

# KIC 011189284

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011189284-01	OBS	No	2.412277	133.186184	37.9	2.263	21.7	22.4	3.83	8867	2.72	36036.79
011189284-02	OBS	No	0.603044	131.816410	7.5	3.376	15.0	9.8	3.83	8867	1.21	228832.34
011189284-03	OBS	No	0.603056	132.079285	13.0	1.918	15.1	16.4	3.83	8867	1.42	228826.04

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011189284-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
011189284-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
011189284-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

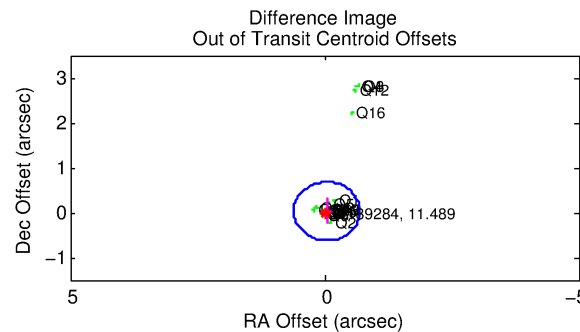
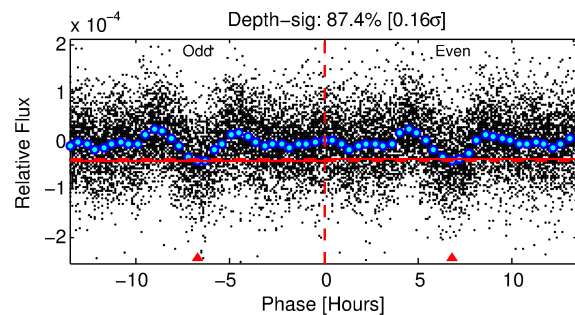
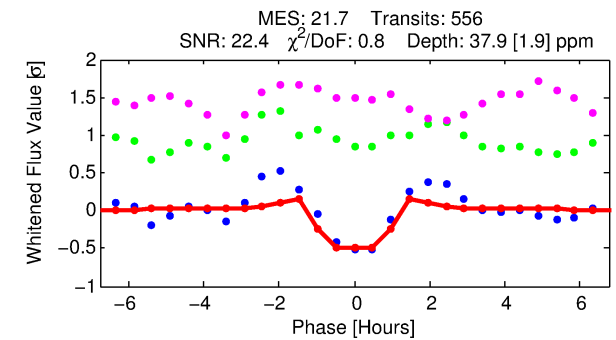
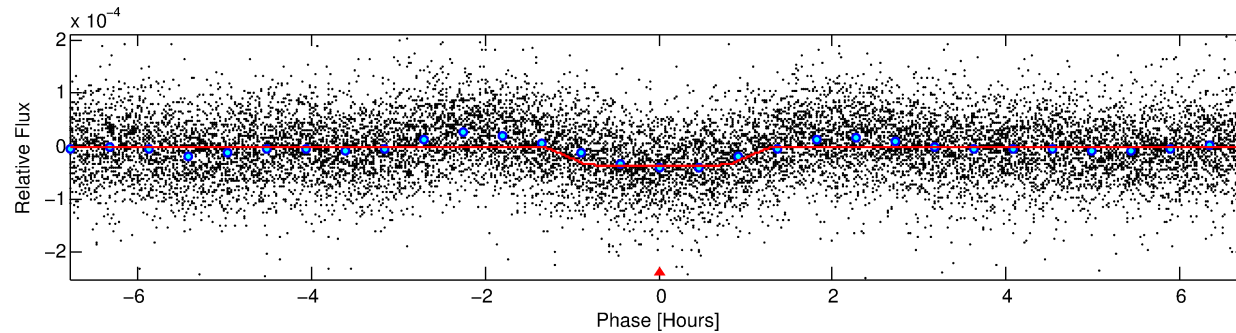
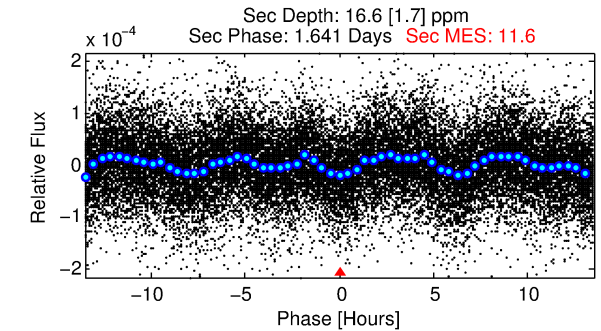
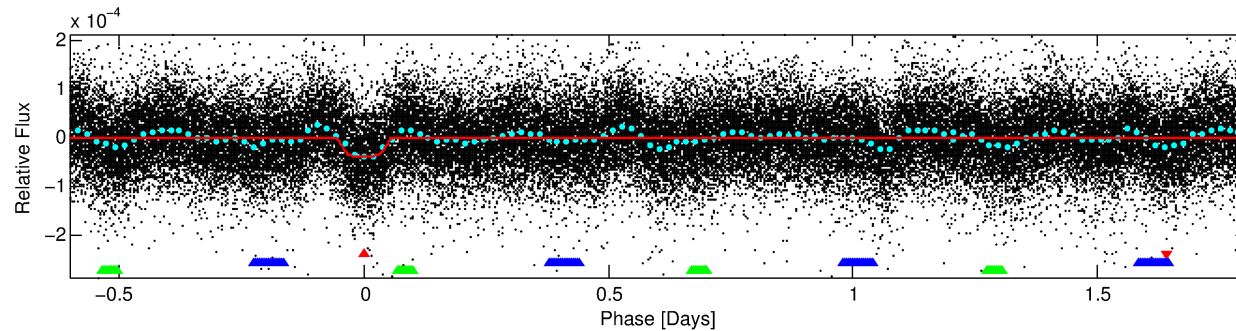
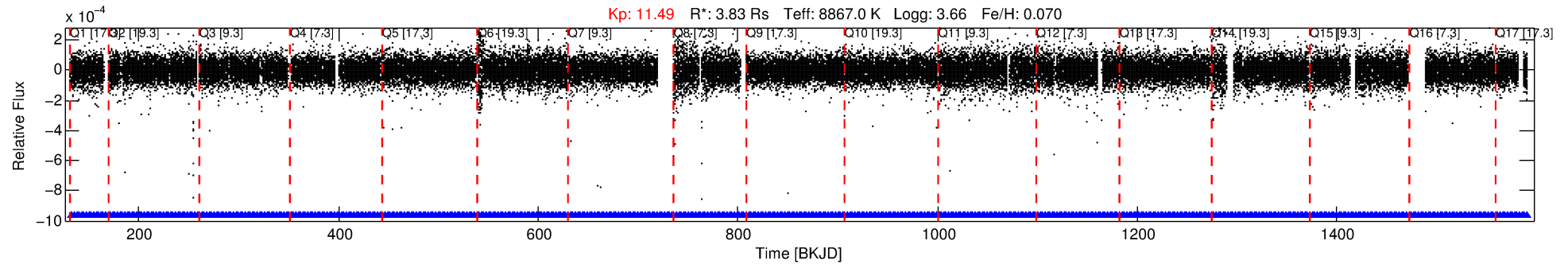
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 011189284-01

No Significant Match Found

# DV One-Page Summary

KIC: 11189284 Candidate: 1 of 3 Period: 2.412 d



## DV Fit Results:

Period = 2.41228 [0.00001] d  
Epoch = 133.1862 [0.0011] BKJD  
Rp/R\* = 0.0065 [0.0006]  
a/R\* = 3.78 [2.32]  
b = 0.90 [0.14]  
Seff = 36036.79 [31229.74]  
Teq = 3513 [761] K  
Rp = 2.72 [1.50] Re  
a = 0.0475 [0.0249] AU  
Ag = 2.77 [2.41] [0.73σ]  
Teffp = 7006 [519] K [3.79σ]

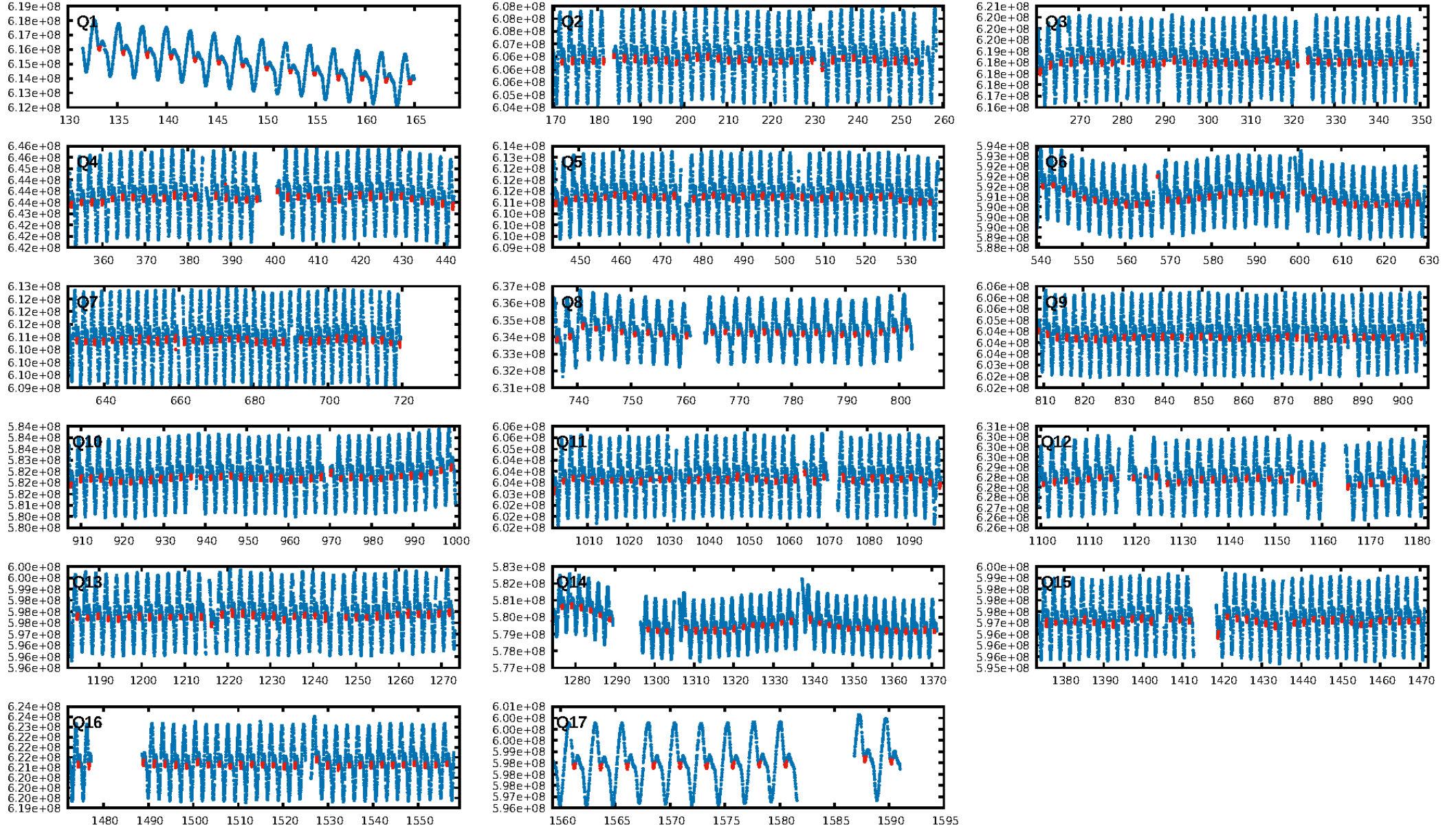
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [14.64σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGoF-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [531/531]  
GhostDiagnostic-chr: 4.372  
Centroid-sig: 2.4%  
Centroid-so: 0.453 arcsec [1.22σ]  
OotOffset-rm: 0.048 arcsec [0.22σ]  
KicOffset-rm: 0.116 arcsec [0.43σ]  
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]

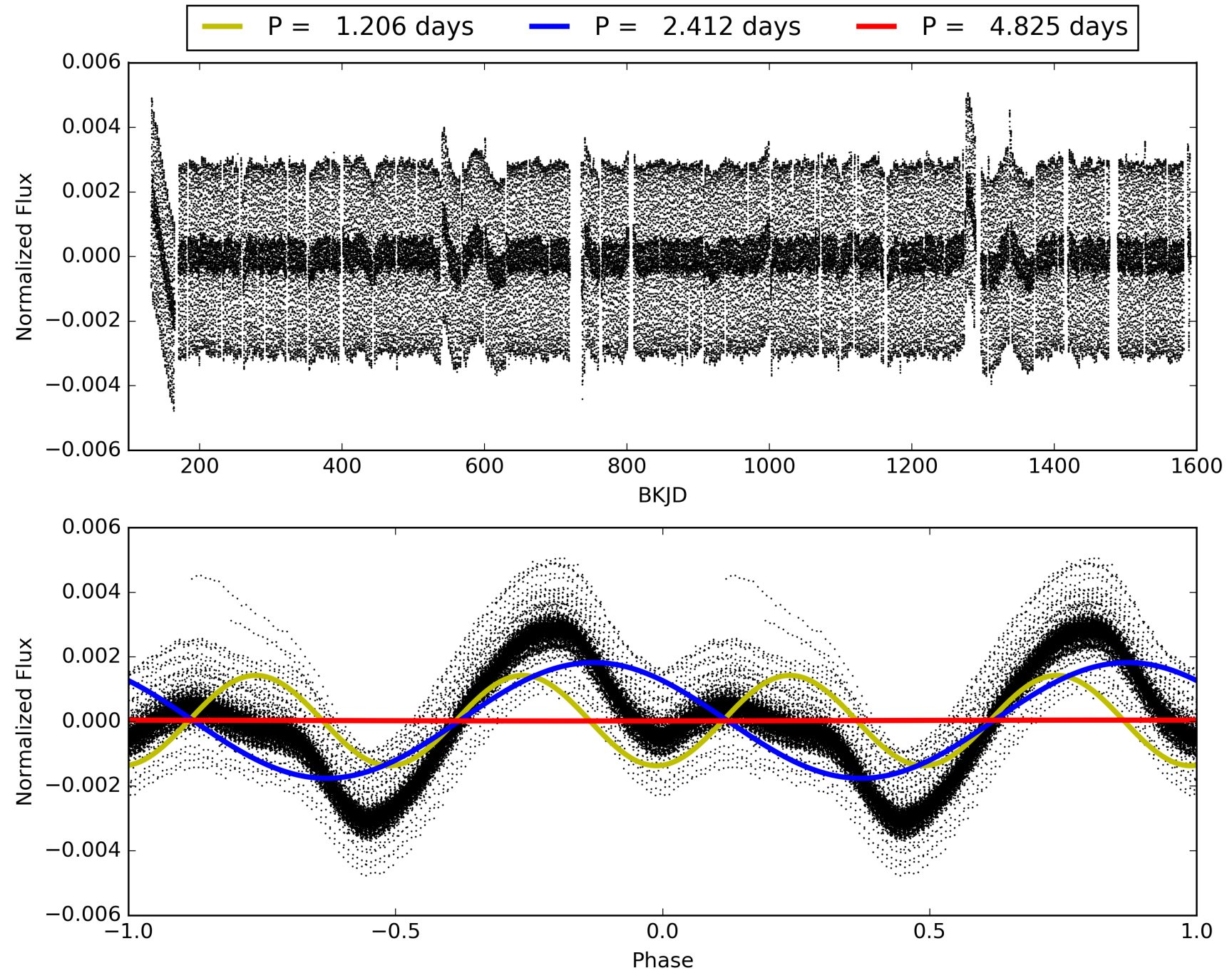
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:08:22 Z

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

# TCE 011189284-01, PDC Light Curves

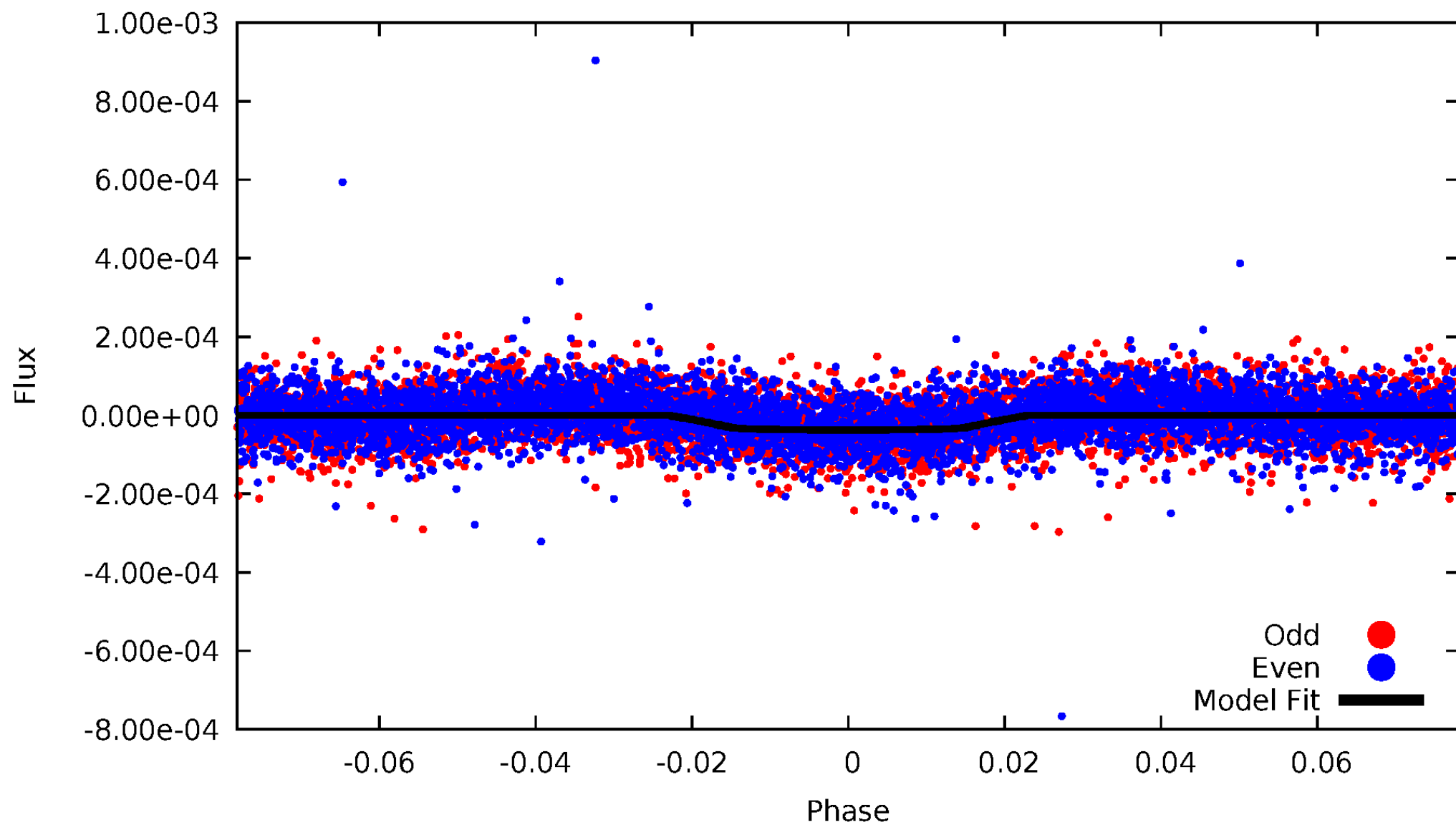


TCE 011189284-01



# DV Odd/Even

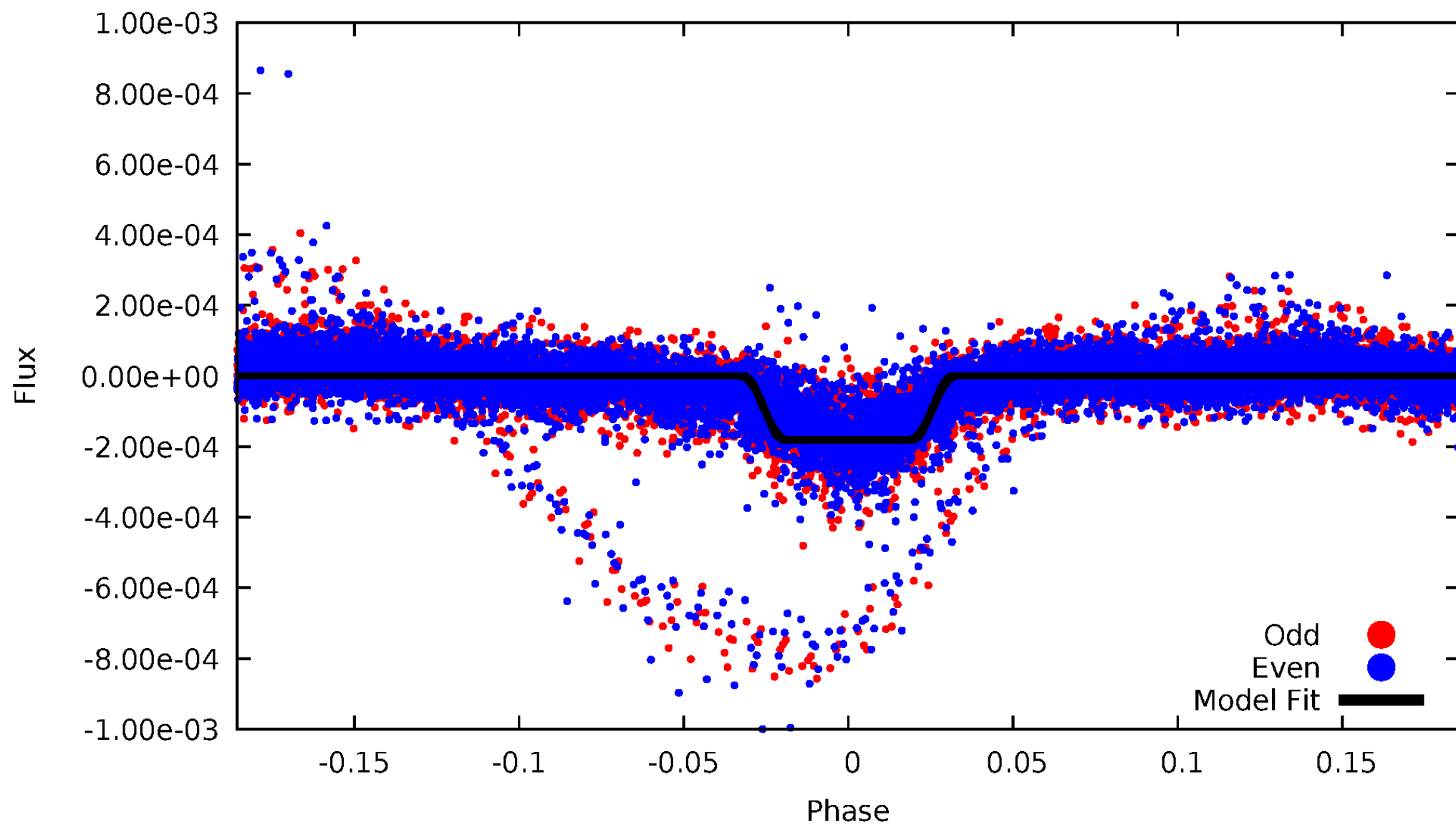
TCE 011189284-01





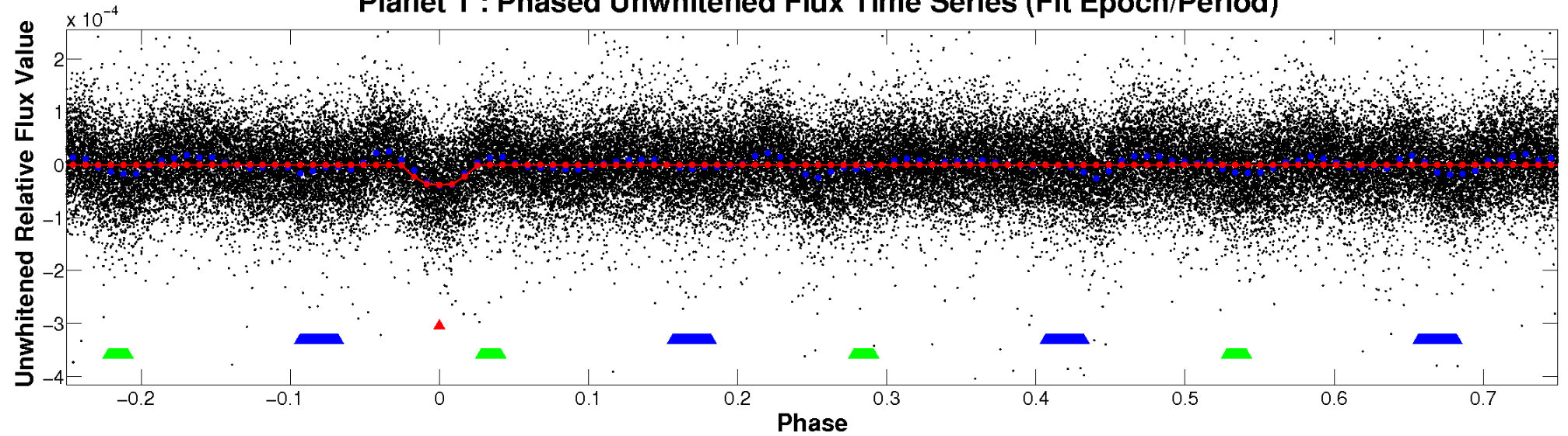
# ALT Odd/Even

TCE 011189284-01

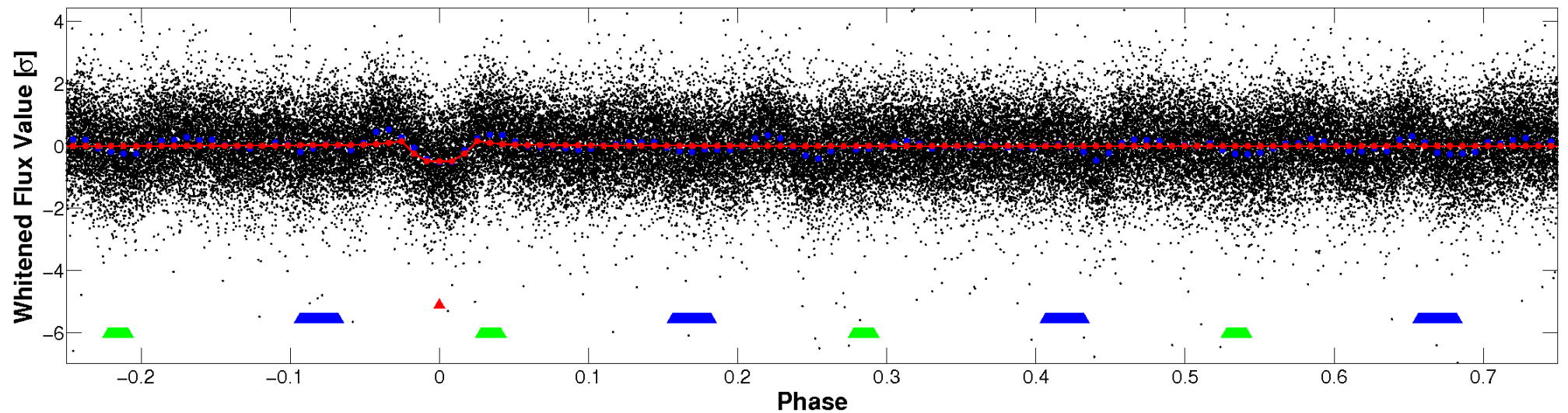


# Non-Whitened Vs. Whitened Light Curve

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

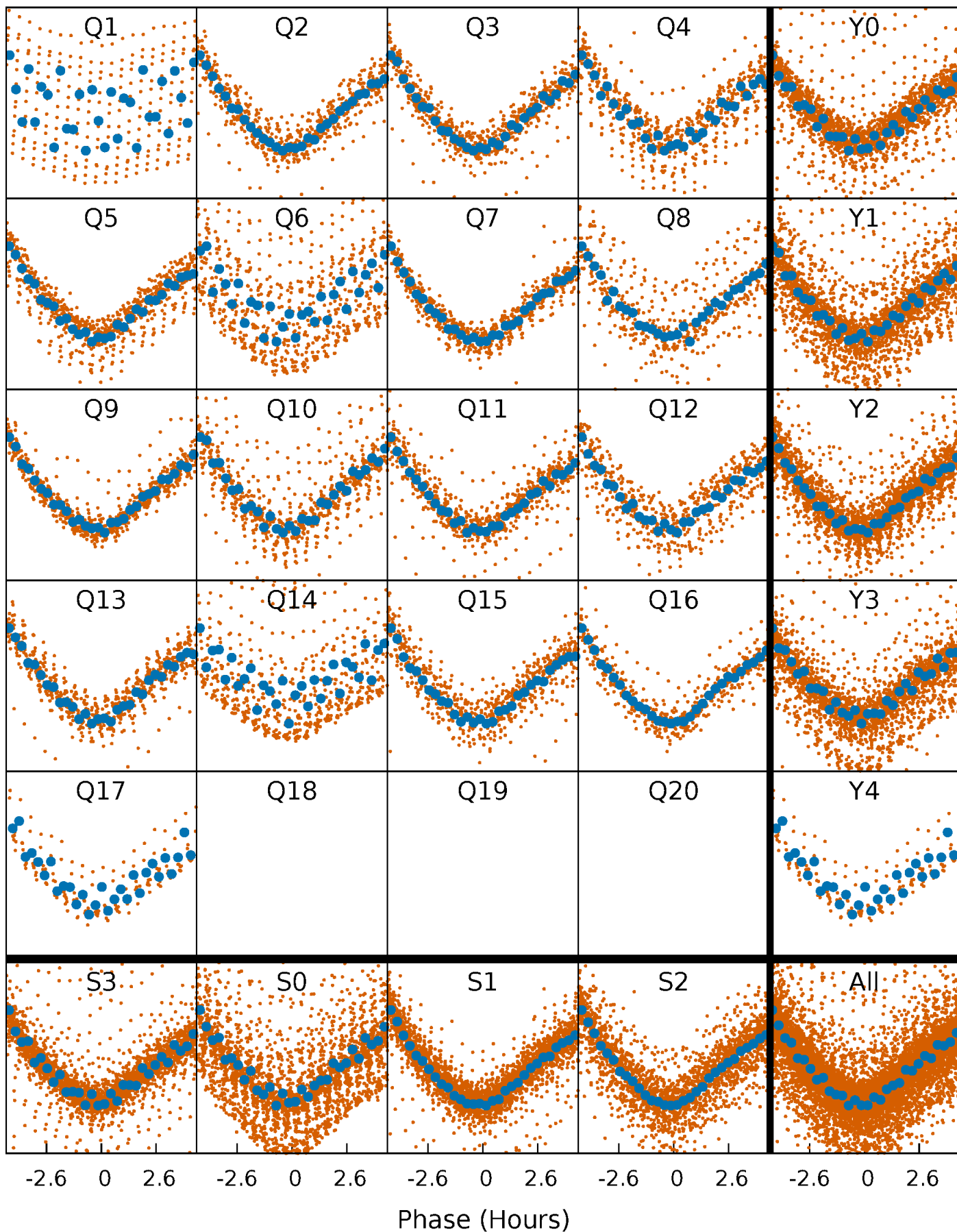


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

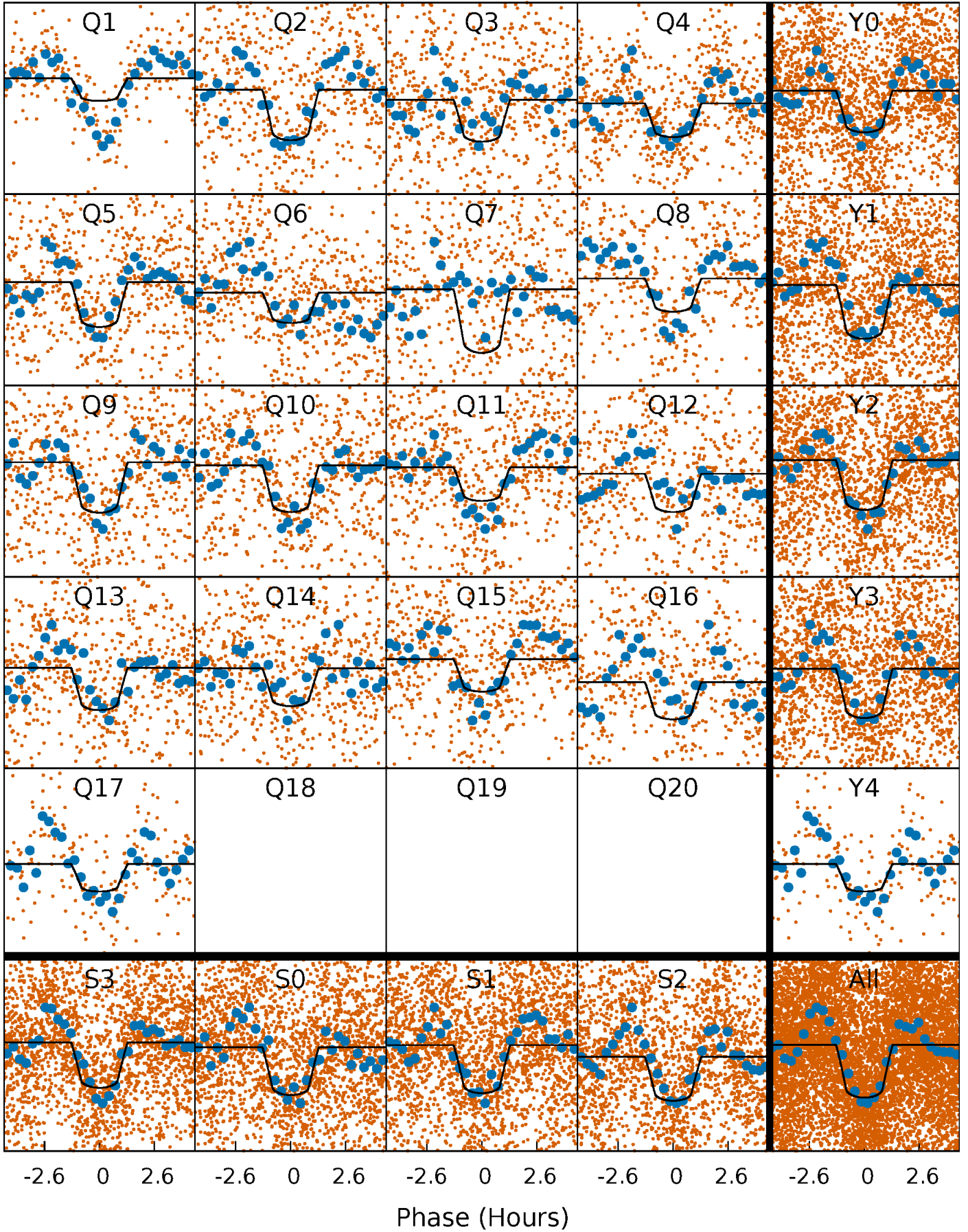
TCE 011189284-01 P= 2.412277 Days  $T_0=133.186184$  (BKJD)





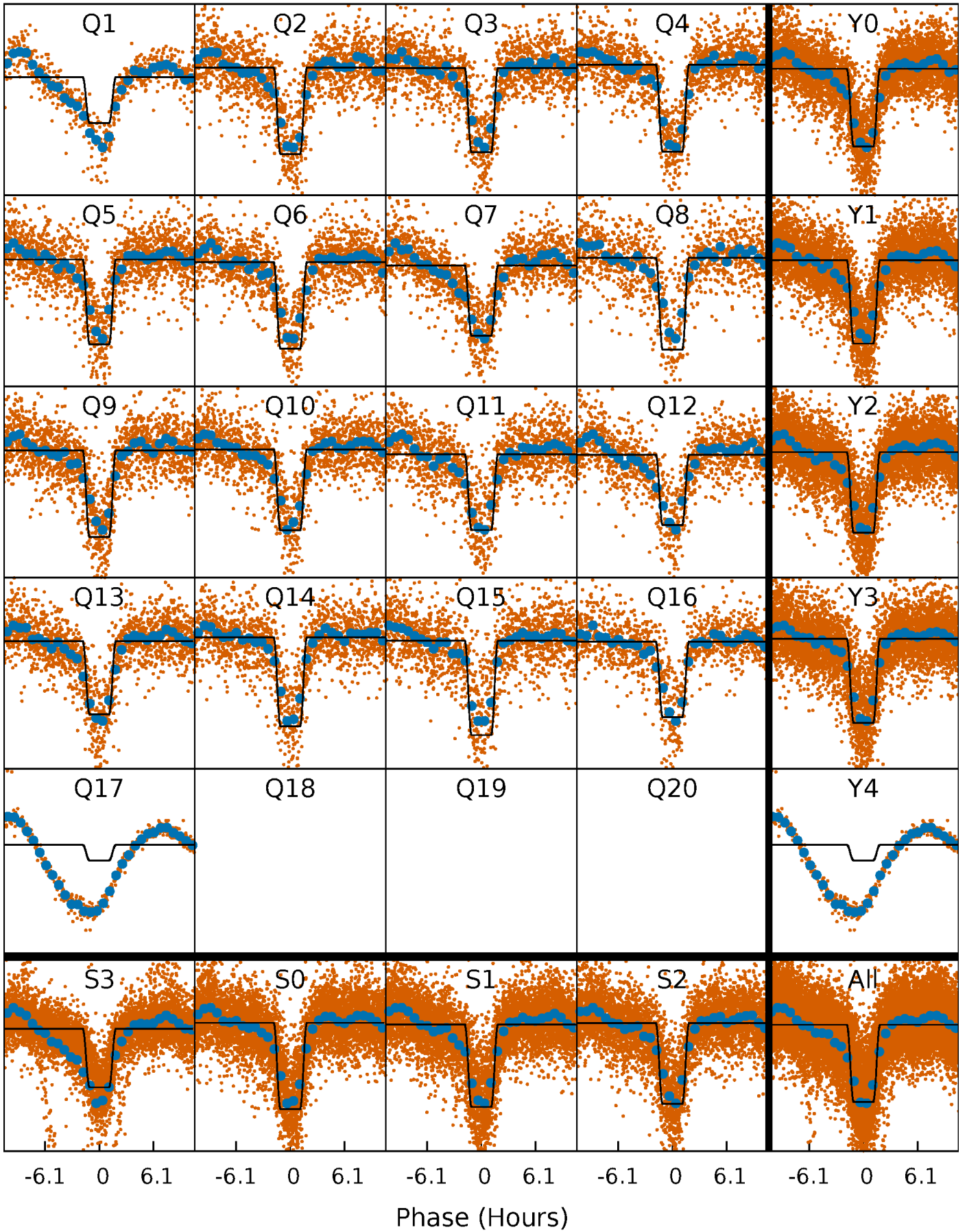
# DV Quarter-Phased Transit Curves

TCE 011189284-01 P= 2.412277 Days  $T_0=133.186184$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

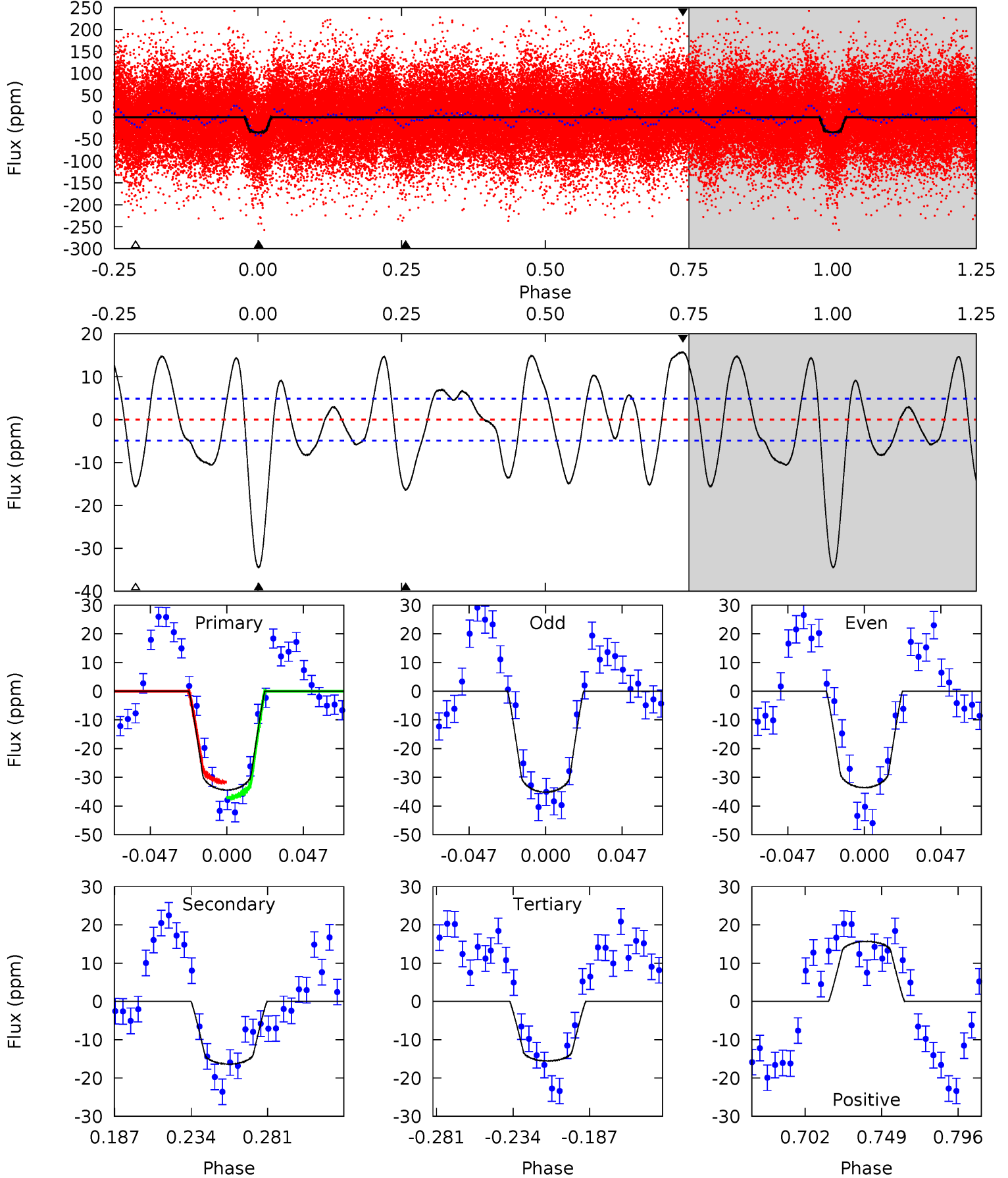
TCE 011189284-01   P= 2.412296 Days    $T_0=133.171419$  (BKJD)



# DV Model-Shift Uniqueness Test

011189284-01, P = 2.412277 Days, E = 130.773907 Days

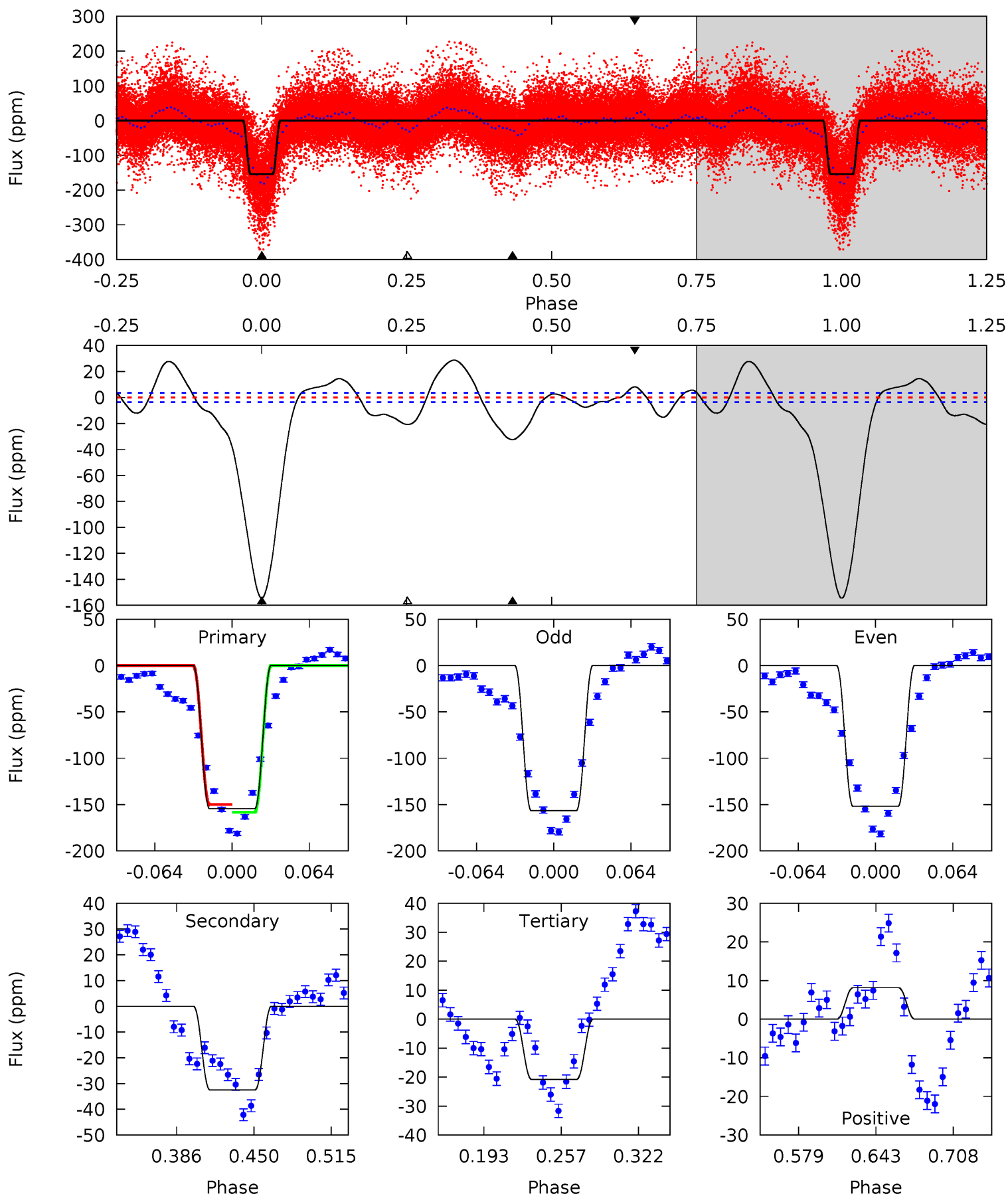
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.3	15.8	15.1	15.2	4.72	1.99	7.88	18.2	18.1	0.77	0.66	0.77	1.03	0.31	2.65



# Alt Model-Shift Uniqueness Test

011189284-01, P = 2.412296 Days, E = 130.759123 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
199.2	41.8	26.8	10.5	4.66	1.85	16.6	172.5	188.7	15.1	31.3	3.02	1.09	0.16	5.46



### Stellar Parameters For KIC 011189284

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8867^{+242}_{-450}$	$3.661^{+0.496}_{-0.124}$	$0.070^{+0.200}_{-0.650}$	$3.828^{+0.887}_{-2.071}$	$2.450^{+0.363}_{-0.786}$	$0.061^{+0.370}_{-0.024}$
	+3%/-5%	+14%/-3%	+286%/-929%	+23%/-54%	+15%/-32%	+601%/-39%
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 011189284-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-16 \pm 1$	$2.56^{+0.54}_{-0.64}$	$4741^{+386}_{-538}$	$6449^{+459}_{-431}$	$3.057^{+2.080}_{-0.893}$
Alt.	$-32 \pm 1$	$5.32^{+0.98}_{-1.45}$	$4706^{+413}_{-625}$	$5212^{+220}_{-227}$	$1.442^{+1.040}_{-0.391}$

$T_{\text{max}}$  = 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

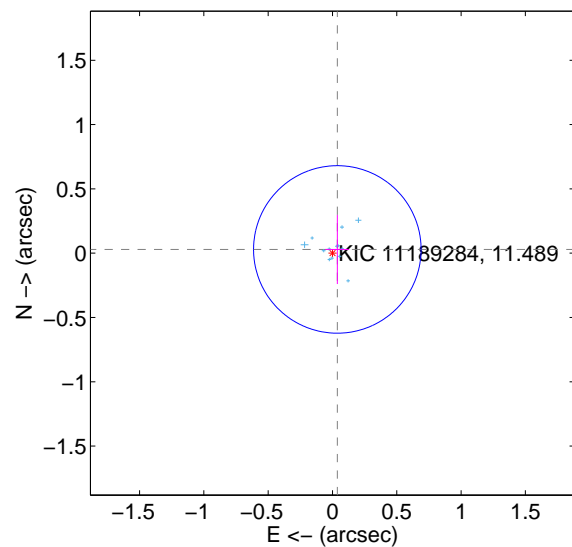
Supplemental centroid analysis for 011189284-01. **Kepler magnitude: 11.49.** Transit SNR 22.44

There are 17 quarters with good PRF difference image offsets

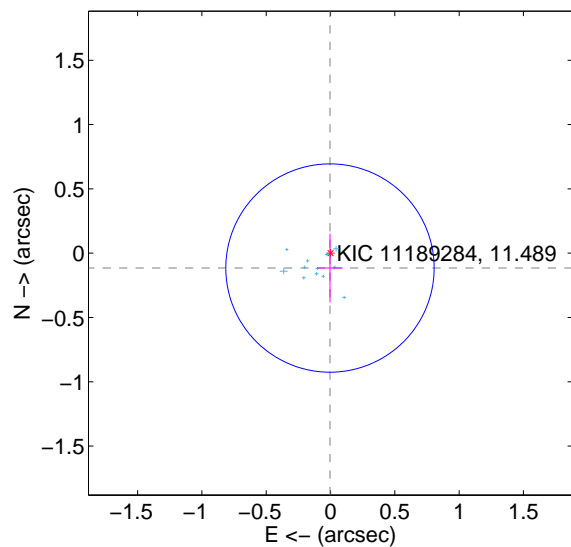
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.048 \pm 0.217$	0.22	$-0.038 \pm 0.092$	$0.029 \pm 0.269$
PRF-fit source offset from KIC position	$0.116 \pm 0.270$	0.43	$0.004 \pm 0.099$	$-0.116 \pm 0.268$
photometric centroid source offset	$0.45 \pm 0.37$	1.22	$0.23 \pm 0.37$	$0.39 \pm 0.37$

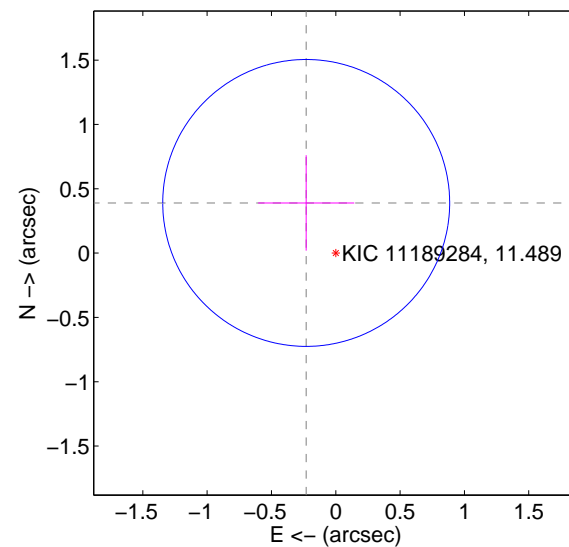
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

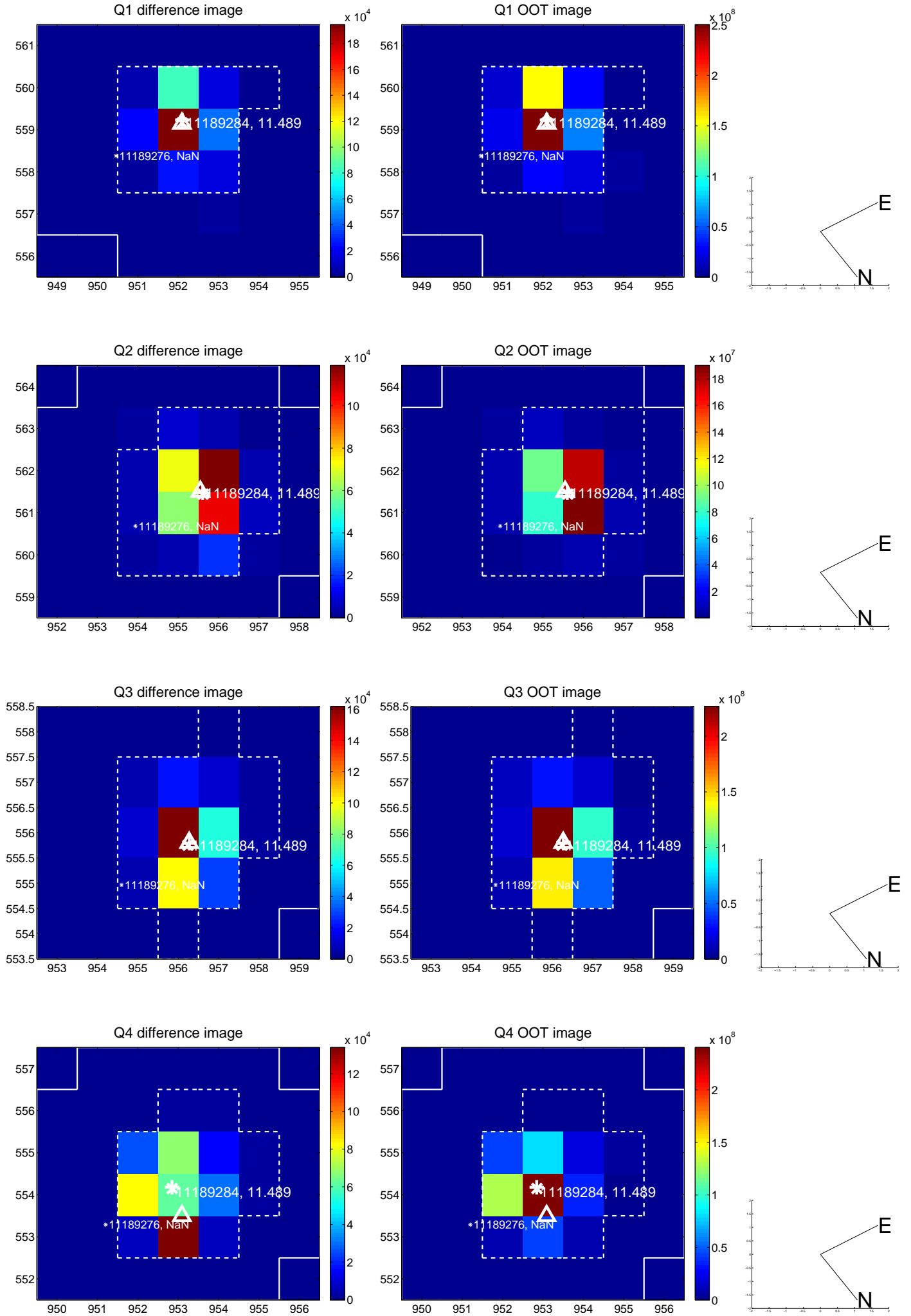


offset from photometric centroids

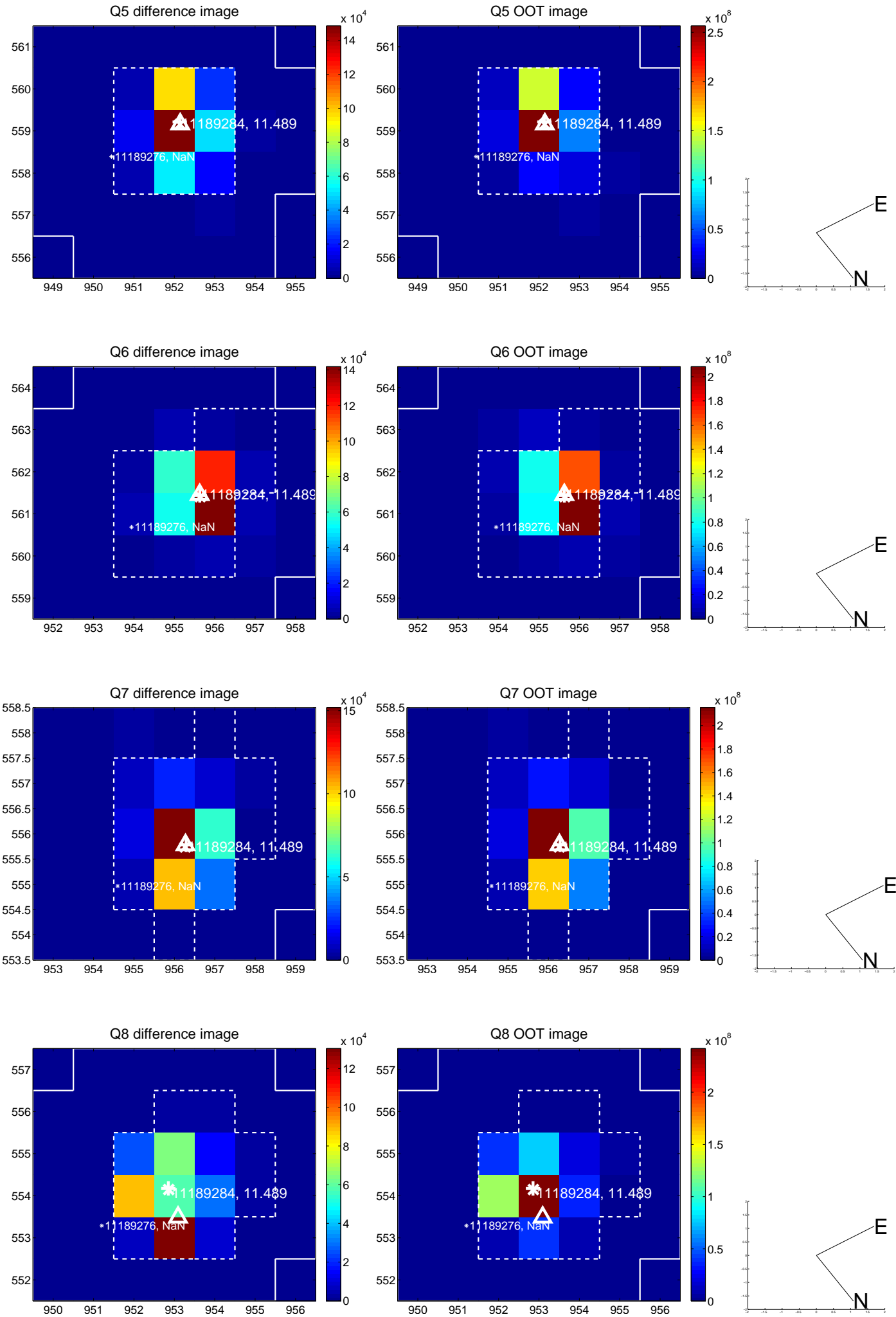


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

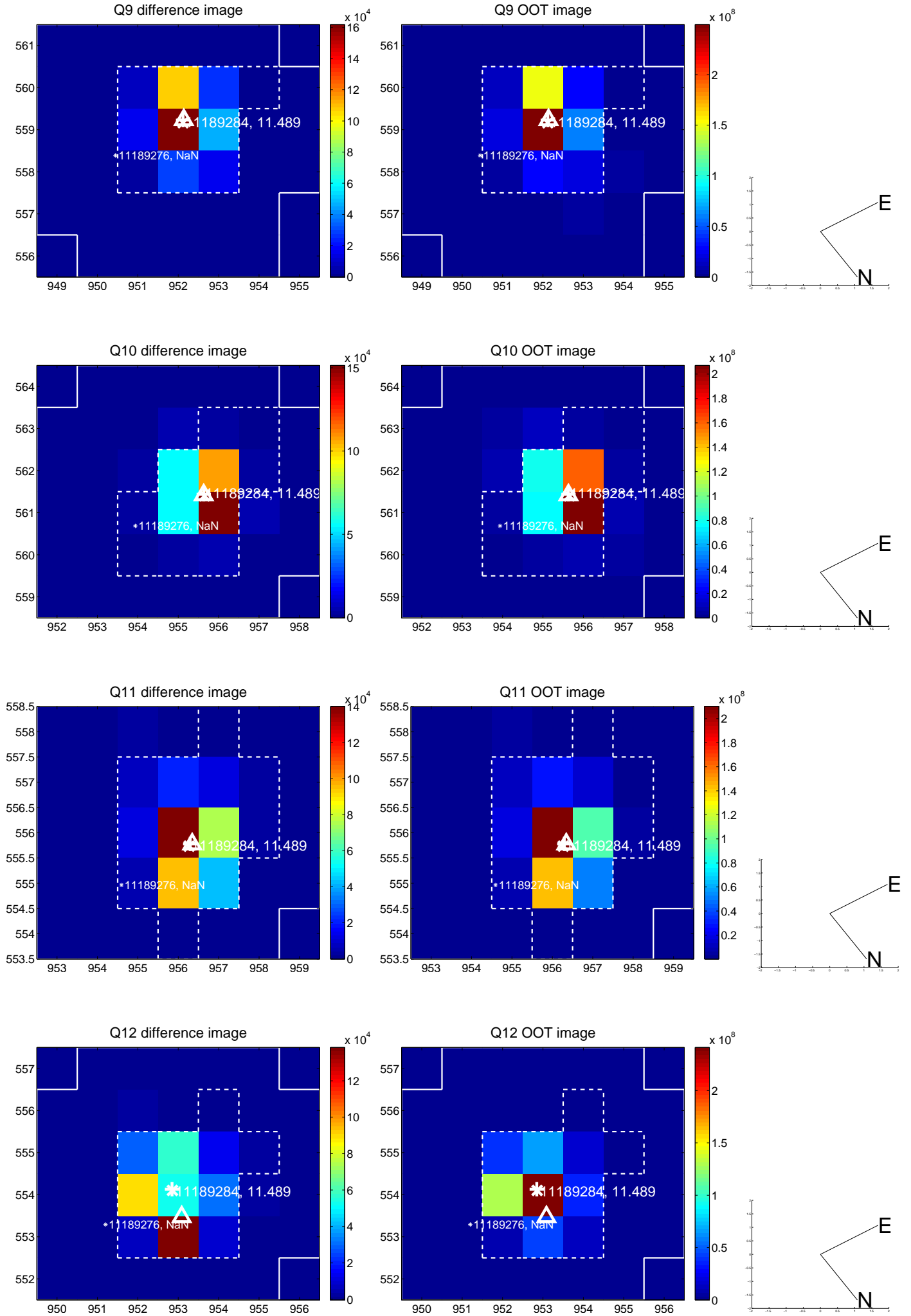
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



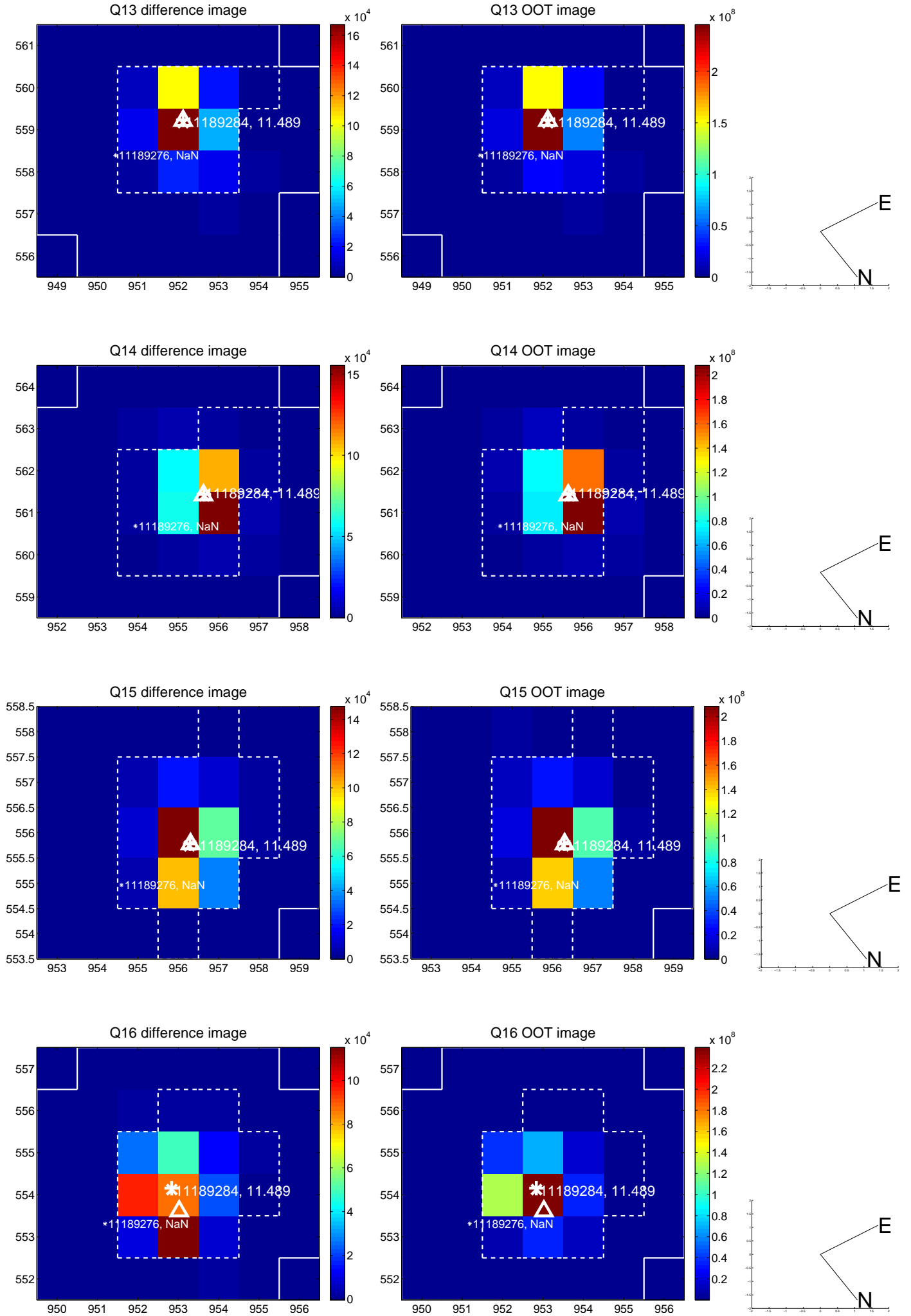
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

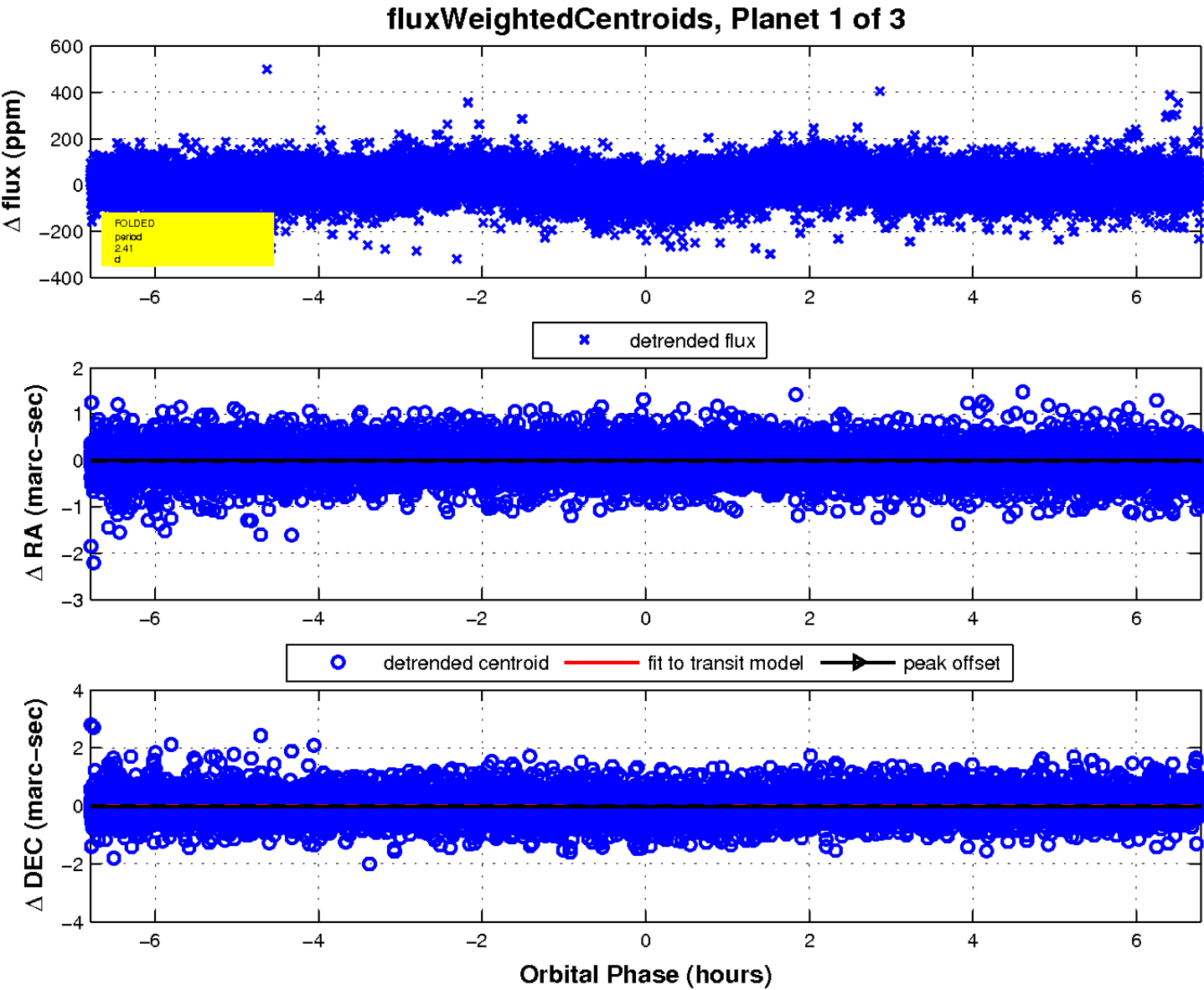
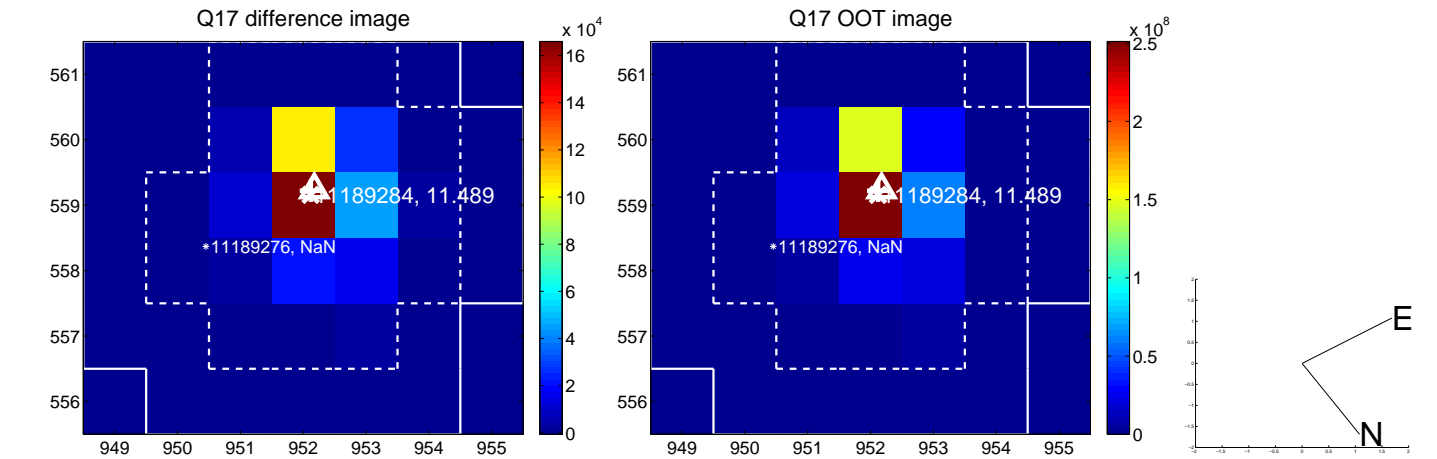


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



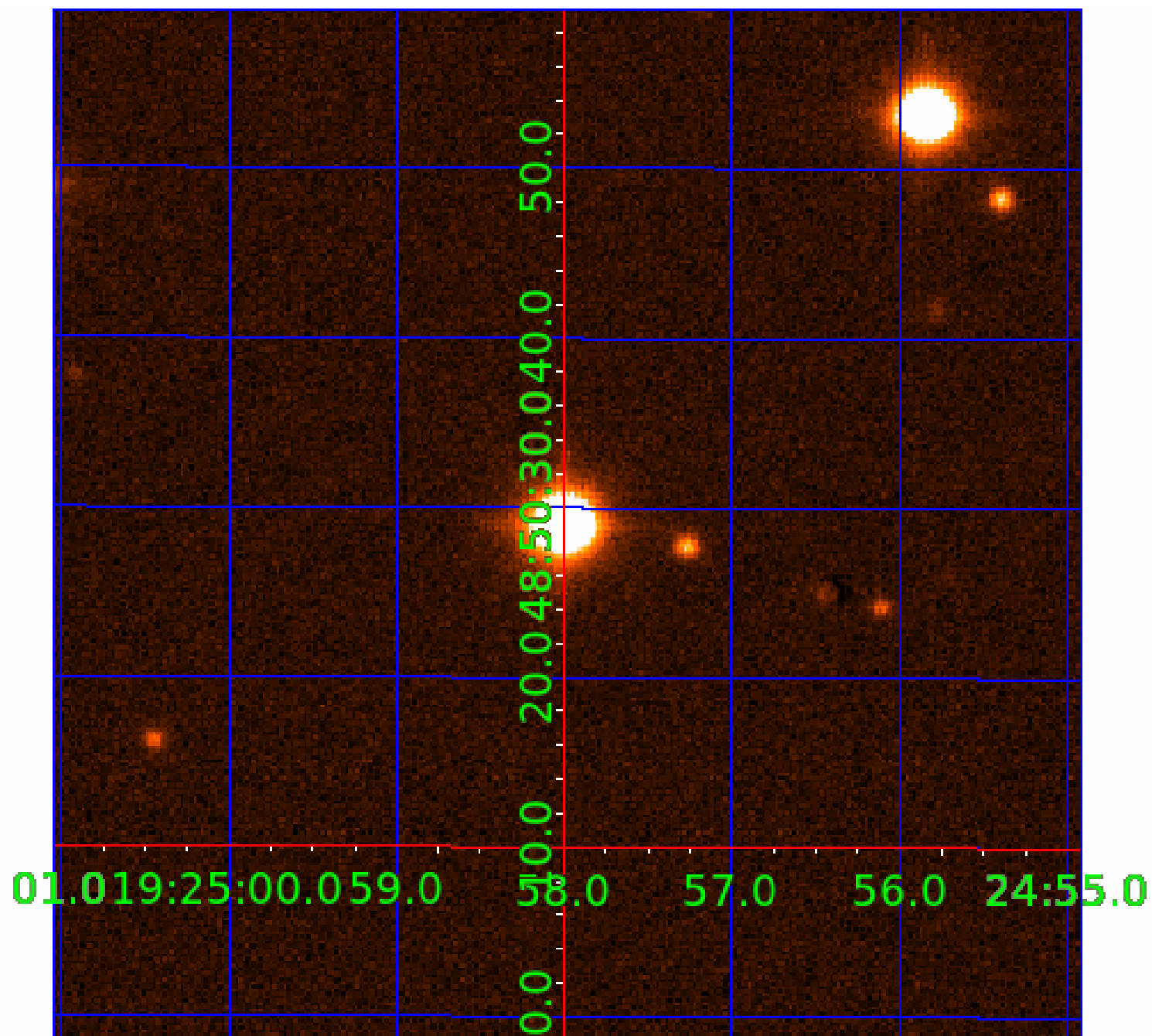


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 011189284

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011189284-01	OBS	No	2.412277	133.186184	37.9	2.263	21.7	22.4	3.83	8867	2.72	36036.79
011189284-02	OBS	No	0.603044	131.816410	7.5	3.376	15.0	9.8	3.83	8867	1.21	228832.34
011189284-03	OBS	No	0.603056	132.079285	13.0	1.918	15.1	16.4	3.83	8867	1.42	228826.04

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011189284-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
011189284-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
011189284-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

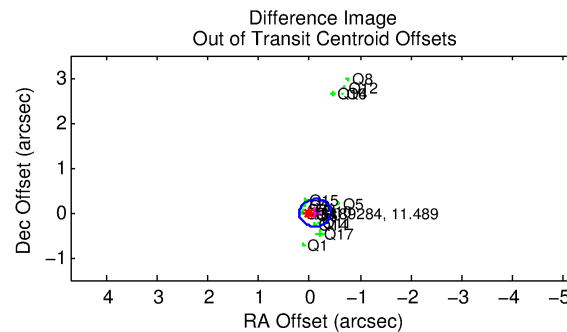
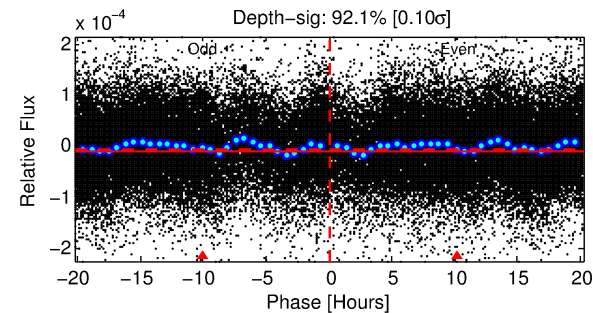
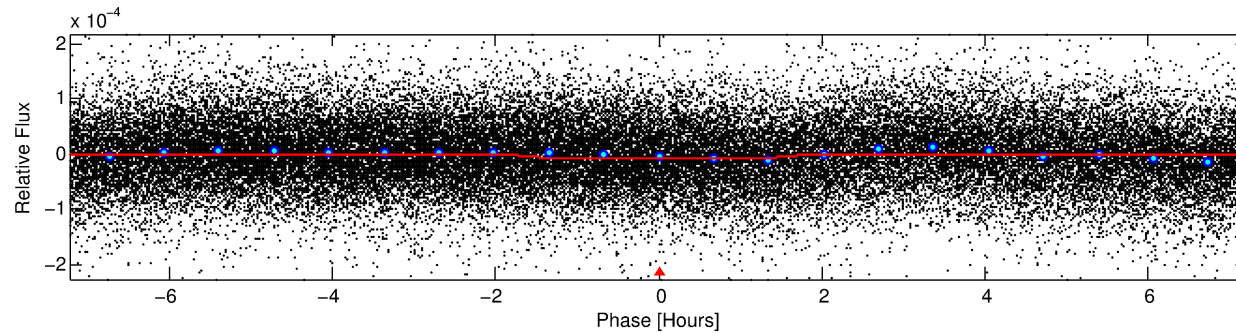
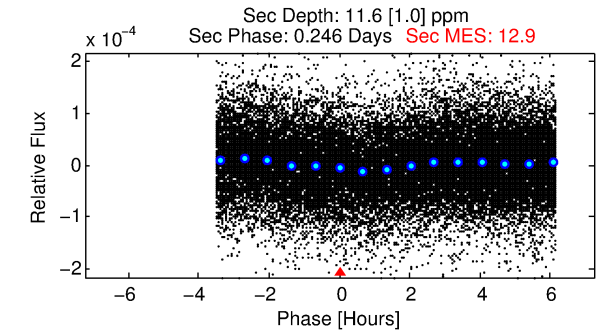
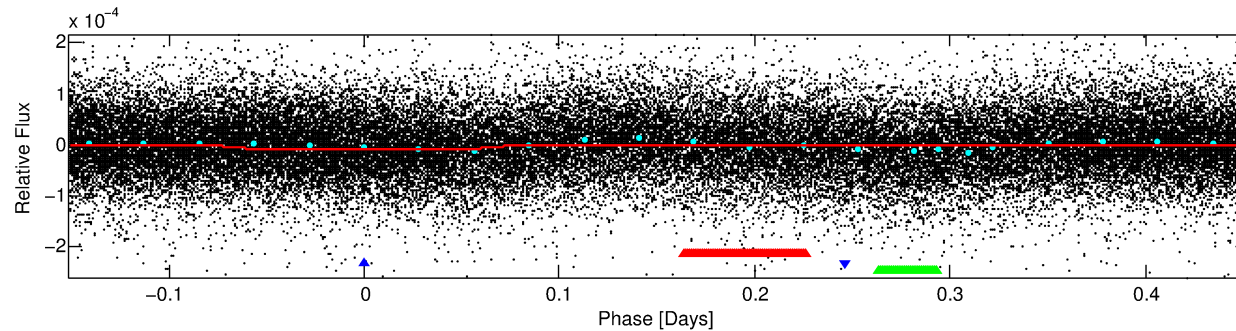
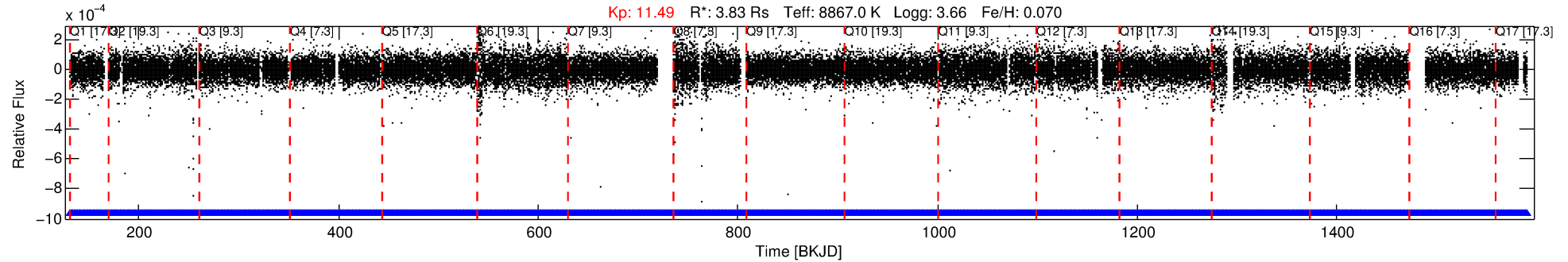
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011189284-02

No Significant Match Found

# DV One-Page Summary

KIC: 11189284 Candidate: 2 of 3 Period: 0.603 d



## DV Fit Results:

Period = 0.60304 [0.00001] d  
Epoch = 131.8164 [0.0029] BKJD  
Rp/R\* = 0.0029 [0.0007]  
a/R\* = 1.12 [0.36]  
b = 0.90 [0.34]  
Seff = 228832.34 [198307.73]  
Teq = 5577 [1208] K  
Rp = 1.21 [0.71] Re  
a = 0.0188 [0.0099] AU  
Ag = 1.54 [1.49] [0.37 sigma]  
Teffp = 9611 [1230] K [2.34 sigma]

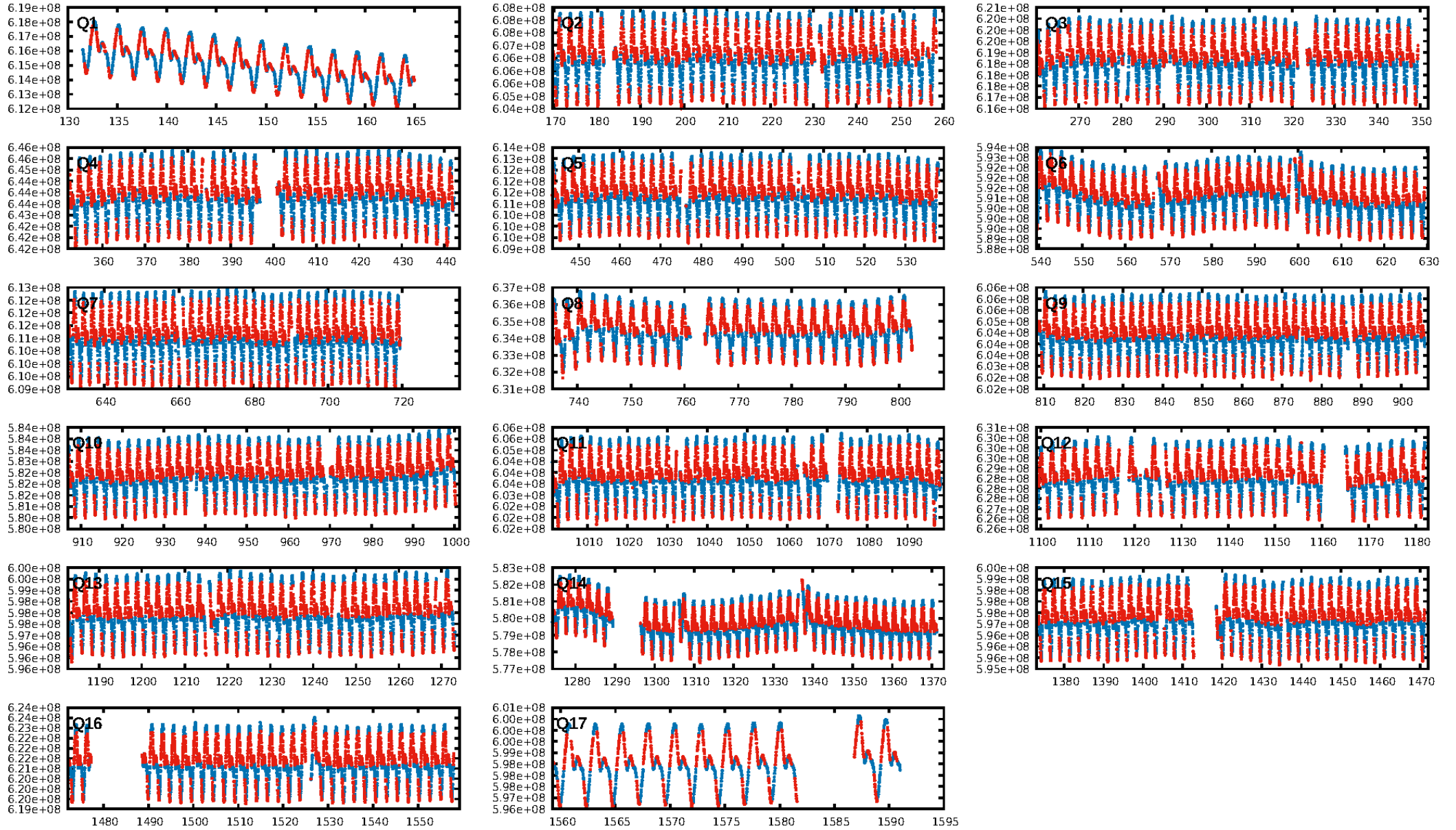
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: 0.0% [0.00 sigma]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2128/2128]  
GhostDiagnostic-chr: -34.4  
Centroid-sig: 0.0%  
Centroid-so: 1.634 arcsec [2.08 sigma]  
OotOffset-rm: 0.110 arcsec [1.08 sigma]  
KicOffset-rm: 0.142 arcsec [0.52 sigma]  
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: 30-Jan-2016 02:08:33 Z

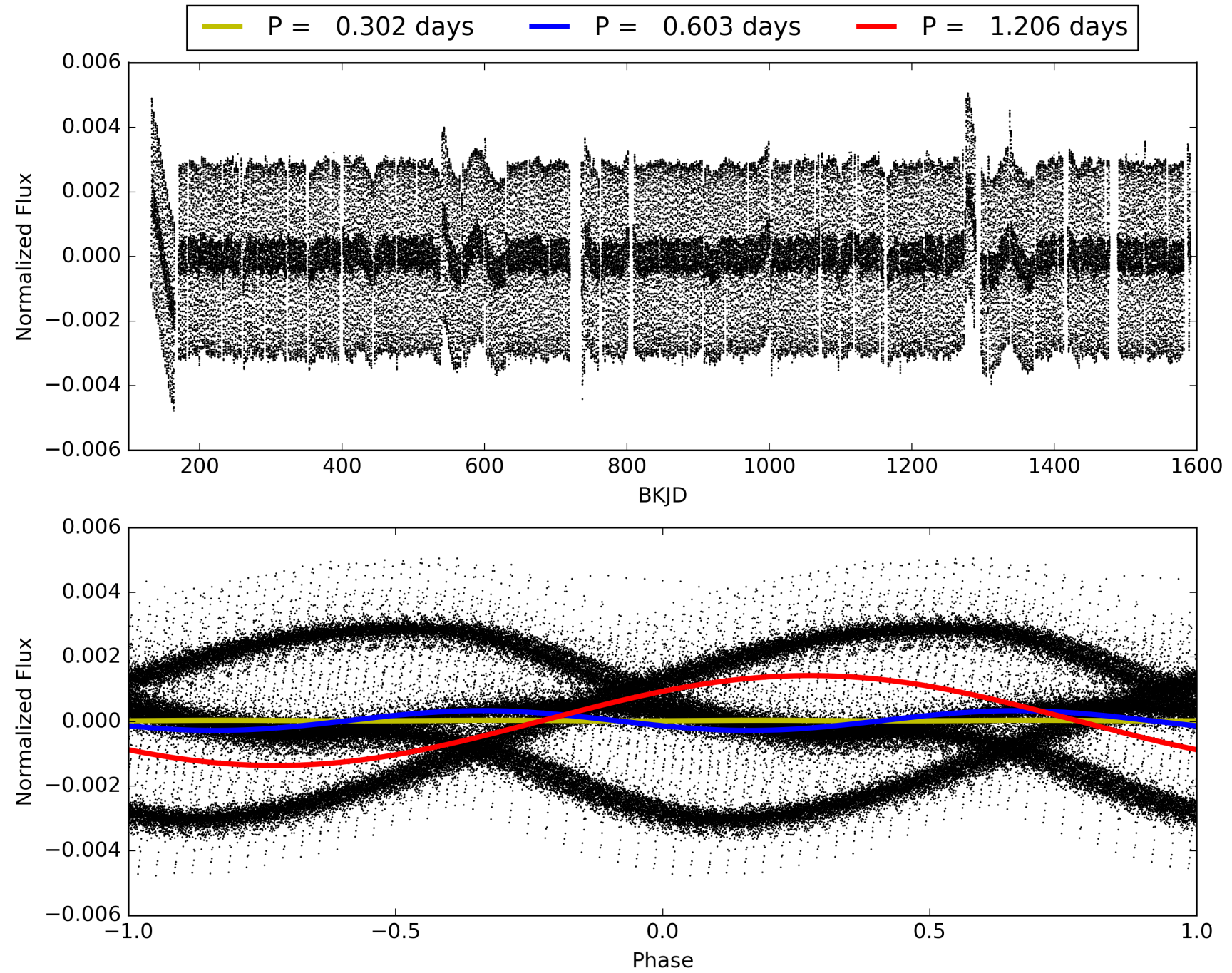
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 011189284-02, PDC Light Curves



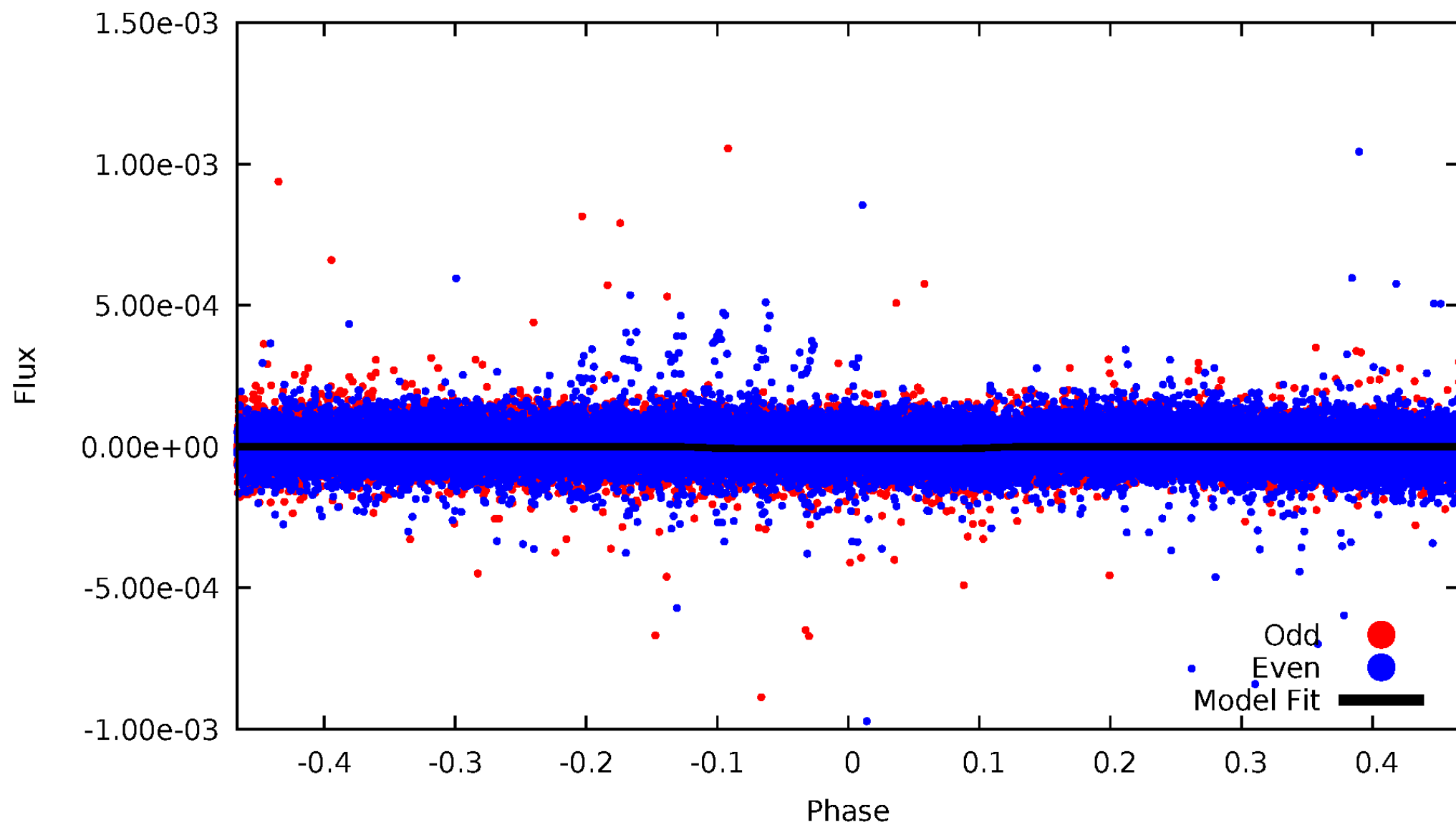


# TCE 011189284-02



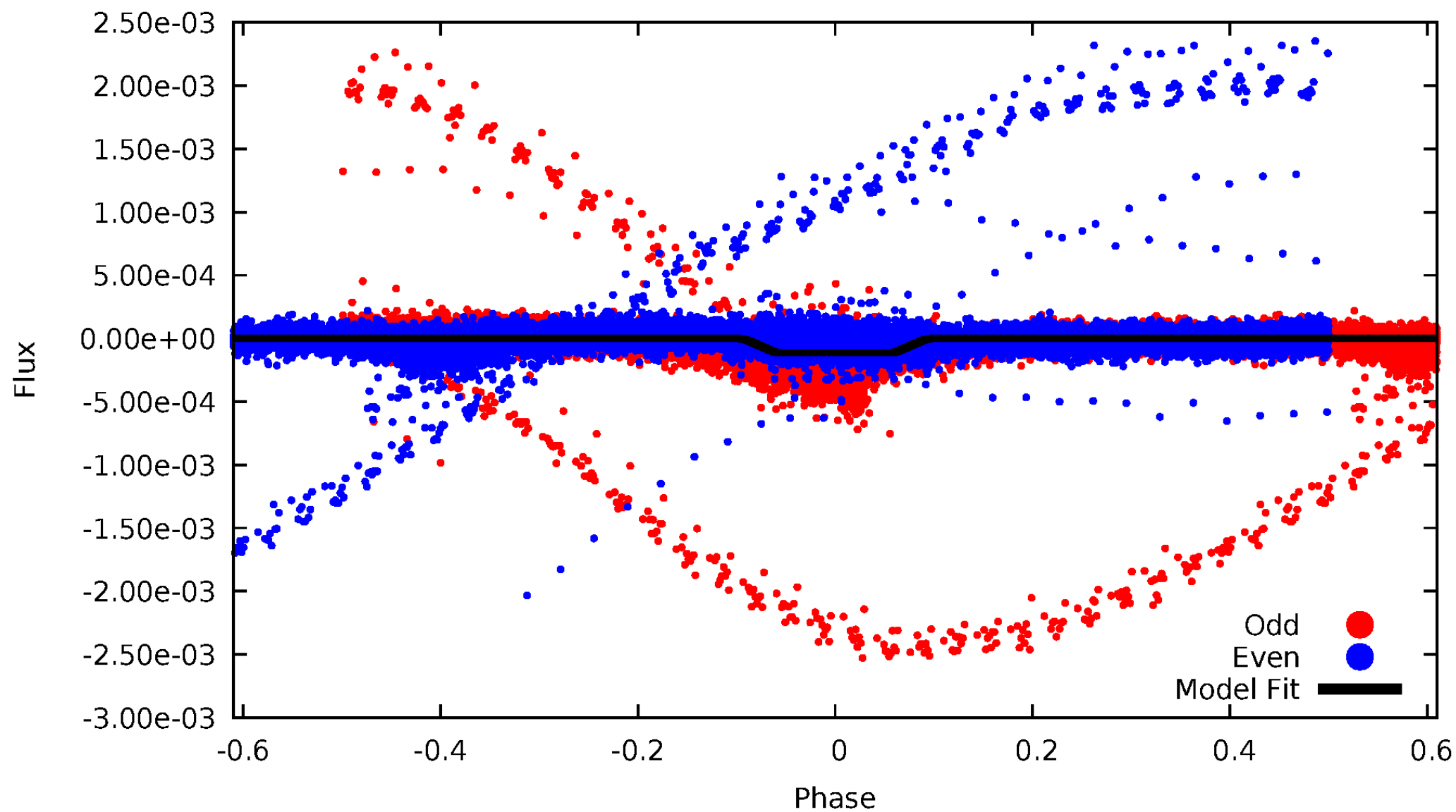
# DV Odd/Even

TCE 011189284-02



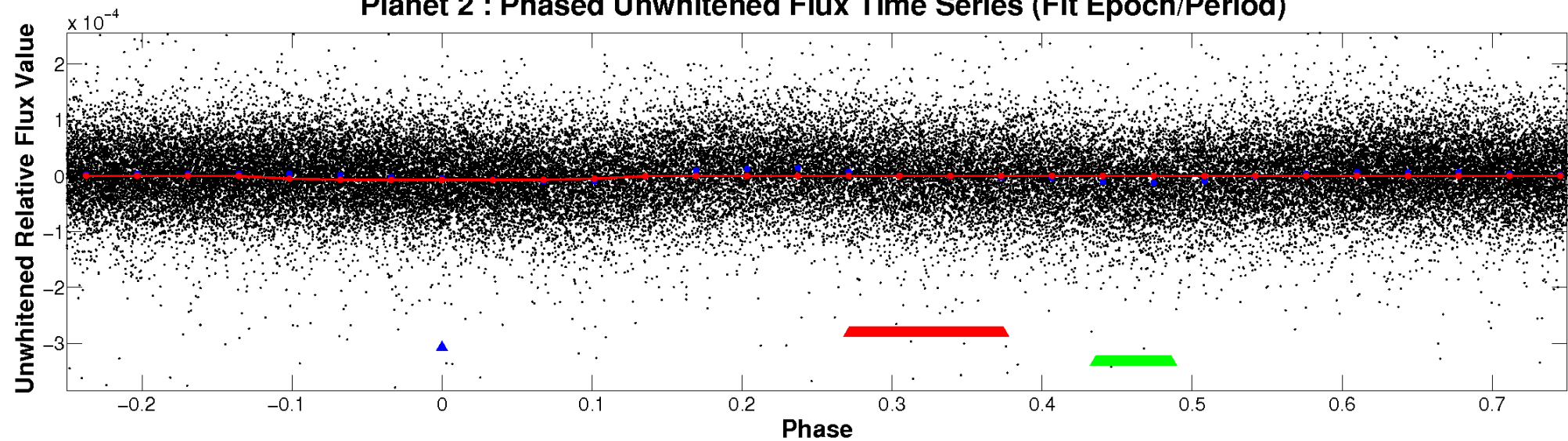
# ALT Odd/Even

TCE 011189284-02

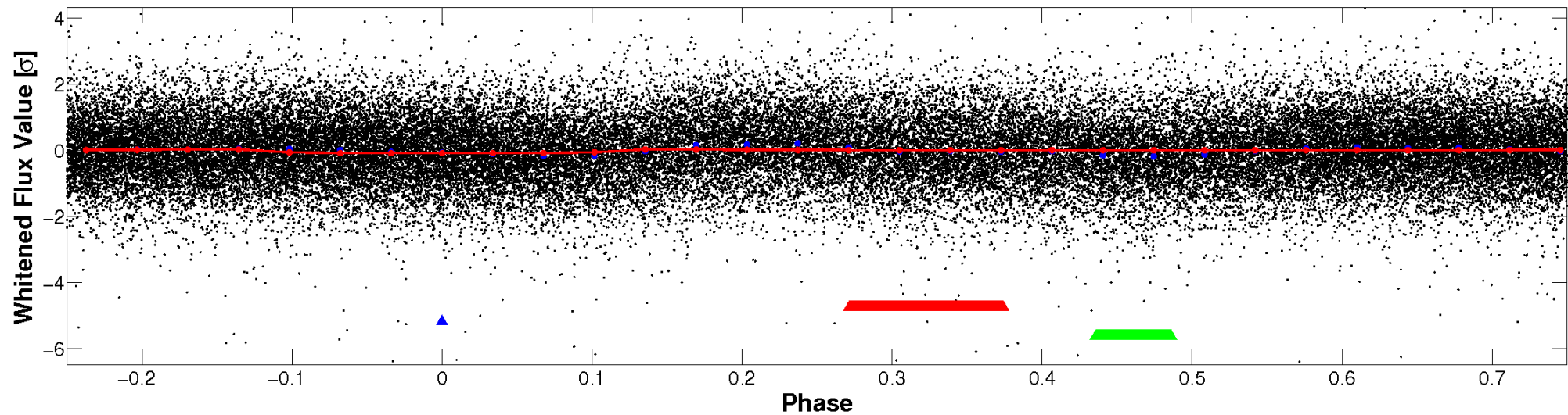


# Non-Whitened Vs. Whitened Light Curve

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



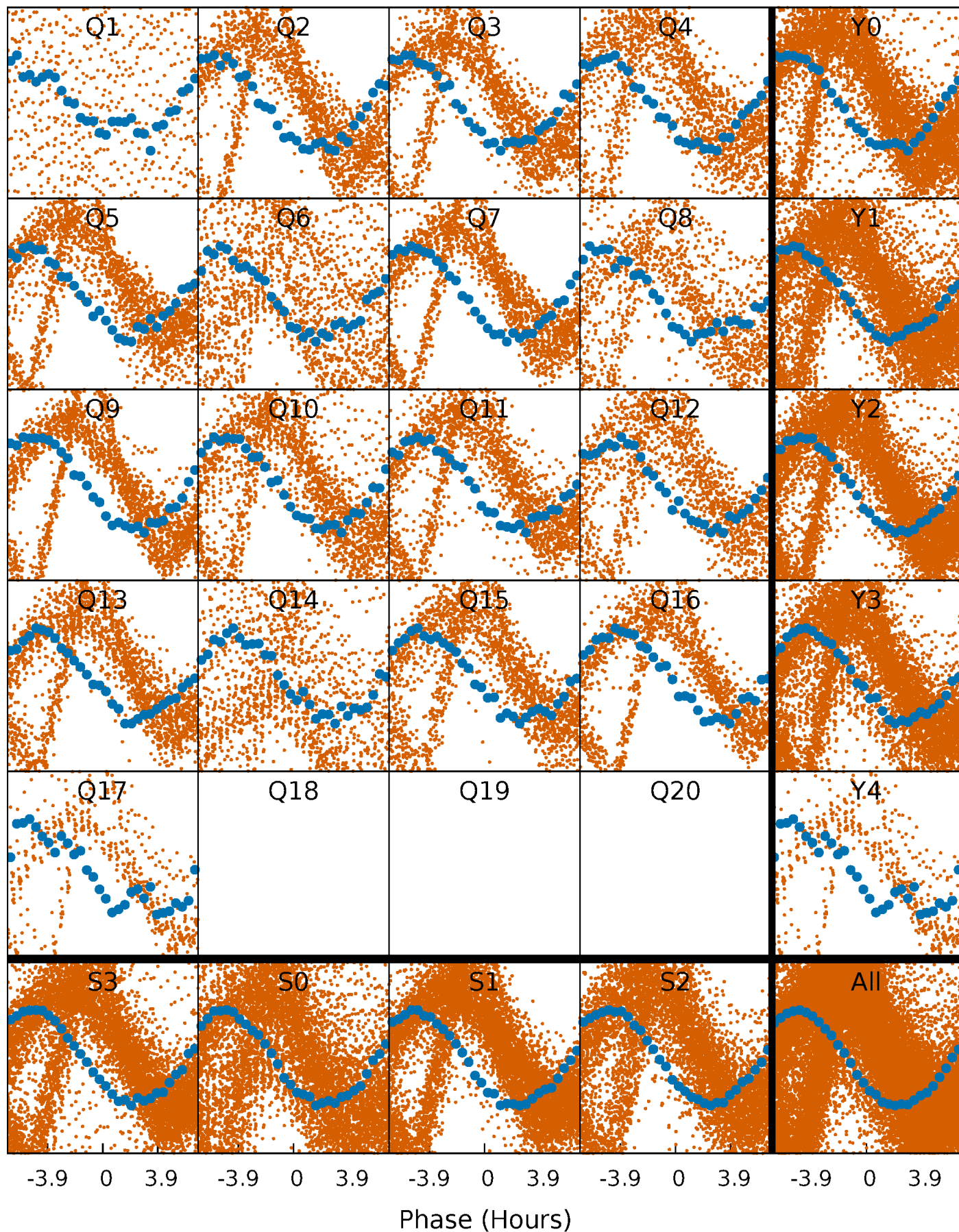
**Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

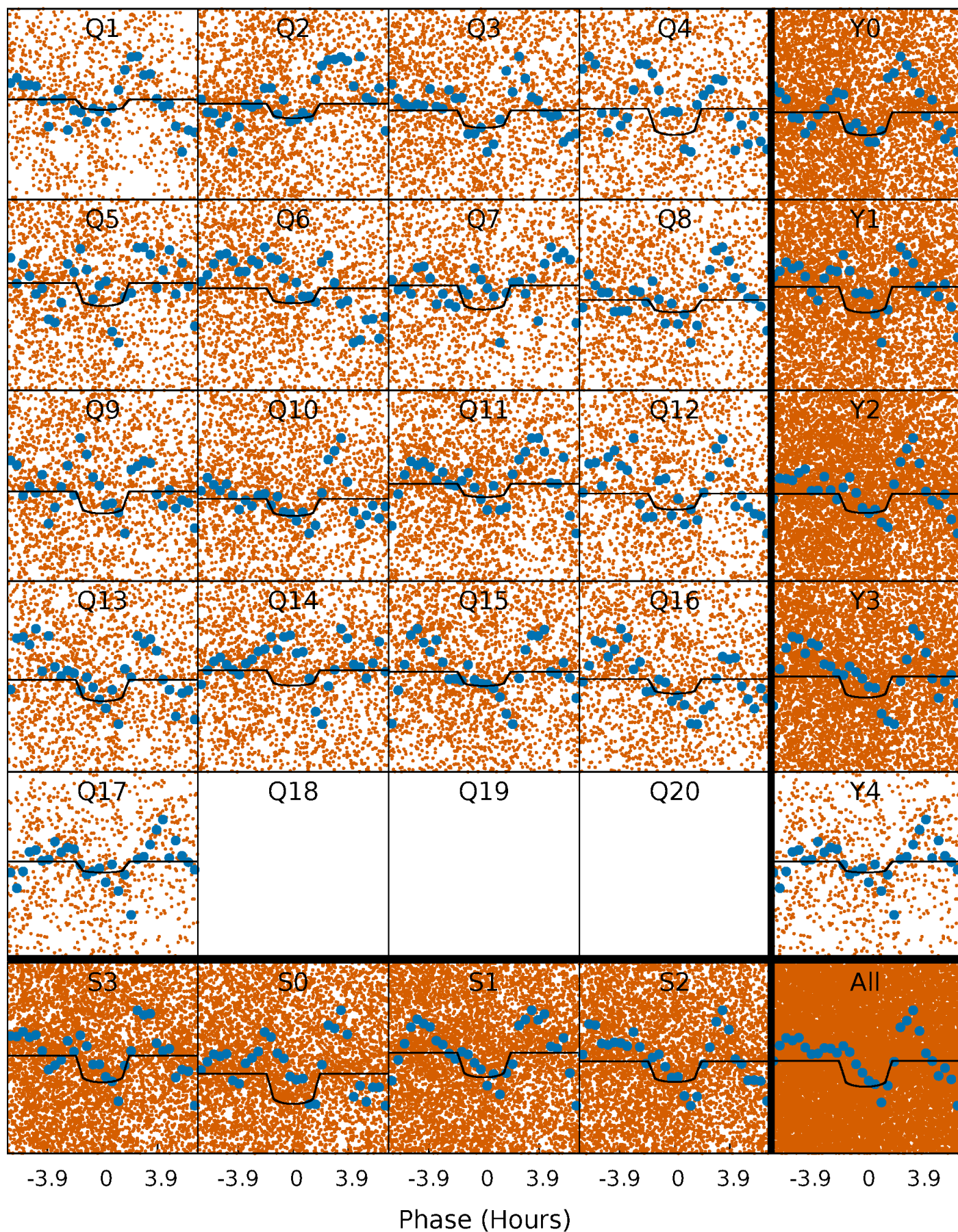
TCE 011189284-02   P= 0.603044 Days    $T_0=131.816410$  (BKJD)





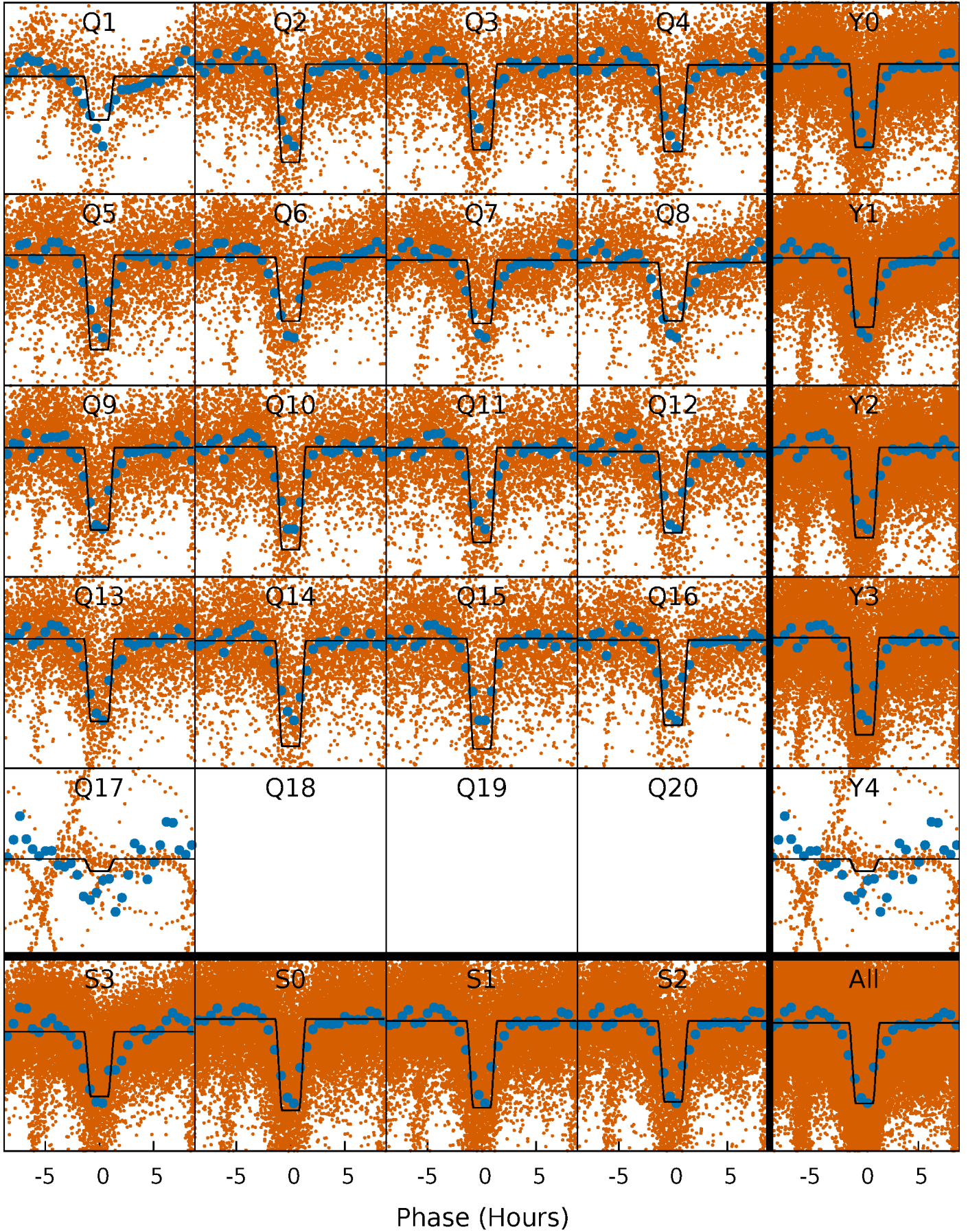
# DV Quarter-Phased Transit Curves

TCE 011189284-02 P= 0.603044 Days  $T_0=131.816410$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 011189284-02   P= 0.603072 Days    $T_0=131.807149$  (BKJD)

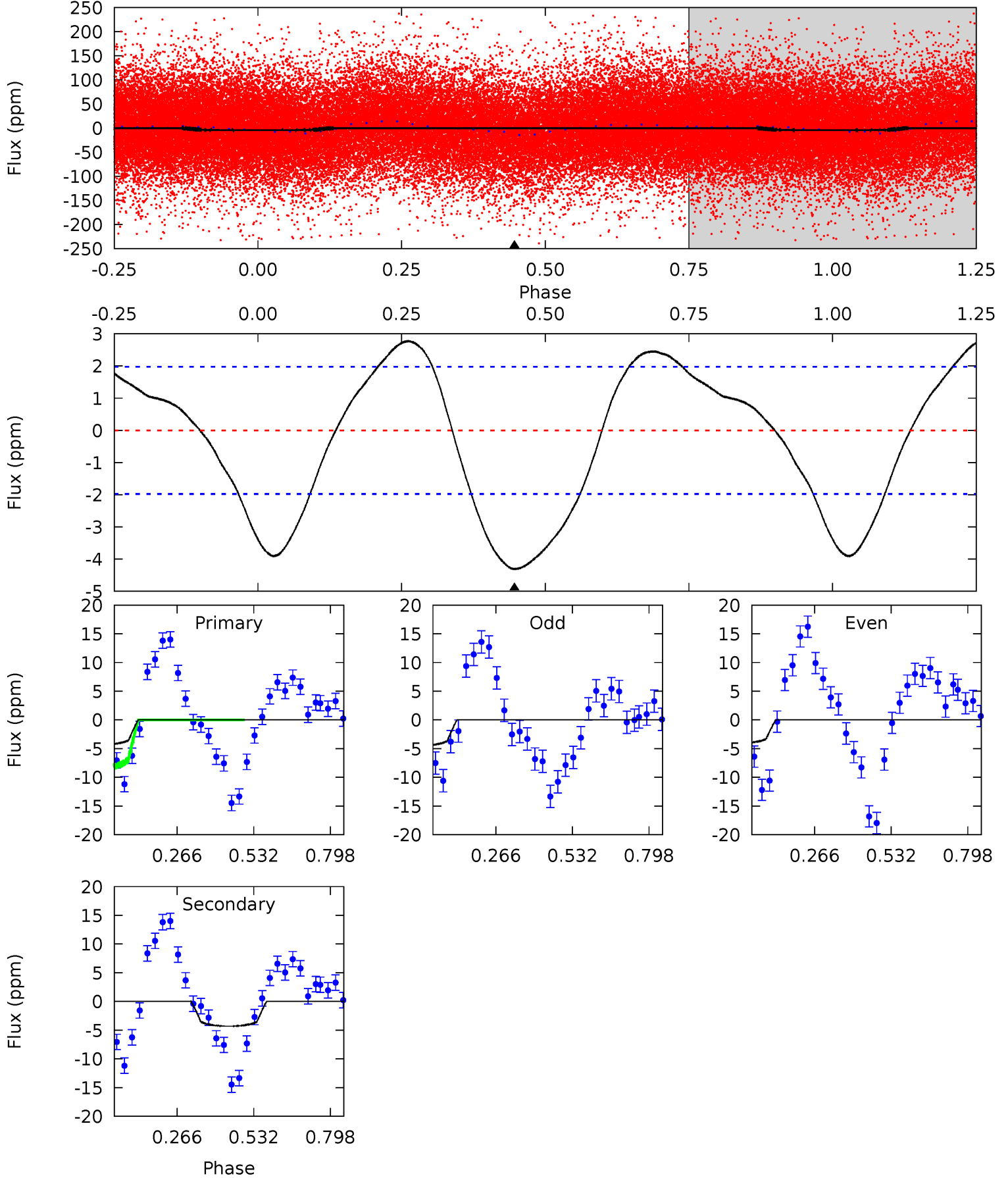




# DV Model-Shift Uniqueness Test

011189284-02, P = 0.603044 Days, E = 131.213366 Days

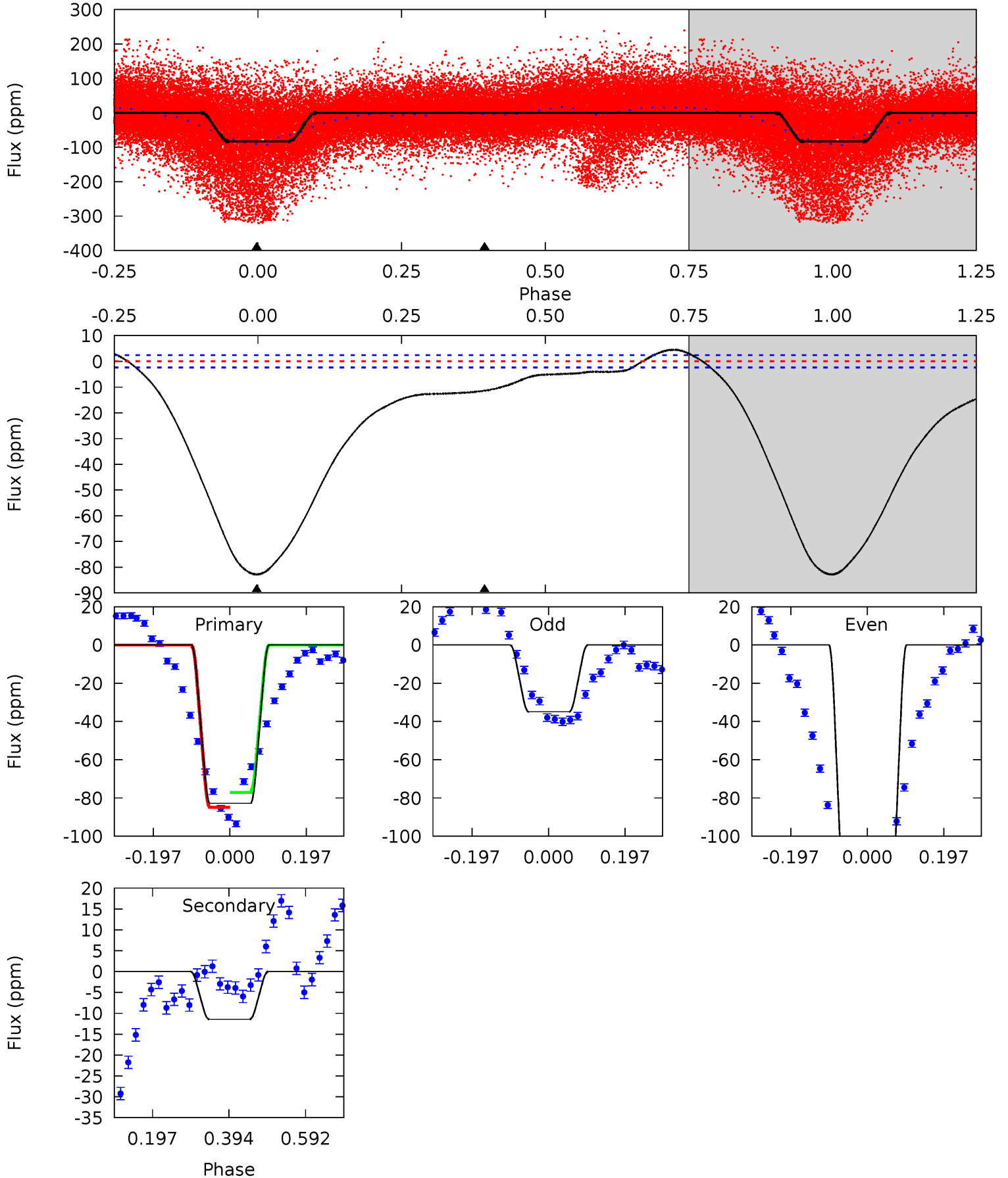
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.50	9.50	0	0	4.36	1.11	4.21	9.50	9.50	9.50	9.50	0.47	0.80	0.39	8.52



# Alt Model-Shift Uniqueness Test

011189284-02, P = 0.603072 Days, E = 131.204077 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
152.8	21.1	0	0	4.42	1.29	6.82	152.8	152.8	21.1	21.1	128.9	1.42	0.05	8.26



### Stellar Parameters For KIC 011189284

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$\rho_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8867^{+242}_{-450}$	$3.661^{+0.496}_{-0.124}$	$0.070^{+0.200}_{-0.650}$	$3.828^{+0.887}_{-2.071}$	$2.450^{+0.363}_{-0.786}$	$0.061^{+0.370}_{-0.024}$
	+3%/-5%	+14%/-3%	+286%/-929%	+23%/-54%	+15%/-32%	+601%/-39%
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 011189284-02 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$-4 \pm 0$	$1.08^{+0.39}_{-0.33}$	$7521^{+604}_{-999}$	$6149^{+1618}_{-1558}$	$0.705^{+0.721}_{-0.318}$
Alt.	$-11 \pm 1$	$4.29^{+0.77}_{-1.14}$	$7559^{+599}_{-1034}$	$-5244^{+1166}_{-552}$	$0.123^{+0.088}_{-0.034}$

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

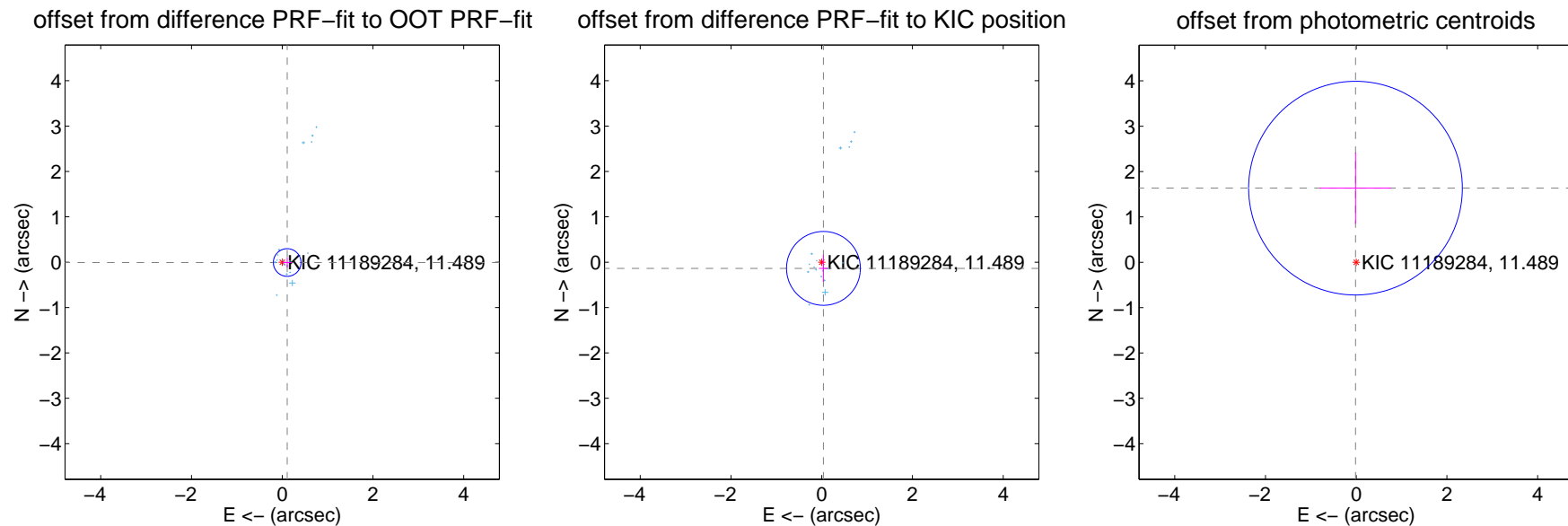
## DV Centroid Data

Supplemental centroid analysis for 011189284-02. **Kepler magnitude: 11.49.** Transit SNR 9.76

There are 17 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

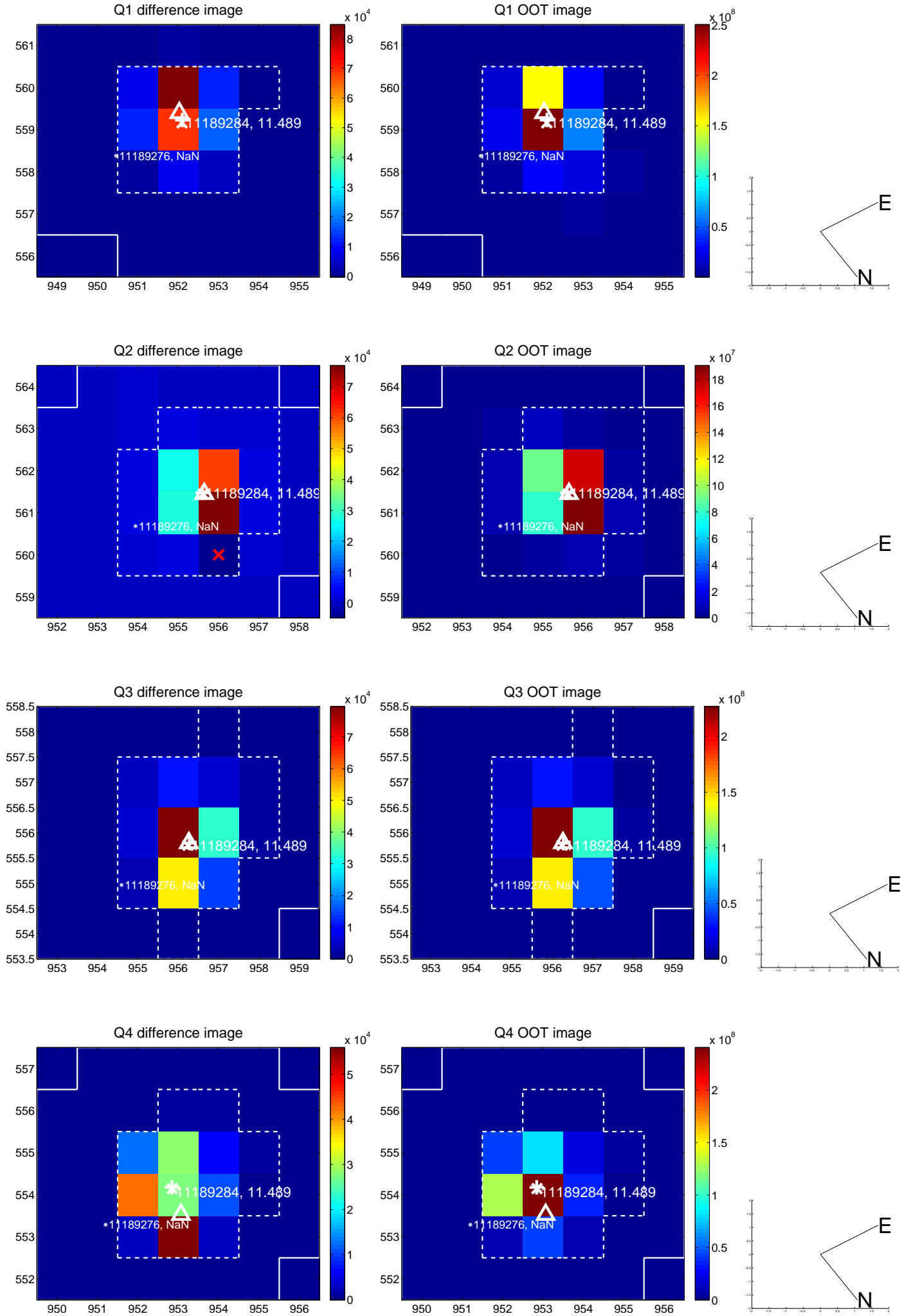
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.110 \pm 0.102$	1.08	$-0.110 \pm 0.102$	$-0.007 \pm 0.109$
PRF-fit source offset from KIC position	$0.142 \pm 0.271$	0.52	$-0.038 \pm 0.100$	$-0.136 \pm 0.298$
photometric centroid source offset	$1.63 \pm 0.79$	2.08	$0.02 \pm 0.79$	$1.63 \pm 0.79$



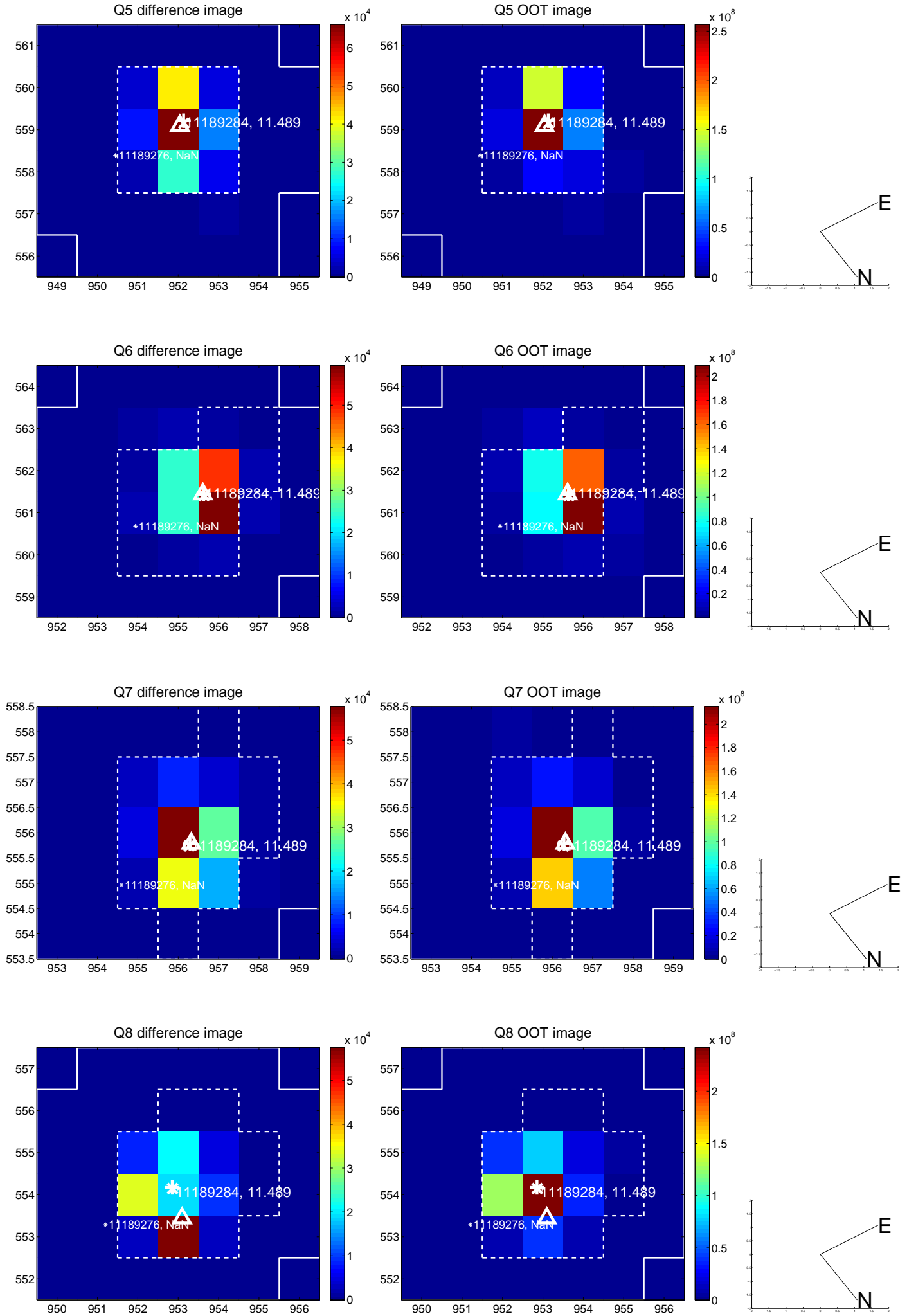
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



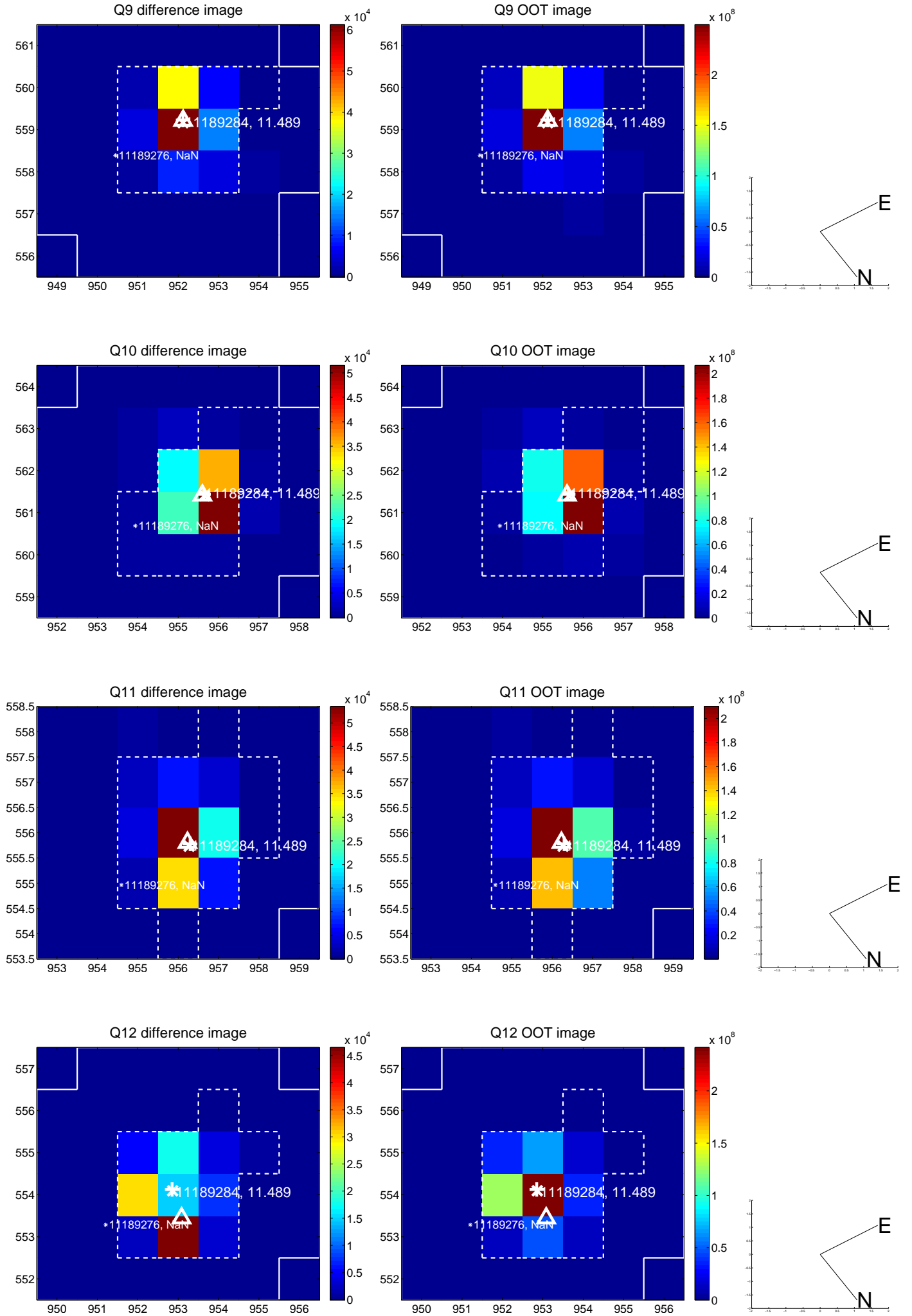
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



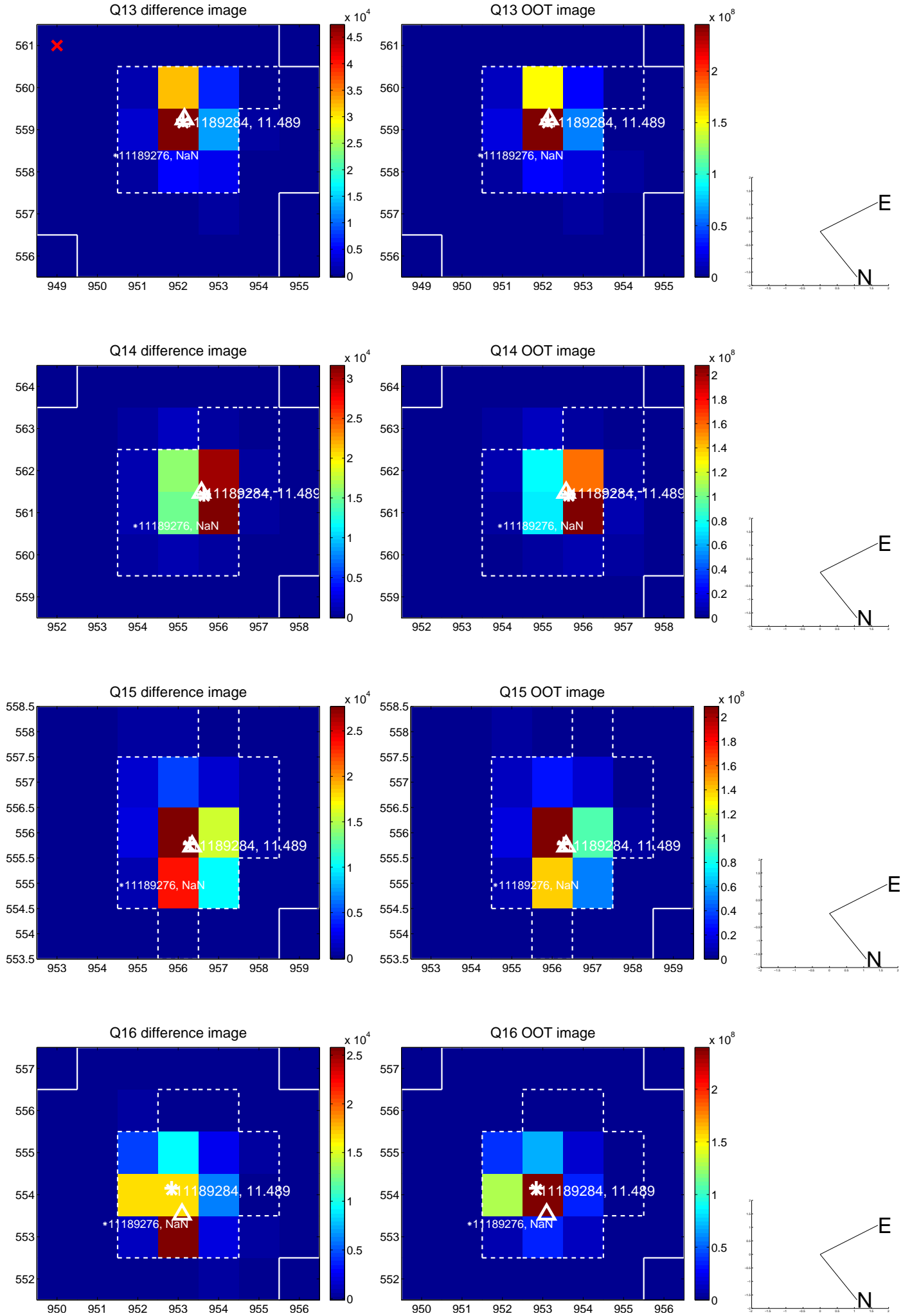
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



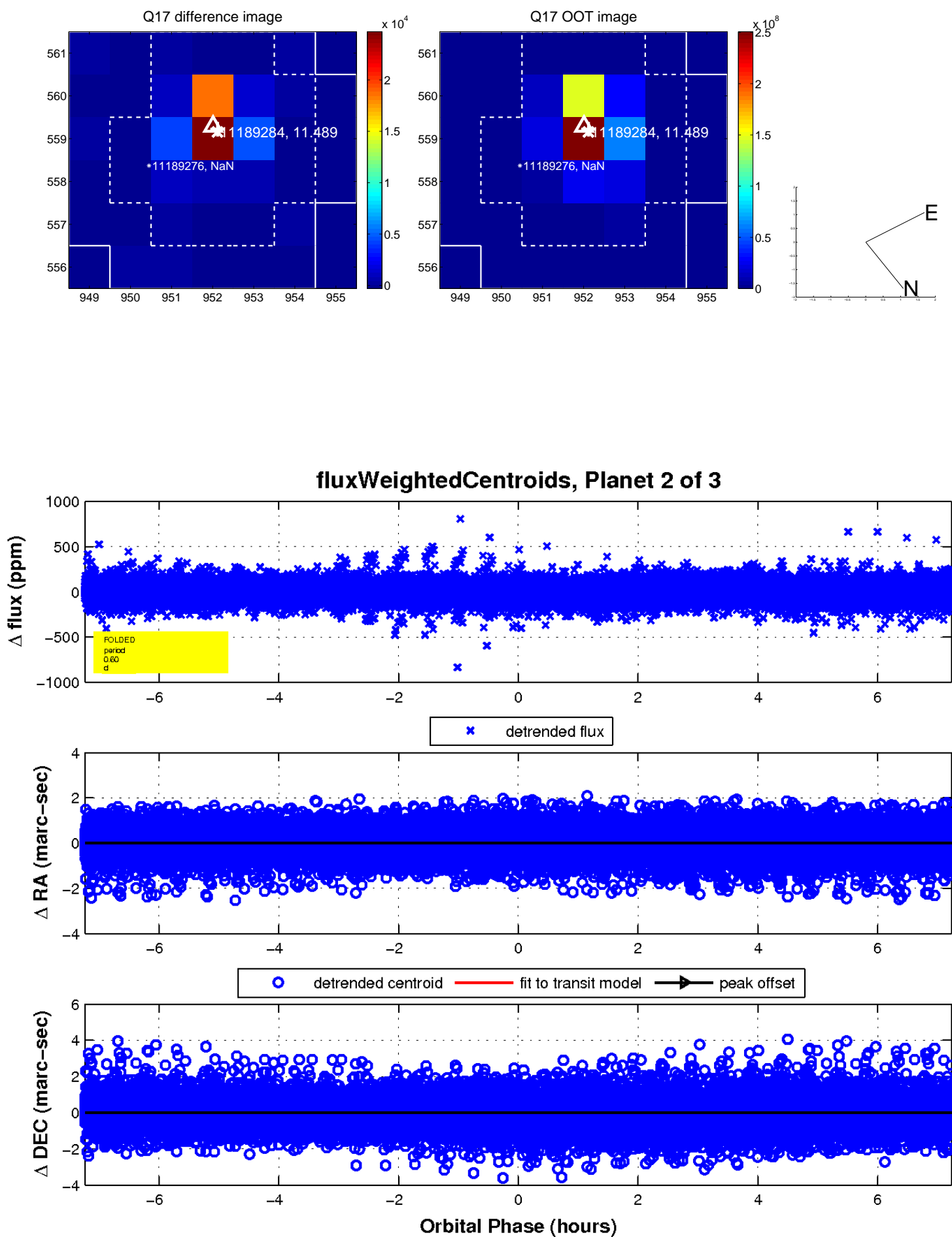
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

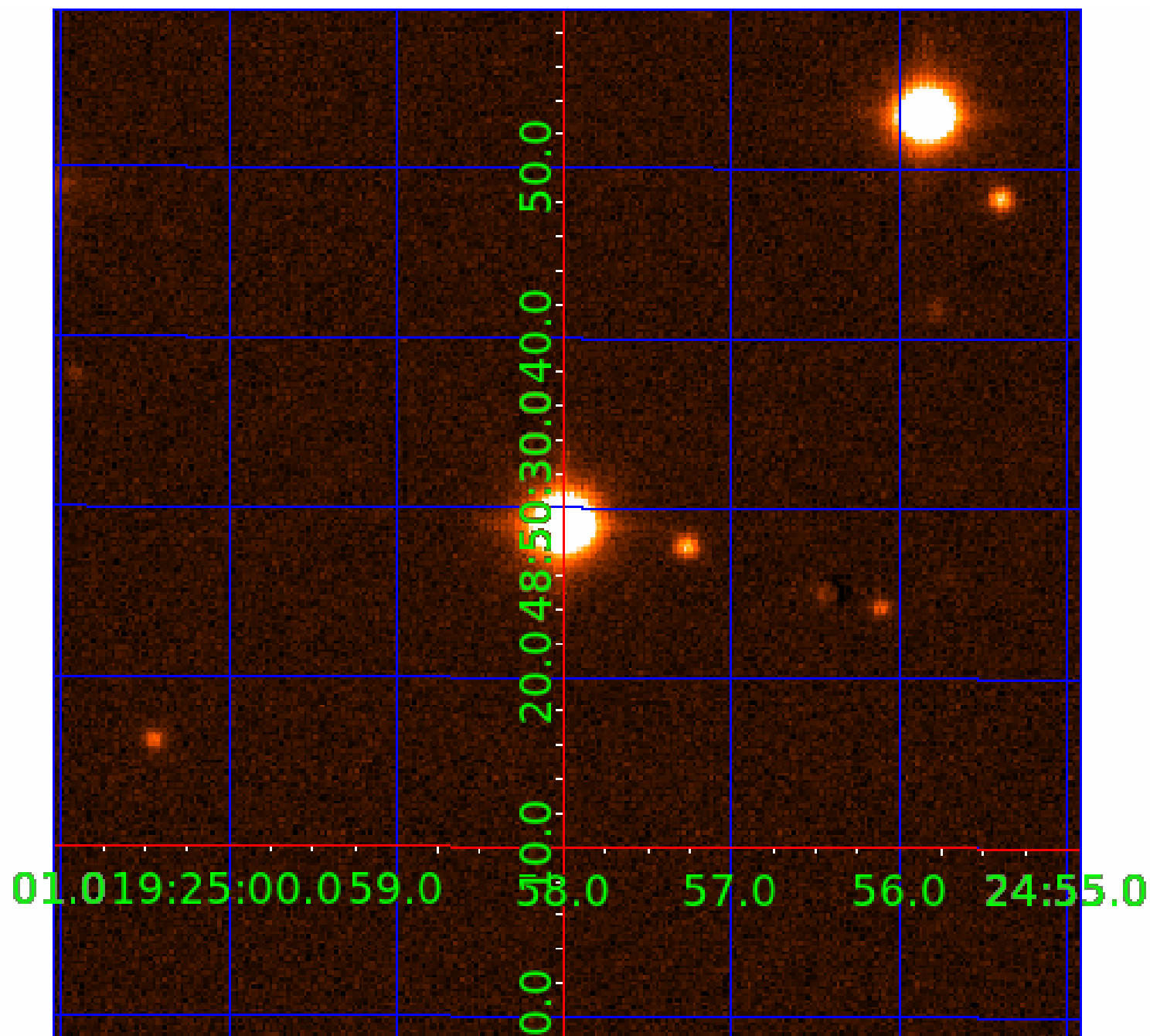


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 011189284

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011189284-01	OBS	No	2.412277	133.186184	37.9	2.263	21.7	22.4	3.83	8867	2.72	36036.79
011189284-02	OBS	No	0.603044	131.816410	7.5	3.376	15.0	9.8	3.83	8867	1.21	228832.34
011189284-03	OBS	No	0.603056	132.079285	13.0	1.918	15.1	16.4	3.83	8867	1.42	228826.04

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011189284-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_SATURATED
011189284-02	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—CENT_SATURATED
011189284-03	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

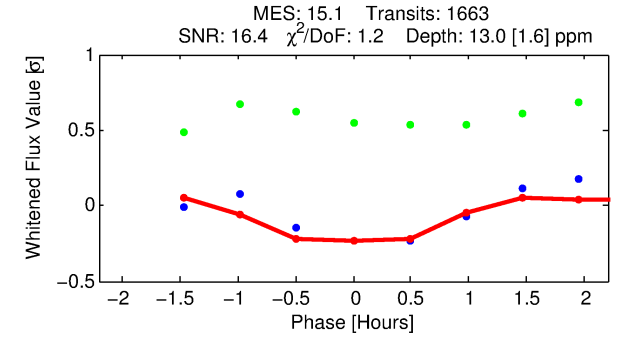
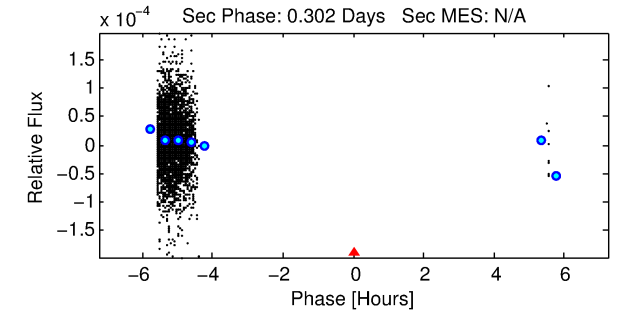
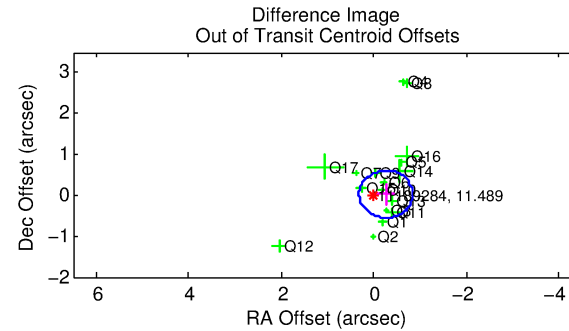
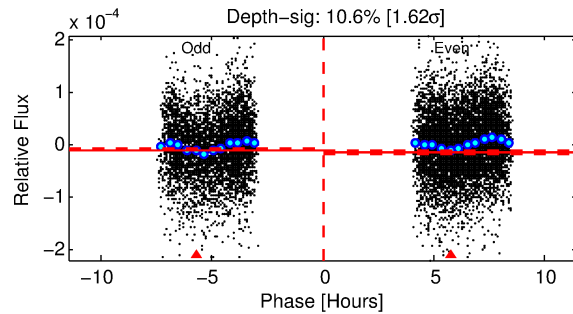
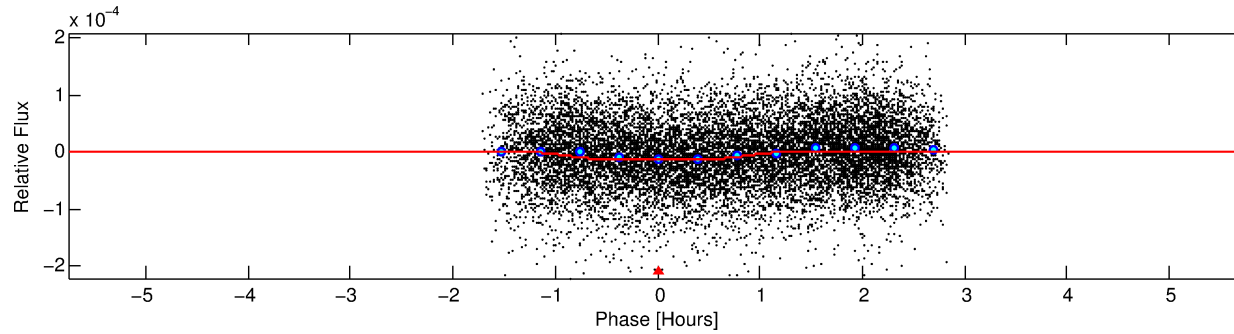
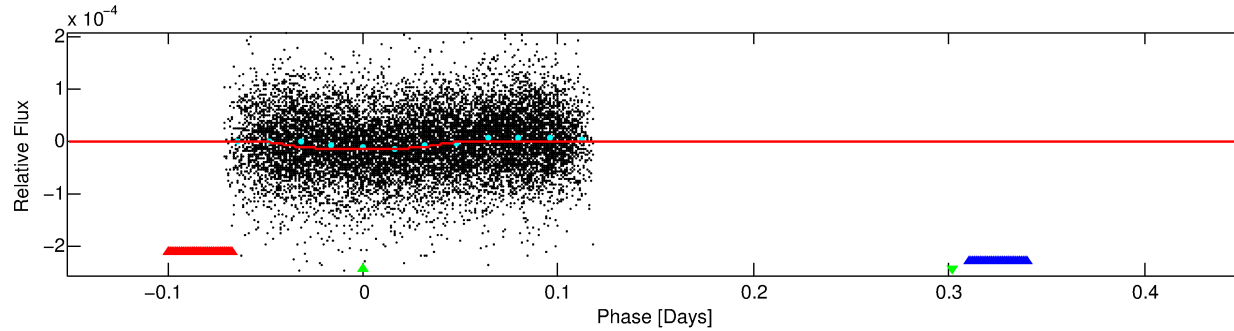
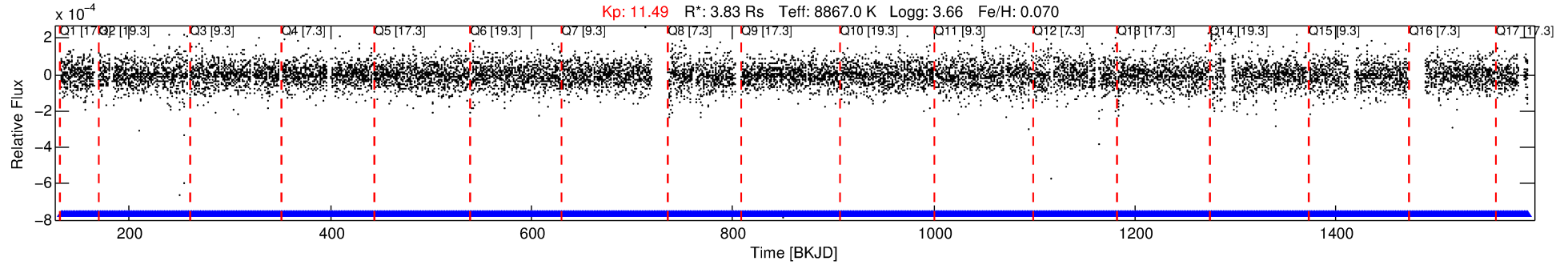
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011189284-03

No Significant Match Found

# DV One-Page Summary

KIC: 11189284 Candidate: 3 of 3 Period: 0.603 d



## DV Fit Results:

Period = 0.60306 [0.00001] d  
Epoch = 132.0793 [0.0017] BKJD  
Rp/R\* = 0.0034 [0.0009]  
a/R\* = 2.39 [3.14]  
b = 0.30 [4.85]  
Seff = 228826.03 [198302.26]  
Teq = 5577 [1208] K  
Rp = 1.42 [0.85] Re  
a = 0.0188 [0.0099] AU

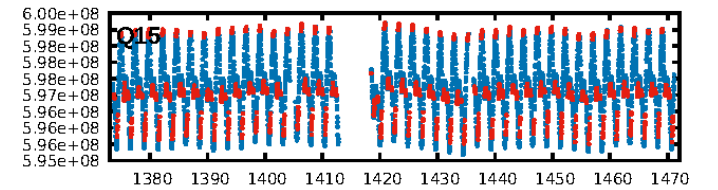
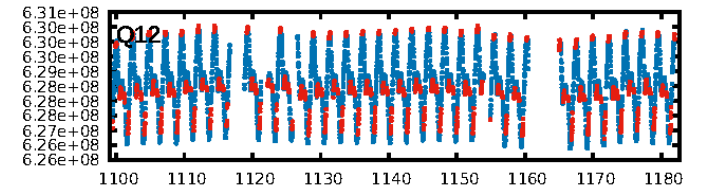
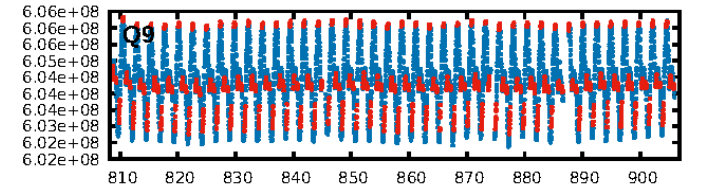
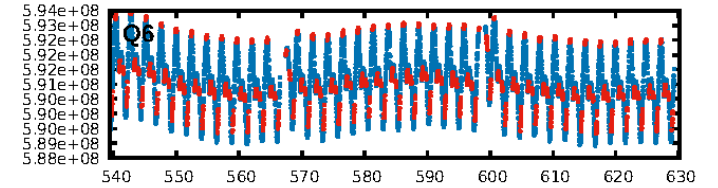
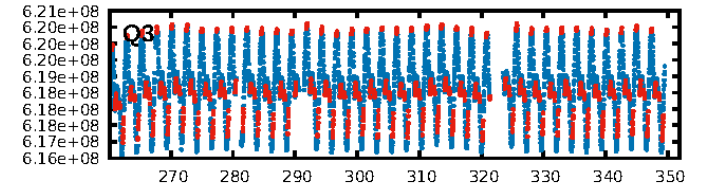
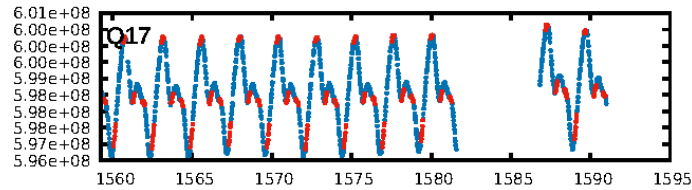
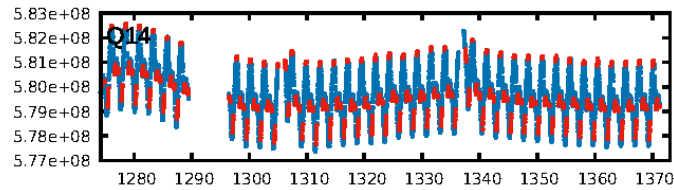
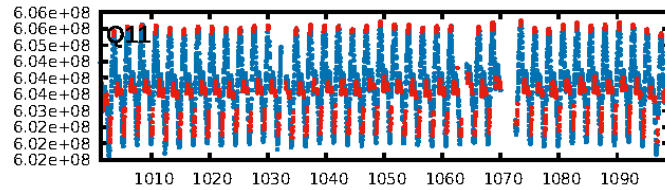
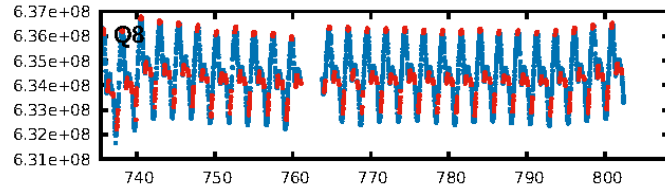
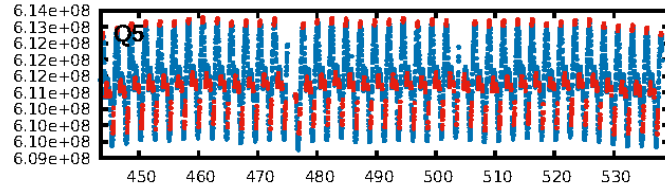
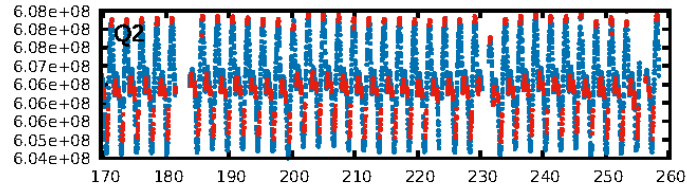
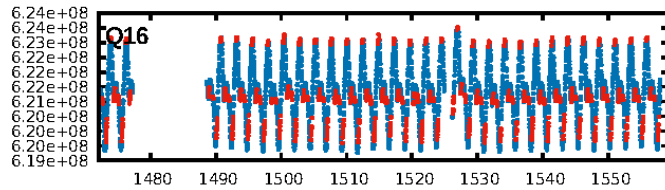
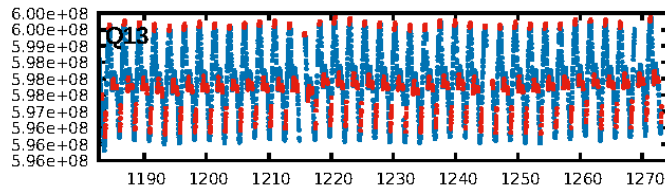
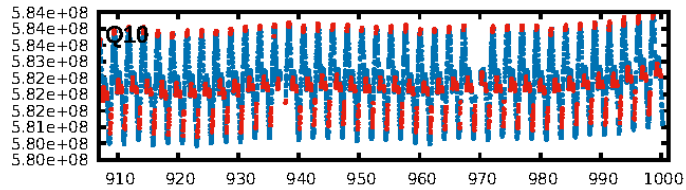
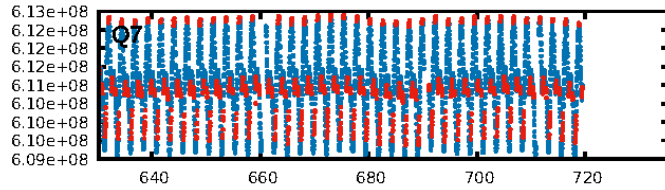
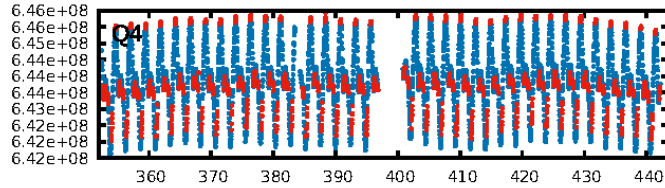
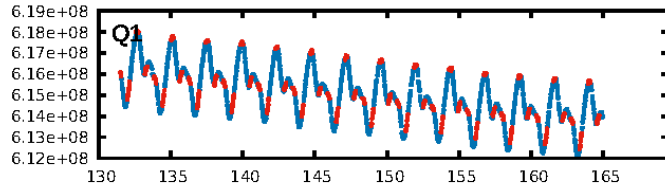
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 $\sigma$ ]  
LongPeriod-sig: 100.0% [14.64 $\sigma$ ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [1588/1588]  
GhostDiagnostic-chr: 0.9445  
Centroid-sig: 0.0%  
Centroid-so: 1.239 arcsec [2.18 $\sigma$ ]  
OotOffset-rm: 0.262 arcsec [1.36 $\sigma$ ]  
KicOffset-rm: 0.193 arcsec [1.27 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.00 [0/17]  
DiffImageOverlap-fno: 0.00 [0/17]

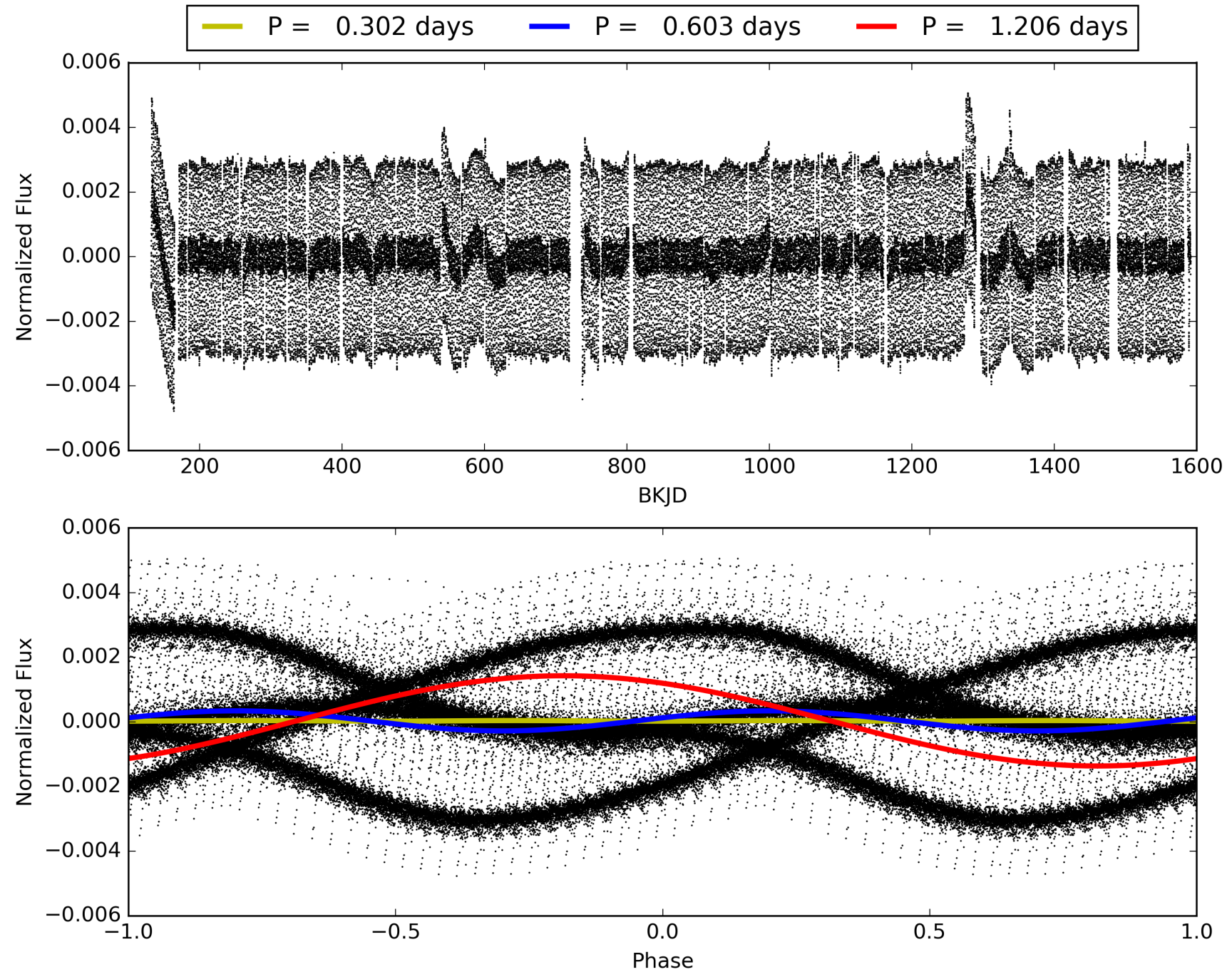
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 02:08:45 Z

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

# TCE 011189284-03, PDC Light Curves

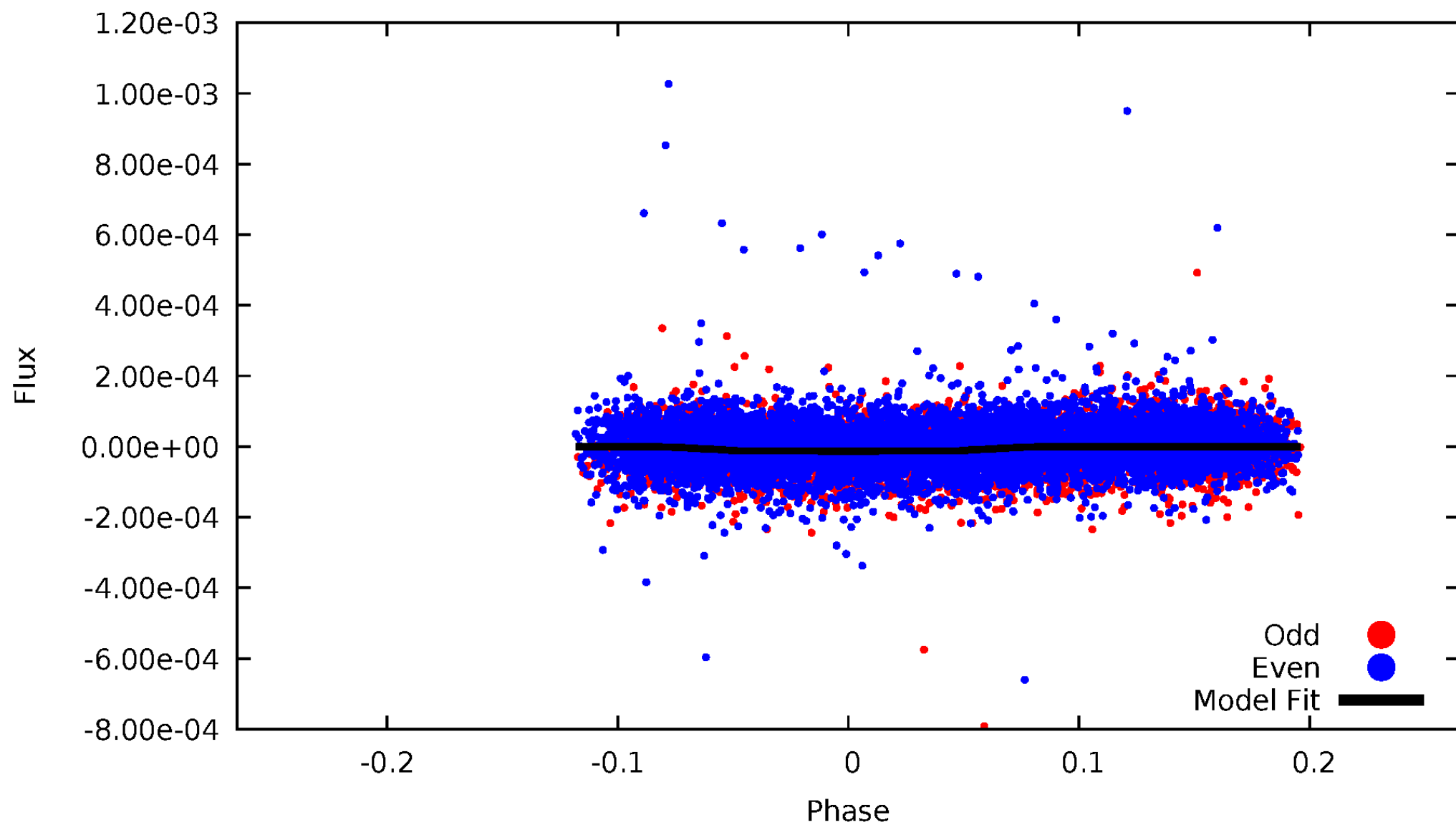


# TCE 011189284-03



# DV Odd/Even

TCE 011189284-03



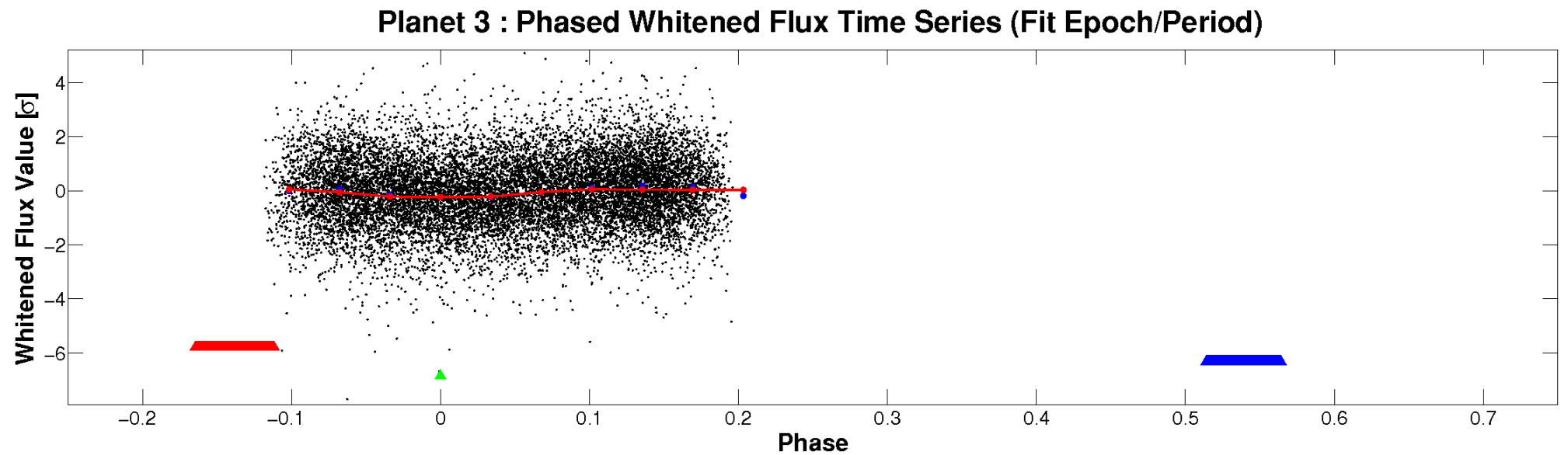
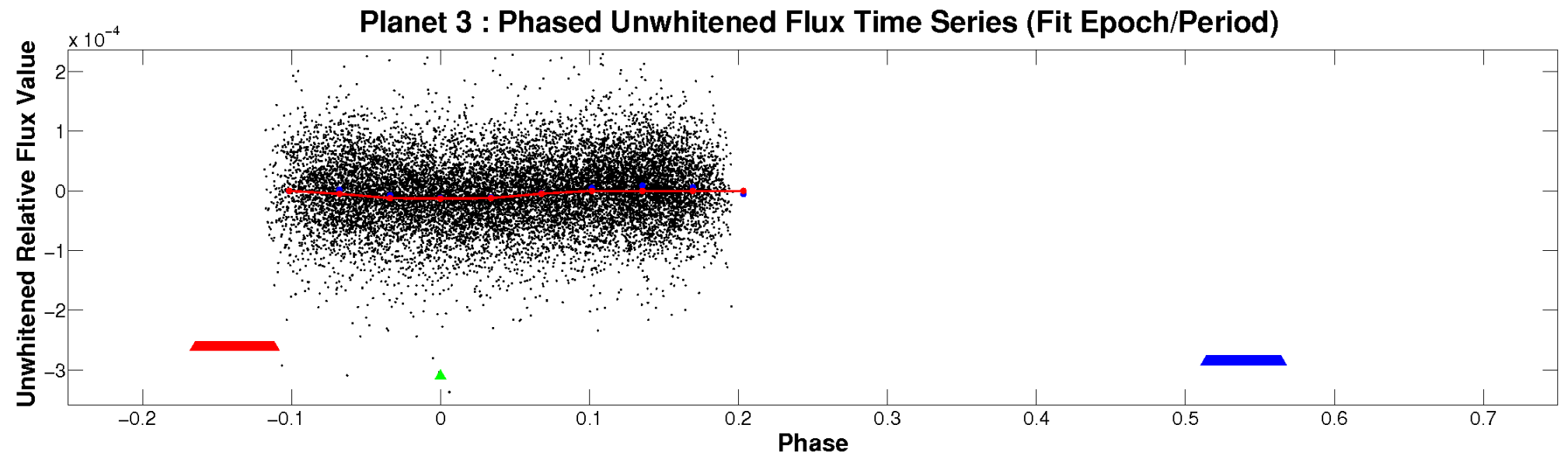




ALT Odd/Even

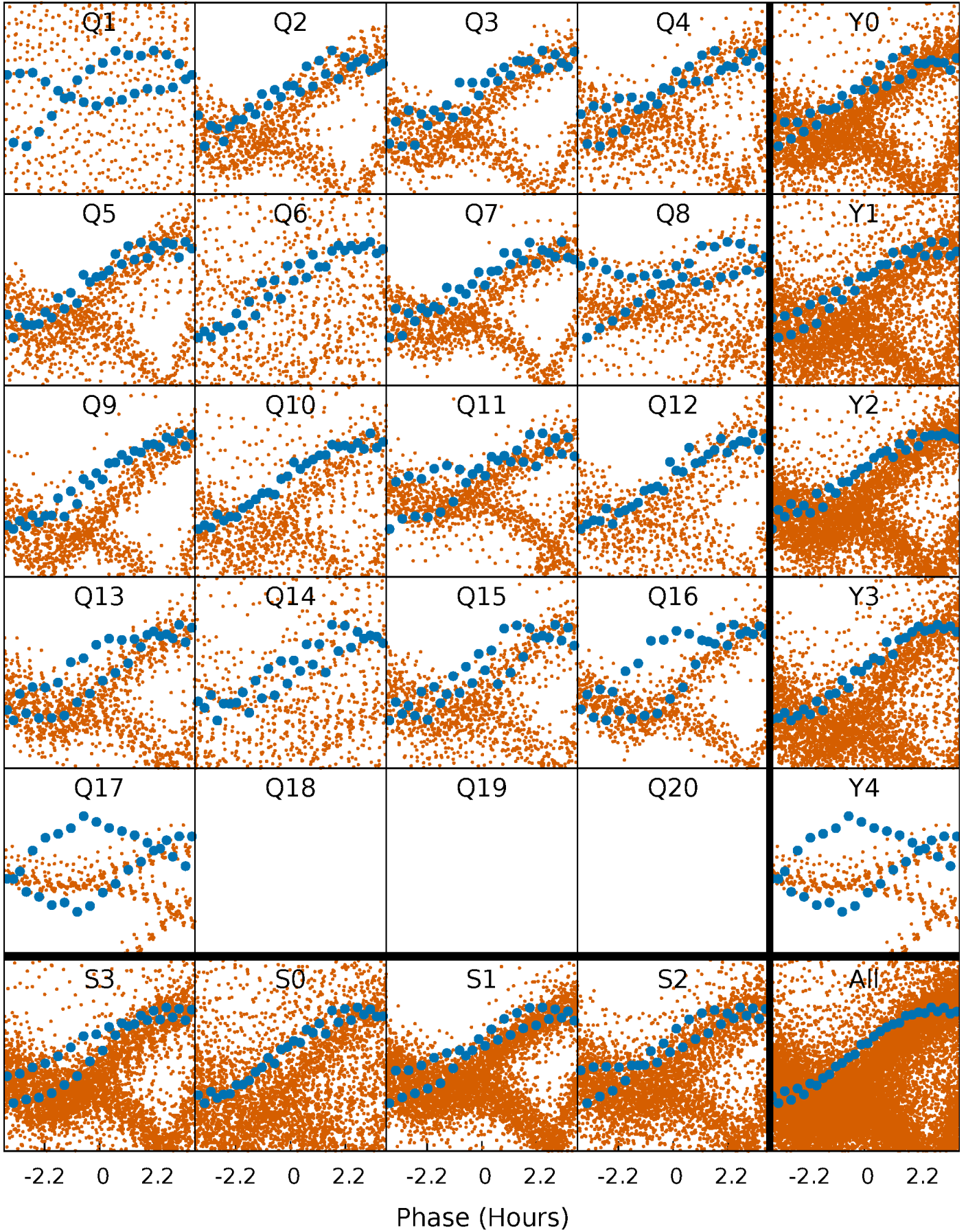
This plot does not exist for this TCE.

# Non-Whitened Vs. Whitened Light Curve



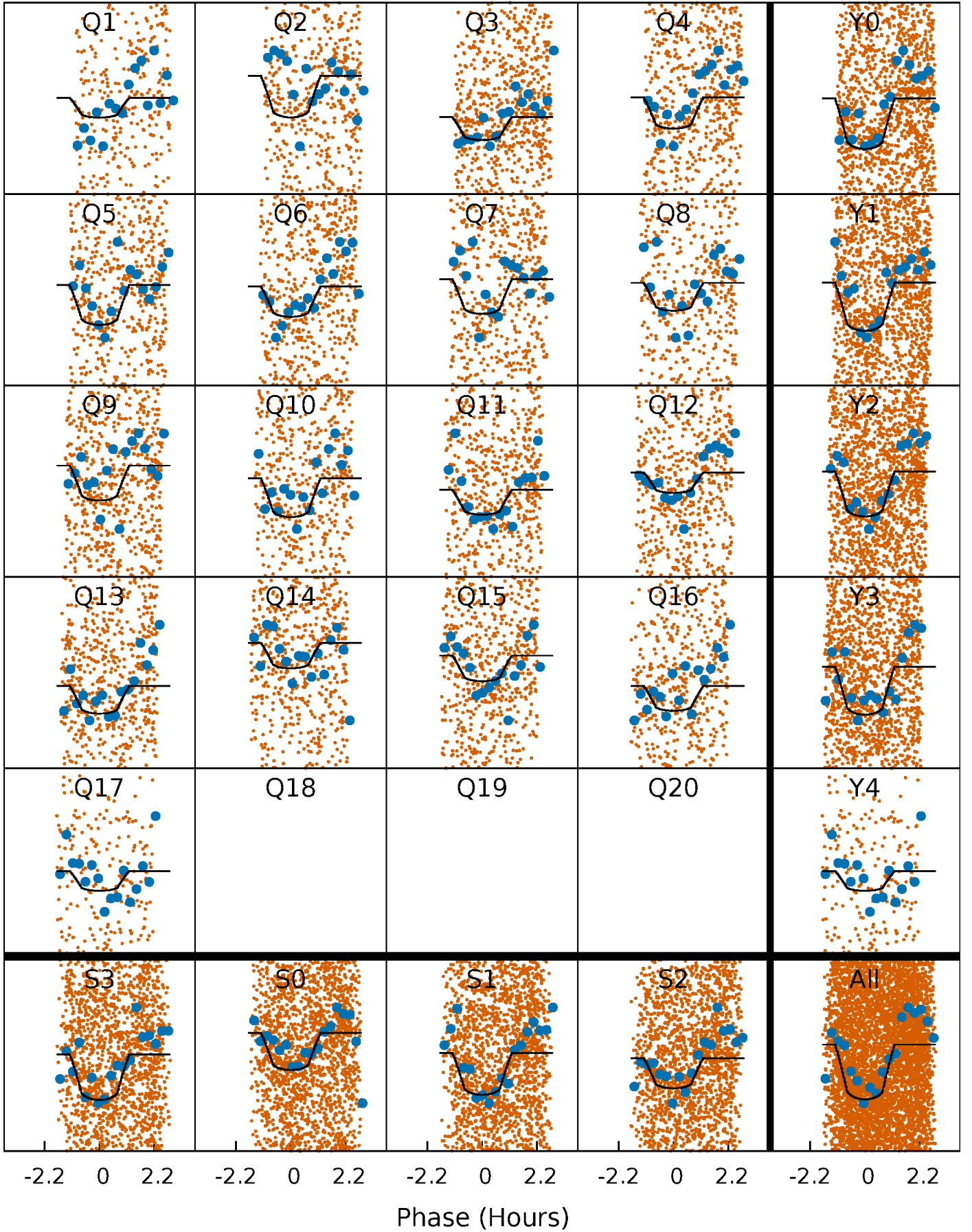
# PDC Quarter-Phased Transit Curves

TCE 011189284-03 P= 0.603056 Days  $T_0=132.079285$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 011189284-03   P= 0.603056 Days    $T_0=132.079285$  (BKJD)



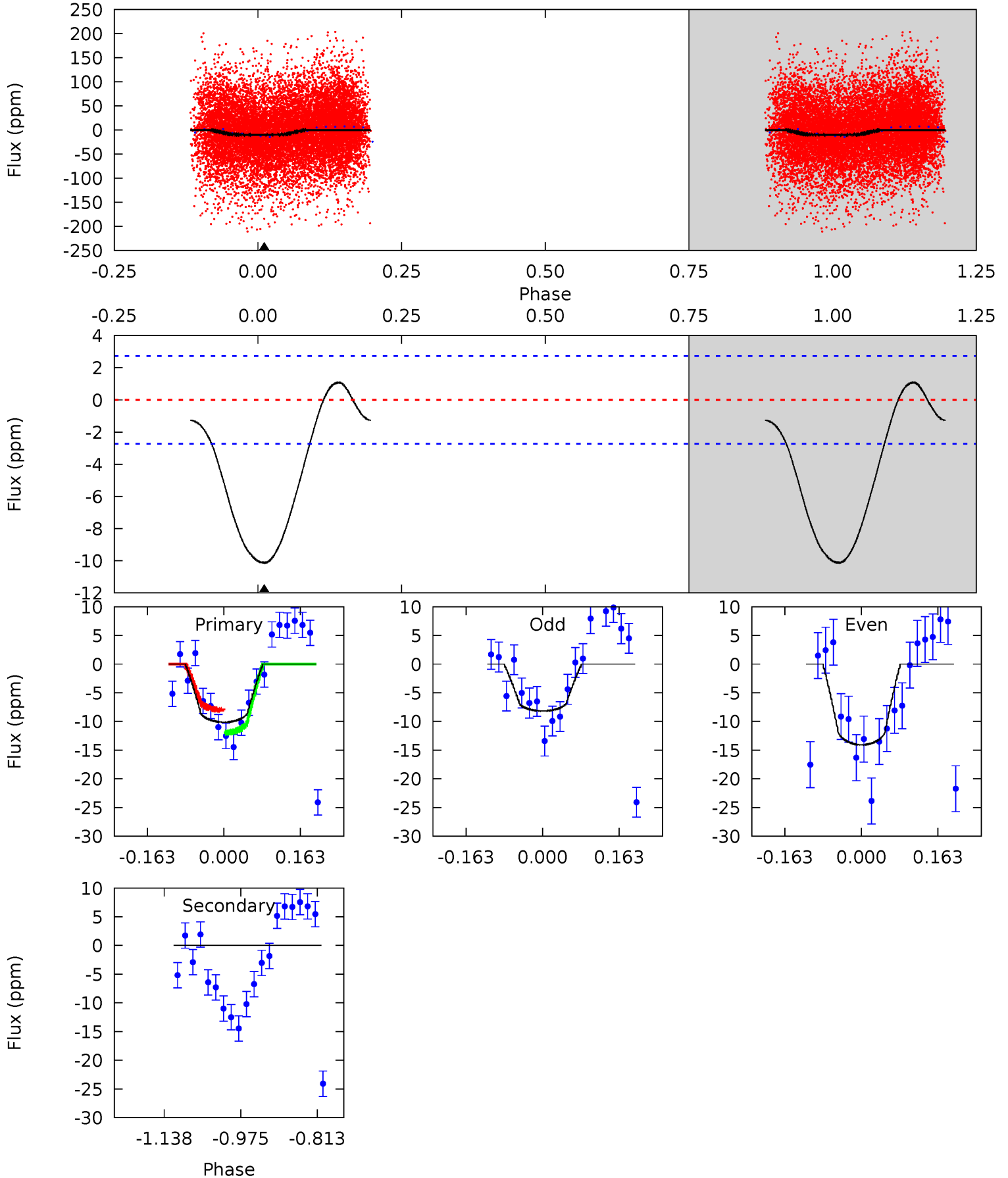
This plot does not exist for this TCE.



# DV Model-Shift Uniqueness Test

011189284-03, P = 0.603056 Days, E = 131.476229 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	0	0	0	4.46	1.40	1.00	16.6	16.6	0	0	4.62	0.89	0.10	2.99



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 011189284

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8867^{+242}_{-450}$	$3.661^{+0.496}_{-0.124}$	$0.070^{+0.200}_{-0.650}$	$3.828^{+0.887}_{-2.071}$	$2.450^{+0.363}_{-0.786}$	$0.061^{+0.370}_{-0.024}$
	+3%/-5%	+14%/-3%	+286%/-929%	+23%/-54%	+15%/-32%	+601%/-39%
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 011189284-03 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$0 \pm 1$	$1.28^{+0.45}_{-0.45}$	$7456^{+718}_{-951}$	$-5816^{+827}_{-659}$	$0.001^{+0.085}_{-0.084}$
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  $A_{\text{obs}} \gg 1.0$

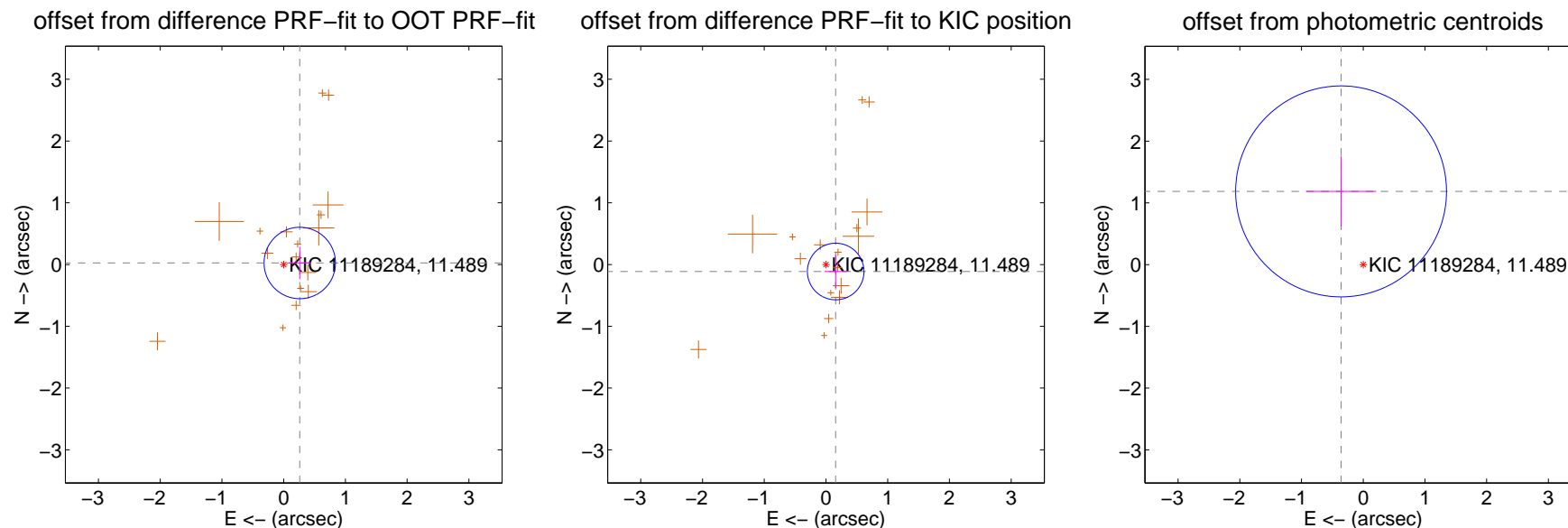
## DV Centroid Data

Supplemental centroid analysis for 011189284-03. **Kepler magnitude: 11.49.** Transit SNR 16.36

**There are 0 quarters with good PRF difference image offsets**

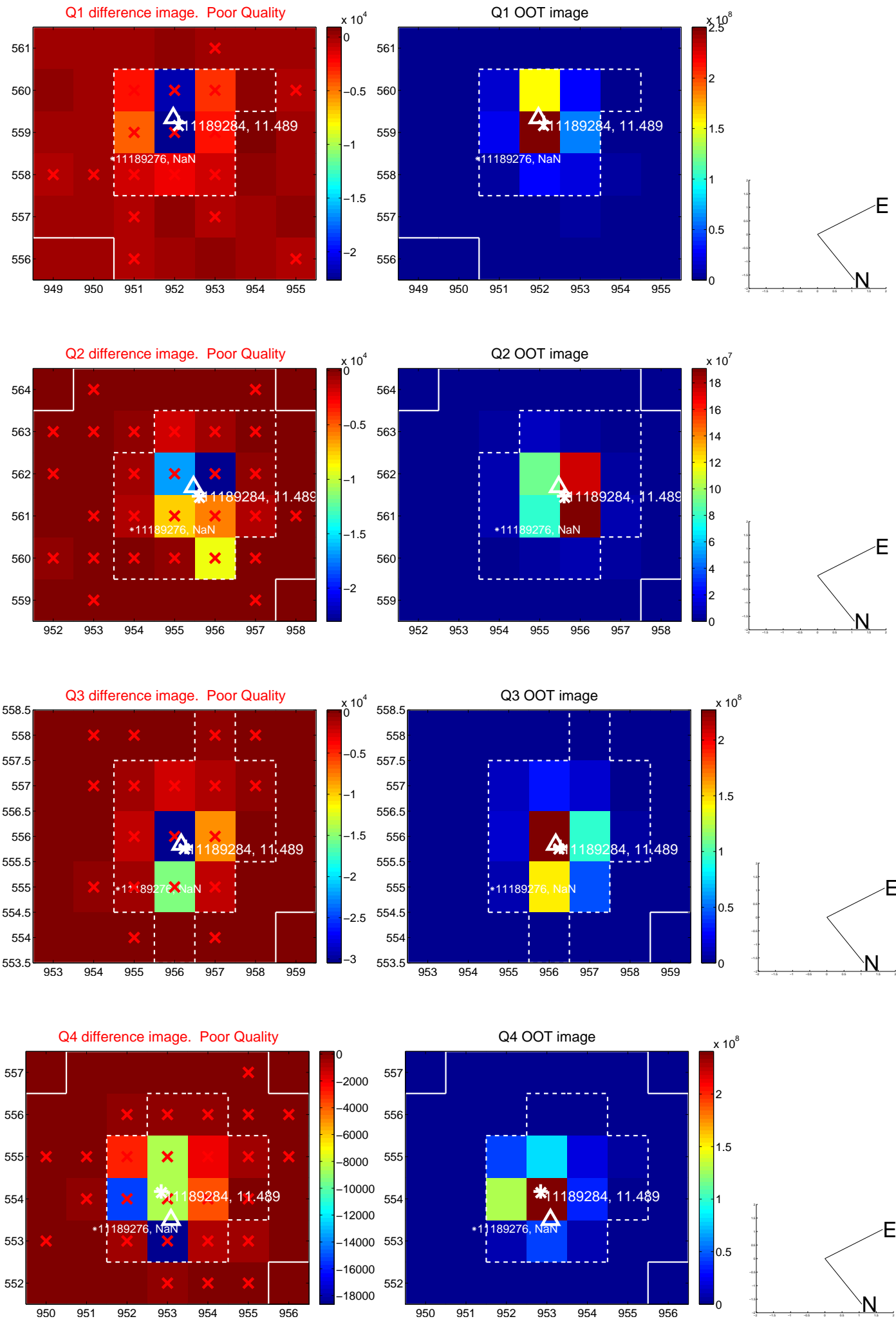
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.262 \pm 0.193$	1.36	$-0.261 \pm 0.182$	$0.025 \pm 0.263$
PRF-fit source offset from KIC position	$0.193 \pm 0.153$	1.27	$-0.157 \pm 0.179$	$-0.113 \pm 0.266$
photometric centroid source offset	$1.24 \pm 0.57$	2.18	$0.36 \pm 0.57$	$1.19 \pm 0.57$

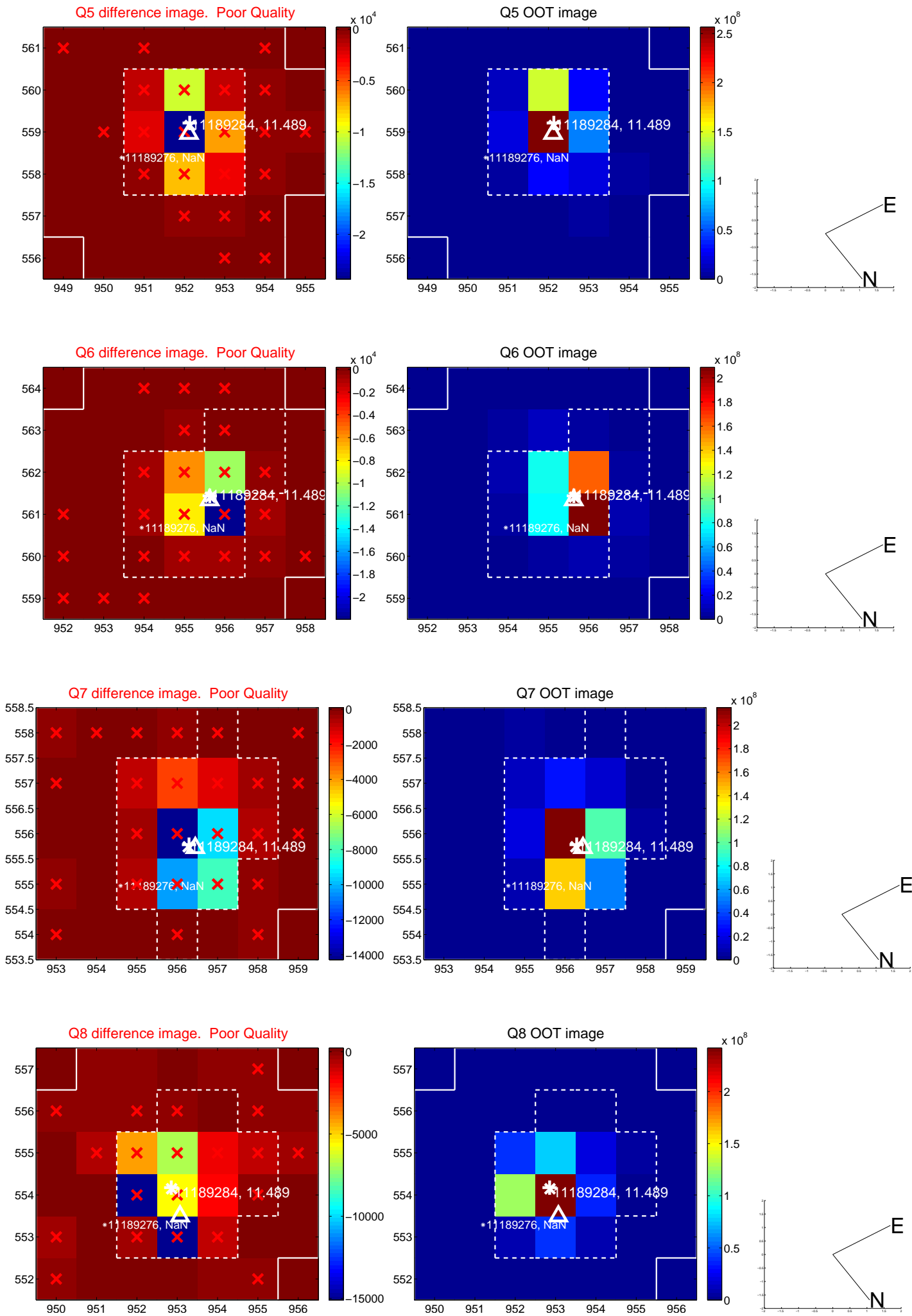


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

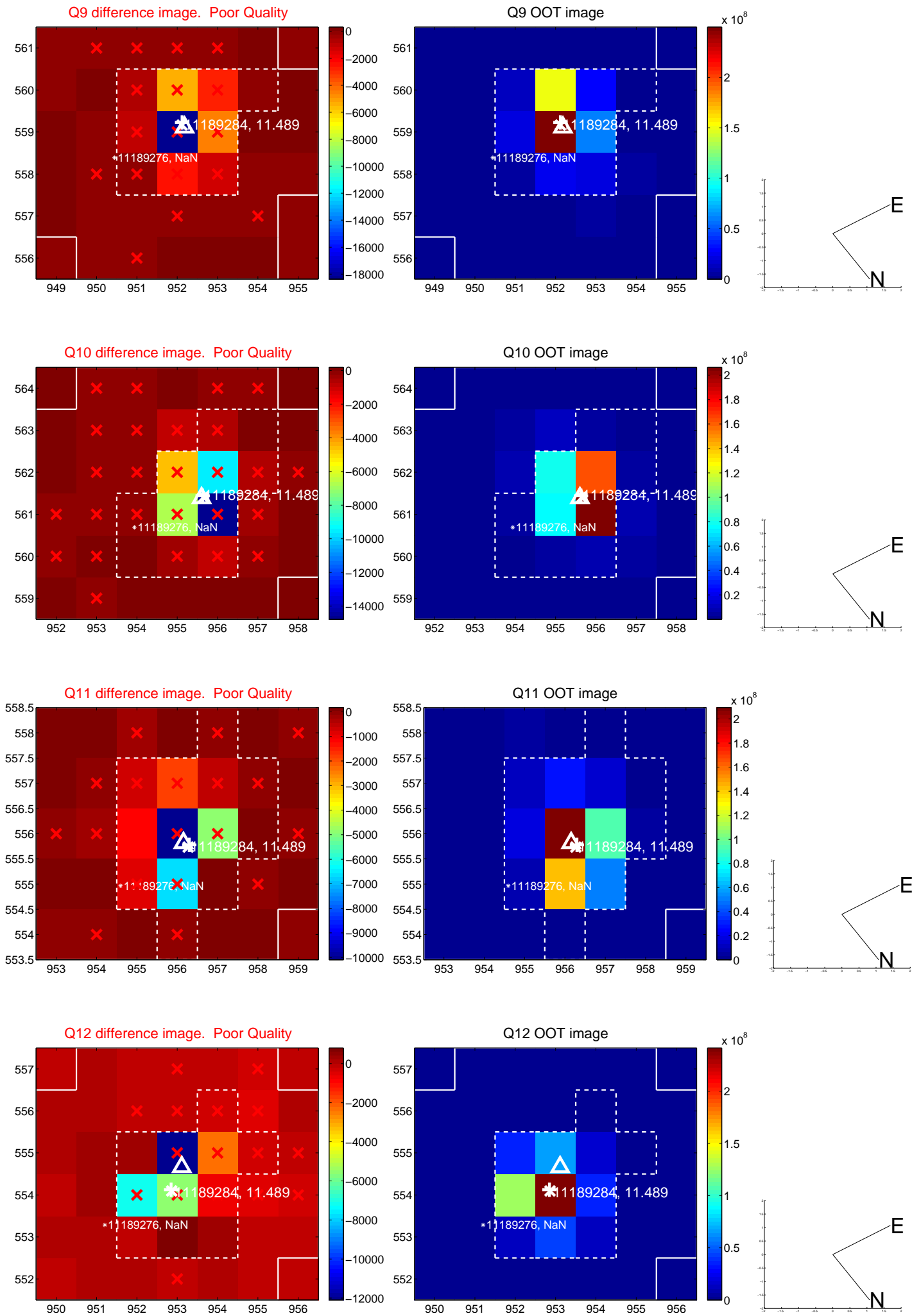


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



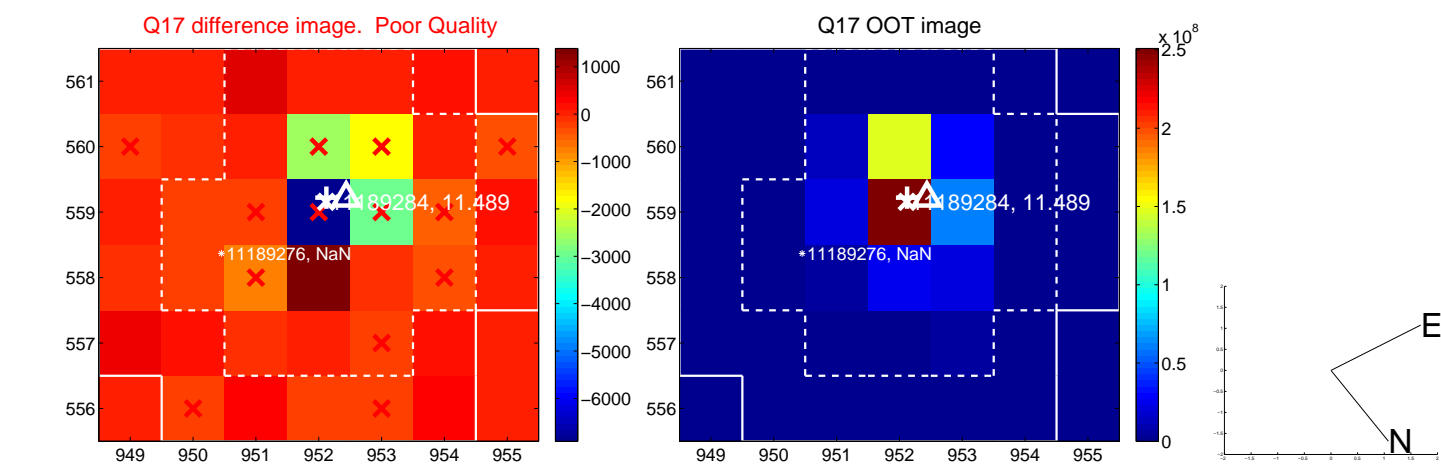


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

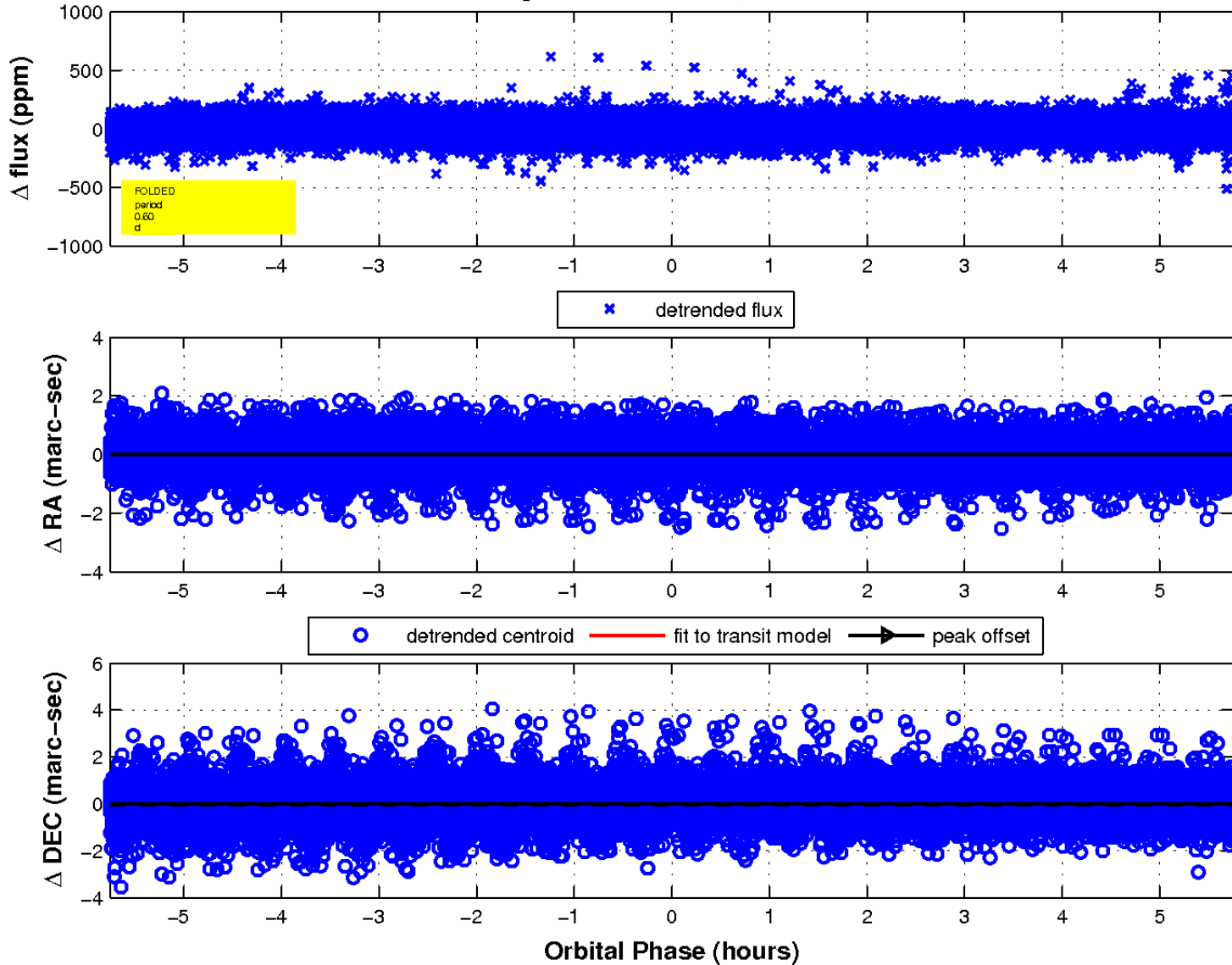




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

