

KIC 005965819

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})
005965819-01	OBS	3319.02	8.239833	137.754221	243.4	5.886	24.6	25.7	1.50	5794	2.70	338.48
005965819-02	OBS	3319.01	19.590622	144.659466	299.1	6.934	19.7	21.6	1.50	5794	2.89	106.67
005965819-03	OBS	3319.03	3.545523	132.378325	105.3	4.323	13.7	14.5	1.50	5794	1.80	1041.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005965819-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
005965819-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
005965819-03	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

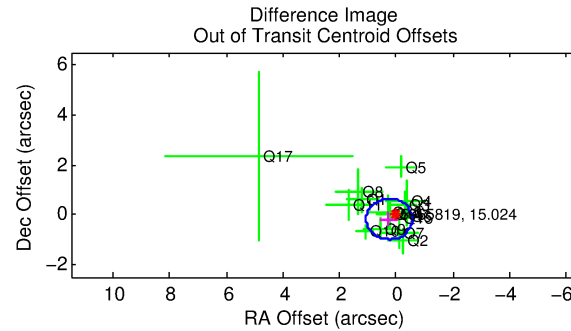
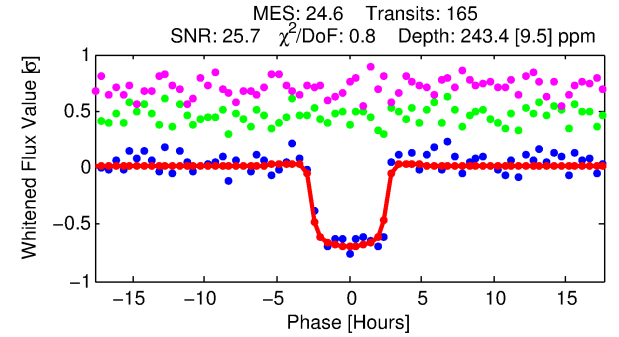
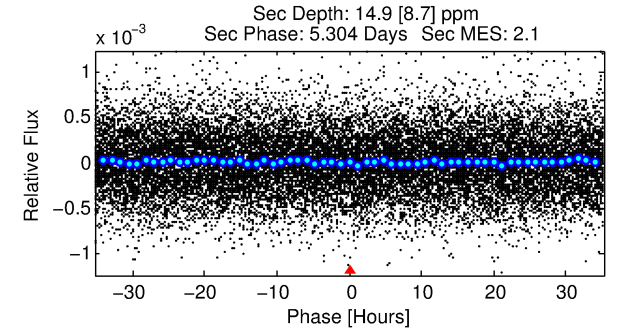
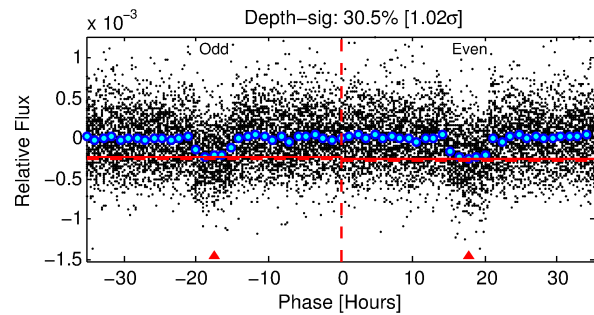
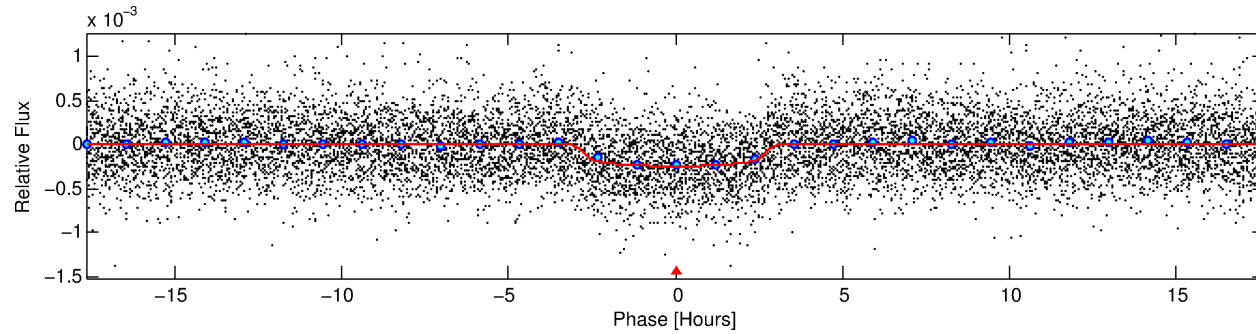
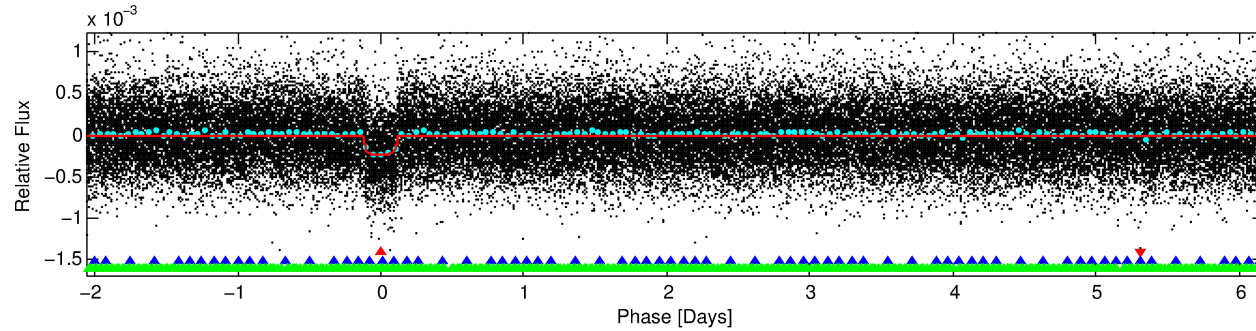
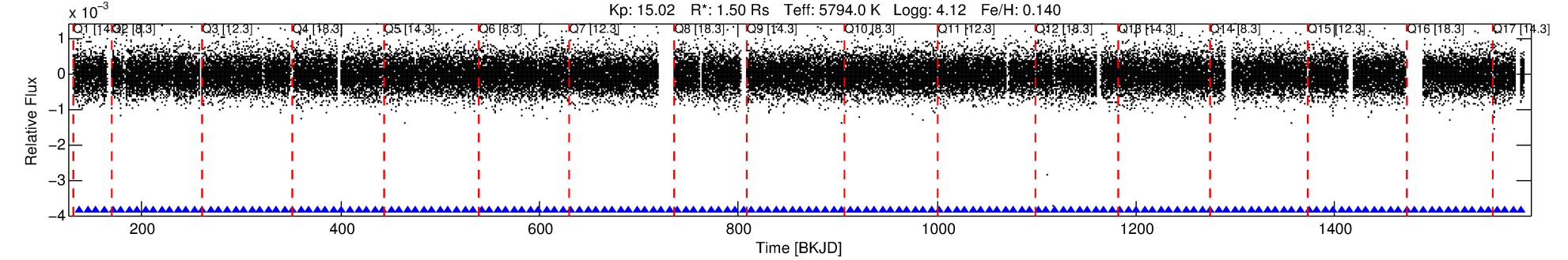
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005965819-01

No Significant Match Found

DV One-Page Summary

KIC: 5965819 Candidate: 1 of 3 Period: 8.240 d
KOI: K03319.02 Corr: 0.977



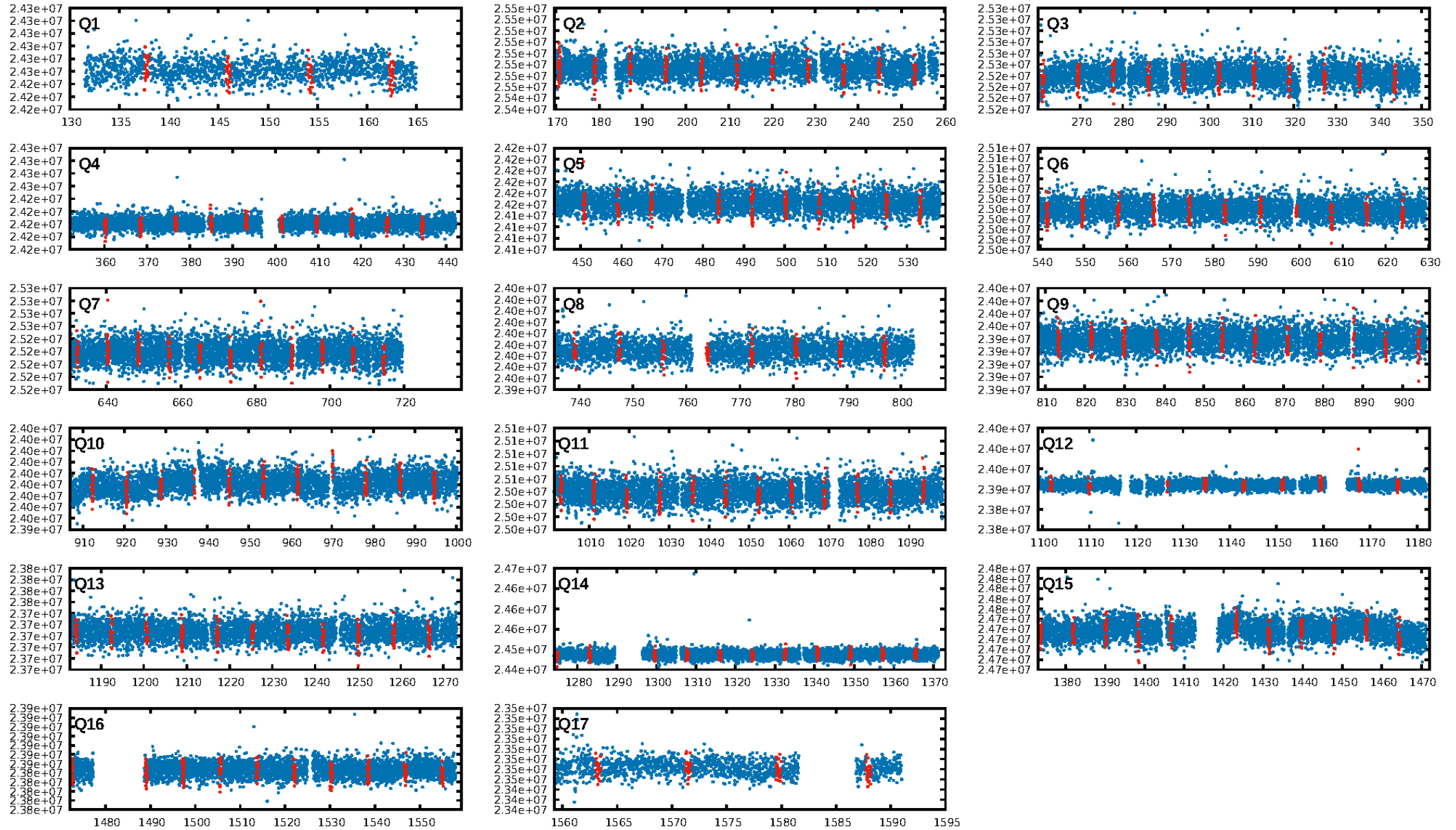
DV Fit Results:

Period = 8.23983 [0.00004] d
Epoch = 137.7542 [0.0040] BKJD
Rp/R* = 0.0166 [0.0025]
a/R* = 5.72 [3.86]
b = 0.87 [0.20]
Seff = 338.48 [106.34]
Teff = 1094 [86] K
Rp = 2.70 [0.68] Re
a = 0.0817 [0.0158] AU
Ag = 7.50 [5.44] [1.20 σ]
Teffp = 2799 [460] K [3.64 σ]

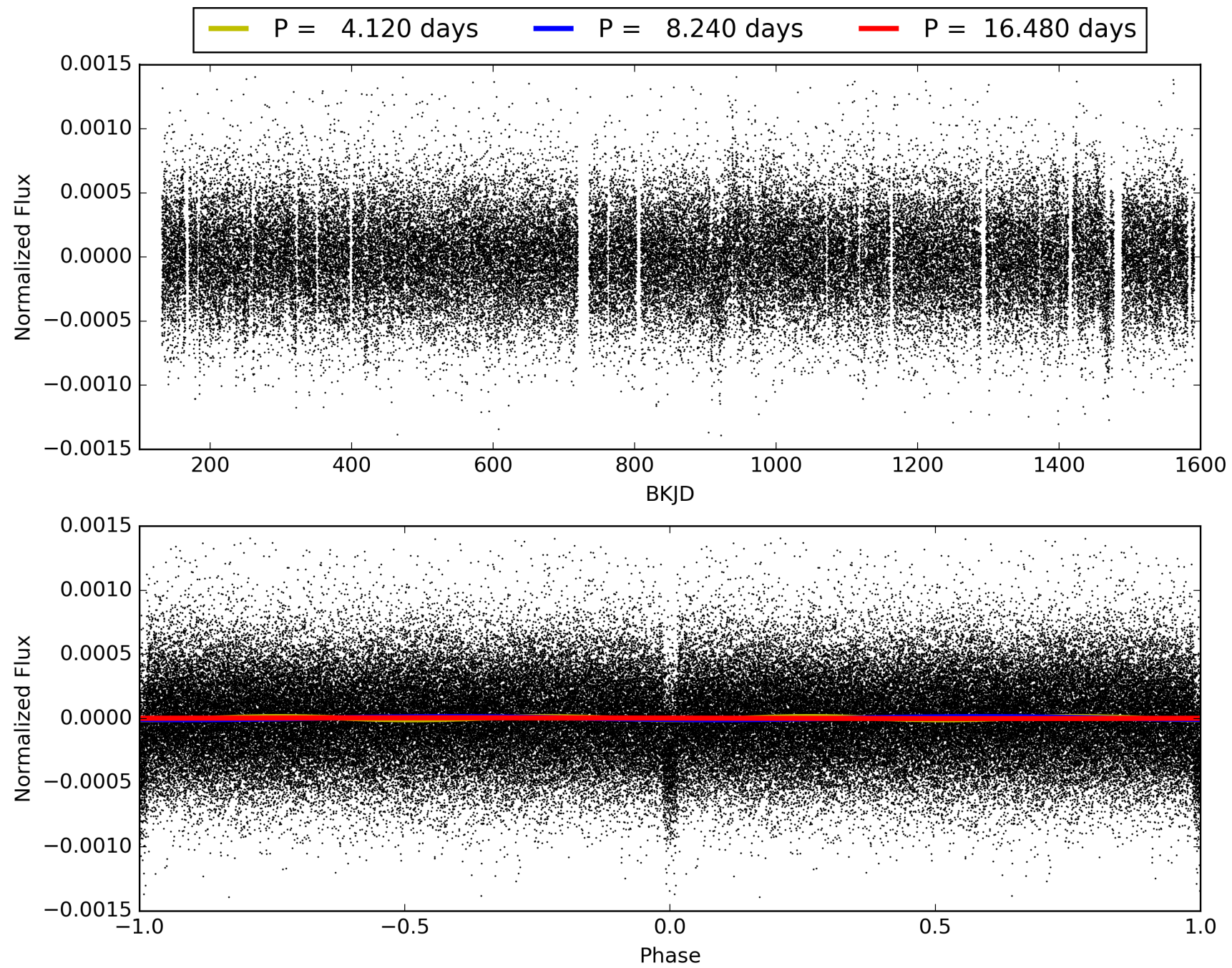
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [15.43 σ]
LongPeriod-sig: 100.0% [29.95 σ]
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.79e-126
RollingBand-fgt: 1.00 [157/157]
GhostDiagnostic-chr: 3.399
Centroid-sig: 21.5%
Centroid-so: 0.687 arcsec [1.31 σ]
OotOffset-rm: 0.311 arcsec [1.14 σ]
KicOffset-rm: 0.258 arcsec [0.89 σ]
OotOffset-st: 4/4/2/5 [15]
KicOffset-st: 4/4/2/5 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005965819-01, PDC Light Curves

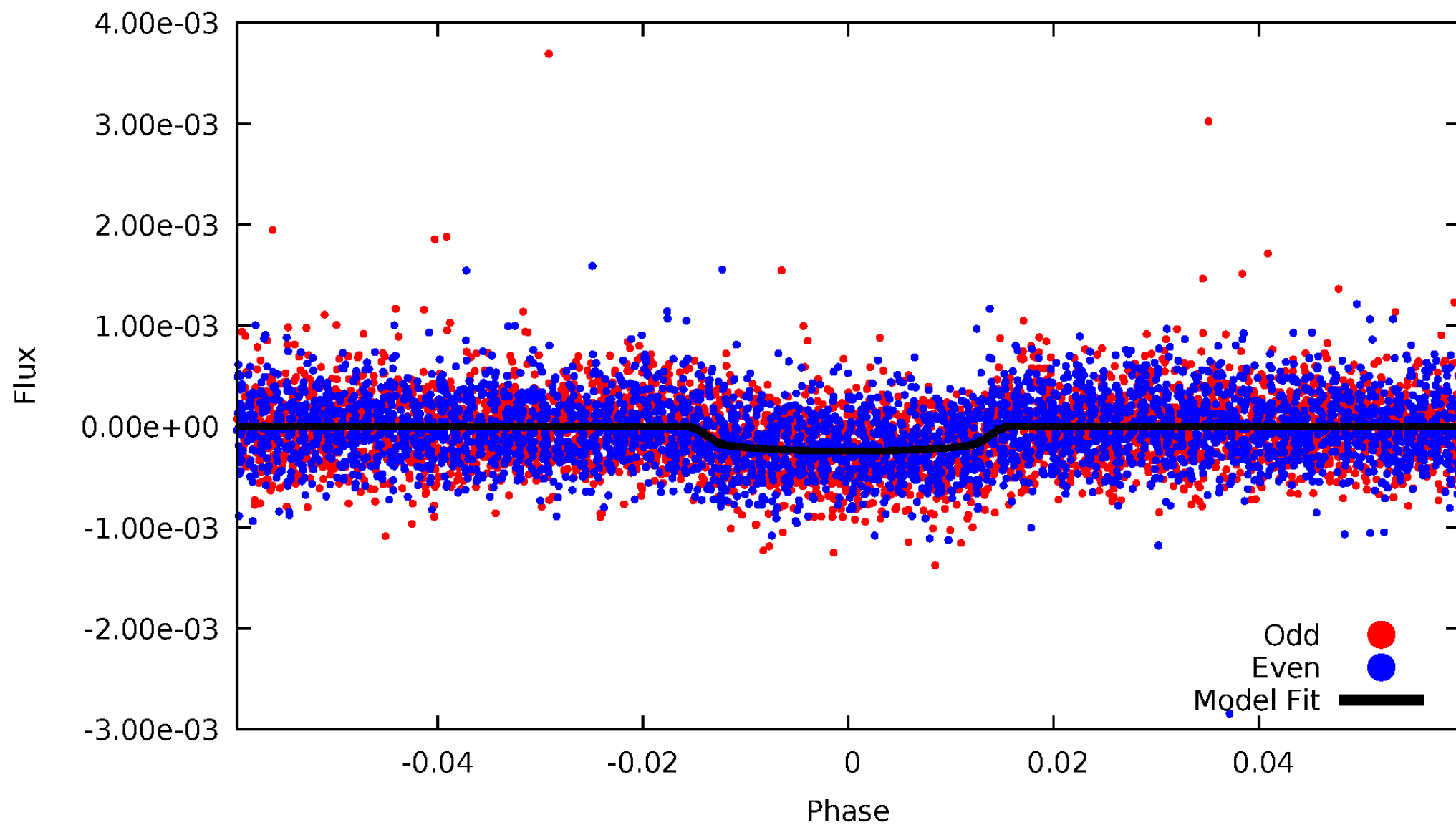


TCE 005965819-01



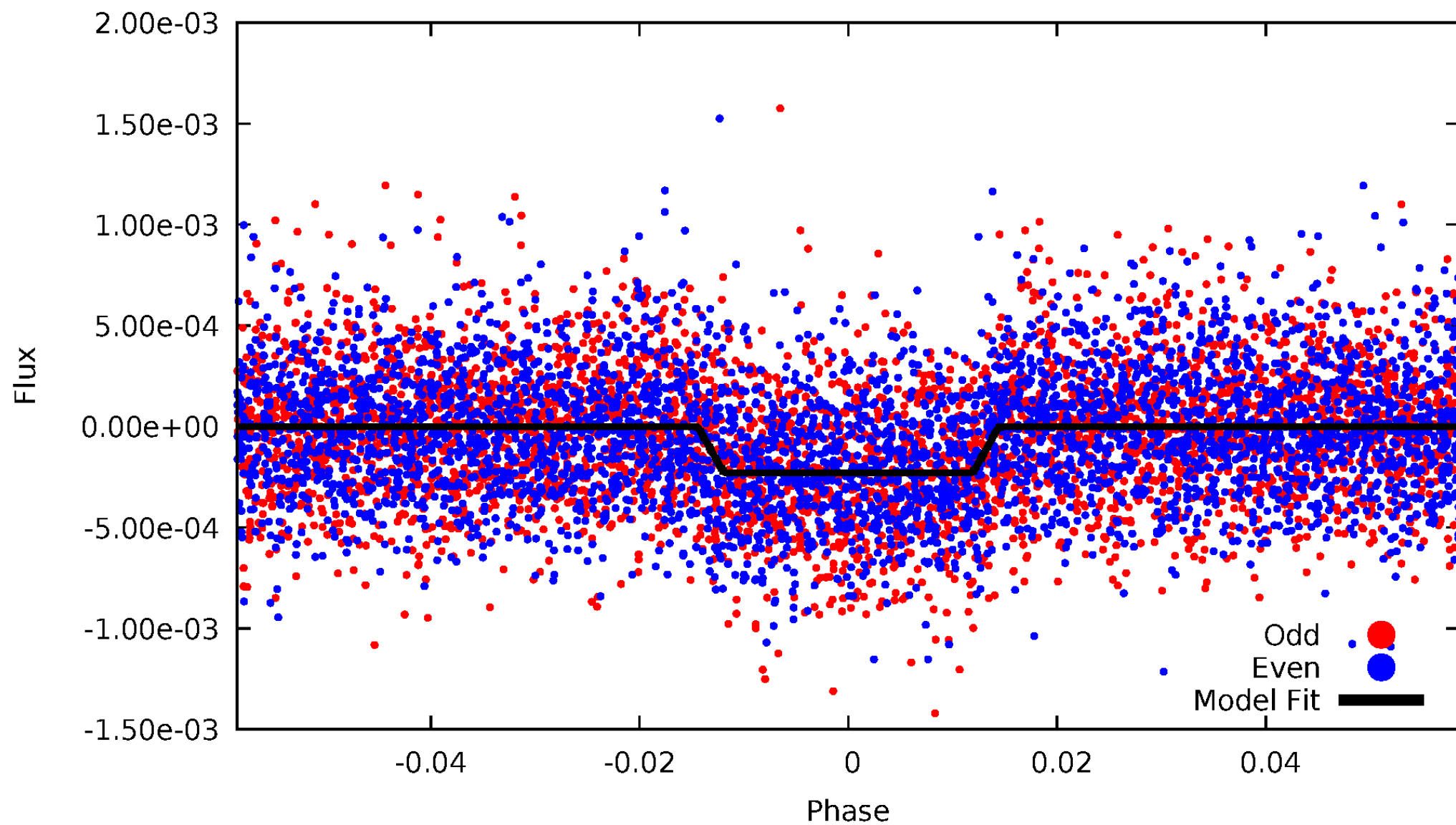
DV Odd/Even

TCE 005965819-01



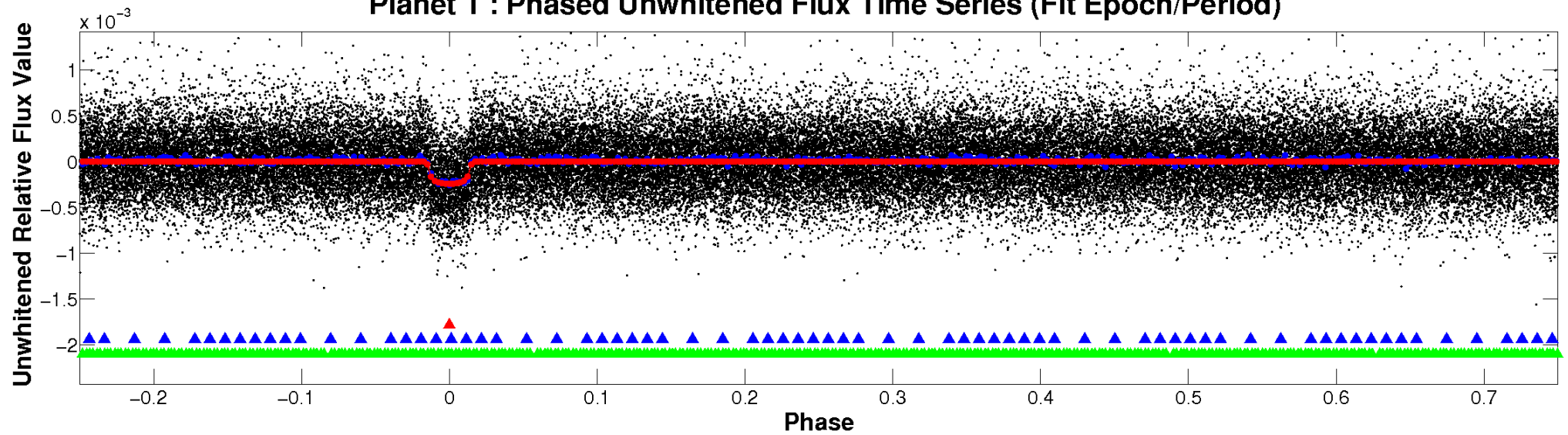
ALT Odd/Even

TCE 005965819-01

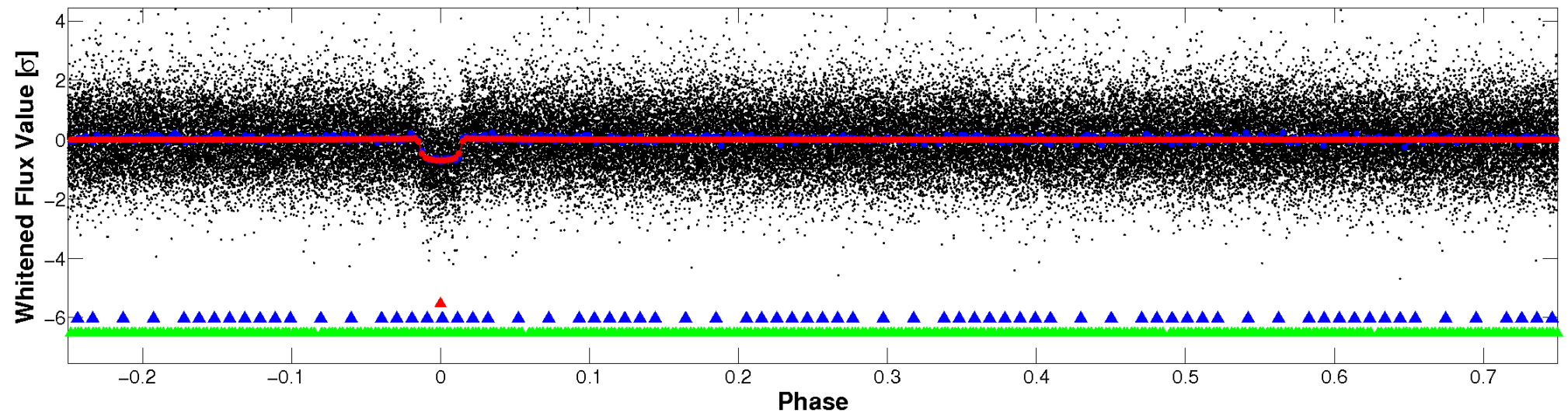


Non-Whitened Vs. Whitened Light Curve

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

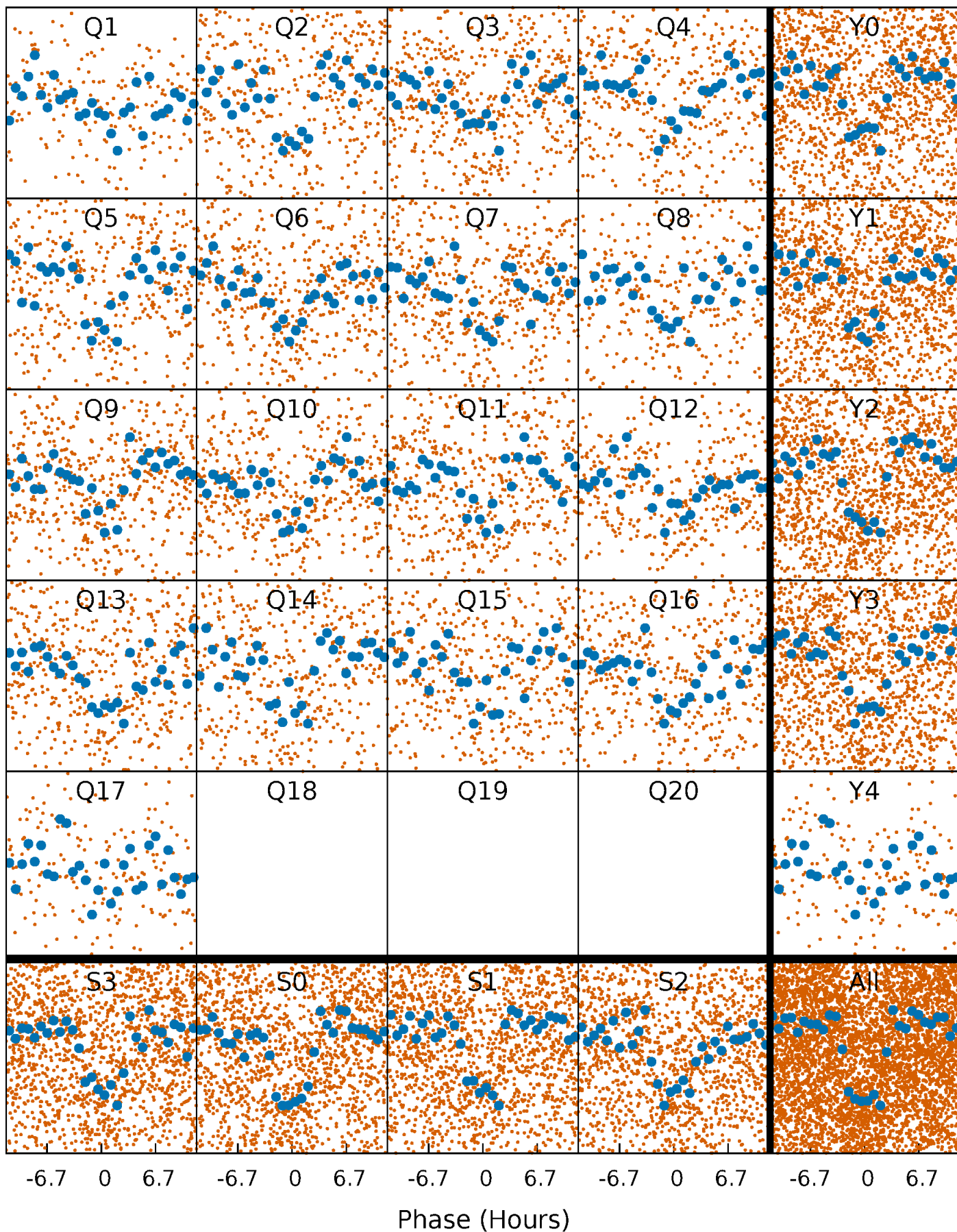


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



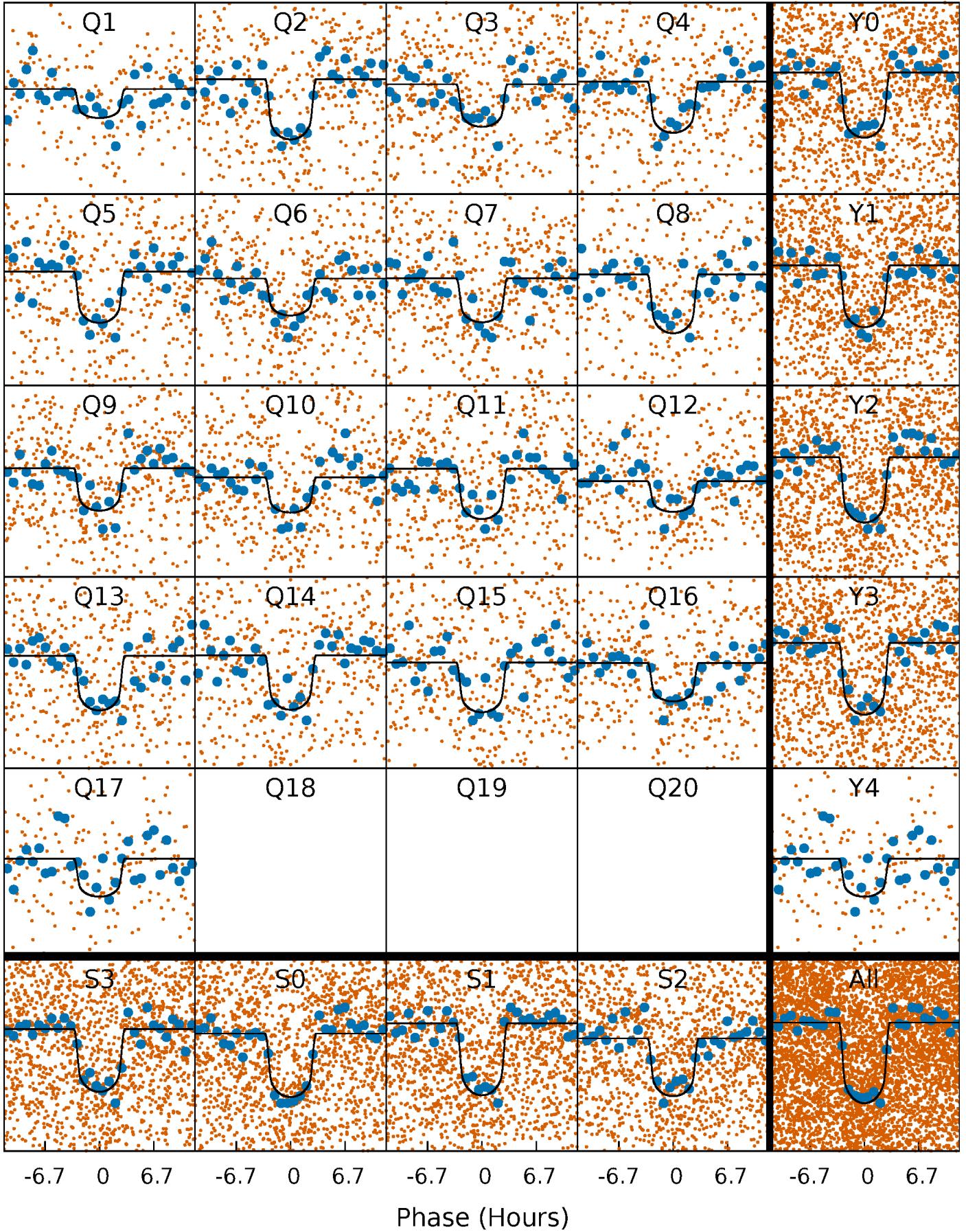
PDC Quarter-Phased Transit Curves

TCE 005965819-01 P= 8.239833 Days $T_0=137.754221$ (BKJD)



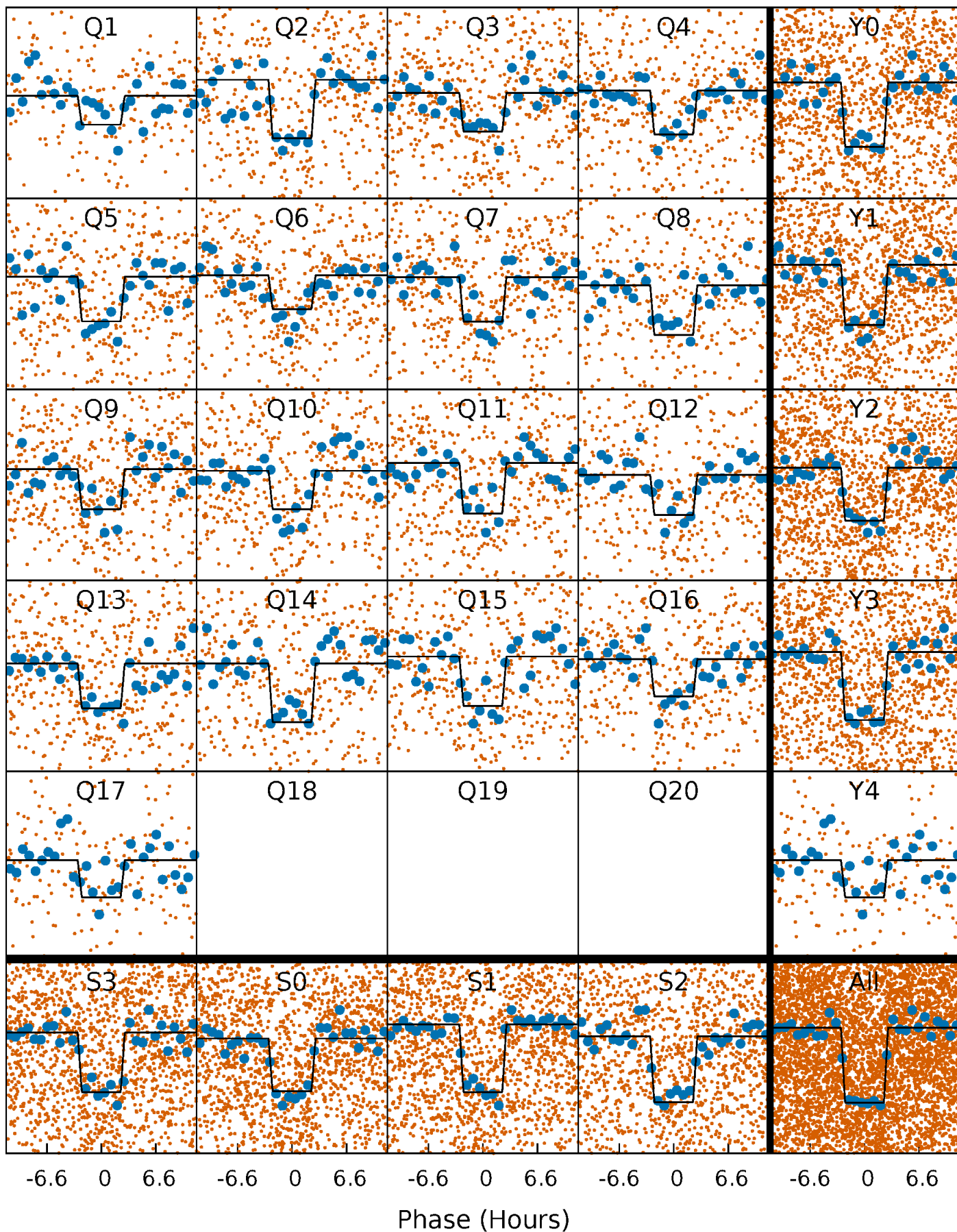
DV Quarter-Phased Transit Curves

TCE 005965819-01 P= 8.239833 Days $T_0=137.754221$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

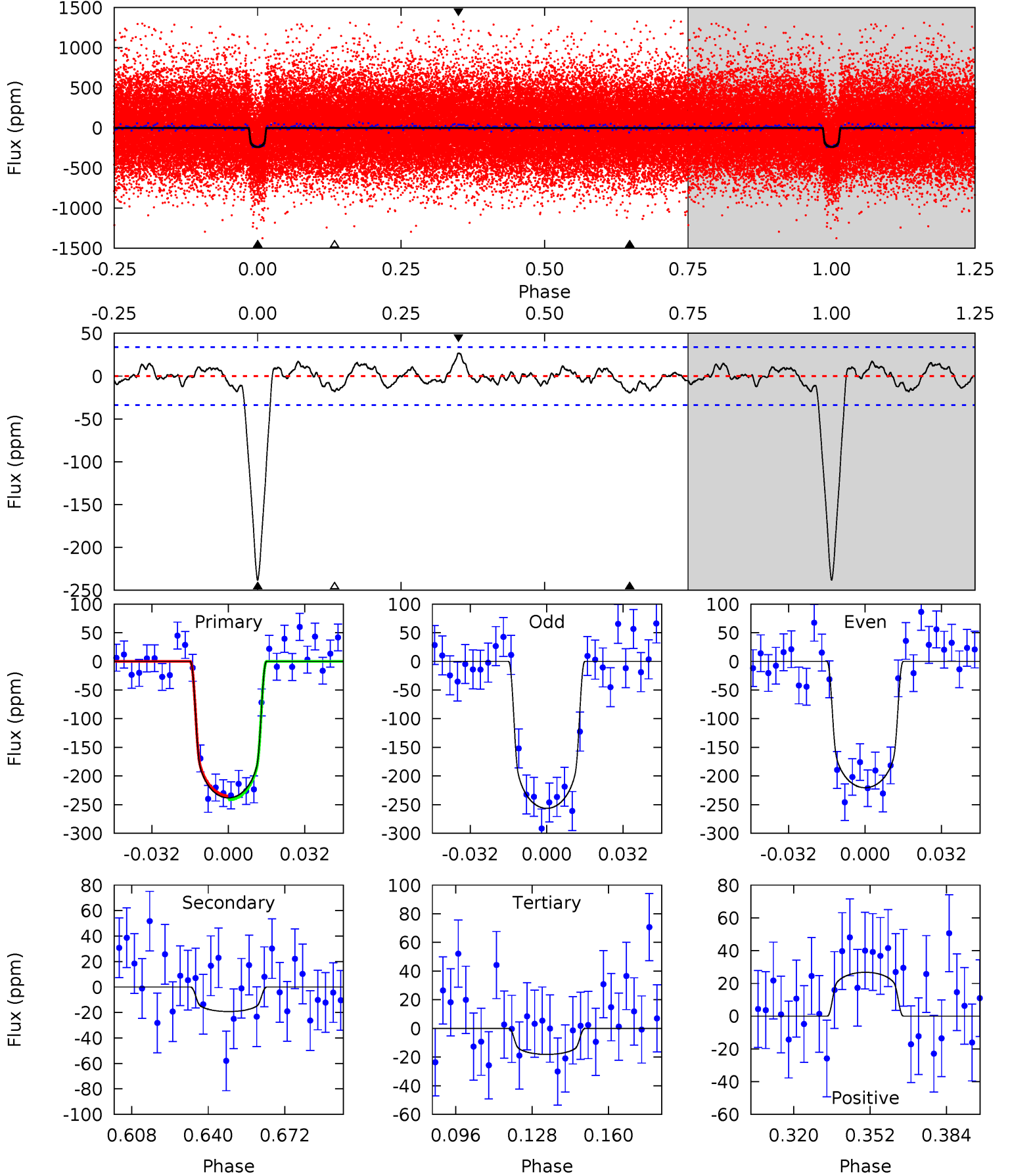
TCE 005965819-01 P= 8.239859 Days $T_0=137.752919$ (BKJD)



DV Model-Shift Uniqueness Test

005965819-01, P = 8.239833 Days, E = 129.514388 Days

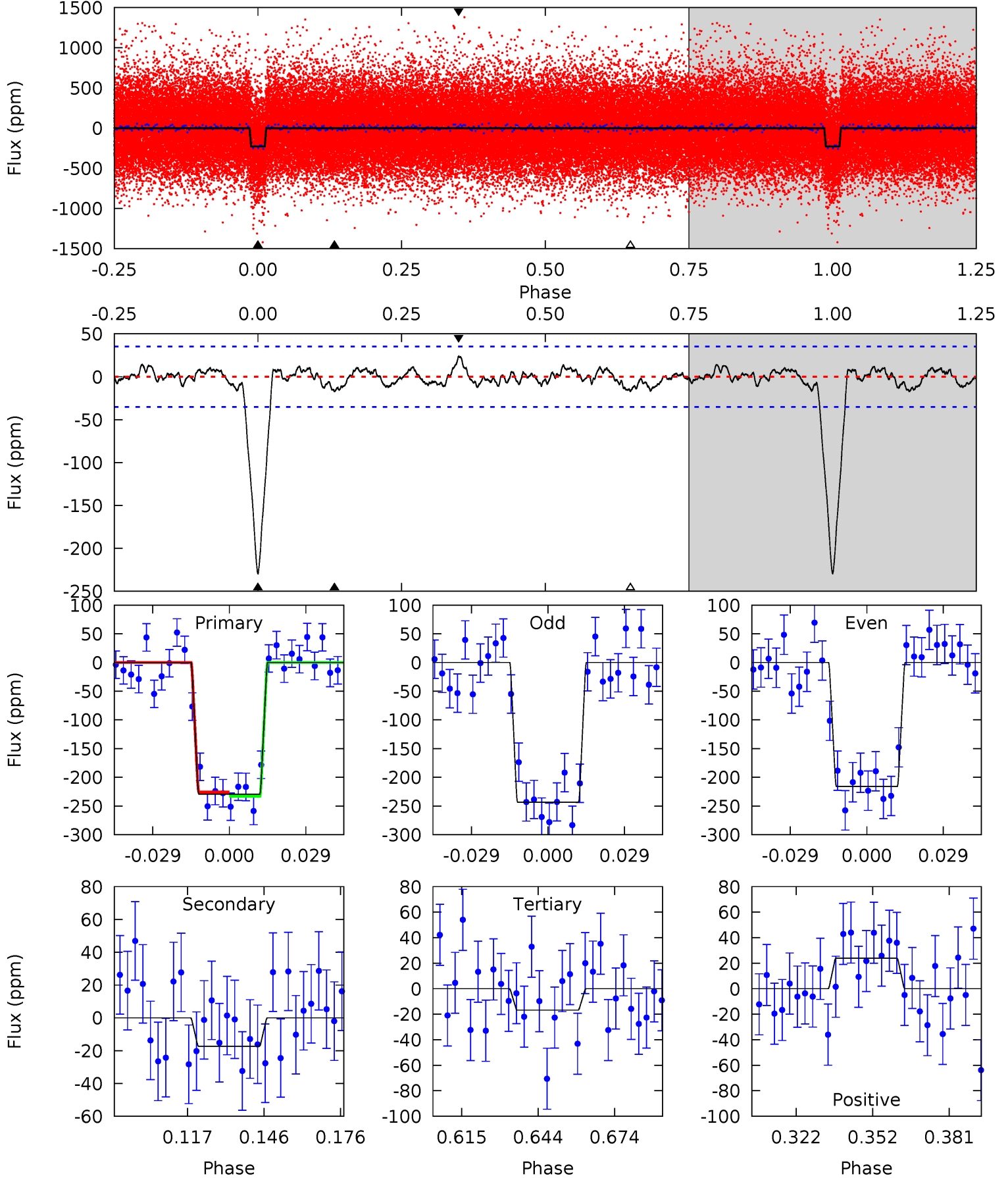
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.8	2.73	2.57	3.80	4.80	2.14	1.15	31.2	30.0	0.16	-1.07	2.56	1.03	0.10	0.47



Alt Model-Shift Uniqueness Test

005965819-01, P = 8.239859 Days, E = 129.513060 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.4	2.36	2.30	3.27	4.82	2.18	0.99	29.1	28.1	0.06	-0.91	1.90	1.02	0.09	0.49



Stellar Parameters For KIC 005965819

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5794^{+78}_{-78}	$4.118^{+0.182}_{-0.098}$	$0.140^{+0.150}_{-0.150}$	$1.496^{+0.245}_{-0.299}$	$1.072^{+0.112}_{-0.084}$	$0.451^{+0.415}_{-0.133}$
	+1%/-1%	+4%/-2%	+107%/-107%	+16%/-20%	+10%/-8%	+92%/-29%
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 005965819-01 / KOI 3319.02

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-19 ± 7	$2.64^{+0.51}_{-0.51}$	1512^{+66}_{-82}	3431^{+295}_{-272}	$9.762^{+7.502}_{-4.028}$
Alt.	-17 ± 7	$2.44^{+0.48}_{-0.45}$	1520^{+68}_{-83}	3475^{+312}_{-312}	10^{+7}_{-5}

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

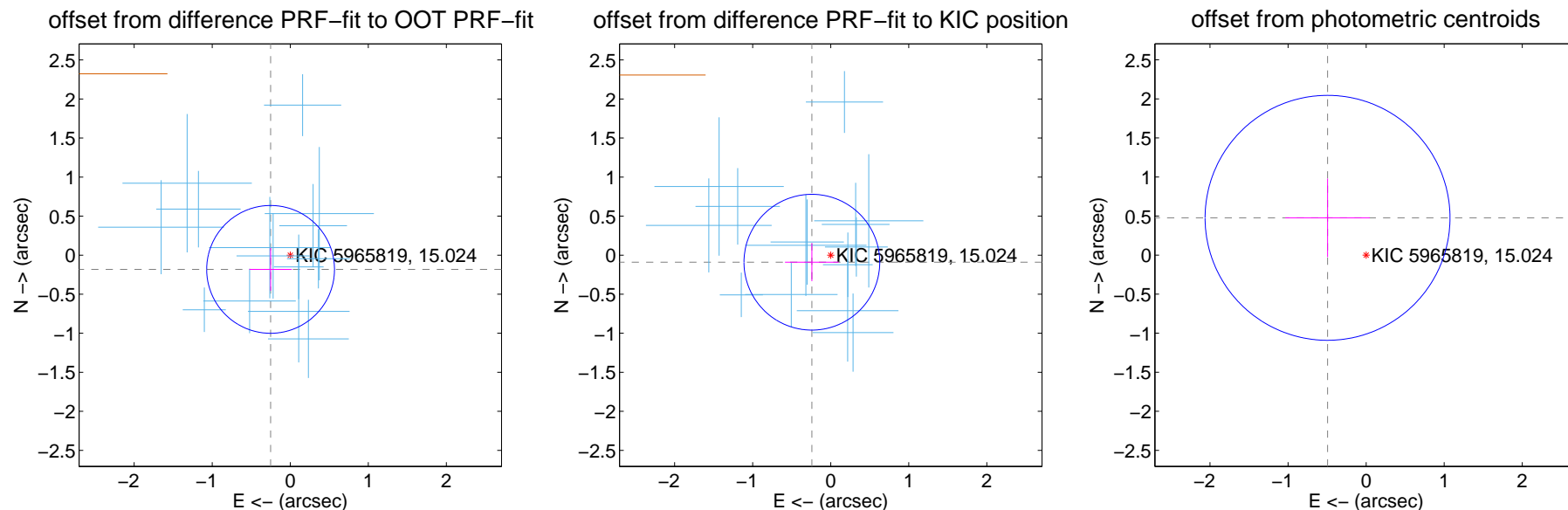
DV Centroid Data

Supplemental centroid analysis for 005965819-01. Kepler magnitude: 15.02. Transit SNR 25.74

There are 14 quarters with good PRF difference image offsets

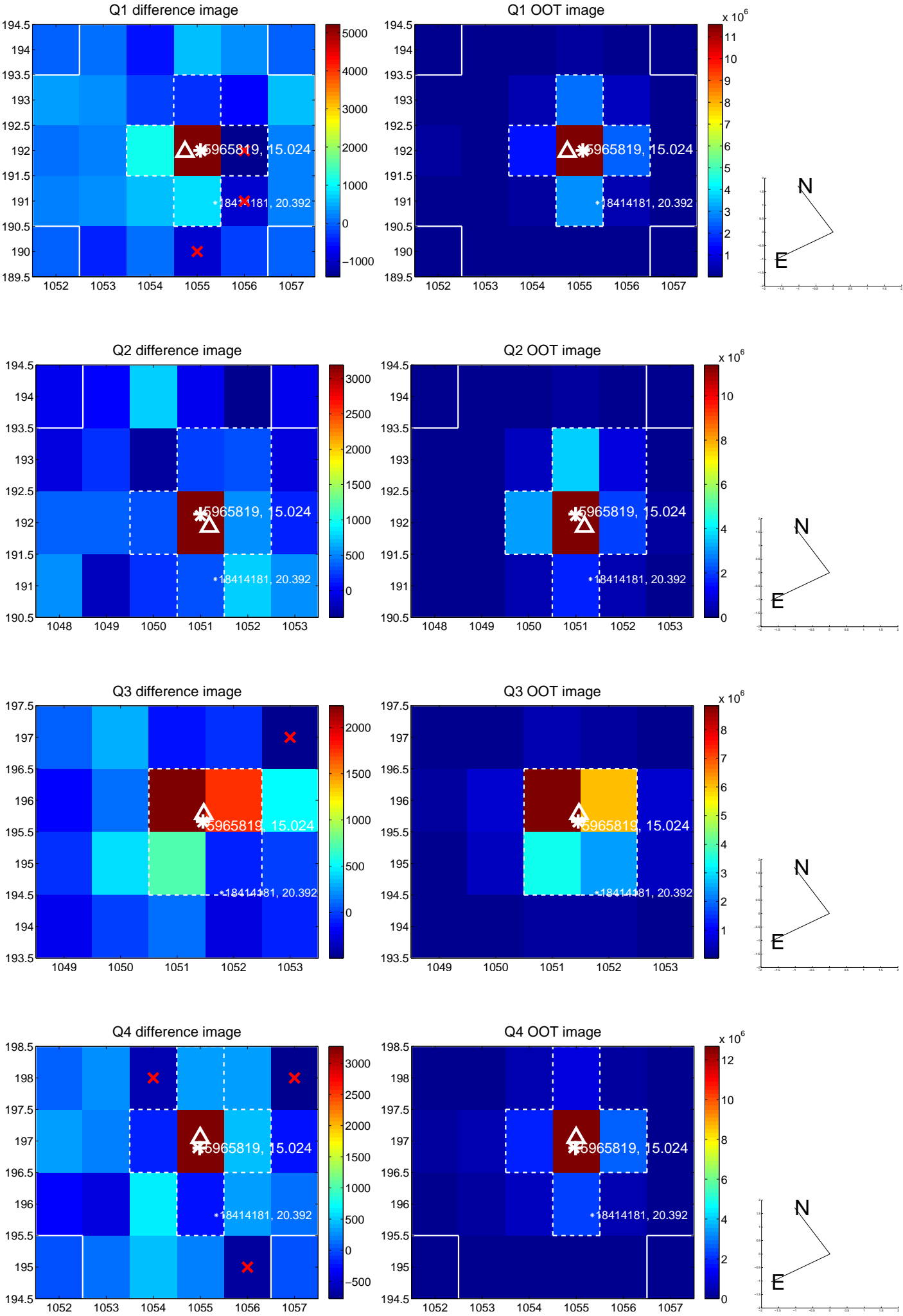
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.311 ± 0.273	1.14	0.252 ± 0.272	-0.182 ± 0.273
PRF-fit source offset from KIC position	0.258 ± 0.290	0.89	0.242 ± 0.344	-0.090 ± 0.243
photometric centroid source offset	0.69 ± 0.52	1.31	0.49 ± 0.54	0.48 ± 0.50

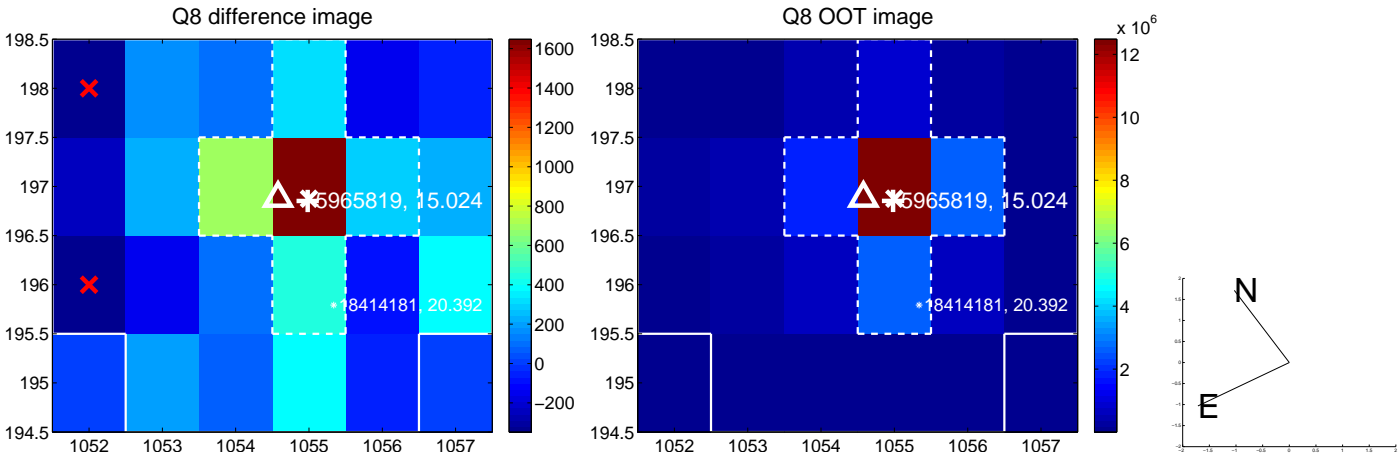
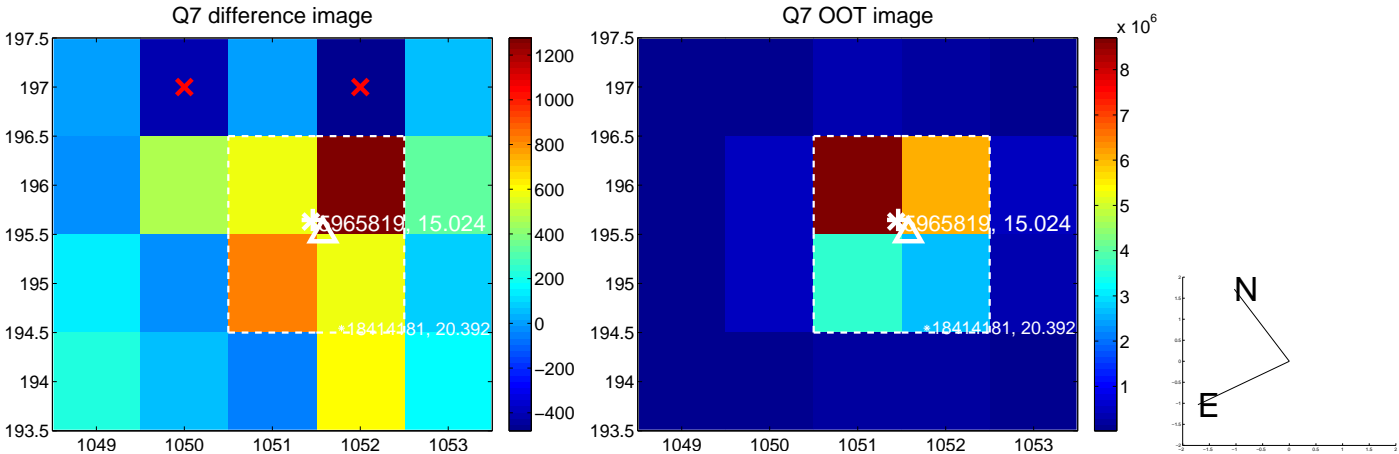
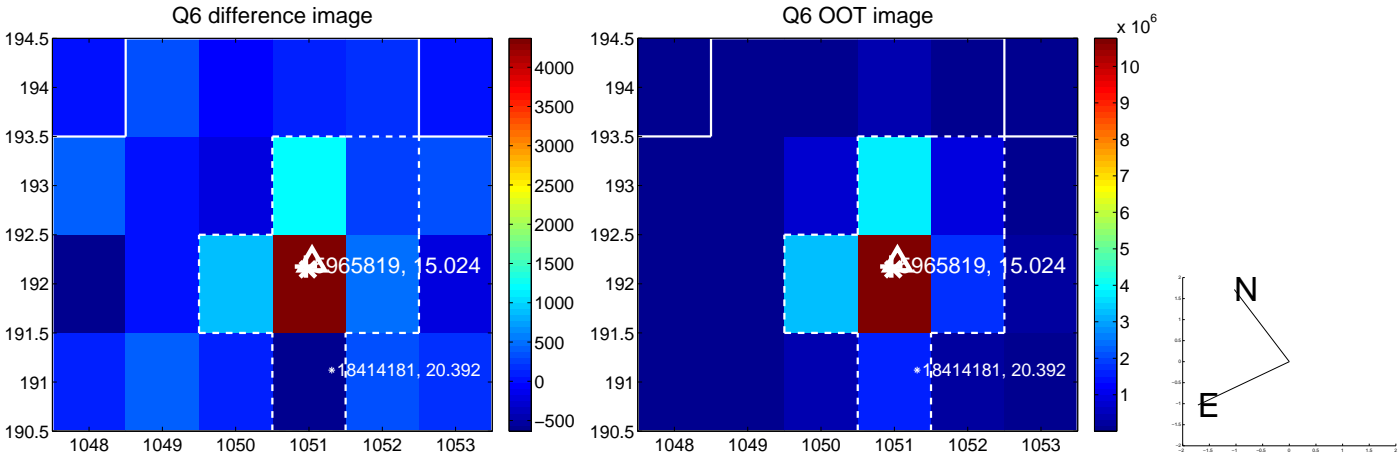
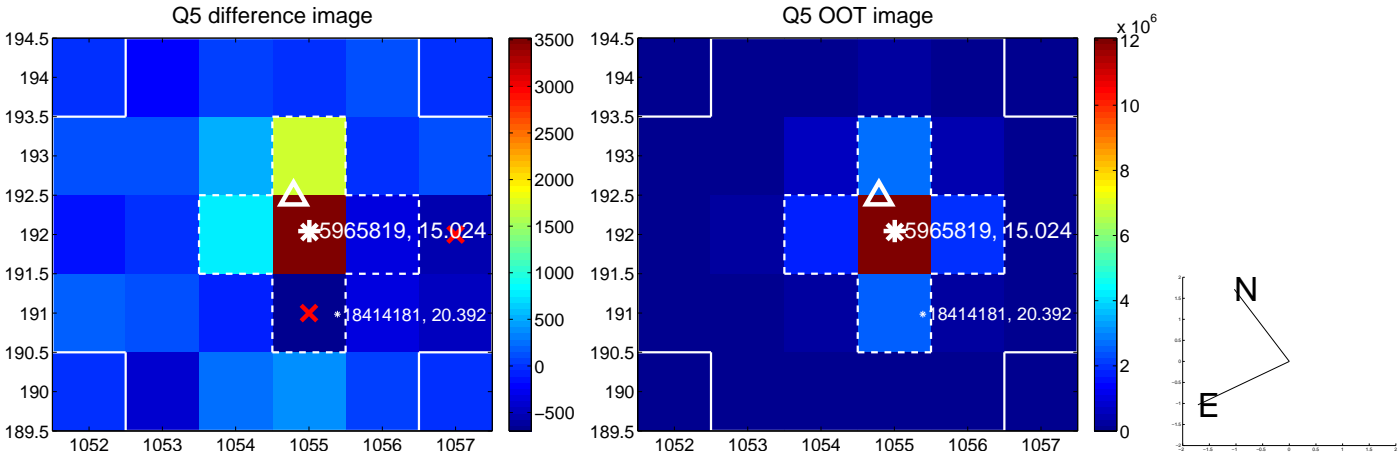


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

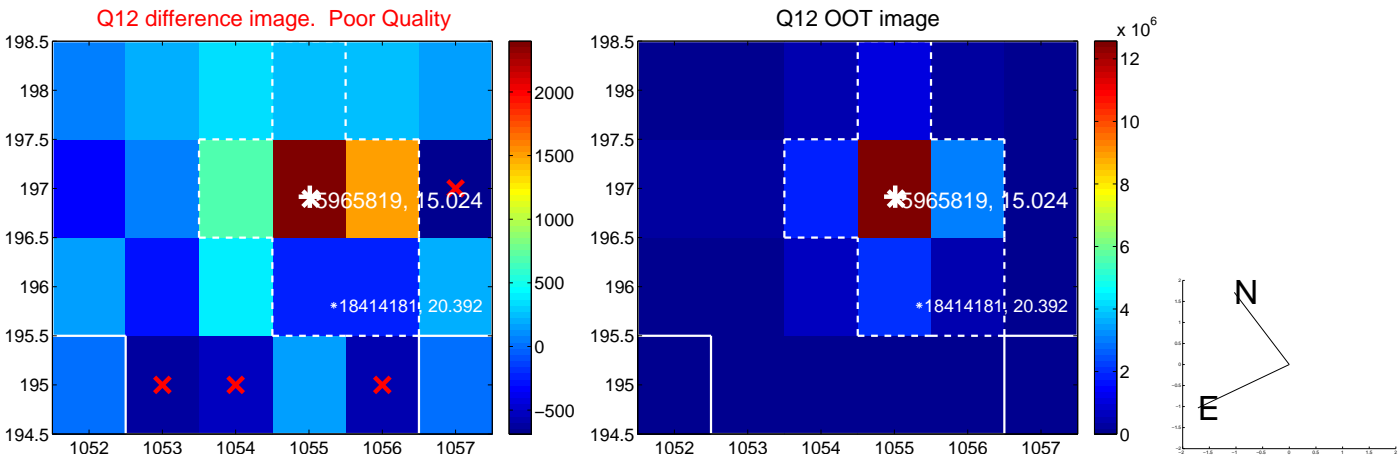
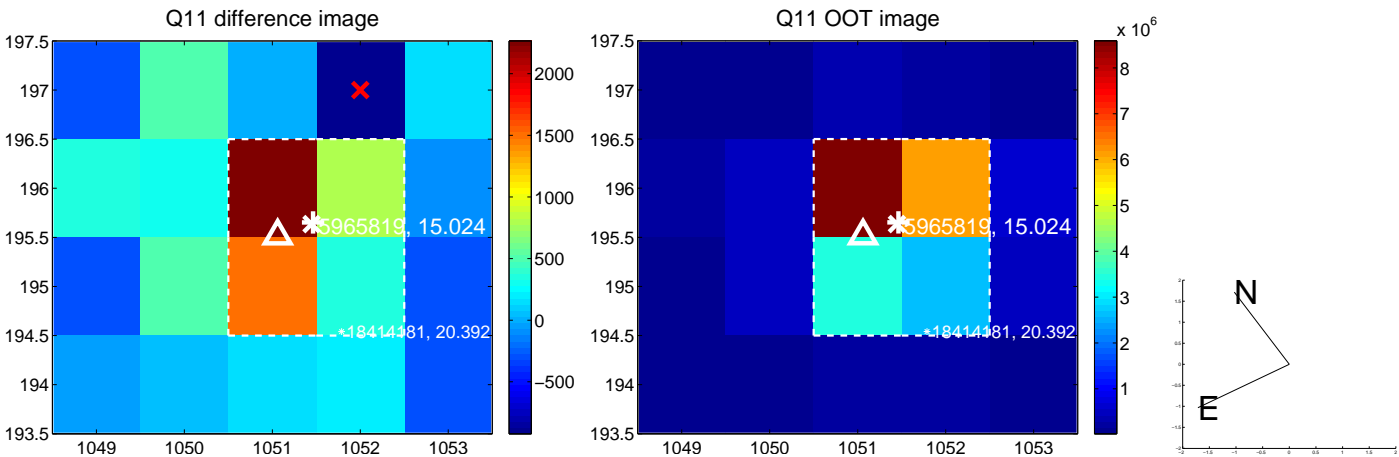
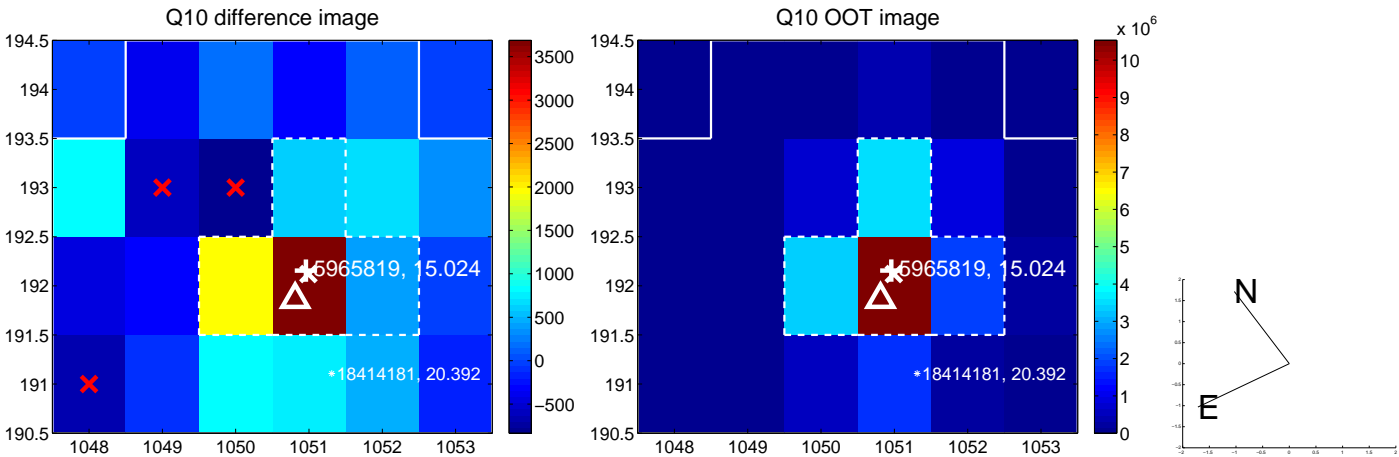
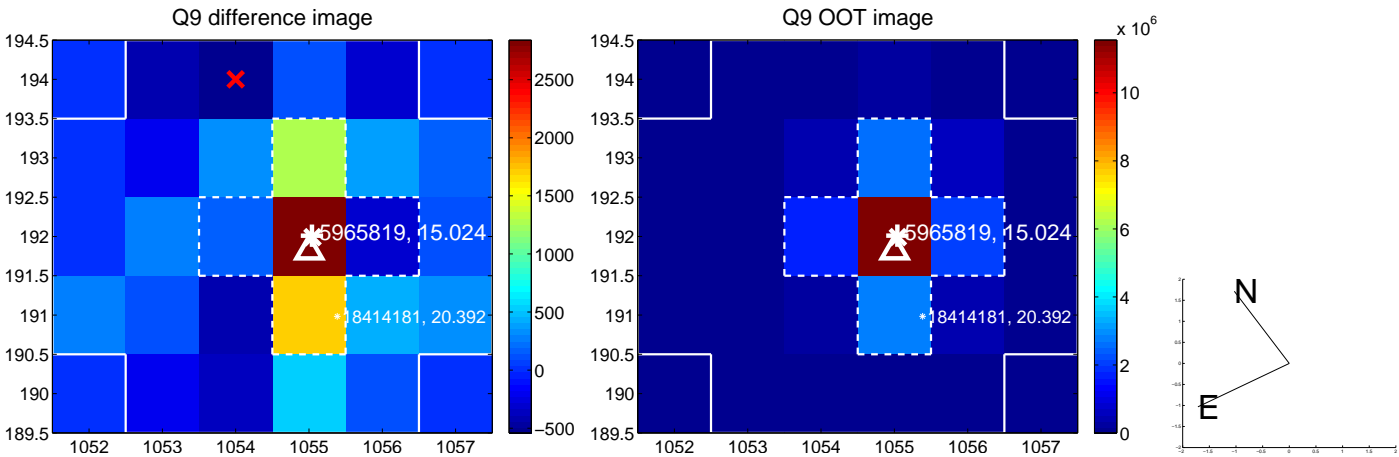
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



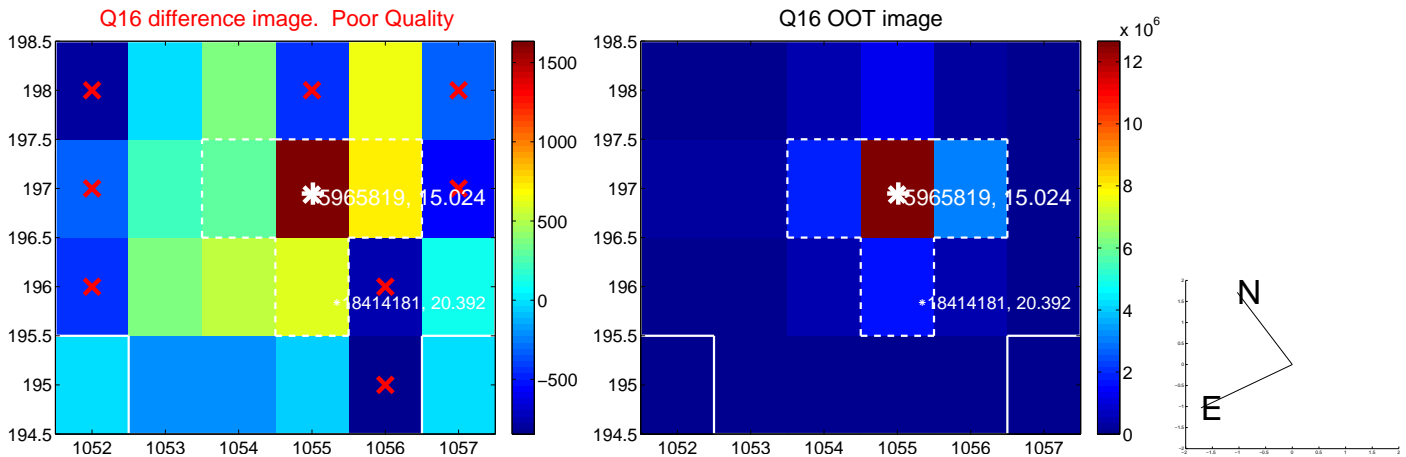
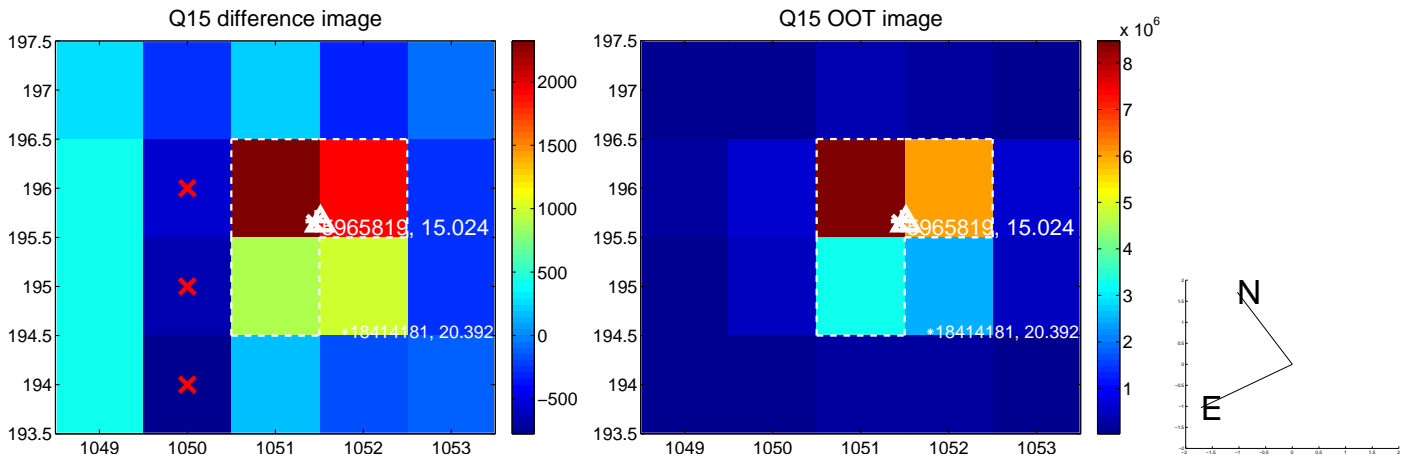
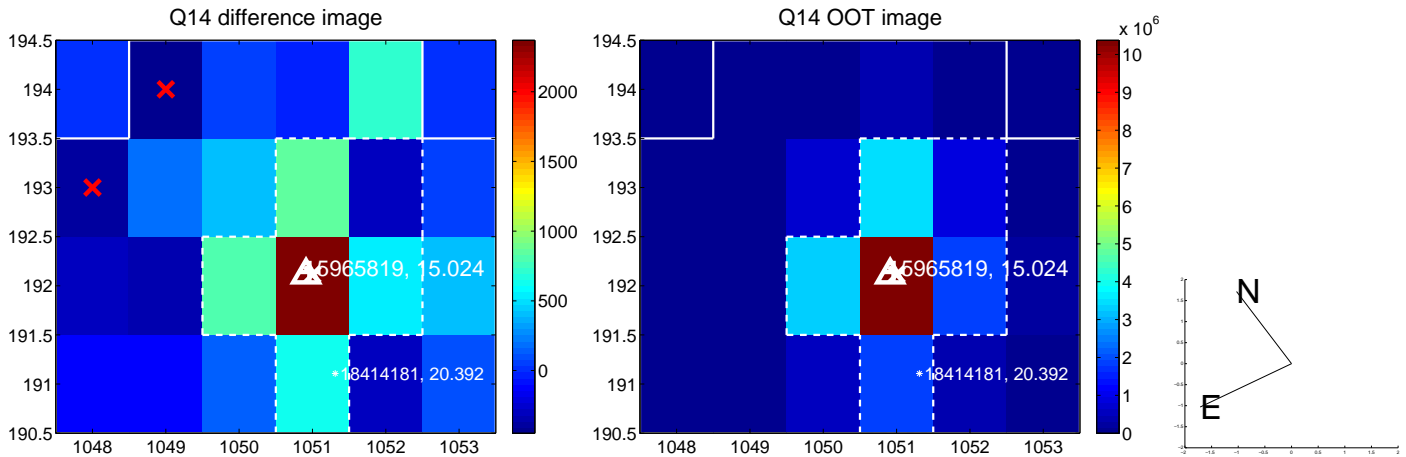
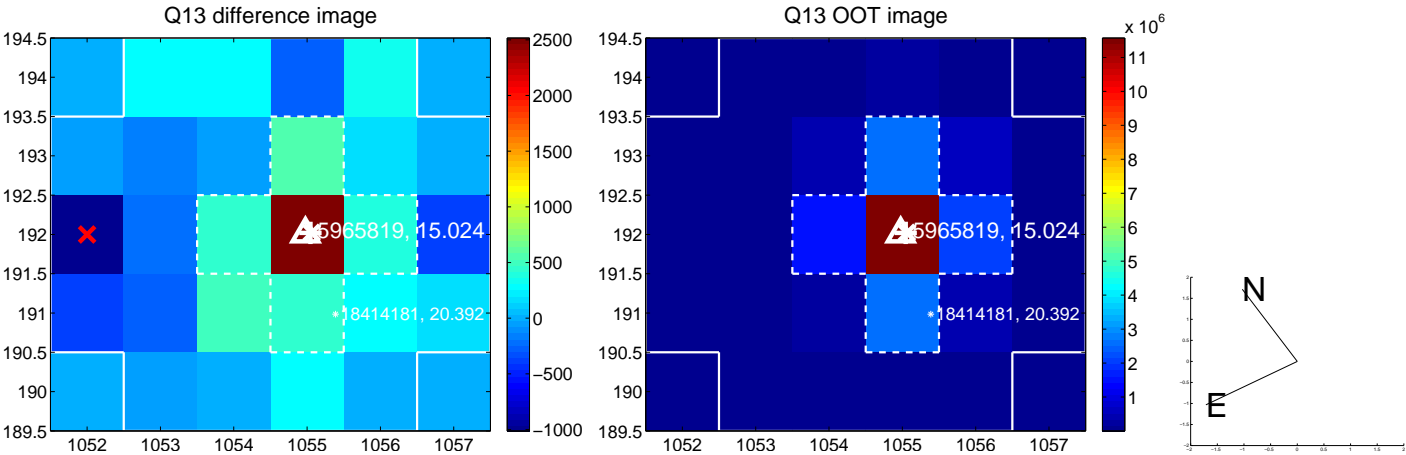
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



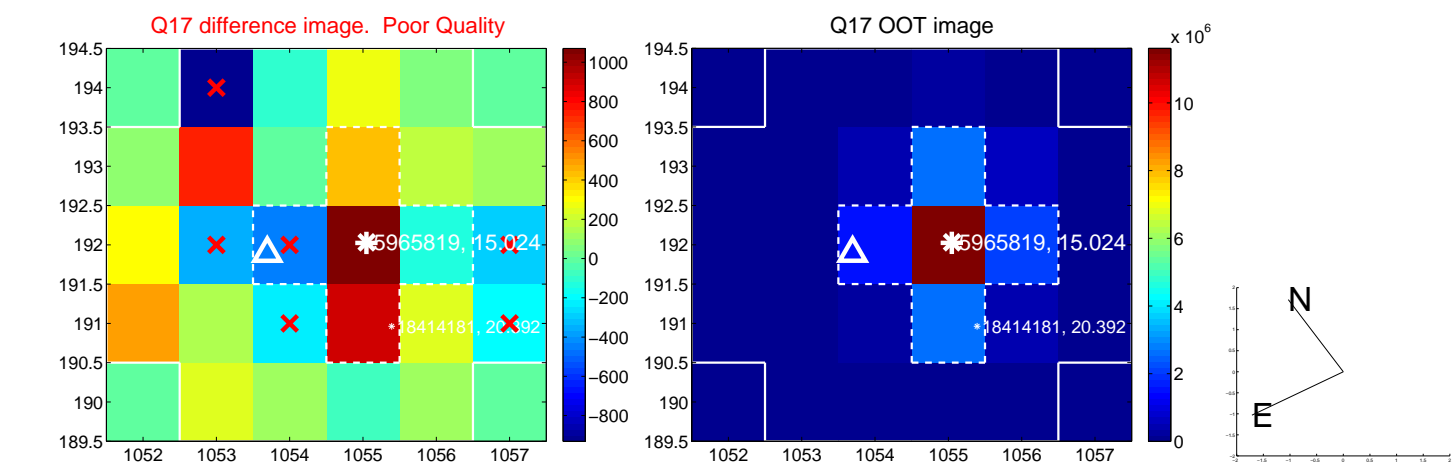
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



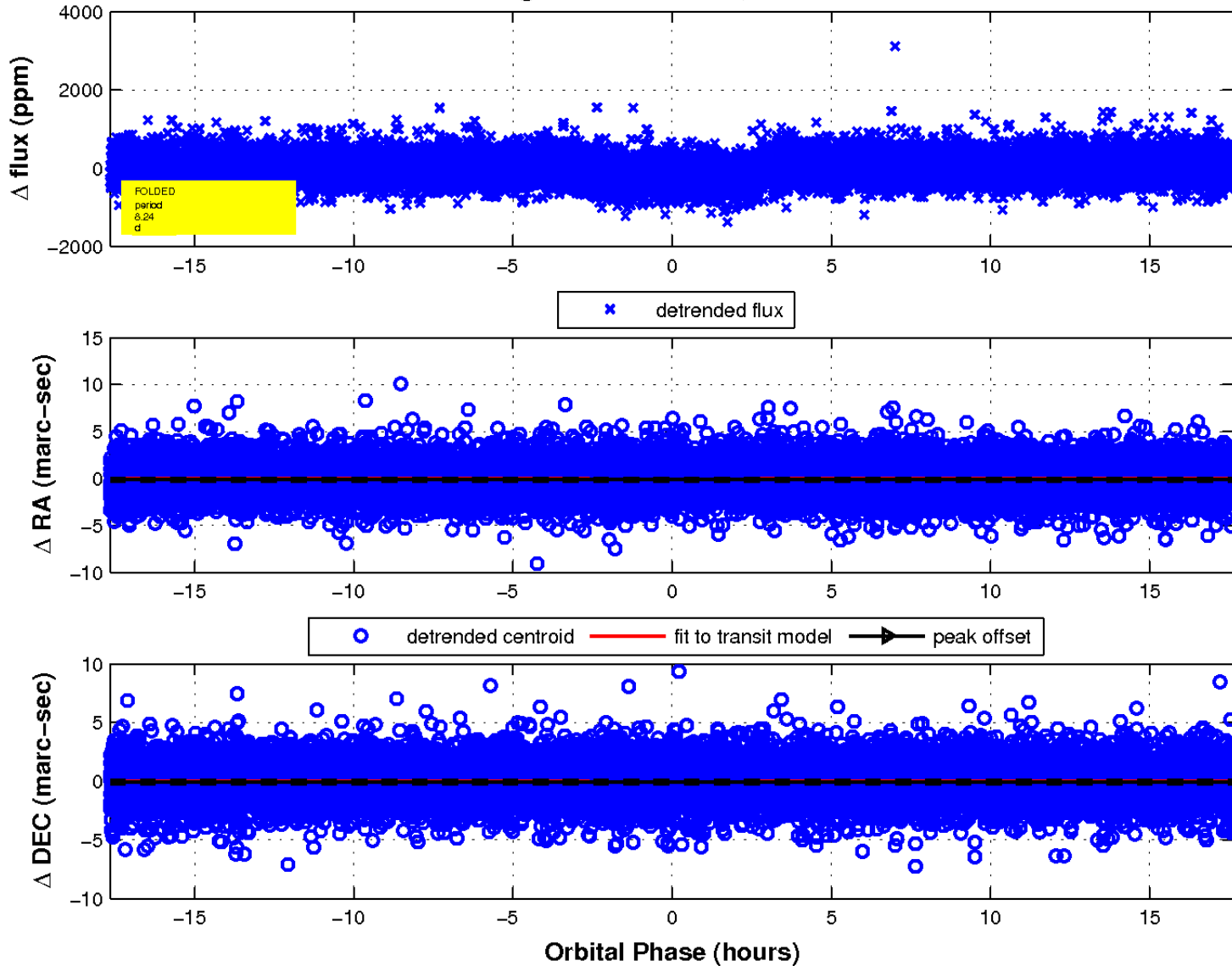
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

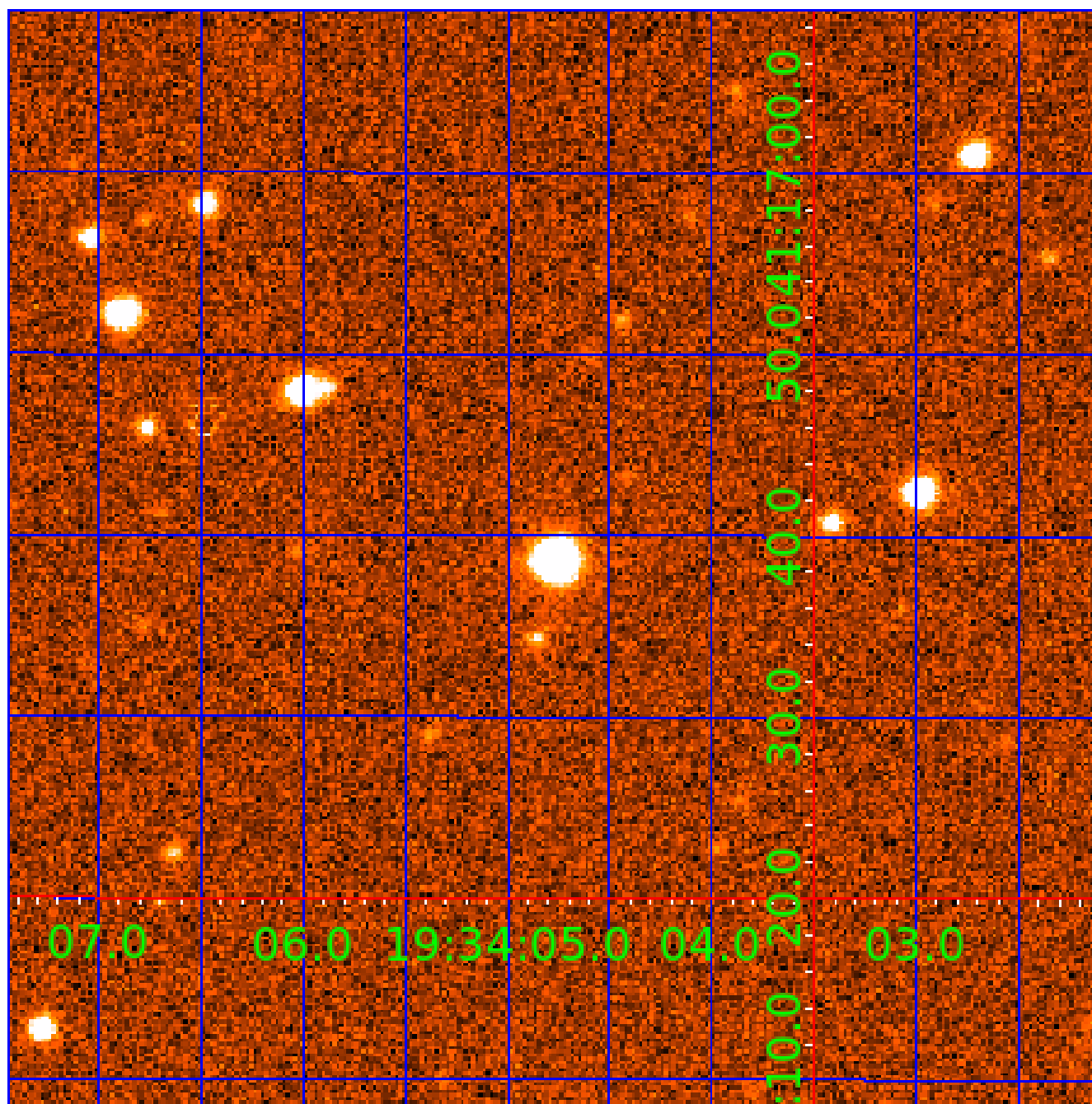


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 005965819

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
005965819-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
005965819-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
005965819-03	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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.

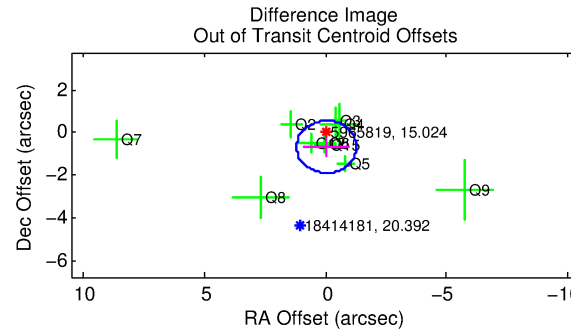
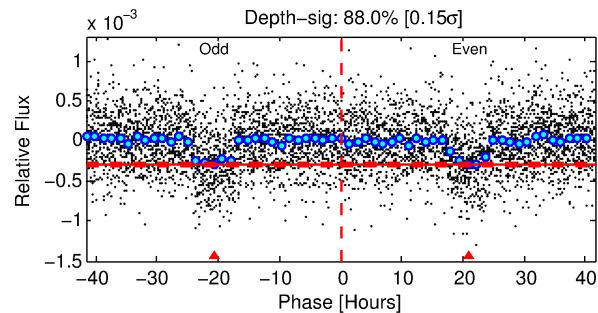
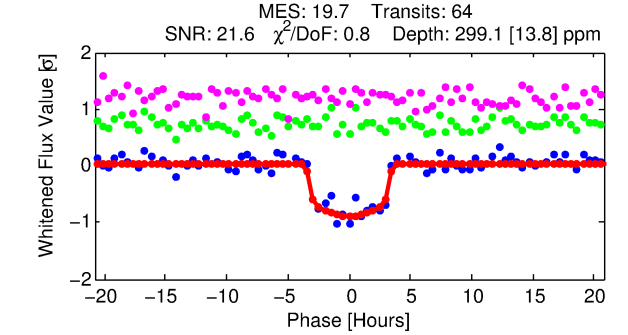
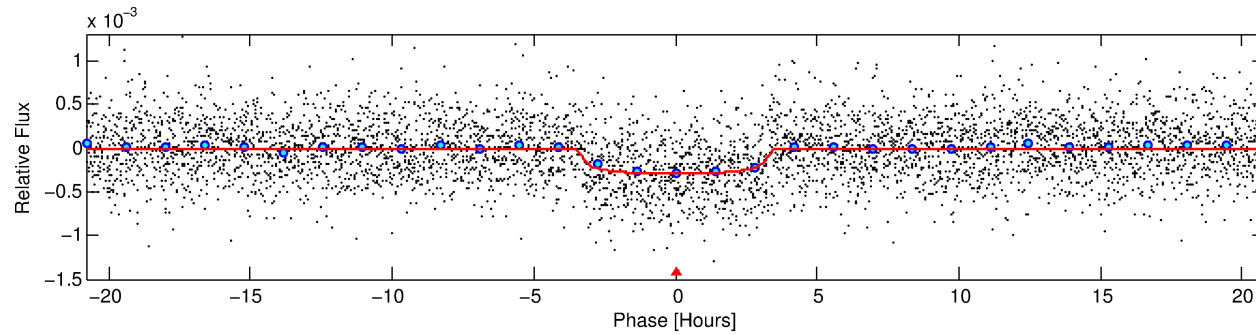
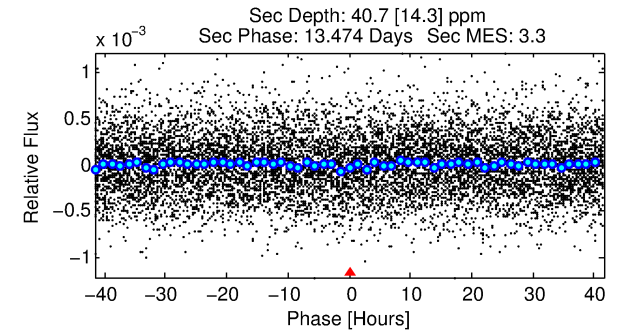
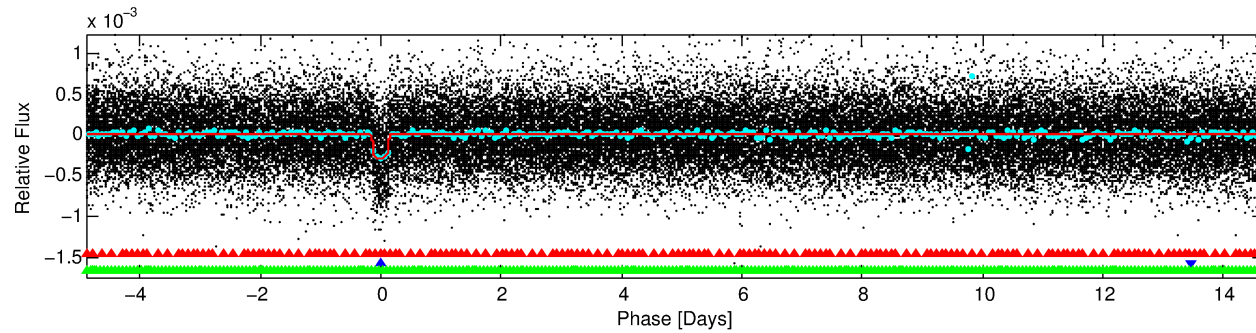
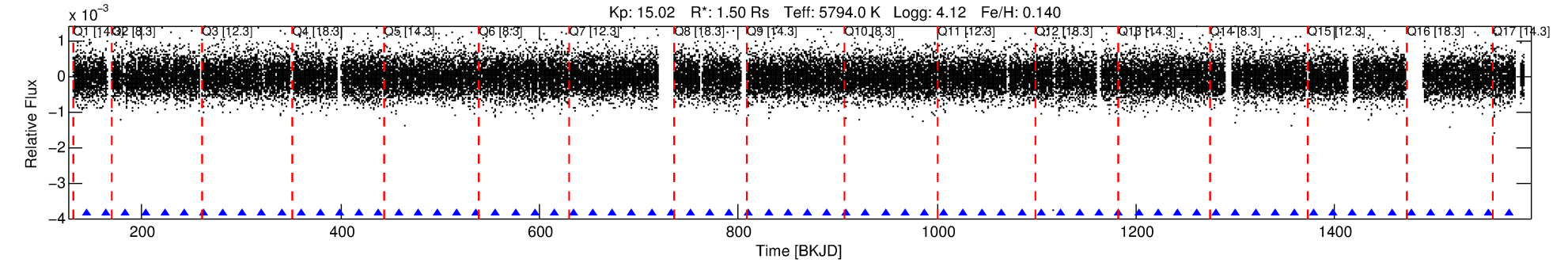
Ephemeris Match Information For 005965819-02

No Significant Match Found

DV One-Page Summary

KIC: 5965819 Candidate: 2 of 3 Period: 19.591 d

KOI: K03319.01 Corr: 0.980



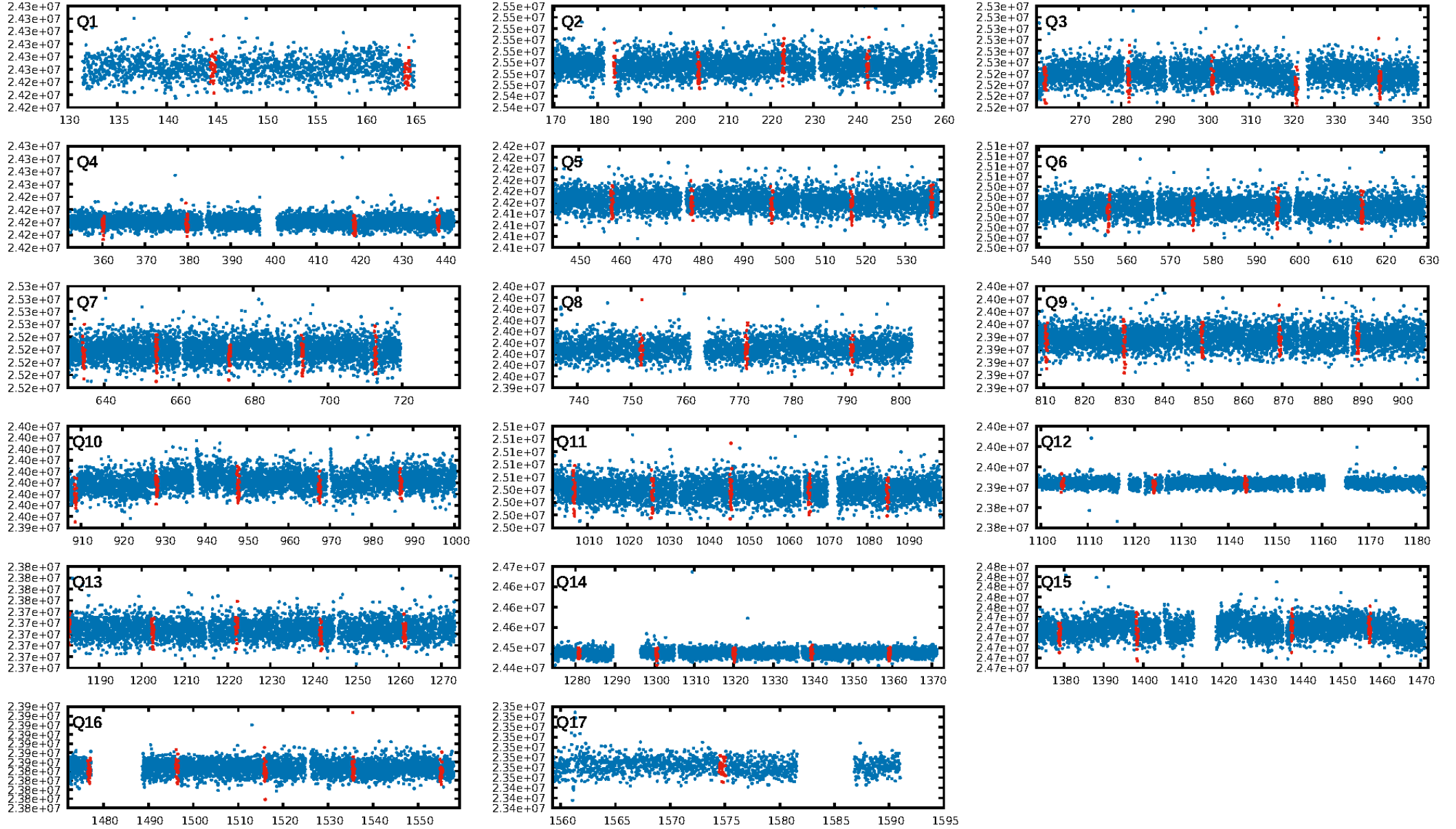
DV Fit Results:

Period = 19.59062 [0.00015] d
Epoch = 144.6595 [0.0063] BKJD
Rp/R* = 0.0177 [0.0041]
a/R* = 13.24 [13.82]
b = 0.81 [0.44]
Seff = 106.67 [33.51]
Teff = 819 [64] K
Rp = 2.89 [0.89] Re
a = 0.1456 [0.0281] AU
Ag = 56.66 [37.54] [1.48σ]
Teffp = 3476 [511] K [5.16σ]

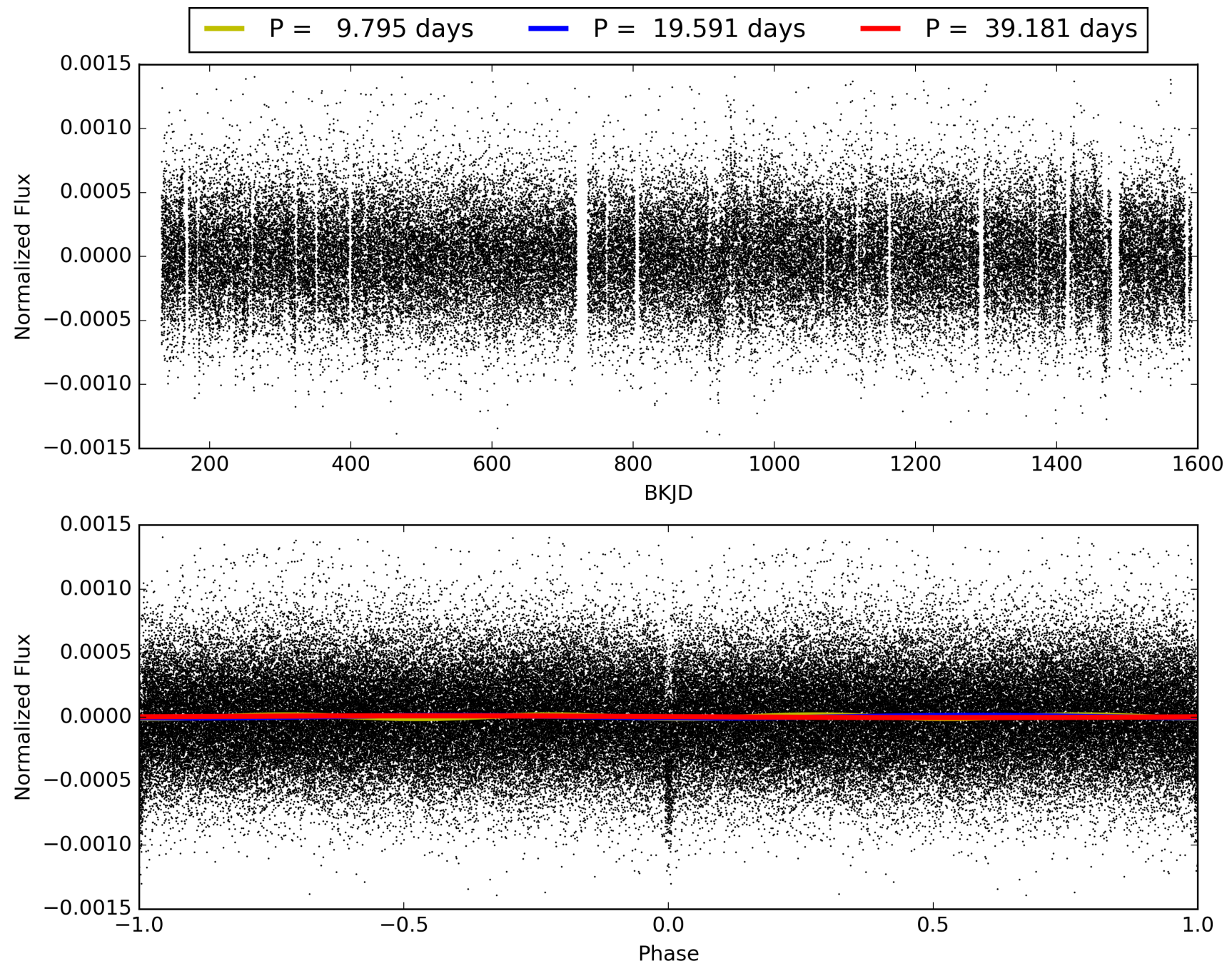
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [29.95σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.31e-80
RollingBand-fgt: 1.00 [61/61]
GhostDiagnostic-chr: 6.413
Centroid-sig: 1.0%
Centroid-so: 0.878 arcsec [1.49σ]
OotOffset-rm: 0.669 arcsec [1.64σ]
KicOffset-rm: 0.591 arcsec [1.26σ]
OotOffset-st: 2/3/3/2 [10]
KicOffset-st: 2/3/3/2 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 0.82 [14/17]

TCE 005965819-02, PDC Light Curves

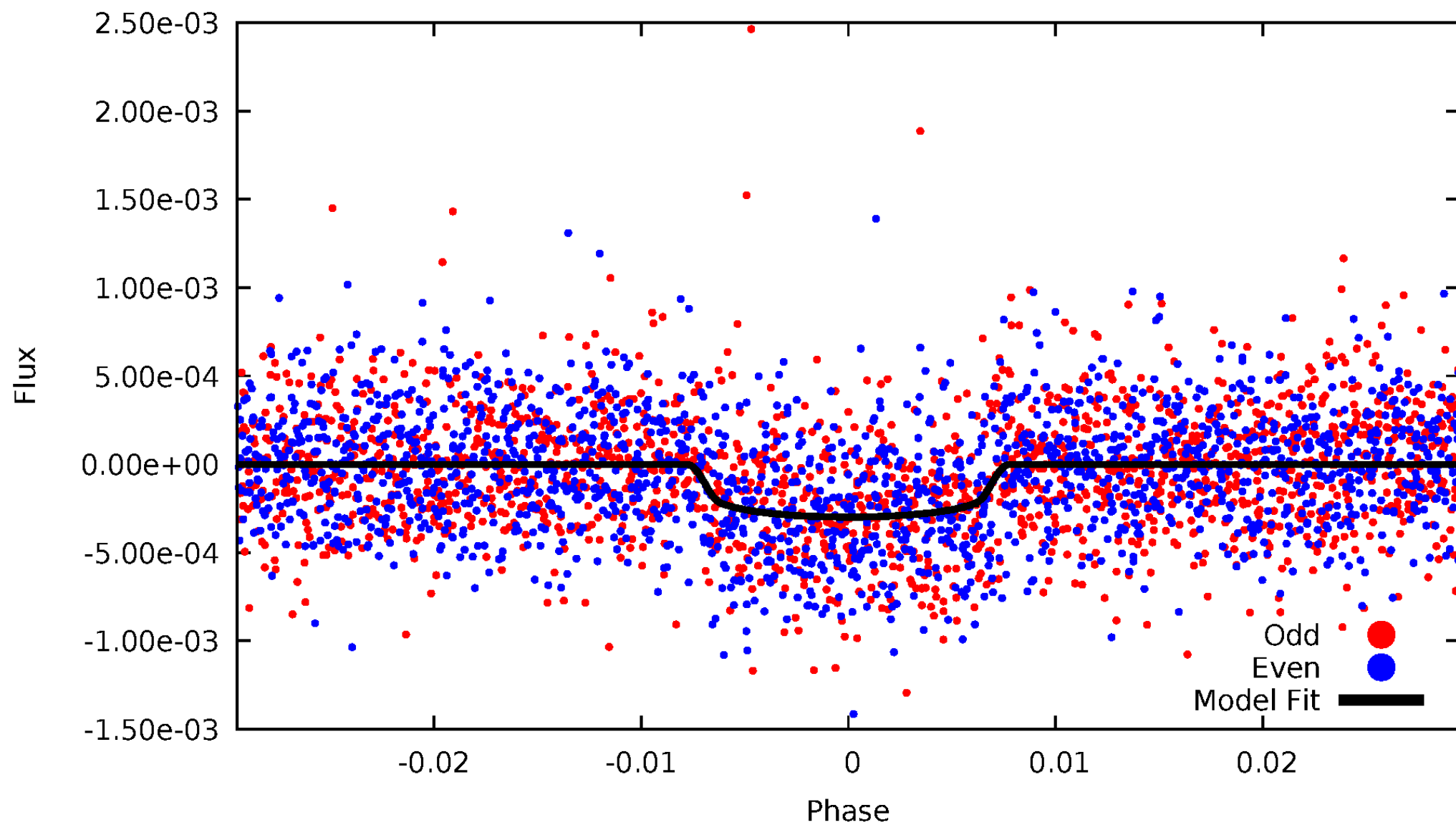


TCE 005965819-02



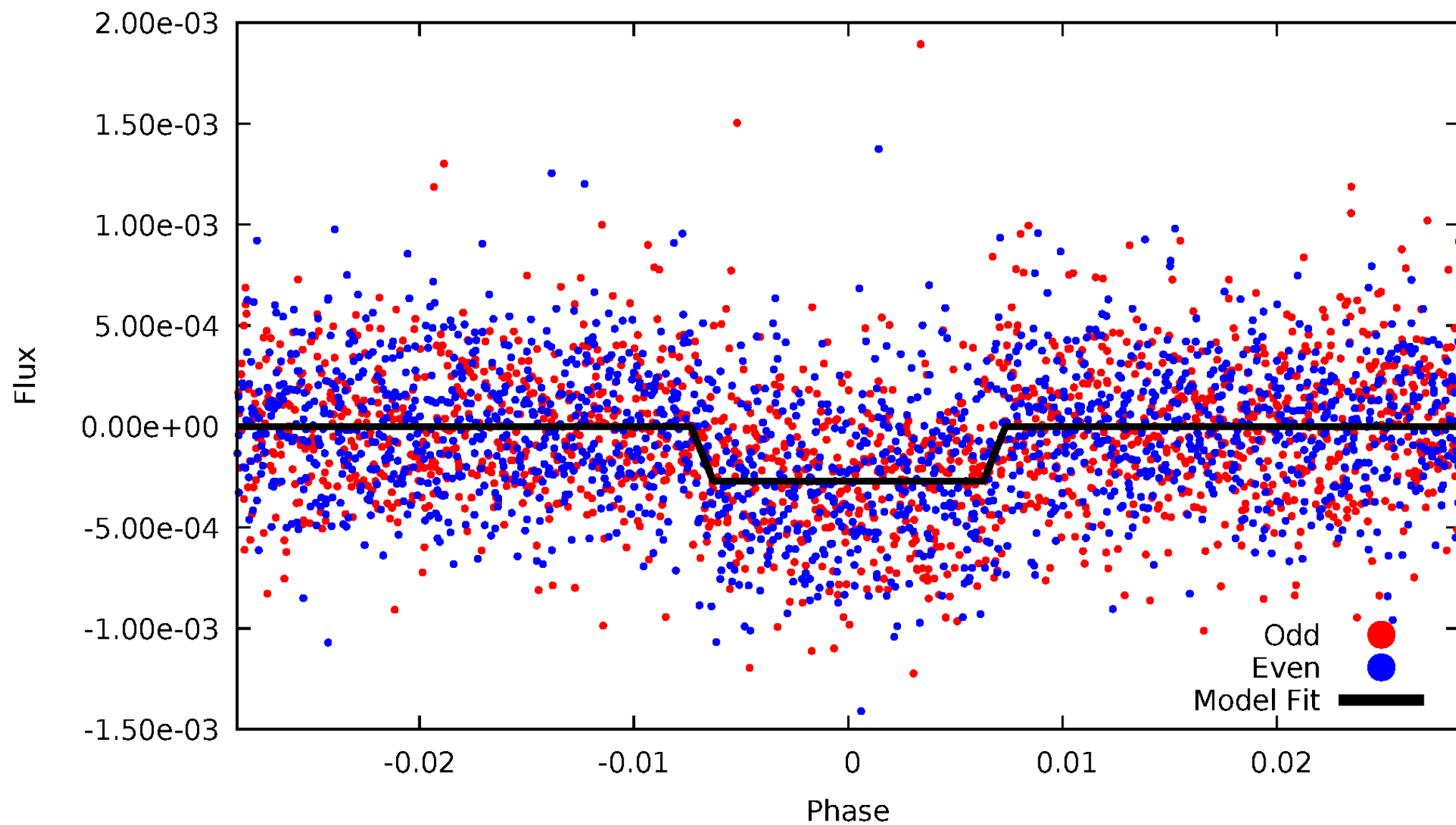
DV Odd/Even

TCE 005965819-02



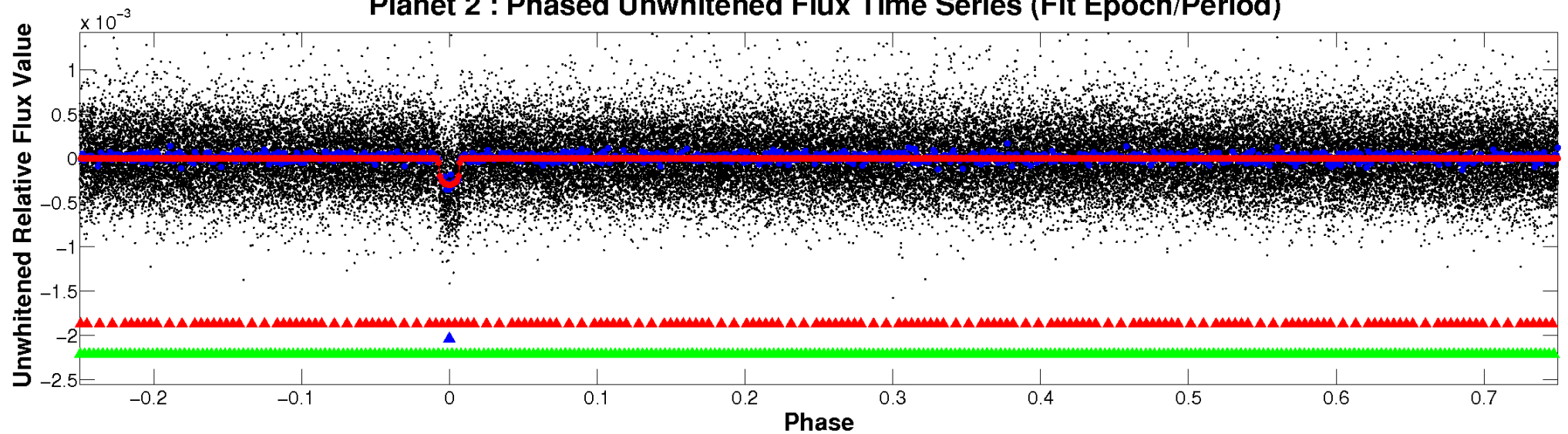
ALT Odd/Even

TCE 005965819-02

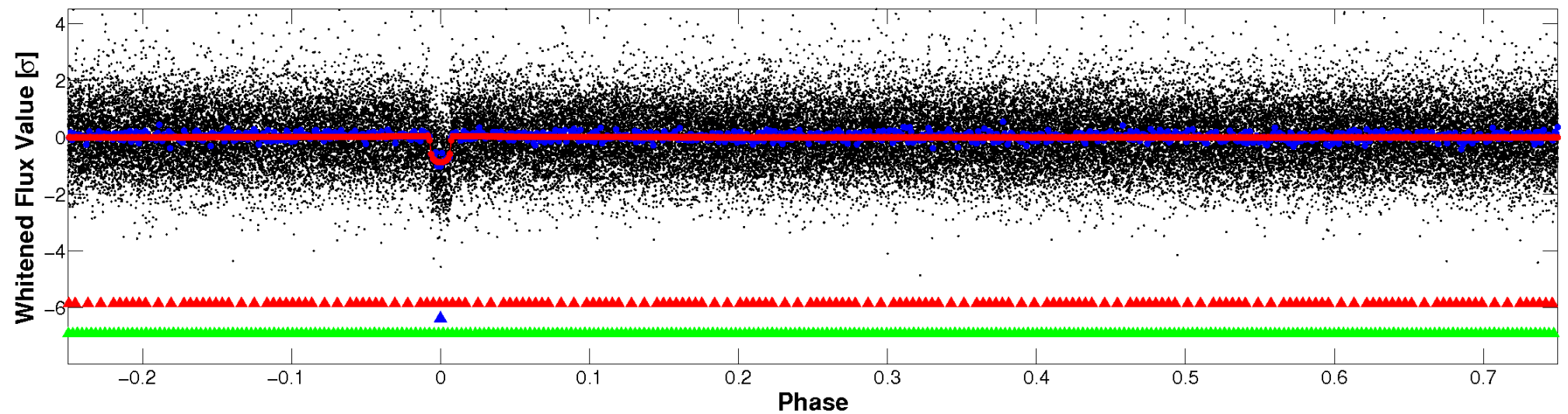


Non-Whitened Vs. Whitened Light Curve

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

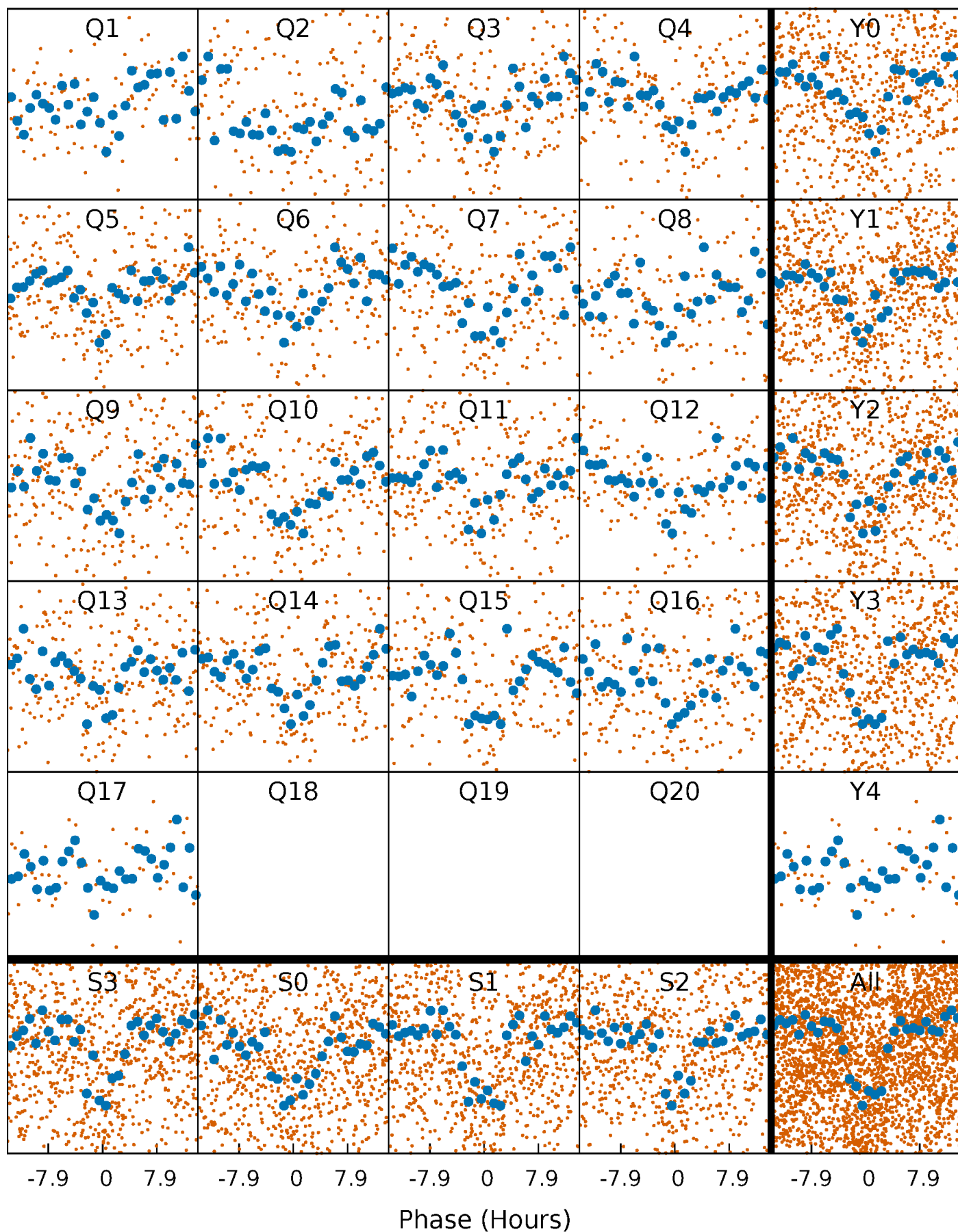


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



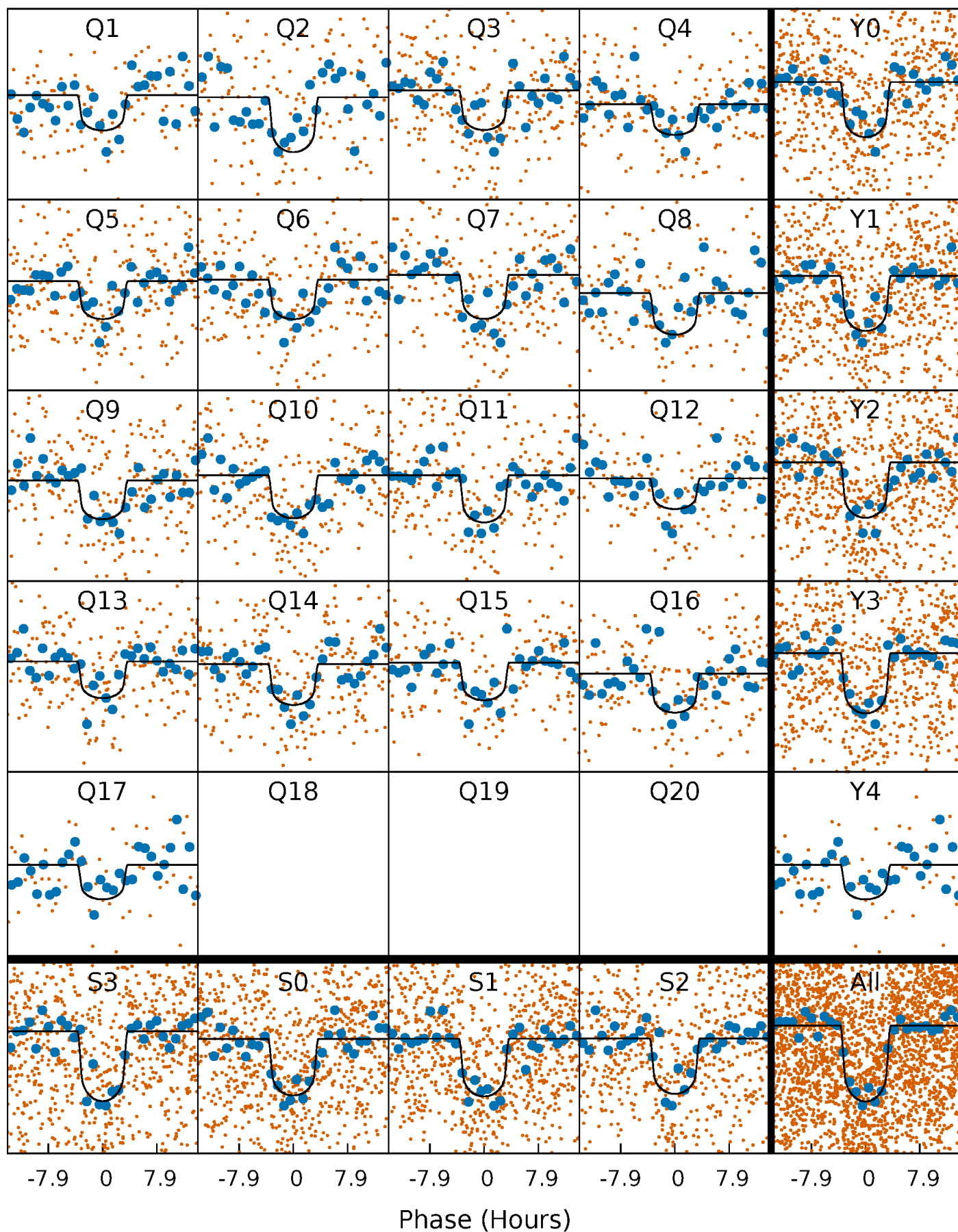
PDC Quarter-Phased Transit Curves

TCE 005965819-02 P= 19.590622 Days $T_0=144.659466$ (BKJD)



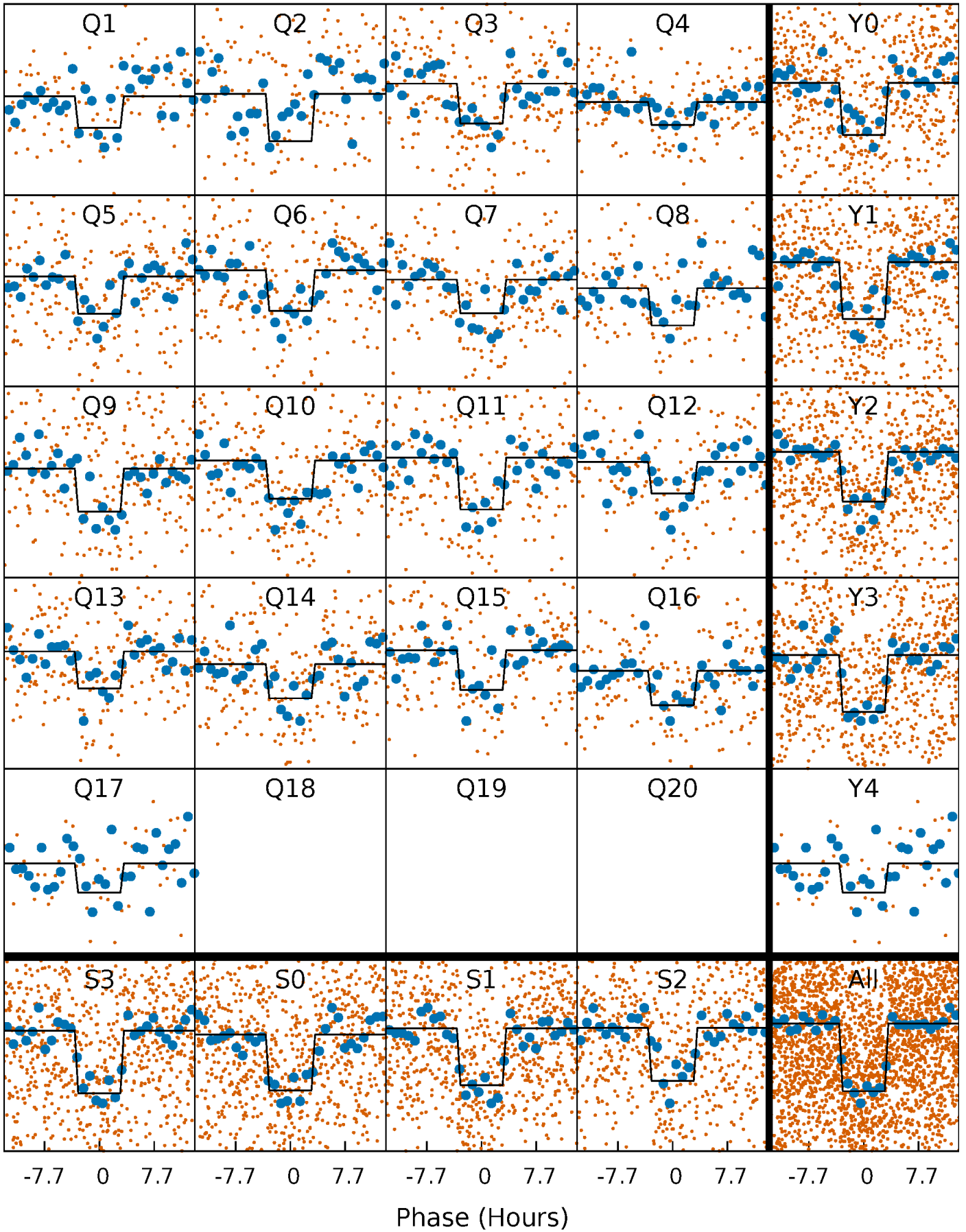
DV Quarter-Phased Transit Curves

TCE 005965819-02 P= 19.590622 Days $T_0=144.659466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

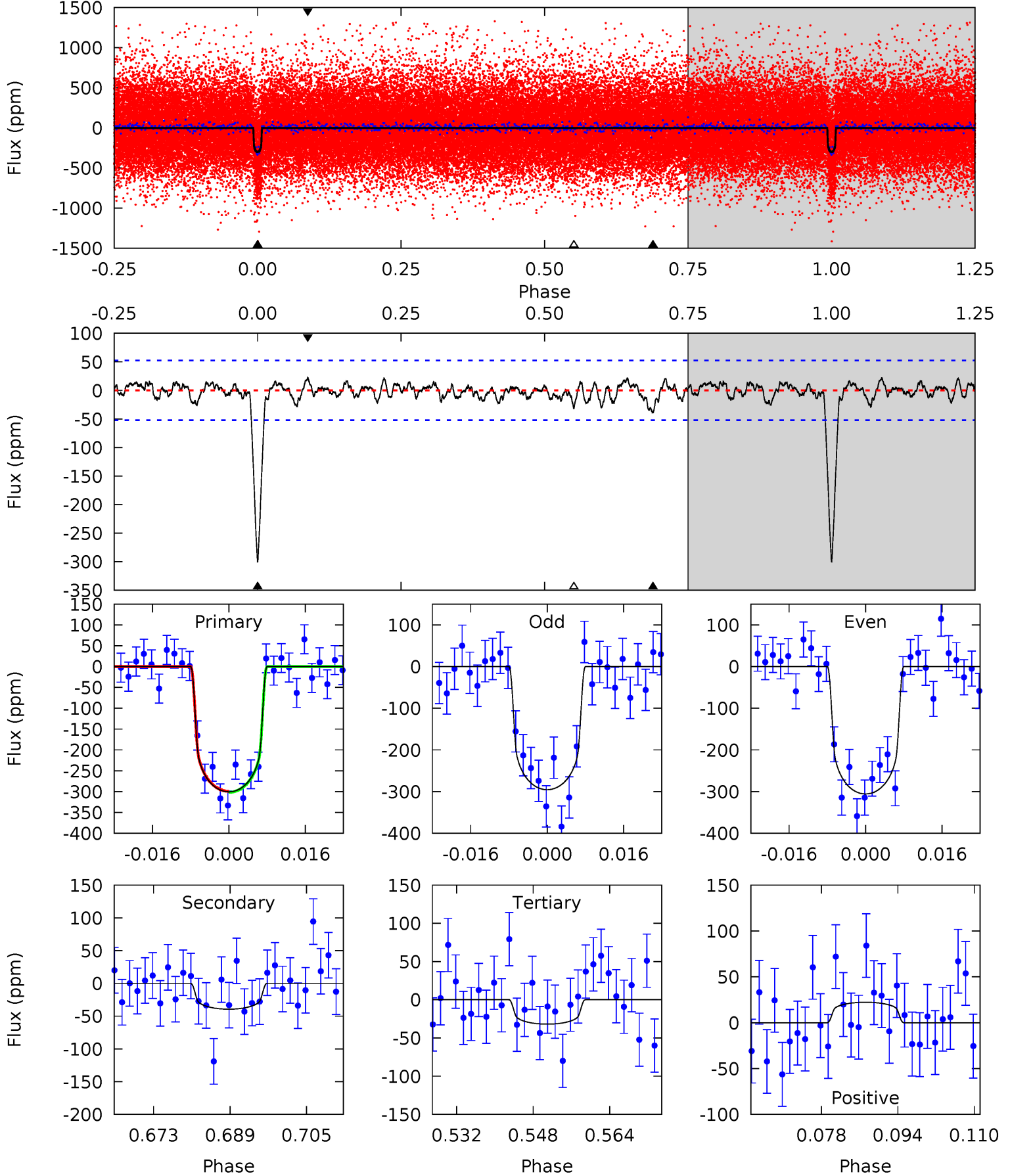
TCE 005965819-02 P= 19.590402 Days $T_0=144.668060$ (BKJD)



DV Model-Shift Uniqueness Test

005965819-02, P = 19.590622 Days, E = 125.068844 Days

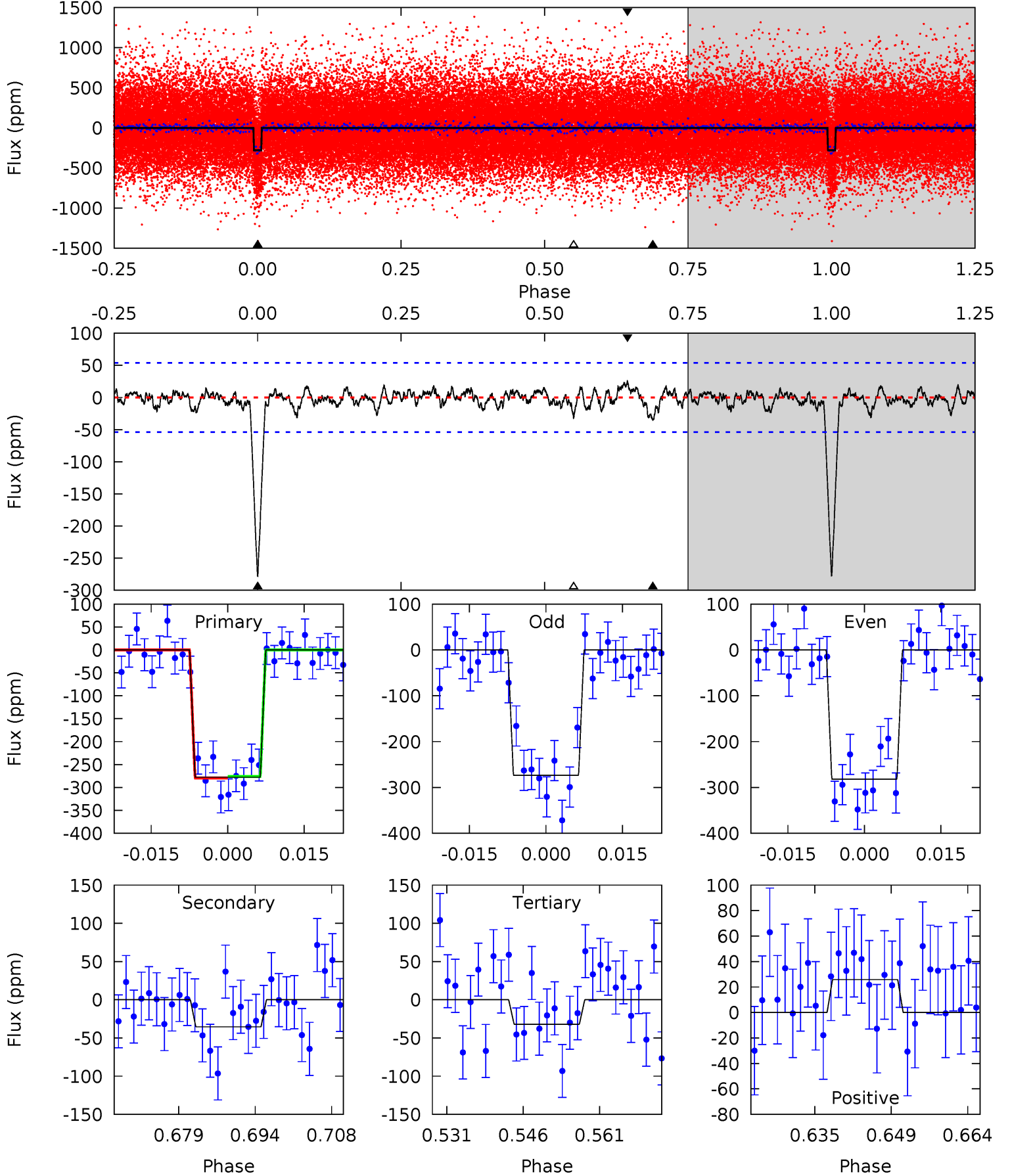
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.4	3.72	3.01	2.10	4.94	2.42	0.96	25.4	26.3	0.71	1.62	0.48	0.96	0.07	0.11



Alt Model-Shift Uniqueness Test

005965819-02, $P = 19.590402$ Days, $E = 125.077658$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.5	3.26	2.96	2.37	4.95	2.44	0.86	22.6	23.1	0.30	0.89	0.40	0.98	0.09	0.15



Stellar Parameters For KIC 005965819

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5794^{+78}_{-78}	$4.118^{+0.182}_{-0.098}$	$0.140^{+0.150}_{-0.150}$	$1.496^{+0.245}_{-0.299}$	$1.072^{+0.112}_{-0.084}$	$0.451^{+0.415}_{-0.133}$
	+1%/-1%	+4%/-2%	+107%/-107%	+16%/-20%	+10%/-8%	+92%/-29%
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 005965819-02 / KOI 3319.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-39 ± 11	$2.85^{+0.76}_{-0.69}$	1138^{+52}_{-66}	3812^{+385}_{-316}	57^{+49}_{-25}
Alt.	-35 ± 11	$2.66^{+0.76}_{-0.69}$	1141^{+49}_{-59}	3824^{+439}_{-352}	58^{+52}_{-27}

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 $A_{obs} \gg 1.0$

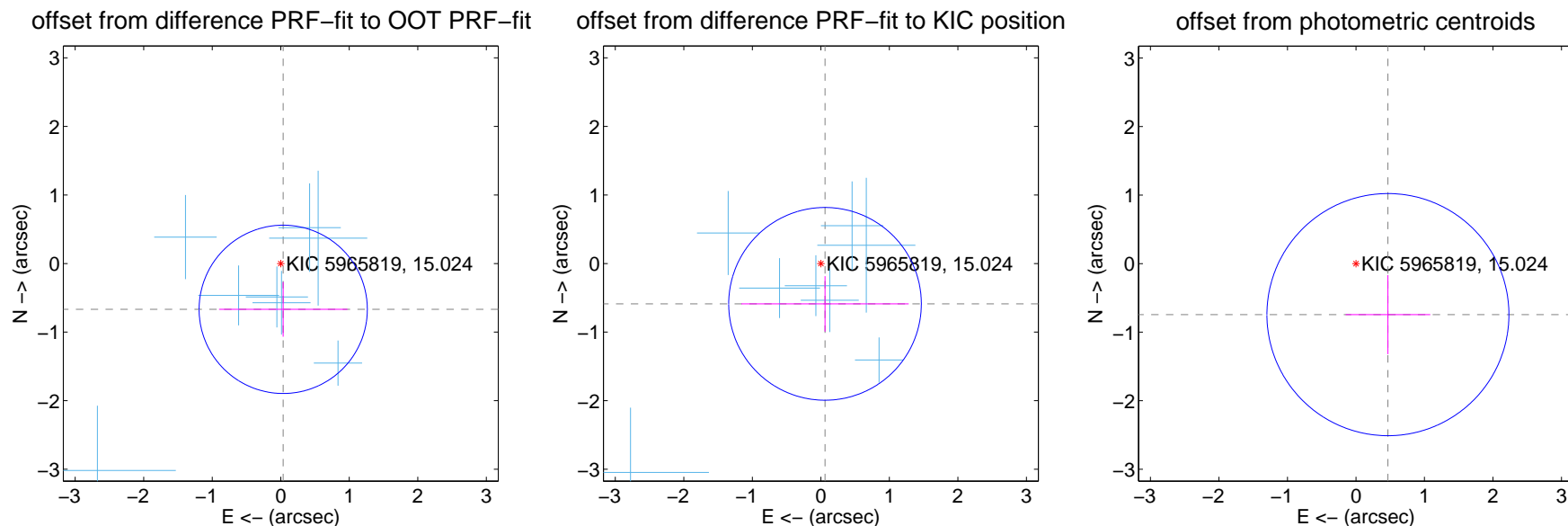
DV Centroid Data

Supplemental centroid analysis for 005965819-02. Kepler magnitude: 15.02. Transit SNR 21.58

There are 8 quarters with good PRF difference image offsets

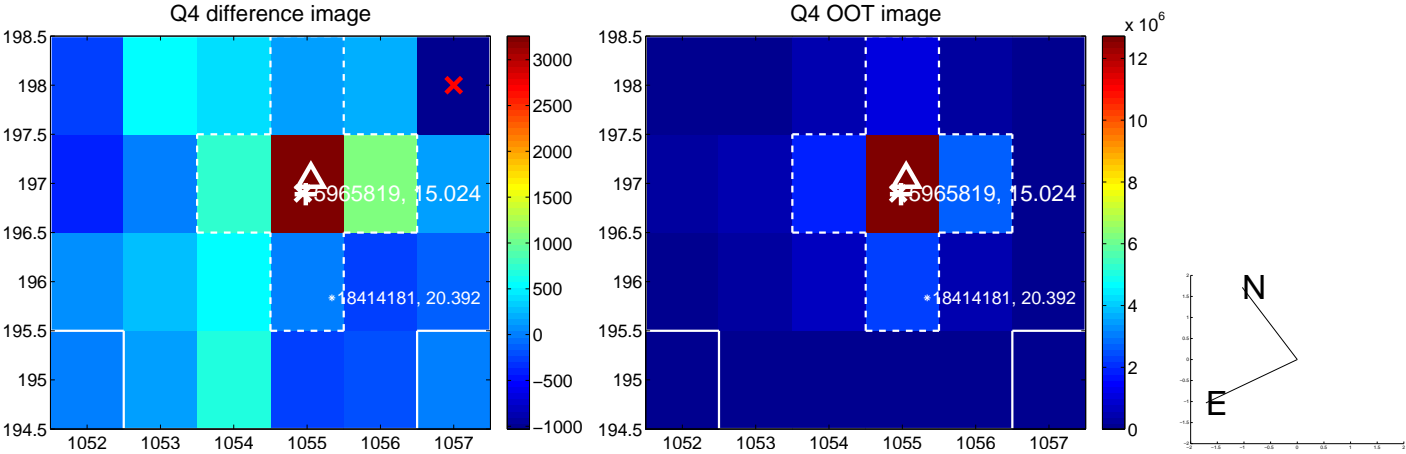
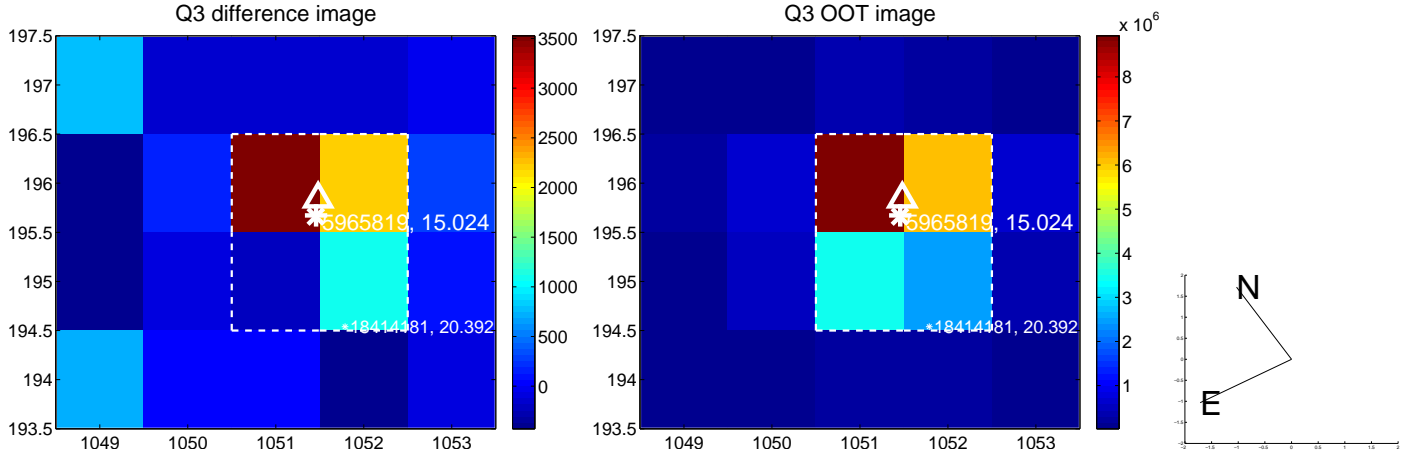
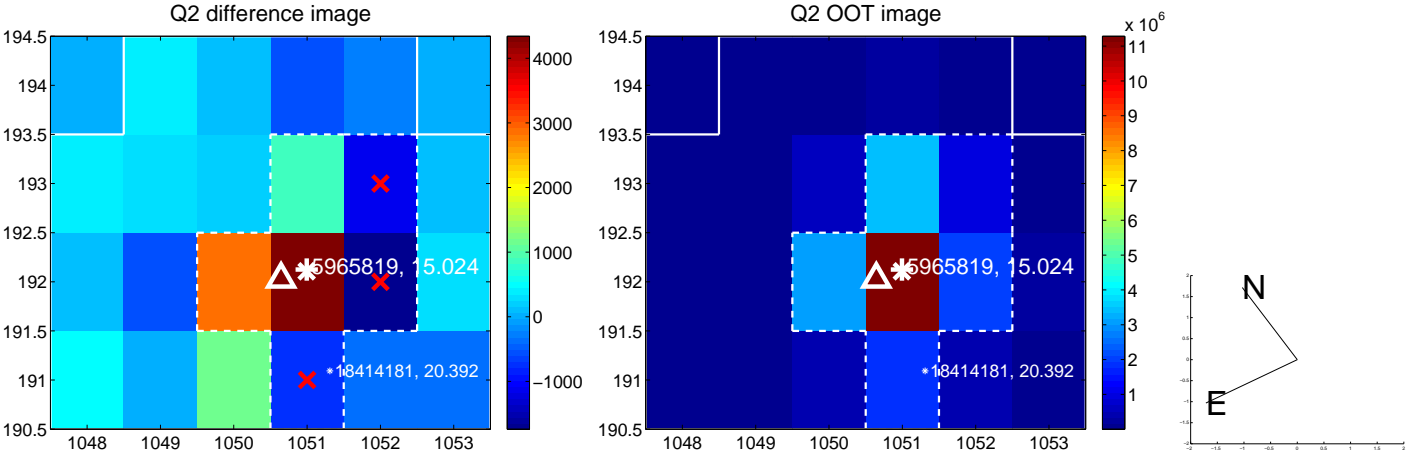
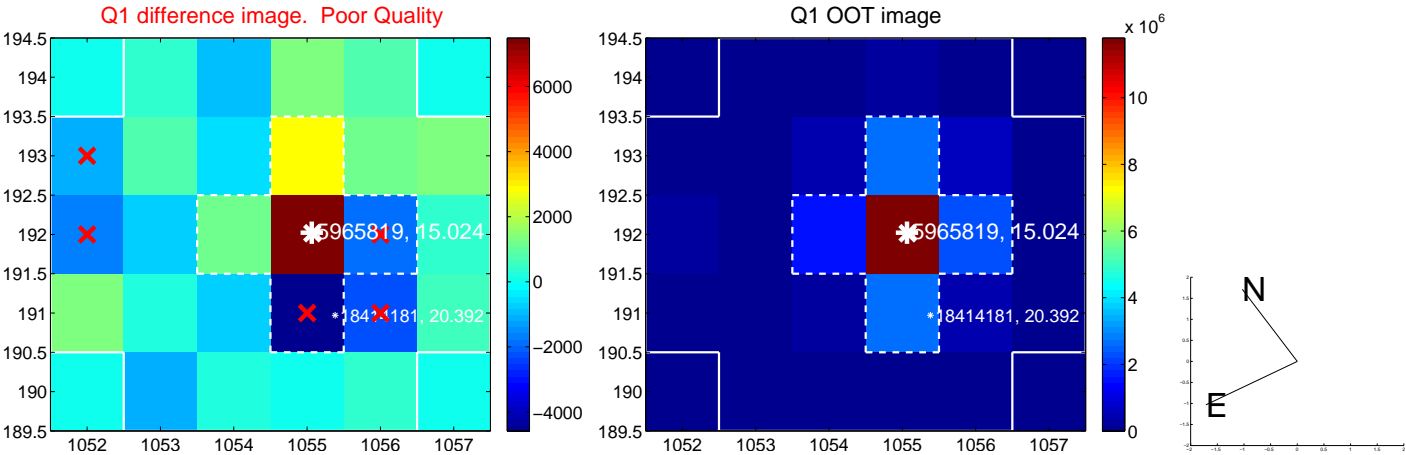
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.669 ± 0.409	1.64	-0.036 ± 0.936	-0.668 ± 0.399
PRF-fit source offset from KIC position	0.591 ± 0.469	1.26	-0.061 ± 1.221	-0.588 ± 0.404
photometric centroid source offset	0.88 ± 0.59	1.49	-0.47 ± 0.62	-0.74 ± 0.58

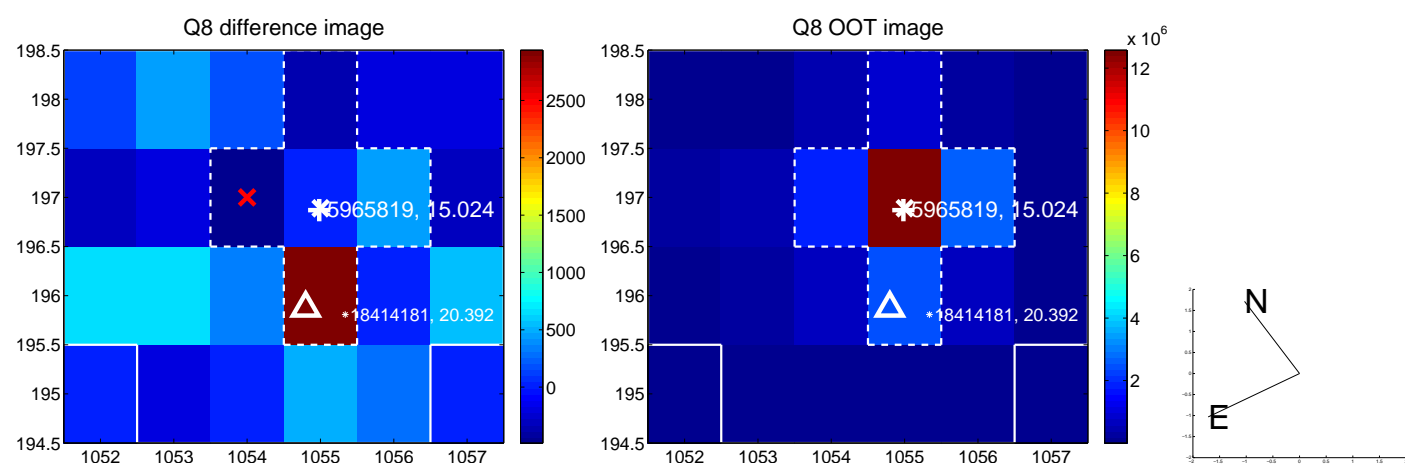
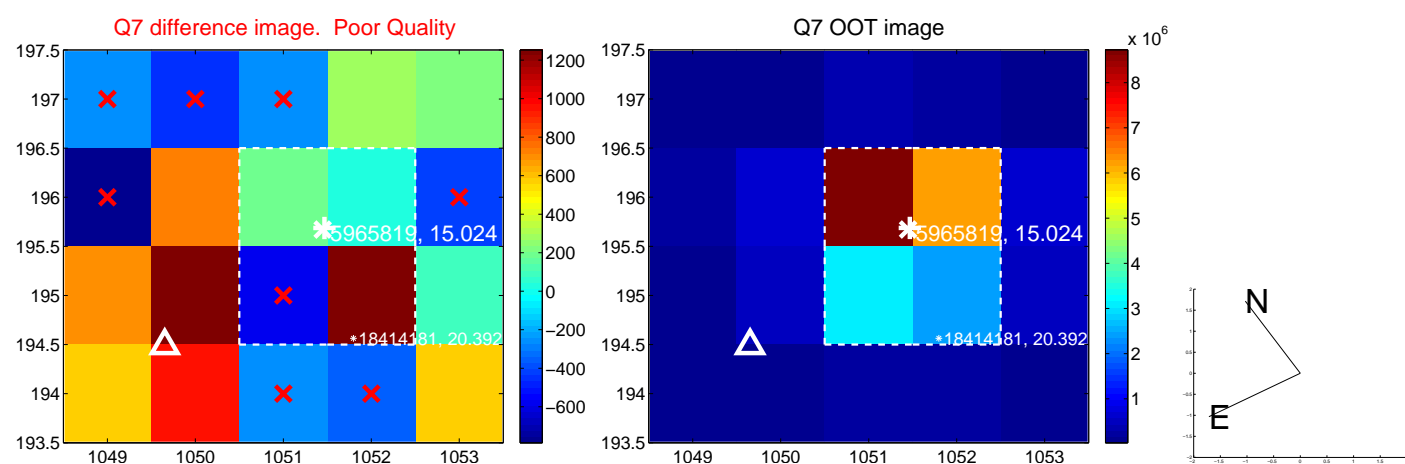
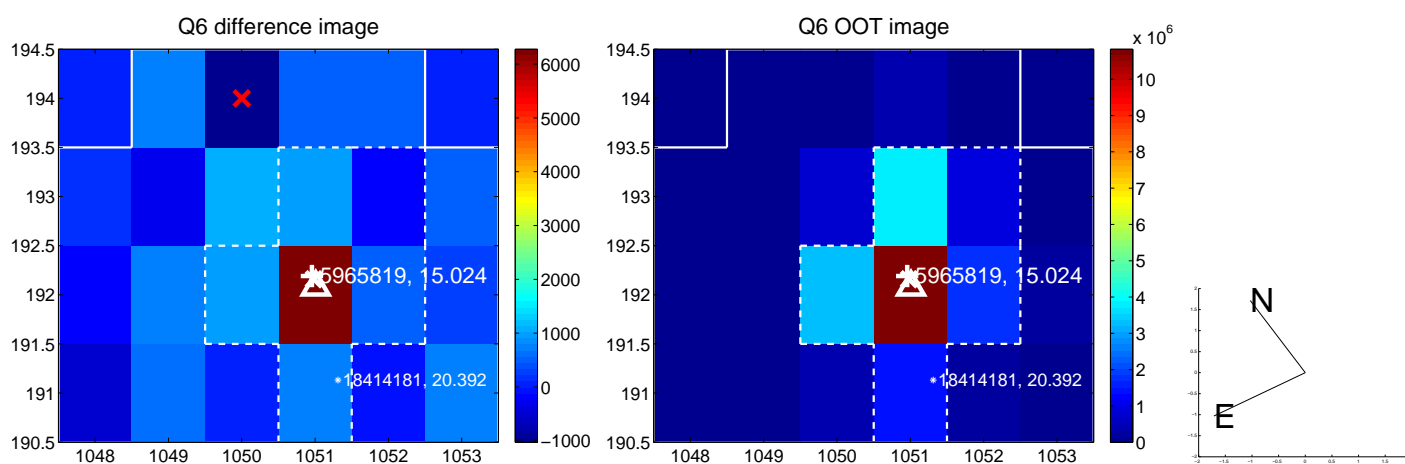
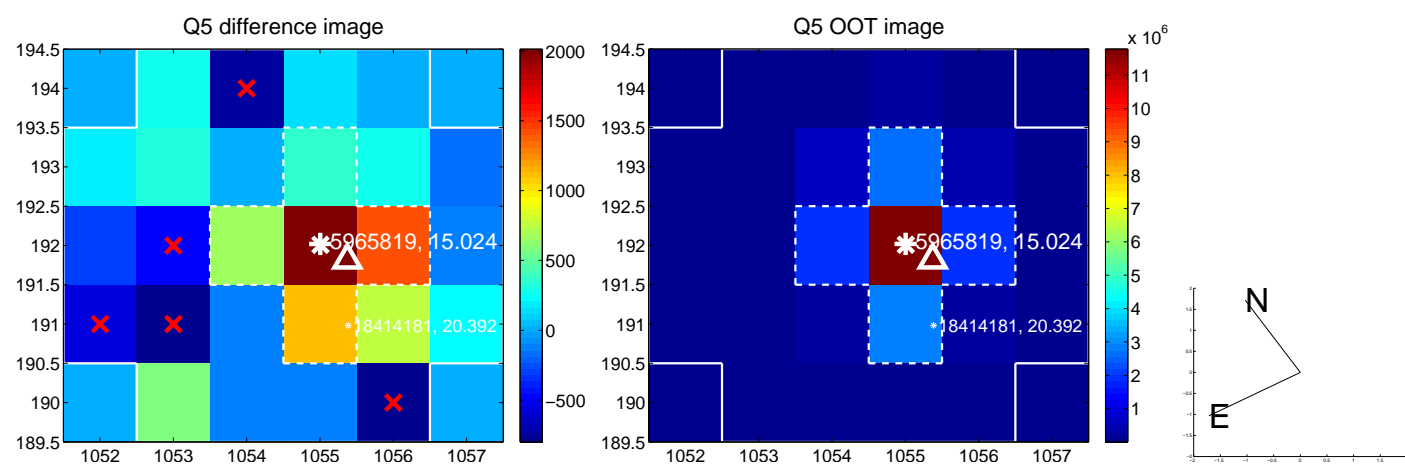


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

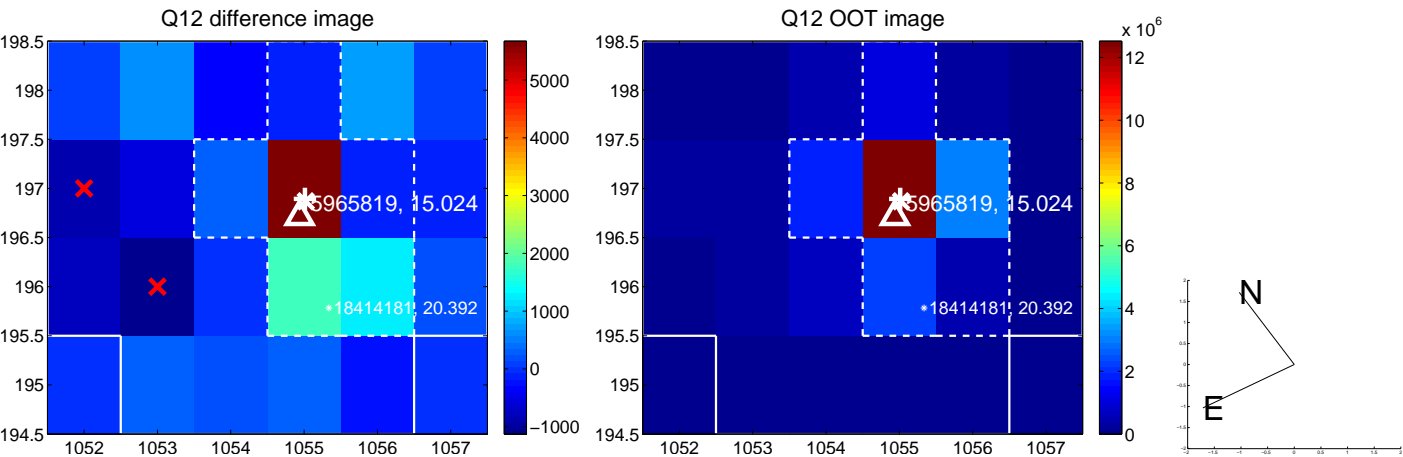
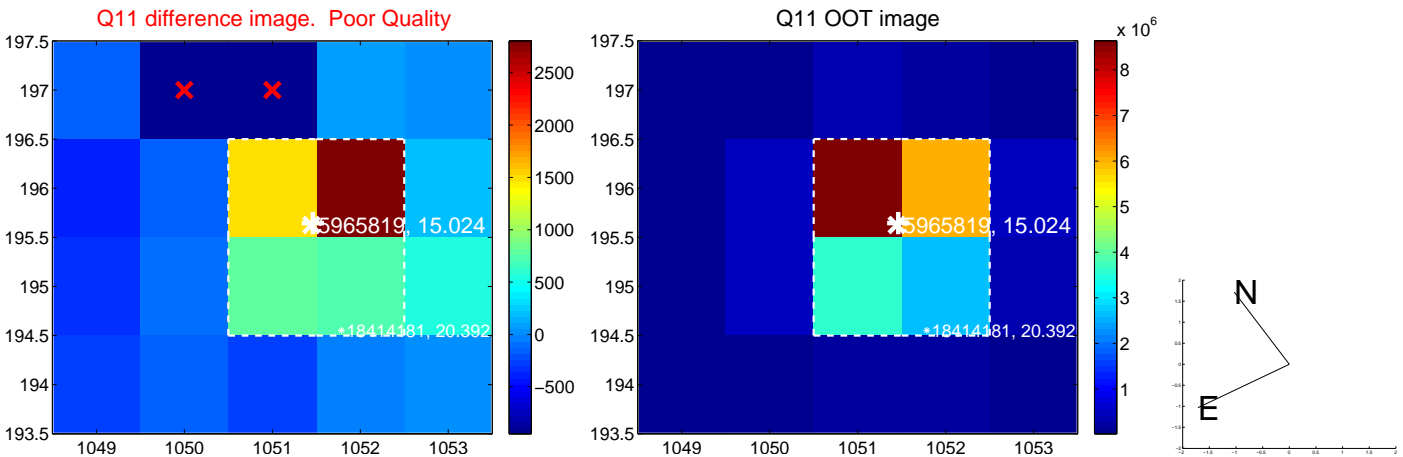
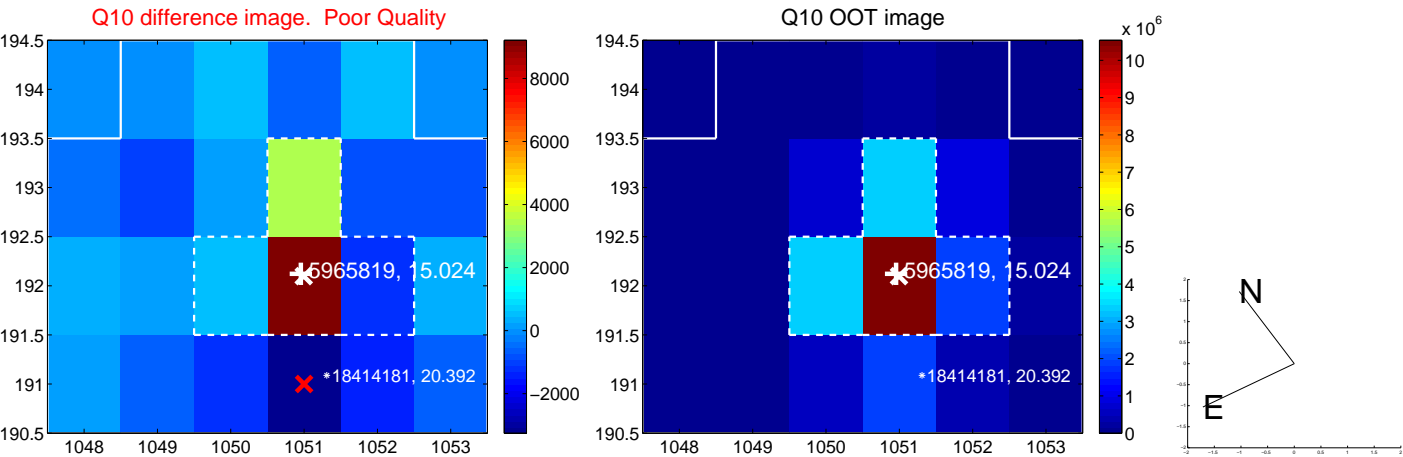
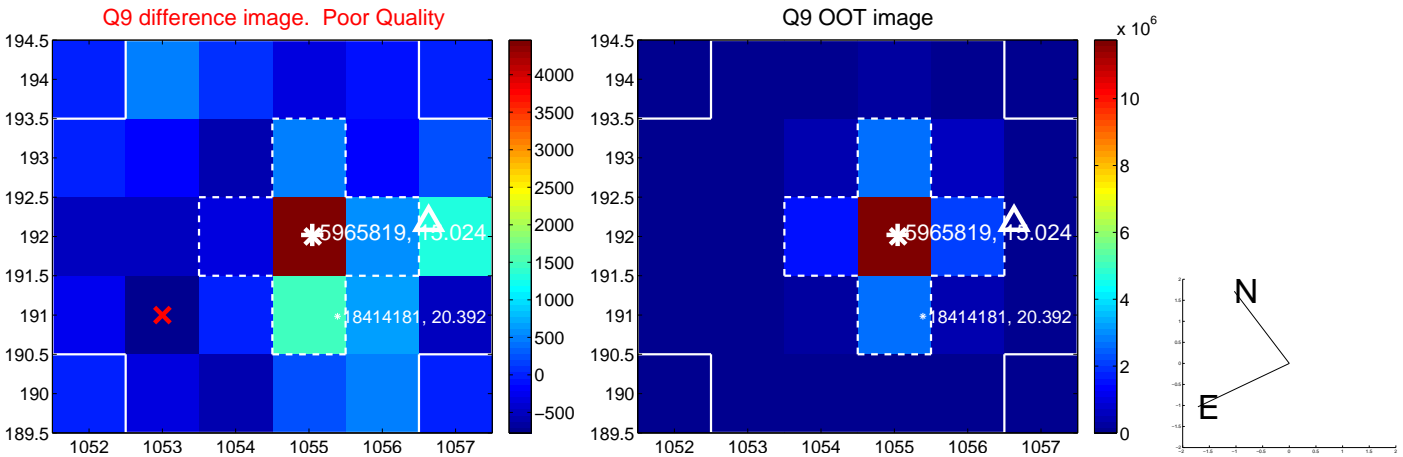
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



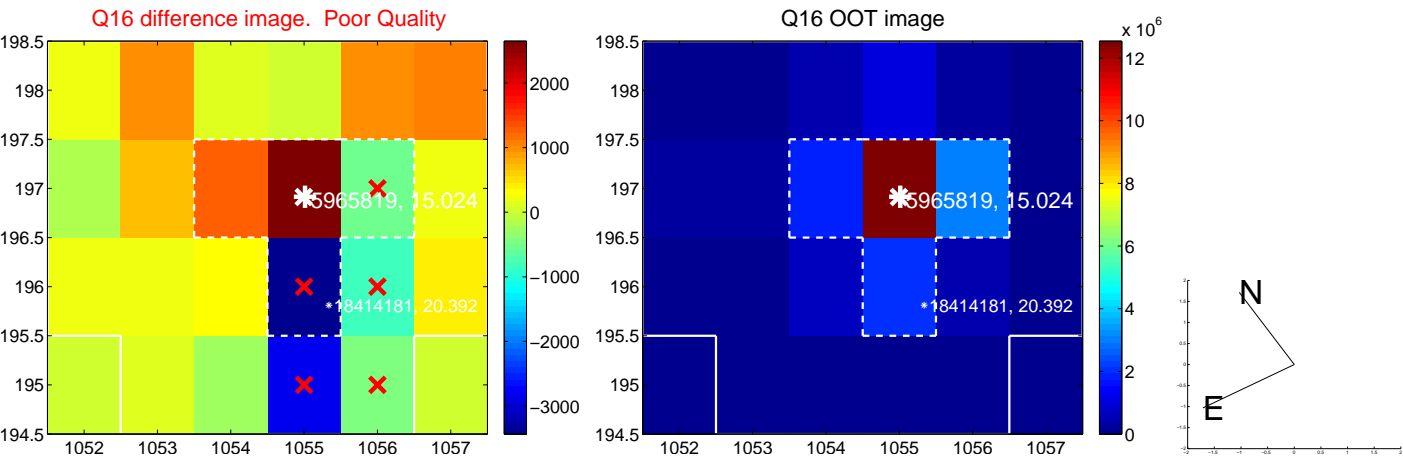
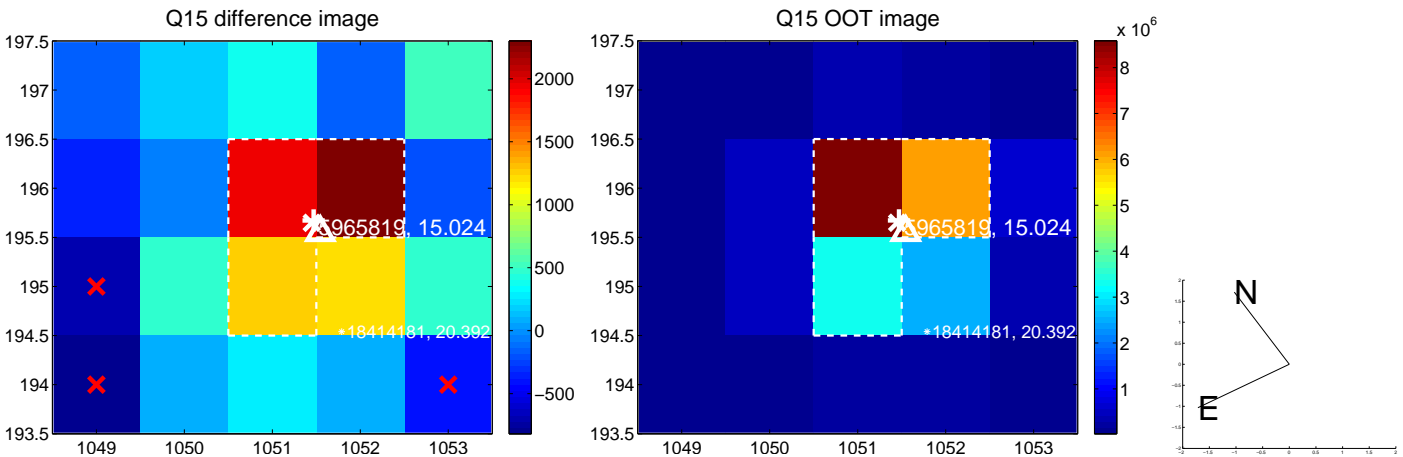
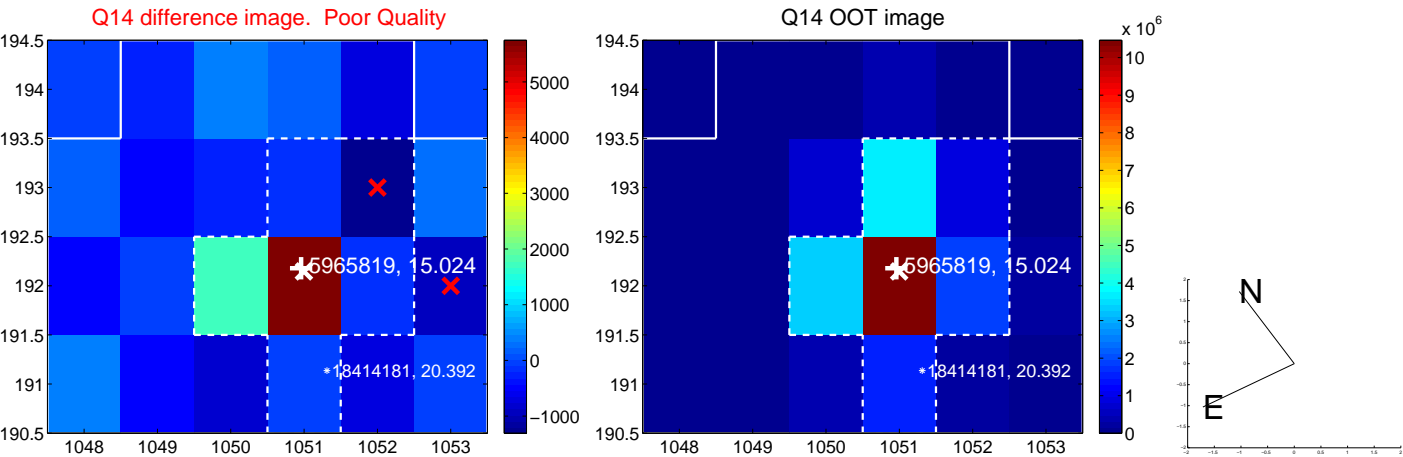
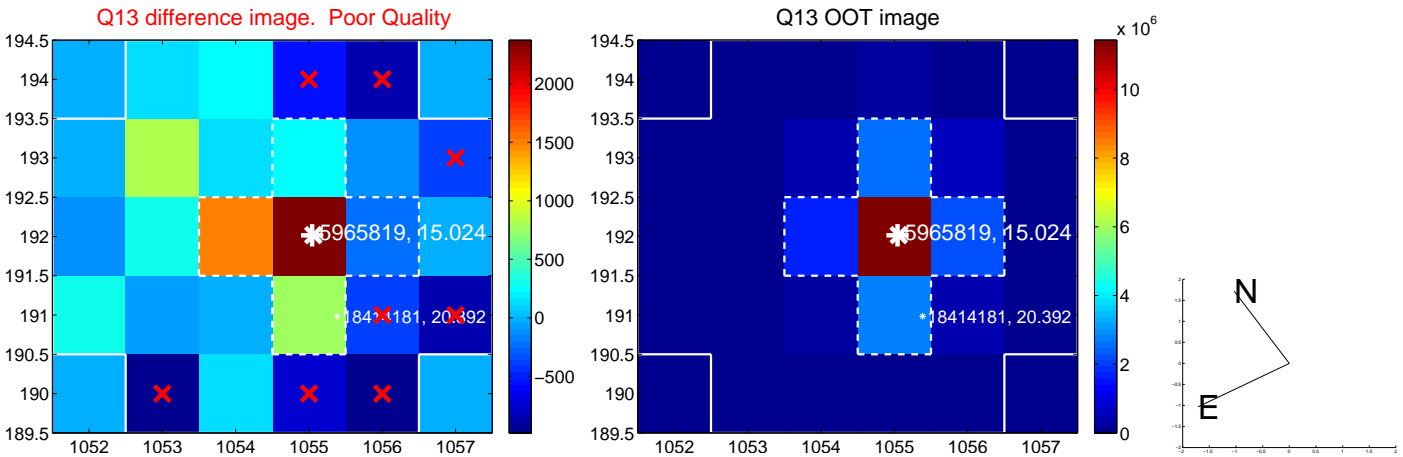
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



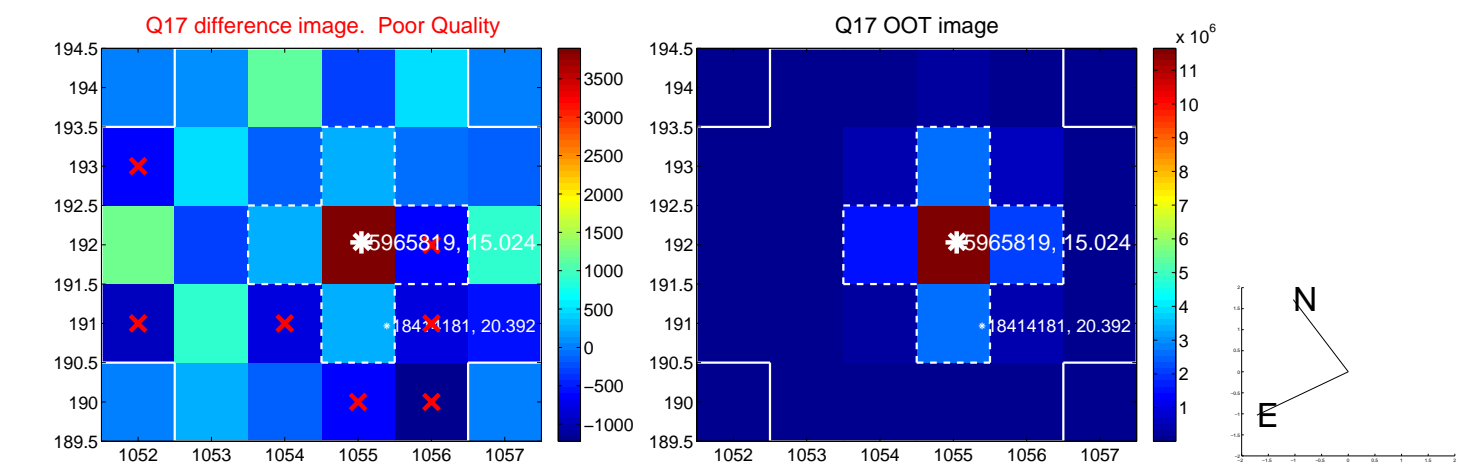
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



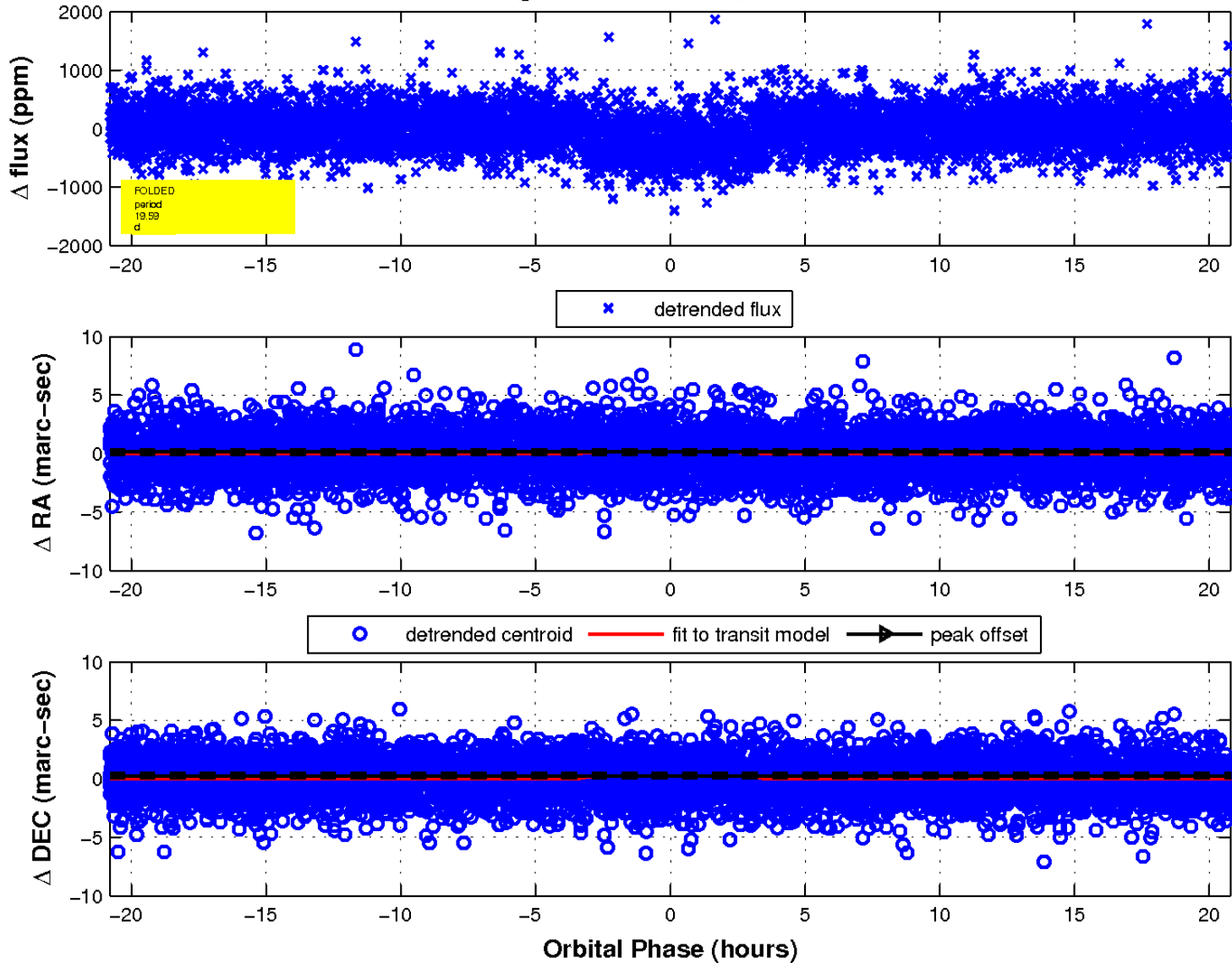
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

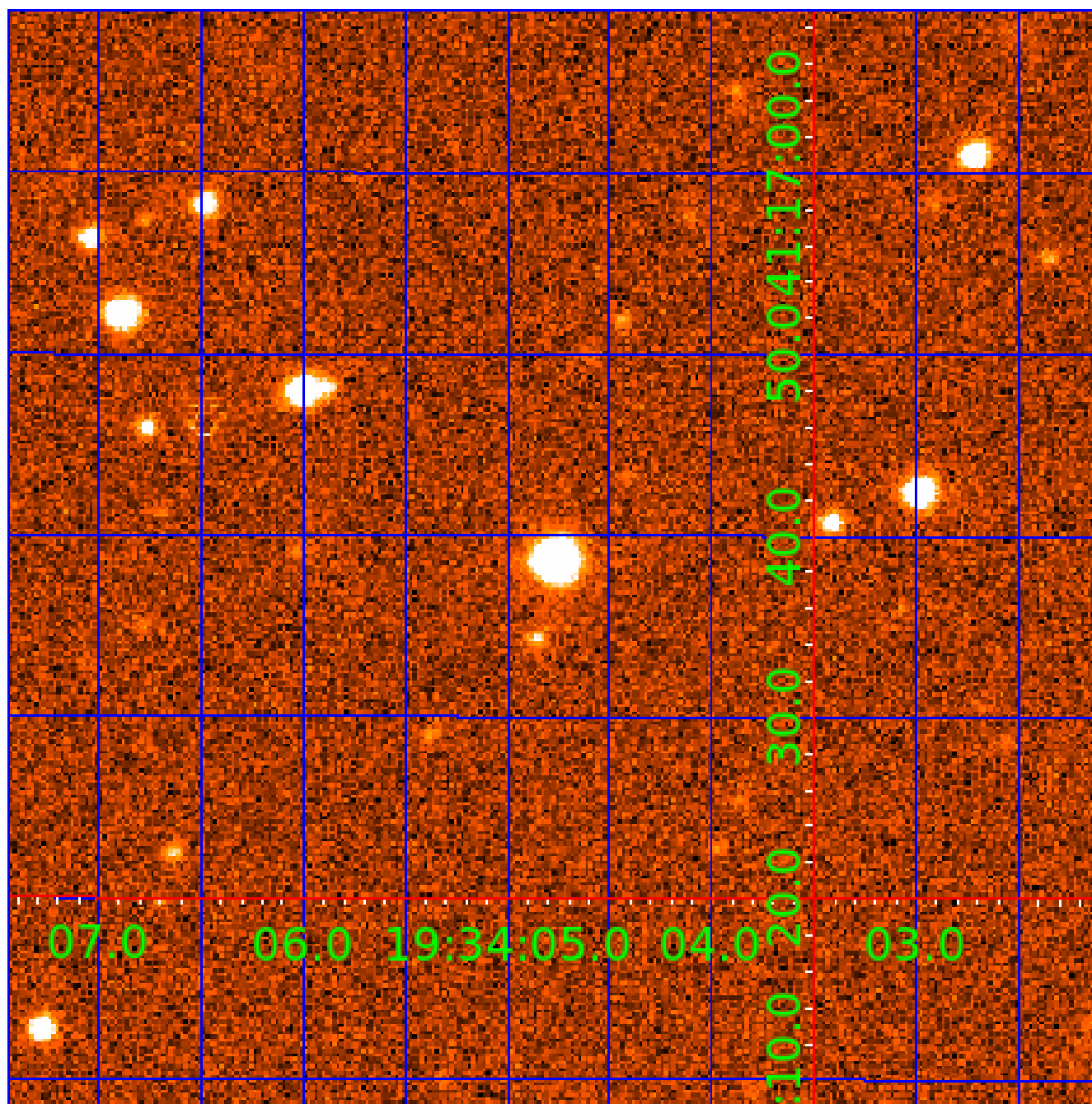


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 005965819

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})
005965819-01	OBS	3319.02	8.239833	137.754221	243.4	5.886	24.6	25.7	1.50	5794	2.70	338.48
005965819-02	OBS	3319.01	19.590622	144.659466	299.1	6.934	19.7	21.6	1.50	5794	2.89	106.67
005965819-03	OBS	3319.03	3.545523	132.378325	105.3	4.323	13.7	14.5	1.50	5794	1.80	1041.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005965819-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT
005965819-02	OBS	PC	0.99	0	0	0	0	NO_COMMENT
005965819-03	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

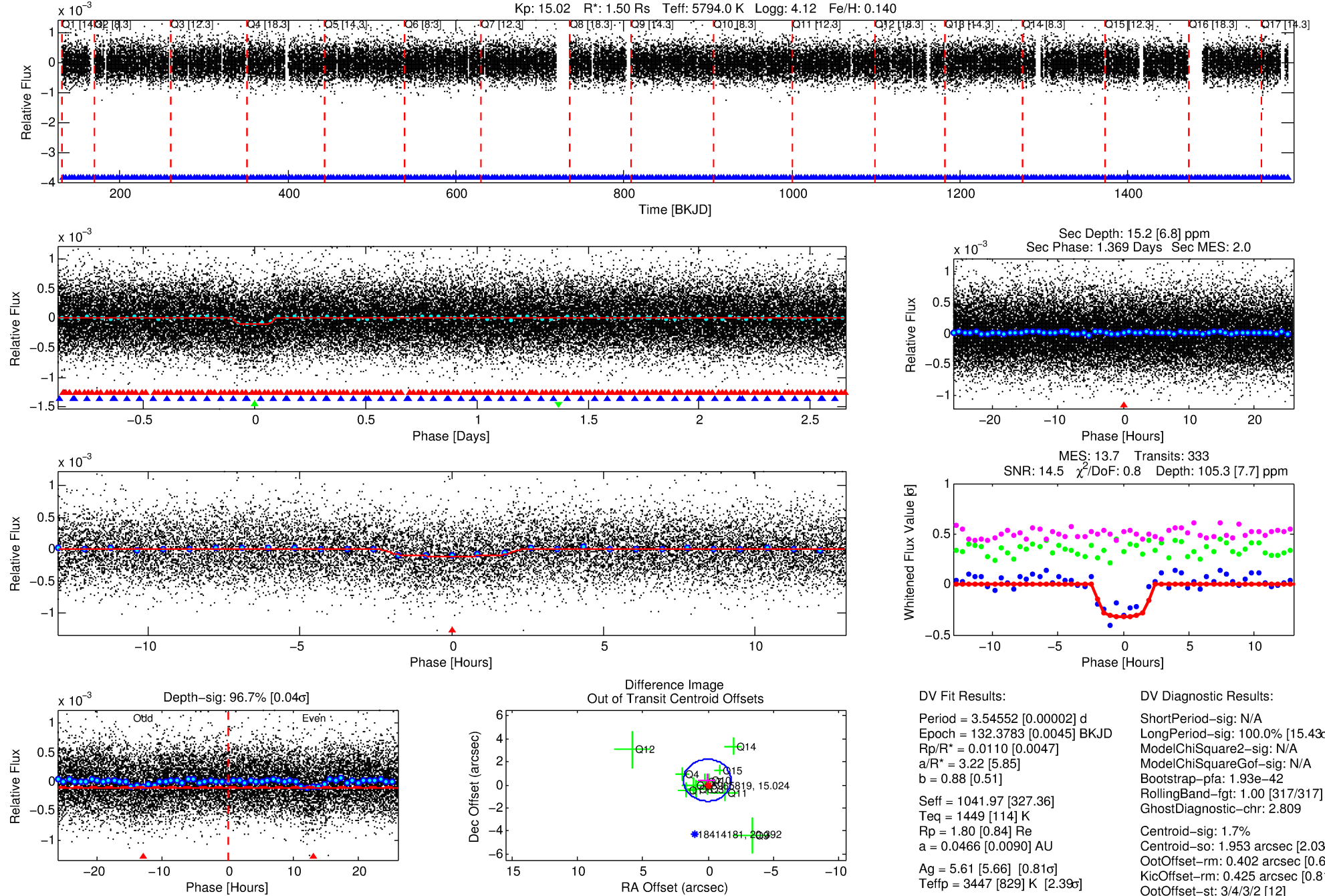
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005965819-03

No Significant Match Found

DV One-Page Summary

KIC: 5965819 Candidate: 3 of 3 Period: 3.546 d
KOI: K03319.03 Corr: 0.982



DV Fit Results:

Period = 3.54552 [0.00002] d
Epoch = 132.3783 [0.0045] BKJD
Rp/R* = 0.0110 [0.0047]
a/R* = 3.22 [5.85]
b = 0.88 [0.51]
Seff = 1041.97 [327.36]
Teff = 1449 [114] K
Rp = 1.80 [0.84] Re
a = 0.0466 [0.0090] AU
Ag = 5.61 [5.66] [0.81 σ]
Teffp = 3447 [829] K [2.39 σ]

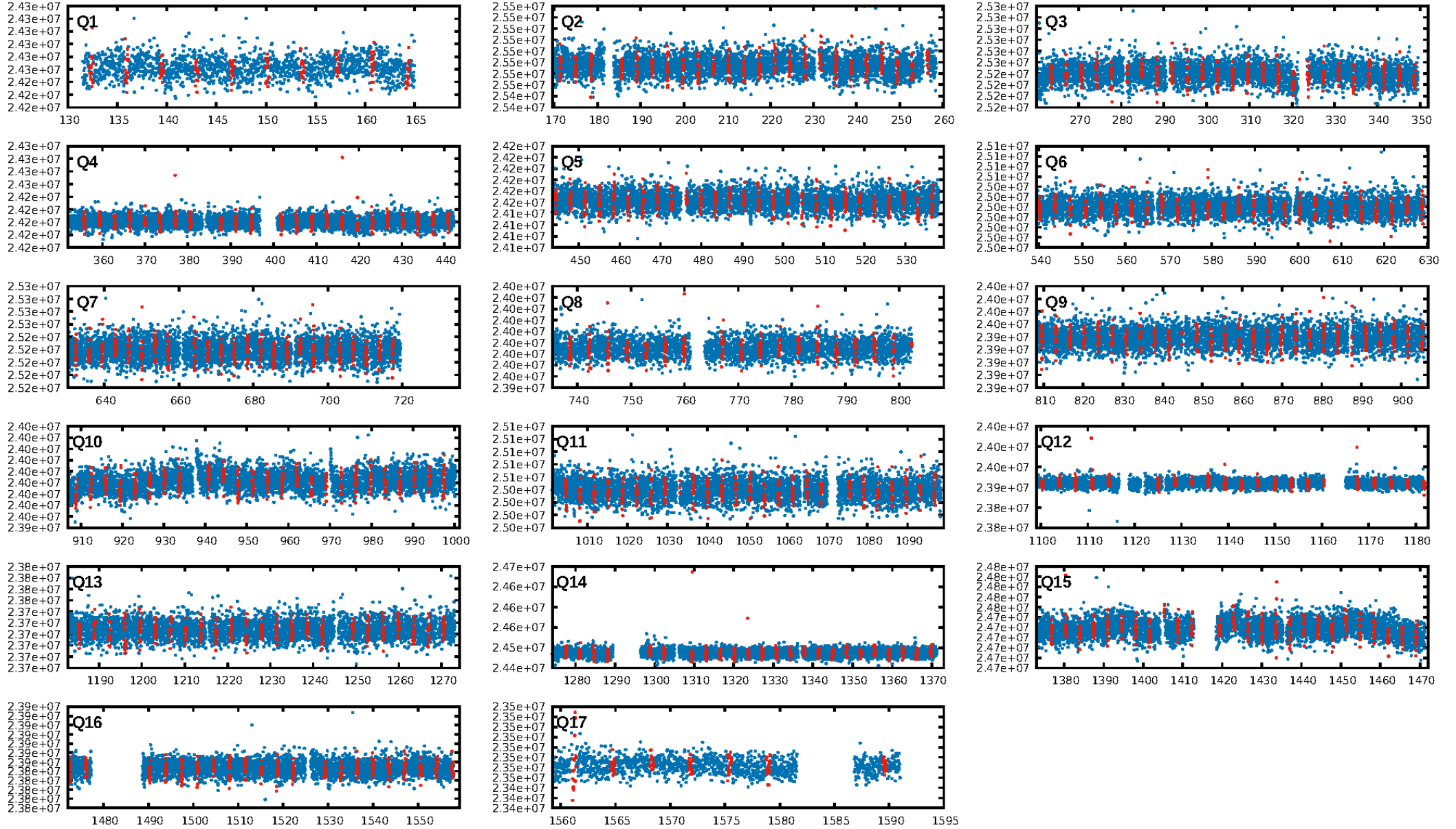
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [15.43 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.93e-42
RollingBand-fgt: 1.00 [317/317]
GhostDiagnostic-chr: 2.809
Centroid-sig: 1.7%
Centroid-so: 1.953 arcsec [2.03 σ]
OotOffset-rm: 0.402 arcsec [0.67 σ]
KicOffset-rm: 0.425 arcsec [0.81 σ]
OotOffset-st: 3/4/3/2 [12]
KicOffset-st: 3/4/3/2 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [17/17]

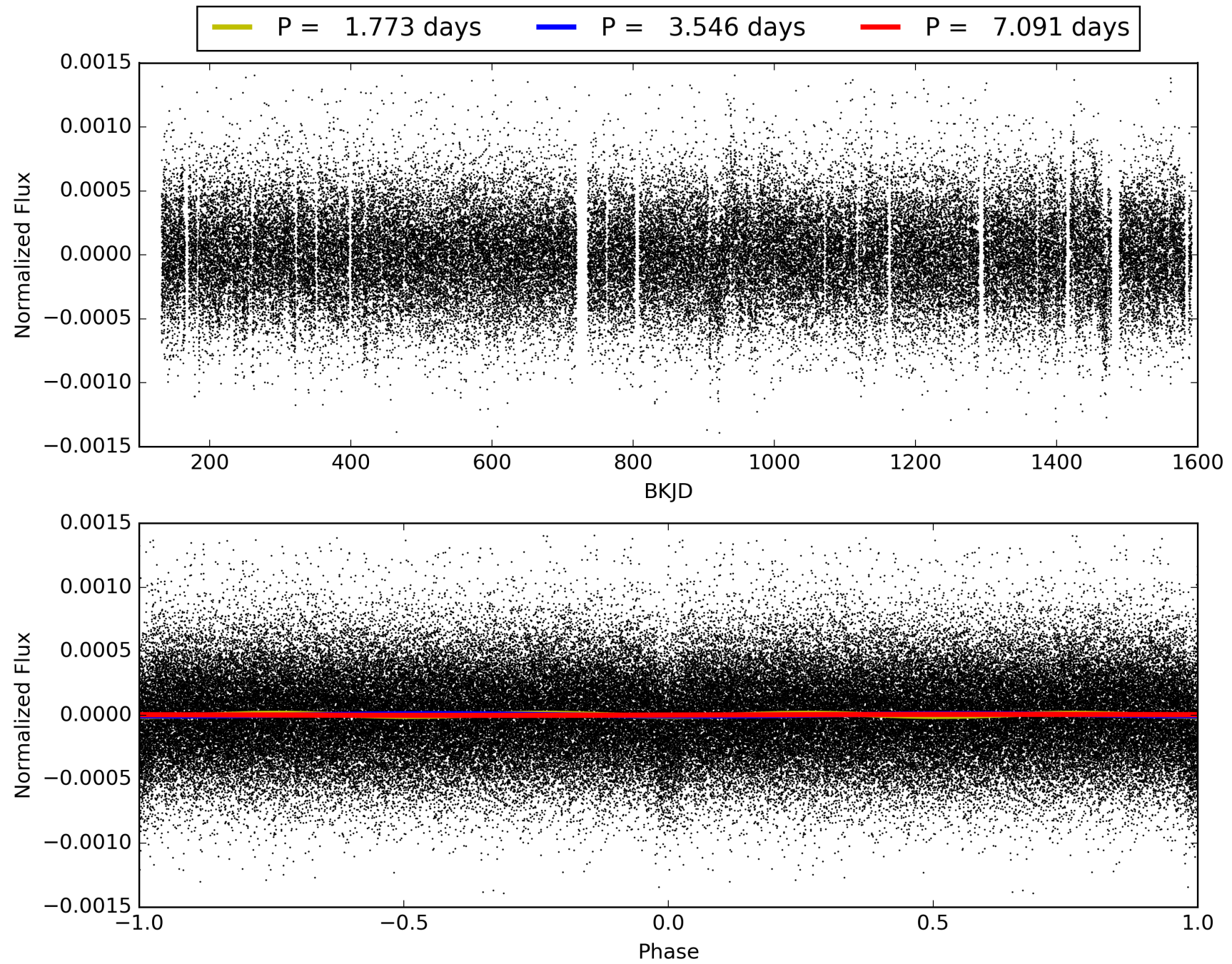
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:45:08 Z

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

TCE 005965819-03, PDC Light Curves

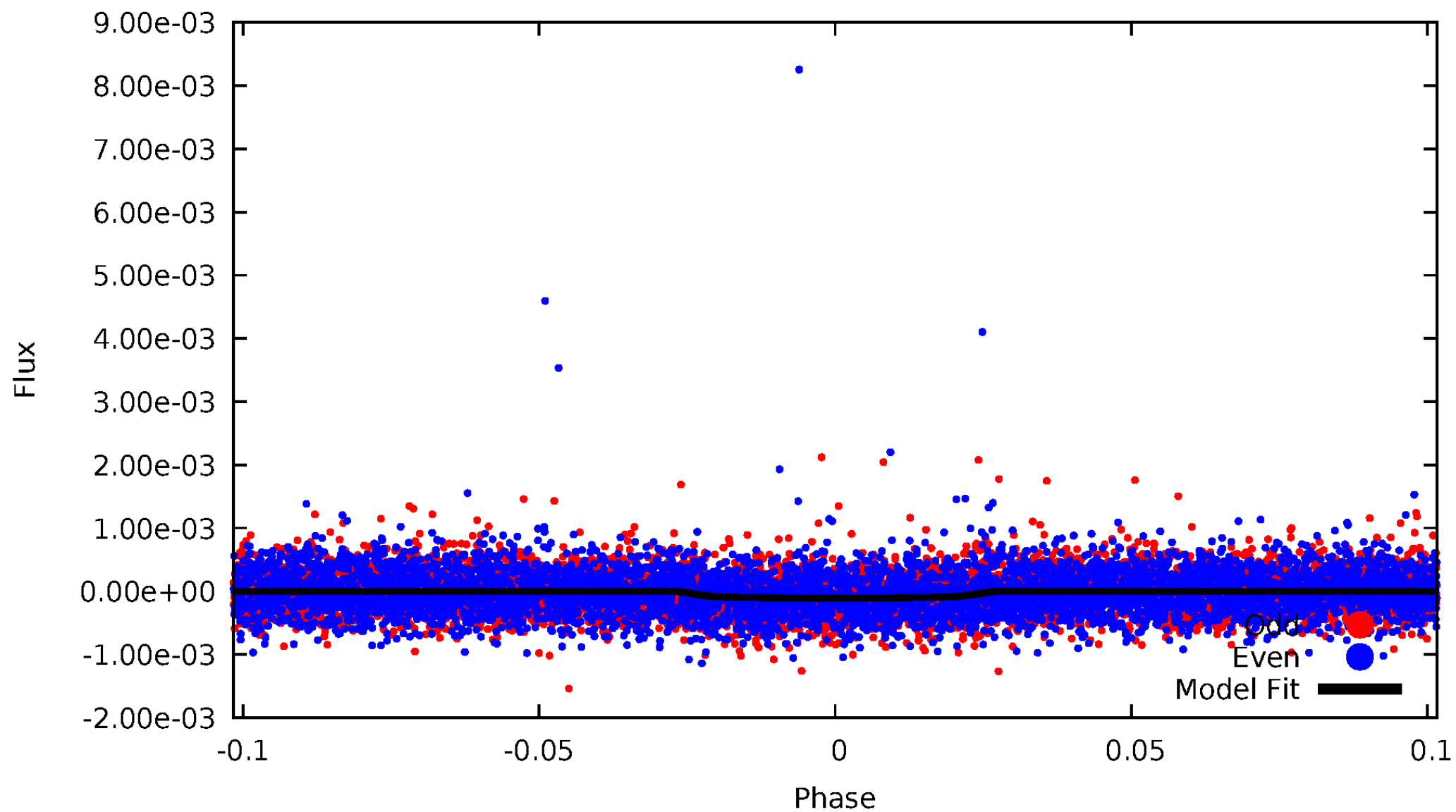


TCE 005965819-03



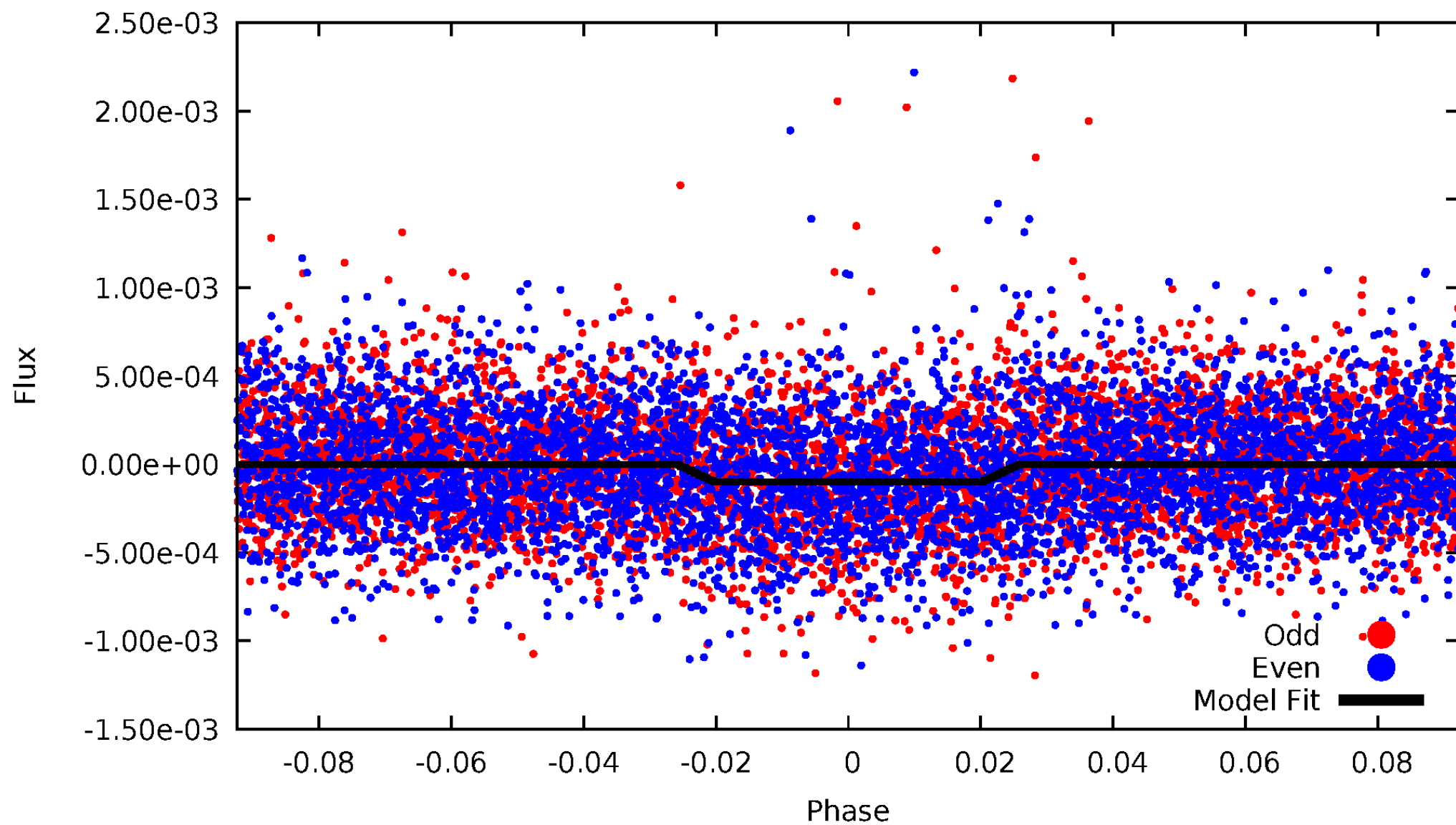
DV Odd/Even

TCE 005965819-03

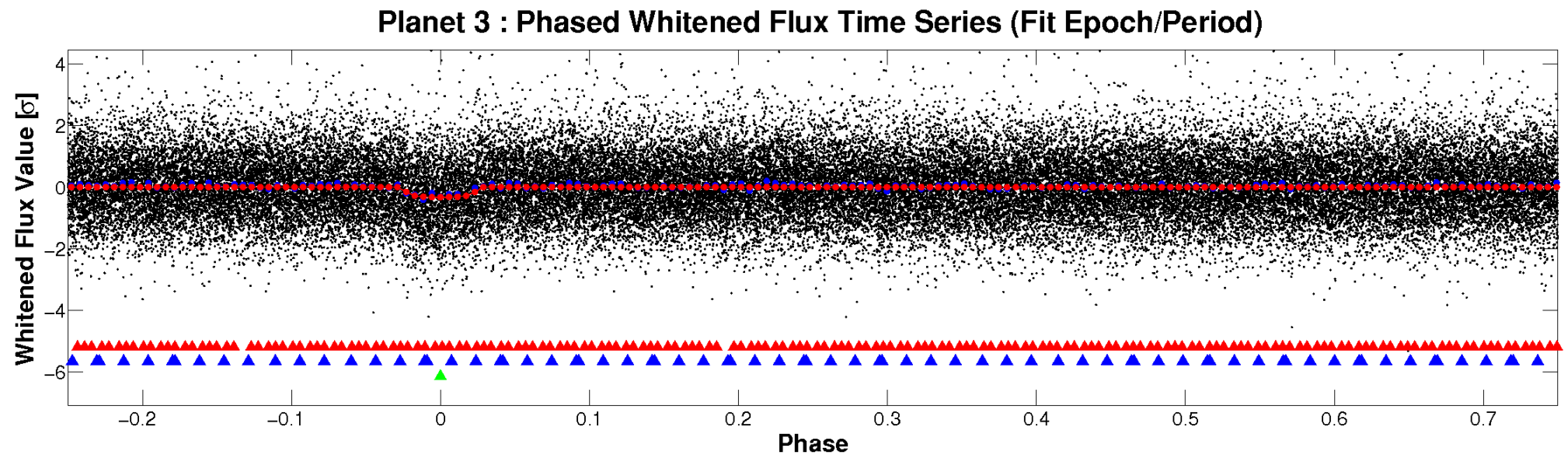
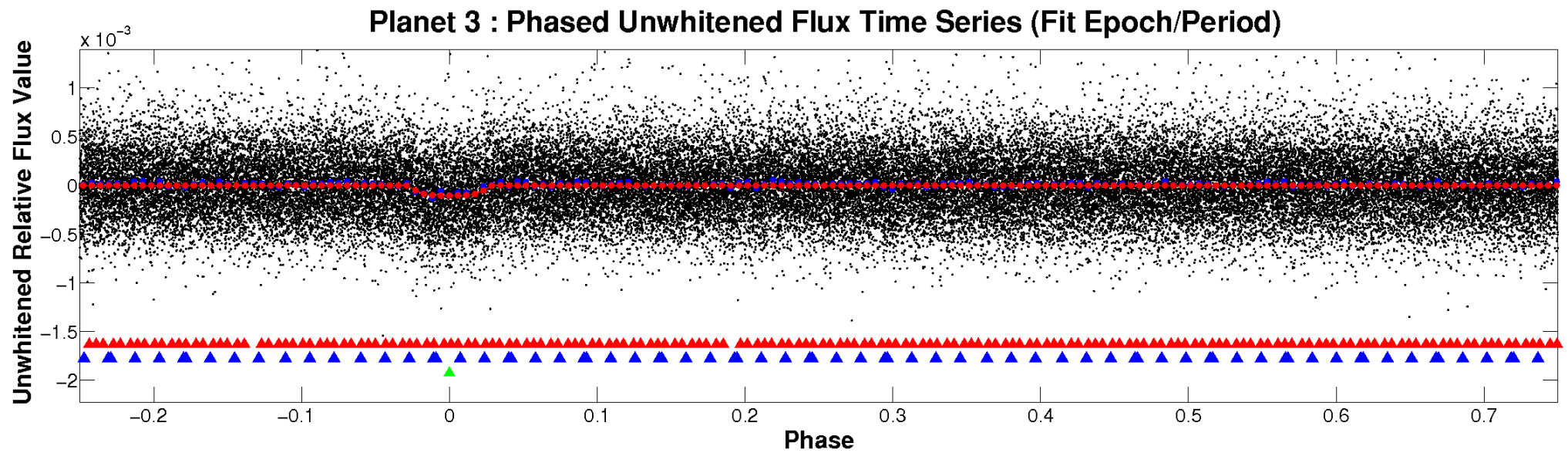


ALT Odd/Even

TCE 005965819-03

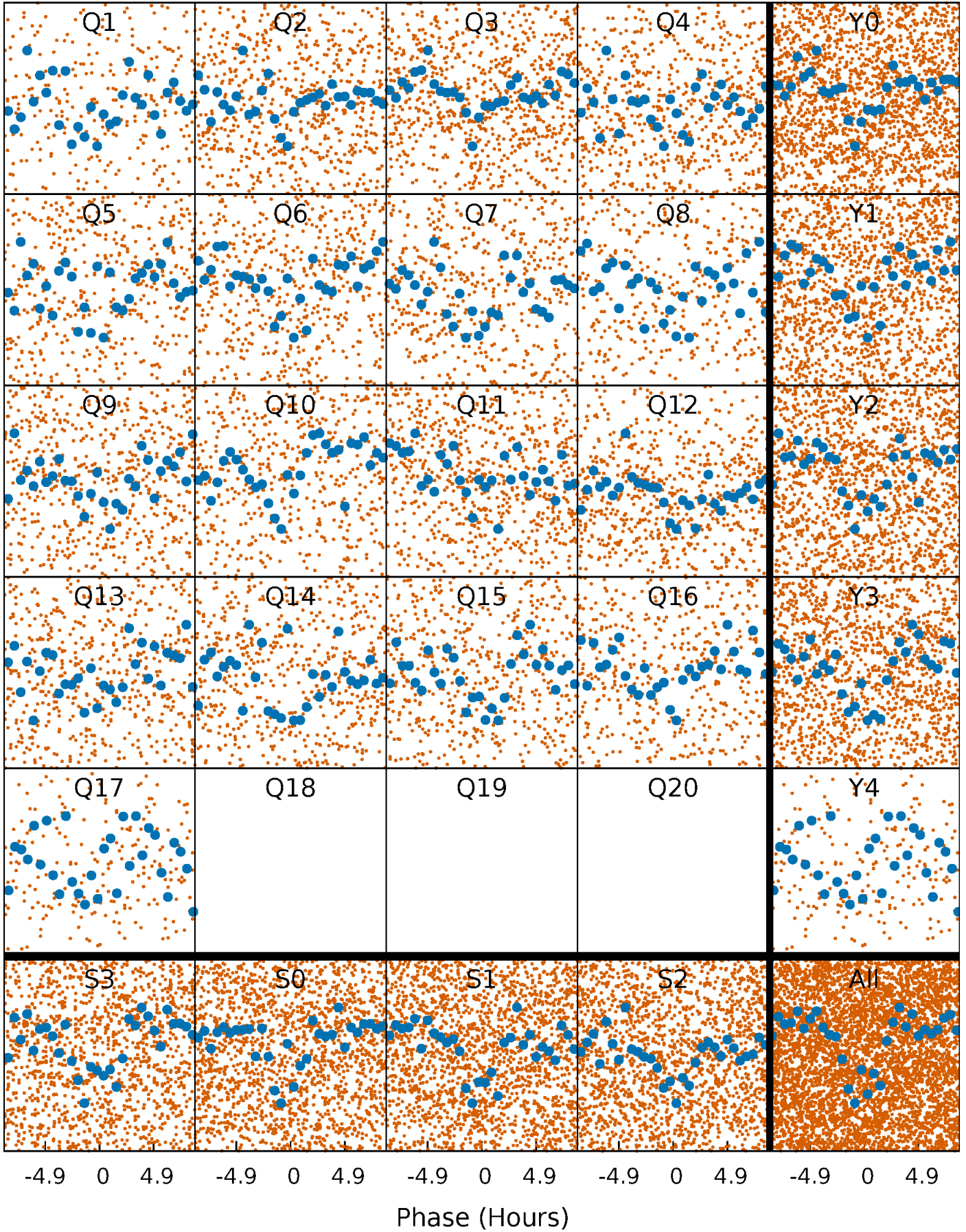


Non-Whitened Vs. Whitened Light Curve



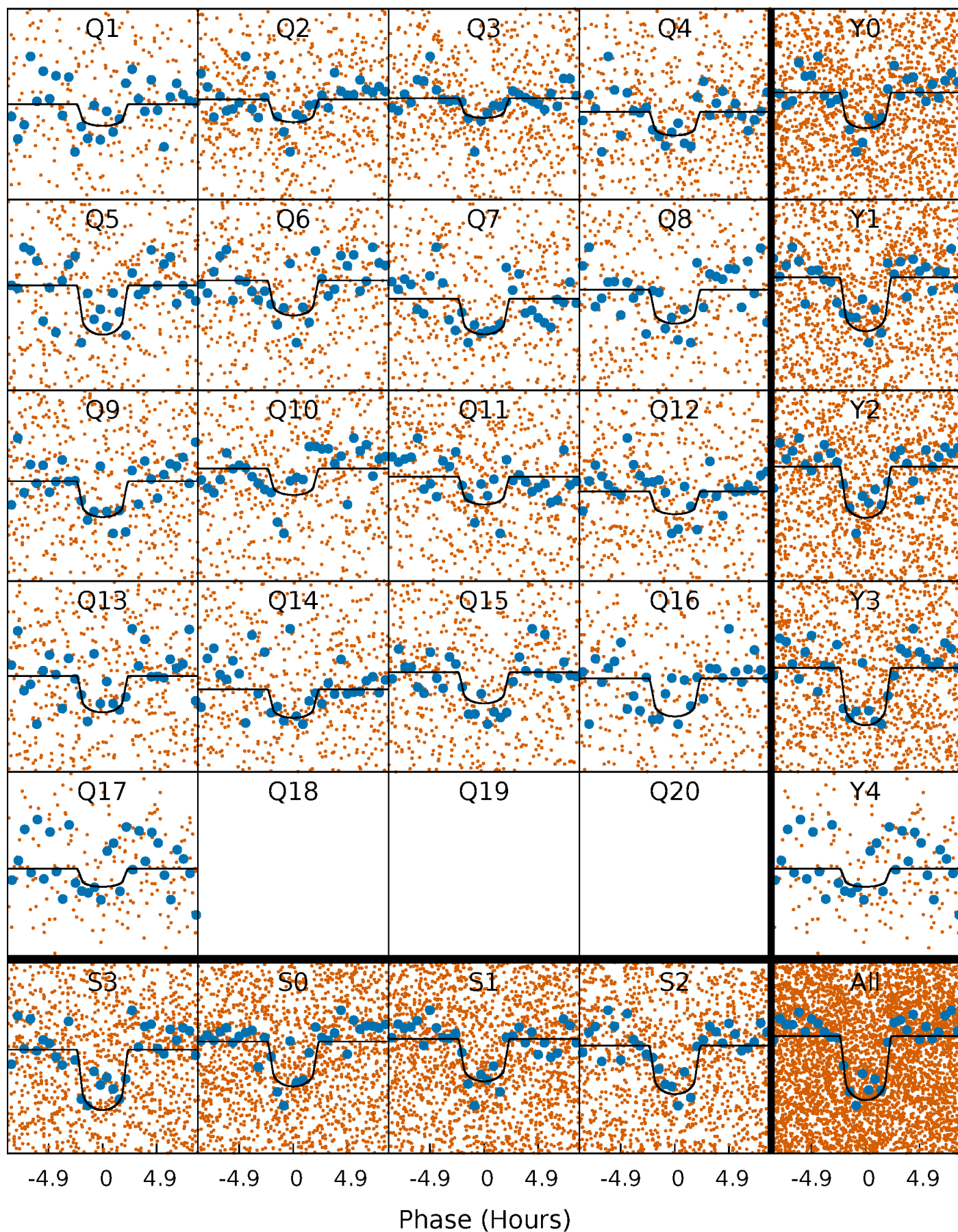
PDC Quarter-Phased Transit Curves

TCE 005965819-03 P= 3.545523 Days $T_0=132.378325$ (BKJD)



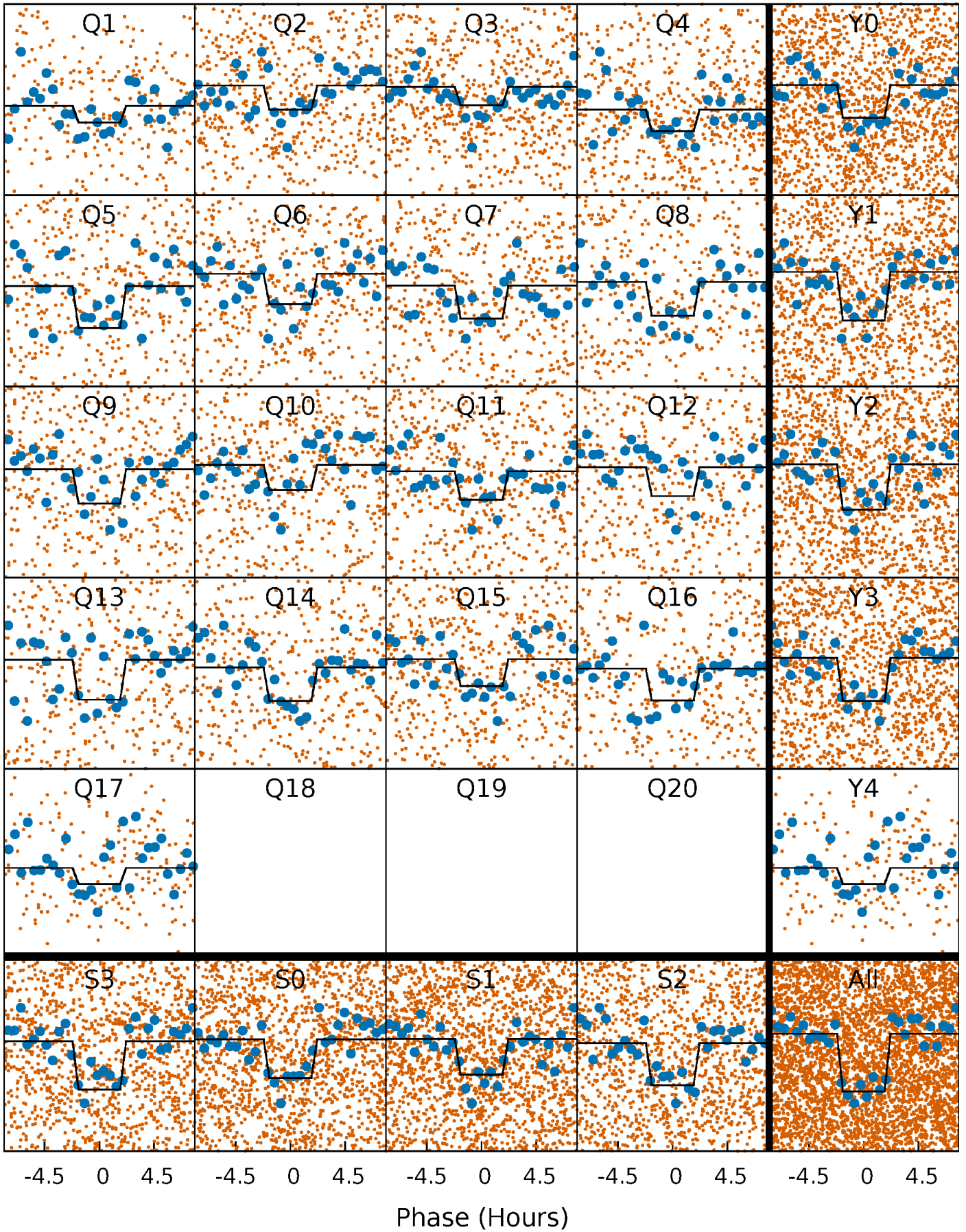
DV Quarter-Phased Transit Curves

TCE 005965819-03 P= 3.545523 Days $T_0=132.378325$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

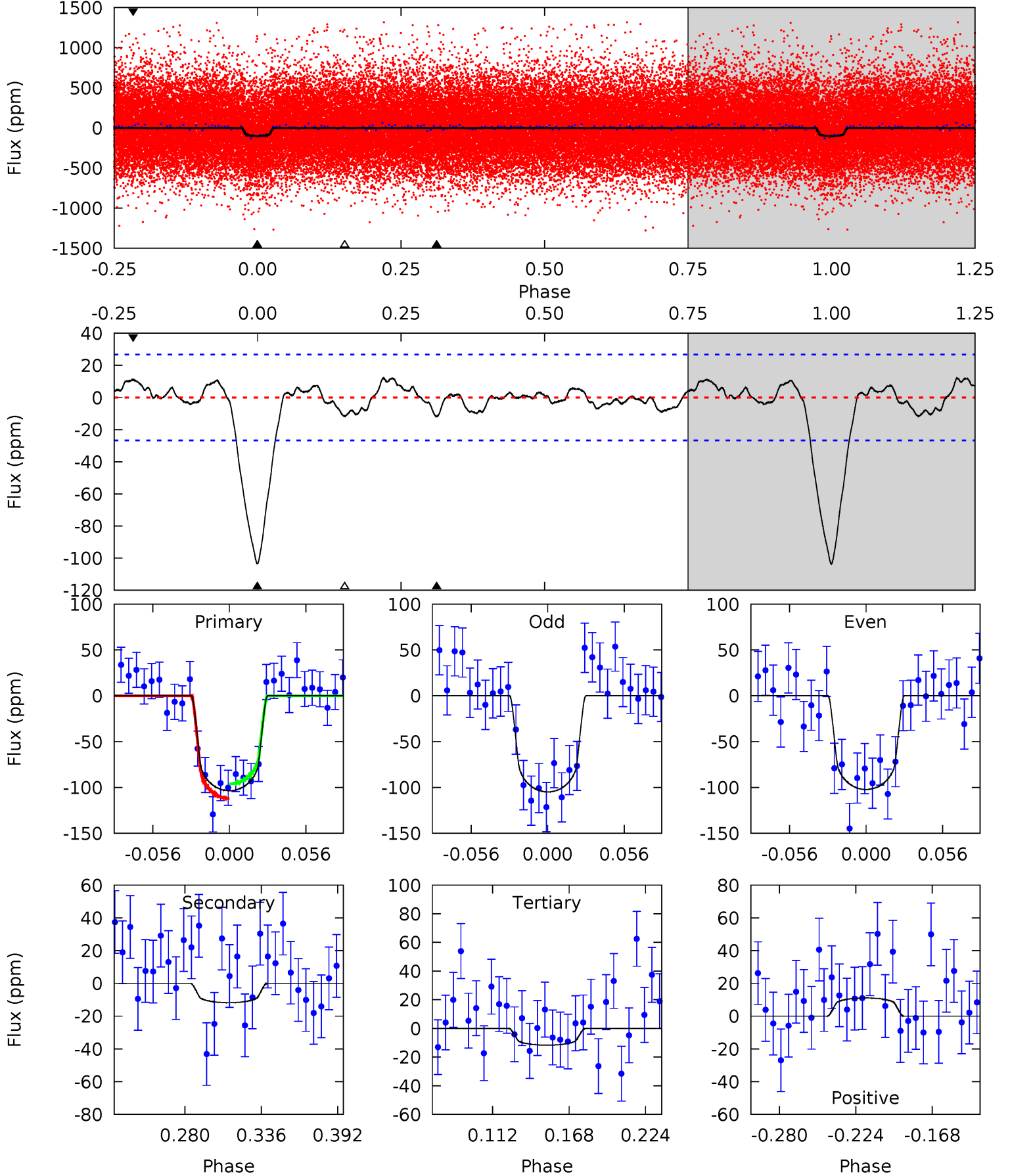
TCE 005965819-03 P= 3.545524 Days $T_0=132.375847$ (BKJD)



DV Model-Shift Uniqueness Test

005965819-03, P = 3.545523 Days, E = 128.832802 Days

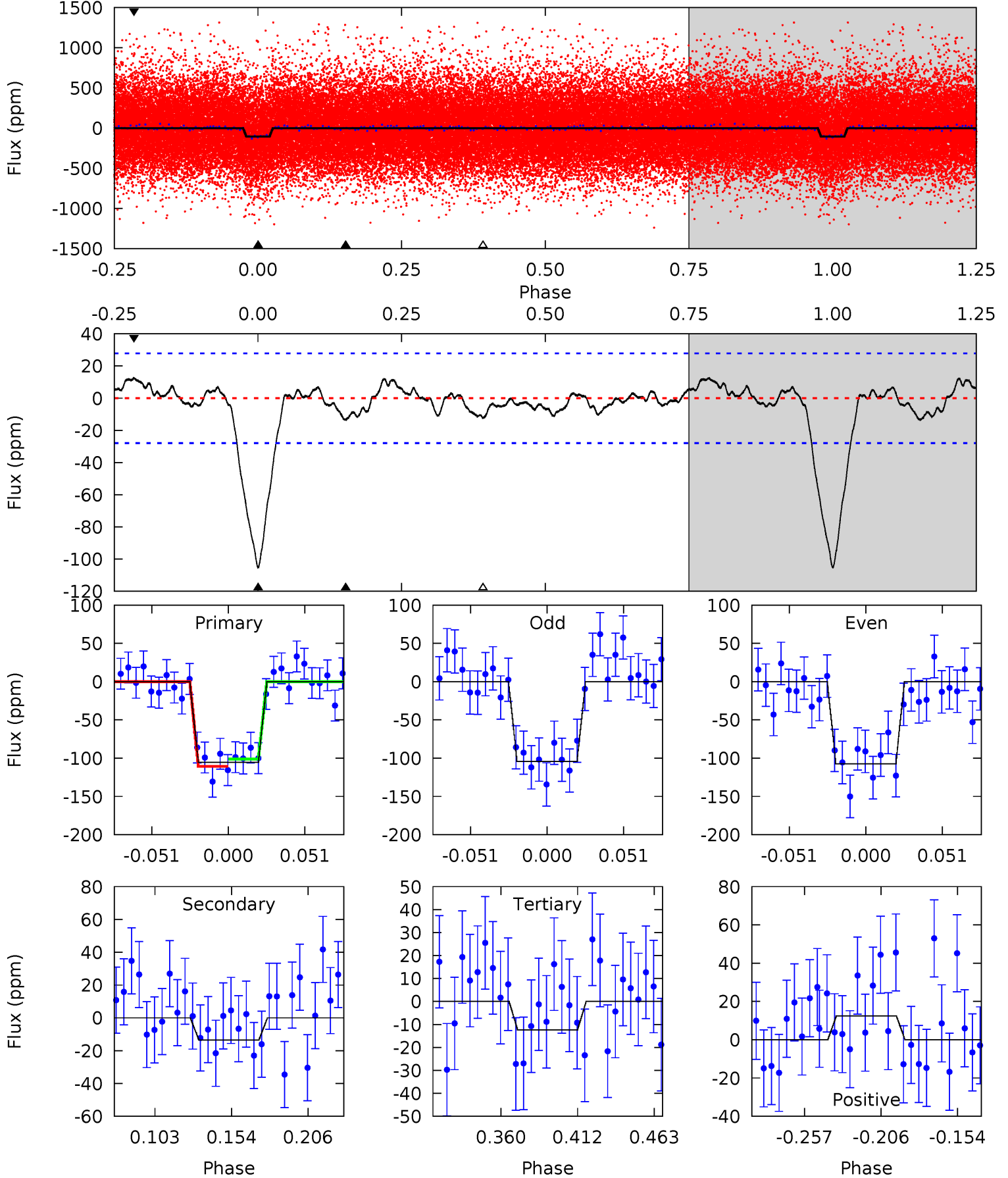
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	2.07	2.05	1.95	4.69	1.91	0.98	16.1	16.2	0.02	0.12	0.23	0.84	0.10	1.41



Alt Model-Shift Uniqueness Test

005965819-03, P = 3.545524 Days, E = 128.830323 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.8	2.28	2.08	2.11	4.70	1.95	0.92	15.7	15.7	0.20	0.18	0.25	0.91	0.11	0.80



Stellar Parameters For KIC 005965819

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5794^{+78}_{-78}	$4.118^{+0.182}_{-0.098}$	$0.140^{+0.150}_{-0.150}$	$1.496^{+0.245}_{-0.299}$	$1.072^{+0.112}_{-0.084}$	$0.451^{+0.415}_{-0.133}$
	+1%/-1%	+4%/-2%	+107%/-107%	+16%/-20%	+10%/-8%	+92%/-29%
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 005965819-03 / KOI 3319.03

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 6	$1.75^{+0.77}_{-0.70}$	2012^{+91}_{-106}	3599^{+859}_{-511}	$4.467^{+10.026}_{-2.748}$
Alt.	-14 ± 6	$1.60^{+0.74}_{-0.77}$	2009^{+92}_{-108}	3835^{+1101}_{-588}	$6.321^{+17.032}_{-3.894}$

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

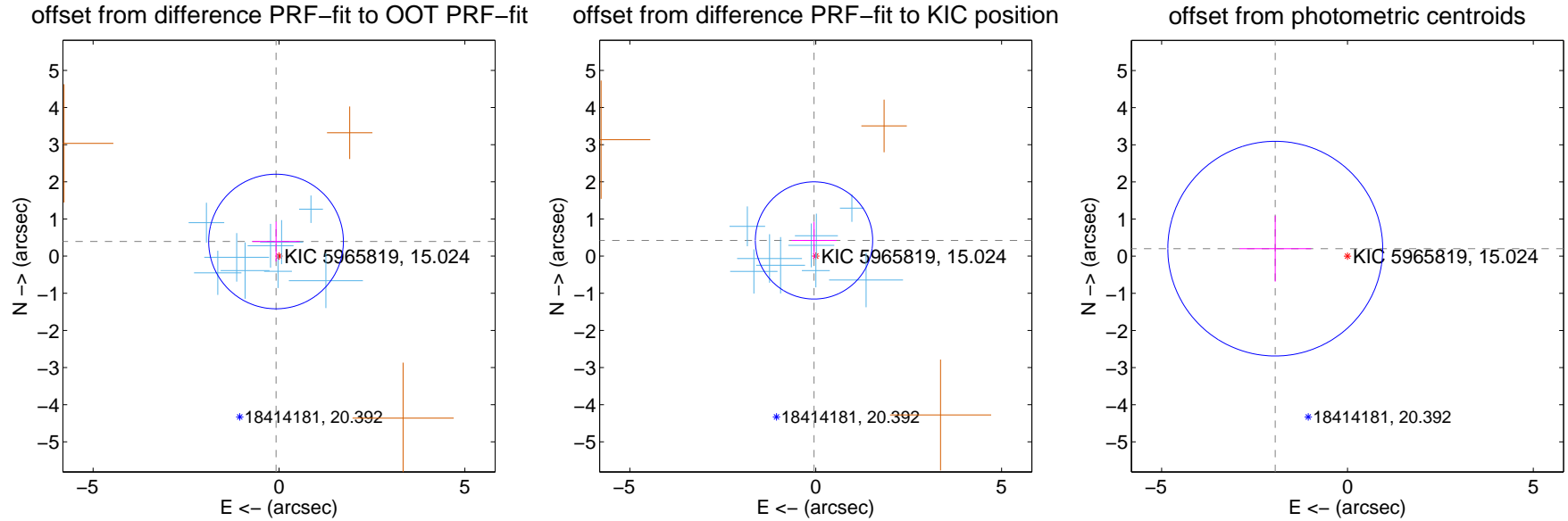
DV Centroid Data

Supplemental centroid analysis for 005965819-03. Kepler magnitude: 15.02. Transit SNR 14.50

There are 9 quarters with good PRF difference image offsets

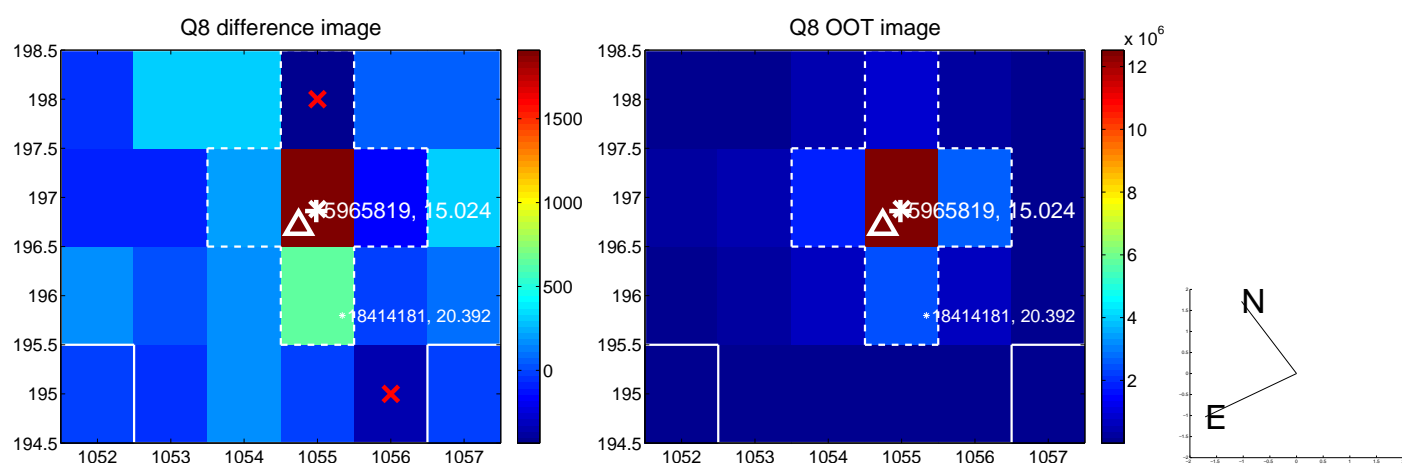
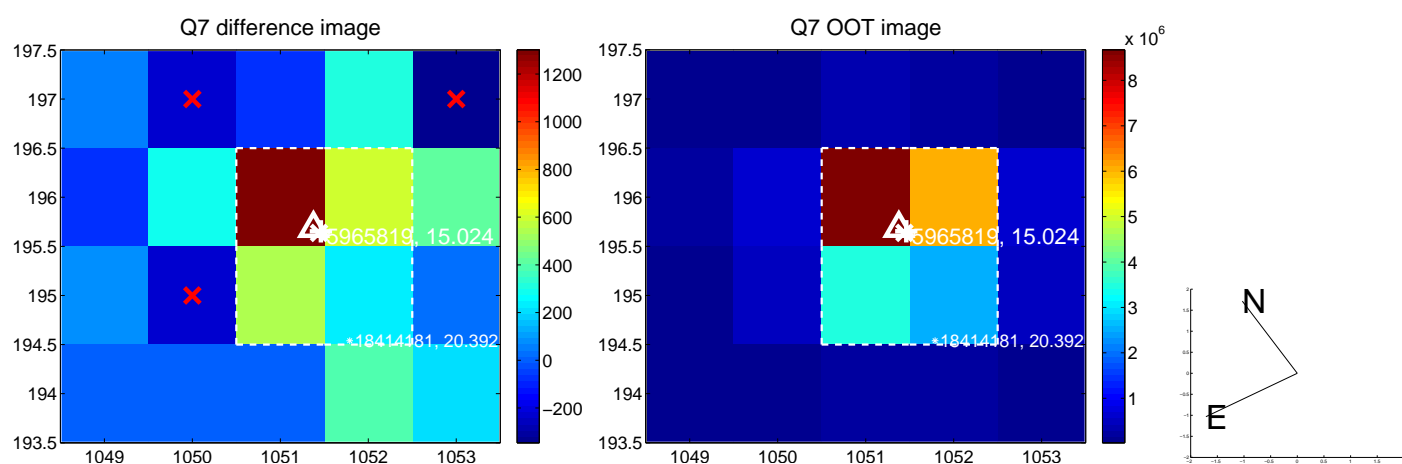
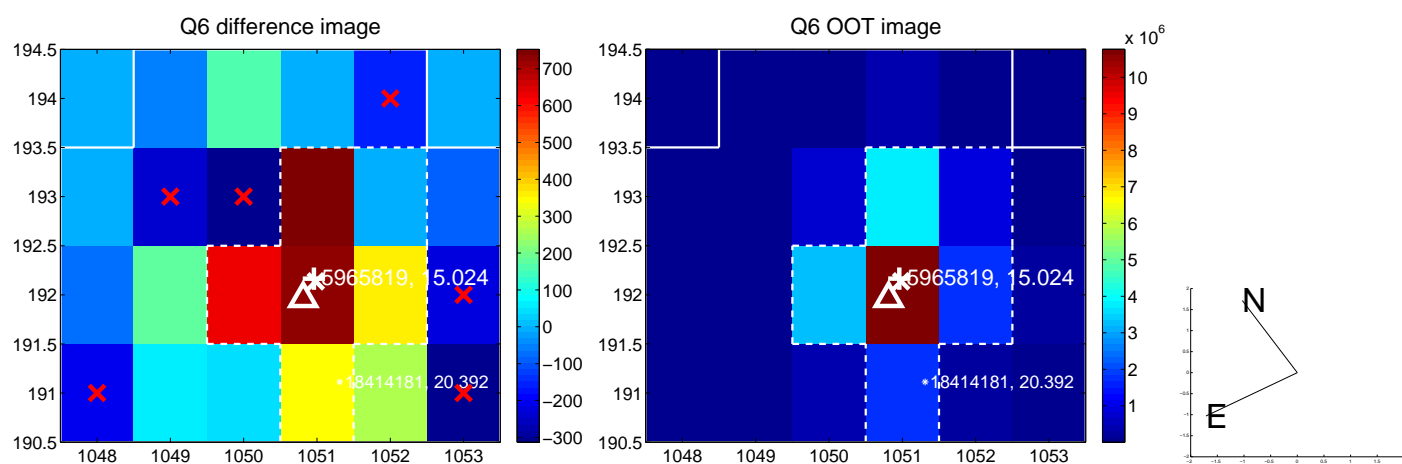
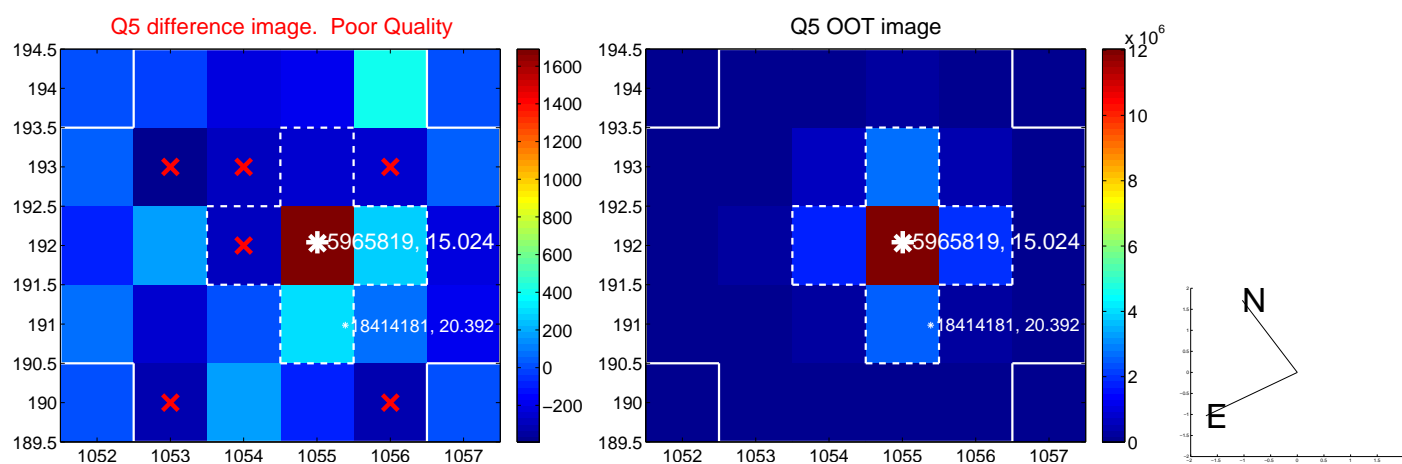
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.402 ± 0.604	0.67	0.080 ± 0.637	0.394 ± 0.537
PRF-fit source offset from KIC position	0.425 ± 0.526	0.81	0.046 ± 0.603	0.423 ± 0.498
photometric centroid source offset	1.95 ± 0.96	2.03	1.94 ± 0.96	0.20 ± 0.89

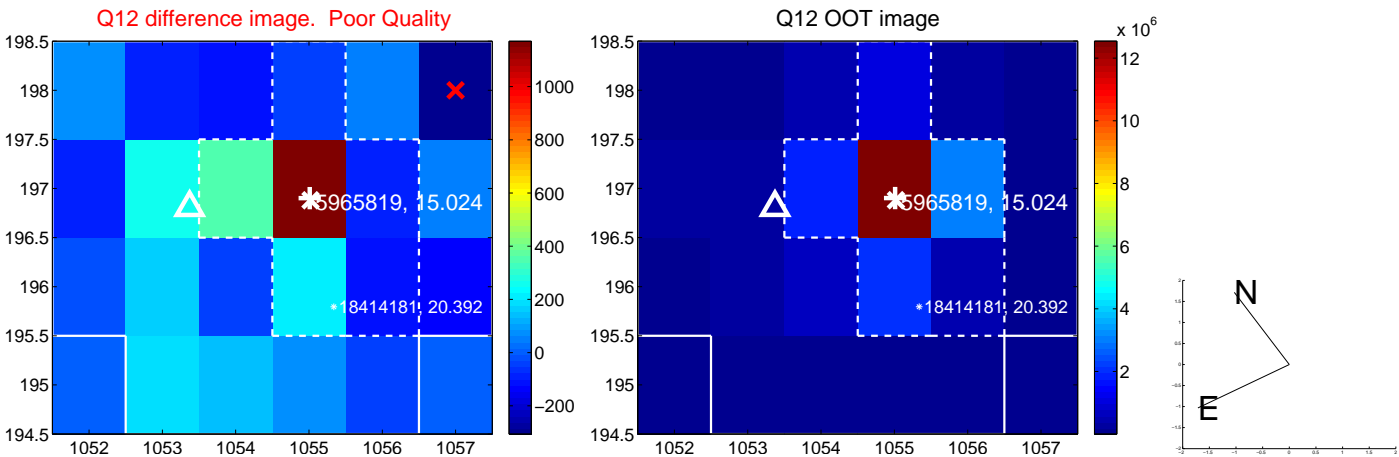
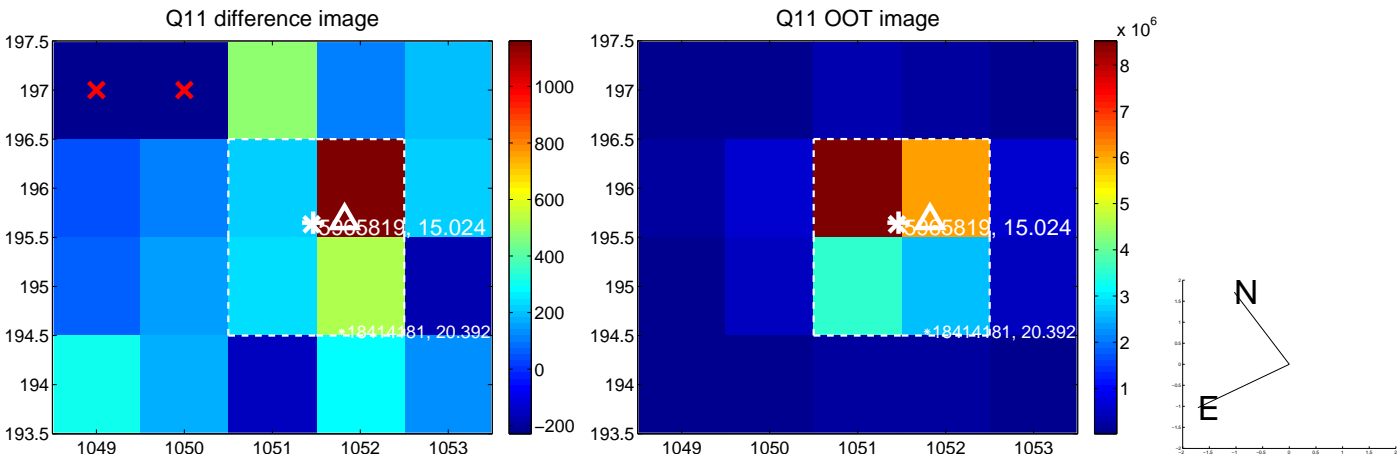
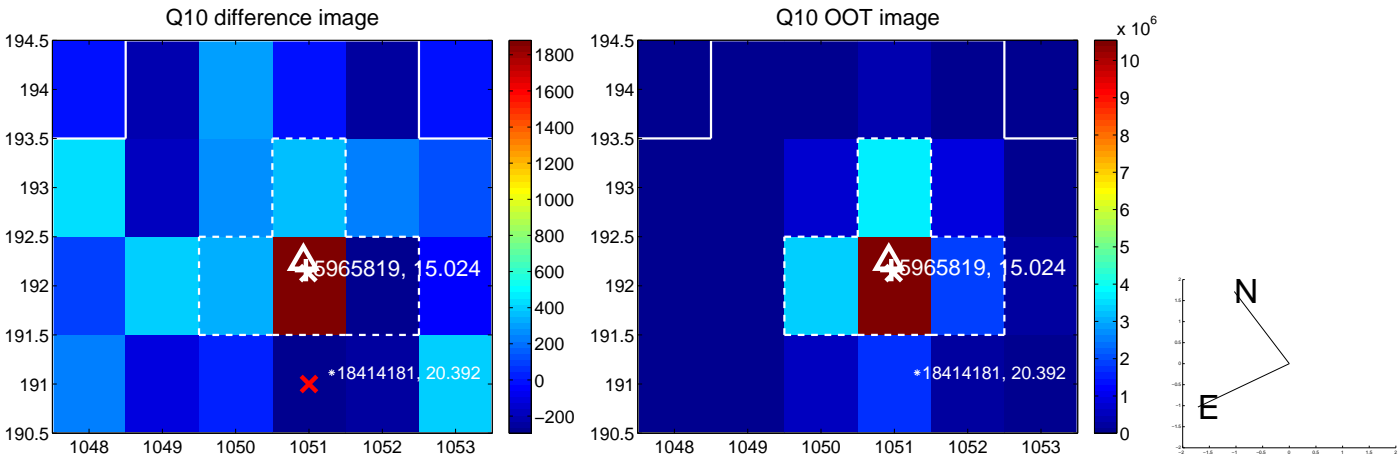
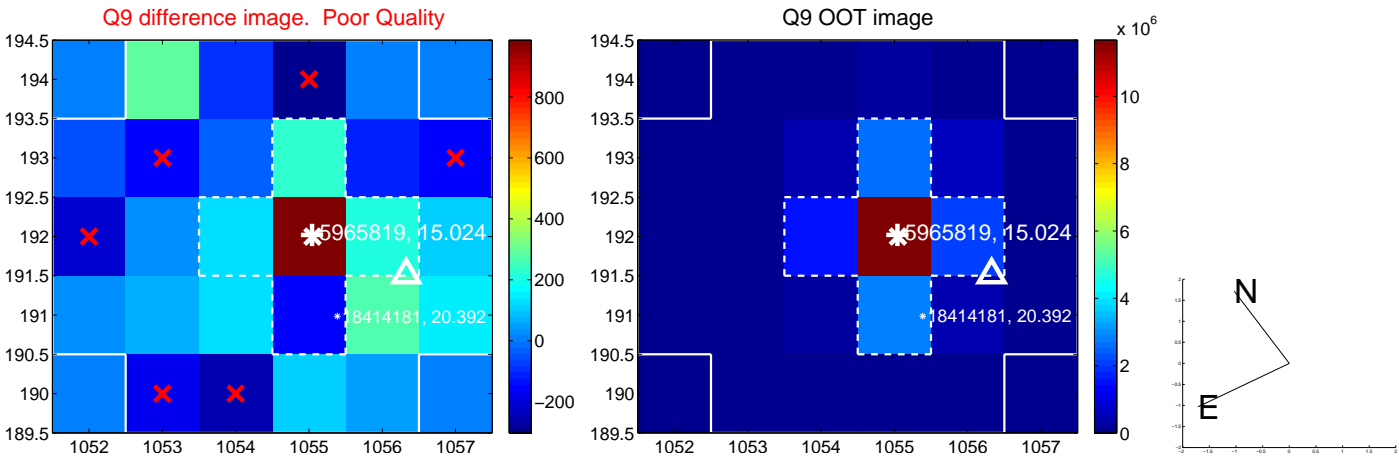


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

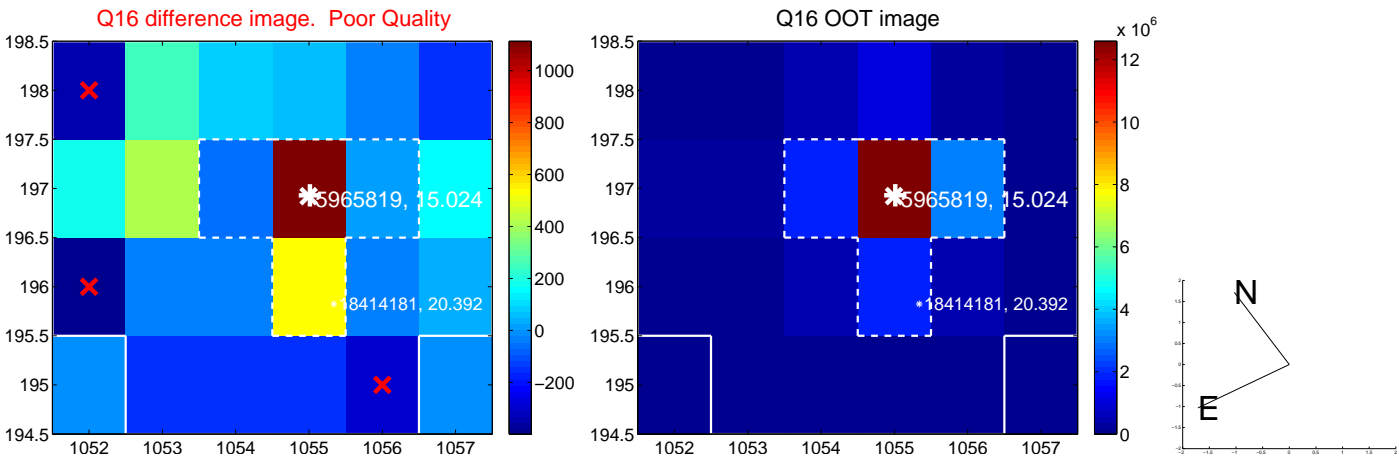
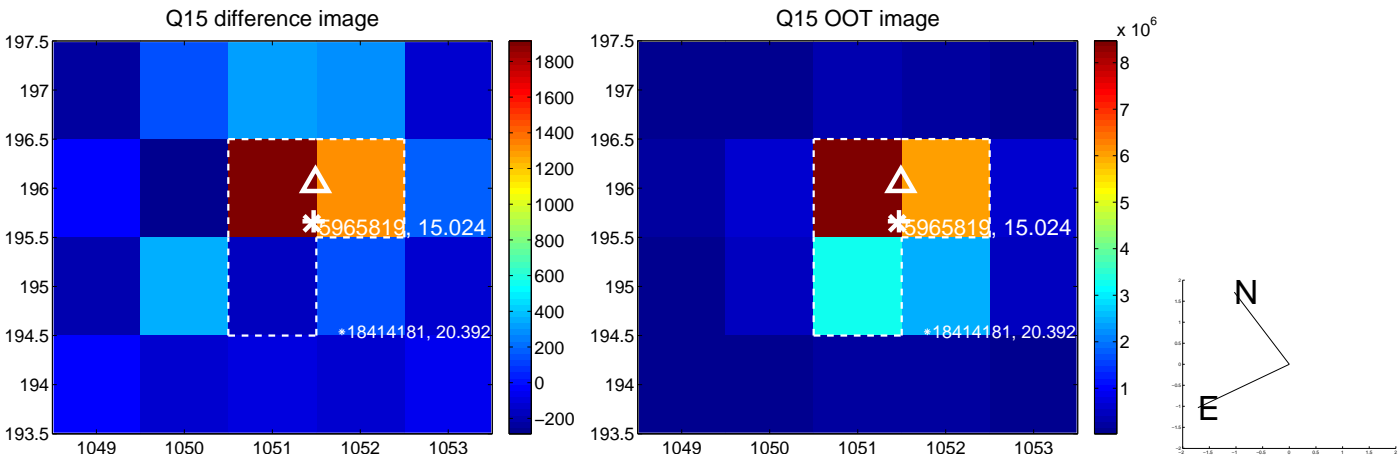
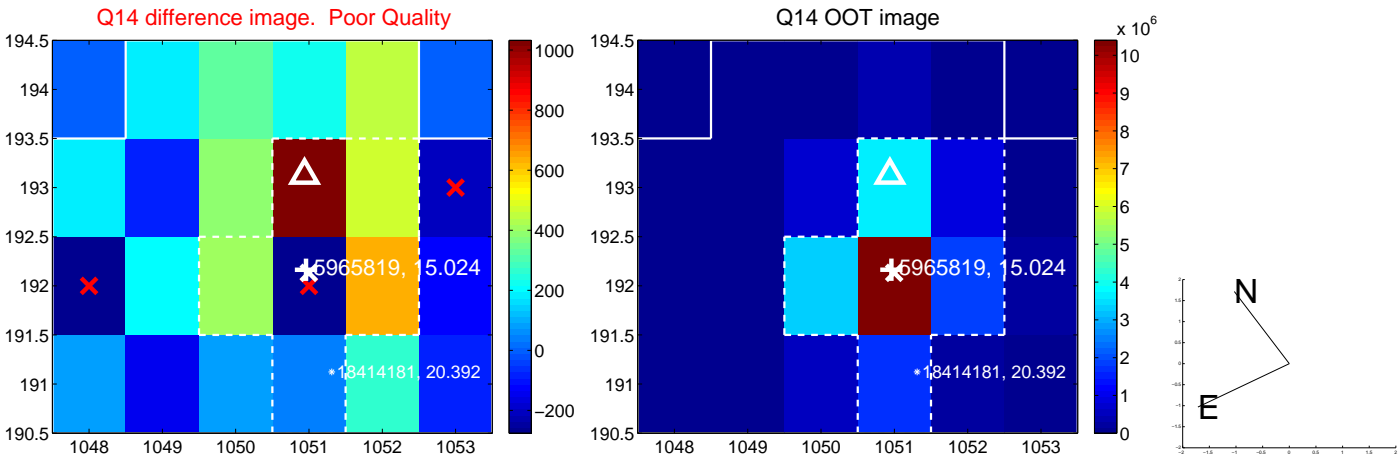
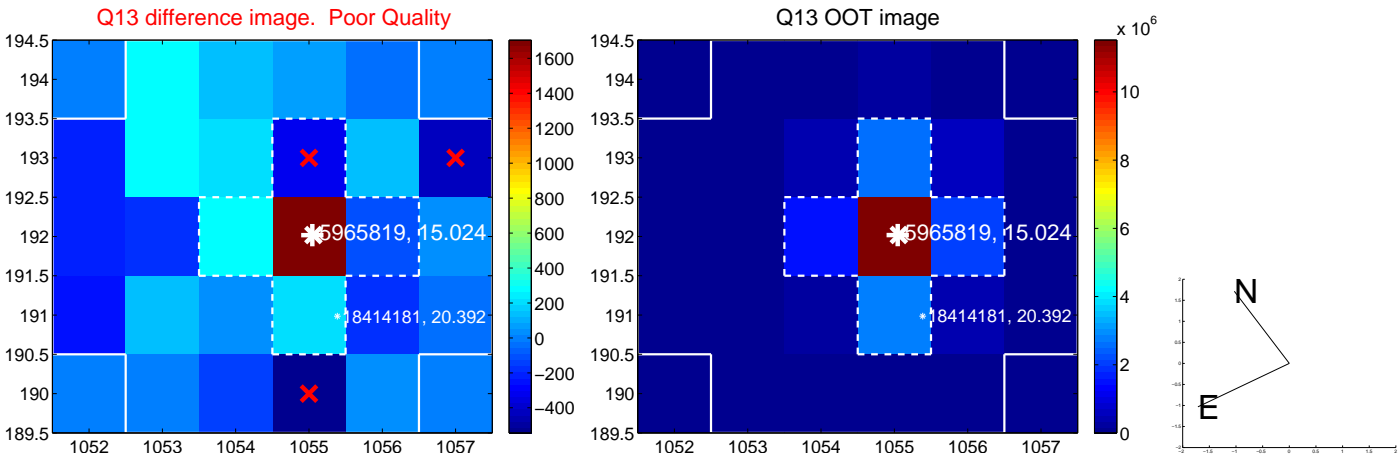
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



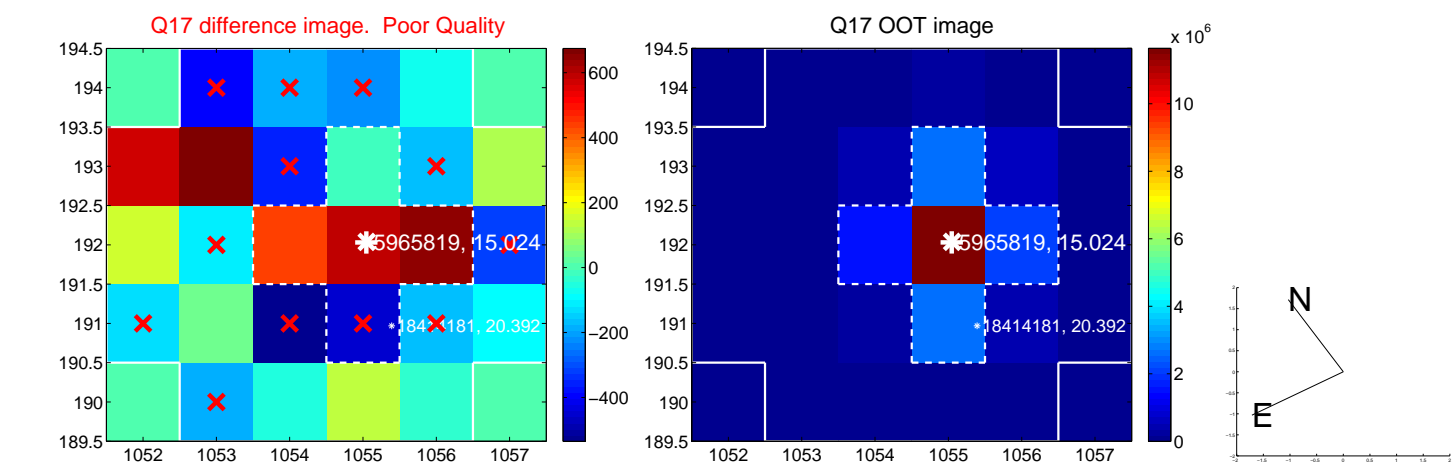
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



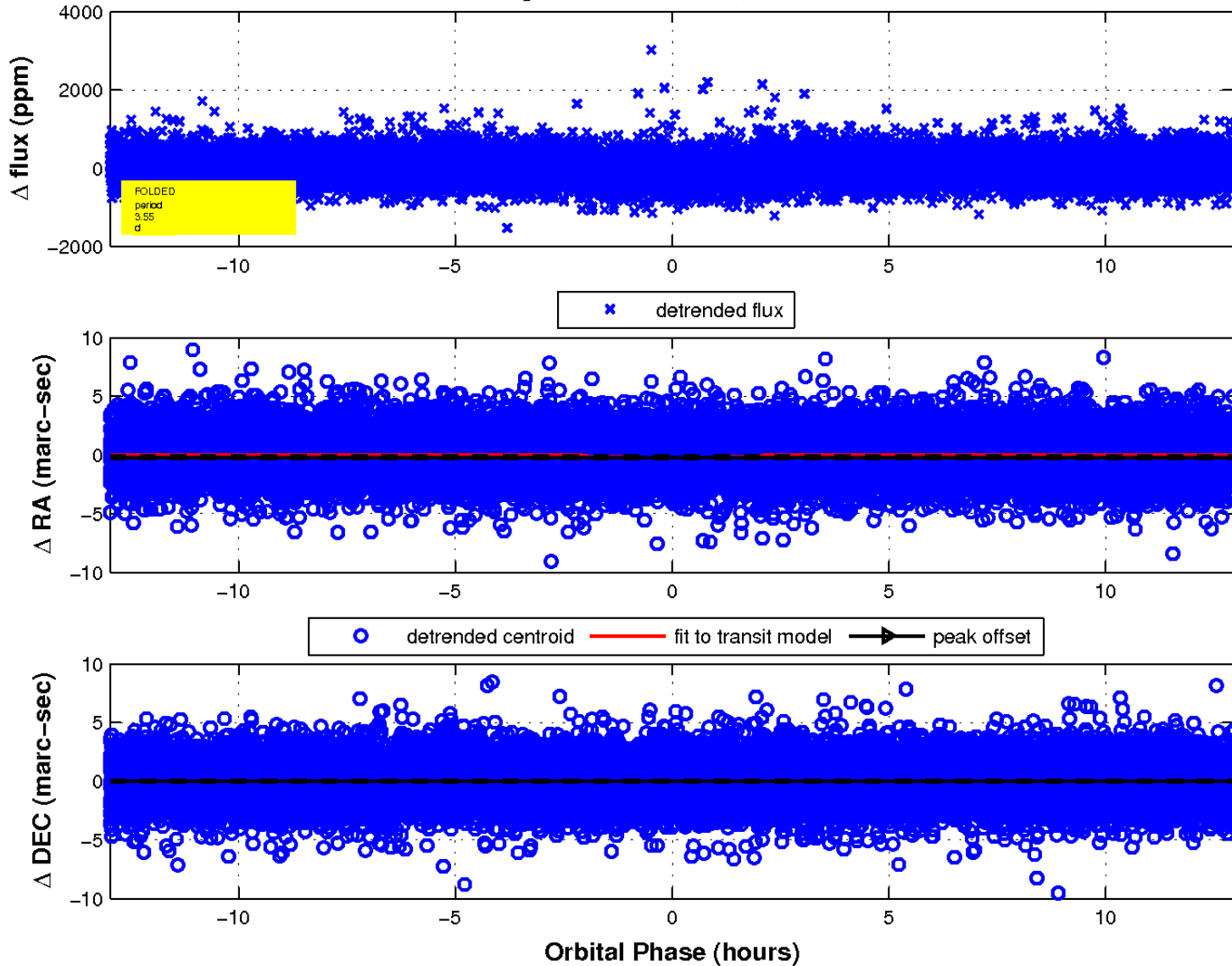
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

