

# KIC 008190627

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008190627-01	OBS	No	0.556210	131.579885	79.0	3.853	11.6	9.4	1.30	6396	1.18	13086.97
008190627-02	OBS	No	34.777954	158.008771	2134.2	0.904	11.0	13.0	1.30	6396	6.15	52.73
008190627-03	OBS	No	16.529395	147.842864	1124.2	1.991	10.4	10.9	1.30	6396	4.45	142.17

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008190627-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_KIC_POS
008190627-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
008190627-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

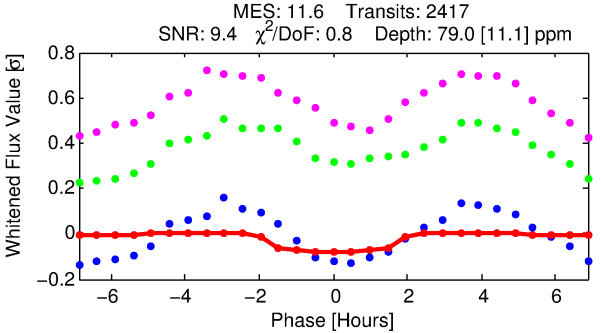
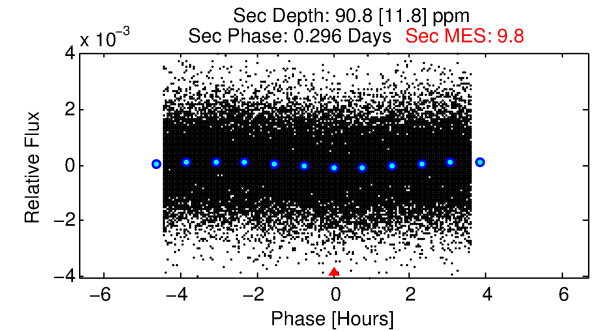
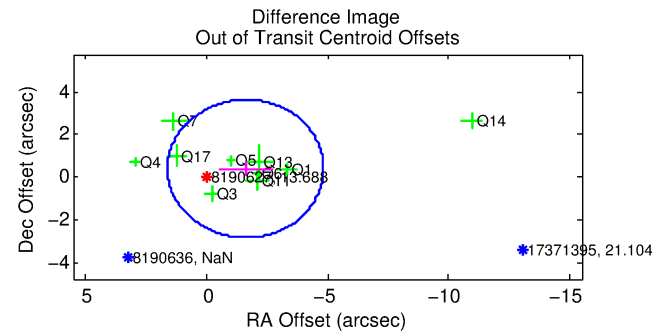
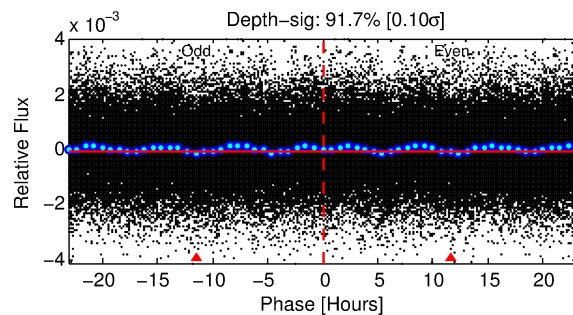
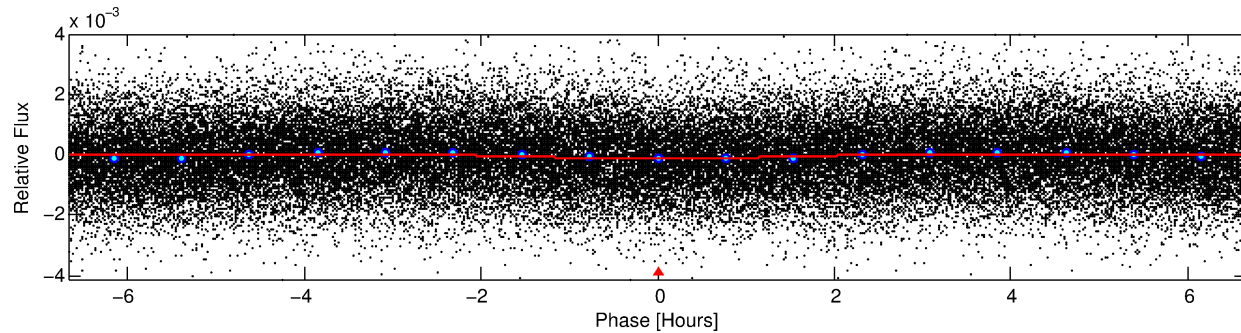
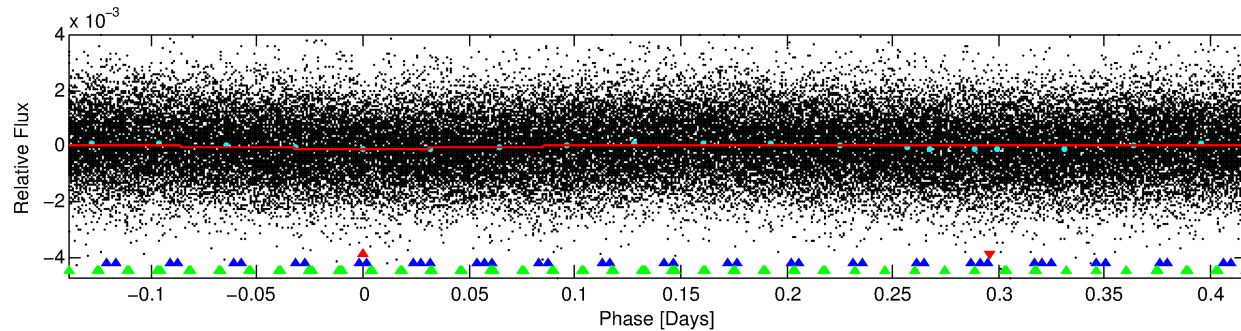
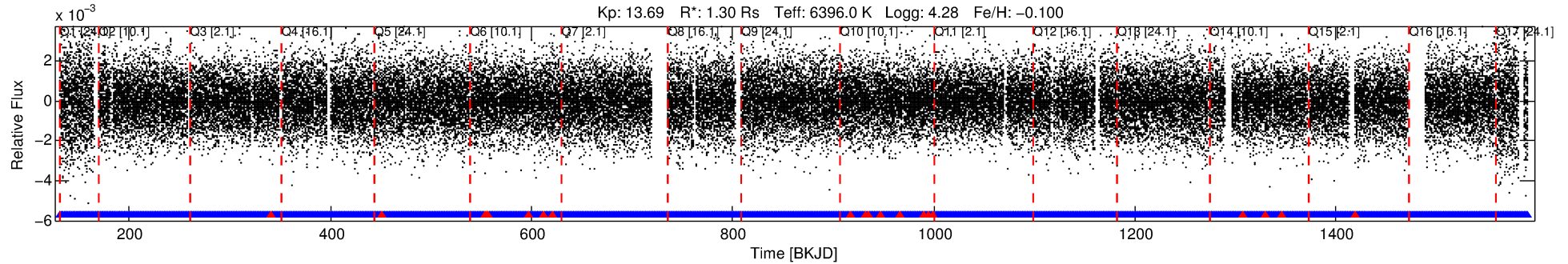
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008190627-01

No Significant Match Found

# DV One-Page Summary

KIC: 8190627 Candidate: 1 of 3 Period: 0.556 d



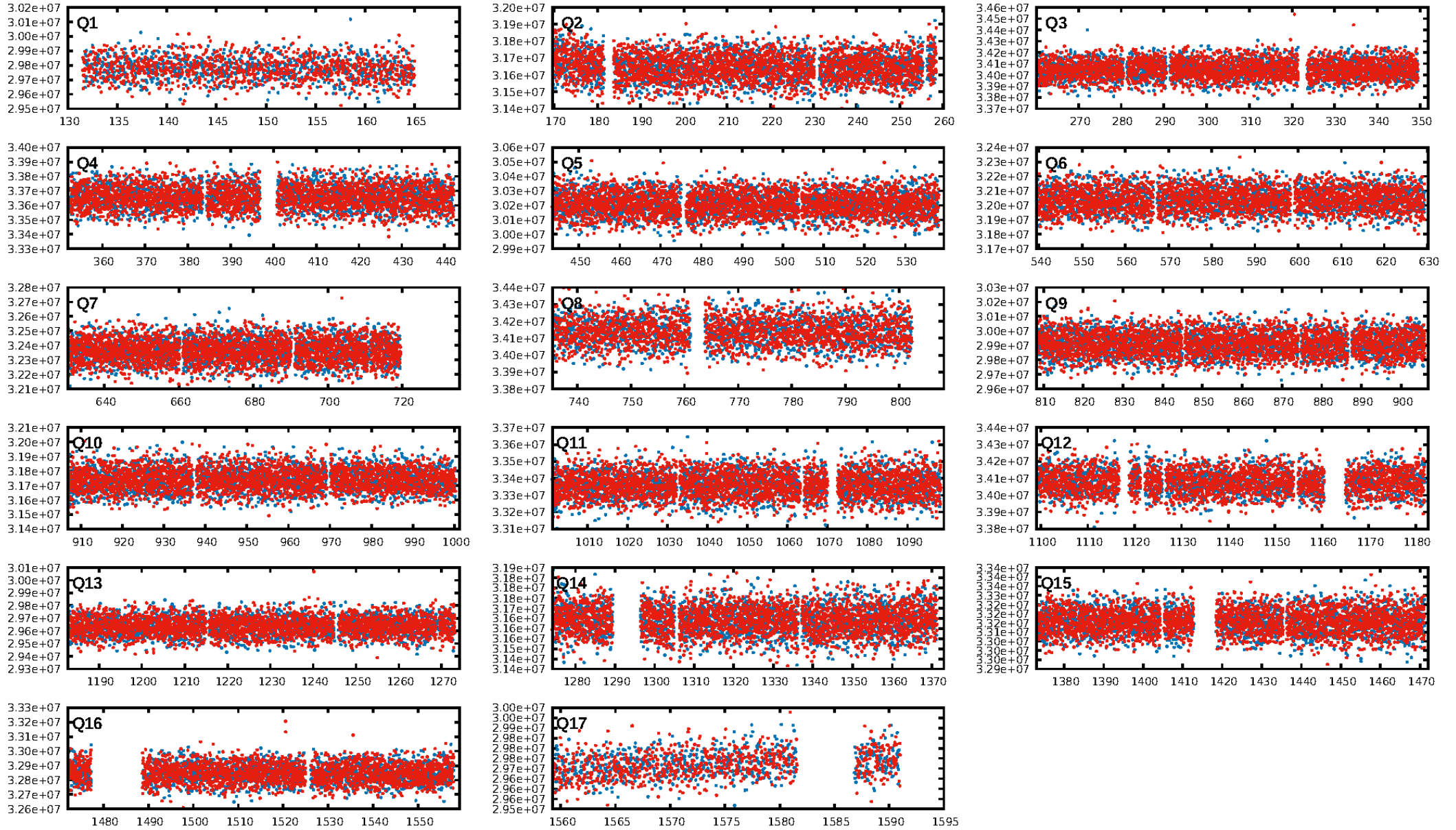
## DV Fit Results:

Period = 0.55621 [0.00001] d  
Epoch = 131.5799 [0.0049] BKJD  
Rp/R\* = 0.0083 [0.0119]  
a/R\* = 1.24 [3.13]  
b = 0.43 [14.20]  
Seff = 13086.96 [5281.73]  
Teff = 2727 [275] K  
Rp = 1.18 [1.73] Re  
a = 0.0139 [0.0037] AU  
Ag = 6.91 [19.93] [0.30 $\sigma$ ]  
Teffp = 6838 [4892] K [0.84 $\sigma$ ]

## DV Diagnostic Results:

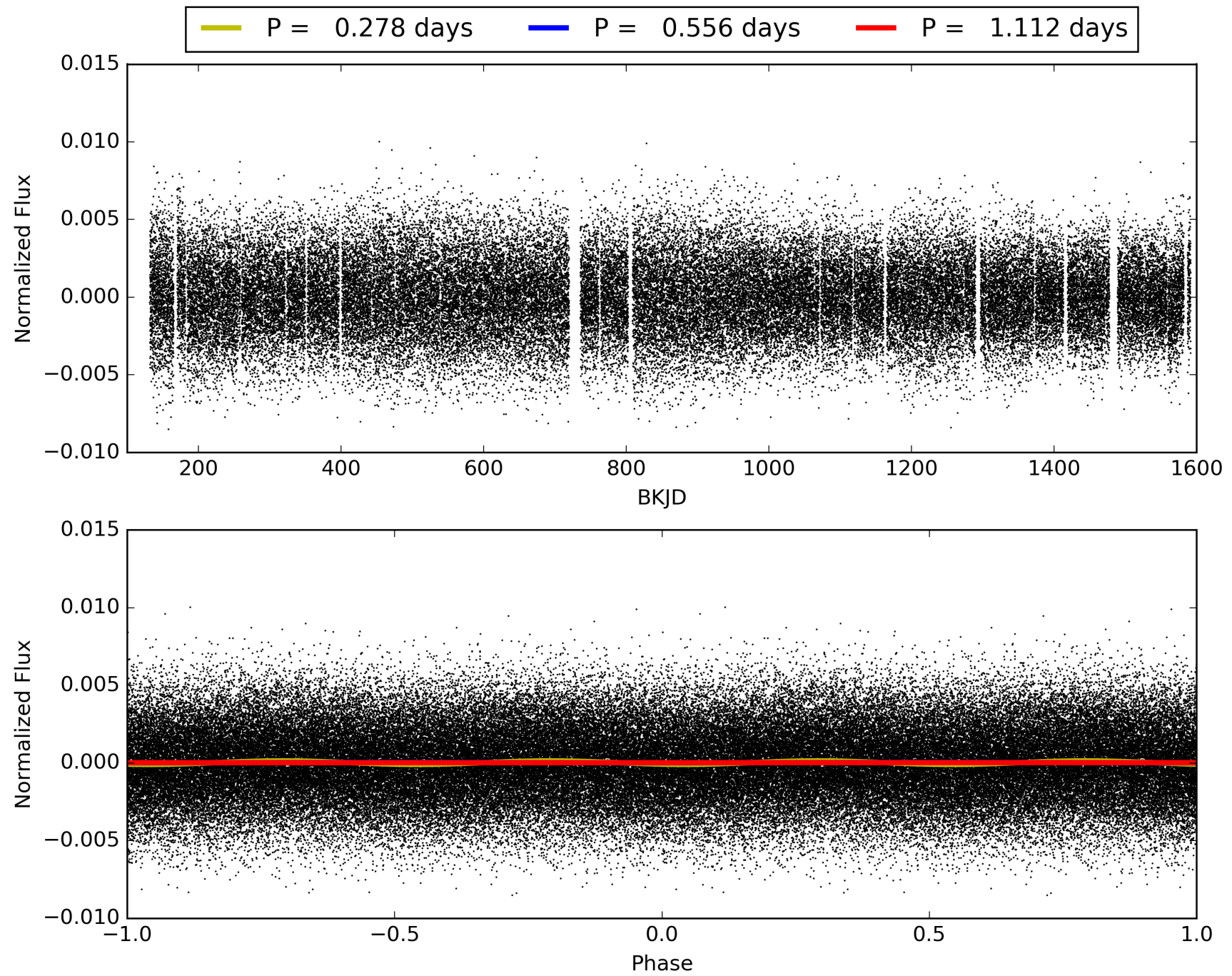
ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [88.39 $\sigma$ ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.13e-16  
RollingBand-fgt: 0.99 [2286/2307]  
GhostDiagnostic-chr: 1.573  
Centroid-sig: 0.0%  
Centroid-so: 1.089 arcsec [1.69 $\sigma$ ]  
OotOffset-rm: 1.668 arcsec [1.55 $\sigma$ ]  
KicOffset-rm: 1.181 arcsec [0.95 $\sigma$ ]  
OotOffset-st: 2/3/1/4 [10]  
KicOffset-st: 2/3/1/4 [10]  
DiffImageQuality-fgm: 0.60 [6/10]  
DiffImageOverlap-fno: 1.00 [17/17]

# TCE 008190627-01, PDC Light Curves



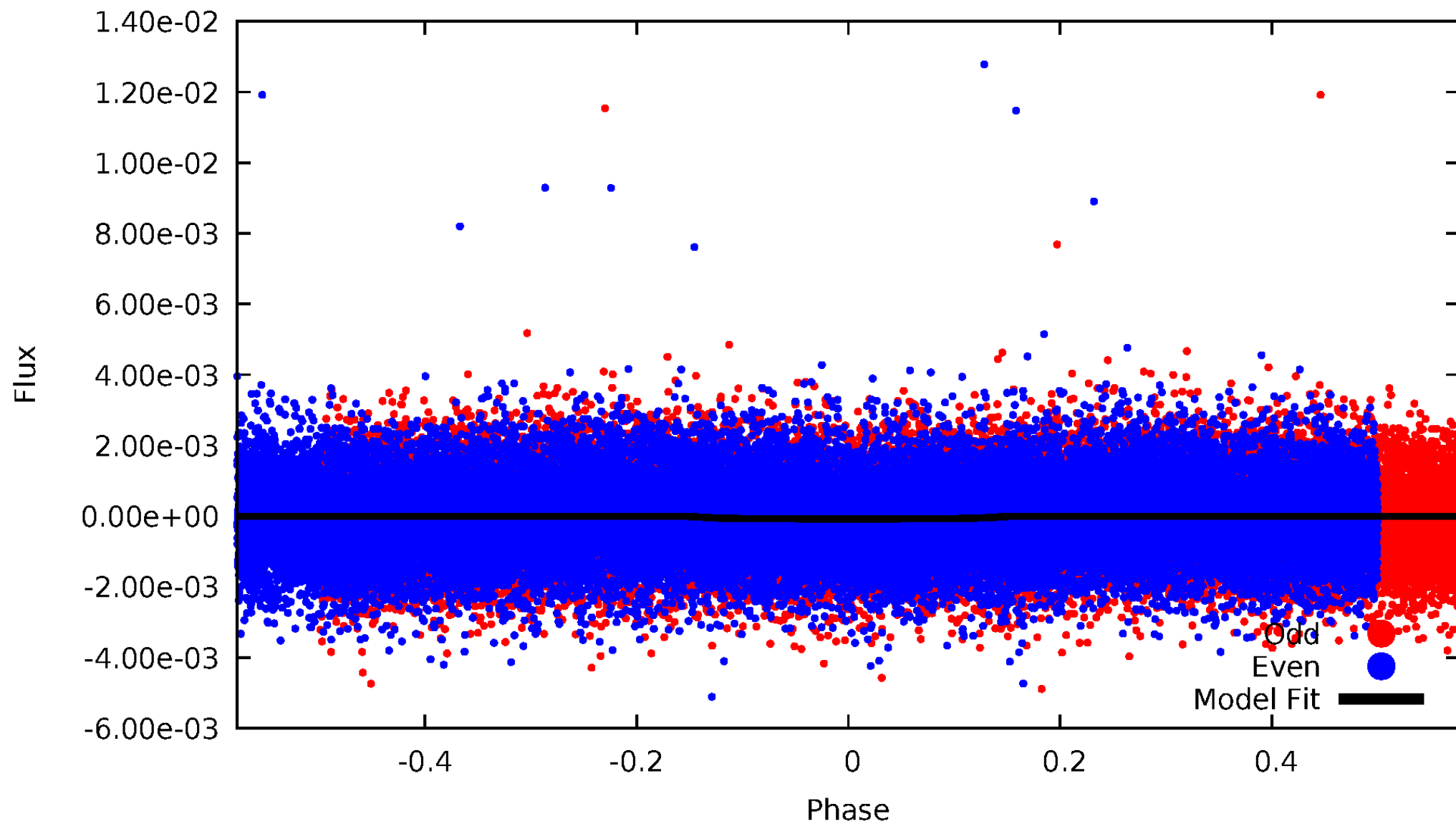


TCE 008190627-01



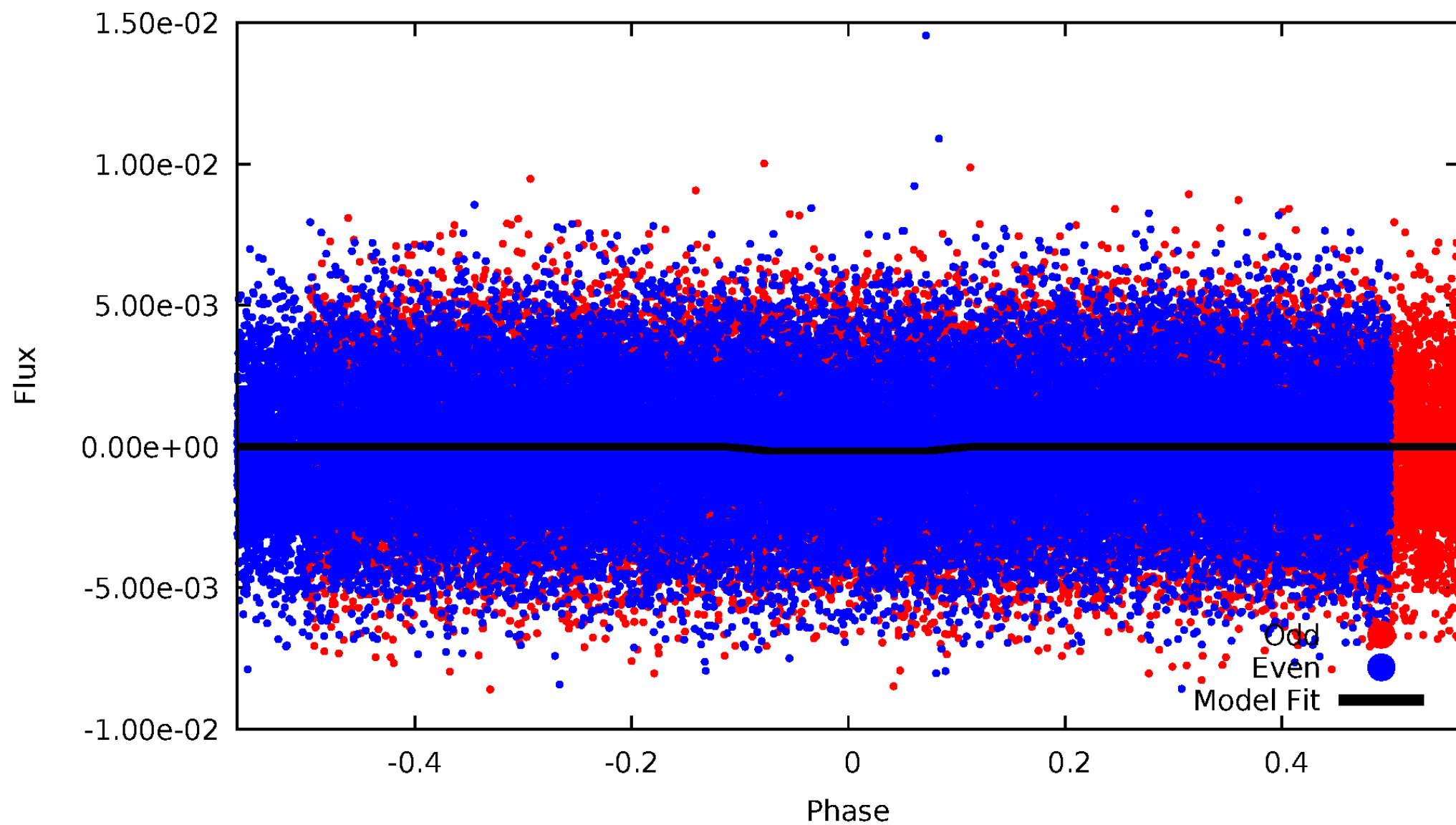
# DV Odd/Even

TCE 008190627-01



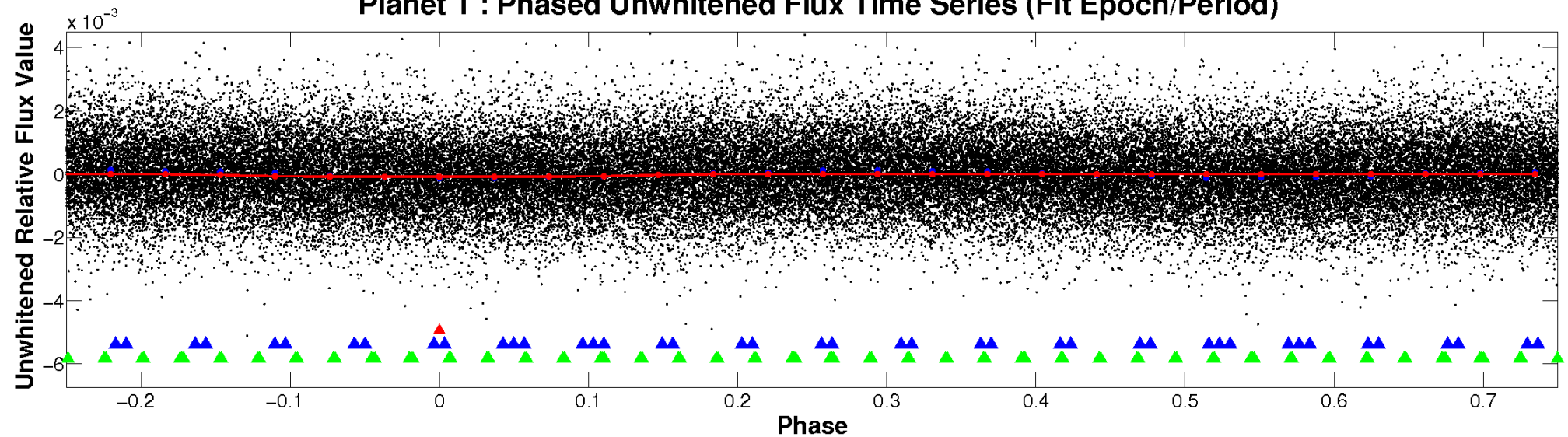
# ALT Odd/Even

TCE 008190627-01

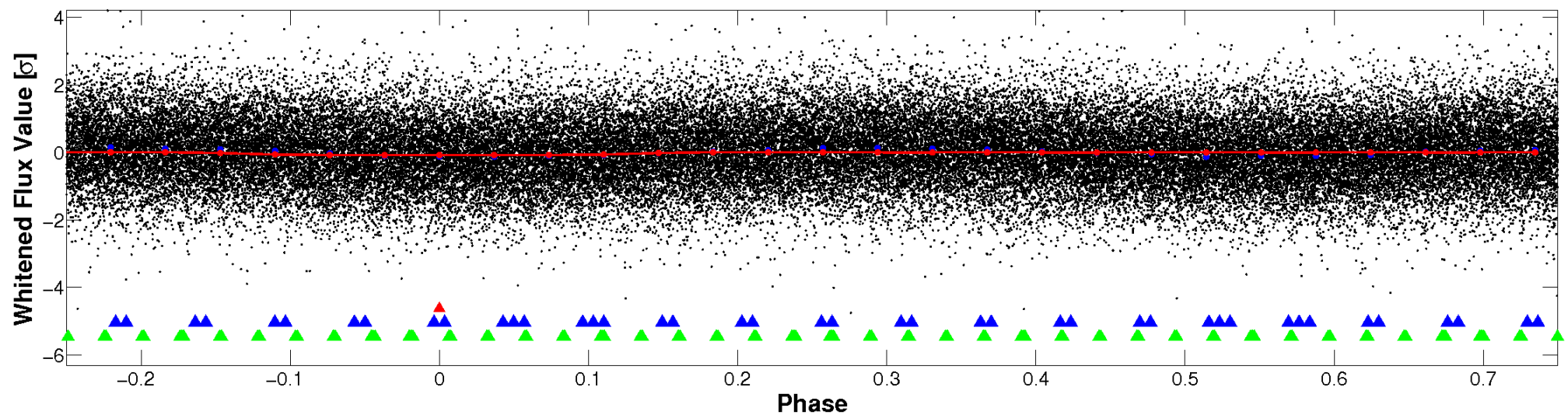


# Non-Whitened Vs. Whitened Light Curve

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



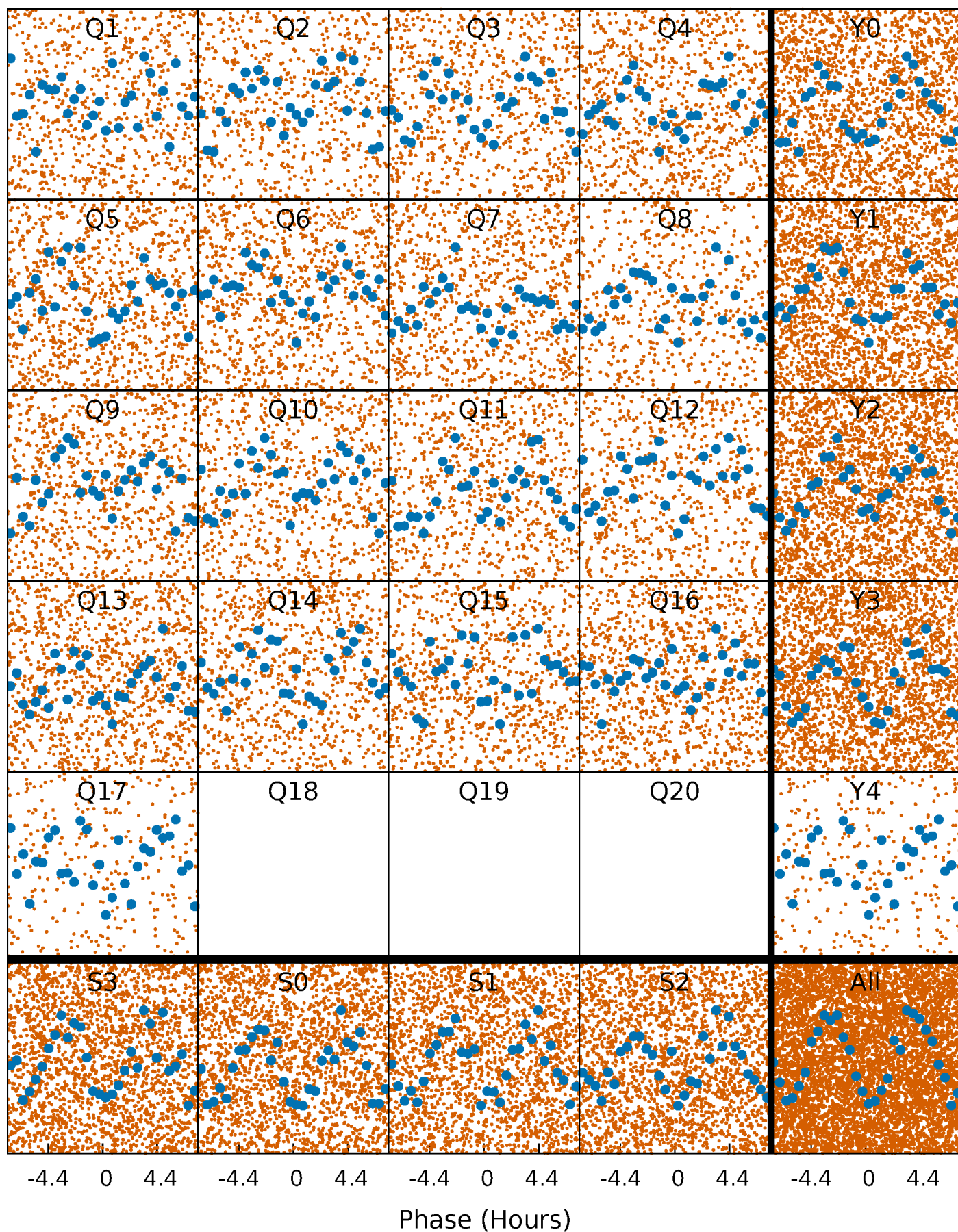
## Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)





# PDC Quarter-Phased Transit Curves

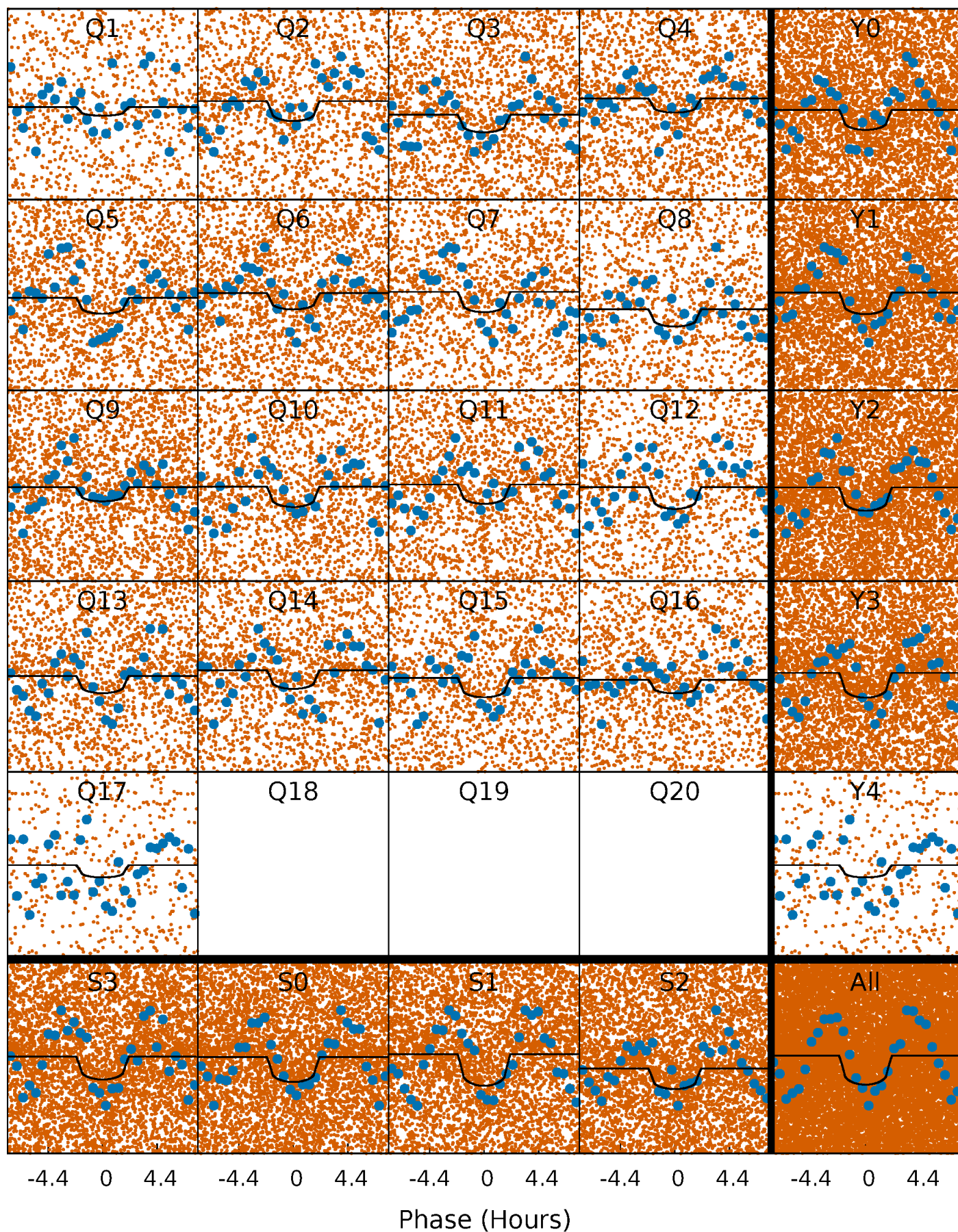
TCE 008190627-01 P= 0.556210 Days  $T_0=131.579885$  (BKJD)





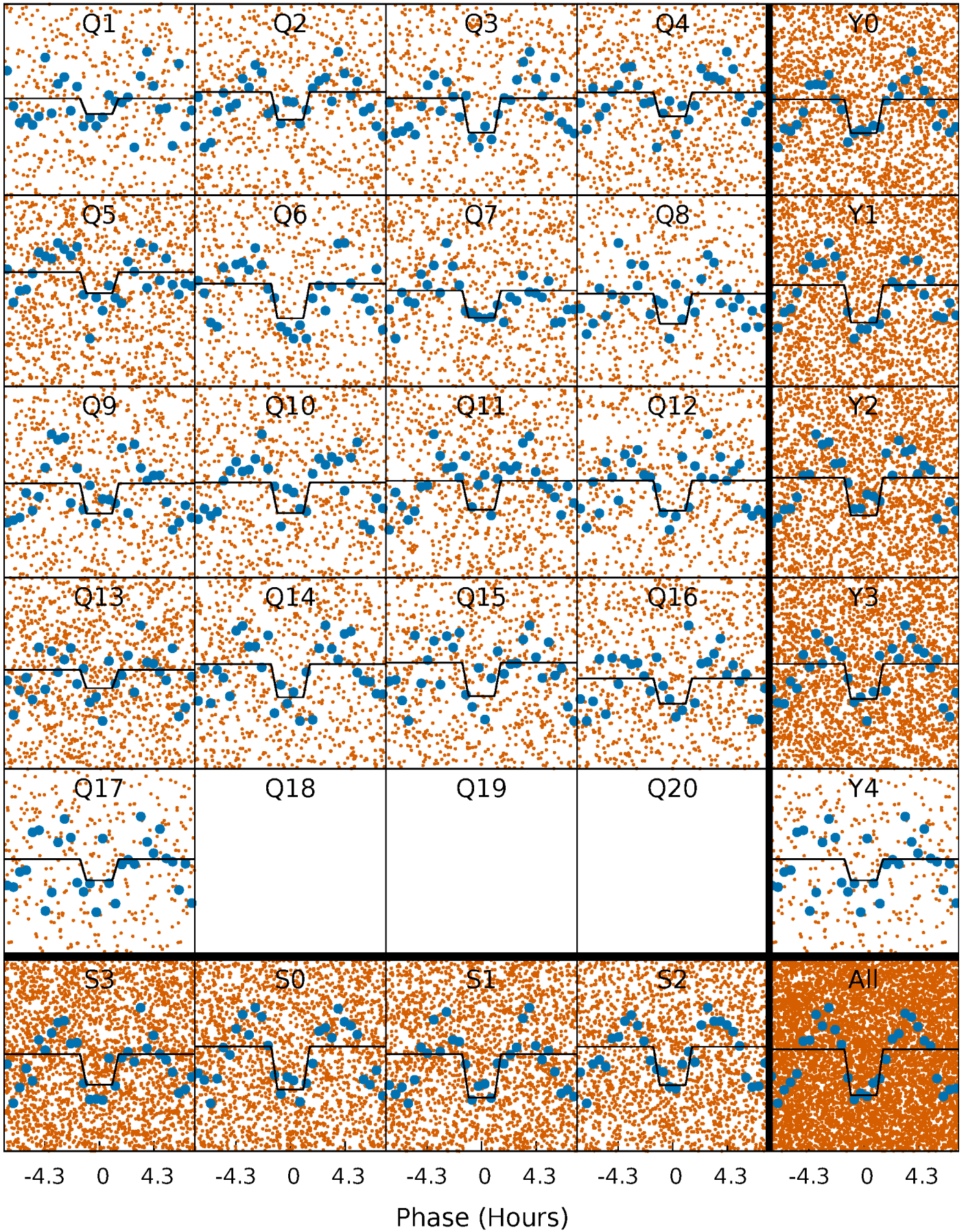
# DV Quarter-Phased Transit Curves

TCE 008190627-01 P= 0.556210 Days  $T_0=131.579885$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 008190627-01 P= 0.556230 Days  $T_0=131.571110$  (BKJD)

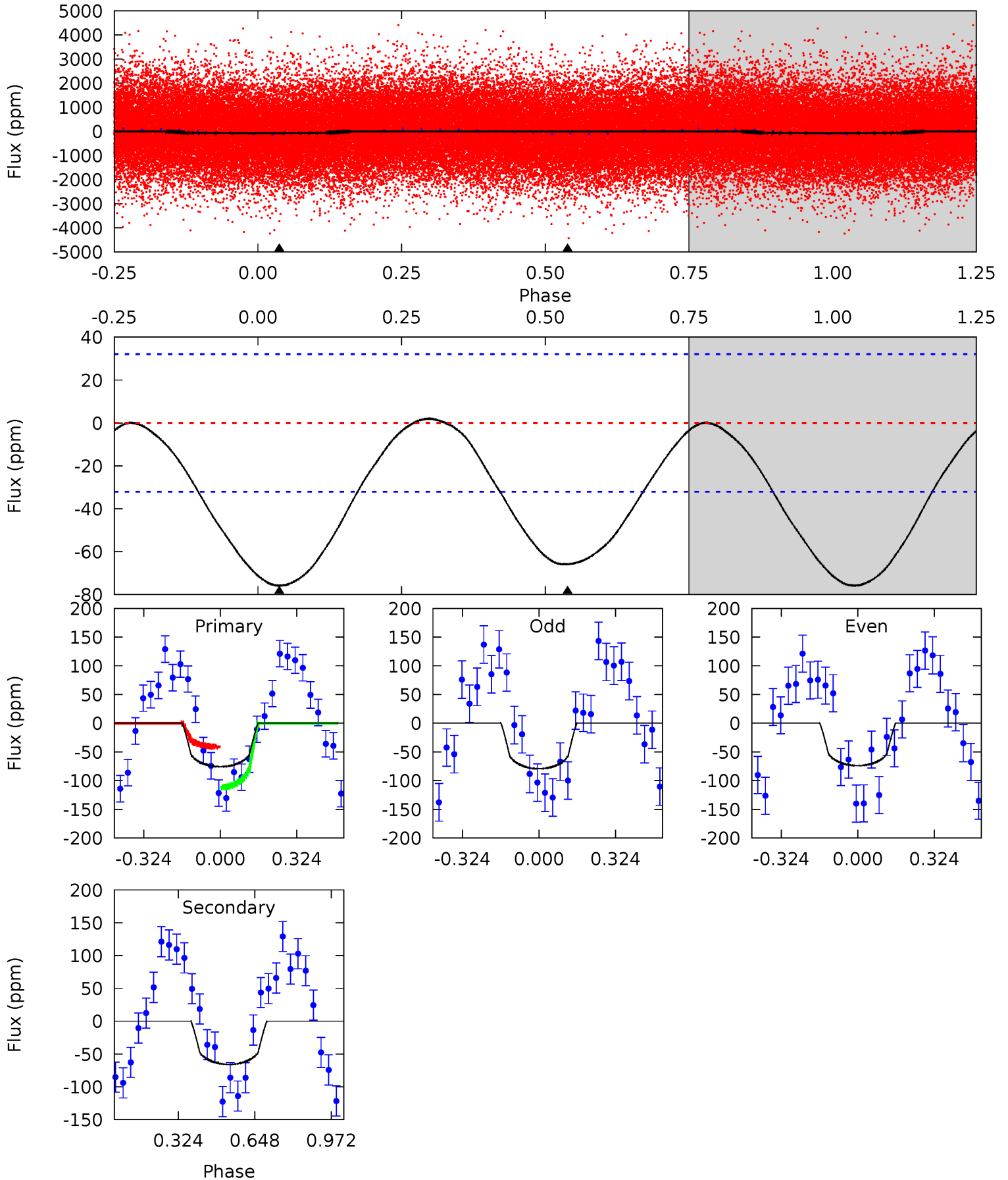




# DV Model-Shift Uniqueness Test

008190627-01, P = 0.556210 Days, E = 131.023675 Days

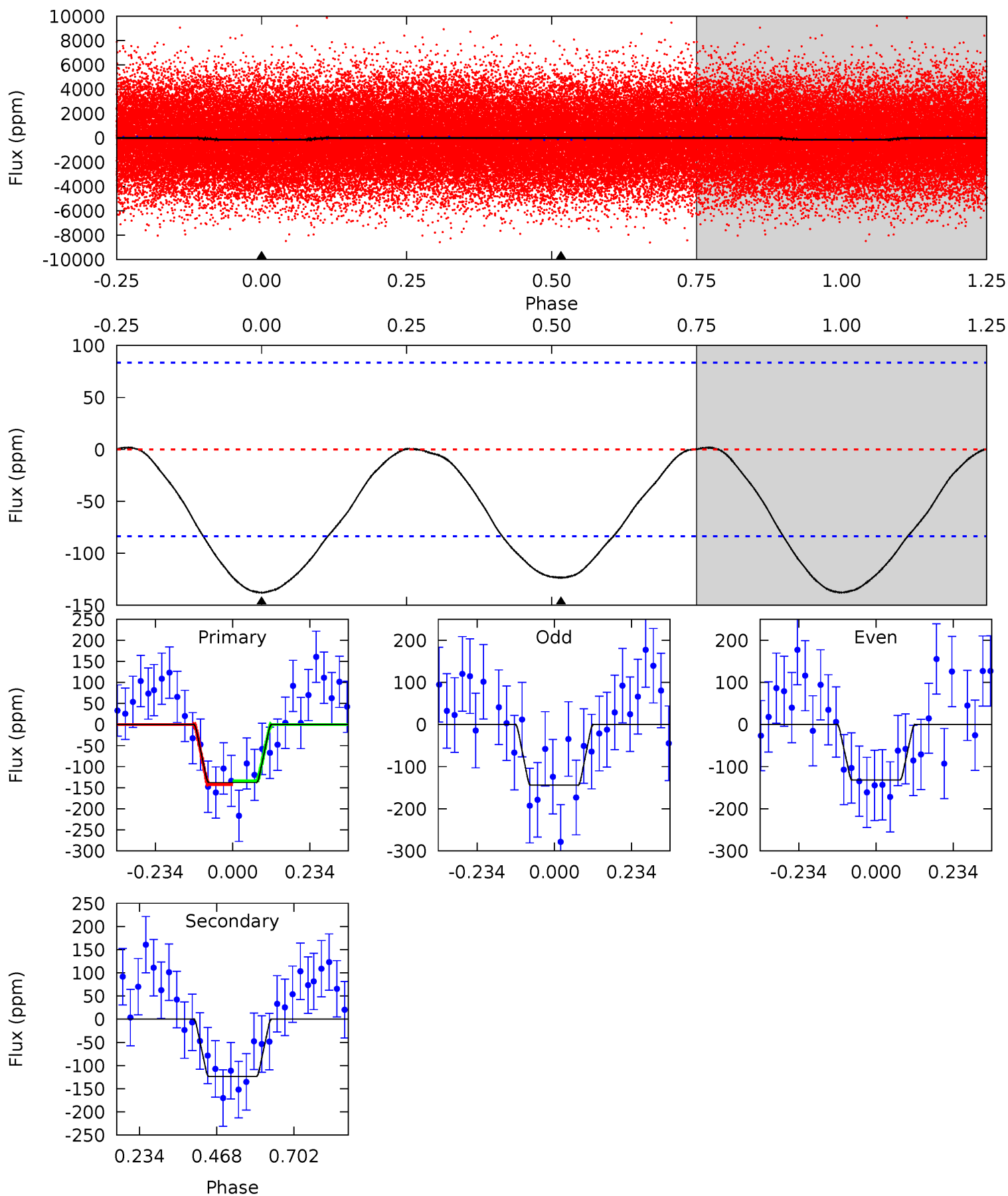
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	8.85	0	0	4.31	0.99	0.20	10.2	10.2	8.85	8.85	0.36	1.10	0.03	4.86



# Alt Model-Shift Uniqueness Test

008190627-01, P = 0.556230 Days, E = 131.014880 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
7.23	6.47	0	0	4.38	1.19	0.10	7.23	7.23	6.47	6.47	0.32	1.09	0.01	0.24





### Stellar Parameters For KIC 008190627

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6396^{+179}_{-246}$	$4.275^{+0.132}_{-0.198}$	$-0.100^{+0.250}_{-0.300}$	$1.300^{+0.422}_{-0.227}$	$1.159^{+0.181}_{-0.163}$	$0.743^{+0.457}_{-0.377}$
	+3%/-4%	+3%/-5%	+250%/-300%	+32%/-17%	+16%/-14%	+62%/-51%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 008190627-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-66 \pm 7$	$1.78^{+1.52}_{-1.17}$	$3837^{+305}_{-264}$	$5023^{+4424}_{-1252}$	$2.179^{+16.711}_{-1.531}$
Alt.	$-123 \pm 19$	$2.04^{+1.73}_{-1.28}$	$3820^{+333}_{-223}$	$5513^{+3986}_{-1418}$	$3.046^{+17.150}_{-2.149}$

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

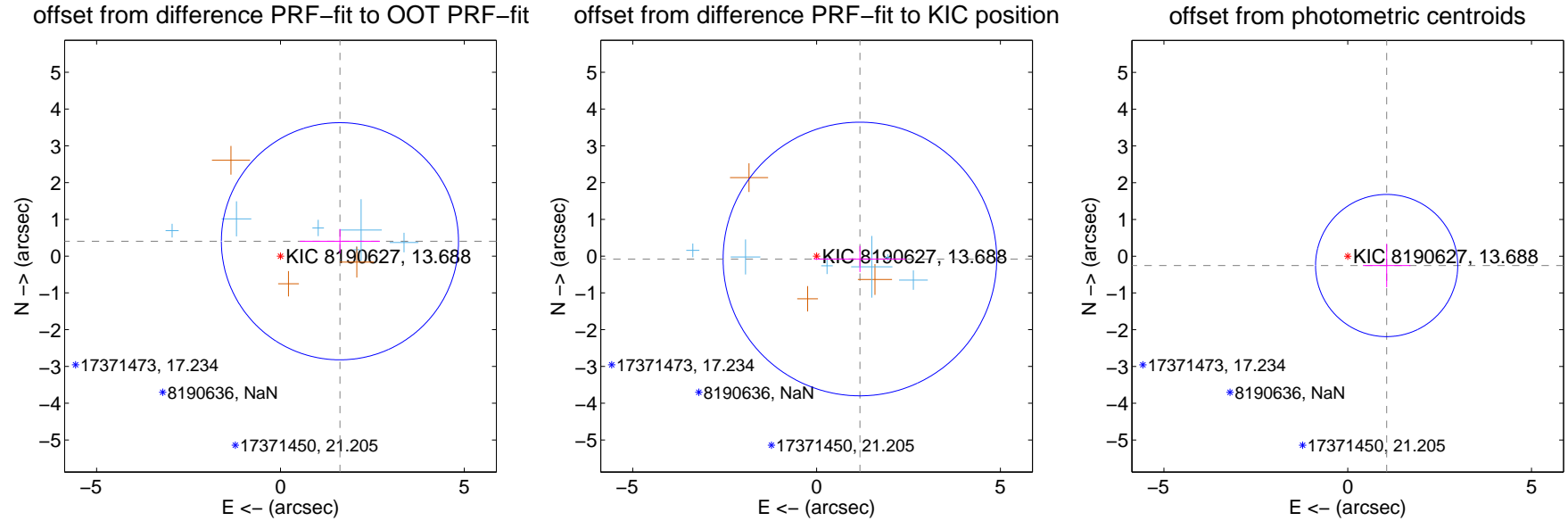
## DV Centroid Data

Supplemental centroid analysis for 008190627-01. Kepler magnitude: 13.69. Transit SNR 9.40

There are 6 quarters with good PRF difference image offsets

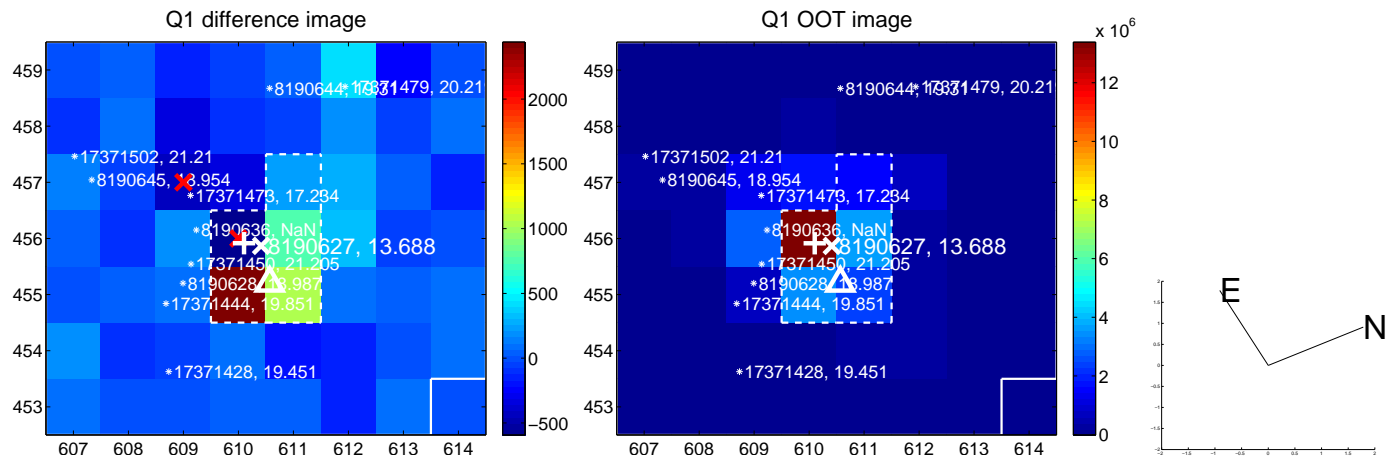
The direct PRF centroid is offset from the target star catalog position by about 1.27 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.668 \pm 1.075$	1.55	$-1.618 \pm 1.087$	$0.405 \pm 0.333$
PRF-fit source offset from KIC position	$1.181 \pm 1.240$	0.95	$-1.178 \pm 1.250$	$-0.078 \pm 0.353$
photometric centroid source offset	$1.09 \pm 0.64$	1.69	$-1.06 \pm 0.65$	$-0.25 \pm 0.59$

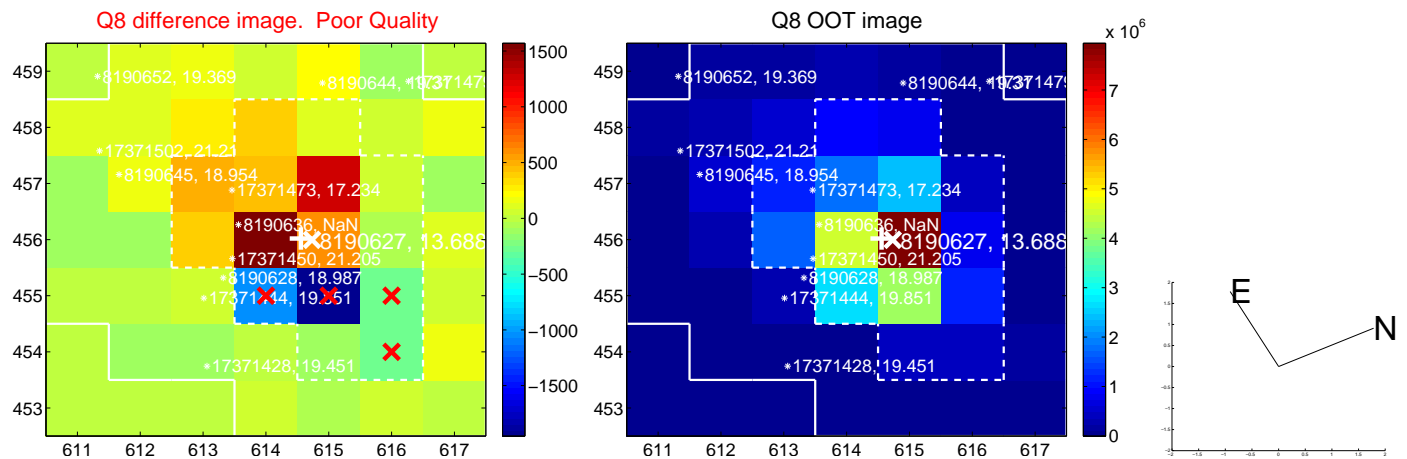
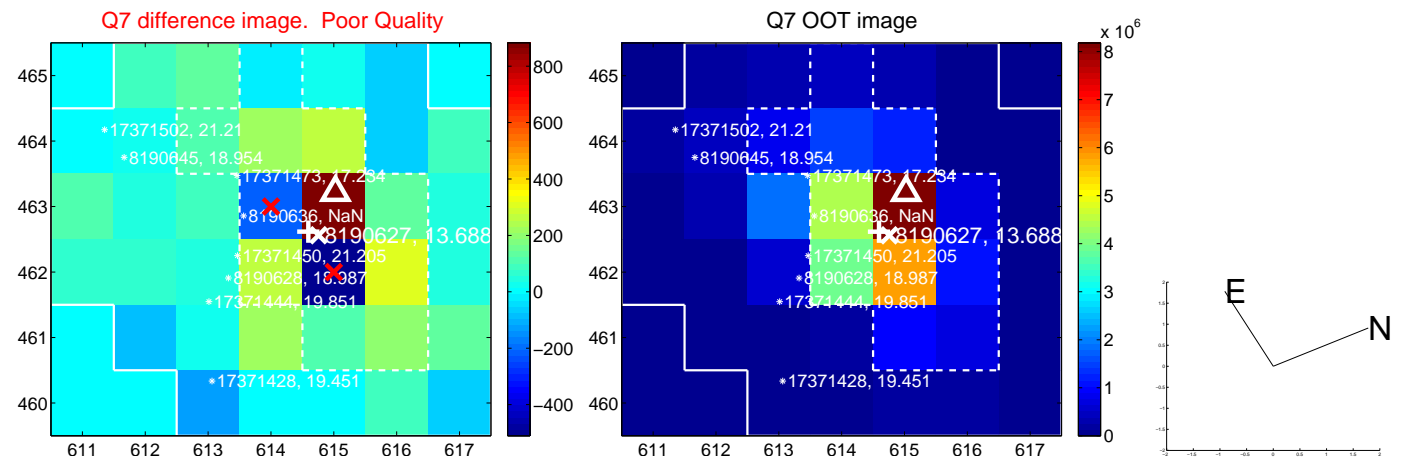
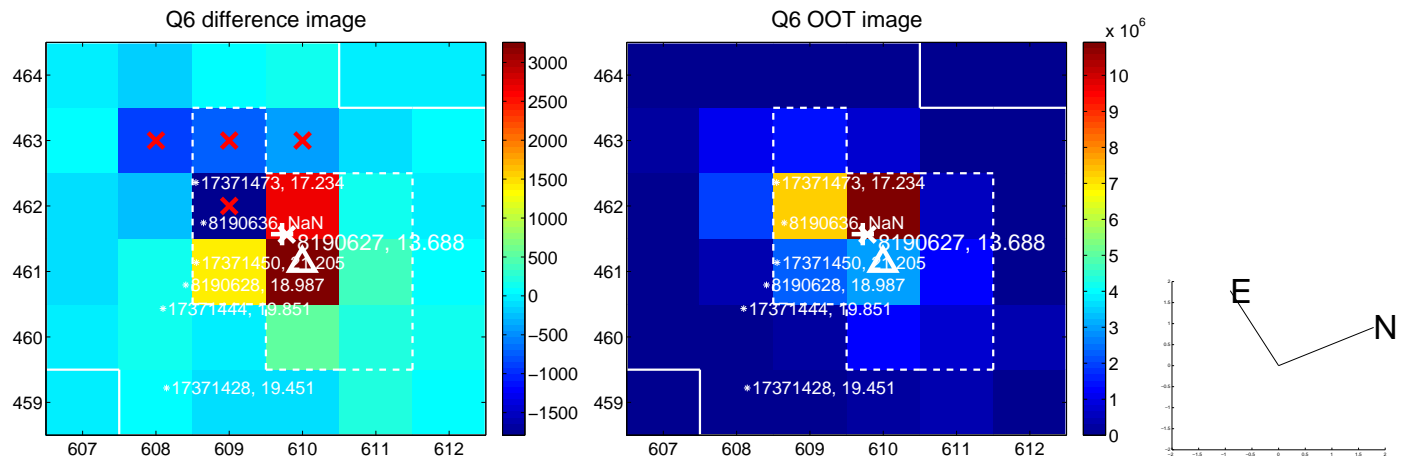
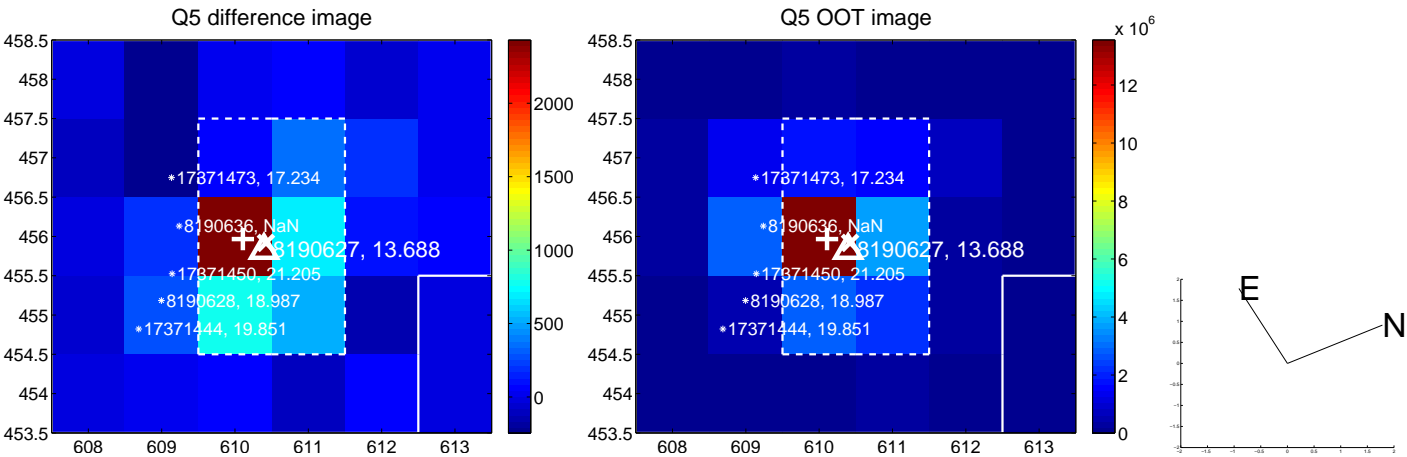


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

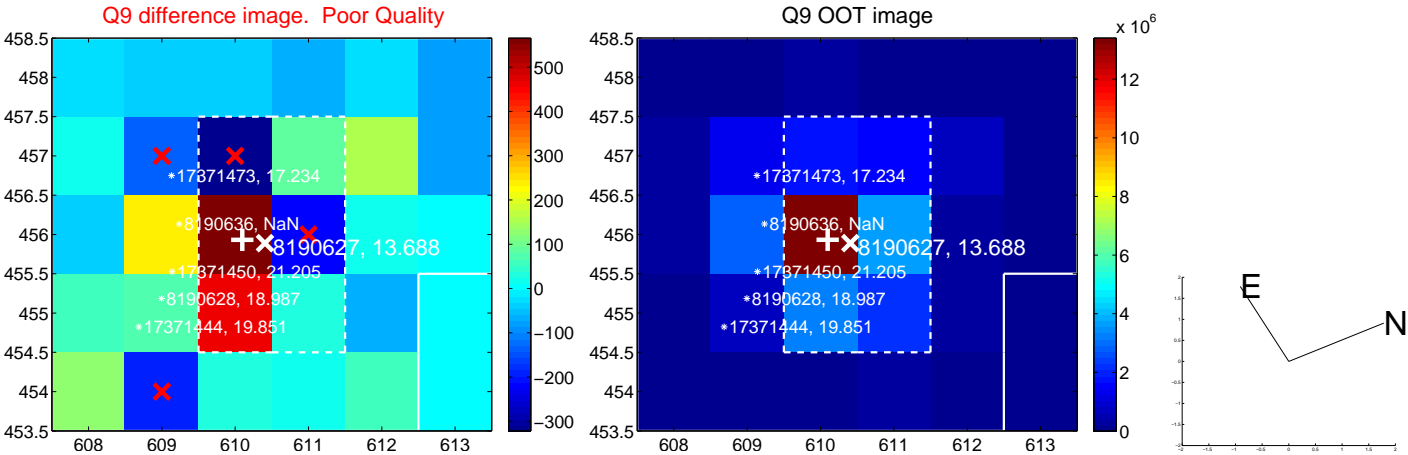


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

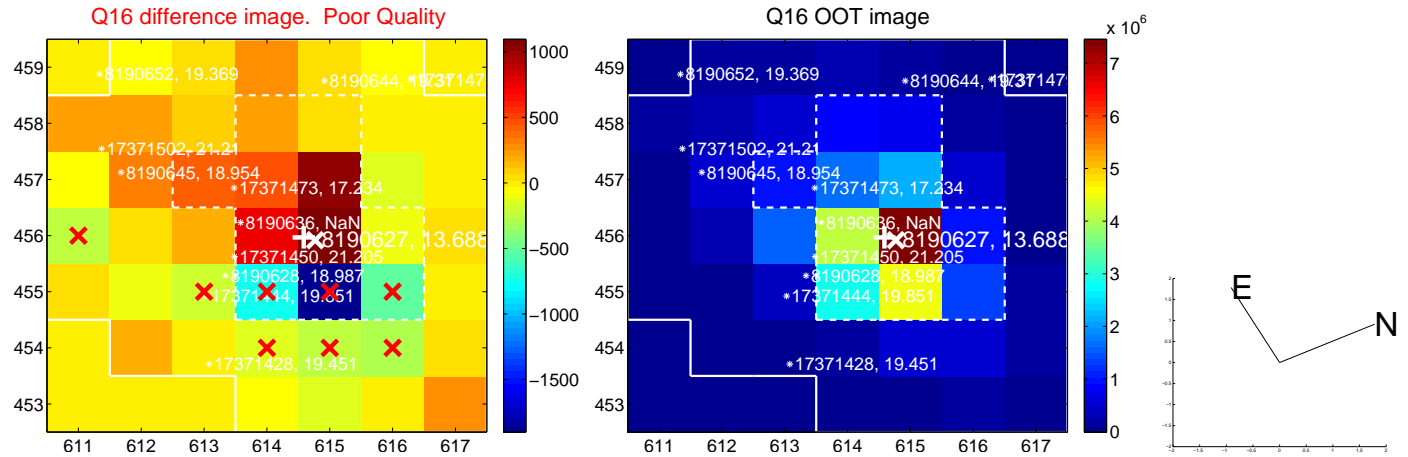
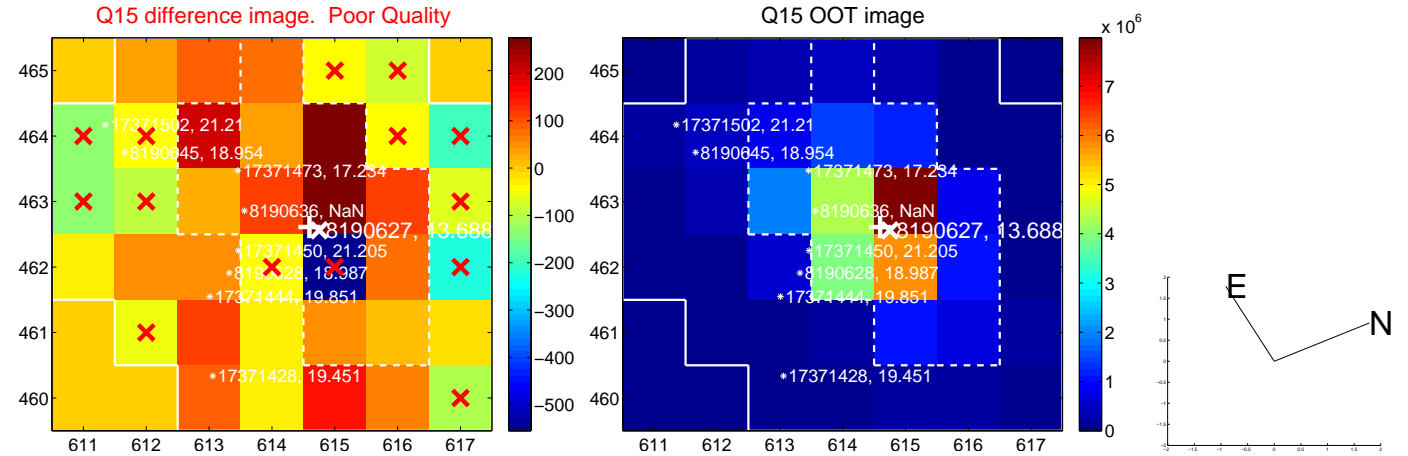
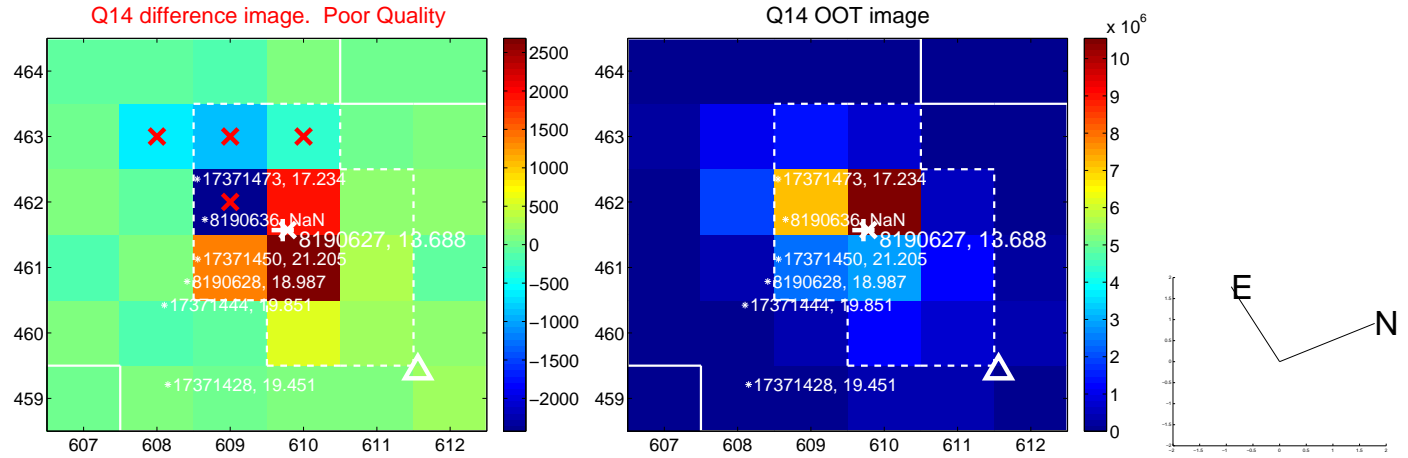
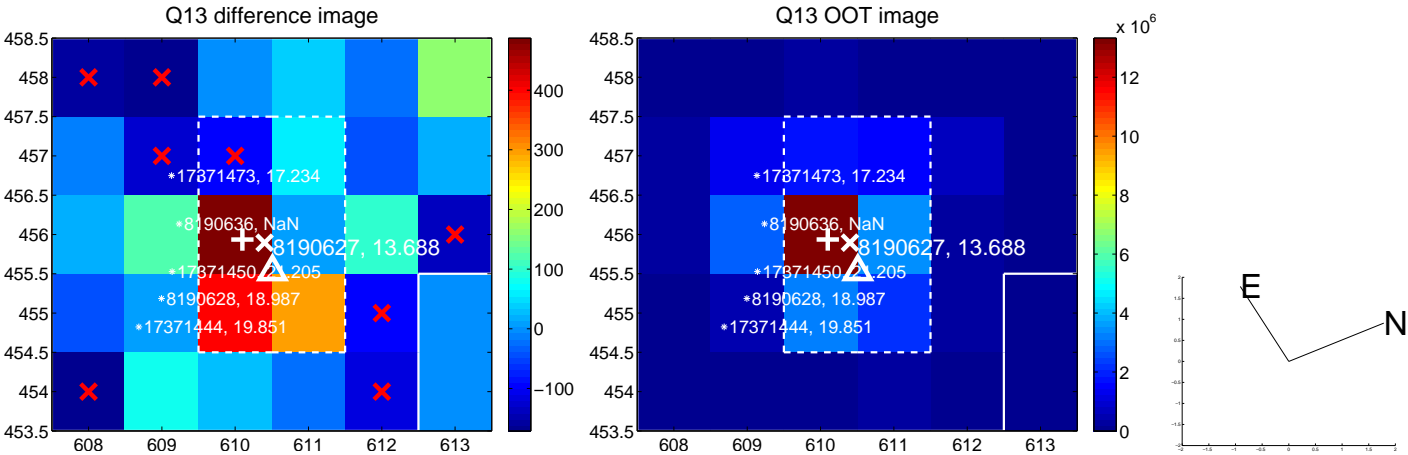




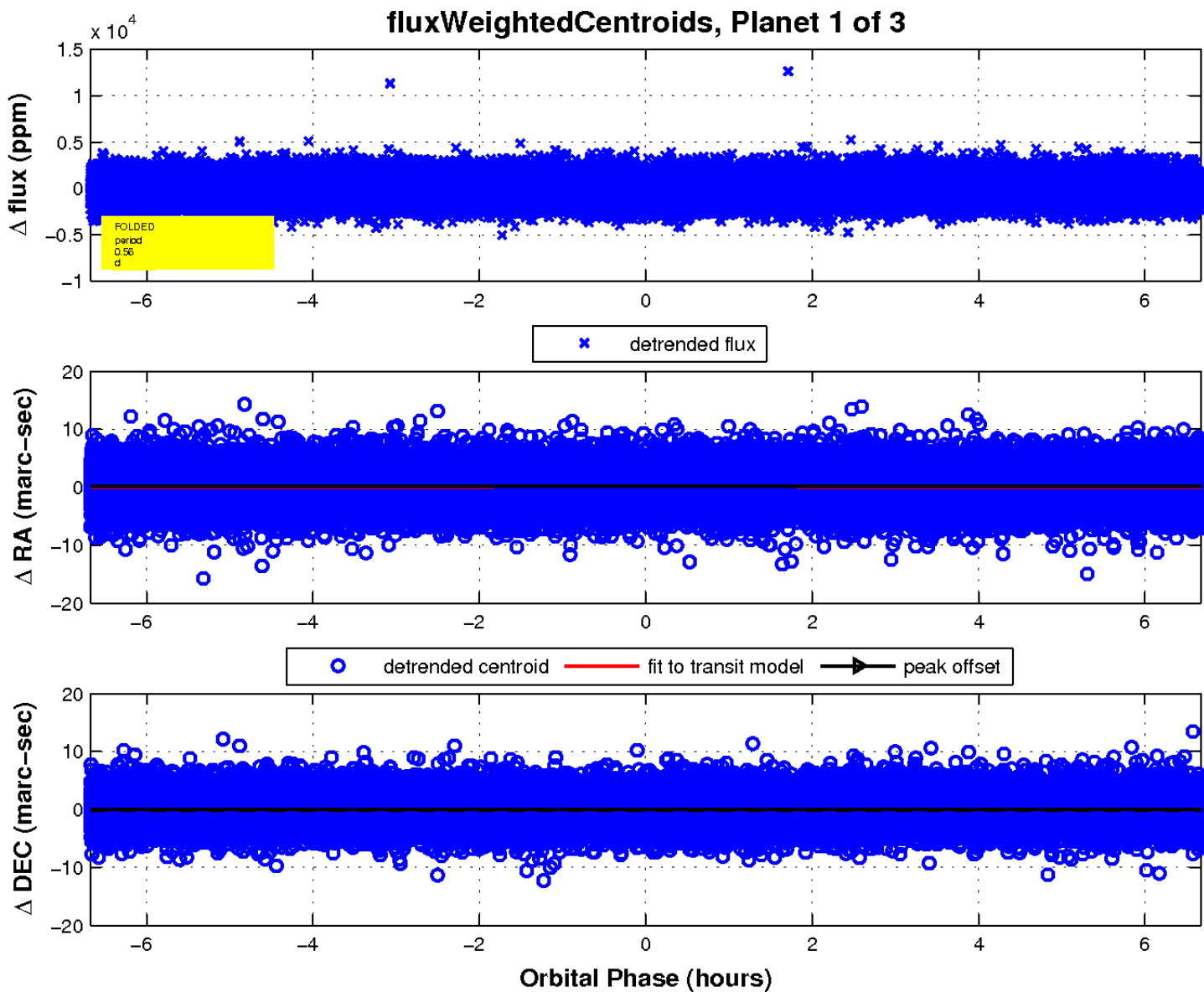
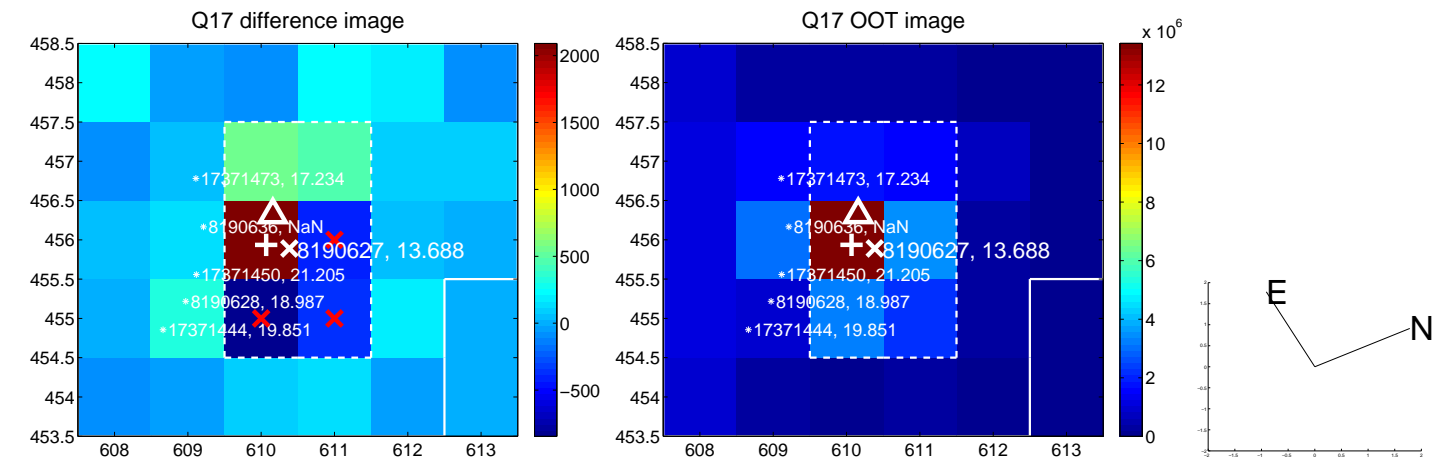
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

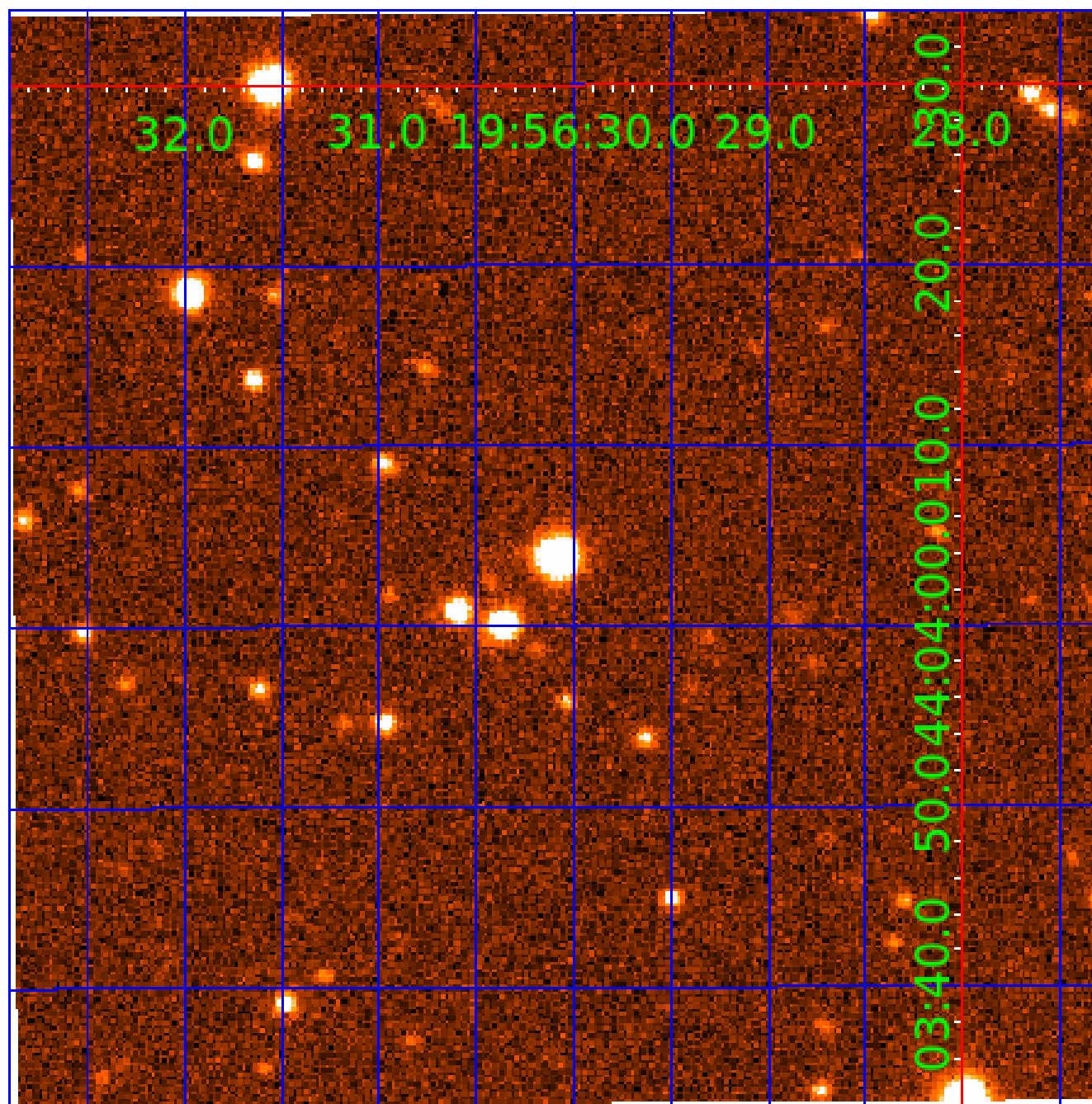


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 008190627

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008190627-01	OBS	No	0.556210	131.579885	79.0	3.853	11.6	9.4	1.30	6396	1.18	13086.97
008190627-02	OBS	No	34.777954	158.008771	2134.2	0.904	11.0	13.0	1.30	6396	6.15	52.73
008190627-03	OBS	No	16.529395	147.842864	1124.2	1.991	10.4	10.9	1.30	6396	4.45	142.17

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008190627-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_KIC_POS
008190627-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
008190627-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

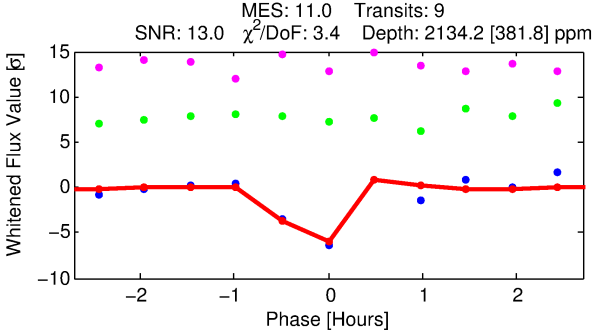
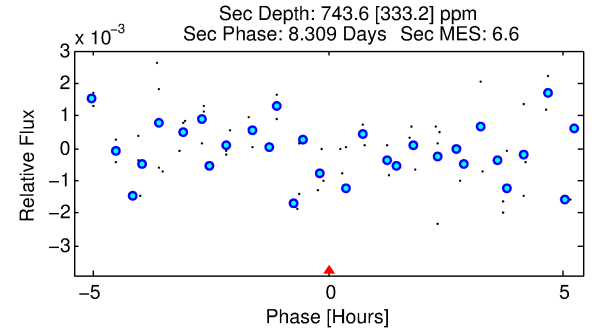
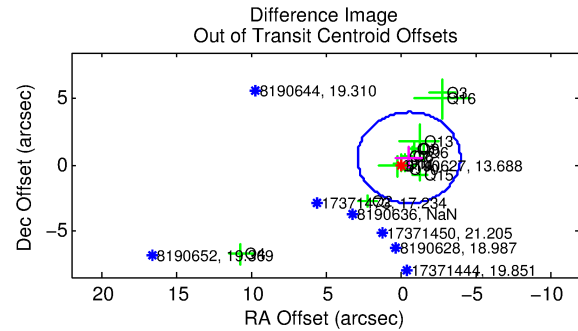
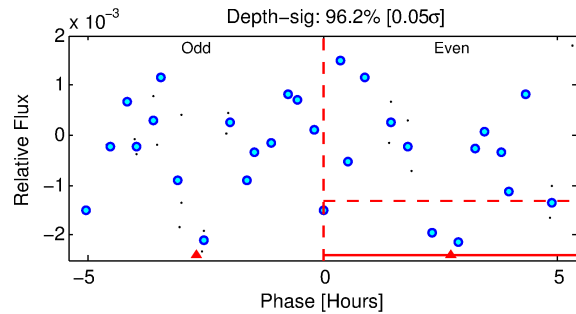
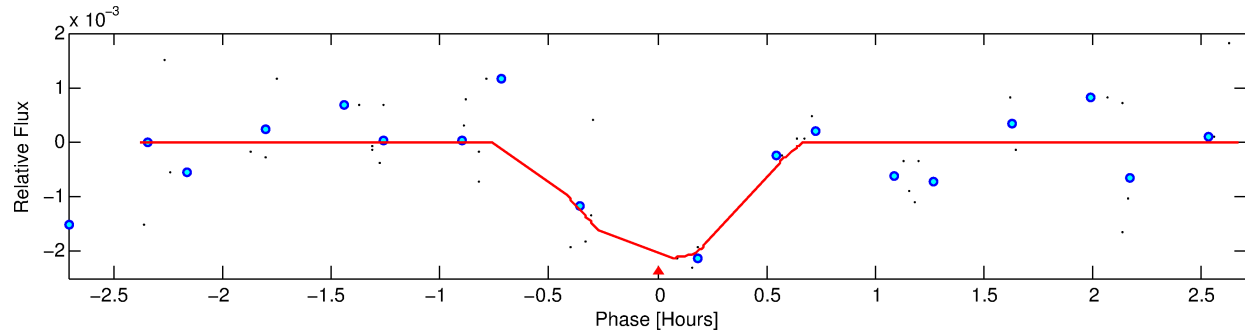
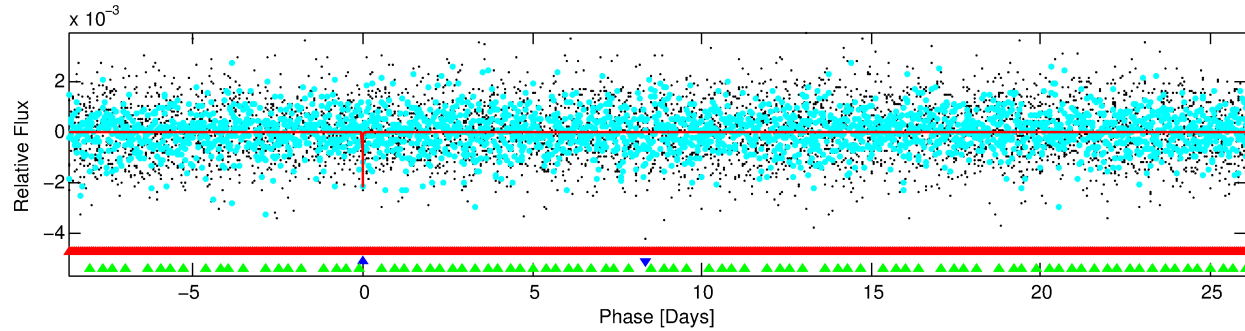
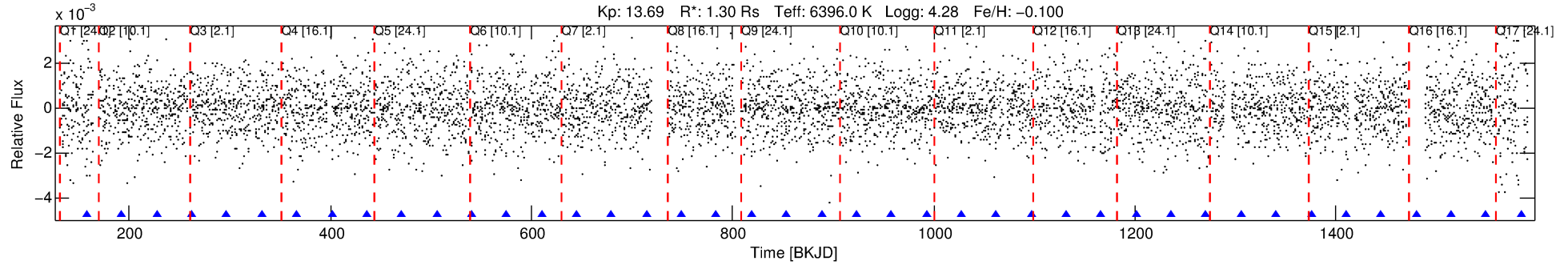
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008190627-02

No Significant Match Found

# DV One-Page Summary

KIC: 8190627 Candidate: 2 of 3 Period: 34.778 d



## DV Fit Results:

Period = 34.77795 [0.00017] d  
Epoch = 158.0088 [0.0054] BKJD  
Rp/R\* = 0.0434 [0.0419]  
a/R\* = 297.53 [1445.61]  
b = 0.25 [18.56]  
Seff = 52.73 [21.28]  
Teq = 687 [69] K  
Rp = 6.15 [6.27] Re  
a = 0.2192 [0.0580] AU  
Ag = 519.41 [1049.01] [0.49 $\sigma$ ]  
Teffp = 5072 [2524] K [1.74 $\sigma$ ]

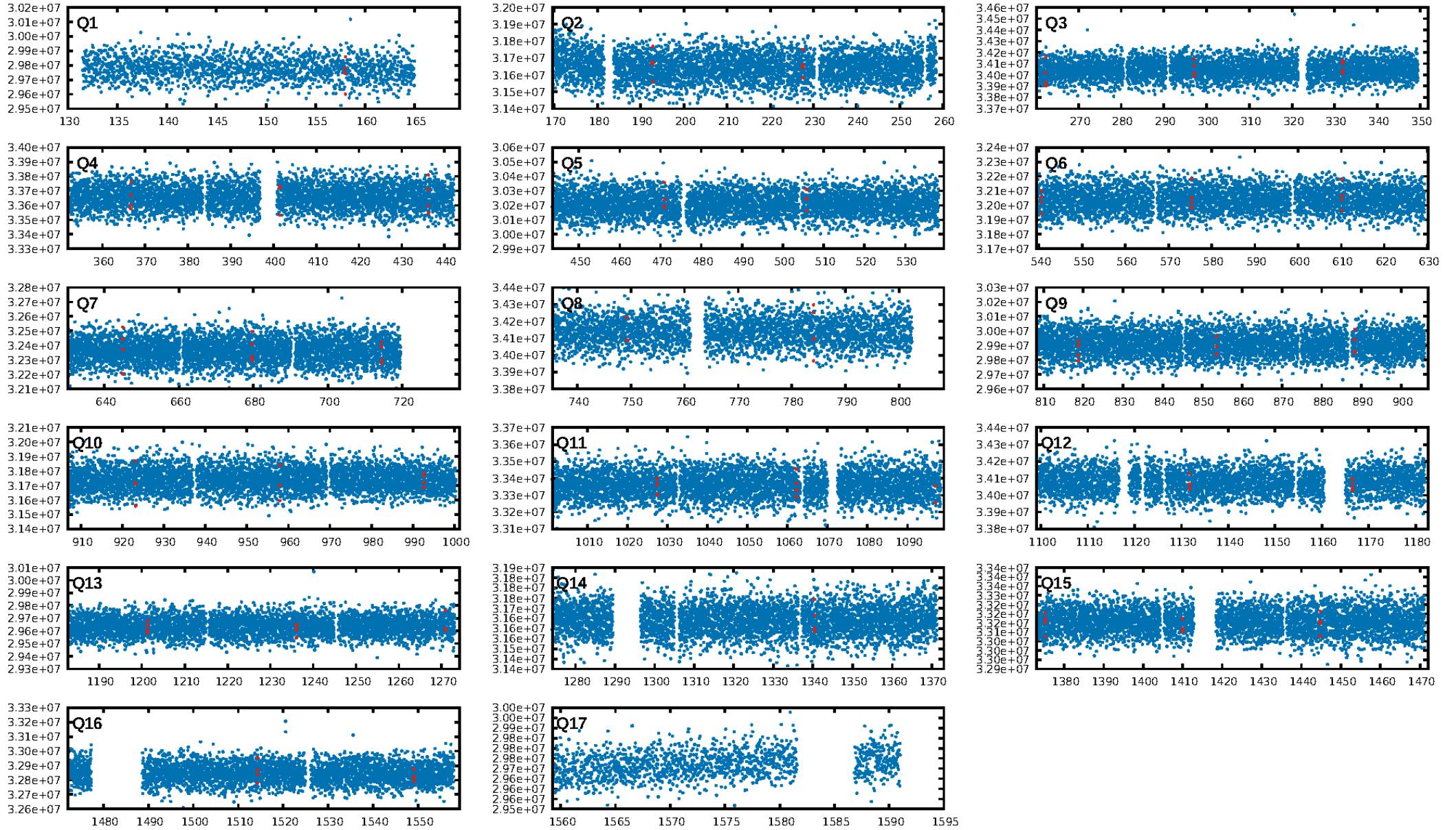
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [200.31 $\sigma$ ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 0.2%  
ModelChiSquareGof-sig: 33.0%  
Bootstrap-pfa: 1.02e-10  
RollingBand-fgt: 1.00 [8/8]  
GhostDiagnostic-chr: -24.92  
Centroid-sig: 6.2%  
Centroid-so: 1.407 arcsec [3.69 $\sigma$ ]  
OotOffset-rm: 0.780 arcsec [0.68 $\sigma$ ]  
KicOffset-rm: 0.074 arcsec [0.07 $\sigma$ ]  
OotOffset-st: 4/4/3/3 [14]  
KicOffset-st: 4/4/3/3 [14]  
DiffImageQuality-fgm: 0.21 [3/14]  
DiffImageOverlap-fno: 0.00 [0/16]

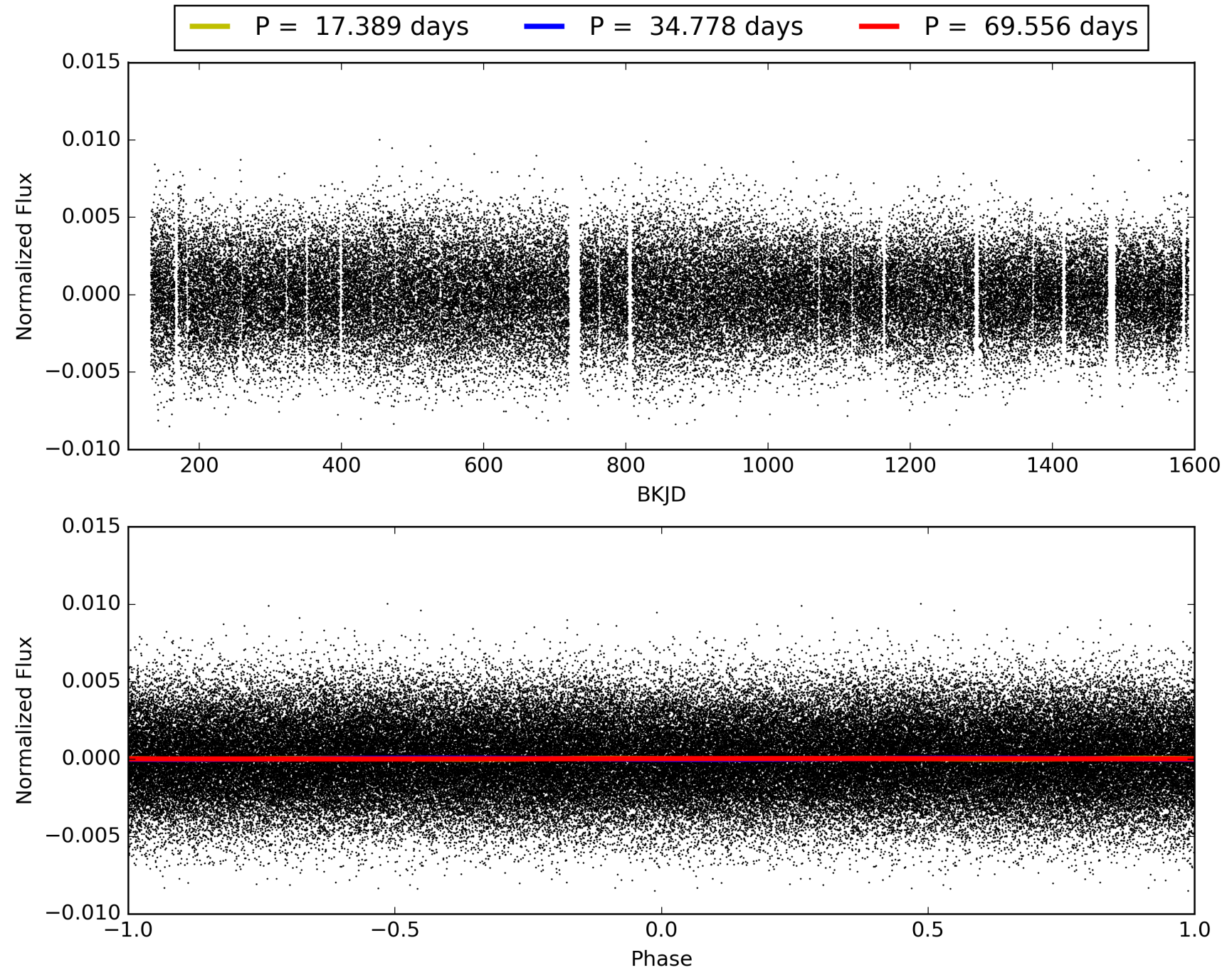
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:14:52 Z

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

# TCE 008190627-02, PDC Light Curves



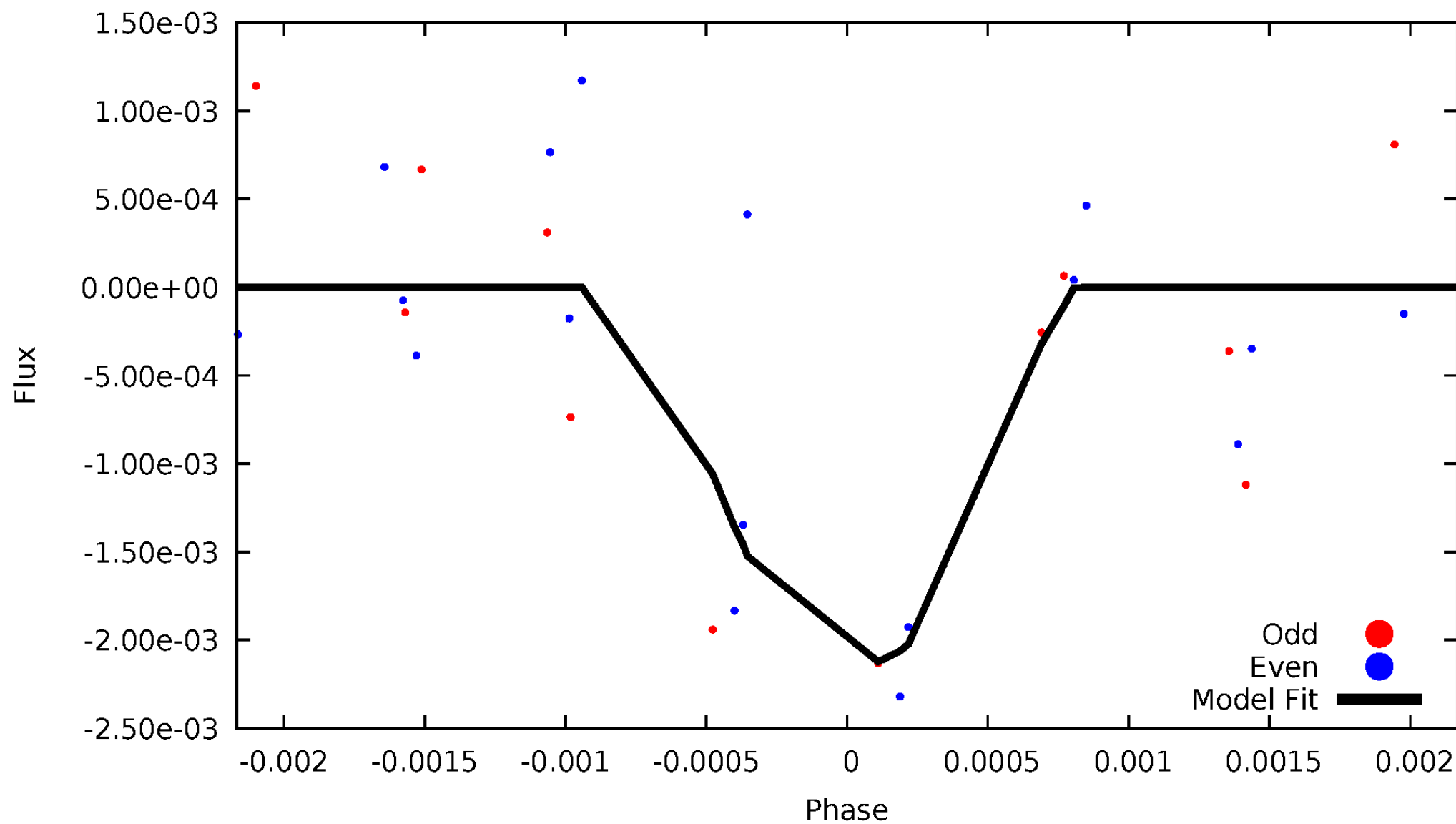
# TCE 008190627-02





# DV Odd/Even

TCE 008190627-02



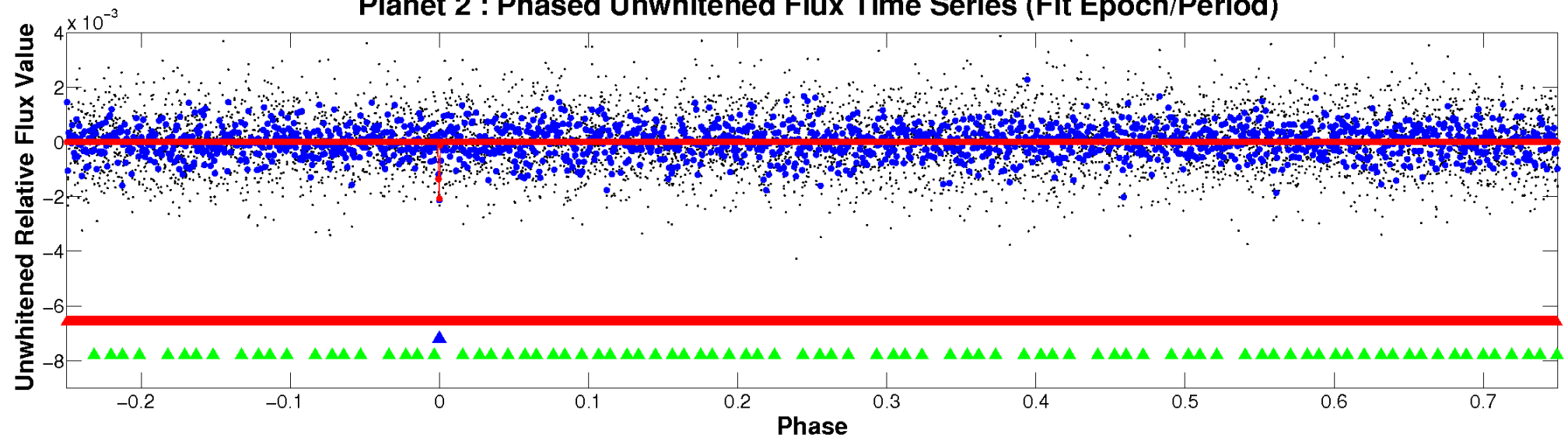


ALT Odd/Even

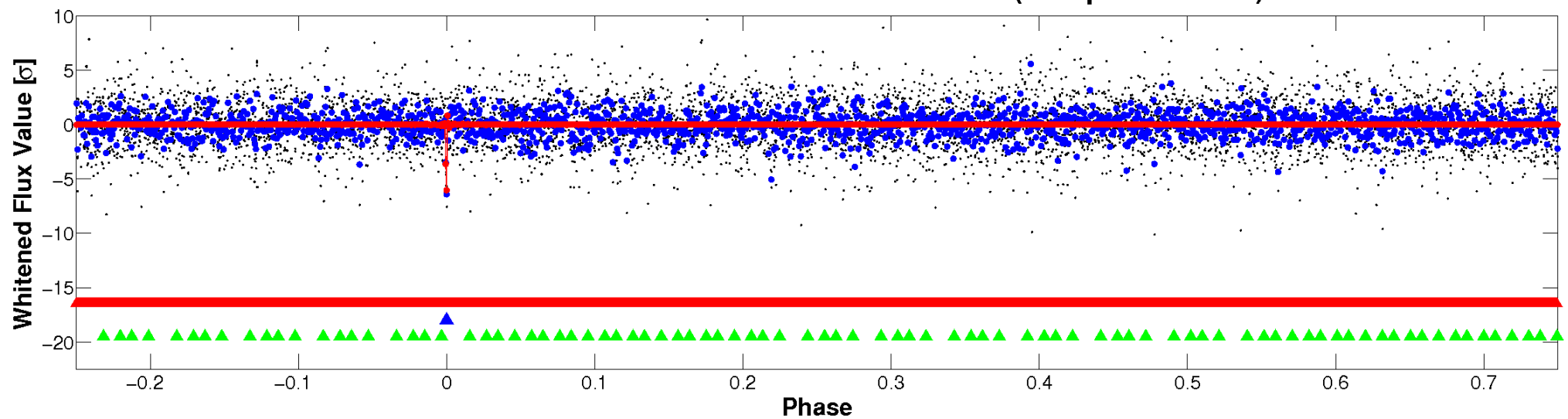
This plot does not exist for this TCE.

# Non-Whitened Vs. Whitened Light Curve

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

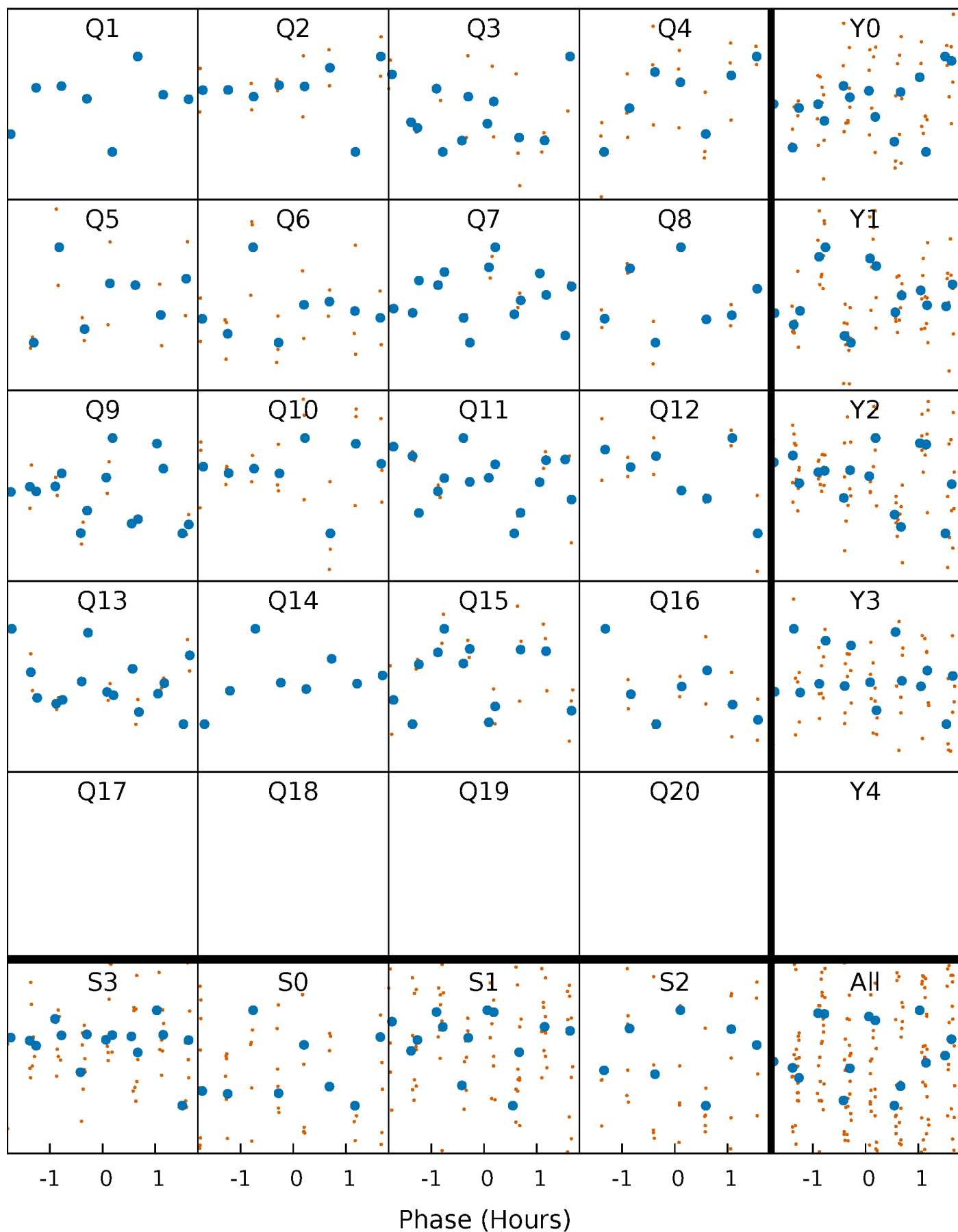


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



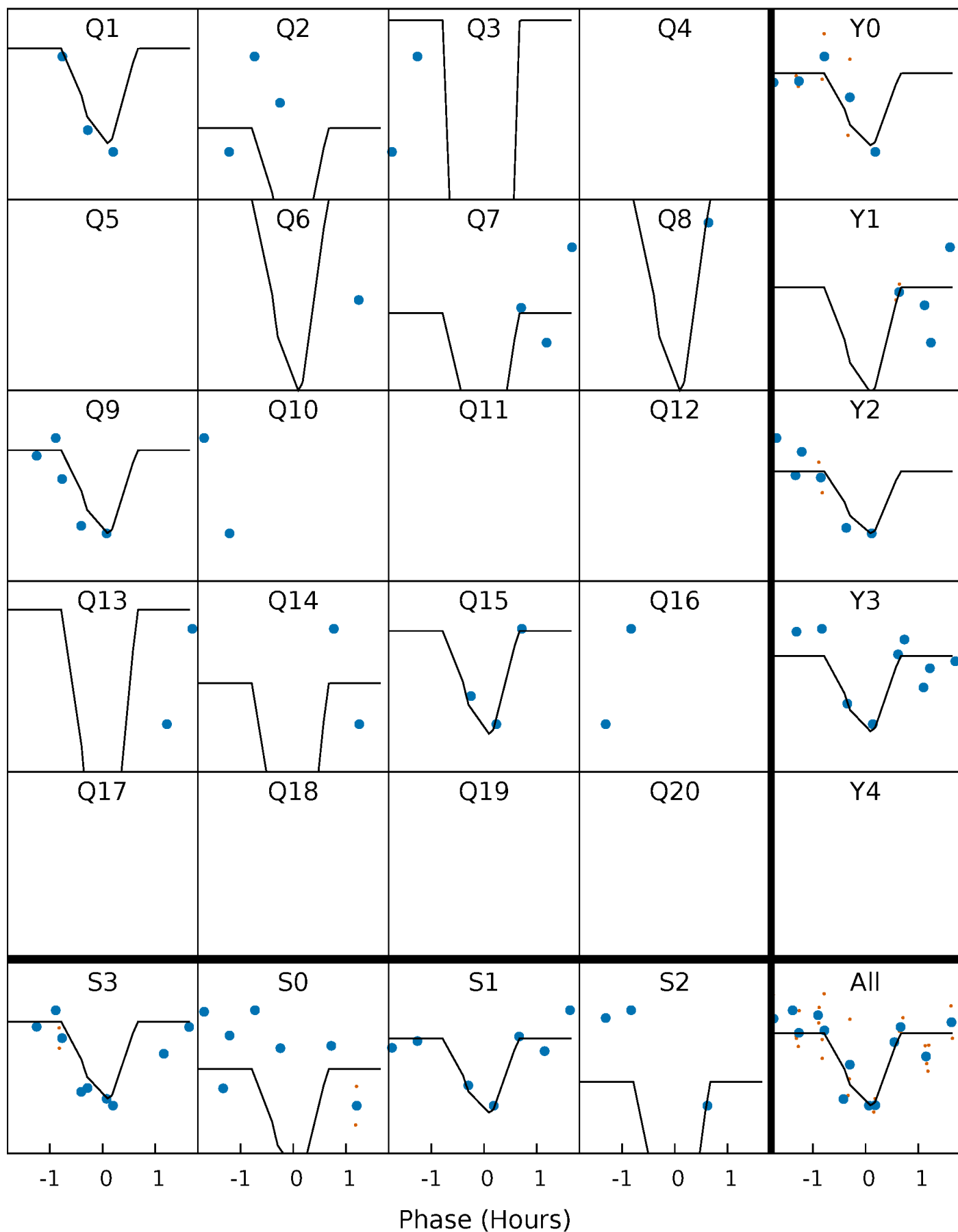
# PDC Quarter-Phased Transit Curves

TCE 008190627-02   P= 34.777954 Days    $T_0=158.008771$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 008190627-02 P= 34.777954 Days  $T_0=158.008771$  (BKJD)



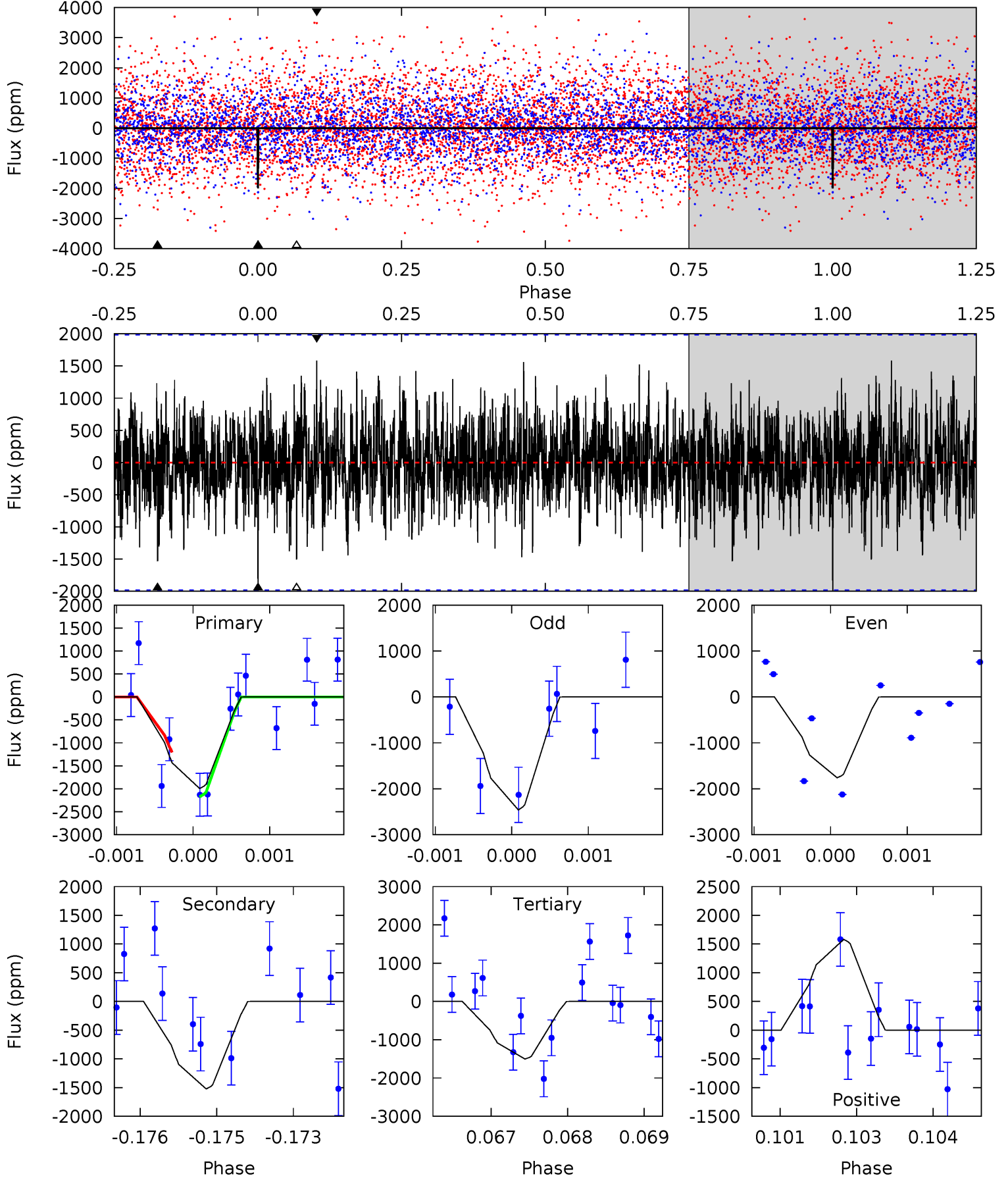


This plot does not exist for this TCE.

# DV Model-Shift Uniqueness Test

008190627-02, P = 34.777954 Days, E = 123.230817 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
5.43	4.14	4.09	4.30	5.41	3.22	1.26	1.34	1.13	0.05	-0.16	0.93	0.94	0.44	1.29



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 008190627

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6396^{+179}_{-246}$	$4.275^{+0.132}_{-0.198}$	$-0.100^{+0.250}_{-0.300}$	$1.300^{+0.422}_{-0.227}$	$1.159^{+0.181}_{-0.163}$	$0.743^{+0.457}_{-0.377}$
	+3%/-4%	+3%/-5%	+250%/-300%	+32%/-17%	+16%/-14%	+62%/-51%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 008190627-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-1523 \pm 368$	$7.62^{+5.92}_{-4.86}$	$969^{+71}_{-61}$	$5472^{+4230}_{-1131}$	$690^{+4246}_{-486}$
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  $A_{obs} \gg 1.0$

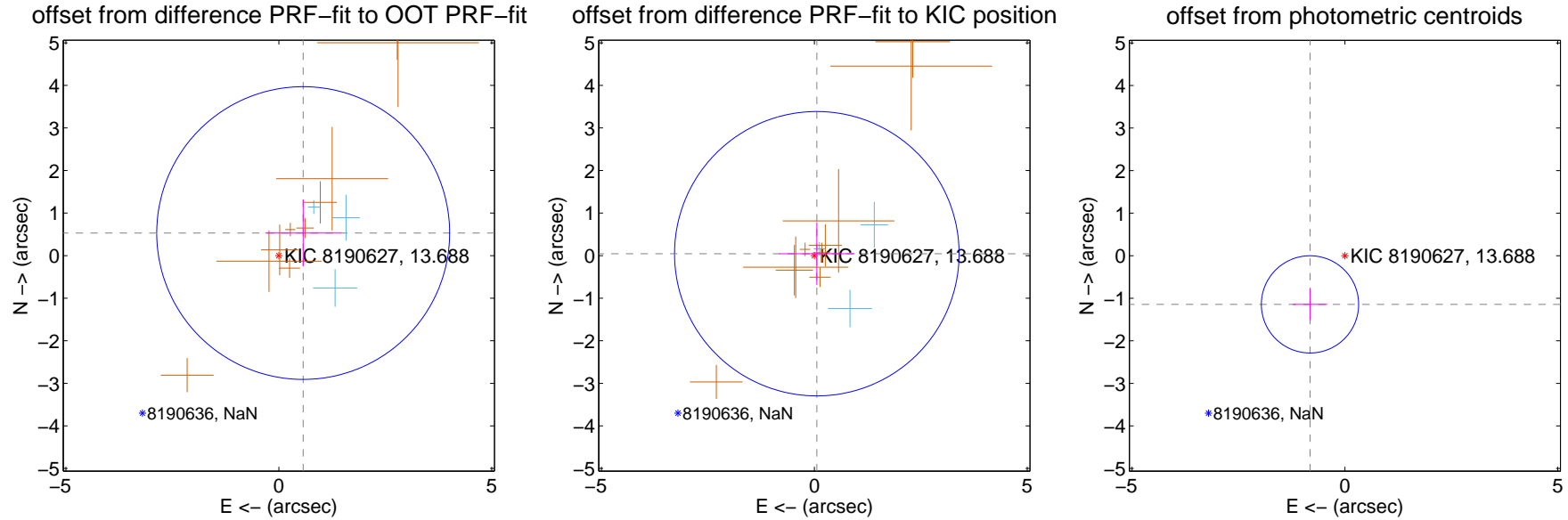
## DV Centroid Data

Supplemental centroid analysis for 008190627-02. Kepler magnitude: 13.69. Transit SNR 13.04

There are 3 quarters with good PRF difference image offsets

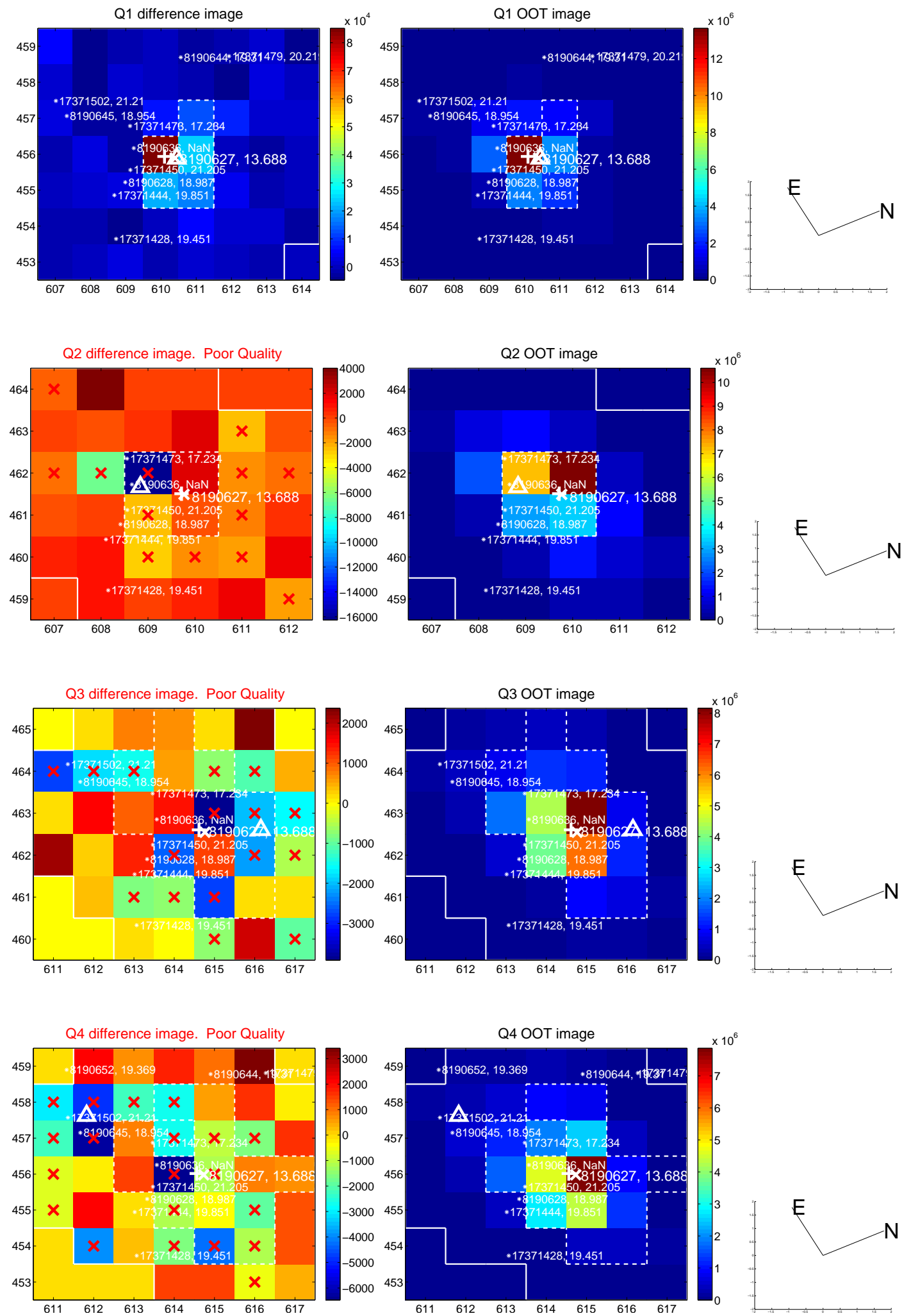
The direct PRF centroid is offset from the target star catalog position by about 0.76 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.780 \pm 1.146$	0.68	$-0.572 \pm 0.886$	$0.531 \pm 0.783$
PRF-fit source offset from KIC position	$0.074 \pm 1.113$	0.07	$-0.058 \pm 0.882$	$0.045 \pm 0.737$
photometric centroid source offset	$1.41 \pm 0.38$	3.69	$0.82 \pm 0.41$	$-1.14 \pm 0.37$



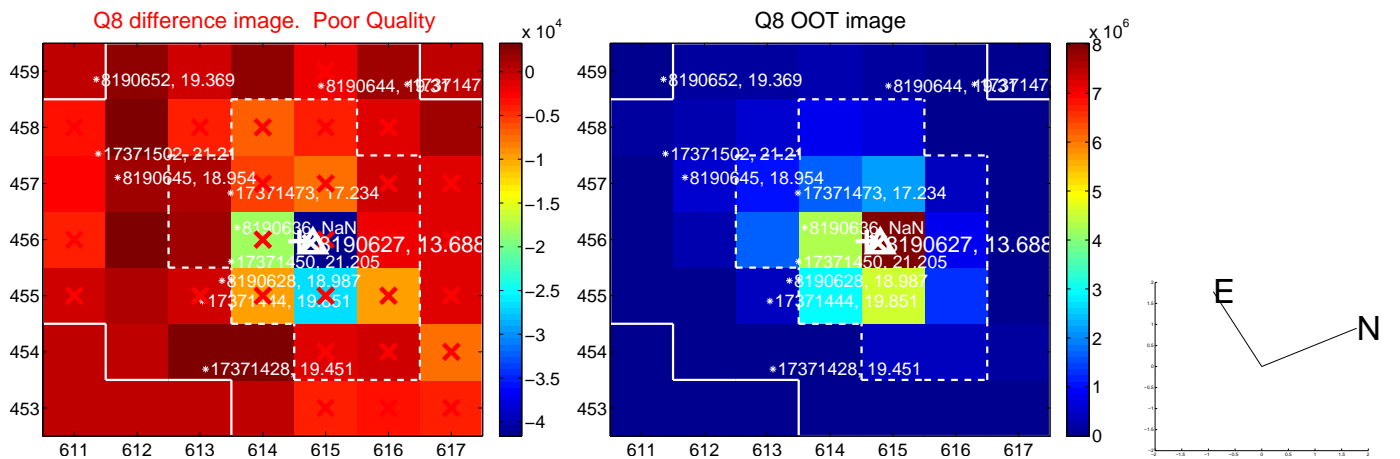
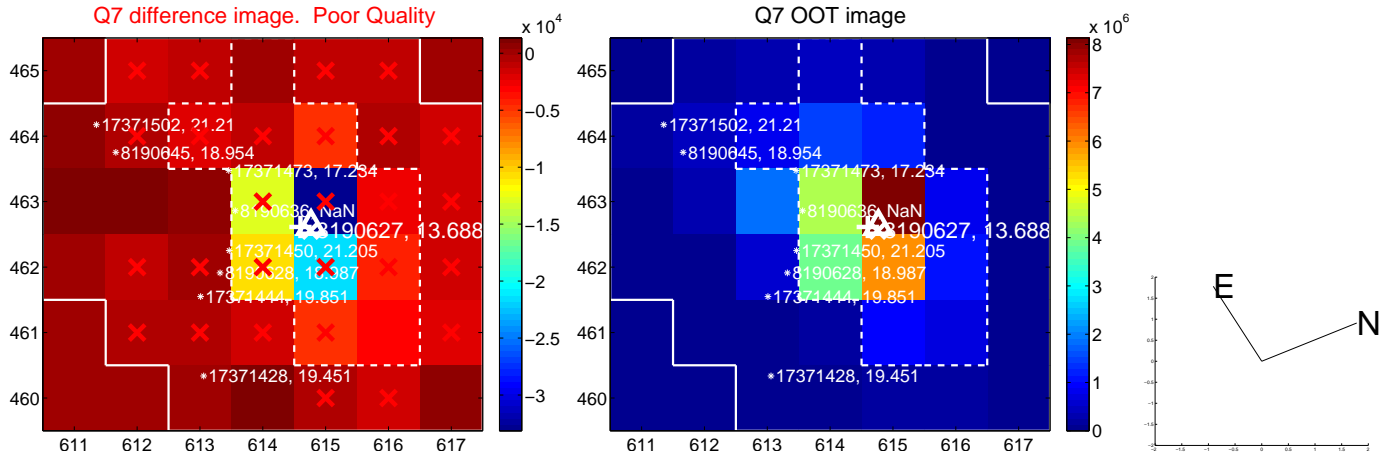
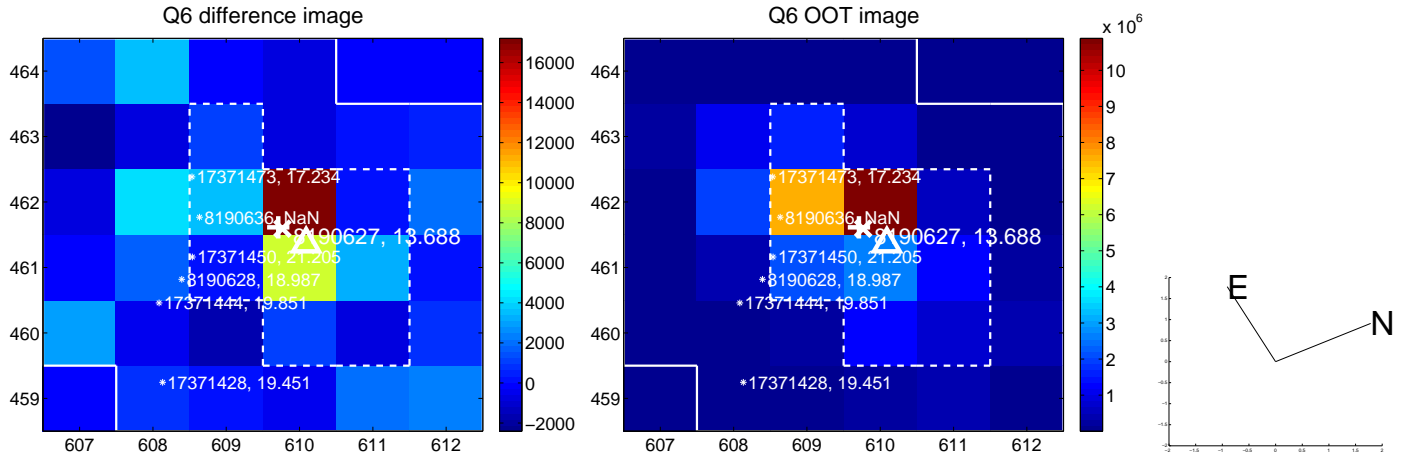
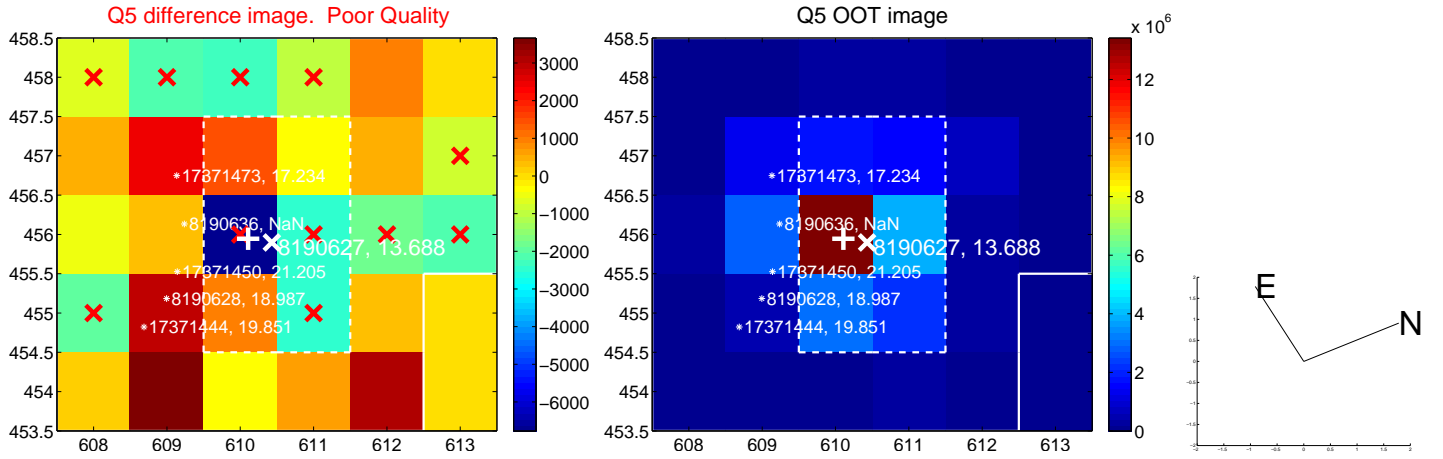
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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



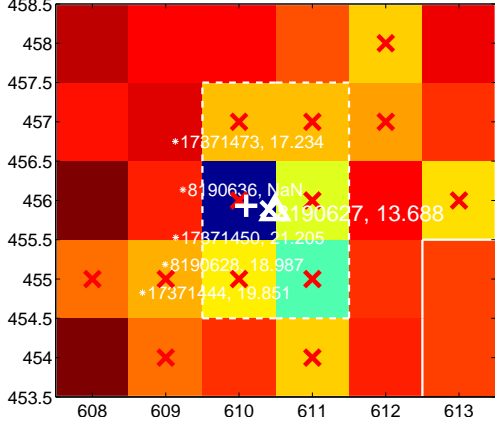


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

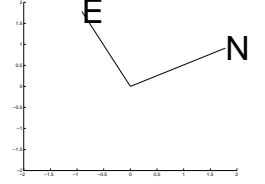
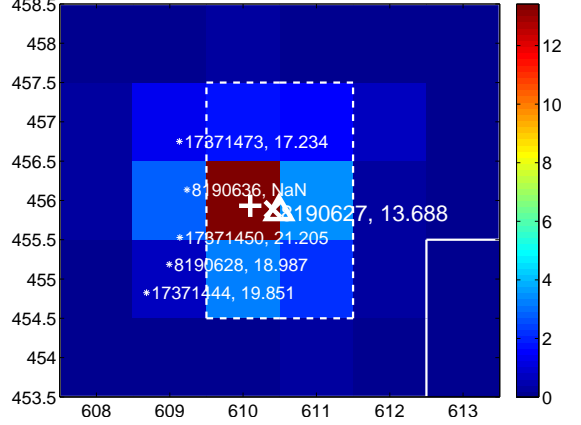


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

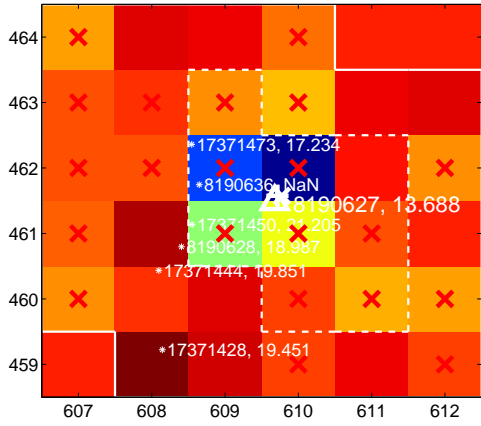
Q9 difference image. Poor Quality



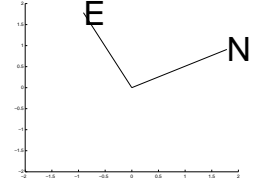
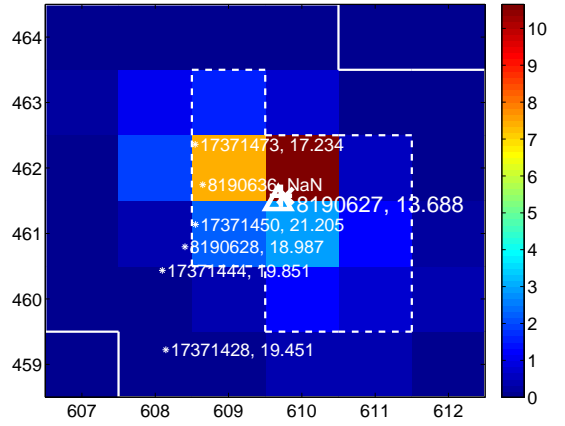
Q9 OOT image



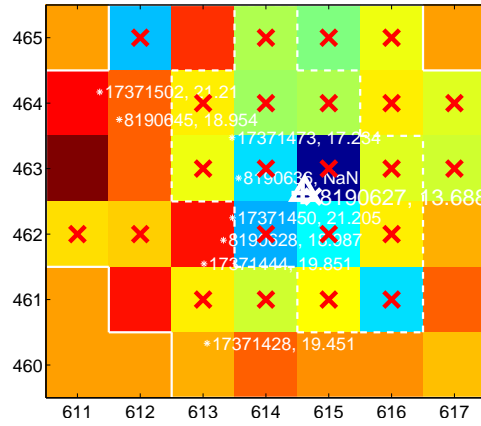
Q10 difference image. Poor Quality



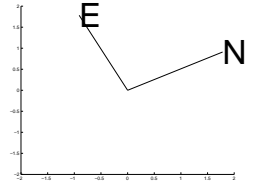
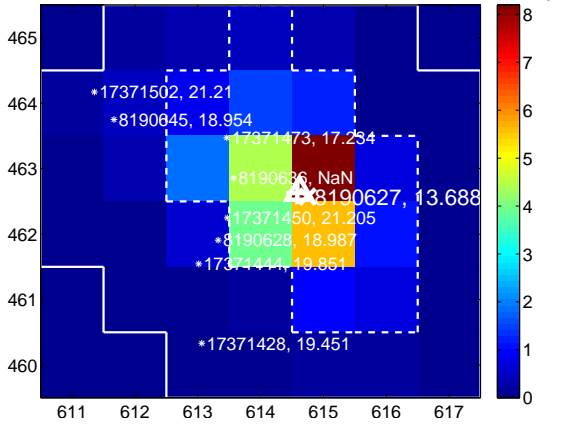
Q10 OOT image



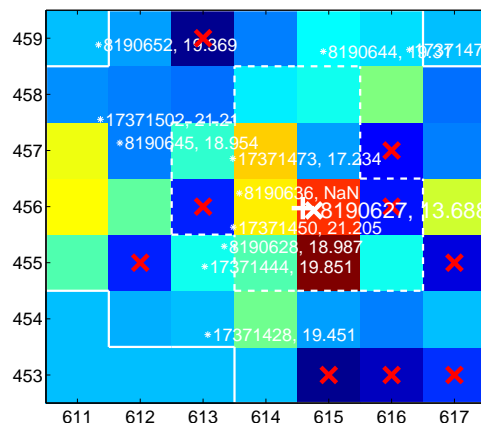
Q11 difference image. Poor Quality



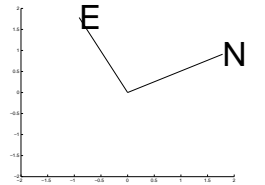
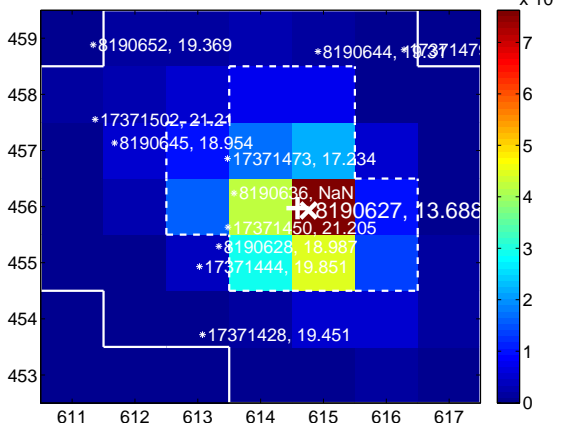
Q11 OOT image



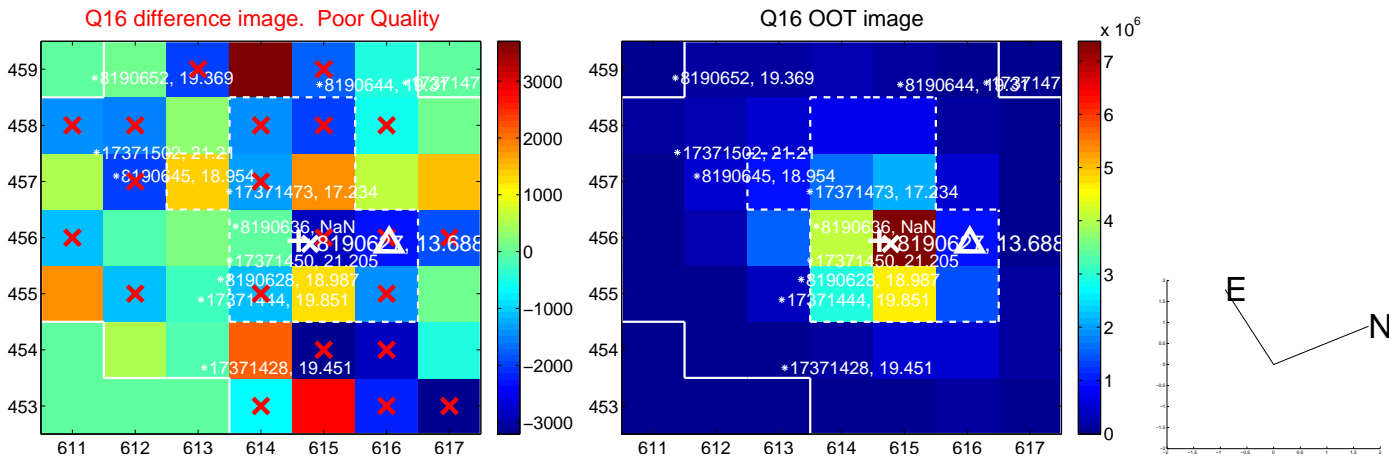
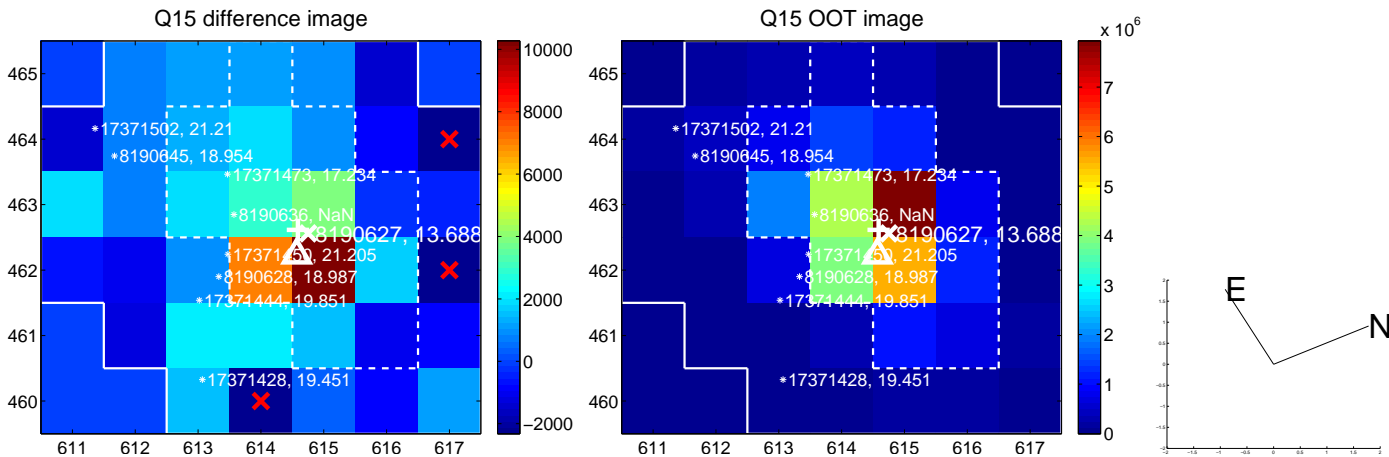
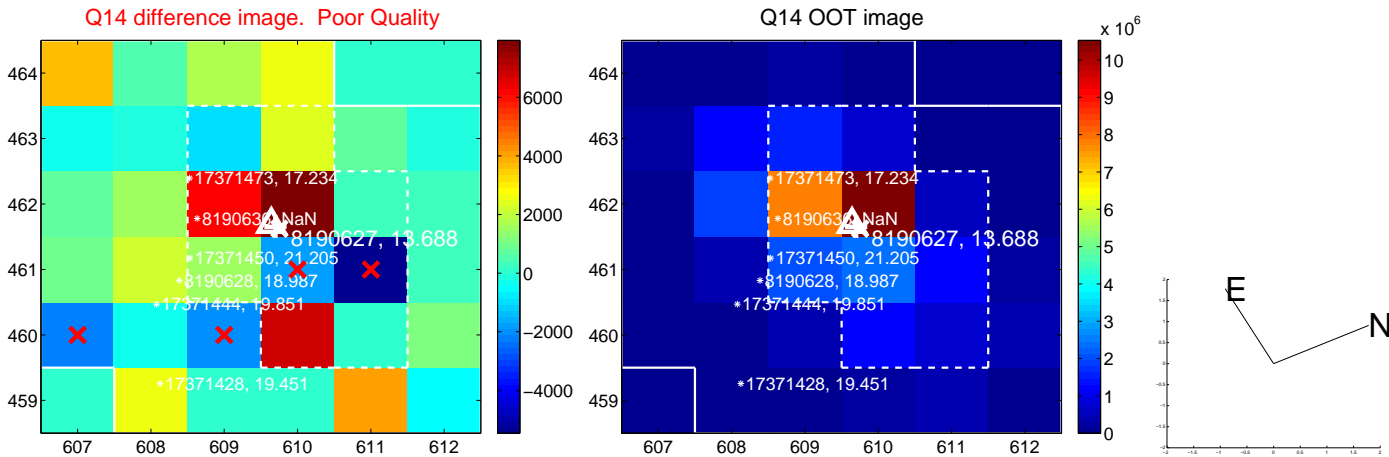
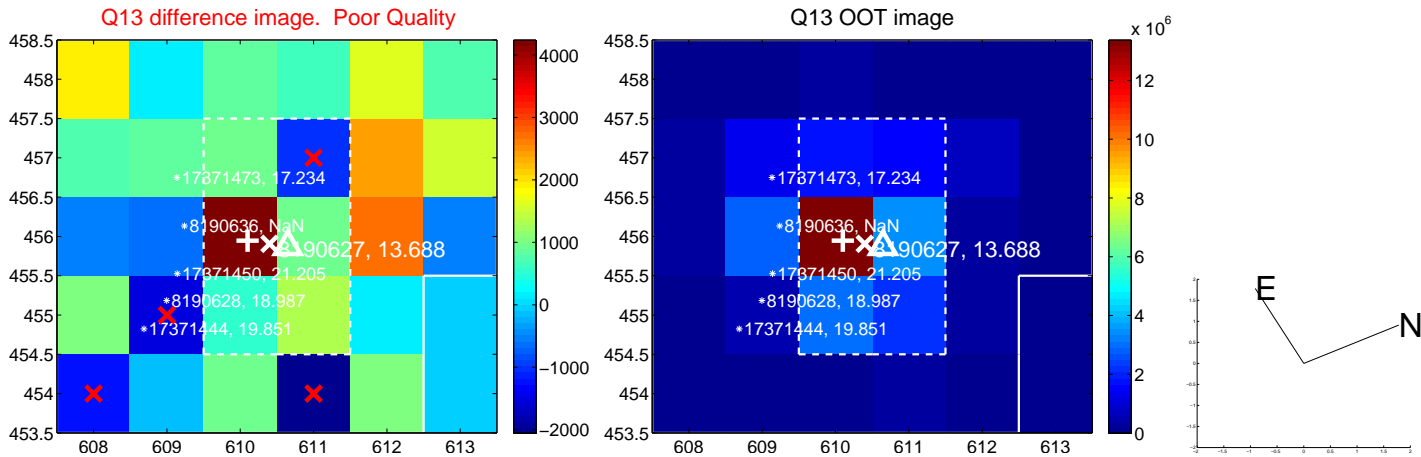
Q12 difference image. Poor Quality



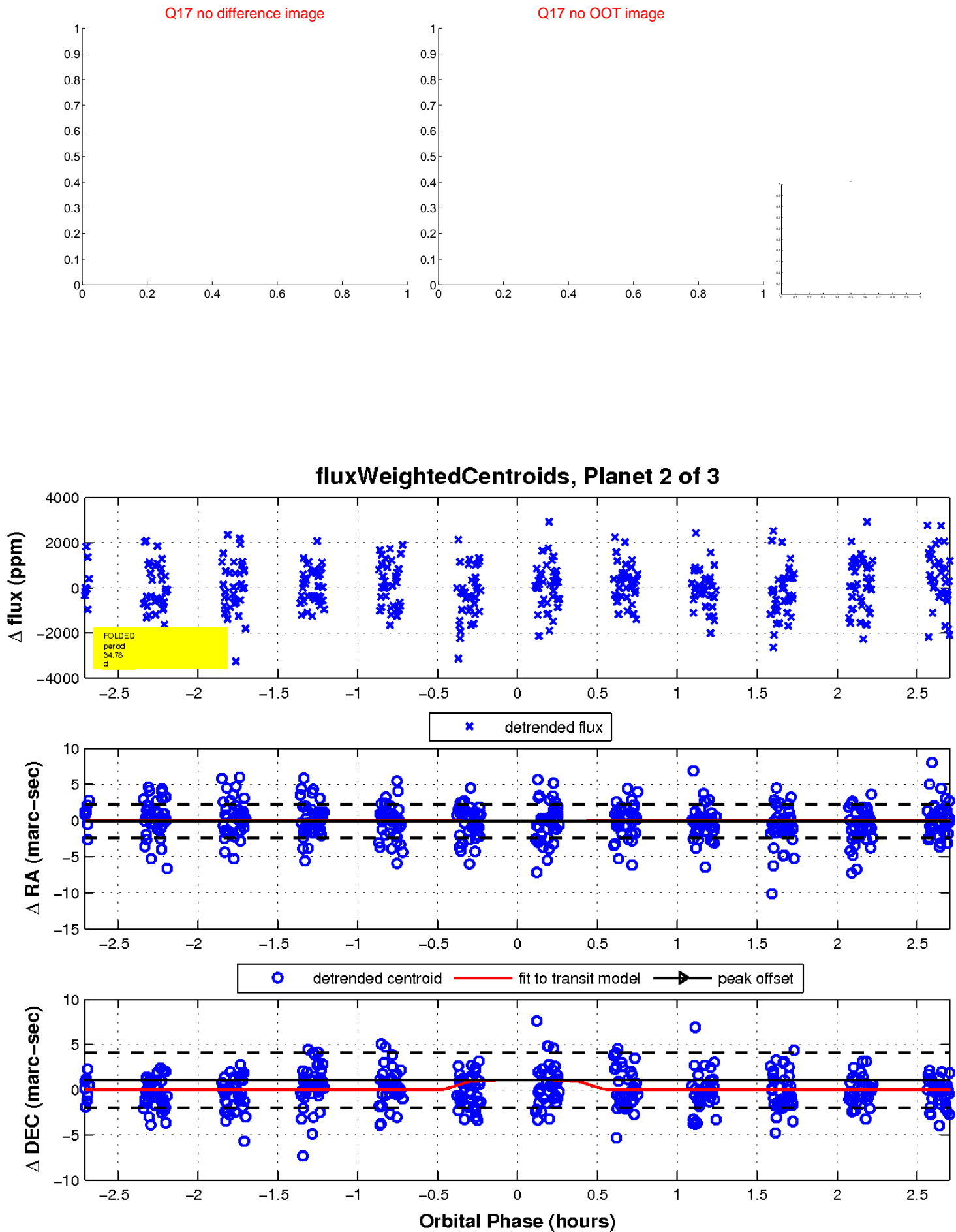
Q12 OOT image



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

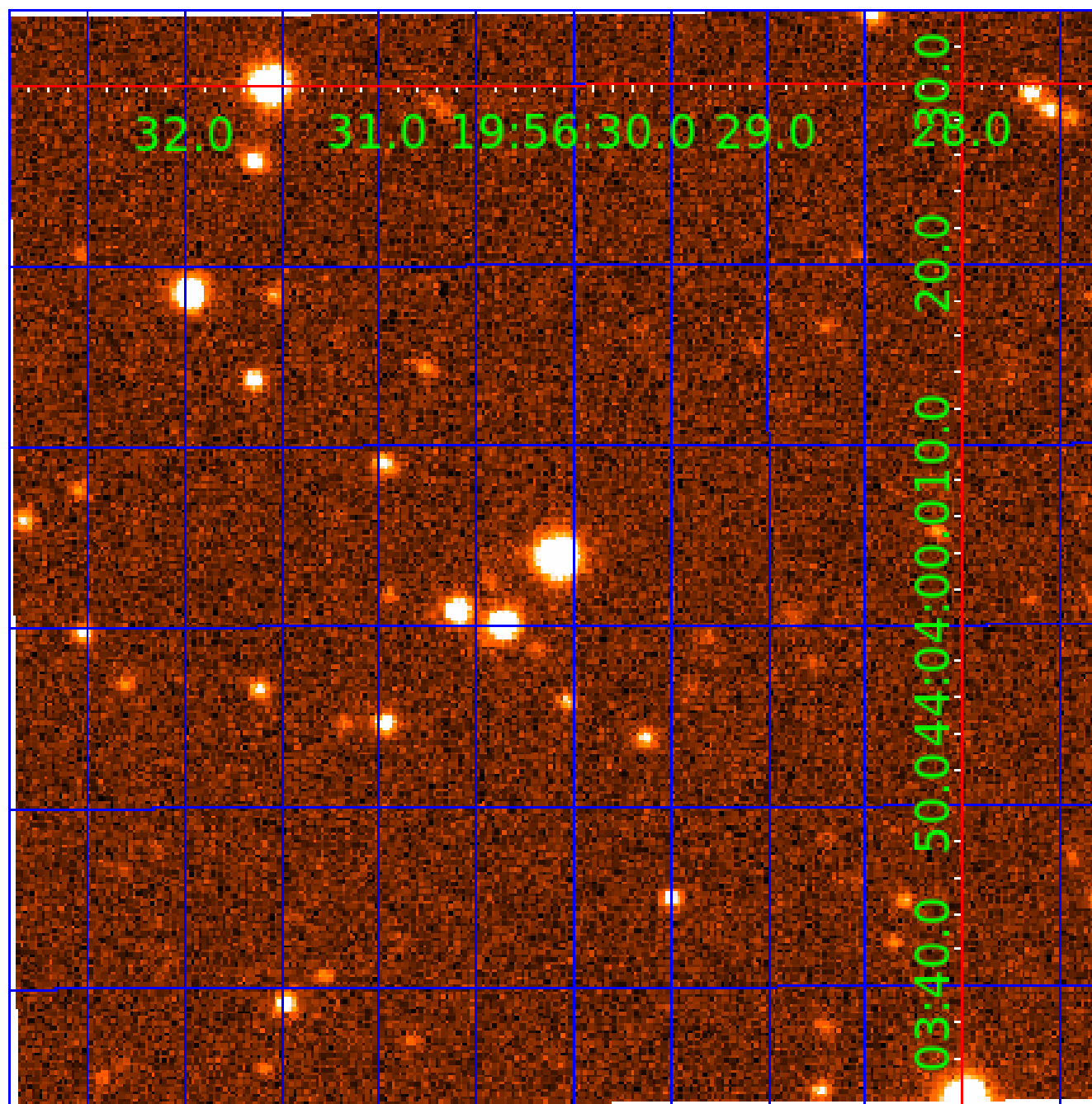


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 008190627

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008190627-01	OBS	No	0.556210	131.579885	79.0	3.853	11.6	9.4	1.30	6396	1.18	13086.97
008190627-02	OBS	No	34.777954	158.008771	2134.2	0.904	11.0	13.0	1.30	6396	6.15	52.73
008190627-03	OBS	No	16.529395	147.842864	1124.2	1.991	10.4	10.9	1.30	6396	4.45	142.17

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008190627-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_KIC_POS
008190627-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
008190627-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

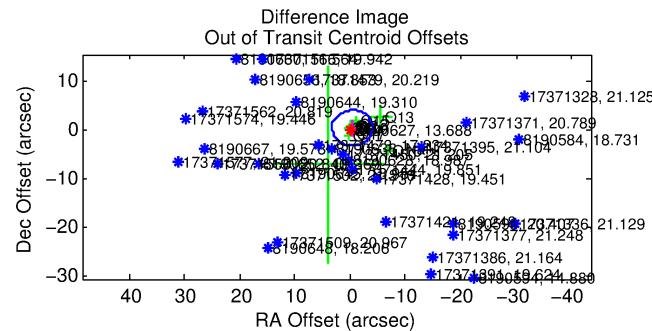
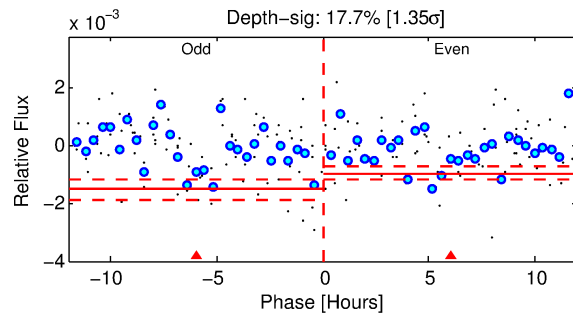
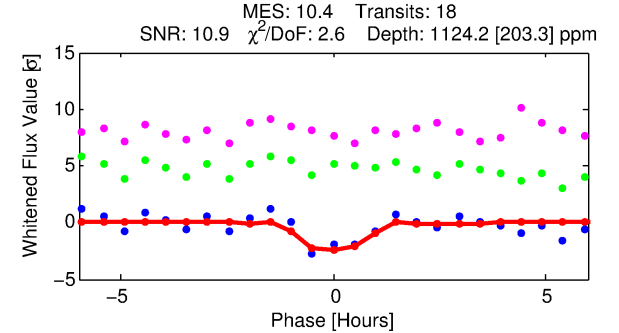
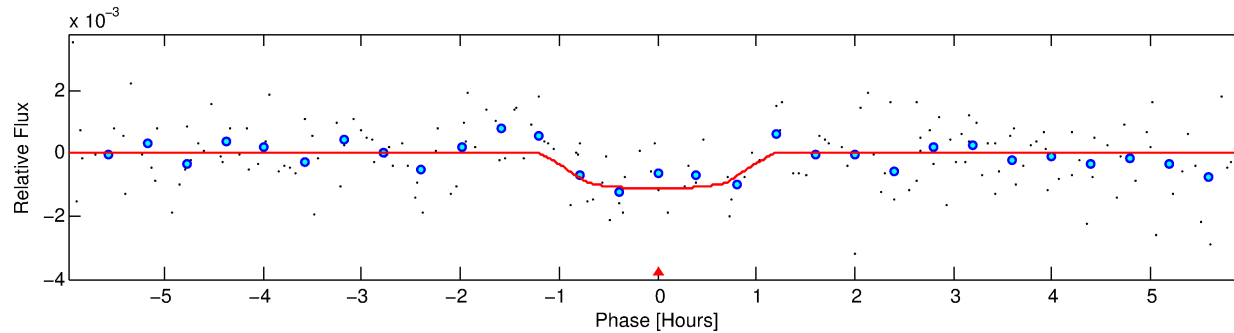
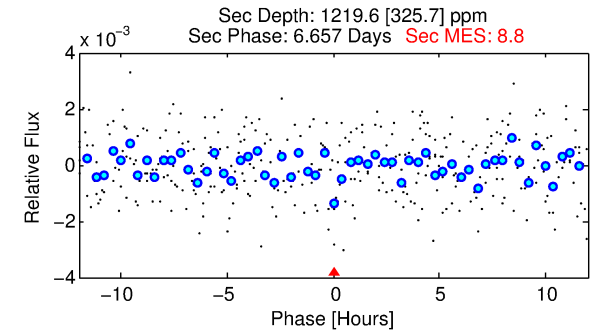
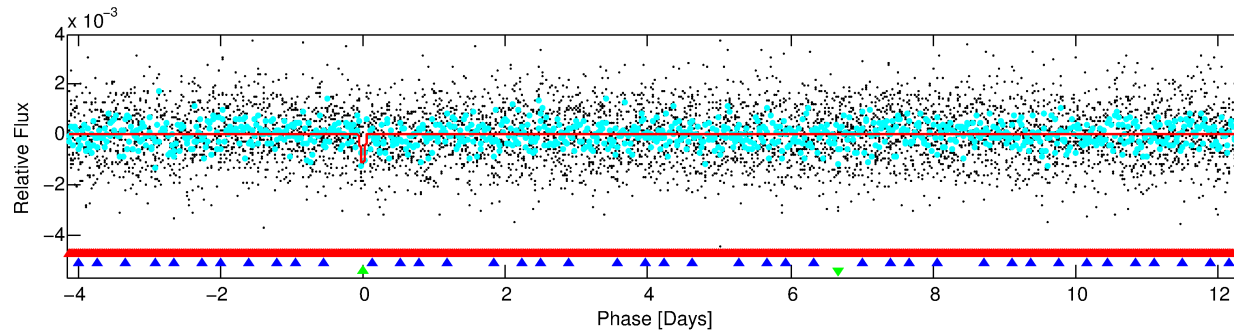
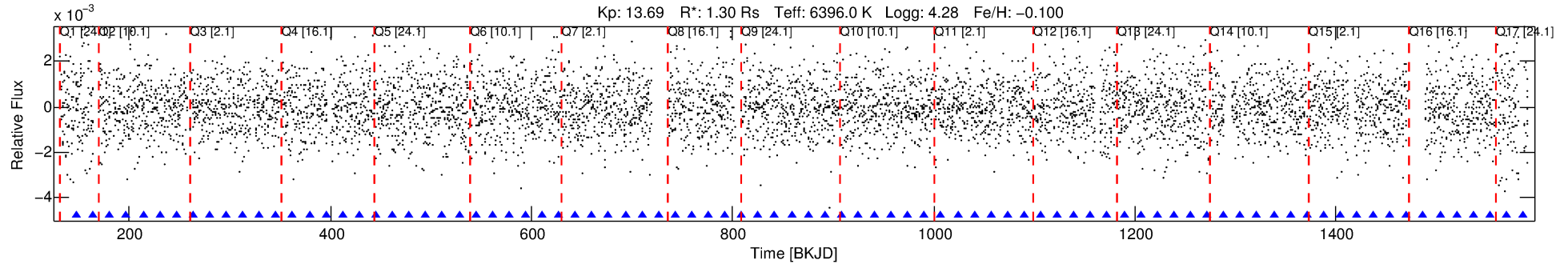
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008190627-03

No Significant Match Found

# DV One-Page Summary

KIC: 8190627 Candidate: 3 of 3 Period: 16.529 d



## DV Fit Results:

Period = 16.52940 [0.00021] d  
Epoch = 147.8429 [0.0088] BKJD  
Rp/R\* = 0.0314 [0.0888]  
a/R\* = 60.65 [881.99]  
b = 0.39 [32.24]  
Seff = 142.17 [57.38]  
Teq = 881 [89] K  
Rp = 4.45 [12.68] Re  
a = 0.1335 [0.0353] AU  
Ag = 603.97 [3429.98] [0.18σ]  
Teffp = 6749 [9564] K [0.61σ]

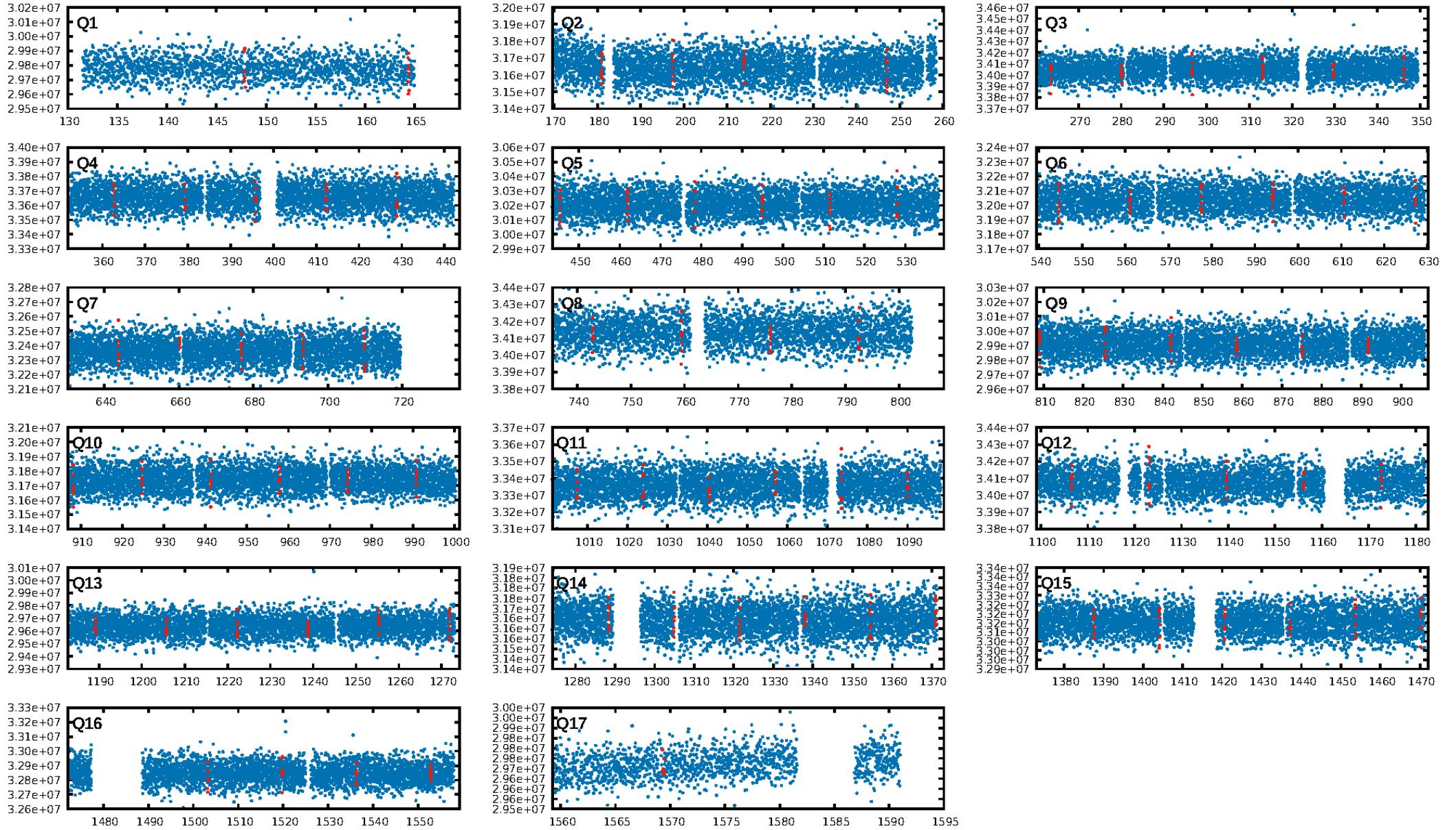
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [88.39σ]  
LongPeriod-sig: 100.0% [200.31σ]  
**ModelChiSquare2-sig: 0.1%**  
ModelChiSquareGof-sig: 99.6%  
**Bootstrap-pfa: 6.93e-10**  
RollingBand-fgt: 1.00 [18/18]  
**GhostDiagnostic-chr: -0.3946**  
Centroid-sig: 43.8%  
**Centroid-so: 1.282 arcsec [3.86σ]**  
OotOffset-rm: 0.524 arcsec [0.43σ]  
KicOffset-rm: 0.205 arcsec [0.16σ]  
OotOffset-st: 4/3/3/4 [14]  
KicOffset-st: 4/3/3/4 [14]  
DiffImageQuality-fgm: 0.21 [3/14]  
DiffImageOverlap-fno: 0.00 [0/17]

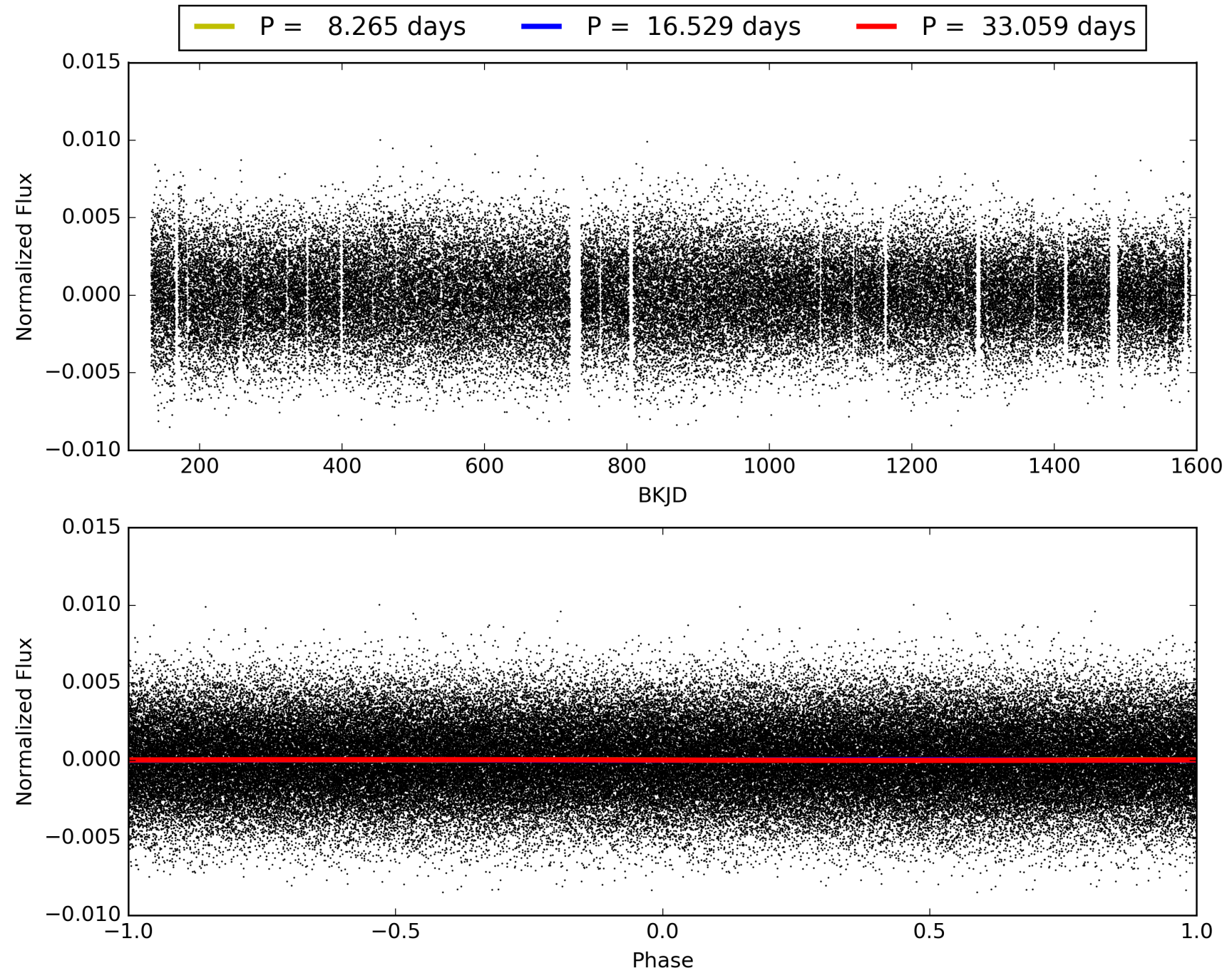
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:14:56 Z

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

# TCE 008190627-03, PDC Light Curves

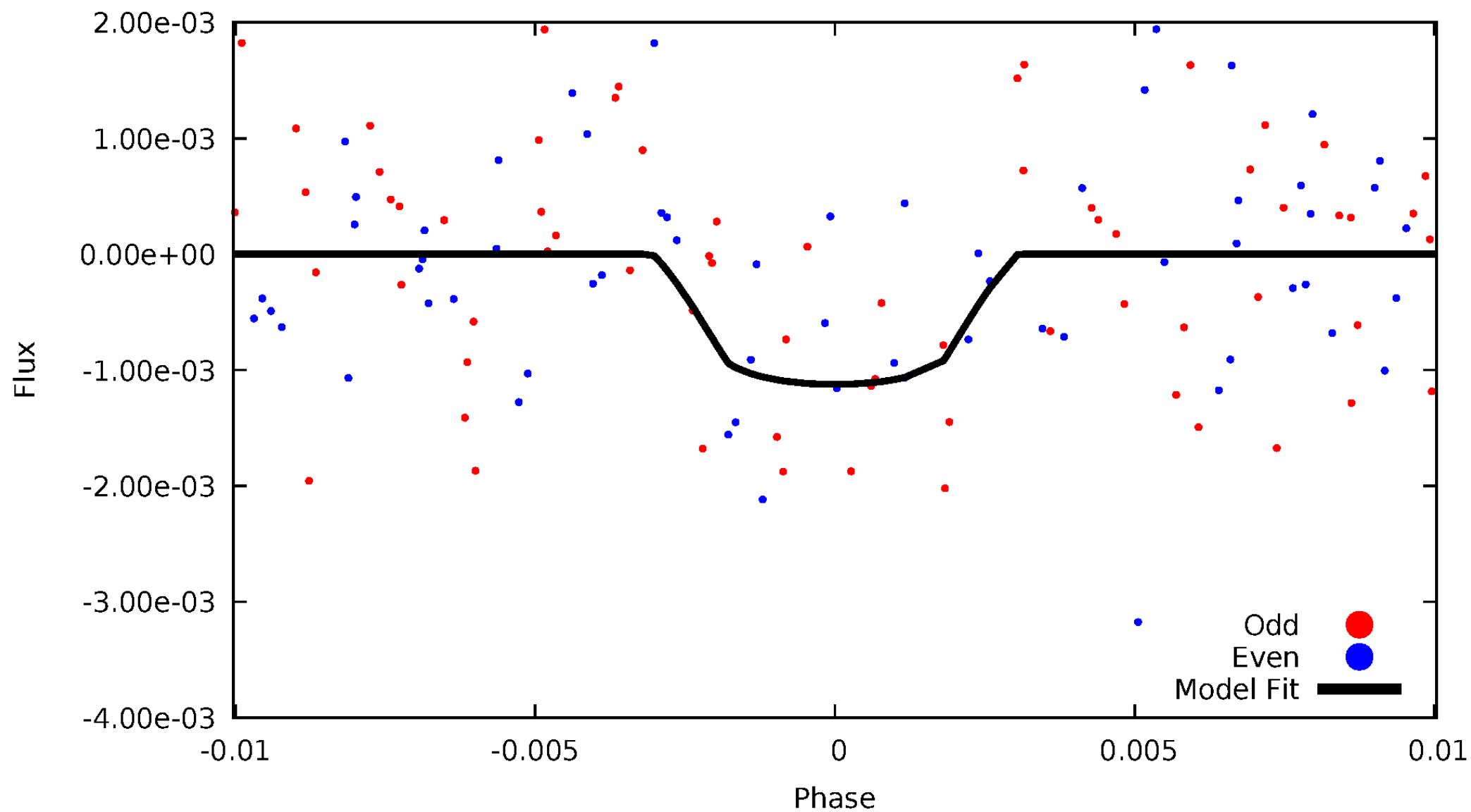


TCE 008190627-03



# DV Odd/Even

TCE 008190627-03





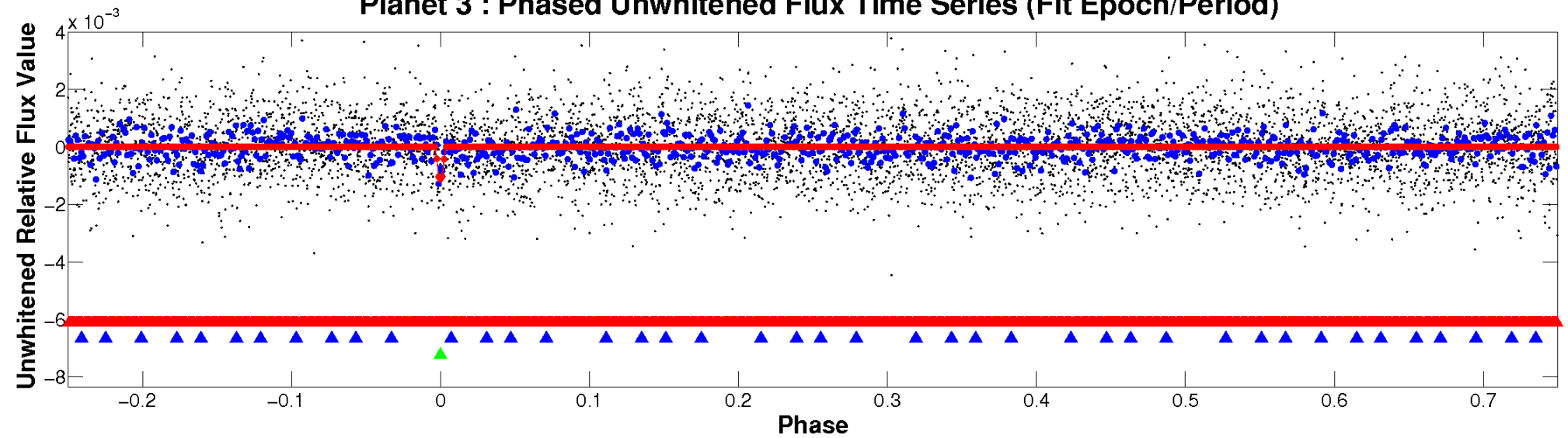


ALT Odd/Even

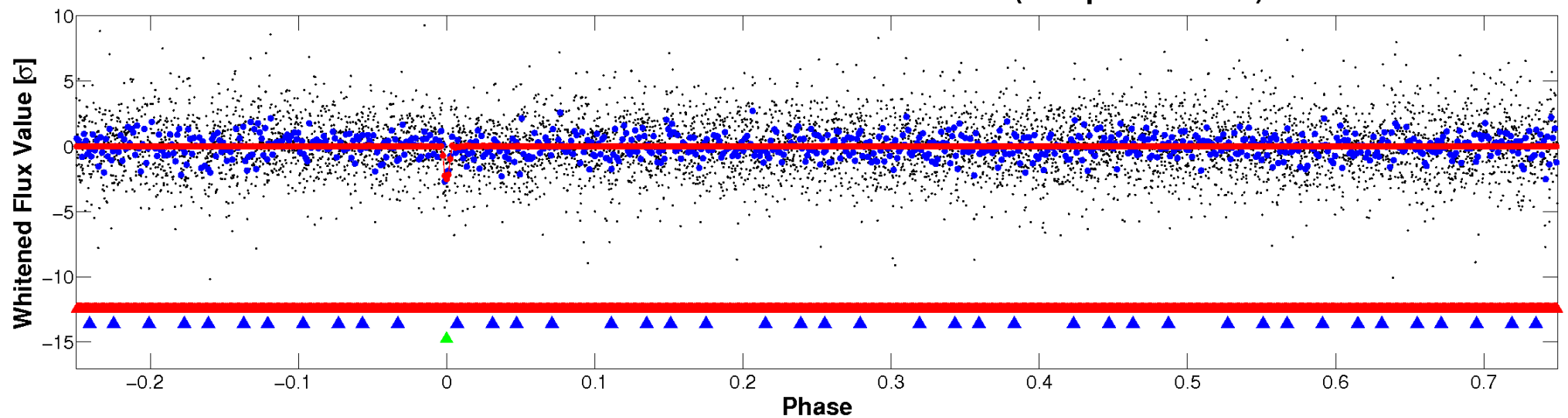
This plot does not exist for this TCE.

# Non-Whitened Vs. Whitened Light Curve

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

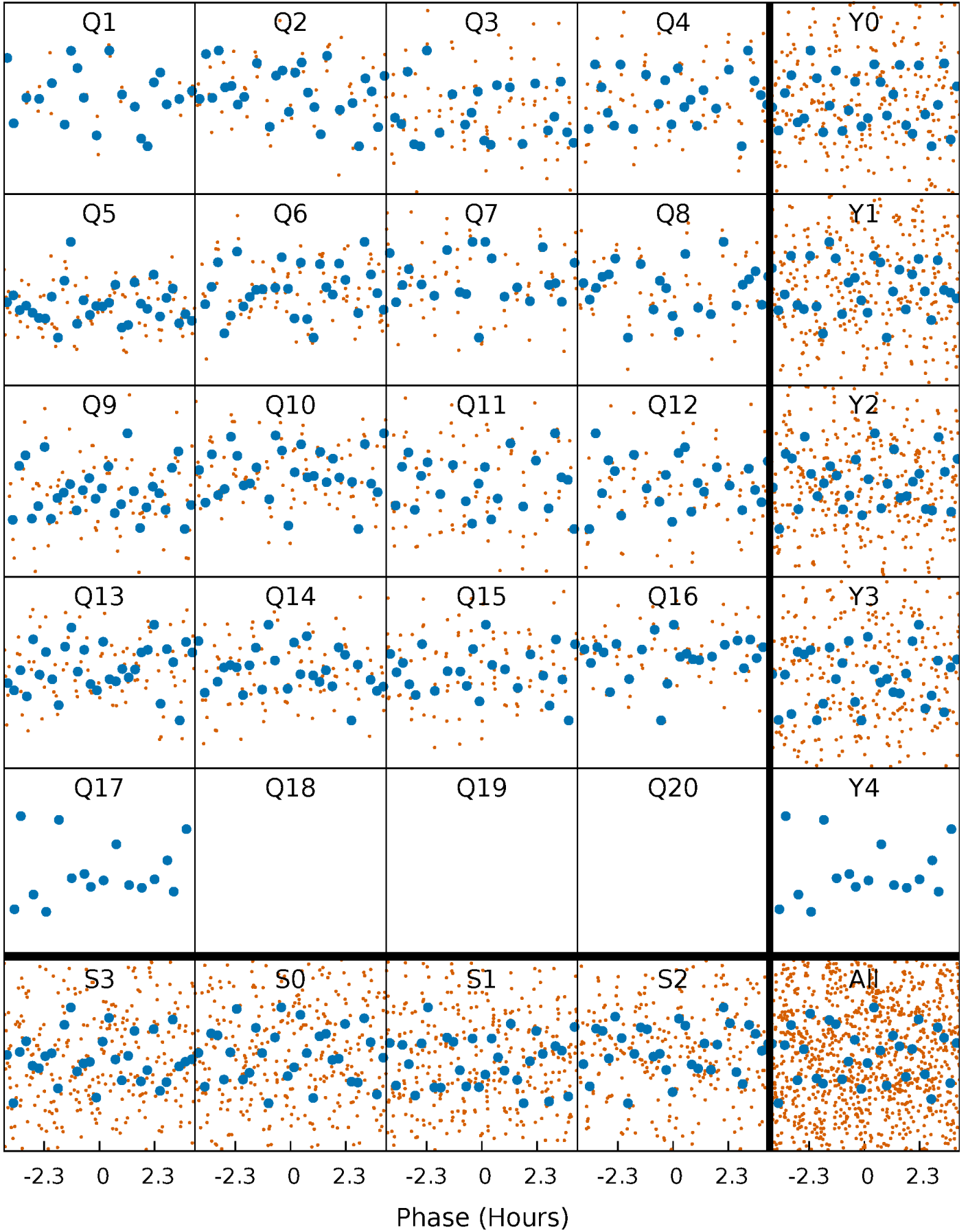


**Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



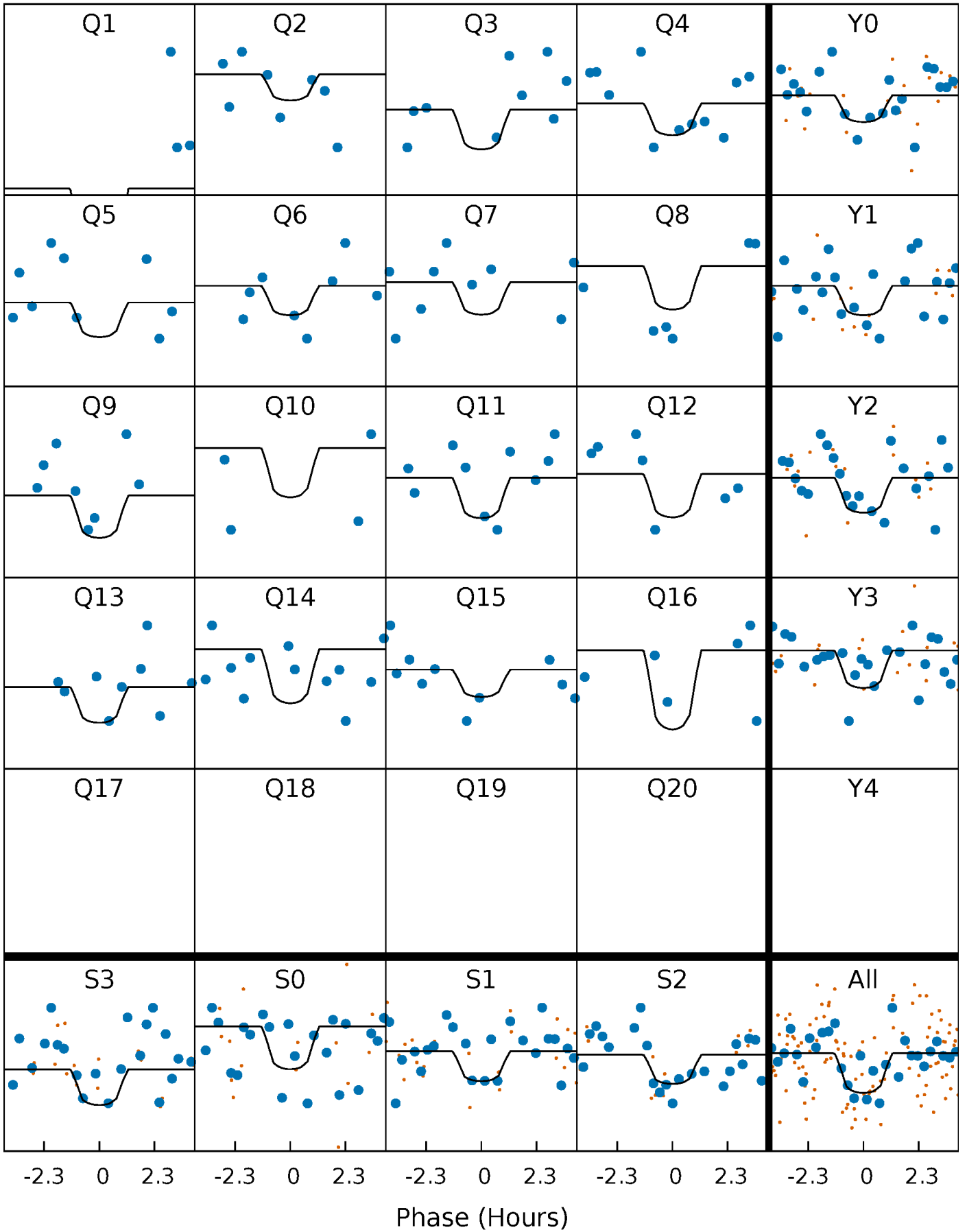
# PDC Quarter-Phased Transit Curves

TCE 008190627-03   P= 16.529395 Days    $T_0=147.842864$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 008190627-03   P= 16.529395 Days    $T_0=147.842864$  (BKJD)



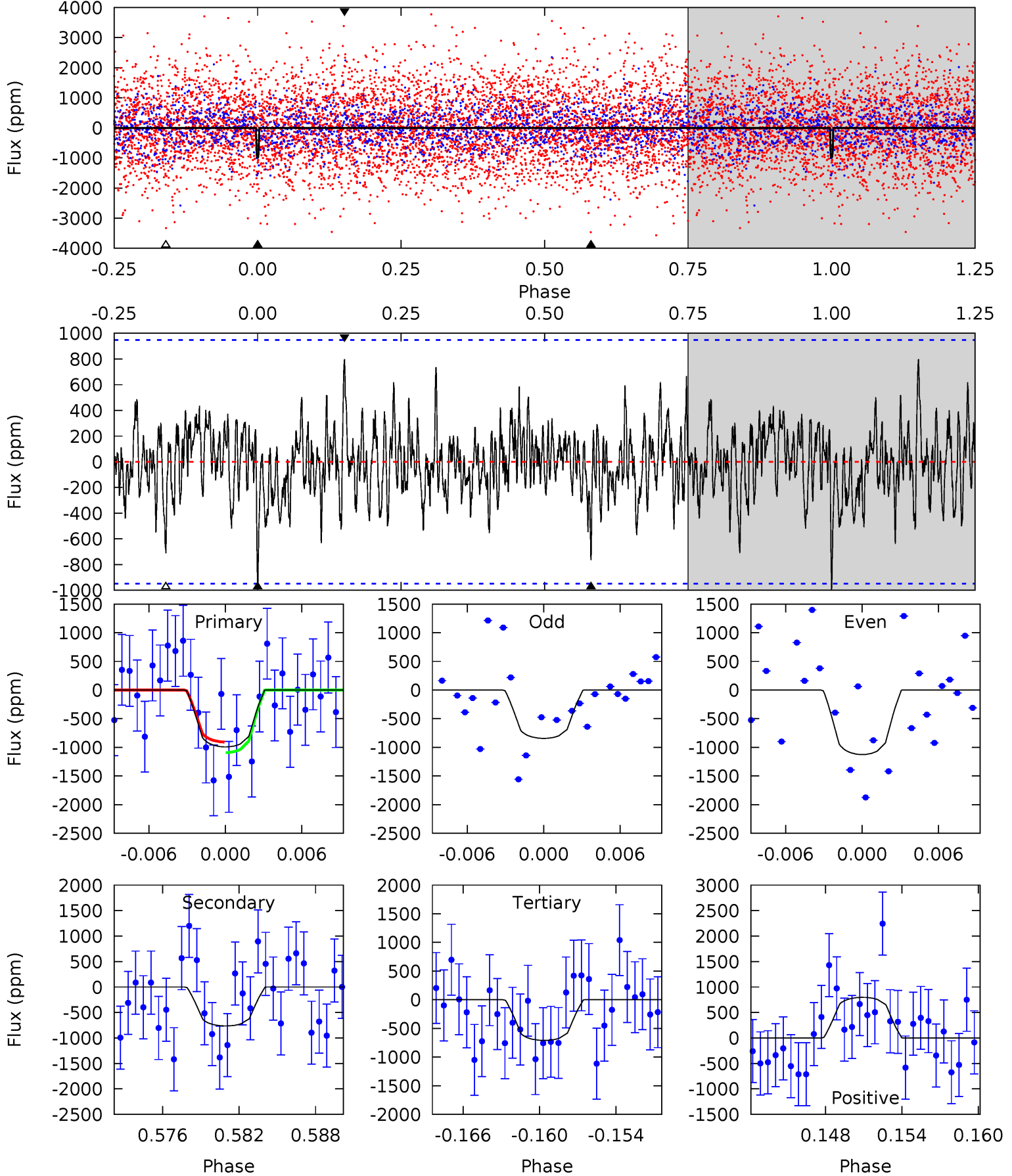
This plot does not exist for this TCE.



# DV Model-Shift Uniqueness Test

008190627-03, P = 16.529395 Days, E = 131.313469 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
5.37	4.13	3.84	4.31	5.13	2.75	1.23	1.53	1.06	0.29	-0.18	0.76	0.88	0.45	0.50



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 008190627

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6396^{+179}_{-246}$	$4.275^{+0.132}_{-0.198}$	$-0.100^{+0.250}_{-0.300}$	$1.300^{+0.422}_{-0.227}$	$1.159^{+0.181}_{-0.163}$	$0.743^{+0.457}_{-0.377}$
	+3%/-4%	+3%/-5%	+250%/-300%	+32%/-17%	+16%/-14%	+62%/-51%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 008190627-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	-764±185	$10.76^{+10.24}_{-7.43}$	$1237^{+90}_{-76}$	$4186^{+2804}_{-843}$	$65^{+571}_{-47}$
Alt.	N/A	N/A	N/A	N/A	N/A

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

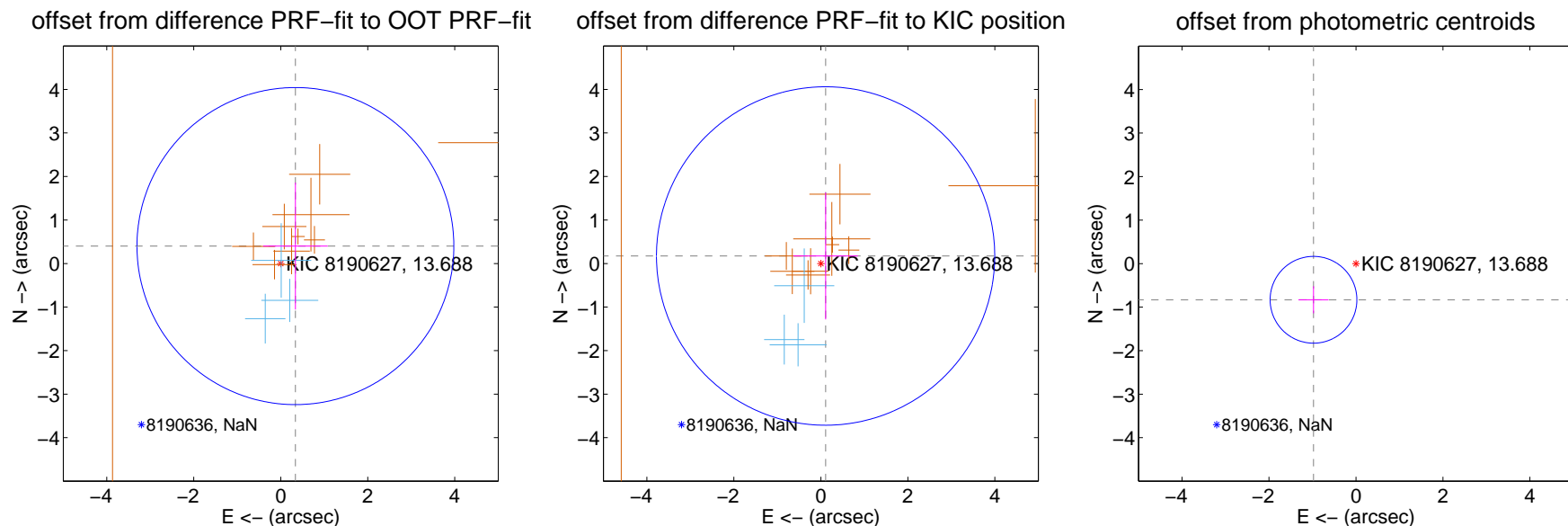
## DV Centroid Data

Supplemental centroid analysis for 008190627-03. Kepler magnitude: 13.69. Transit SNR 10.94

There are 3 quarters with good PRF difference image offsets

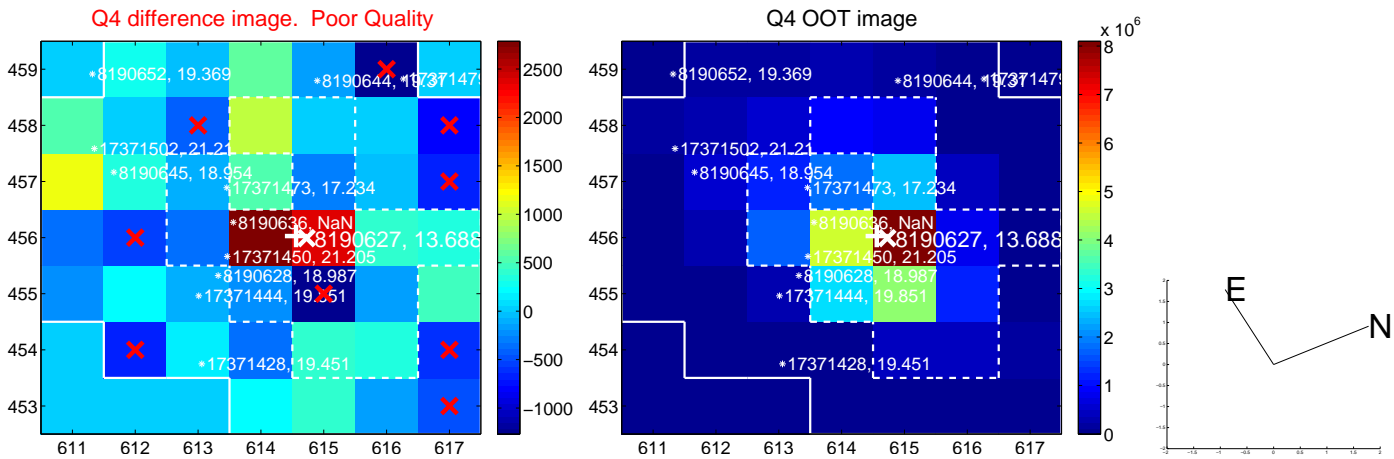
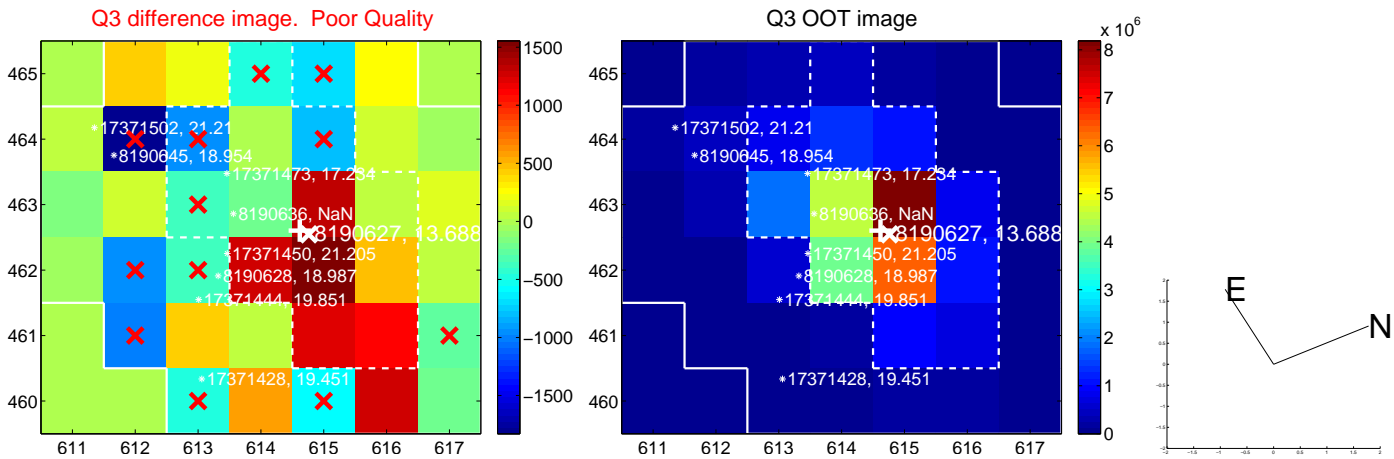
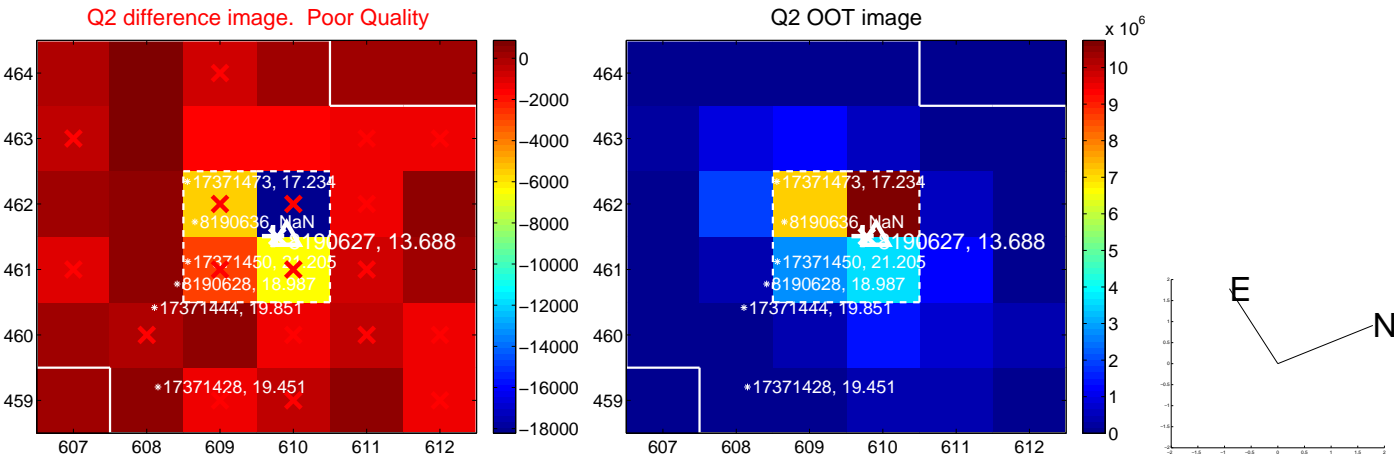
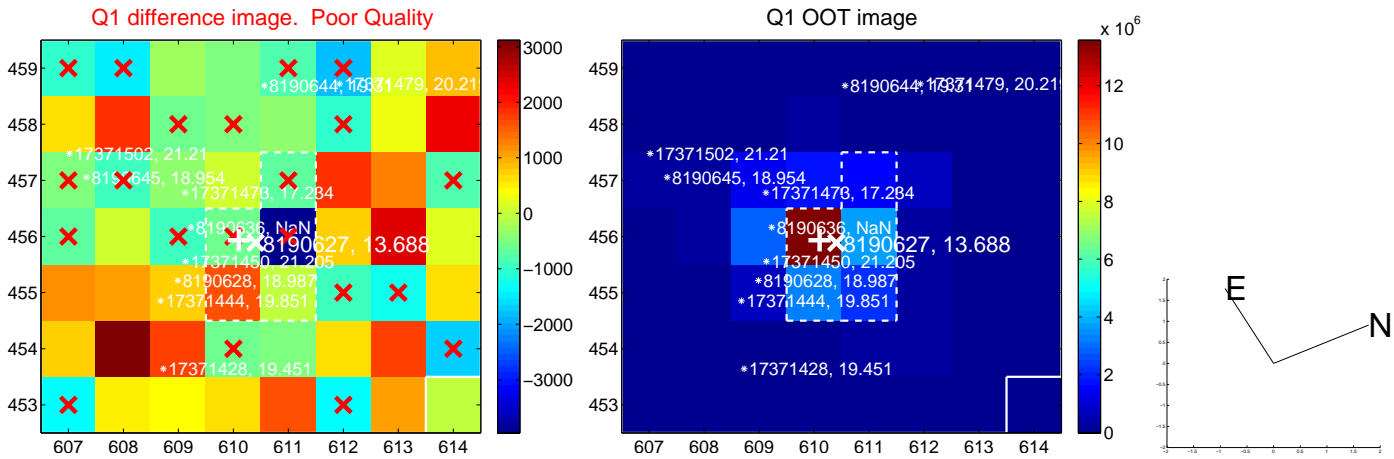
The direct PRF centroid is offset from the target star catalog position by about 1.25 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.524 \pm 1.214$	0.43	$-0.337 \pm 0.743$	$0.401 \pm 1.458$
PRF-fit source offset from KIC position	$0.205 \pm 1.296$	0.16	$-0.109 \pm 0.743$	$0.173 \pm 1.458$
photometric centroid source offset	$1.28 \pm 0.33$	3.86	$0.98 \pm 0.35$	$-0.83 \pm 0.31$

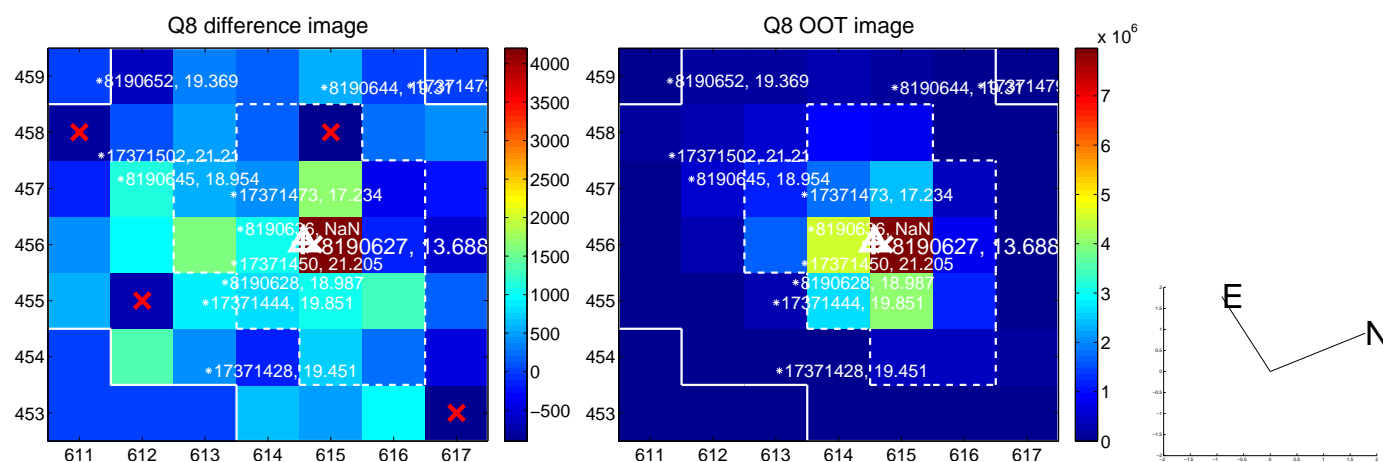
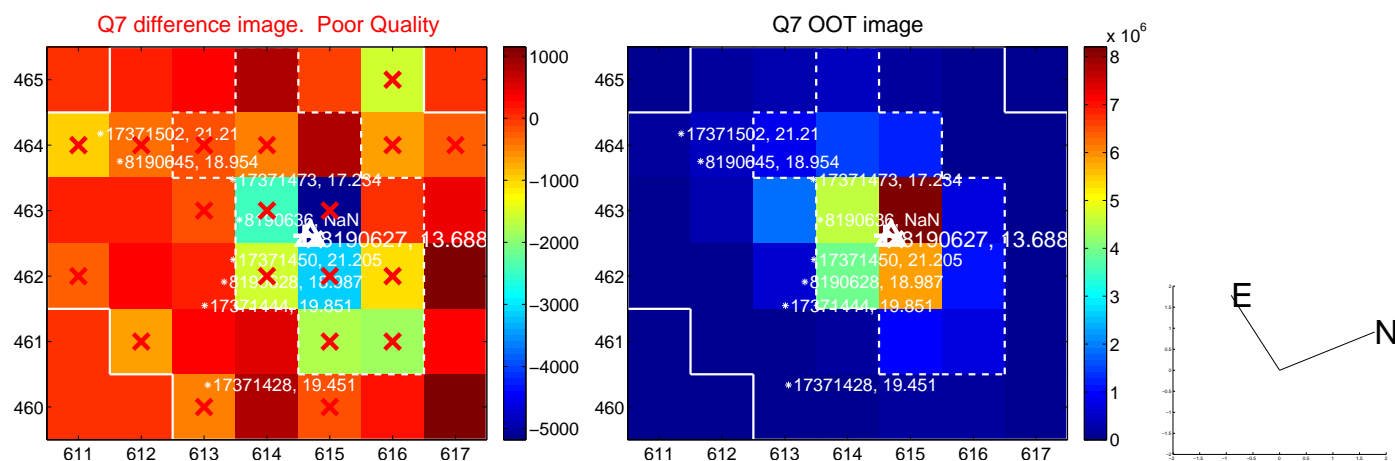
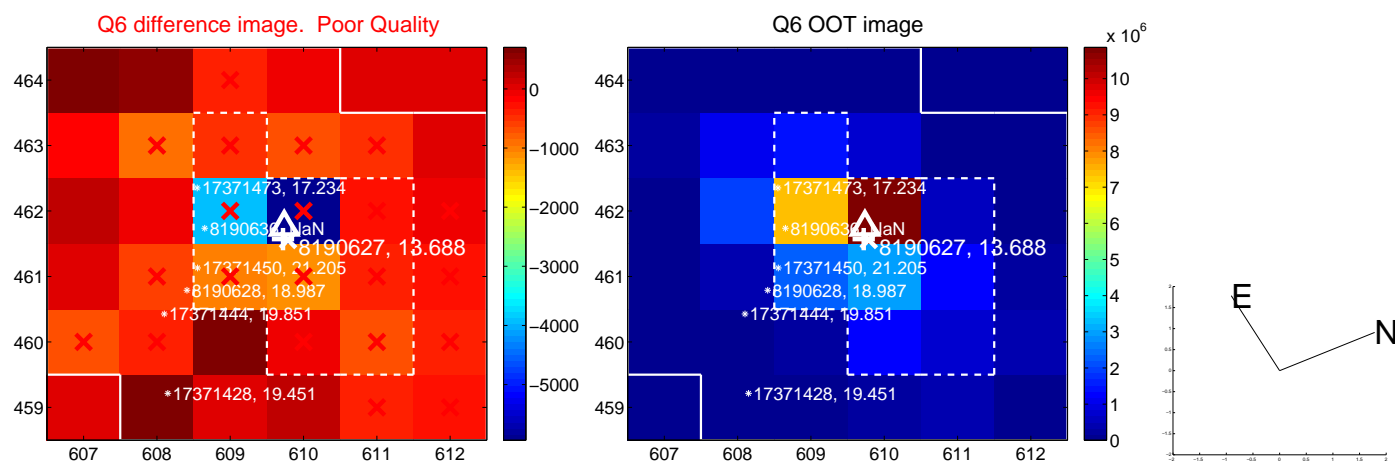
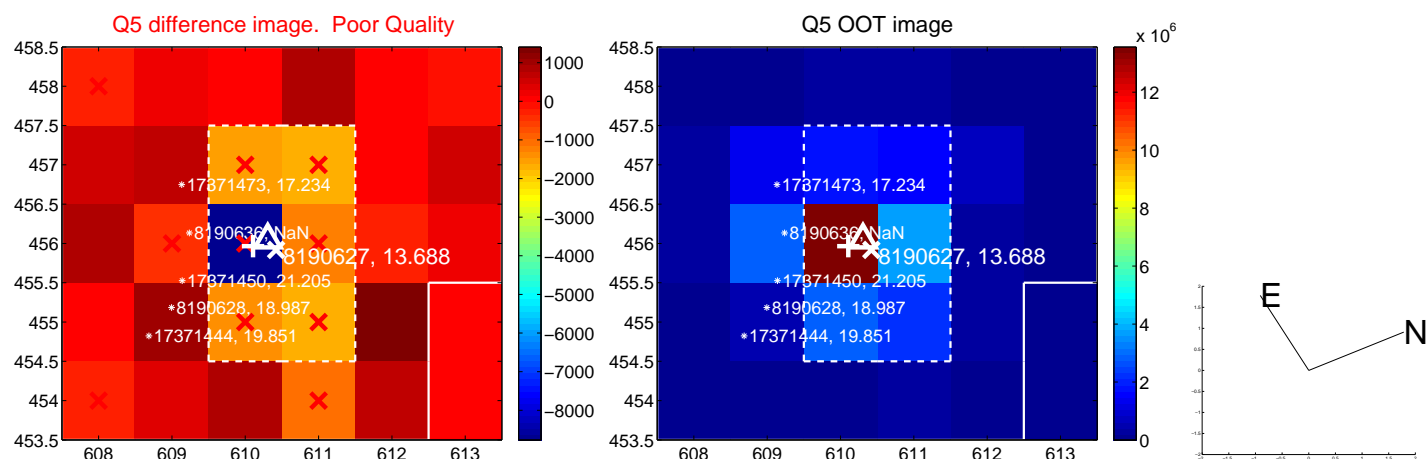


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

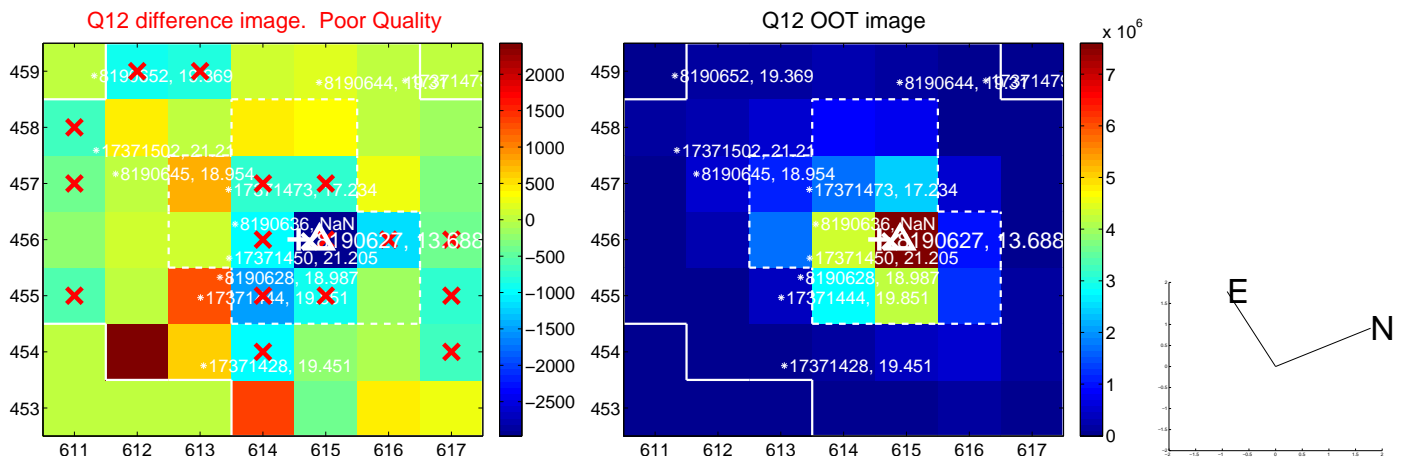
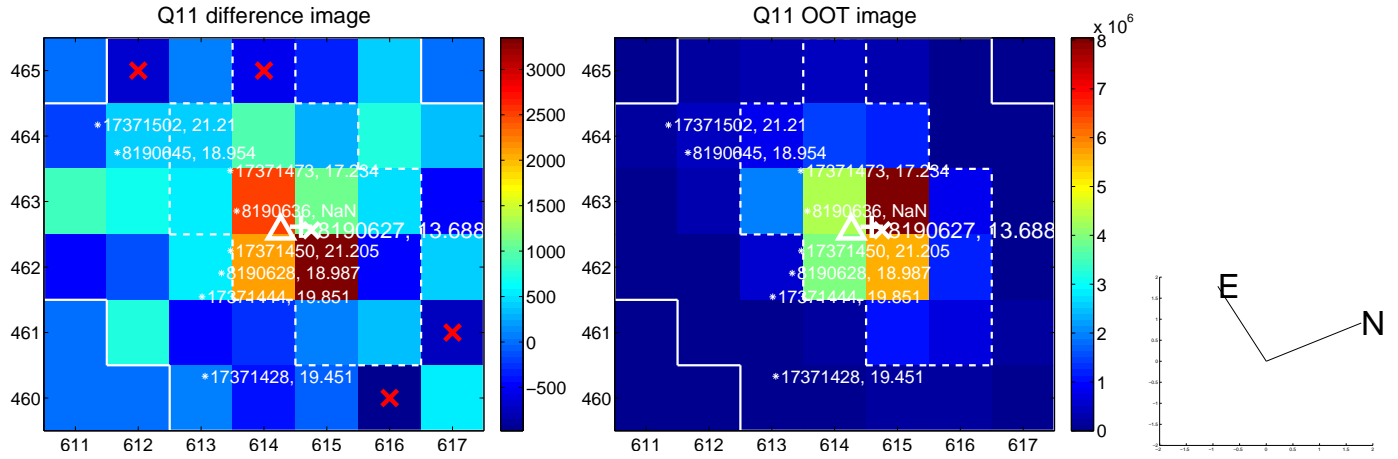
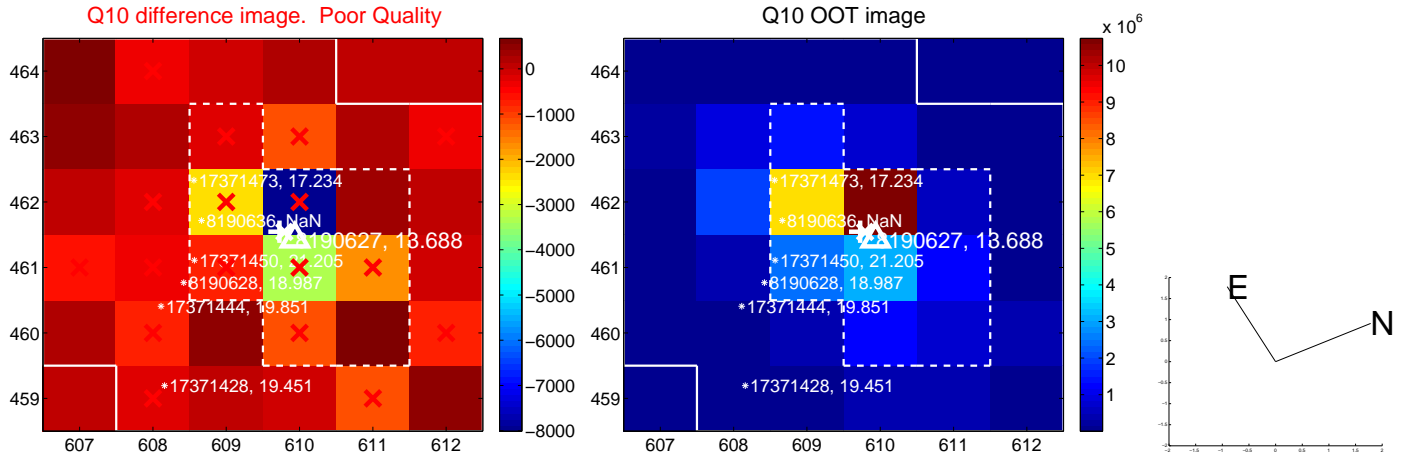
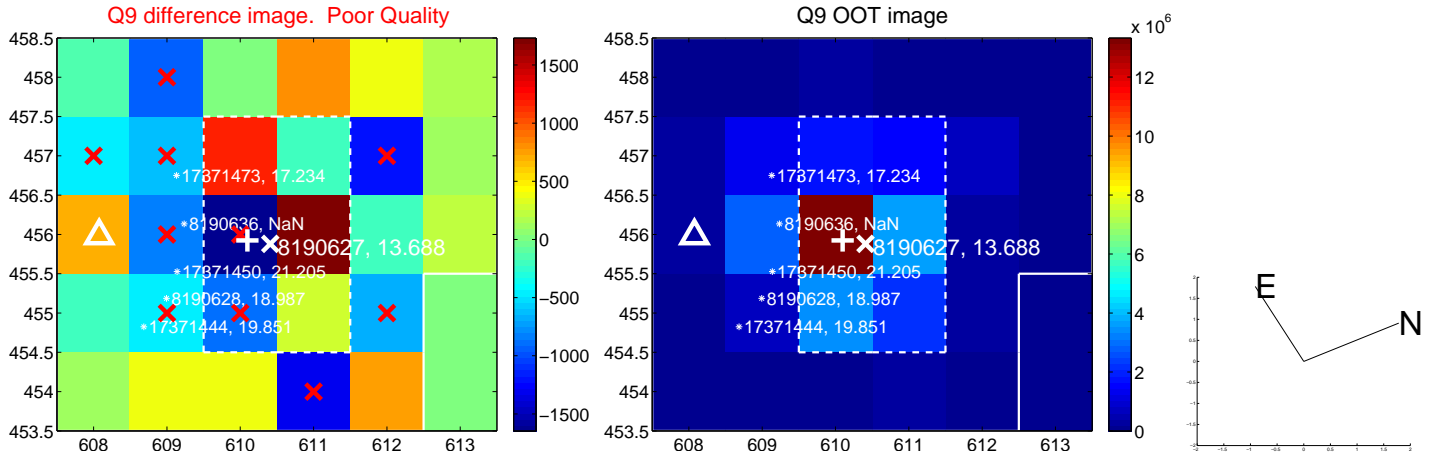


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

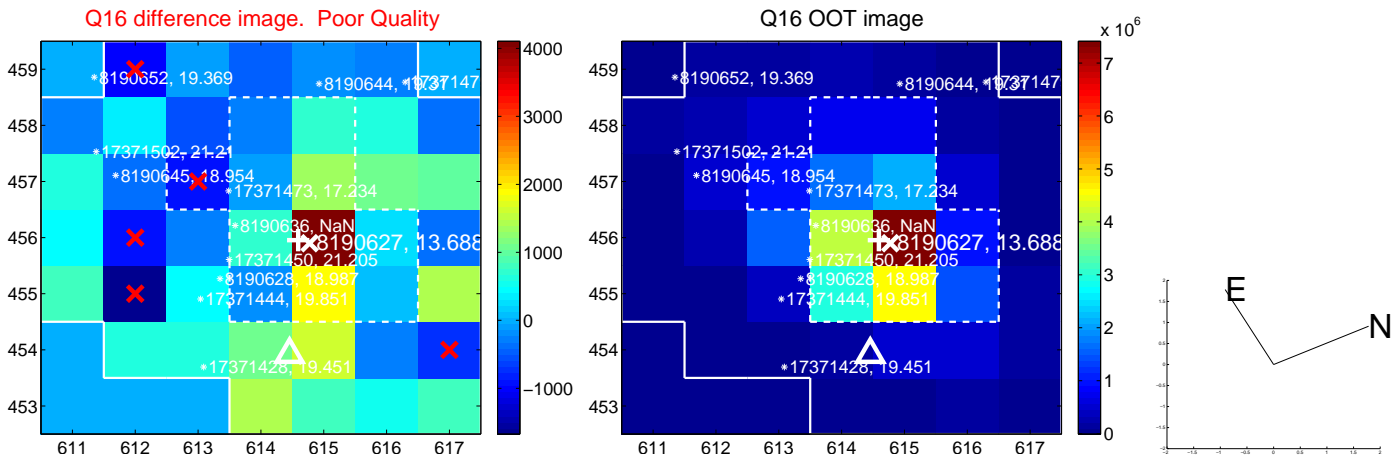
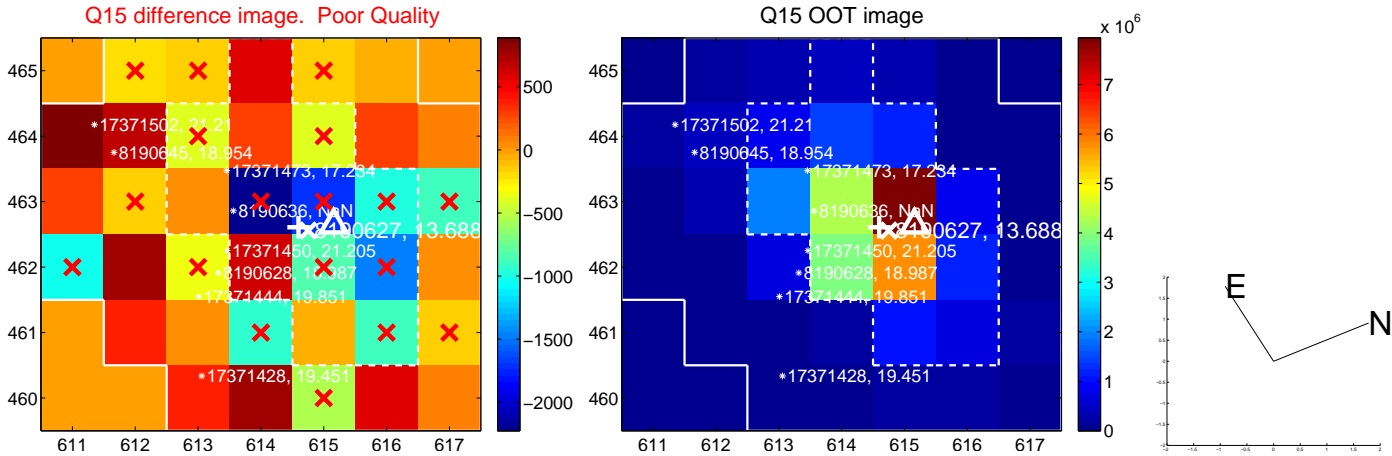
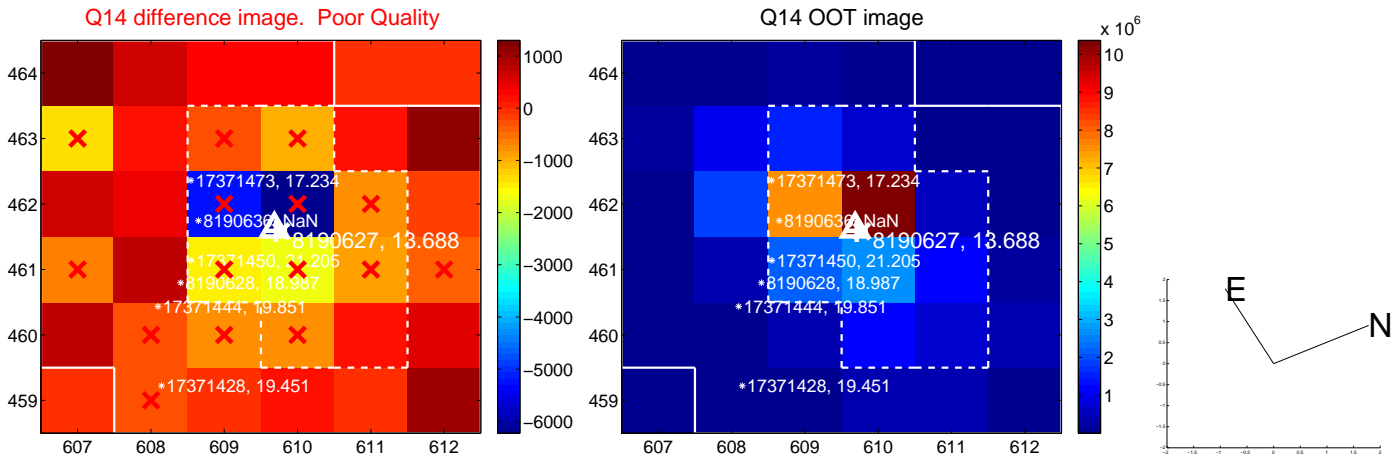
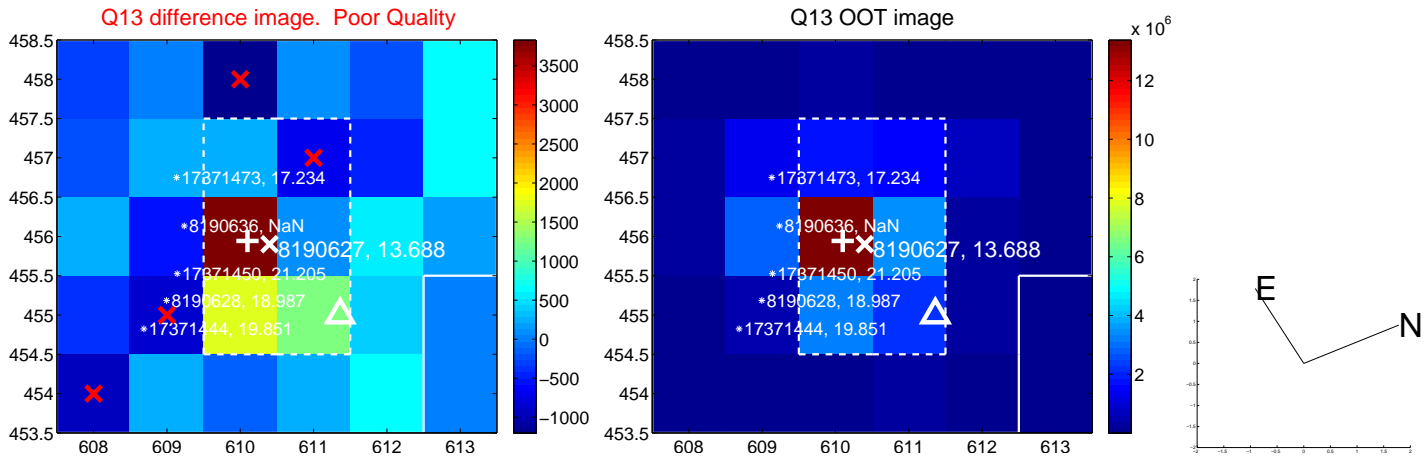




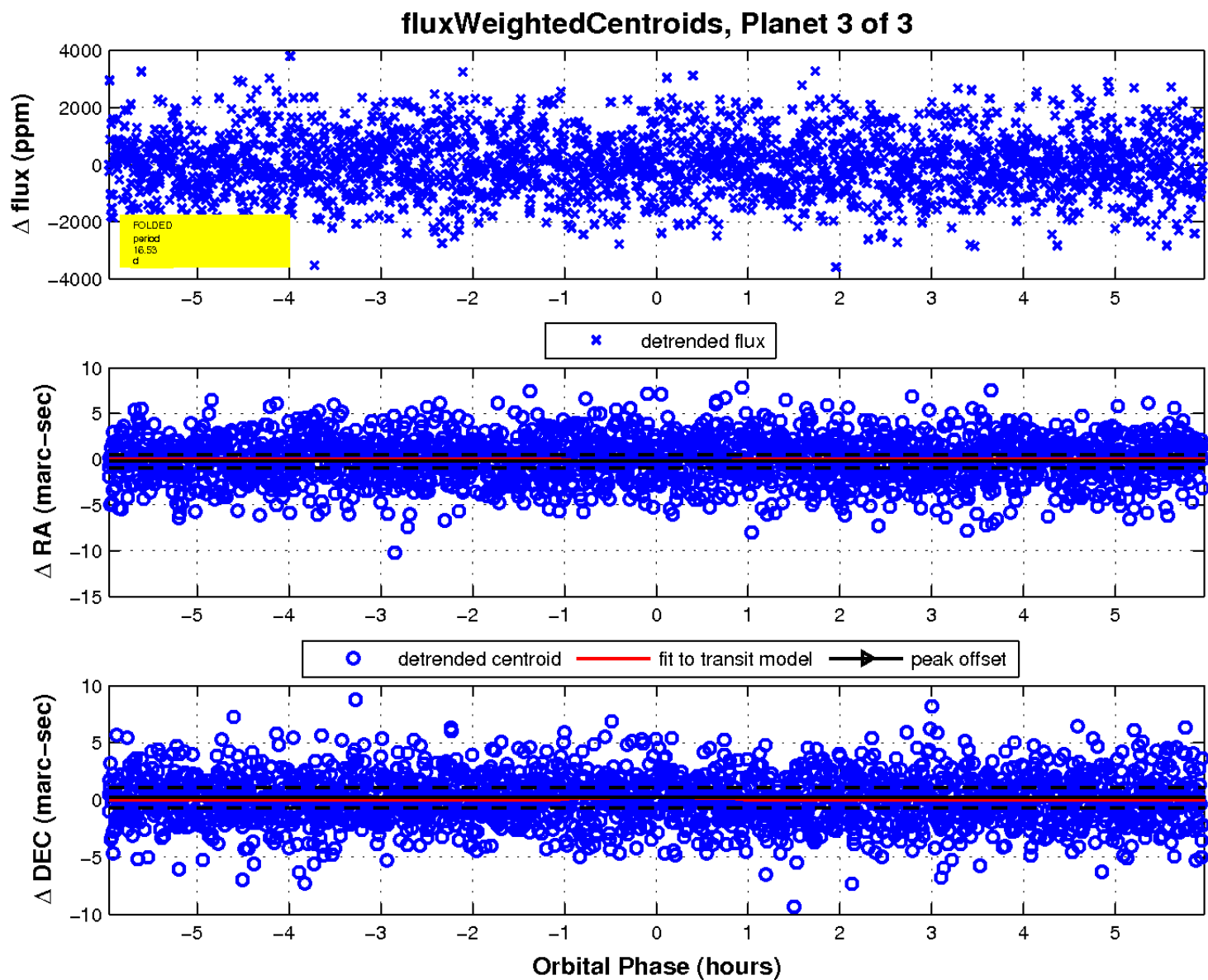
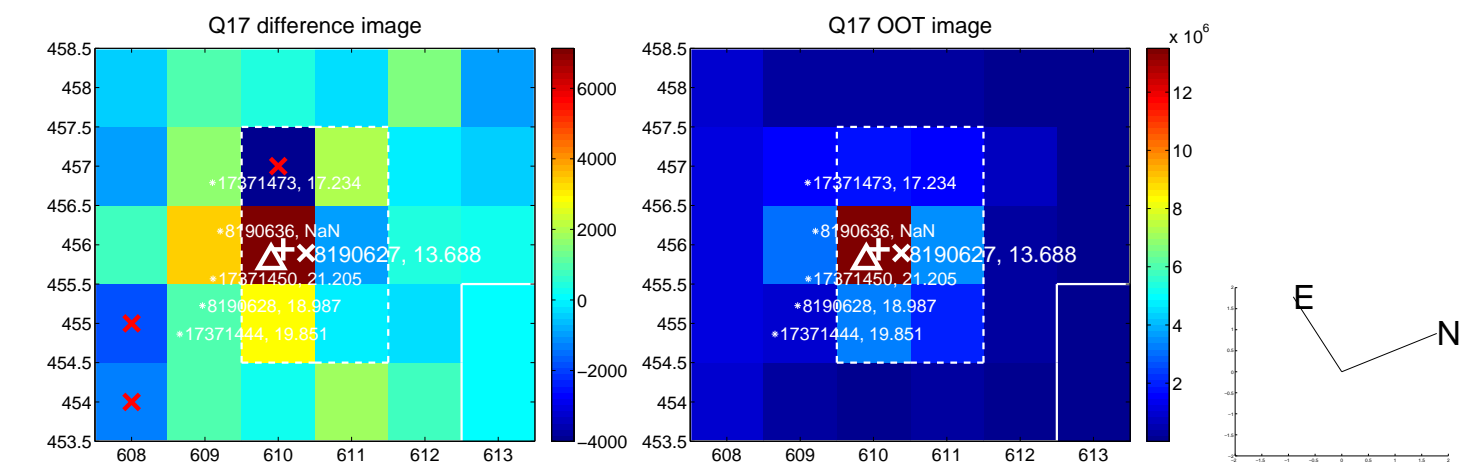
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

