

KIC 009718378

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})
009718378-01	OBS	No	2.440649	132.444134	6.9	2.534	10.0	3.2	2.41	6661	0.76	6268.69
009718378-02	OBS	No	2.440522	132.557257	9.5	19.235	10.7	5.6	2.41	6661	0.75	6269.12
009718378-03	OBS	No	3.965848	134.069528	2620.8	3.000	4646.7	-1.0	2.41	6661	12.45	3281.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009718378-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
009718378-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
009718378-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

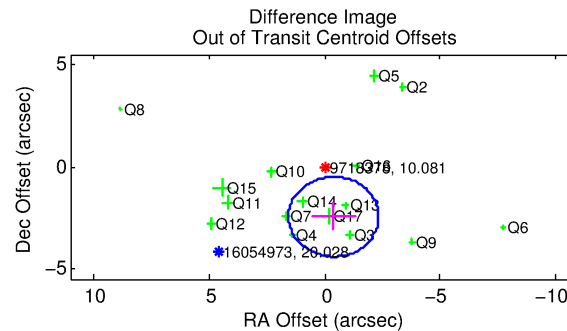
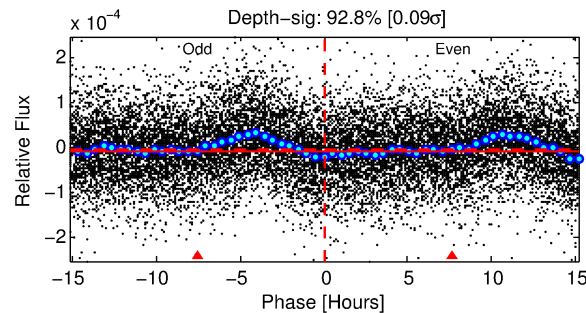
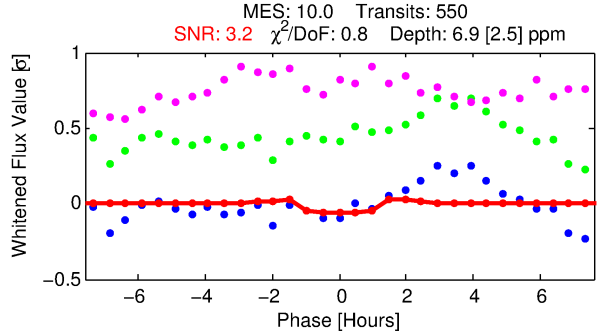
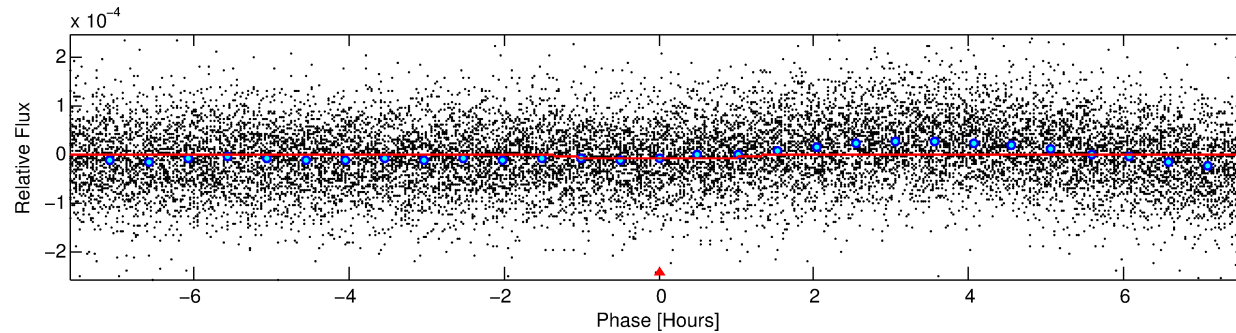
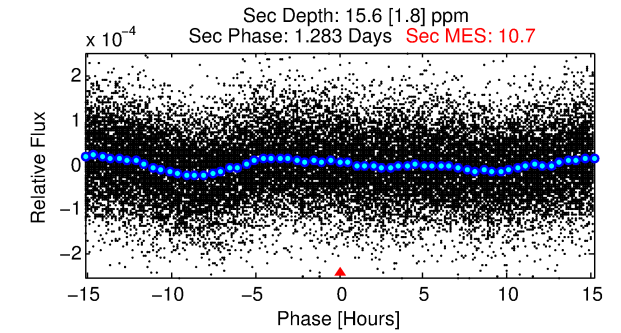
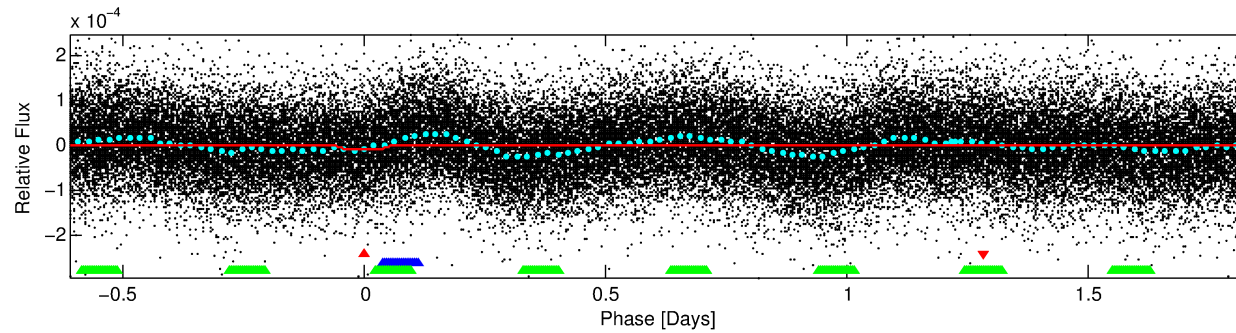
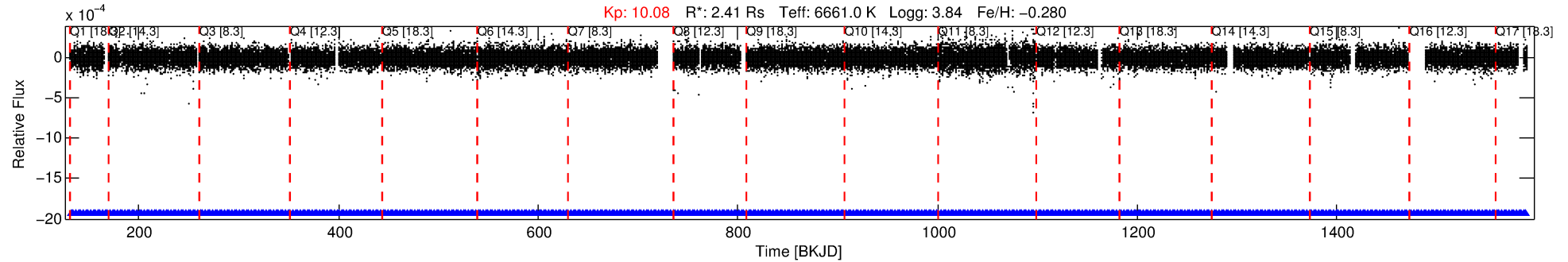
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009718378-01

No Significant Match Found

DV One-Page Summary

KIC: 9718378 Candidate: 1 of 3 Period: 2.441 d



DV Fit Results:

Period = 2.44065 [0.00004] d
Epoch = 132.4441 [0.0062] BKJD
Rp/R* = 0.0029 [0.0012]
a/R* = 2.92 [5.79]
b = 0.93 [0.33]
Seff = 6268.68 [4715.24]
Teq = 2269 [427] K
Rp = 0.76 [0.46] Re
a = 0.0404 [0.0183] AU
Ag = 24.27 [26.70] [0.87σ]
Teffp = 7786 [1611] K [3.31σ]

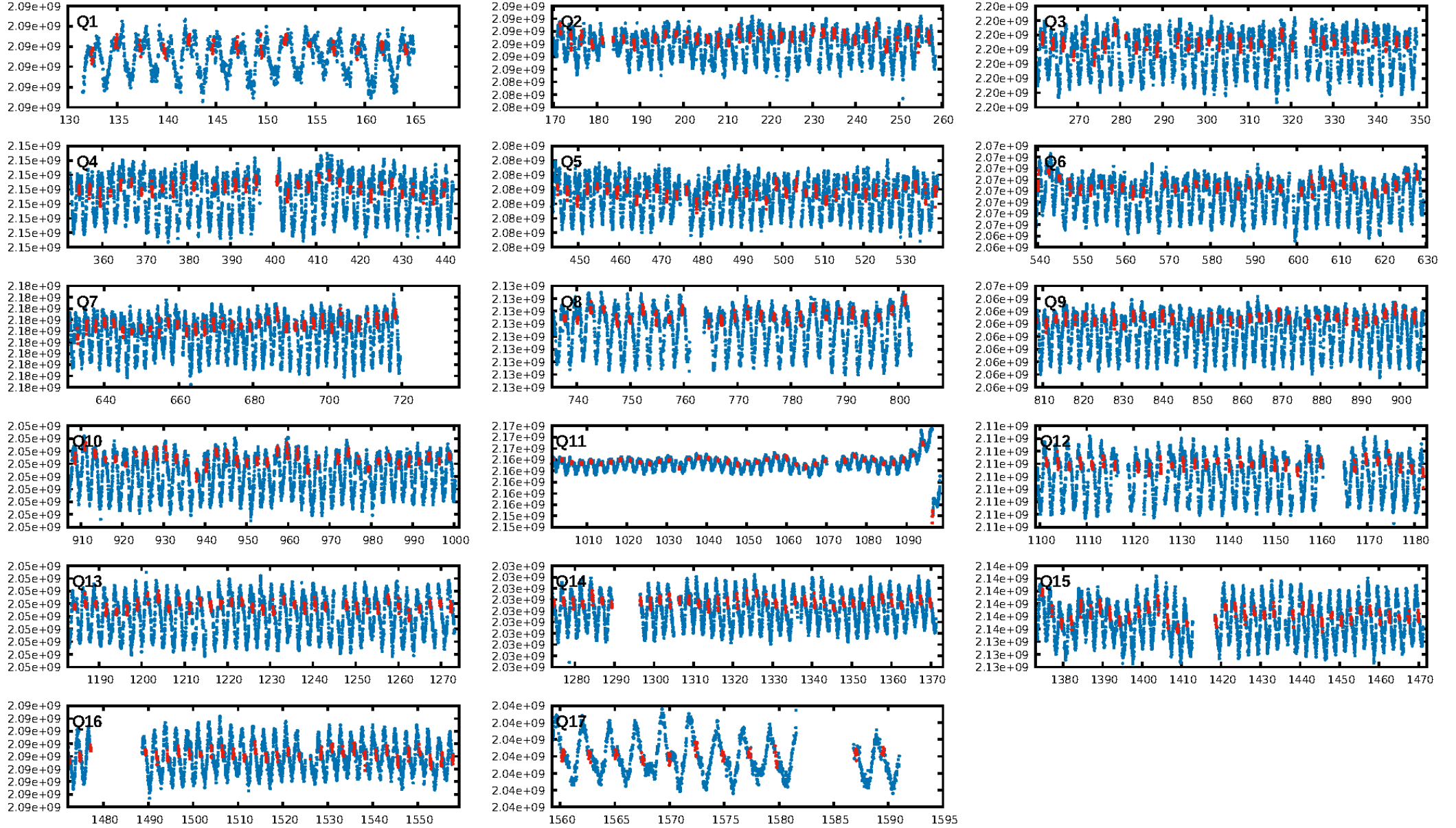
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [9.32σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.46e-81
RollingBand-fgt: 1.00 [525/525]
GhostDiagnostic-chr: N/A
Centroid-sig: 1.6%
Centroid-so: 4.282 arcsec [2.26σ]
OotOffset-rm: 2.484 arcsec [3.82σ]
KicOffset-rm: 2.945 arcsec [4.02σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.06 [1/16]
DiffImageOverlap-fno: 0.00 [0/17]

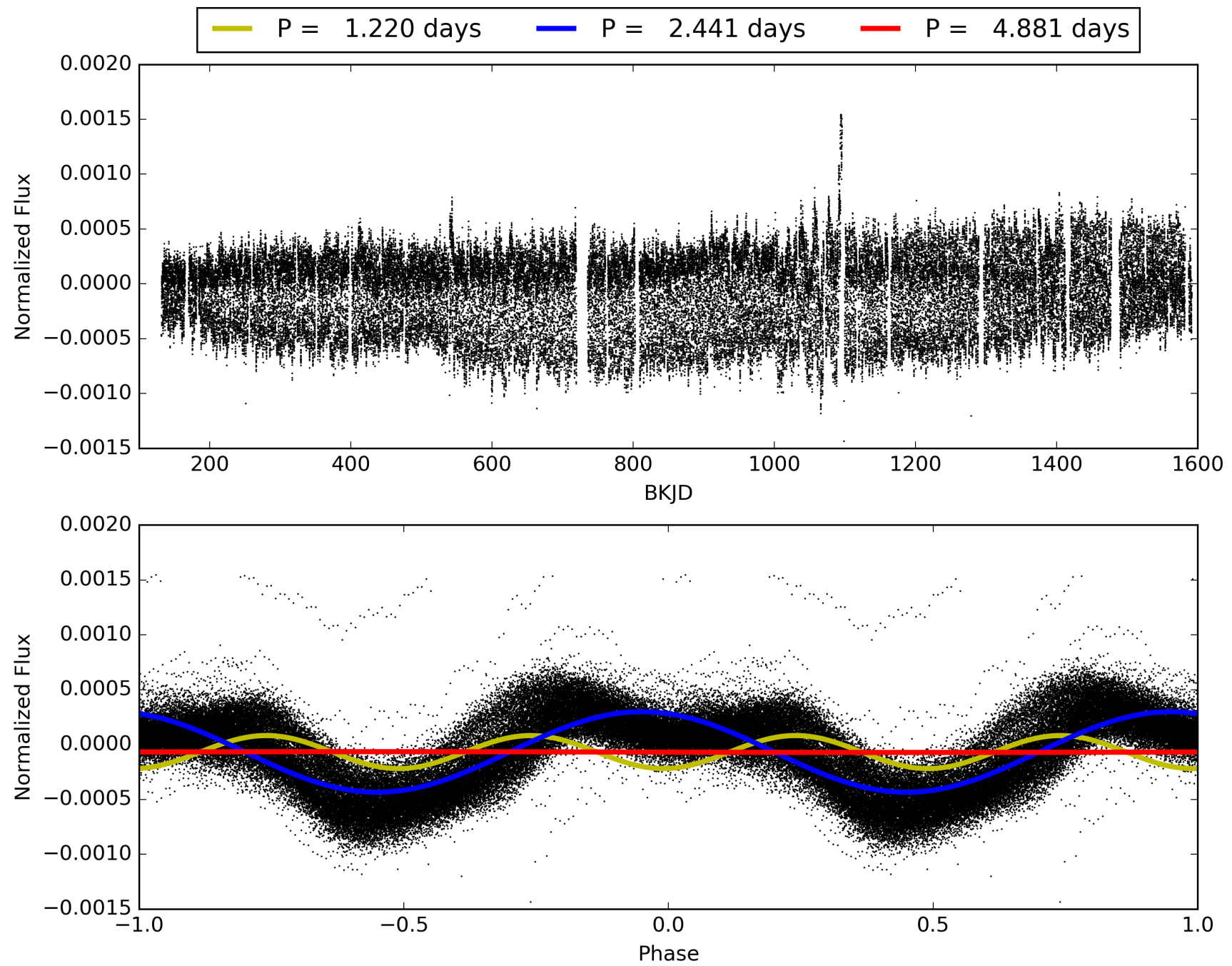
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:18:50 Z

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

TCE 009718378-01, PDC Light Curves

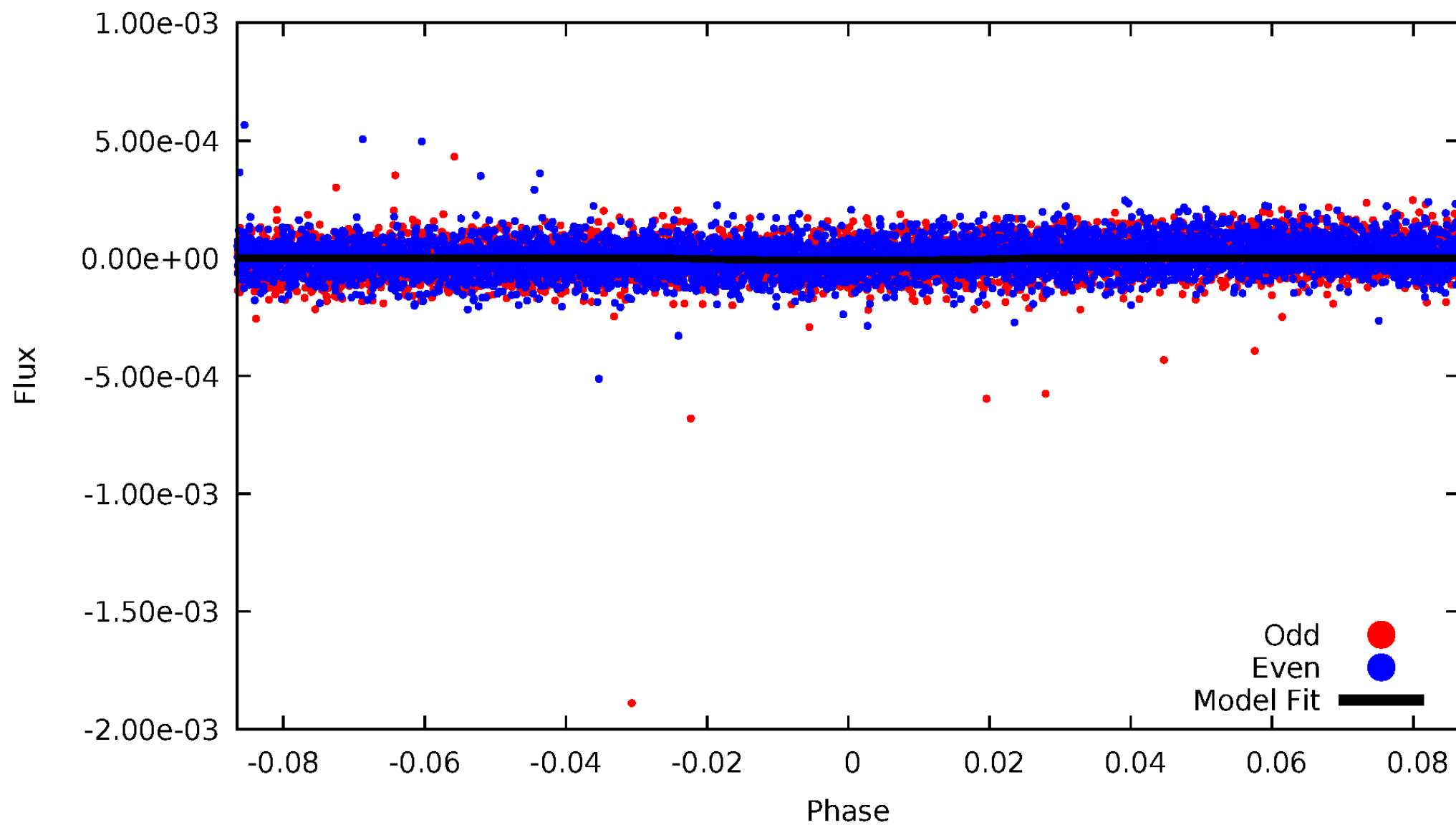


TCE 009718378-01



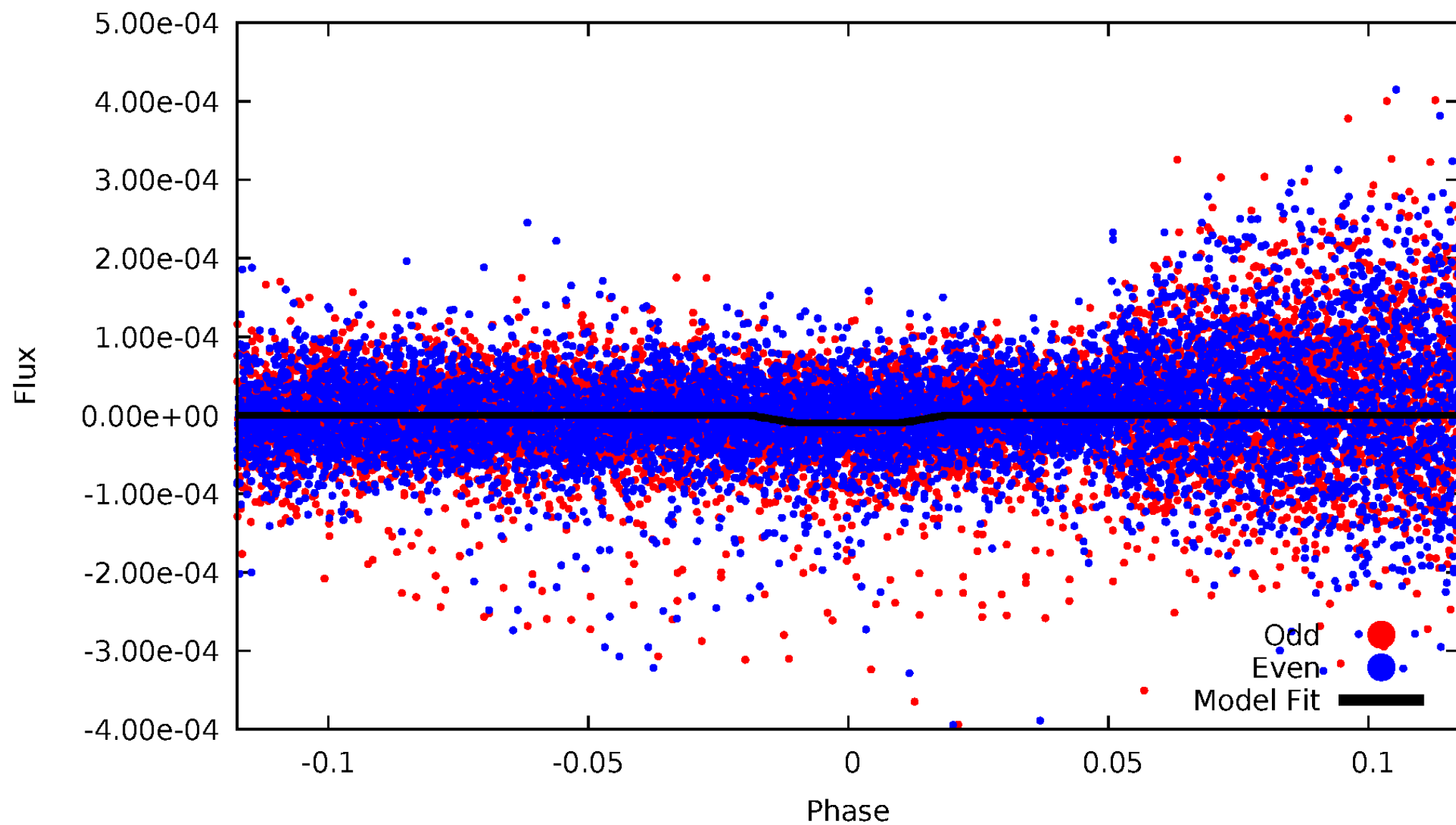
DV Odd/Even

TCE 009718378-01



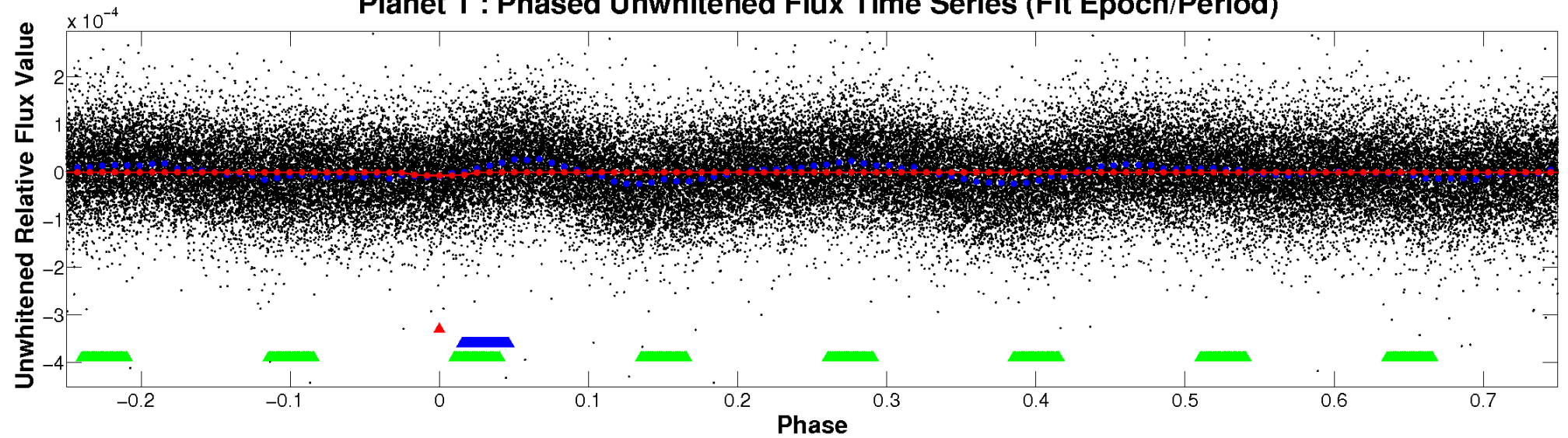
ALT Odd/Even

TCE 009718378-01

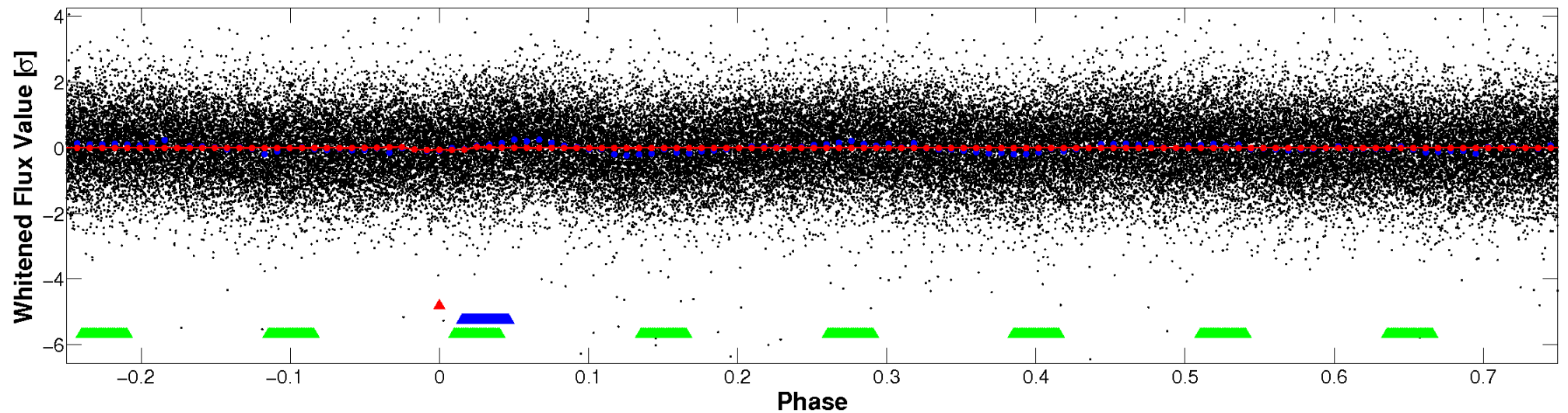


Non-Whitened Vs. Whitened Light Curve

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

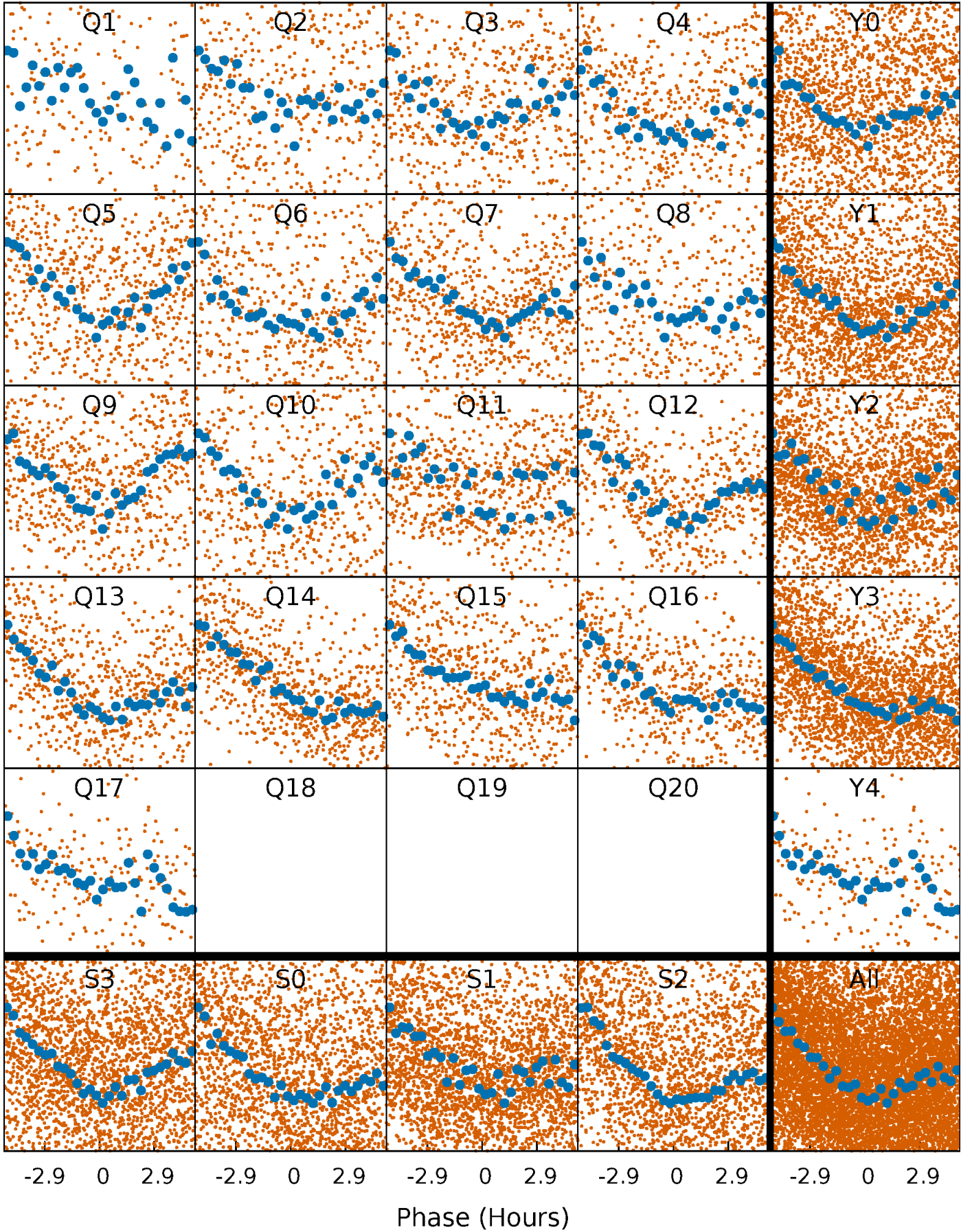


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



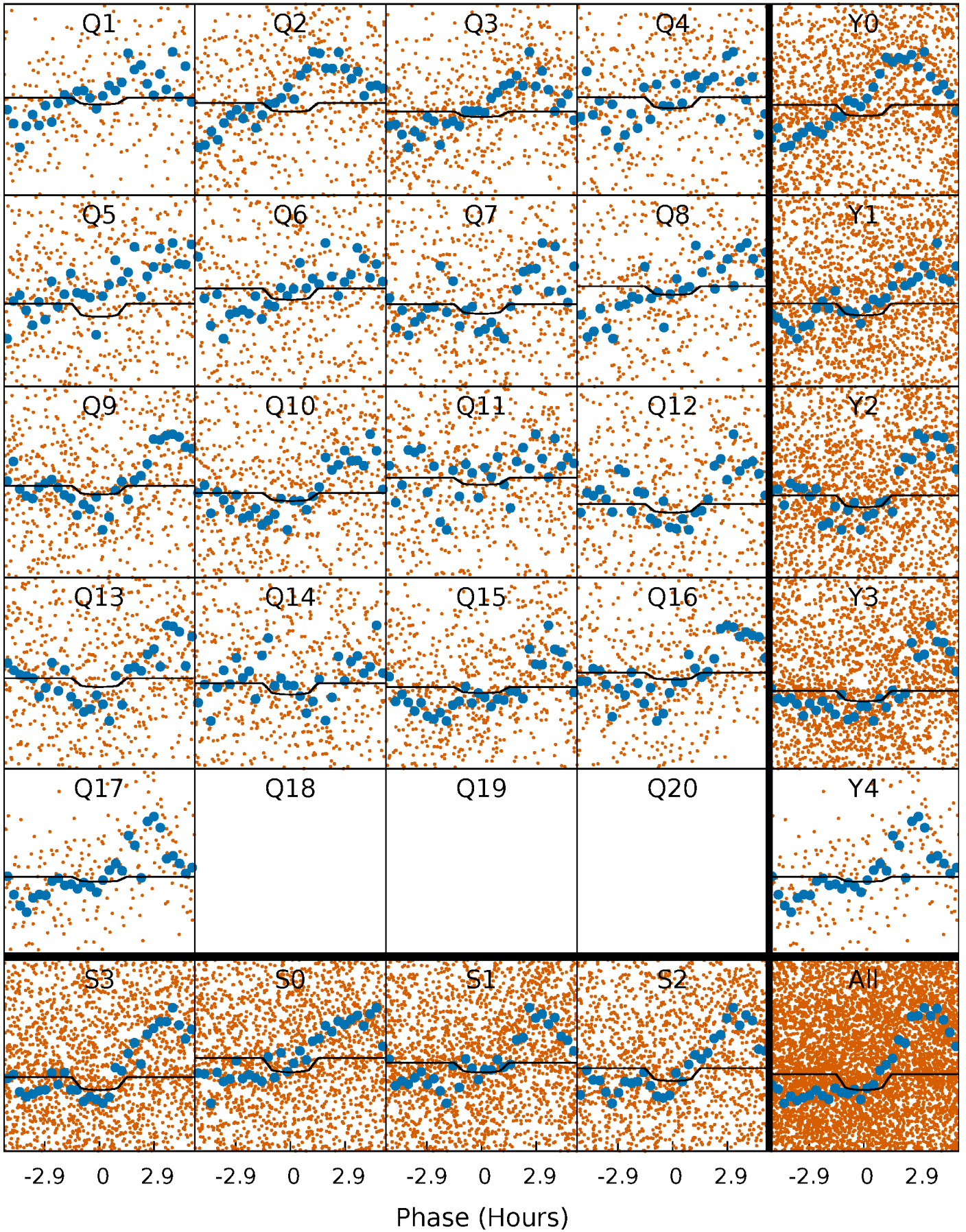
PDC Quarter-Phased Transit Curves

TCE 009718378-01 P= 2.440649 Days $T_0=132.444134$ (BKJD)



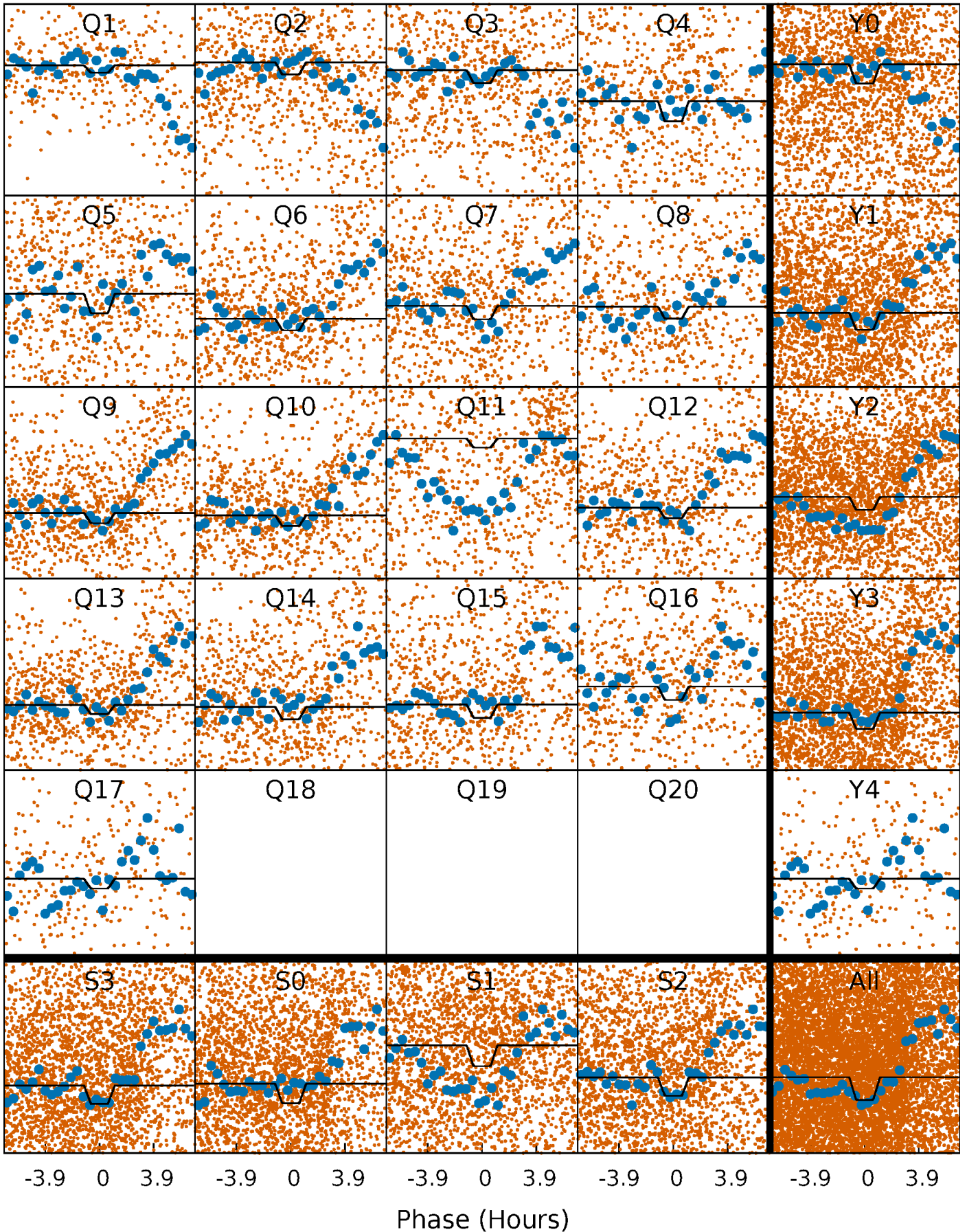
DV Quarter-Phased Transit Curves

TCE 009718378-01 P= 2.440649 Days $T_0=132.444134$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

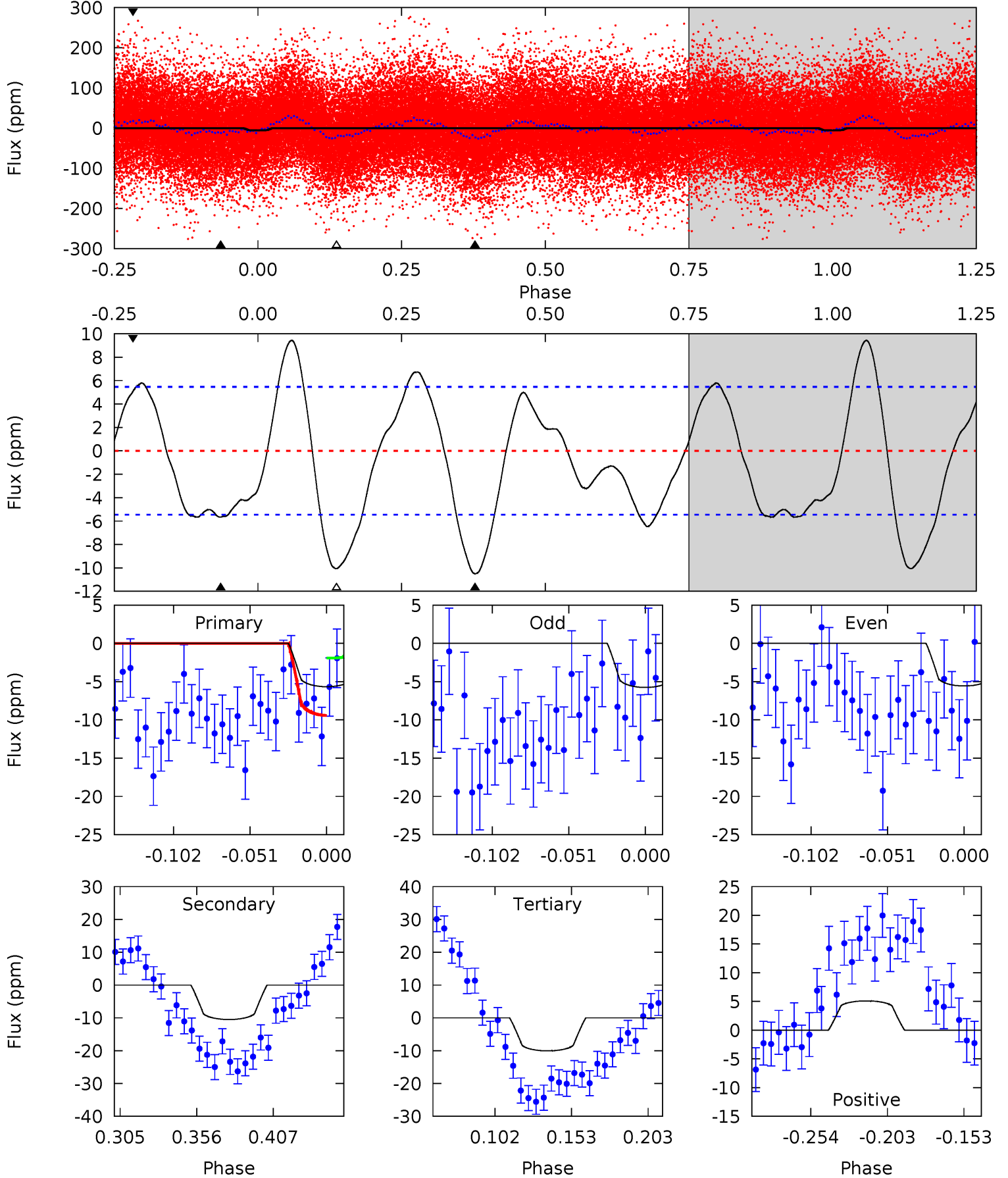
TCE 009718378-01 P= 2.440581 Days $T_0=132.462529$ (BKJD)



DV Model-Shift Uniqueness Test

009718378-01, P = 2.440649 Days, E = 130.003485 Days

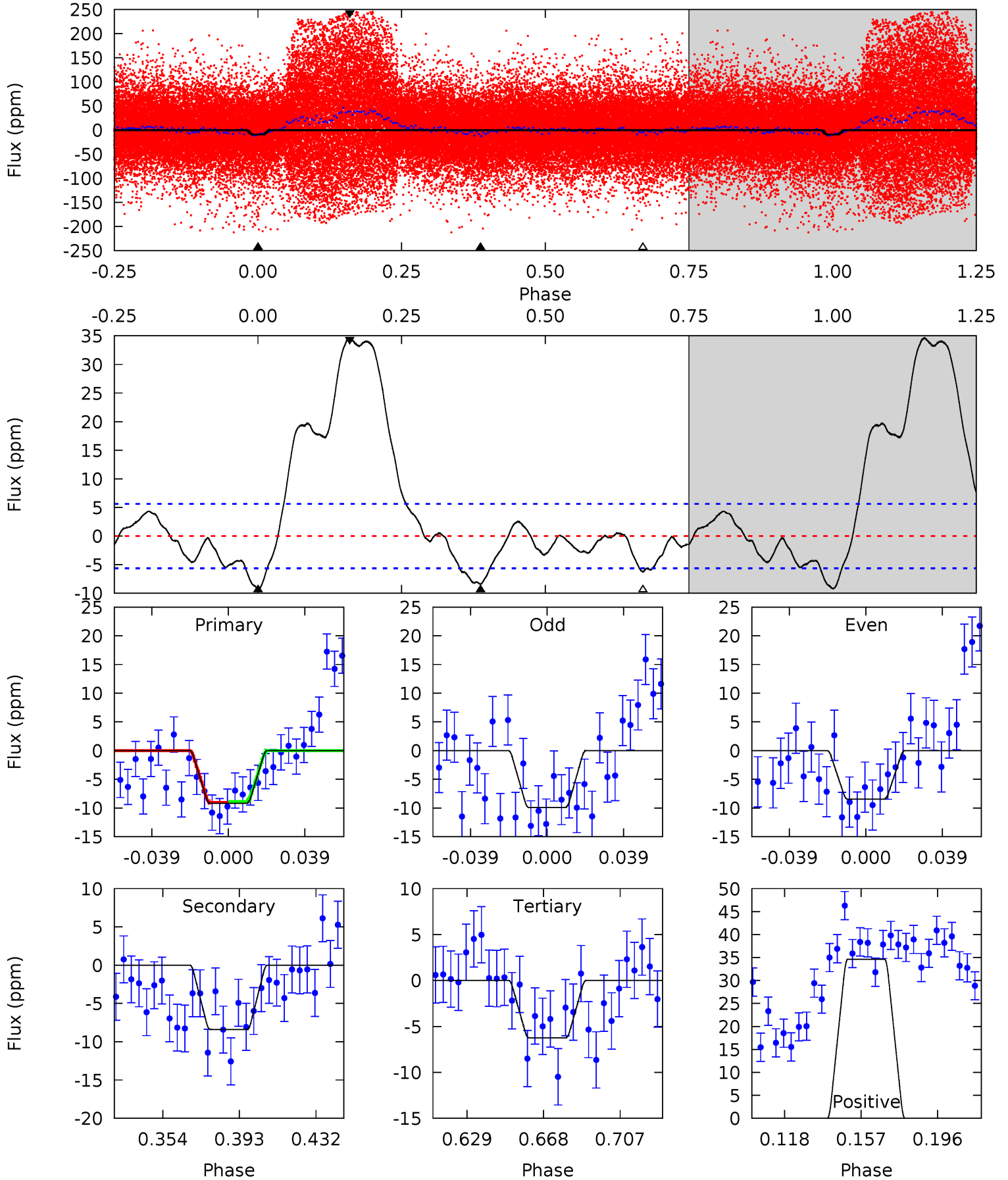
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.88	9.05	8.67	4.39	4.70	1.95	3.97	-3.79	0.49	0.38	4.66	0.08	0.98	0.47	3.23



Alt Model-Shift Uniqueness Test

009718378-01, P = 2.440581 Days, E = 130.021948 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.75	7.10	5.27	29.2	4.76	2.06	9.46	2.48	-21.5	1.83	-22.1	0.61	1.89	0.79	0.07



Stellar Parameters For KIC 009718378

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6661^{+188}_{-235}	$3.844^{+0.440}_{-0.110}$	$-0.280^{+0.250}_{-0.300}$	$2.411^{+0.500}_{-1.083}$	$1.478^{+0.200}_{-0.399}$	$0.148^{+0.635}_{-0.049}$
	+3%/-4%	+11%/-3%	+89%/-107%	+21%/-45%	+14%/-27%	+427%/-33%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009718378-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 1	$0.68^{+0.31}_{-0.31}$	3085^{+228}_{-386}	7021^{+2955}_{-1164}	20^{+47}_{-11}
Alt.	-8 ± 1	$0.71^{+0.35}_{-0.27}$	3069^{+228}_{-342}	6423^{+1951}_{-1027}	14^{+26}_{-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 $A_{obs} \gg 1.0$

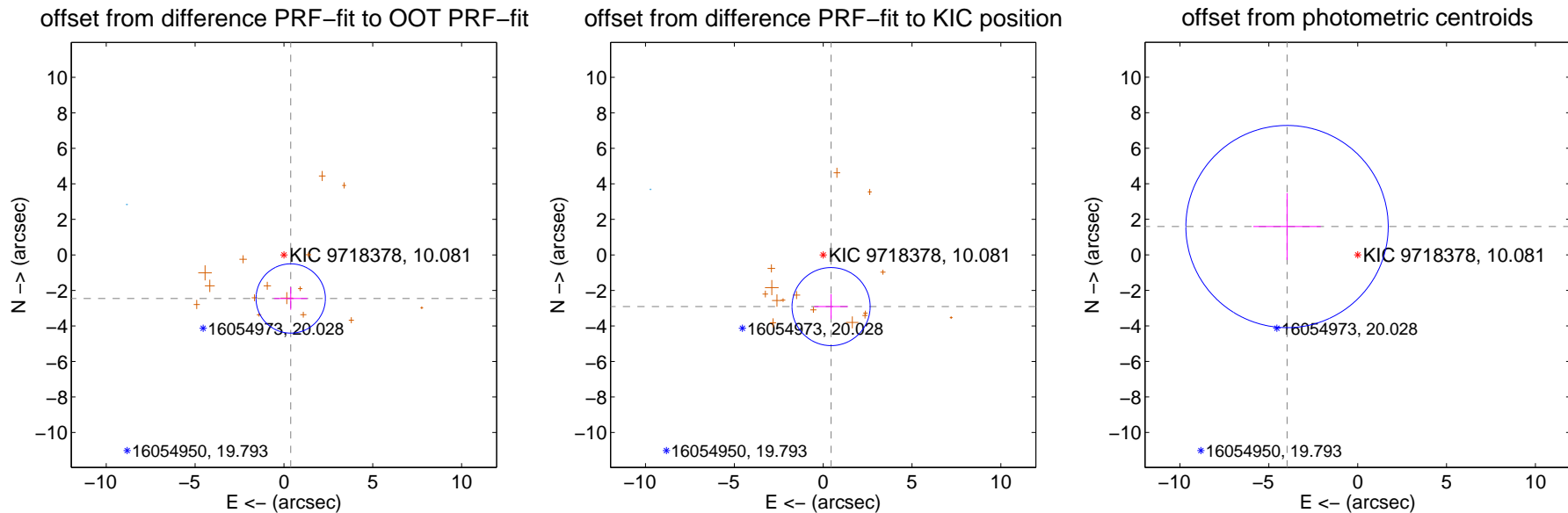
DV Centroid Data

Supplemental centroid analysis for 009718378-01. **Kepler magnitude: 10.08.** Transit SNR 3.19

There are 1 quarters with good PRF difference image offsets

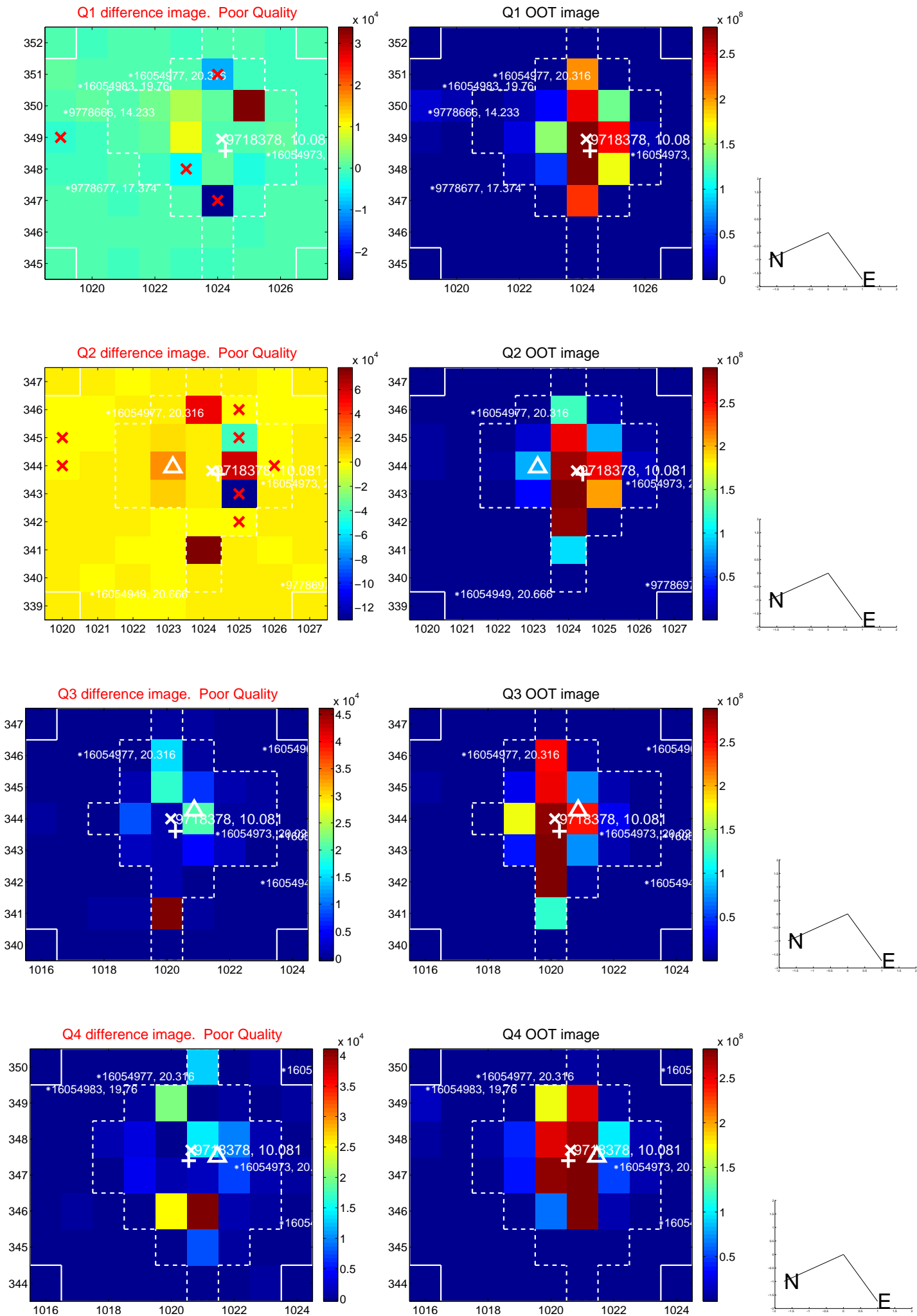
The OOT PRF centroid is offset from the target star catalog position by about 2.01 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.484 ± 0.650	3.82	-0.382 ± 0.936	-2.454 ± 0.633
PRF-fit source offset from KIC position	2.945 ± 0.733	4.02	-0.444 ± 0.947	-2.912 ± 0.697
photometric centroid source offset	4.28 ± 1.90	2.26	3.97 ± 1.90	1.59 ± 1.89

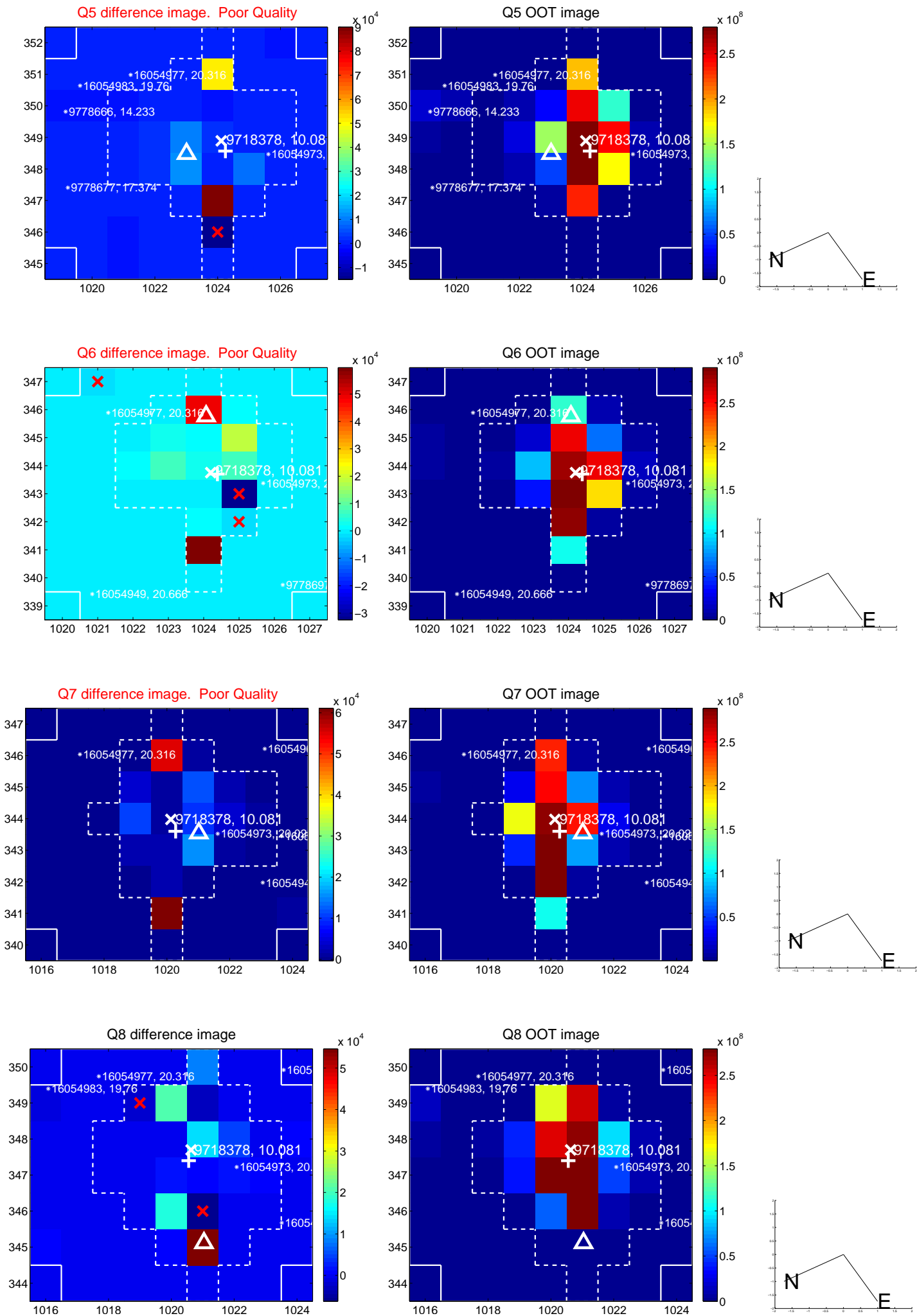


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

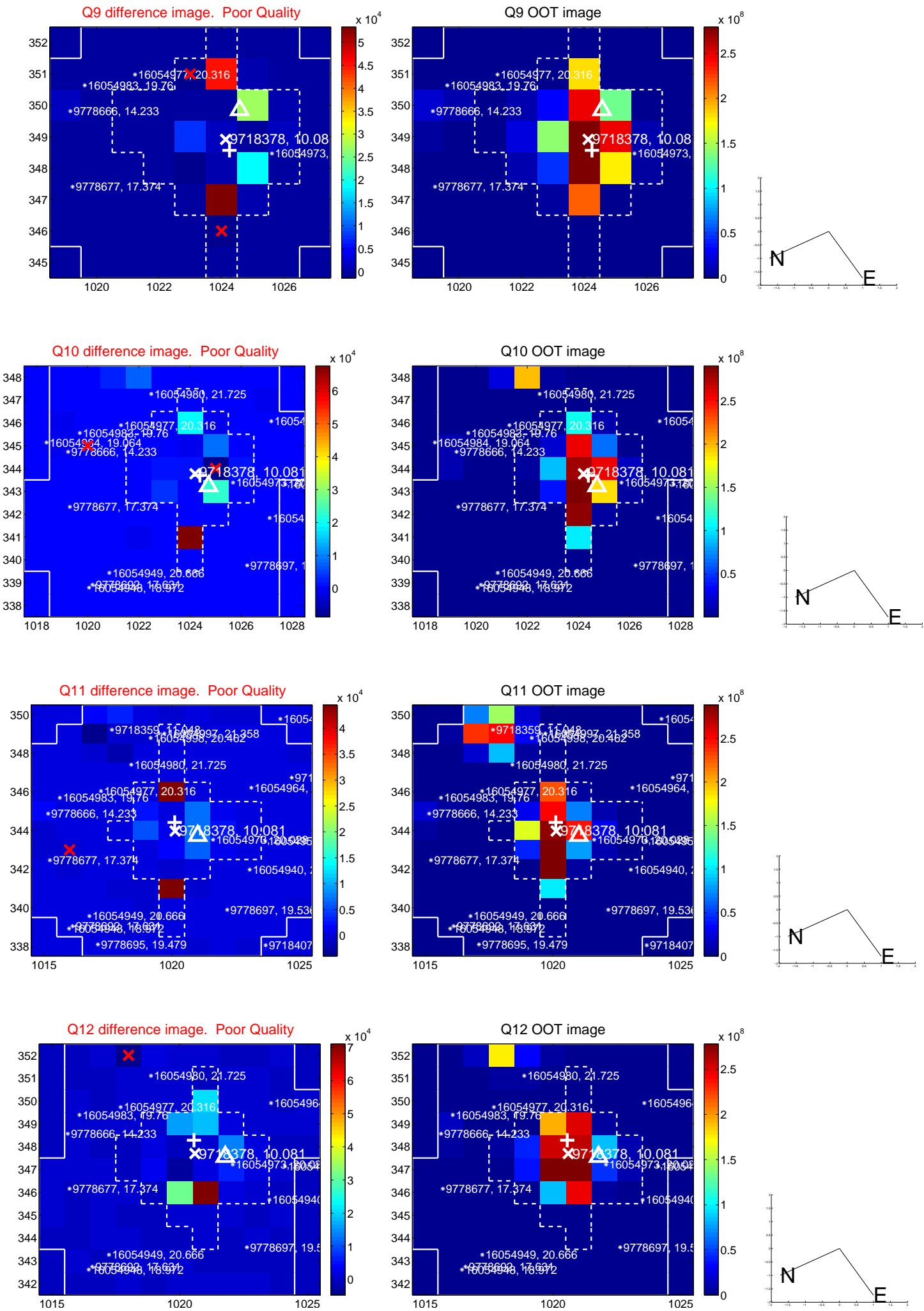
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



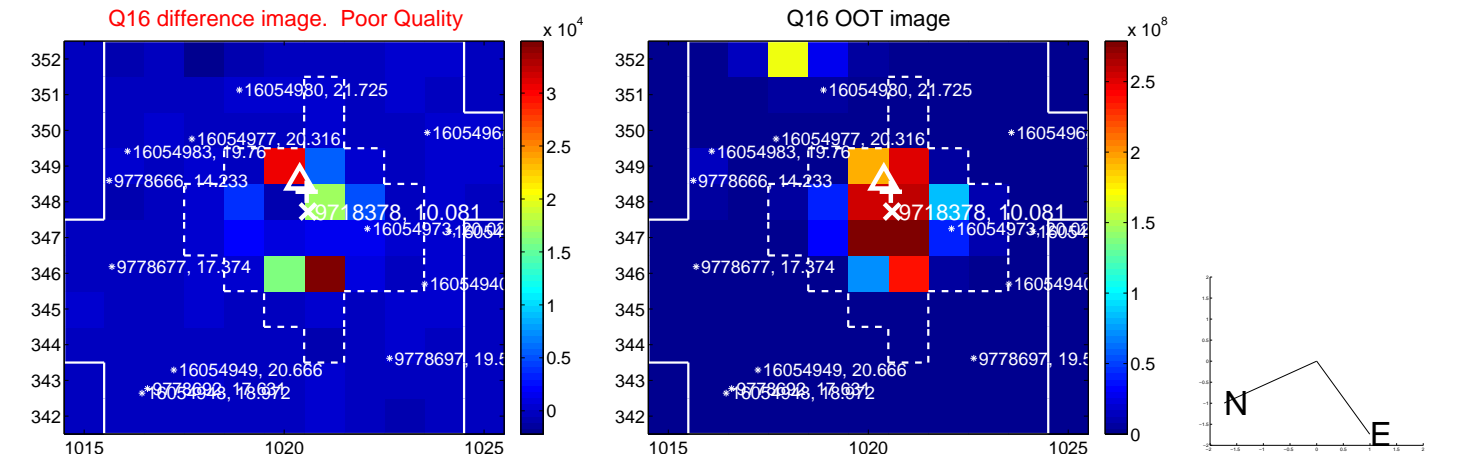
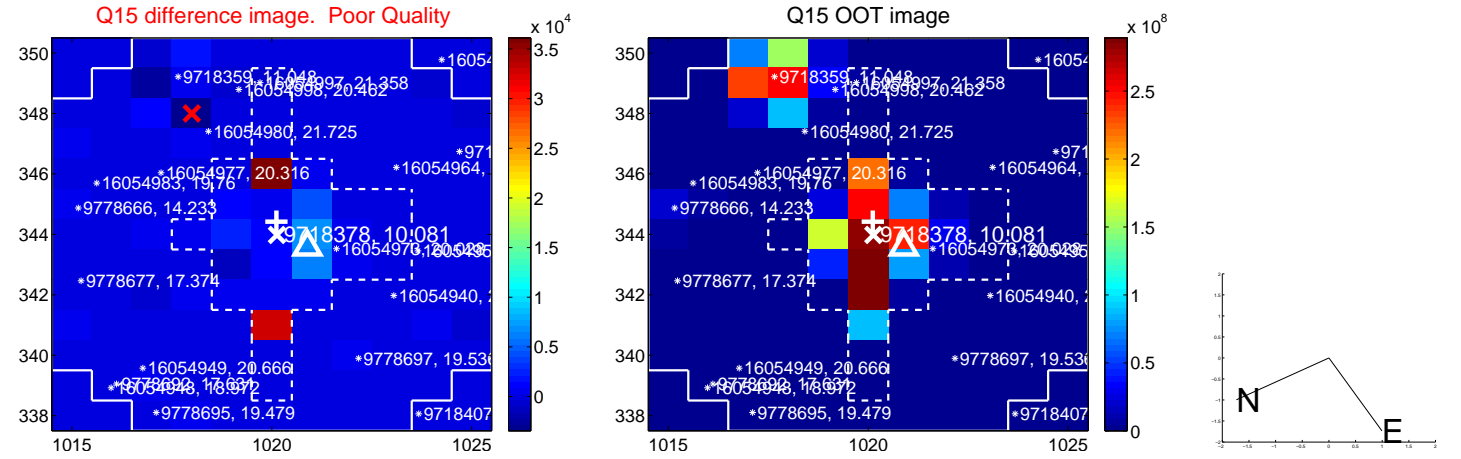
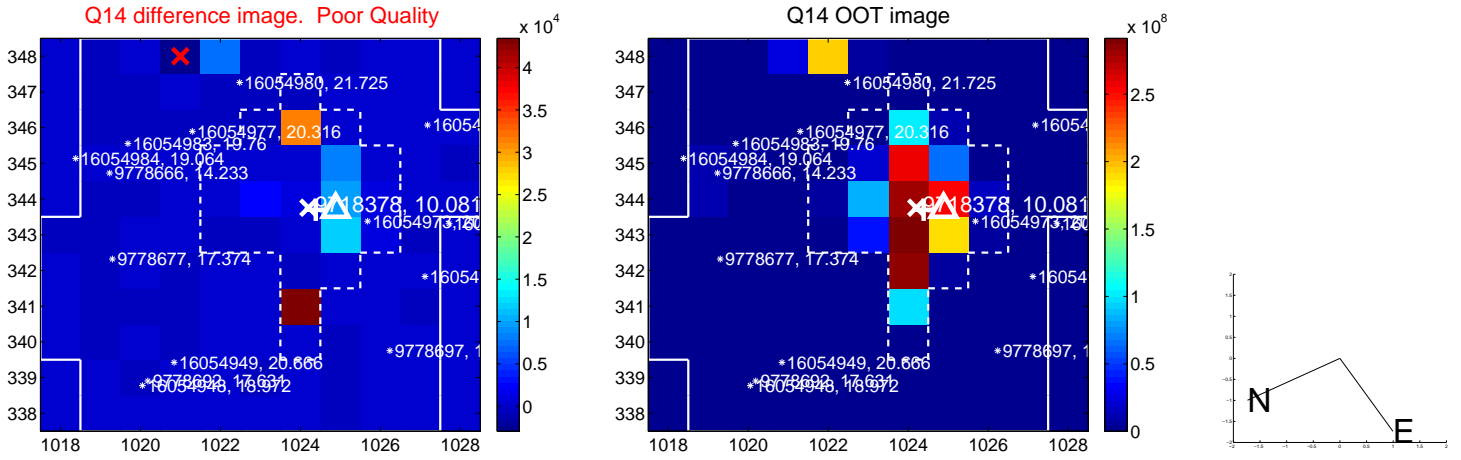
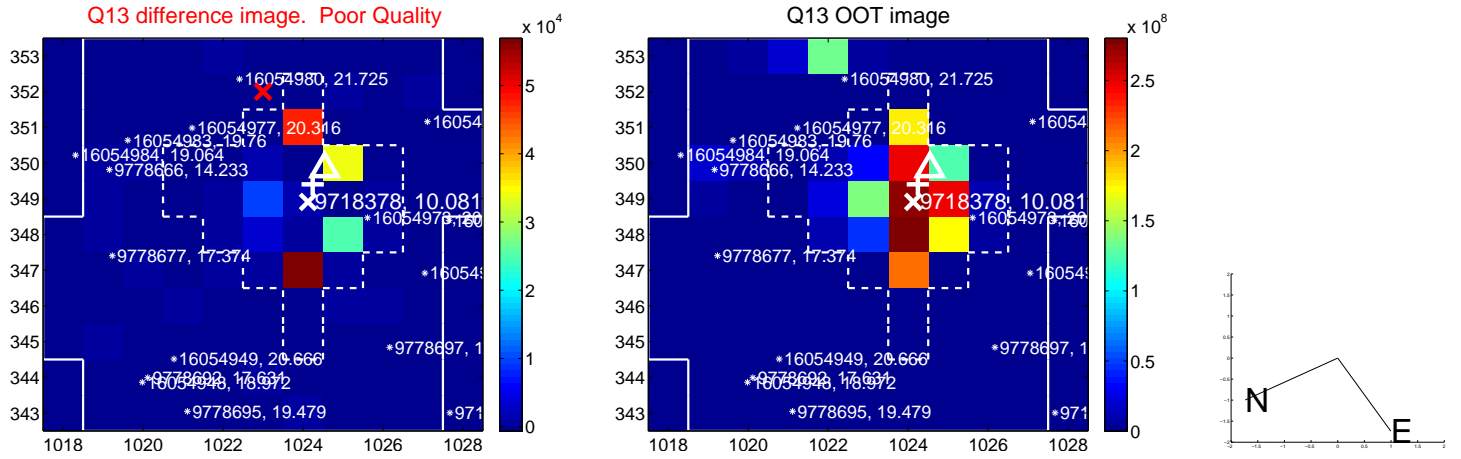
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



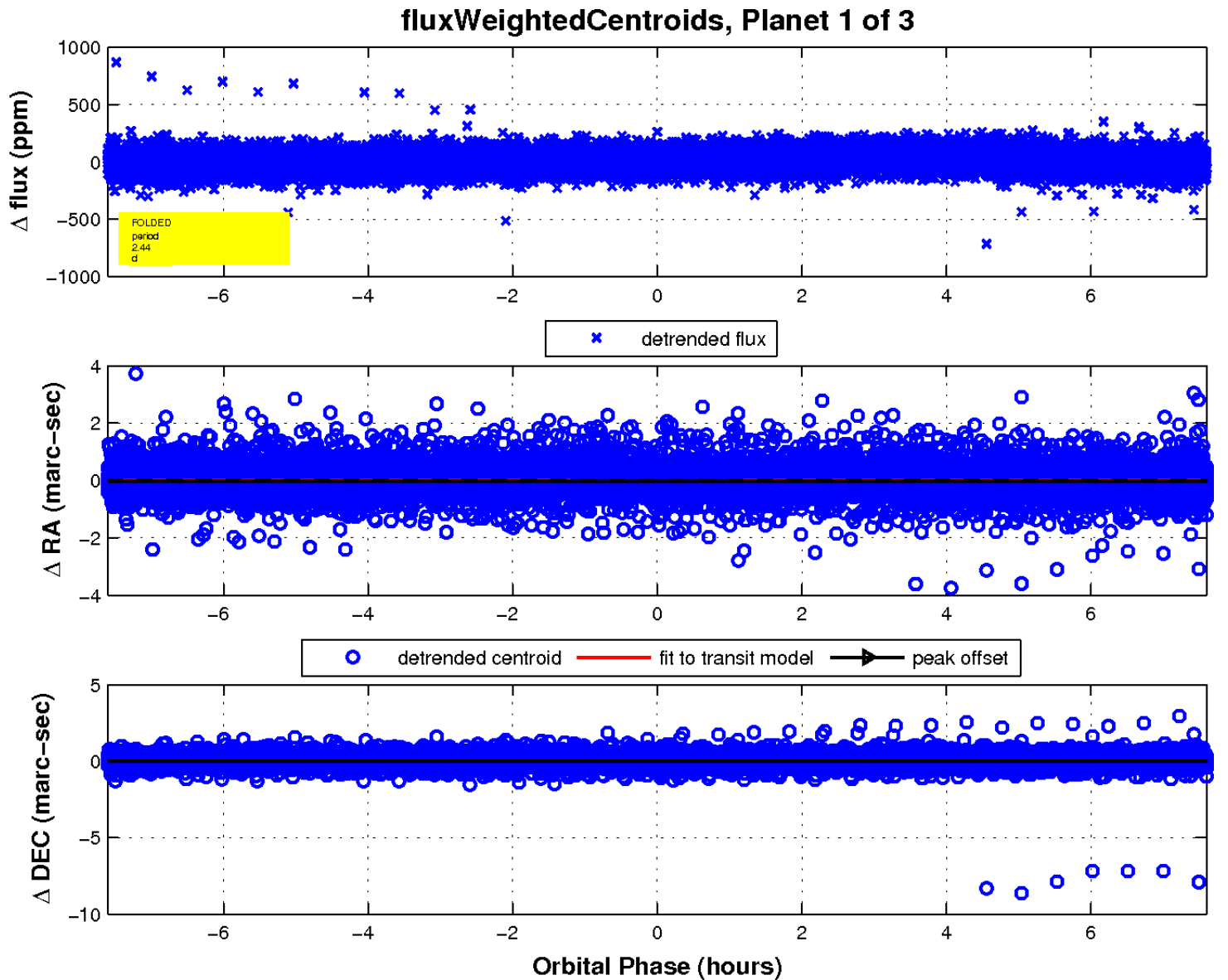
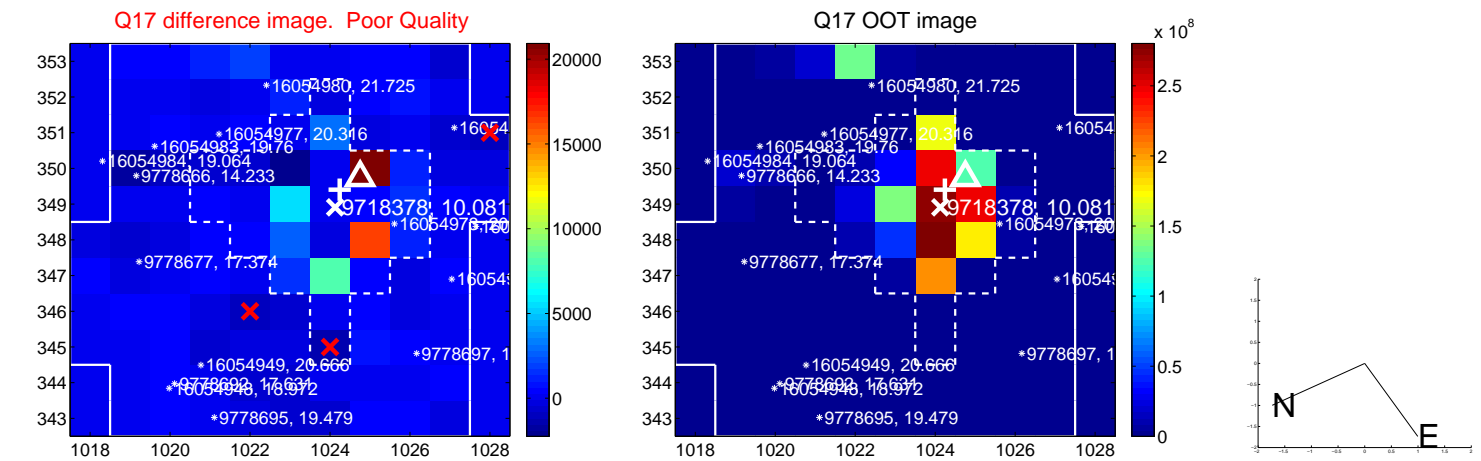
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

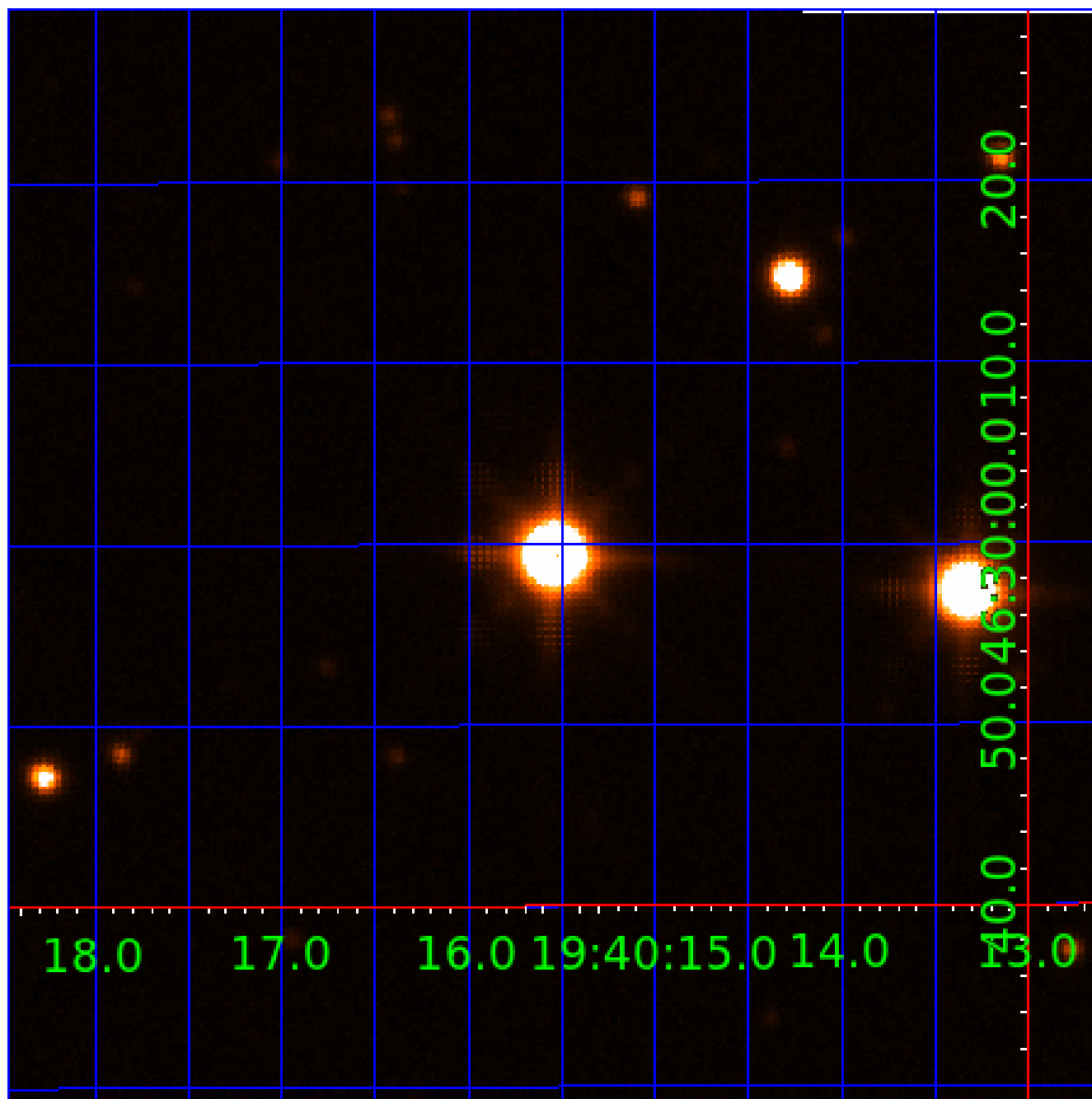


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009718378

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})
009718378-01	OBS	No	2.440649	132.444134	6.9	2.534	10.0	3.2	2.41	6661	0.76	6268.69
009718378-02	OBS	No	2.440522	132.557257	9.5	19.235	10.7	5.6	2.41	6661	0.75	6269.12
009718378-03	OBS	No	3.965848	134.069528	2620.8	3.000	4646.7	-1.0	2.41	6661	12.45	3281.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009718378-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
009718378-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
009718378-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

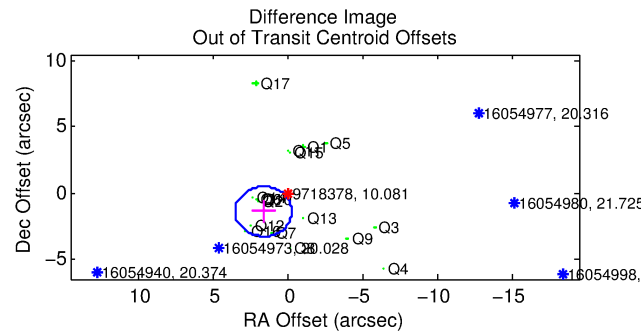
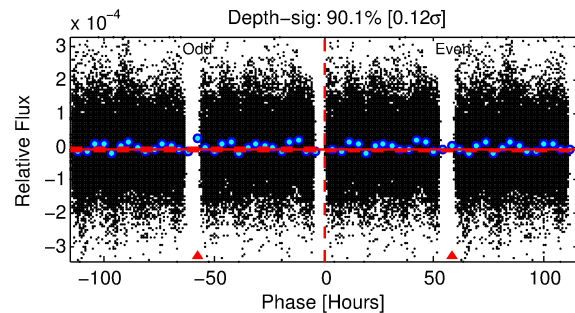
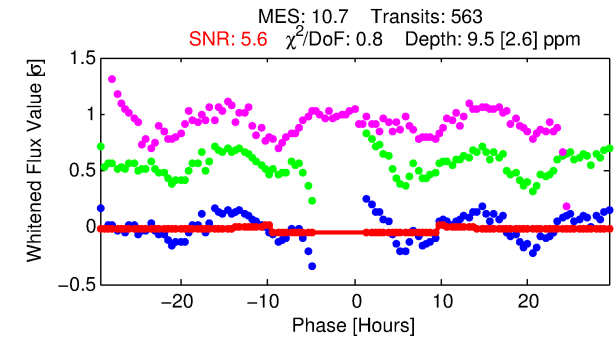
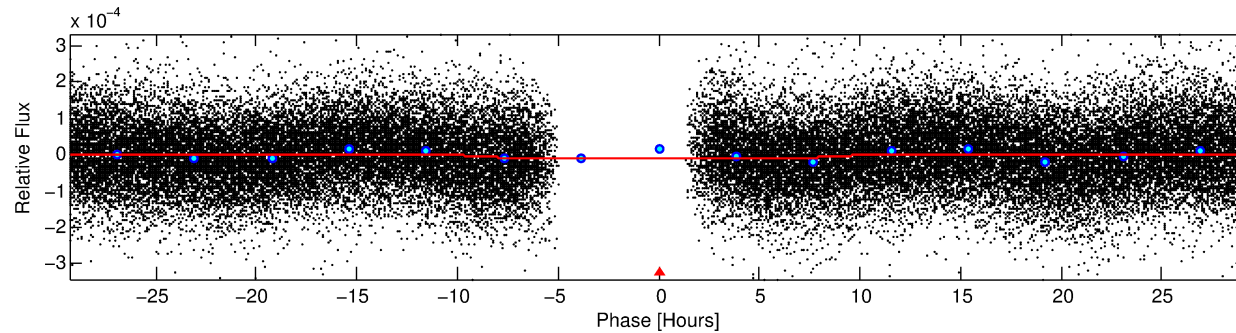
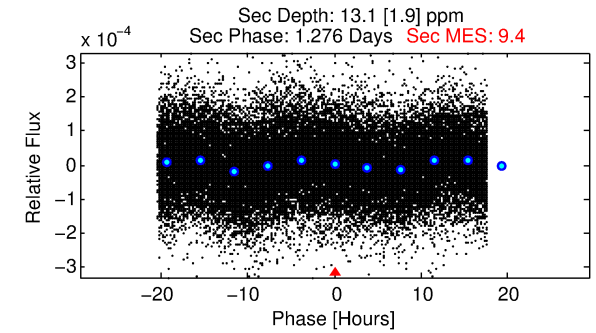
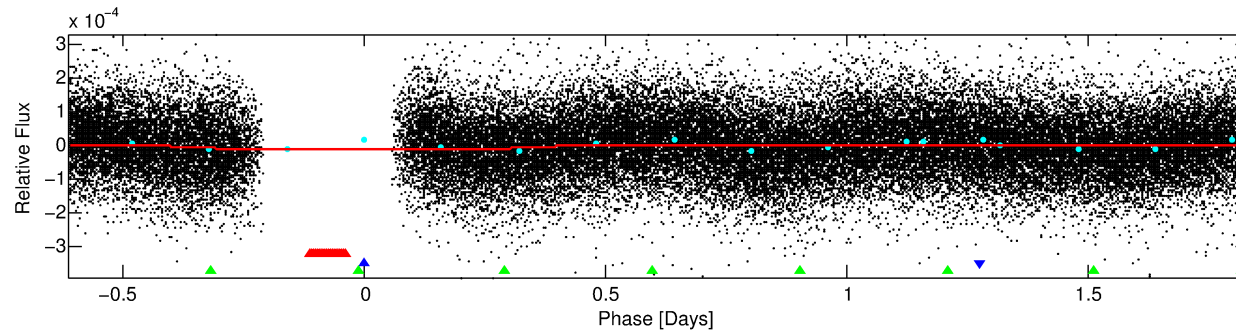
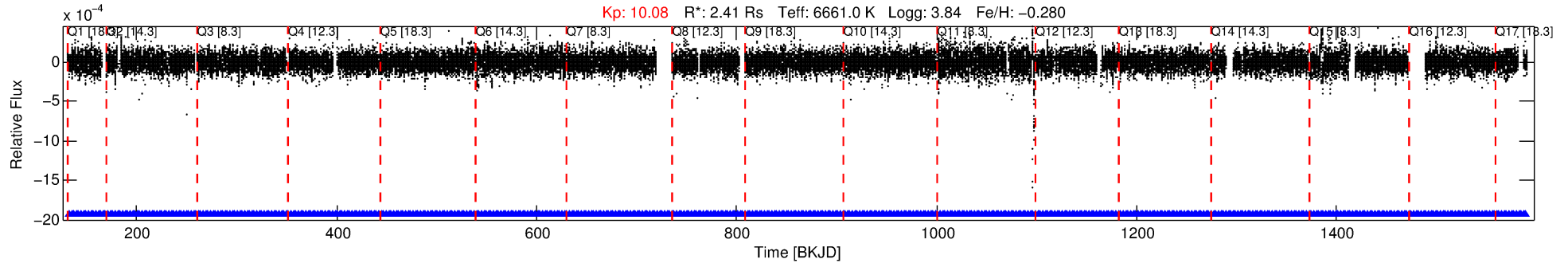
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009718378-02

No Significant Match Found

DV One-Page Summary

KIC: 9718378 Candidate: 2 of 3 Period: 2.441 d



DV Fit Results:

Period = 2.44052 [0.00004] d
Epoch = 132.5573 [0.0072] BKJD
Rp/R* = 0.0029 [0.0031]
a/R* = 1.17 [1.92]
b = 0.11 [57.31]
Seff = 6269.12 [4715.57]
Teq = 2269 [427] K
Rp = 0.75 [0.88] Re
a = 0.0404 [0.0183] AU
Ag = 20.85 [47.71] [0.42σ]
Teffp = 7497 [4067] K [1.28σ]

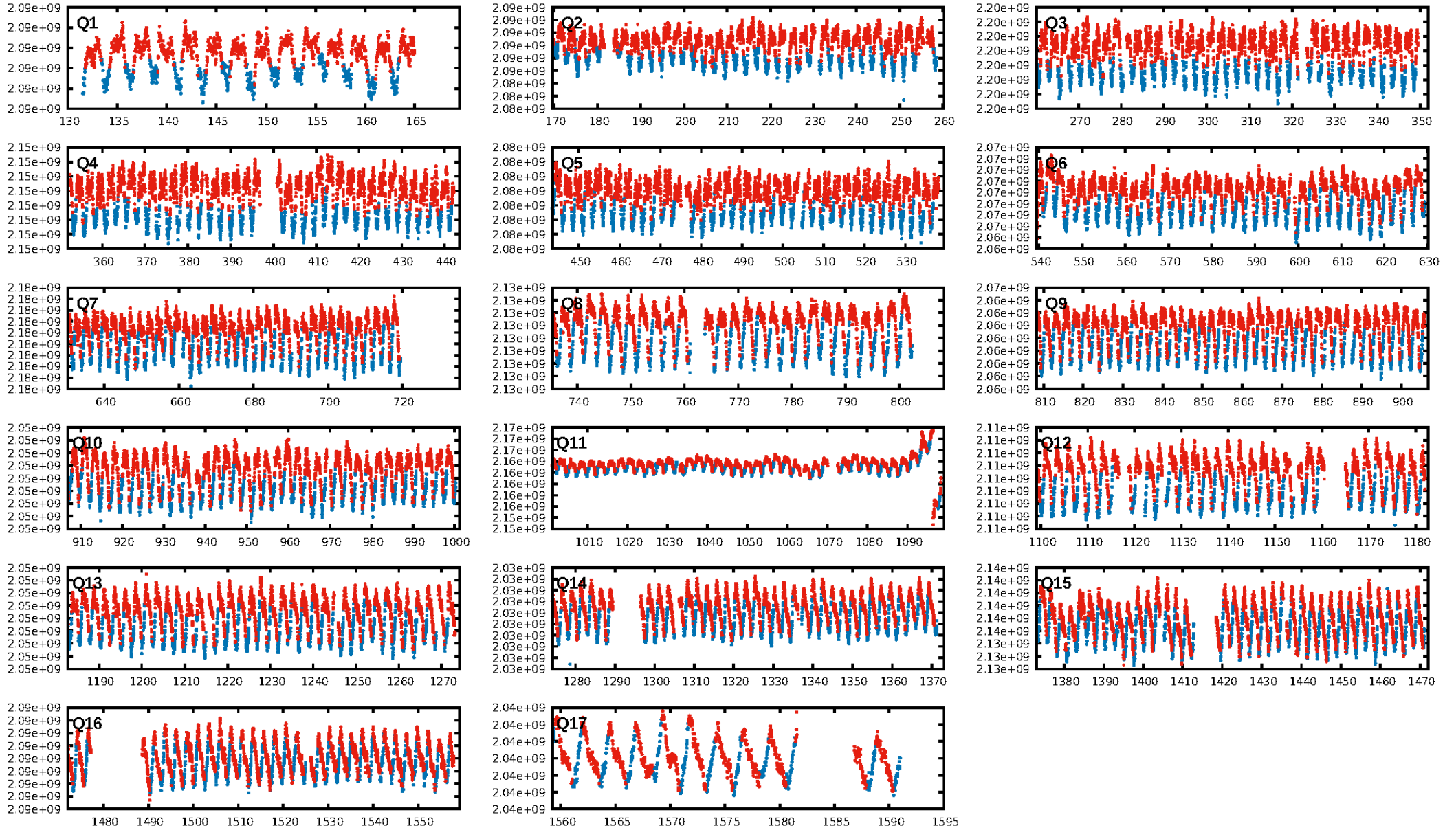
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [538/538]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 4.499 arcsec [4.73σ]
OotOffset-rm: 2.120 arcsec [3.37σ]
KicOffset-rm: 2.232 arcsec [3.13σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 0.00 [0/17]

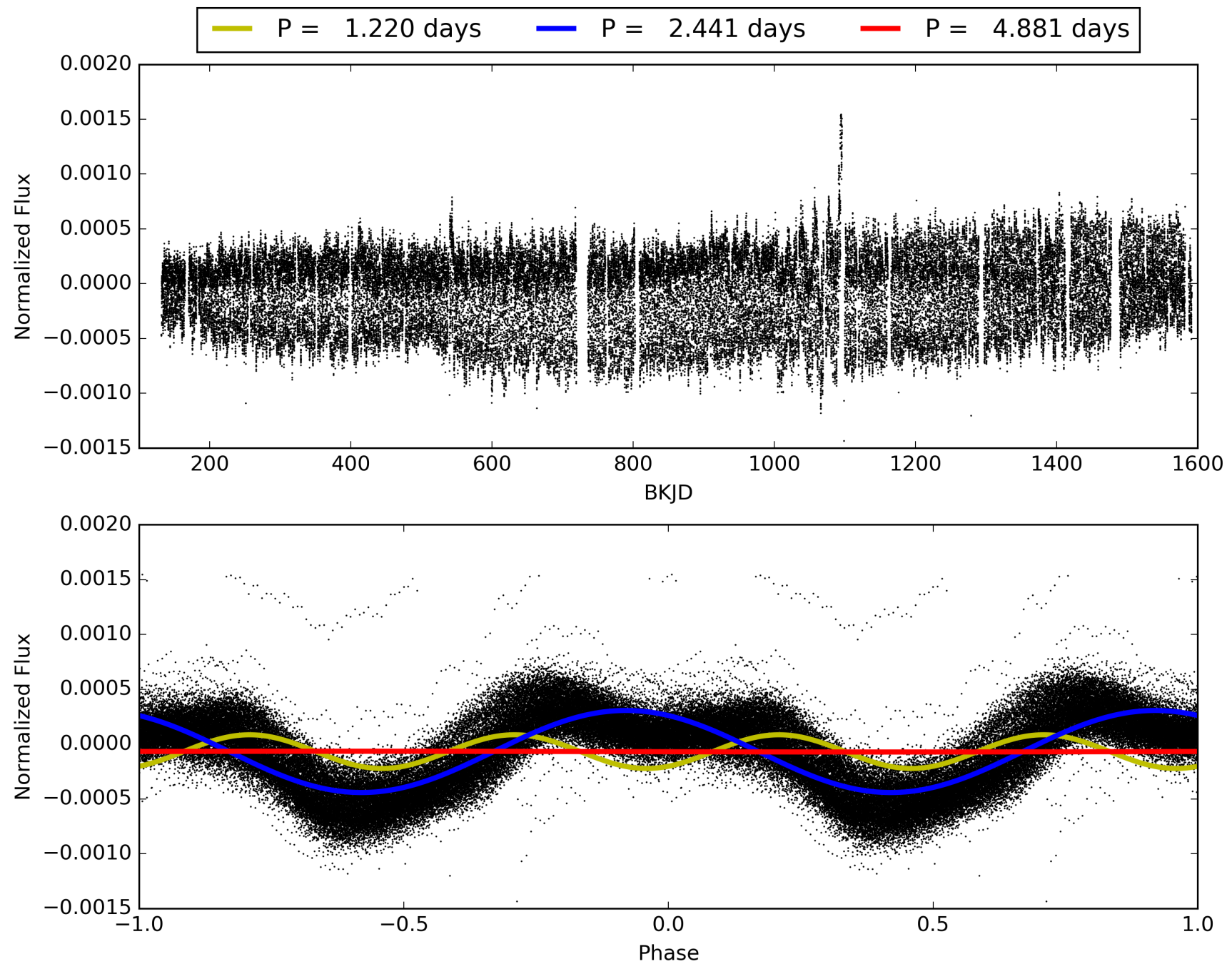
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:19:02 Z

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

TCE 009718378-02, PDC Light Curves

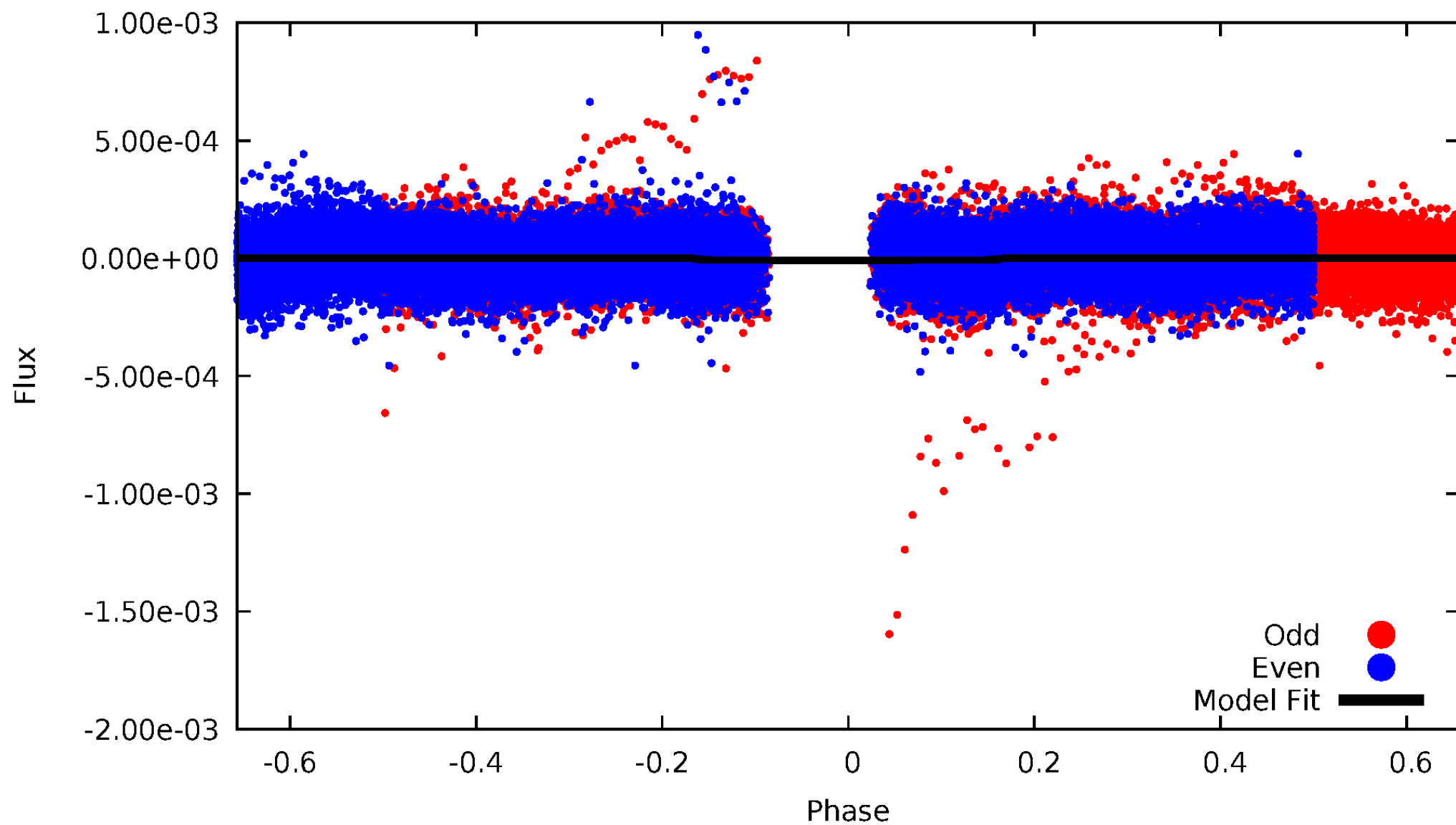


TCE 009718378-02



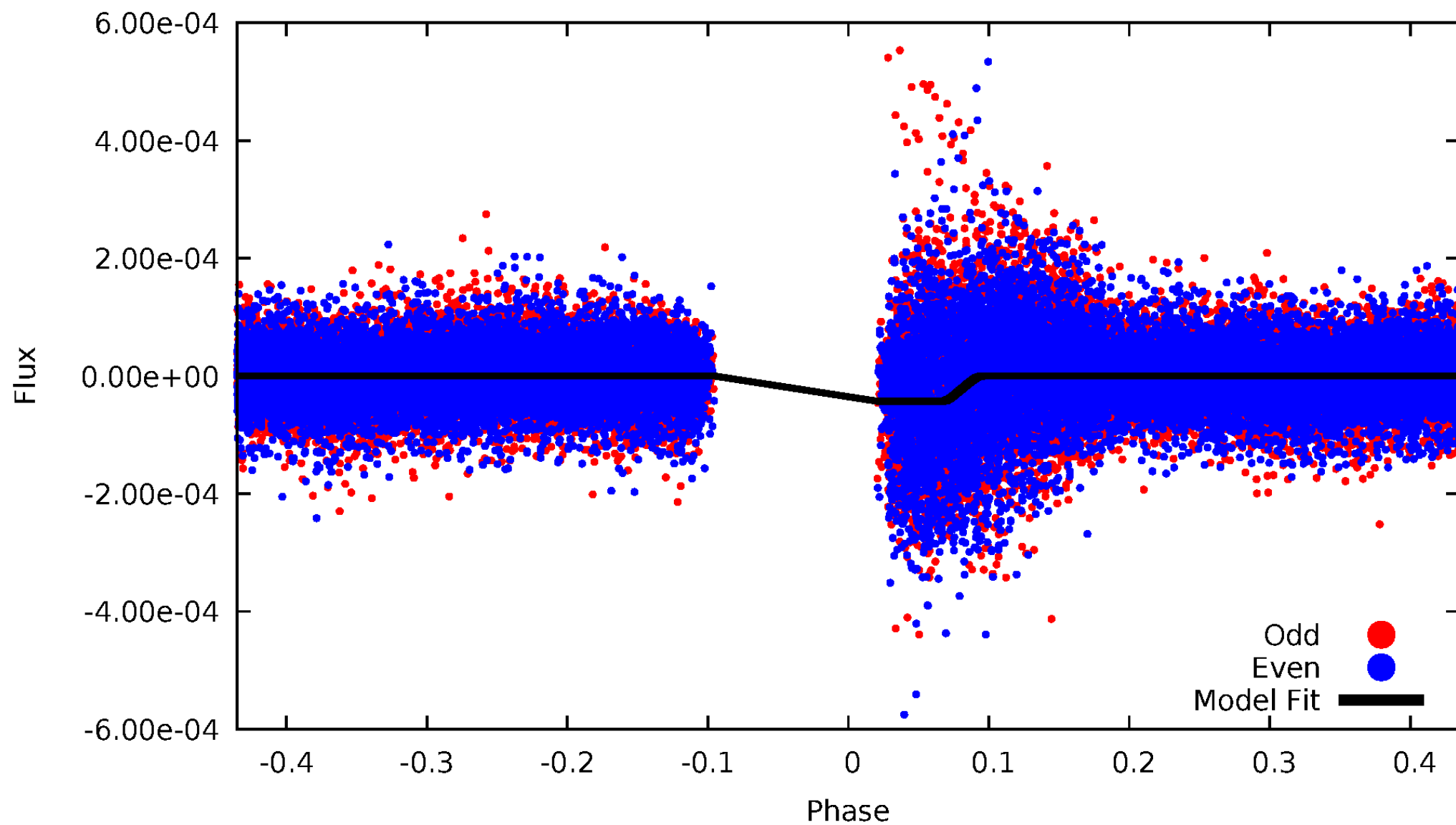
DV Odd/Even

TCE 009718378-02



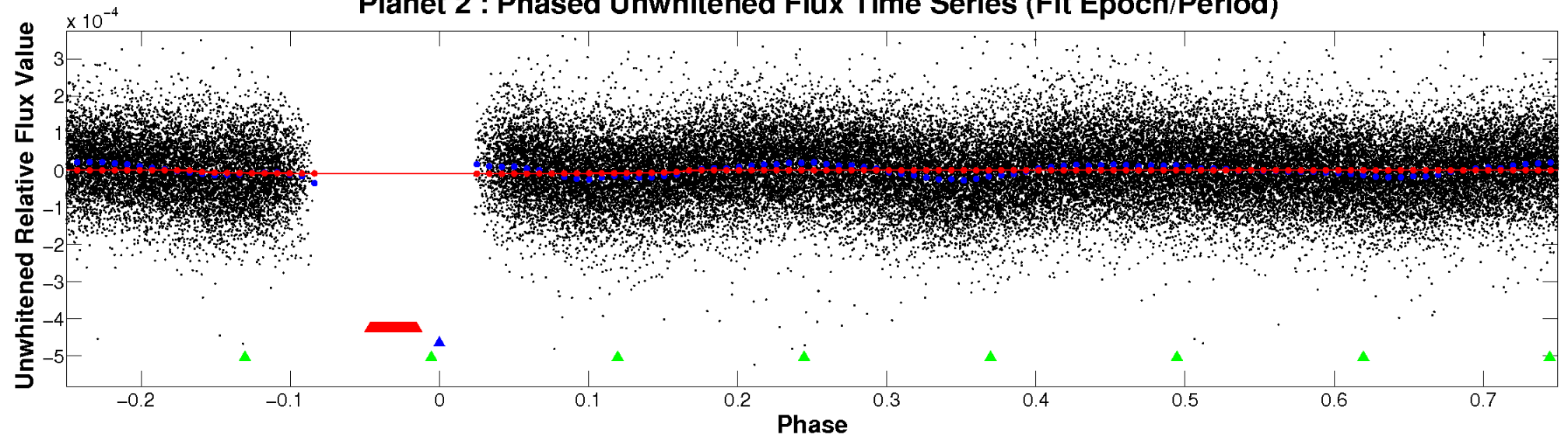
ALT Odd/Even

TCE 009718378-02

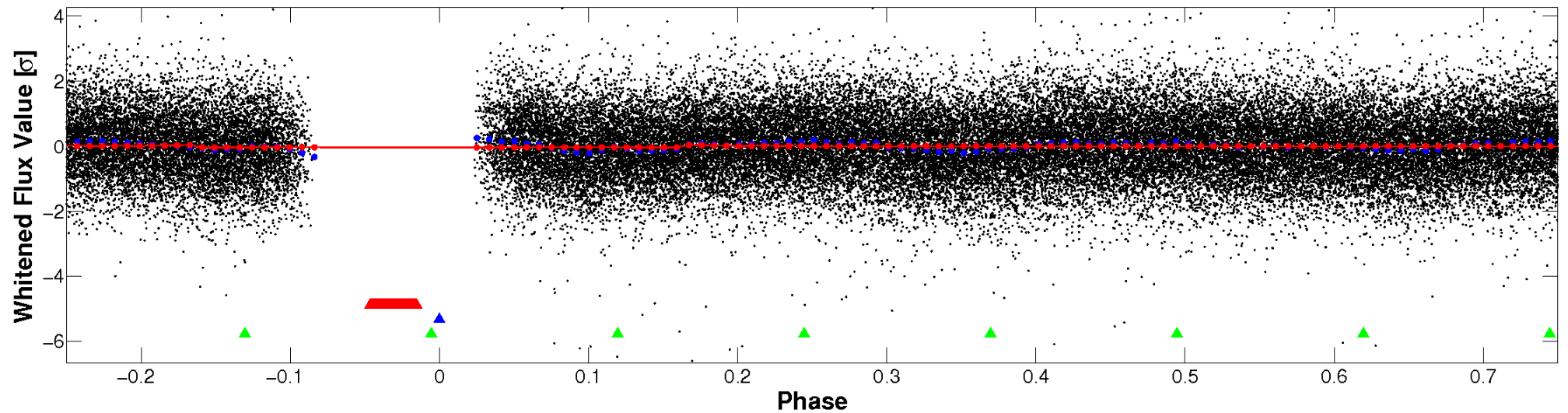


Non-Whitened Vs. Whitened Light Curve

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

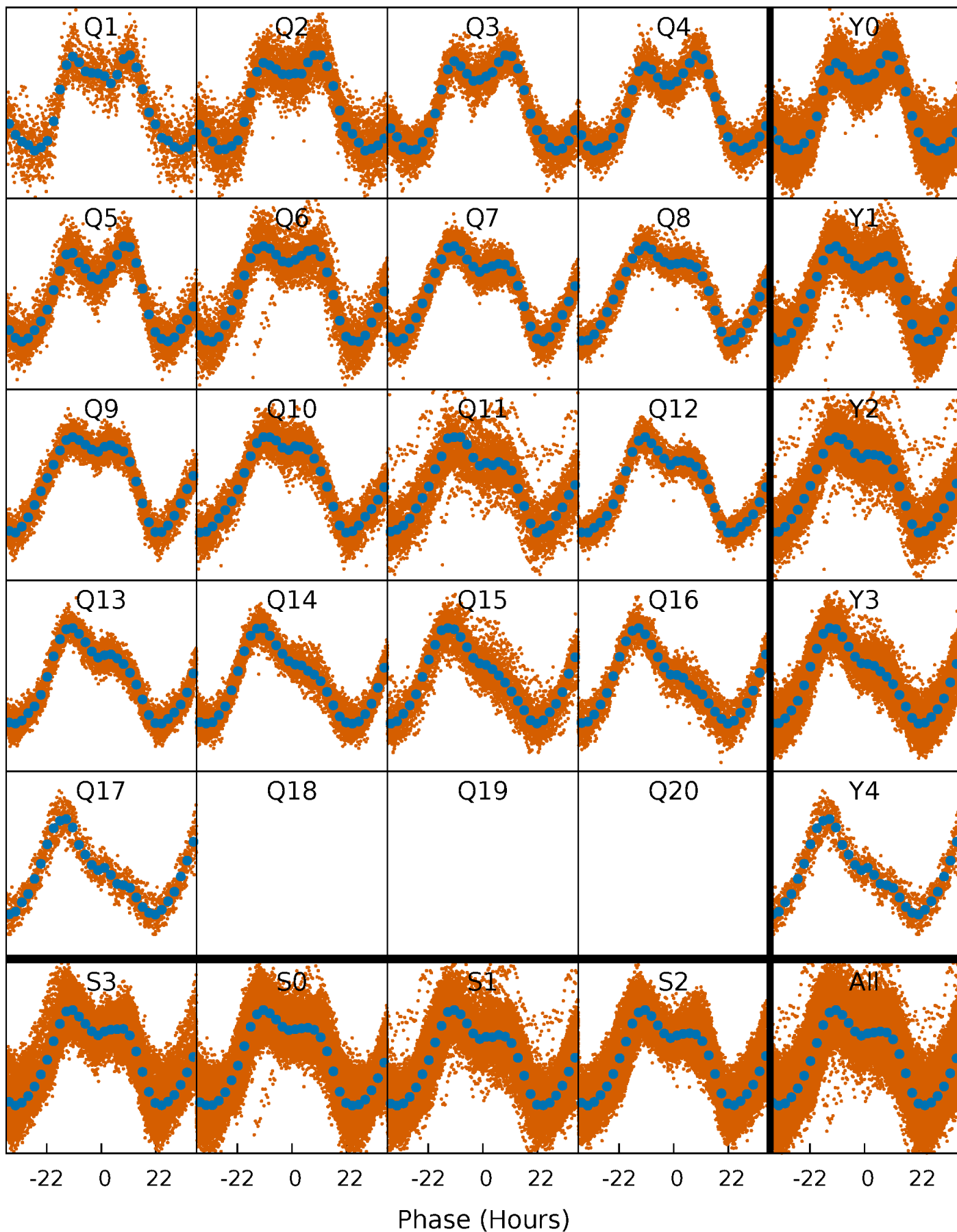


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



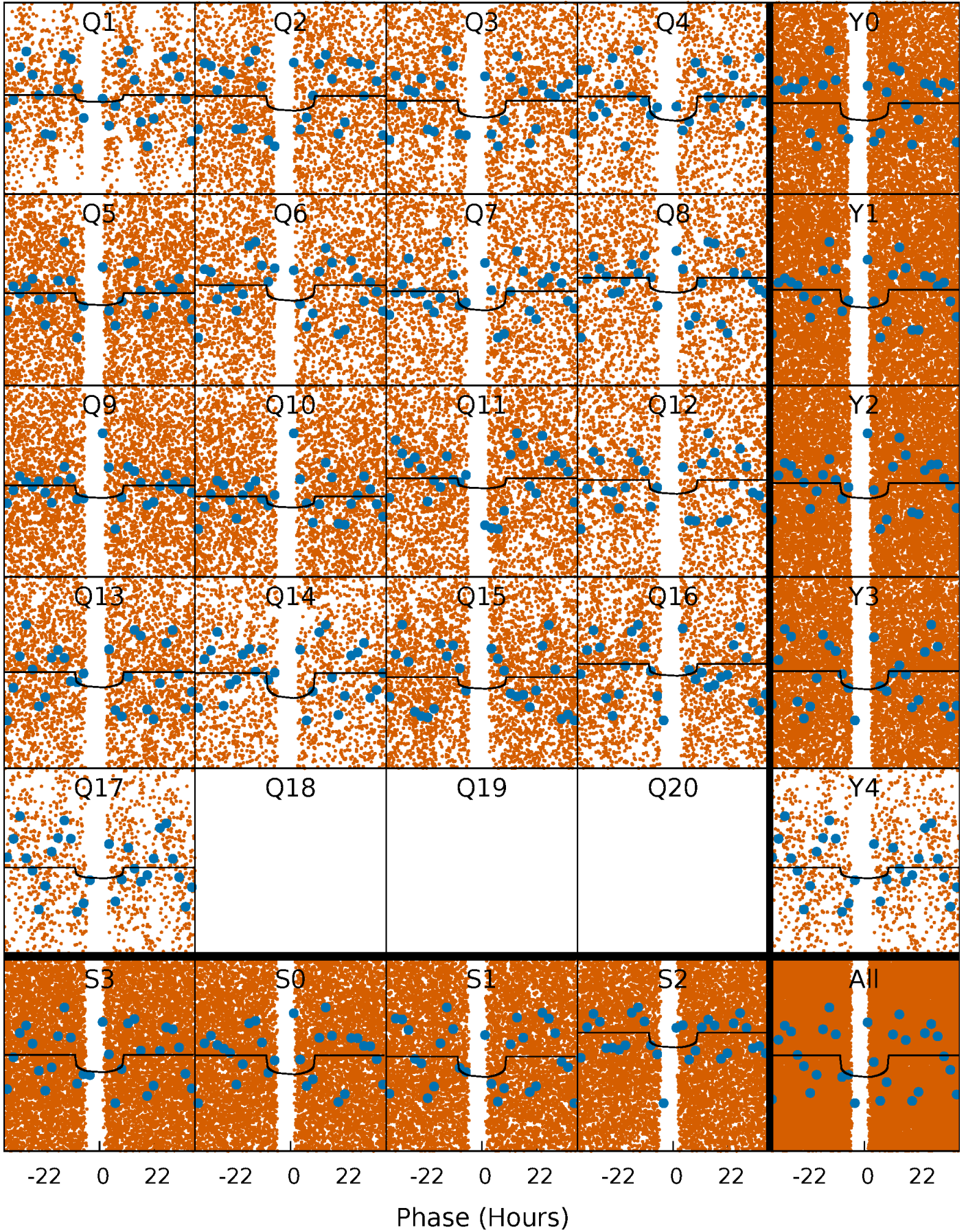
PDC Quarter-Phased Transit Curves

TCE 009718378-02 P= 2.440522 Days $T_0=132.557257$ (BKJD)



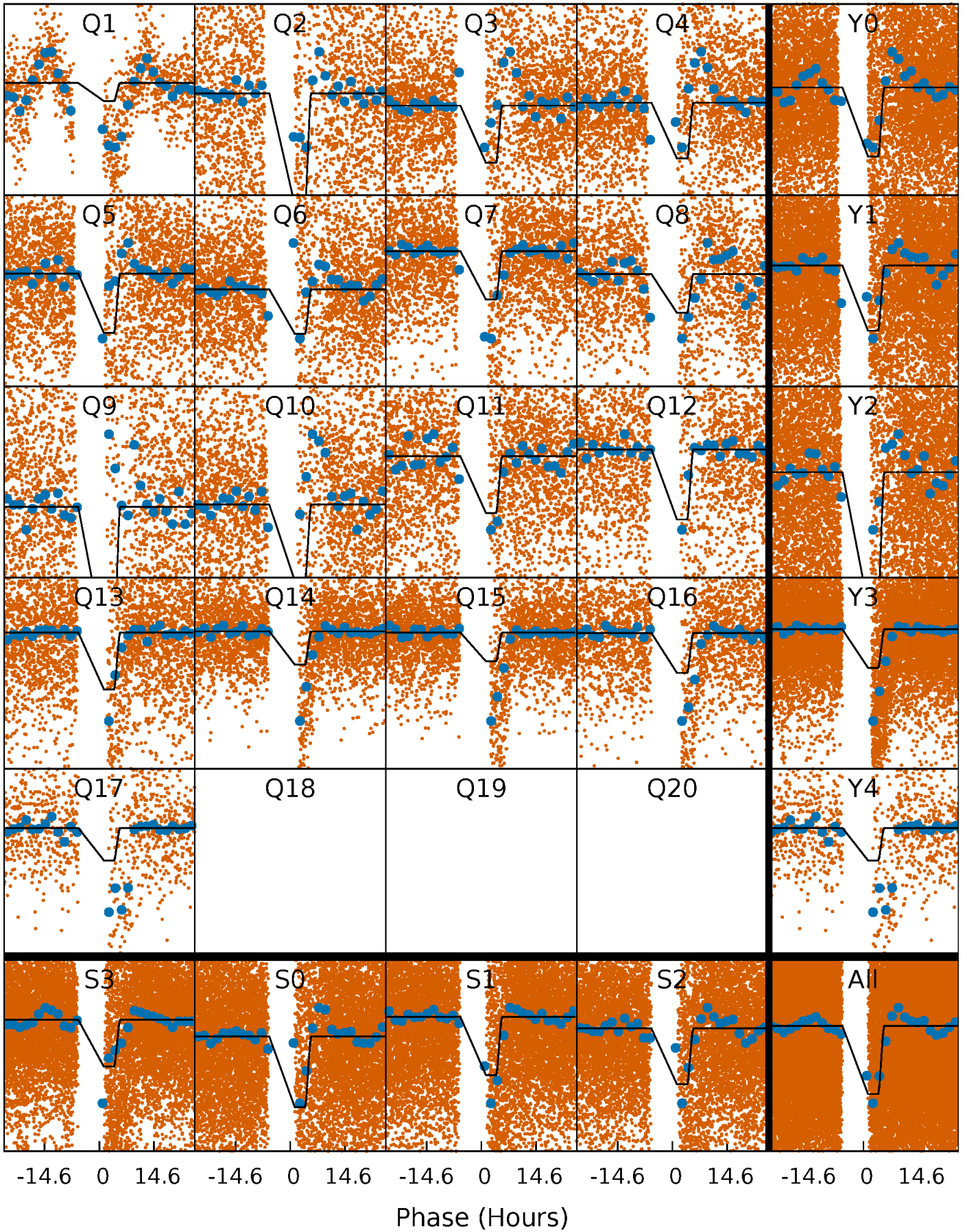
DV Quarter-Phased Transit Curves

TCE 009718378-02 P= 2.440522 Days $T_0=132.557257$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

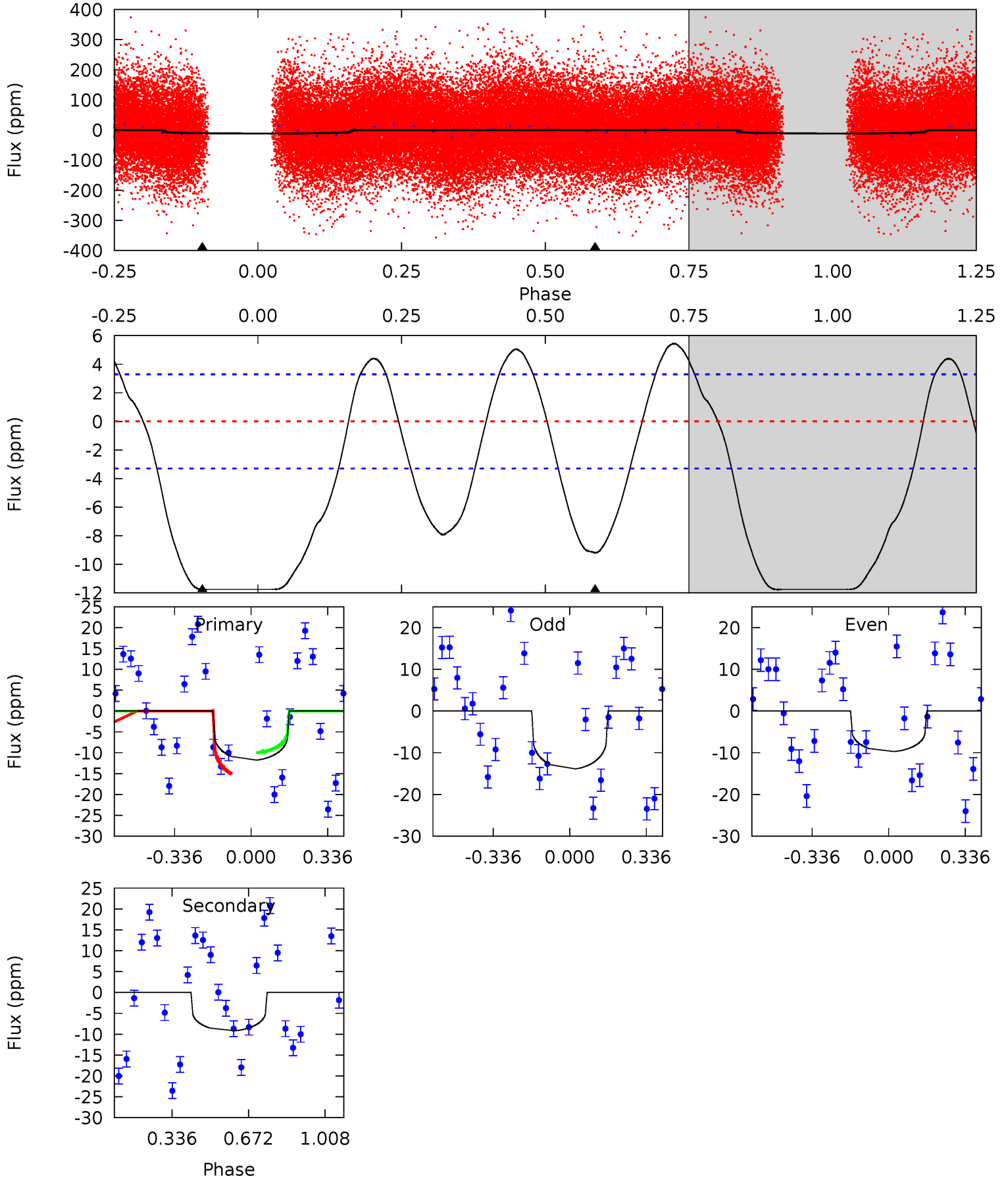
TCE 009718378-02 P= 2.440554 Days $T_0=132.564185$ (BKJD)



DV Model-Shift Uniqueness Test

009718378-02, P = 2.440522 Days, E = 130.116735 Days

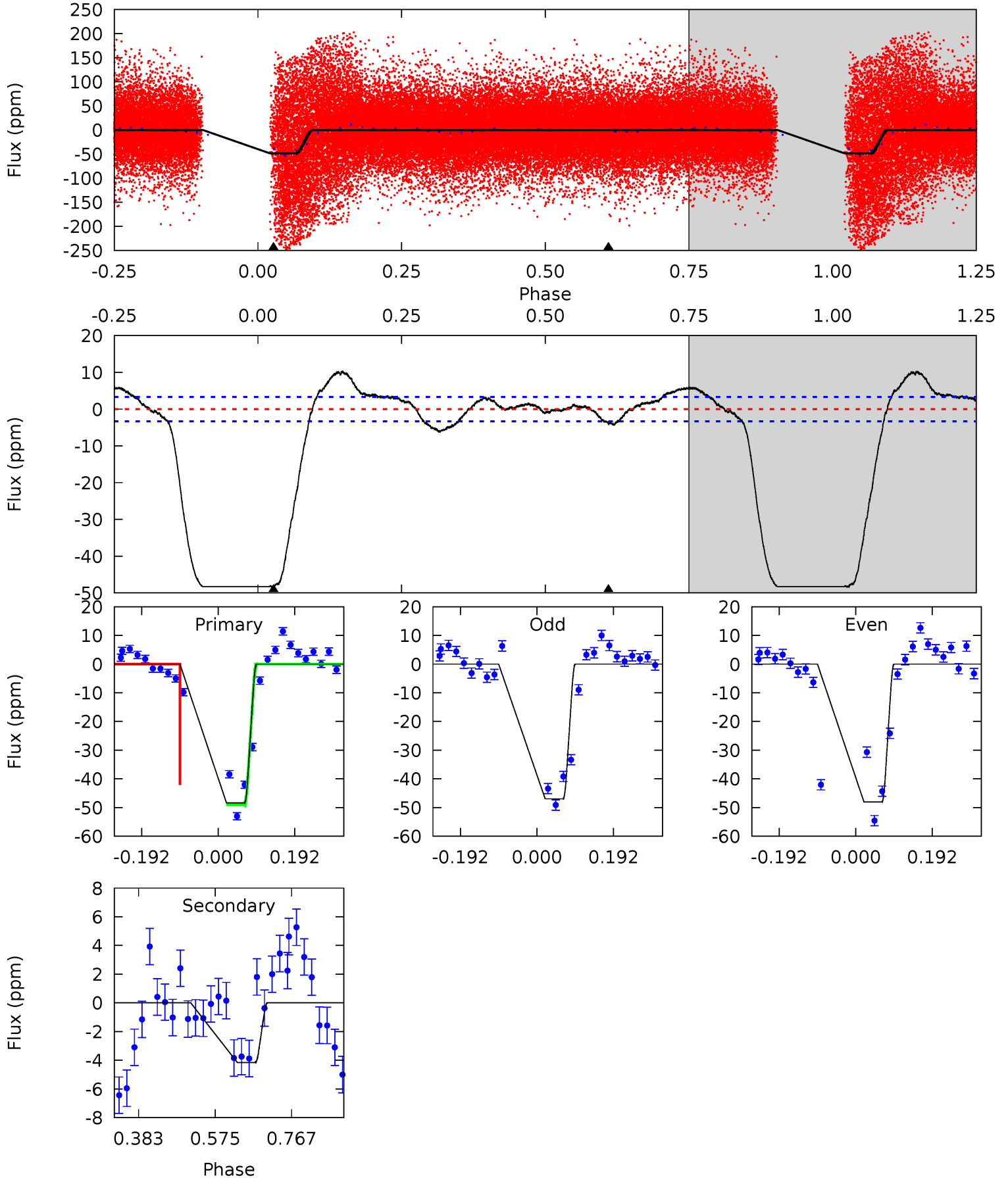
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	12.0	0	0	4.30	0.96	4.49	15.4	15.4	12.0	12.0	2.75	1.02	0.32	3.17



Alt Model-Shift Uniqueness Test

009718378-02, P = 2.440554 Days, E = 130.123631 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
64.6	5.54	0	0	4.43	1.31	4.05	64.6	64.6	5.54	5.54	0.72	0.96	0.18	0.16



Stellar Parameters For KIC 009718378

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6661^{+188}_{-235}	$3.844^{+0.440}_{-0.110}$	$-0.280^{+0.250}_{-0.300}$	$2.411^{+0.500}_{-1.083}$	$1.478^{+0.200}_{-0.399}$	$0.148^{+0.635}_{-0.049}$
	+3%/-4%	+11%/-3%	+89%/-107%	+21%/-45%	+14%/-27%	+427%/-33%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009718378-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 1	$0.83^{+0.74}_{-0.52}$	3073^{+237}_{-353}	6033^{+4649}_{-1413}	12^{+71}_{-9}
Alt.	-4 ± 1	$1.48^{+0.90}_{-0.72}$	3068^{+227}_{-350}	3885^{+1184}_{-668}	$1.669^{+3.996}_{-1.025}$

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

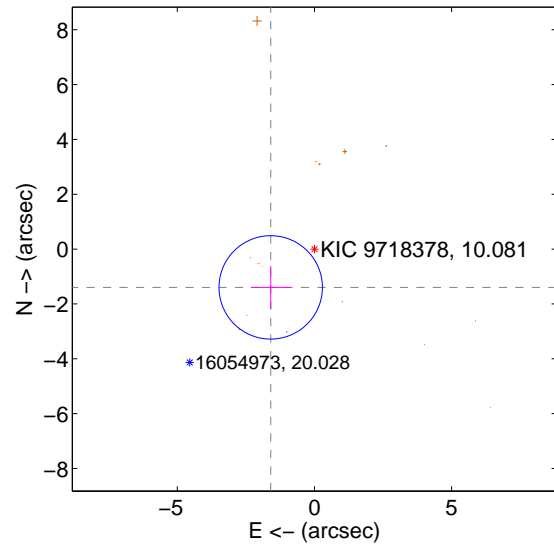
Supplemental centroid analysis for 009718378-02. **Kepler magnitude: 10.08.** Transit SNR 5.64

There are 0 quarters with good PRF difference image offsets

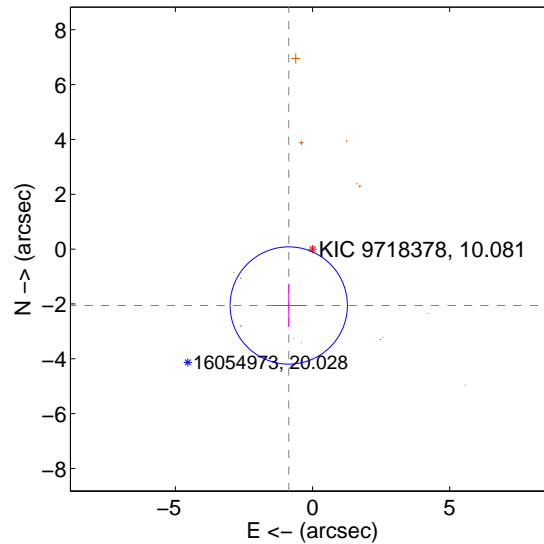
The OOT PRF centroid is offset from the target star catalog position by about 2.01 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.120 \pm 0.628	3.37	1.595 \pm 0.724	-1.396 \pm 0.780
PRF-fit source offset from KIC position	2.232 \pm 0.713	3.13	0.867 \pm 0.577	-2.057 \pm 0.789
photometric centroid source offset	4.50 \pm 0.95	4.73	-0.01 \pm 0.83	4.50 \pm 0.95

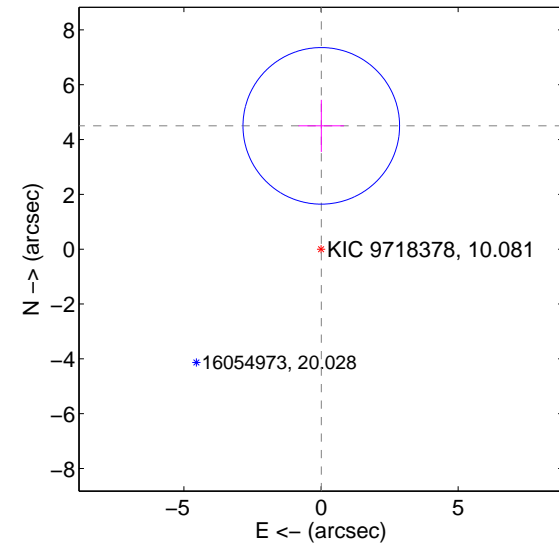
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

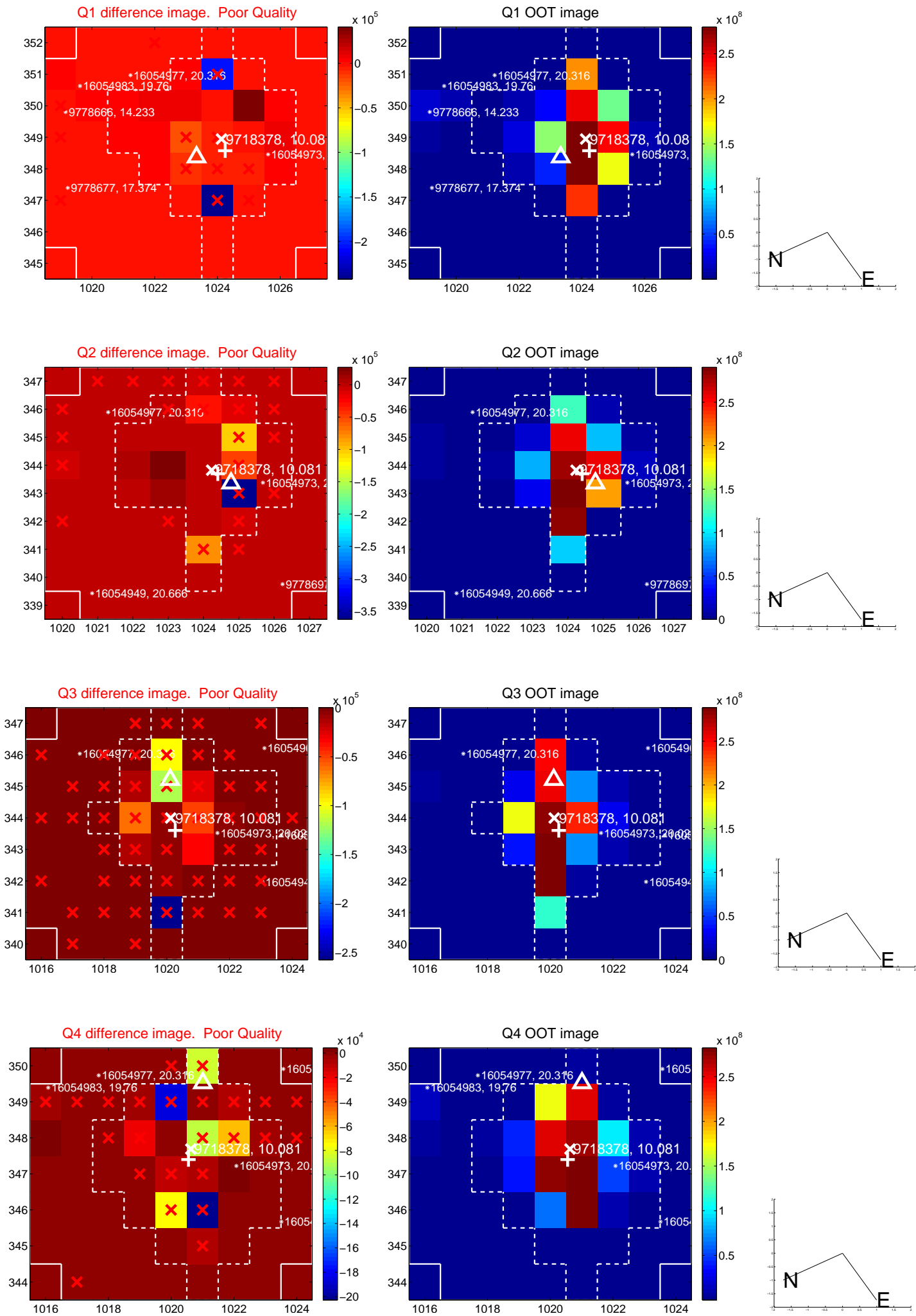


offset from photometric centroids

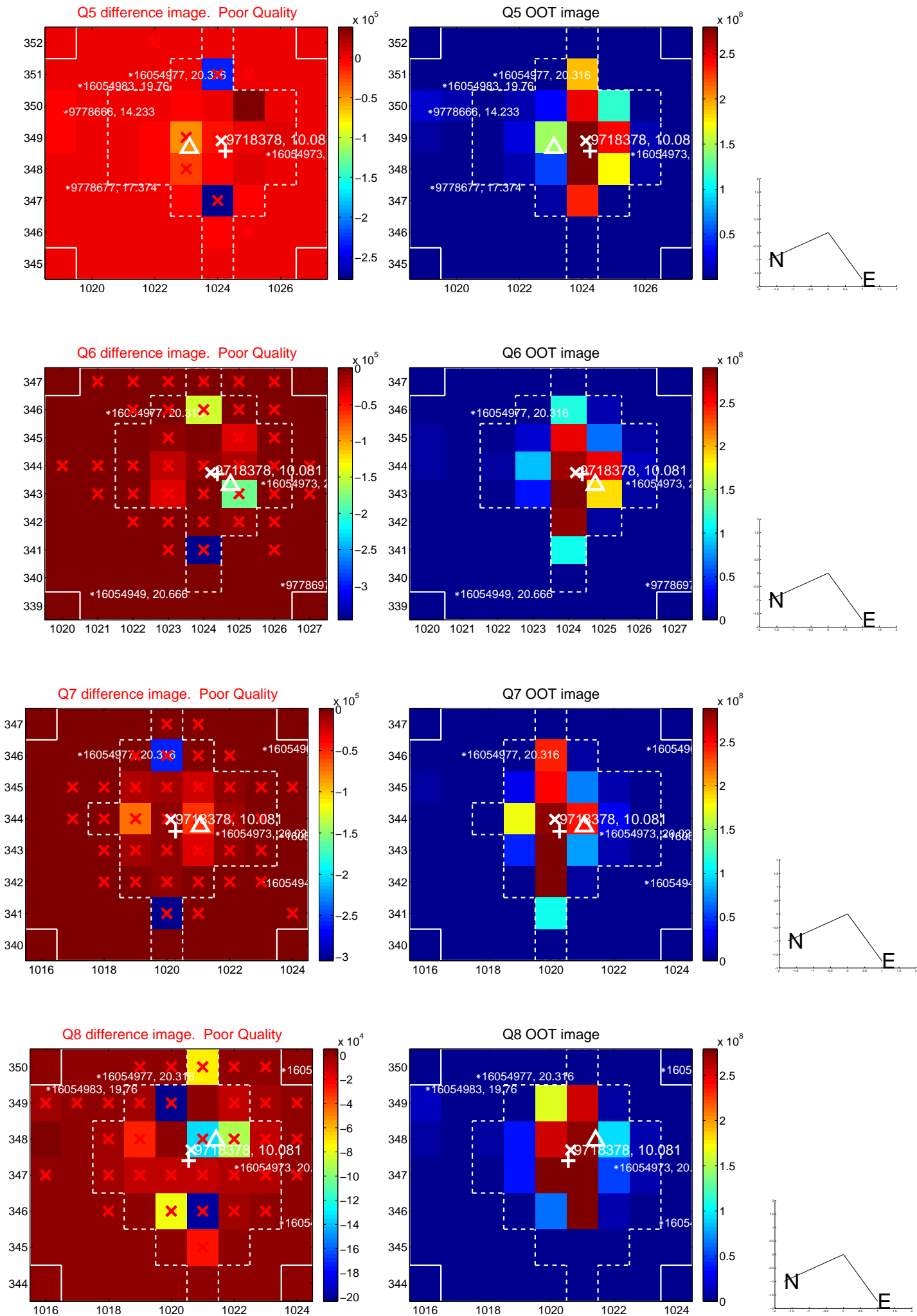


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

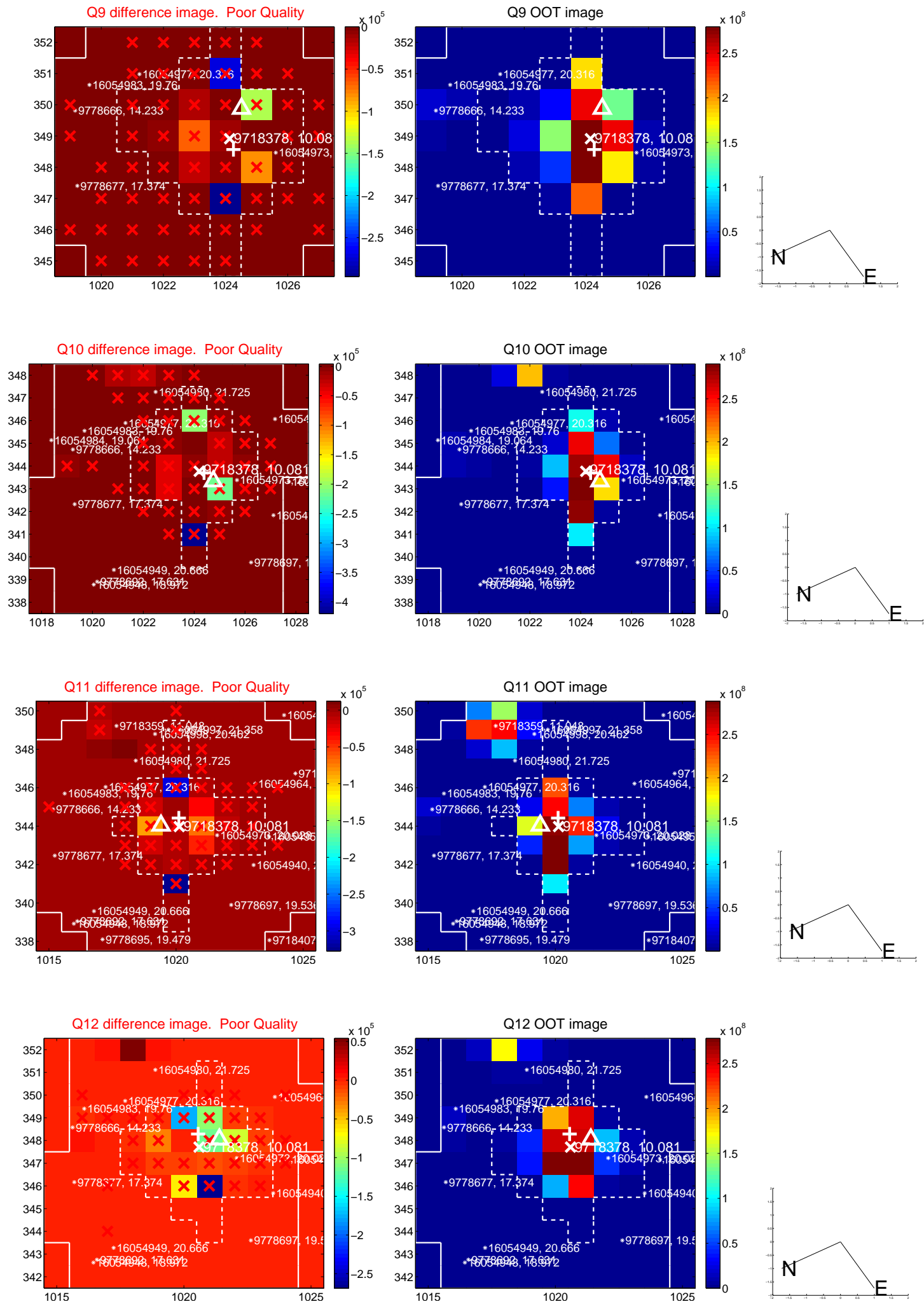
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



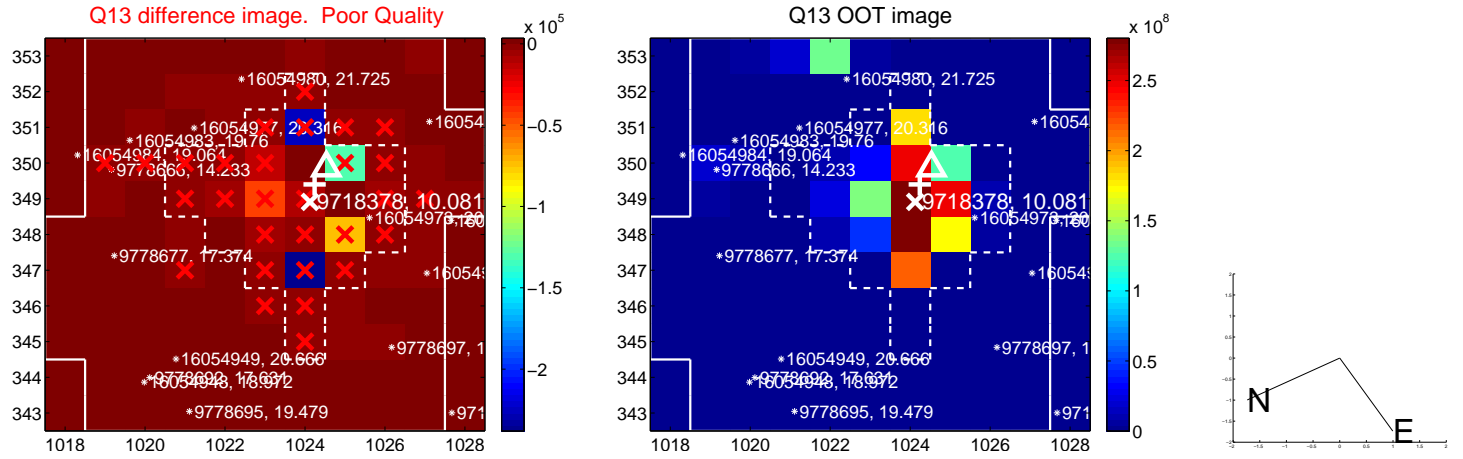
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



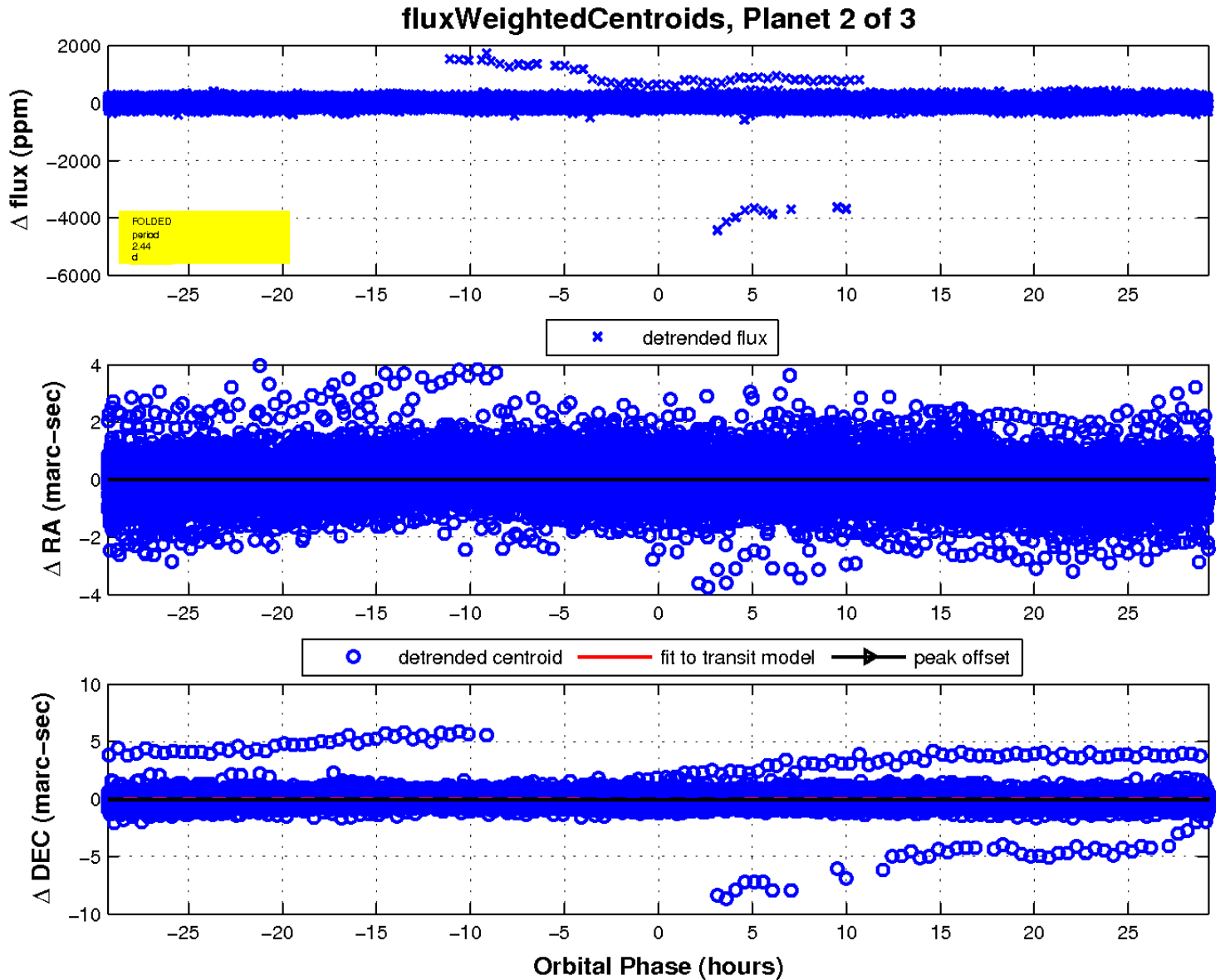
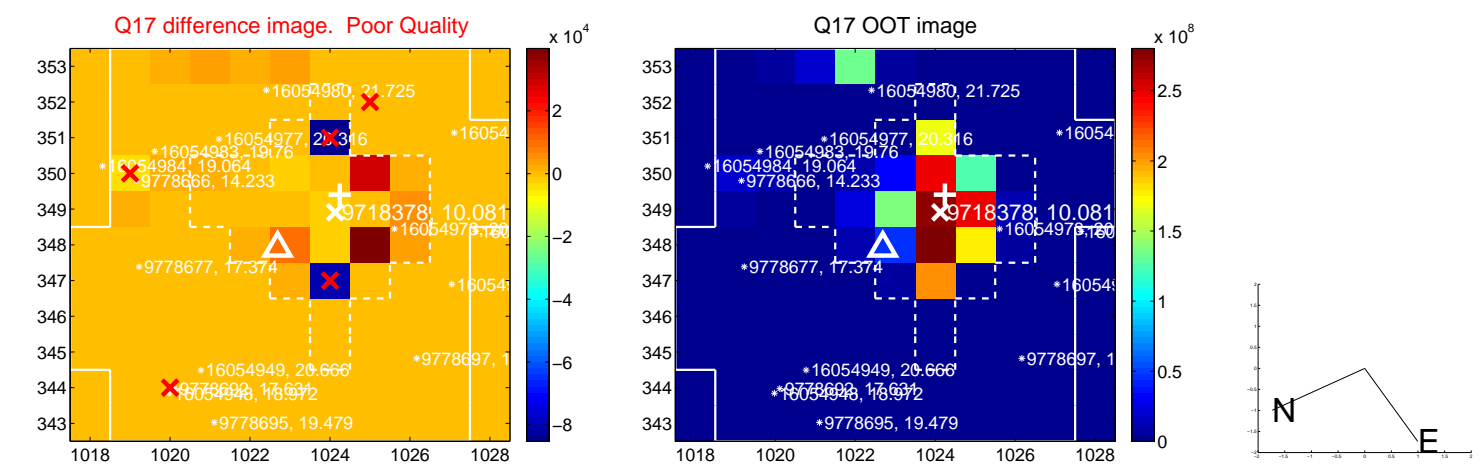
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

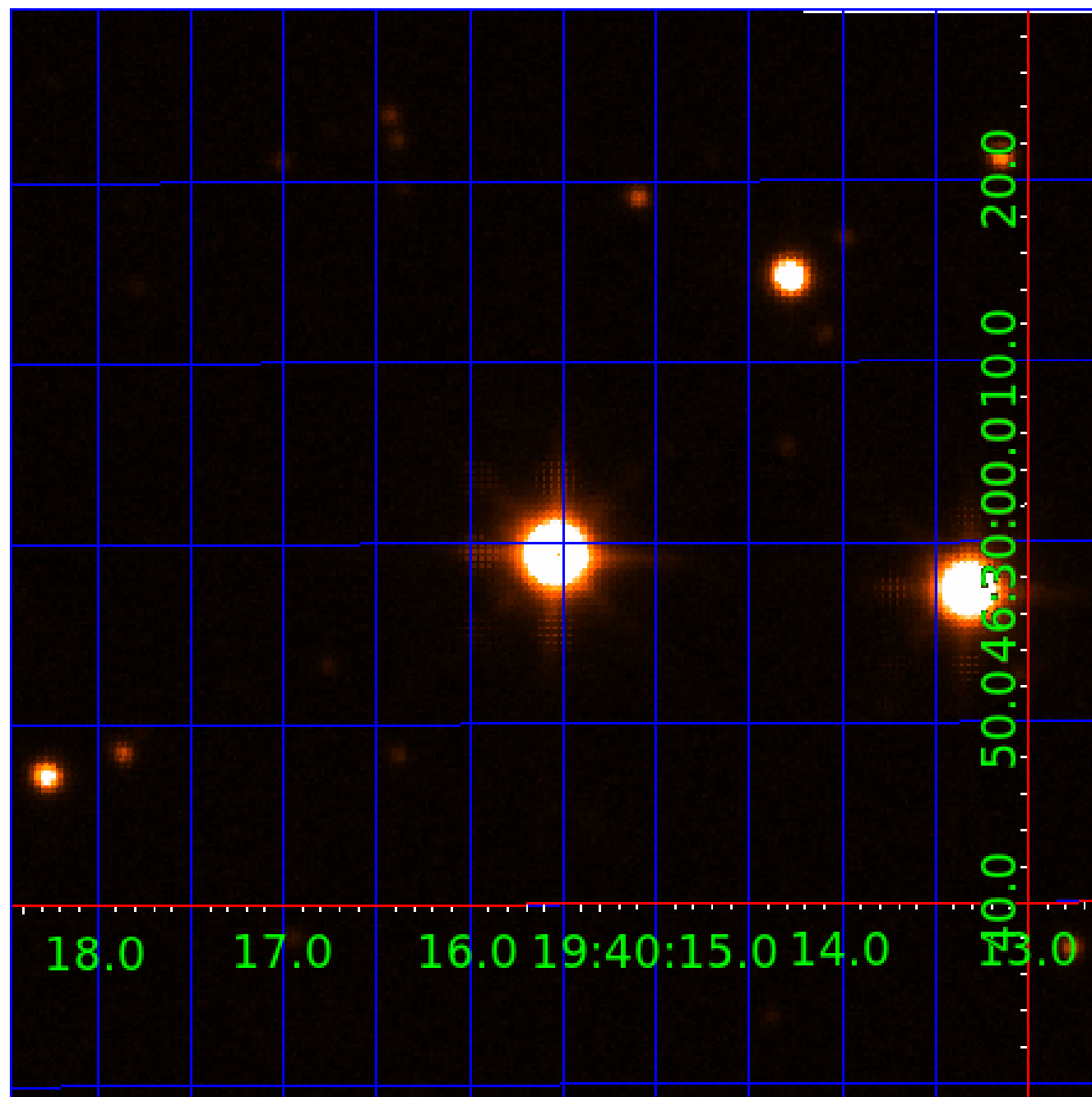


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 009718378

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})
009718378-01	OBS	No	2.440649	132.444134	6.9	2.534	10.0	3.2	2.41	6661	0.76	6268.69
009718378-02	OBS	No	2.440522	132.557257	9.5	19.235	10.7	5.6	2.41	6661	0.75	6269.12
009718378-03	OBS	No	3.965848	134.069528	2620.8	3.000	4646.7	-1.0	2.41	6661	12.45	3281.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009718378-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
009718378-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED
009718378-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_SATURATED

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

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

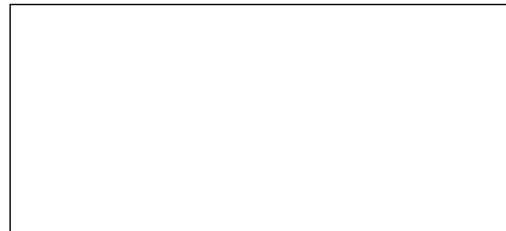
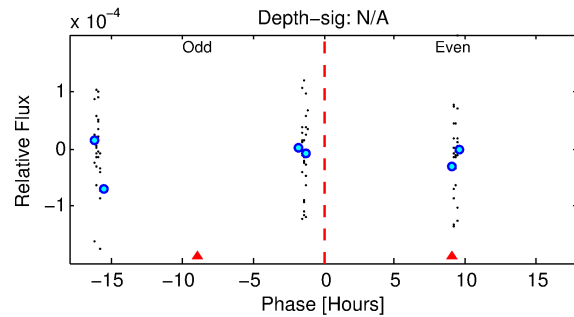
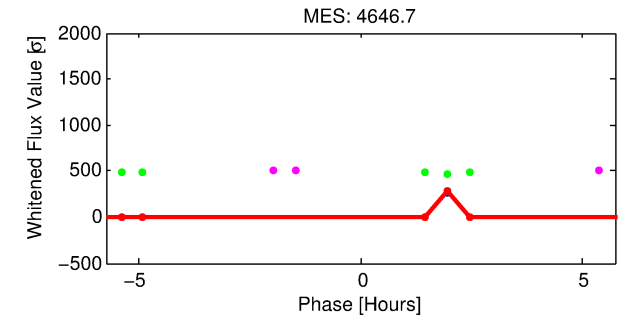
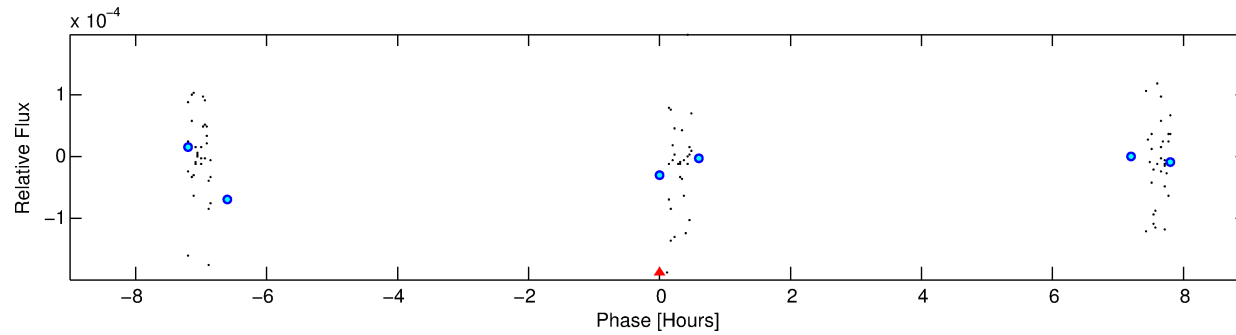
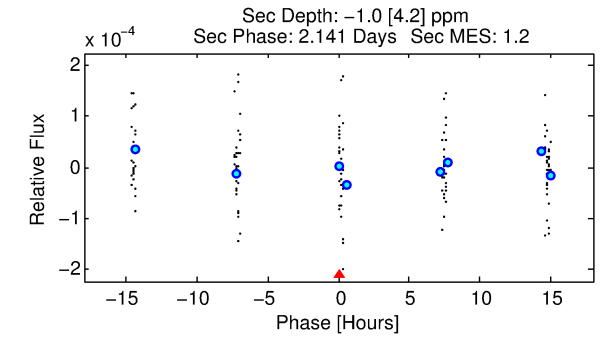
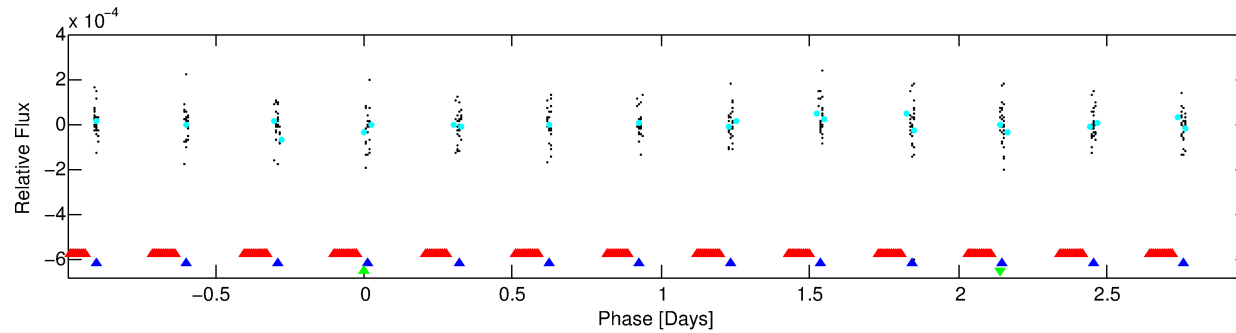
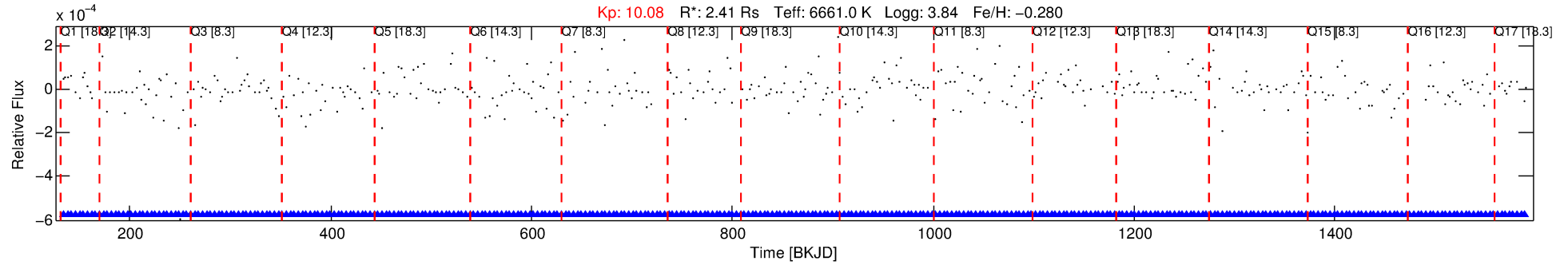
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009718378-03

No Significant Match Found

DV One-Page Summary

KIC: 9718378 Candidate: 3 of 3 Period: 3.966 d



TPS TCE Results:

Period = 3.96585 d
Epoch = 134.0695 BKJD

DV fit results are unavailable

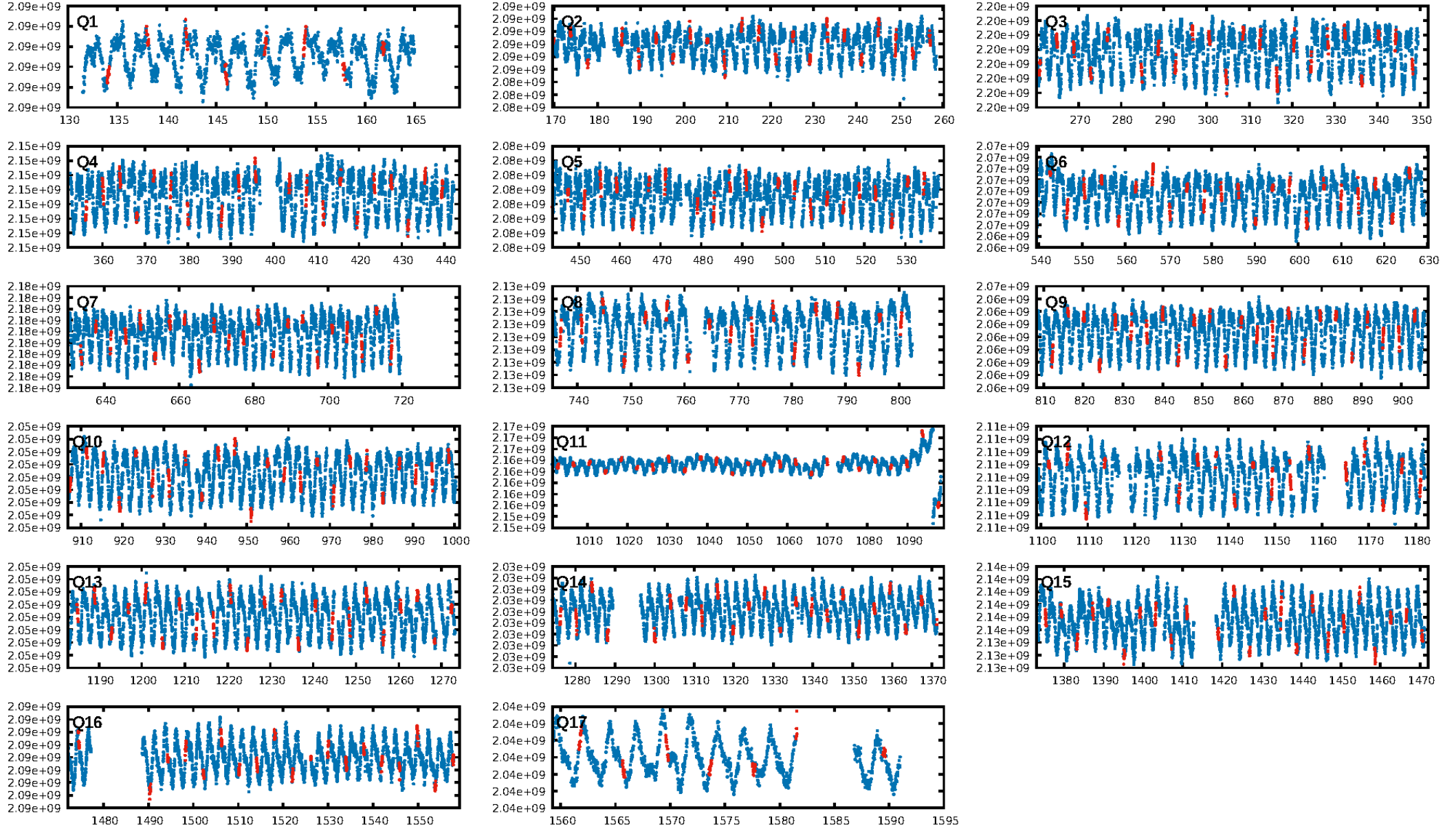
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.32σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

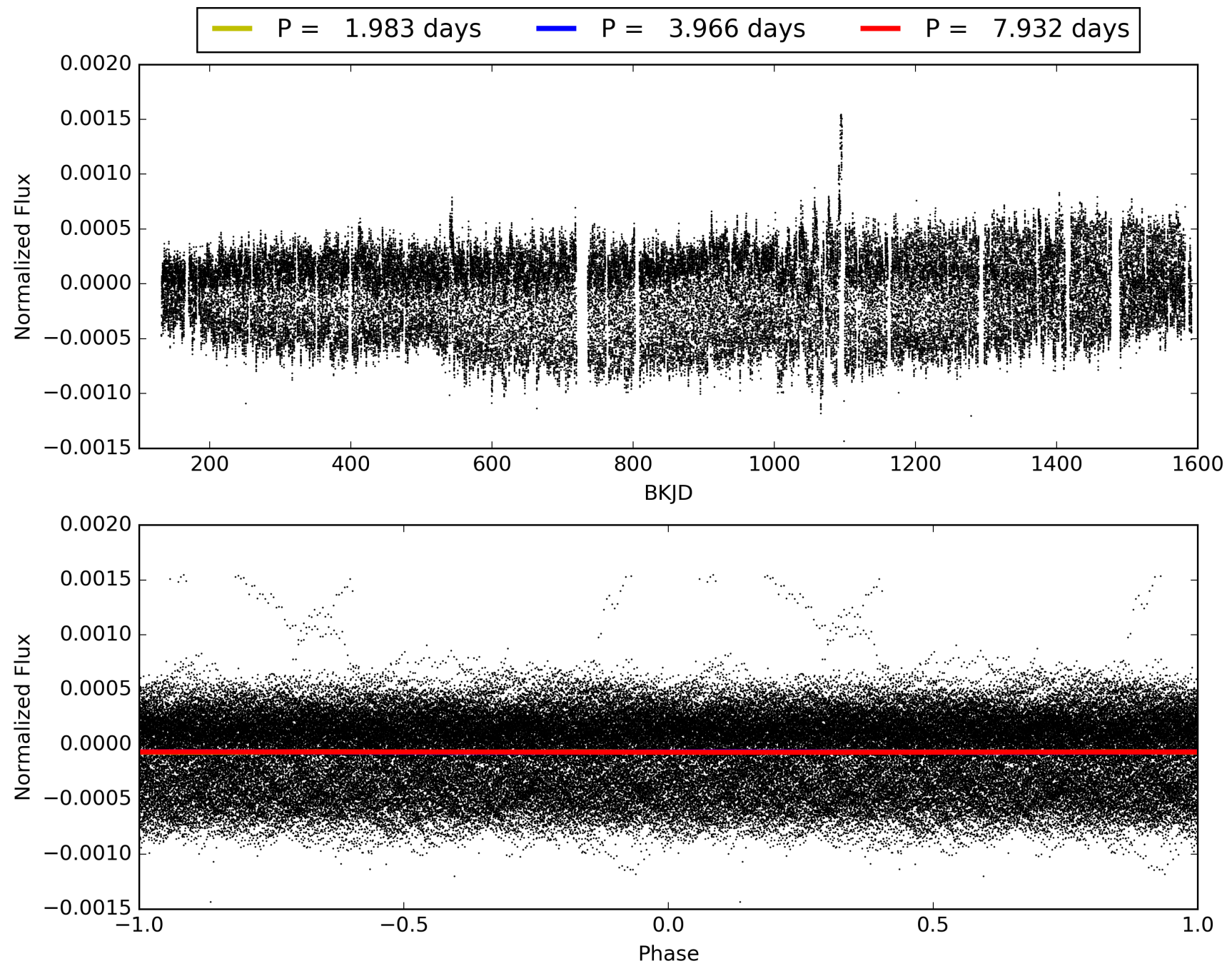
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:19:11 Z

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

TCE 009718378-03, PDC Light Curves

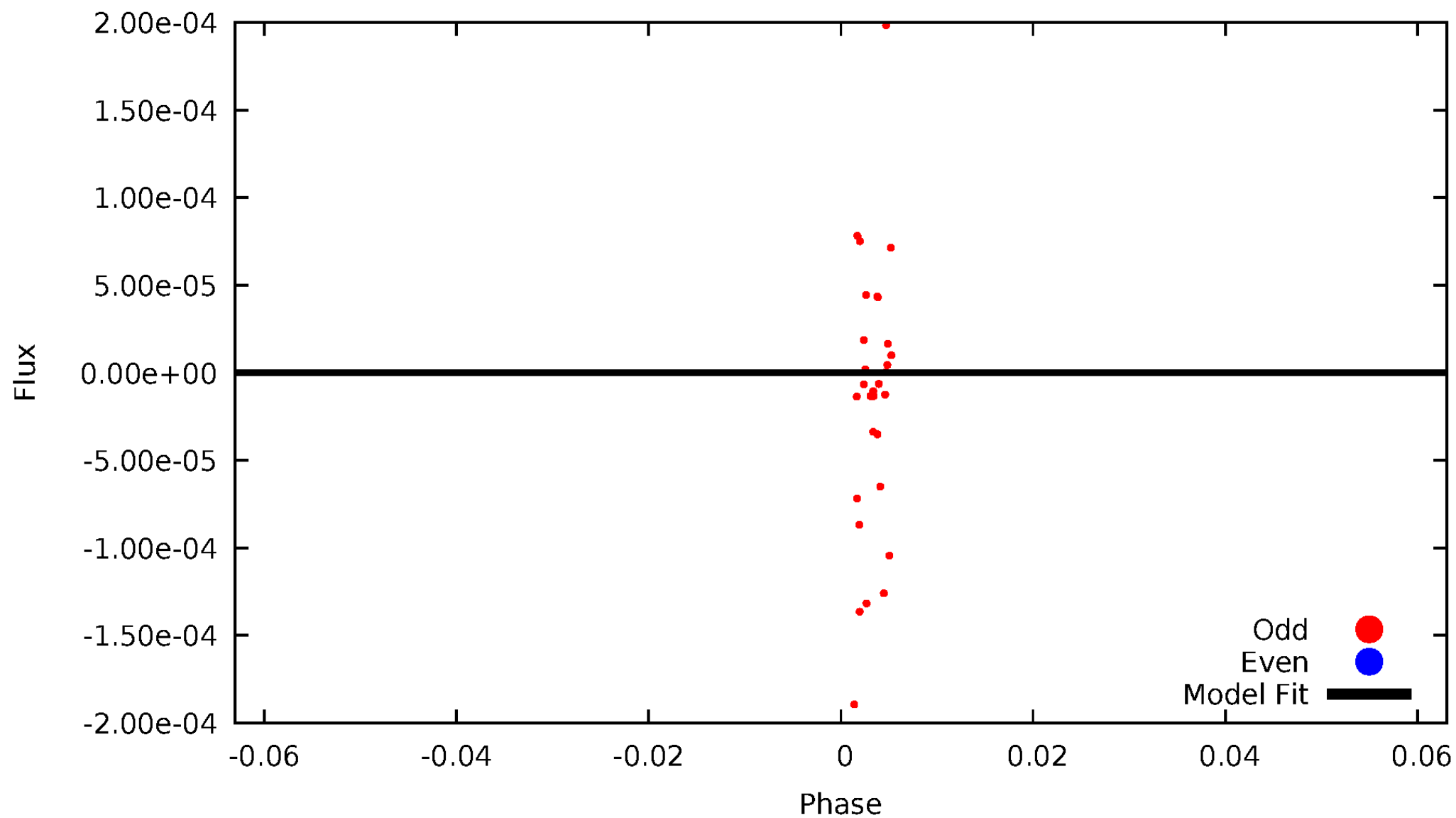


TCE 009718378-03



DV Odd/Even

TCE 009718378-03

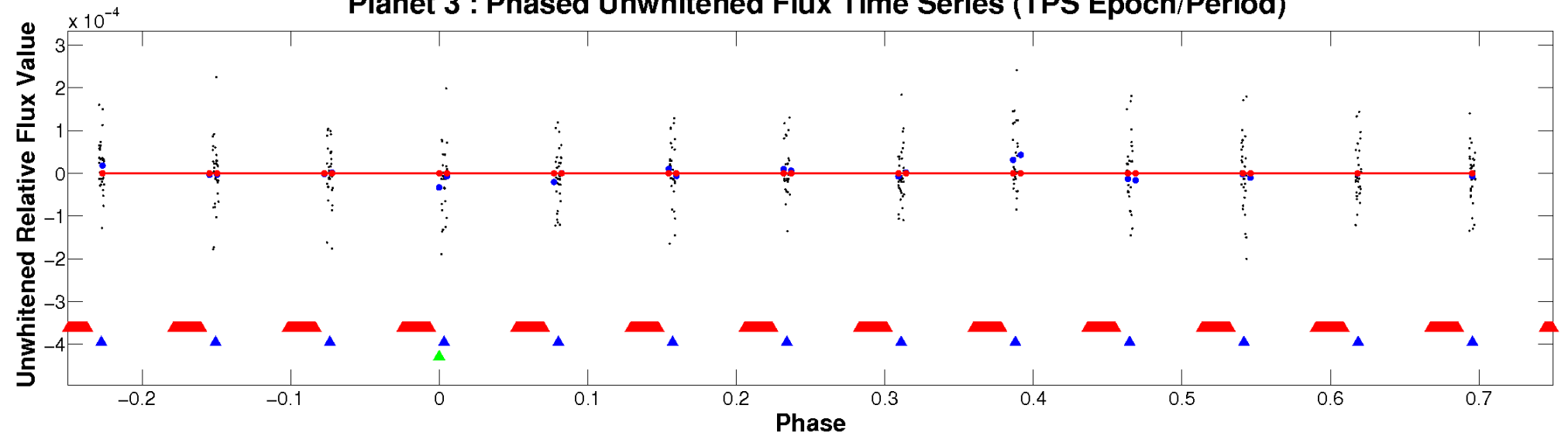


ALT Odd/Even

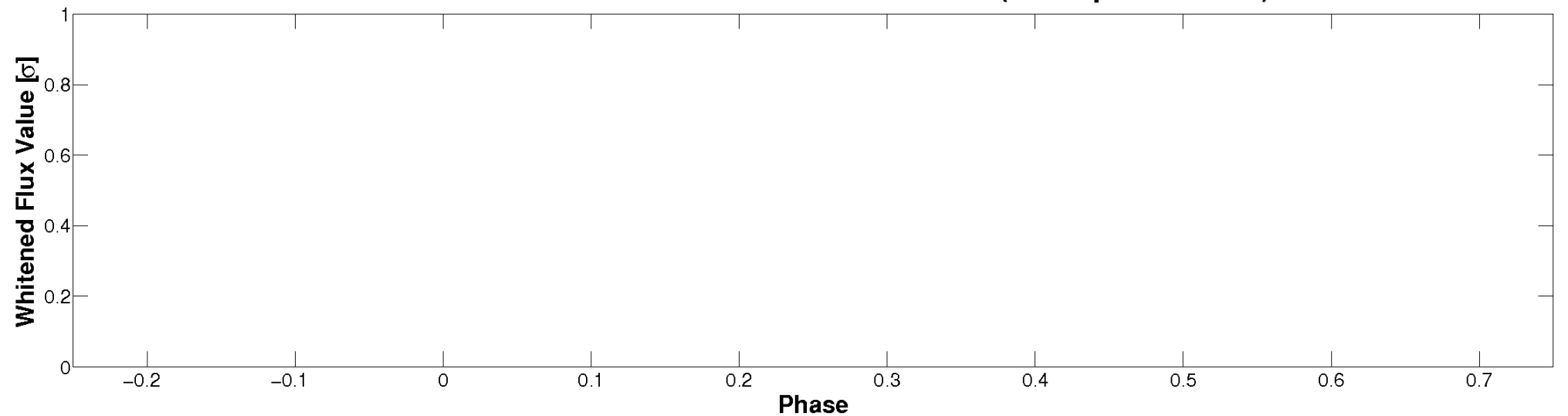
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

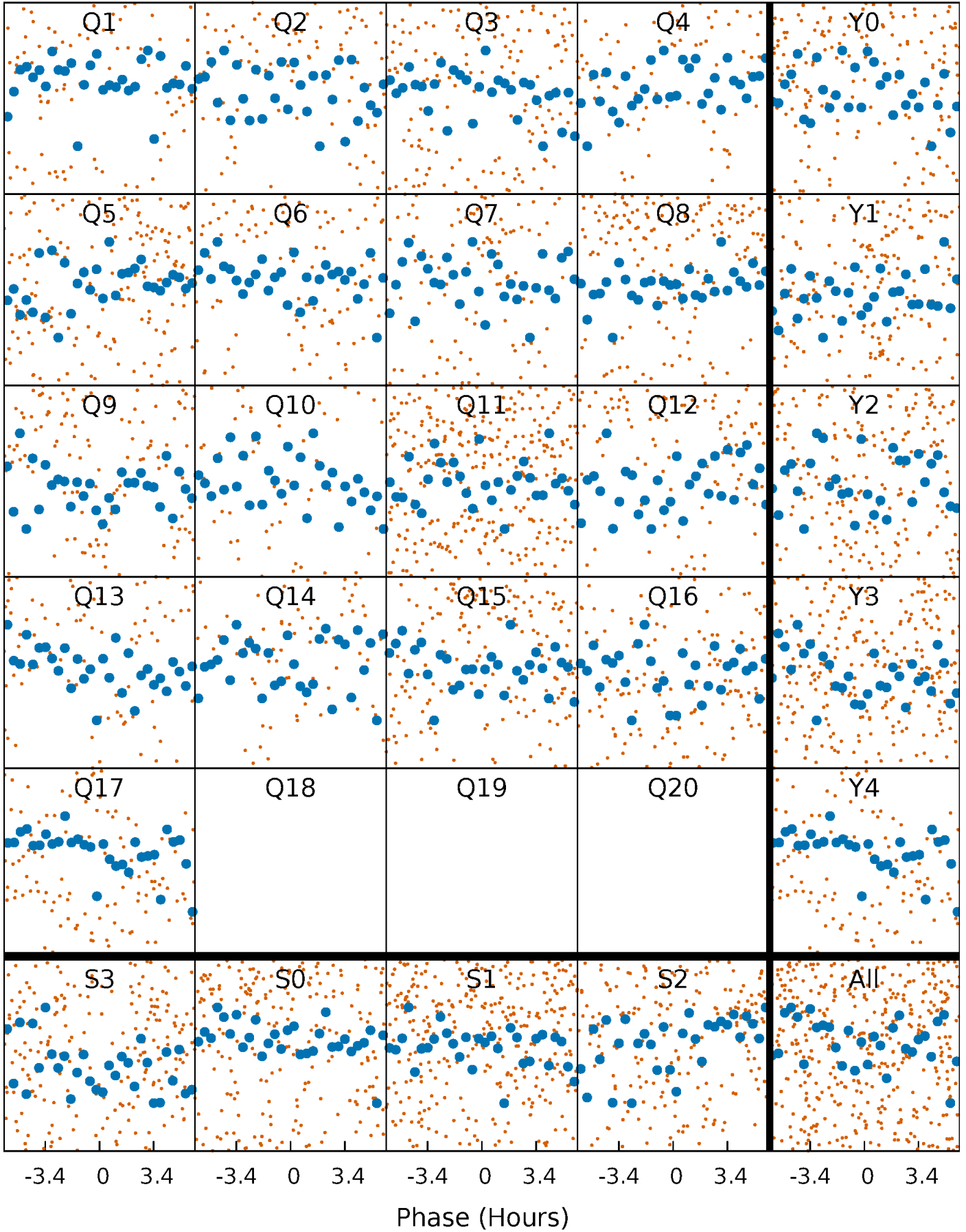


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



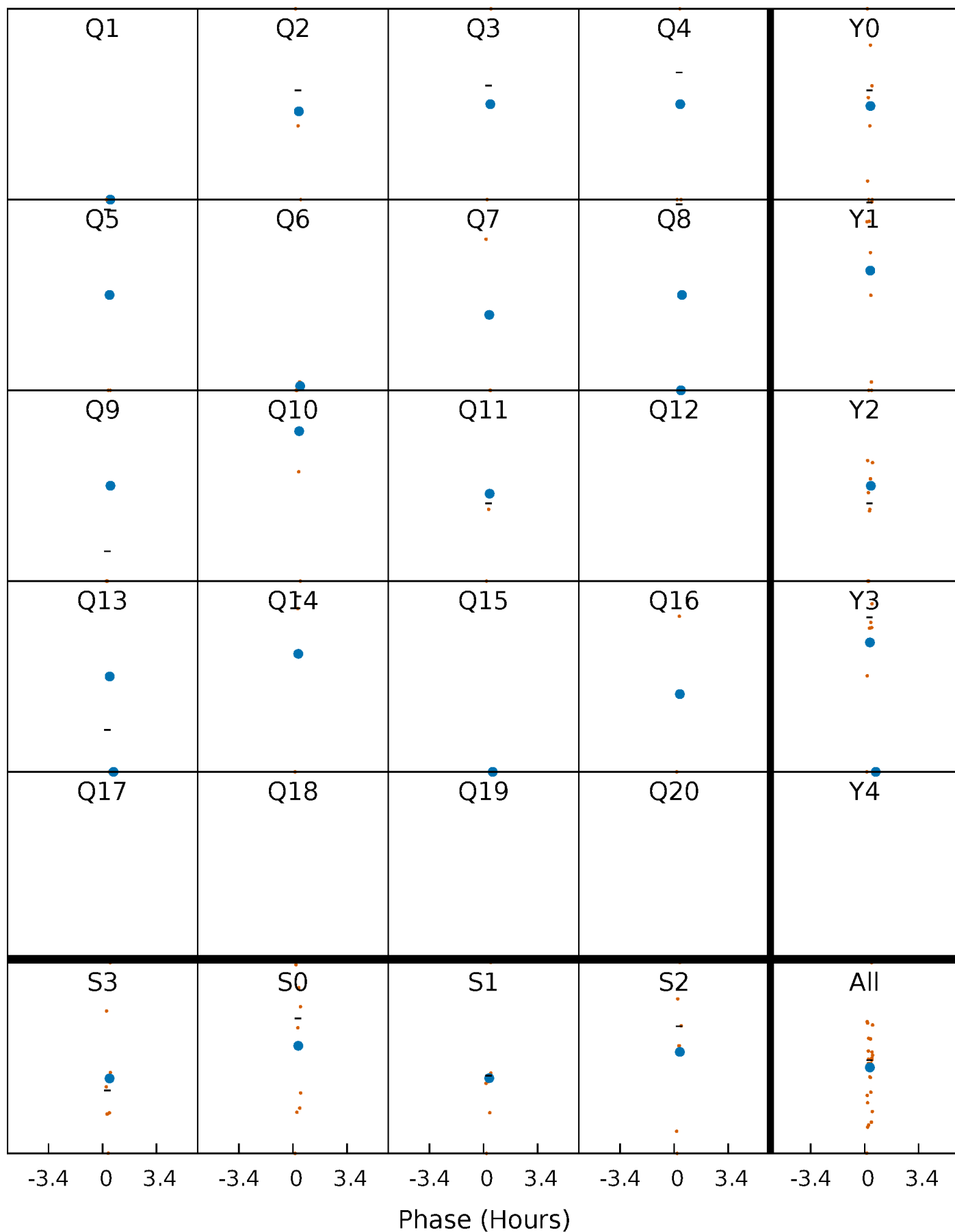
PDC Quarter-Phased Transit Curves

TCE 009718378-03 P= 3.965848 Days $T_0=134.069528$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 009718378-03 P= 3.965848 Days $T_0=134.069528$ (BKJD)

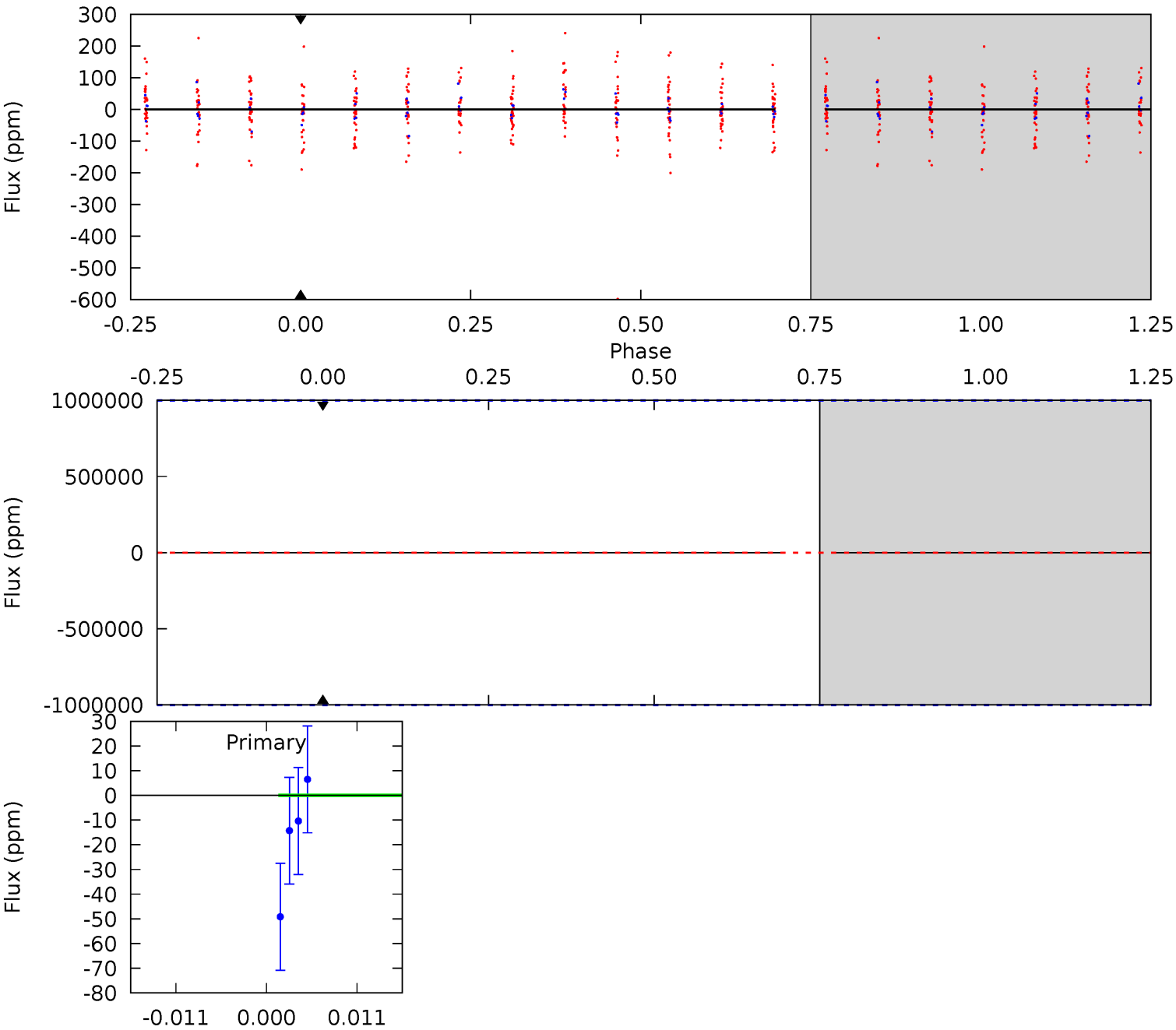


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

009718378-03, P = 3.965848 Days, E = 130.103680 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 009718378

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6661^{+188}_{-235}	$3.844^{+0.440}_{-0.110}$	$-0.280^{+0.250}_{-0.300}$	$2.411^{+0.500}_{-1.083}$	$1.478^{+0.200}_{-0.399}$	$0.148^{+0.635}_{-0.049}$
	+3%/-4%	+11%/-3%	+89%/-107%	+21%/-45%	+14%/-27%	+427%/-33%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009718378-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$21.42^{+20.66}_{-14.68}$	2622^{+205}_{-298}	3436^{+20674}_{-25007}	$1.437^{+695.017}_{-617.313}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 009718378-03. **Kepler magnitude: 10.08.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

