

KIC 005306862

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})
005306862-01	OBS	6561.01	2.025586	131.862225	42345.7	4.244	3670.7	2930.8	1.99	6348	41.41	4619.66
005306862-02	OBS	No	2.025569	132.880034	225.5	3.920	19.2	22.0	1.99	6348	3.51	4619.71
005306862-03	OBS	No	2.029875	131.709110	243.4	2.000	7.8	-1.0	1.99	6348	3.12	4606.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005306862-01	OBS	FP	0.00	0	1	0	0	HAS_SEC_TCE
005306862-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005306862-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_NOFITS

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.

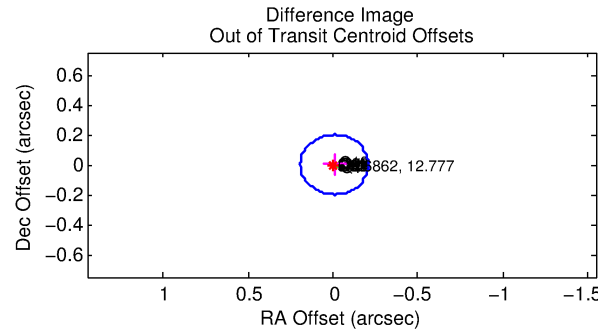
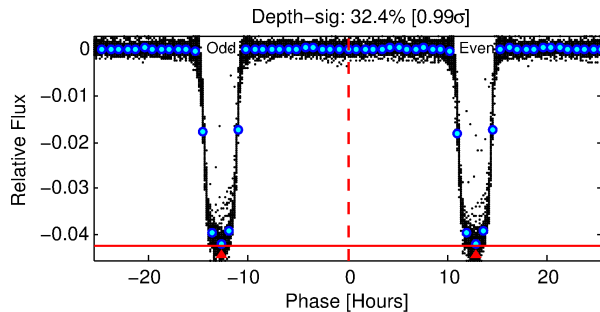
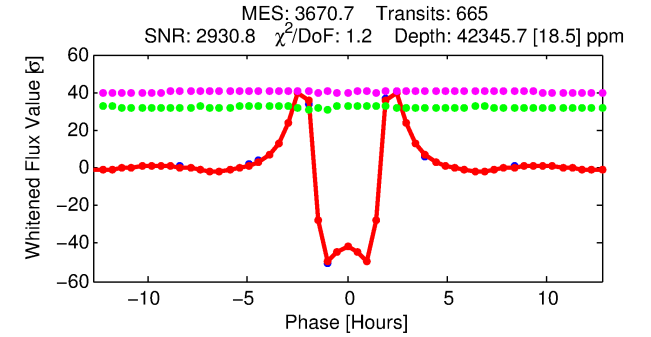
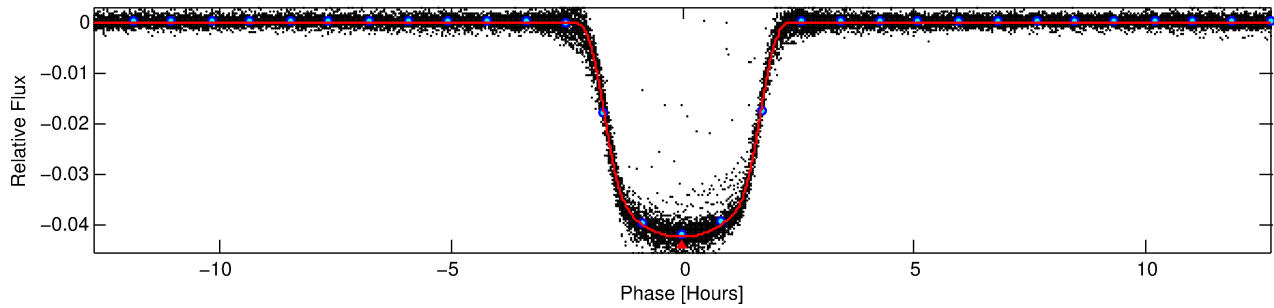
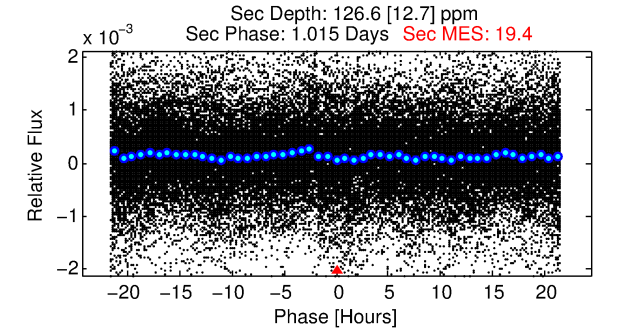
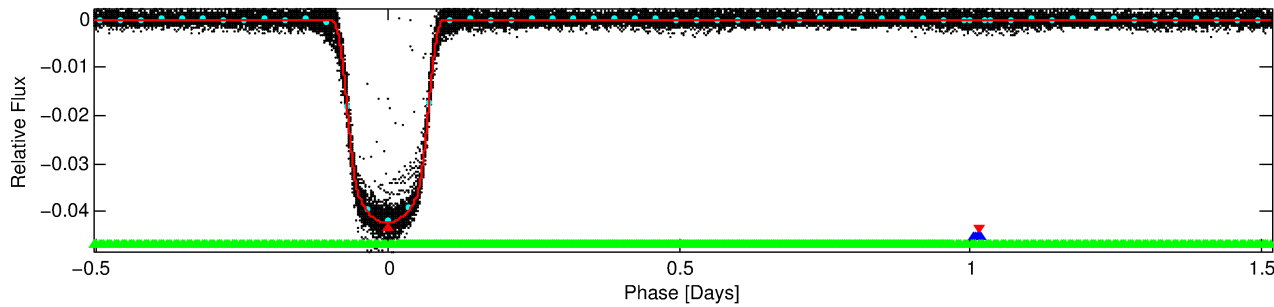
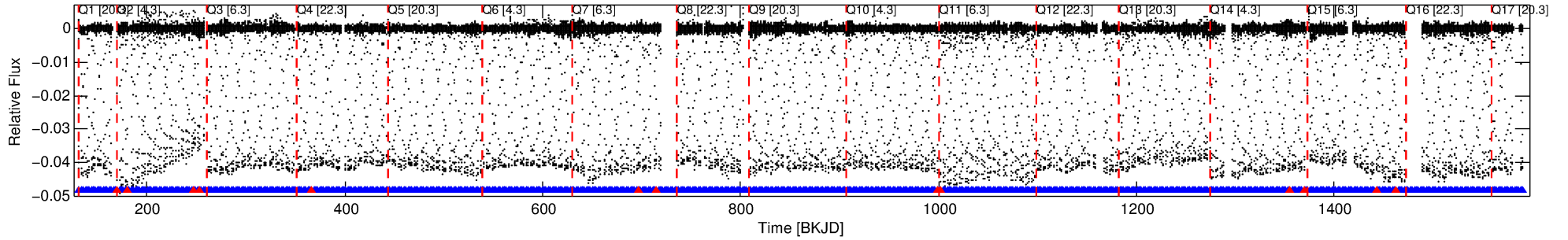
Ephemeris Match Information For 005306862-01

No Significant Match Found

DV One-Page Summary

KIC: 5306862 Candidate: 1 of 3 Period: 2.026 d
KOI: K06561.01 Corr: 0.989

Kp: 12.78 R*: 1.99 Rs Teff: 6348.0 K Logg: 4.00 Fe/H: 0.120



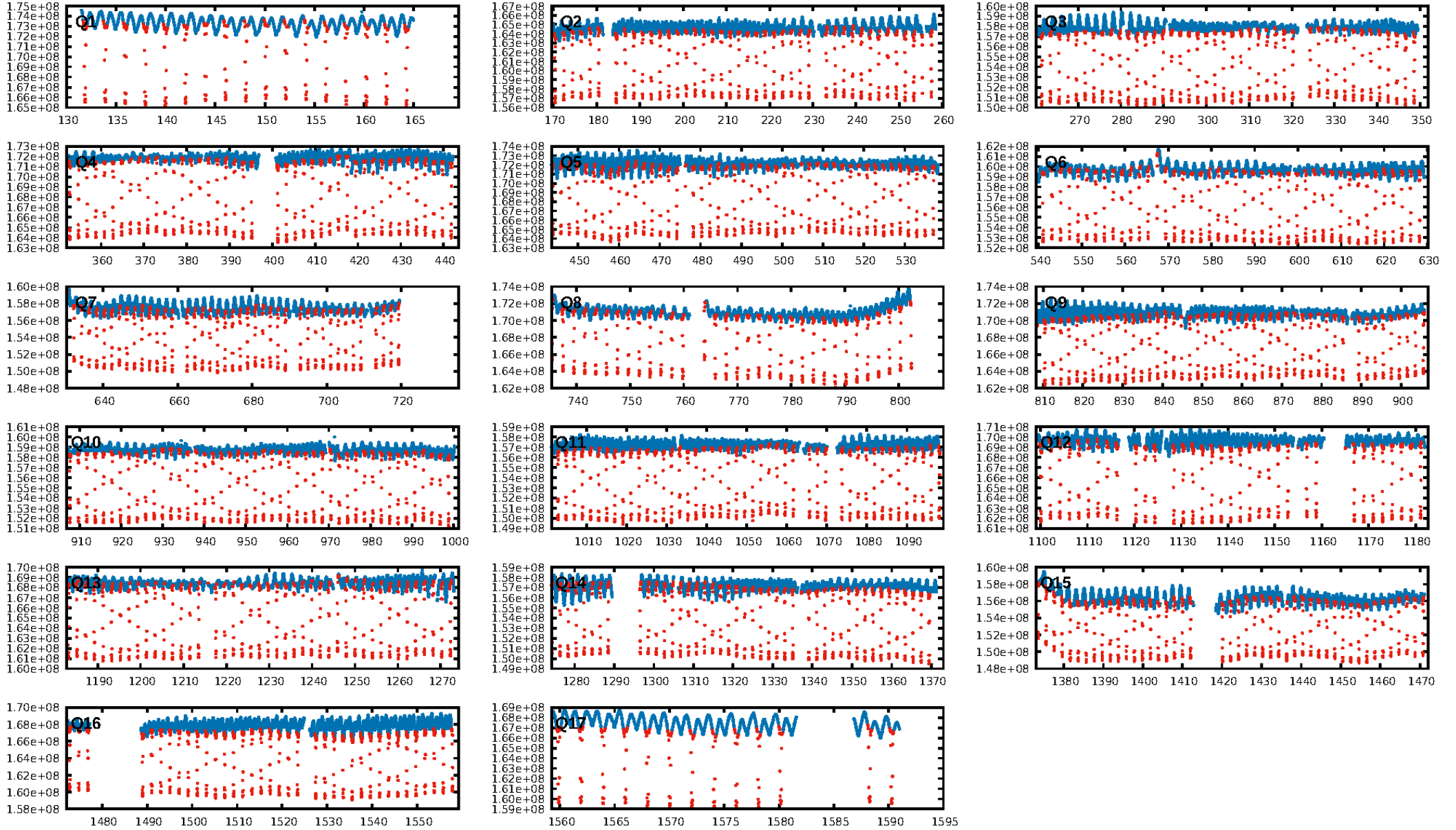
DV Fit Results:

Period = 2.02559 [0.00000] d
Epoch = 131.8622 [0.0000] BKJD
Rp/R* = 0.1907 [0.0001]
a/R* = 4.29 [0.00]
b = 0.28 [0.00]
Seff = 4619.66 [2504.52]
Teq = 2102 [285] K
Rp = 41.41 [14.71] Re
a = 0.0353 [0.0118] AU
Ag = 0.05 [0.03] [-34.98σ]
Teffp = 1542 [64] K [-1.92σ]

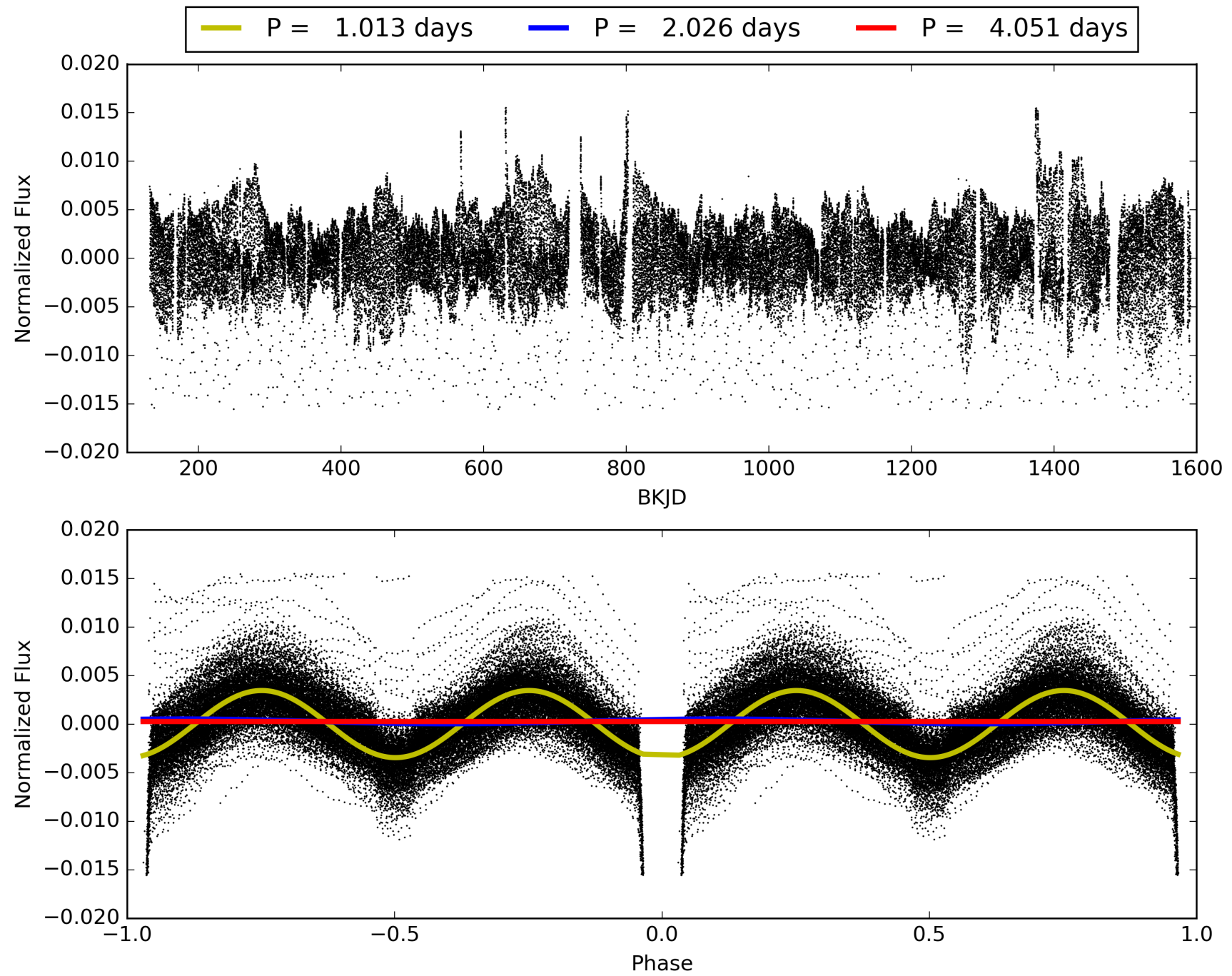
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 1.8% [0.02σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [622/635]
GhostDiagnostic-chr: 2.167
Centroid-sig: N/A
Centroid-so: 0.055 arcsec [50.95σ]
OotOffset-rm: 0.007 arcsec [0.11σ]
KicOffset-rm: 0.071 arcsec [1.03σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.47 [8/17]

TCE 005306862-01, PDC Light Curves

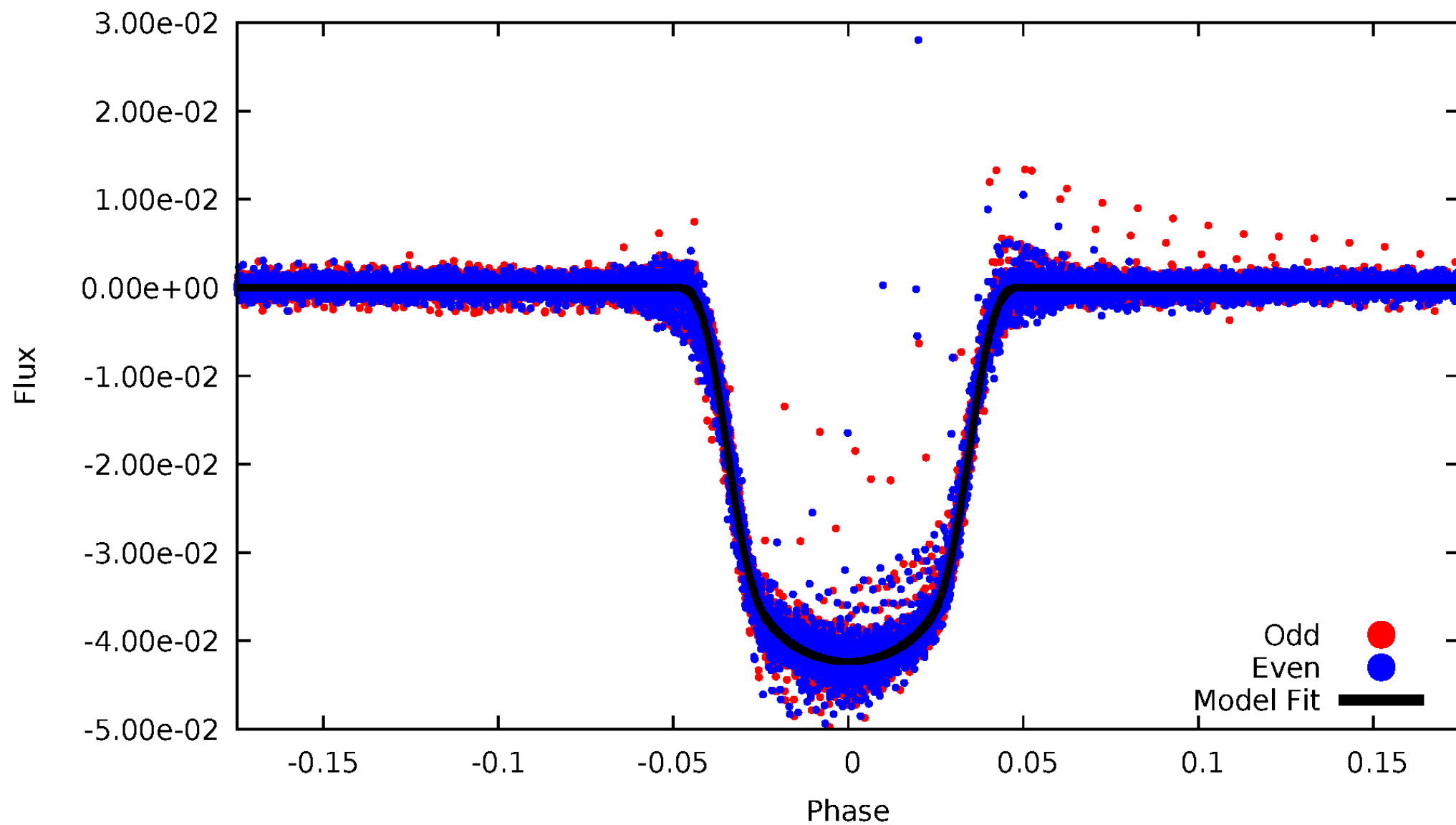


TCE 005306862-01



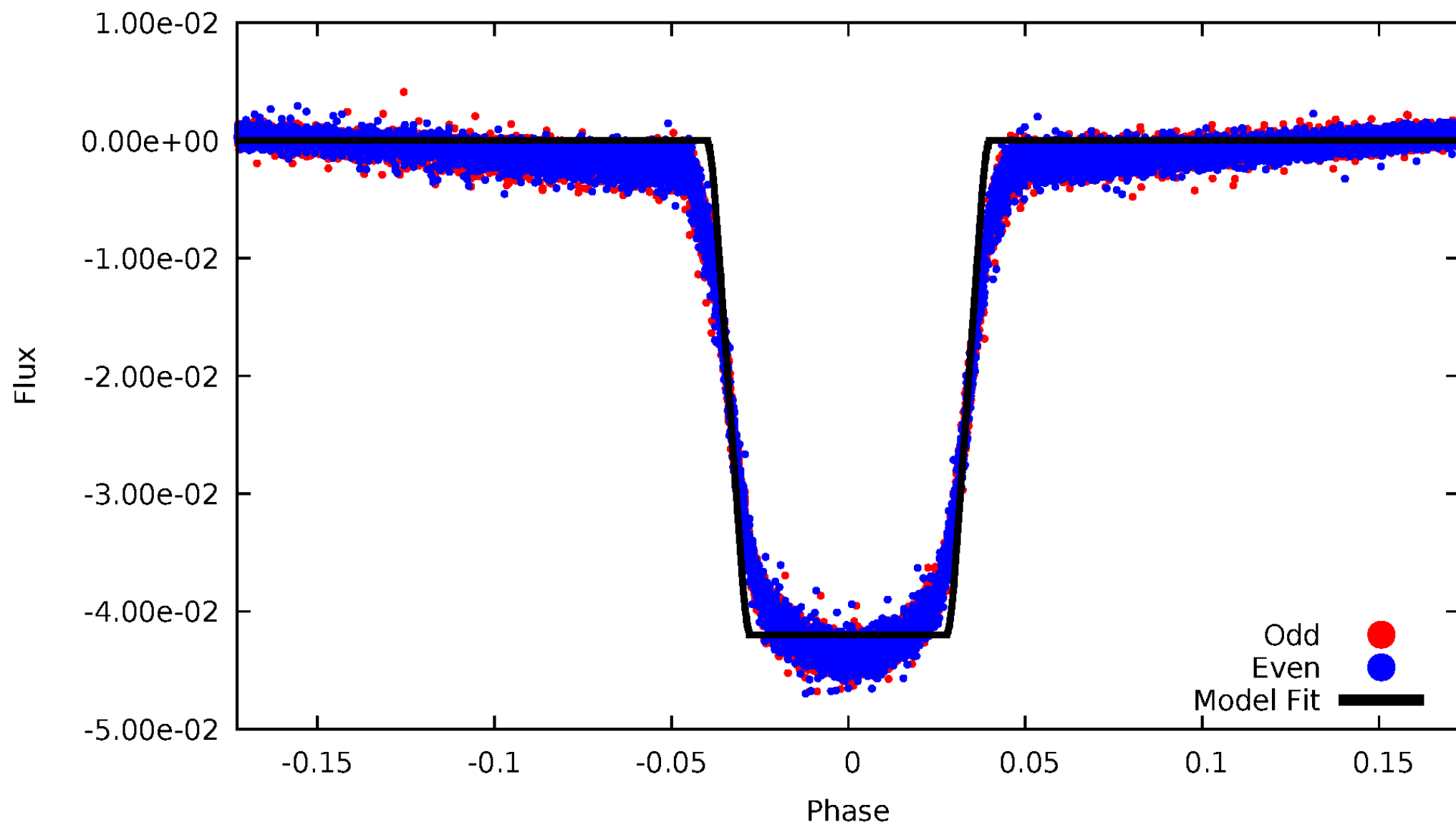
DV Odd/Even

TCE 005306862-01



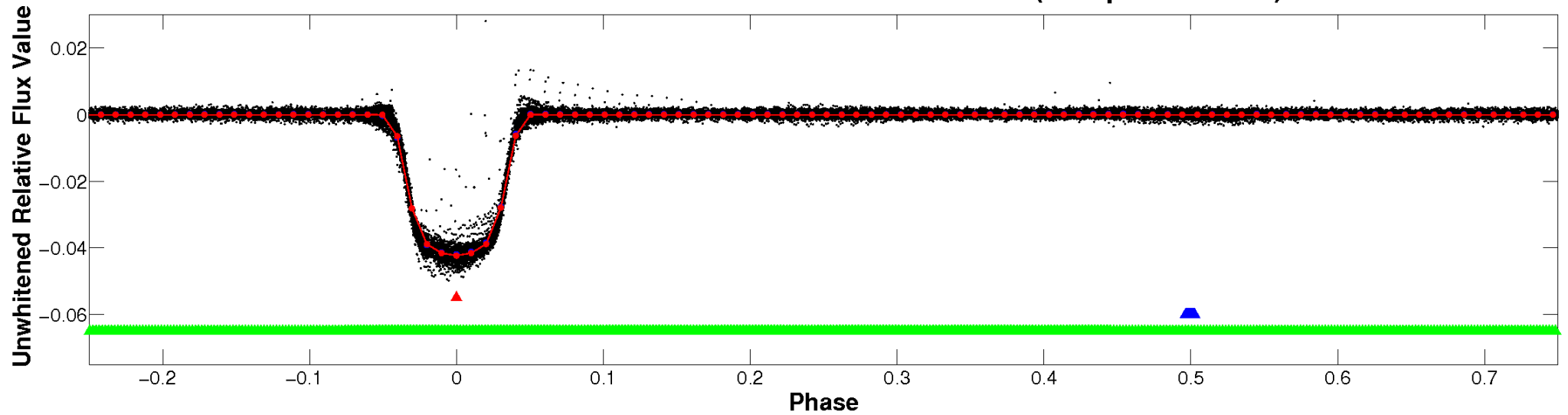
ALT Odd/Even

TCE 005306862-01

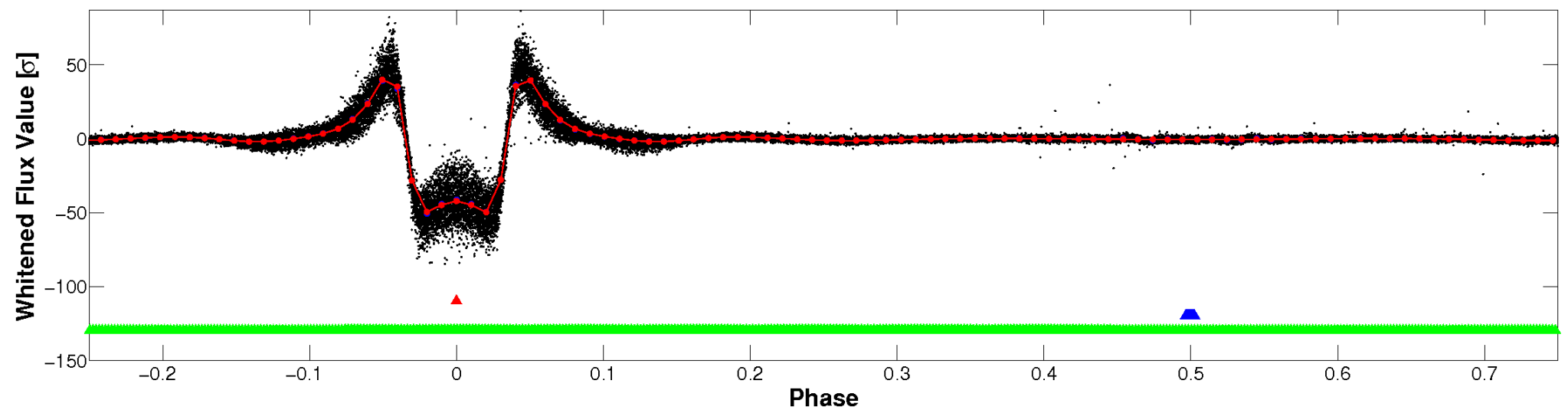


Non-Whitened Vs. Whitened Light Curve

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

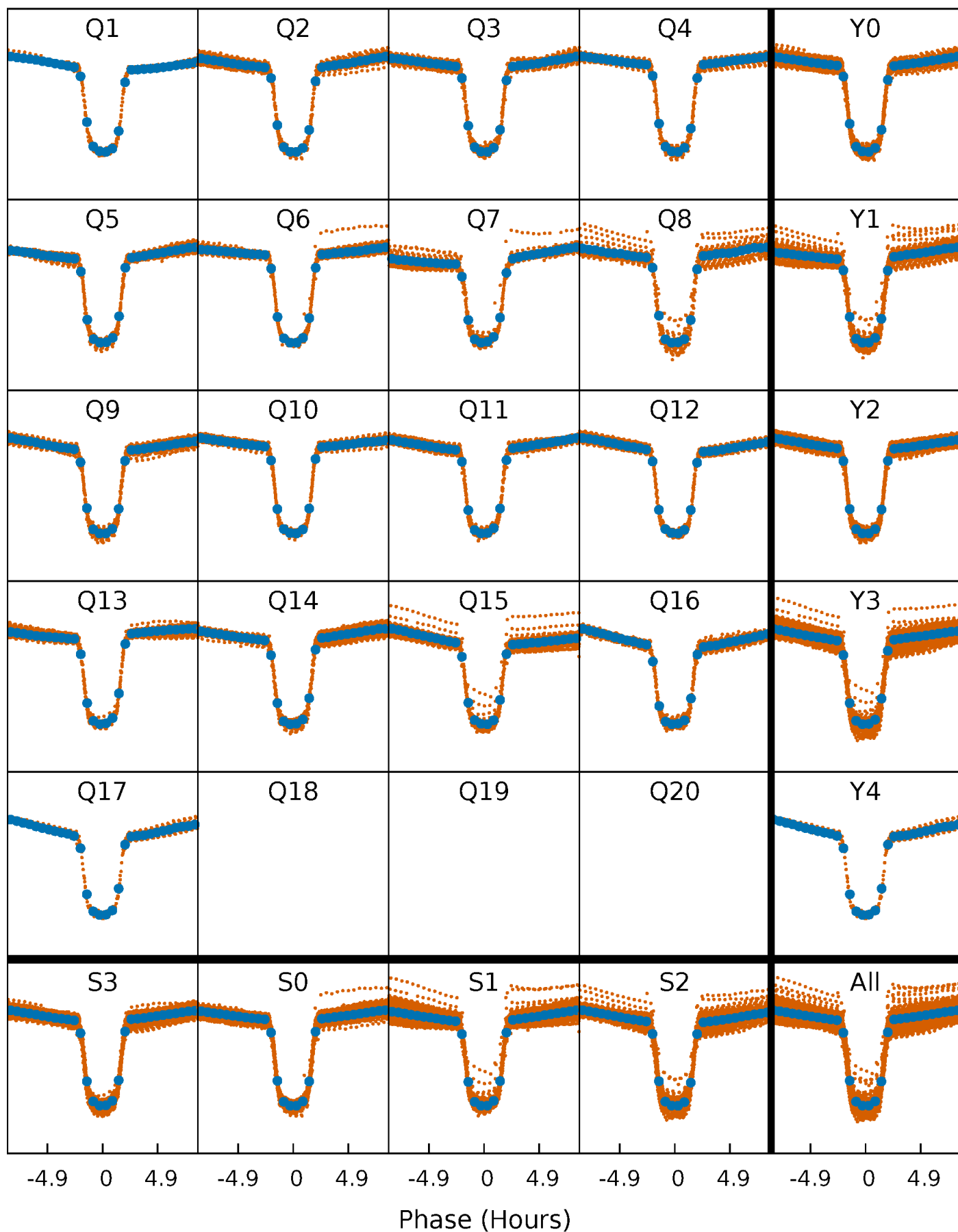


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



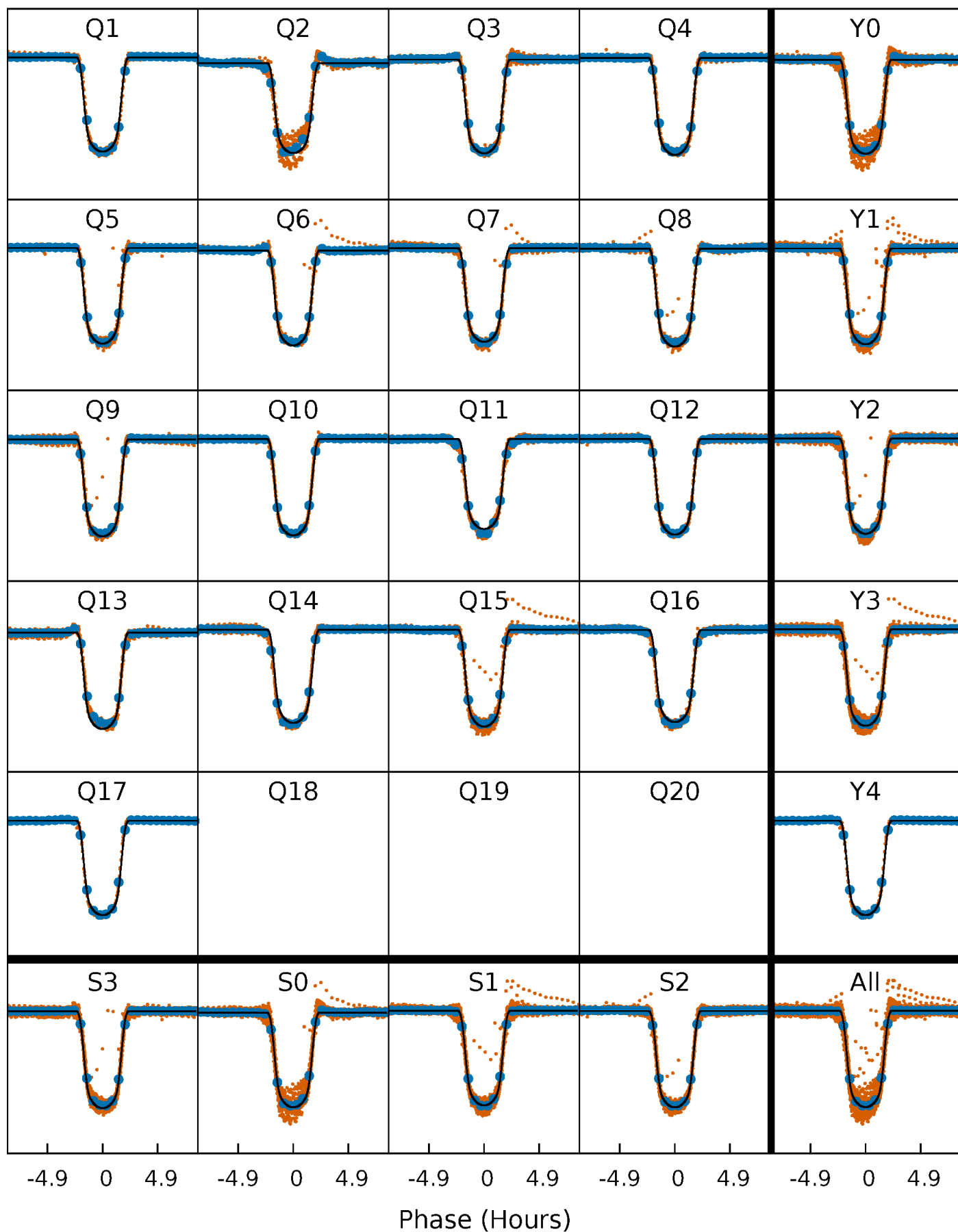
PDC Quarter-Phased Transit Curves

TCE 005306862-01 P= 2.025586 Days $T_0=131.862225$ (BKJD)



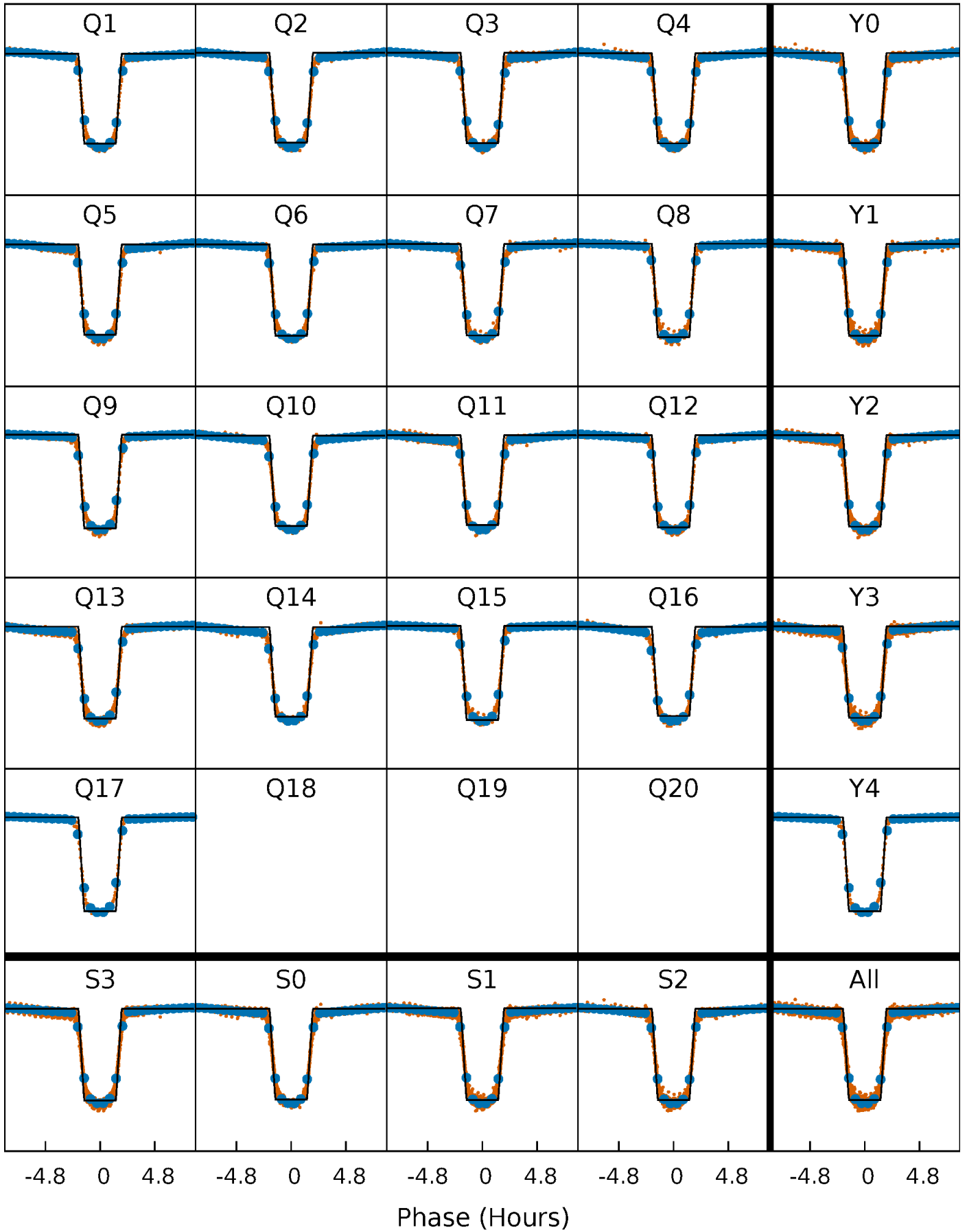
DV Quarter-Phased Transit Curves

TCE 005306862-01 P= 2.025586 Days $T_0=131.862225$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

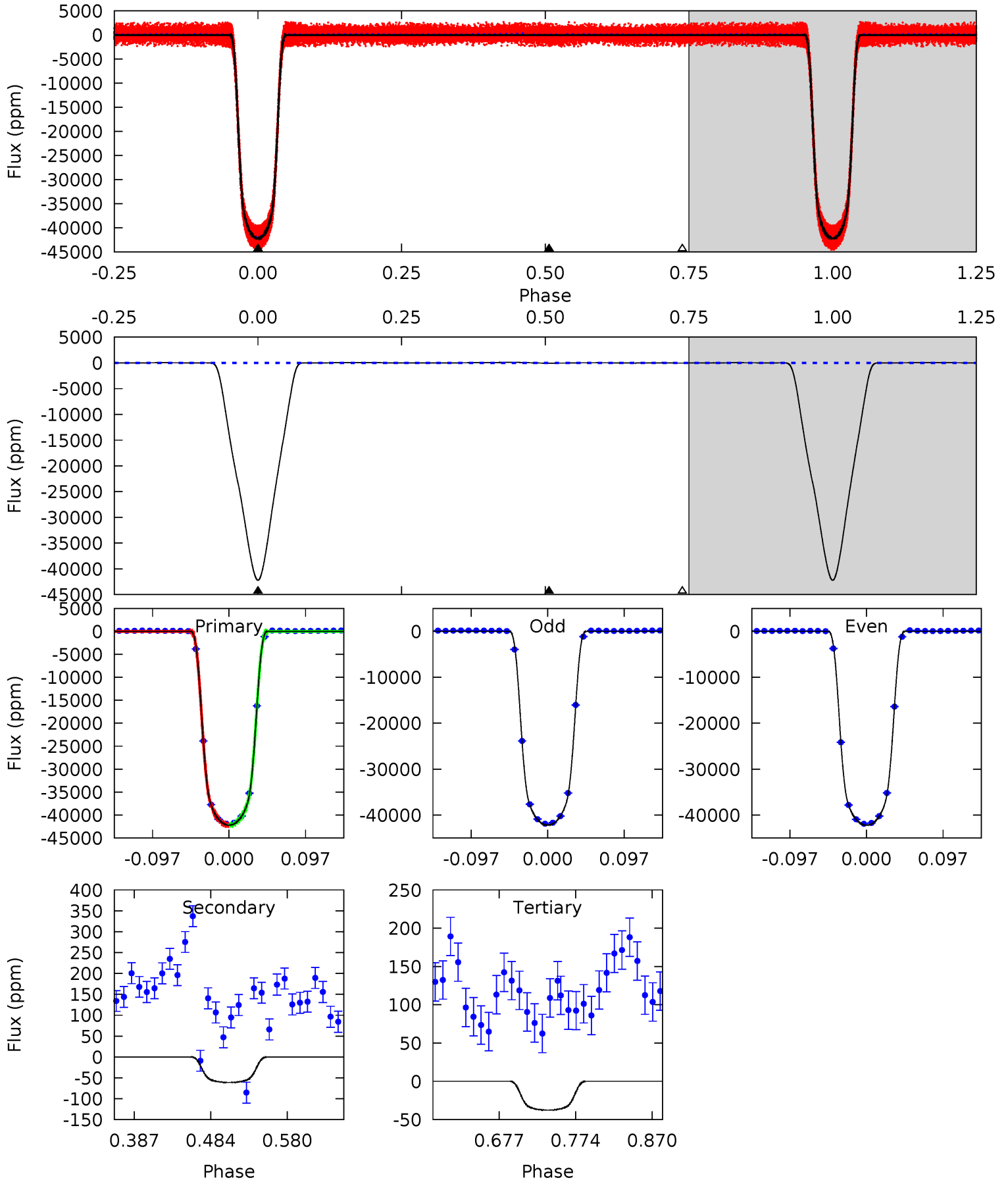
TCE 005306862-01 P= 2.025583 Days $T_0=131.863078$ (BKJD)



DV Model-Shift Uniqueness Test

005306862-01, P = 2.025586 Days, E = 129.836639 Days

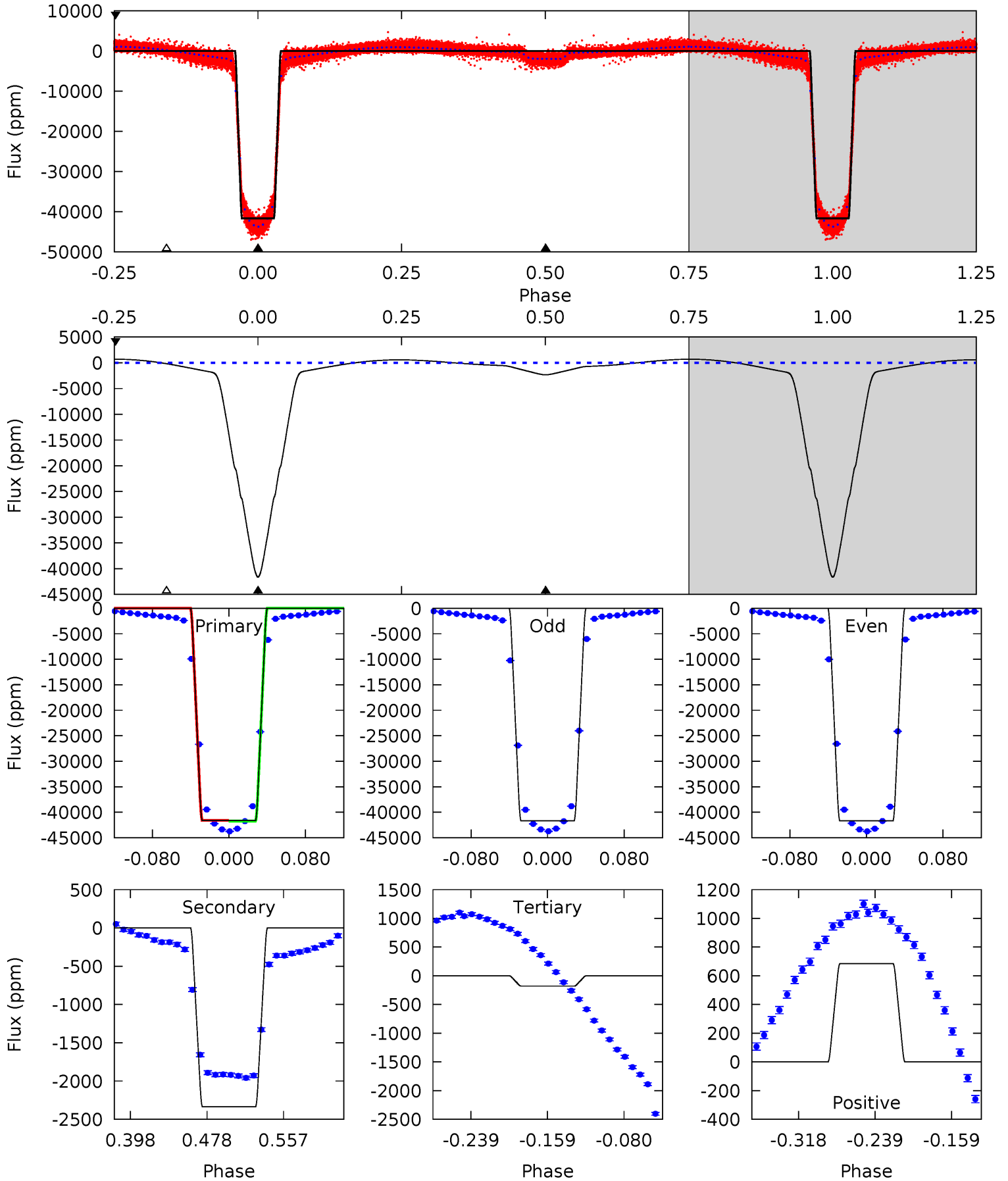
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4674	6.77	4.17	0	4.57	1.66	3.25	4670	4674	2.60	6.77	1.41	0.99	0.00	1.11



Alt Model-Shift Uniqueness Test

005306862-01, P = 2.025583 Days, E = 129.837495 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3263	183.1	14.0	53.6	4.61	1.75	48.6	3249	3209	169.1	129.5	0.44	1.00	0.02	5.77



Stellar Parameters For KIC 005306862

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6348^{+170}_{-208}	$3.996^{+0.306}_{-0.165}$	$0.120^{+0.250}_{-0.300}$	$1.990^{+0.578}_{-0.707}$	$1.431^{+0.201}_{-0.327}$	$0.256^{+0.548}_{-0.117}$
	+3%/-3%	+8%/-4%	+208%/-250%	+29%/-36%	+14%/-23%	+214%/-46%
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 005306862-01 / KOI 6561.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-61 ± 9	$40.37^{+6.78}_{-7.94}$	2890^{+258}_{-289}	-2990^{+183}_{-159}	$0.026^{+0.014}_{-0.008}$
Alt.	-2336 ± 13	$43.20^{+7.31}_{-8.79}$	2878^{+247}_{-278}	3314^{+104}_{-123}	$0.852^{+0.438}_{-0.217}$

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

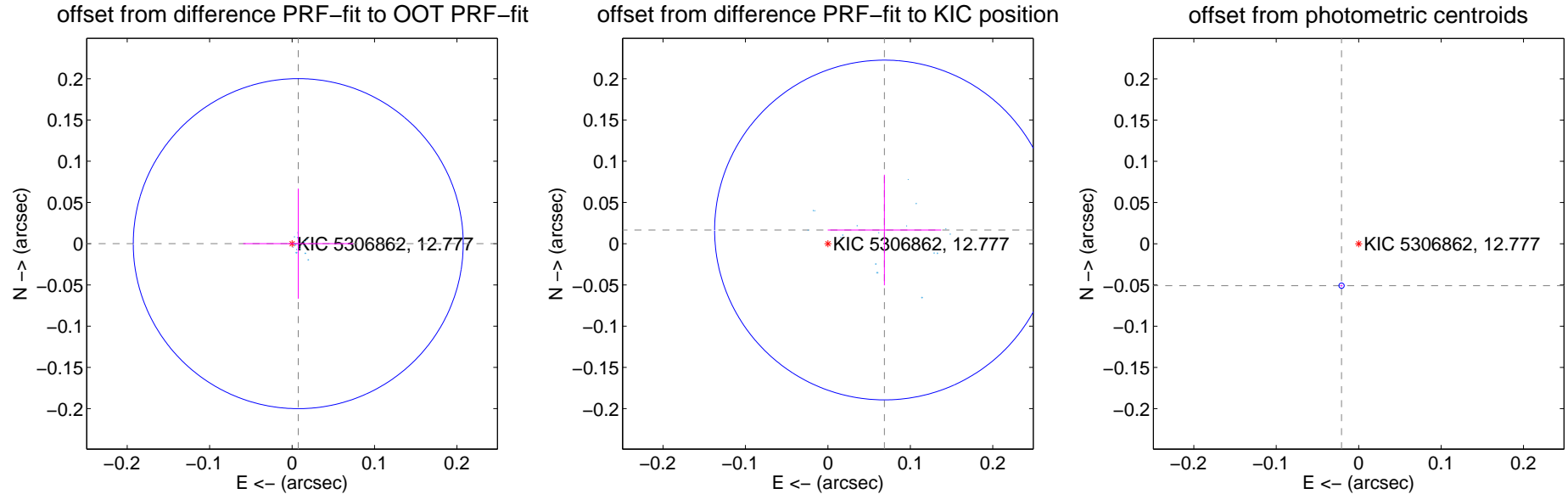
DV Centroid Data

Supplemental centroid analysis for 005306862-01. Kepler magnitude: 12.78. Transit SNR 2930.76

There are 17 quarters with good PRF difference image offsets

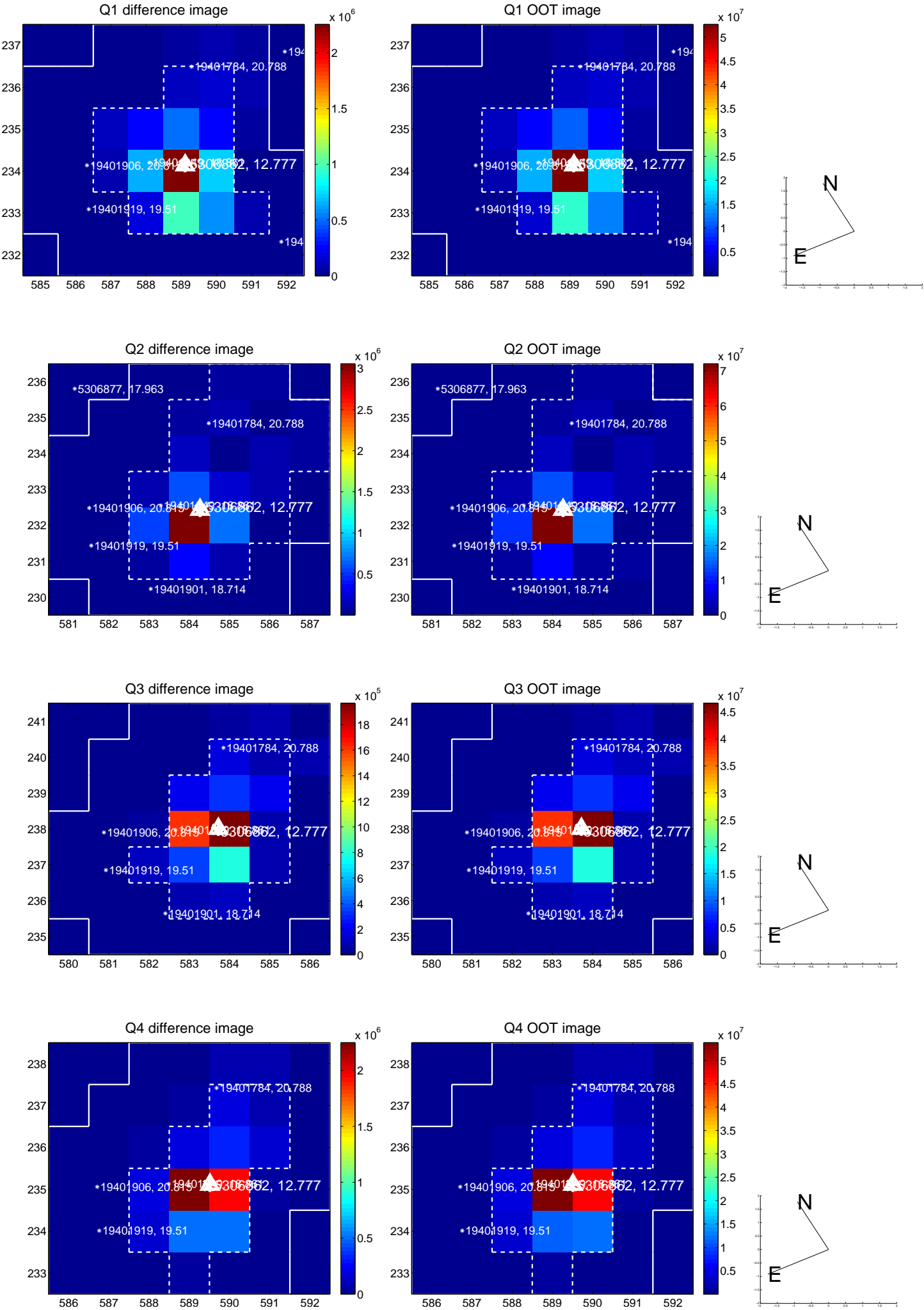
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.11	-0.007 ± 0.067	0.000 ± 0.067
PRF-fit source offset from KIC position	0.071 ± 0.069	1.03	-0.069 ± 0.069	0.017 ± 0.067
photometric centroid source offset	0.05 ± 0.00	50.95	0.02 ± 0.00	-0.05 ± 0.00

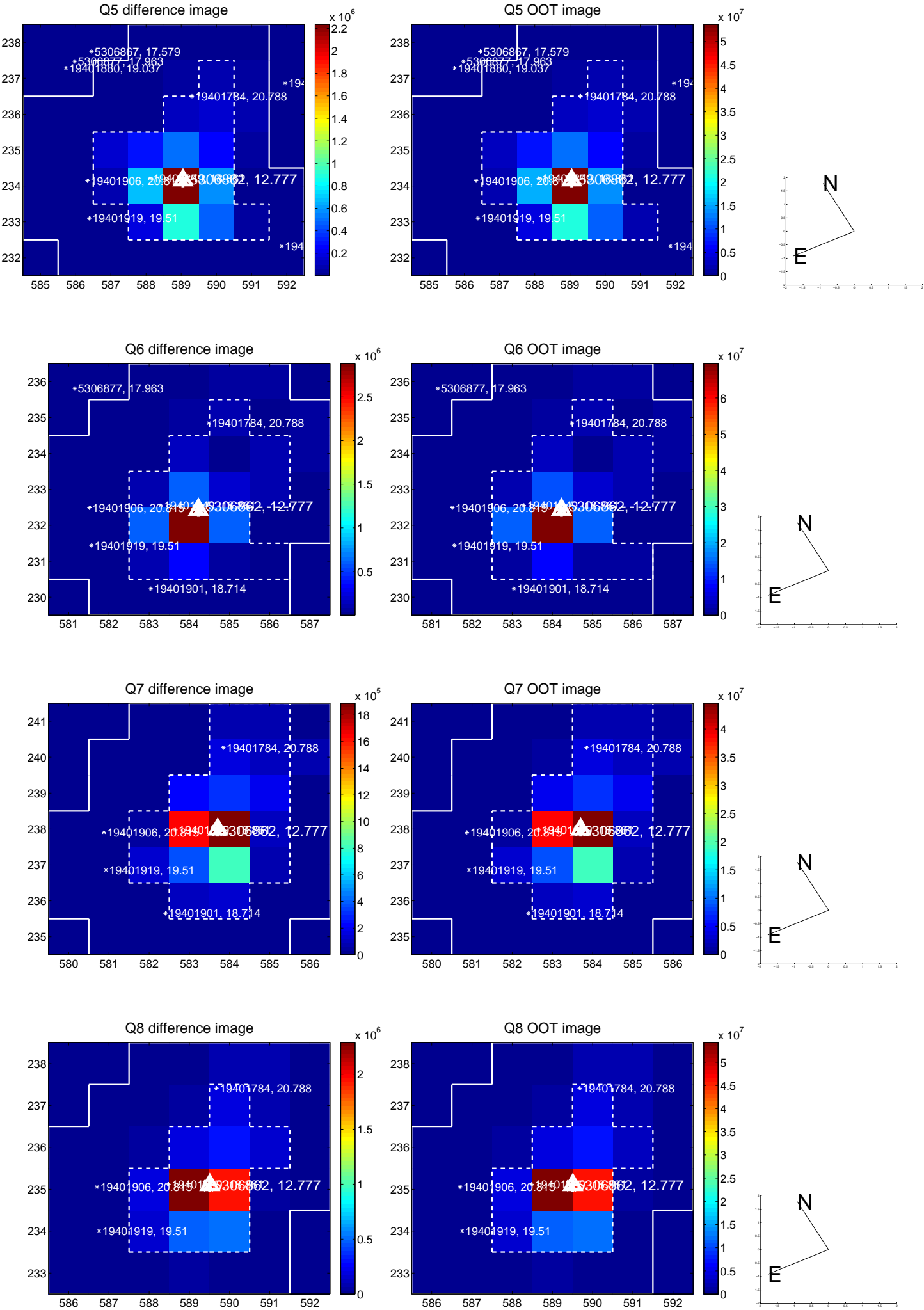


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

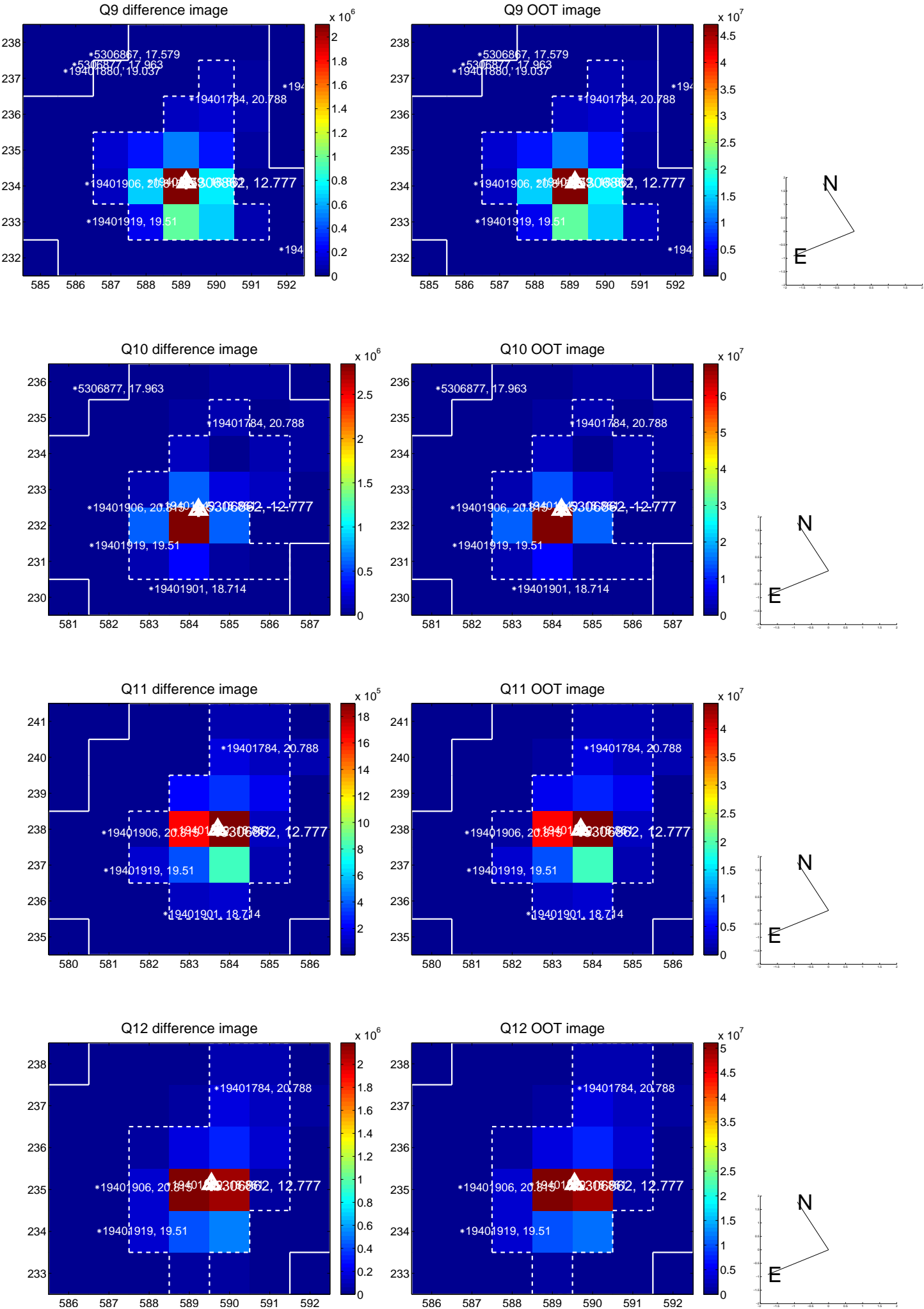
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



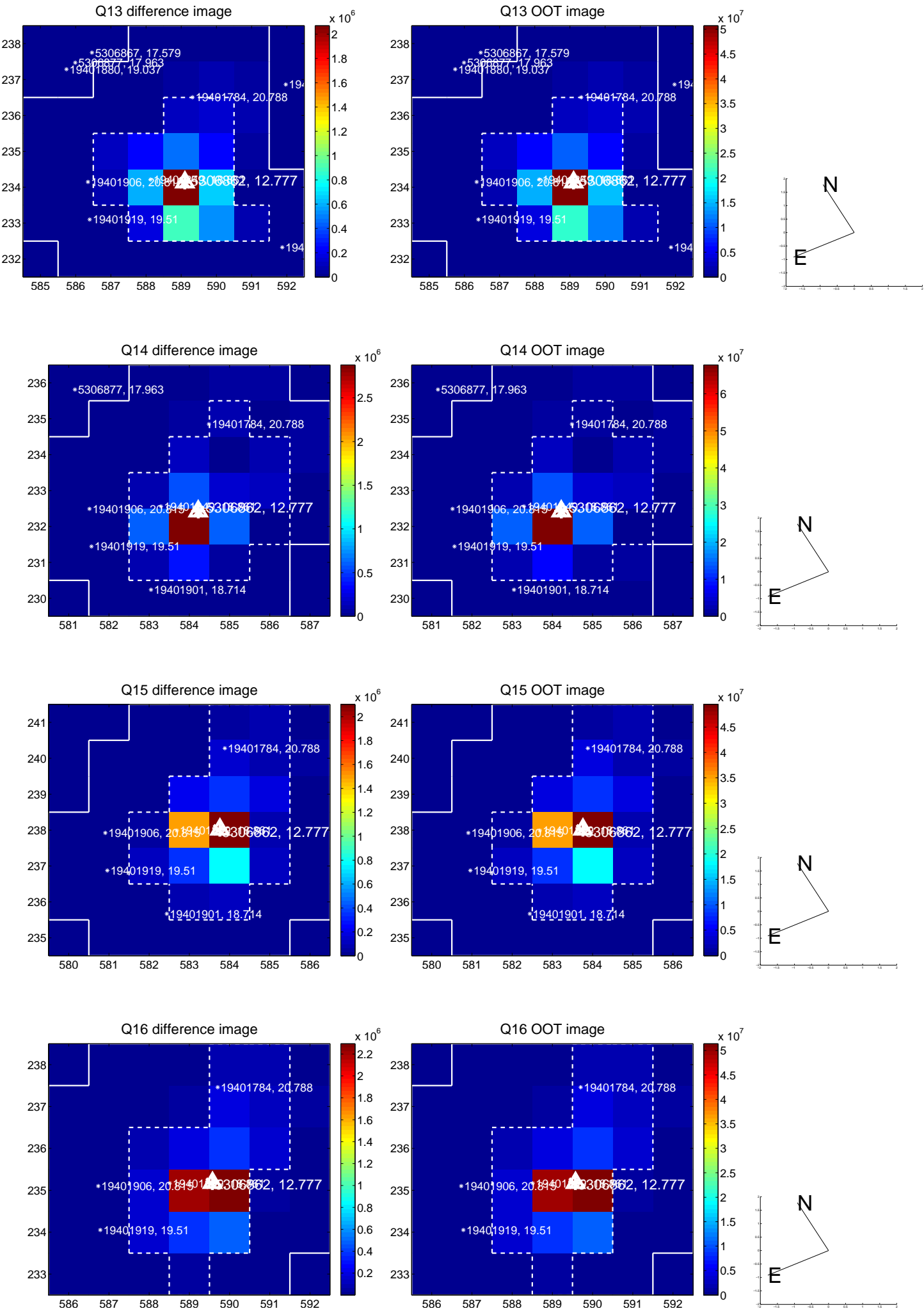
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



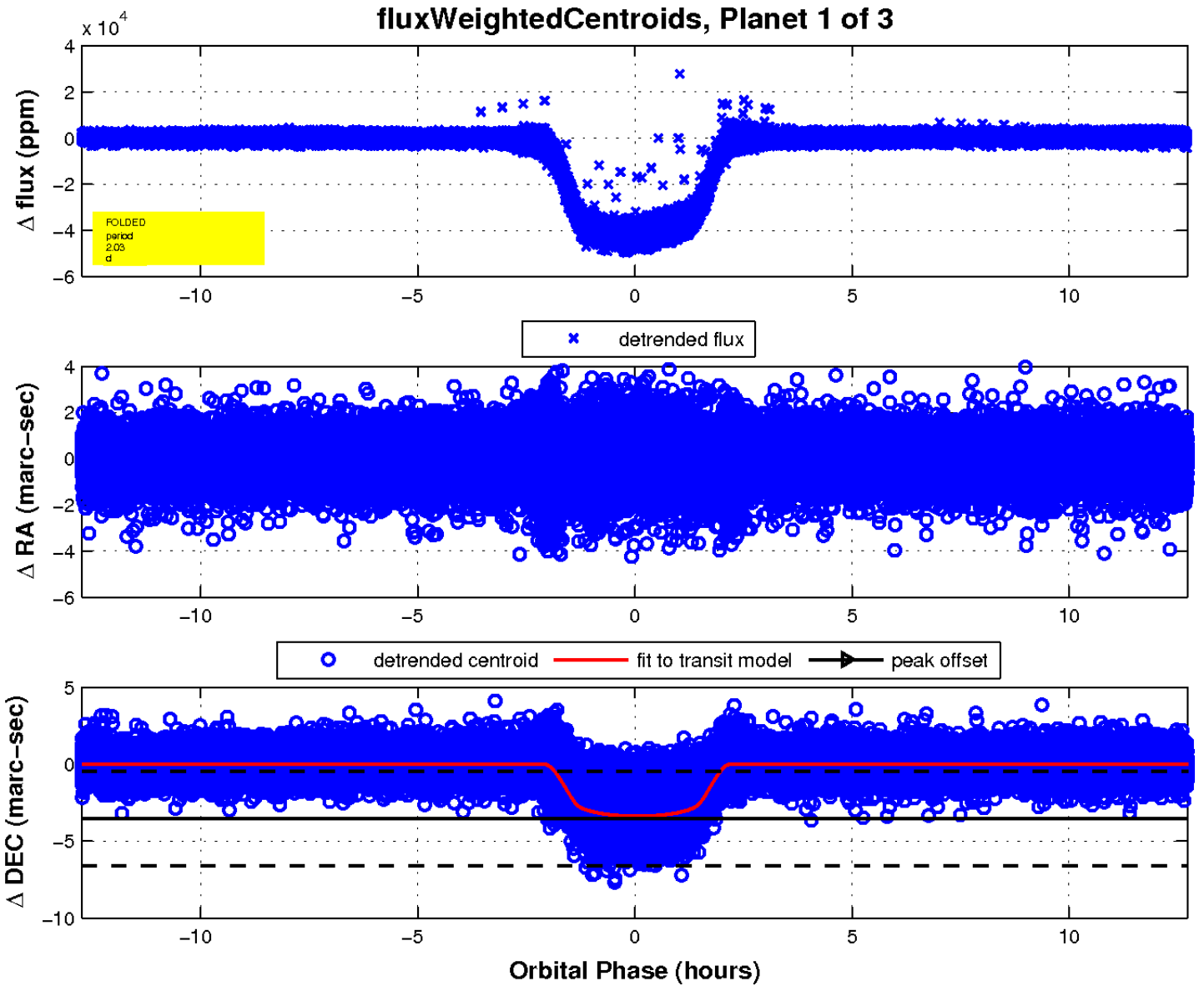
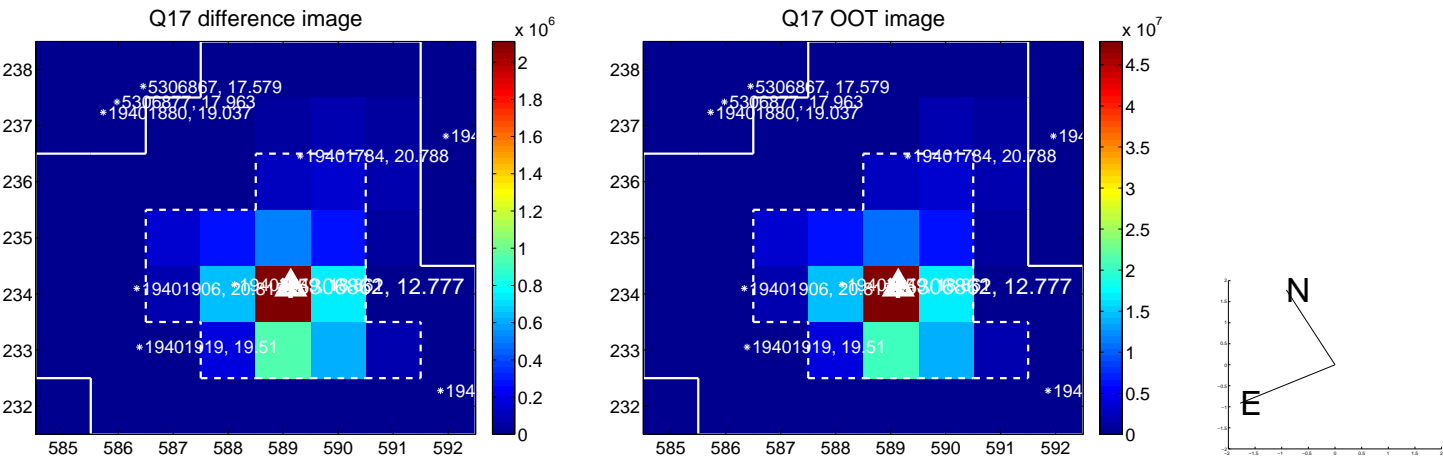
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

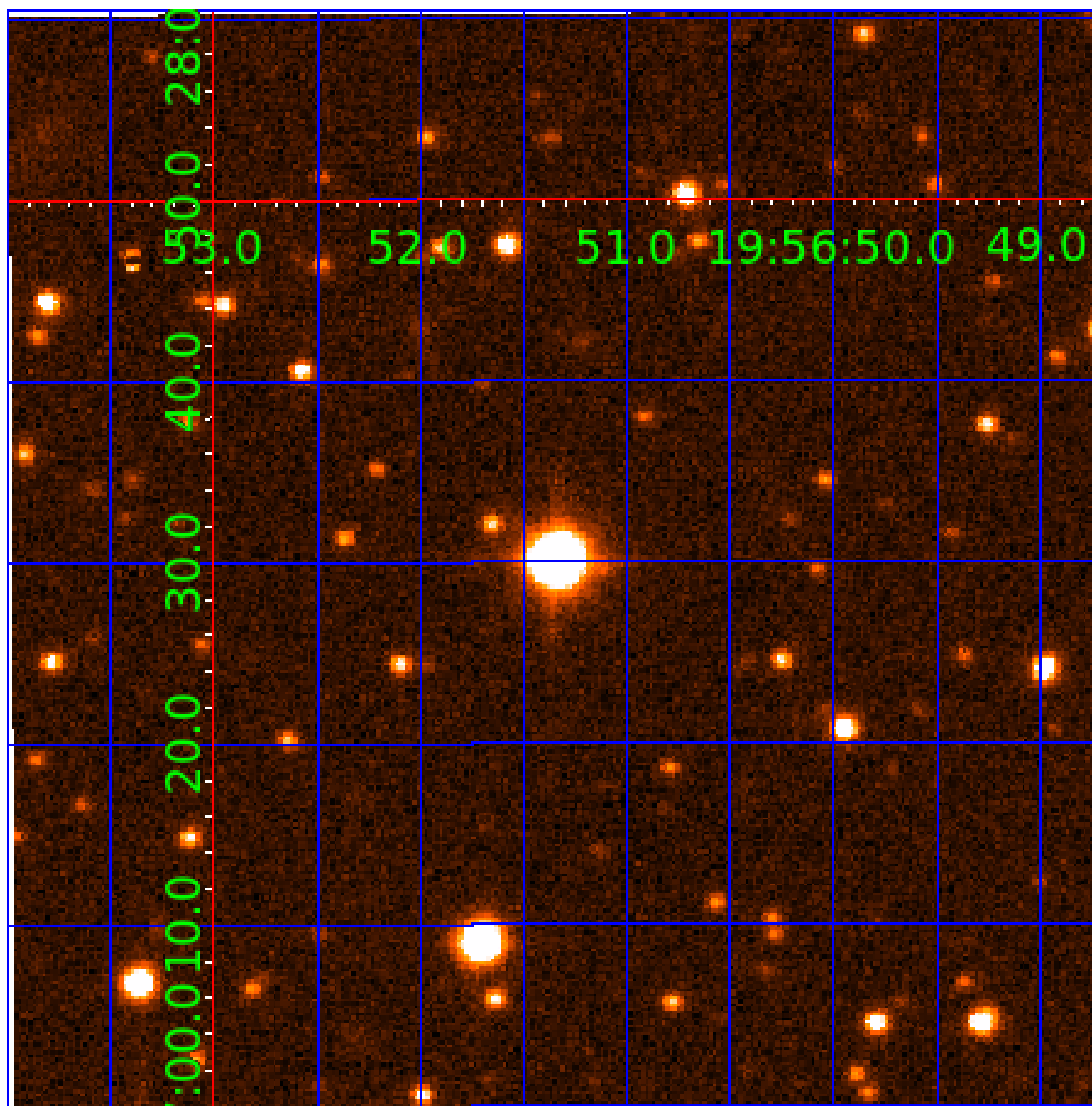


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005306862

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})
005306862-01	OBS	6561.01	2.025586	131.862225	42345.7	4.244	3670.7	2930.8	1.99	6348	41.41	4619.66
005306862-02	OBS	No	2.025569	132.880034	225.5	3.920	19.2	22.0	1.99	6348	3.51	4619.71
005306862-03	OBS	No	2.029875	131.709110	243.4	2.000	7.8	-1.0	1.99	6348	3.12	4606.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005306862-01	OBS	FP	0.00	0	1	0	0	HAS_SEC_TCE
005306862-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005306862-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_NOFITS

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.

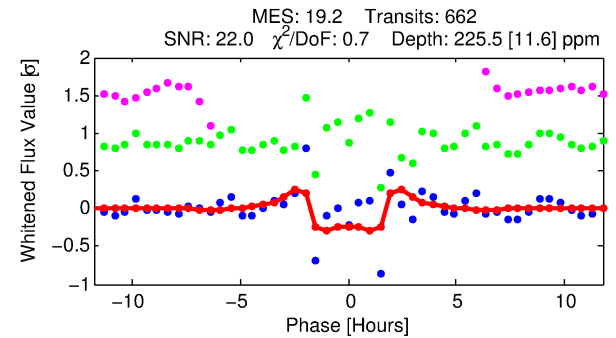
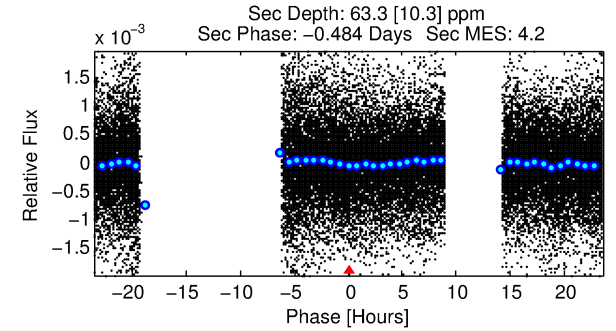
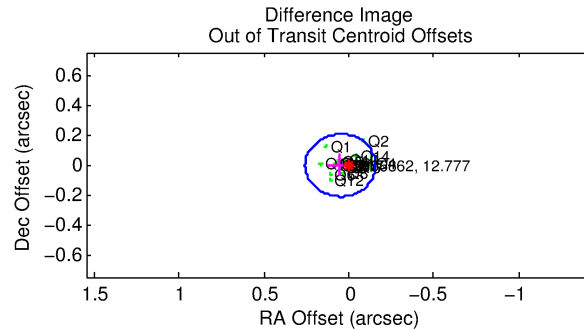
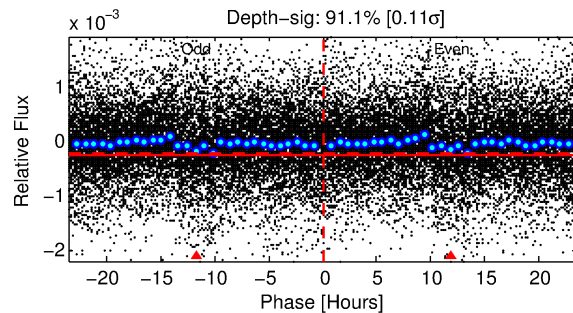
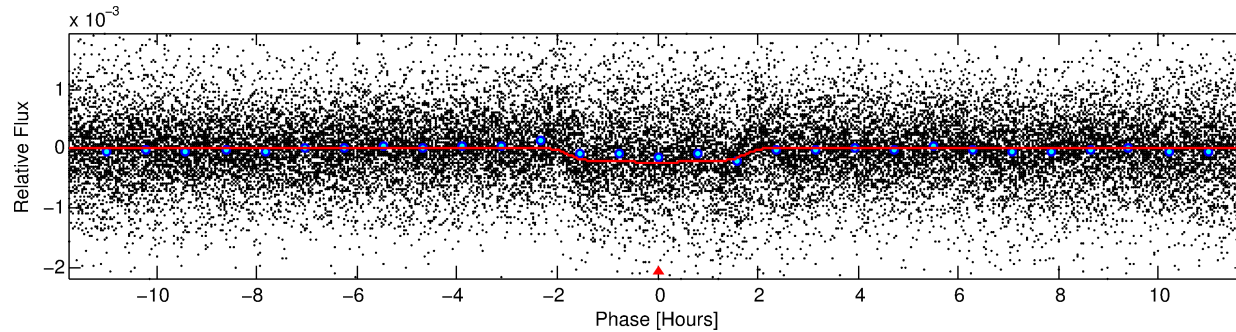
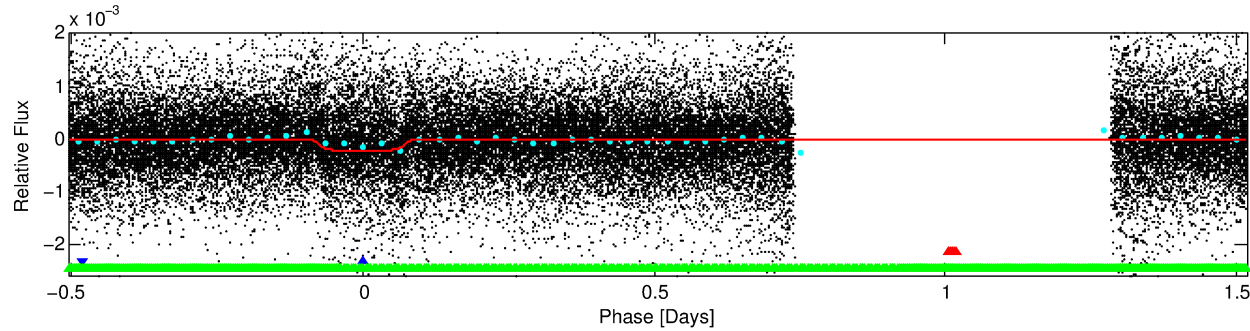
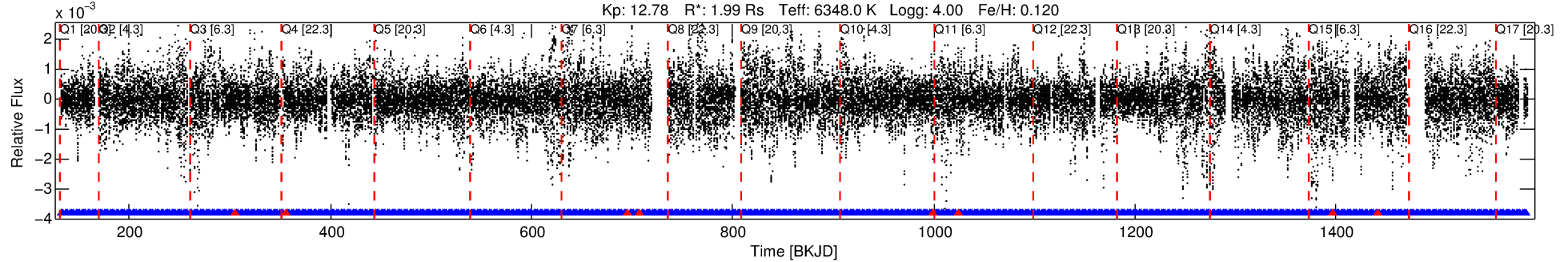
Ephemeris Match Information For 005306862-02

No Significant Match Found

DV One-Page Summary

KIC: 5306862 Candidate: 2 of 3 Period: 2.026 d
KOI: K06561 Corr: No Ephemeris Match

Kp: 12.78 R*: 1.99 Rs Teff: 6348.0 K Logg: 4.00 Fe/H: 0.120



DV Fit Results:

Period = 2.02557 [0.00000] d
Epoch = 132.8800 [0.0009] BKJD
Rp/R* = 0.0162 [0.0011]
a/R* = 2.08 [0.49]
b = 0.90 [0.06]
Seff = 4619.71 [2504.55]
Teq = 2102 [285] K
Rp = 3.51 [1.27] Re
a = 0.0353 [0.0118] AU
Ag = 3.53 [2.00] [1.27 σ]
Teffp = 4454 [275] K [5.94 σ]

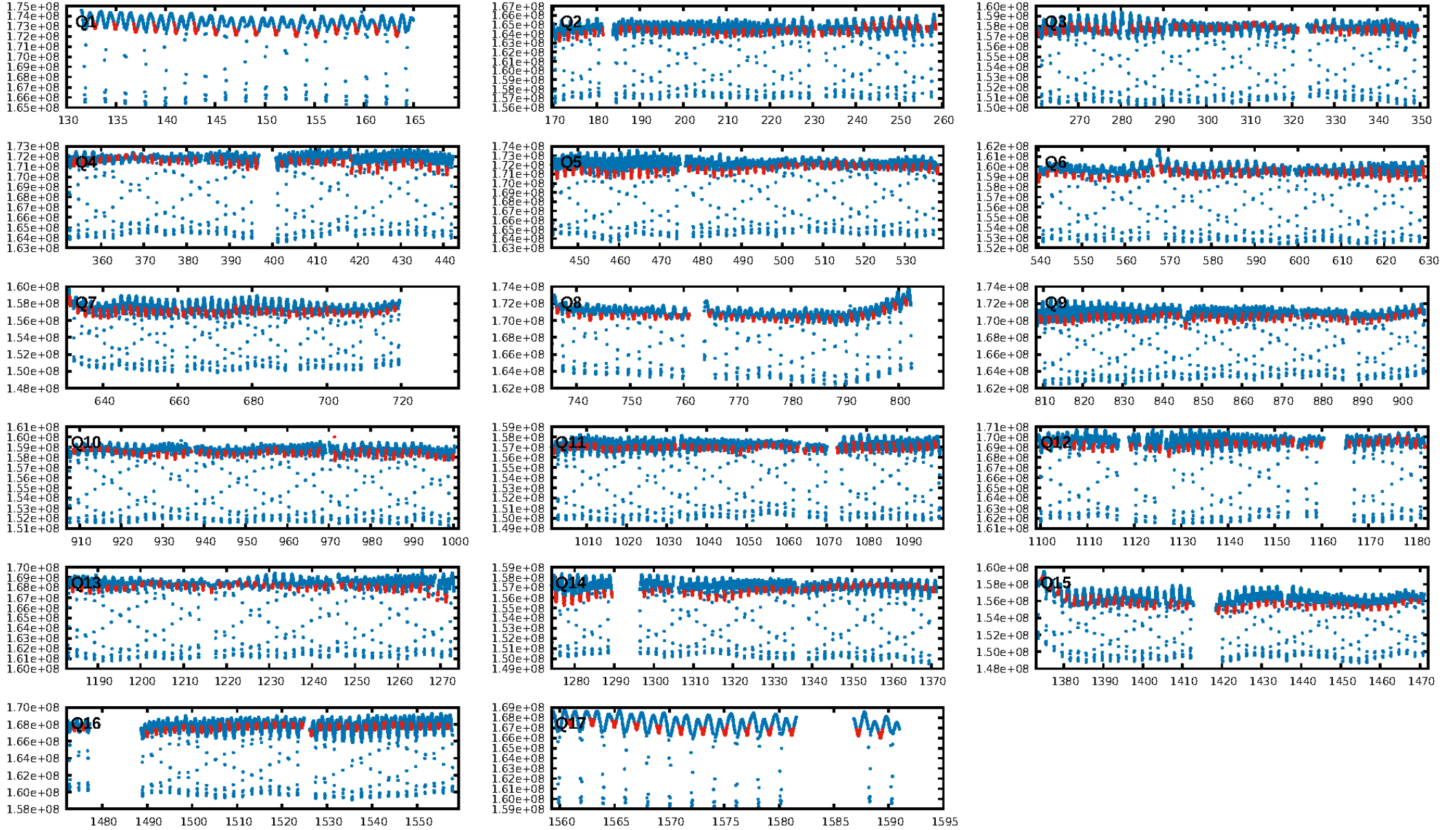
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [625/633]
GhostDiagnostic-chr: 0.9267
Centroid-sig: N/A
Centroid-so: 0.530 arcsec [2.89 σ]
OotOffset-rm: 0.052 arcsec [0.75 σ]
KicOffset-rm: 0.022 arcsec [0.32 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.53 [9/17]

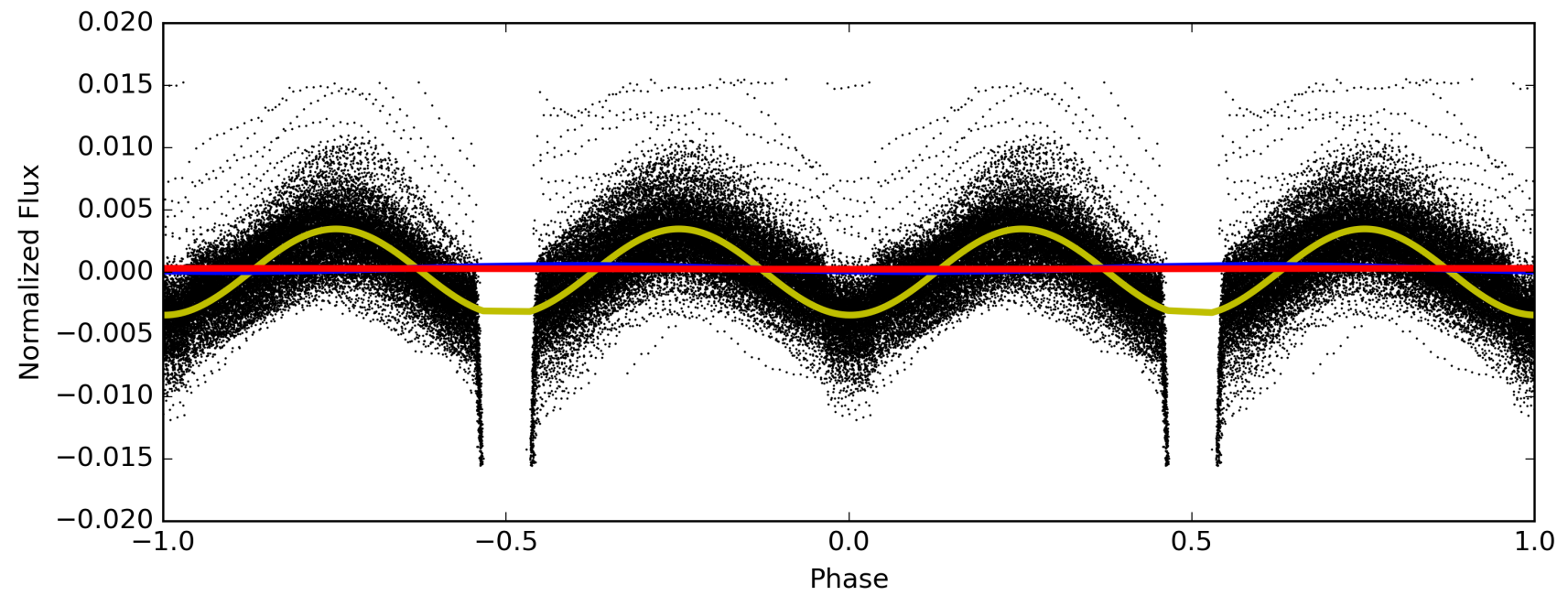
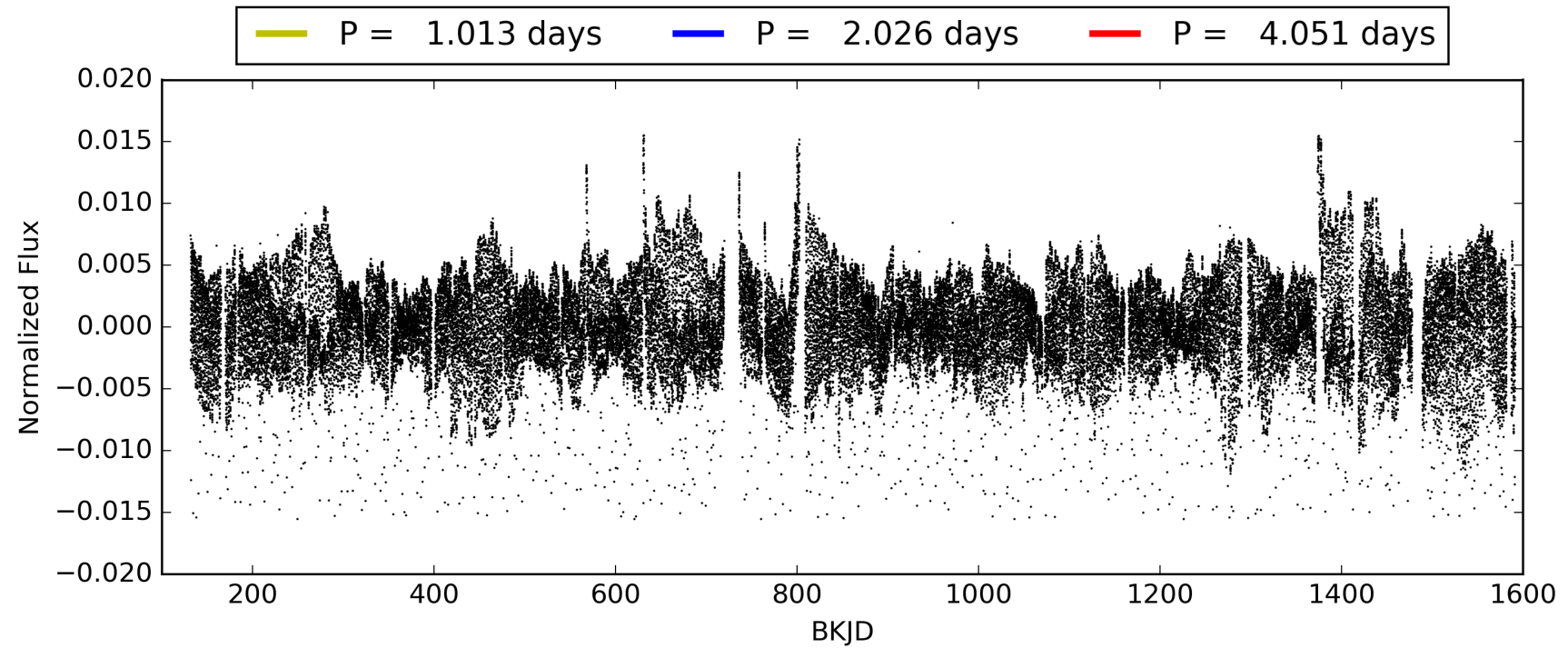
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:17:19 Z

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

TCE 005306862-02, PDC Light Curves

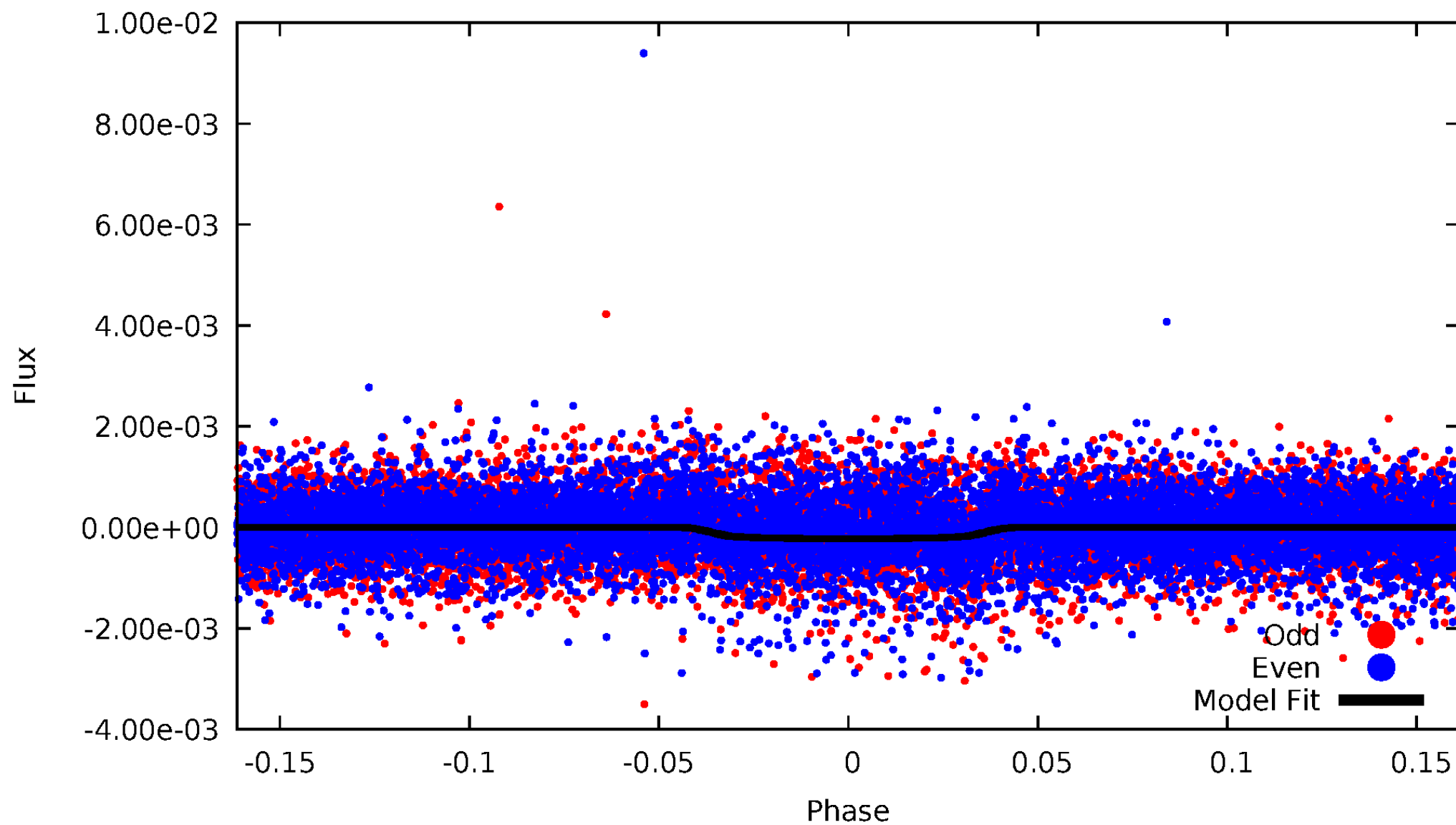


TCE 005306862-02



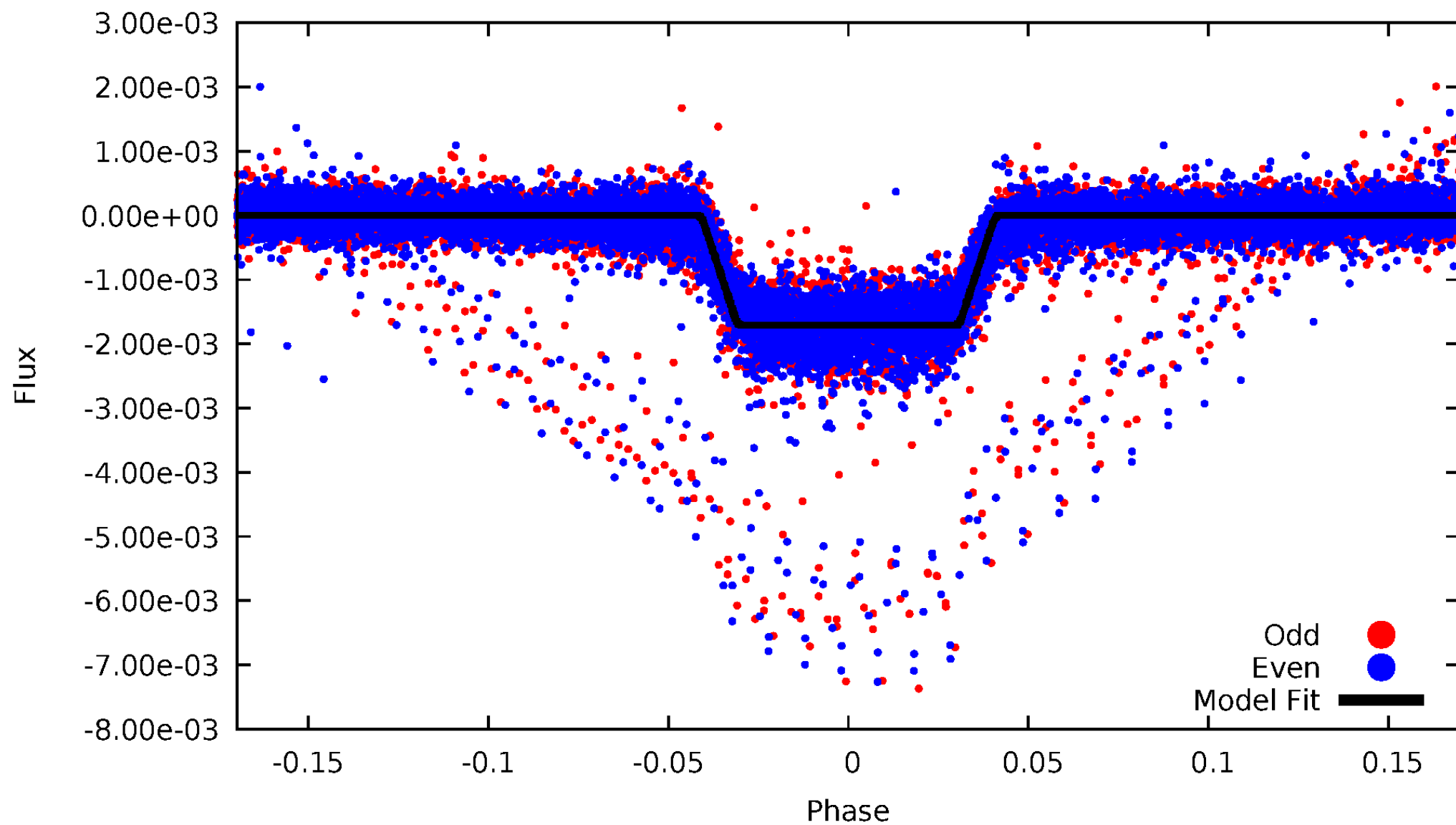
DV Odd/Even

TCE 005306862-02



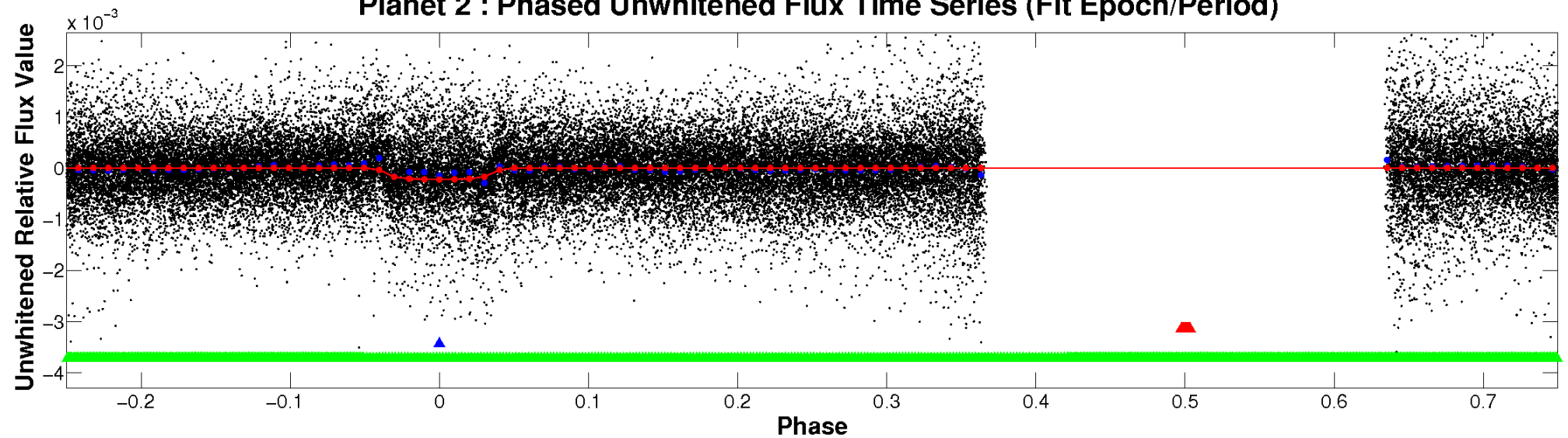
ALT Odd/Even

TCE 005306862-02

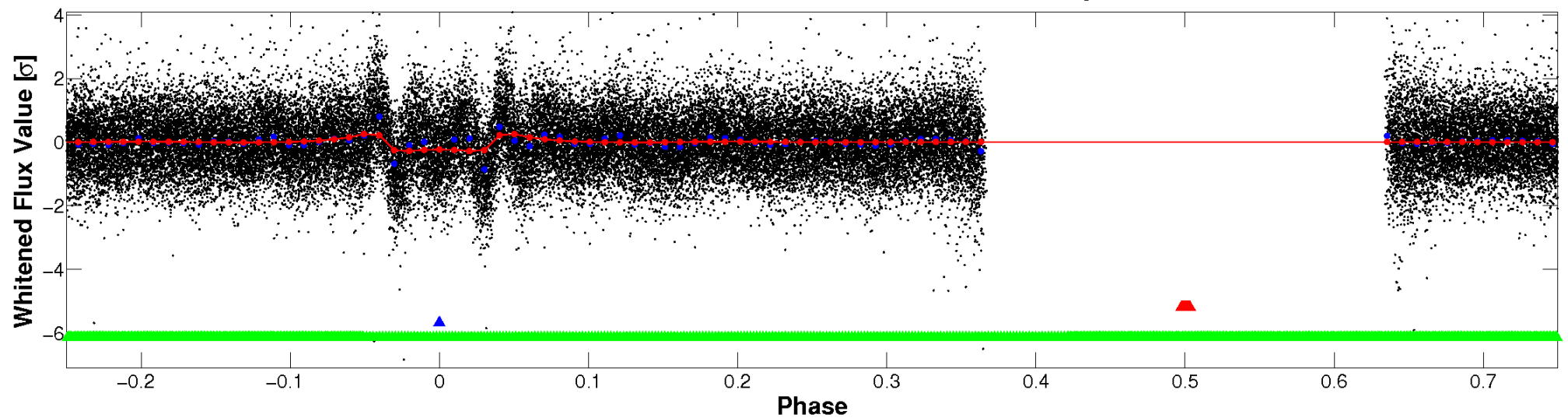


Non-Whitened Vs. Whitened Light Curve

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

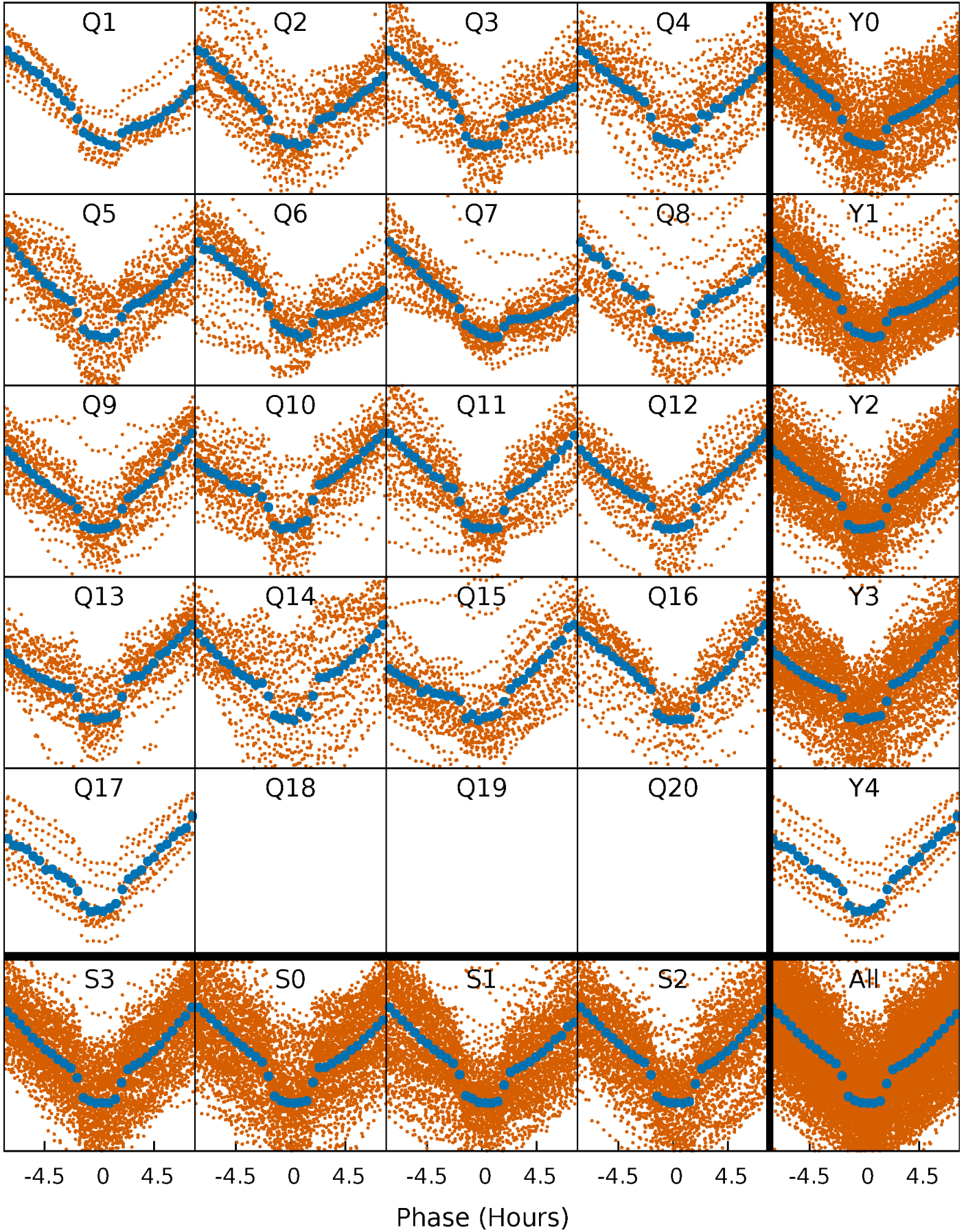


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



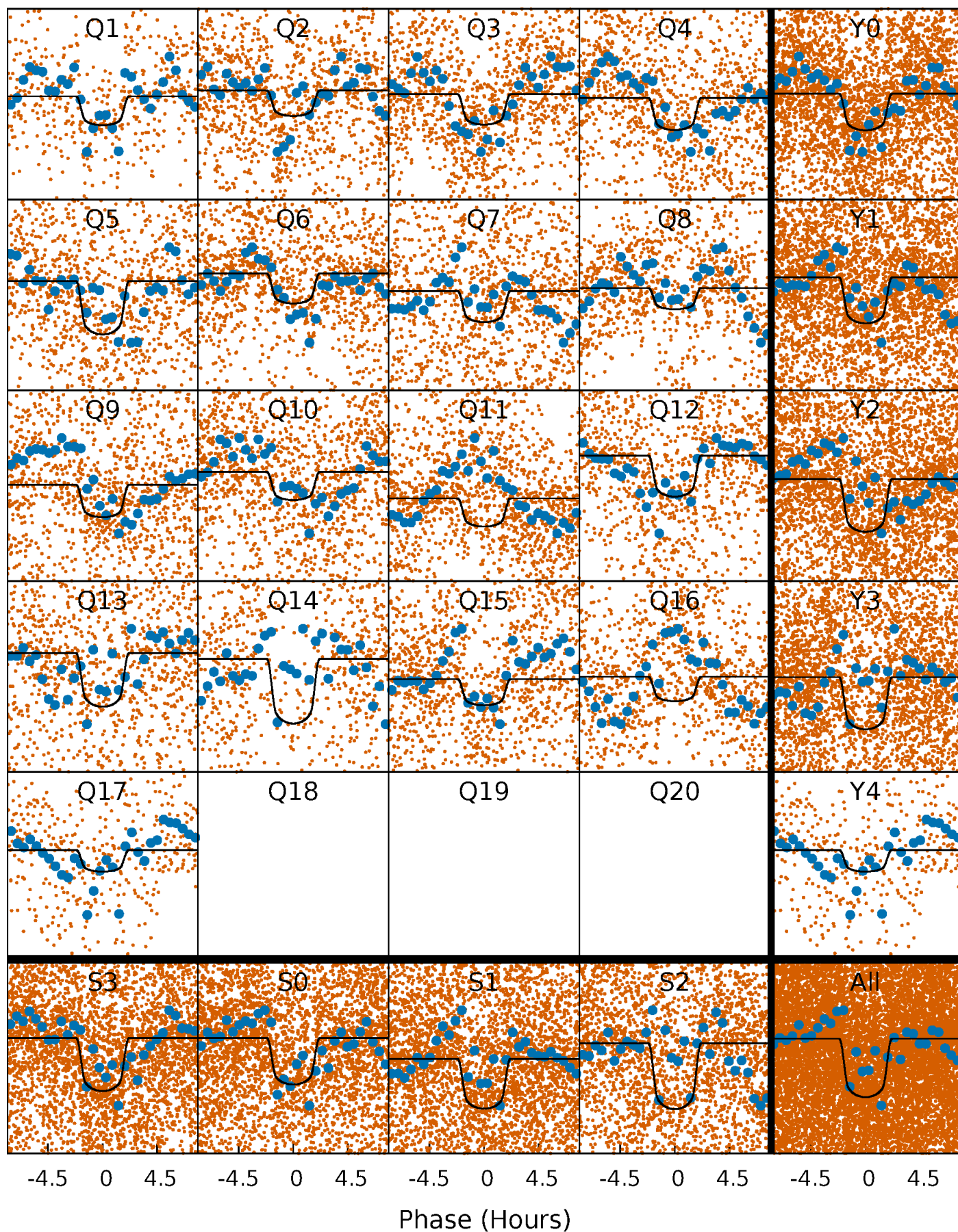
PDC Quarter-Phased Transit Curves

TCE 005306862-02 P= 2.025569 Days $T_0=132.880034$ (BKJD)



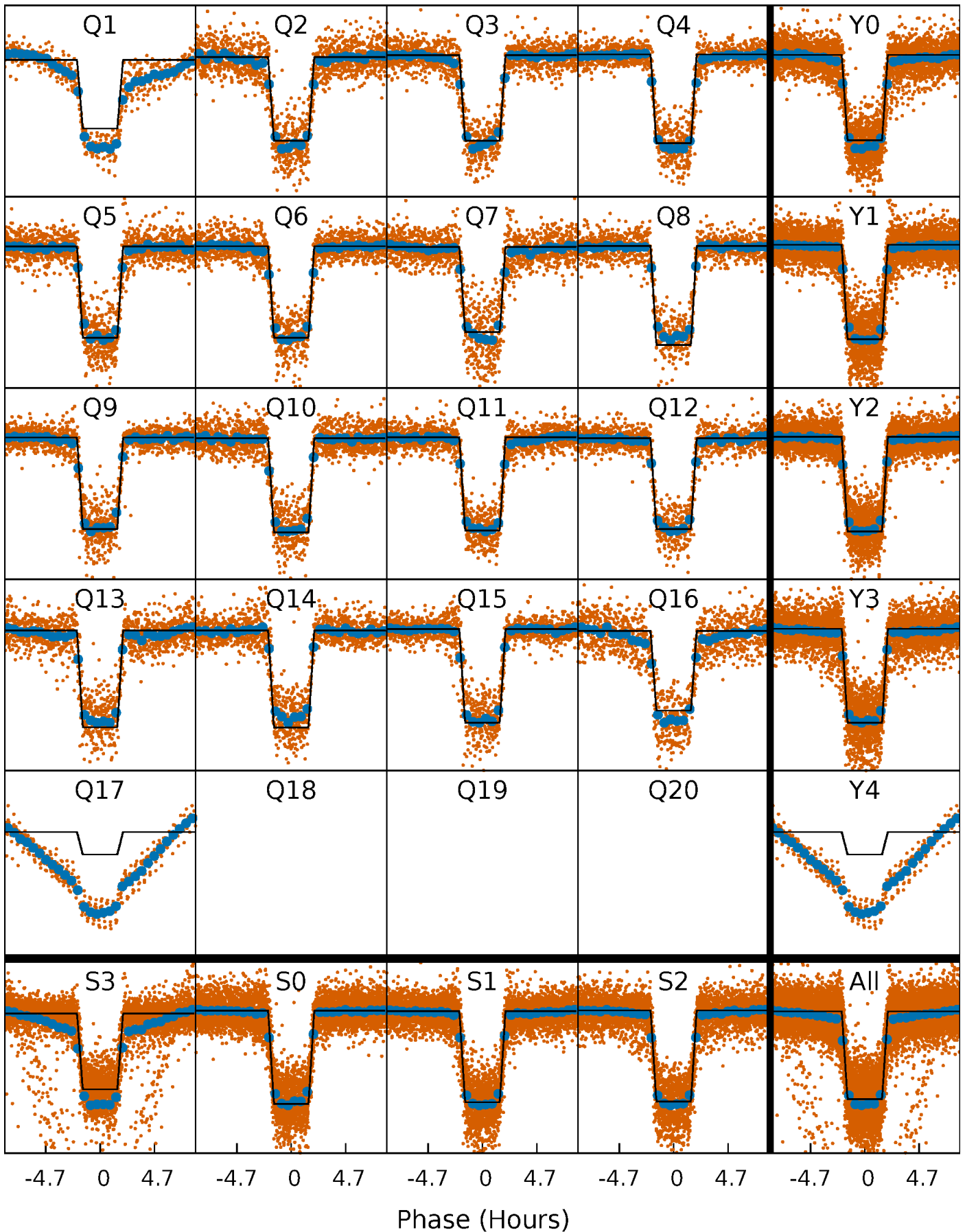
DV Quarter-Phased Transit Curves

TCE 005306862-02 P= 2.025569 Days $T_0=132.880034$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

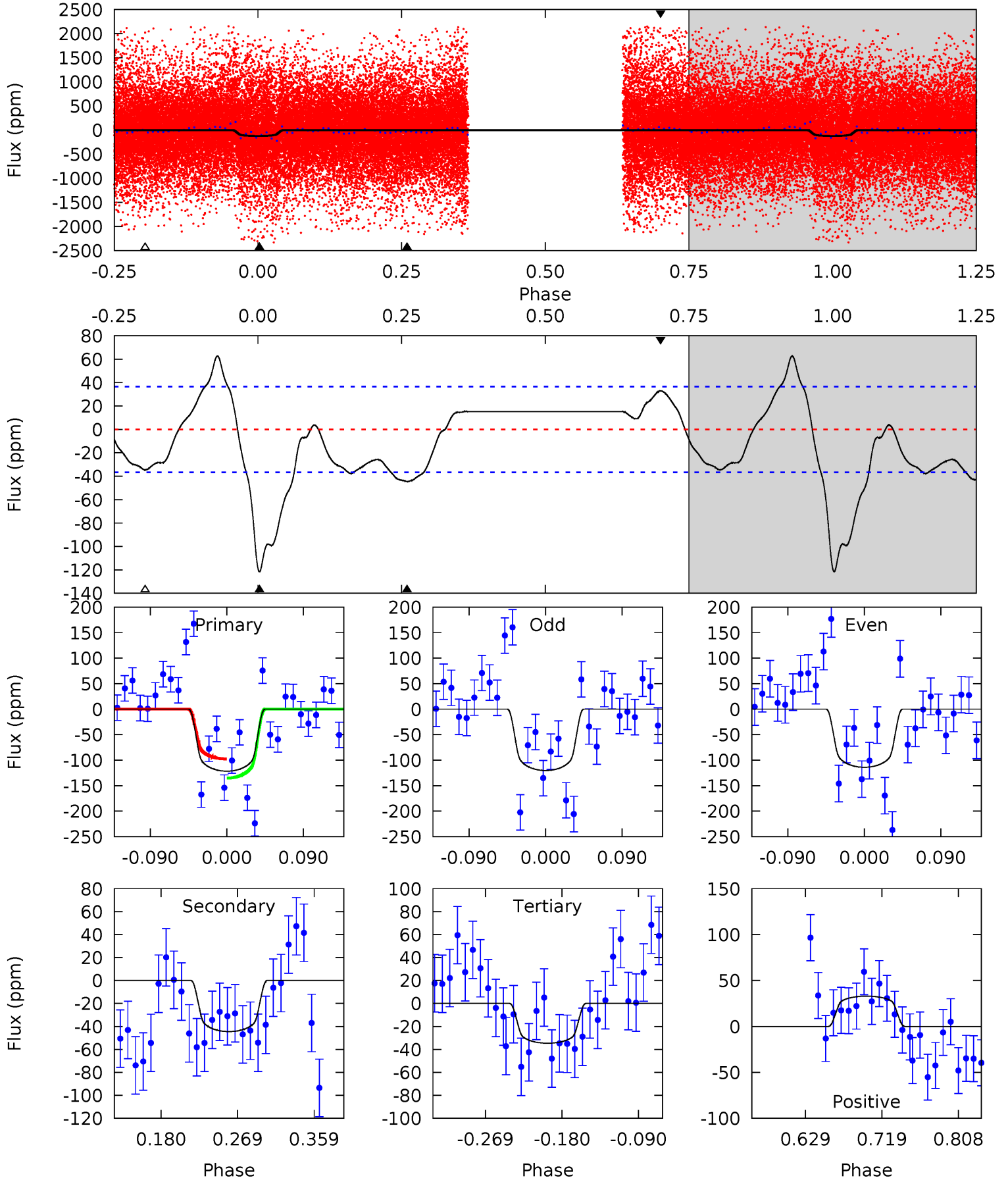
TCE 005306862-02 P= 2.025583 Days $T_0=132.876313$ (BKJD)



DV Model-Shift Uniqueness Test

005306862-02, P = 2.025569 Days, E = 130.854465 Days

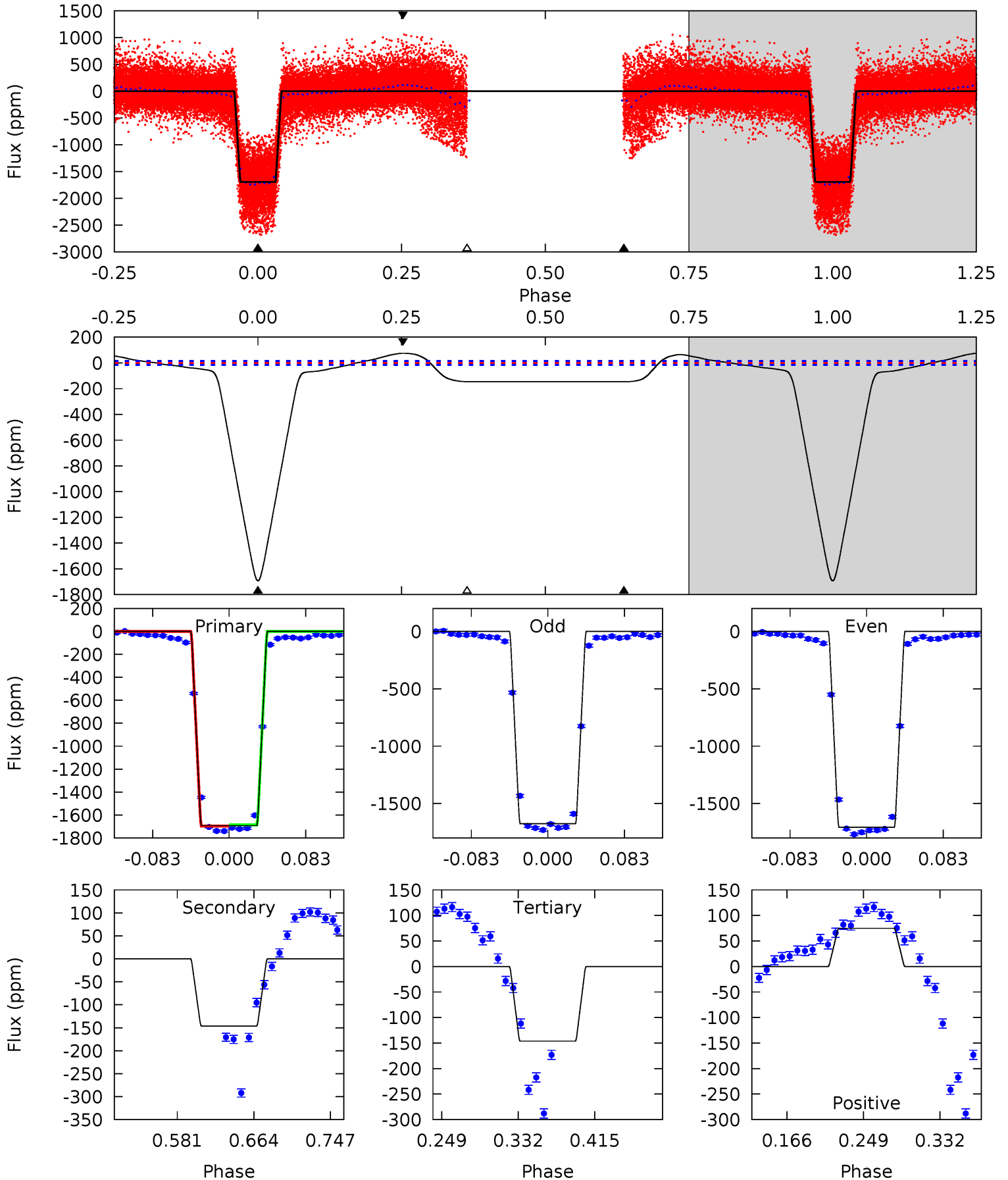
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	5.57	4.34	4.13	4.59	1.70	2.94	10.9	11.1	1.24	1.45	0.41	0.88	0.34	2.50



Alt Model-Shift Uniqueness Test

005306862-02, P = 2.025583 Days, E = 130.850730 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
508.5	43.9	43.9	22.5	4.60	1.73	16.1	464.6	486.0	0.01	21.4	4.67	1.05	0.04	1.74



Stellar Parameters For KIC 005306862

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6348^{+170}_{-208}	$3.996^{+0.306}_{-0.165}$	$0.120^{+0.250}_{-0.300}$	$1.990^{+0.578}_{-0.707}$	$1.431^{+0.201}_{-0.327}$	$0.256^{+0.548}_{-0.117}$
	+3%/-3%	+8%/-4%	+208%/-250%	+29%/-36%	+14%/-23%	+214%/-46%
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 005306862-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-45 ± 8	$3.38^{+0.64}_{-0.65}$	2887^{+229}_{-275}	4196^{+213}_{-207}	$2.608^{+1.305}_{-0.773}$
Alt.	-146 ± 3	$8.78^{+1.46}_{-1.71}$	2894^{+246}_{-261}	3639^{+100}_{-102}	$1.293^{+0.585}_{-0.323}$

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

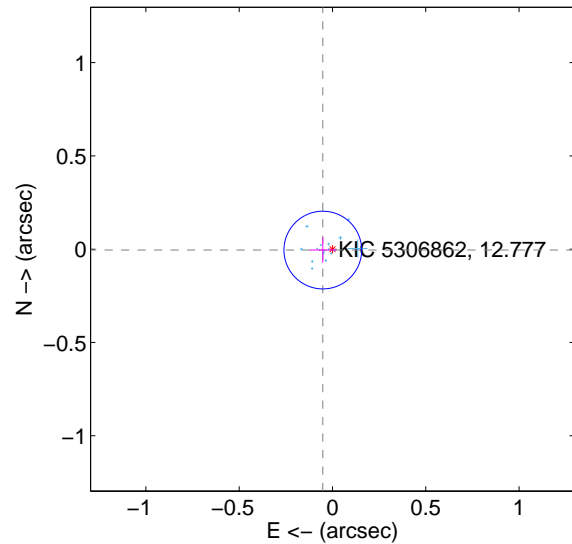
Supplemental centroid analysis for 005306862-02. Kepler magnitude: 12.78. Transit SNR 22.01

There are 17 quarters with good PRF difference image offsets

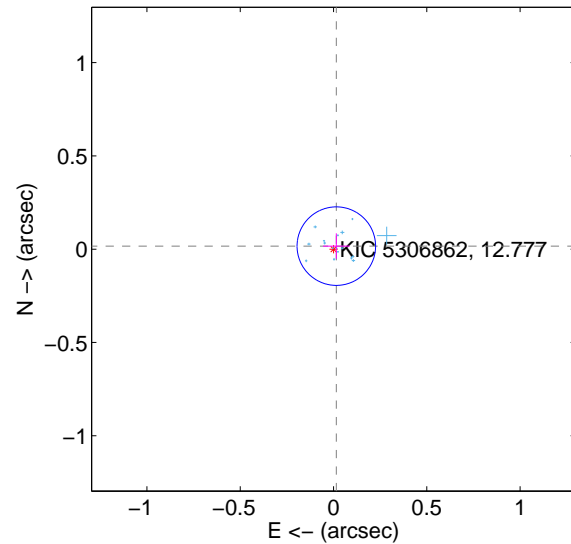
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.052 ± 0.069	0.75	0.052 ± 0.069	-0.005 ± 0.068
PRF-fit source offset from KIC position	0.022 ± 0.070	0.32	-0.015 ± 0.071	0.016 ± 0.068
photometric centroid source offset	0.53 ± 0.18	2.89	0.40 ± 0.18	-0.34 ± 0.19

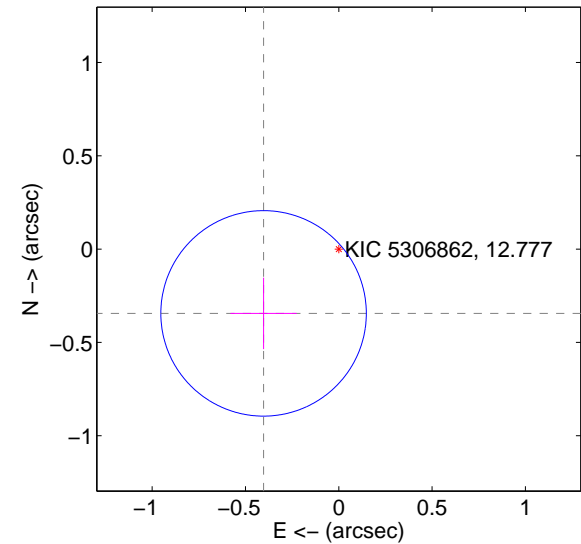
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

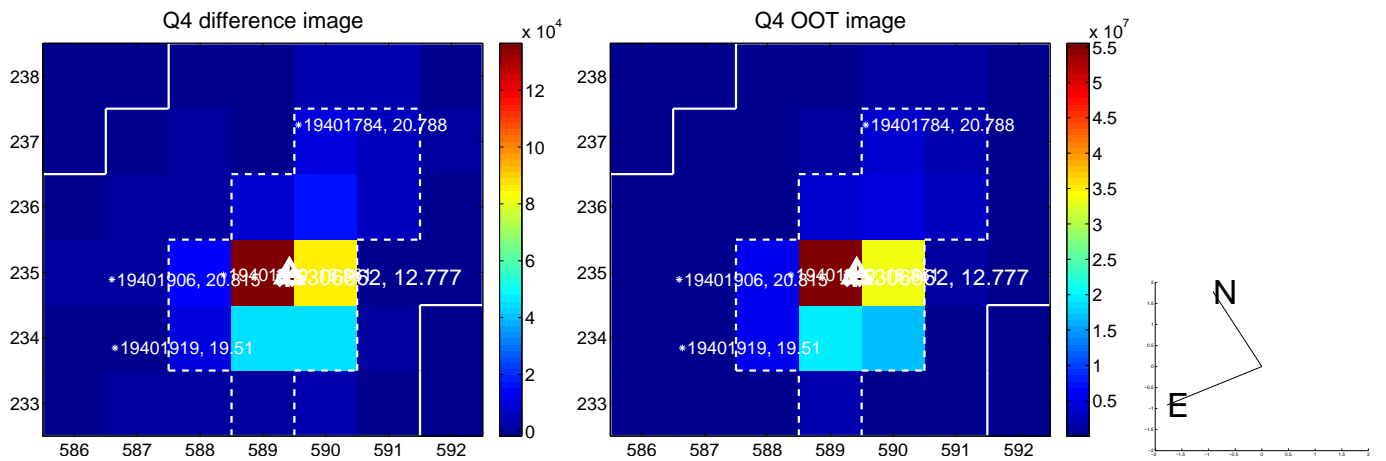
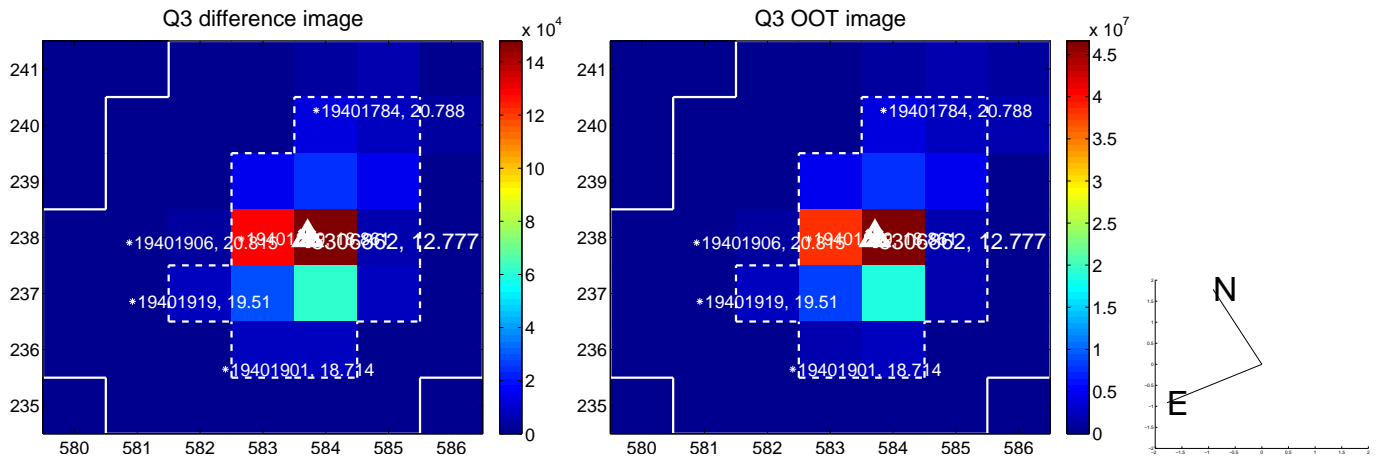
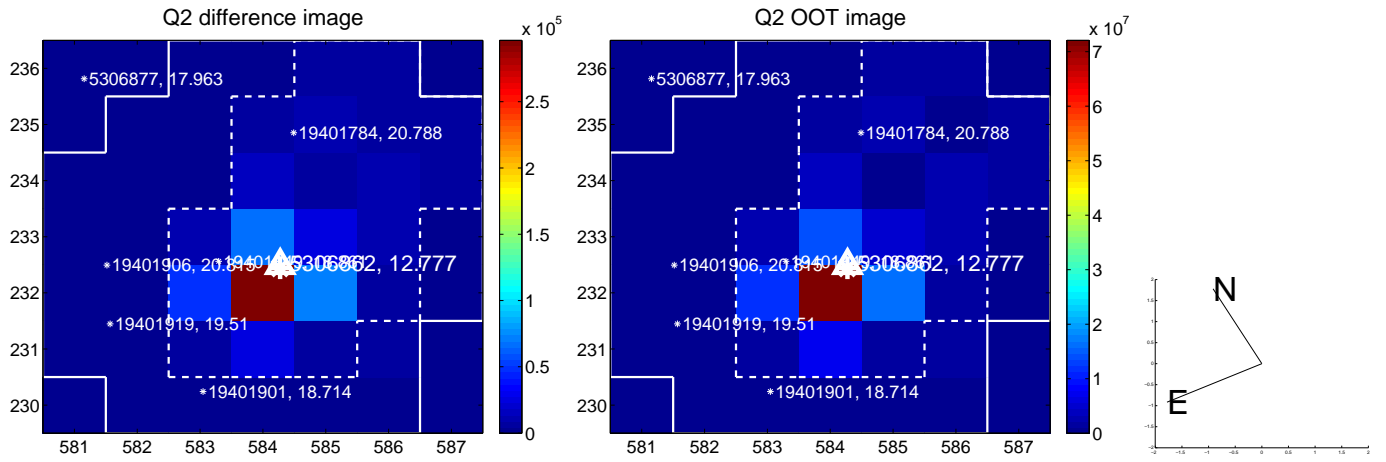
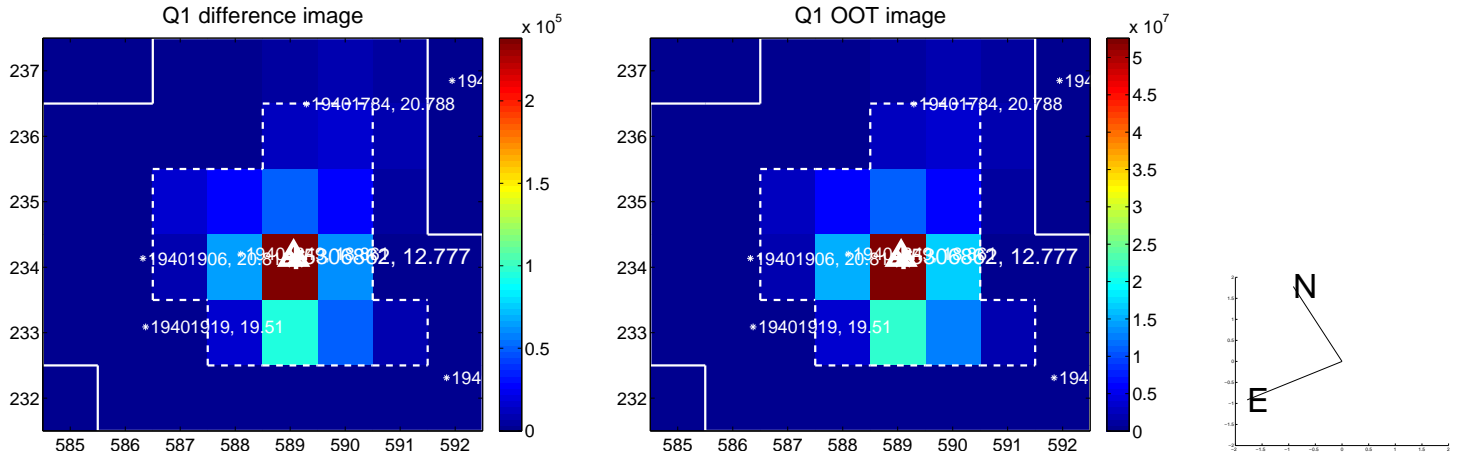


offset from photometric centroids

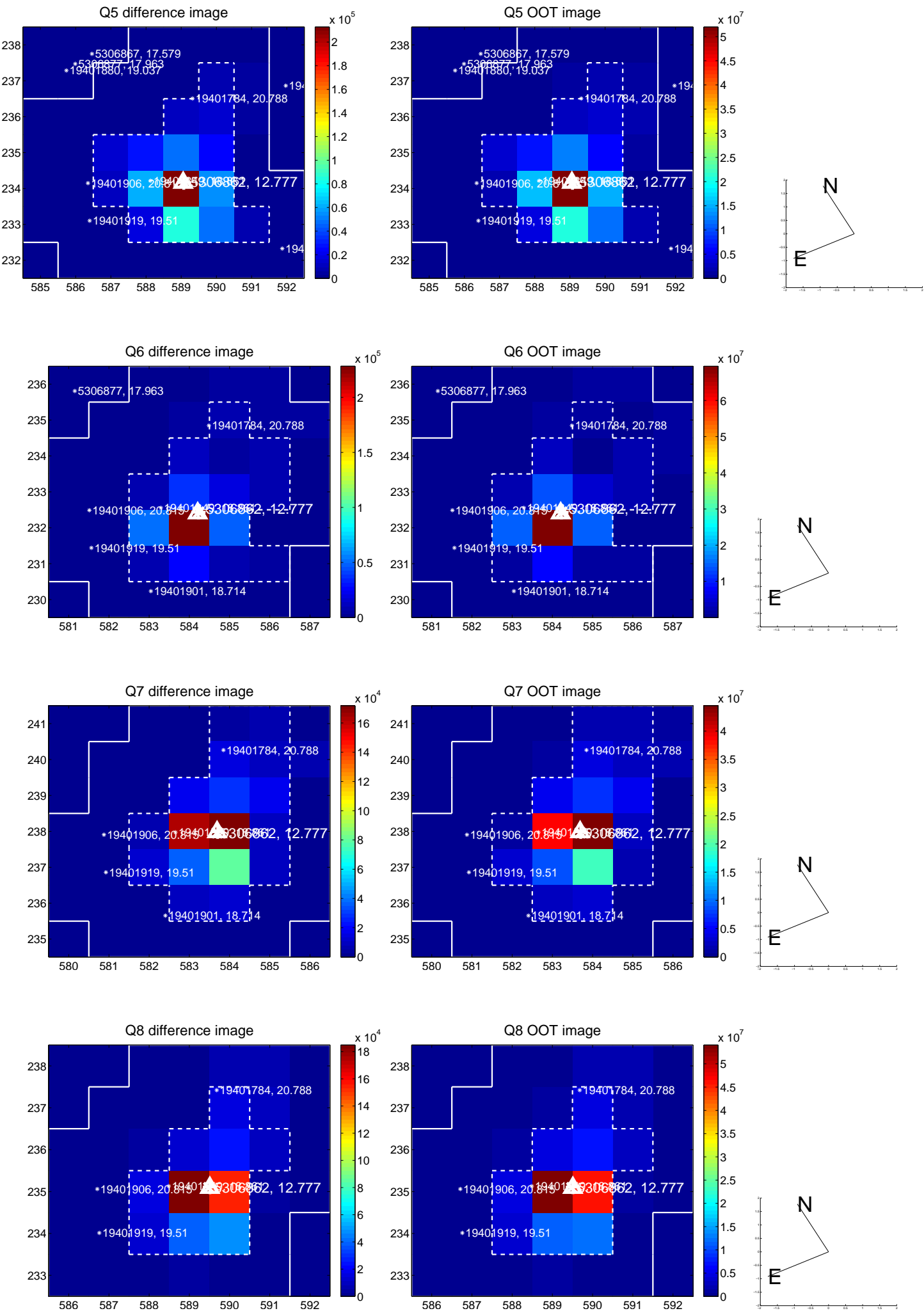


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

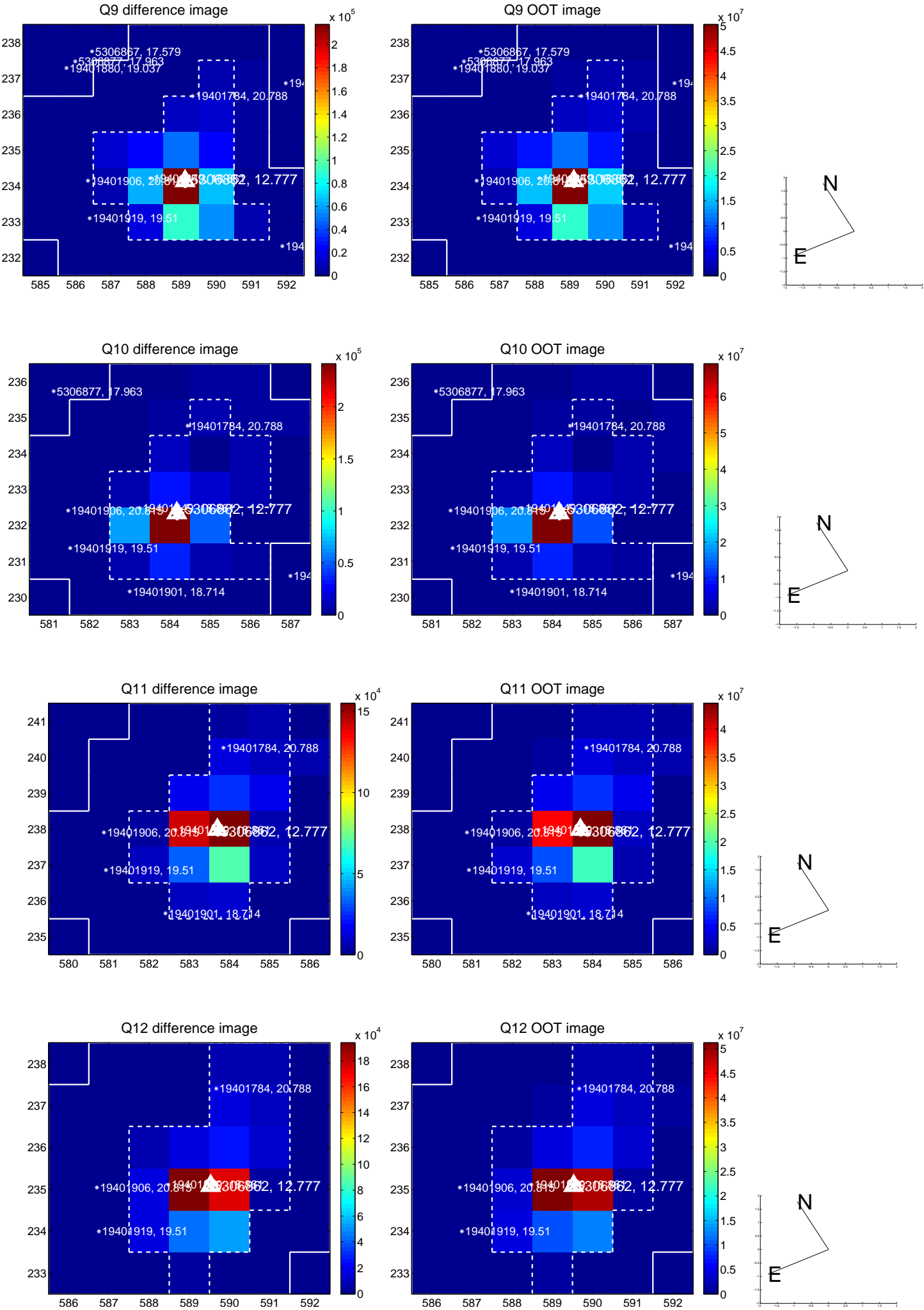
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



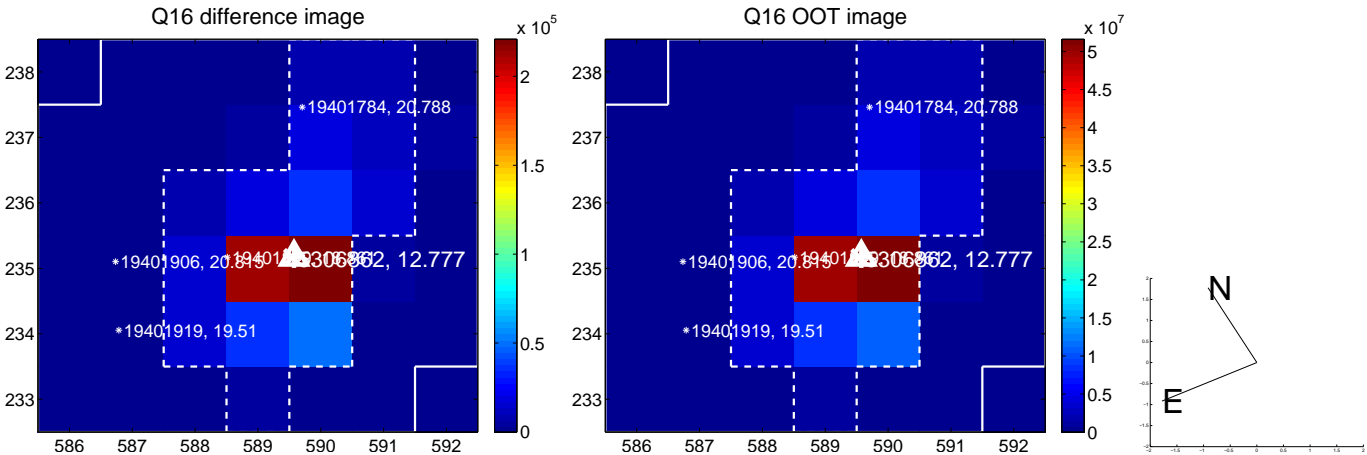
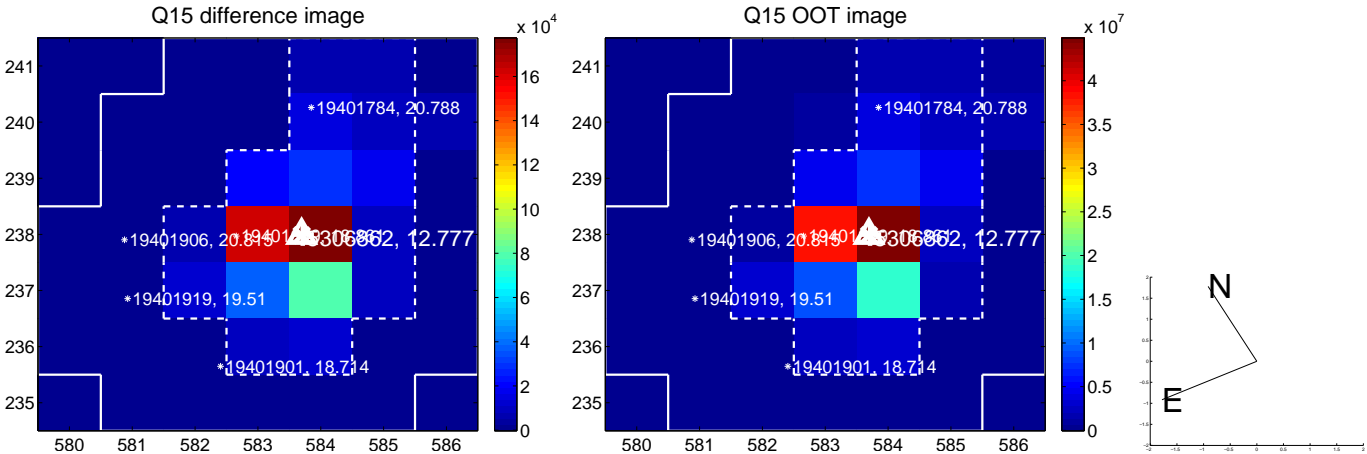
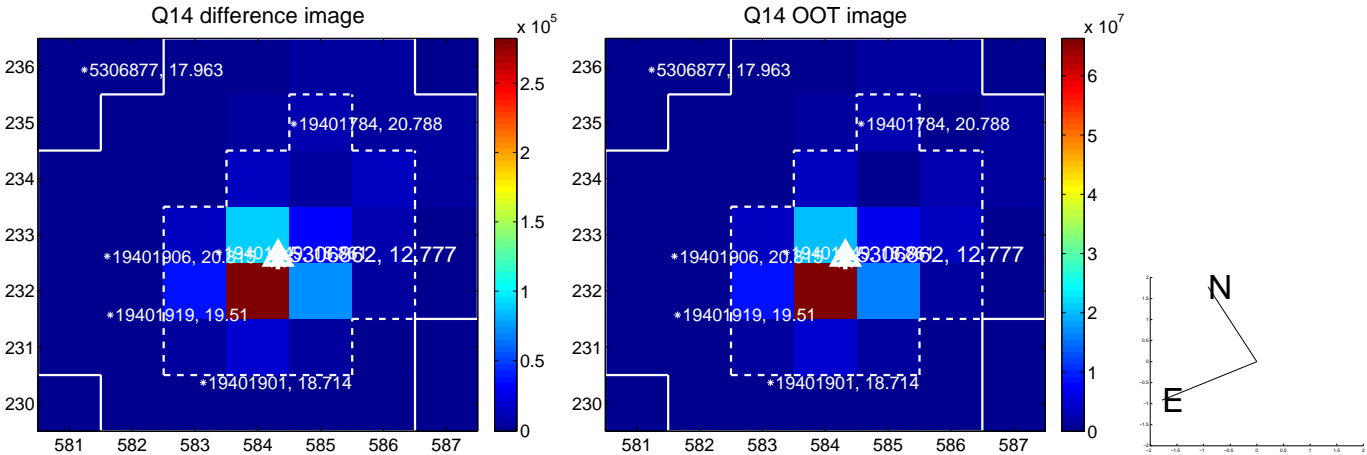
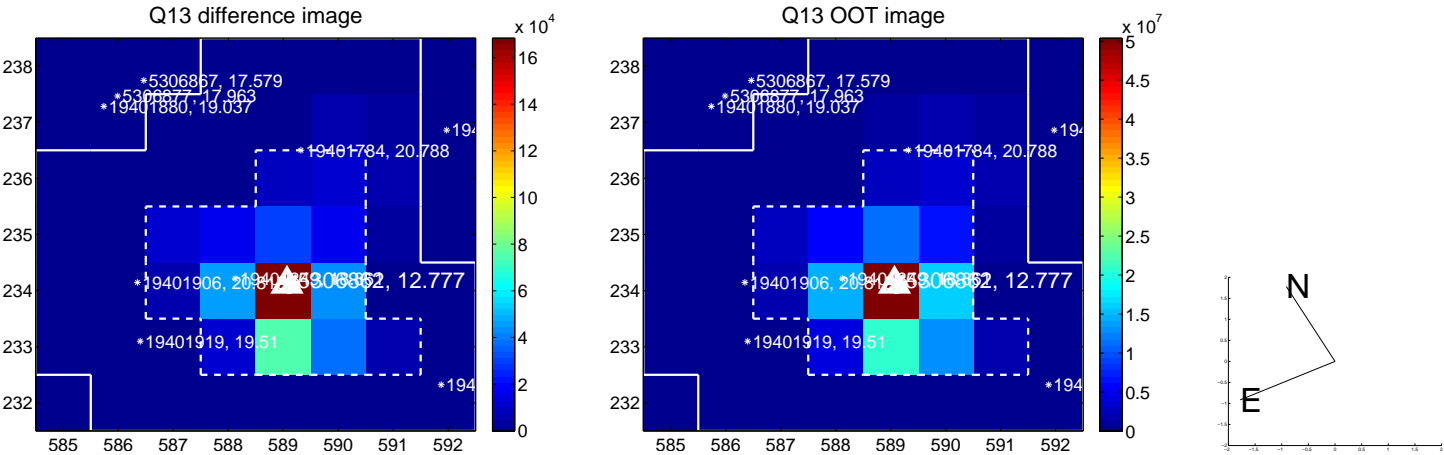
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

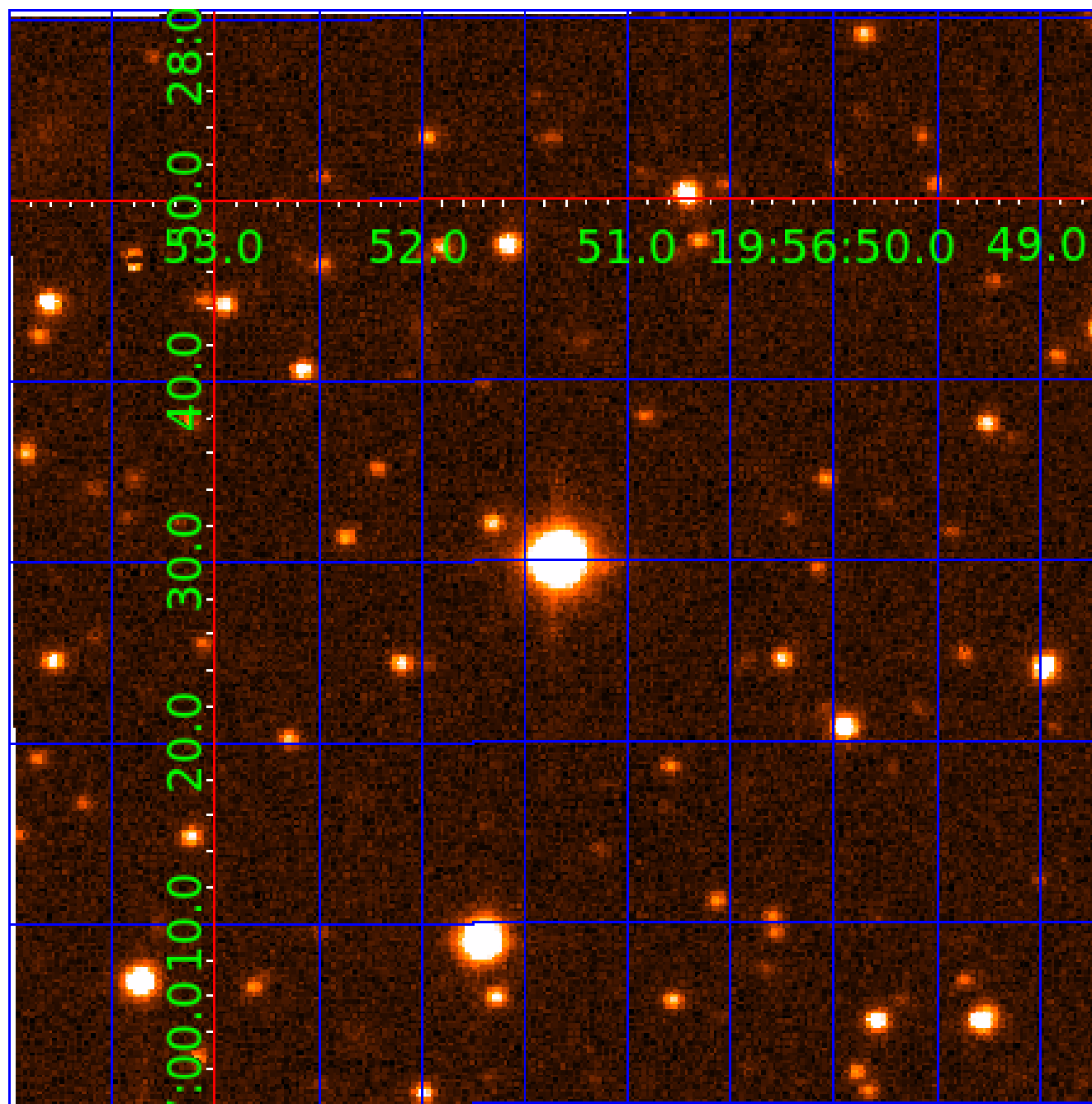


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005306862

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})
005306862-01	OBS	6561.01	2.025586	131.862225	42345.7	4.244	3670.7	2930.8	1.99	6348	41.41	4619.66
005306862-02	OBS	No	2.025569	132.880034	225.5	3.920	19.2	22.0	1.99	6348	3.51	4619.71
005306862-03	OBS	No	2.029875	131.709110	243.4	2.000	7.8	-1.0	1.99	6348	3.12	4606.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005306862-01	OBS	FP	0.00	0	1	0	0	HAS_SEC_TCE
005306862-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005306862-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—CENT_NOFITS

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 005306862-03

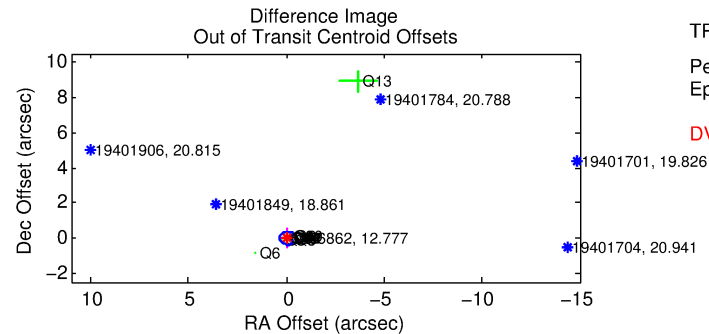
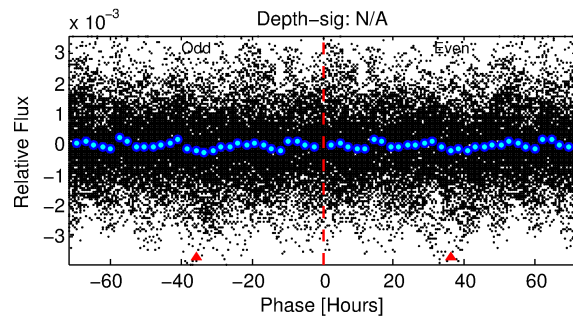
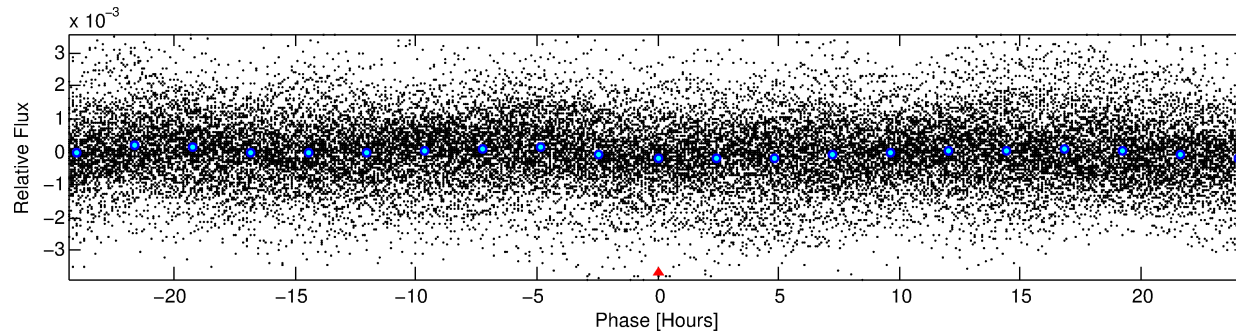
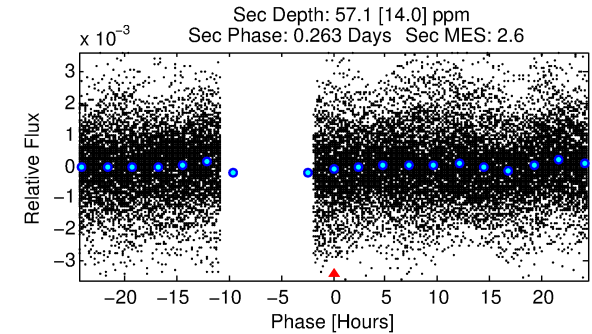
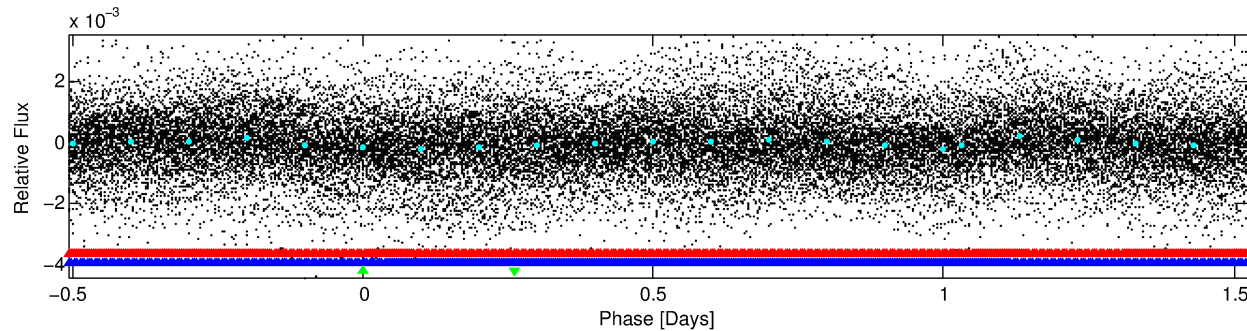
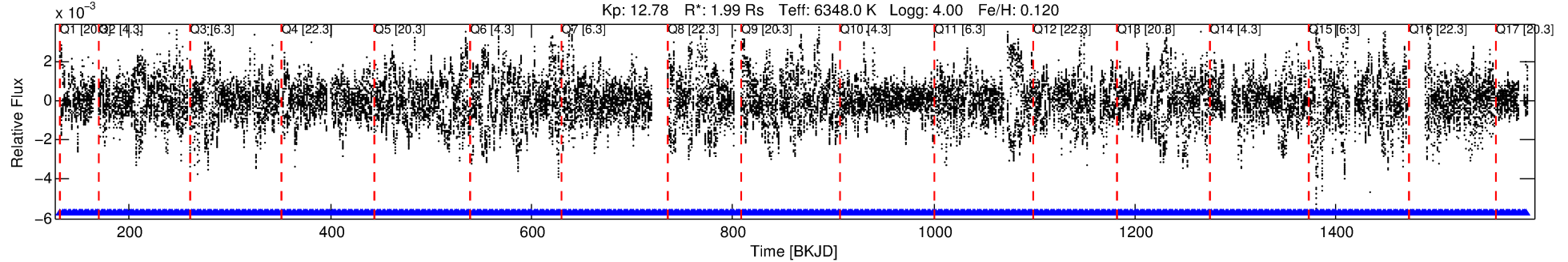
No Significant Match Found

DV One-Page Summary

KIC: 5306862 Candidate: 3 of 3 Period: 2.030 d

KOI: K06561 Corr: No Ephemeris Match

Kp: 12.78 R*: 1.99 Rs Teff: 6348.0 K Logg: 4.00 Fe/H: 0.120



TPS TCE Results:

Period = 2.02988 d
Epoch = 131.7091 BKJD

DV fit results are unavailable

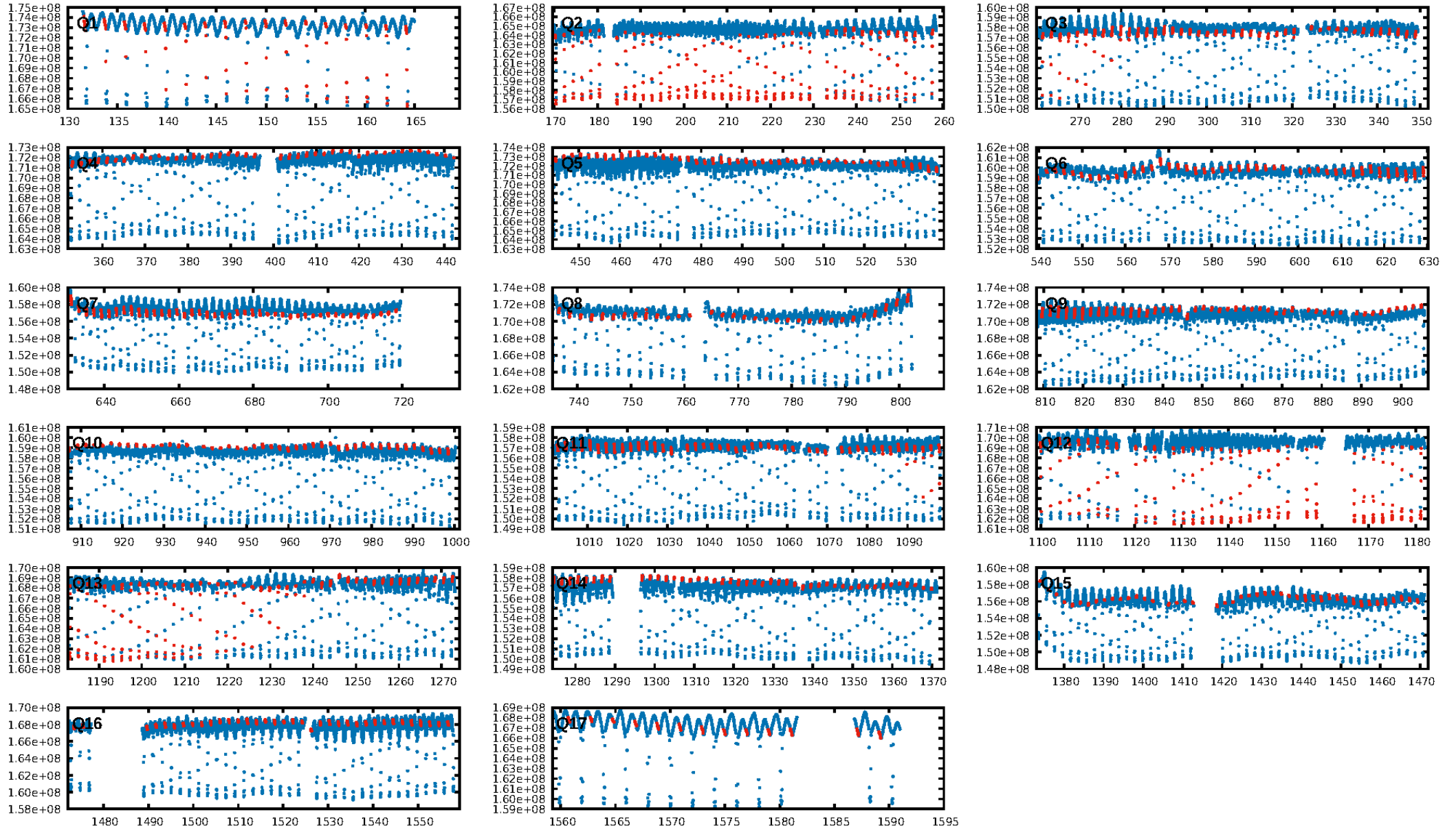
DV Diagnostic Results:

ShortPeriod-sig: 1.8% [0.02σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [619/619]
GhostDiagnostic-chr: -1.403
Centroid-sig: N/A
Centroid-so: 0.649 arcsec [4.86σ]
OotOffset-rm: 0.022 arcsec [0.17σ]
KicOffset-rm: 0.084 arcsec [0.25σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.41 [7/17]
DiffImageOverlap-fno: 0.00 [0/17]

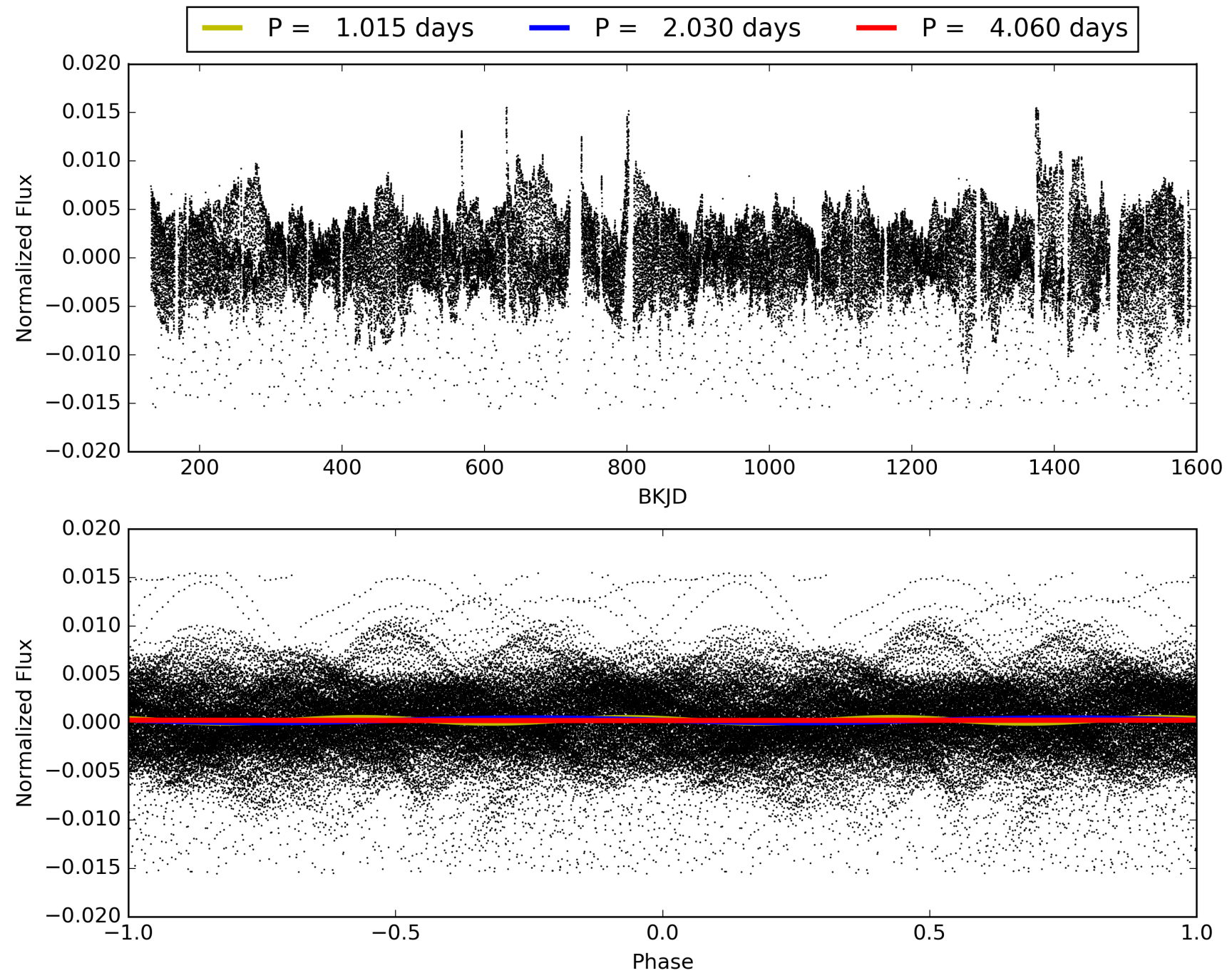
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:17:29 Z

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

TCE 005306862-03, PDC Light Curves

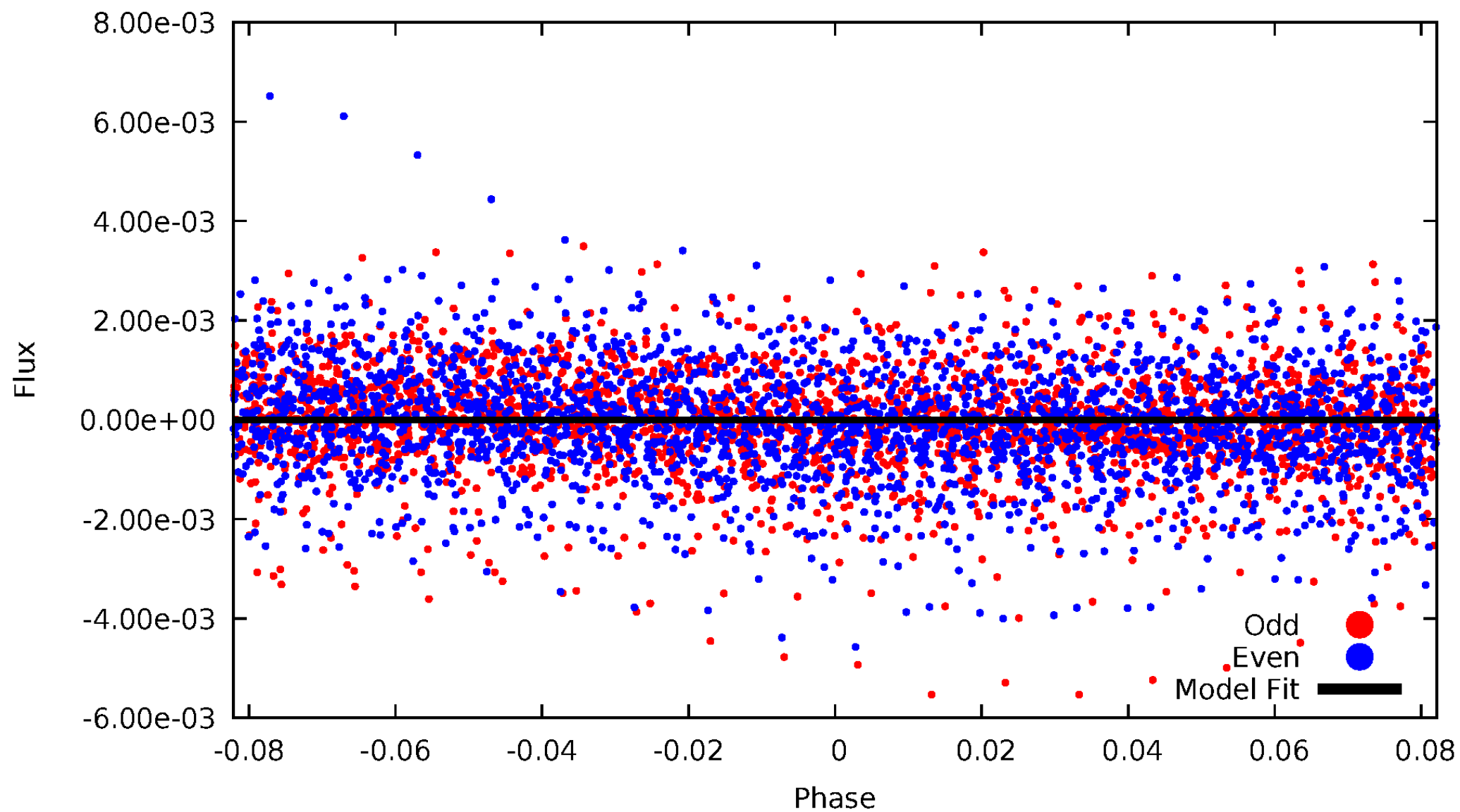


TCE 005306862-03



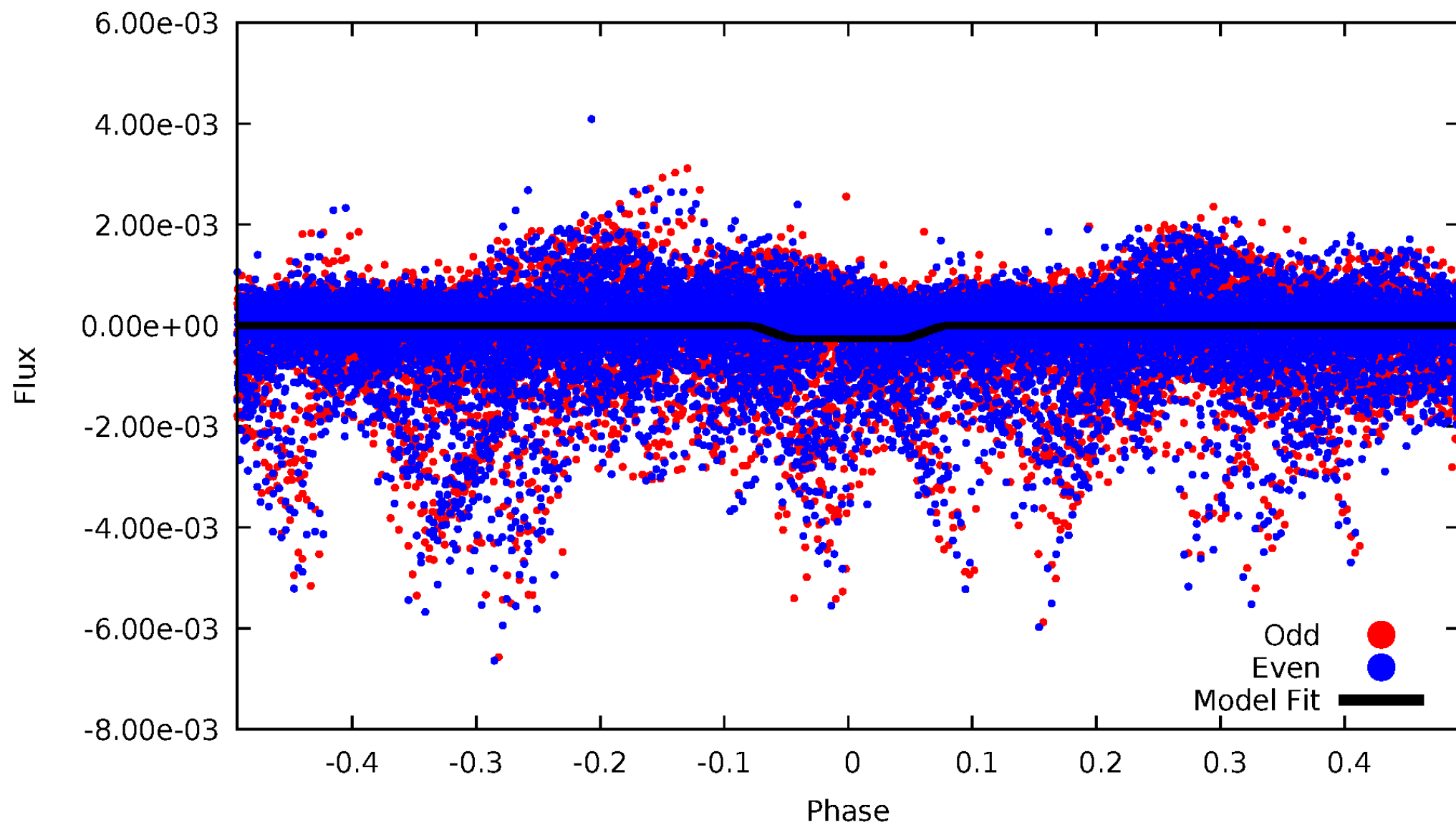
DV Odd/Even

TCE 005306862-03

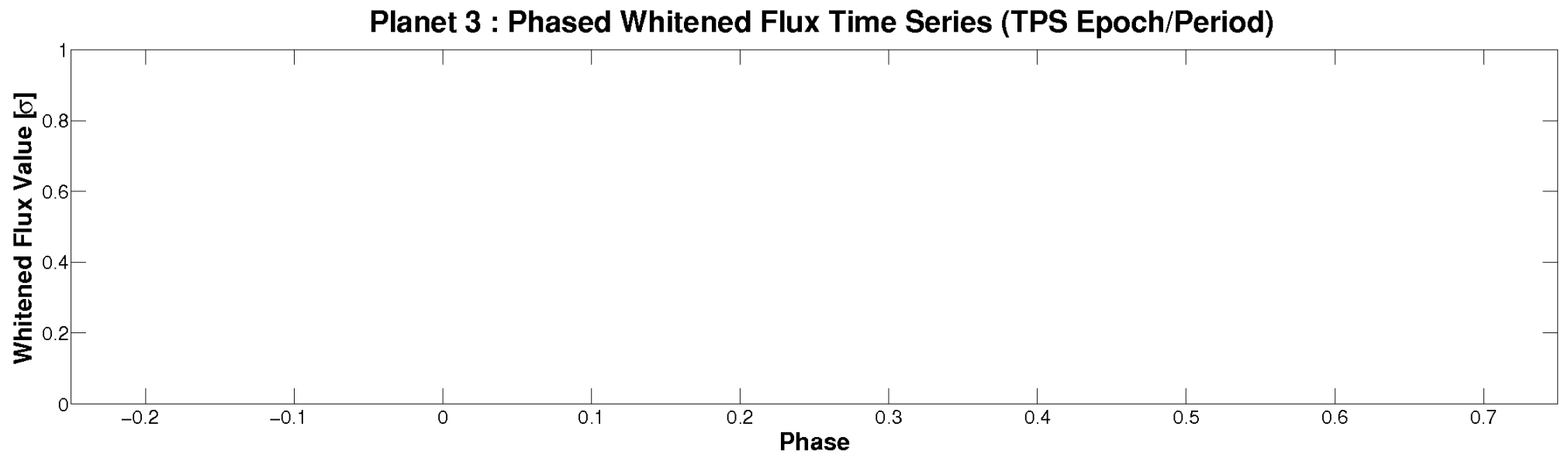
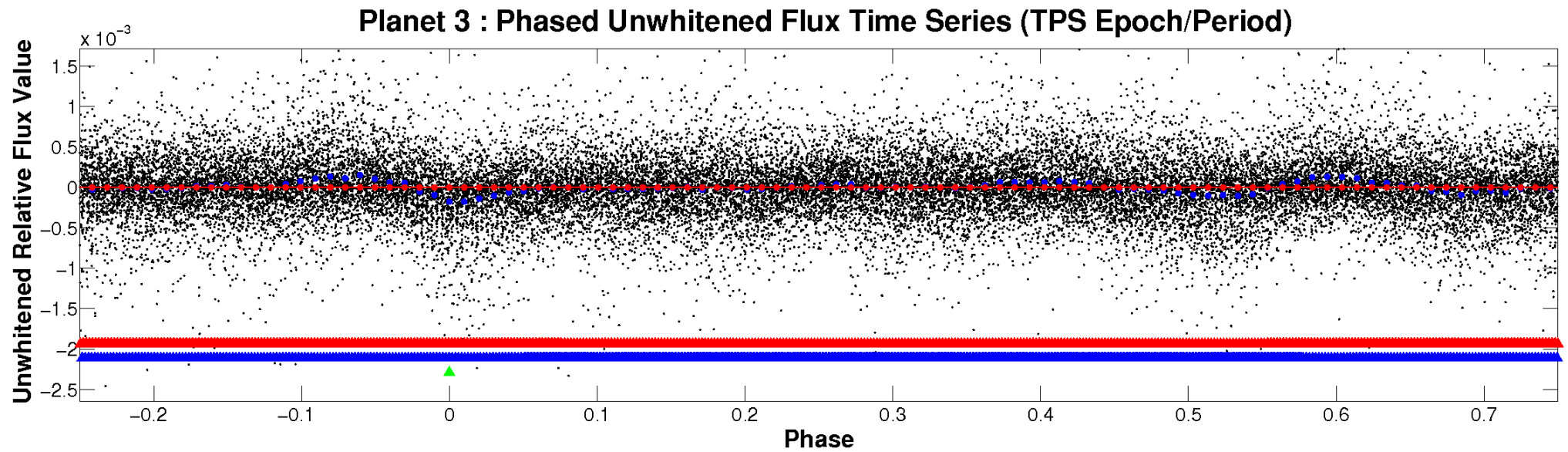


ALT Odd/Even

TCE 005306862-03

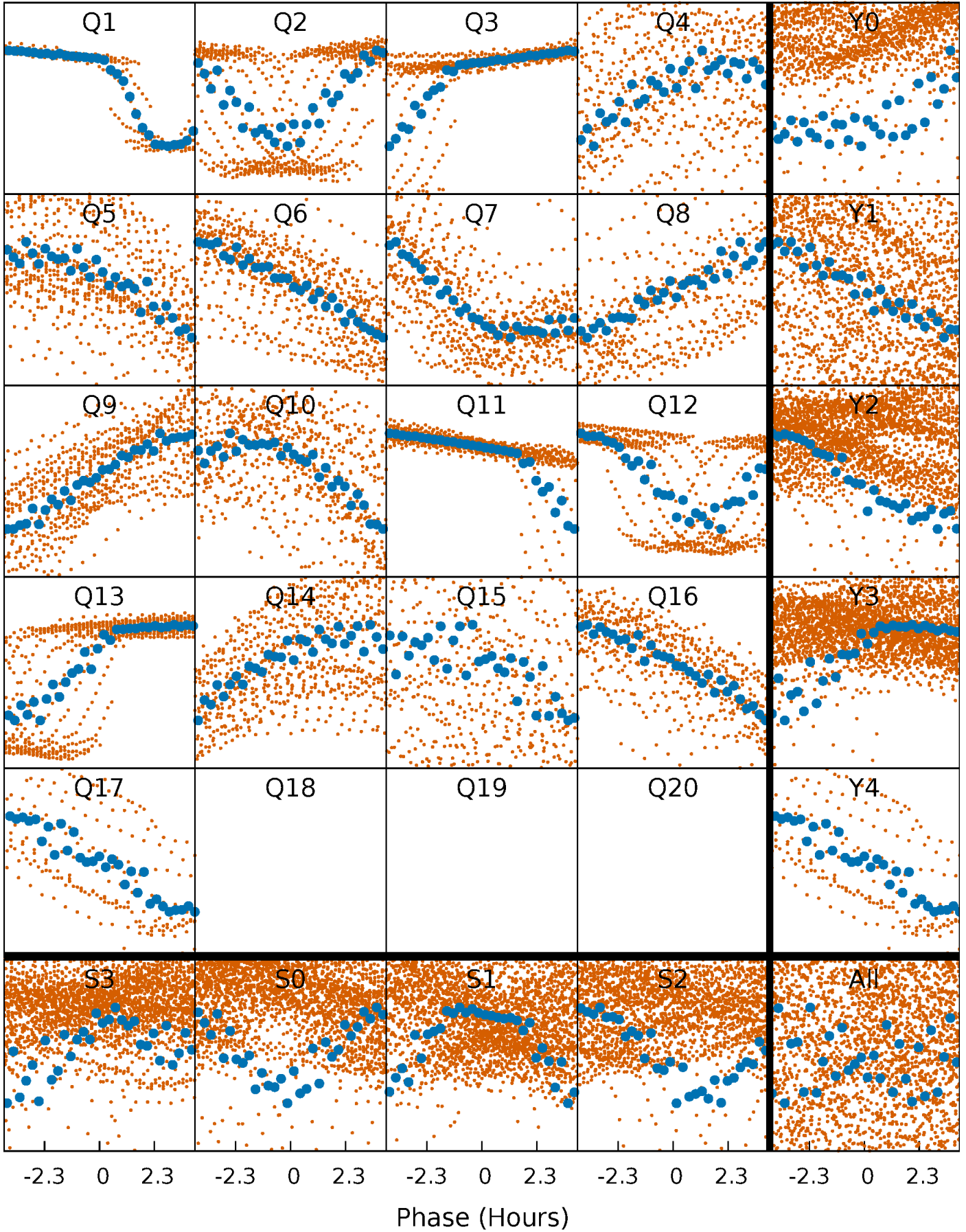


Non-Whitened Vs. Whitened Light Curve



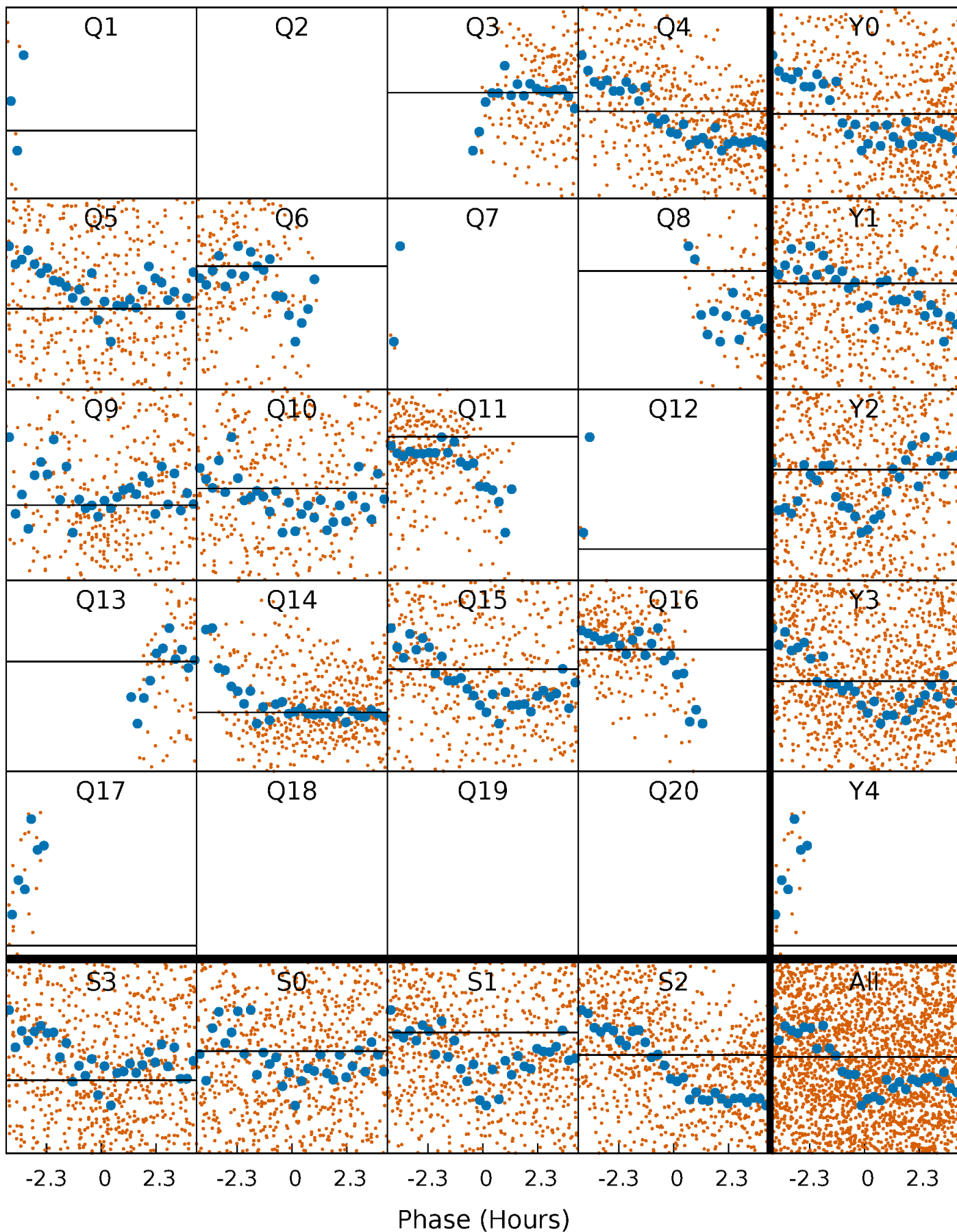
PDC Quarter-Phased Transit Curves

TCE 005306862-03 P= 2.029875 Days $T_0=131.709110$ (BKJD)



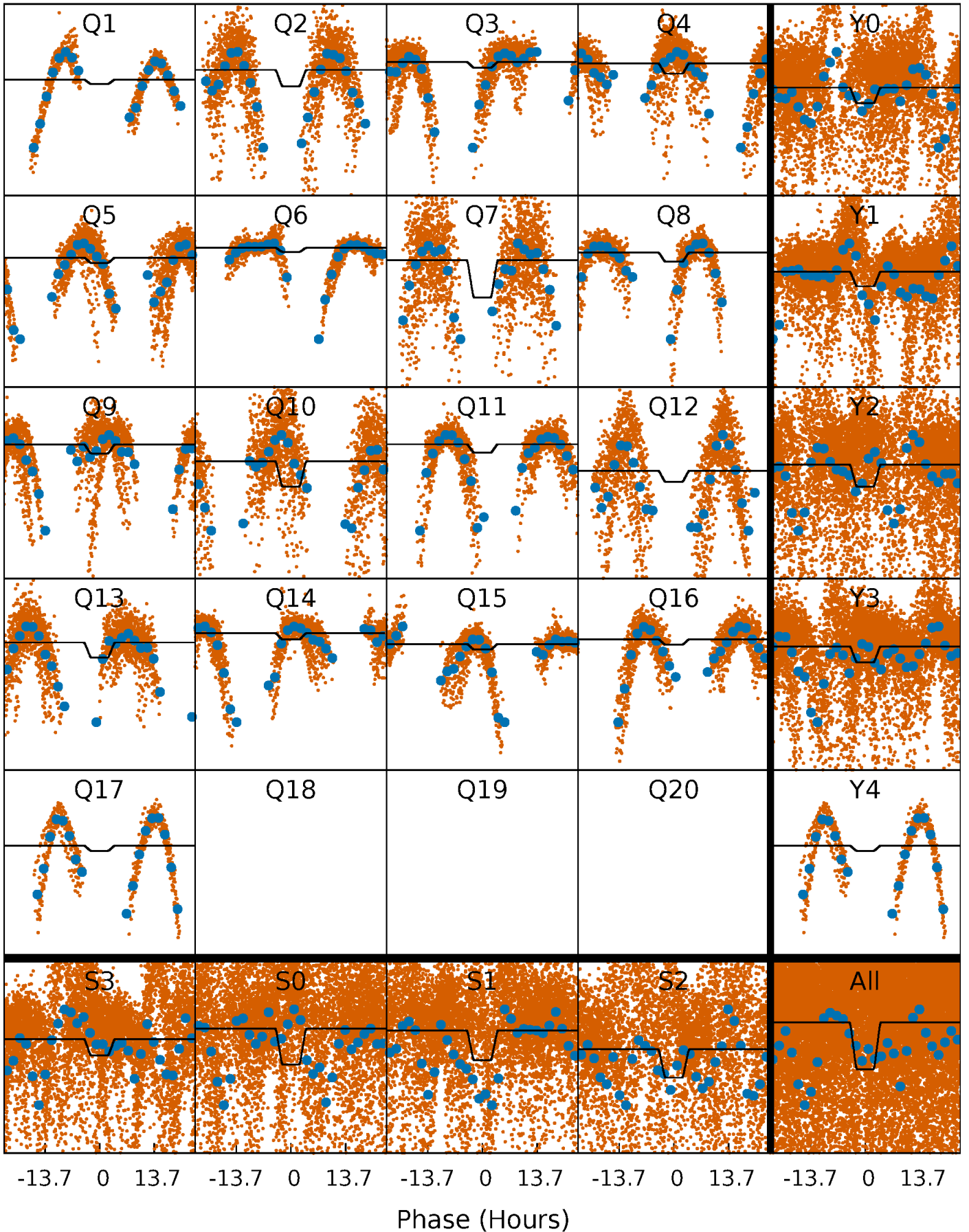
DV Quarter-Phased Transit Curves

TCE 005306862-03 P= 2.029875 Days $T_0=131.709110$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

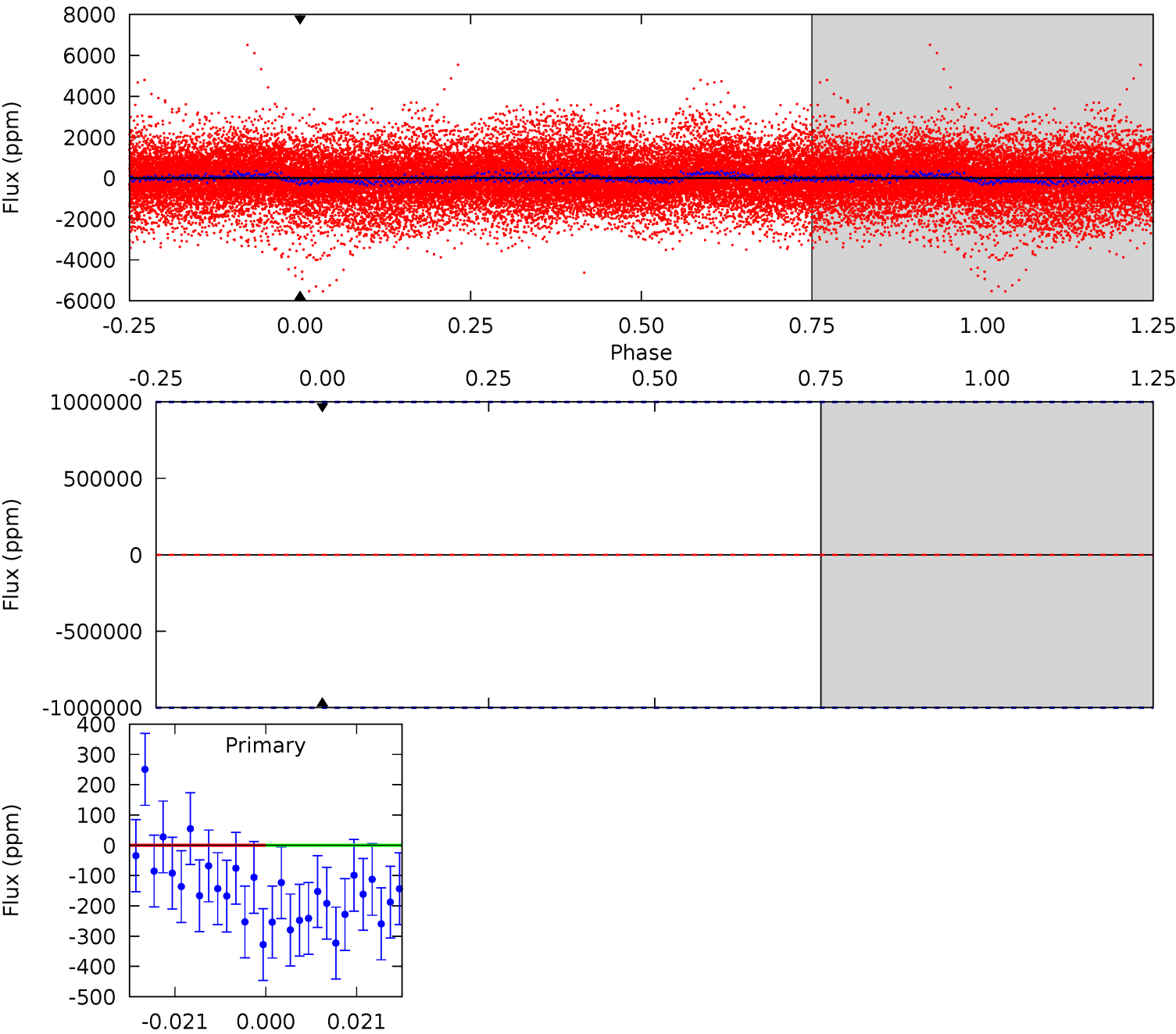
TCE 005306862-03 $P = 2.029875$ Days $T_0 = 131.774809$ (BKJD)



DV Model-Shift Uniqueness Test

005306862-03, P = 2.029875 Days, E = 129.679235 Days

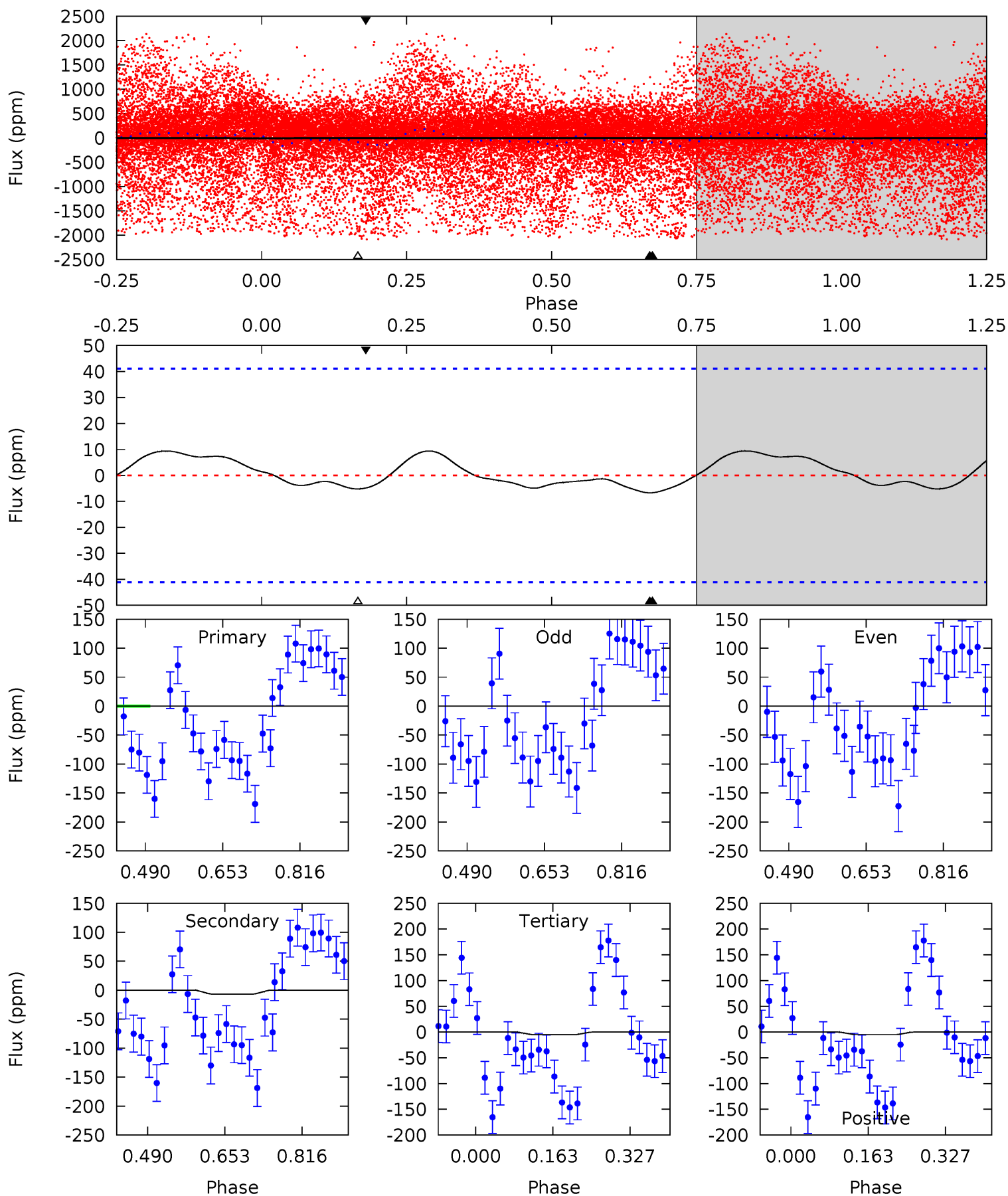
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005306862-03, P = 2.029875 Days, E = 129.744934 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.73	0.73	0.57	-0.53	4.46	1.39	0.53	0.16	1.25	0.16	1.26	0.71	4.82	0.58	0.77



Stellar Parameters For KIC 005306862

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6348^{+170}_{-208}	$3.996^{+0.306}_{-0.165}$	$0.120^{+0.250}_{-0.300}$	$1.990^{+0.578}_{-0.707}$	$1.431^{+0.201}_{-0.327}$	$0.256^{+0.548}_{-0.117}$
	+3%/-3%	+8%/-4%	+208%/-250%	+29%/-36%	+14%/-23%	+214%/-46%
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 005306862-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$14.62^{+16.83}_{-10.05}$	2882^{+237}_{-257}	4798^{+26042}_{-27266}	$5.815^{+657.994}_{-396.109}$
Alt.	-7 ± 9	$15.46^{+16.11}_{-10.60}$	2898^{+237}_{-281}	-2973^{+357}_{-188}	$0.014^{+0.141}_{-0.017}$

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

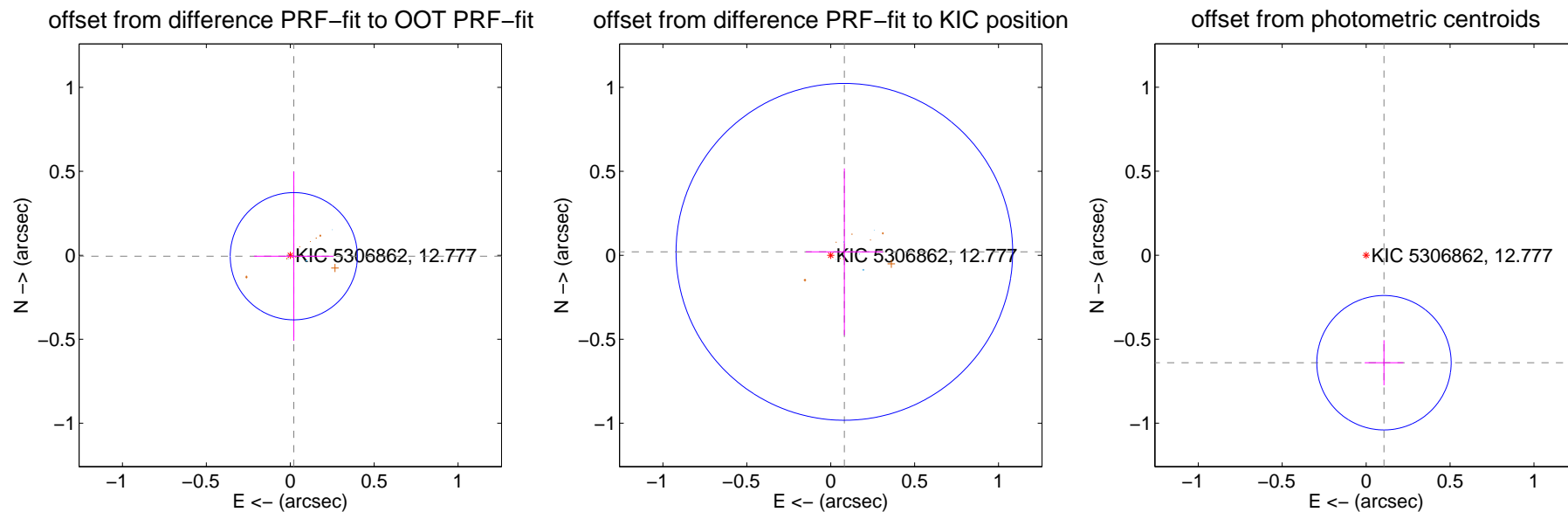
DV Centroid Data

Supplemental centroid analysis for 005306862-03. Kepler magnitude: 12.78. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

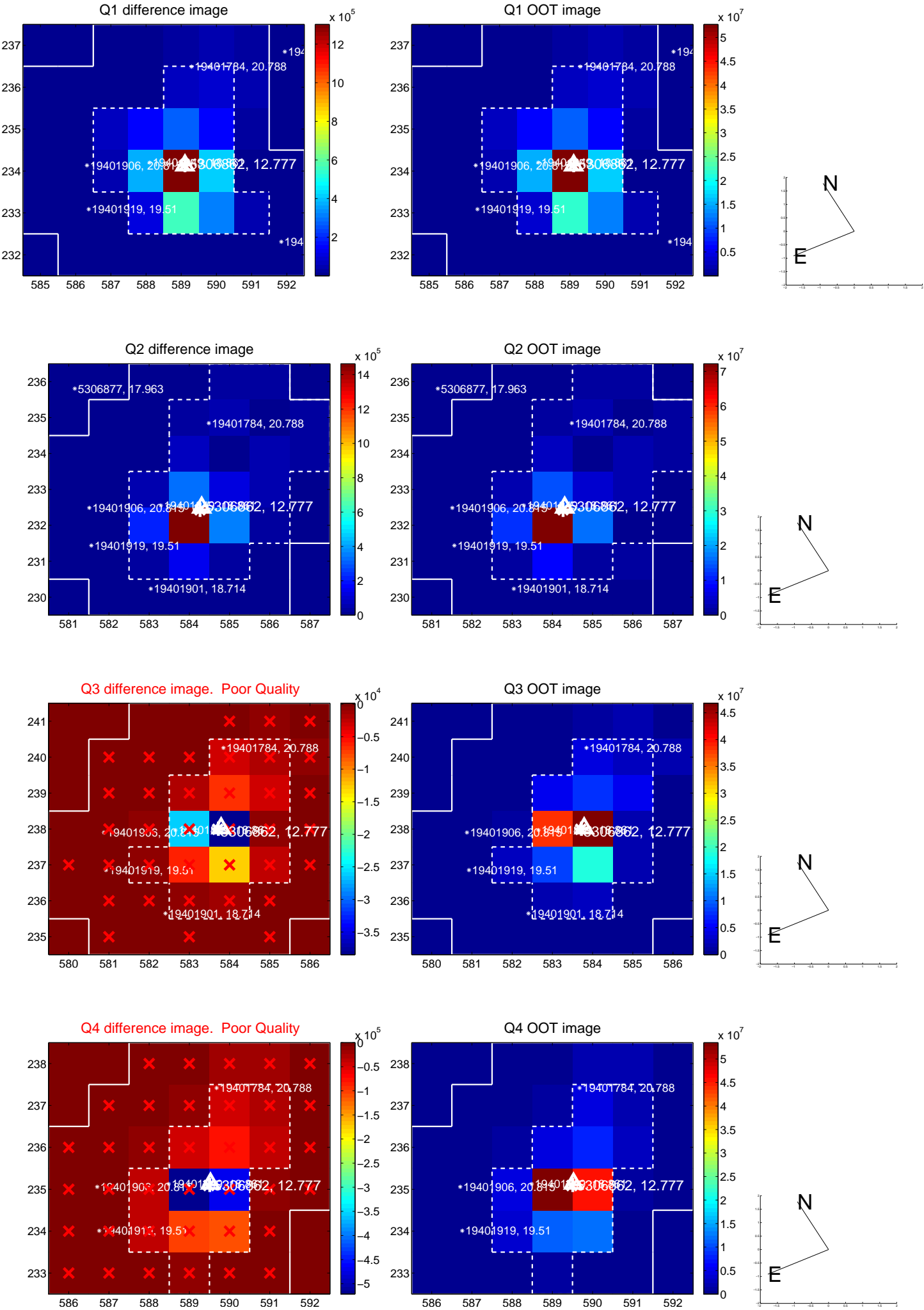
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.022 ± 0.126	0.17	-0.021 ± 0.237	-0.006 ± 0.504
PRF-fit source offset from KIC position	0.084 ± 0.334	0.25	-0.081 ± 0.230	0.020 ± 0.497
photometric centroid source offset	0.65 ± 0.13	4.86	-0.11 ± 0.12	-0.64 ± 0.13

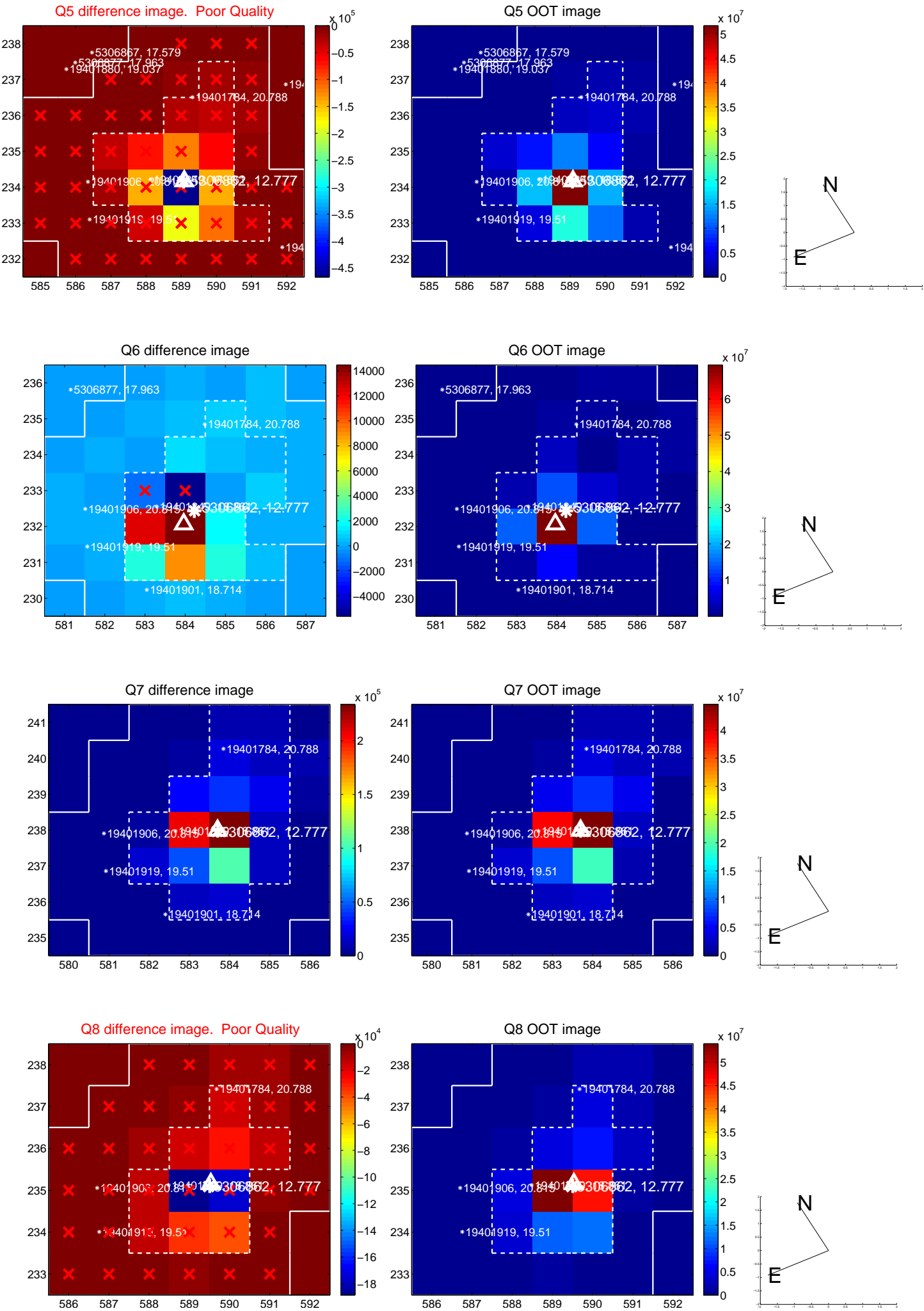


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

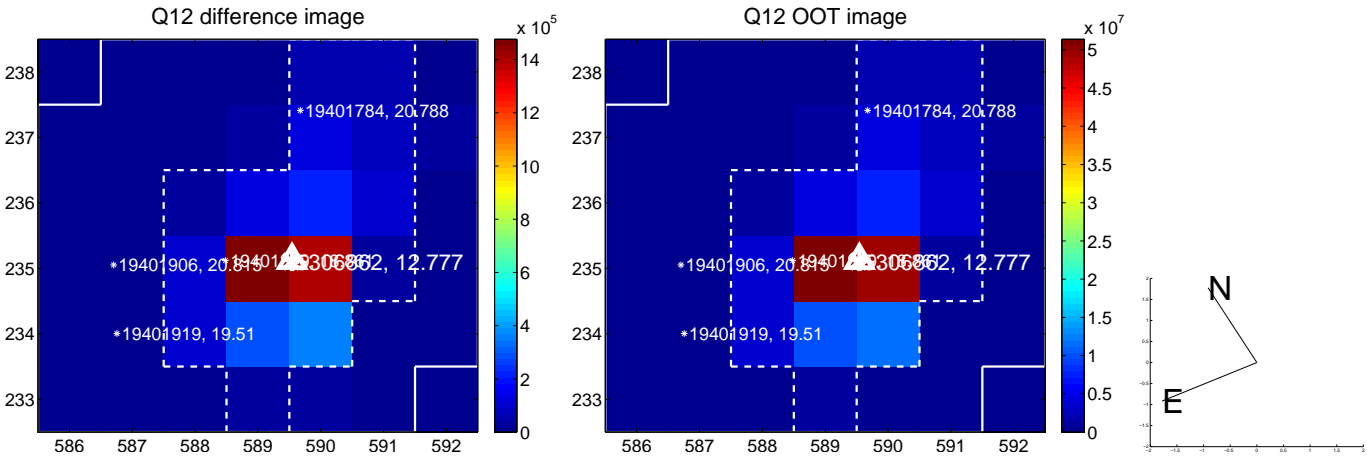
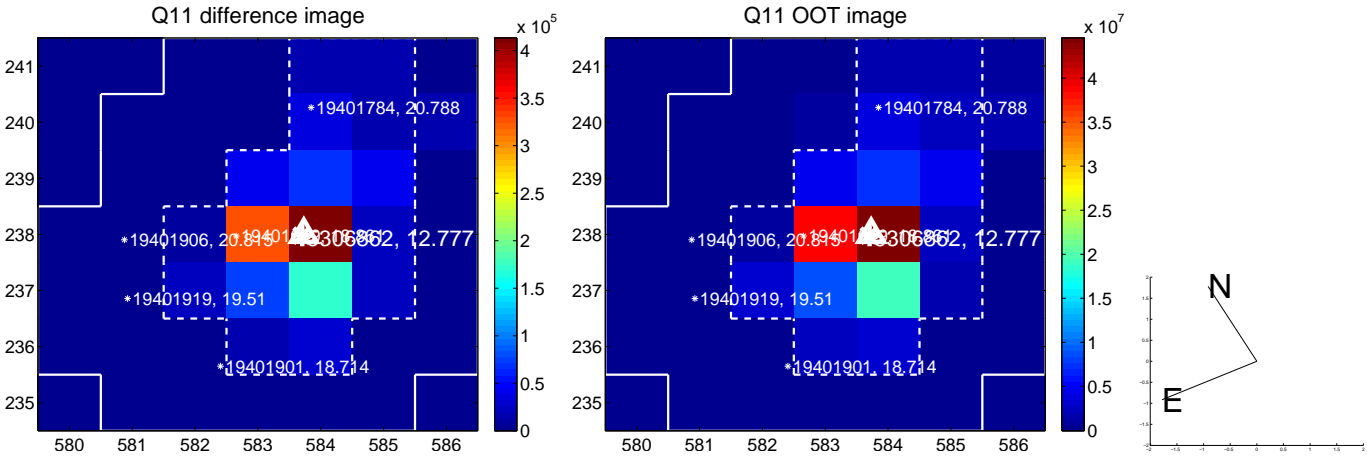
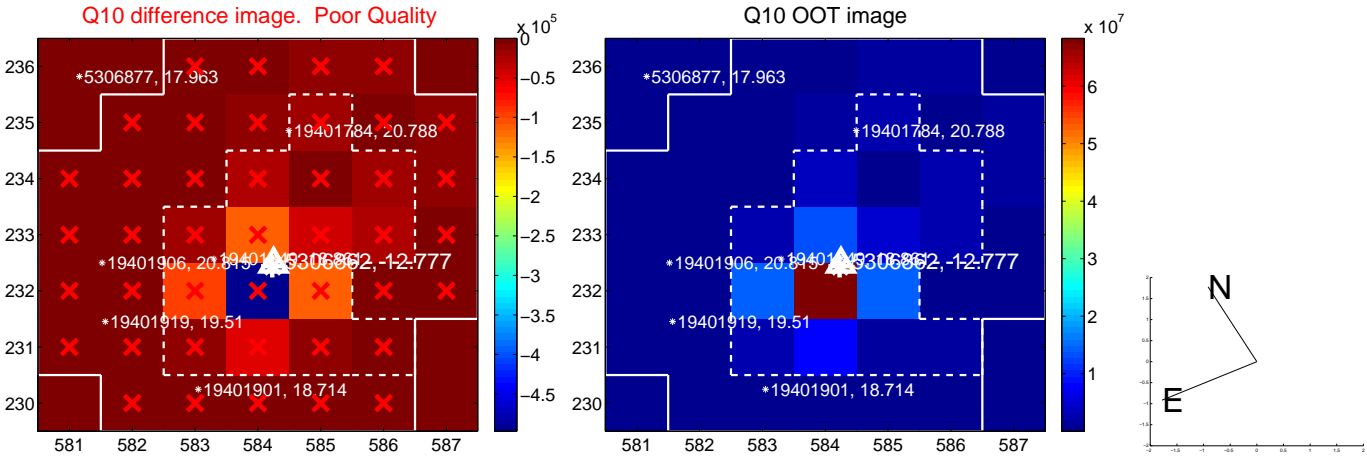
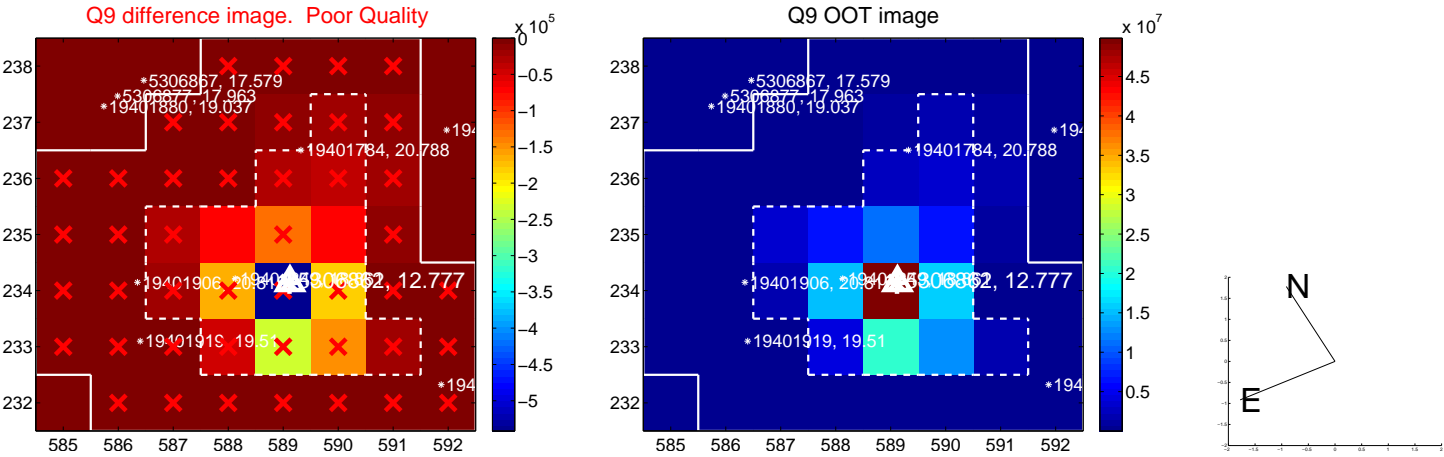
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



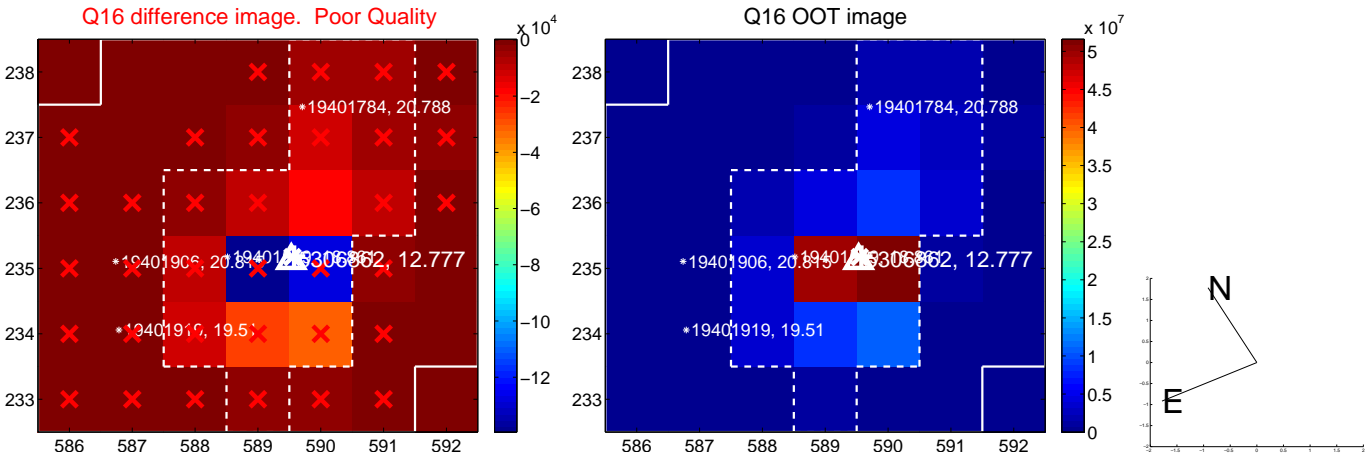
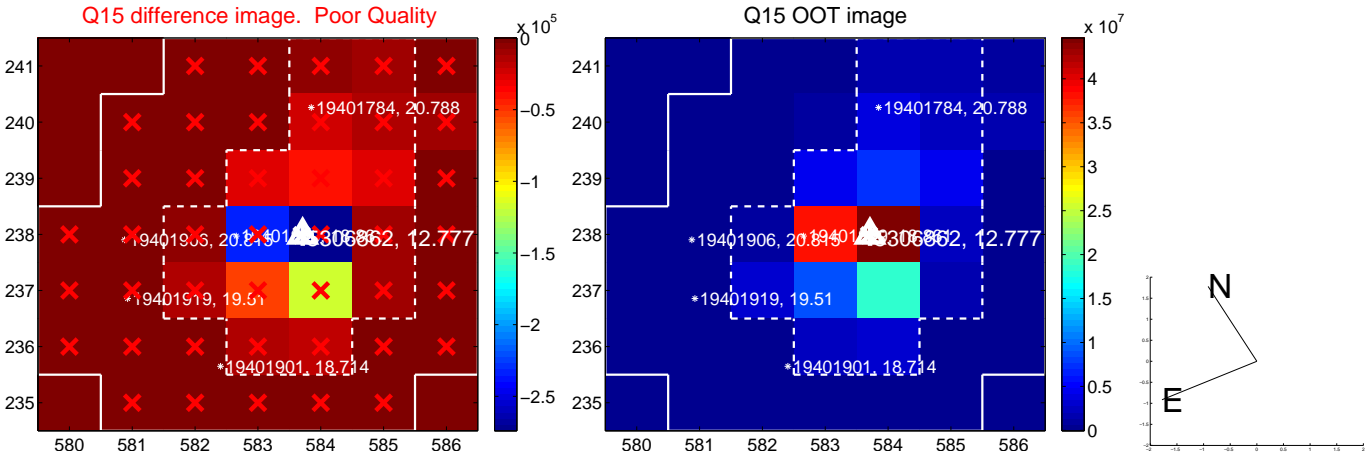
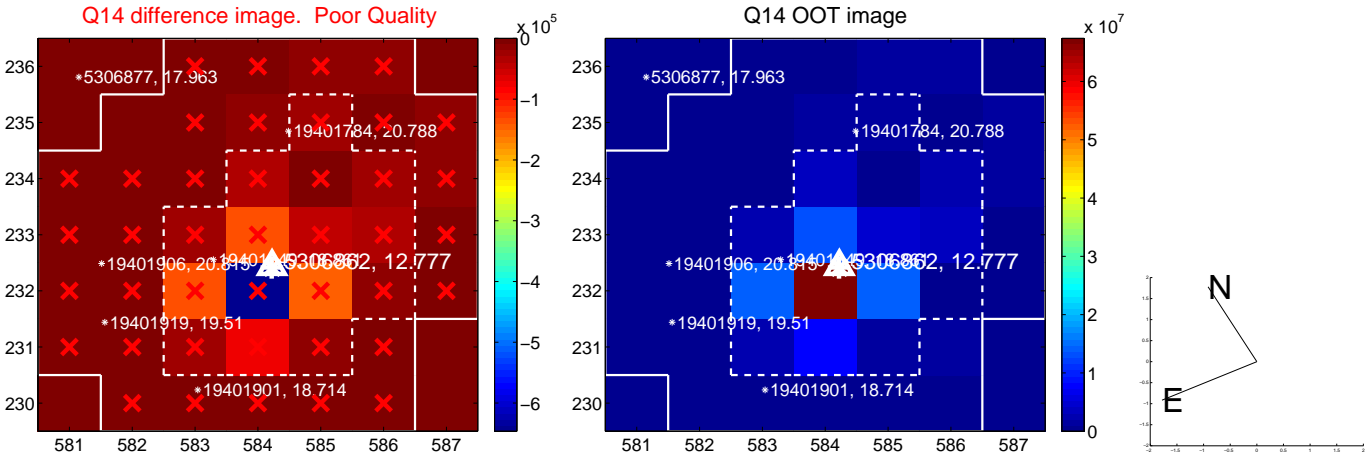
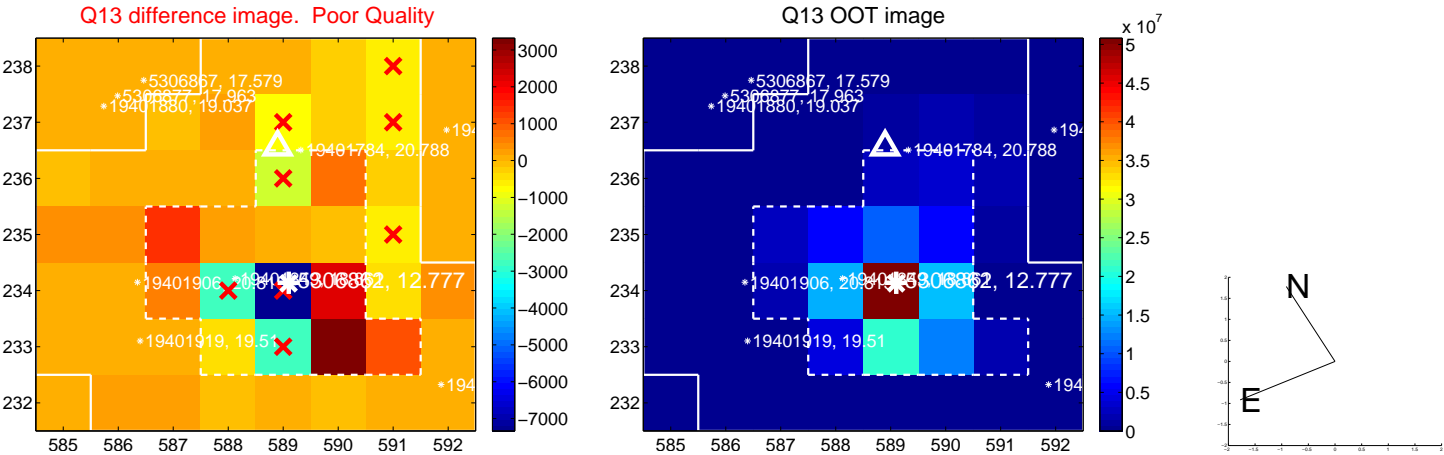
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



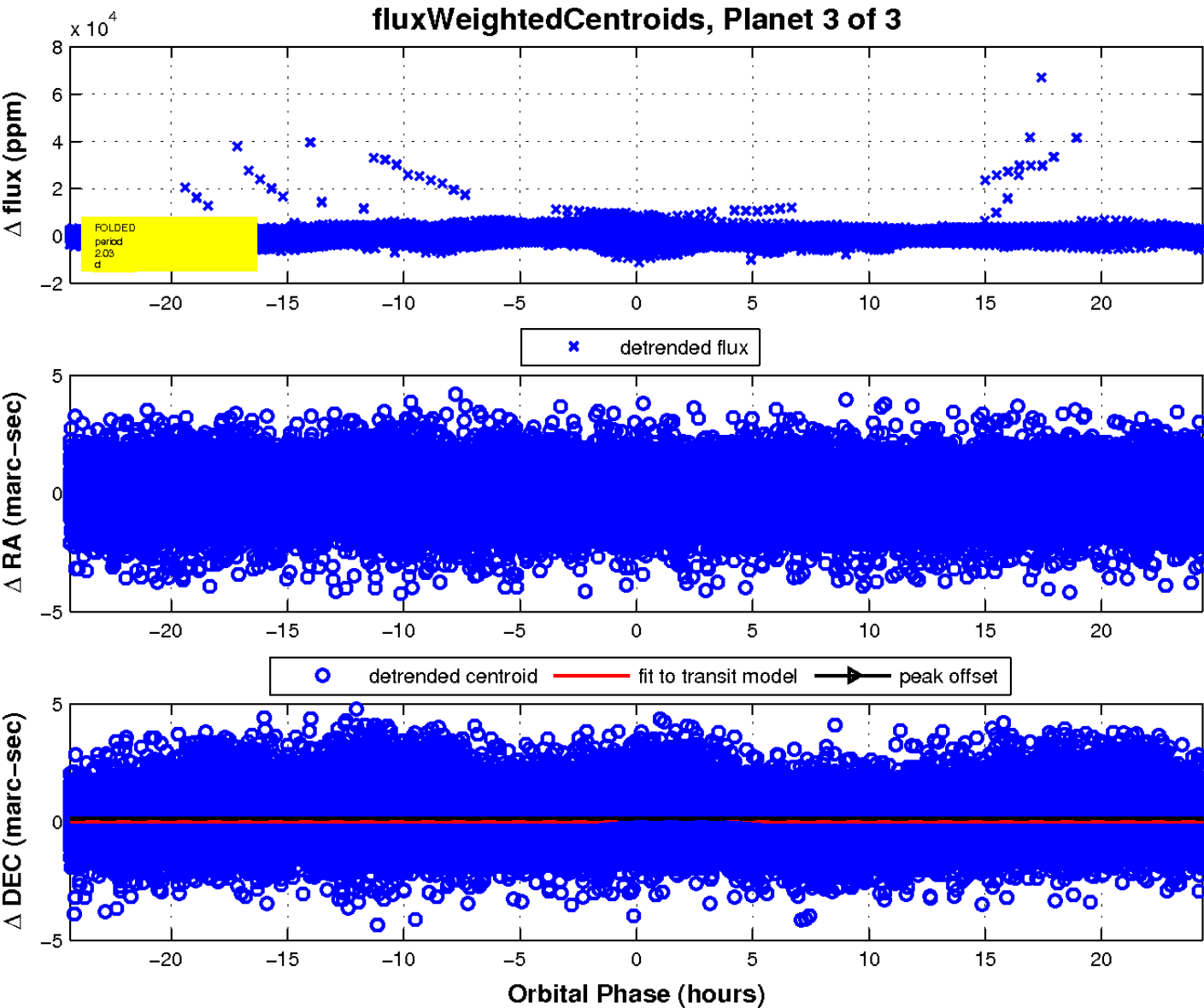
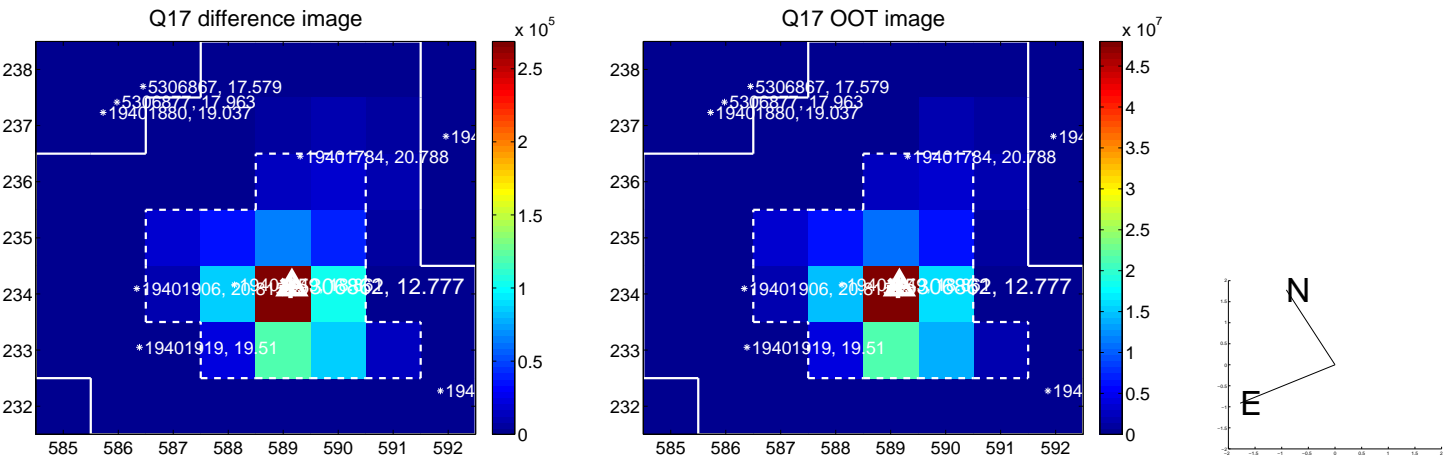
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

