

KIC 008323096

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})
008323096-01	OBS	No	1.795369	131.913749	27.6	4.859	9.6	8.5	3.52	6525	1.91	17203.62
008323096-02	OBS	No	3.591402	133.063944	163.4	4.500	9.9	-1.0	3.52	6525	4.53	6825.58
008323096-04	OBS	No	319.233651	388.212164	314.2	15.403	7.4	8.9	3.52	6525	7.08	17.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008323096-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
008323096-02	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_NOFITS
008323096-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—CENT_FEW_DIFFS—HALO_GHOST

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

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

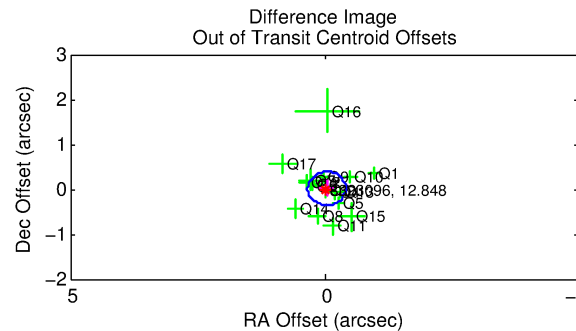
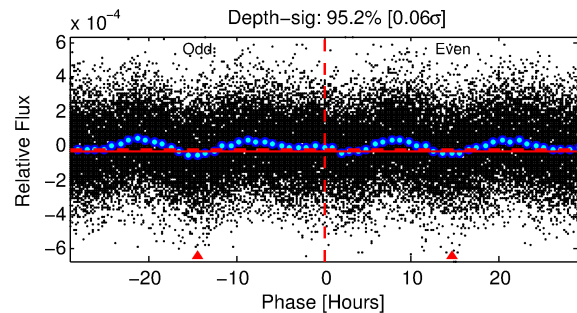
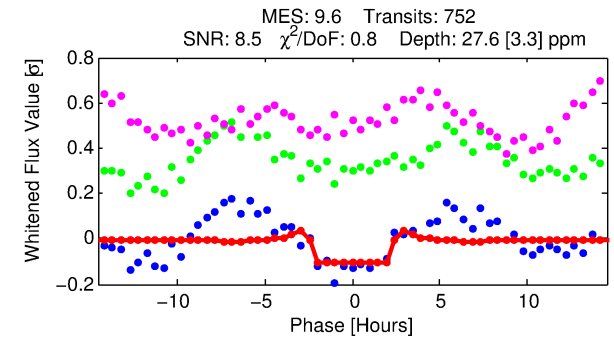
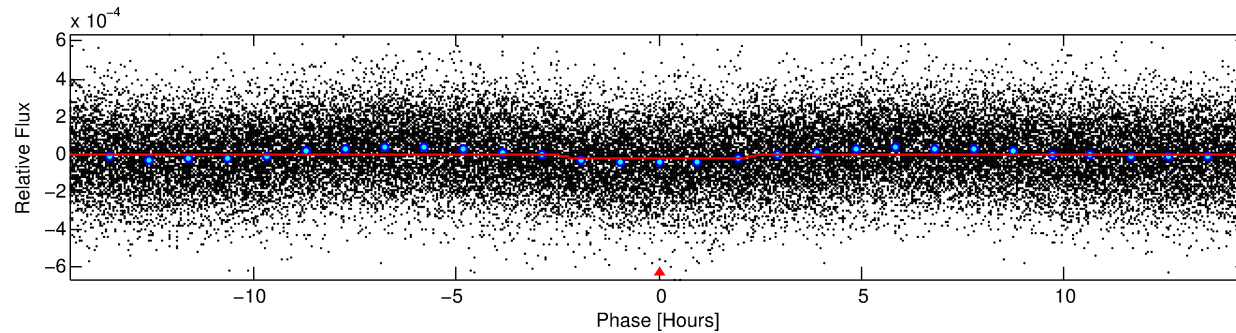
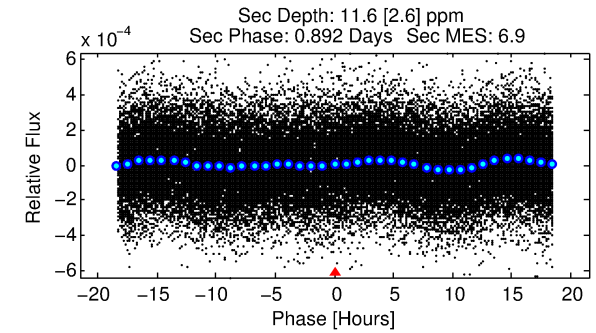
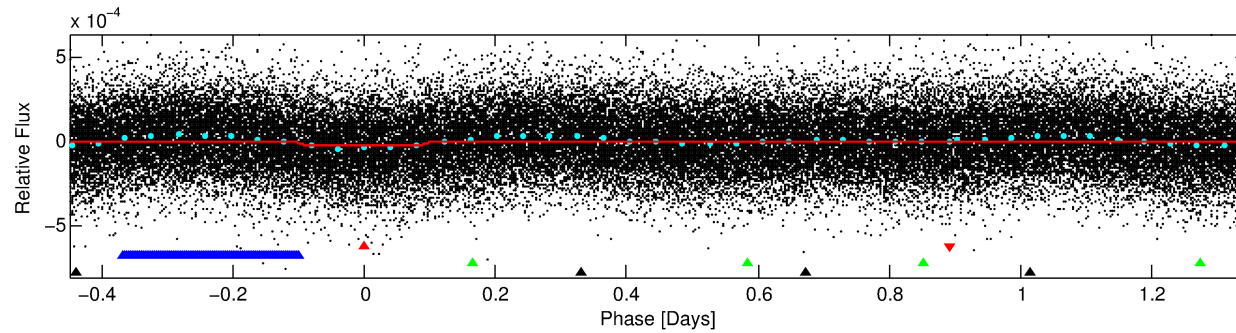
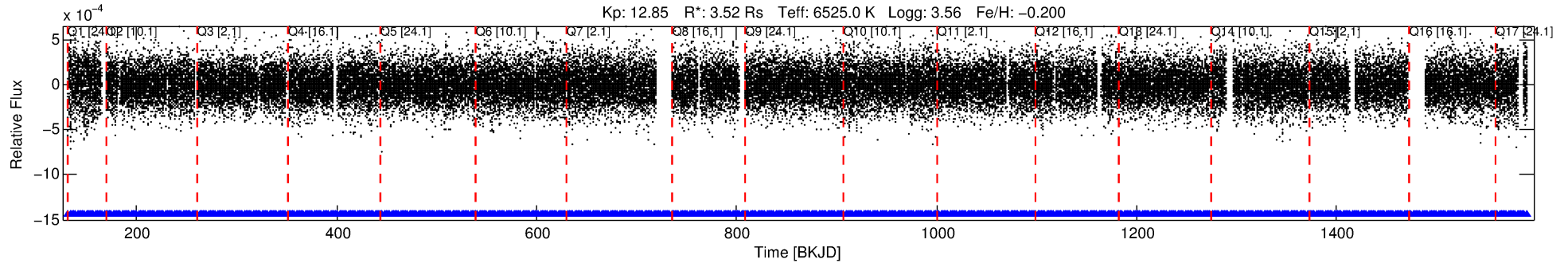
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008323096-01

No Significant Match Found

DV One-Page Summary

KIC: 8323096 Candidate: 1 of 4 Period: 1.795 d



DV Fit Results:

Period = 1.79537 [0.00002] d
Epoch = 131.9137 [0.0041] BKJD
Rp/R* = 0.0050 [0.0012]
a/R* = 2.55 [2.66]
b = 0.51 [1.80]
Seff = 17203.62 [10338.02]
Teq = 2920 [439] K
Rp = 1.91 [0.91] Re
a = 0.0342 [0.0129] AU
Ag = 2.04 [1.60] [0.65σ]
Teffp = 5397 [725] K [2.92σ]

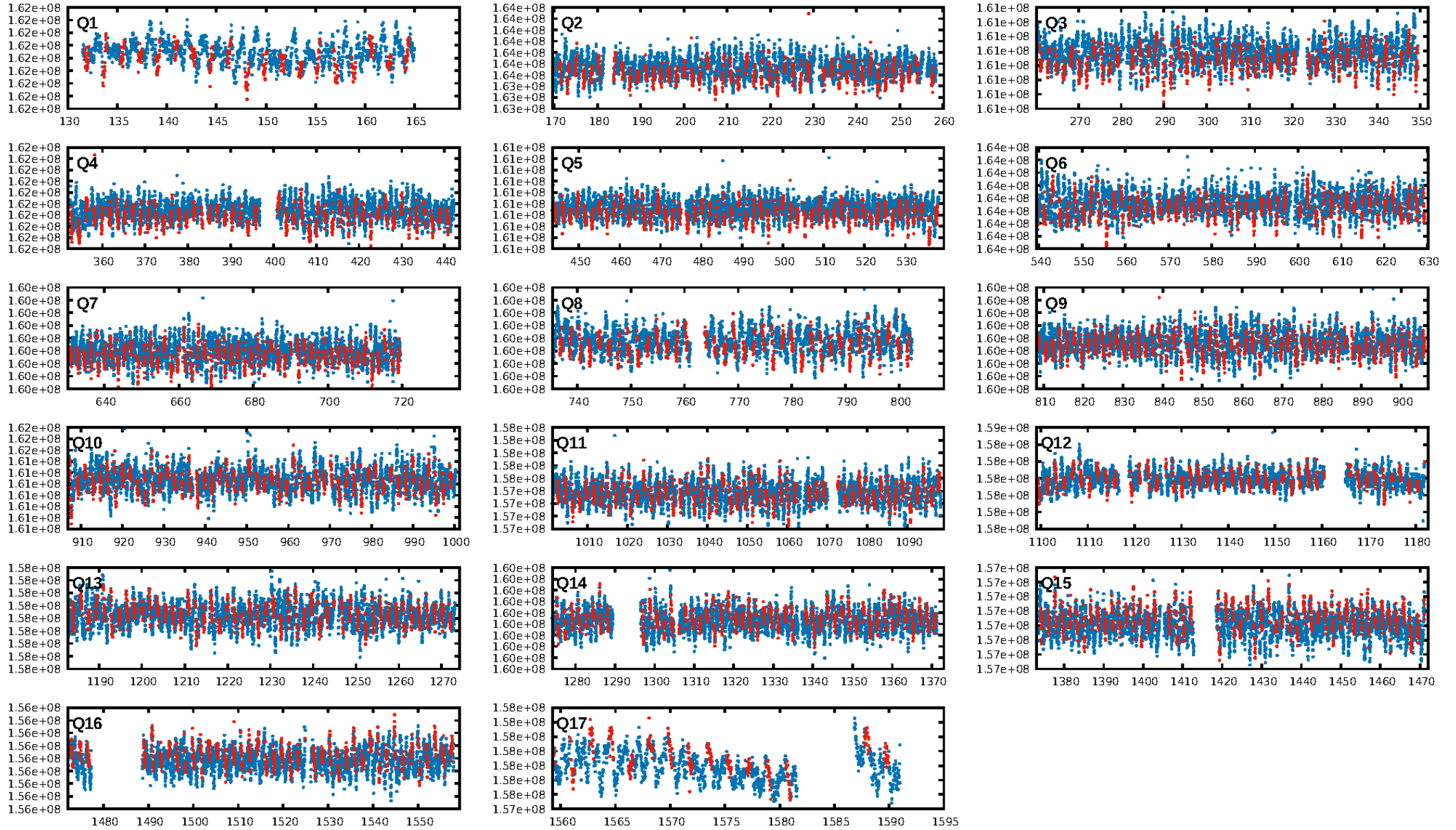
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [6.51σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.76e-14
RollingBand-fgt: 1.00 [718/718]
GhostDiagnostic-chr: 2.076
Centroid-sig: 6.4%
Centroid-so: 1.634 arcsec [1.70σ]
OotOffset-rm: 0.041 arcsec [0.33σ]
KicOffset-rm: 0.090 arcsec [0.68σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

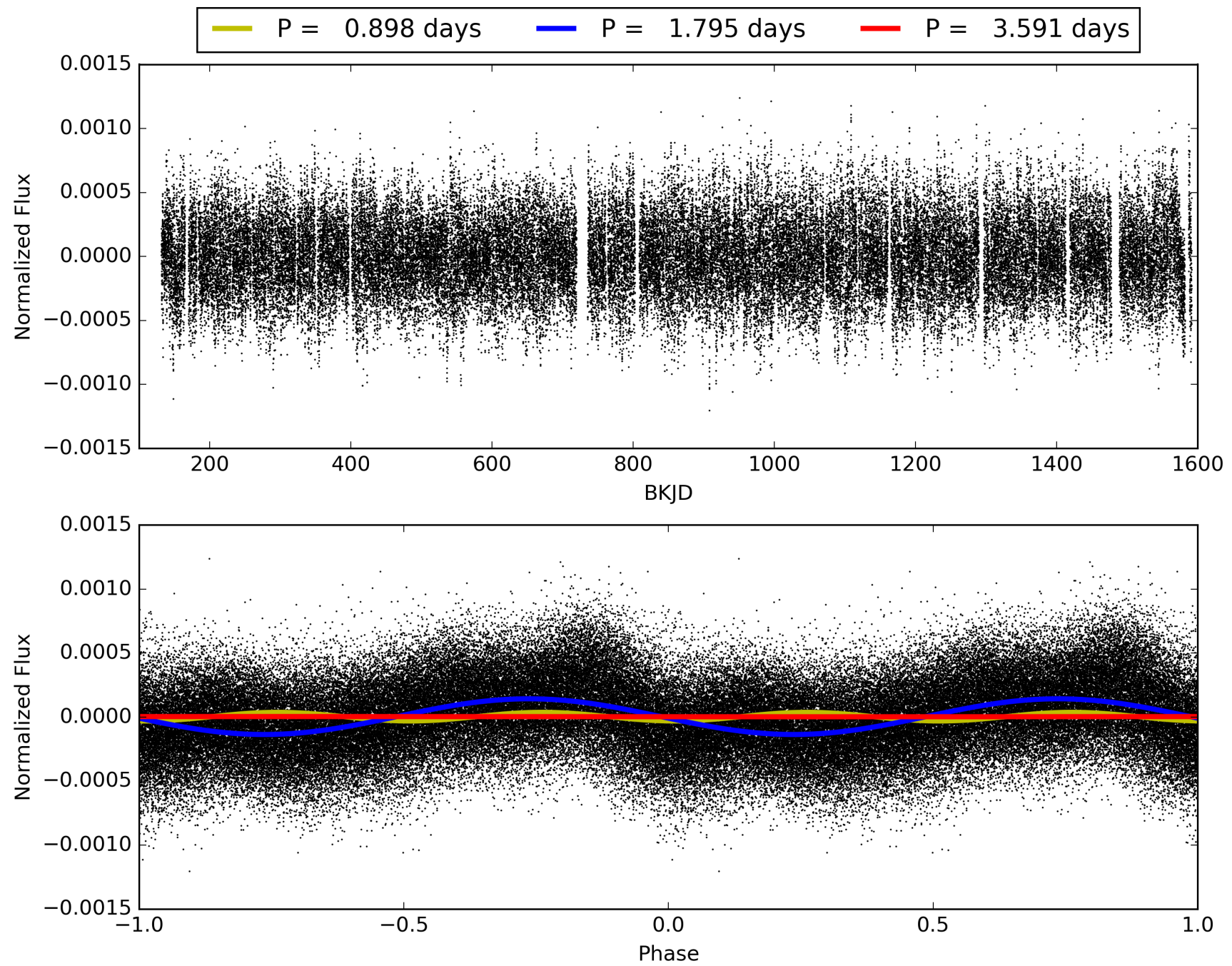
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:14:12 Z

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

TCE 008323096-01, PDC Light Curves

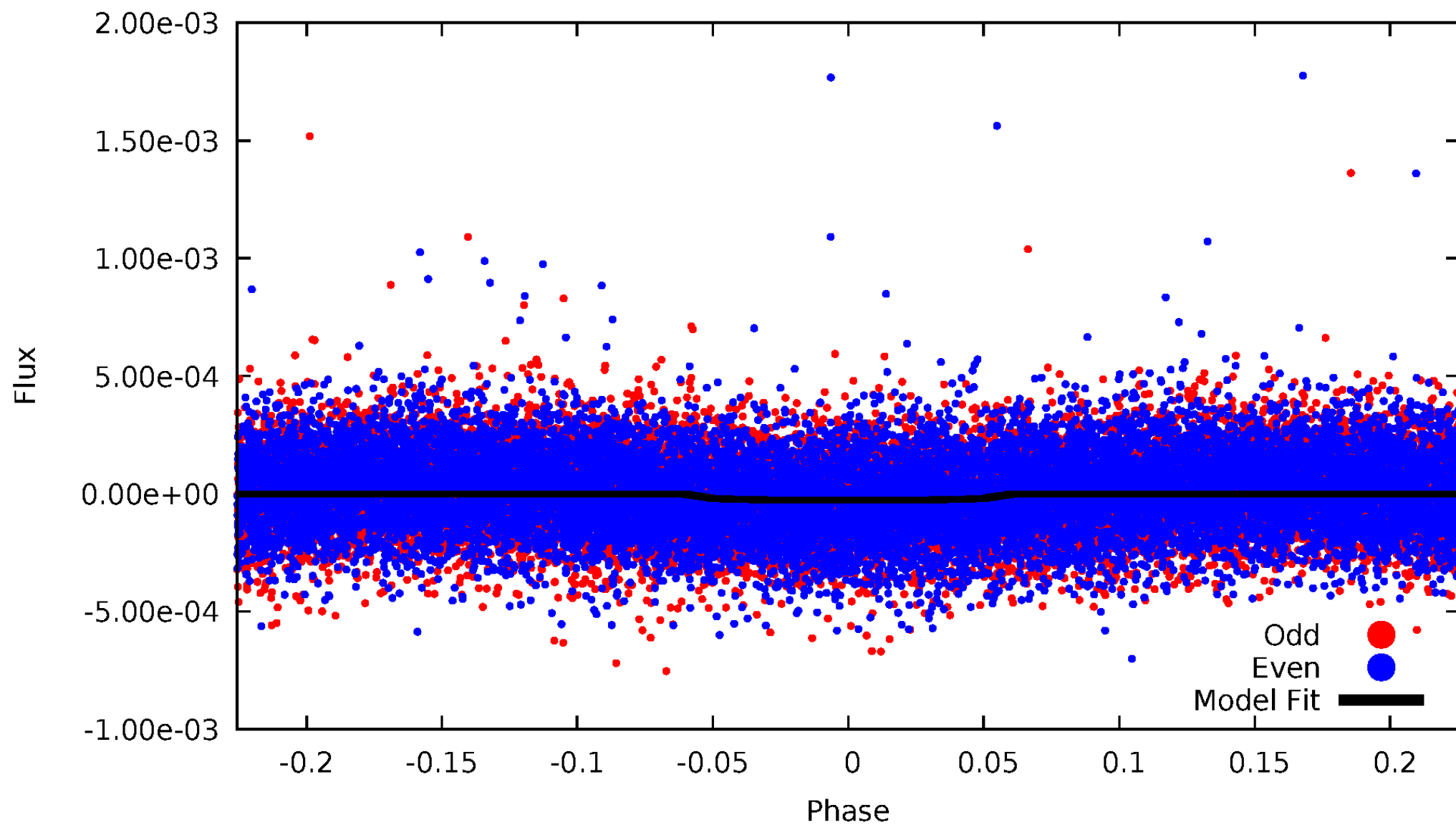


TCE 008323096-01



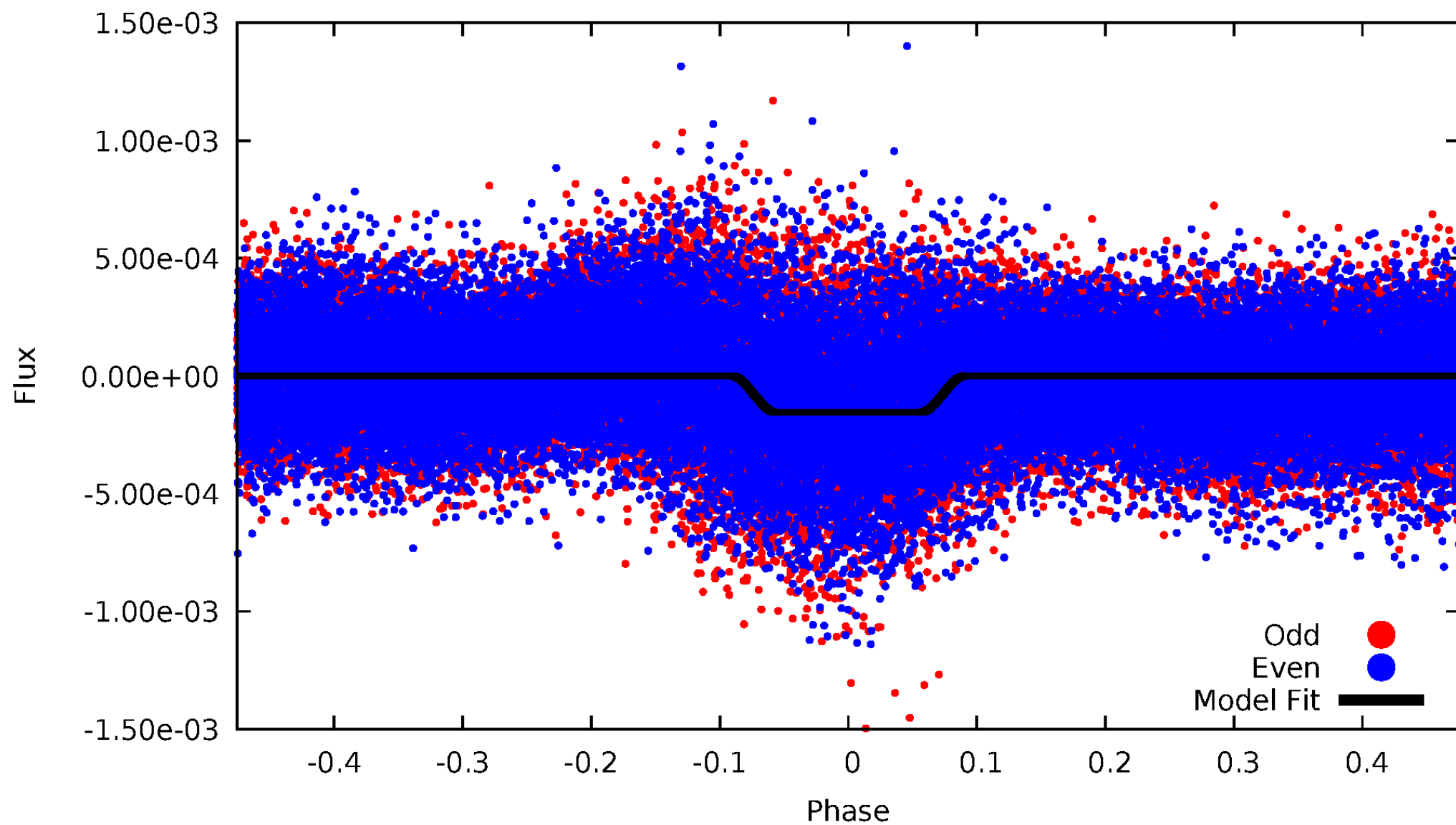
DV Odd/Even

TCE 008323096-01

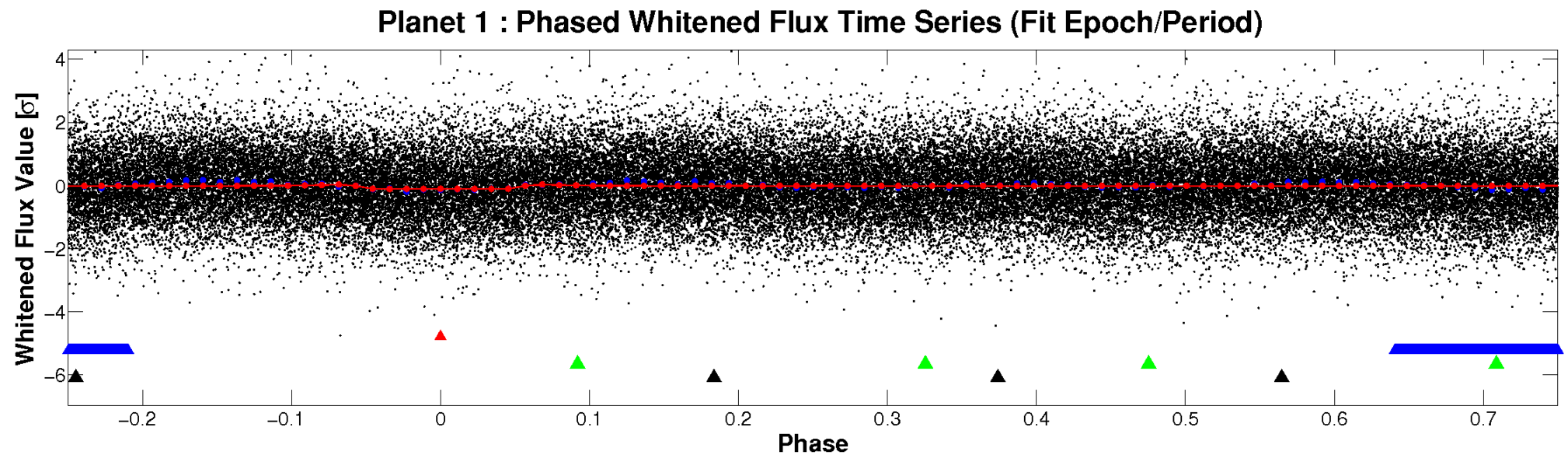
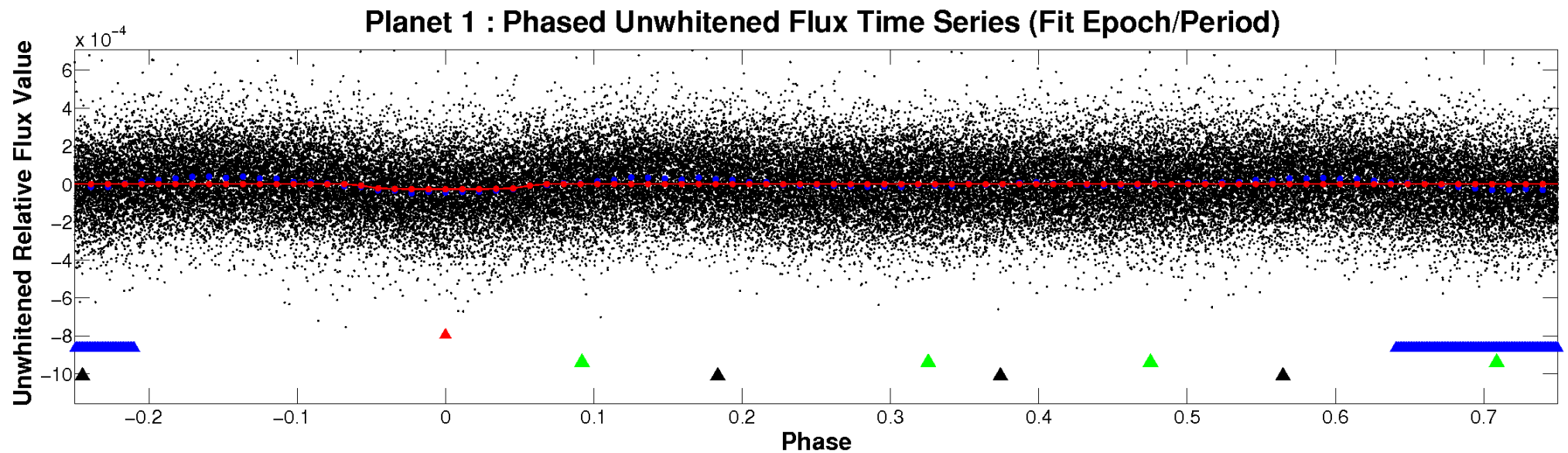


ALT Odd/Even

TCE 008323096-01

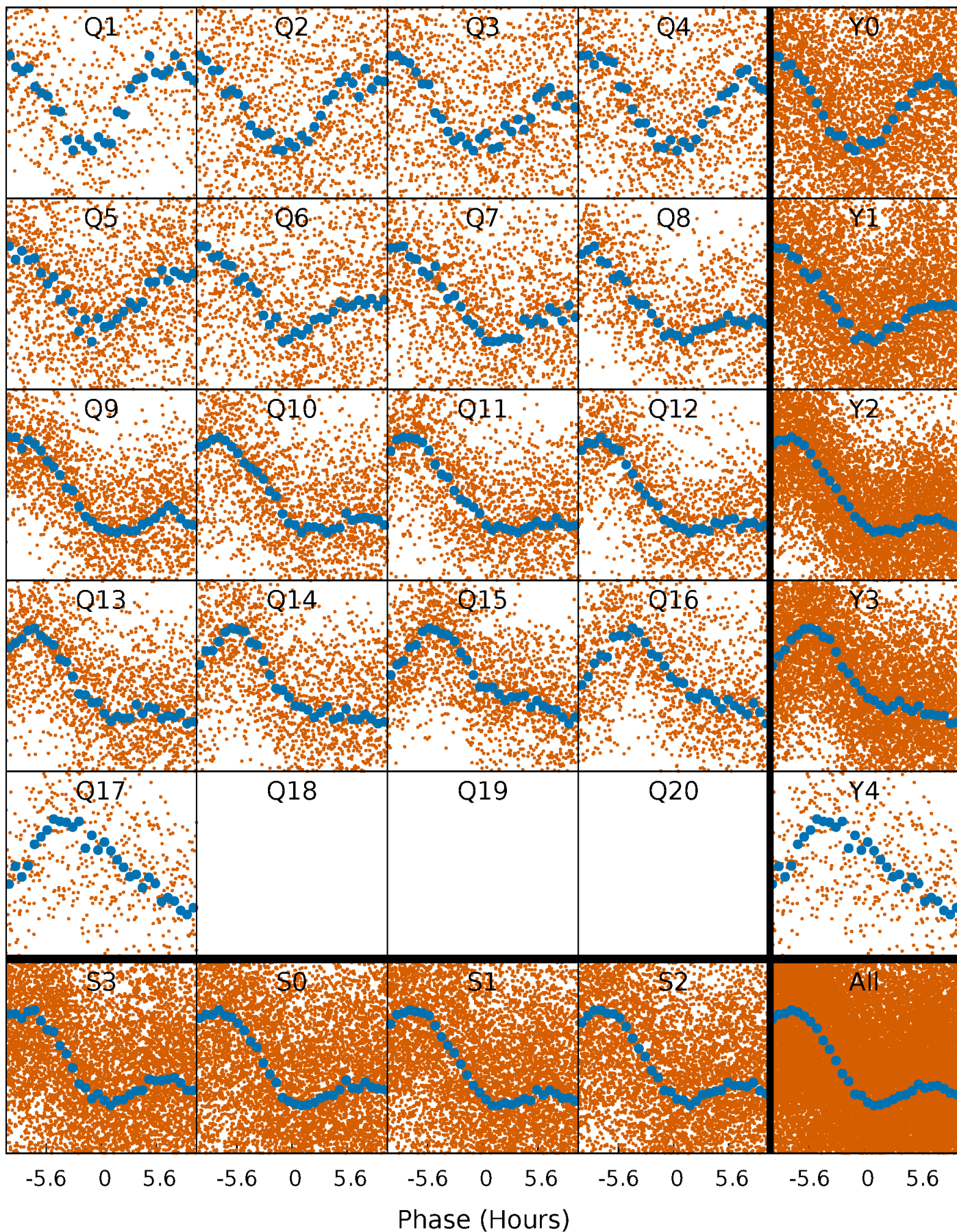


Non-Whitened Vs. Whitened Light Curve



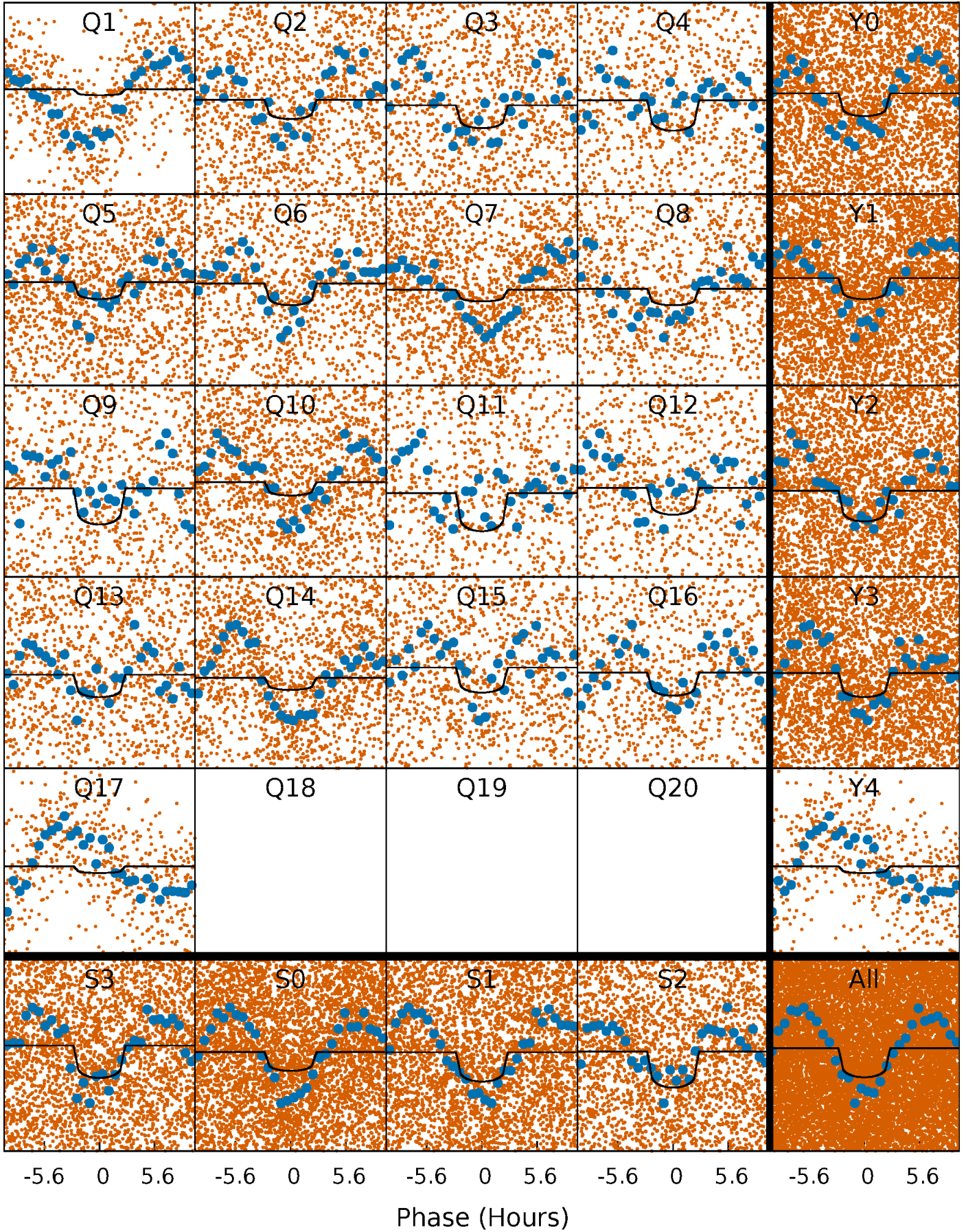
PDC Quarter-Phased Transit Curves

TCE 008323096-01 P= 1.795369 Days $T_0=131.913749$ (BKJD)



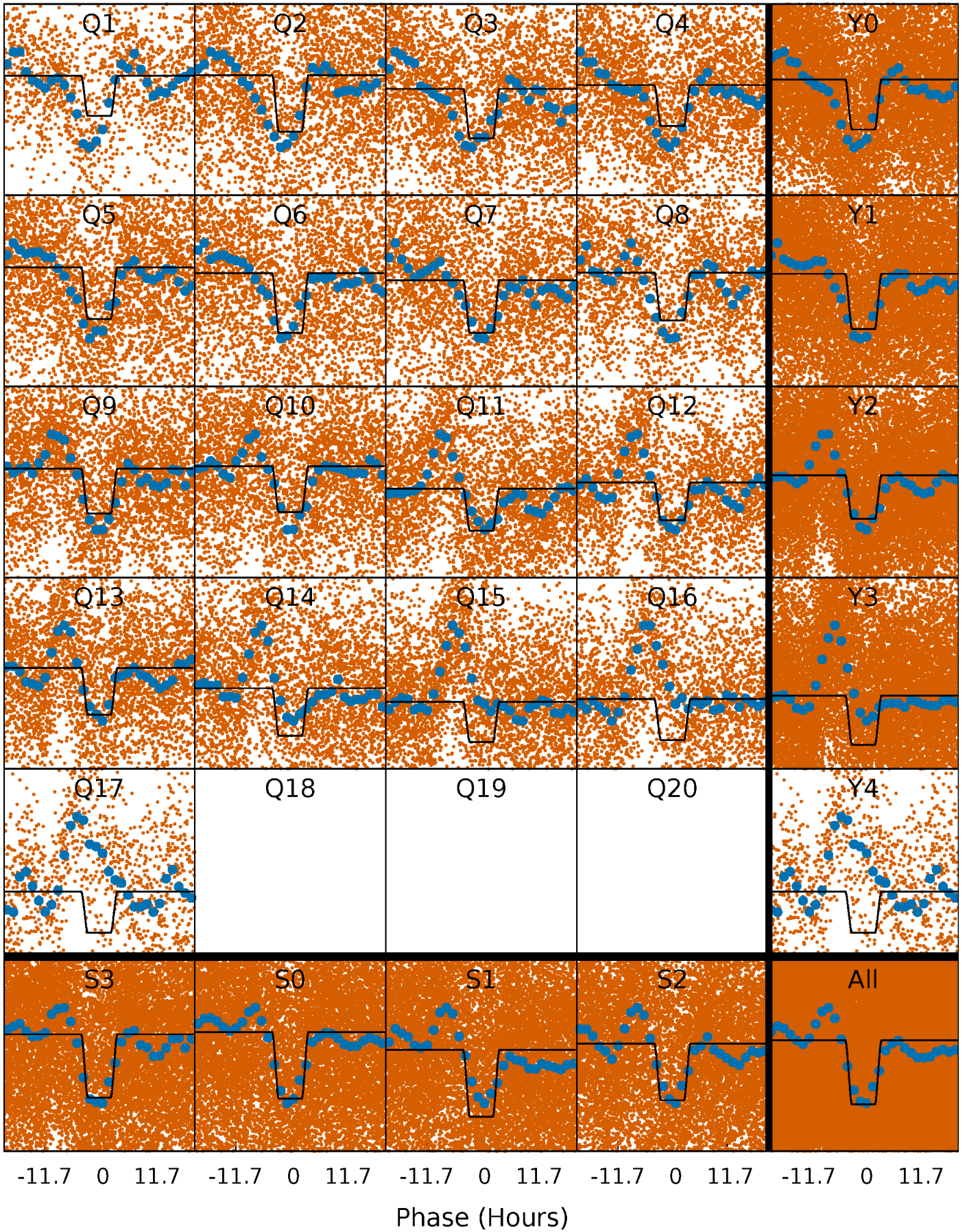
DV Quarter-Phased Transit Curves

TCE 008323096-01 P= 1.795369 Days $T_0=131.913749$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

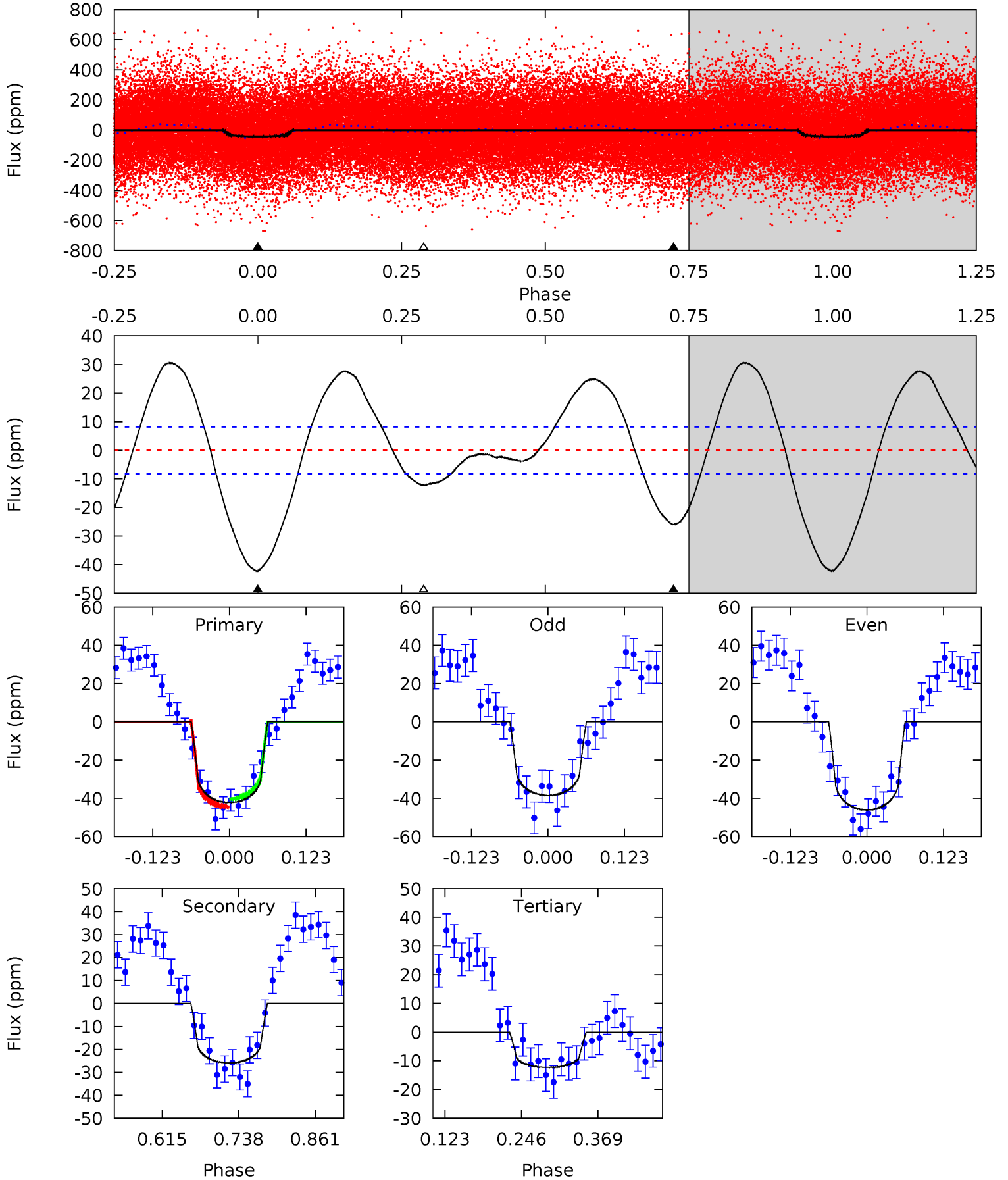
TCE 008323096-01 P= 1.795394 Days $T_0=131.929181$ (BKJD)



DV Model-Shift Uniqueness Test

008323096-01, P = 1.795369 Days, E = 130.118380 Days

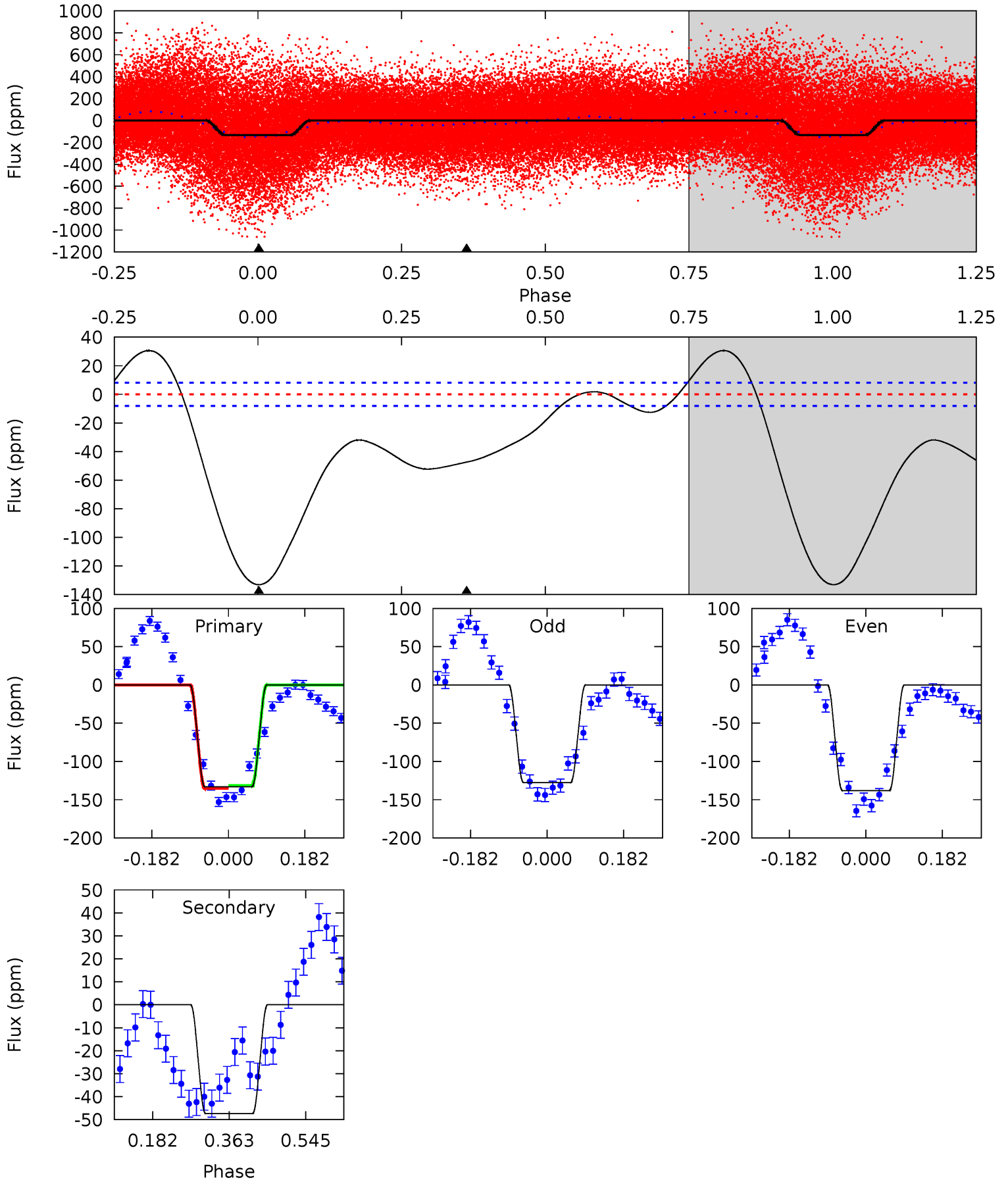
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.3	14.3	6.78	0	4.52	1.54	7.63	16.5	23.3	7.53	14.3	2.10	1.15	0.42	1.17



Alt Model-Shift Uniqueness Test

008323096-01, P = 1.795394 Days, E = 130.133787 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.4	25.7	0	0	4.44	1.34	7.32	72.4	72.4	25.7	25.7	2.85	0.96	0.19	0.99



Stellar Parameters For KIC 008323096

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6525^{+176}_{-215}	$3.564^{+0.337}_{-0.090}$	$-0.200^{+0.300}_{-0.250}$	$3.523^{+0.364}_{-1.458}$	$1.658^{+0.200}_{-0.372}$	$0.053^{+0.159}_{-0.015}$
	+3%/-3%	+9%/-3%	+150%/-125%	+10%/-41%	+12%/-22%	+297%/-28%
Source	PHO1	FLK73	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 008323096-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-26 ± 2	$1.83^{+0.55}_{-0.52}$	4016^{+214}_{-365}	6434^{+1013}_{-674}	$5.116^{+4.452}_{-2.086}$
Alt.	-47 ± 2	$4.63^{+0.72}_{-1.02}$	4016^{+211}_{-388}	4725^{+255}_{-269}	$1.451^{+0.761}_{-0.350}$

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

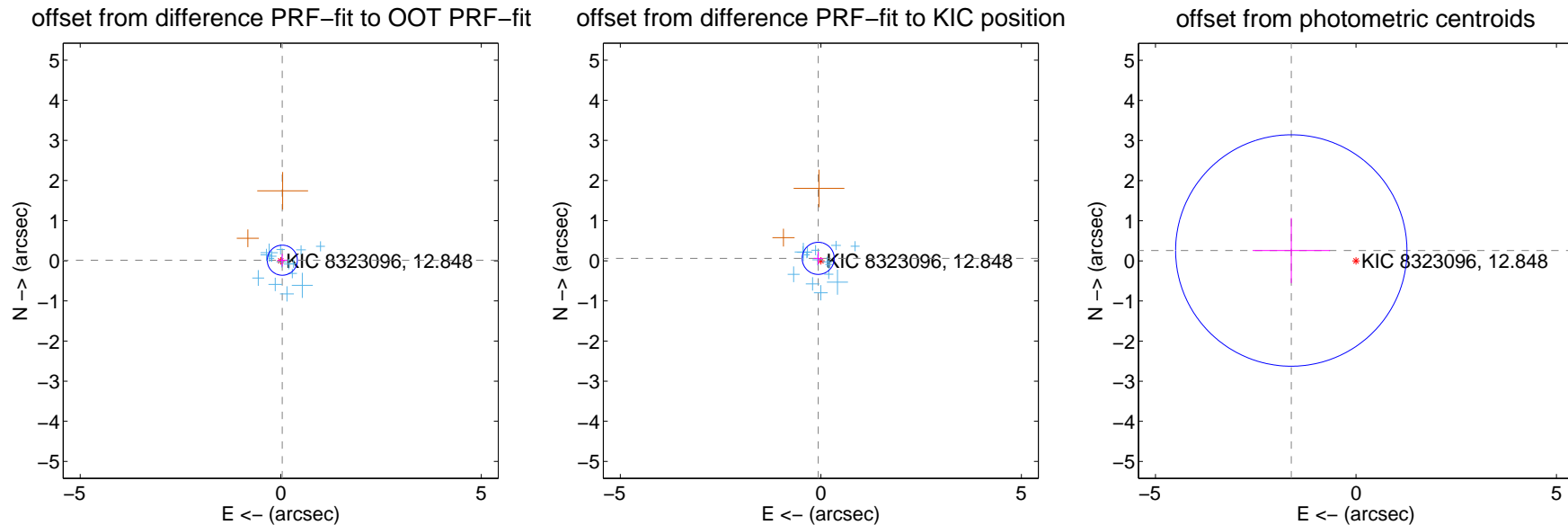
DV Centroid Data

Supplemental centroid analysis for 008323096-01. Kepler magnitude: 12.85. Transit SNR 8.52

There are 15 quarters with good PRF difference image offsets

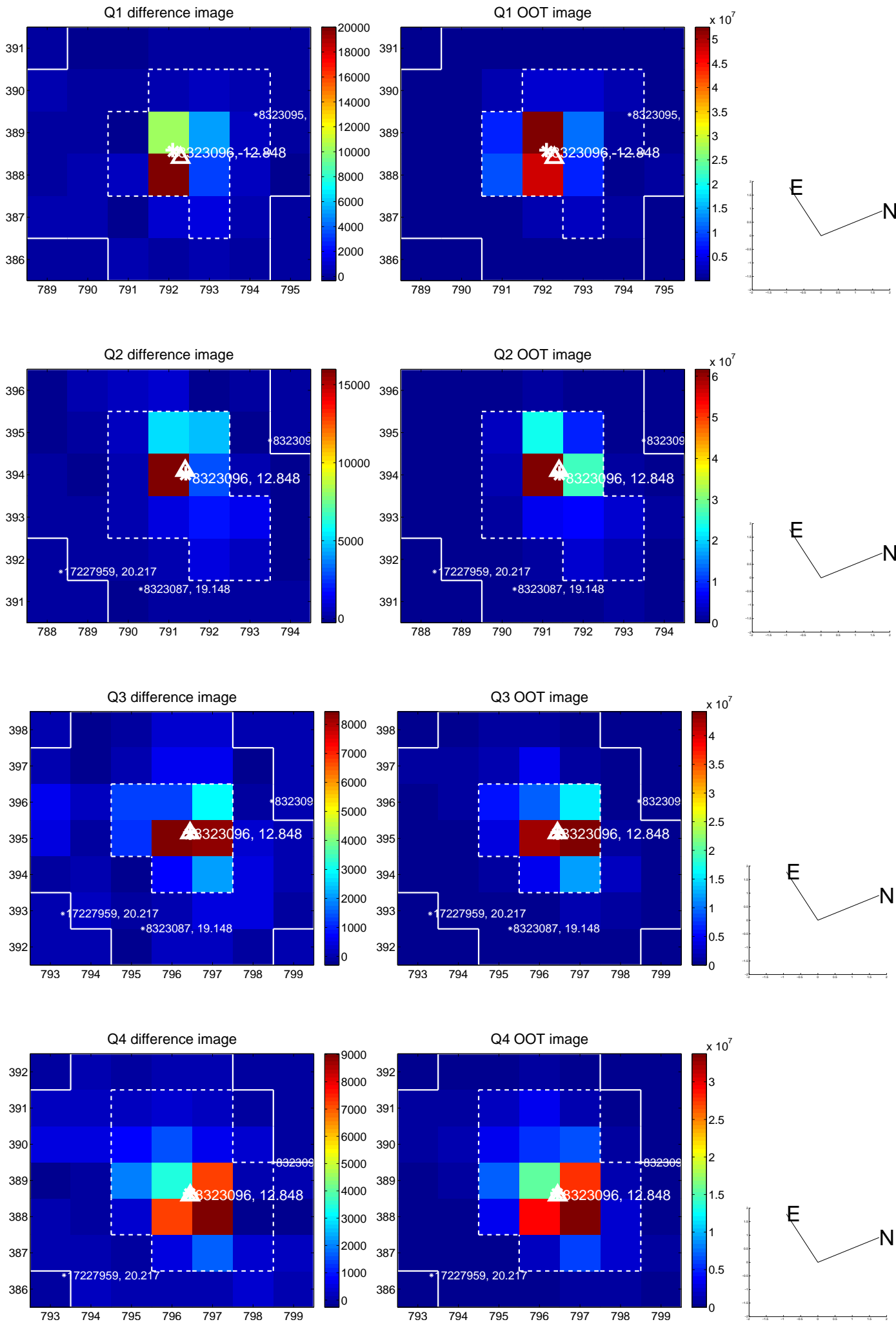
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.041 ± 0.125	0.33	-0.038 ± 0.120	0.015 ± 0.158
PRF-fit source offset from KIC position	0.090 ± 0.133	0.68	0.066 ± 0.115	0.061 ± 0.155
photometric centroid source offset	1.63 ± 0.96	1.70	1.61 ± 0.97	0.26 ± 0.81

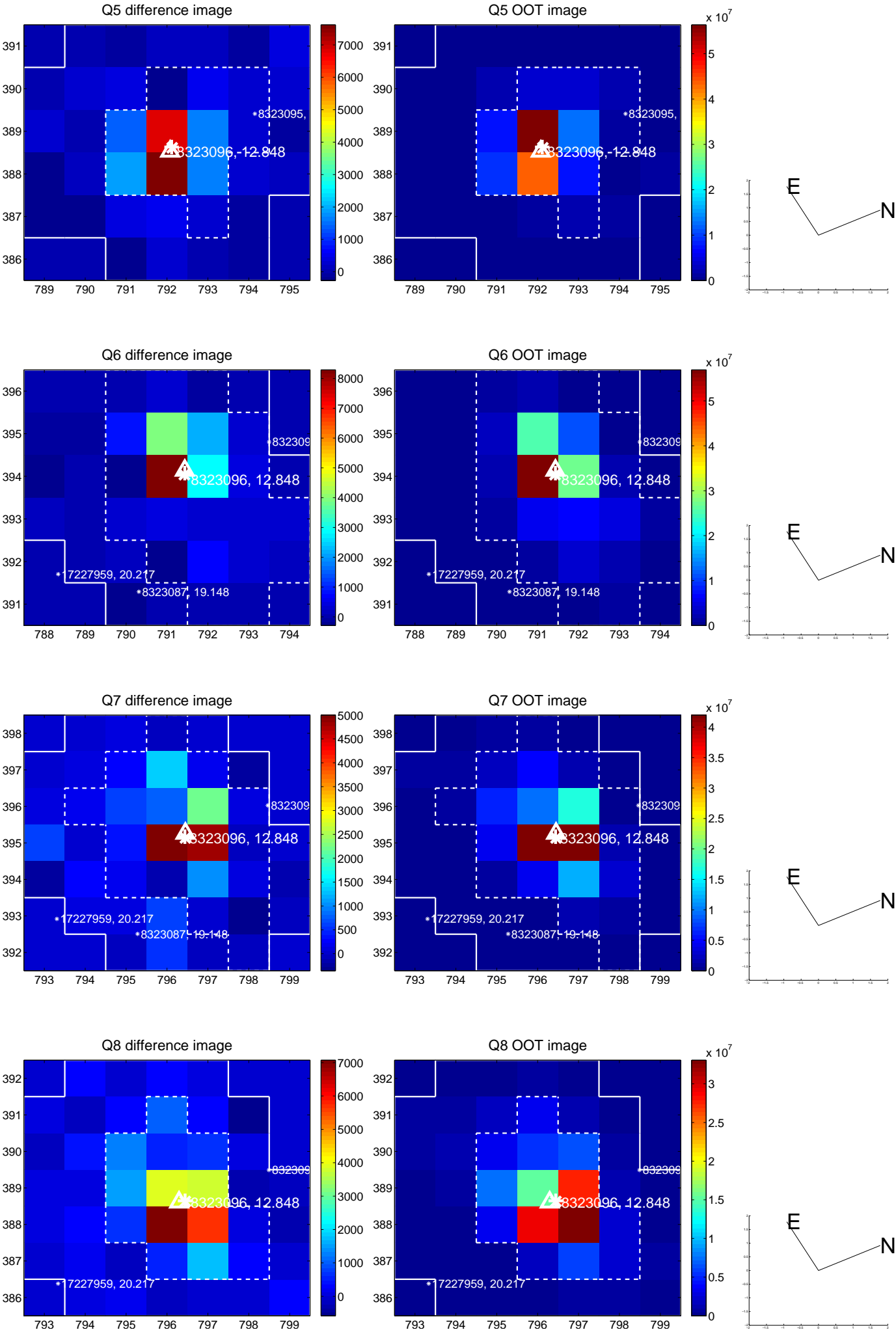


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

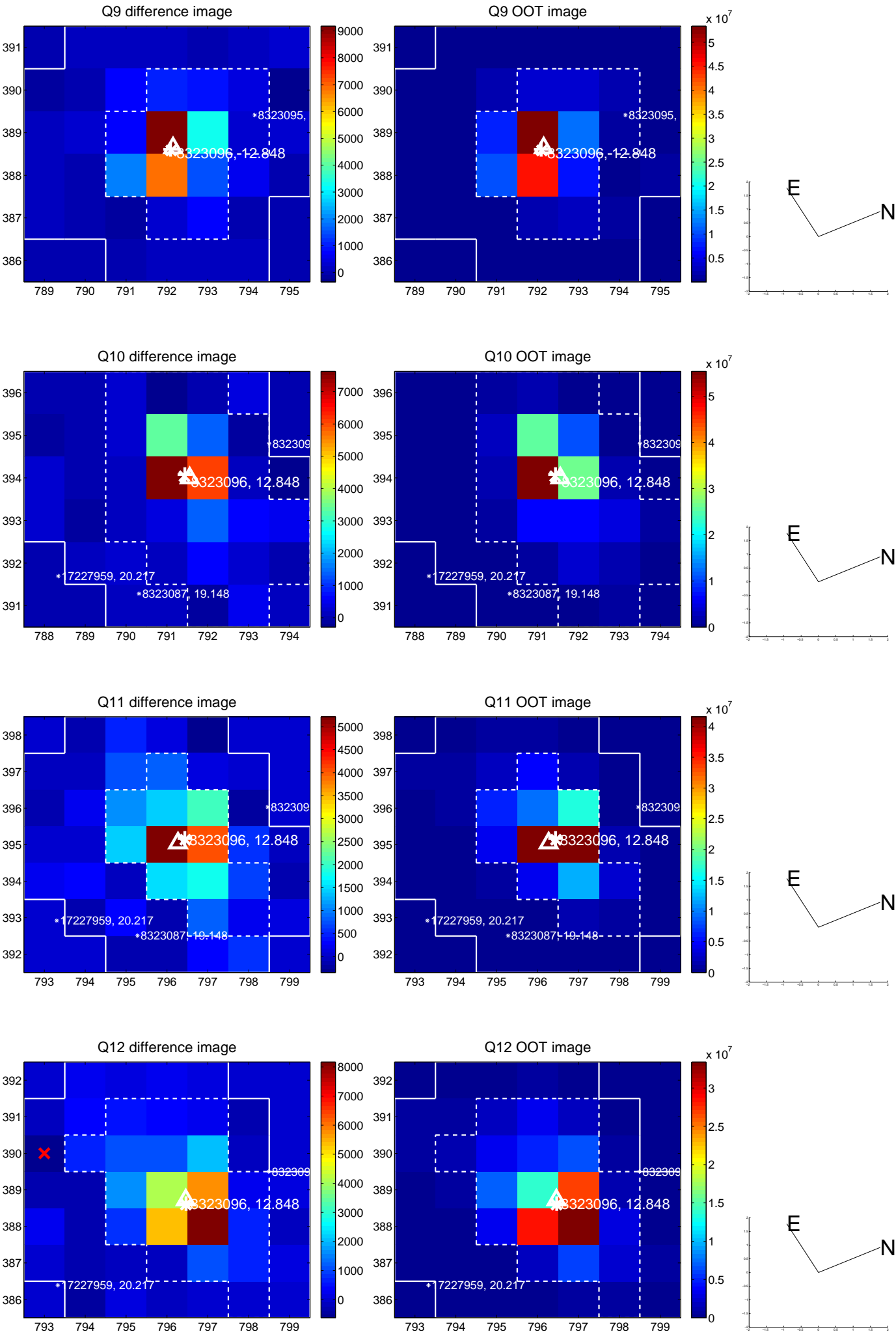
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



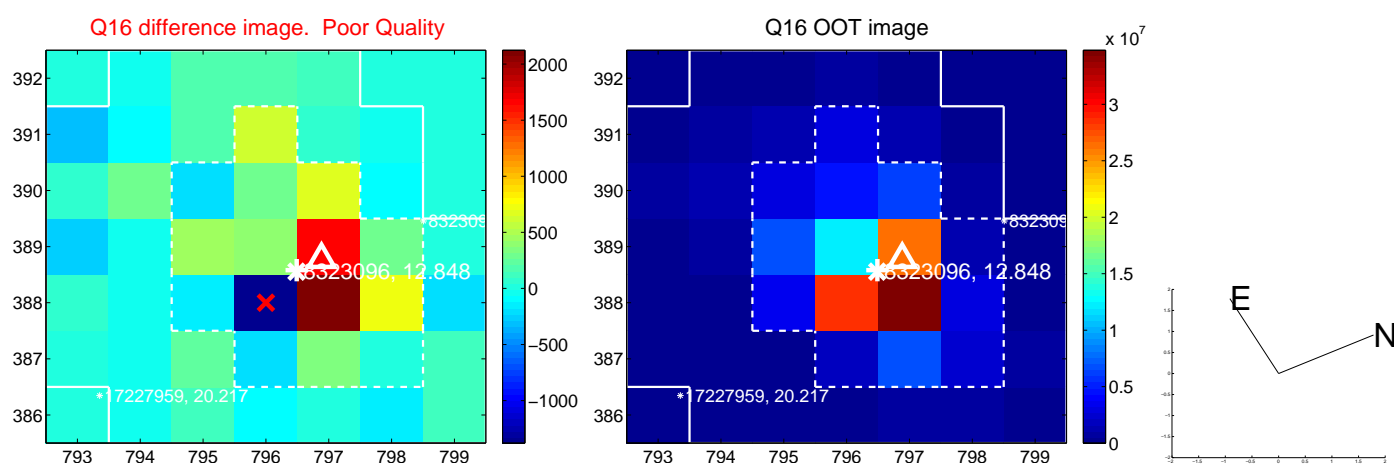
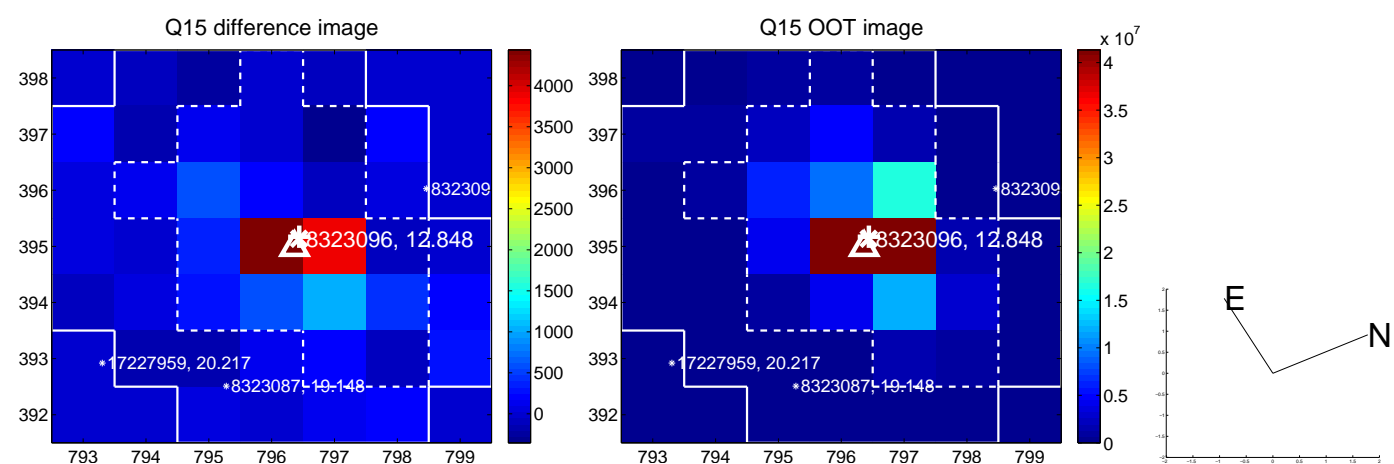
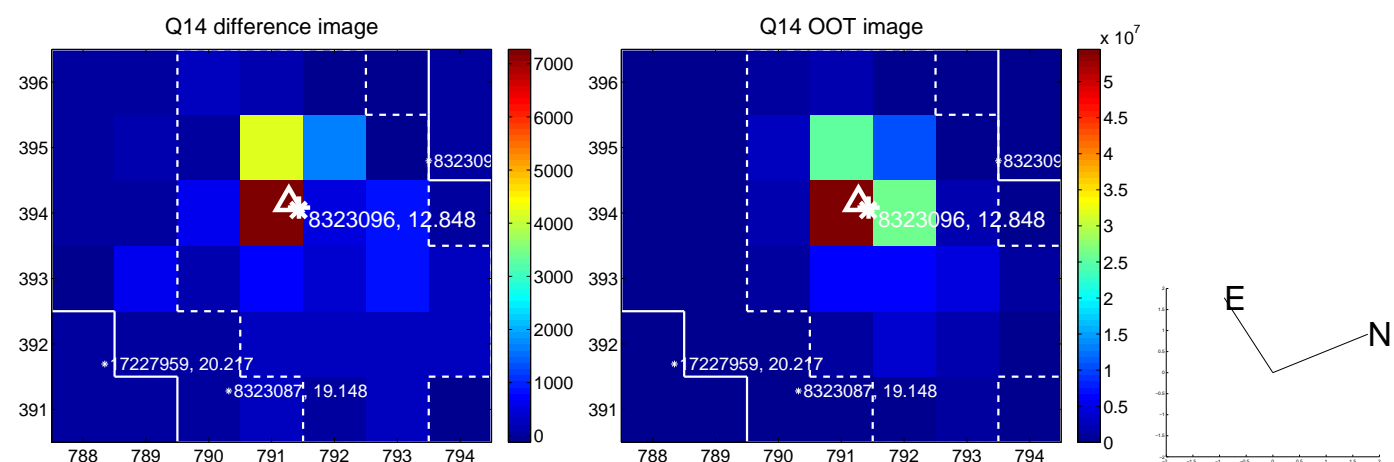
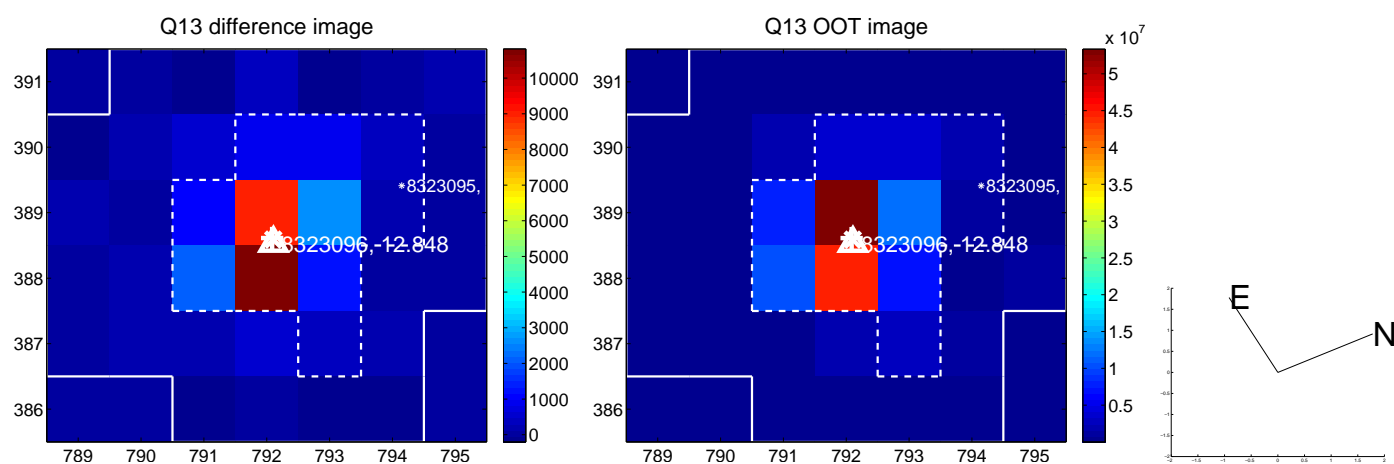
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



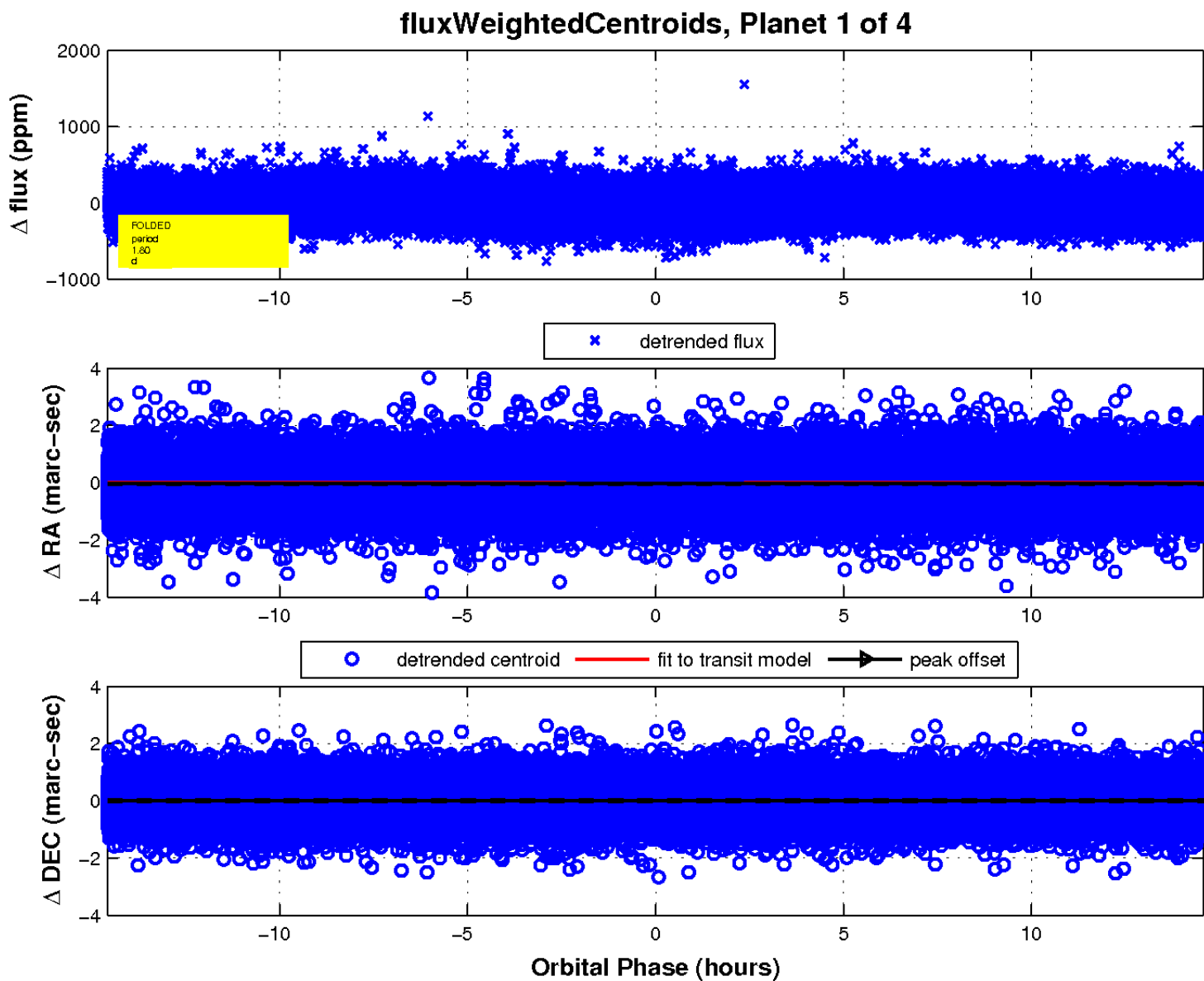
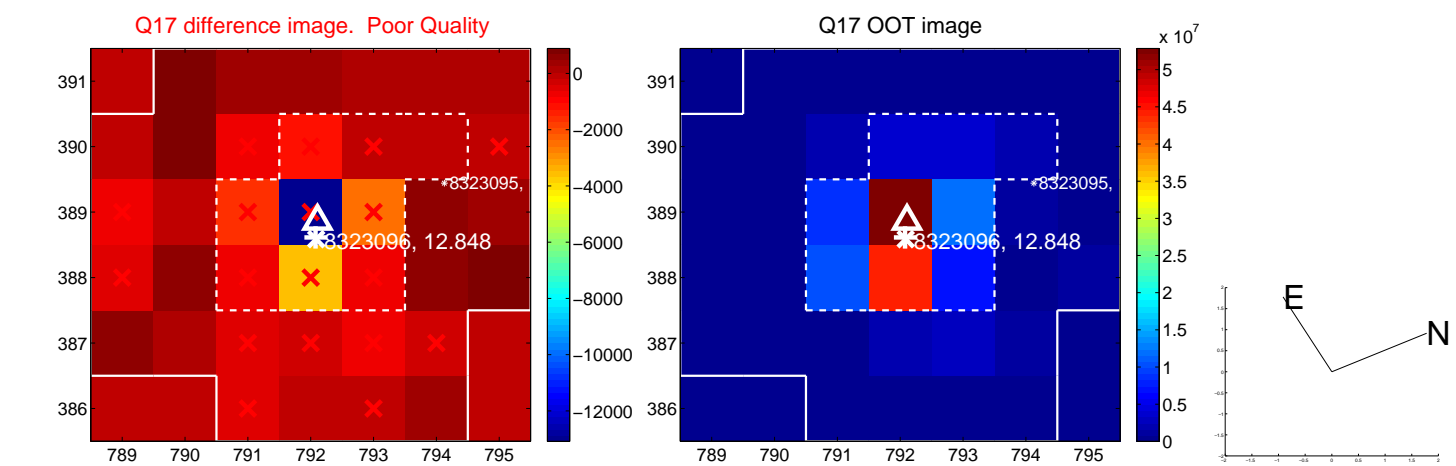
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



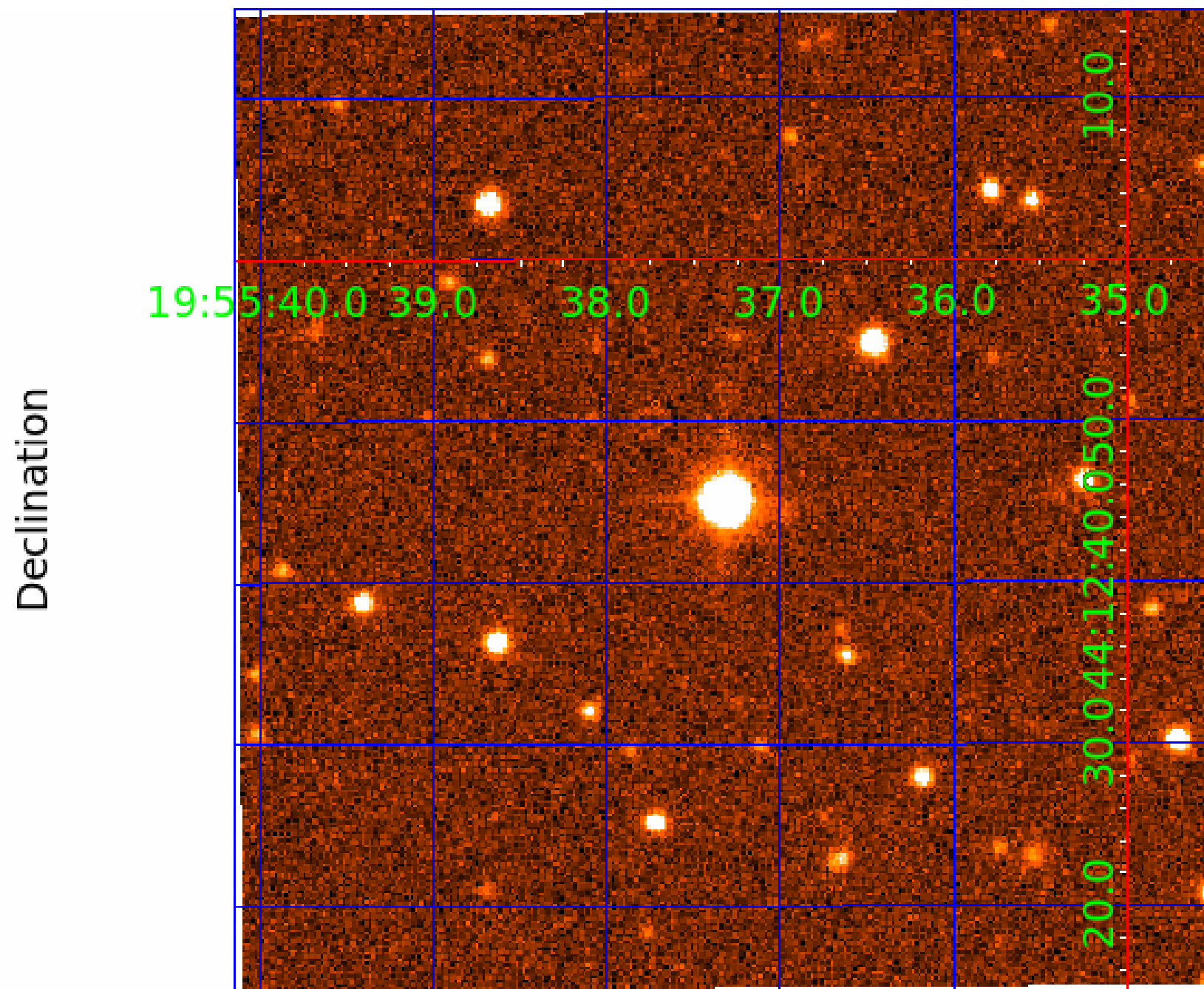
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008323096

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})
008323096-01	OBS	No	1.795369	131.913749	27.6	4.859	9.6	8.5	3.52	6525	1.91	17203.62
008323096-02	OBS	No	3.591402	133.063944	163.4	4.500	9.9	-1.0	3.52	6525	4.53	6825.58
008323096-04	OBS	No	319.233651	388.212164	314.2	15.403	7.4	8.9	3.52	6525	7.08	17.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008323096-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
008323096-02	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_NOFITS
008323096-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—CENT_FEW_DIFFS—HALO_GHOST

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

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

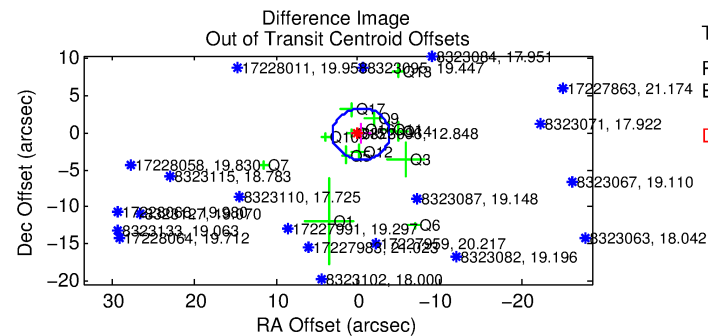
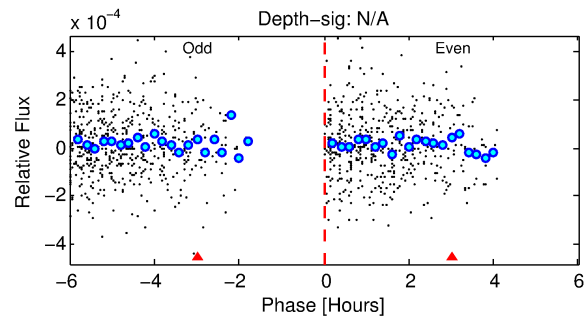
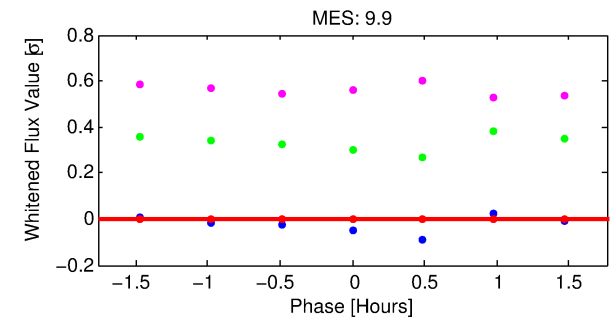
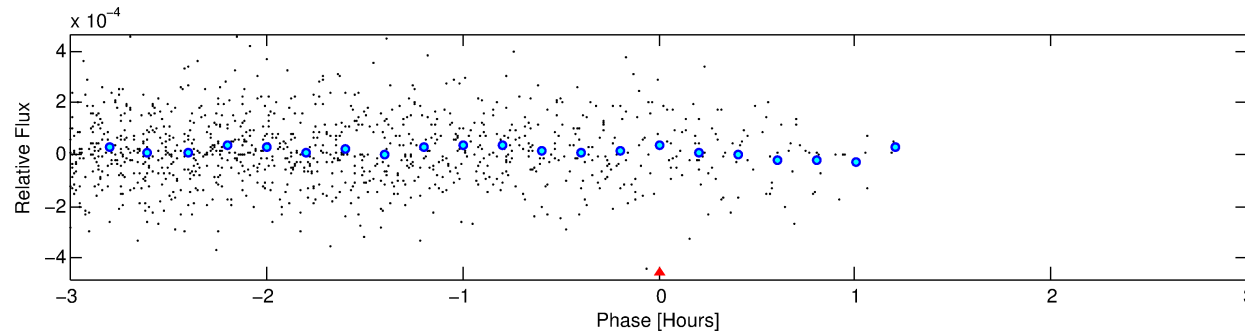
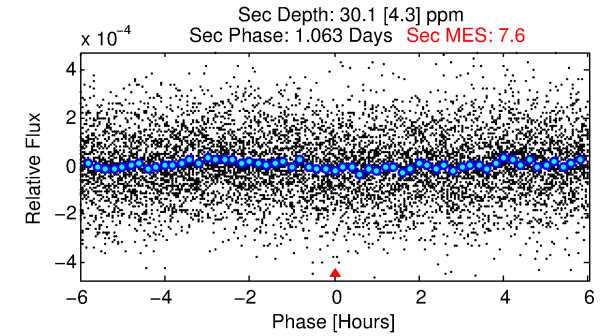
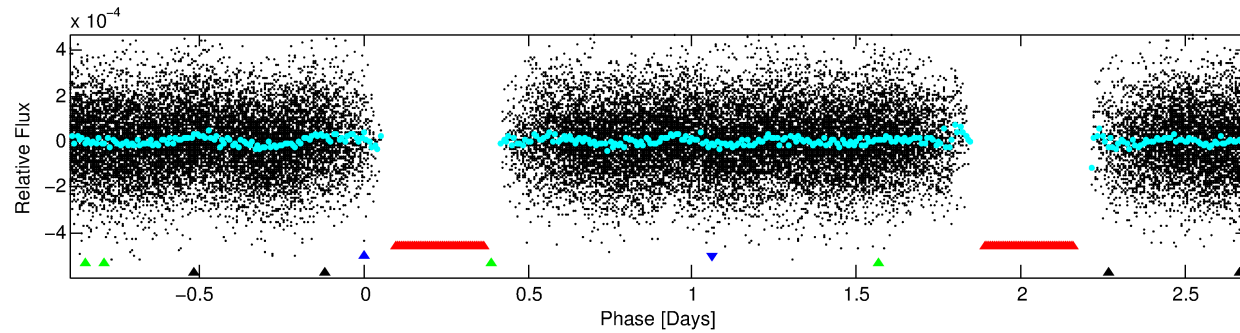
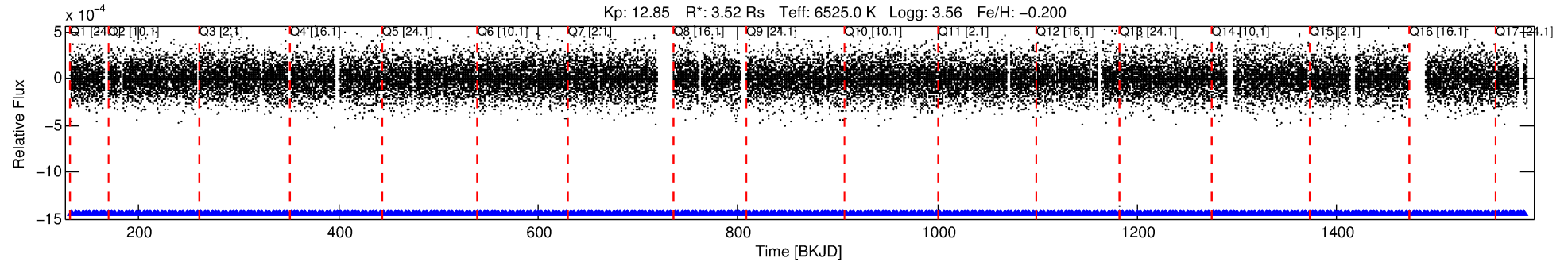
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008323096-02

No Significant Match Found

DV One-Page Summary

KIC: 8323096 Candidate: 2 of 4 Period: 3.591 d



TPS TCE Results:

Period = 3.59140 d
Epoch = 133.0639 BKJD

DV fit results are unavailable

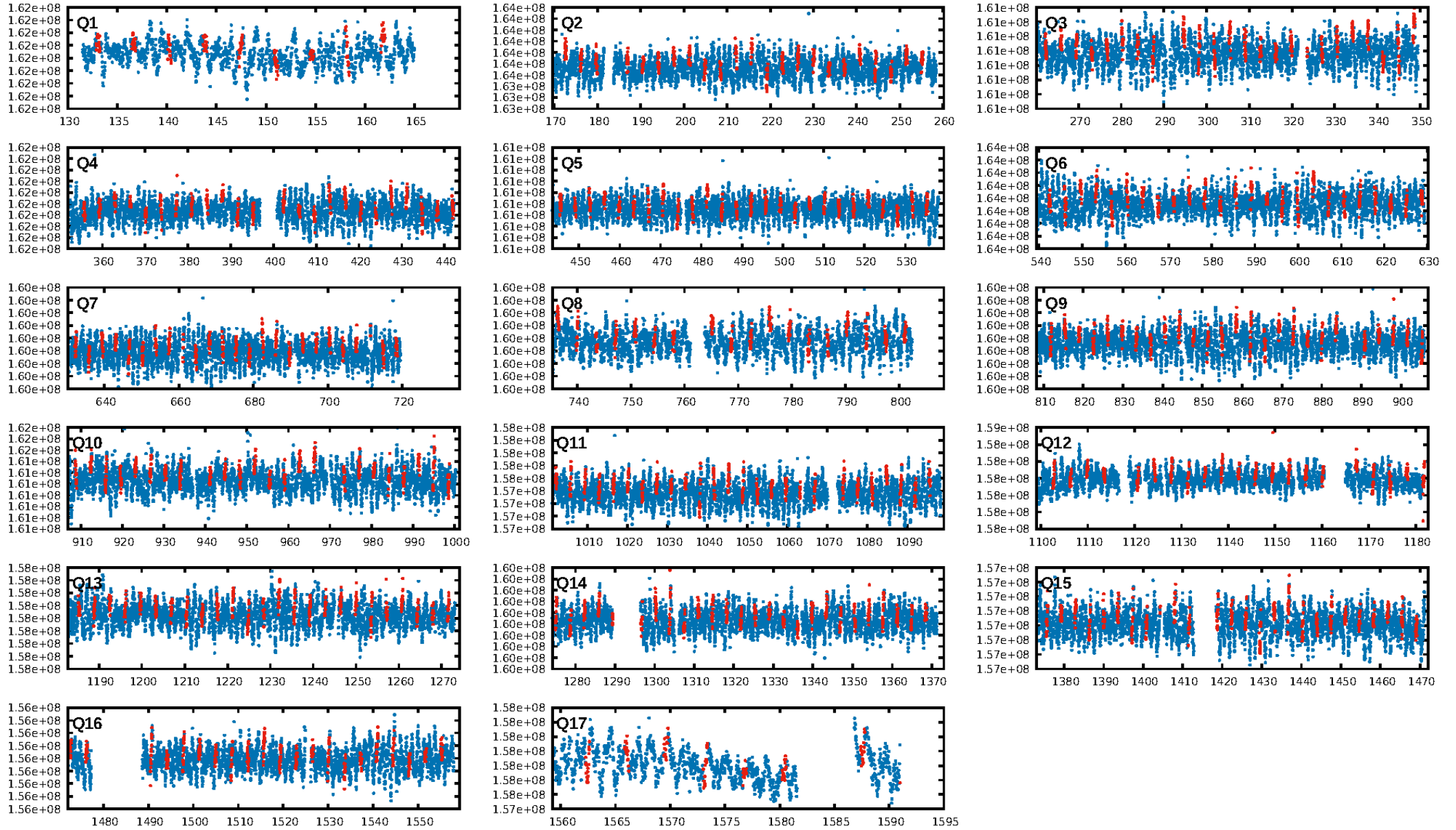
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.51σ]
LongPeriod-sig: 100.0% [472.09σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.50e-16
RollingBand-fgt: 1.00 [109/109]
GhostDiagnostic-chr: -1.151
Centroid-sig: 37.5%
Centroid-so: 5.203 arcsec [0.71σ]
OotOffset-rm: 0.385 arcsec [0.33σ]
KicOffset-rm: 0.252 arcsec [0.21σ]
OotOffset-st: 3/4/2/5 [14]
KicOffset-st: 3/4/2/5 [14]
DiffImageQuality-fgm: 0.00 [0/14]
DiffImageOverlap-fno: 0.24 [4/17]

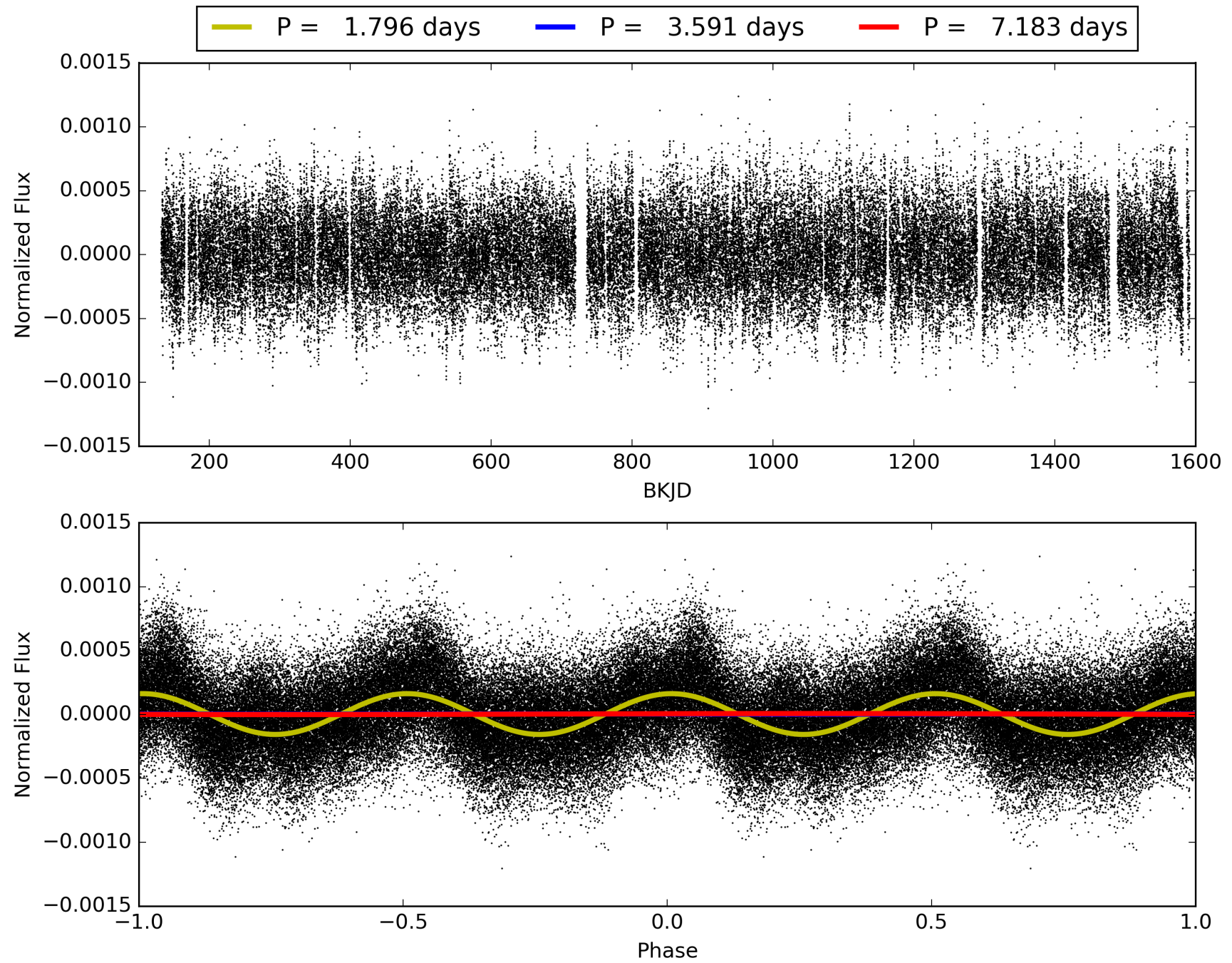
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:14:21 Z

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

TCE 008323096-02, PDC Light Curves

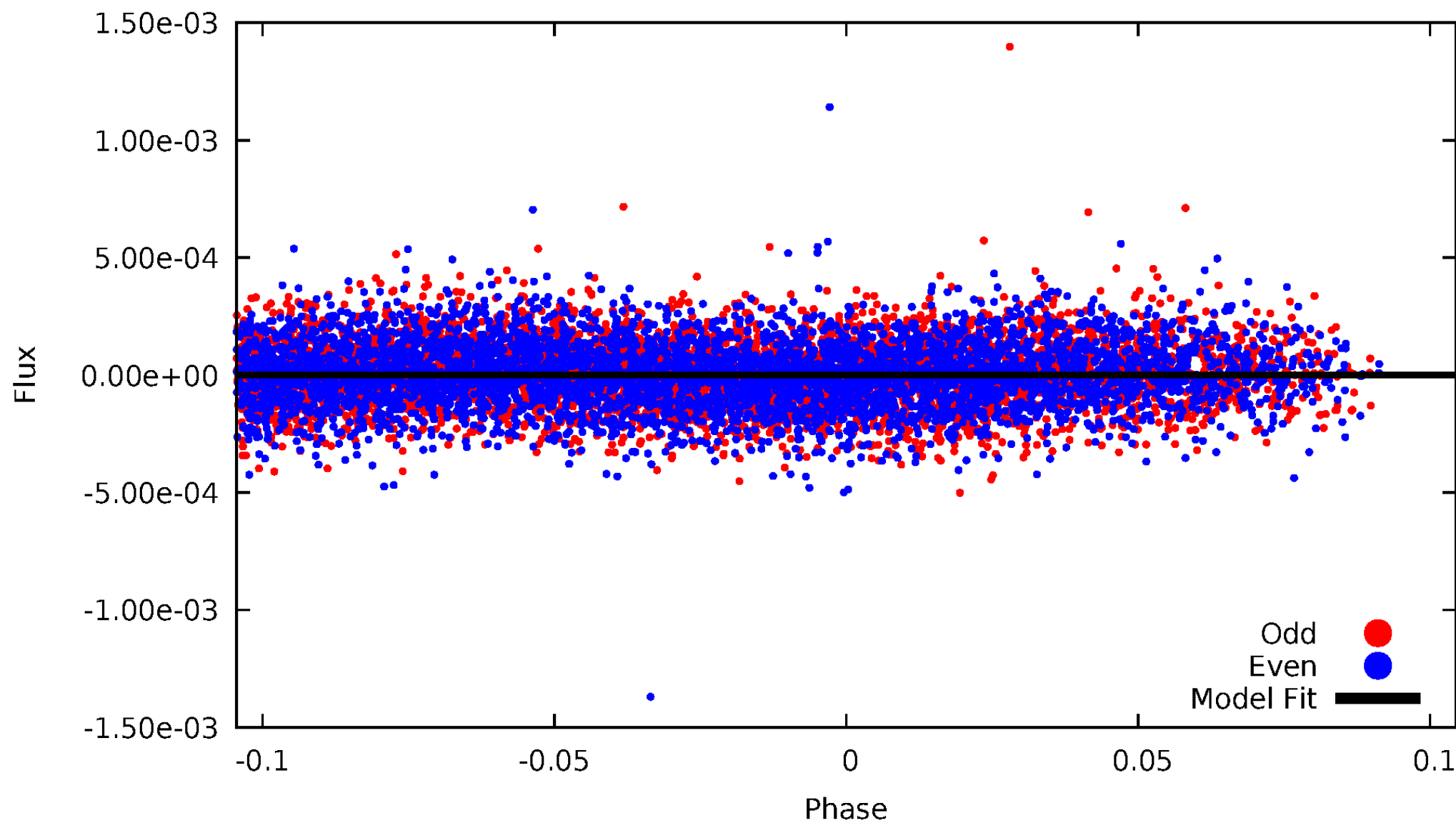


TCE 008323096-02



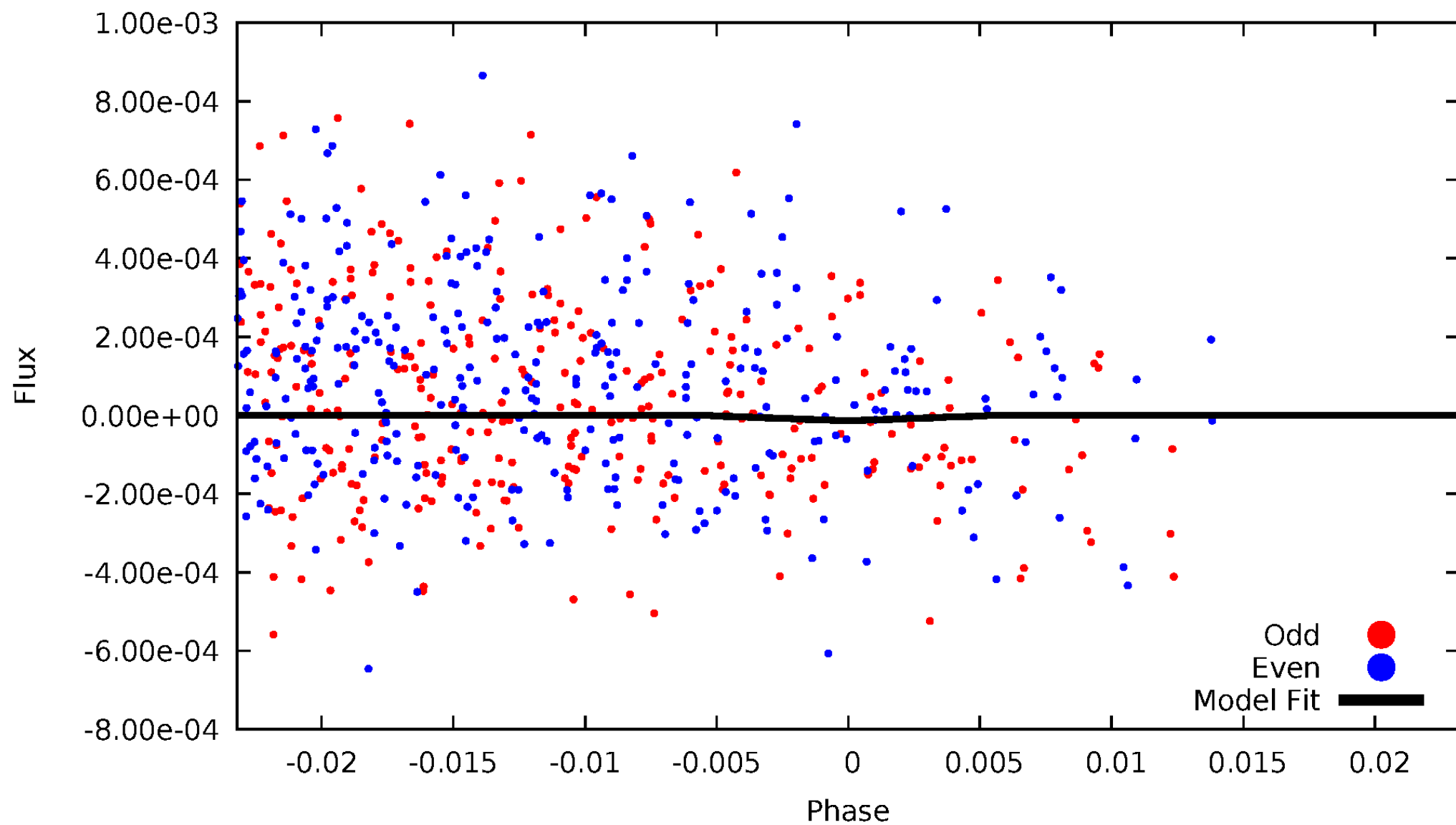
DV Odd/Even

TCE 008323096-02



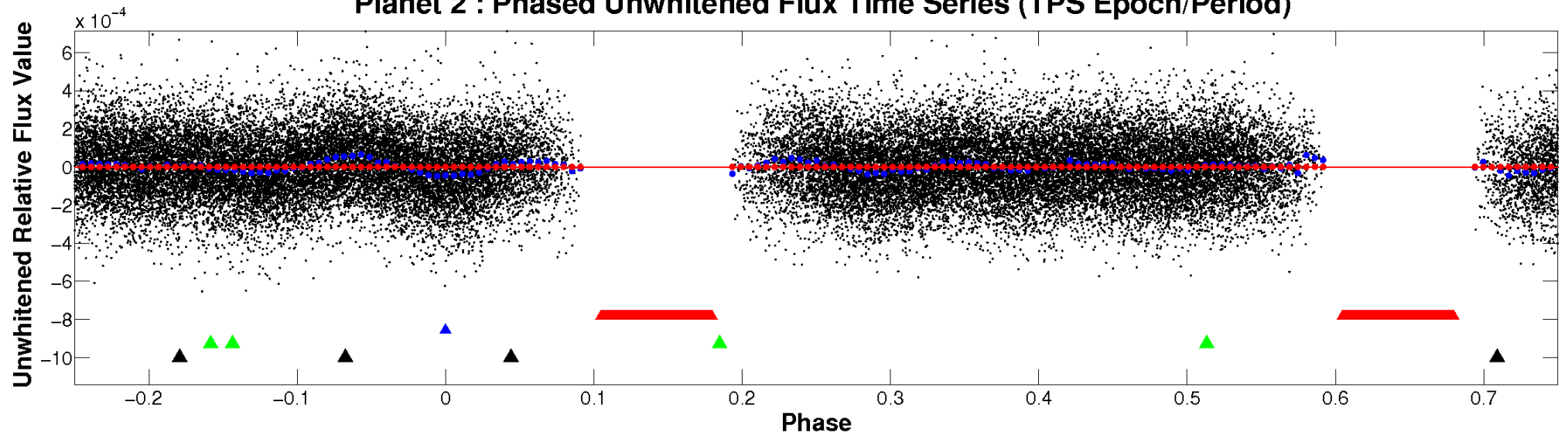
ALT Odd/Even

TCE 008323096-02



Non-Whitened Vs. Whitened Light Curve

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

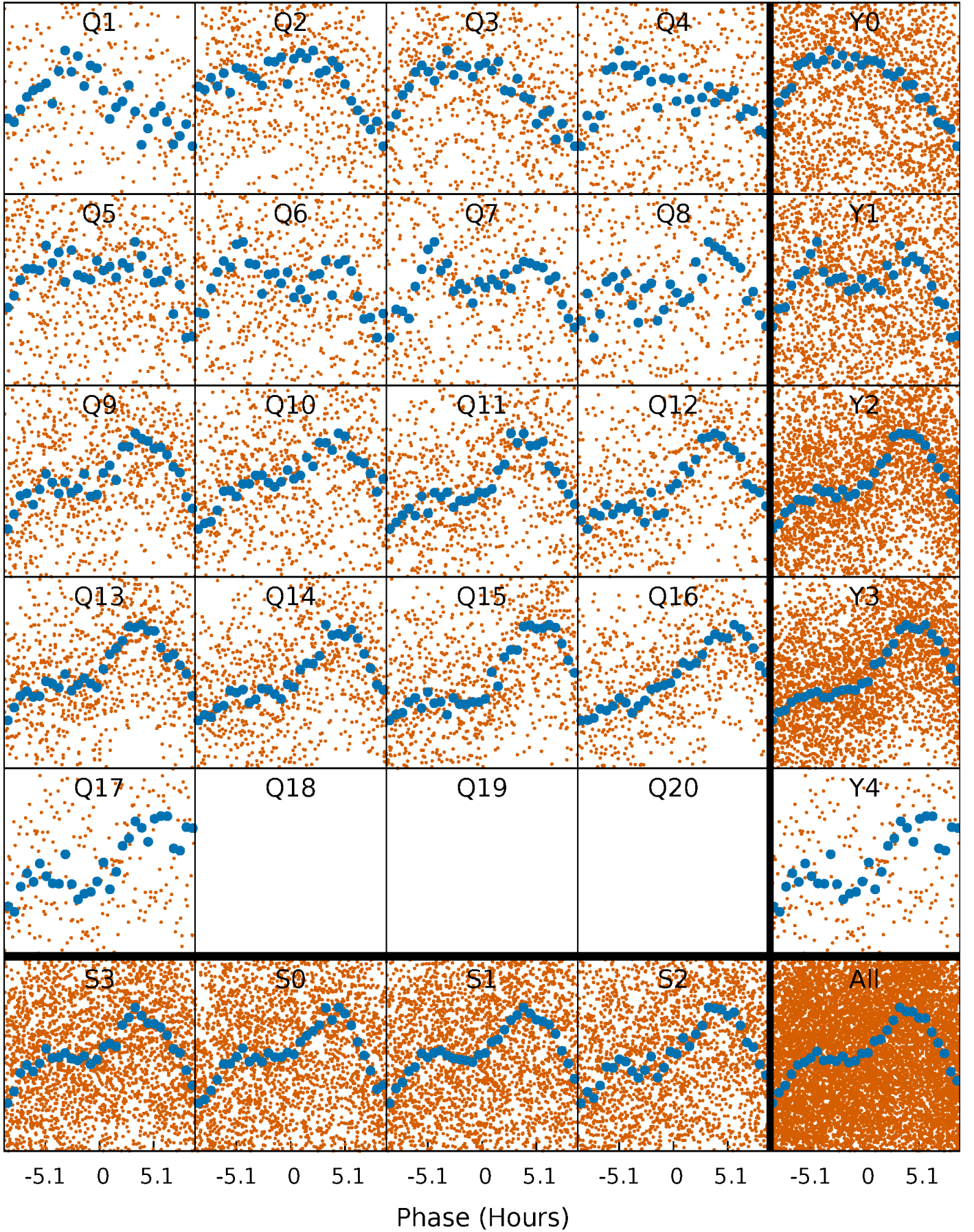


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



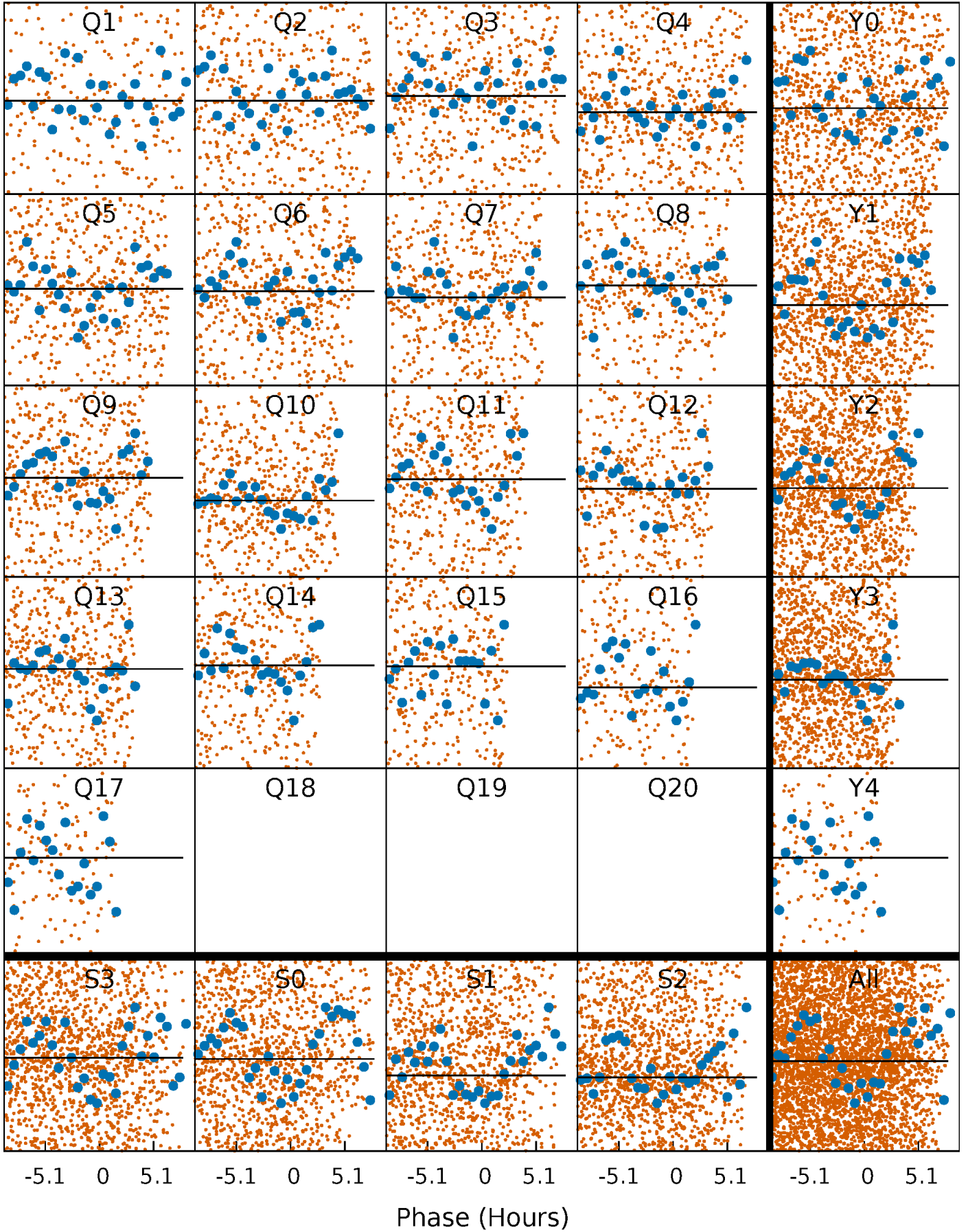
PDC Quarter-Phased Transit Curves

TCE 008323096-02 P= 3.591402 Days $T_0=133.063944$ (BKJD)



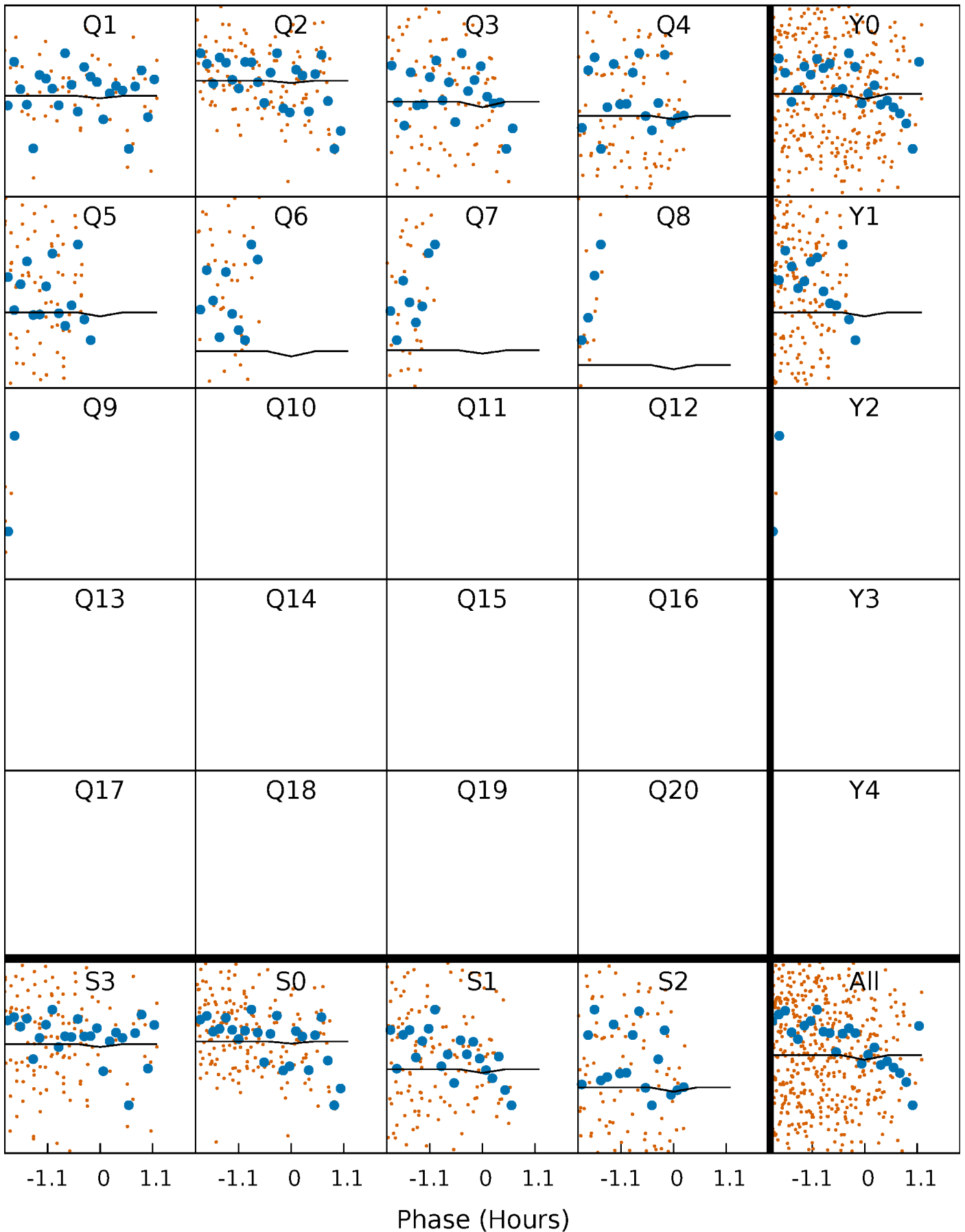
DV Quarter-Phased Transit Curves

TCE 008323096-02 P= 3.591402 Days $T_0=133.063944$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

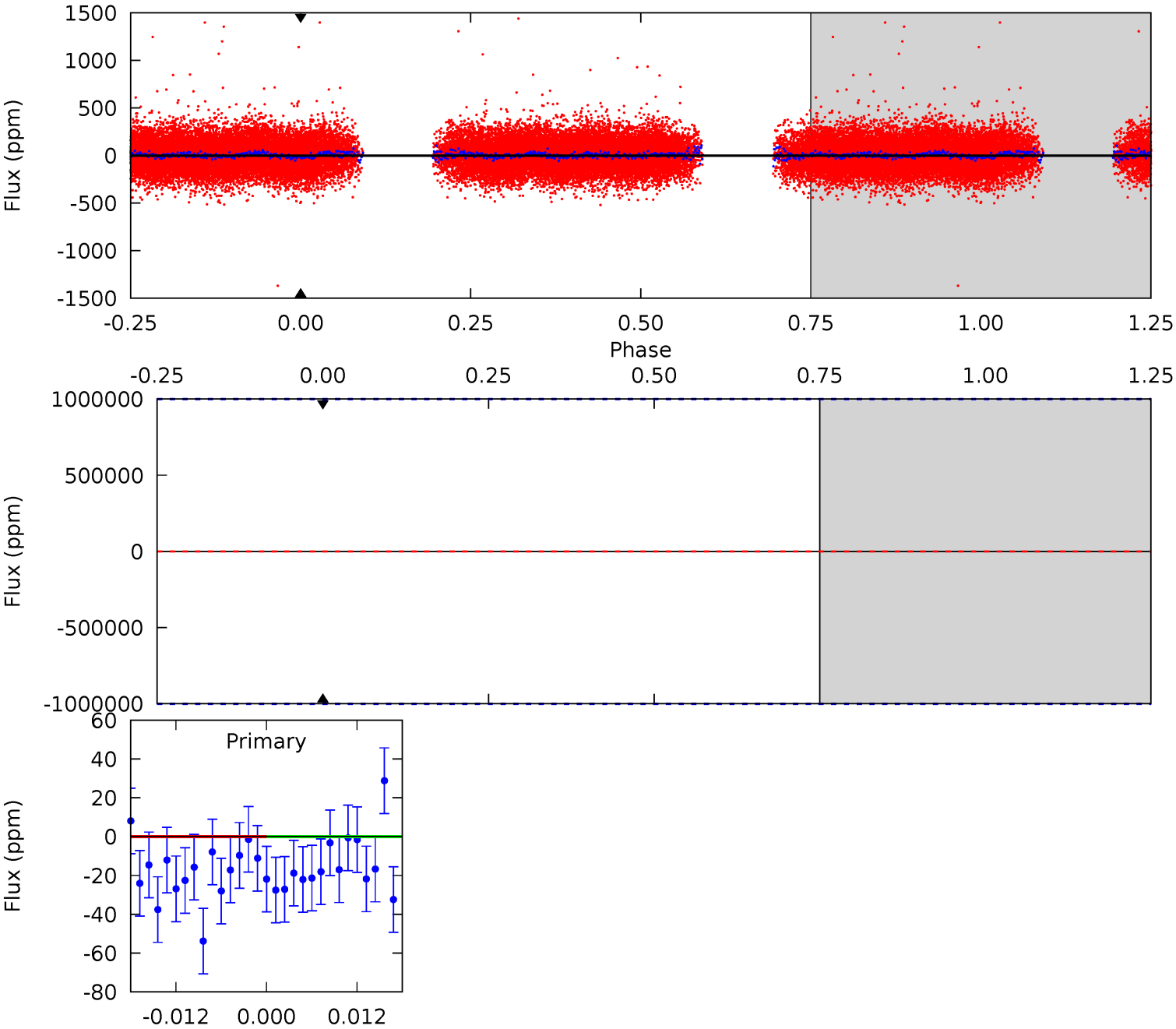
TCE 008323096-02 P= 3.591402 Days $T_0=133.342162$ (BKJD)



DV Model-Shift Uniqueness Test

008323096-02, P = 3.591402 Days, E = 129.472542 Days

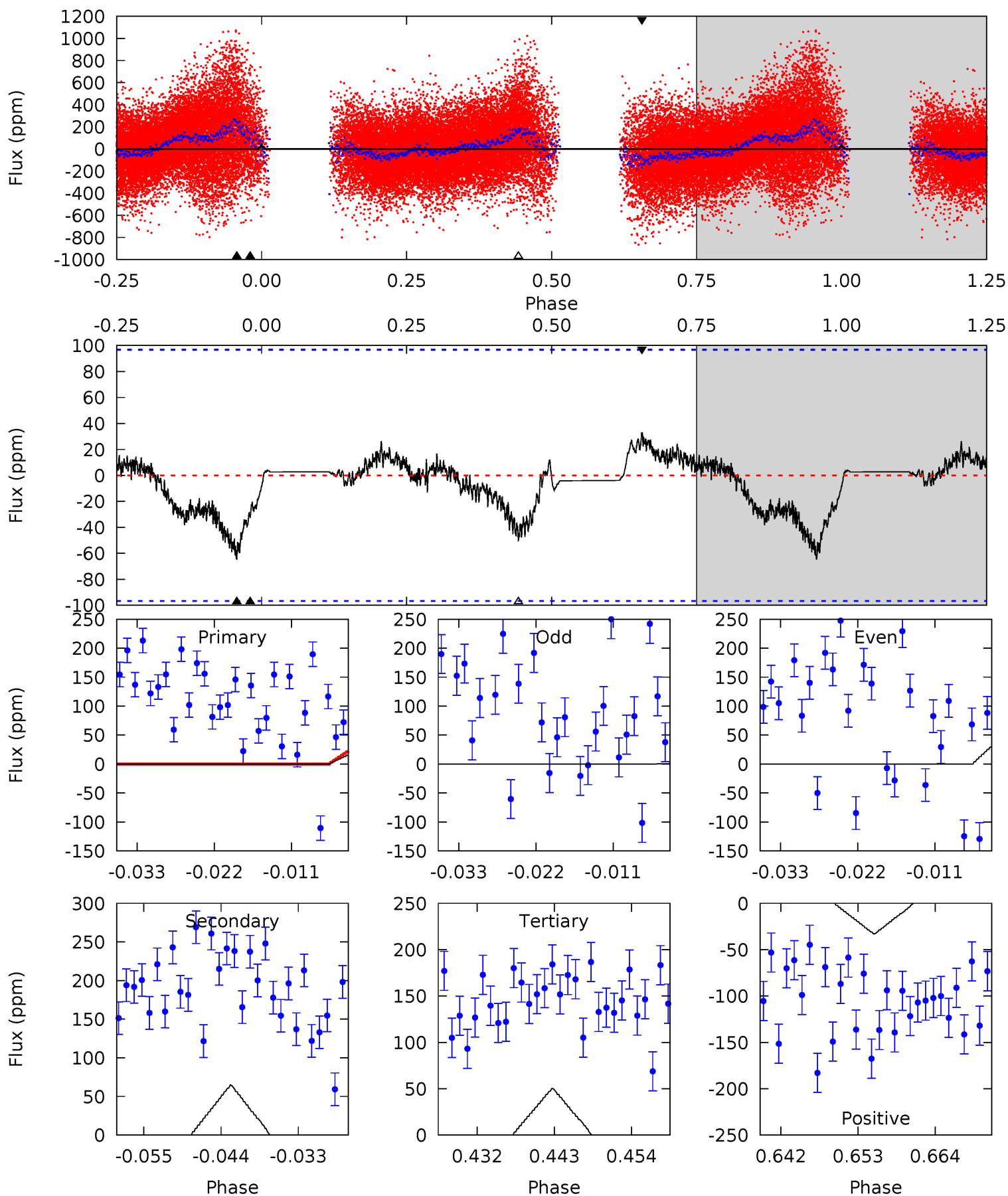
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008323096-02, P = 3.591402 Days, E = 129.750760 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.67	3.36	2.61	1.72	5.01	2.54	0.97	-0.95	-0.05	0.75	1.64	1.60	-1.27	0.34	0.81



Stellar Parameters For KIC 008323096

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6525^{+176}_{-215}	$3.564^{+0.337}_{-0.090}$	$-0.200^{+0.300}_{-0.250}$	$3.523^{+0.364}_{-1.458}$	$1.658^{+0.200}_{-0.372}$	$0.053^{+0.159}_{-0.015}$
	+3%/-3%	+9%/-3%	+150%/-125%	+10%/-41%	+12%/-22%	+297%/-28%
Source	PHO1	FLK73	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 008323096-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$23.94^{+30.46}_{-16.39}$	3189^{+165}_{-314}	4783^{+30977}_{-30735}	$3.492^{+571.046}_{-354.821}$
Alt.	-65 ± 19	$23.87^{+29.44}_{-16.82}$	3177^{+174}_{-308}	-2715^{+6863}_{-448}	$0.177^{+1.760}_{-0.143}$

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

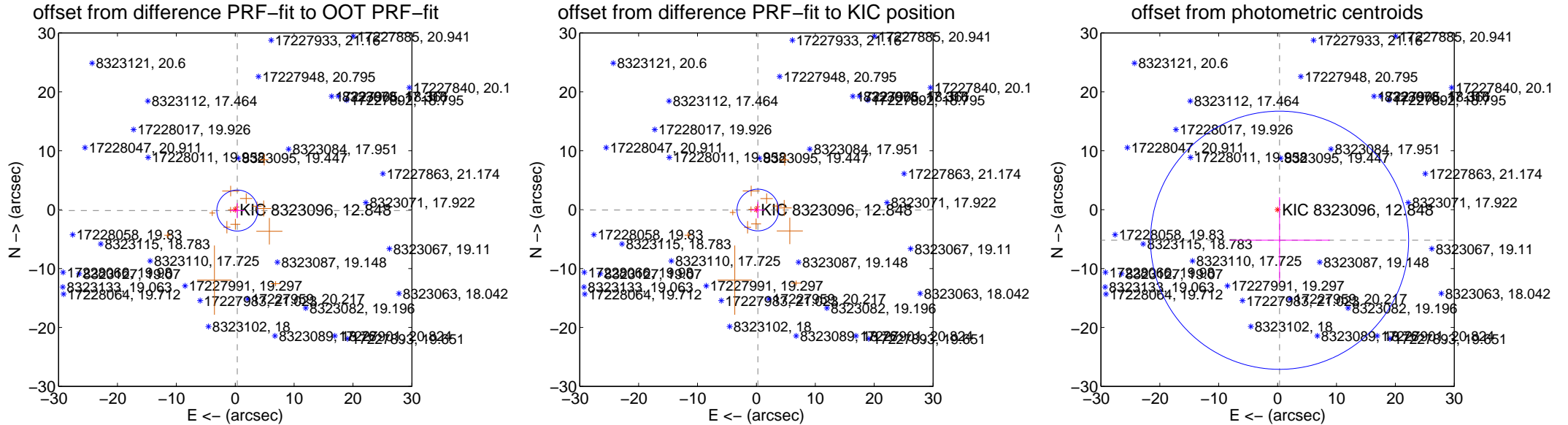
DV Centroid Data

Supplemental centroid analysis for 008323096-02. Kepler magnitude: 12.85. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

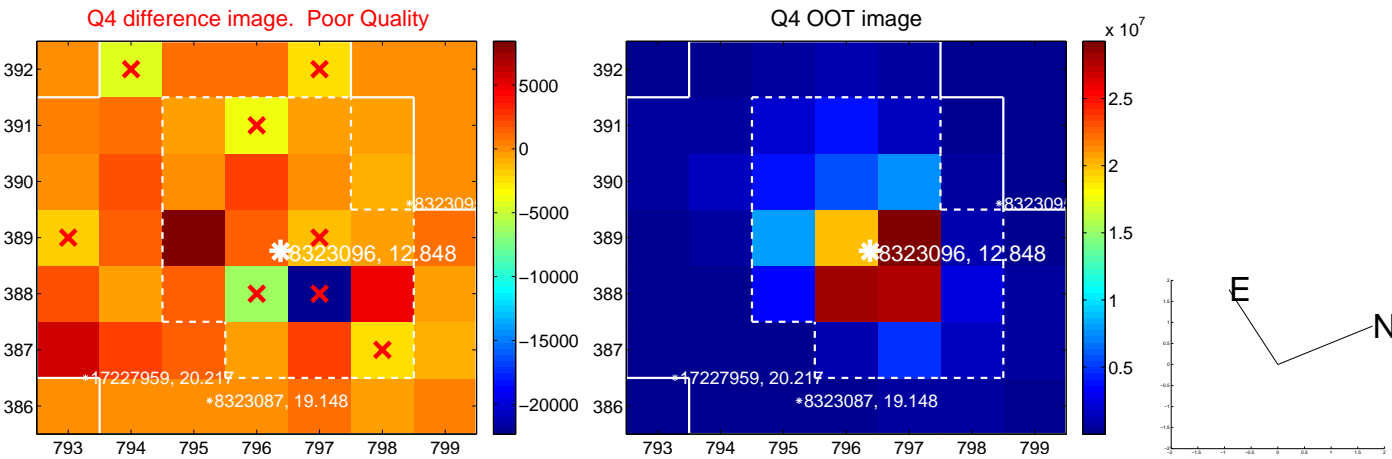
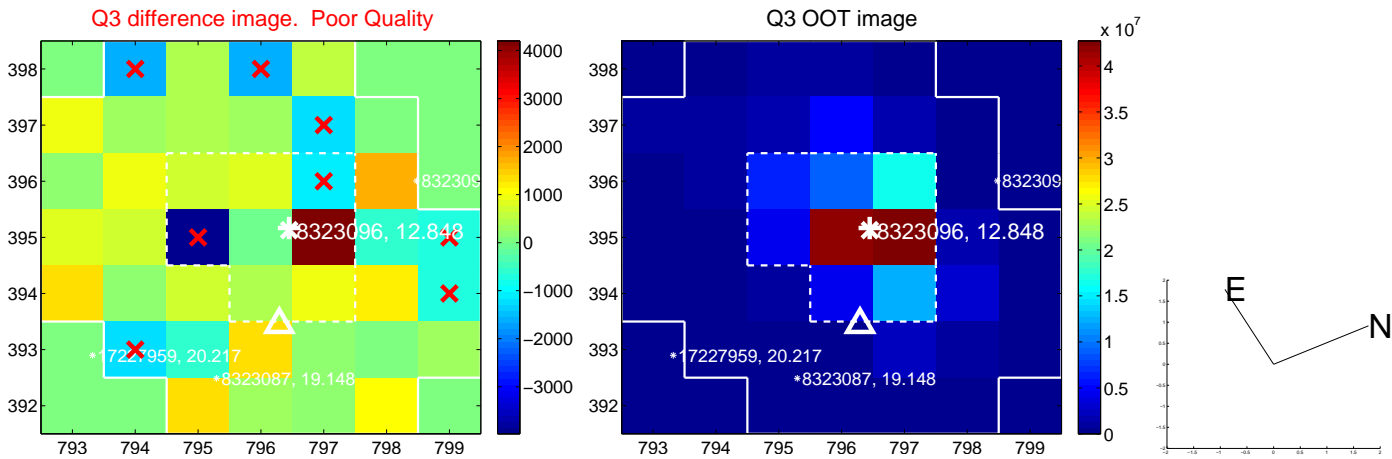
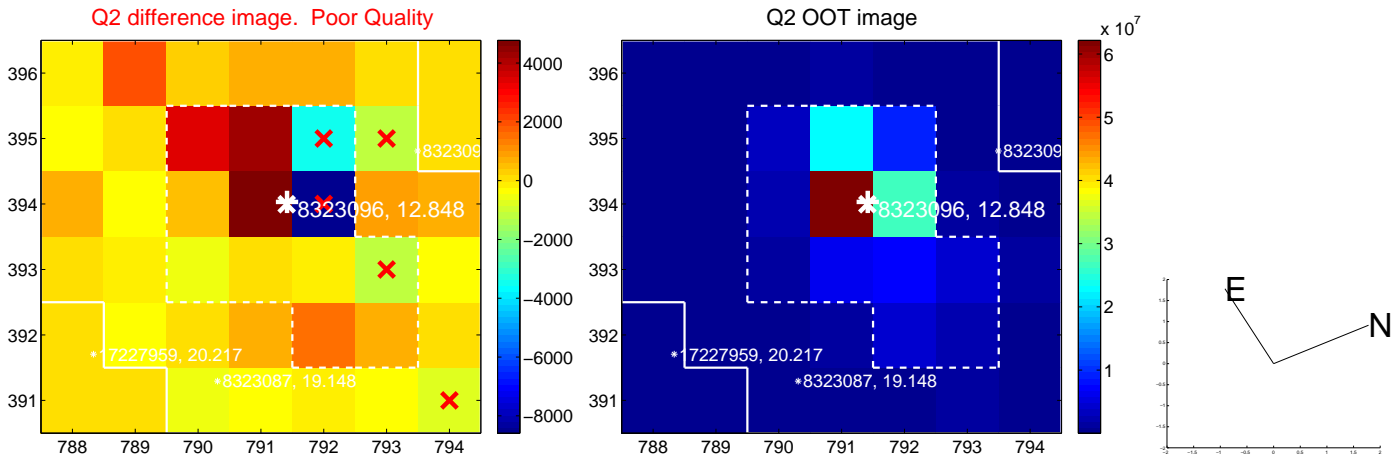
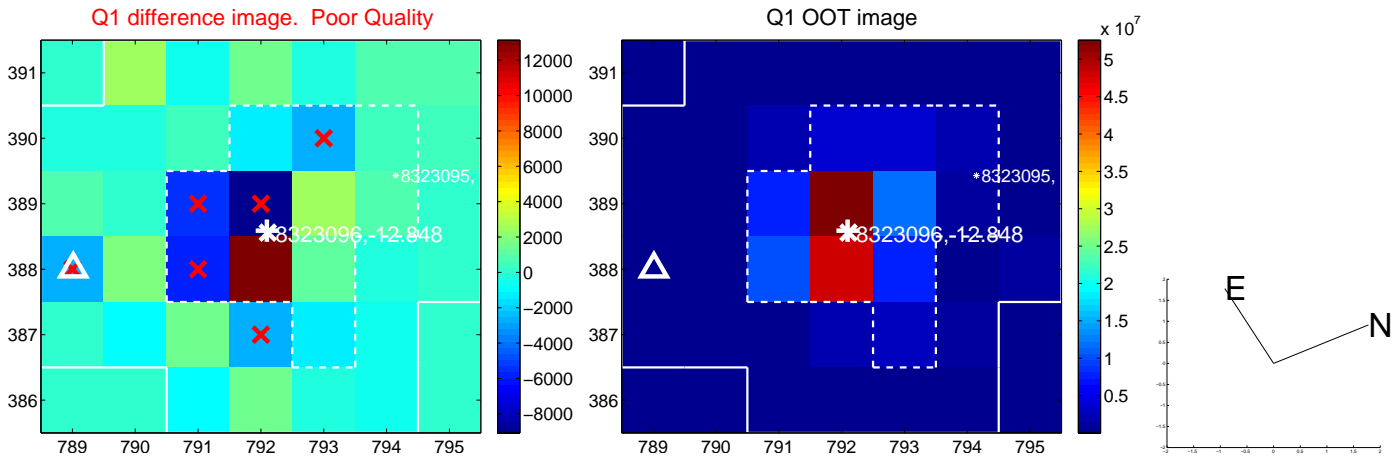
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.385 ± 1.160	0.33	-0.355 ± 1.221	-0.150 ± 1.285
PRF-fit source offset from KIC position	0.252 ± 1.180	0.21	-0.244 ± 1.210	-0.062 ± 1.384
photometric centroid source offset	5.20 ± 7.30	0.71	-0.34 ± 8.53	-5.19 ± 7.30

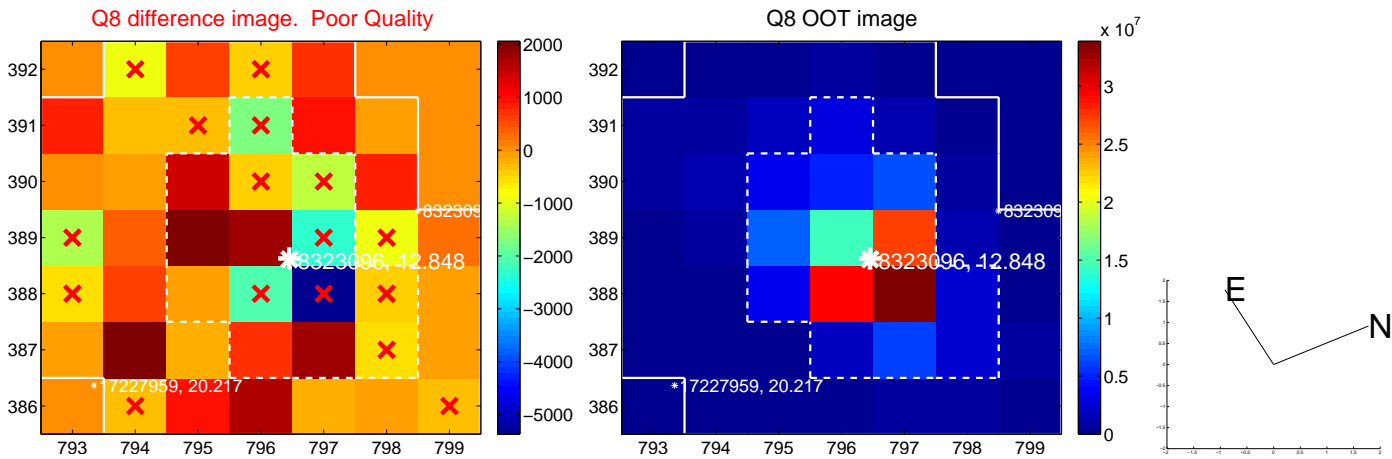
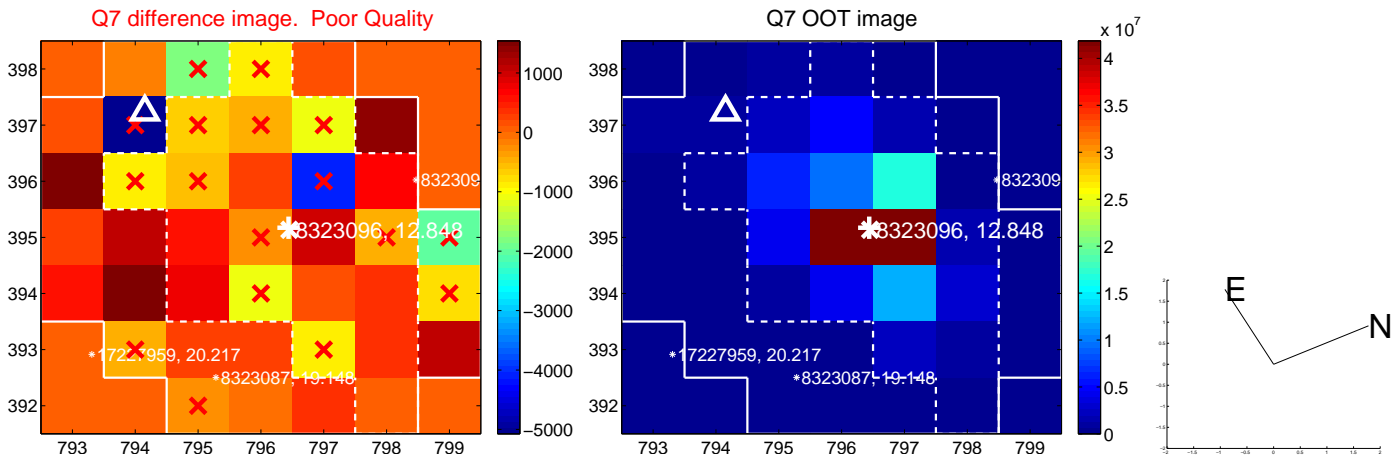
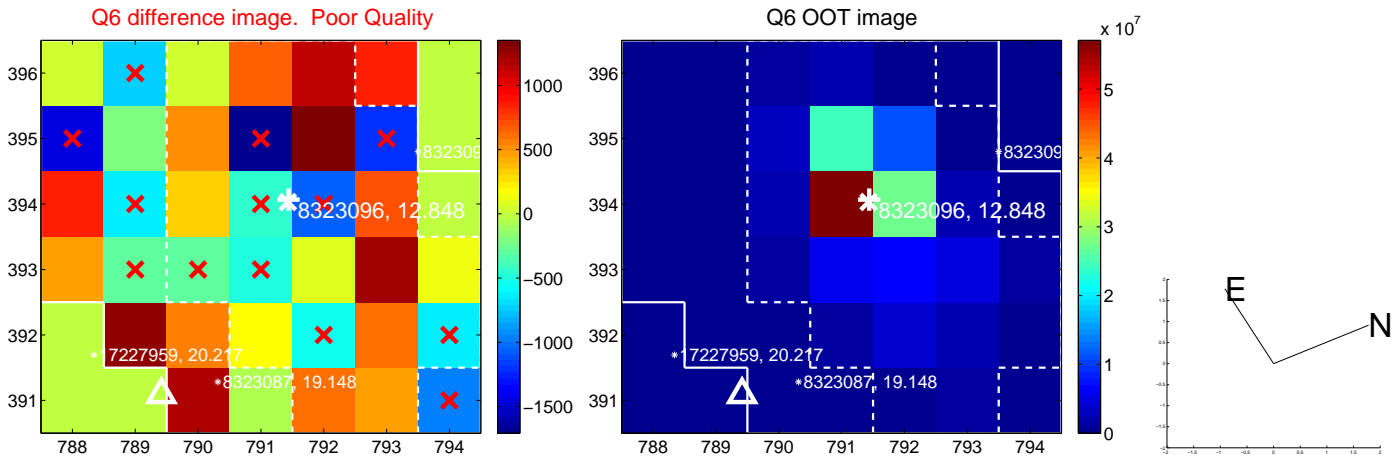
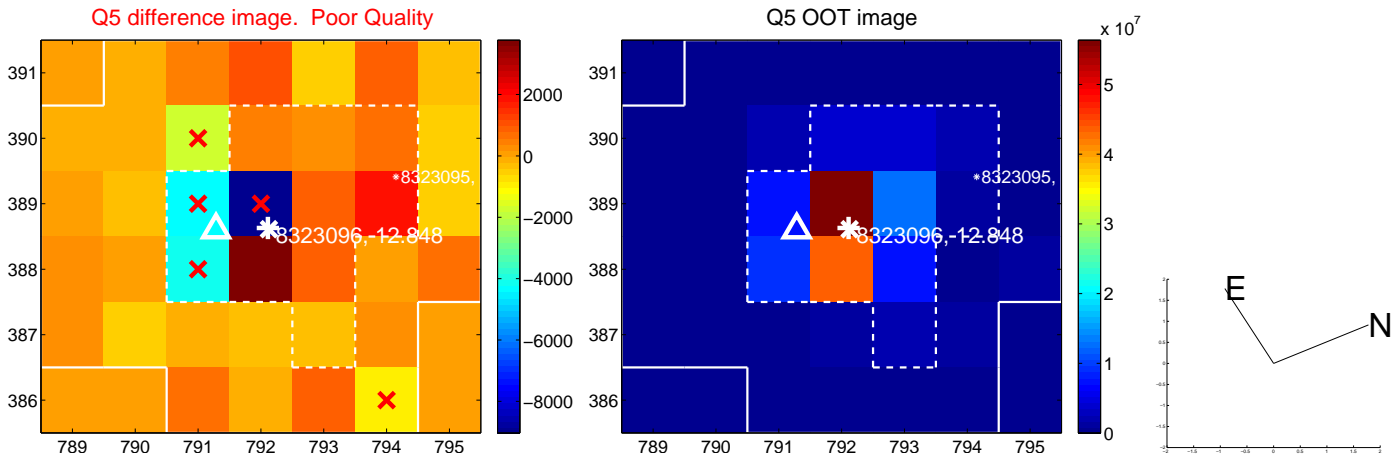


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

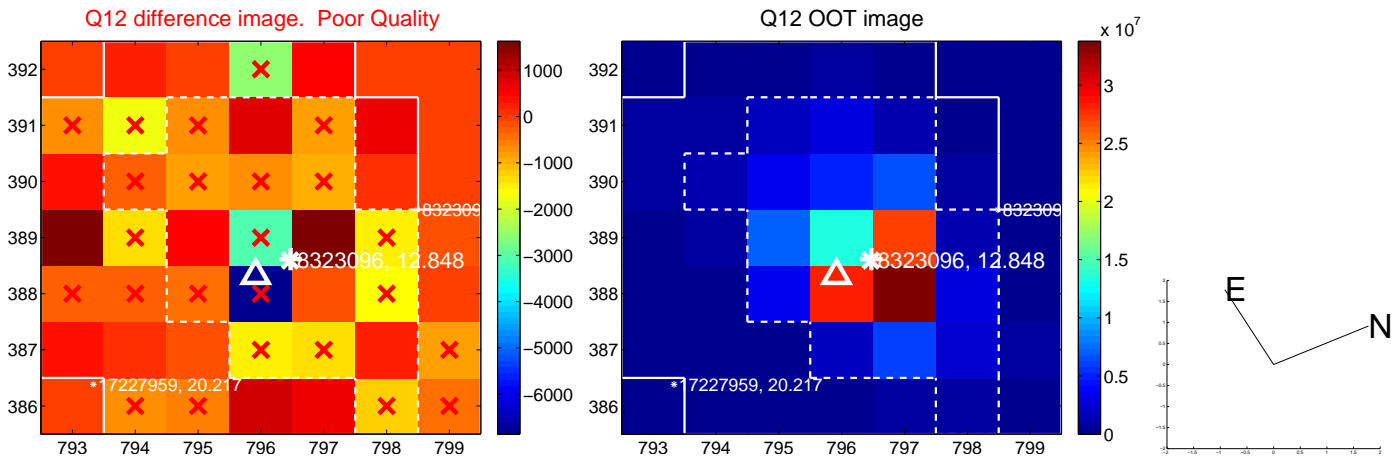
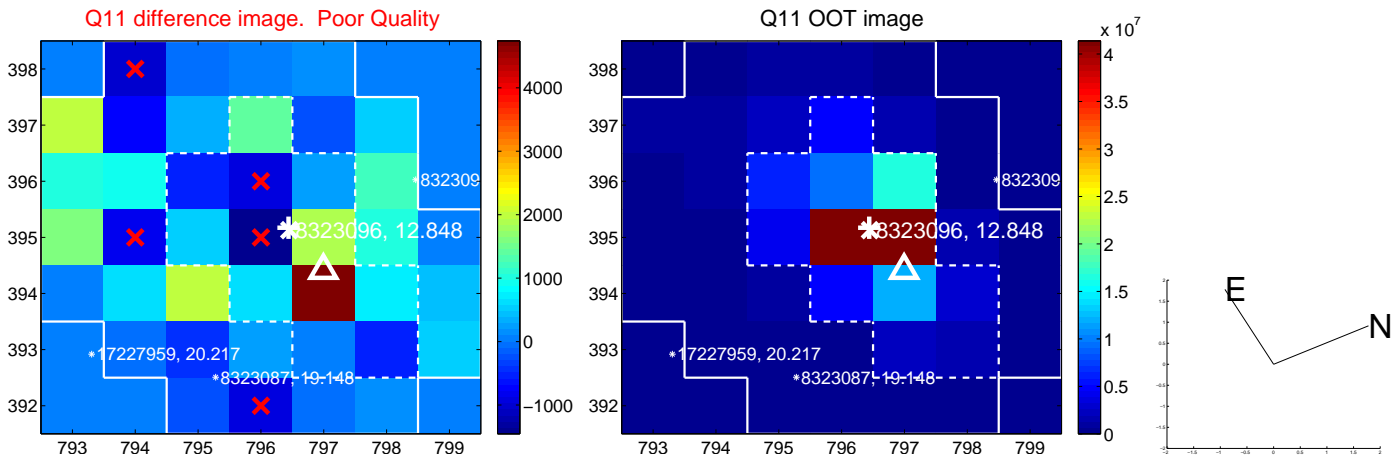
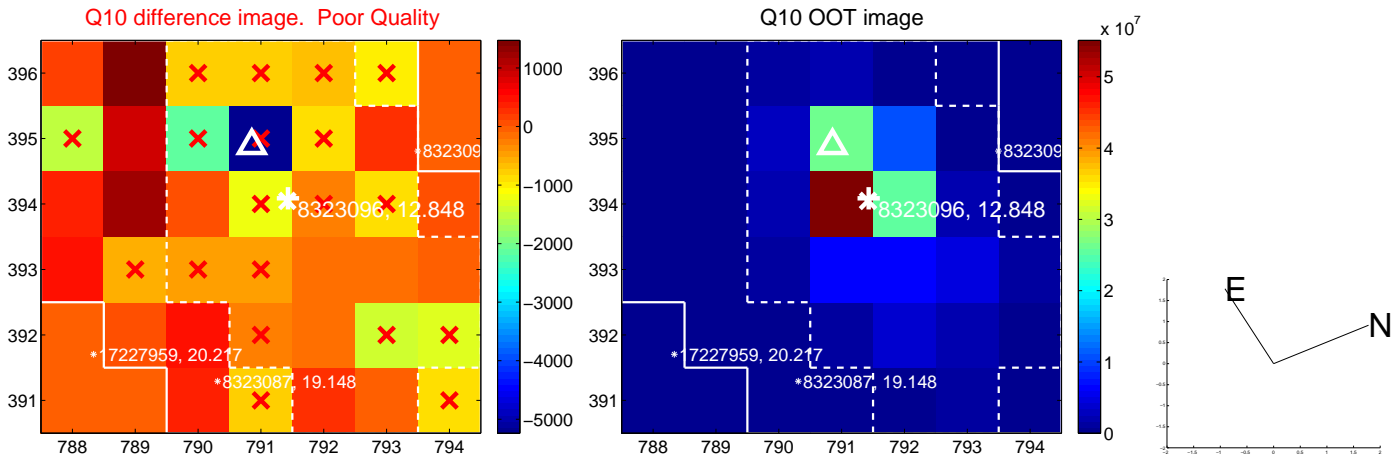
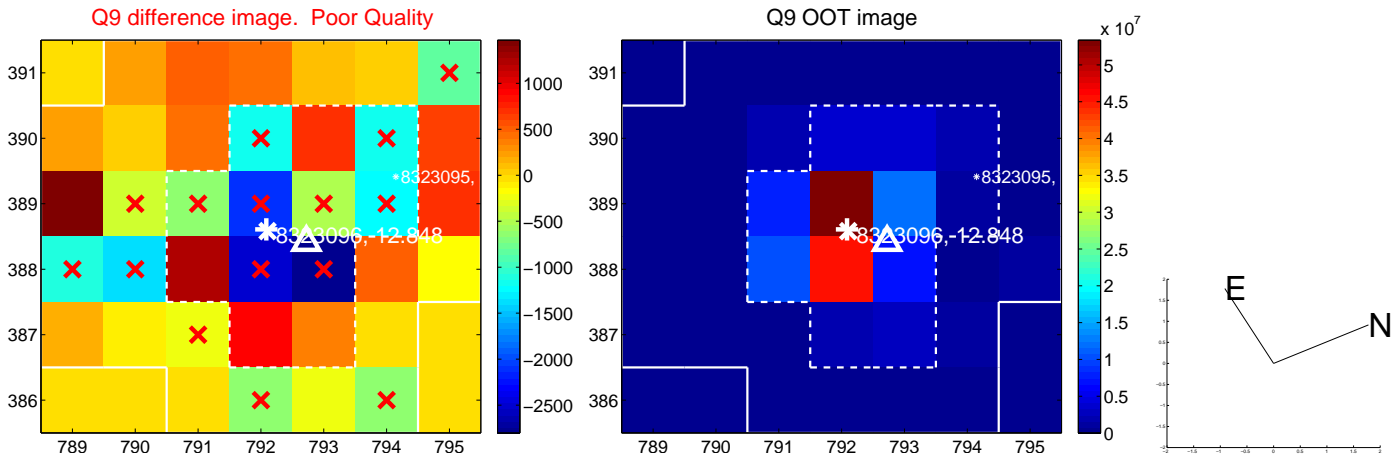
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



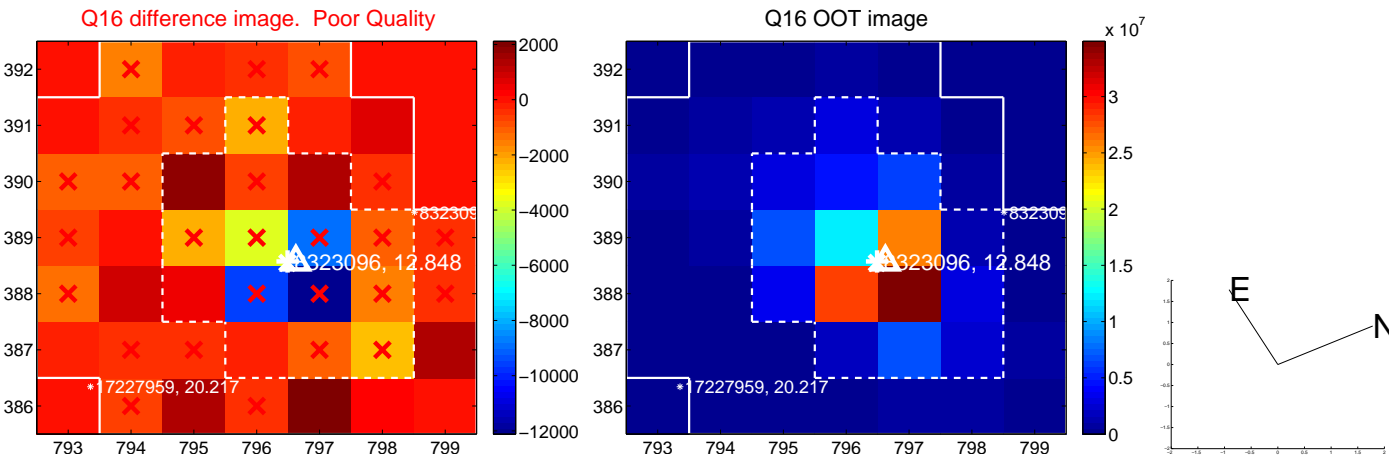
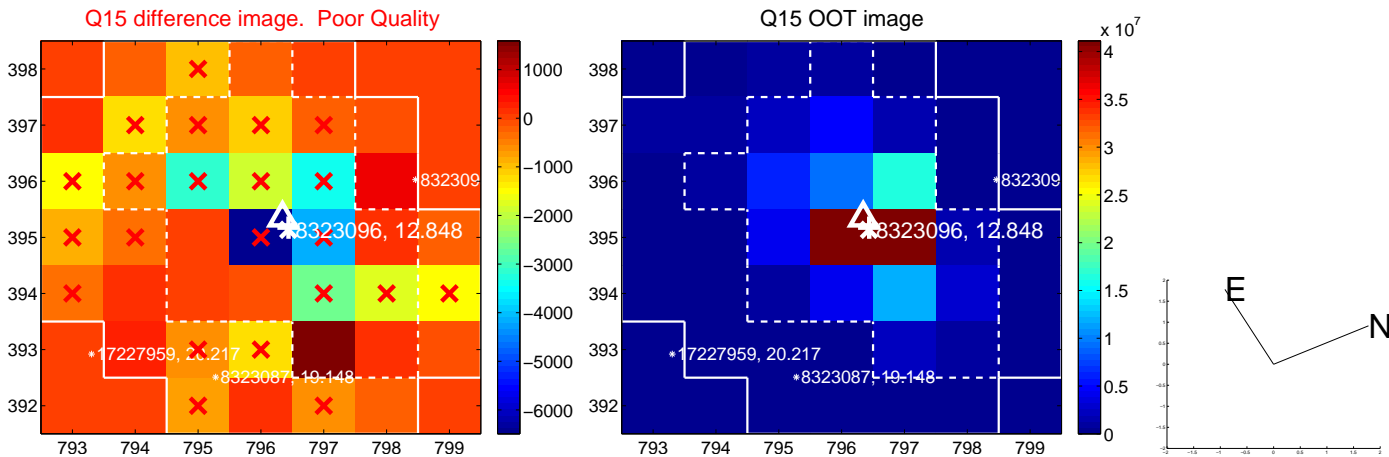
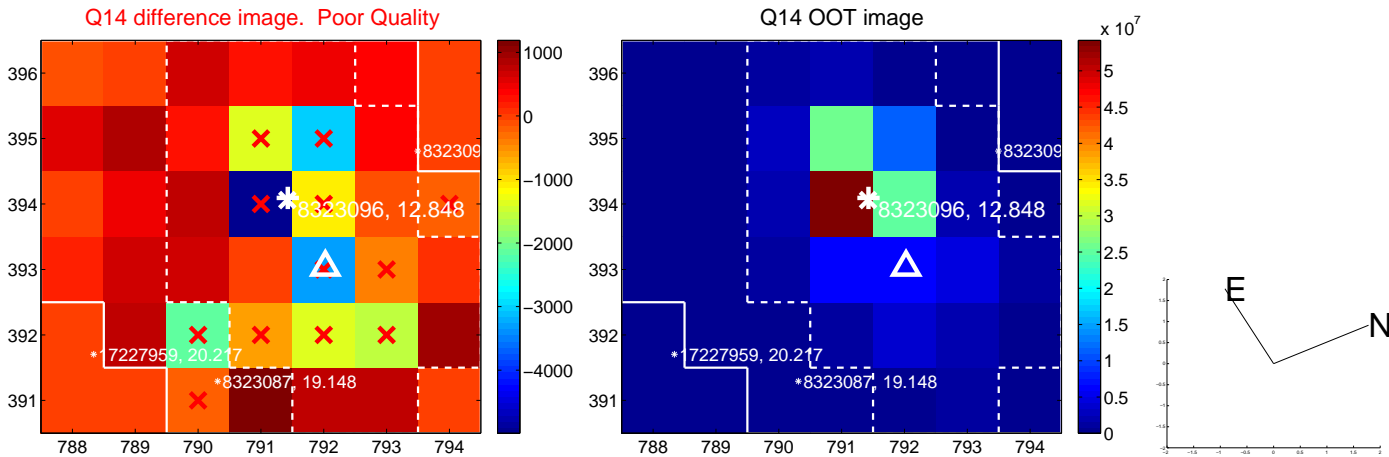
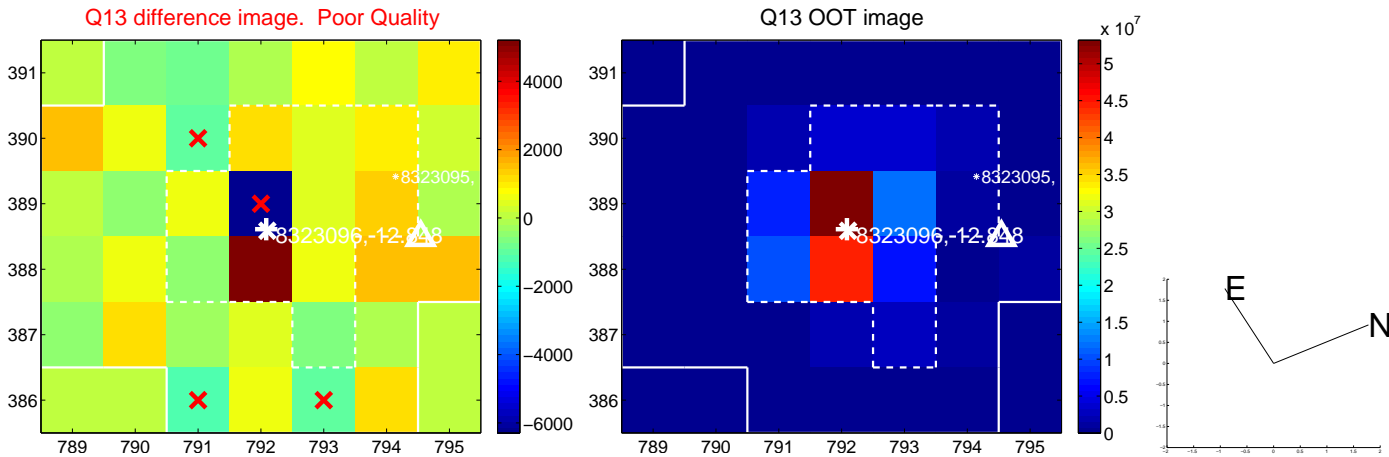
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



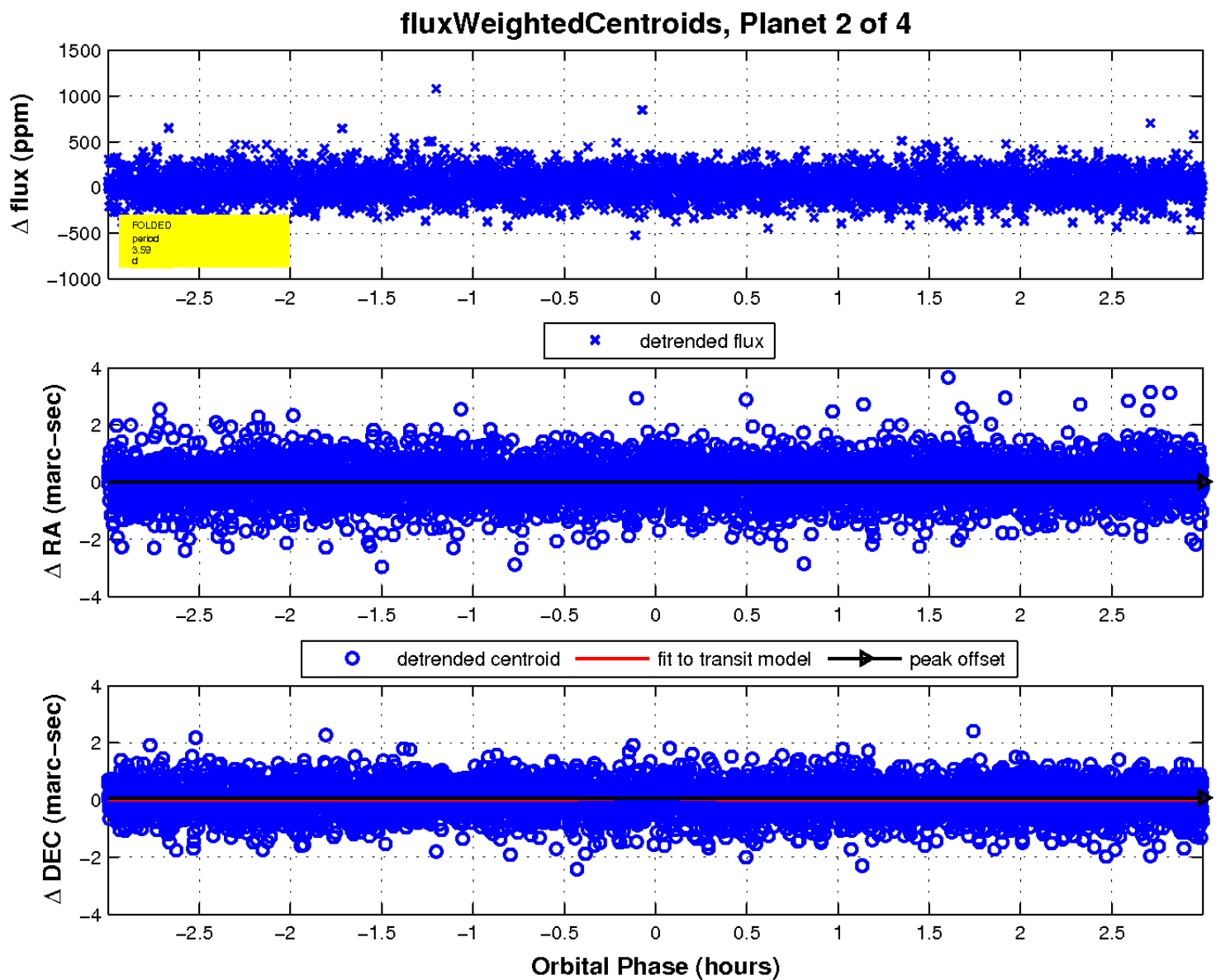
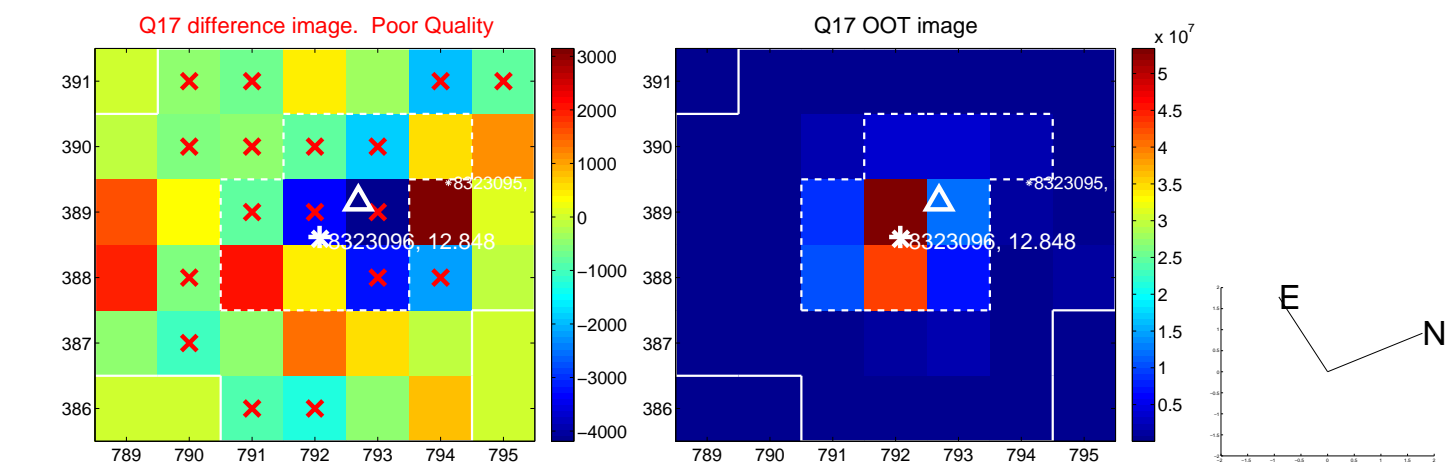
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



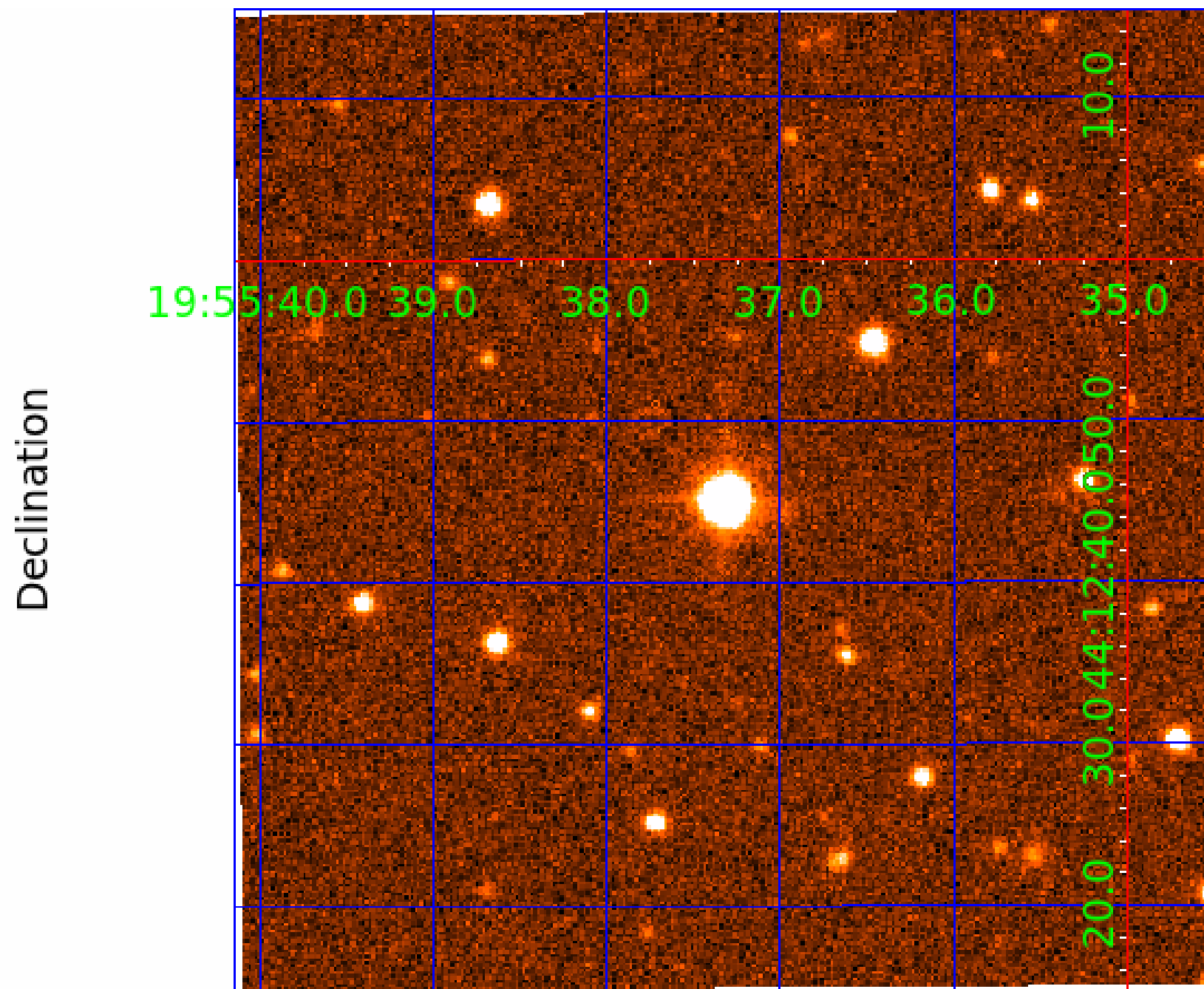
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 008323096

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})
008323096-01	OBS	No	1.795369	131.913749	27.6	4.859	9.6	8.5	3.52	6525	1.91	17203.62
008323096-02	OBS	No	3.591402	133.063944	163.4	4.500	9.9	-1.0	3.52	6525	4.53	6825.58
008323096-04	OBS	No	319.233651	388.212164	314.2	15.403	7.4	8.9	3.52	6525	7.08	17.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008323096-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
008323096-02	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_NOFITS
008323096-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_MARSHALL—CENT_FEW_DIFFS—HALO_GHOST

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

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

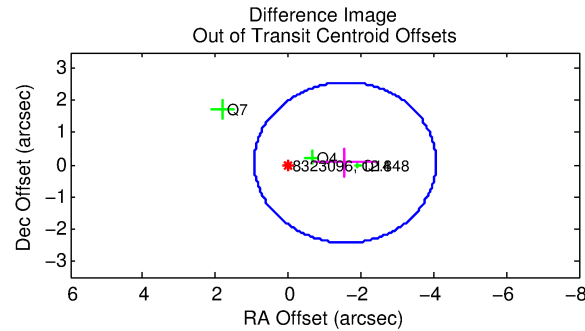
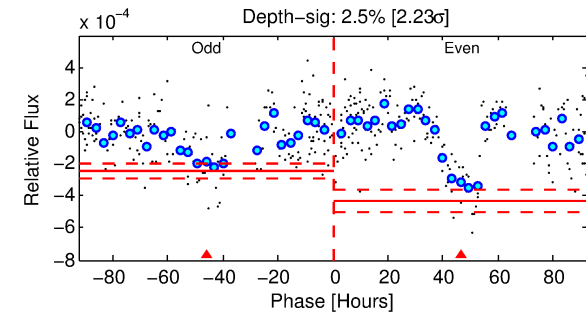
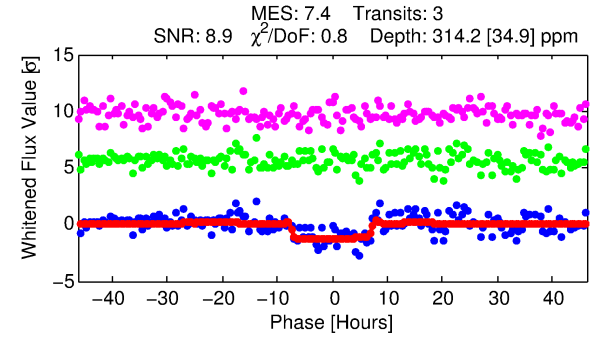
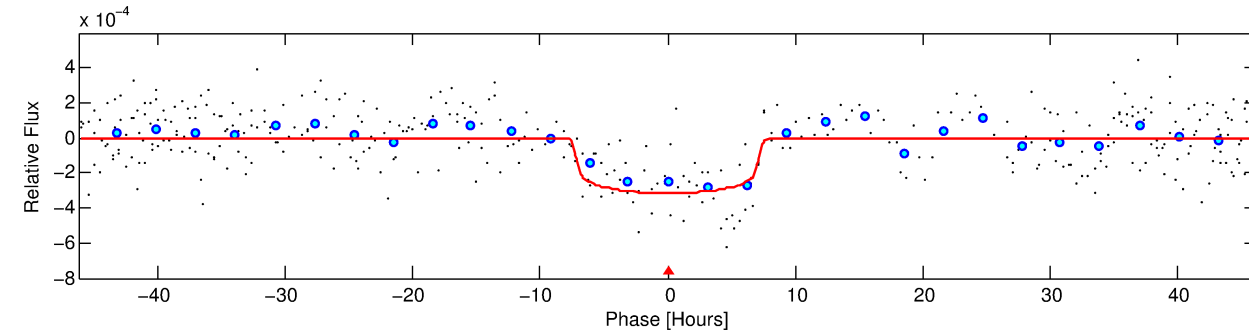
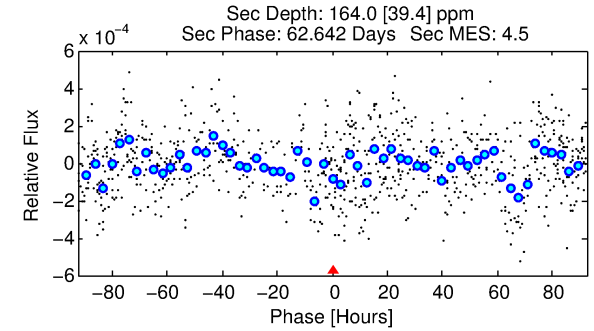
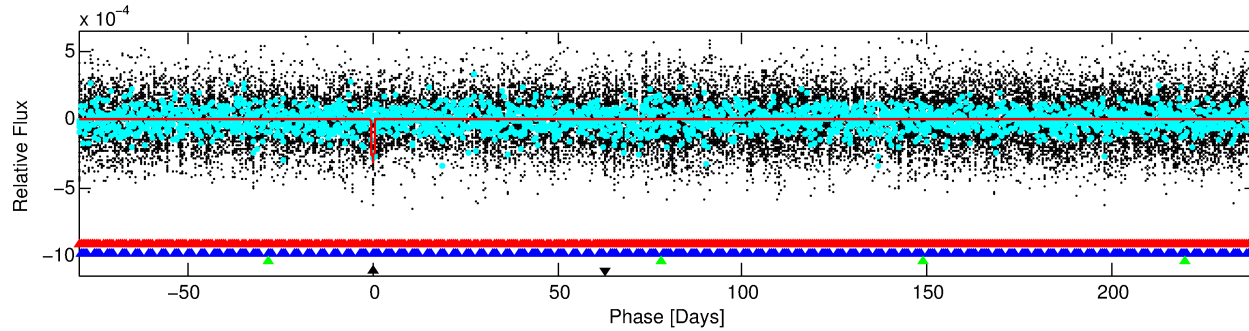
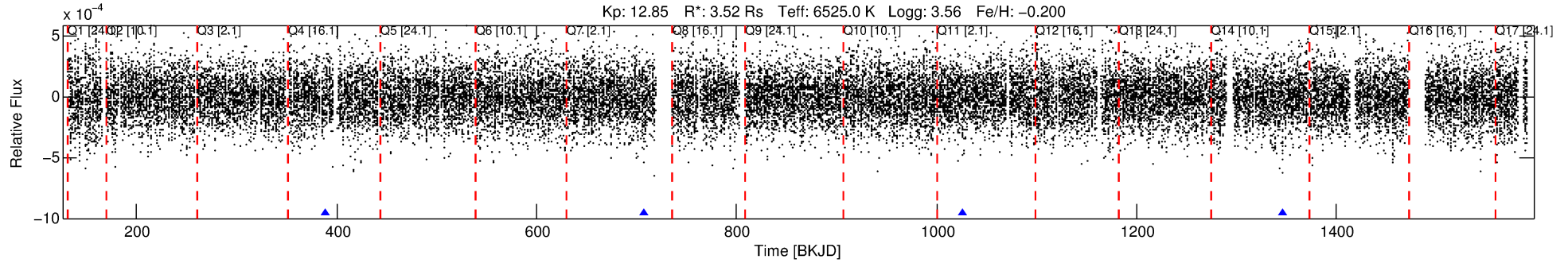
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008323096-04

No Significant Match Found

DV One-Page Summary

KIC: 8323096 Candidate: 4 of 4 Period: 319.234 d



DV Fit Results:

Period = 319.23365 [0.02054] d
Epoch = 388.2122 [0.0431] BKJD
Rp/R* = 0.0184 [0.0024]
a/R* = 86.98 [57.05]
b = 0.86 [0.21]
Seff = 17.21 [10.34]
Teq = 519 [78] K
Rp = 7.08 [3.08] Re
a = 1.0824 [0.4093] AU
Ag = 2105.77 [1446.47] [1.46 σ]
Teffp = 5439 [519] K [9.38 σ]

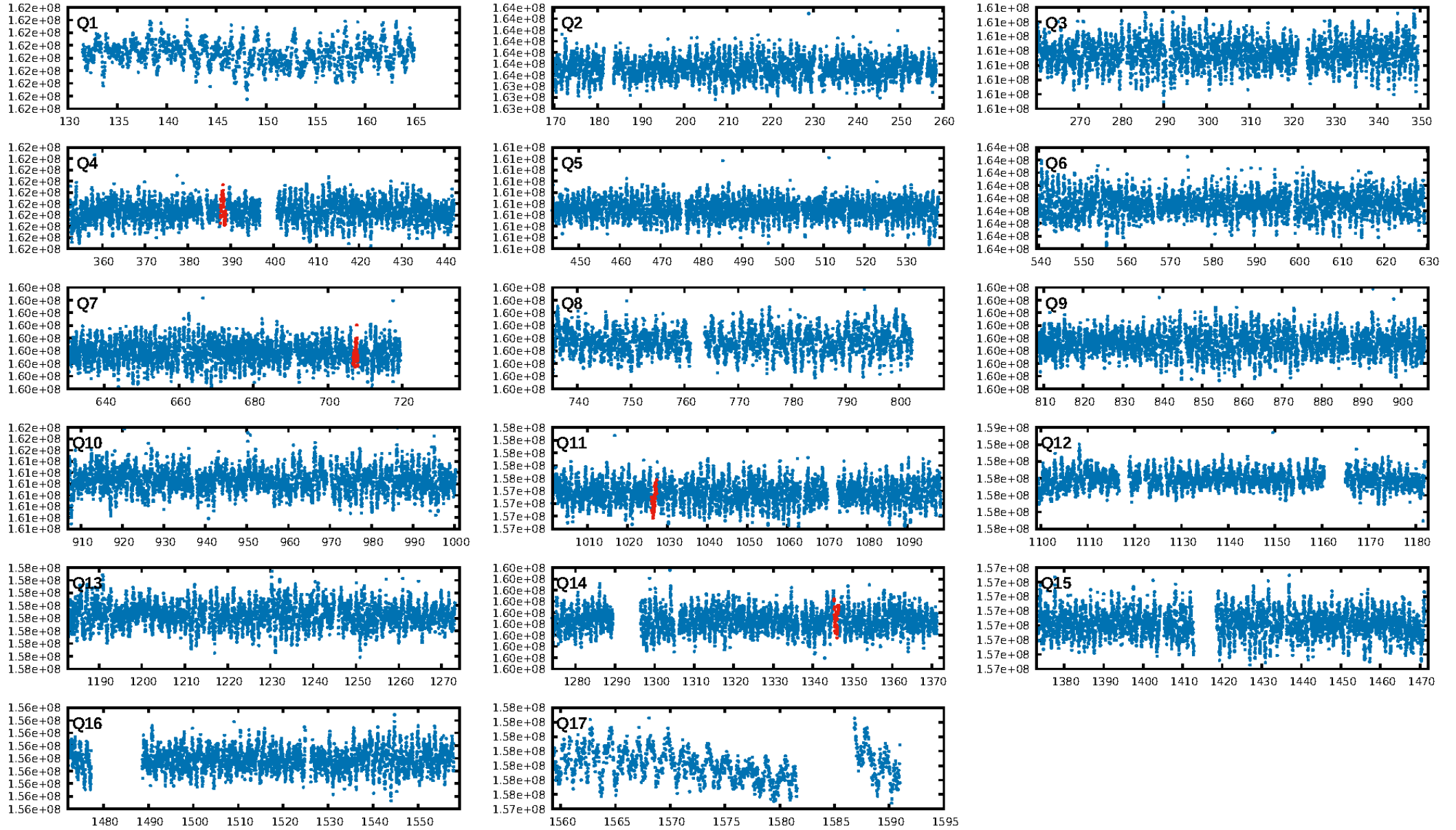
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [472.09 σ]
LongPeriod-sig: 100.0% [94.87 σ]
ModelChiSquare2-sig: 39.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.20e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.01382
Centroid-sig: 22.7%
Centroid-so: 0.903 arcsec [1.04 σ]
OotOffset-rm: 1.567 arcsec [1.88 σ]
KicOffset-rm: 1.521 arcsec [1.78 σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/3]

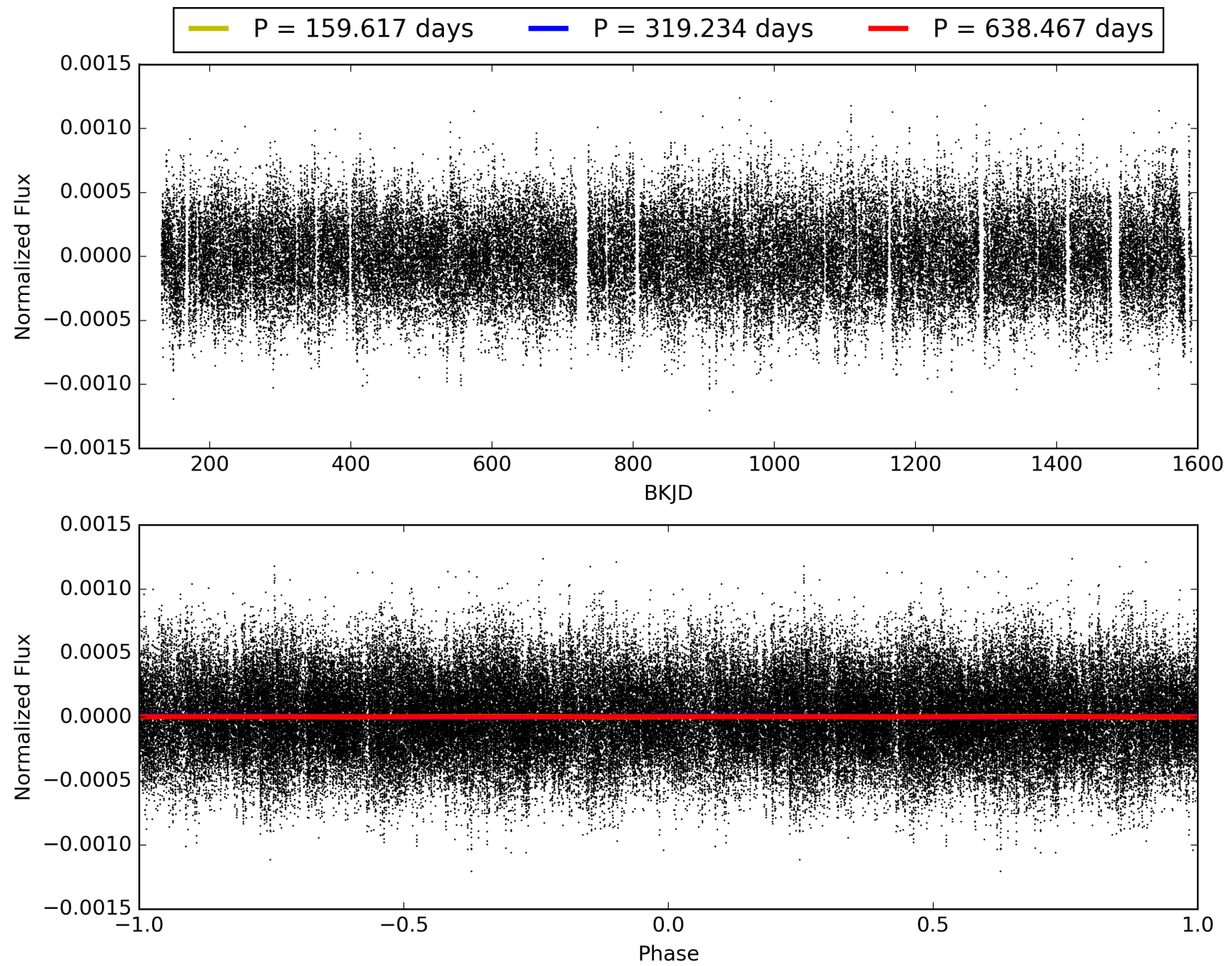
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:14:35 Z

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

TCE 008323096-04, PDC Light Curves

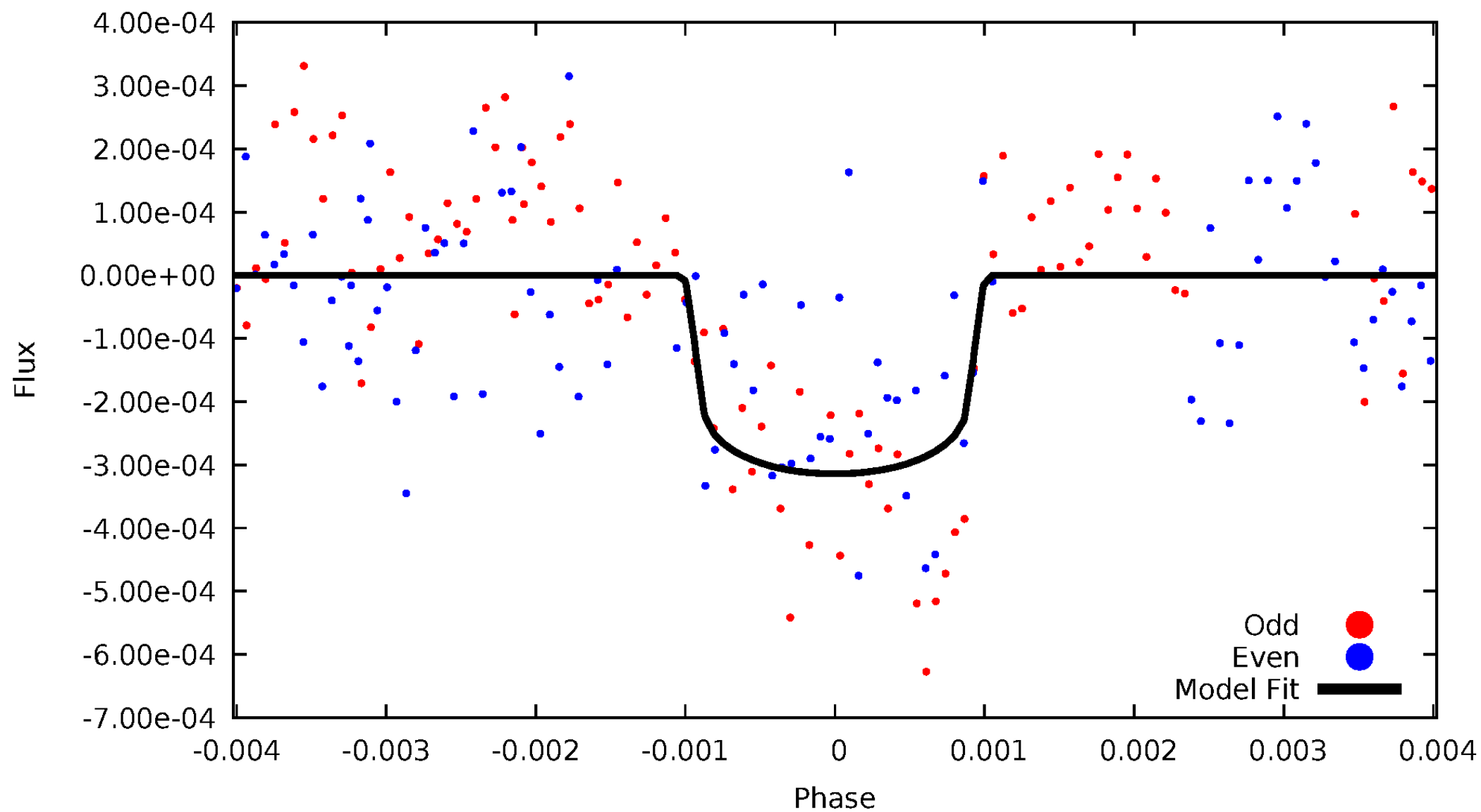


TCE 008323096-04



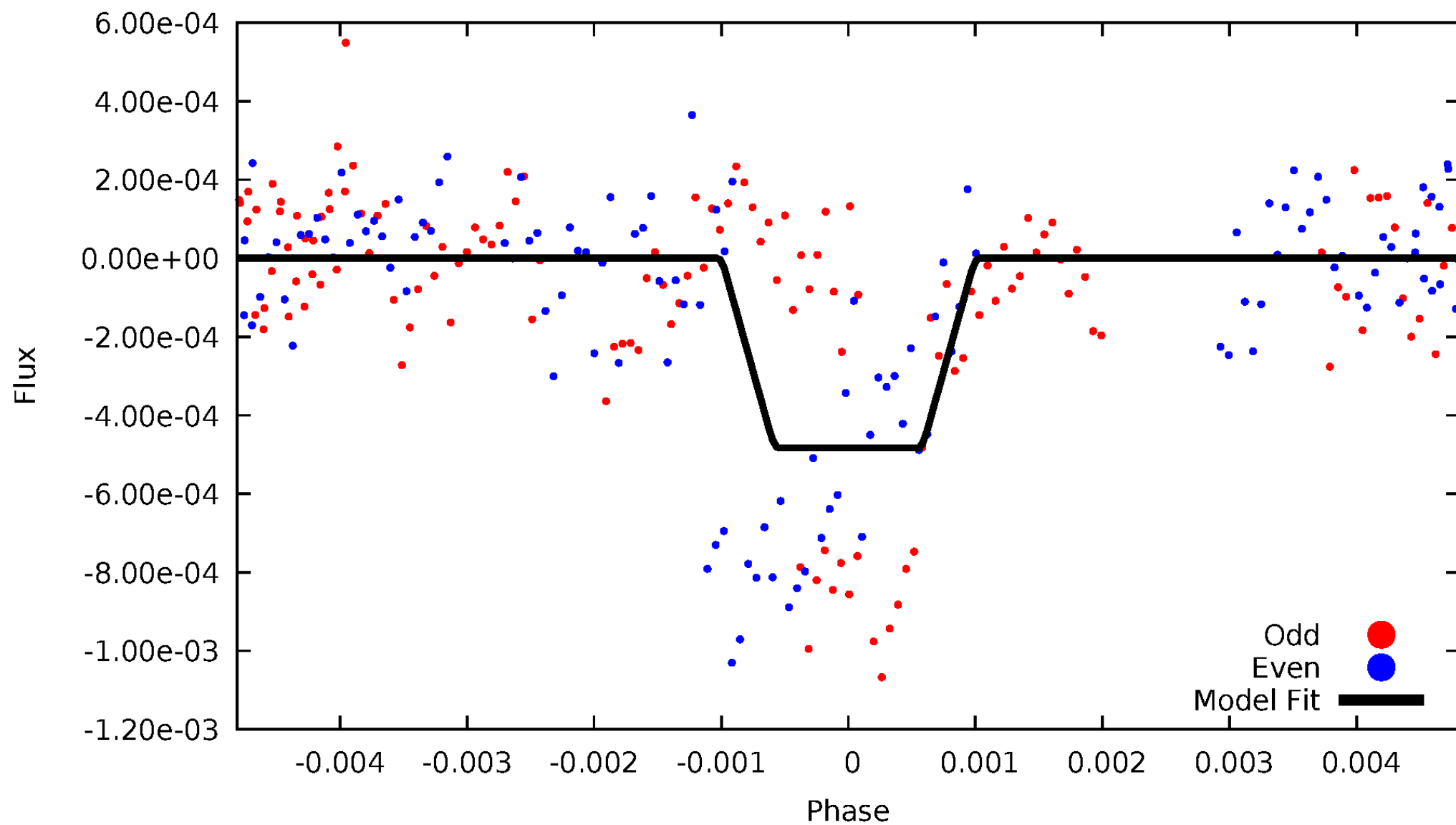
DV Odd/Even

TCE 008323096-04



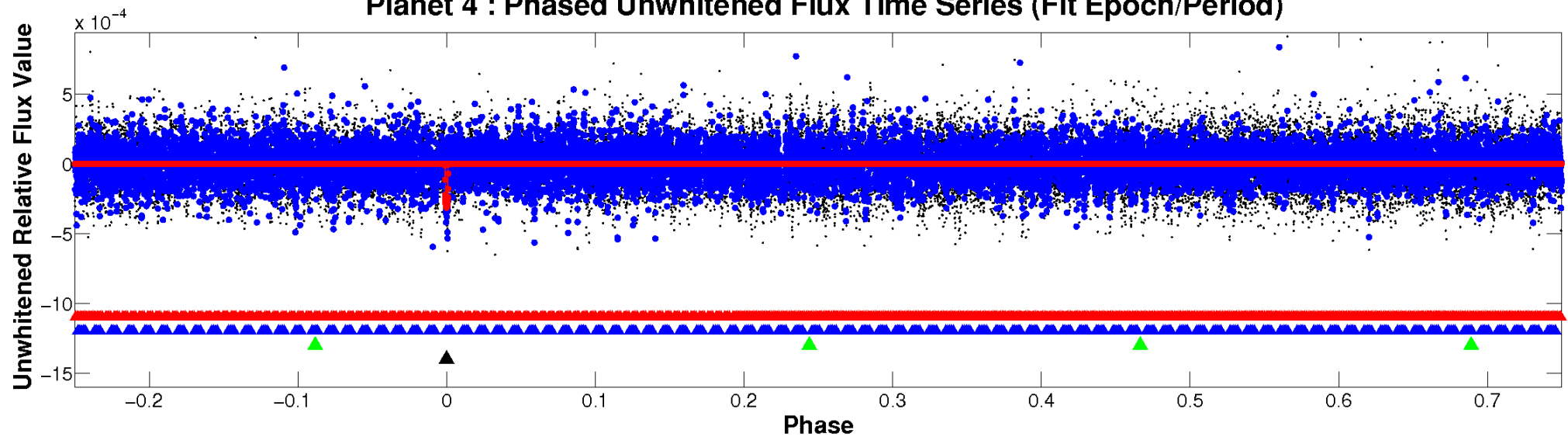
ALT Odd/Even

TCE 008323096-04

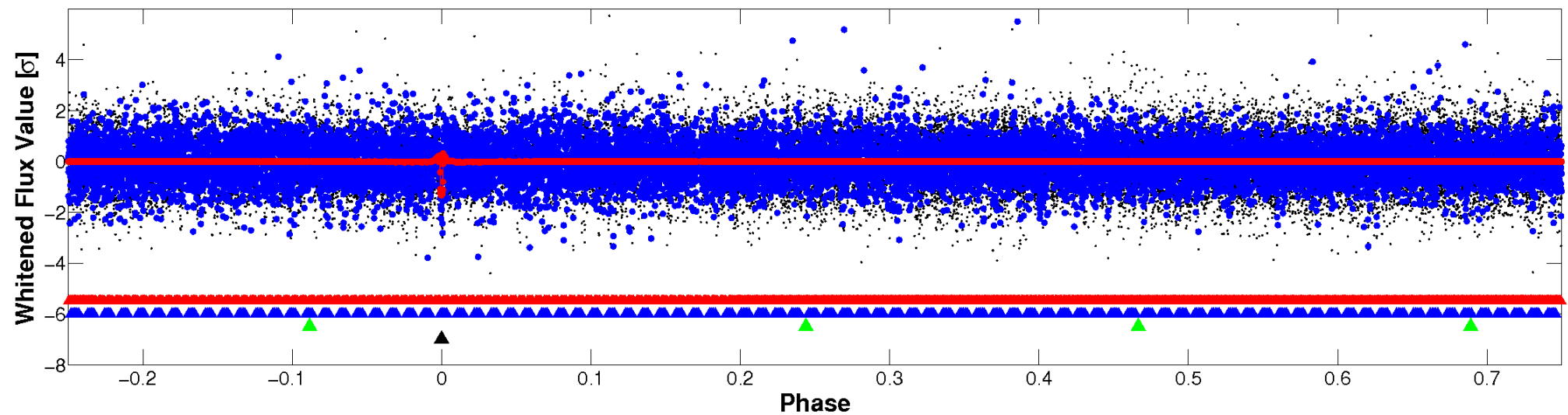


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

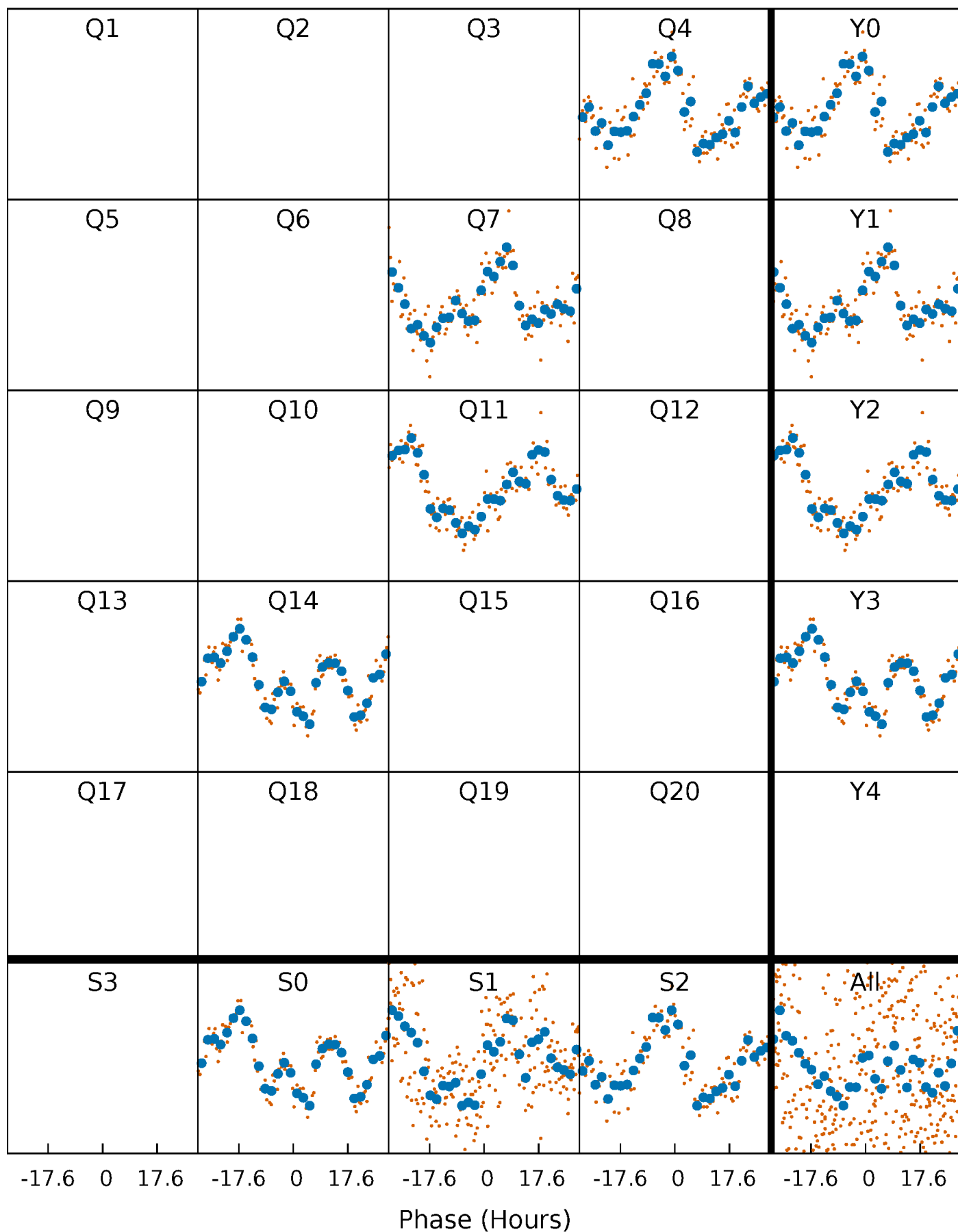


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



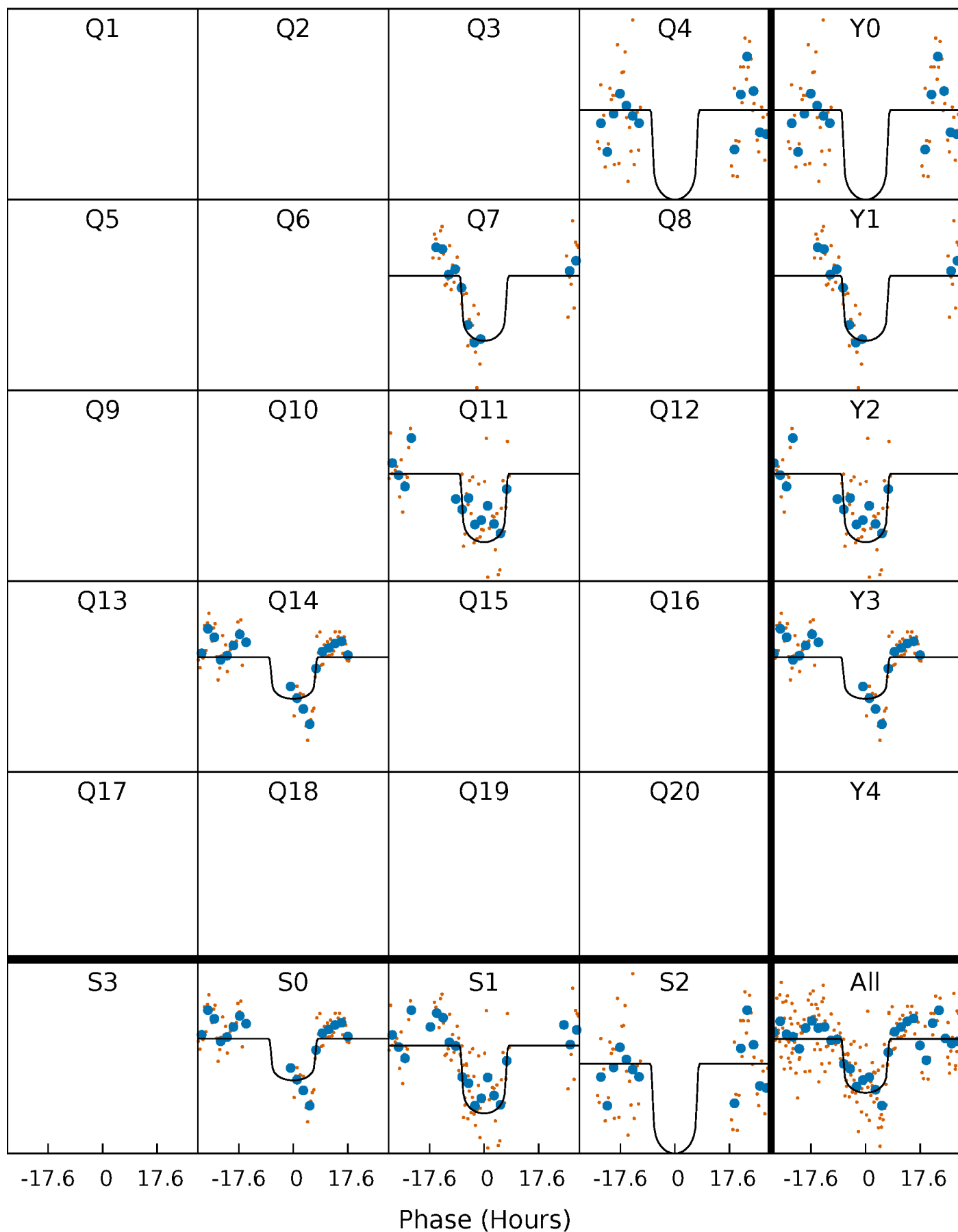
PDC Quarter-Phased Transit Curves

TCE 008323096-04 $P=319.233651$ Days $T_0=388.212163$ (BKJD)



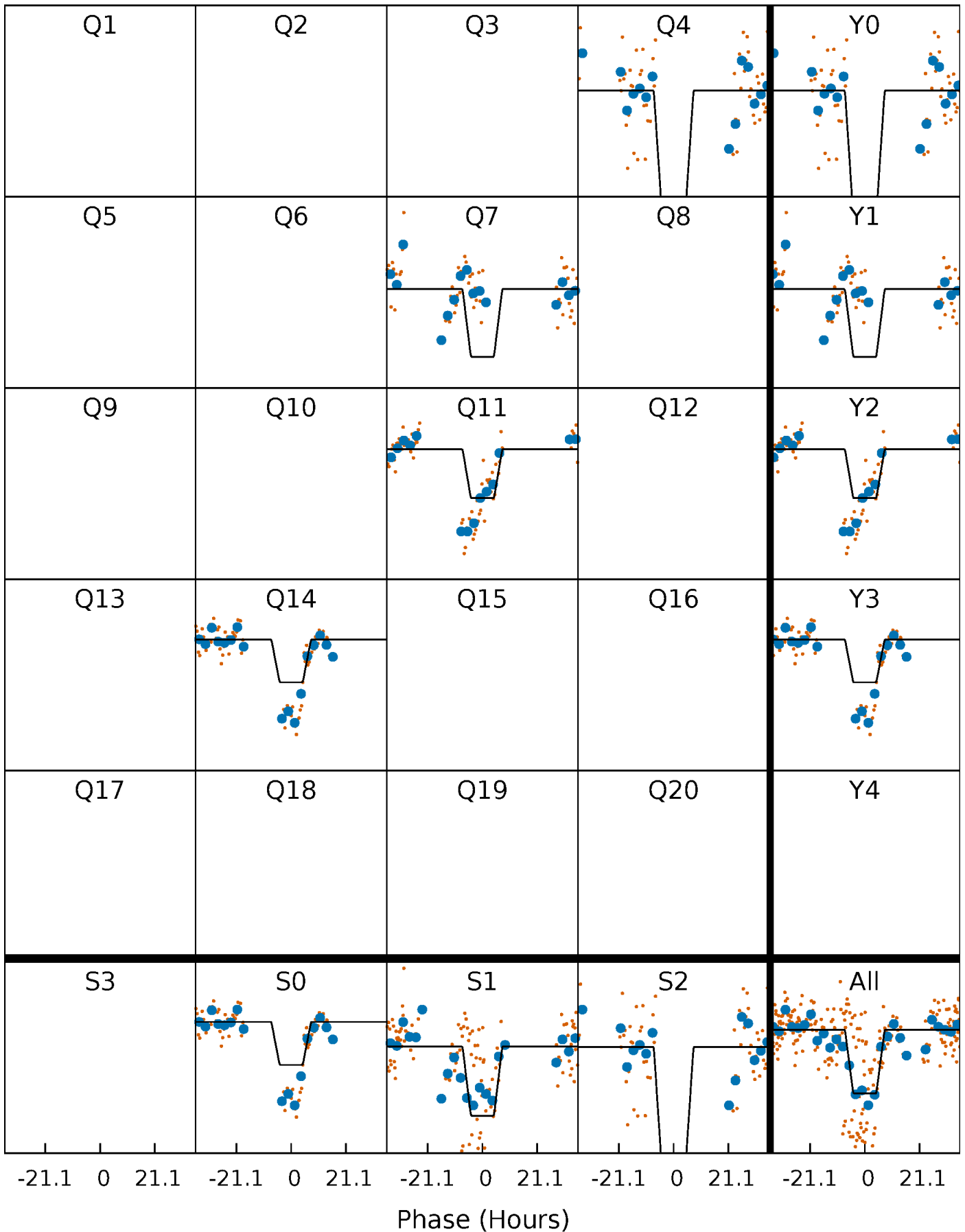
DV Quarter-Phased Transit Curves

TCE 008323096-04 P=319.233651 Days $T_0=388.212163$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

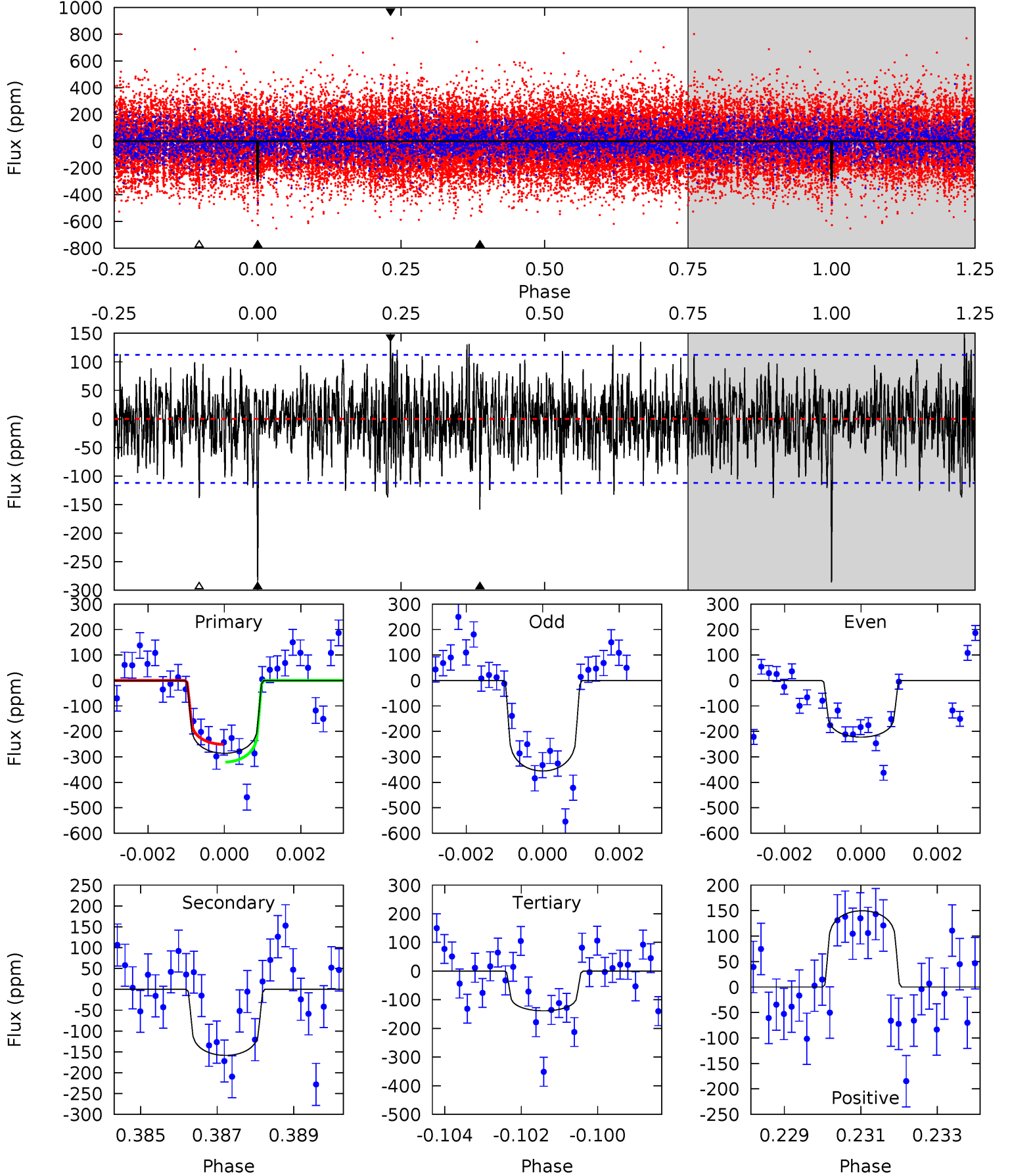
TCE 008323096-04 $P=319.328865$ Days $T_0=388.037515$ (BKJD)



DV Model-Shift Uniqueness Test

008323096-04, P = 319.233651 Days, E = 68.978512 Days

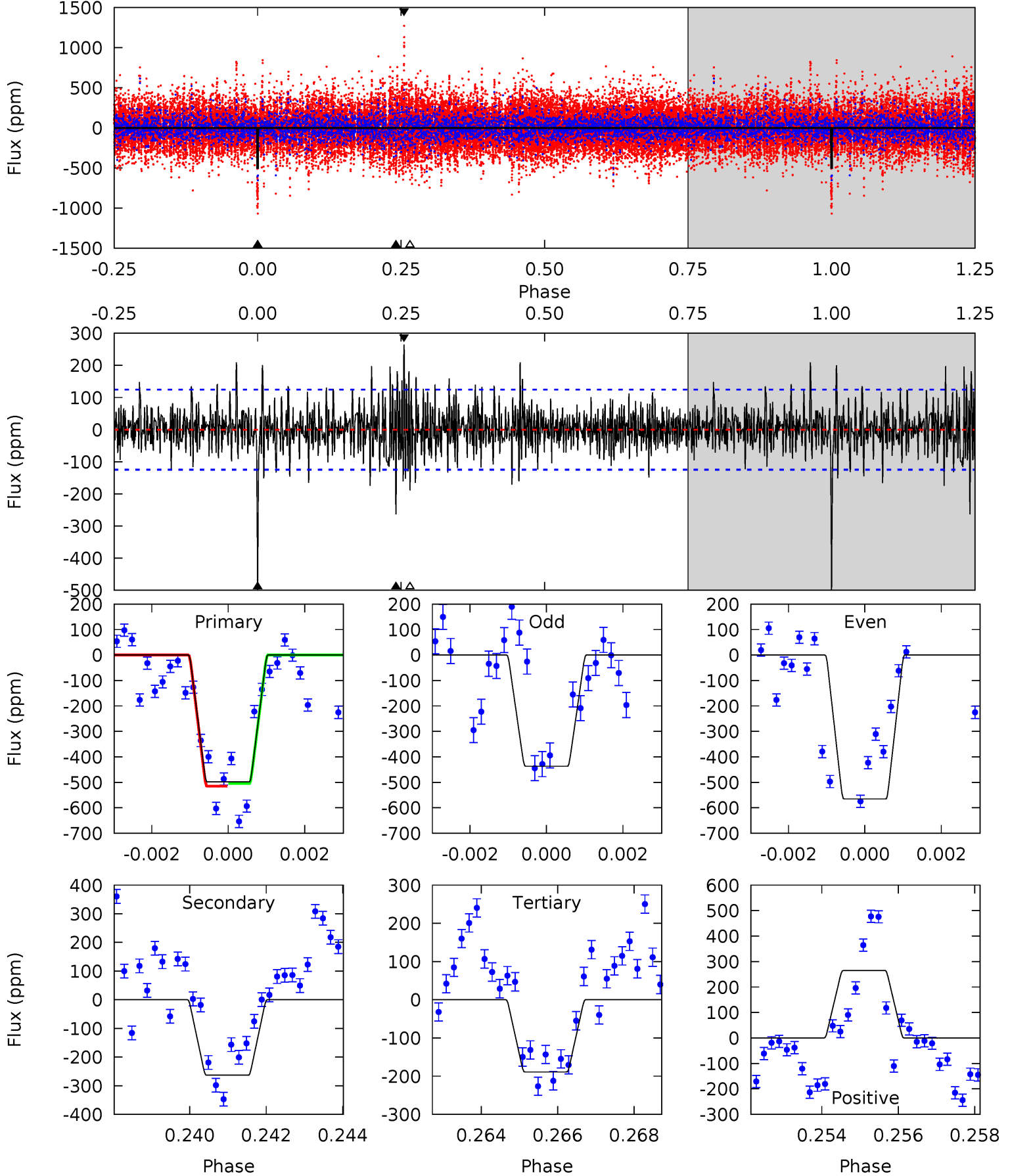
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	7.52	6.57	7.10	5.32	3.08	2.02	7.00	6.47	0.94	0.42	3.15	1.03	0.34	1.65



Alt Model-Shift Uniqueness Test

008323096-04, P = 319.328865 Days, E = 68.708650 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.3	11.2	8.07	11.3	5.33	3.09	2.24	13.2	9.98	3.18	-0.06	2.77	0.40	0.35	0.24



Stellar Parameters For KIC 008323096

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6525^{+176}_{-215}	$3.564^{+0.337}_{-0.090}$	$-0.200^{+0.300}_{-0.250}$	$3.523^{+0.364}_{-1.458}$	$1.658^{+0.200}_{-0.372}$	$0.053^{+0.159}_{-0.015}$
	+3%/-3%	+9%/-3%	+150%/-125%	+10%/-41%	+12%/-22%	+297%/-28%
Source	PHO1	FLK73	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 008323096-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-158 ± 21	$6.87^{+1.39}_{-1.60}$	719^{+39}_{-69}	5409^{+432}_{-349}	2223^{+1315}_{-717}
Alt.	-263 ± 23	$8.06^{+1.48}_{-1.64}$	714^{+35}_{-71}	5577^{+393}_{-286}	2612^{+1388}_{-700}

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 $A_{obs} \gg 1.0$

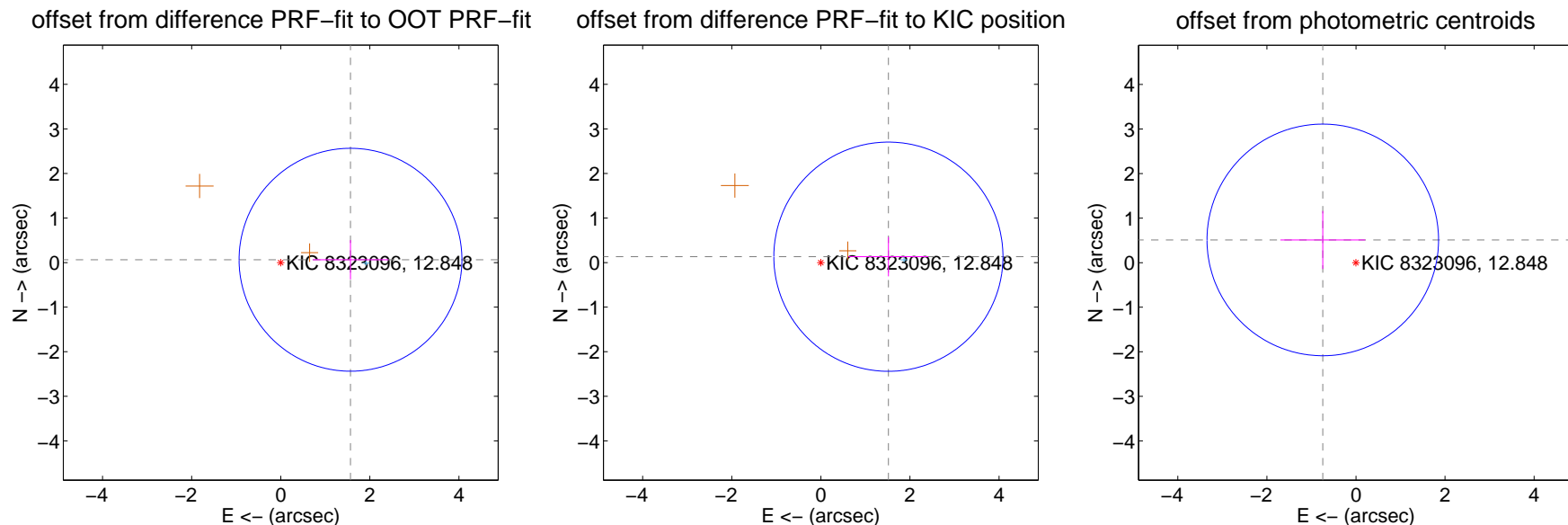
DV Centroid Data

Supplemental centroid analysis for 008323096-04. Kepler magnitude: 12.85. Transit SNR 8.95

There are 1 quarters with good PRF difference image offsets

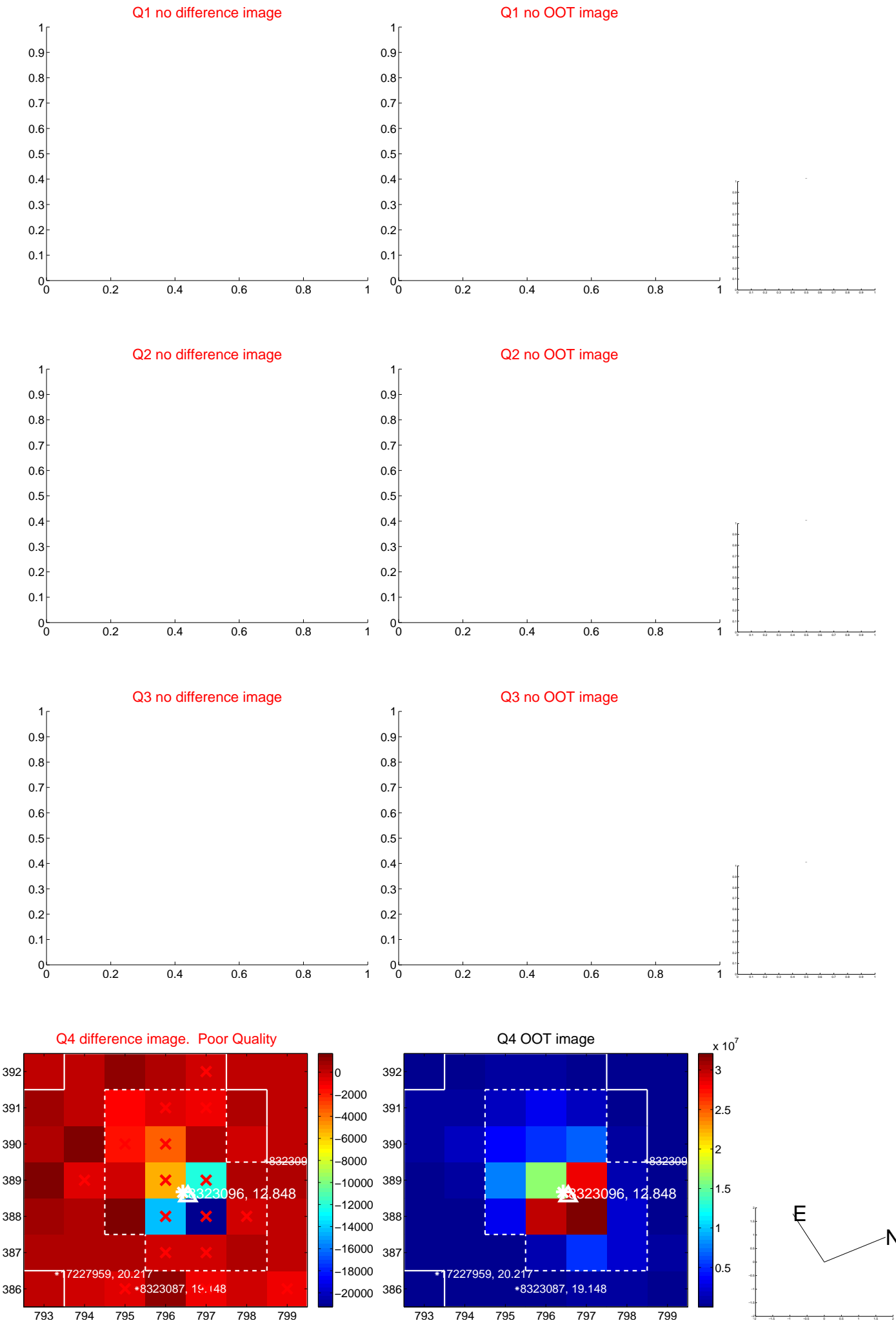
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.567 ± 0.833	1.88	-1.565 ± 0.851	0.064 ± 0.442
PRF-fit source offset from KIC position	1.521 ± 0.857	1.78	-1.515 ± 0.898	0.132 ± 0.441
photometric centroid source offset	0.90 ± 0.87	1.04	0.74 ± 0.95	0.51 ± 0.65



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



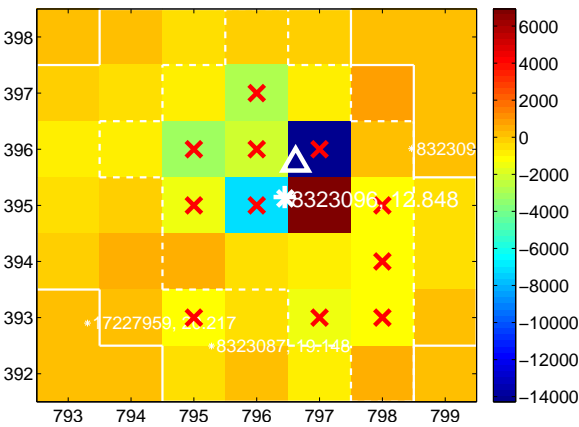
Q6 no difference image



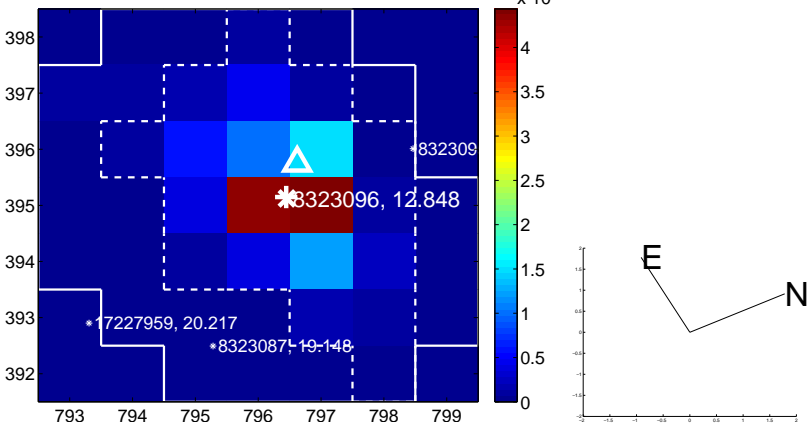
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



Q8 no difference image



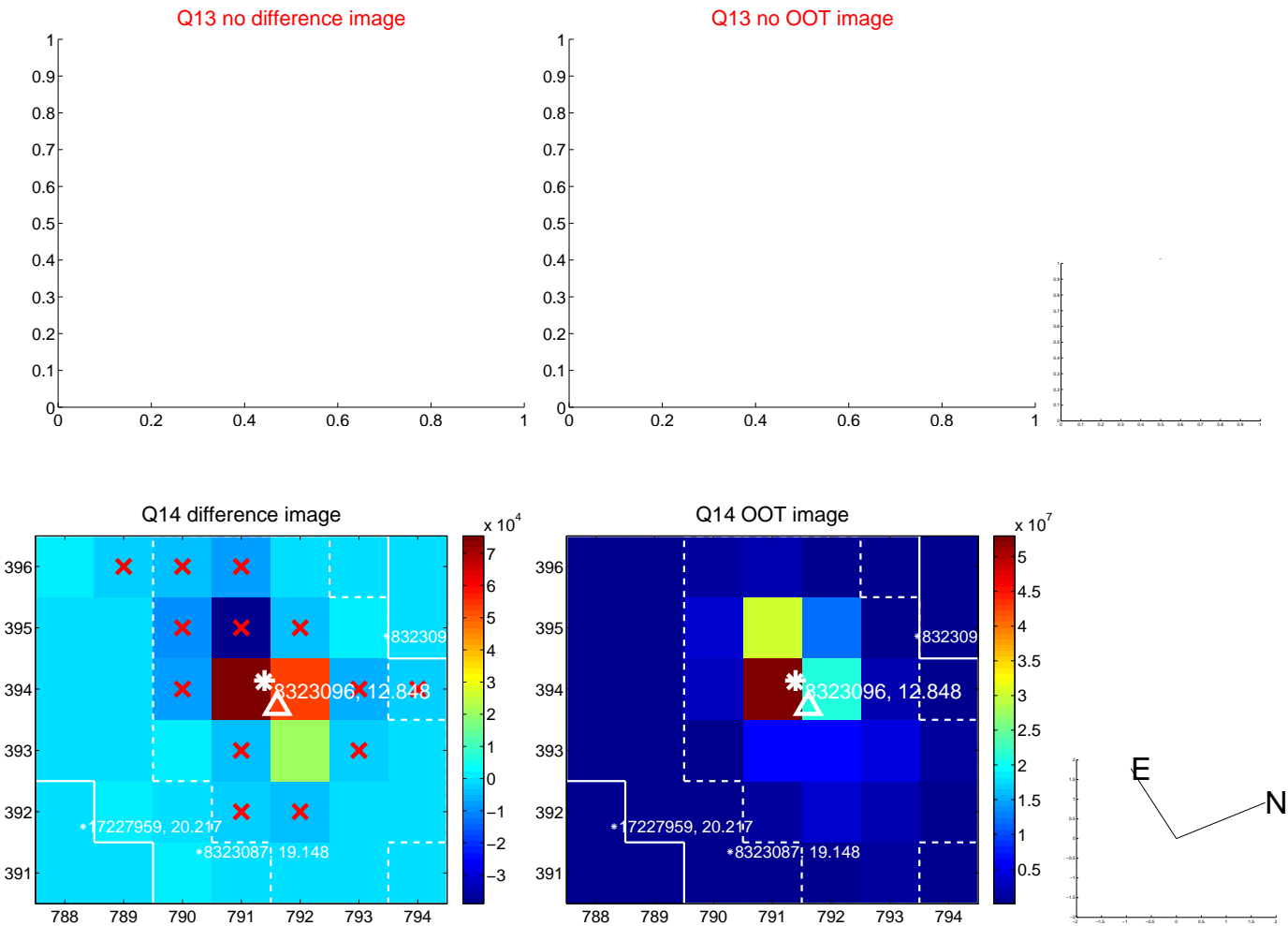
Q8 no OOT image



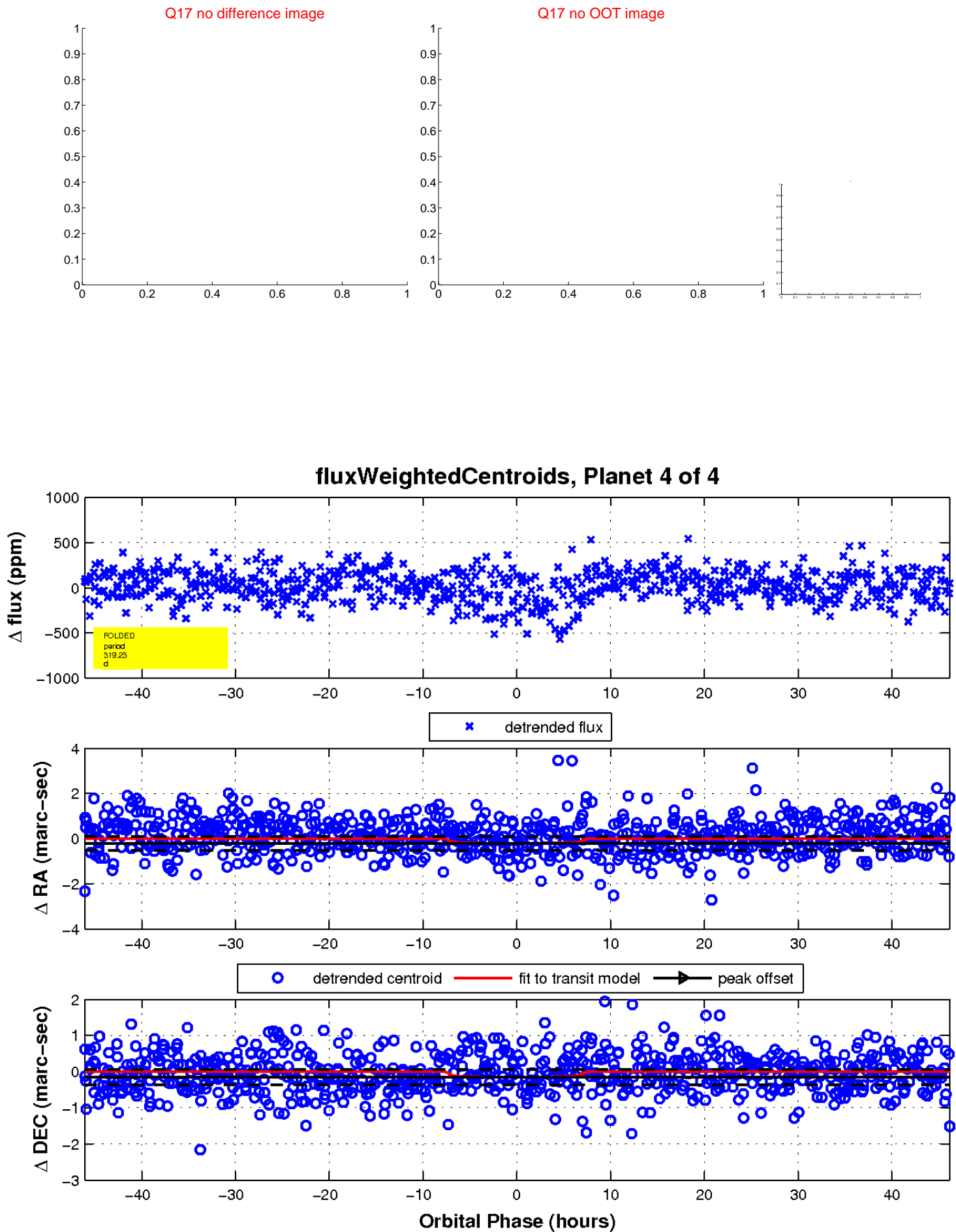
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

