

KIC 005706595

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})
005706595-01	OBS	2183.01	19.023159	139.657268	423.8	3.605	18.8	20.1	0.95	5569	2.27	41.56
005706595-02	OBS	2183.02	4.579527	135.088719	213.2	3.437	18.0	19.8	0.95	5569	1.80	277.51
005706595-03	OBS	2183.03	150.382595	205.281122	491.0	5.029	7.8	8.2	0.95	5569	2.40	2.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005706595-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005706595-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005706595-03	OBS	FP	0.40	1	0	0	0	MOD_NONUNIQ_ALT

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.

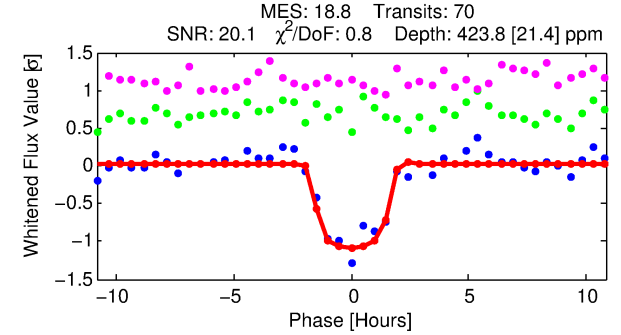
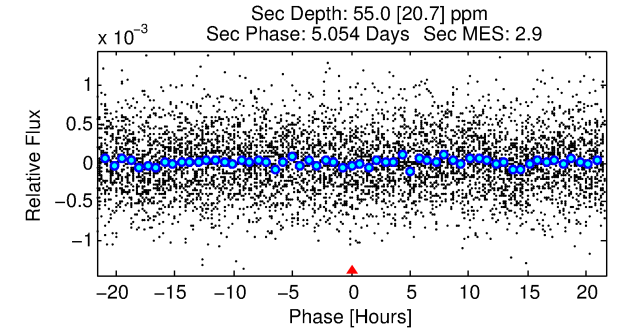
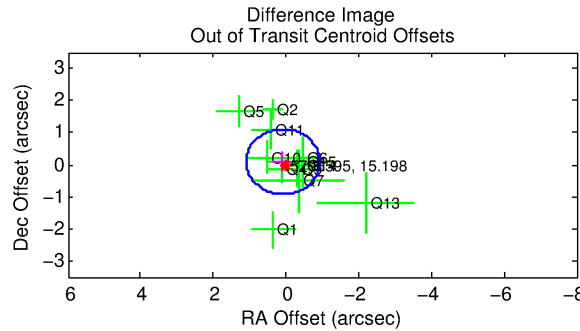
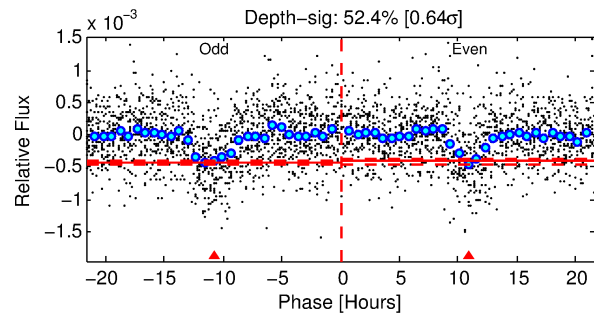
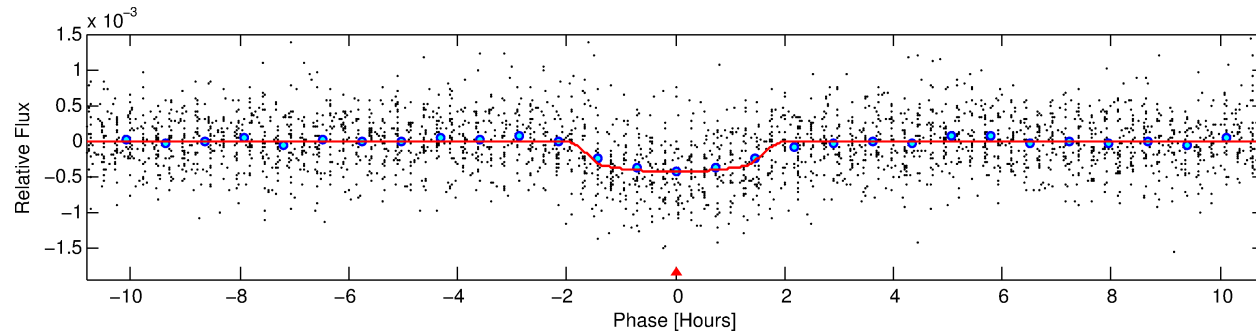
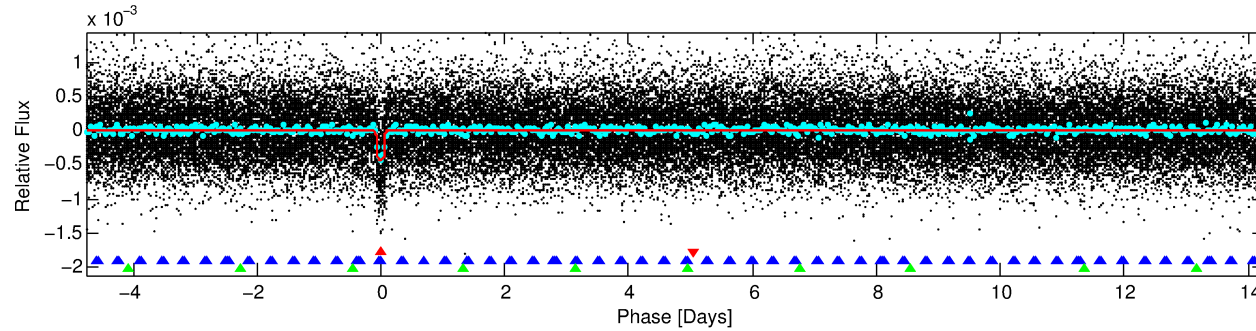
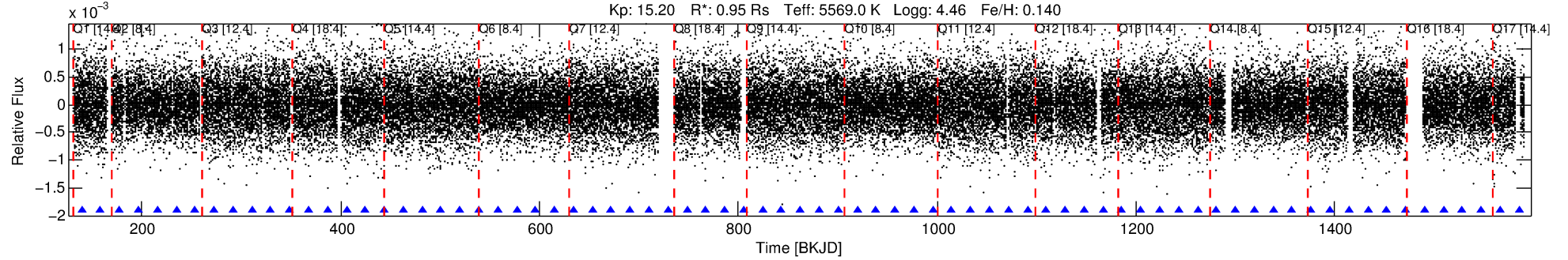
Ephemeris Match Information For 005706595-01

No Significant Match Found

DV One-Page Summary

KIC: 5706595 Candidate: 1 of 3 Period: 19.023 d
KOI: K02183.01 Name: Kepler-370c Corr: 0.971

Kp: 15.20 R*: 0.95 Rs Teff: 5569.0 K Logg: 4.46 Fe/H: 0.140



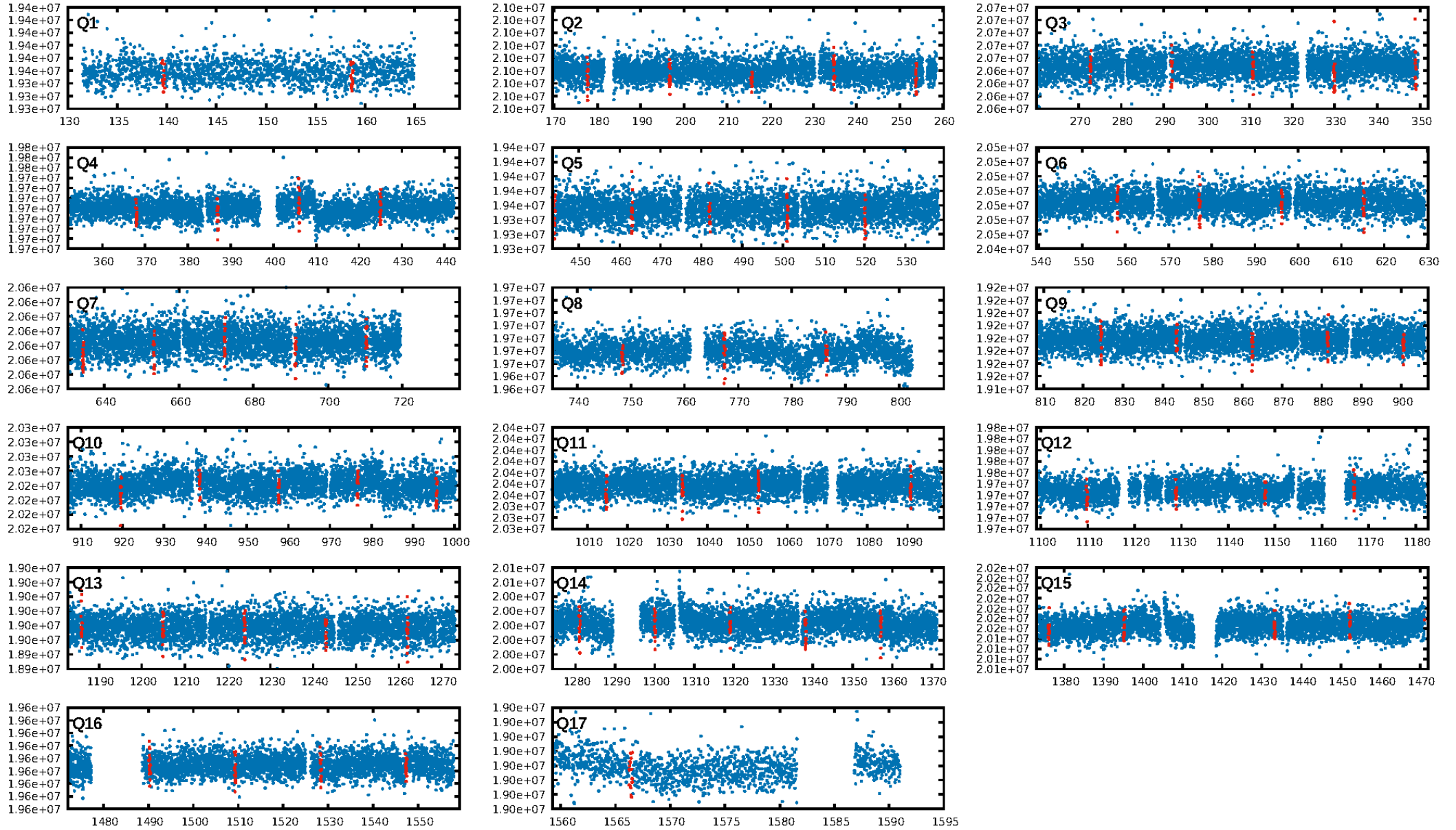
DV Fit Results:

Period = 19.02316 [0.00010] d
Epoch = 139.6573 [0.0040] BKJD
Rp/R* = 0.0218 [0.0066]
a/R* = 22.34 [28.80]
b = 0.86 [0.40]
Seff = 41.56 [8.32]
Teff = 647 [32] K
Rp = 2.27 [0.75] Re
a = 0.1374 [0.0169] AU
Ag = 110.75 [81.52] [1.35σ]
Teffp = 3247 [579] K [4.48σ]

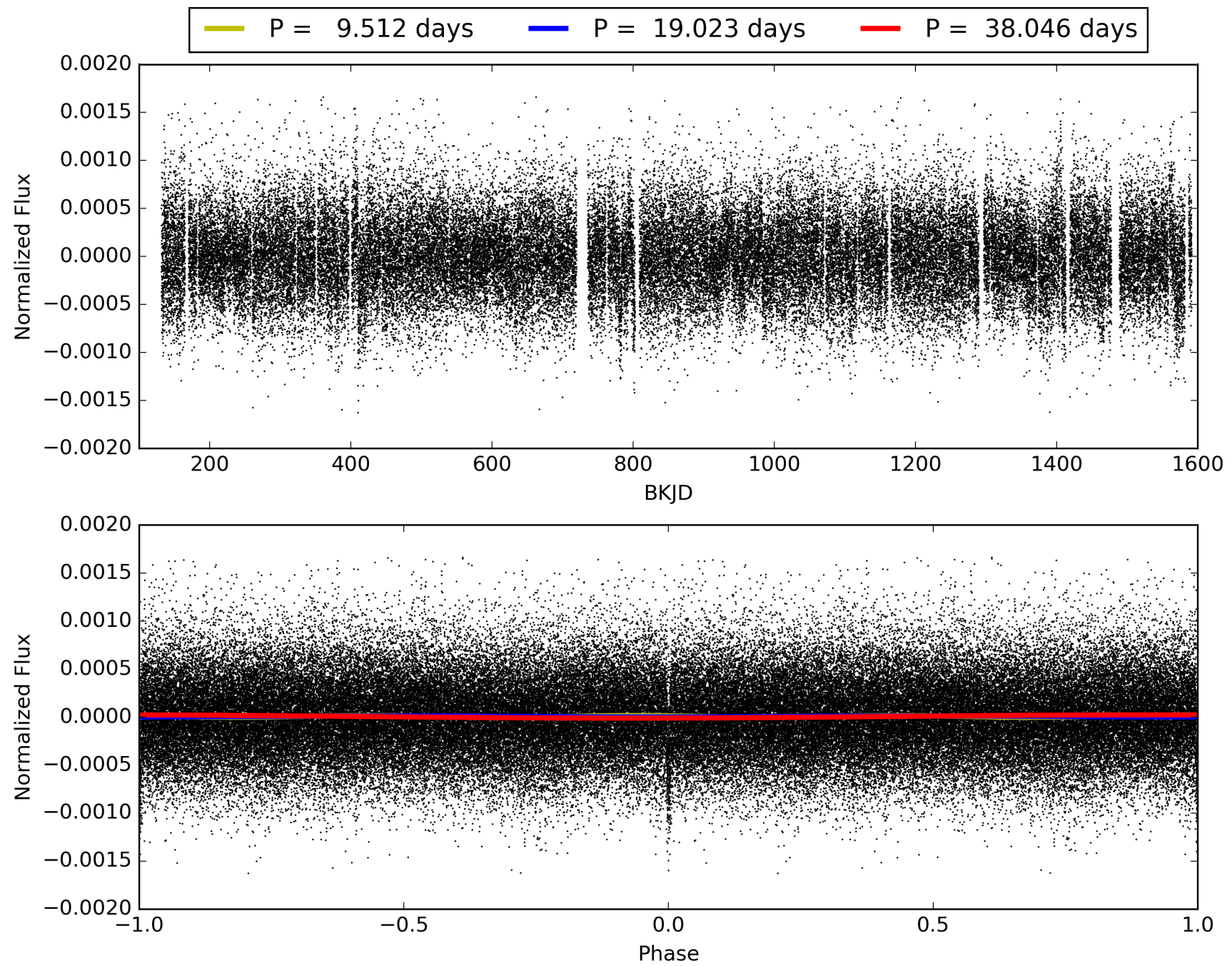
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [69.59σ]
LongPeriod-sig: 100.0% [509.48σ]
ModelChiSquare2-sig: 99.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.61e-78
RollingBand-fgt: 1.00 [67/67]
GhostDiagnostic-chr: 3.498
Centroid-sig: 13.7%
Centroid-so: 0.479 arcsec [0.66σ]
OotOffset-rm: 0.129 arcsec [0.38σ]
KicOffset-rm: 0.212 arcsec [0.62σ]
OotOffset-st: 4/3/1/4 [12]
KicOffset-st: 4/3/1/4 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005706595-01, PDC Light Curves

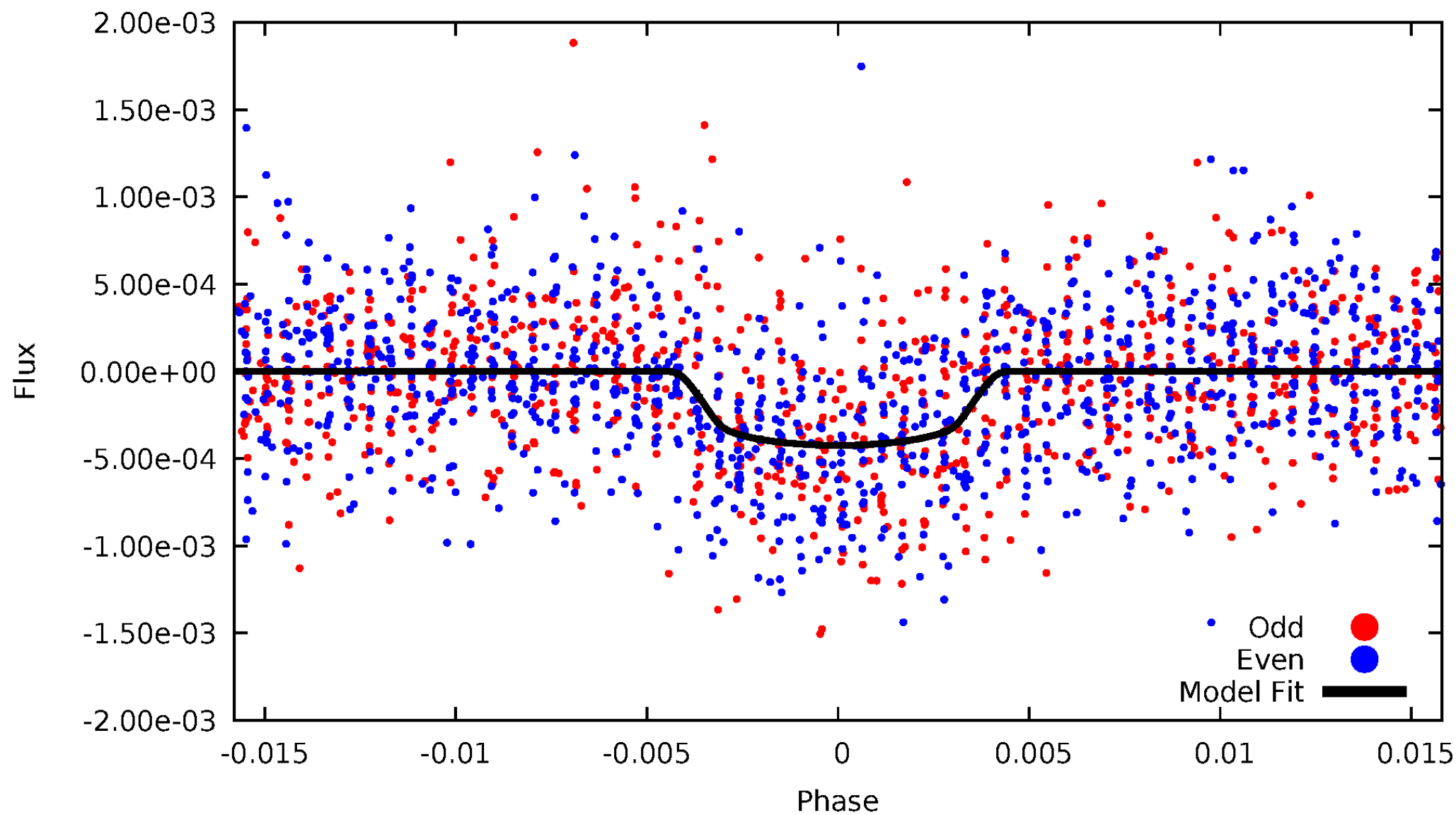


TCE 005706595-01



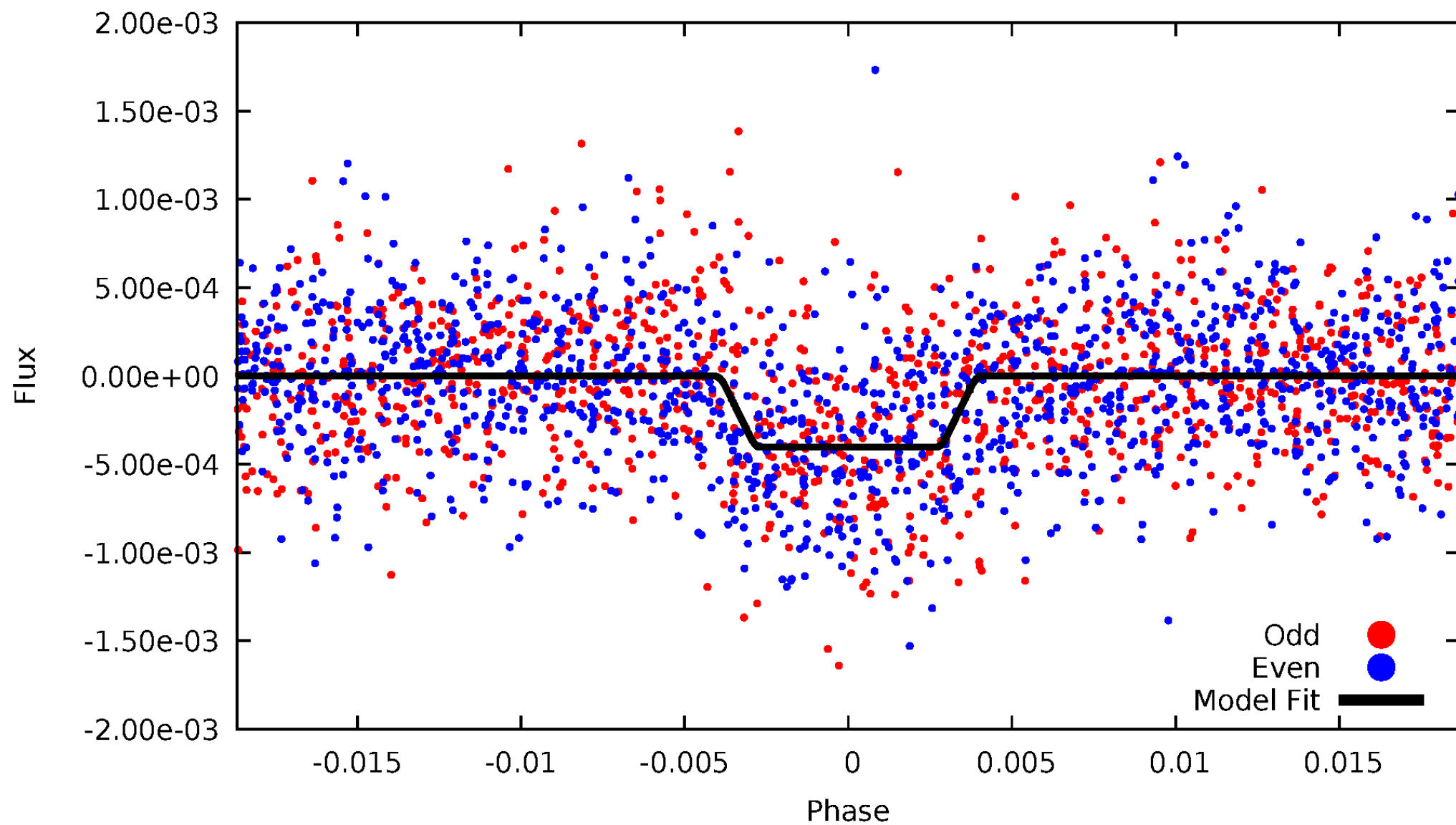
DV Odd/Even

TCE 005706595-01



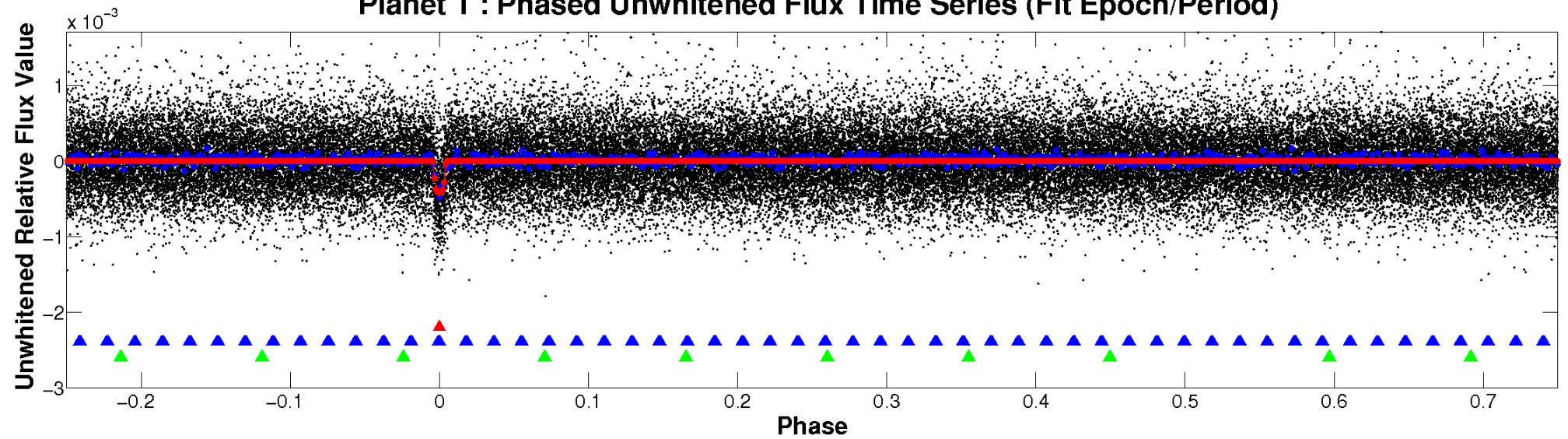
ALT Odd/Even

TCE 005706595-01

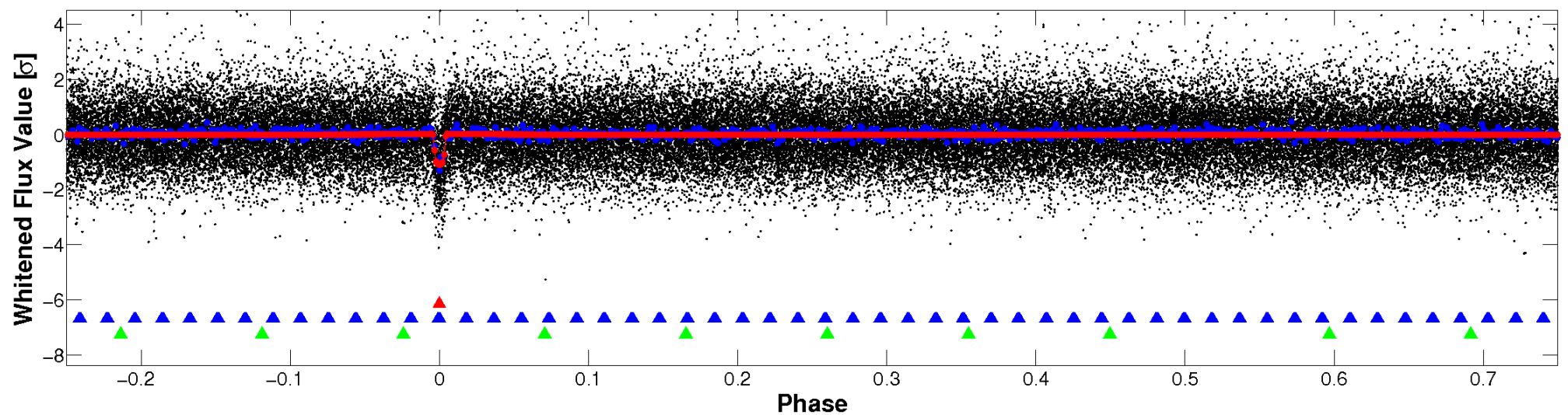


Non-Whitened Vs. Whitened Light Curve

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

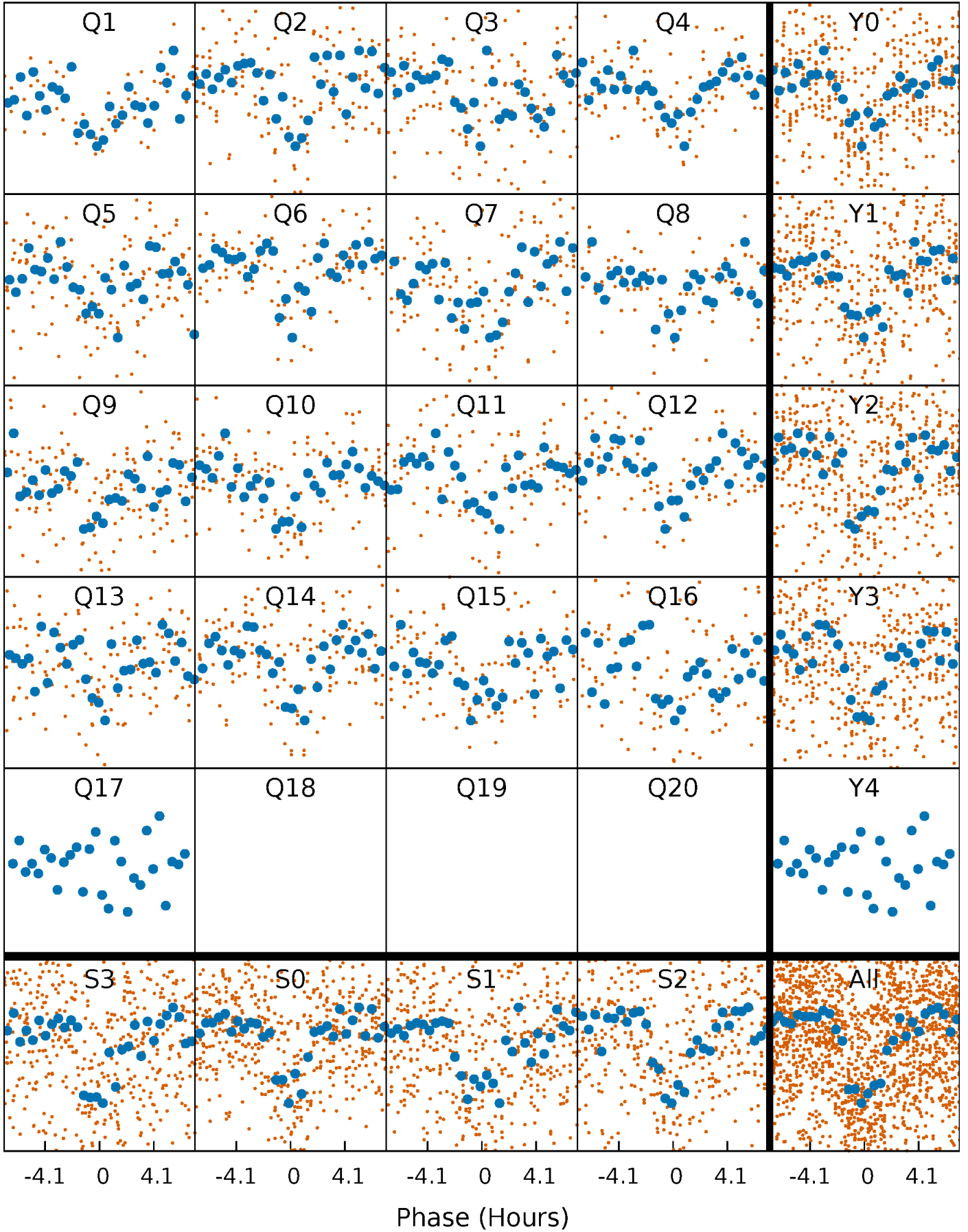


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



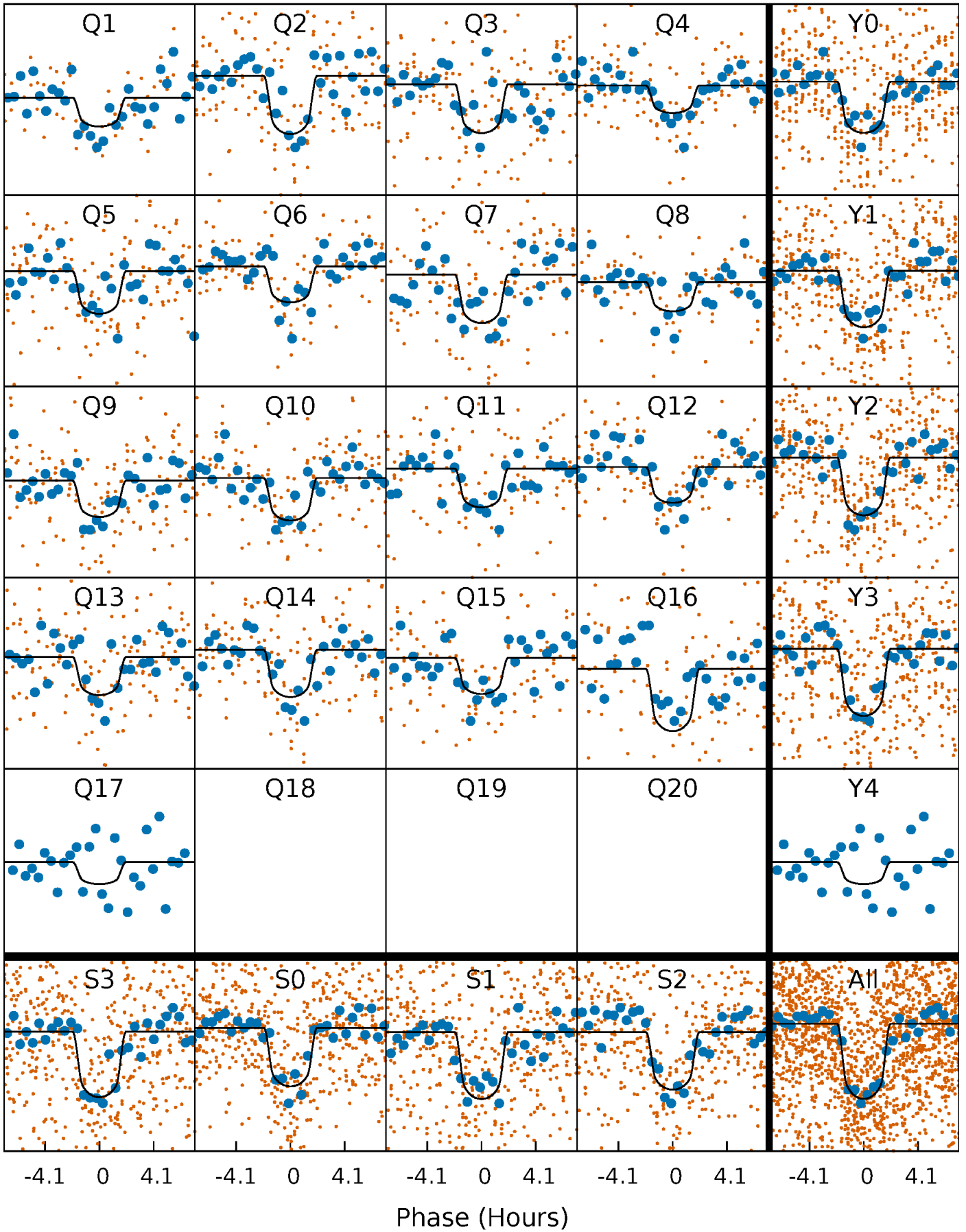
PDC Quarter-Phased Transit Curves

TCE 005706595-01 P= 19.023159 Days $T_0=139.657268$ (BKJD)



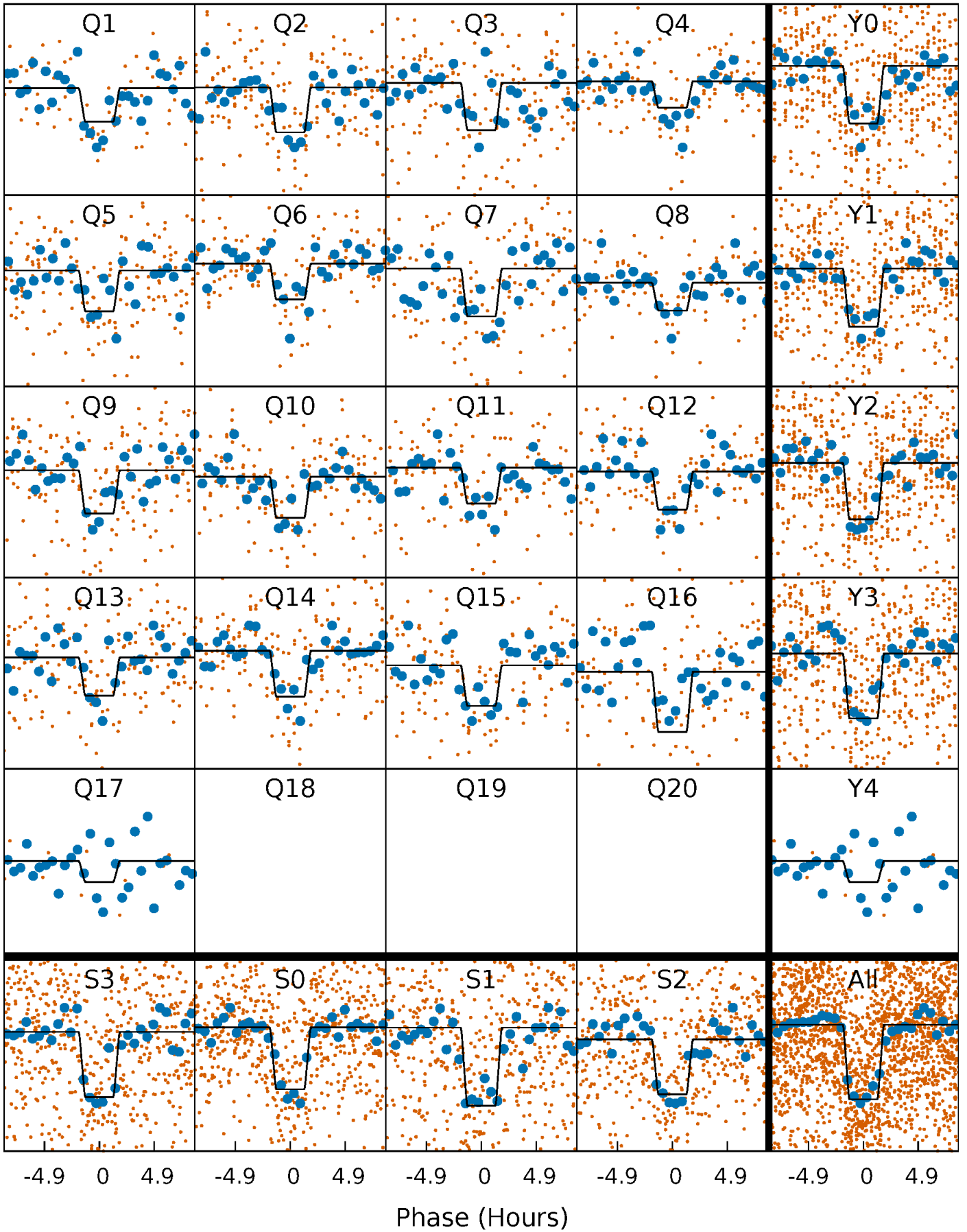
DV Quarter-Phased Transit Curves

TCE 005706595-01 P= 19.023159 Days $T_0=139.657268$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

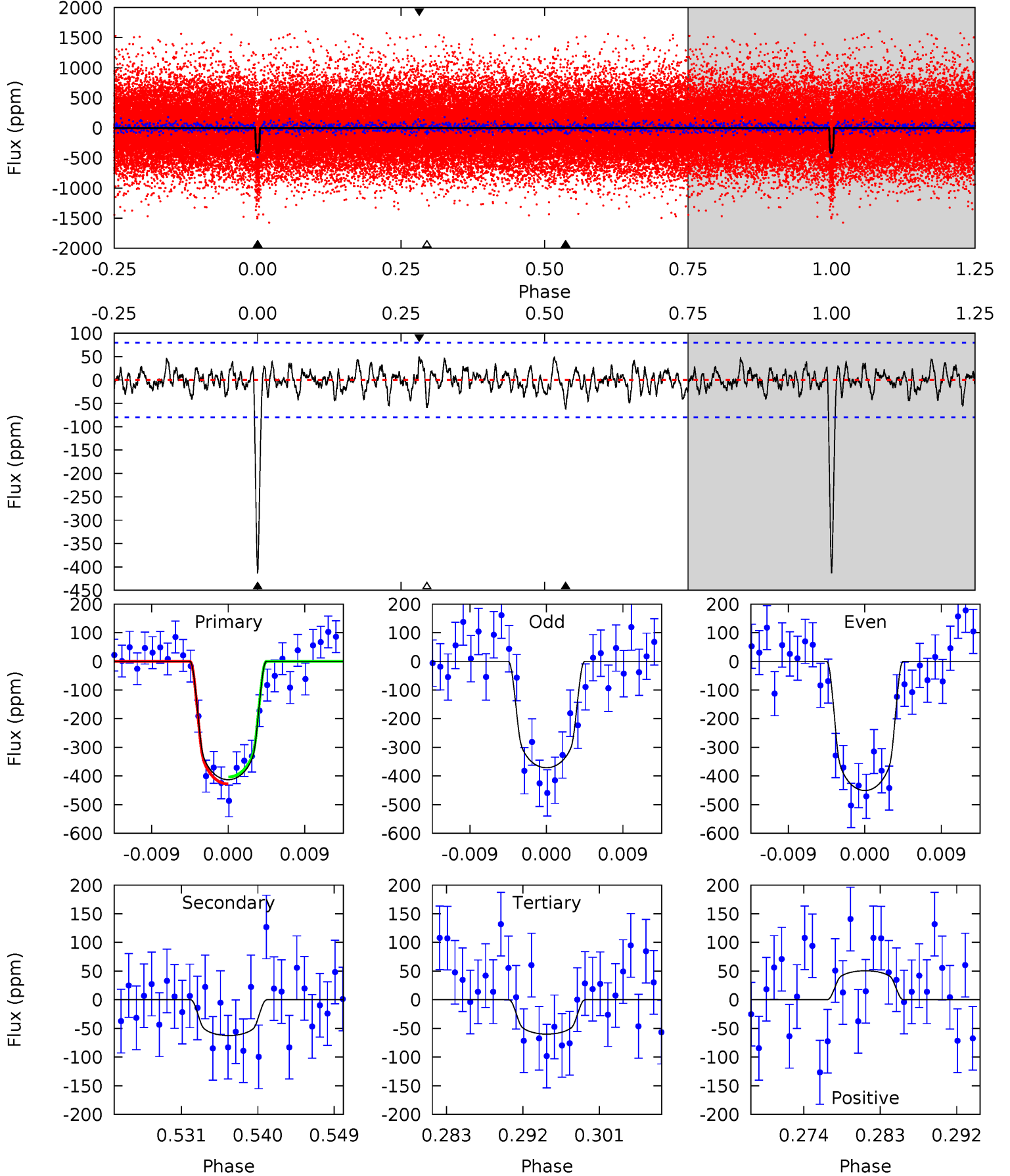
TCE 005706595-01 P= 19.023371 Days $T_0=139.651086$ (BKJD)



DV Model-Shift Uniqueness Test

005706595-01, P = 19.023159 Days, E = 120.634109 Days

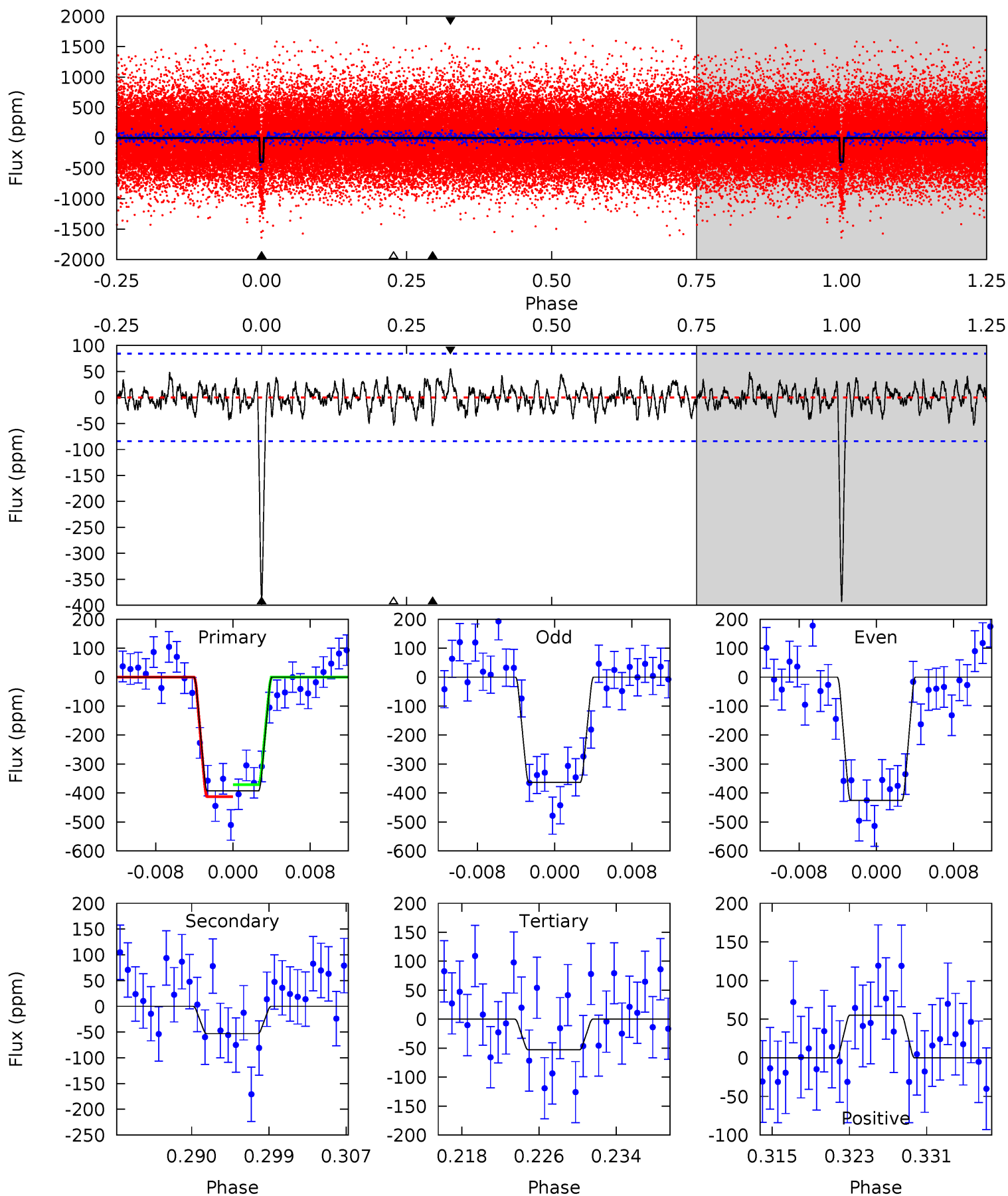
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	3.95	3.79	3.20	5.05	2.62	1.16	22.3	22.9	0.16	0.75	2.51	0.97	0.11	0.76



Alt Model-Shift Uniqueness Test

005706595-01, P = 19.023371 Days, E = 120.627715 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	3.19	3.18	3.32	5.07	2.65	1.07	20.4	20.3	0.01	-0.13	1.88	0.98	0.12	1.24



Stellar Parameters For KIC 005706595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5569^{+75}_{-83}	$4.459^{+0.059}_{-0.110}$	$0.140^{+0.150}_{-0.150}$	$0.954^{+0.128}_{-0.069}$	$0.955^{+0.053}_{-0.053}$	$1.551^{+0.358}_{-0.494}$
	+1%/-1%	+1%/-2%	+107%/-107%	+13%/-7%	+6%/-6%	+23%/-32%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 005706595-01 / KOI 2183.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-62 ± 16	$2.31^{+0.70}_{-0.63}$	907^{+36}_{-24}	3724^{+461}_{-333}	122^{+109}_{-56}
Alt.	-53 ± 17	$2.11^{+0.71}_{-0.68}$	908^{+36}_{-25}	3757^{+569}_{-406}	124^{+144}_{-63}

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

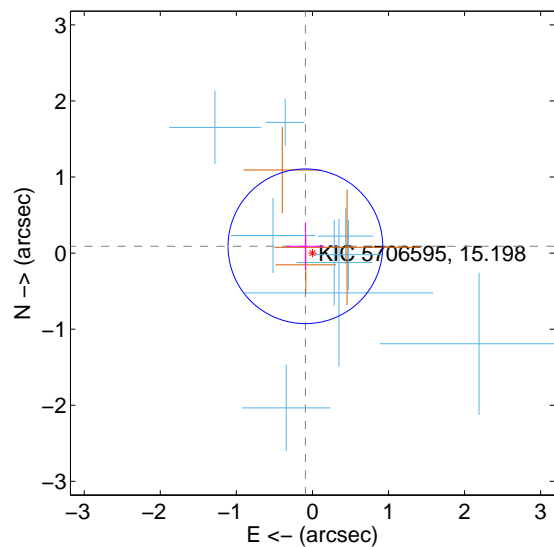
Supplemental centroid analysis for 005706595-01. Kepler magnitude: 15.20. Transit SNR 20.10

There are 9 quarters with good PRF difference image offsets

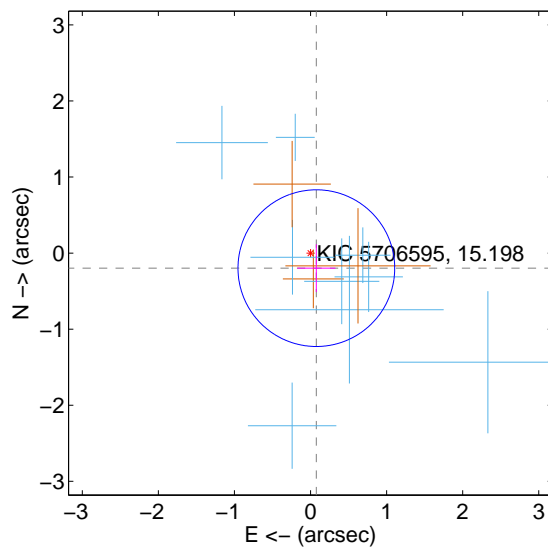
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.129 ± 0.339	0.38	0.093 ± 0.250	0.089 ± 0.312
PRF-fit source offset from KIC position	0.212 ± 0.343	0.62	-0.077 ± 0.251	-0.198 ± 0.313
photometric centroid source offset	0.48 ± 0.72	0.66	-0.06 ± 0.69	0.48 ± 0.72

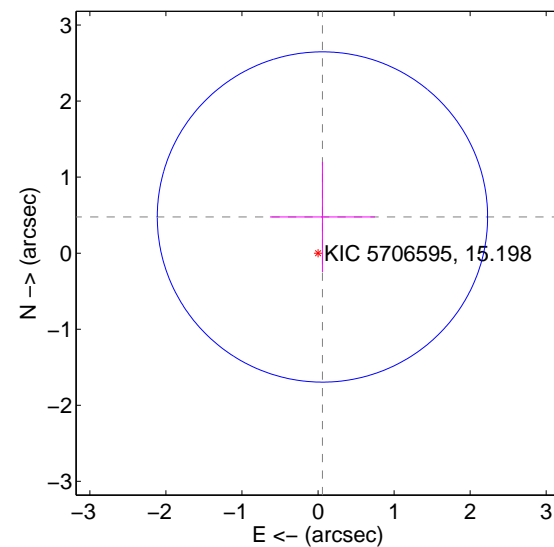
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

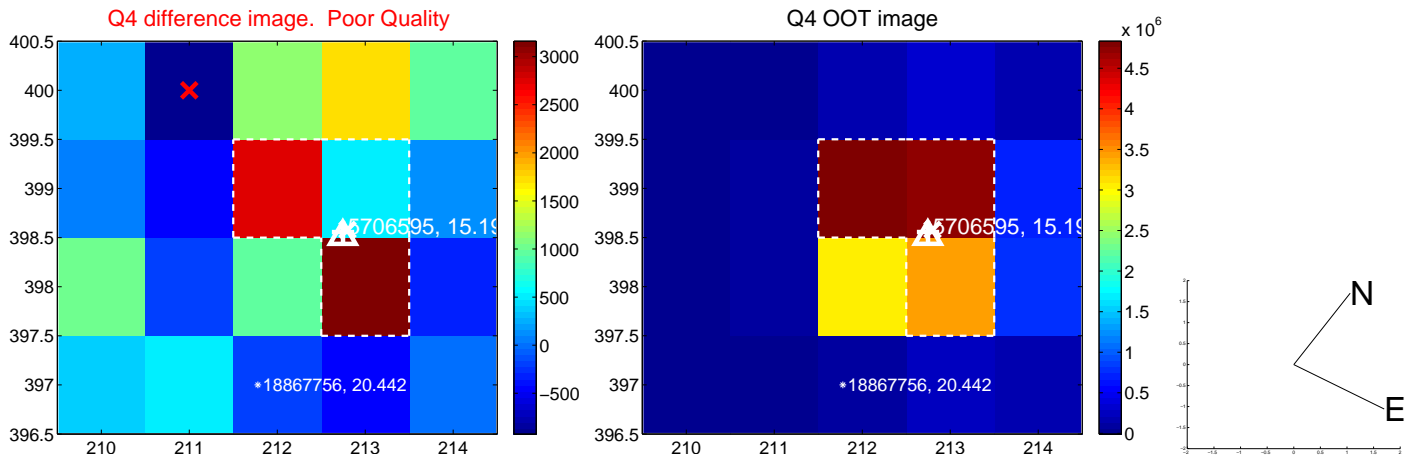
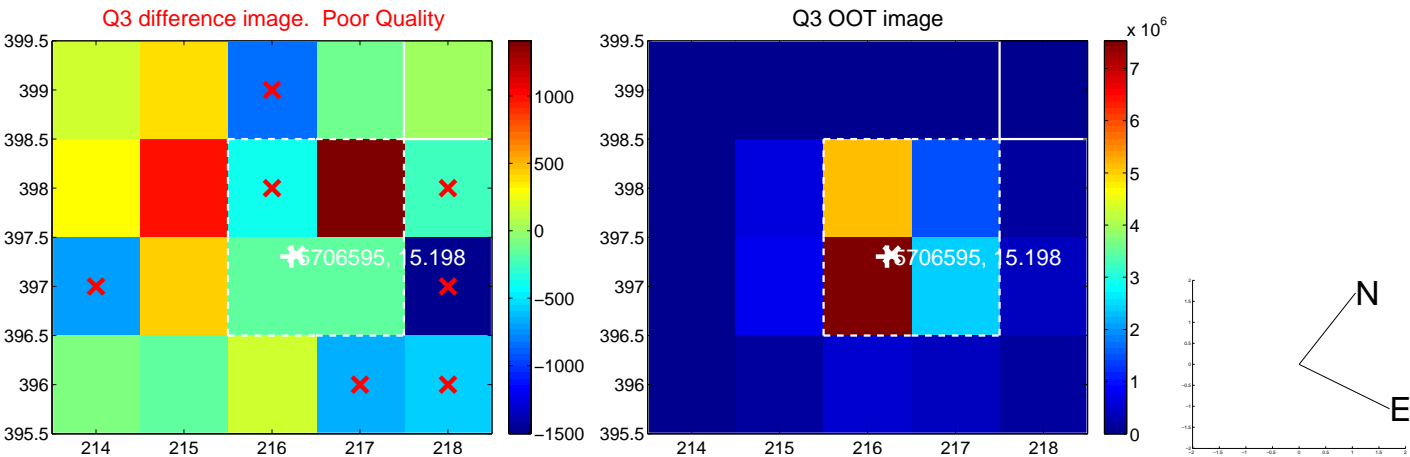
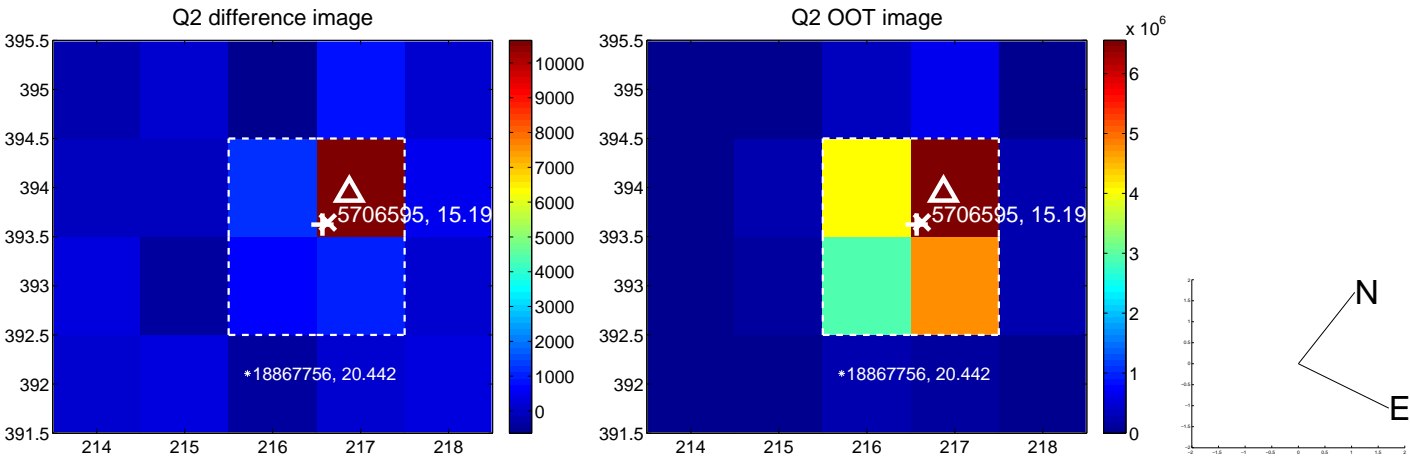
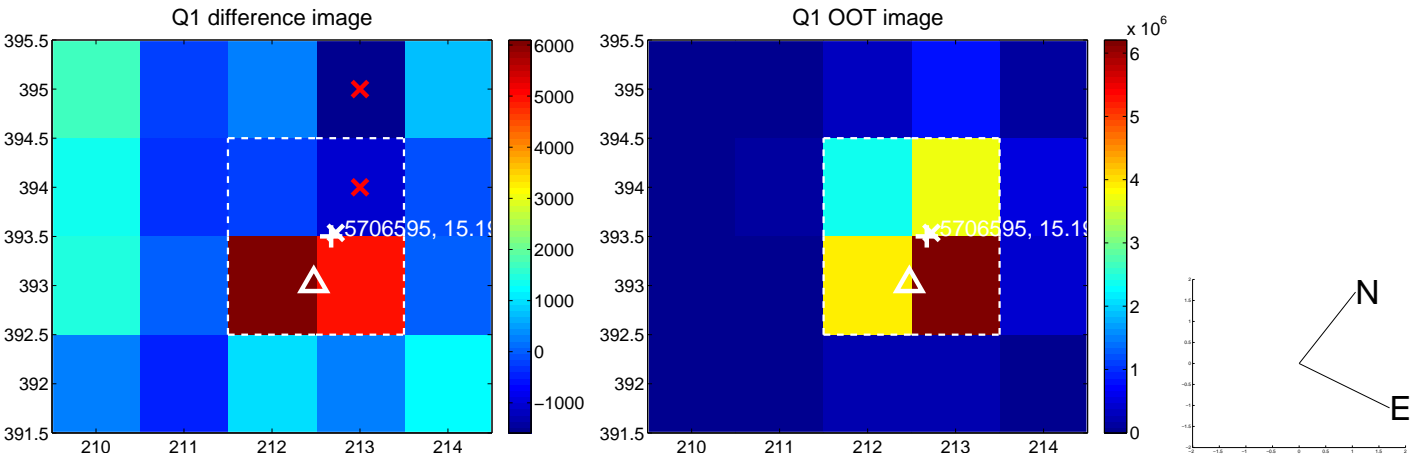


offset from photometric centroids

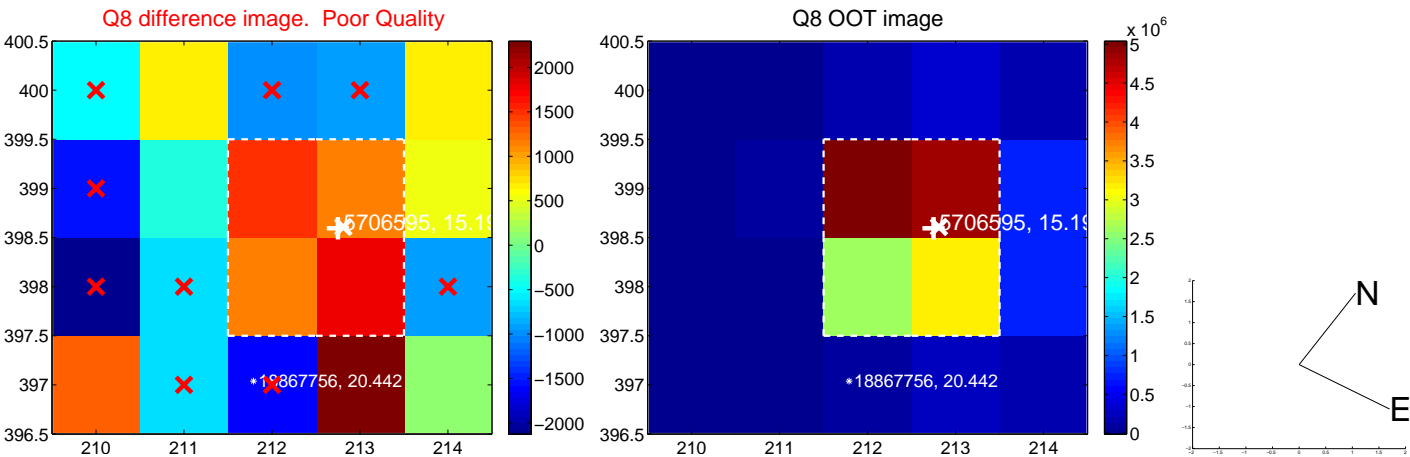
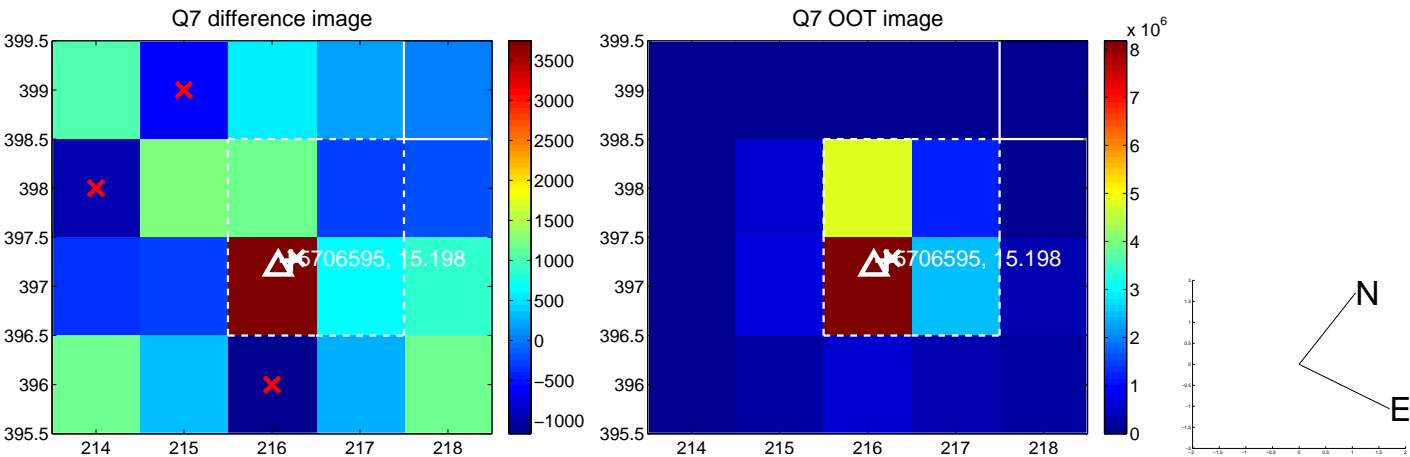
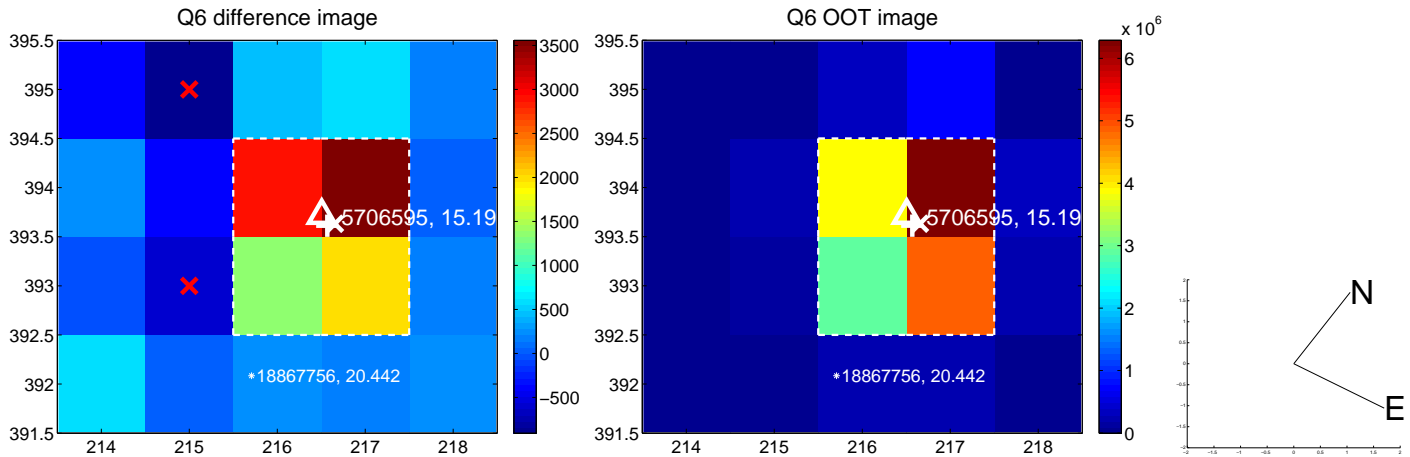
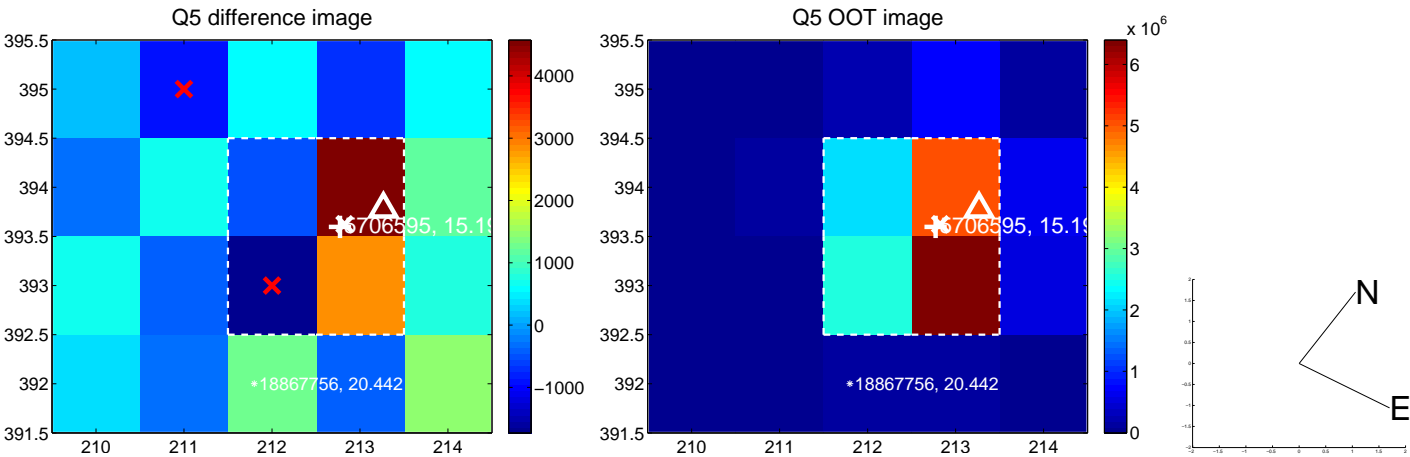


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

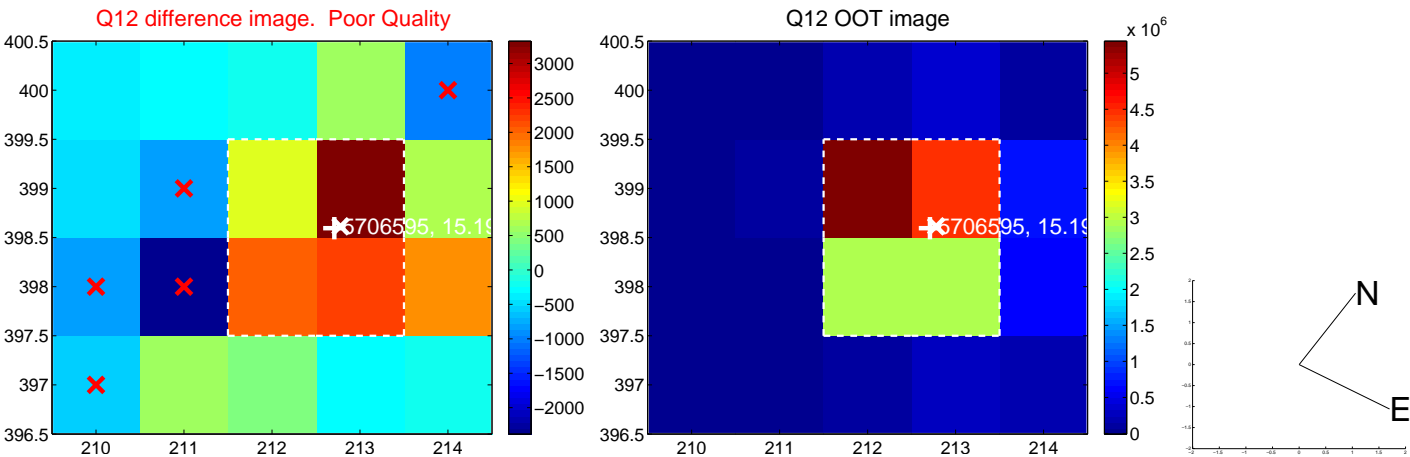
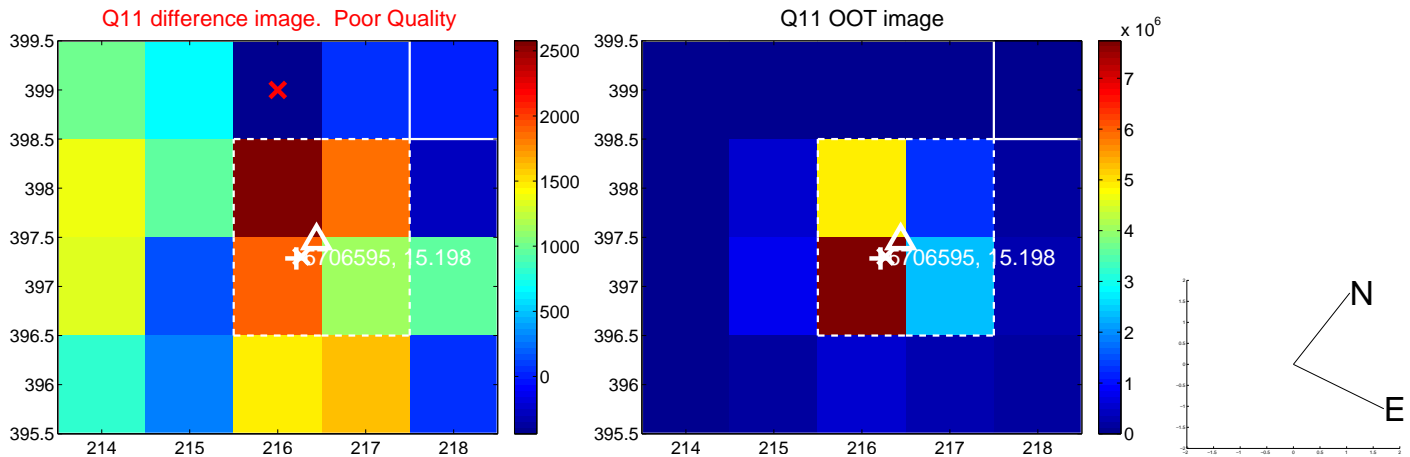
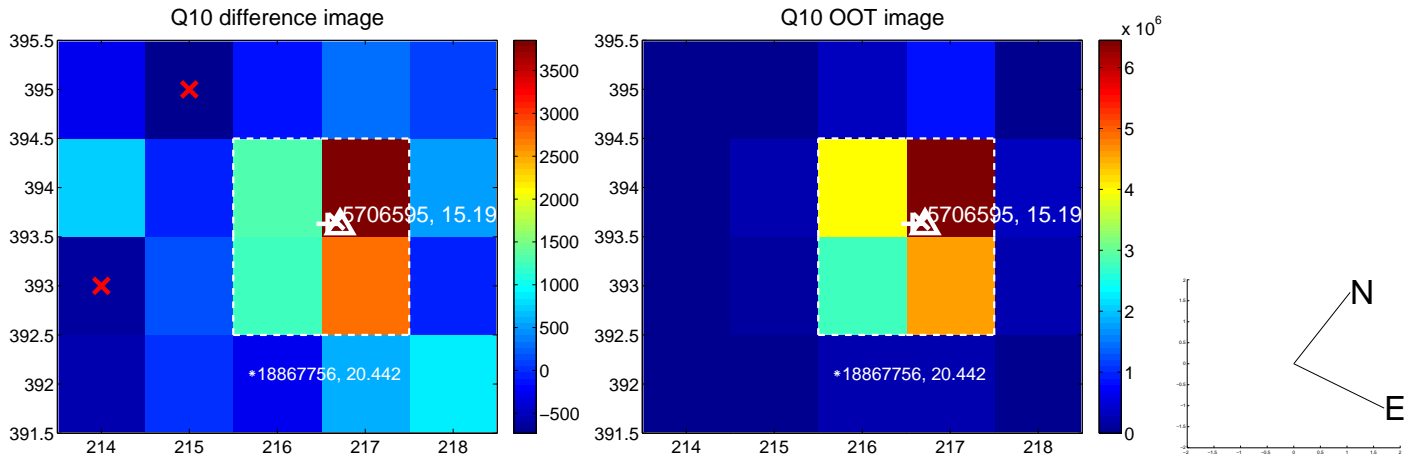
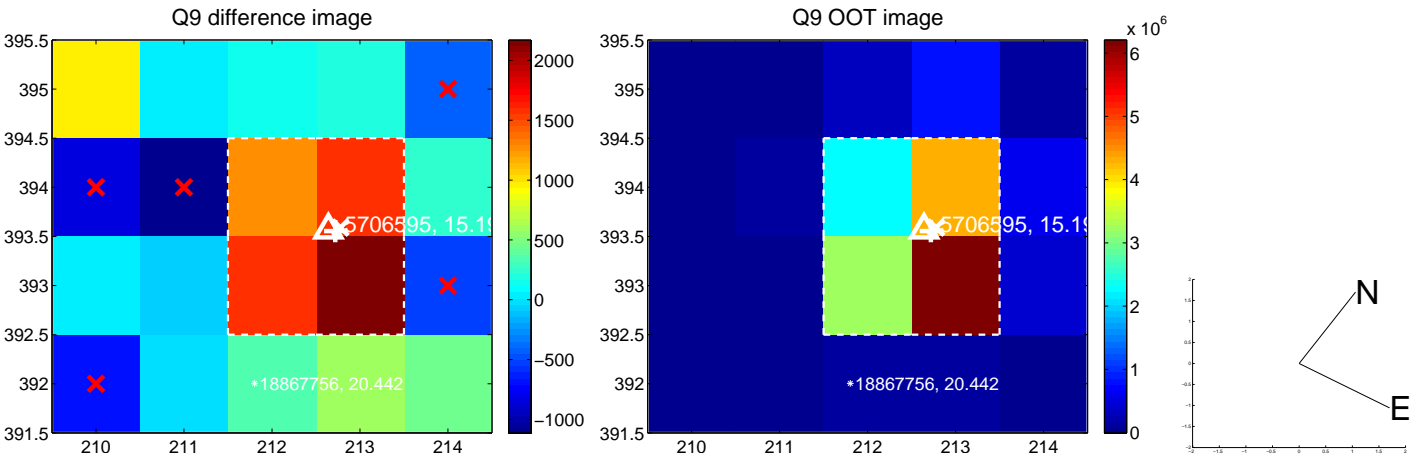
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



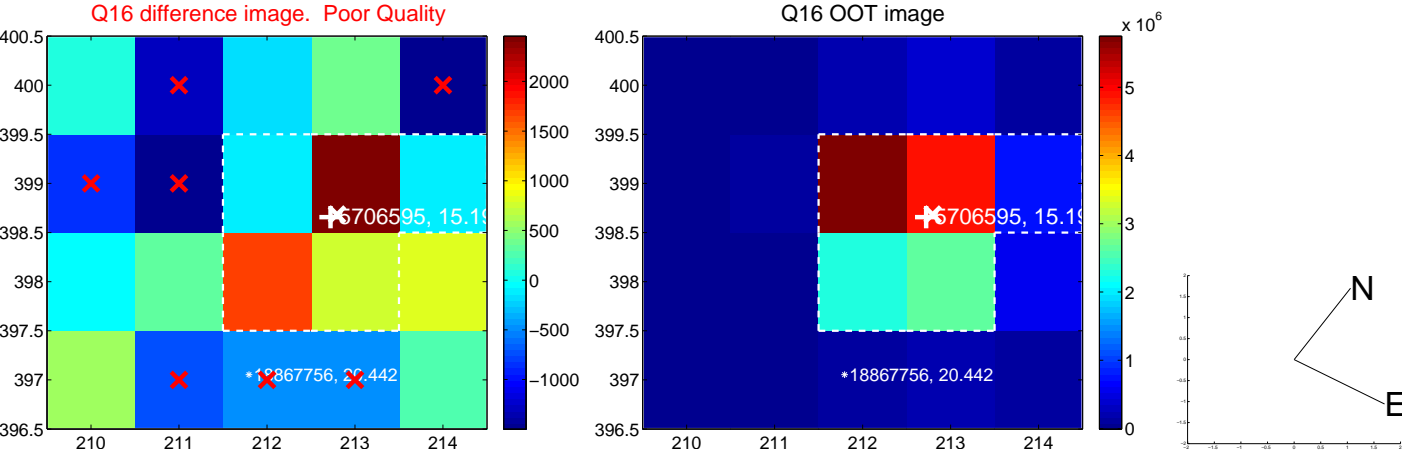
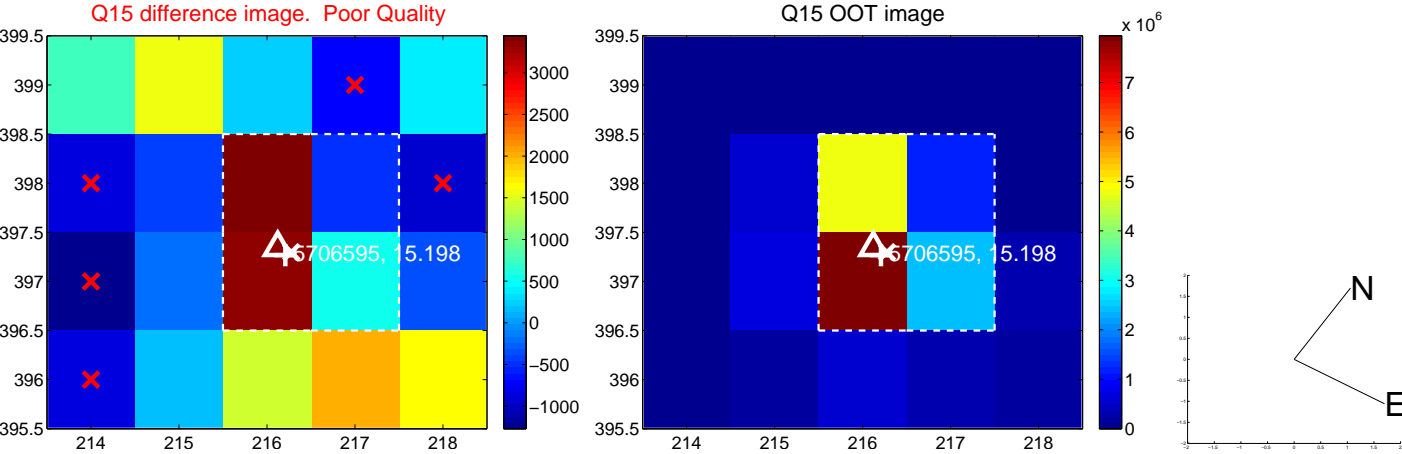
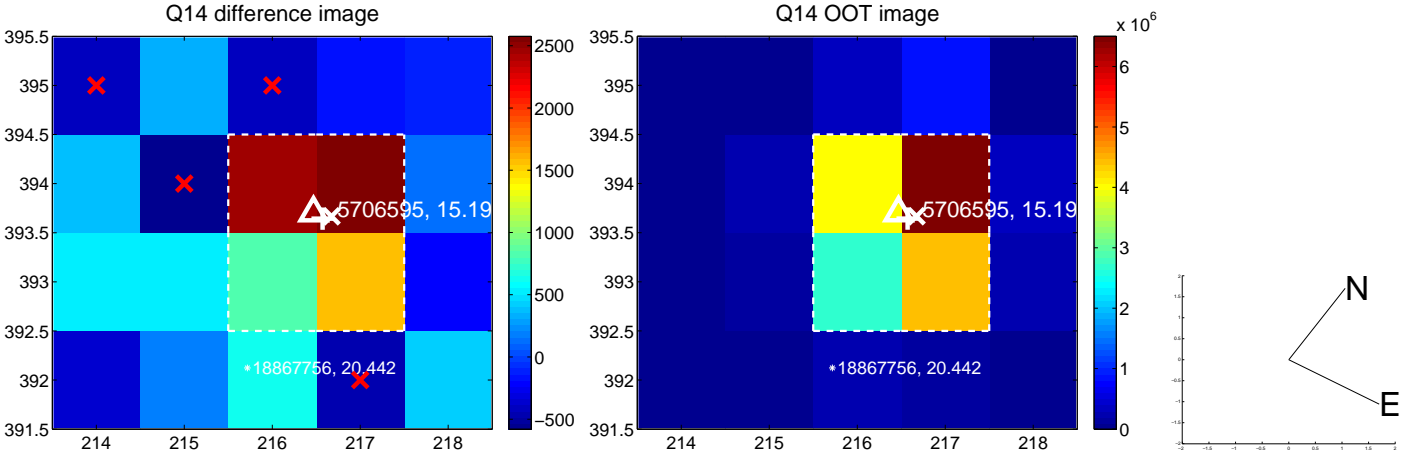
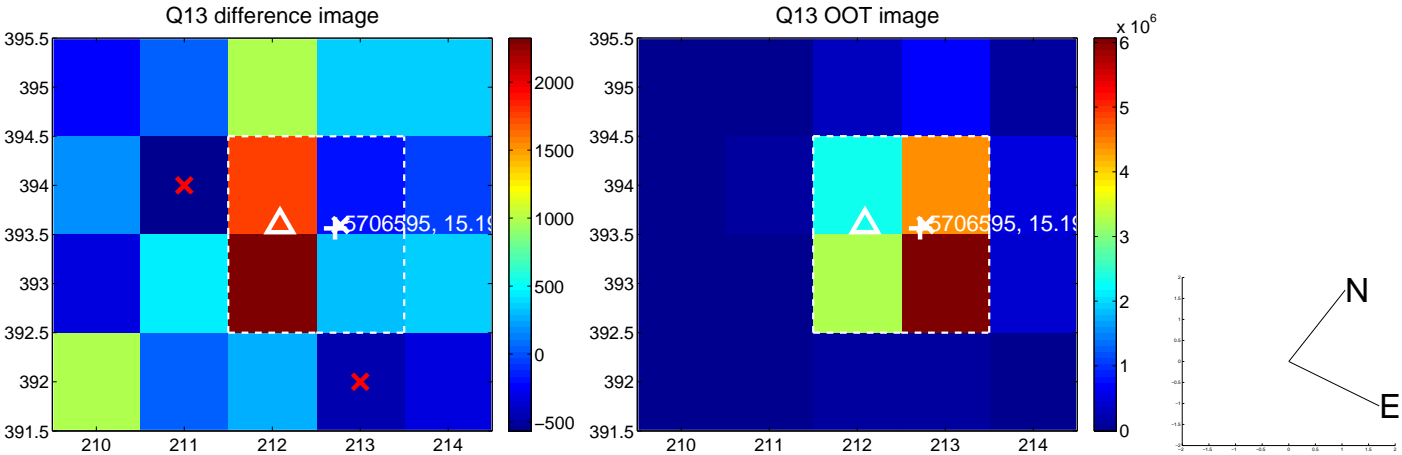
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



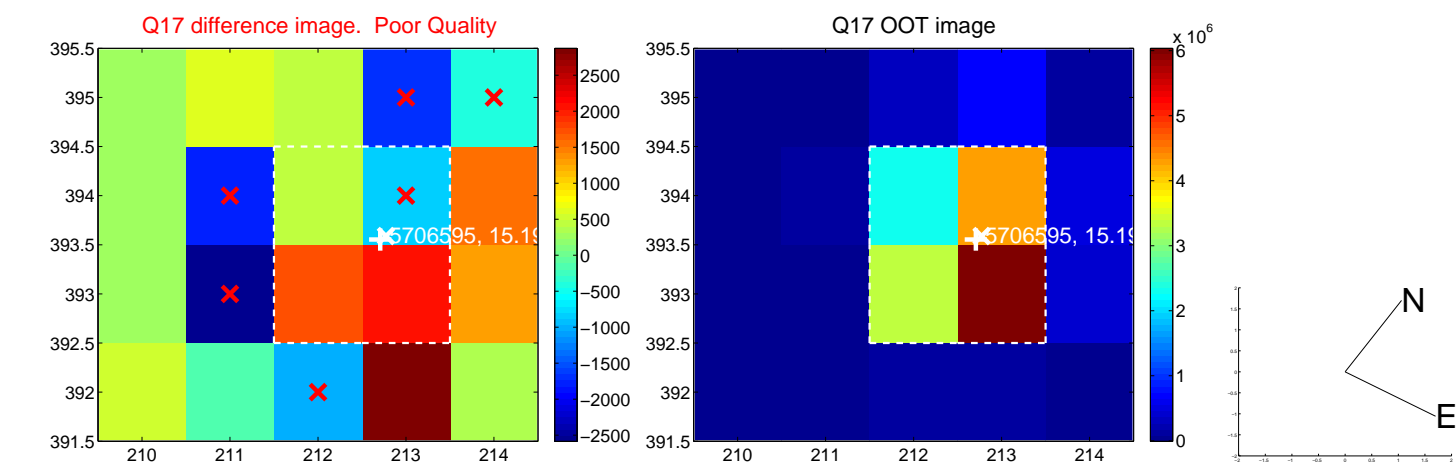
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



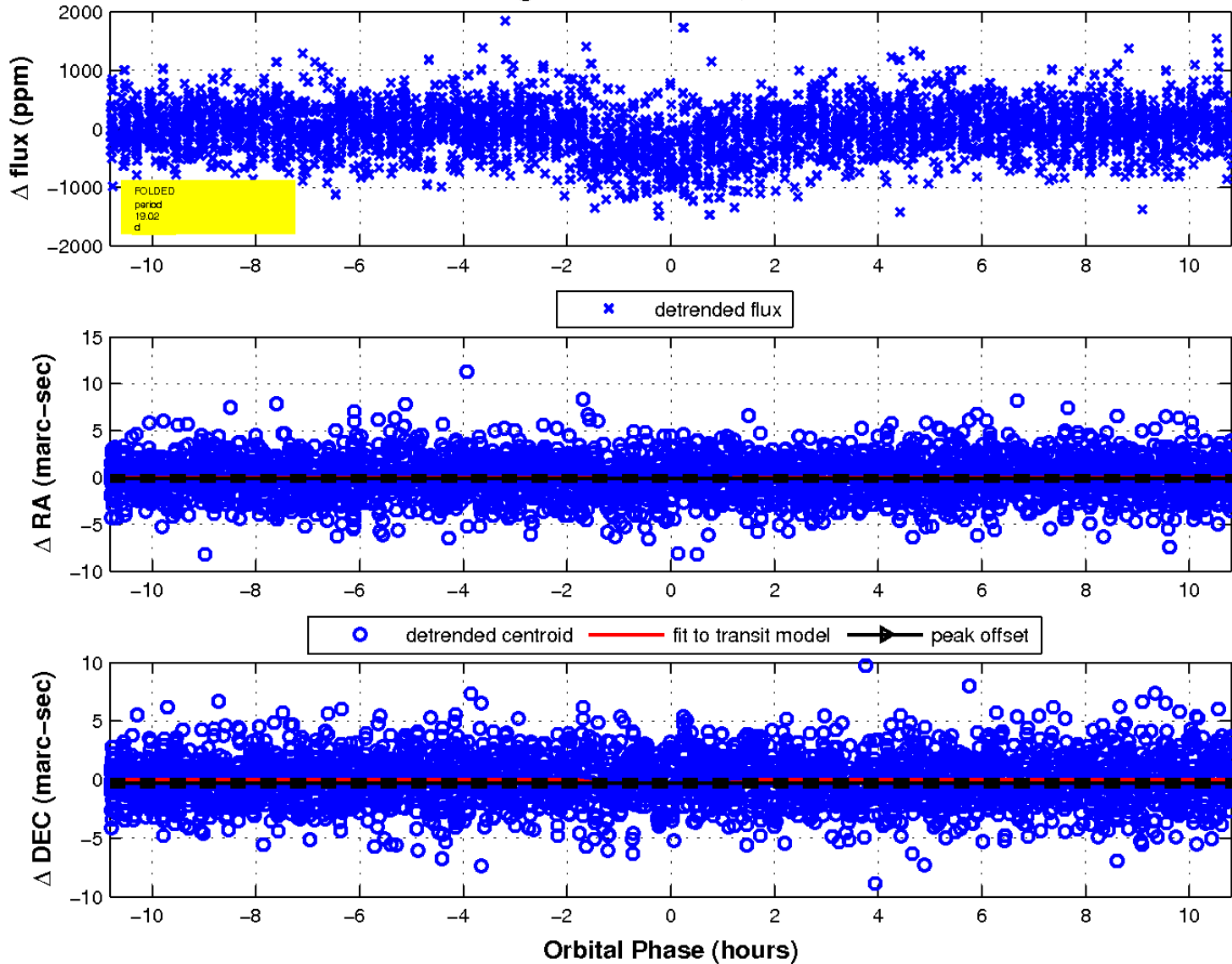
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

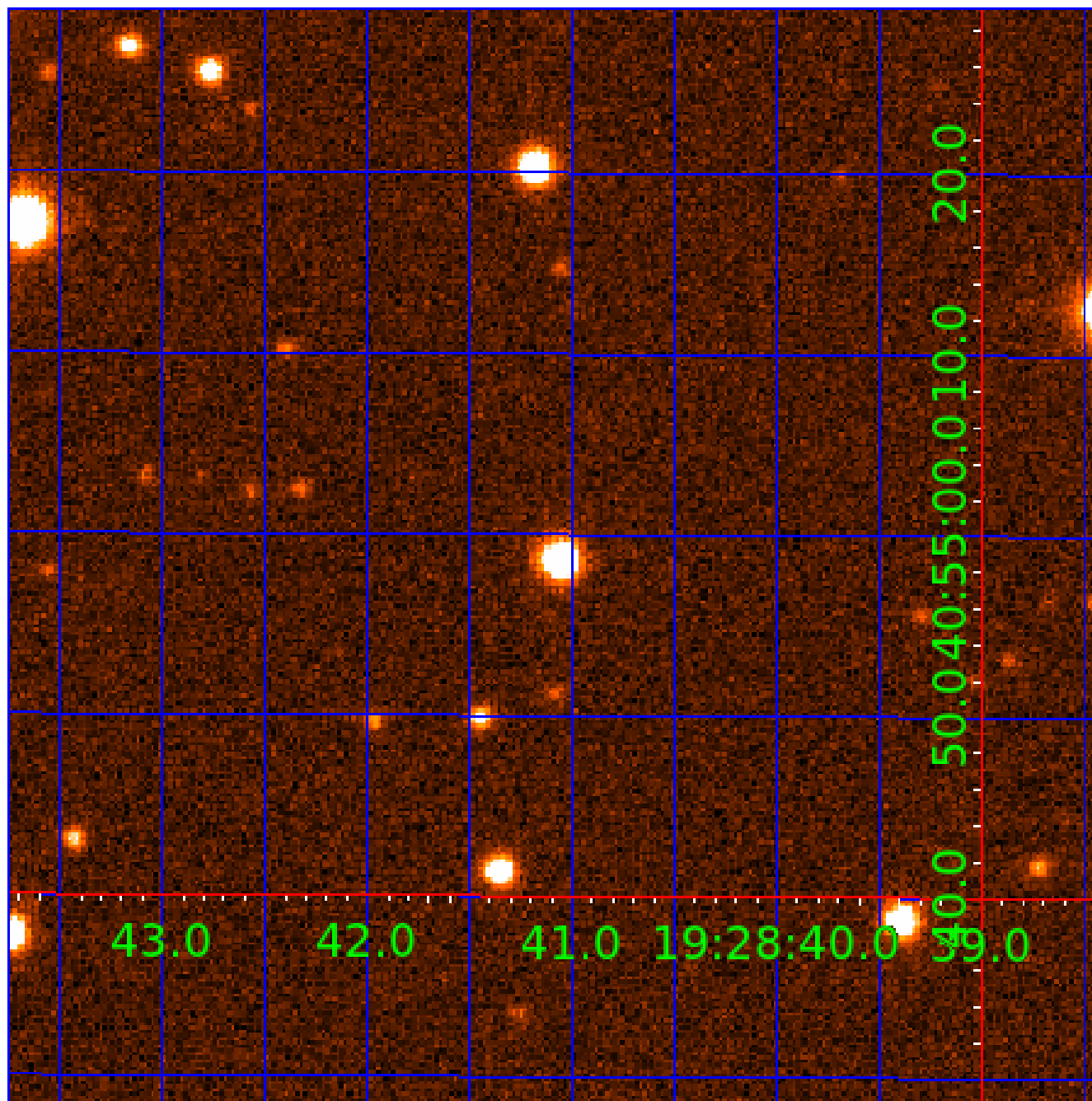


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 005706595

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})
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005706595-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005706595-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005706595-03	OBS	FP	0.40	1	0	0	0	MOD_NONUNIQ_ALT

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

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

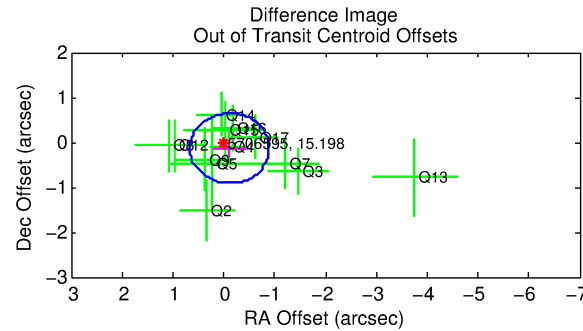
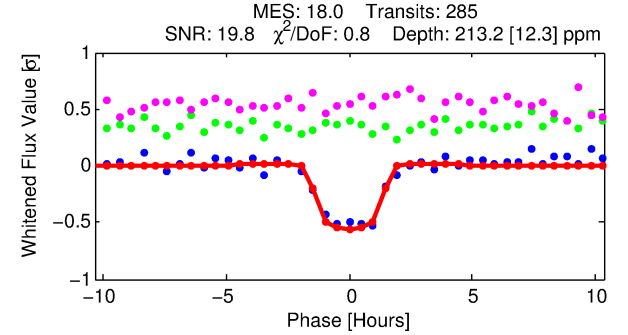
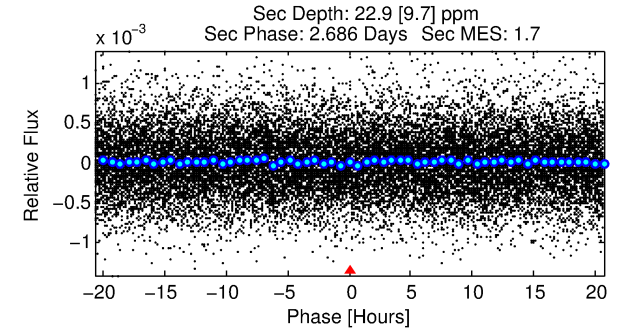
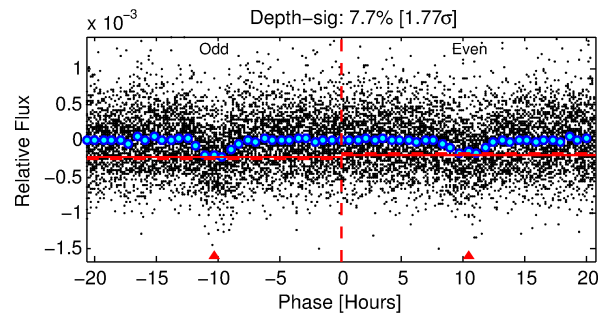
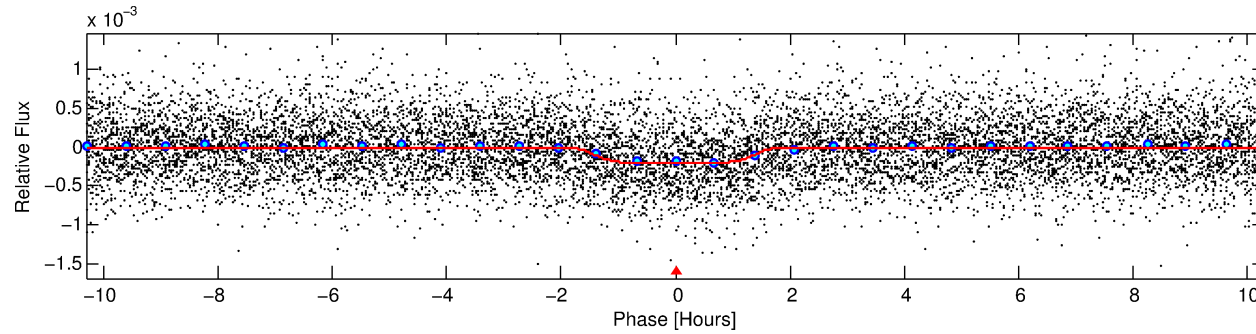
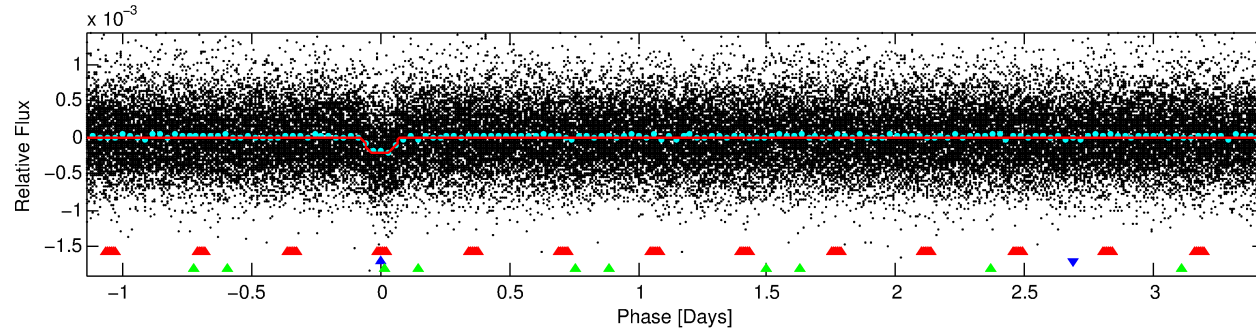
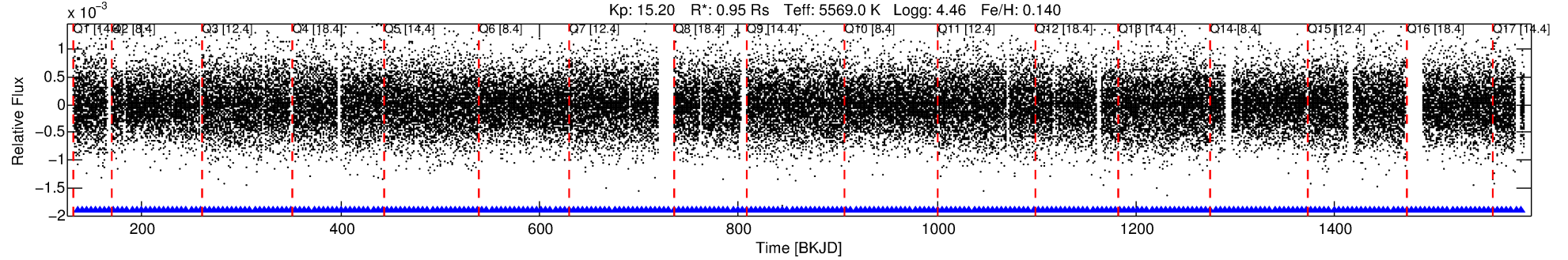
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005706595-02

No Significant Match Found

DV One-Page Summary

KIC: 5706595 Candidate: 2 of 3 Period: 4.580 d
KOI: K02183.02 Name: Kepler-370b Corr: 0.938



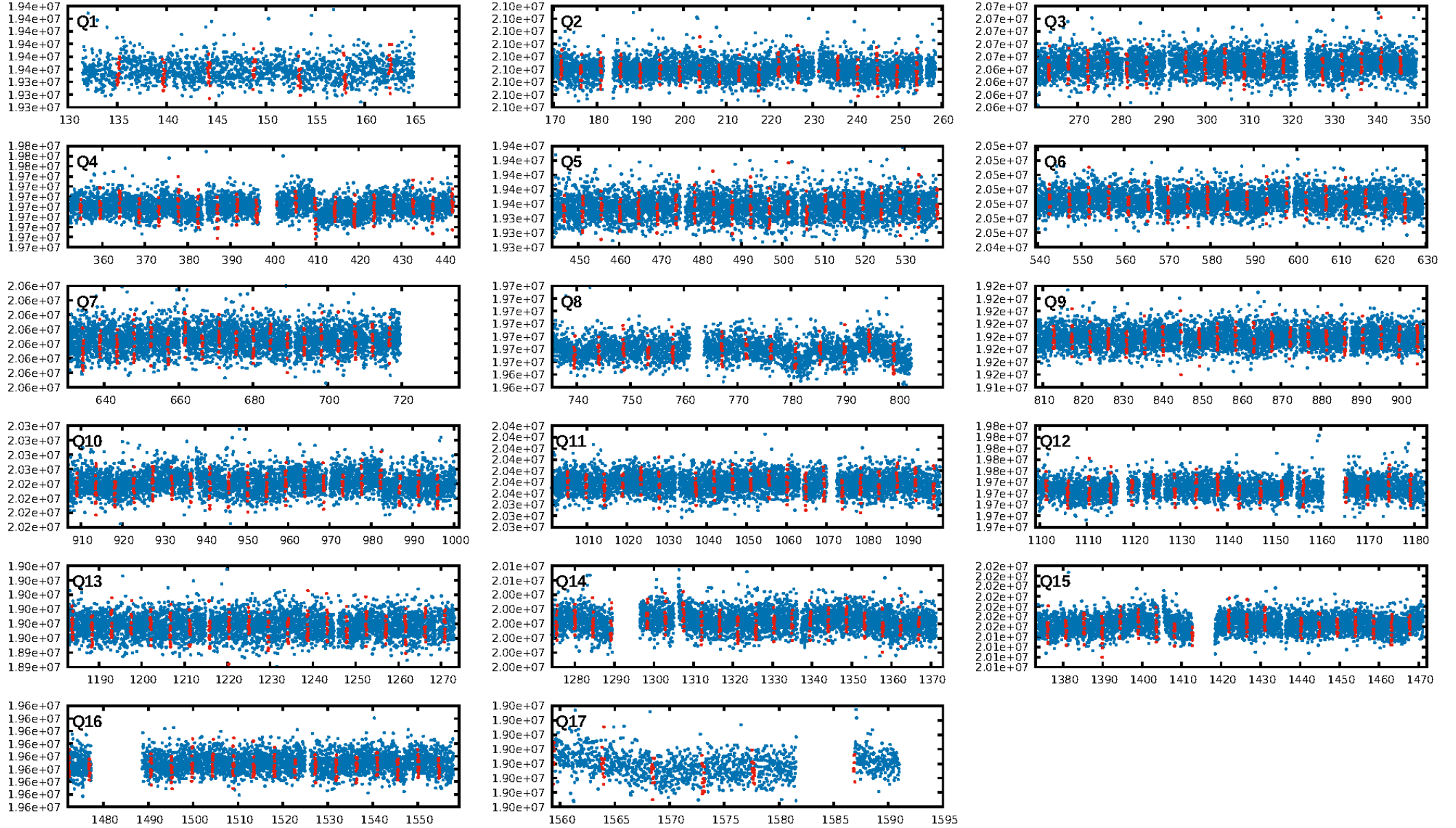
DV Fit Results:

Period = 4.57953 [0.00002] d
Epoch = 135.0887 [0.0033] BKJD
Rp/R* = 0.0173 [0.0015]
a/R* = 3.74 [1.36]
b = 0.95 [0.04]
Seff = 277.51 [55.55]
Teff = 1041 [52] K
Rp = 1.80 [0.29] Re
a = 0.0532 [0.0065] AU
Ag = 10.94 [5.42] [1.83σ]
Teffp = 2926 [337] K [5.52σ]

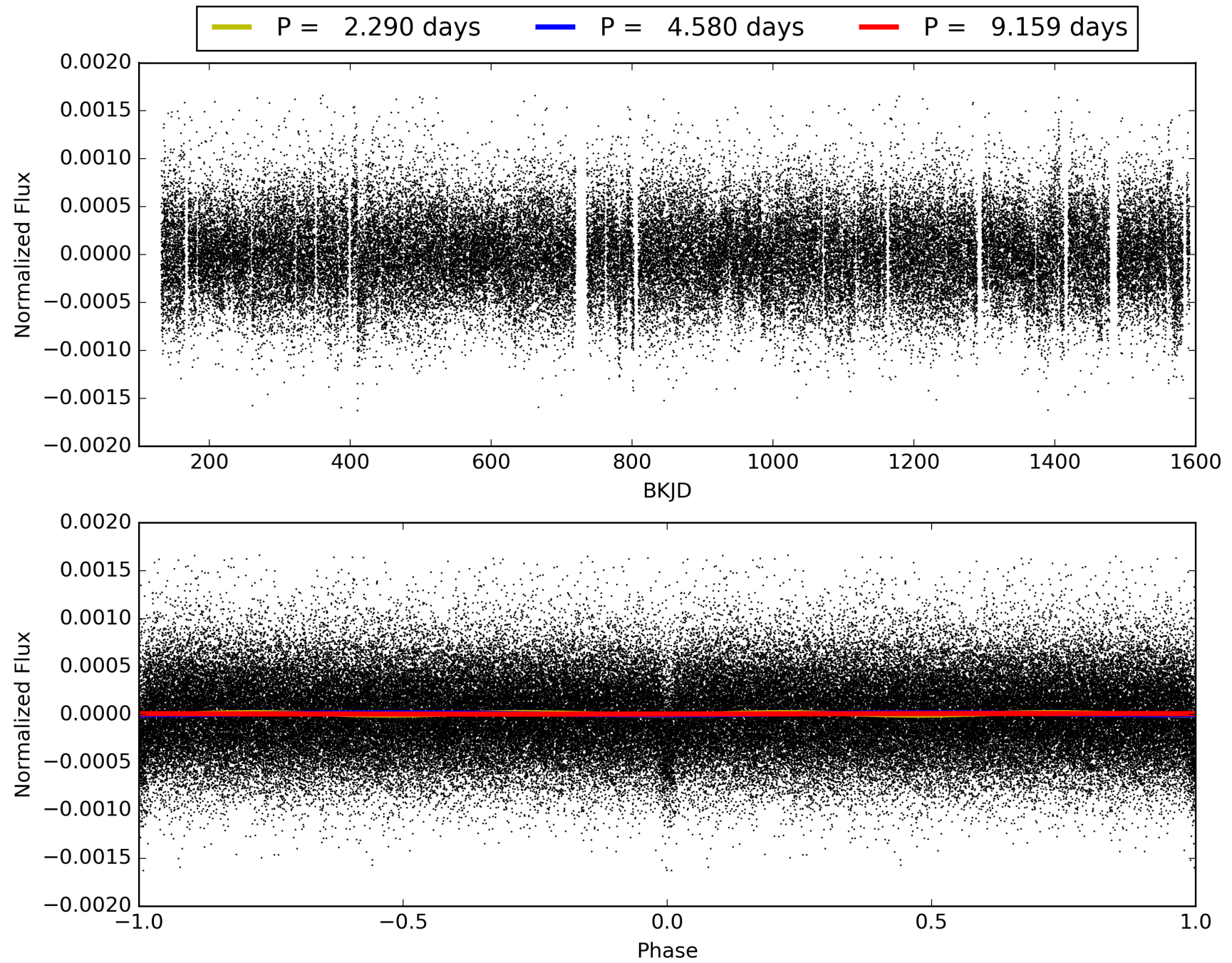
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [69.59σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.83e-72
RollingBand-fgt: 1.00 [273/273]
GhostDiagnostic-chr: -17.41
Centroid-sig: 0.0%
Centroid-so: 2.086 arcsec [2.79σ]
OotOffset-rm: 0.178 arcsec [0.68σ]
KicOffset-rm: 0.467 arcsec [1.76σ]
OotOffset-st: 2/3/4/4 [13]
KicOffset-st: 2/3/4/4 [13]
DiffImageQuality-fgm: 0.77 [10/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005706595-02, PDC Light Curves

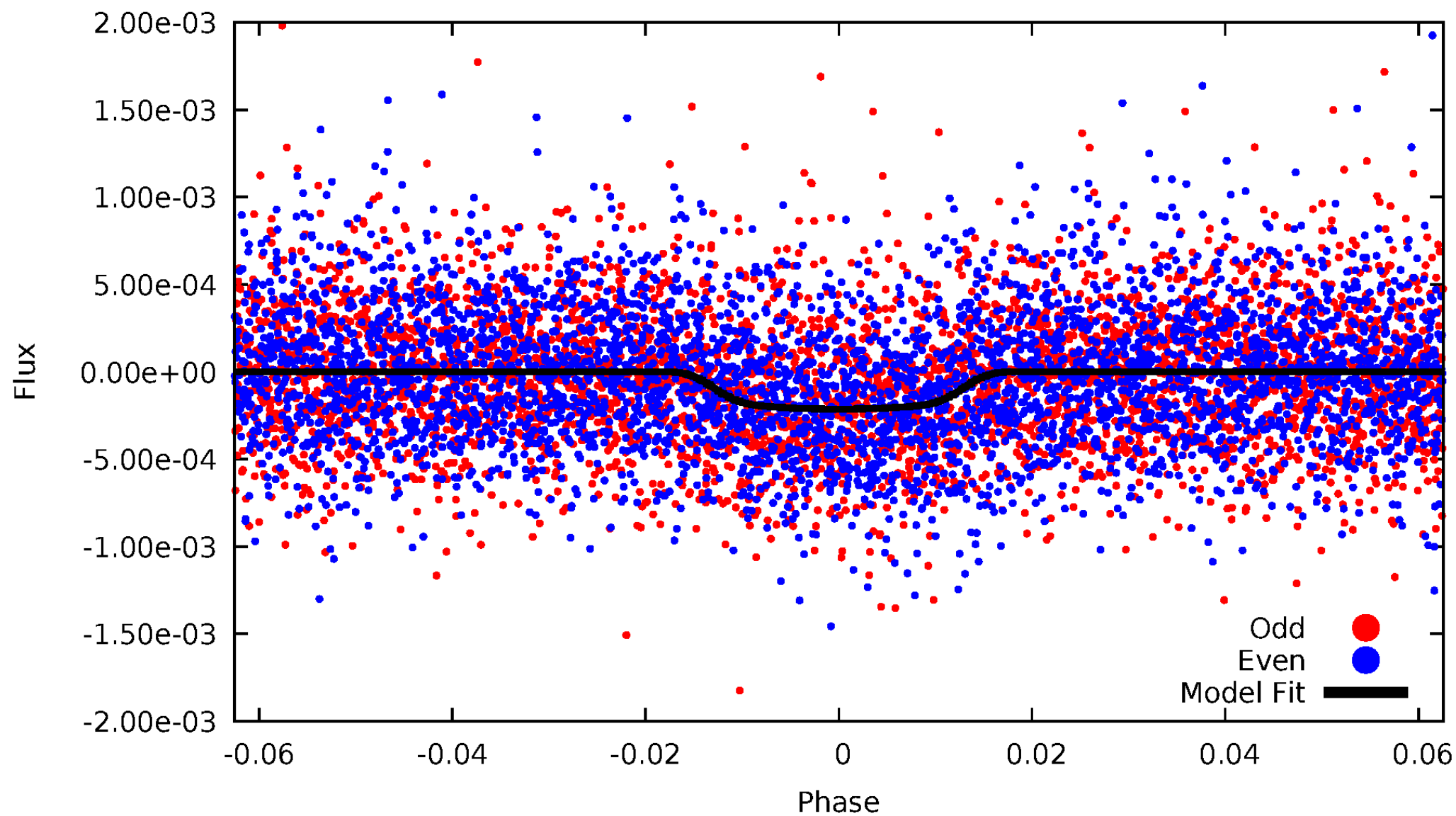


TCE 005706595-02



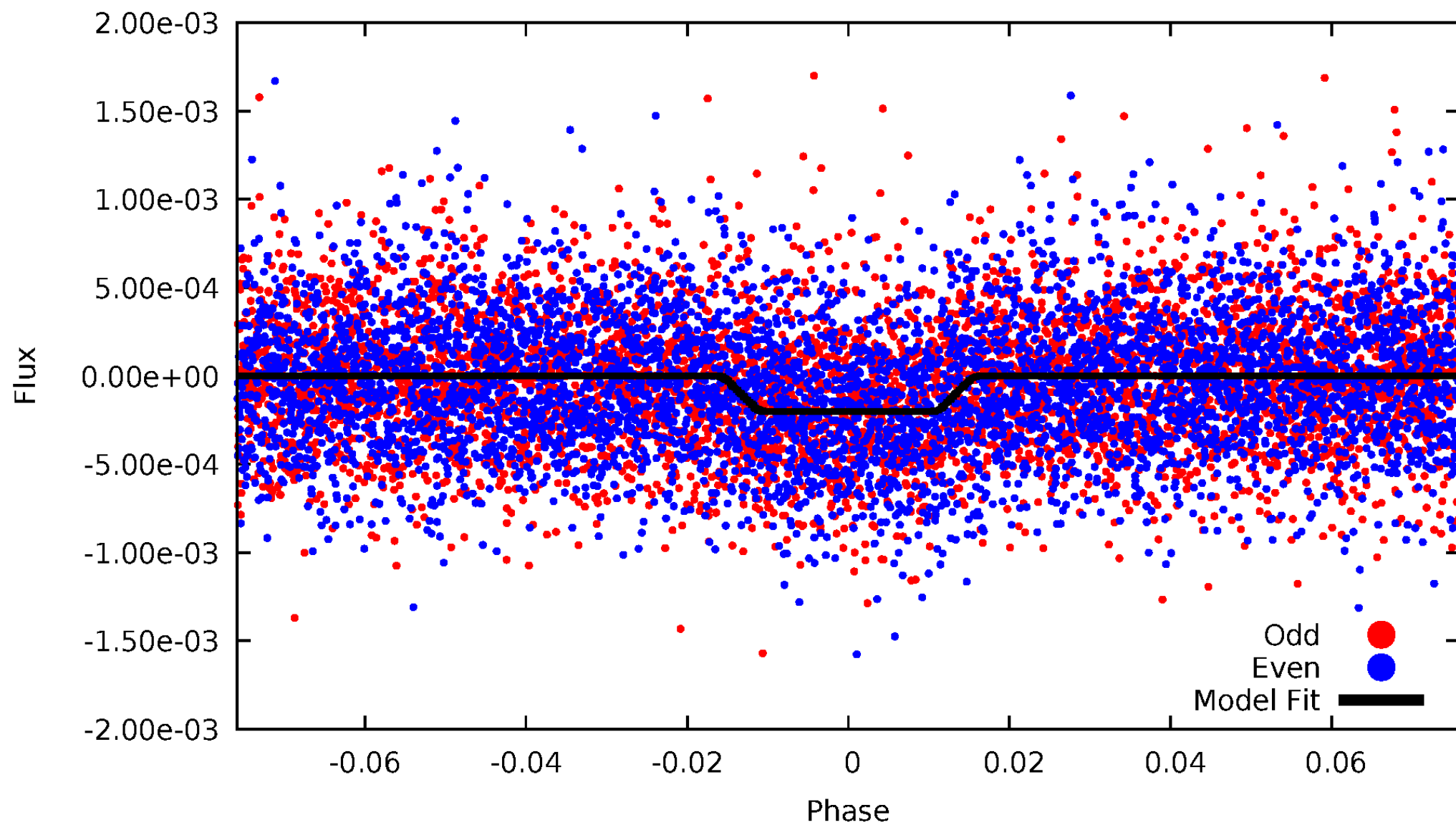
DV Odd/Even

TCE 005706595-02



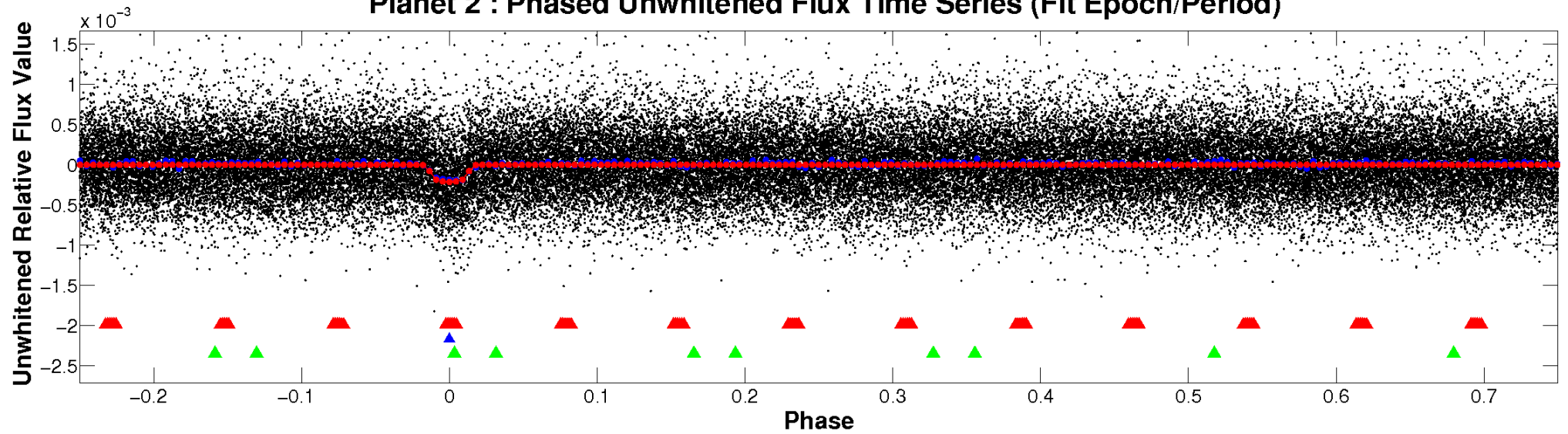
ALT Odd/Even

TCE 005706595-02

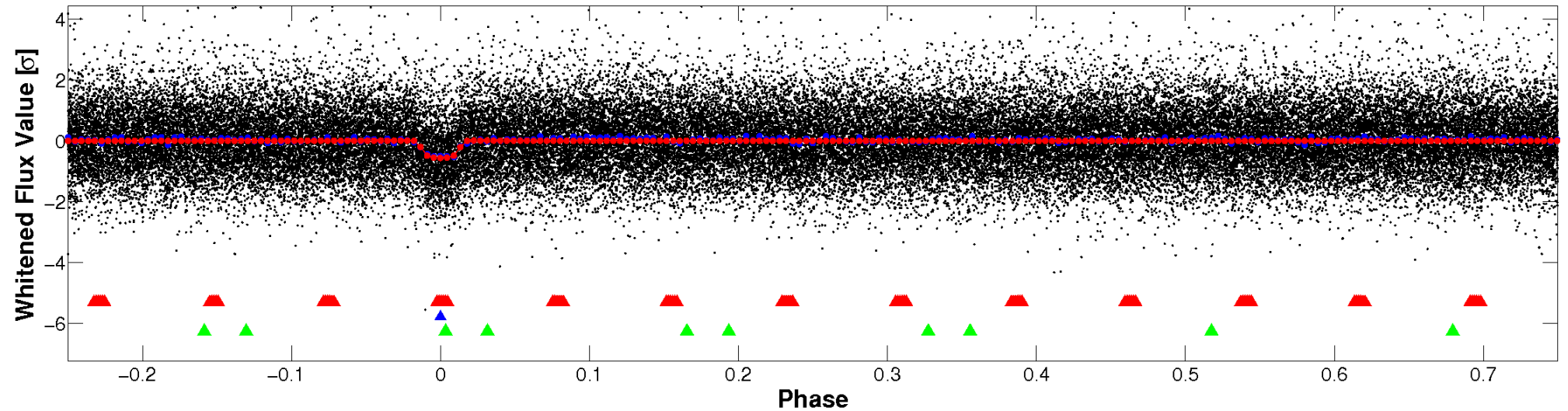


Non-Whitened Vs. Whitened Light Curve

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

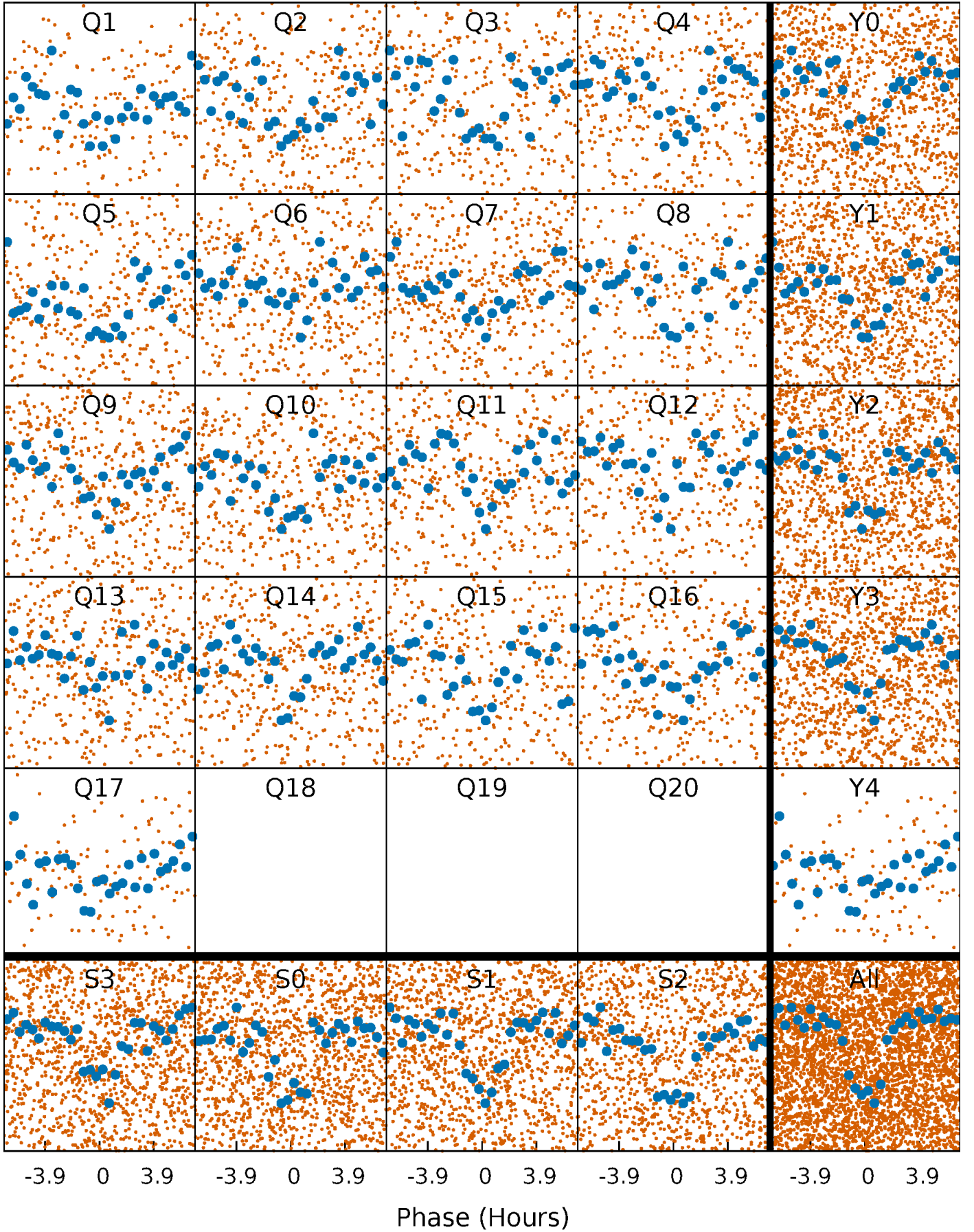


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



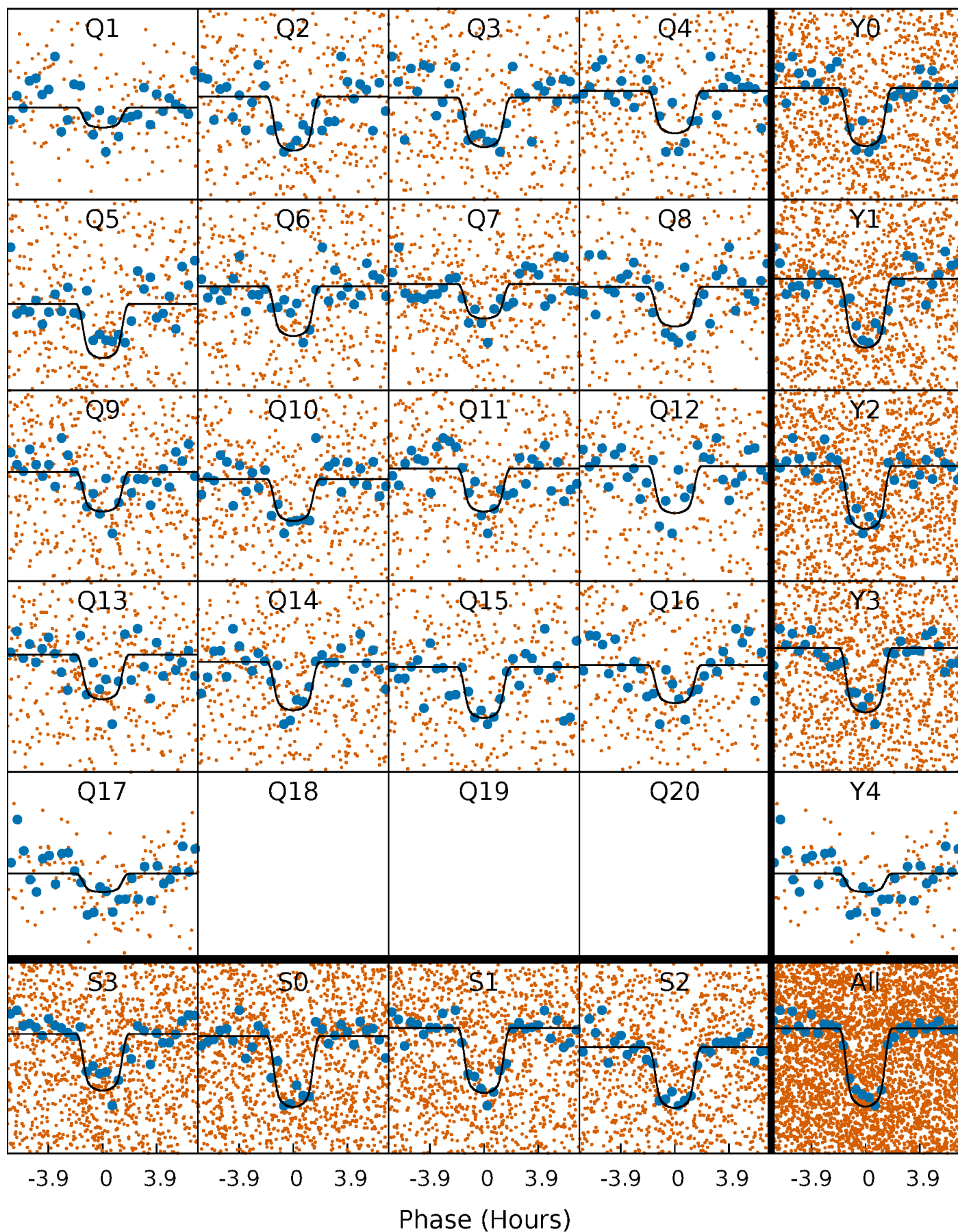
PDC Quarter-Phased Transit Curves

TCE 005706595-02 P= 4.579527 Days $T_0=135.088719$ (BKJD)



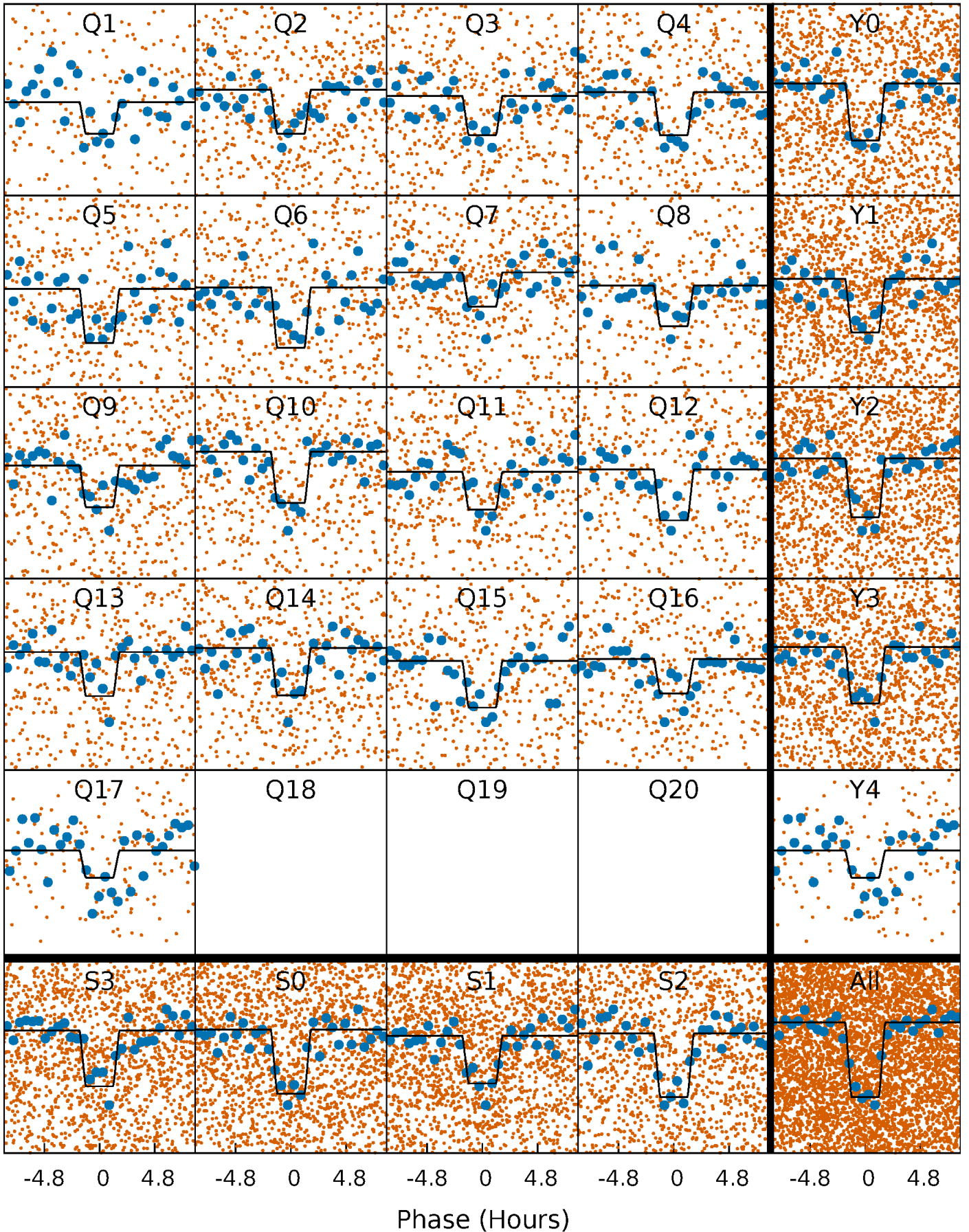
DV Quarter-Phased Transit Curves

TCE 005706595-02 P= 4.579527 Days $T_0=135.088719$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

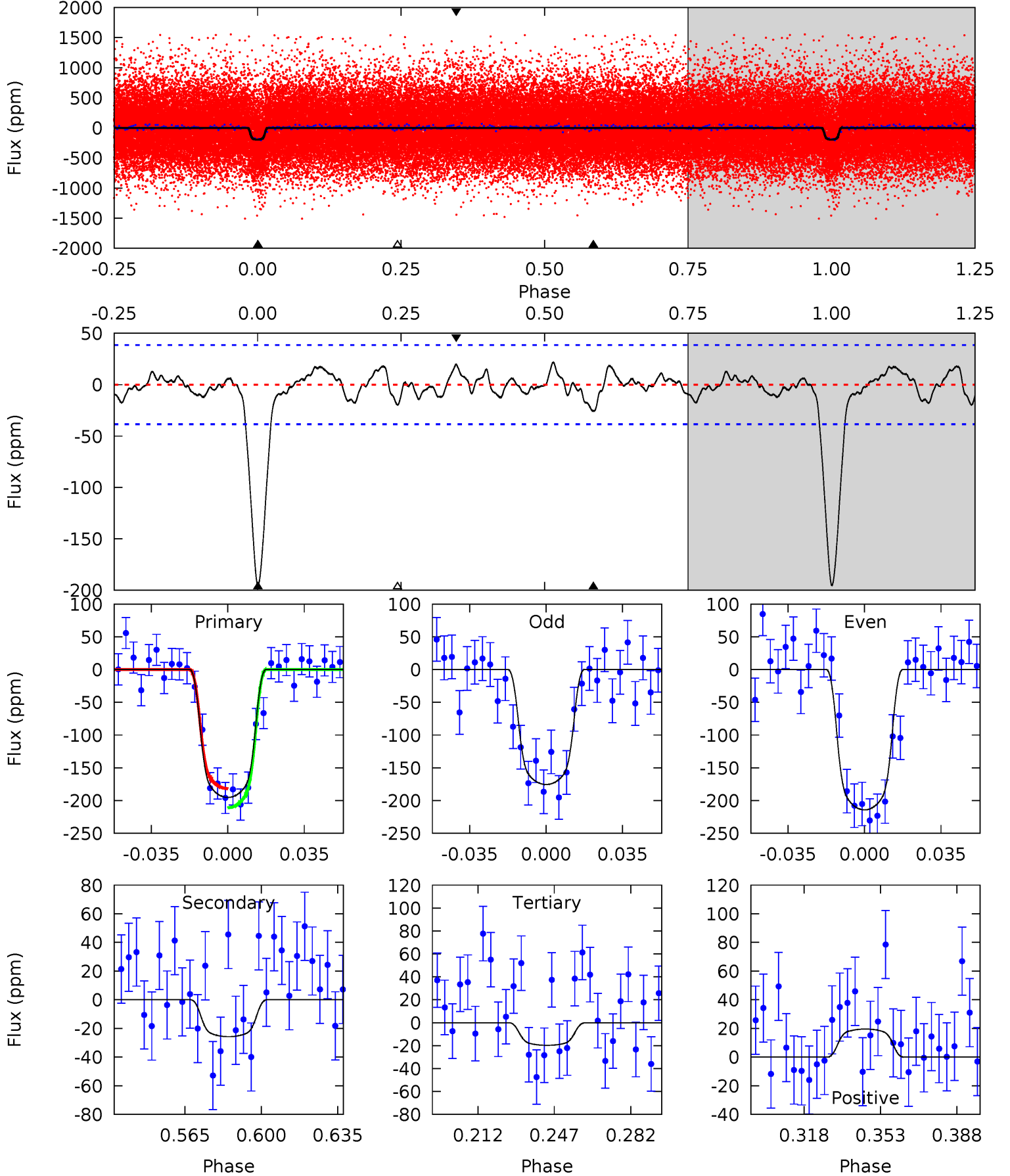
TCE 005706595-02 P= 4.579443 Days $T_0=135.103490$ (BKJD)



DV Model-Shift Uniqueness Test

005706595-02, P = 4.579527 Days, E = 130.509192 Days

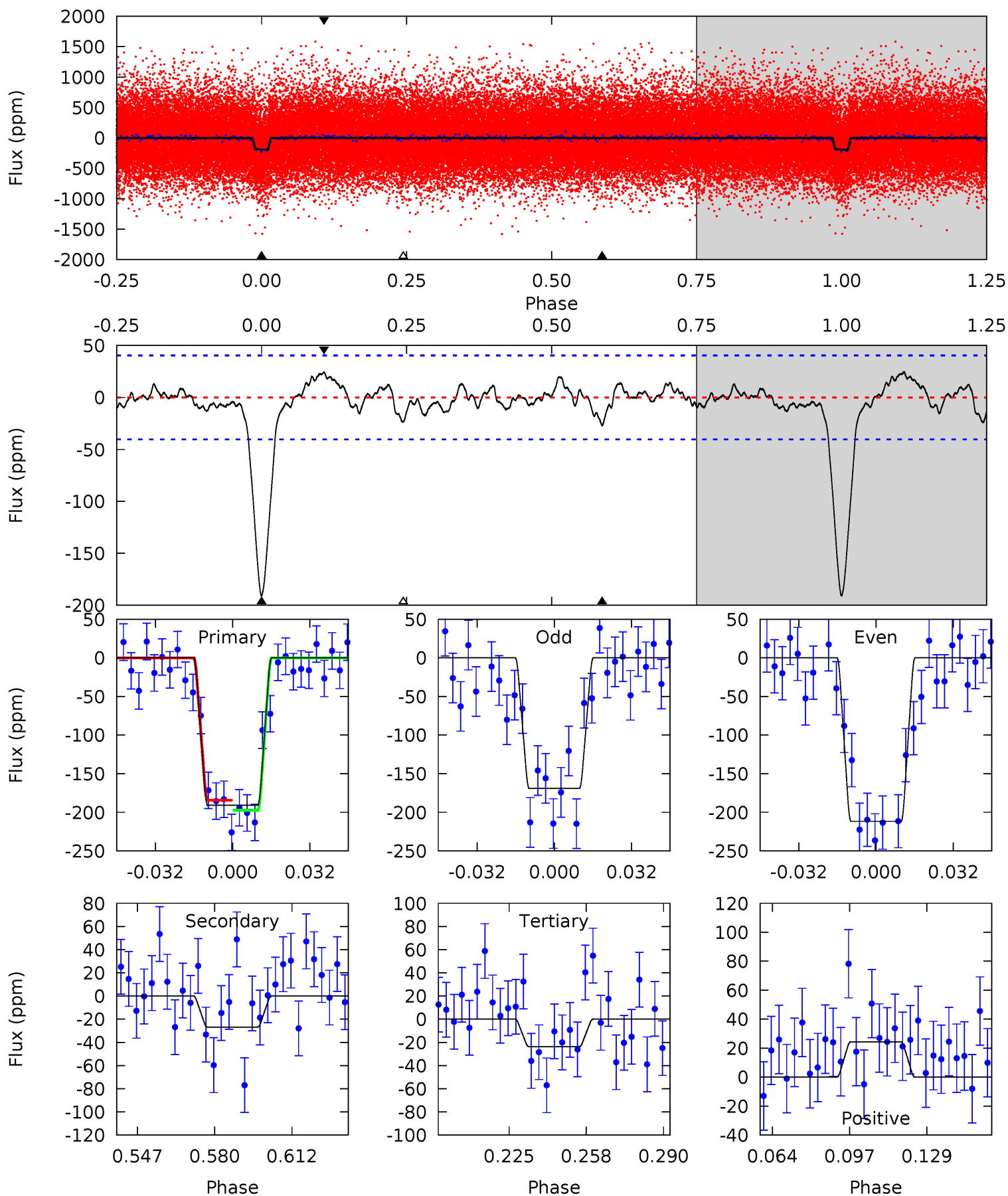
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	3.20	2.45	2.43	4.78	2.10	1.04	21.8	21.8	0.75	0.77	2.41	0.98	0.10	1.81



Alt Model-Shift Uniqueness Test

005706595-02, P = 4.579443 Days, E = 130.524047 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.7	3.19	2.83	2.90	4.80	2.14	1.05	19.9	19.8	0.36	0.29	2.54	0.97	0.11	0.78



Stellar Parameters For KIC 005706595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5569^{+75}_{-83}	$4.459^{+0.059}_{-0.110}$	$0.140^{+0.150}_{-0.150}$	$0.954^{+0.128}_{-0.069}$	$0.955^{+0.053}_{-0.053}$	$1.551^{+0.358}_{-0.494}$
	+1%/-1%	+1%/-2%	+107%/-107%	+13%/-7%	+6%/-6%	+23%/-32%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 005706595-02 / KOI 2183.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-26 ± 8	$1.84^{+0.21}_{-0.21}$	1460^{+57}_{-44}	3452^{+203}_{-210}	11^{+5}_{-4}
Alt.	-27 ± 8	$1.50^{+0.18}_{-0.18}$	1462^{+53}_{-40}	3735^{+239}_{-269}	18^{+8}_{-7}

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 $A_{obs} \gg 1.0$

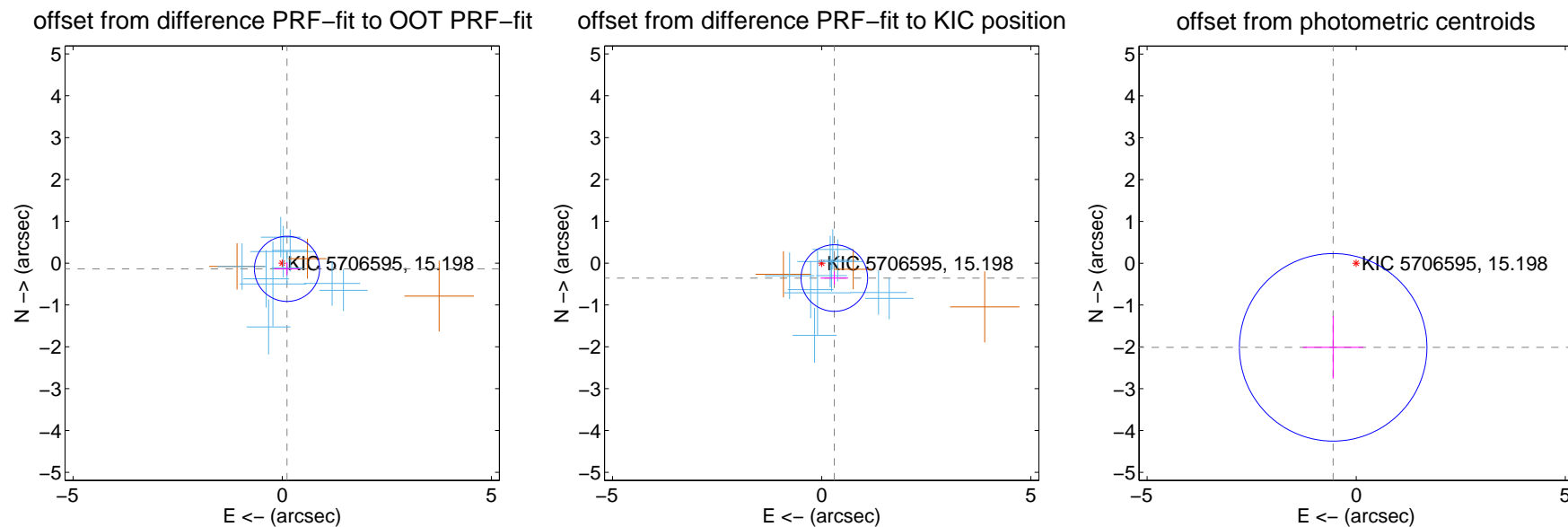
DV Centroid Data

Supplemental centroid analysis for 005706595-02. Kepler magnitude: 15.20. Transit SNR 19.79

There are 10 quarters with good PRF difference image offsets

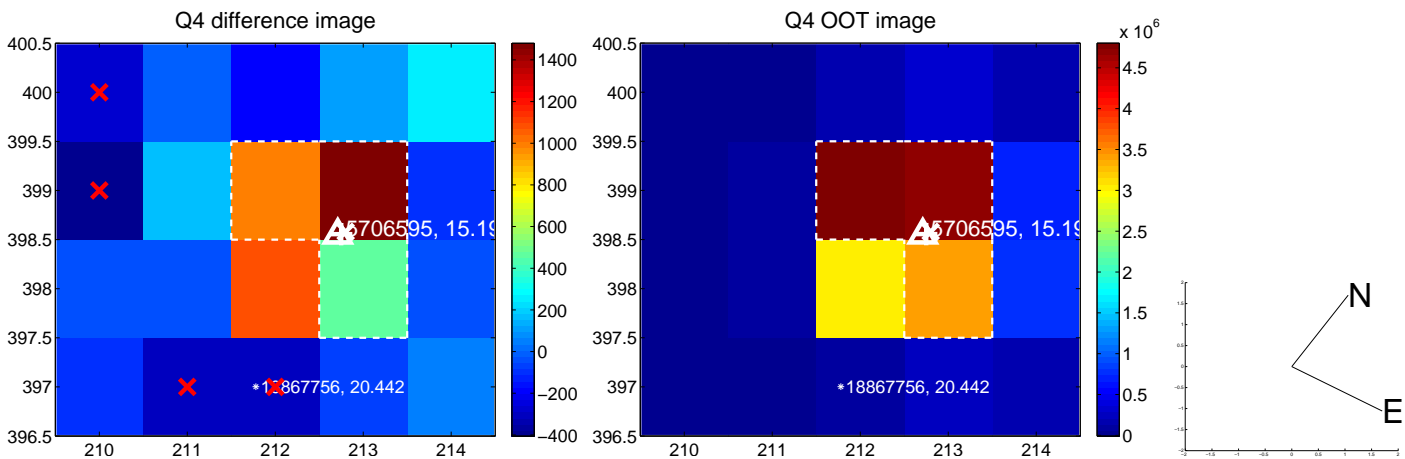
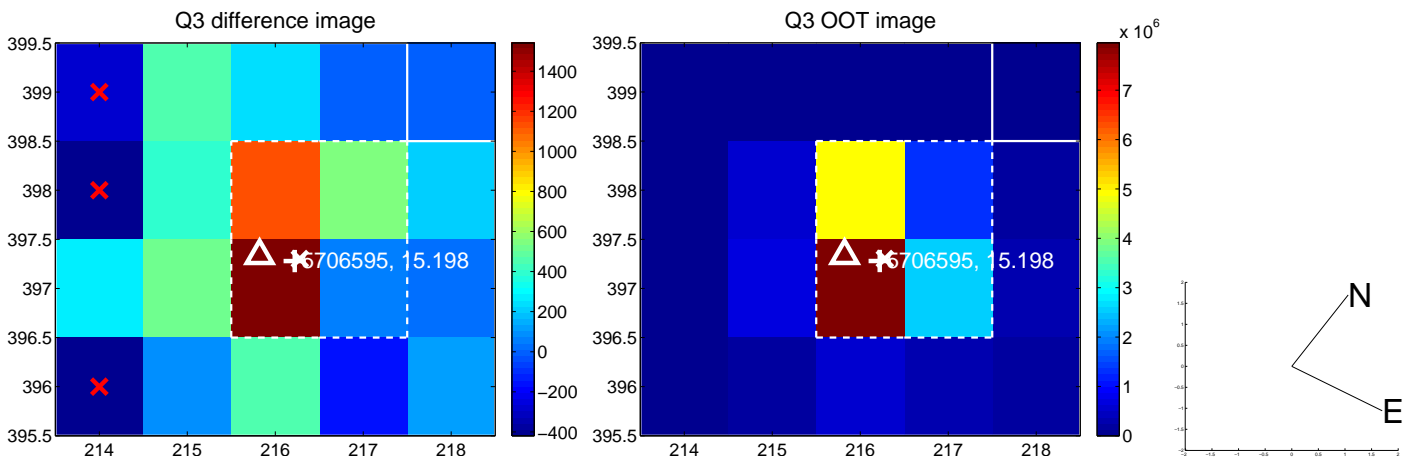
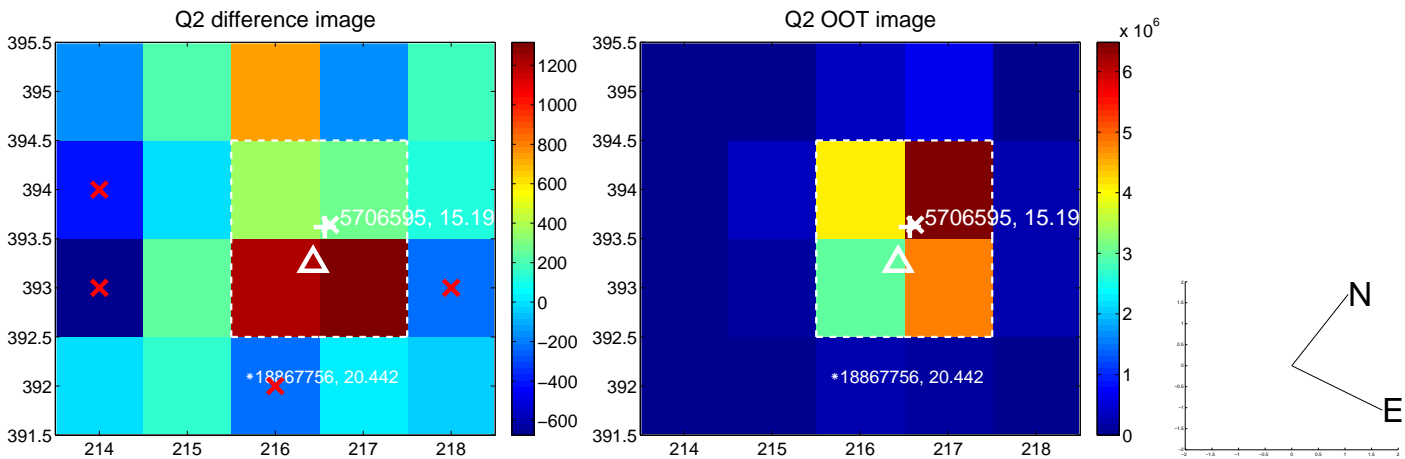
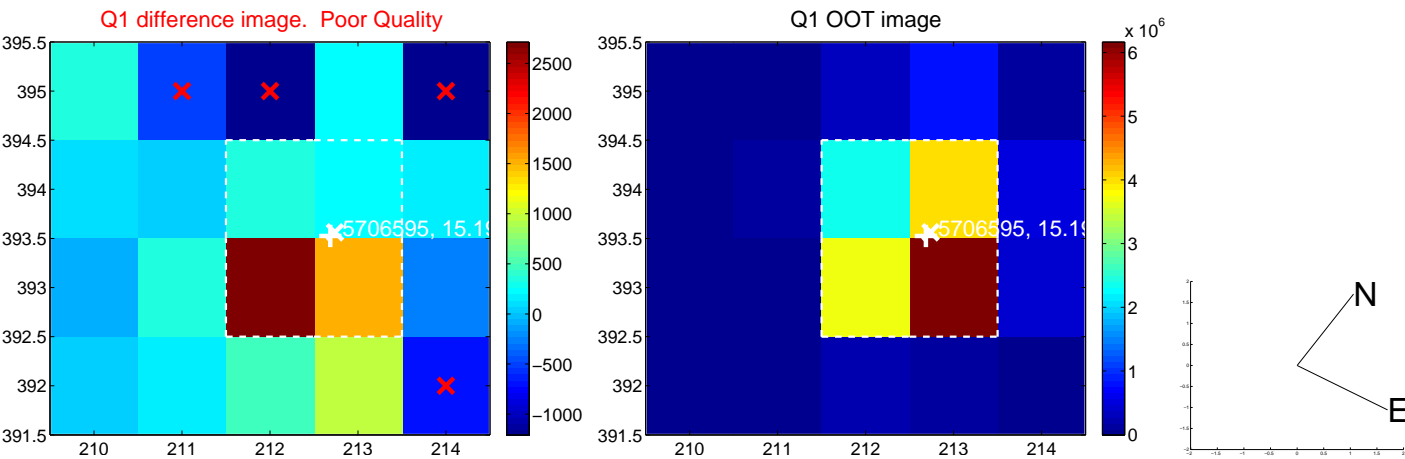
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.178 ± 0.260	0.68	-0.114 ± 0.307	-0.136 ± 0.156
PRF-fit source offset from KIC position	0.467 ± 0.265	1.76	-0.302 ± 0.329	-0.356 ± 0.154
photometric centroid source offset	2.09 ± 0.75	2.79	0.55 ± 0.73	-2.01 ± 0.75

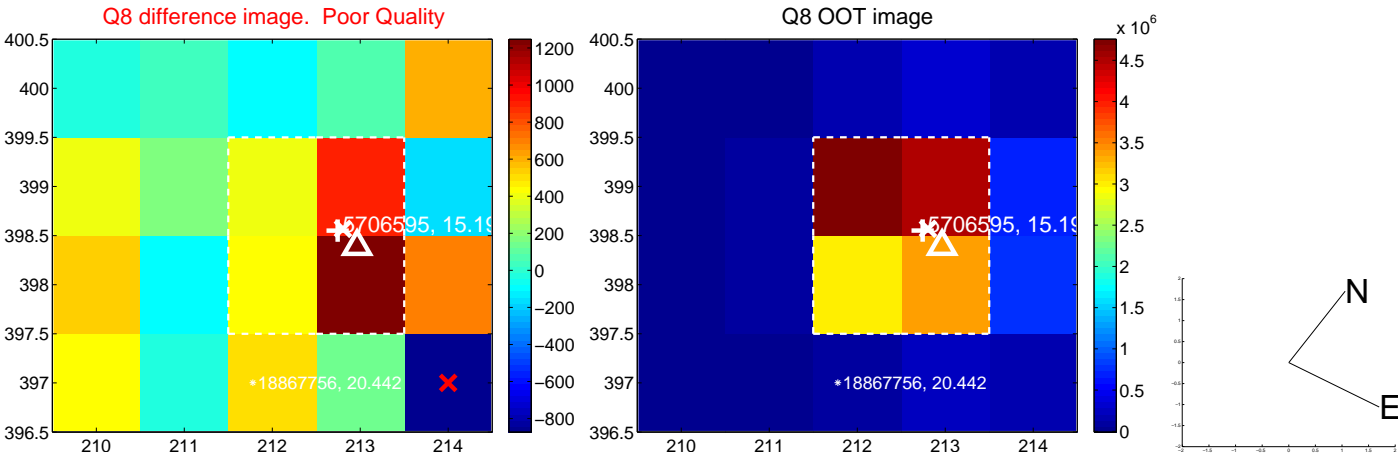
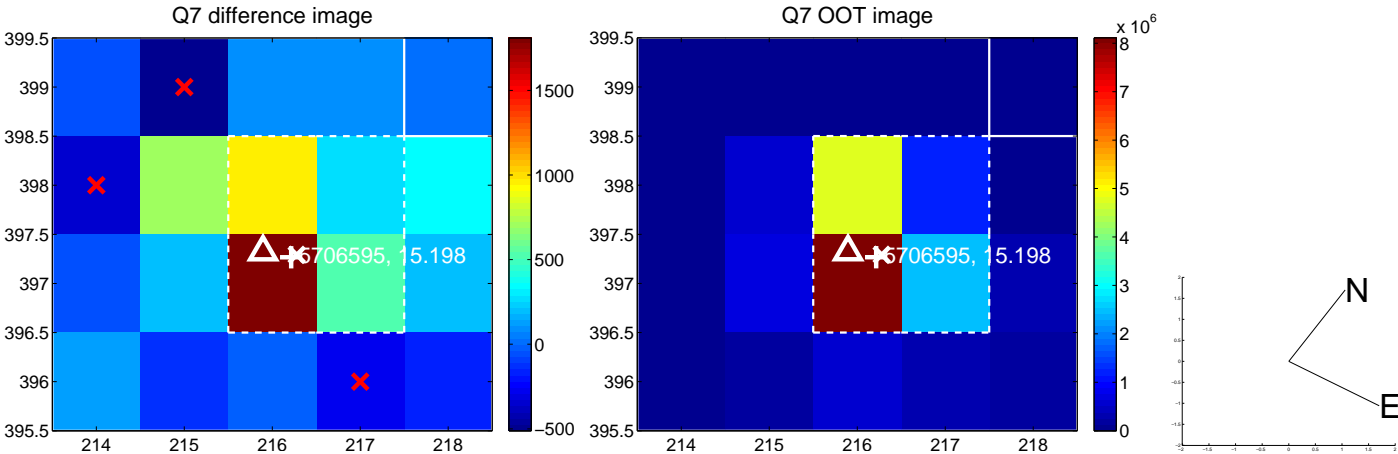
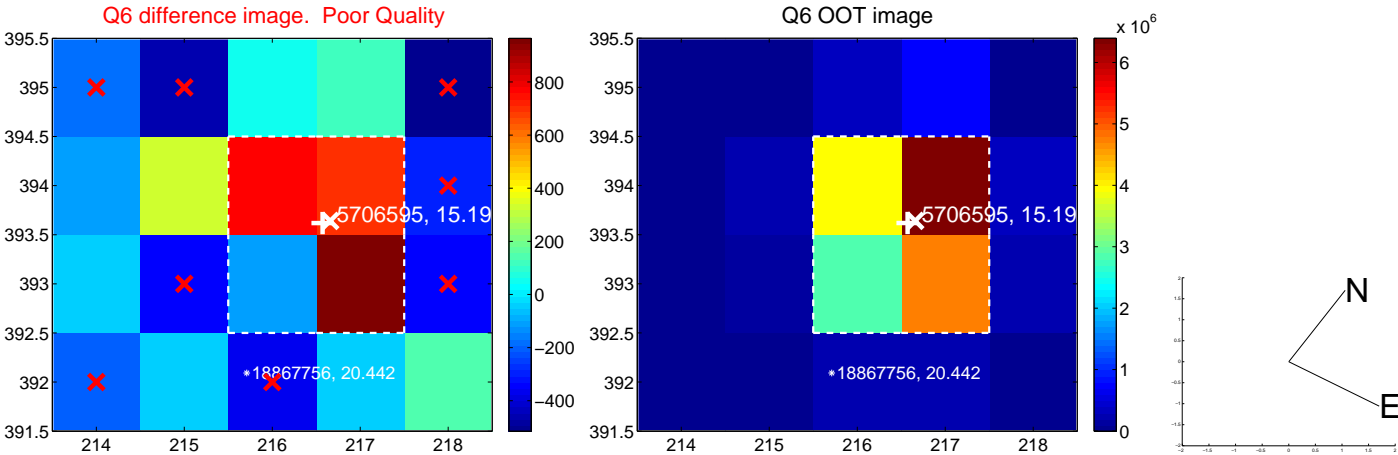
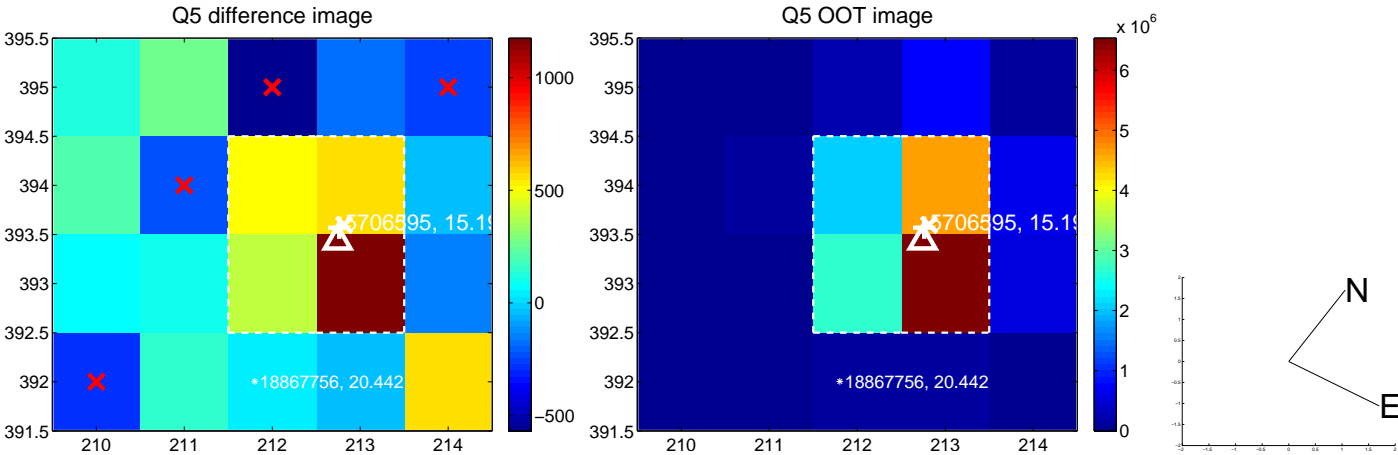


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

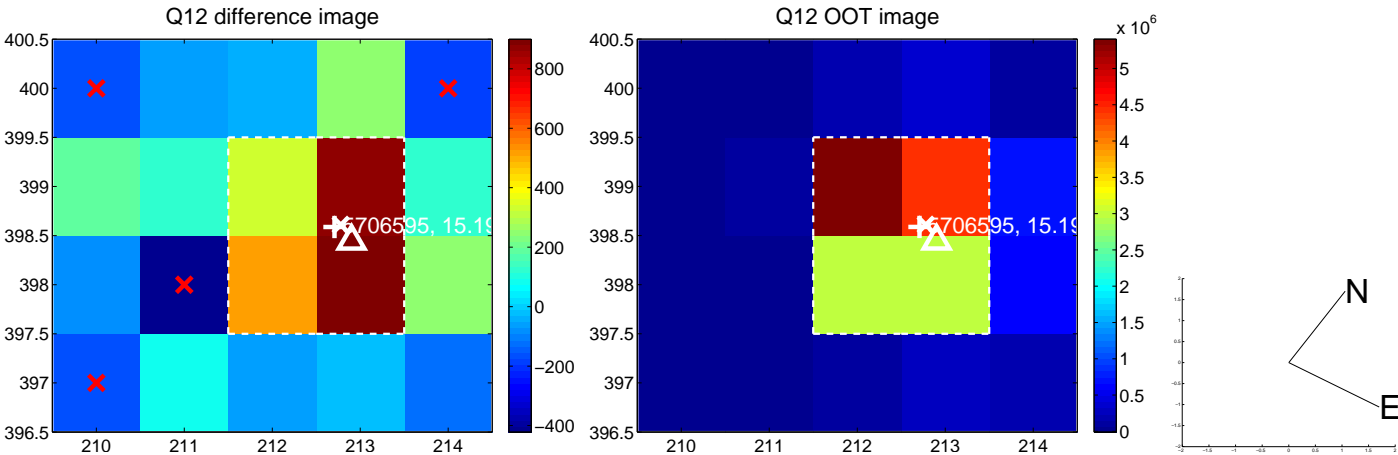
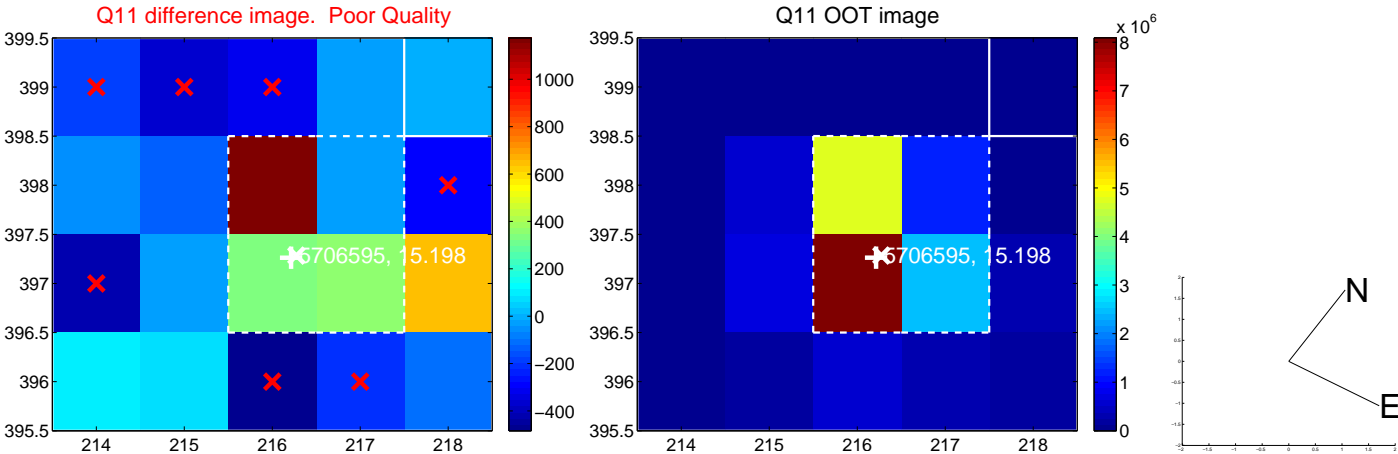
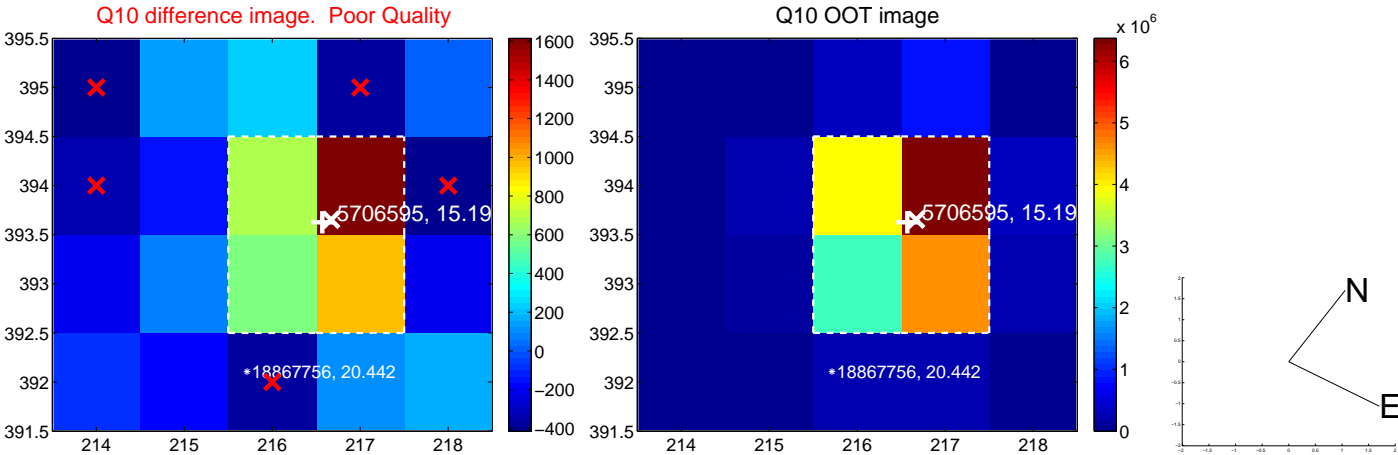
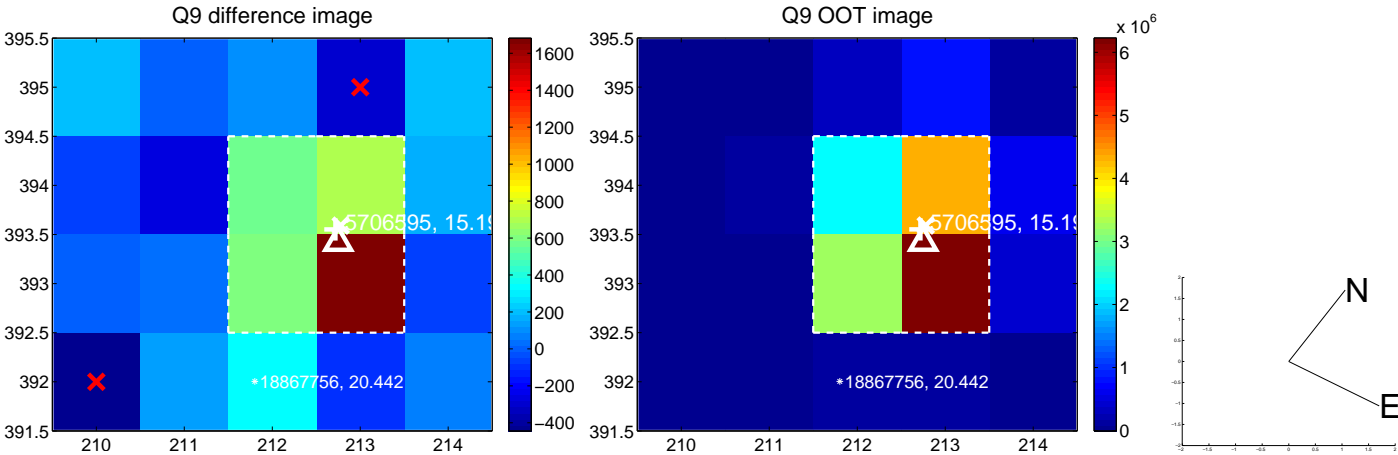
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



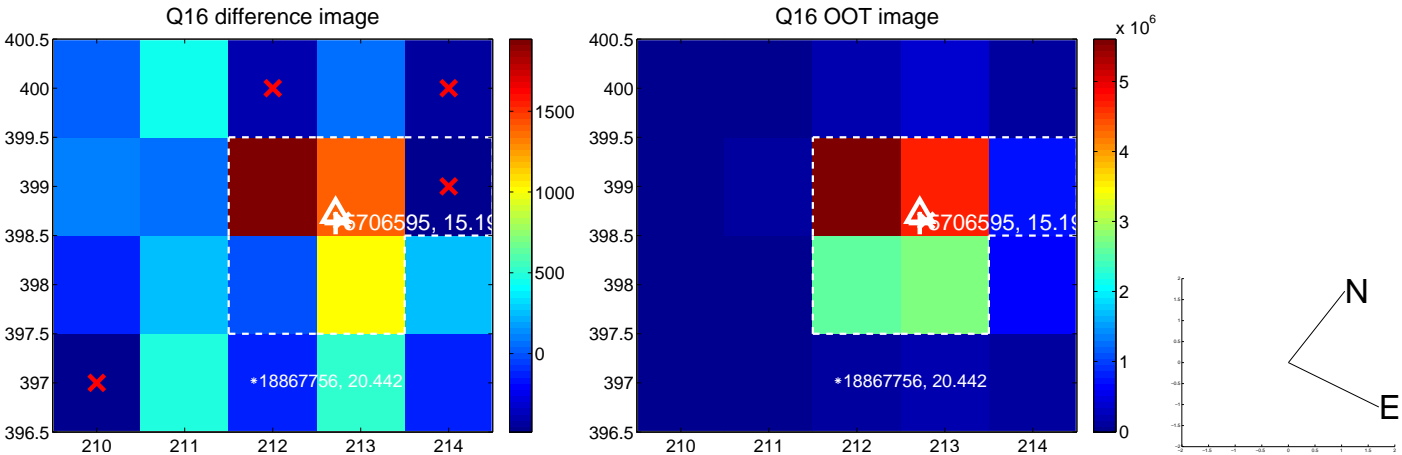
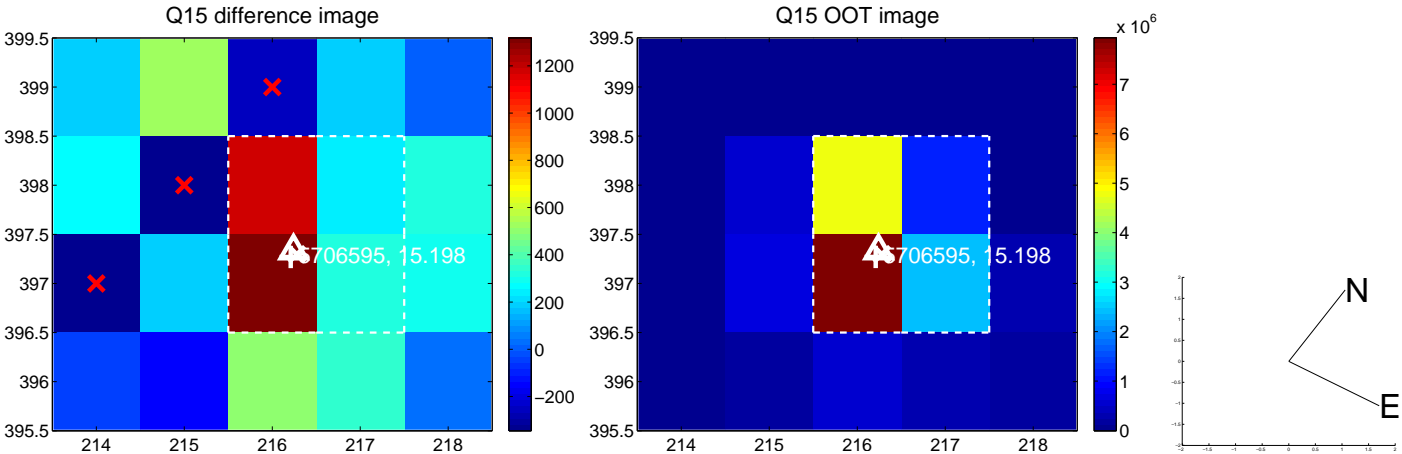
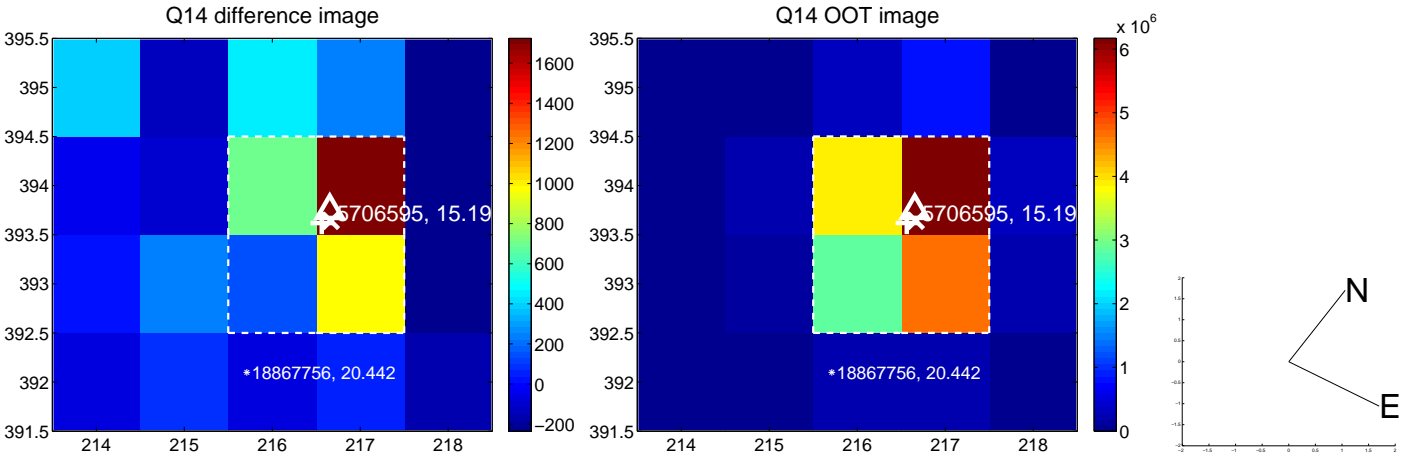
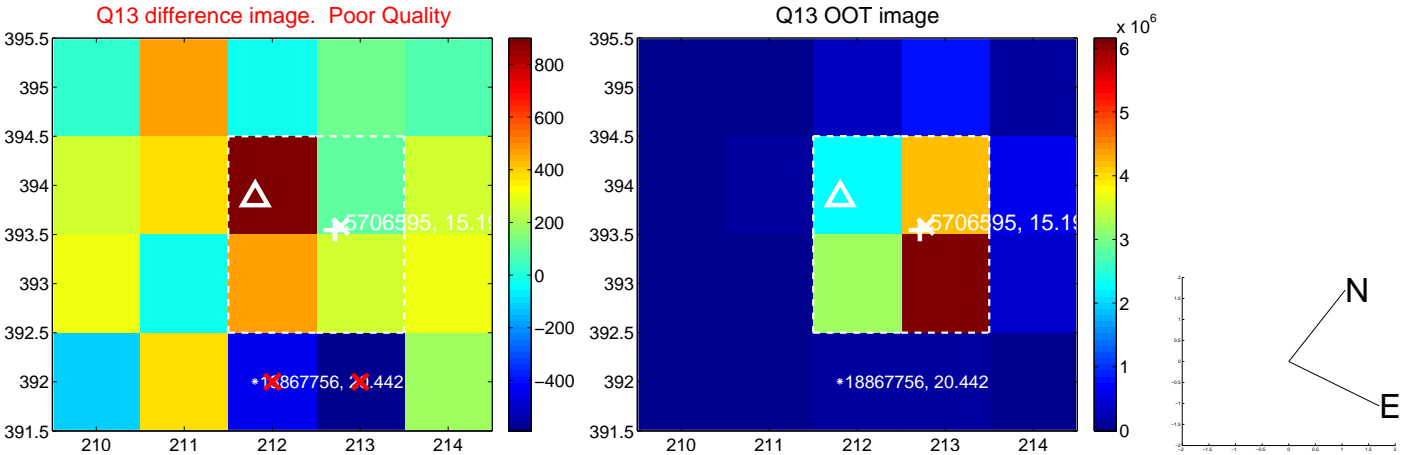
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



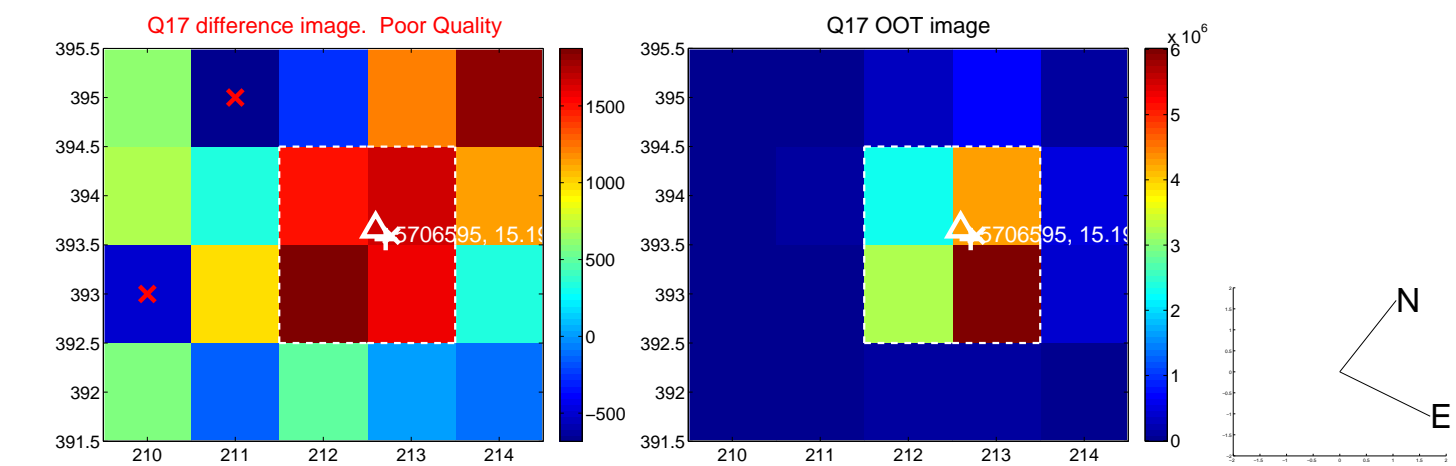
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



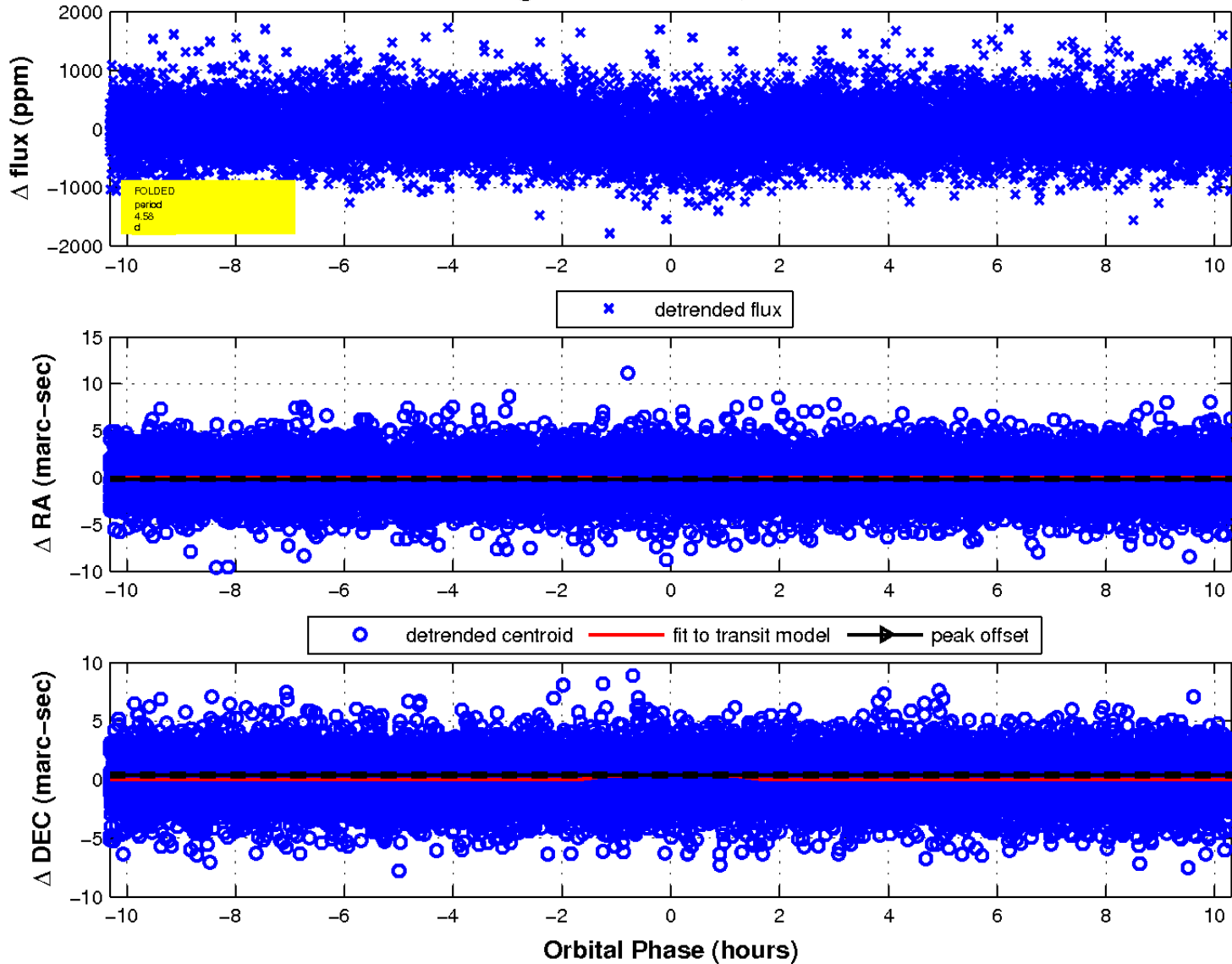
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

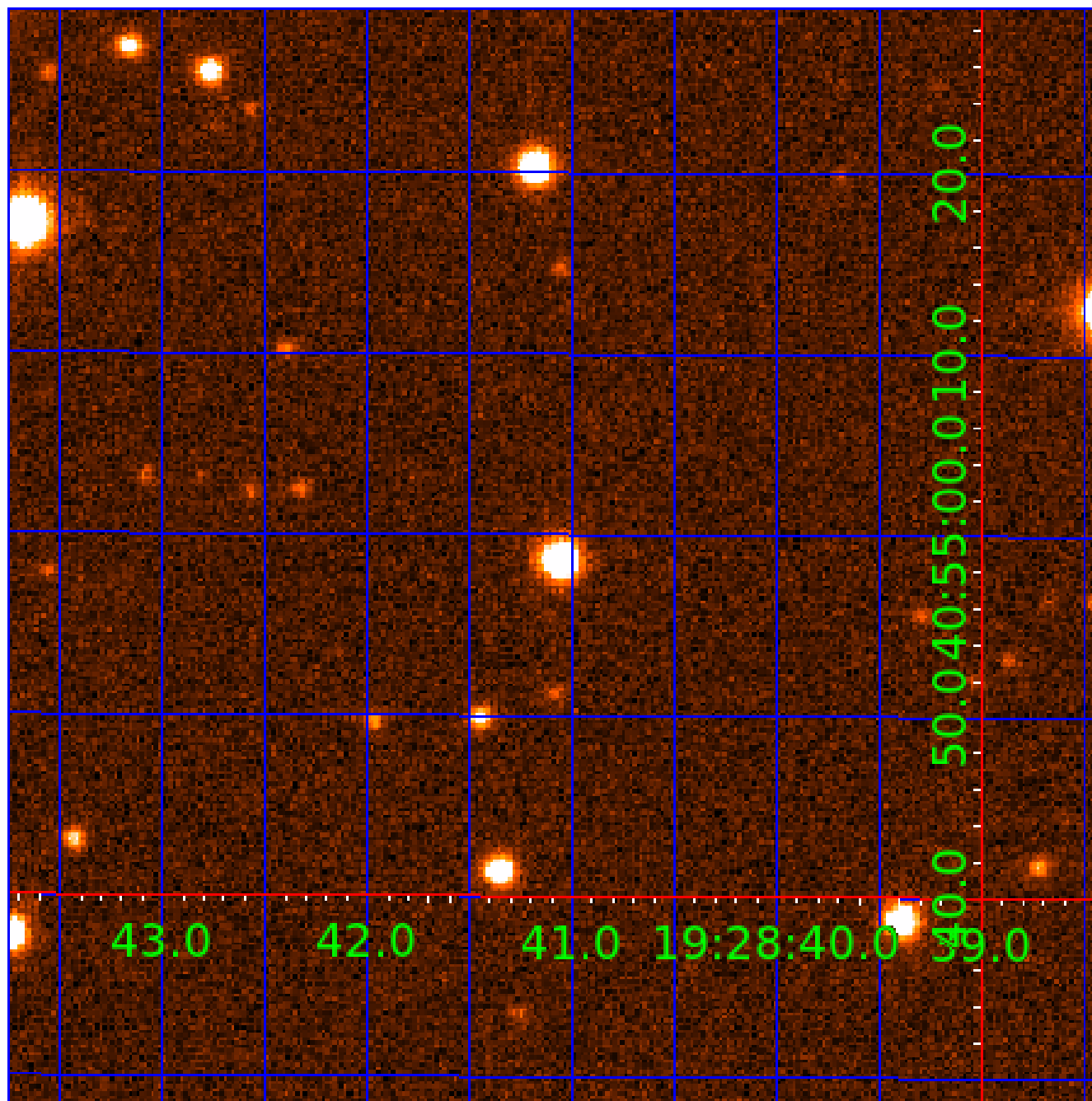


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 005706595

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})
005706595-01	OBS	2183.01	19.023159	139.657268	423.8	3.605	18.8	20.1	0.95	5569	2.27	41.56
005706595-02	OBS	2183.02	4.579527	135.088719	213.2	3.437	18.0	19.8	0.95	5569	1.80	277.51
005706595-03	OBS	2183.03	150.382595	205.281122	491.0	5.029	7.8	8.2	0.95	5569	2.40	2.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005706595-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005706595-02	OBS	PC	1.00	0	0	0	0	NO_COMMENT
005706595-03	OBS	FP	0.40	1	0	0	0	MOD_NONUNIQ_ALT

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

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

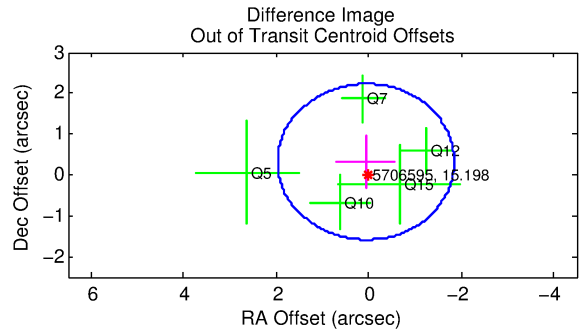
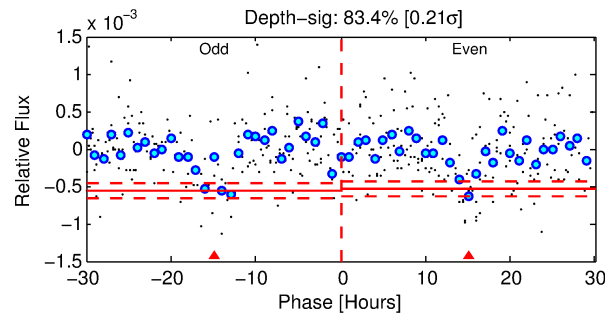
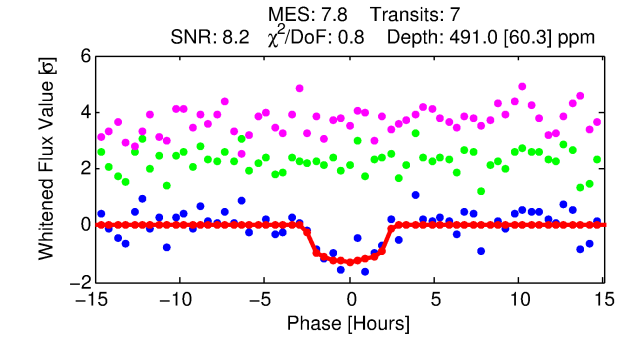
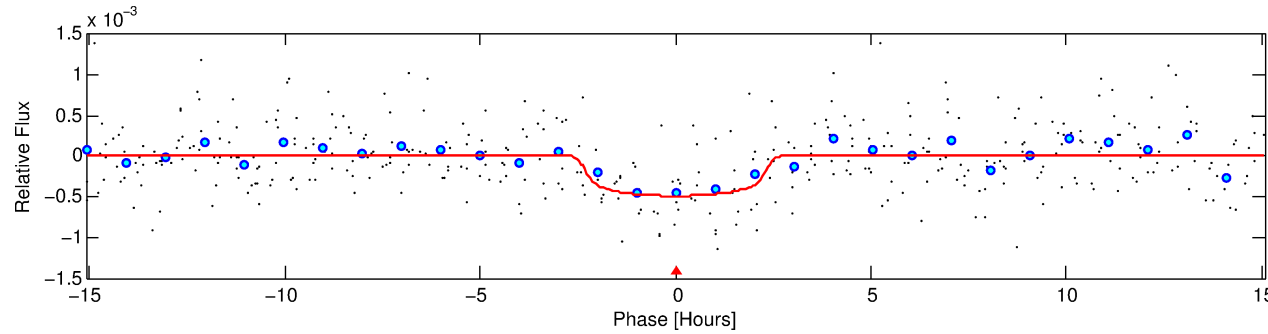
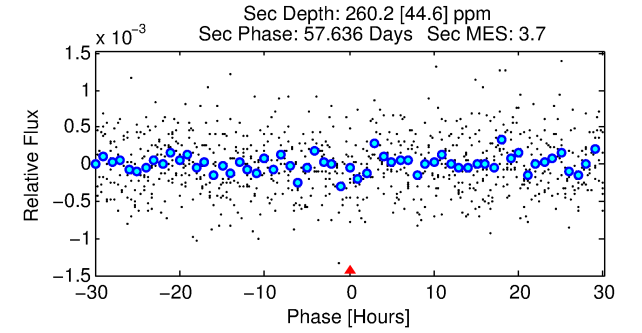
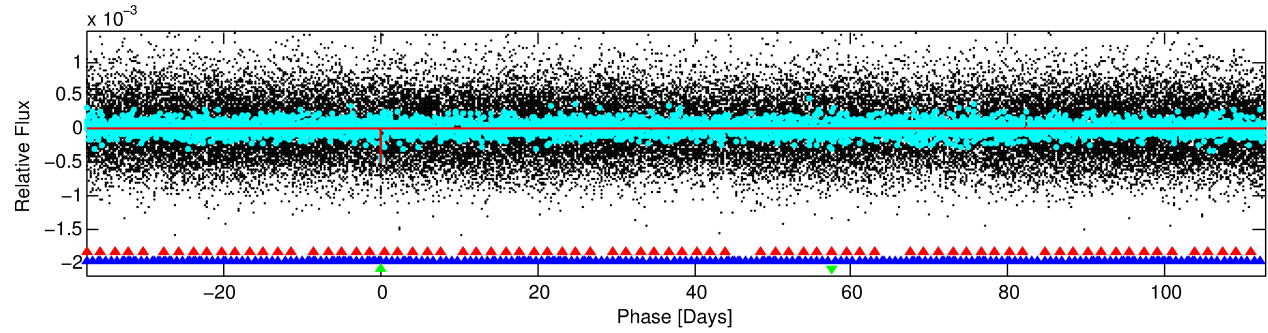
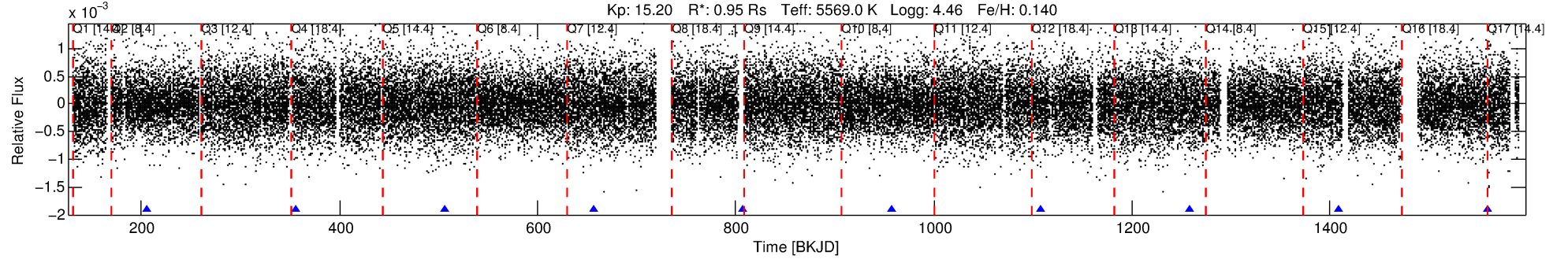
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005706595-03

No Significant Match Found

DV One-Page Summary

KIC: 5706595 Candidate: 3 of 3 Period: 150.383 d
KOI: K02183.03 Corr: 0.831



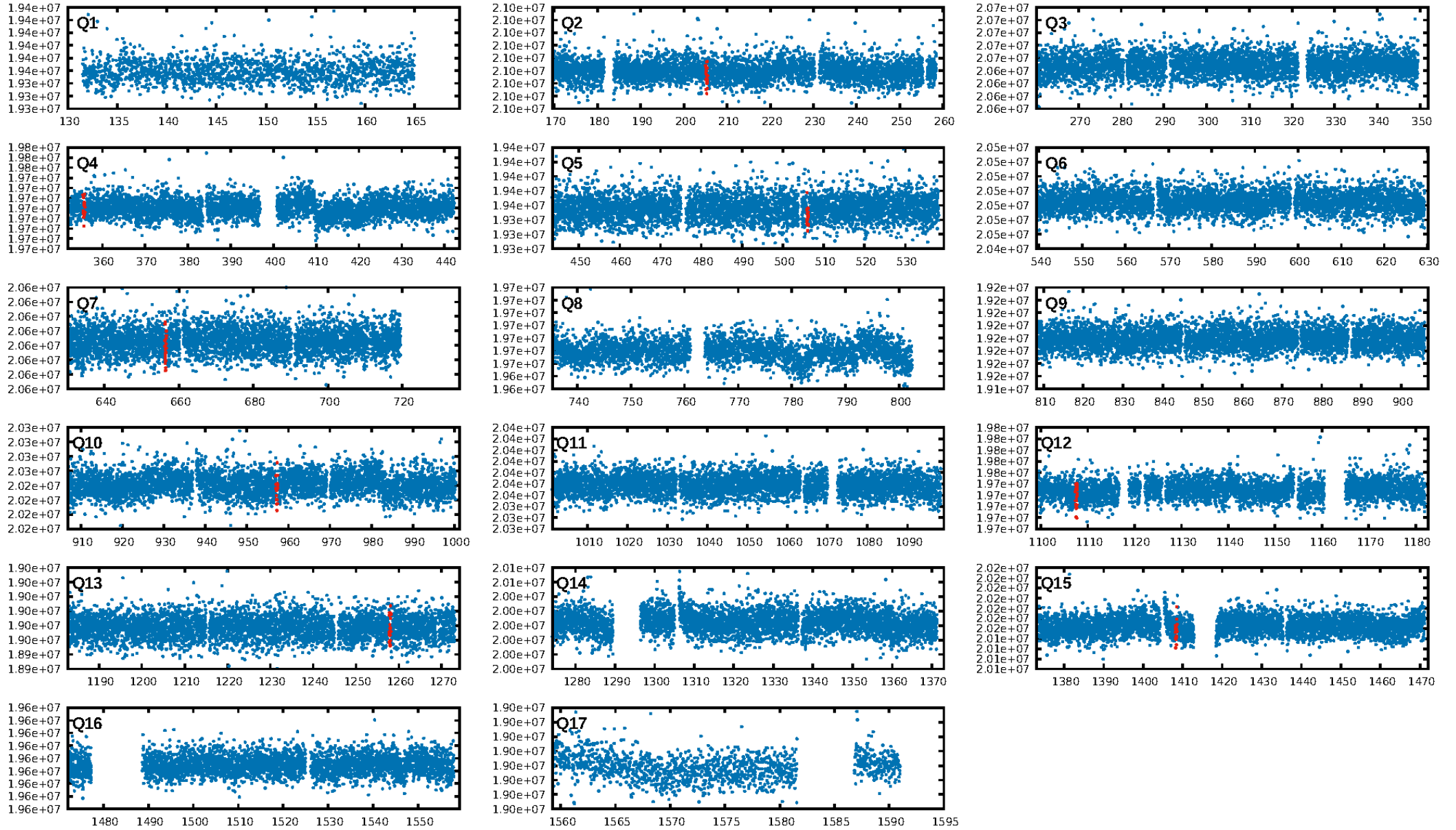
DV Fit Results:

Period = 150.38259 [0.00249] d
Epoch = 205.2811 [0.0117] BKJD
Rp/R* = 0.0231 [0.0132]
a/R* = 134.39 [315.95]
b = 0.84 [0.86]
Seff = 2.64 [0.53]
Teff = 325 [16] K
Rp = 2.41 [1.41] Re
a = 0.5452 [0.0671] AU
Ag = 7354.11 [8596.66] [0.86 σ]
Teffp = 4653 [1343] K [3.22 σ]

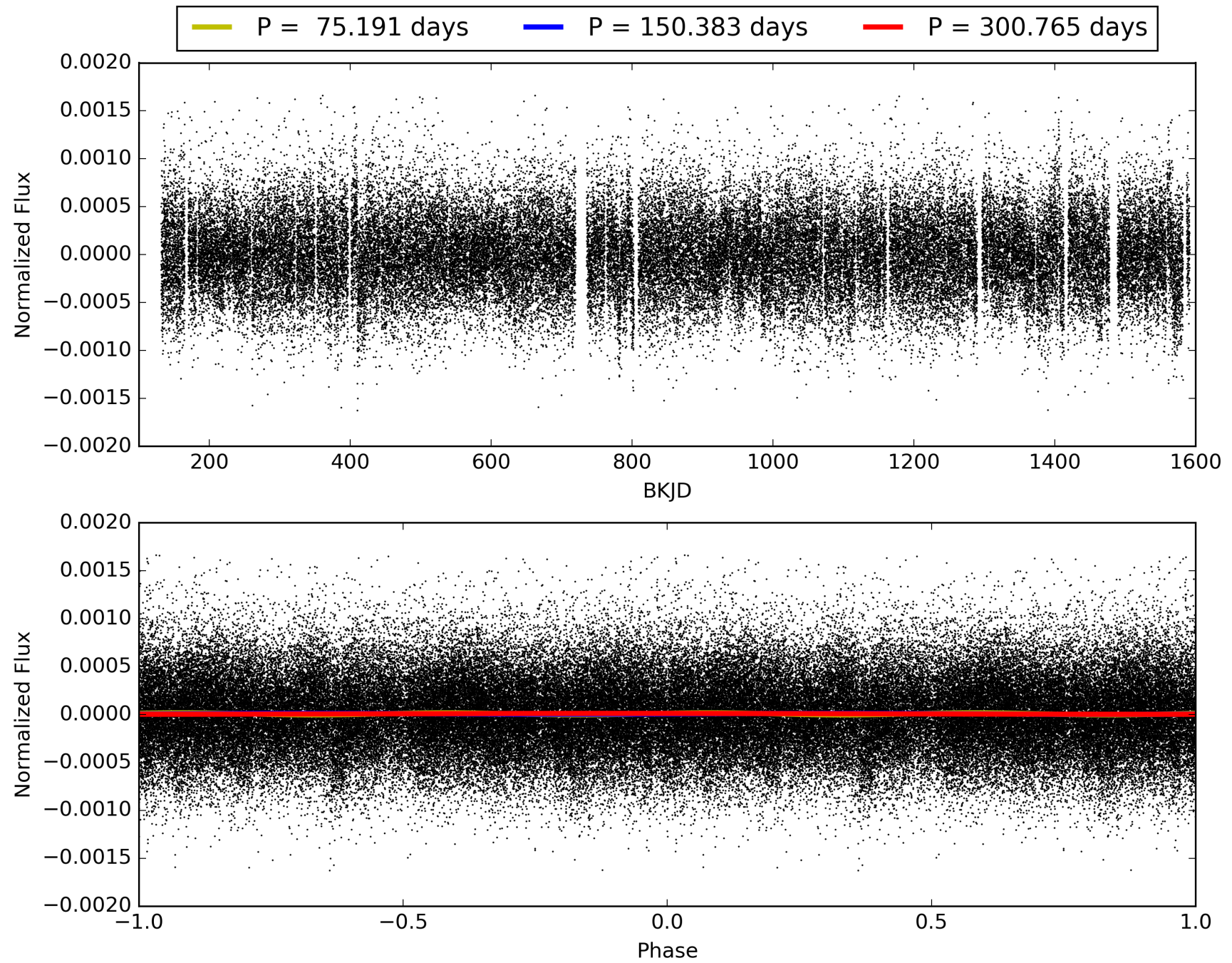
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [509.48 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 27.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.78e-14
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 3.538
Centroid-sig: 46.3%
Centroid-so: 1.549 arcsec [1.05 σ]
OotOffset-rm: 0.325 arcsec [0.51 σ]
KicOffset-rm: 0.090 arcsec [0.11 σ]
OotOffset-st: 1/2/1/1 [5]
KicOffset-st: 1/2/1/1 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 0.62 [5/8]

TCE 005706595-03, PDC Light Curves

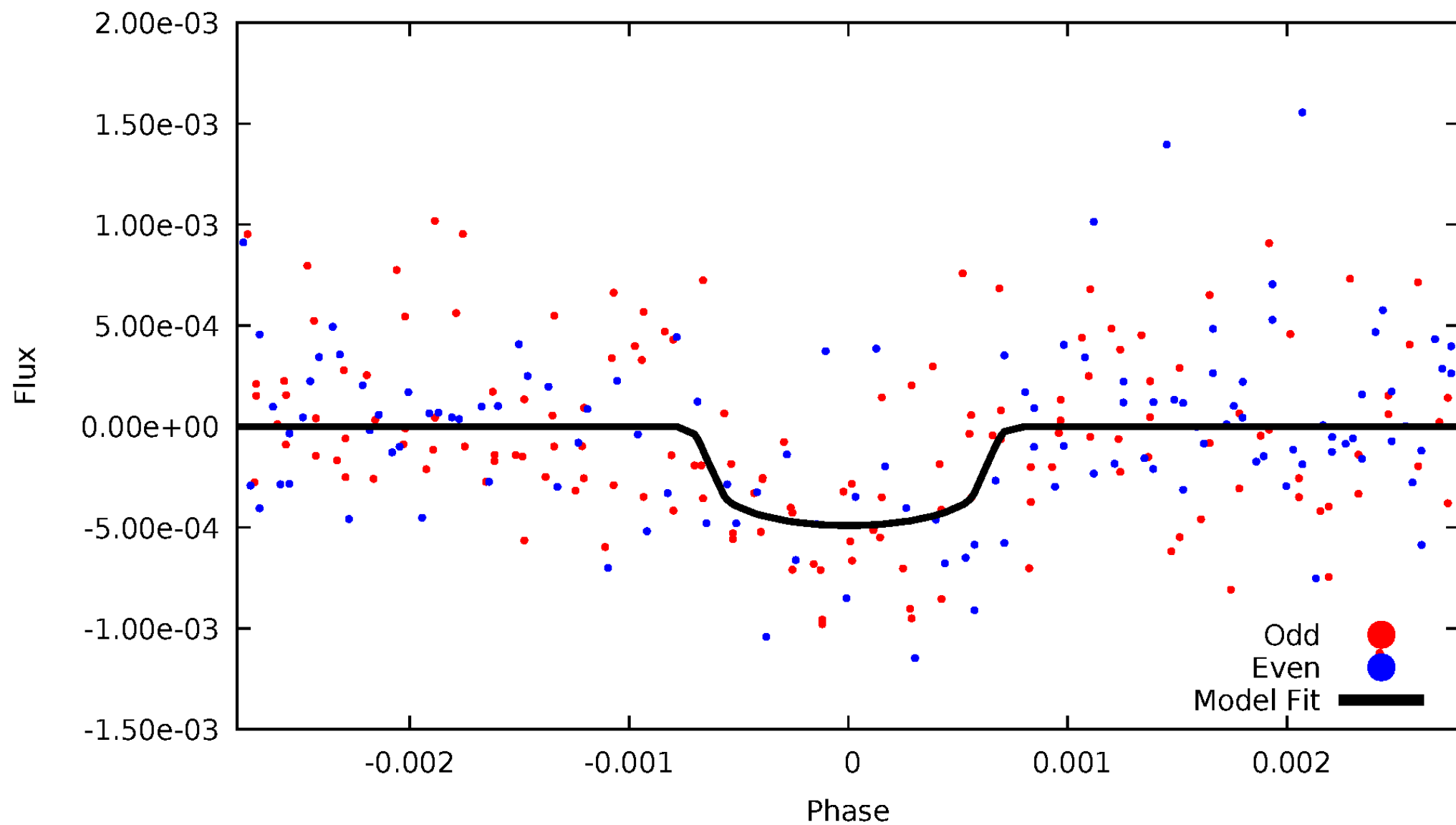


TCE 005706595-03



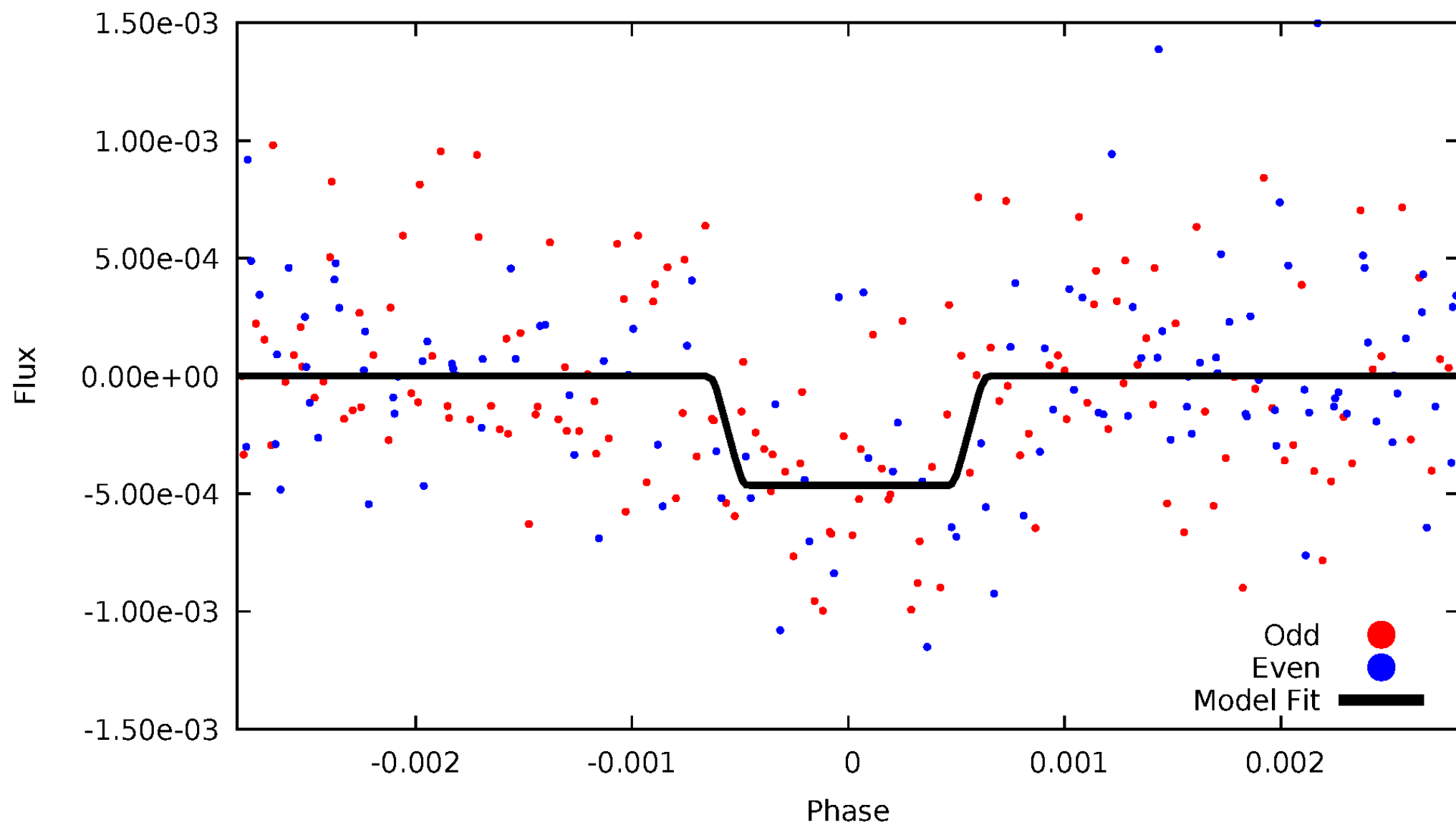
DV Odd/Even

TCE 005706595-03

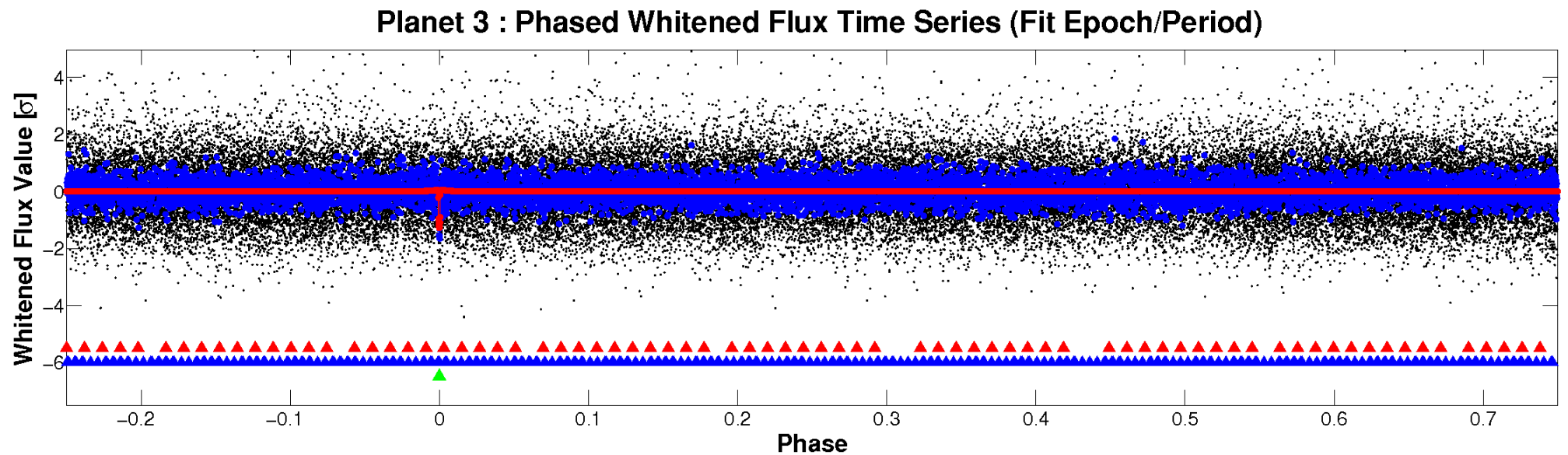
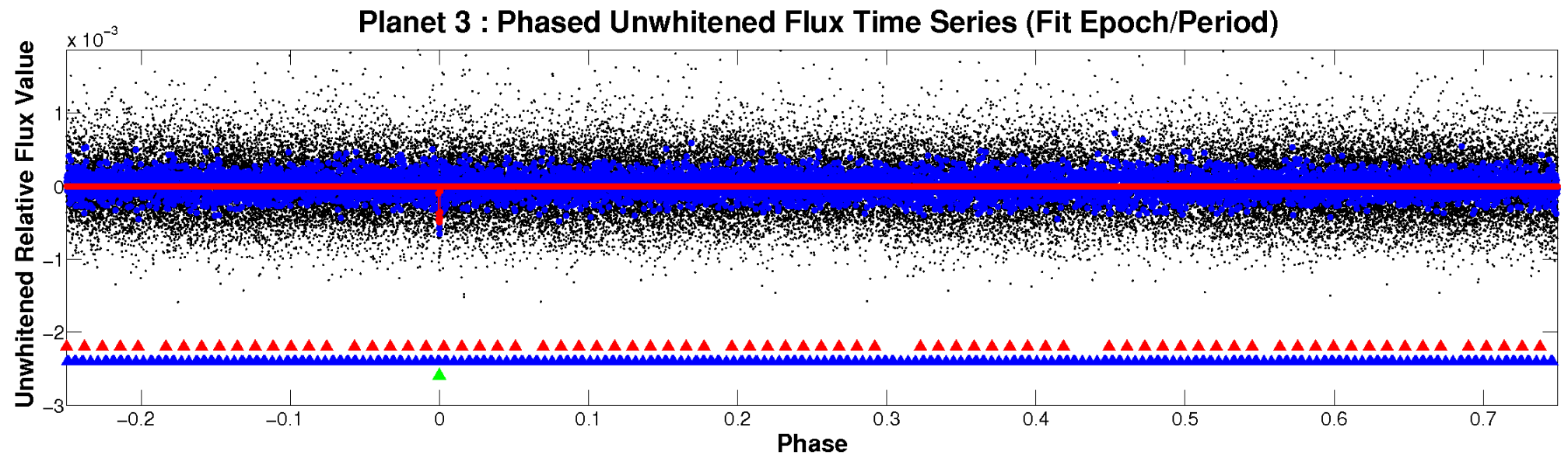


ALT Odd/Even

TCE 005706595-03

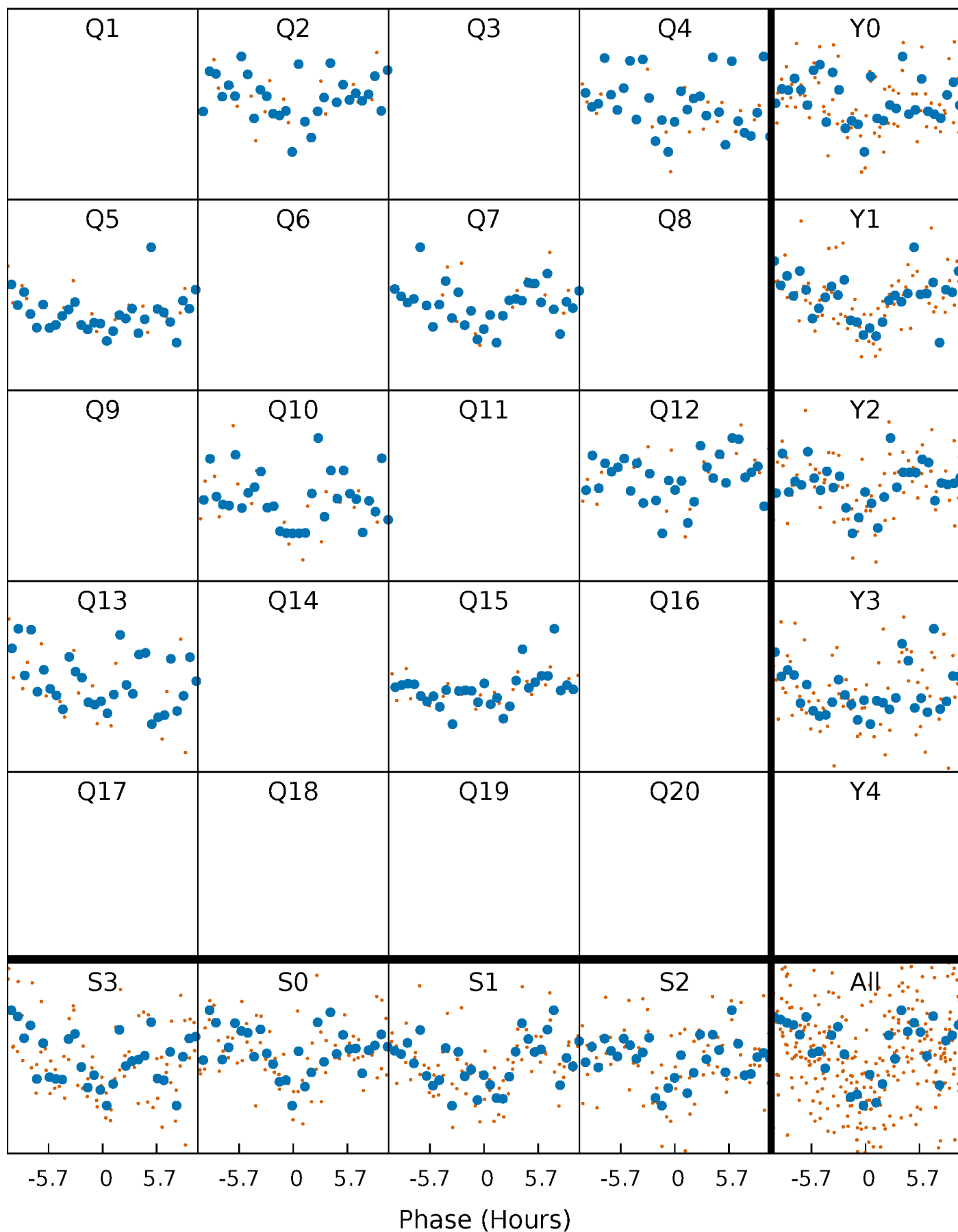


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 005706595-03 P=150.382595 Days $T_0=205.281122$ (BKJD)



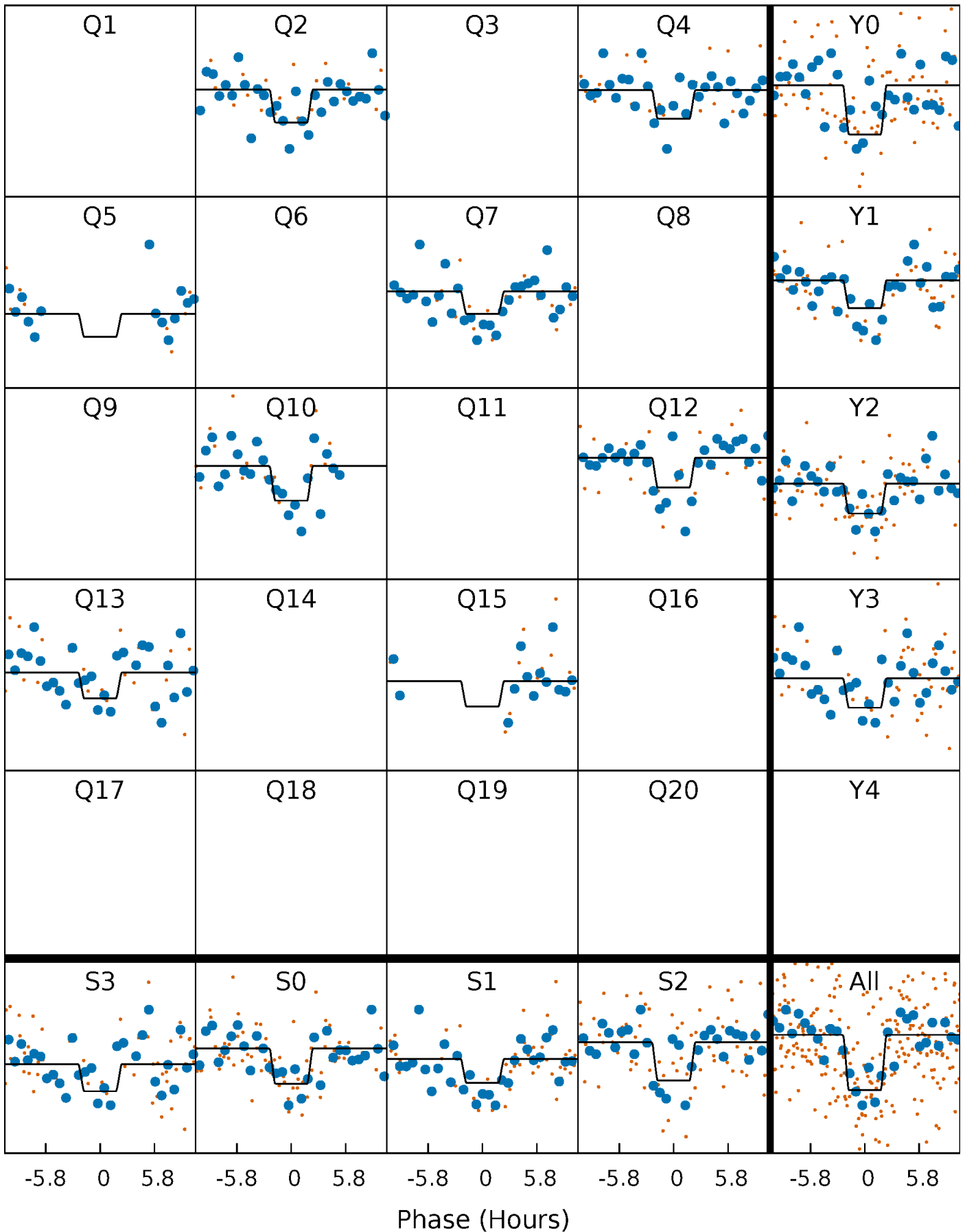
DV Quarter-Phased Transit Curves

TCE 005706595-03 $P=150.382595$ Days $T_0=205.281122$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

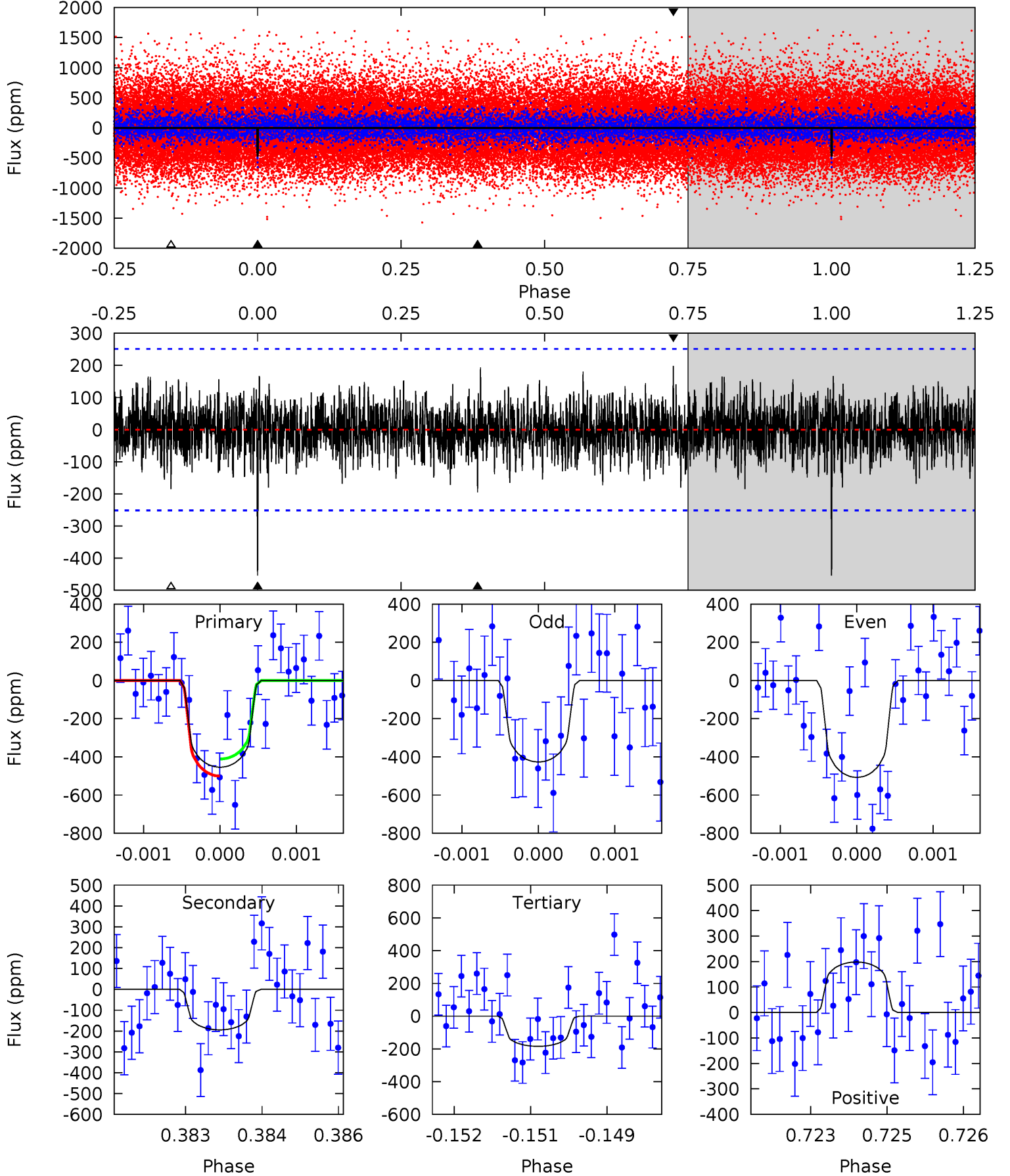
TCE 005706595-03 P=150.379653 Days $T_0=205.289744$ (BKJD)



DV Model-Shift Uniqueness Test

005706595-03, P = 150.382595 Days, E = 54.898527 Days

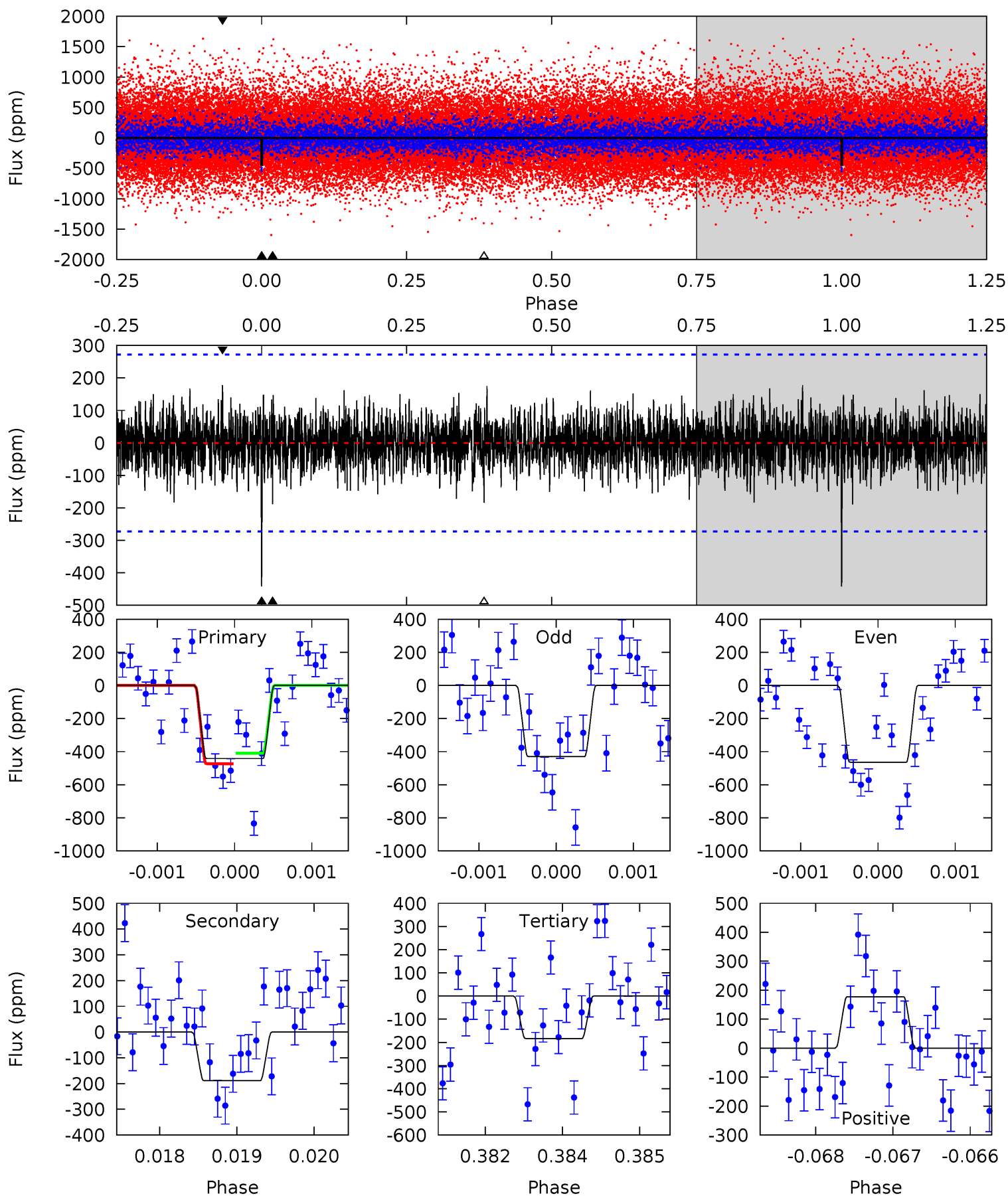
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.73	4.16	3.95	4.25	5.38	3.18	1.17	5.78	5.48	0.21	-0.08	0.84	1.15	0.30	0.96



Alt Model-Shift Uniqueness Test

005706595-03, P = 150.379653 Days, E = 54.910091 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.77	3.75	3.64	3.53	5.41	3.22	1.02	5.13	5.25	0.11	0.22	0.32	1.05	0.29	0.63



Stellar Parameters For KIC 005706595

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5569^{+75}_{-83}	$4.459^{+0.059}_{-0.110}$	$0.140^{+0.150}_{-0.150}$	$0.954^{+0.128}_{-0.069}$	$0.955^{+0.053}_{-0.053}$	$1.551^{+0.358}_{-0.494}$
	+1%/-1%	+1%/-2%	+107%/-107%	+13%/-7%	+6%/-6%	+23%/-32%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 005706595-03 / KOI 2183.03

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-194 ± 47	$2.61^{+1.33}_{-1.30}$	456^{+17}_{-12}	4364^{+1537}_{-618}	4574^{+13432}_{-2621}
Alt.	-189 ± 50	$2.40^{+1.35}_{-1.32}$	456^{+16}_{-12}	4491^{+1961}_{-697}	5179^{+21185}_{-3079}

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

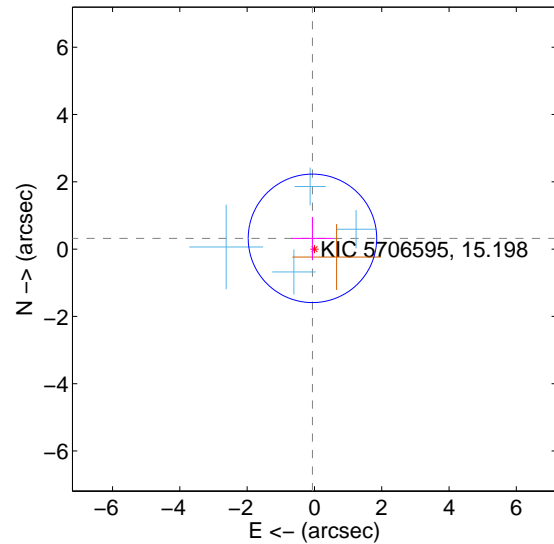
Supplemental centroid analysis for 005706595-03. Kepler magnitude: 15.20. Transit SNR 8.17

There are 4 quarters with good PRF difference image offsets

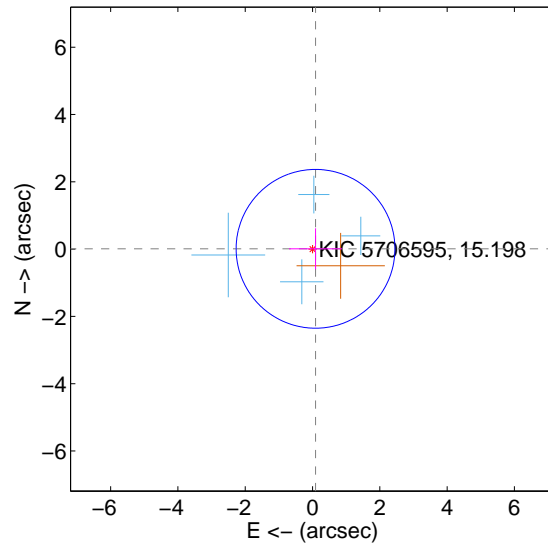
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.325 ± 0.636	0.51	0.059 ± 0.634	0.320 ± 0.636
PRF-fit source offset from KIC position	0.090 ± 0.787	0.11	-0.090 ± 0.788	0.009 ± 0.609
photometric centroid source offset	1.55 ± 1.48	1.05	-1.26 ± 1.47	-0.90 ± 1.51

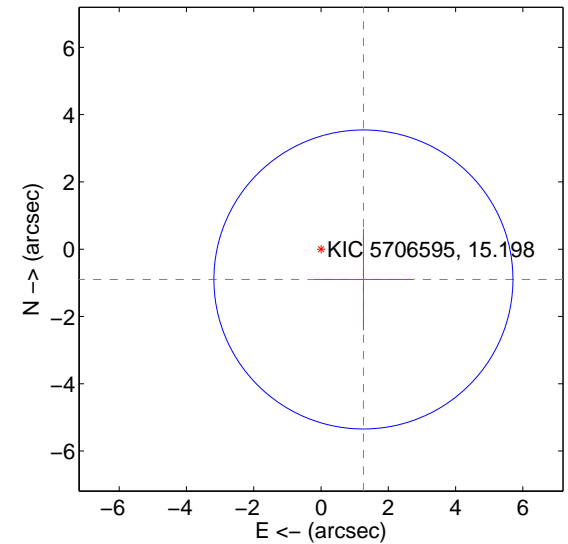
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

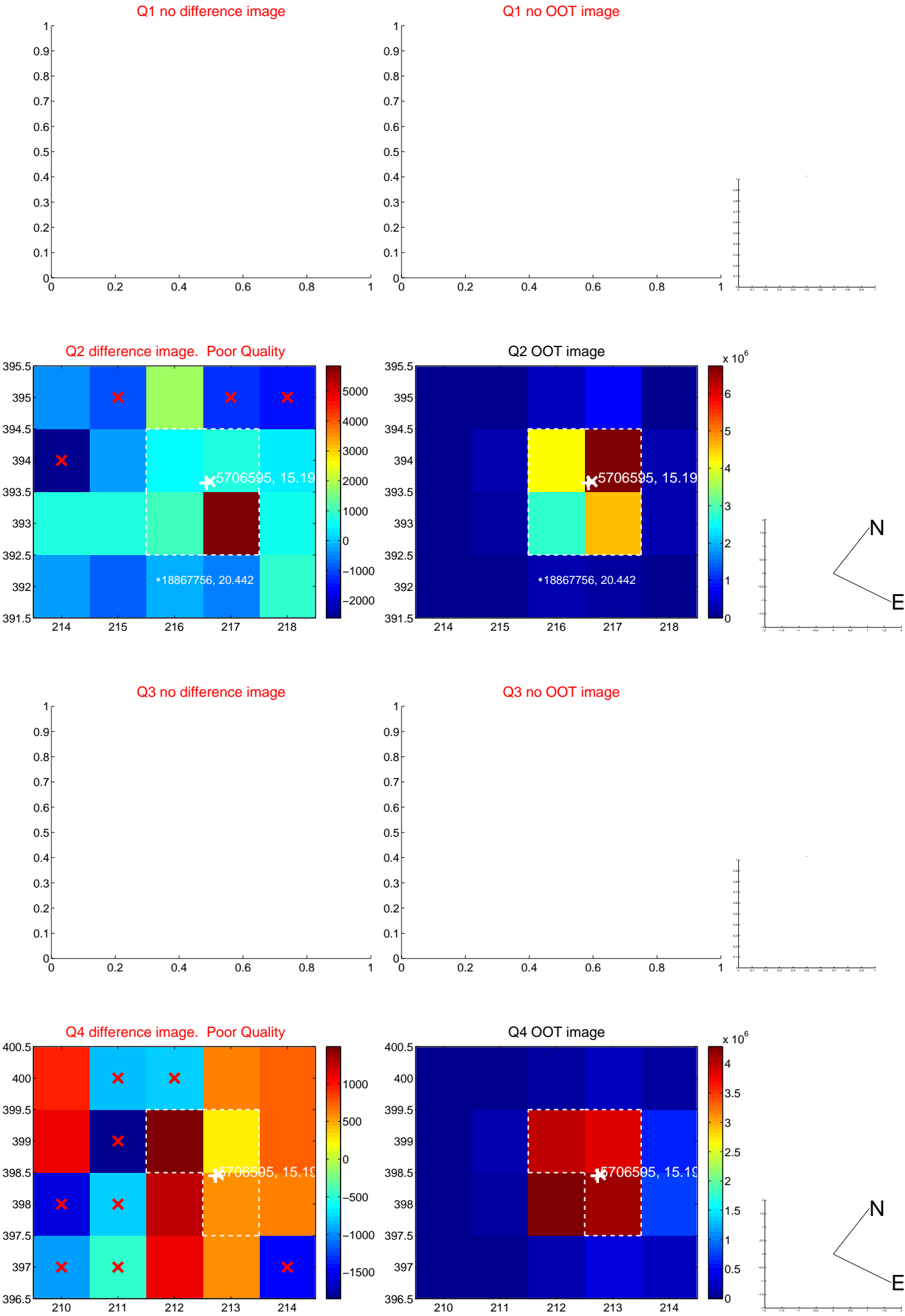


offset from photometric centroids

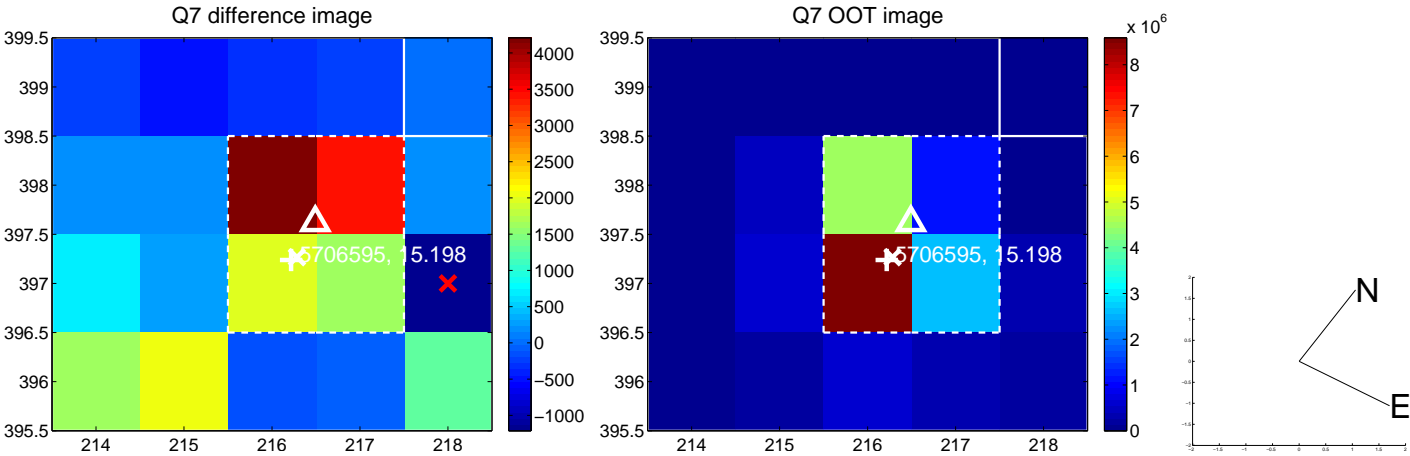
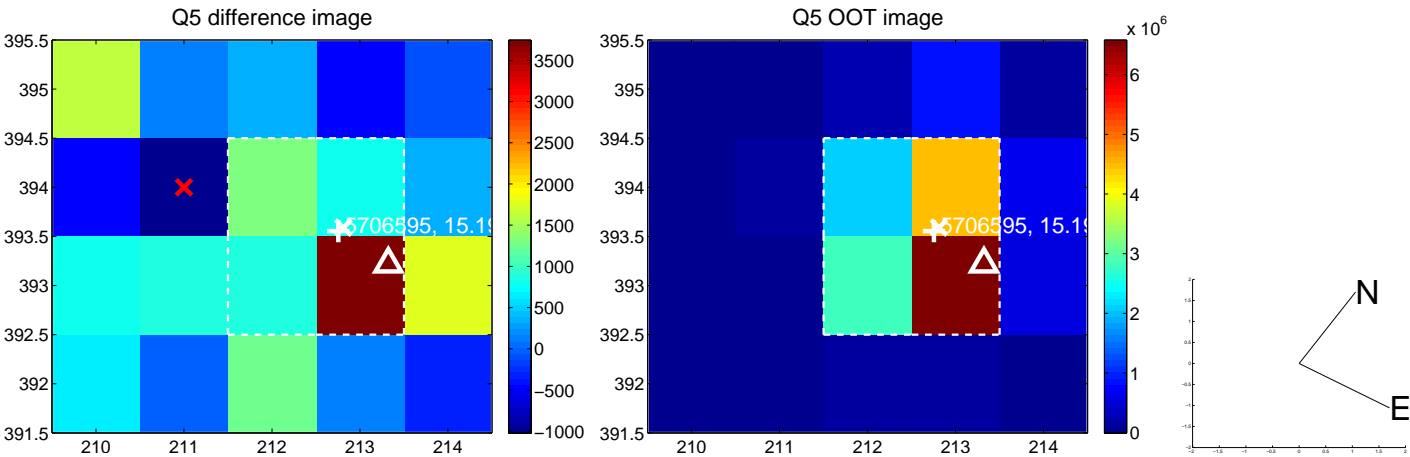


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

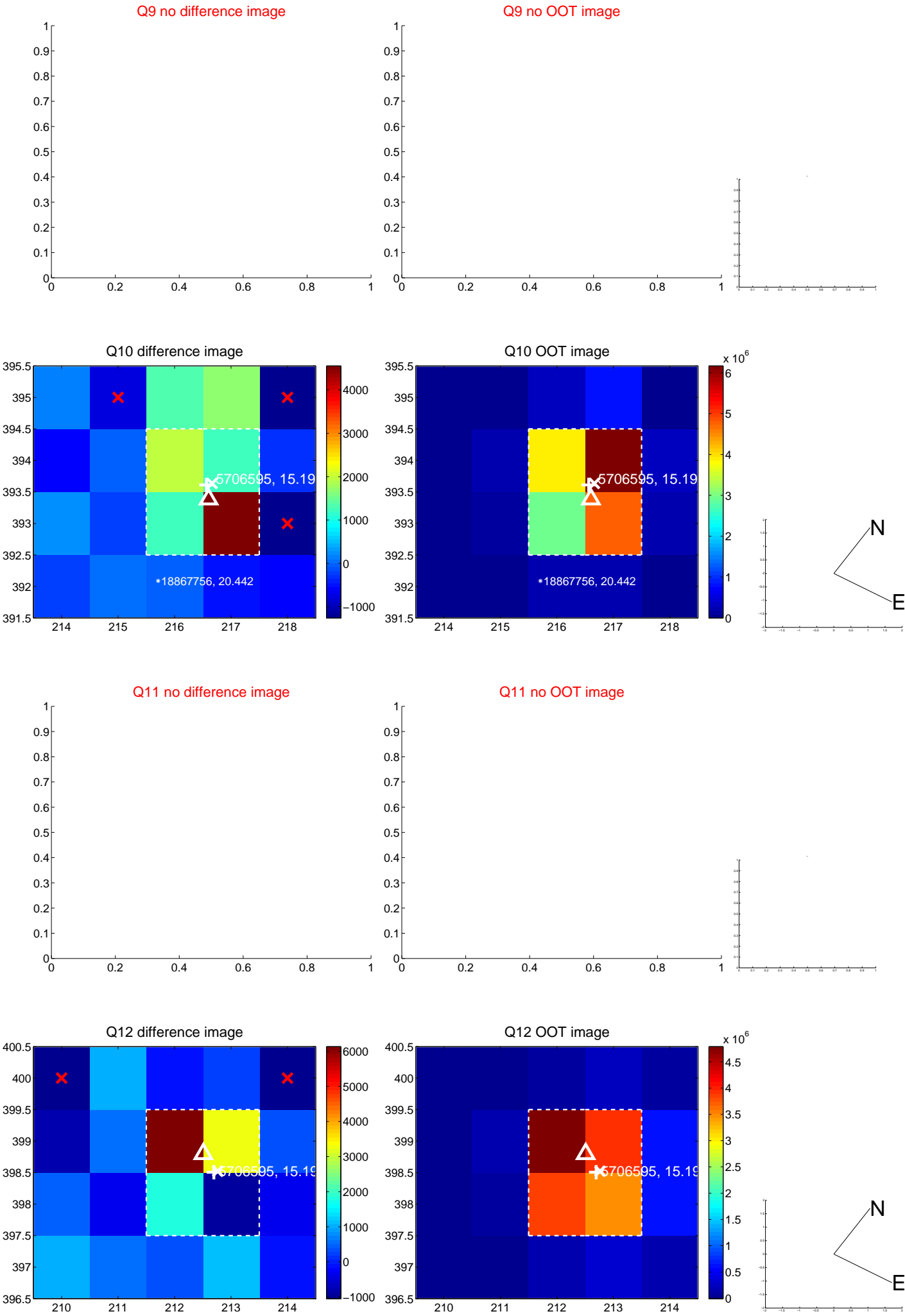
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



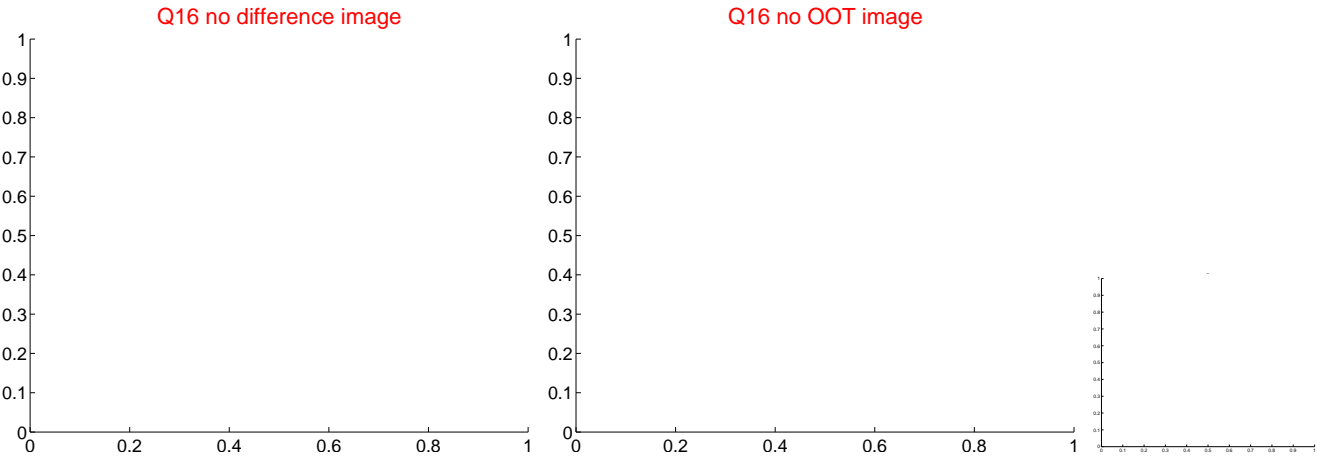
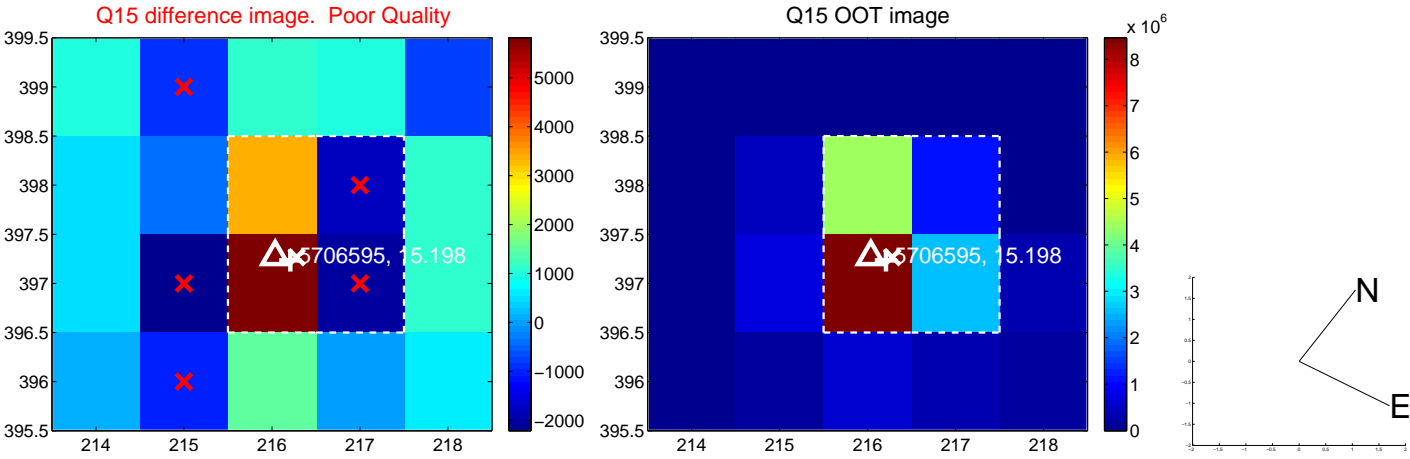
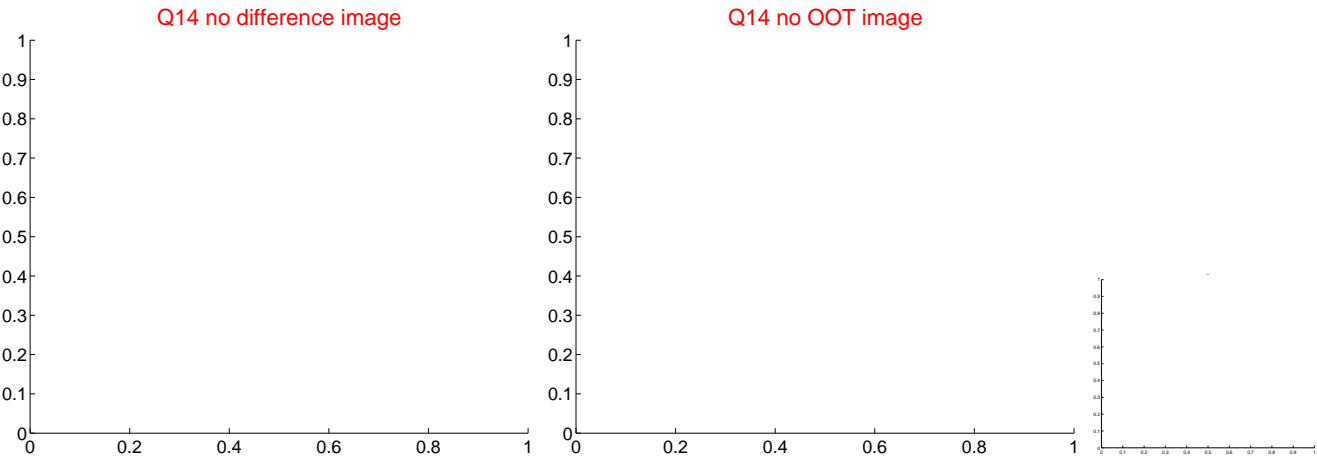
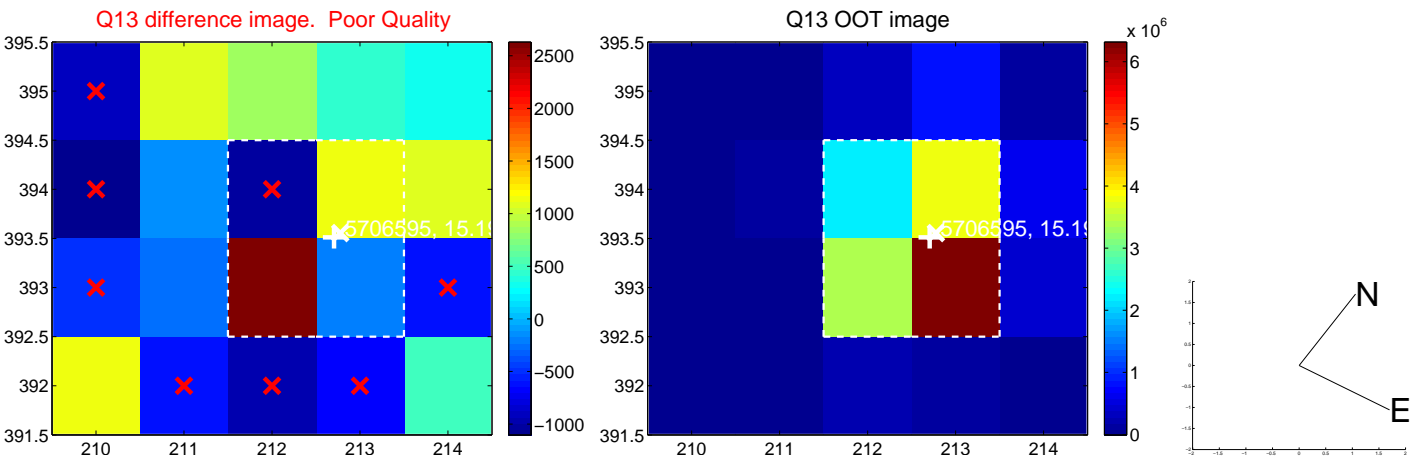
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



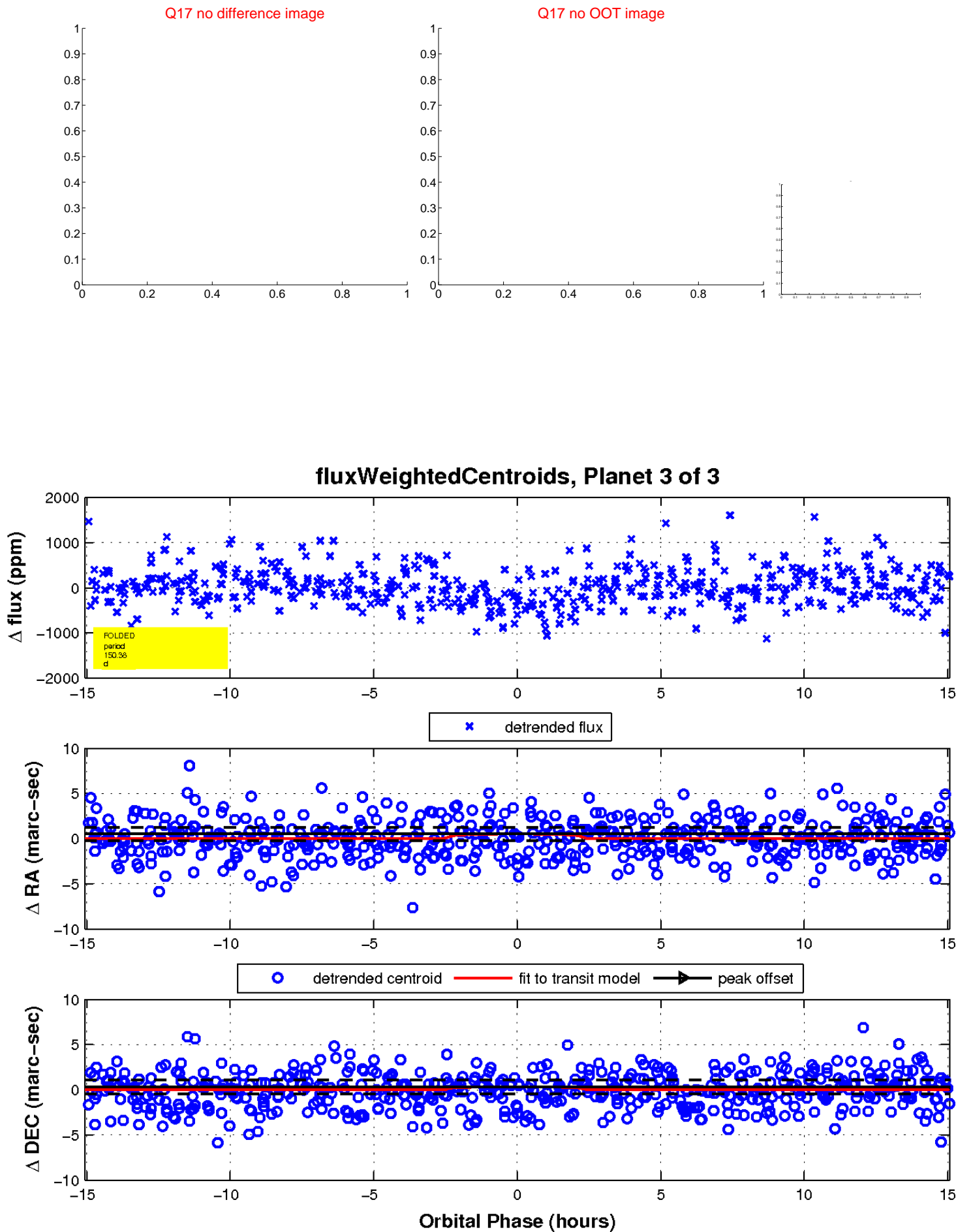
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

