

# KIC 008322243

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008322243-01	OBS	No	0.550336	131.659987	239.6	1.151	13.5	14.1	2.64	7843	4.77	88725.93
008322243-02	OBS	No	0.550337	132.028395	314.4	0.999	11.9	17.9	2.64	7843	5.48	88725.81
008322243-03	OBS	No	0.550334	131.843499	245.4	1.170	11.5	16.1	2.64	7843	4.26	88726.32

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008322243-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008322243-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
008322243-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

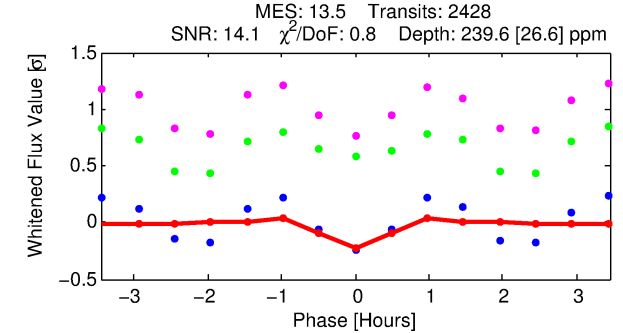
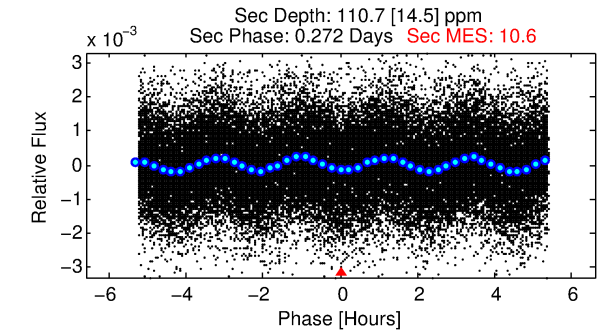
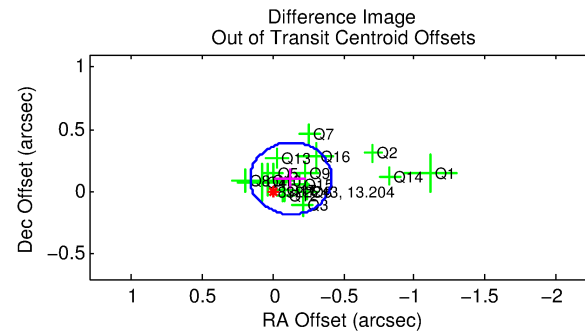
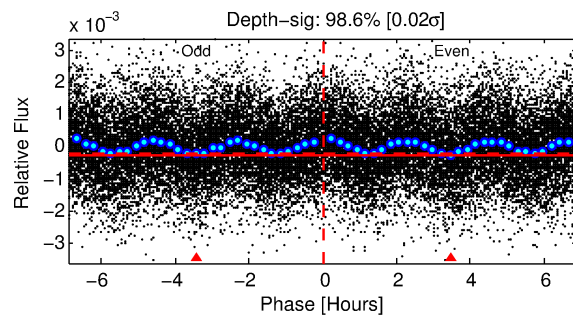
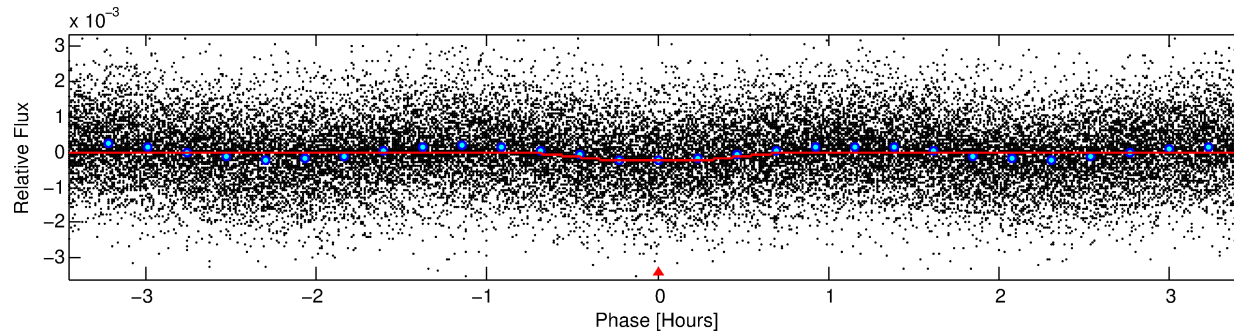
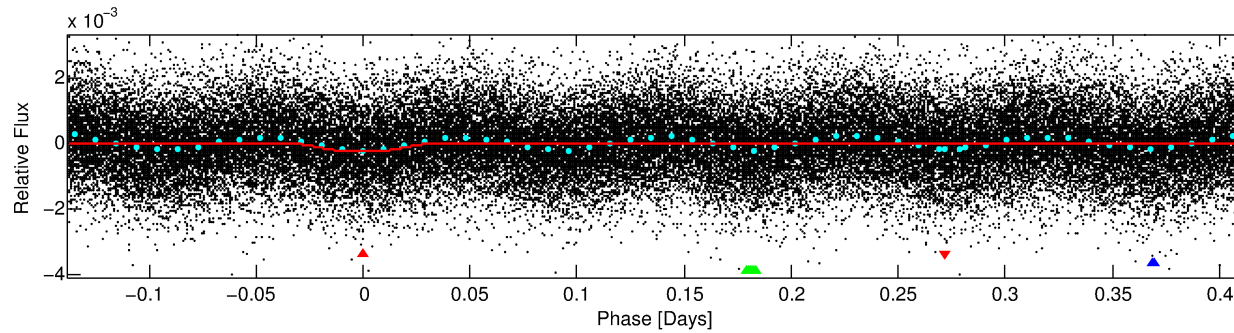
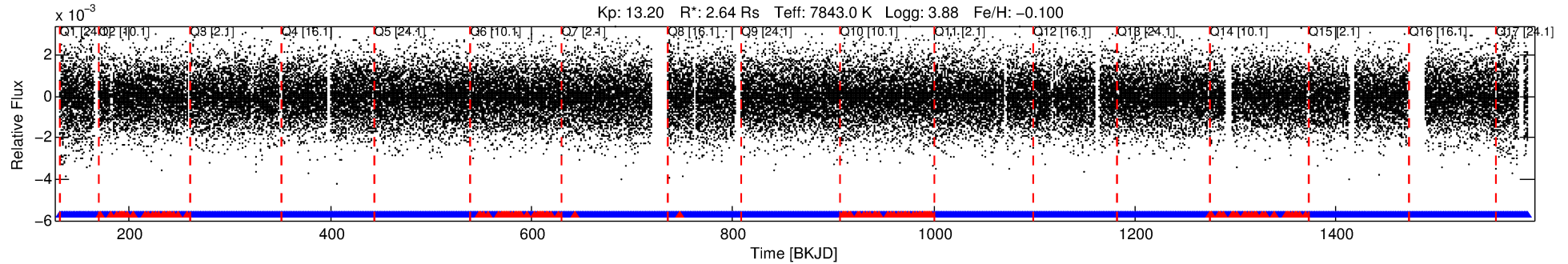
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 008322243-01

No Significant Match Found

# DV One-Page Summary

KIC: 8322243 Candidate: 1 of 3 Period: 0.550 d



## DV Fit Results:

Period = 0.55034 [0.00001] d  
Epoch = 131.6600 [0.0011] BKJD  
Rp/R\* = 0.0166 [0.0051]  
a/R\* = 1.97 [2.77]  
b = 0.90 [0.41]  
Seff = 88725.93 [49493.40]  
Teq = 4401 [614] K  
Rp = 4.77 [2.31] Re  
a = 0.0163 [0.0056] AU  
Ag = 0.71 [0.59] [-0.49σ]  
Teffp = 6252 [1016] K [1.56σ]

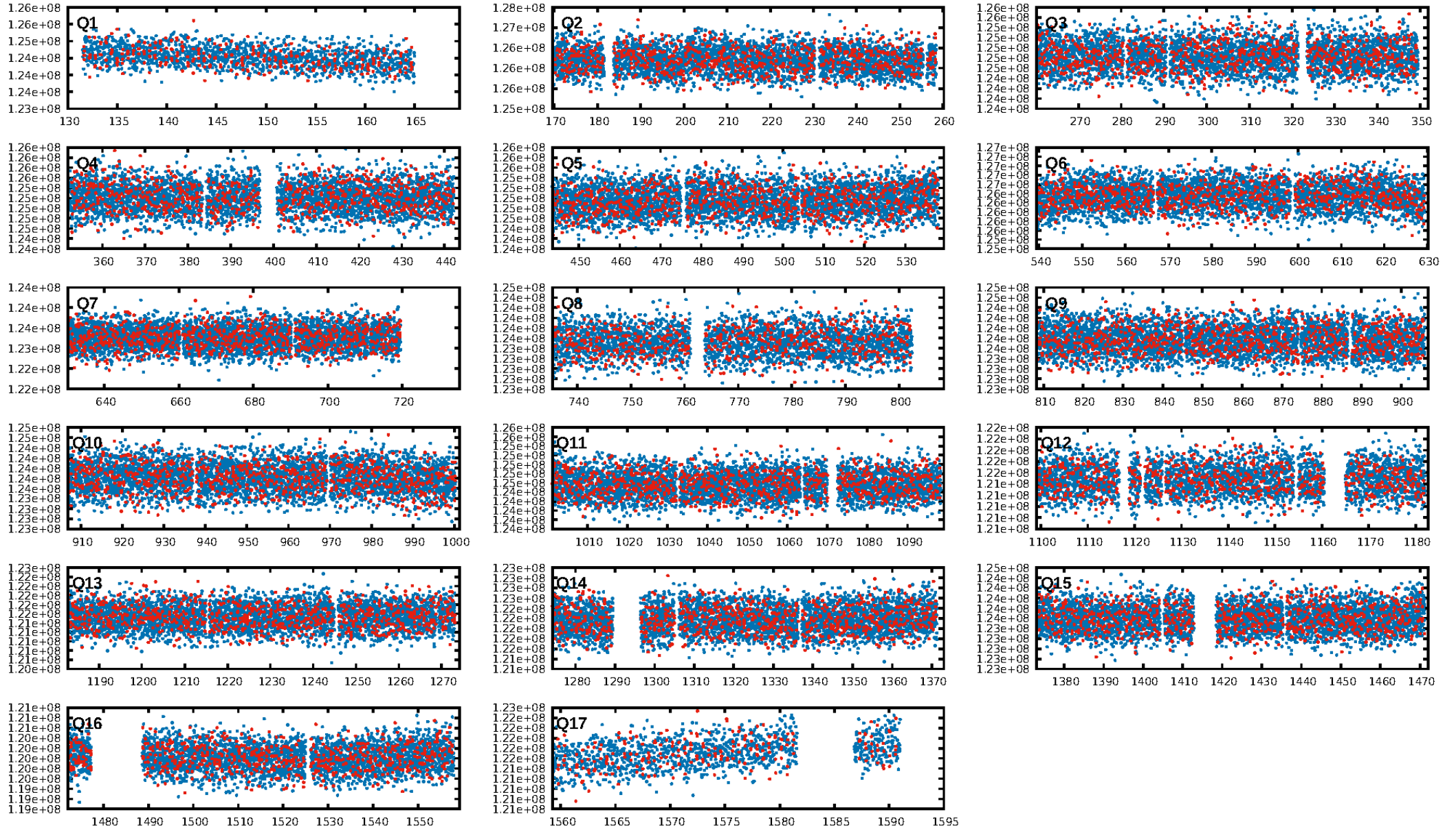
## DV Diagnostic Results:

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: 0.95 [2195/2320]  
GhostDiagnostic-chr: -2.691  
Centroid-sig: N/A  
Centroid-so: 0.723 arcsec [4.27σ]  
OotOffset-rm: 0.165 arcsec [1.72σ]  
KicOffset-rm: 0.101 arcsec [1.17σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:45:33 Z

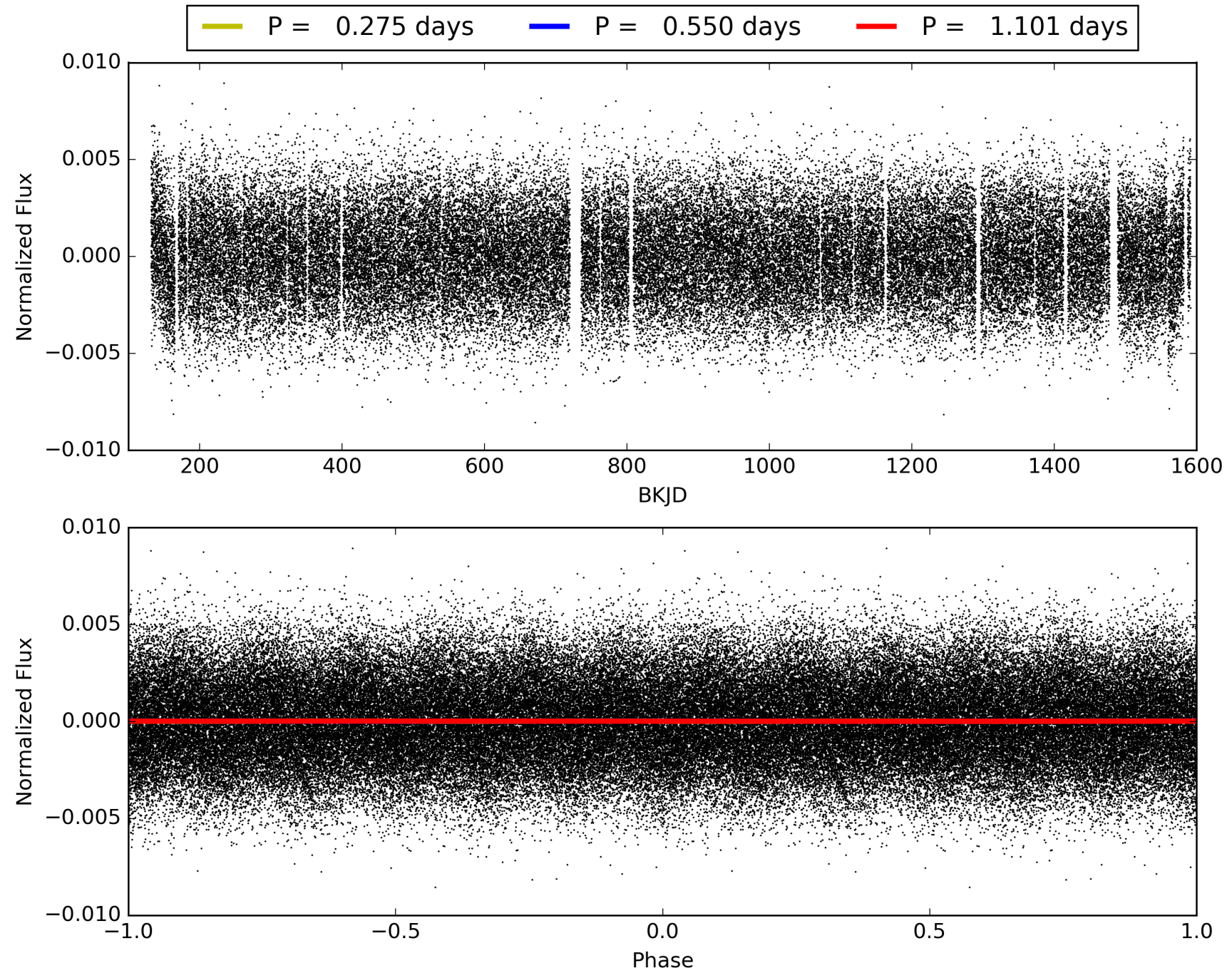
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008322243-01, PDC Light Curves





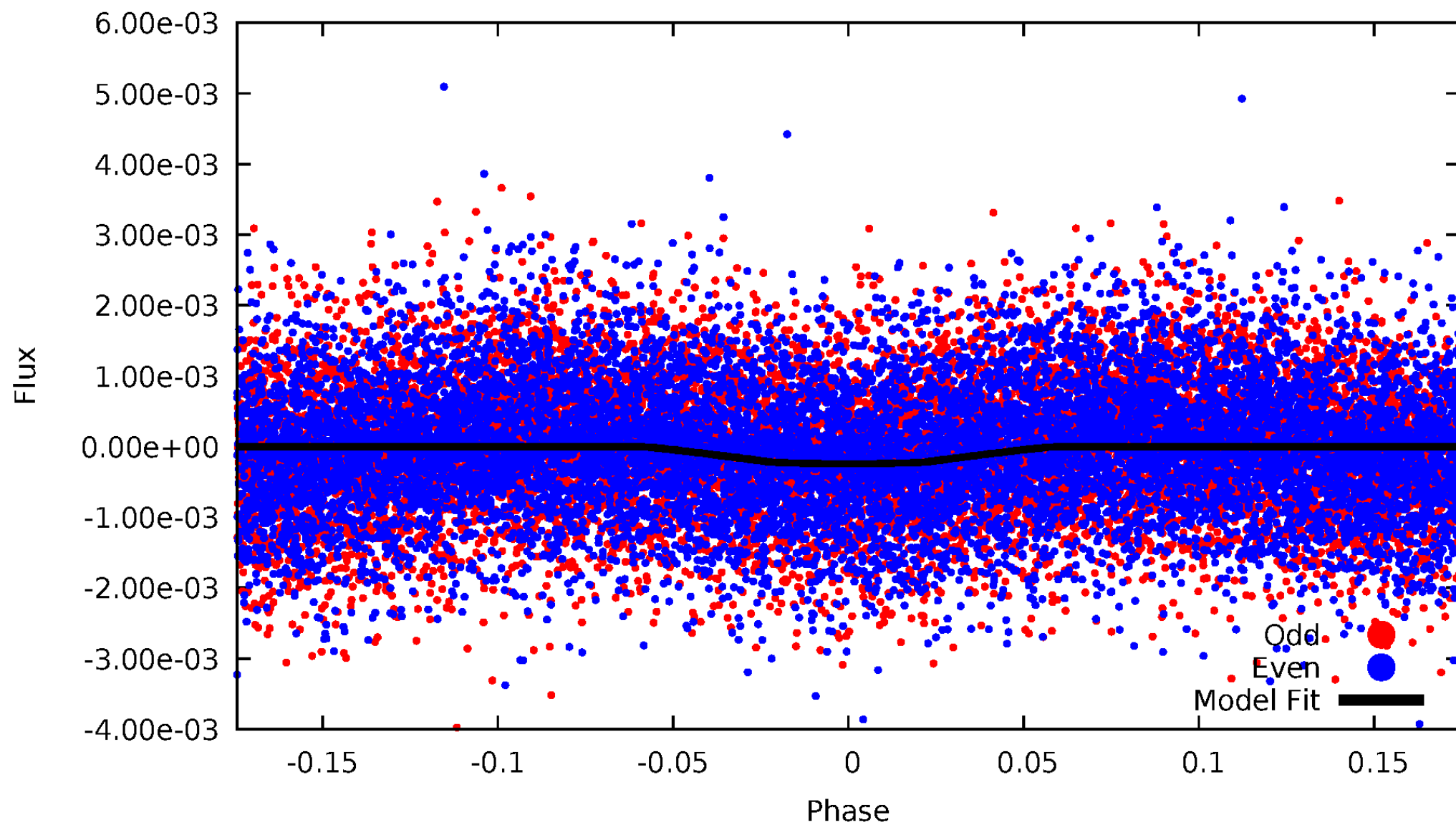
TCE 008322243-01





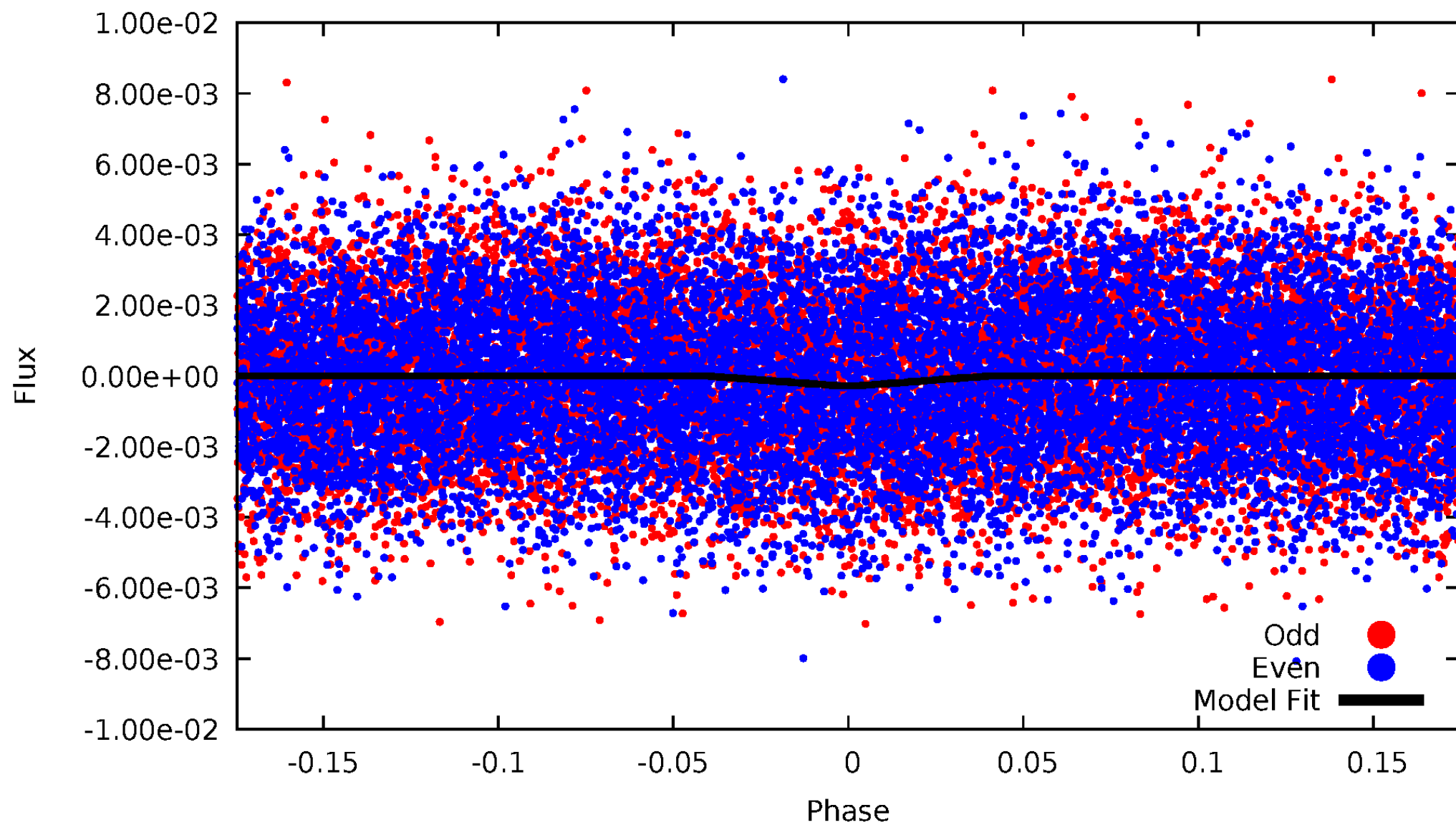
# DV Odd/Even

TCE 008322243-01

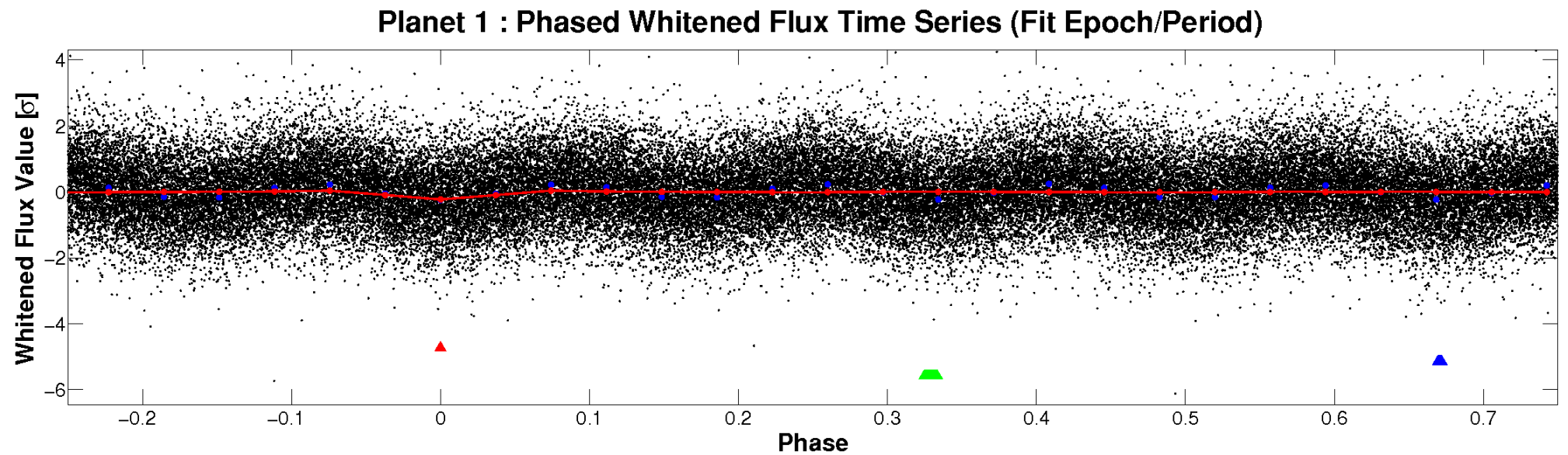
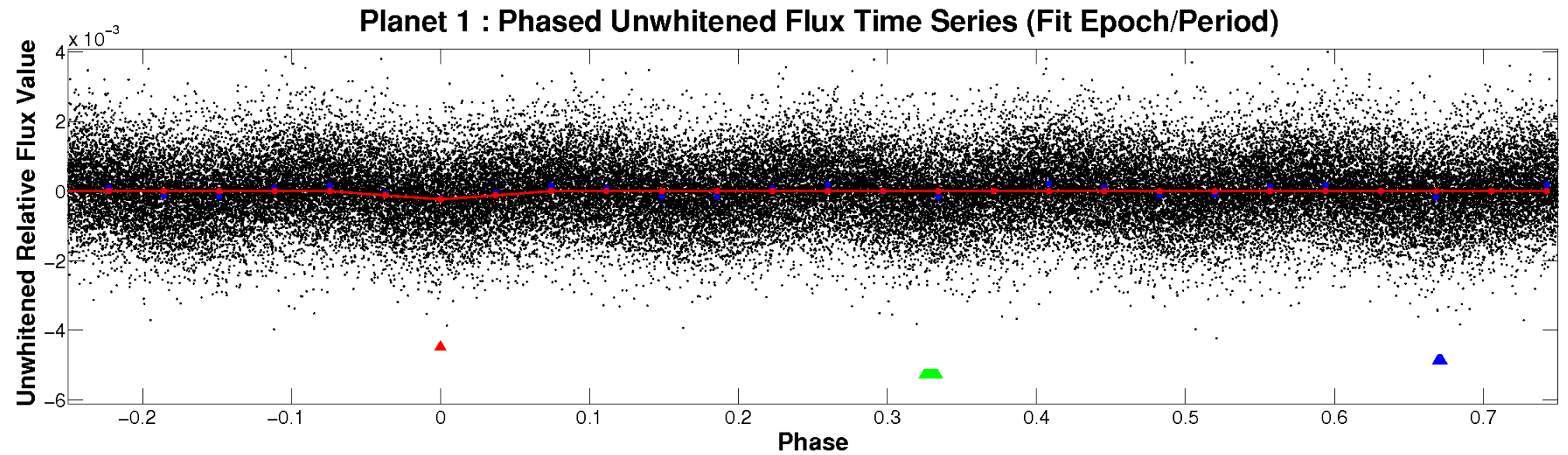


# ALT Odd/Even

TCE 008322243-01



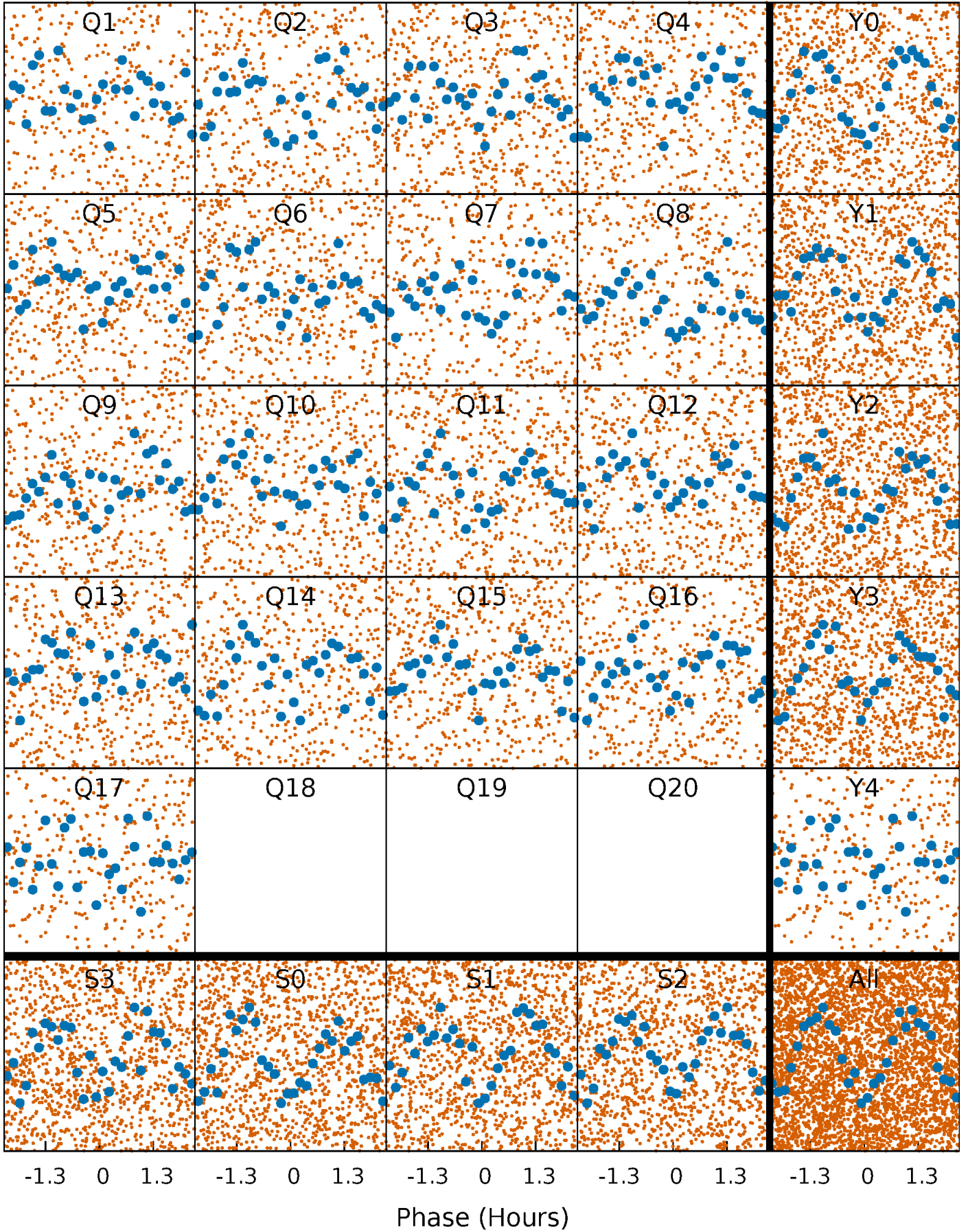
# Non-Whitened Vs. Whitened Light Curve





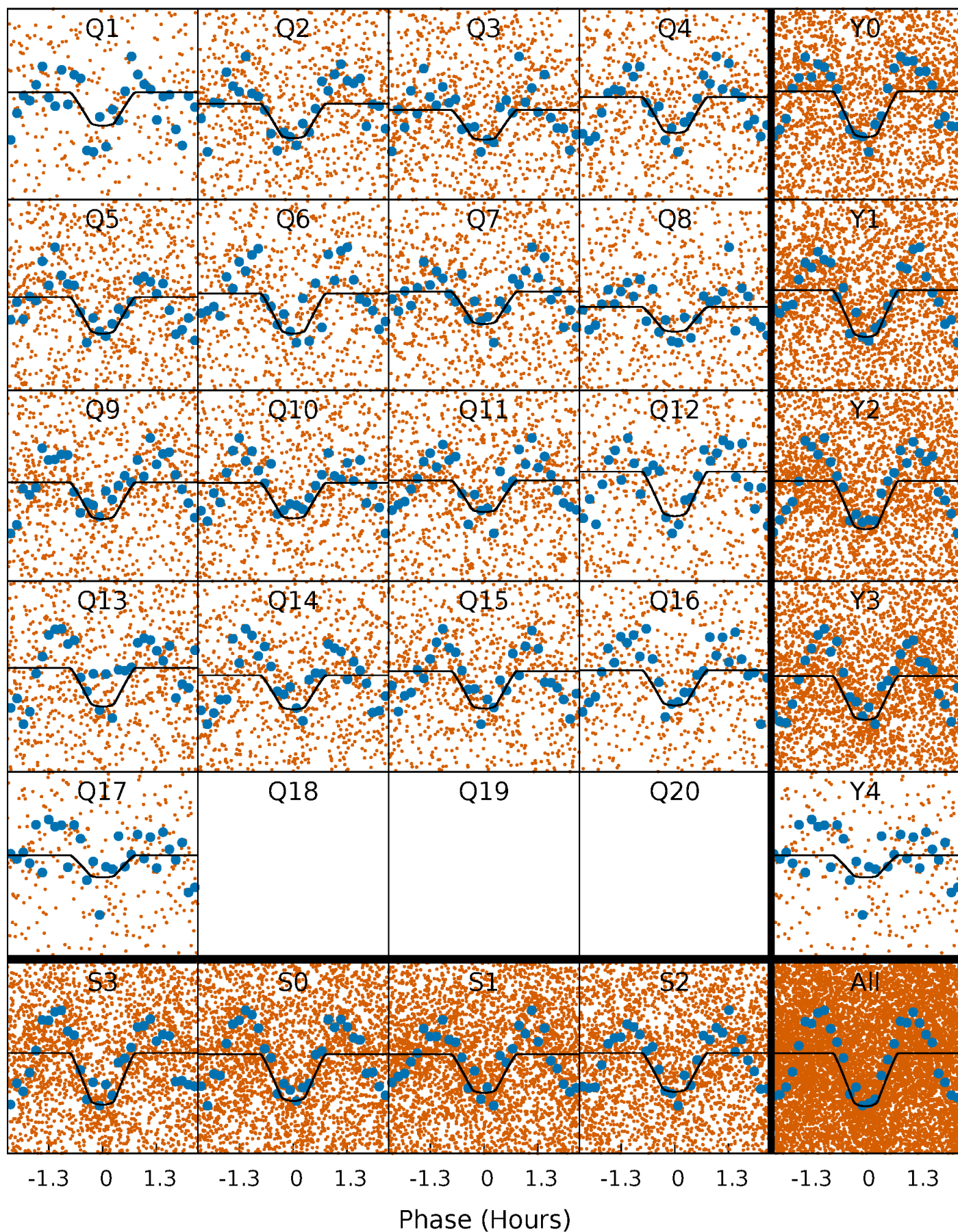
# PDC Quarter-Phased Transit Curves

TCE 008322243-01 P= 0.550336 Days  $T_0=131.659987$  (BKJD)



# DV Quarter-Phased Transit Curves

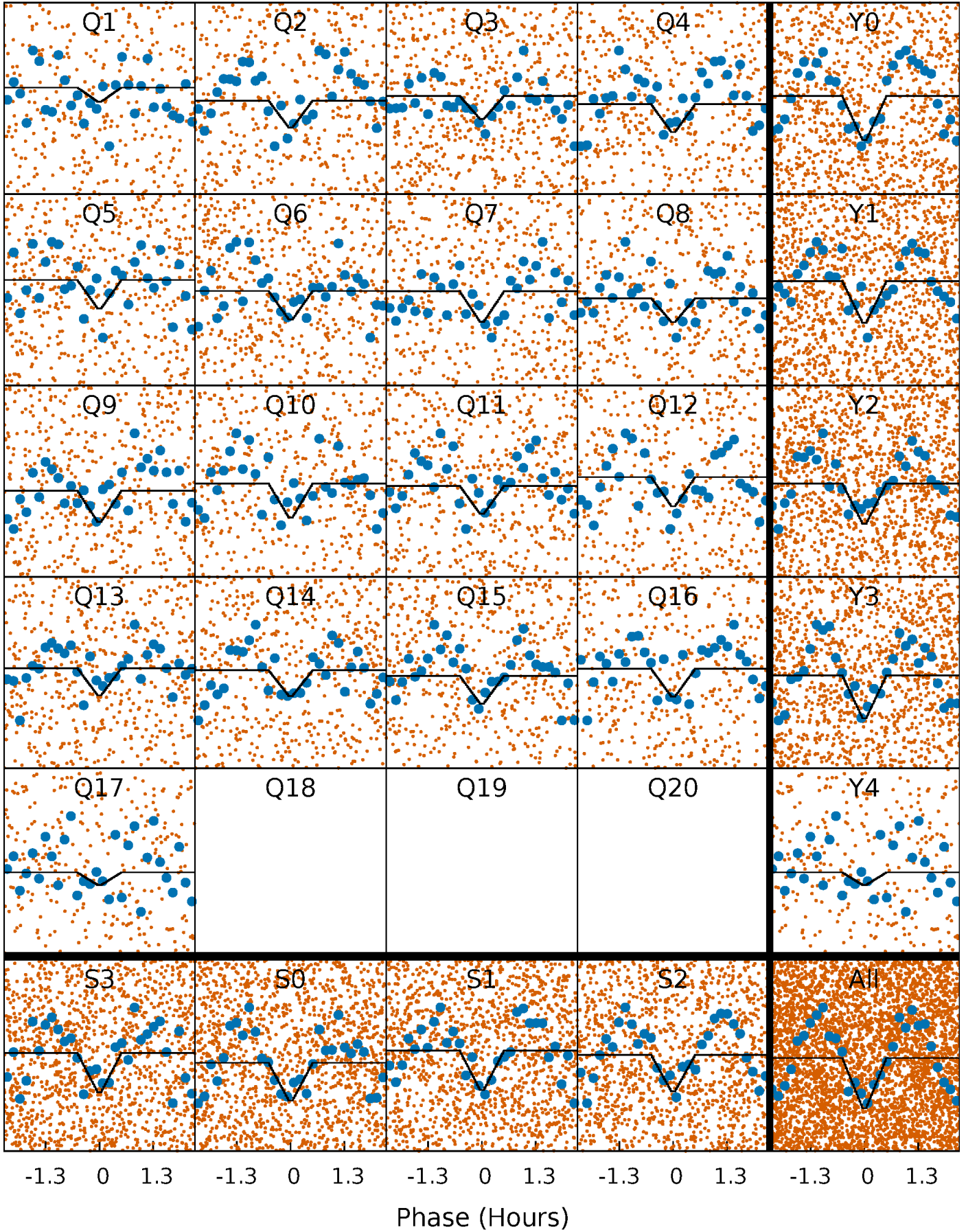
TCE 008322243-01 P= 0.550336 Days  $T_0=131.659987$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

TCE 008322243-01 P= 0.550337 Days  $T_0=131.660051$  (BKJD)

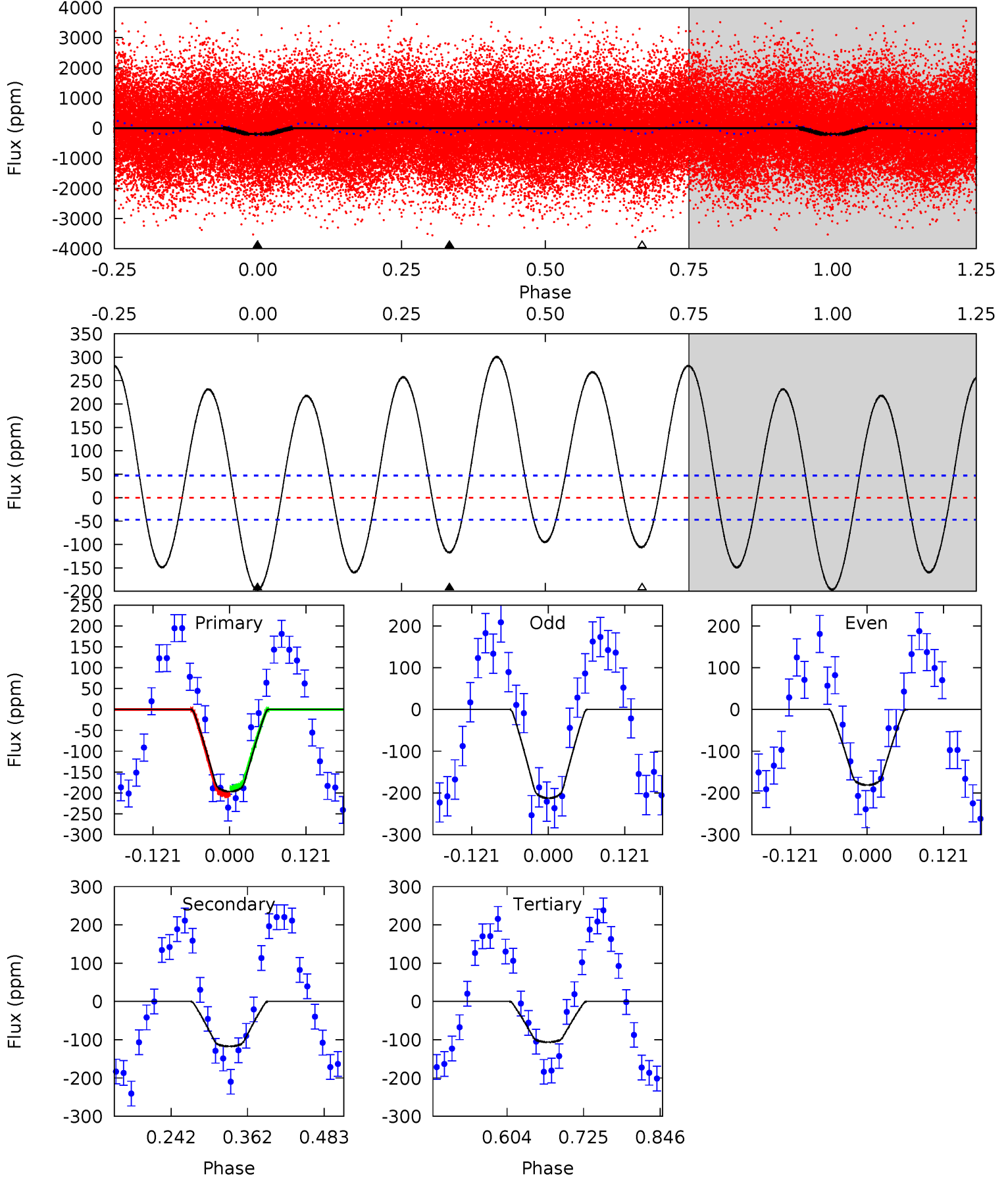




# DV Model-Shift Uniqueness Test

008322243-01, P = 0.550336 Days, E = 131.109651 Days

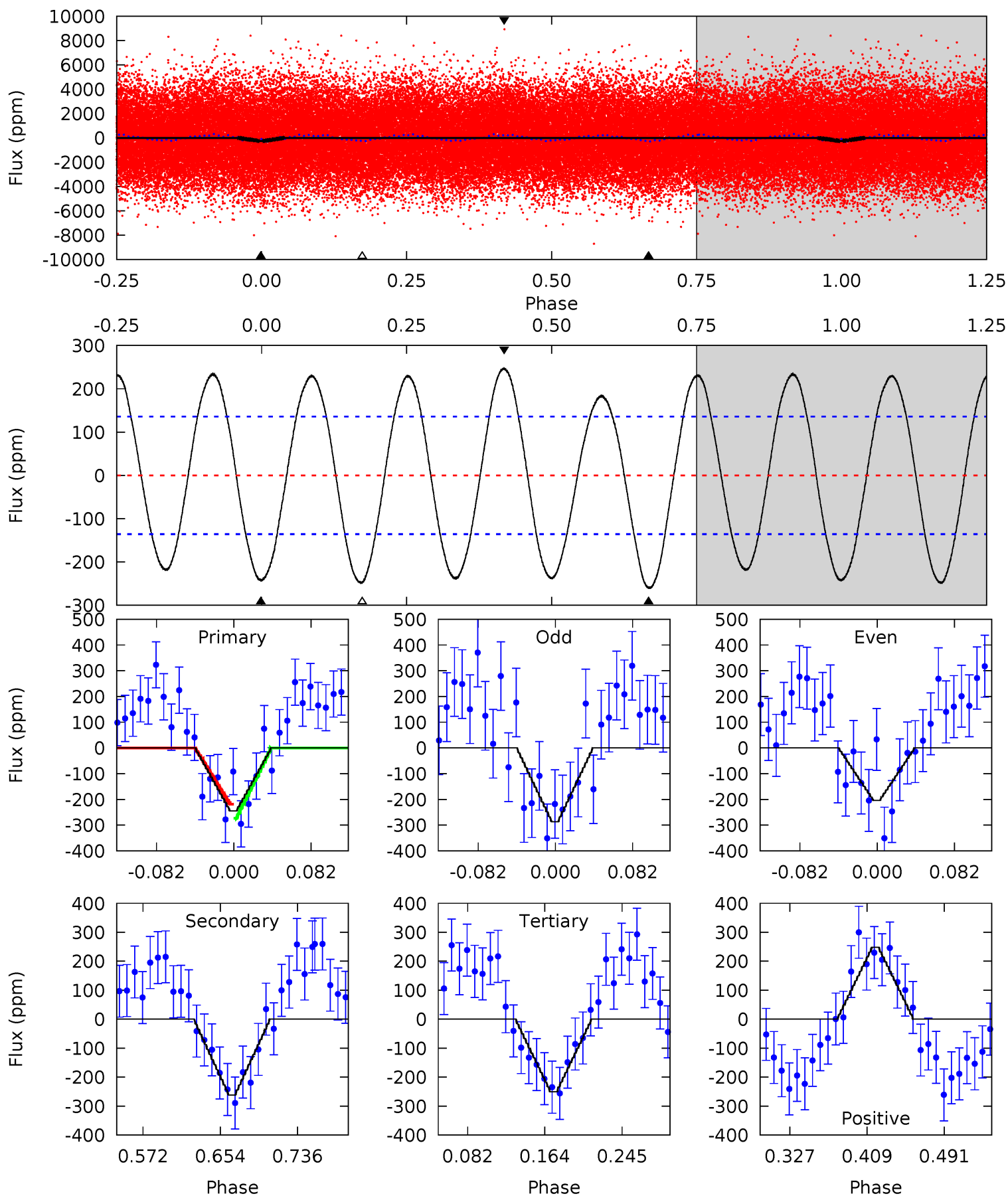
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.9	11.3	10.2	0	4.52	1.55	13.1	8.69	18.9	1.06	11.3	1.51	0.97	0.60	0.83



# Alt Model-Shift Uniqueness Test

008322243-01, P = 0.550337 Days, E = 131.109714 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
8.31	8.88	8.49	8.43	4.61	1.74	5.60	-0.19	-0.12	0.38	0.45	1.39	0.94	0.49	0.92



### Stellar Parameters For KIC 008322243

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7843^{+216}_{-325}$	$3.877^{+0.307}_{-0.102}$	$-0.100^{+0.200}_{-0.350}$	$2.643^{+0.422}_{-0.984}$	$1.919^{+0.078}_{-0.442}$	$0.146^{+0.336}_{-0.049}$
	+3%/-4%	+8%/-3%	+200%/-350%	+16%/-37%	+4%/-23%	+230%/-33%
Source	KIC0	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 008322243-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-117 \pm 10$	$4.42^{+1.73}_{-1.65}$	$6039^{+382}_{-561}$	$5538^{+1823}_{-1214}$	$0.857^{+1.246}_{-0.413}$
Alt.	$-262 \pm 29$	$4.39^{+1.51}_{-1.48}$	$6032^{+361}_{-552}$	$7345^{+2191}_{-1281}$	$1.938^{+2.383}_{-0.877}$

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



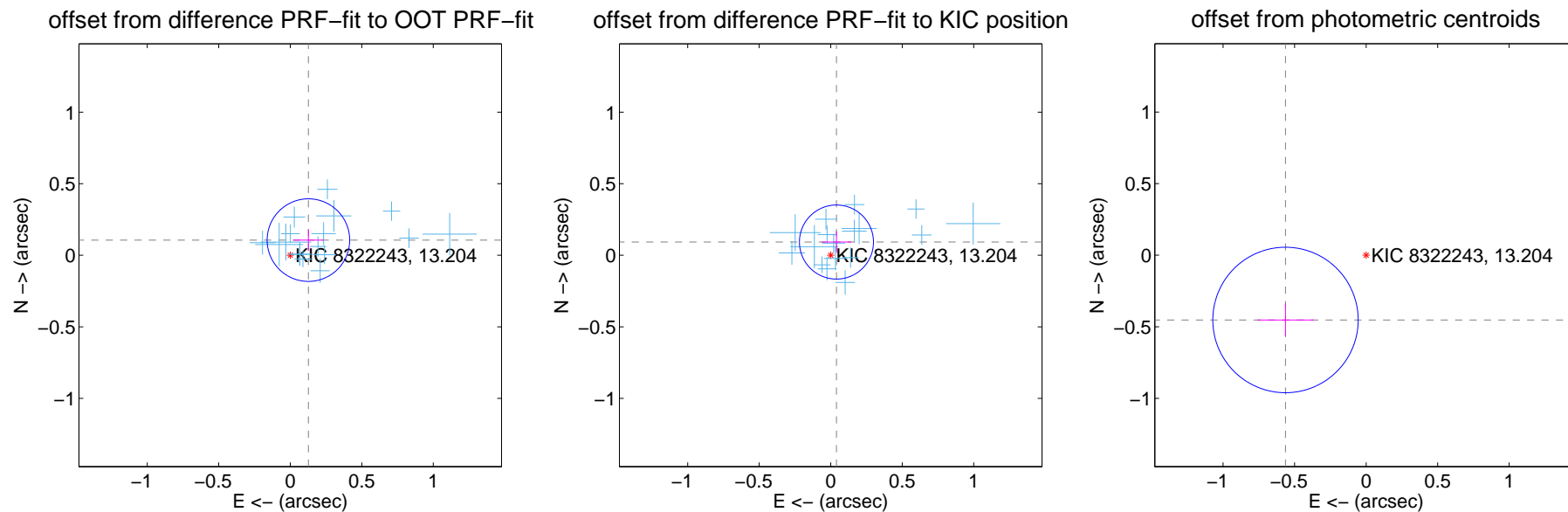
## DV Centroid Data

Supplemental centroid analysis for 008322243-01. Kepler magnitude: 13.20. Transit SNR 14.12

There are 17 quarters with good PRF difference image offsets

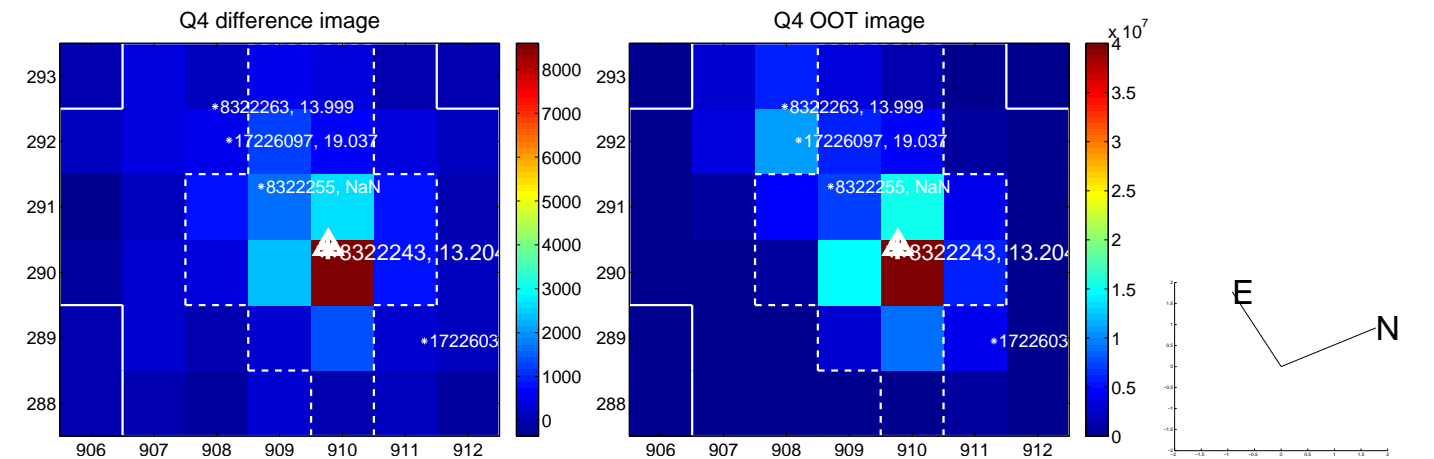
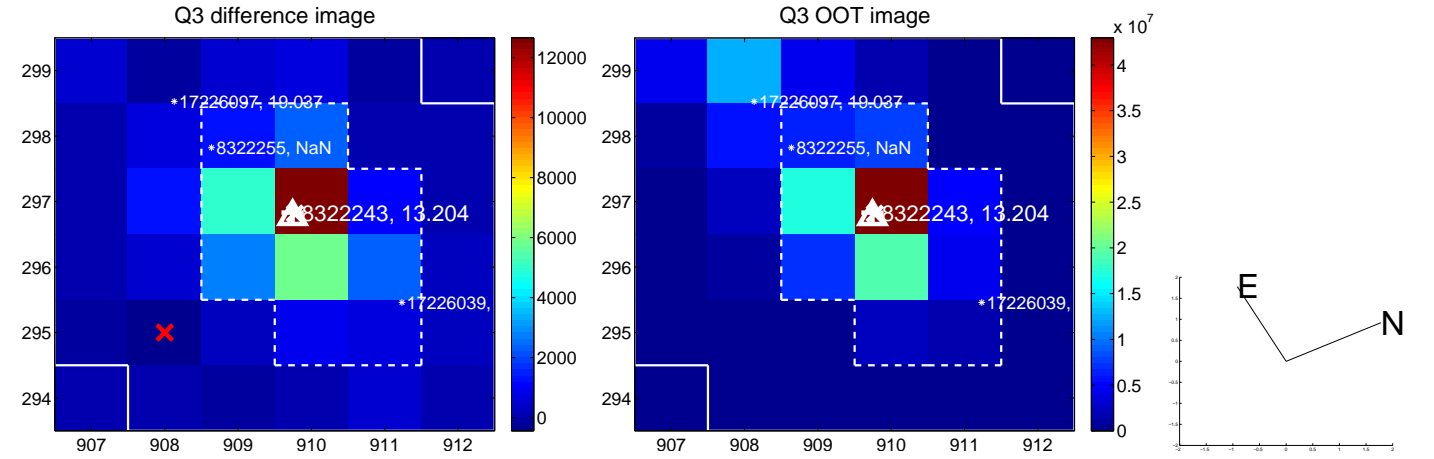
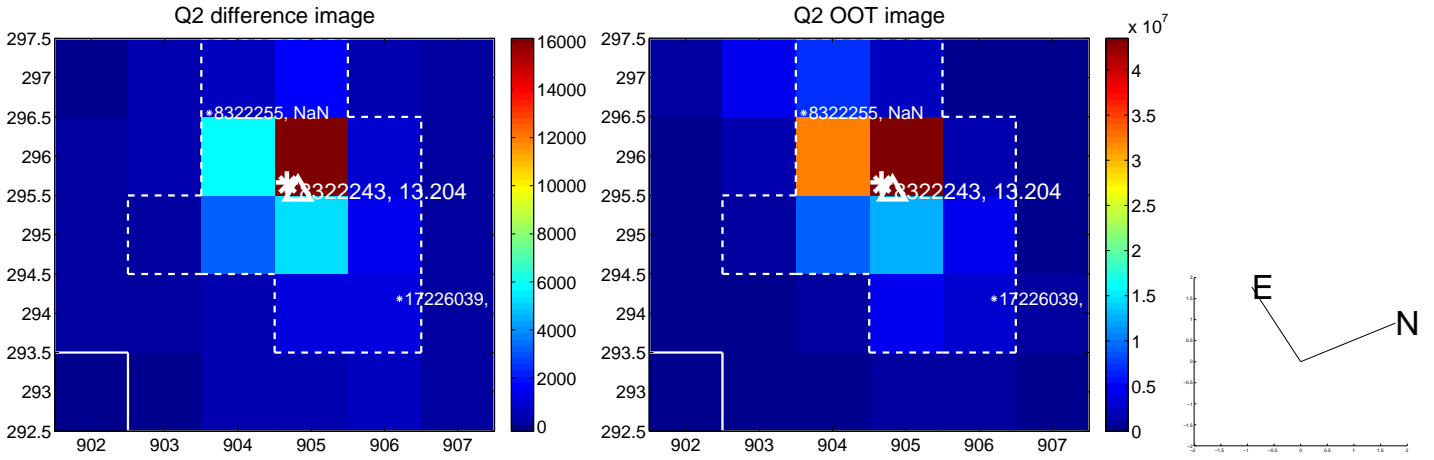
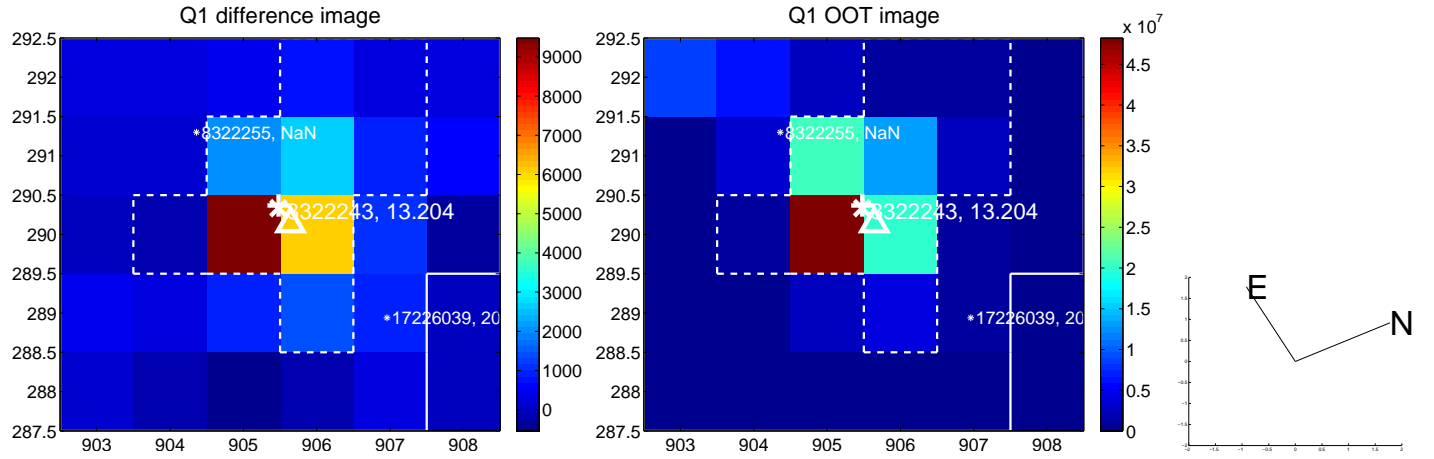
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.165 \pm 0.096$	1.72	$-0.127 \pm 0.105$	$0.106 \pm 0.075$
PRF-fit source offset from KIC position	$0.101 \pm 0.086$	1.17	$-0.040 \pm 0.104$	$0.093 \pm 0.076$
photometric centroid source offset	$0.72 \pm 0.17$	4.27	$0.56 \pm 0.20$	$-0.45 \pm 0.12$

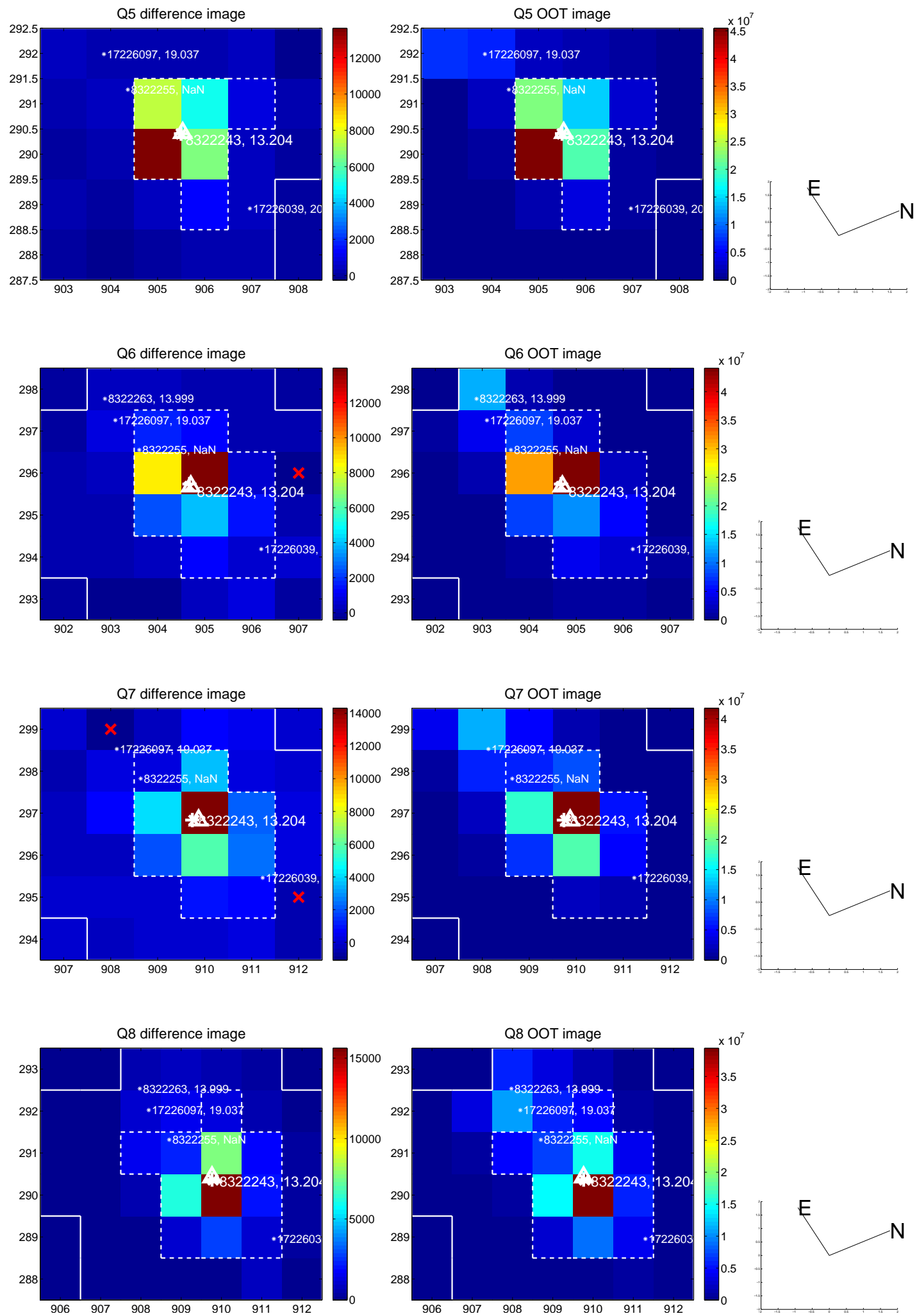


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

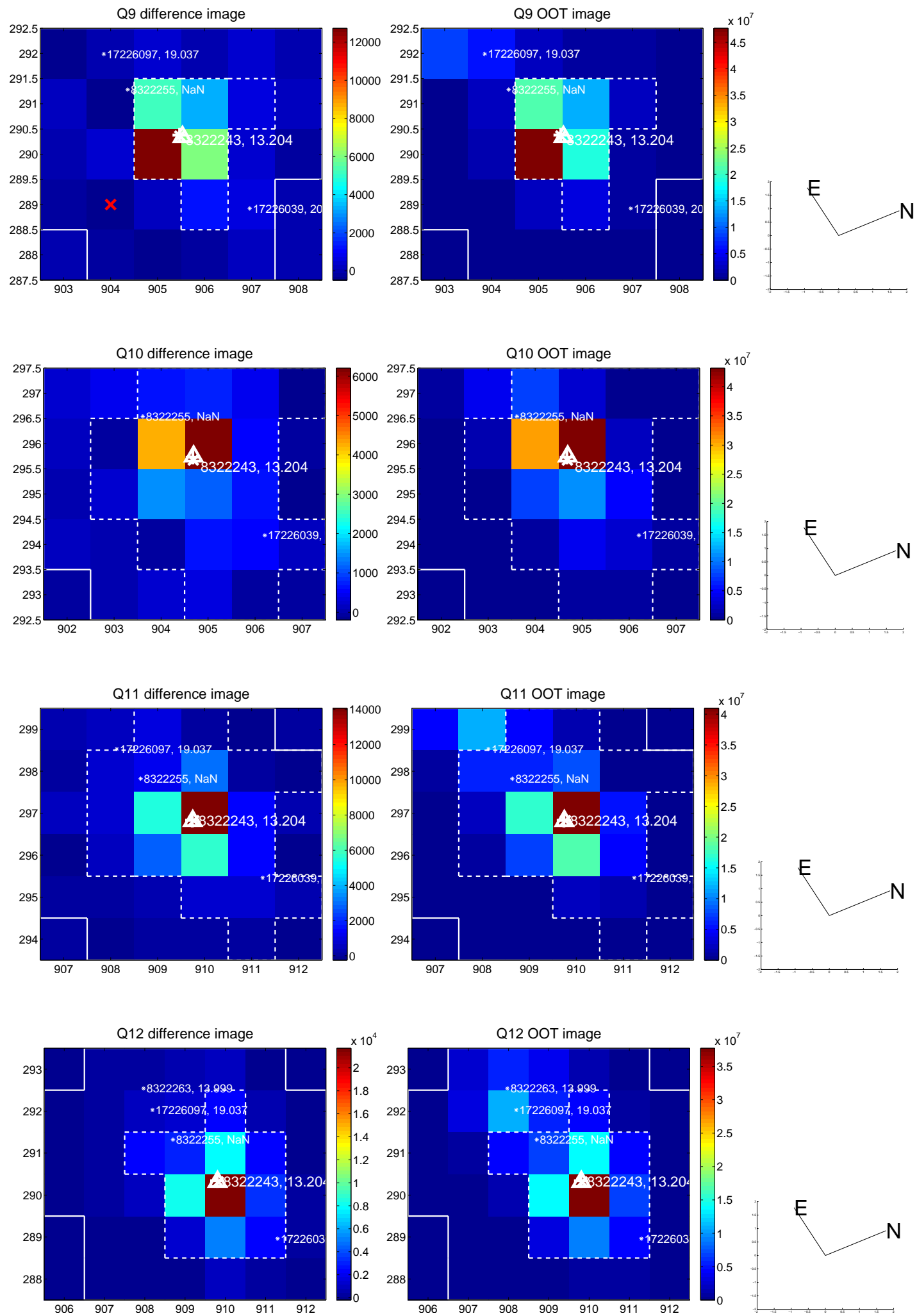


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

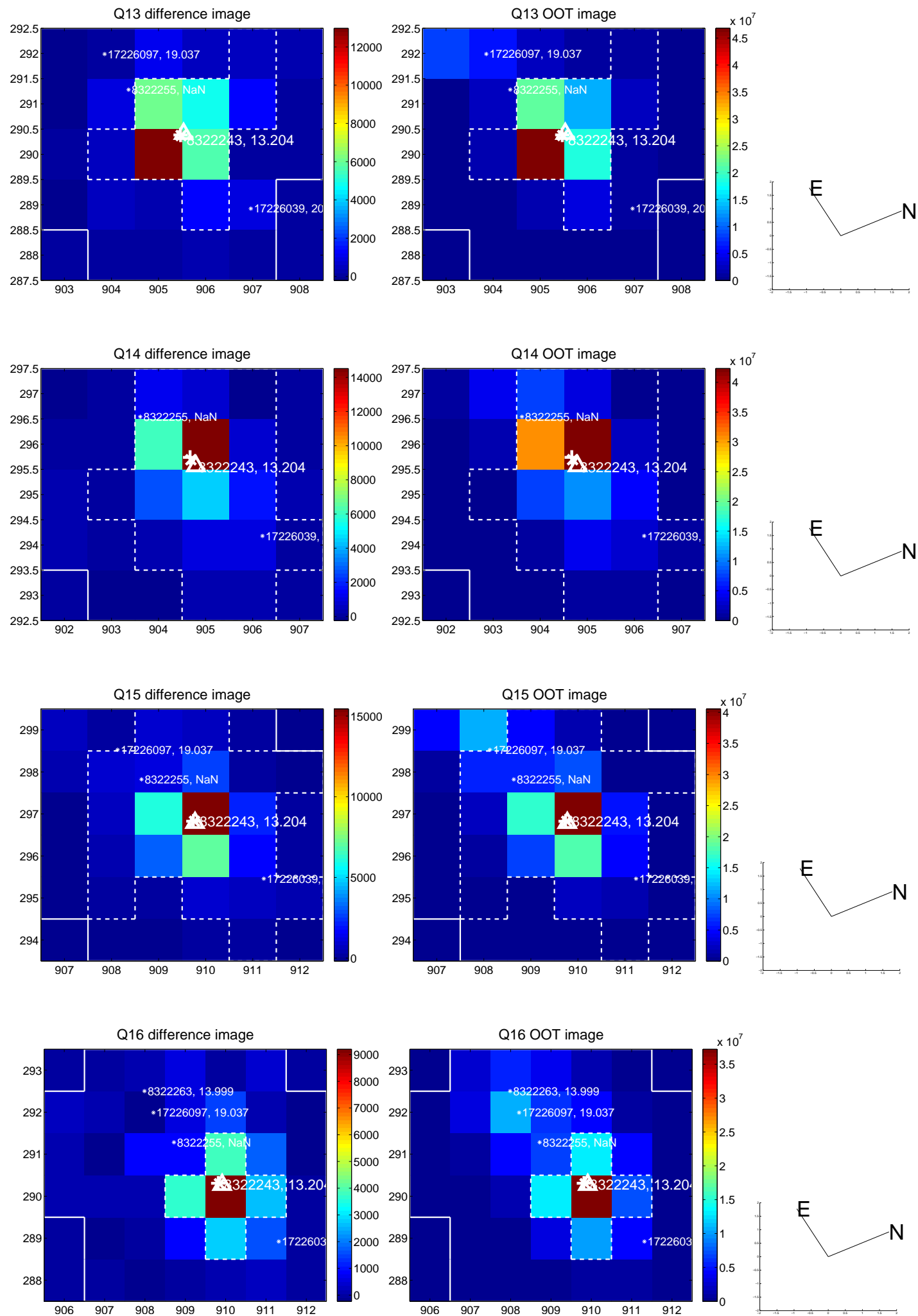




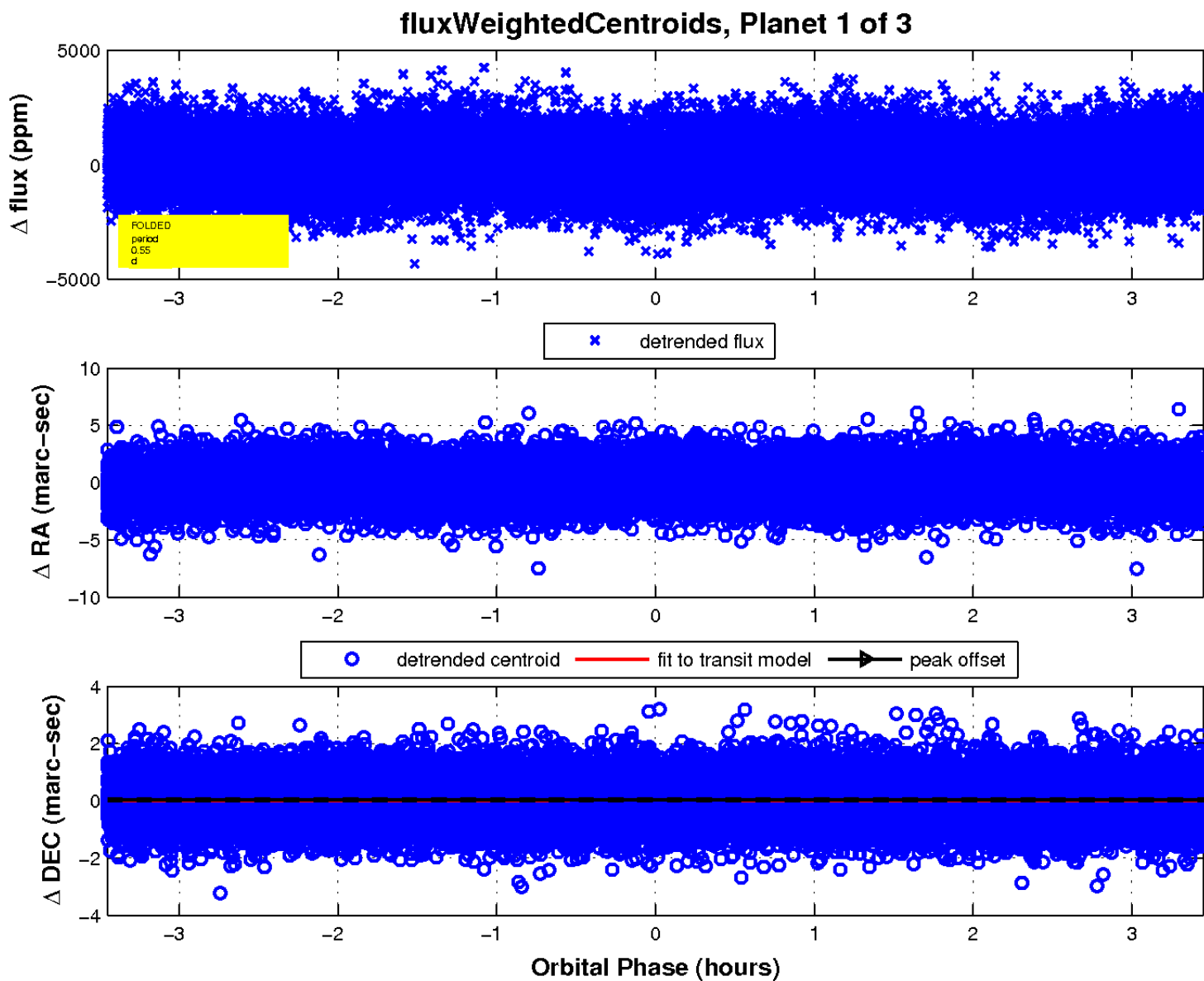
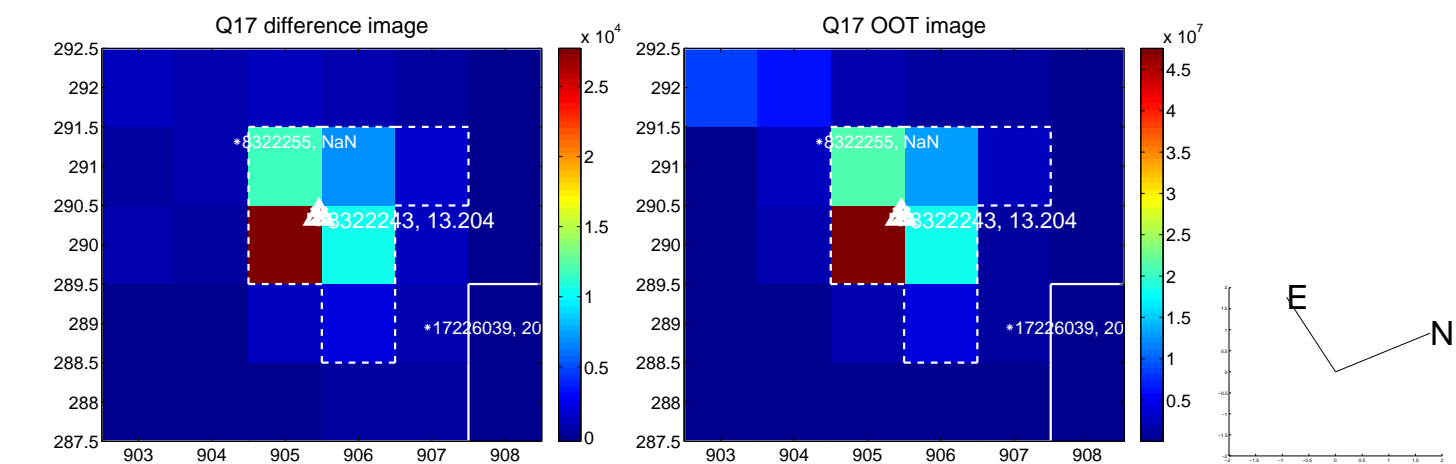
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

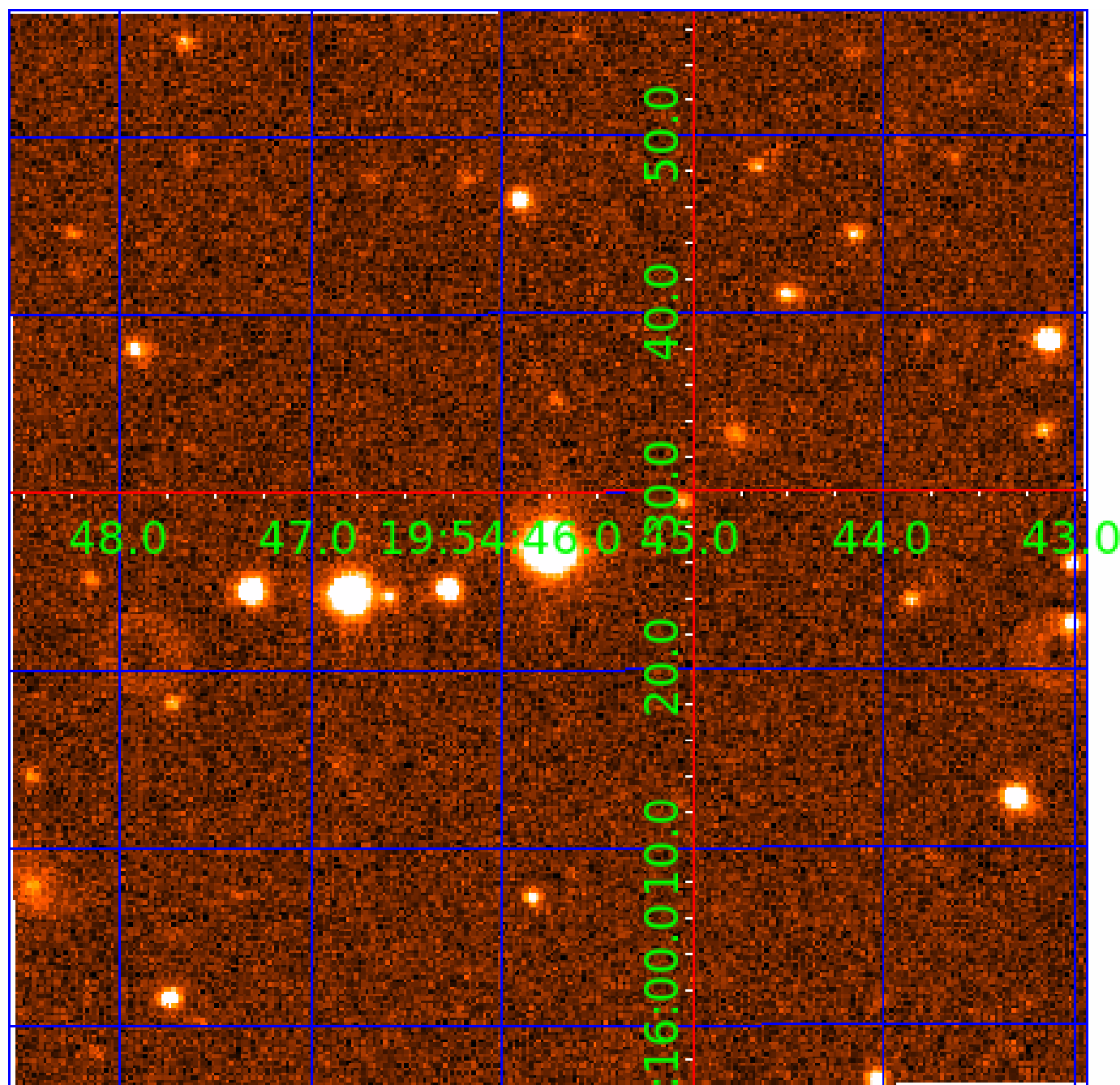


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 008322243

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008322243-01	OBS	No	0.550336	131.659987	239.6	1.151	13.5	14.1	2.64	7843	4.77	88725.93
008322243-02	OBS	No	0.550337	132.028395	314.4	0.999	11.9	17.9	2.64	7843	5.48	88725.81
008322243-03	OBS	No	0.550334	131.843499	245.4	1.170	11.5	16.1	2.64	7843	4.26	88726.32

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008322243-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008322243-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
008322243-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

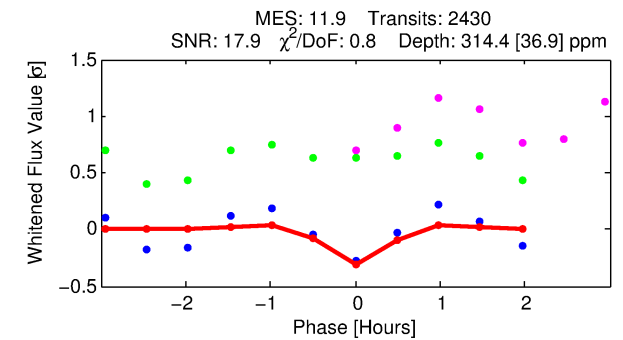
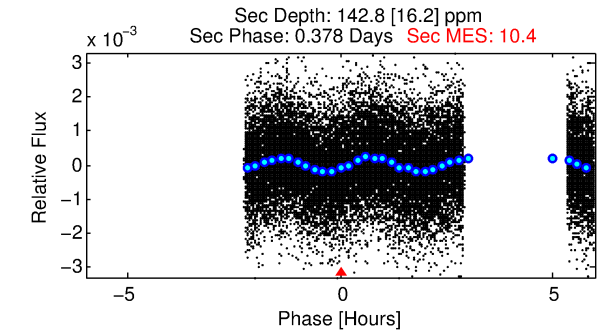
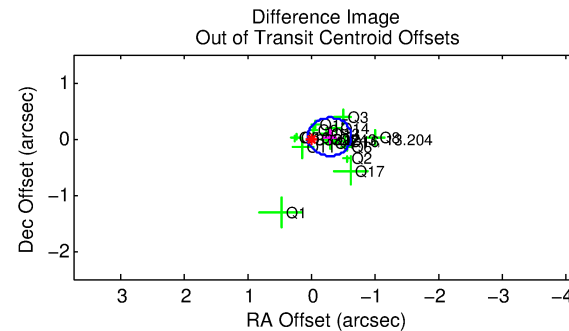
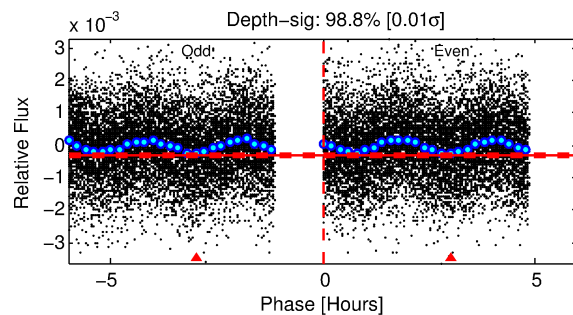
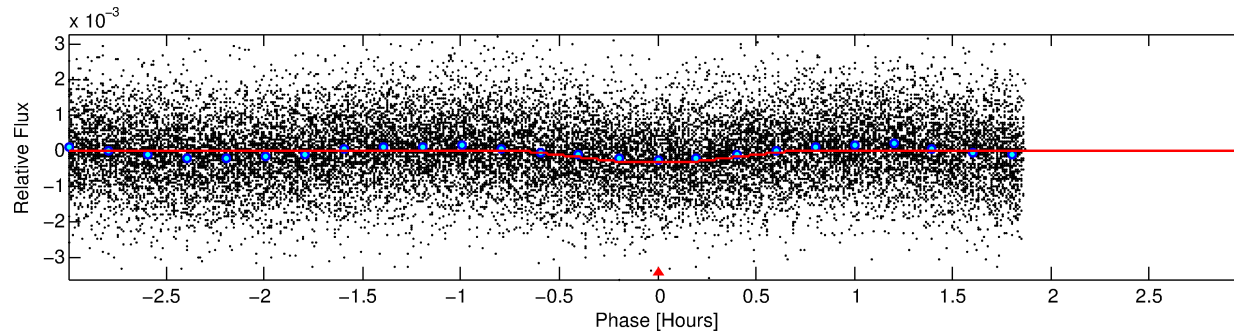
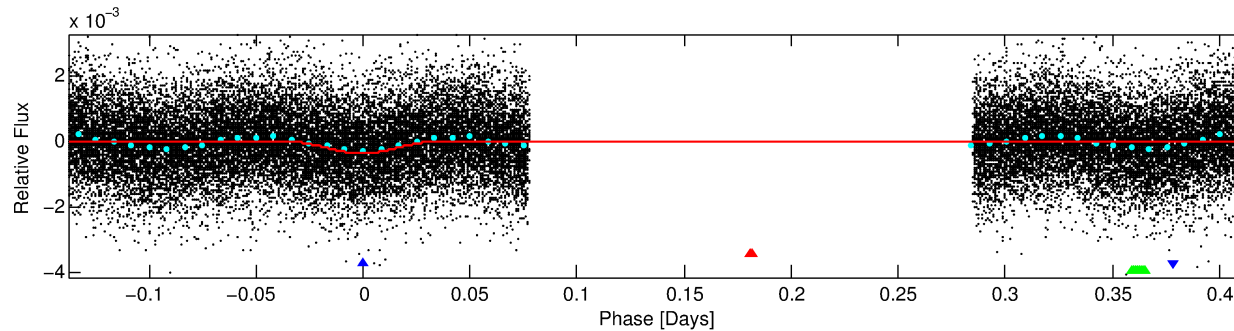
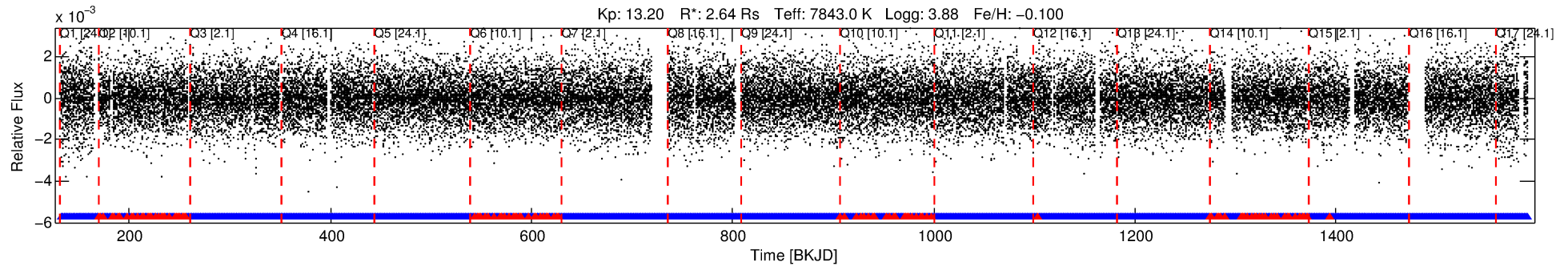
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008322243-02

No Significant Match Found

# DV One-Page Summary

KIC: 8322243 Candidate: 2 of 3 Period: 0.550 d



## DV Fit Results:

Period = 0.55034 [0.00001] d  
Epoch = 132.0284 [0.0008] BKJD  
Rp/R\* = 0.0190 [0.0049]  
a/R\* = 2.22 [2.74]  
b = 0.90 [0.33]  
Seff = 88725.81 [49493.33]  
Teq = 4401 [614] K  
Rp = 5.48 [2.48] Re  
a = 0.0163 [0.0056] AU  
Ag = 0.70 [0.52] [-0.58 $\sigma$ ]  
Teffp = 6218 [854] K [1.73 $\sigma$ ]

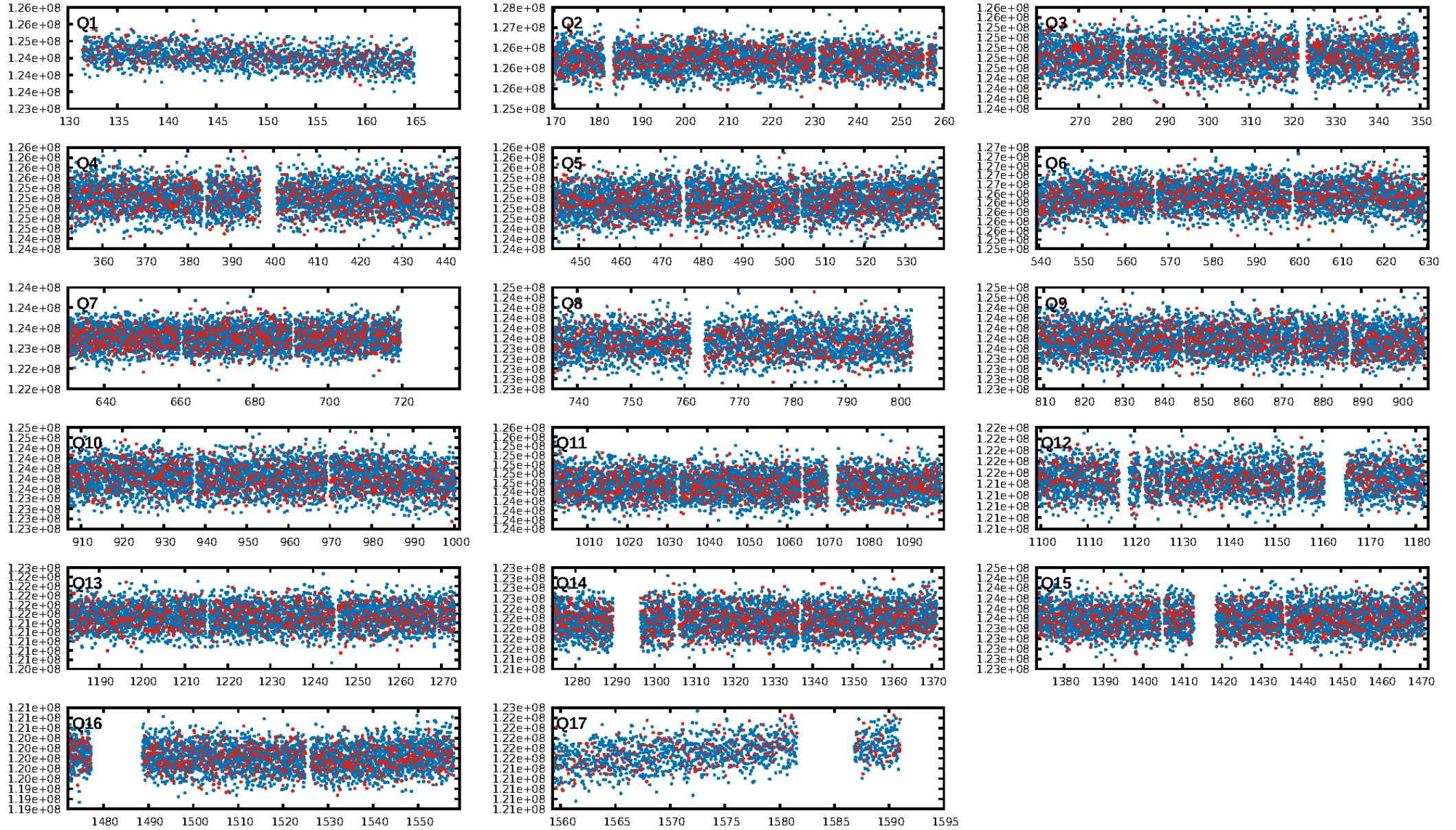
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 $\sigma$ ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.95 [2193/2320]  
GhostDiagnostic-chr: -5.6  
Centroid-sig: N/A  
Centroid-so: 0.903 arcsec [5.94 $\sigma$ ]  
OotOffset-rm: 0.282 arcsec [2.49 $\sigma$ ]  
KicOffset-rm: 0.187 arcsec [1.60 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.94 [16/17]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:45:44 Z

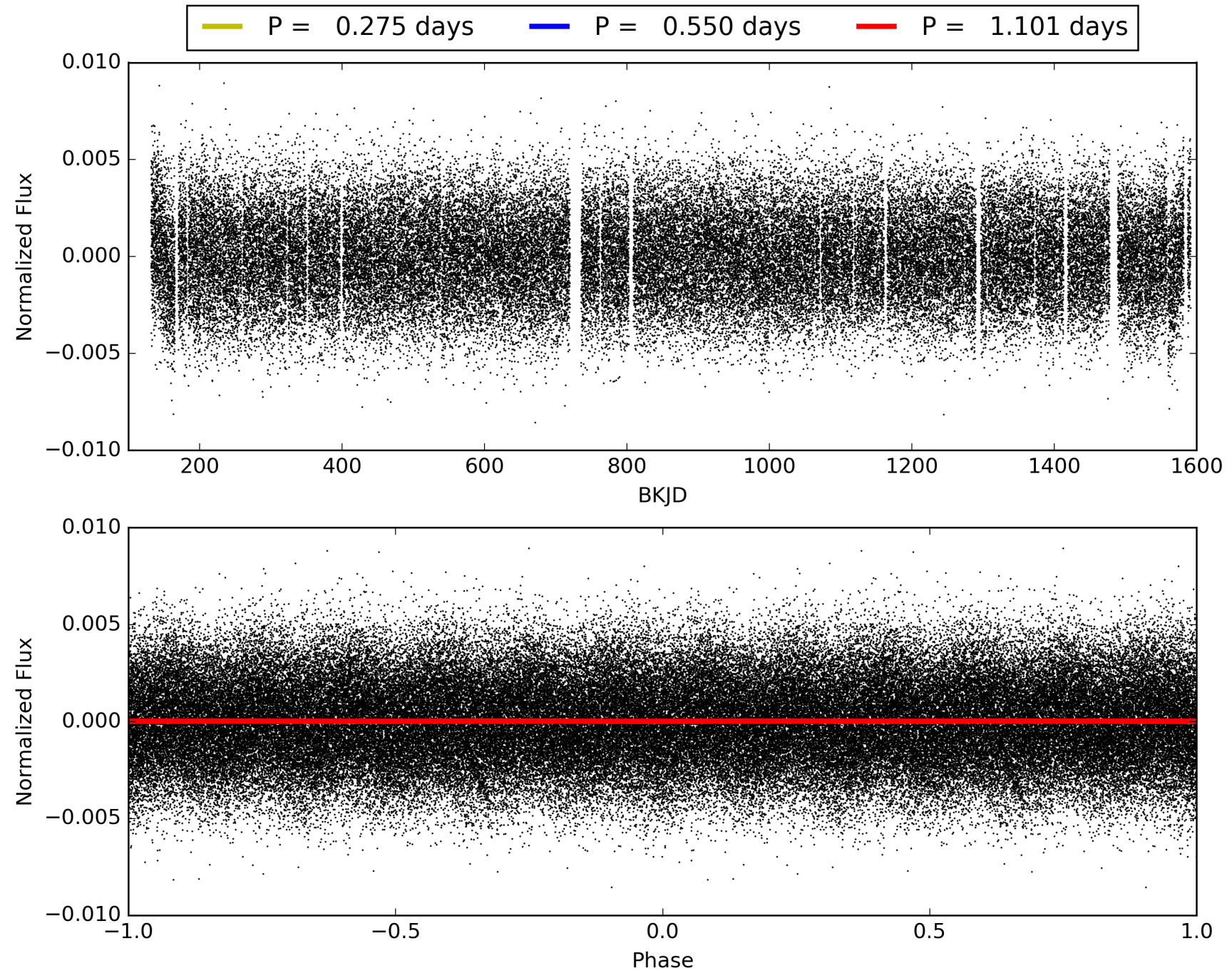
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008322243-02, PDC Light Curves





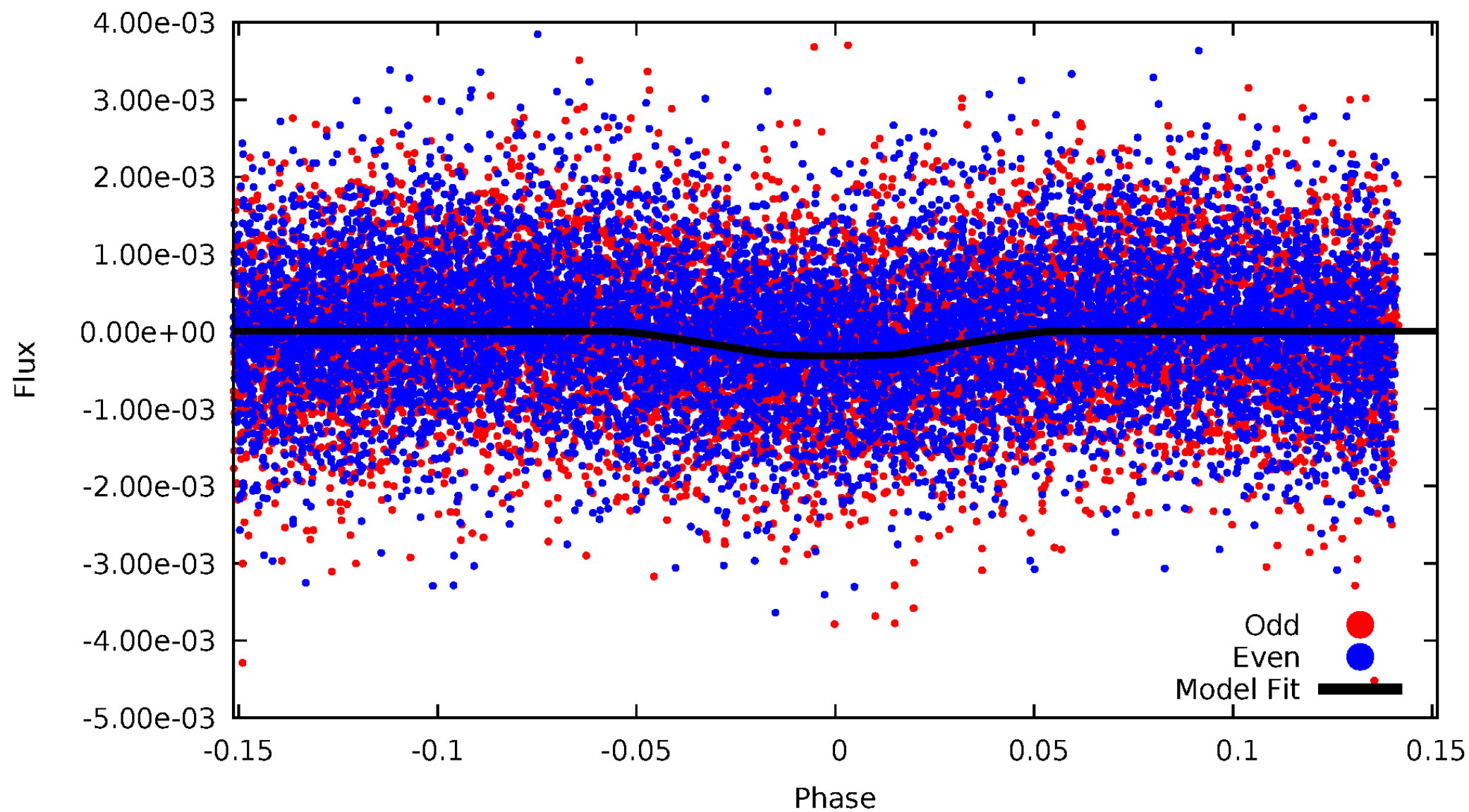
TCE 008322243-02





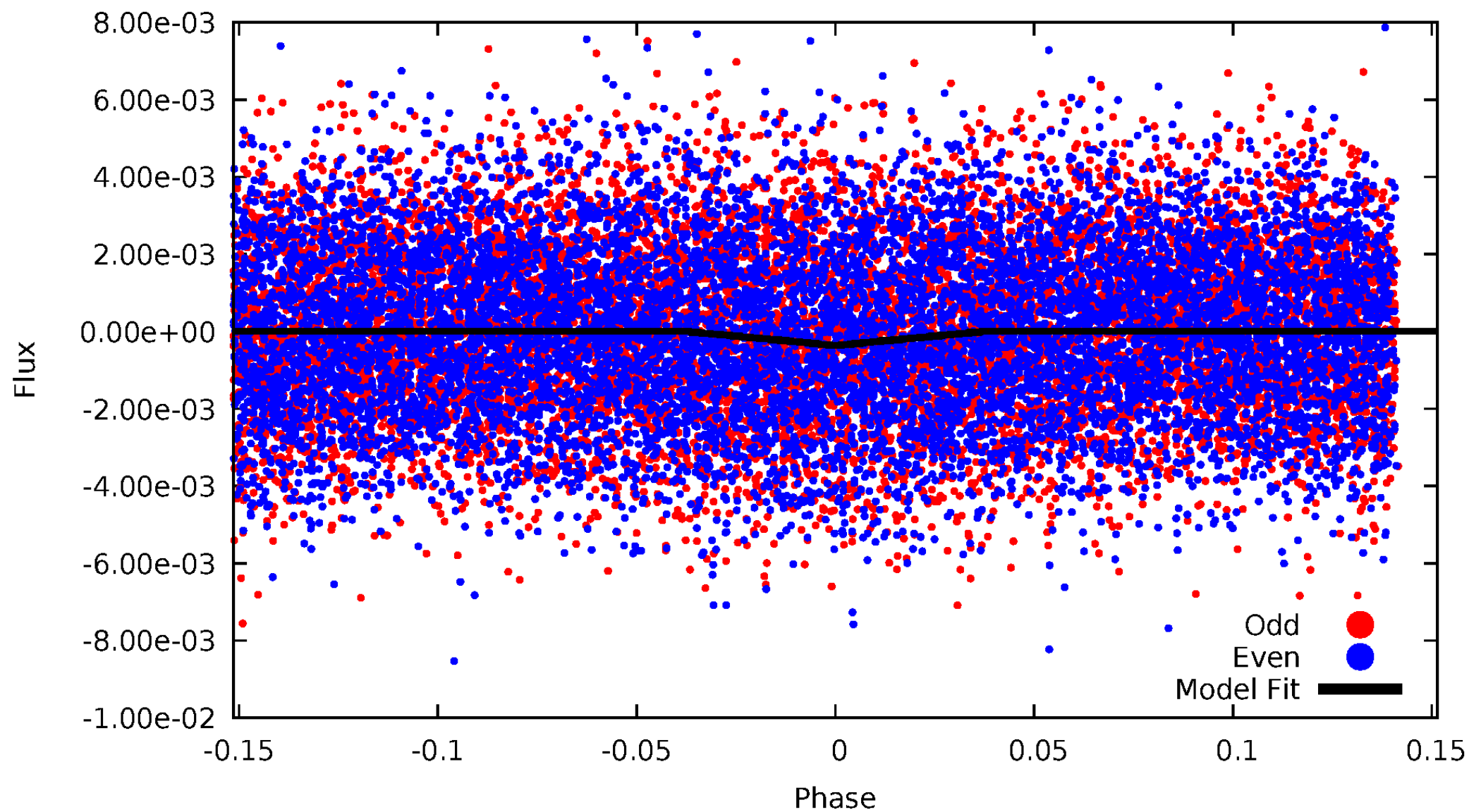
# DV Odd/Even

TCE 008322243-02



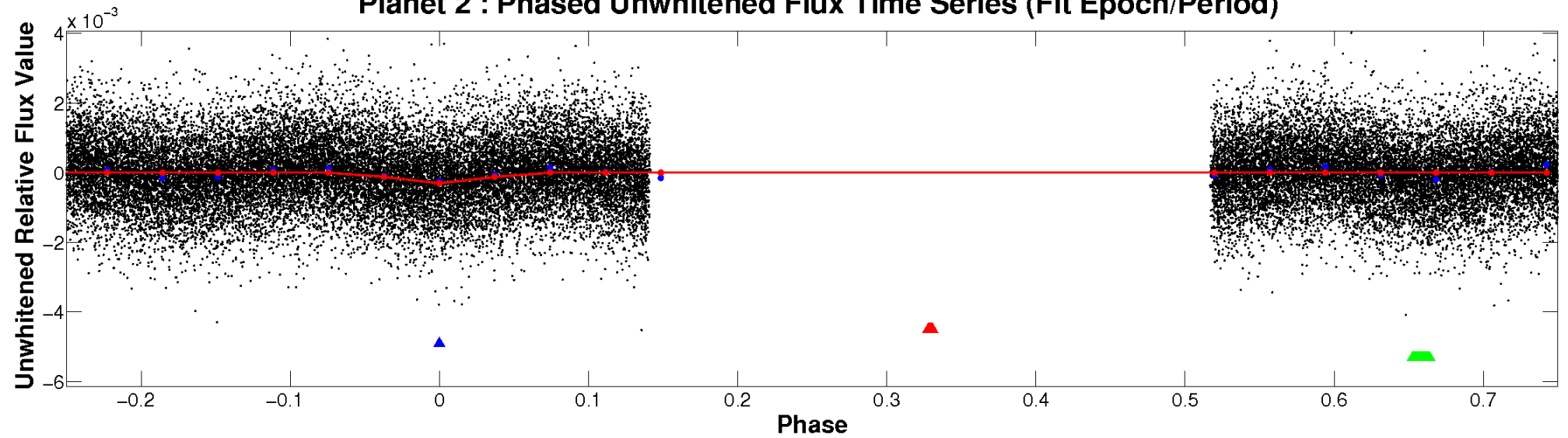
# ALT Odd/Even

TCE 008322243-02

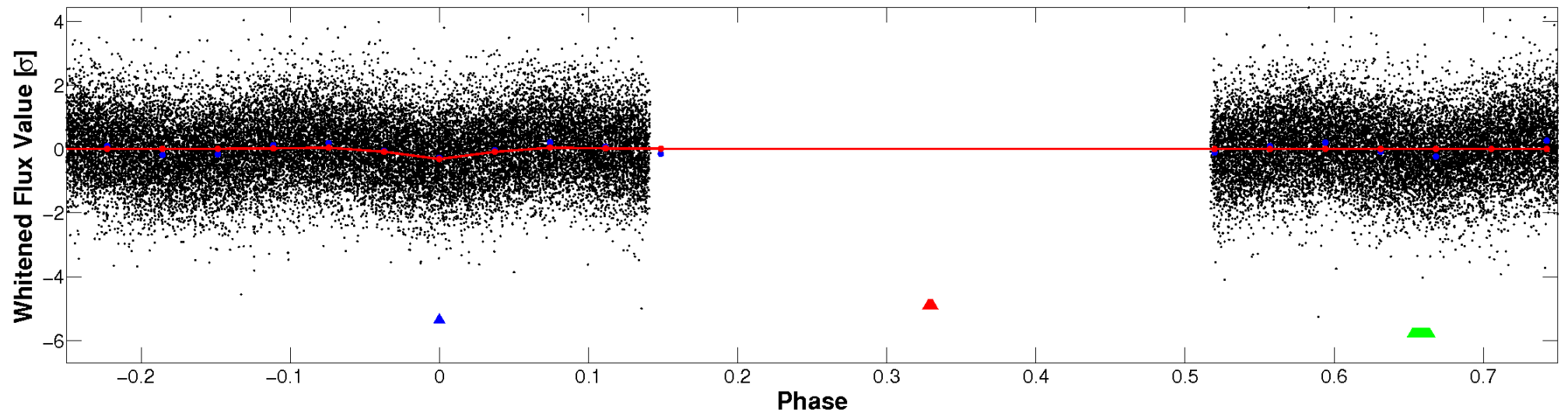


# Non-Whitened Vs. Whitened Light Curve

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

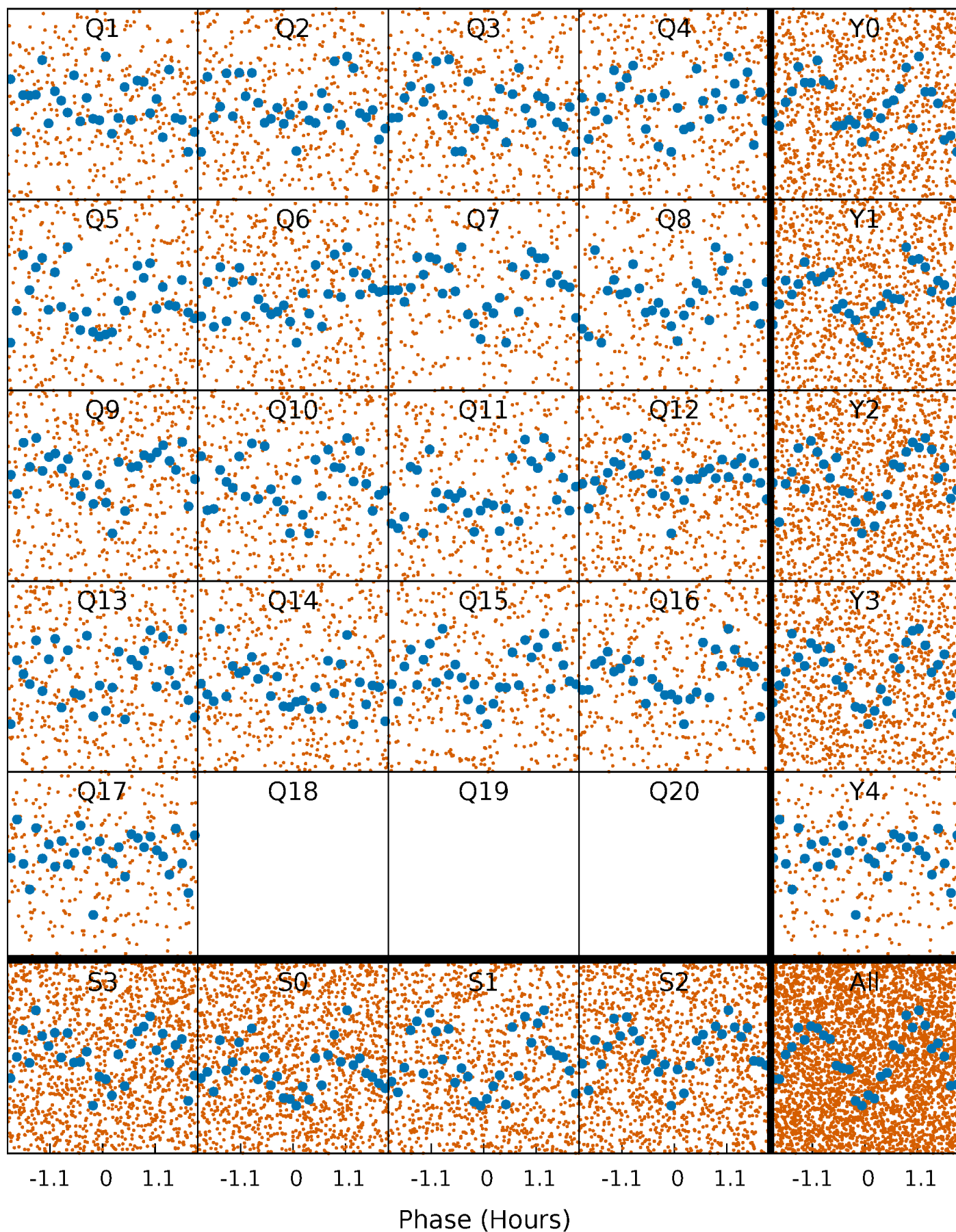


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



## PDC Quarter-Phased Transit Curves

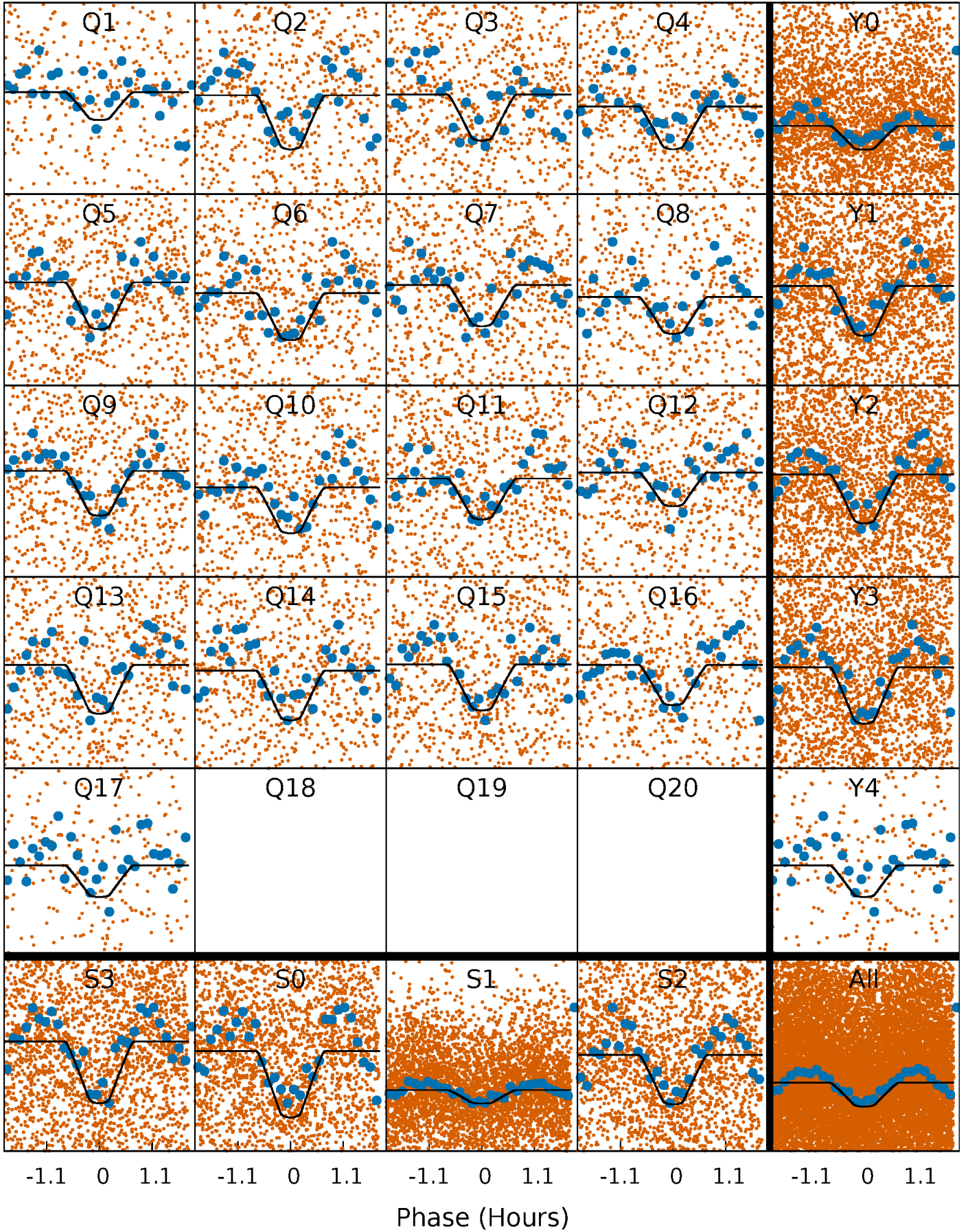
TCE 008322243-02    P= 0.550337 Days     $T_0=132.028395$  (BKJD)





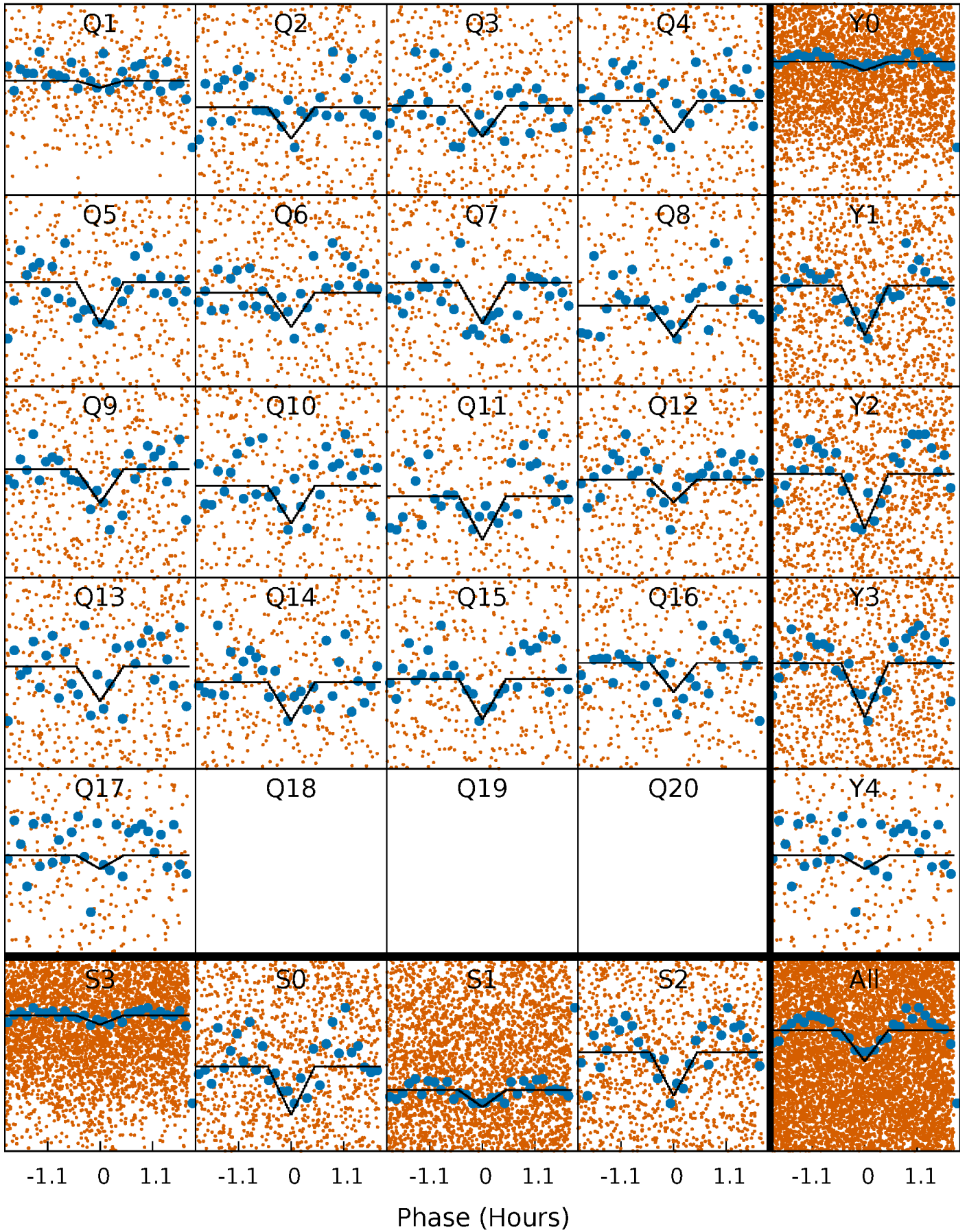
# DV Quarter-Phased Transit Curves

TCE 008322243-02   P= 0.550337 Days    $T_0=132.028395$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

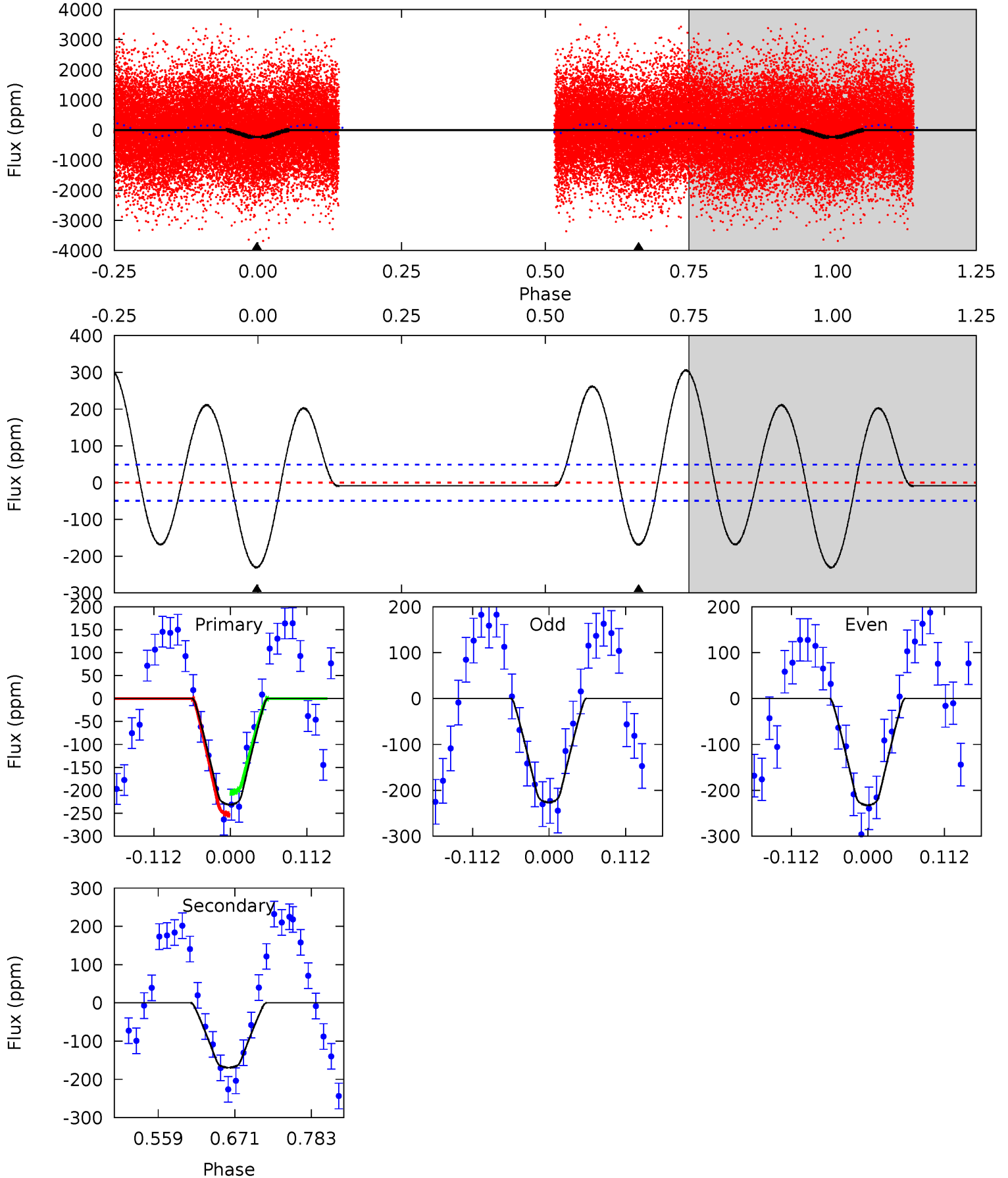
TCE 008322243-02   P= 0.550337 Days    $T_0=132.028400$  (BKJD)



# DV Model-Shift Uniqueness Test

008322243-02, P = 0.550337 Days, E = 131.478058 Days

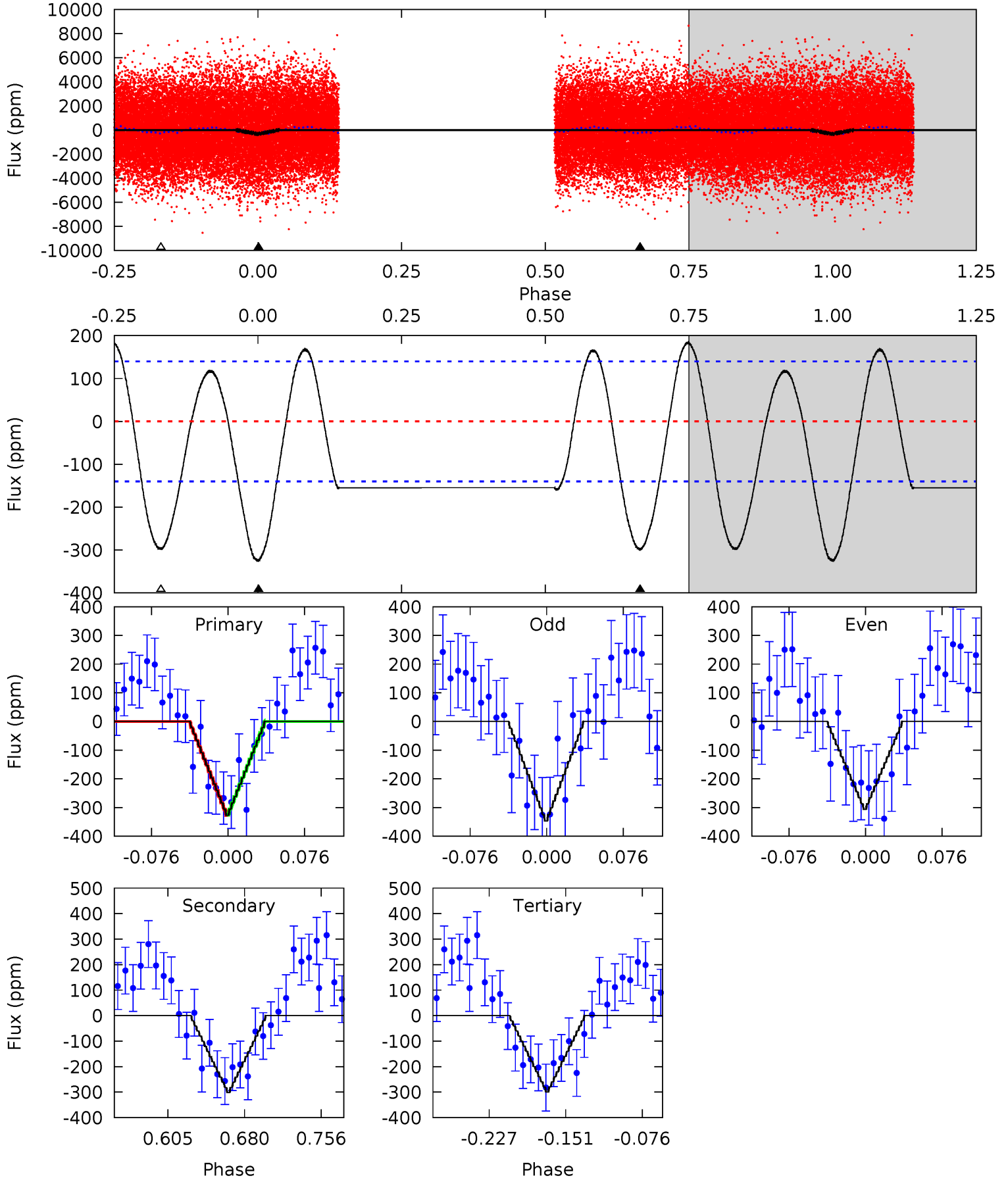
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.4	15.7	0	0	4.54	1.59	8.63	21.4	21.4	15.7	15.7	0.28	0.99	0.57	2.24



# Alt Model-Shift Uniqueness Test

008322243-02, P = 0.550337 Days, E = 131.478063 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
10.8	9.97	9.91	0	4.62	1.78	4.98	0.91	10.8	0.06	9.97	0.67	0.75	0.36	0.02





### Stellar Parameters For KIC 008322243

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7843^{+216}_{-325}$	$3.877^{+0.307}_{-0.102}$	$-0.100^{+0.200}_{-0.350}$	$2.643^{+0.422}_{-0.984}$	$1.919^{+0.078}_{-0.442}$	$0.146^{+0.336}_{-0.049}$
	+3%/-4%	+8%/-3%	+200%/-350%	+16%/-37%	+4%/-23%	+230%/-33%
Source	KIC0	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 008322243-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-169 \pm 11$	$5.01^{+1.75}_{-1.31}$	$6030^{+376}_{-514}$	$5738^{+1194}_{-982}$	$0.940^{+0.798}_{-0.397}$
Alt.	$-301 \pm 30$	$5.20^{+1.62}_{-1.58}$	$6024^{+402}_{-550}$	$6911^{+1679}_{-1031}$	$1.600^{+1.650}_{-0.677}$

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

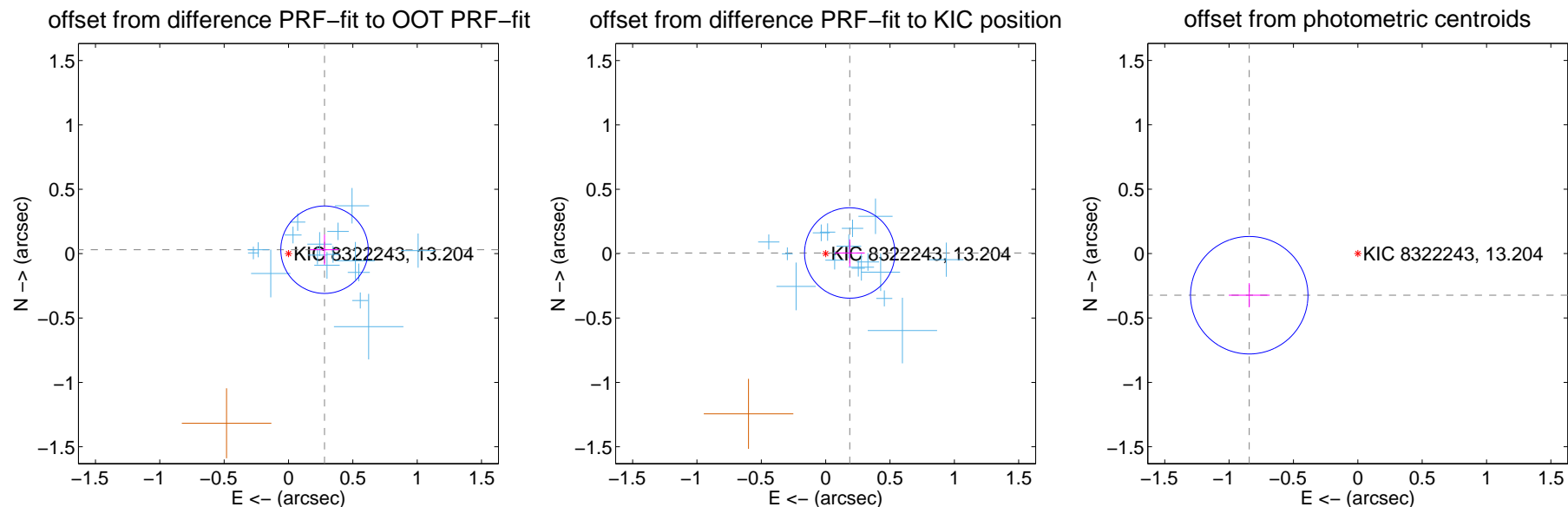
## DV Centroid Data

Supplemental centroid analysis for 008322243-02. Kepler magnitude: 13.20. Transit SNR 17.89

There are 16 quarters with good PRF difference image offsets

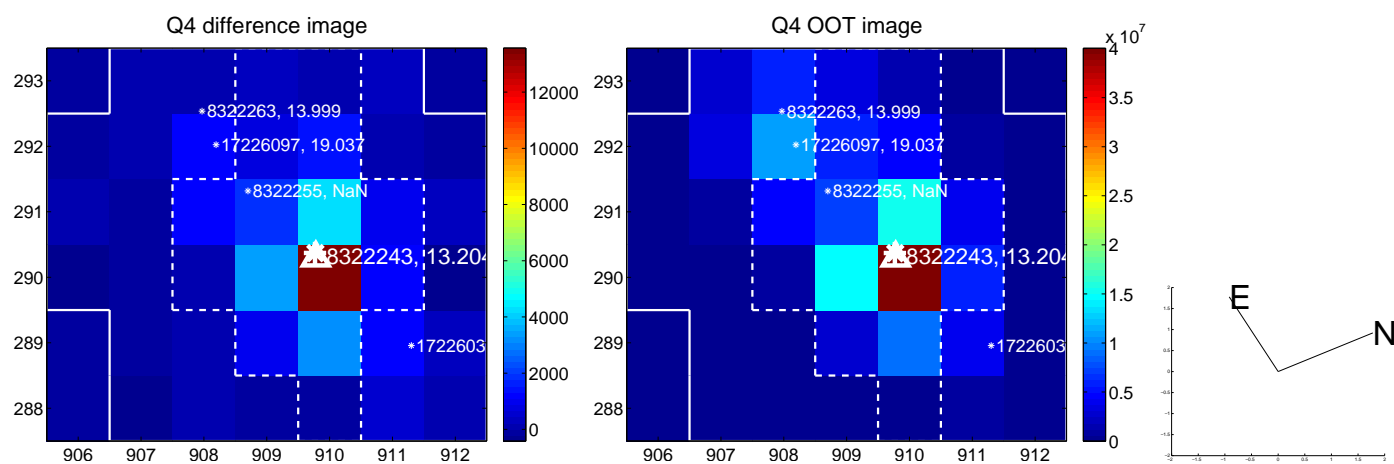
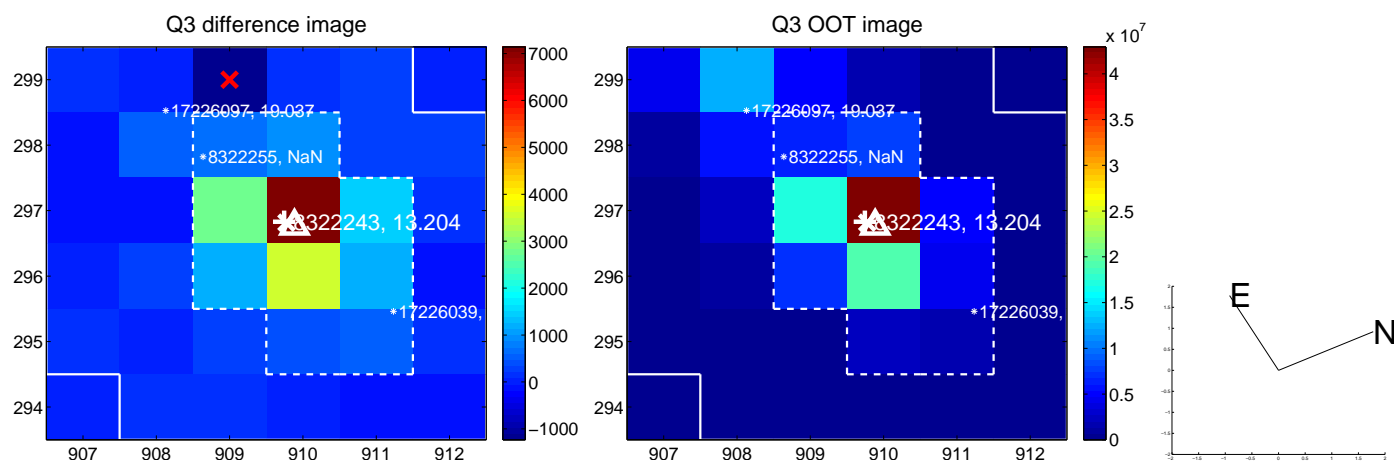
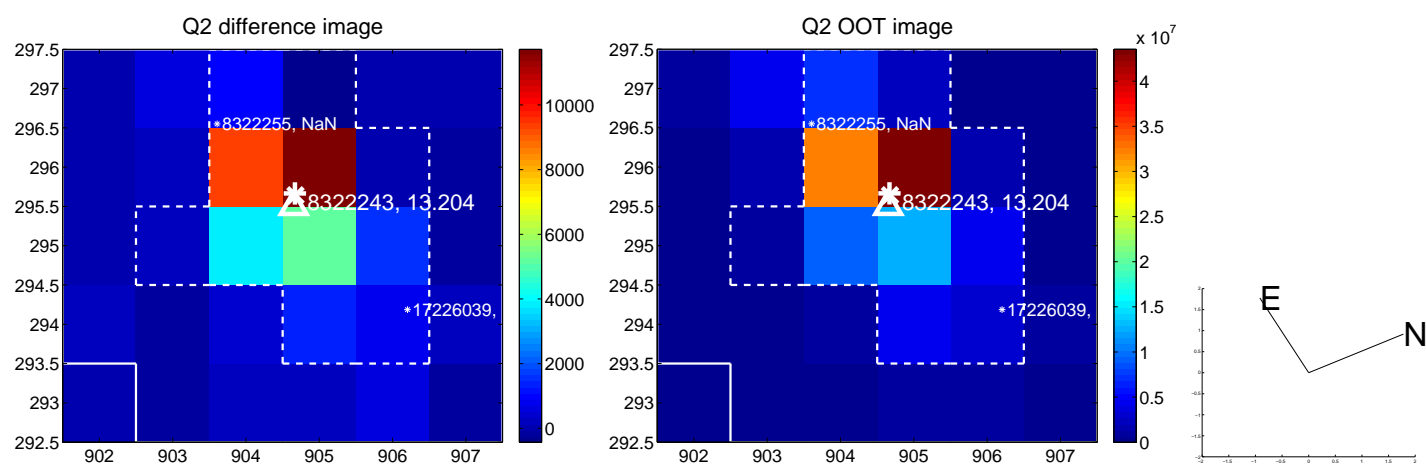
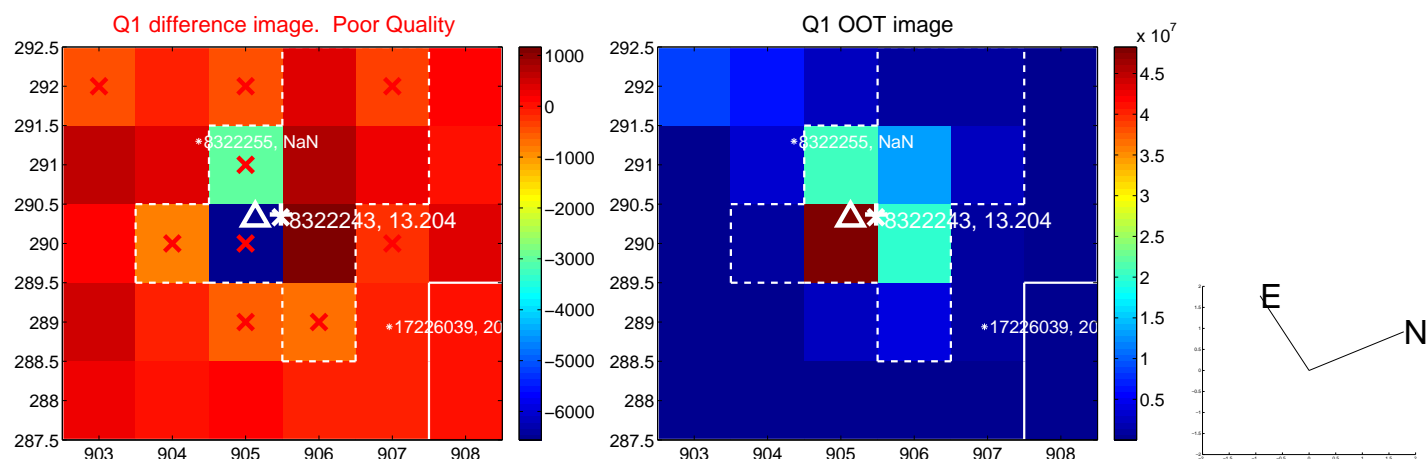
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.282 \pm 0.113$	2.49	$-0.280 \pm 0.111$	$0.031 \pm 0.117$
PRF-fit source offset from KIC position	$0.187 \pm 0.117$	1.60	$-0.187 \pm 0.117$	$0.005 \pm 0.105$
photometric centroid source offset	$0.90 \pm 0.15$	5.94	$0.84 \pm 0.16$	$-0.32 \pm 0.09$

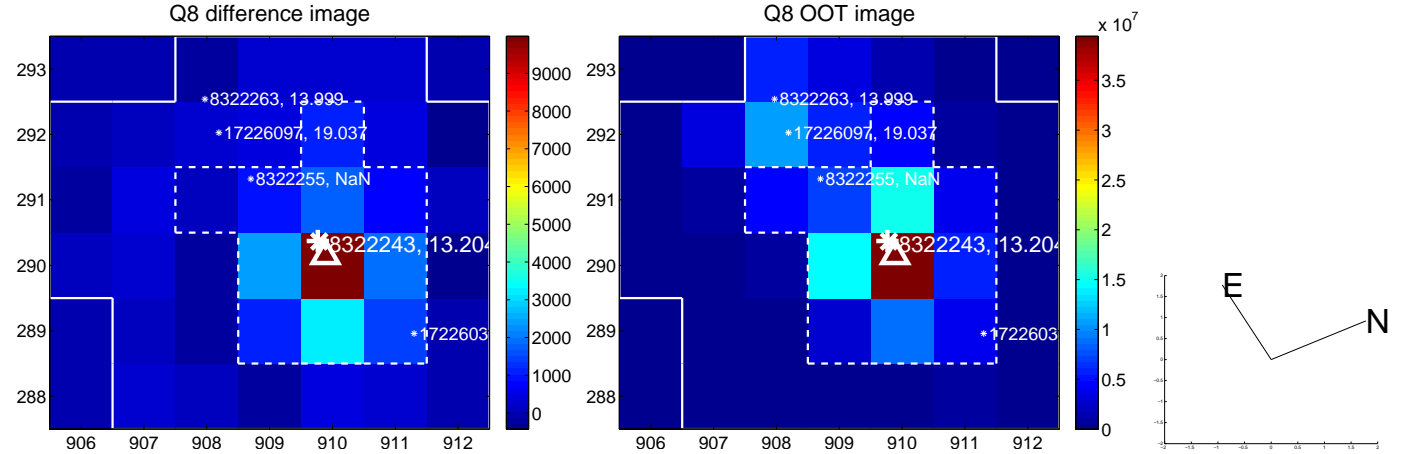
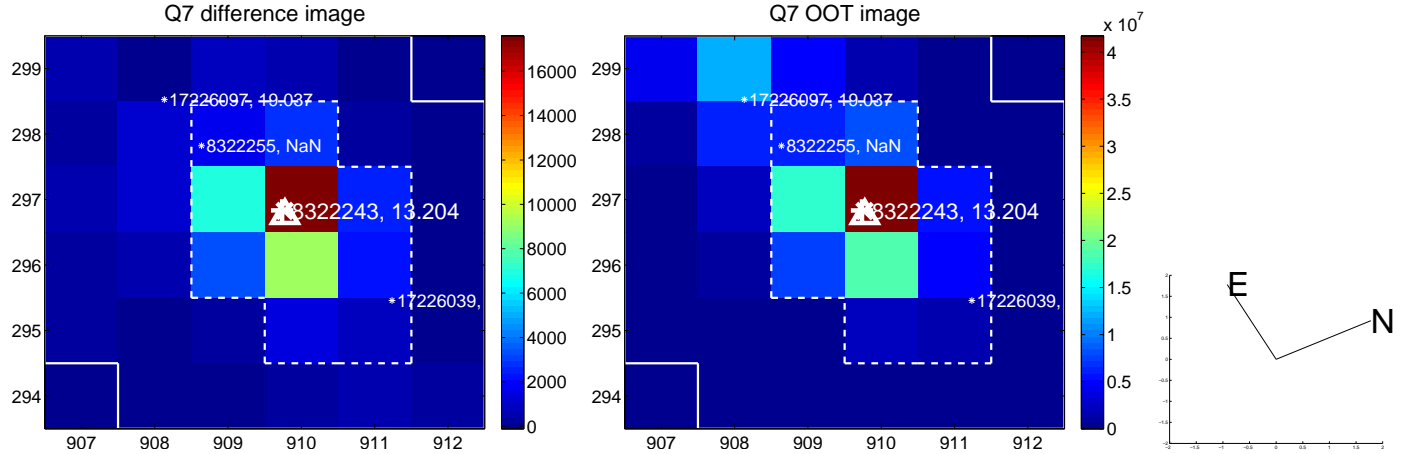
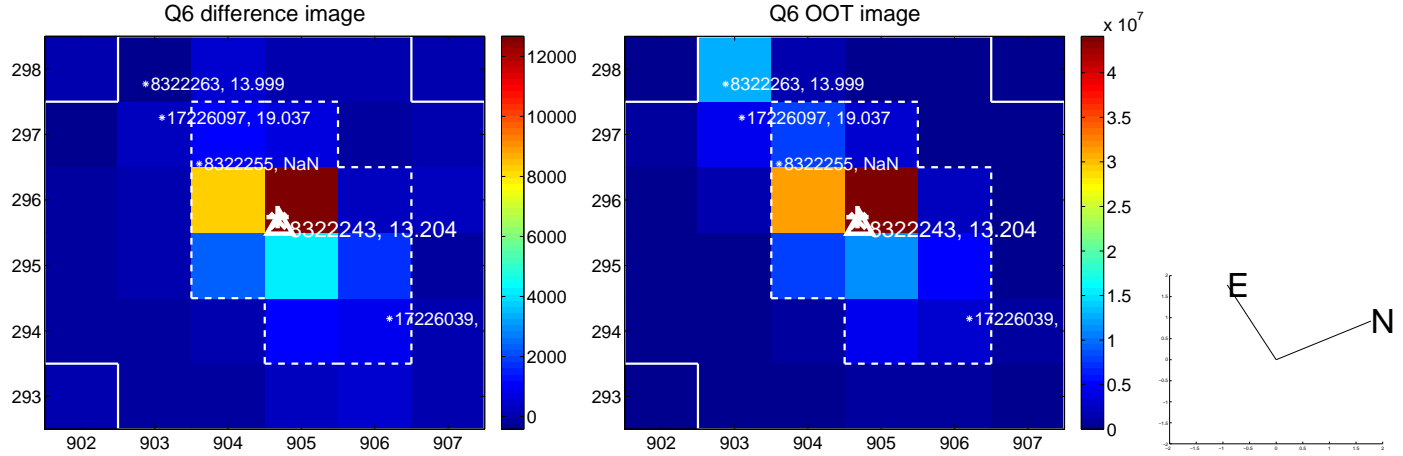
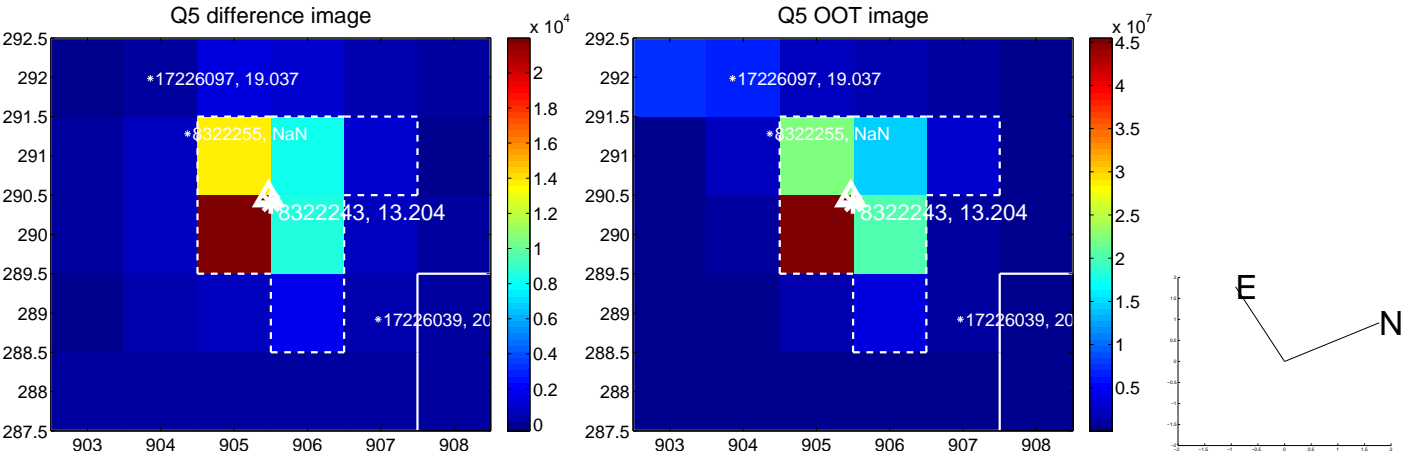


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

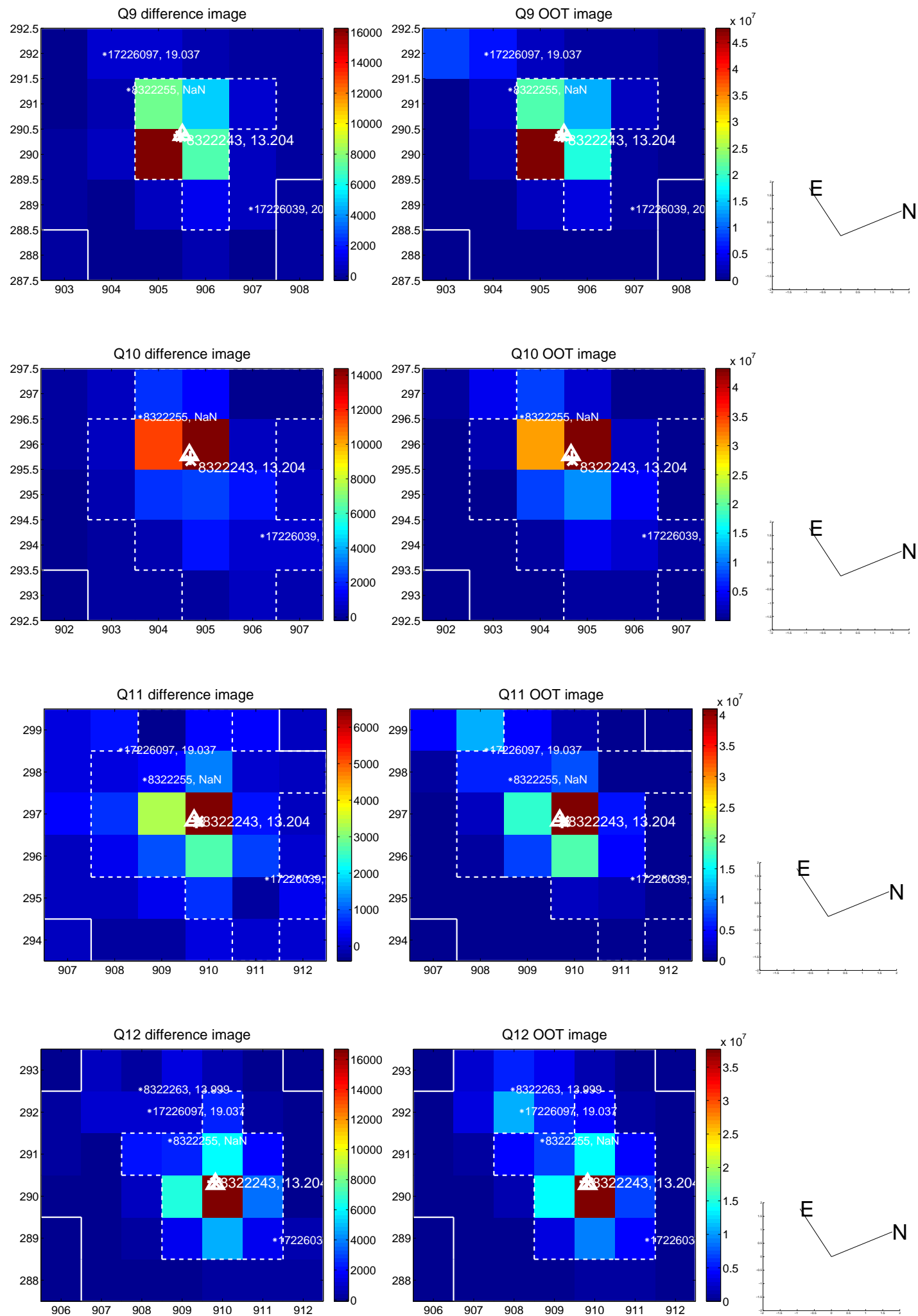
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

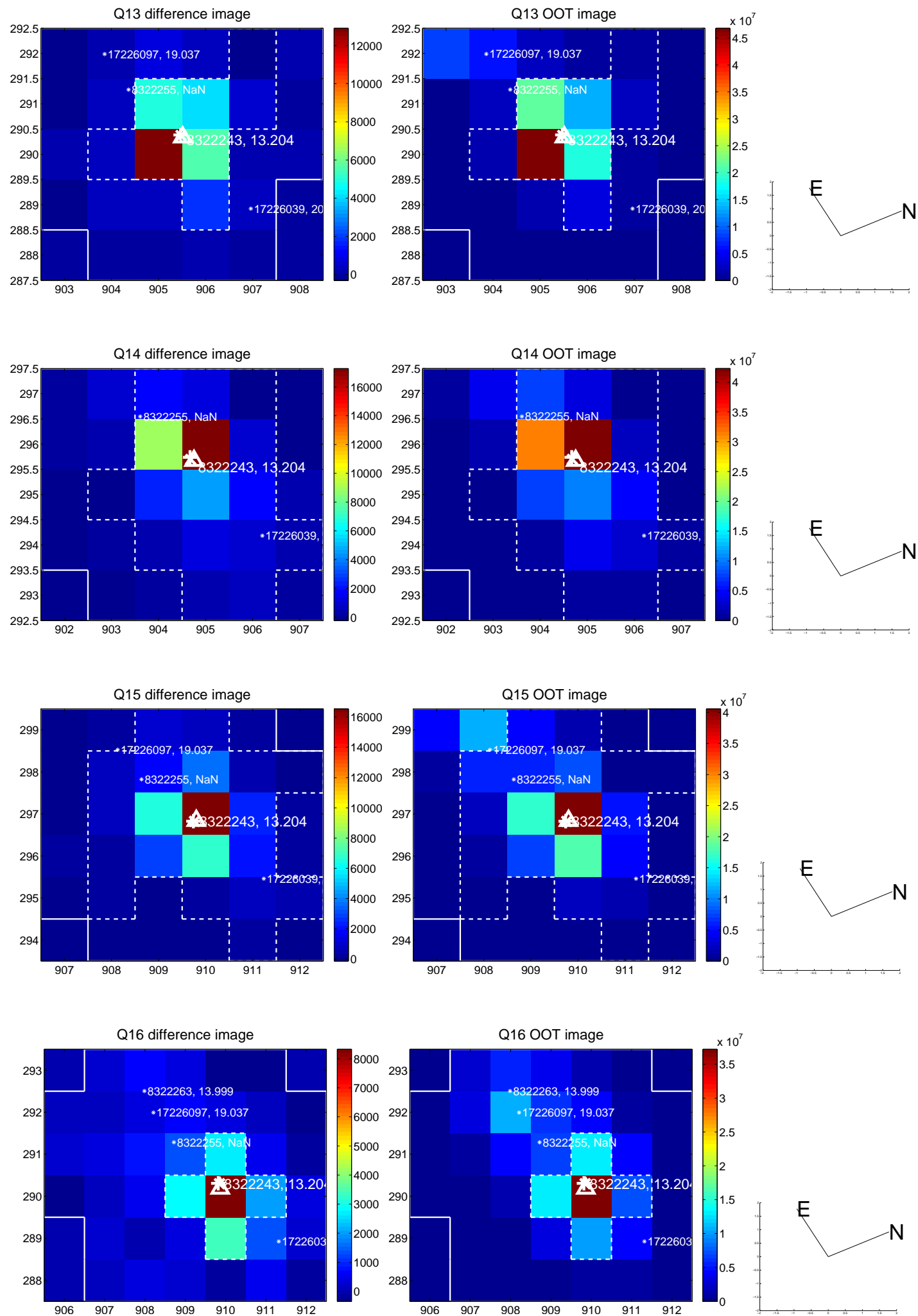


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

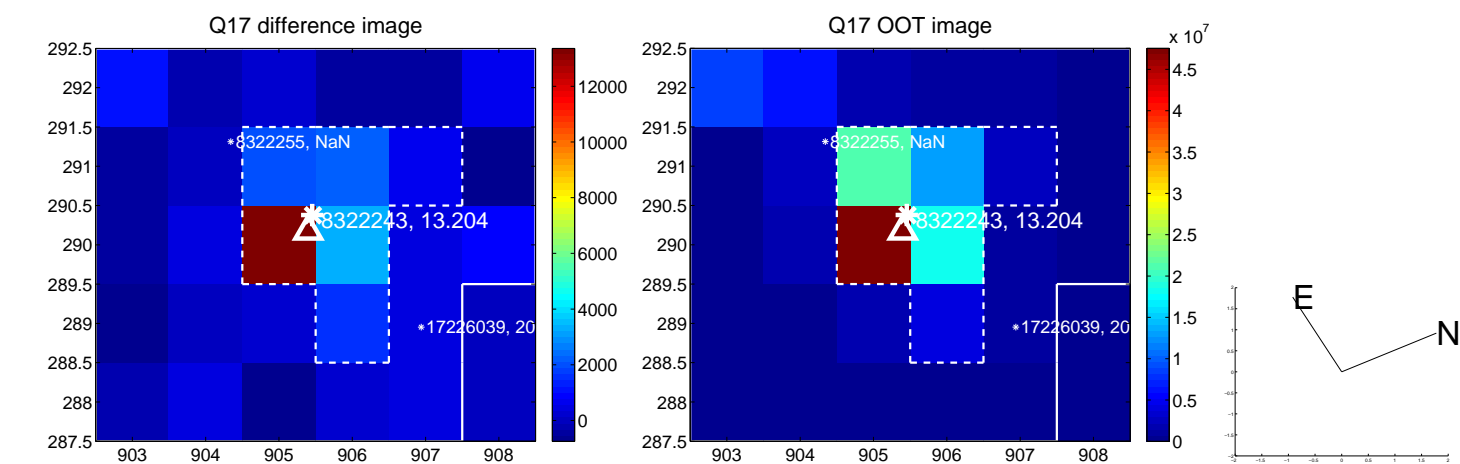




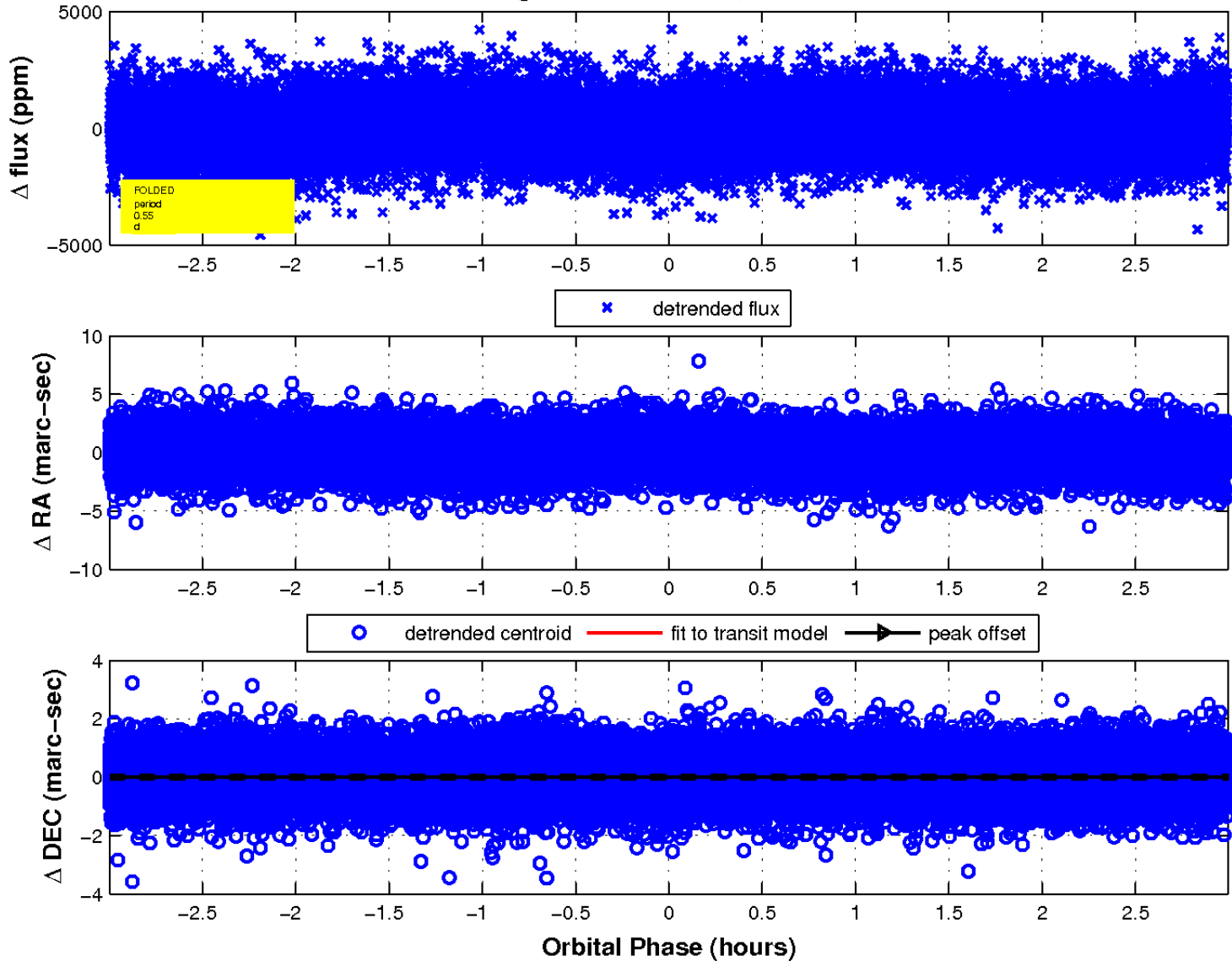
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

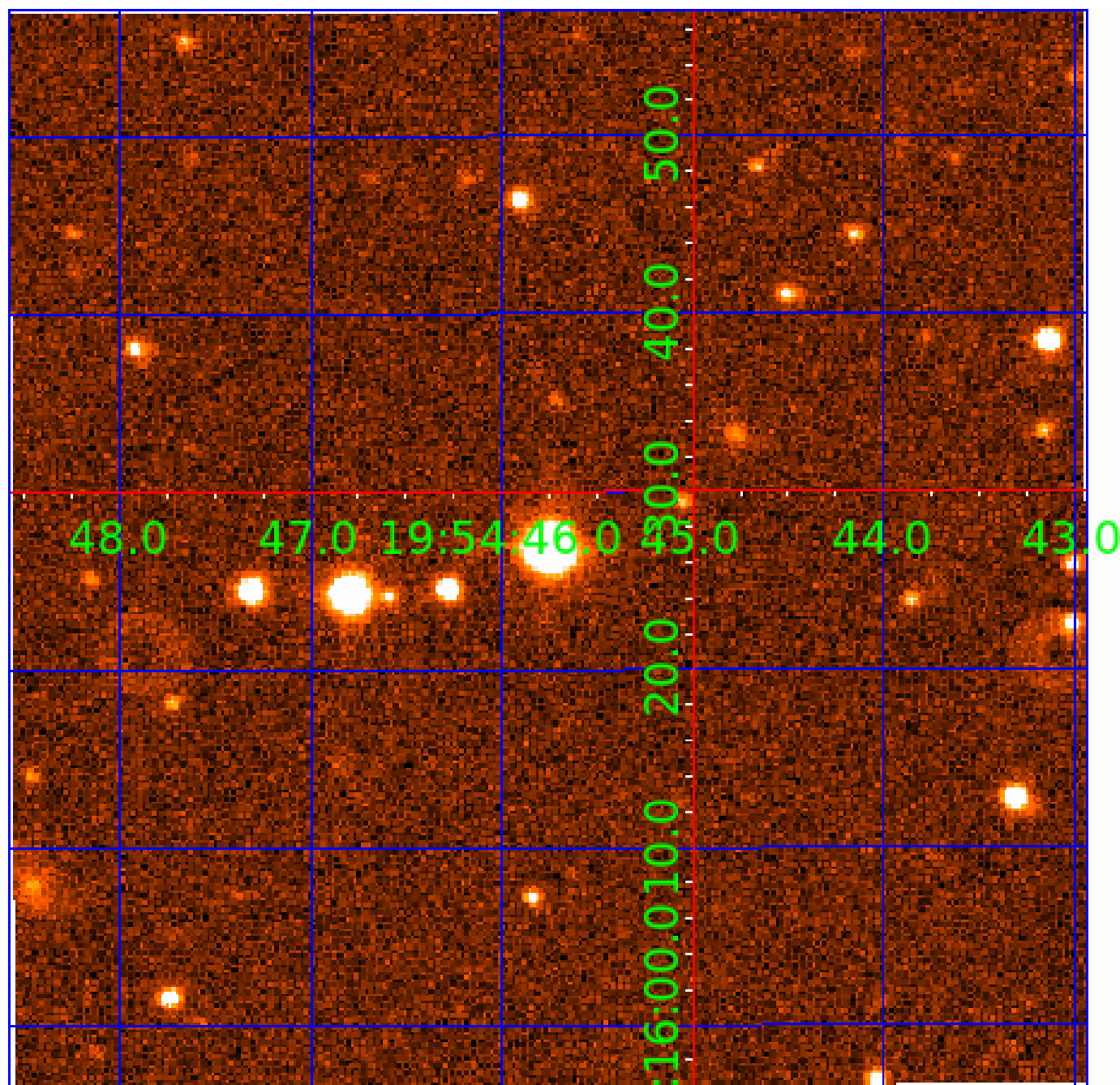


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



# KIC 008322243

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008322243-01	OBS	No	0.550336	131.659987	239.6	1.151	13.5	14.1	2.64	7843	4.77	88725.93
008322243-02	OBS	No	0.550337	132.028395	314.4	0.999	11.9	17.9	2.64	7843	5.48	88725.81
008322243-03	OBS	No	0.550334	131.843499	245.4	1.170	11.5	16.1	2.64	7843	4.26	88726.32

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008322243-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
008322243-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
008322243-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD

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

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

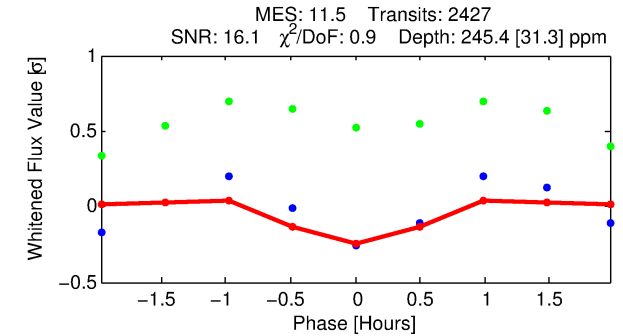
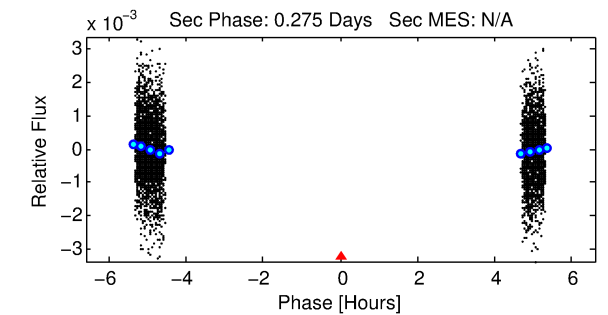
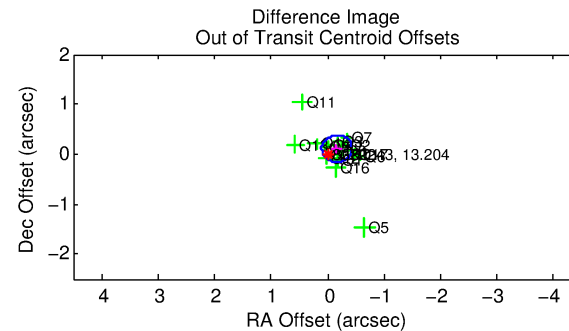
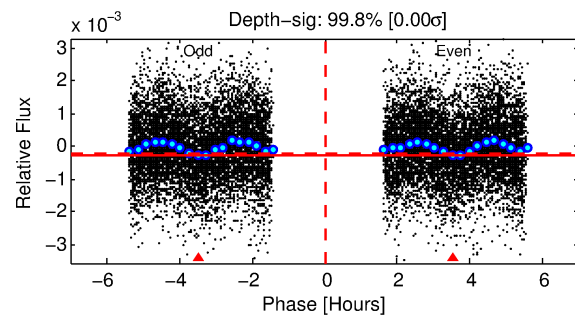
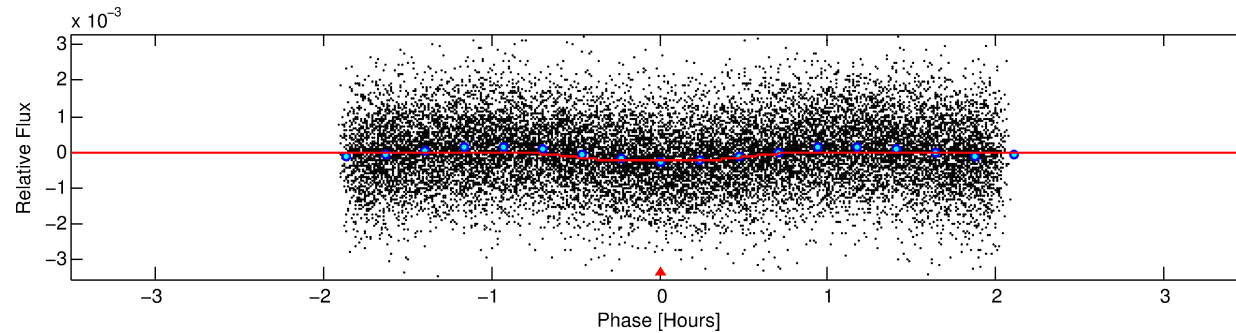
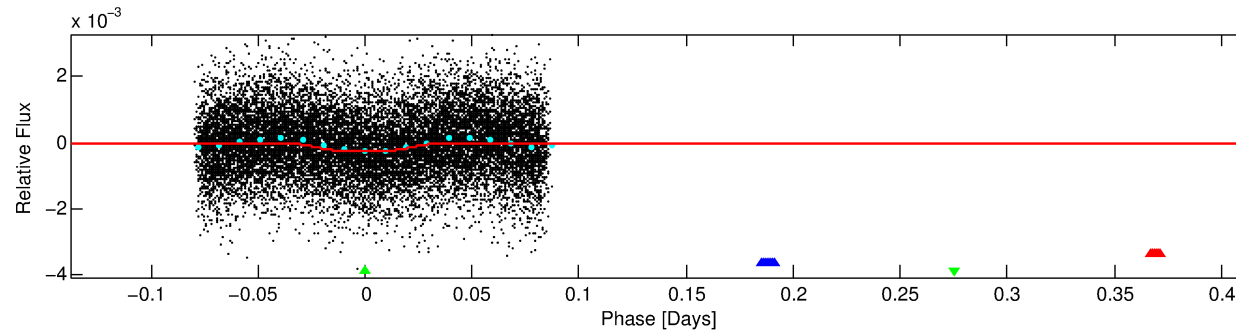
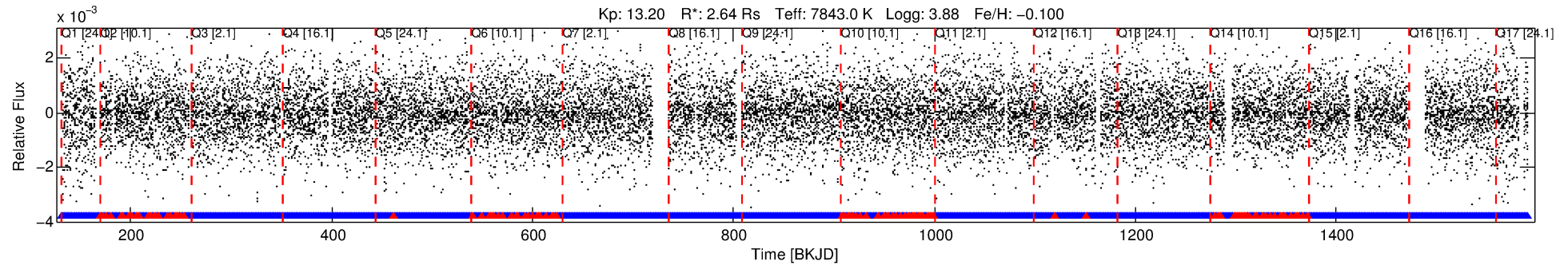
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008322243-03

No Significant Match Found

# DV One-Page Summary

KIC: 8322243 Candidate: 3 of 3 Period: 0.550 d



## DV Fit Results:

Period = 0.55033 [0.00001] d  
Epoch = 131.8435 [0.0012] BKJD  
Rp/R\* = 0.0148 [0.0068]  
a/R\* = 3.50 [8.56]  
b = 0.33 [7.11]  
Seff = 88726.32 [49493.62]  
Teq = 4401 [614] K  
Rp = 4.26 [2.51] Re  
a = 0.0163 [0.0056] AU

## DV Diagnostic Results:

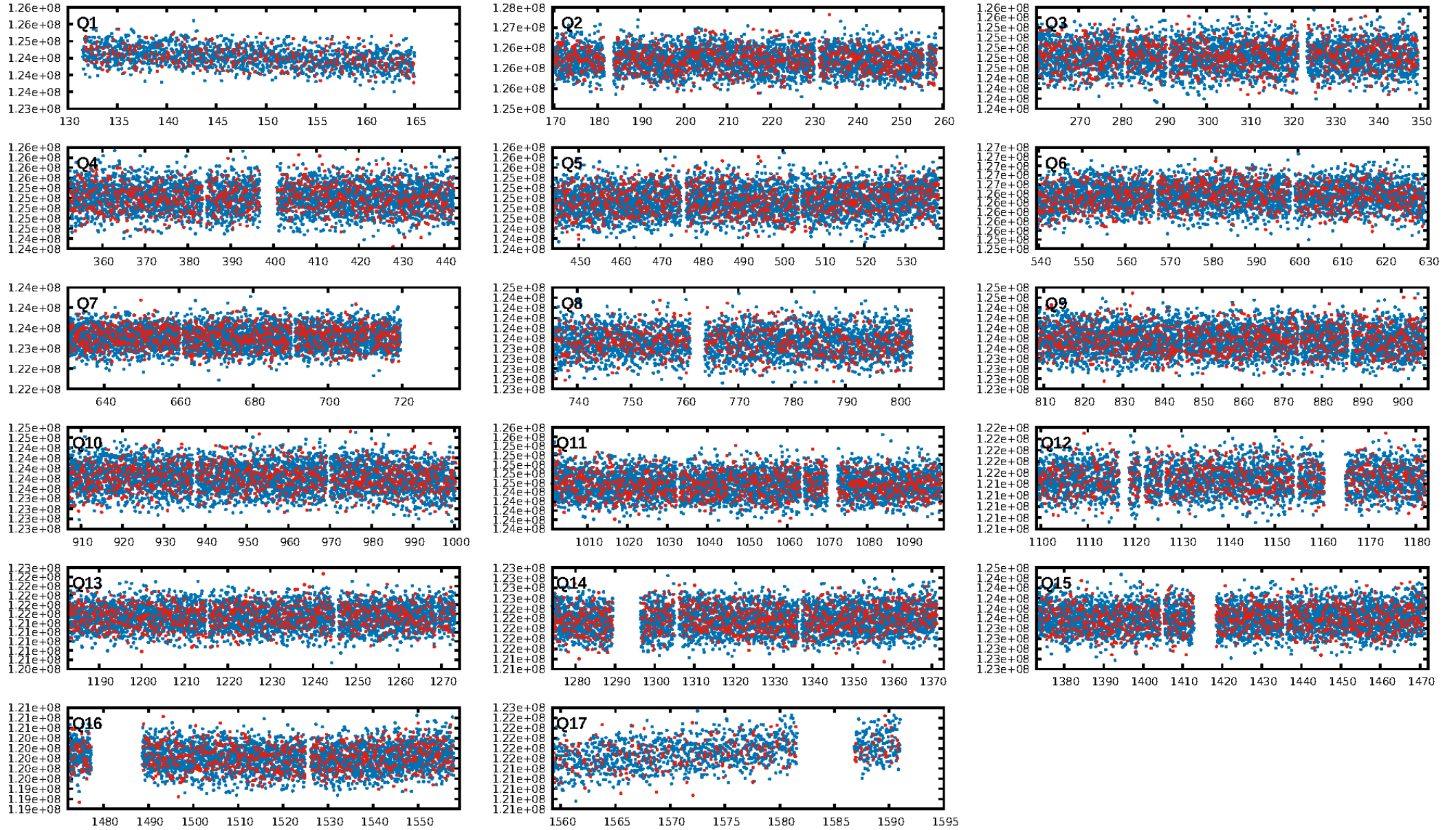
ShortPeriod-sig: N/A  
**LongPeriod-sig: 0.0% [0.00σ]**  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.94 [2184/2317]  
GhostDiagnostic-chr: -4.524  
Centroid-sig: N/A  
**Centroid-so: 0.972 arcsec [5.35σ]**  
OotOffset-rm: 0.199 arcsec [2.22σ]  
KicOffset-rm: 0.125 arcsec [1.29σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:45:52 Z

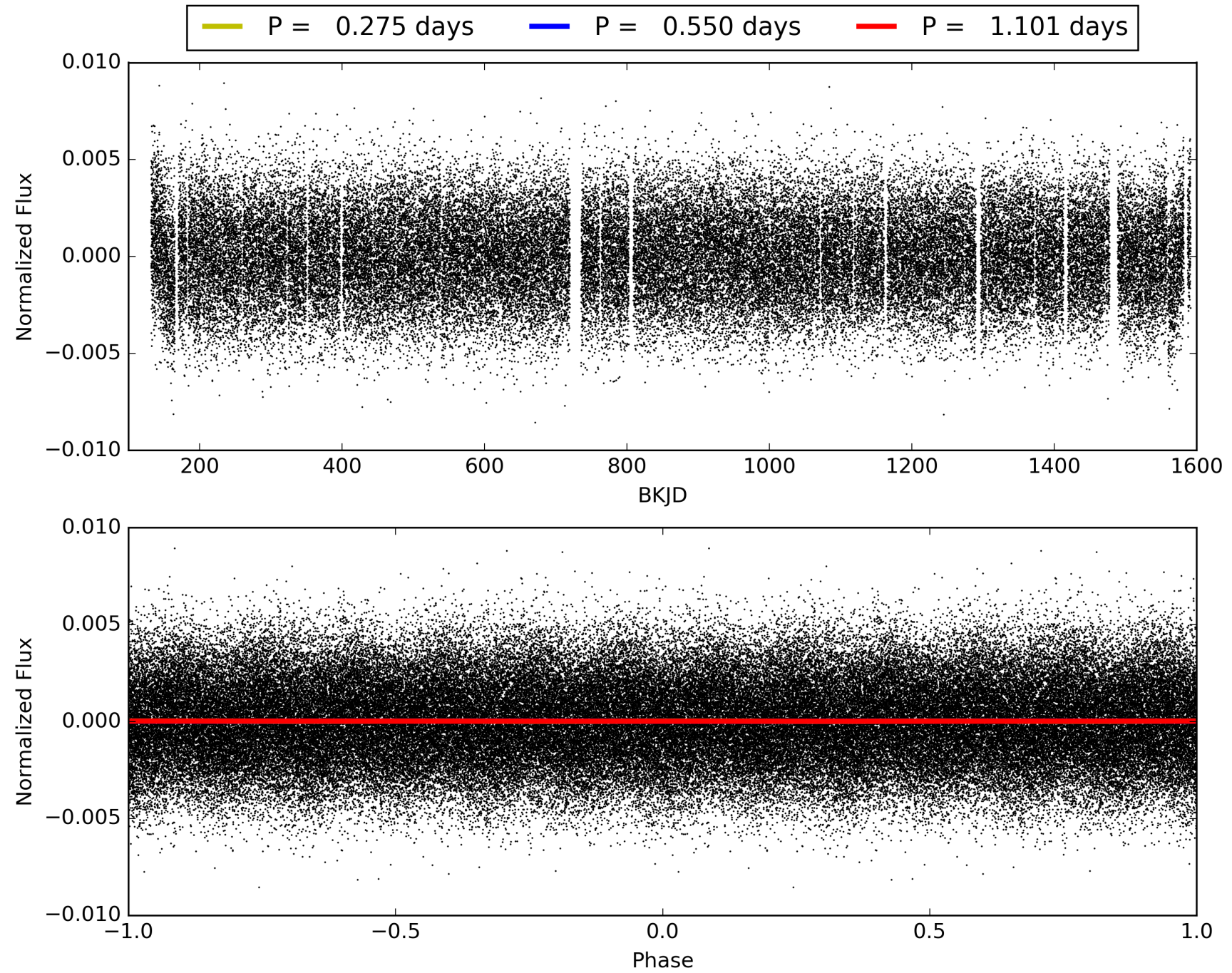
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center



# TCE 008322243-03, PDC Light Curves

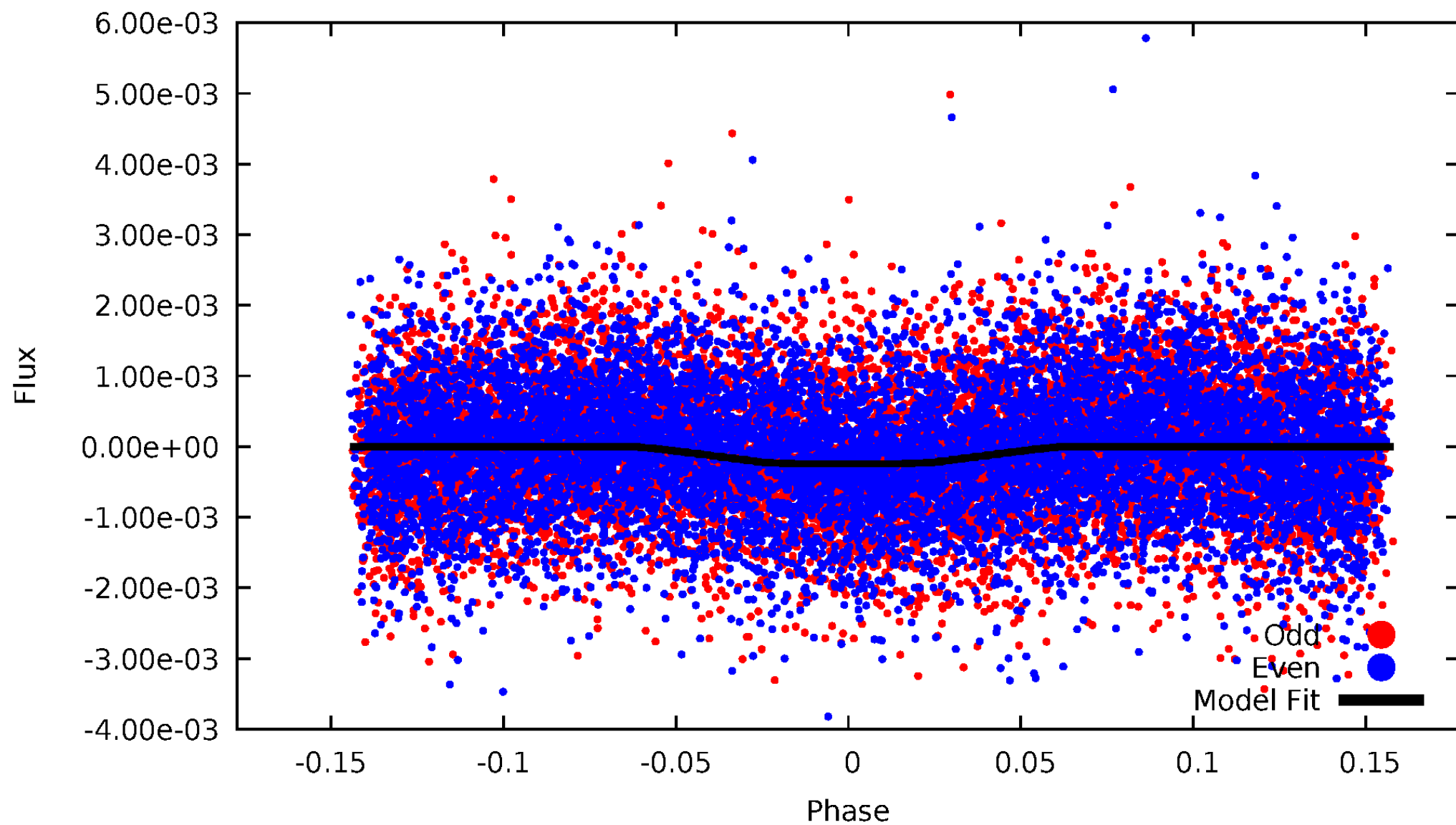


TCE 008322243-03



# DV Odd/Even

TCE 008322243-03



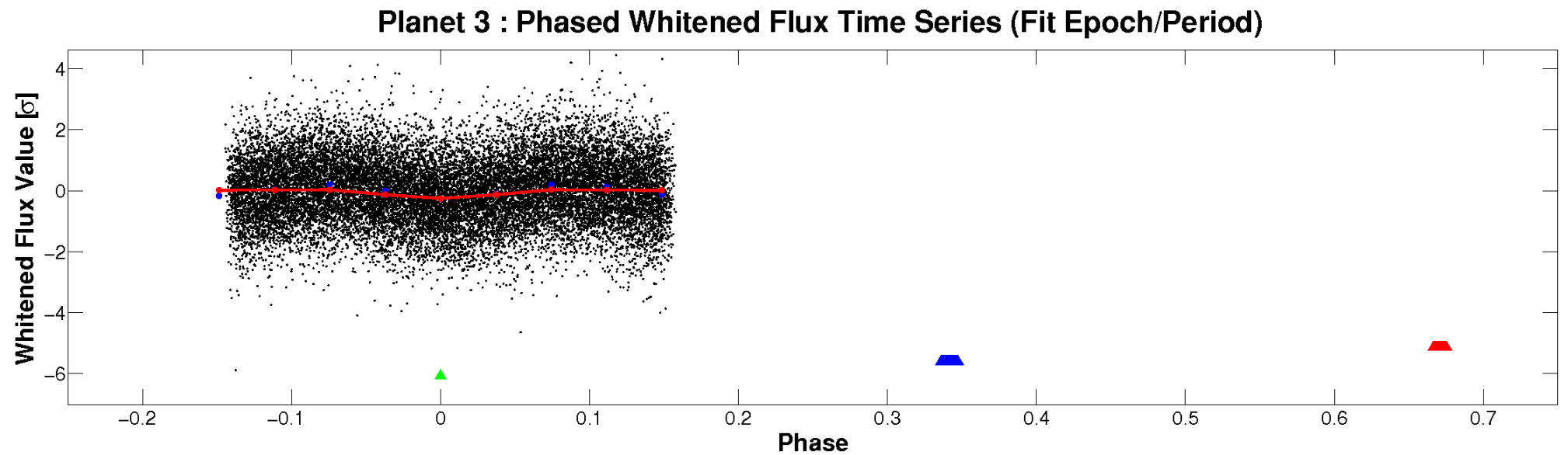
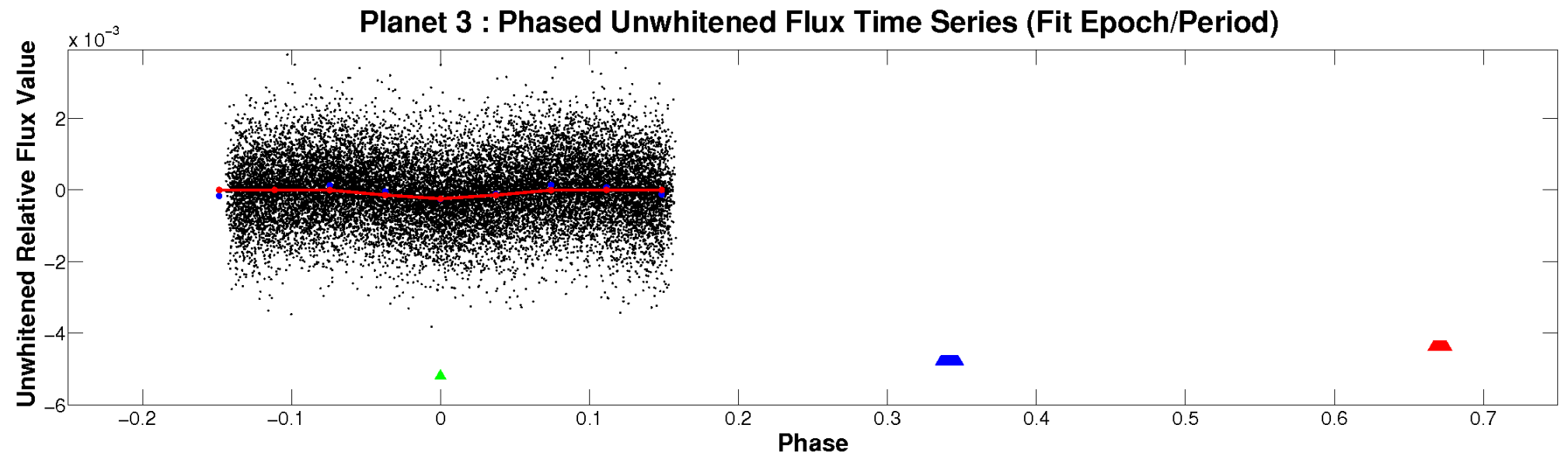


ALT Odd/Even

This plot does not exist for this TCE.

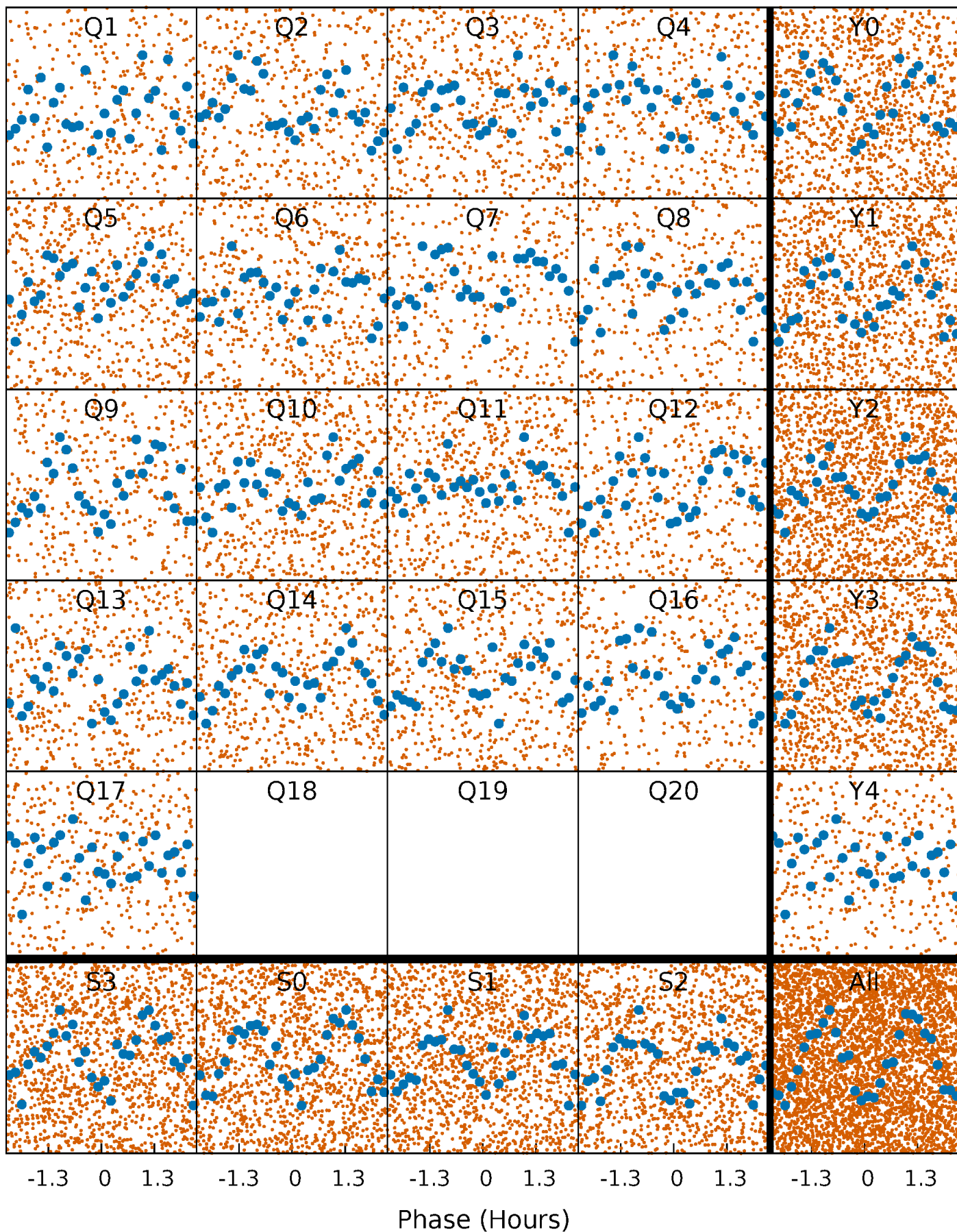


# Non-Whitened Vs. Whitened Light Curve



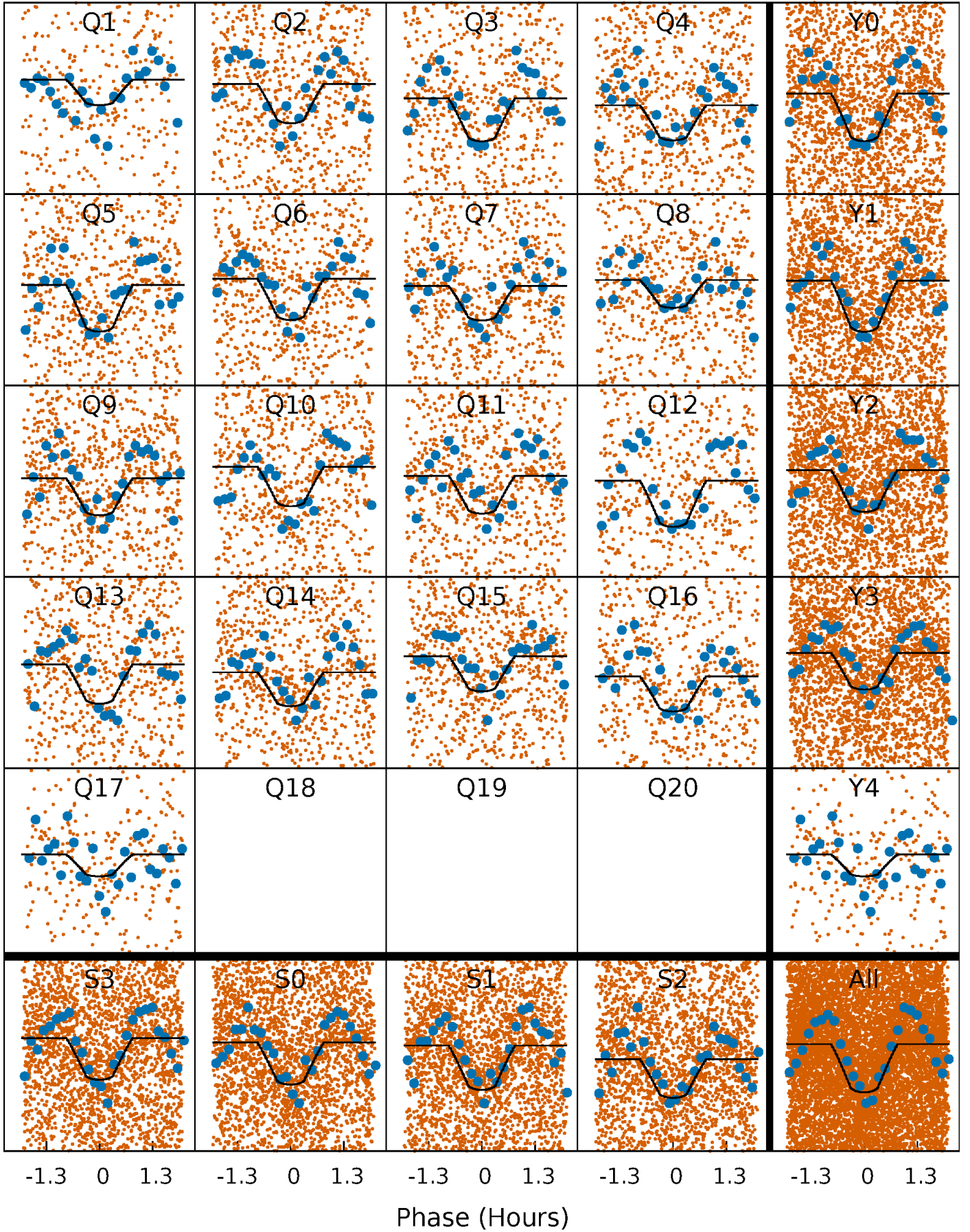
# PDC Quarter-Phased Transit Curves

TCE 008322243-03 P= 0.550334 Days  $T_0=131.843499$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 008322243-03   P= 0.550334 Days    $T_0=131.843499$  (BKJD)

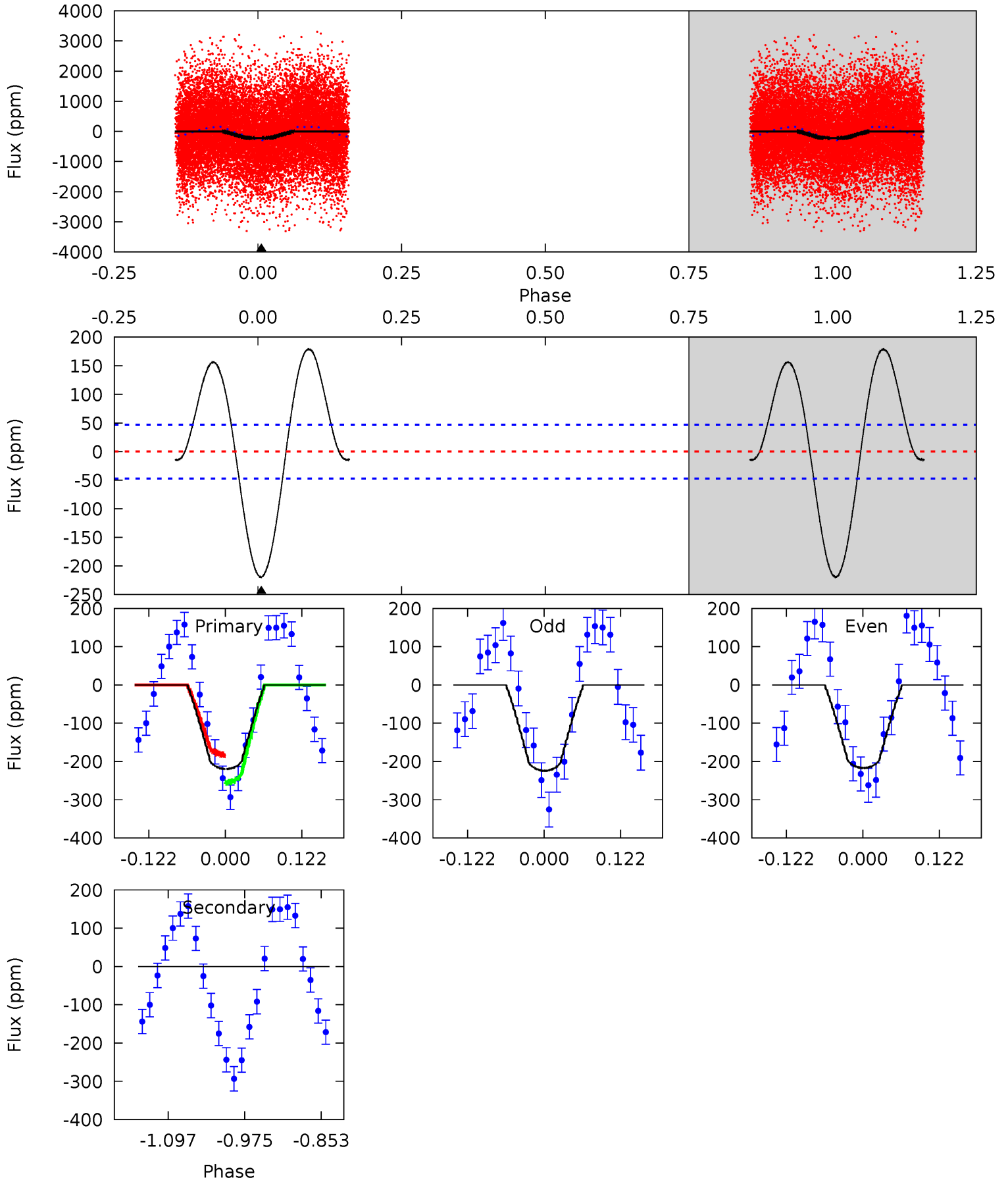


This plot does not exist for this TCE.

# DV Model-Shift Uniqueness Test

008322243-03, P = 0.550334 Days, E = 131.293165 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
21.1	0	0	0	4.52	1.55	1.64	21.1	21.1	0	0	0.35	0.97	0.45	3.66





## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 008322243

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7843^{+216}_{-325}$	$3.877^{+0.307}_{-0.102}$	$-0.100^{+0.200}_{-0.350}$	$2.643^{+0.422}_{-0.984}$	$1.919^{+0.078}_{-0.442}$	$0.146^{+0.336}_{-0.049}$
	+3%/-4%	+8%/-3%	+200%/-350%	+16%/-37%	+4%/-23%	+230%/-33%
Source	KIC0	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 008322243-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 10$	$3.98^{+1.83}_{-1.86}$	$6026^{+392}_{-593}$	$-4897^{+667}_{-469}$	$0.002^{+0.119}_{-0.113}$
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  $A_{obs} \gg 1.0$

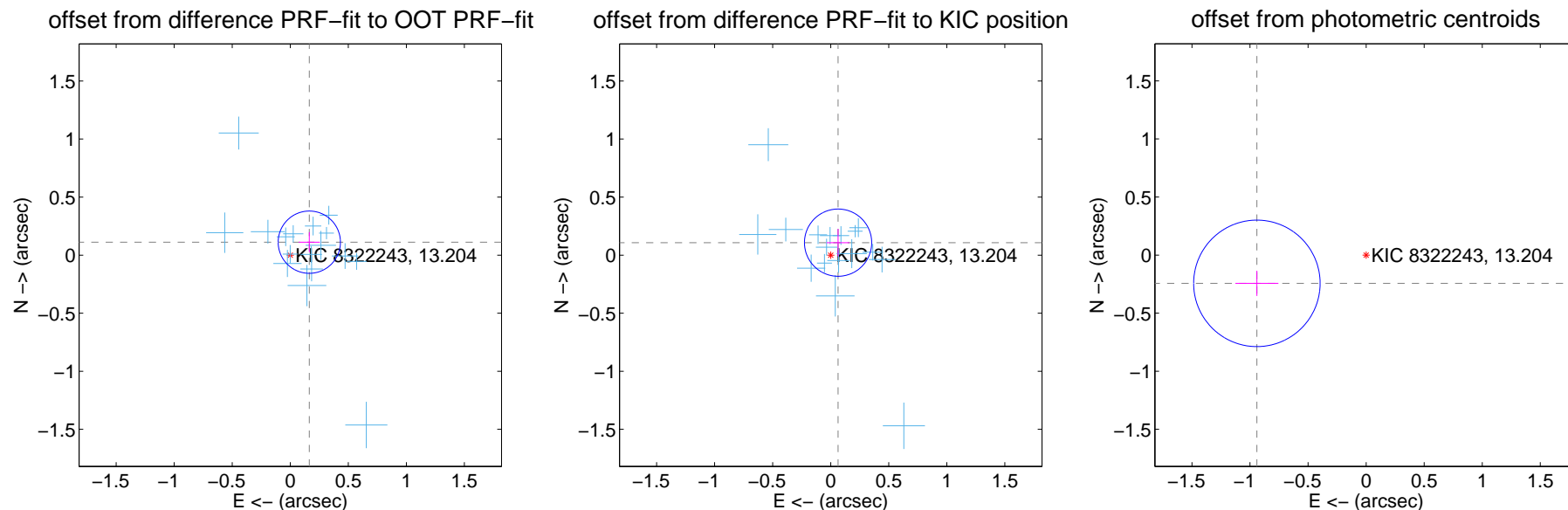
## DV Centroid Data

Supplemental centroid analysis for 008322243-03. Kepler magnitude: 13.20. Transit SNR 16.14

There are 17 quarters with good PRF difference image offsets

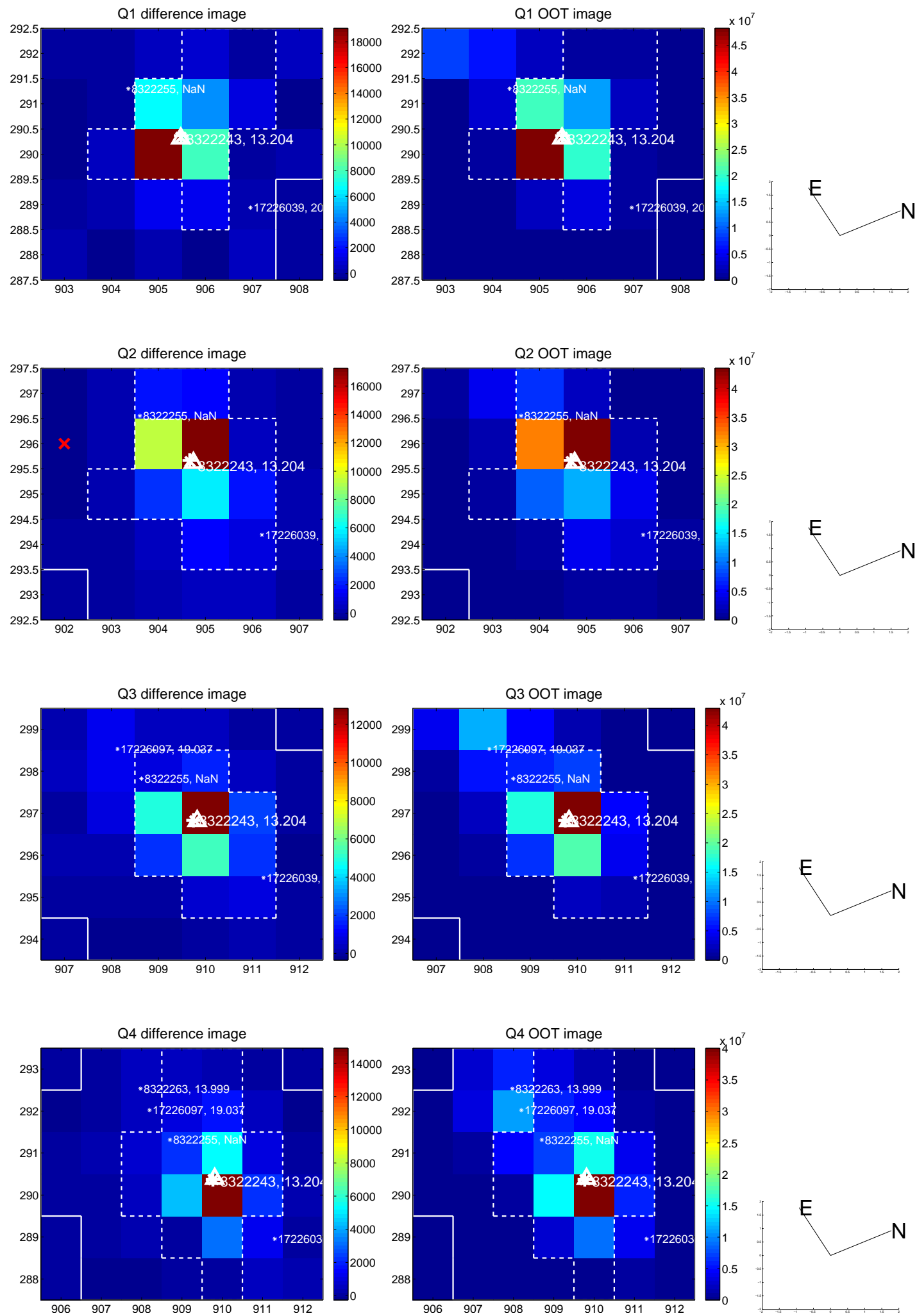
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.199 \pm 0.089$	2.22	$-0.164 \pm 0.091$	$0.112 \pm 0.086$
PRF-fit source offset from KIC position	$0.125 \pm 0.097$	1.29	$-0.063 \pm 0.098$	$0.108 \pm 0.118$
photometric centroid source offset	$0.97 \pm 0.18$	<b>5.35</b>	$0.94 \pm 0.19$	$-0.24 \pm 0.11$

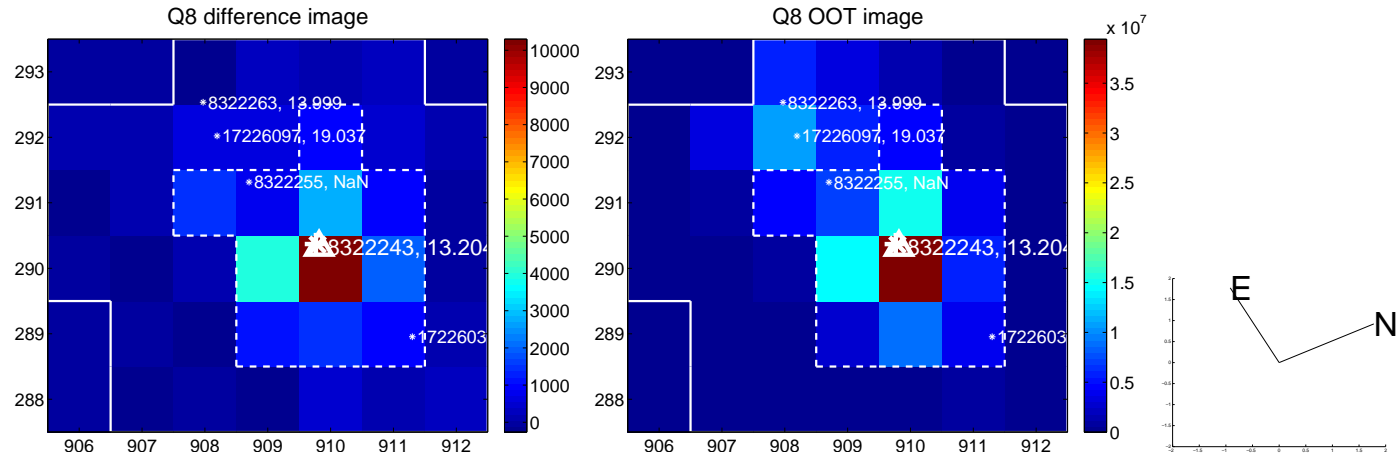
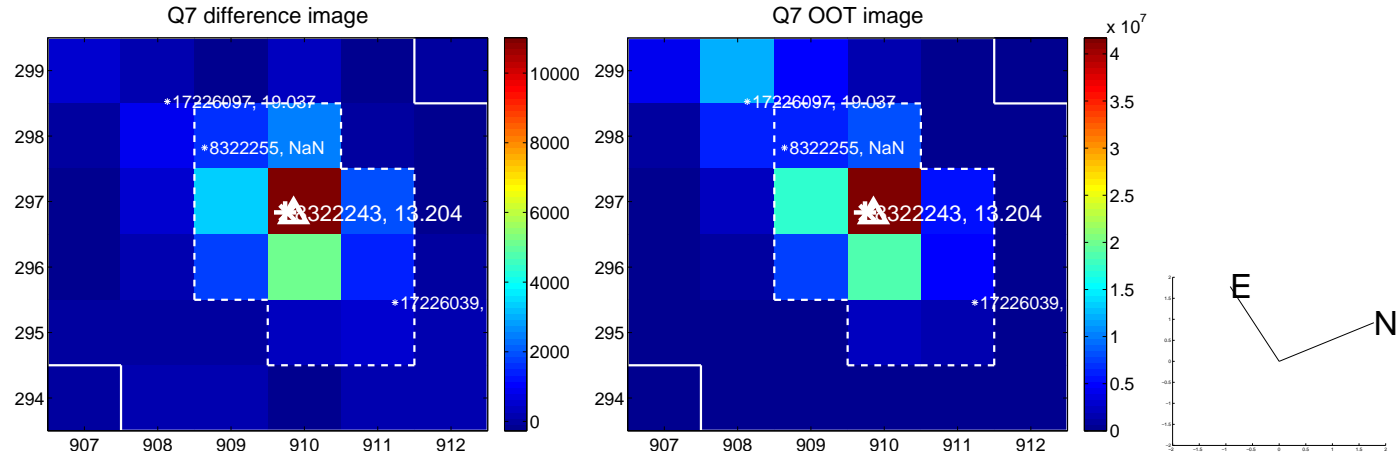
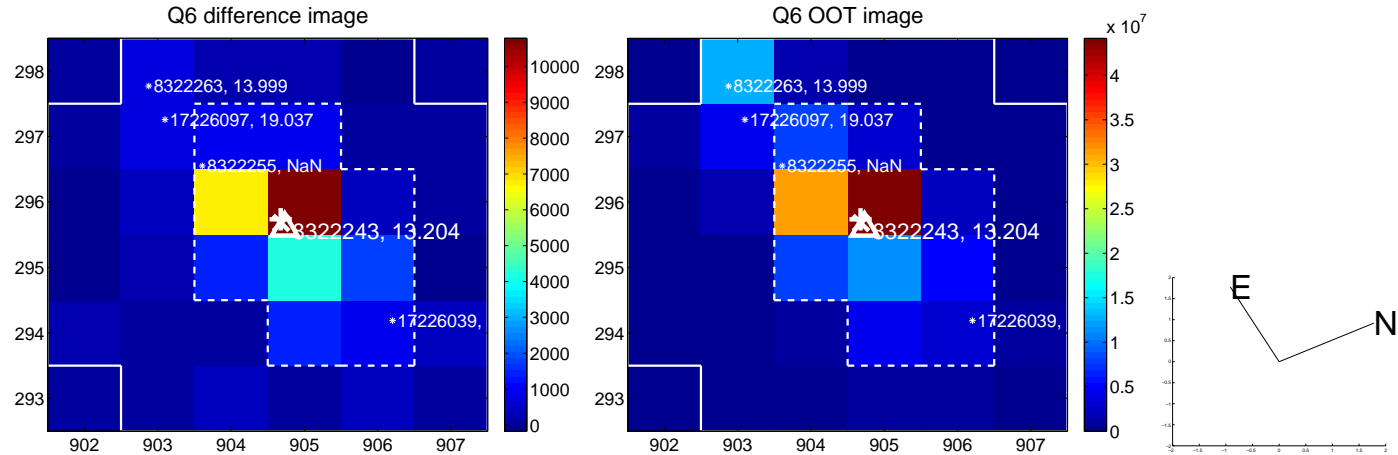
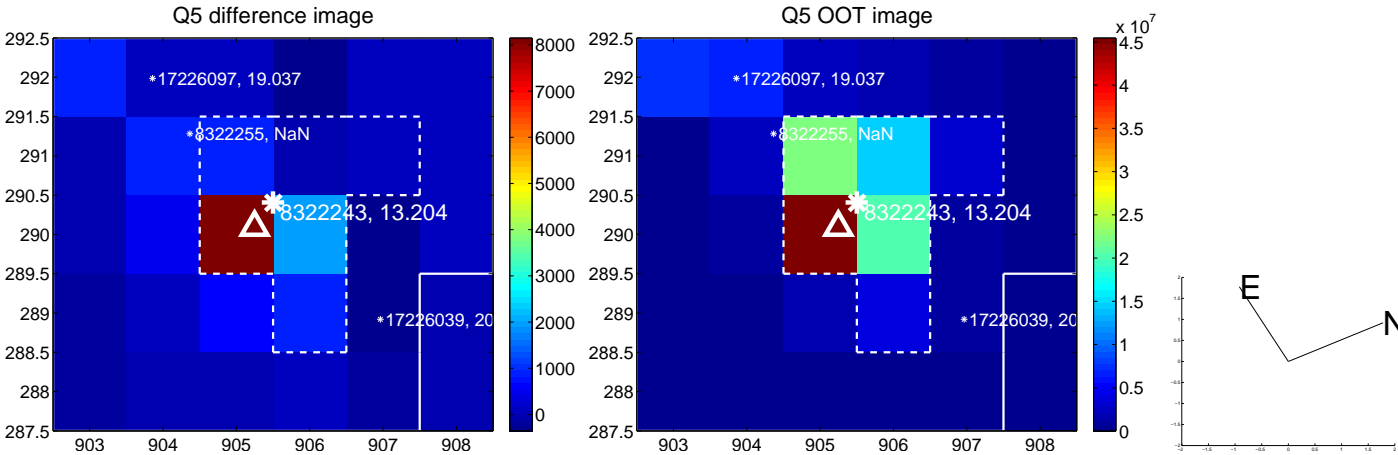


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

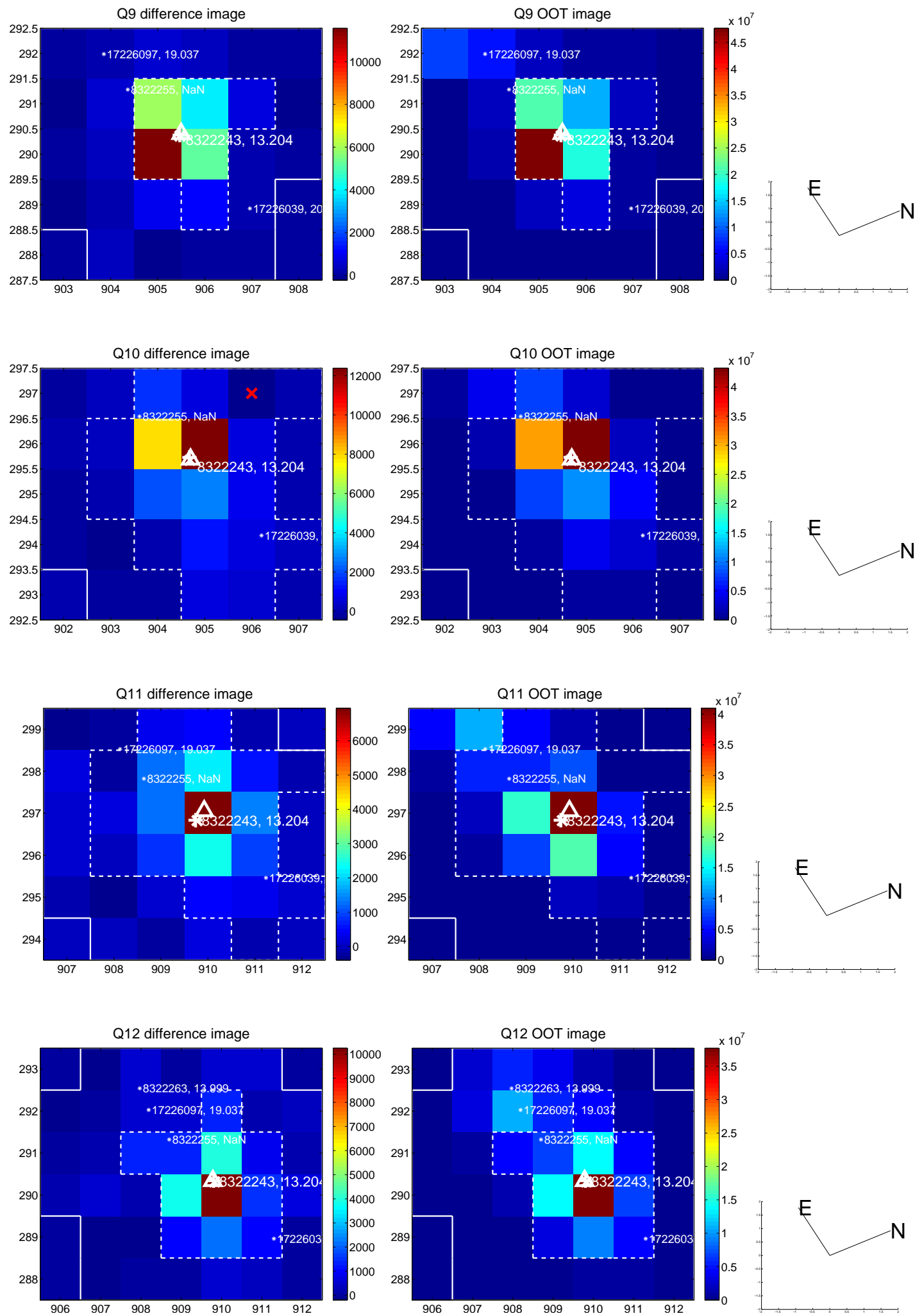


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

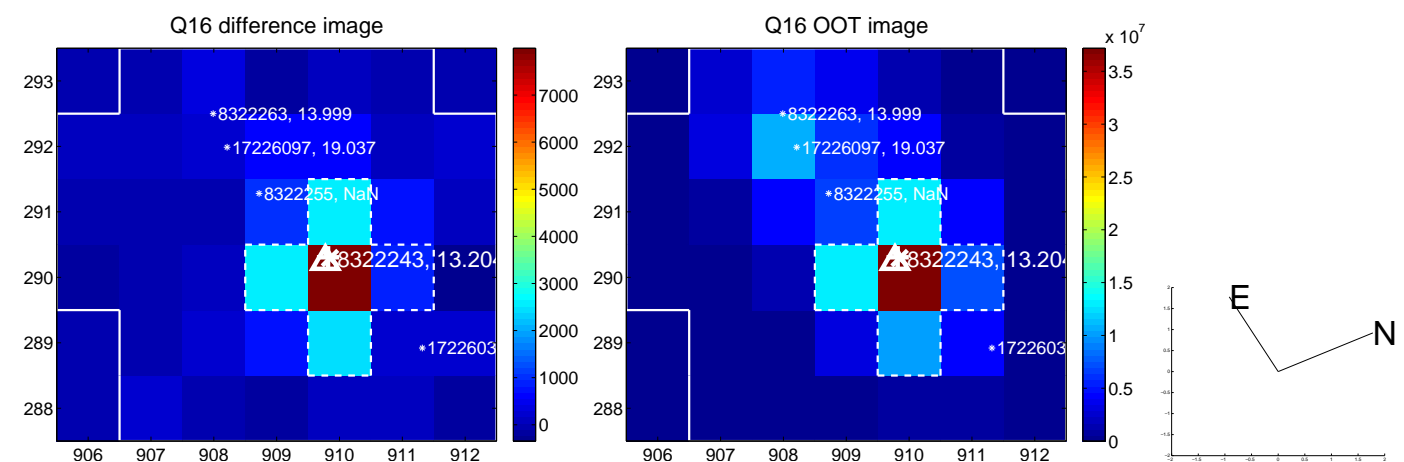
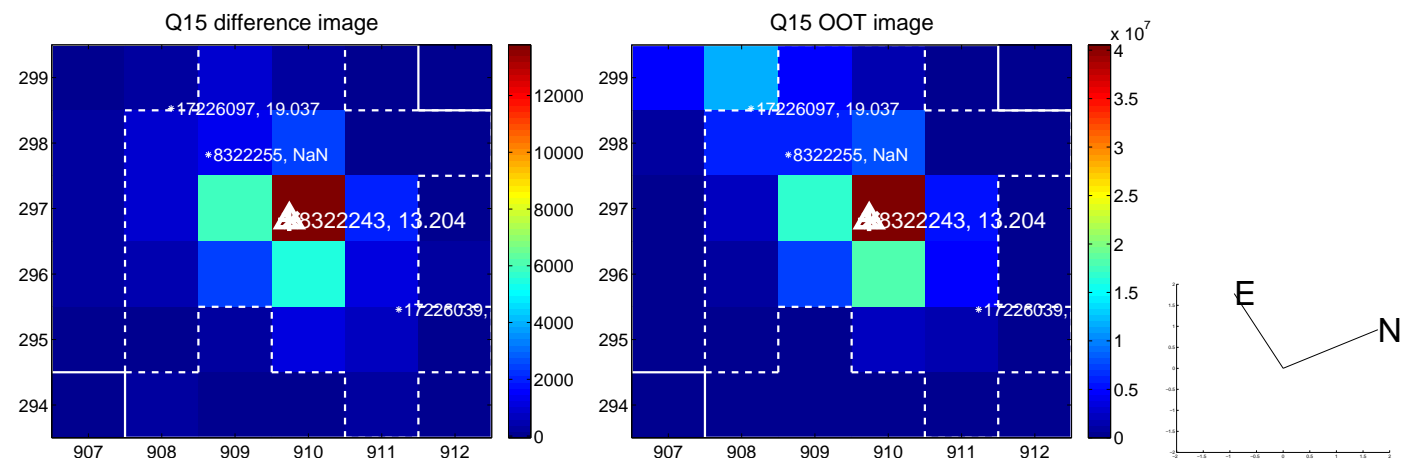
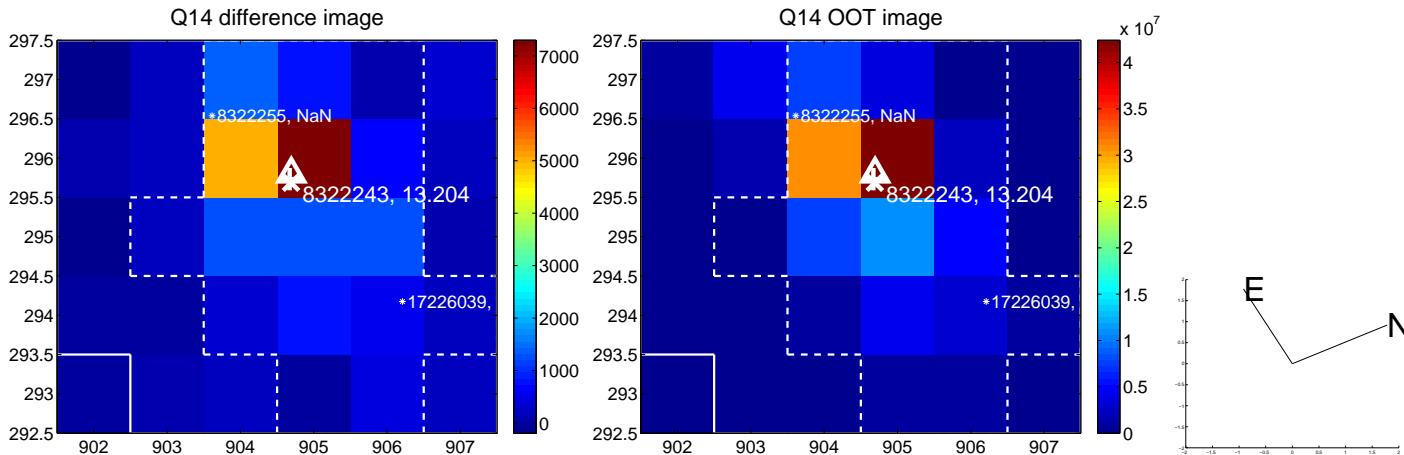
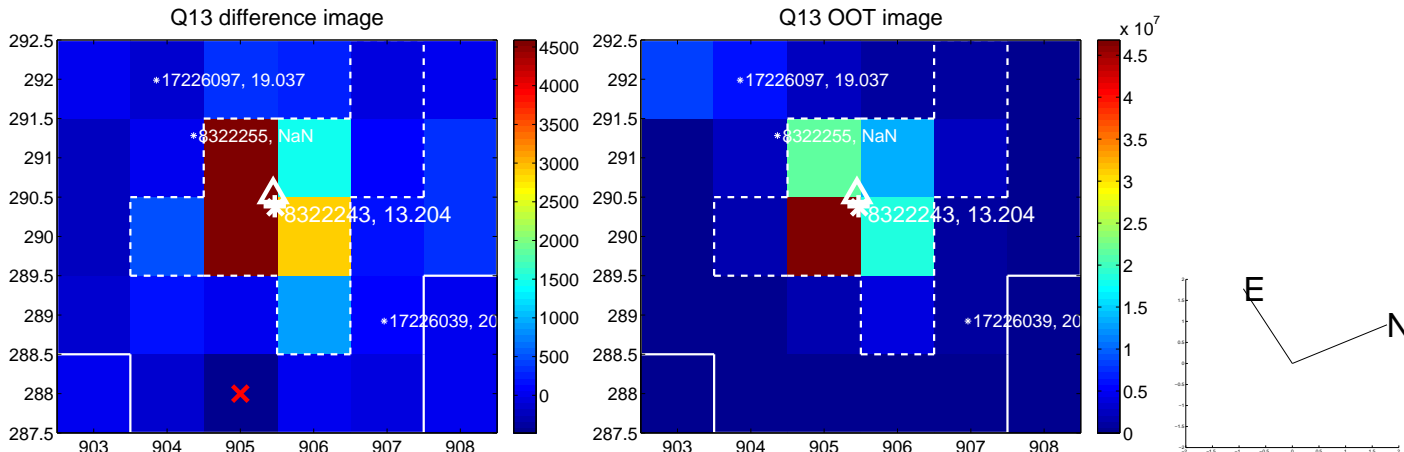




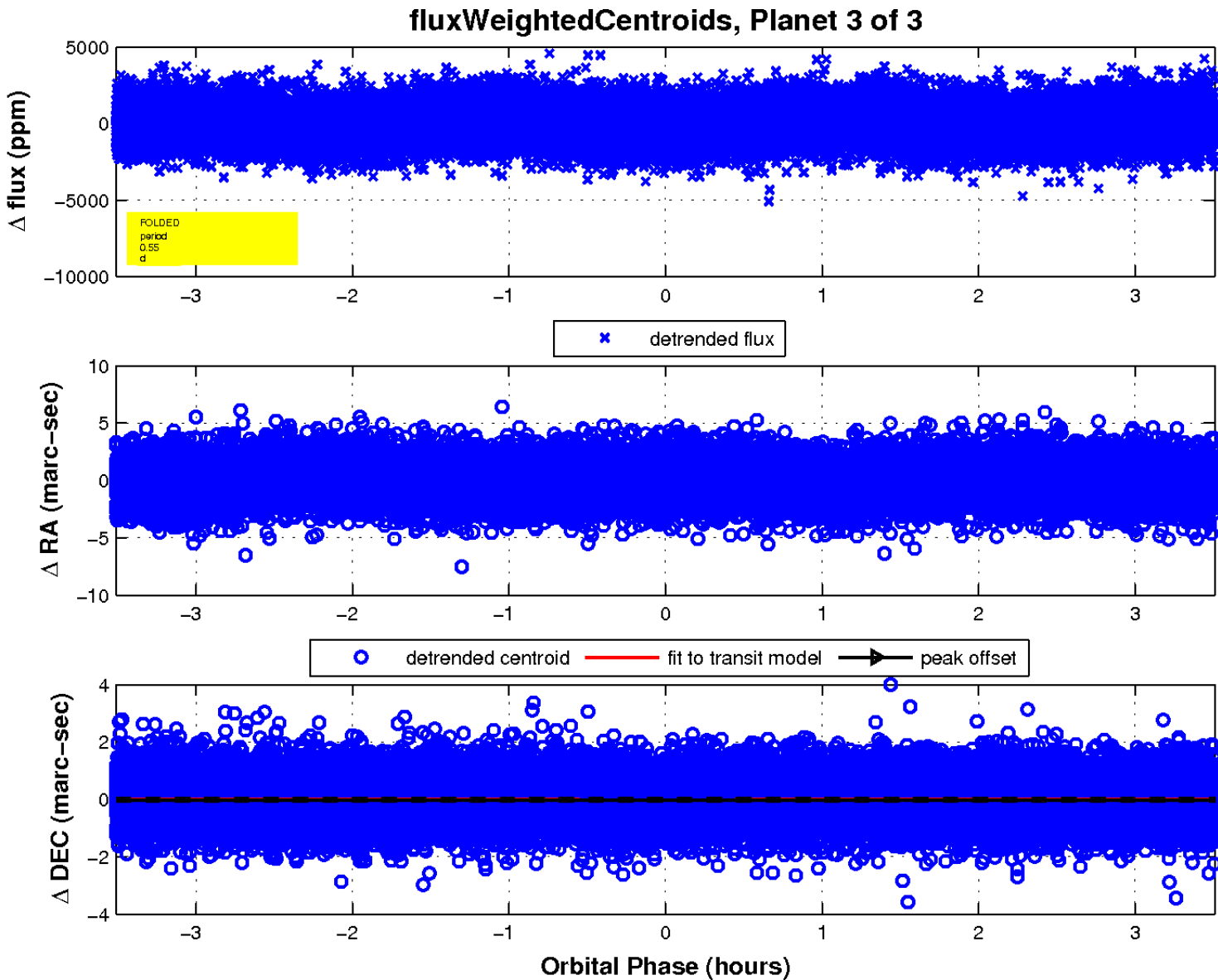
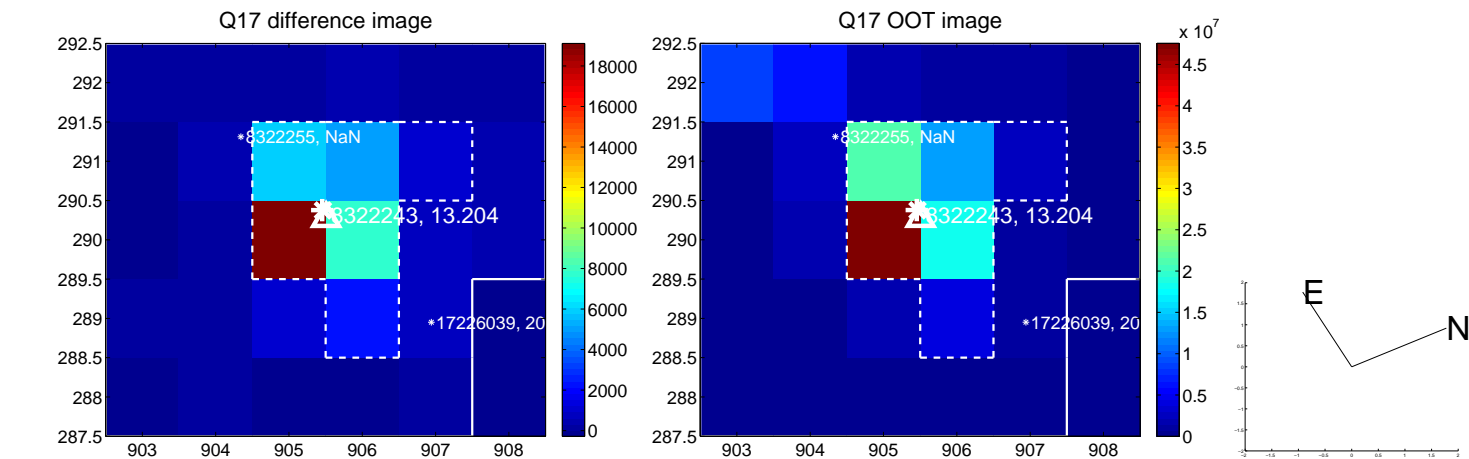
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

