

# KIC 011874676

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011874676-01	OBS	No	0.504944	131.914745	83.3	1.025	10.1	13.5	2.17	8292	2.32	87186.01
011874676-02	OBS	No	0.504943	131.747835	67.7	1.161	9.7	11.3	2.17	8292	2.09	87186.20
011874676-03	OBS	No	0.504948	131.571029	54.7	1.259	8.7	9.9	2.17	8292	1.64	87185.13

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011874676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011874676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_SATURATED
011874676-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_SATURATED

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

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

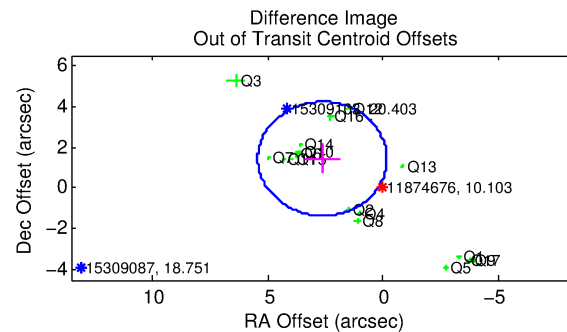
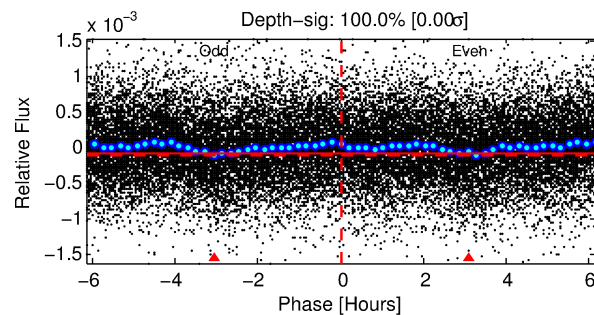
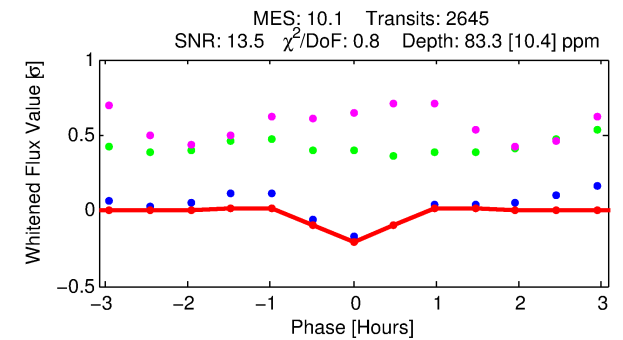
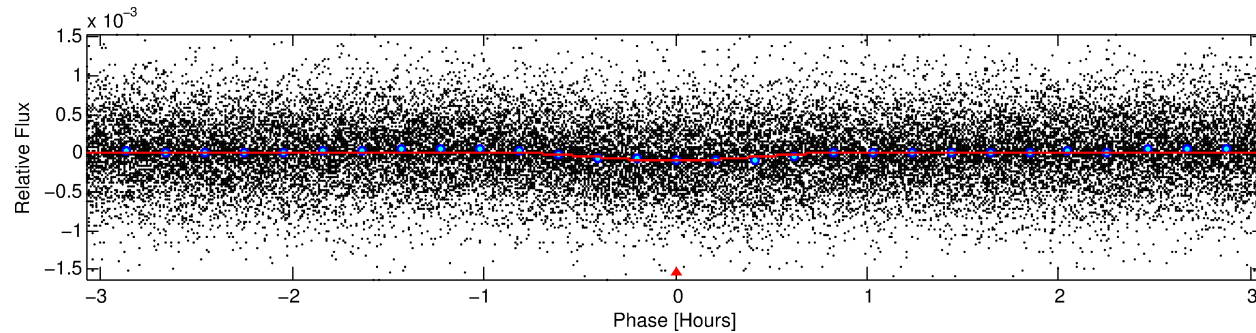
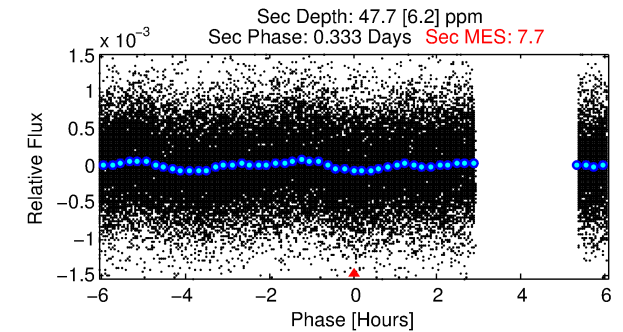
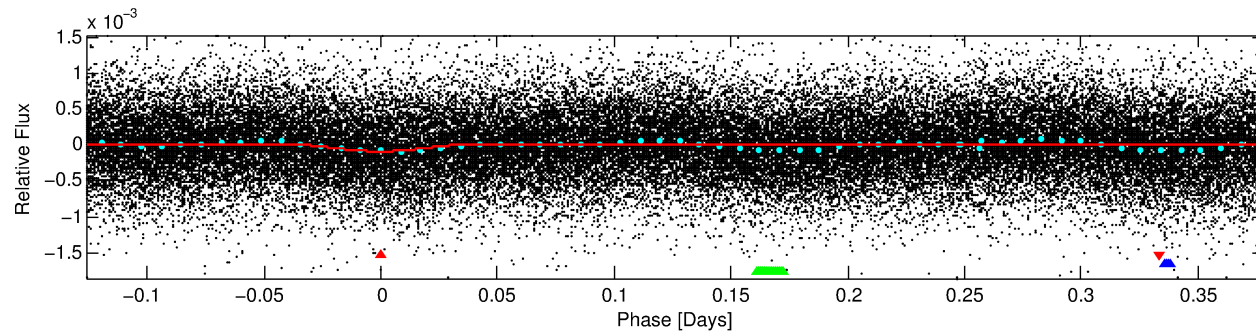
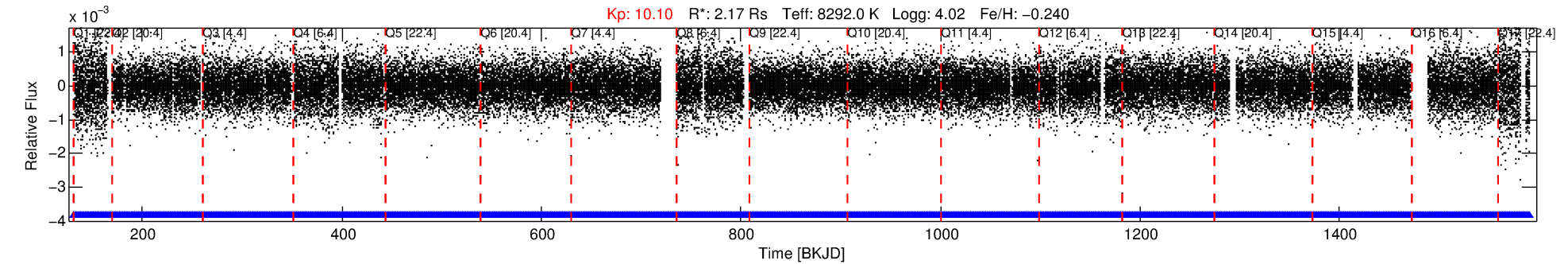
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 011874676-01

No Significant Match Found

# DV One-Page Summary

KIC: 11874676 Candidate: 1 of 3 Period: 0.505 d



## DV Fit Results:

Period = 0.50494 [0.00001] d  
Epoch = 131.9147 [0.0013] BKJD  
Rp/R\* = 0.0098 [0.0029]  
a/R\* = 1.96 [2.66]  
b = 0.90 [0.39]  
Seff = 87186.01 [21535.30]  
Teq = 4382 [271] K  
Rp = 2.32 [0.81] Re  
a = 0.0151 [0.0024] AU  
Ag = 1.12 [0.73] [0.16σ]  
Teffp = 6962 [1063] K [2.35σ]

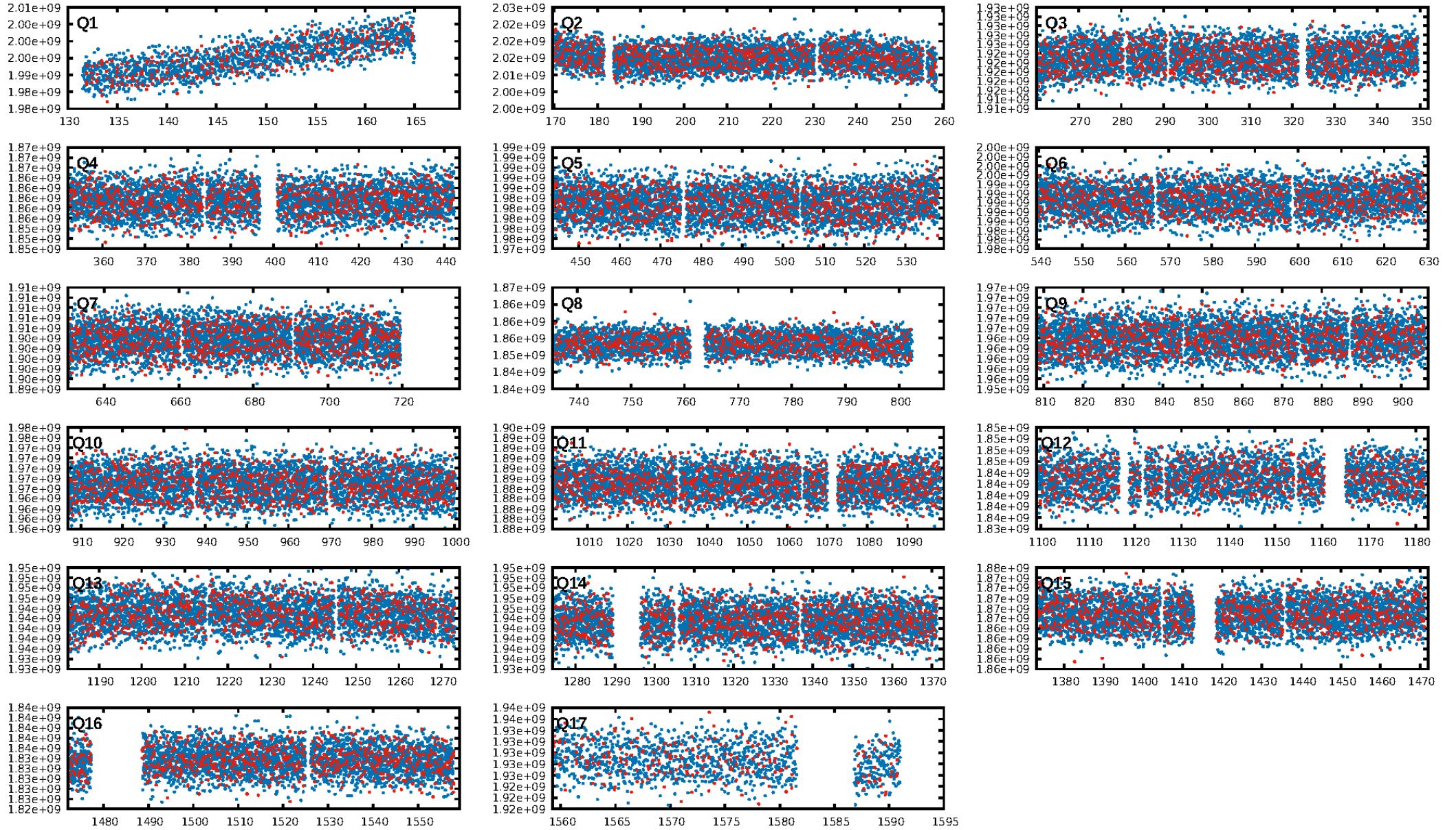
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]  
LongPeriod-sig: 0.0% [0.00σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2527/2527]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: 0.660 arcsec [2.68σ]  
OotOffset-rm: 3.000 arcsec [3.23σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-rm: 1.924 arcsec [2.25σ]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.35 [6/17]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:30:43 Z

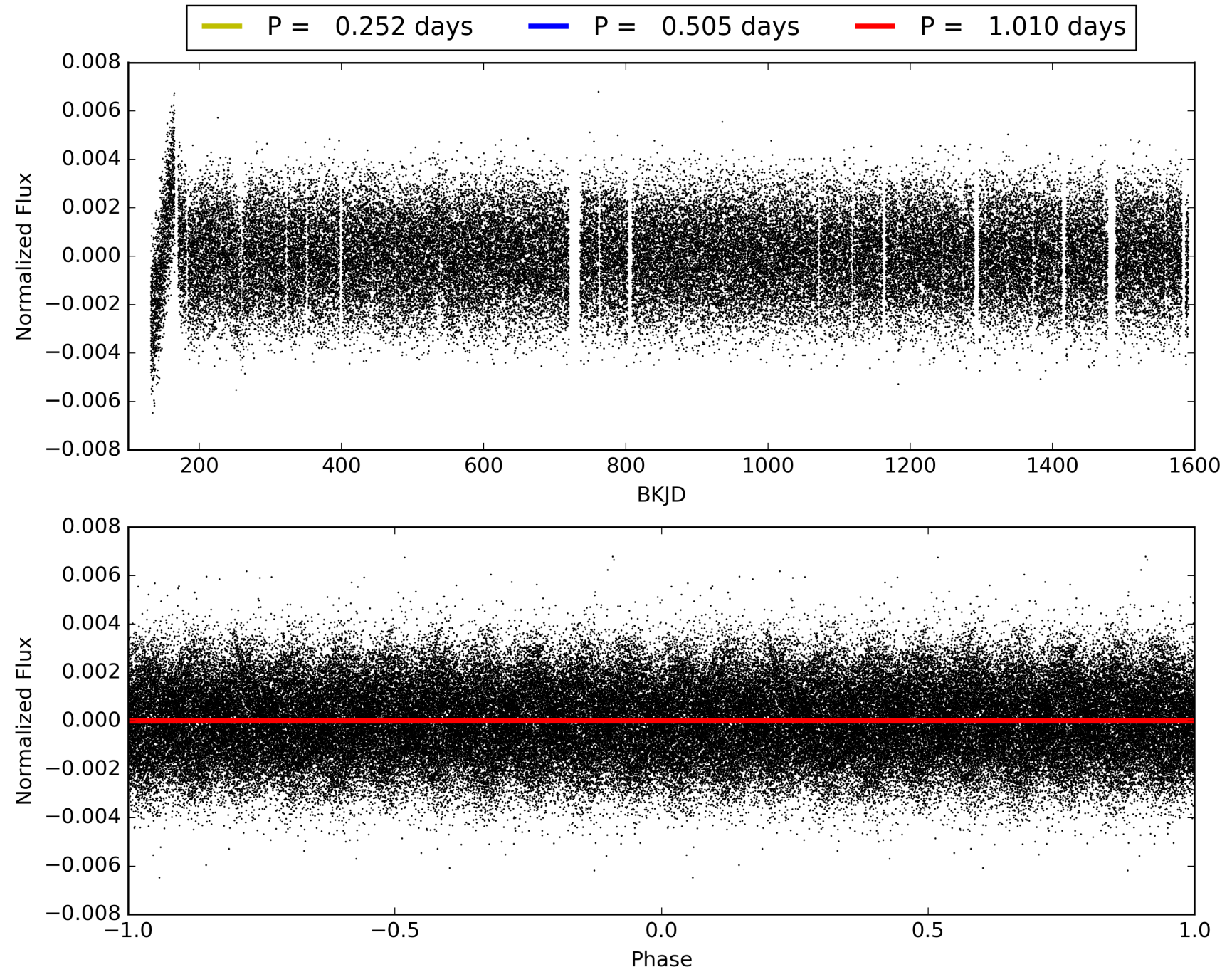
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 011874676-01, PDC Light Curves





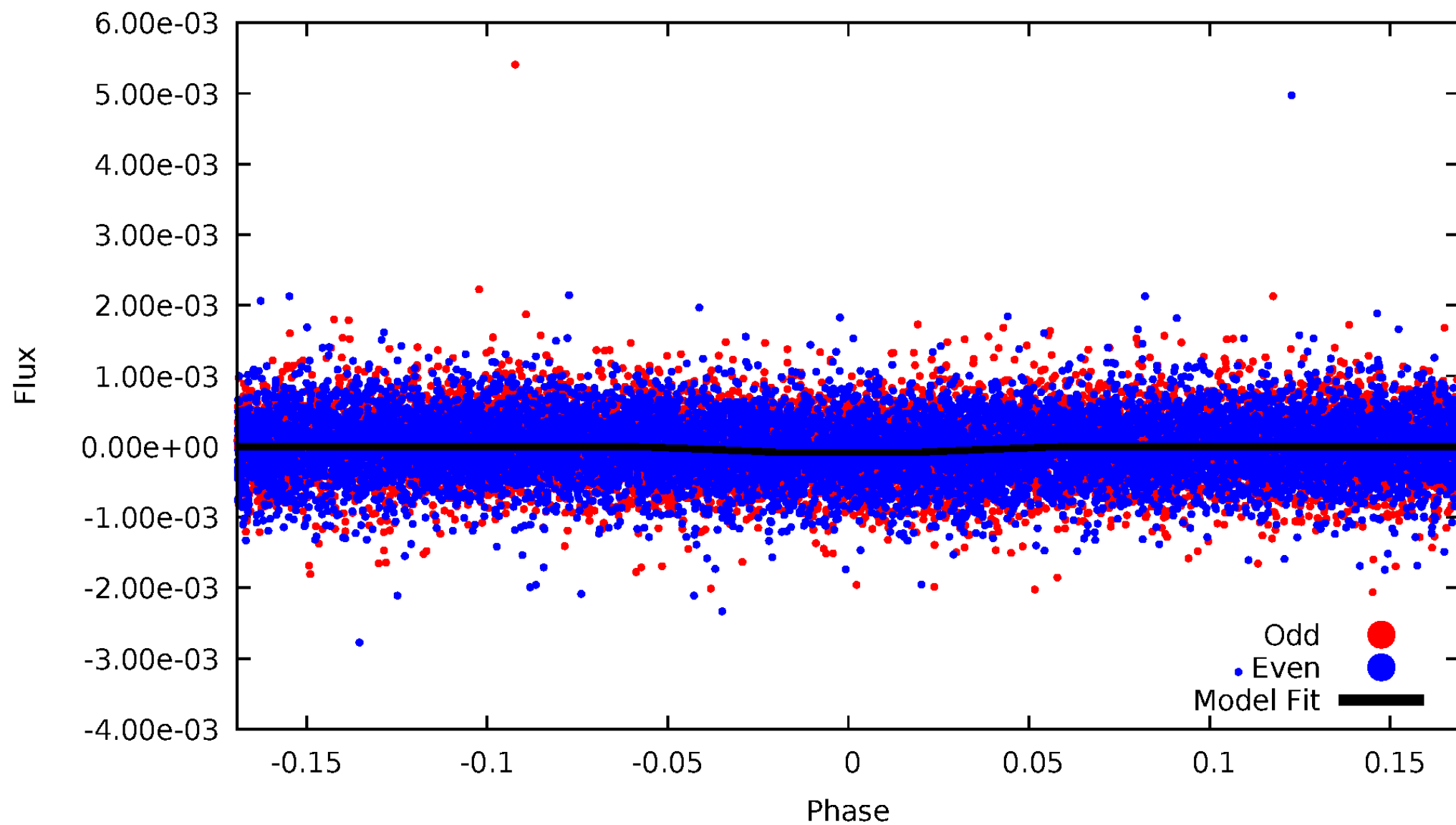
# TCE 011874676-01





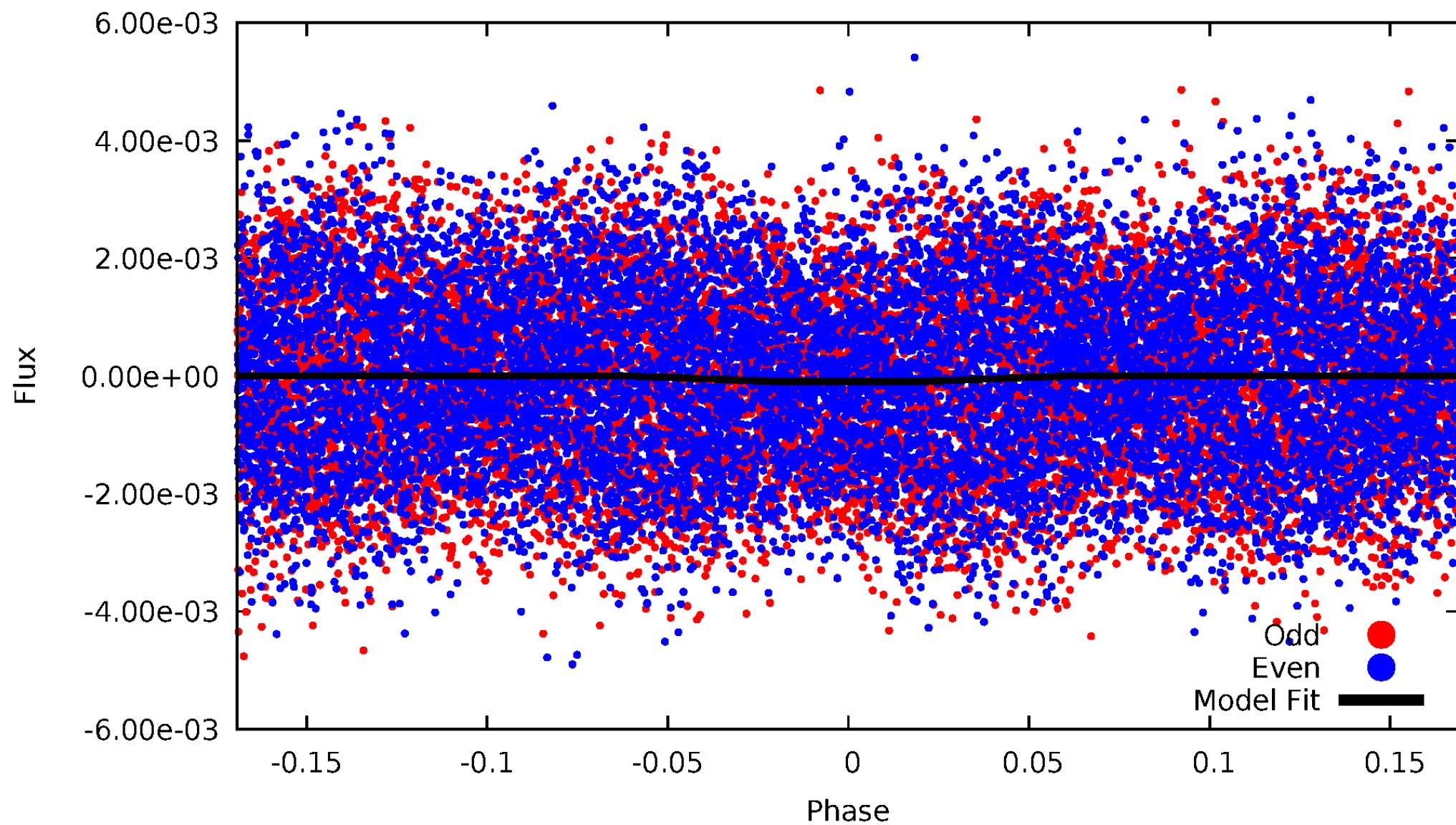
# DV Odd/Even

TCE 011874676-01



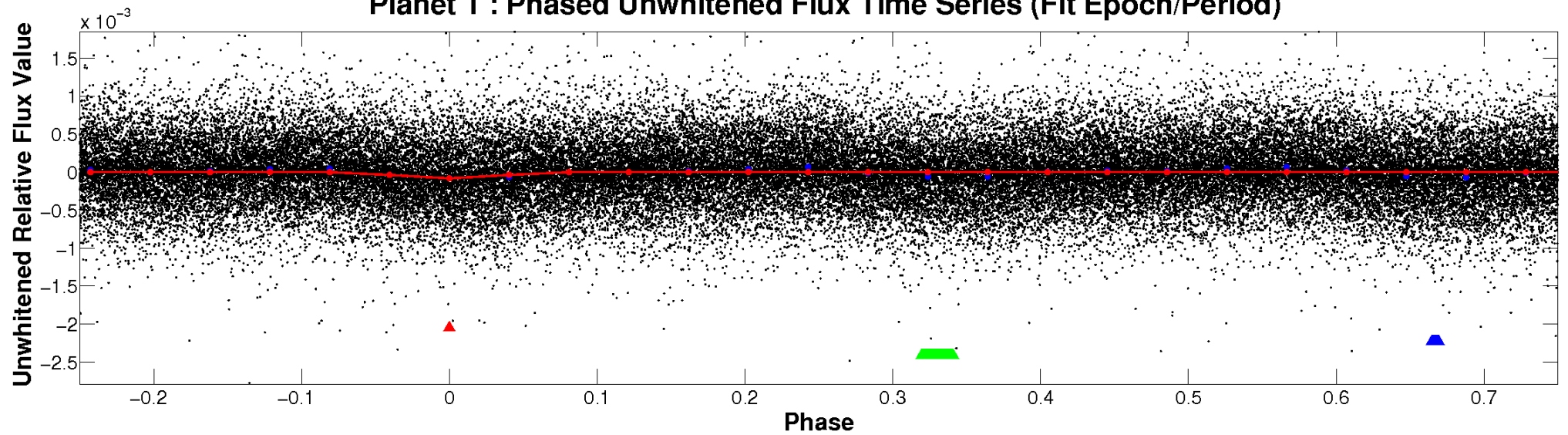
# ALT Odd/Even

TCE 011874676-01

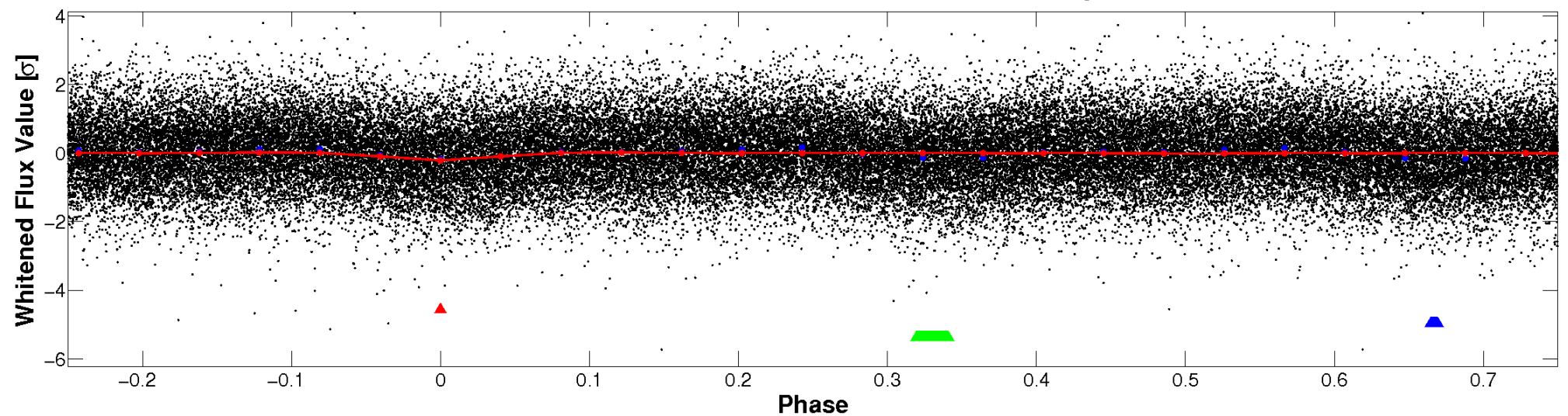


# Non-Whitened Vs. Whitened Light Curve

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



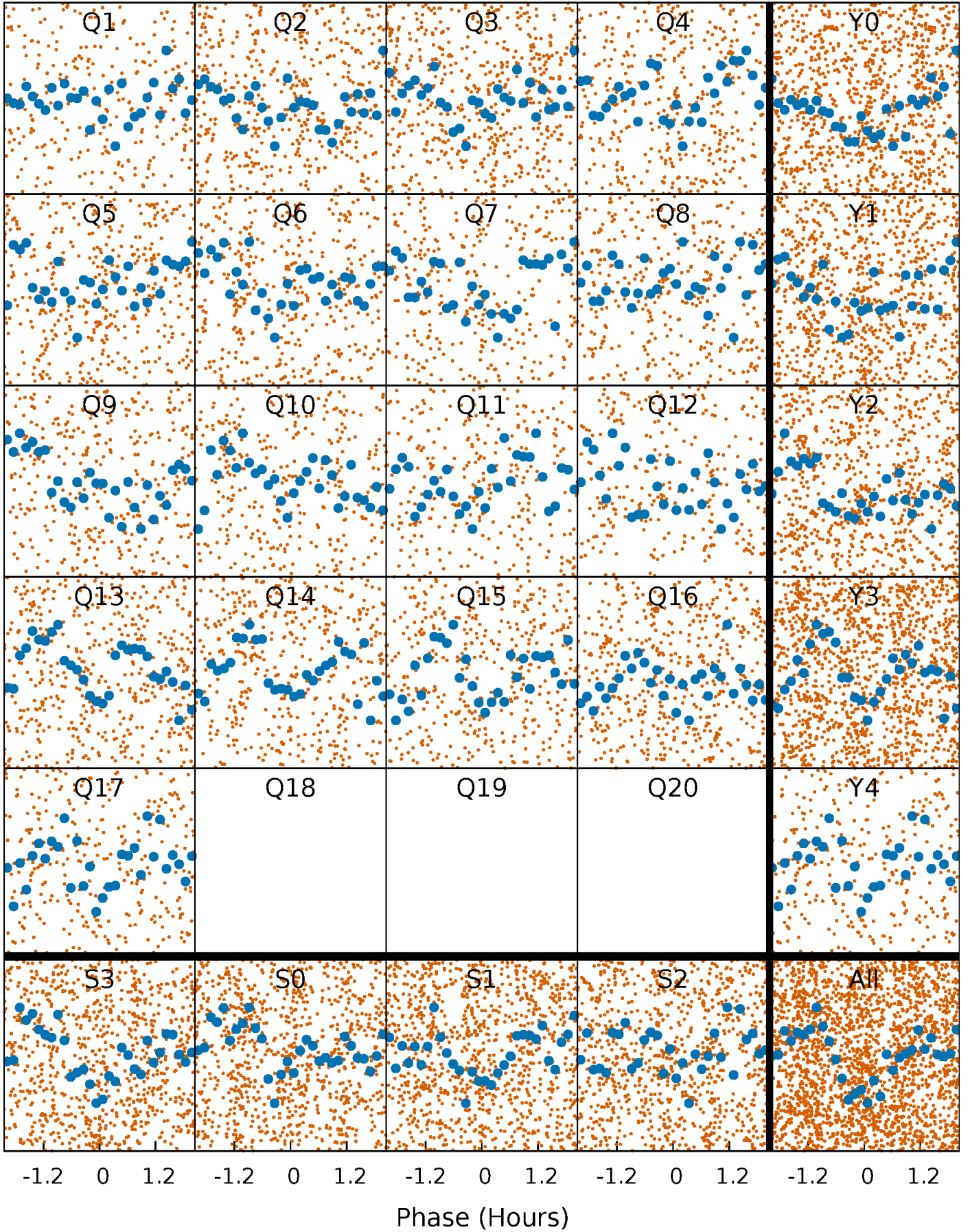
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





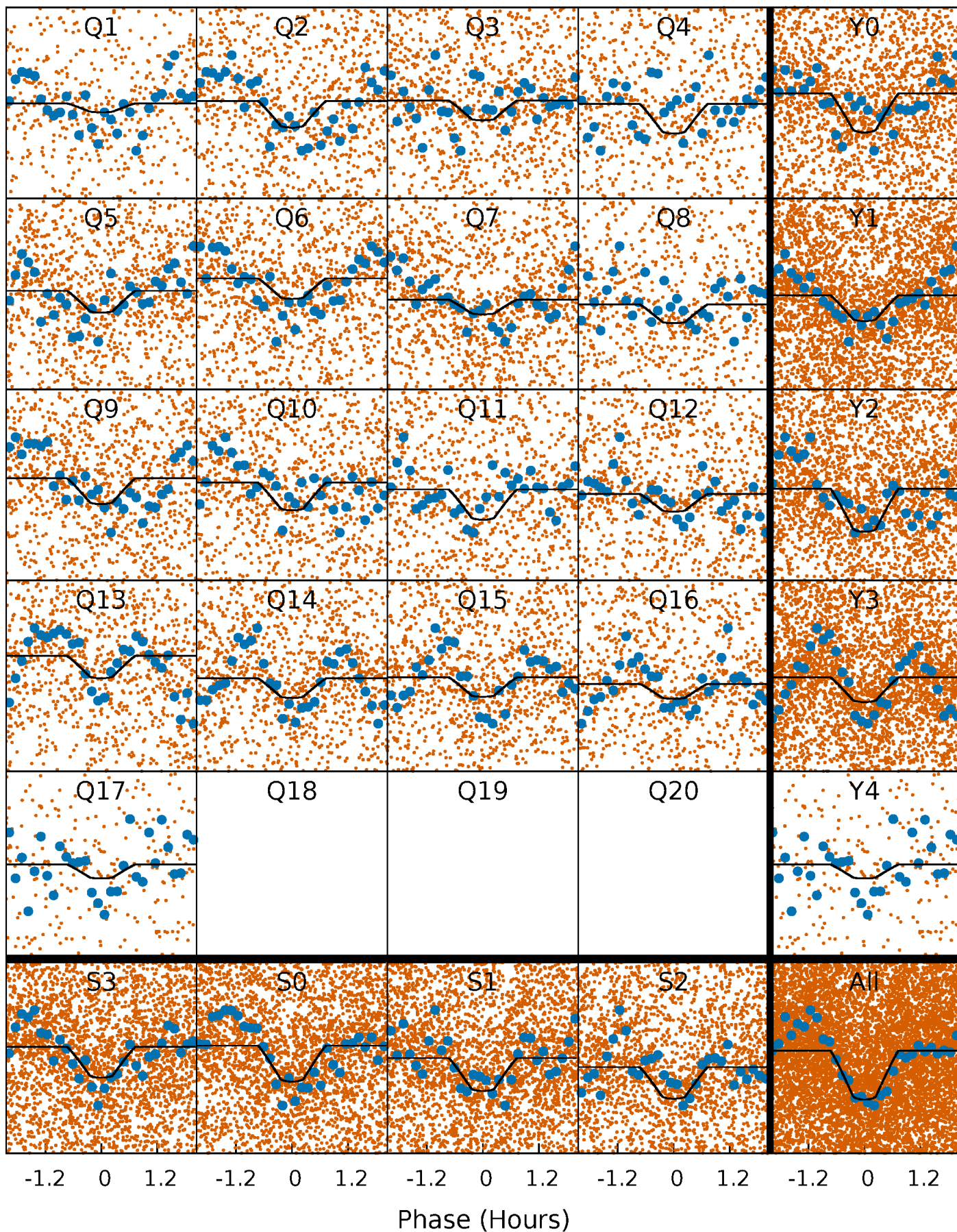
# PDC Quarter-Phased Transit Curves

TCE 011874676-01 P= 0.504944 Days  $T_0=131.914745$  (BKJD)



# DV Quarter-Phased Transit Curves

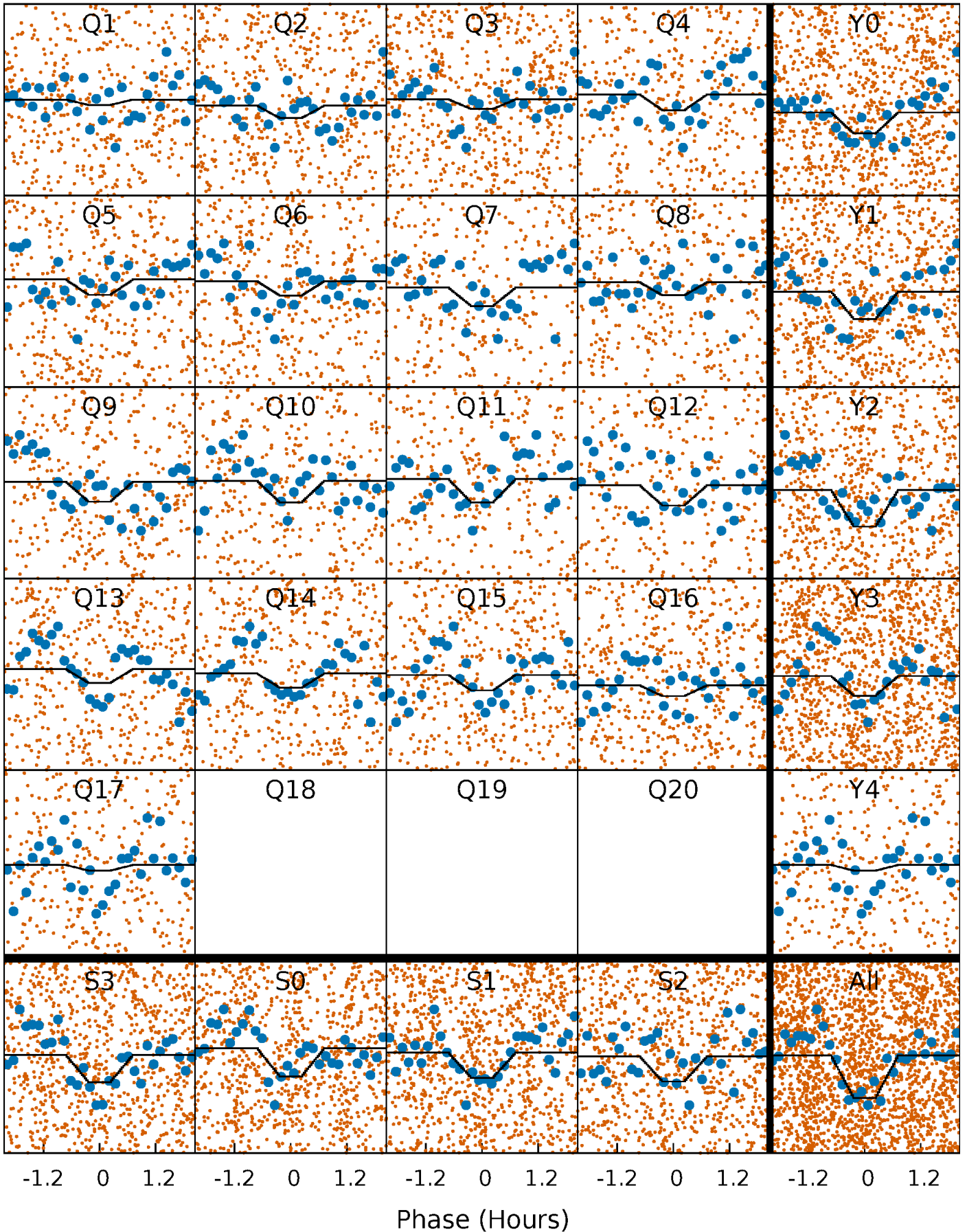
TCE 011874676-01 P= 0.504944 Days  $T_0=131.914745$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

TCE 011874676-01 P= 0.504944 Days  $T_0=131.914745$  (BKJD)

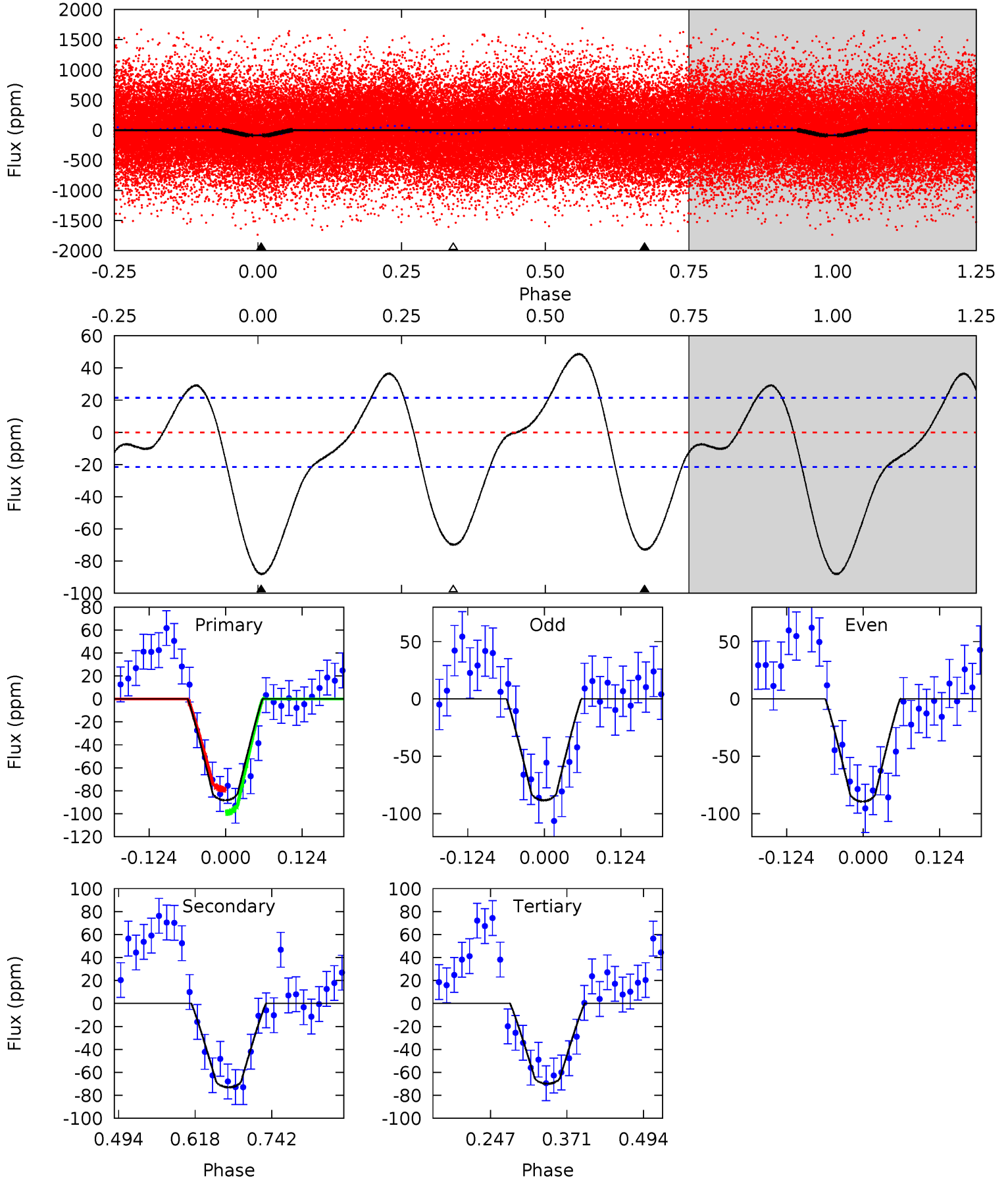




# DV Model-Shift Uniqueness Test

011874676-01, P = 0.504944 Days, E = 131.409801 Days

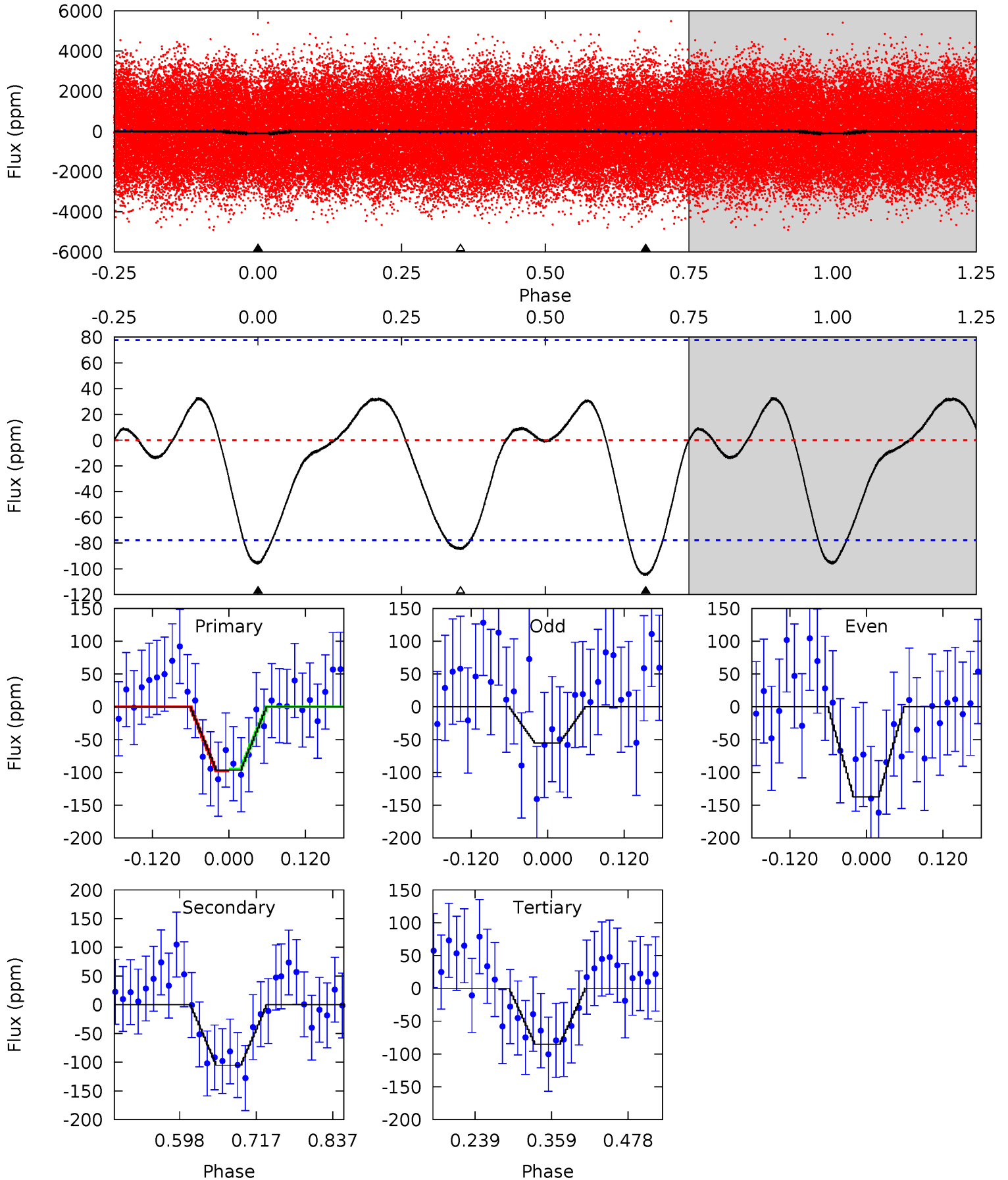
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	15.4	14.7	0	4.52	1.54	6.57	3.86	18.6	0.64	15.4	0.11	1.00	0.36	2.14



# Alt Model-Shift Uniqueness Test

011874676-01, P = 0.504944 Days, E = 131.409801 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.62	6.13	4.96	0	4.53	1.56	1.96	0.65	5.62	1.17	6.13	2.39	0.77	0.24	0.07



### Stellar Parameters For KIC 011874676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8292^{+74}_{-82}$	$4.022^{+0.137}_{-0.084}$	$-0.240^{+0.050}_{-0.150}$	$2.167^{+0.234}_{-0.401}$	$1.805^{+0.043}_{-0.182}$	$0.250^{+0.157}_{-0.070}$
	+1%/-1%	+3%/-2%	+21%/-62%	+11%/-19%	+2%/-10%	+63%/-28%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 011874676-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-73 \pm 5$	$2.25^{+0.75}_{-0.68}$	$6107^{+214}_{-293}$	$7217^{+2110}_{-1219}$	$1.799^{+1.840}_{-0.771}$
Alt.	$-105 \pm 17$	$2.25^{+0.71}_{-0.70}$	$6125^{+191}_{-279}$	$8218^{+2608}_{-1405}$	$2.548^{+2.846}_{-1.128}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

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



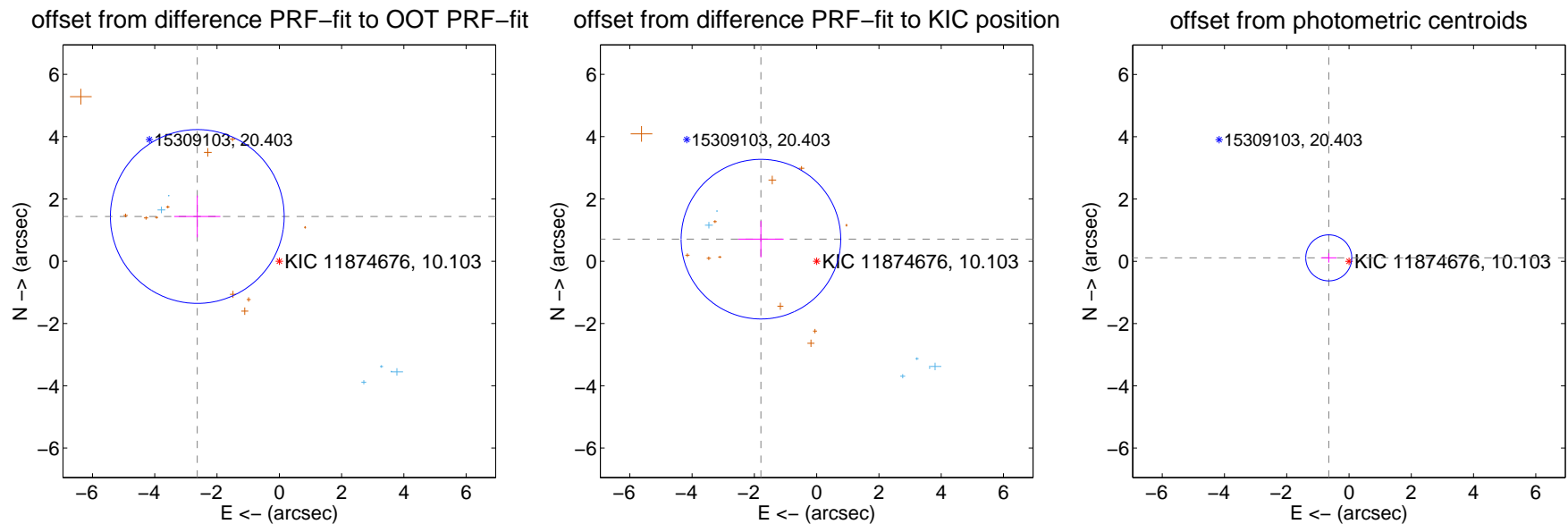
## DV Centroid Data

Supplemental centroid analysis for 011874676-01. **Kepler magnitude: 10.10.** Transit SNR 13.46

There are 6 quarters with good PRF difference image offsets

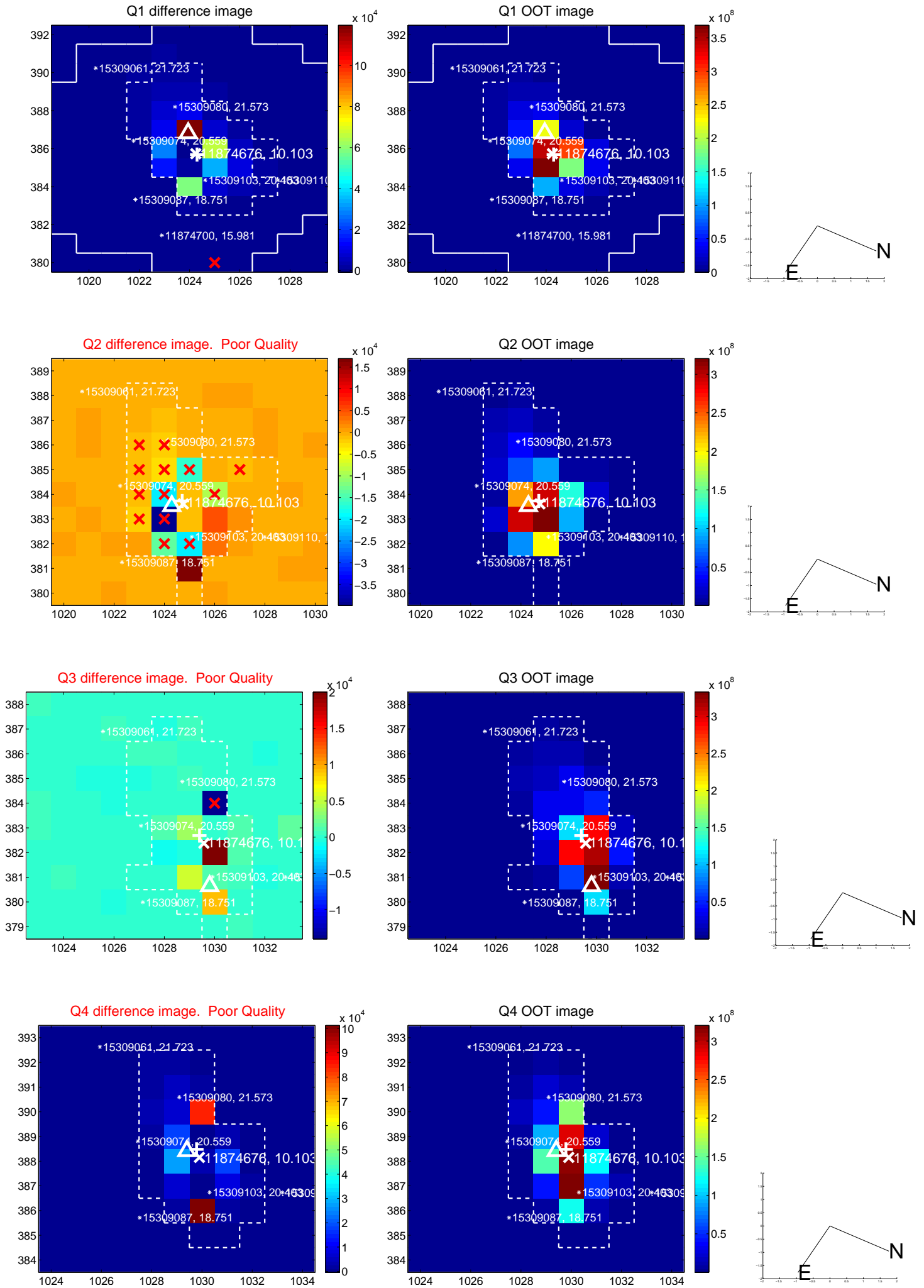
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>3.000 \pm 0.930</math></b>	<b>3.23</b>	$2.634 \pm 0.743$	$1.436 \pm 0.669$
PRF-fit source offset from KIC position	$1.924 \pm 0.854$	2.25	$1.789 \pm 0.730$	$0.708 \pm 0.584$
photometric centroid source offset	$0.66 \pm 0.25$	2.68	$0.65 \pm 0.25$	$0.11 \pm 0.15$

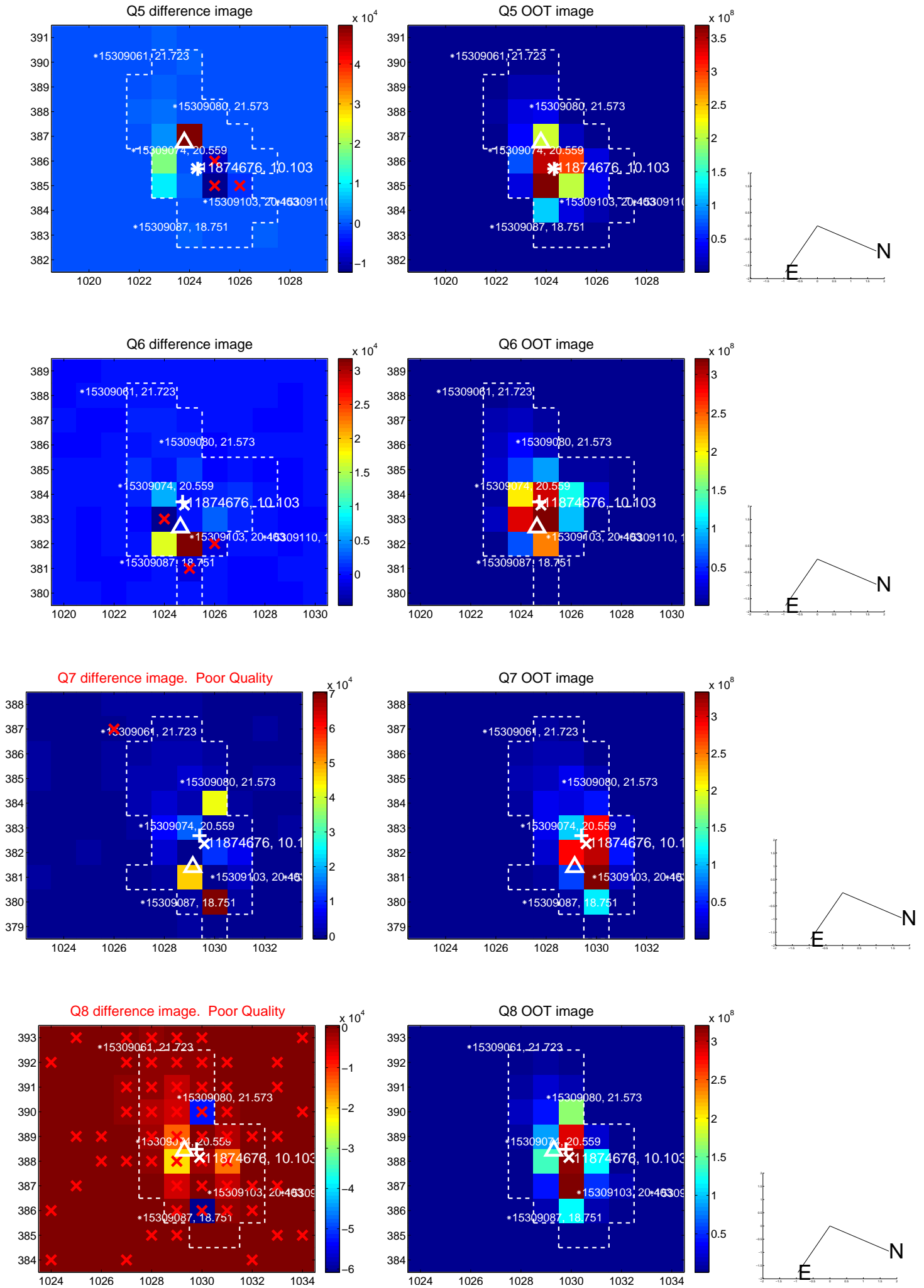


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

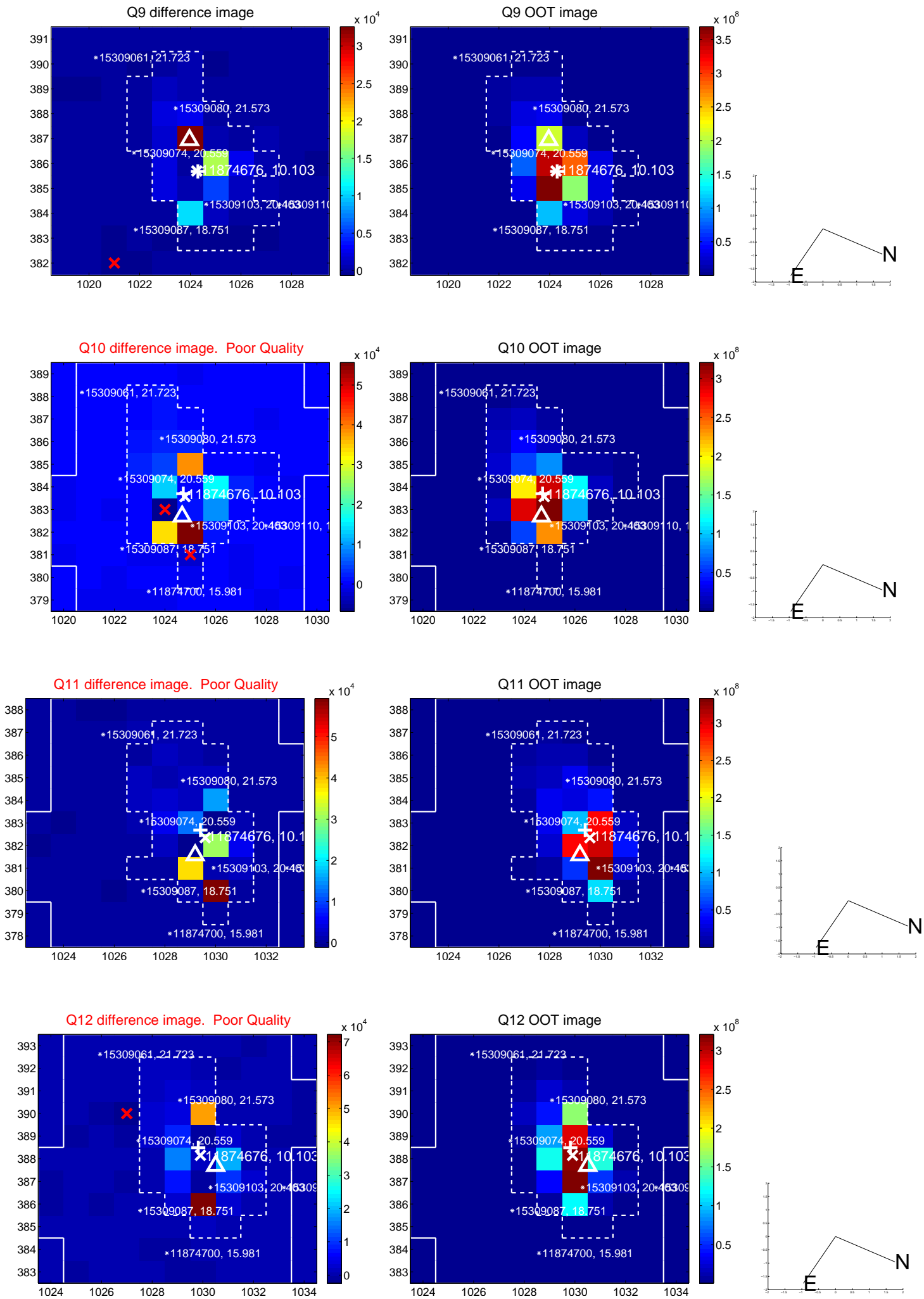


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

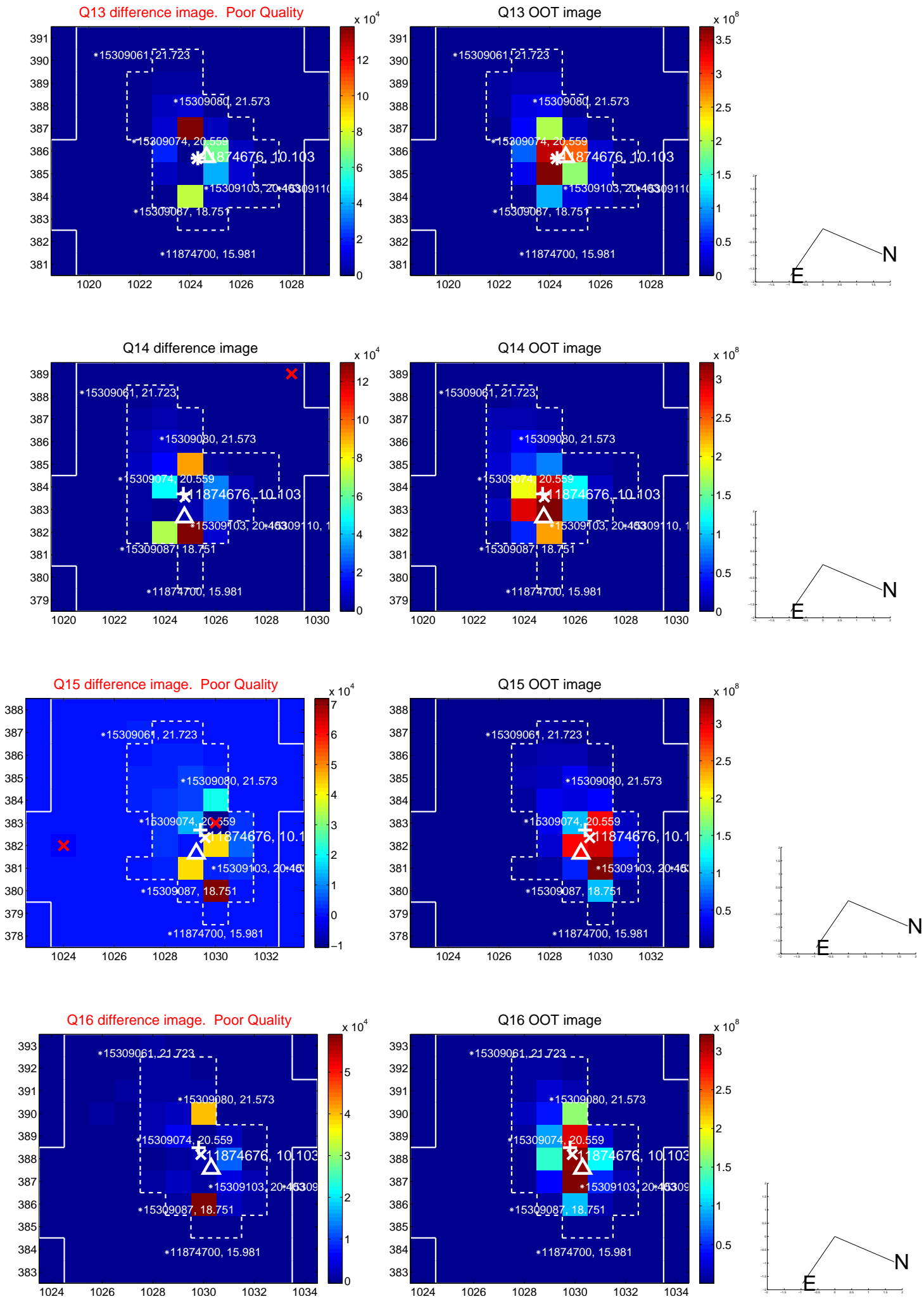




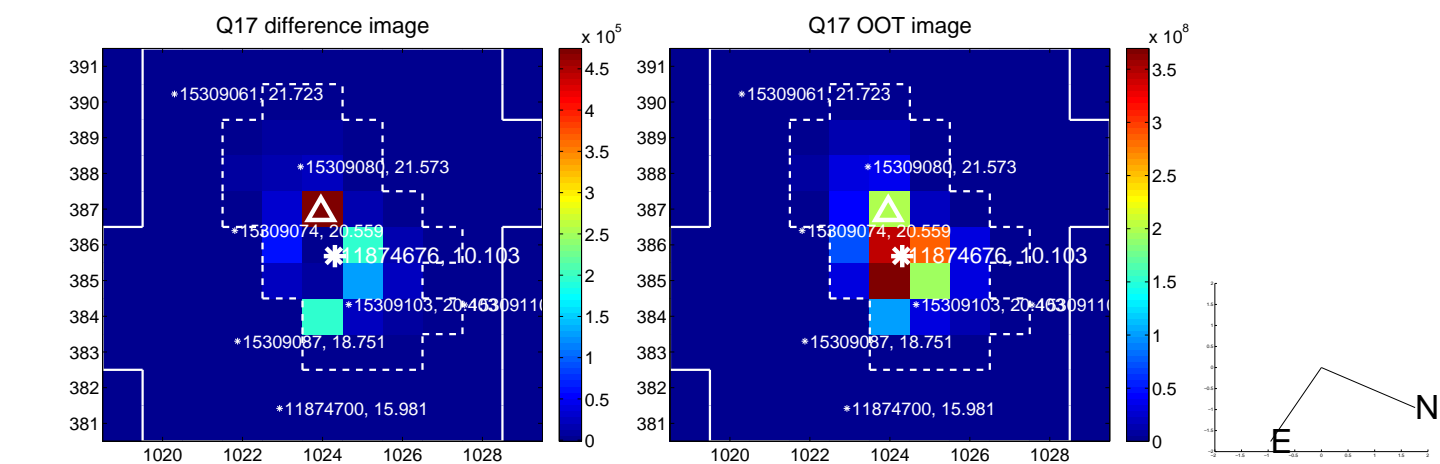
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



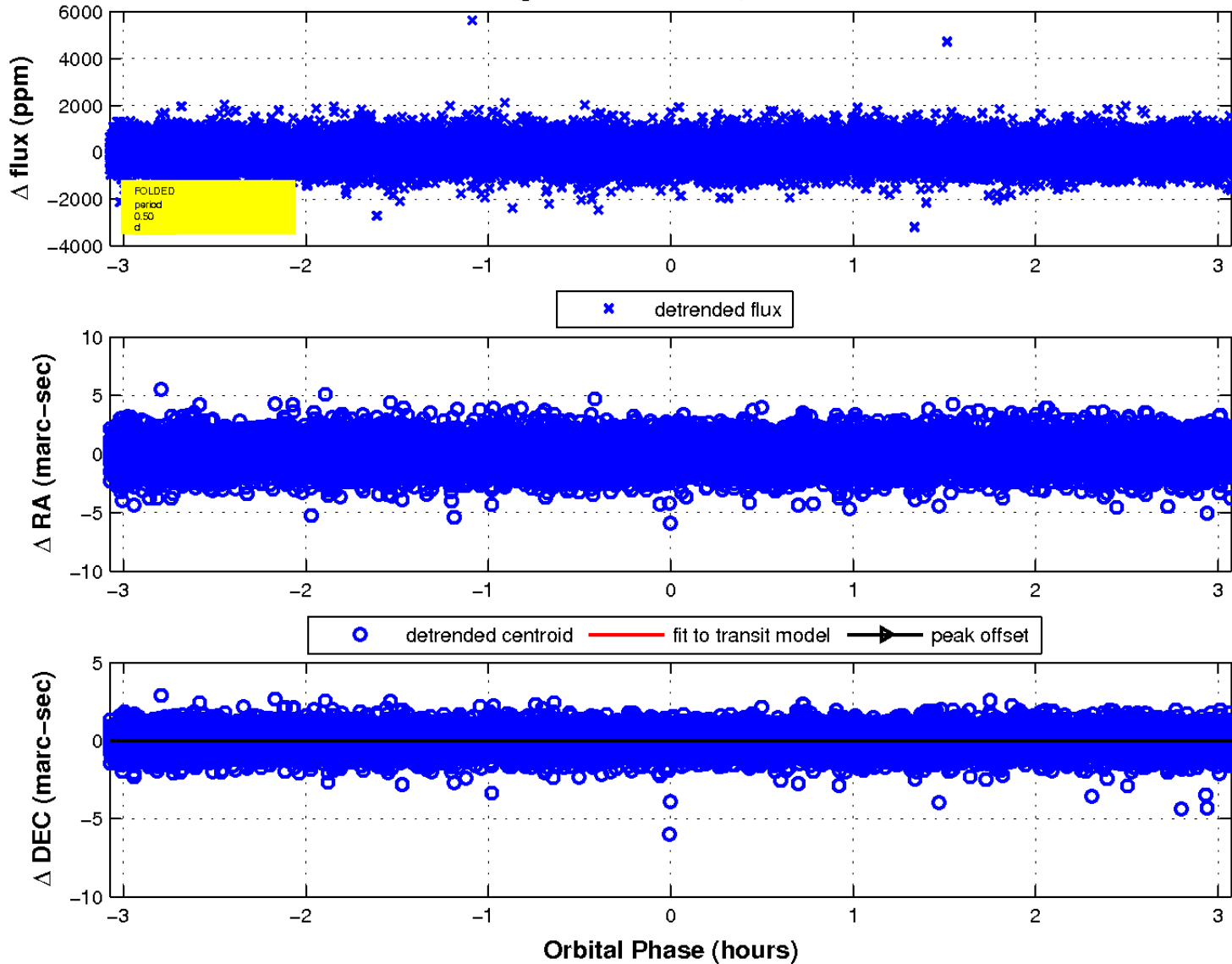
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

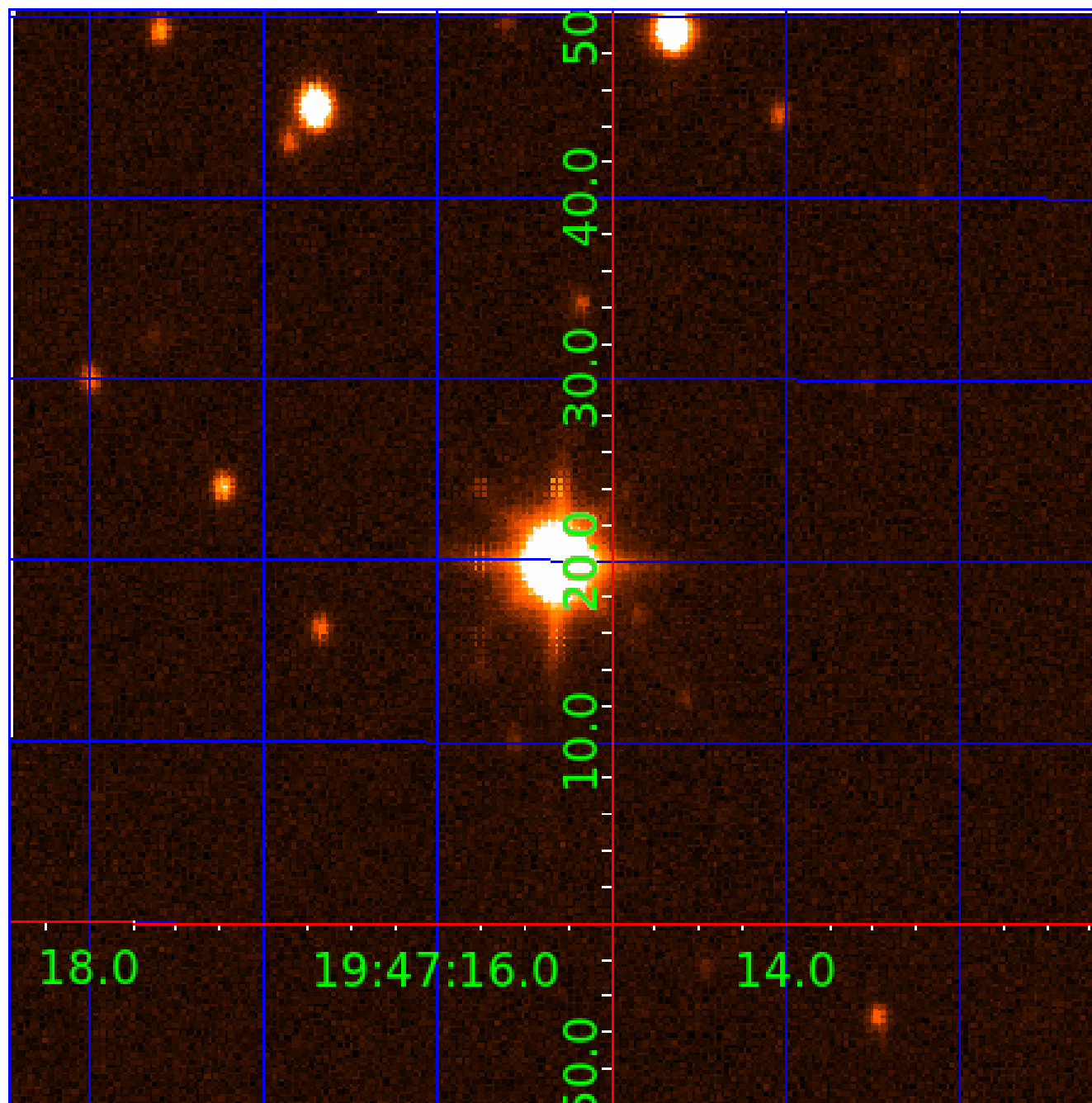


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



# KIC 011874676

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011874676-01	OBS	No	0.504944	131.914745	83.3	1.025	10.1	13.5	2.17	8292	2.32	87186.01
011874676-02	OBS	No	0.504943	131.747835	67.7	1.161	9.7	11.3	2.17	8292	2.09	87186.20
011874676-03	OBS	No	0.504948	131.571029	54.7	1.259	8.7	9.9	2.17	8292	1.64	87185.13

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011874676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011874676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_SATURATED
011874676-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_SATURATED

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

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

See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

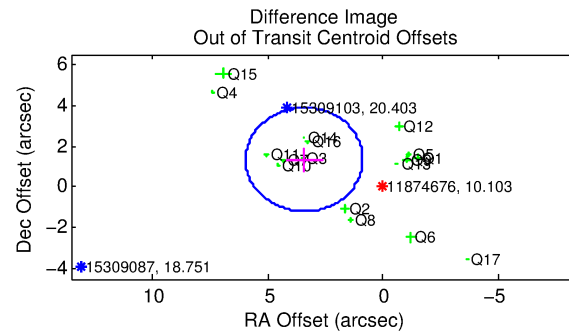
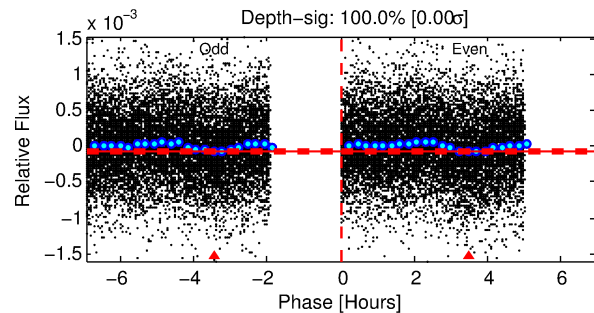
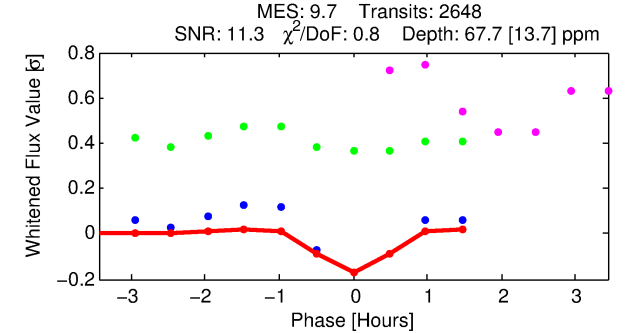
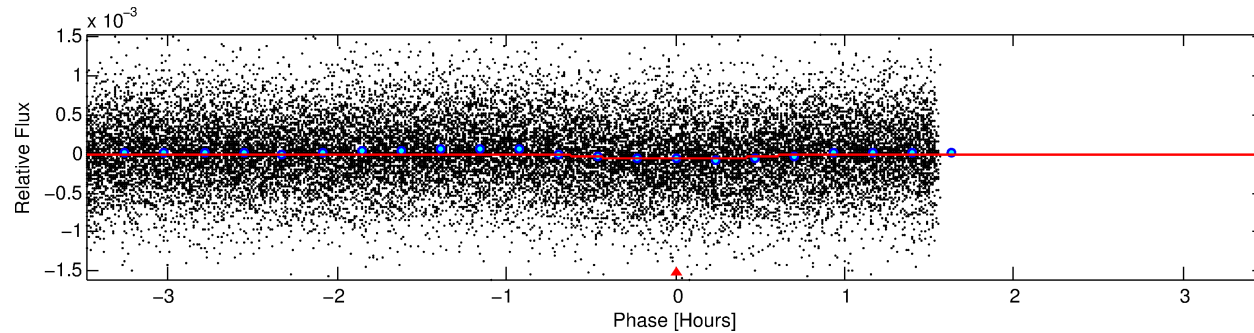
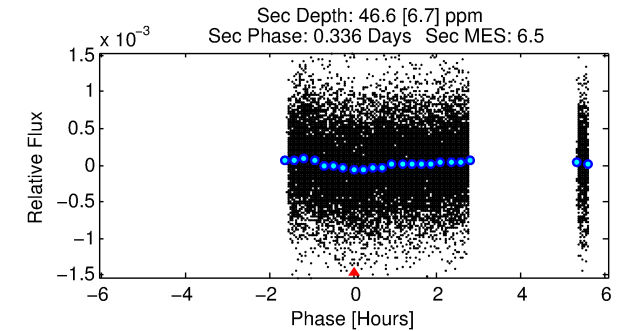
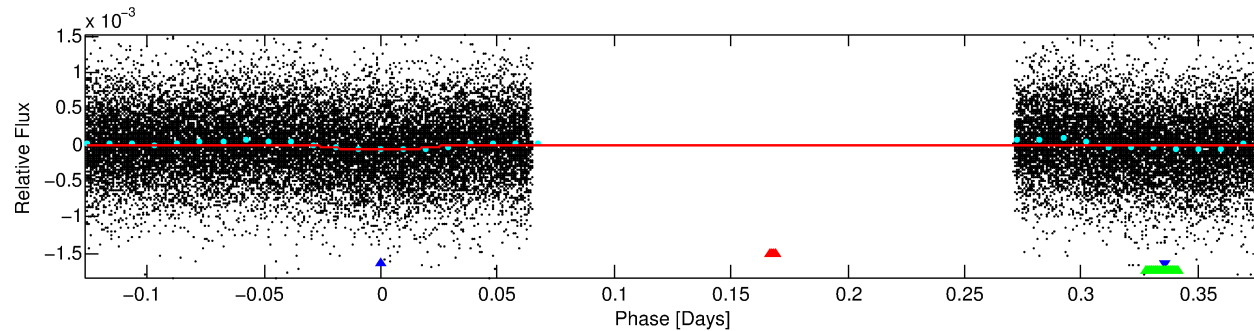
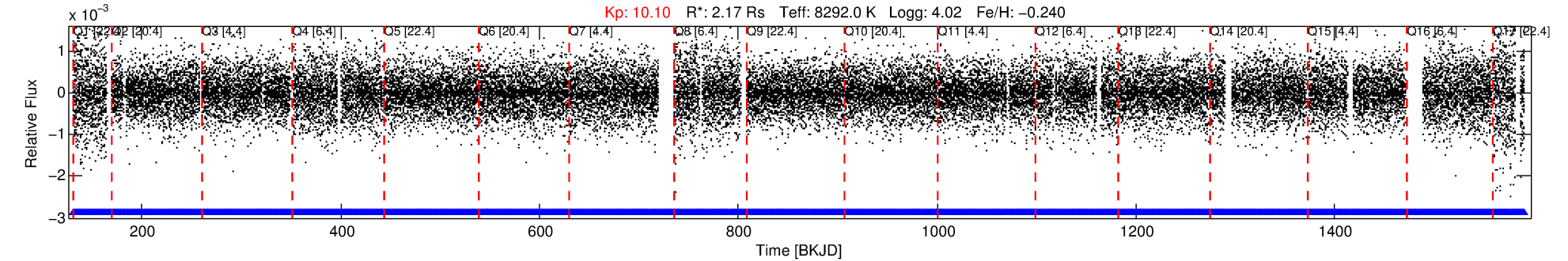
## Ephemeris Match Information For 011874676-02

No Significant Match Found



# DV One-Page Summary

KIC: 11874676 Candidate: 2 of 3 Period: 0.505 d



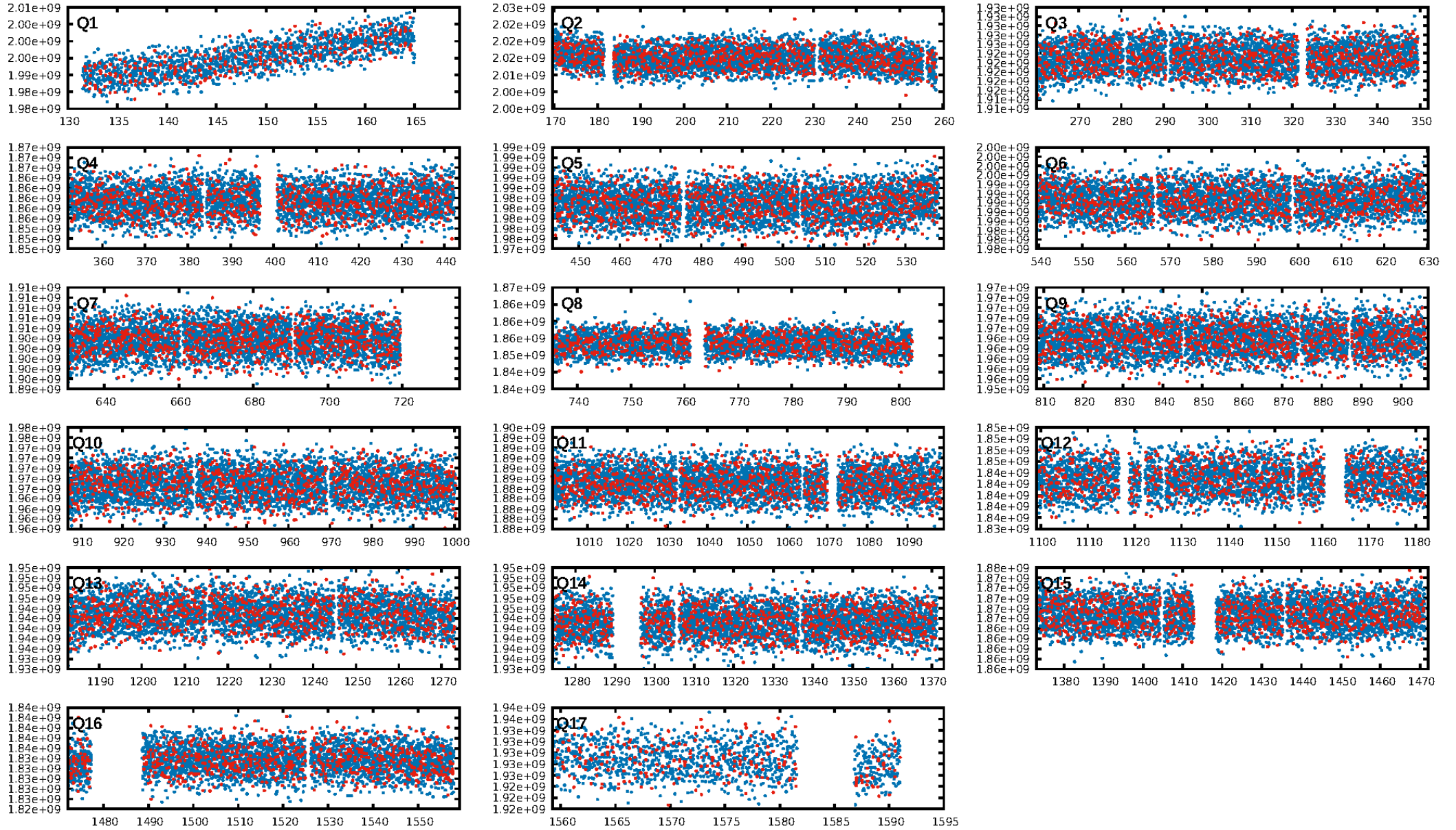
## DV Fit Results:

Period = 0.50494 [0.00002] d  
Epoch = 131.7478 [0.0017] BKJD  
Rp/R\* = 0.0088 [0.0035]  
a/R\* = 1.77 [2.94]  
b = 0.90 [0.51]  
Seff = 87186.20 [21535.35]  
Teff = 4382 [271] K  
Rp = 2.09 [0.91] Re  
a = 0.0151 [0.0024] AU  
Ag = 1.34 [1.13] [0.31σ]  
Teffp = 7295 [1466] K [1.95σ]

## DV Diagnostic Results:

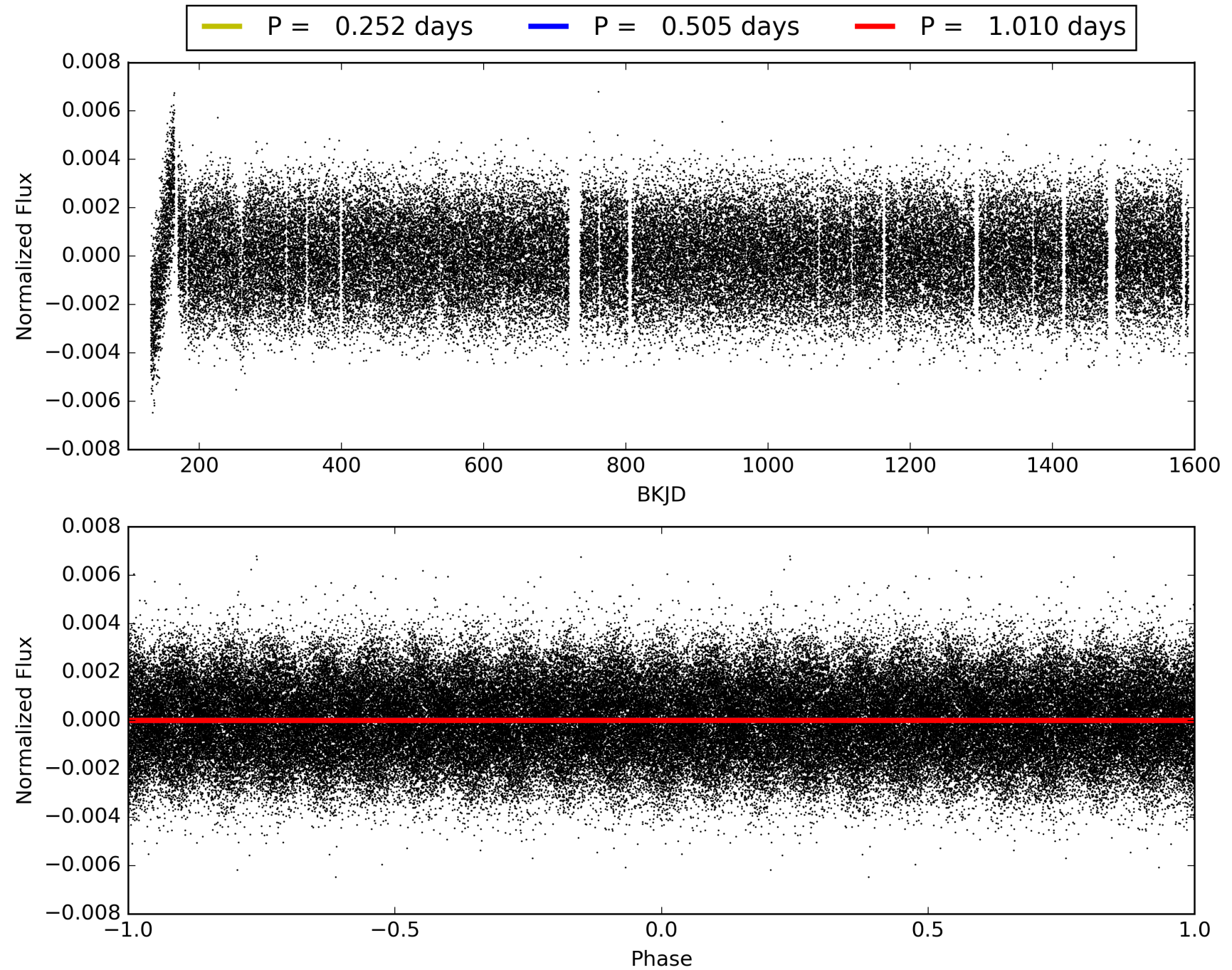
ShortPeriod-sig: N/A  
LongPeriod-sig: 0.0% [0.00σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2528/2528]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: 0.304 arcsec [1.15σ]  
OotOffset-rm: 3.676 arcsec [4.35σ]  
KicOffset-rm: 3.146 arcsec [3.89σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.12 [2/17]  
DiffImageOverlap-fno: 0.00 [0/17]

# TCE 011874676-02, PDC Light Curves



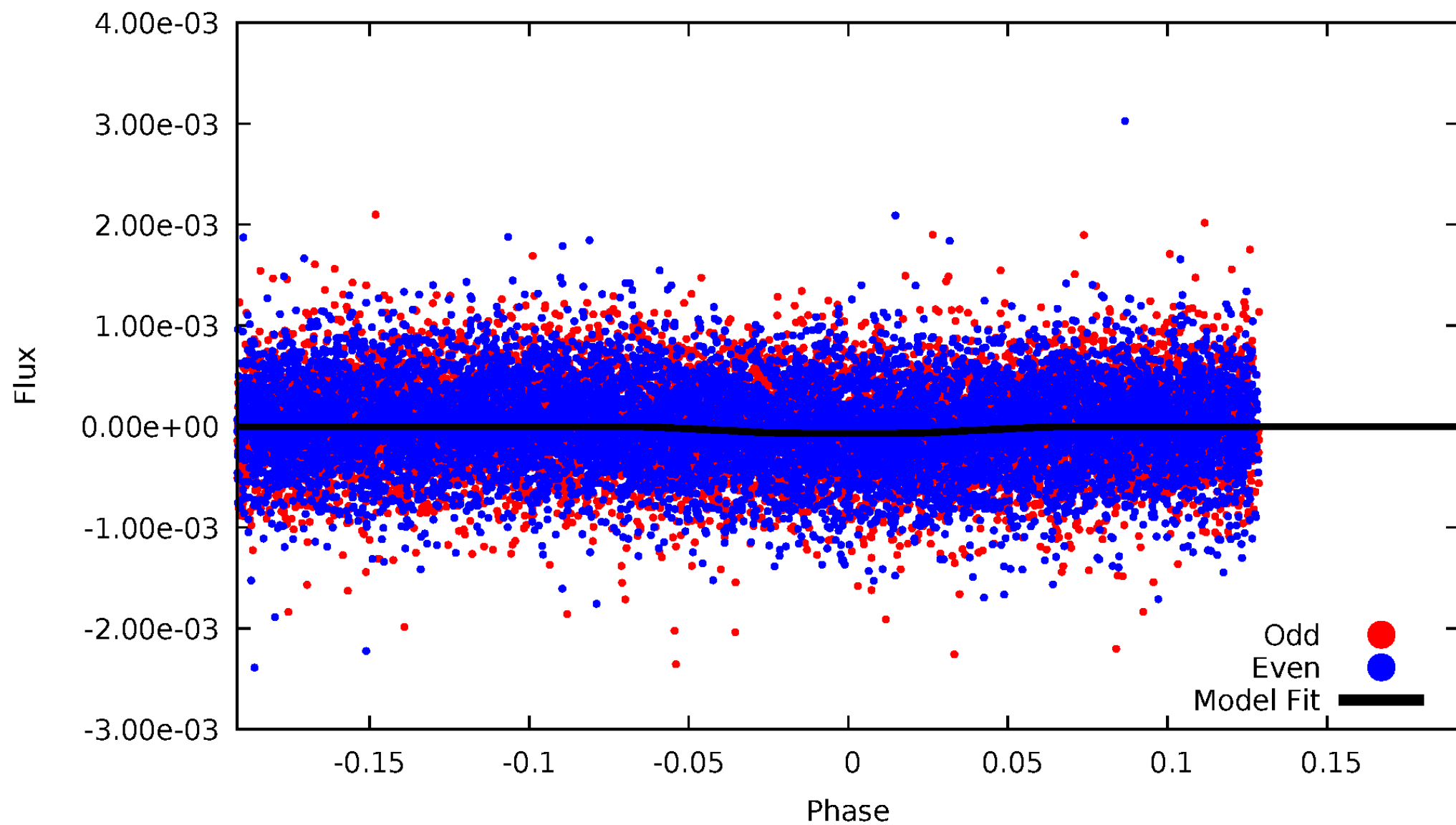


# TCE 011874676-02



DV Odd/Even

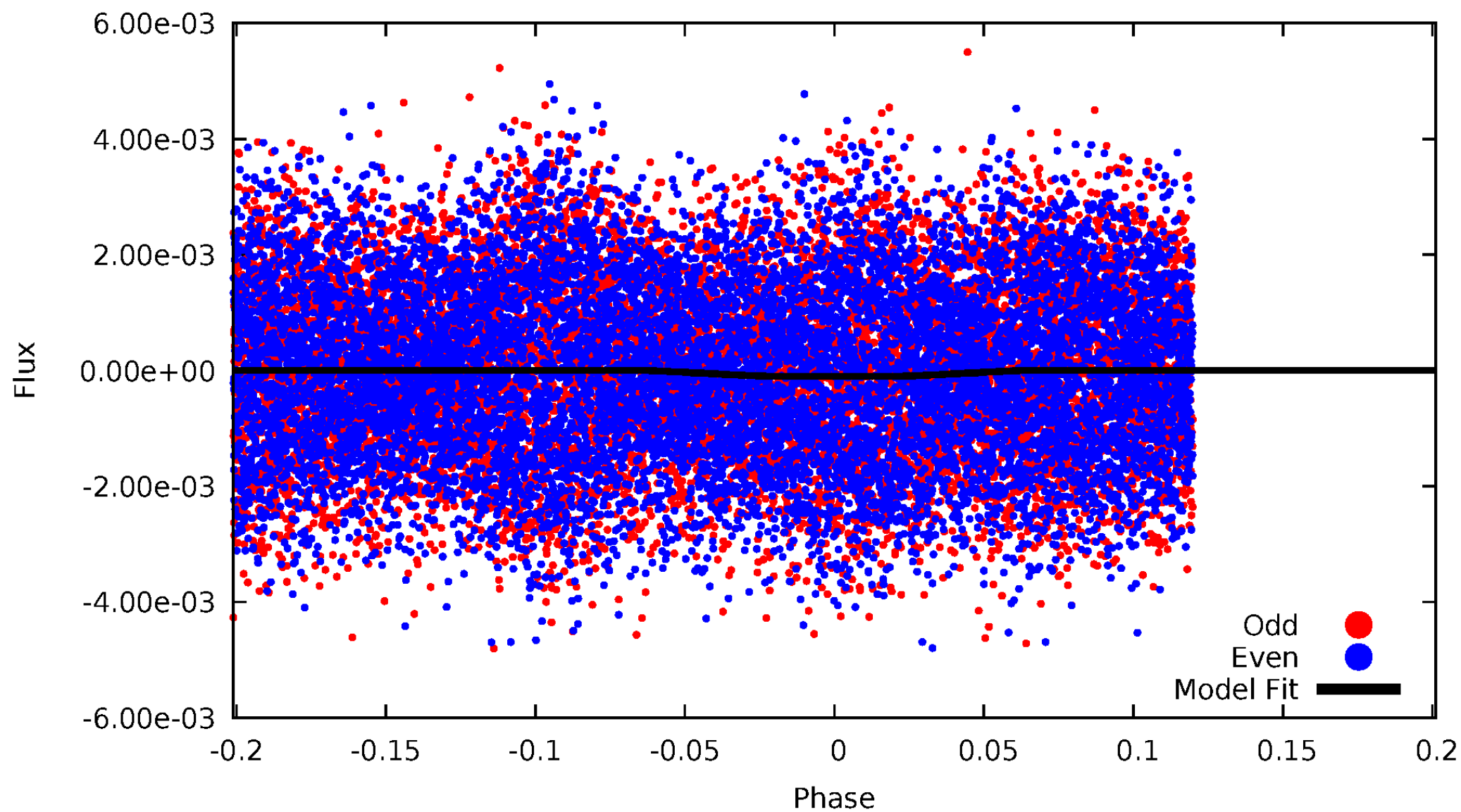
TCE 011874676-02





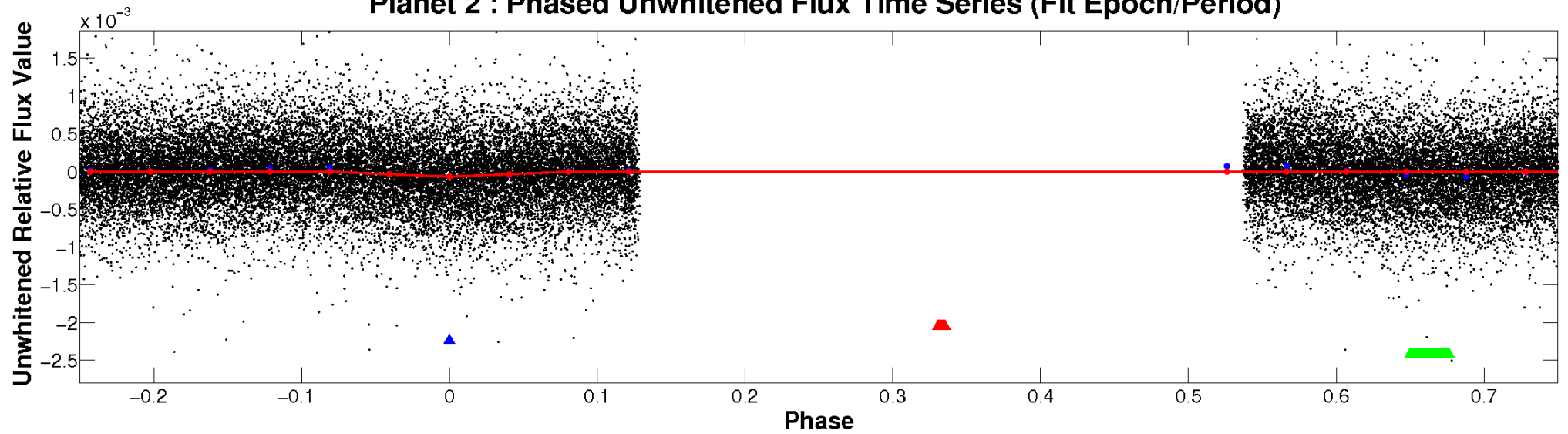
# ALT Odd/Even

TCE 011874676-02

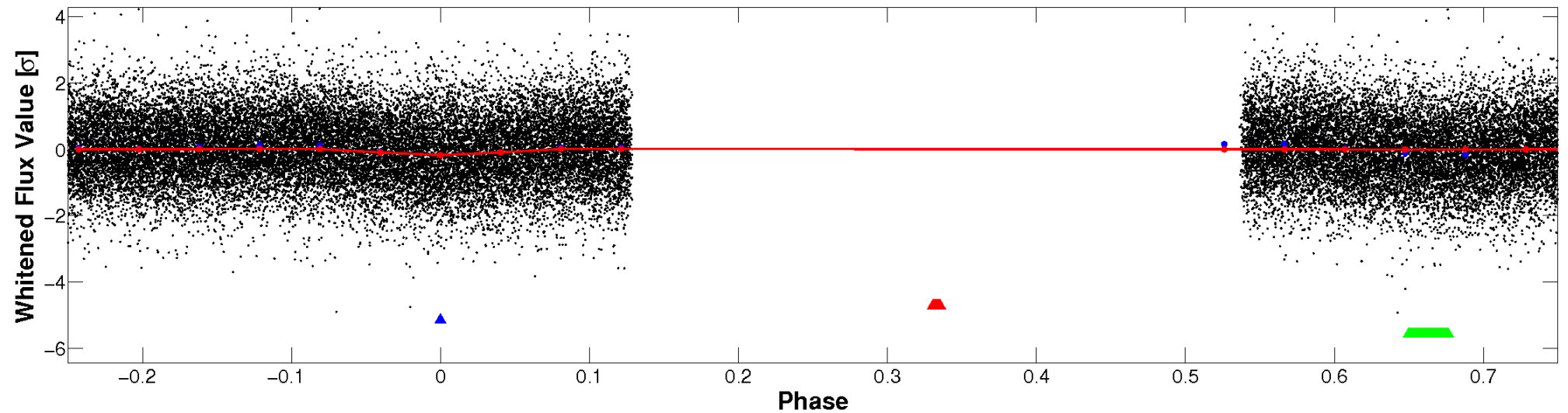


# Non-Whitened Vs. Whitened Light Curve

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

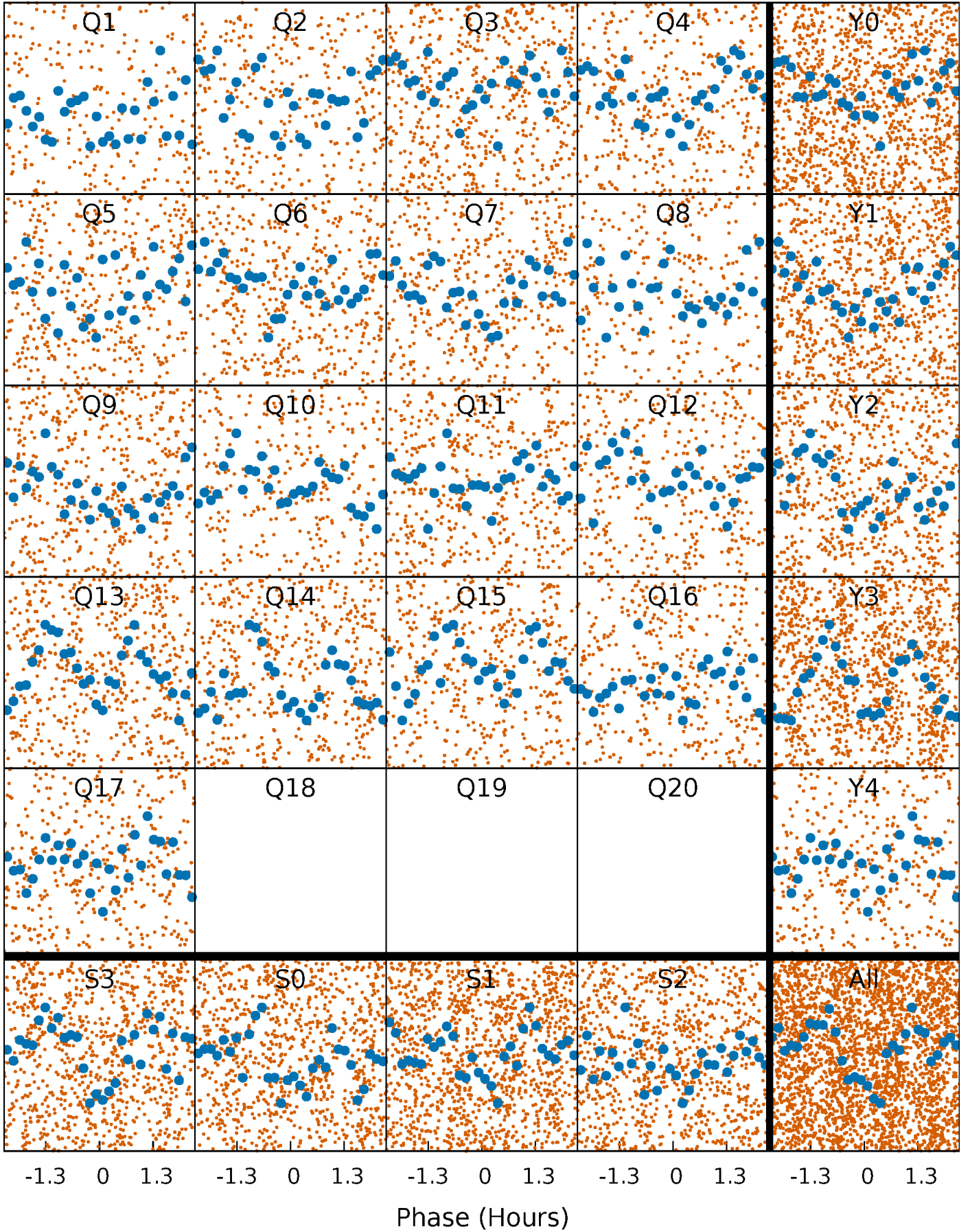


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

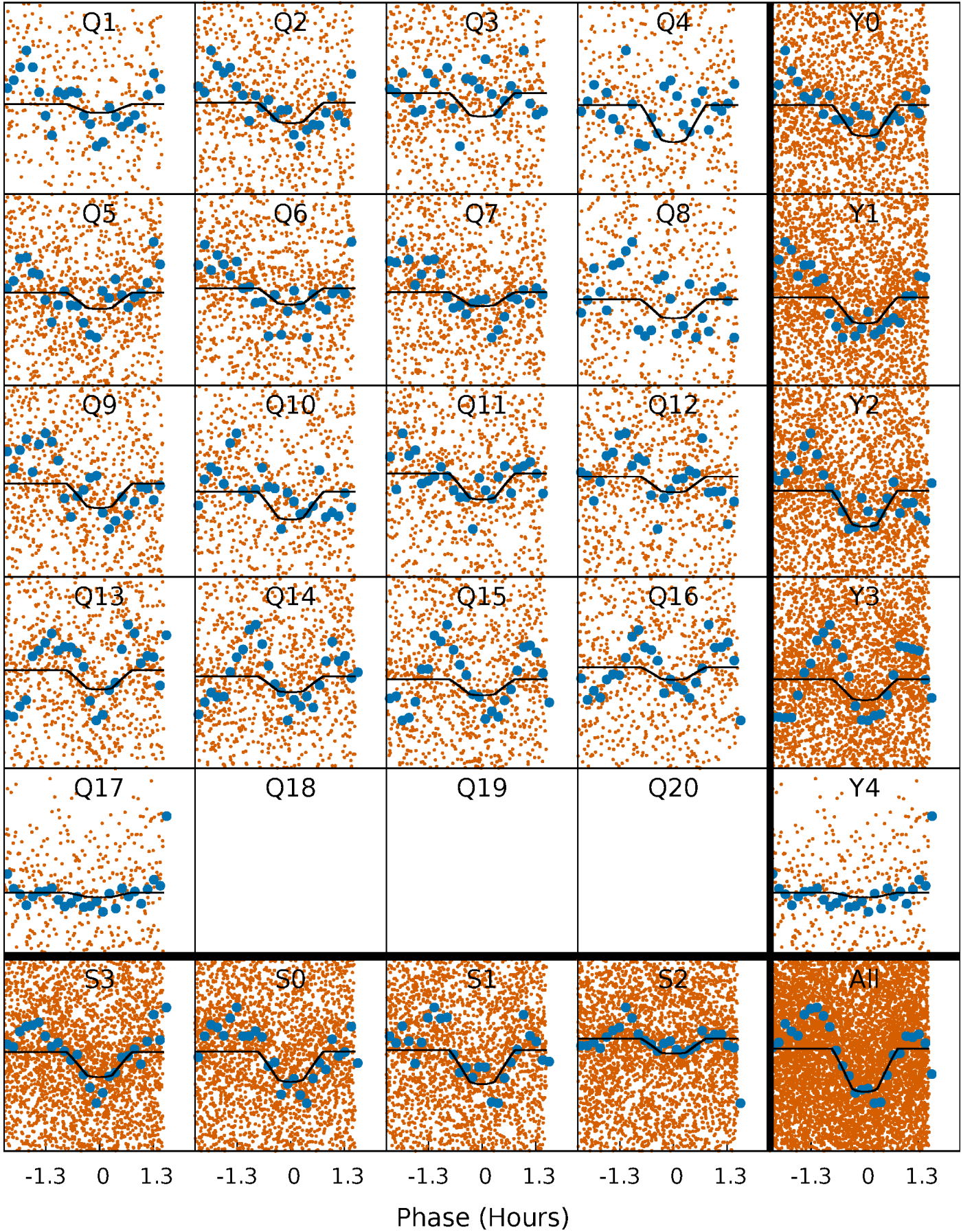
TCE 011874676-02 P= 0.504943 Days  $T_0=131.747835$  (BKJD)





# DV Quarter-Phased Transit Curves

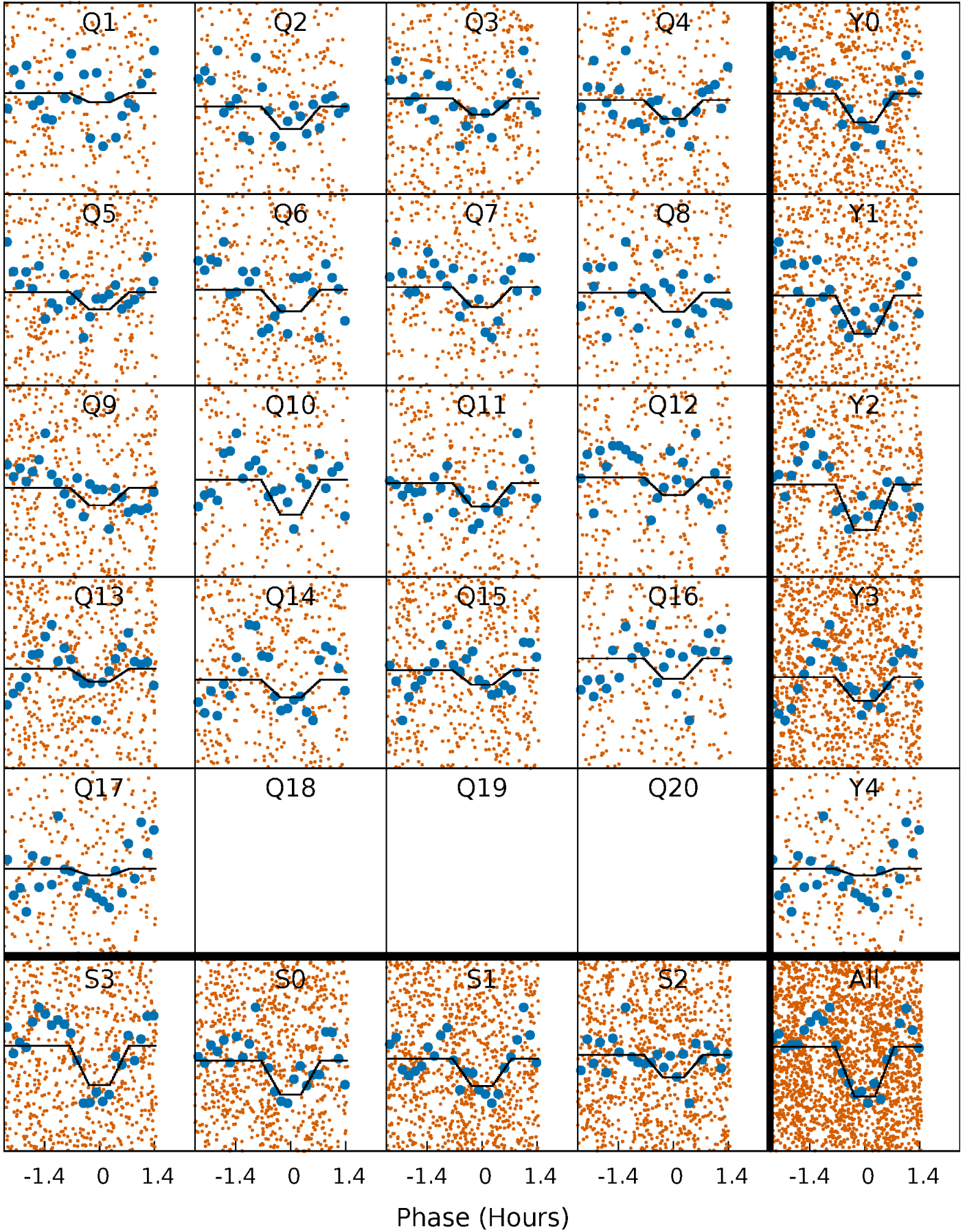
TCE 011874676-02   P= 0.504943 Days    $T_0=131.747835$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

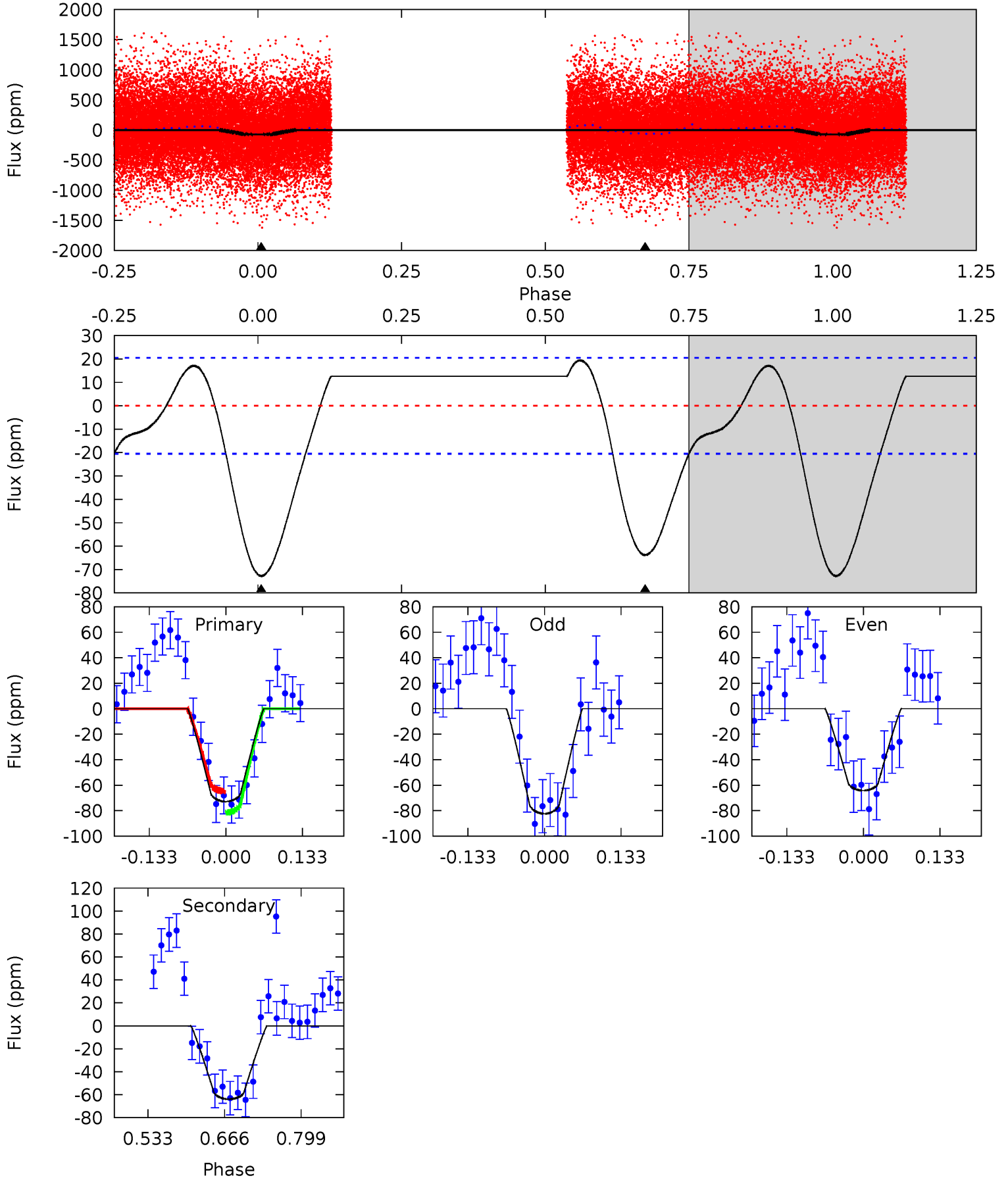
TCE 011874676-02 P= 0.504944 Days  $T_0=131.750286$  (BKJD)



# DV Model-Shift Uniqueness Test

011874676-02, P = 0.504943 Days, E = 131.242892 Days

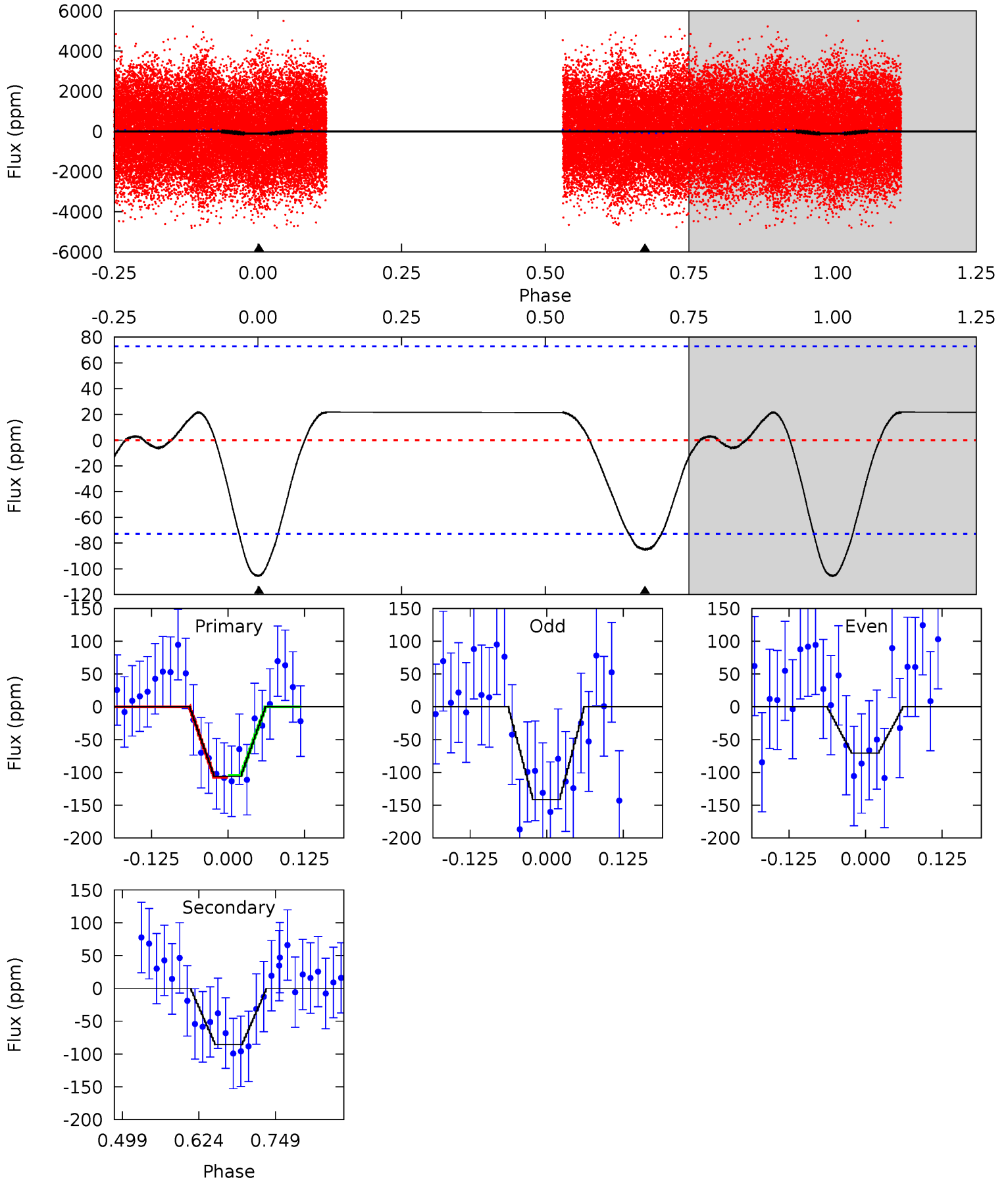
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	14.0	0	0	4.50	1.50	1.69	16.0	16.0	14.0	14.0	2.01	1.01	0.21	1.80



# Alt Model-Shift Uniqueness Test

011874676-02, P = 0.504944 Days, E = 131.245342 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.57	5.32	0	0	4.52	1.53	0.58	6.57	6.57	5.32	5.32	2.20	0.89	0.17	0.09



### Stellar Parameters For KIC 011874676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8292^{+74}_{-82}$	$4.022^{+0.137}_{-0.084}$	$-0.240^{+0.050}_{-0.150}$	$2.167^{+0.234}_{-0.401}$	$1.805^{+0.043}_{-0.182}$	$0.250^{+0.157}_{-0.070}$
	+1%/-1%	+3%/-2%	+21%/-62%	+11%/-19%	+2%/-10%	+63%/-28%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 011874676-02 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-64 \pm 5$	$2.01^{+0.83}_{-0.78}$	$6113^{+204}_{-260}$	$7488^{+3210}_{-1479}$	$1.950^{+3.181}_{-0.958}$
Alt.	$-86 \pm 16$	$2.41^{+0.82}_{-0.84}$	$6103^{+213}_{-256}$	$7271^{+2596}_{-1325}$	$1.790^{+2.517}_{-0.824}$

$T_{max}$  = 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

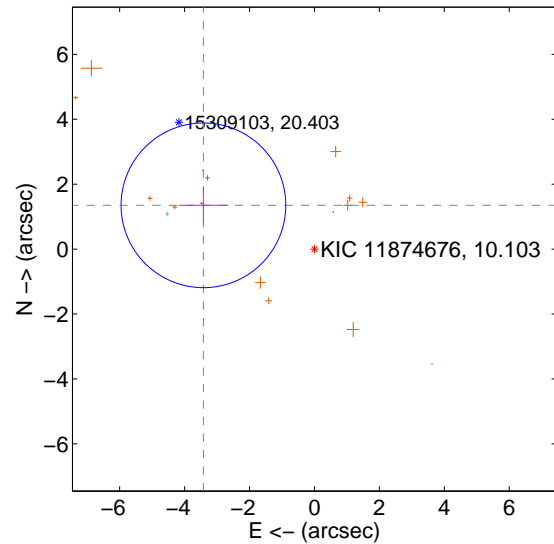
Supplemental centroid analysis for 011874676-02. **Kepler magnitude: 10.10.** Transit SNR 11.35

**There are 2 quarters with good PRF difference image offsets**

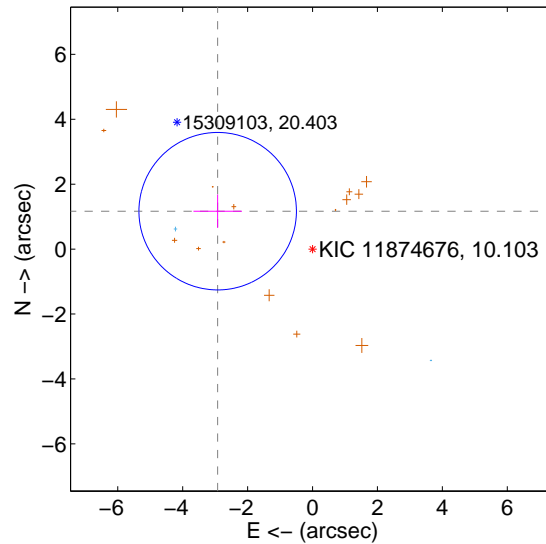
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>3.676 \pm 0.846</math></b>	<b>4.35</b>	$3.419 \pm 0.761$	$1.349 \pm 0.542$
PRF-fit source offset from KIC position	<b><math>3.146 \pm 0.808</math></b>	<b>3.89</b>	$2.922 \pm 0.747$	$1.168 \pm 0.514$
photometric centroid source offset	$0.30 \pm 0.26$	1.15	$0.27 \pm 0.28$	$0.14 \pm 0.17$

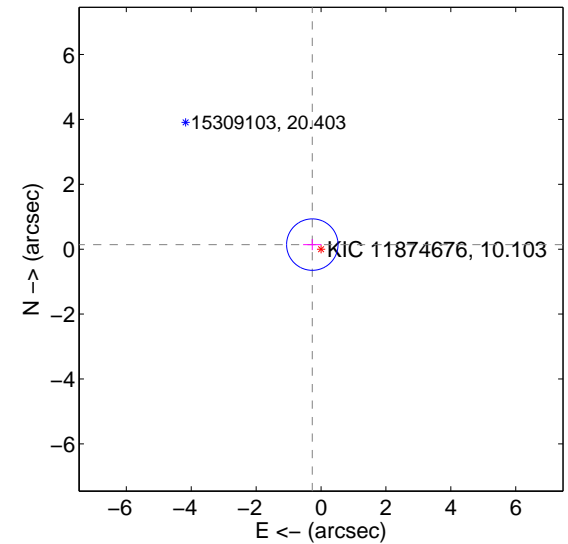
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

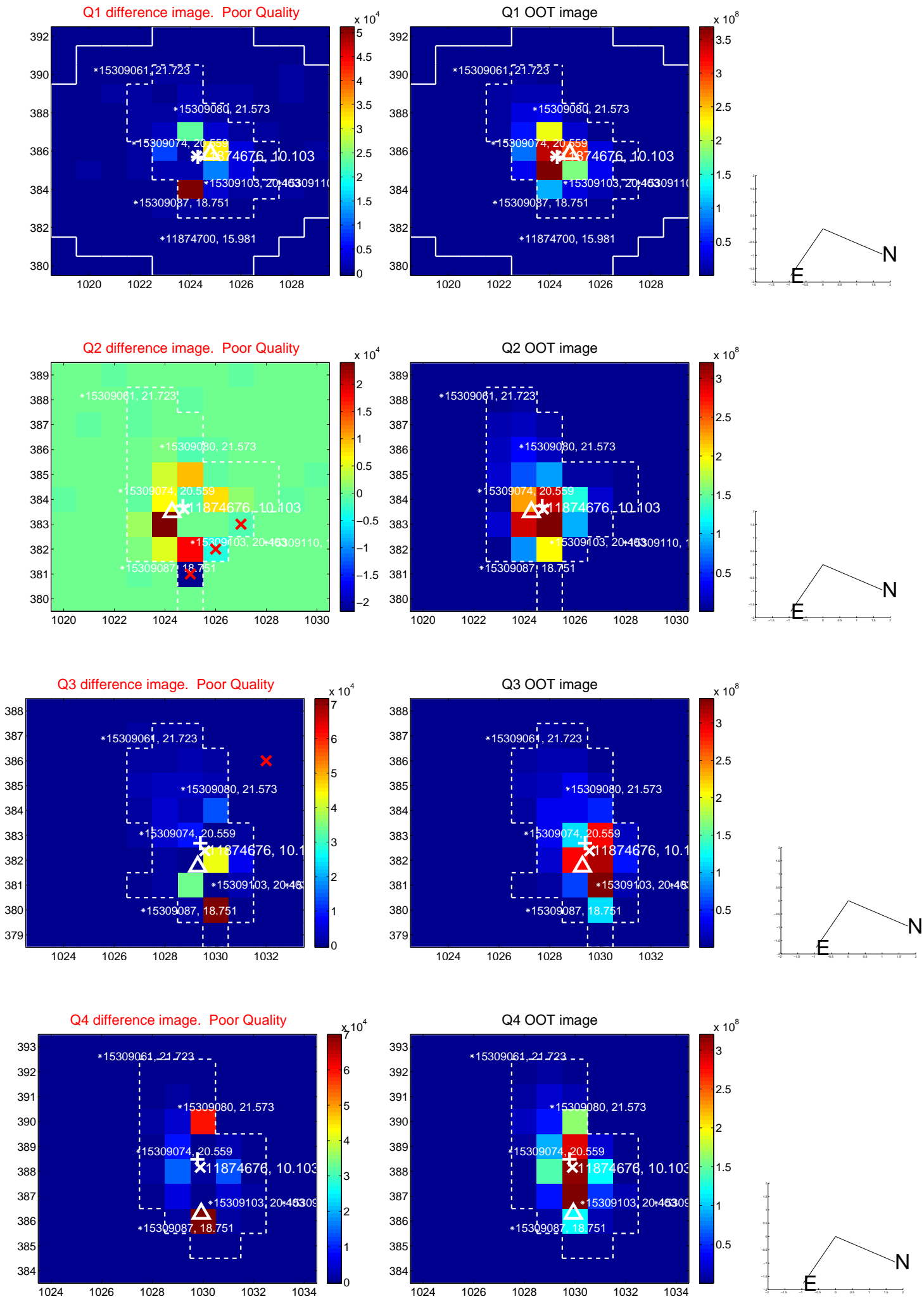


offset from photometric centroids

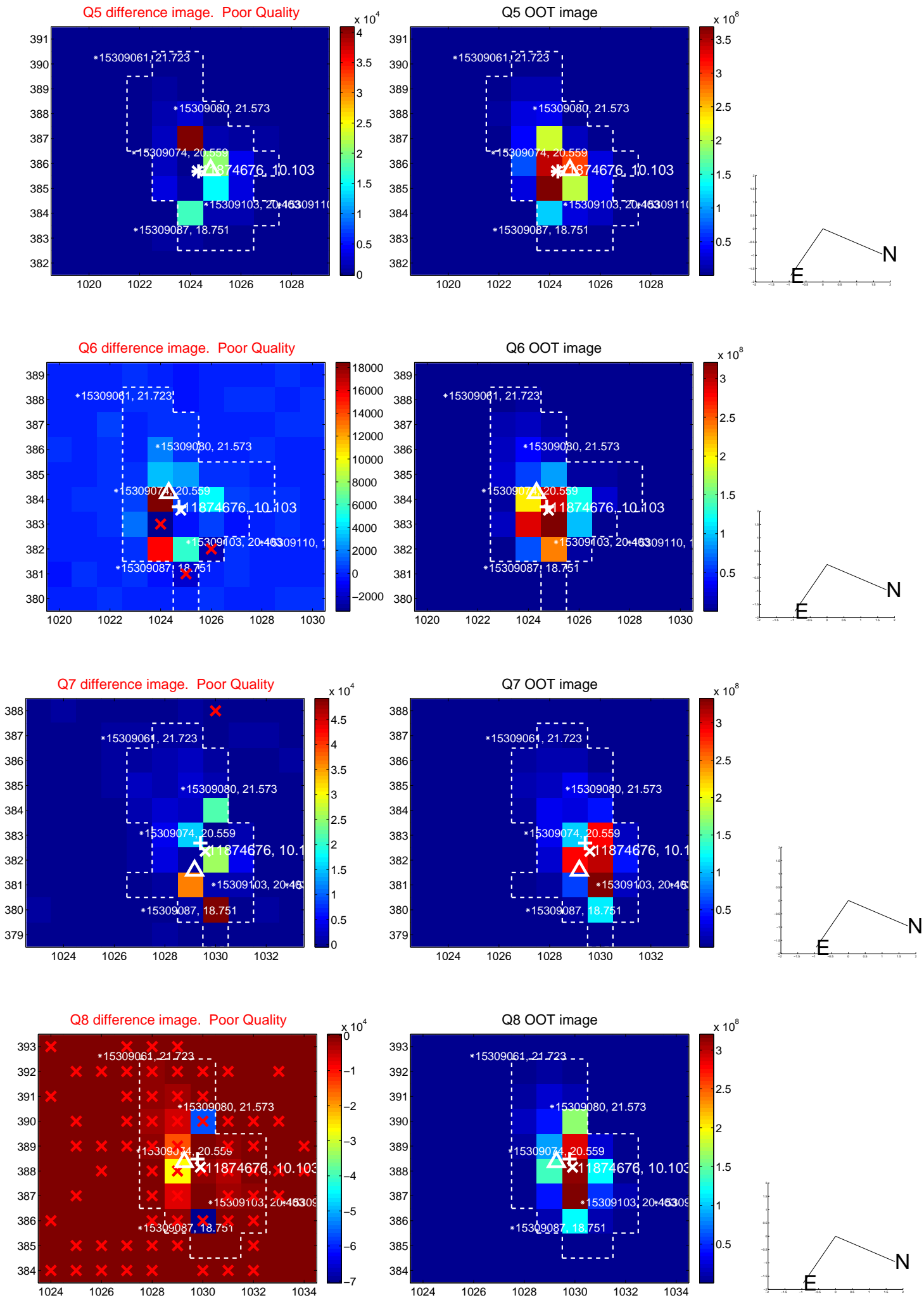


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

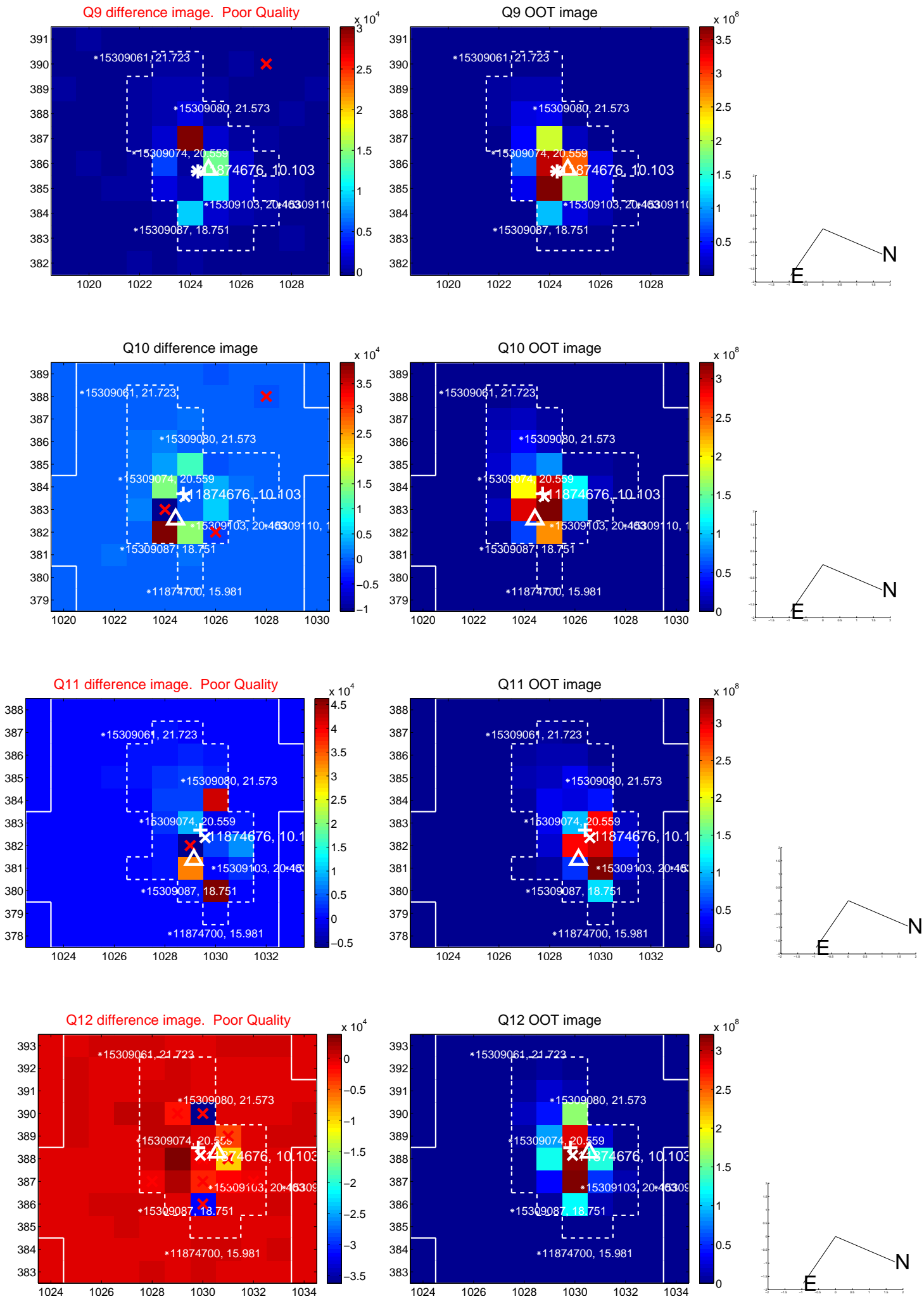
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



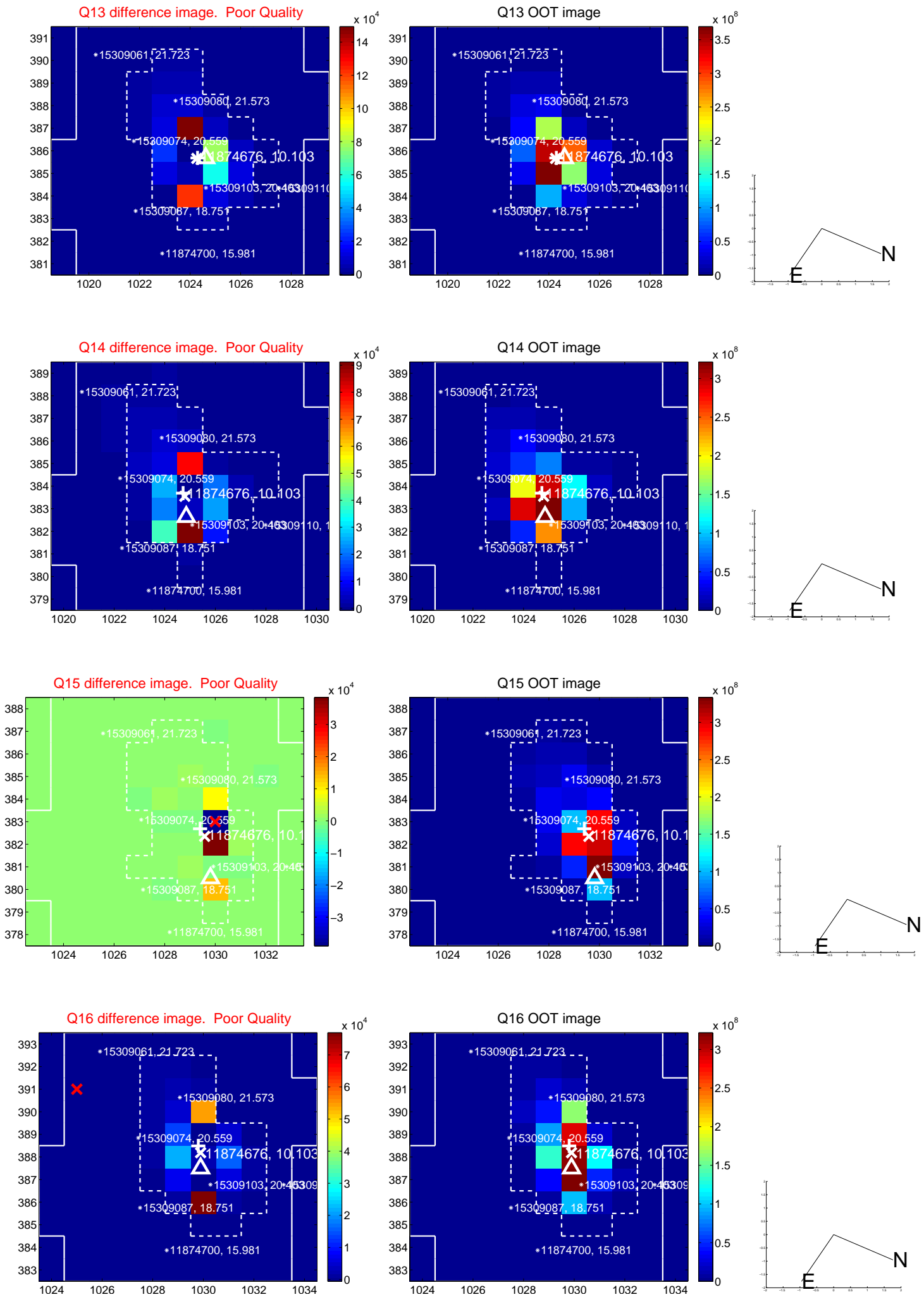
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

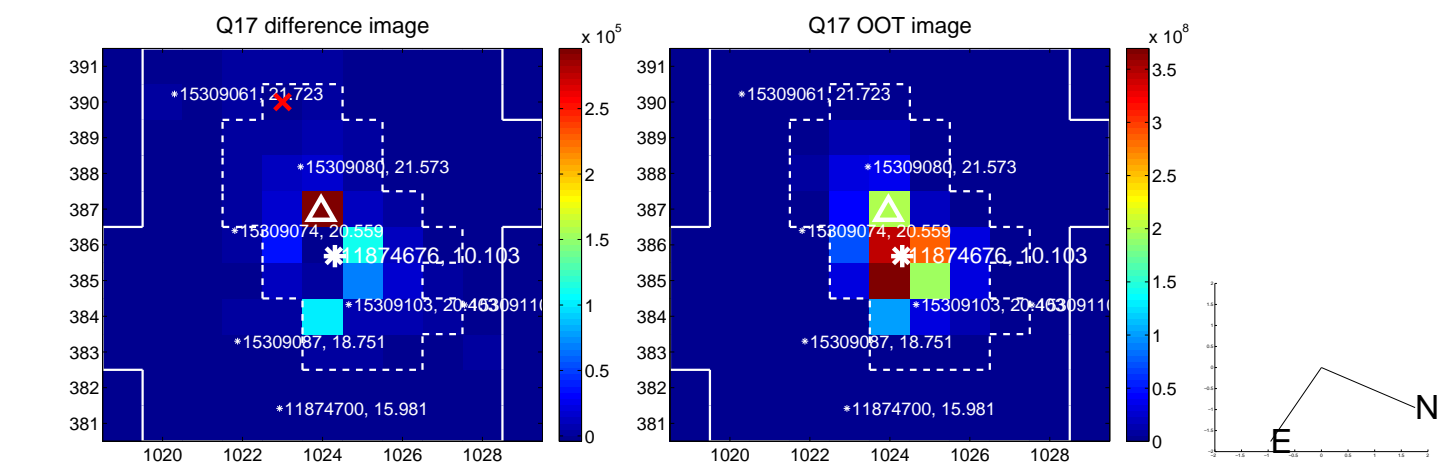


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

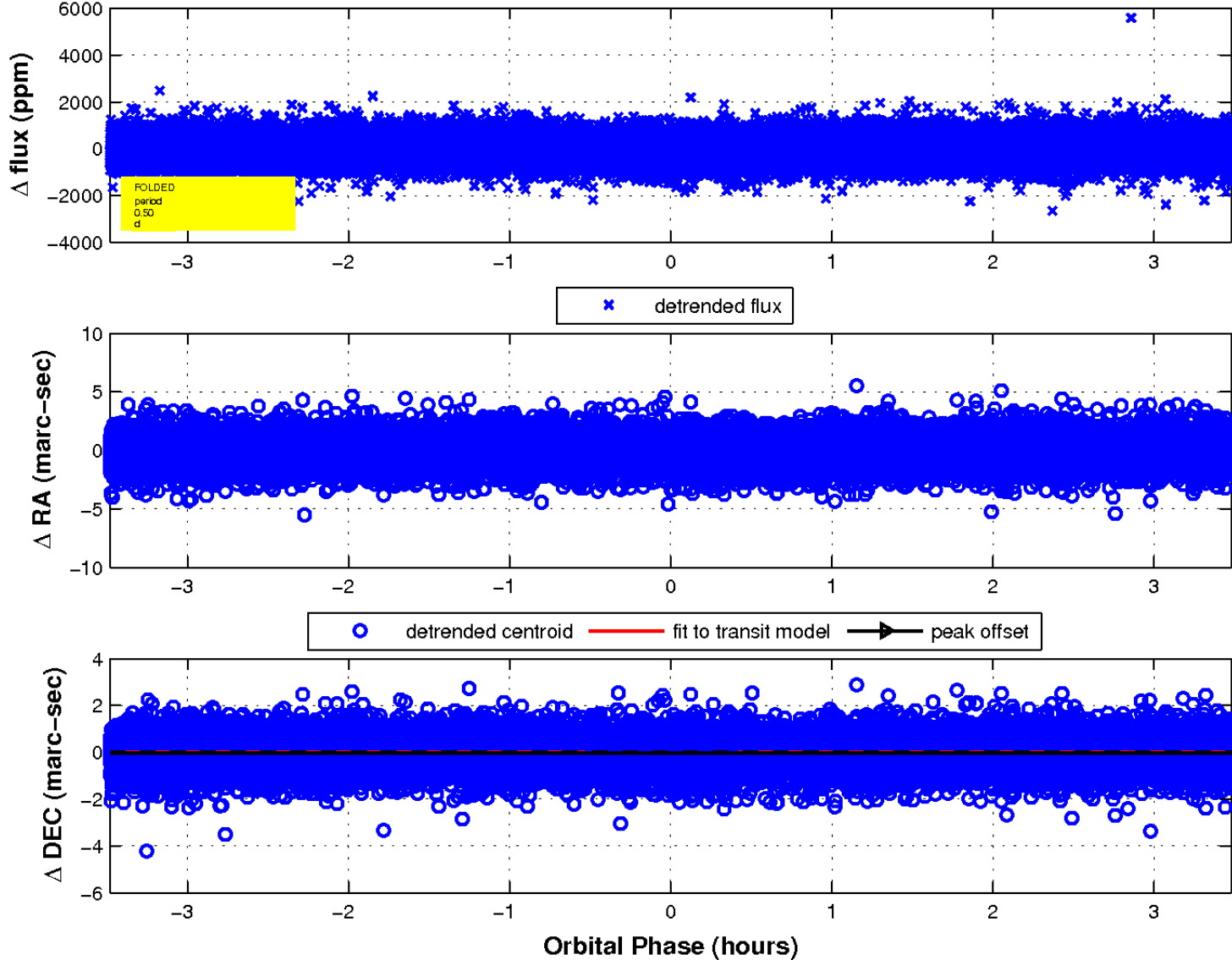




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

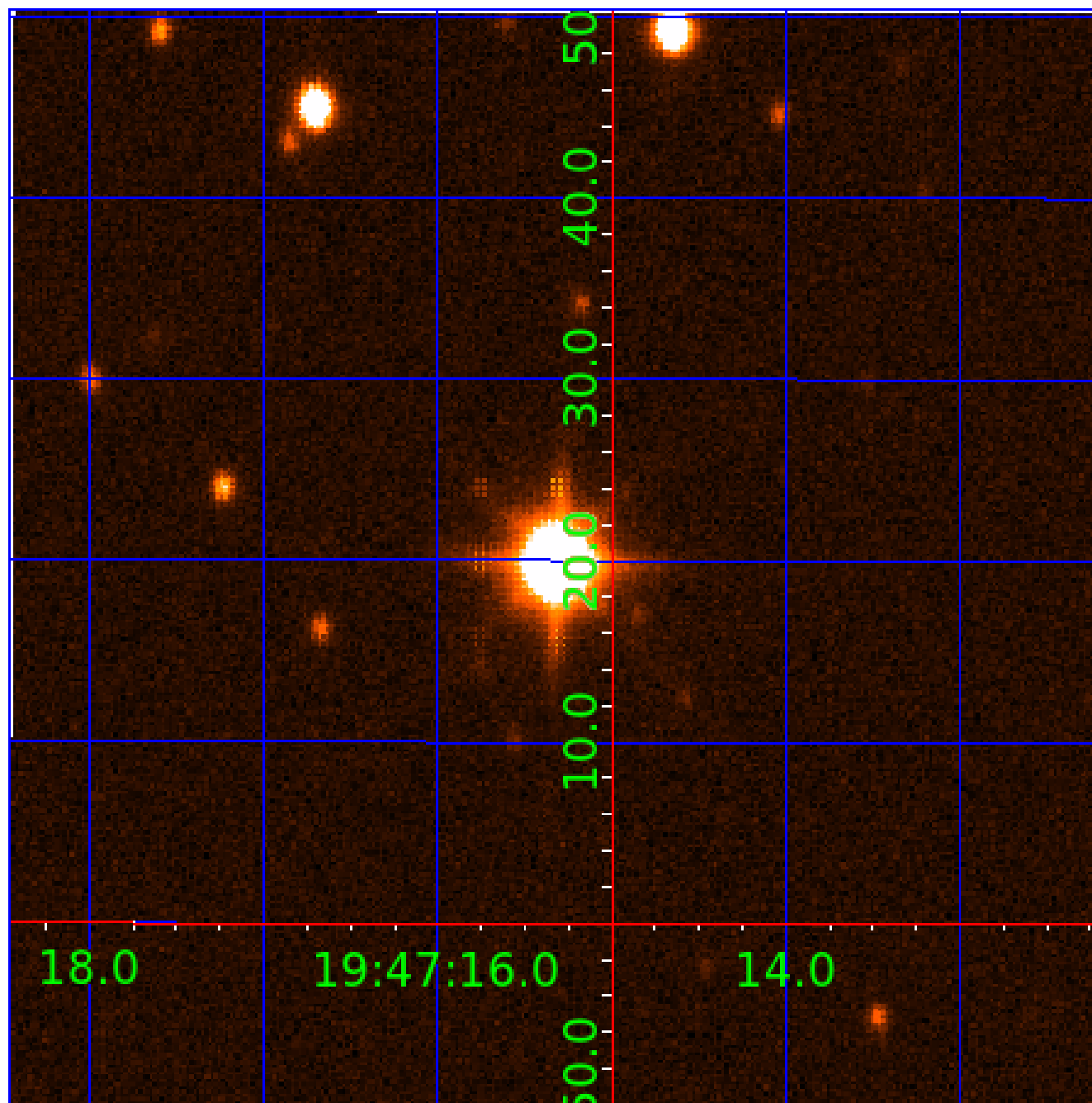


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



# KIC 011874676

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011874676-01	OBS	No	0.504944	131.914745	83.3	1.025	10.1	13.5	2.17	8292	2.32	87186.01
011874676-02	OBS	No	0.504943	131.747835	67.7	1.161	9.7	11.3	2.17	8292	2.09	87186.20
011874676-03	OBS	No	0.504948	131.571029	54.7	1.259	8.7	9.9	2.17	8292	1.64	87185.13

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011874676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011874676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD—CENT_SATURATED
011874676-03	OBS	FP	0.00	1	0	0	0	SAME_NTL_PERIOD—CENT_SATURATED

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

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

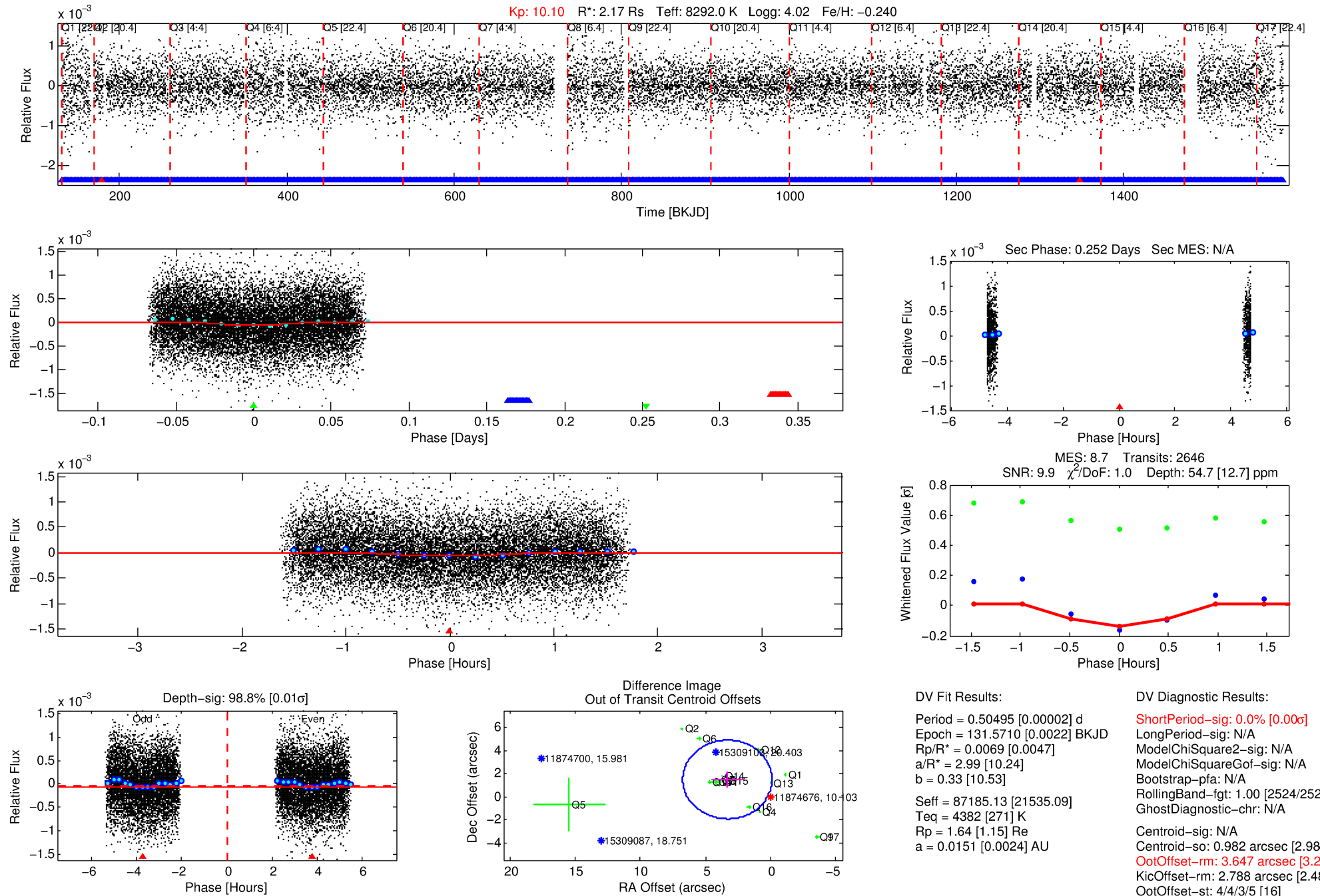
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 011874676-03

No Significant Match Found

# DV One-Page Summary

KIC: 11874676 Candidate: 3 of 3 Period: 0.505 d



## DV Fit Results:

Period = 0.50495 [0.00002] d  
Epoch = 131.5710 [0.0022] BKJD  
Rp/R\* = 0.0069 [0.0047]  
a/R\* = 2.99 [10.24]  
b = 0.33 [10.53]  
Seff = 87185.13 [21535.09]  
Teq = 4382 [271] K  
Rp = 1.64 [1.15] Re  
a = 0.0151 [0.0024] AU

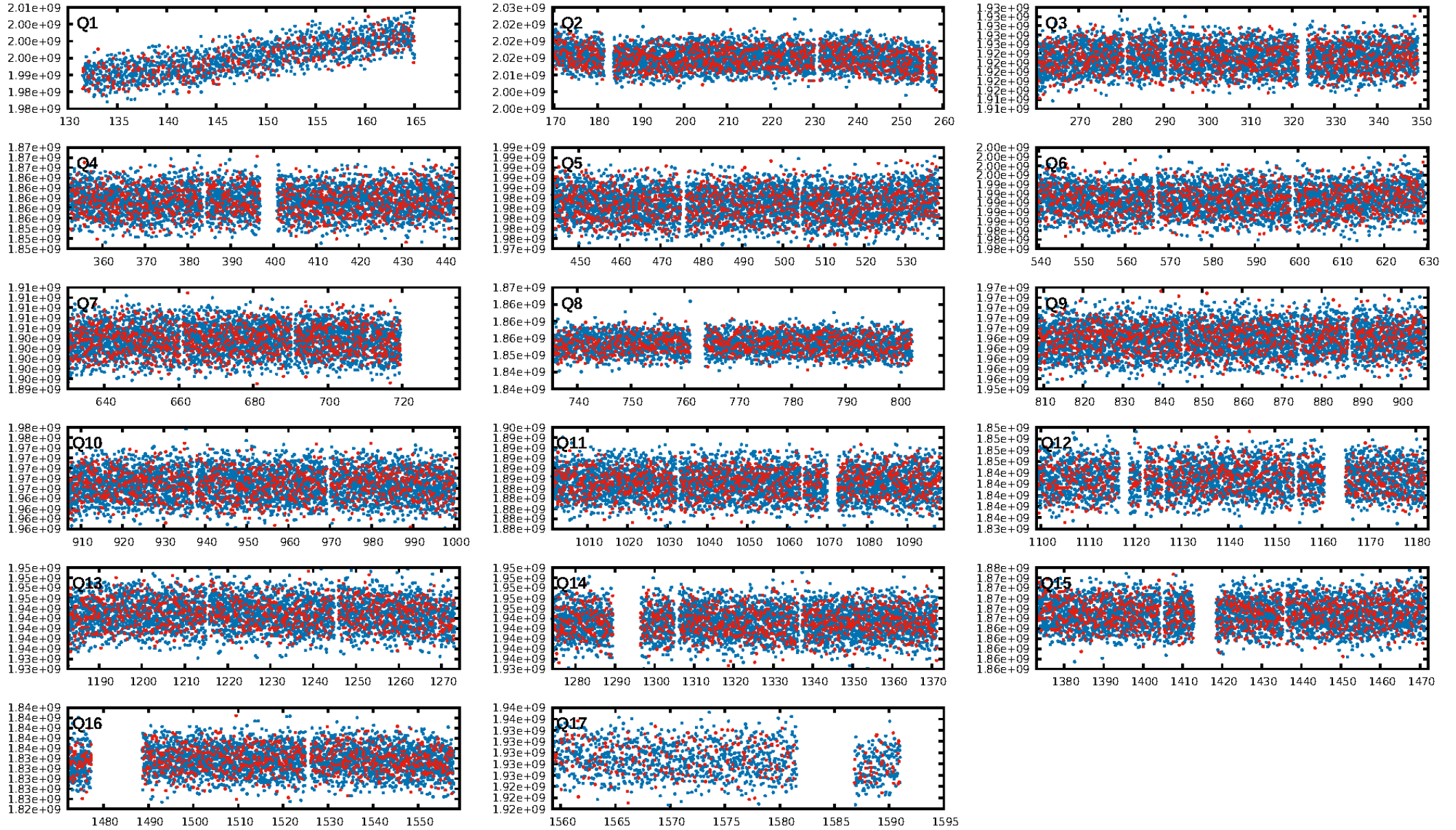
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2524/2526]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: 0.982 arcsec [2.98σ]  
OotOffset-rm: 3.647 arcsec [3.20σ]  
KicOffset-rm: 2.788 arcsec [2.48σ]  
OotOffset-st: 4/4/3/5 [16]  
KicOffset-st: 4/4/3/5 [16]  
DiffImageQuality-fgm: 0.12 [2/16]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:31:02 Z

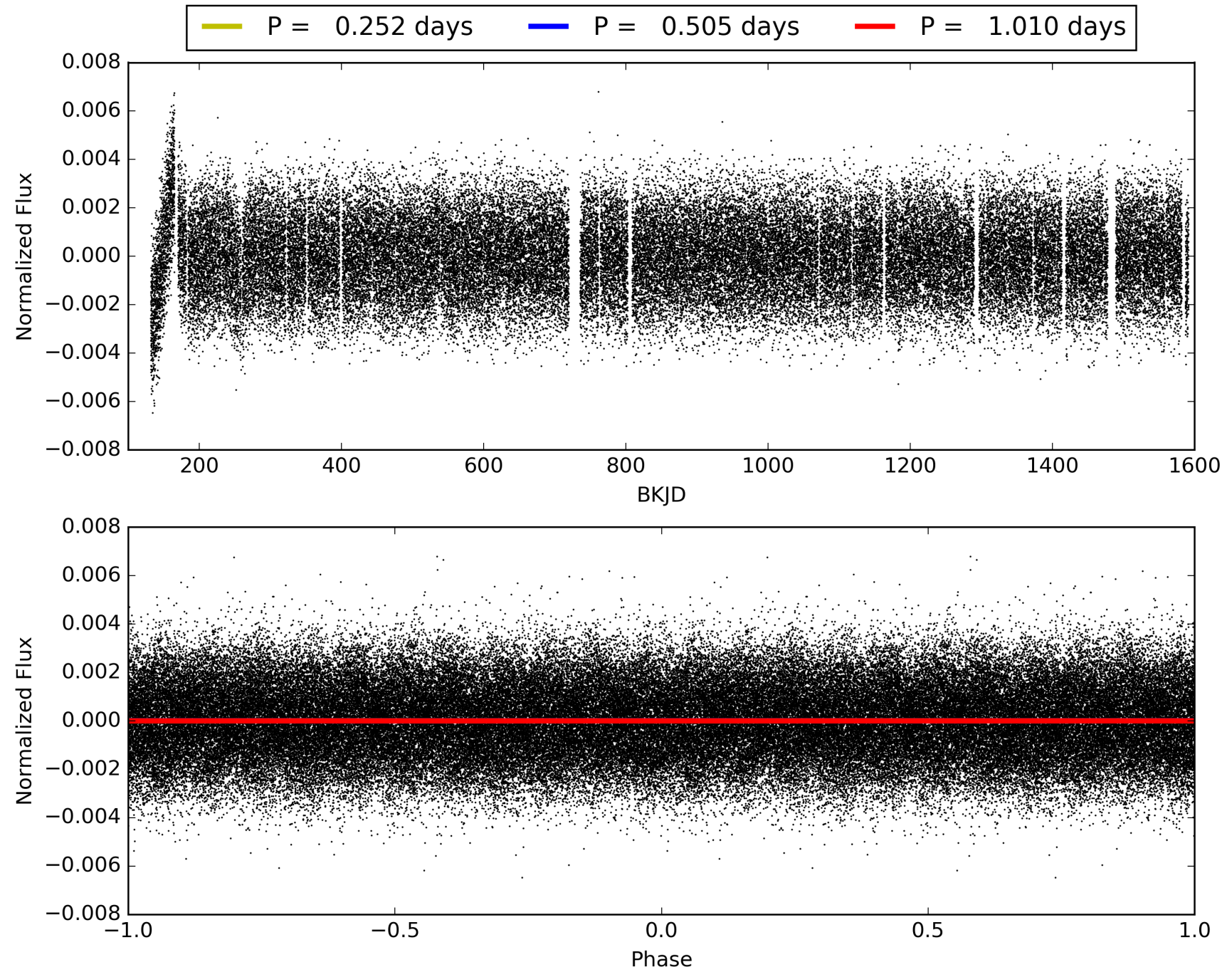
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 011874676-03, PDC Light Curves



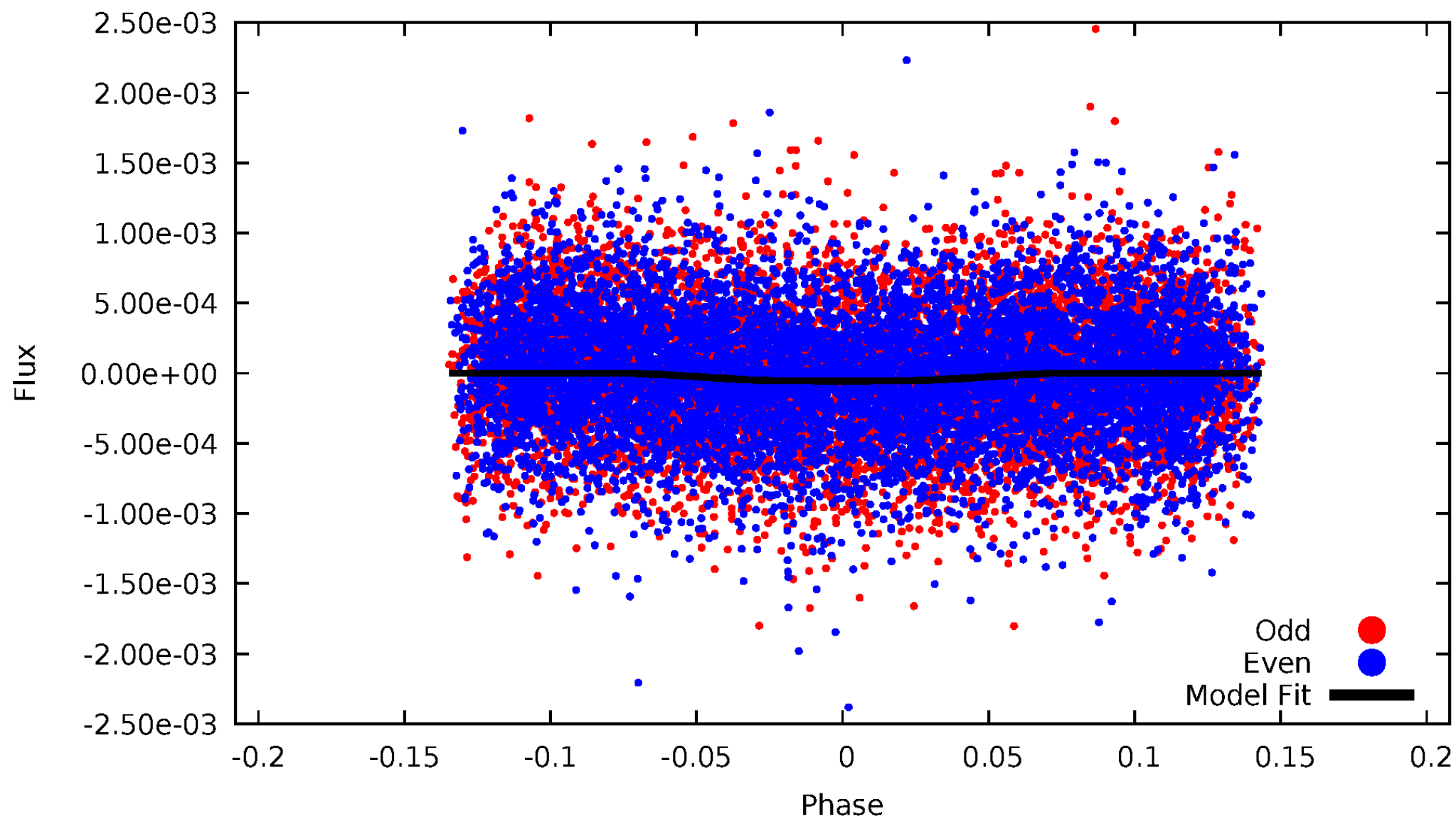


# TCE 011874676-03



# DV Odd/Even

TCE 011874676-03

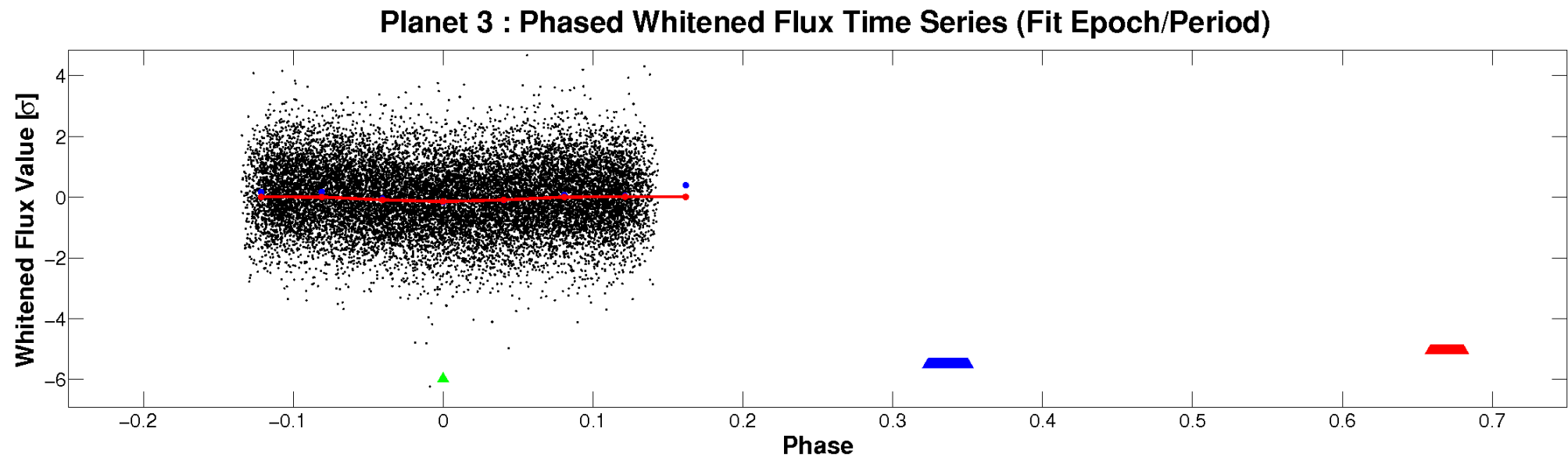
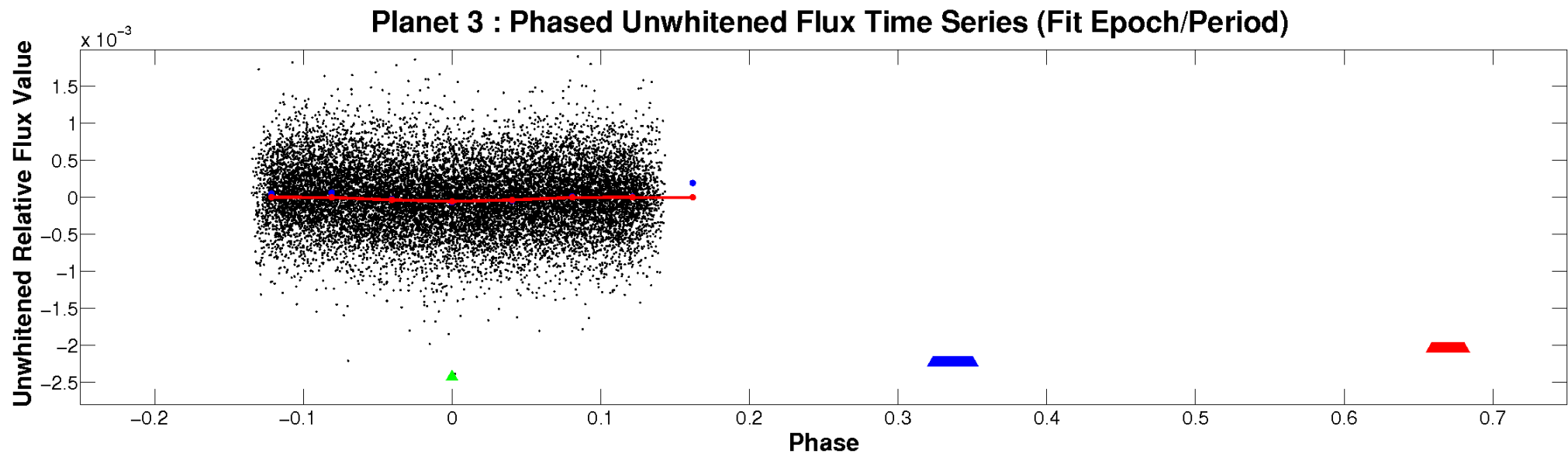




ALT Odd/Even

This plot does not exist for this TCE.

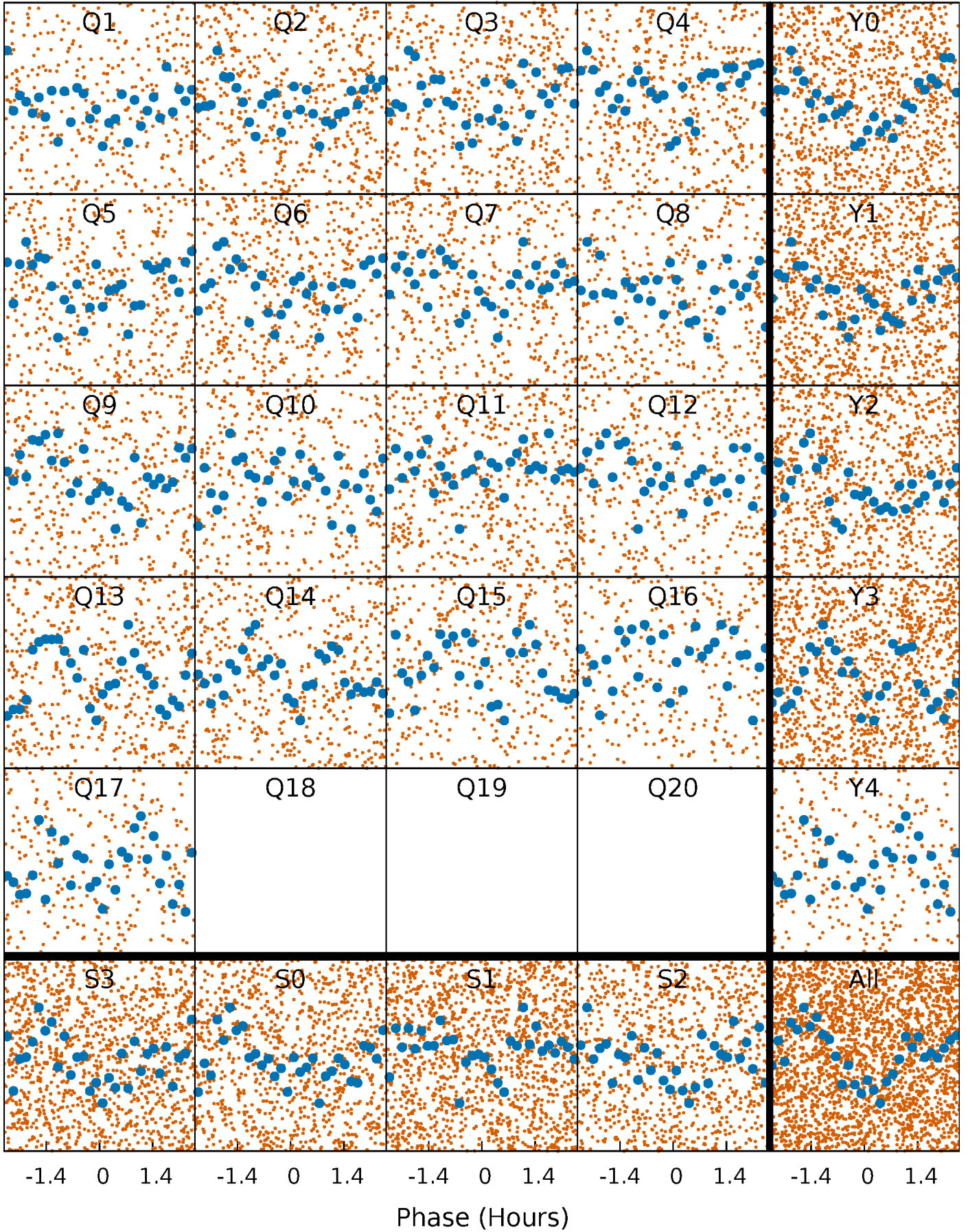
# Non-Whitened Vs. Whitened Light Curve





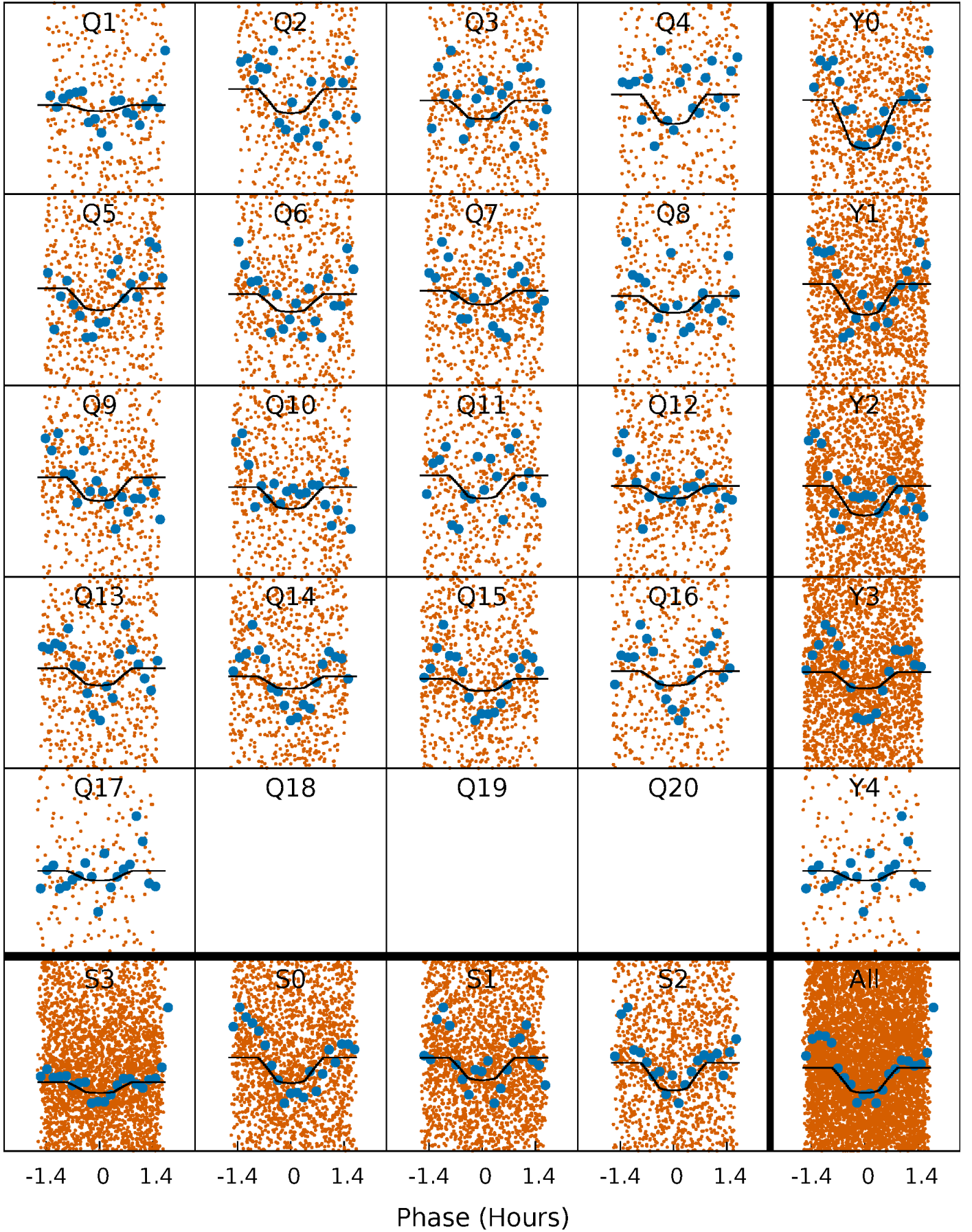
# PDC Quarter-Phased Transit Curves

TCE 011874676-03   P= 0.504948 Days    $T_0=131.571029$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 011874676-03    P= 0.504948 Days     $T_0=131.571029$  (BKJD)

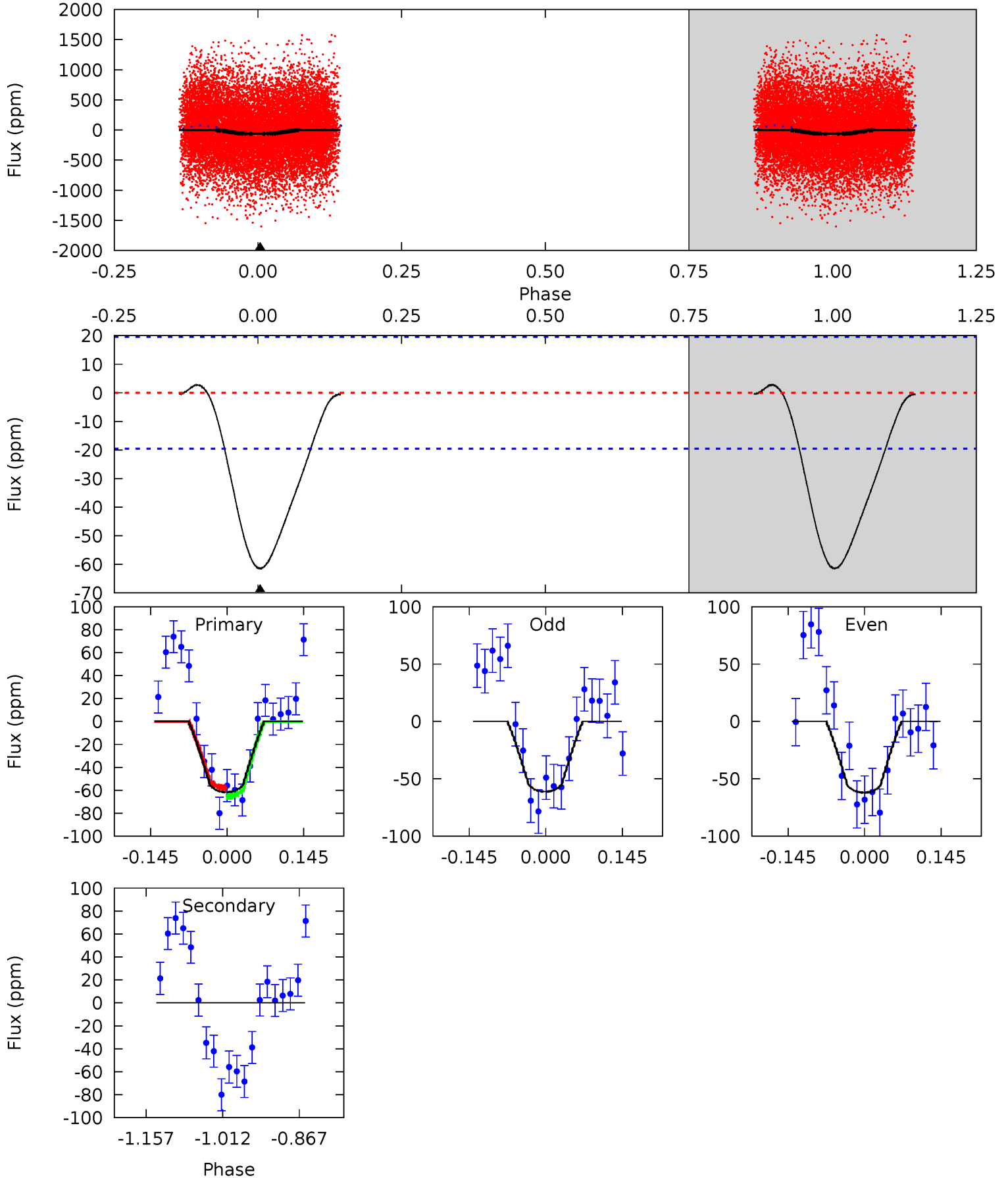


This plot does not exist for this TCE.

# DV Model-Shift Uniqueness Test

011874676-03, P = 0.504948 Days, E = 131.066081 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	0	0	0	4.49	1.46	0.49	14.1	14.1	0	0	0.09	1.26	0.05	0.91



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.



### Stellar Parameters For KIC 011874676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8292^{+74}_{-82}$	$4.022^{+0.137}_{-0.084}$	$-0.240^{+0.050}_{-0.150}$	$2.167^{+0.234}_{-0.401}$	$1.805^{+0.043}_{-0.182}$	$0.250^{+0.157}_{-0.070}$
	+1%/-1%	+3%/-2%	+21%/-62%	+11%/-19%	+2%/-10%	+63%/-28%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 011874676-03 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$0 \pm 4$	$1.73^{+0.97}_{-0.99}$	$6101^{+222}_{-288}$	$-4941^{+1572}_{-743}$	$0.002^{+0.256}_{-0.243}$
Alt.	N/A	N/A	N/A	N/A	N/A

$T_{max}$  = 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  $A_{obs} \gg 1.0$

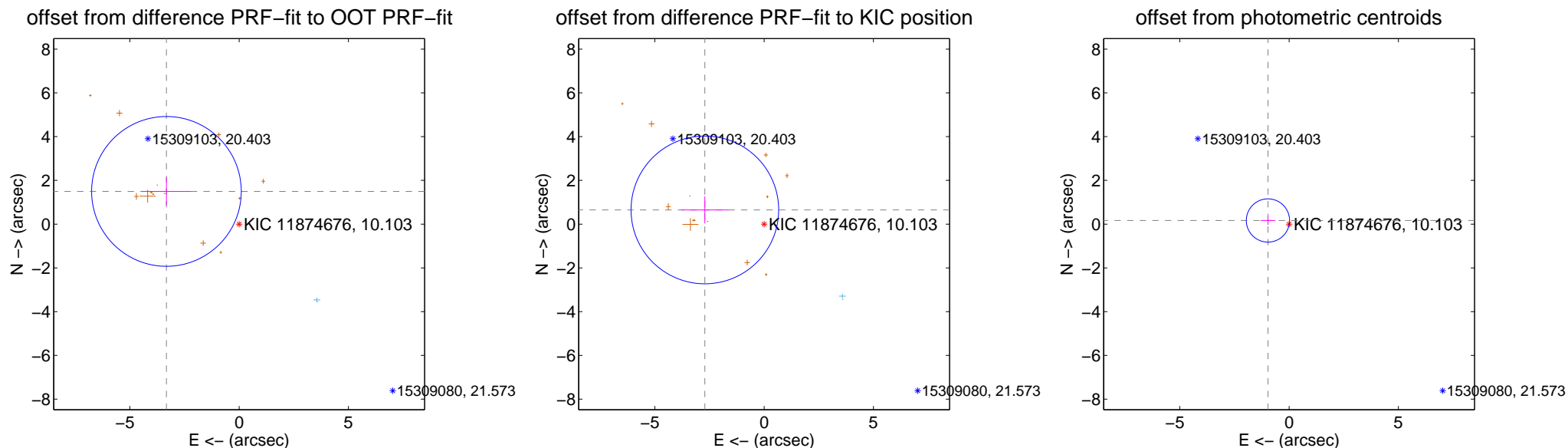
## DV Centroid Data

Supplemental centroid analysis for 011874676-03. **Kepler magnitude: 10.10.** Transit SNR 9.85

**There are 2 quarters with good PRF difference image offsets**

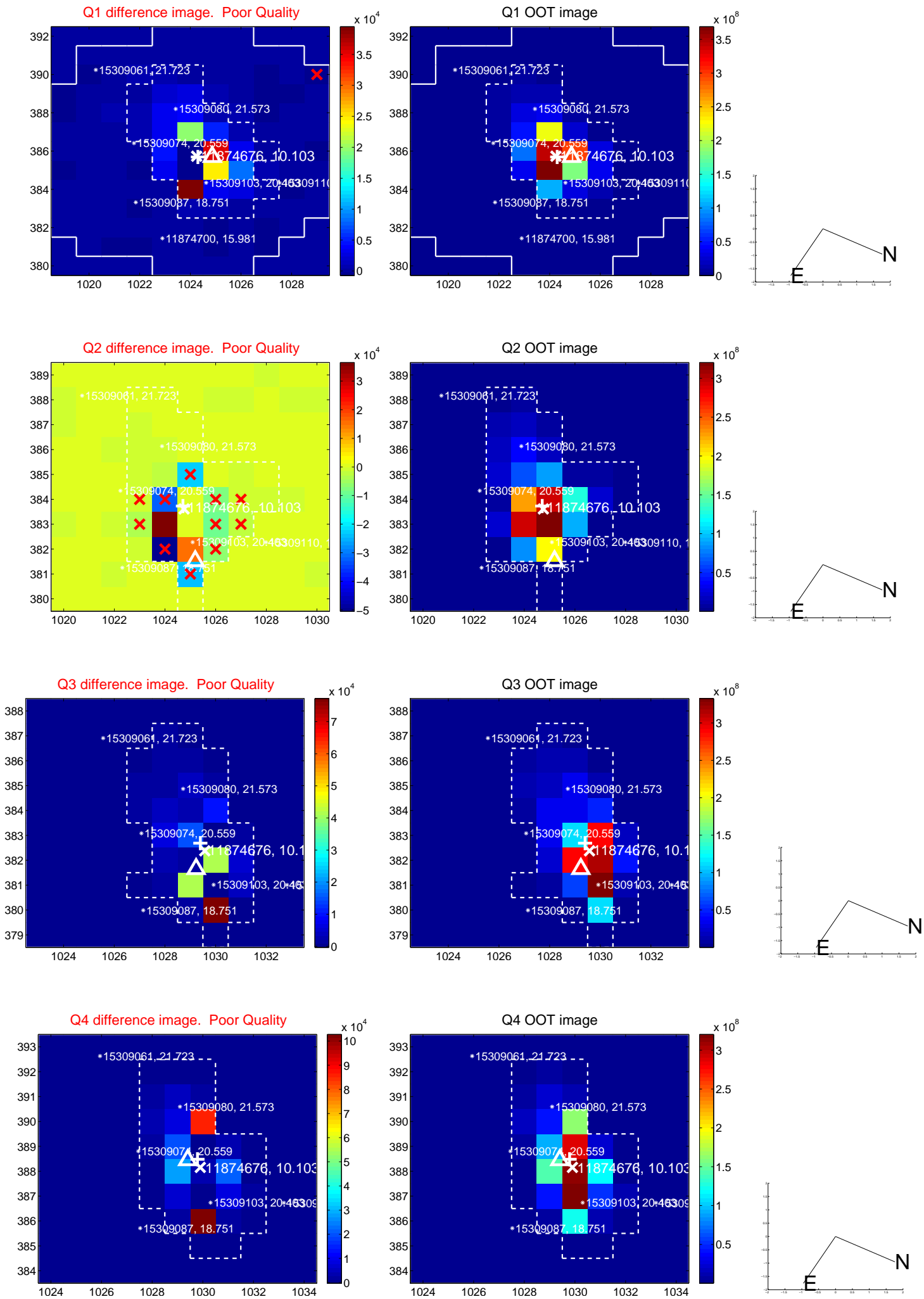
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b><math>3.647 \pm 1.141</math></b>	<b>3.20</b>	$3.326 \pm 1.120$	$1.496 \pm 0.631$
PRF-fit source offset from KIC position	$2.788 \pm 1.126$	2.48	$2.712 \pm 1.085$	$0.650 \pm 0.622$
photometric centroid source offset	$0.98 \pm 0.33$	2.98	$0.97 \pm 0.33$	$0.17 \pm 0.20$

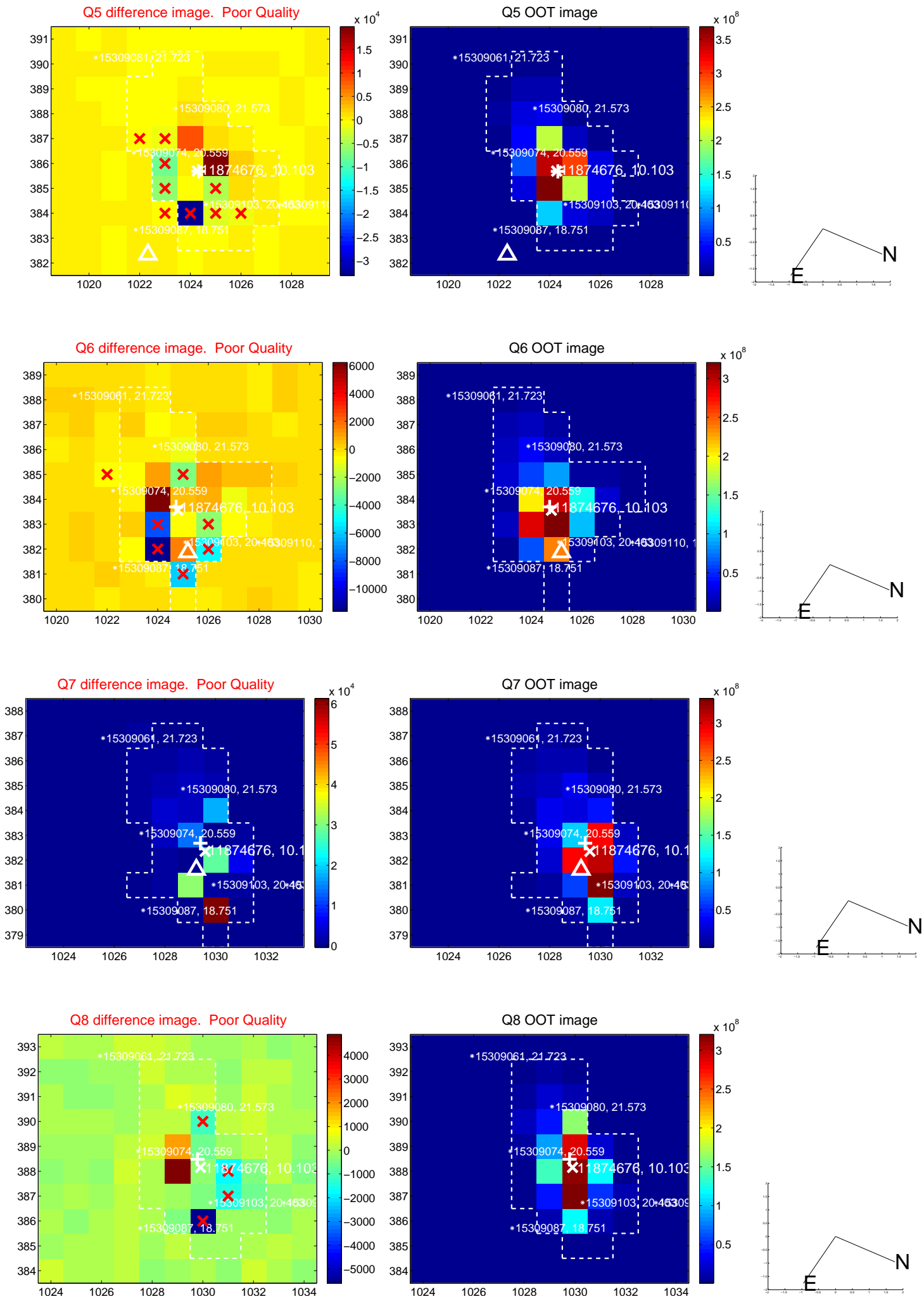


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

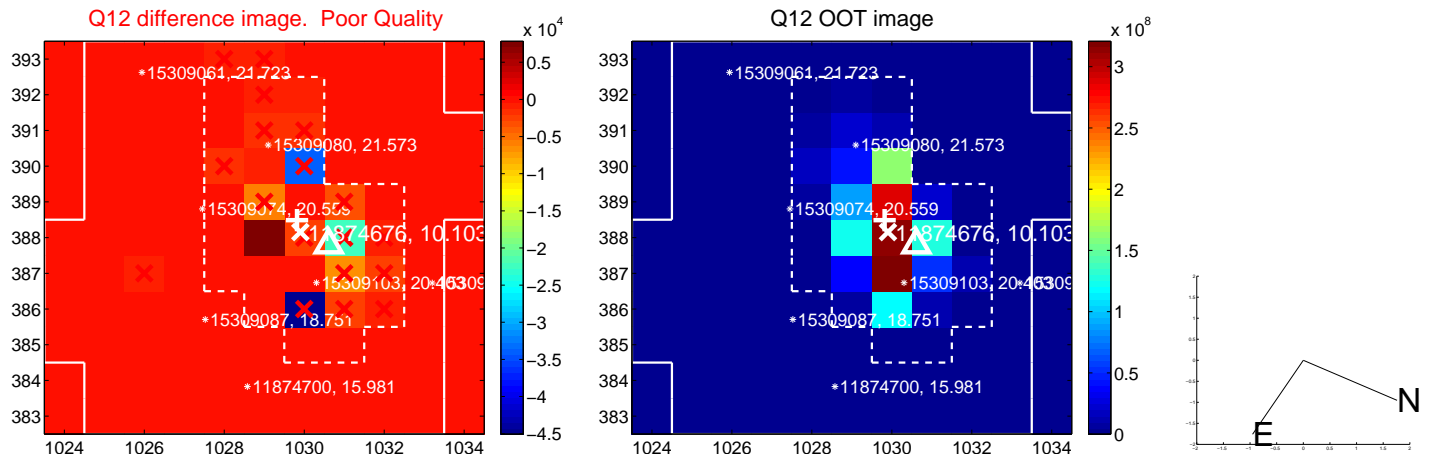
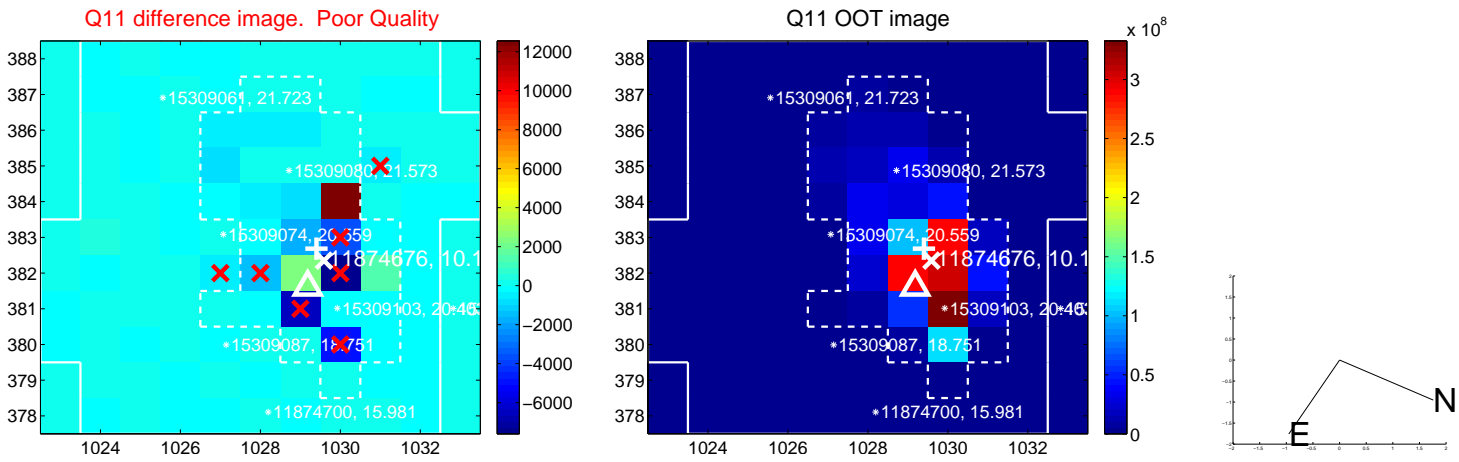
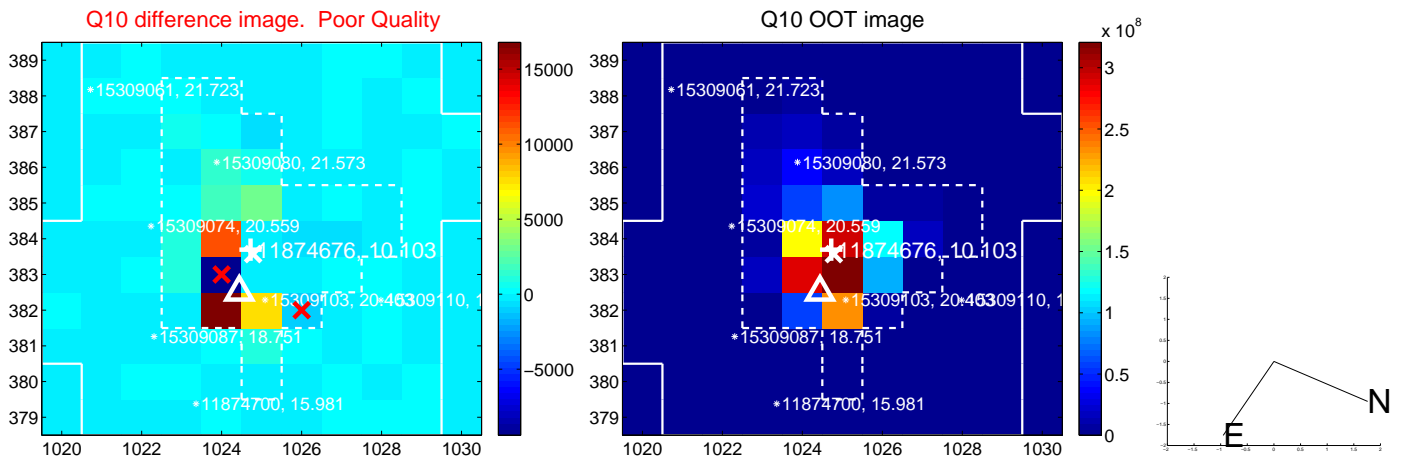
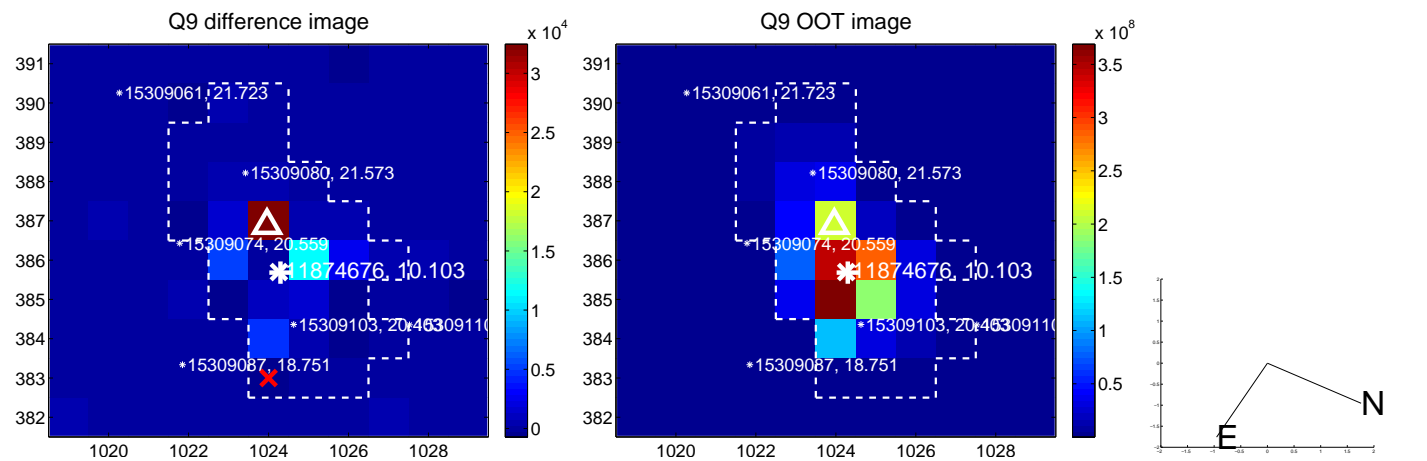
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

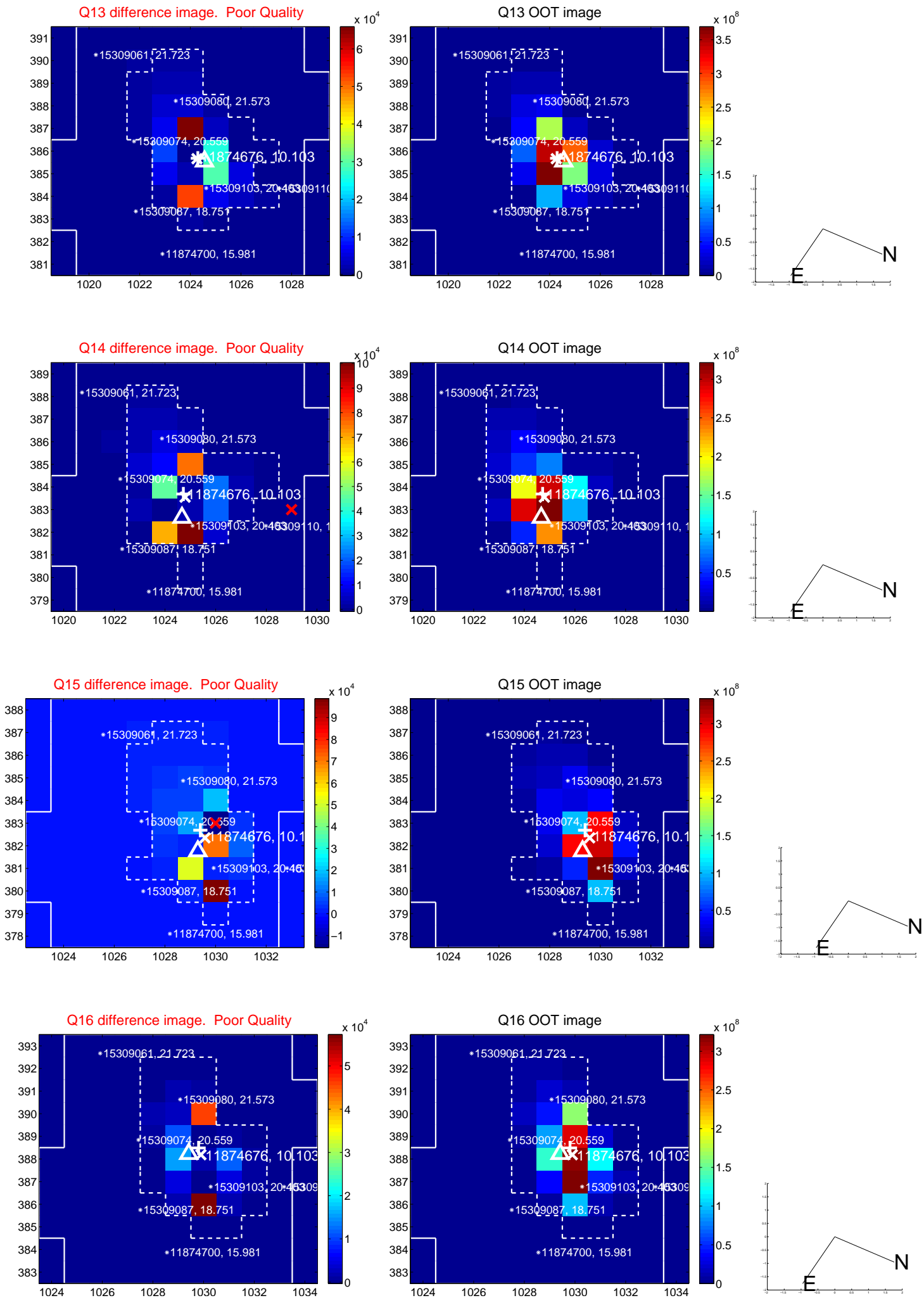


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

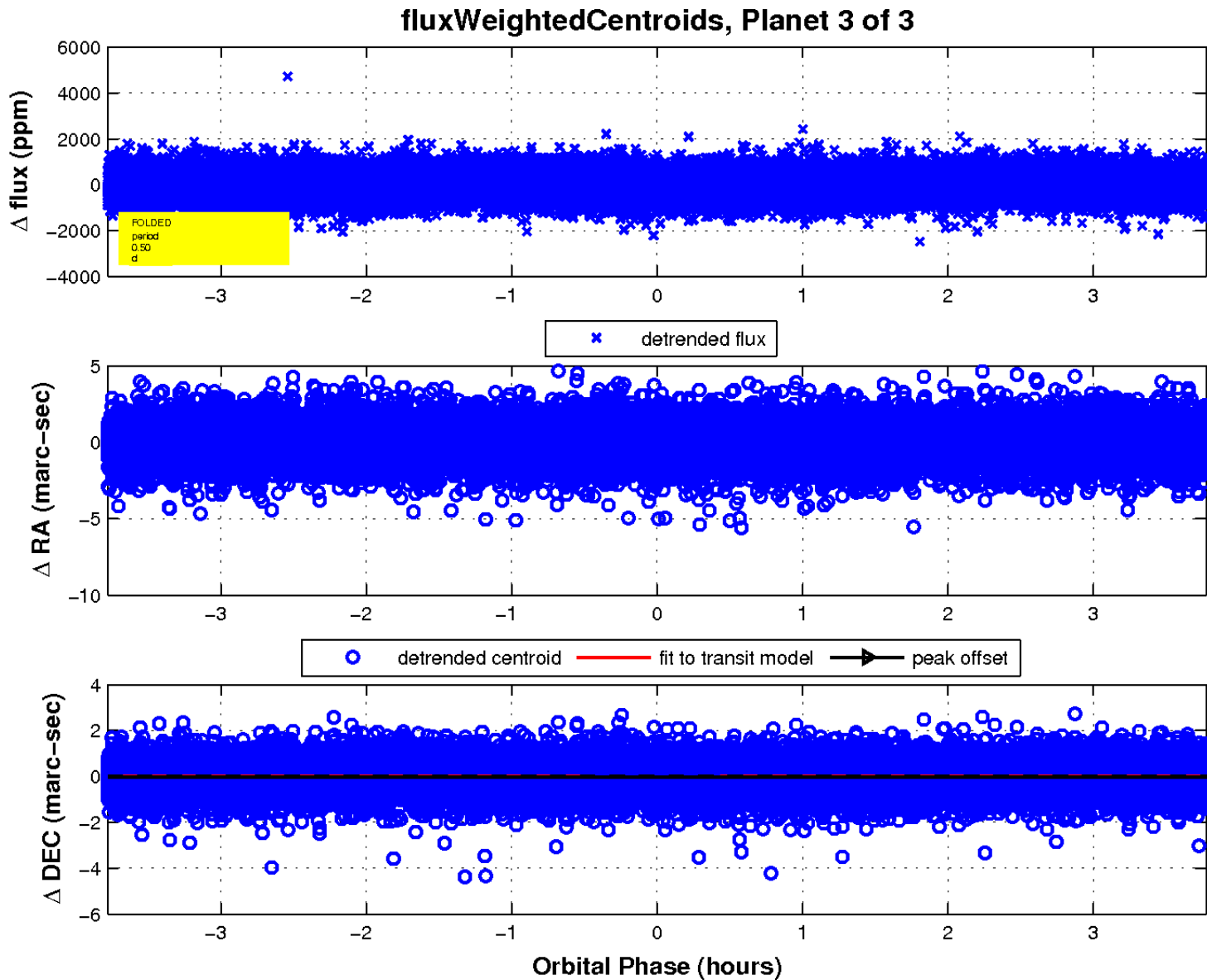
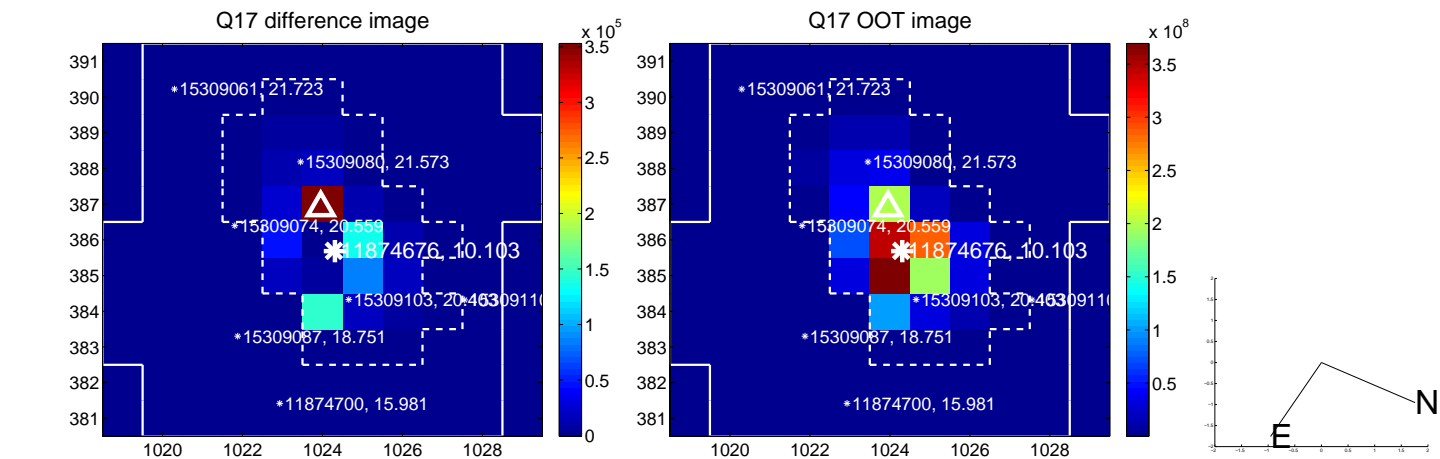




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

Declination

