

KIC 008346038

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})
008346038-01	OBS	No	11.082577	140.829990	229.6	17.931	8.3	8.9	10.61	4609	20.20	3242.16
008346038-02	OBS	No	65.703936	188.059578	571.9	11.846	8.0	8.1	10.61	4609	28.21	302.16
008346038-03	OBS	No	219.298111	335.307076	684.5	13.668	7.4	6.0	10.61	4609	31.73	60.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008346038-01	OBS	FP	0.00	1	0	0	0	LPP_DV
008346038-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE
008346038-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

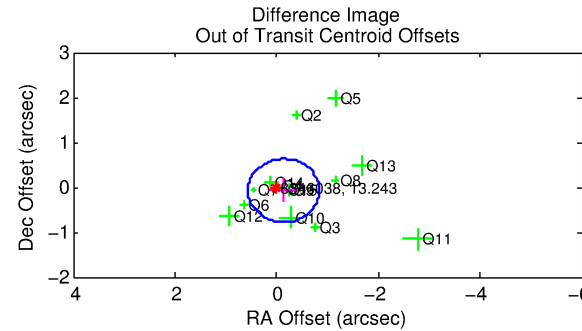
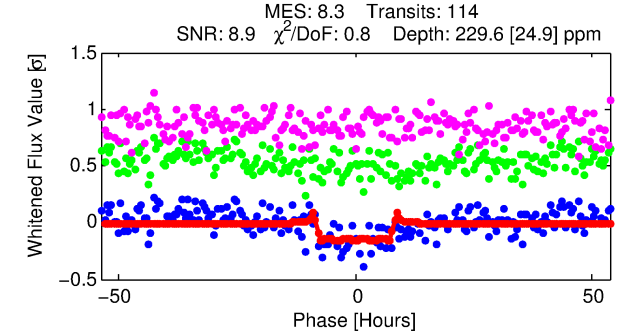
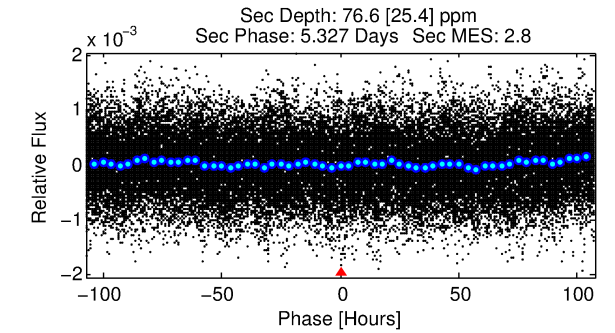
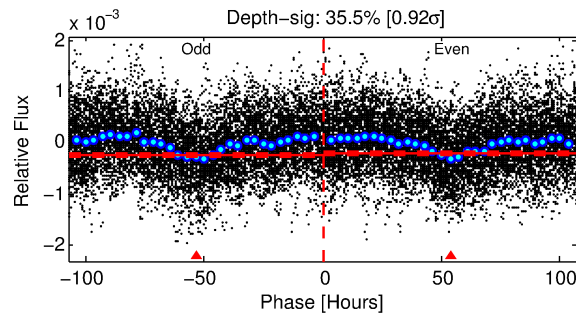
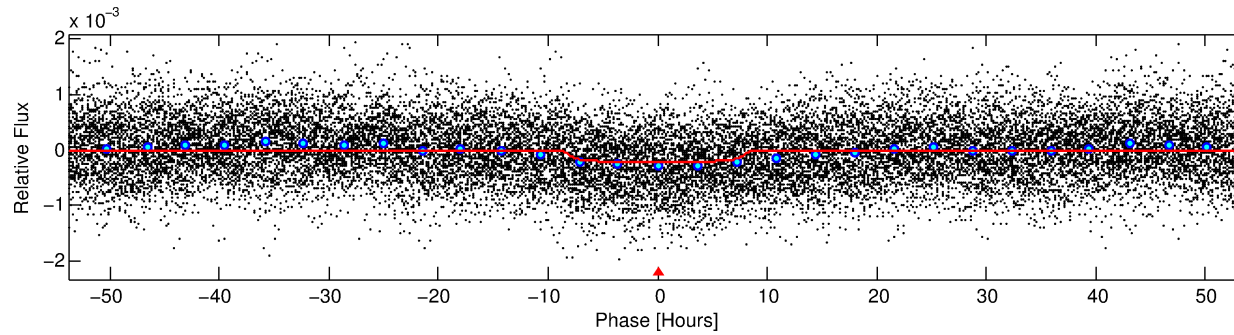
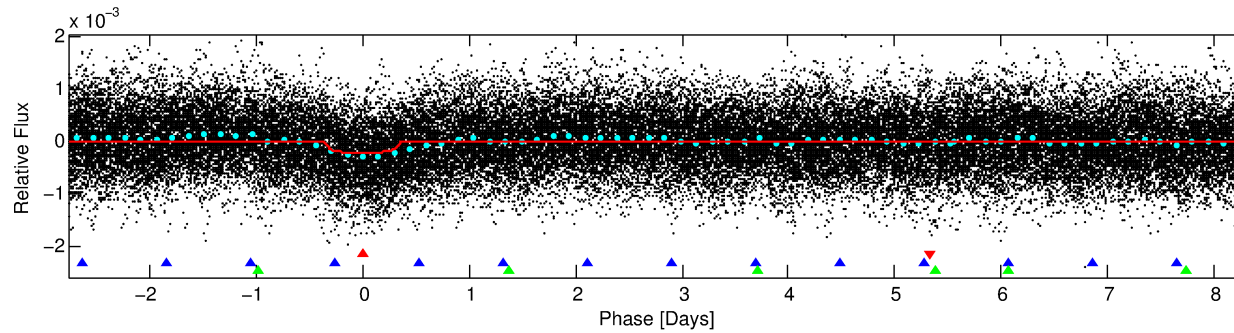
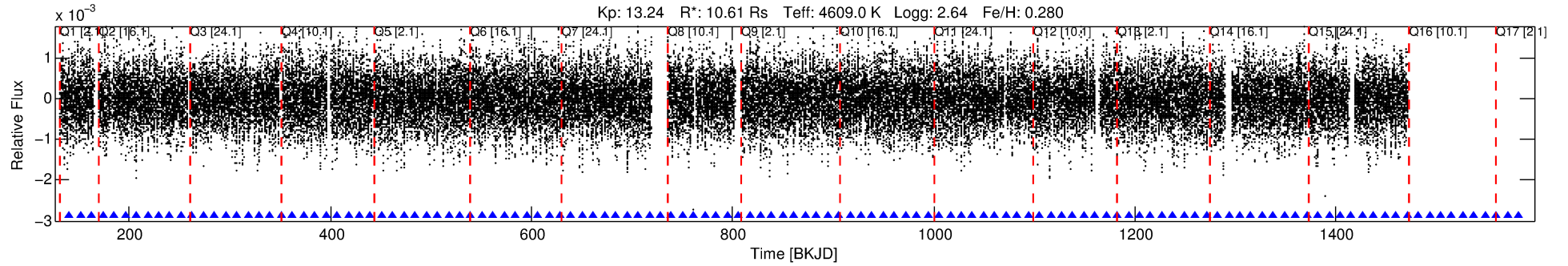
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008346038-01

No Significant Match Found

DV One-Page Summary

KIC: 8346038 Candidate: 1 of 3 Period: 11.083 d



DV Fit Results:

Period = 11.08258 [0.00023] d
Epoch = 140.8300 [0.0153] BKJD
Rp/R* = 0.0175 [0.0011]
a/R* = 2.32 [0.23]
b = 0.91 [0.02]
Seff = 3242.16 [602.92]
Teq = 1924 [89] K
Rp = 20.20 [4.68] Re
a = 0.1184 [0.0179] AU
Ag = 1.45 [0.56] [0.80 σ]
Teffp = 3264 [300] K [4.27 σ]

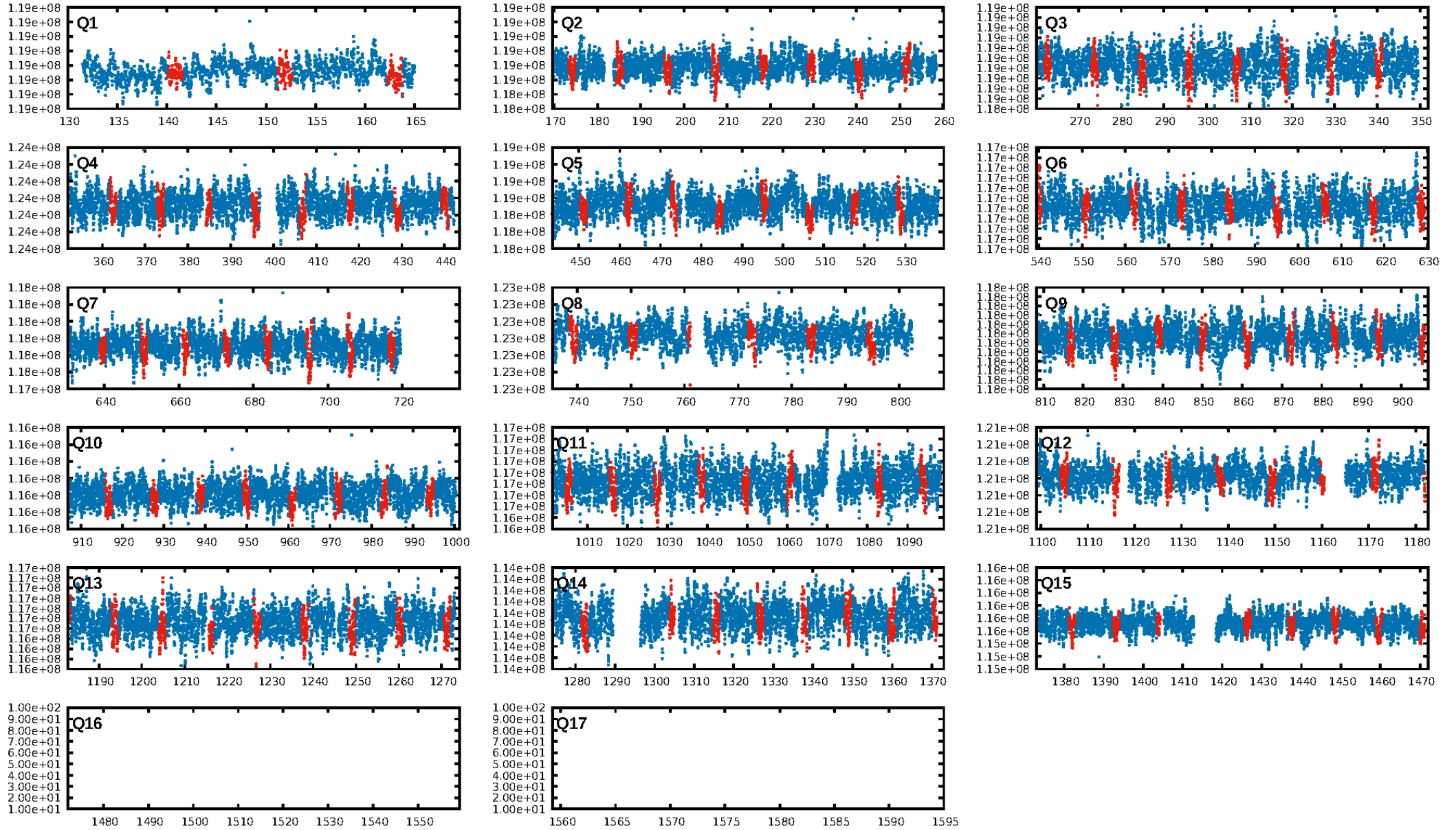
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [61.00 σ]
ModelChiSquare2-sig: 84.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.28e-12
RollingBand-fgt: 1.00 [111/111]
GhostDiagnostic-chr: 1.079
Centroid-sig: 5.0%
Centroid-so: 0.208 arcsec [1.04 σ]
OotOffset-rm: 0.155 arcsec [0.66 σ]
KicOffset-rm: 0.195 arcsec [0.80 σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [15/15]

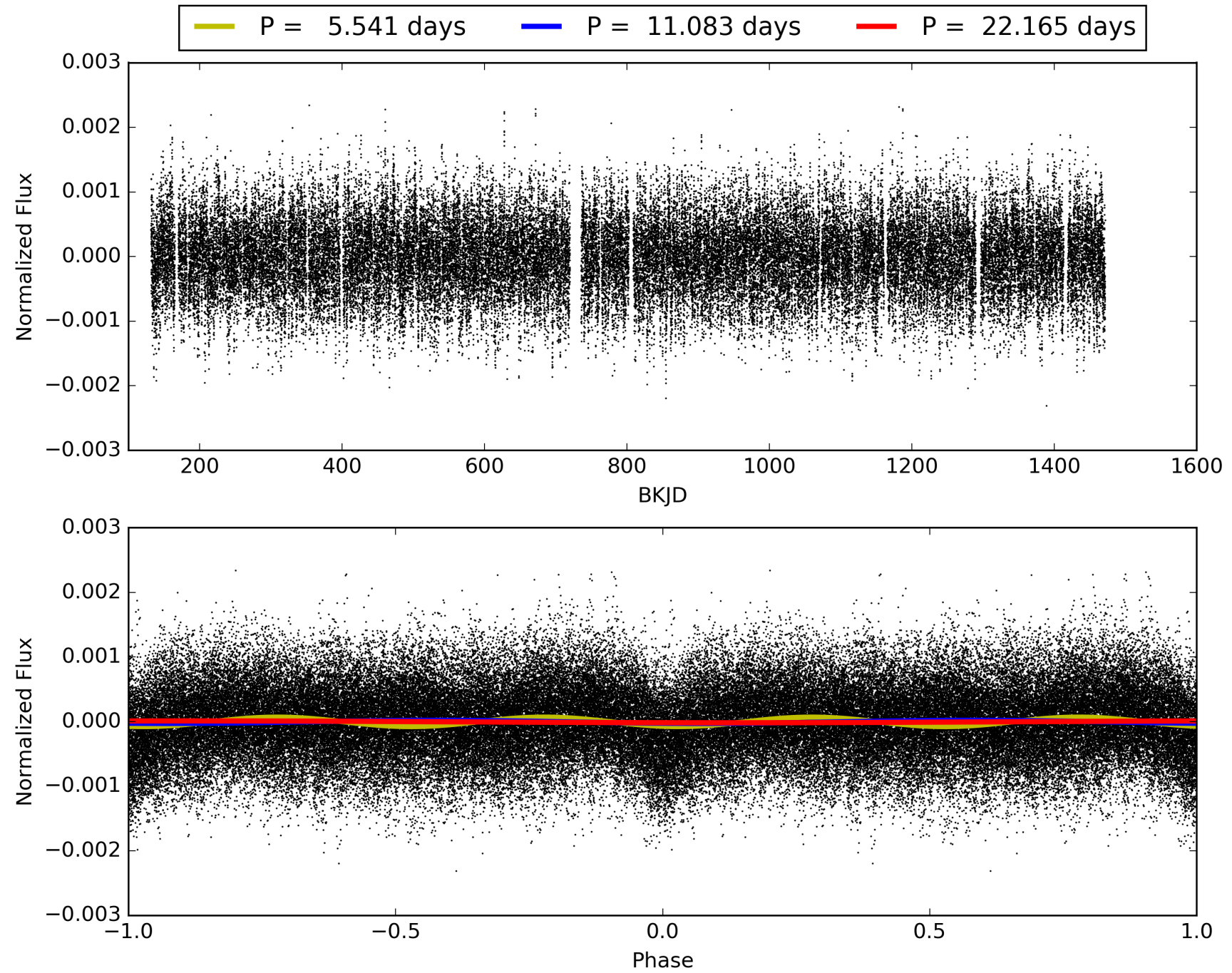
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:05:39 Z

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

TCE 008346038-01, PDC Light Curves

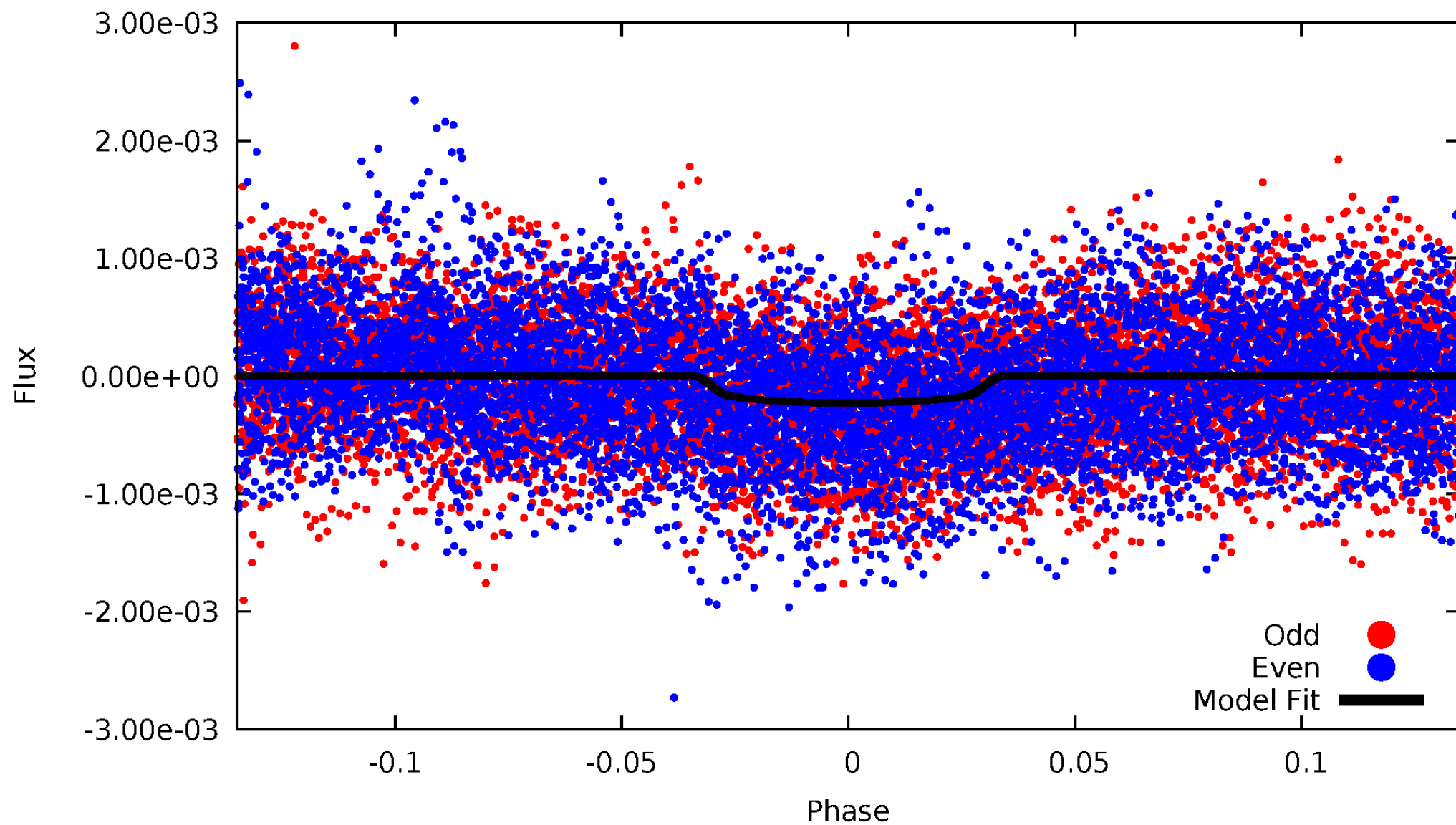


TCE 008346038-01



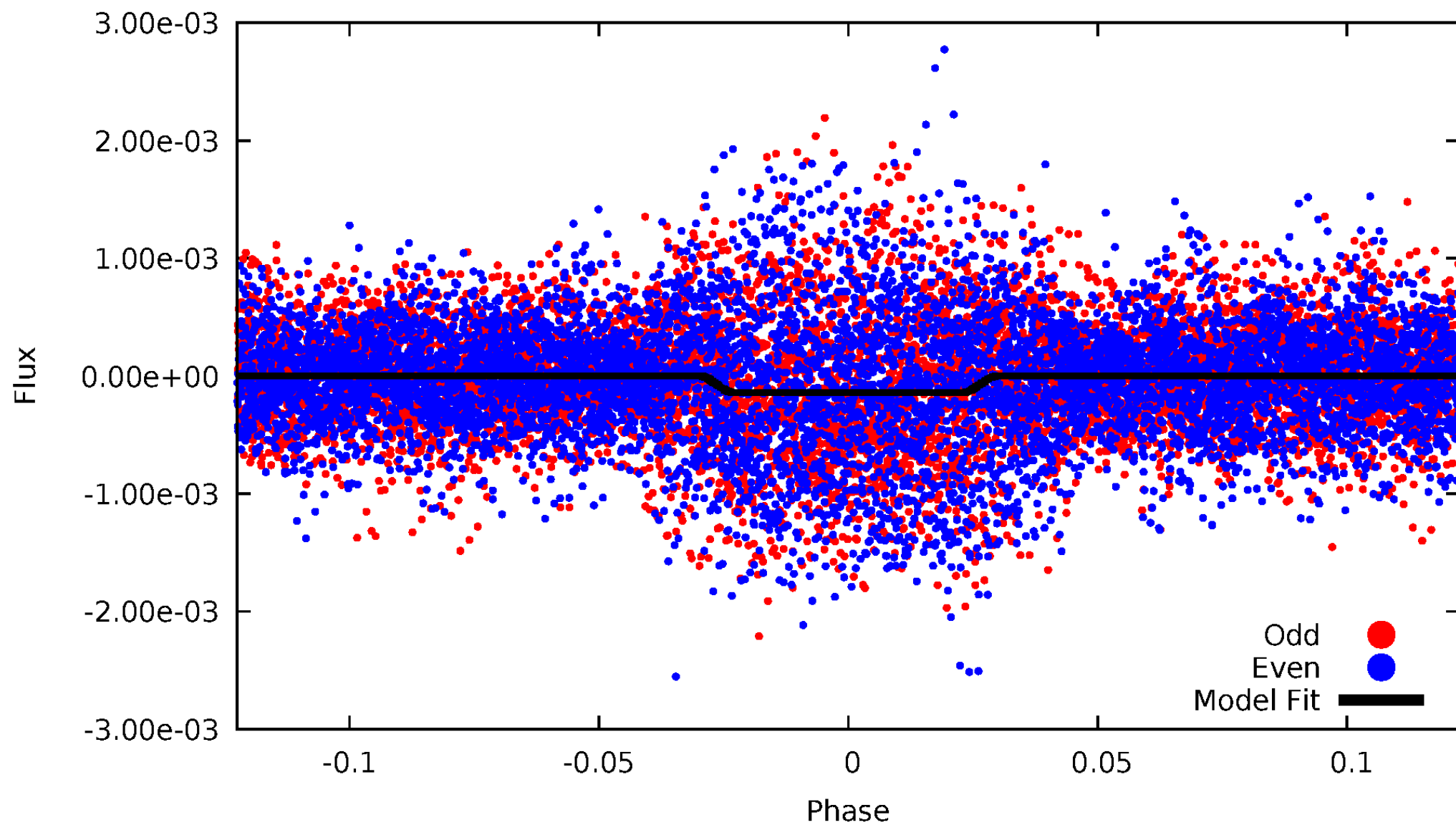
DV Odd/Even

TCE 008346038-01

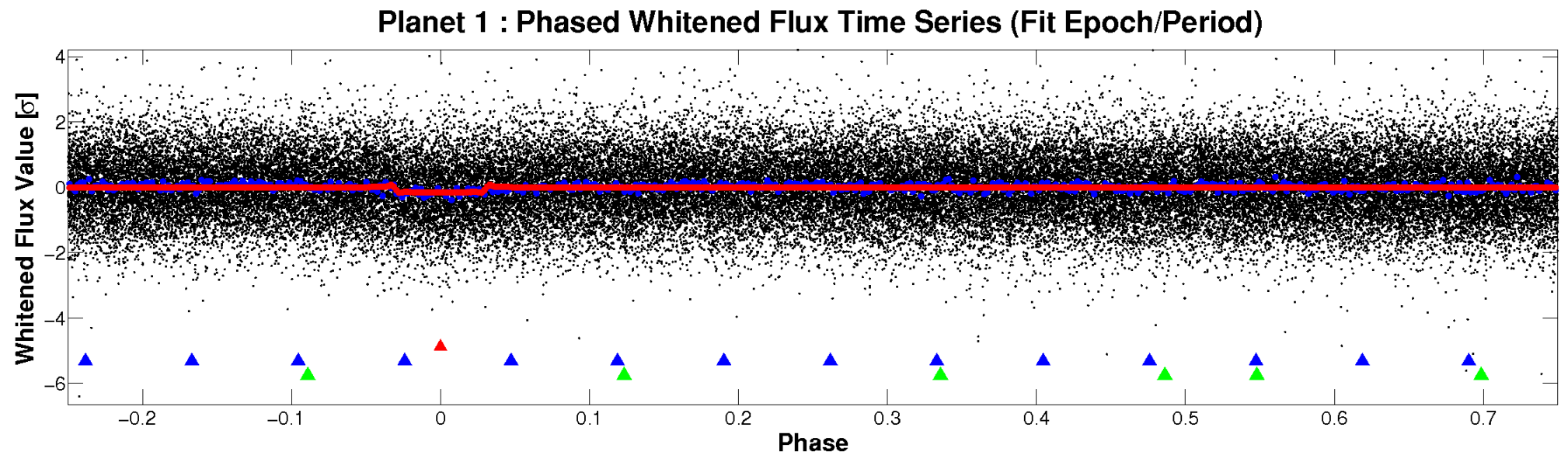
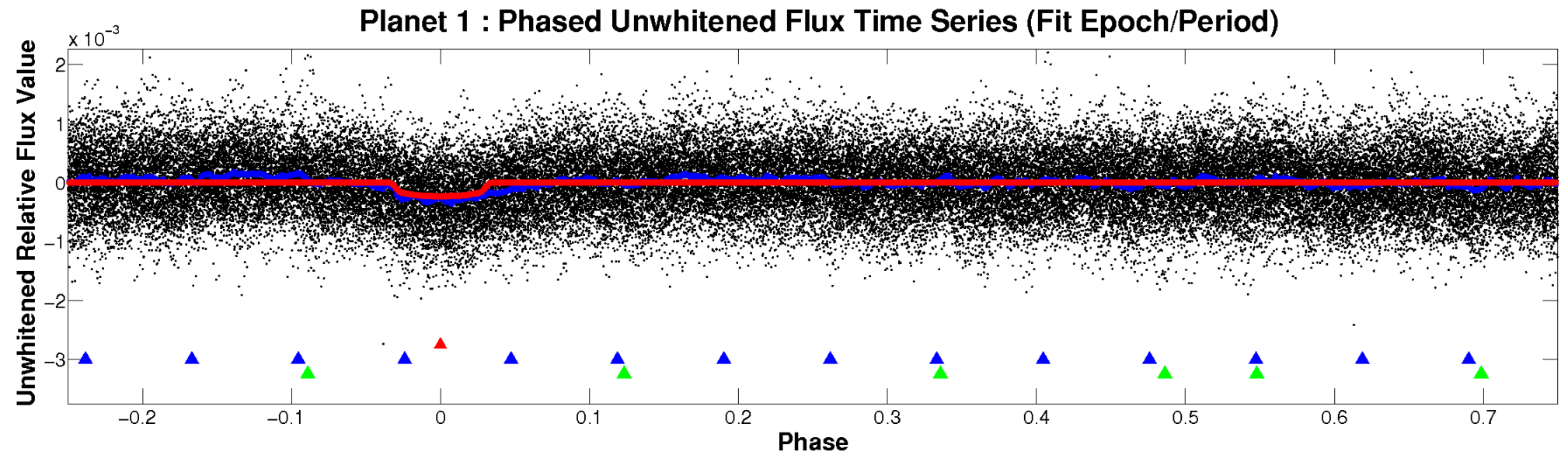


ALT Odd/Even

TCE 008346038-01

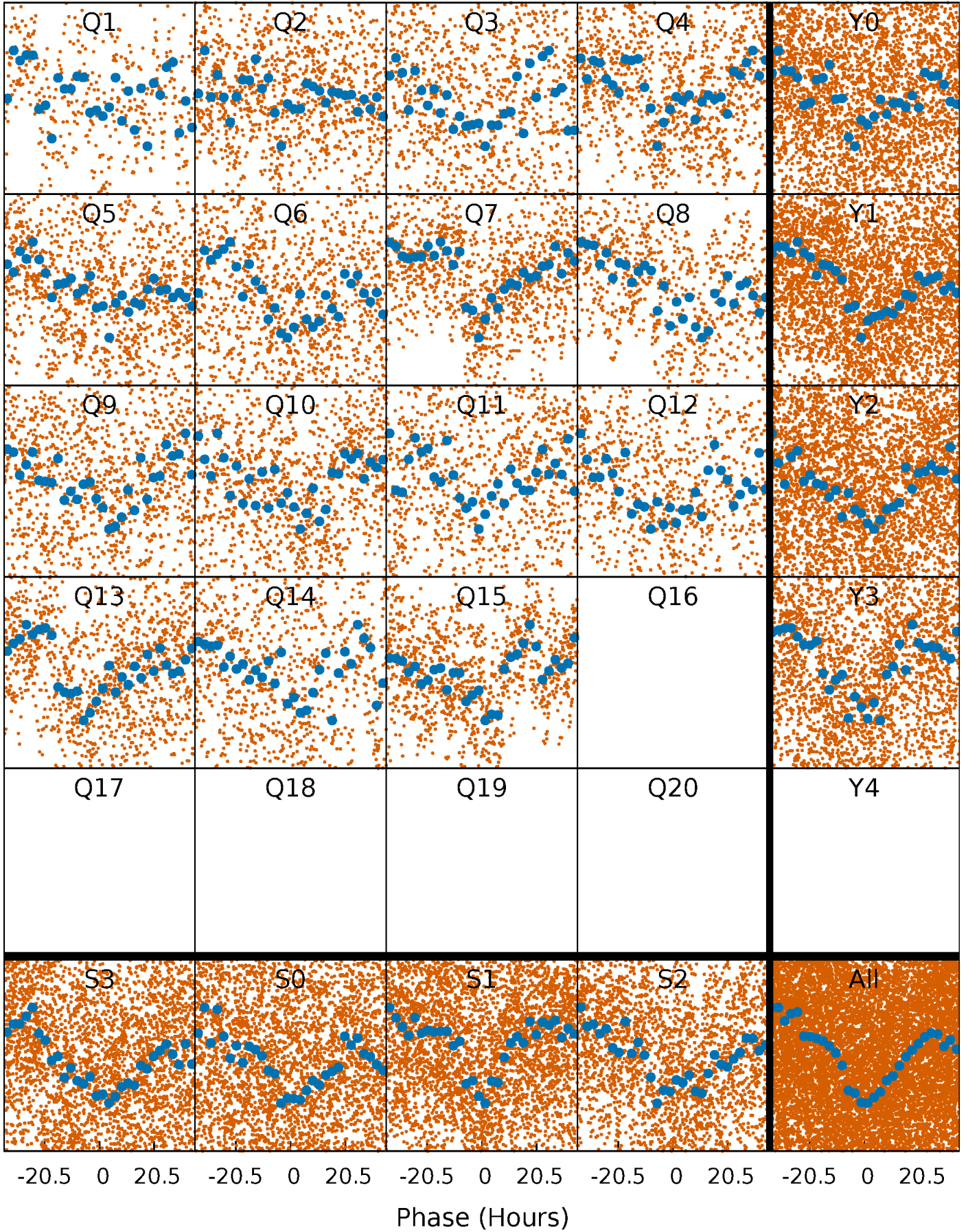


Non-Whitened Vs. Whitened Light Curve



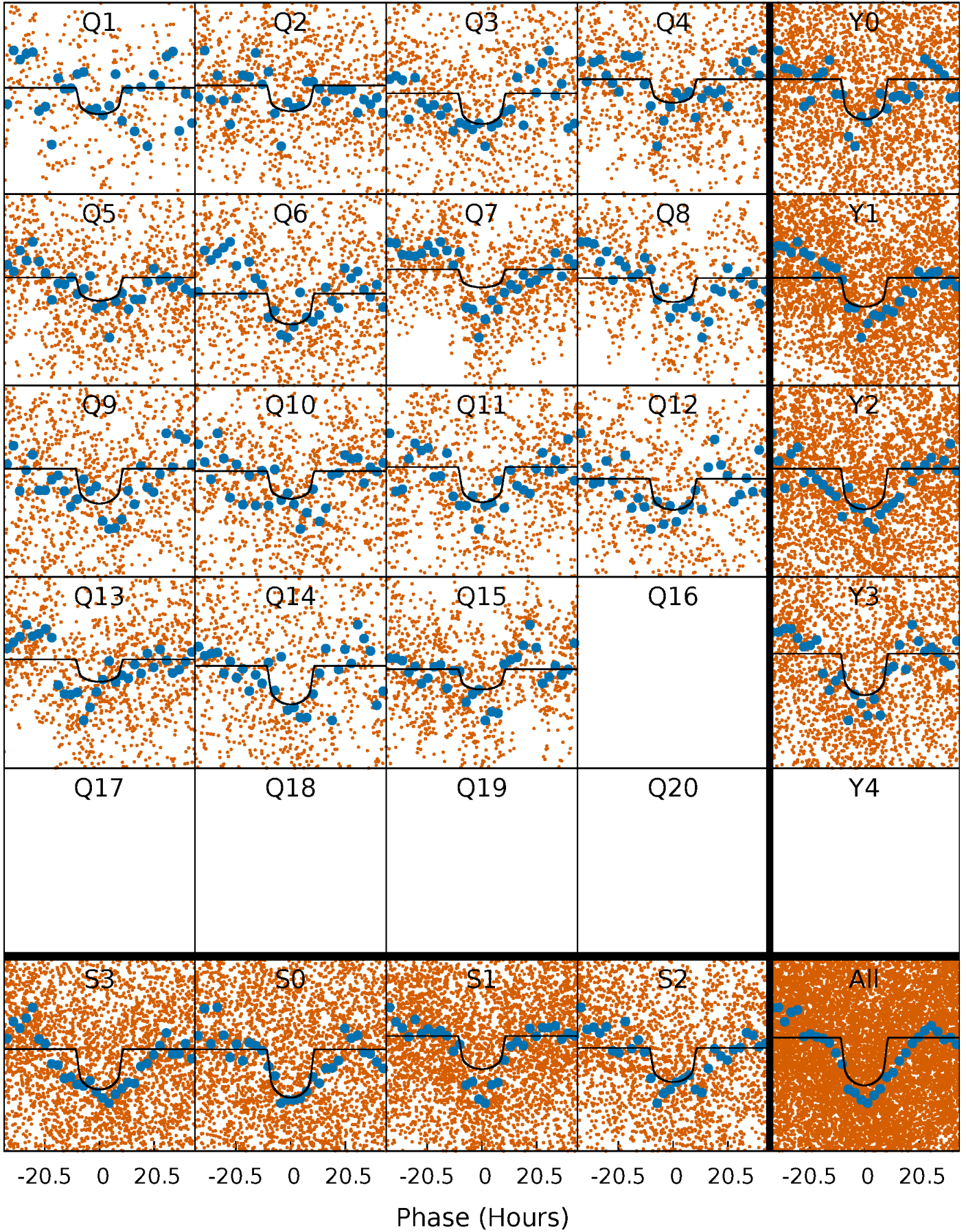
PDC Quarter-Phased Transit Curves

TCE 008346038-01 P= 11.082577 Days $T_0=140.829990$ (BKJD)



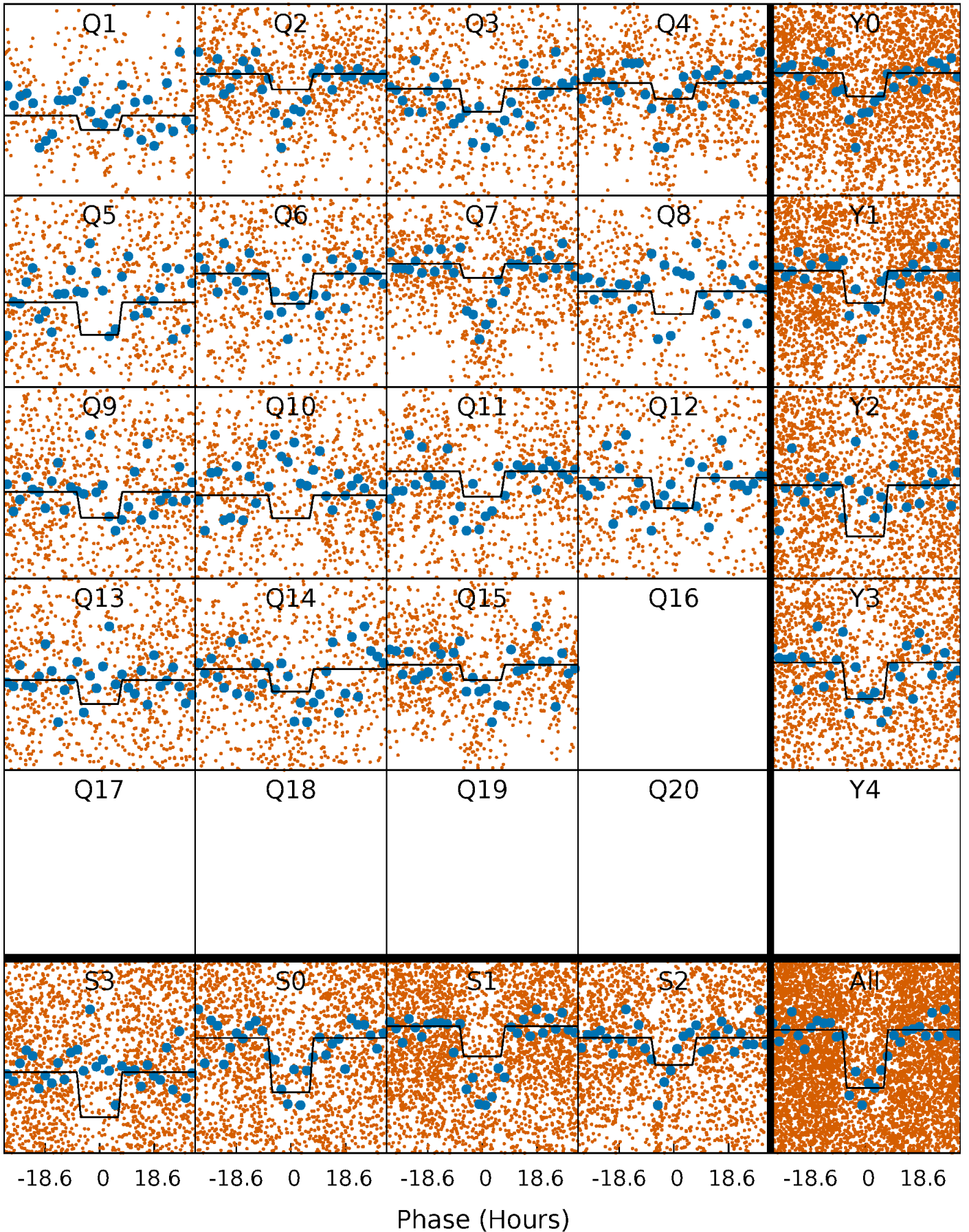
DV Quarter-Phased Transit Curves

TCE 008346038-01 P= 11.082577 Days $T_0=140.829990$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

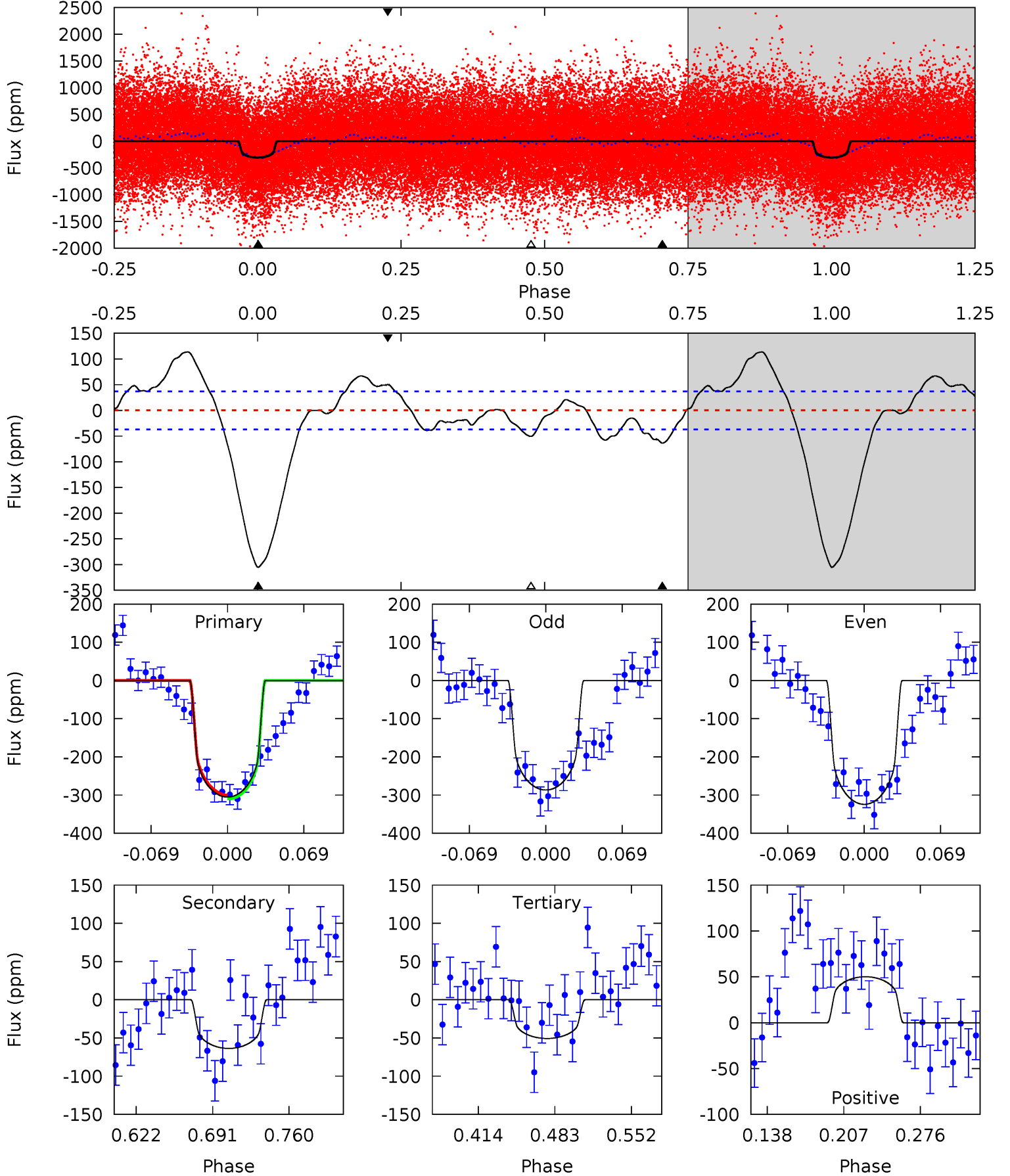
TCE 008346038-01 P= 11.082616 Days $T_0=140.784506$ (BKJD)



DV Model-Shift Uniqueness Test

008346038-01, P = 11.082577 Days, E = 129.747413 Days

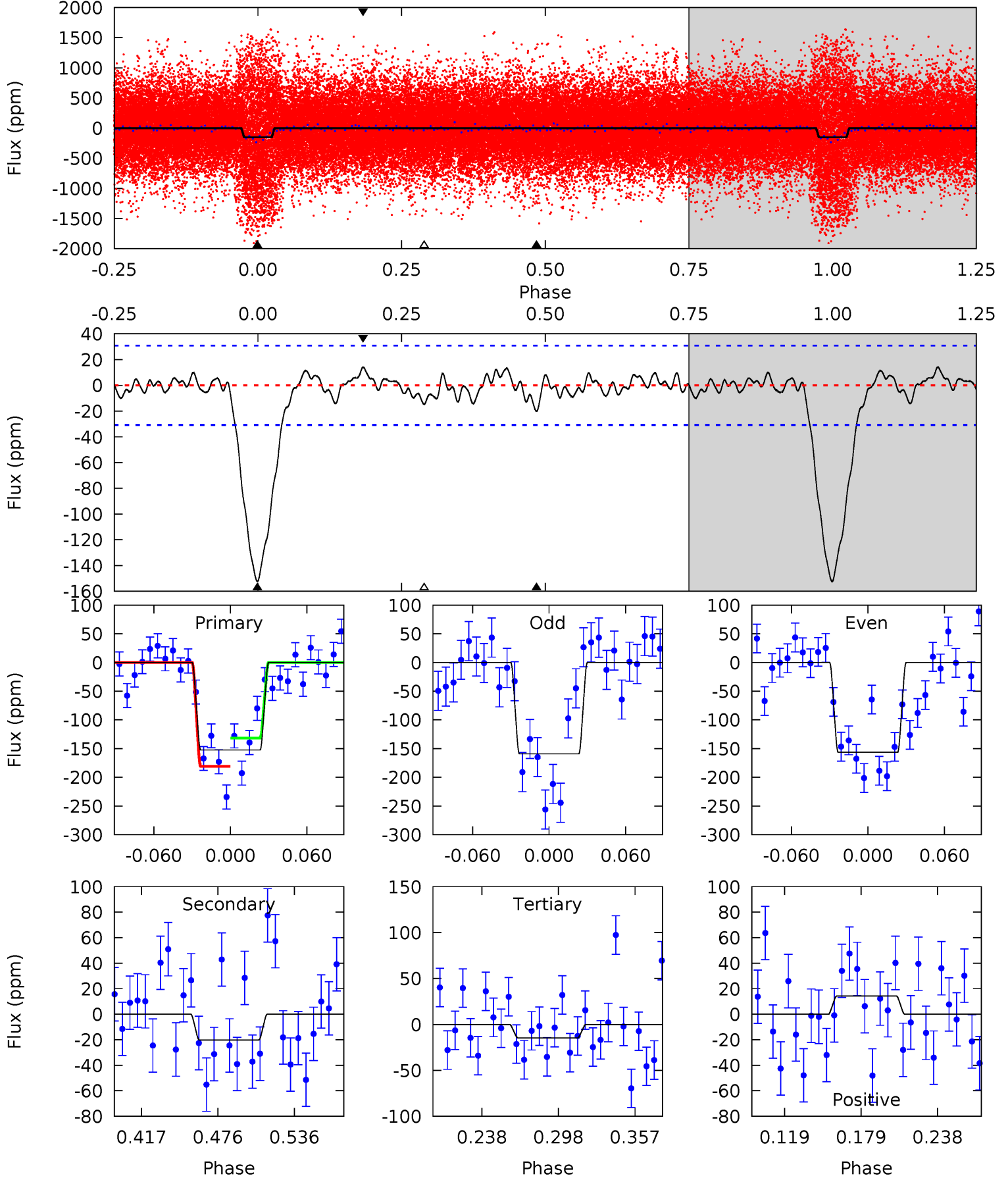
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.3	7.98	6.35	6.28	4.64	1.82	5.28	31.9	32.0	1.63	1.70	2.34	1.08	0.27	0.61



Alt Model-Shift Uniqueness Test

008346038-01, P = 11.082616 Days, E = 129.701890 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	3.05	2.23	2.16	4.67	1.88	0.90	20.8	20.9	0.82	0.90	0.20	0.82	0.09	3.70



Stellar Parameters For KIC 008346038

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4609^{+79}_{-112}	$2.643^{+0.027}_{-0.036}$	$0.280^{+0.100}_{-0.200}$	$10.606^{+2.364}_{-2.149}$	$1.804^{+0.938}_{-0.703}$	$0.002^{+0.001}_{-0.000}$
	+2%/-2%	+1%/-1%	+36%/-71%	+22%/-20%	+52%/-39%	+25%/-14%
Source	PHO56	AST56	PHO56	DSEP		

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

Secondary Eclipse Parameters for KIC 008346038-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-64 ± 8	$20.61^{+3.80}_{-3.12}$	2693^{+98}_{-87}	3323^{+137}_{-145}	$1.166^{+0.275}_{-0.232}$
Alt.	-20 ± 7	$14.26^{+2.46}_{-2.30}$	2698^{+95}_{-93}	3038^{+246}_{-340}	$0.774^{+0.350}_{-0.282}$

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

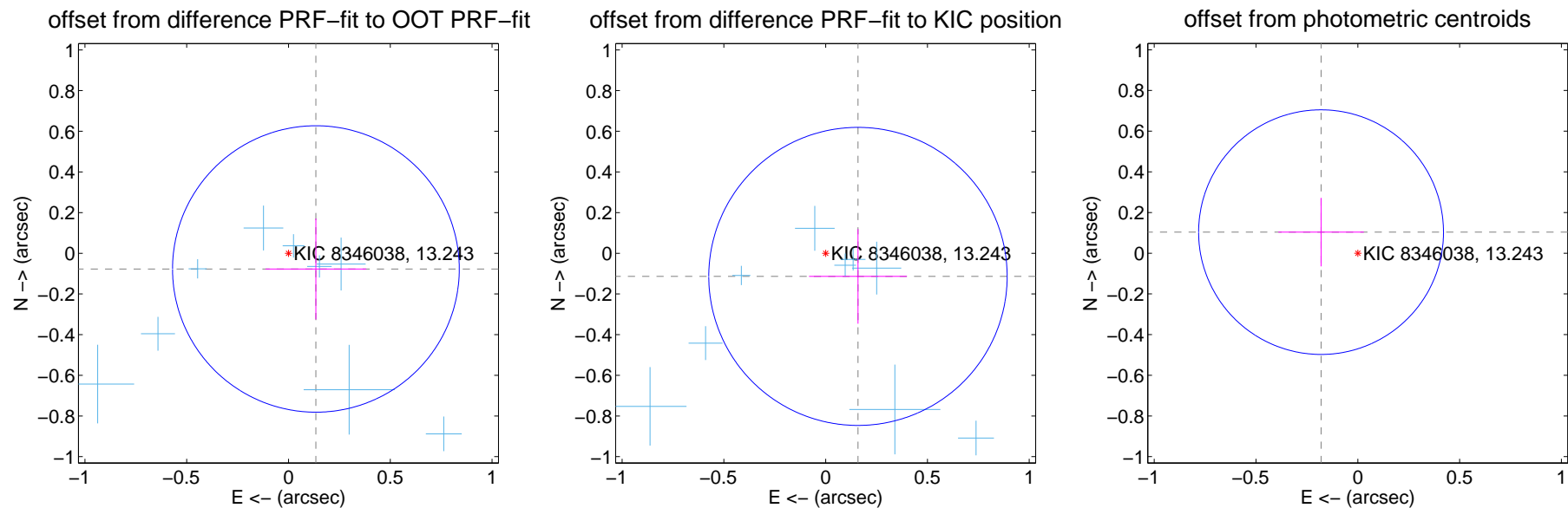
DV Centroid Data

Supplemental centroid analysis for 008346038-01. Kepler magnitude: 13.24. Transit SNR 8.90

There are 14 quarters with good PRF difference image offsets

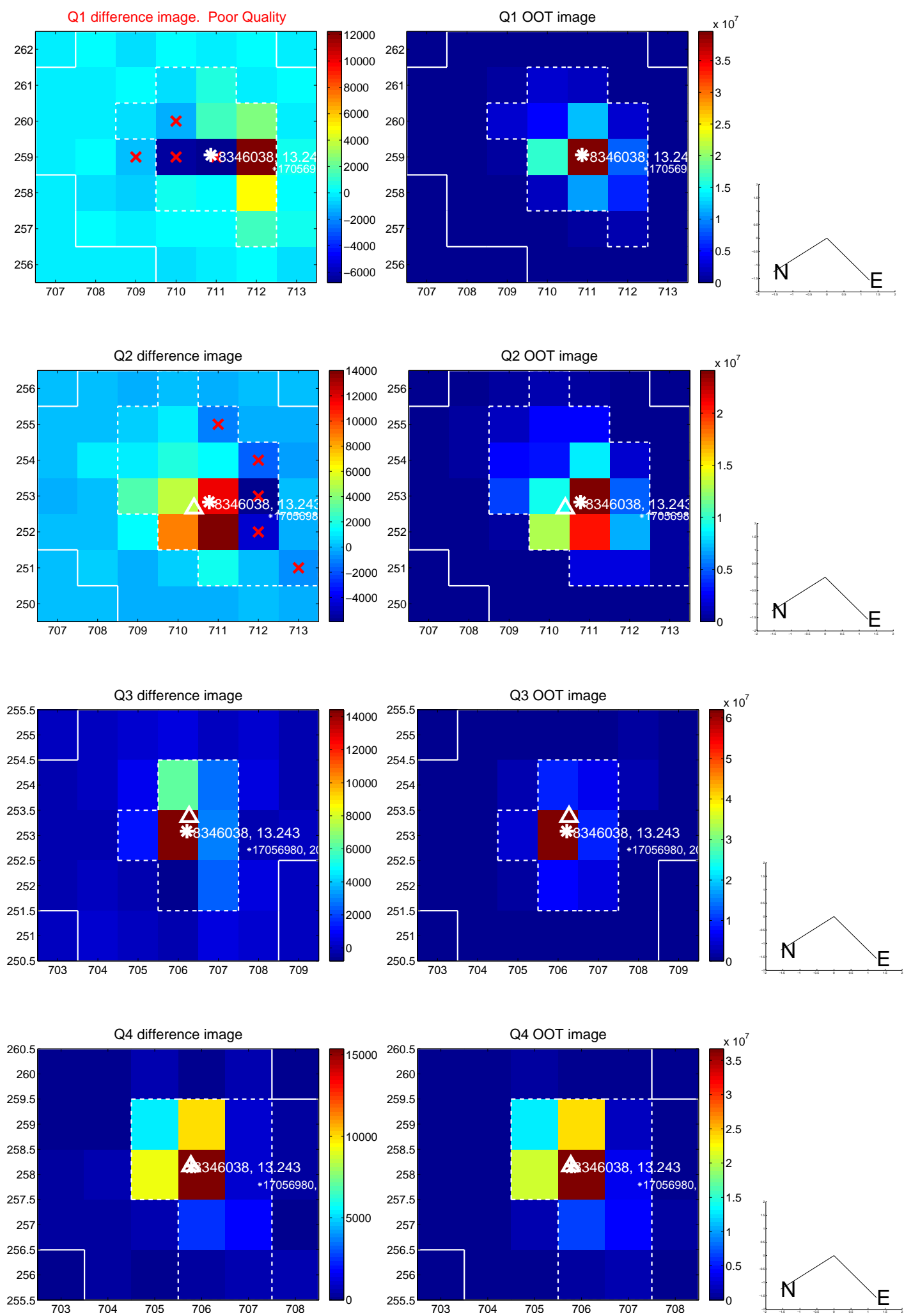
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.155 ± 0.235	0.66	-0.135 ± 0.247	-0.077 ± 0.248
PRF-fit source offset from KIC position	0.195 ± 0.244	0.80	-0.159 ± 0.241	-0.114 ± 0.233
photometric centroid source offset	0.21 ± 0.20	1.04	0.18 ± 0.21	0.10 ± 0.17

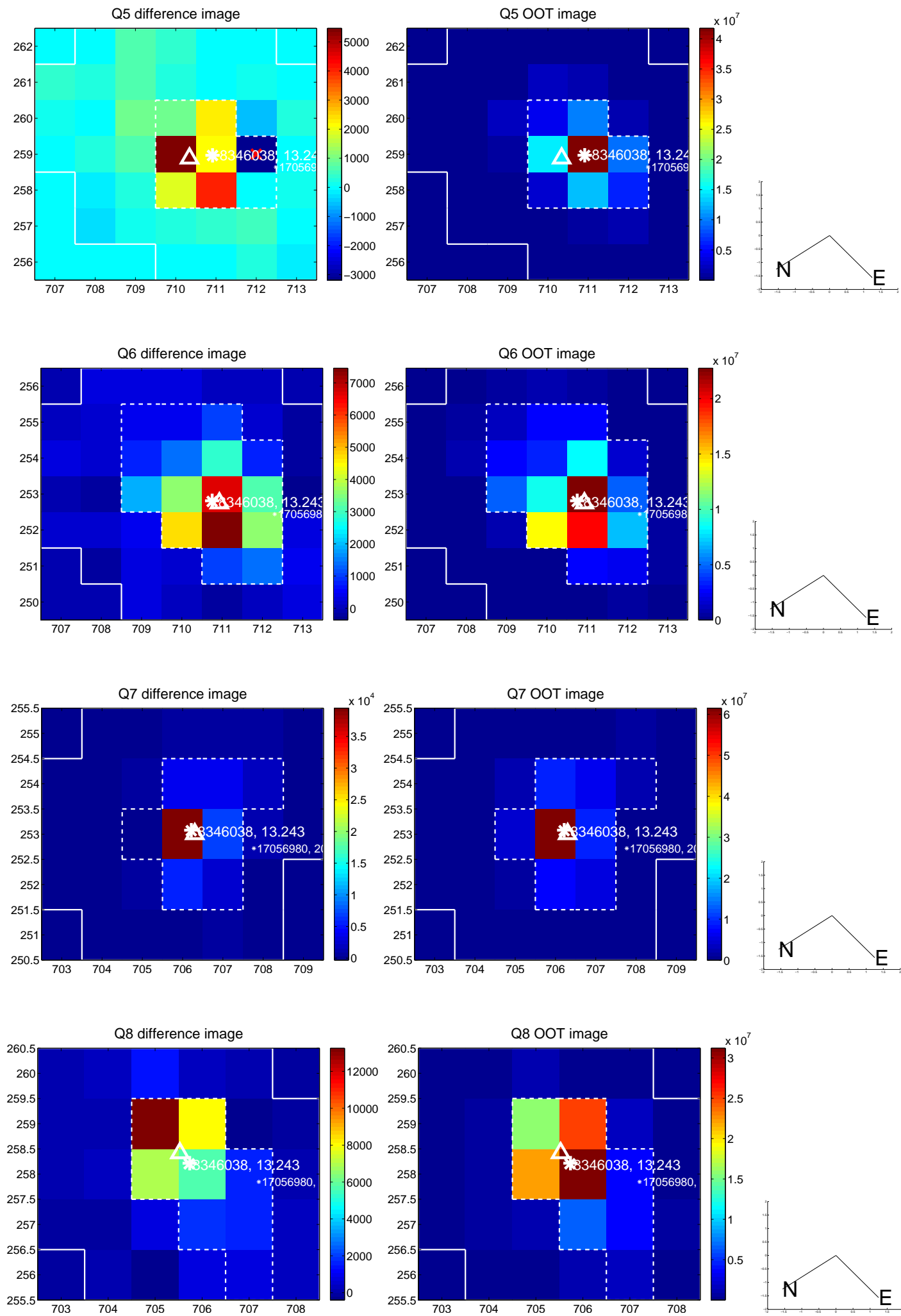


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

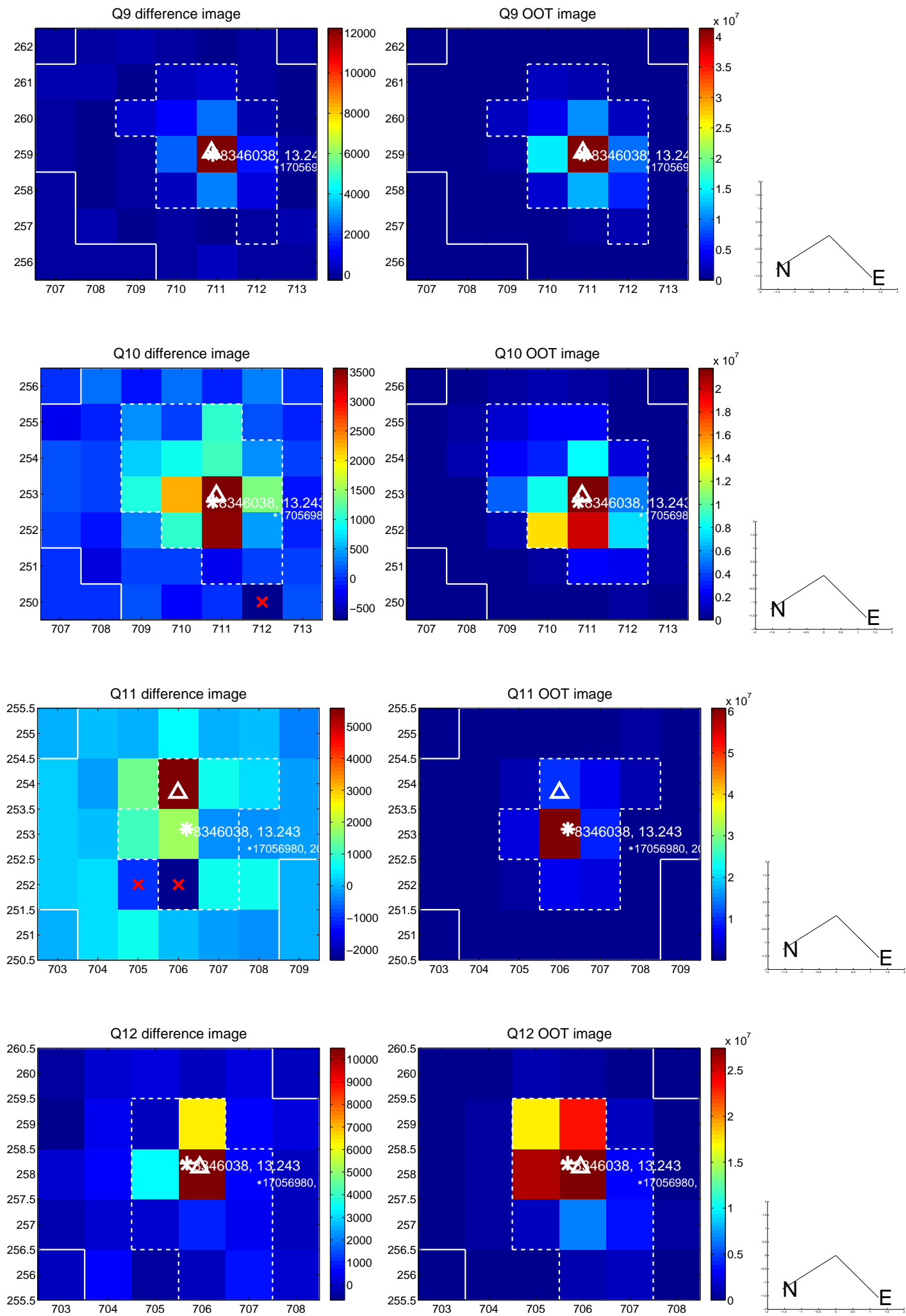
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



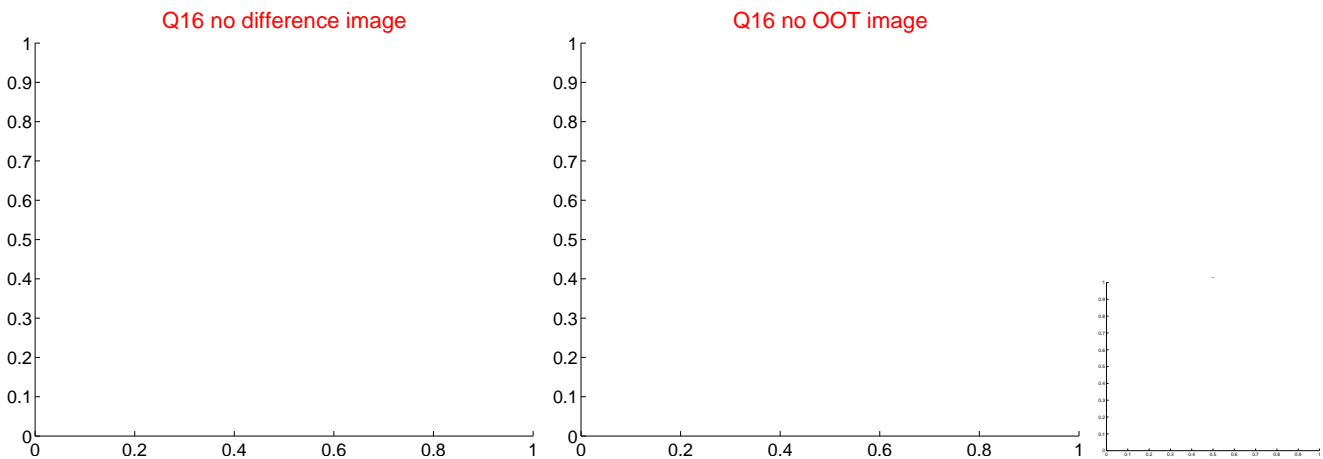
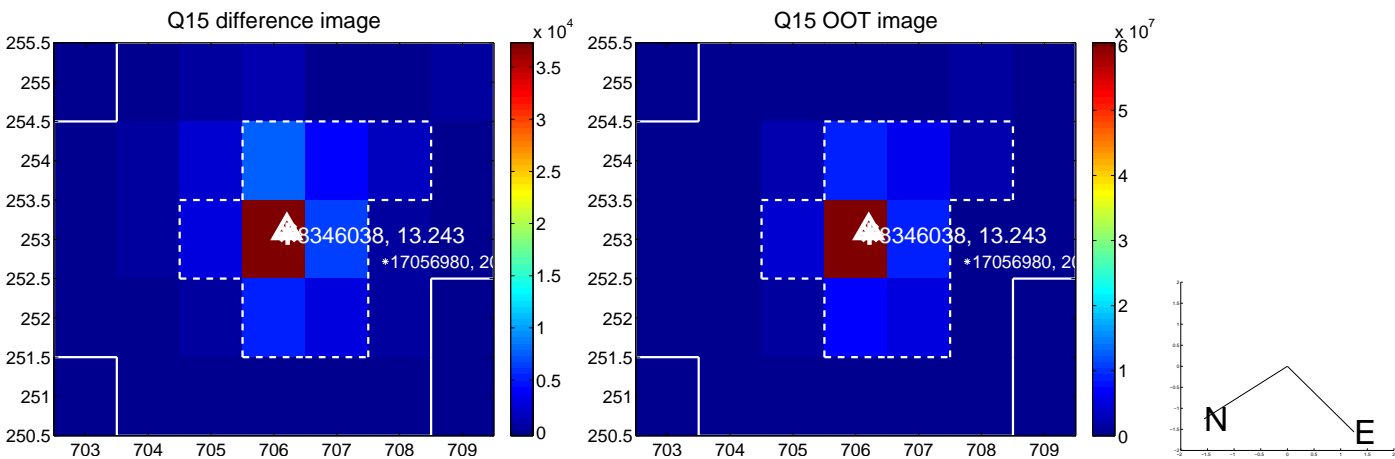
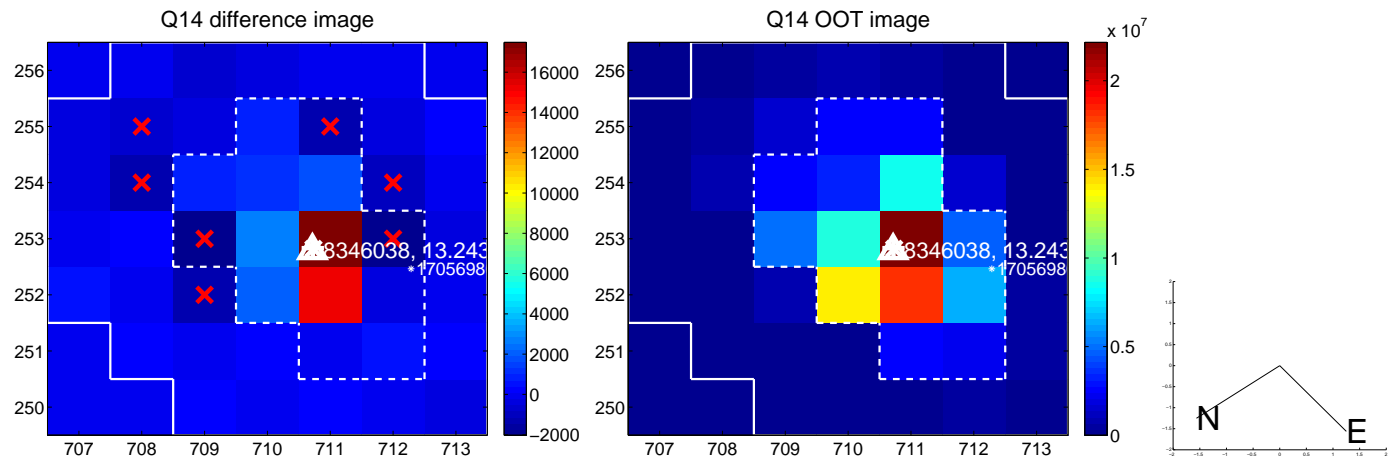
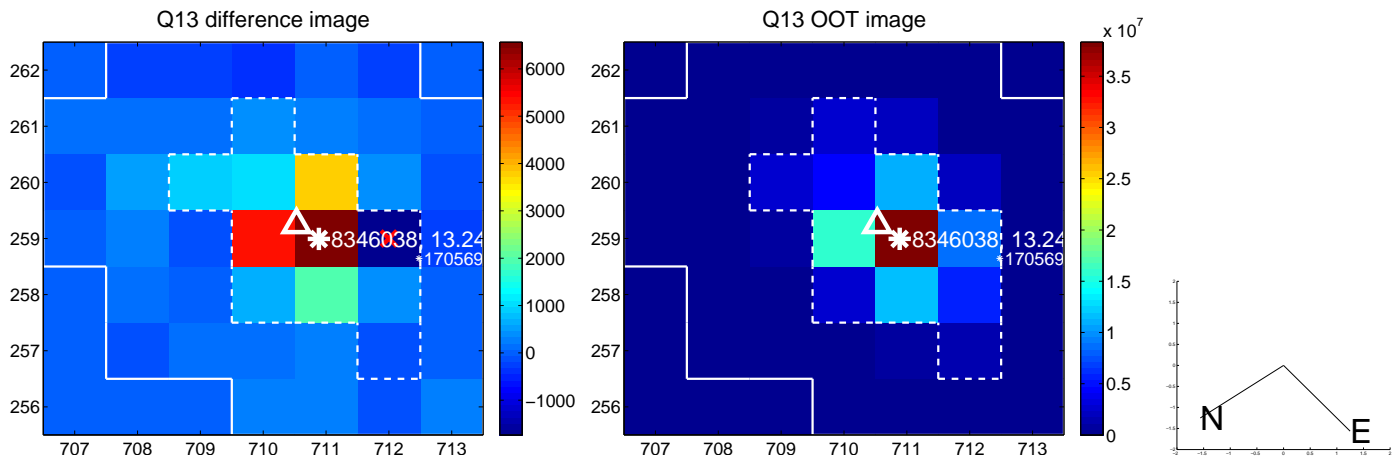
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



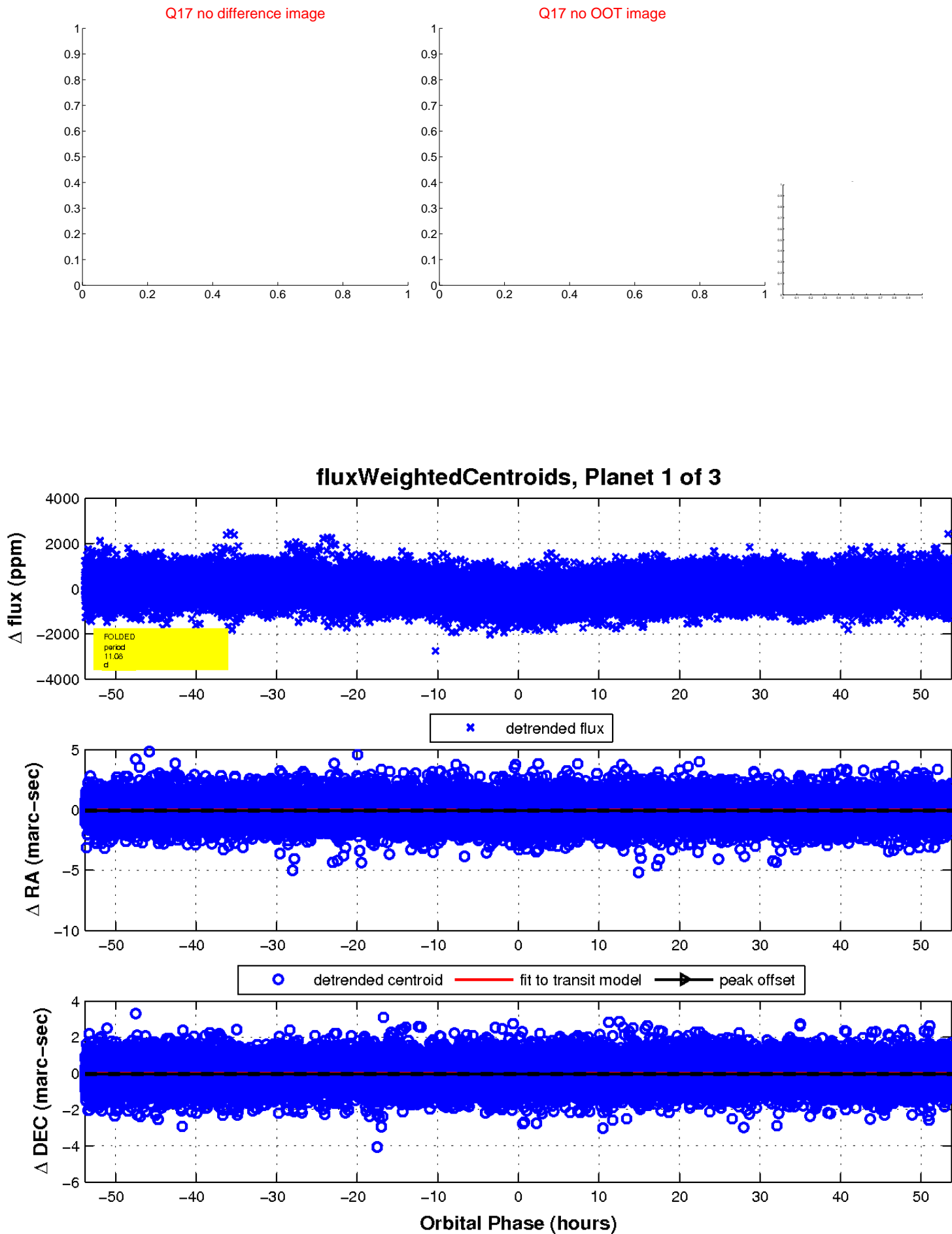
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

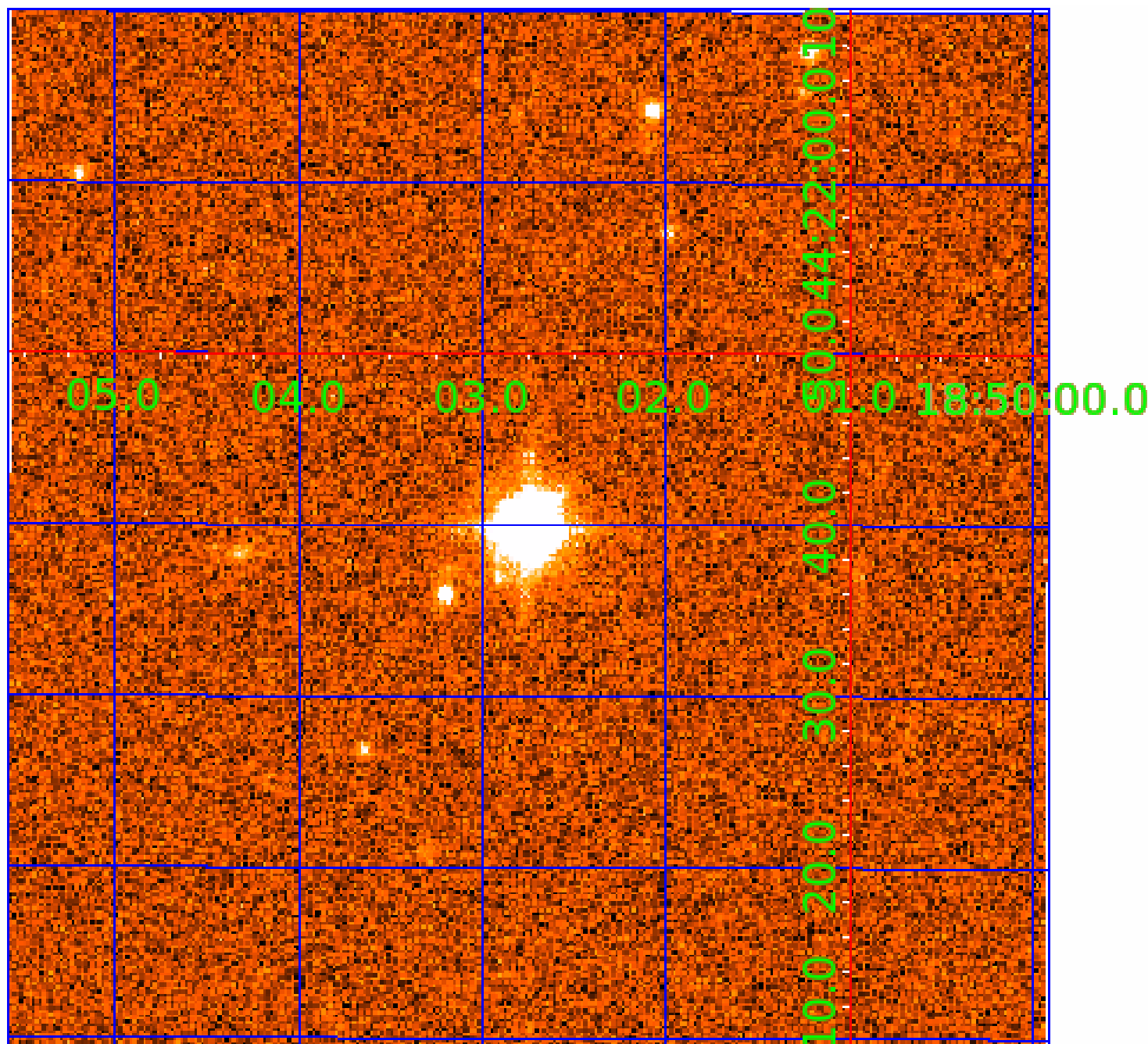


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008346038

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})
008346038-01	OBS	No	11.082577	140.829990	229.6	17.931	8.3	8.9	10.61	4609	20.20	3242.16
008346038-02	OBS	No	65.703936	188.059578	571.9	11.846	8.0	8.1	10.61	4609	28.21	302.16
008346038-03	OBS	No	219.298111	335.307076	684.5	13.668	7.4	6.0	10.61	4609	31.73	60.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008346038-01	OBS	FP	0.00	1	0	0	0	LPP_DV
008346038-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE
008346038-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

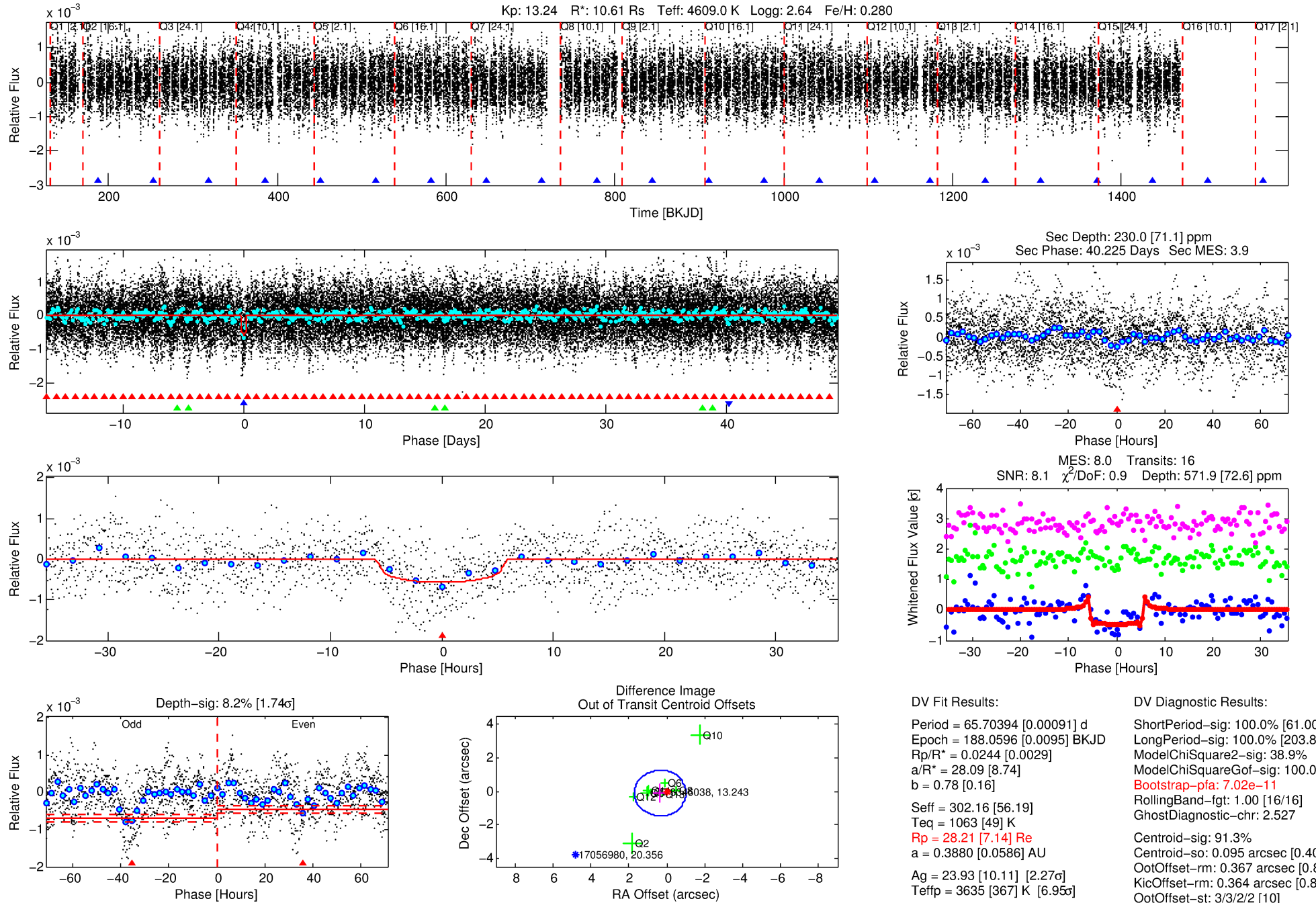
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008346038-02

No Significant Match Found

DV One-Page Summary

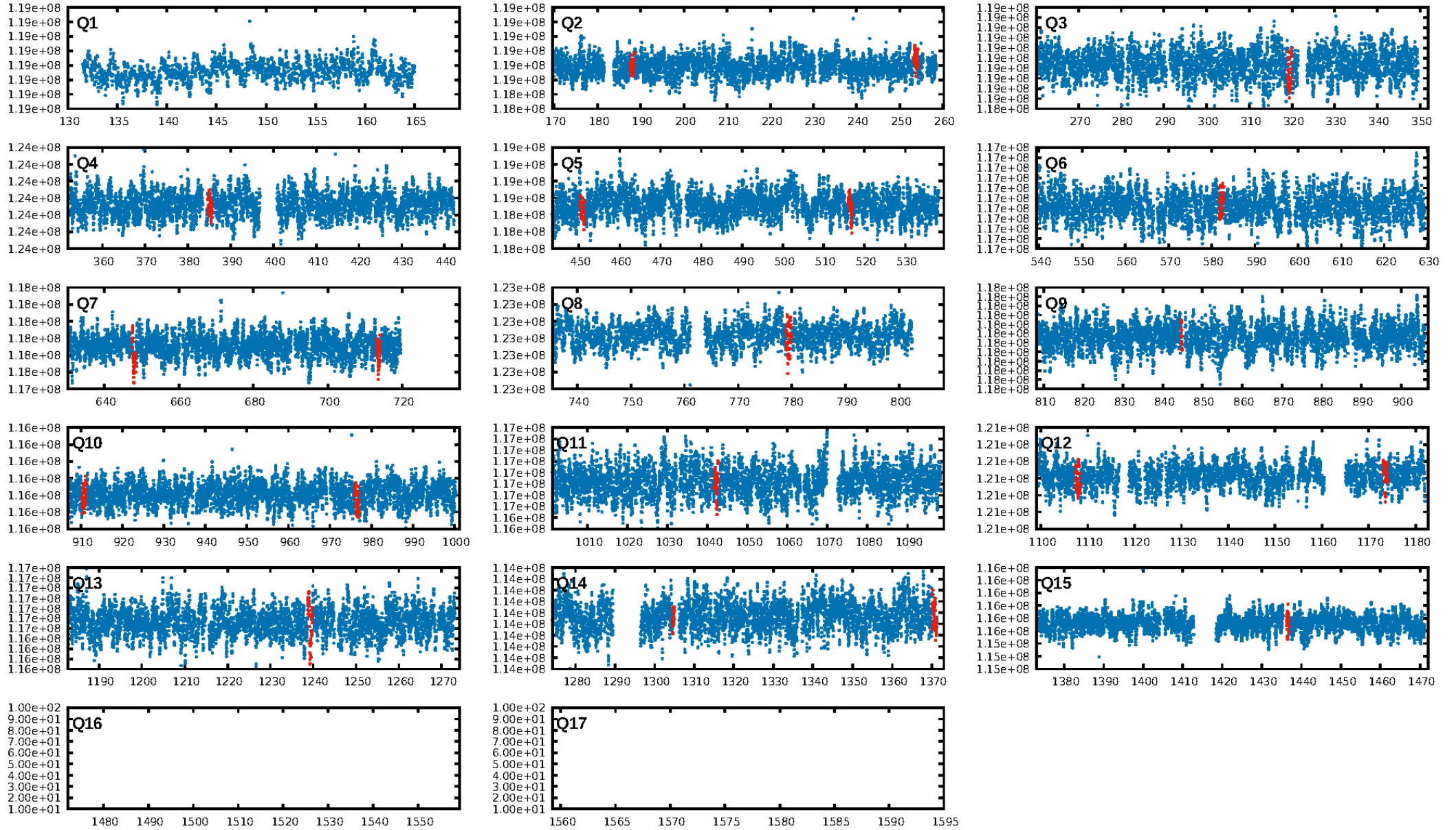
KIC: 8346038 Candidate: 2 of 3 Period: 65.704 d



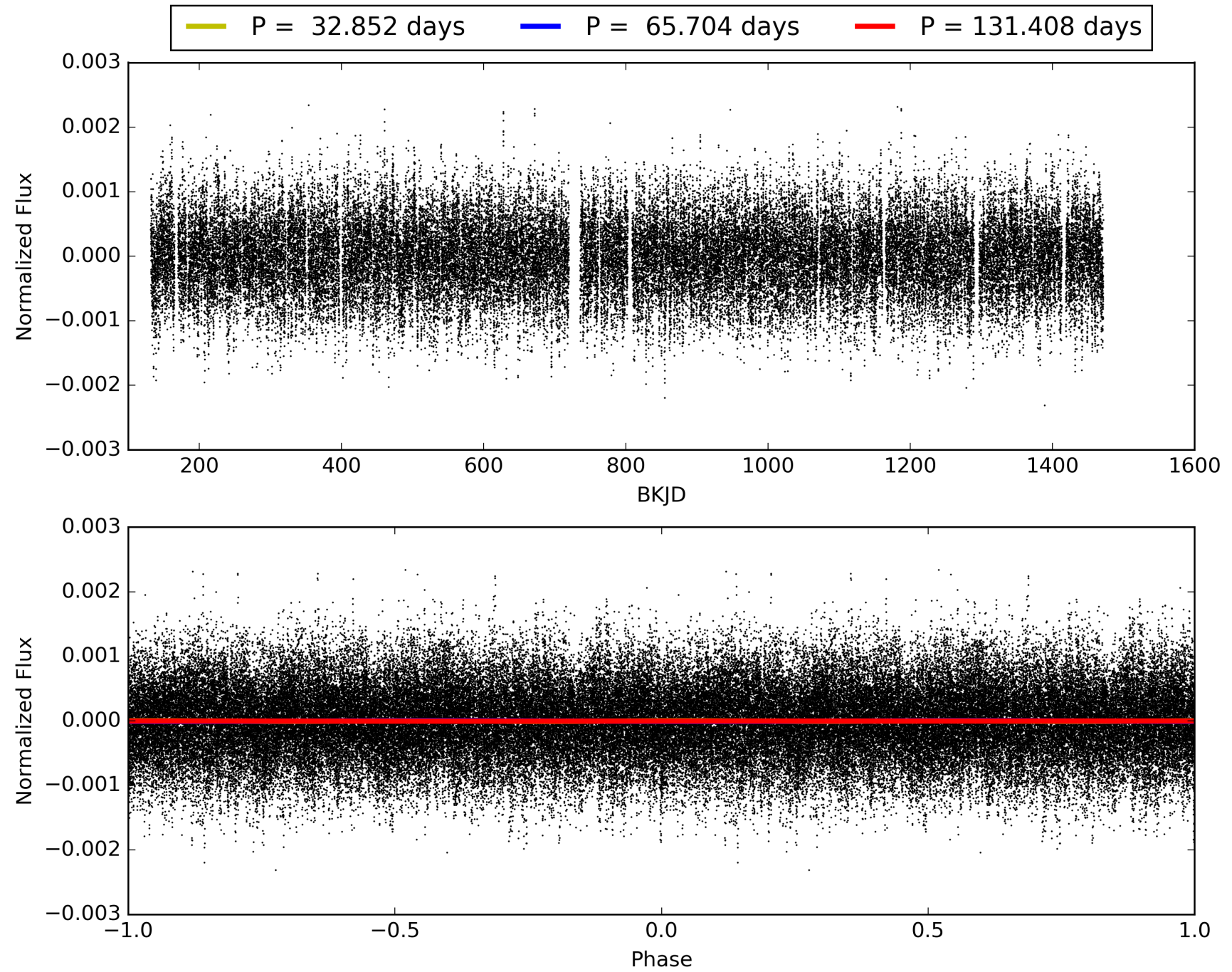
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:05:48 Z

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

TCE 008346038-02, PDC Light Curves

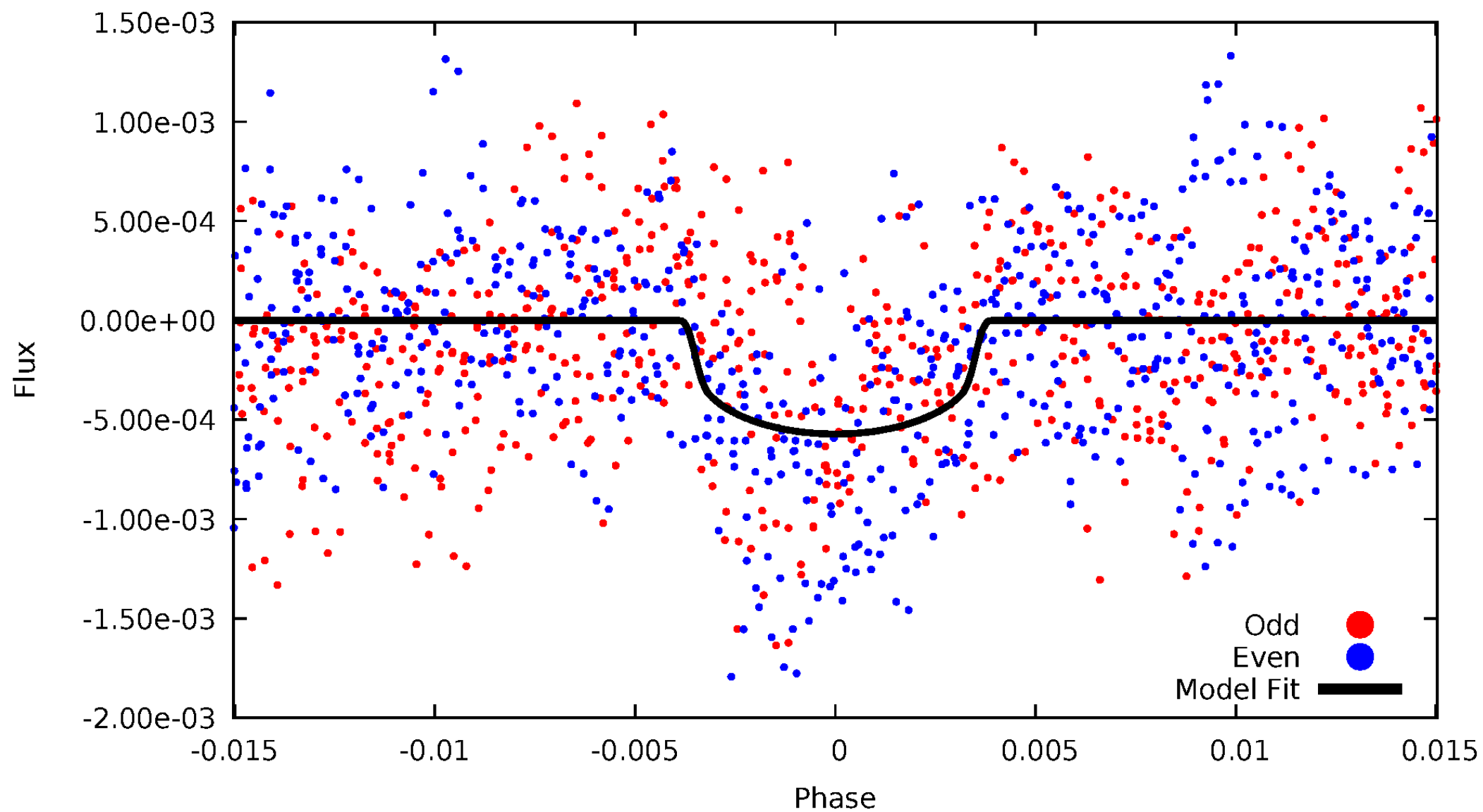


TCE 008346038-02



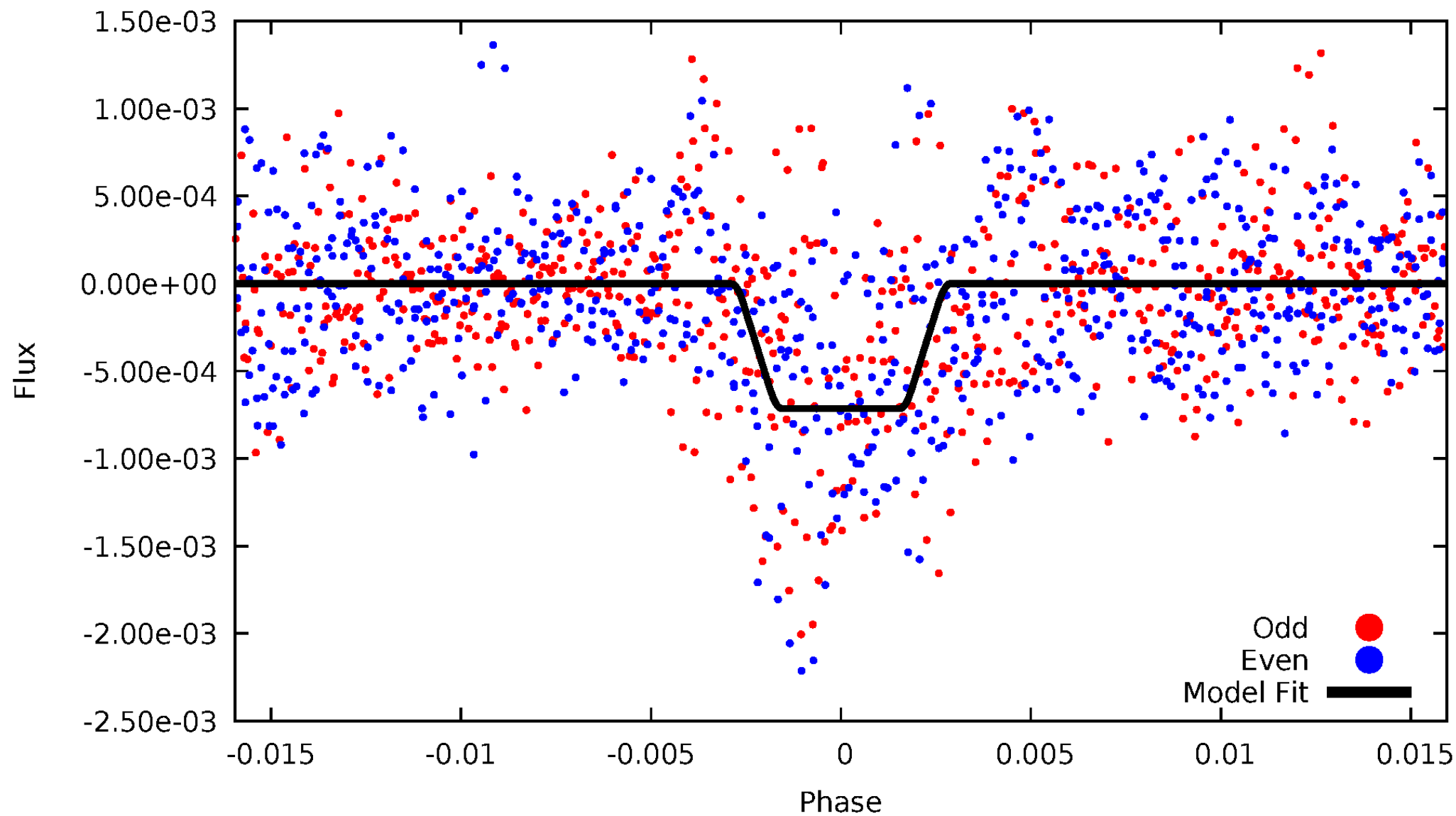
DV Odd/Even

TCE 008346038-02



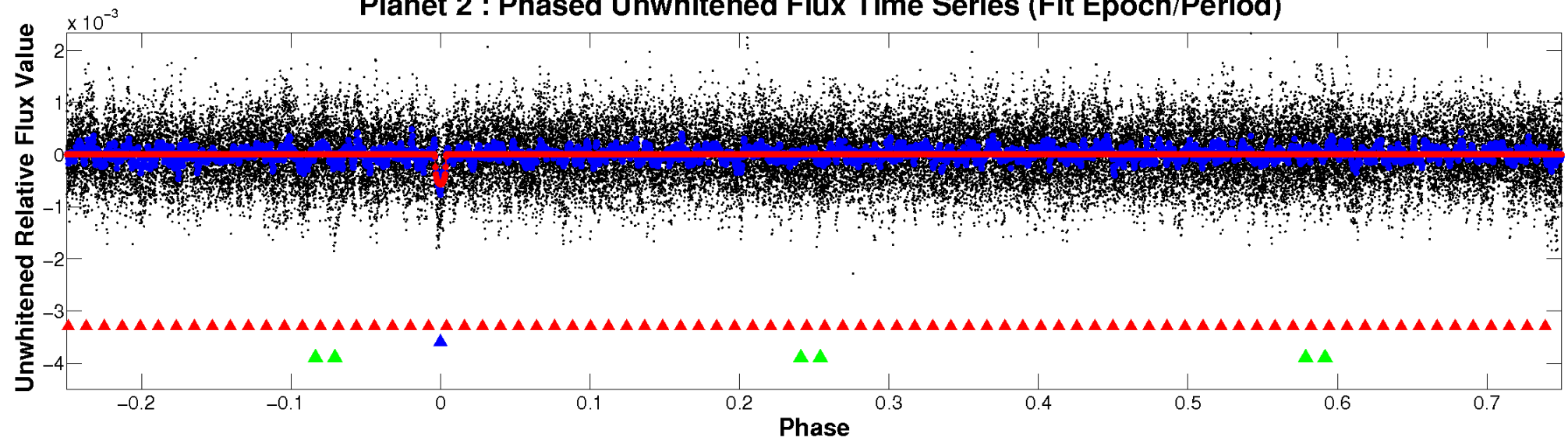
ALT Odd/Even

TCE 008346038-02

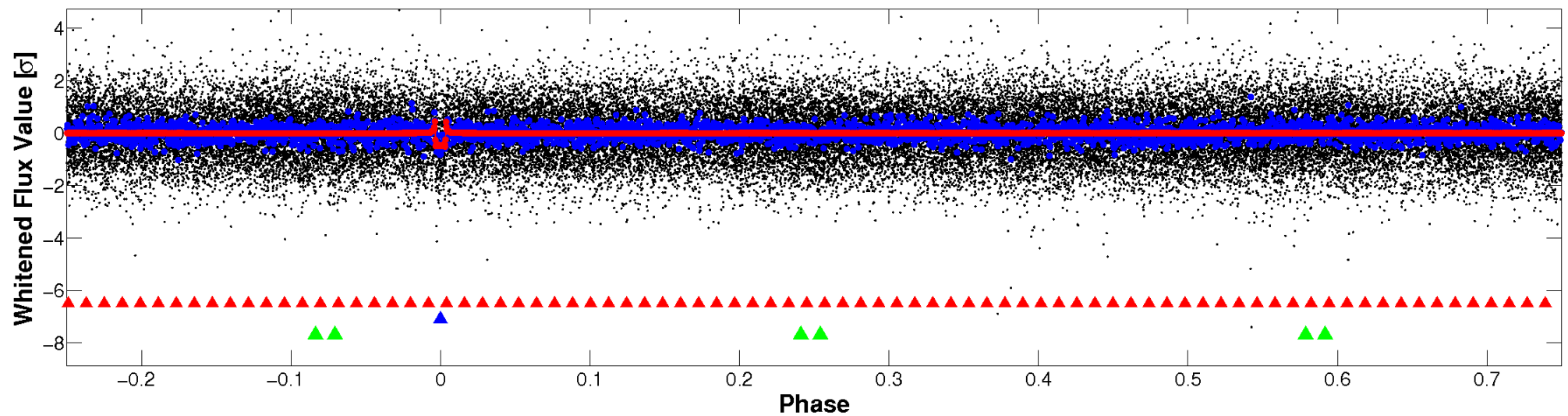


Non-Whitened Vs. Whitened Light Curve

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

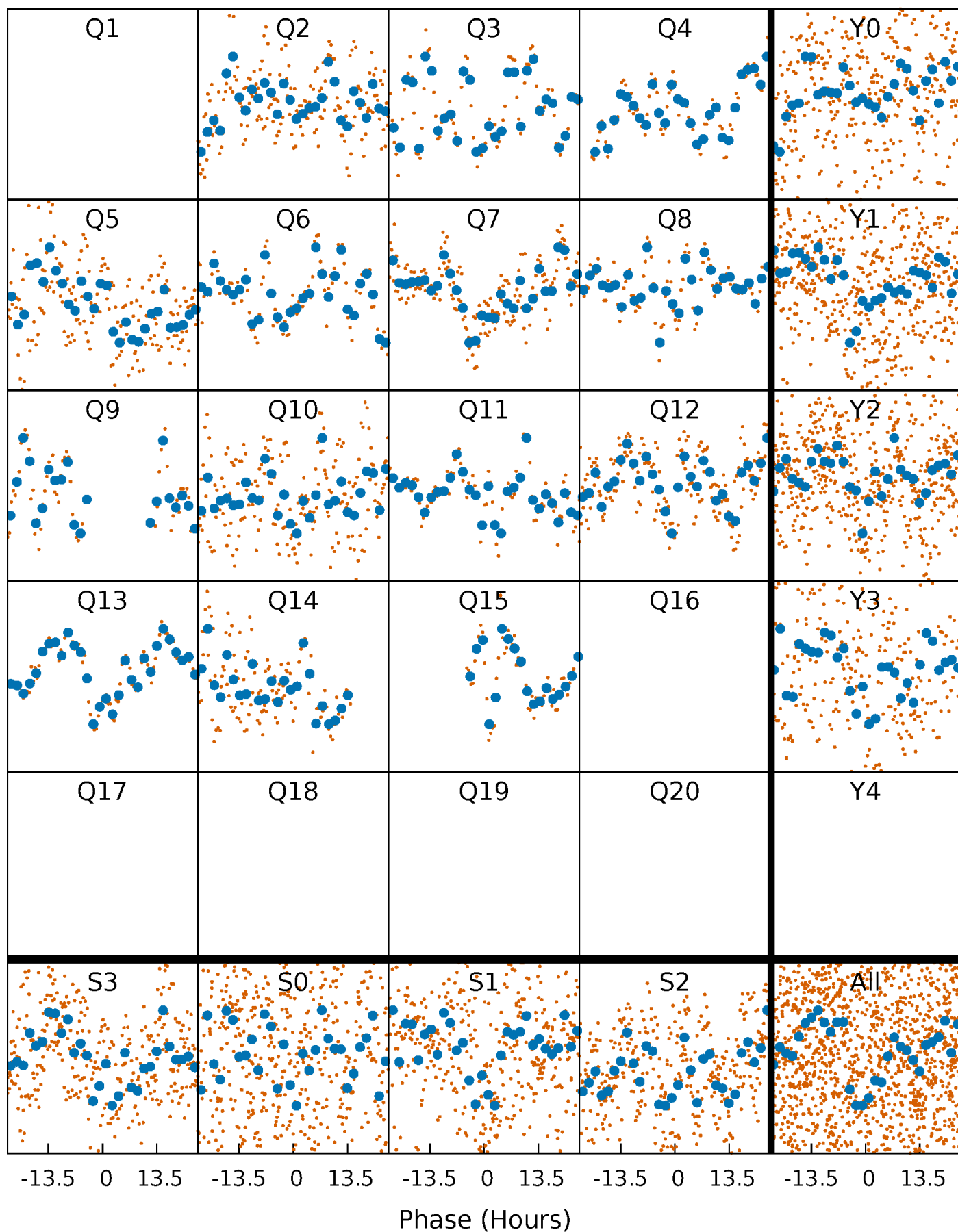


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



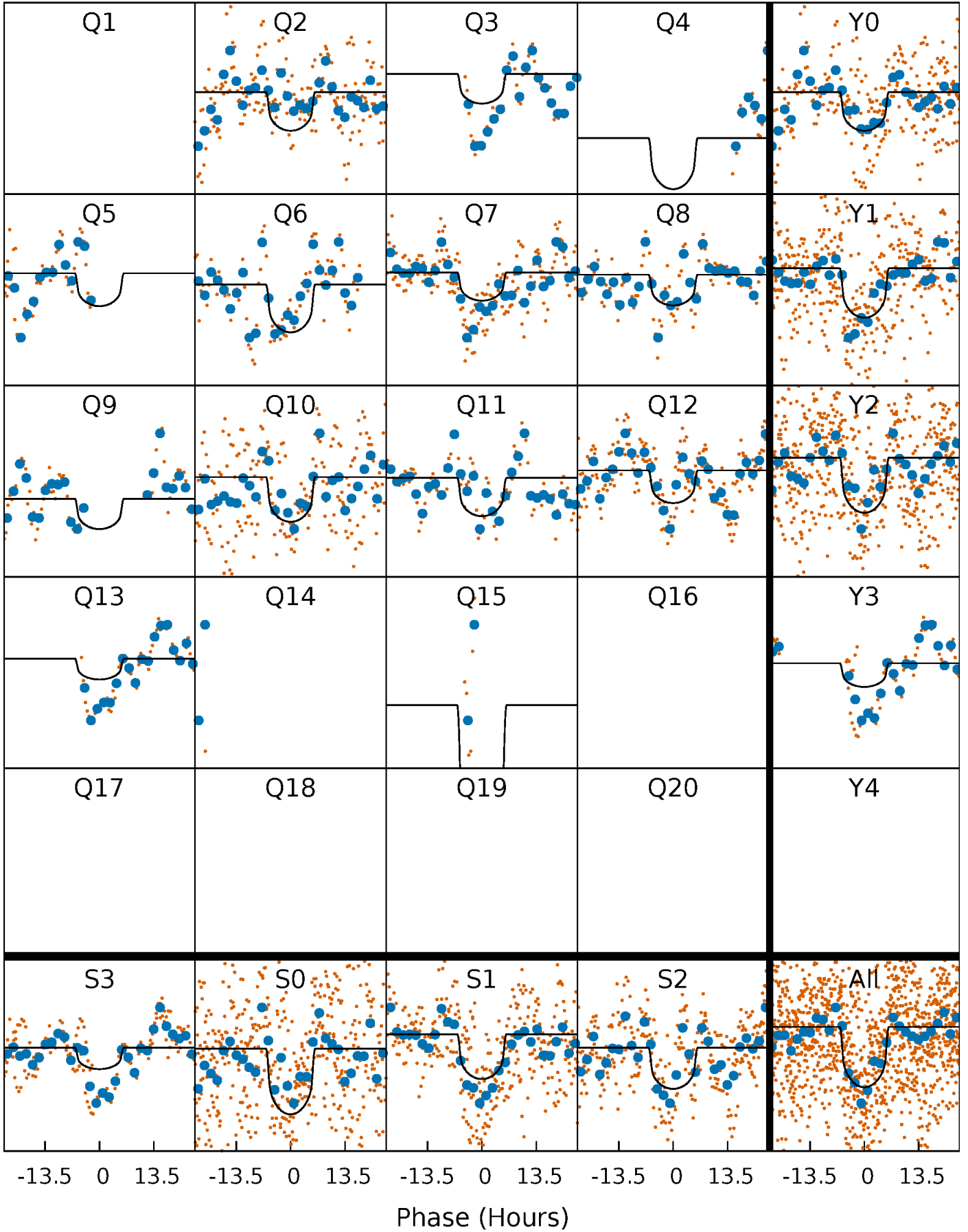
PDC Quarter-Phased Transit Curves

TCE 008346038-02 P= 65.703936 Days $T_0=188.059578$ (BKJD)



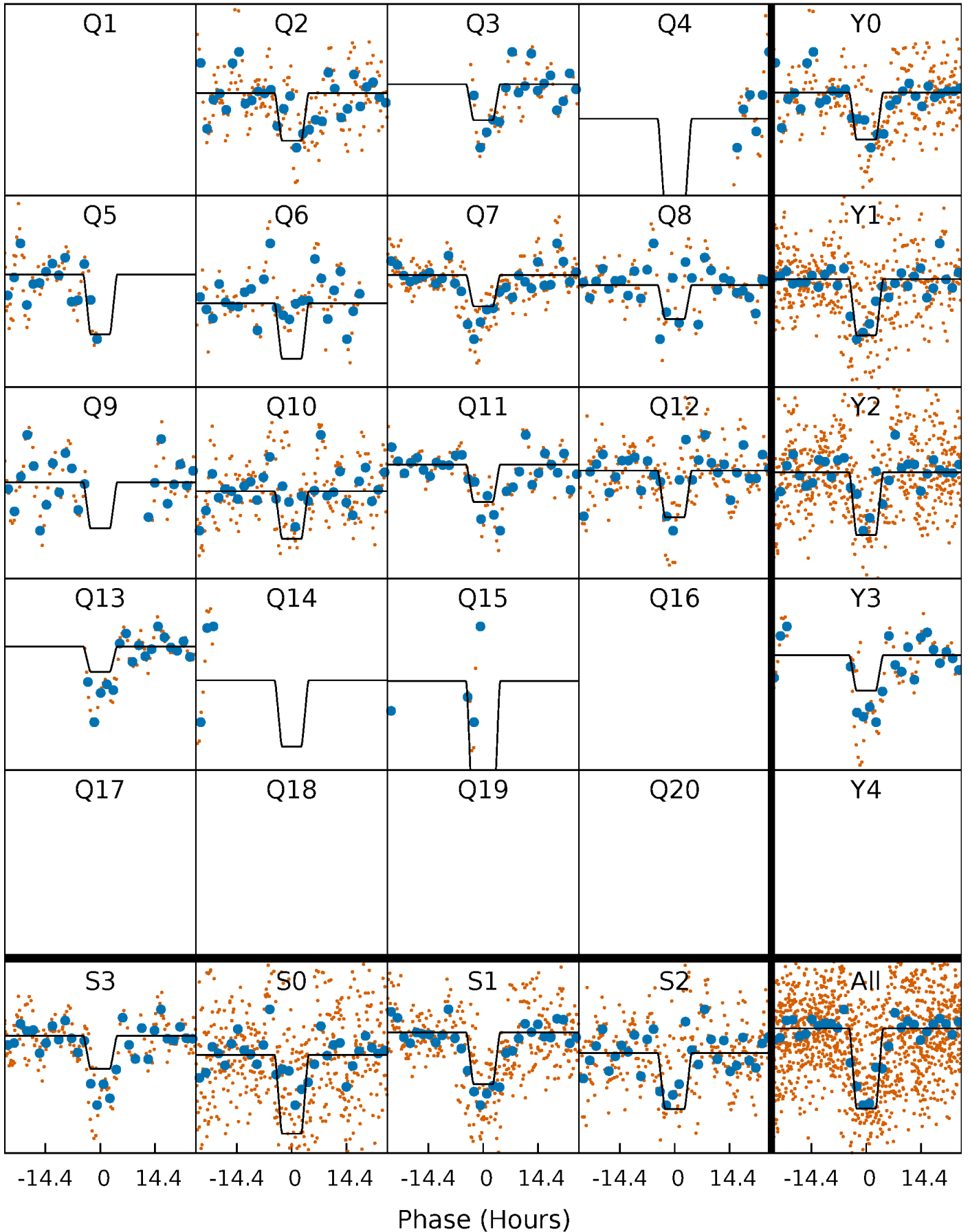
DV Quarter-Phased Transit Curves

TCE 008346038-02 P= 65.703936 Days $T_0=188.059578$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

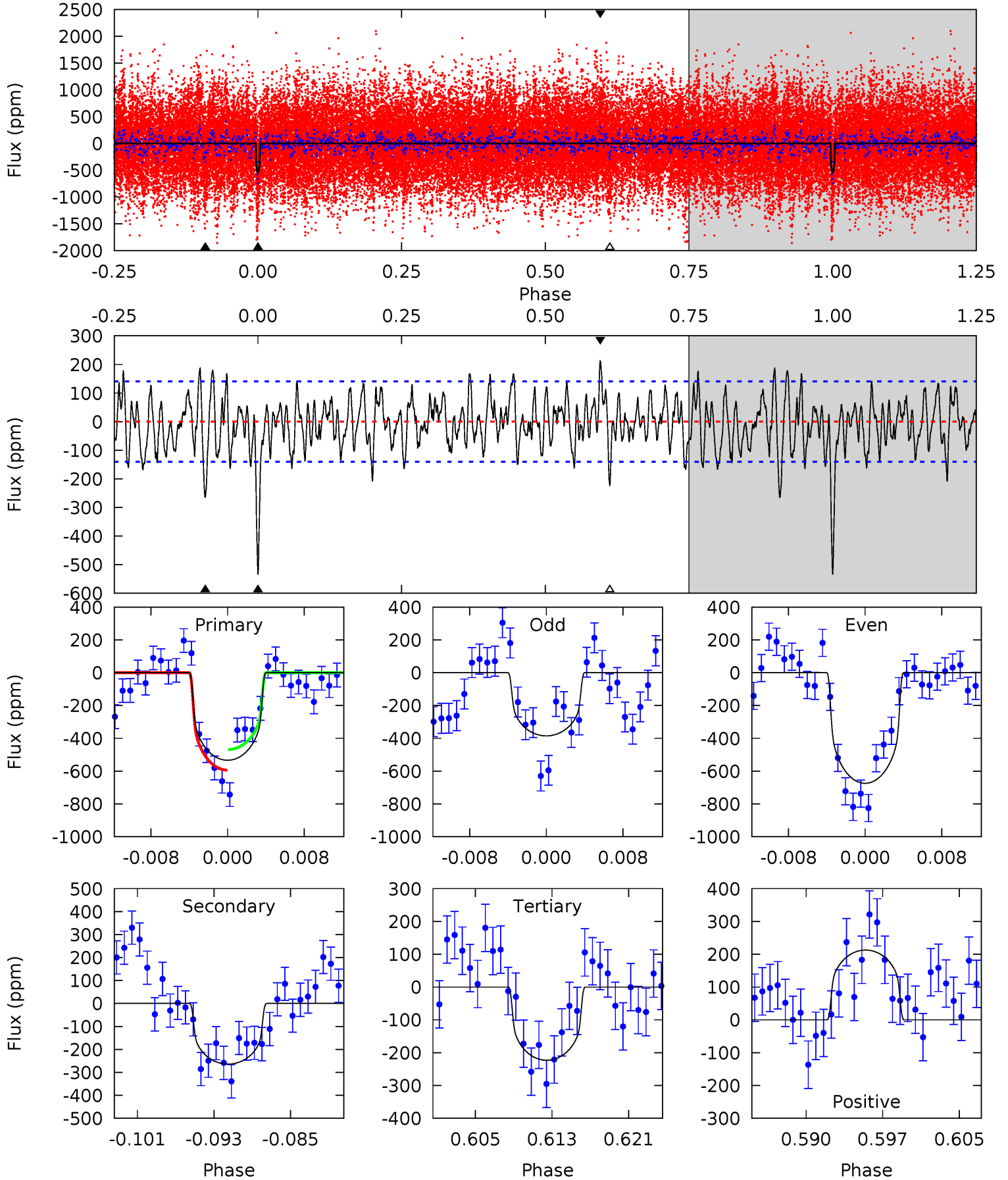
TCE 008346038-02 P= 65.705288 Days $T_0=188.021819$ (BKJD)



DV Model-Shift Uniqueness Test

008346038-02, P = 65.703936 Days, E = 122.355642 Days

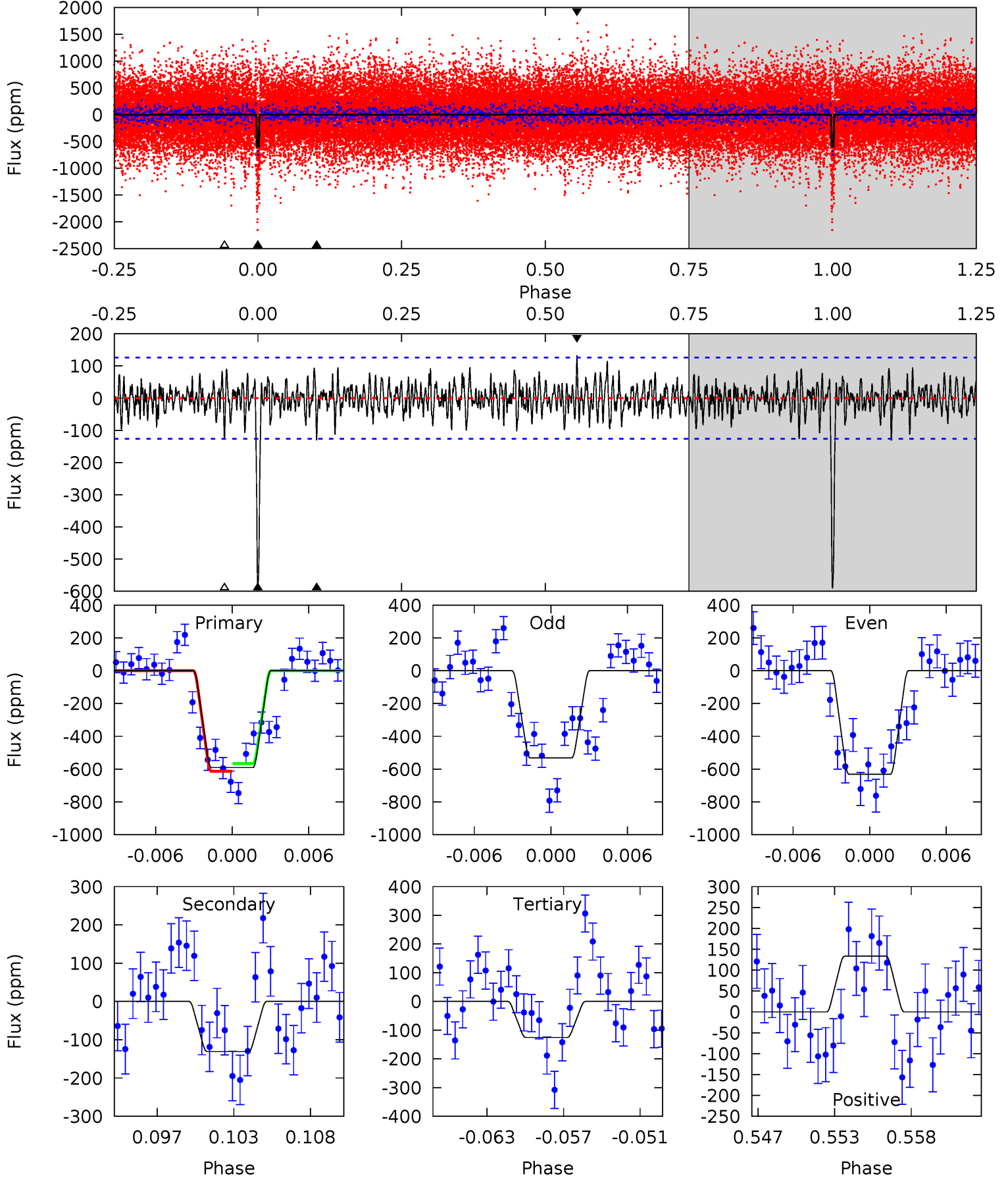
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	9.54	8.06	7.68	5.07	2.66	2.66	11.2	11.6	1.48	1.86	5.22	1.21	0.28	2.26



Alt Model-Shift Uniqueness Test

008346038-02, P = 65.705288 Days, E = 122.316531 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.0	5.31	5.10	5.42	5.13	2.76	1.47	18.9	18.6	0.21	-0.11	2.03	0.90	0.18	0.96



Stellar Parameters For KIC 008346038

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4609^{+79}_{-112}	$2.643^{+0.027}_{-0.036}$	$0.280^{+0.100}_{-0.200}$	$10.606^{+2.364}_{-2.149}$	$1.804^{+0.938}_{-0.703}$	$0.002^{+0.001}_{-0.000}$
	+2%/-2%	+1%/-1%	+36%/-71%	+22%/-20%	+52%/-39%	+25%/-14%
Source	PHO56	AST56	PHO56	DSEP		

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

Secondary Eclipse Parameters for KIC 008346038-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-264 ± 28	$28.87^{+5.81}_{-5.14}$	1489^{+55}_{-54}	3938^{+218}_{-179}	27^{+9}_{-6}
Alt.	-131 ± 25	$31.67^{+6.39}_{-6.04}$	1492^{+46}_{-57}	3387^{+178}_{-153}	11^{+4}_{-3}

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

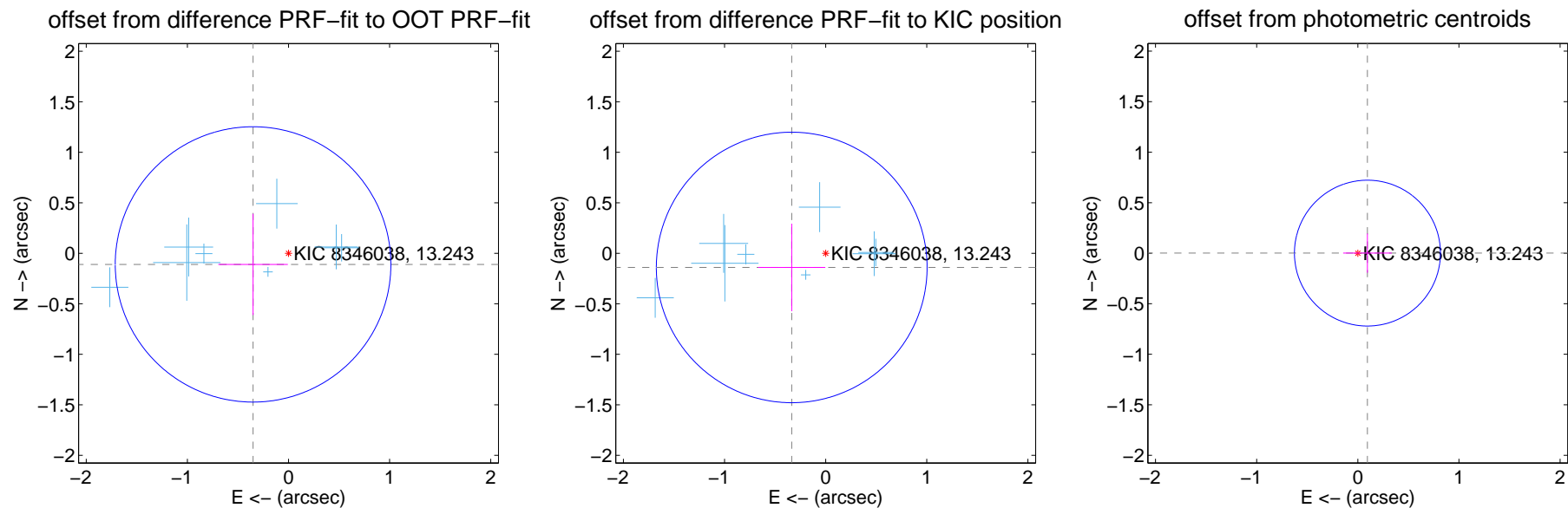
DV Centroid Data

Supplemental centroid analysis for 008346038-02. Kepler magnitude: 13.24. Transit SNR 8.10

There are 9 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.367 ± 0.454	0.81	0.350 ± 0.344	-0.110 ± 0.500
PRF-fit source offset from KIC position	0.364 ± 0.446	0.82	0.336 ± 0.332	-0.140 ± 0.433
photometric centroid source offset	0.10 ± 0.24	0.40	-0.10 ± 0.24	0.00 ± 0.19



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.

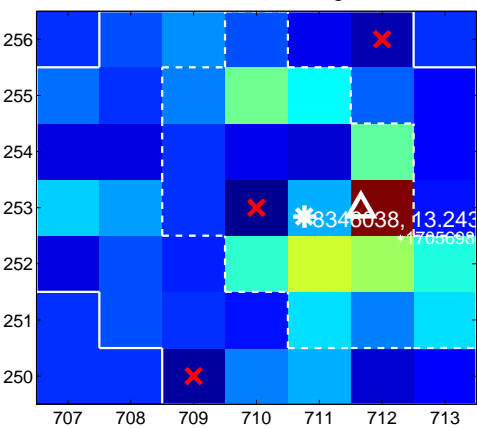
Q1 no difference image



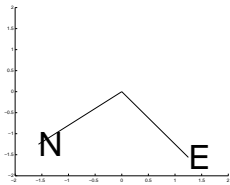
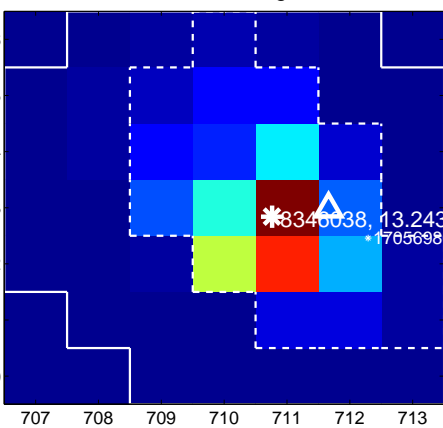
Q1 no OOT image



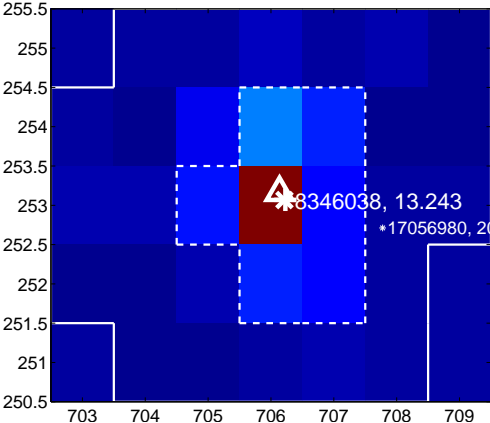
Q2 difference image



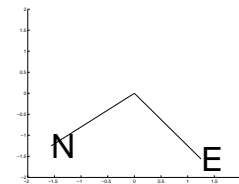
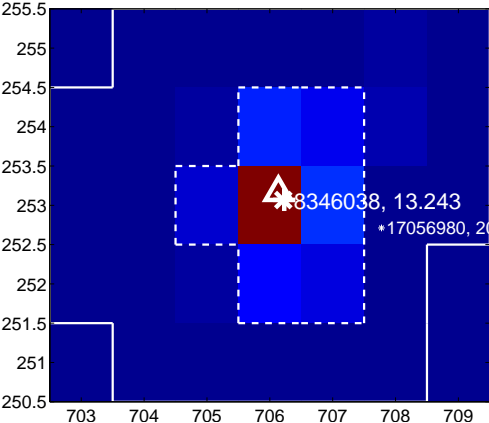
Q2 OOT image



Q3 difference image



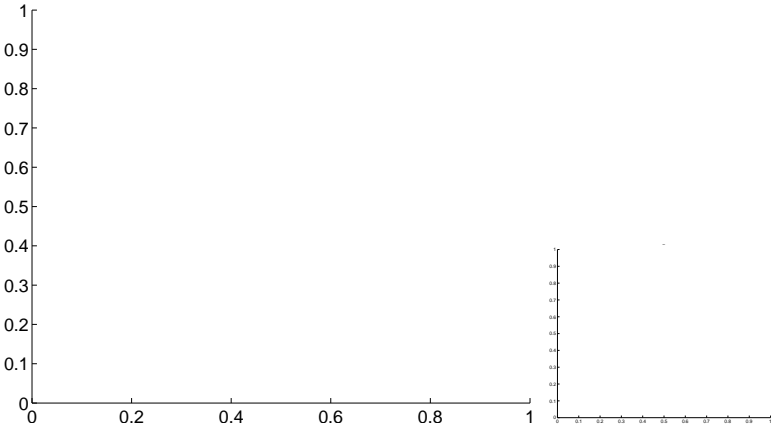
Q3 OOT image



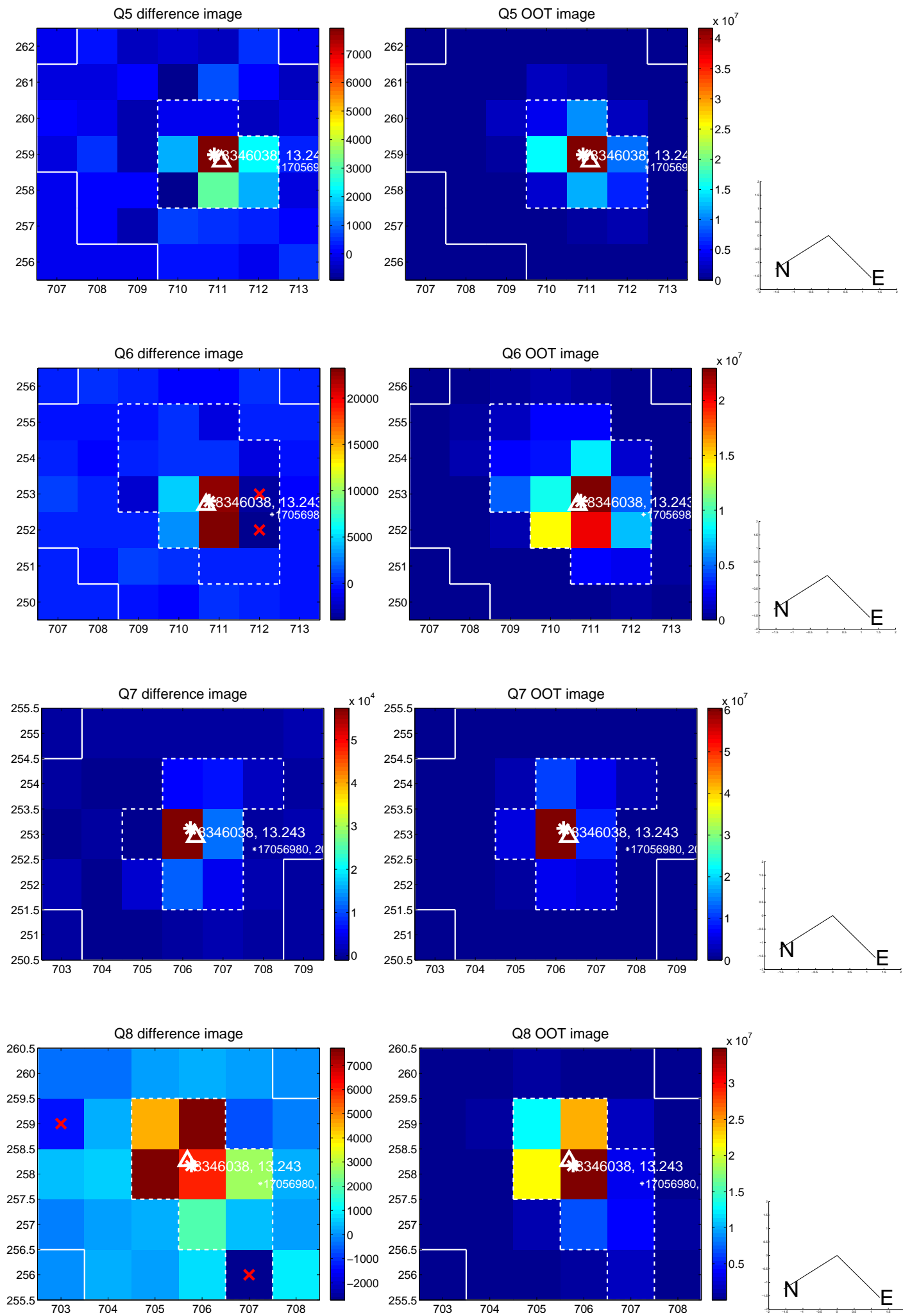
Q4 no difference image



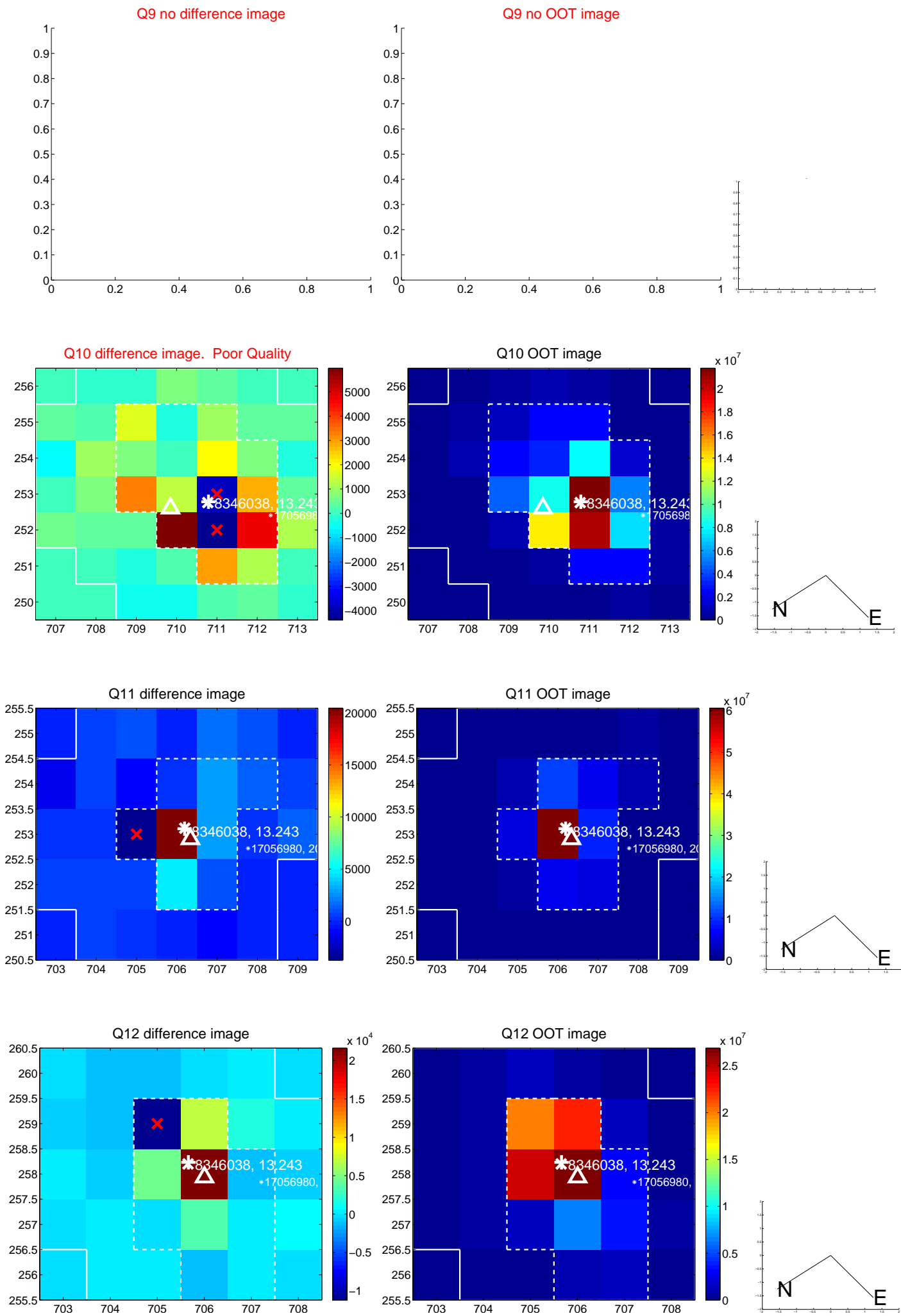
Q4 no OOT image



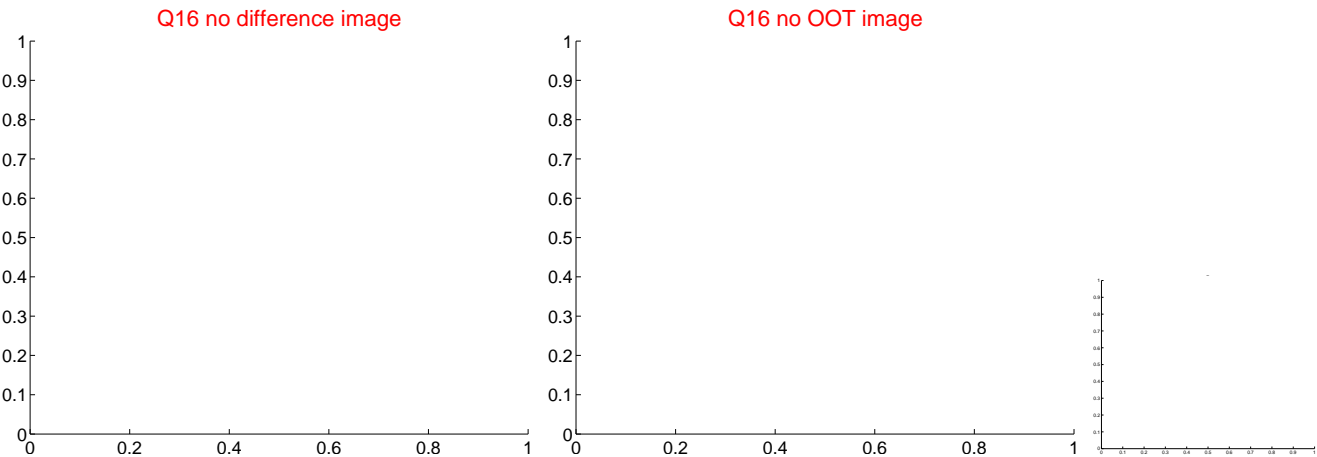
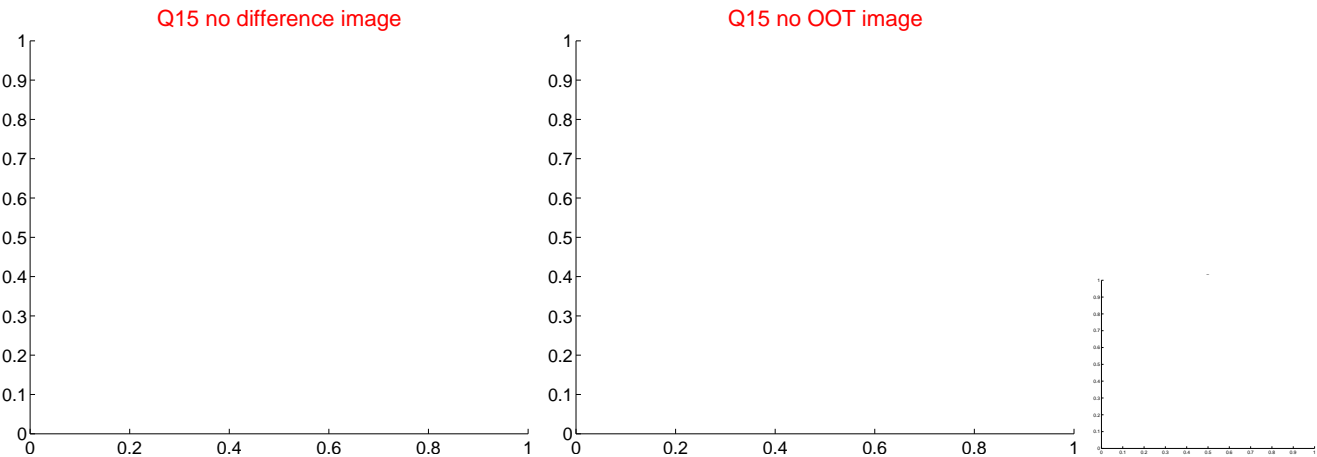
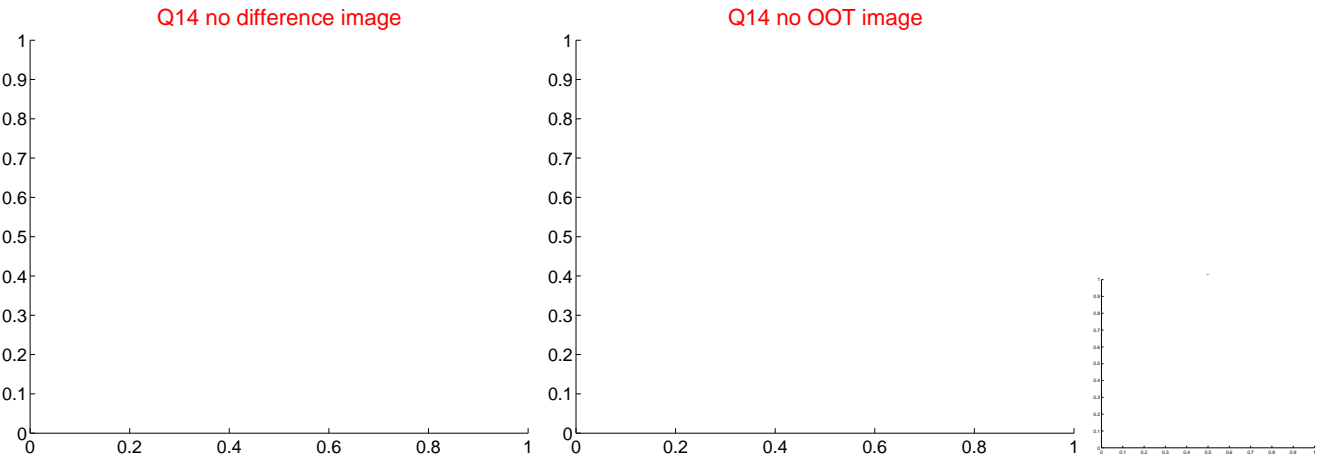
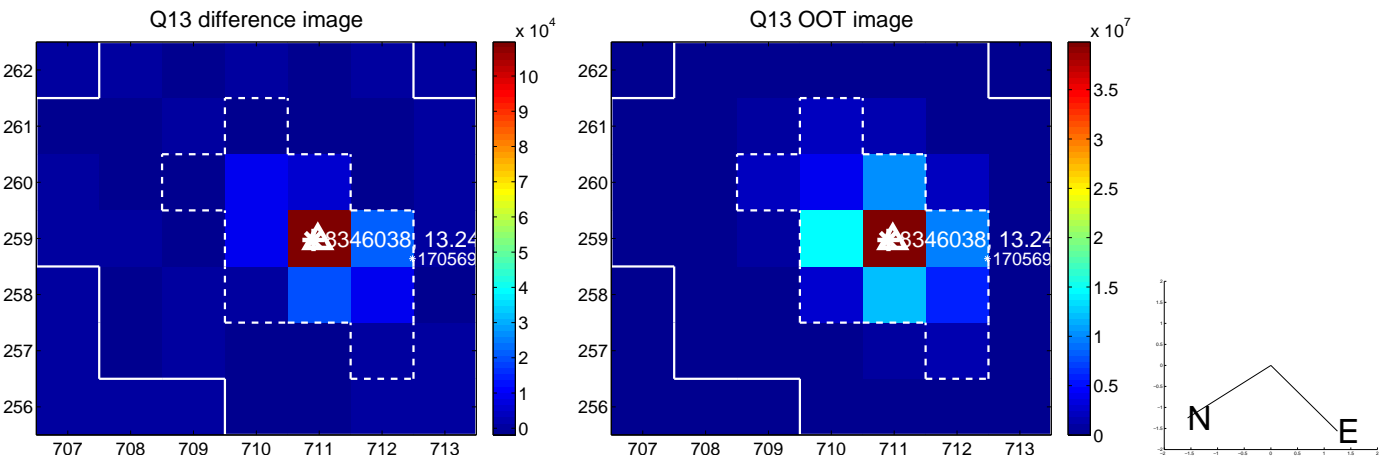
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



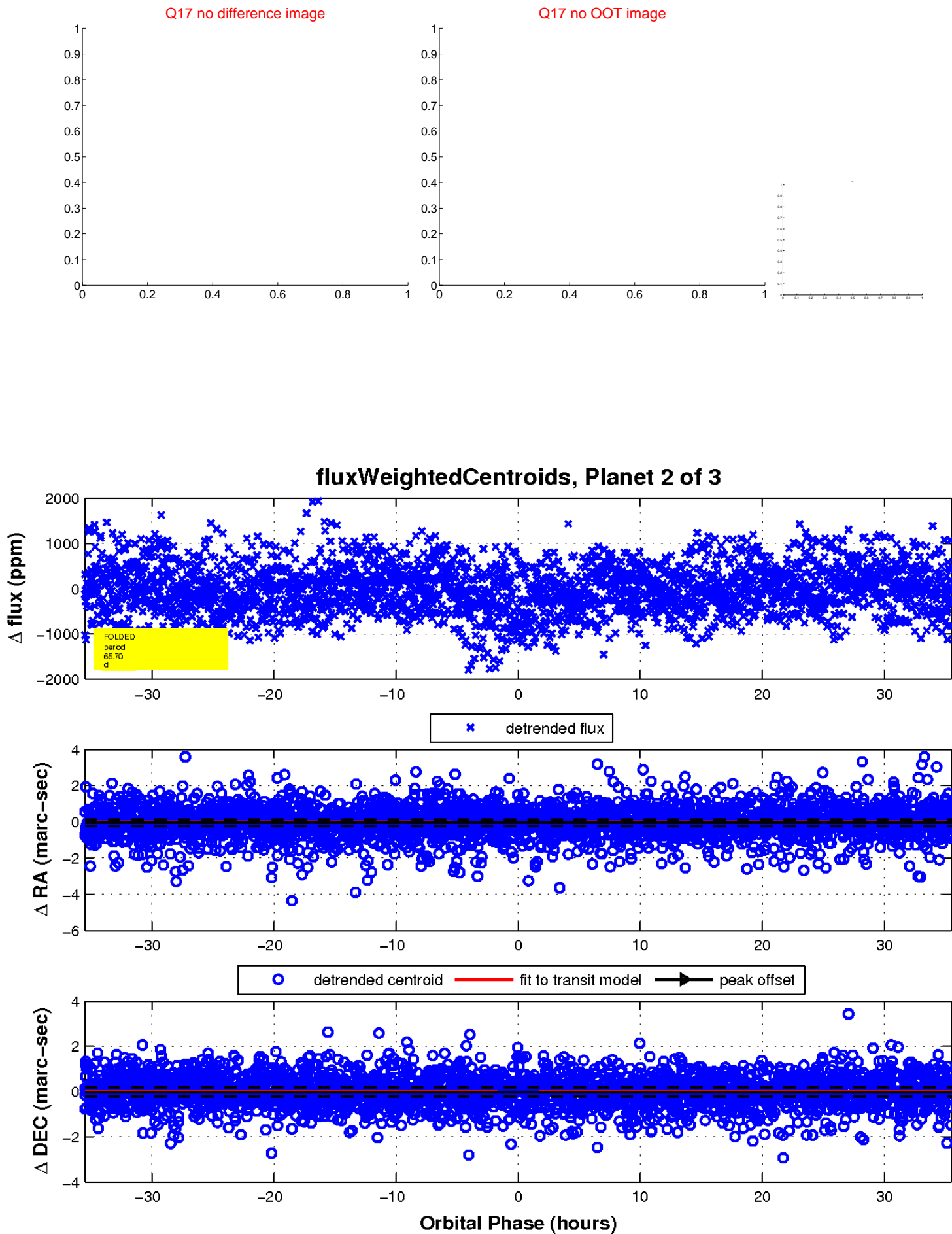
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

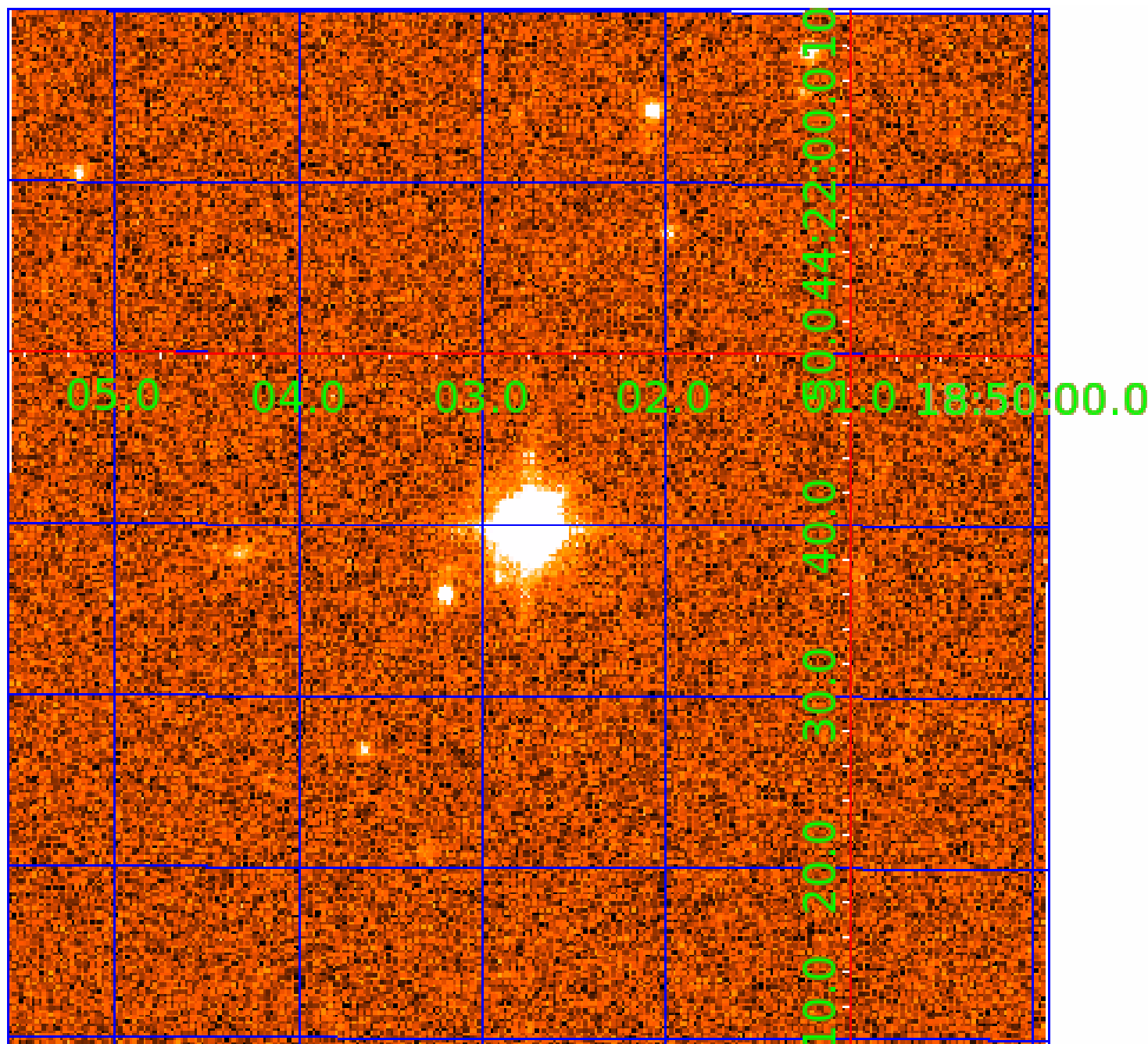


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 008346038

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})
008346038-01	OBS	No	11.082577	140.829990	229.6	17.931	8.3	8.9	10.61	4609	20.20	3242.16
008346038-02	OBS	No	65.703936	188.059578	571.9	11.846	8.0	8.1	10.61	4609	28.21	302.16
008346038-03	OBS	No	219.298111	335.307076	684.5	13.668	7.4	6.0	10.61	4609	31.73	60.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008346038-01	OBS	FP	0.00	1	0	0	0	LPP_DV
008346038-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE
008346038-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

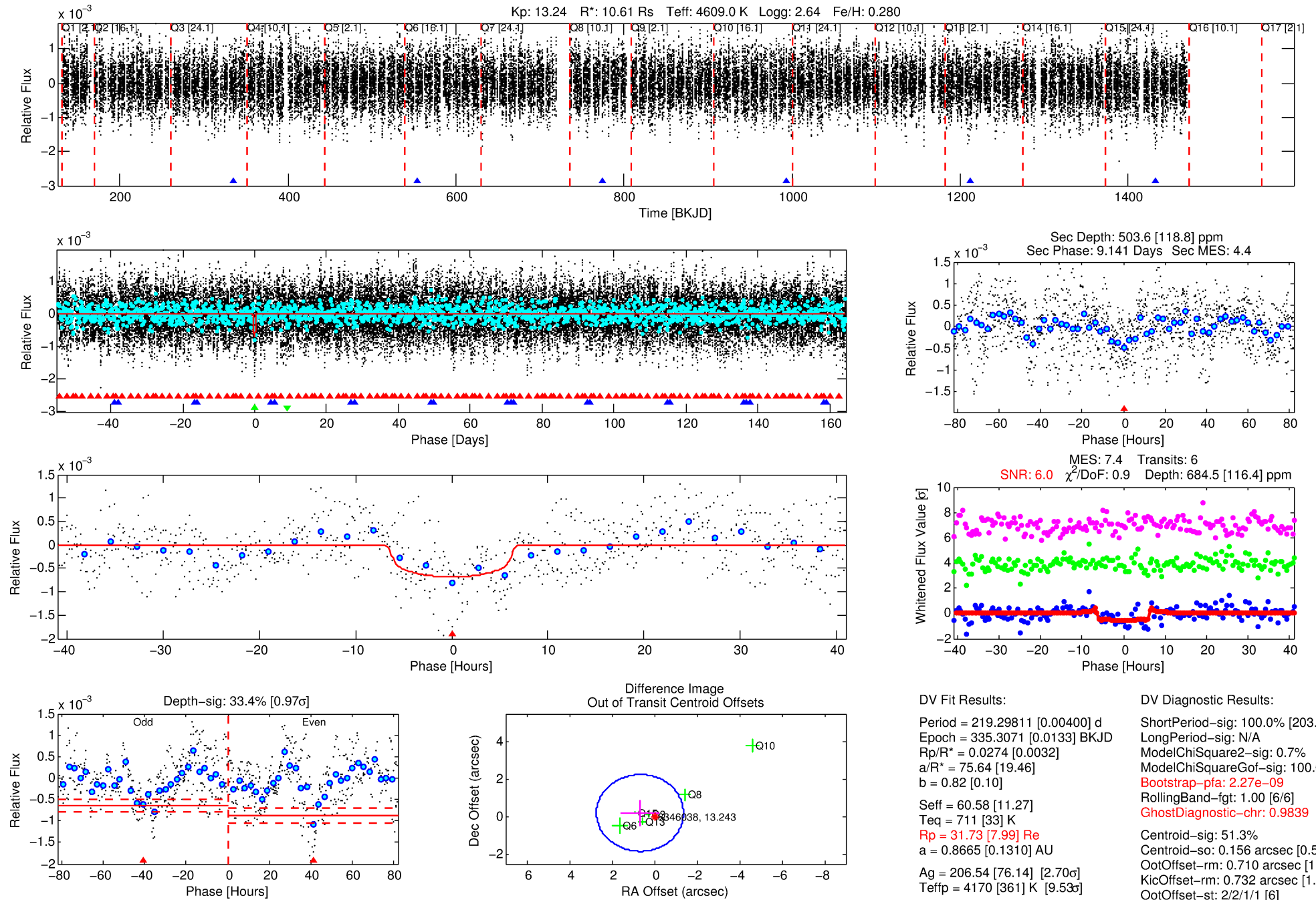
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008346038-03

No Significant Match Found

DV One-Page Summary

KIC: 8346038 Candidate: 3 of 3 Period: 219.298 d



DV Fit Results:

Period = 219.29811 [0.00400] d
Epoch = 335.3071 [0.0133] BKJD
Rp/R* = 0.0274 [0.0032]
a/R* = 75.64 [19.46]
b = 0.82 [0.10]
Seff = 60.58 [11.27]
Teq = 711 [33] K
Rp = 31.73 [7.99] Re
a = 0.8665 [0.1310] AU
Ag = 206.54 [76.14] [2.70 σ]
Teffp = 4170 [361] K [9.53 σ]

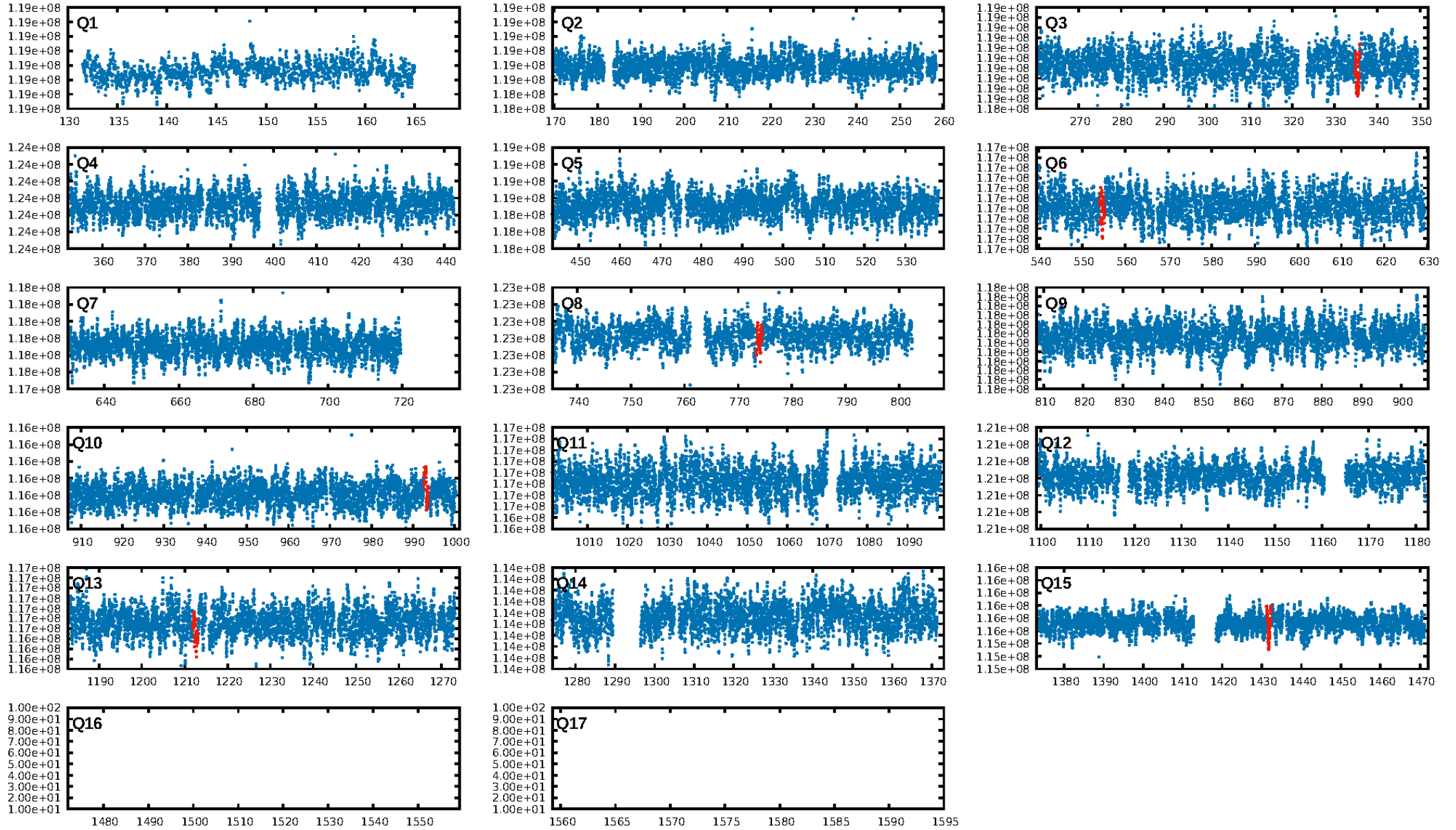
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [203.81 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.27e-09
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.9839
Centroid-sig: 51.3%
Centroid-so: 0.156 arcsec [0.55 σ]
OotOffset-rm: 0.710 arcsec [1.04 σ]
KicOffset-rm: 0.732 arcsec [1.07 σ]
OotOffset-st: 2/2/1/1 [6]
KicOffset-st: 2/2/1/1 [6]
DiffImageQuality-fgm: 0.83 [5/6]
DiffImageOverlap-fno: 0.67 [4/6]

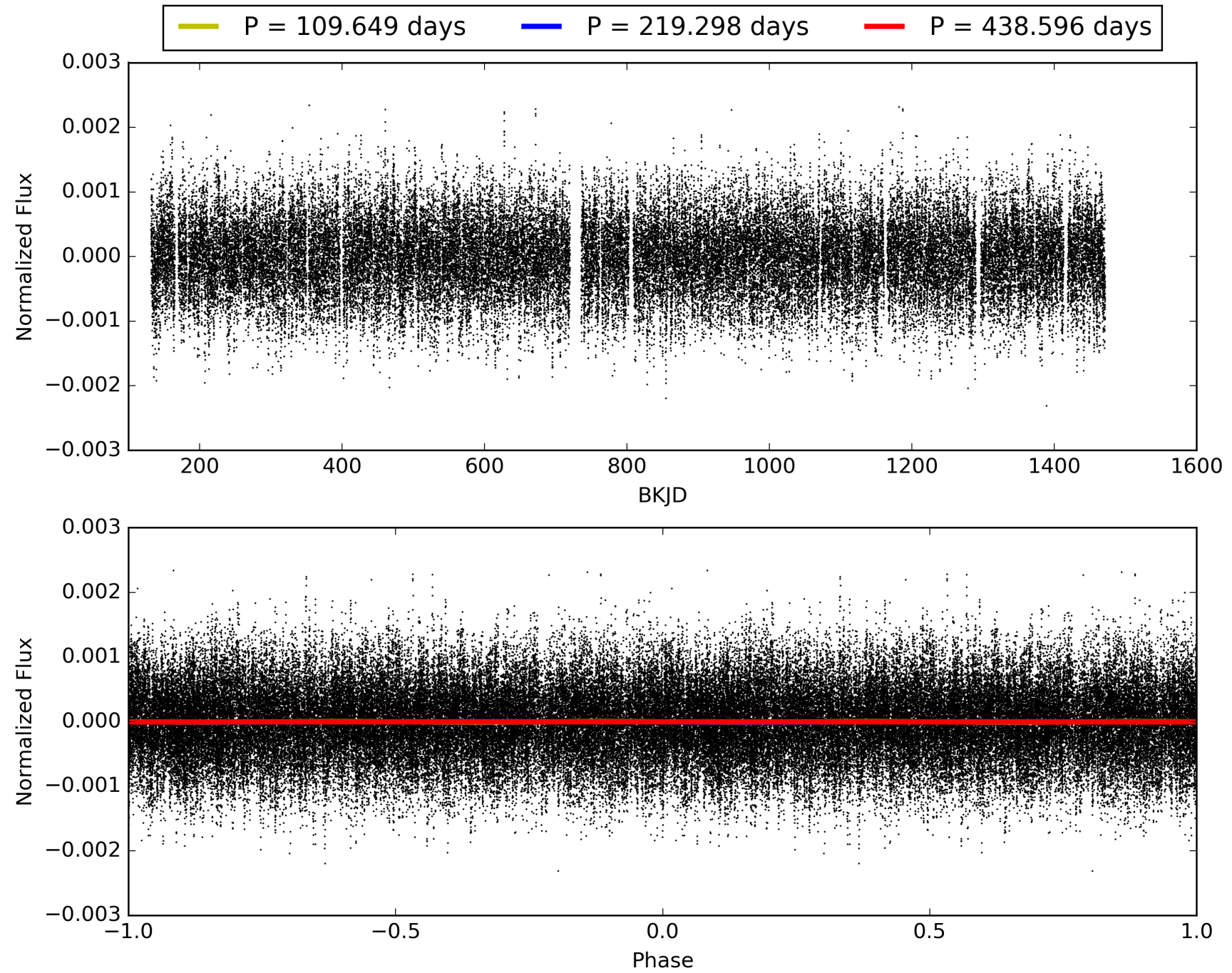
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:05:54 Z

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

TCE 008346038-03, PDC Light Curves

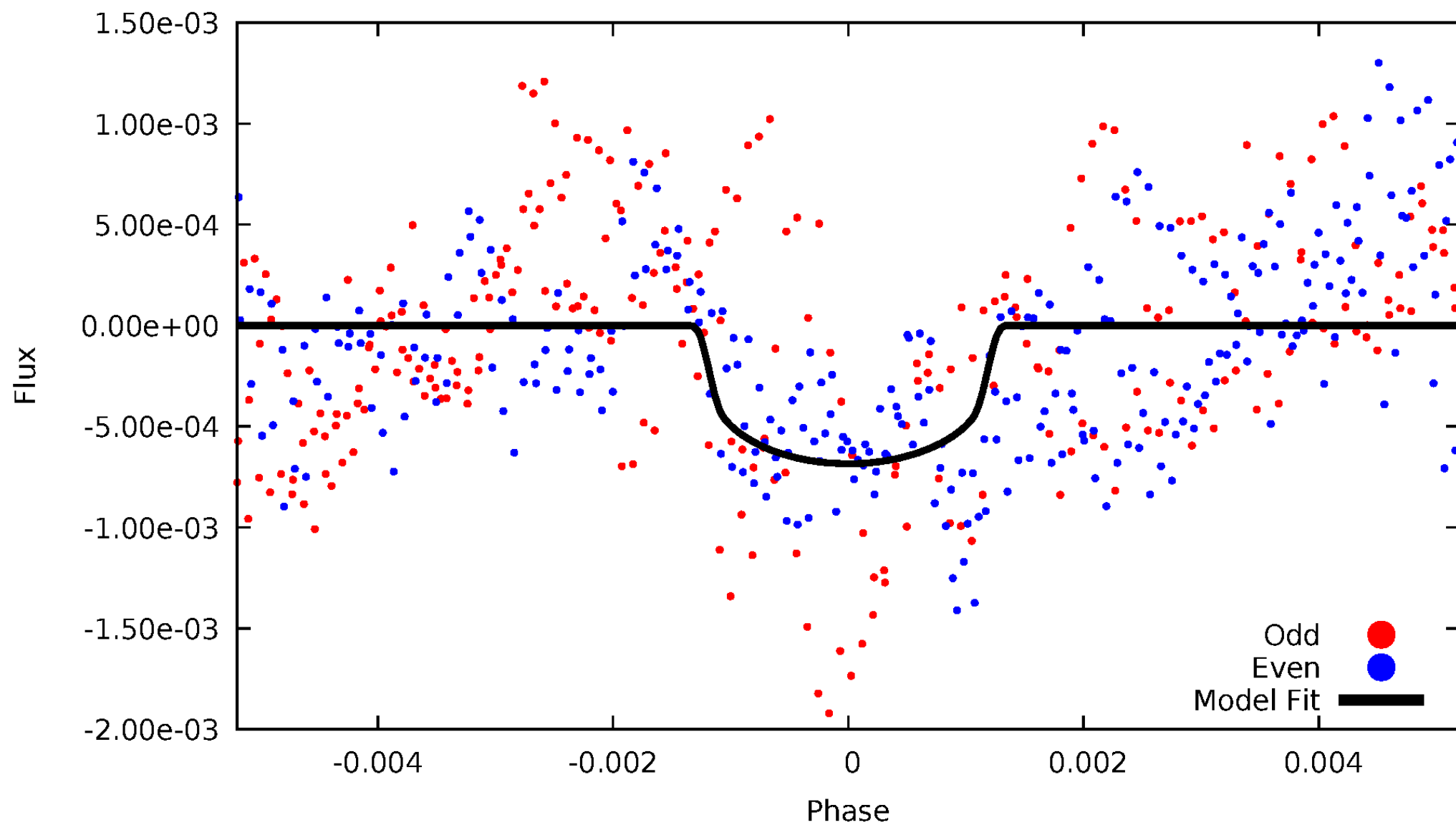


TCE 008346038-03



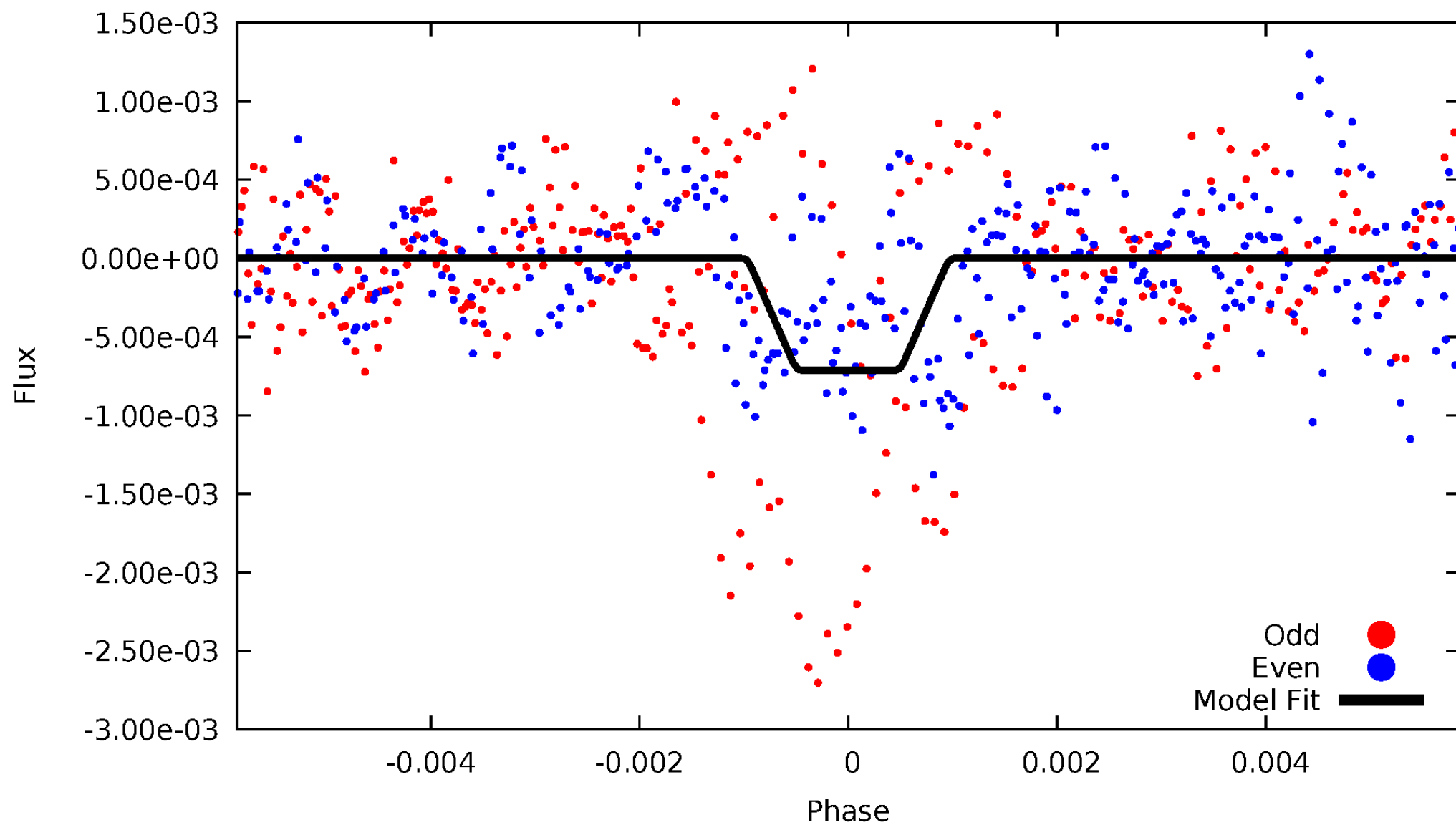
DV Odd/Even

TCE 008346038-03



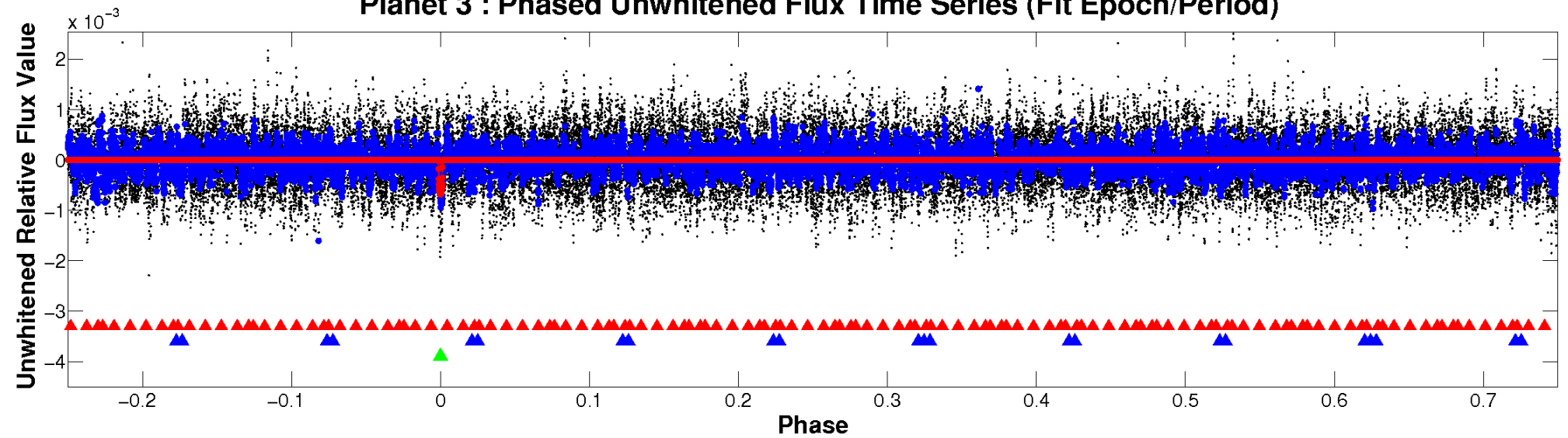
ALT Odd/Even

TCE 008346038-03

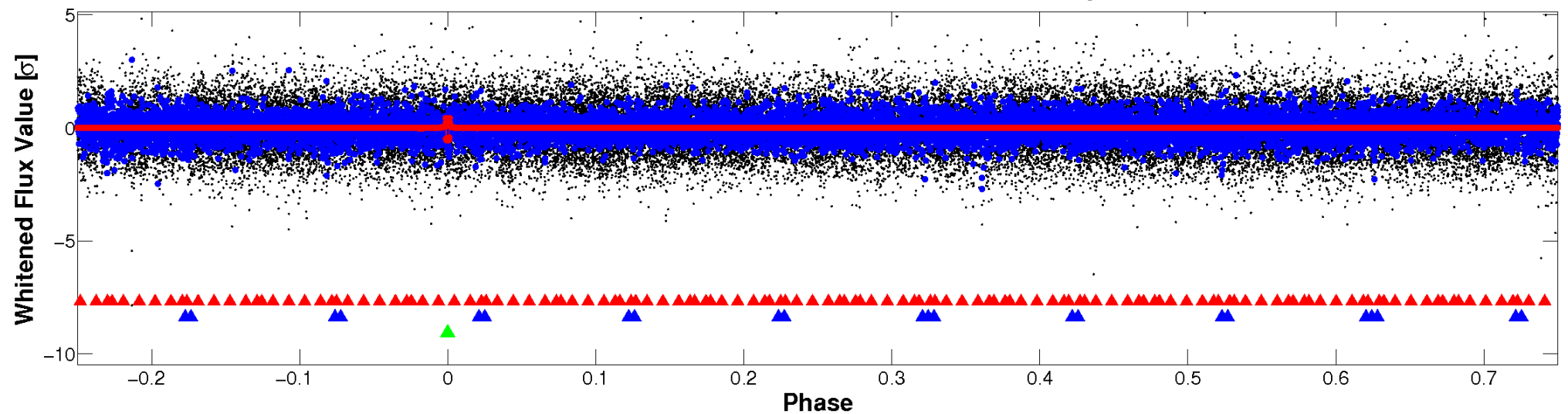


Non-Whitened Vs. Whitened Light Curve

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

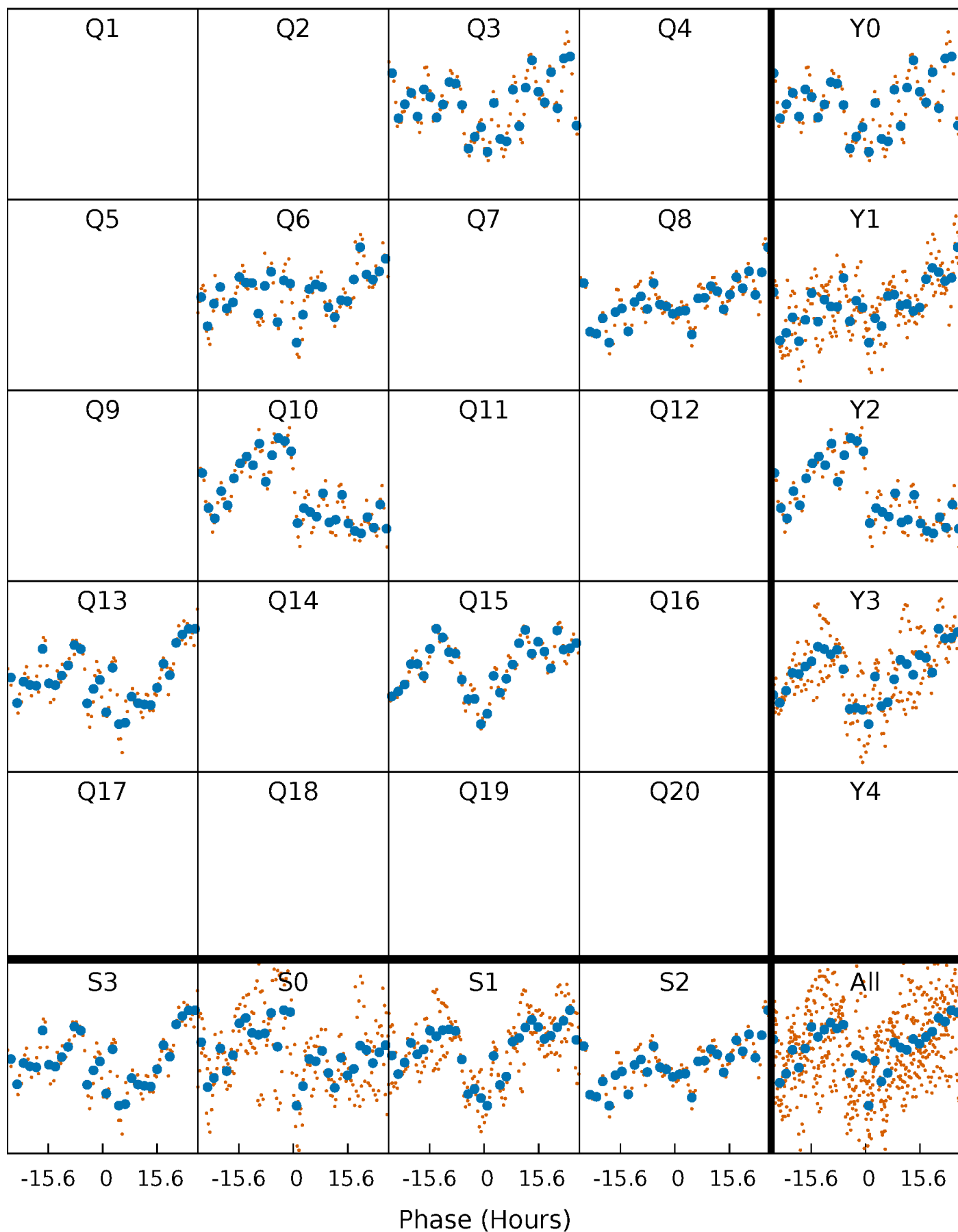


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



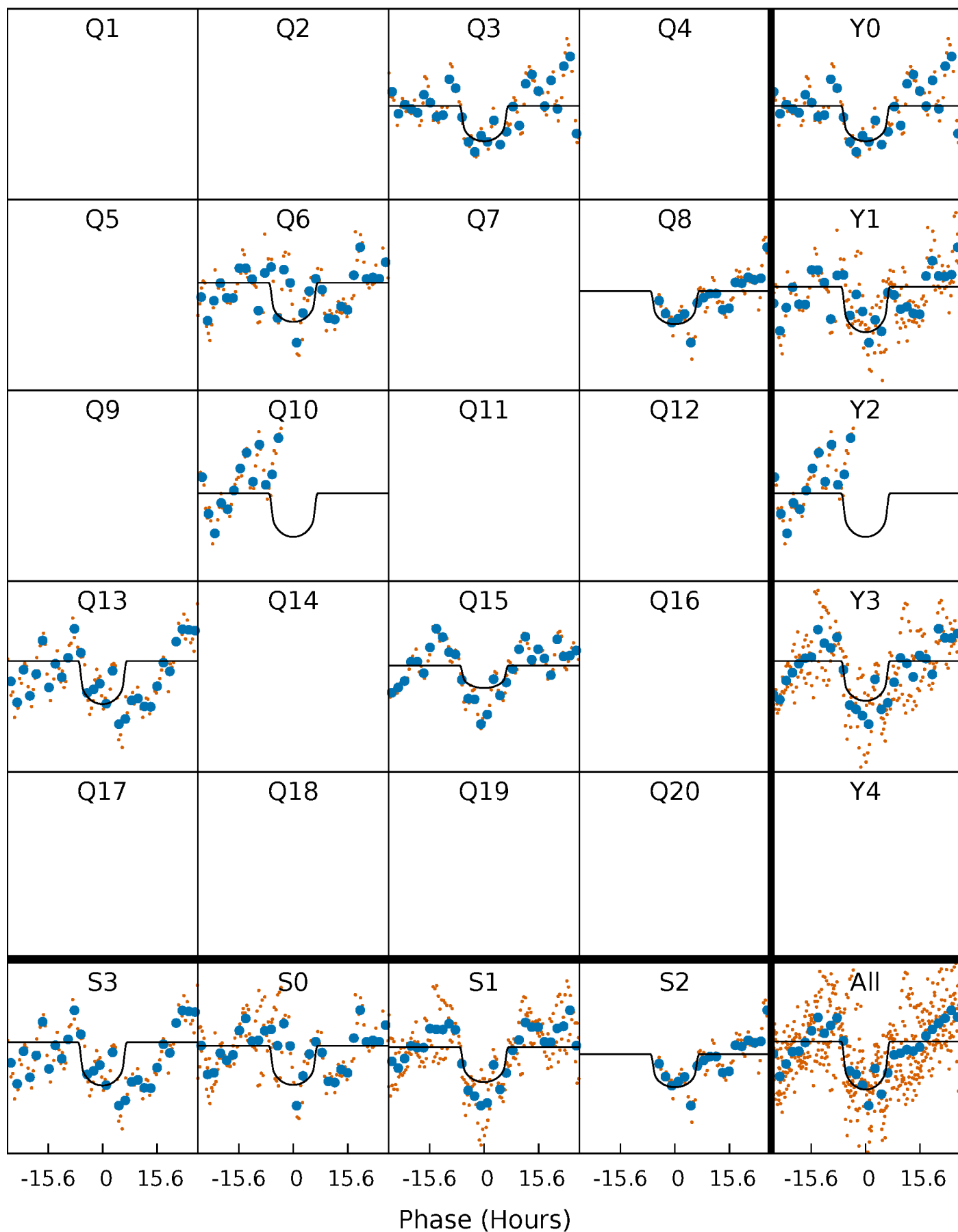
PDC Quarter-Phased Transit Curves

TCE 008346038-03 $P=219.298111$ Days $T_0=335.307076$ (BKJD)



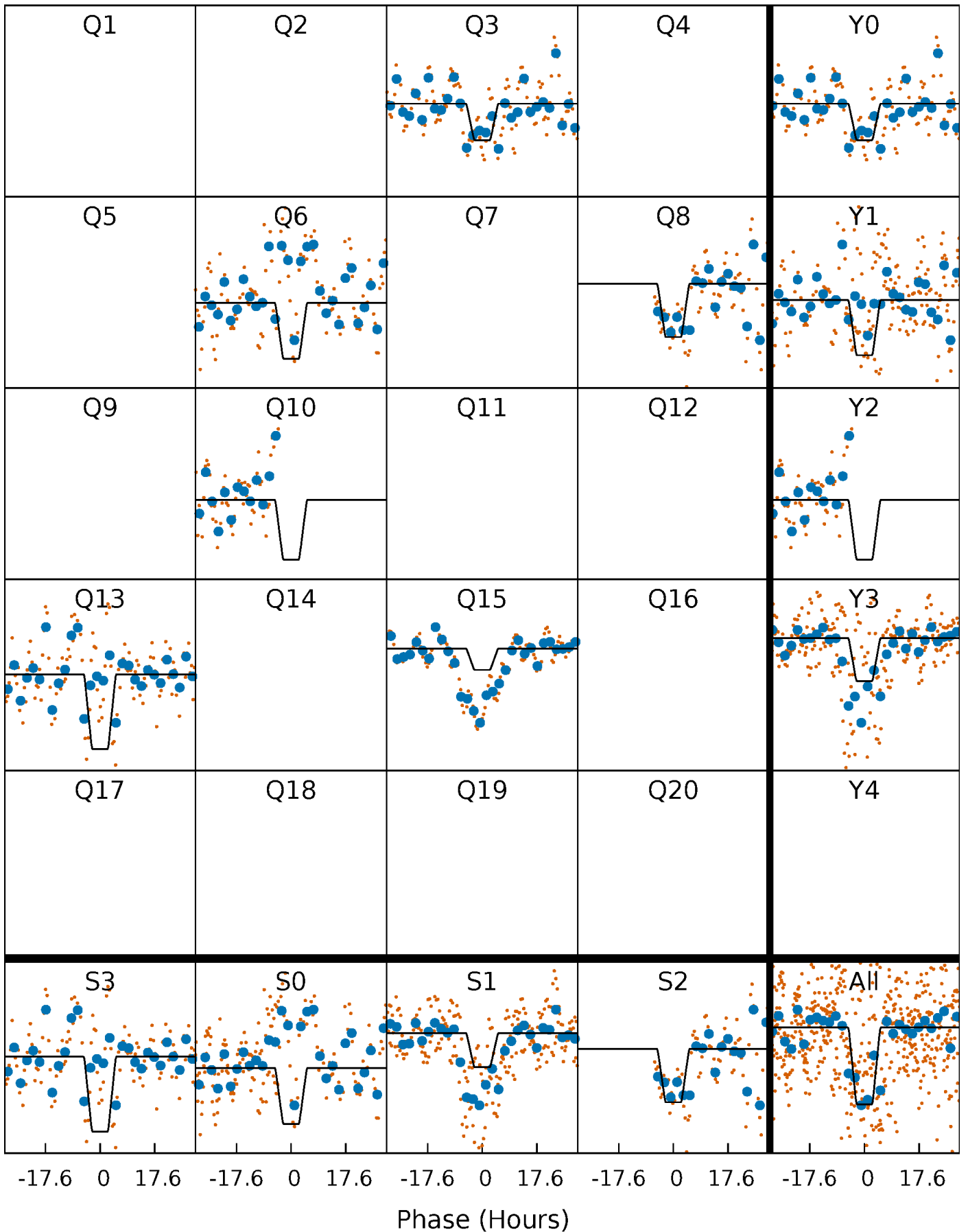
DV Quarter-Phased Transit Curves

TCE 008346038-03 $P=219.298111$ Days $T_0=335.307076$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

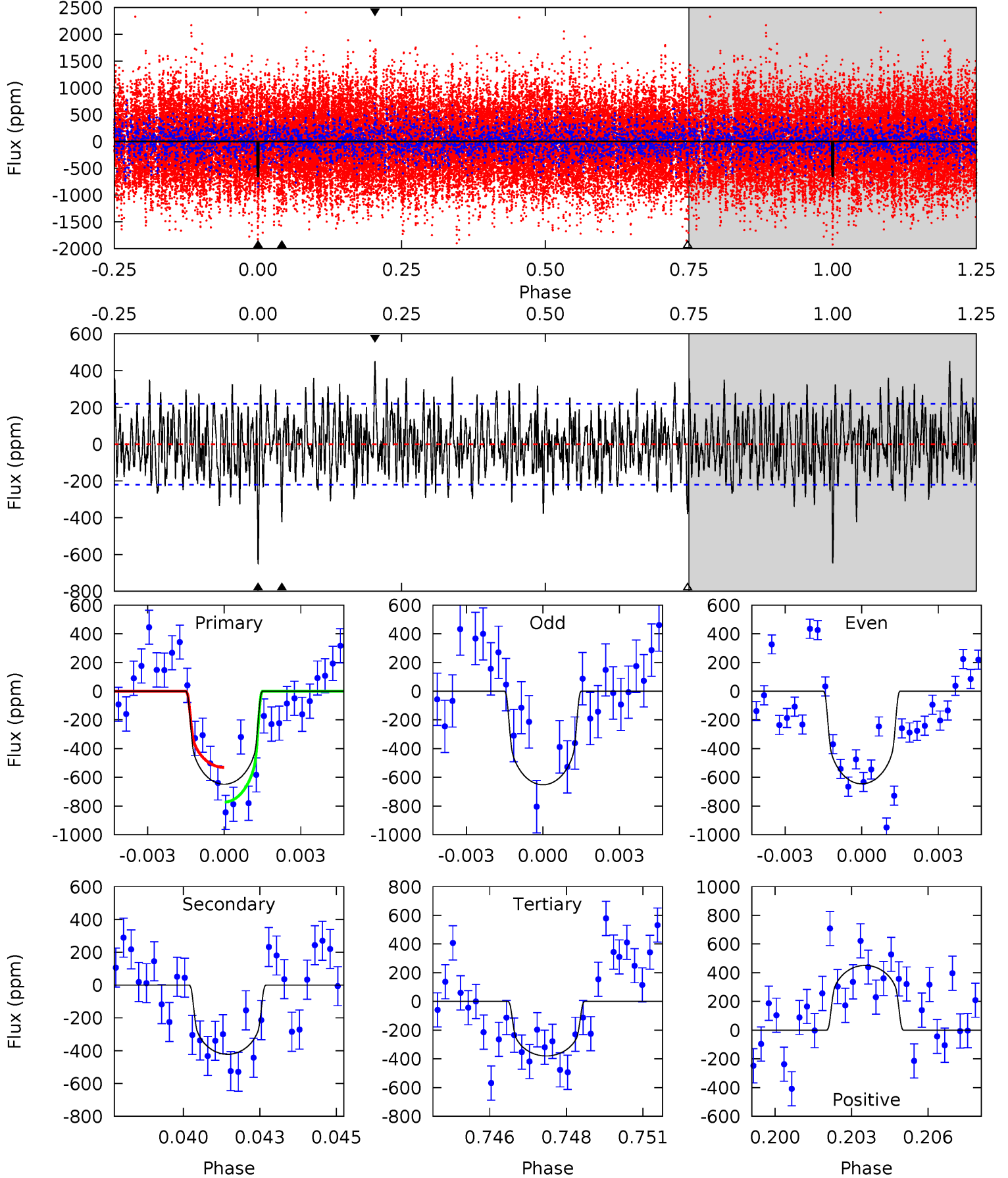
TCE 008346038-03 P=219.299777 Days $T_0=335.326781$ (BKJD)



DV Model-Shift Uniqueness Test

008346038-03, P = 219.298111 Days, E = 116.008965 Days

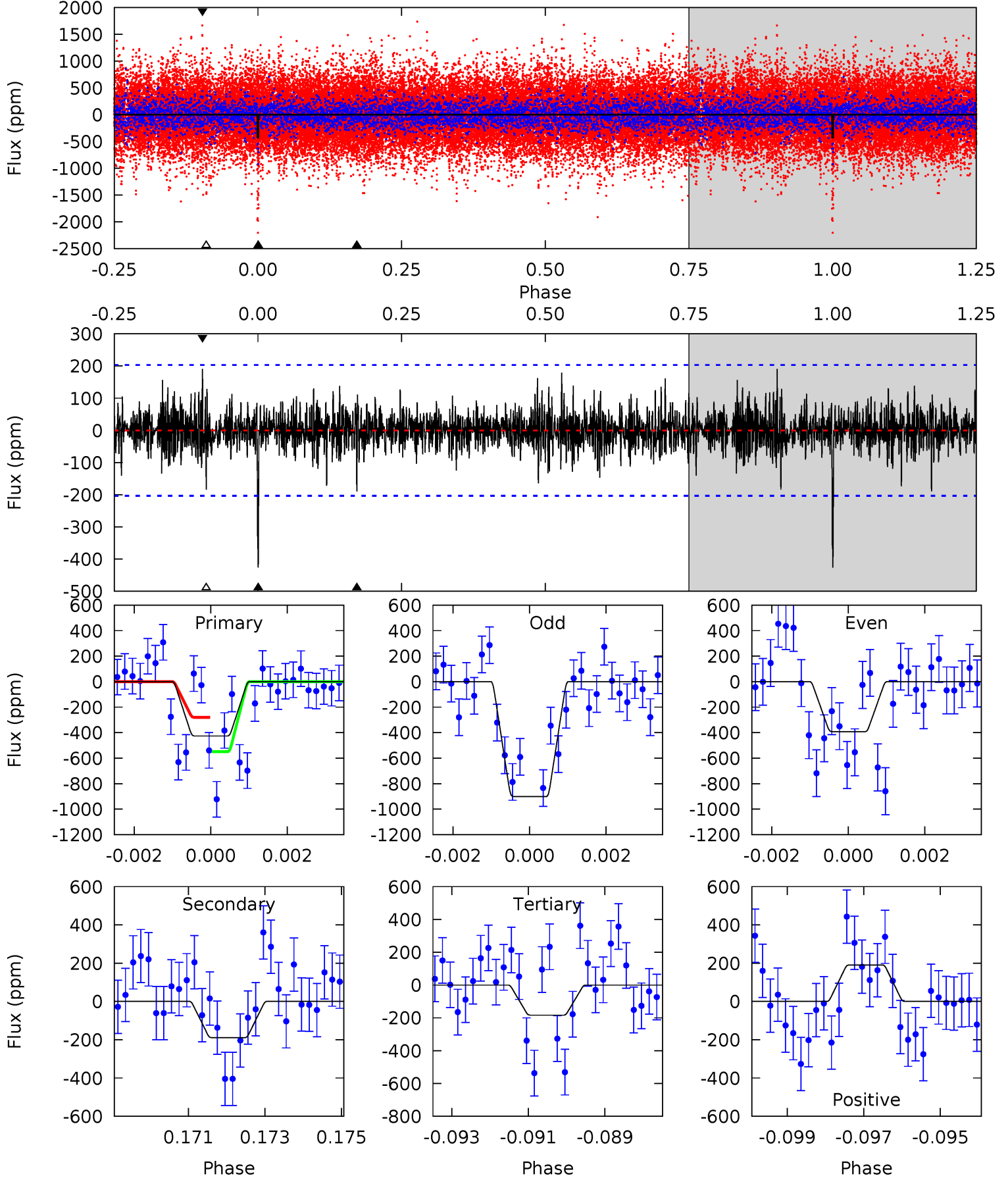
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	10.1	9.11	10.8	5.27	3.00	3.13	6.43	4.72	1.01	-0.70	0.08	0.69	0.41	2.89



Alt Model-Shift Uniqueness Test

008346038-03, P = 219.299777 Days, E = 116.027004 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	4.96	4.82	5.00	5.33	3.09	1.17	6.35	6.17	0.14	-0.04	6.74	0.27	0.31	0



Stellar Parameters For KIC 008346038

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4609^{+79}_{-112}	$2.643^{+0.027}_{-0.036}$	$0.280^{+0.100}_{-0.200}$	$10.606^{+2.364}_{-2.149}$	$1.804^{+0.938}_{-0.703}$	$0.002^{+0.001}_{-0.000}$
	+2%/-2%	+1%/-1%	+36%/-71%	+22%/-20%	+52%/-39%	+25%/-14%
Source	PHO56	AST56	PHO56	DSEP		

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

Secondary Eclipse Parameters for KIC 008346038-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-422 ± 42	$32.50^{+7.05}_{-5.70}$	998^{+38}_{-34}	4125^{+211}_{-204}	168^{+53}_{-41}
Alt.	-189 ± 38	$31.52^{+6.11}_{-5.41}$	999^{+33}_{-36}	3626^{+210}_{-211}	81^{+31}_{-25}

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 $A_{obs} \gg 1.0$

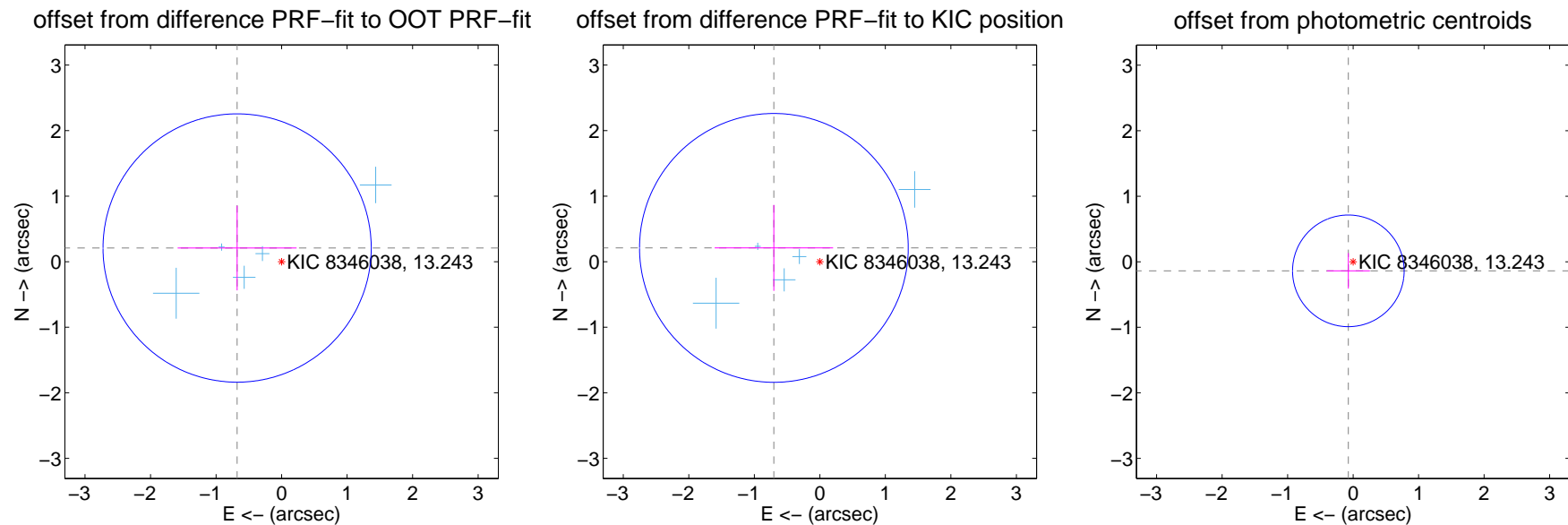
DV Centroid Data

Supplemental centroid analysis for 008346038-03. Kepler magnitude: 13.24. Transit SNR 5.95

There are 5 quarters with good PRF difference image offsets

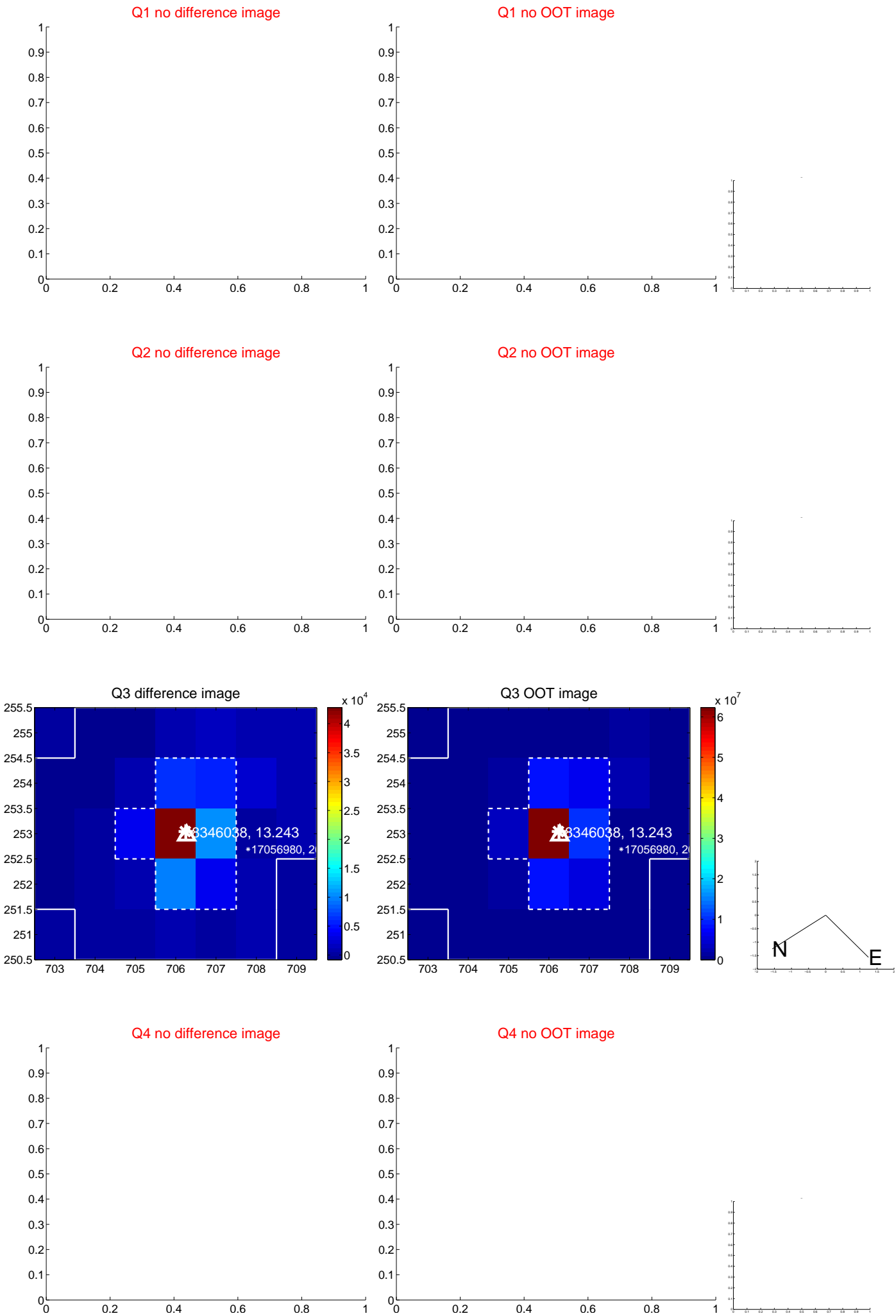
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.710 ± 0.682	1.04	0.678 ± 0.908	0.209 ± 0.645
PRF-fit source offset from KIC position	0.732 ± 0.683	1.07	0.701 ± 0.904	0.210 ± 0.656
photometric centroid source offset	0.16 ± 0.28	0.55	0.07 ± 0.33	-0.14 ± 0.27

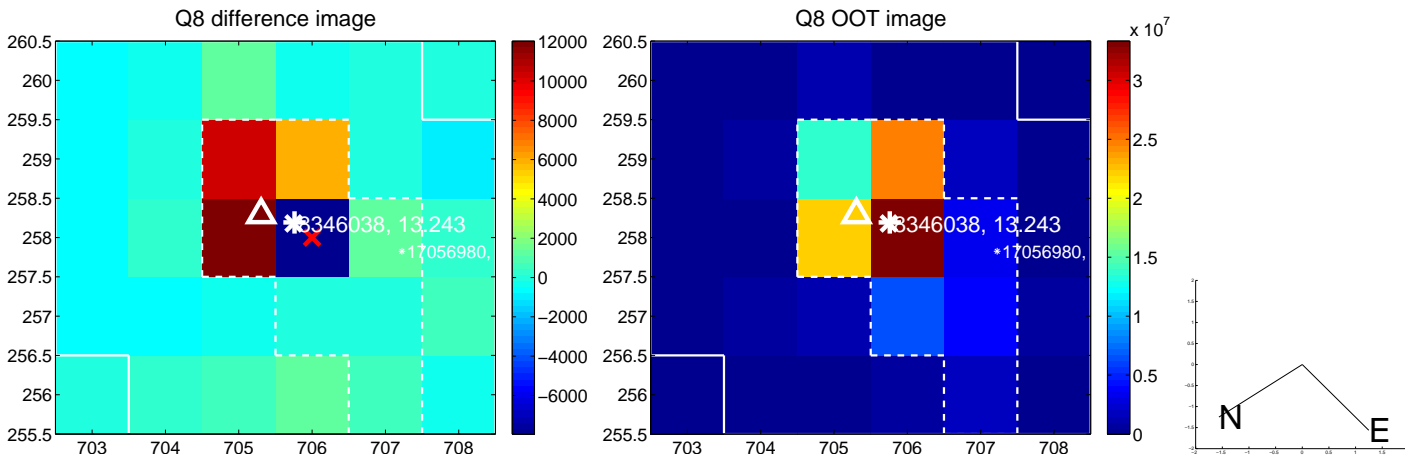
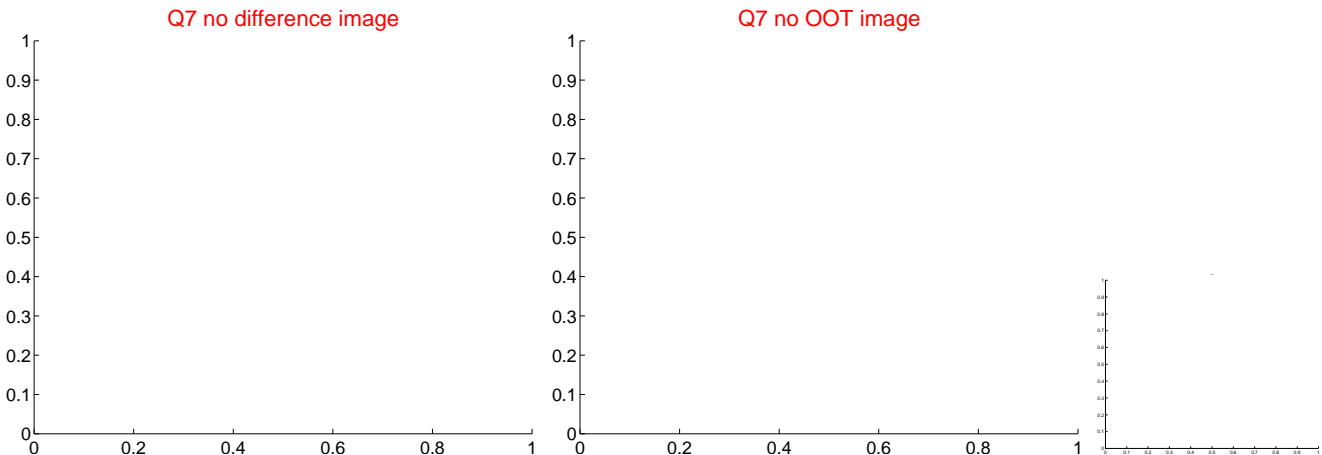
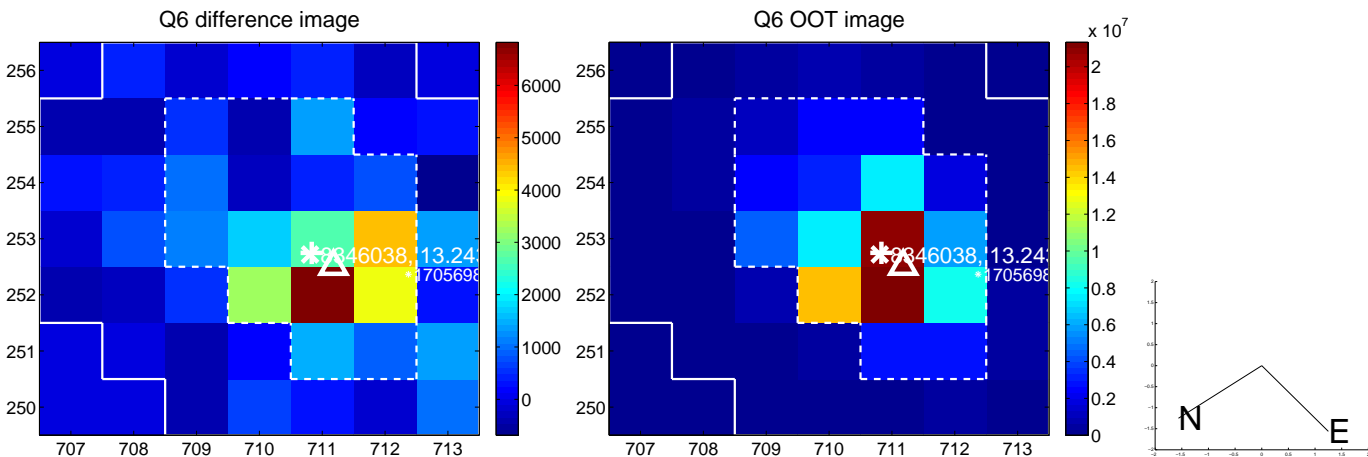
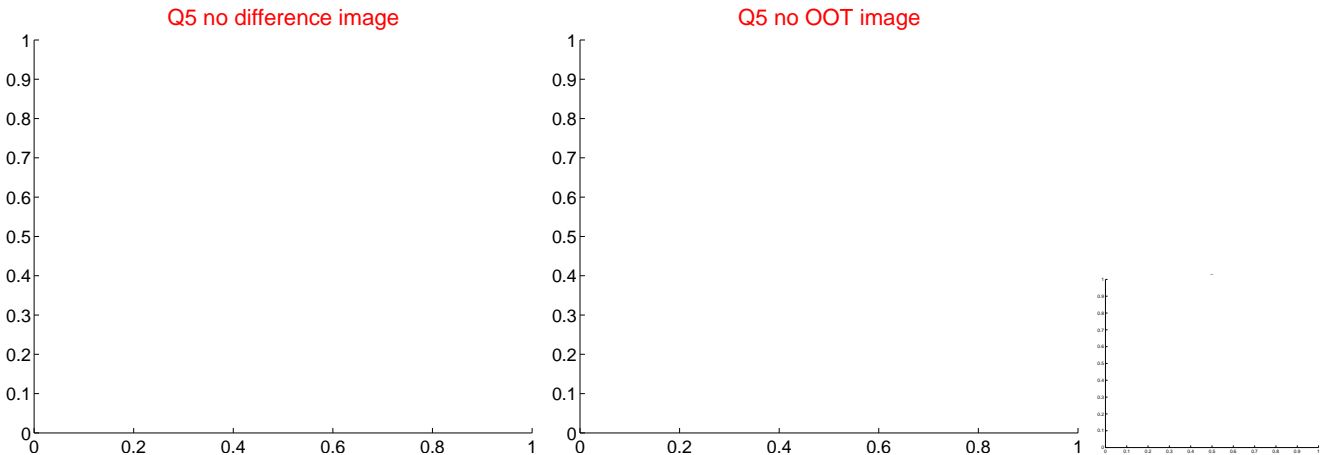


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

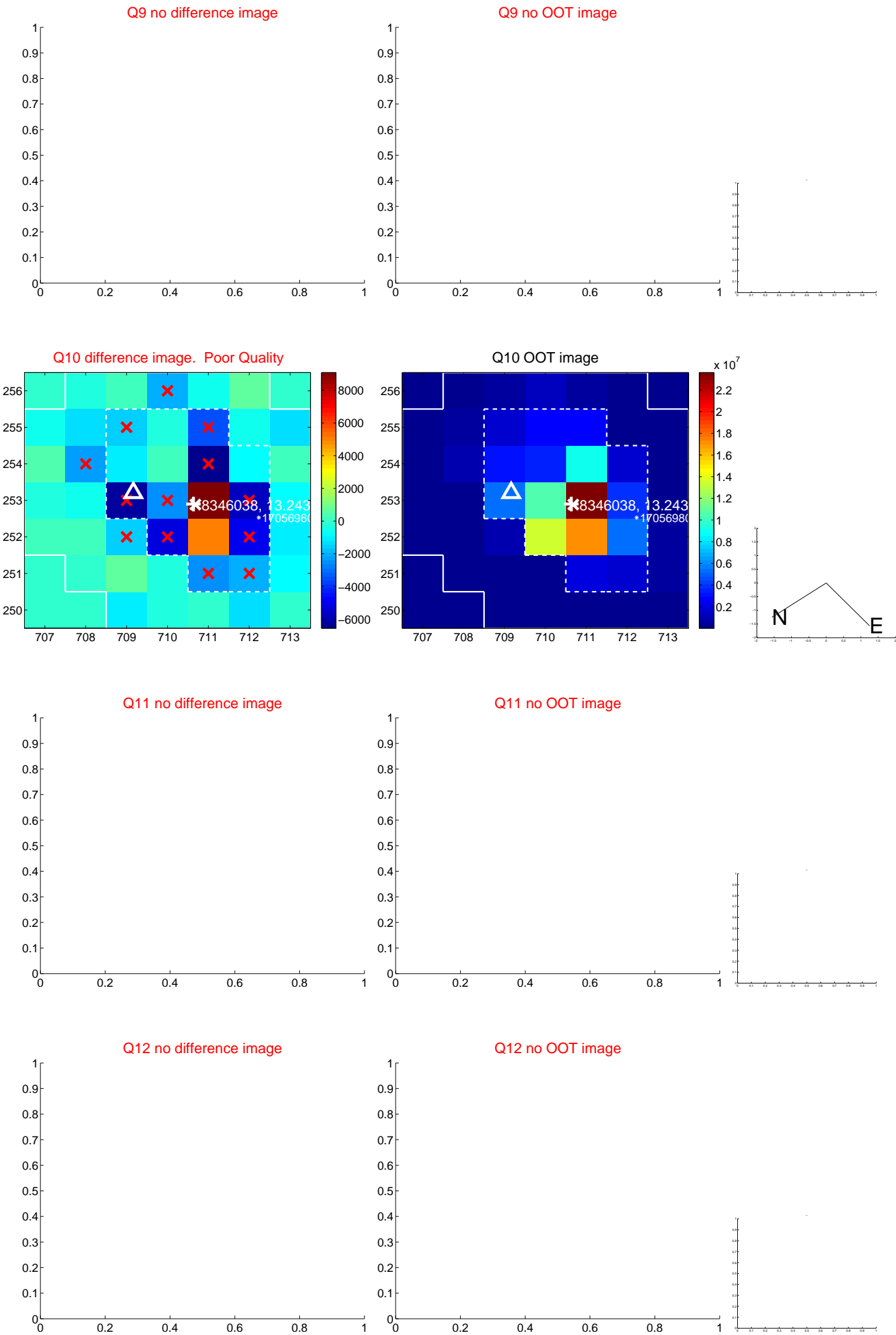
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



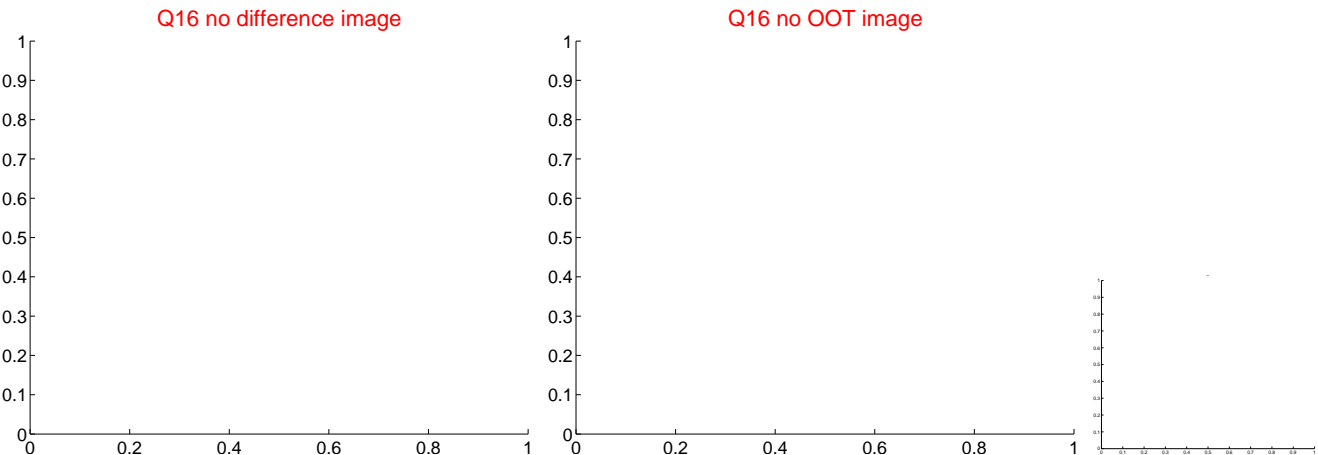
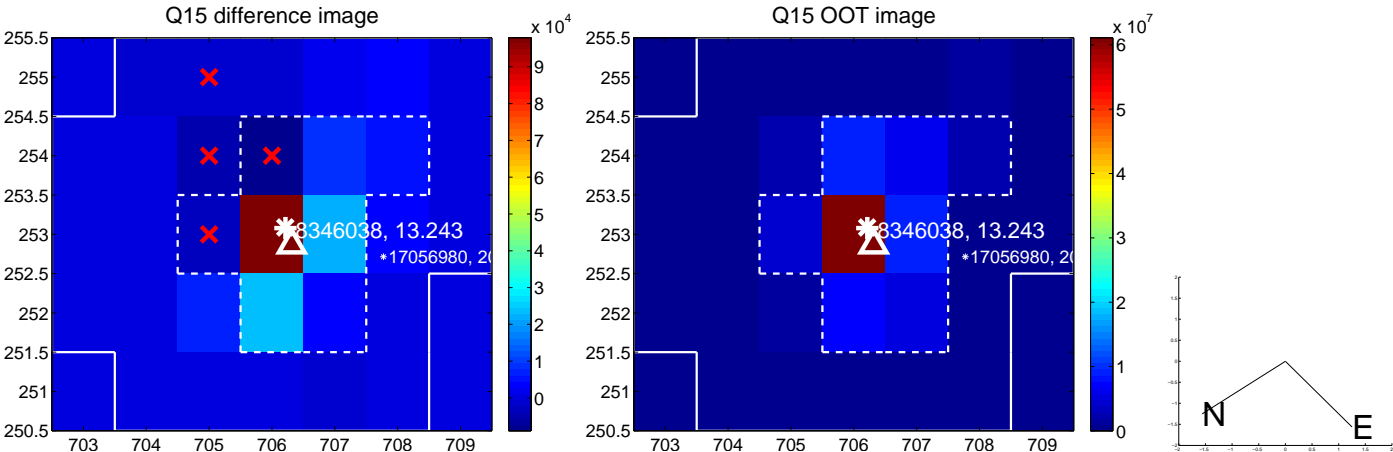
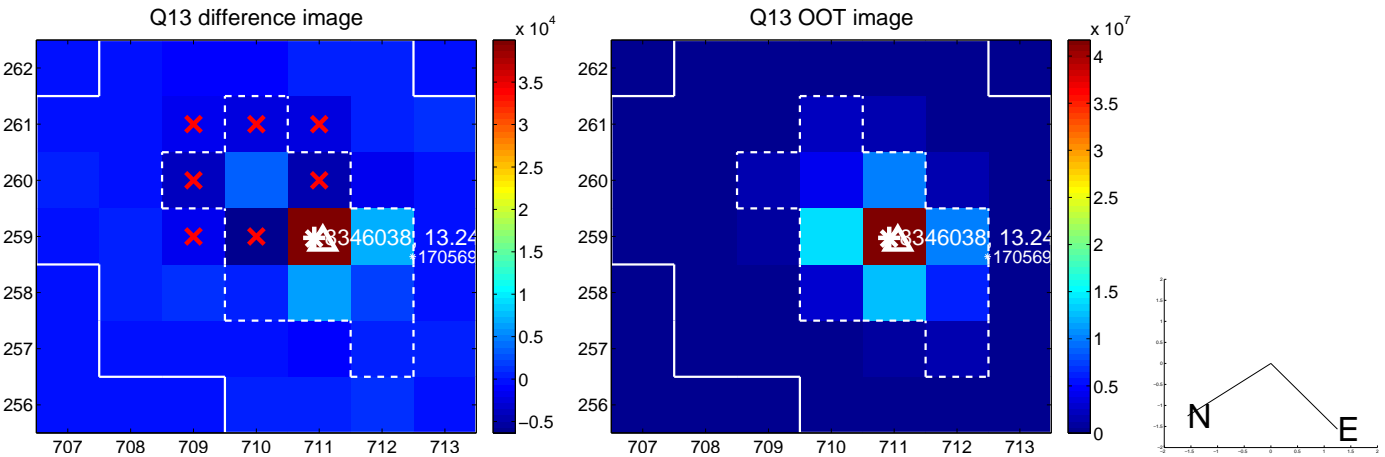
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



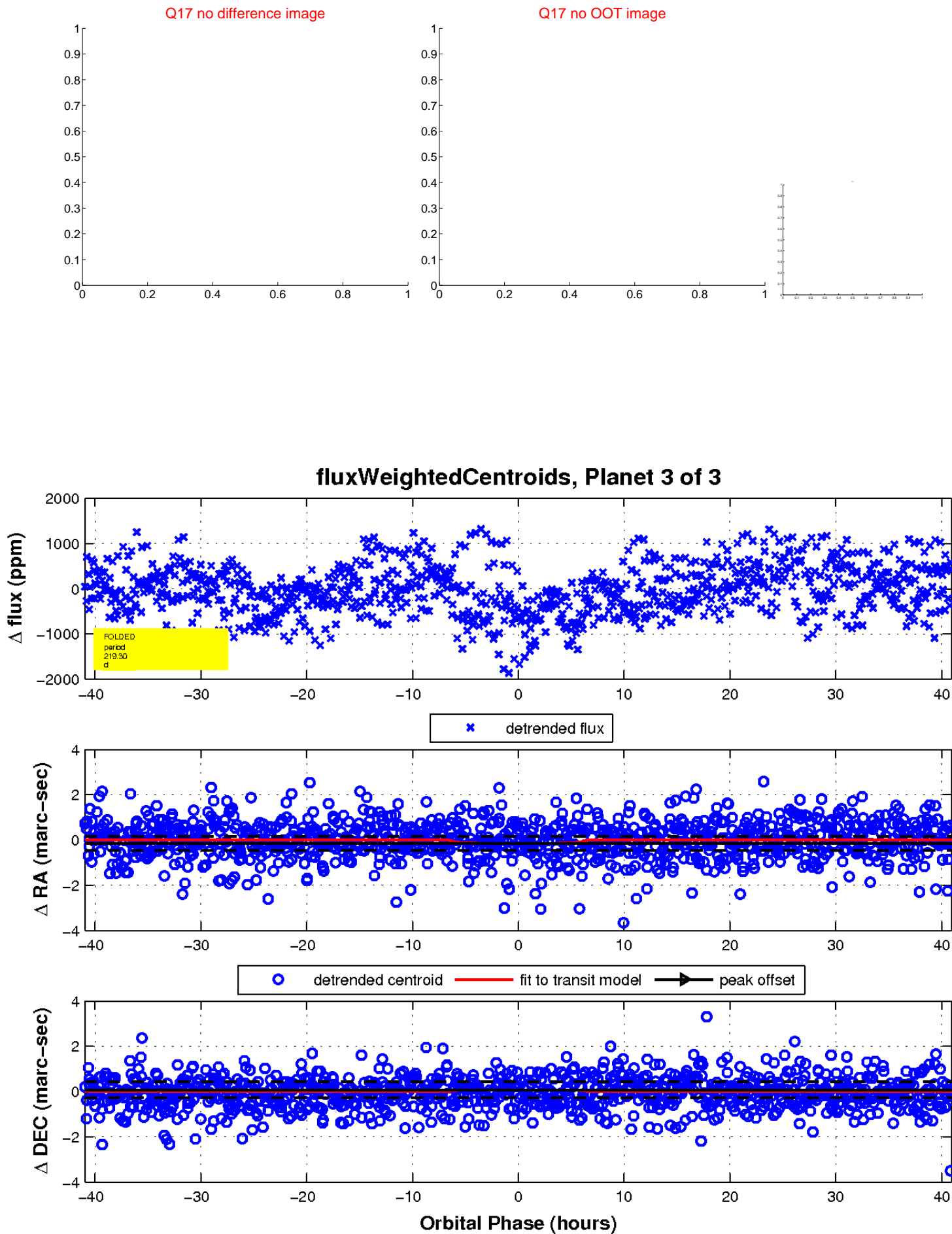
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

