

# KIC 006035335

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006035335-01	OBS	No	0.934692	131.933189	13.3	4.513	8.8	2.7	1.70	7274	0.73	15597.49
006035335-02	OBS	No	0.934358	132.455803	185.4	3.898	12.7	15.1	1.70	7274	4.49	15604.93
006035335-03	OBS	No	0.954467	131.675850	130.1	2.985	10.1	8.0	1.70	7274	2.01	15168.10

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006035335-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
006035335-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD
006035335-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

**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 006035335-01

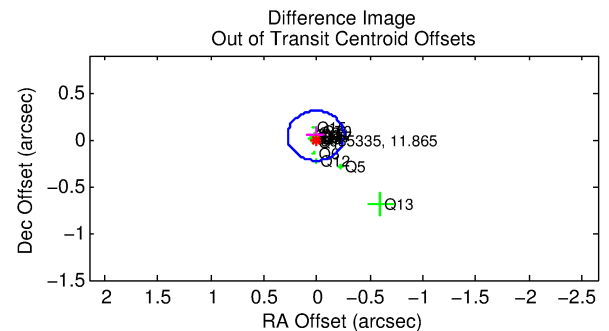
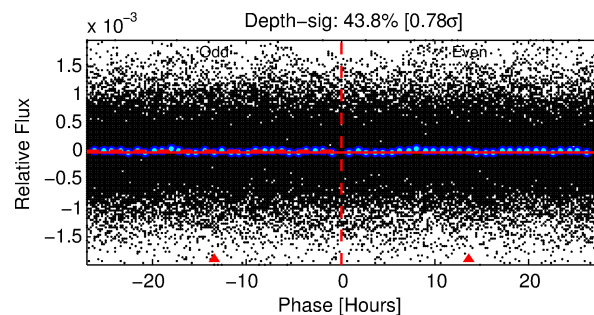
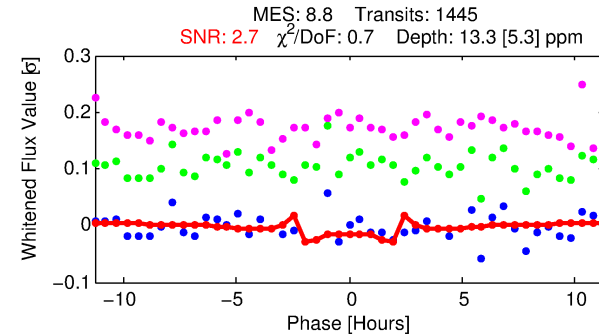
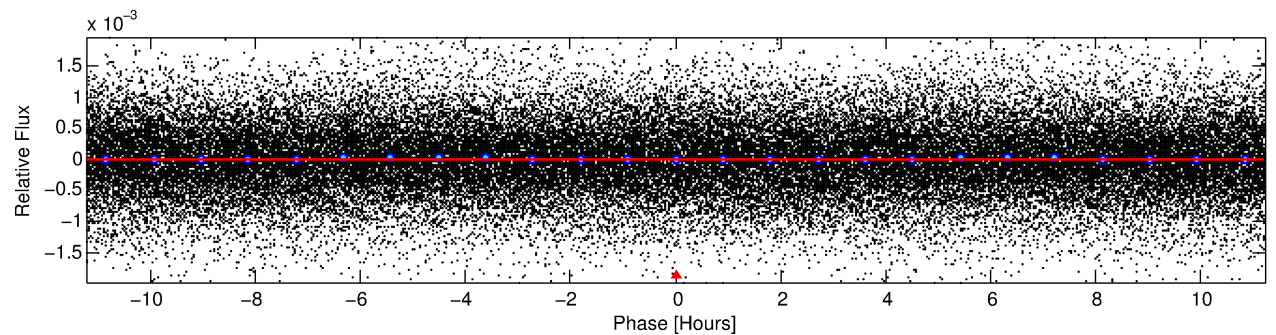
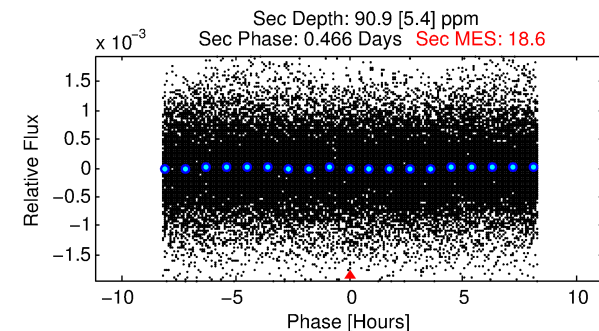
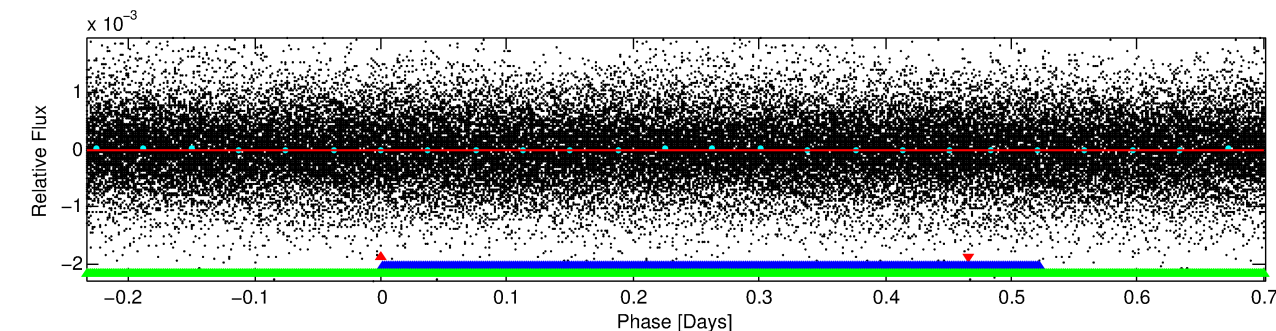
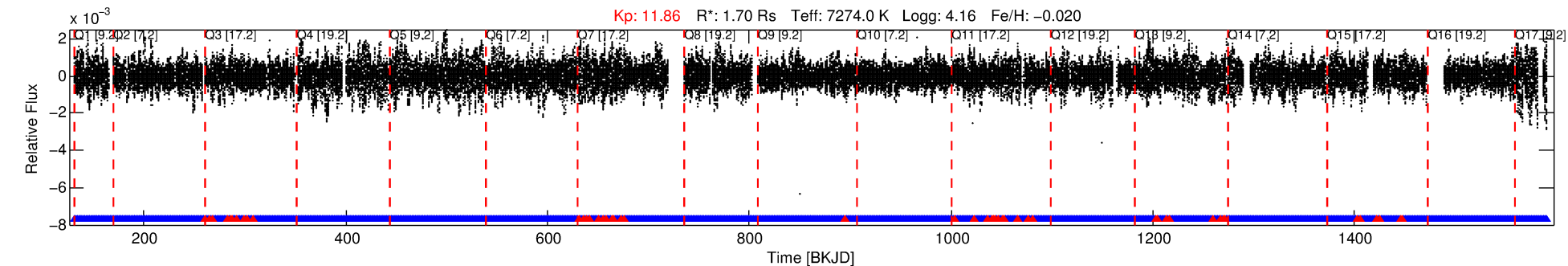
No Significant Match Found

# DV One-Page Summary

KIC: 6035335 Candidate: 1 of 3 Period: 0.935 d

KOI: K06648 Corr: No Ephemeris Match

Kp: 11.86 R\*: 1.70 Rs Teff: 7274.0 K Logg: 4.16 Fe/H: -0.020



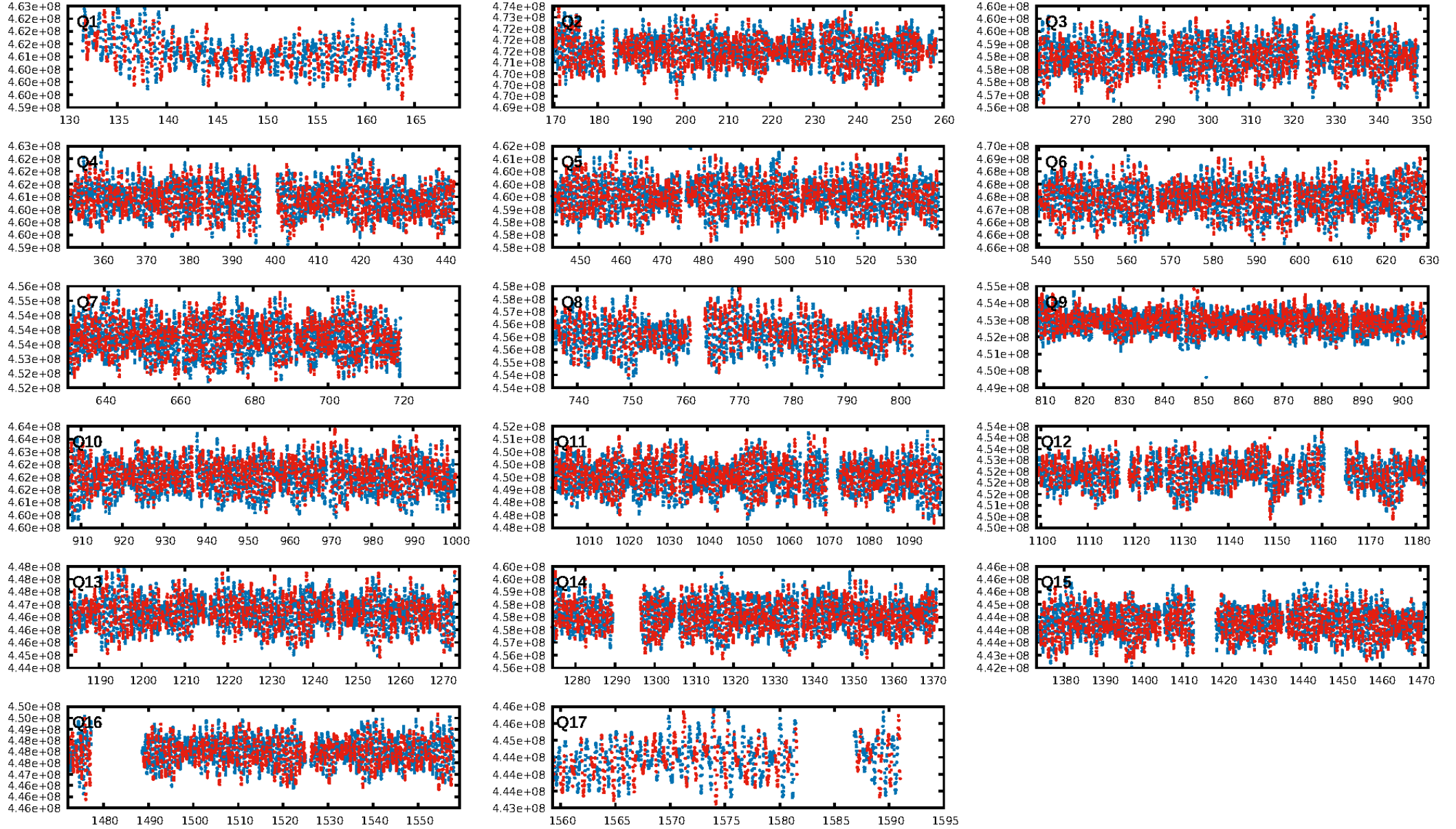
## DV Fit Results:

Period = 0.93469 [0.00004] d  
Epoch = 131.9332 [0.0049] BKJD  
Rp/R\* = 0.0039 [0.0015]  
a/R\* = 1.15 [0.58]  
b = 0.92 [0.37]  
Seff = 15597.49 [6406.00]  
Teq = 2850 [293] K  
Rp = 0.73 [0.36] Re  
a = 0.0215 [0.0057] AU  
Ag = 43.97 [37.88] [1.13σ]  
Teffp = 11345 [2249] K [3.75σ]

## DV Diagnostic Results:

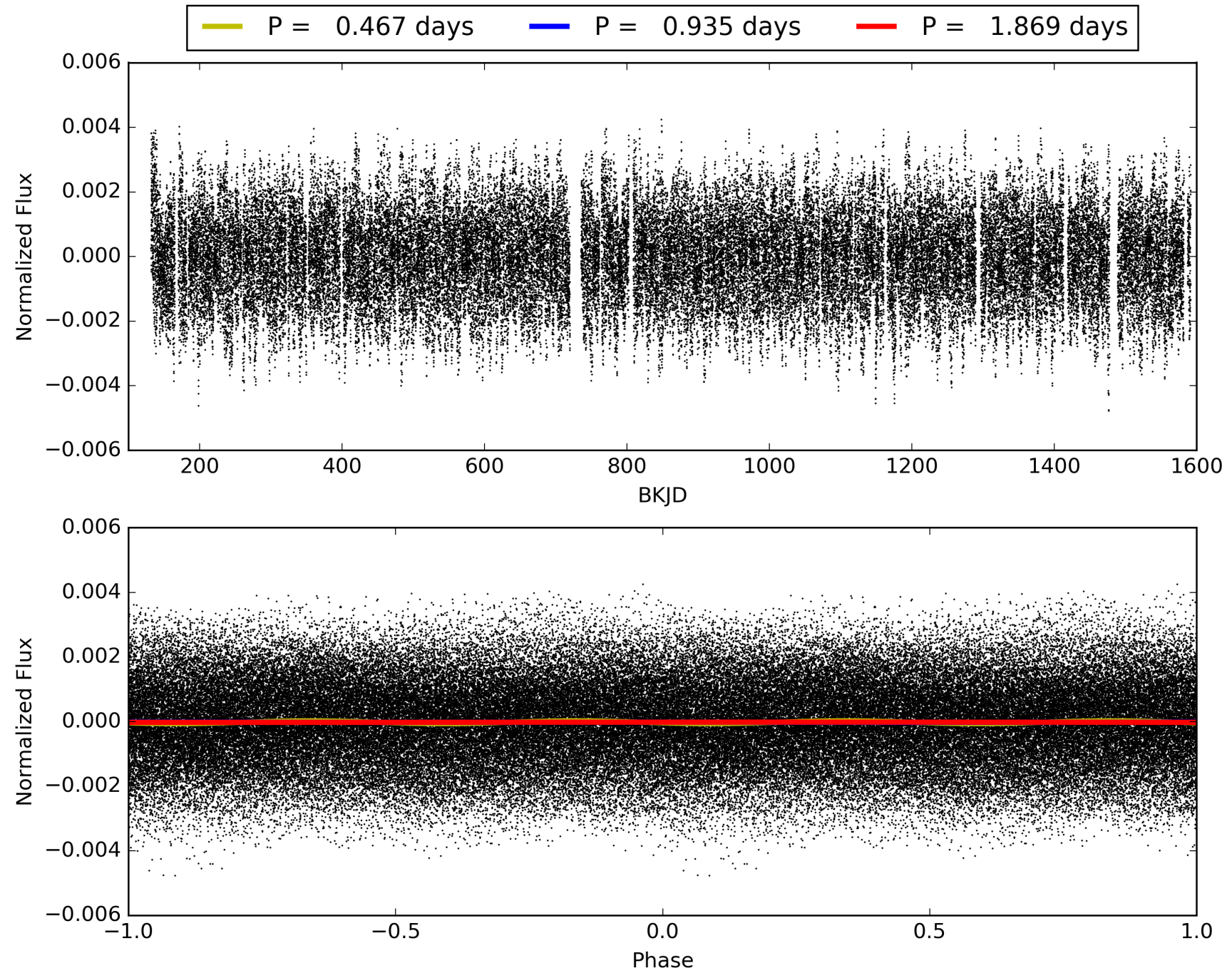
ShortPeriod-sig: 0.1% [0.00σ]  
LongPeriod-sig: 7.0% [0.09σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.96 [1326/1379]  
GhostDiagnostic-chr: 5.927  
Centroid-sig: 2.1%  
Centroid-so: 0.689 arcsec [1.18σ]  
OotOffset-rm: 0.044 arcsec [0.50σ]  
KicOffset-rm: 0.180 arcsec [2.07σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.59 [10/17]  
DiffImageOverlap-fno: 0.00 [0/17]

# TCE 006035335-01, PDC Light Curves





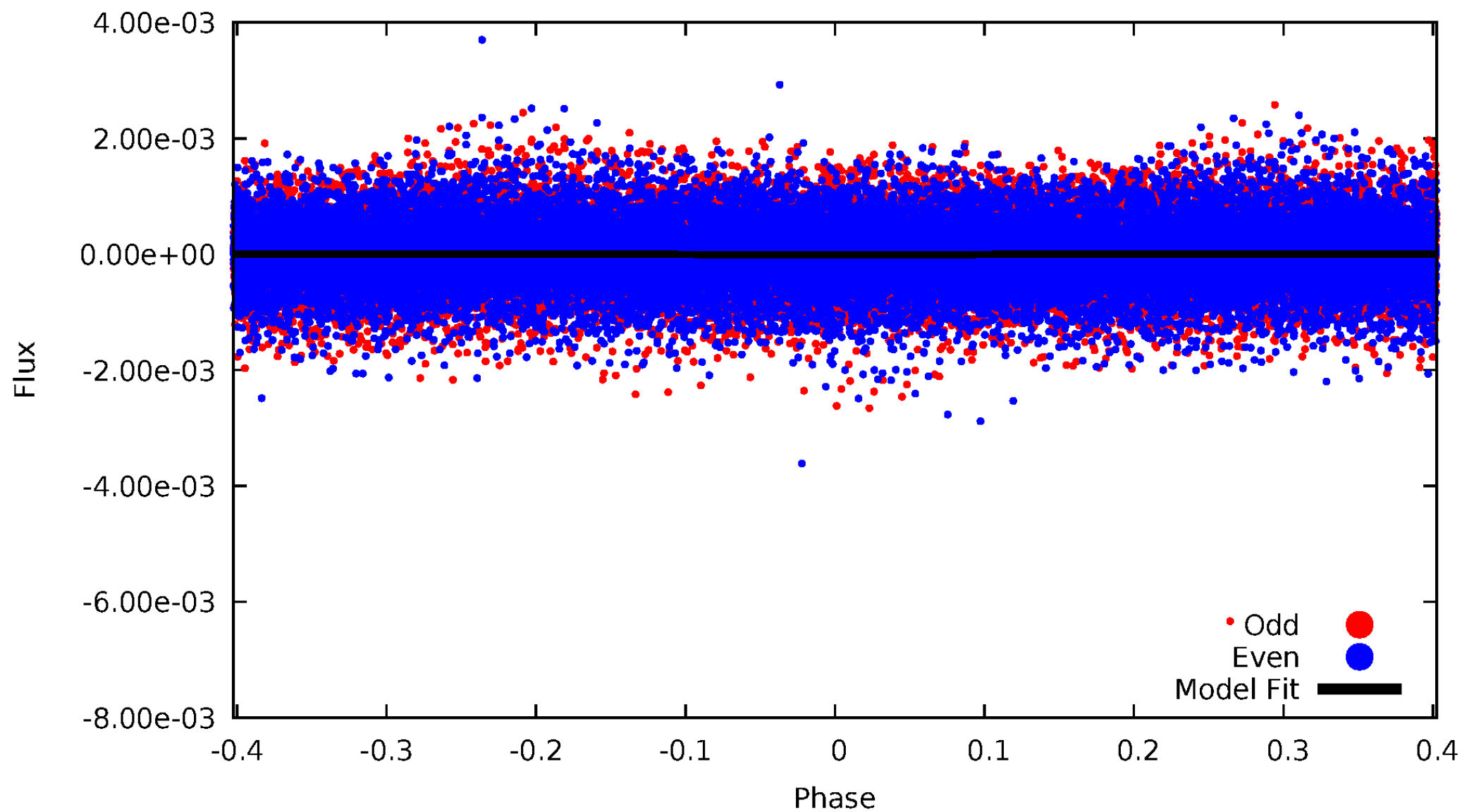
TCE 006035335-01





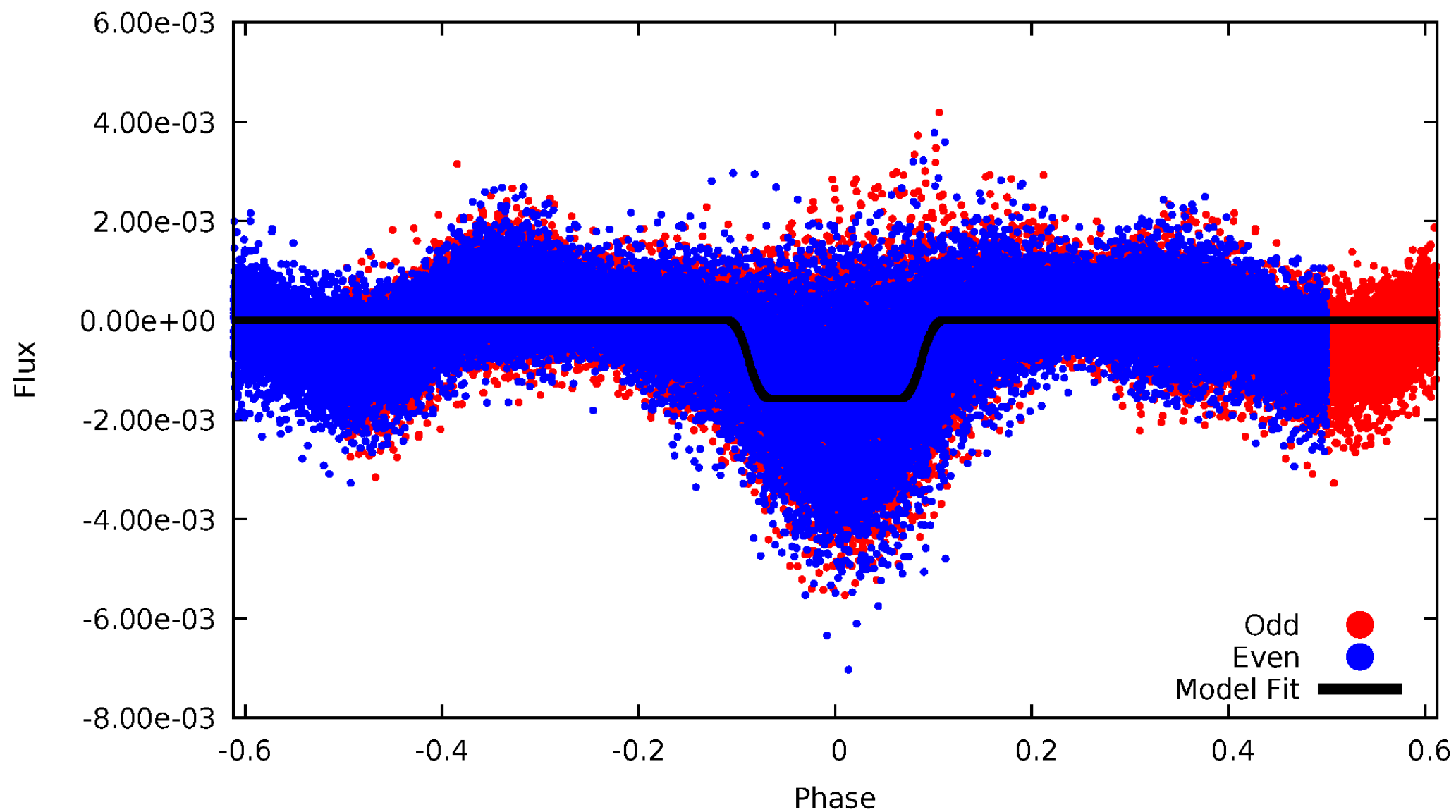
# DV Odd/Even

TCE 006035335-01



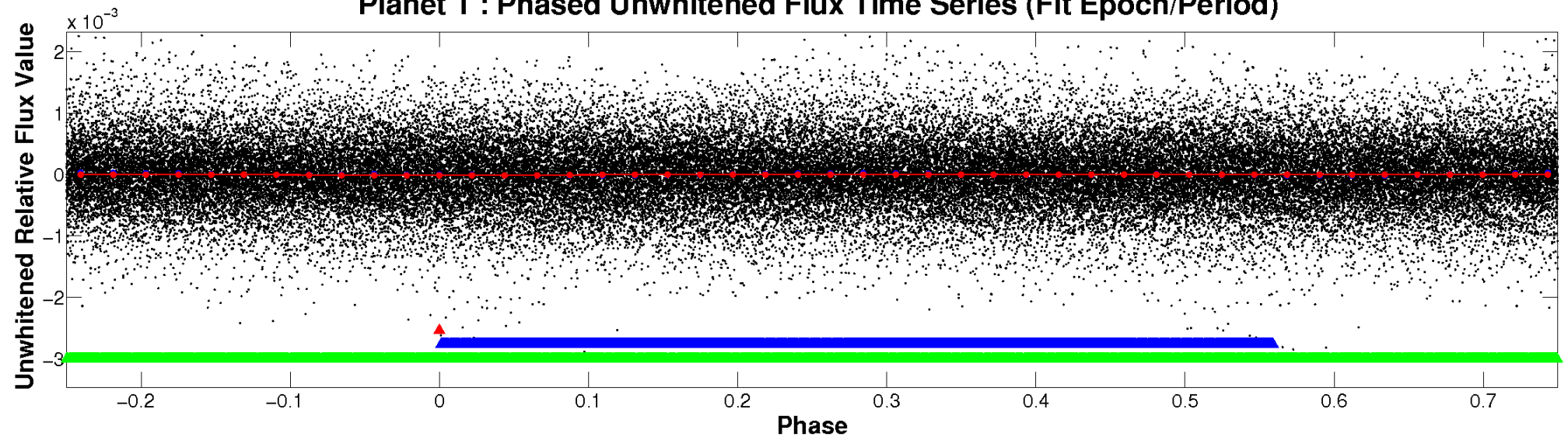
# ALT Odd/Even

TCE 006035335-01

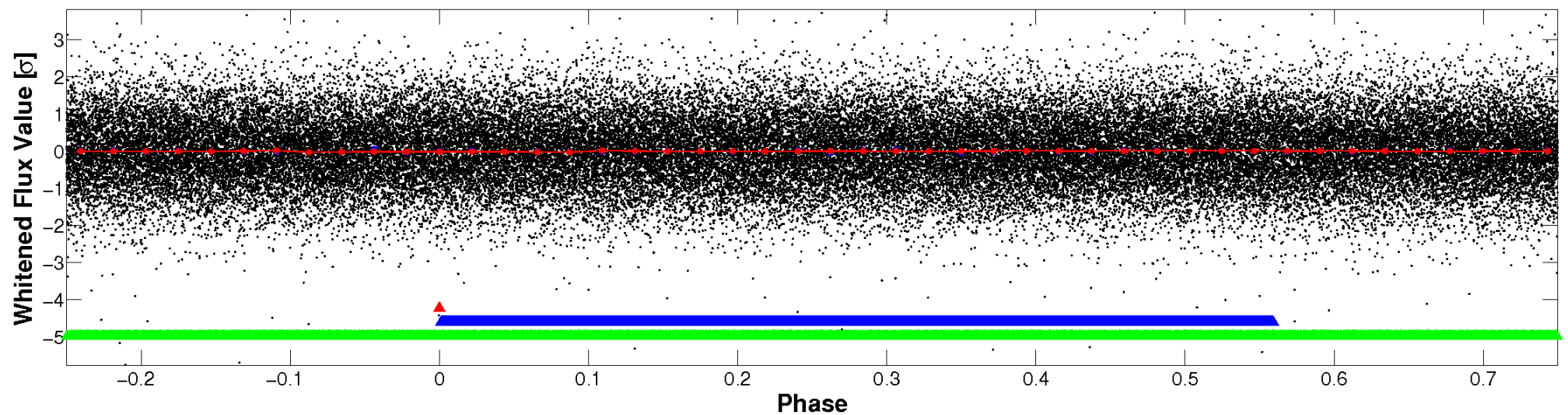


# Non-Whitened Vs. Whitened Light Curve

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



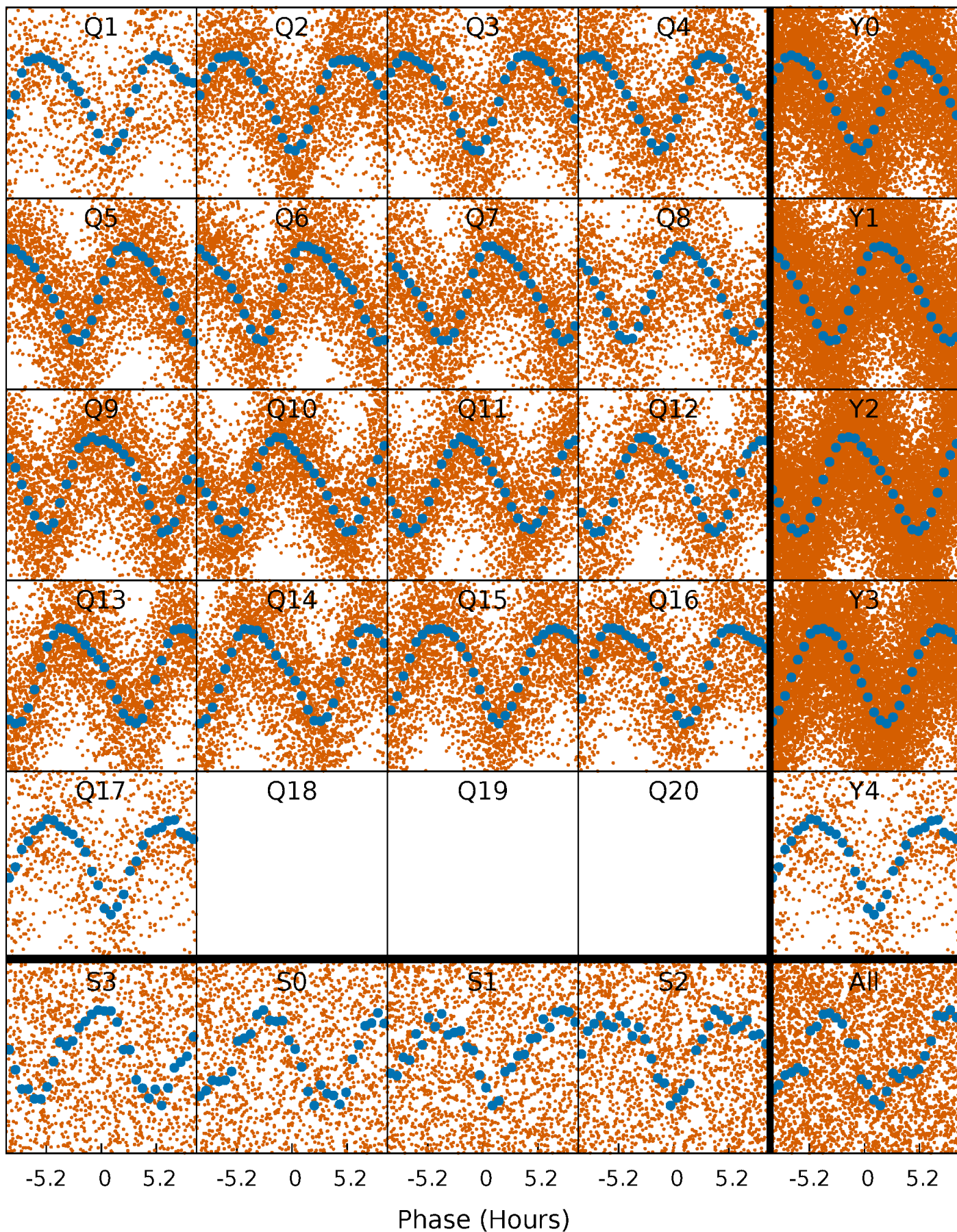
## Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)





# PDC Quarter-Phased Transit Curves

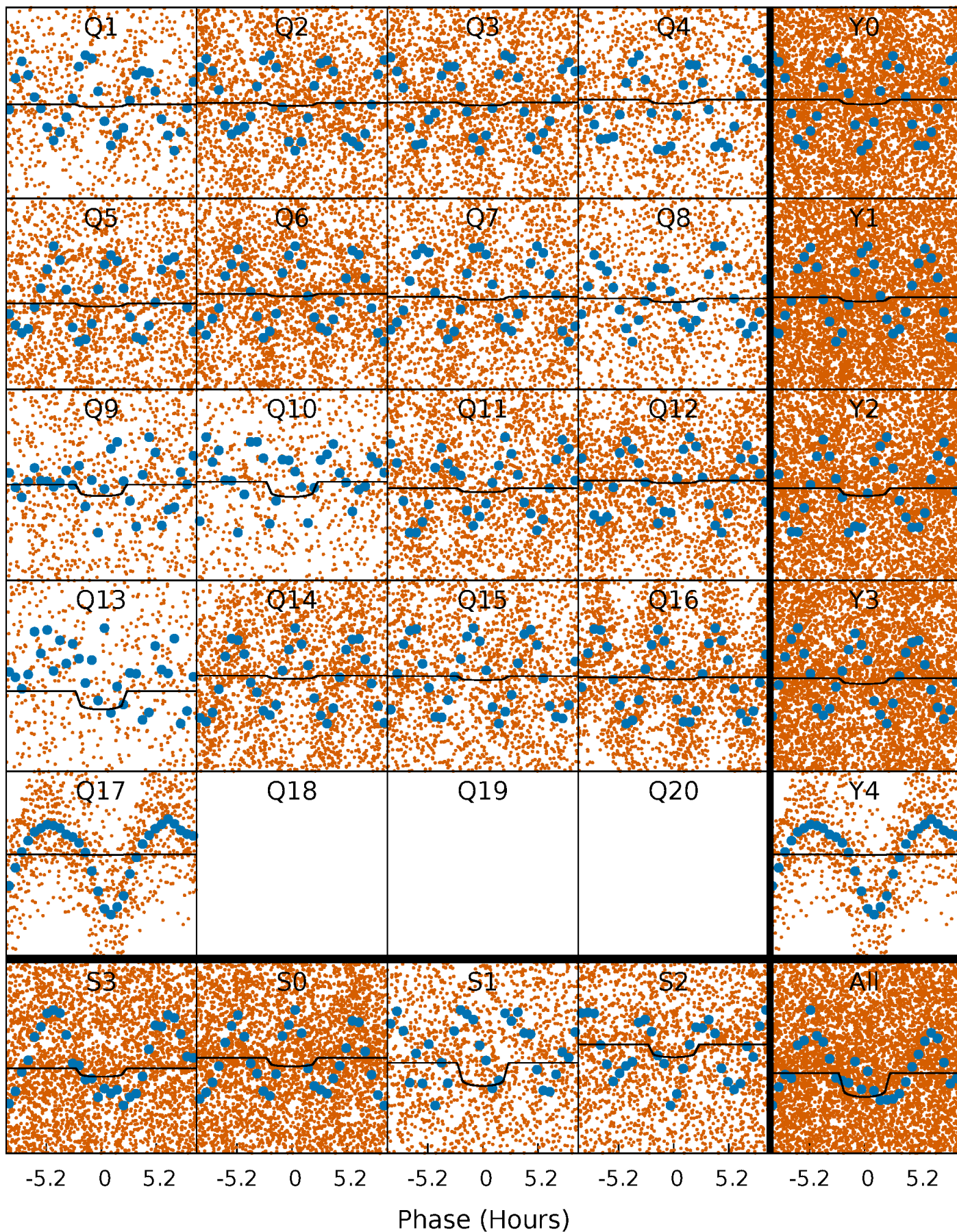
TCE 006035335-01 P= 0.934692 Days  $T_0=131.933189$  (BKJD)





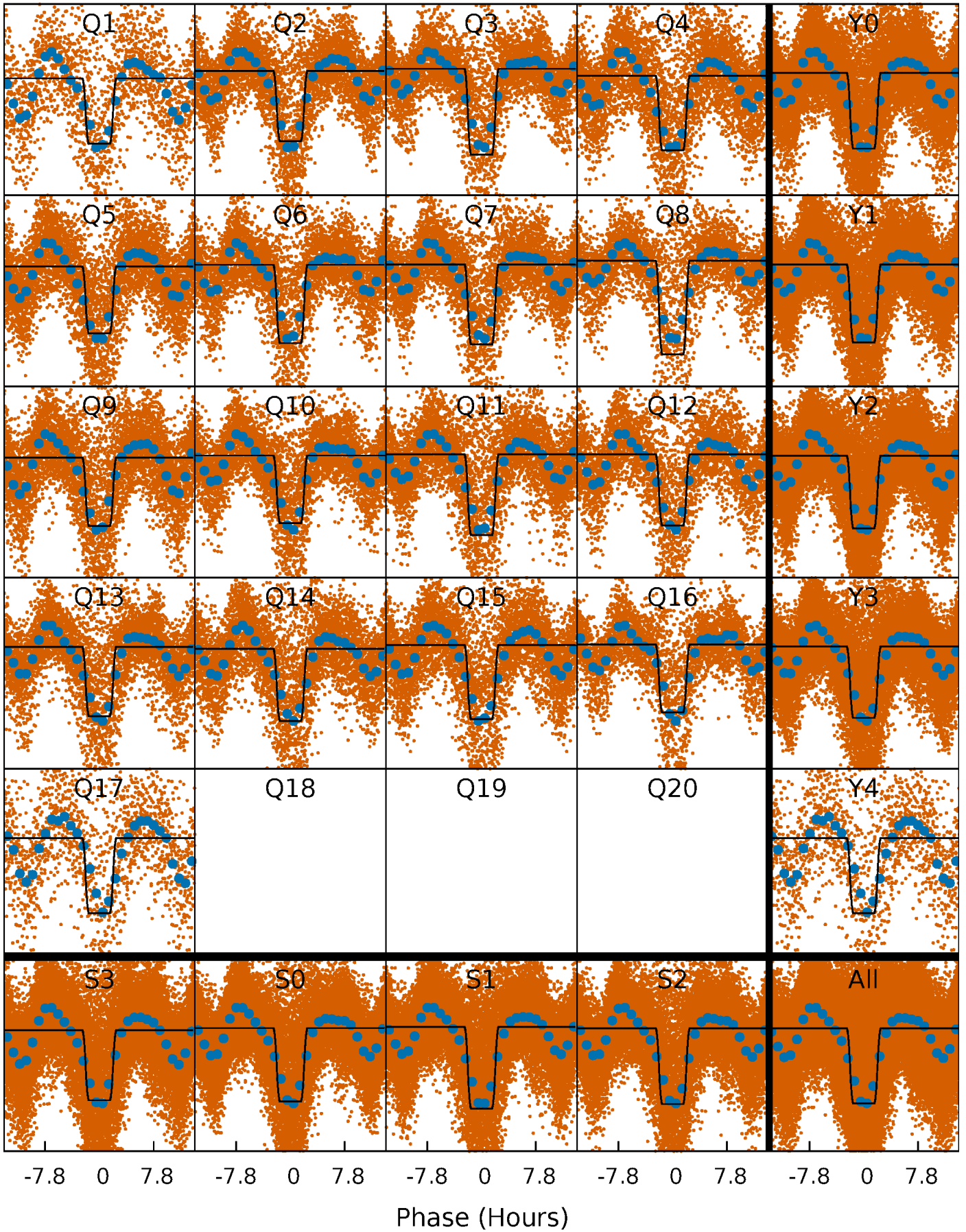
# DV Quarter-Phased Transit Curves

TCE 006035335-01 P= 0.934692 Days  $T_0=131.933189$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 006035335-01 P= 0.934372 Days  $T_0=131.971403$  (BKJD)

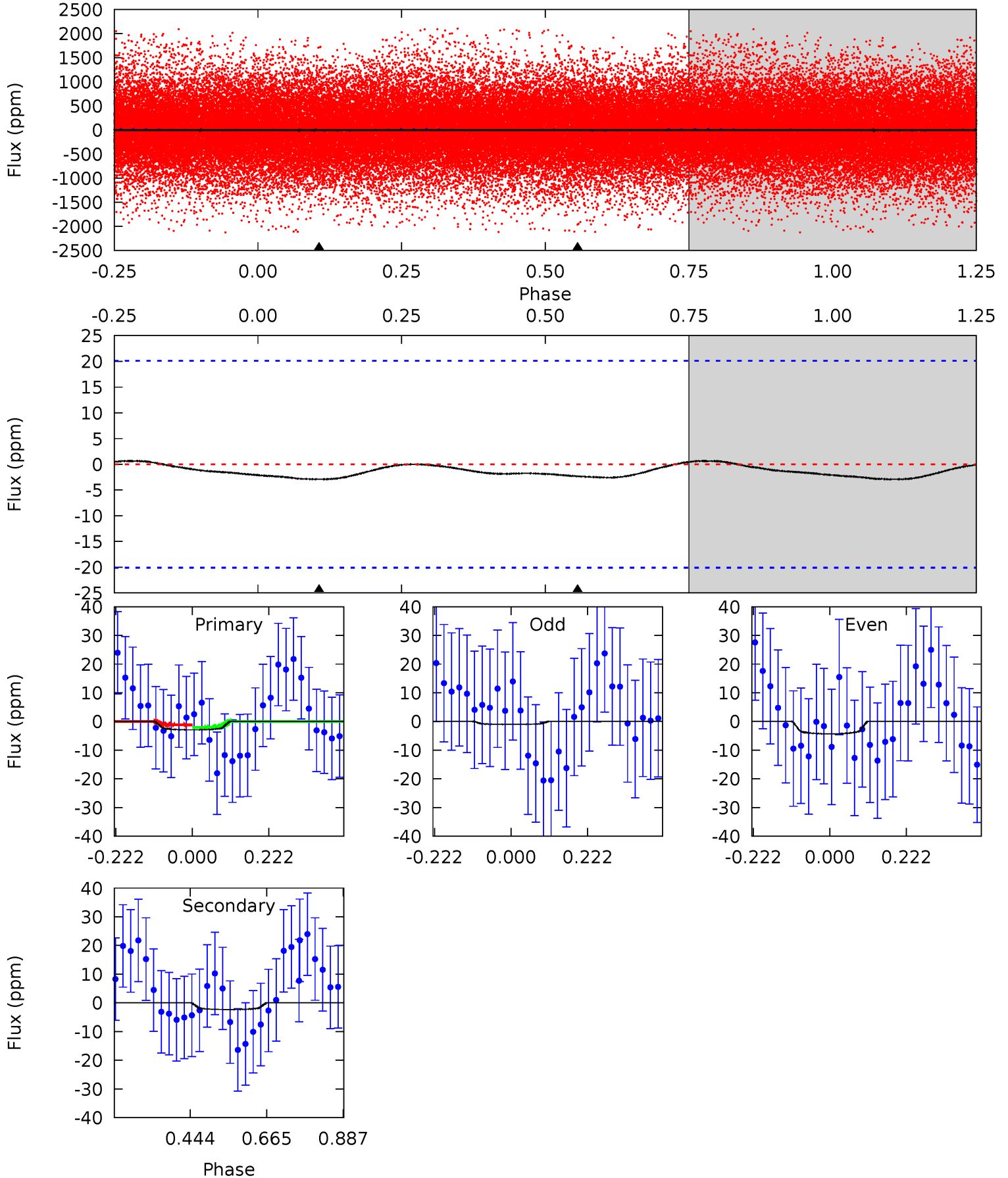




# DV Model-Shift Uniqueness Test

006035335-01, P = 0.934692 Days, E = 130.998497 Days

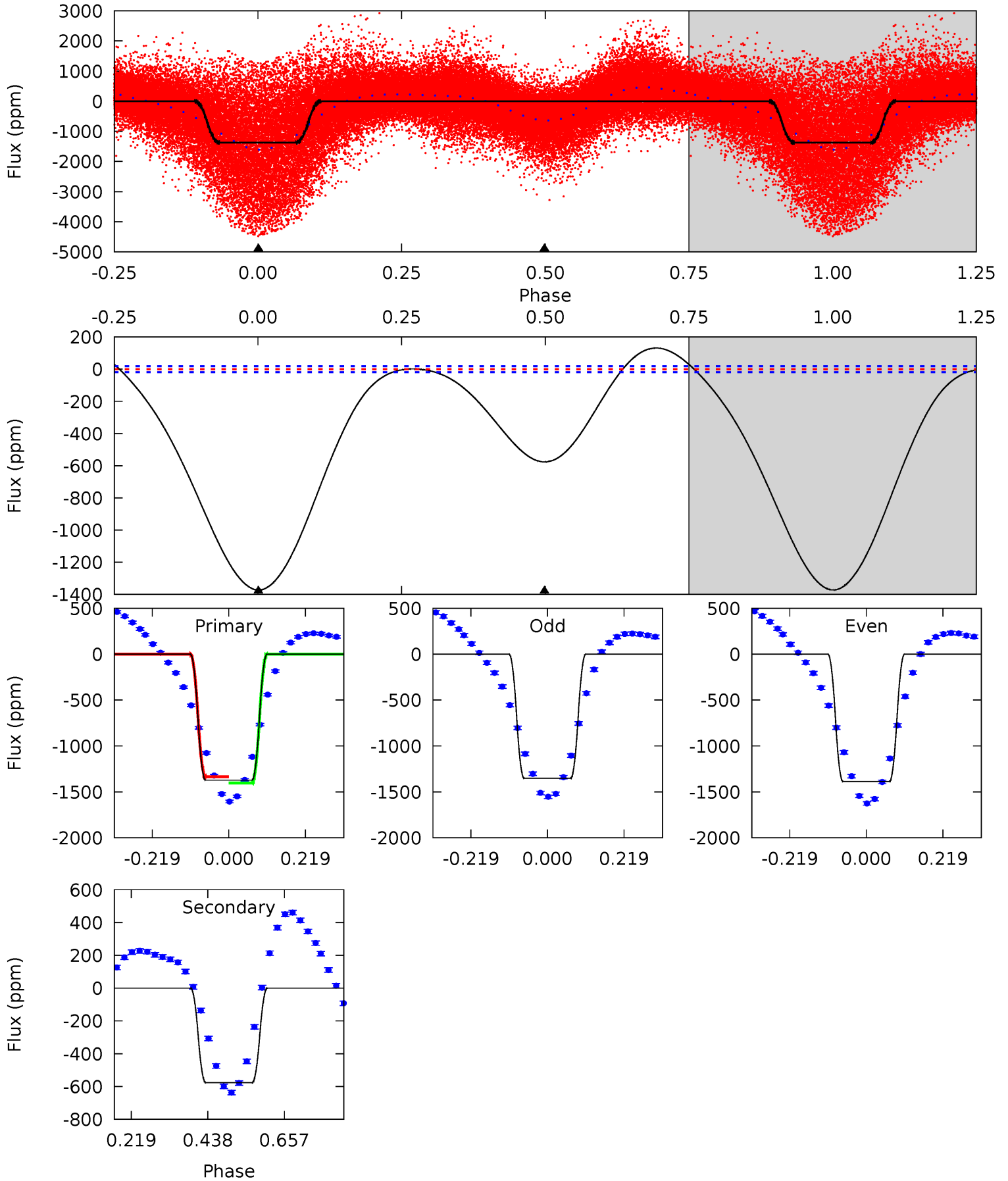
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.64	0.51	0	0	4.39	1.22	0.12	0.64	0.64	0.51	0.51	0.36	0.61	0.18	0.10



# Alt Model-Shift Uniqueness Test

006035335-01, P = 0.934372 Days, E = 131.037031 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
324.7	136.4	0	0	4.40	1.23	10.9	324.7	324.7	136.4	136.4	4.04	1.03	0.09	7.96



### Stellar Parameters For KIC 006035335

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7274^{+201}_{-302}$	$4.161^{+0.109}_{-0.202}$	$-0.020^{+0.200}_{-0.350}$	$1.698^{+0.540}_{-0.332}$	$1.523^{+0.221}_{-0.221}$	$0.438^{+0.262}_{-0.221}$
	+3%/-4%	+3%/-5%	+1000%/-1750%	+32%/-20%	+15%/-15%	+60%/-50%
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 006035335-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-2 \pm 5$	$0.74^{+0.32}_{-0.28}$	$4027^{+297}_{-265}$	$4180^{+2077}_{-9146}$	$0.916^{+3.419}_{-1.956}$
Alt.	$-576 \pm 4$	$7.53^{+1.33}_{-0.91}$	$4024^{+337}_{-249}$	$5440^{+173}_{-212}$	$2.570^{+0.626}_{-0.663}$

$T_{max}$  = 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

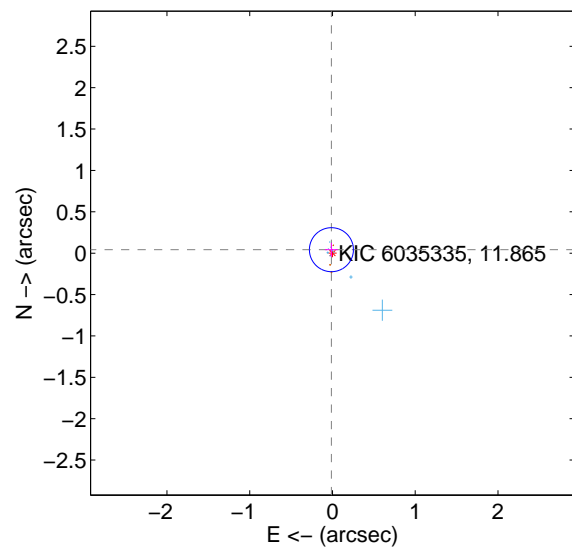
Supplemental centroid analysis for 006035335-01. **Kepler magnitude: 11.87.** Transit SNR 2.71

There are 10 quarters with good PRF difference image offsets

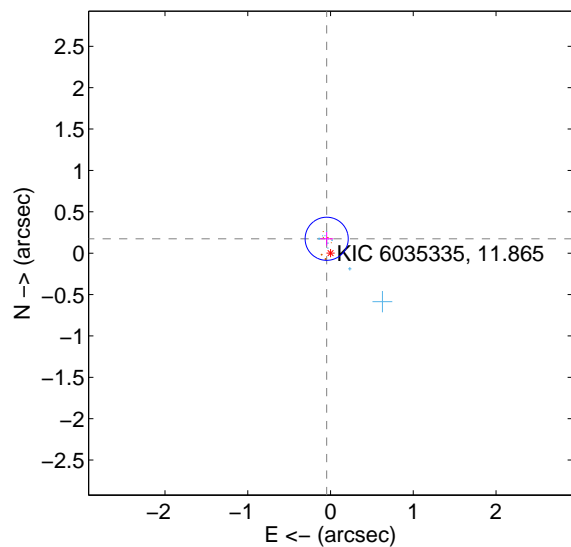
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.044 \pm 0.089$	0.50	$0.013 \pm 0.078$	$0.042 \pm 0.083$
PRF-fit source offset from KIC position	$0.180 \pm 0.087$	2.07	$0.046 \pm 0.078$	$0.174 \pm 0.082$
photometric centroid source offset	$0.69 \pm 0.58$	1.18	$-0.12 \pm 0.59$	$-0.68 \pm 0.58$

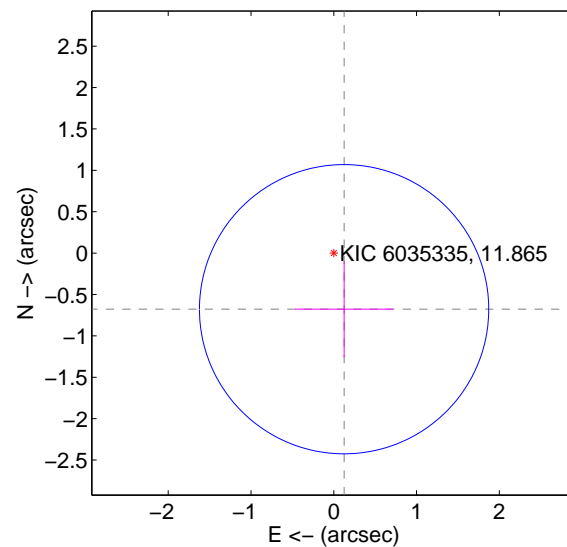
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

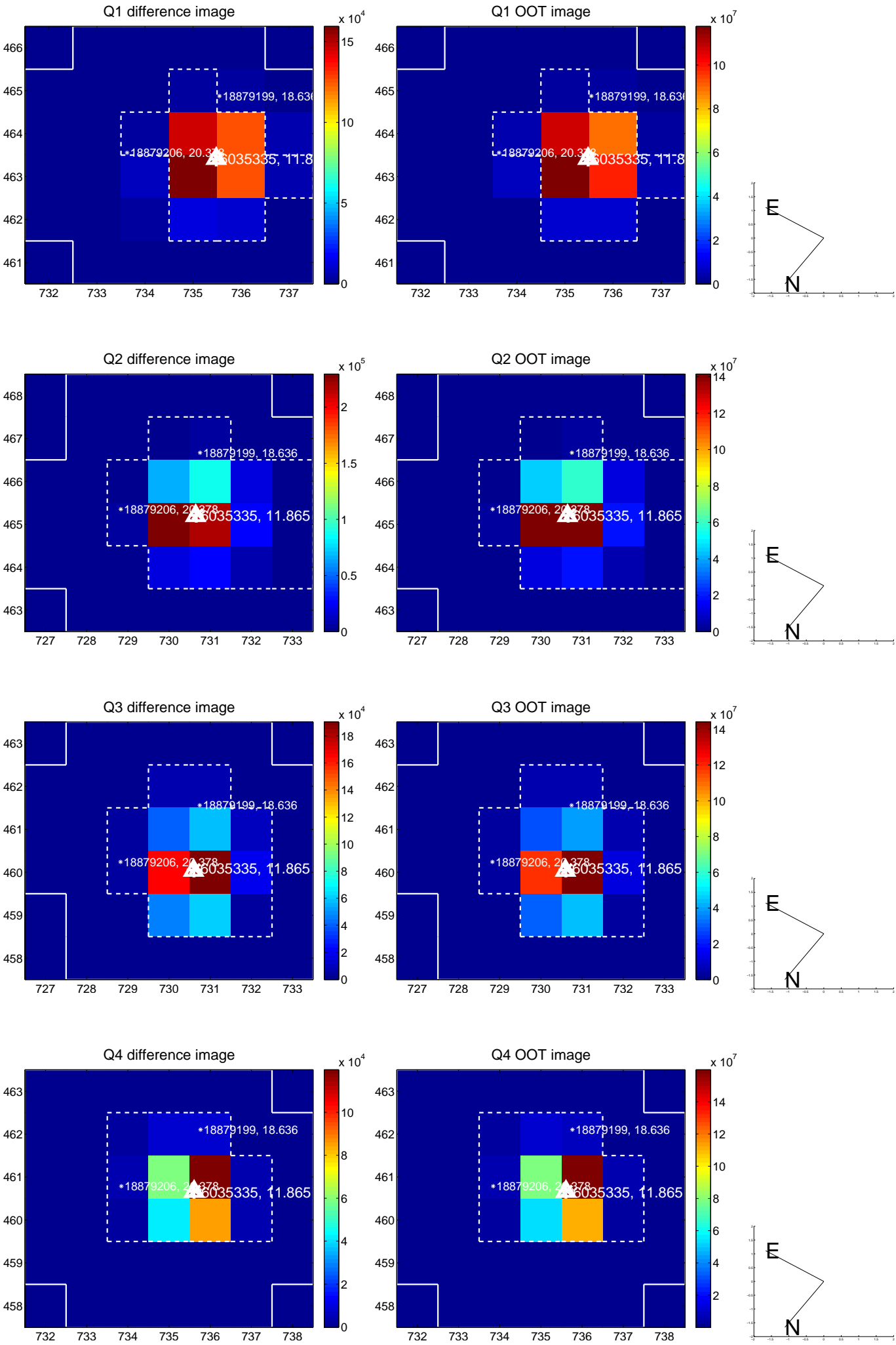


offset from photometric centroids

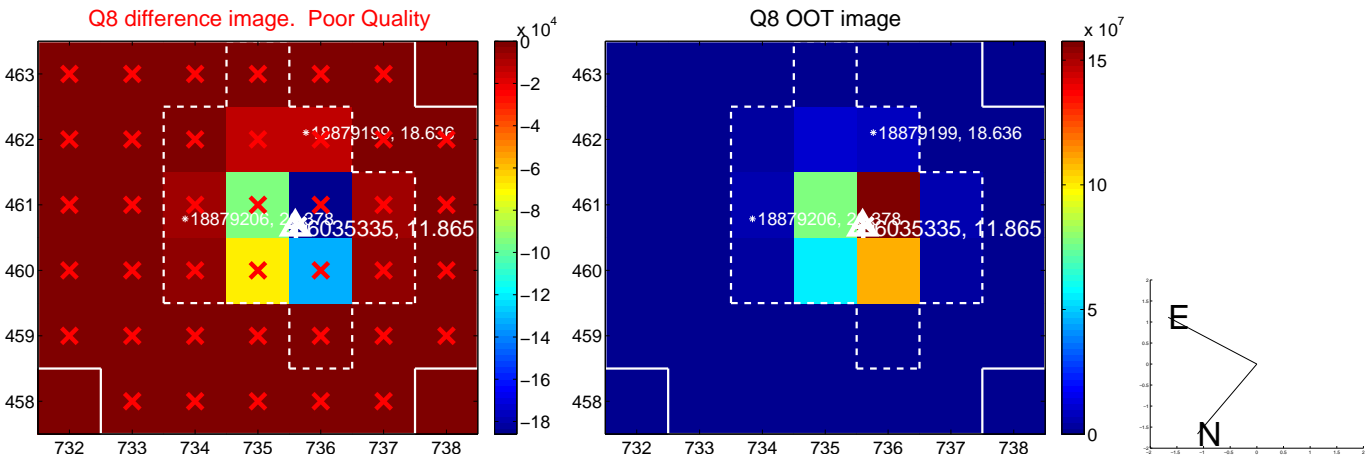
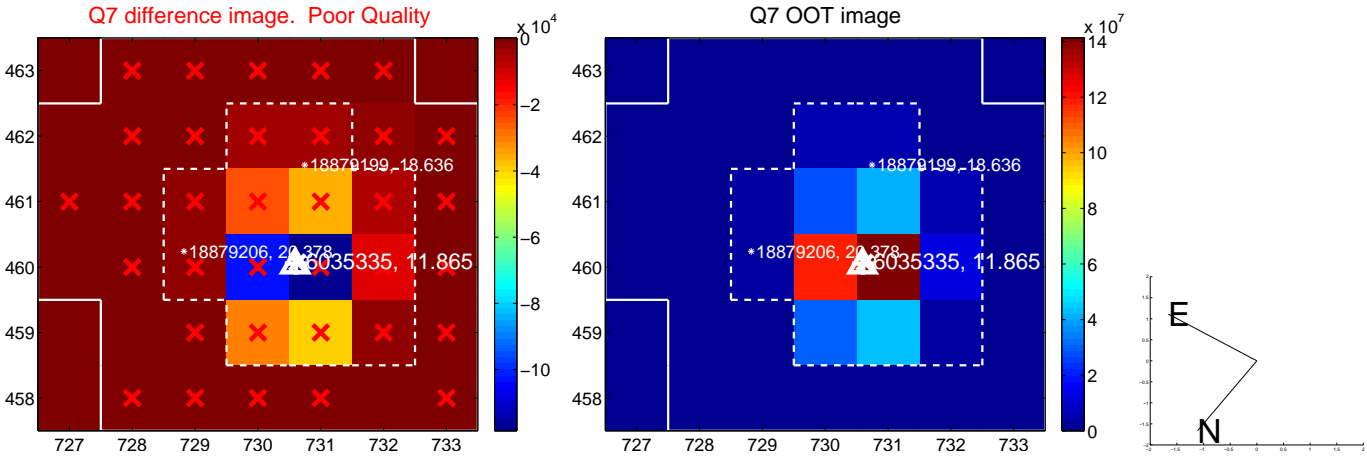
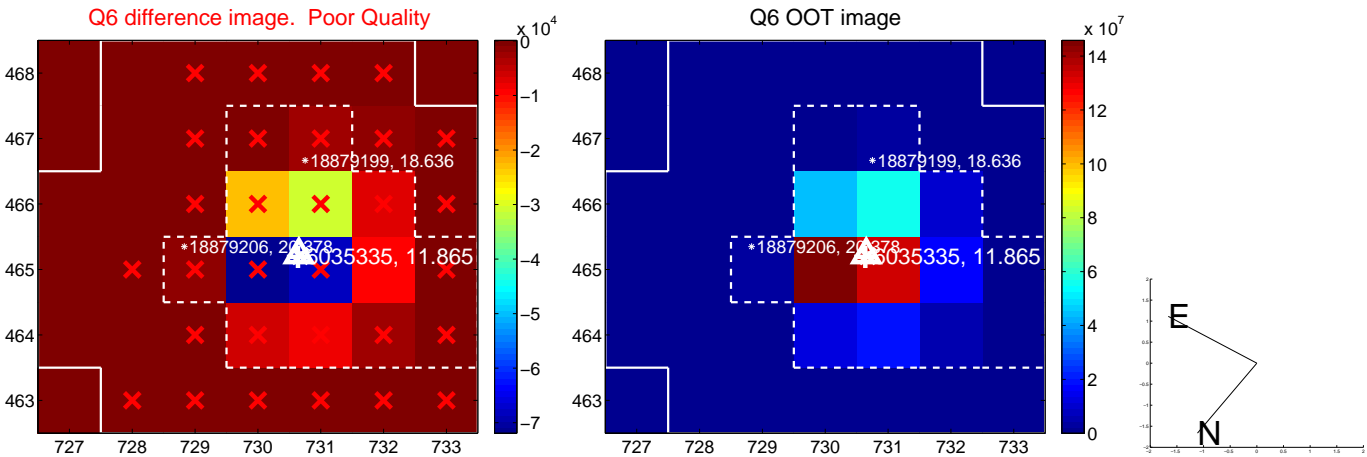
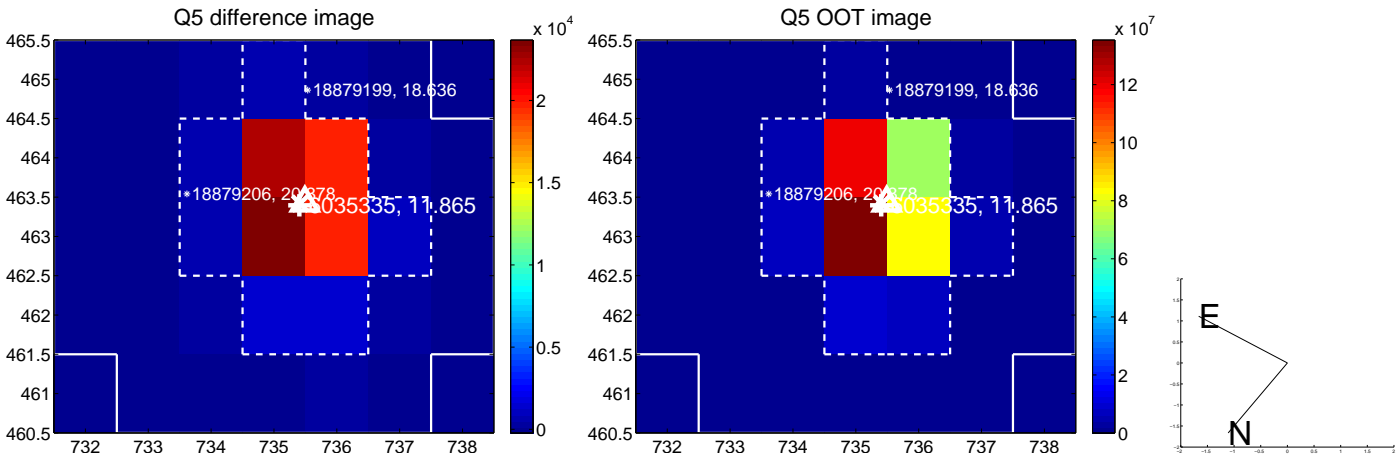


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

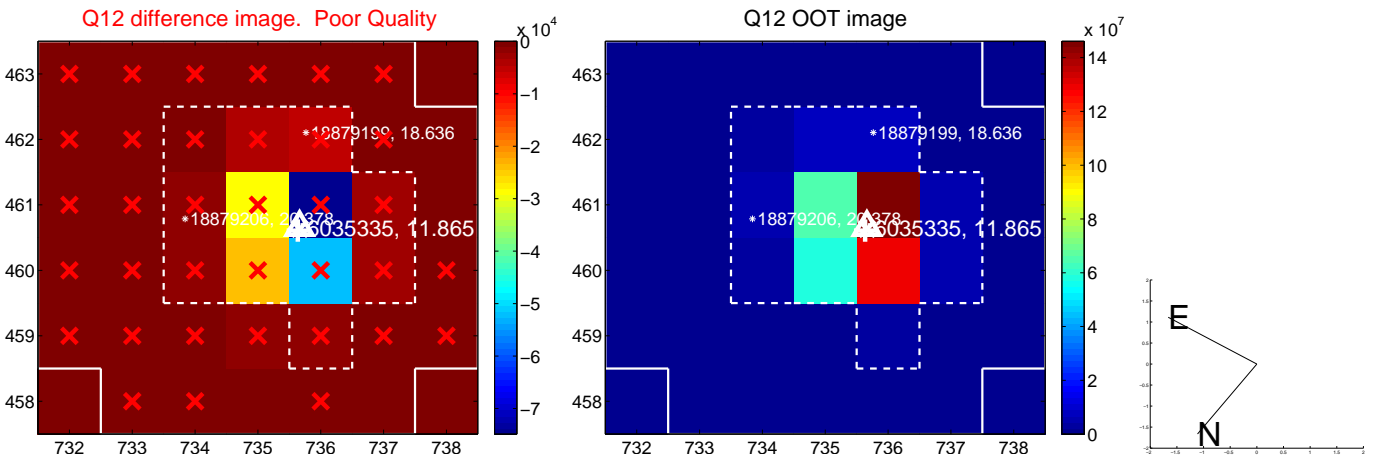
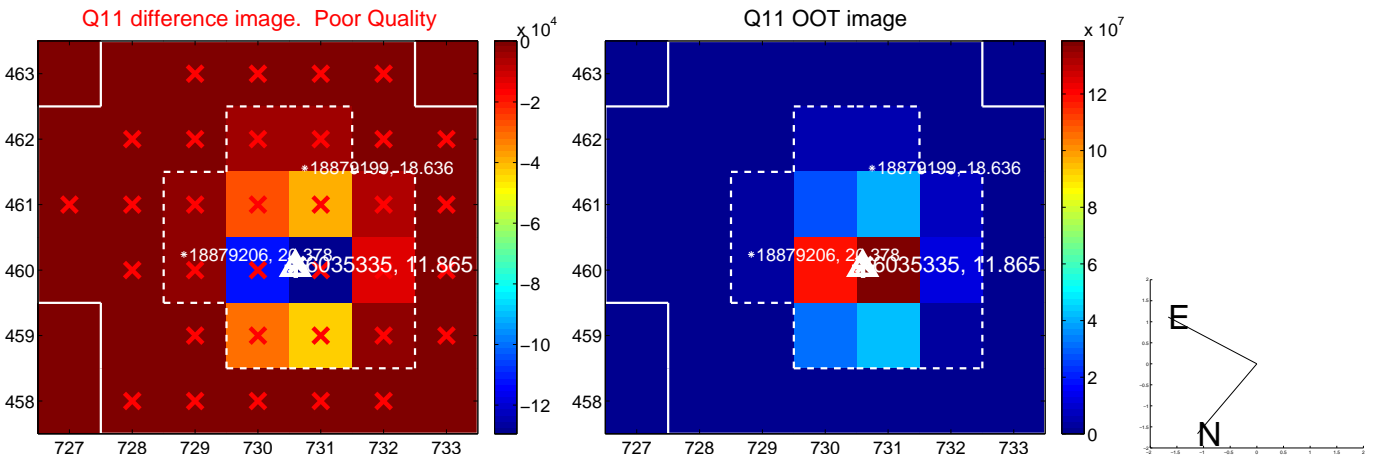
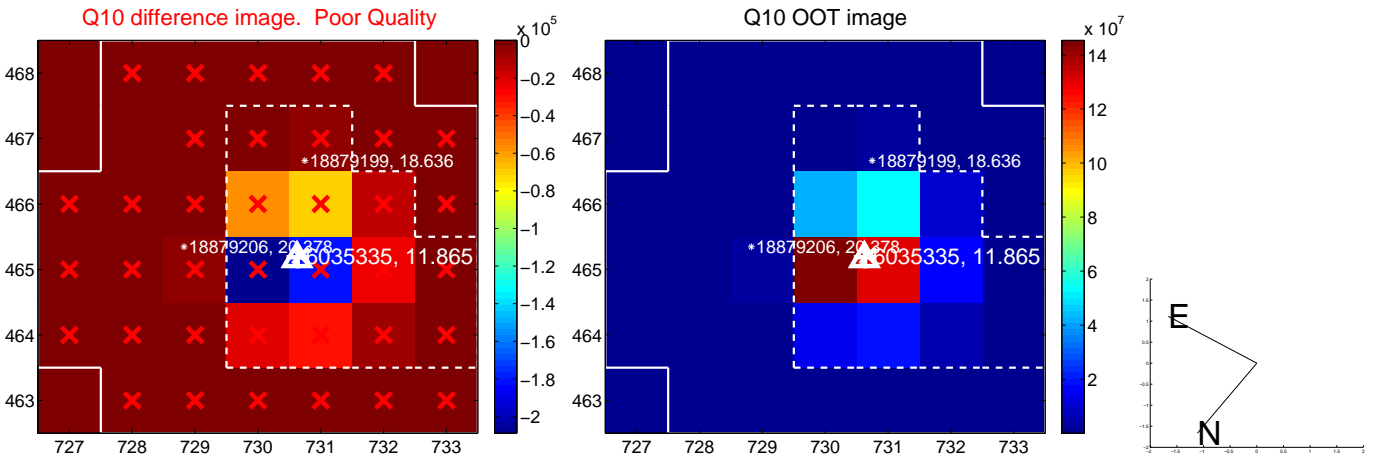
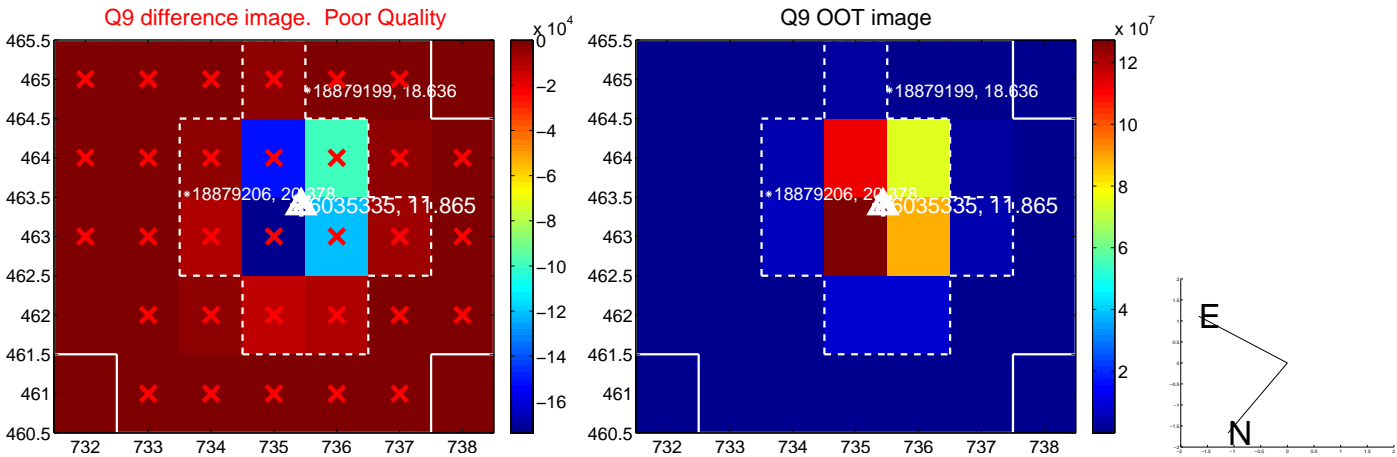


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

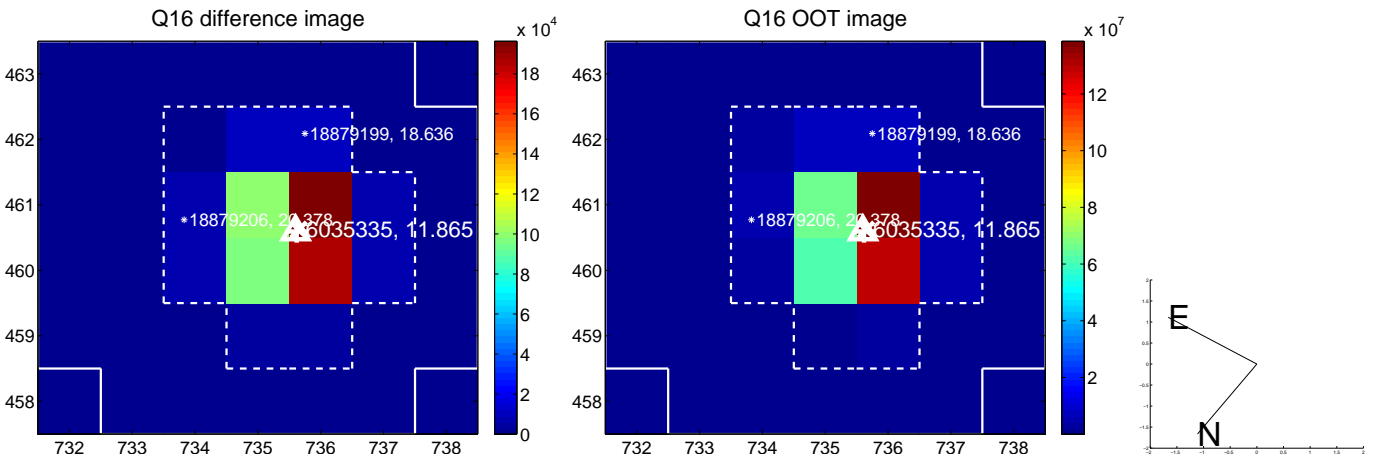
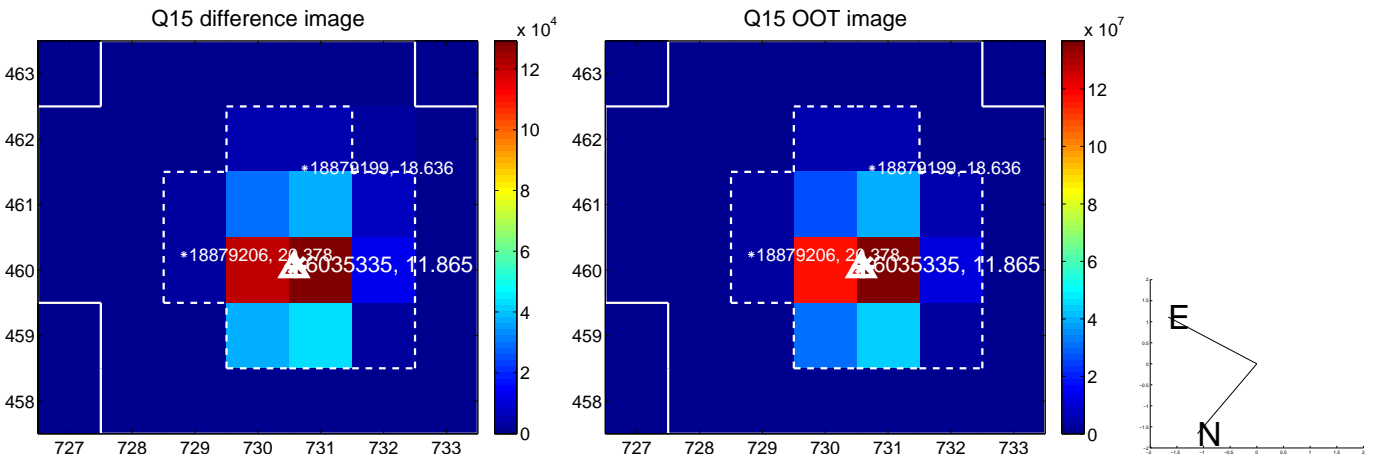
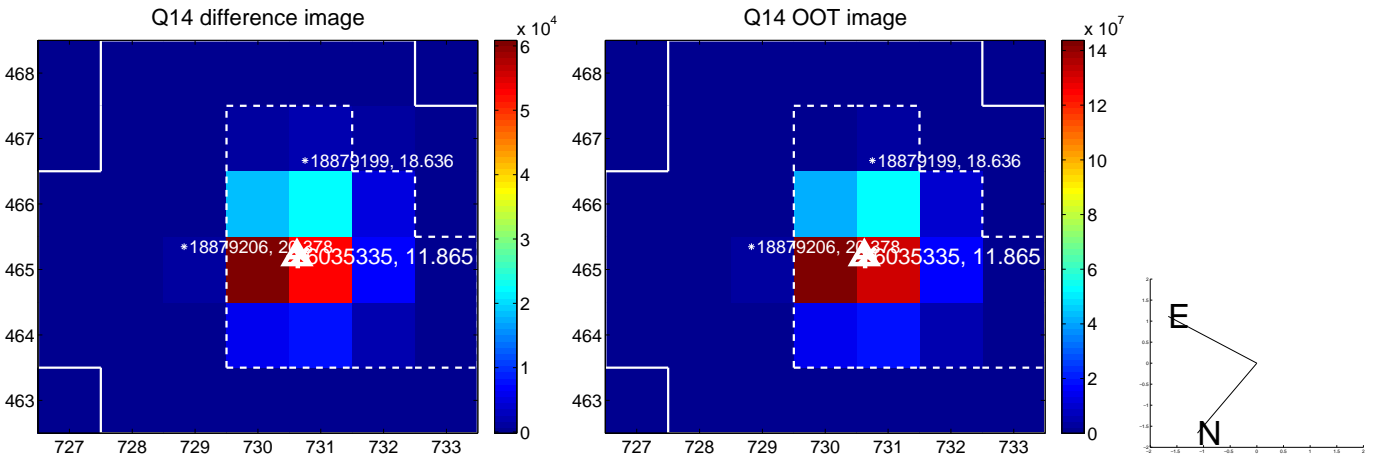
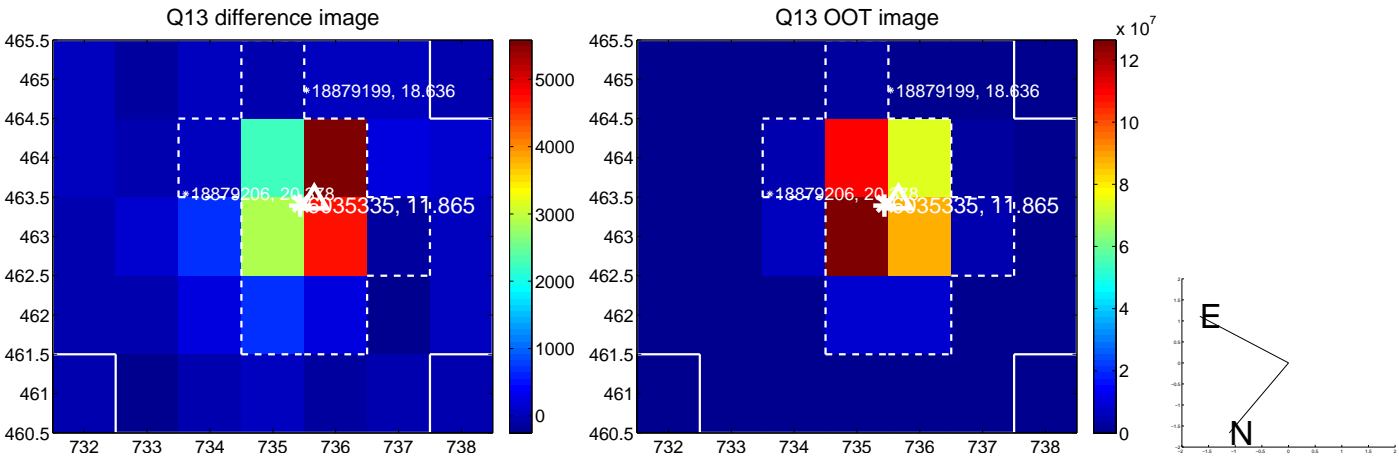




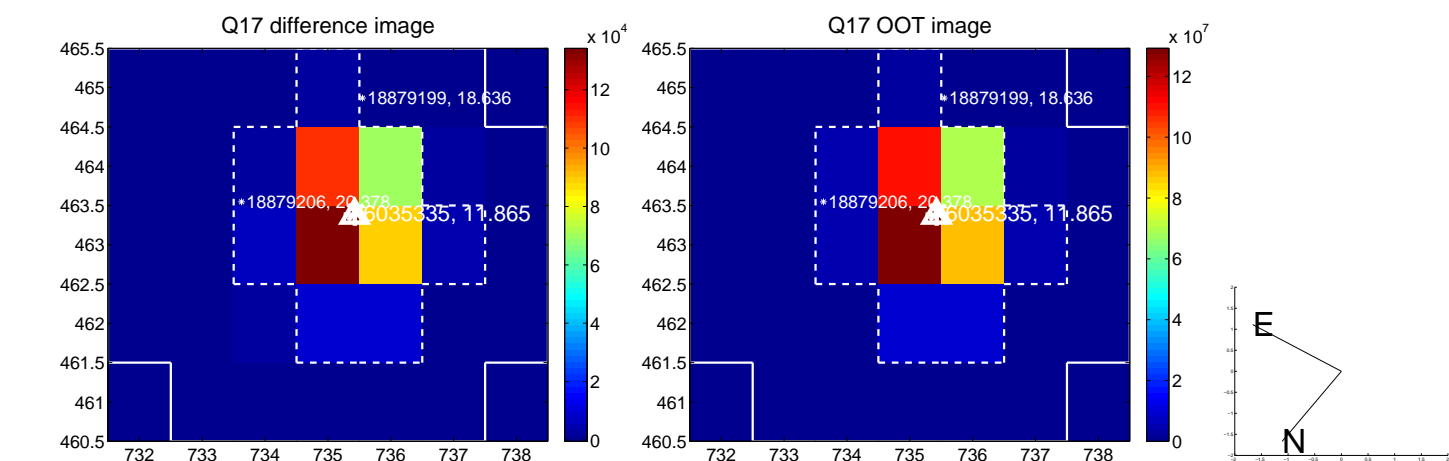
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



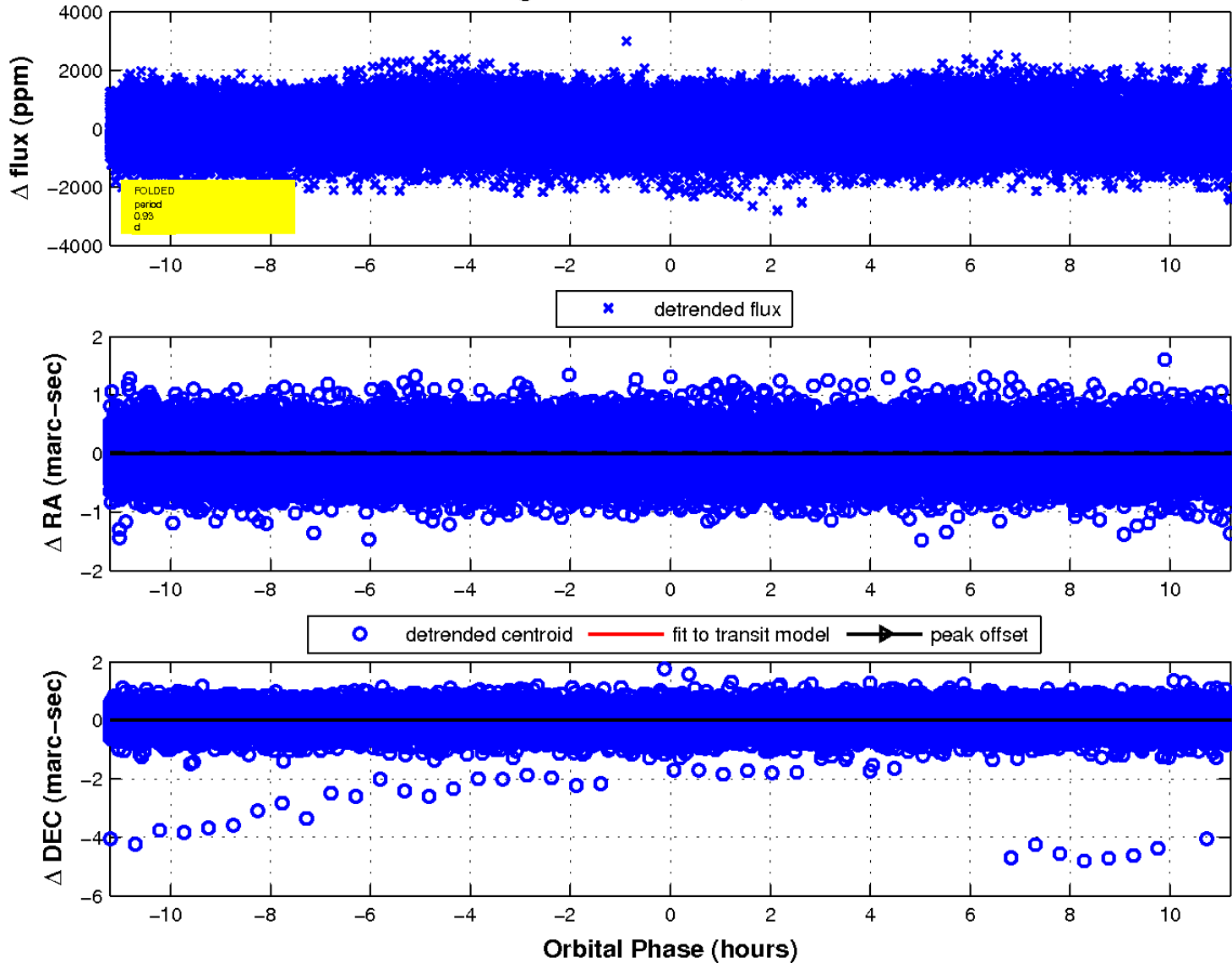
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

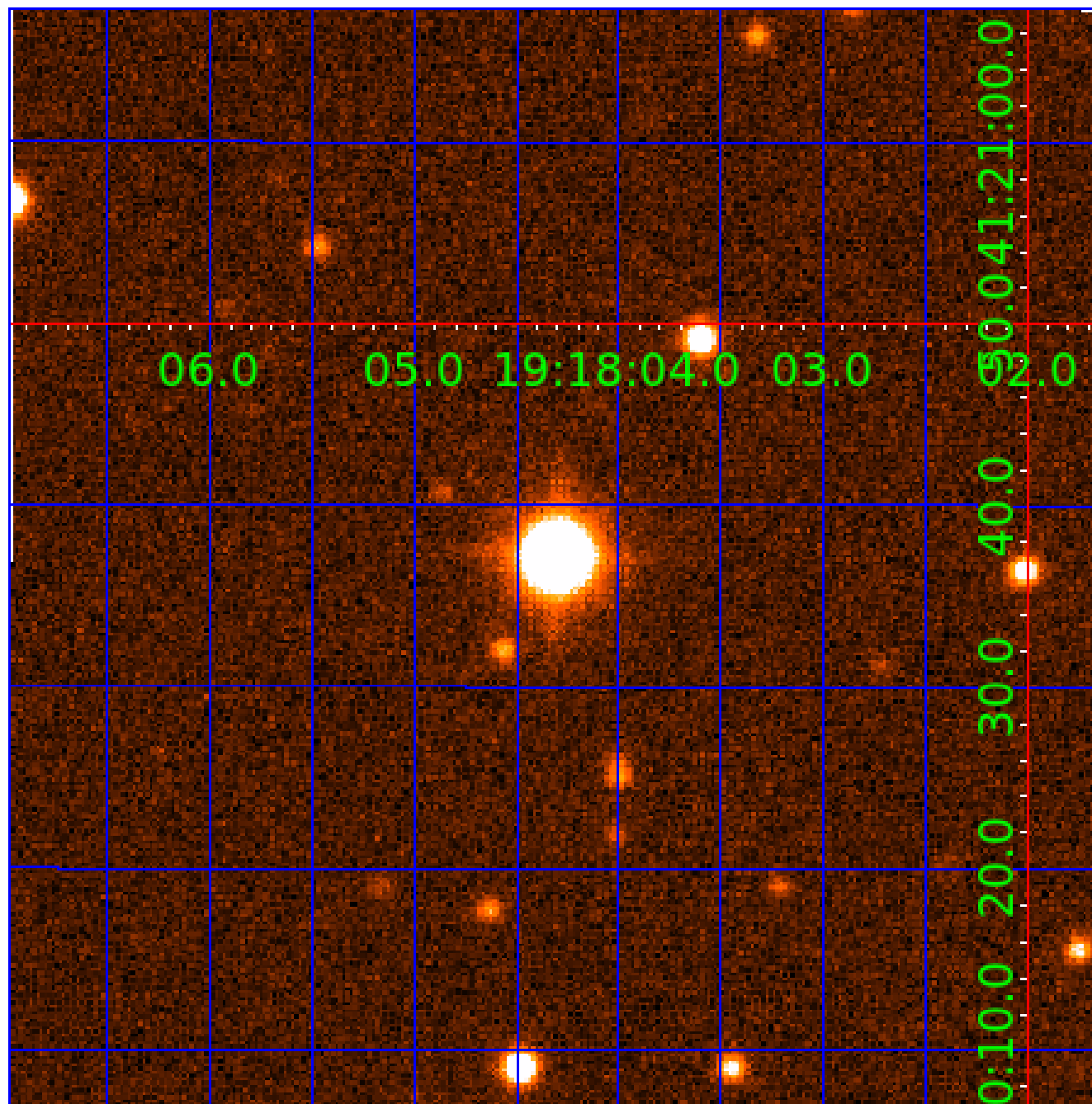


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



# KIC 006035335

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006035335-01	OBS	No	0.934692	131.933189	13.3	4.513	8.8	2.7	1.70	7274	0.73	15597.49
006035335-02	OBS	No	0.934358	132.455803	185.4	3.898	12.7	15.1	1.70	7274	4.49	15604.93
006035335-03	OBS	No	0.954467	131.675850	130.1	2.985	10.1	8.0	1.70	7274	2.01	15168.10

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006035335-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
006035335-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD
006035335-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

**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 006035335-02

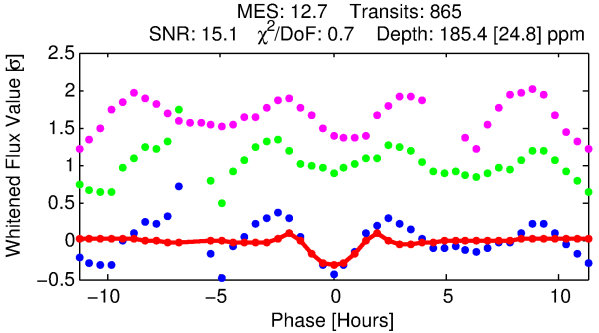
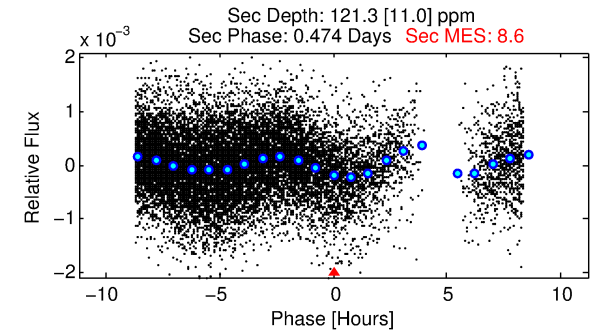
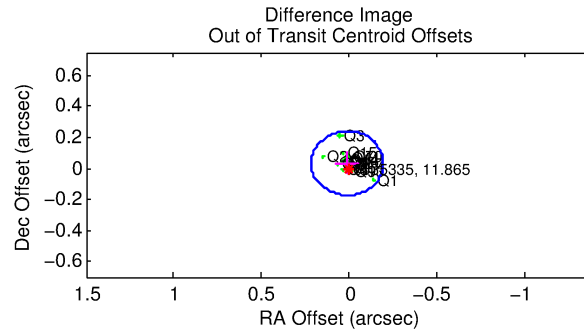
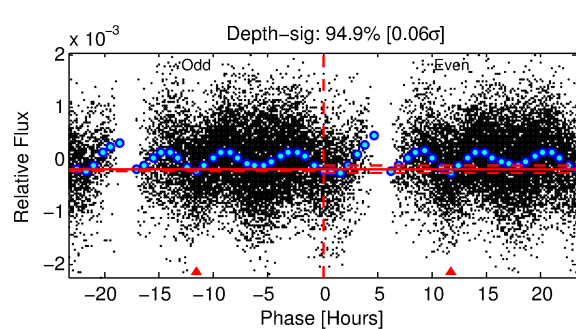
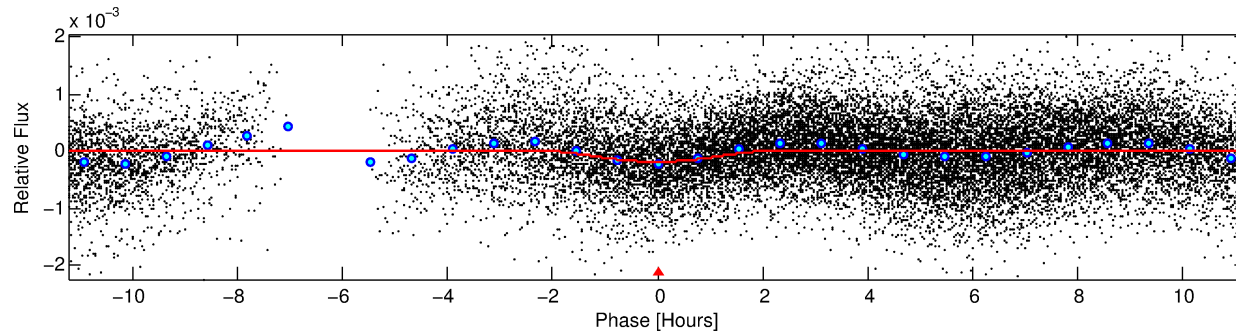
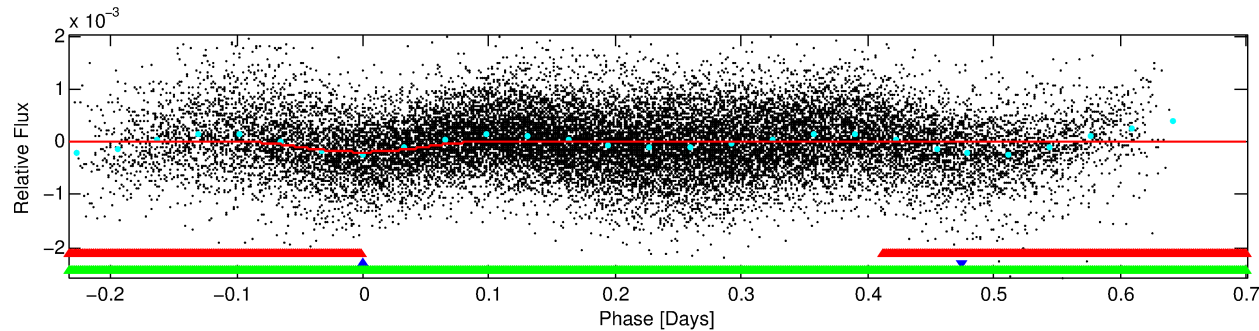
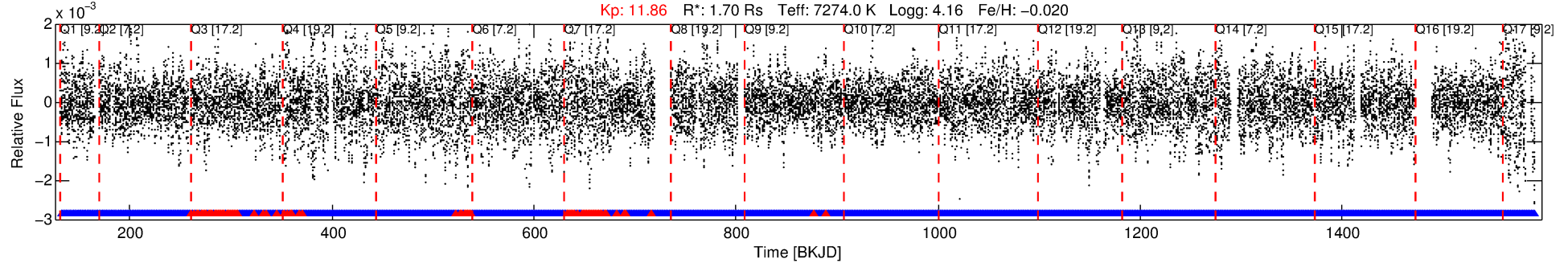
No Significant Match Found



# DV One-Page Summary

KIC: 6035335 Candidate: 2 of 3 Period: 0.934 d  
KOI: K06648 Corr: No Ephemeris Match

Kp: 11.86 R\*: 1.70 Rs Teff: 7274.0 K Logg: 4.16 Fe/H: -0.020



## DV Fit Results:

Period = 0.93436 [0.00001] d  
Epoch = 132.4558 [0.0020] BKJD  
Rp/R\* = 0.0243 [0.0177]  
a/R\* = 1.09 [0.01]  
b = 1.00 [0.03]  
Seff = 15604.93 [6409.05]  
Teq = 2850 [293] K  
Rp = 4.49 [3.58] Re  
a = 0.0215 [0.0057] AU  
Ag = 1.53 [2.31] [0.23σ]  
Teffp = 4902 [1805] K [1.12σ]

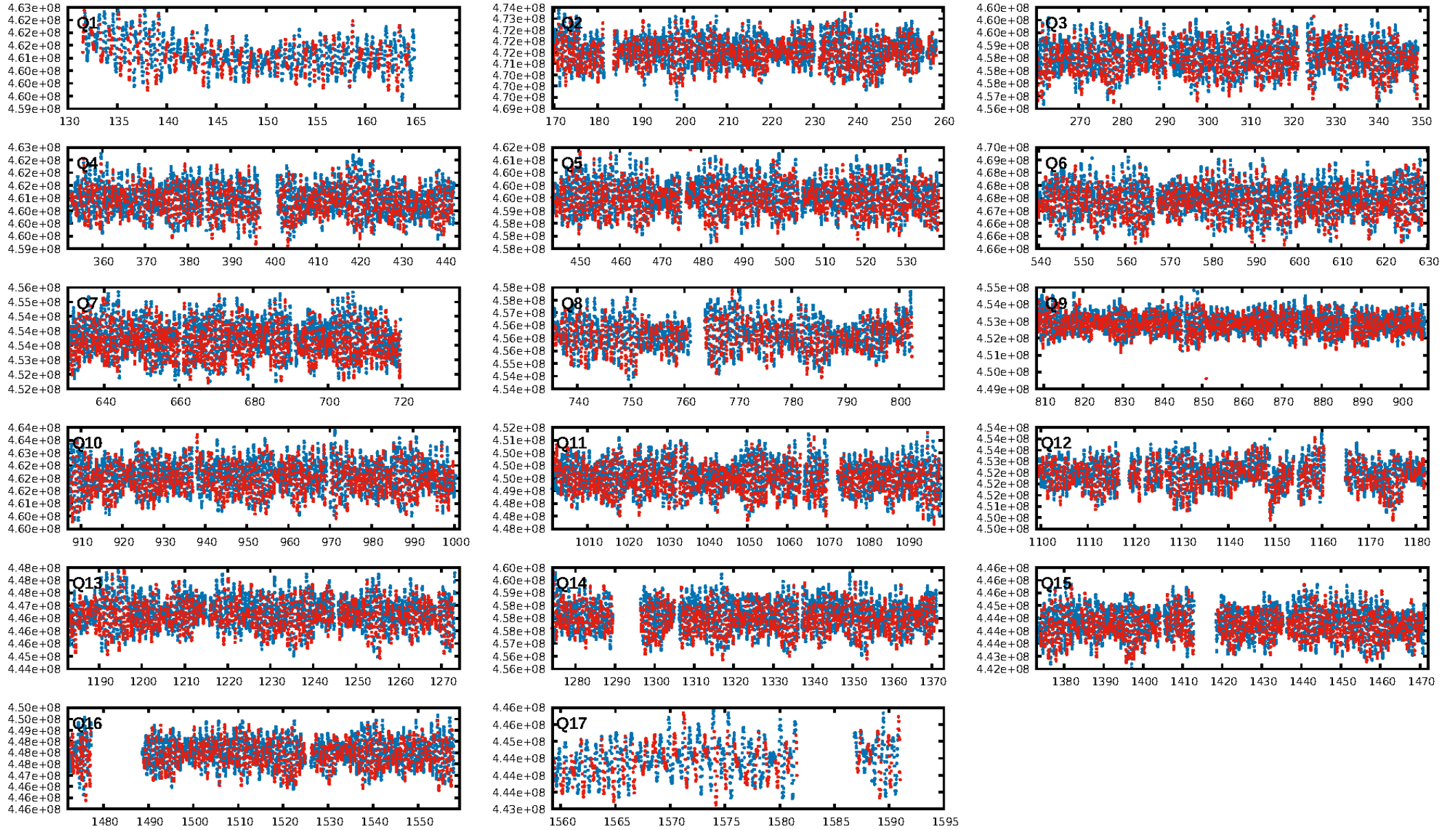
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: 0.1% [0.00σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.89 [736/829]  
GhostDiagnostic-chr: 0.794  
Centroid-sig: 15.3%  
Centroid-so: 0.182 arcsec [3.10σ]  
OotOffset-rm: 0.036 arcsec [0.53σ]  
KicOffset-rm: 0.169 arcsec [2.43σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.06 [1/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:48:30 Z

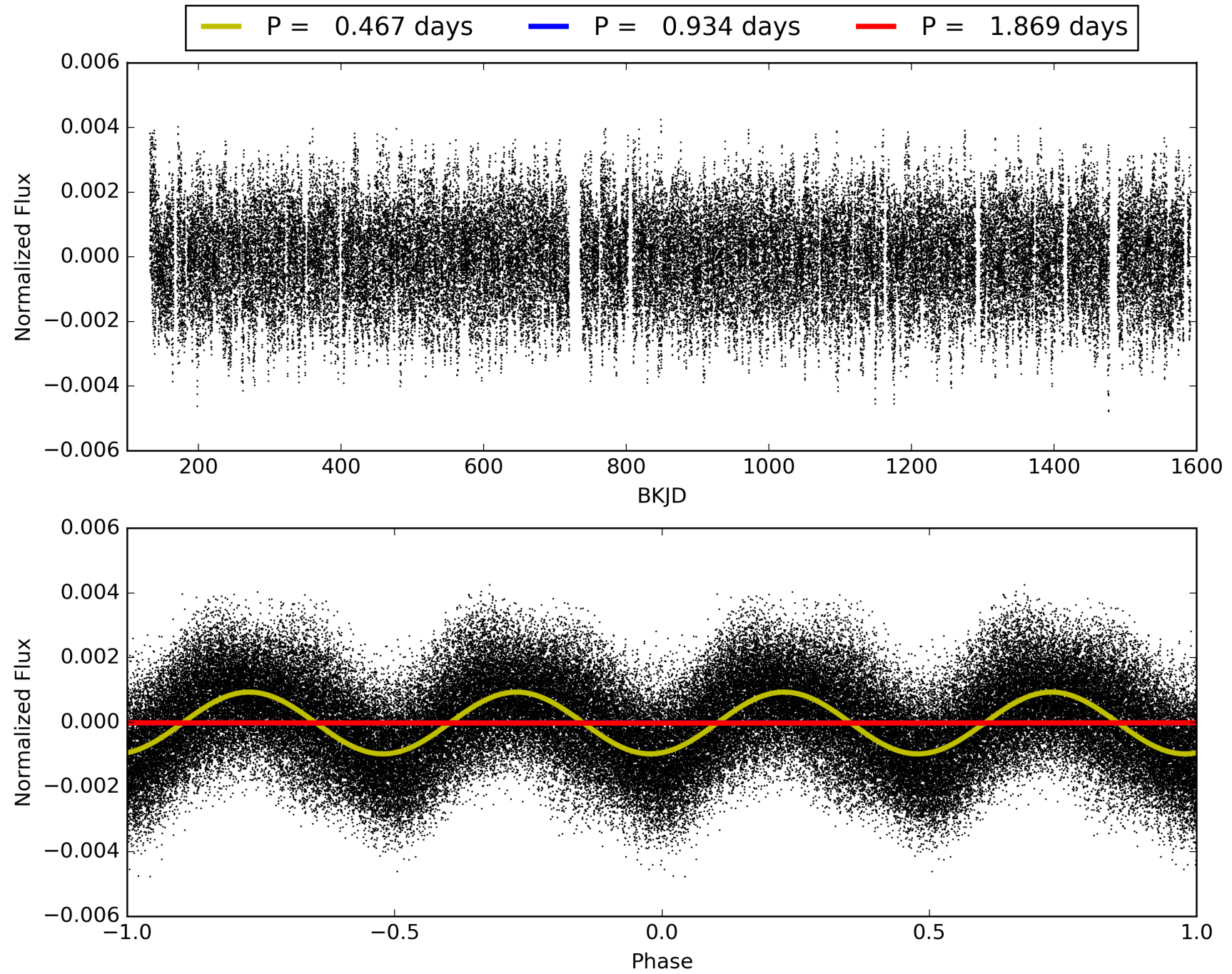
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 006035335-02, PDC Light Curves



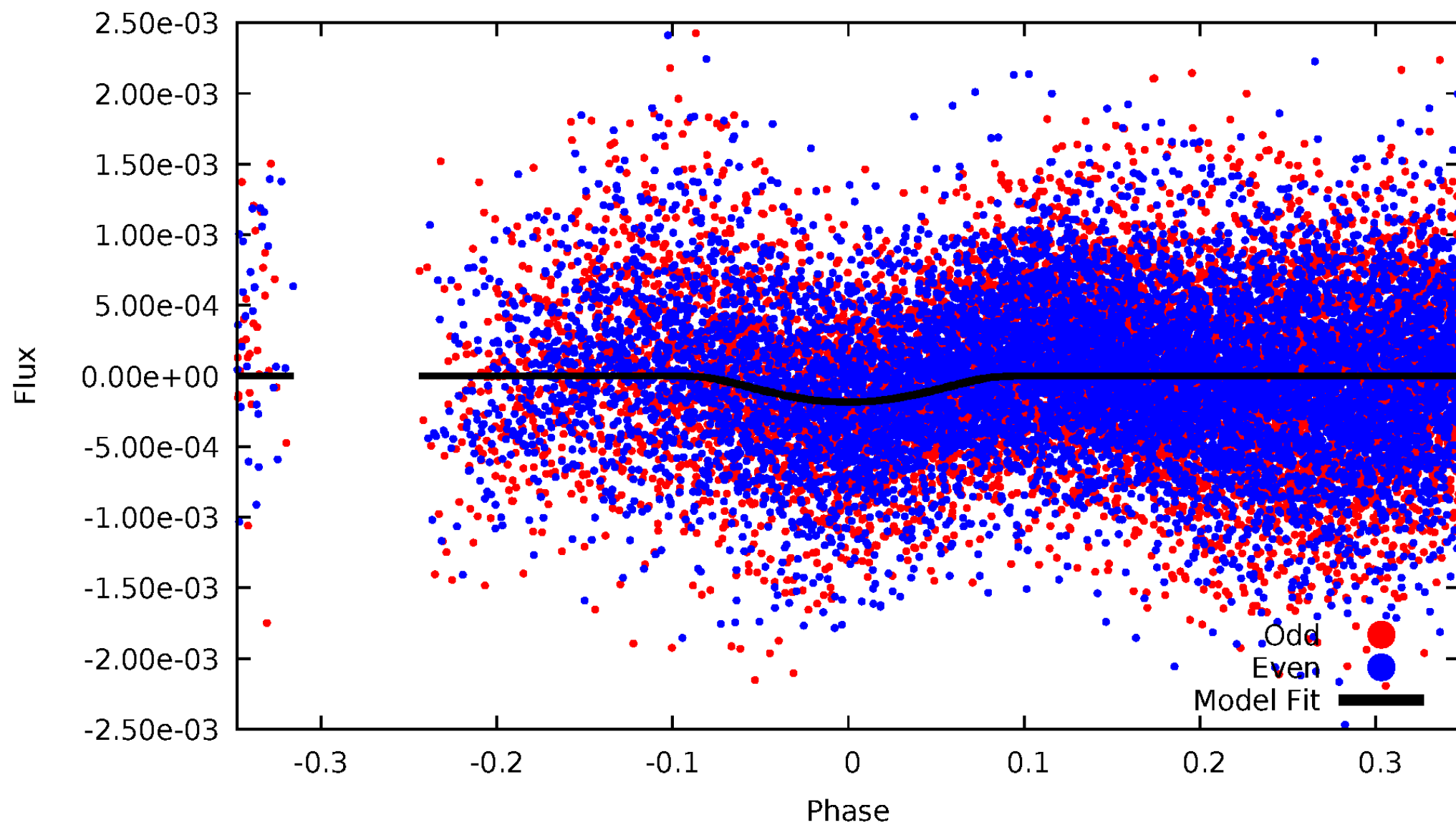


TCE 006035335-02



DV Odd/Even

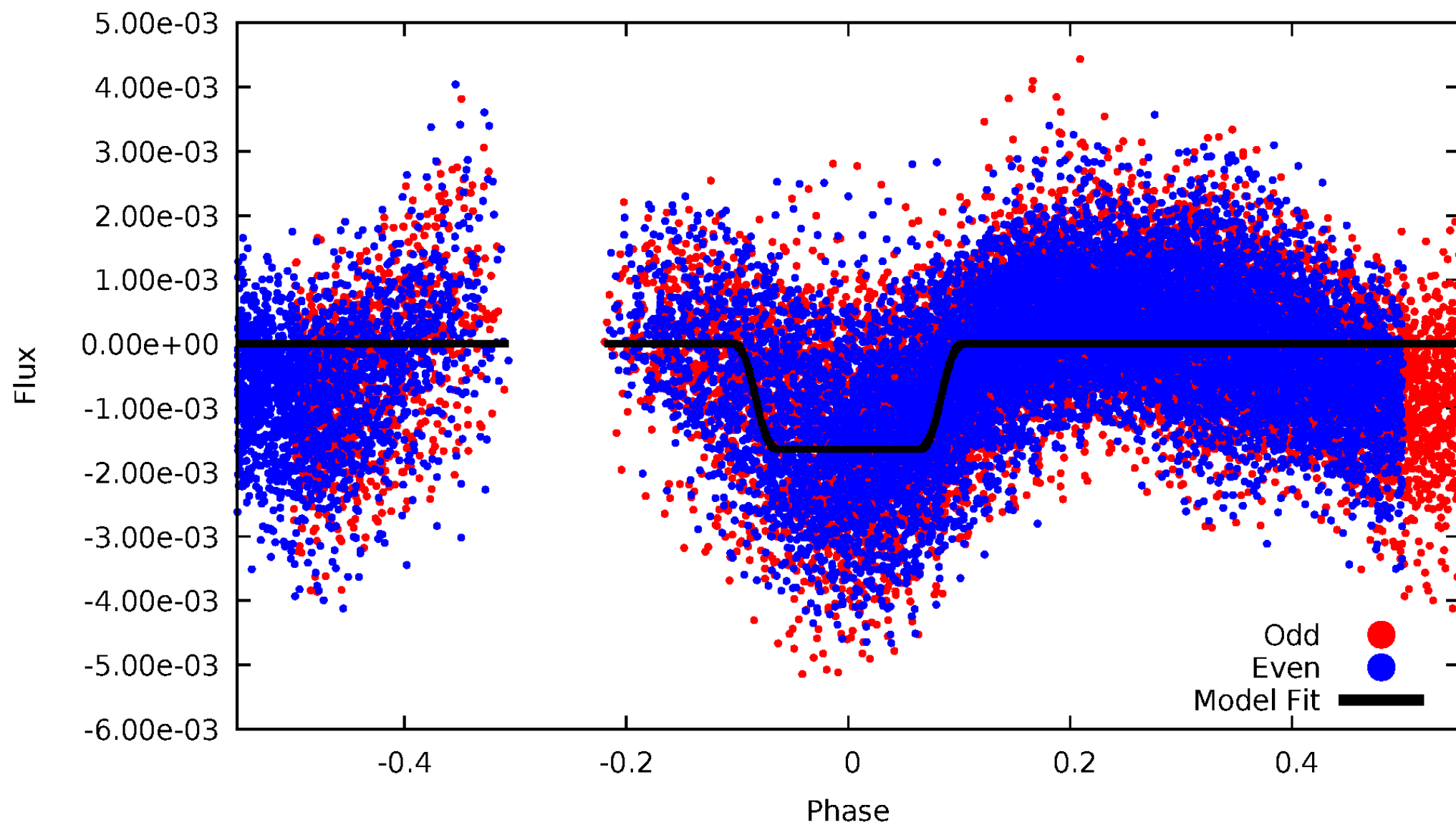
TCE 006035335-02





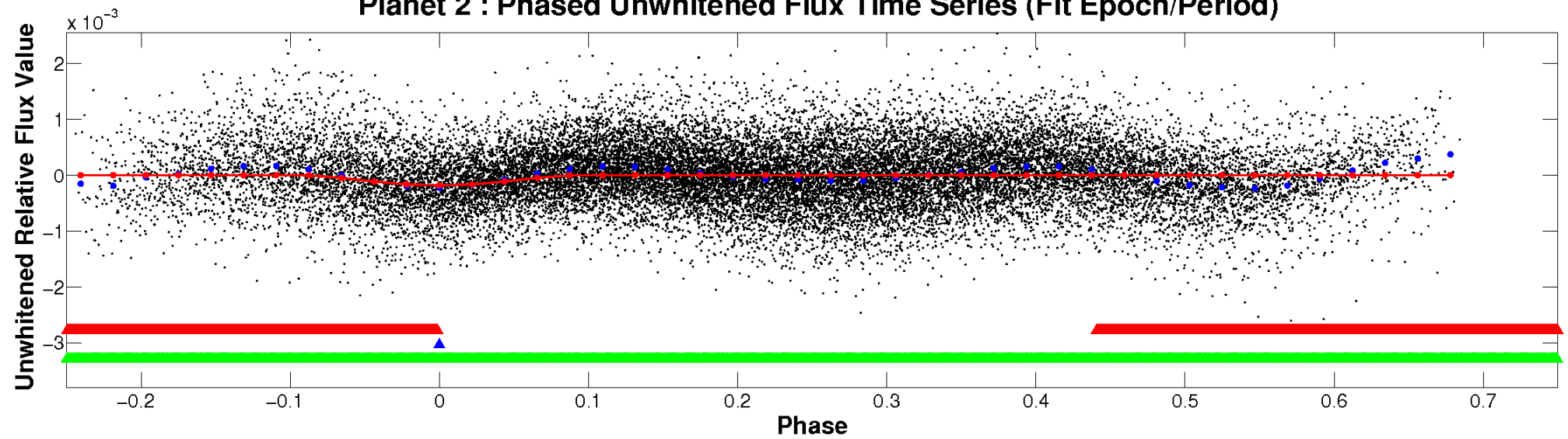
# ALT Odd/Even

TCE 006035335-02

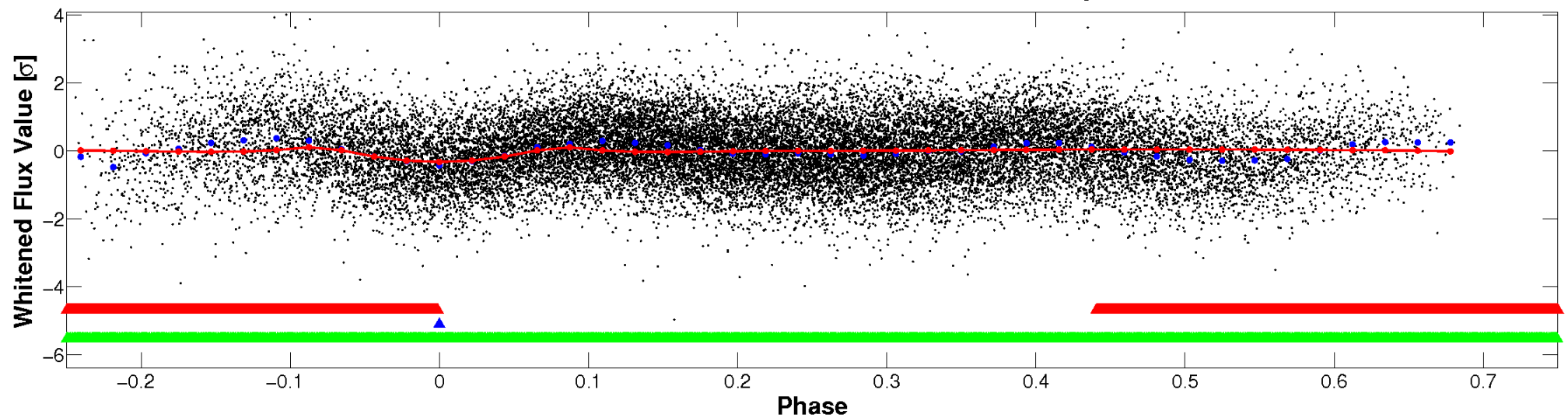


# Non-Whitened Vs. Whitened Light Curve

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

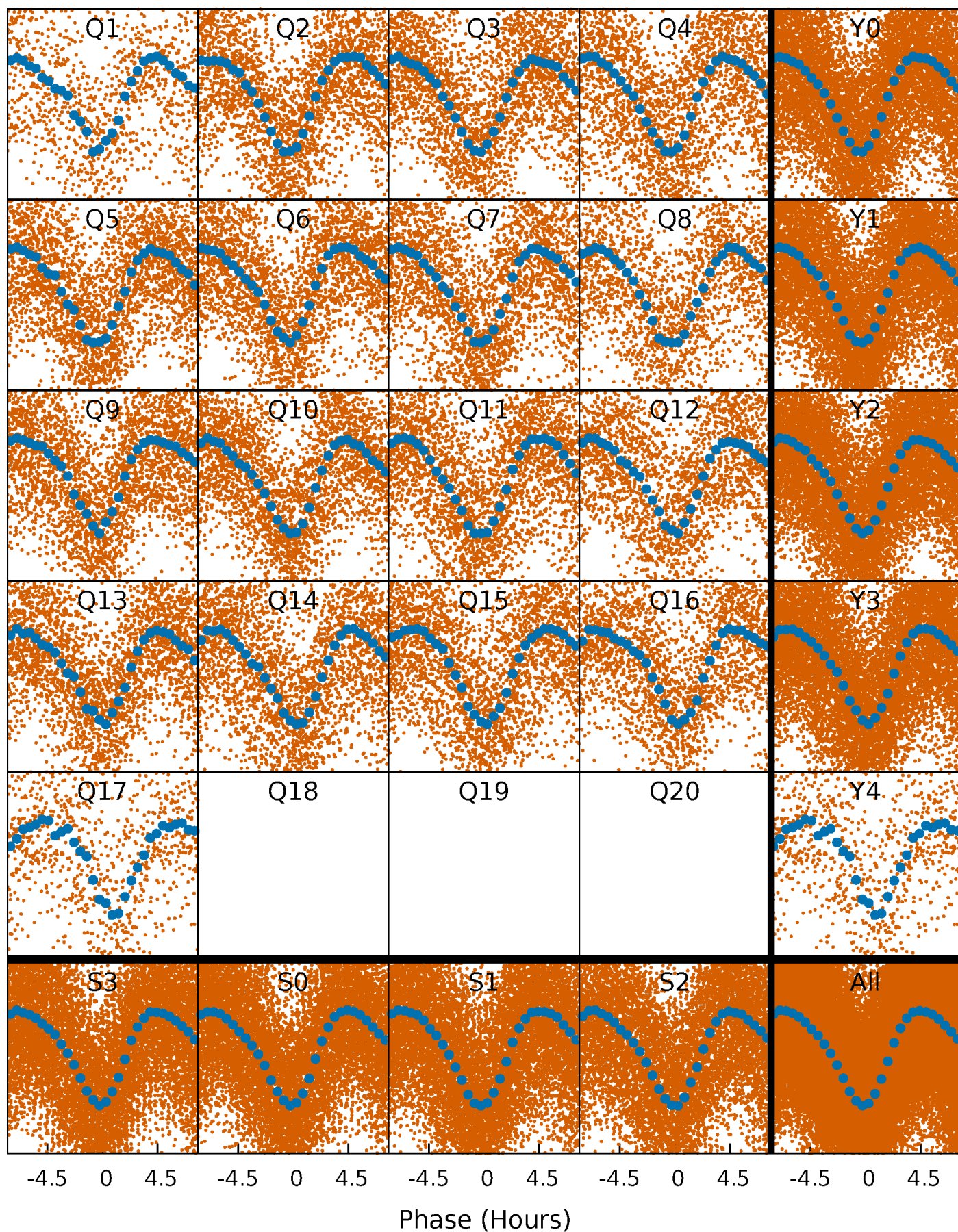


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

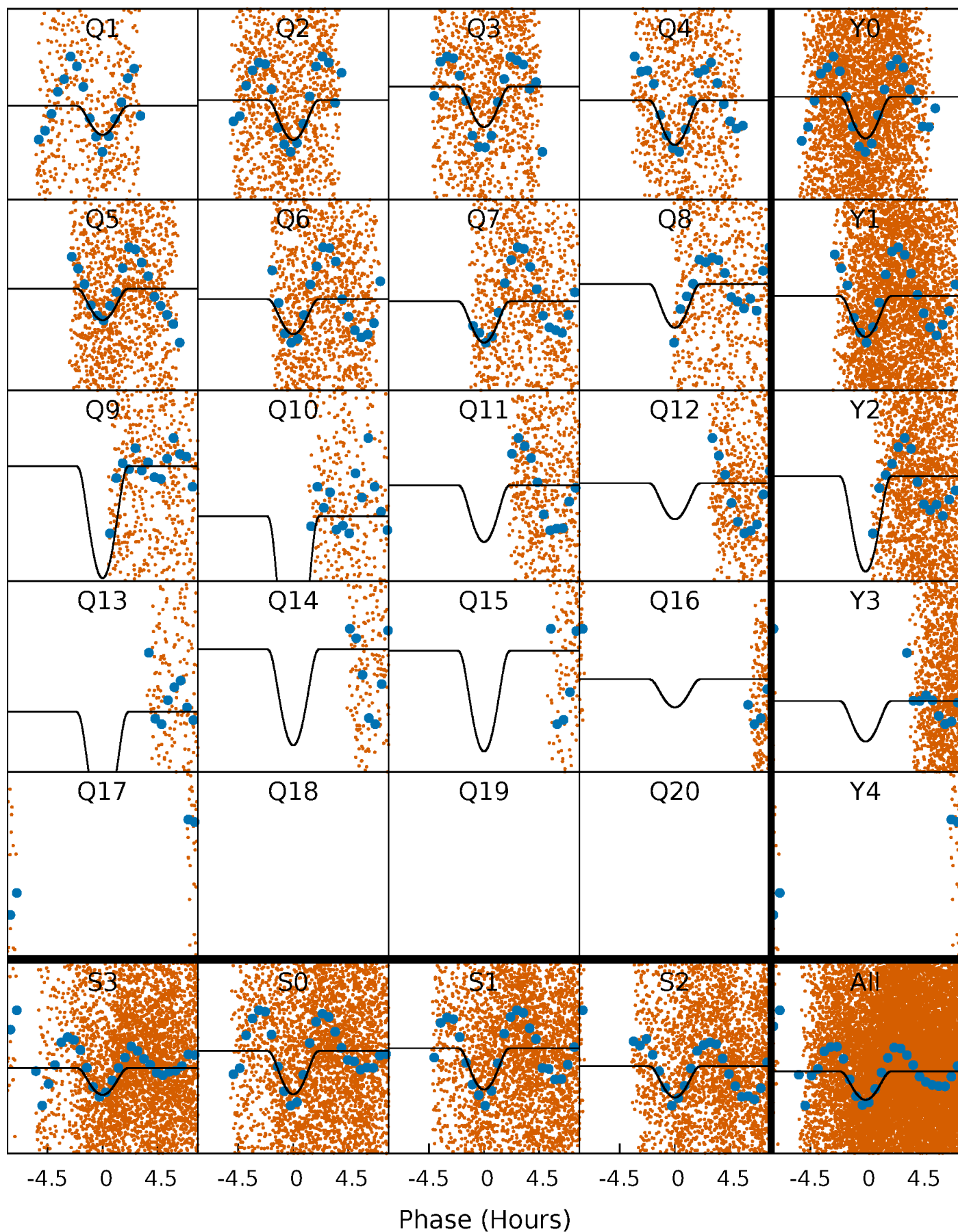
TCE 006035335-02   P= 0.934358 Days    $T_0=132.455803$  (BKJD)





# DV Quarter-Phased Transit Curves

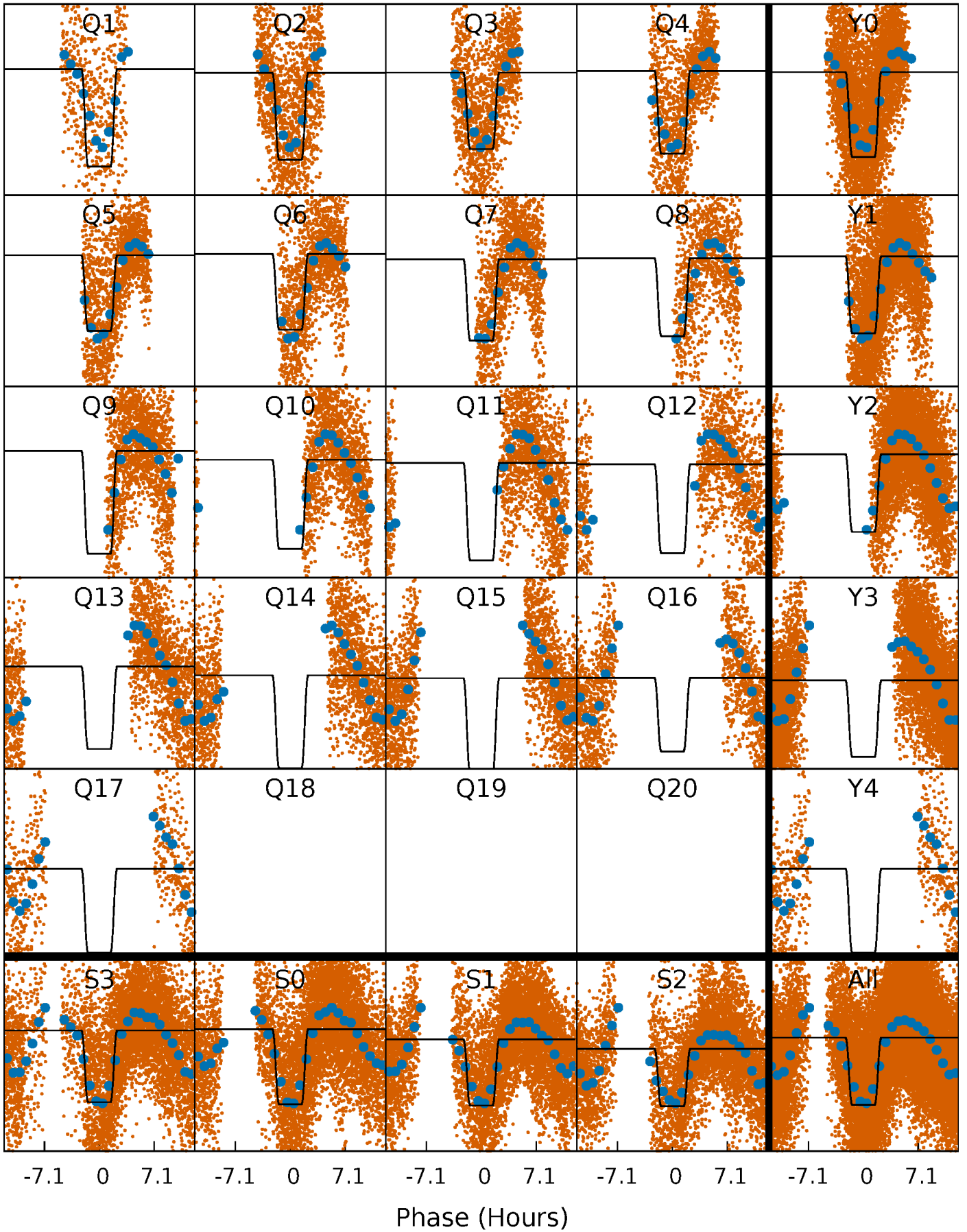
TCE 006035335-02     $P = 0.934358$  Days     $T_0 = 132.455803$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

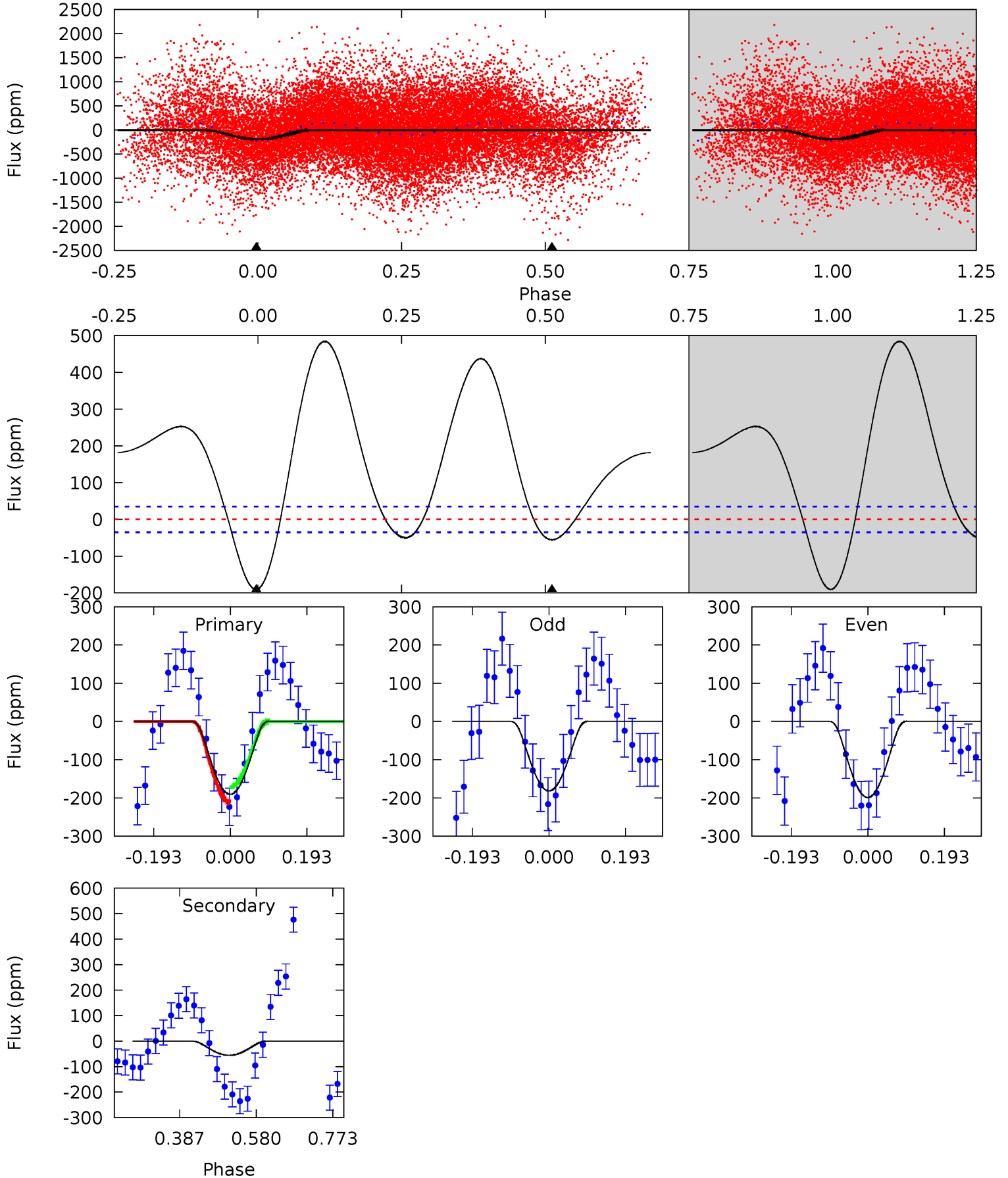
TCE 006035335-02   P= 0.934367 Days    $T_0=132.433108$  (BKJD)



# DV Model-Shift Uniqueness Test

006035335-02, P = 0.934358 Days, E = 130.587087 Days

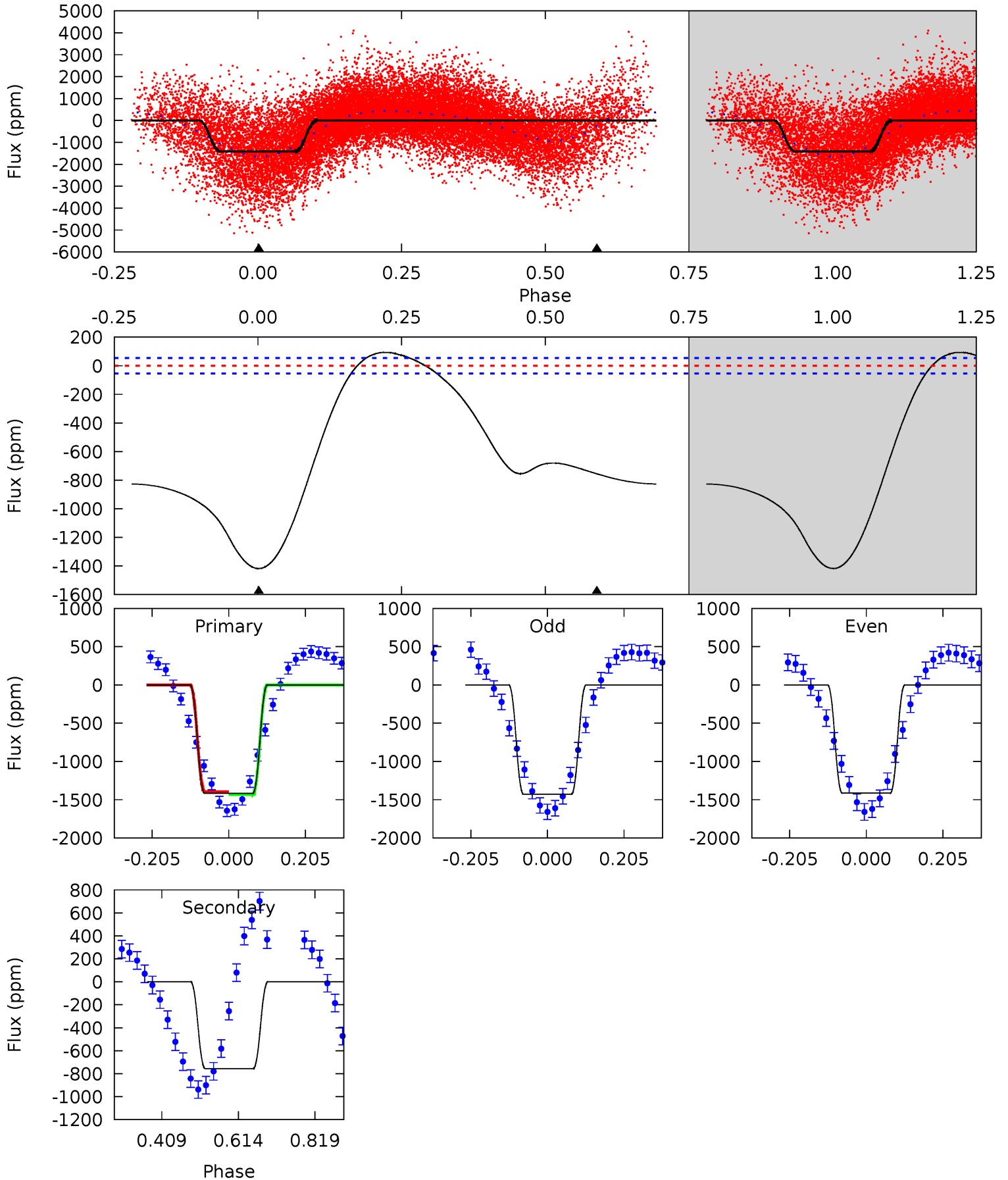
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.9	6.96	0	0	4.42	1.30	7.95	23.9	23.9	6.96	6.96	1.09	1.05	0.72	2.62



# Alt Model-Shift Uniqueness Test

006035335-02, P = 0.934367 Days, E = 131.498741 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
116.1	61.9	0	0	4.41	1.27	11.5	116.1	116.1	61.9	61.9	0.57	1.01	0.06	1.35



### Stellar Parameters For KIC 006035335

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$7274^{+201}_{-302}$	$4.161^{+0.109}_{-0.202}$	$-0.020^{+0.200}_{-0.350}$	$1.698^{+0.540}_{-0.332}$	$1.523^{+0.221}_{-0.221}$	$0.438^{+0.262}_{-0.221}$
	+3%/-4%	+3%/-5%	+1000%/-1750%	+32%/-20%	+15%/-15%	+60%/-50%
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 006035335-02 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-55 \pm 8$	$4.95^{+3.55}_{-2.77}$	$4030^{+304}_{-263}$	$3574^{+2011}_{-6769}$	$0.557^{+2.280}_{-0.371}$
Alt.	$-756 \pm 12$	$7.96^{+3.77}_{-3.40}$	$4013^{+326}_{-263}$	$5691^{+2052}_{-991}$	$3.072^{+6.308}_{-1.660}$

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



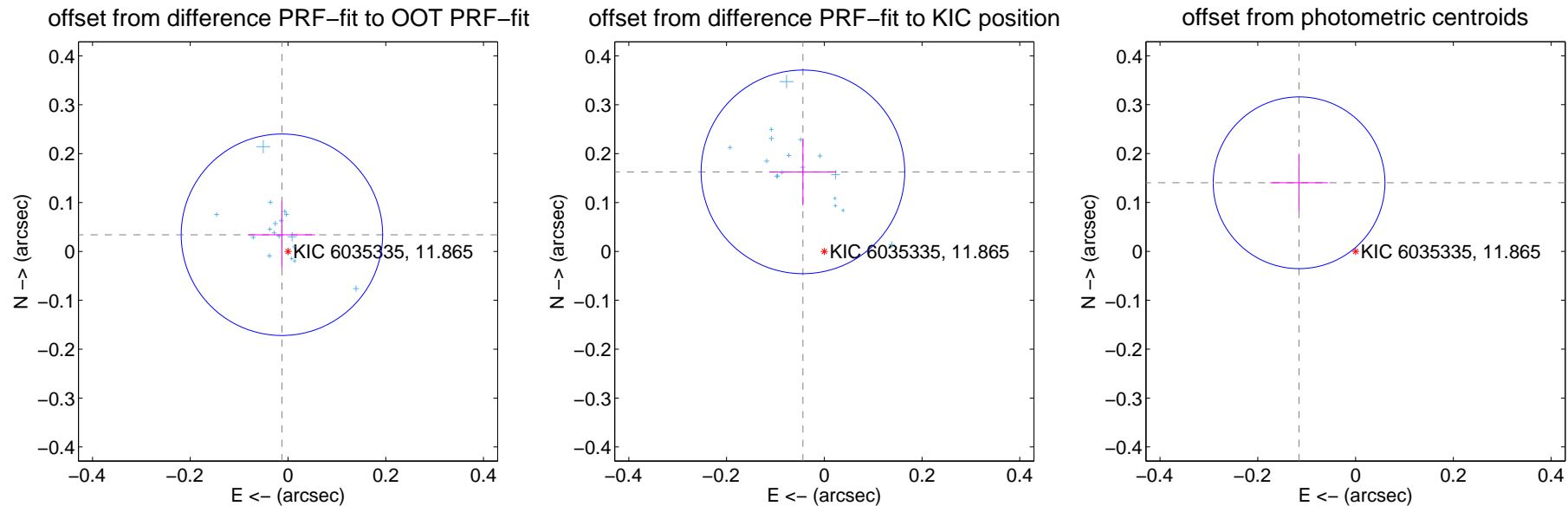
## DV Centroid Data

Supplemental centroid analysis for 006035335-02. **Kepler magnitude: 11.87.** Transit SNR 15.13

There are 17 quarters with good PRF difference image offsets

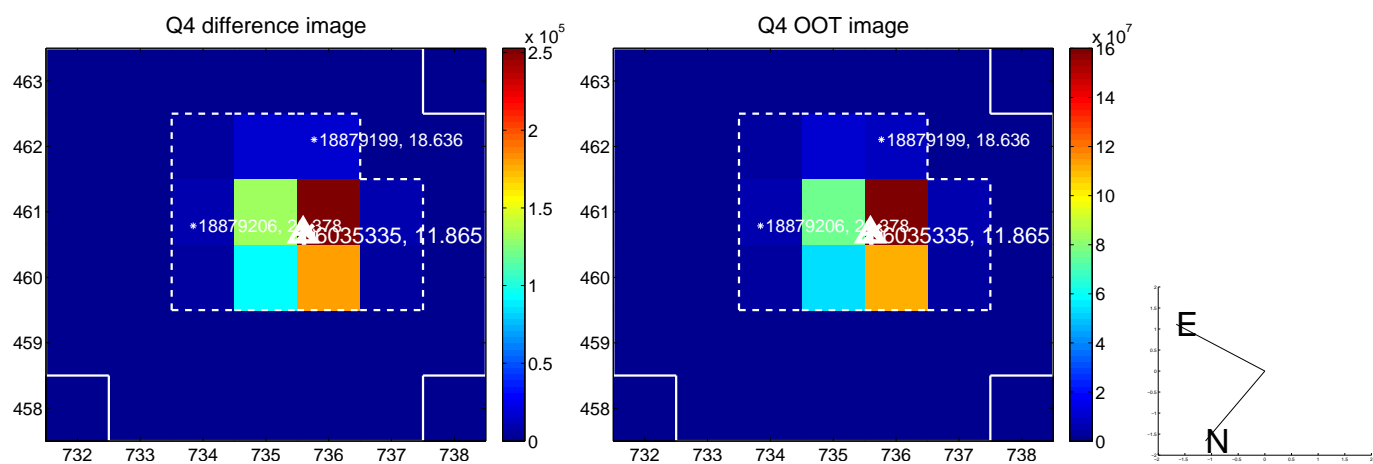
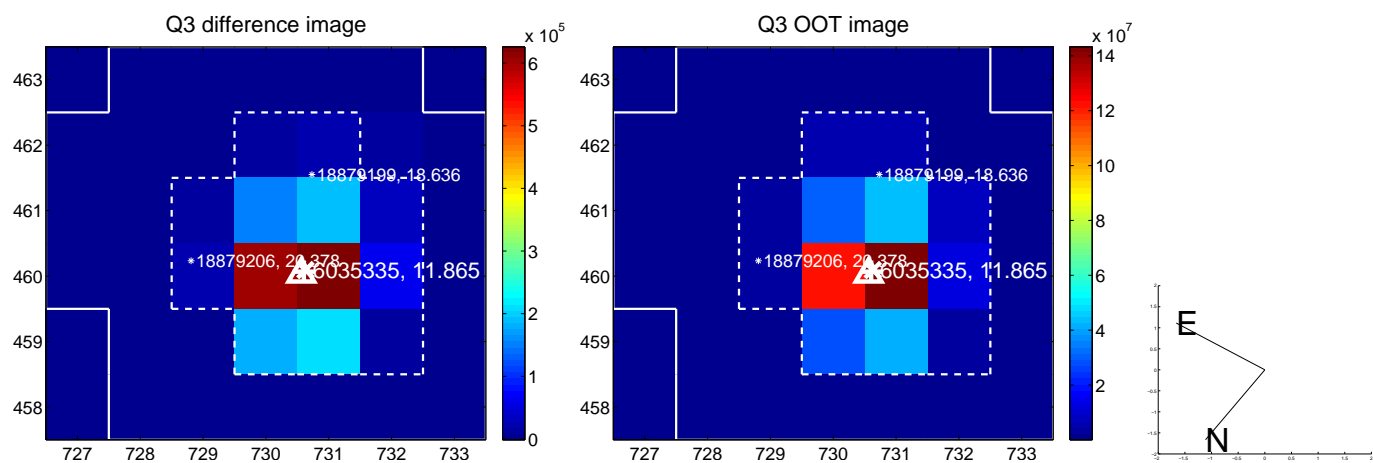
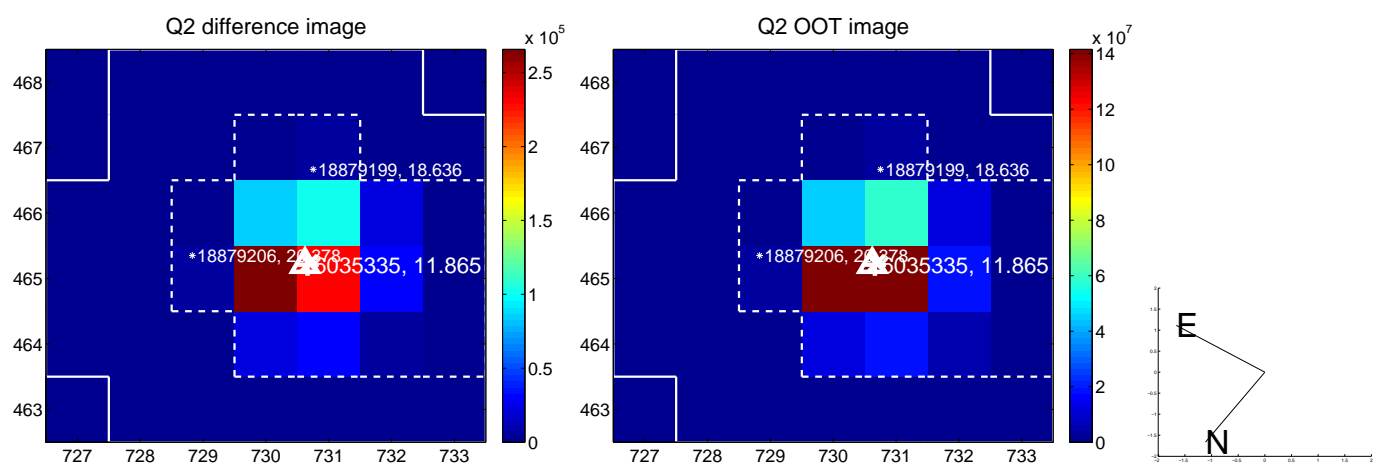
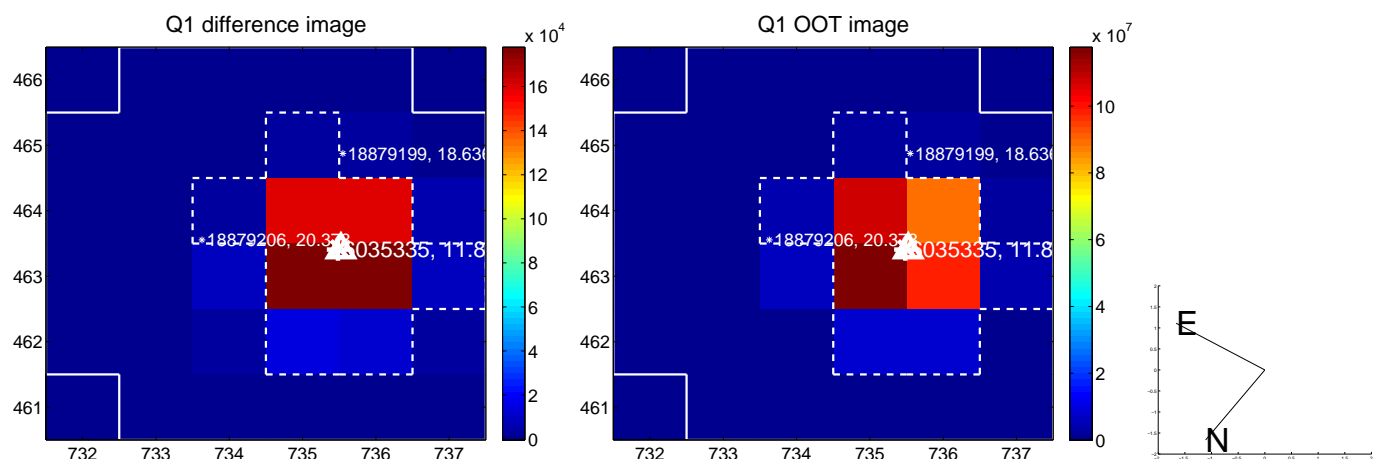
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.036 \pm 0.069$	0.53	$0.012 \pm 0.068$	$0.034 \pm 0.068$
PRF-fit source offset from KIC position	$0.169 \pm 0.069$	2.43	$0.044 \pm 0.069$	$0.163 \pm 0.069$
photometric centroid source offset	<b><math>0.18 \pm 0.06</math></b>	<b>3.10</b>	$0.12 \pm 0.06$	$0.14 \pm 0.06$

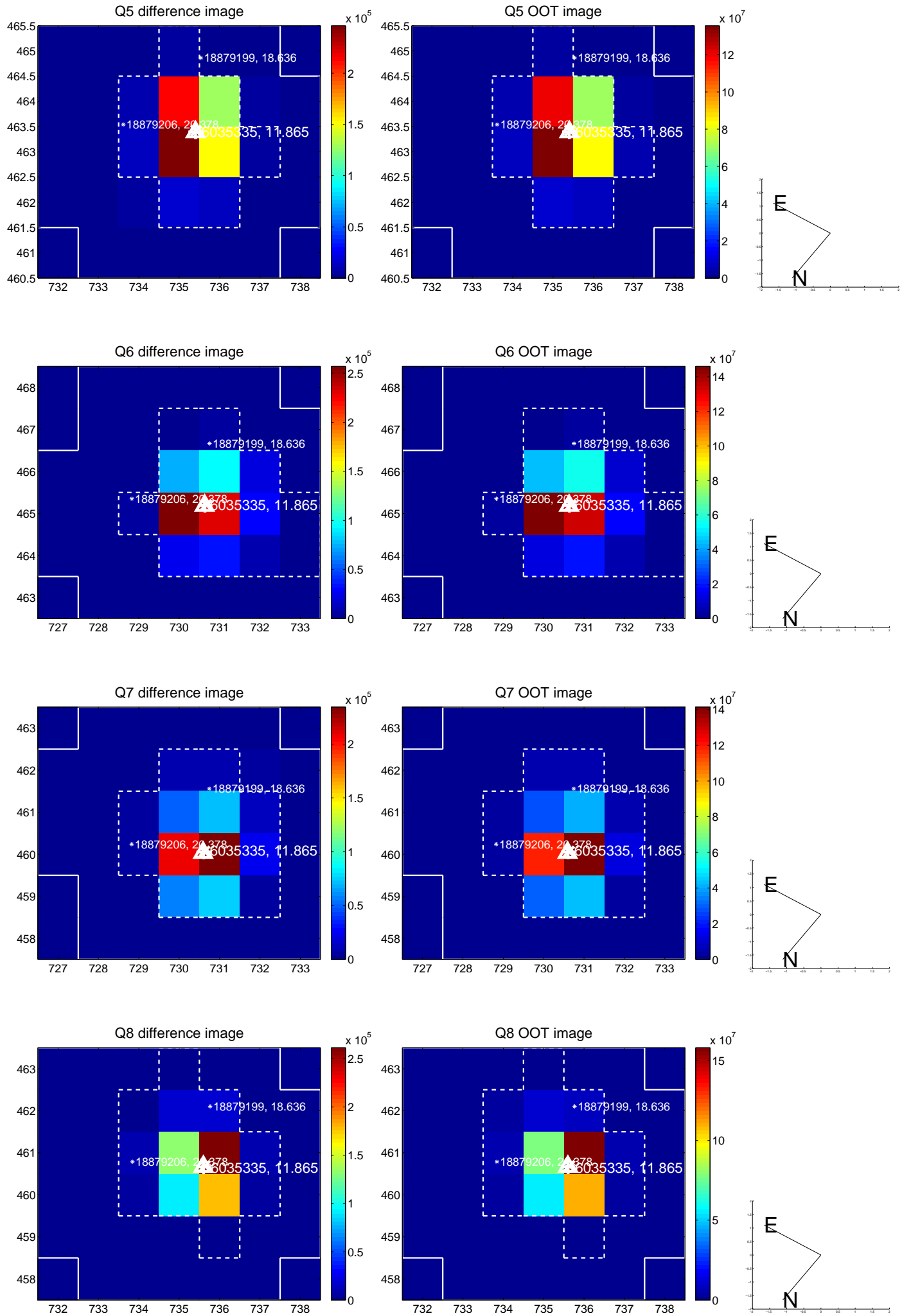


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

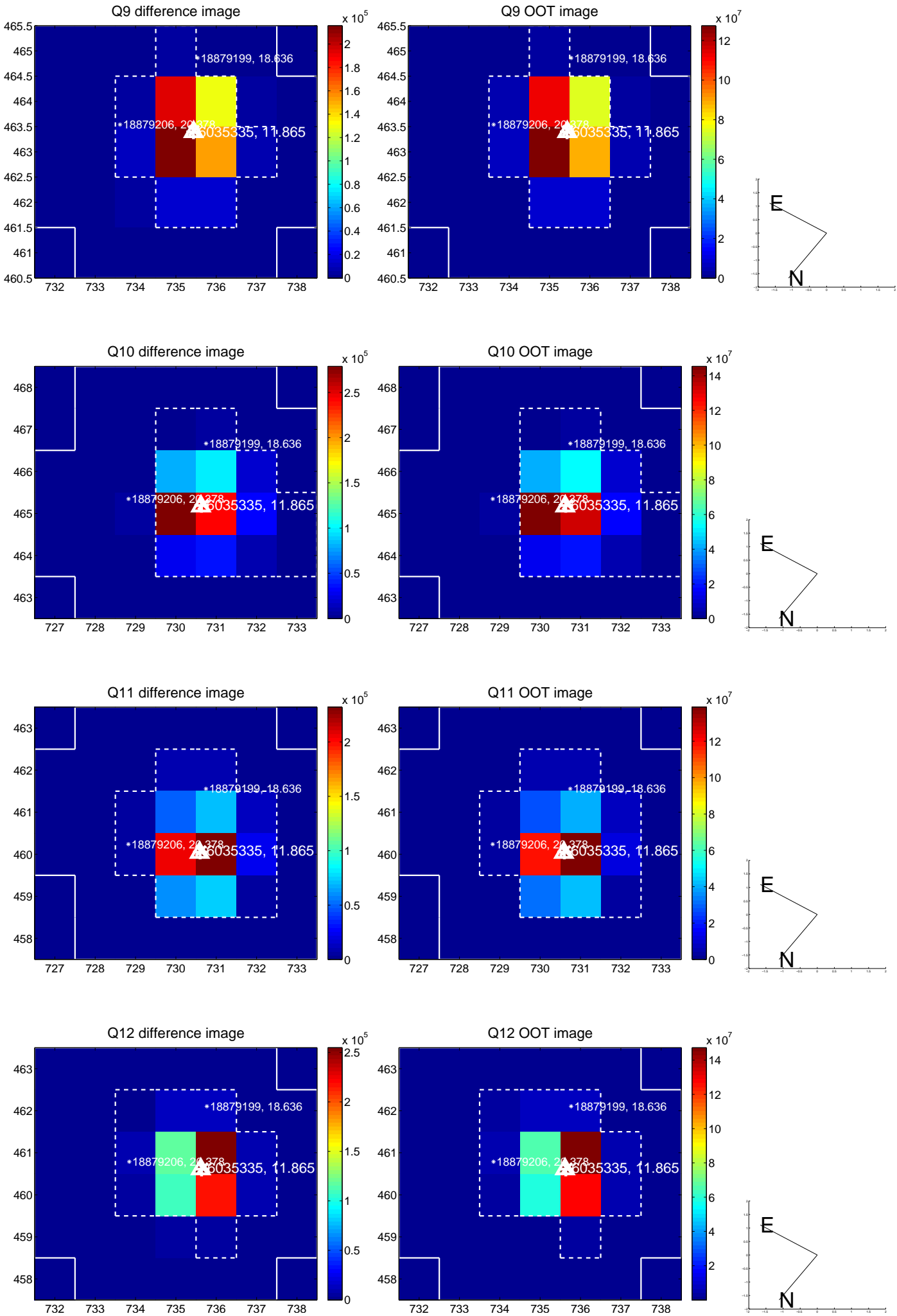
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



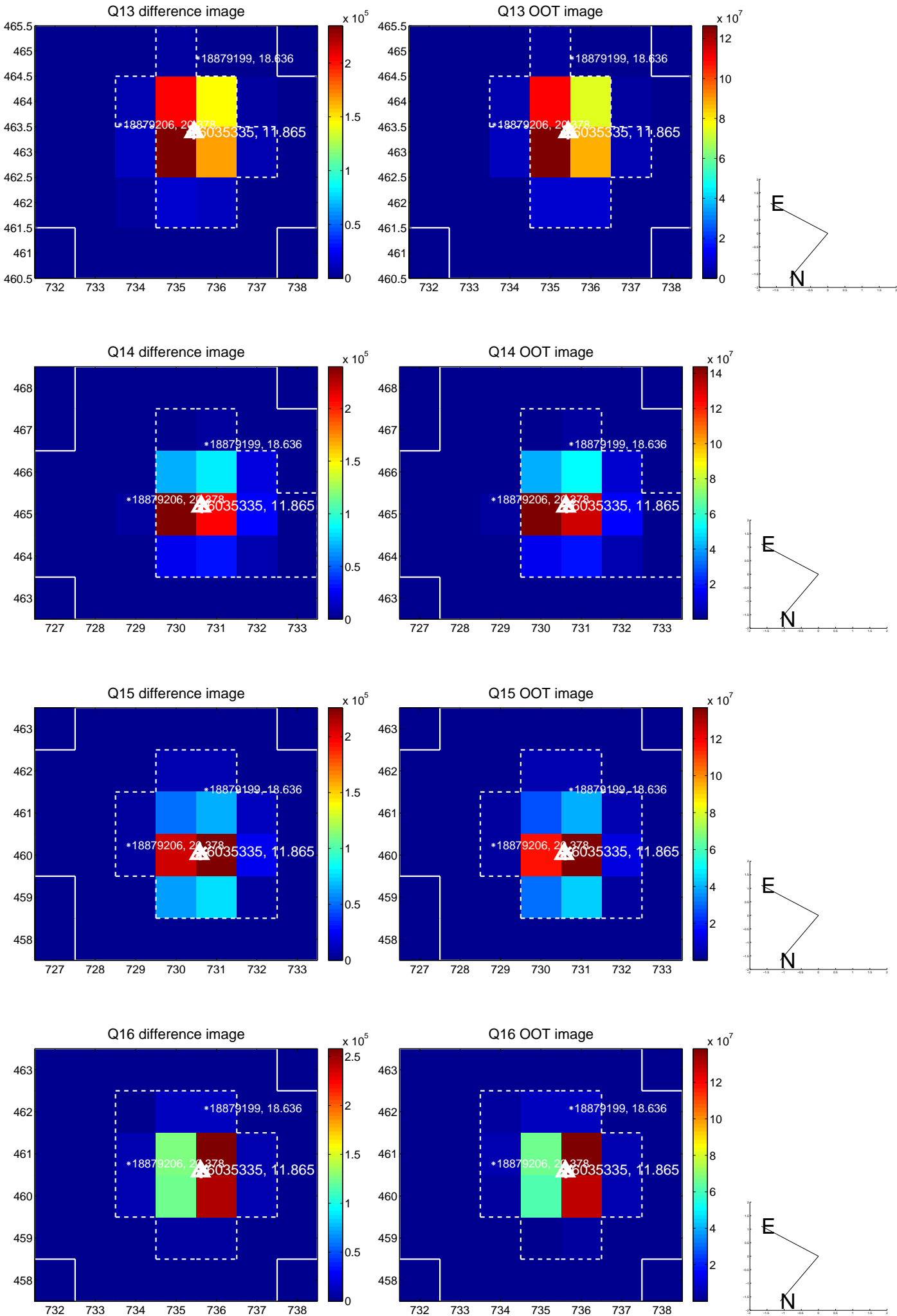
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

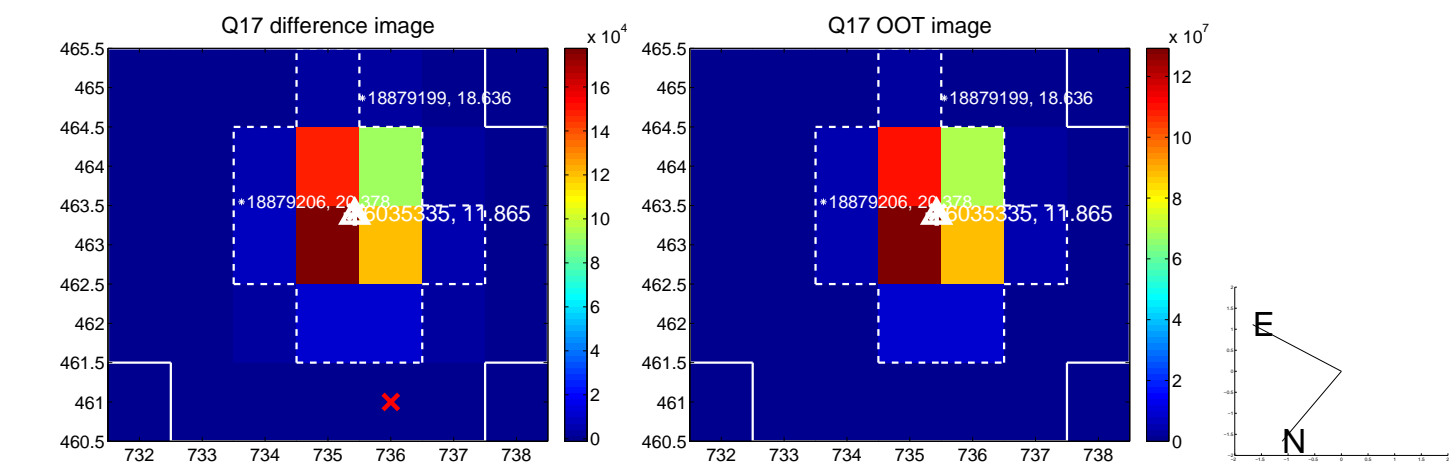


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

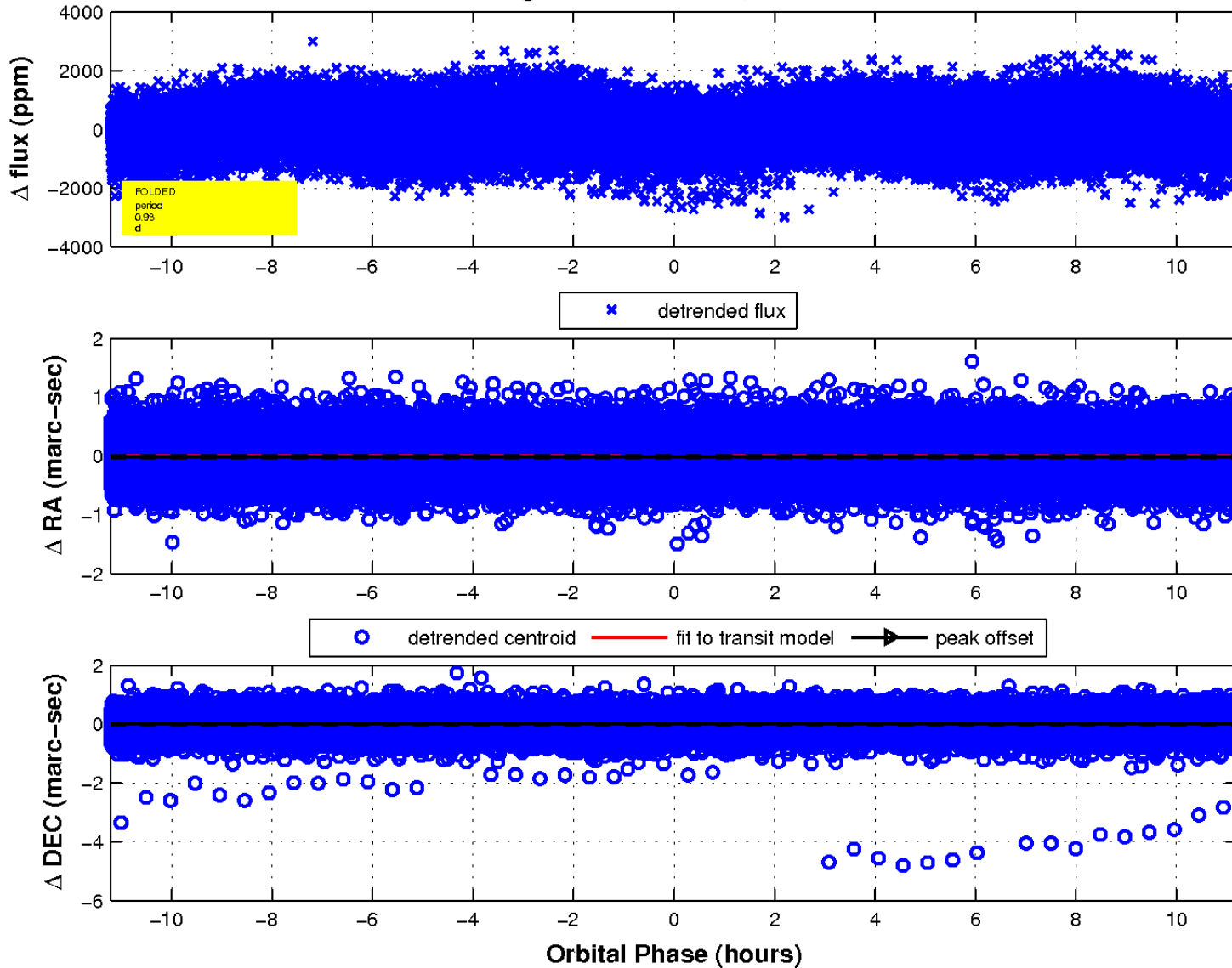




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

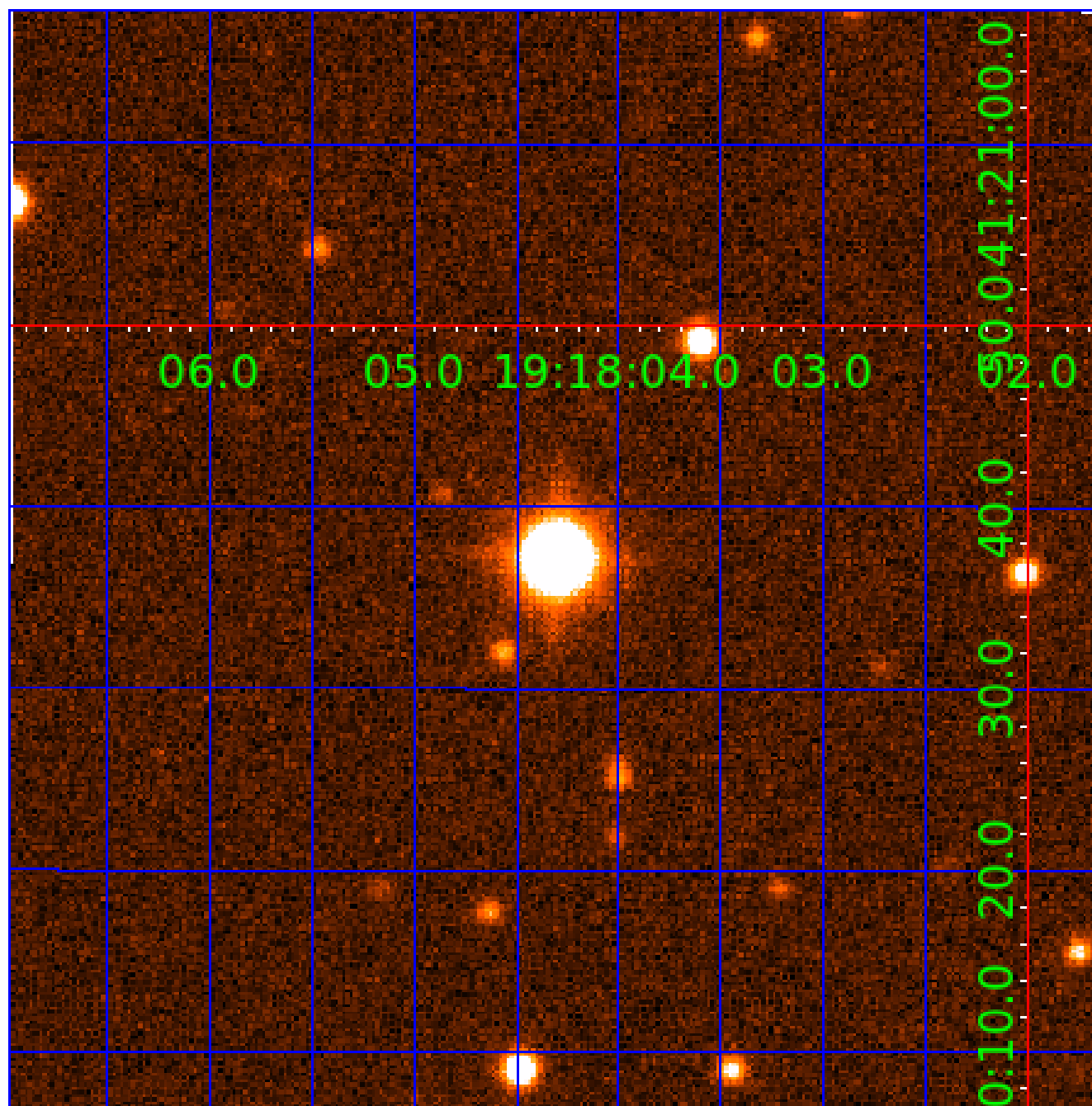


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



# KIC 006035335

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006035335-01	OBS	No	0.934692	131.933189	13.3	4.513	8.8	2.7	1.70	7274	0.73	15597.49
006035335-02	OBS	No	0.934358	132.455803	185.4	3.898	12.7	15.1	1.70	7274	4.49	15604.93
006035335-03	OBS	No	0.954467	131.675850	130.1	2.985	10.1	8.0	1.70	7274	2.01	15168.10

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006035335-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT
006035335-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD
006035335-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

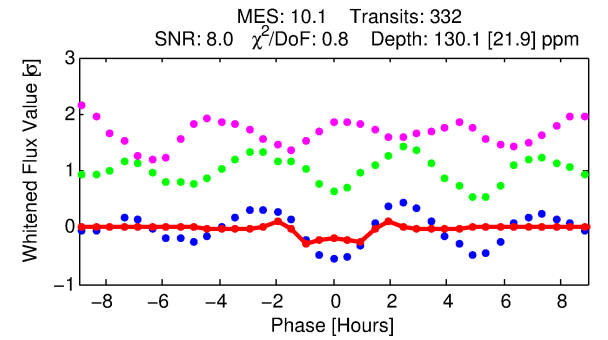
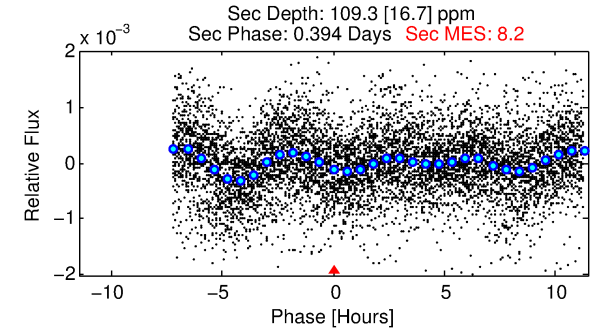
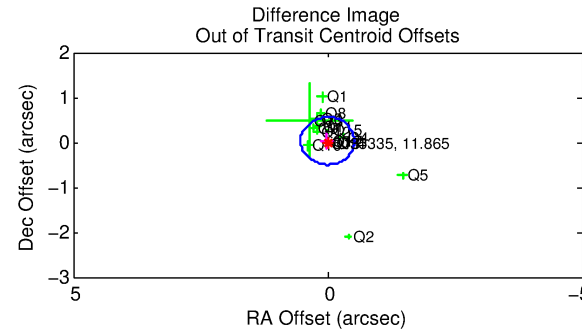
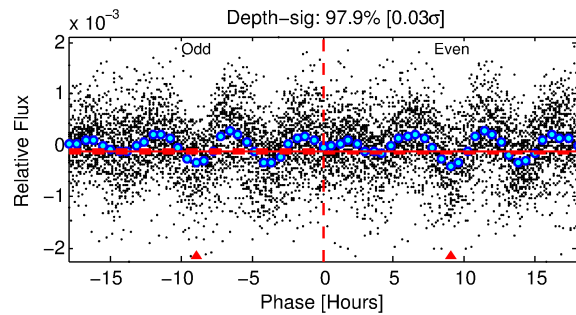
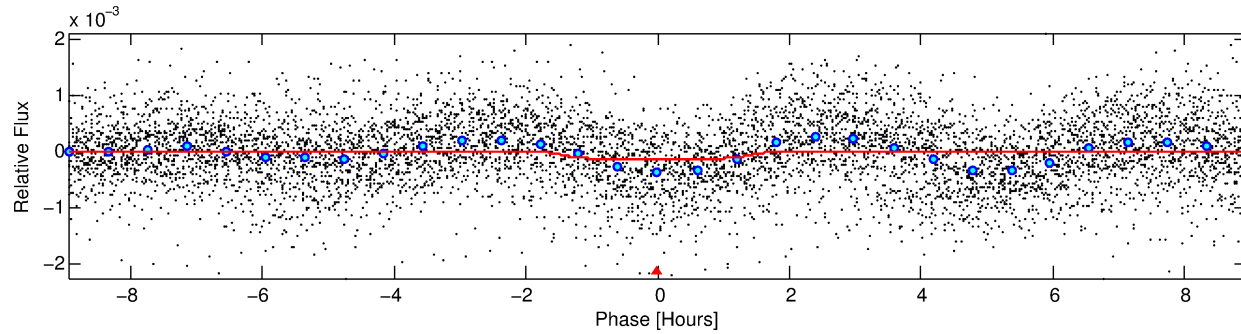
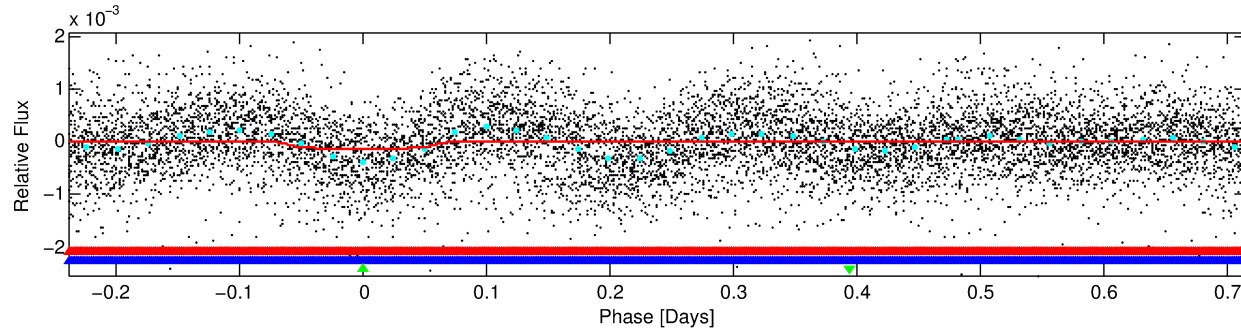
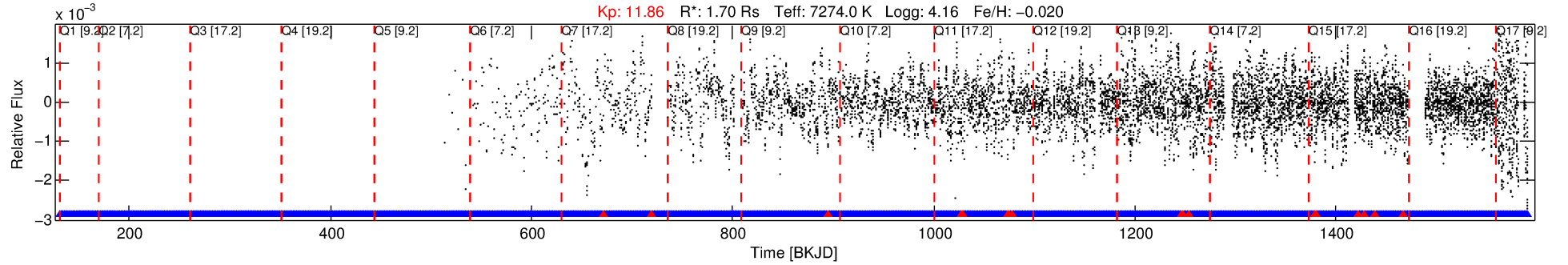
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006035335-03

No Significant Match Found

# DV One-Page Summary

KIC: 6035335 Candidate: 3 of 3 Period: 0.954 d  
KOI: K06648 Corr: No Ephemeris Match



## DV Fit Results:

Period = 0.95447 [0.00001] d  
Epoch = 131.6758 [0.0021] BKJD  
Rp/R\* = 0.0109 [0.0038]  
a/R\* = 2.26 [3.75]  
b = 0.50 [3.08]  
Seff = 15168.10 [6229.64]  
Teq = 2830 [291] K  
Rp = 2.01 [0.95] Re  
a = 0.0218 [0.0057] AU  
Ag = 7.08 [5.68] [1.07 $\sigma$ ]  
Teffp = 7137 [1298] K [3.24 $\sigma$ ]

## DV Diagnostic Results:

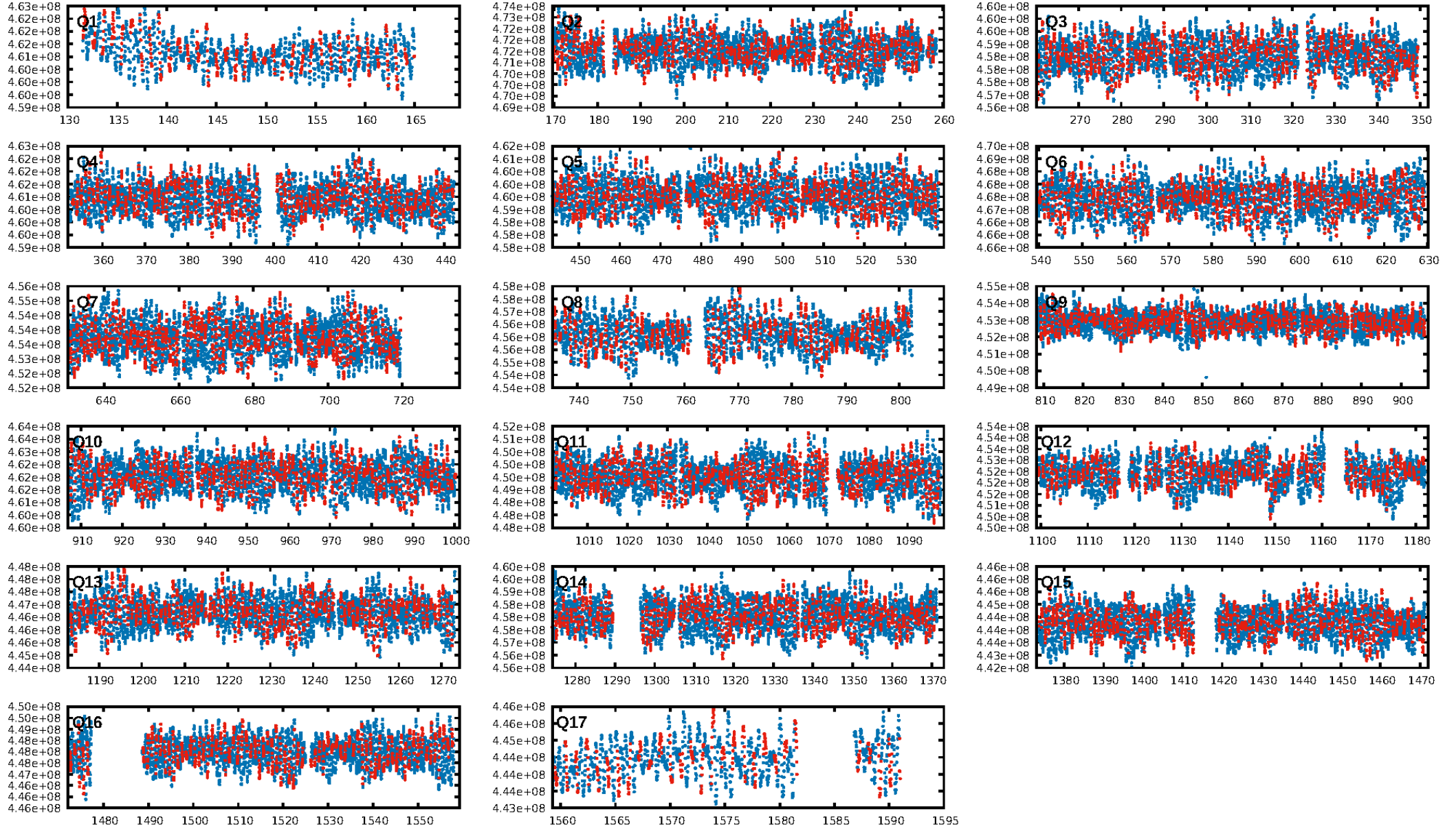
ShortPeriod-sig: 7.0% [0.09 $\sigma$ ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.94 [296/314]  
GhostDiagnostic-chr: 1.885  
Centroid-sig: 23.8%  
Centroid-so: 0.135 arcsec [1.87 $\sigma$ ]  
OotOffset-rm: 0.028 arcsec [0.16 $\sigma$ ]  
OotOffset-st: 4/3/4/5 [16]  
KicOffset-rm: 0.175 arcsec [0.96 $\sigma$ ]  
KicOffset-st: 4/3/4/5 [16]  
DiffImageQuality-fgm: 0.50 [8/16]  
DiffImageOverlap-fno: 0.24 [4/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:48:38 Z

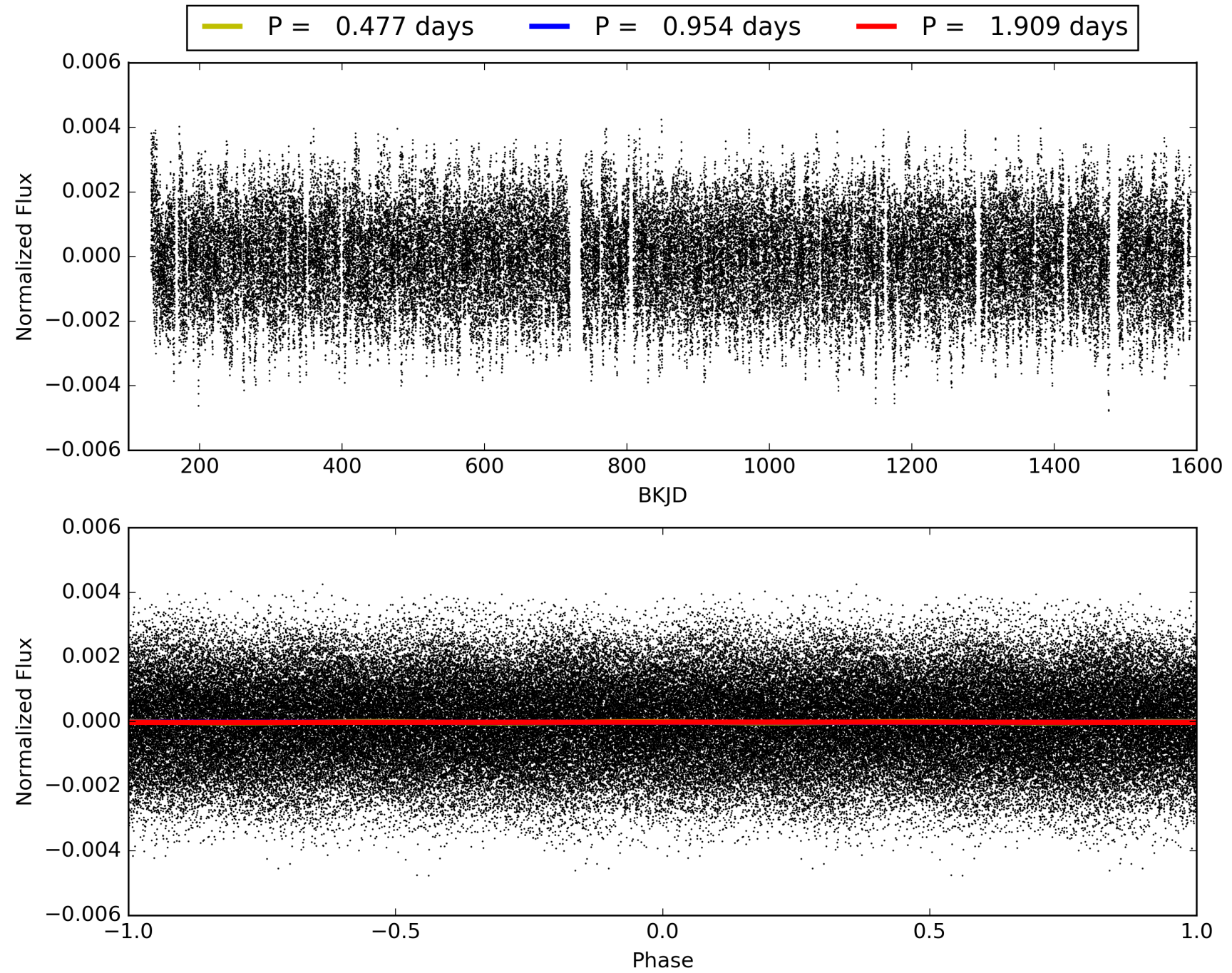
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center



# TCE 006035335-03, PDC Light Curves

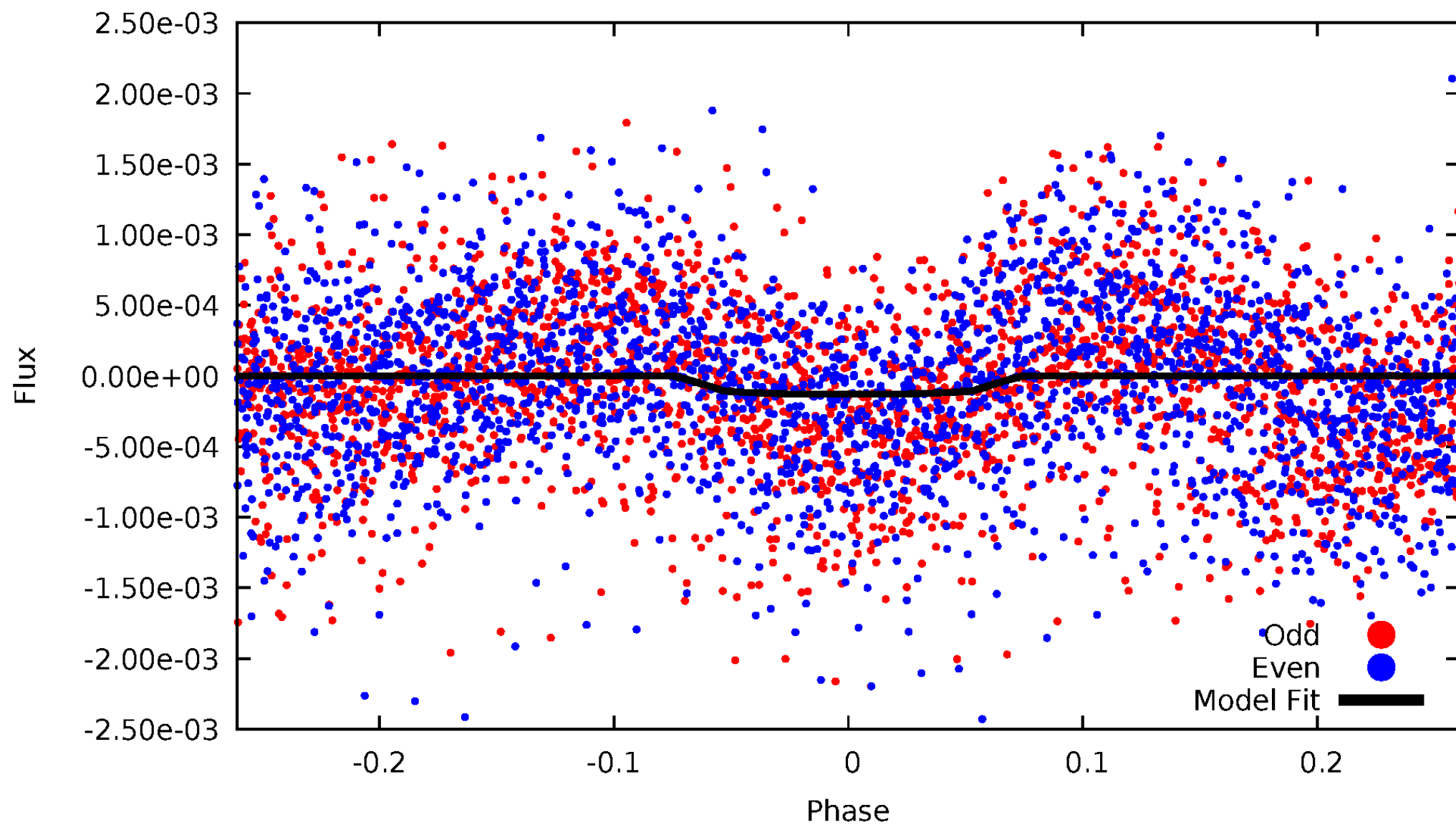


TCE 006035335-03



# DV Odd/Even

TCE 006035335-03





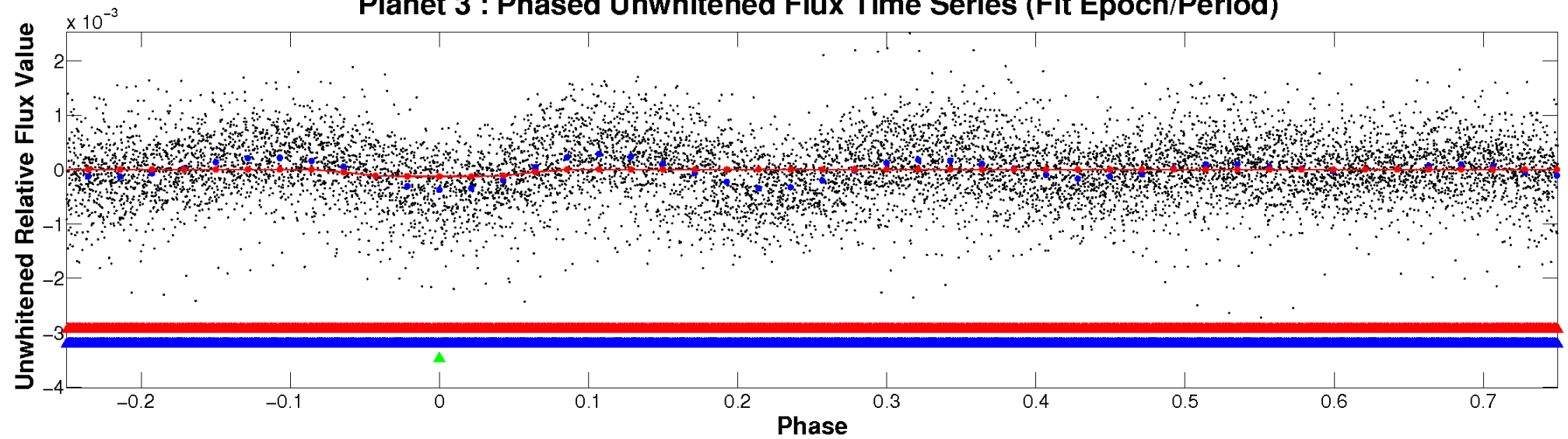
ALT Odd/Even

This plot does not exist for this TCE.

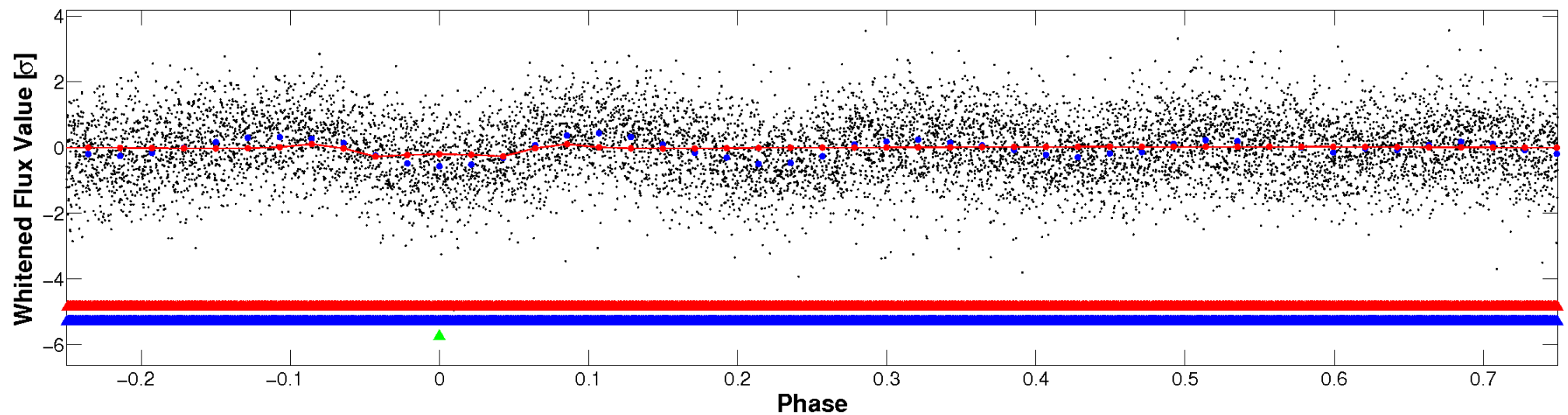


# Non-Whitened Vs. Whitened Light Curve

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

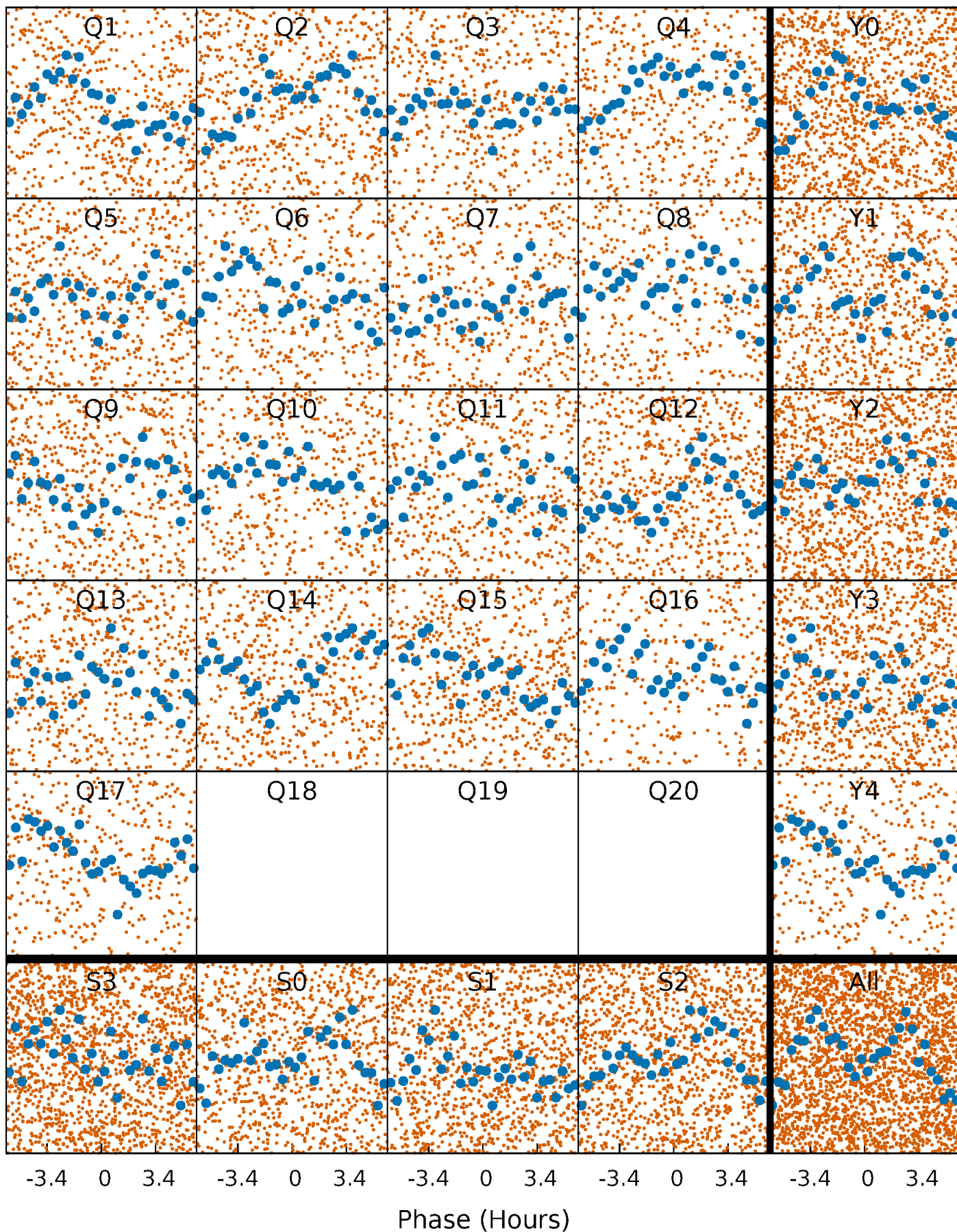


## Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



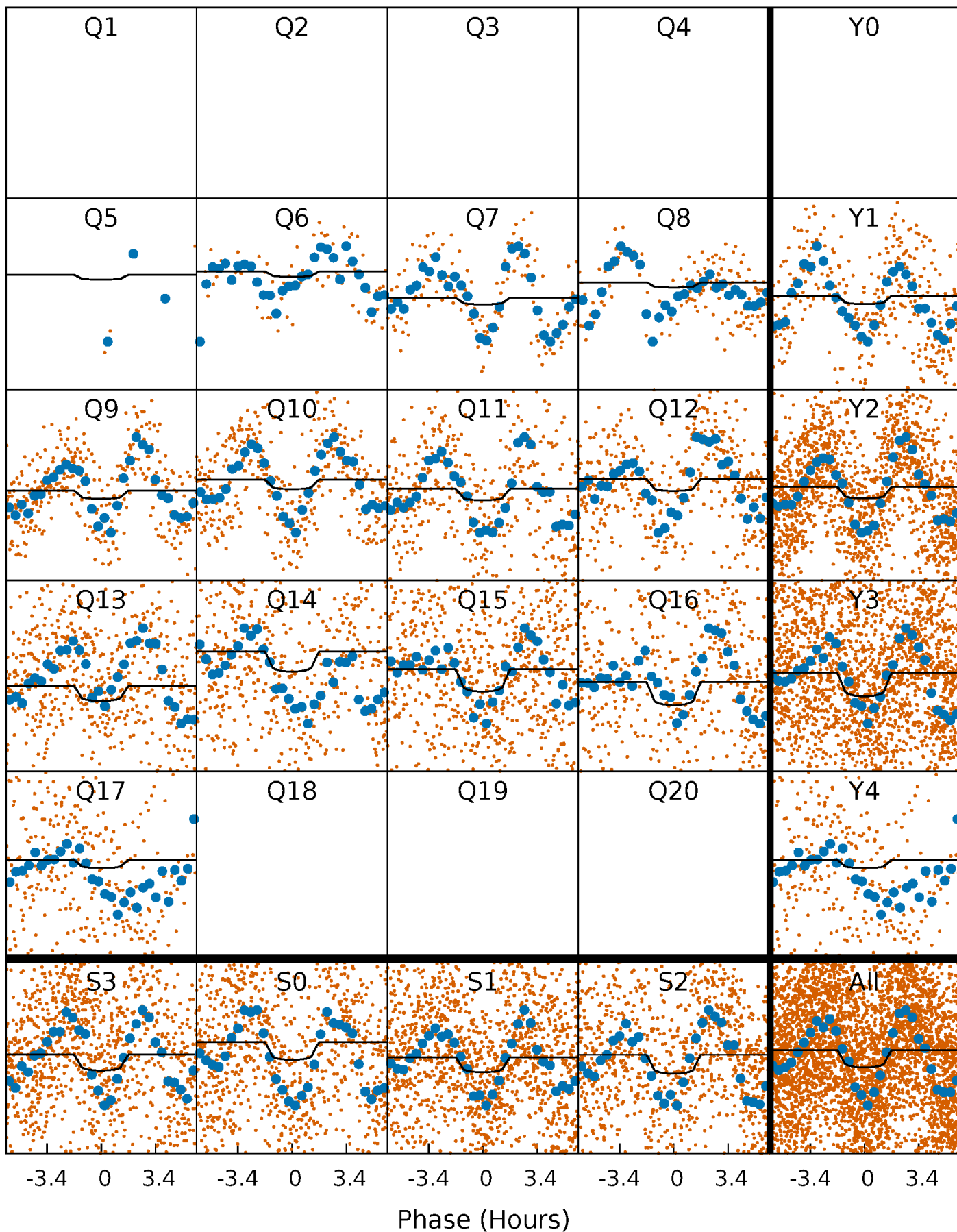
# PDC Quarter-Phased Transit Curves

TCE 006035335-03 P= 0.954467 Days  $T_0=131.675850$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 006035335-03     $P = 0.954467$  Days     $T_0 = 131.675850$  (BKJD)

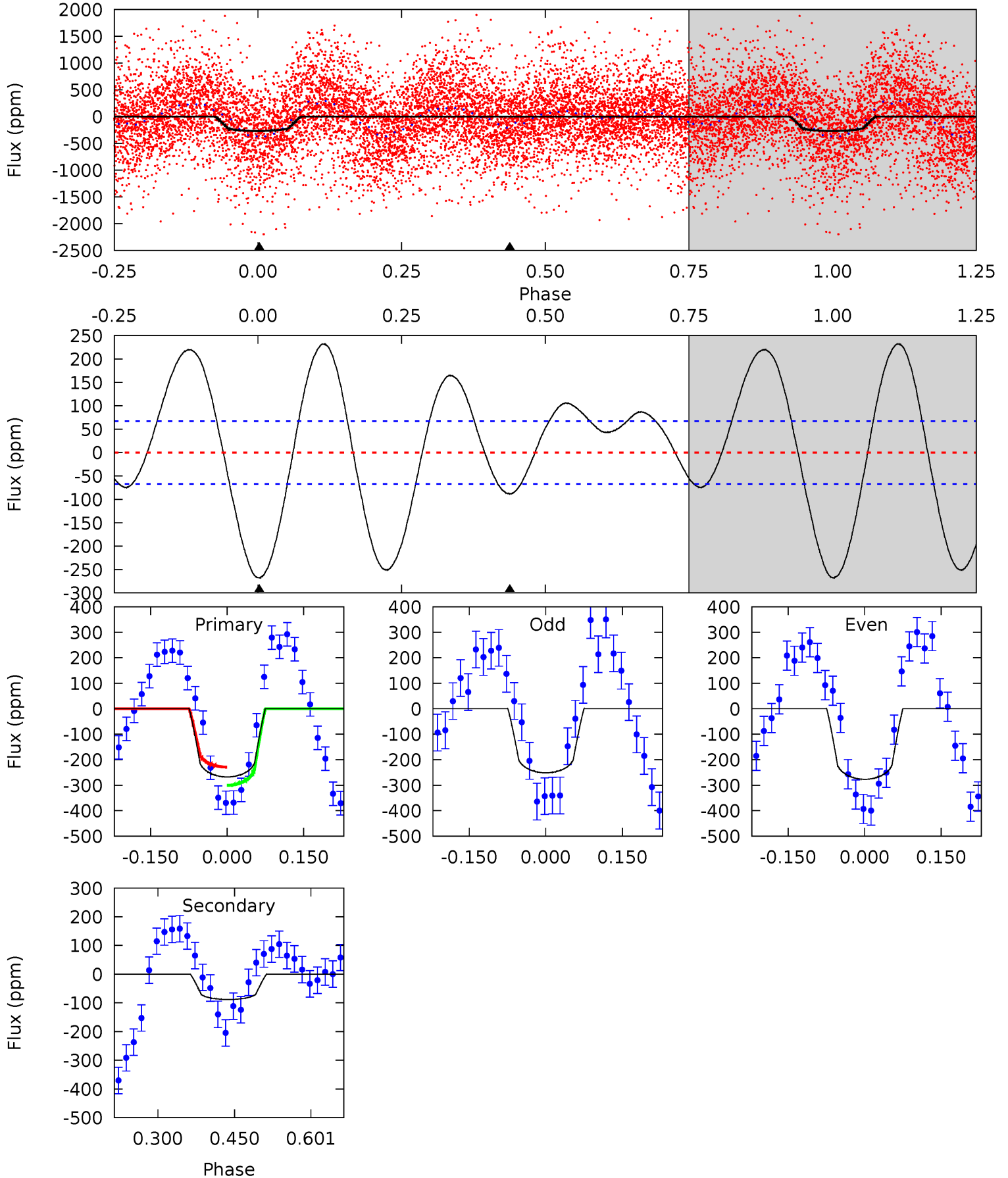


This plot does not exist for this TCE.

# DV Model-Shift Uniqueness Test

006035335-03, P = 0.954467 Days, E = 131.675850 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
17.8	5.88	0	0	4.48	1.44	7.24	17.8	17.8	5.88	5.88	0.86	0.97	0.46	2.43





## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 006035335

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7274^{+201}_{-302}$	$4.161^{+0.109}_{-0.202}$	$-0.020^{+0.200}_{-0.350}$	$1.698^{+0.540}_{-0.332}$	$1.523^{+0.221}_{-0.221}$	$0.438^{+0.262}_{-0.221}$
	+3%/-4%	+3%/-5%	+1000%/-1750%	+32%/-20%	+15%/-15%	+60%/-50%
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 006035335-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-88 \pm 15$	$2.06^{+0.87}_{-0.77}$	$4008^{+306}_{-256}$	$6511^{+2164}_{-976}$	$5.274^{+8.161}_{-2.608}$
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  $A_{obs} \gg 1.0$

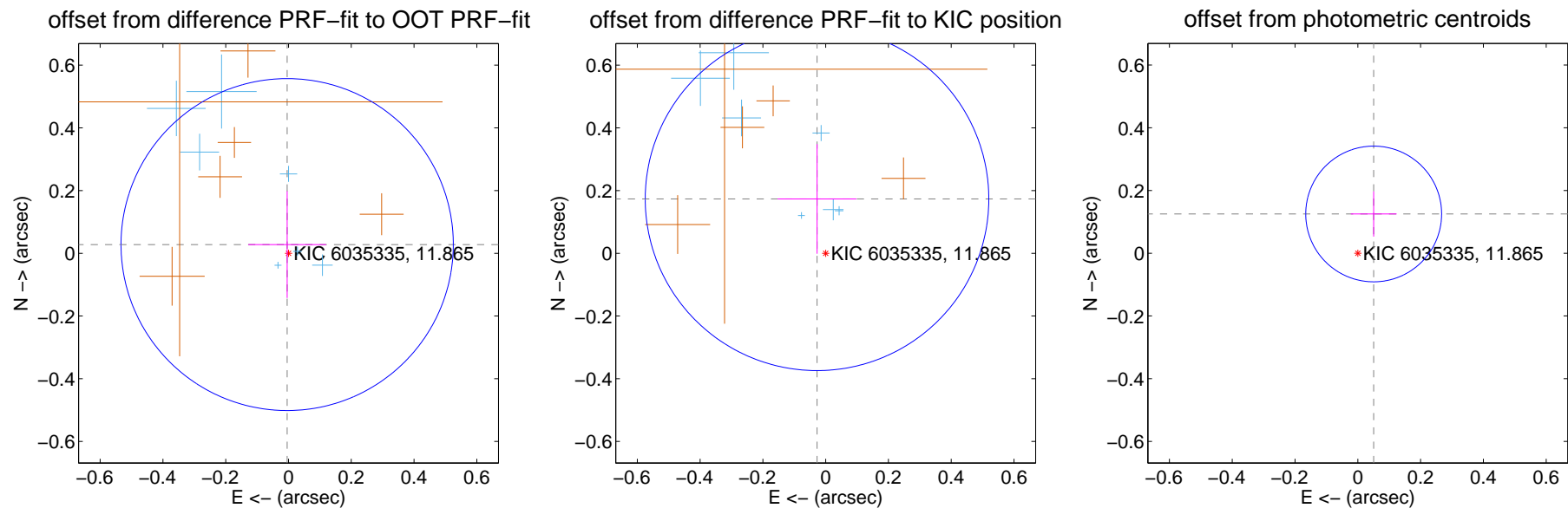
## DV Centroid Data

Supplemental centroid analysis for 006035335-03. **Kepler magnitude: 11.87.** Transit SNR 8.03

There are 8 quarters with good PRF difference image offsets

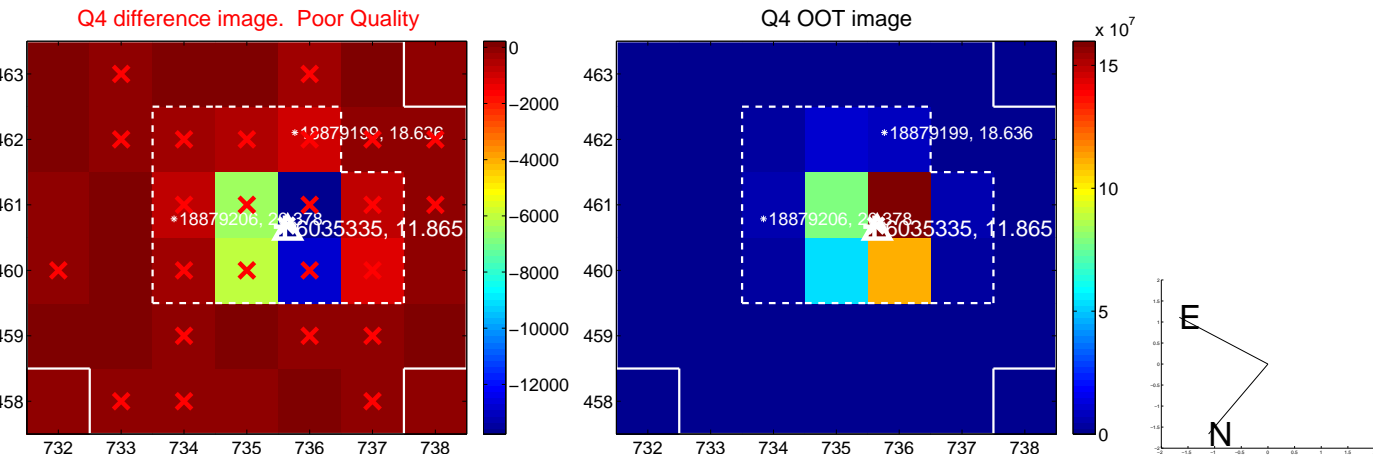
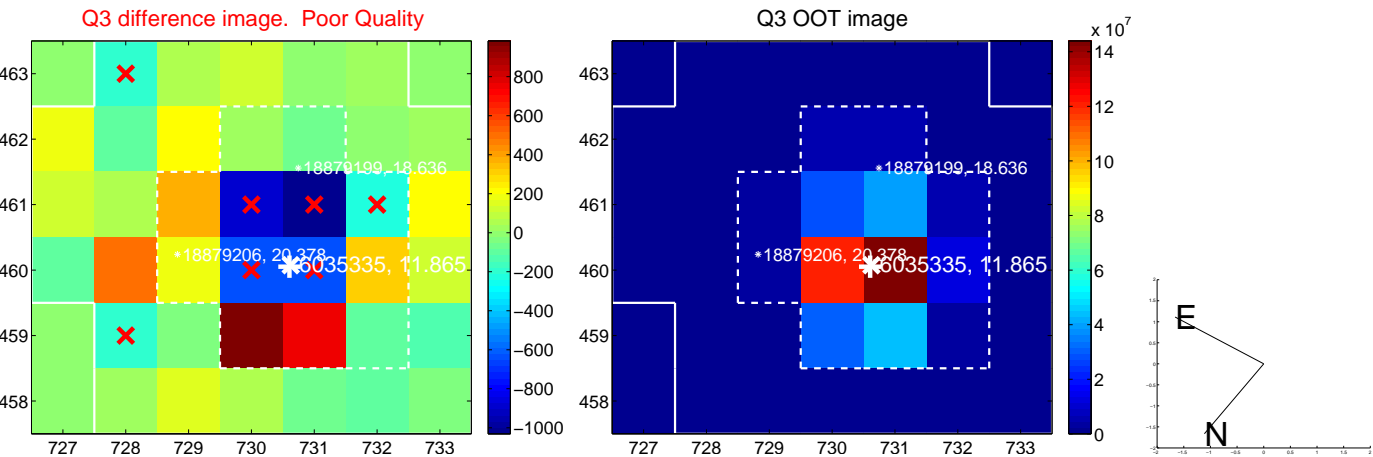
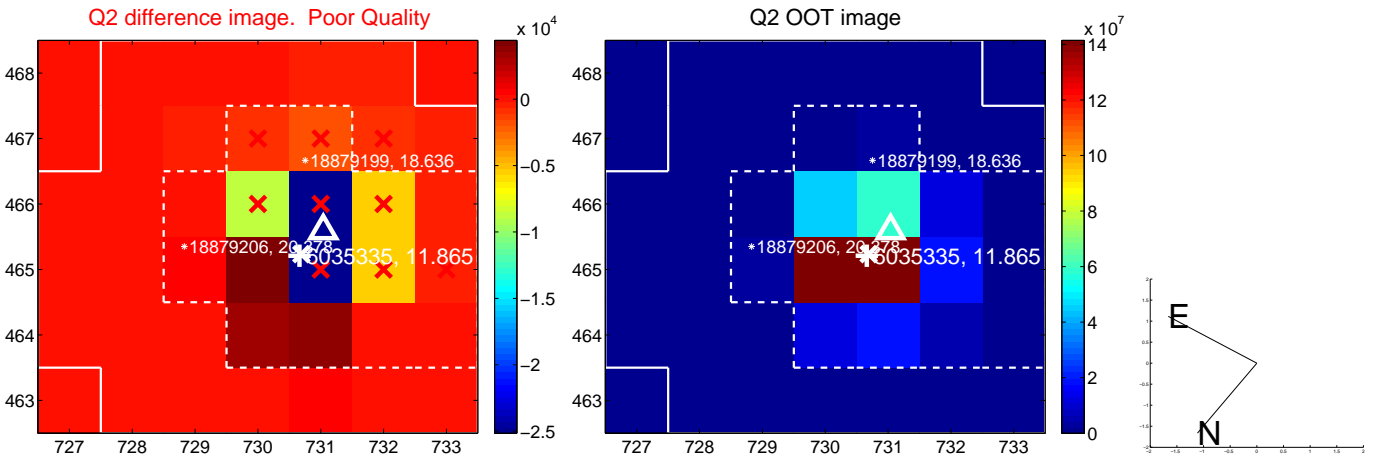
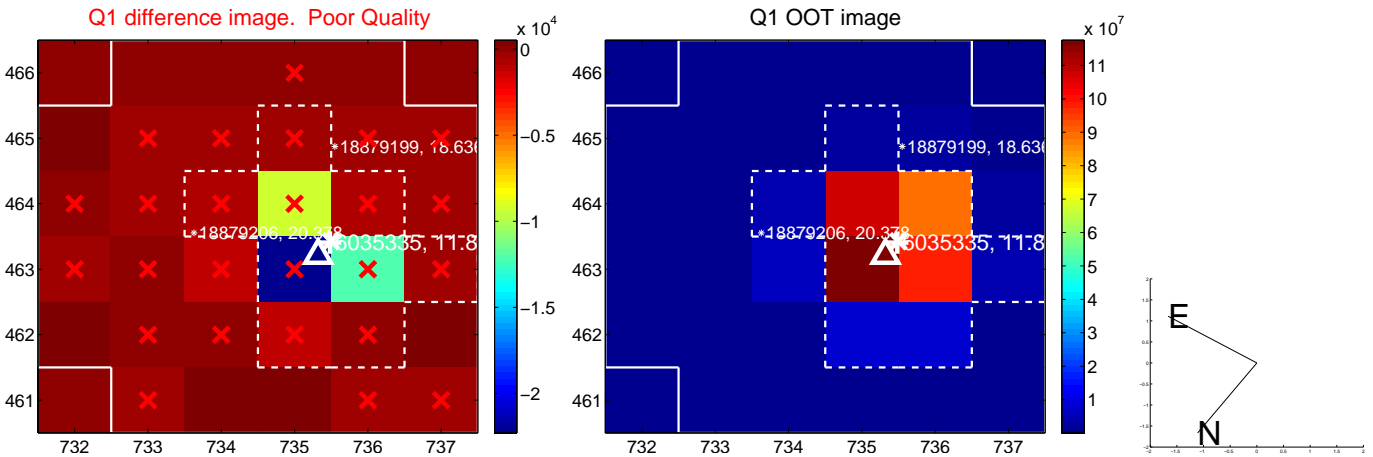
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.028 \pm 0.176$	0.16	$0.004 \pm 0.124$	$0.028 \pm 0.170$
PRF-fit source offset from KIC position	$0.175 \pm 0.182$	0.96	$0.028 \pm 0.125$	$0.173 \pm 0.175$
photometric centroid source offset	$0.13 \pm 0.07$	1.87	$-0.05 \pm 0.07$	$0.13 \pm 0.07$

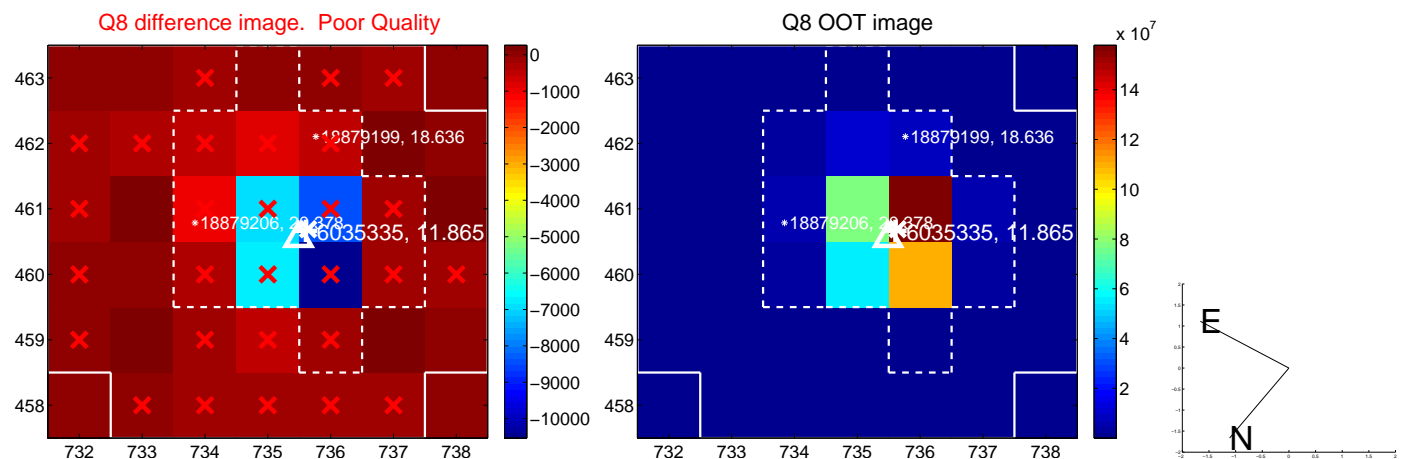
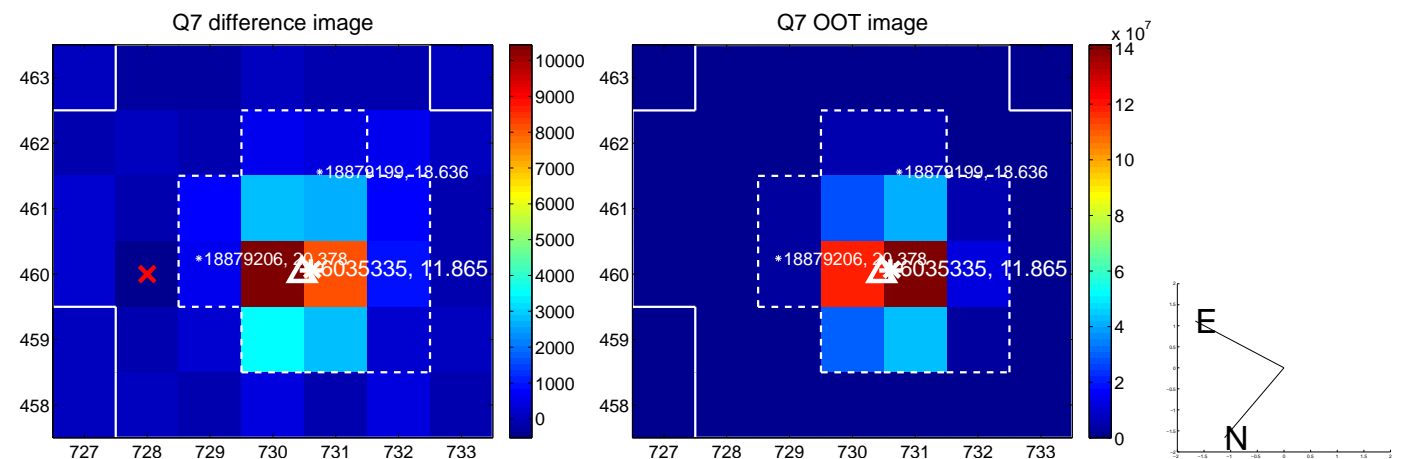
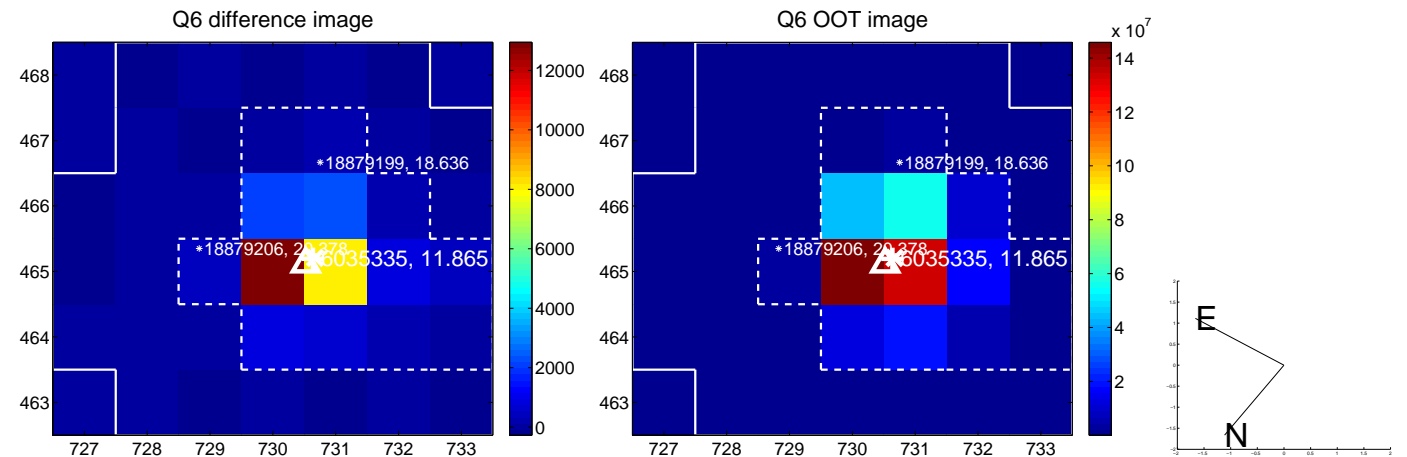
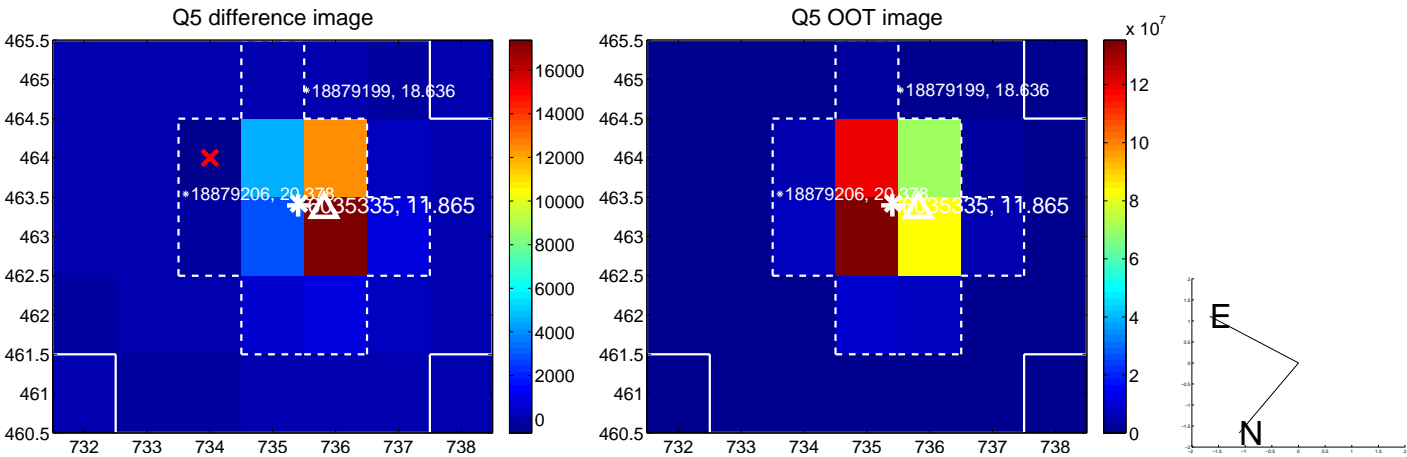


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

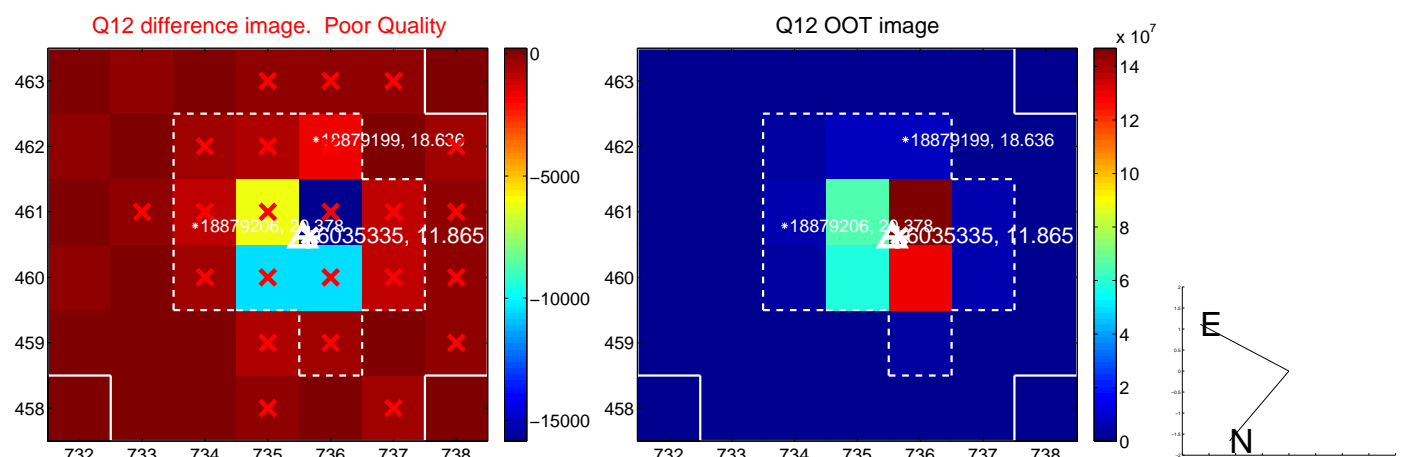
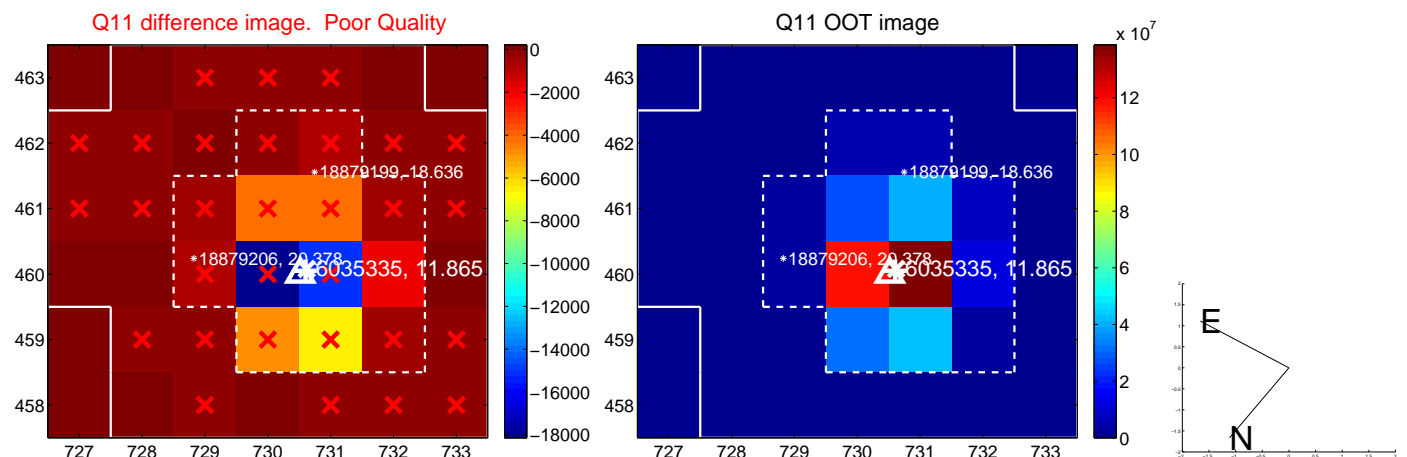
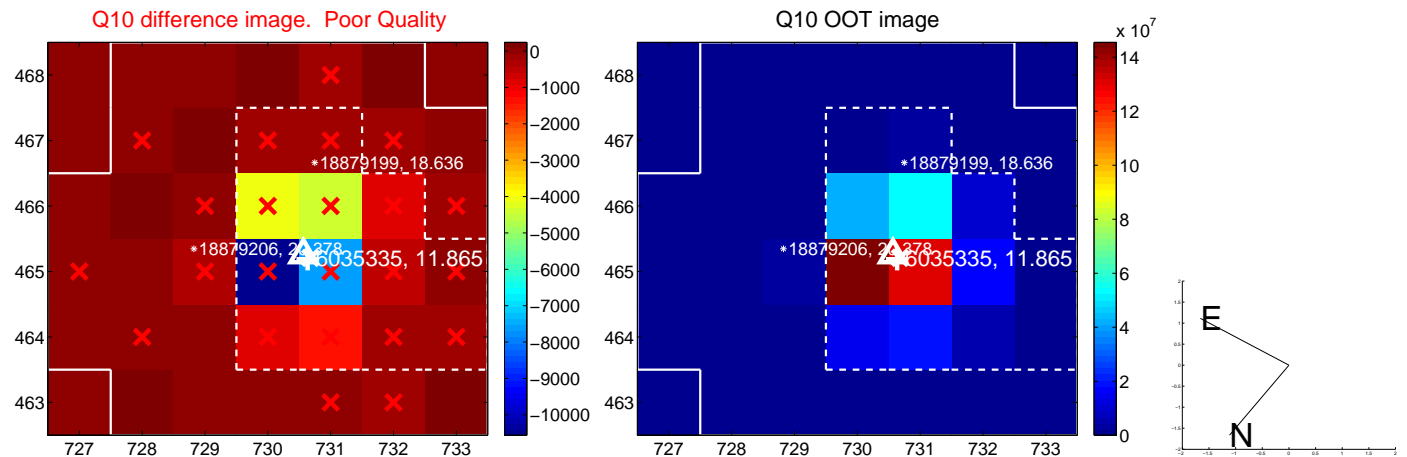
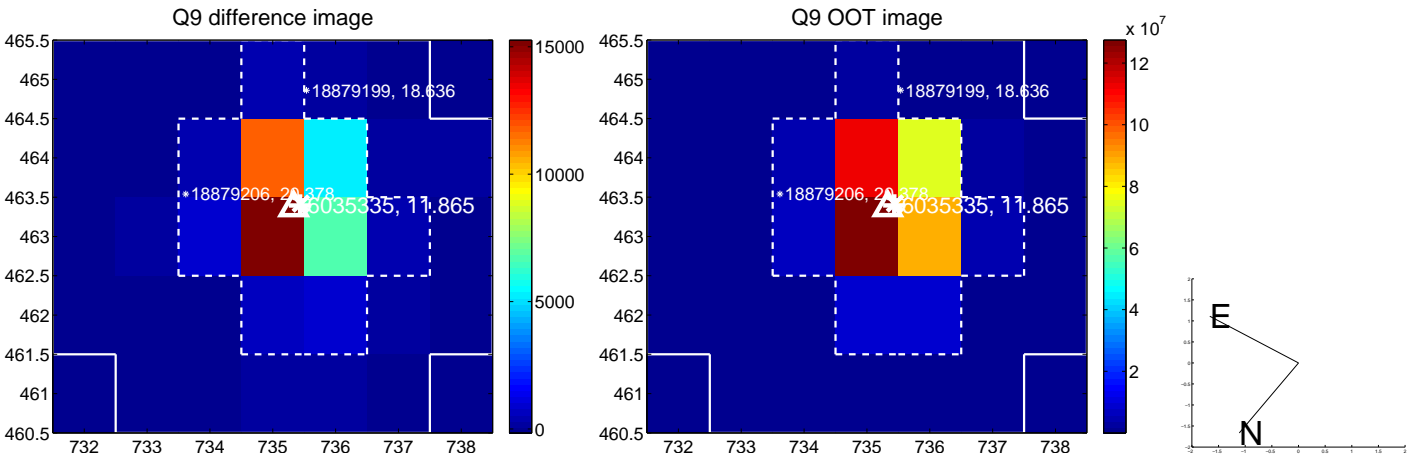


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

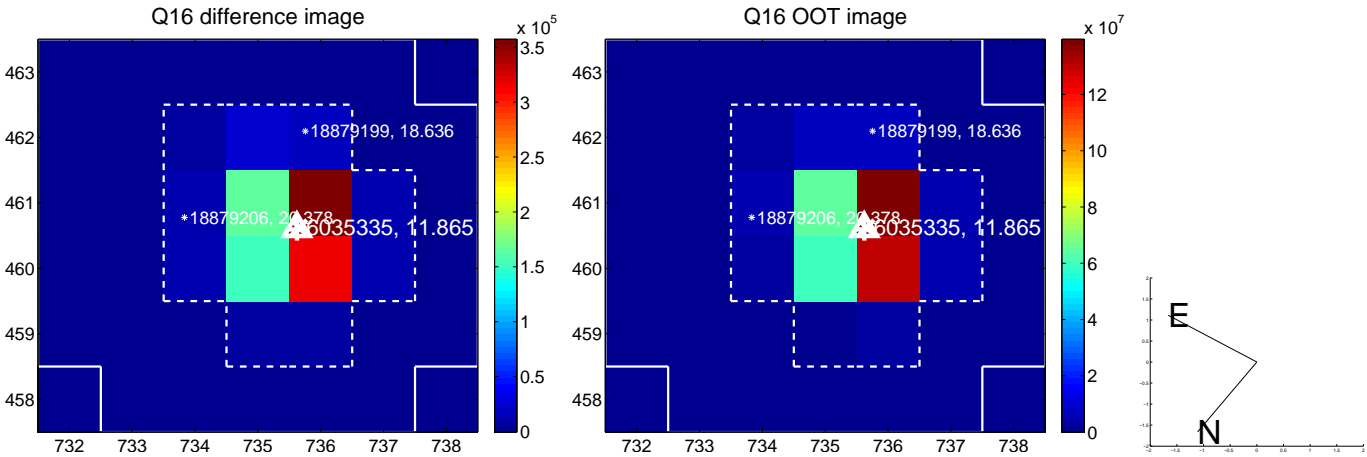
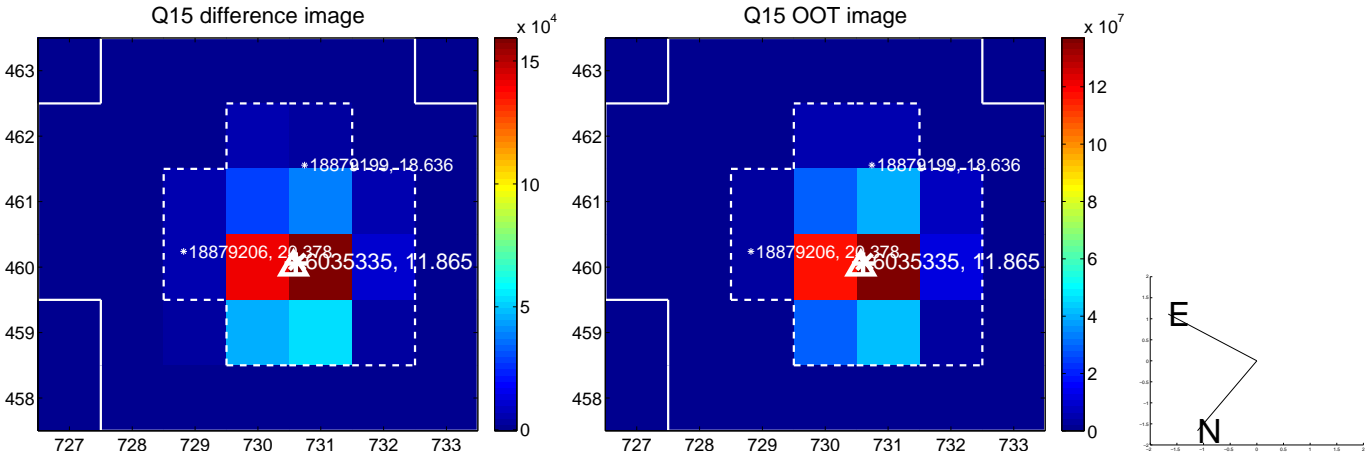
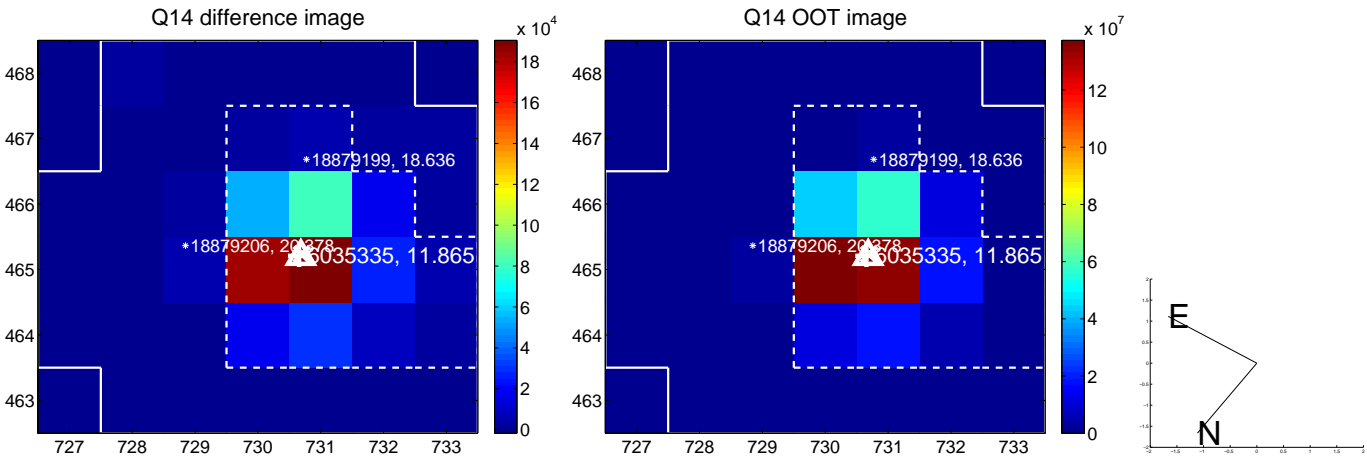
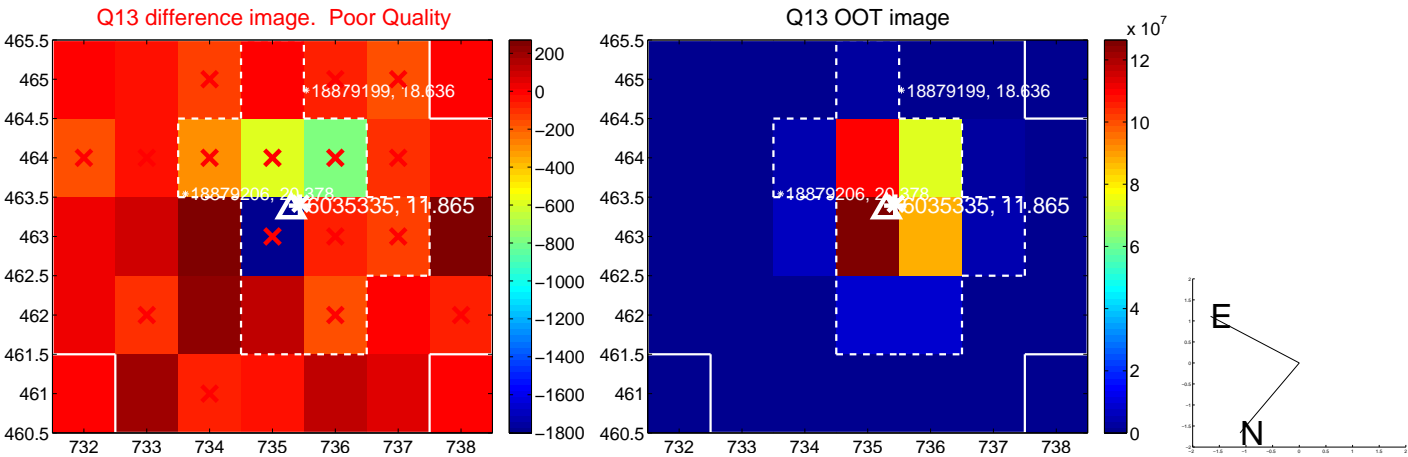




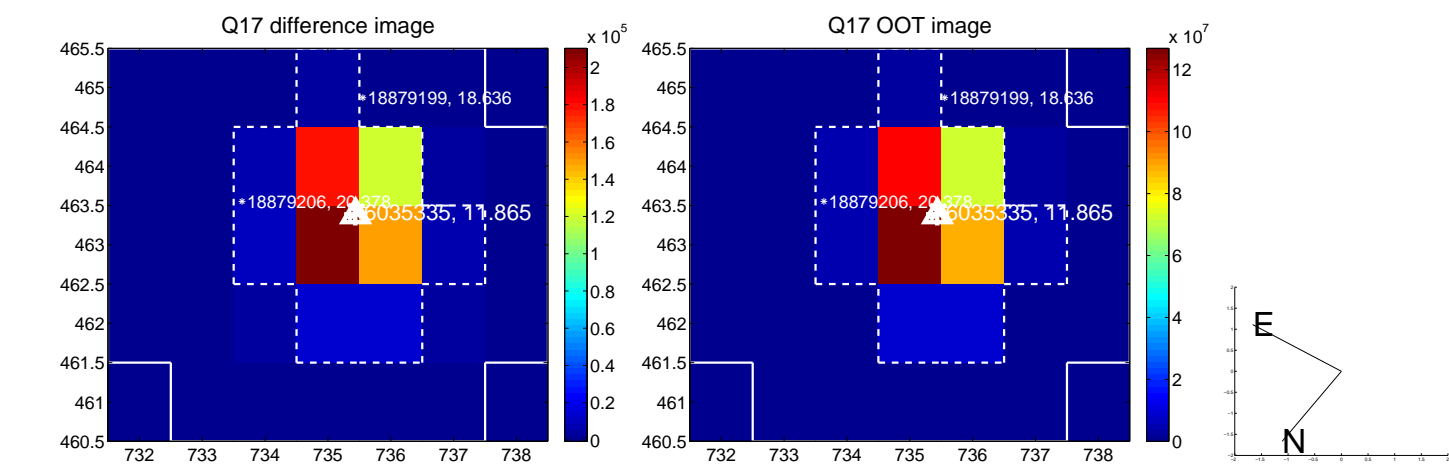
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



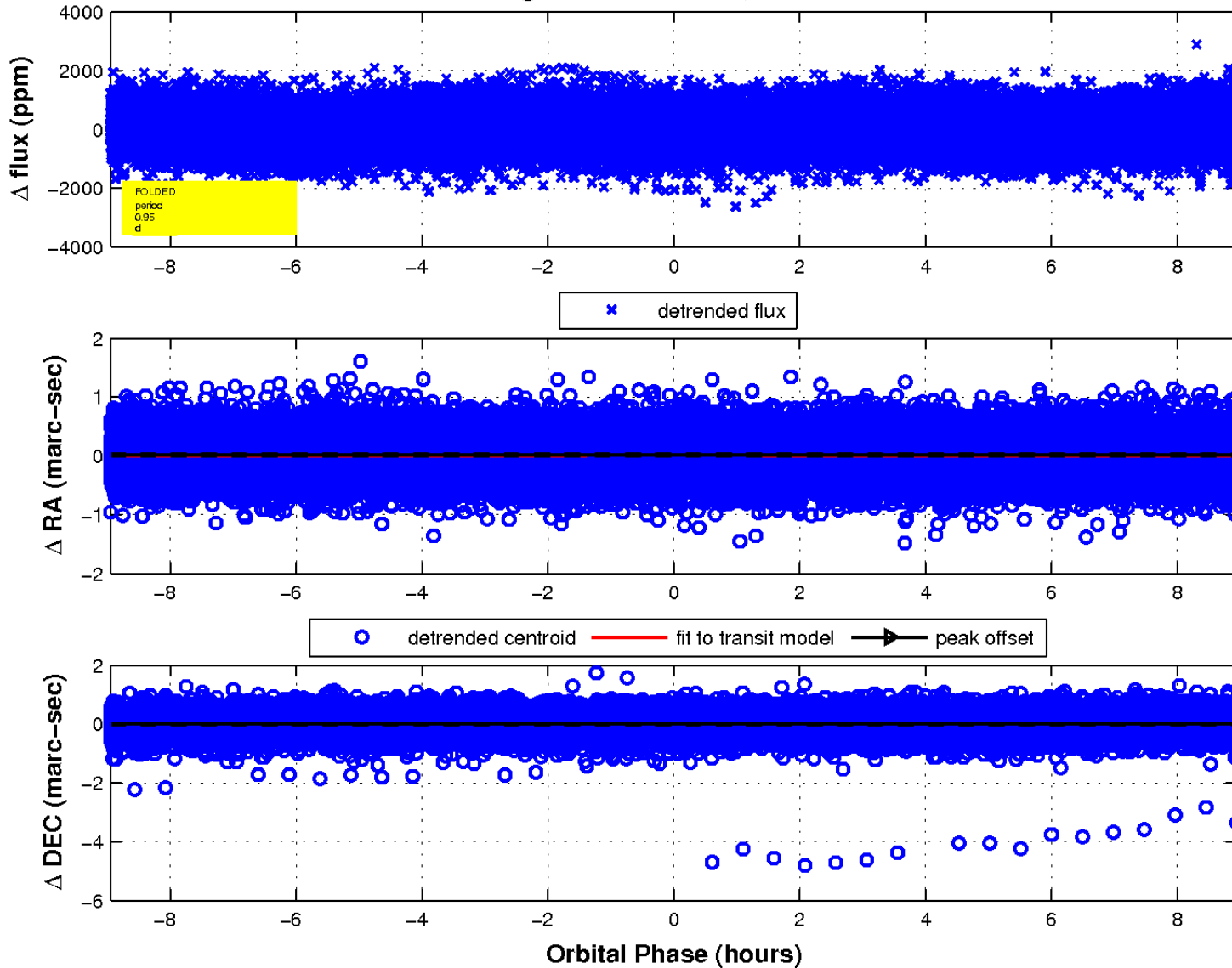
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

