

# KIC 008524464

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008524464-01	OBS	No	0.518762	131.815132	314.7	2.236	16.1	21.2	3.27	8014	6.78	153598.23
008524464-02	OBS	No	0.518769	131.994291	251.5	1.550	14.7	17.9	3.27	8014	5.26	153595.55
008524464-03	OBS	No	0.518771	131.629744	328.8	1.500	14.0	-1.0	3.27	8014	6.01	153594.67

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008524464-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008524464-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD
008524464-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—NO_FITS—SAME_NTL_PERIOD—CENT_NOFITS

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

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

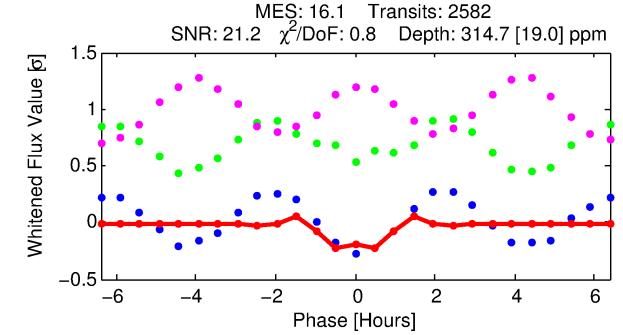
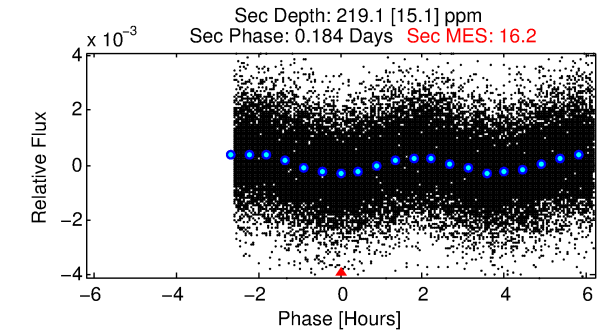
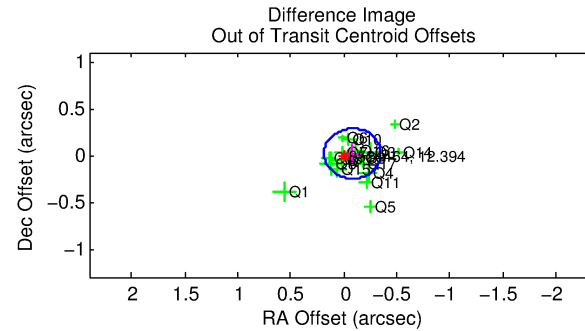
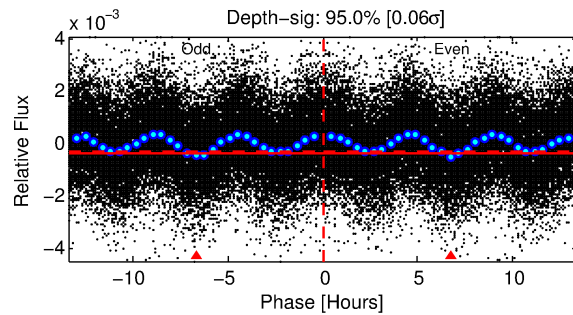
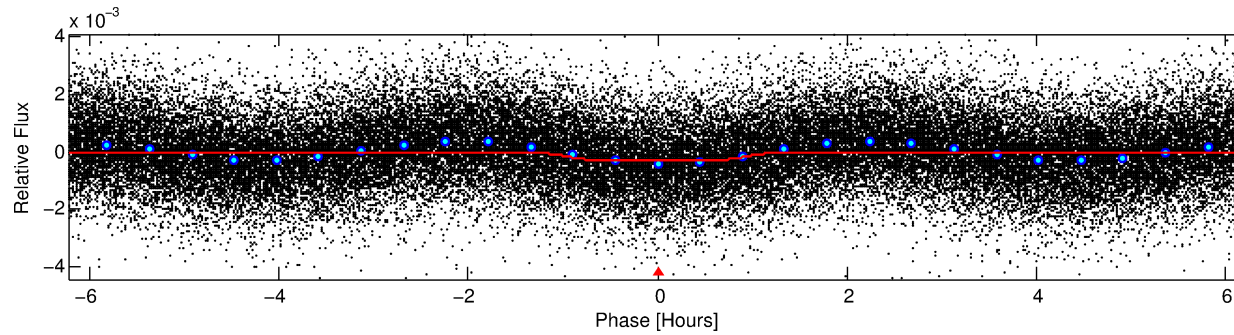
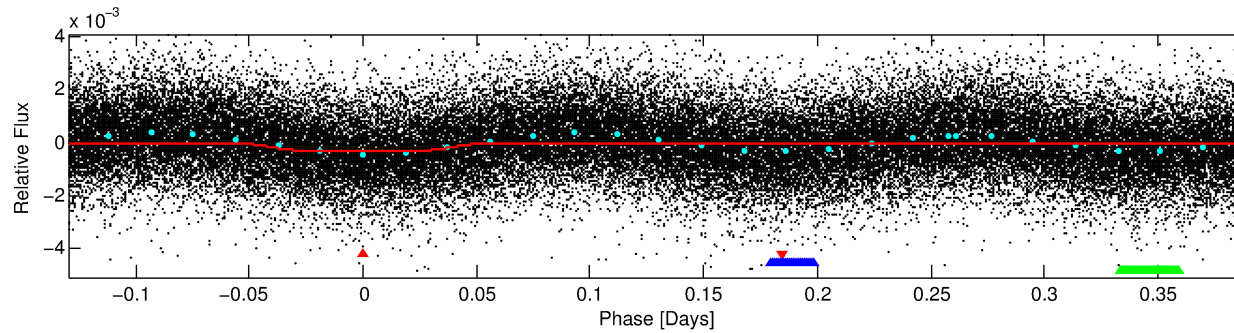
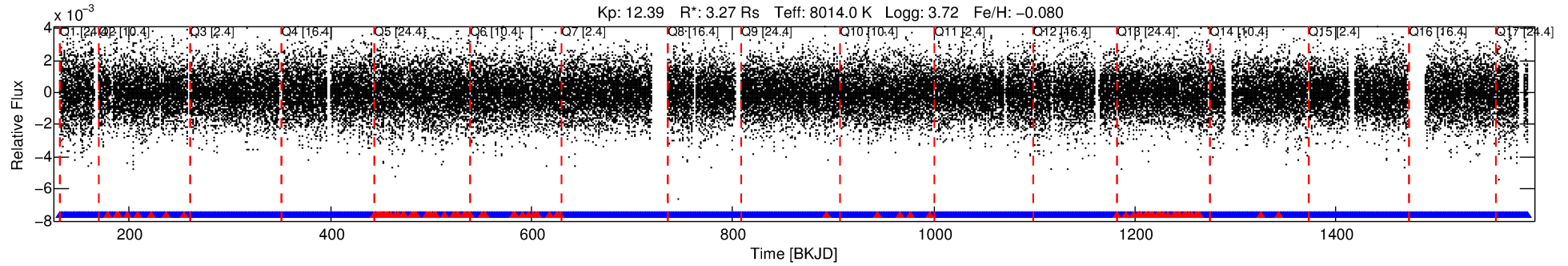
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 008524464-01

No Significant Match Found

# DV One-Page Summary

KIC: 8524464 Candidate: 1 of 3 Period: 0.519 d



## DV Fit Results:

Period = 0.51876 [0.00000] d  
Epoch = 131.8151 [0.0008] BKJD  
Rp/R\* = 0.0190 [0.0018]  
a/R\* = 1.27 [0.24]  
b = 0.90 [0.11]  
Seff = 153598.23 [113019.86]  
Teq = 5048 [929] K  
Rp = 6.78 [3.11] Re  
a = 0.0161 [0.0071] AU  
Ag = 0.68 [0.50] [-0.64 $\sigma$ ]  
Teffp = 7078 [460] K [1.96 $\sigma$ ]

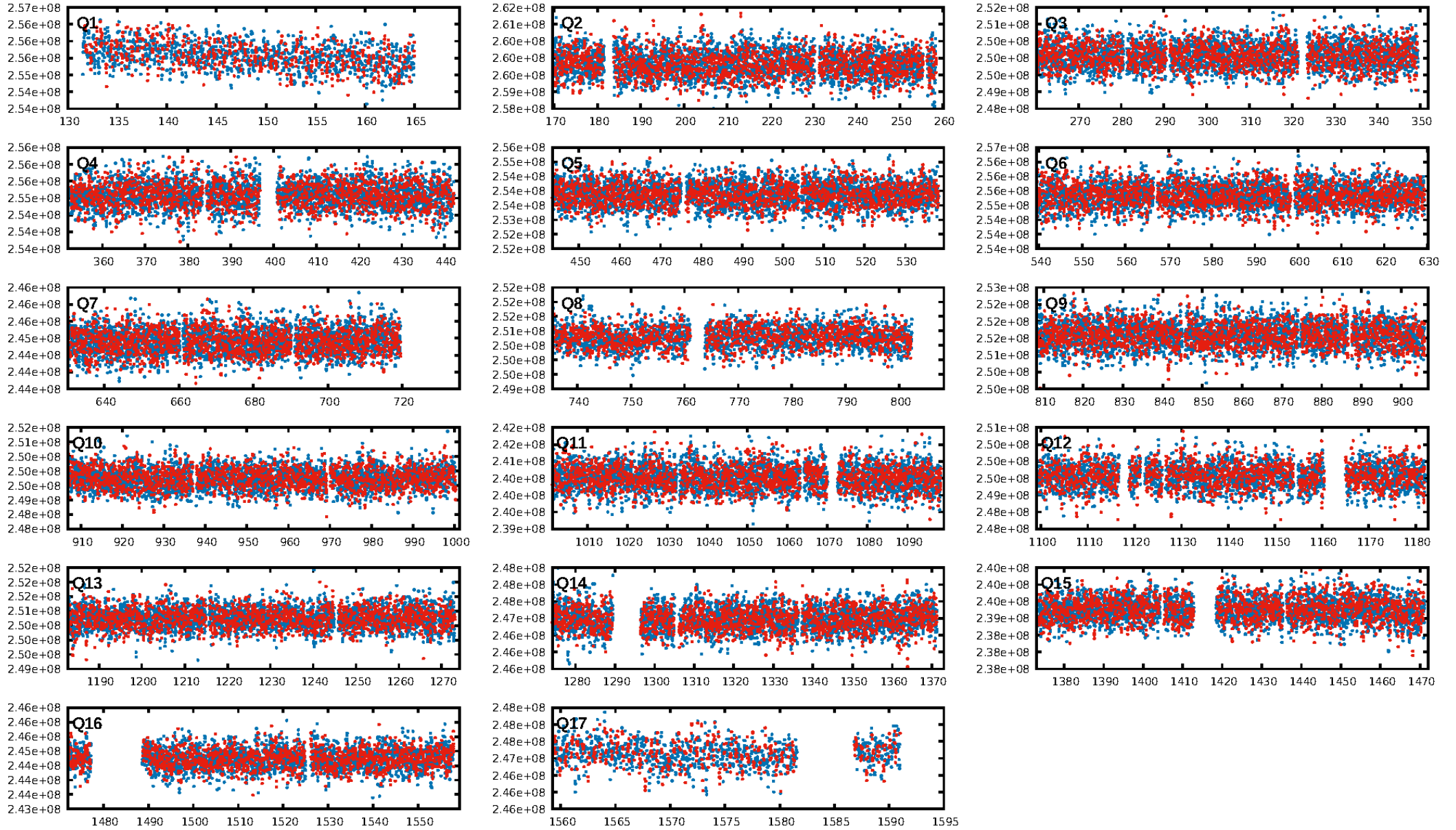
## DV Diagnostic Results:

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: 0.96 [2369/2466]  
GhostDiagnostic-chr: 1.908  
Centroid-sig: 0.6%  
Centroid-so: 0.114 arcsec [1.73 $\sigma$ ]  
OotOffset-rm: 0.085 arcsec [0.95 $\sigma$ ]  
KicOffset-rm: 0.245 arcsec [2.42 $\sigma$ ]  
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: 31-Jan-2016 05:59:23 Z

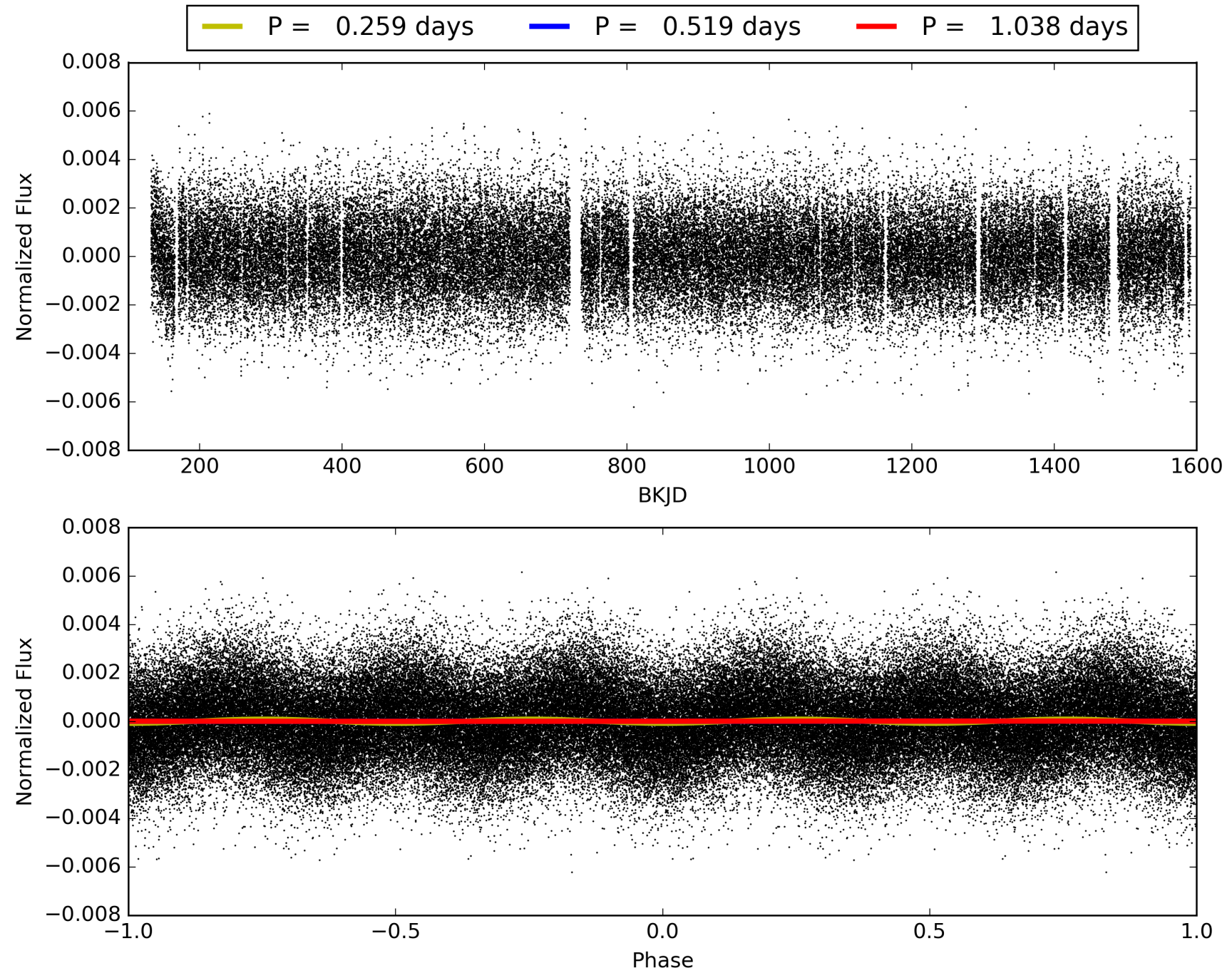
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008524464-01, PDC Light Curves



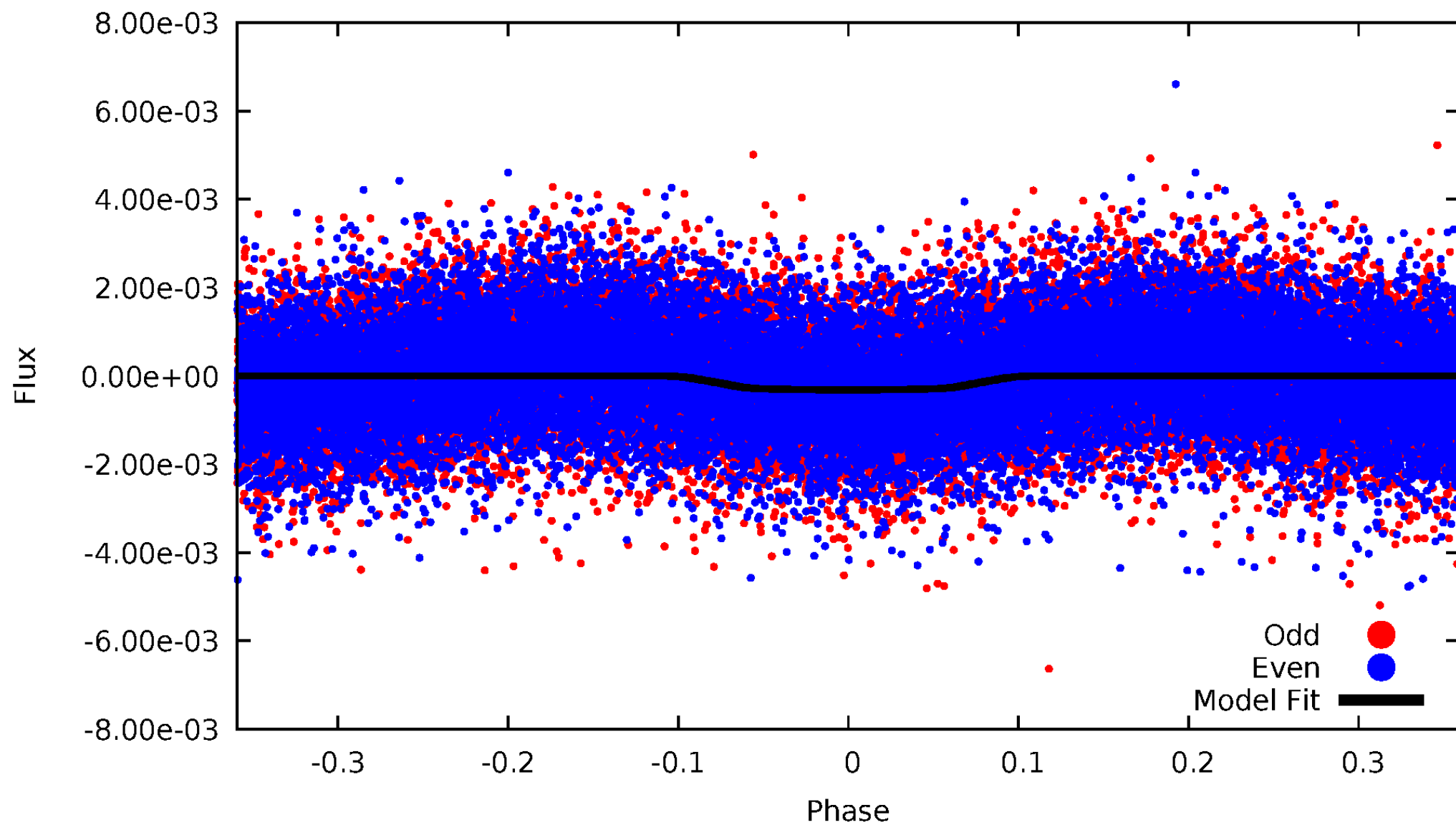


TCE 008524464-01



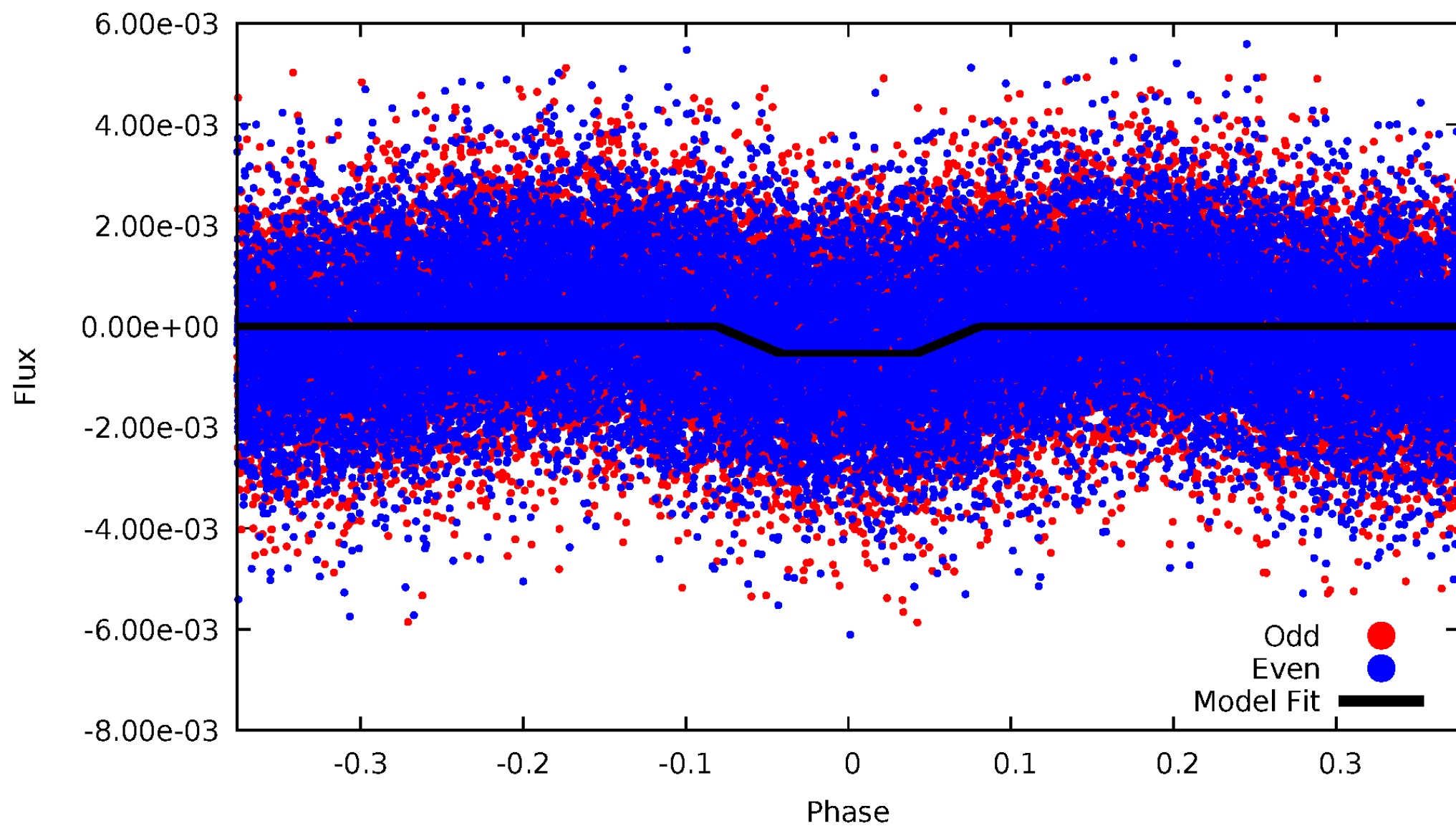
# DV Odd/Even

TCE 008524464-01



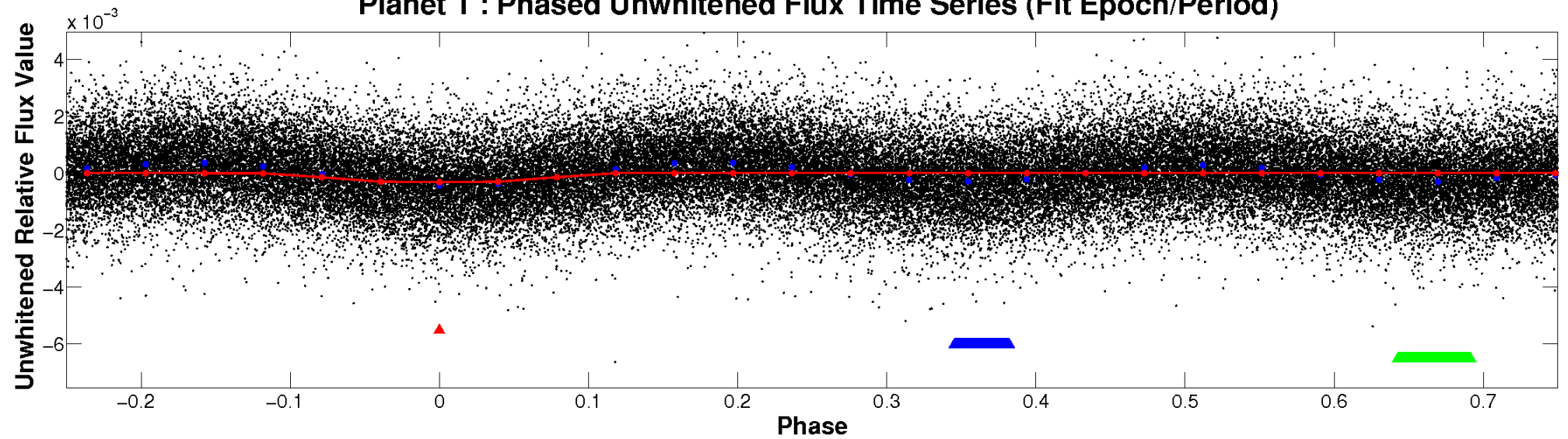
# ALT Odd/Even

TCE 008524464-01

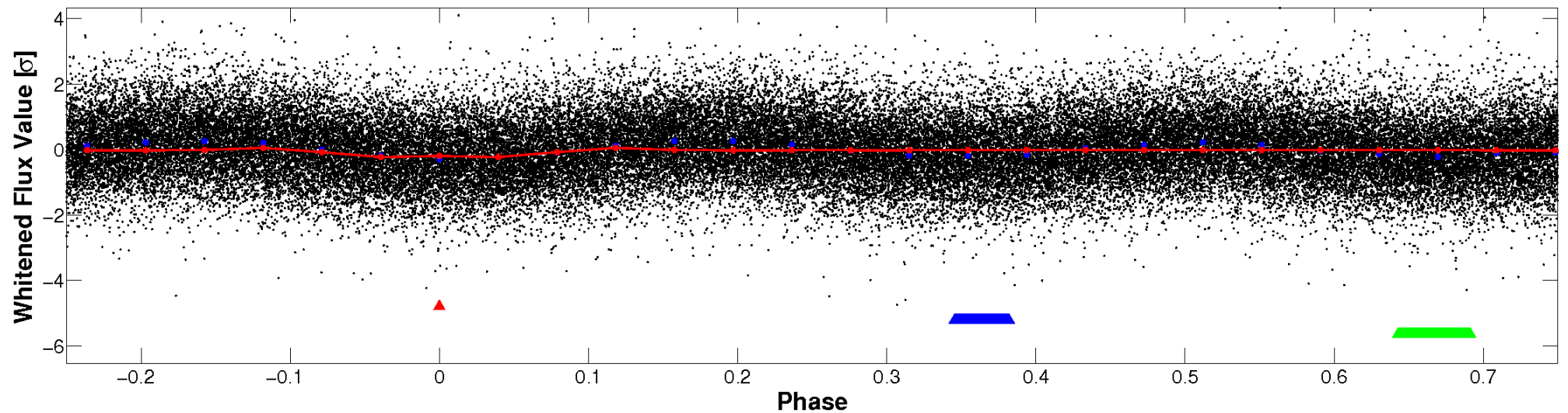


# Non-Whitened Vs. Whitened Light Curve

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



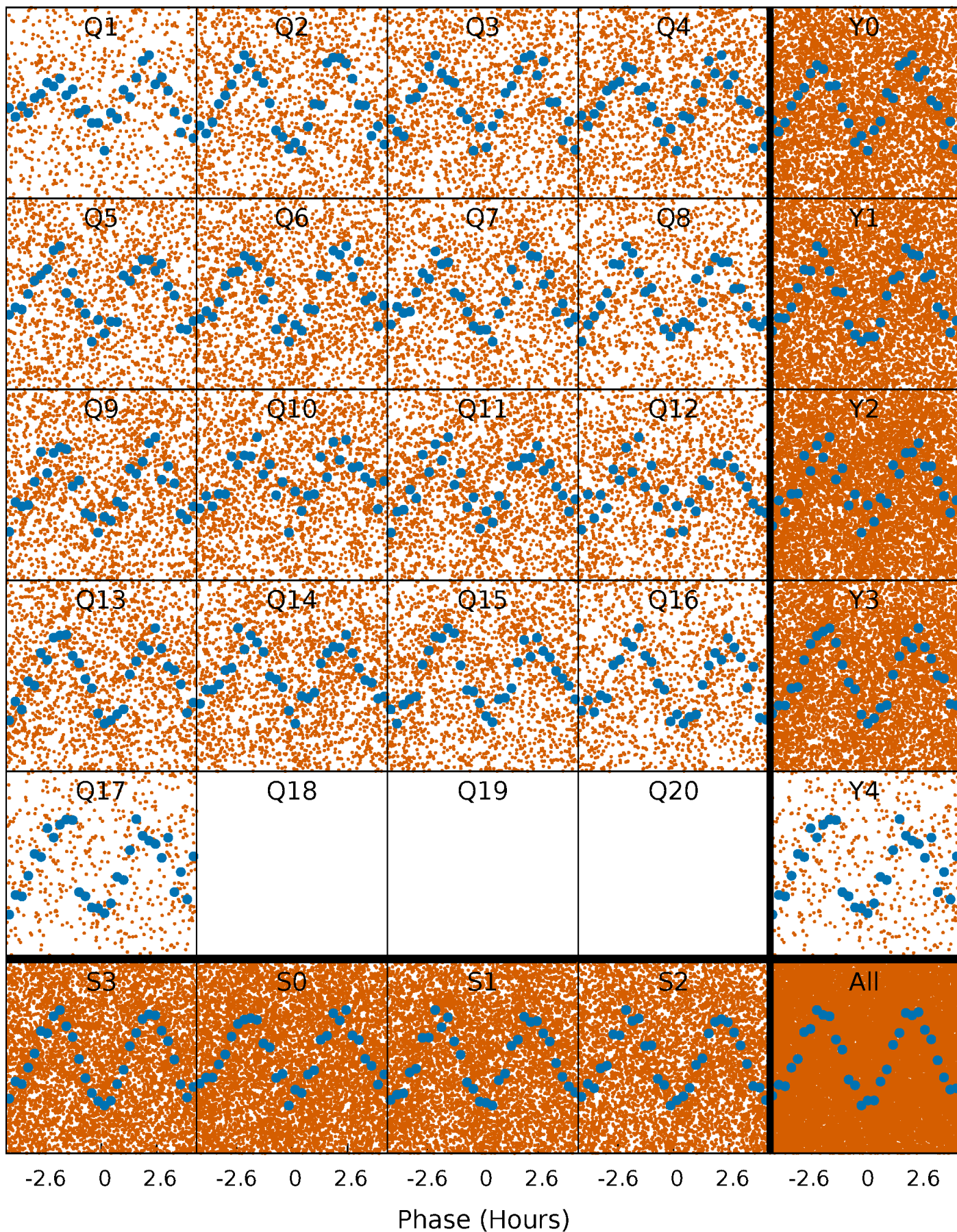
## Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)





# PDC Quarter-Phased Transit Curves

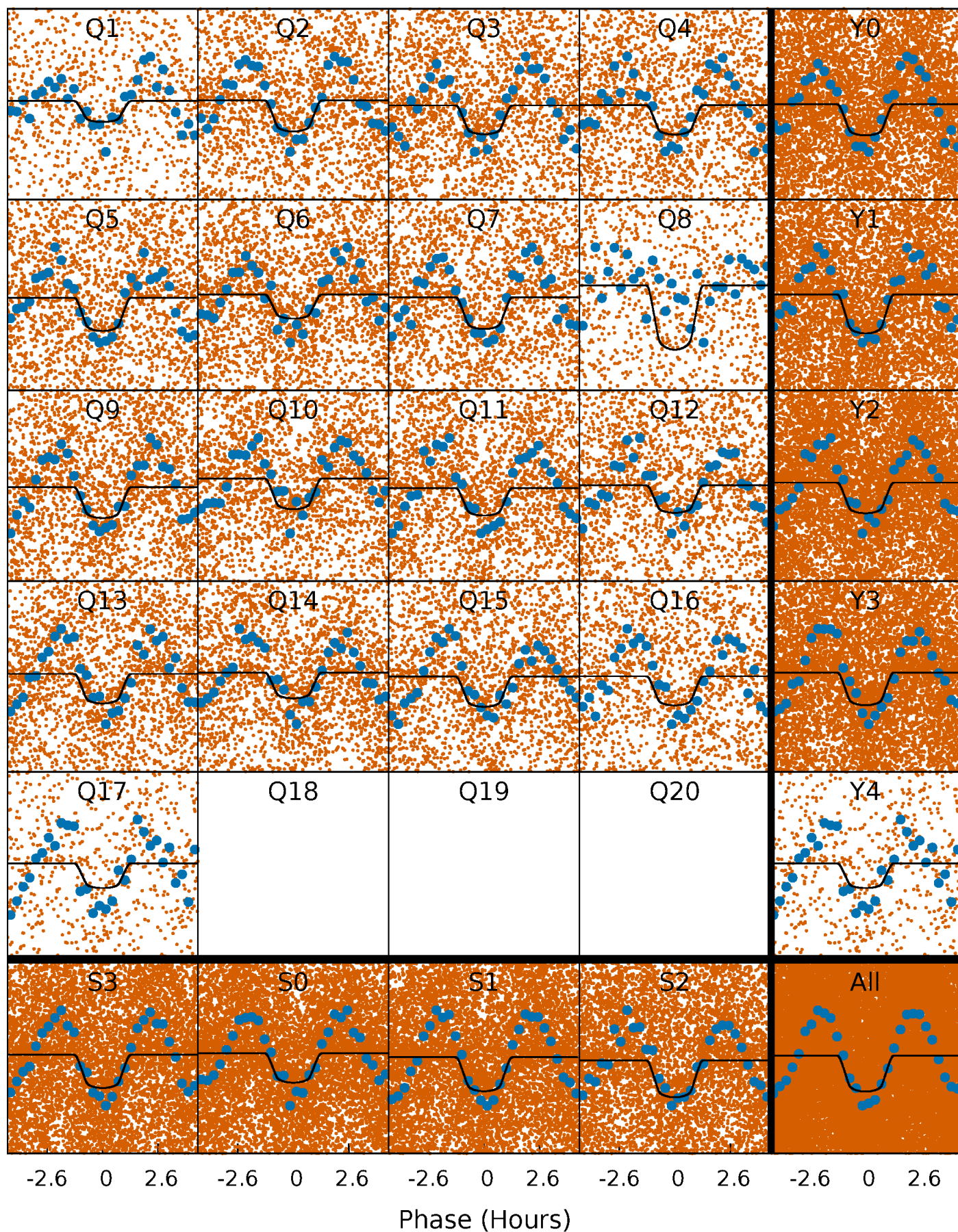
TCE 008524464-01 P= 0.518762 Days  $T_0=131.815132$  (BKJD)





# DV Quarter-Phased Transit Curves

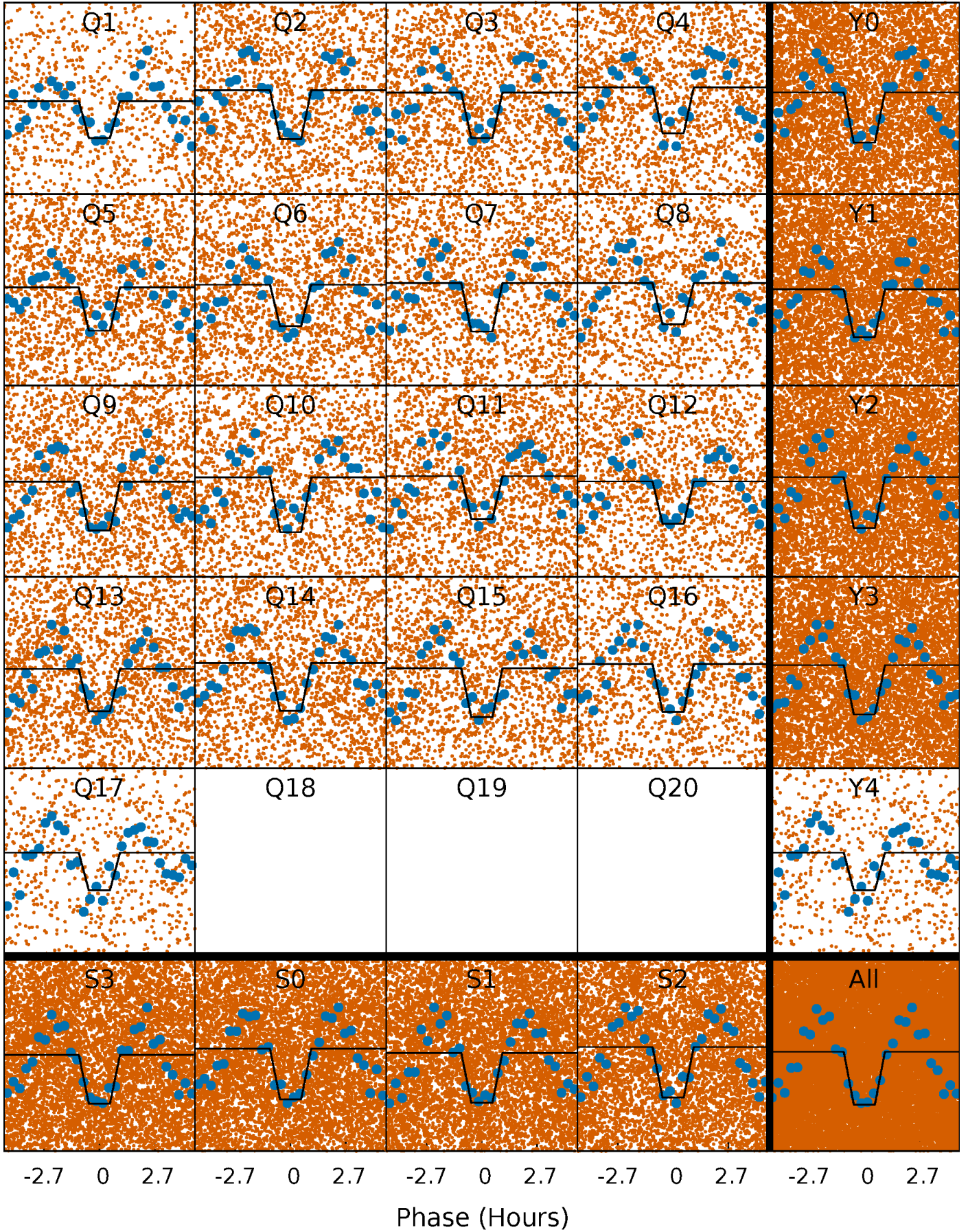
TCE 008524464-01 P= 0.518762 Days  $T_0=131.815132$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

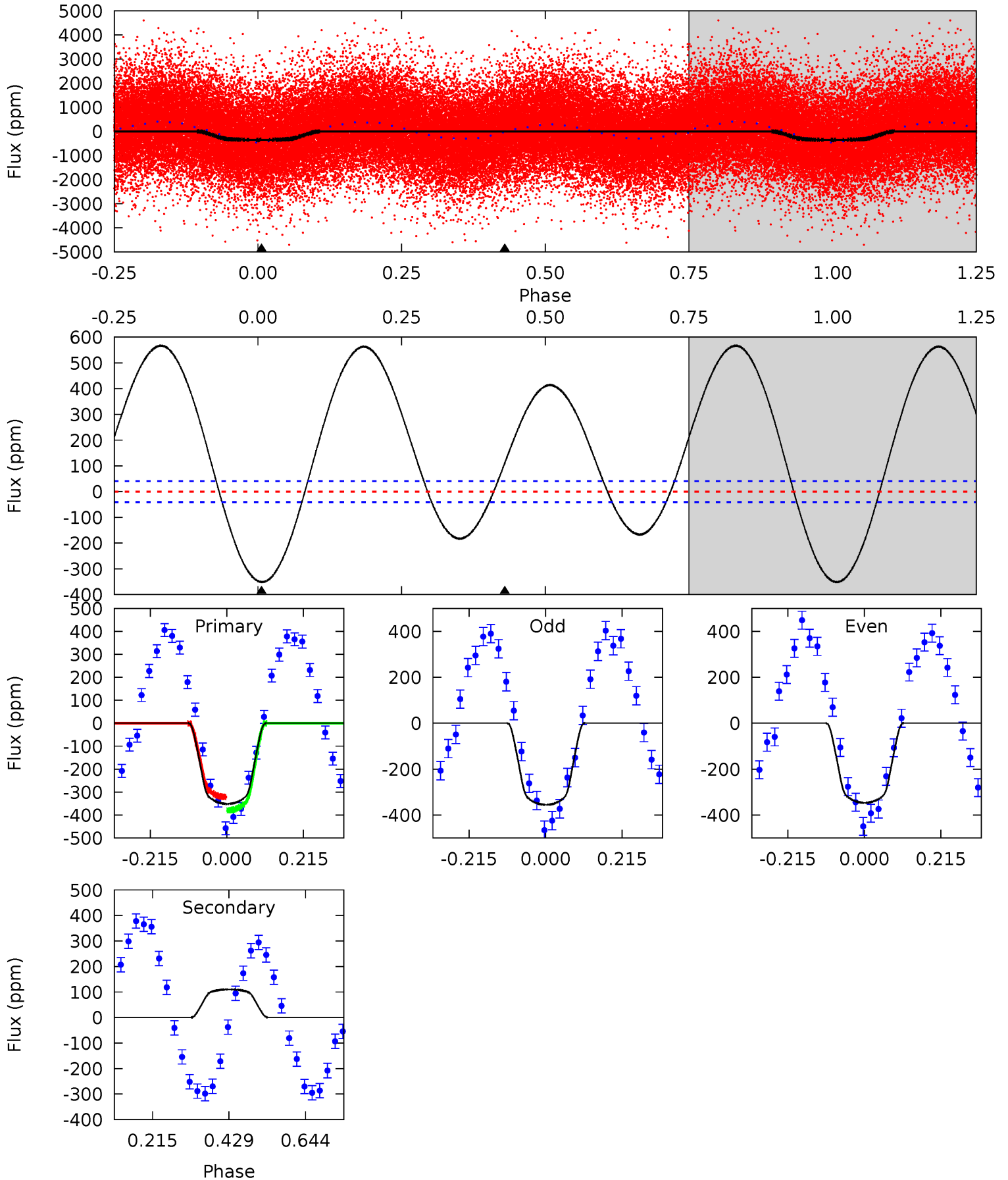
TCE 008524464-01 P= 0.518767 Days  $T_0=131.813008$  (BKJD)



# DV Model-Shift Uniqueness Test

008524464-01, P = 0.518762 Days, E = 131.296370 Days

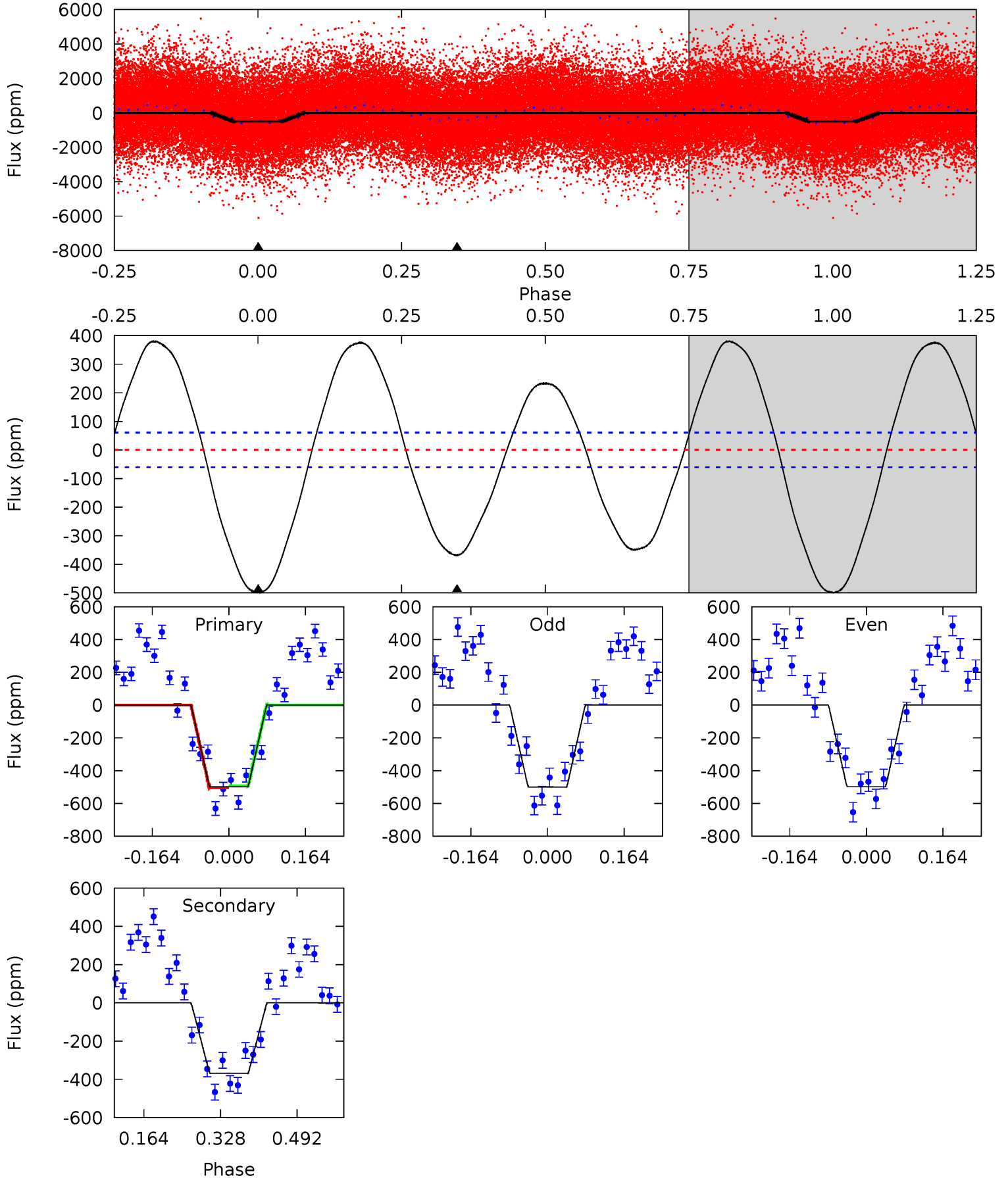
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.0	-11.9	0	0	4.40	1.24	22.6	38.0	38.0	-11.9	-11.9	0.46	1.01	0.62	3.11



# Alt Model-Shift Uniqueness Test

008524464-01, P = 0.518767 Days, E = 131.294241 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
36.8	27.2	0	0	4.46	1.39	18.7	36.8	36.8	27.2	27.2	0.10	1.00	0.43	0.46





### Stellar Parameters For KIC 008524464

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8014^{+223}_{-335}$	$3.720^{+0.424}_{-0.106}$	$-0.080^{+0.200}_{-0.350}$	$3.274^{+0.679}_{-1.472}$	$2.054^{+0.336}_{-0.504}$	$0.082^{+0.329}_{-0.027}$
	+3%/-4%	+11%/-3%	+250%/-438%	+21%/-45%	+16%/-25%	+399%/-32%
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 008524464-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$110 \pm 9$	$6.31^{+1.26}_{-1.46}$	$6826^{+515}_{-802}$	$-6695^{+394}_{-426}$	$-0.388^{+0.110}_{-0.255}$
Alt.	$-368 \pm 14$	$7.93^{+1.44}_{-1.82}$	$6822^{+544}_{-738}$	$6345^{+542}_{-539}$	$0.848^{+0.515}_{-0.232}$

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

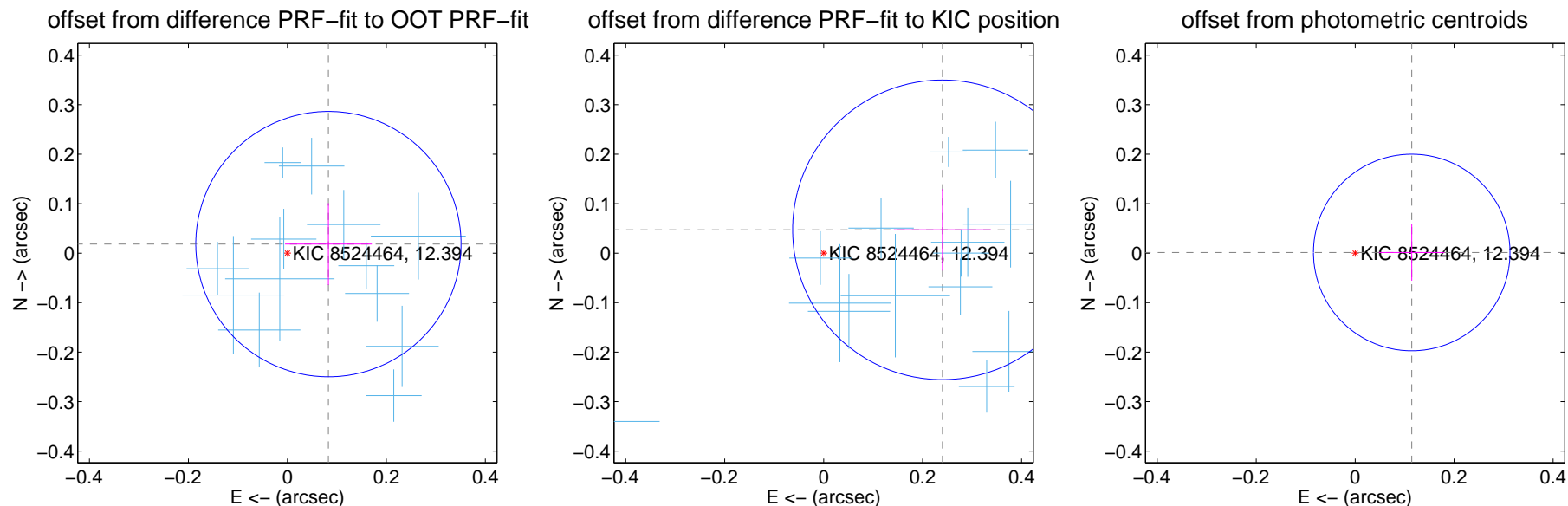
## DV Centroid Data

Supplemental centroid analysis for 008524464-01. Kepler magnitude: 12.39. Transit SNR 21.22

There are 17 quarters with good PRF difference image offsets

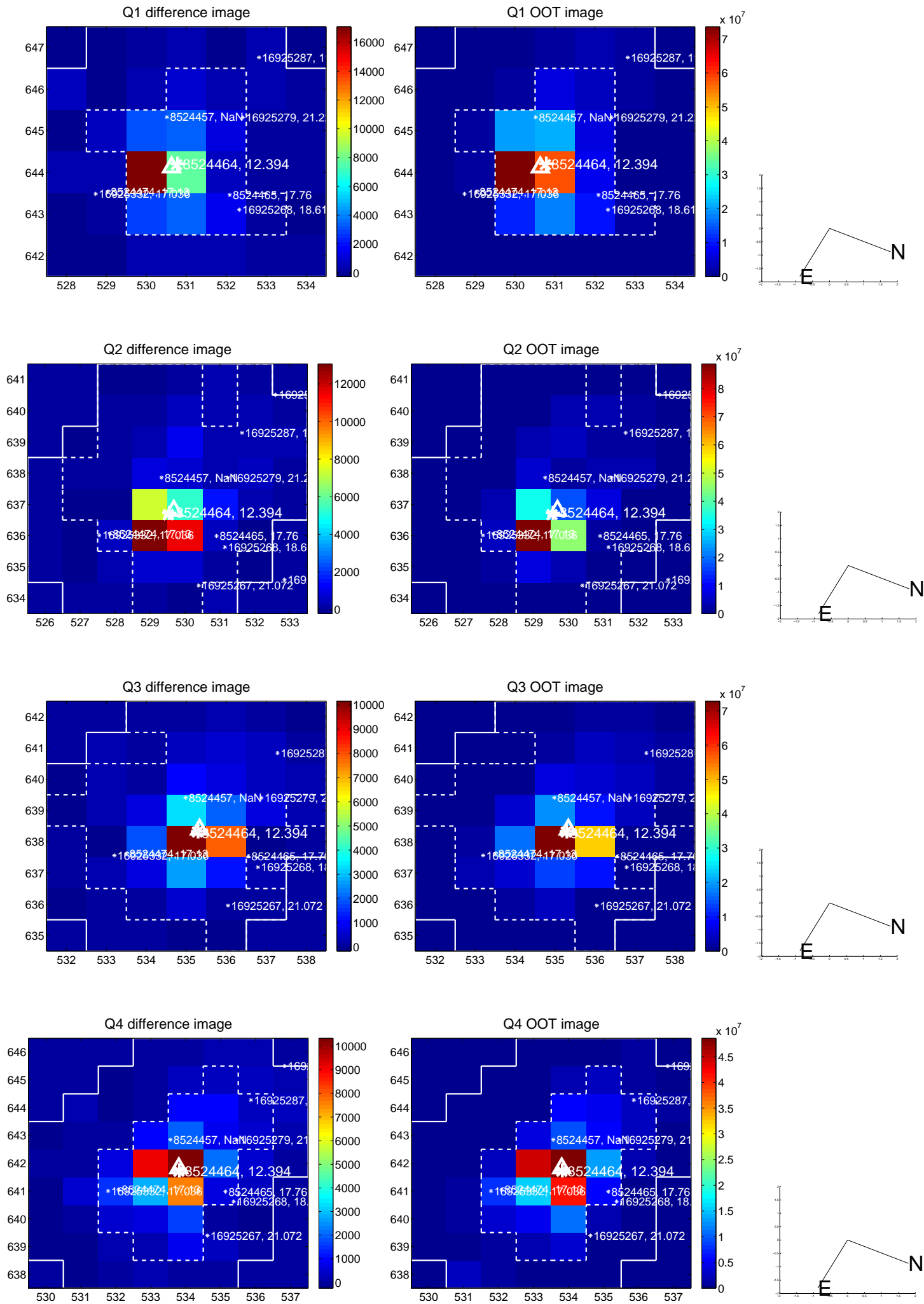
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.085 \pm 0.089$	0.95	$-0.083 \pm 0.088$	$0.018 \pm 0.083$
PRF-fit source offset from KIC position	$0.245 \pm 0.101$	2.42	$-0.240 \pm 0.098$	$0.047 \pm 0.082$
photometric centroid source offset	$0.11 \pm 0.07$	1.73	$-0.11 \pm 0.07$	$0.00 \pm 0.06$

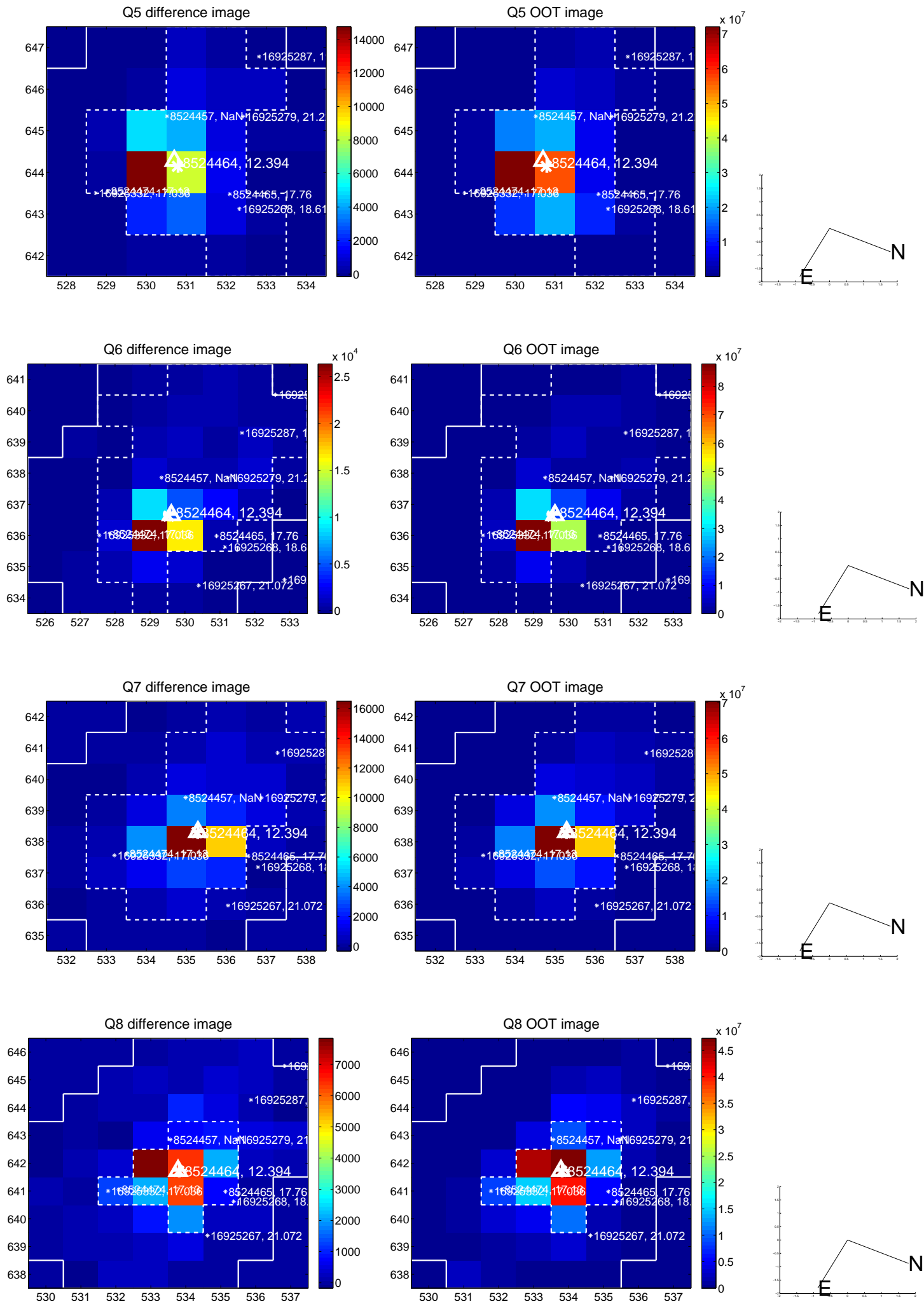


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

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

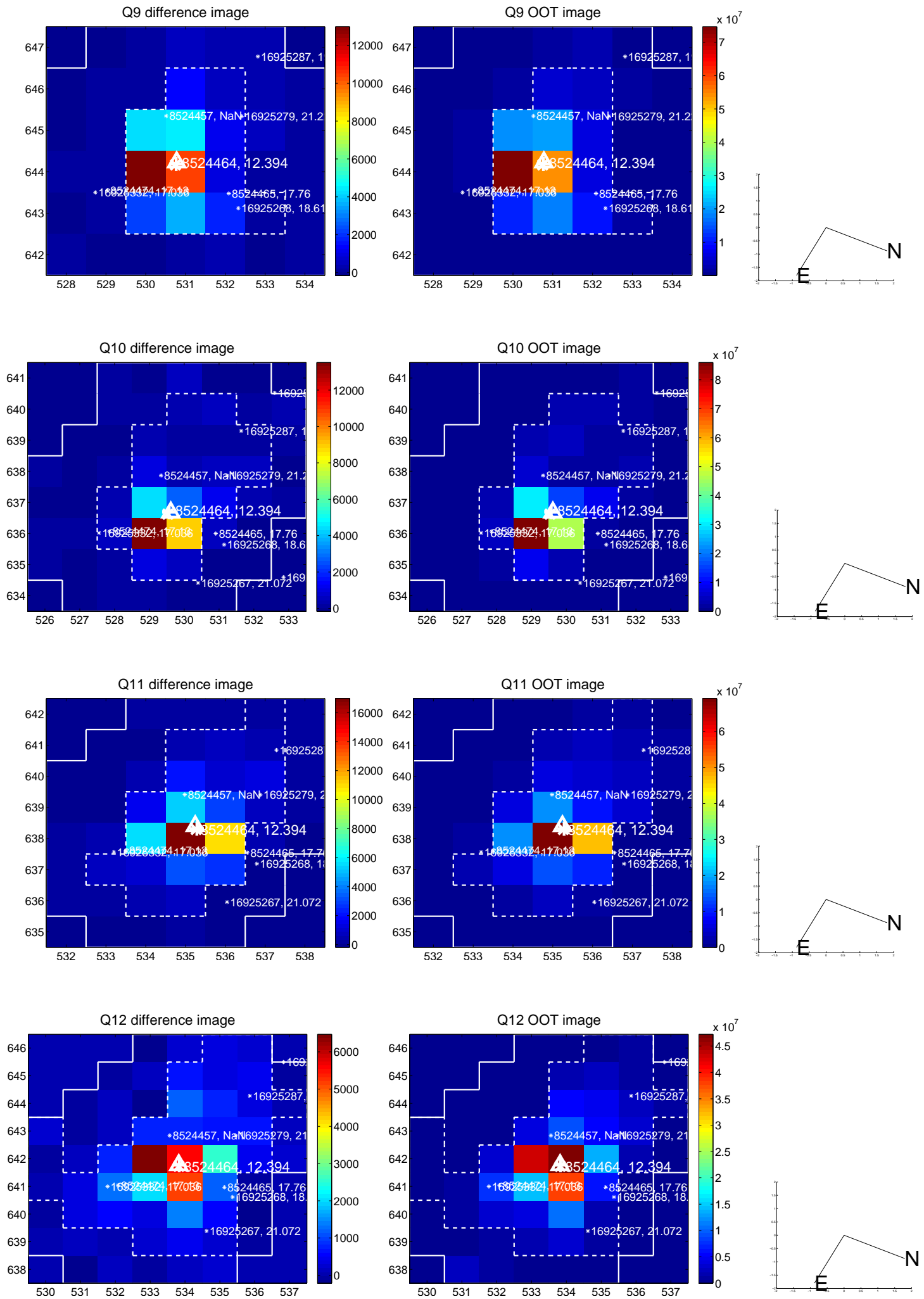


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

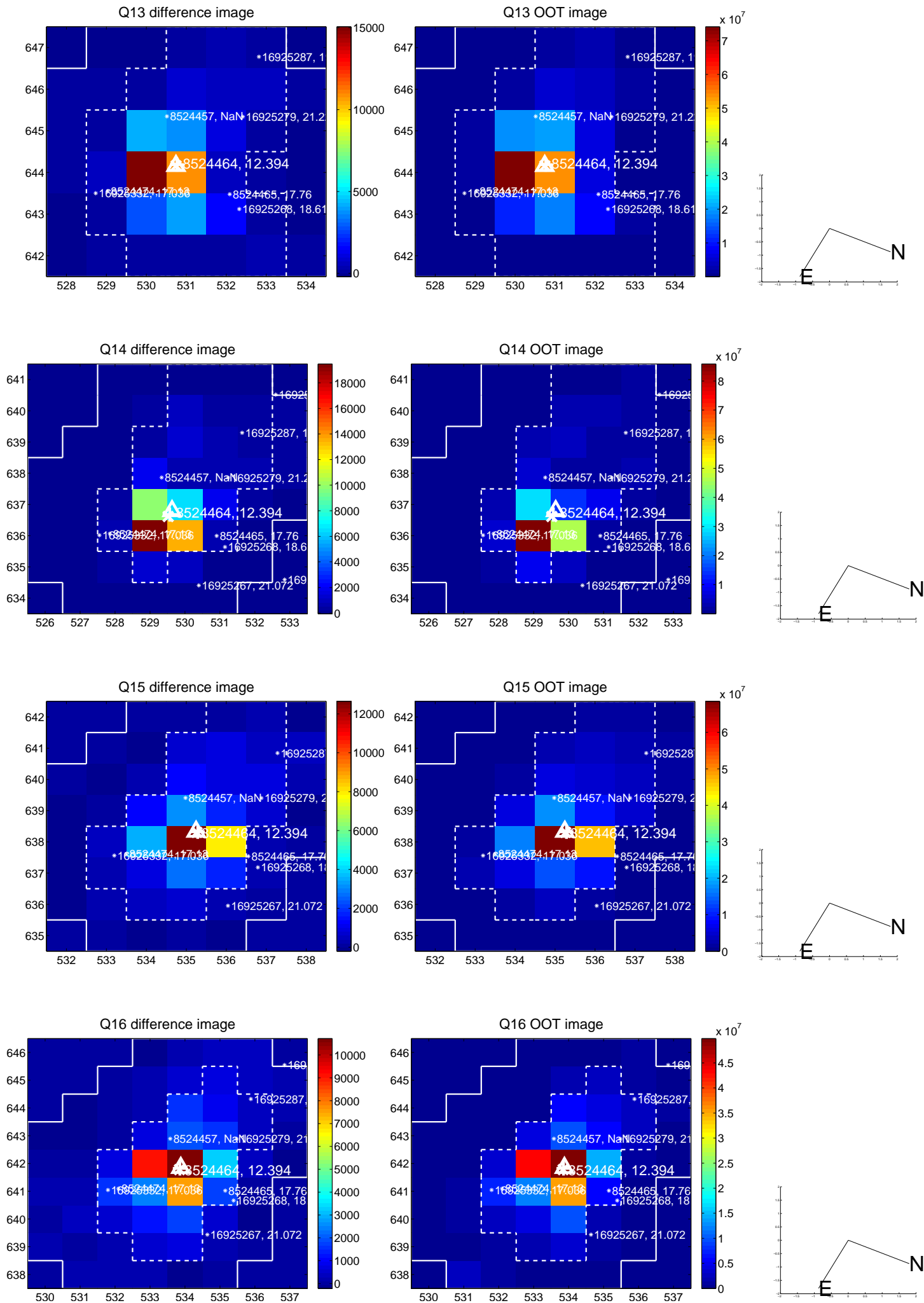




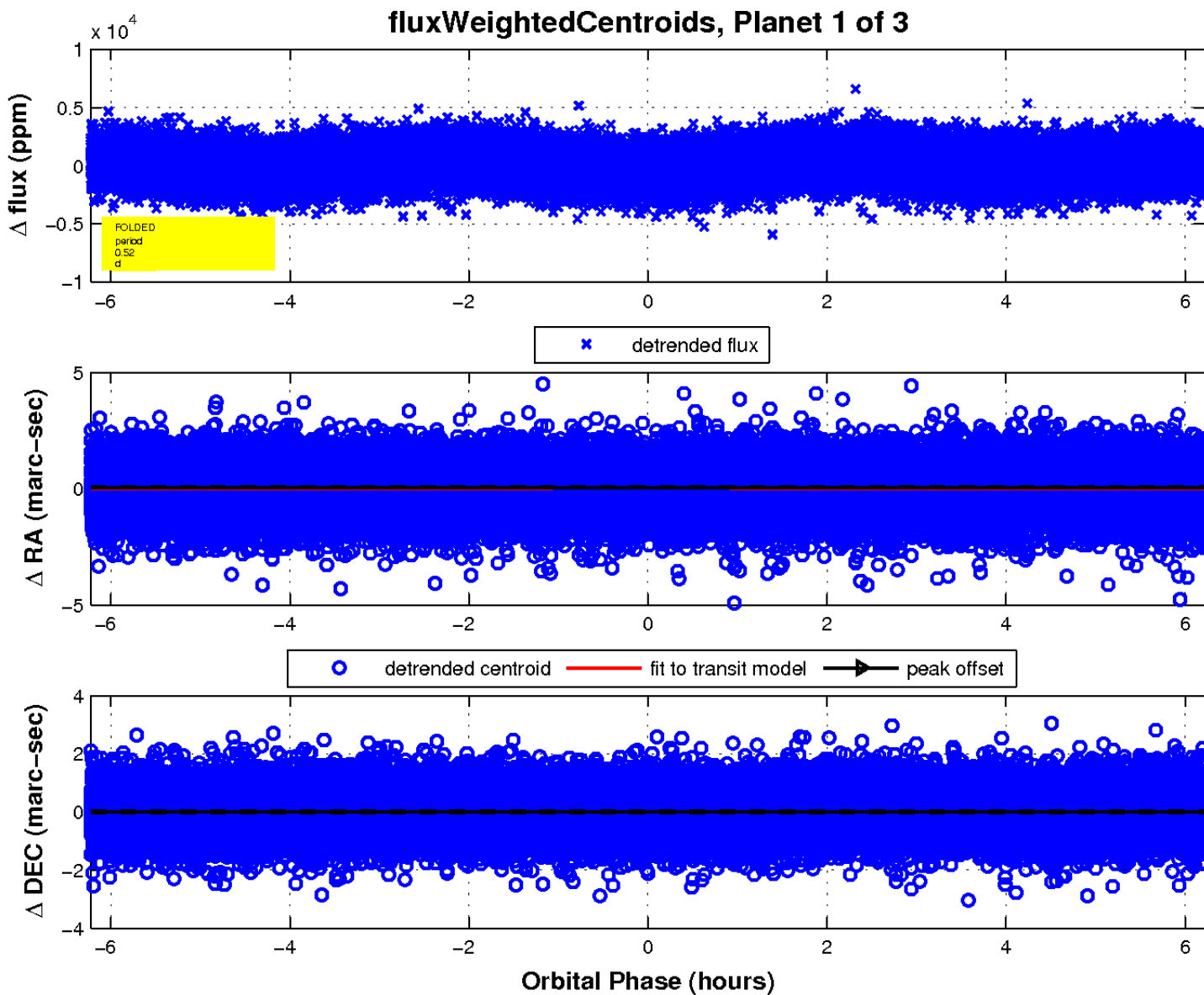
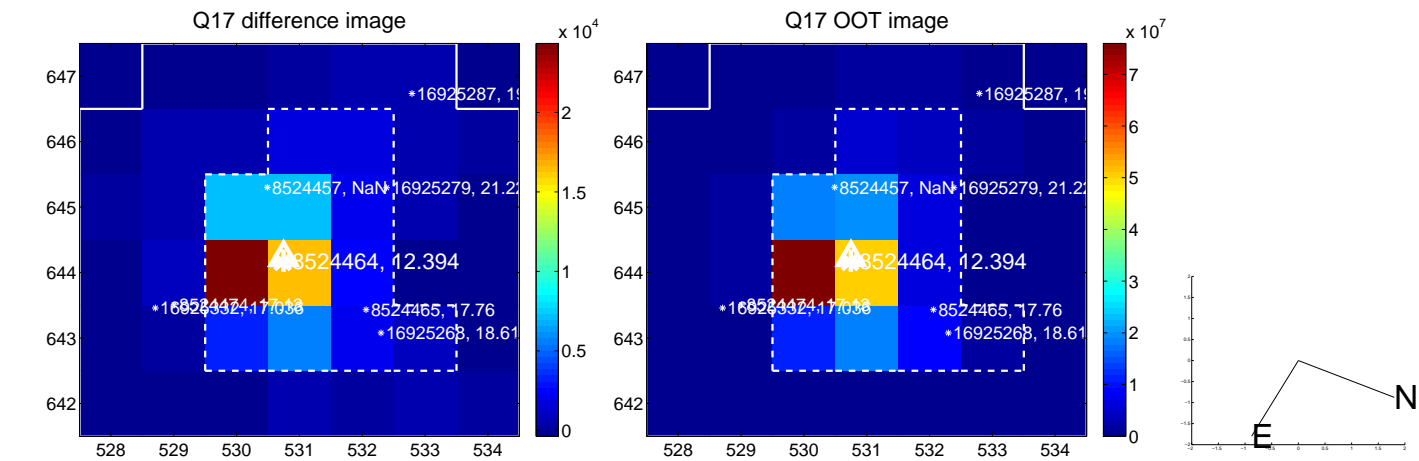
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

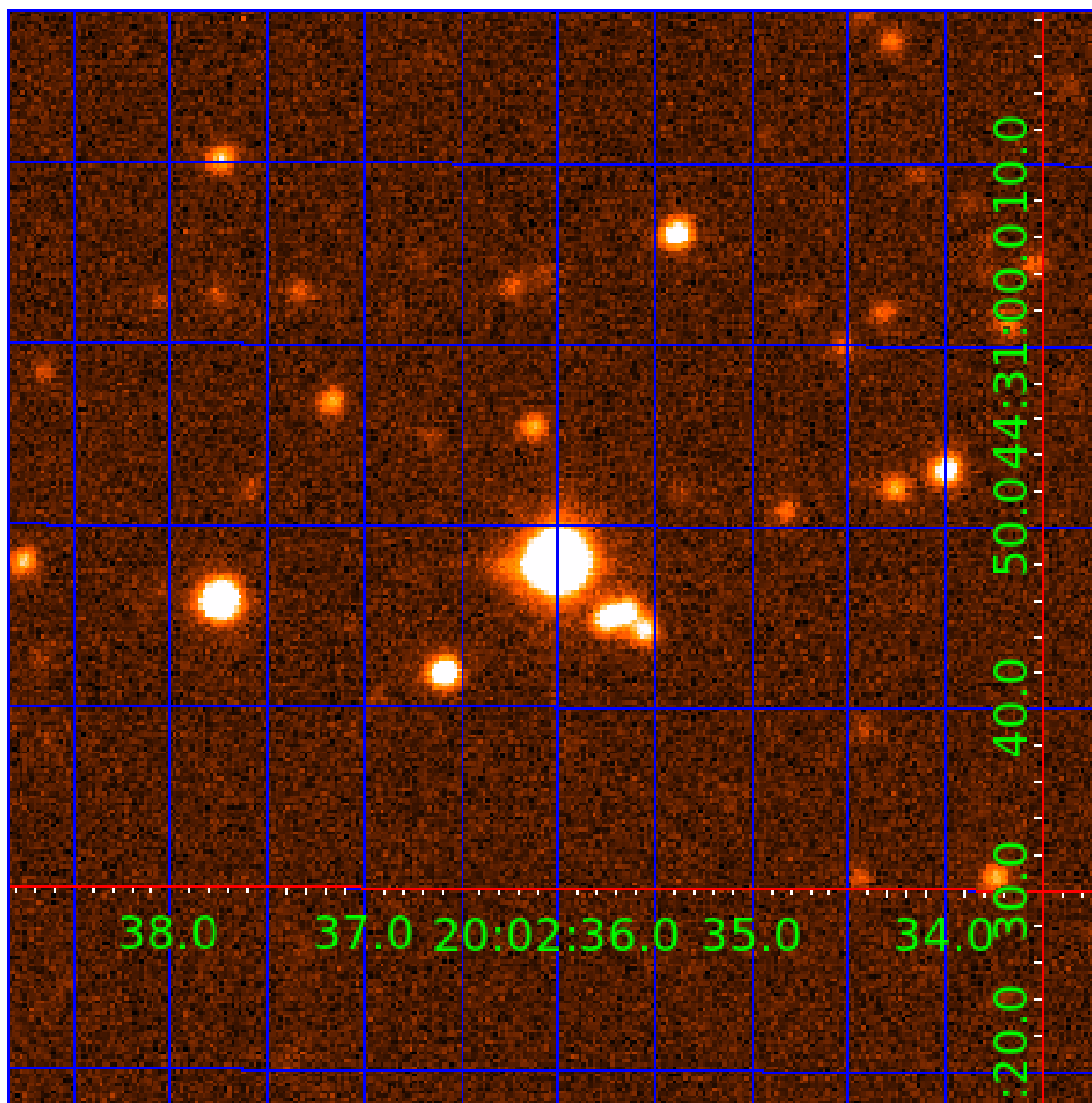


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 008524464

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008524464-01	OBS	No	0.518762	131.815132	314.7	2.236	16.1	21.2	3.27	8014	6.78	153598.23
008524464-02	OBS	No	0.518769	131.994291	251.5	1.550	14.7	17.9	3.27	8014	5.26	153595.55
008524464-03	OBS	No	0.518771	131.629744	328.8	1.500	14.0	-1.0	3.27	8014	6.01	153594.67

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008524464-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008524464-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD
008524464-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—NO_FITS—SAME_NTL_PERIOD—CENT_NOFITS

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

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

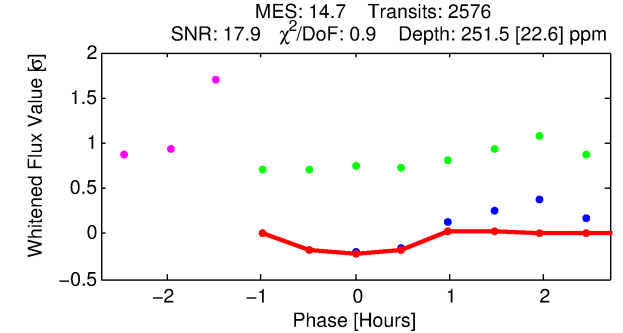
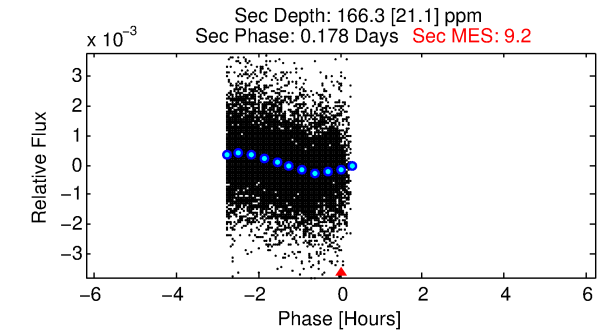
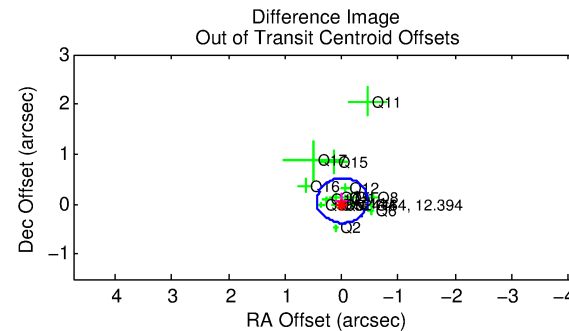
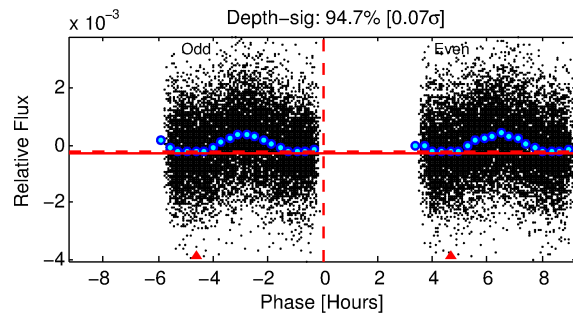
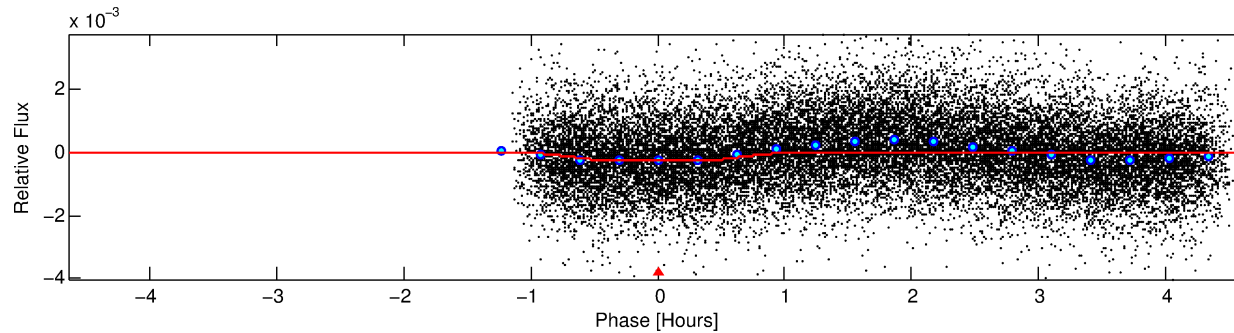
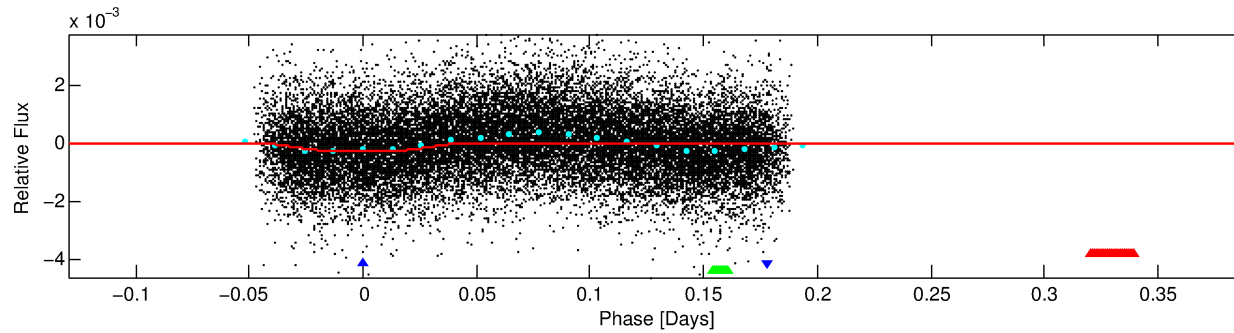
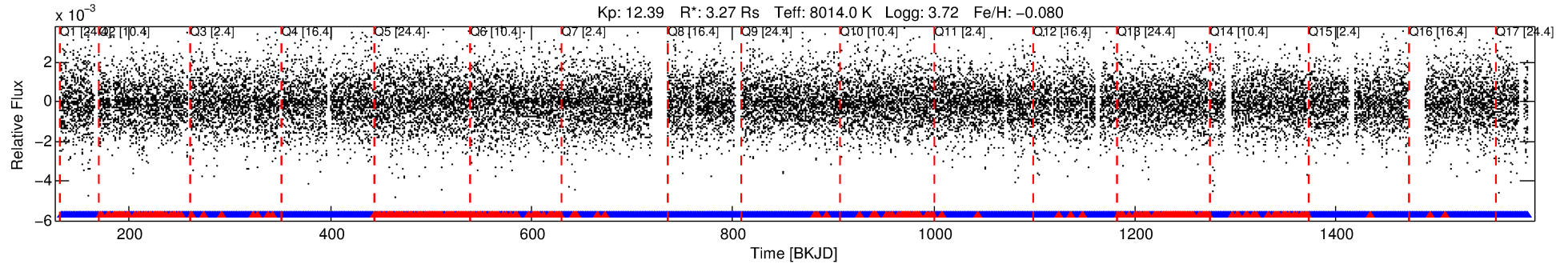
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008524464-02

No Significant Match Found

# DV One-Page Summary

KIC: 8524464 Candidate: 2 of 3 Period: 0.519 d



## DV Fit Results:

Period = 0.51877 [0.00001] d  
Epoch = 131.9943 [0.0011] BKJD  
Rp/R\* = 0.0147 [0.0069]  
a/R\* = 2.66 [5.95]  
b = 0.04 [63.90]  
Seff = 153595.55 [113017.89]  
Teq = 5048 [929] K  
Rp = 5.26 [3.40] Re  
a = 0.0161 [0.0071] AU  
Ag = 0.85 [1.01] [-0.14 $\sigma$ ]  
Teffp = 7503 [1791] K [1.22 $\sigma$ ]

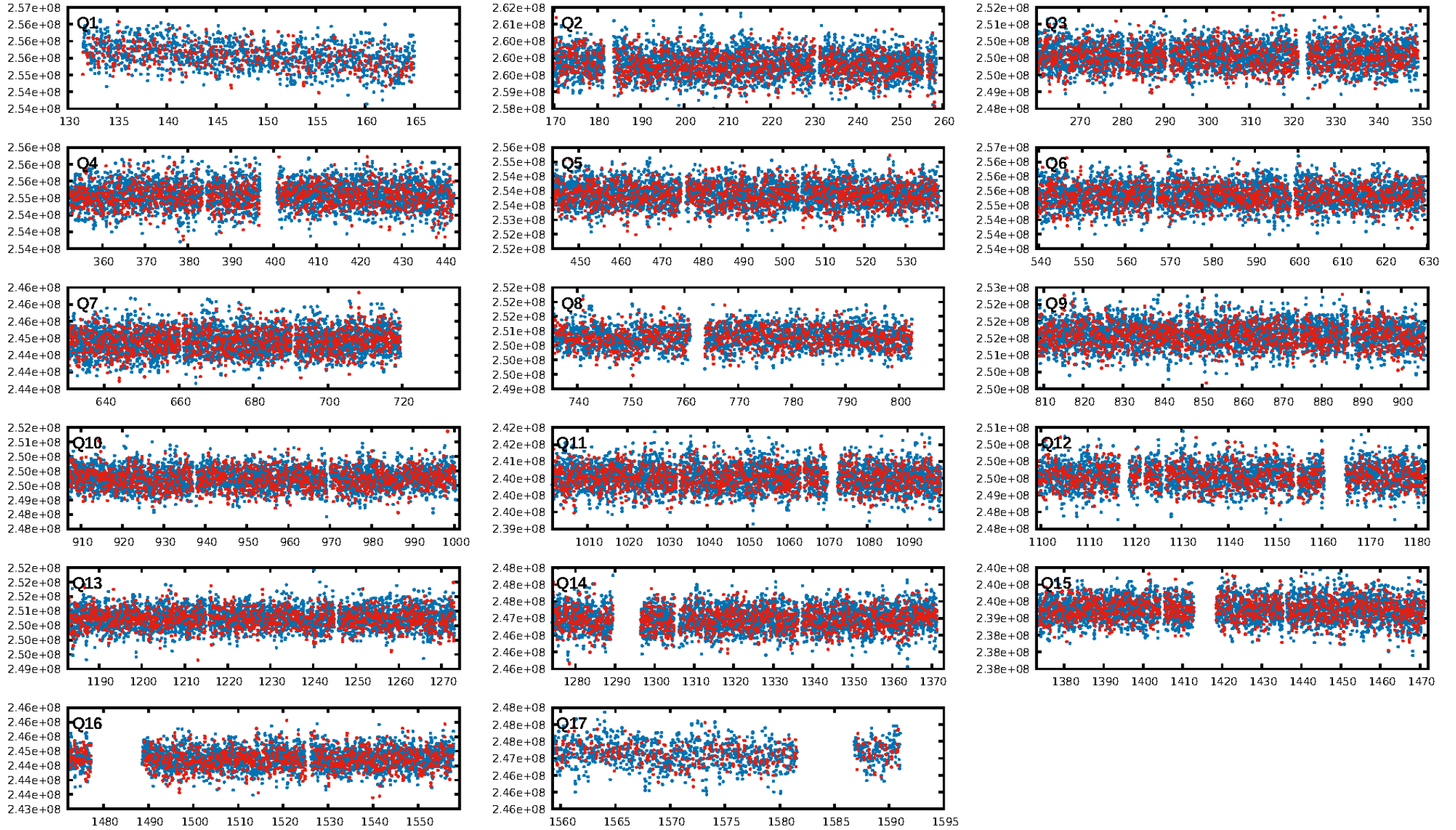
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 $\sigma$ ]  
LongPeriod-sig: 0.0% [0.00 $\sigma$ ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.87 [2132/2460]  
GhostDiagnostic-chr: 2.451  
Centroid-sig: 30.1%  
Centroid-so: 0.032 arcsec [0.35 $\sigma$ ]  
OotOffset-rm: 0.071 arcsec [0.47 $\sigma$ ]  
KicOffset-rm: 0.164 arcsec [1.39 $\sigma$ ]  
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]

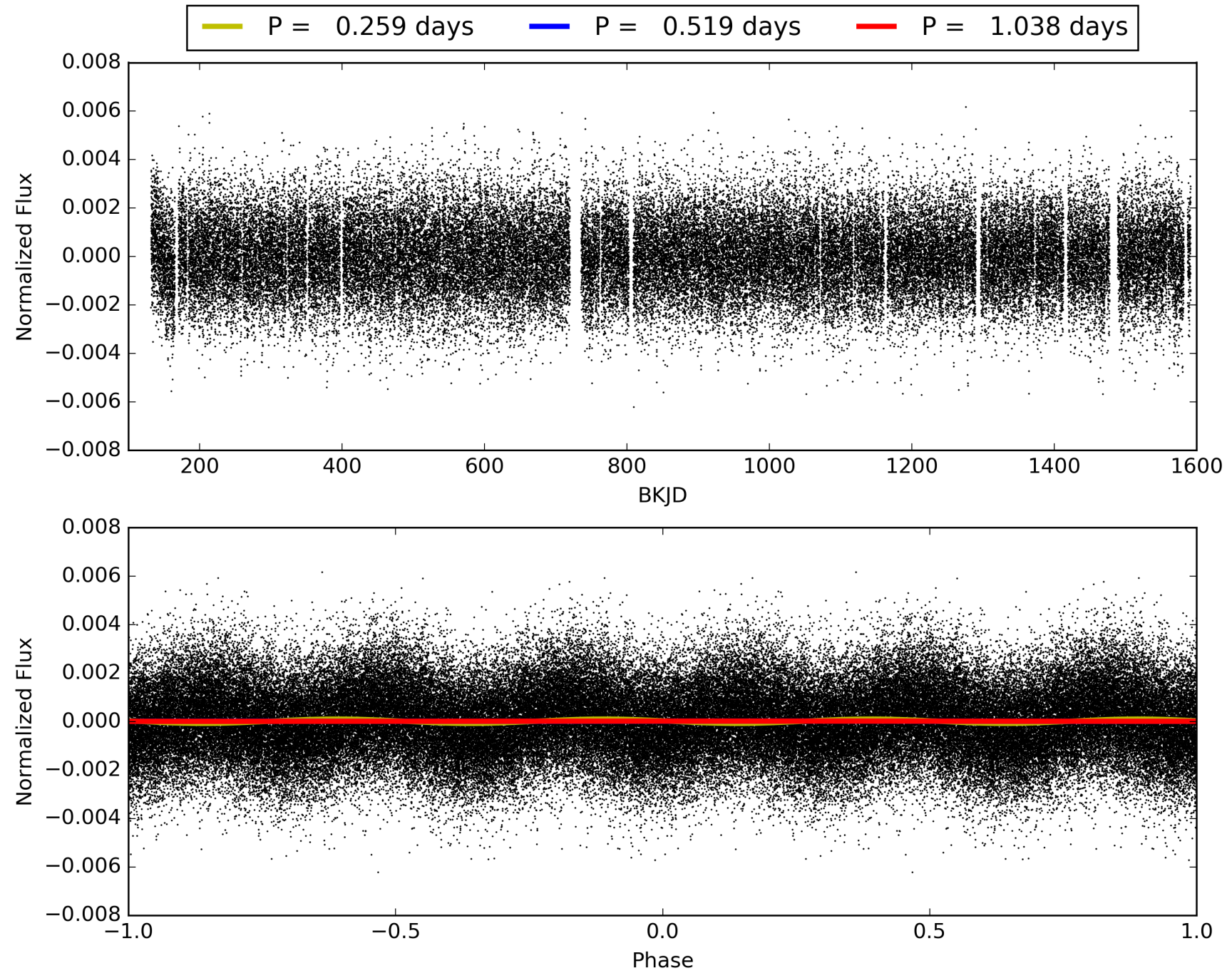
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:59:35 Z

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

# TCE 008524464-02, PDC Light Curves



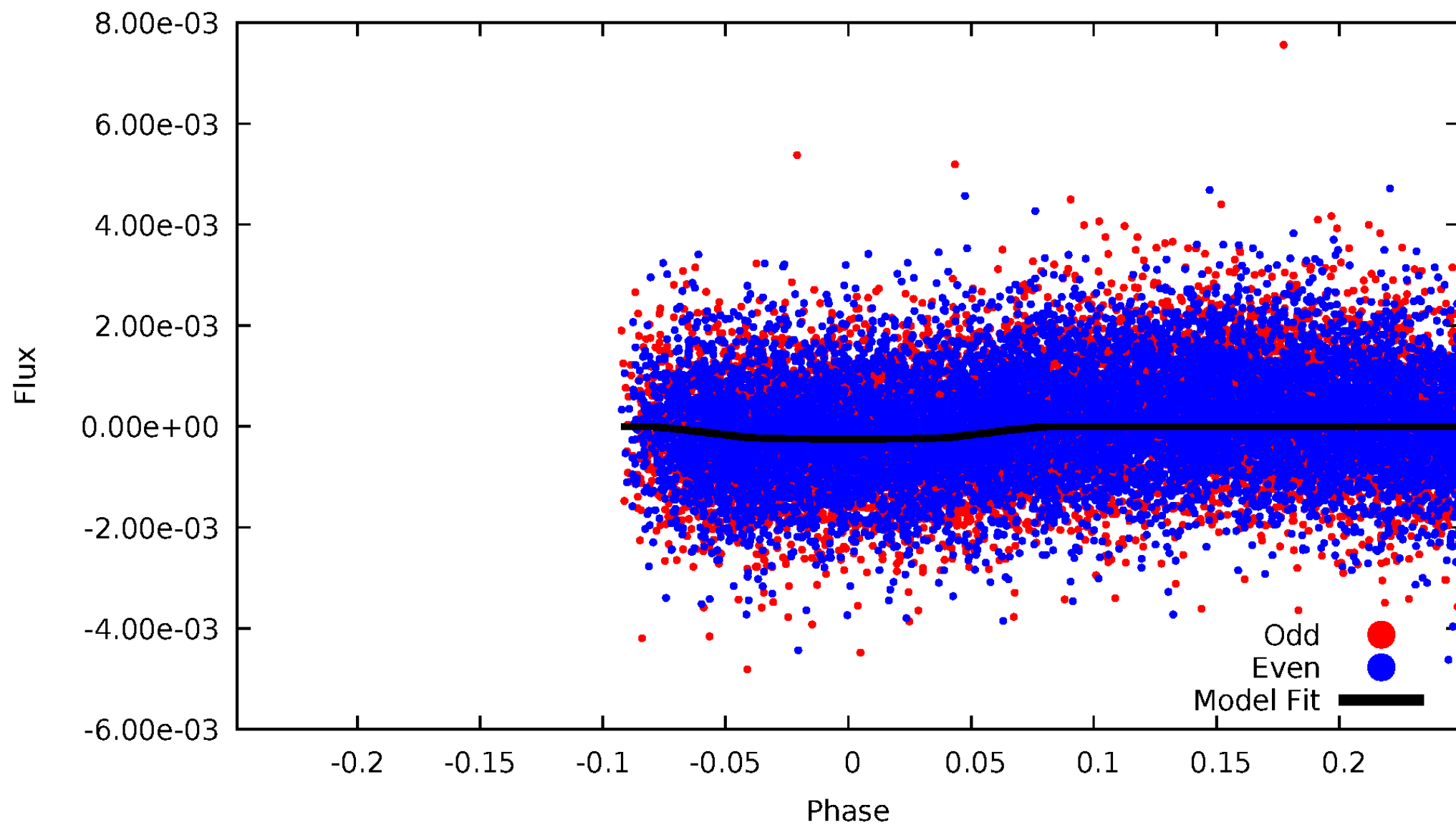
TCE 008524464-02





# DV Odd/Even

TCE 008524464-02



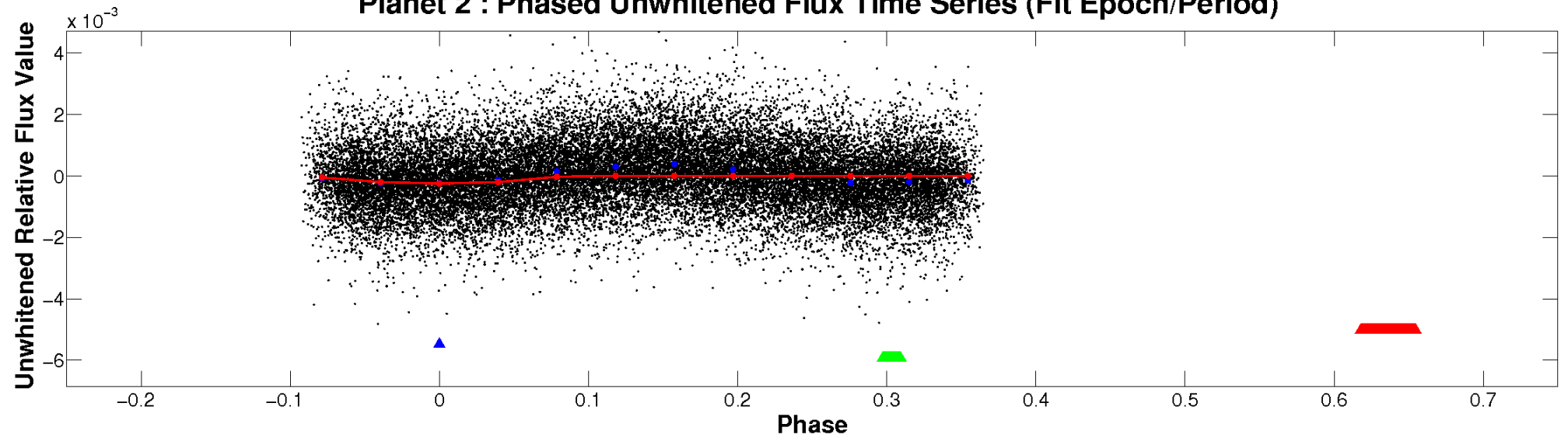


ALT Odd/Even

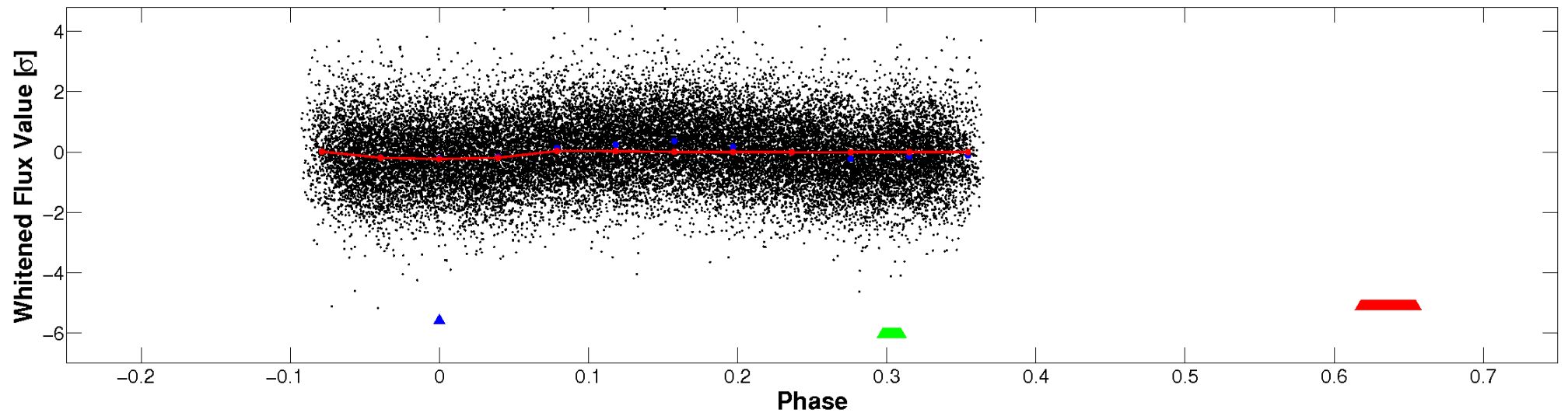
This plot does not exist for this TCE.

# Non-Whitened Vs. Whitened Light Curve

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

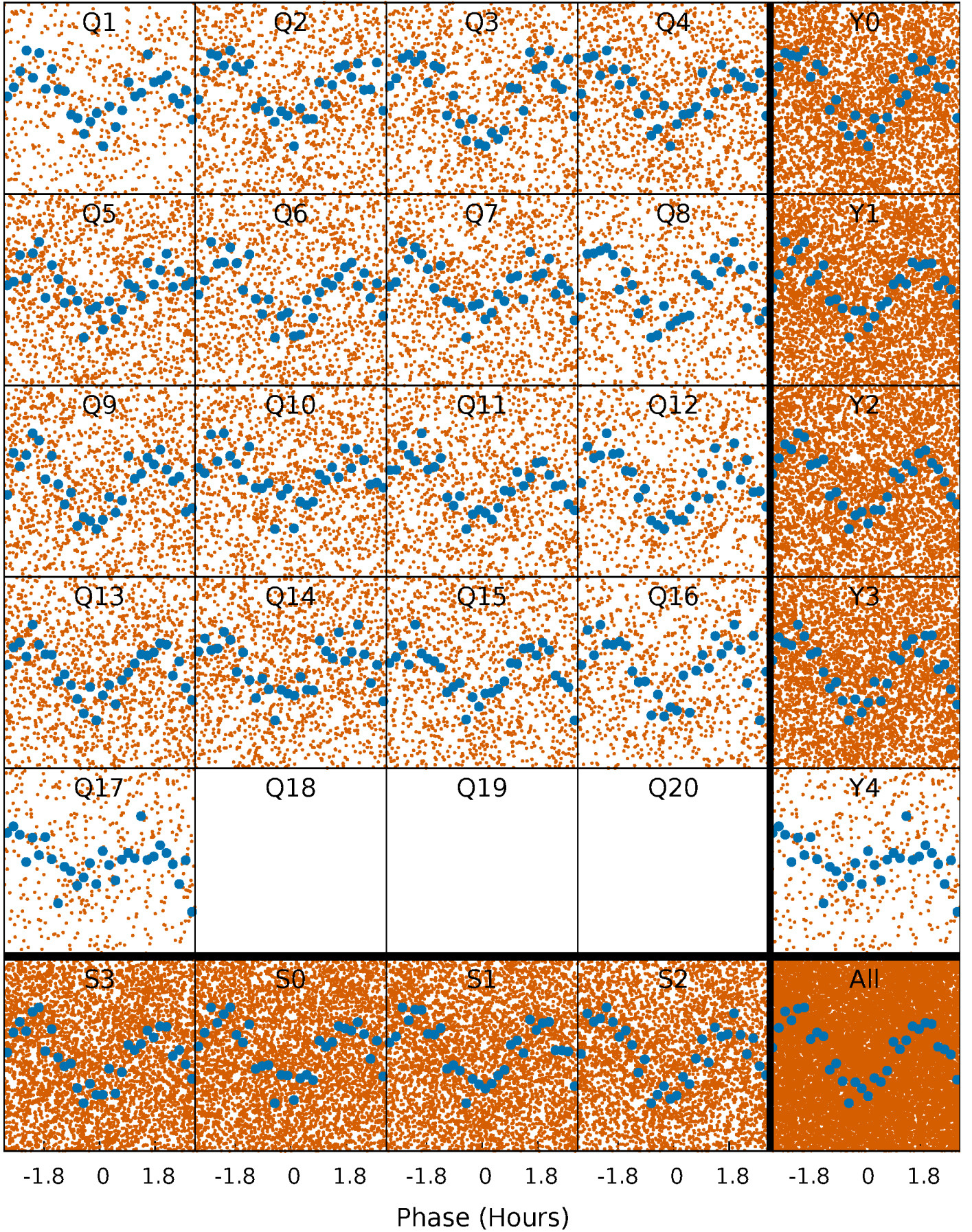


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

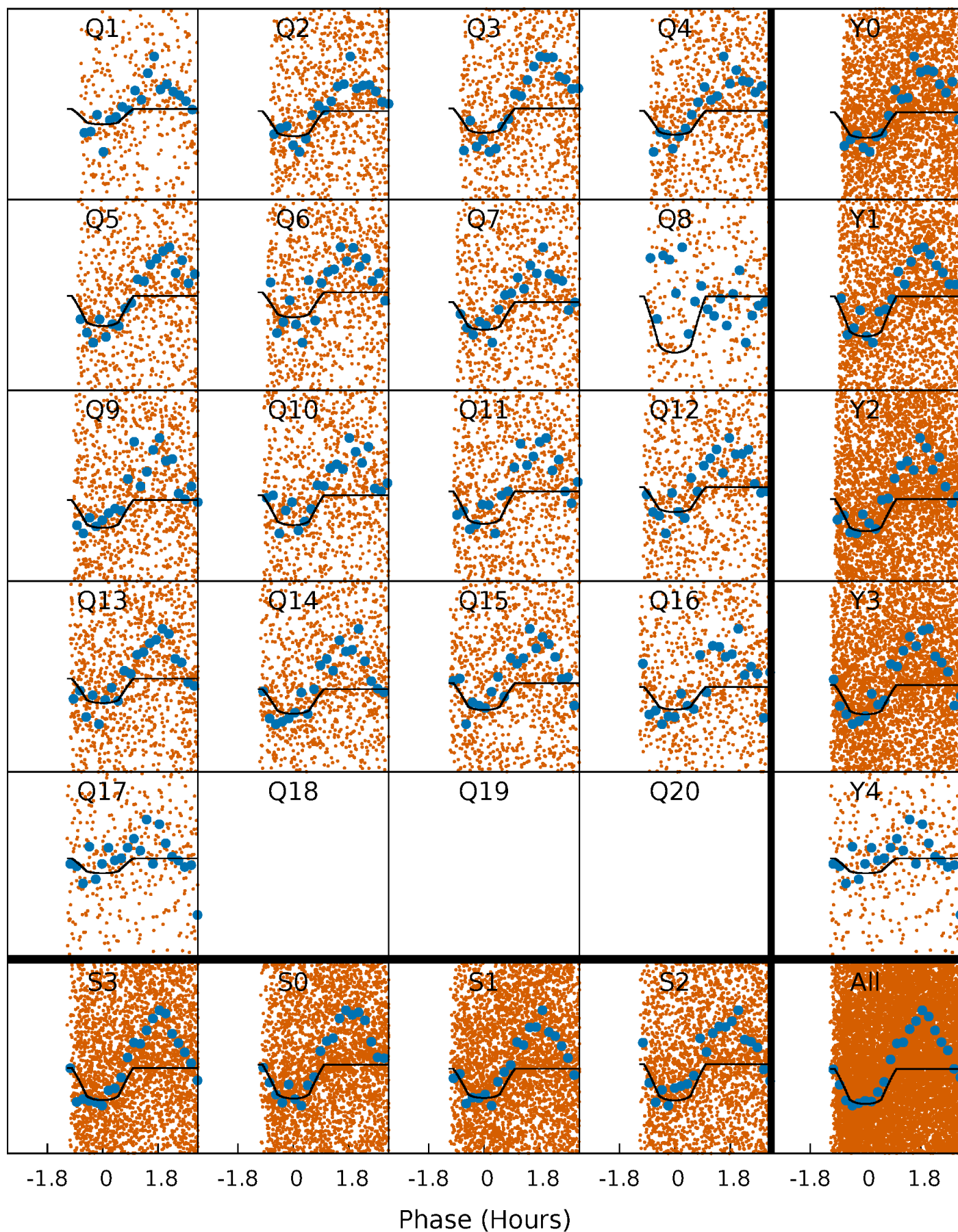
TCE 008524464-02   P= 0.518769 Days    $T_0=131.994291$  (BKJD)





# DV Quarter-Phased Transit Curves

TCE 008524464-02   P= 0.518769 Days    $T_0=131.994291$  (BKJD)

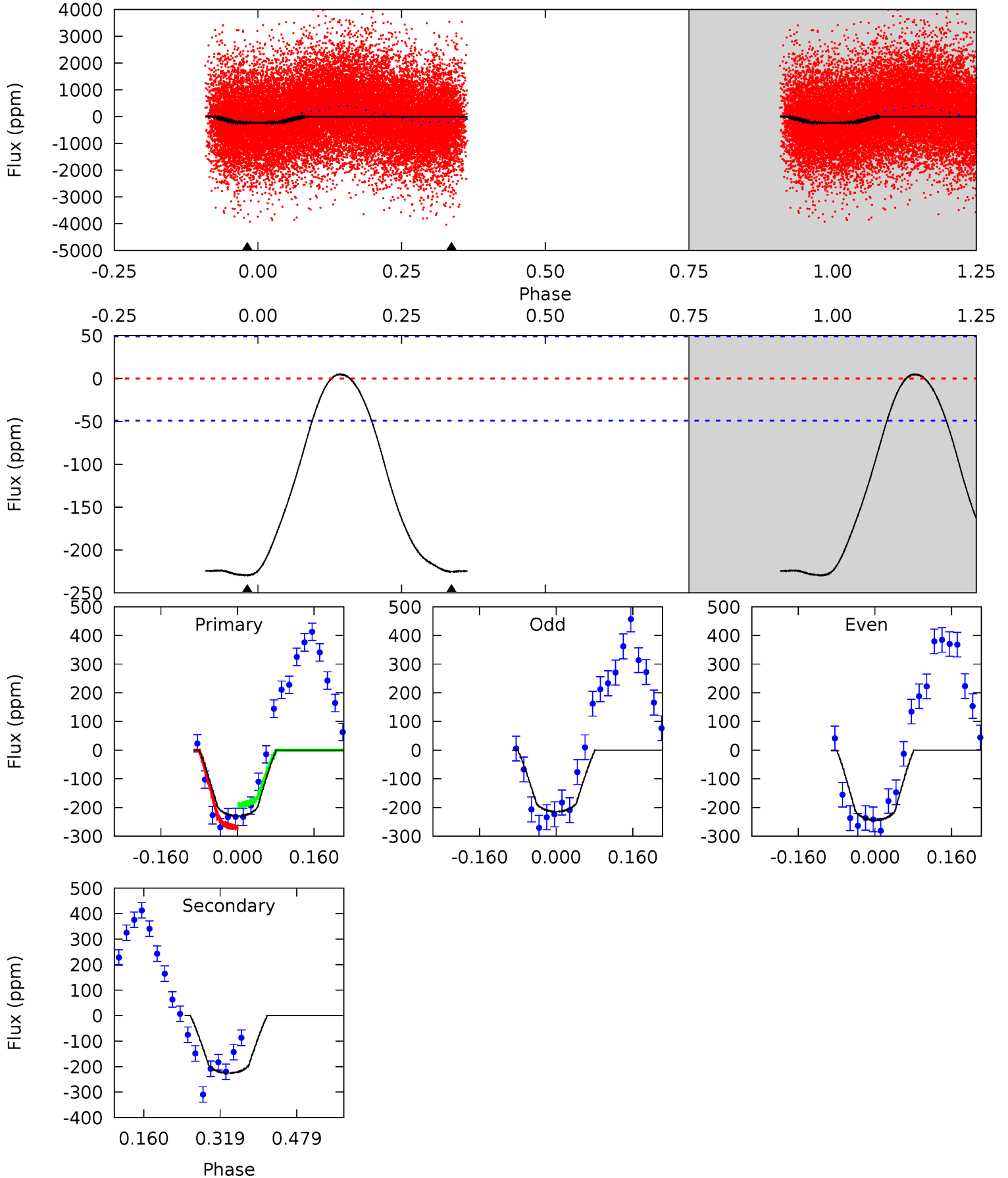


This plot does not exist for this TCE.

# DV Model-Shift Uniqueness Test

008524464-02, P = 0.518769 Days, E = 131.475522 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
20.9	20.5	0	0	4.47	1.41	0.71	20.9	20.9	20.5	20.5	1.34	1.03	0.02	3.82



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 008524464

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$8014^{+223}_{-335}$	$3.720^{+0.424}_{-0.106}$	$-0.080^{+0.200}_{-0.350}$	$3.274^{+0.679}_{-1.472}$	$2.054^{+0.336}_{-0.504}$	$0.082^{+0.329}_{-0.027}$
	+3%/-4%	+11%/-3%	+250%/-438%	+21%/-45%	+16%/-25%	+399%/-32%
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 008524464-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-225 \pm 11$	$4.73^{+2.42}_{-2.26}$	$6835^{+530}_{-795}$	$7557^{+4514}_{-1964}$	$1.460^{+3.788}_{-0.827}$
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  $A_{\text{obs}} \gg 1.0$



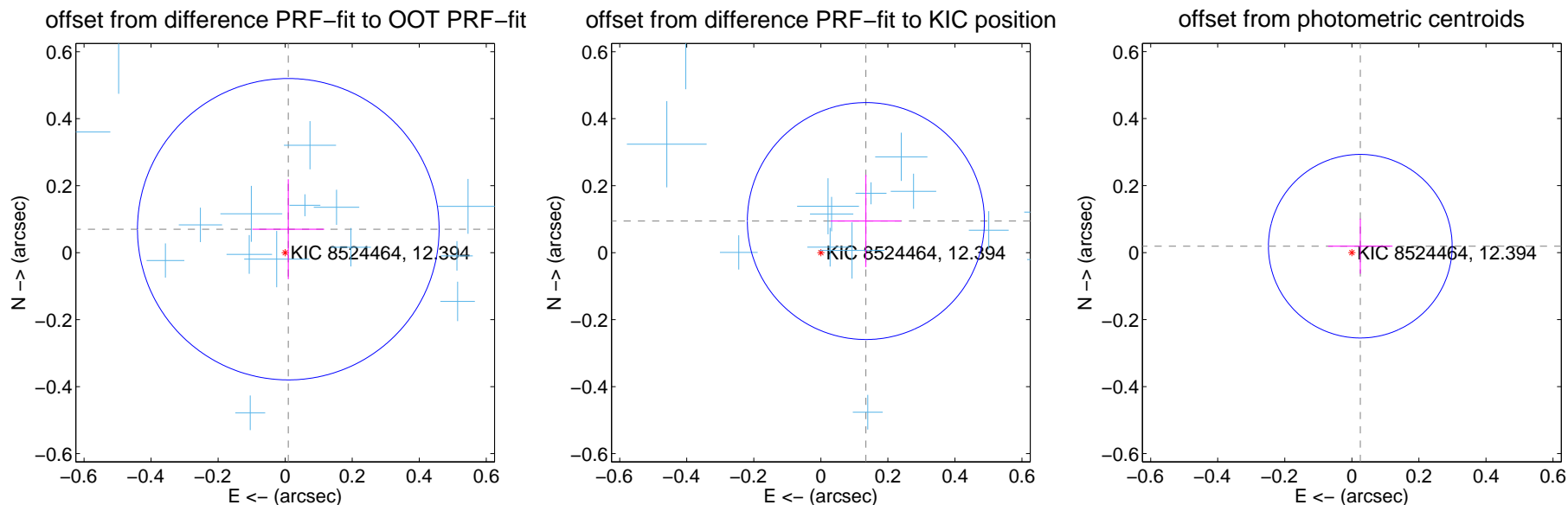
## DV Centroid Data

Supplemental centroid analysis for 008524464-02. Kepler magnitude: 12.39. Transit SNR 17.87

There are 17 quarters with good PRF difference image offsets

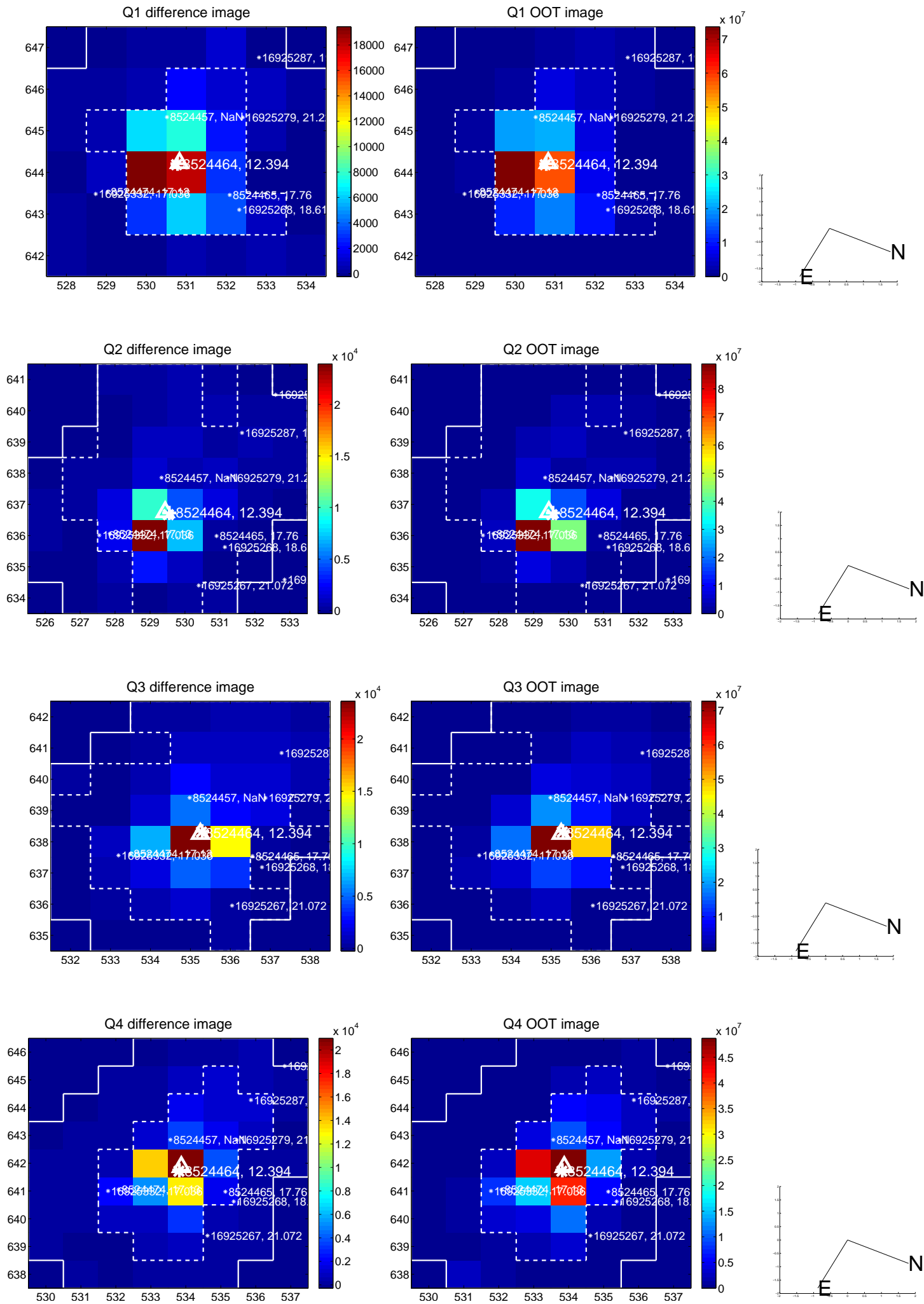
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.071 \pm 0.150$	0.47	$-0.009 \pm 0.107$	$0.070 \pm 0.149$
PRF-fit source offset from KIC position	$0.164 \pm 0.118$	1.39	$-0.134 \pm 0.105$	$0.094 \pm 0.137$
photometric centroid source offset	$0.03 \pm 0.09$	0.35	$-0.03 \pm 0.10$	$0.02 \pm 0.08$

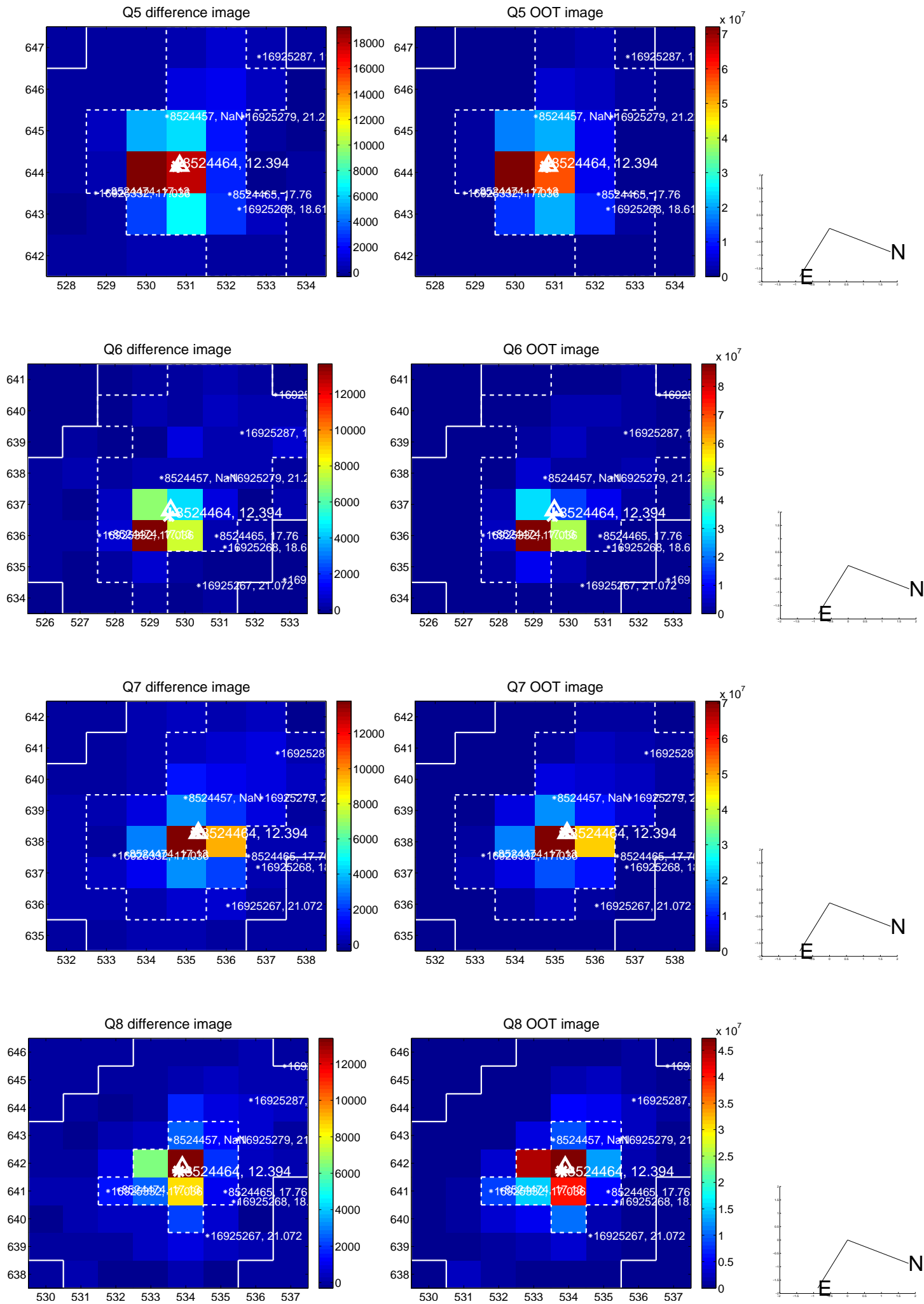


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



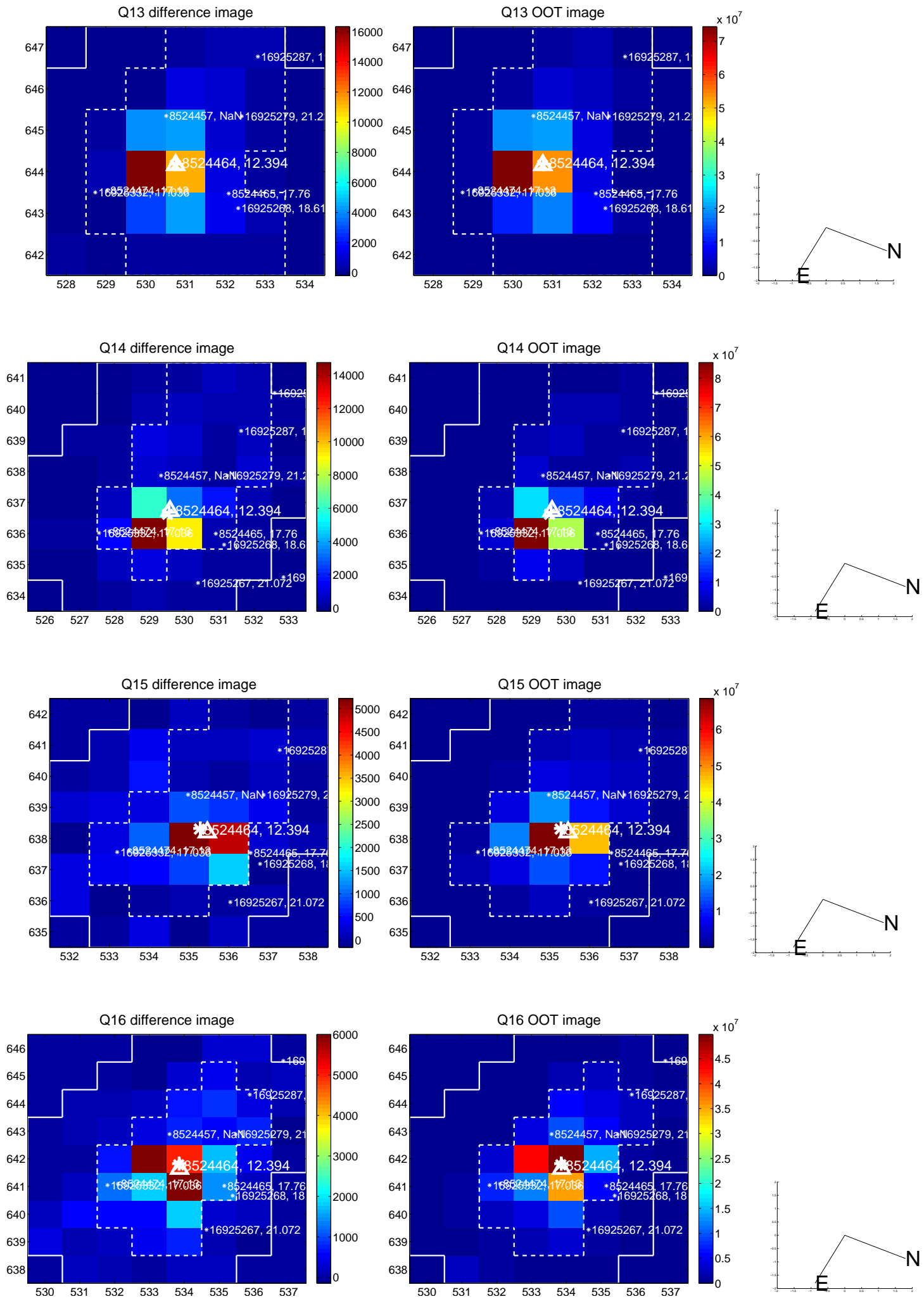
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.







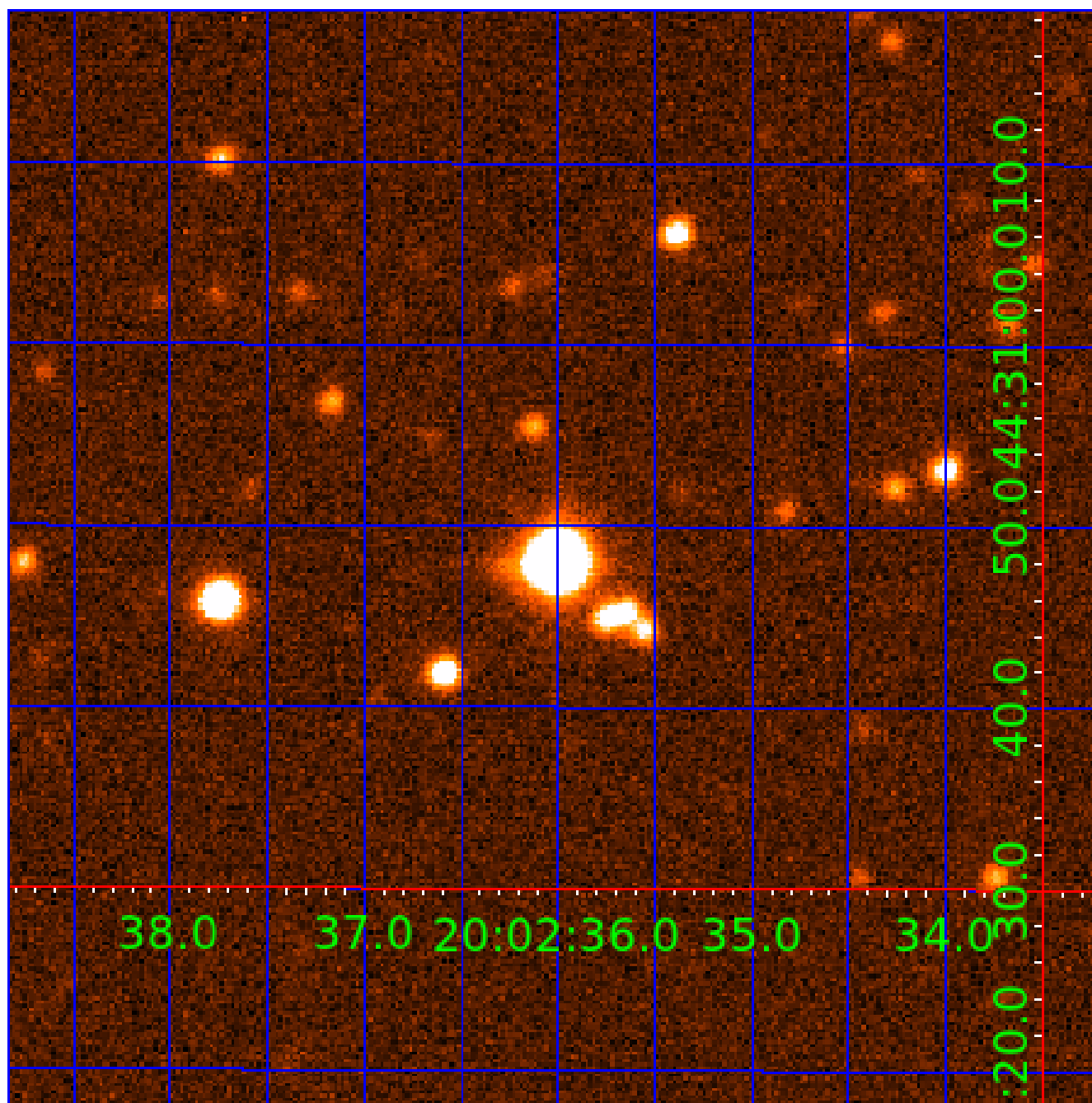
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

Declination



# KIC 008524464

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008524464-01	OBS	No	0.518762	131.815132	314.7	2.236	16.1	21.2	3.27	8014	6.78	153598.23
008524464-02	OBS	No	0.518769	131.994291	251.5	1.550	14.7	17.9	3.27	8014	5.26	153595.55
008524464-03	OBS	No	0.518771	131.629744	328.8	1.500	14.0	-1.0	3.27	8014	6.01	153594.67

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008524464-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
008524464-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD
008524464-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—NO_FITS—SAME_NTL_PERIOD—CENT_NOFITS

**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.

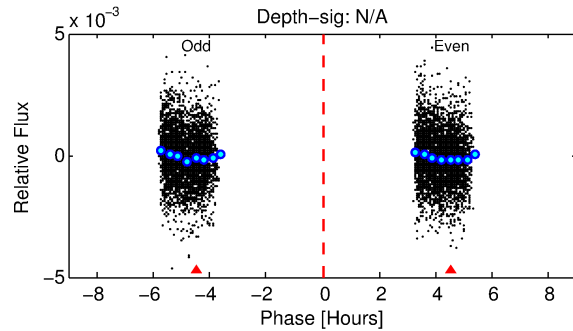
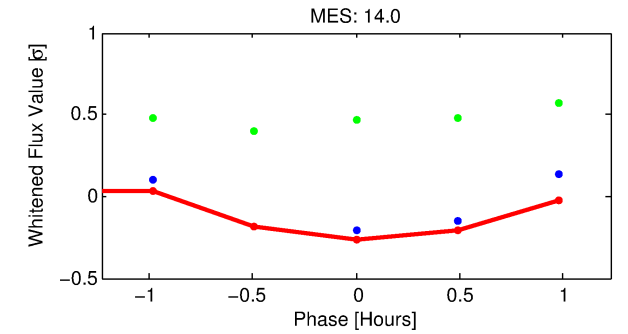
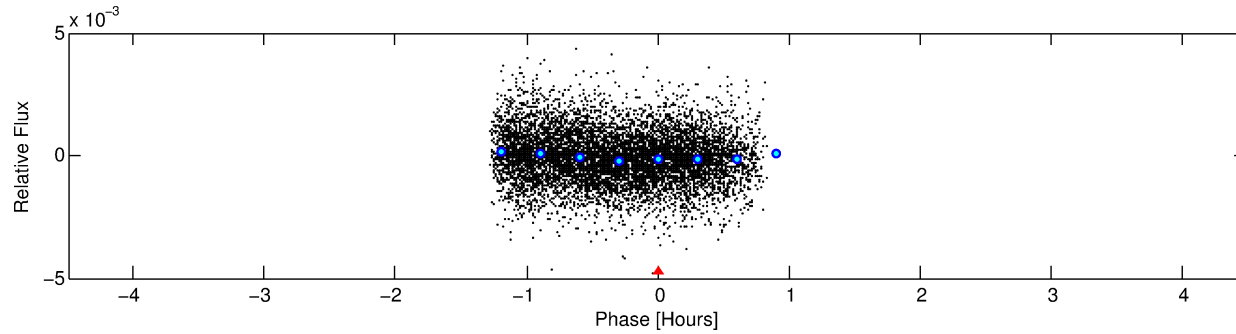
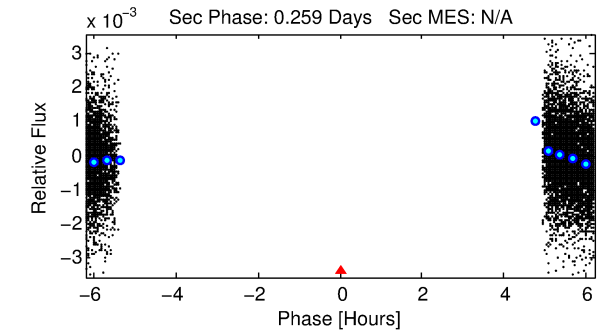
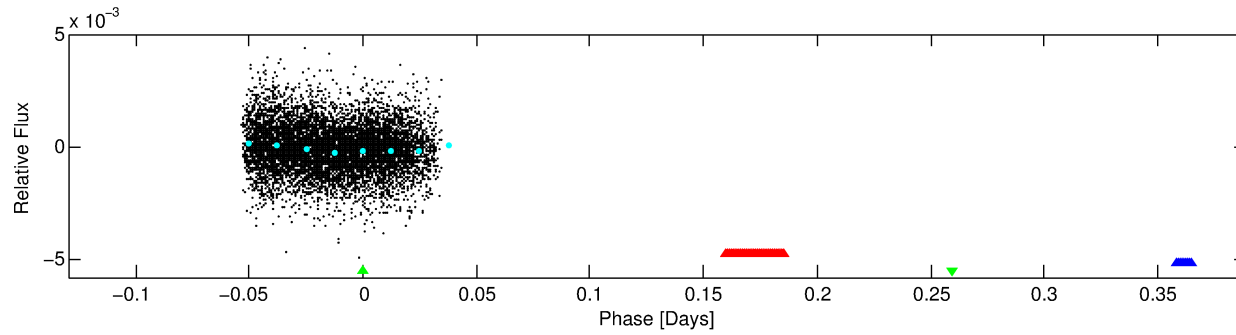
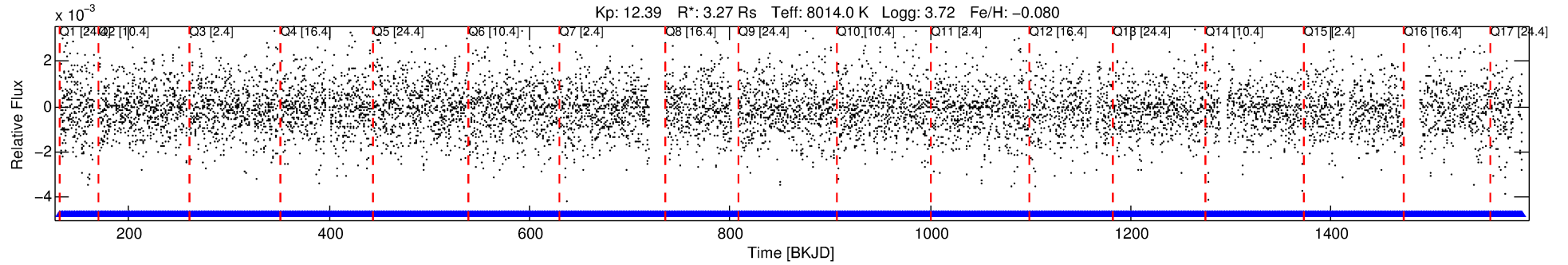
## Ephemeris Match Information For 008524464-03

No Significant Match Found



# DV One-Page Summary

KIC: 8524464 Candidate: 3 of 3 Period: 0.519 d



## TPS TCE Results:

Period = 0.51877 d  
Epoch = 131.6297 BKJD

DV fit results are unavailable

## DV Diagnostic Results:

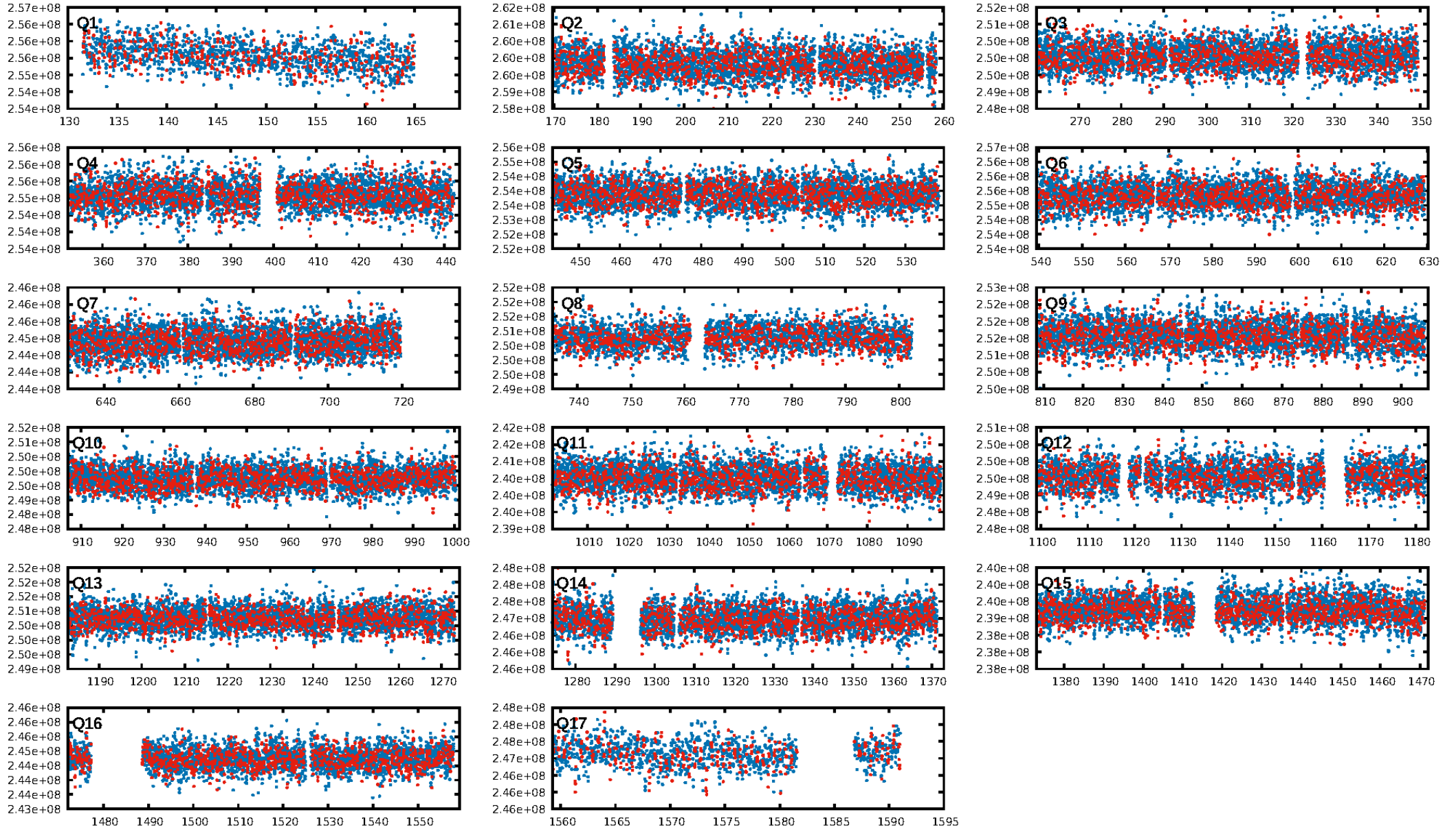
ShortPeriod-sig: 0.0% [0.00σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: N/A  
GhostDiagnostic-chr: N/A

Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0 [0]  
KicOffset-st: 0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: N/A

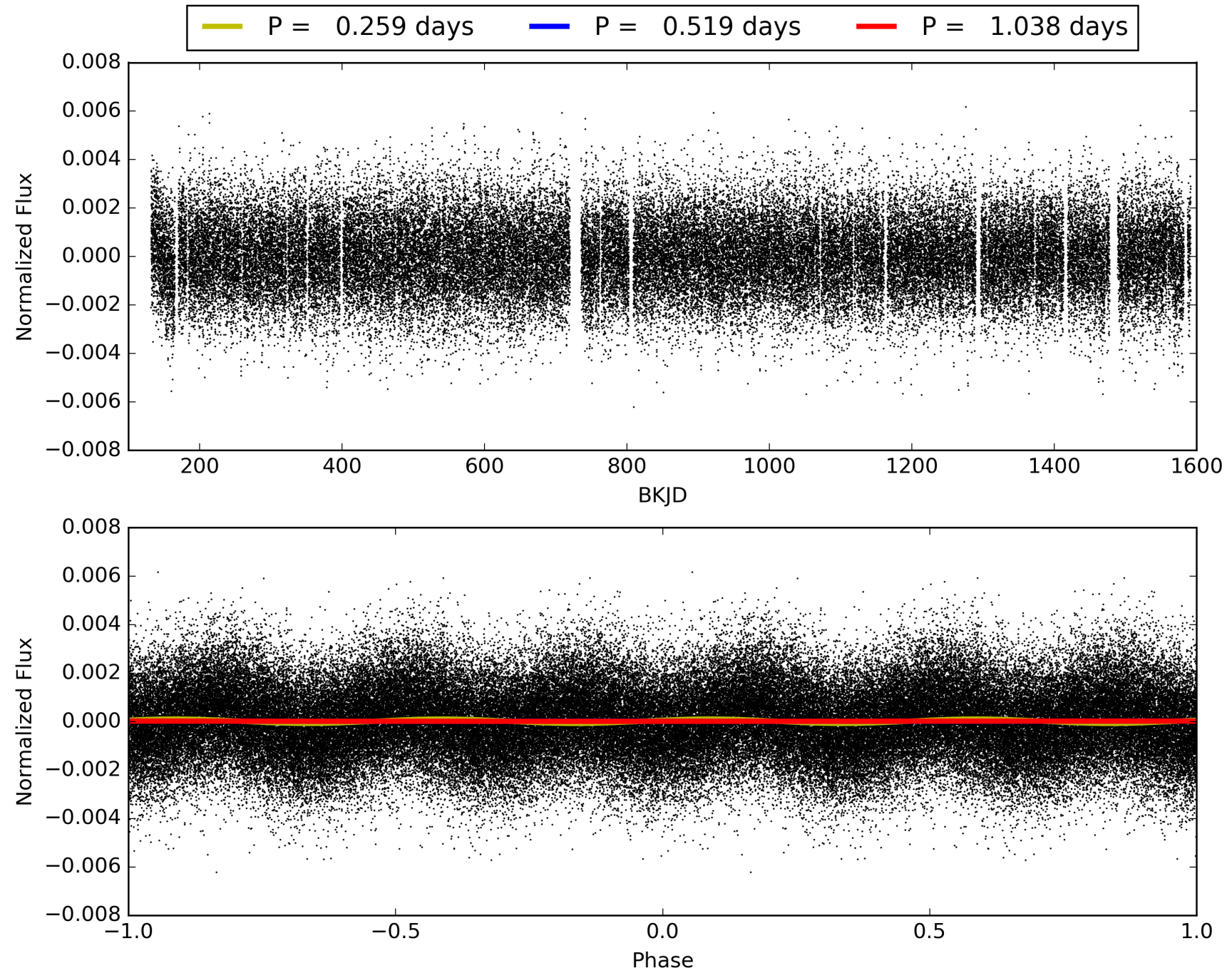
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:59:41 Z

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

# TCE 008524464-03, PDC Light Curves

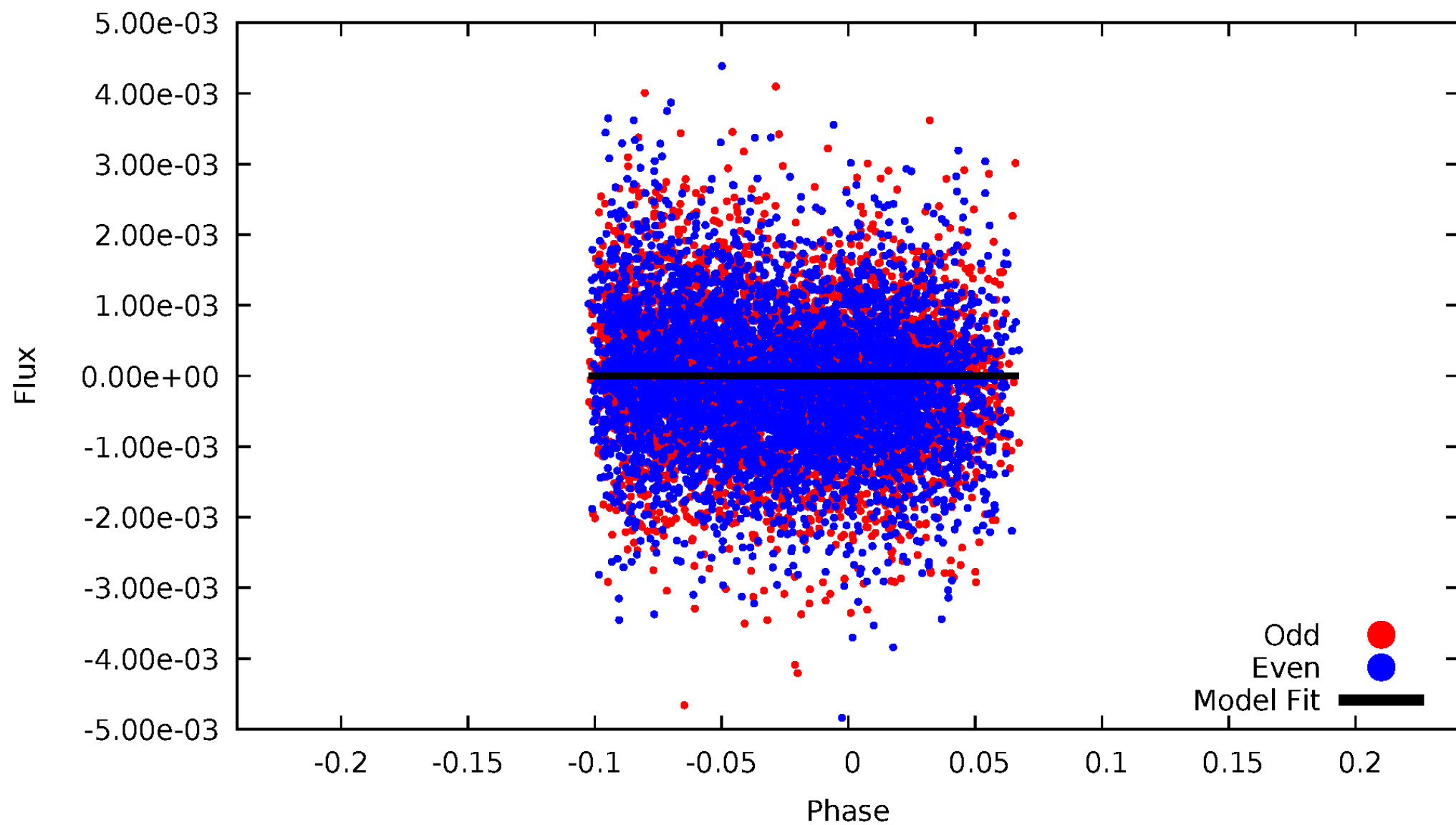


TCE 008524464-03



# DV Odd/Even

TCE 008524464-03



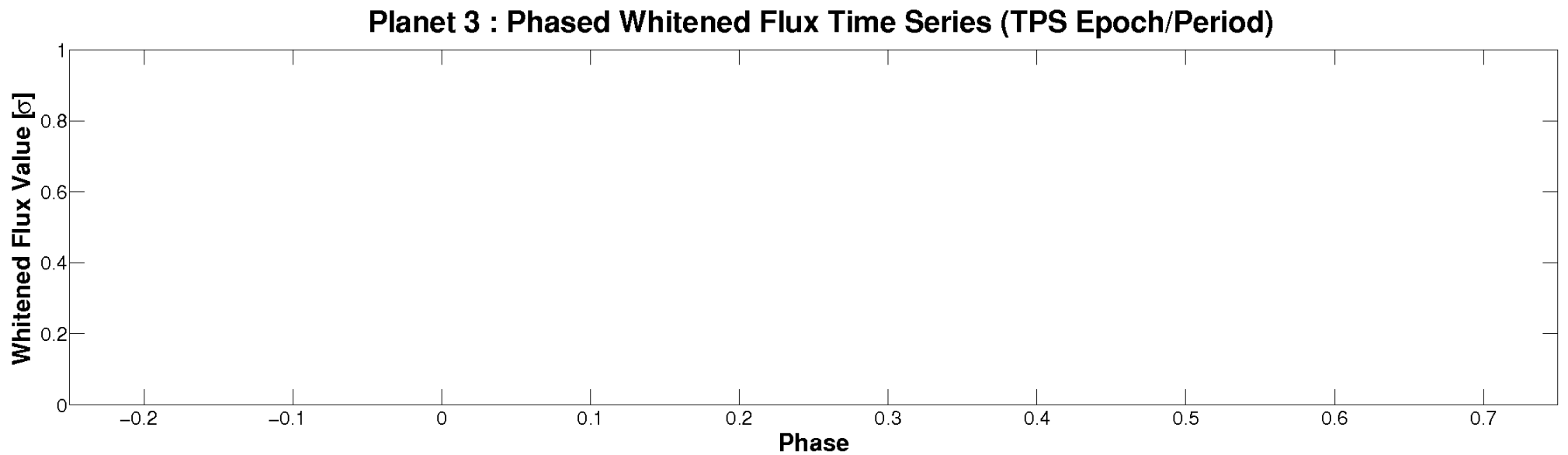
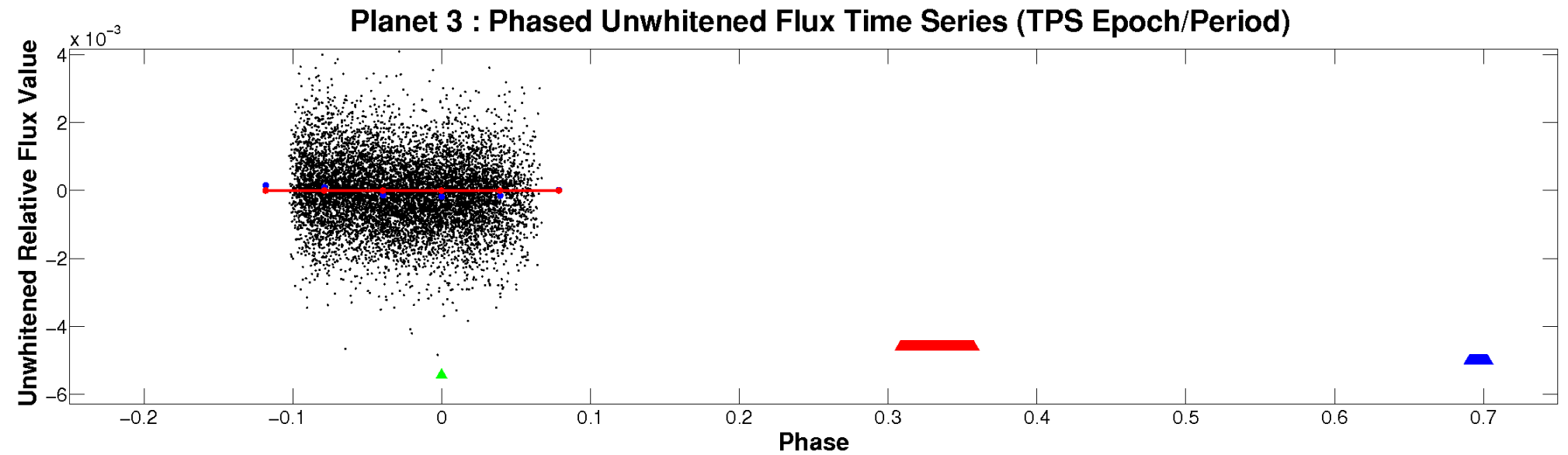




ALT Odd/Even

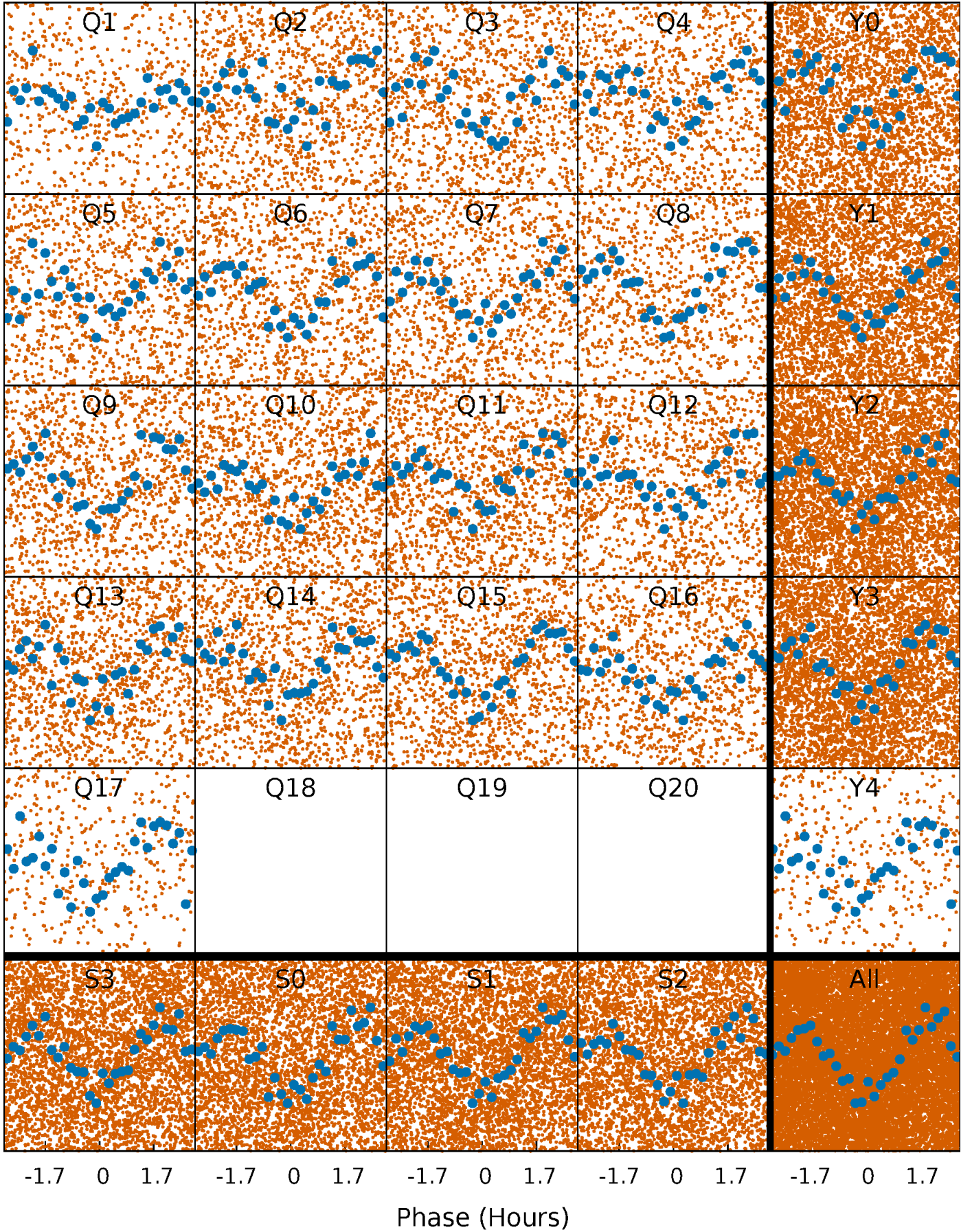
This plot does not exist for this TCE.

# Non-Whitened Vs. Whitened Light Curve



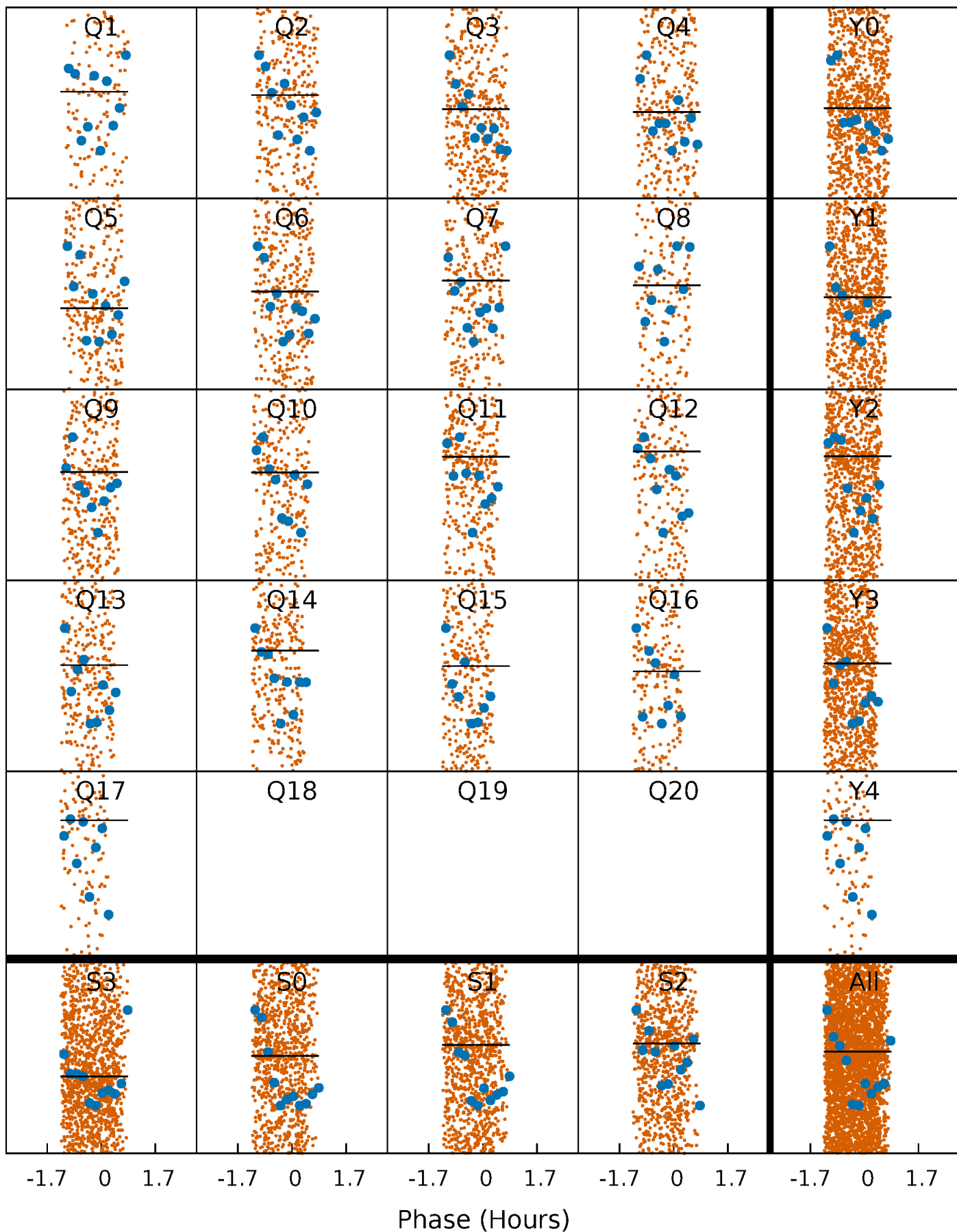
# PDC Quarter-Phased Transit Curves

TCE 008524464-03   P= 0.518771 Days    $T_0=131.629744$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 008524464-03   P= 0.518771 Days    $T_0=131.629744$  (BKJD)



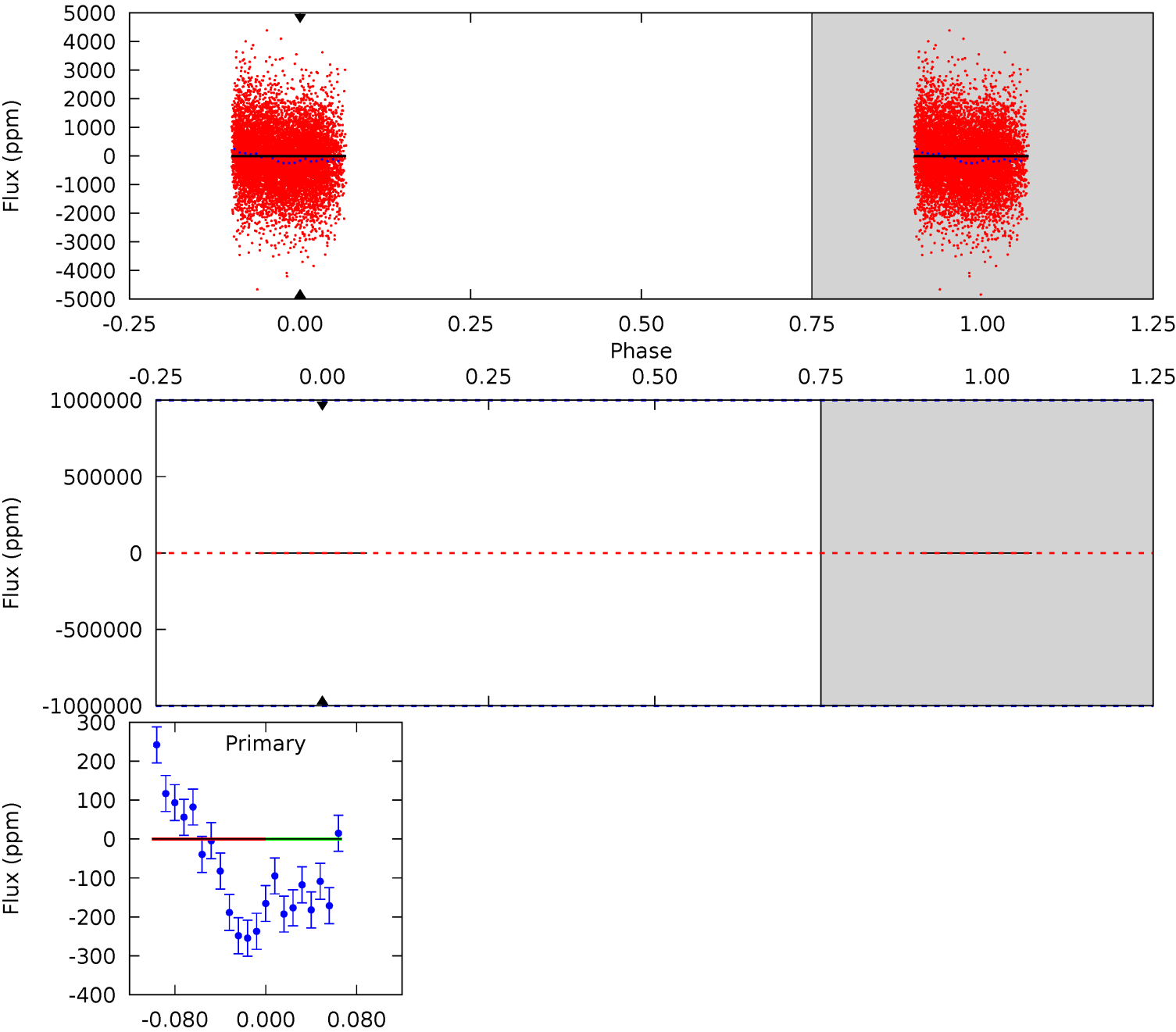
This plot does not exist for this TCE.



# DV Model-Shift Uniqueness Test

008524464-03, P = 0.518771 Days, E = 131.110973 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 008524464

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8014^{+223}_{-335}$	$3.720^{+0.424}_{-0.106}$	$-0.080^{+0.200}_{-0.350}$	$3.274^{+0.679}_{-1.472}$	$2.054^{+0.336}_{-0.504}$	$0.082^{+0.329}_{-0.027}$
	+3%/-4%	+11%/-3%	+250%/-438%	+21%/-45%	+16%/-25%	+399%/-32%
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 008524464-03 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$0 \pm 1000000$	$23.38^{+26.96}_{-16.87}$	$6785^{+564}_{-767}$	$-7023^{+54638}_{-42495}$	$-0.517^{+43.664}_{-46.901}$
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  $A_{obs} \gg 1.0$

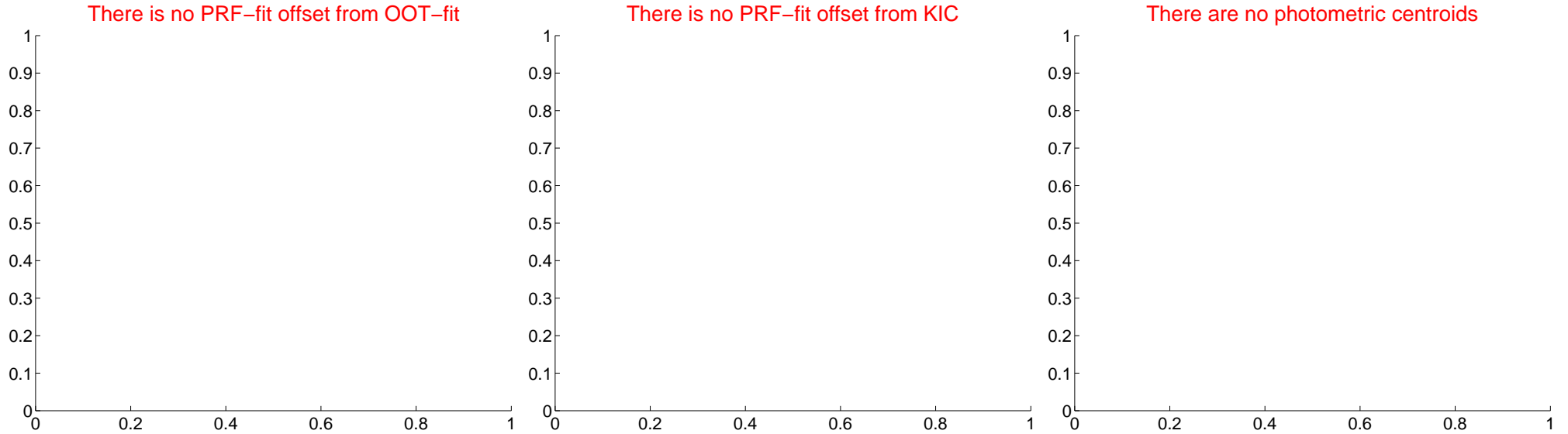
## DV Centroid Data

Supplemental centroid analysis for 008524464-03. Kepler magnitude: 12.39. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



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.

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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.



folded centroid time series figure for this object.

UKIRT Image

Declination

