

KIC 004945107

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})
004945107-01	OBS	No	2.886257	131.669003	67.3	10.805	11.5	12.2	1.79	6899	1.71	3280.80
004945107-02	OBS	No	354.037237	237.516369	722.5	42.116	16.1	9.0	1.79	6899	9.09	5.38
004945107-03	OBS	No	0.961952	131.713699	55.2	4.999	9.4	9.3	1.79	6899	2.38	14197.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945107-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
004945107-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
004945107-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_KIC_POS

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

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

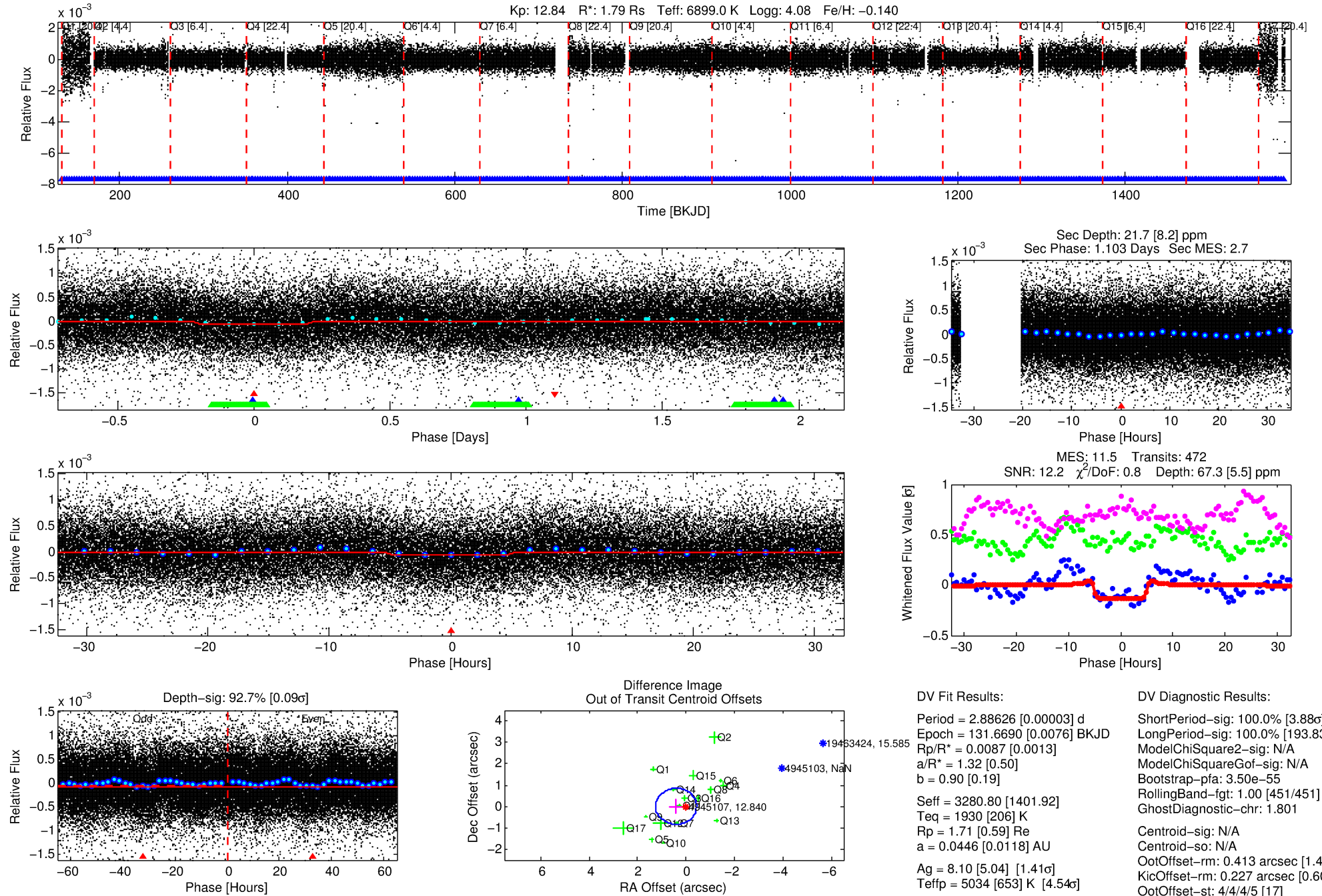
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945107-01

No Significant Match Found

DV One-Page Summary

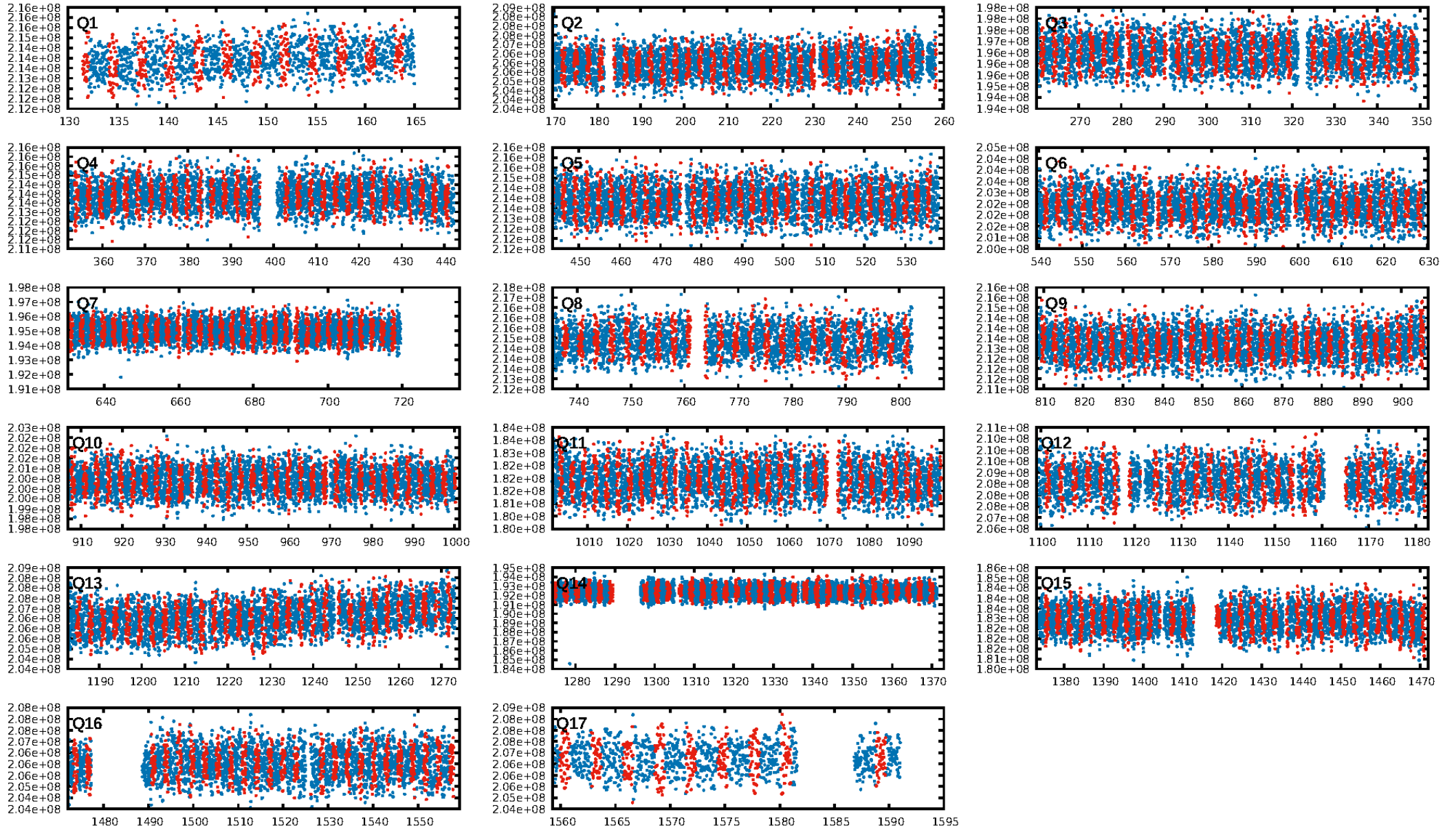
KIC: 4945107 Candidate: 1 of 3 Period: 2.886 d



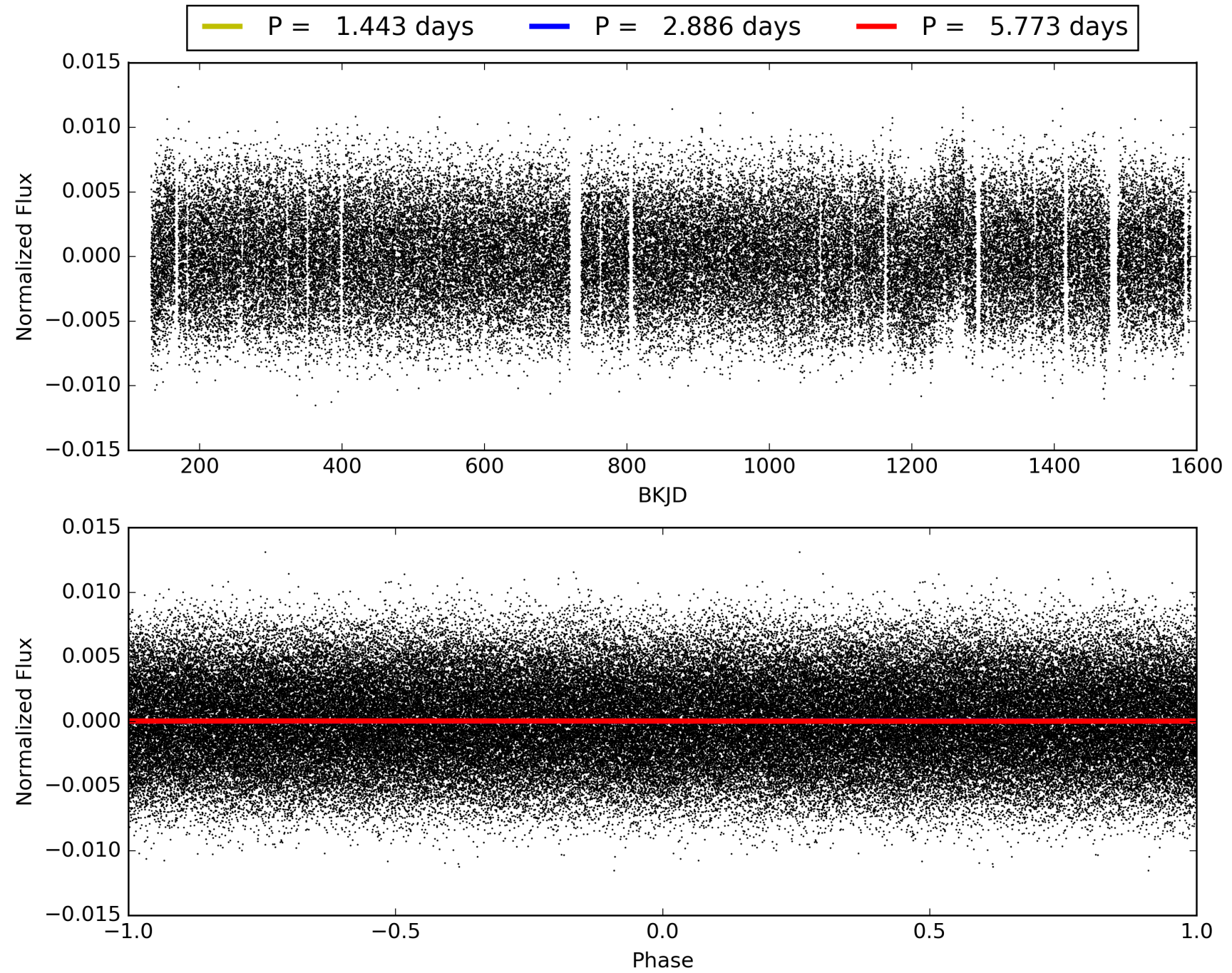
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:24:50 Z

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

TCE 004945107-01, PDC Light Curves

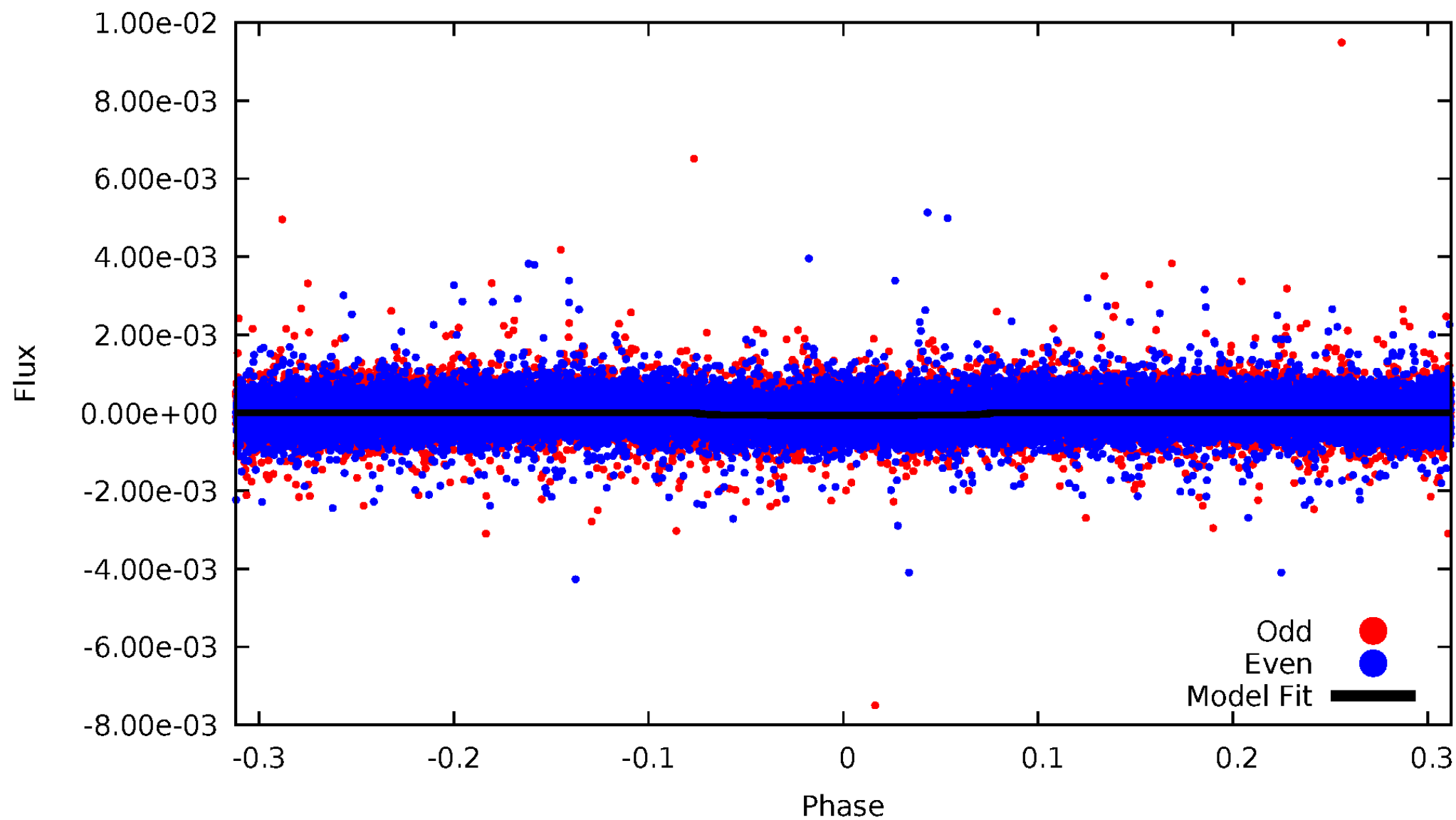


TCE 004945107-01



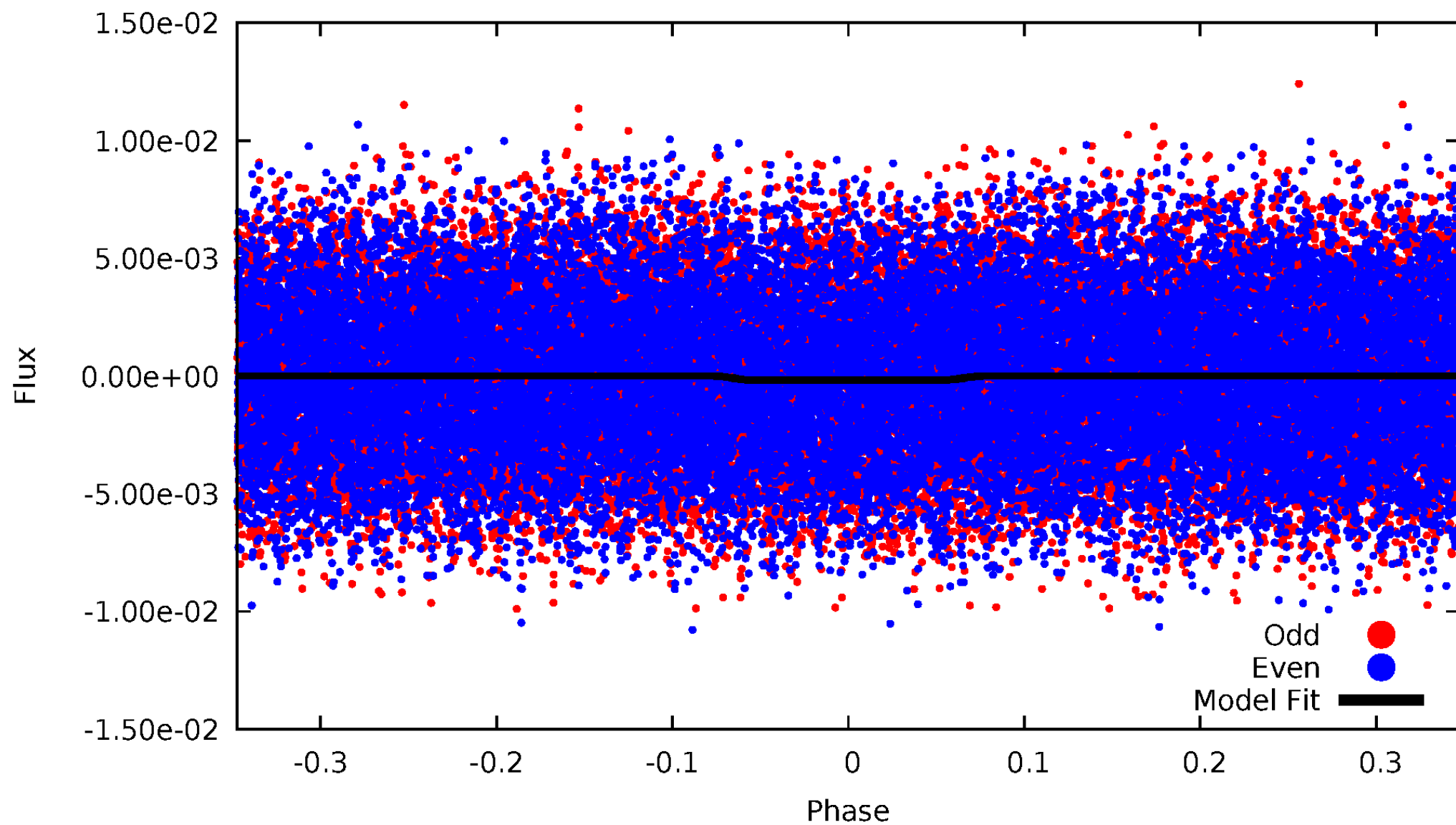
DV Odd/Even

TCE 004945107-01

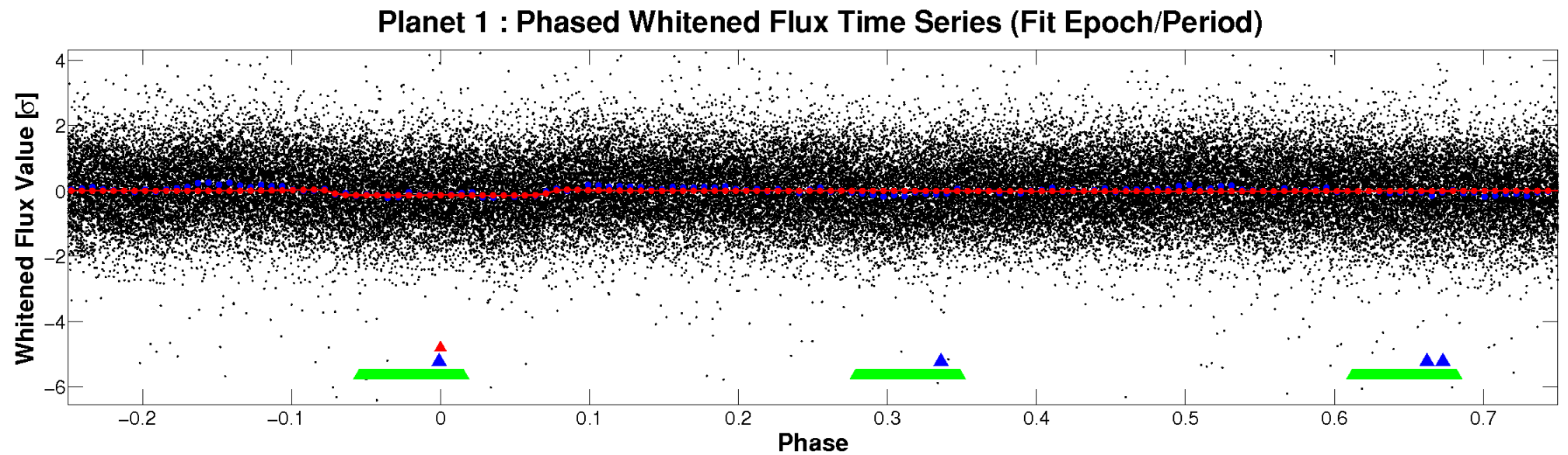
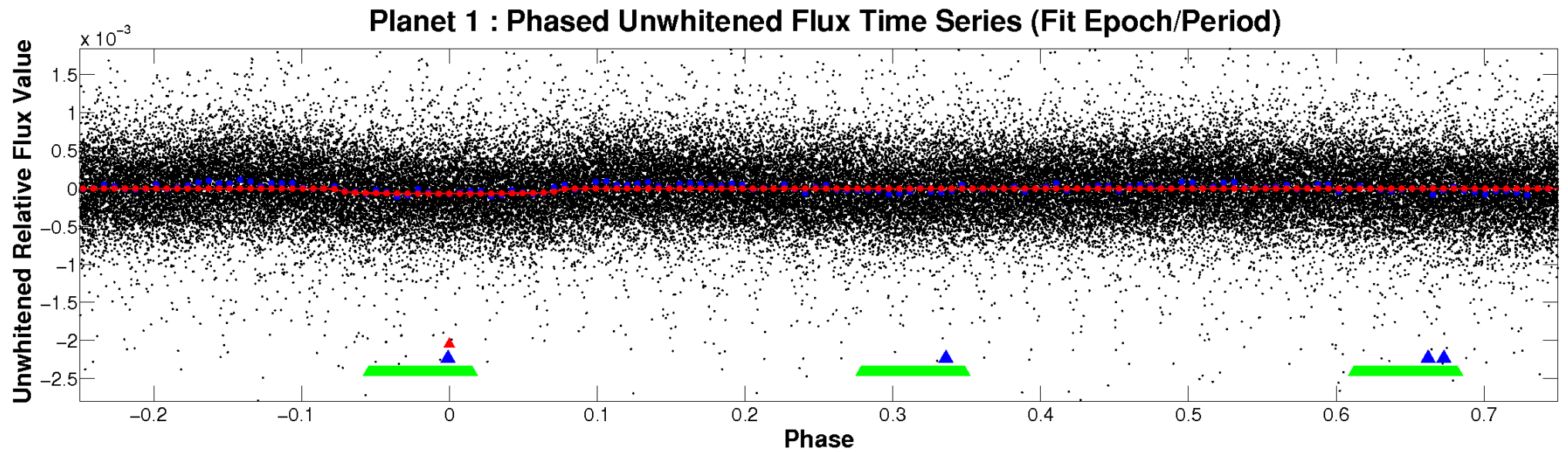


ALT Odd/Even

TCE 004945107-01

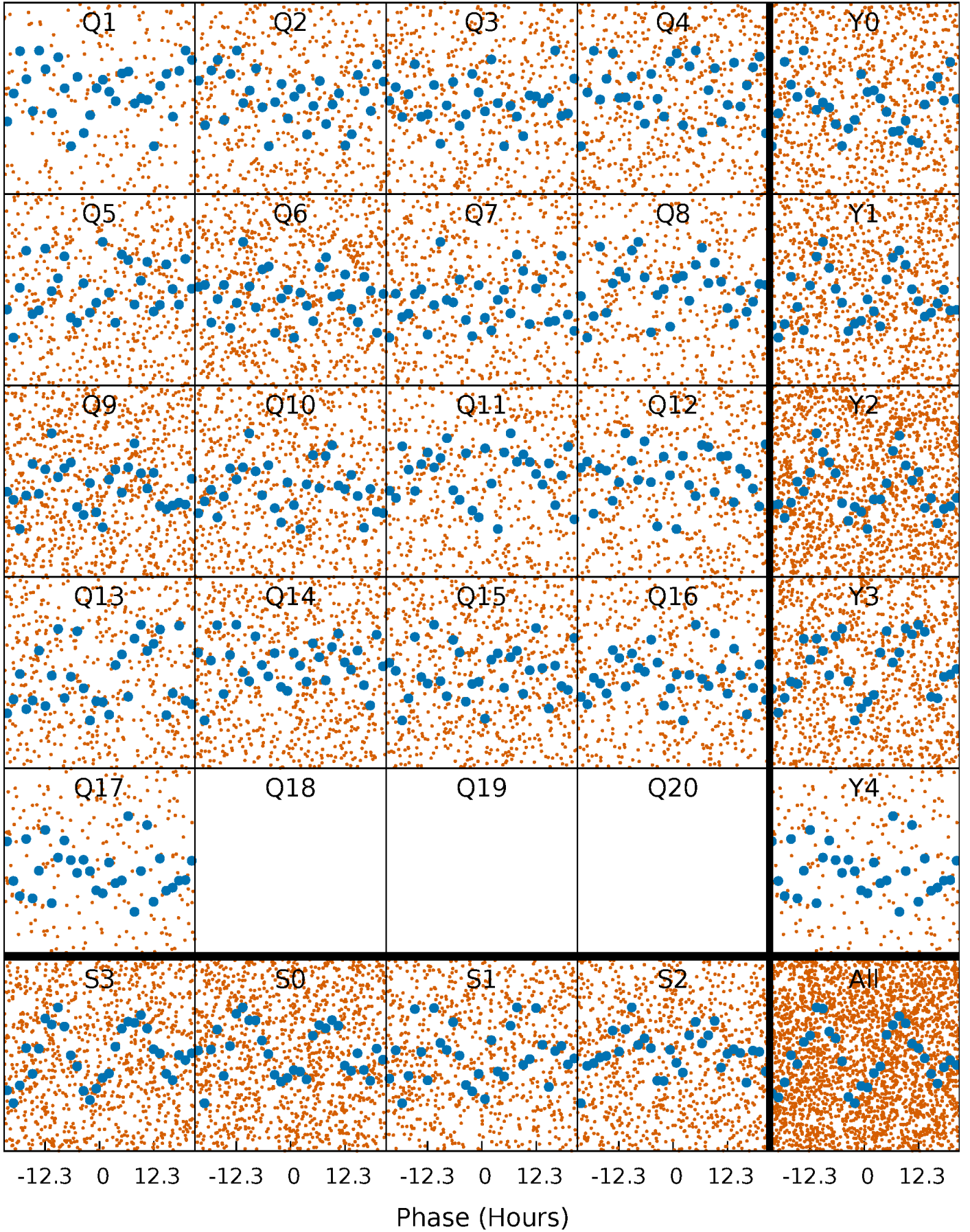


Non-Whitened Vs. Whitened Light Curve



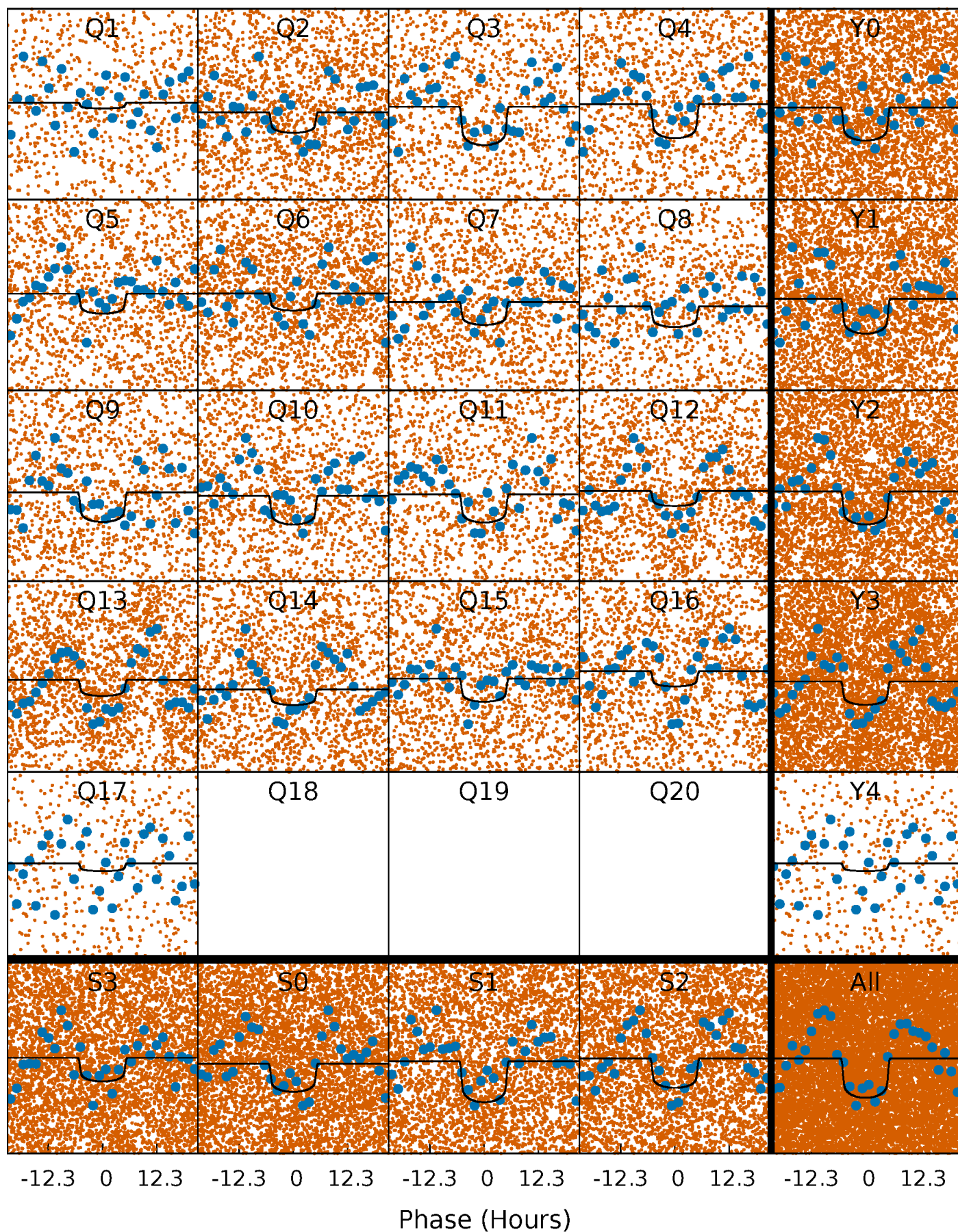
PDC Quarter-Phased Transit Curves

TCE 004945107-01 P= 2.886257 Days $T_0=131.669003$ (BKJD)



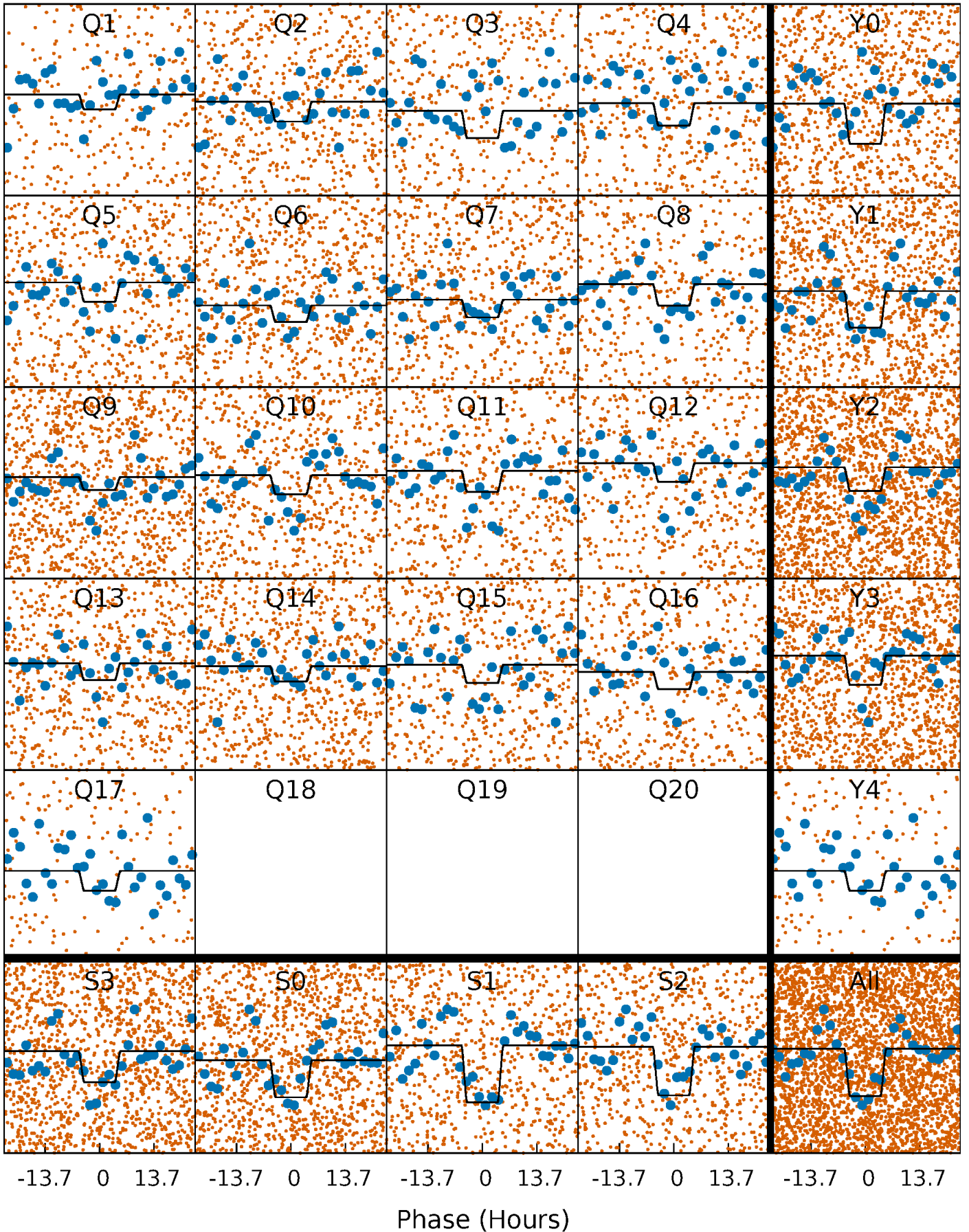
DV Quarter-Phased Transit Curves

TCE 004945107-01 P= 2.886257 Days $T_0=131.669003$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

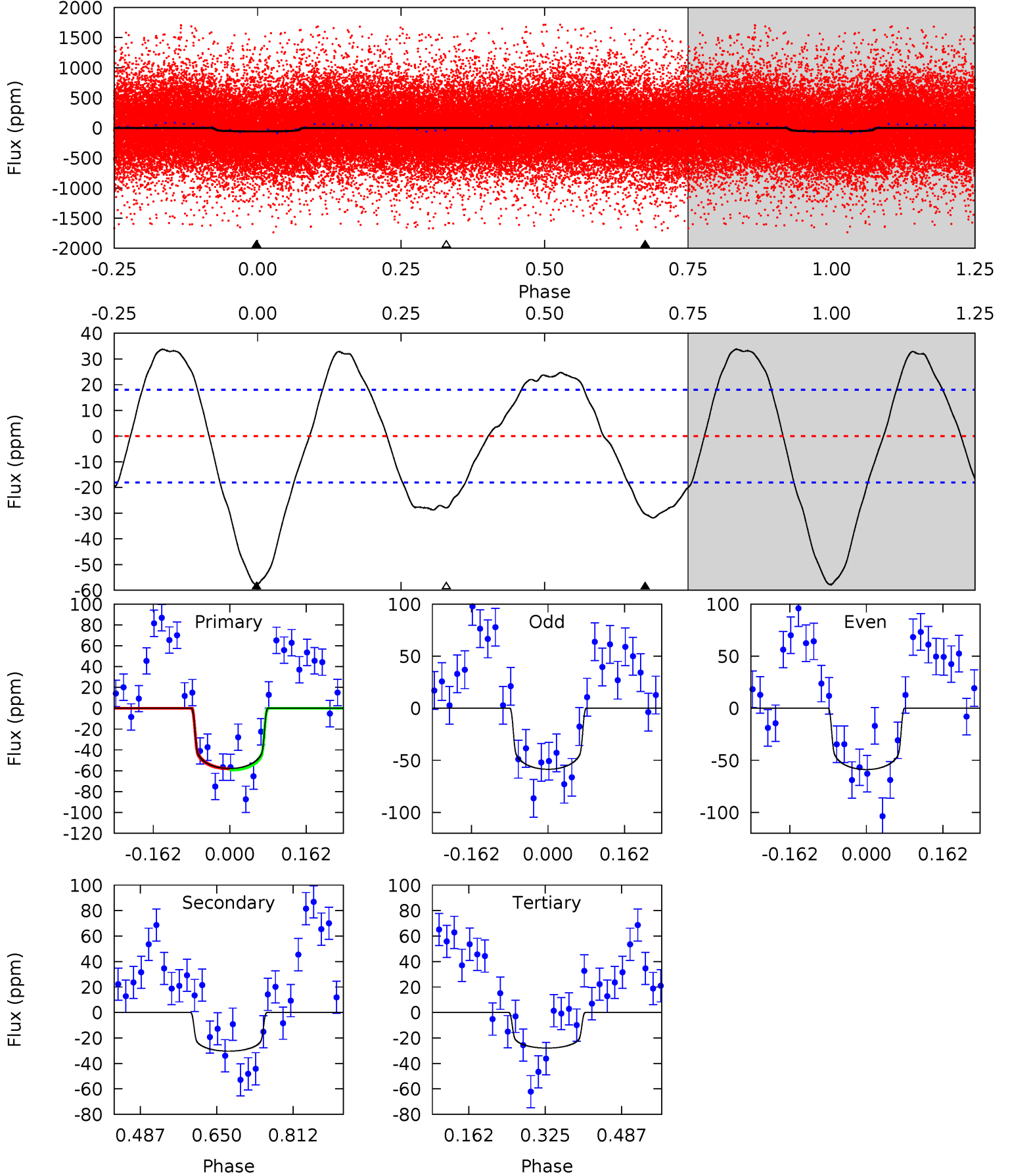
TCE 004945107-01 P= 2.886157 Days $T_0=131.669927$ (BKJD)



DV Model-Shift Uniqueness Test

004945107-01, P = 2.886257 Days, E = 128.782746 Days

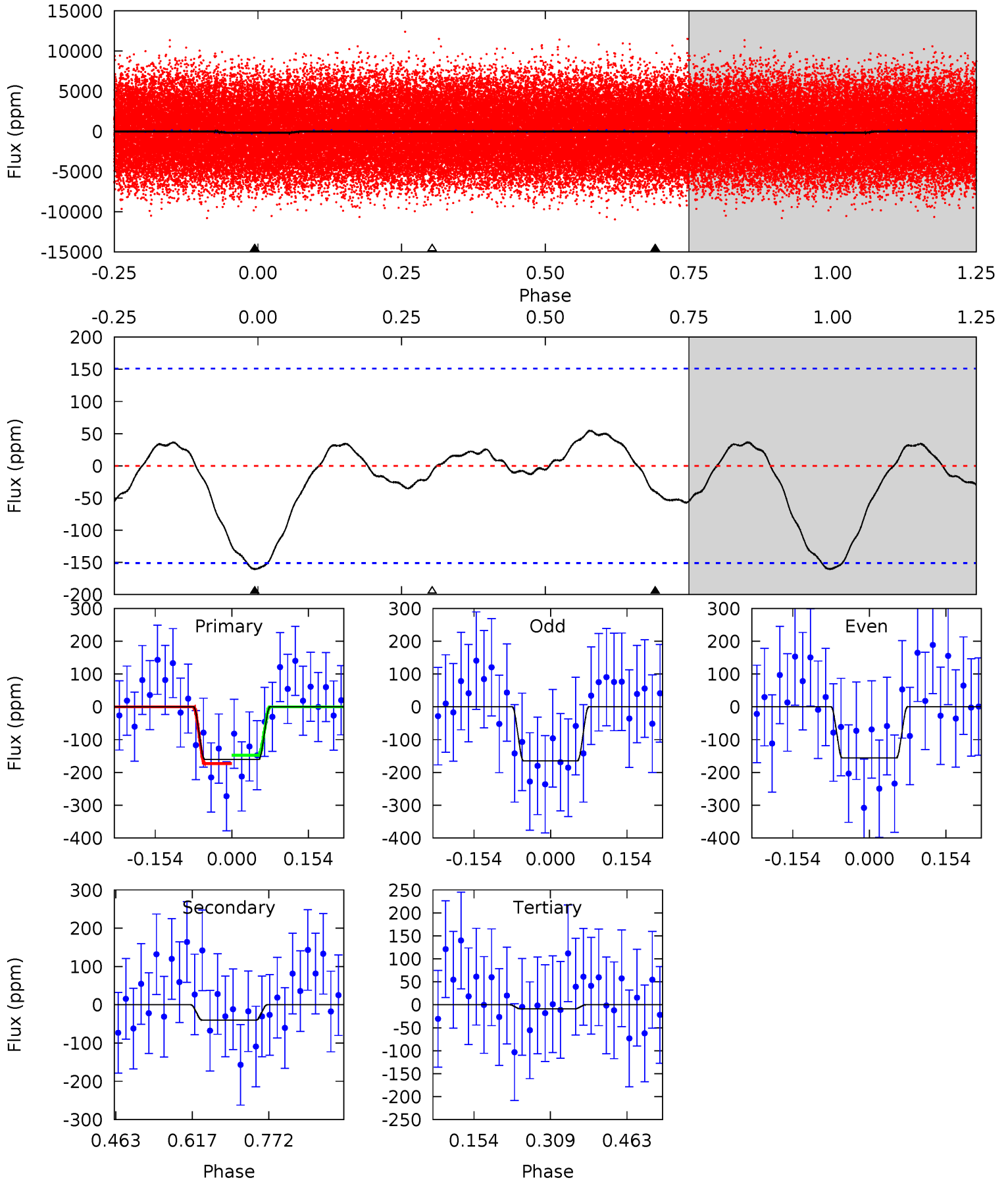
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	7.51	6.92	0	4.46	1.40	4.85	7.39	14.3	0.59	7.51	0.03	0.93	0.37	0.17



Alt Model-Shift Uniqueness Test

004945107-01, P = 2.886157 Days, E = 128.783770 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.75	1.19	0.26	0	4.47	1.42	0.53	4.48	4.75	0.92	1.19	0.13	1.53	0.25	0.38



Stellar Parameters For KIC 004945107

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6899^{+190}_{-309}	$4.083^{+0.214}_{-0.175}$	$-0.140^{+0.250}_{-0.300}$	$1.793^{+0.555}_{-0.505}$	$1.422^{+0.191}_{-0.286}$	$0.347^{+0.429}_{-0.167}$
	+3%/-4%	+5%/-4%	+179%/-214%	+31%/-28%	+13%/-20%	+123%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004945107-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-30 ± 4	$1.69^{+0.44}_{-0.35}$	2672^{+223}_{-197}	5382^{+518}_{-396}	11^{+7}_{-4}
Alt.	-40 ± 34	$2.53^{+0.50}_{-0.48}$	2673^{+223}_{-221}	4779^{+776}_{-1324}	$6.653^{+7.148}_{-5.545}$

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

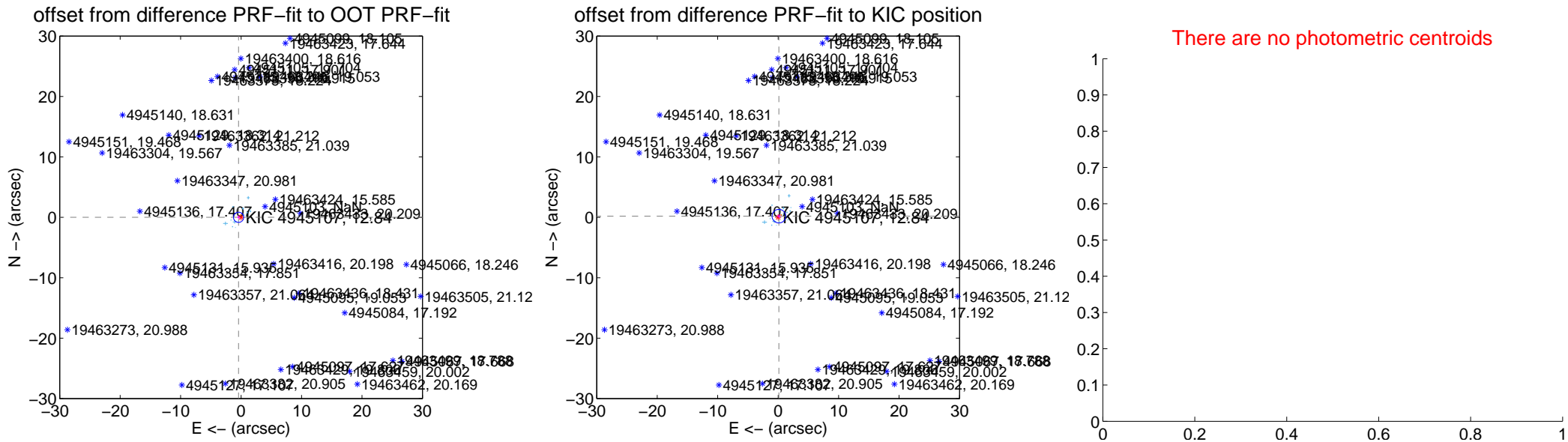
DV Centroid Data

Supplemental centroid analysis for 004945107-01. Kepler magnitude: 12.84. Transit SNR 12.19

There are 16 quarters with good PRF difference image offsets

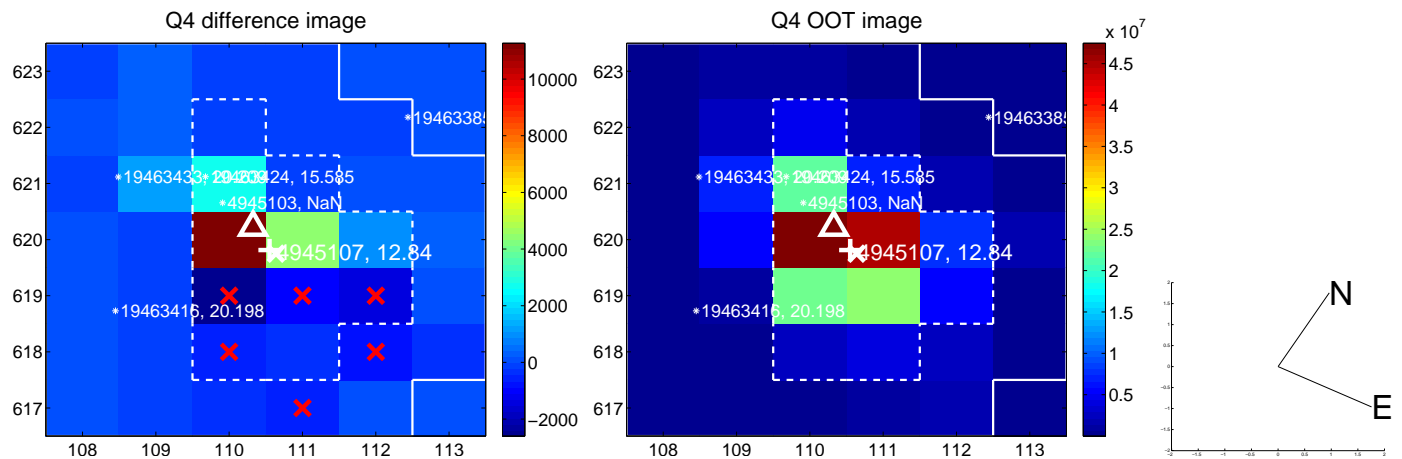
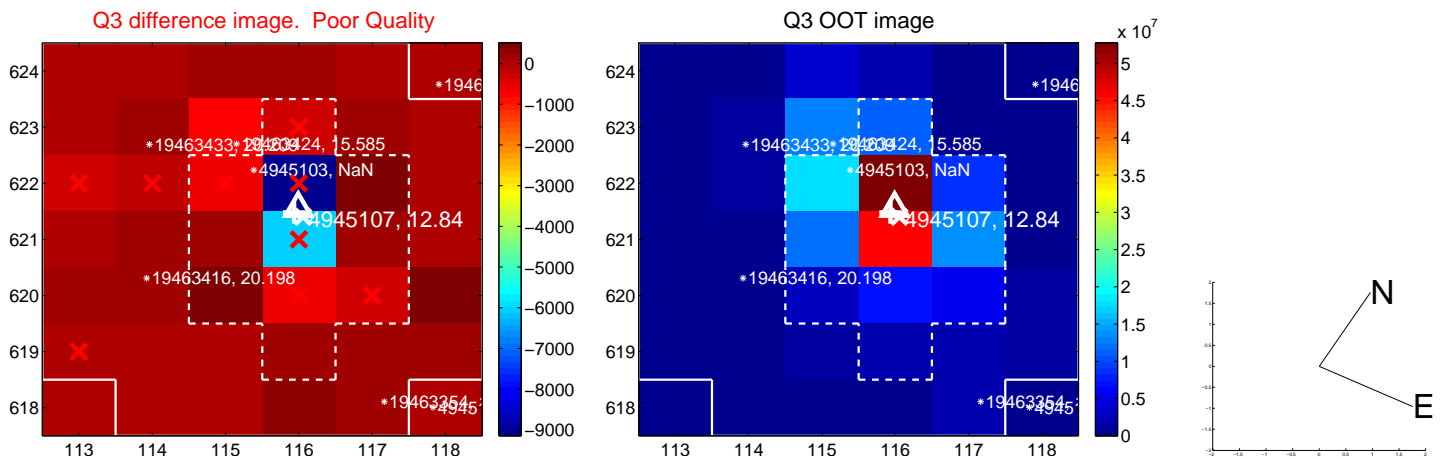
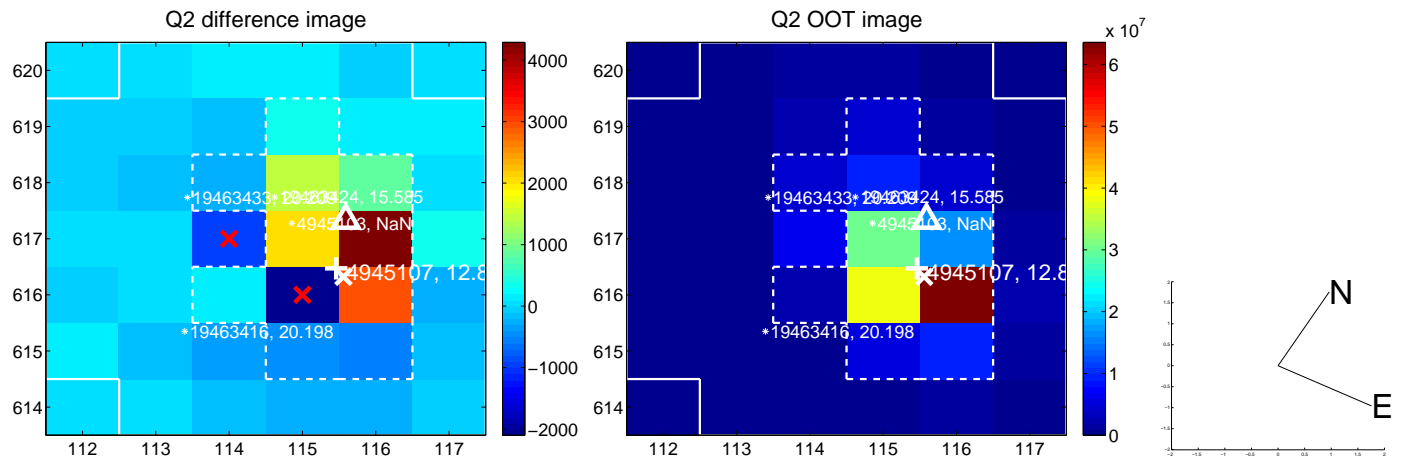
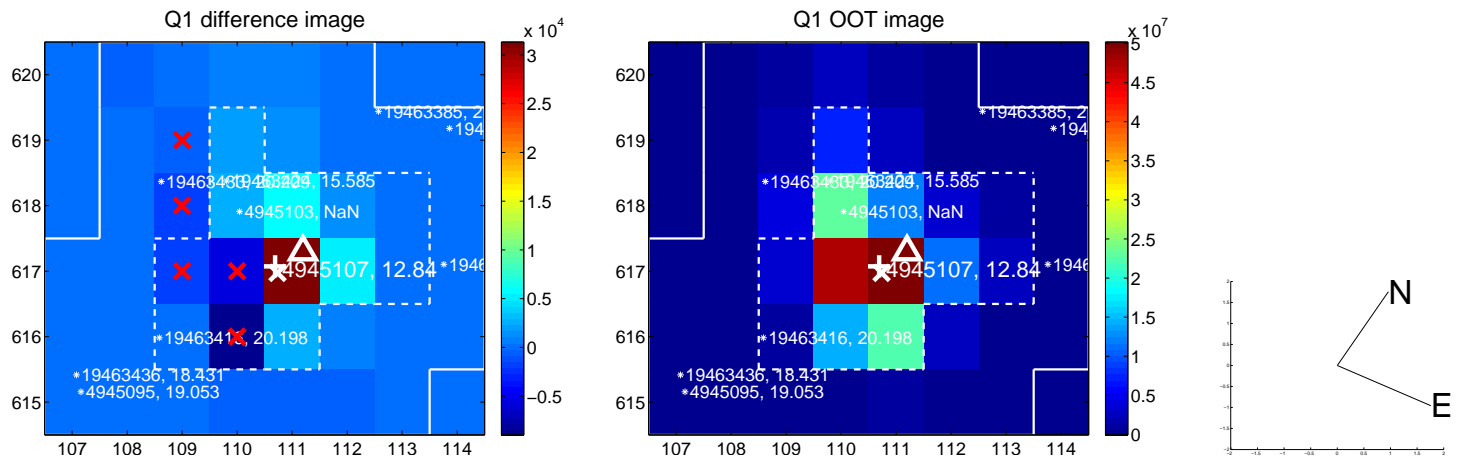
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.413 ± 0.281	1.47	0.413 ± 0.282	0.005 ± 0.308
PRF-fit source offset from KIC position	0.227 ± 0.376	0.60	-0.120 ± 0.305	0.193 ± 0.312
photometric centroid source offset	—	—	—	—

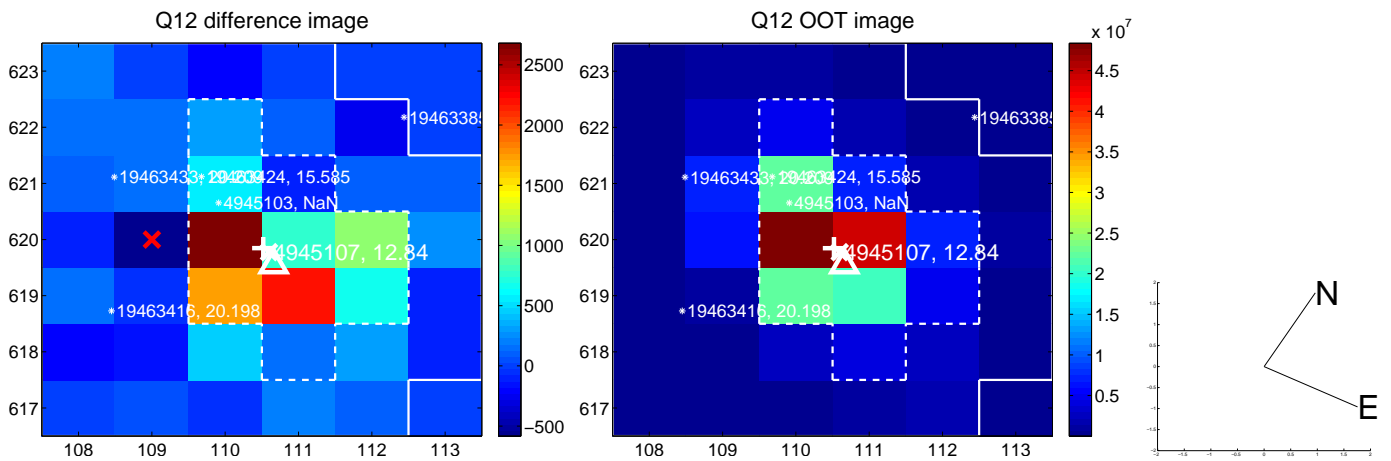
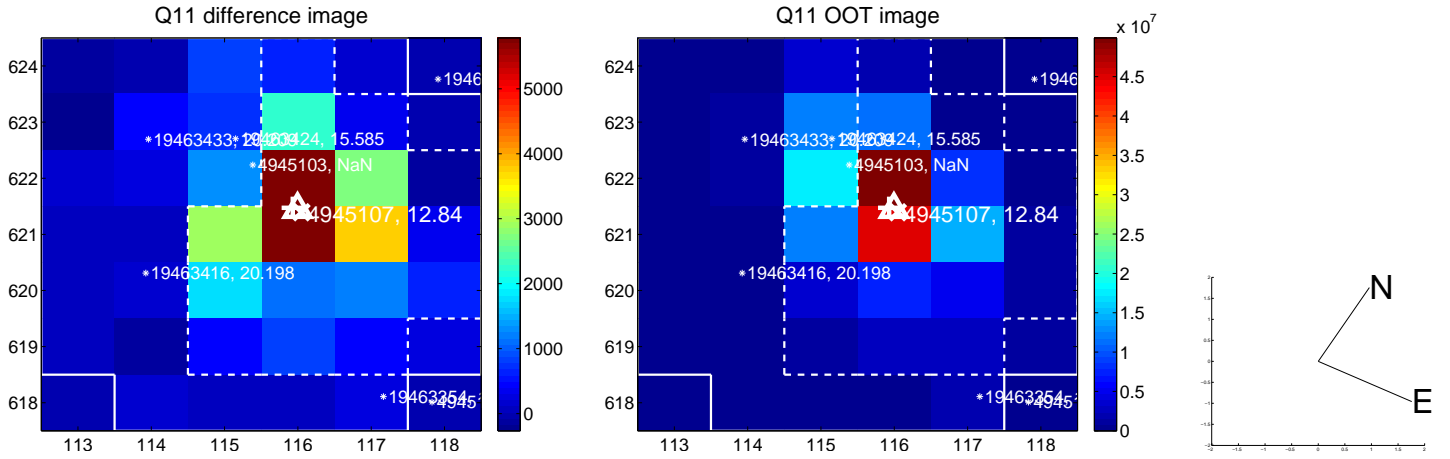
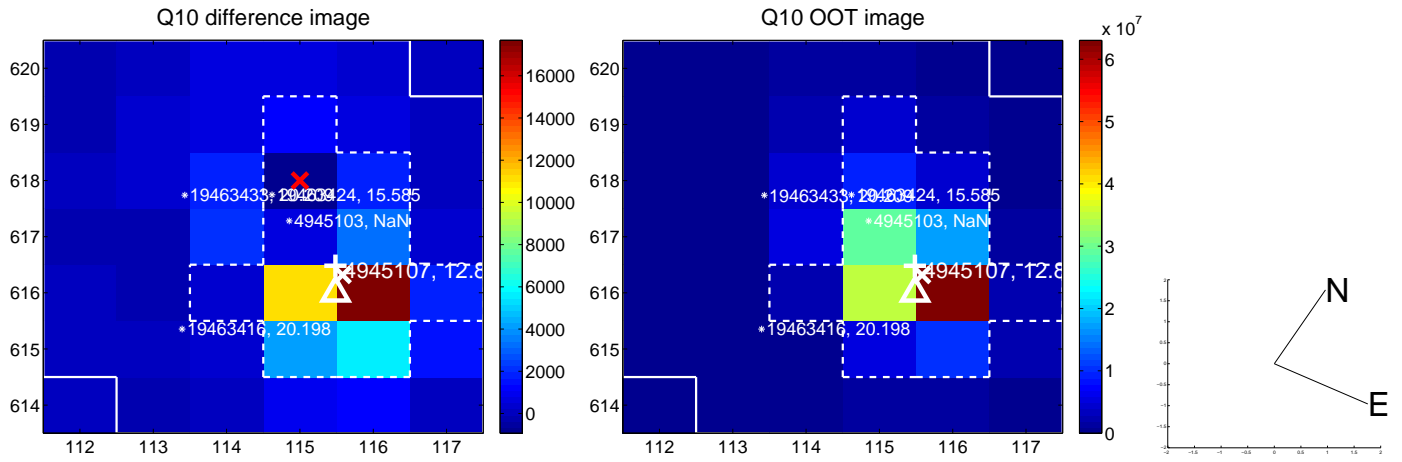
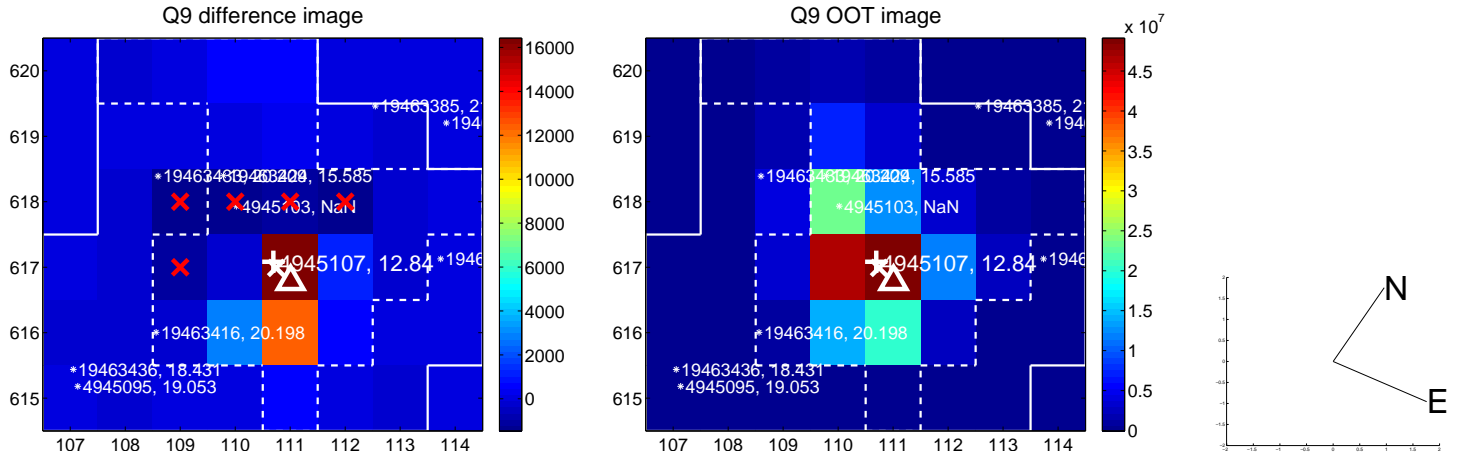


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

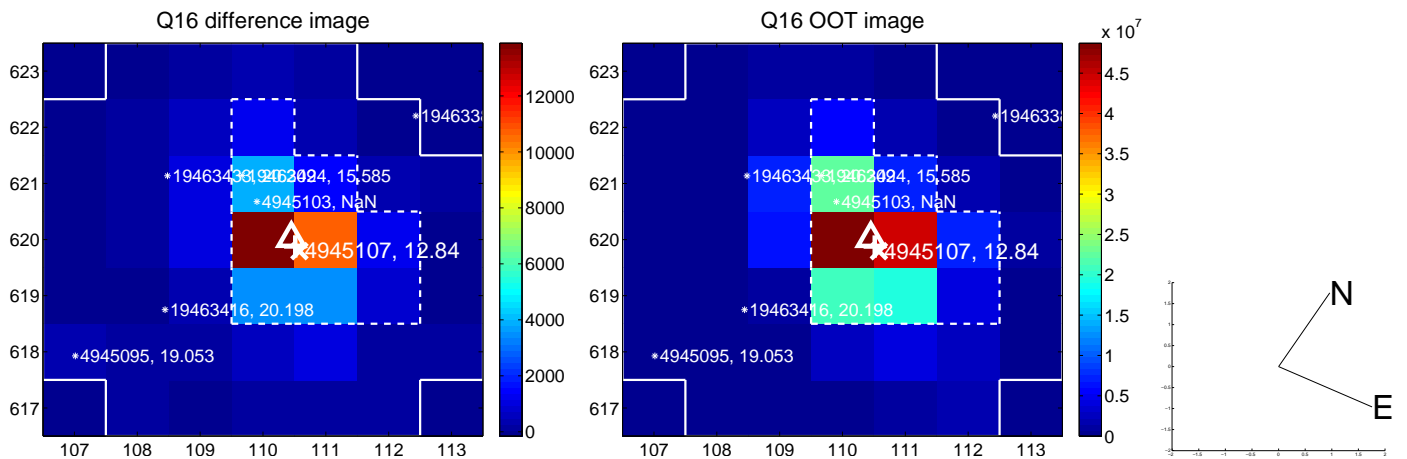
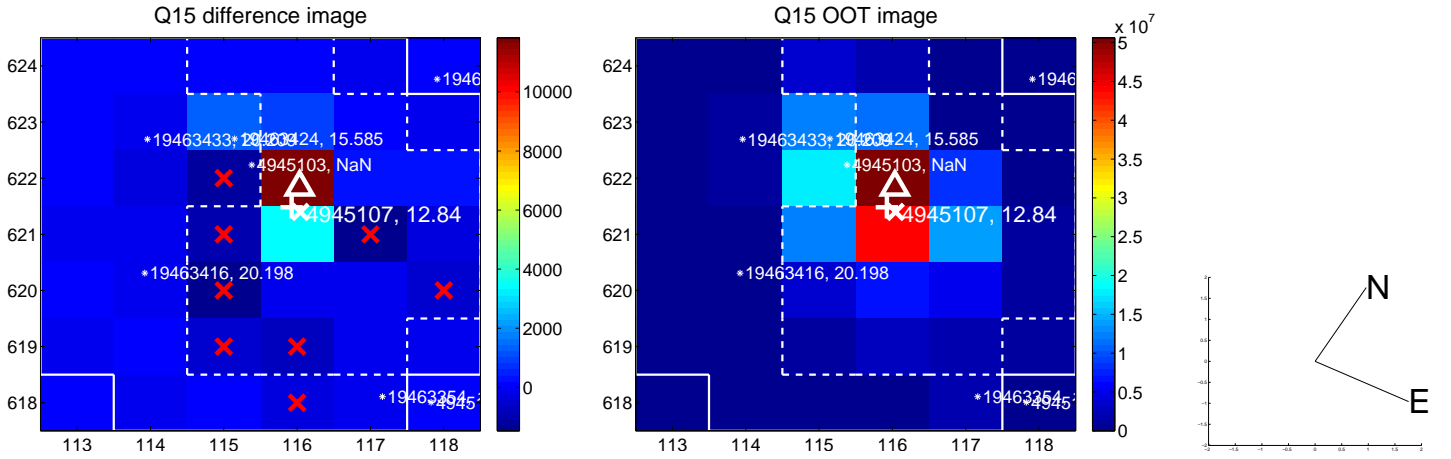
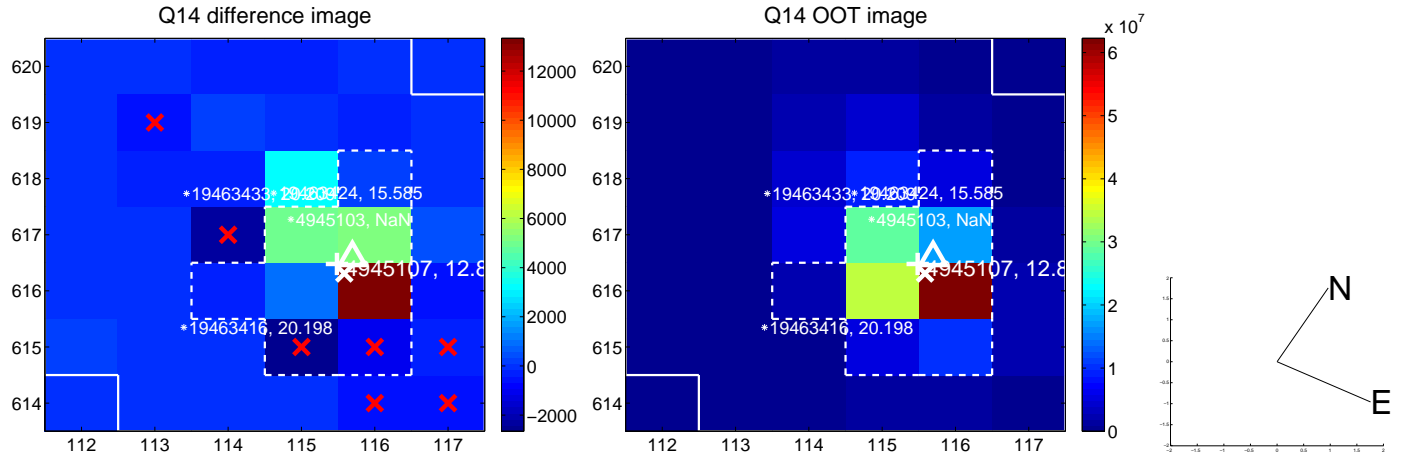
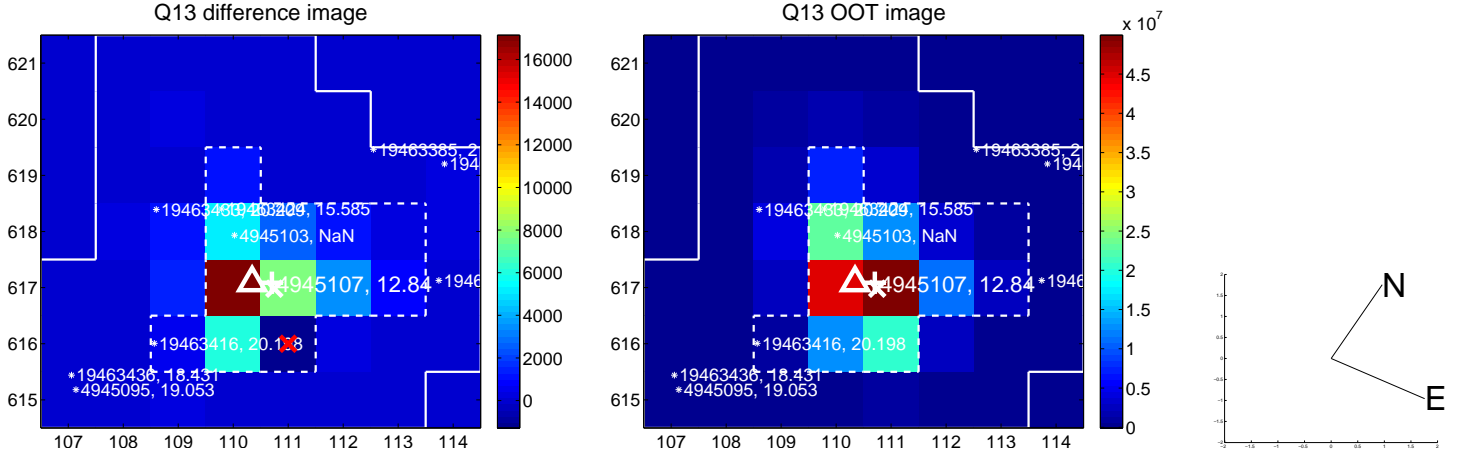
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



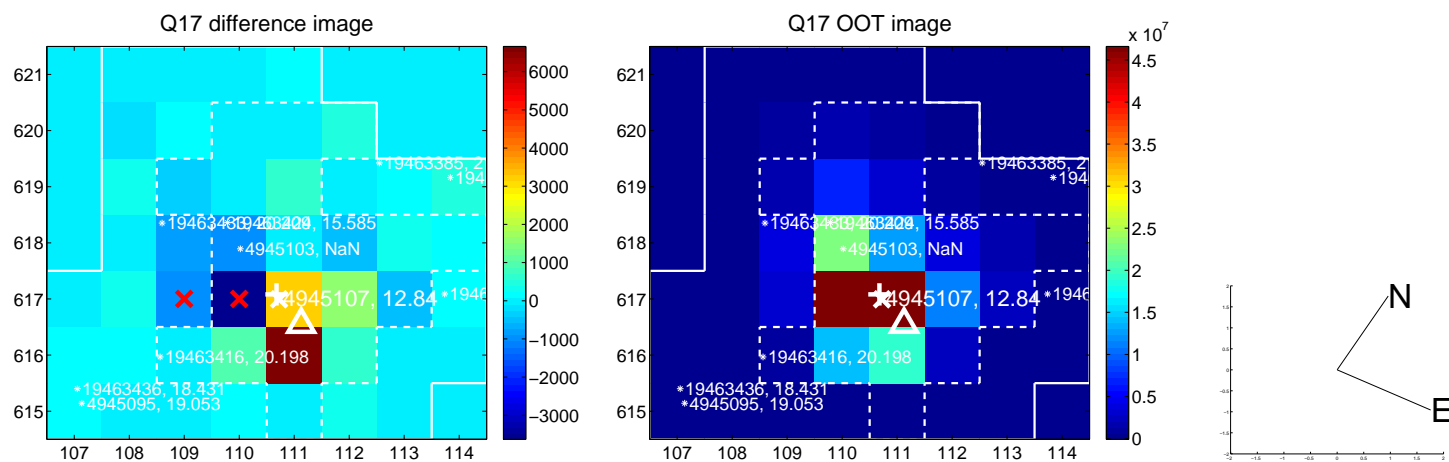
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



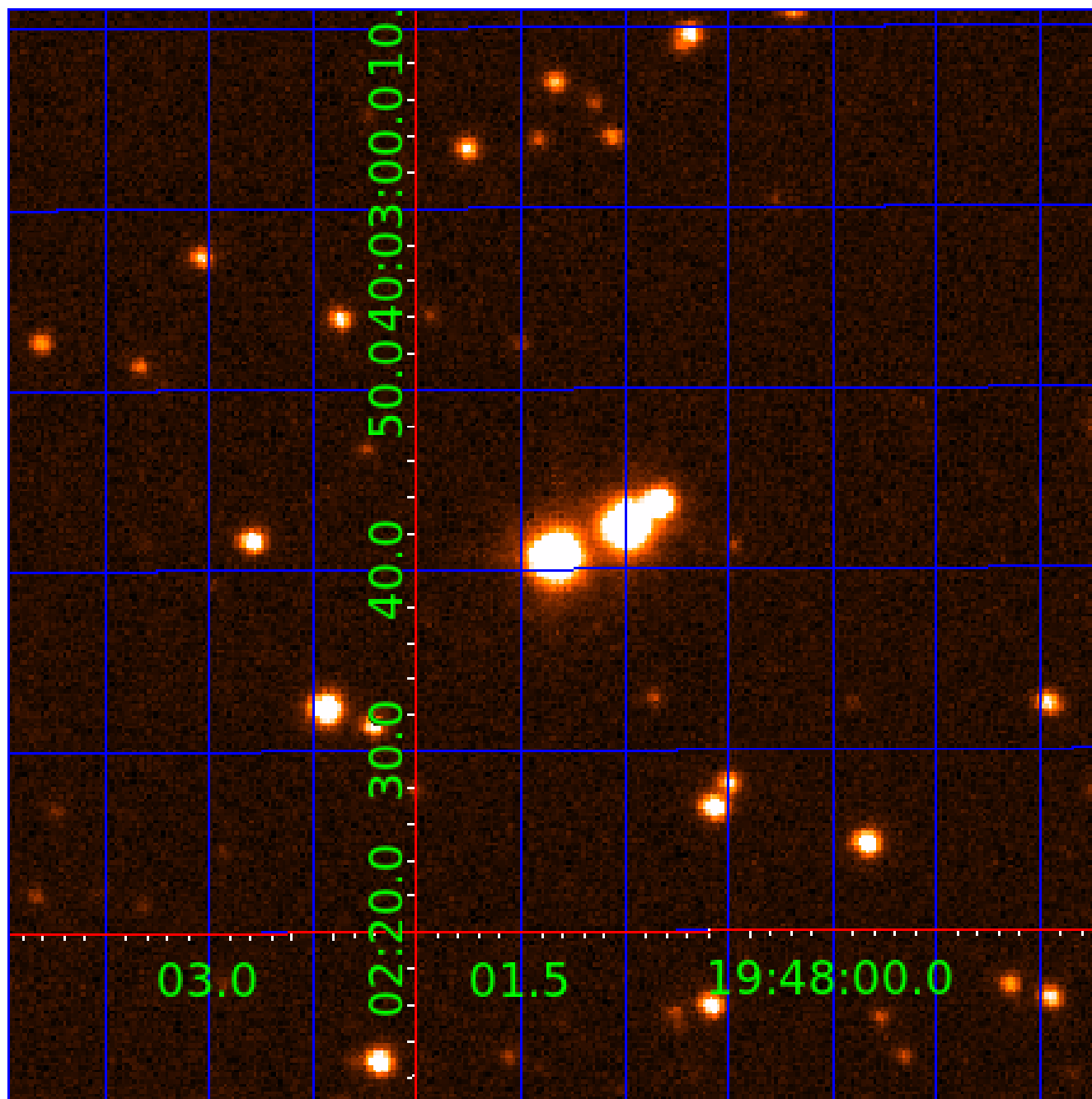
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 004945107

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})
004945107-01	OBS	No	2.886257	131.669003	67.3	10.805	11.5	12.2	1.79	6899	1.71	3280.80
004945107-02	OBS	No	354.037237	237.516369	722.5	42.116	16.1	9.0	1.79	6899	9.09	5.38
004945107-03	OBS	No	0.961952	131.713699	55.2	4.999	9.4	9.3	1.79	6899	2.38	14197.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945107-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
004945107-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
004945107-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_KIC_POS

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

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

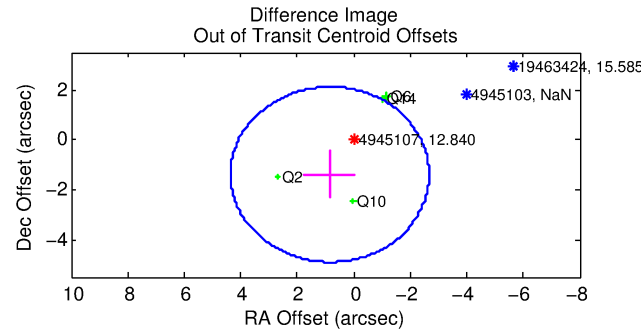
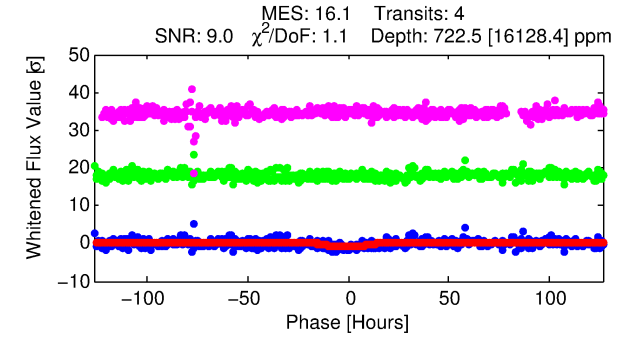
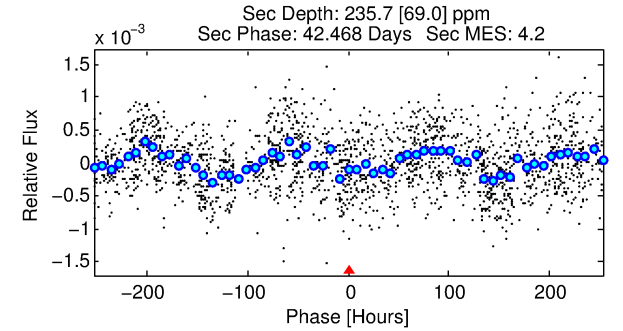
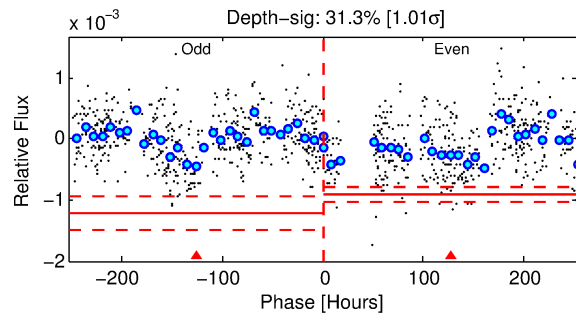
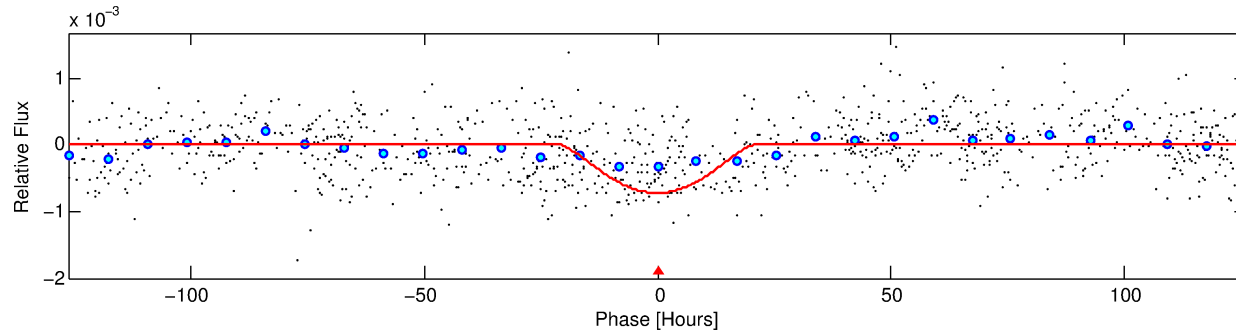
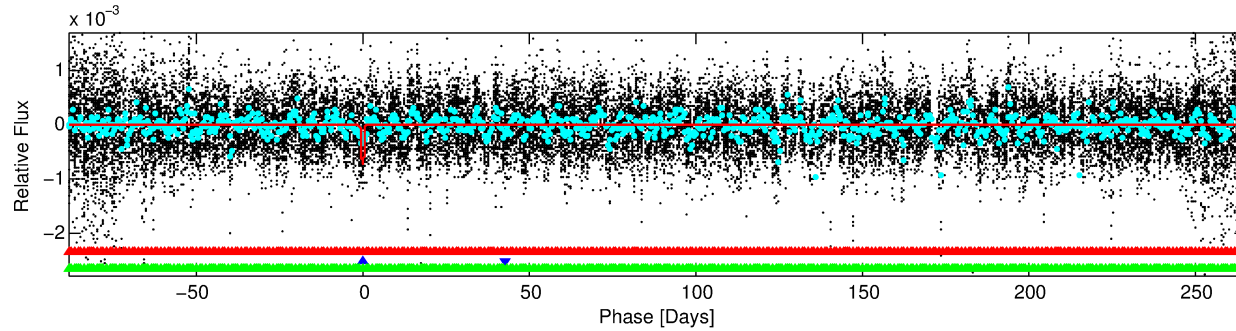
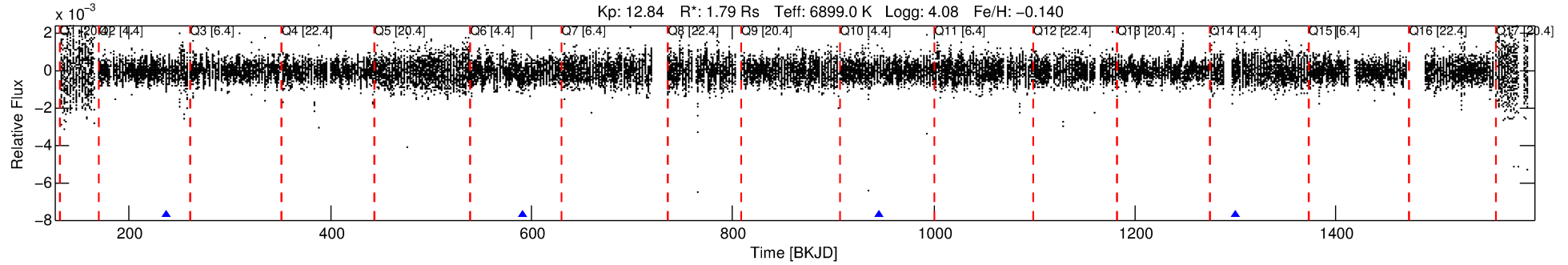
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945107-02

No Significant Match Found

DV One-Page Summary

KIC: 4945107 Candidate: 2 of 3 Period: 354.037 d



DV Fit Results:

Period = 354.03724 [0.04698] d
Epoch = 237.5164 [0.0858] BKJD
Rp/R* = 0.0465 [0.1317]
a/R* = 19.83 [13.82]
b = 1.00 [0.52]
Seff = 5.38 [2.30]
Teq = 388 [41] K
Rp = 9.09 [25.92] Re
a = 1.1010 [0.2904] AU
Ag = 1902.15 [10823.47] [0.18 σ]
Teffp = 3966 [5631] K [0.64 σ]

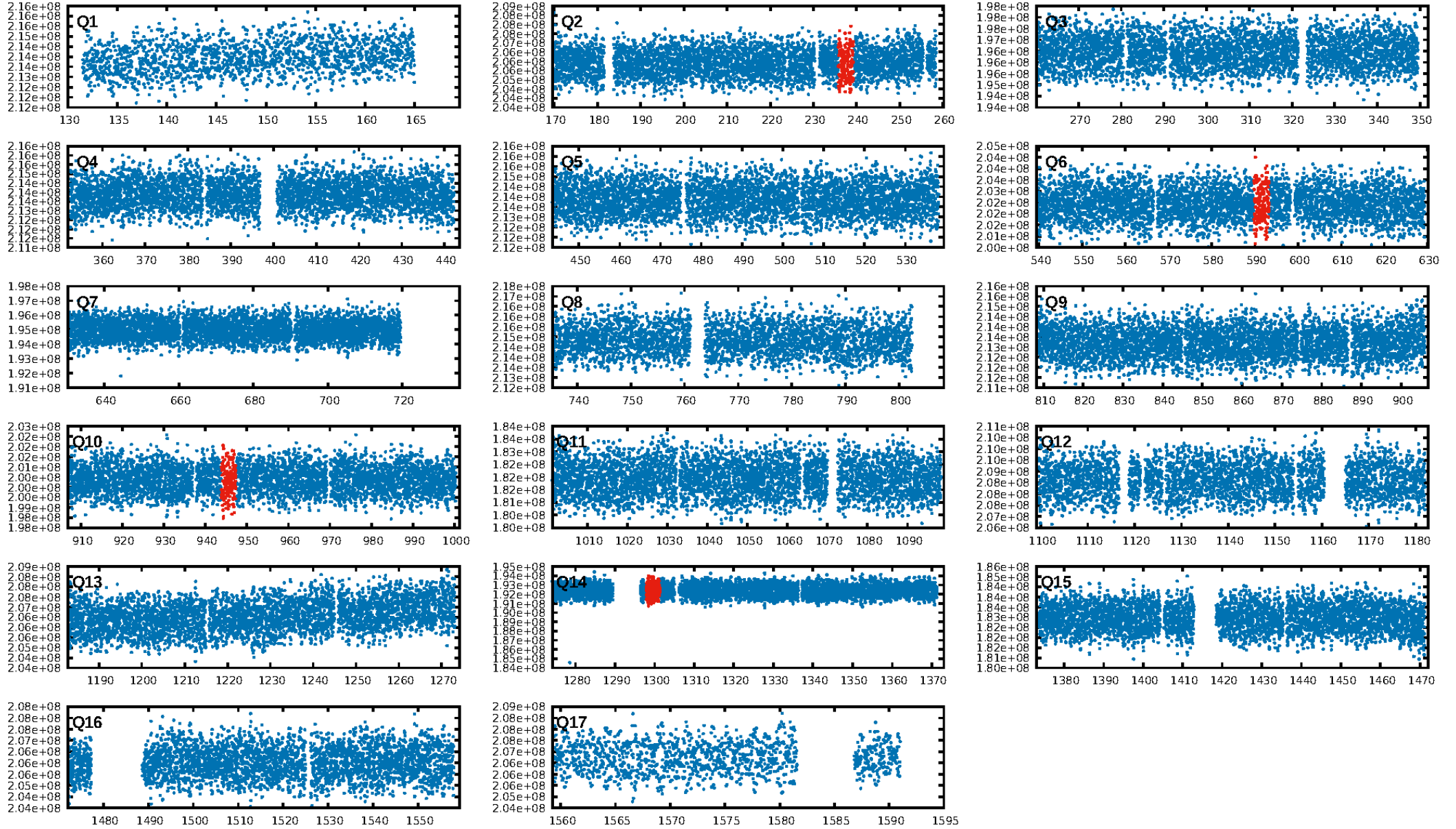
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [193.83 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.48e-83
RollingBand-fgm: 1.00 [4/4]
GhostDiagnostic-chr: -3.051
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.634 arcsec [1.40 σ]
KicOffset-rm: 1.111 arcsec [1.02 σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 0.00 [0/4]

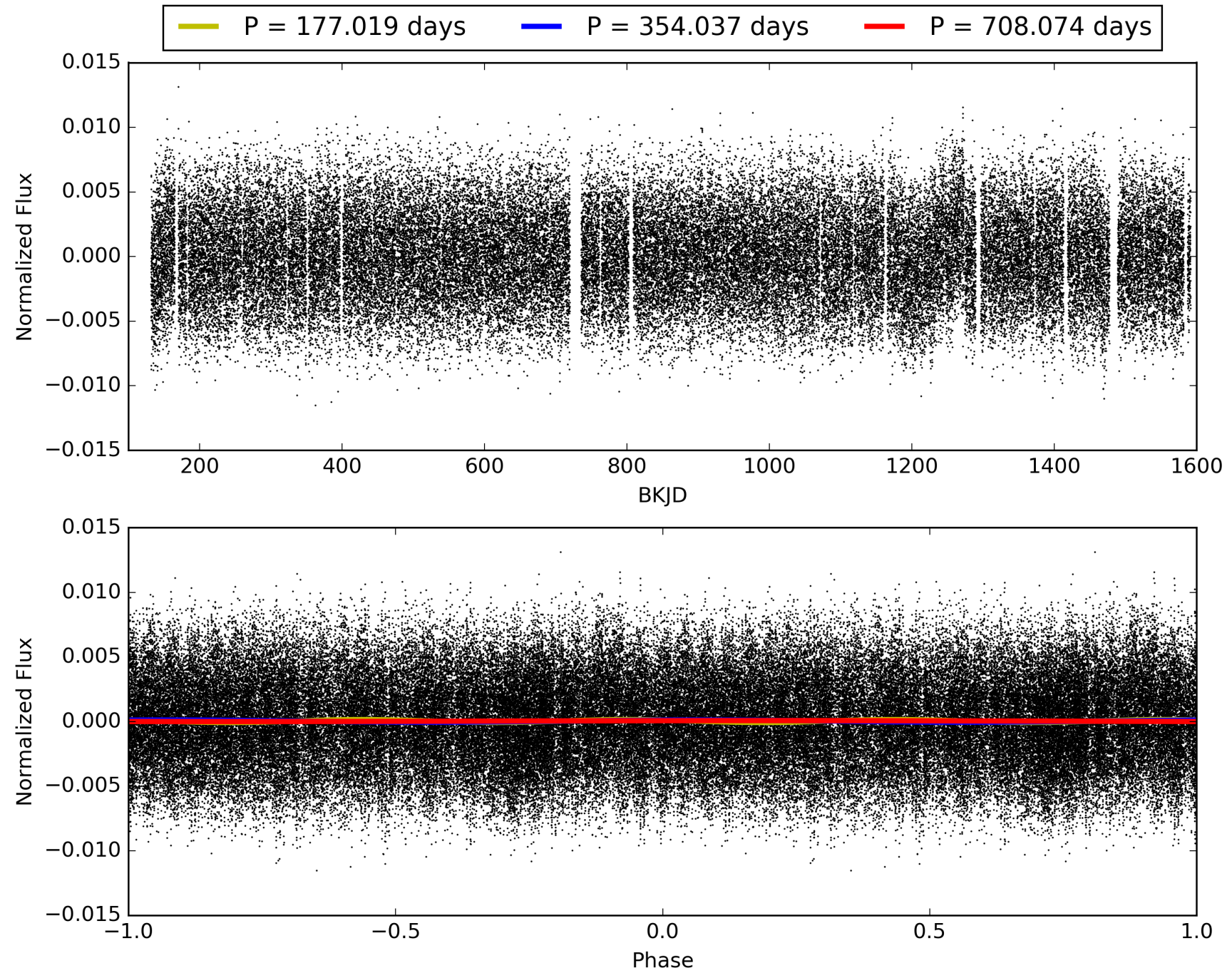
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:25:01 Z

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

TCE 004945107-02, PDC Light Curves

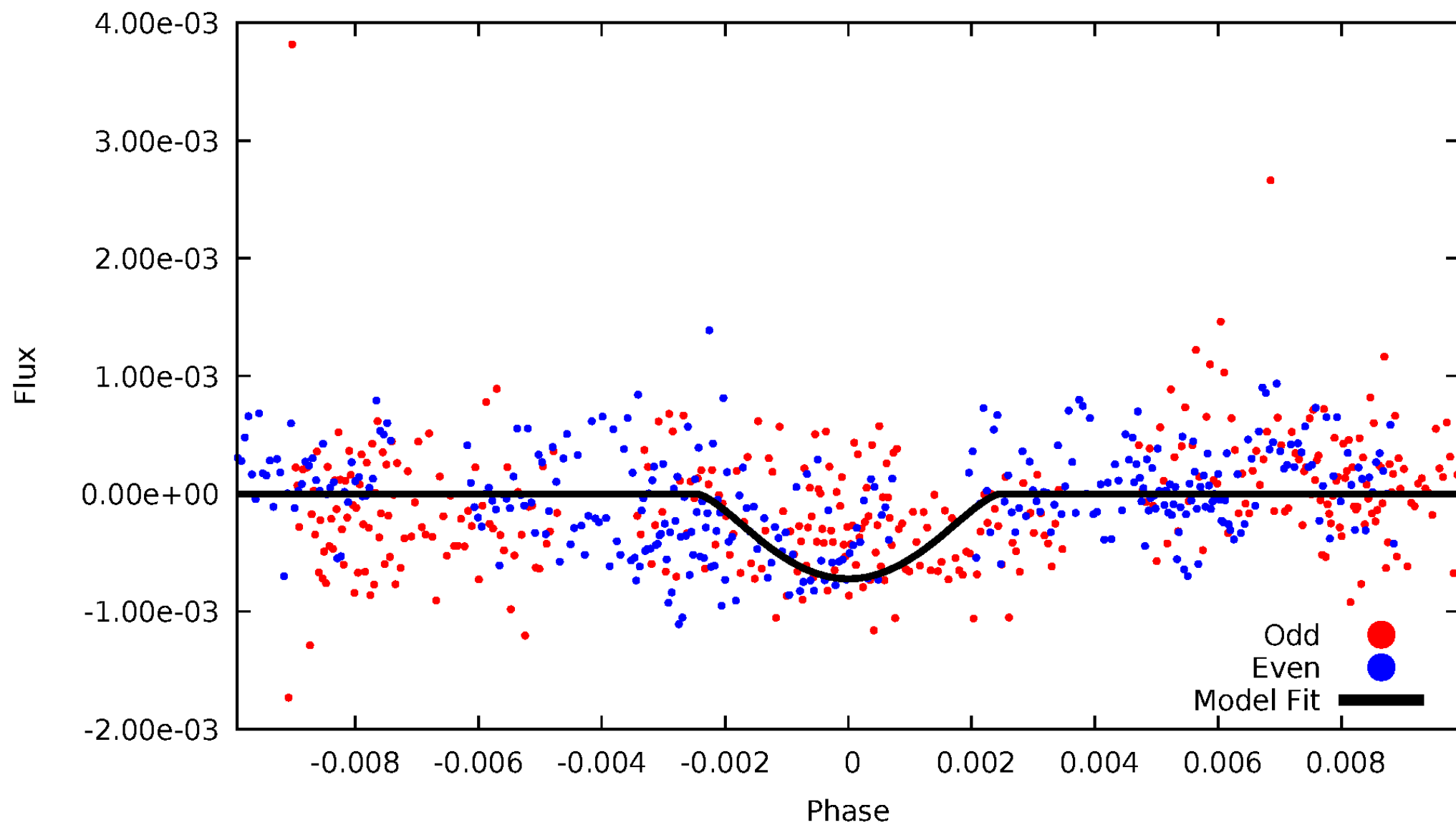


TCE 004945107-02



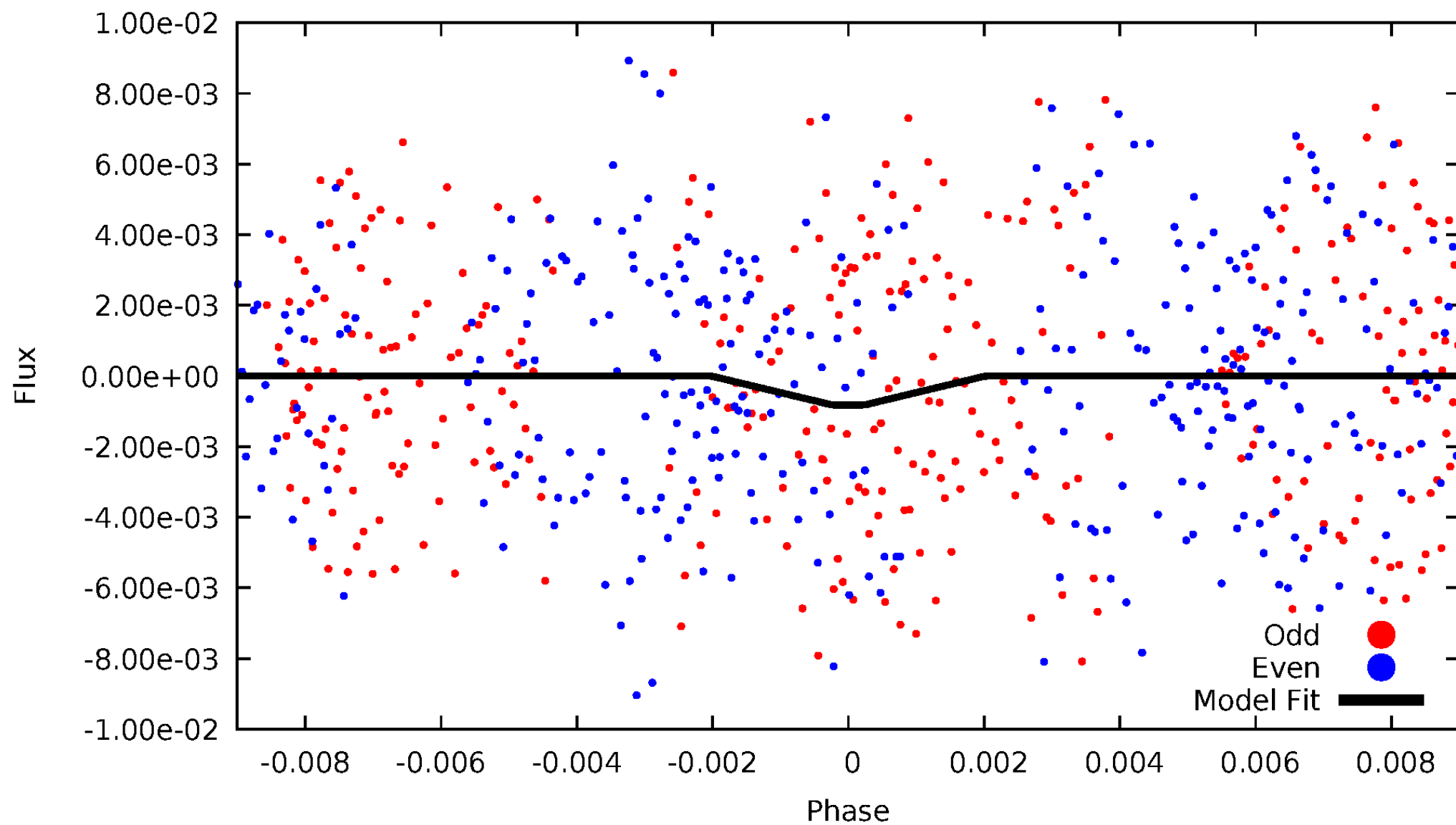
DV Odd/Even

TCE 004945107-02



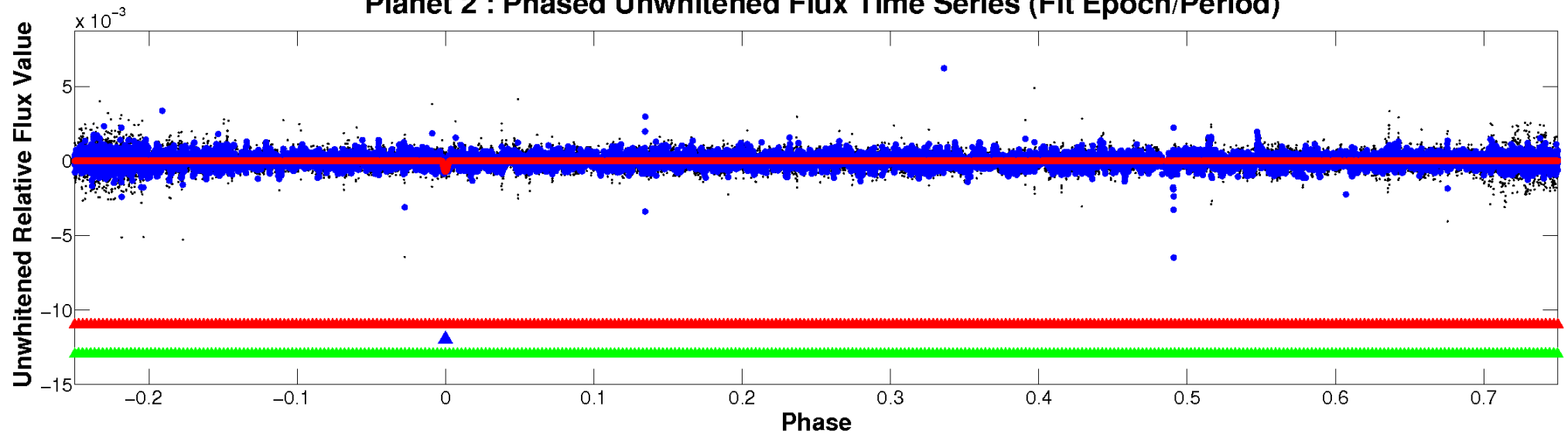
ALT Odd/Even

TCE 004945107-02

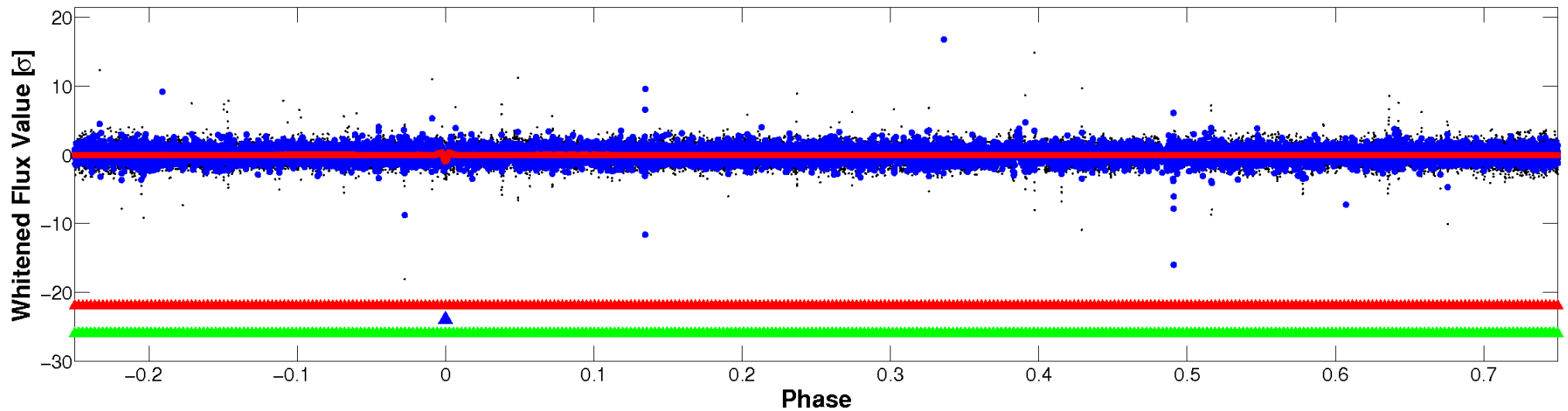


Non-Whitened Vs. Whitened Light Curve

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

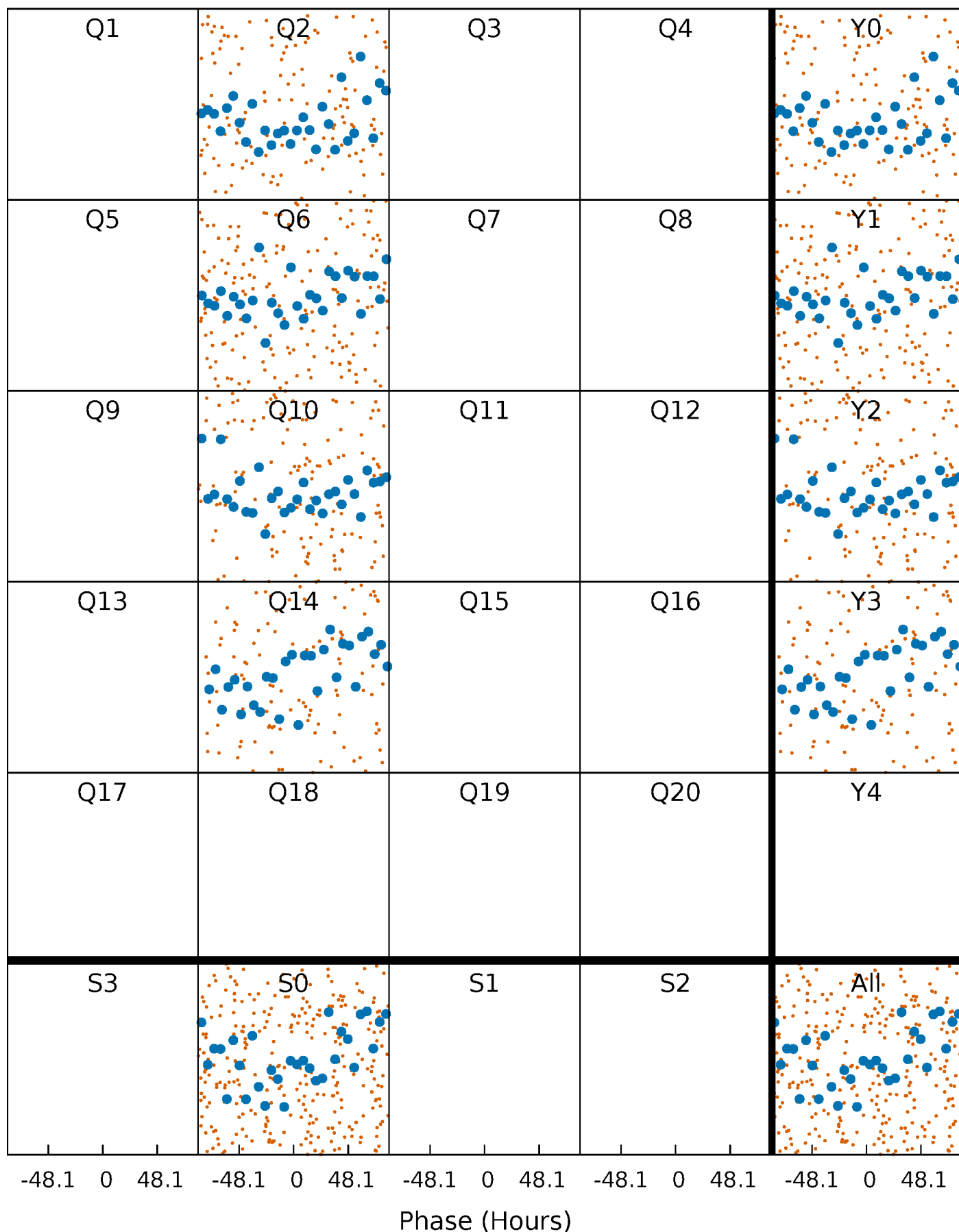


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



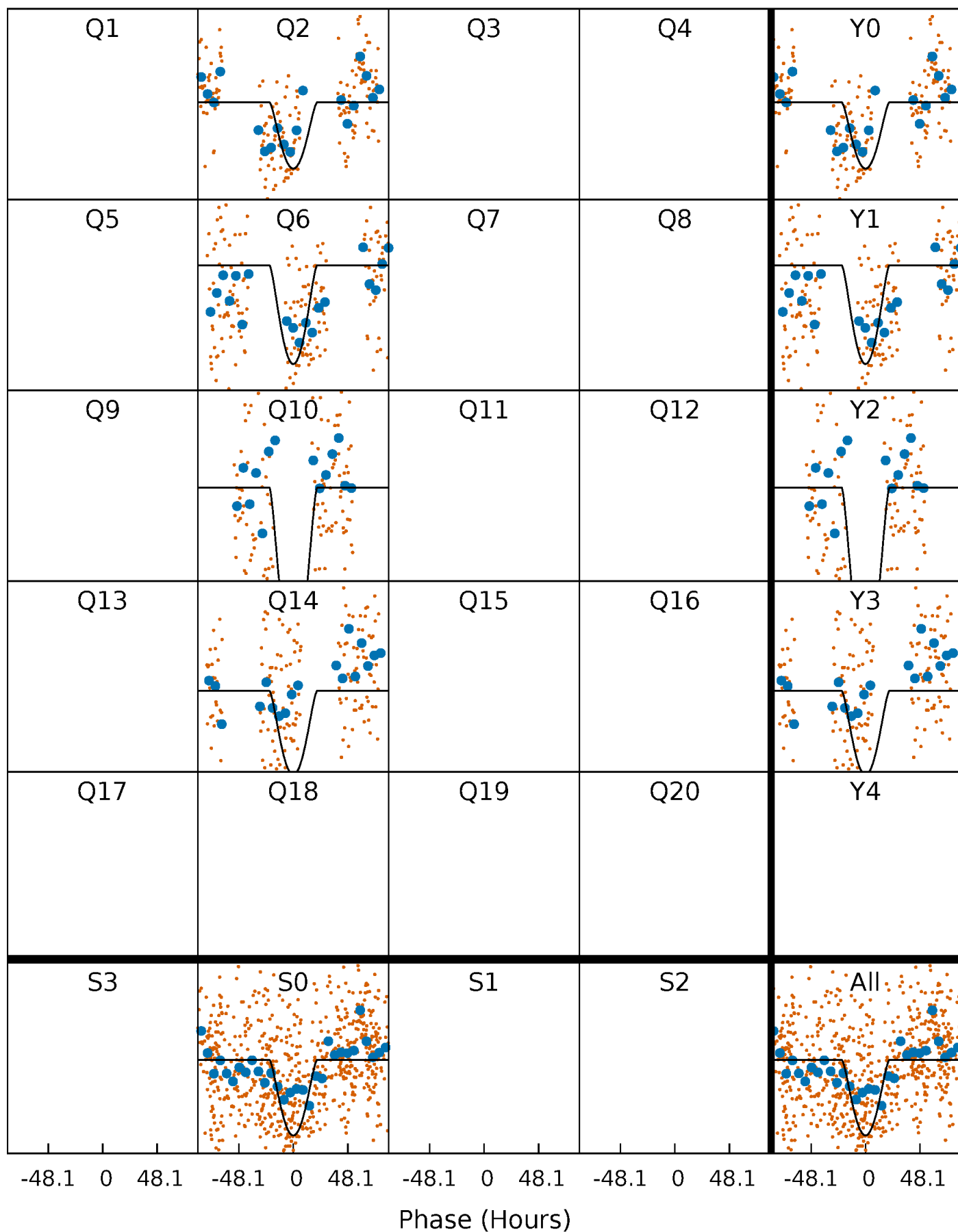
PDC Quarter-Phased Transit Curves

TCE 004945107-02 P=354.037237 Days $T_0=237.516369$ (BKJD)



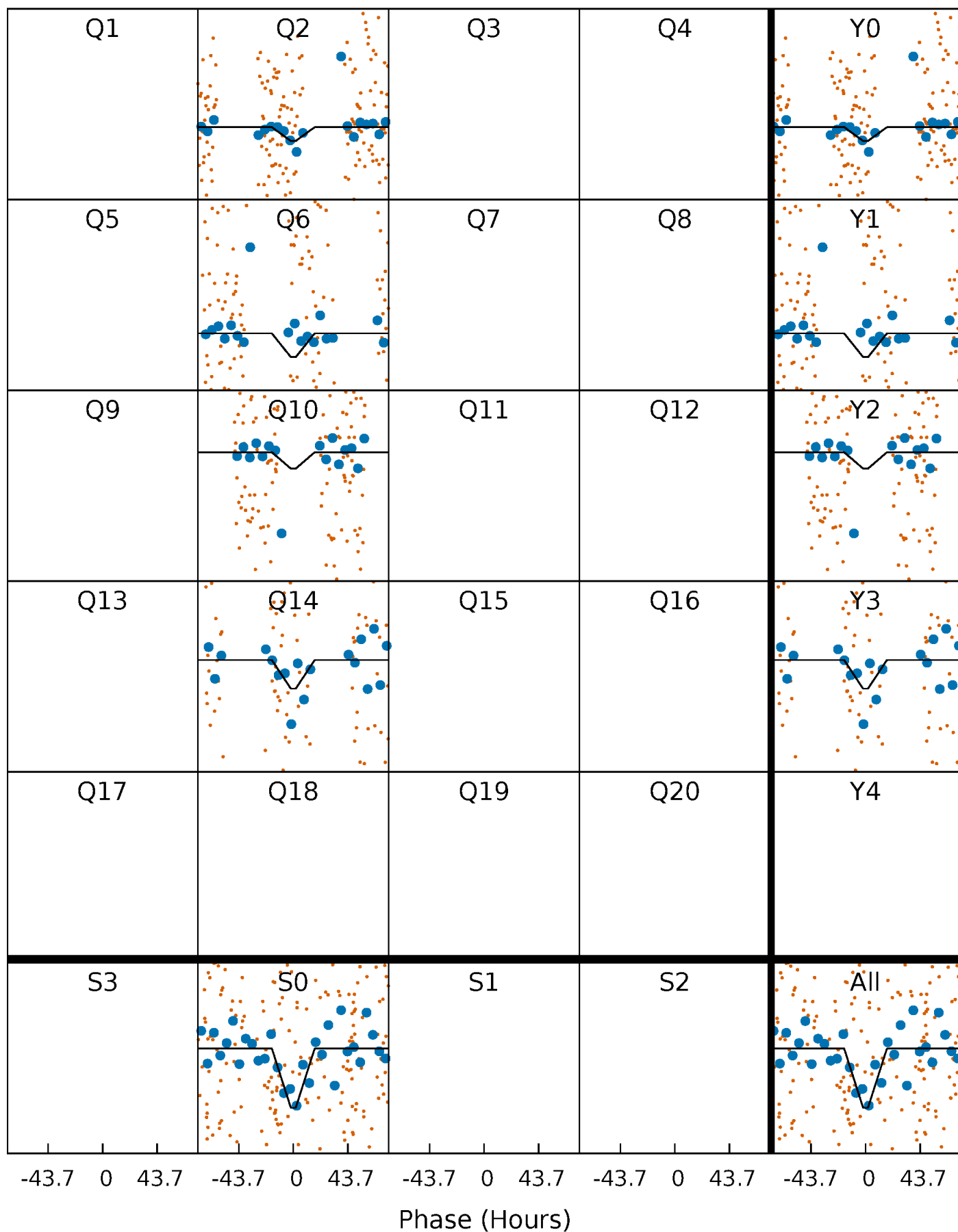
DV Quarter-Phased Transit Curves

TCE 004945107-02 P=354.037237 Days $T_0=237.516369$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

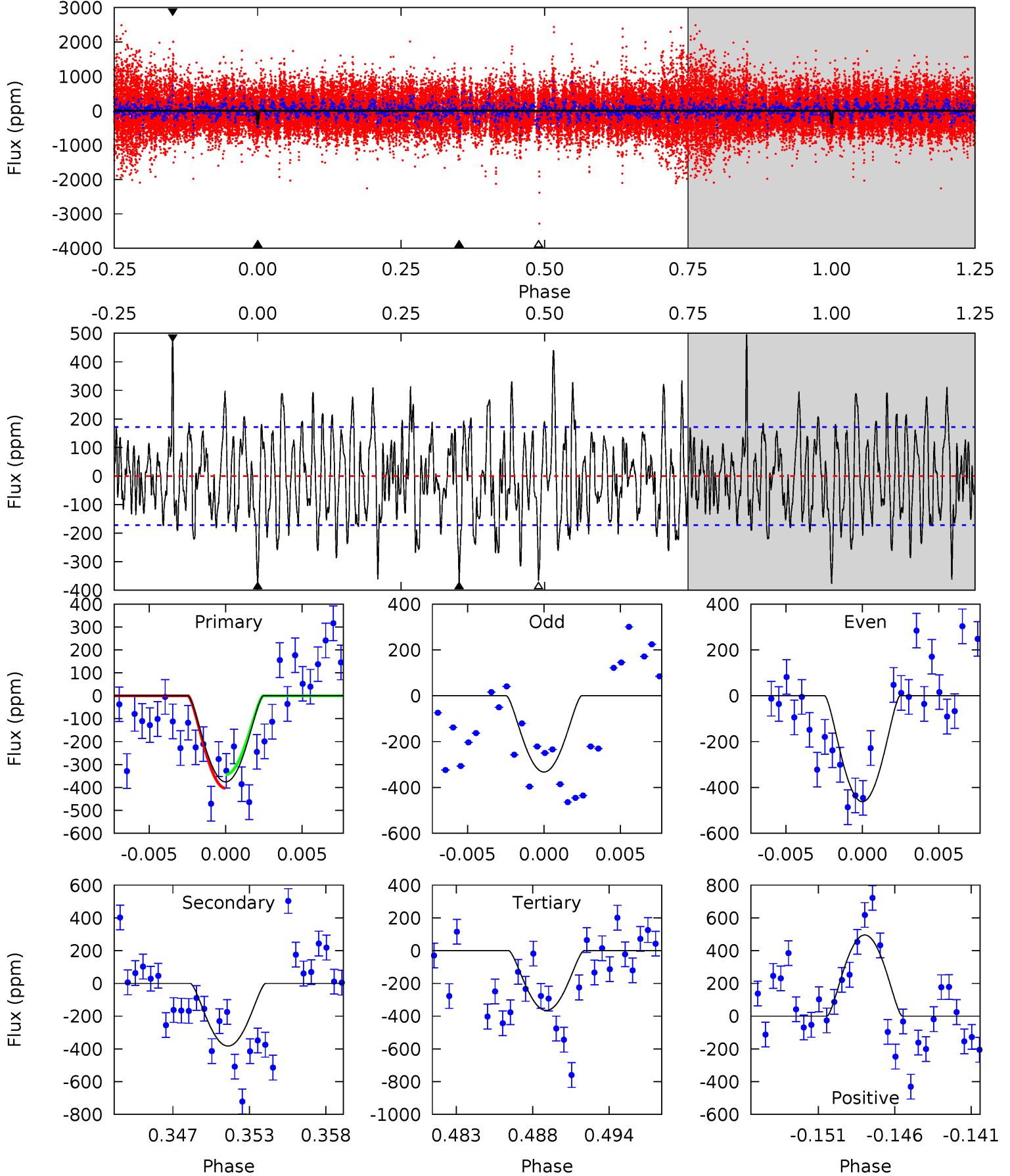
TCE 004945107-02 P=353.963749 Days $T_0=237.458087$ (BKJD)



DV Model-Shift Uniqueness Test

004945107-02, P = 354.037237 Days, E = 237.516369 Days

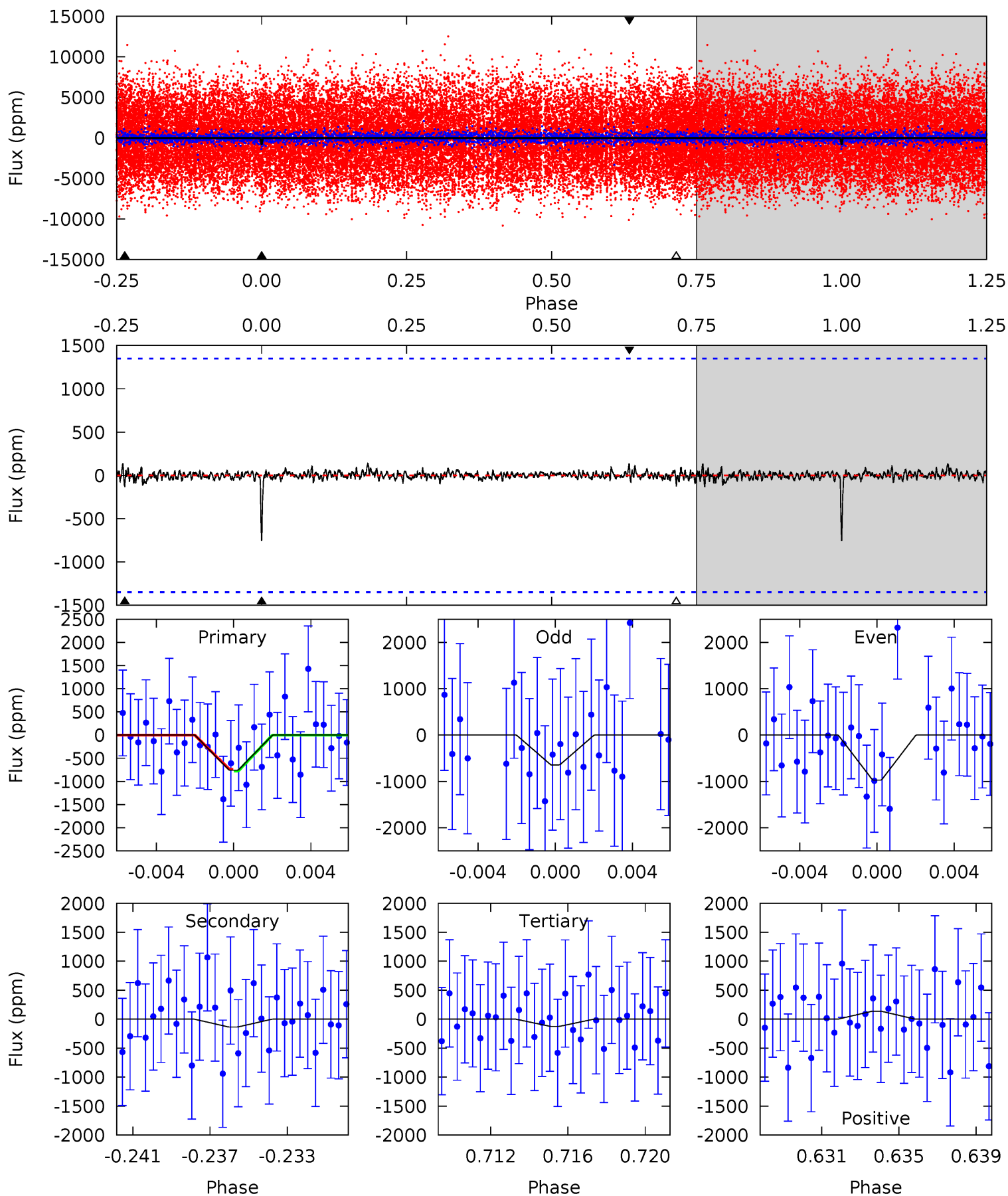
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	11.5	11.0	14.9	5.16	2.80	3.92	0.32	-3.59	0.52	-3.39	1.89	-0.05	0.56	0.90



Alt Model-Shift Uniqueness Test

004945107-02, P = 353.963749 Days, E = 237.458087 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.93	0.52	0.48	0.53	5.20	2.88	0.13	2.45	2.40	0.04	-0.01	0.61	0.83	0.15	0.08



Stellar Parameters For KIC 004945107

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6899^{+190}_{-309}	$4.083^{+0.214}_{-0.175}$	$-0.140^{+0.250}_{-0.300}$	$1.793^{+0.555}_{-0.505}$	$1.422^{+0.191}_{-0.286}$	$0.347^{+0.429}_{-0.167}$
	+3%/-4%	+5%/-4%	+179%/-214%	+31%/-28%	+13%/-20%	+123%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004945107-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-383 ± 33	$19.71^{+21.32}_{-13.13}$	536^{+43}_{-41}	3473^{+1698}_{-659}	637^{+5342}_{-485}
Alt.	-135 ± 260	$18.82^{+19.79}_{-13.45}$	540^{+45}_{-45}	2797^{+1578}_{-5747}	142^{+2440}_{-336}

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

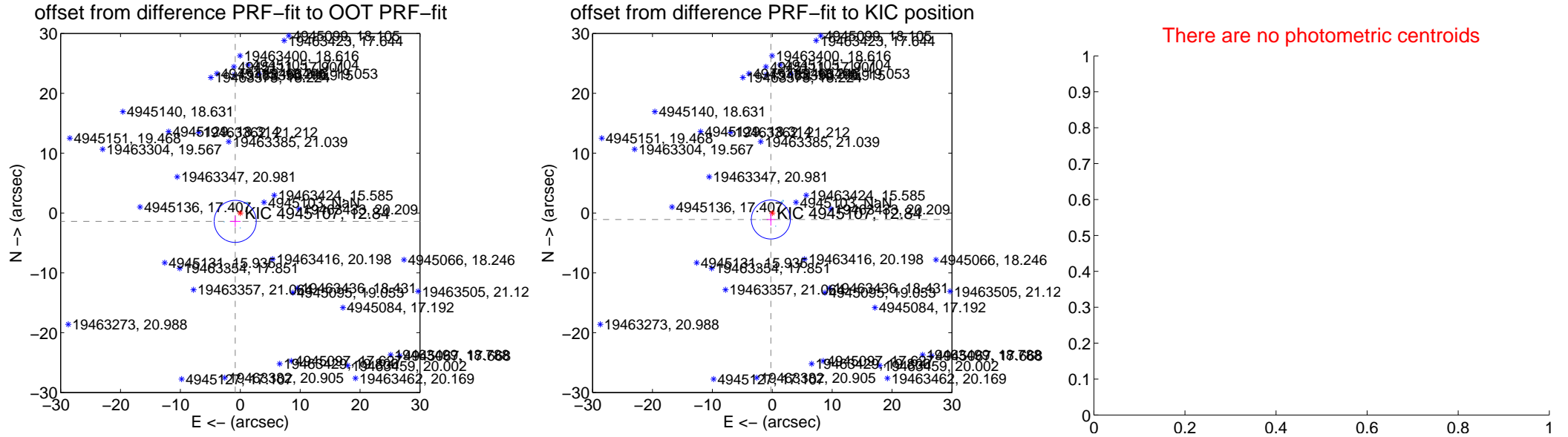
DV Centroid Data

Supplemental centroid analysis for 004945107-02. Kepler magnitude: 12.84. Transit SNR 9.03

There are 4 quarters with good PRF difference image offsets

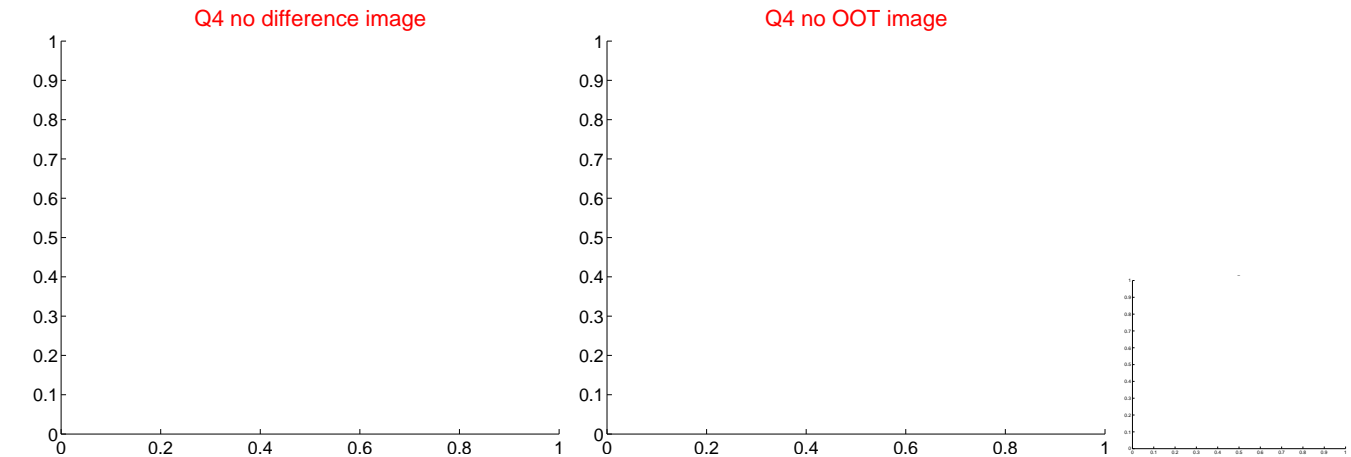
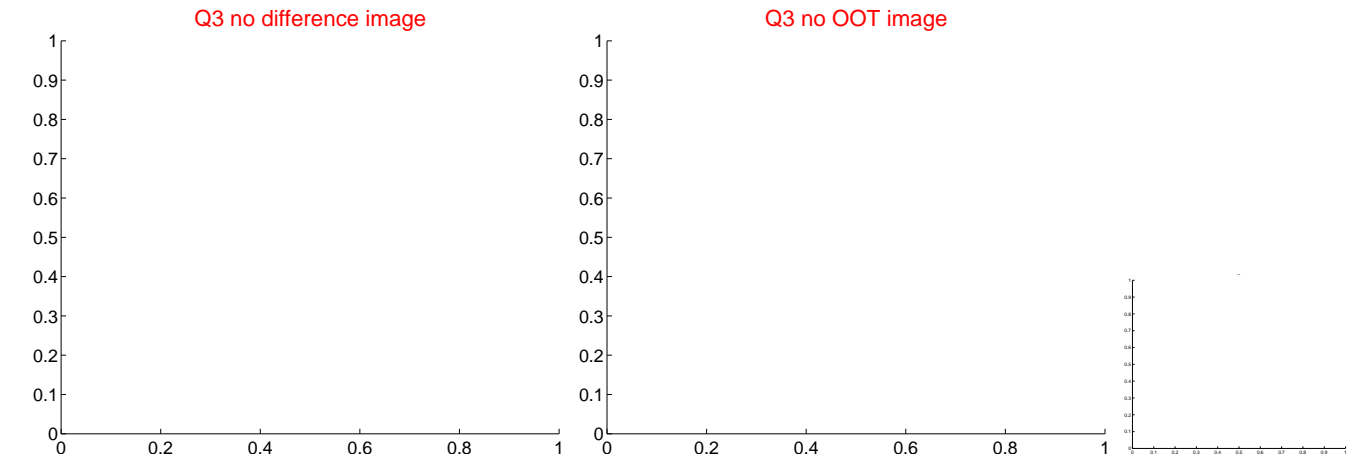
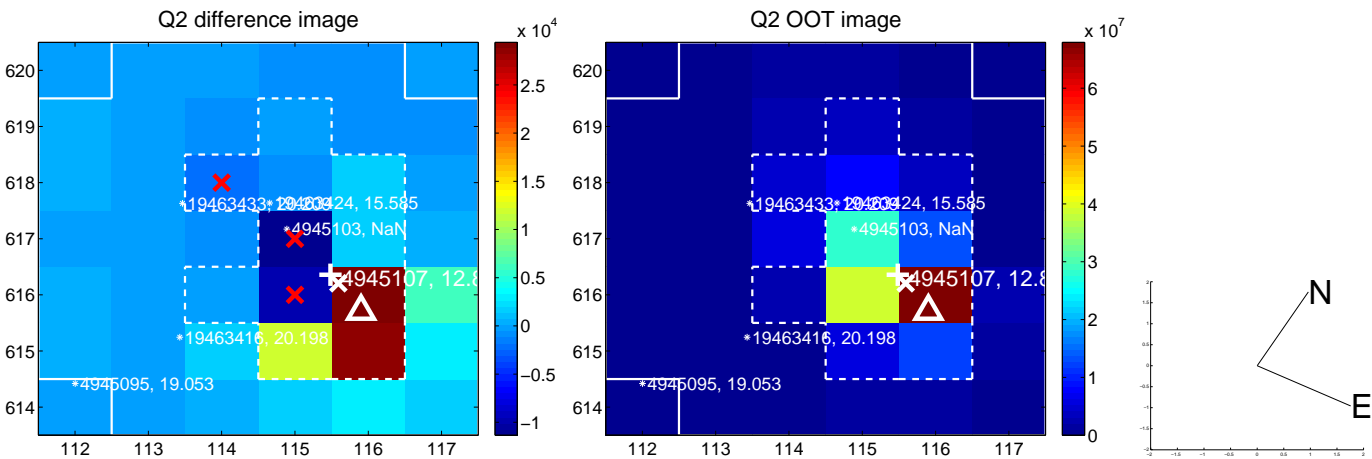
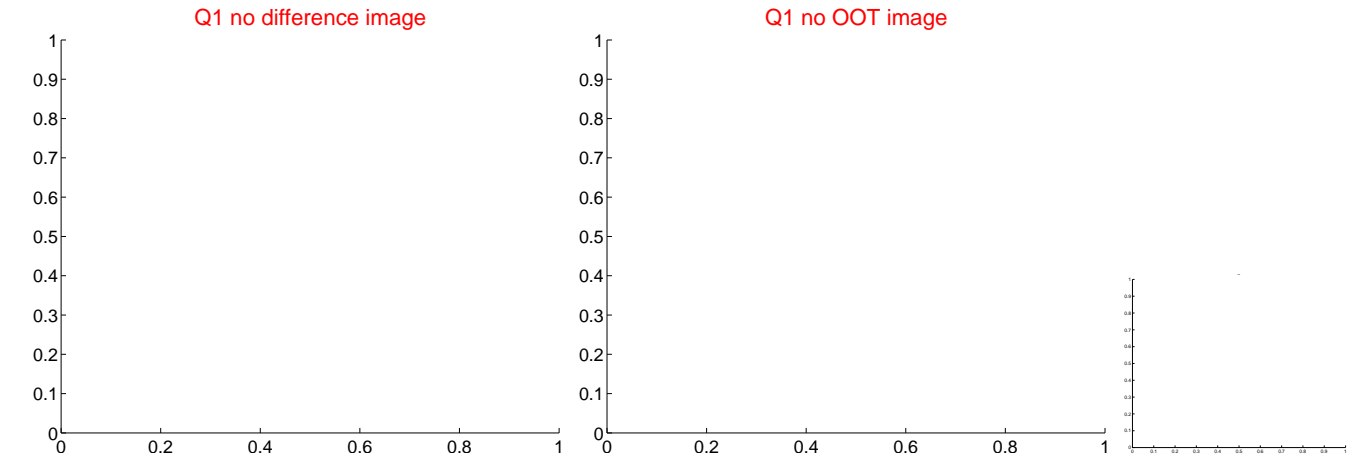
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.634 ± 1.171	1.40	0.848 ± 0.892	-1.396 ± 0.931
PRF-fit source offset from KIC position	1.111 ± 1.087	1.02	0.239 ± 0.689	-1.085 ± 1.027
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.

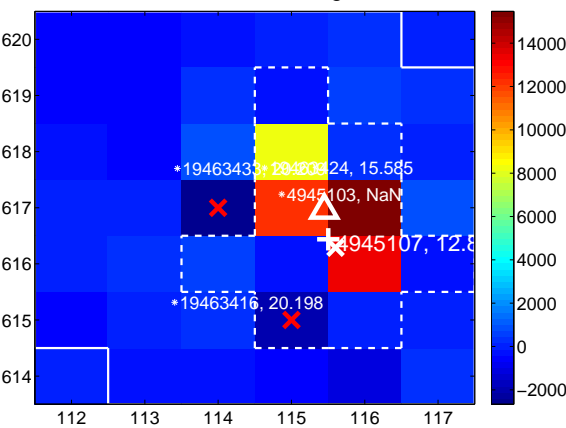
Q5 no difference image



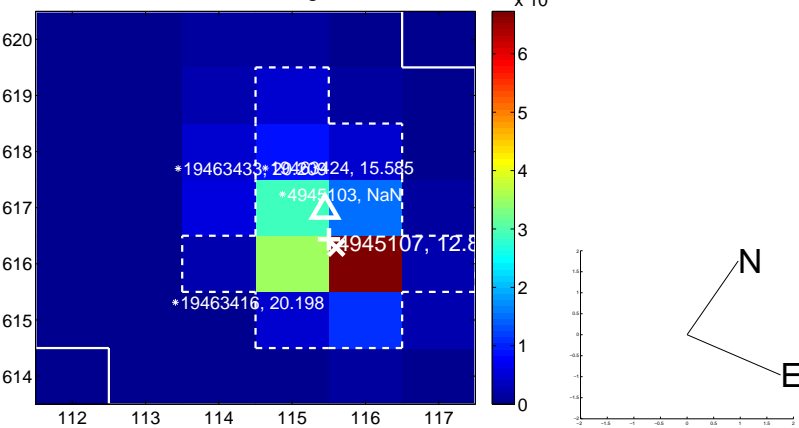
Q5 no OOT image



Q6 difference image



Q6 OOT image



Q7 no difference image



Q7 no OOT image



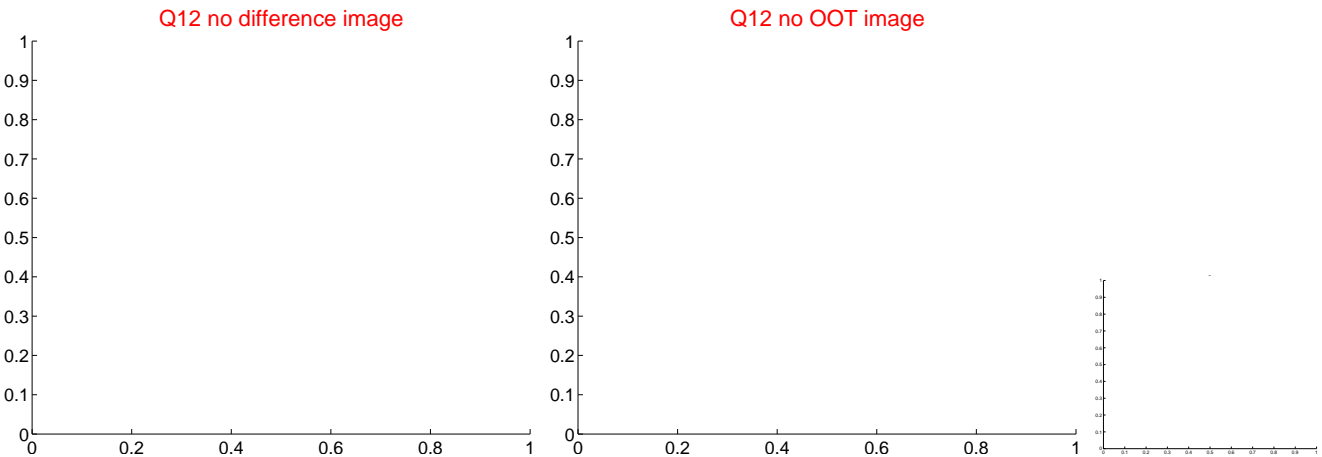
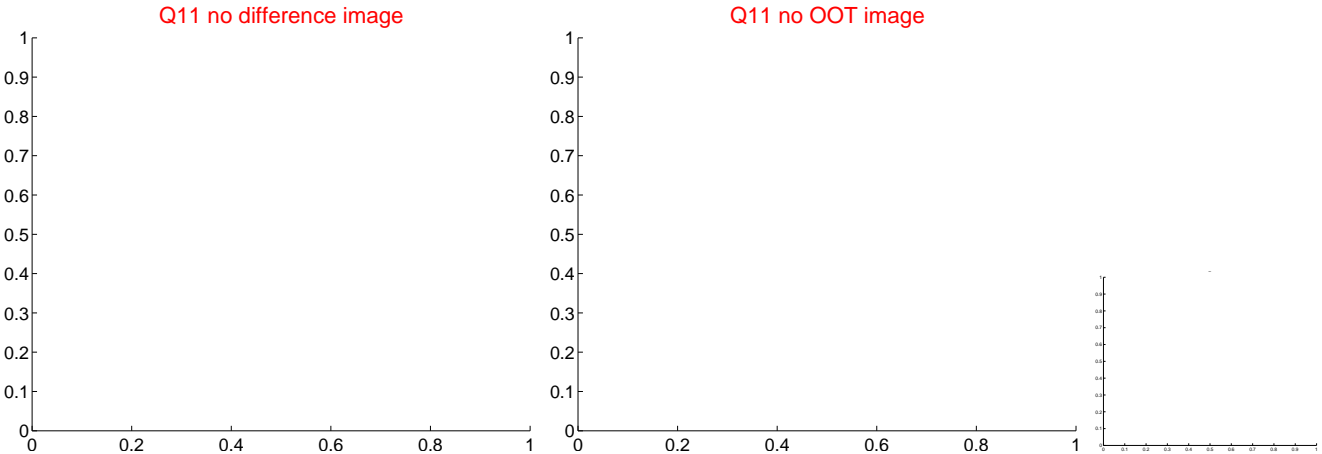
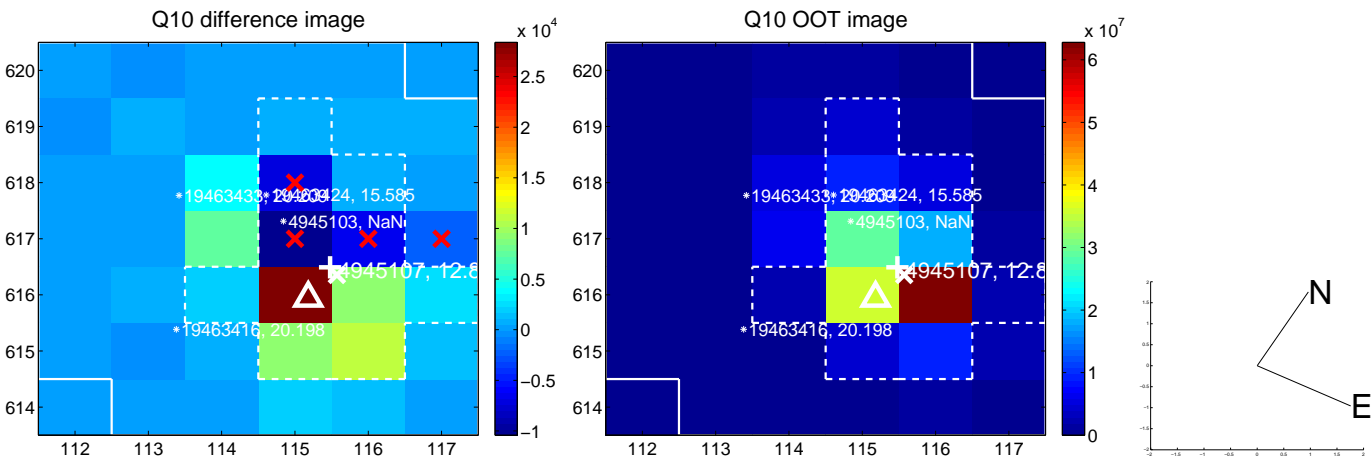
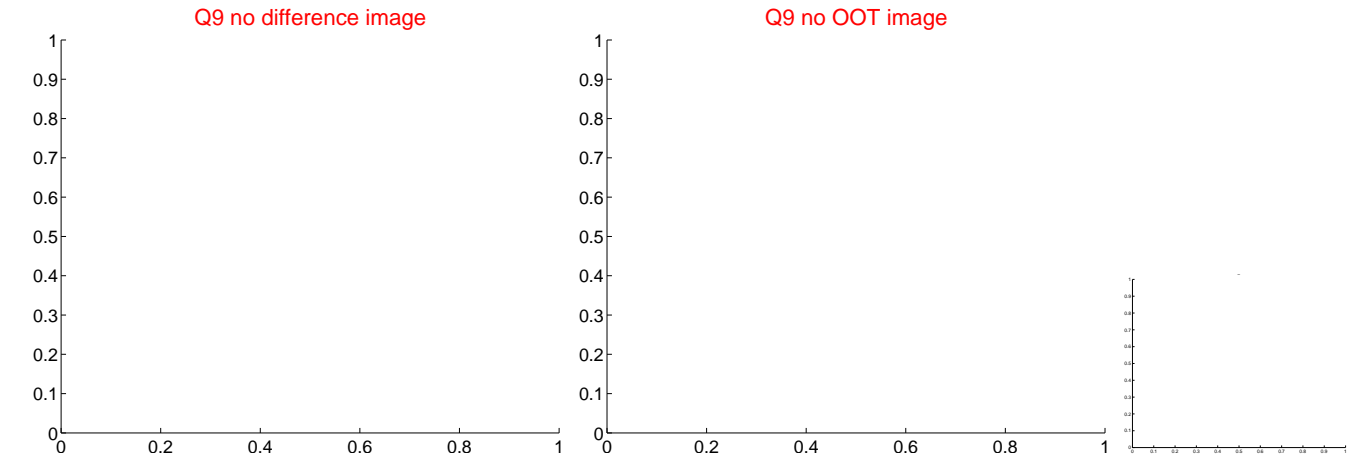
Q8 no difference image



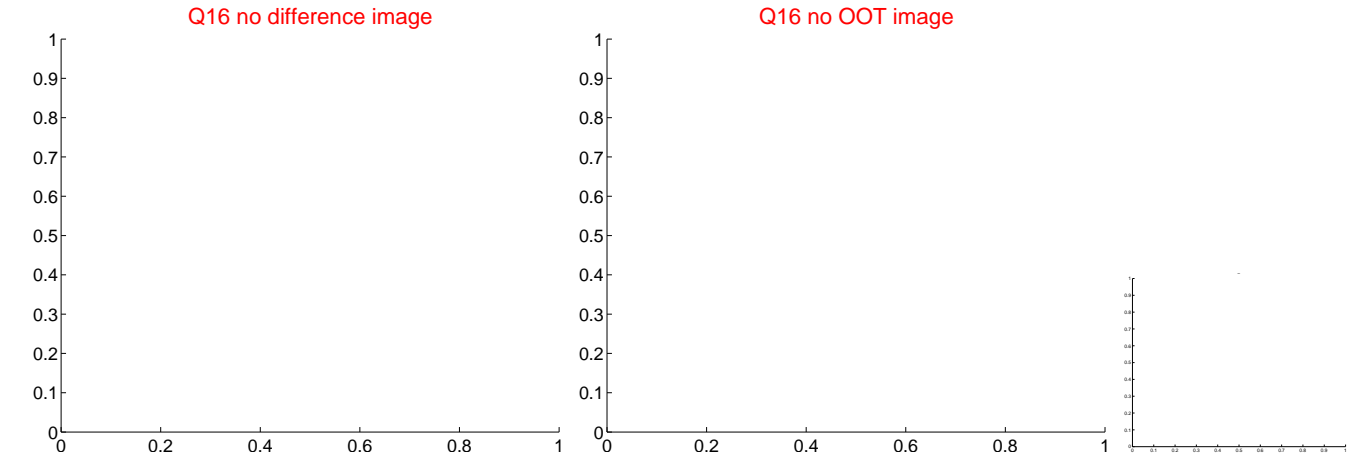
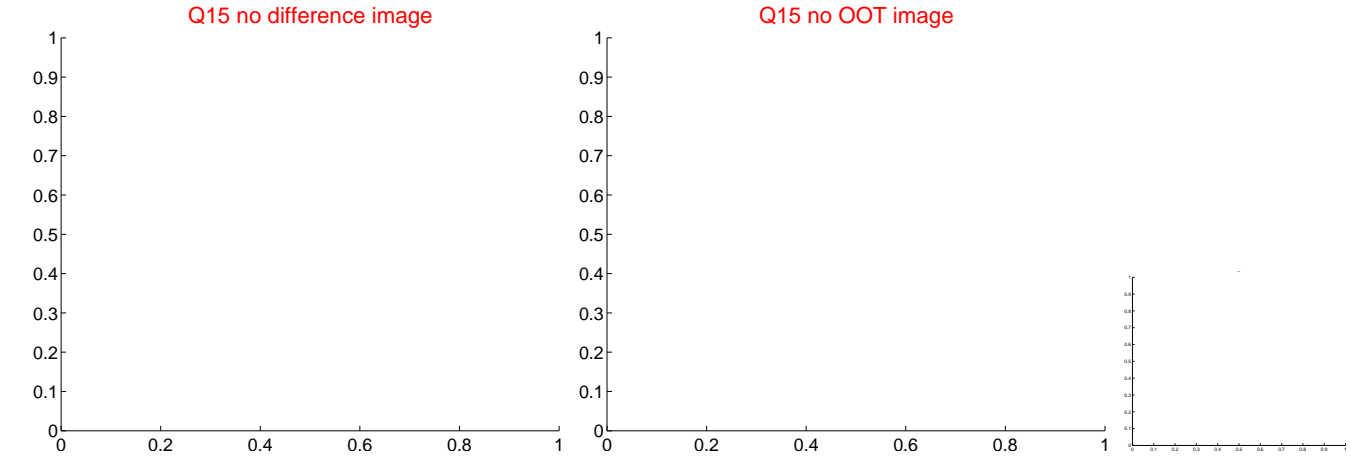
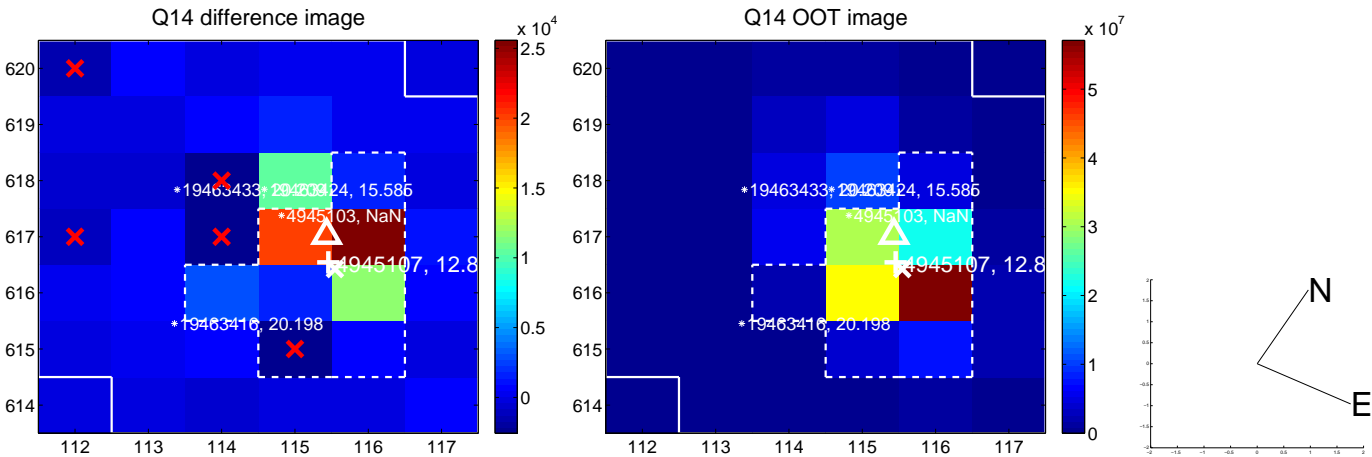
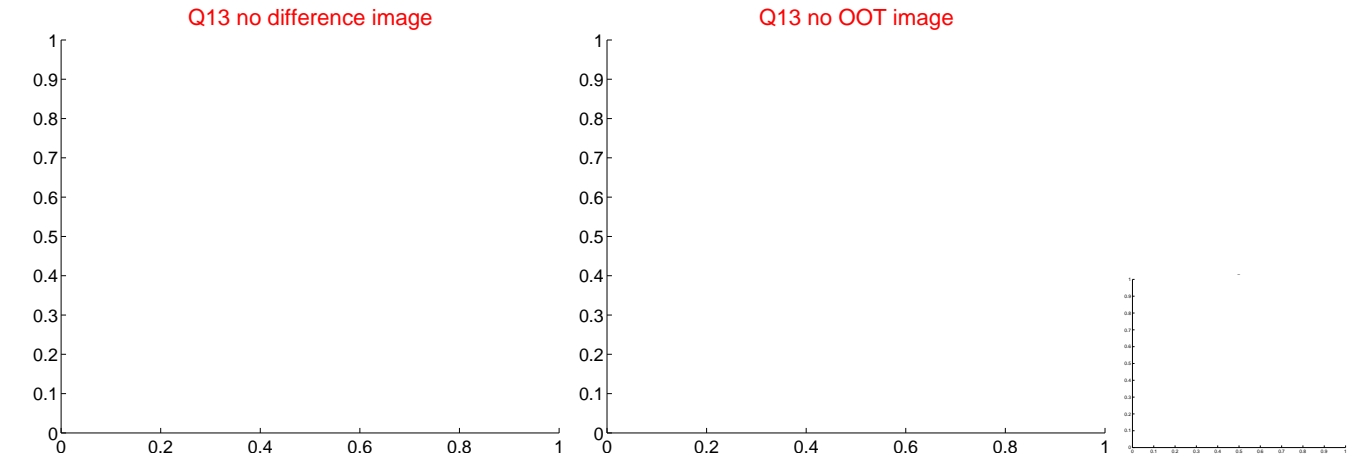
Q8 no OOT image



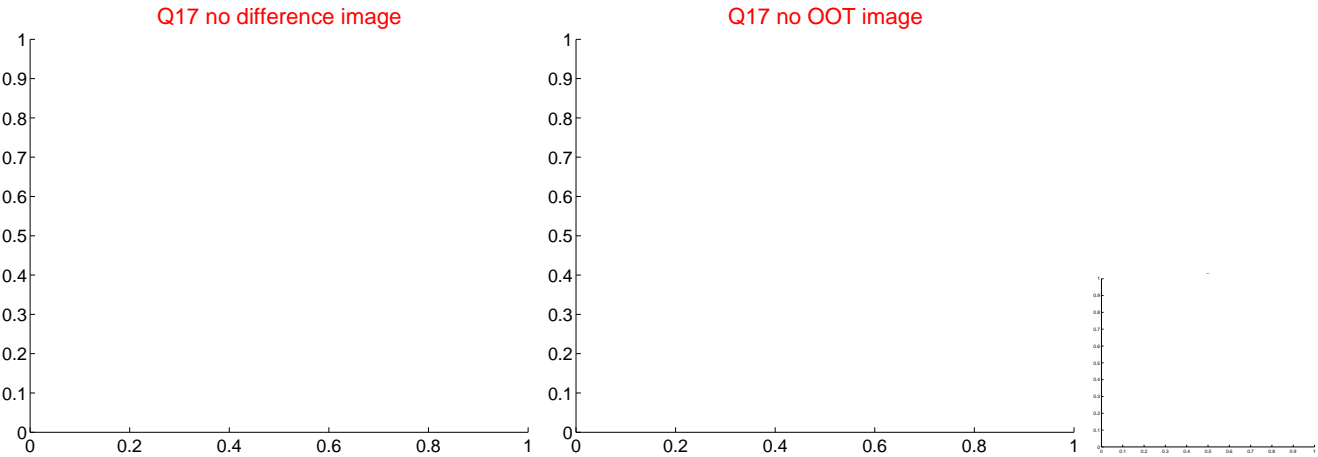
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



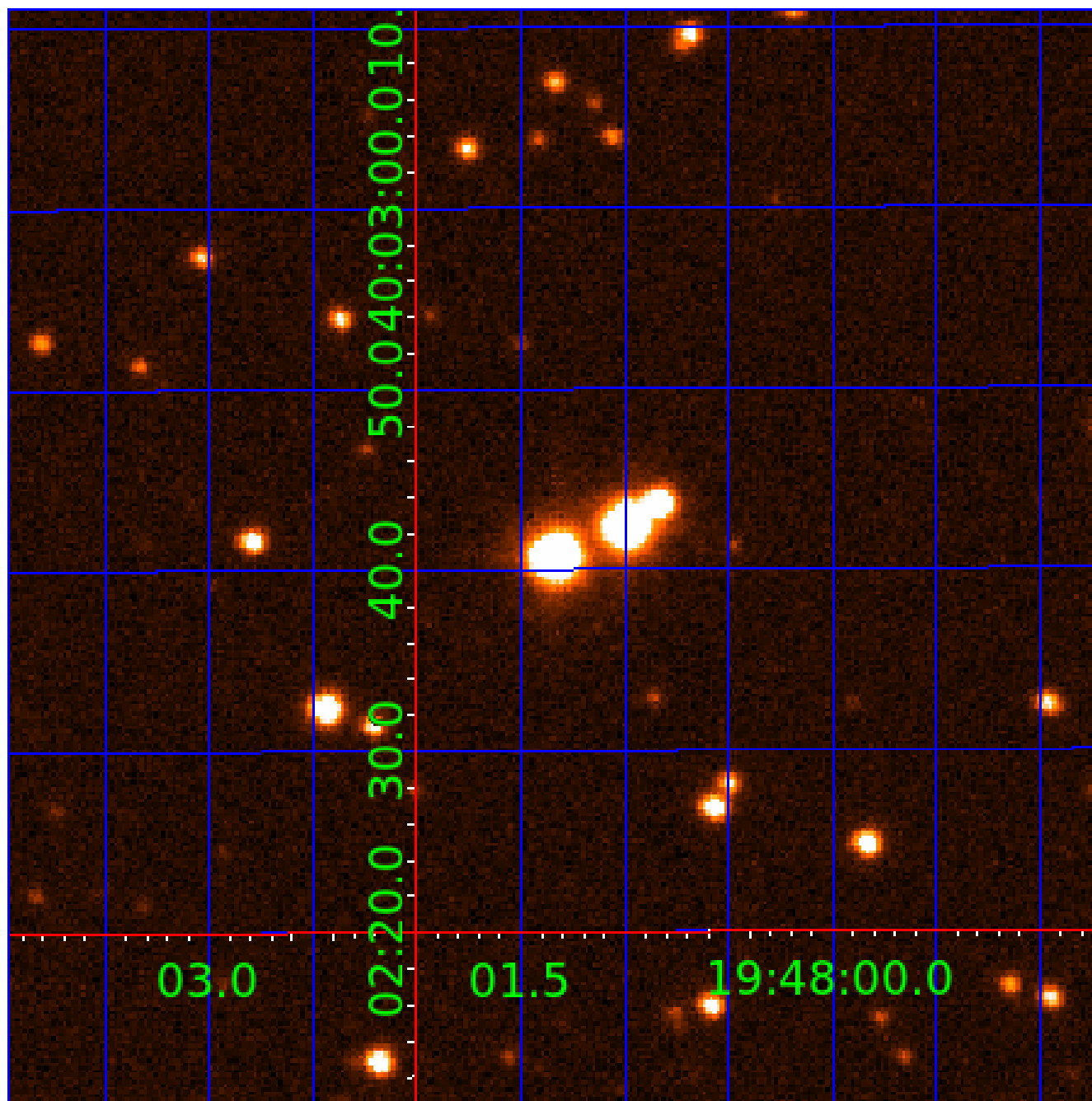
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 004945107

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})
004945107-01	OBS	No	2.886257	131.669003	67.3	10.805	11.5	12.2	1.79	6899	1.71	3280.80
004945107-02	OBS	No	354.037237	237.516369	722.5	42.116	16.1	9.0	1.79	6899	9.09	5.38
004945107-03	OBS	No	0.961952	131.713699	55.2	4.999	9.4	9.3	1.79	6899	2.38	14197.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004945107-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_KIC_POS
004945107-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
004945107-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_KIC_POS

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

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

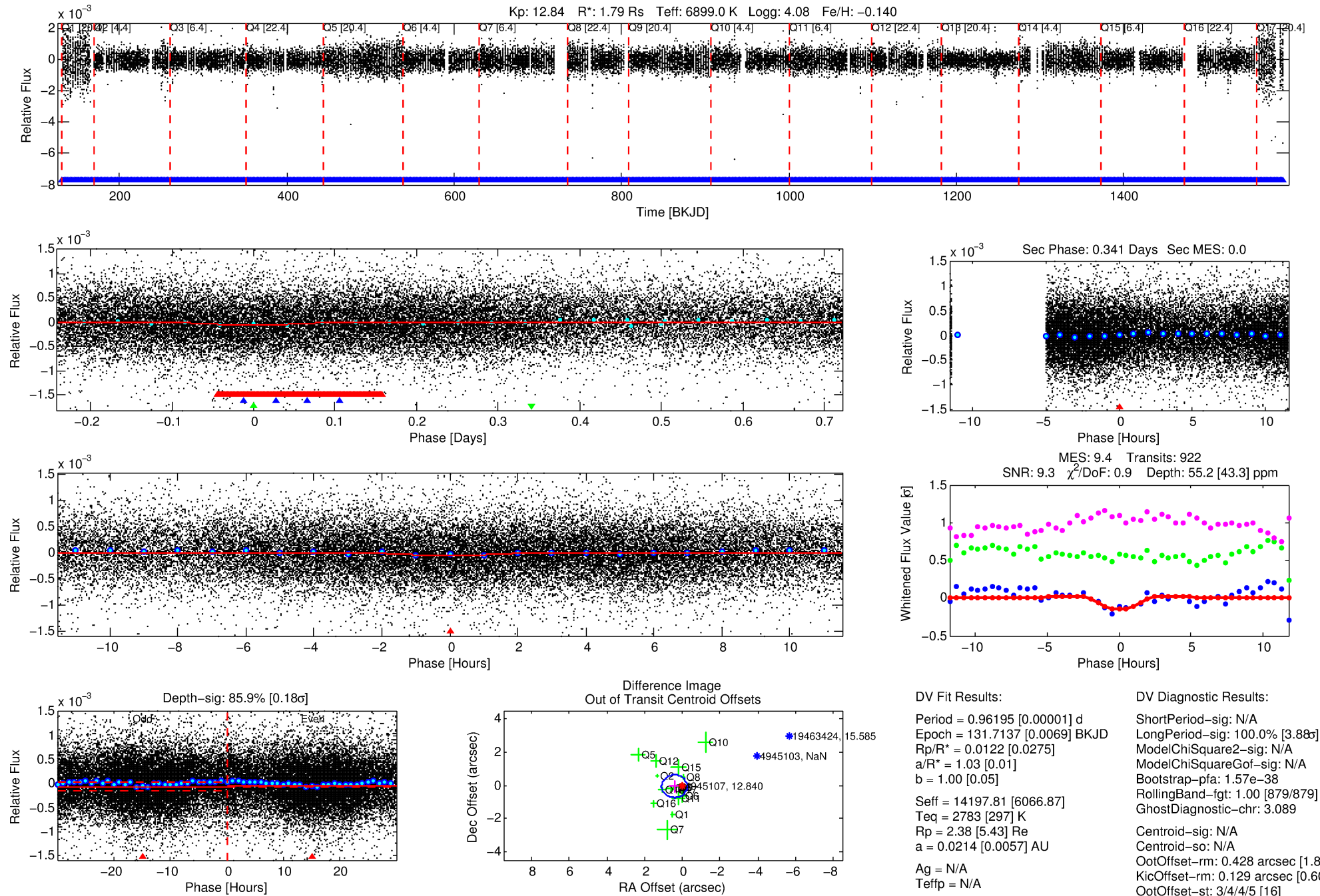
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004945107-03

No Significant Match Found

DV One-Page Summary

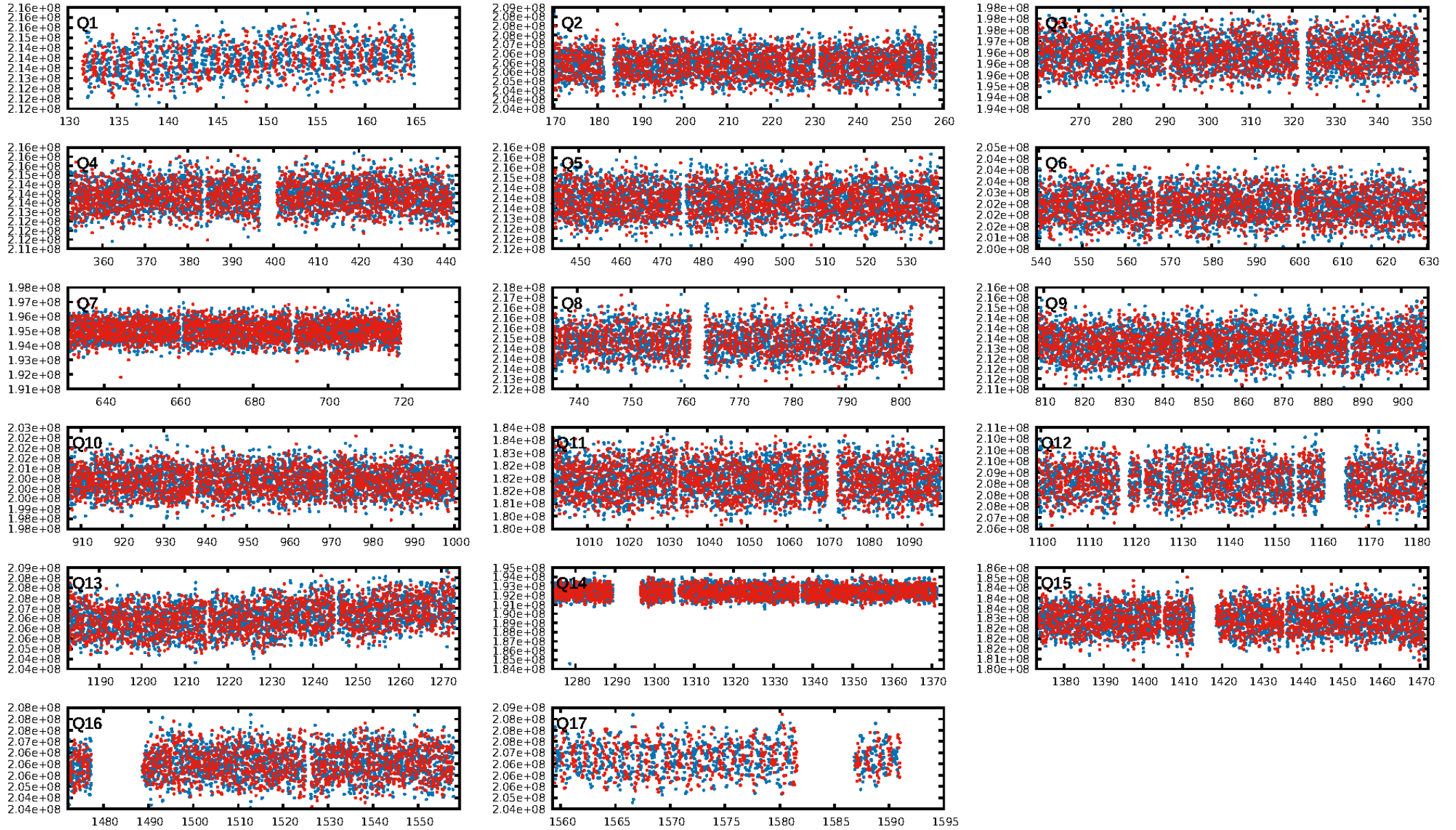
KIC: 4945107 Candidate: 3 of 3 Period: 0.962 d



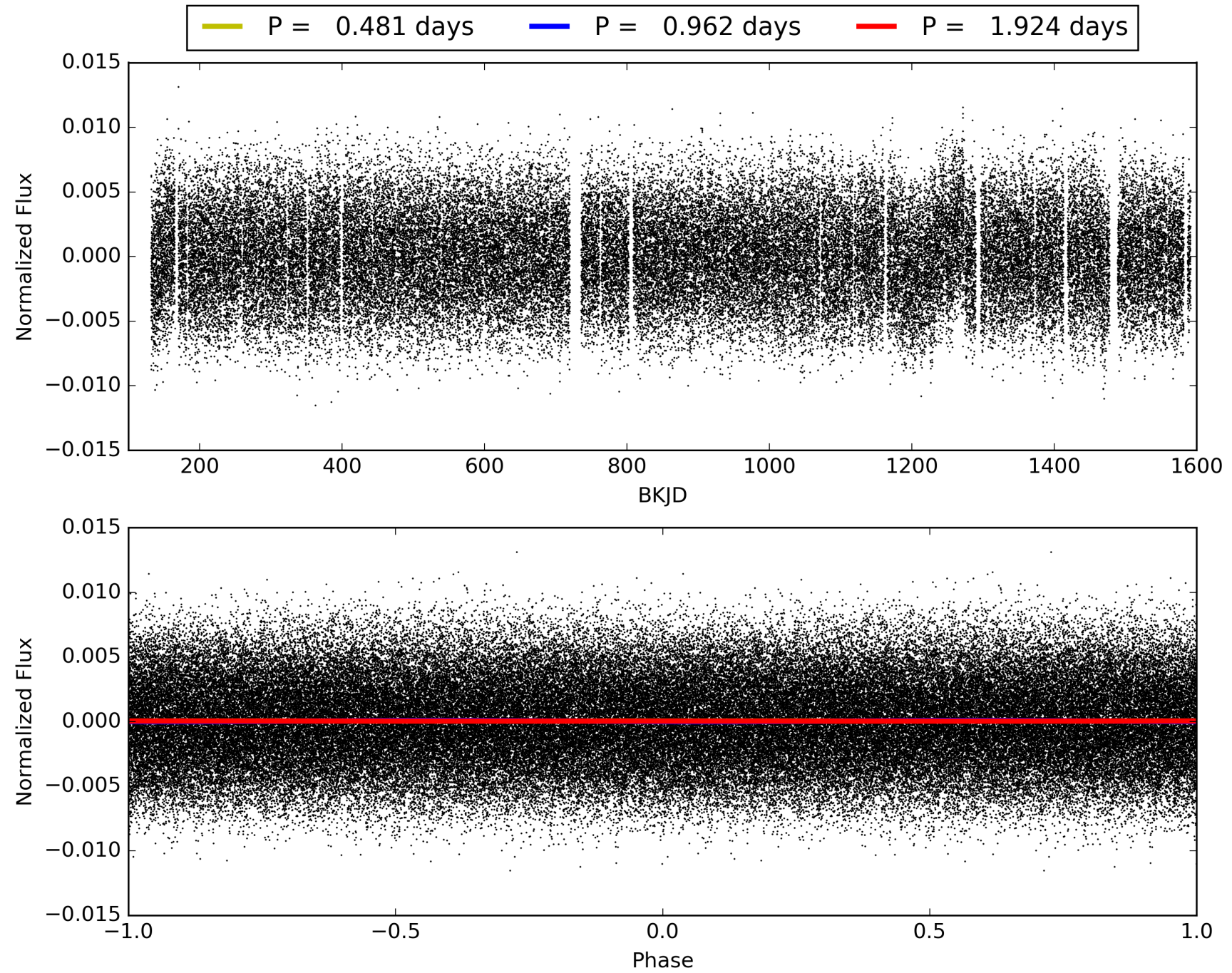
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:25:09 Z

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

TCE 004945107-03, PDC Light Curves

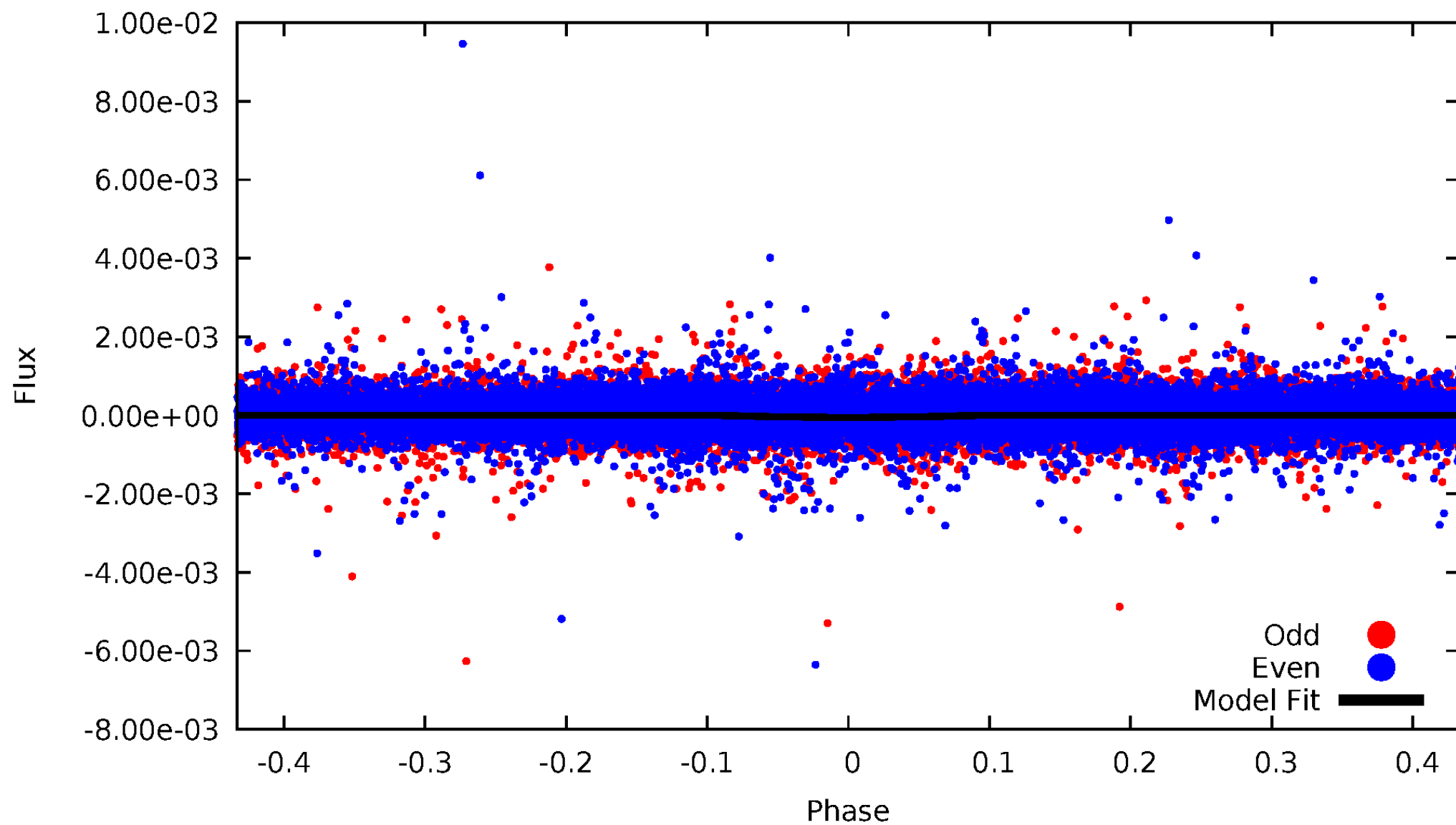


TCE 004945107-03



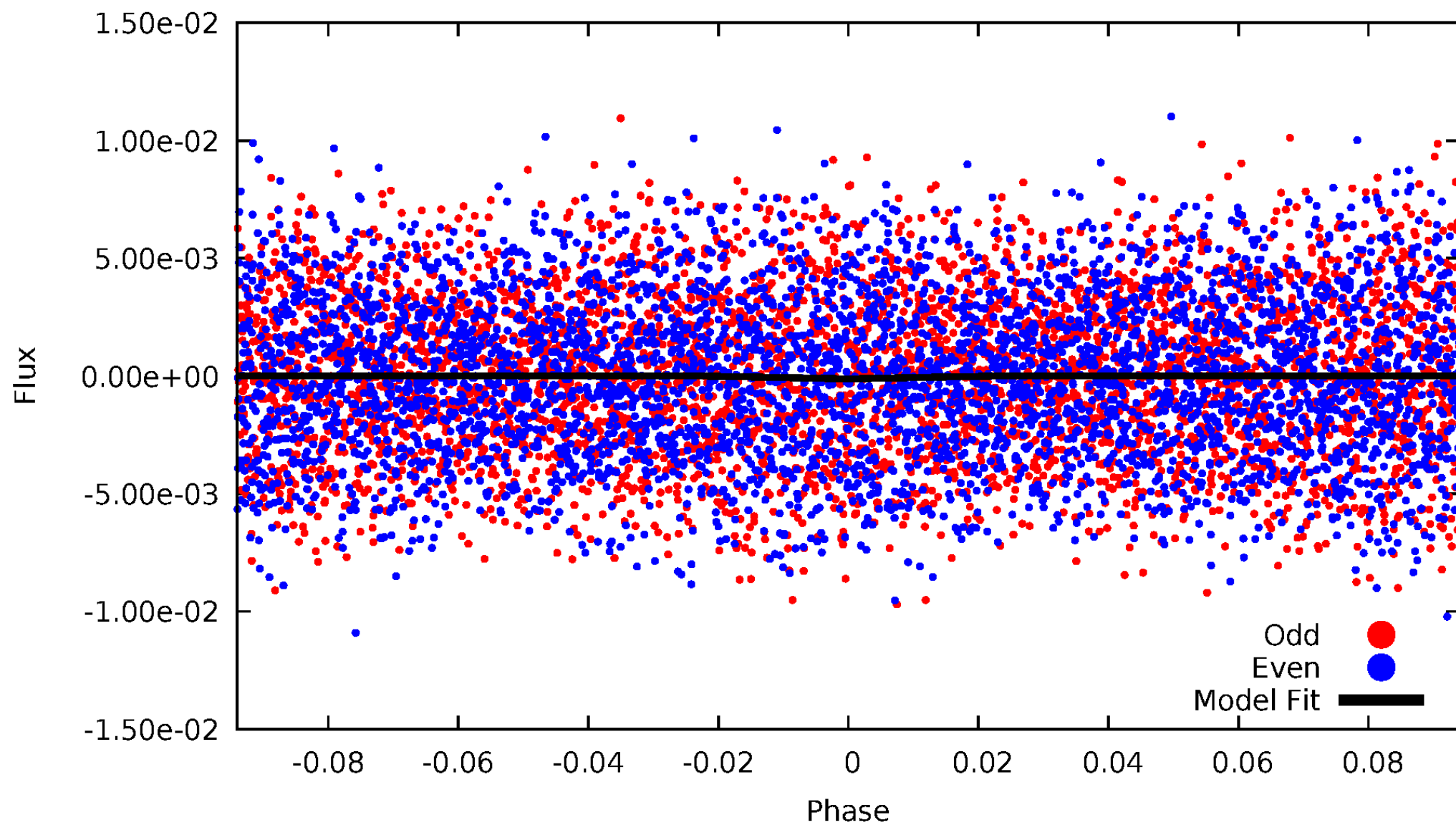
DV Odd/Even

TCE 004945107-03



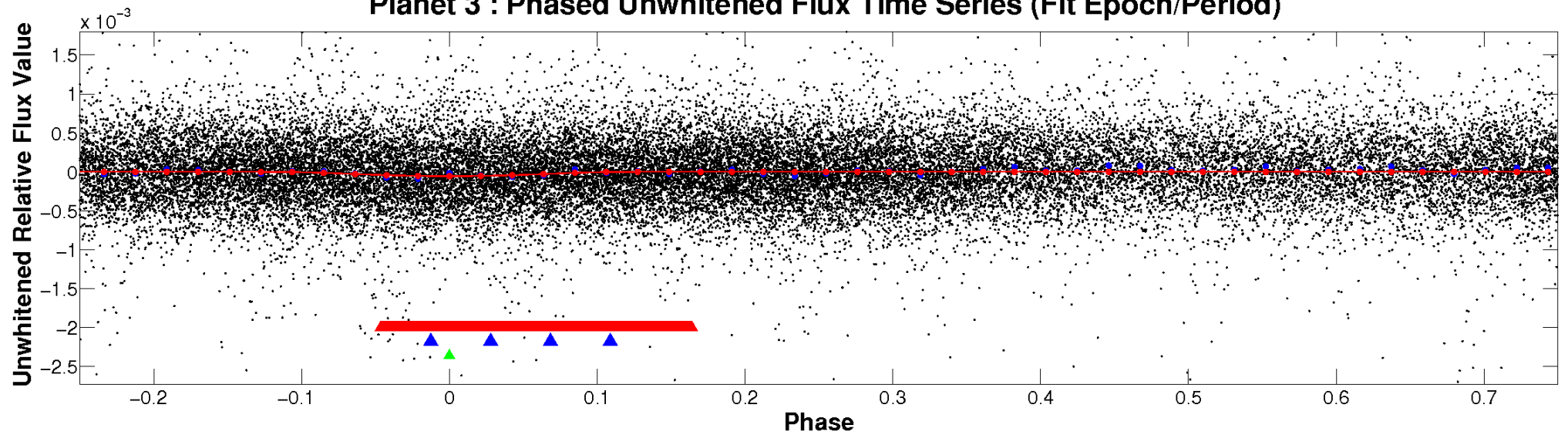
ALT Odd/Even

TCE 004945107-03

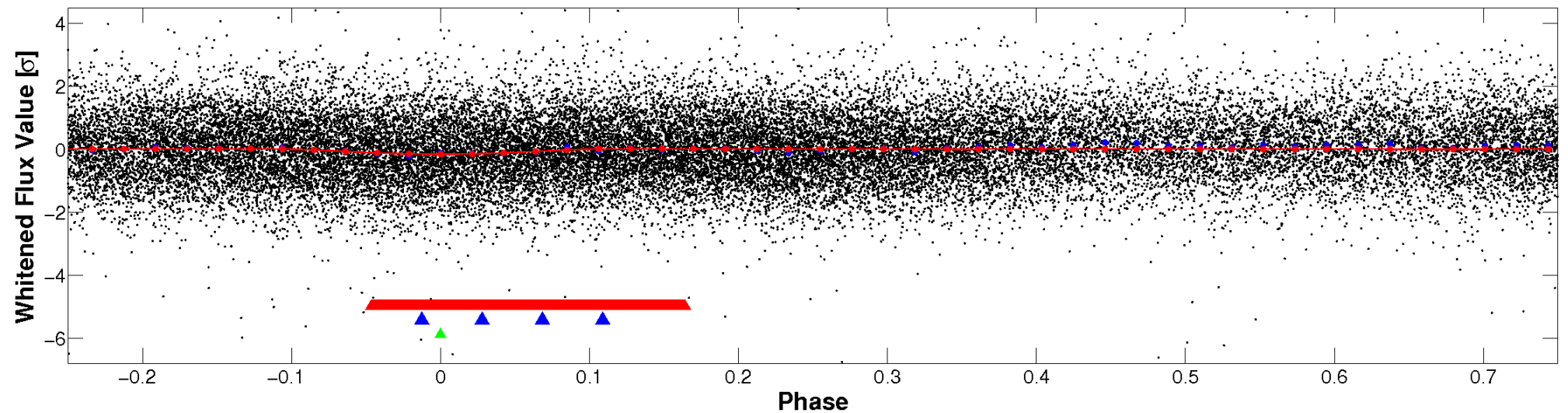


Non-Whitened Vs. Whitened Light Curve

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

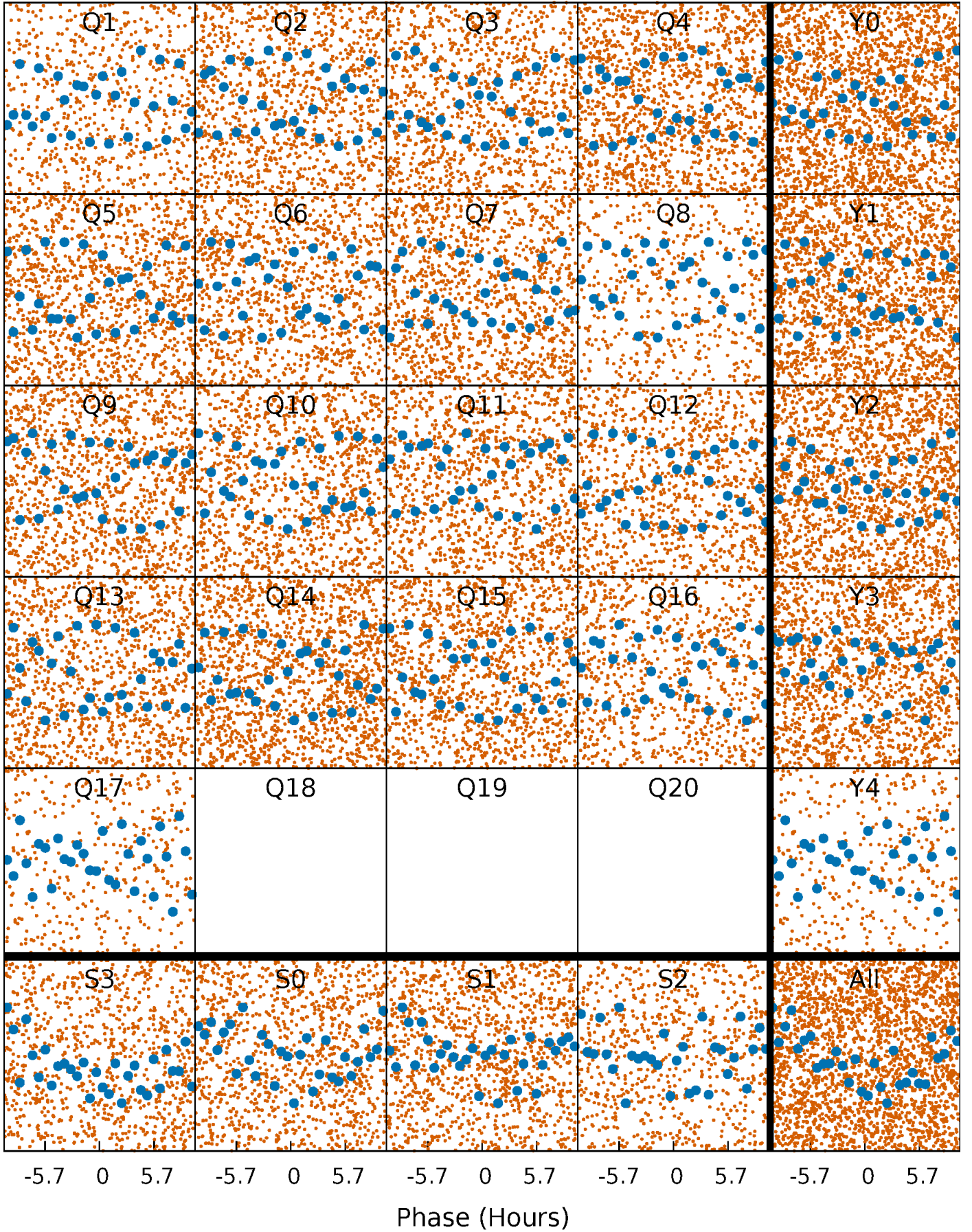


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



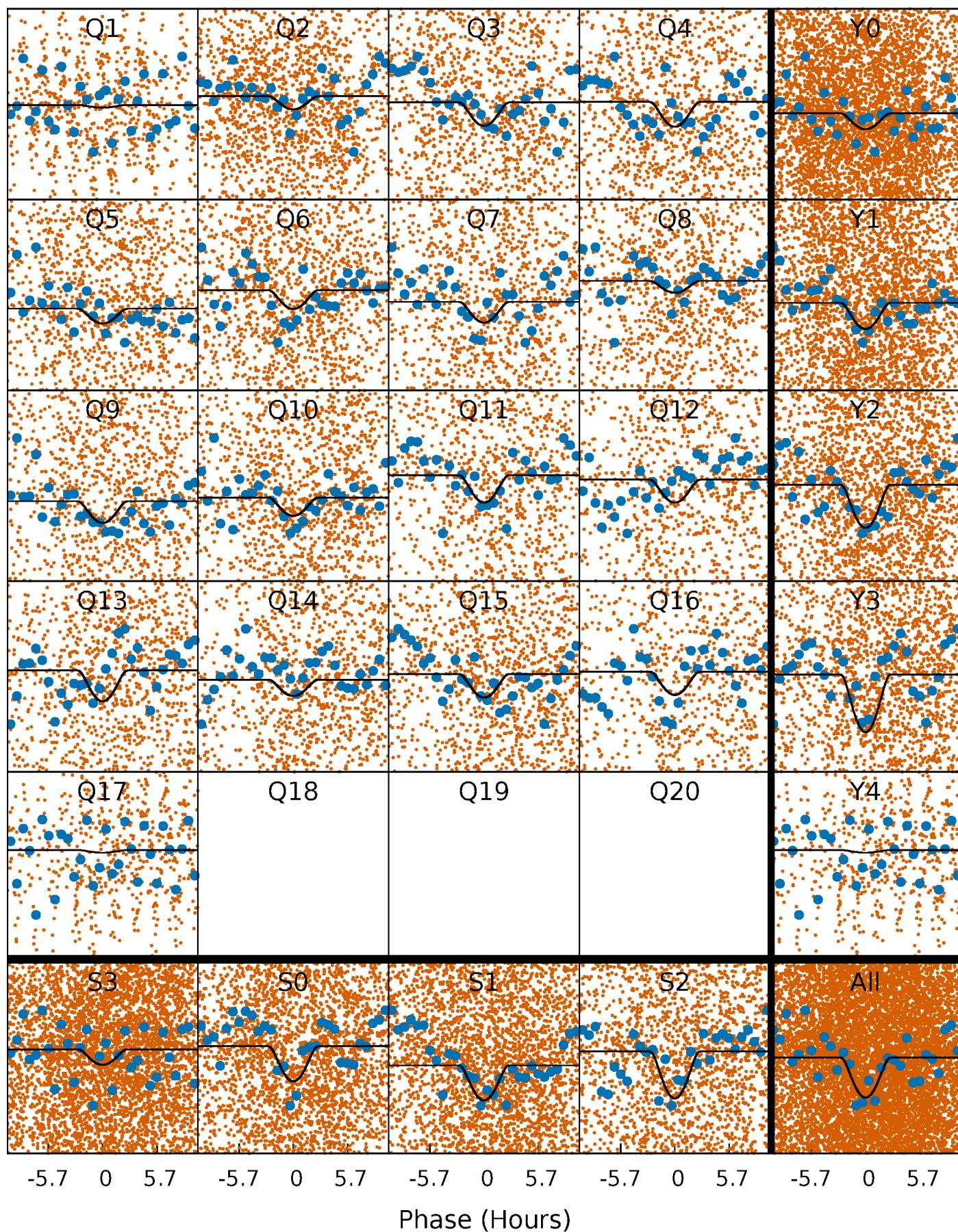
PDC Quarter-Phased Transit Curves

TCE 004945107-03 P= 0.961952 Days $T_0=131.713699$ (BKJD)



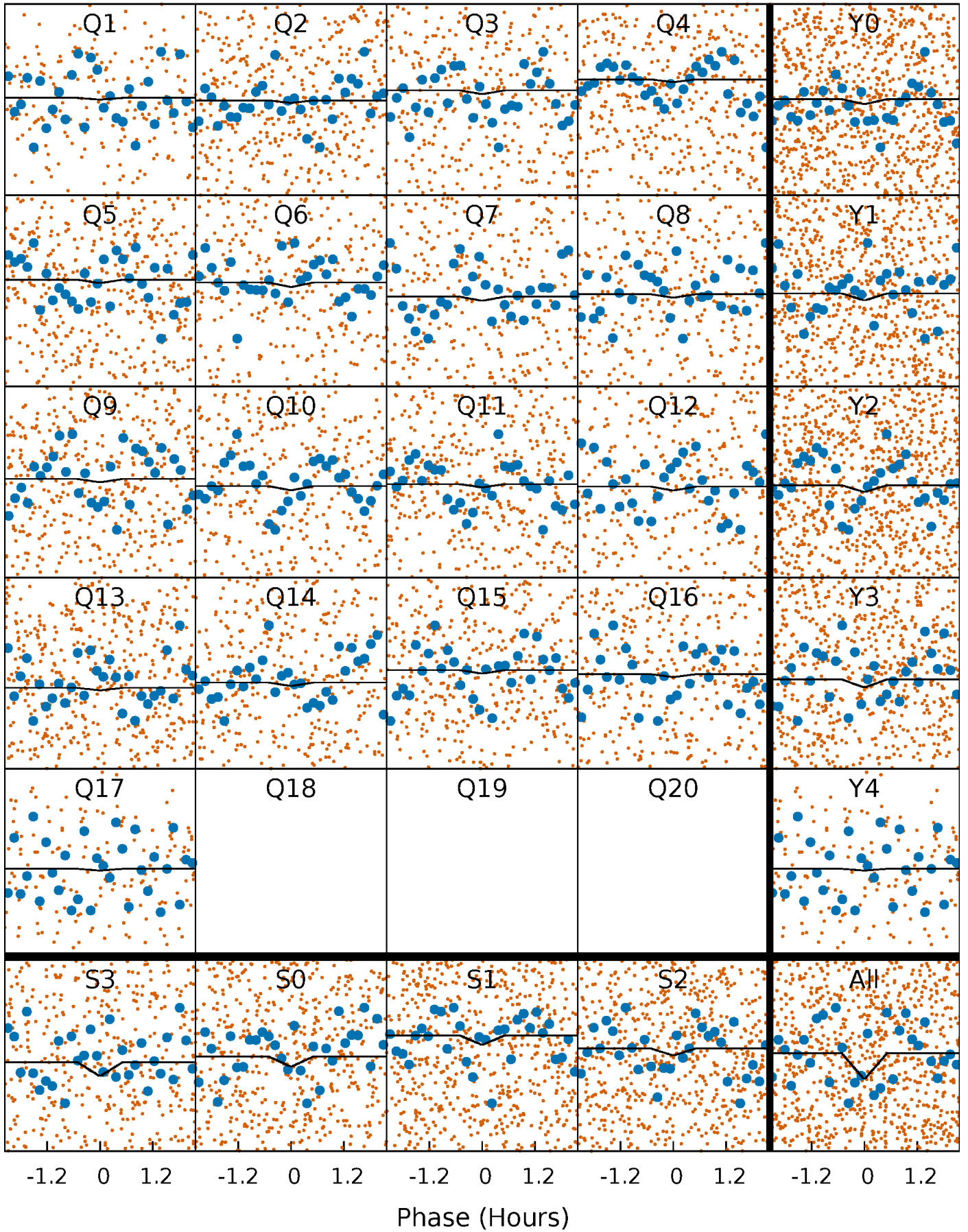
DV Quarter-Phased Transit Curves

TCE 004945107-03 P= 0.961952 Days $T_0=131.713699$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

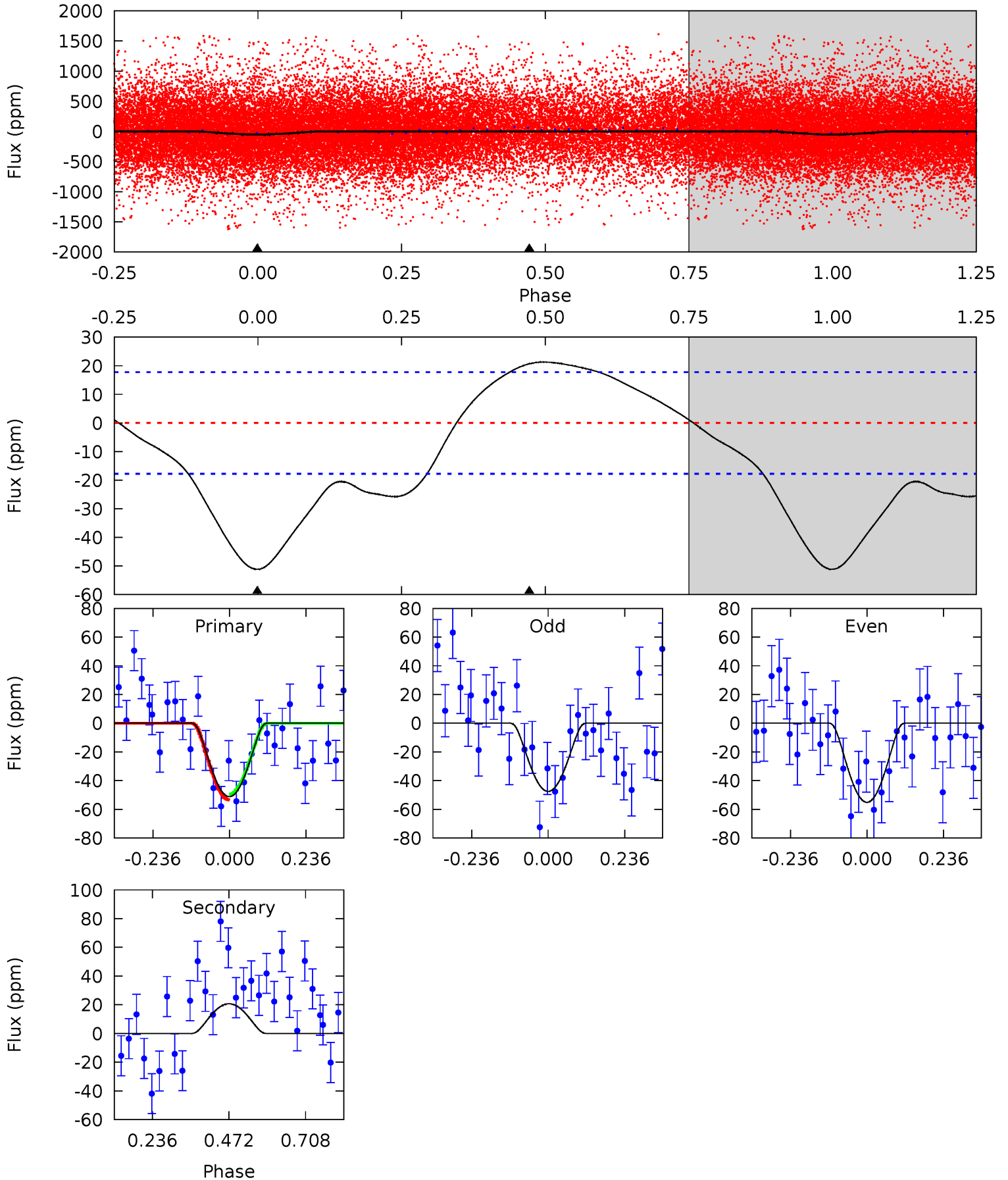
TCE 004945107-03 P= 0.961933 Days $T_0=131.727839$ (BKJD)



DV Model-Shift Uniqueness Test

004945107-03, P = 0.961952 Days, E = 131.713699 Days

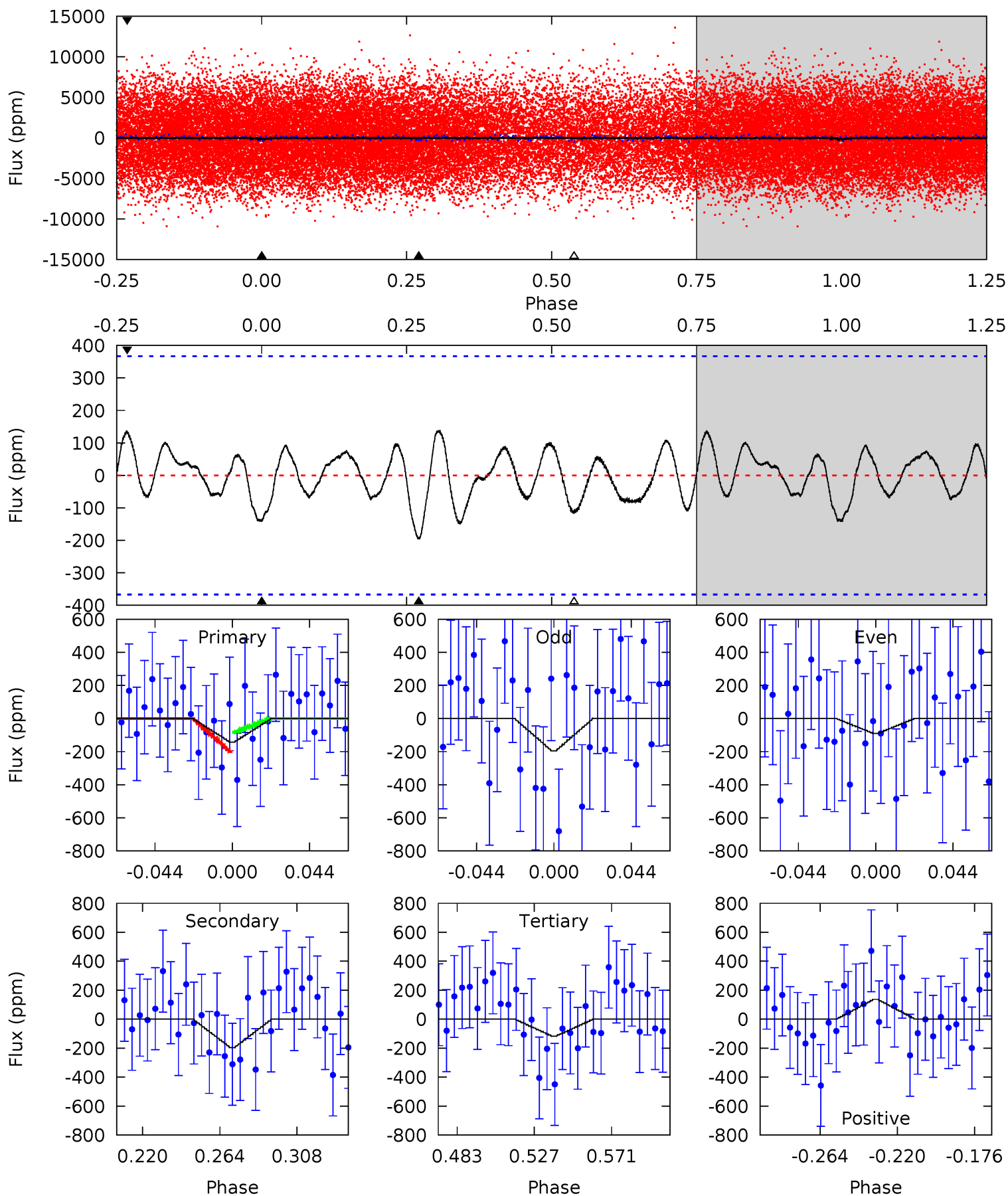
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	-5.10	0	0	4.38	1.19	3.35	12.6	12.6	-5.10	-5.10	0.93	1.15	0.29	0.48



Alt Model-Shift Uniqueness Test

004945107-03, P = 0.961933 Days, E = 131.727839 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.85	2.54	1.51	1.76	4.73	2.01	0.77	0.34	0.08	1.03	0.77	0.68	1.53	0.41	0.75



Stellar Parameters For KIC 004945107

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6899^{+190}_{-309}	$4.083^{+0.214}_{-0.175}$	$-0.140^{+0.250}_{-0.300}$	$1.793^{+0.555}_{-0.505}$	$1.422^{+0.191}_{-0.286}$	$0.347^{+0.429}_{-0.167}$
	+3%/-4%	+5%/-4%	+179%/-214%	+31%/-28%	+13%/-20%	+123%/-48%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 004945107-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	21 ± 4	$4.39^{+4.54}_{-2.88}$	3858^{+309}_{-317}	-4036^{+344}_{-1347}	$-0.256^{+0.198}_{-1.813}$
Alt.	-197 ± 77	$4.57^{+4.42}_{-3.14}$	3856^{+308}_{-343}	5102^{+4781}_{-1703}	$2.302^{+22.991}_{-1.788}$

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

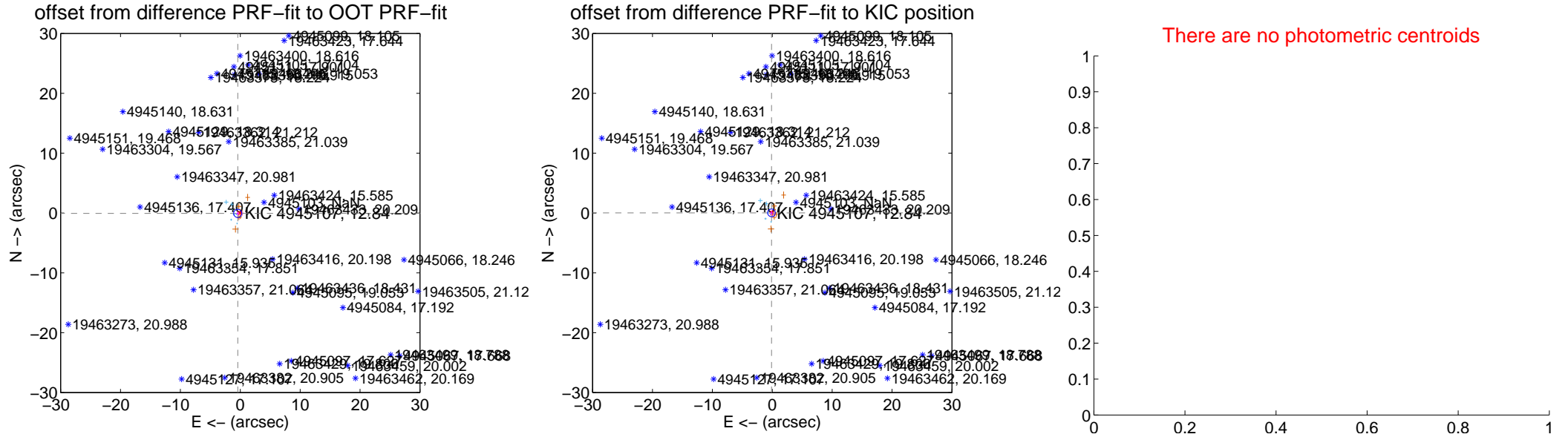
DV Centroid Data

Supplemental centroid analysis for 004945107-03. Kepler magnitude: 12.84. Transit SNR 9.27

There are 9 quarters with good PRF difference image offsets

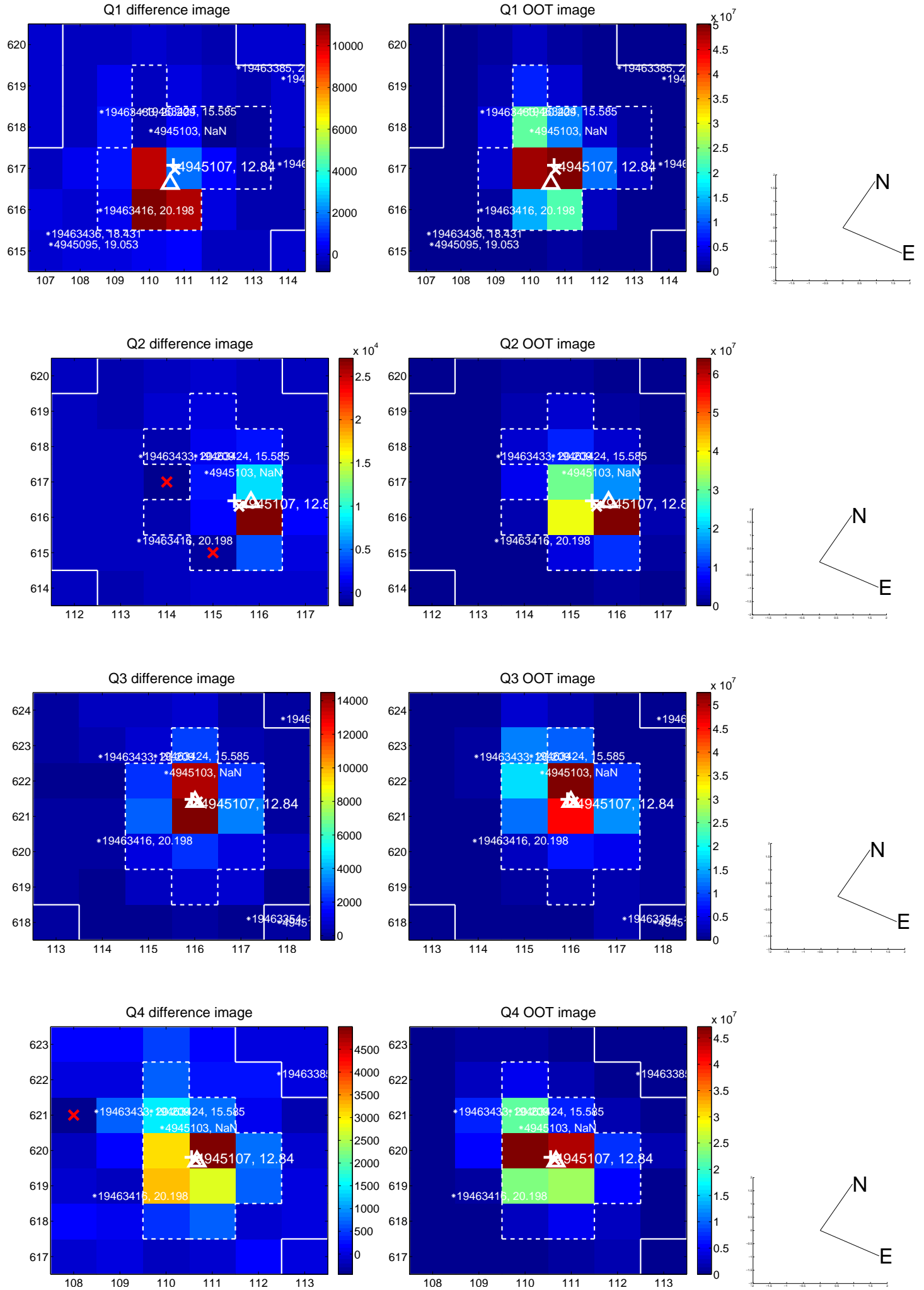
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.428 ± 0.228	1.87	0.423 ± 0.219	-0.065 ± 0.320
PRF-fit source offset from KIC position	0.129 ± 0.214	0.60	0.127 ± 0.217	0.024 ± 0.352
photometric centroid source offset	—	—	—	—

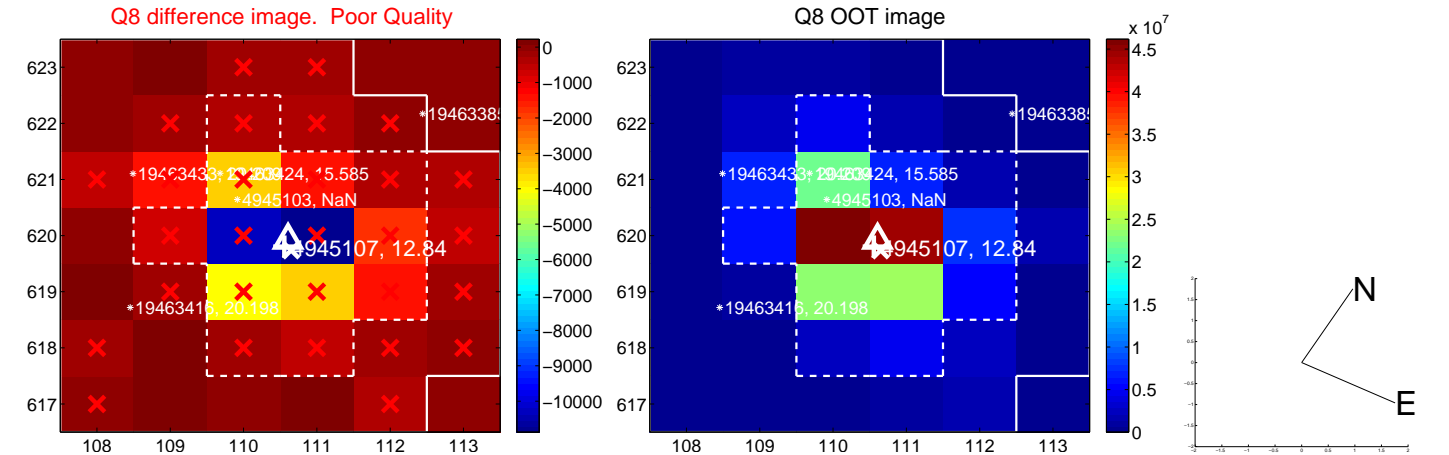
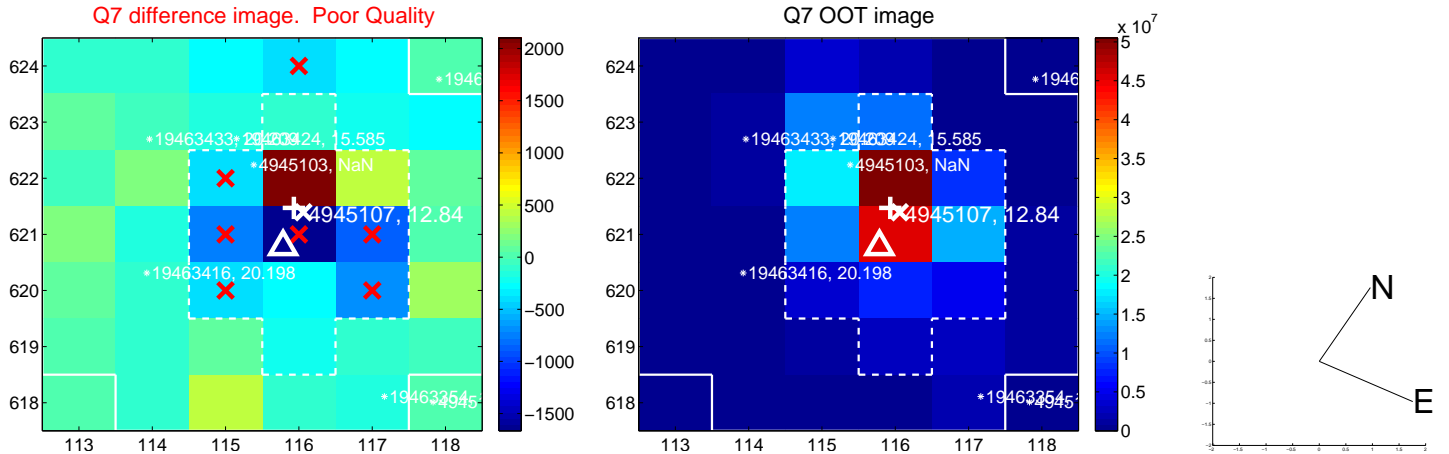
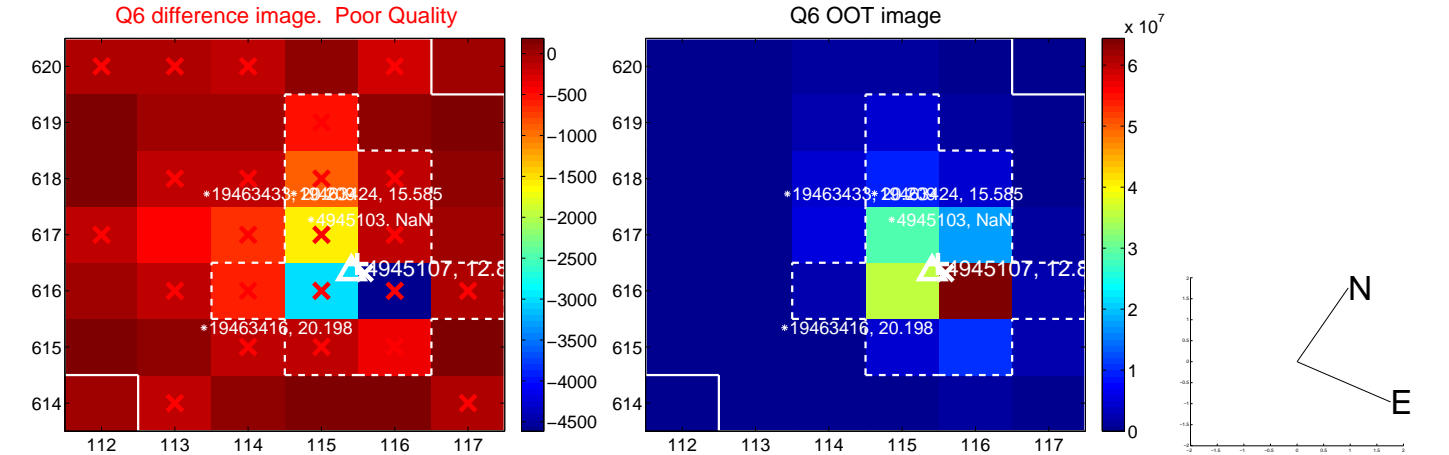
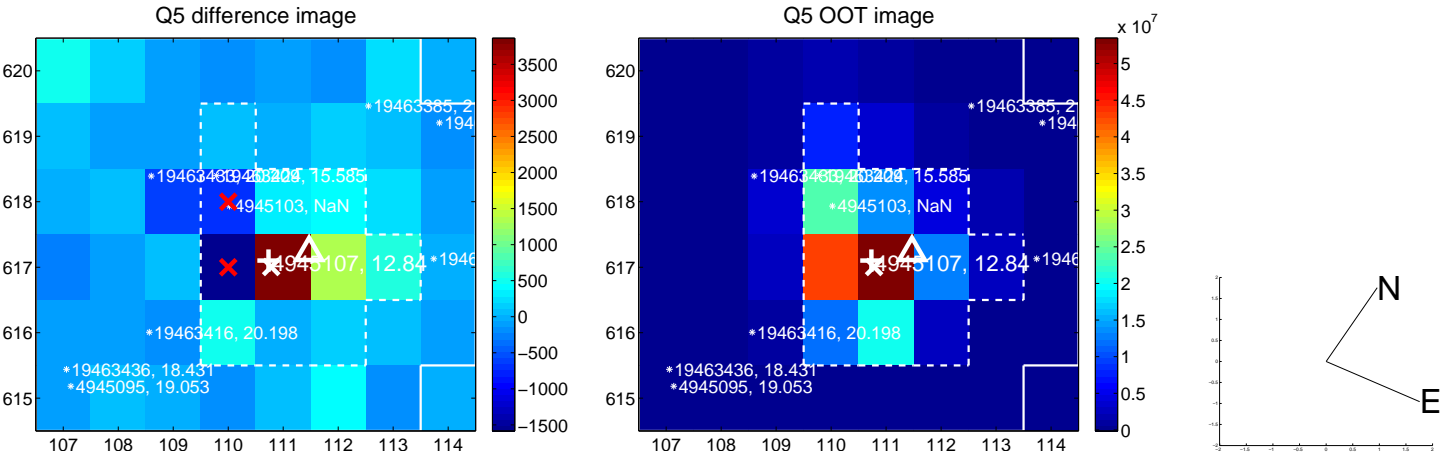


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

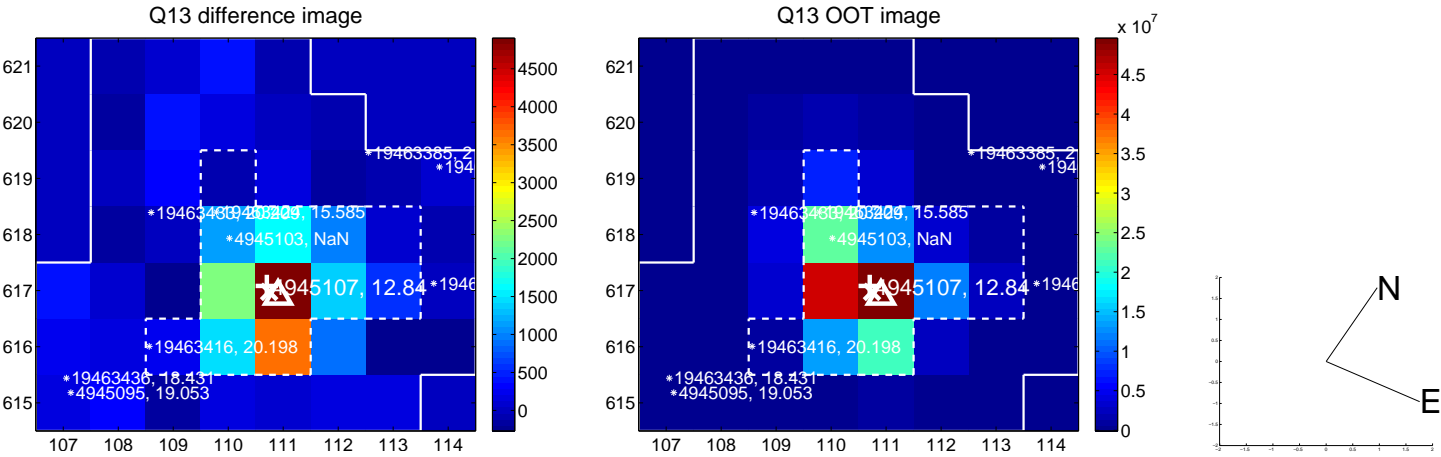
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



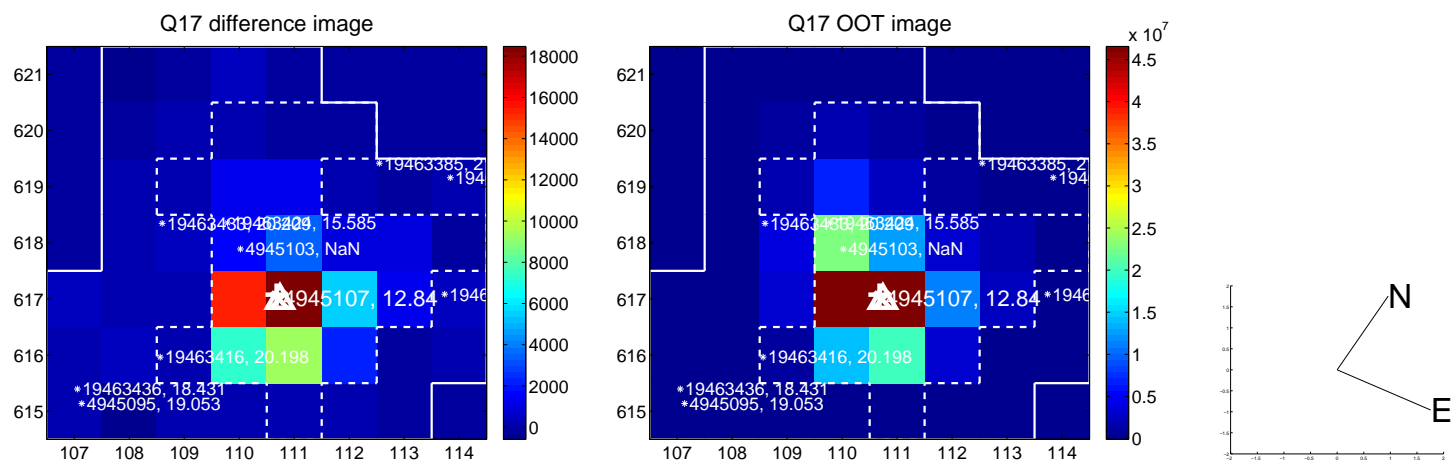
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

