

KIC 003441784

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})
003441784-01	OBS	0976.01	52.569014	132.402344	26764.4	6.686	537.0	526.4	1.72	7240	45.37	69.72
003441784-02	OBS	No	0.603280	131.704374	72.0	2.148	11.8	12.8	1.72	7240	1.70	26936.24
003441784-03	OBS	No	0.603258	132.030845	38.7	2.727	11.3	7.9	1.72	7240	1.09	26937.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003441784-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—CENT_SATURATED
003441784-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
003441784-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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.

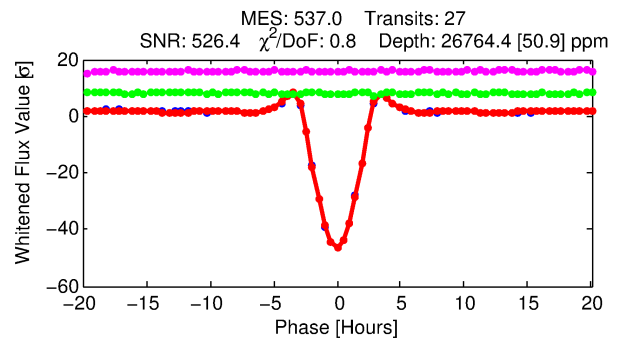
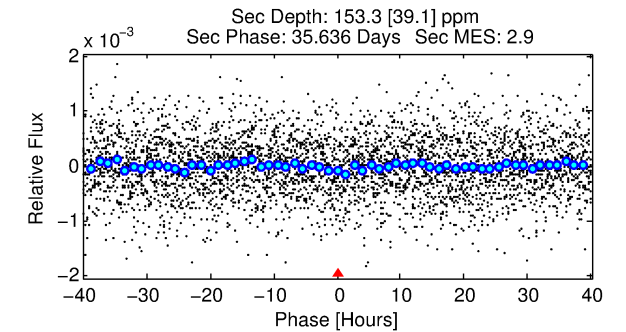
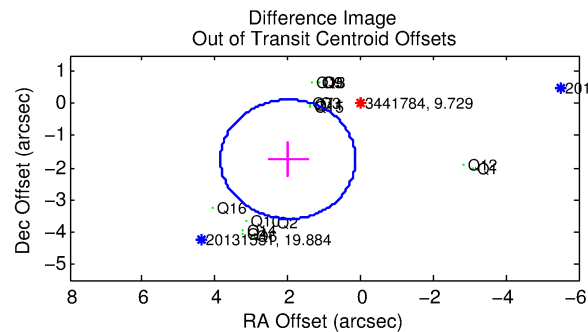
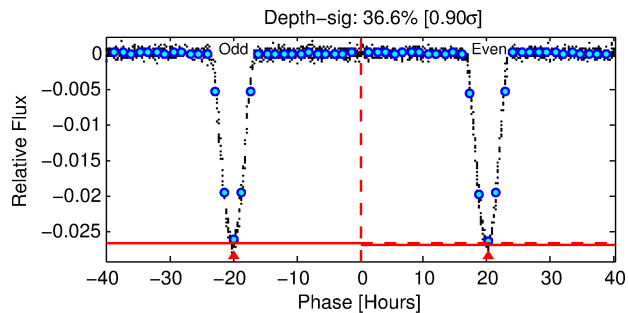
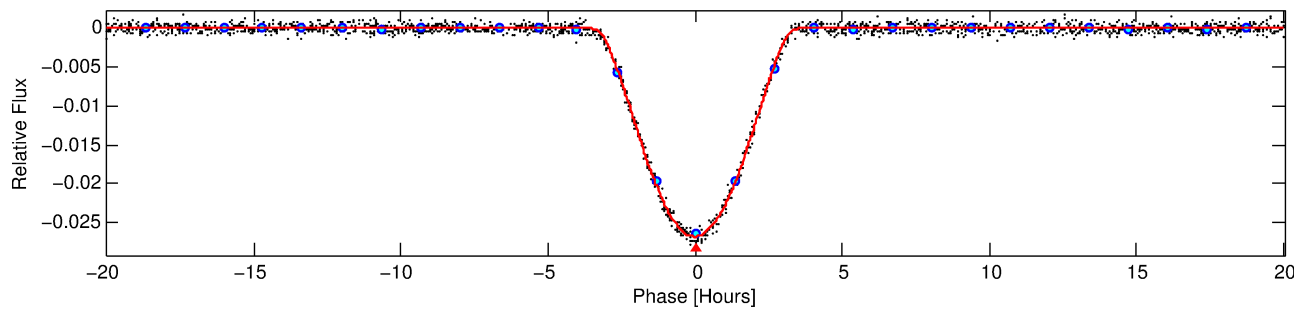
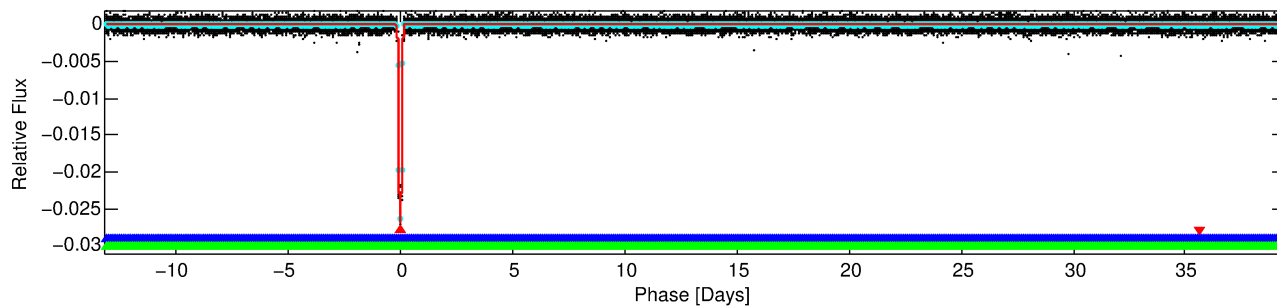
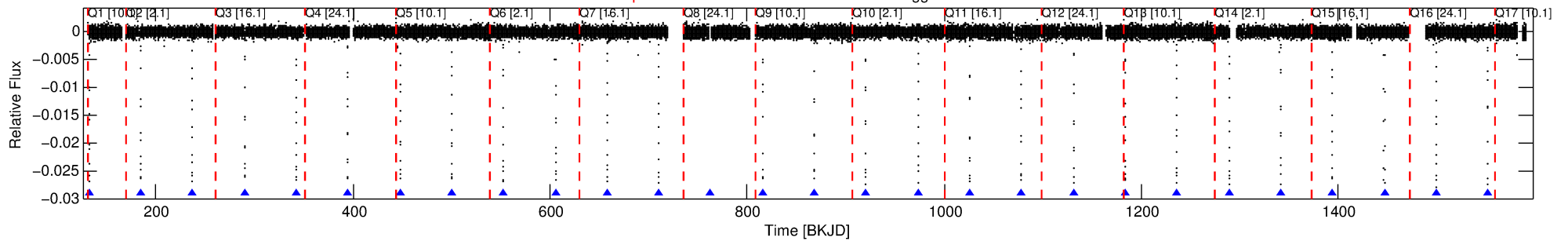
Ephemeris Match Information For 003441784-01

No Significant Match Found

DV One-Page Summary

KIC: 3441784 Candidate: 1 of 3 Period: 52.569 d
KOI: K00976.01 Corr: 0.990

Kp: 9.73 R*: 1.72 Rs Teff: 7240.0 K Logg: 4.18 Fe/H: 0.210



DV Fit Results:

Period = 52.56901 [0.00001] d
Epoch = 132.4023 [0.0002] BKJD
Rp/R* = 0.2421 [0.0175]
a/R* = 45.92 [0.36]
b = 0.98 [0.03]
Seff = 69.73 [29.68]
Teq = 737 [78] K
Rp = 45.37 [15.28] Re
a = 0.3226 [0.0868] AU
Ag = 4.27 [2.05] [1.59σ]
Teff = 1637 [143] K [5.52σ]

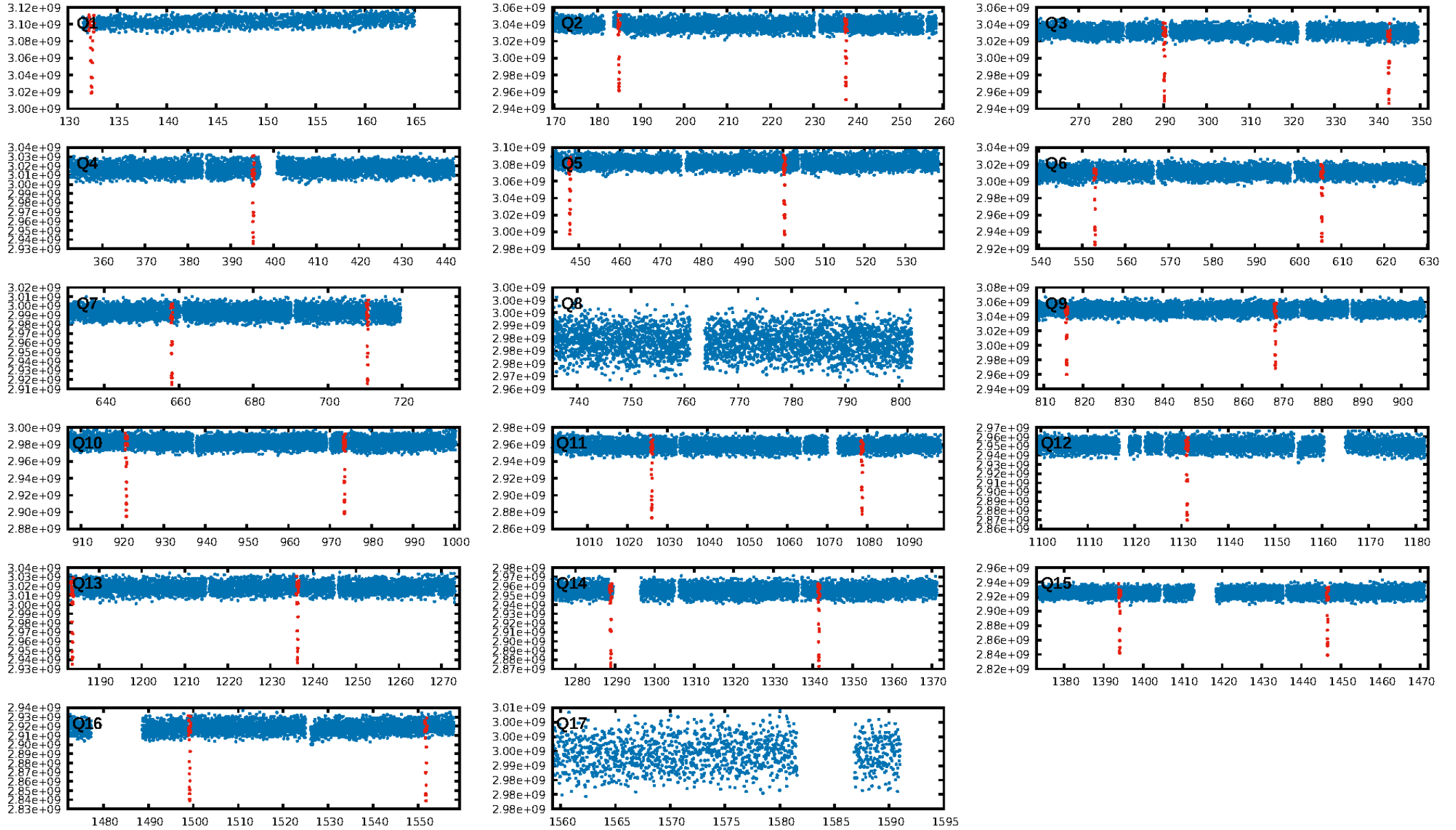
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [177.60σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [26/26]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 0.166 arcsec [33.32σ]
OotOffset-rm: 2.645 arcsec [4.28σ]
KicOffset-rm: 2.345 arcsec [4.44σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 0.00 [0/15]

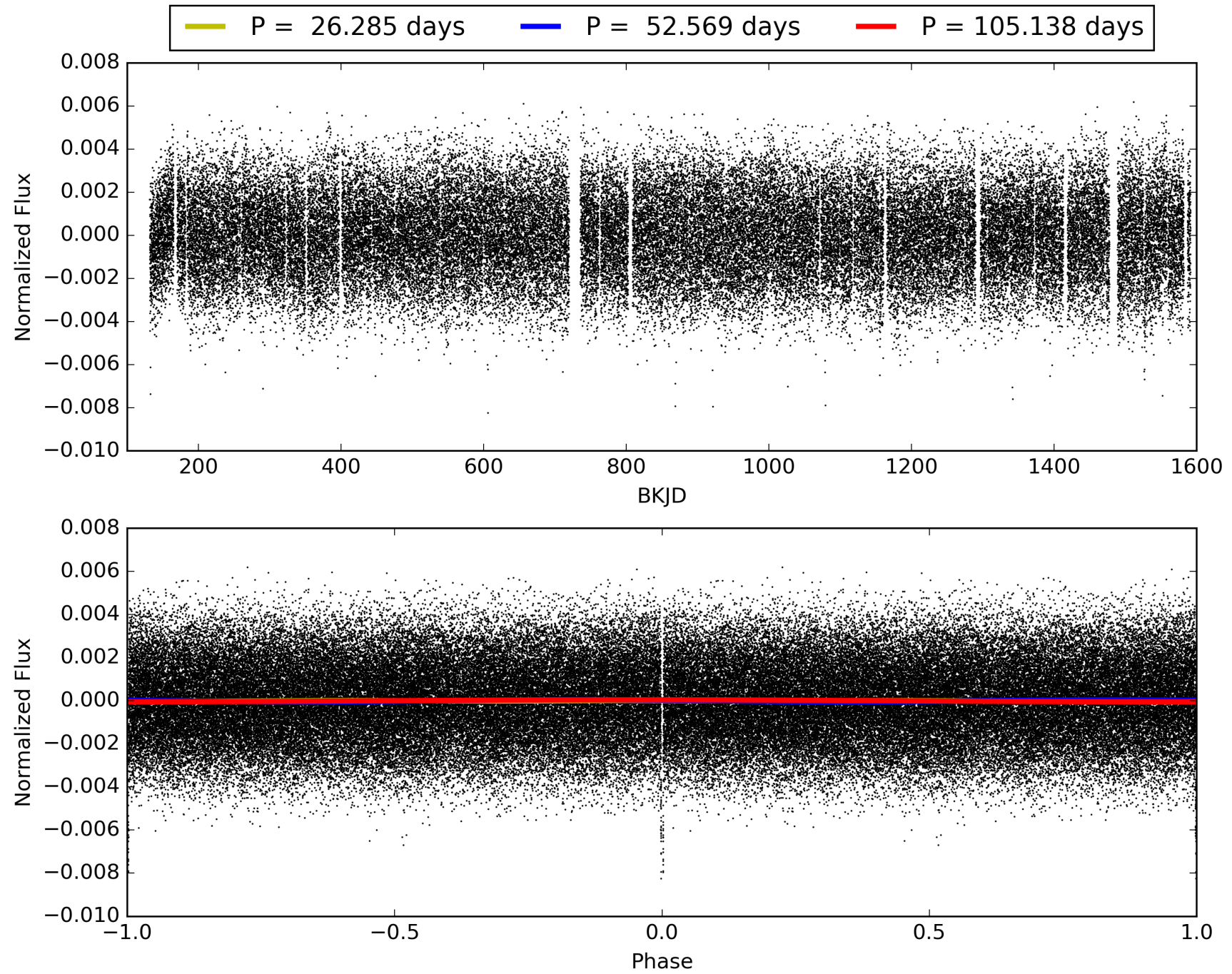
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:23:35 Z

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

TCE 003441784-01, PDC Light Curves

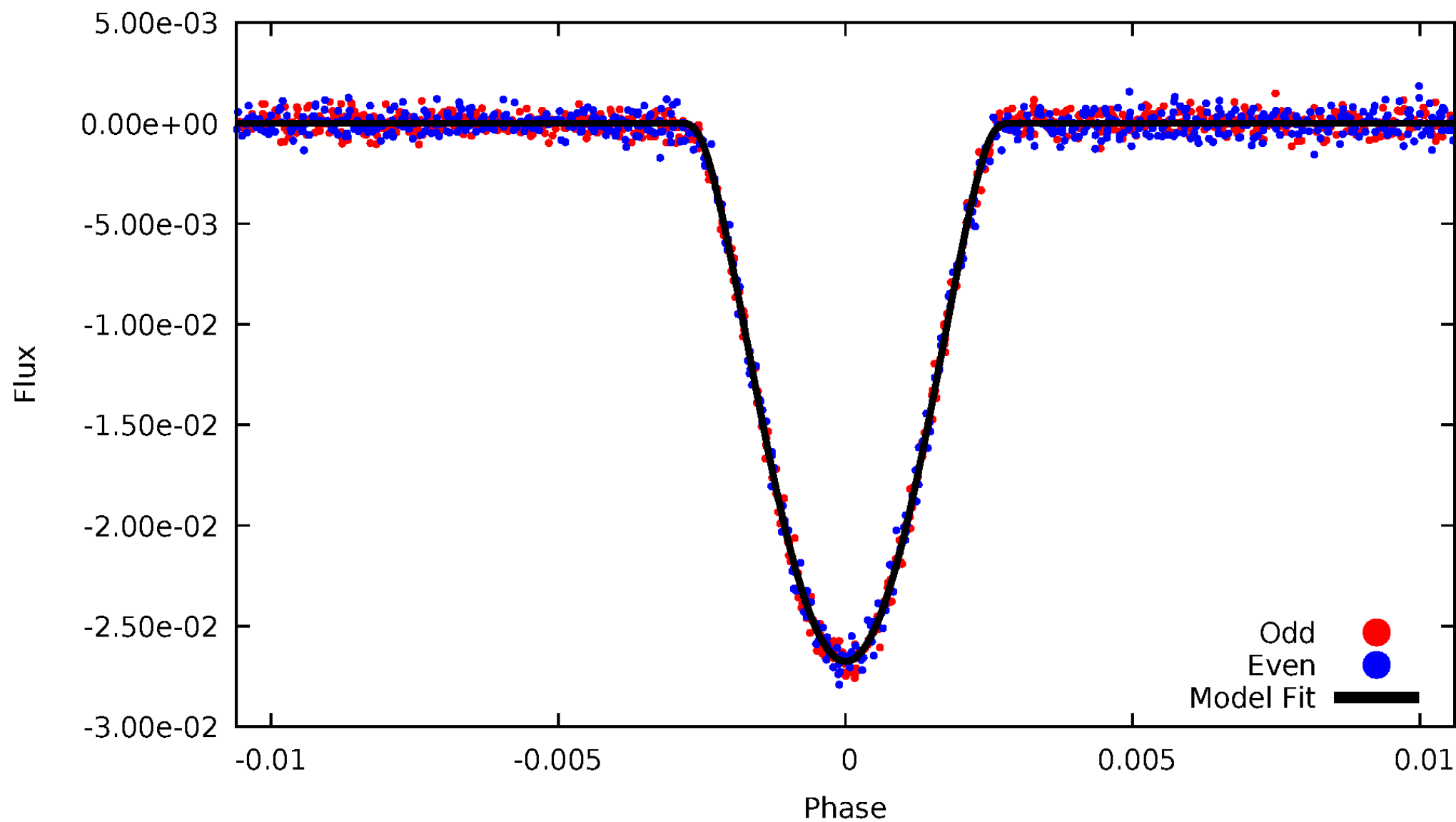


TCE 003441784-01



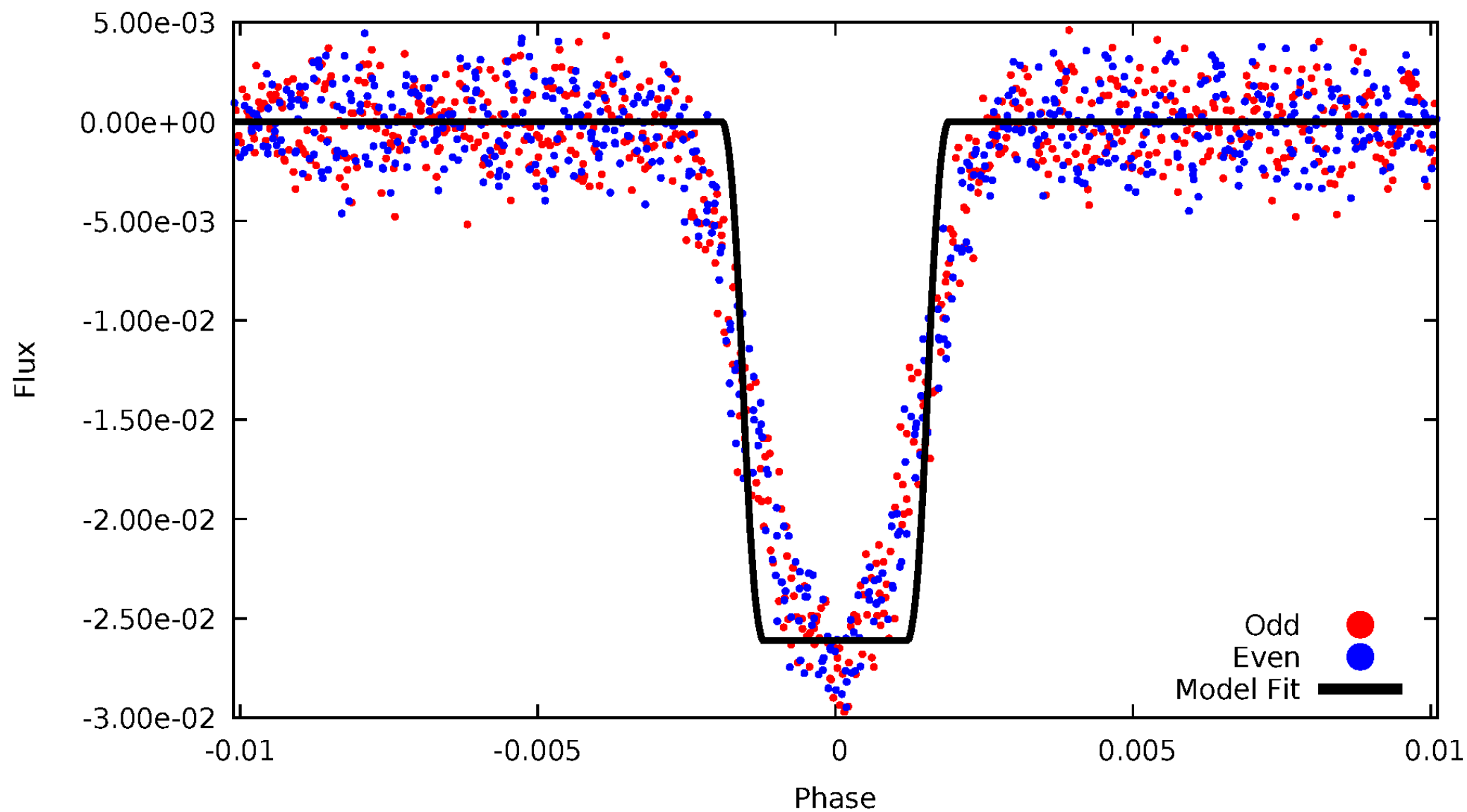
DV Odd/Even

TCE 003441784-01



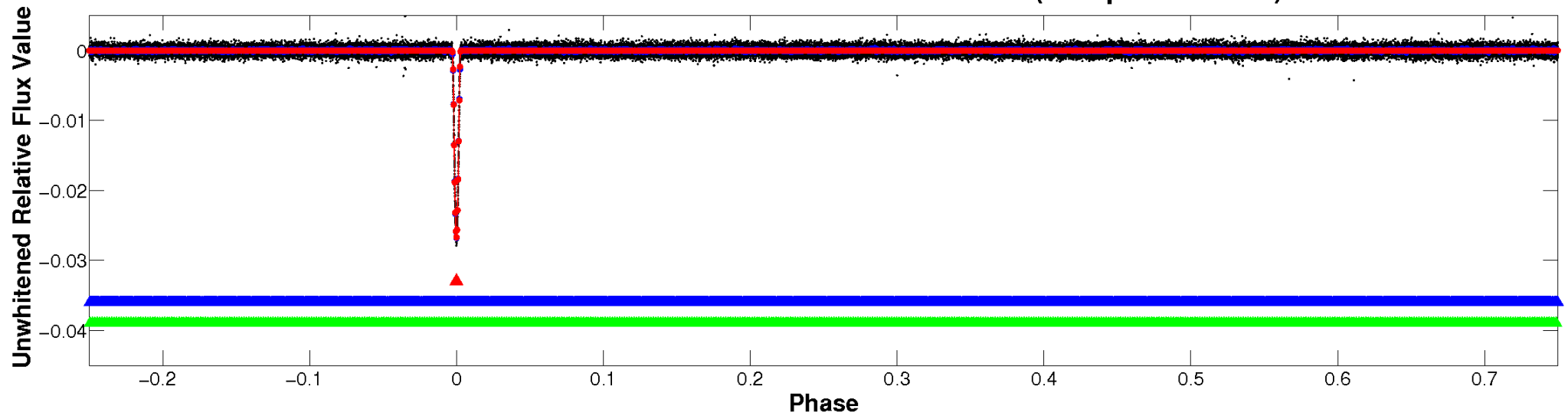
ALT Odd/Even

TCE 003441784-01

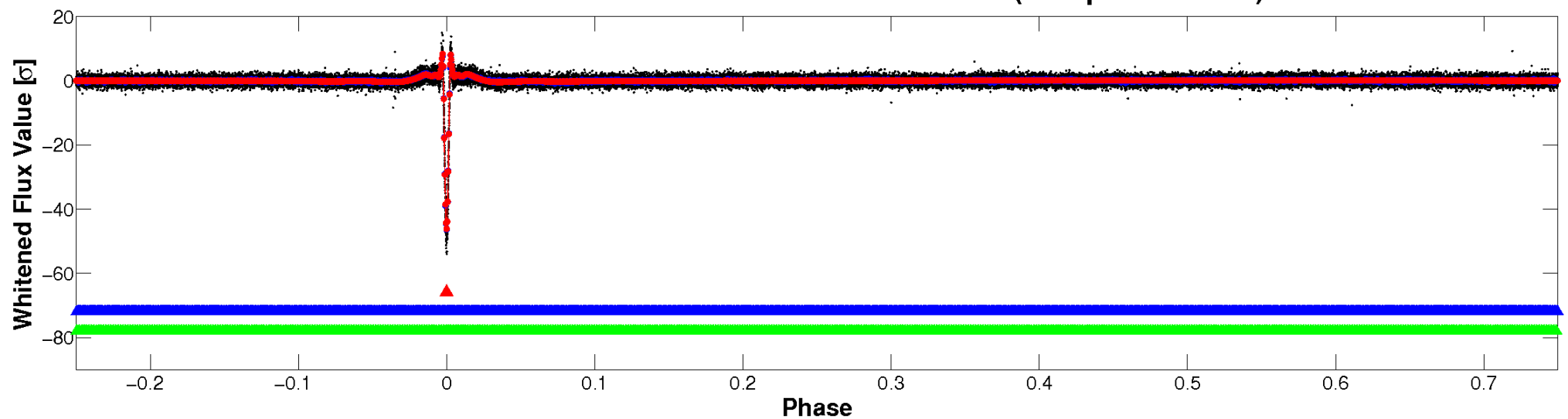


Non-Whitened Vs. Whitened Light Curve

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

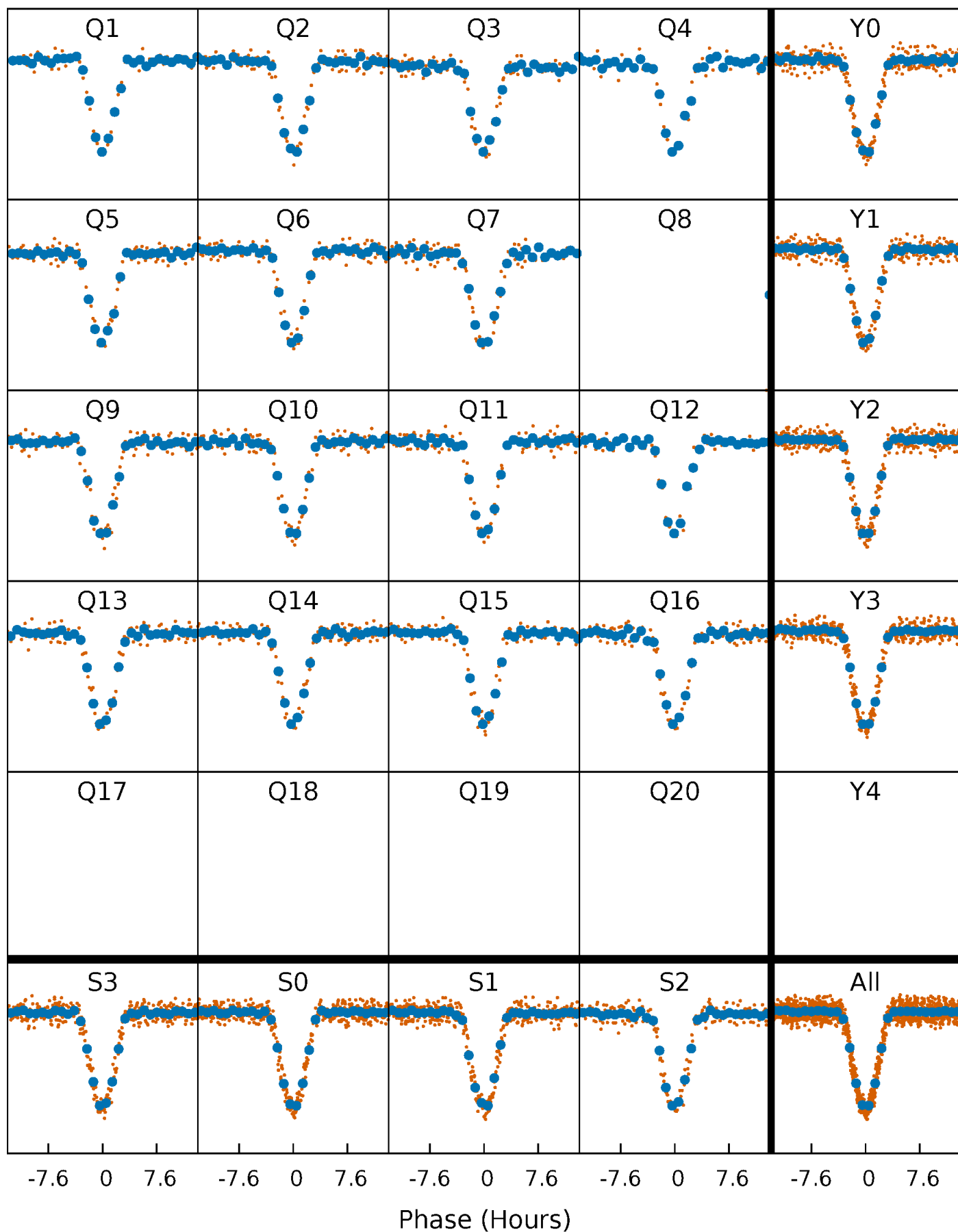


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



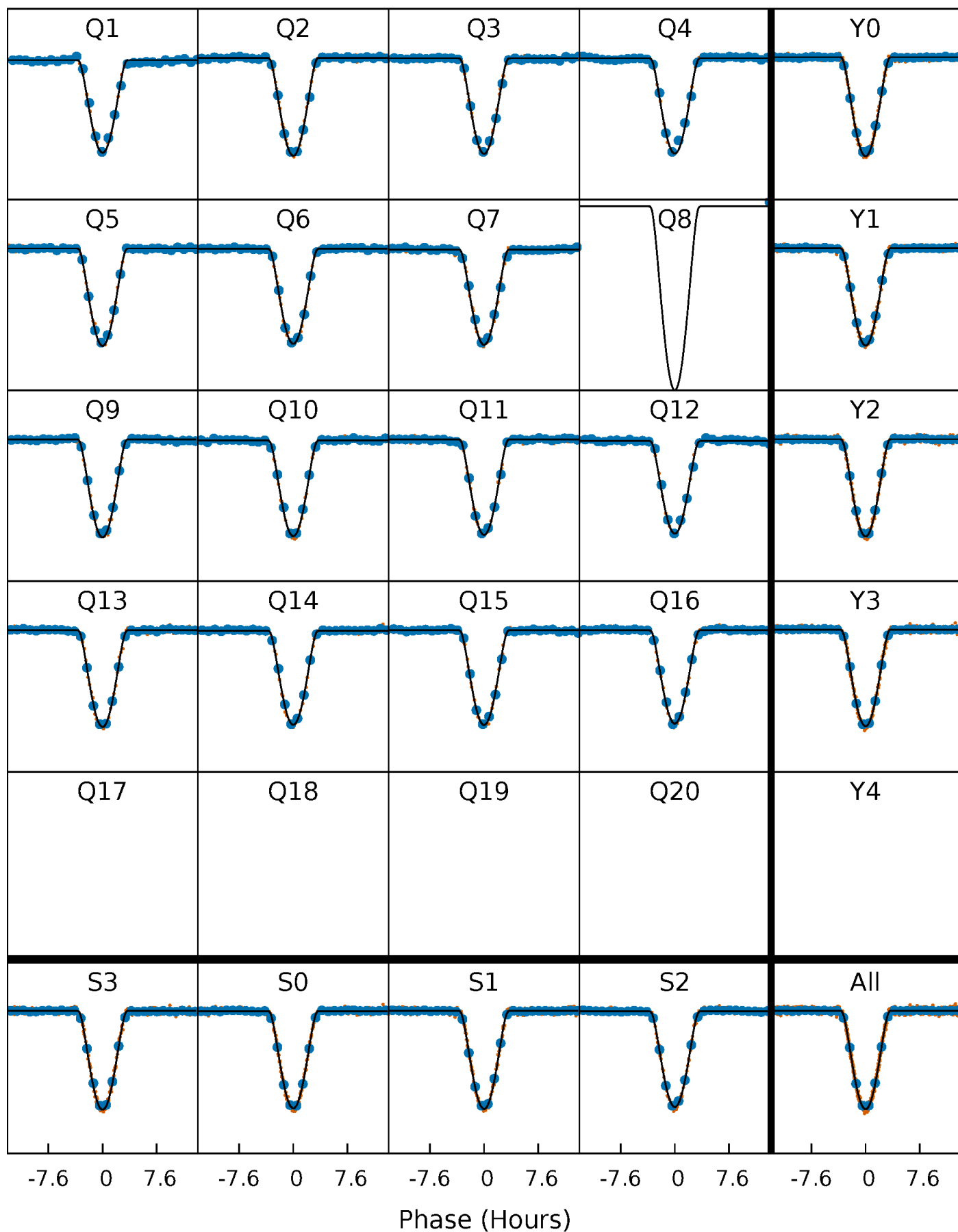
PDC Quarter-Phased Transit Curves

TCE 003441784-01 P= 52.569014 Days $T_0=132.402344$ (BKJD)



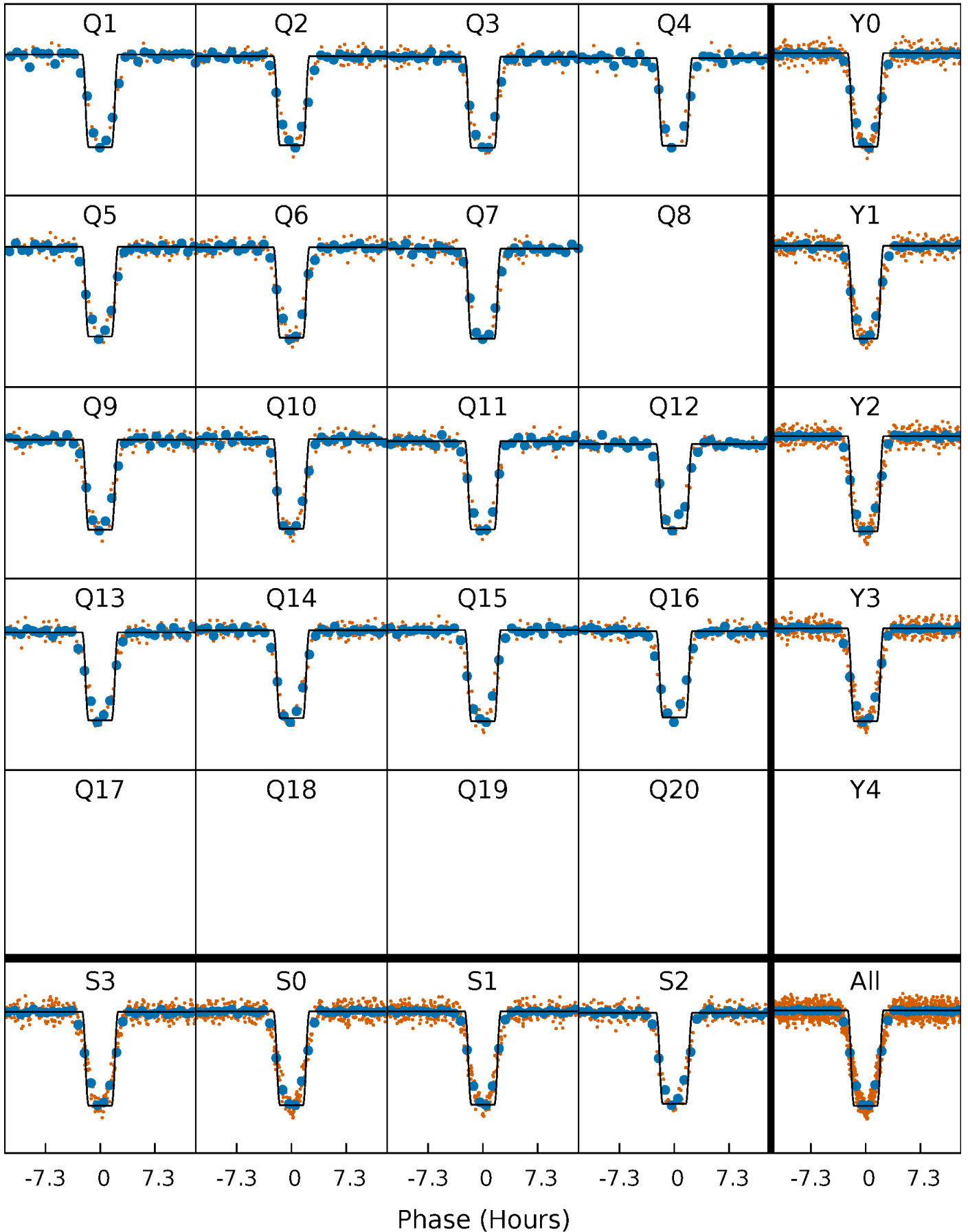
DV Quarter-Phased Transit Curves

TCE 003441784-01 P= 52.569014 Days $T_0=132.402344$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

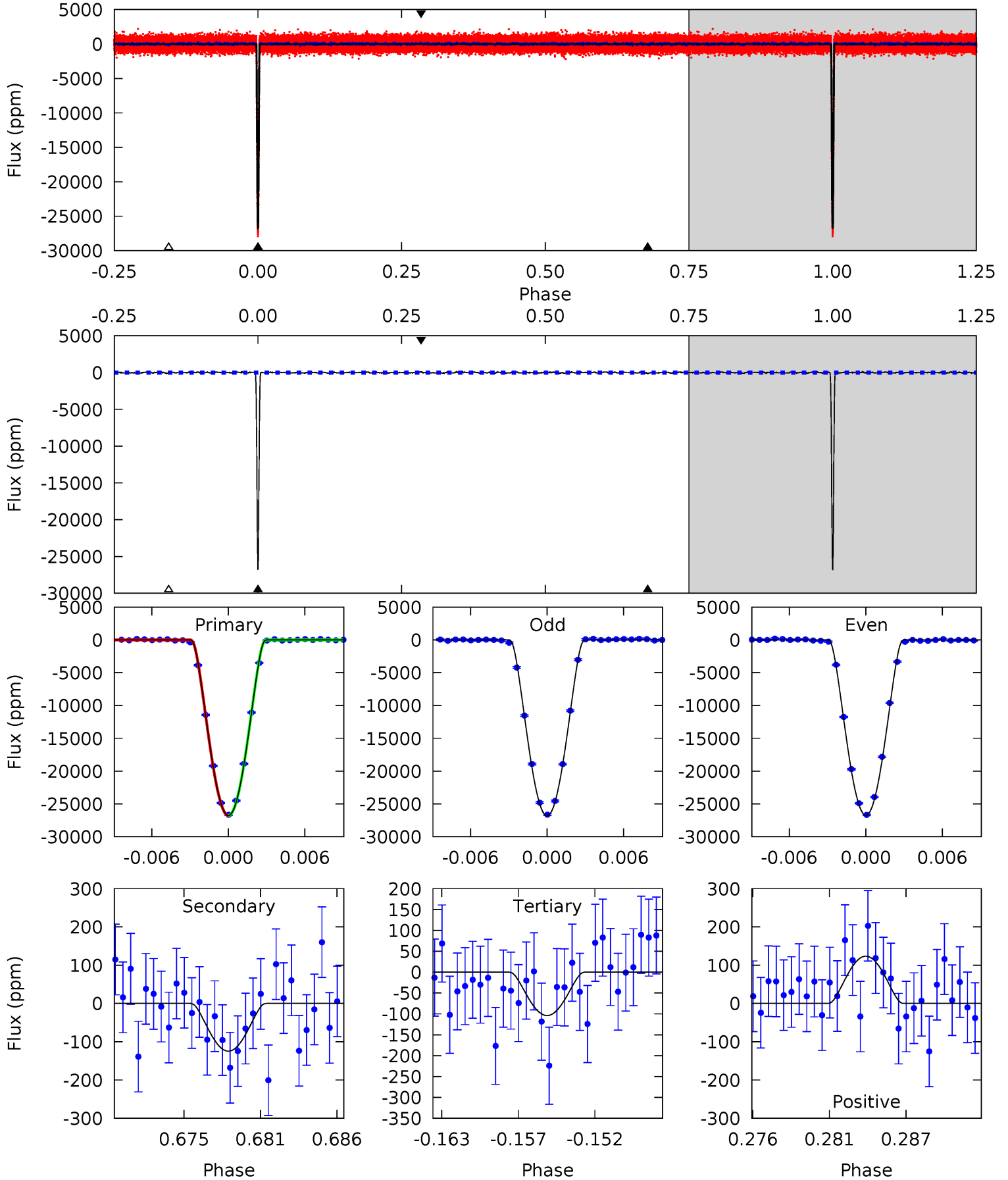
TCE 003441784-01 P= 52.569487 Days $T_0=132.395954$ (BKJD)



DV Model-Shift Uniqueness Test

003441784-01, P = 52.569014 Days, E = 79.833330 Days

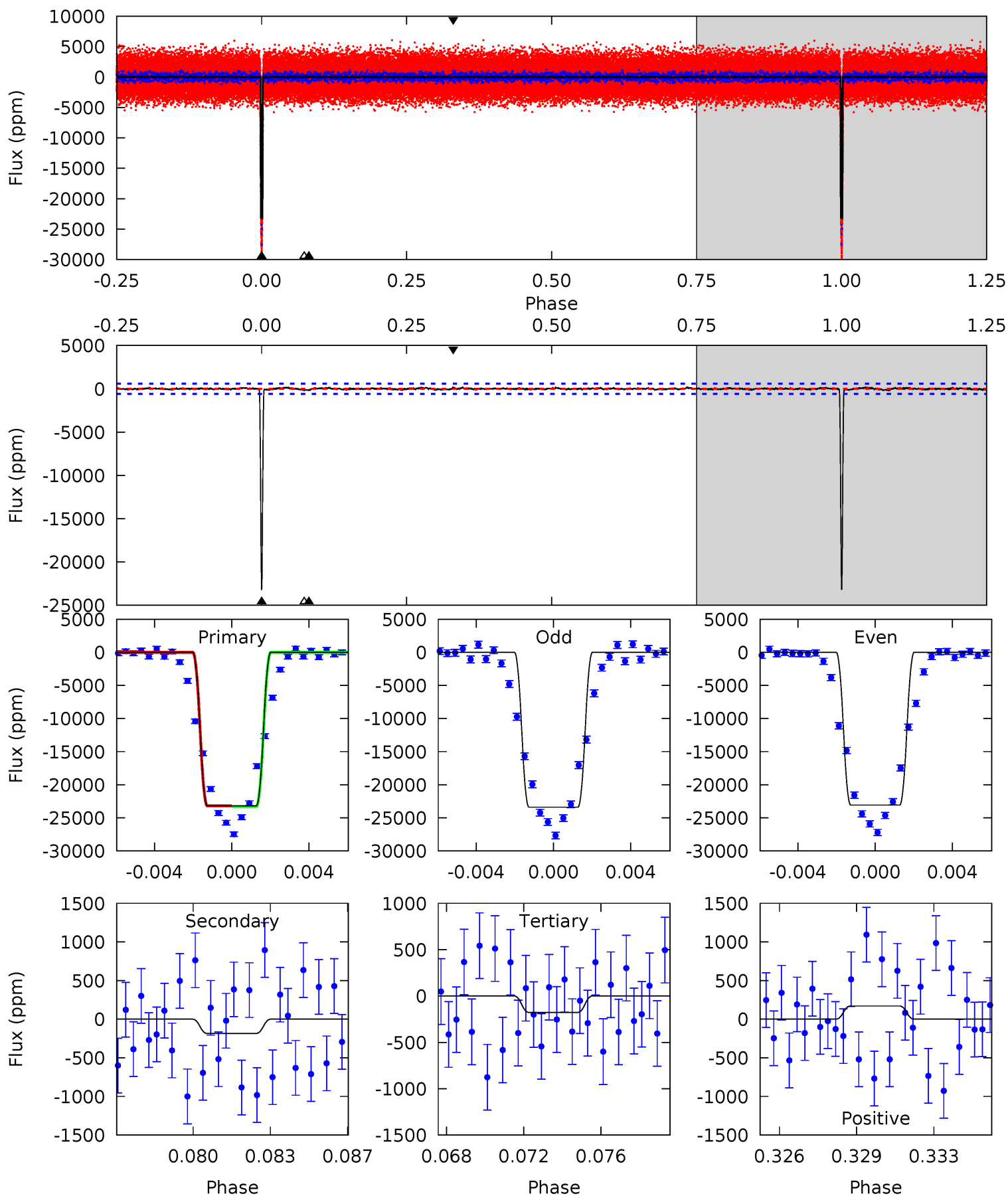
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1027	4.78	3.99	4.74	5.14	2.77	1.54	1023	1022	0.79	0.04	1.52	1.00	0.00	0.08



Alt Model-Shift Uniqueness Test

003441784-01, P = 52.569487 Days, E = 79.826467 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
204.2	1.63	1.55	1.50	5.21	2.90	0.47	202.6	202.7	0.08	0.12	1.38	1.00	0.01	0.47



Stellar Parameters For KIC 003441784

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7240^{+200}_{-343}	$4.178^{+0.072}_{-0.203}$	$0.210^{+0.150}_{-0.350}$	$1.717^{+0.565}_{-0.242}$	$1.620^{+0.204}_{-0.226}$	$0.451^{+0.176}_{-0.241}$
	+3%/-5%	+2%/-5%	+71%/-167%	+33%/-14%	+13%/-14%	+39%/-54%
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 003441784-01 / KOI 0976.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-125 ± 26	$46.95^{+8.10}_{-5.74}$	1047^{+77}_{-68}	2383^{+81}_{-86}	$3.127^{+1.140}_{-0.944}$
Alt.	-185 ± 114	$31.19^{+5.98}_{-4.62}$	1042^{+84}_{-61}	2771^{+244}_{-390}	$9.535^{+8.919}_{-6.715}$

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 $A_{obs} \gg 1.0$

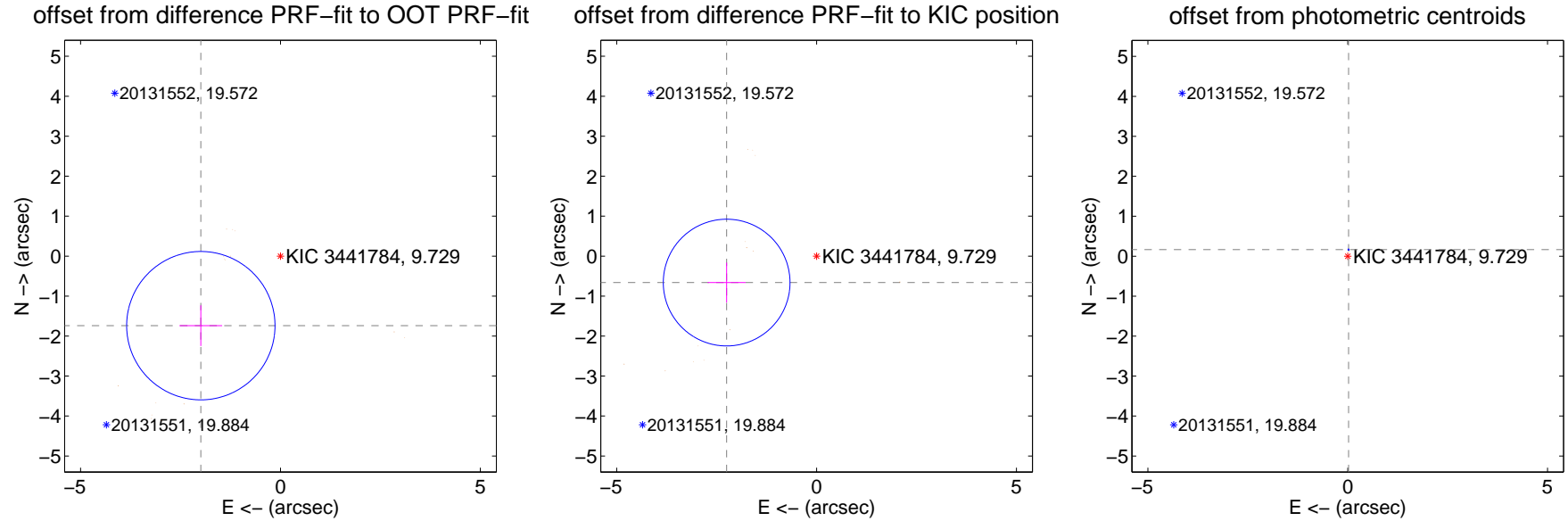
DV Centroid Data

Supplemental centroid analysis for 003441784-01. **Kepler magnitude: 9.73.** Transit SNR 526.37

There are 0 quarters with good PRF difference image offsets

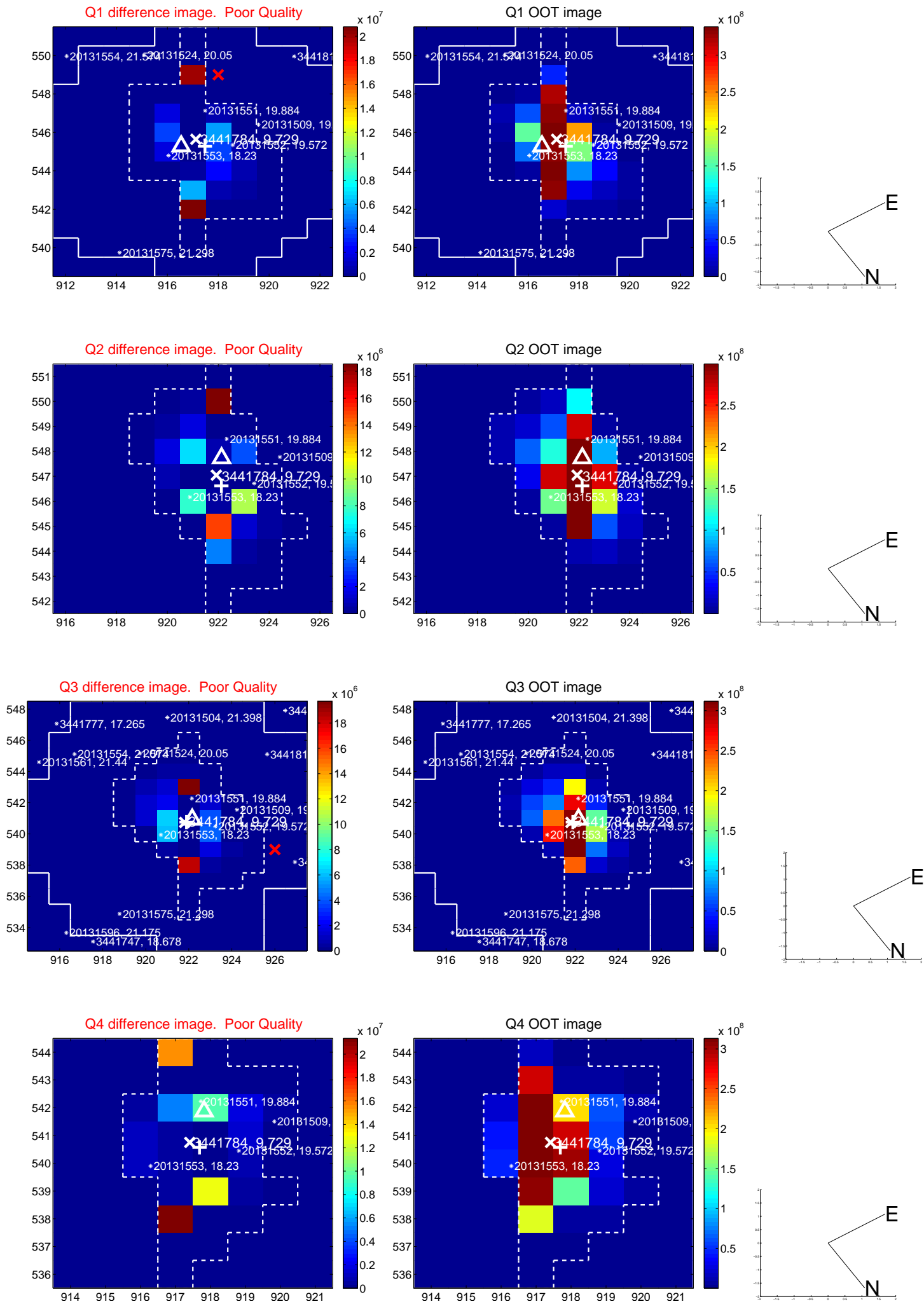
The direct PRF centroid is offset from the target star catalog position by about 0.93 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.645 ± 0.619	4.28	1.992 ± 0.533	-1.740 ± 0.509
PRF-fit source offset from KIC position	2.345 ± 0.528	4.44	2.250 ± 0.475	-0.662 ± 0.499
photometric centroid source offset	0.17 ± 0.00	33.32	-0.02 ± 0.00	0.16 ± 0.00

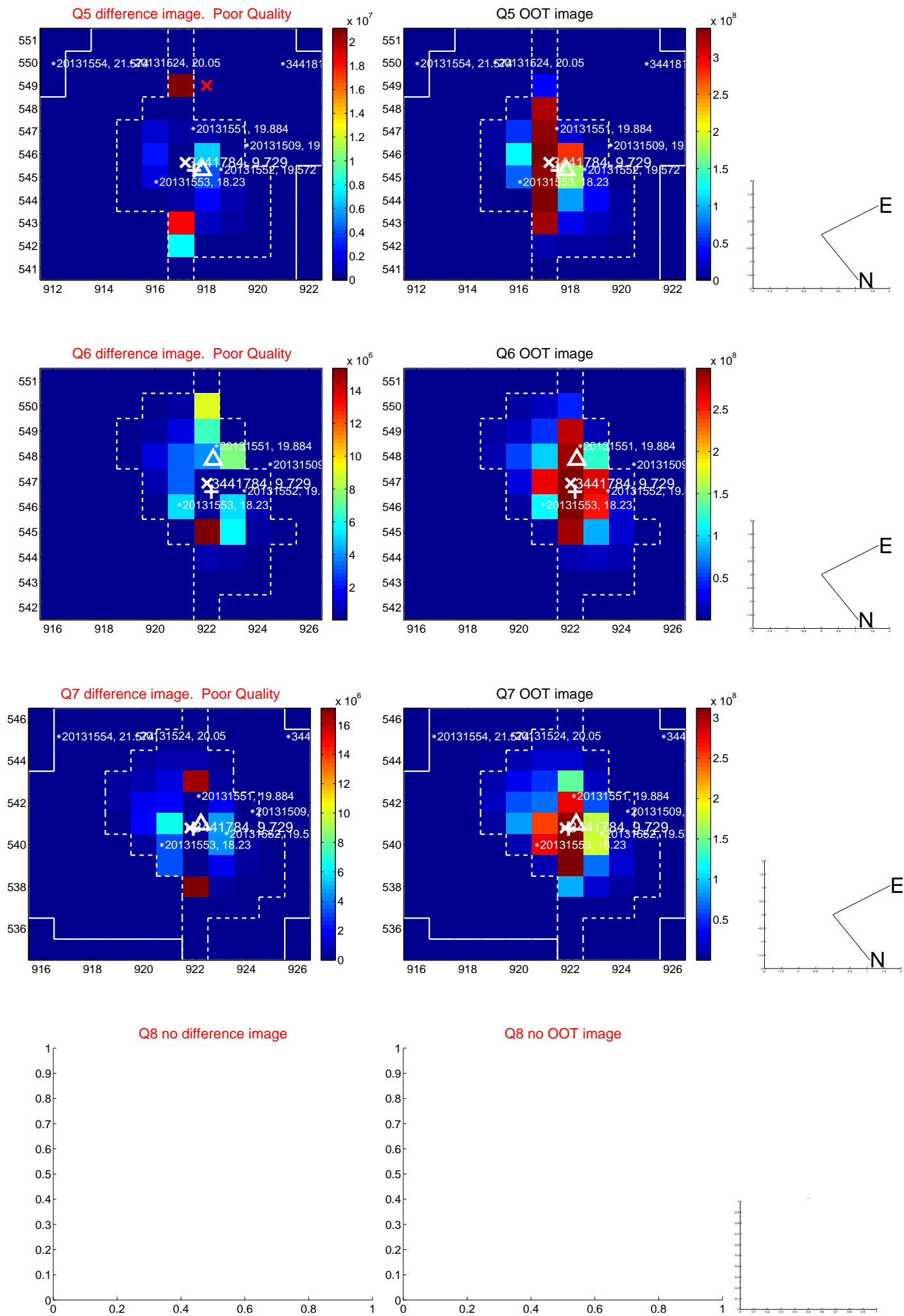


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

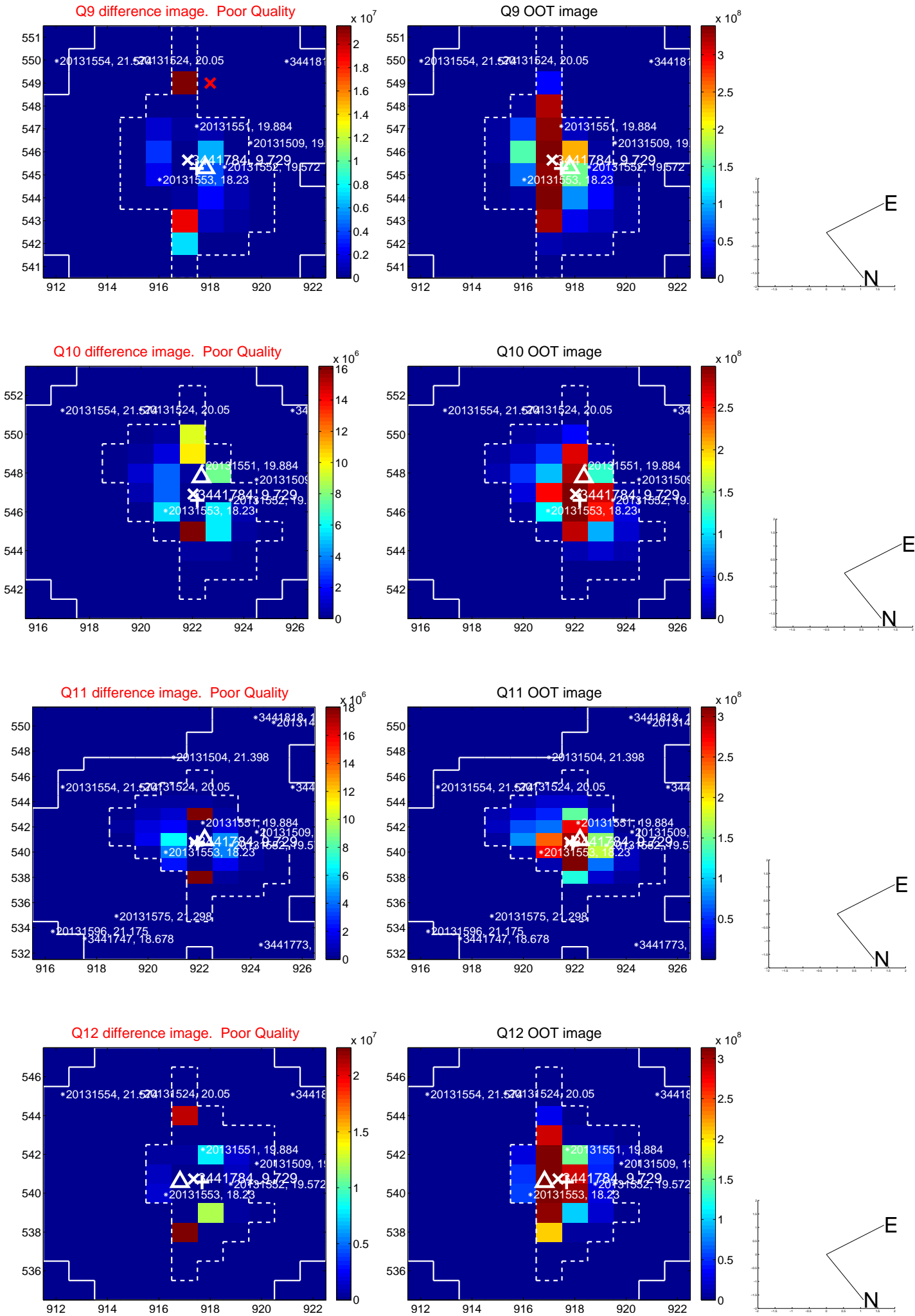
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



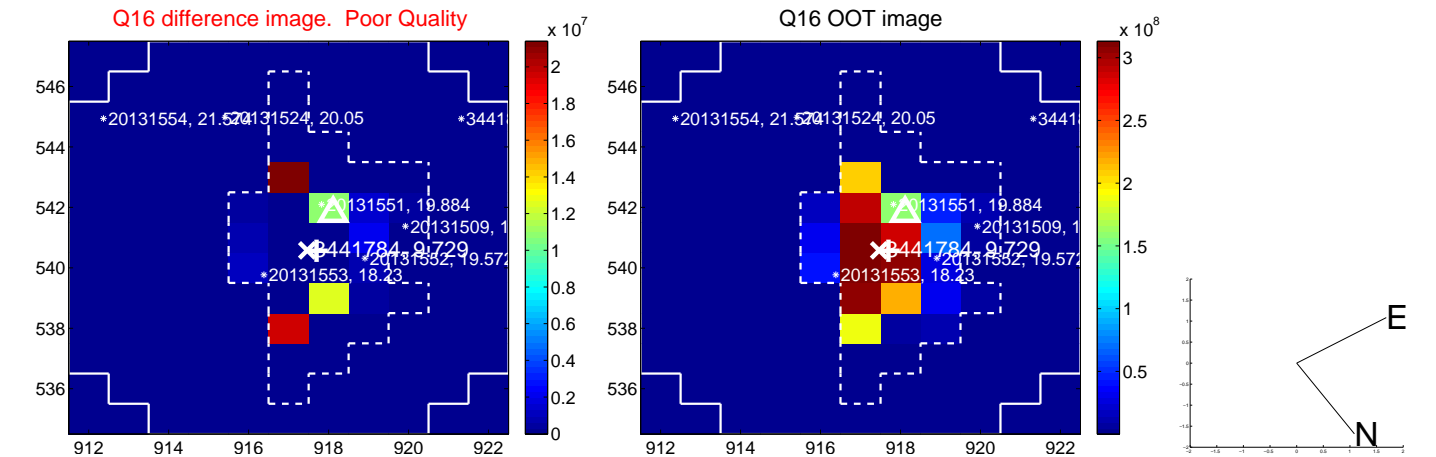
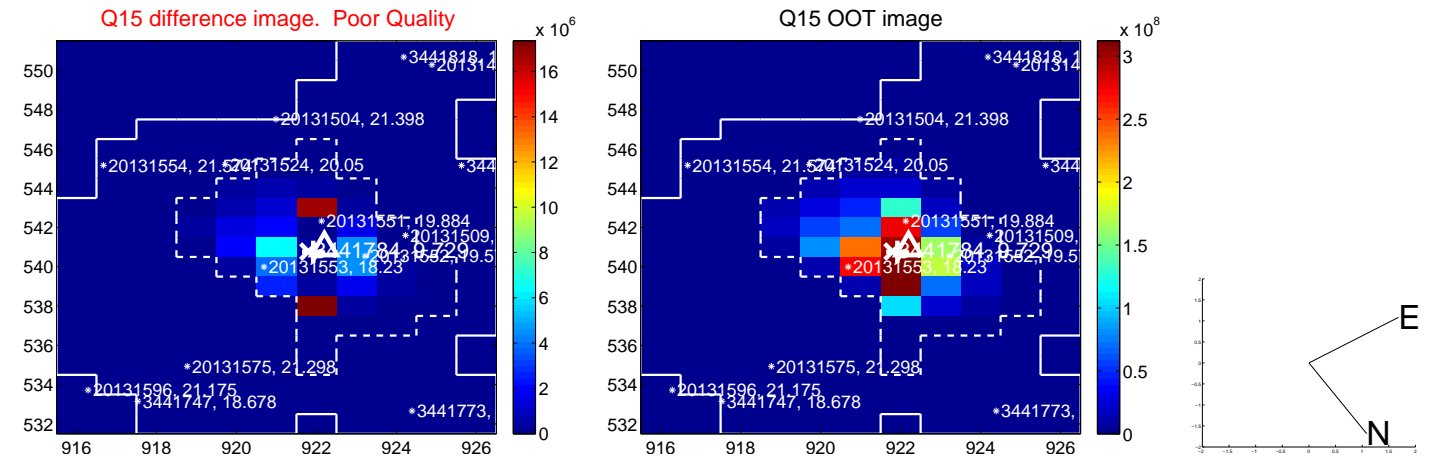
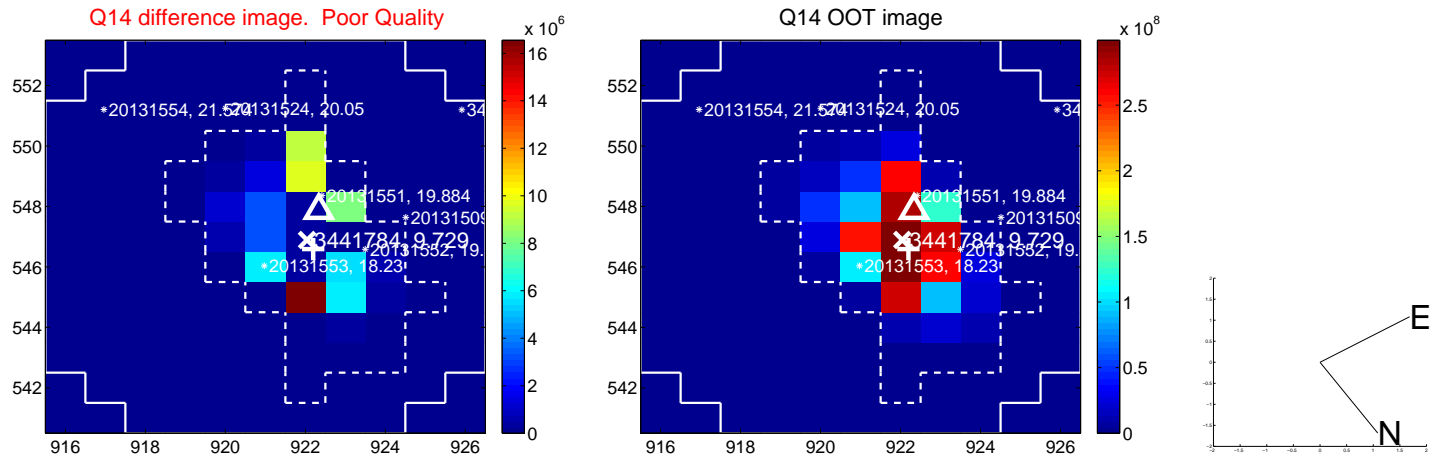
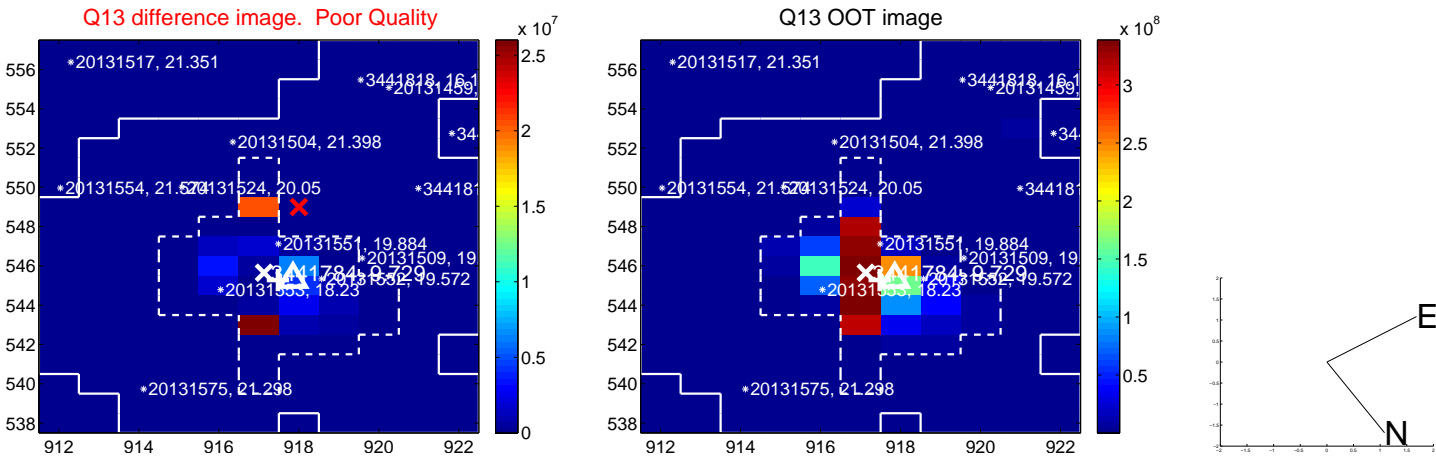
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



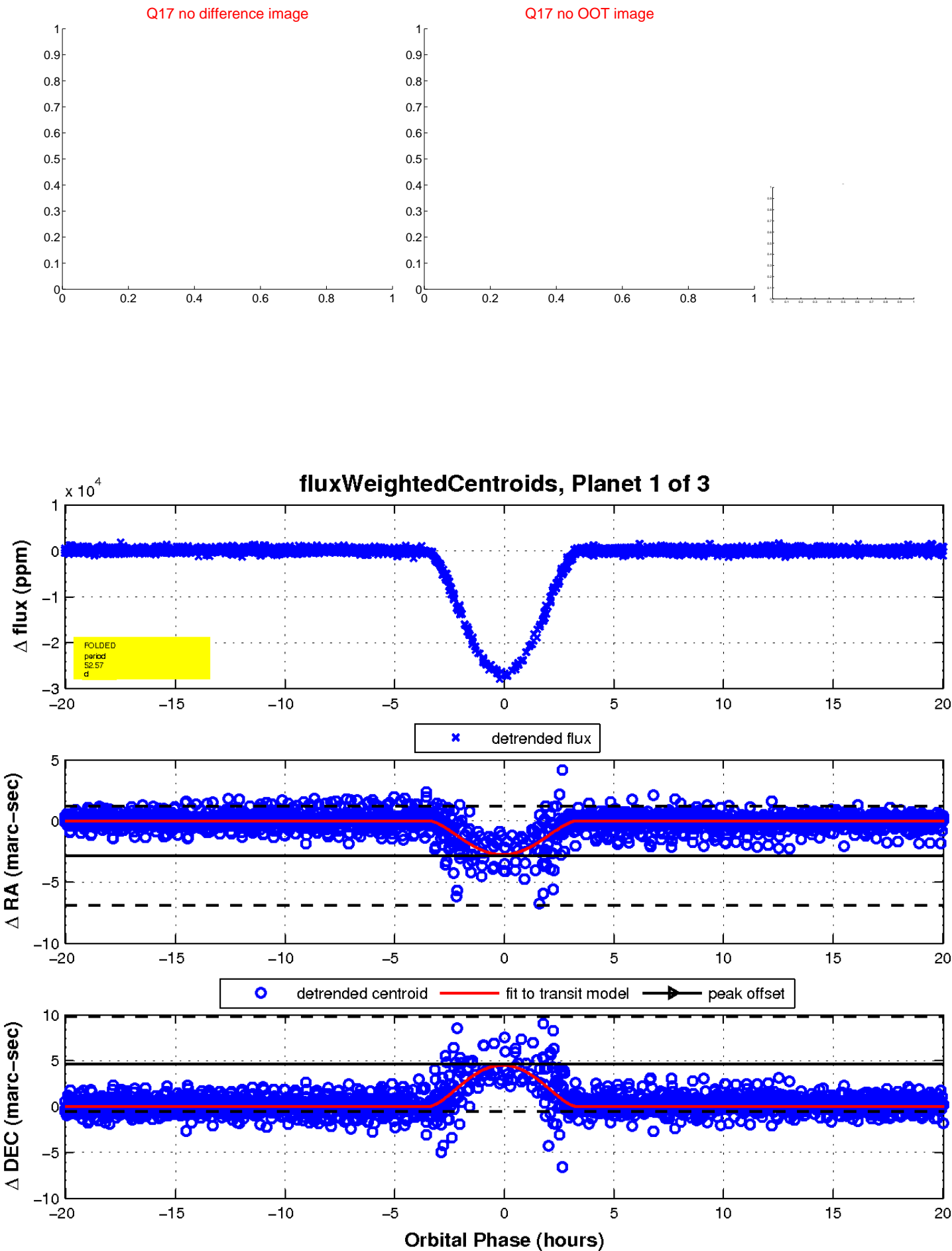
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



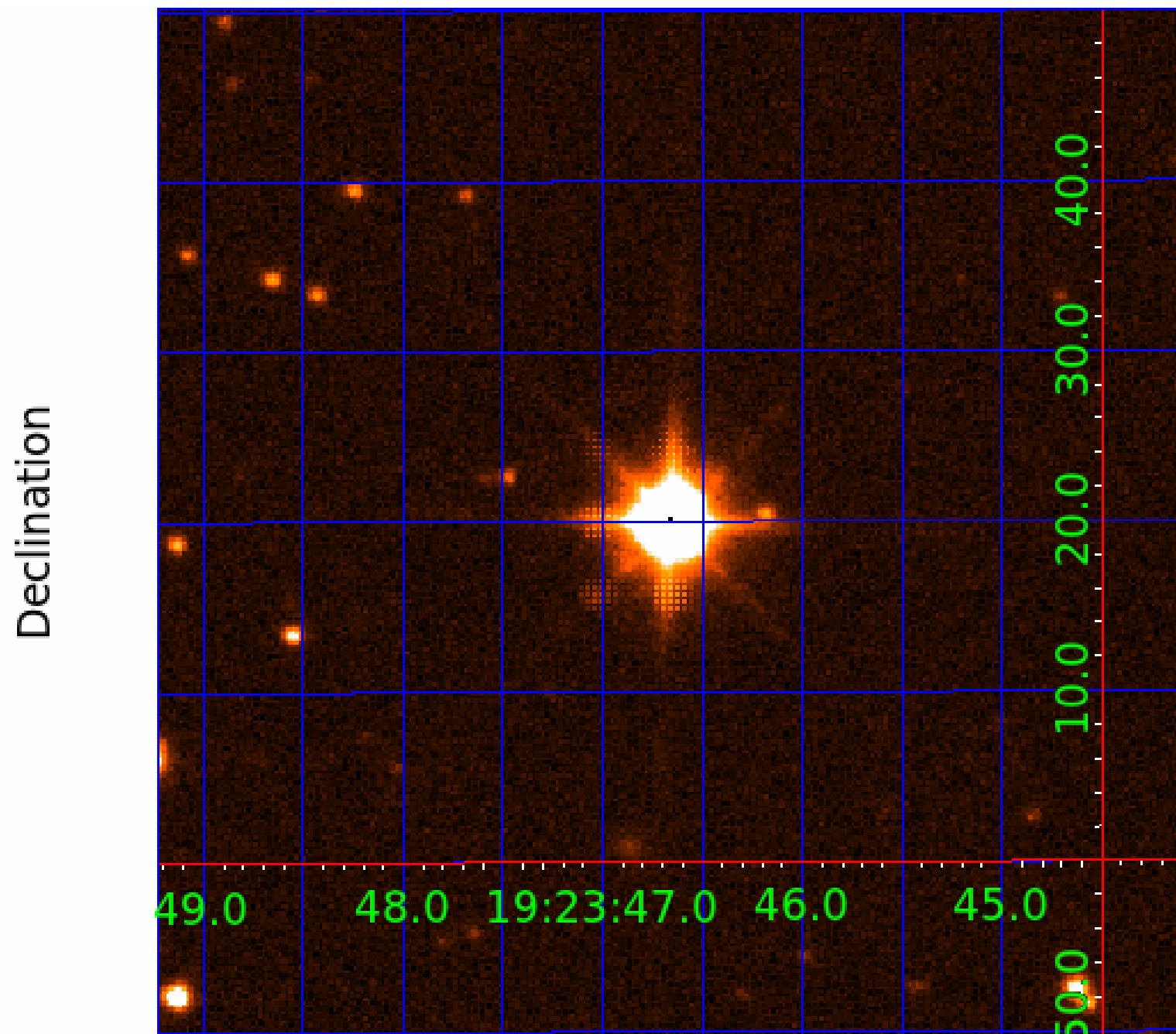
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003441784

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})
003441784-01	OBS	0976.01	52.569014	132.402344	26764.4	6.686	537.0	526.4	1.72	7240	45.37	69.72
003441784-02	OBS	No	0.603280	131.704374	72.0	2.148	11.8	12.8	1.72	7240	1.70	26936.24
003441784-03	OBS	No	0.603258	132.030845	38.7	2.727	11.3	7.9	1.72	7240	1.09	26937.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003441784-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—CENT_SATURATED
003441784-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
003441784-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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 003441784-02

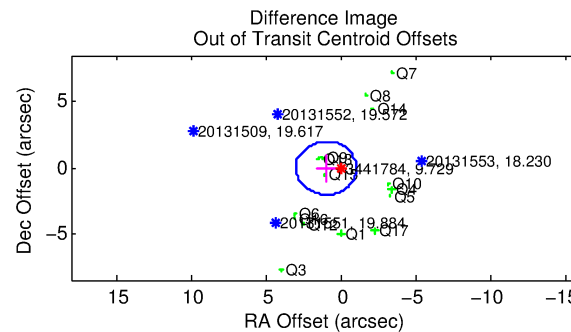
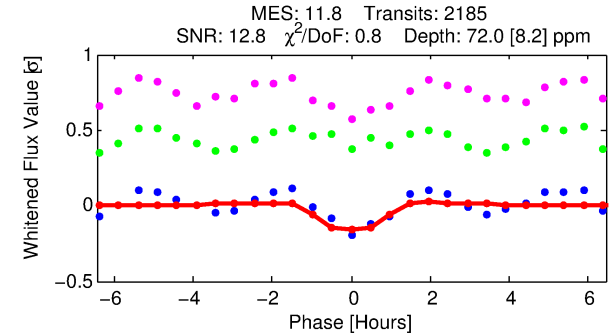
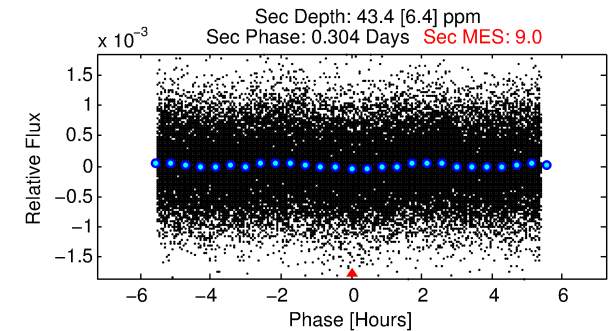
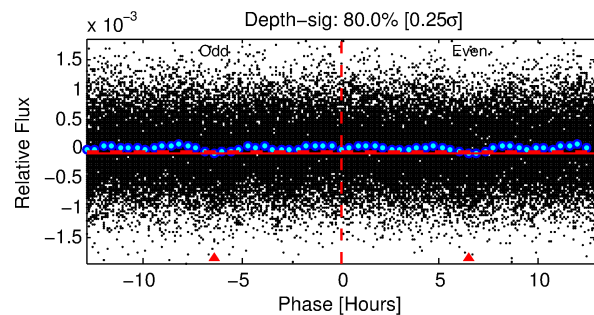
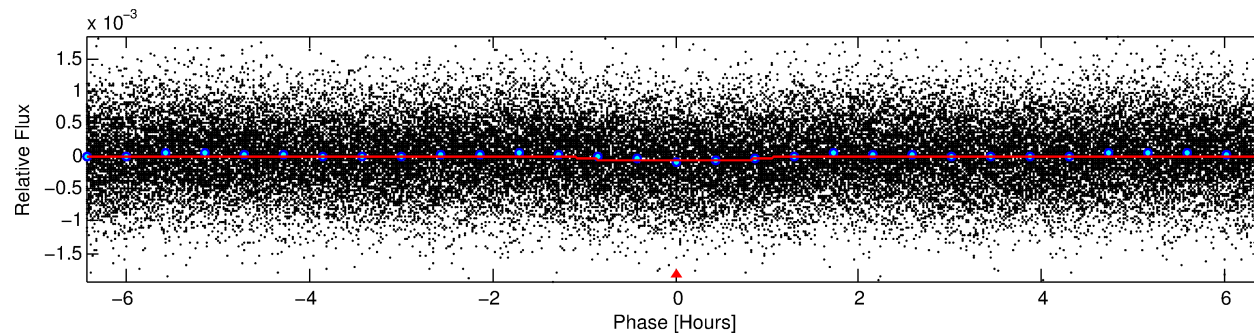
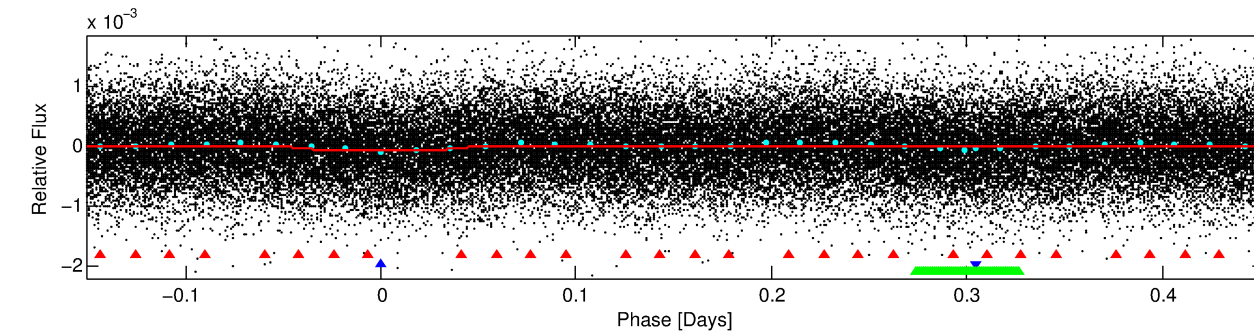
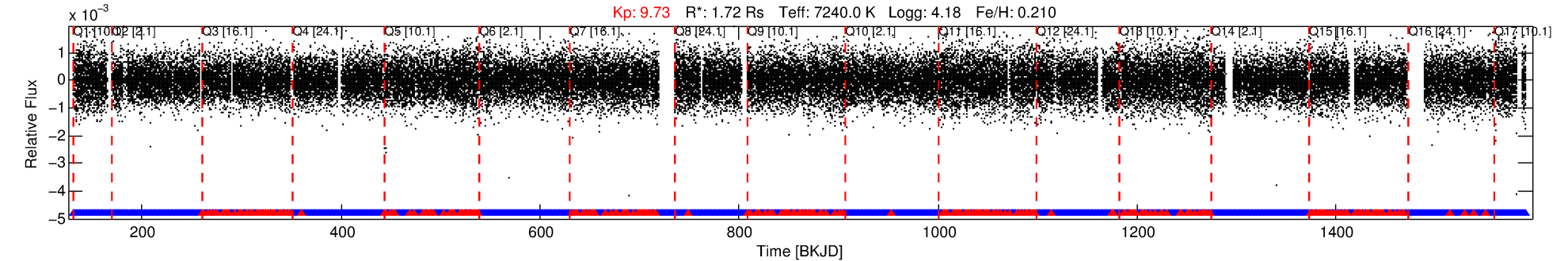
No Significant Match Found

DV One-Page Summary

KIC: 3441784 Candidate: 2 of 3 Period: 0.603 d

KOI: K00976 Corr: No Ephemeris Match

Kp: 9.73 R*: 1.72 Rs Teff: 7240.0 K Logg: 4.18 Fe/H: 0.210



DV Fit Results:

Period = 0.60328 [0.00001] d
Epoch = 131.7044 [0.0022] BKJD
Rp/R* = 0.0091 [0.0049]
a/R* = 1.34 [2.00]
b = 0.91 [0.67]
Seff = 26936.24 [11464.26]
Teff = 3267 [348] K
Rp = 1.70 [1.07] Re
a = 0.0164 [0.0044] AU
Ag = 2.22 [2.56] [0.48σ]
Teffp = 6168 [1701] K [1.67σ]

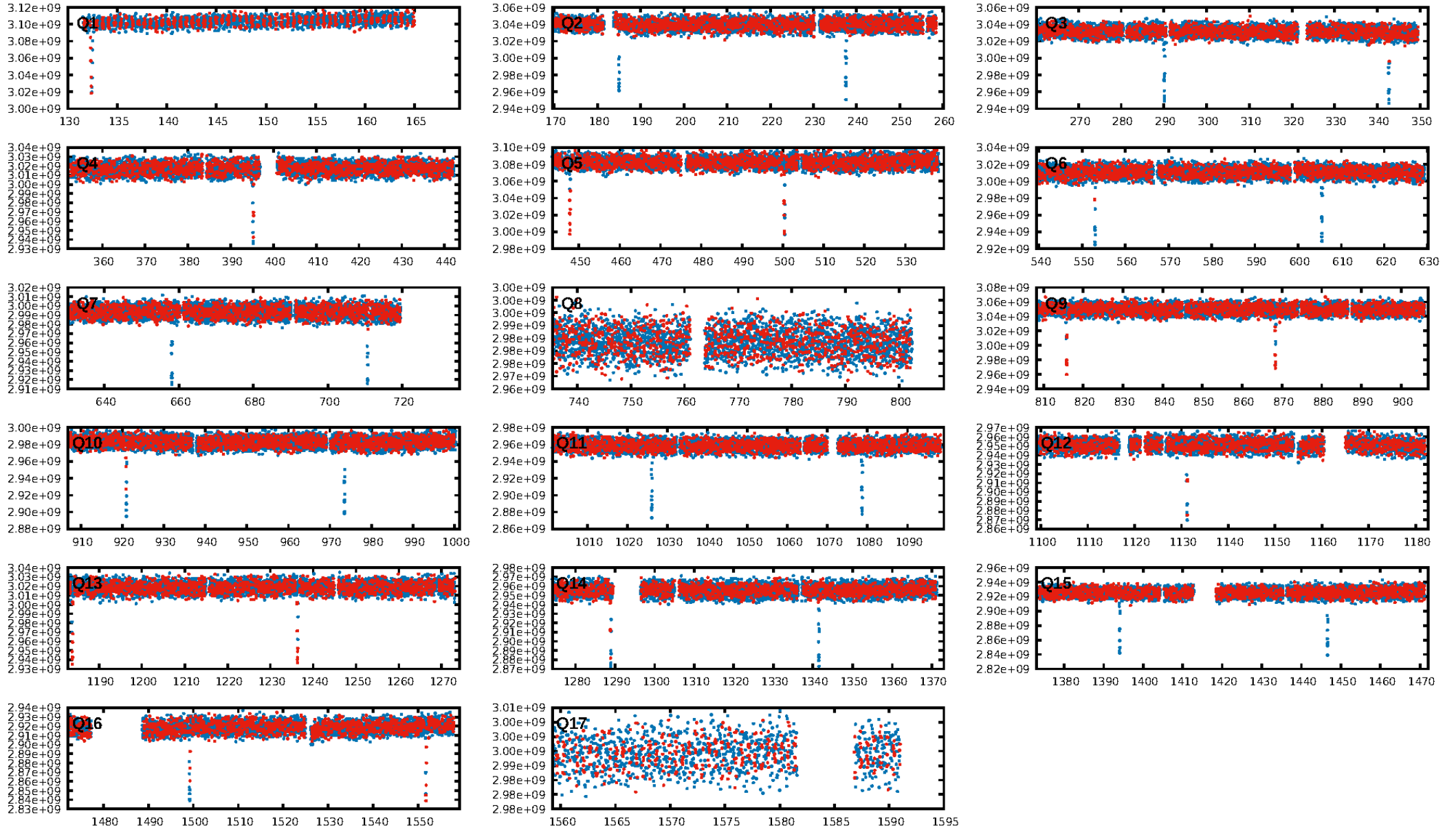
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [177.60σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.22e-17
RollingBand-fgt: 0.86 [1792/2085]
GhostDiagnostic-chr: N/A
Centroid-sig: 1.1%
Centroid-so: 0.602 arcsec [3.31σ]
OotOffset-rm: 0.959 arcsec [1.43σ]
KicOffset-rm: 2.184 arcsec [3.17σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-st: 3/3/4/5 [15]
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DiffImageOverlap-fno: 0.00 [0/17]

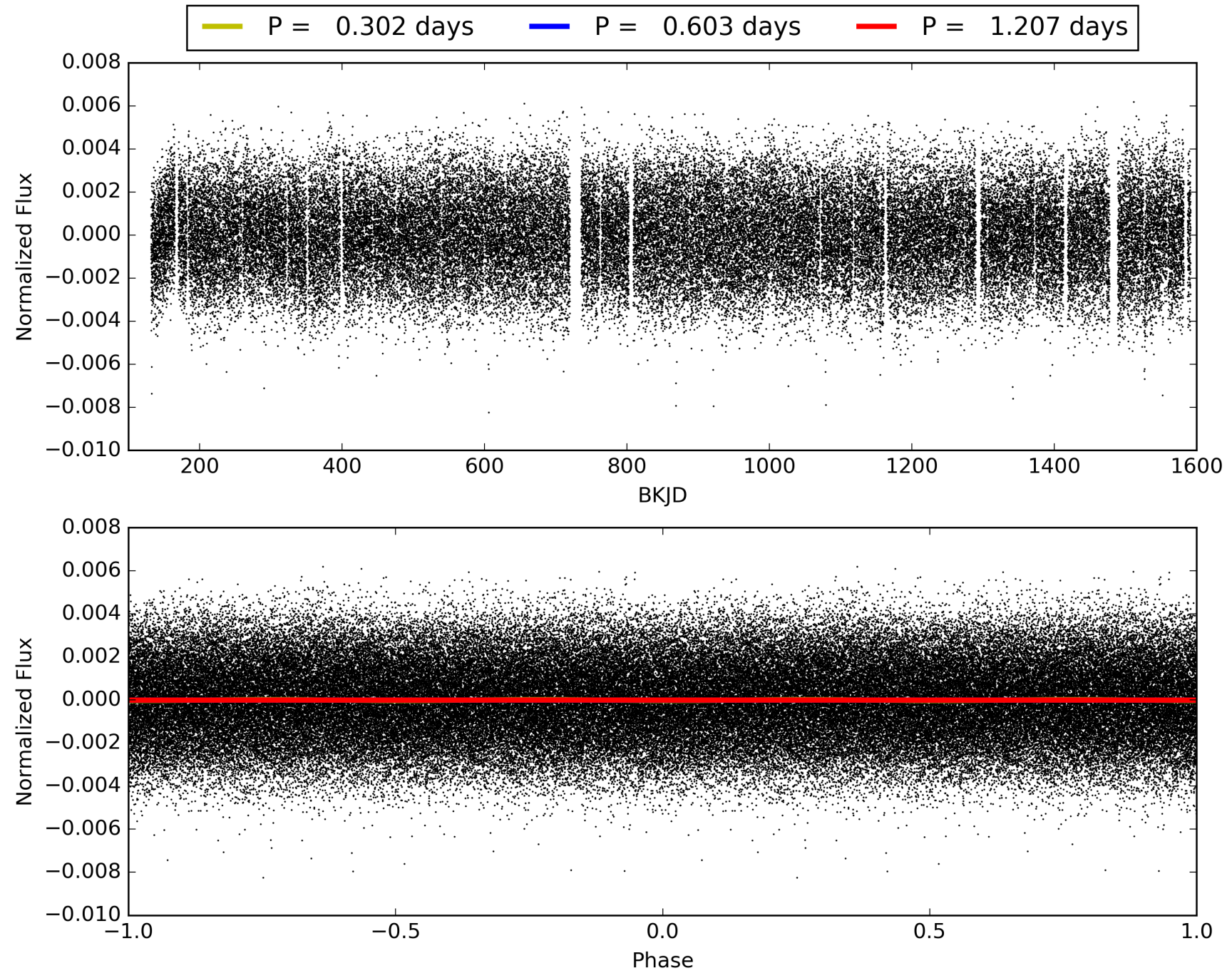
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003441784-02, PDC Light Curves

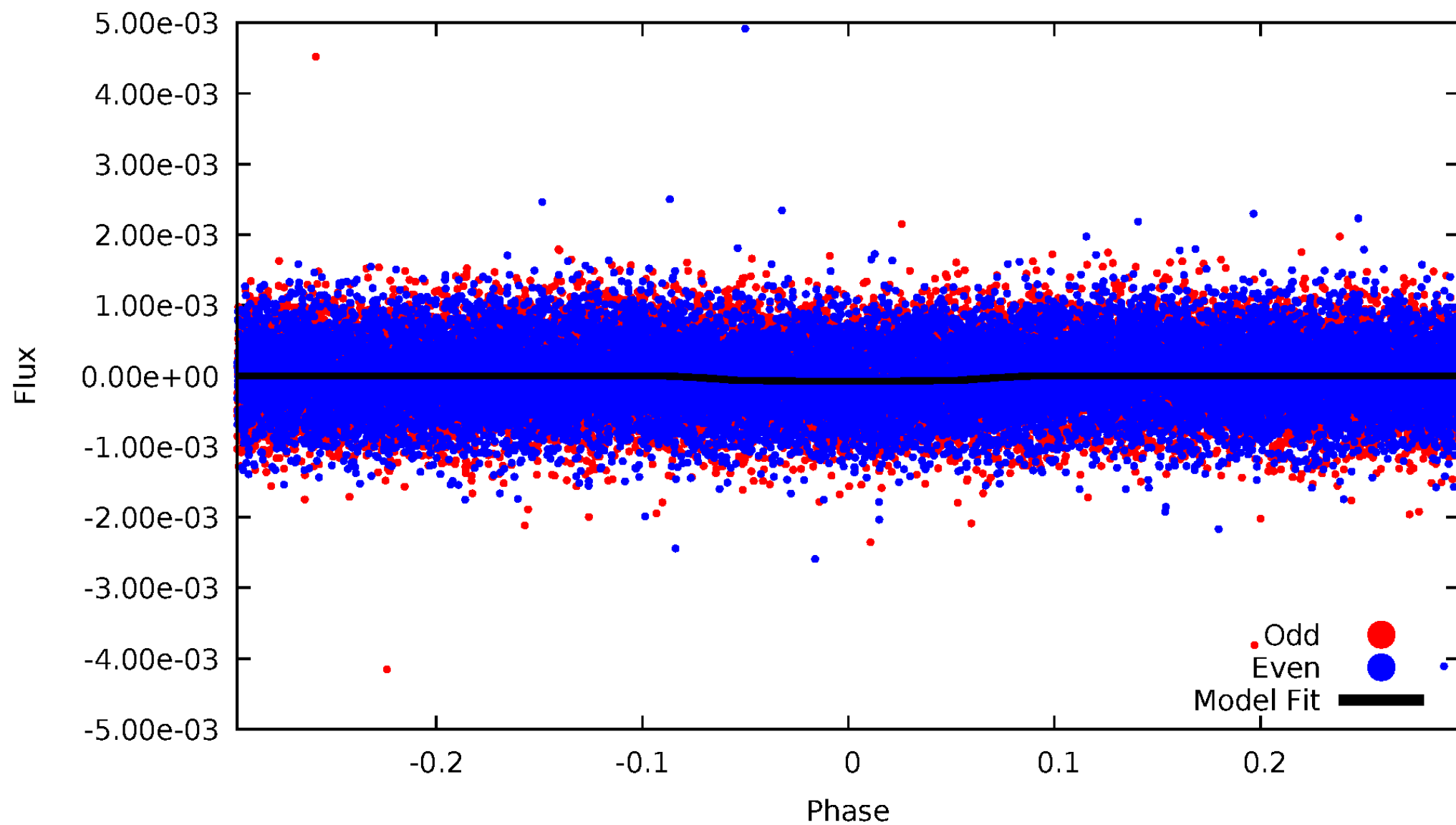


TCE 003441784-02



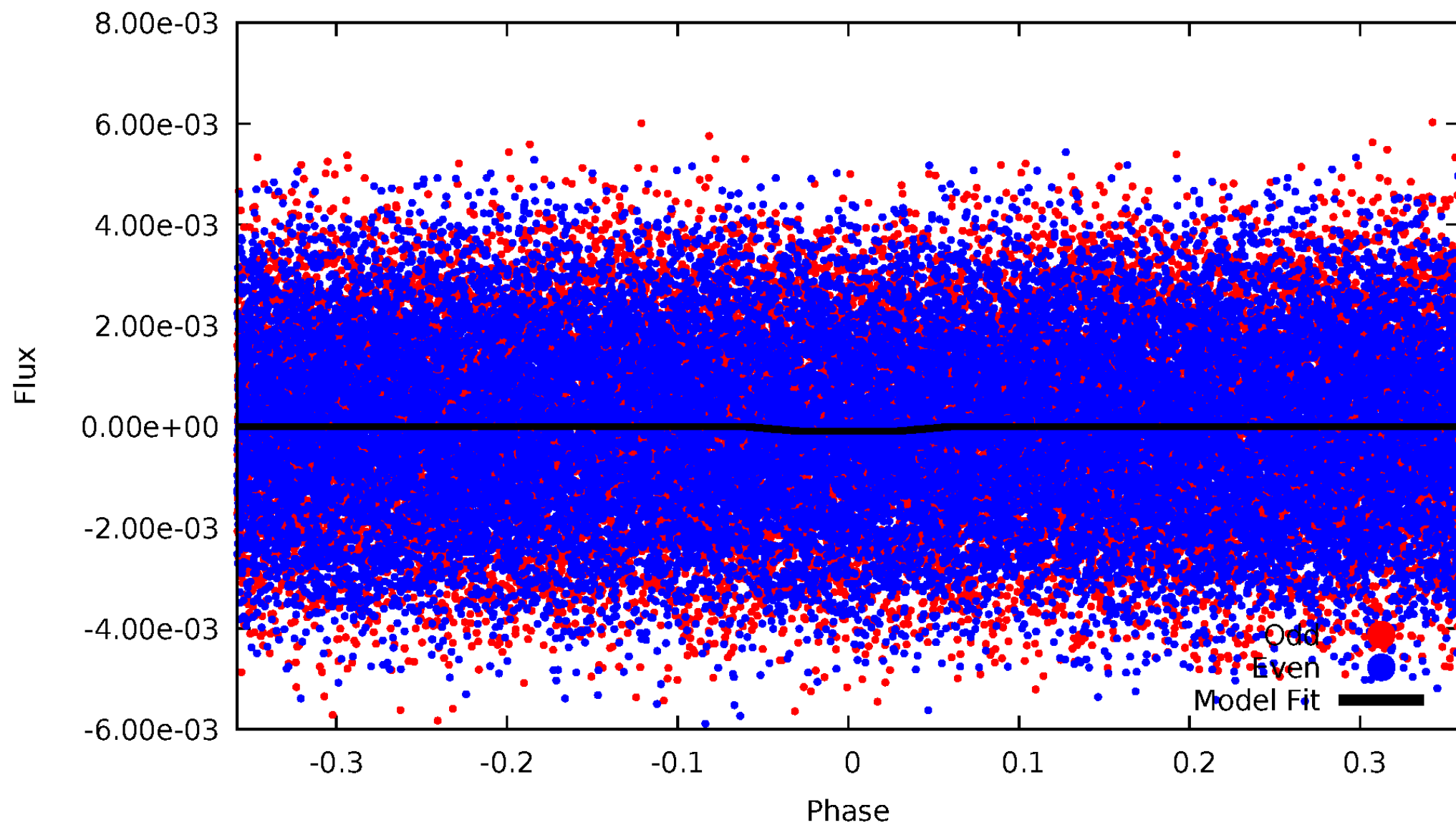
DV Odd/Even

TCE 003441784-02



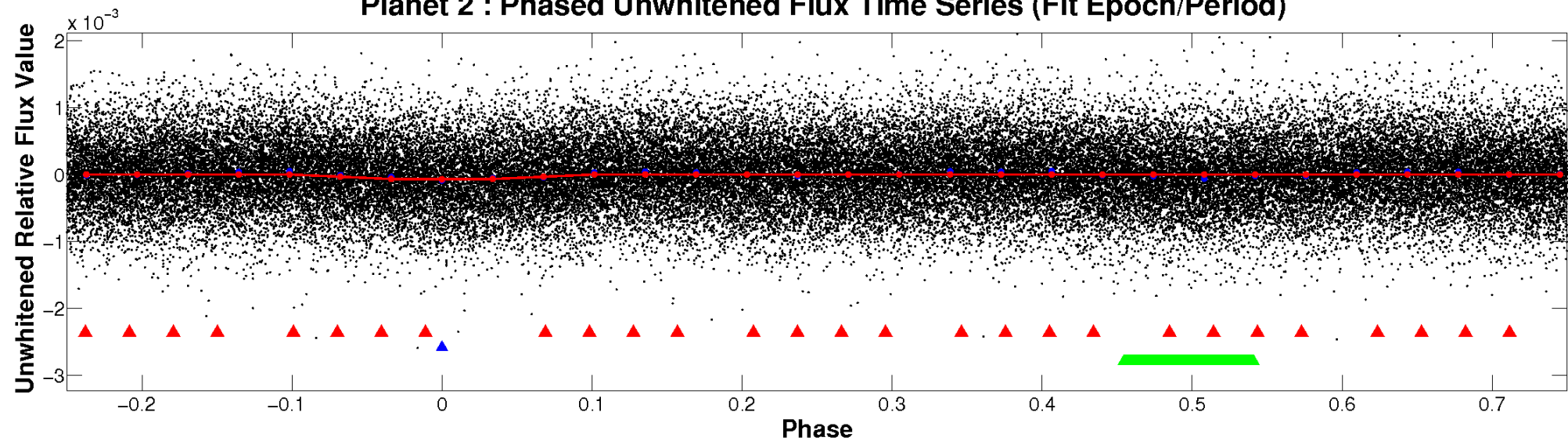
ALT Odd/Even

TCE 003441784-02

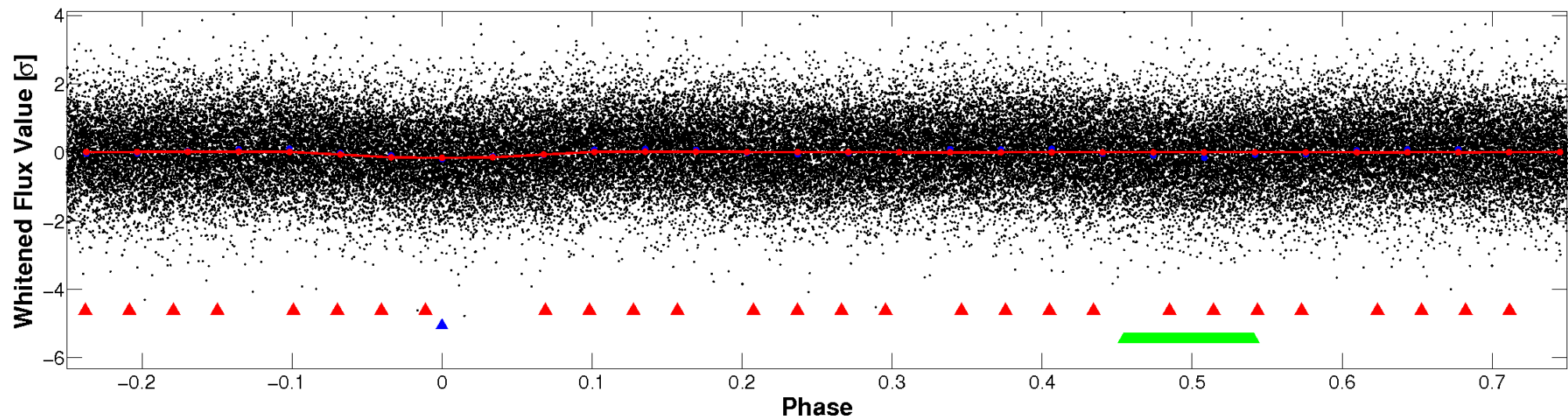


Non-Whitened Vs. Whitened Light Curve

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

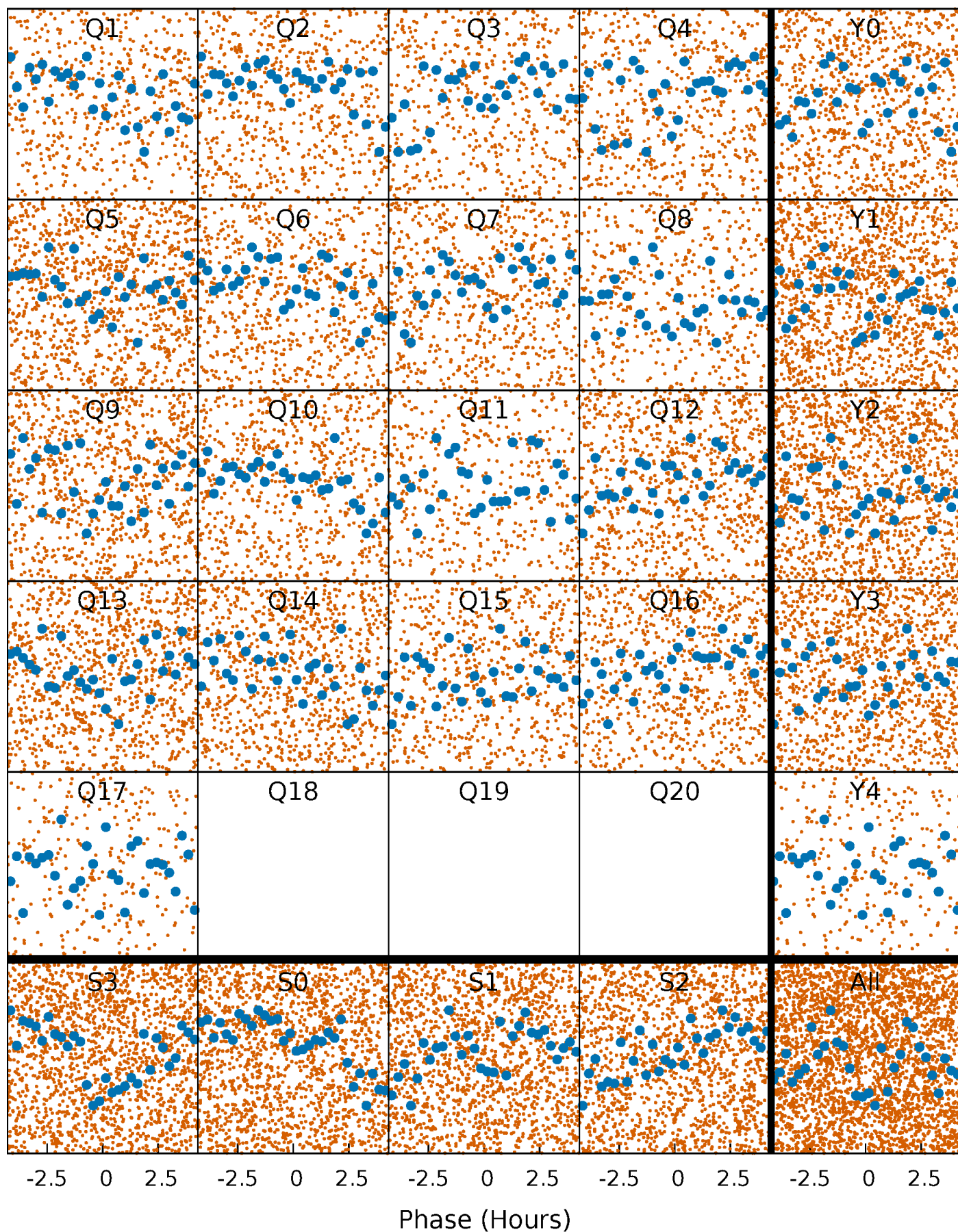


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



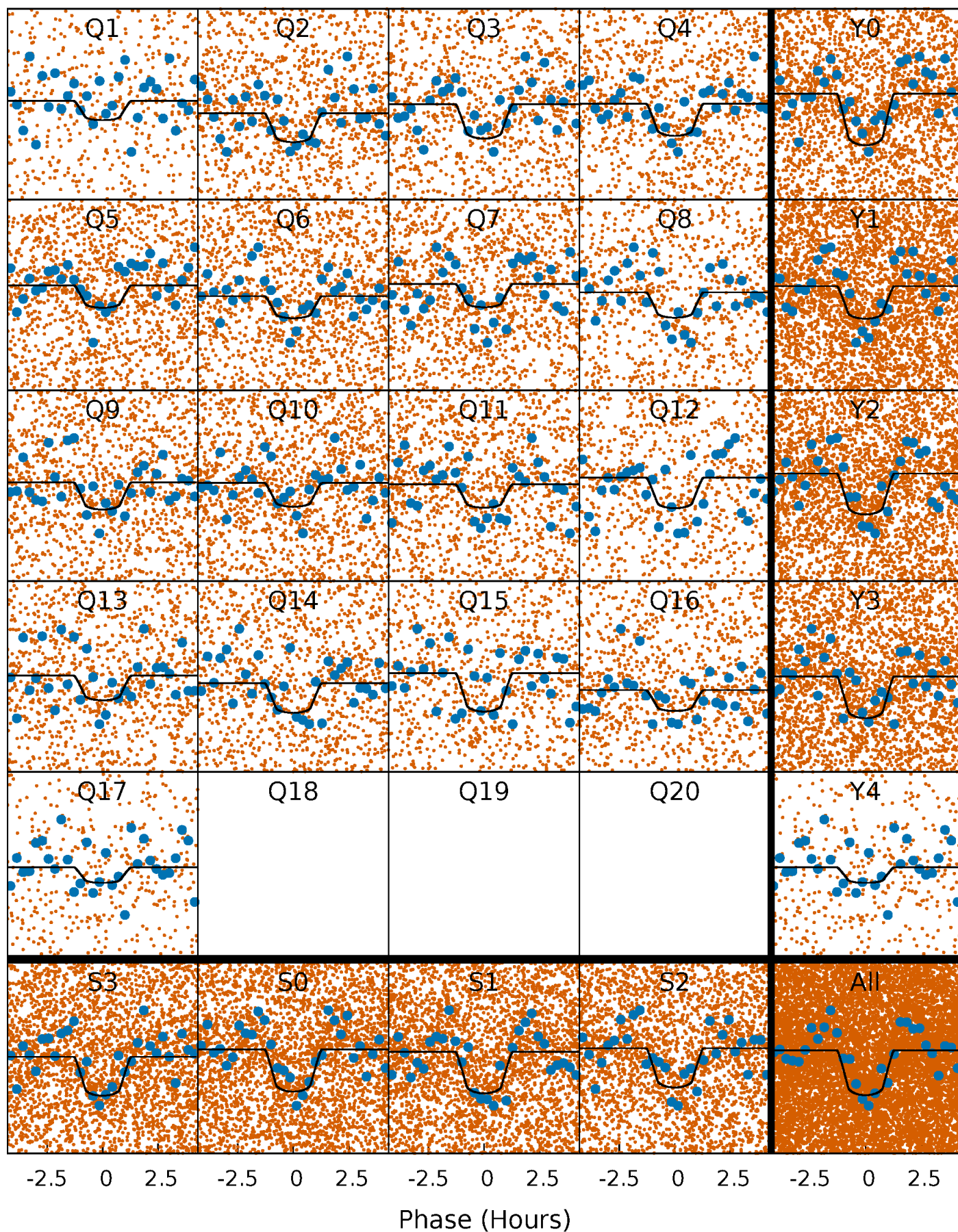
PDC Quarter-Phased Transit Curves

TCE 003441784-02 P= 0.603280 Days $T_0=131.704375$ (BKJD)



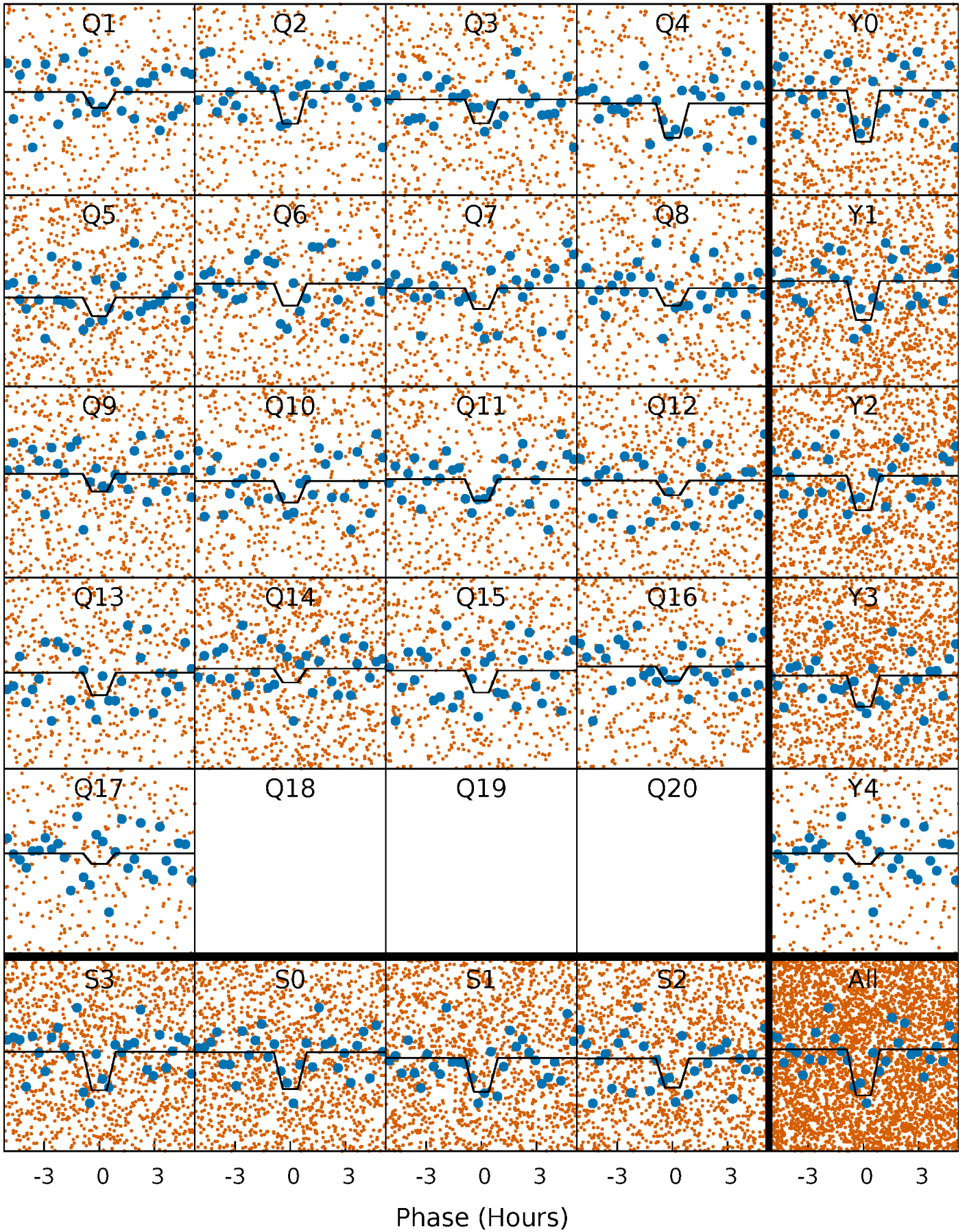
DV Quarter-Phased Transit Curves

TCE 003441784-02 P= 0.603280 Days $T_0=131.704375$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

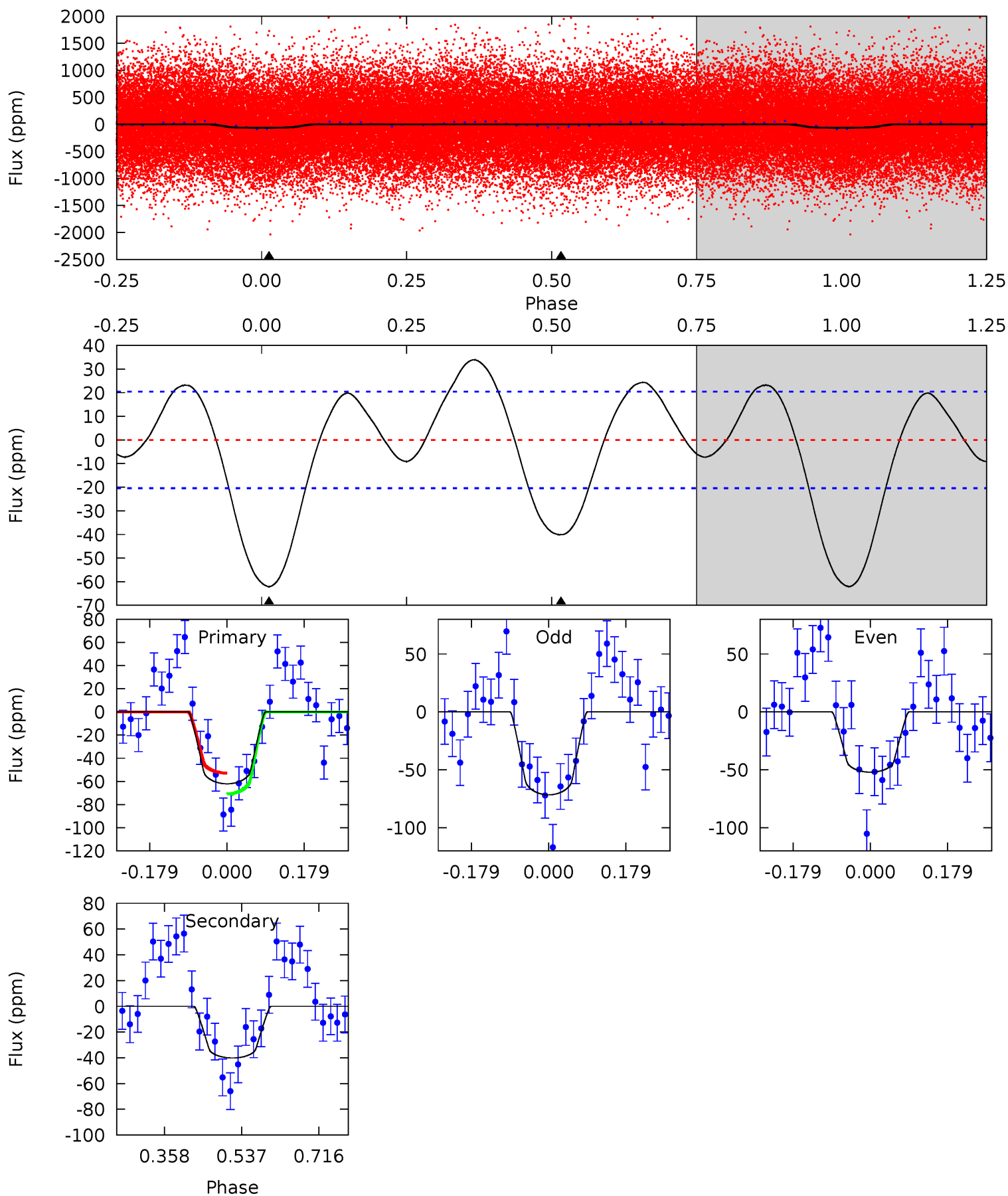
TCE 003441784-02 P= 0.603286 Days $T_0=131.703740$ (BKJD)



DV Model-Shift Uniqueness Test

003441784-02, P = 0.603280 Days, E = 131.101095 Days

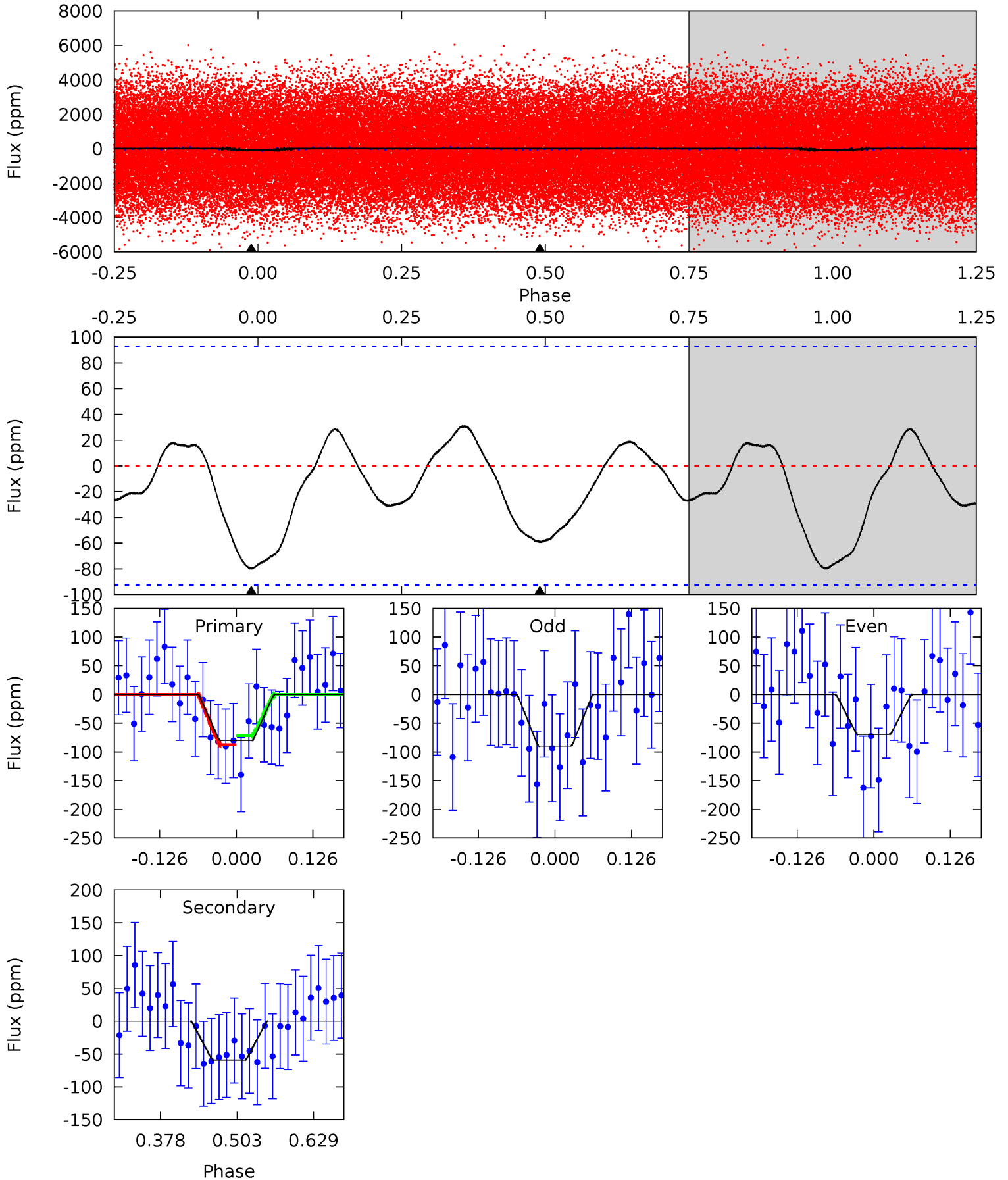
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	8.72	0	0	4.44	1.34	1.94	13.5	13.5	8.72	8.72	2.12	1.06	0.35	1.95



Alt Model-Shift Uniqueness Test

003441784-02, P = 0.603286 Days, E = 131.100454 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.89	2.88	0	0	4.52	1.53	0.94	3.89	3.89	2.88	2.88	0.50	1.06	0.28	0.39



Stellar Parameters For KIC 003441784

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7240^{+200}_{-343}	$4.178^{+0.072}_{-0.203}$	$0.210^{+0.150}_{-0.350}$	$1.717^{+0.565}_{-0.242}$	$1.620^{+0.204}_{-0.226}$	$0.451^{+0.176}_{-0.241}$
	+3%/-5%	+2%/-5%	+71%/-167%	+33%/-14%	+13%/-14%	+39%/-54%
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 003441784-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-40 ± 5	$1.85^{+0.93}_{-0.92}$	4637^{+340}_{-297}	5543^{+2869}_{-1166}	$1.713^{+5.166}_{-0.963}$
Alt.	-59 ± 21	$2.00^{+1.00}_{-0.99}$	4625^{+356}_{-294}	5888^{+3092}_{-1311}	$2.115^{+6.244}_{-1.304}$

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 $A_{obs} \gg 1.0$

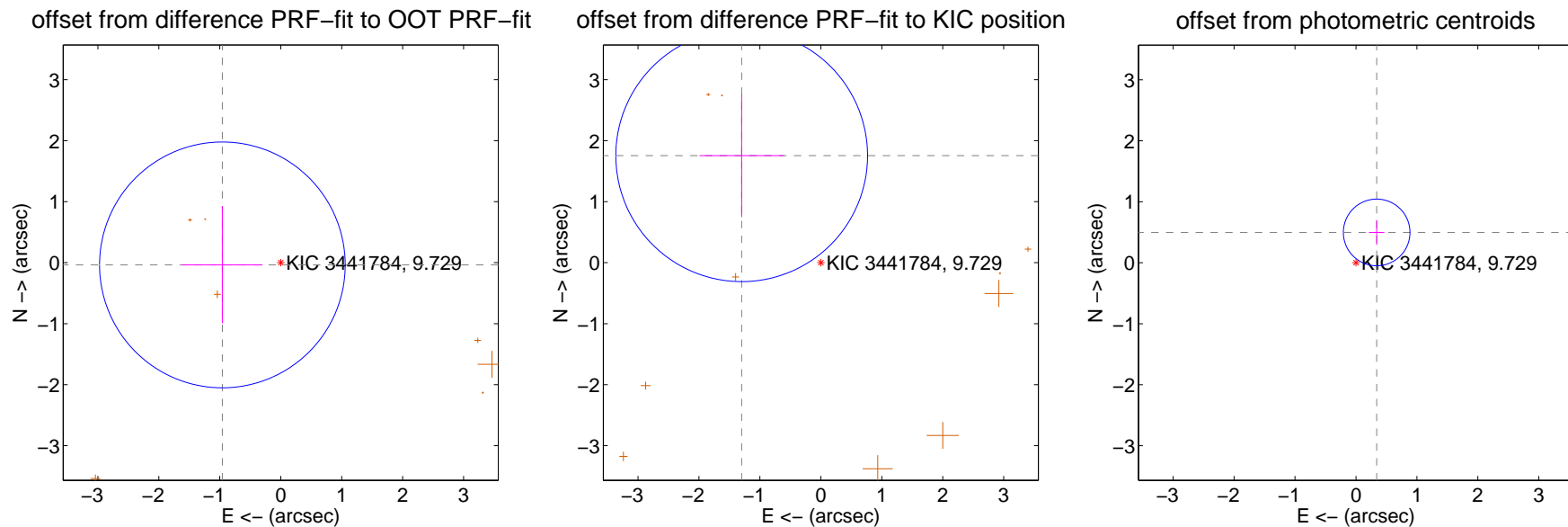
DV Centroid Data

Supplemental centroid analysis for 003441784-02. **Kepler magnitude: 9.73.** Transit SNR 12.78

There are 0 quarters with good PRF difference image offsets

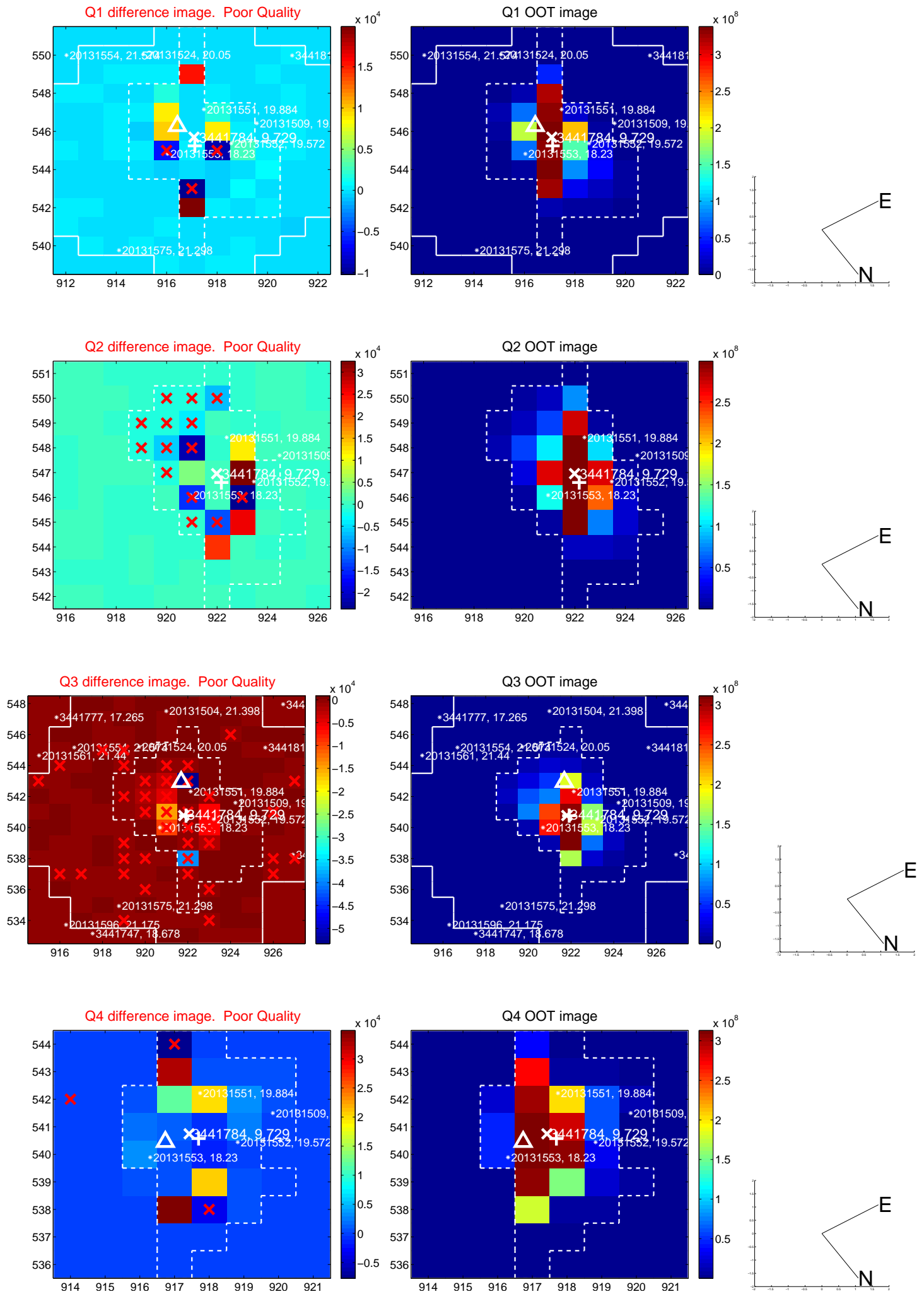
The direct PRF centroid is offset from the target star catalog position by about 1.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.959 ± 0.672	1.43	0.958 ± 0.658	-0.036 ± 0.960
PRF-fit source offset from KIC position	2.184 ± 0.688	3.17	1.299 ± 0.693	1.755 ± 1.007
photometric centroid source offset	0.60 ± 0.18	3.31	-0.34 ± 0.13	0.50 ± 0.20

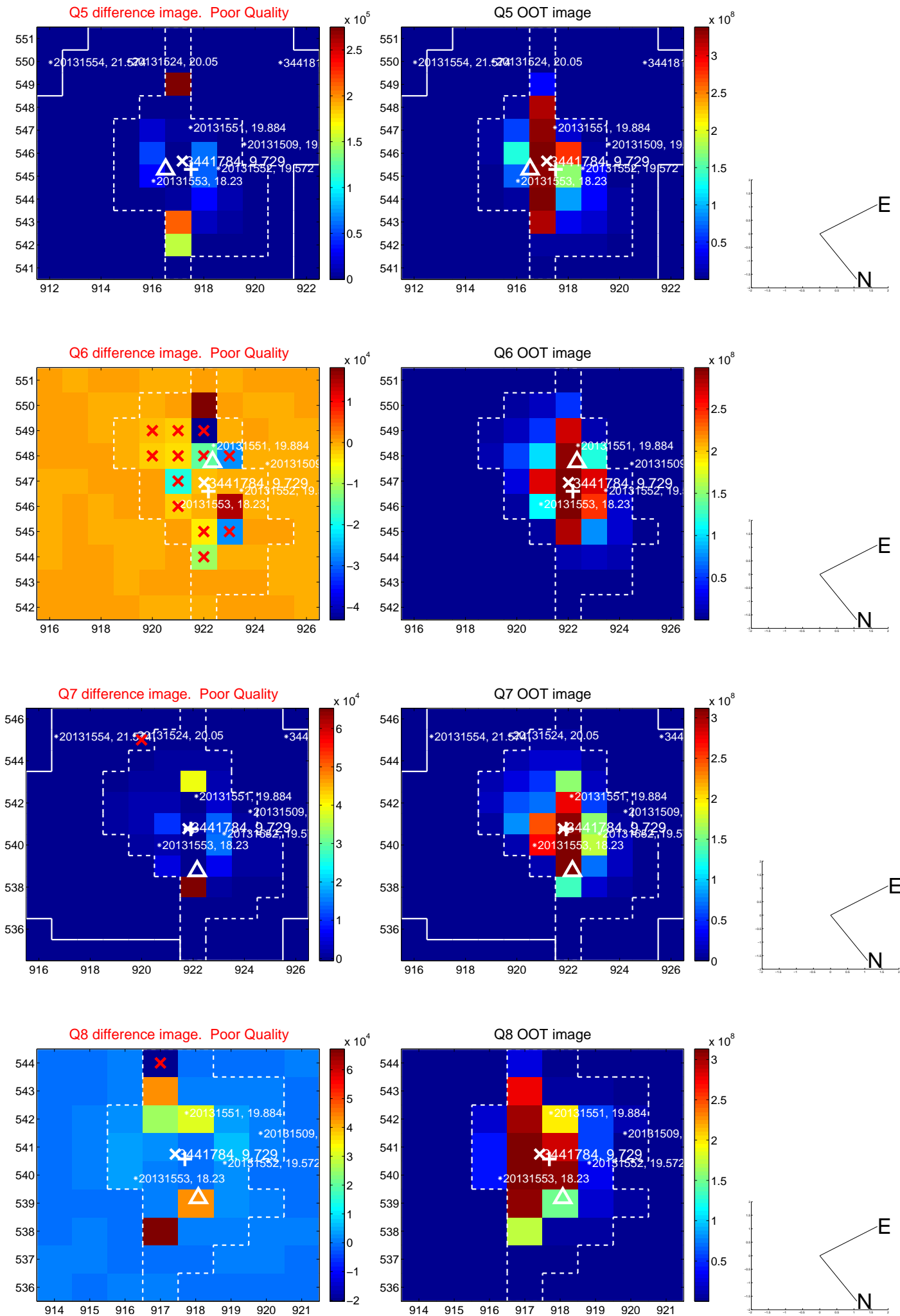


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

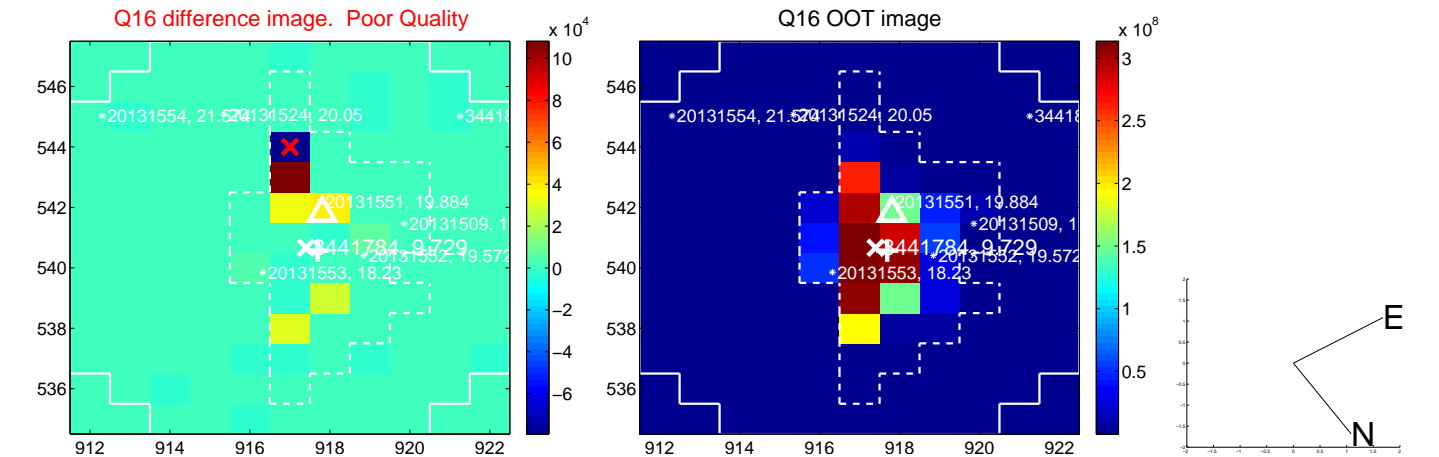
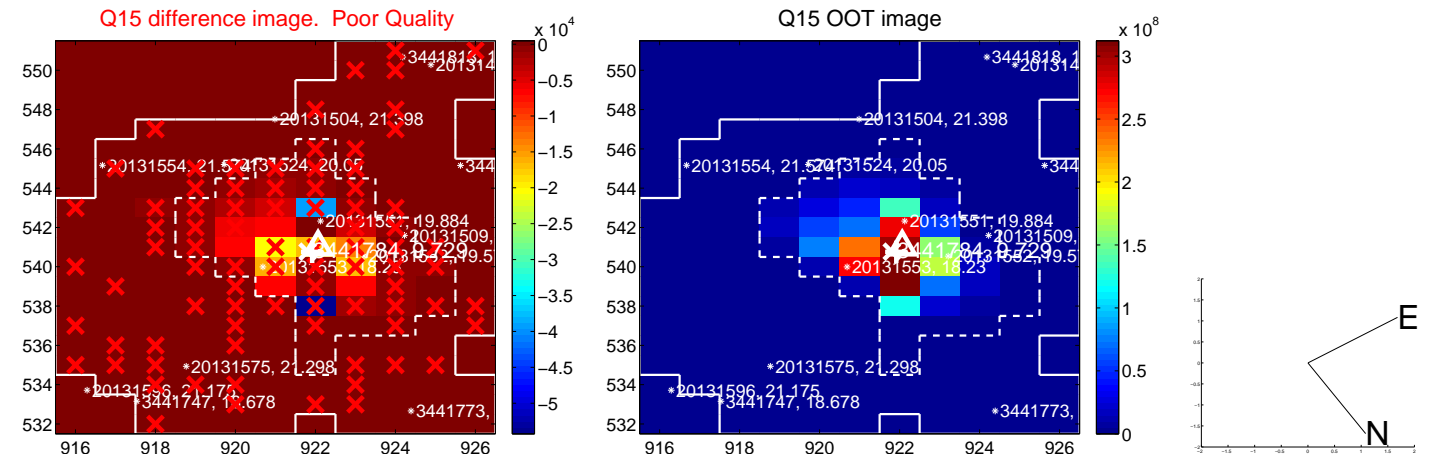
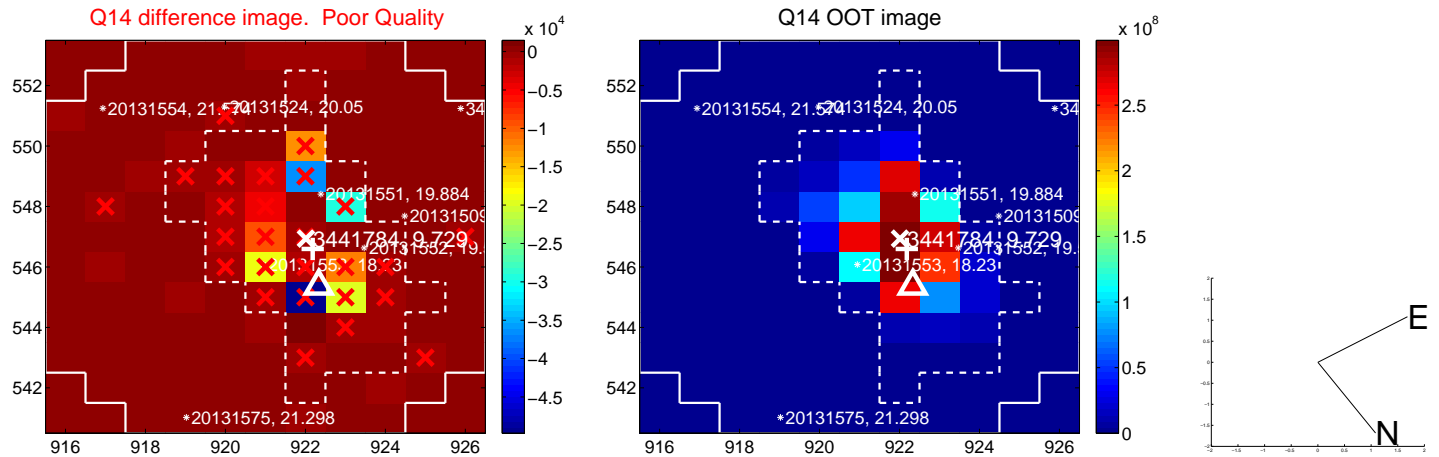
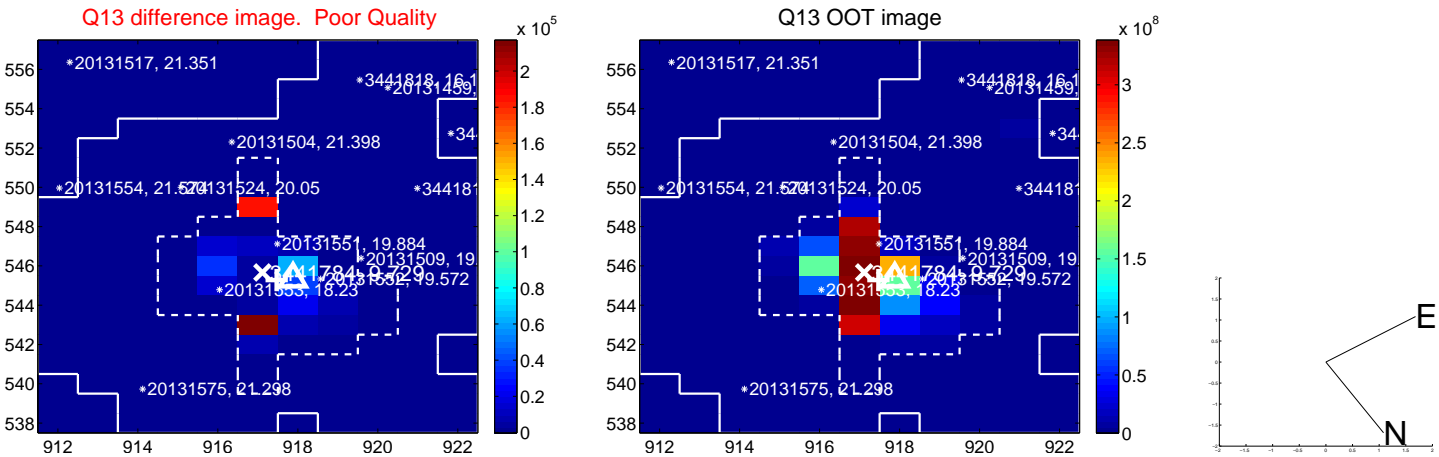
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



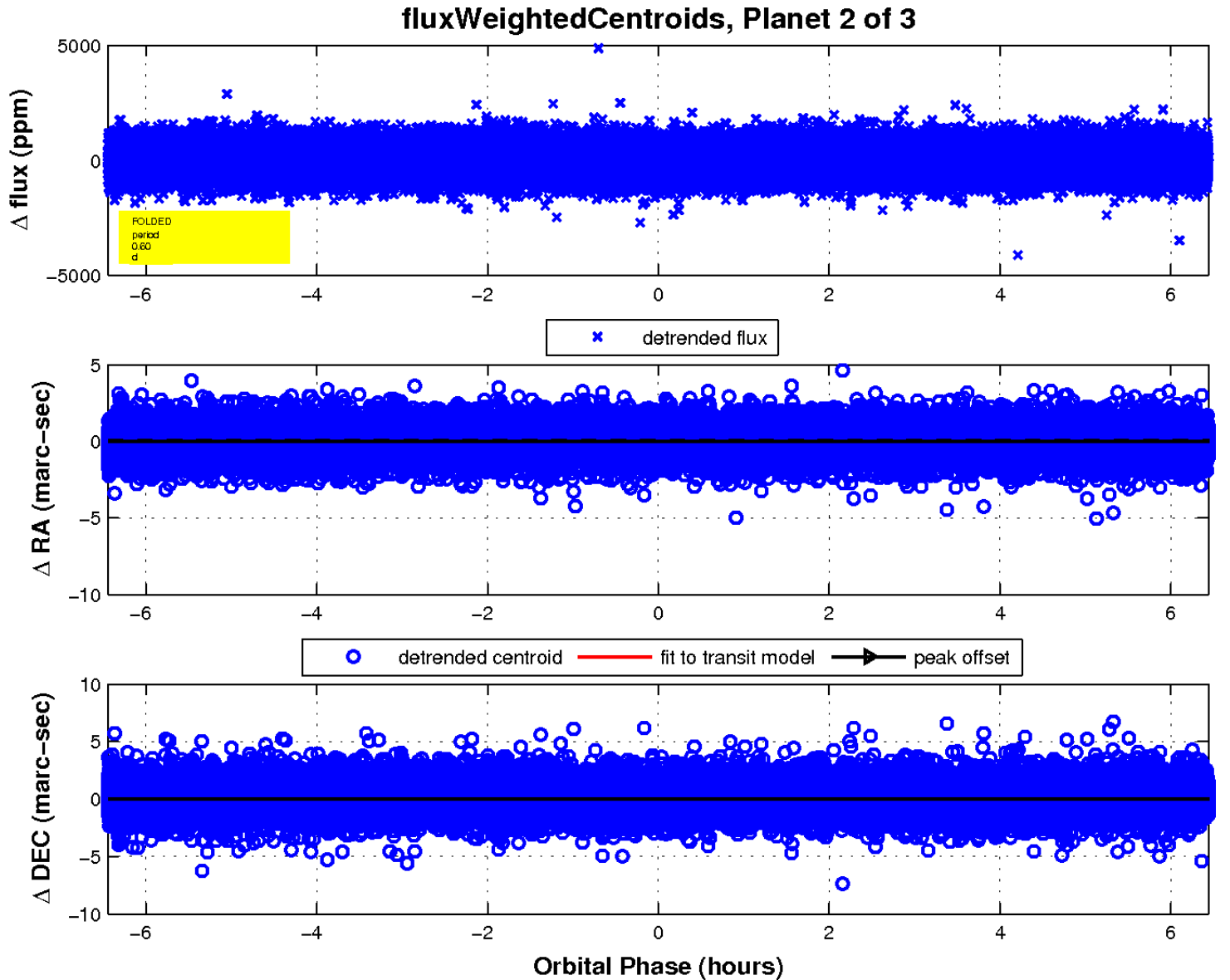
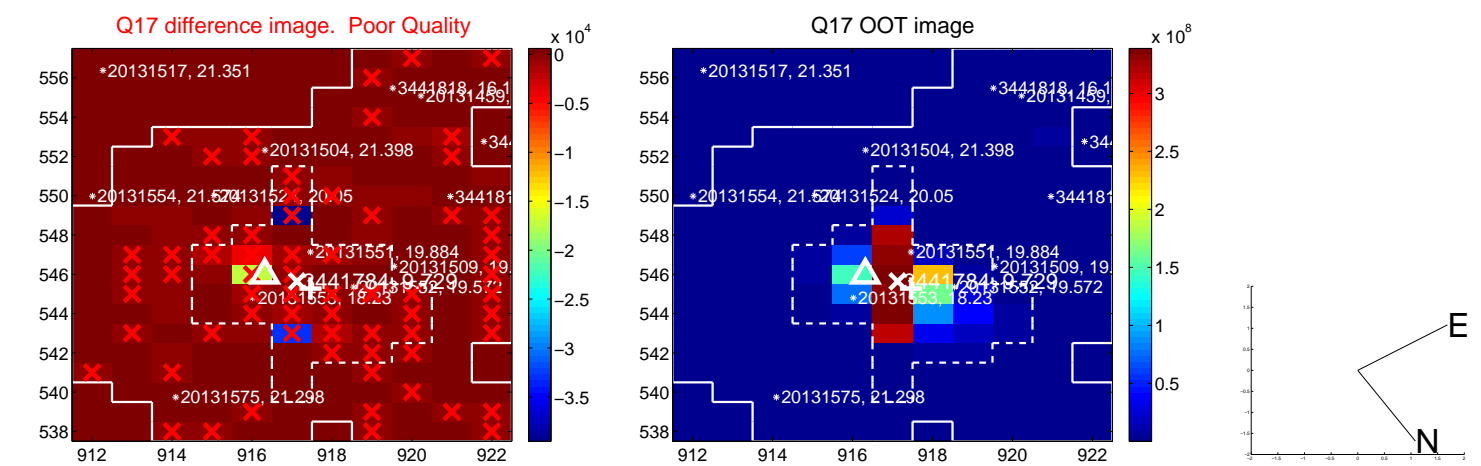
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



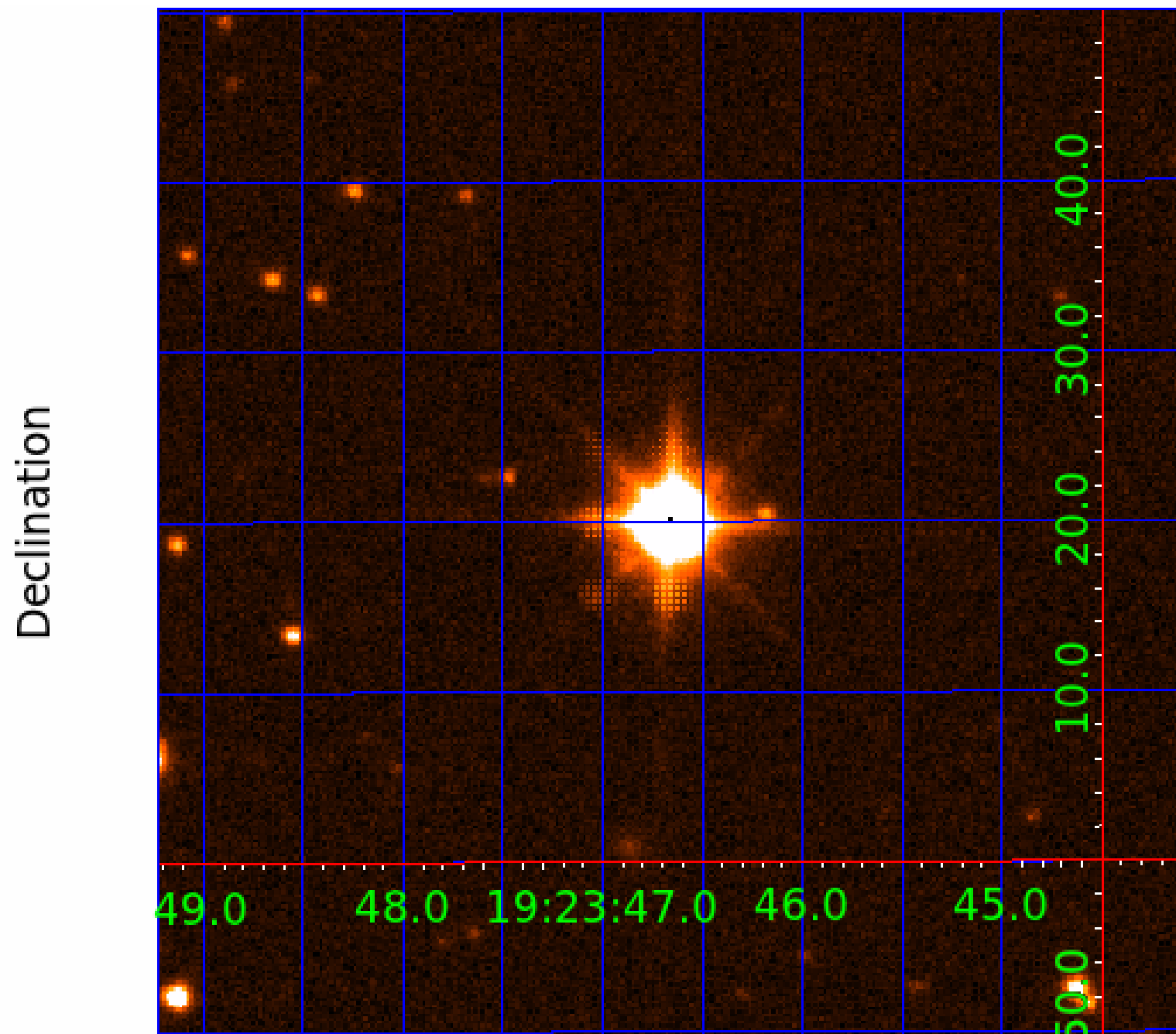
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 003441784

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})
003441784-01	OBS	0976.01	52.569014	132.402344	26764.4	6.686	537.0	526.4	1.72	7240	45.37	69.72
003441784-02	OBS	No	0.603280	131.704374	72.0	2.148	11.8	12.8	1.72	7240	1.70	26936.24
003441784-03	OBS	No	0.603258	132.030845	38.7	2.727	11.3	7.9	1.72	7240	1.09	26937.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003441784-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—CENT_SATURATED
003441784-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_SATURATED
003441784-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—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 003441784-03

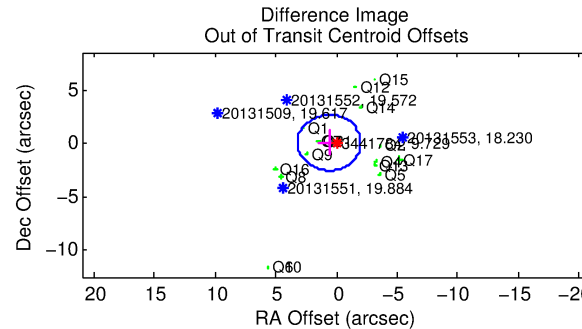
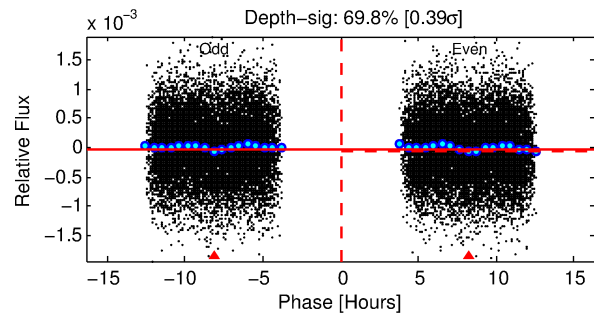
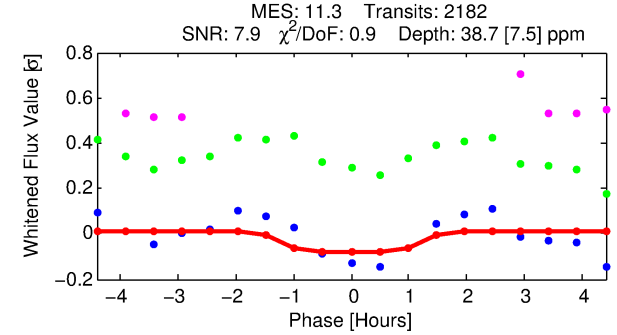
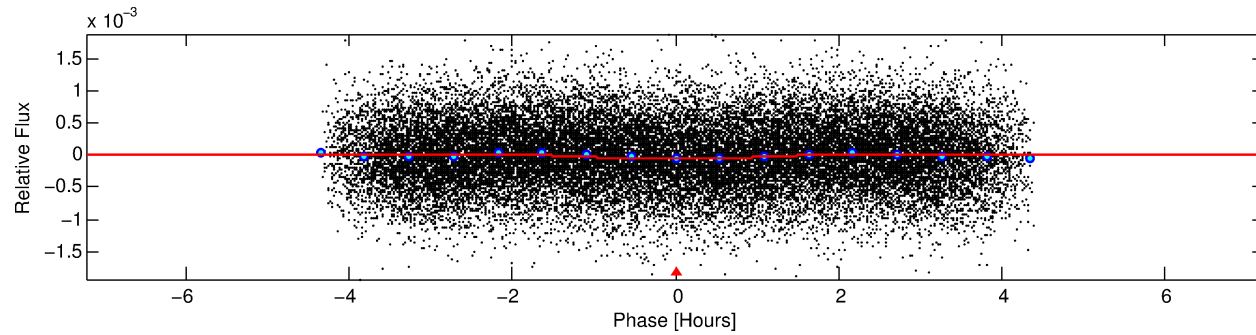
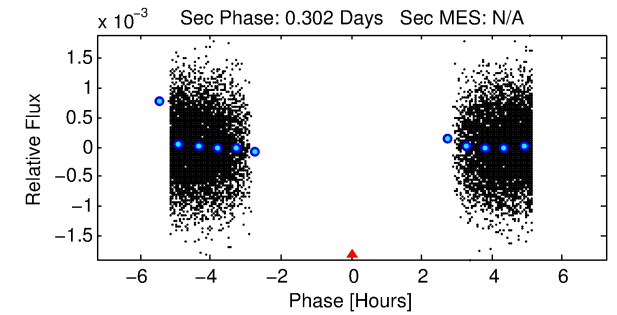
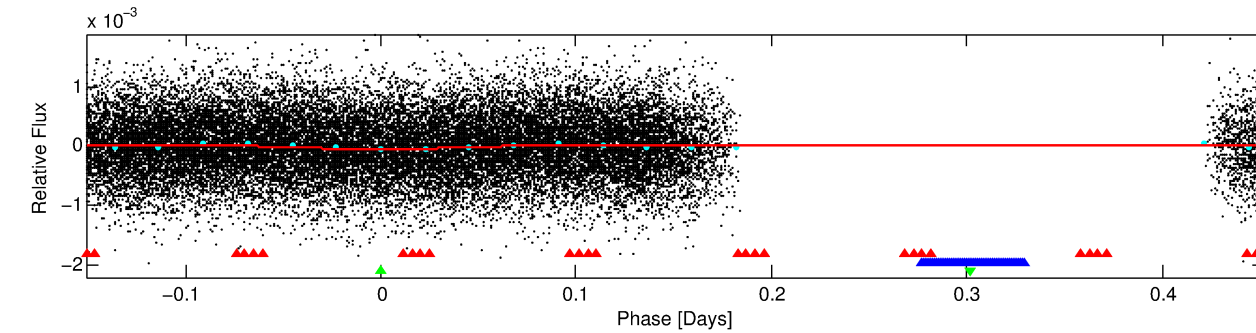
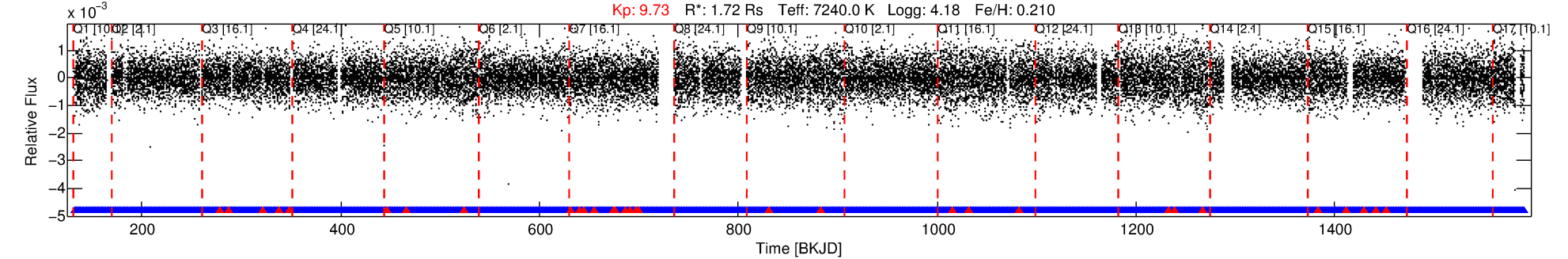
No Significant Match Found

DV One-Page Summary

KIC: 3441784 Candidate: 3 of 3 Period: 0.603 d

KOI: K00976 Corr: No Ephemeris Match

Kp: 9.73 R*: 1.72 Rs Teff: 7240.0 K Logg: 4.18 Fe/H: 0.210



DV Fit Results:

Period = 0.60326 [0.00002] d
Epoch = 132.0308 [0.0046] BKJD
Rp/R* = 0.0058 [0.0053]
a/R* = 1.73 [6.15]
b = 0.35 [13.46]
Seff = 26937.53 [11464.80]
Teff = 3267 [348] K
Rp = 1.09 [1.06] Re
a = 0.0164 [0.0044] AU

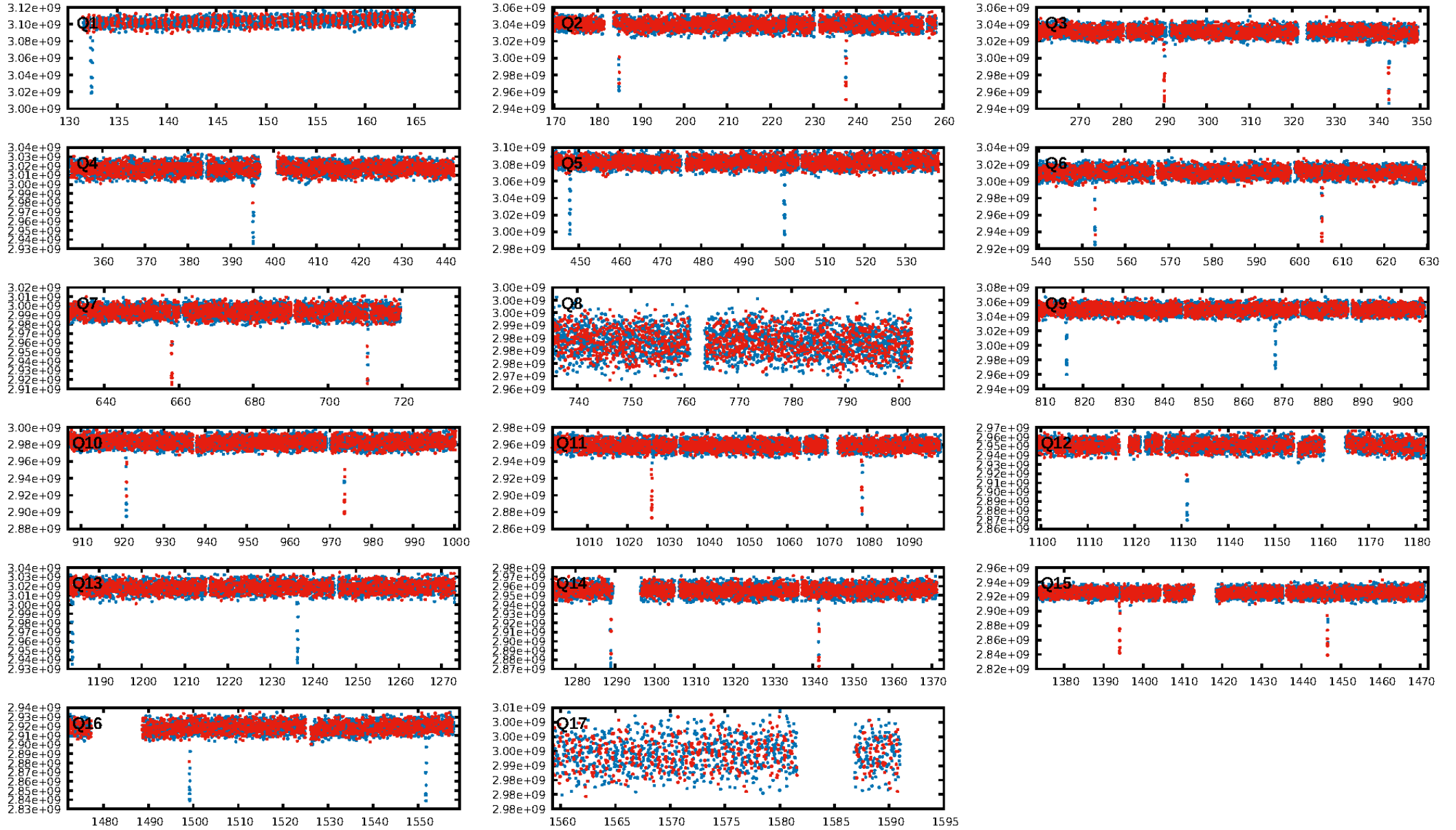
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.99e-14
RollingBand-fgt: 0.98 [2053/2085]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.1%
Centroid-so: 0.970 arcsec [2.99σ]
OotOffset-rm: 0.612 arcsec [0.70σ]
KicOffset-rm: 1.240 arcsec [2.14σ]
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]

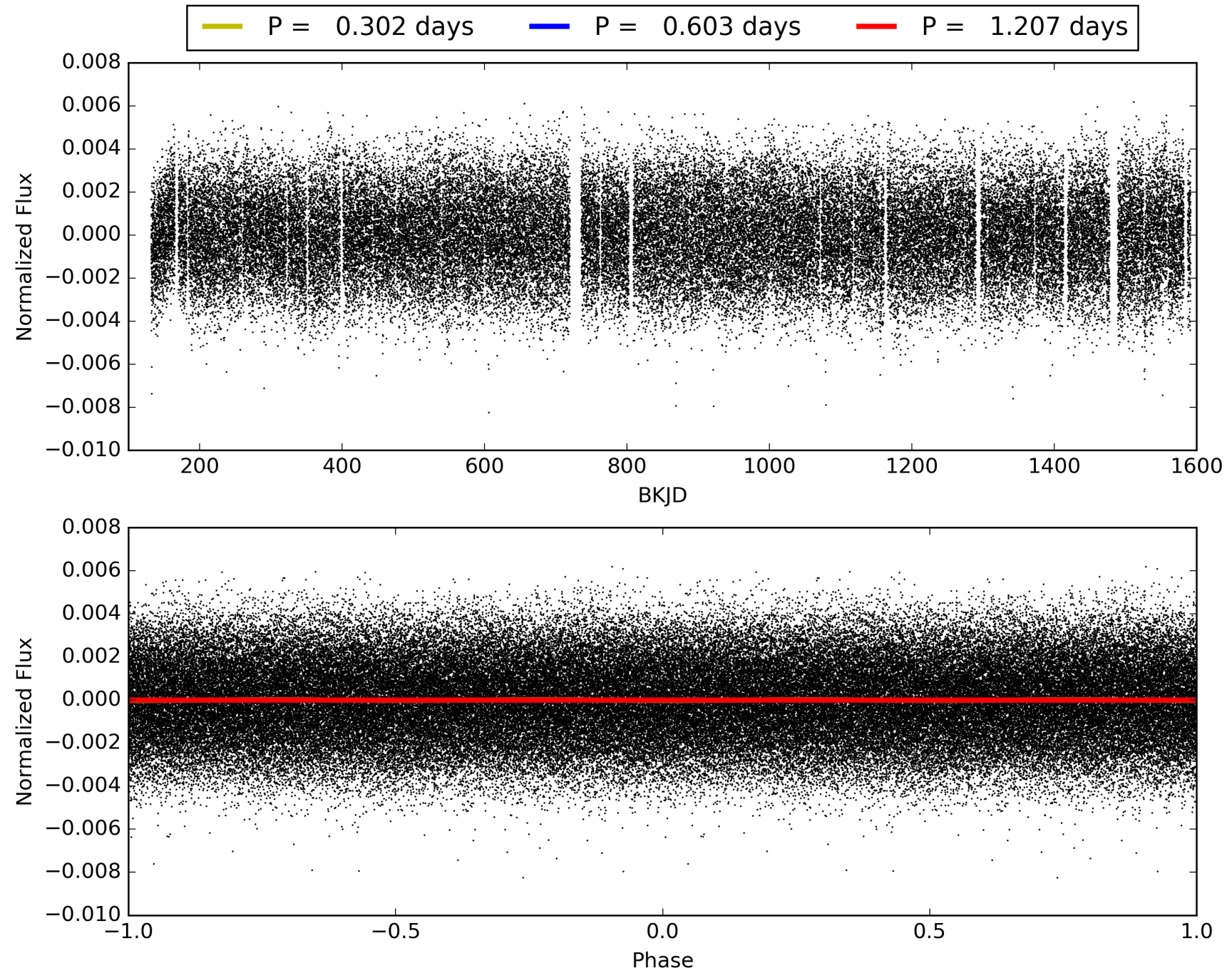
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:23:55 Z

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

TCE 003441784-03, PDC Light Curves

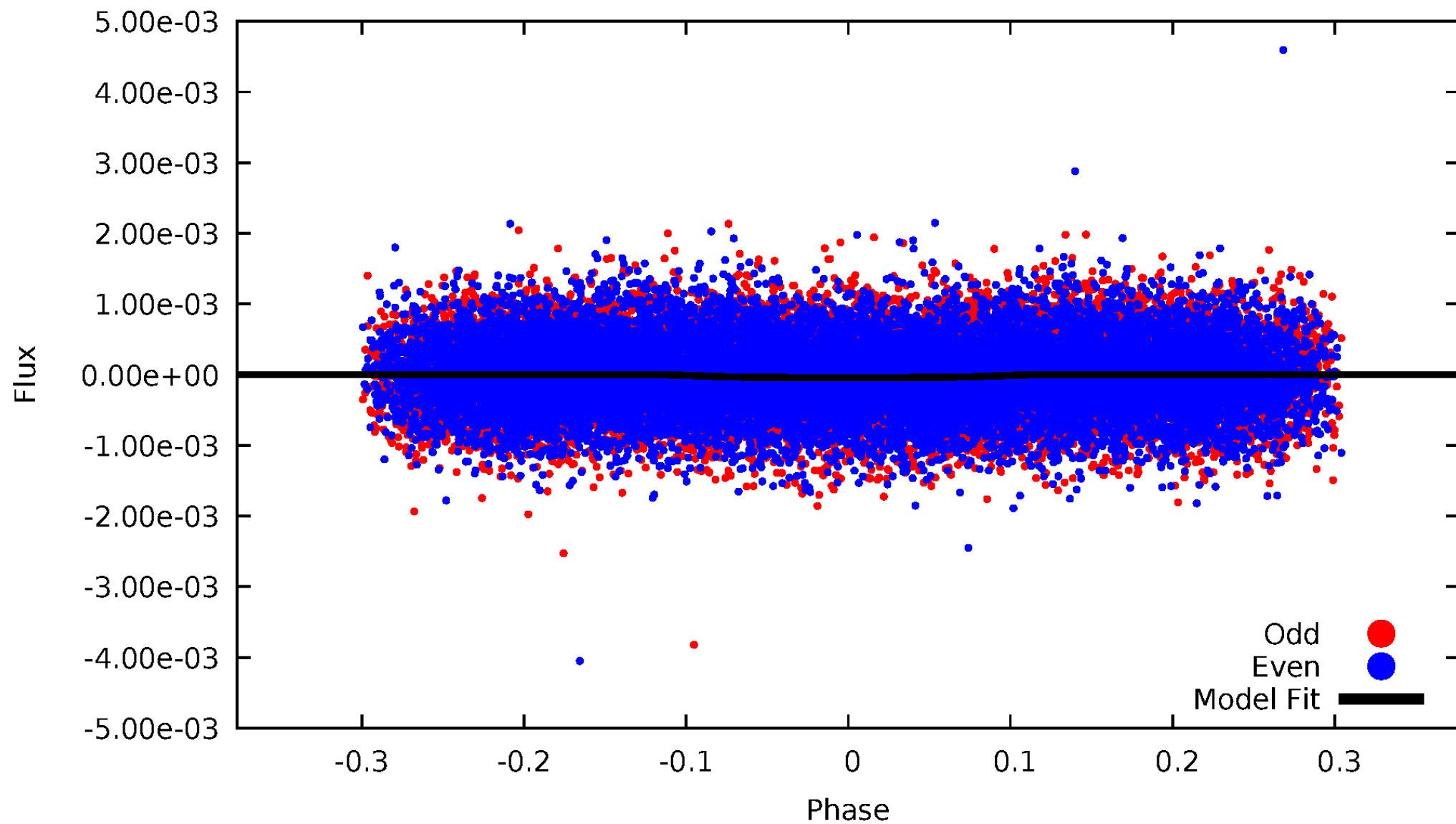


TCE 003441784-03



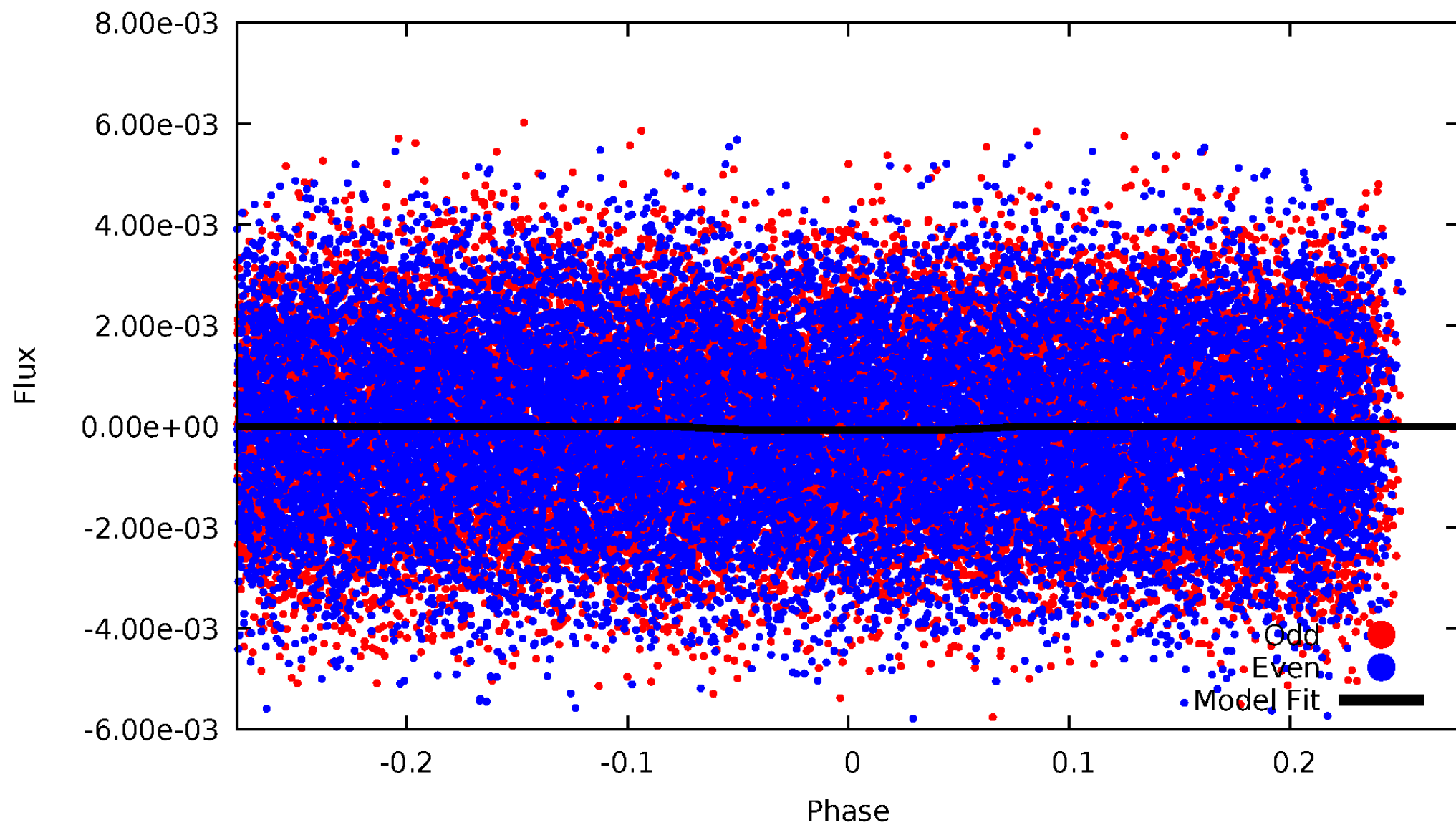
DV Odd/Even

TCE 003441784-03



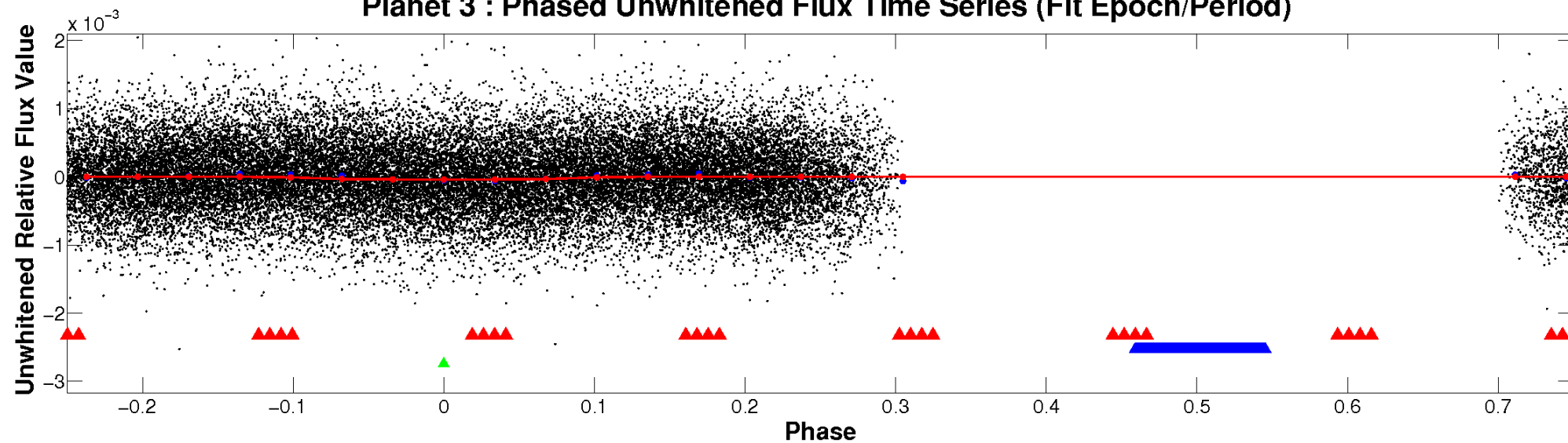
ALT Odd/Even

TCE 003441784-03

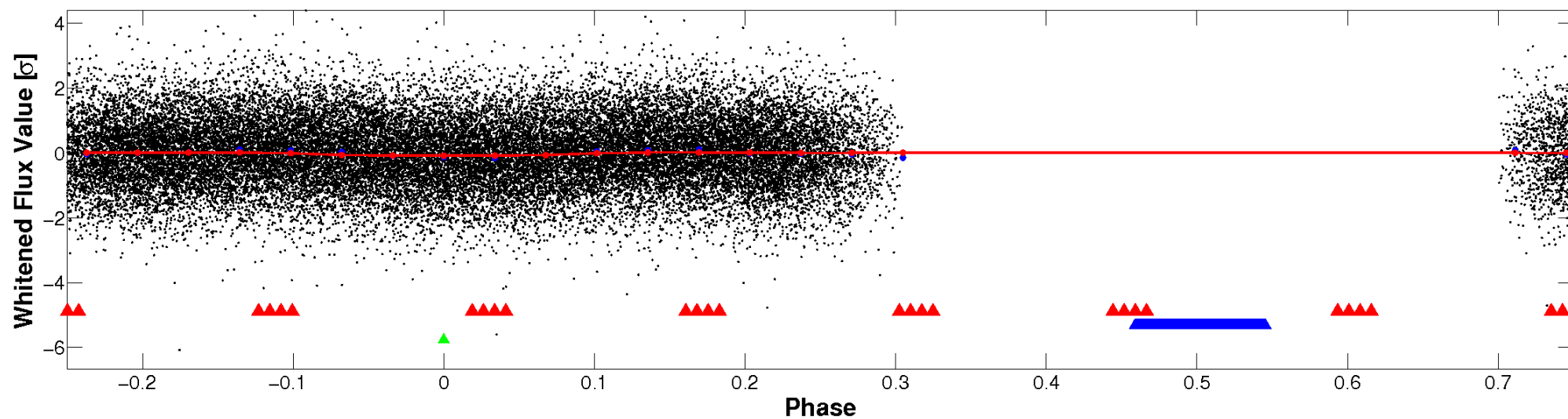


Non-Whitened Vs. Whitened Light Curve

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

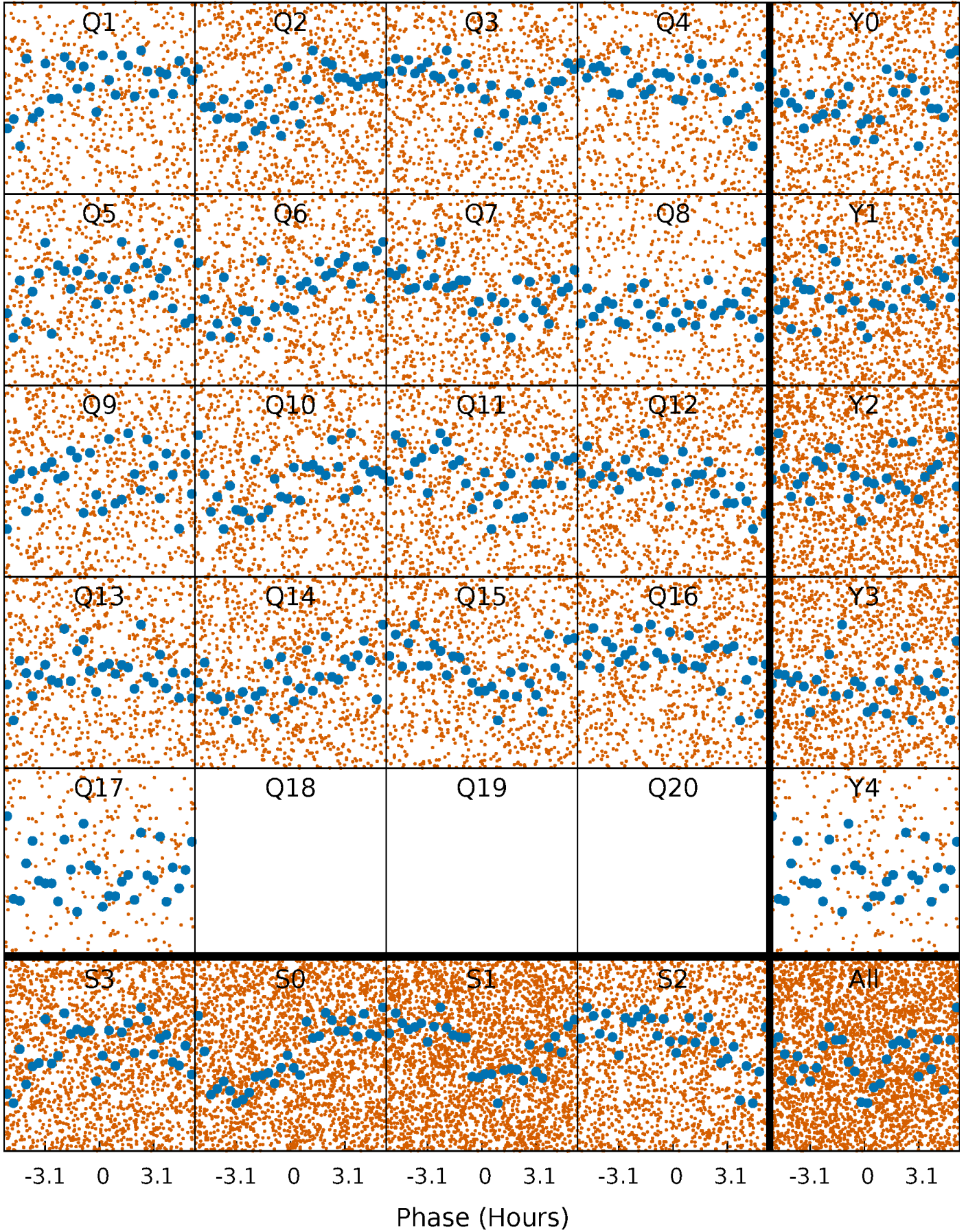


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



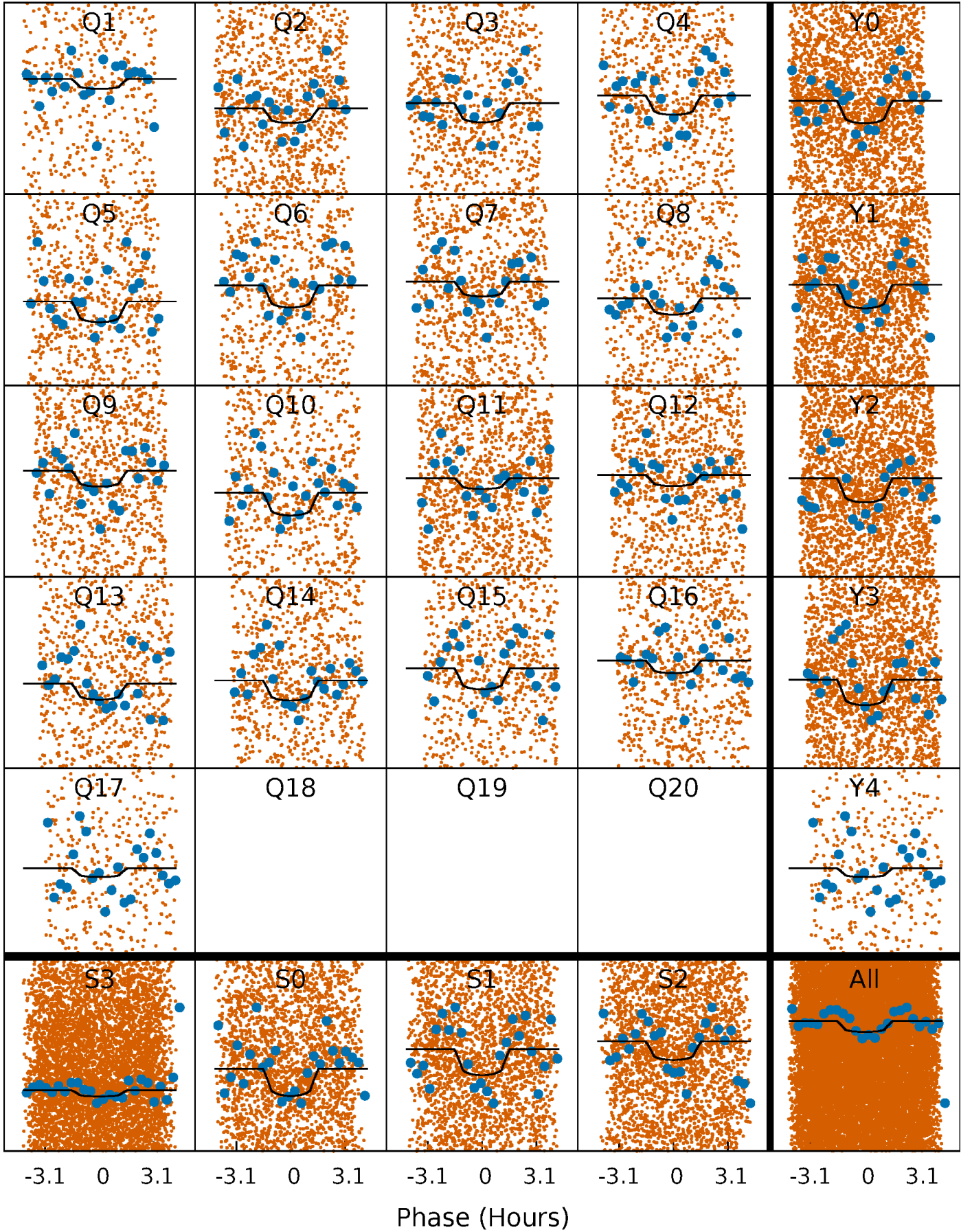
PDC Quarter-Phased Transit Curves

TCE 003441784-03 P= 0.603258 Days $T_0=132.030845$ (BKJD)



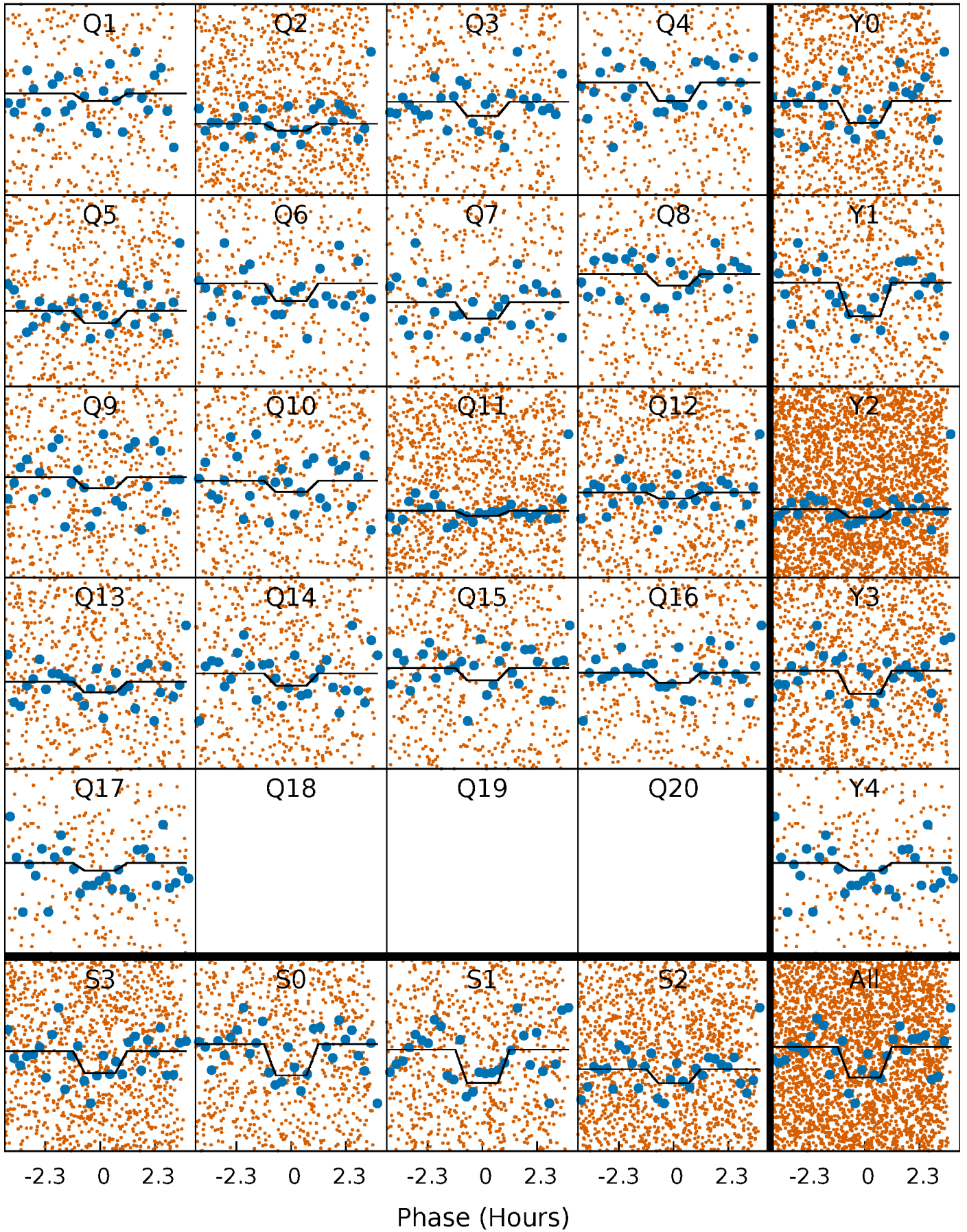
DV Quarter-Phased Transit Curves

TCE 003441784-03 $P = 0.603258$ Days $T_0 = 132.030845$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

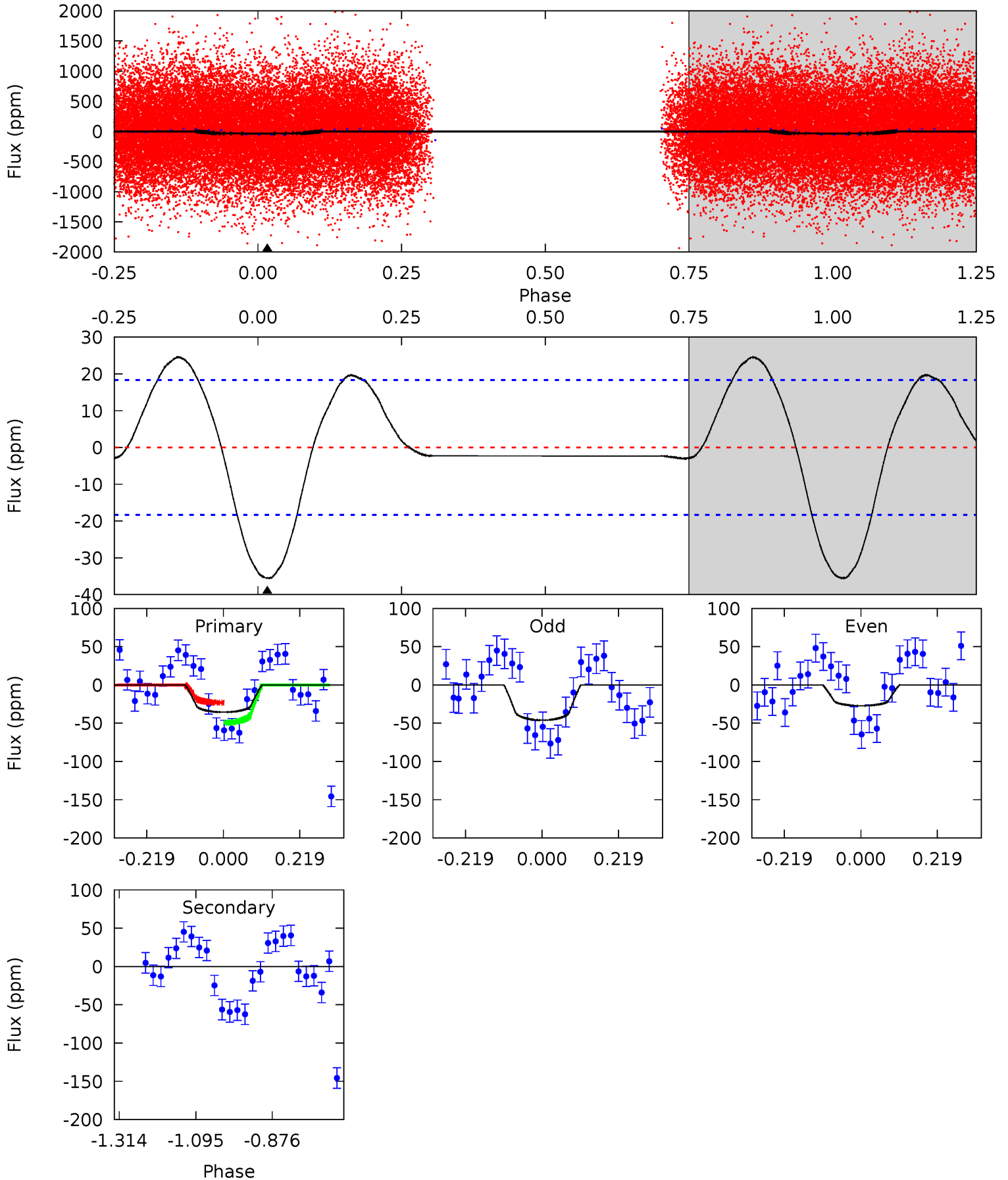
TCE 003441784-03 P= 0.603272 Days $T_0=132.030404$ (BKJD)



DV Model-Shift Uniqueness Test

003441784-03, P = 0.603258 Days, E = 131.427587 Days

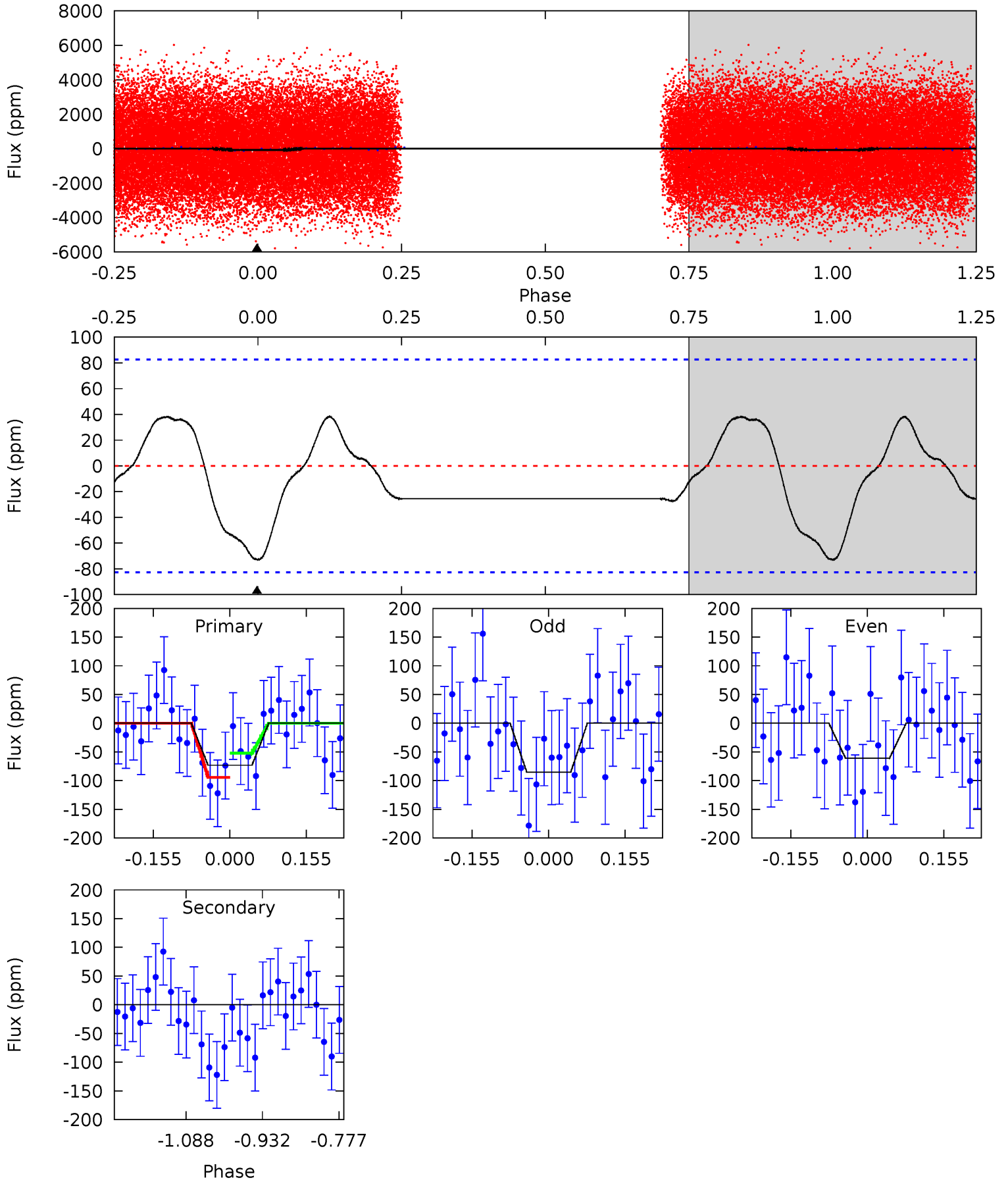
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.54	0	0	0	4.40	1.23	0.77	8.54	8.54	0	0	2.27	1.17	0.41	3.14



Alt Model-Shift Uniqueness Test

003441784-03, P = 0.603272 Days, E = 131.427132 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.96	0	0	0	4.47	1.42	1.04	3.96	3.96	0	0	0.65	1.00	0.35	1.14



Stellar Parameters For KIC 003441784

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7240^{+200}_{-343}	$4.178^{+0.072}_{-0.203}$	$0.210^{+0.150}_{-0.350}$	$1.717^{+0.565}_{-0.242}$	$1.620^{+0.204}_{-0.226}$	$0.451^{+0.176}_{-0.241}$
	+3%/-5%	+2%/-5%	+71%/-167%	+33%/-14%	+13%/-14%	+39%/-54%
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 003441784-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 4	$1.37^{+1.01}_{-0.86}$	4626^{+343}_{-266}	-4102^{+7494}_{-840}	$-0.002^{+0.403}_{-0.537}$
Alt.	0 ± 18	$1.75^{+1.09}_{-0.89}$	4607^{+353}_{-251}	-4098^{+9094}_{-1491}	$-0.016^{+1.216}_{-1.163}$

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 $A_{obs} \gg 1.0$

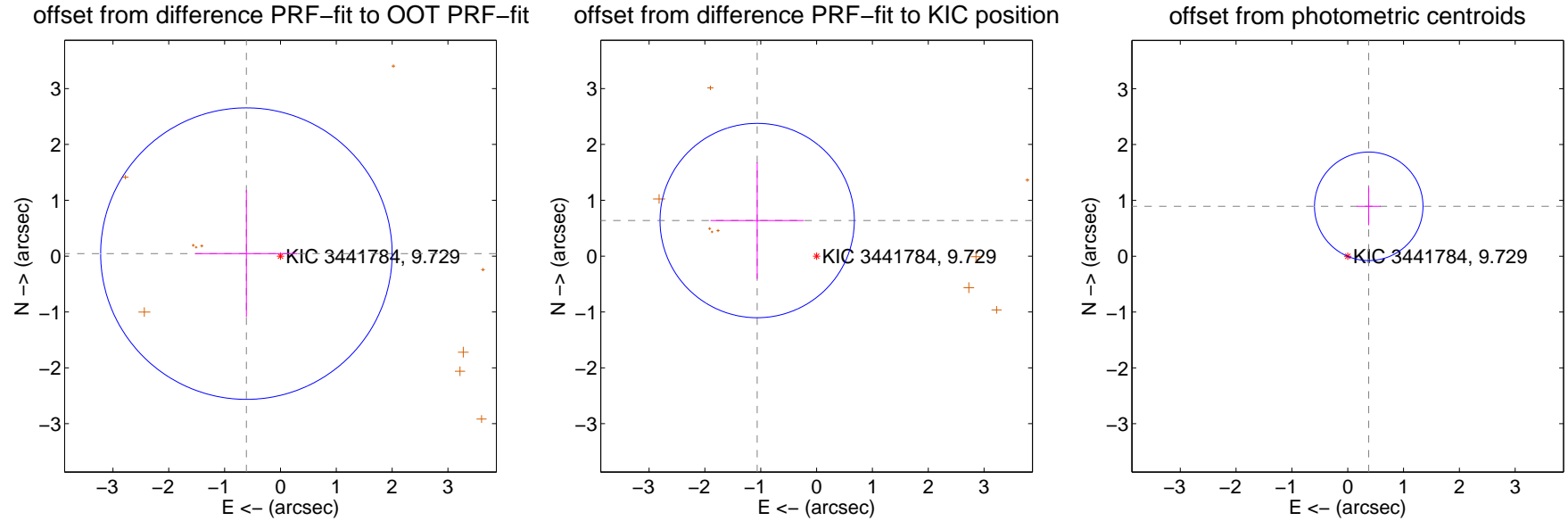
DV Centroid Data

Supplemental centroid analysis for 003441784-03. **Kepler magnitude: 9.73.** Transit SNR 7.86

There are 0 quarters with good PRF difference image offsets

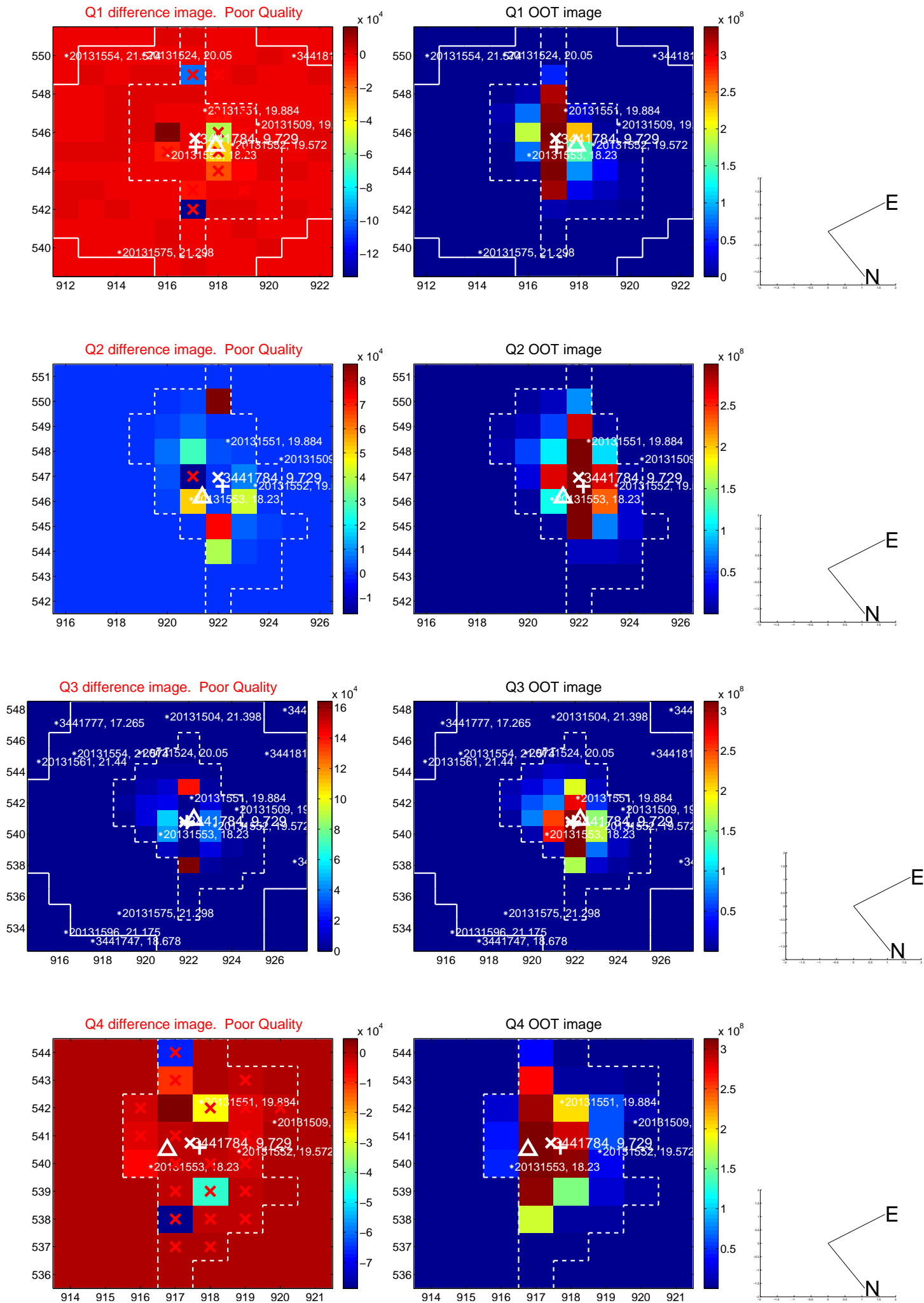
The direct PRF centroid is offset from the target star catalog position by about 1.98 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.612 ± 0.870	0.70	0.610 ± 0.917	0.045 ± 1.137
PRF-fit source offset from KIC position	1.240 ± 0.580	2.14	1.064 ± 0.836	0.637 ± 1.043
photometric centroid source offset	0.97 ± 0.32	2.99	-0.38 ± 0.21	0.89 ± 0.34

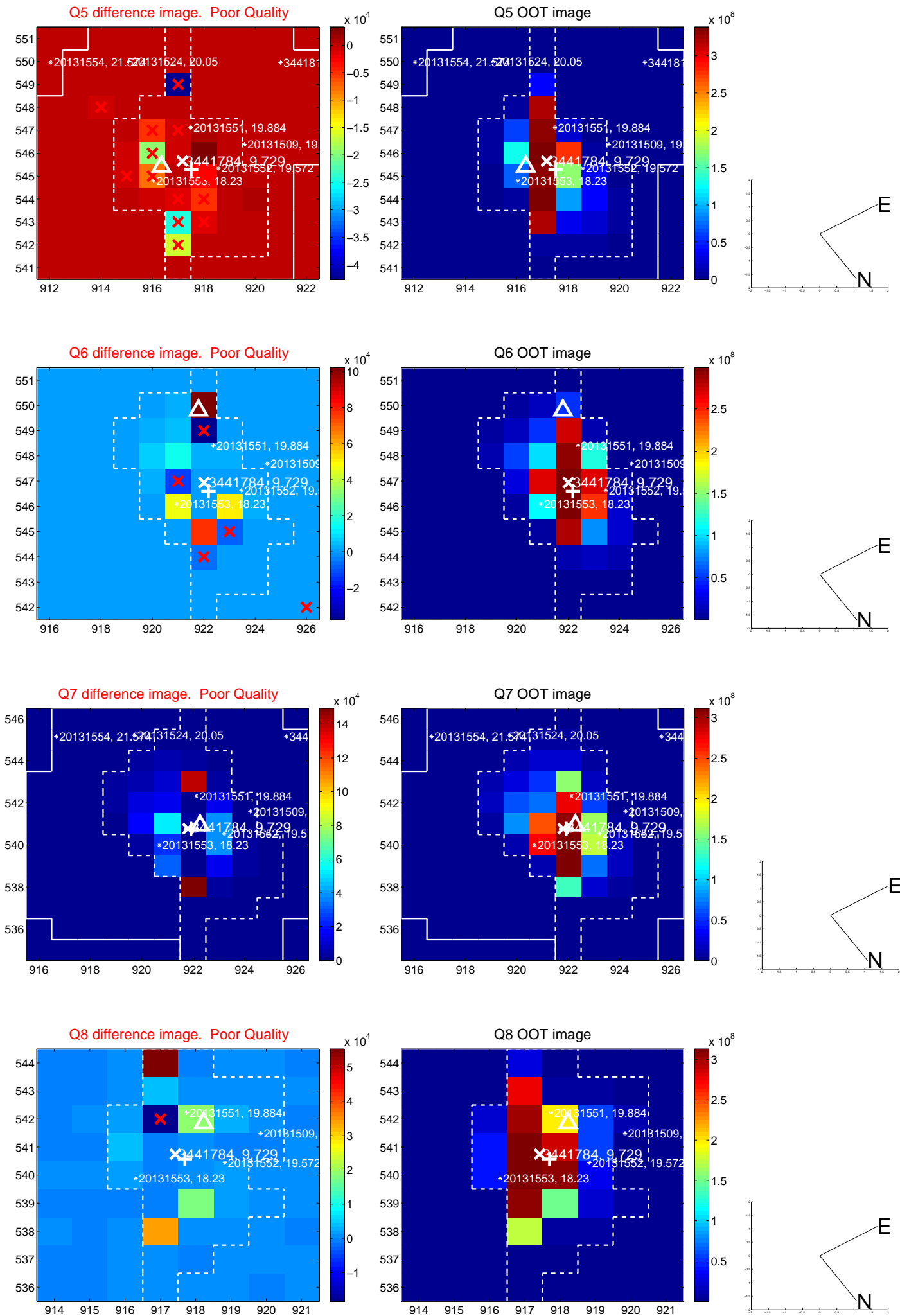


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

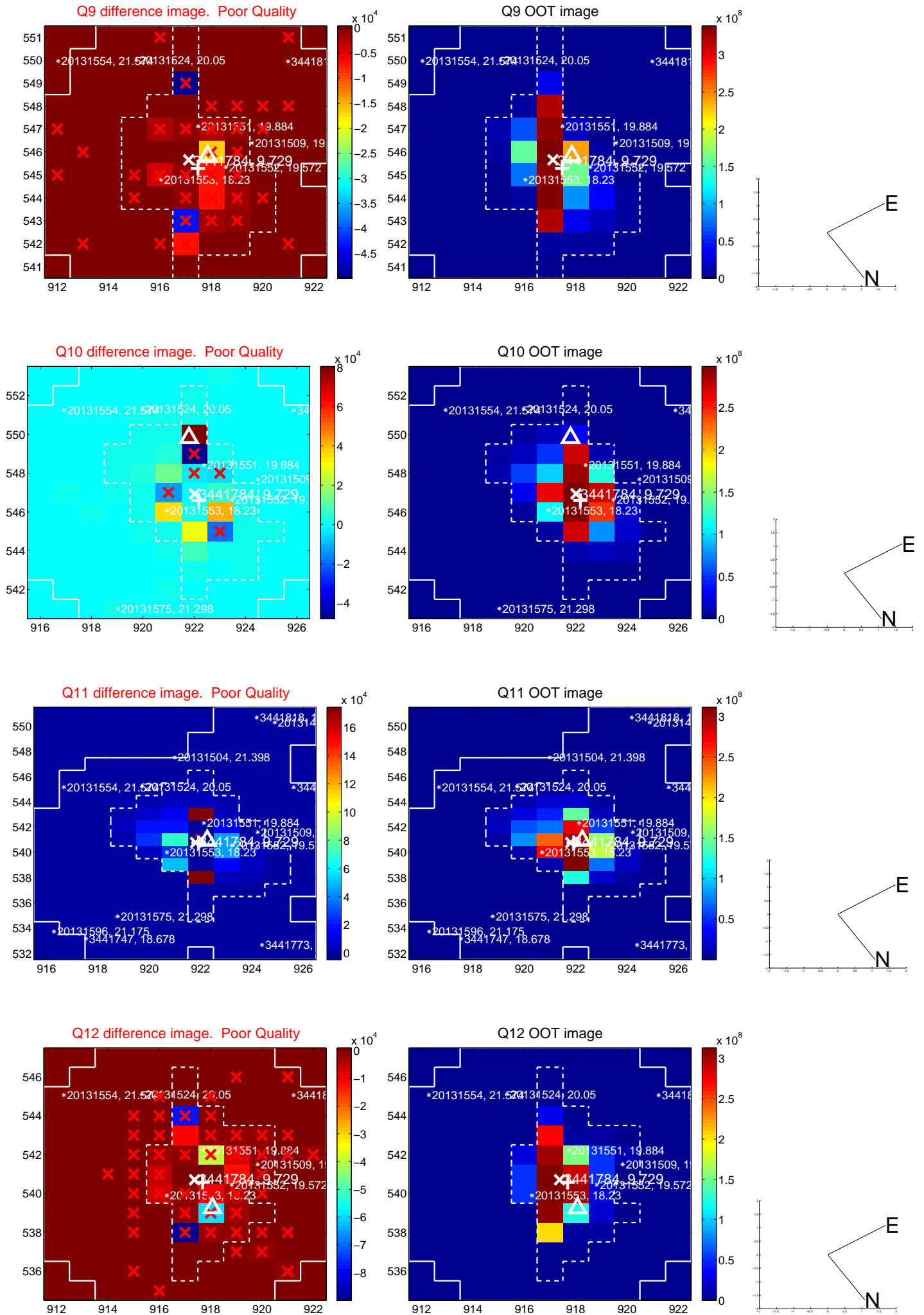
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



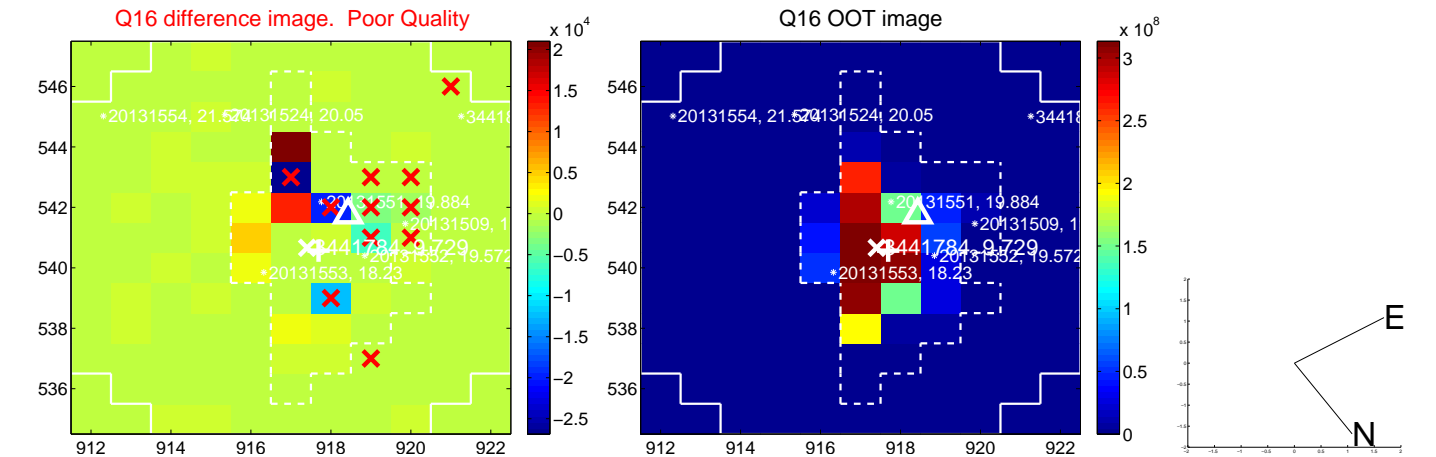
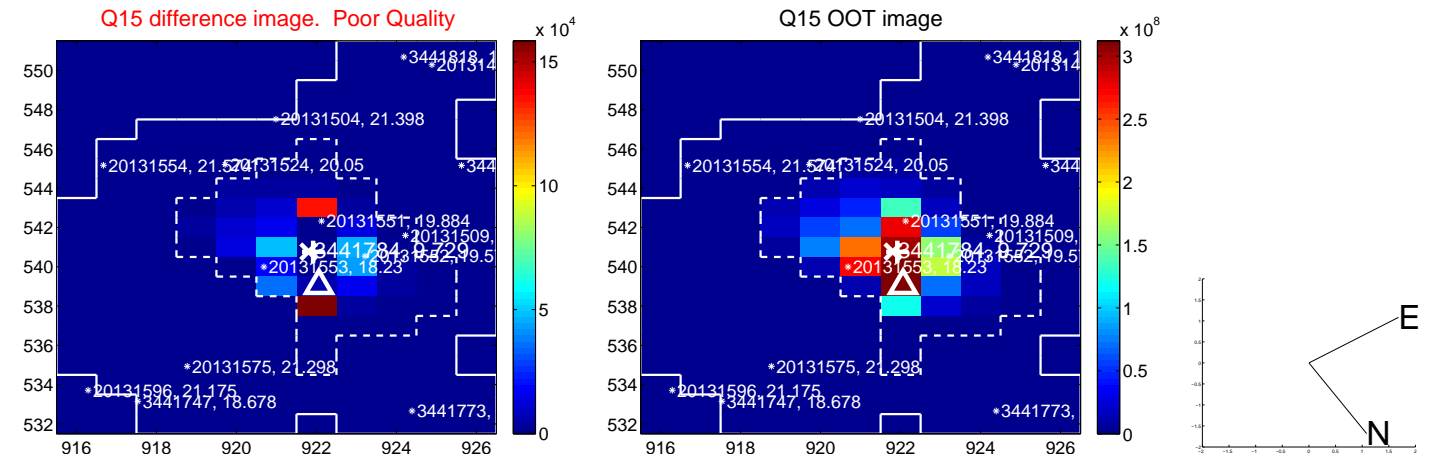
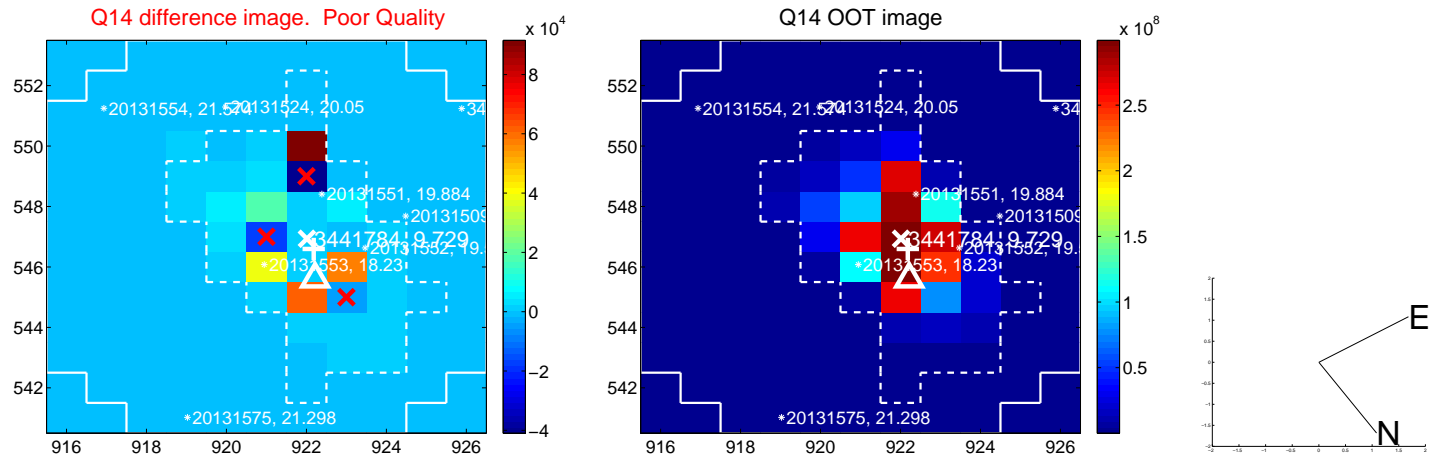
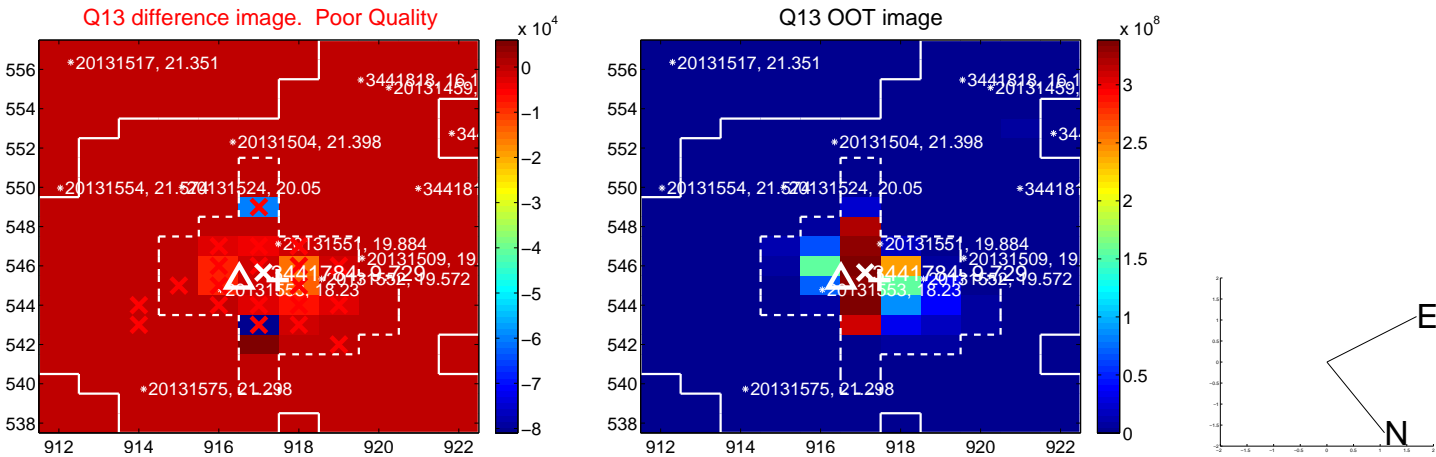
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



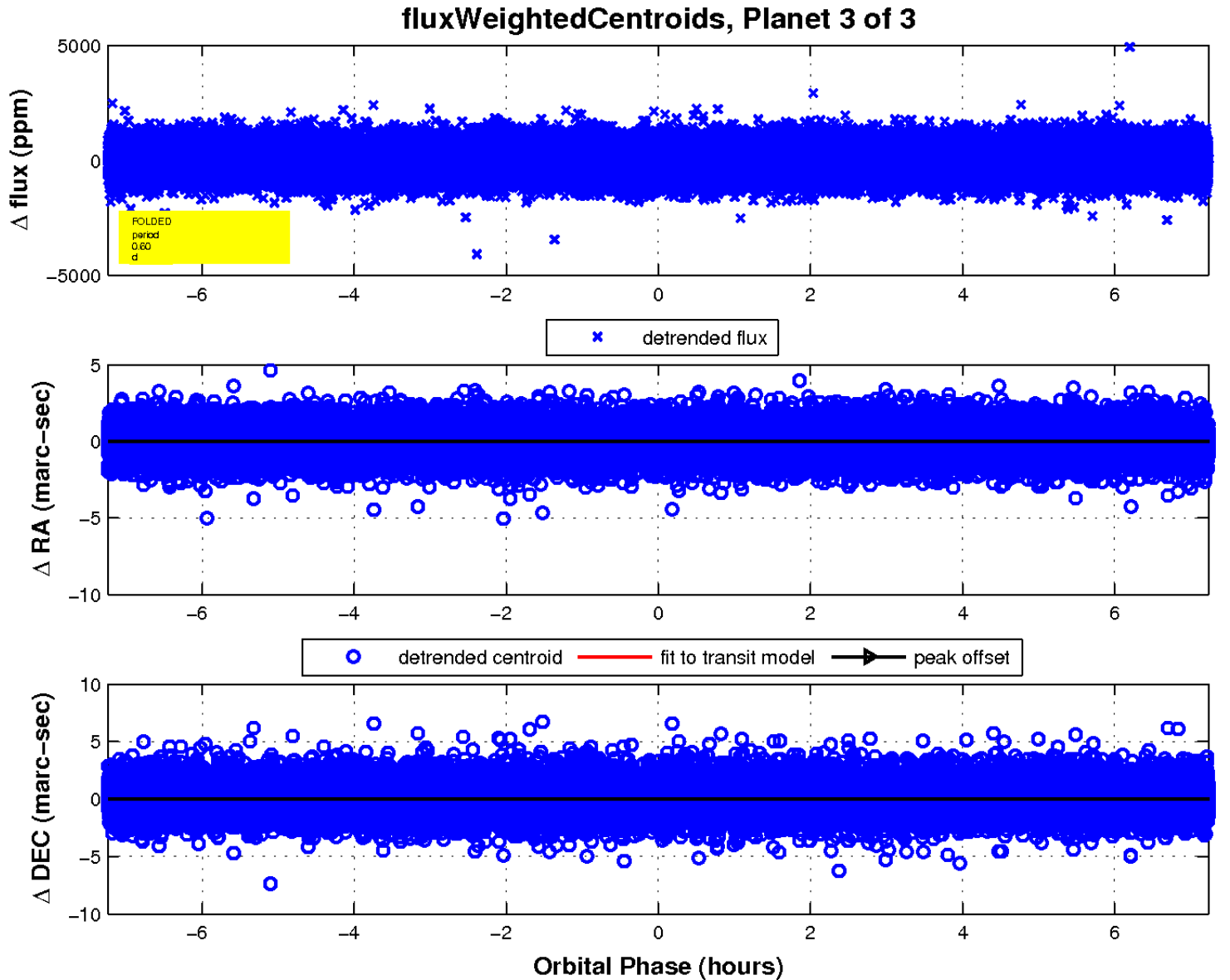
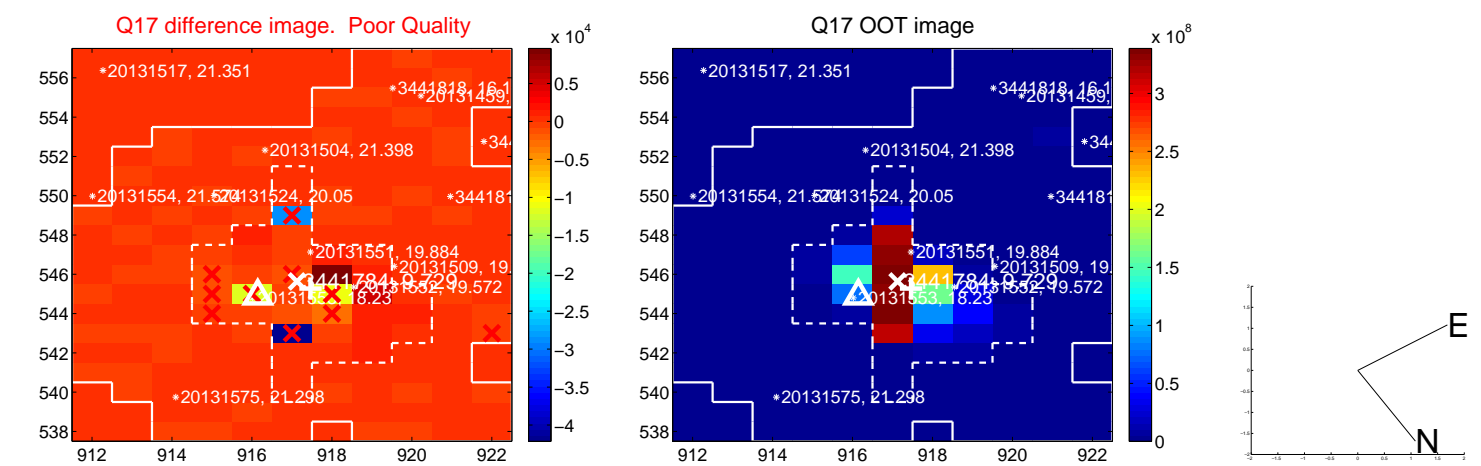
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

