

# KIC 007914906

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007914906-01	OBS	6047.01	8.752917	138.724709	41466.3	3.419	505.2	532.5	2.62	7279	91.09	1691.56
007914906-02	OBS	No	8.752646	138.690539	1597.4	18.407	9.2	11.8	2.62	7279	12.94	1691.63
007914906-03	OBS	No	1.746309	132.180391	283.0	8.989	10.8	11.9	2.62	7279	5.78	14509.83

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007914906-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED
007914906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—RESIDUAL_TCE
007914906-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

**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.

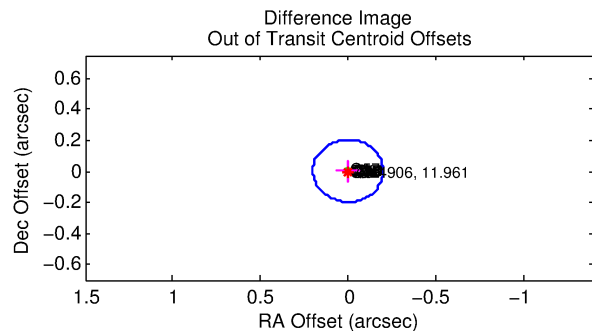
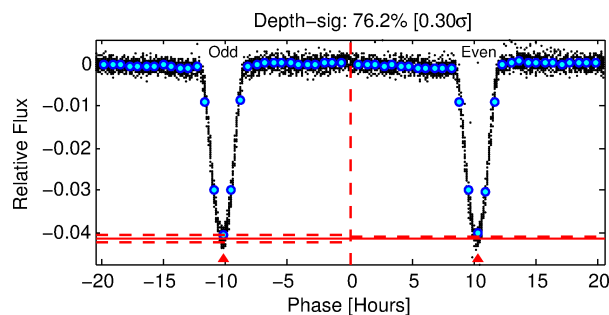
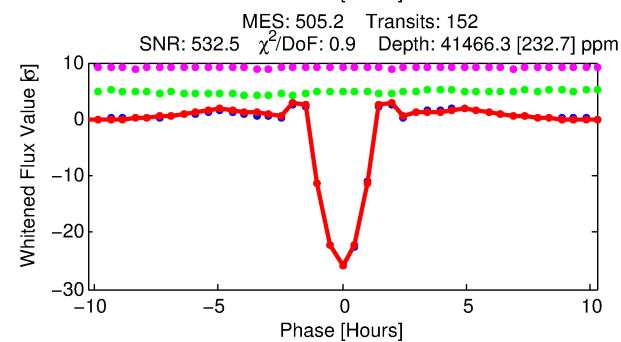
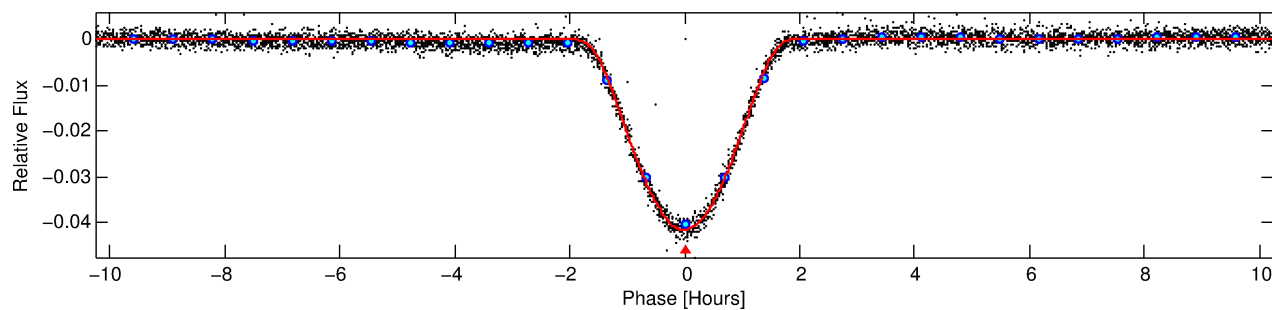
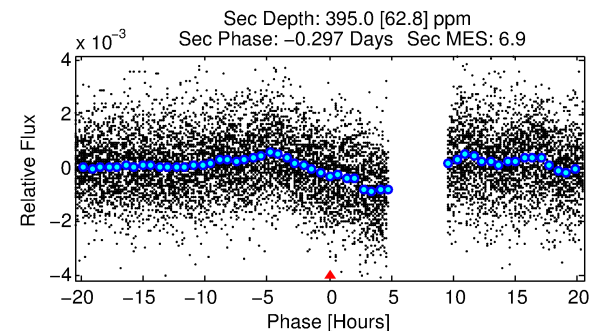
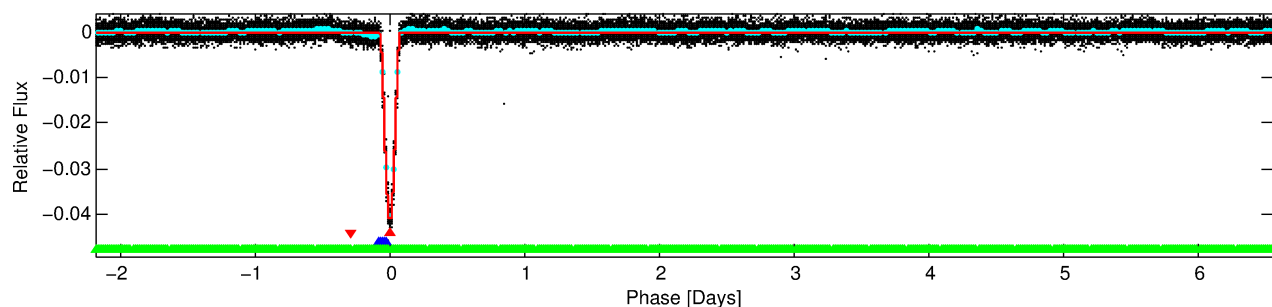
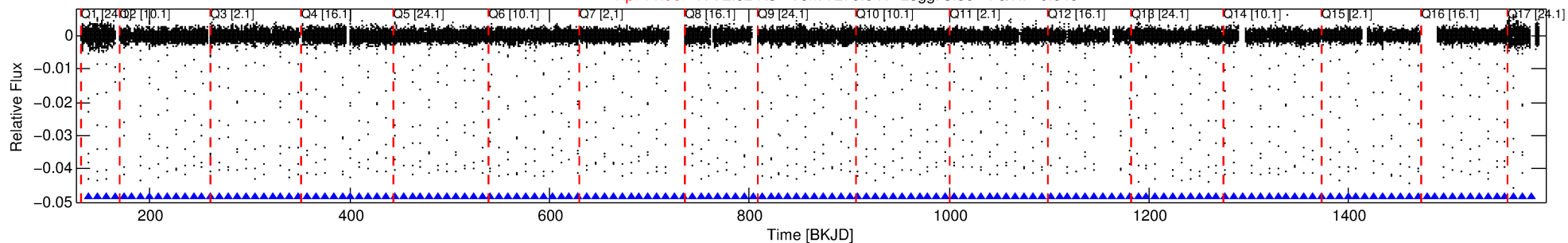
Ephemeris Match Information For 007914906-01

No Significant Match Found

# DV One-Page Summary

KIC: 7914906 Candidate: 1 of 3 Period: 8.753 d  
KOI: K06047.01 Corr: 0.996

Kp: 11.96 R\*: 2.62 Rs Teff: 7279.0 K Logg: 3.86 Fe/H: -0.040



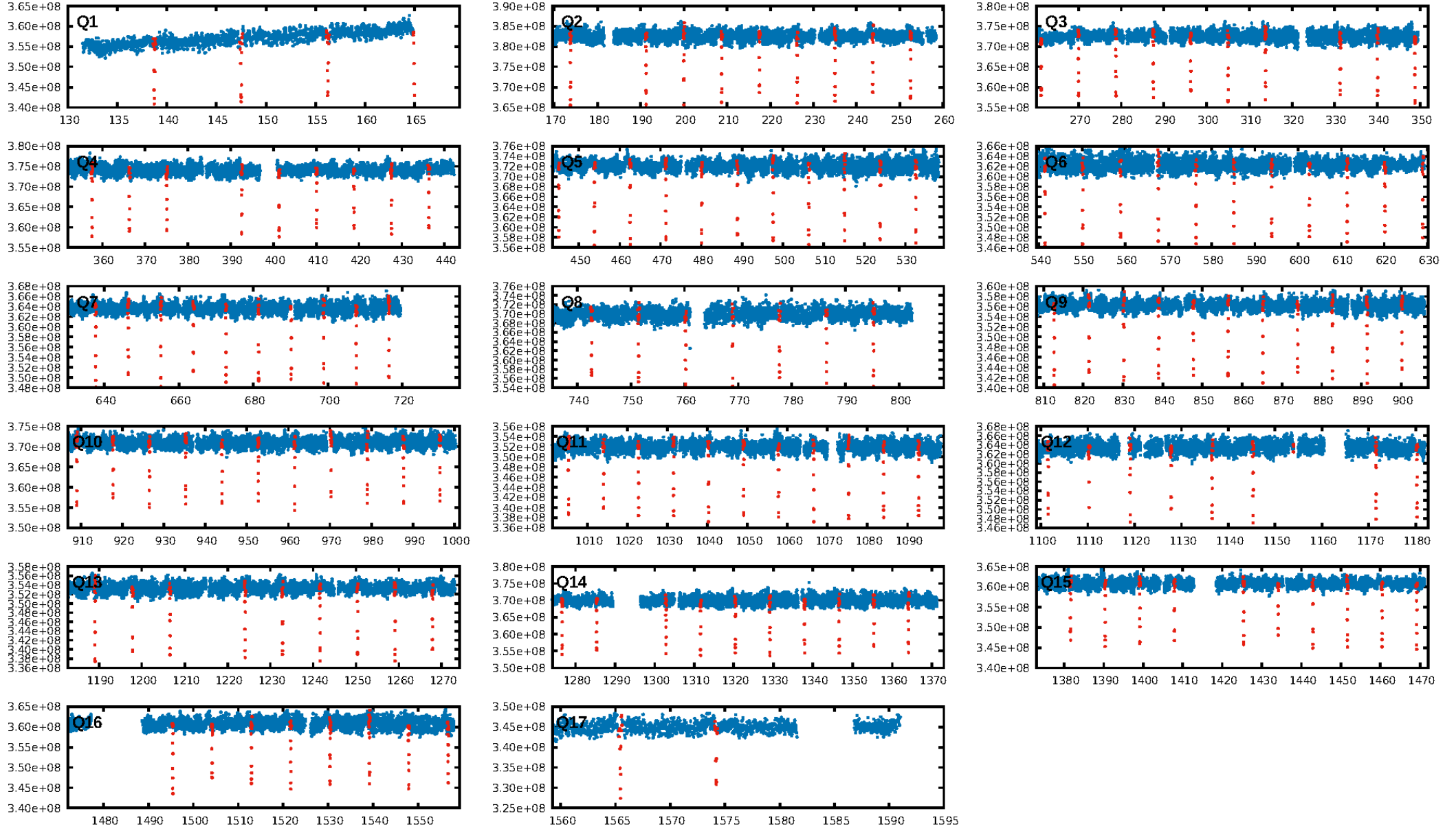
## DV Fit Results:

Period = 8.75292 [0.00000] d  
Epoch = 138.7247 [0.0001] BKJD  
Rp/R\* = 0.3181 [0.0196]  
a/R\* = 16.84 [0.05]  
b = 1.00 [0.03]  
Seff = 1691.56 [984.55]  
Teff = 1635 [238] K  
Rp = 91.09 [37.26] Re  
a = 0.1012 [0.0366] AU  
Ag = 0.27 [0.16] [-4.63σ]  
Teffp = 1819 [123] K [0.69σ]

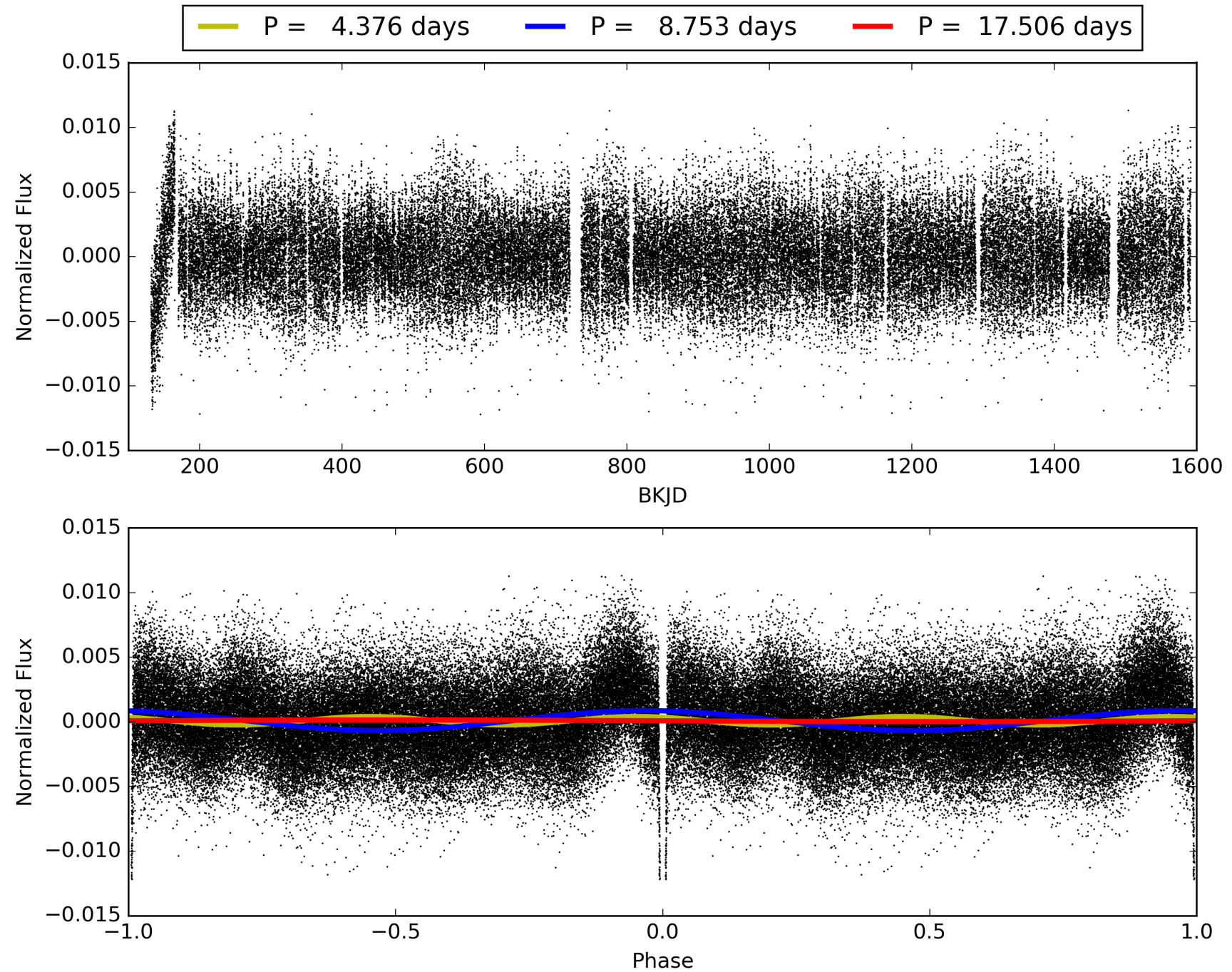
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 3.7%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [146/146]  
GhostDiagnostic-chr: 1.687  
Centroid-sig: 0.0%  
Centroid-so: 0.070 arcsec [50.39σ]  
OotOffset-rm: 0.005 arcsec [0.07σ]  
KicOffset-rm: 0.095 arcsec [1.40σ]  
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]

# TCE 007914906-01, PDC Light Curves



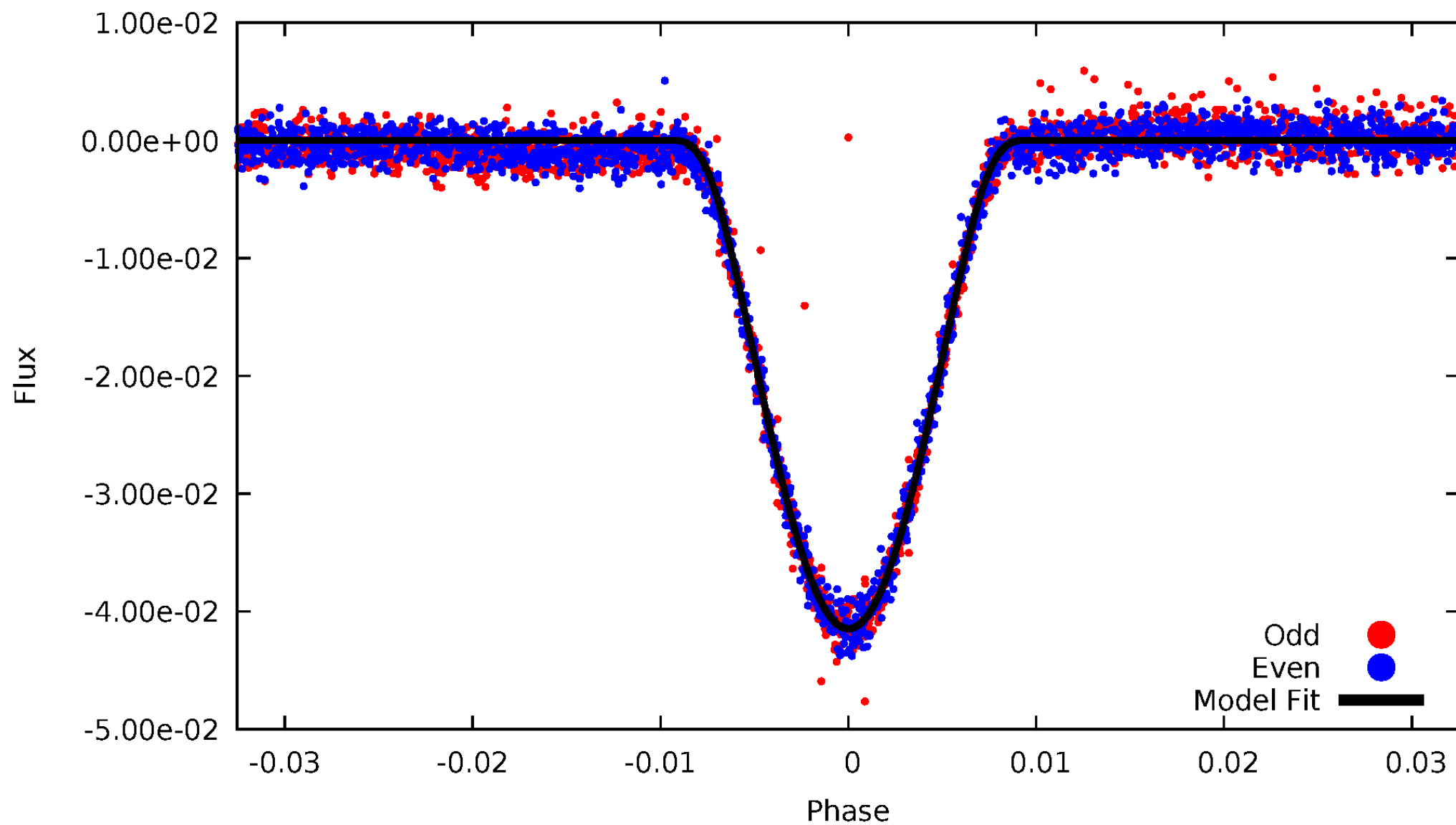
TCE 007914906-01





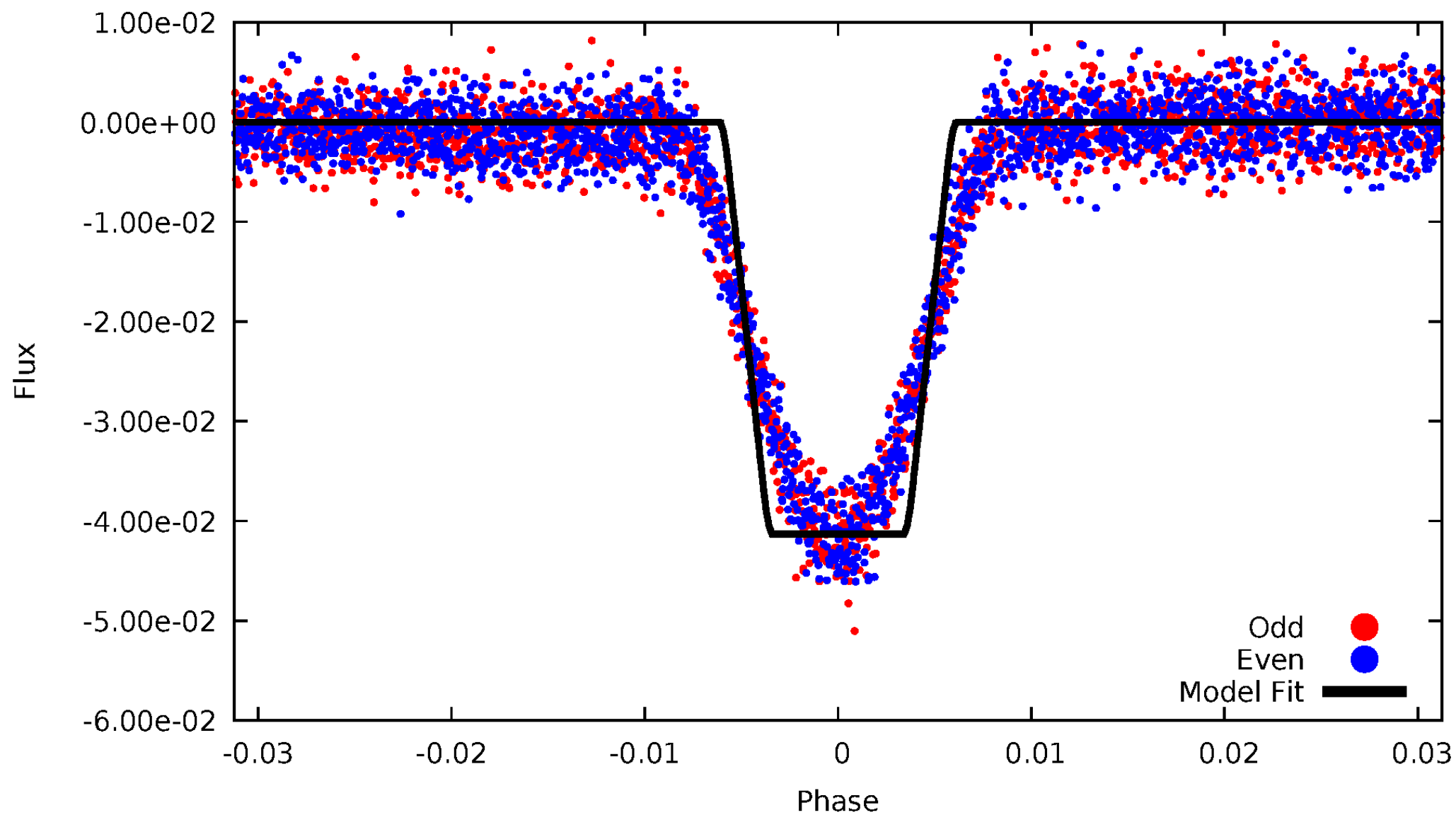
# DV Odd/Even

TCE 007914906-01



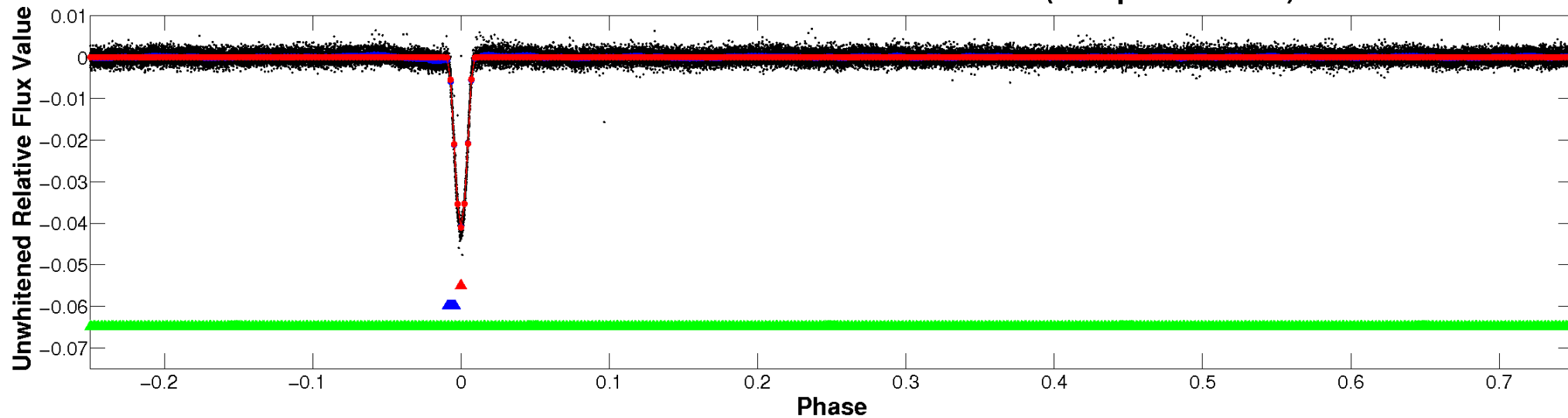
# ALT Odd/Even

TCE 007914906-01

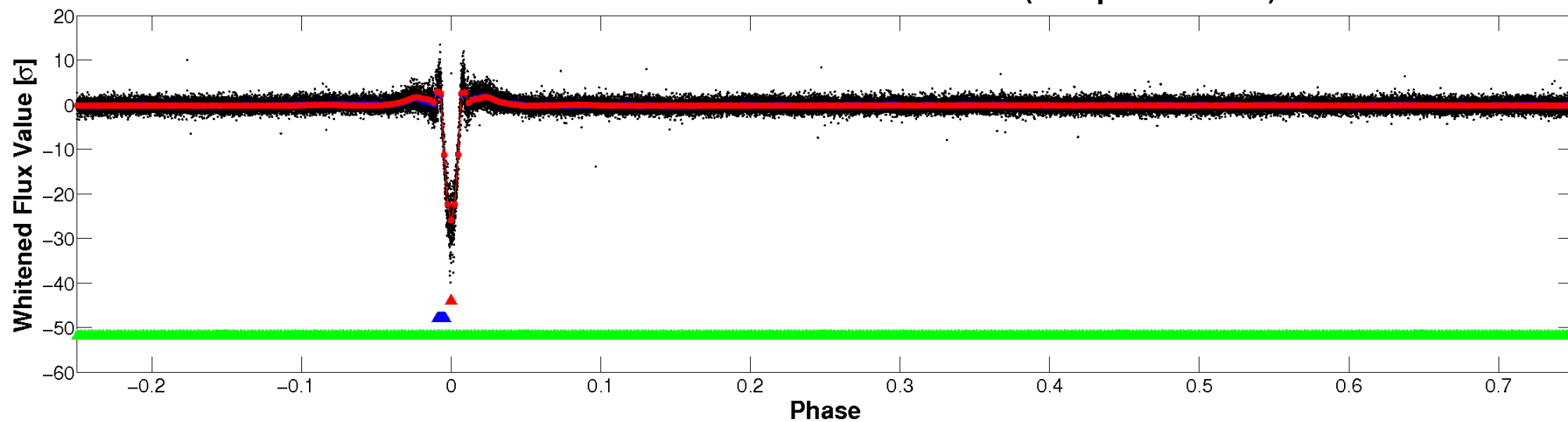


# Non-Whitened Vs. Whitened Light Curve

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

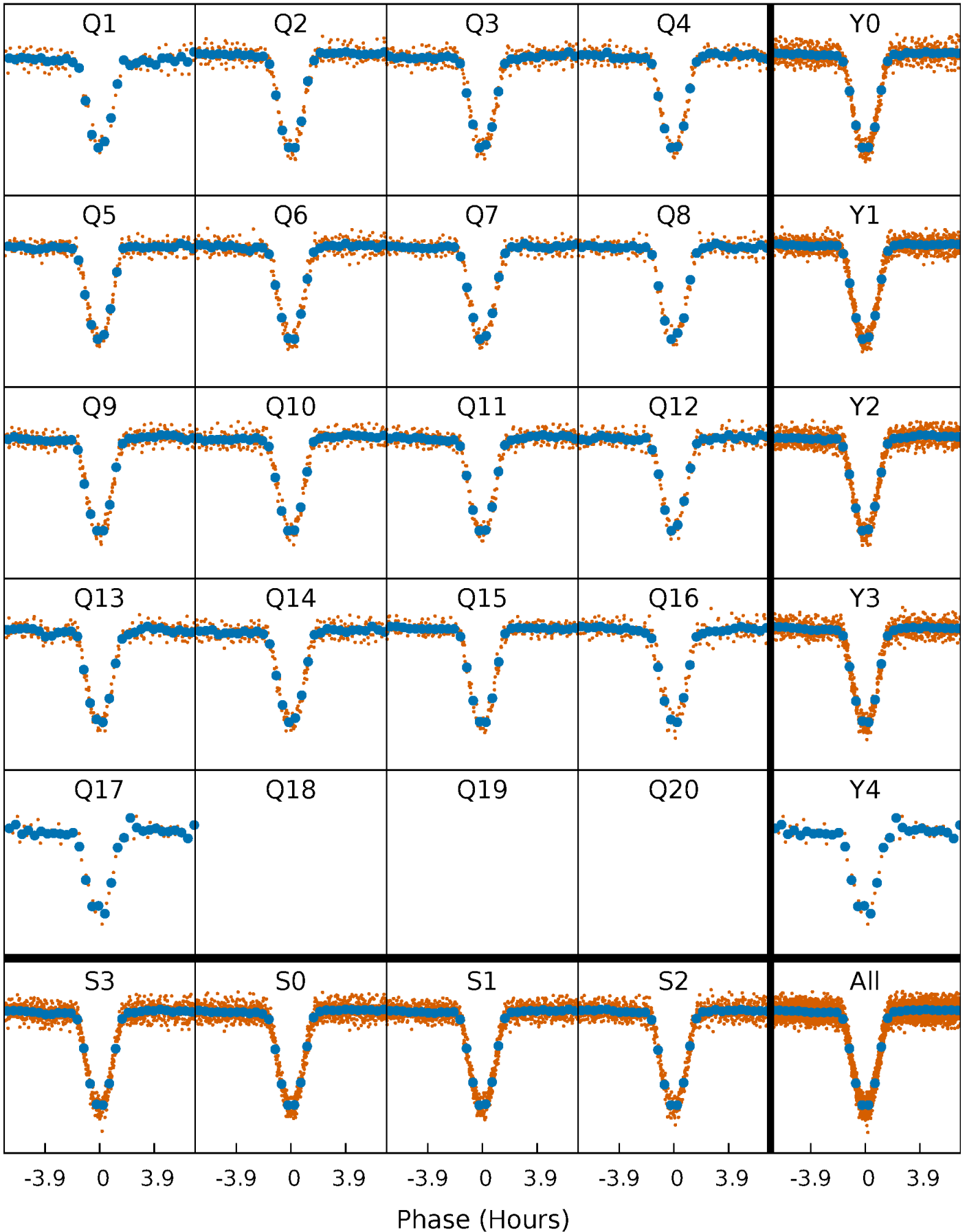


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



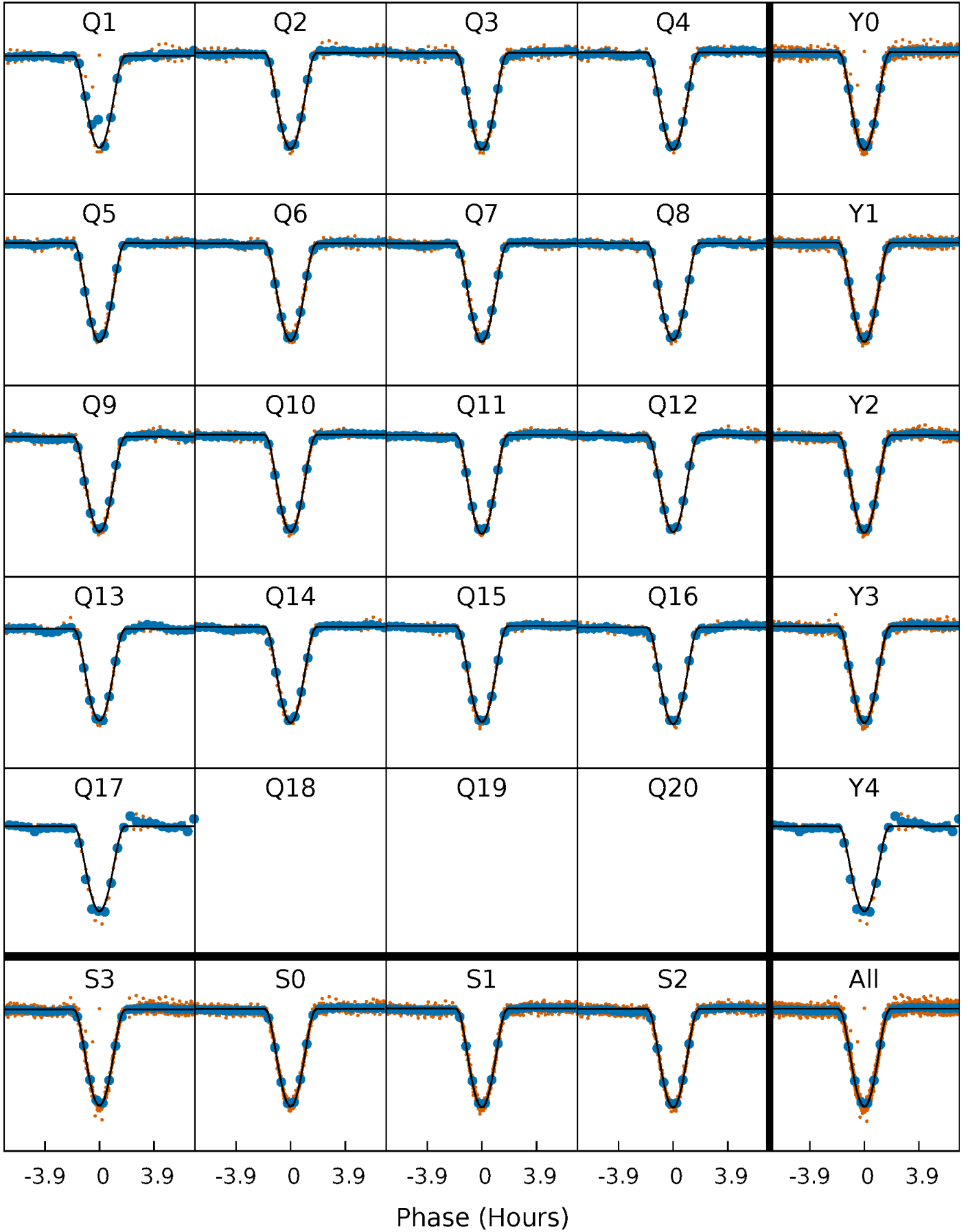
# PDC Quarter-Phased Transit Curves

TCE 007914906-01 P= 8.752917 Days  $T_0=138.724709$  (BKJD)



# DV Quarter-Phased Transit Curves

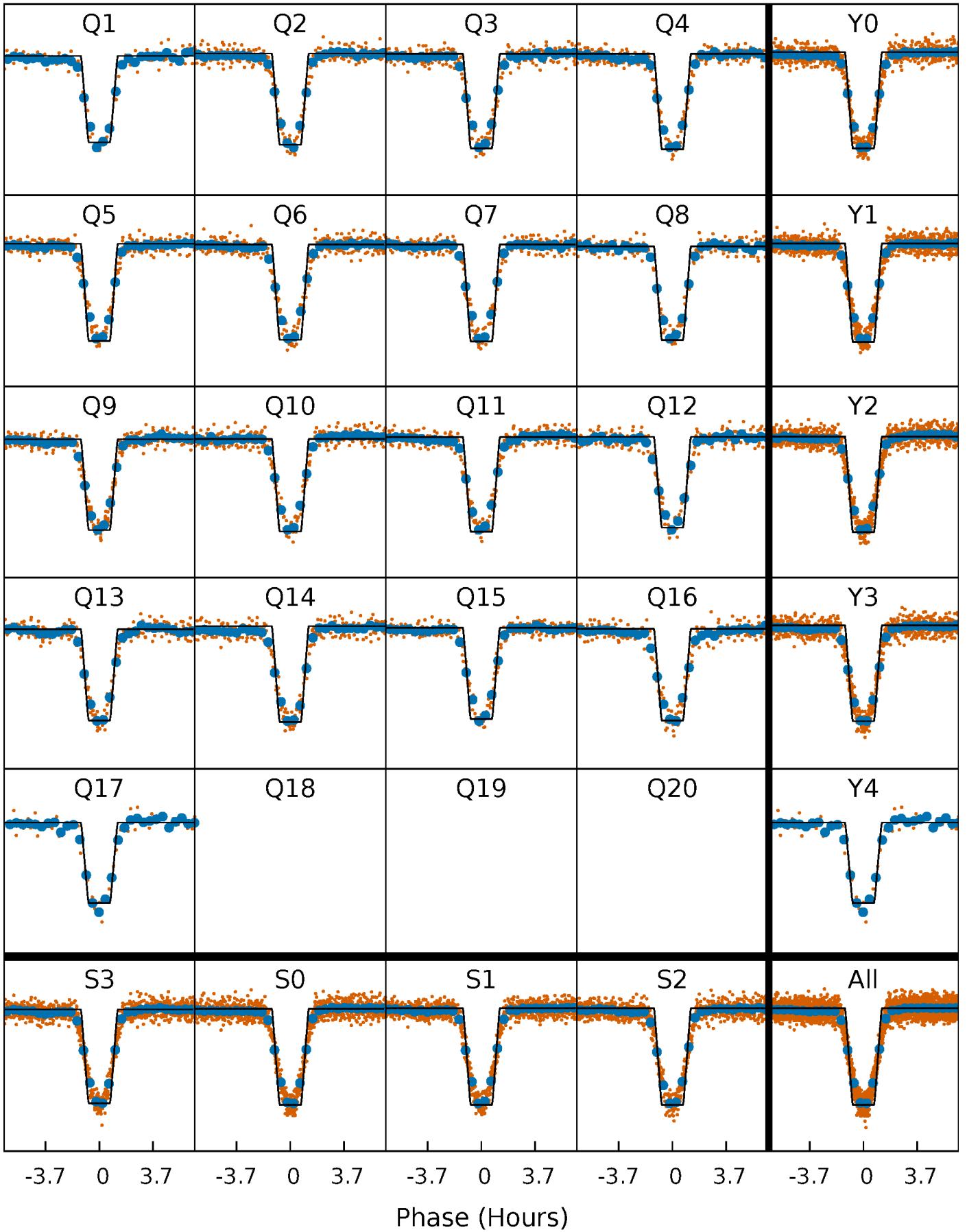
TCE 007914906-01   P= 8.752917 Days    $T_0=138.724709$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

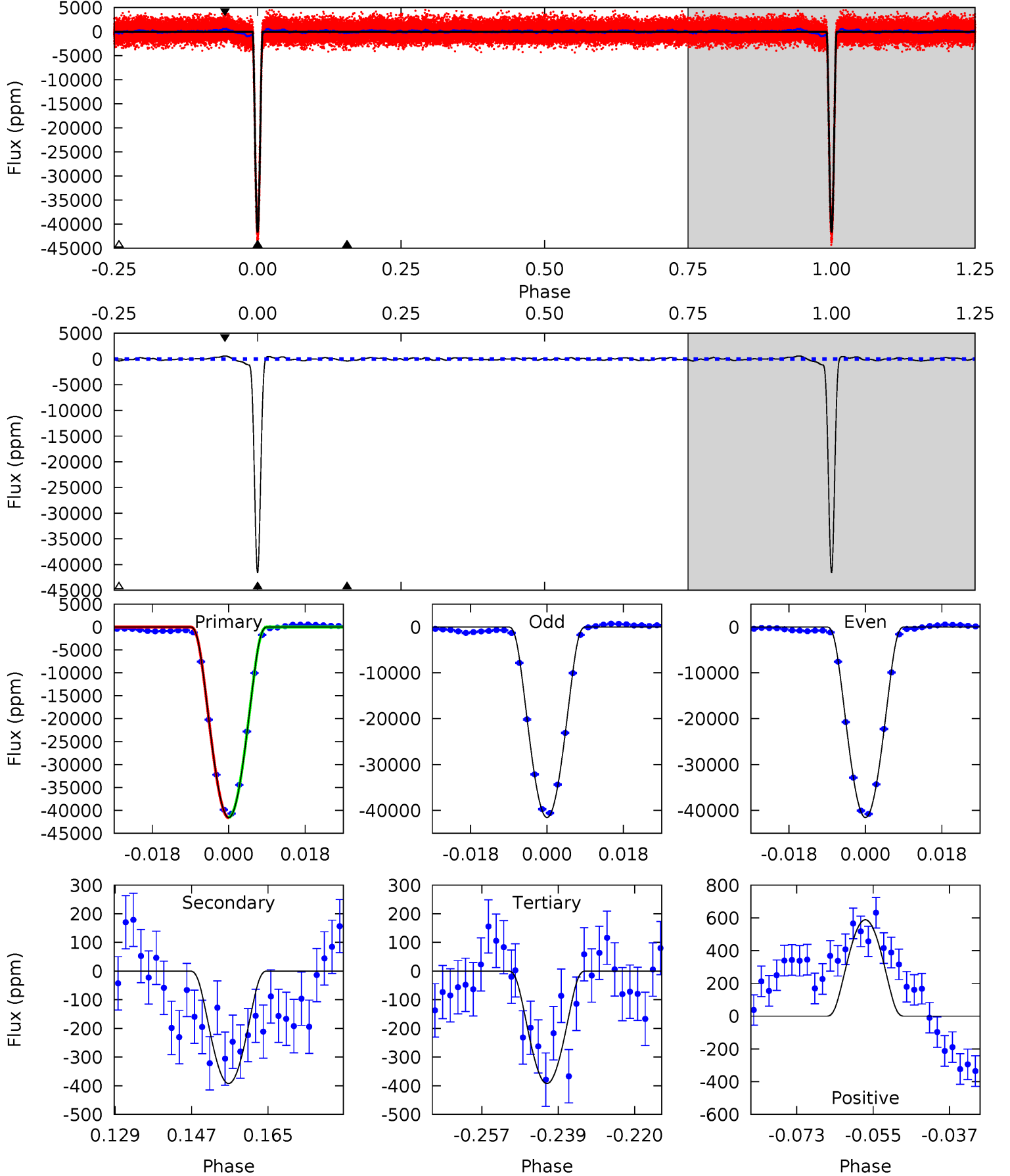
TCE 007914906-01 P= 8.752921 Days  $T_0=138.724277$  (BKJD)



# DV Model-Shift Uniqueness Test

007914906-01, P = 8.752917 Days, E = 129.971792 Days

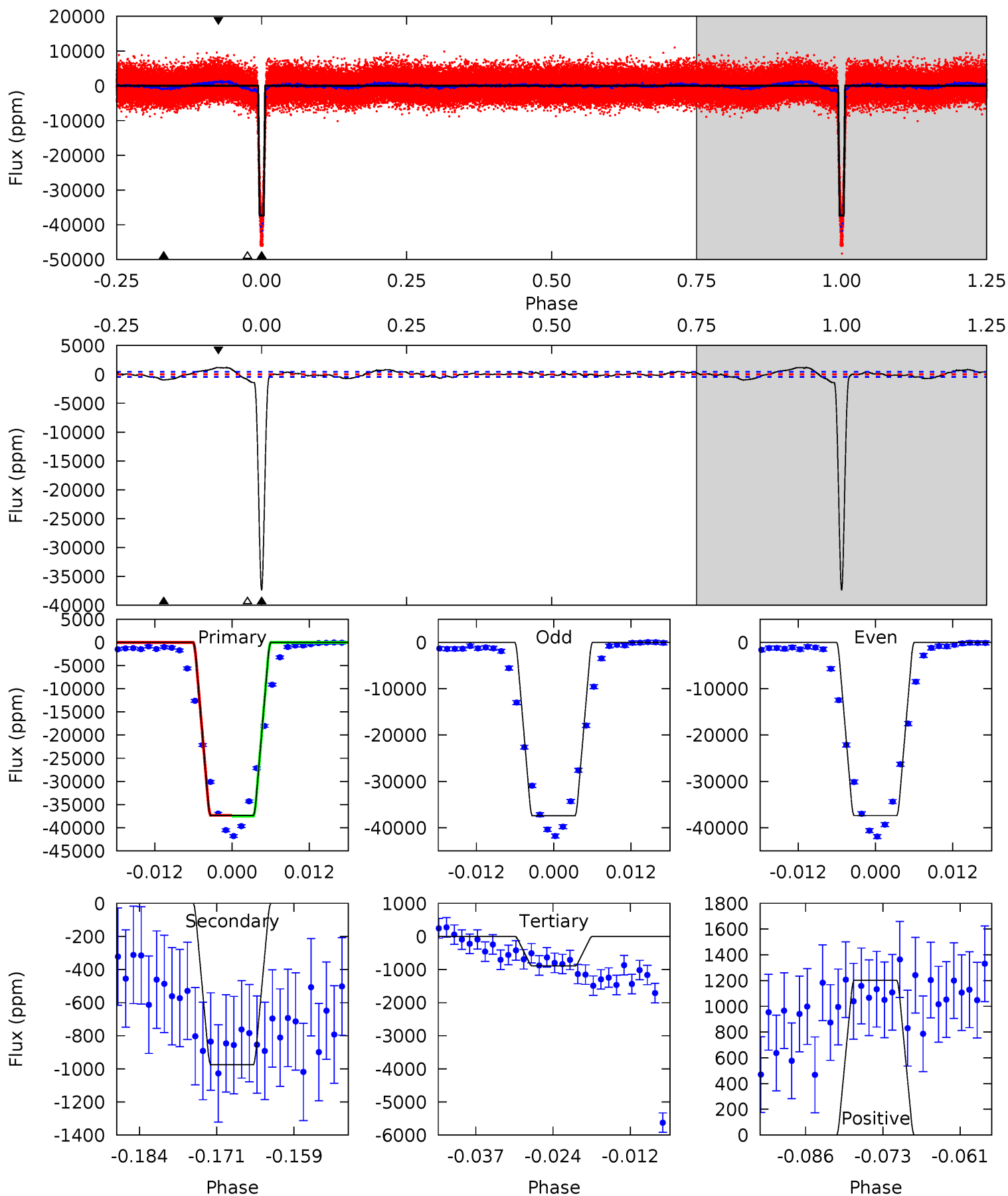
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1334	12.6	12.6	18.9	4.91	2.36	6.37	1322	1315	0.00	-6.29	0.16	0.99	0.01	1.95



# Alt Model-Shift Uniqueness Test

007914906-01, P = 8.752921 Days, E = 129.971356 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
411.1	10.7	9.84	13.2	4.99	2.51	4.49	401.3	397.9	0.90	-2.49	0.27	1.00	0.03	0.81



### Stellar Parameters For KIC 007914906

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7279^{+226}_{-327}$	$3.856^{+0.315}_{-0.135}$	$-0.040^{+0.200}_{-0.350}$	$2.624^{+0.531}_{-1.061}$	$1.800^{+0.177}_{-0.412}$	$0.140^{+0.347}_{-0.047}$
	+3%/-4%	+8%/-4%	+500%/-875%	+20%/-40%	+10%/-23%	+247%/-34%
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 007914906-01 / KOI 6047.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-392 \pm 31$	$88.98^{+12.98}_{-17.90}$	$2249^{+153}_{-226}$	$-1961^{+4223}_{-371}$	$0.279^{+0.140}_{-0.067}$
Alt.	$-975 \pm 91$	$56.92^{+10.01}_{-12.36}$	$2251^{+168}_{-223}$	$3251^{+134}_{-144}$	$1.682^{+0.966}_{-0.477}$

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

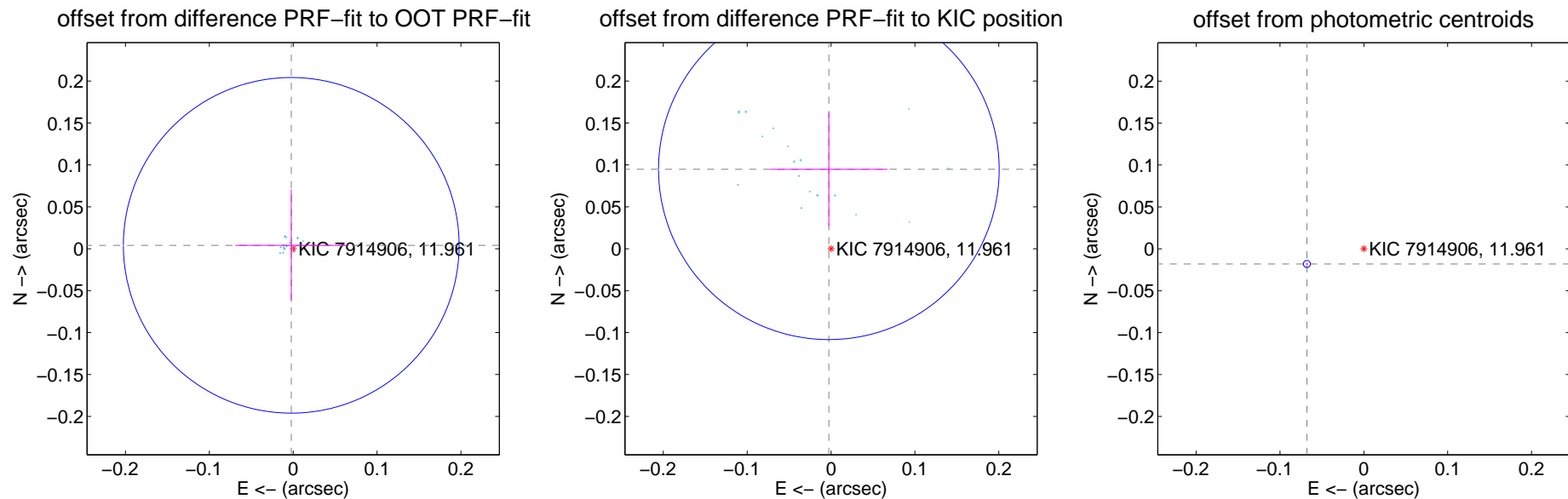
## DV Centroid Data

Supplemental centroid analysis for 007914906-01. **Kepler magnitude: 11.96.** Transit SNR 532.46

There are 17 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

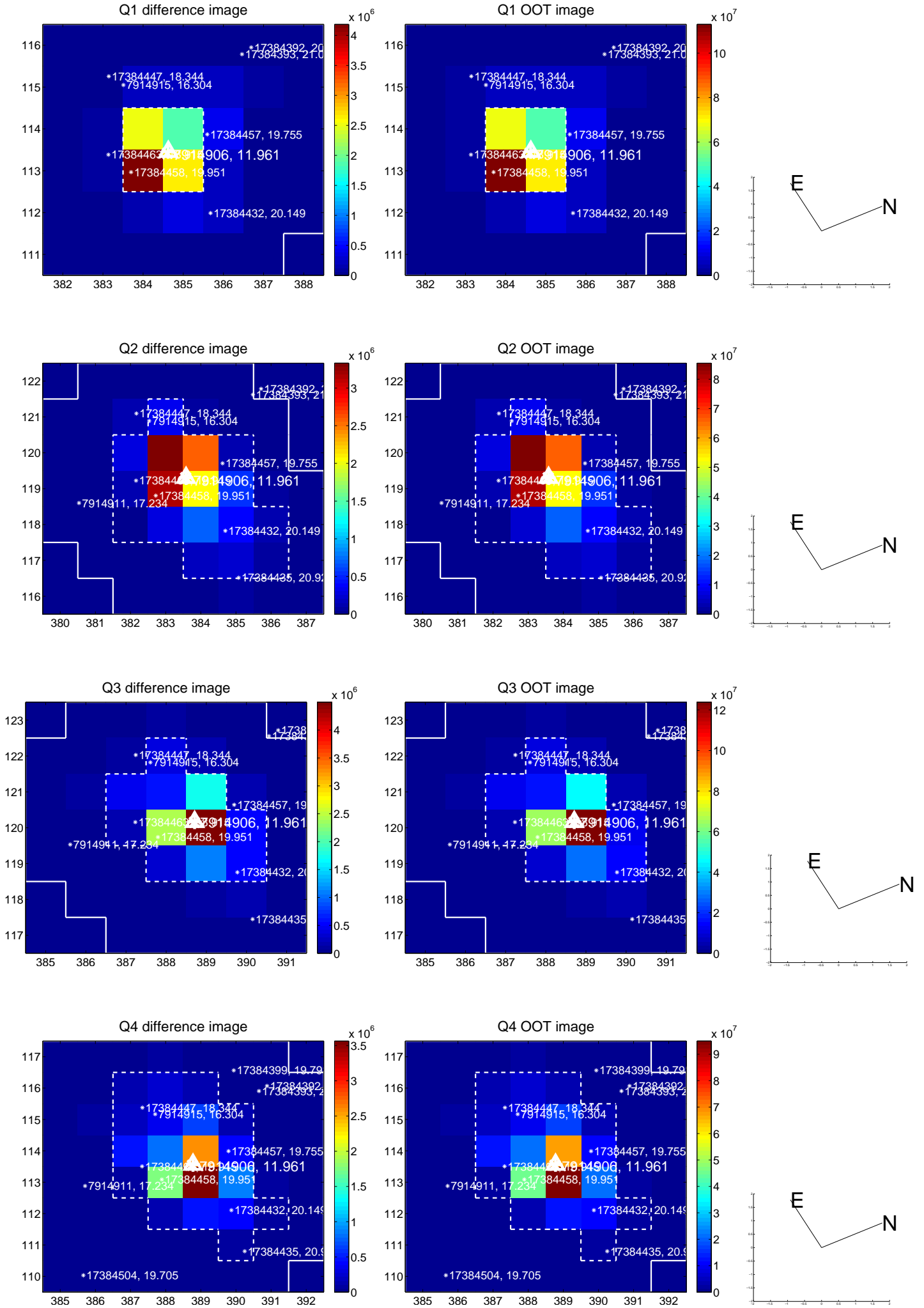
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.005 \pm 0.067$	0.07	$0.002 \pm 0.067$	$0.004 \pm 0.067$
PRF-fit source offset from KIC position	$0.095 \pm 0.068$	1.40	$0.003 \pm 0.070$	$0.095 \pm 0.068$
photometric centroid source offset	$0.07 \pm 0.00$	<b>50.39</b>	$0.07 \pm 0.00$	$-0.02 \pm 0.00$



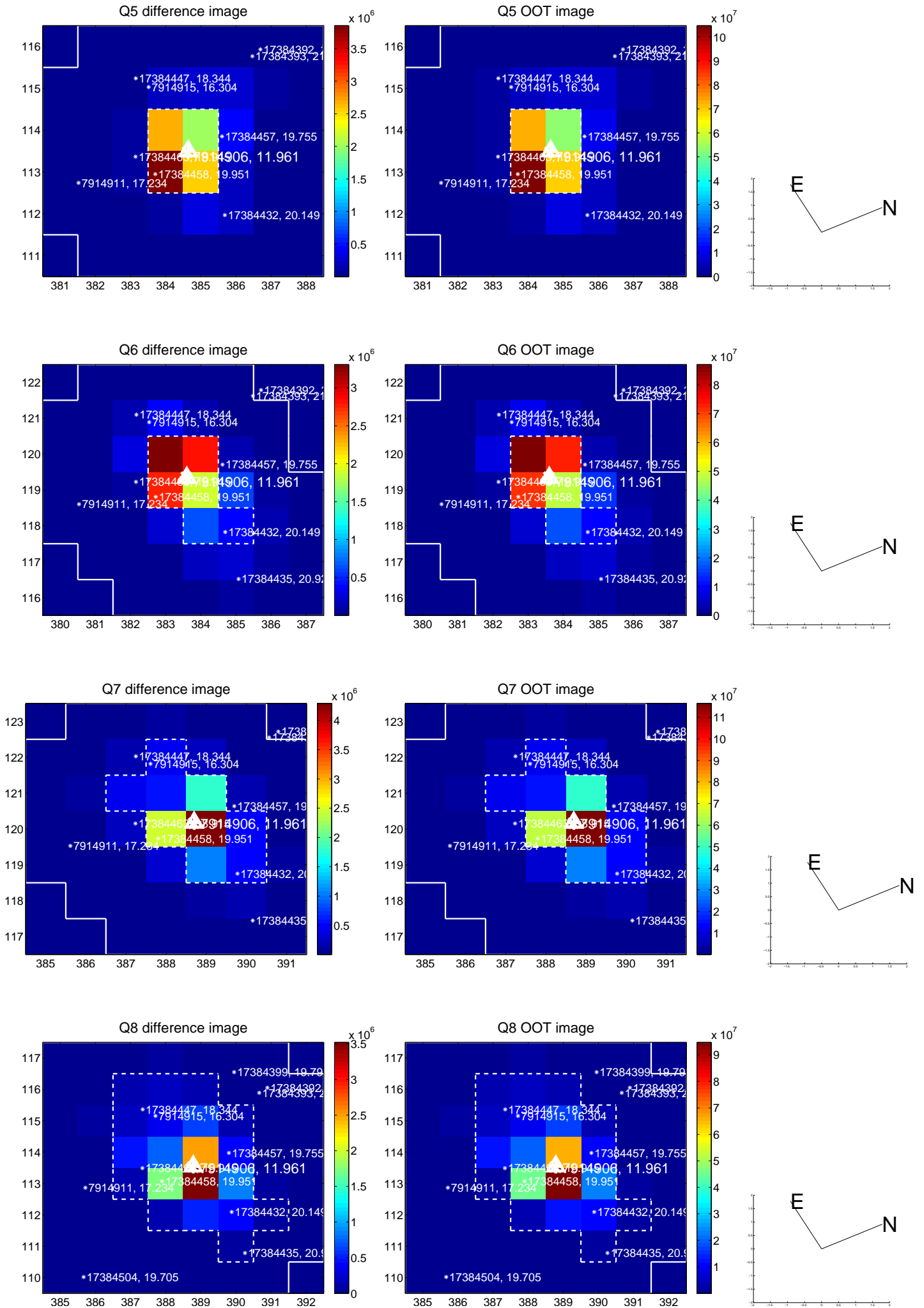
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



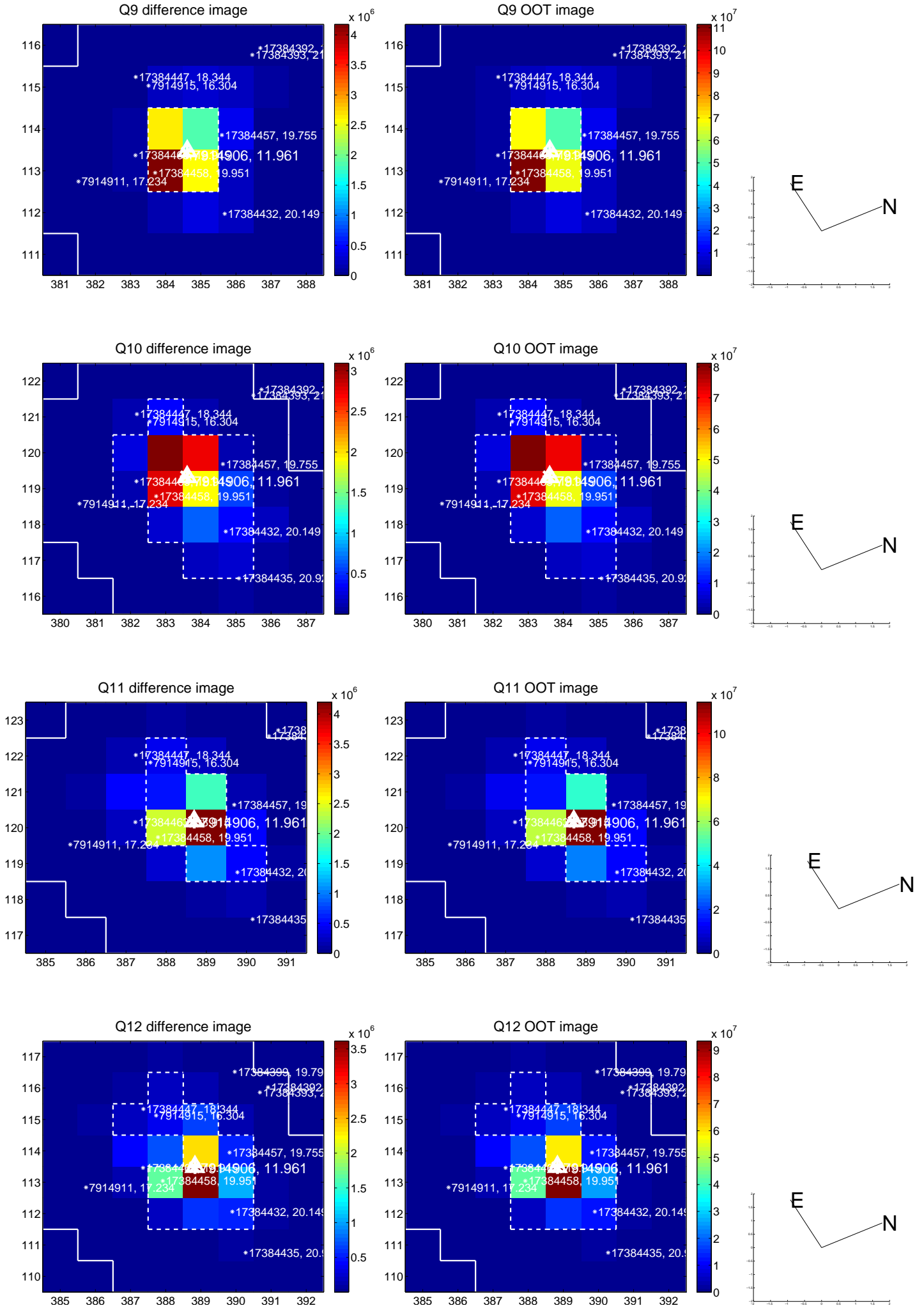
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



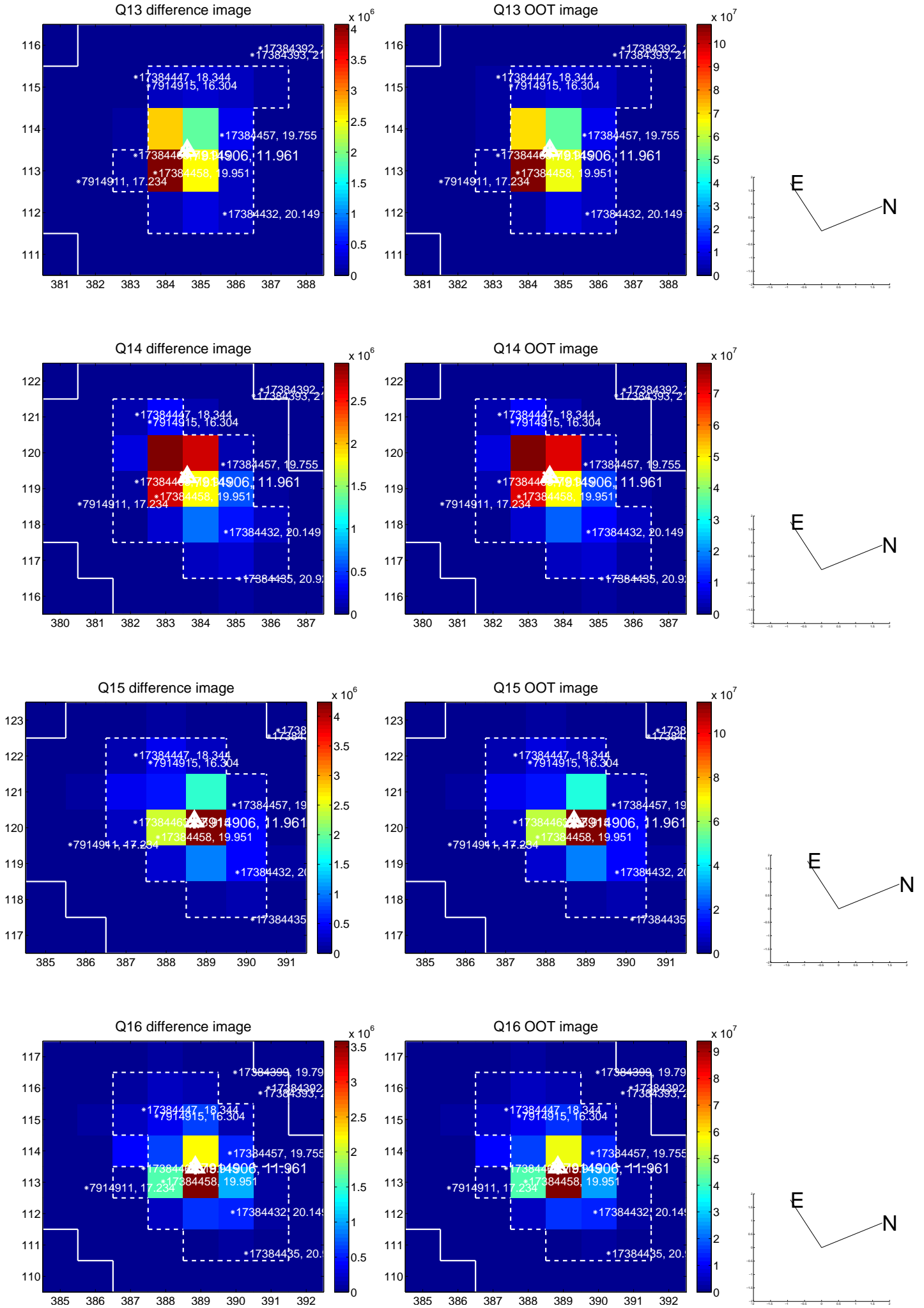
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



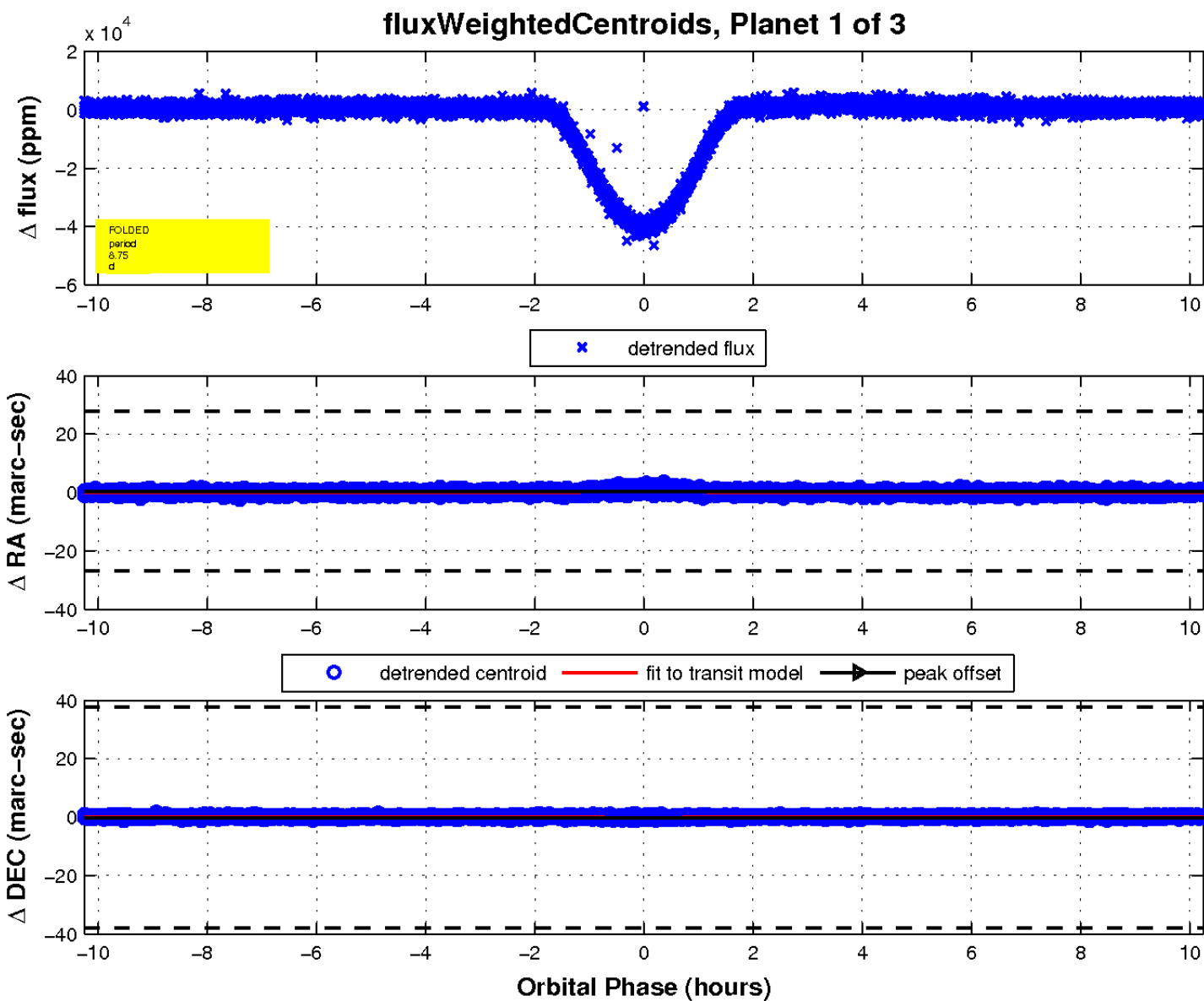
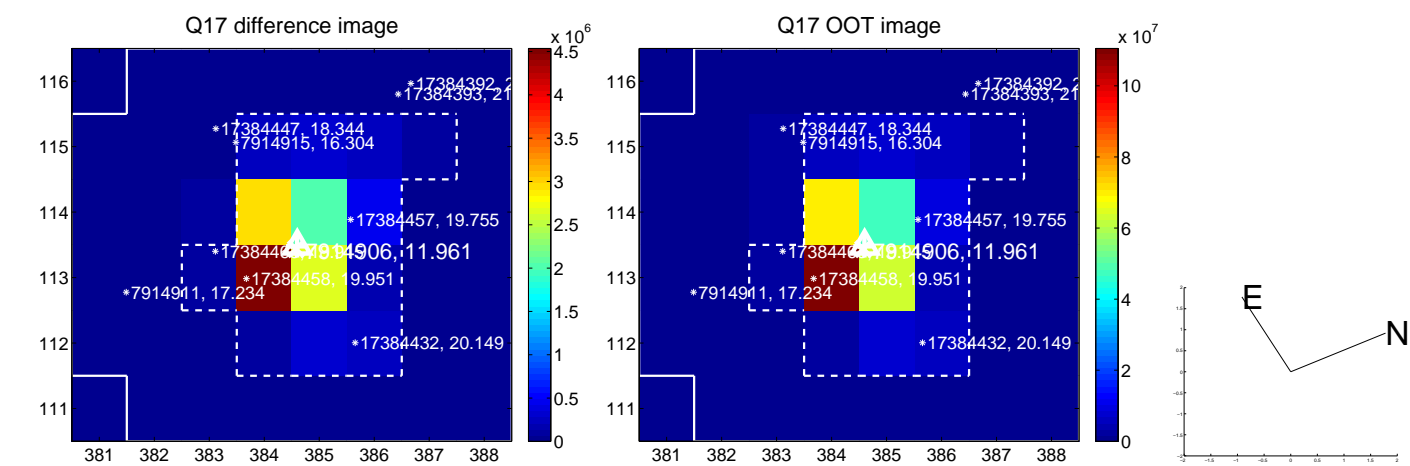
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



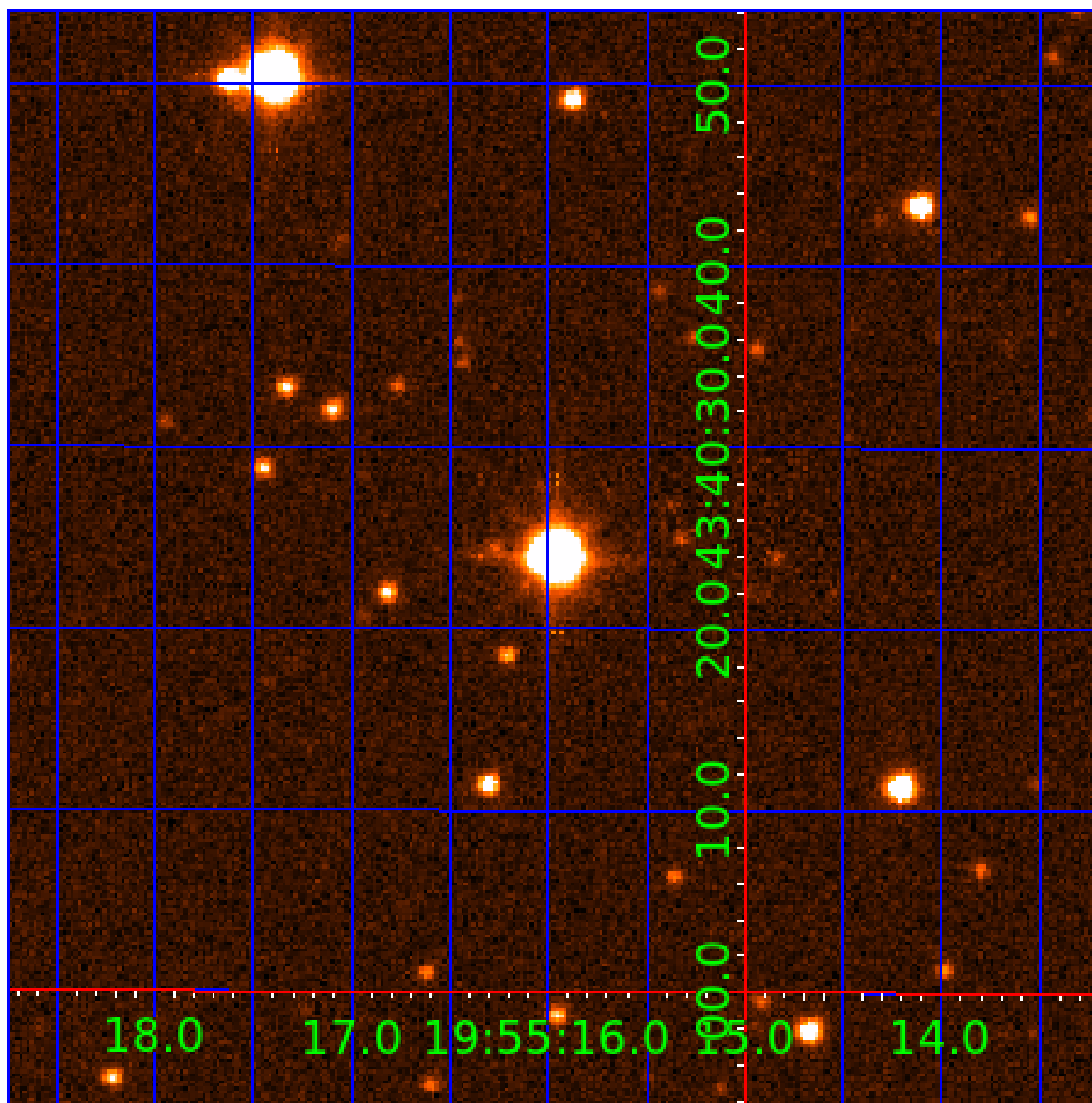
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

Declination



# KIC 007914906

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007914906-01	OBS	6047.01	8.752917	138.724709	41466.3	3.419	505.2	532.5	2.62	7279	91.09	1691.56
007914906-02	OBS	No	8.752646	138.690539	1597.4	18.407	9.2	11.8	2.62	7279	12.94	1691.63
007914906-03	OBS	No	1.746309	132.180391	283.0	8.989	10.8	11.9	2.62	7279	5.78	14509.83

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007914906-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED
007914906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—RESIDUAL_TCE
007914906-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

**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 007914906-02

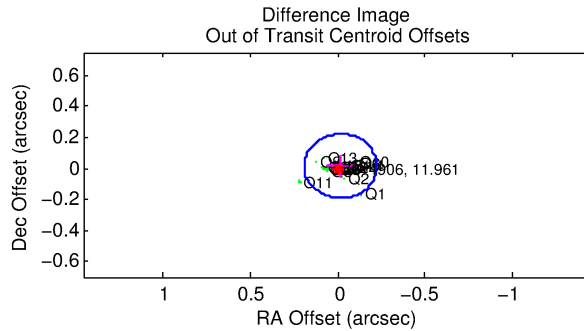
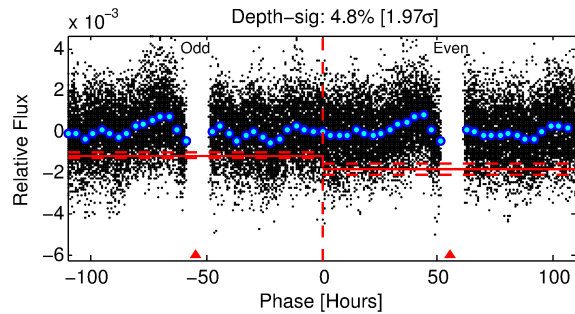
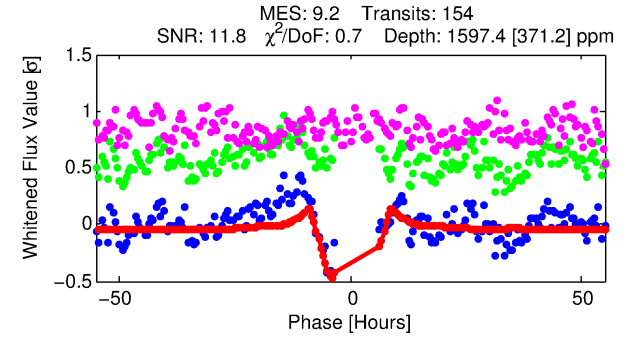
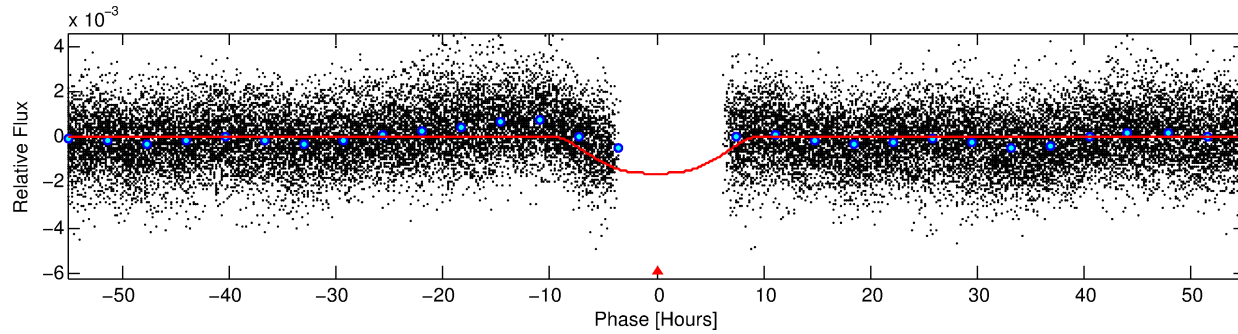
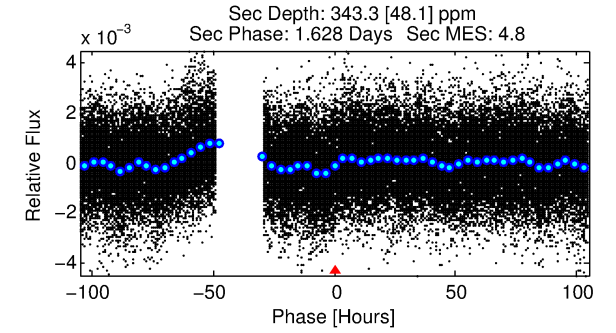
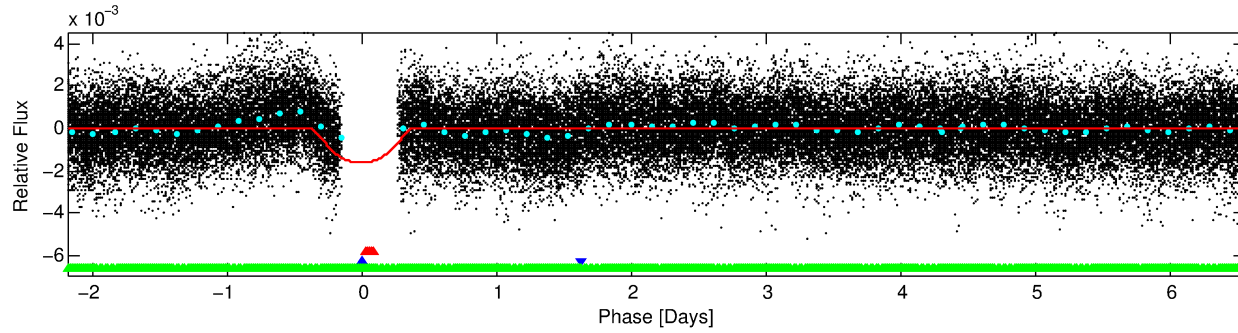
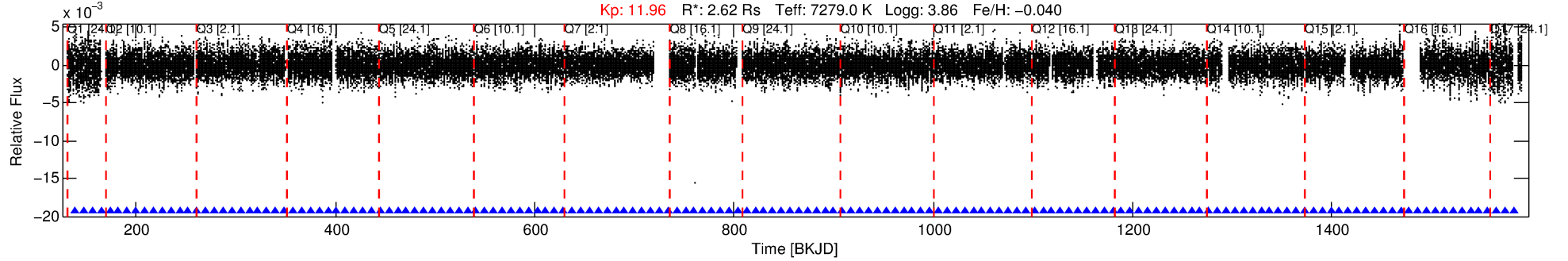
No Significant Match Found

# DV One-Page Summary

KIC: 7914906 Candidate: 2 of 3 Period: 8.753 d

KOI: K06047 Corr: No Ephemeris Match

Kp: 11.96 R\*: 2.62 Rs Teff: 7279.0 K Logg: 3.86 Fe/H: -0.040



## DV Fit Results:

Period = 8.75265 [0.00014] d  
Epoch = 138.6905 [0.0127] BKJD  
Rp/R\* = 0.0452 [0.0066]  
a/R\* = 1.84 [0.09]  
b = 0.95 [0.02]  
Seff = 1691.63 [984.59]  
Teq = 1635 [238] K  
Rp = 12.94 [5.56] Re  
a = 0.1012 [0.0366] AU  
Ag = 11.54 [7.39] [1.43σ]  
Teffp = 4660 [430] K [6.15σ]

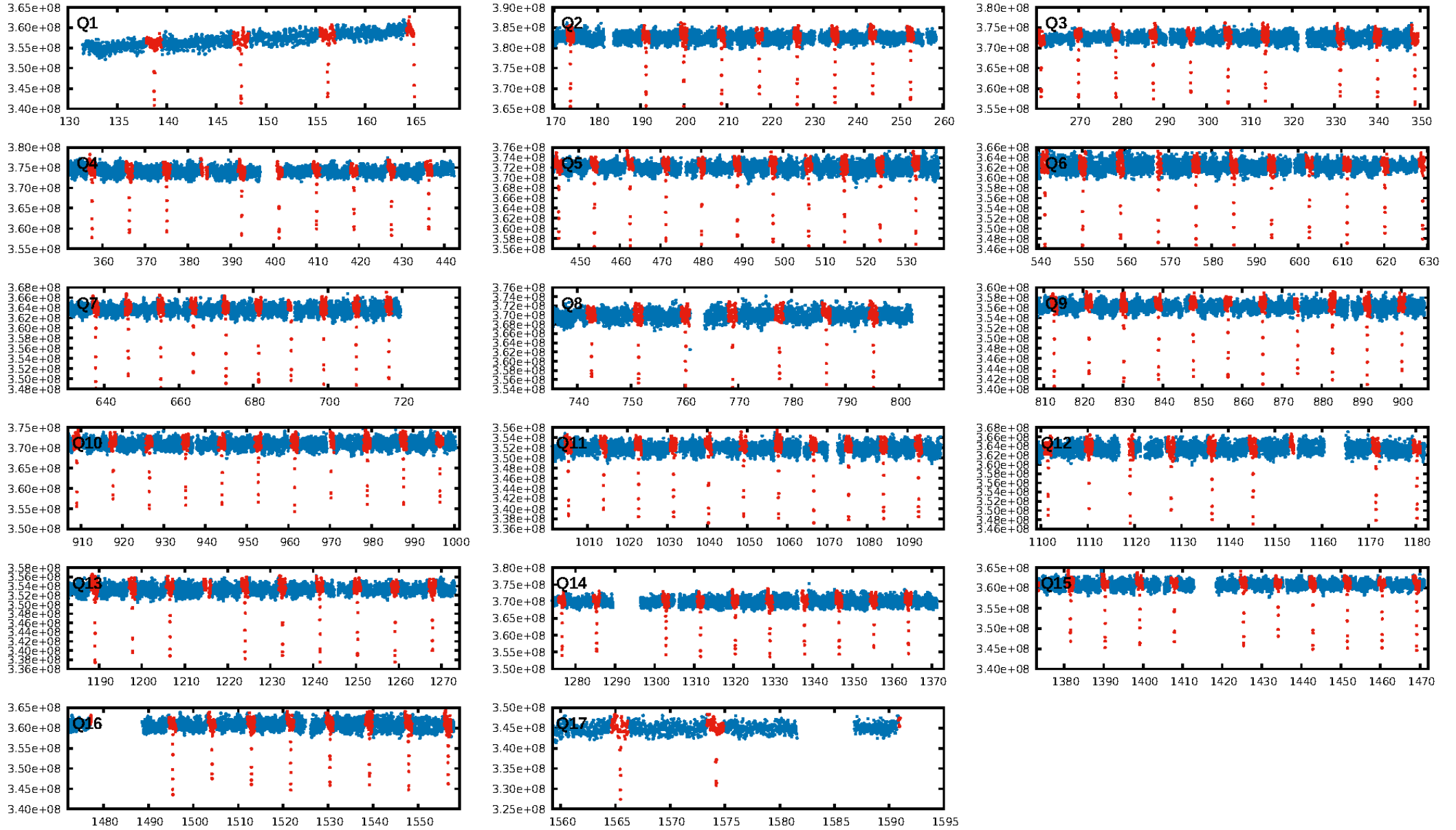
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [8.21σ]  
LongPeriod-sig: 0.0% [0.00σ]  
ModelChiSquare2-sig: 100.0%  
ModelChiSquareGof-sig: 100.0%  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [148/148]  
GhostDiagnostic-chr: 0.8489  
Centroid-sig: 0.7%  
Centroid-so: 0.102 arcsec [5.30σ]  
OotOffset-rm: 0.023 arcsec [0.33σ]  
KicOffset-rm: 0.097 arcsec [1.41σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.00 [0/17]

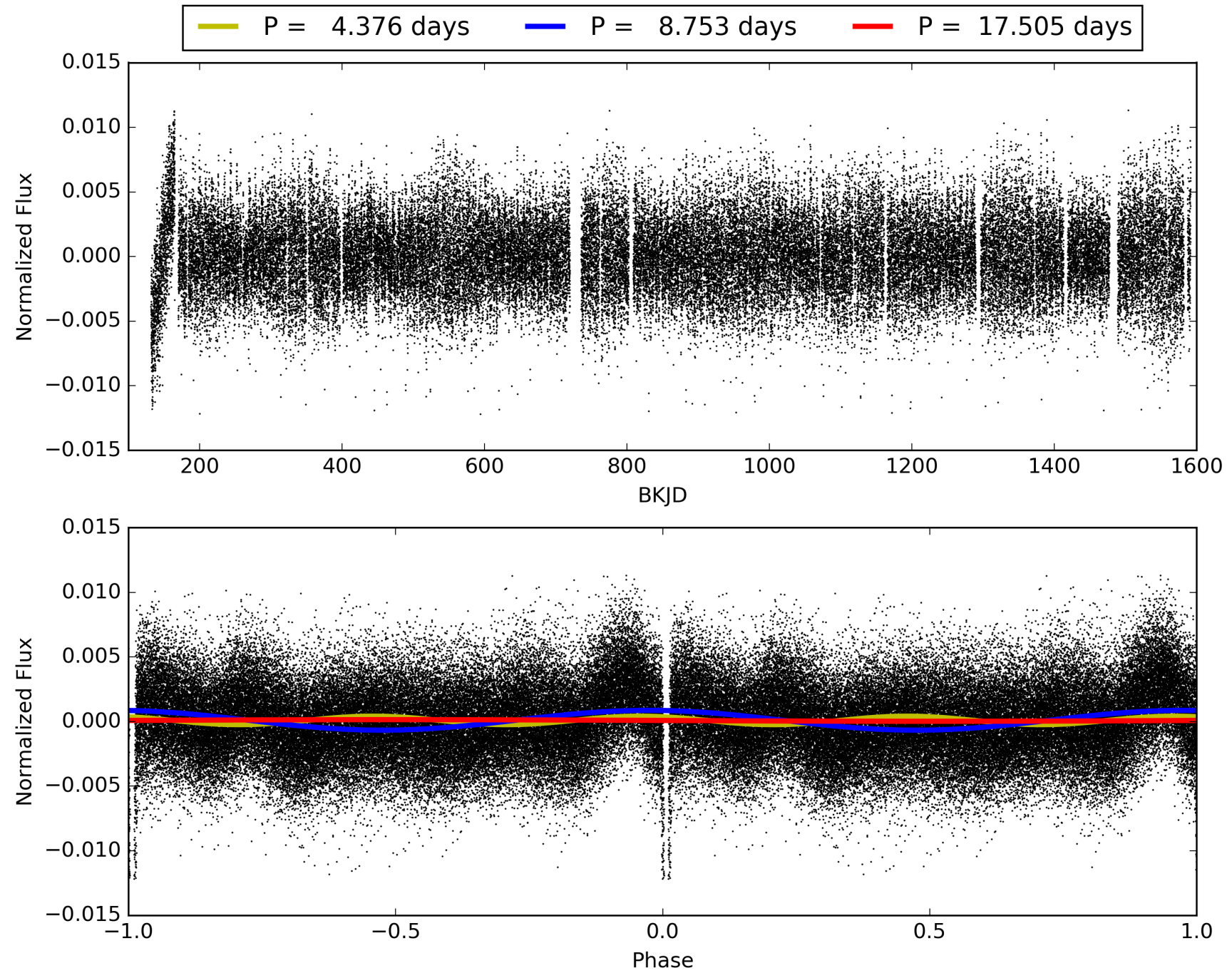
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:17:34 Z

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

# TCE 007914906-02, PDC Light Curves



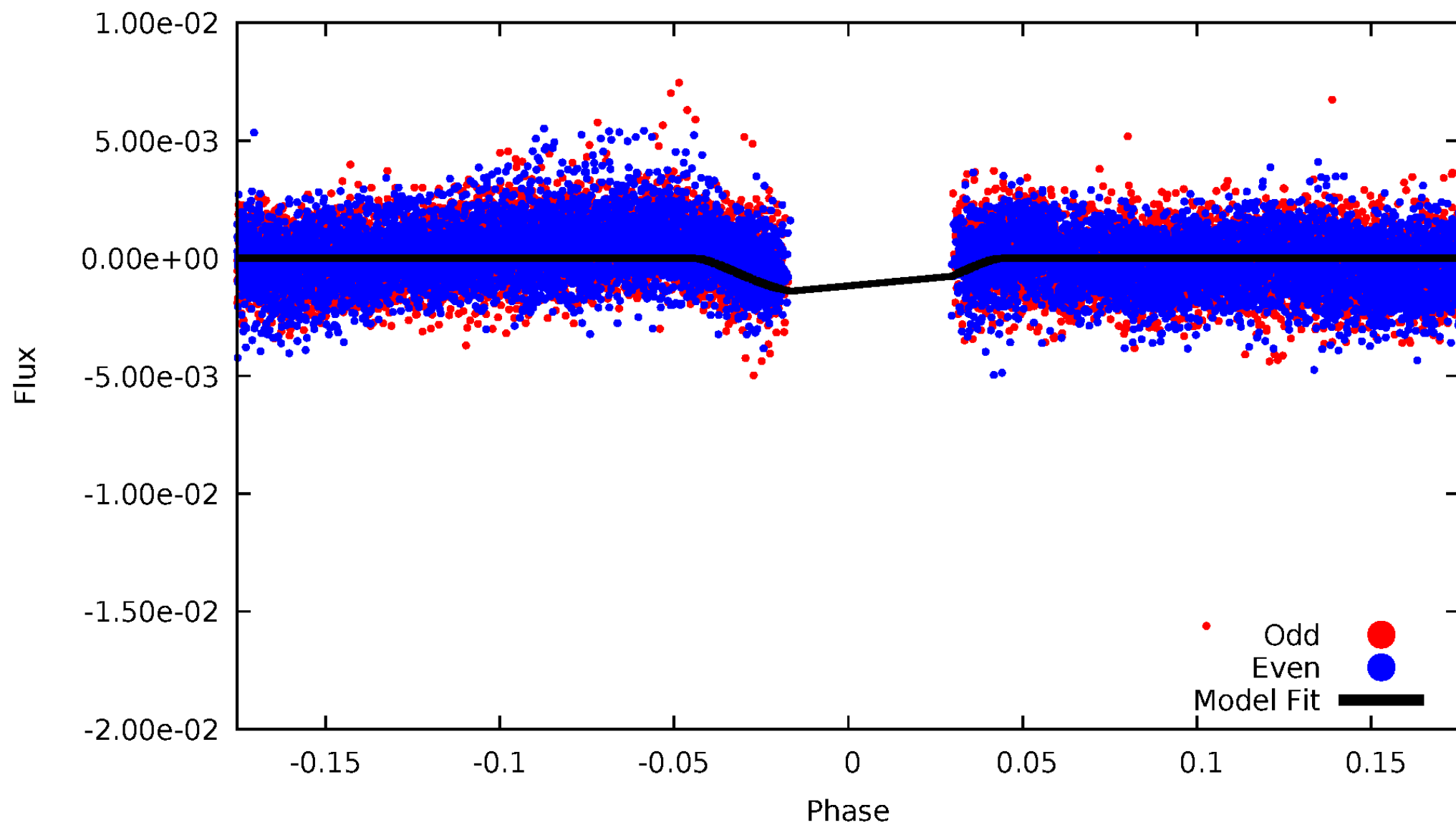
TCE 007914906-02





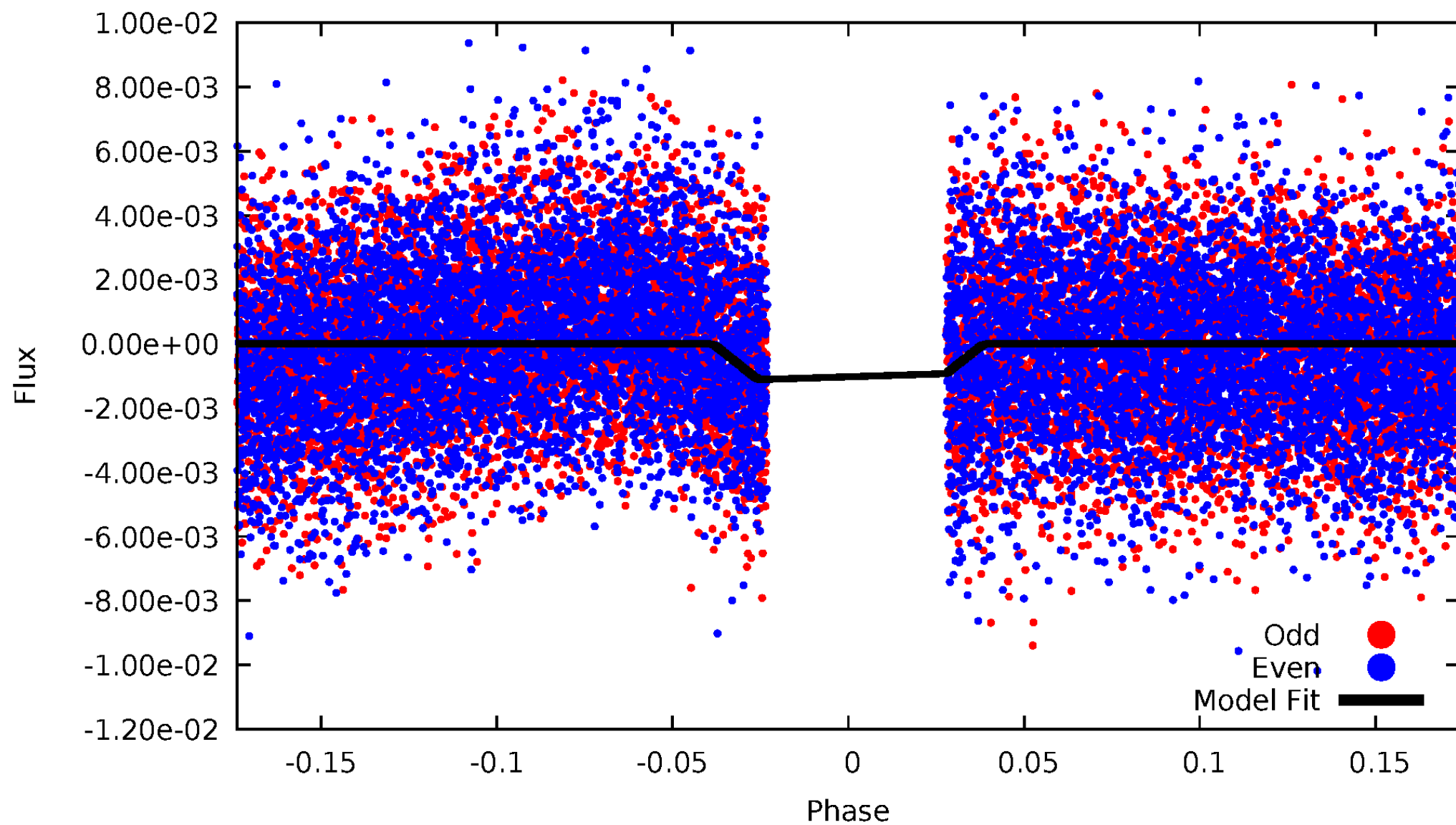
# DV Odd/Even

TCE 007914906-02



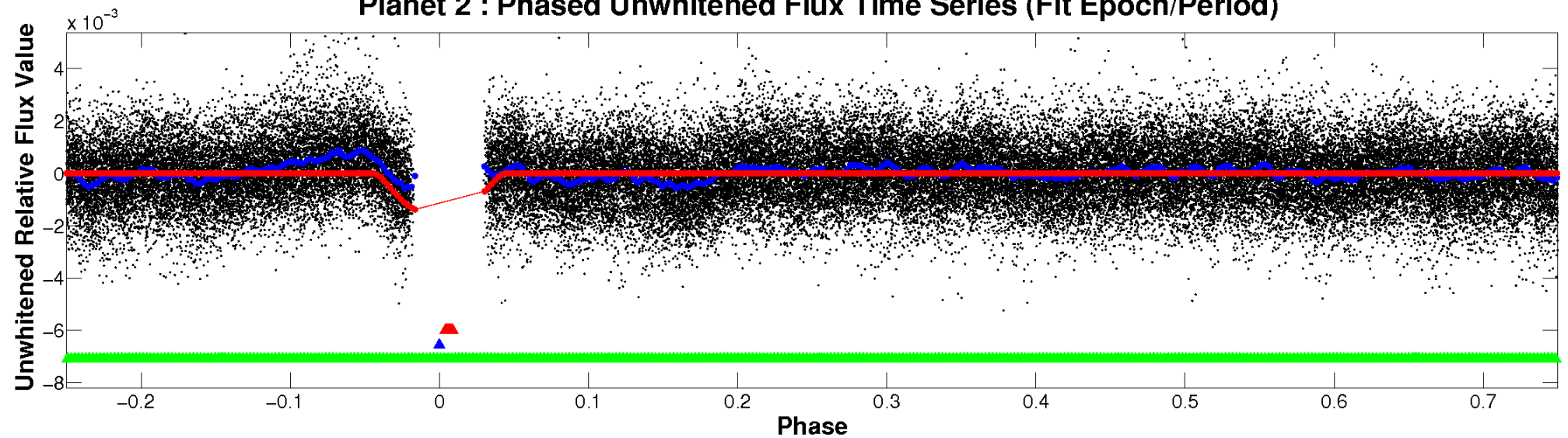
# ALT Odd/Even

TCE 007914906-02

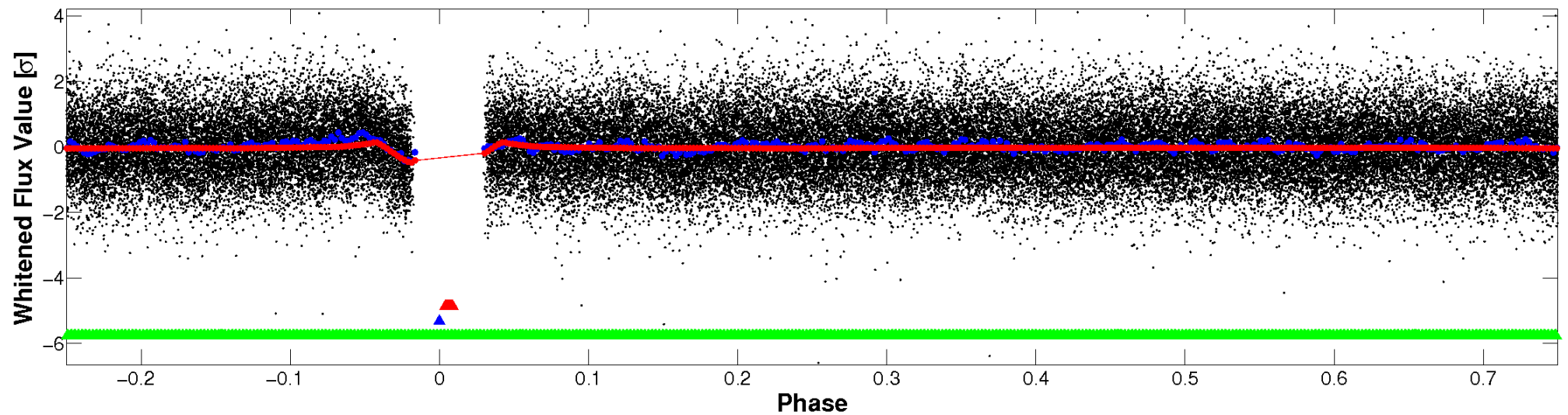


# Non-Whitened Vs. Whitened Light Curve

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

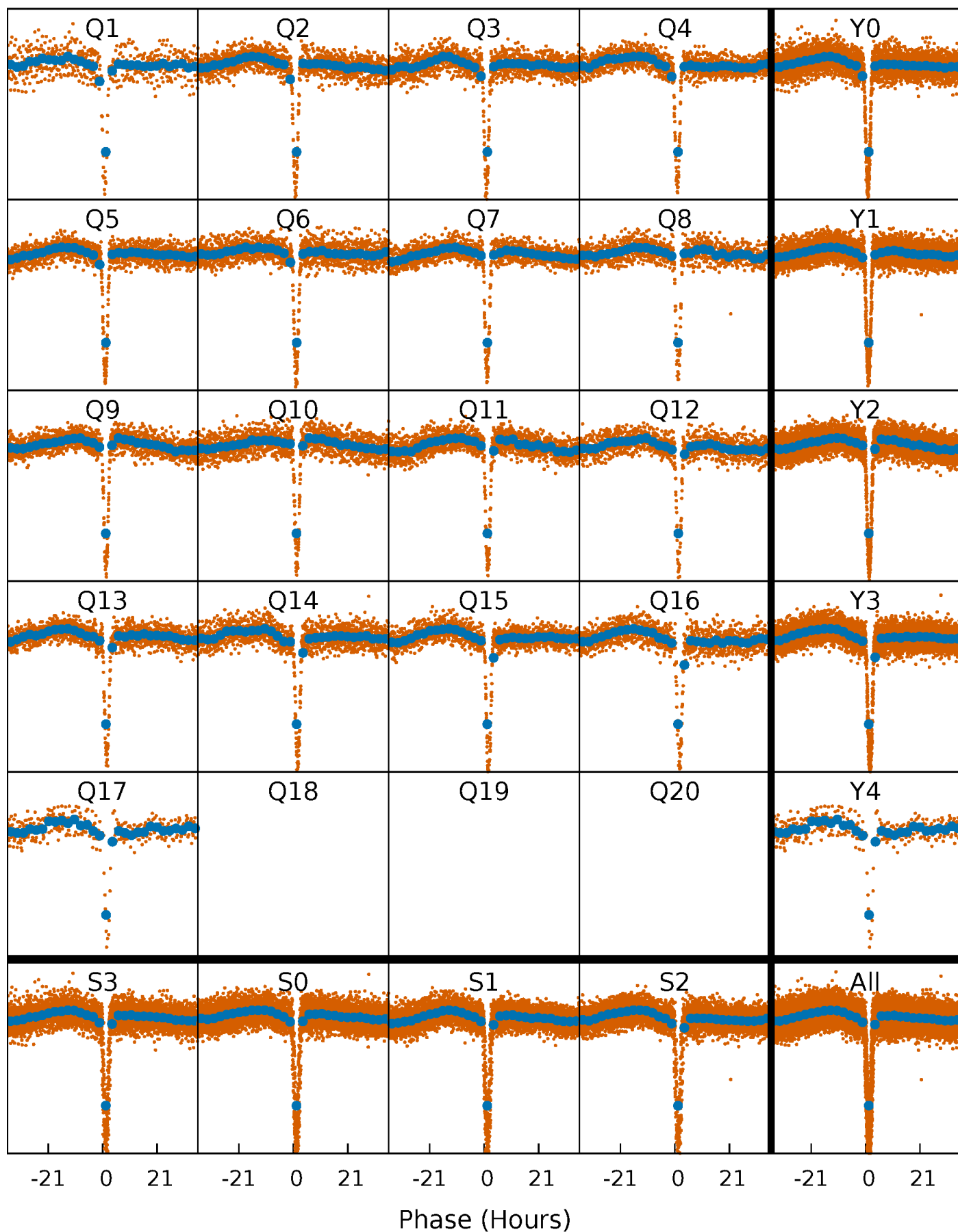


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



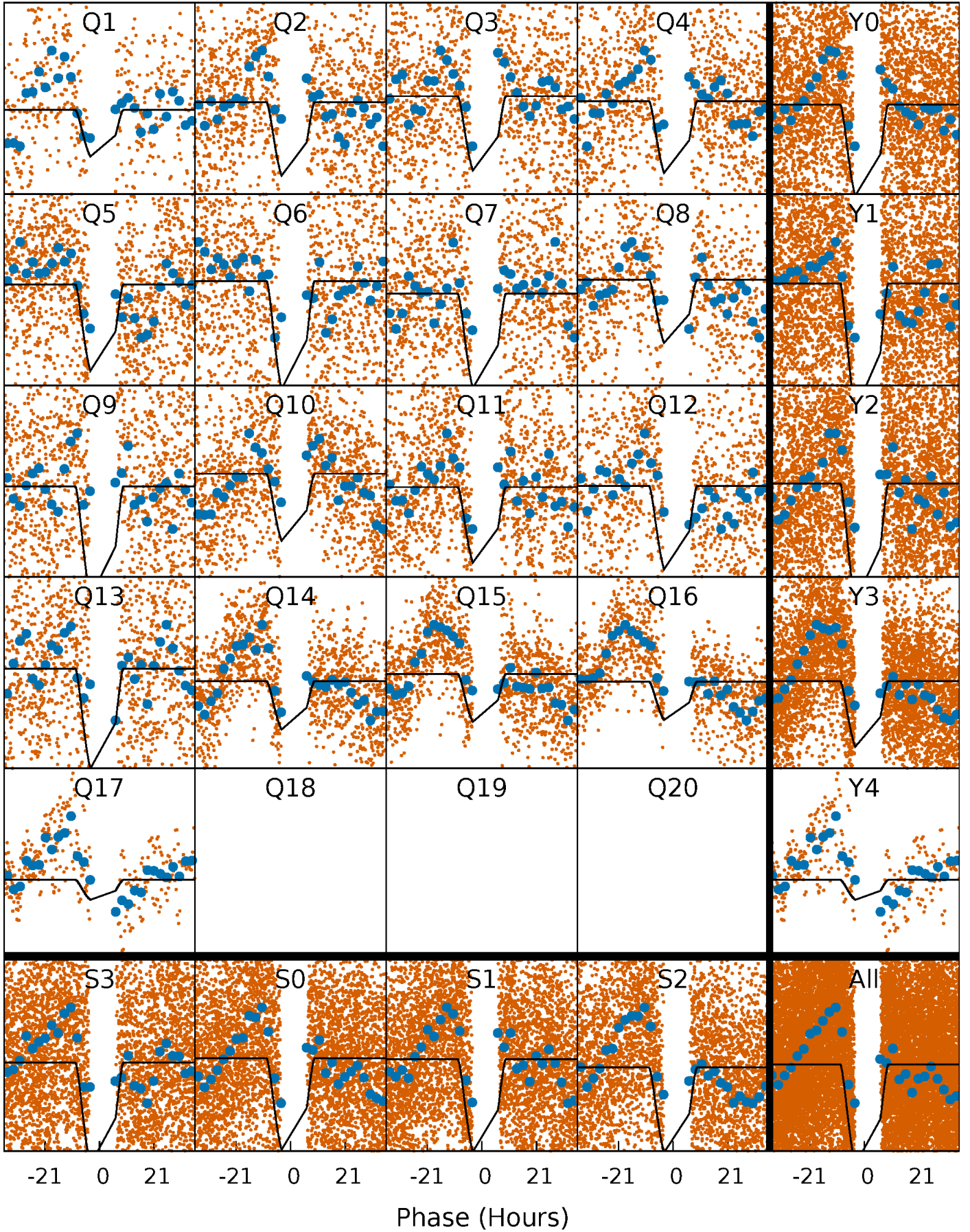
# PDC Quarter-Phased Transit Curves

TCE 007914906-02   P= 8.752646 Days    $T_0=138.690539$  (BKJD)



# DV Quarter-Phased Transit Curves

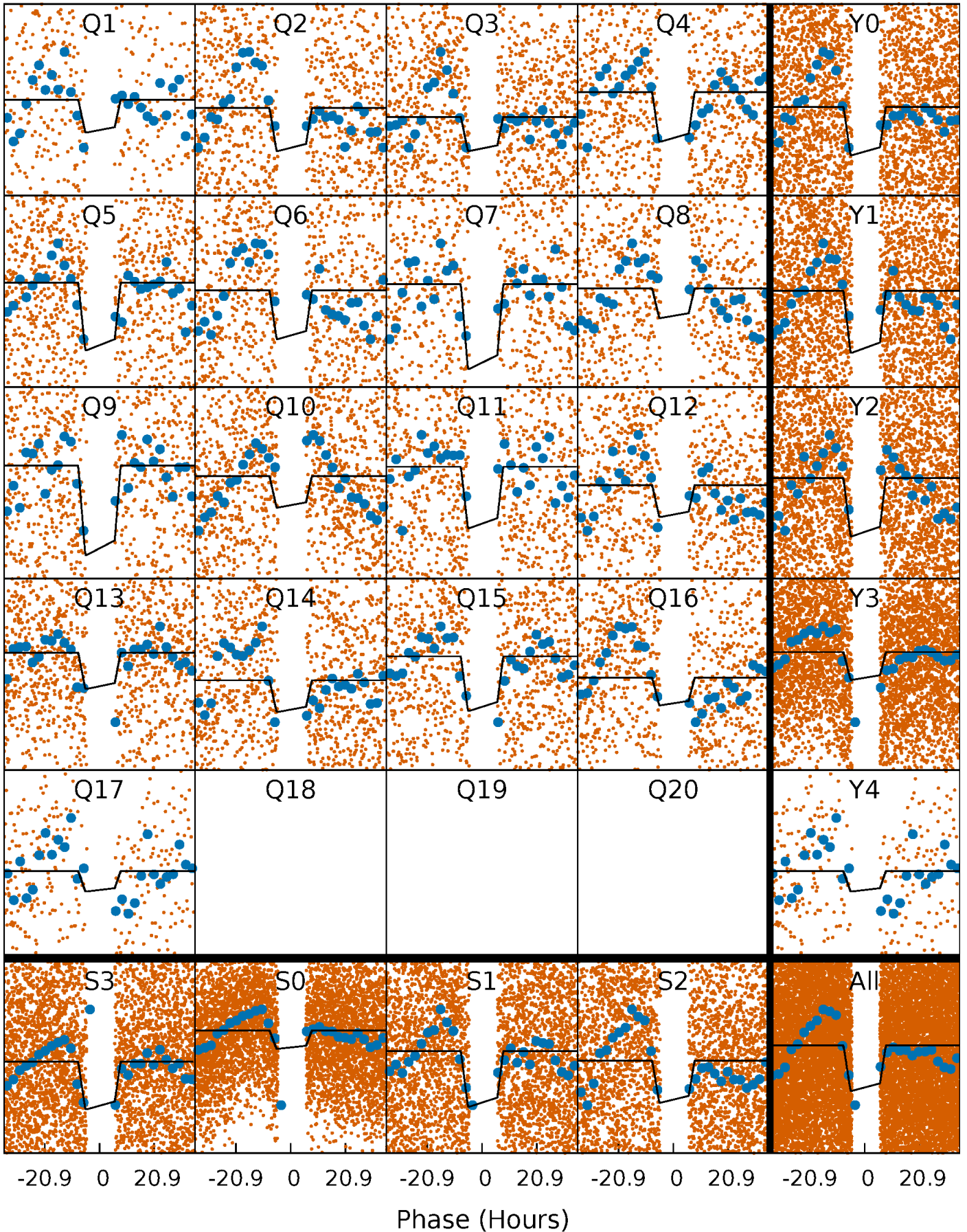
TCE 007914906-02   P= 8.752646 Days    $T_0=138.690539$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

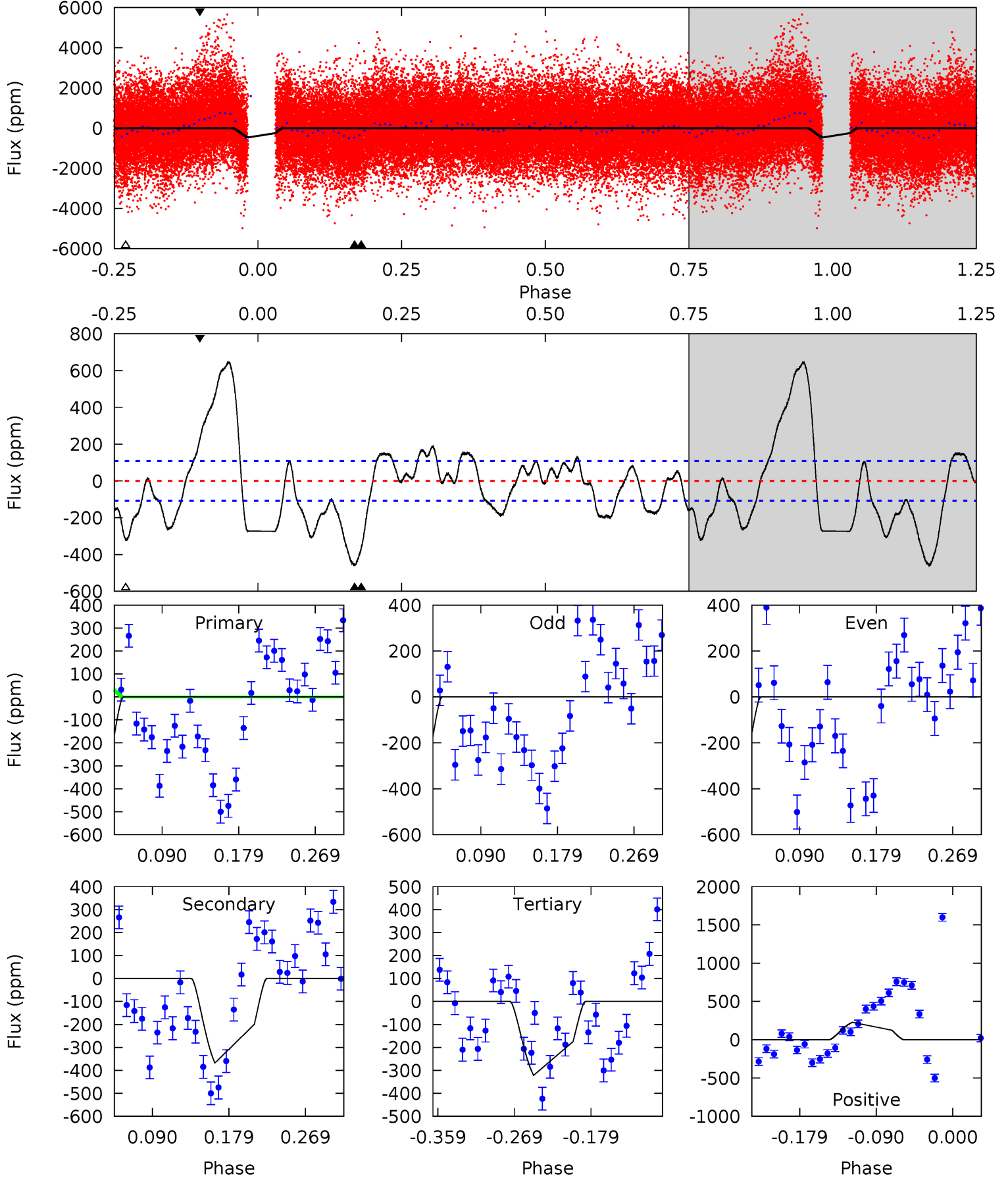
TCE 007914906-02 P= 8.752898 Days  $T_0=138.705134$  (BKJD)



# DV Model-Shift Uniqueness Test

007914906-02, P = 8.752646 Days, E = 129.937893 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
19.5	15.5	13.6	9.63	4.59	1.70	7.97	5.91	9.86	1.95	5.89	0.70	1.22	0.58	9.31

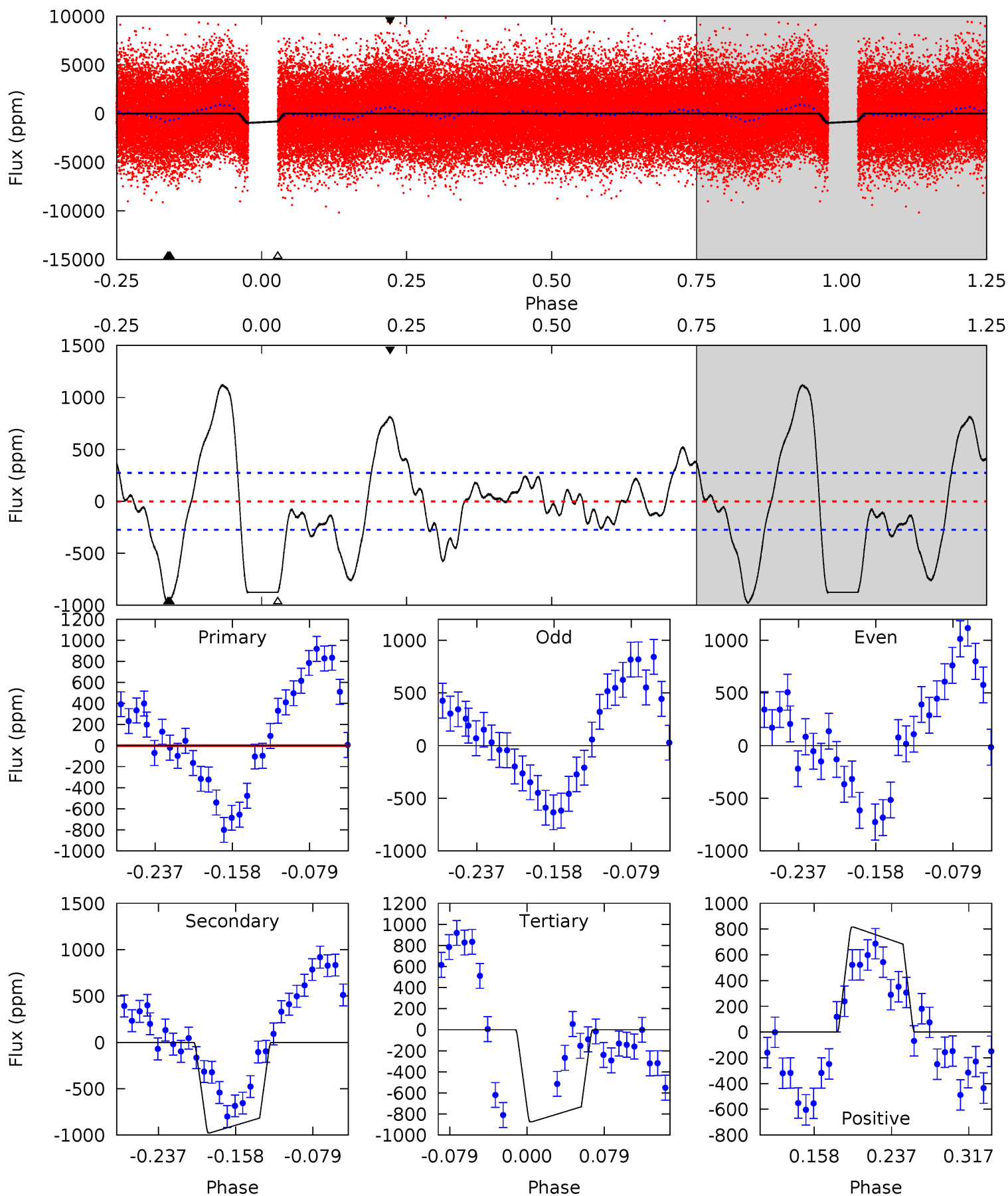




# Alt Model-Shift Uniqueness Test

007914906-02, P = 8.752898 Days, E = 129.952236 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
16.1	16.5	14.7	13.7	4.61	1.76	6.42	1.36	2.36	1.72	2.71	0.78	0.91	0.53	1.99



### Stellar Parameters For KIC 007914906

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7279^{+226}_{-327}$	$3.856^{+0.315}_{-0.135}$	$-0.040^{+0.200}_{-0.350}$	$2.624^{+0.531}_{-1.061}$	$1.800^{+0.177}_{-0.412}$	$0.140^{+0.347}_{-0.047}$
	+3%/-4%	+8%/-4%	+500%/-875%	+20%/-40%	+10%/-23%	+247%/-34%
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 007914906-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-368 \pm 24$	$12.44^{+2.74}_{-3.01}$	$2244^{+176}_{-234}$	$4770^{+367}_{-295}$	$13^{+9}_{-4}$
Alt.	$-977 \pm 59$	$9.08^{+2.53}_{-2.30}$	$2253^{+154}_{-220}$	$6984^{+968}_{-716}$	$65^{+49}_{-24}$

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

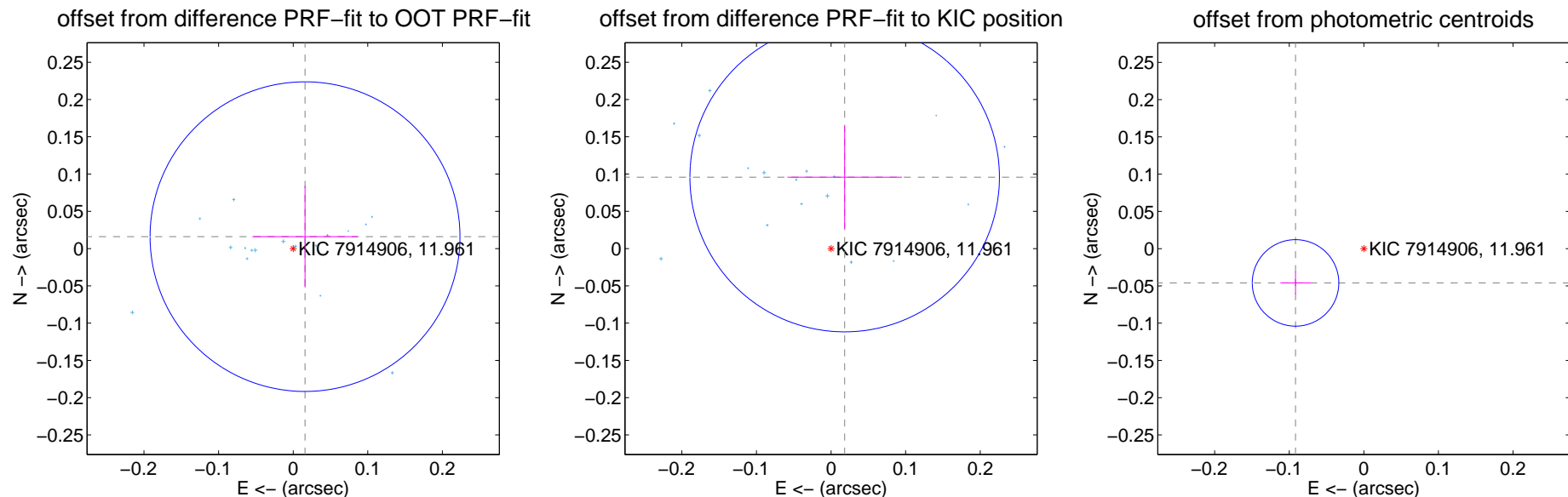
## DV Centroid Data

Supplemental centroid analysis for 007914906-02. **Kepler magnitude: 11.96.** Transit SNR 11.83

There are 17 quarters with good PRF difference image offsets

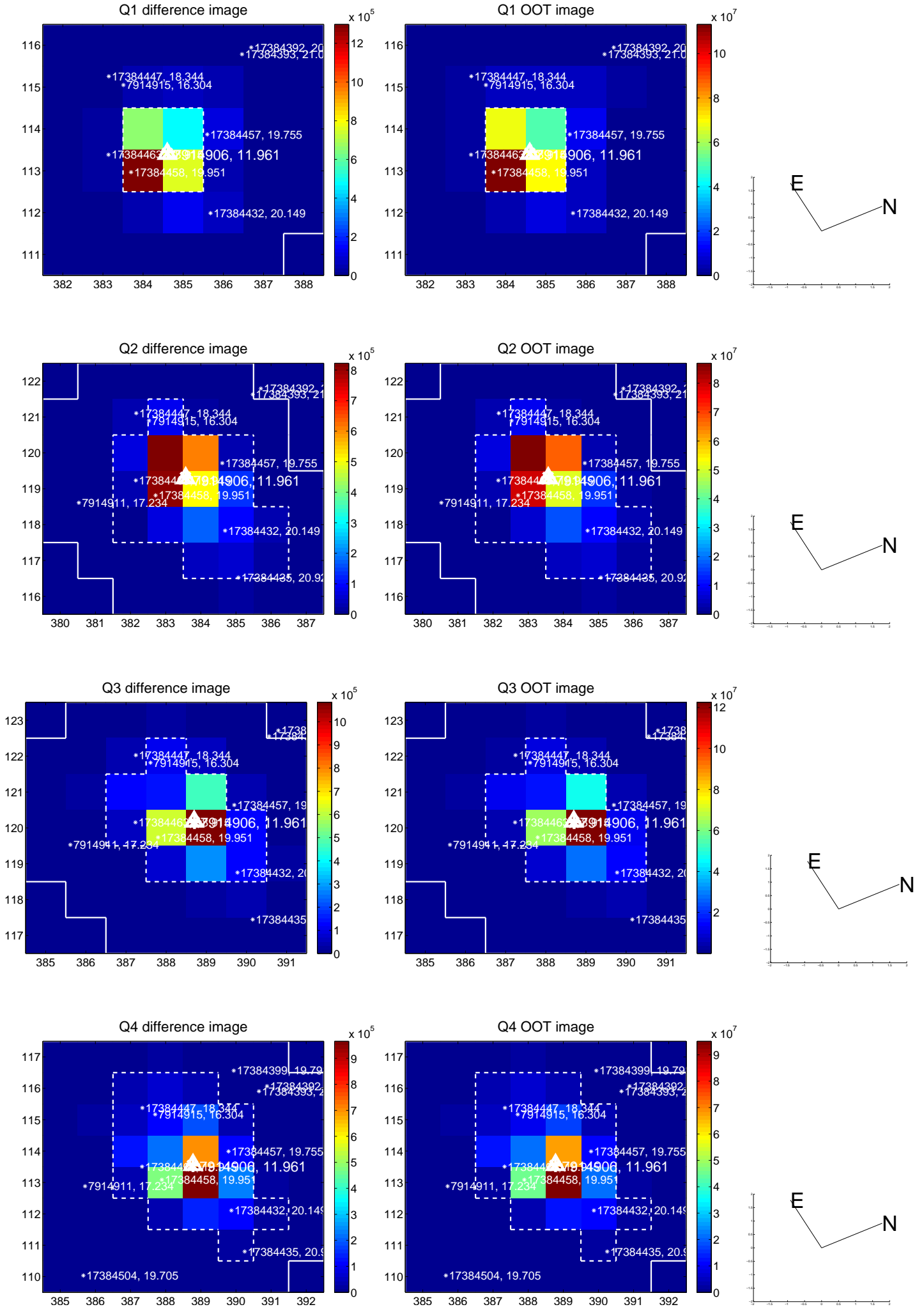
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.023 \pm 0.069$	0.33	$-0.016 \pm 0.071$	$0.016 \pm 0.068$
PRF-fit source offset from KIC position	$0.097 \pm 0.069$	1.41	$-0.018 \pm 0.077$	$0.096 \pm 0.069$
photometric centroid source offset	<b><math>0.10 \pm 0.02</math></b>	<b>5.30</b>	$0.09 \pm 0.02$	$-0.05 \pm 0.02$

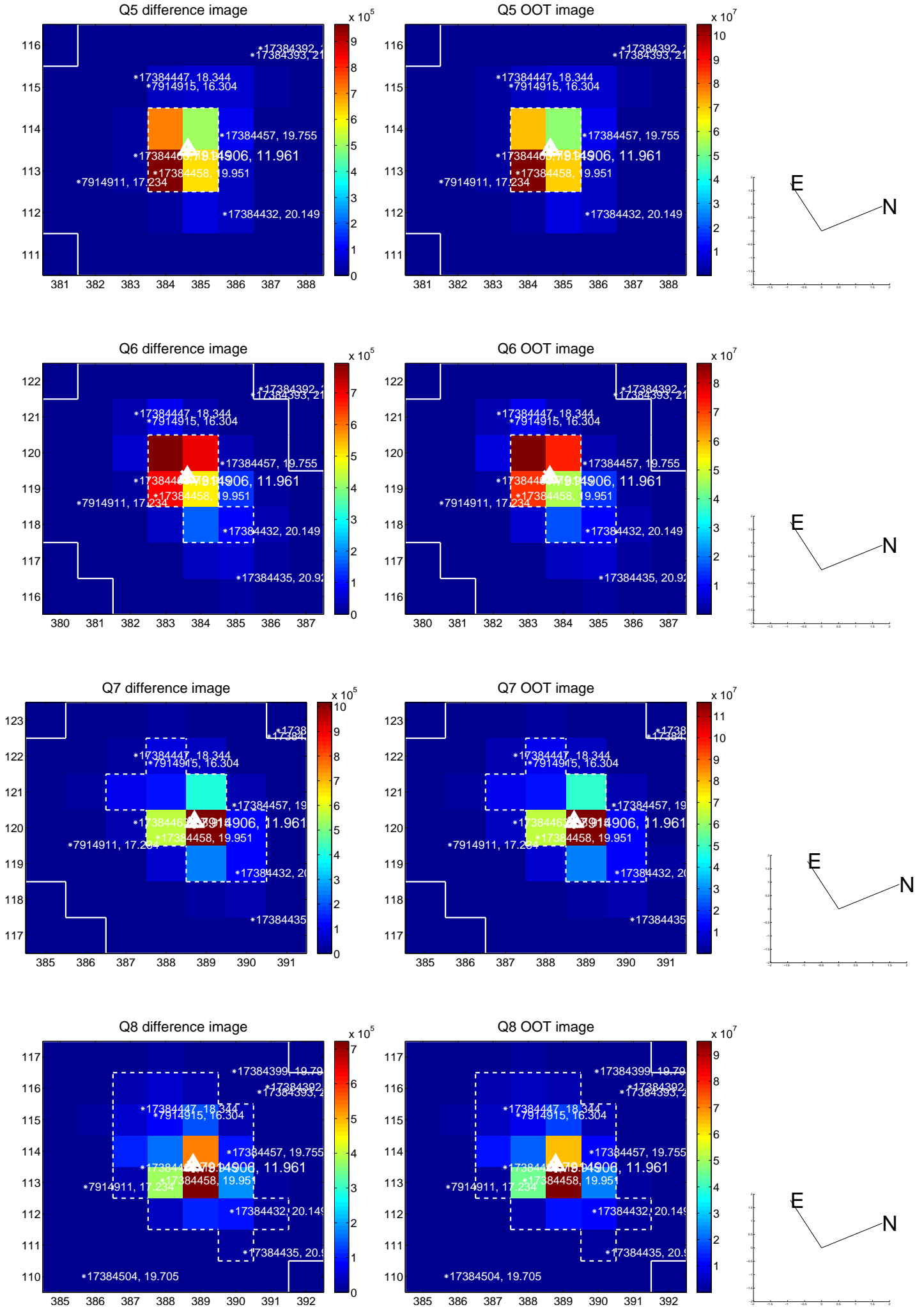


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

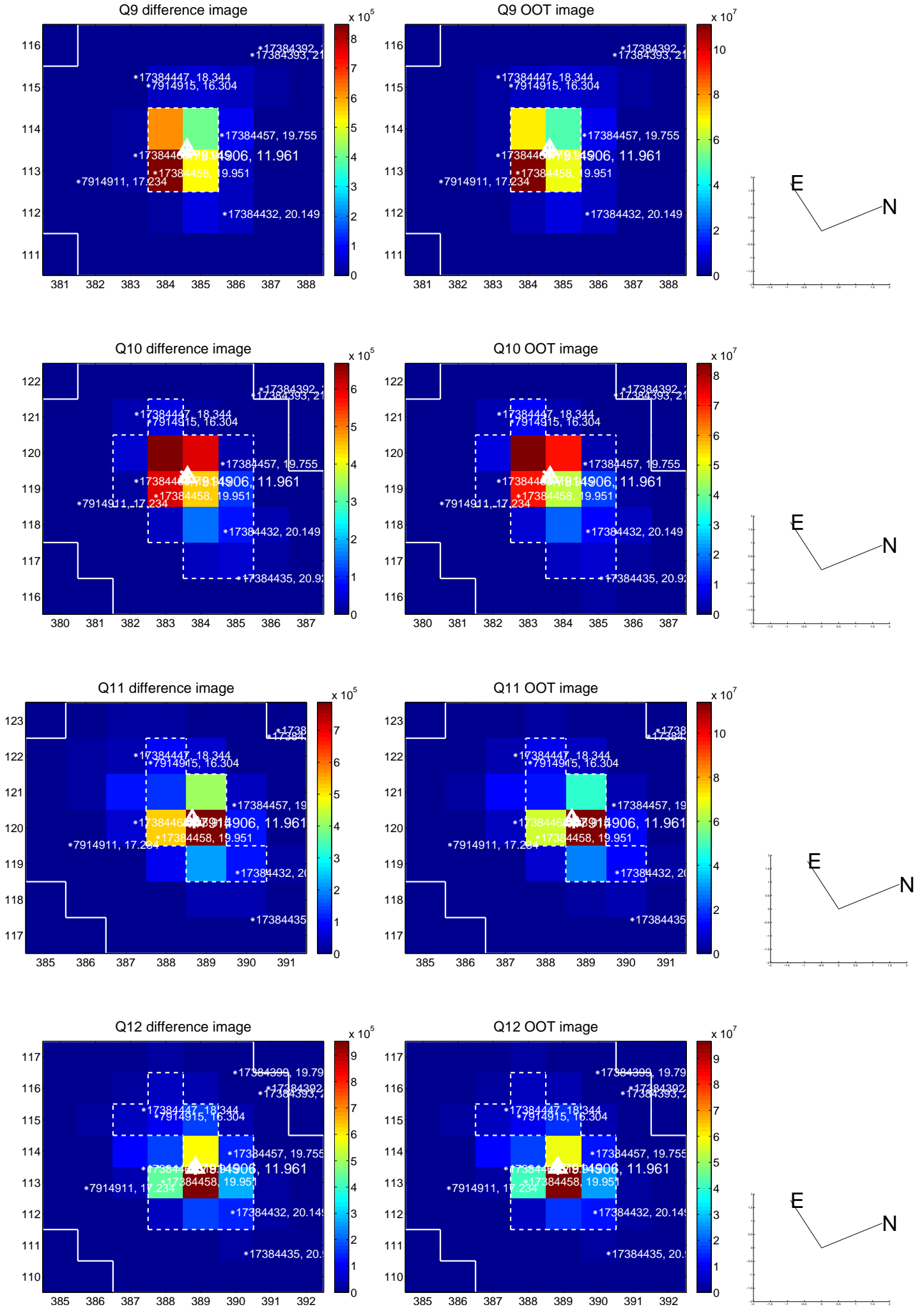
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



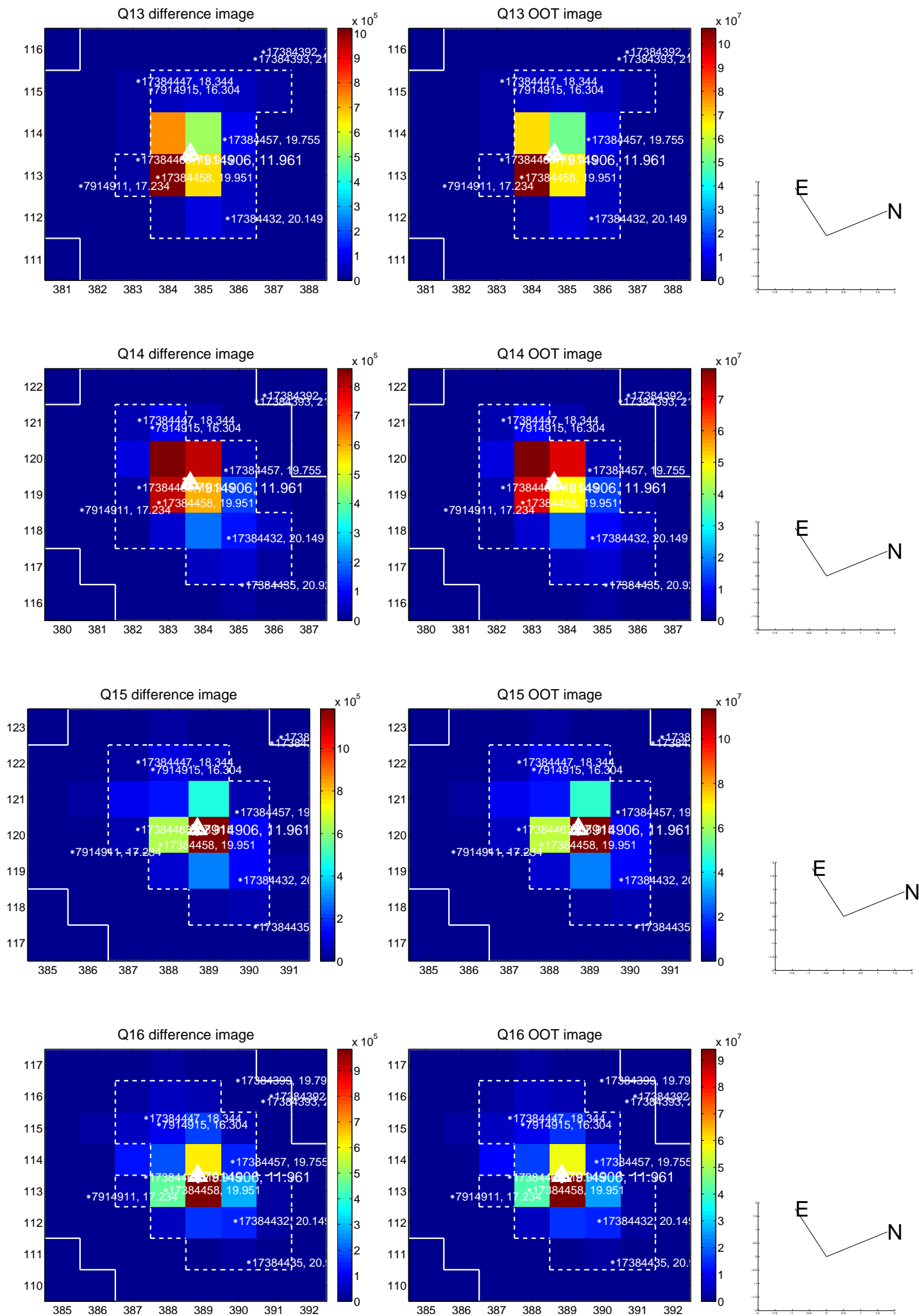
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



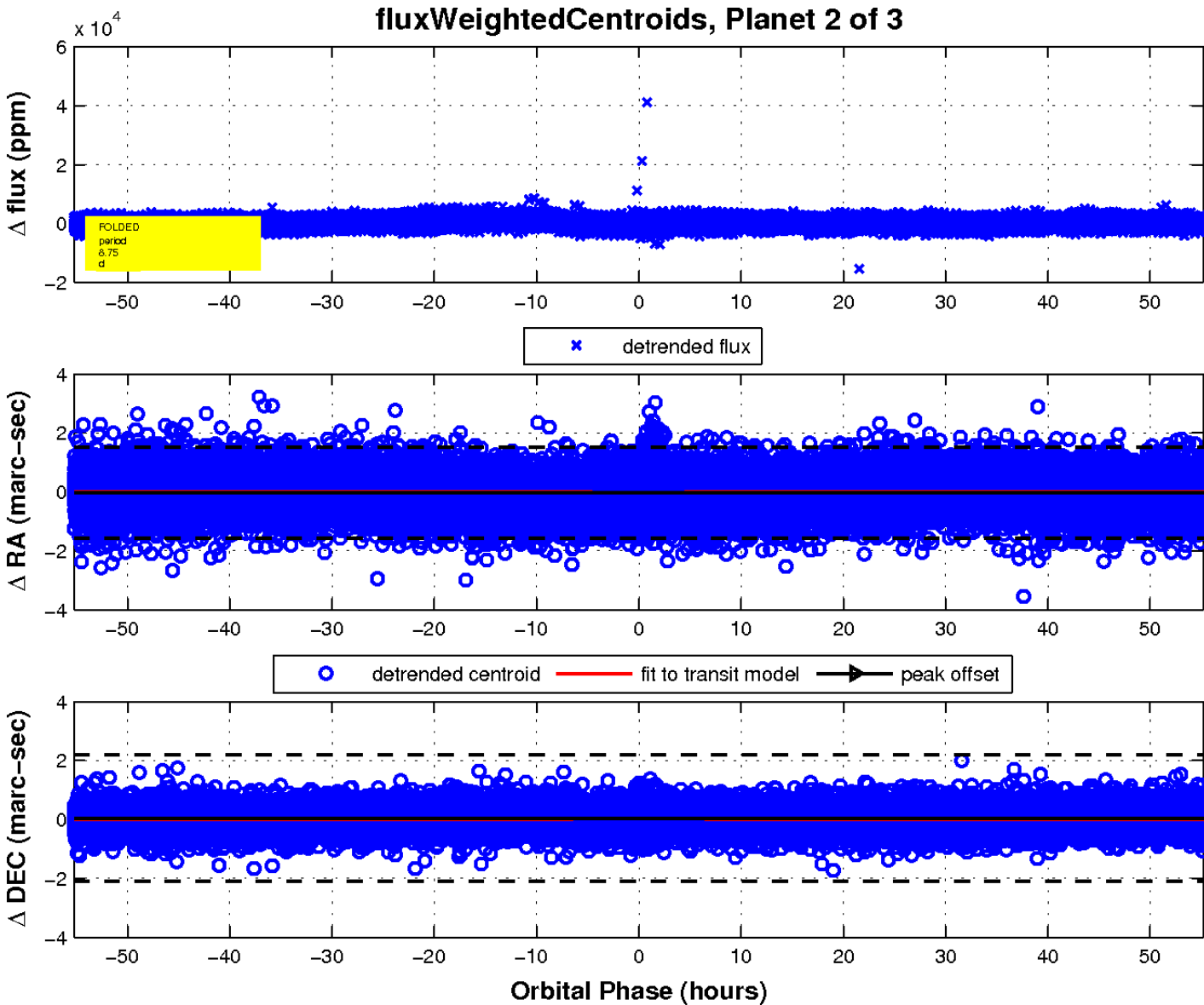
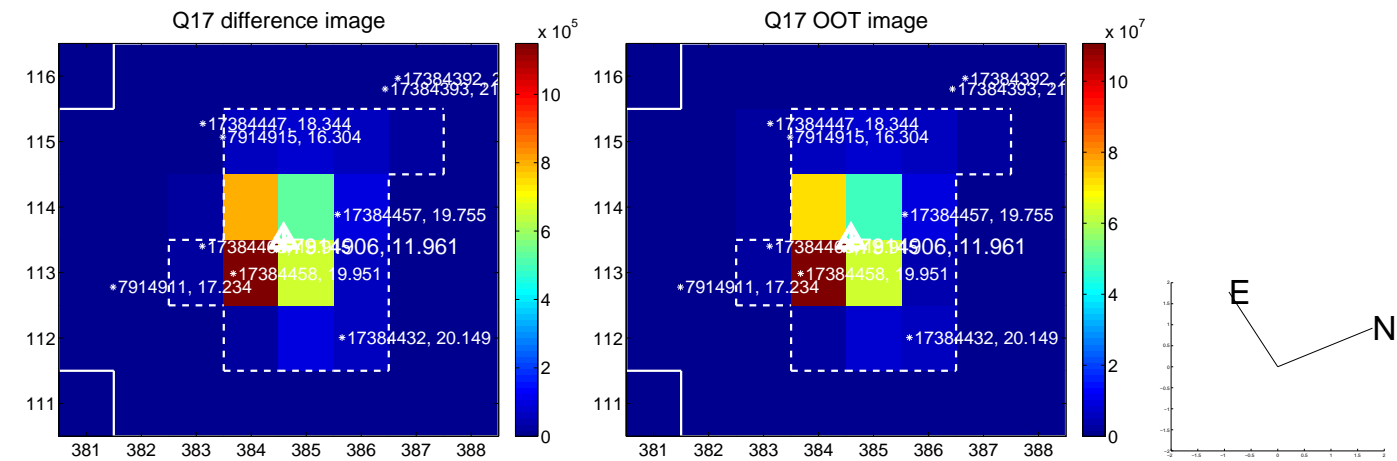
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



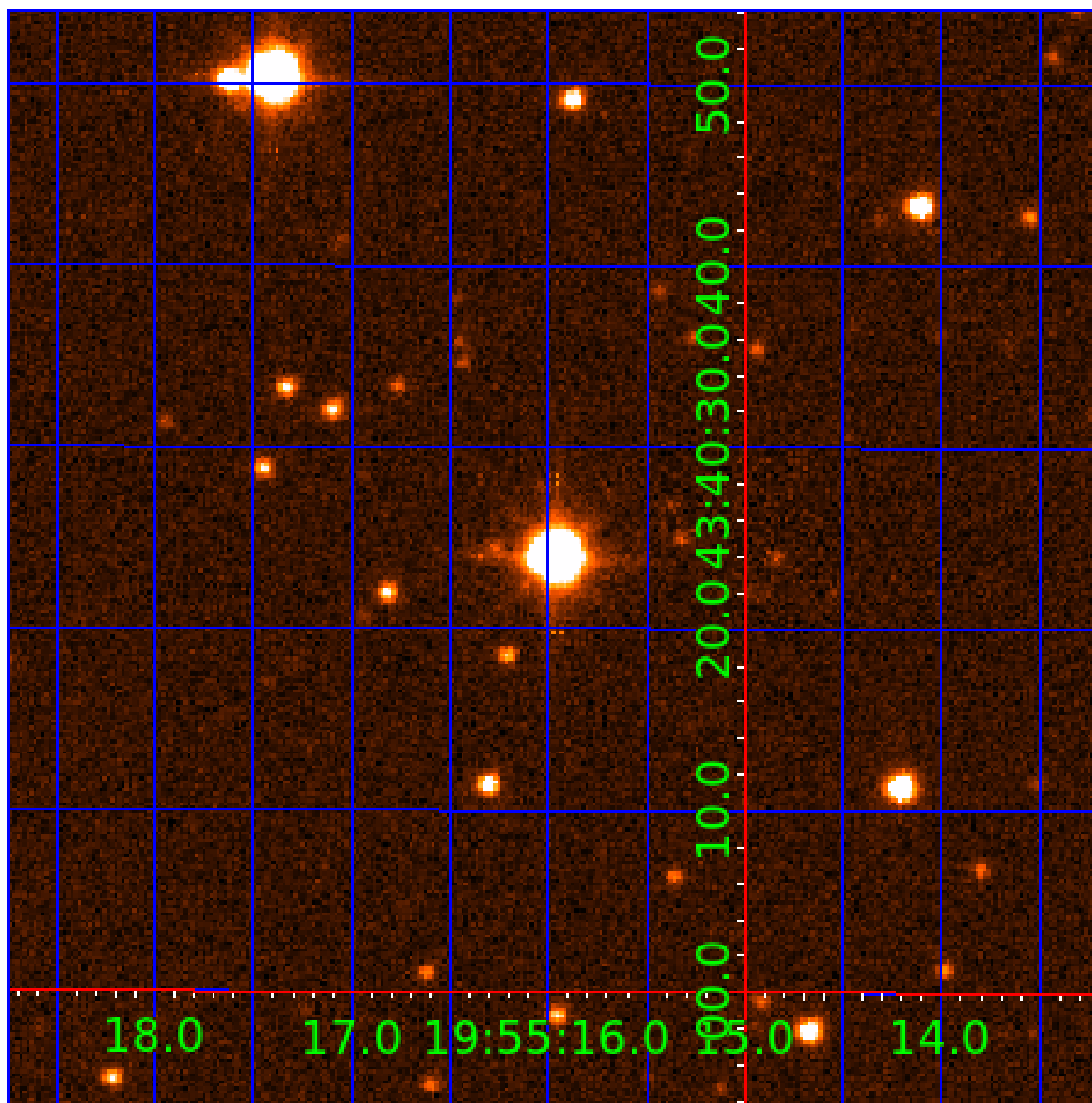
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

Declination



# KIC 007914906

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007914906-01	OBS	6047.01	8.752917	138.724709	41466.3	3.419	505.2	532.5	2.62	7279	91.09	1691.56
007914906-02	OBS	No	8.752646	138.690539	1597.4	18.407	9.2	11.8	2.62	7279	12.94	1691.63
007914906-03	OBS	No	1.746309	132.180391	283.0	8.989	10.8	11.9	2.62	7279	5.78	14509.83

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007914906-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED
007914906-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—RESIDUAL_TCE
007914906-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

**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 007914906-03

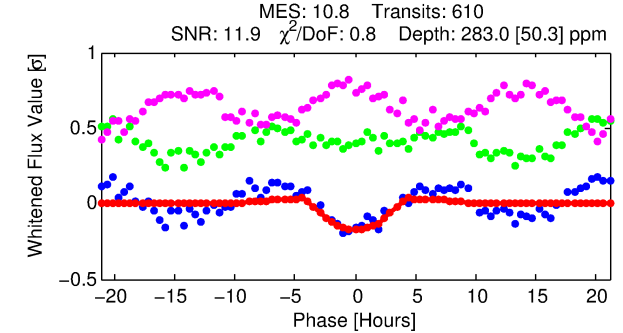
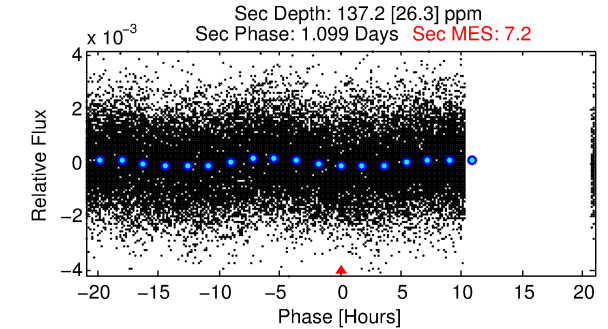
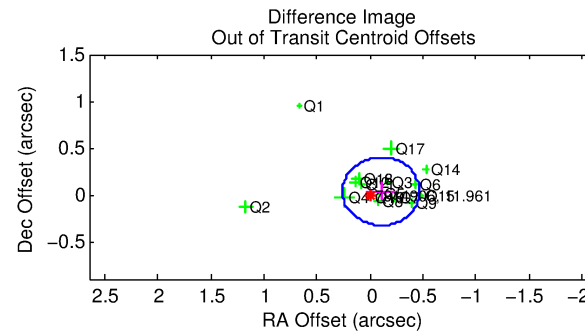
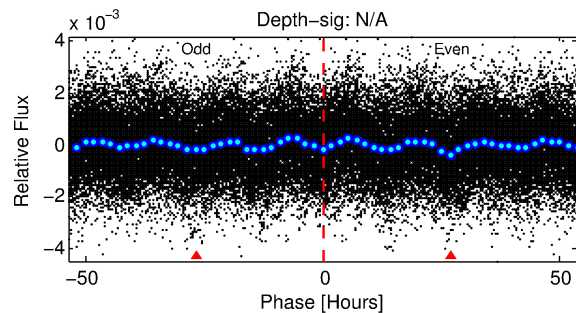
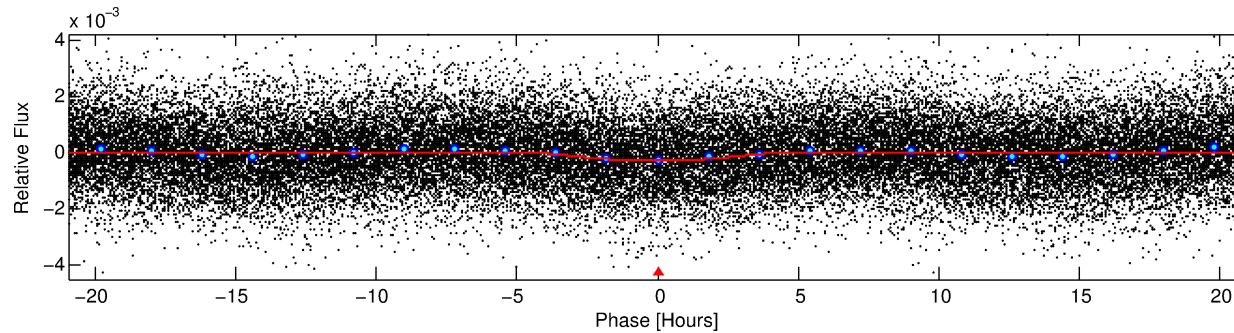
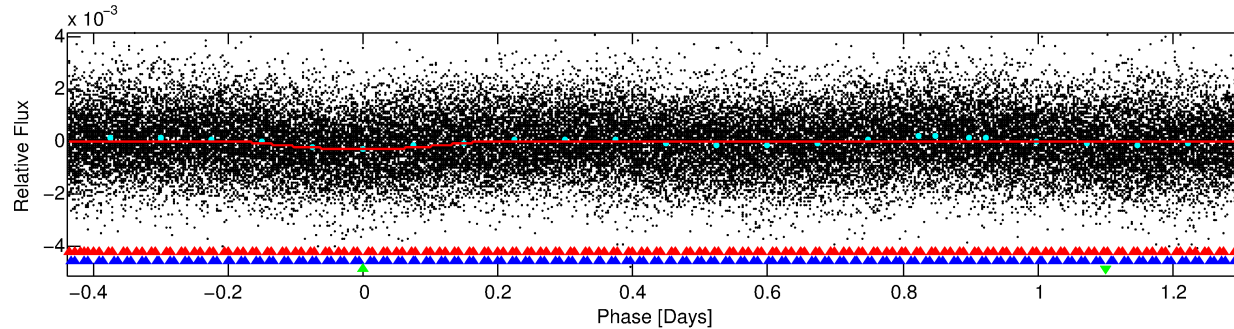
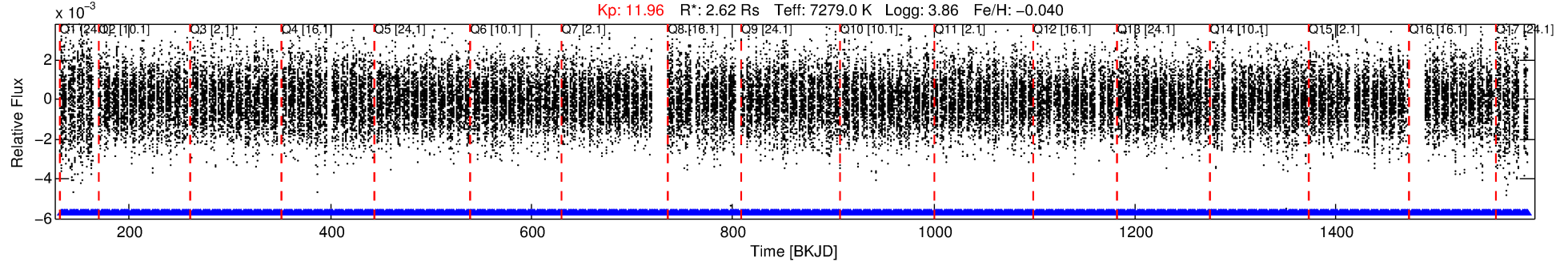
No Significant Match Found

# DV One-Page Summary

KIC: 7914906 Candidate: 3 of 3 Period: 1.746 d

KOI: K06047 Corr: No Ephemeris Match

Kp: 11.96 R\*: 2.62 Rs Teff: 7279.0 K Logg: 3.86 Fe/H: -0.040



## DV Fit Results:

Period = 1.74631 [0.00003] d  
Epoch = 132.1804 [0.0125] BKJD  
Rp/R\* = 0.0202 [0.0026]  
a/R\* = 1.08 [0.02]  
b = 0.98 [0.01]  
Seff = 14509.83 [8445.27]  
Teq = 2799 [407] K  
Rp = 5.78 [2.45] Re  
a = 0.0345 [0.0125] AU  
Ag = 2.69 [1.72] [0.98σ]  
Teffp = 5544 [508] K [4.22σ]

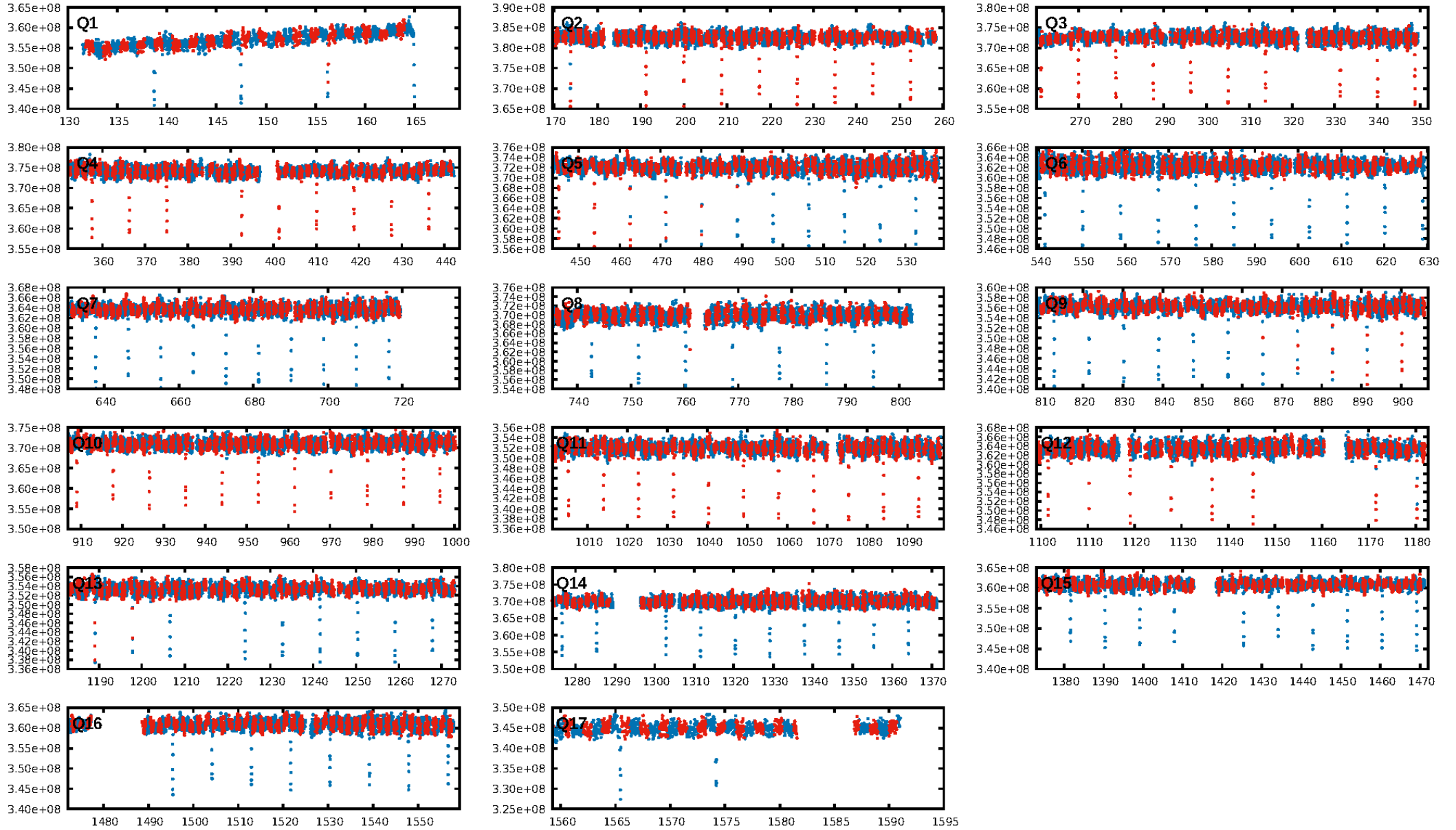
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [8.21σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [580/580]  
GhostDiagnostic-chr: 0.3804  
Centroid-sig: 43.4%  
Centroid-so: 0.038 arcsec [0.78σ]  
OotOffset-rm: 0.110 arcsec [0.90σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-rm: 0.161 arcsec [1.62σ]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

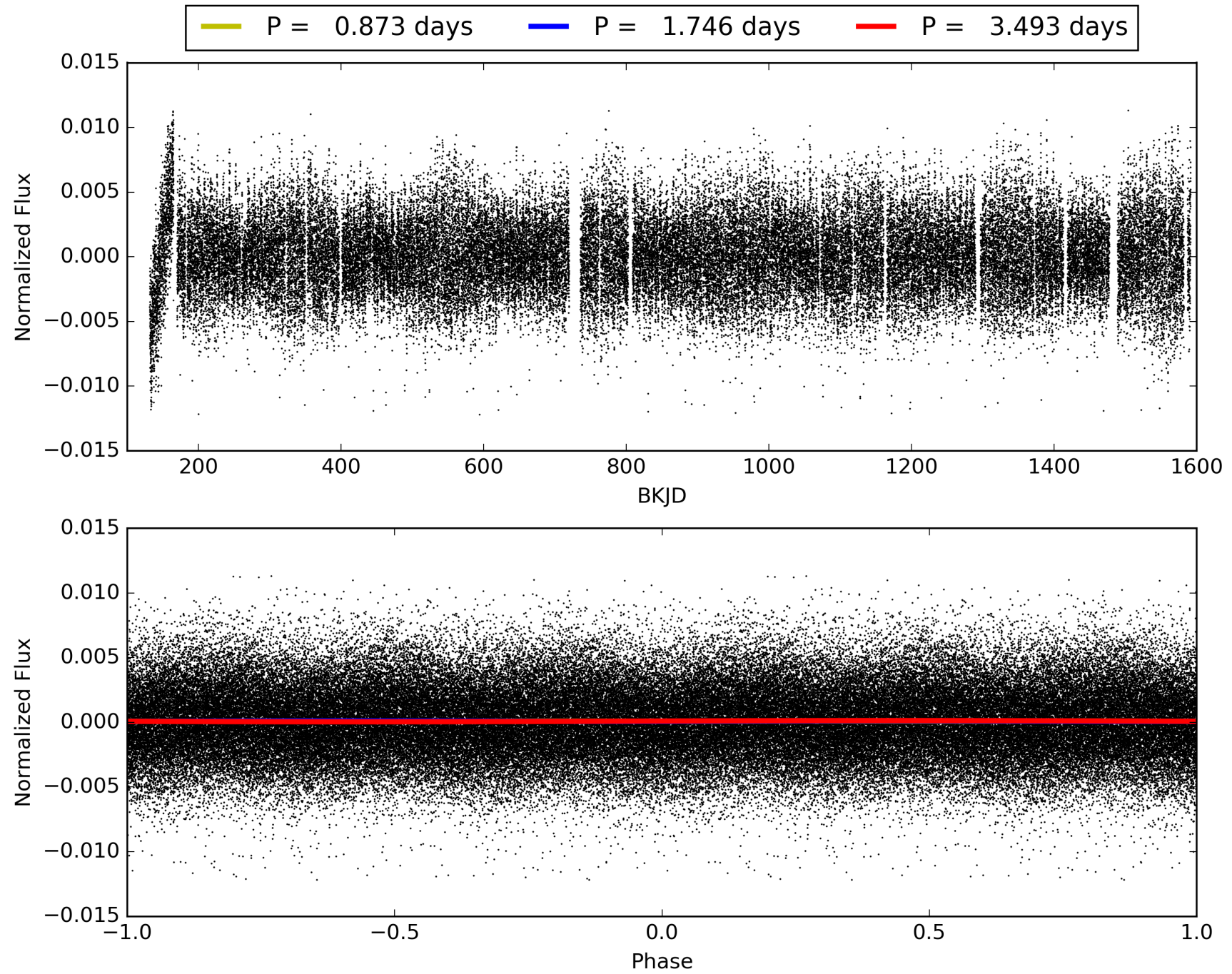
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:17:46 Z

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

# TCE 007914906-03, PDC Light Curves



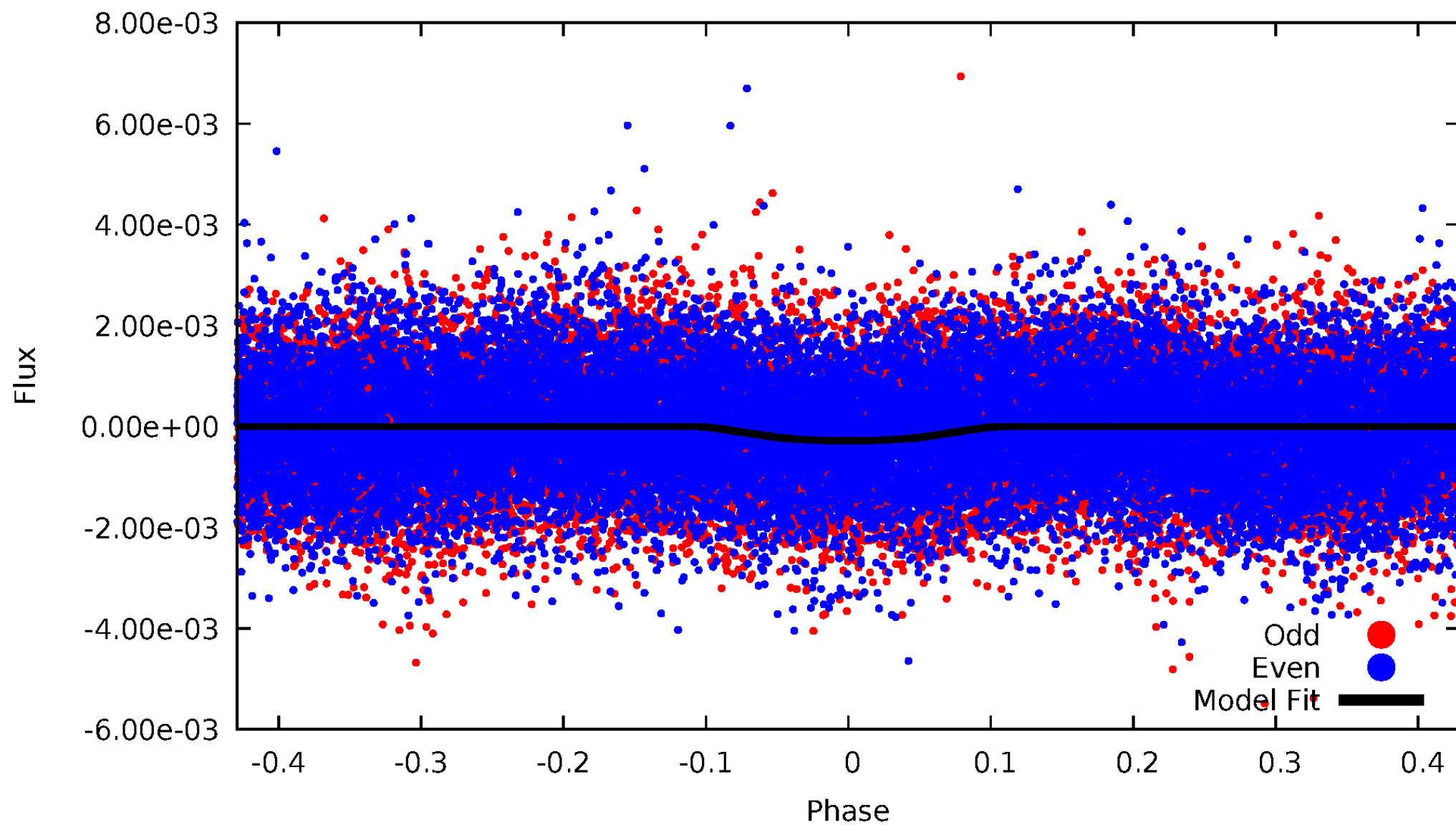
TCE 007914906-03





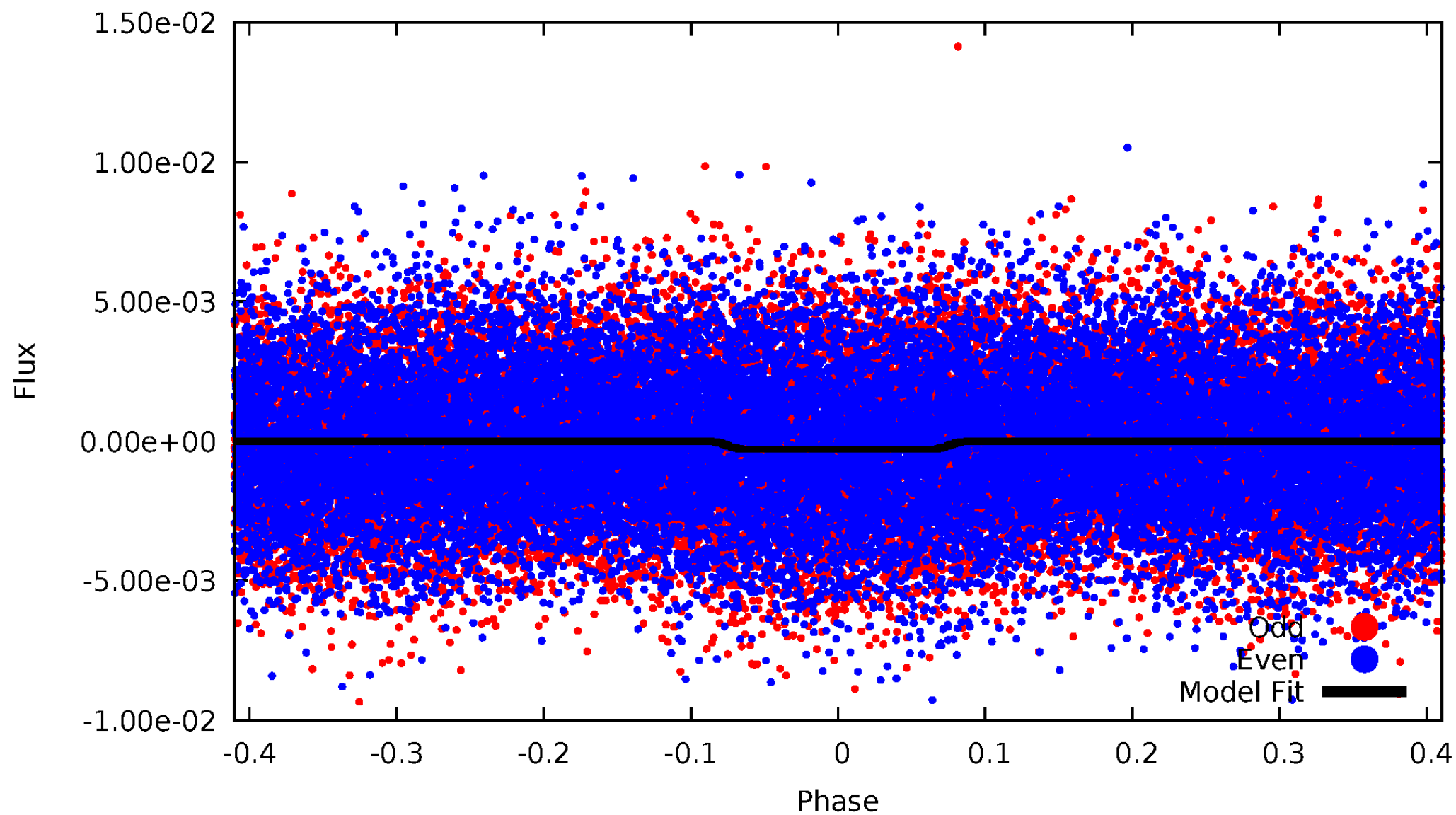
# DV Odd/Even

TCE 007914906-03

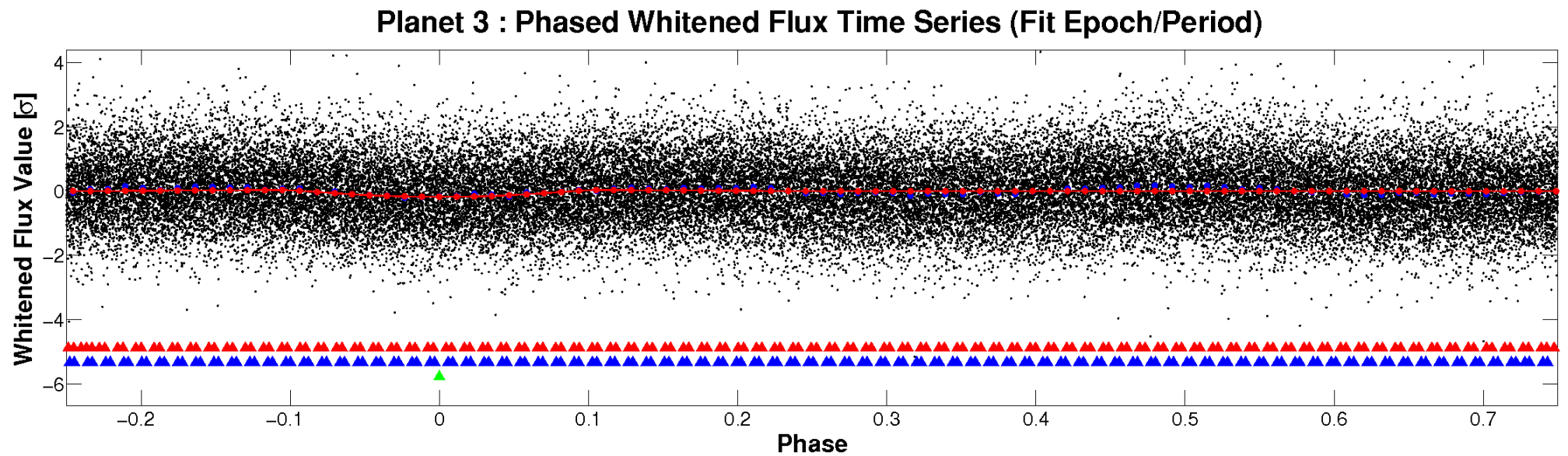
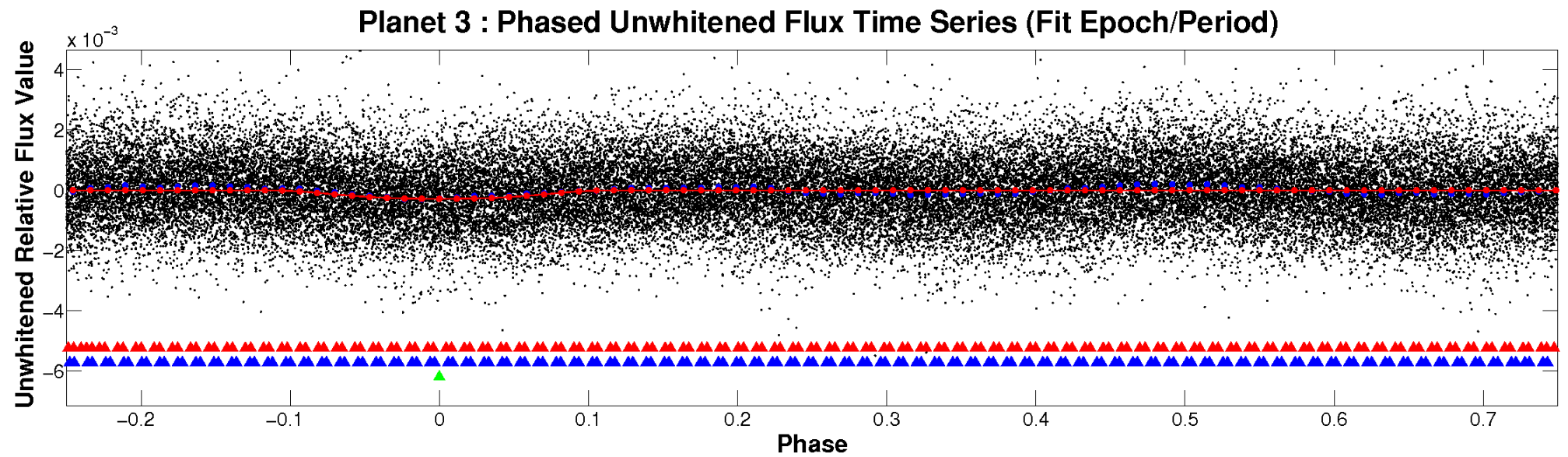


# ALT Odd/Even

TCE 007914906-03



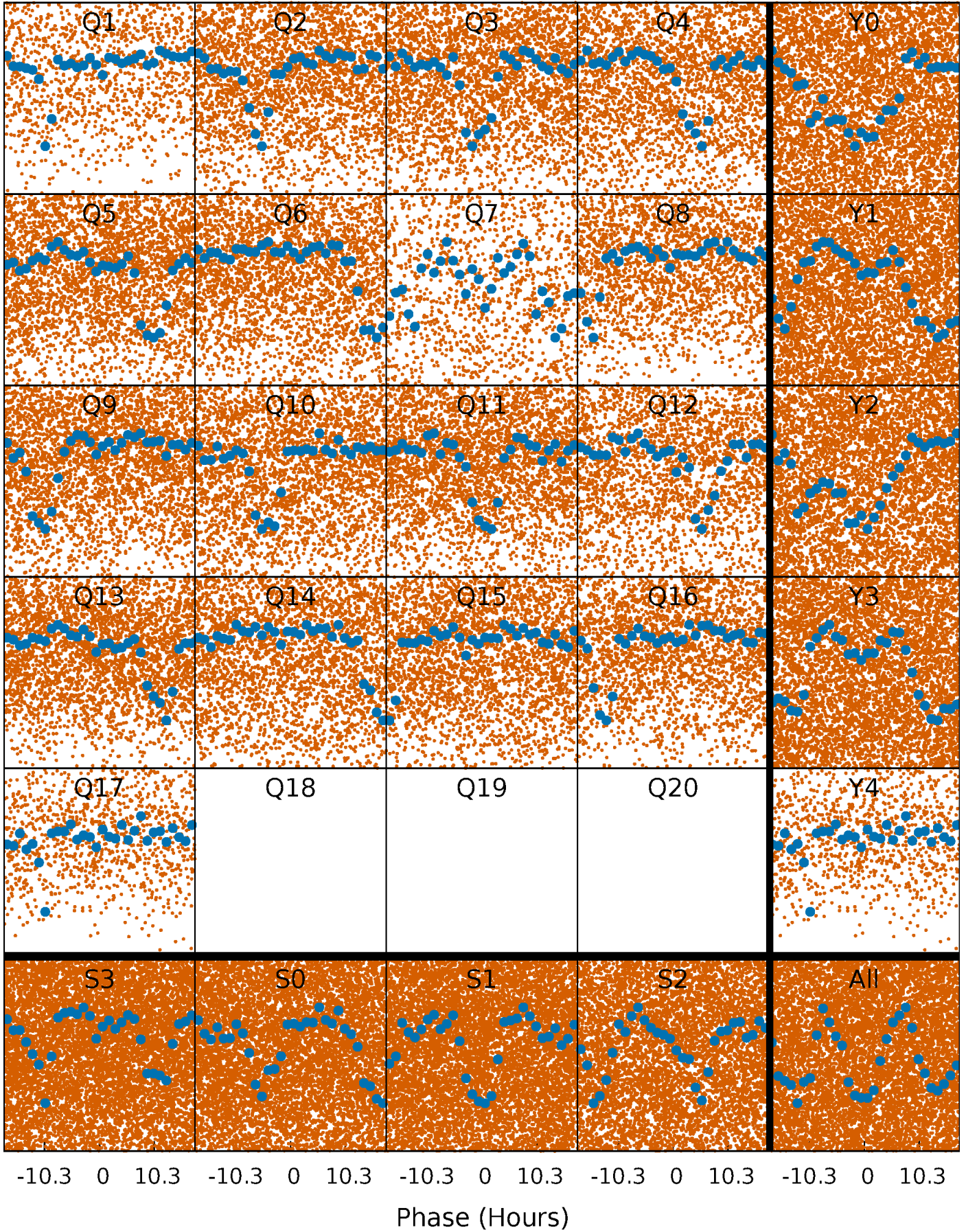
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

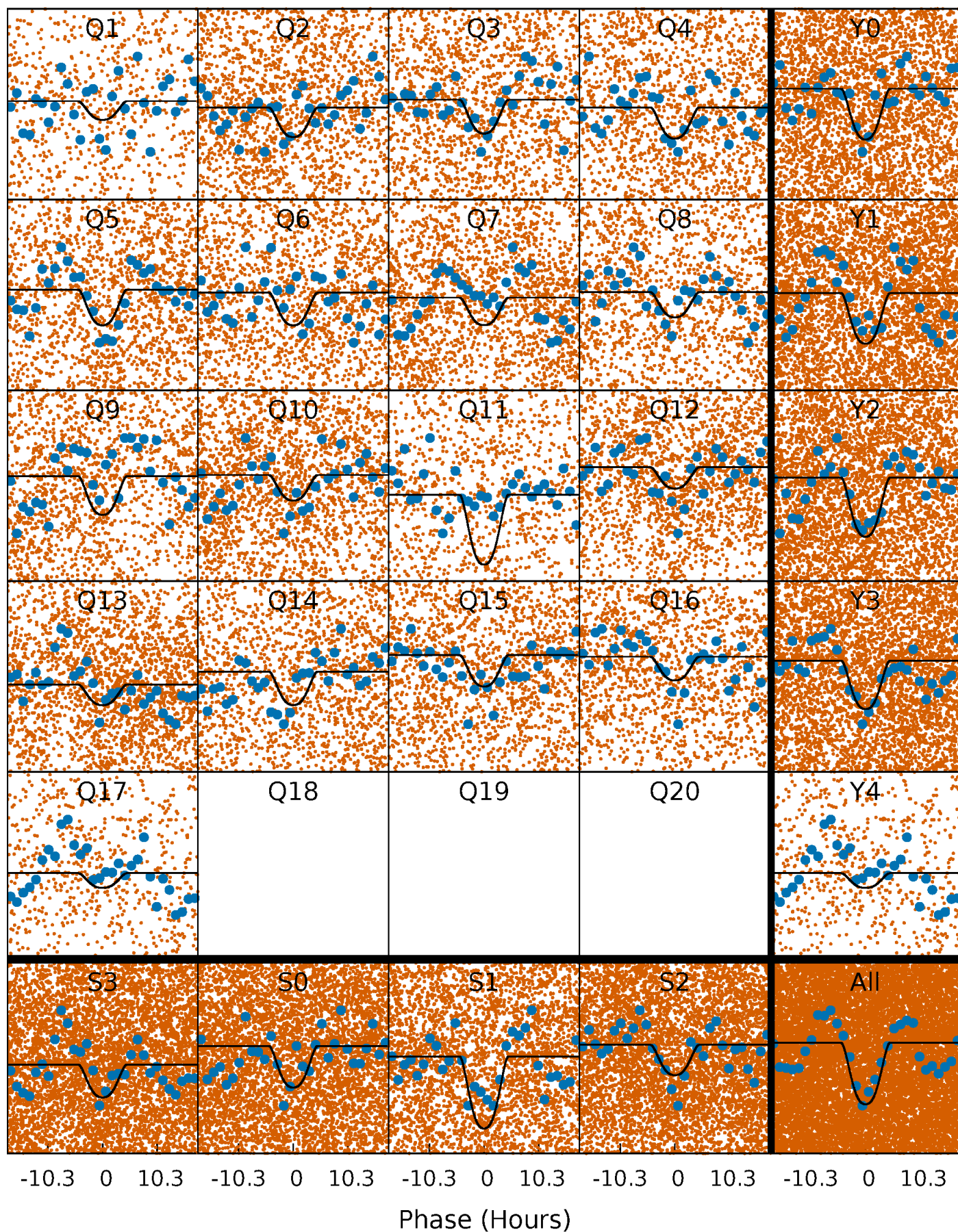
TCE 007914906-03   P= 1.746309 Days    $T_0=132.180391$  (BKJD)





# DV Quarter-Phased Transit Curves

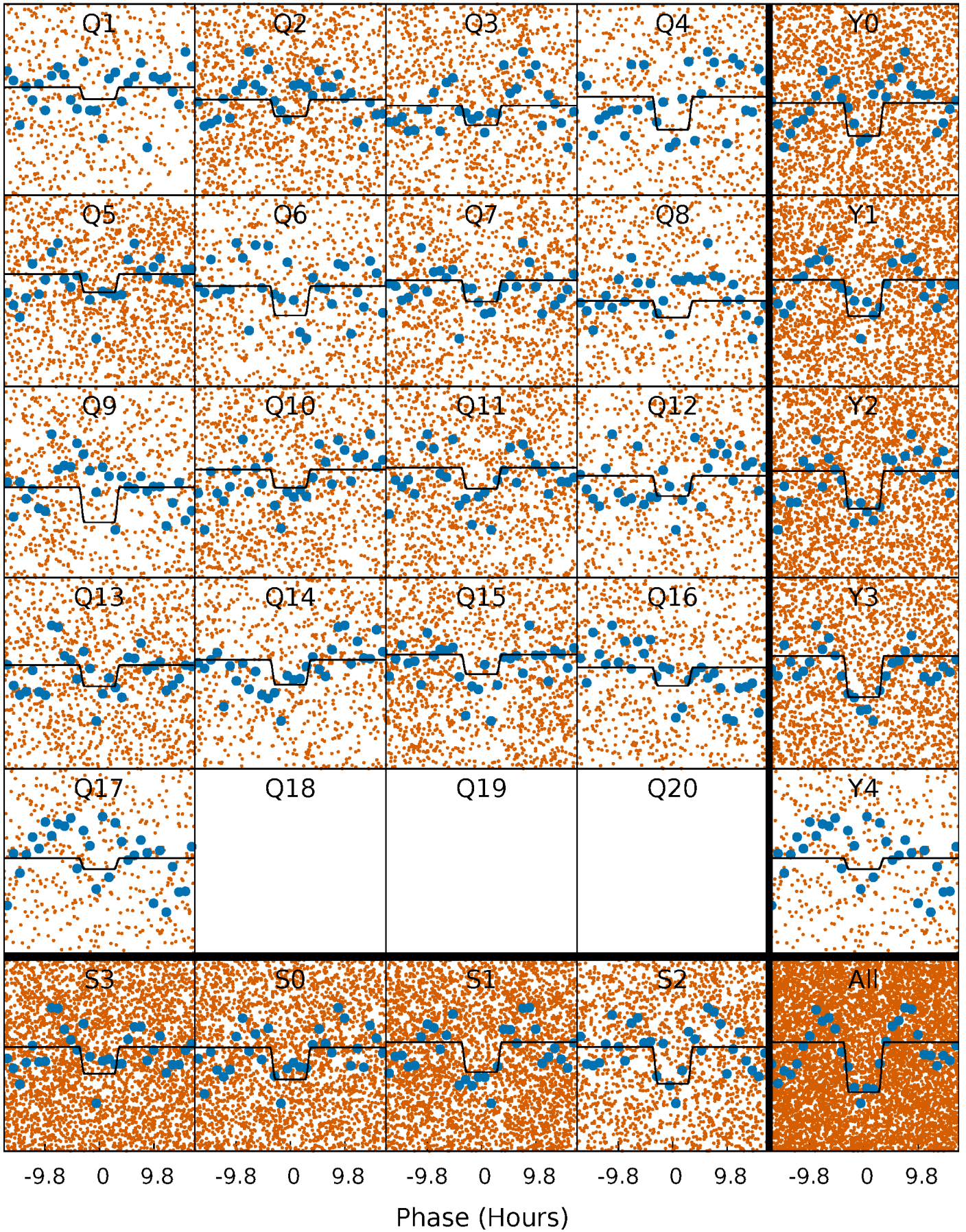
TCE 007914906-03   P= 1.746309 Days    $T_0=132.180391$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

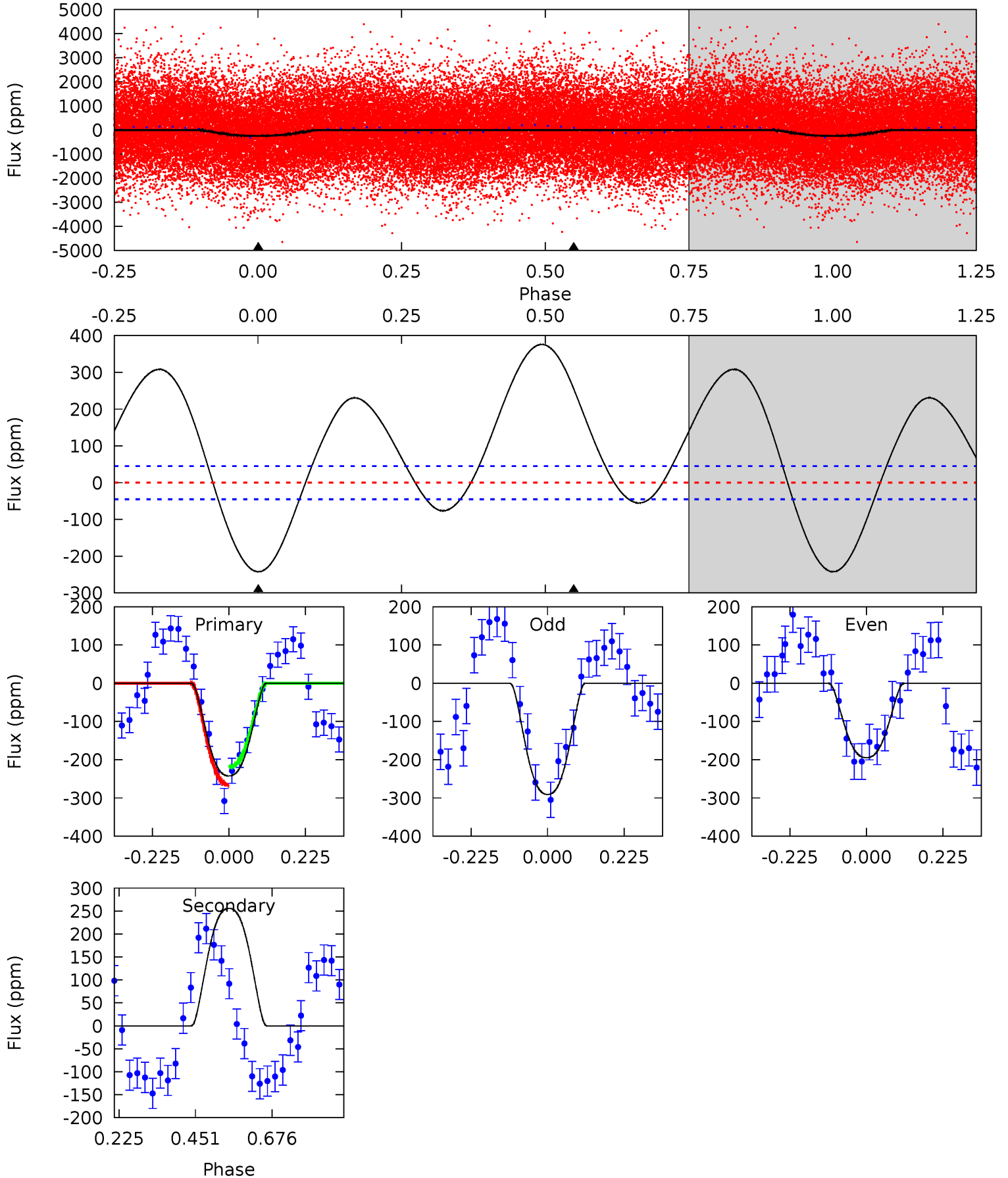
TCE 007914906-03 P= 1.746289 Days  $T_0=132.189539$  (BKJD)



# DV Model-Shift Uniqueness Test

007914906-03, P = 1.746309 Days, E = 130.434082 Days

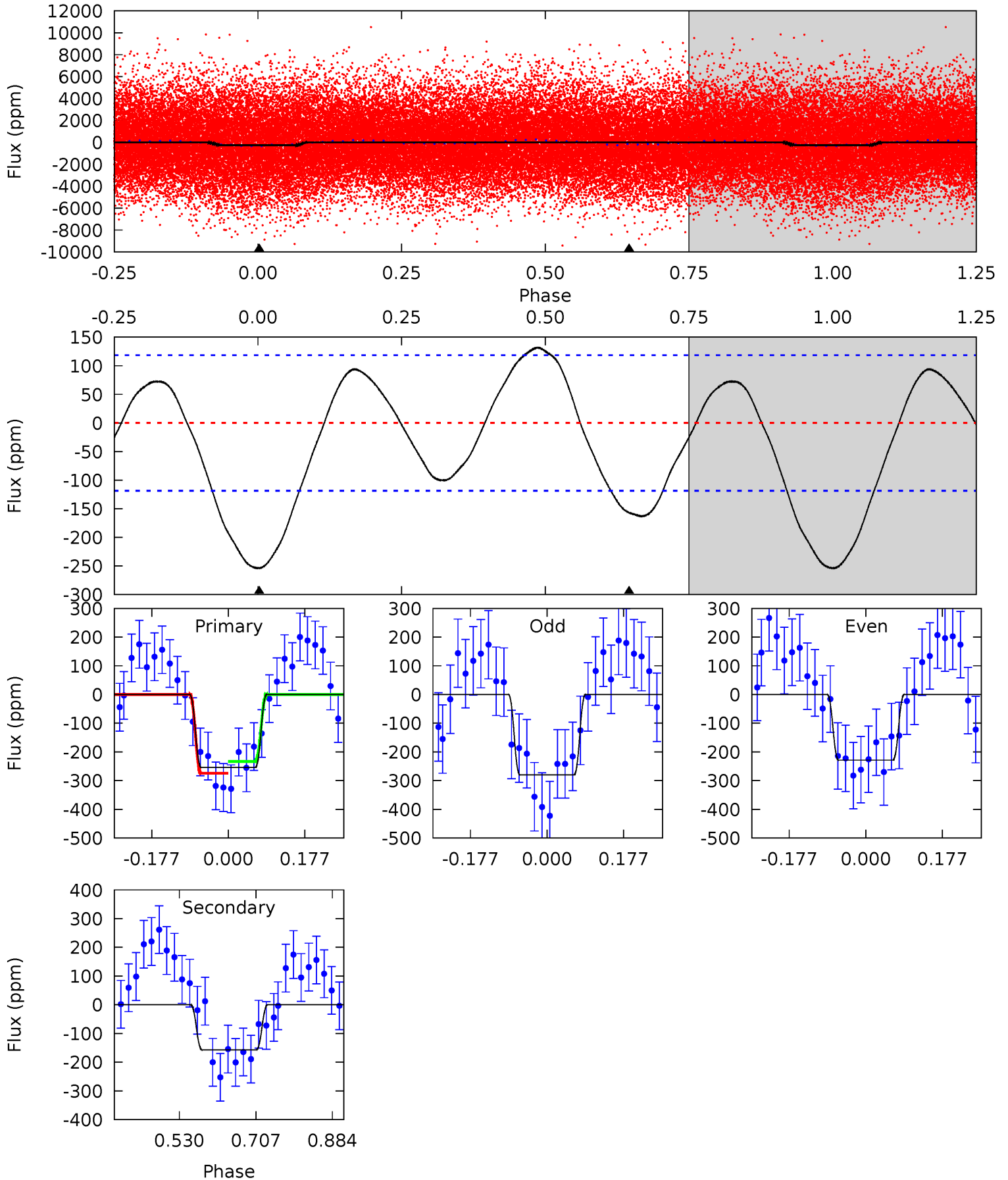
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	-24.9	0	0	4.39	1.21	7.40	23.6	23.6	-24.9	-24.9	4.69	1.46	0.61	2.28



# Alt Model-Shift Uniqueness Test

007914906-03, P = 1.746289 Days, E = 130.443250 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
9.52	5.88	0	0	4.44	1.35	2.63	9.52	9.52	5.88	5.88	0.96	1.02	0.34	0.77



### Stellar Parameters For KIC 007914906

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$7279^{+226}_{-327}$	$3.856^{+0.315}_{-0.135}$	$-0.040^{+0.200}_{-0.350}$	$2.624^{+0.531}_{-1.061}$	$1.800^{+0.177}_{-0.412}$	$0.140^{+0.347}_{-0.047}$
	+3%/-4%	+8%/-4%	+500%/-875%	+20%/-40%	+10%/-23%	+247%/-34%
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 007914906-03 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$256 \pm 10$	$5.46^{+1.13}_{-1.25}$	$3832^{+290}_{-376}$	$-6491^{+431}_{-535}$	$-5.507^{+1.662}_{-3.383}$
Alt.	$-157 \pm 27$	$4.63^{+1.13}_{-1.11}$	$3834^{+303}_{-387}$	$6052^{+650}_{-558}$	$4.705^{+3.176}_{-1.658}$

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

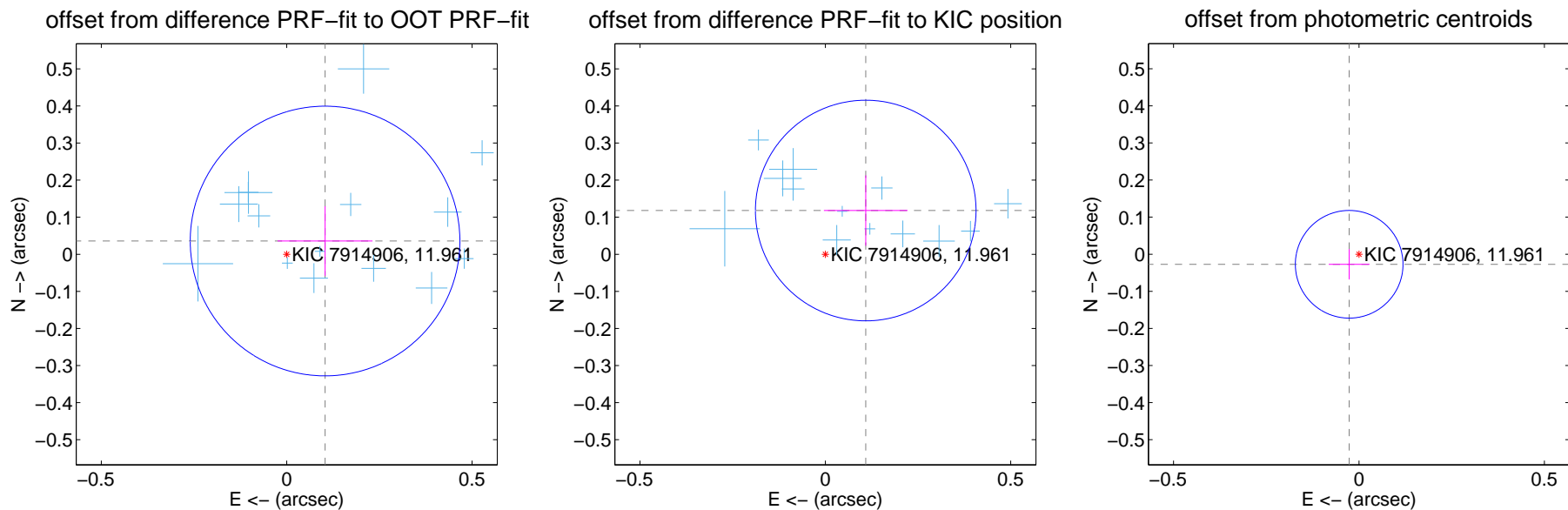
## DV Centroid Data

Supplemental centroid analysis for 007914906-03. **Kepler magnitude: 11.96.** Transit SNR 11.92

There are 17 quarters with good PRF difference image offsets

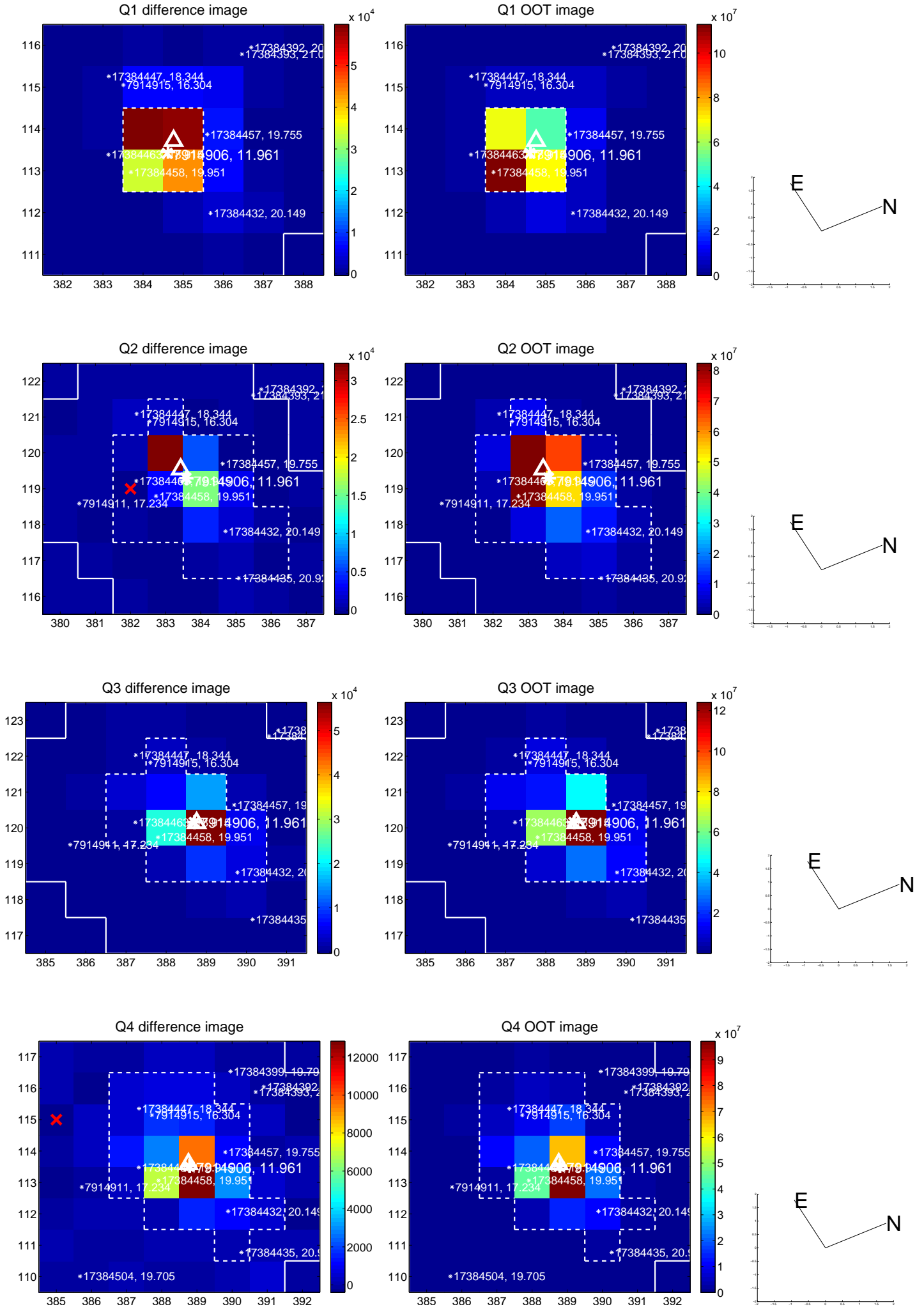
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.110 \pm 0.121$	0.90	$-0.104 \pm 0.128$	$0.036 \pm 0.094$
PRF-fit source offset from KIC position	$0.161 \pm 0.099$	1.62	$-0.109 \pm 0.113$	$0.118 \pm 0.095$
photometric centroid source offset	$0.04 \pm 0.05$	0.78	$0.03 \pm 0.06$	$-0.03 \pm 0.04$



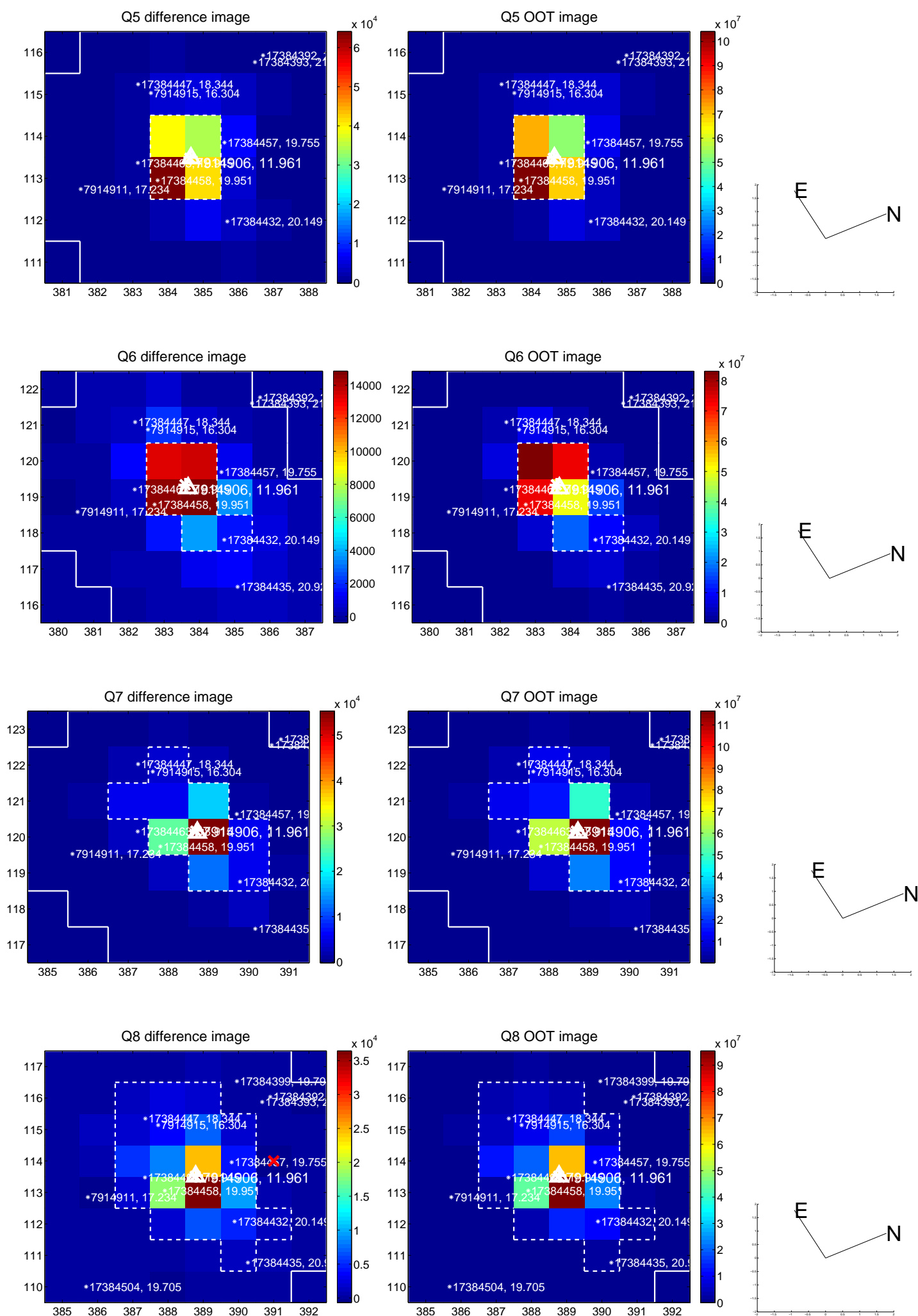
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

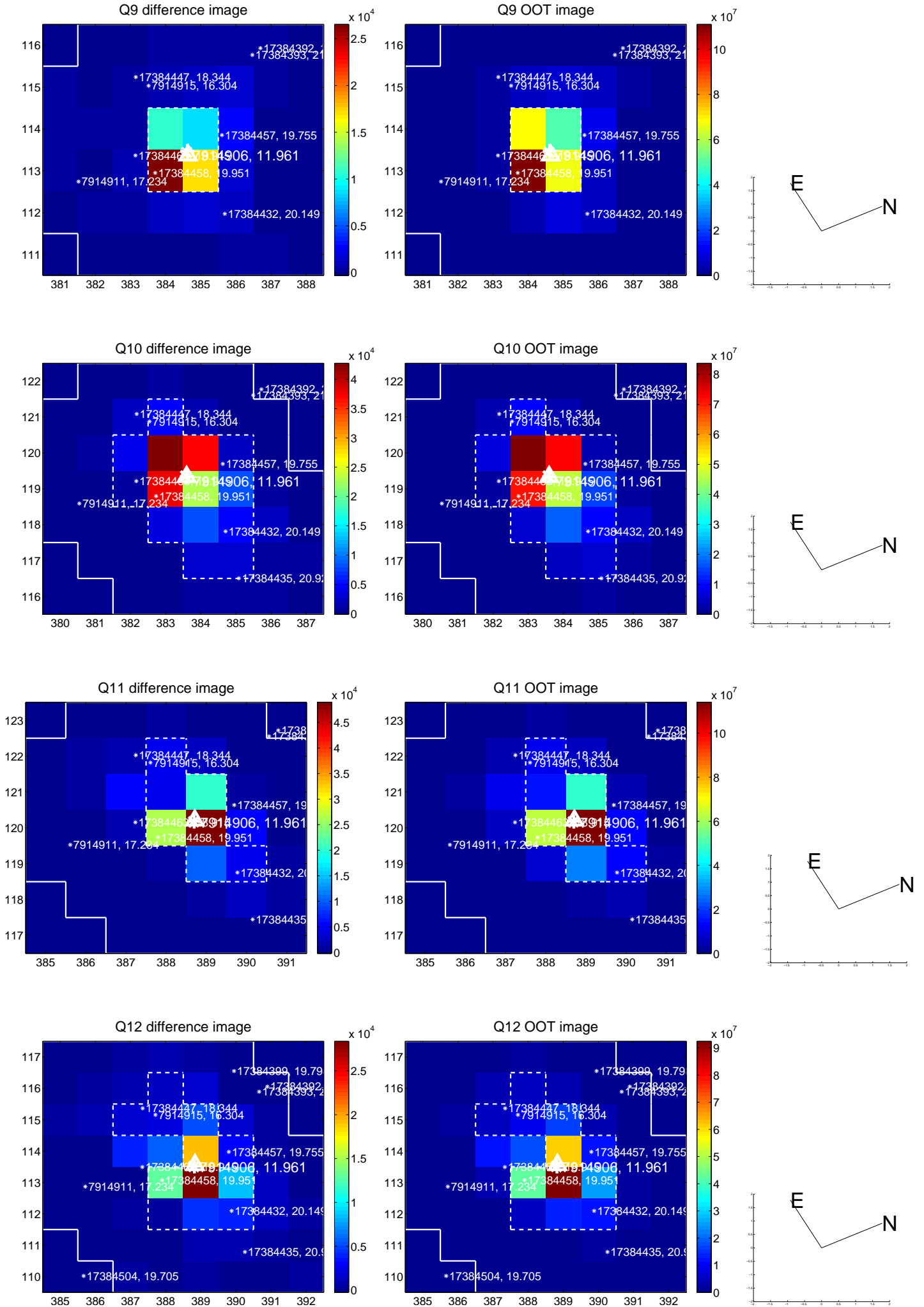




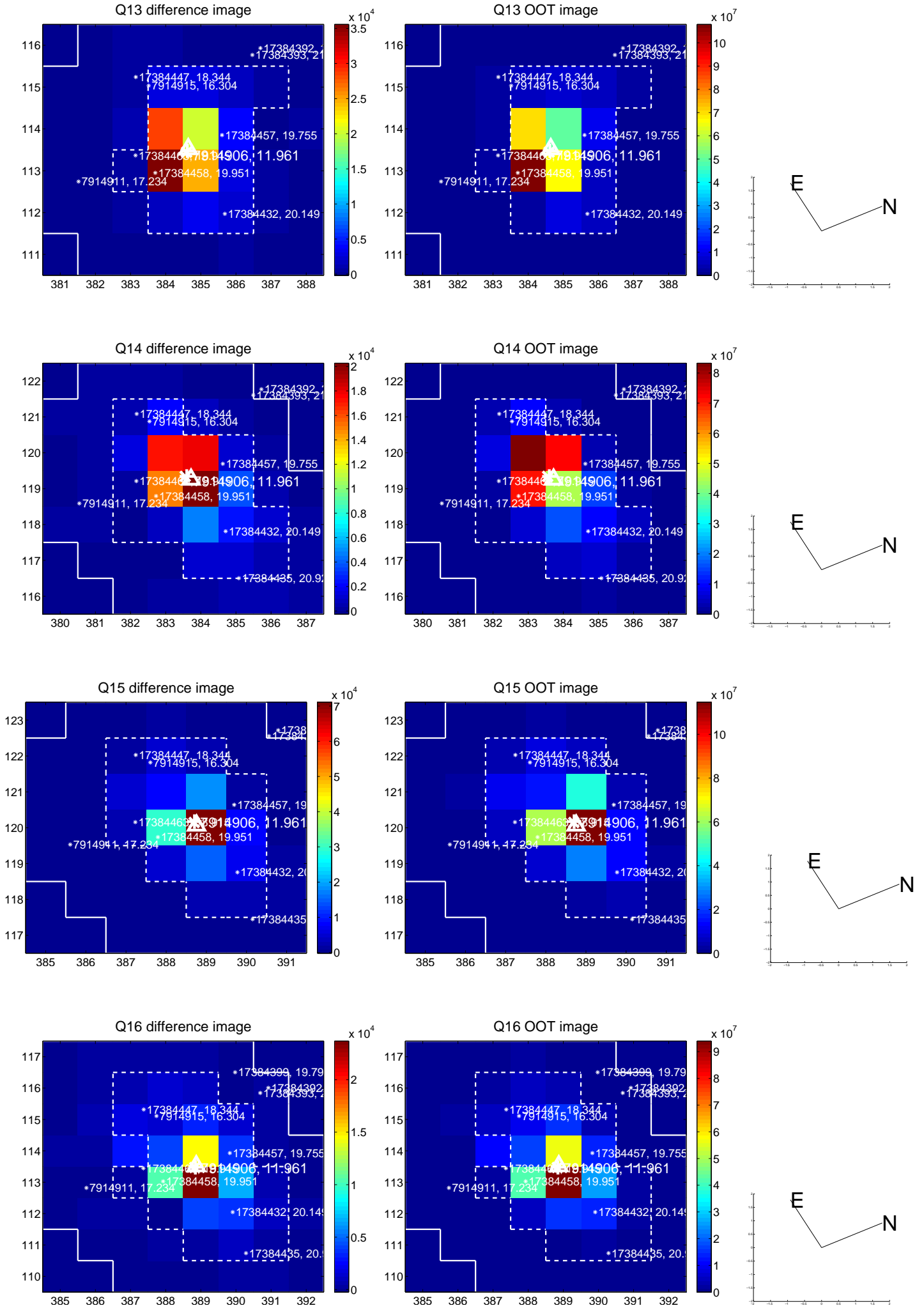
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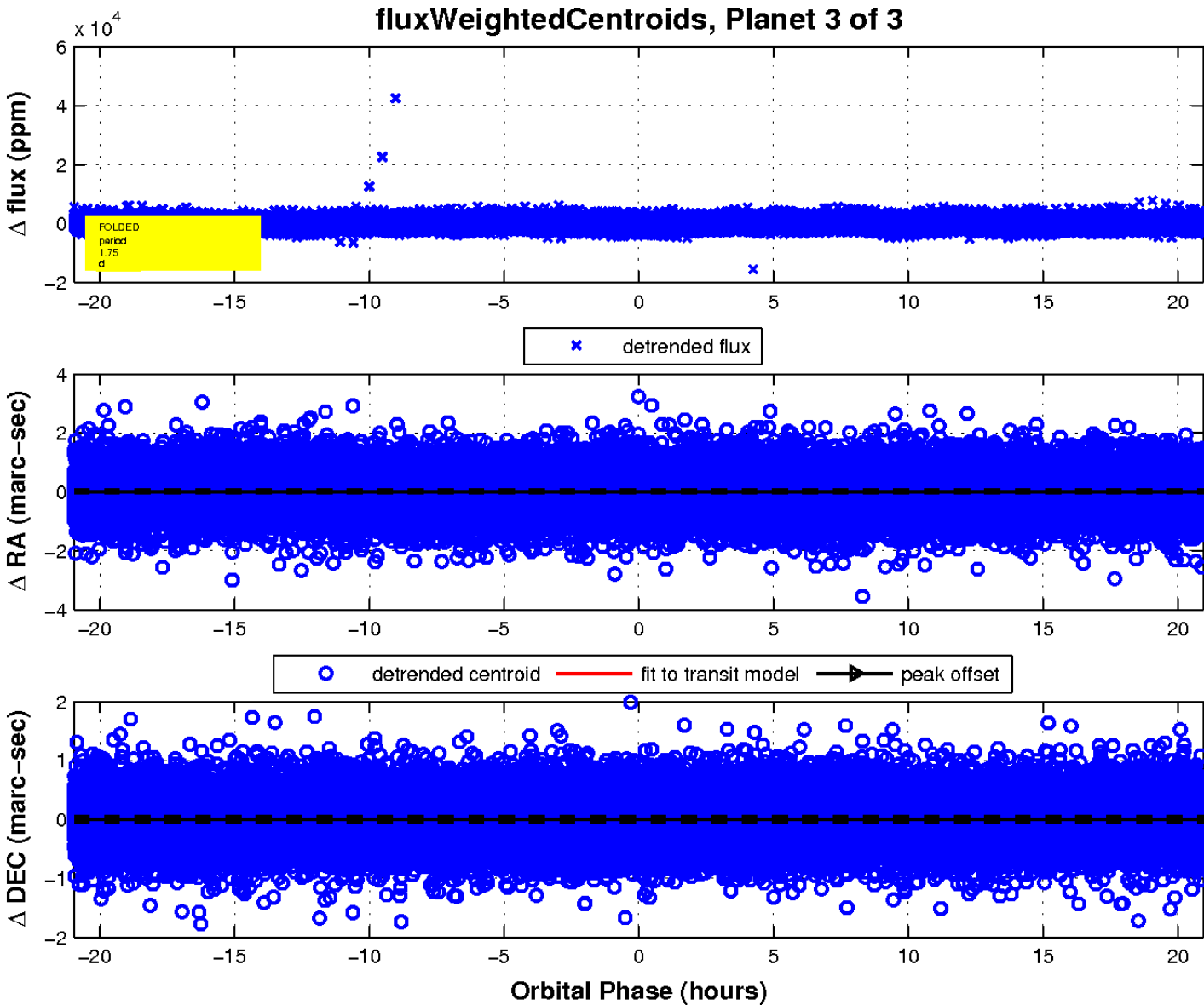
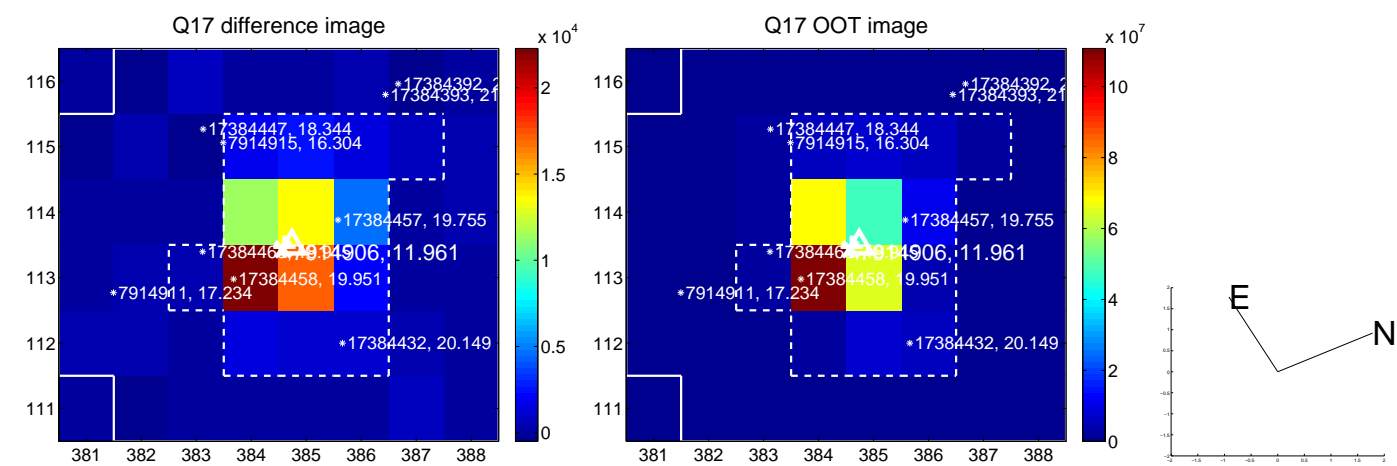
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination

