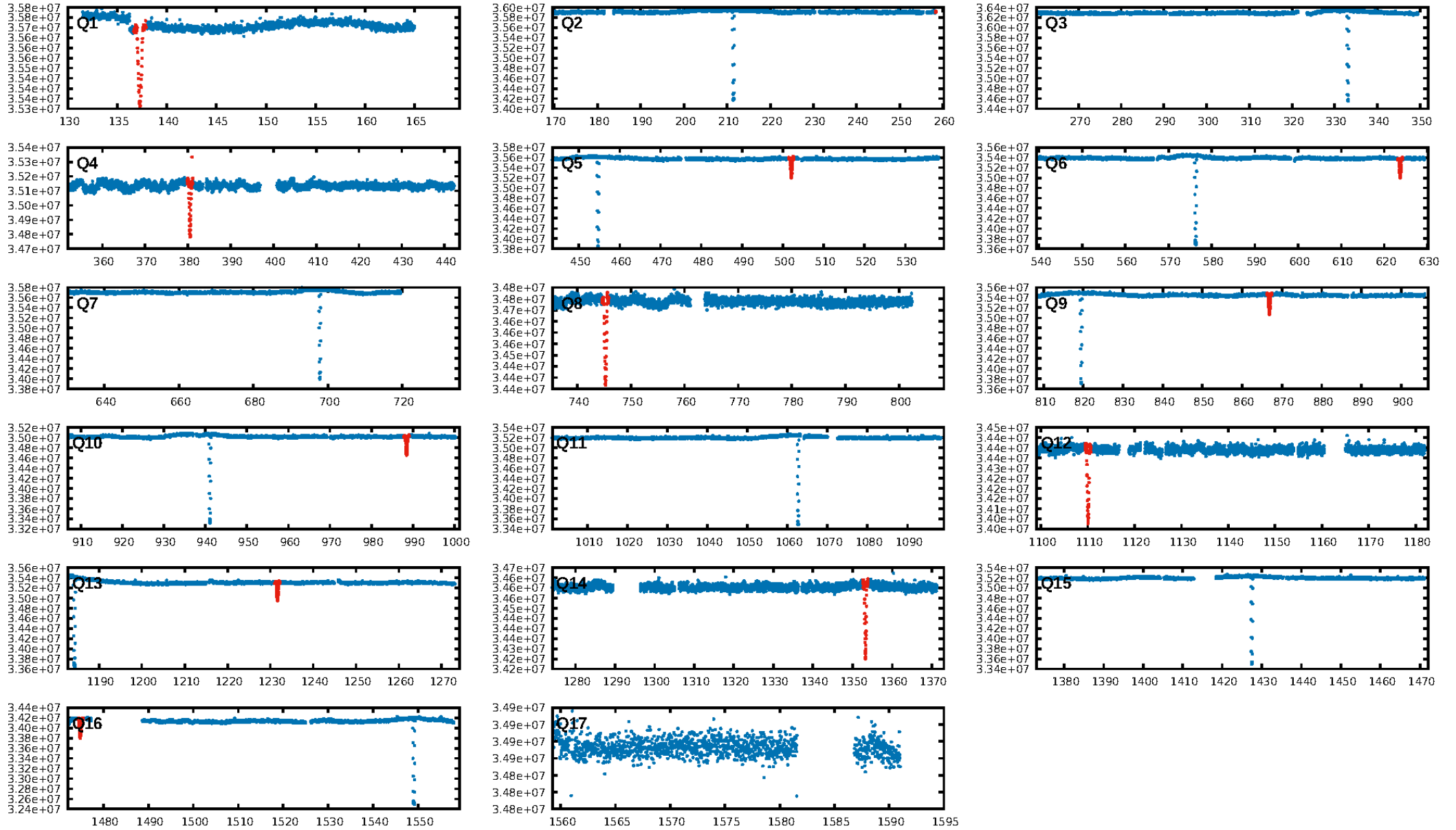
DV Fit Results:

Period = 121.59914 [0.00021] d
Epoch = 137.2758 [0.0013] BKJD
Rp/R* = 0.1603 [0.0196]
a/R* = 37.27 [0.73]
b = 0.99 [0.03]
Seff = 3.88 [1.43]
Teq = 358 [33] K
Rp = 14.81 [4.54] Re
a = 0.4691 [0.1118] AU
Ag = 41.07 [23.15] [1.73 σ]
Teffp = 1401 [160] K [6.37 σ]

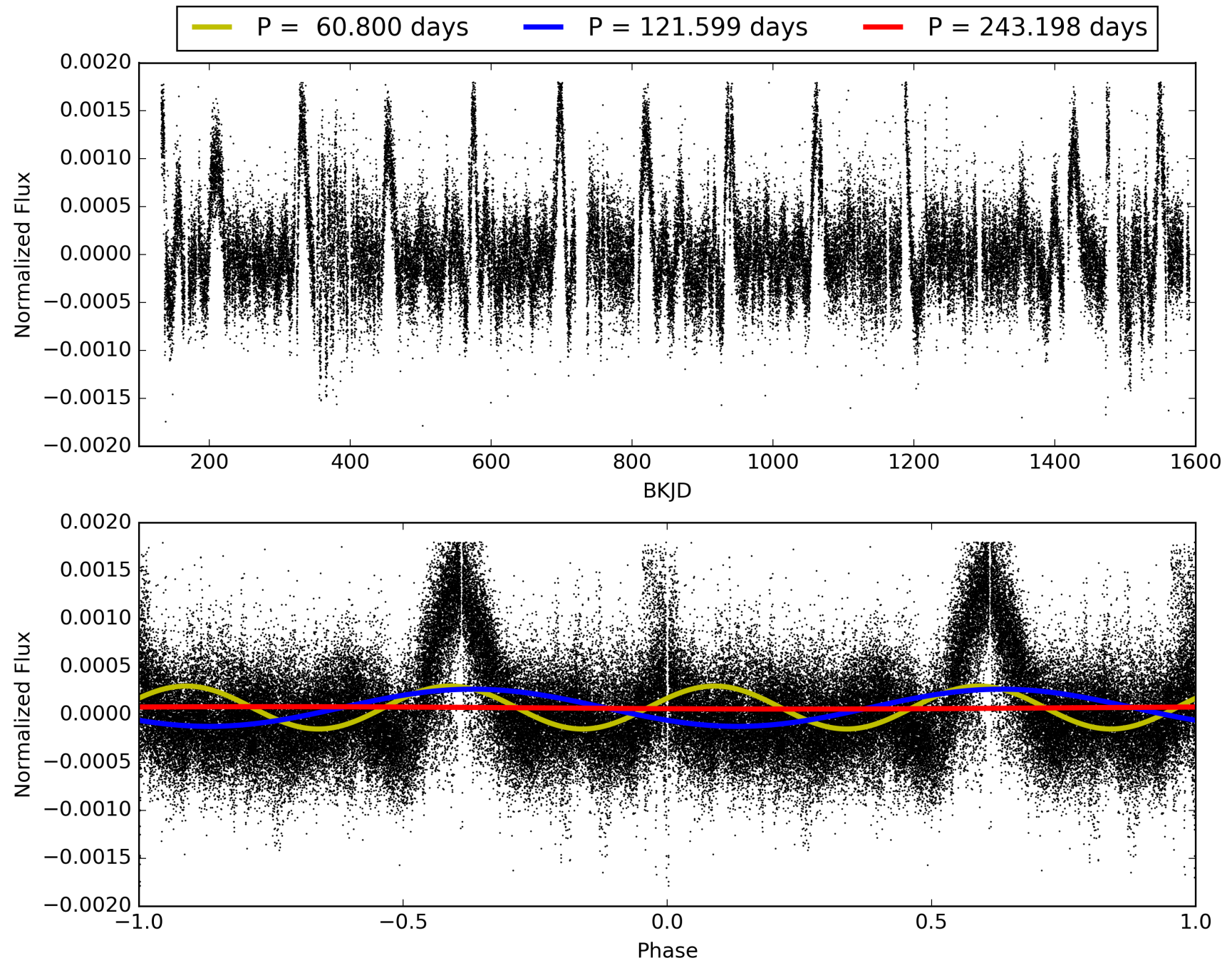
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 6.889
Centroid-sig: 8.0%
Centroid-so: 0.179 arcsec [3.24 σ]
OotOffset-rm: 0.042 arcsec [0.53 σ]
KicOffset-rm: 0.018 arcsec [0.24 σ]
OotOffset-st: 3/0/2/3 [8]
KicOffset-st: 3/0/2/3 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 007830637-02, PDC Light Curves

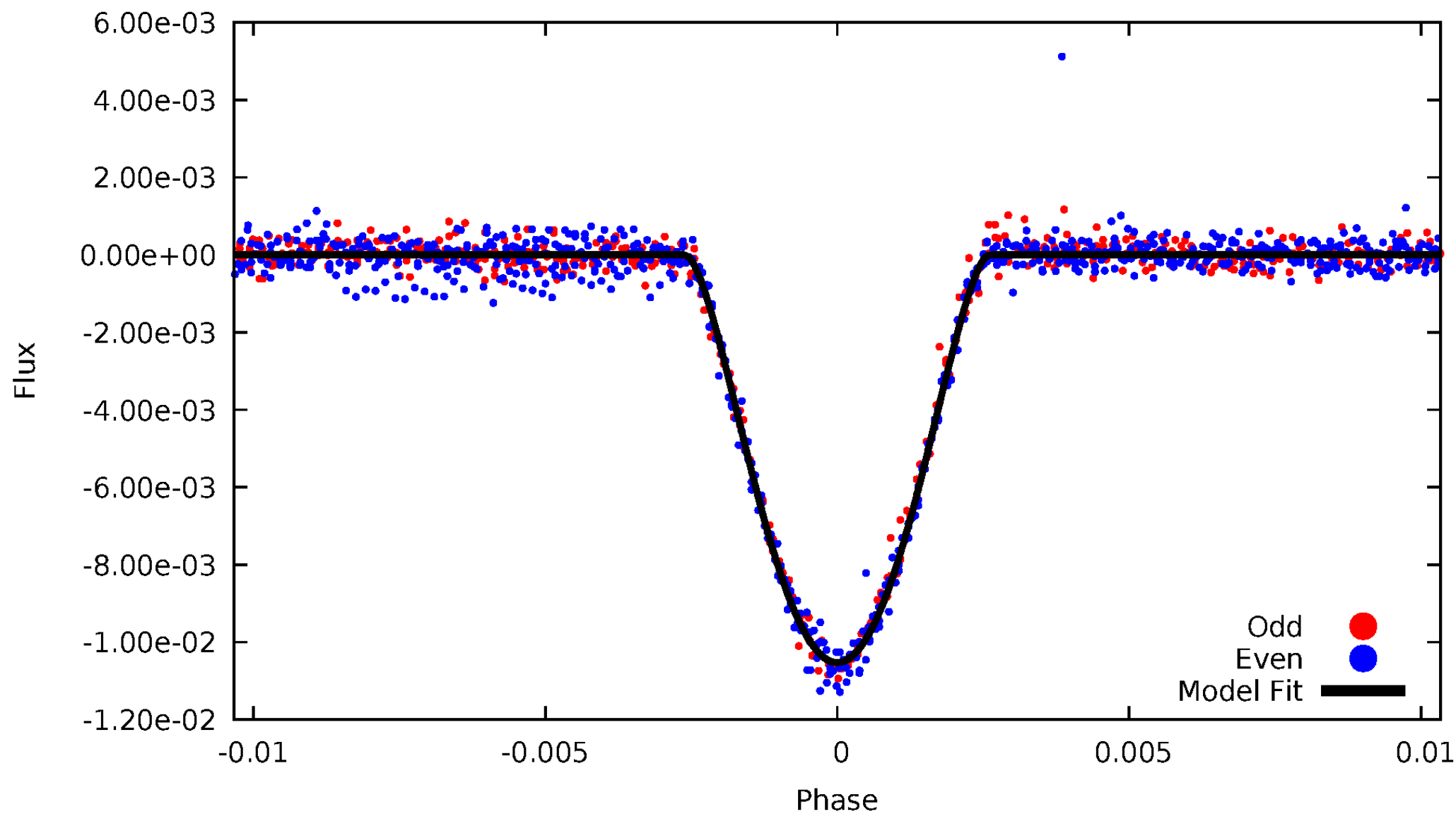


TCE 007830637-02



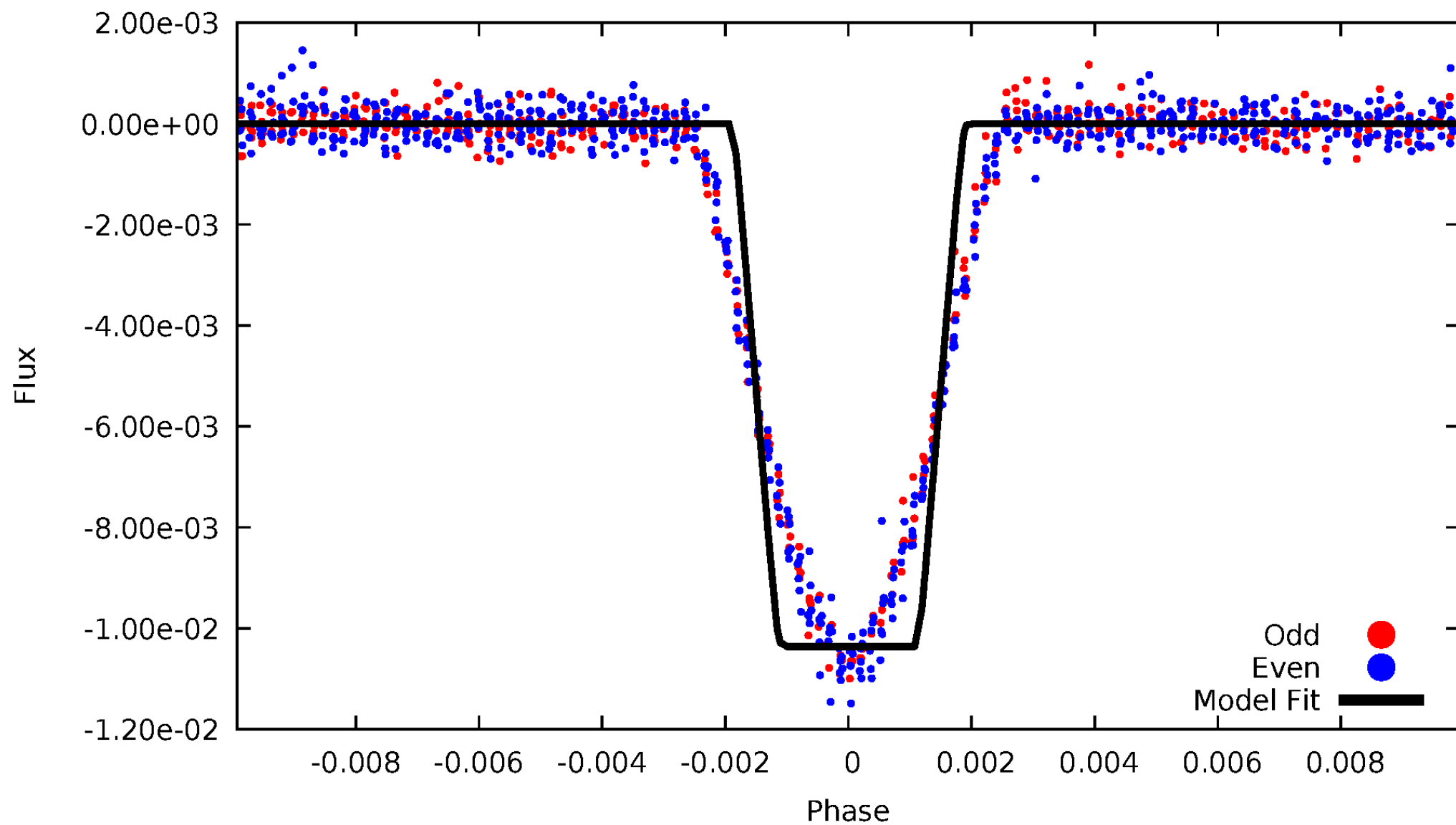
DV Odd/Even

TCE 007830637-02



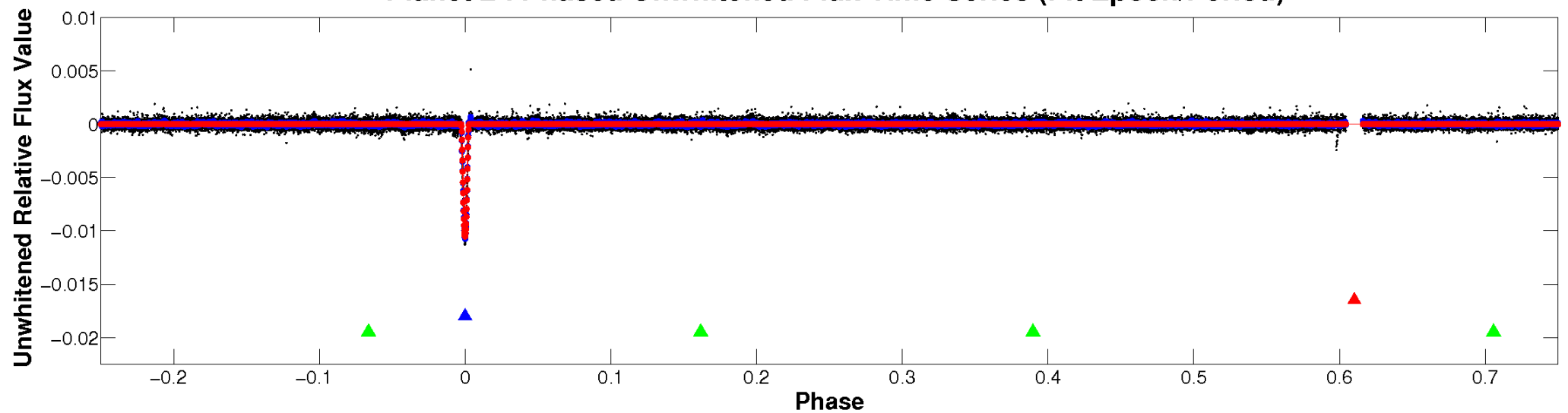
ALT Odd/Even

TCE 007830637-02

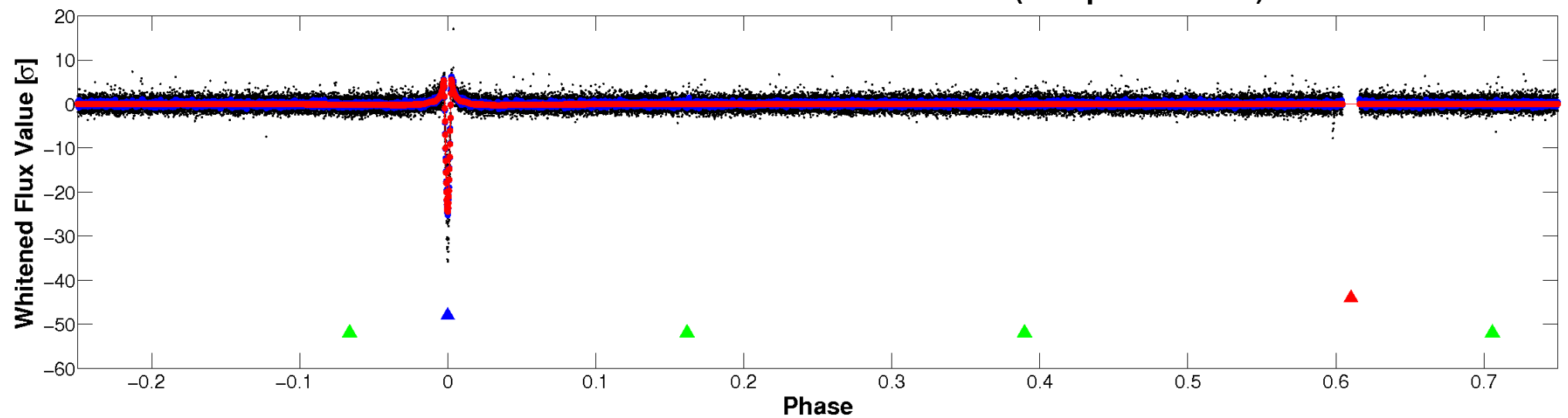


Non-Whitened Vs. Whitened Light Curve

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

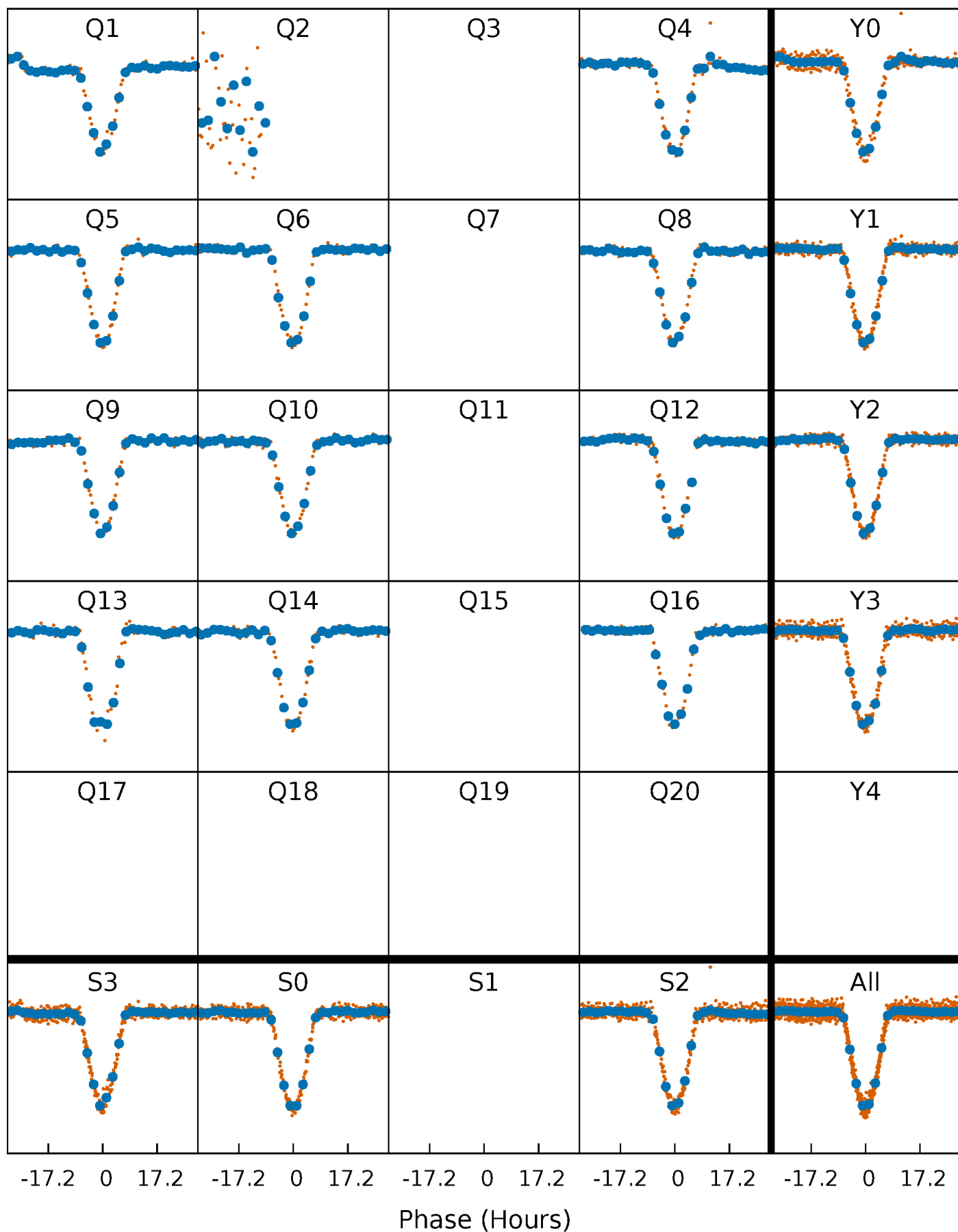


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



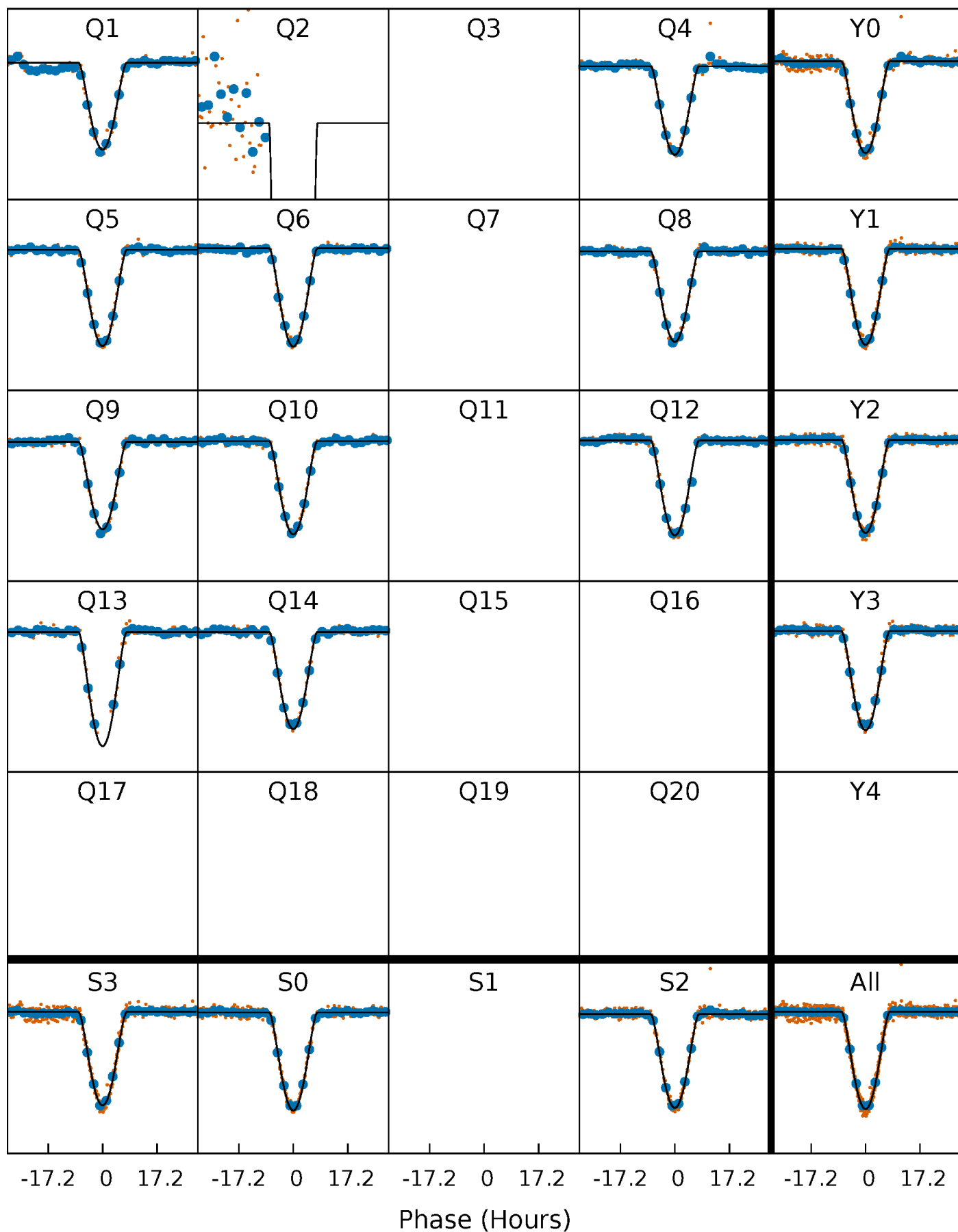
PDC Quarter-Phased Transit Curves

TCE 007830637-02 P=121.599145 Days $T_0=137.275770$ (BKJD)



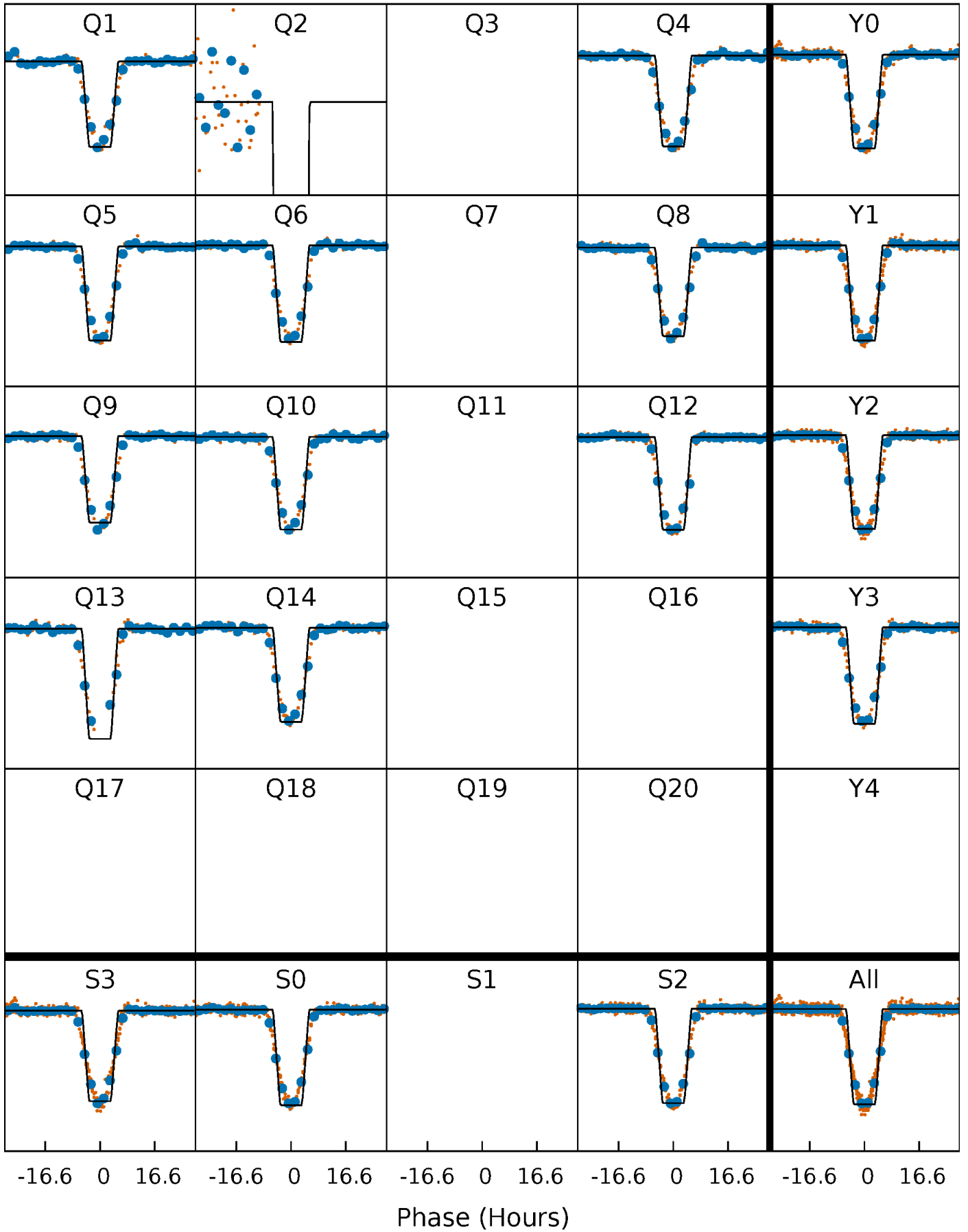
DV Quarter-Phased Transit Curves

TCE 007830637-02 P=121.599145 Days $T_0=137.275770$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

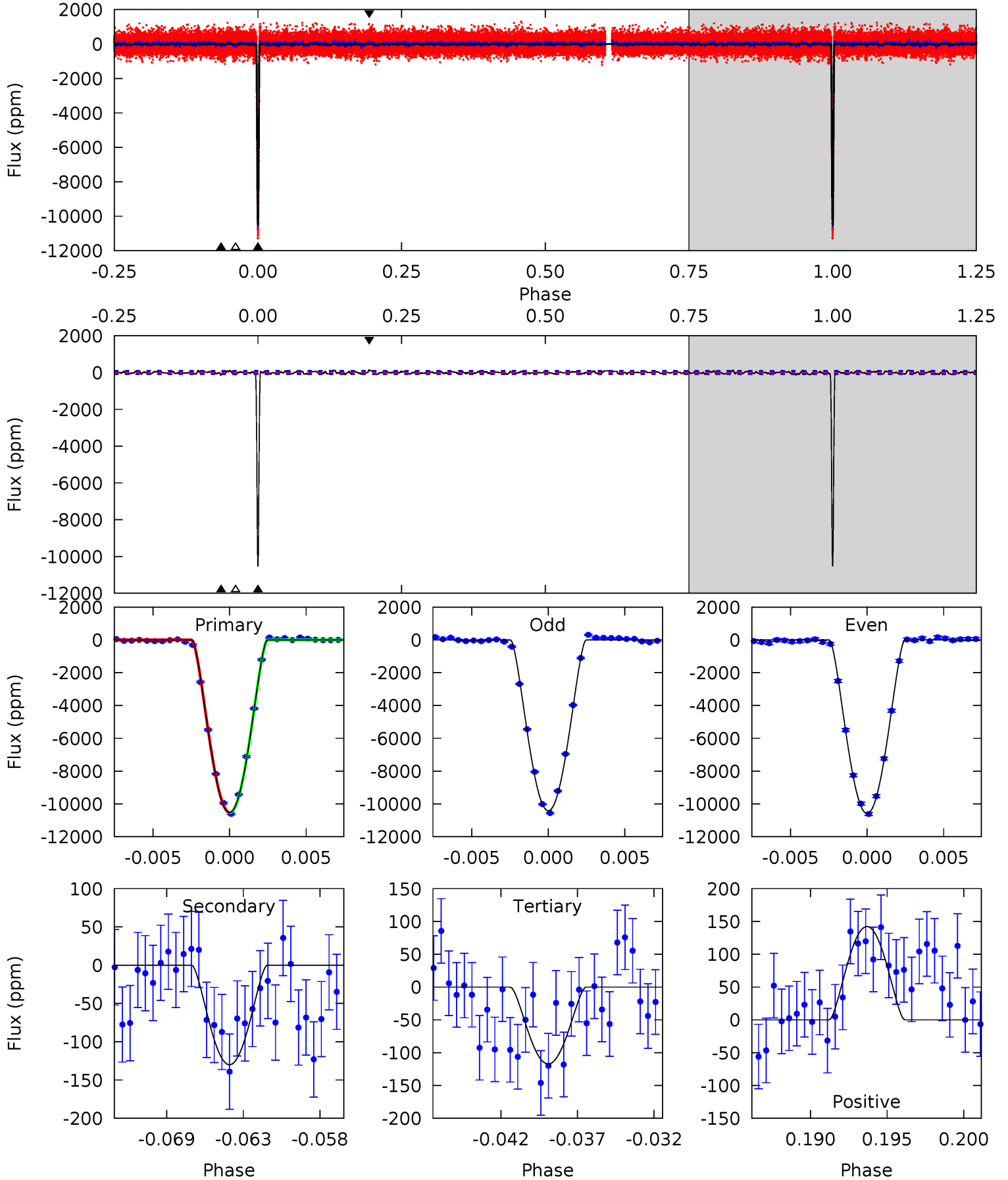
TCE 007830637-02 P=121.600116 Days $T_0=137.270075$ (BKJD)



DV Model-Shift Uniqueness Test

007830637-02, P = 121.599145 Days, E = 15.676625 Days

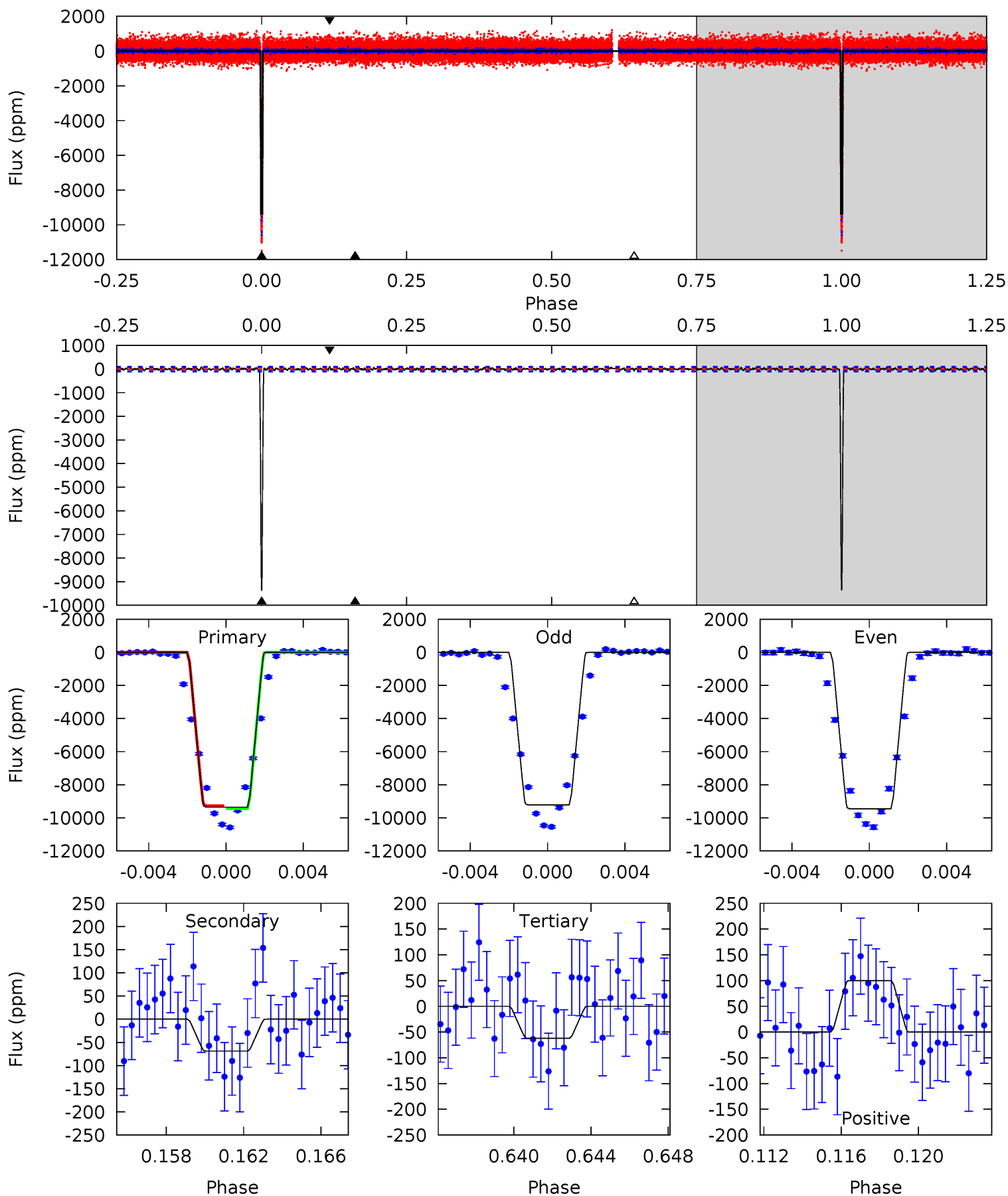
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
637.8	7.88	7.10	8.62	5.15	2.79	2.55	630.7	629.2	0.79	-0.73	5.19	1.01	0.01	0.49



Alt Model-Shift Uniqueness Test

007830637-02, P = 121.600116 Days, E = 15.669959 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
508.3	3.74	3.37	5.43	5.21	2.89	1.13	504.9	502.8	0.37	-1.69	6.30	1.00	0.01	4.79



Stellar Parameters For KIC 007830637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6036^{+161}_{-179}	$4.551^{+0.036}_{-0.192}$	$-0.440^{+0.300}_{-0.300}$	$0.847^{+0.238}_{-0.074}$	$0.931^{+0.098}_{-0.109}$	$2.160^{+0.422}_{-1.110}$
	+3%/-3%	+1%/-4%	+68%/-68%	+28%/-9%	+11%/-12%	+20%/-51%
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 007830637-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-130 ± 17	$15.48^{+2.92}_{-2.31}$	511^{+36}_{-21}	2477^{+93}_{-93}	64^{+25}_{-19}
Alt.	-69 ± 18	$9.90^{+2.40}_{-2.05}$	512^{+33}_{-23}	2551^{+162}_{-141}	80^{+58}_{-32}

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

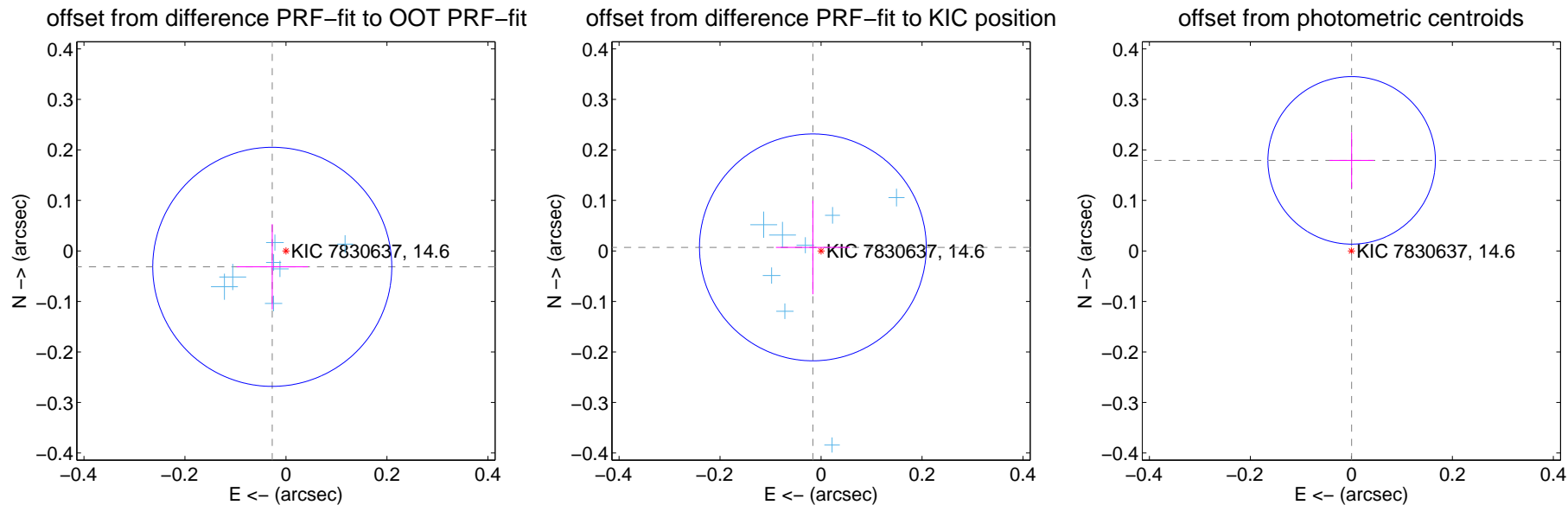
DV Centroid Data

Supplemental centroid analysis for 007830637-02. Kepler magnitude: 14.60. Transit SNR 261.52

There are 8 quarters with good PRF difference image offsets

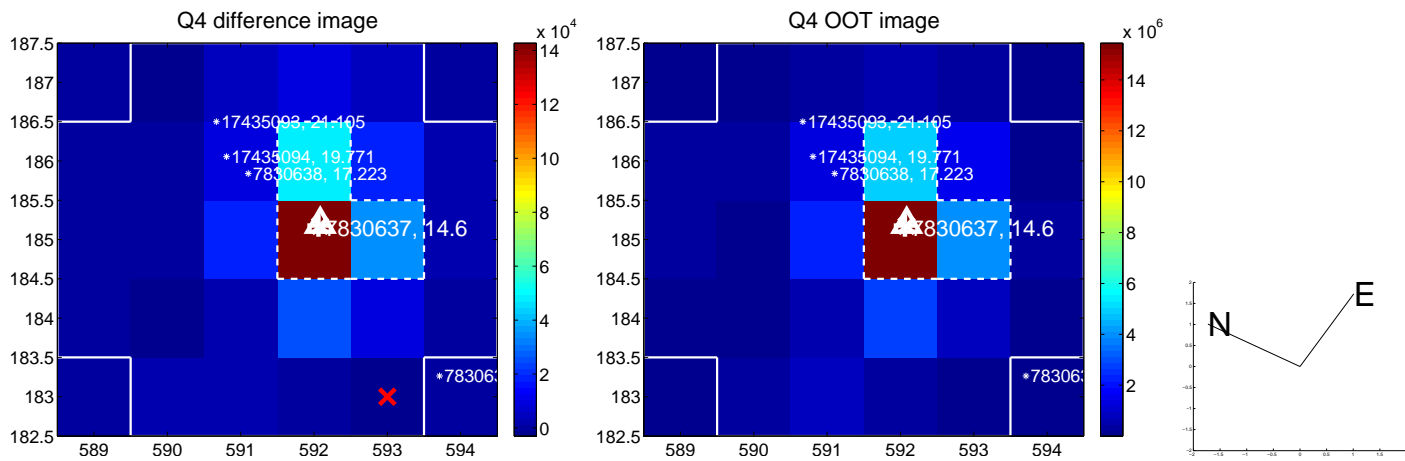
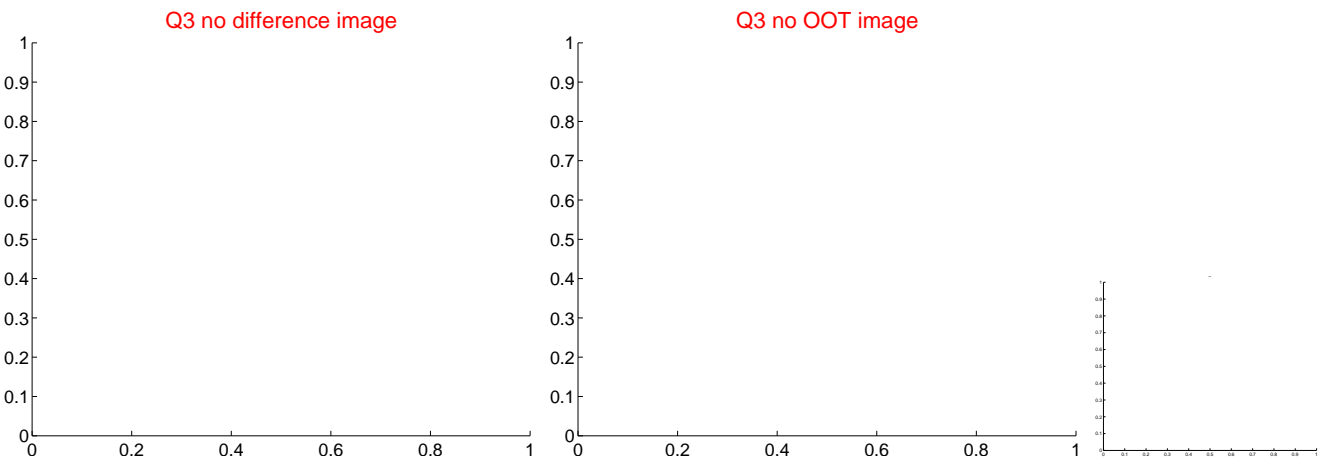
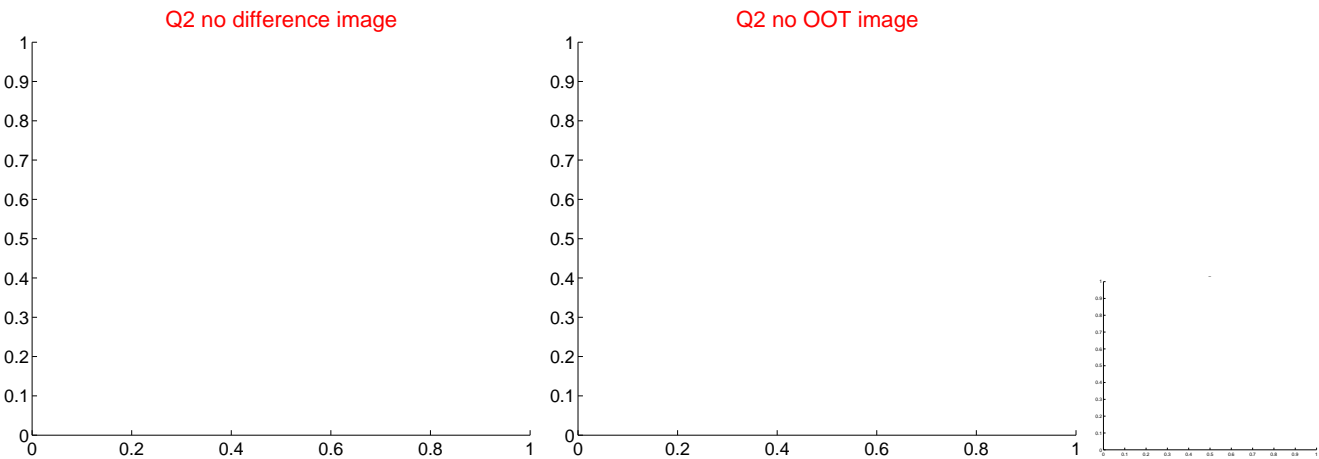
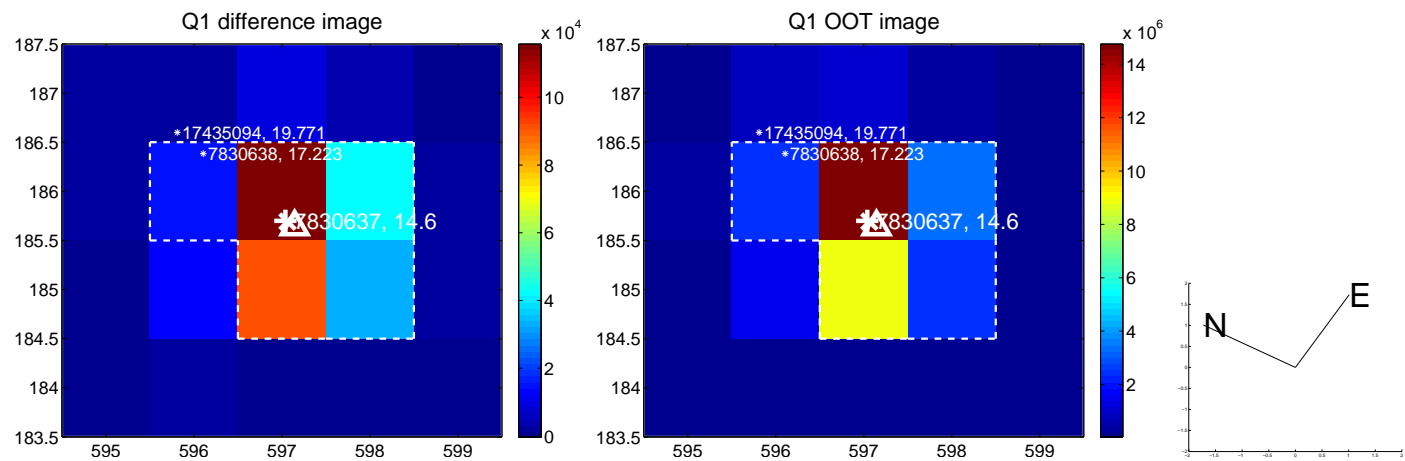
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.042 ± 0.079	0.53	0.027 ± 0.071	-0.031 ± 0.084
PRF-fit source offset from KIC position	0.018 ± 0.075	0.24	0.016 ± 0.073	0.007 ± 0.093
photometric centroid source offset	0.18 ± 0.06	3.24	-0.00 ± 0.04	0.18 ± 0.06

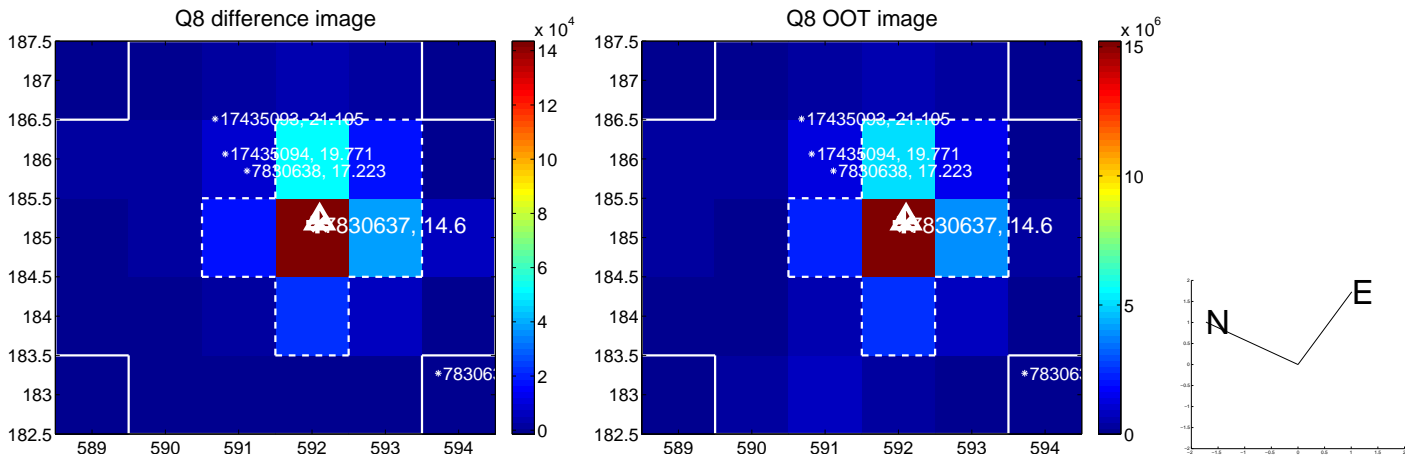
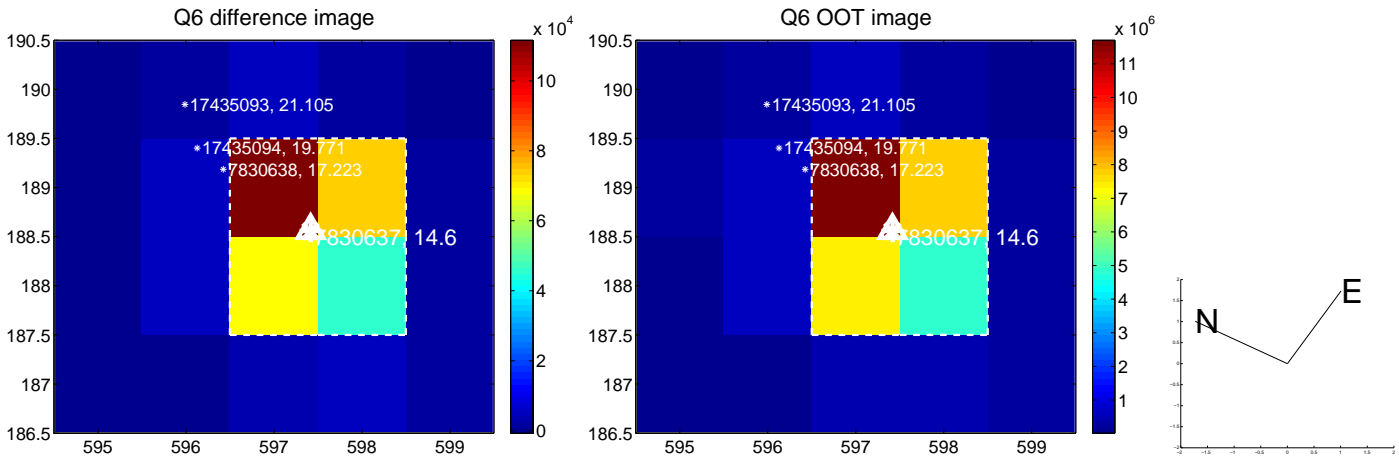
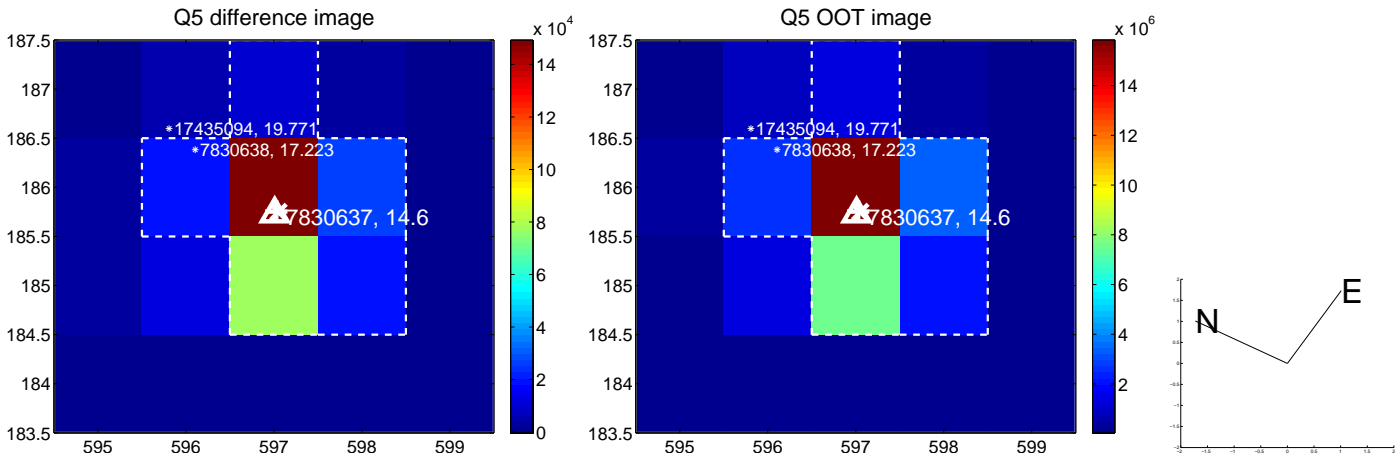


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

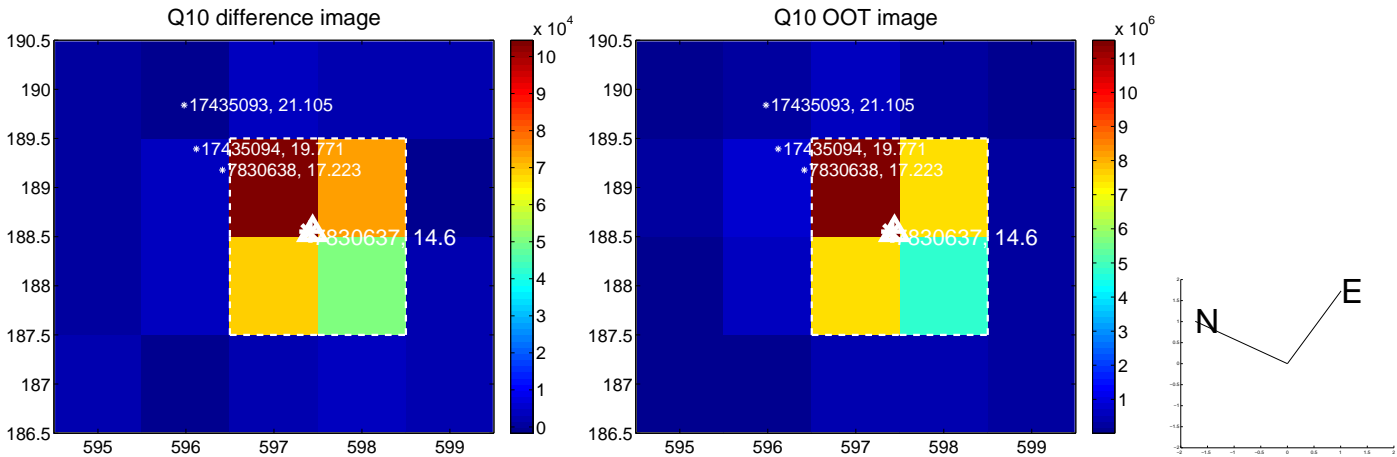
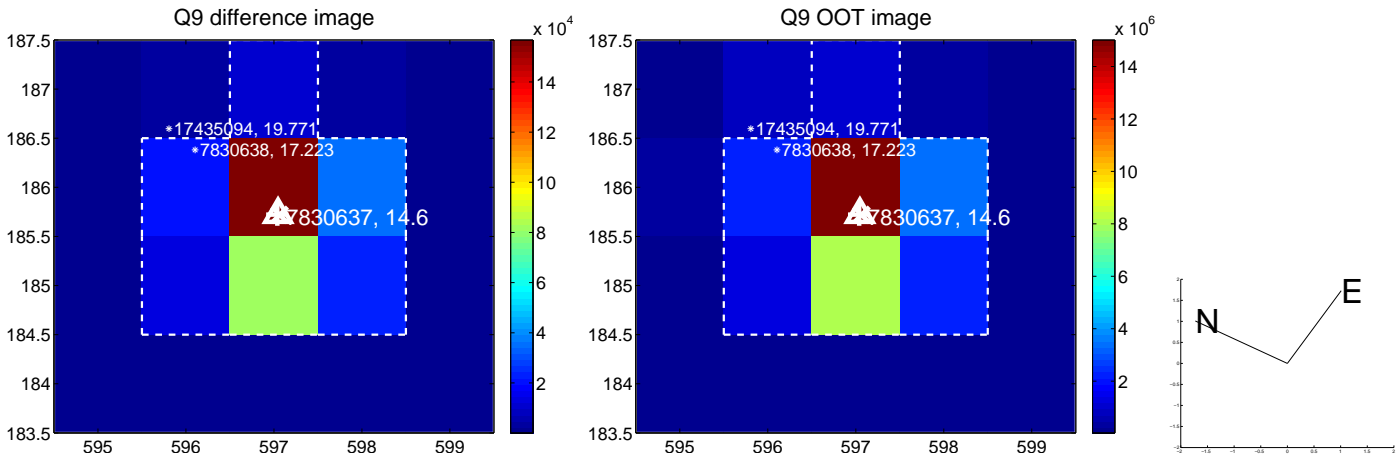
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

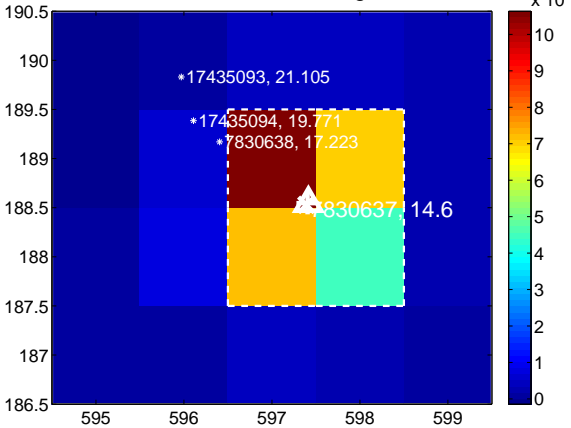
Q13 no difference image



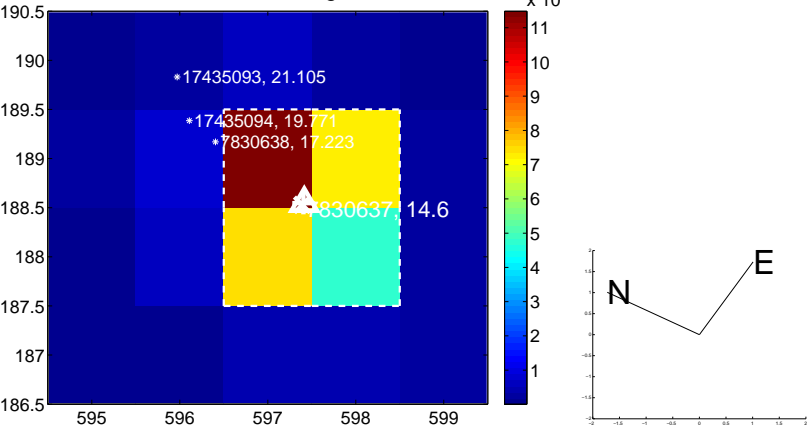
Q13 no OOT image



Q14 difference image



Q14 OOT image



Q15 no difference image



Q15 no OOT image



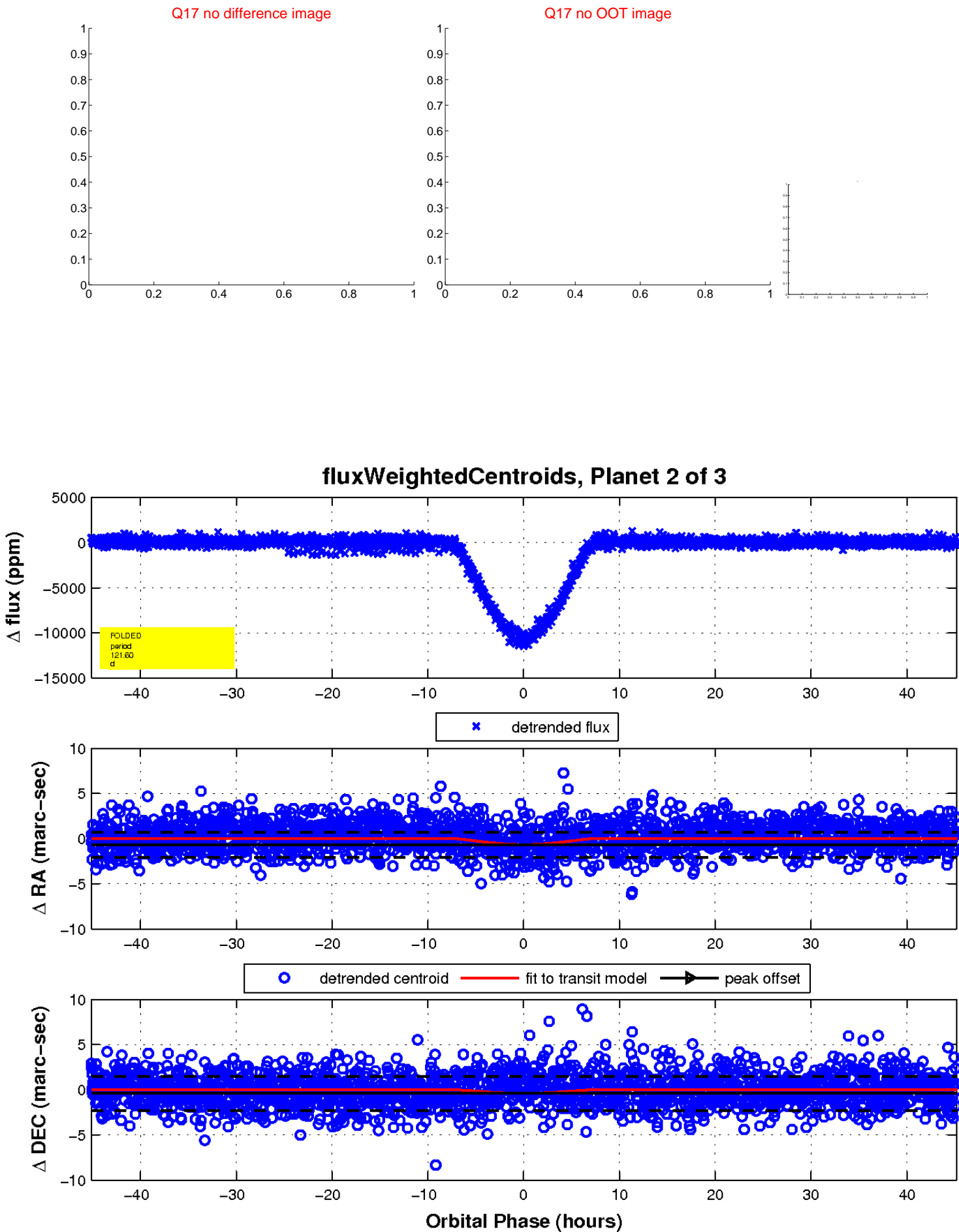
Q16 no difference image



Q16 no OOT image

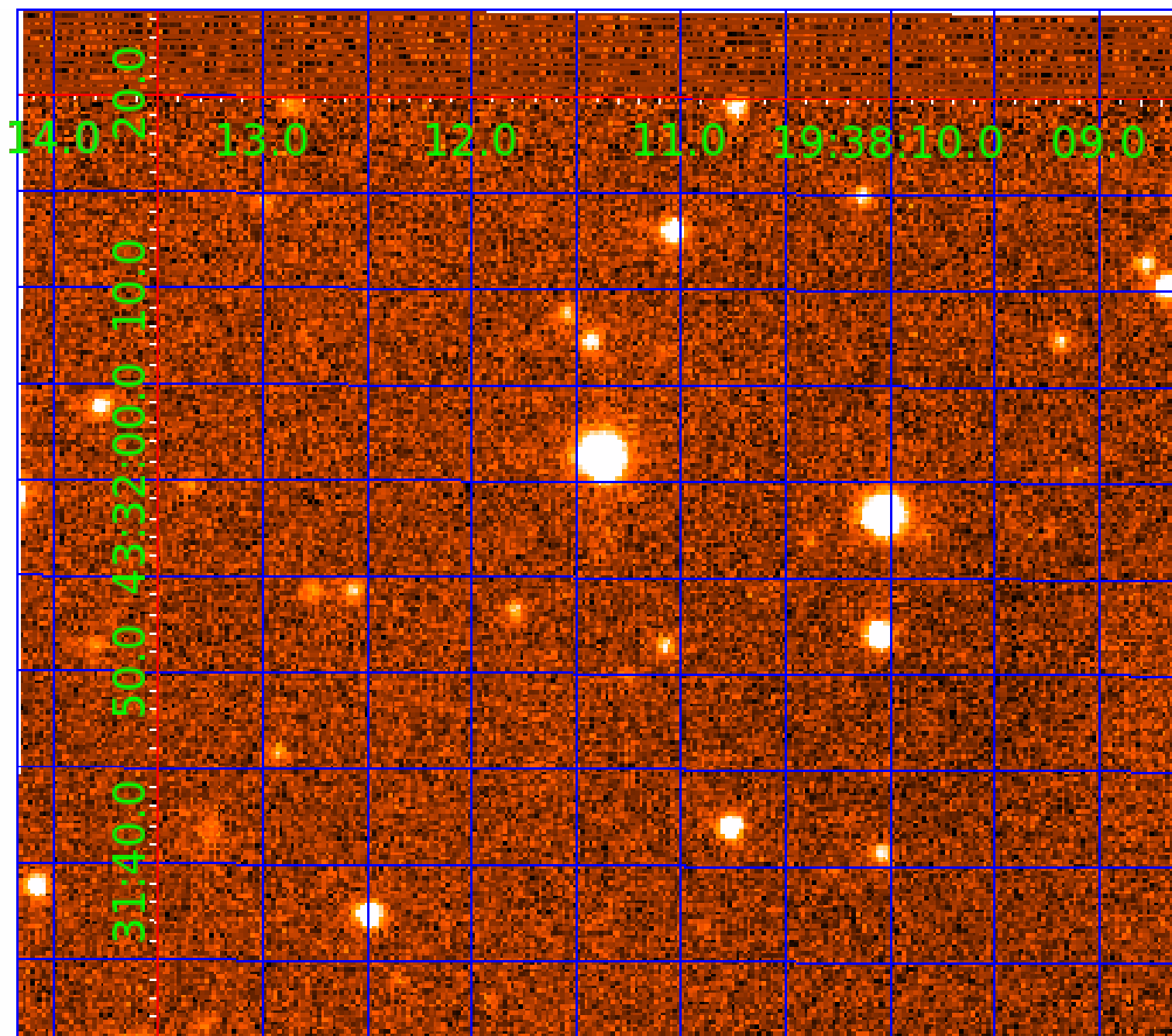


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007830637

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})
007830637-01	OBS	1454.01	121.599231	211.480366	50025.1	11.117	1680.1	1236.4	0.85	6036	19.77	3.88
007830637-02	OBS	No	121.599145	137.275770	10529.9	15.071	263.1	261.5	0.85	6036	14.81	3.88
007830637-03	OBS	No	392.519808	344.695018	340.4	16.076	7.8	7.4	0.85	6036	1.66	0.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007830637-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
007830637-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007830637-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—CENT_FEW_DIFFS

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

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

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

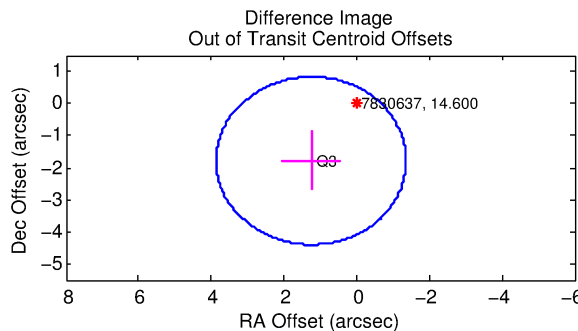
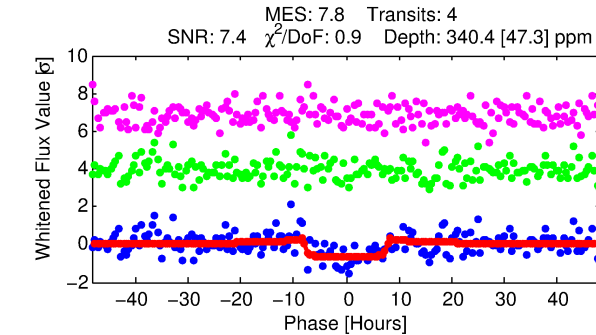
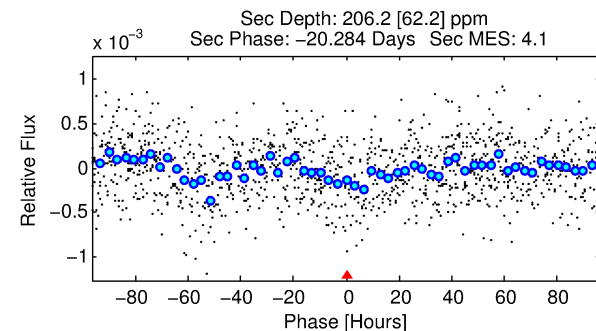
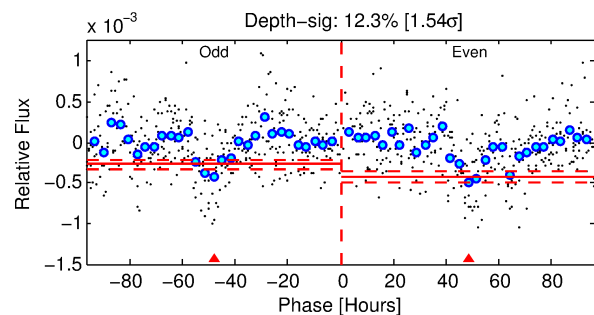
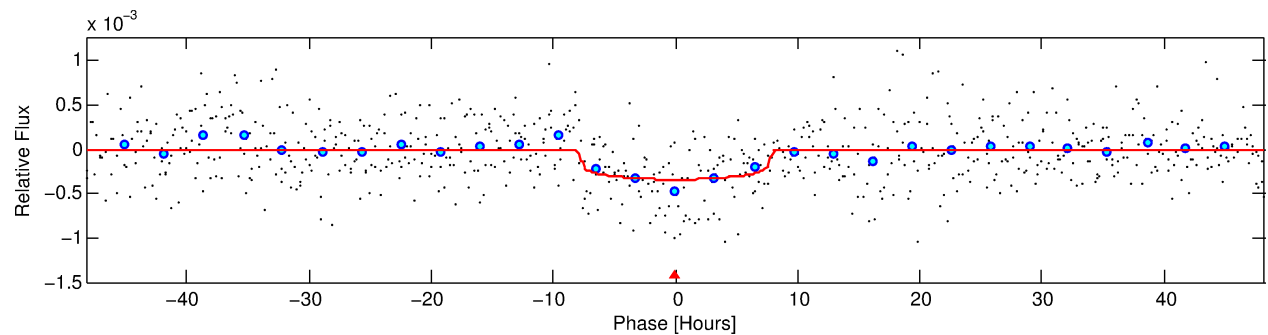
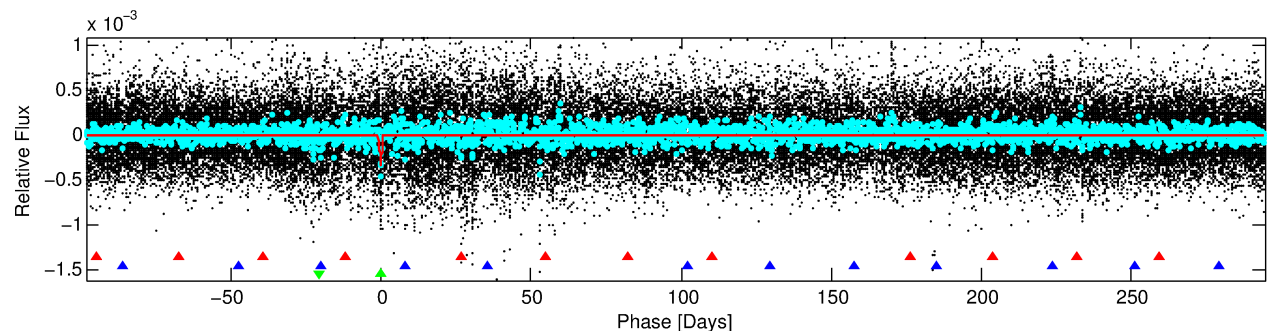
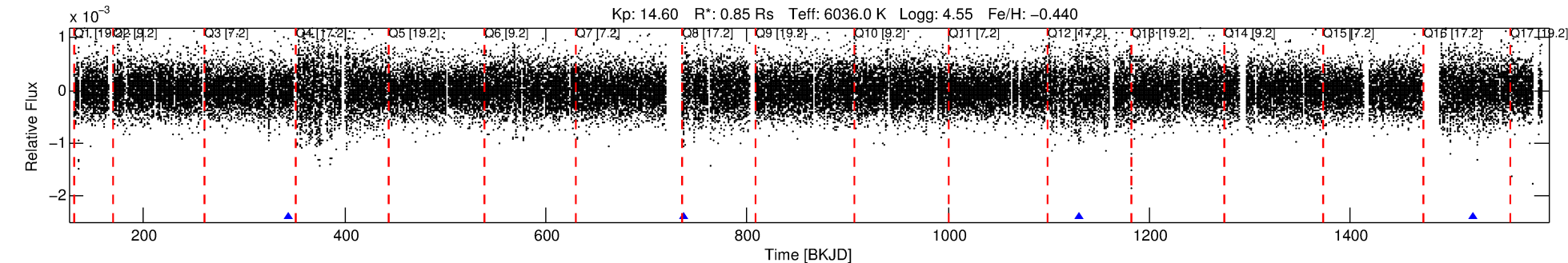
Ephemeris Match Information For 007830637-03

No Significant Match Found

DV One-Page Summary

KIC: 7830637 Candidate: 3 of 3 Period: 392.520 d
KOI: K01454 Corr: No Ephemeris Match

Kp: 14.60 R*: 0.85 Rs Teff: 6036.0 K Logg: 4.55 Fe/H: -0.440



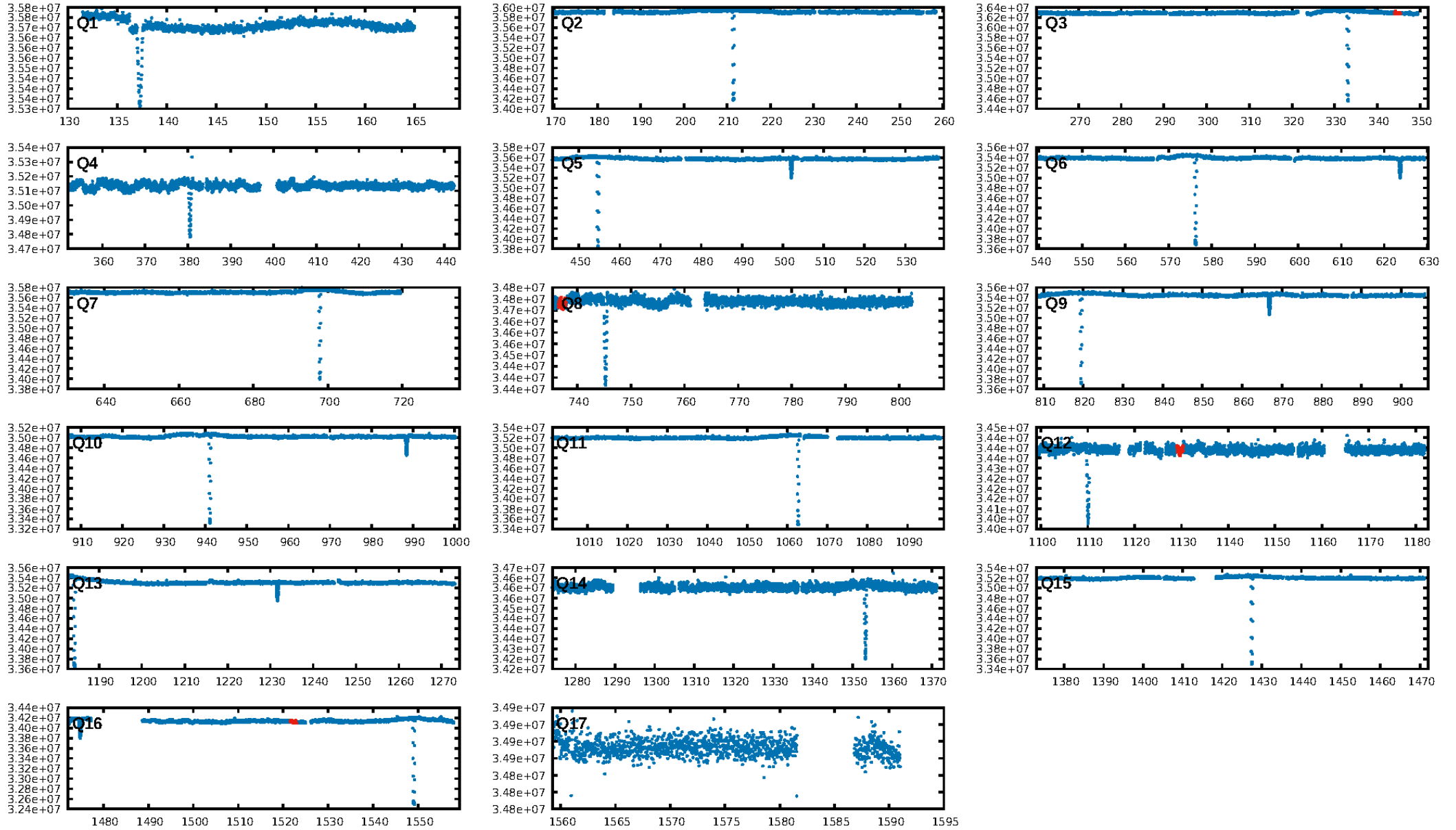
DV Fit Results:

Period = 392.51981 [0.01058] d
Epoch = 344.6950 [0.0179] BKJD
Rp/R* = 0.0180 [0.0065]
a/R* = 140.37 [251.95]
b = 0.69 [1.39]
Seff = 0.81 [0.30]
Teff = 242 [22] K
Rp = 1.66 [0.76] Re
a = 1.0245 [0.2442] AU
Ag = 42986.17 [36810.36] [1.17σ]
Teffp = 5390 [1066] K [4.83σ]

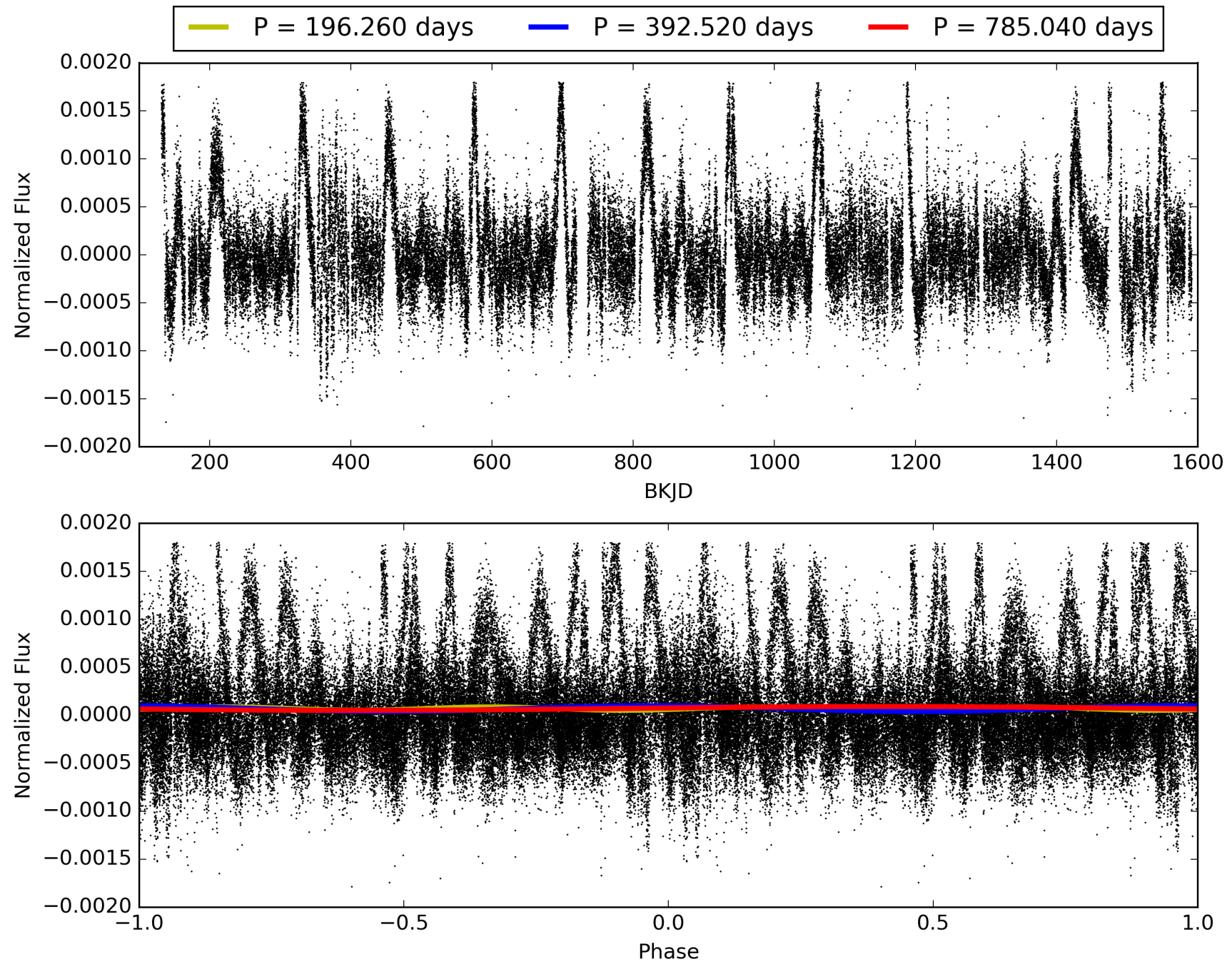
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [332.66σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 11.5%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 3.70e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.191
Centroid-sig: 0.2%
Centroid-so: 3.588 arcsec [1.85σ]
OotOffset-rm: 2.183 arcsec [2.50σ]
KicOffset-rm: 2.115 arcsec [2.43σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 007830637-03, PDC Light Curves

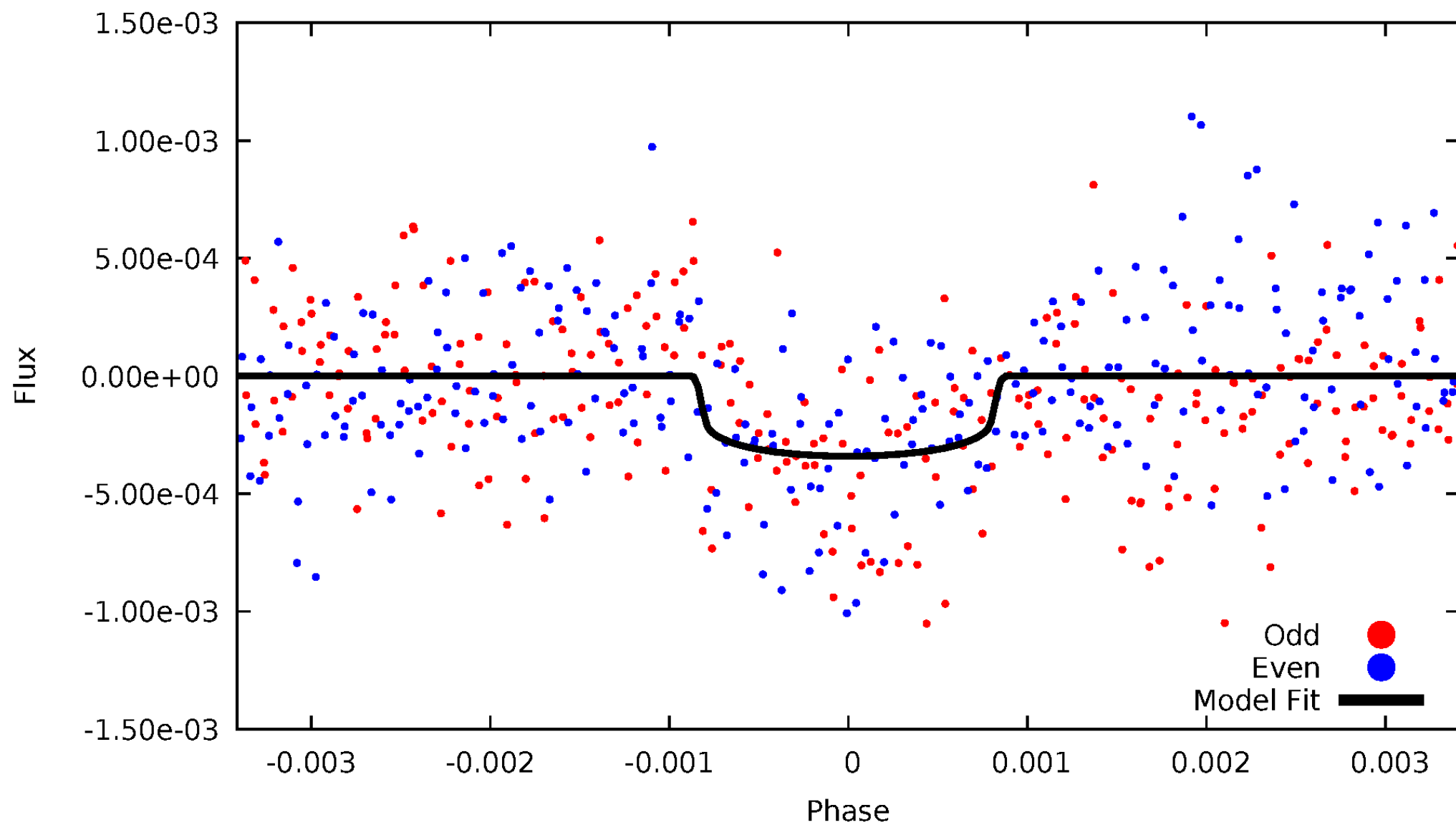


TCE 007830637-03



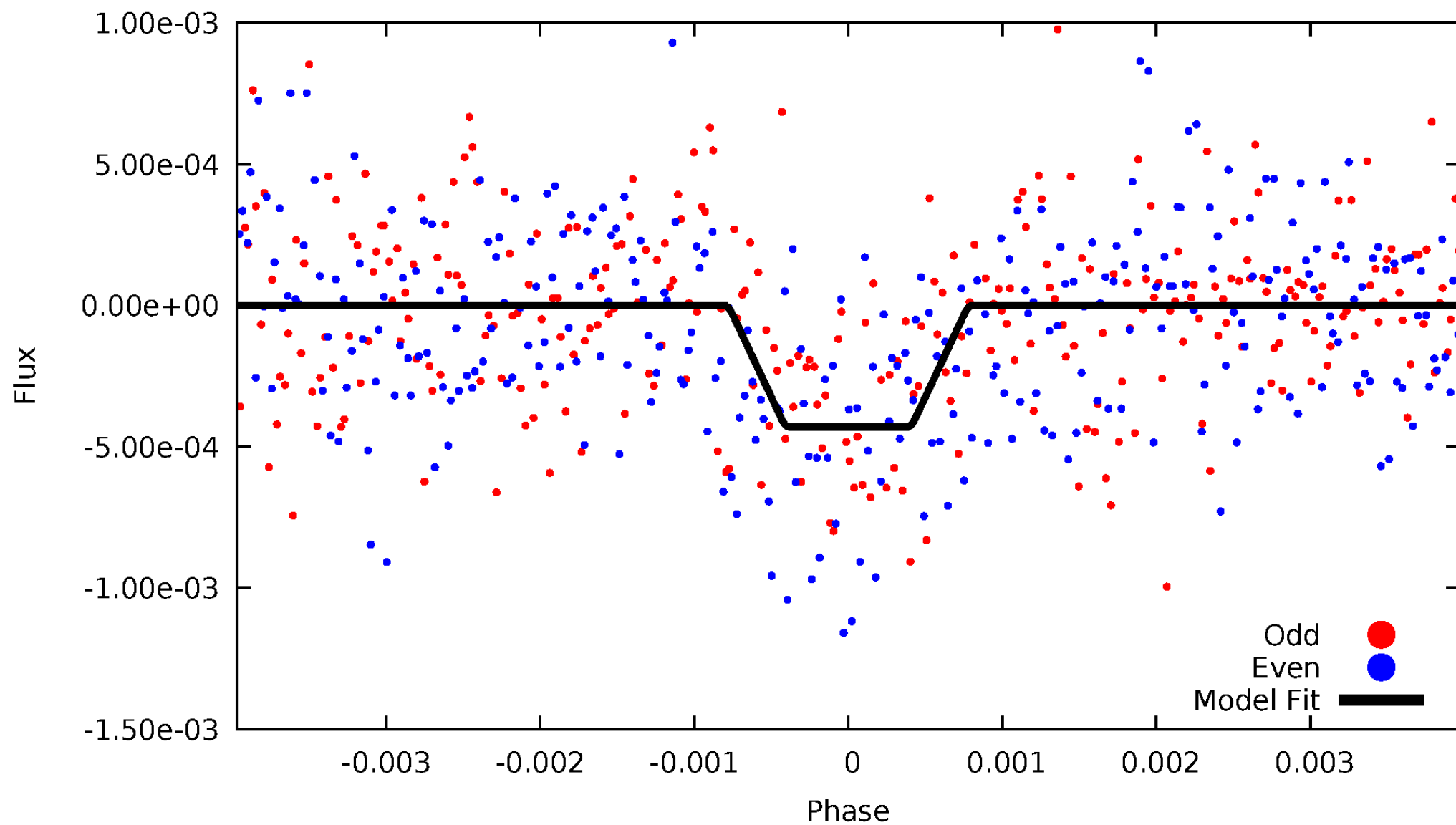
DV Odd/Even

TCE 007830637-03

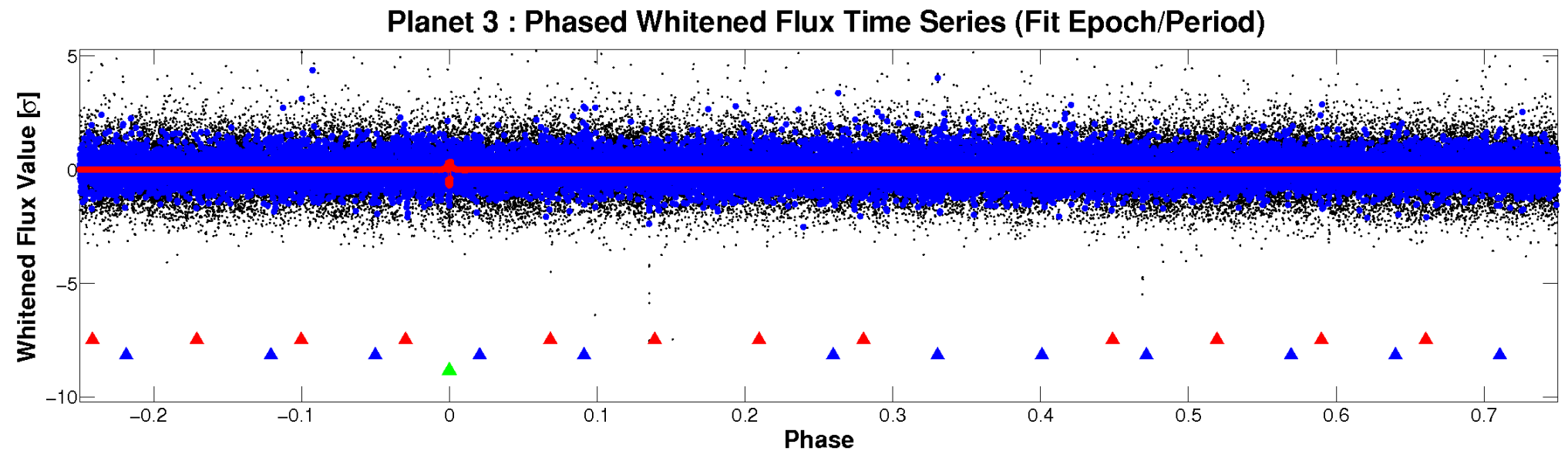
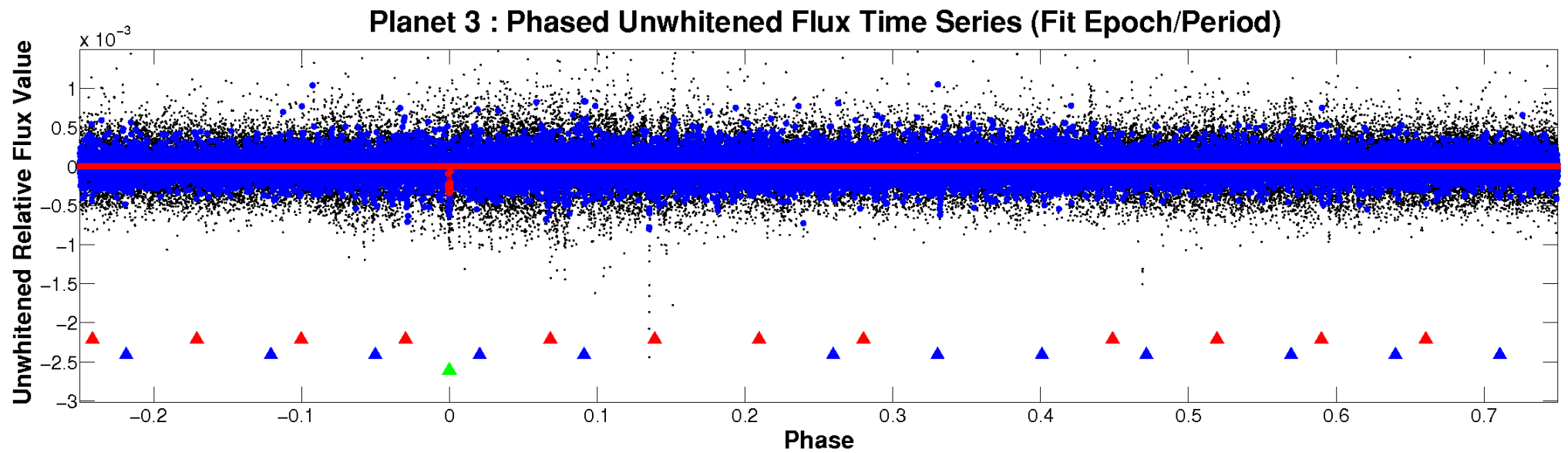


ALT Odd/Even

TCE 007830637-03



Non-Whitened Vs. Whitened Light Curve



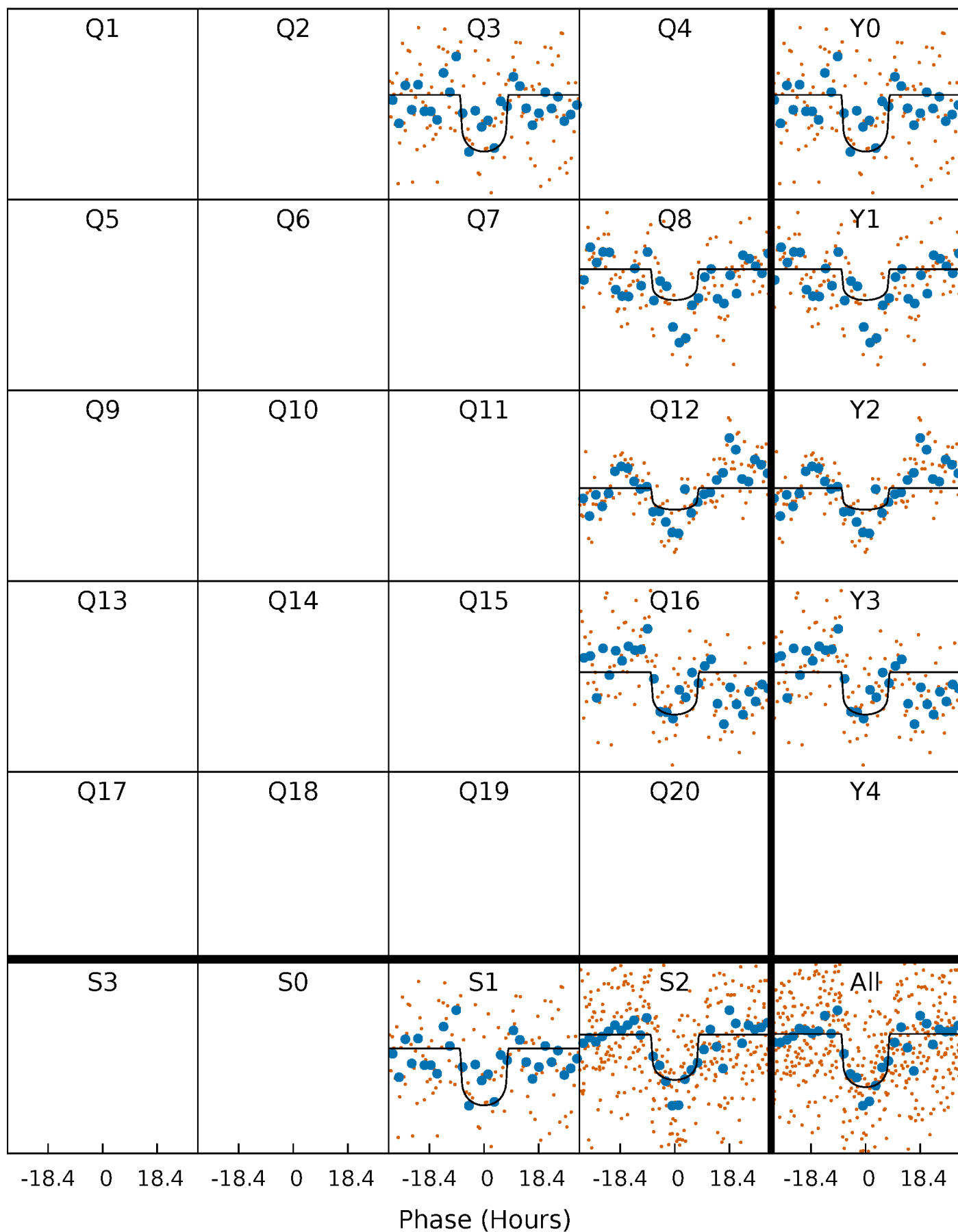
PDC Quarter-Phased Transit Curves

TCE 007830637-03 $P=392.519808$ Days $T_0=344.695018$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007830637-03 $P=392.519808$ Days $T_0=344.695018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

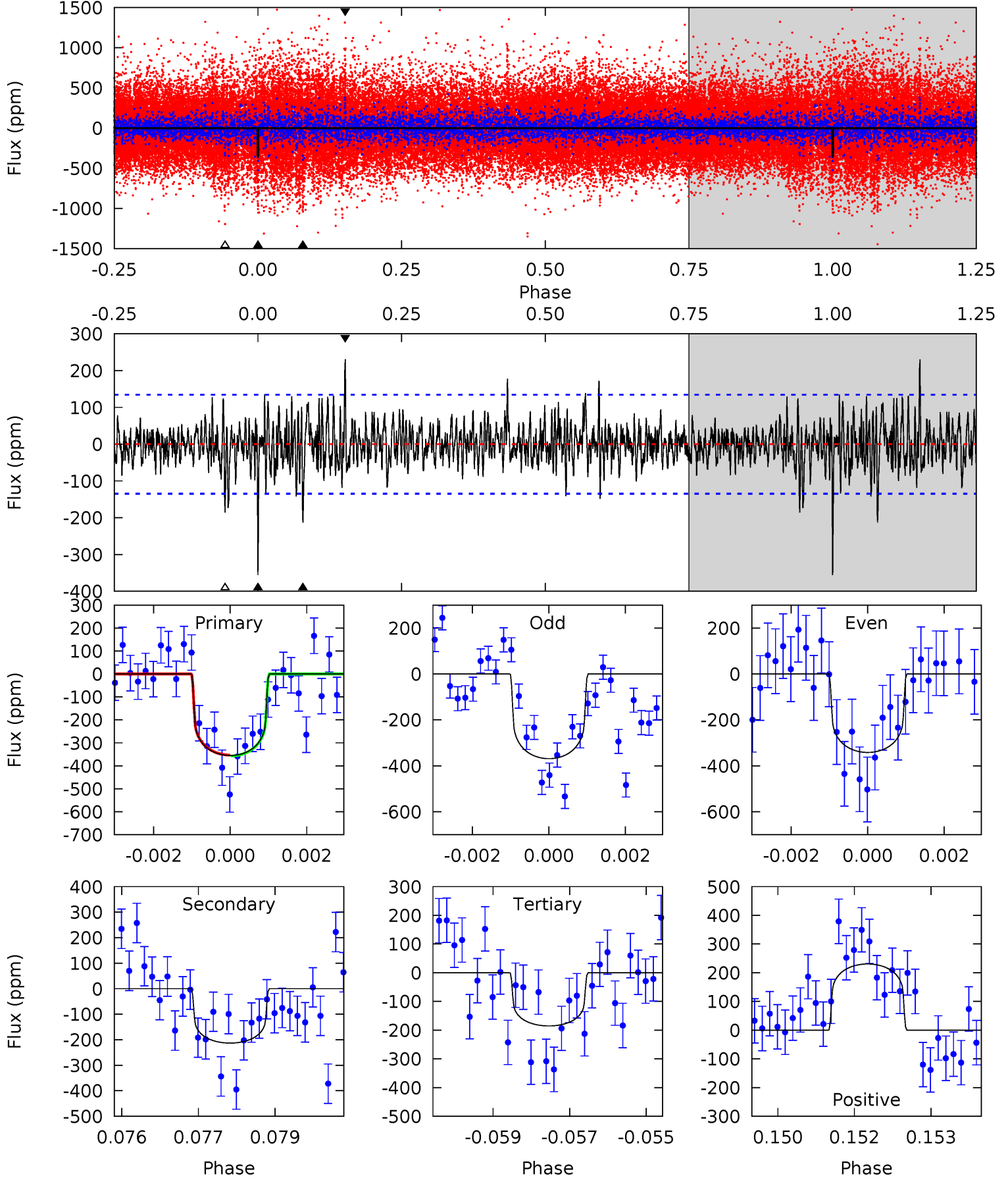
TCE 007830637-03 $P=392.515065$ Days $T_0=344.712897$ (BKJD)



DV Model-Shift Uniqueness Test

007830637-03, P = 392.519808 Days, E = 344.695018 Days

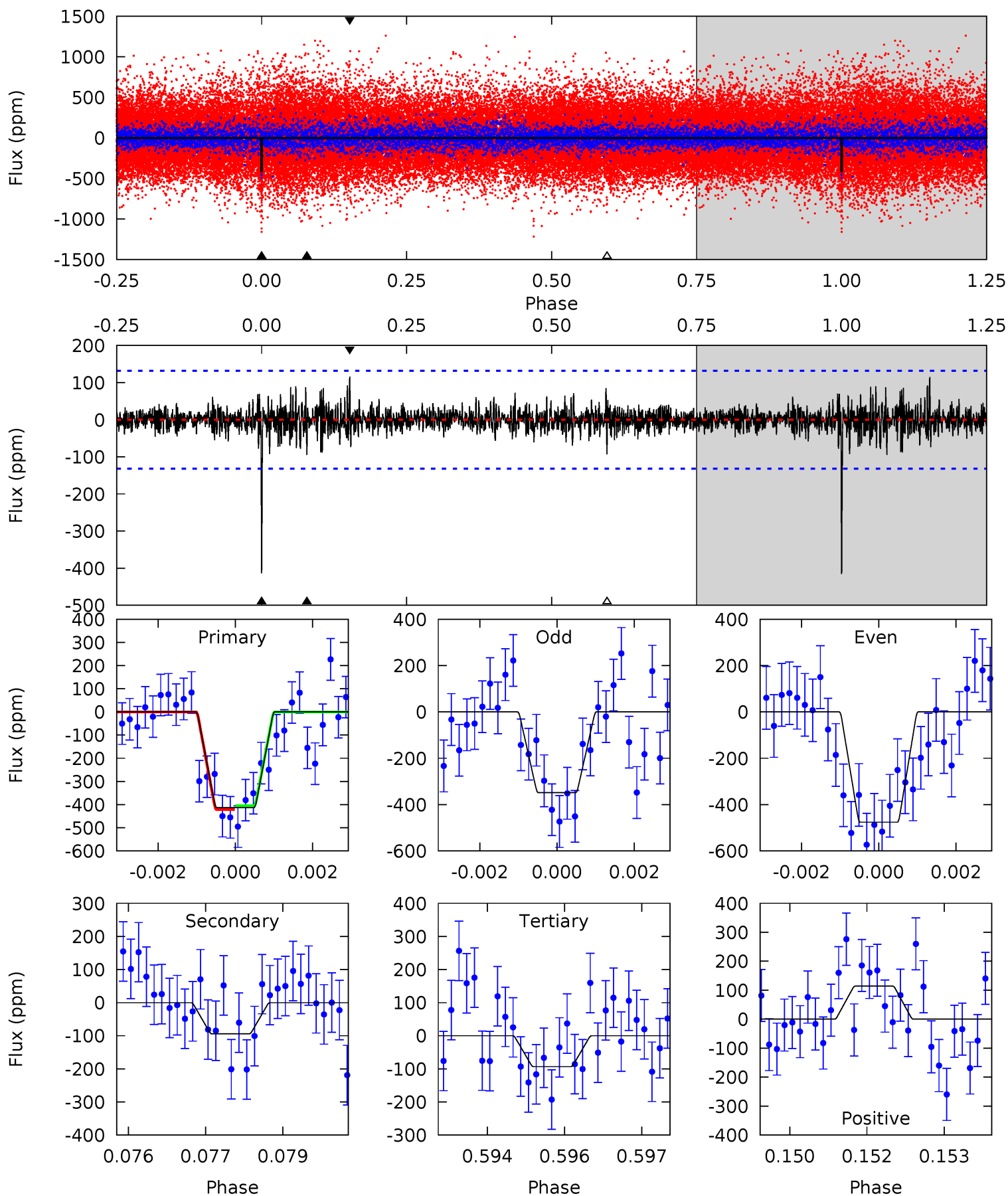
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	8.47	7.37	9.17	5.35	3.13	1.80	6.76	4.95	1.11	-0.70	0.54	1.01	0.39	0.08



Alt Model-Shift Uniqueness Test

007830637-03, P = 392.515065 Days, E = 344.712897 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	3.84	3.80	4.65	5.37	3.16	0.92	13.0	12.2	0.04	-0.81	2.62	1.18	0.22	0.33



Stellar Parameters For KIC 007830637

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6036^{+161}_{-179}	$4.551^{+0.036}_{-0.192}$	$-0.440^{+0.300}_{-0.300}$	$0.847^{+0.238}_{-0.074}$	$0.931^{+0.098}_{-0.109}$	$2.160^{+0.422}_{-1.110}$
	+3%/-3%	+1%/-4%	+68%/-68%	+28%/-9%	+11%/-12%	+20%/-51%
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 007830637-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-213 ± 25	$1.74^{+0.67}_{-0.61}$	346^{+21}_{-15}	5457^{+1319}_{-688}	40382^{+52114}_{-19848}
Alt.	-94 ± 25	$2.06^{+0.62}_{-0.64}$	346^{+22}_{-15}	4326^{+675}_{-452}	12585^{+14136}_{-5695}

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

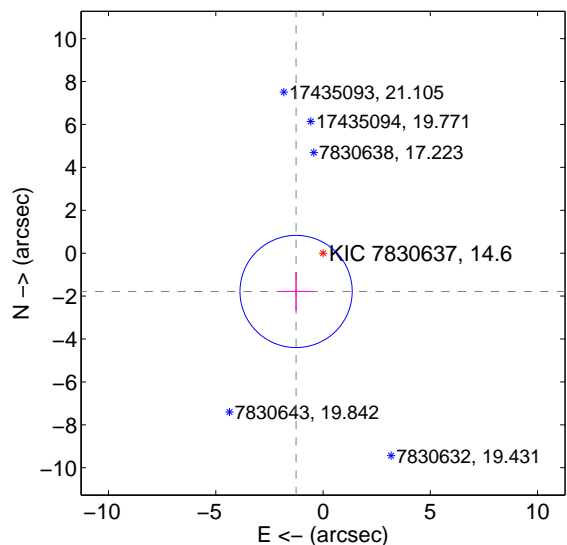
Supplemental centroid analysis for 007830637-03. Kepler magnitude: 14.60. Transit SNR 7.42

There are 0 quarters with good PRF difference image offsets

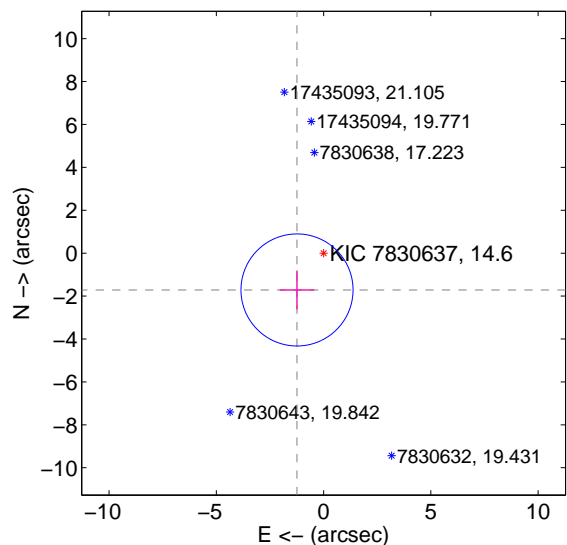
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.183 ± 0.872	2.50	1.256 ± 0.806	-1.785 ± 0.902
PRF-fit source offset from KIC position	2.115 ± 0.870	2.43	1.238 ± 0.806	-1.714 ± 0.902
photometric centroid source offset	3.59 ± 1.94	1.85	0.39 ± 1.66	-3.57 ± 1.94

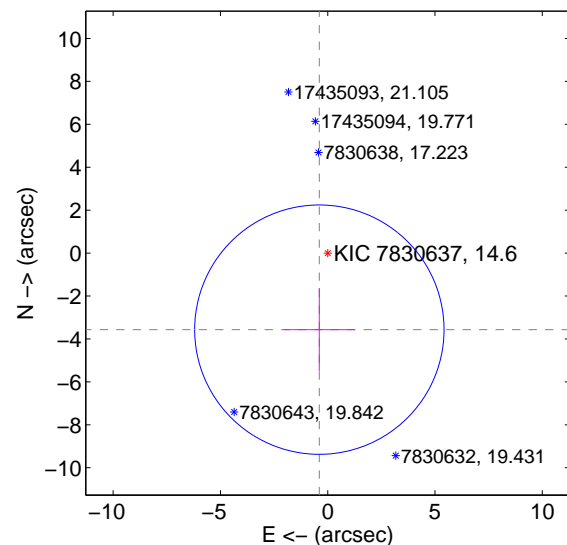
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

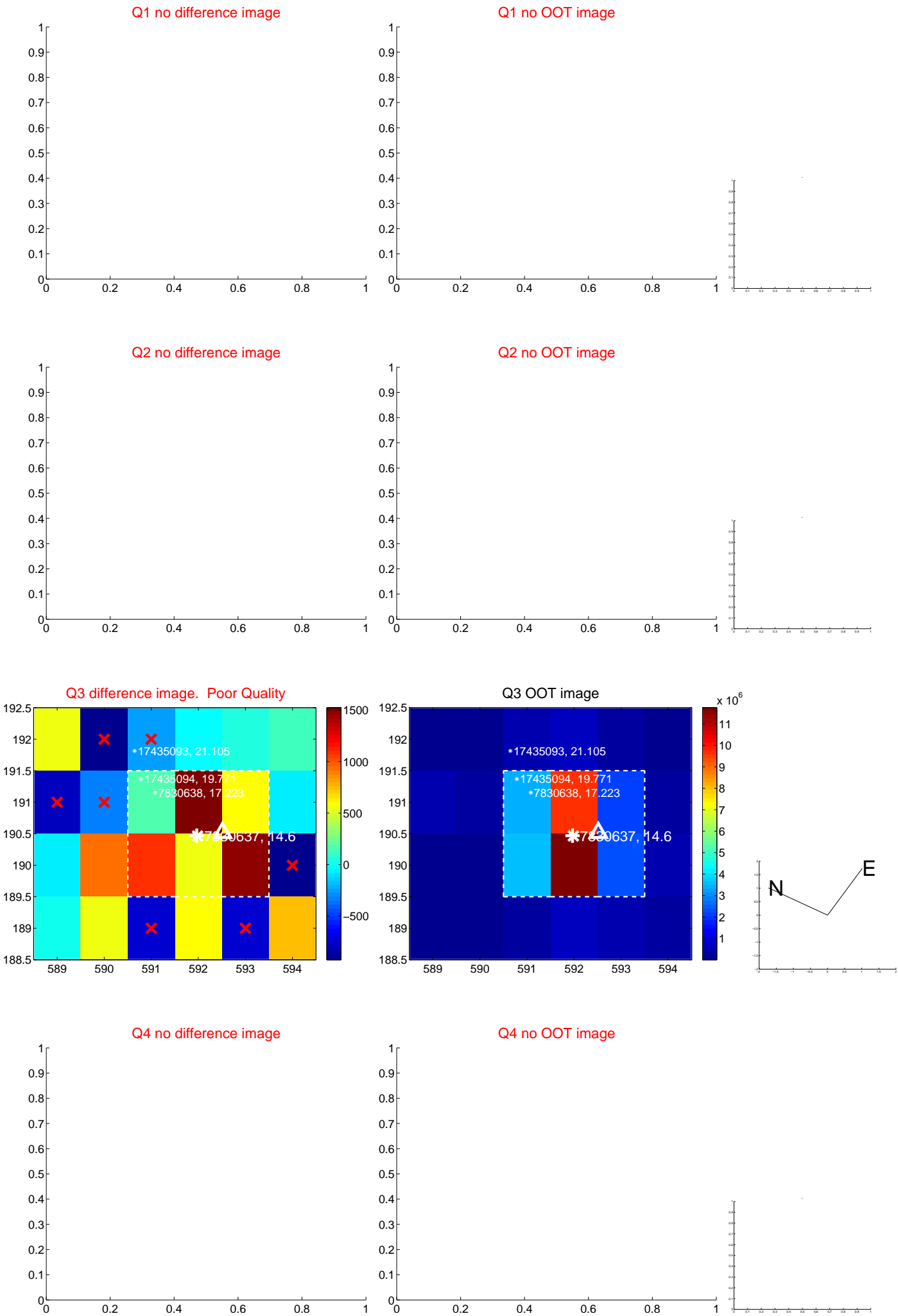


offset from photometric centroids



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.



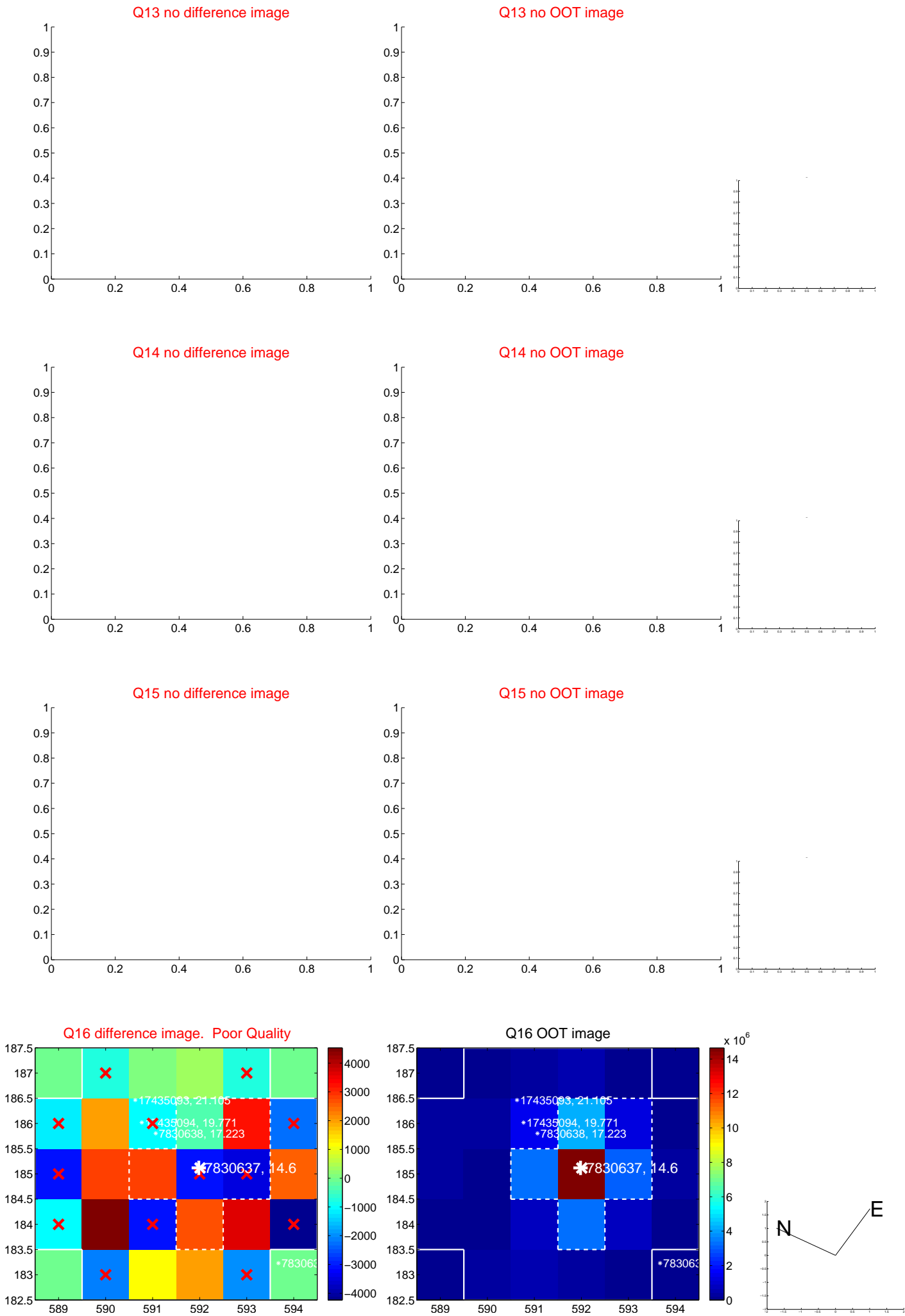
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



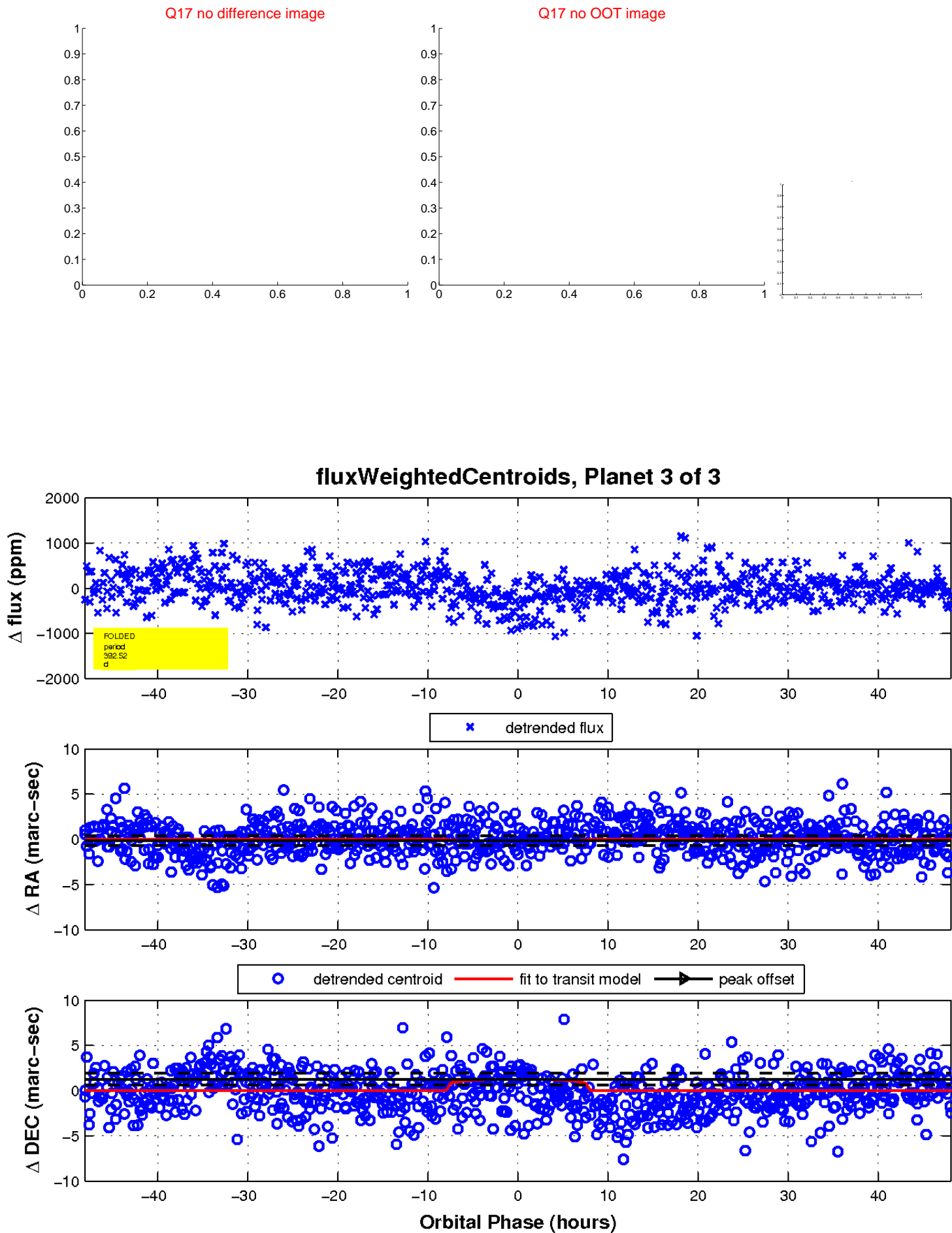
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

