

# KIC 007770256

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007770256-01	OBS	No	0.544478	131.949369	185.9	0.550	10.8	13.0	3.02	7333	4.94	94015.13
007770256-02	OBS	No	0.544494	131.844864	118.3	3.197	11.3	13.0	3.02	7333	3.53	94011.48
007770256-03	OBS	No	0.544471	131.547841	219.0	1.462	13.1	21.2	3.02	7333	4.81	94016.65

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007770256-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007770256-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
007770256-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

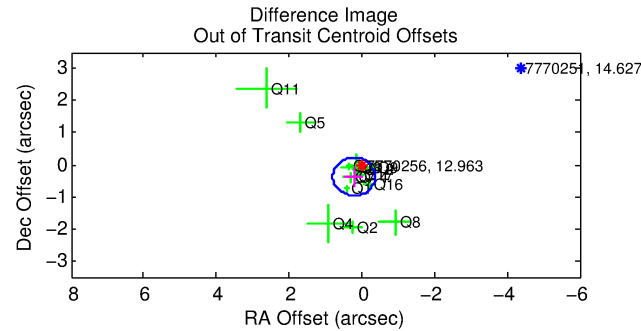
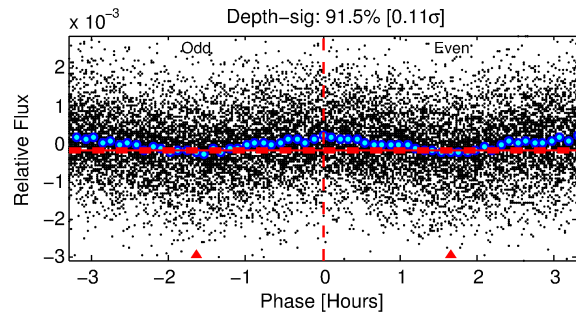
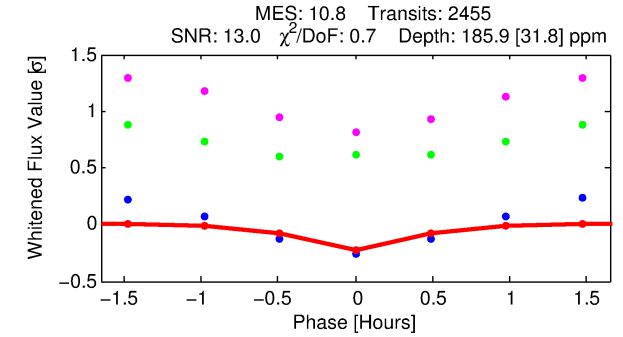
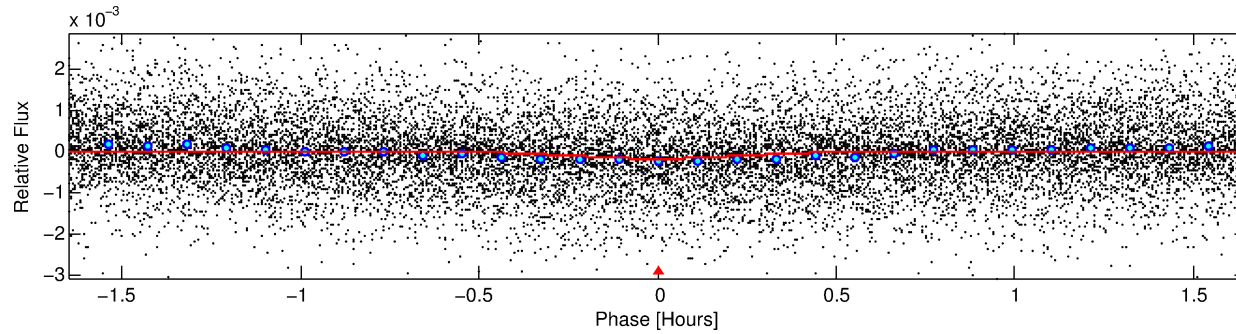
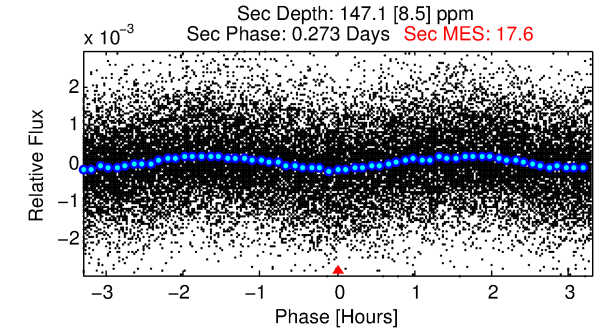
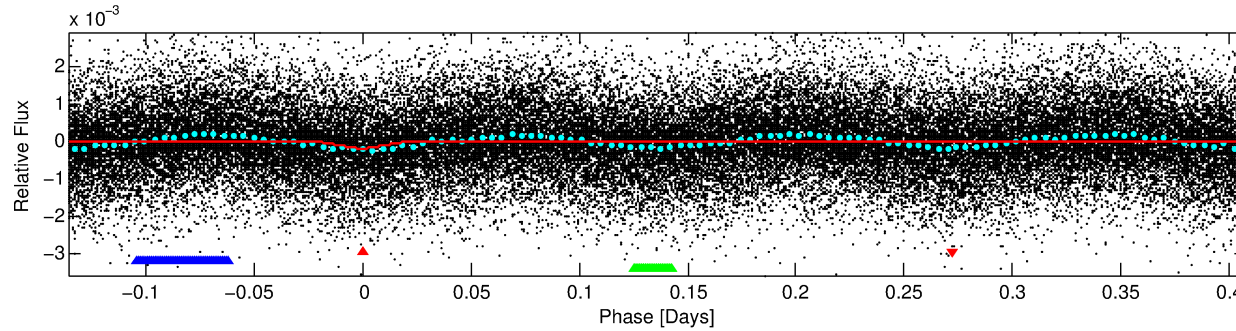
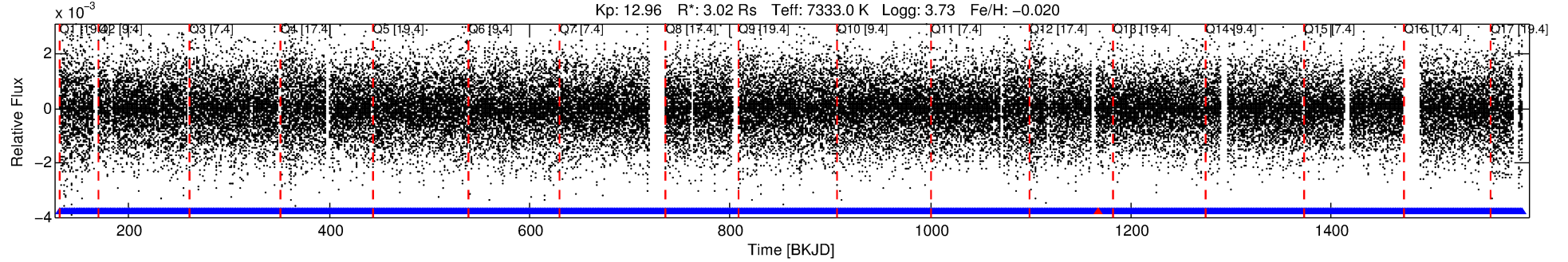
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 007770256-01

No Significant Match Found

# DV One-Page Summary

KIC: 7770256 Candidate: 1 of 3 Period: 0.544 d



## DV Fit Results:

Period = 0.54448 [0.00001] d  
Epoch = 131.9494 [0.0012] BKJD  
Rp/R\* = 0.0150 [0.0030]  
a/R\* = 3.67 [3.91]  
b = 0.90 [0.24]  
Seff = 94015.13 [64092.91]  
Teff = 4465 [761] K  
Rp = 4.94 [2.26] Re  
a = 0.0159 [0.0065] AU  
Ag = 0.84 [0.65] [-0.25σ]  
Teffp = 6602 [727] K [2.03σ]

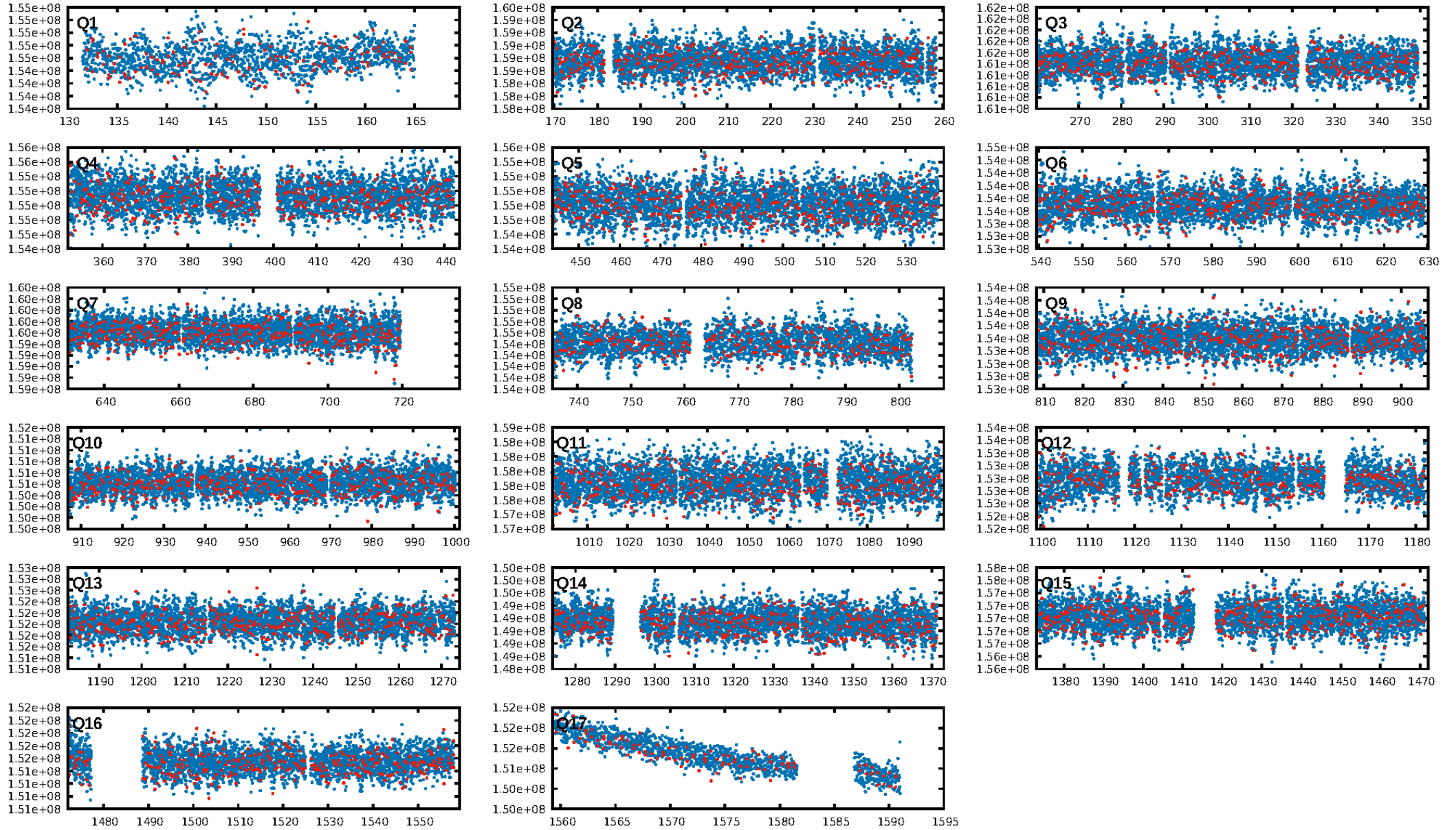
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]  
LongPeriod-sig: 0.0% [0.00σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2344/2345]  
GhostDiagnostic-chr: 1.507  
Centroid-sig: 0.0%  
Centroid-so: 0.218 arcsec [1.22σ]  
OotOffset-rm: 0.430 arcsec [2.20σ]  
KicOffset-rm: 0.197 arcsec [0.73σ]  
OotOffset-st: 2/4/4/4 [14]  
KicOffset-st: 2/4/4/4 [14]  
DiffImageQuality-fgm: 0.79 [11/14]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:54:25 Z

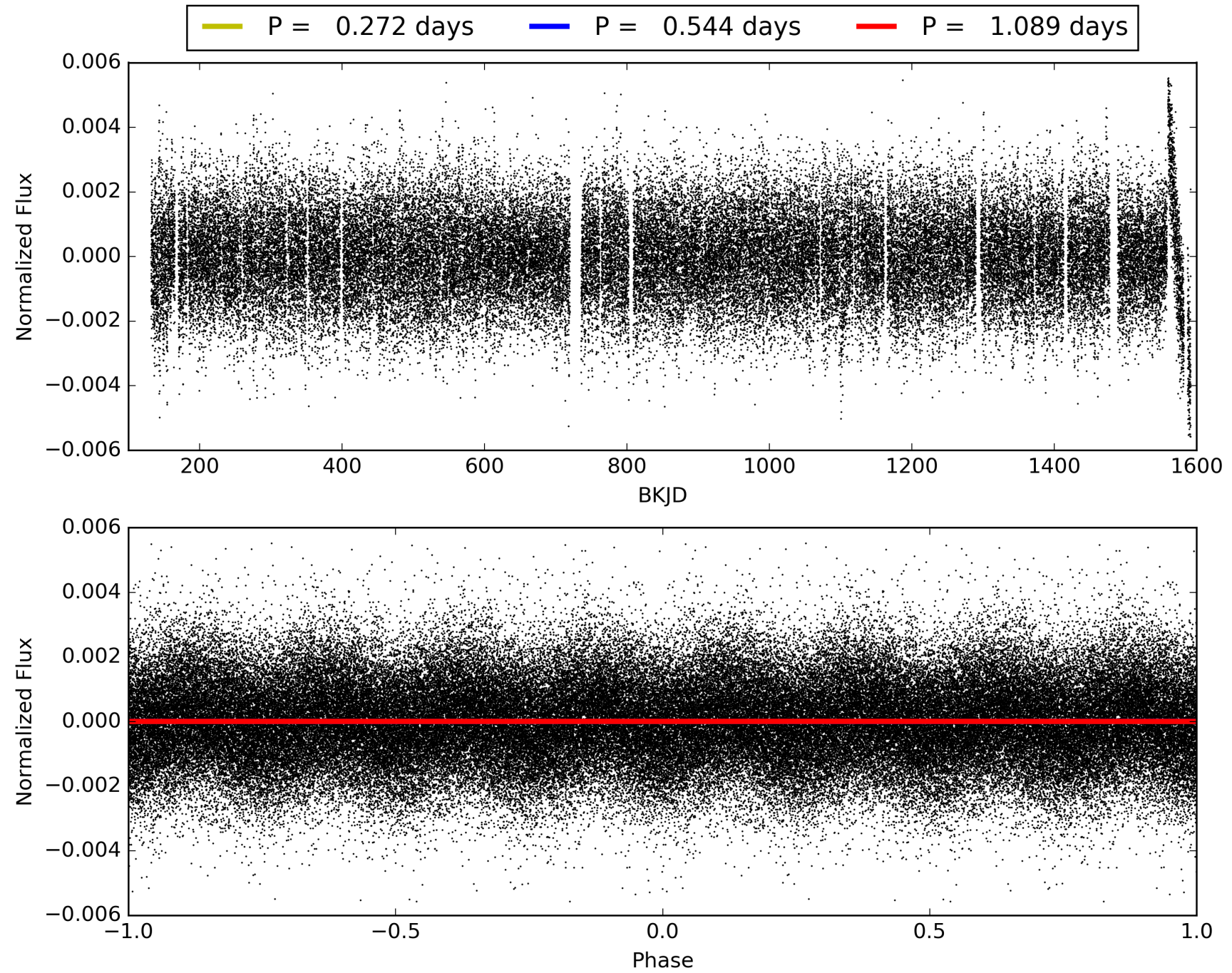
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007770256-01, PDC Light Curves





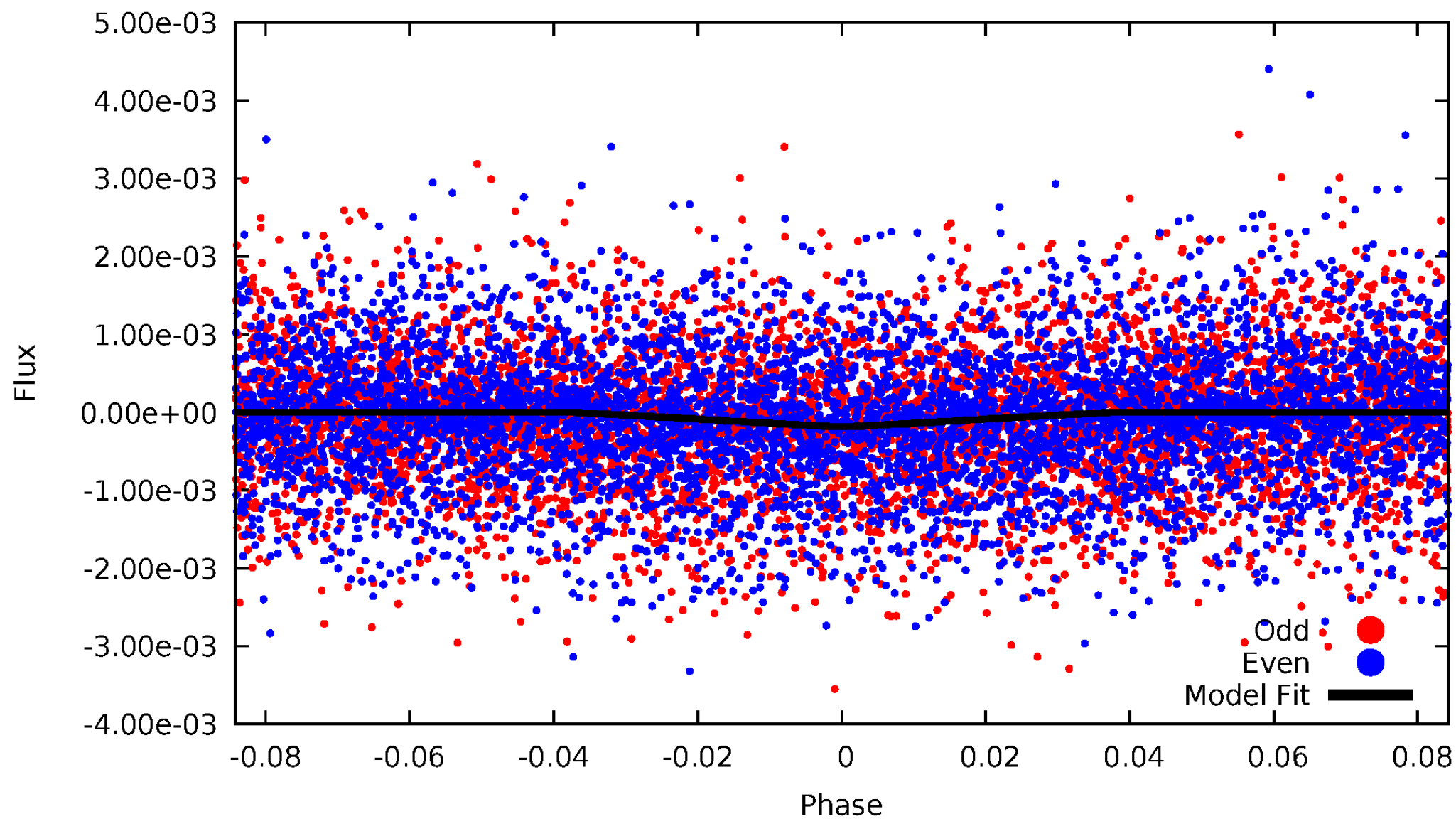
TCE 007770256-01





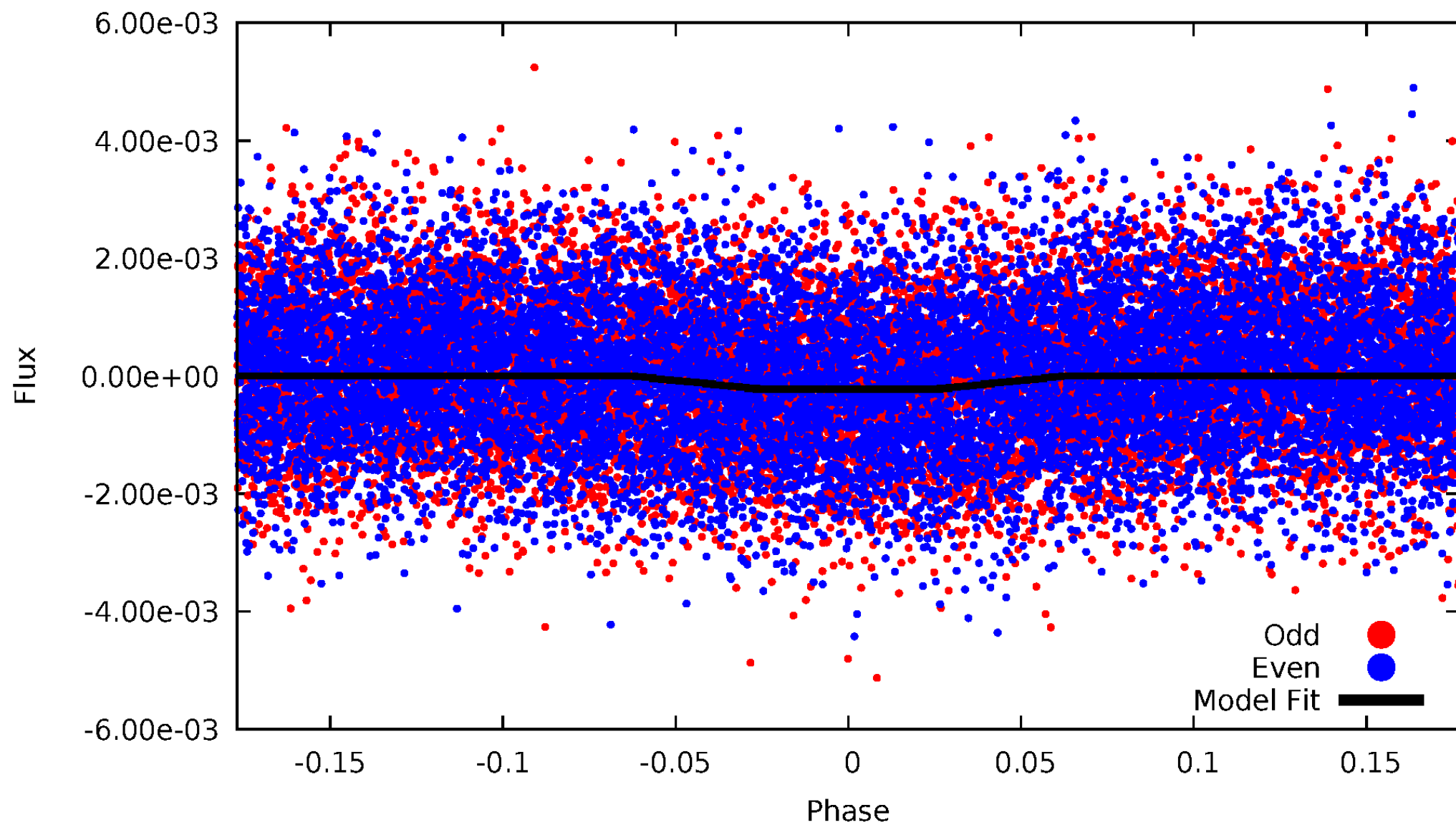
# DV Odd/Even

TCE 007770256-01



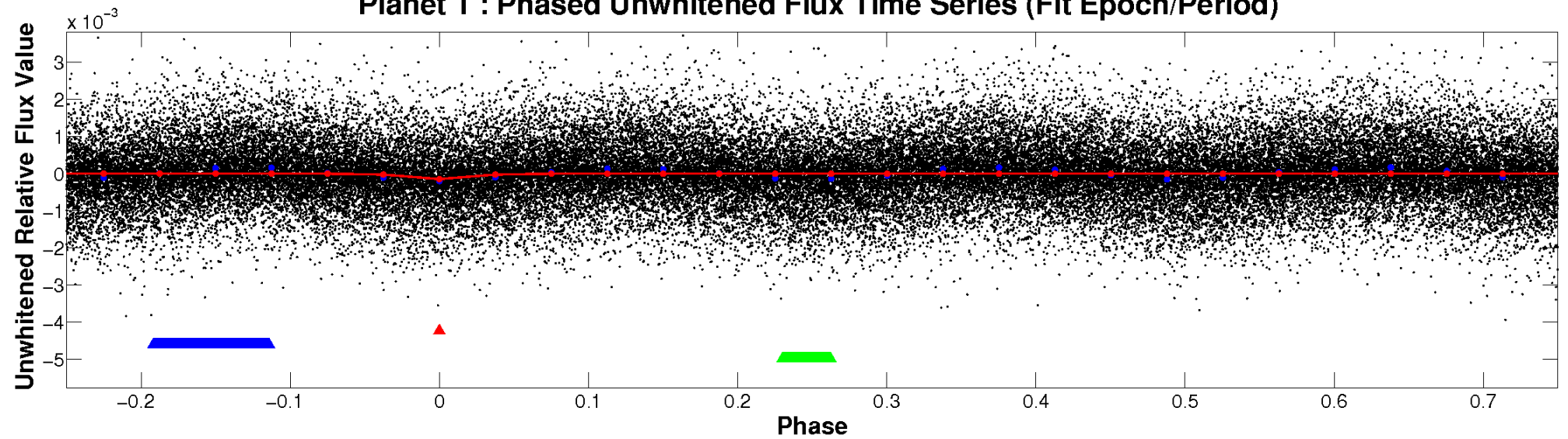
# ALT Odd/Even

TCE 007770256-01

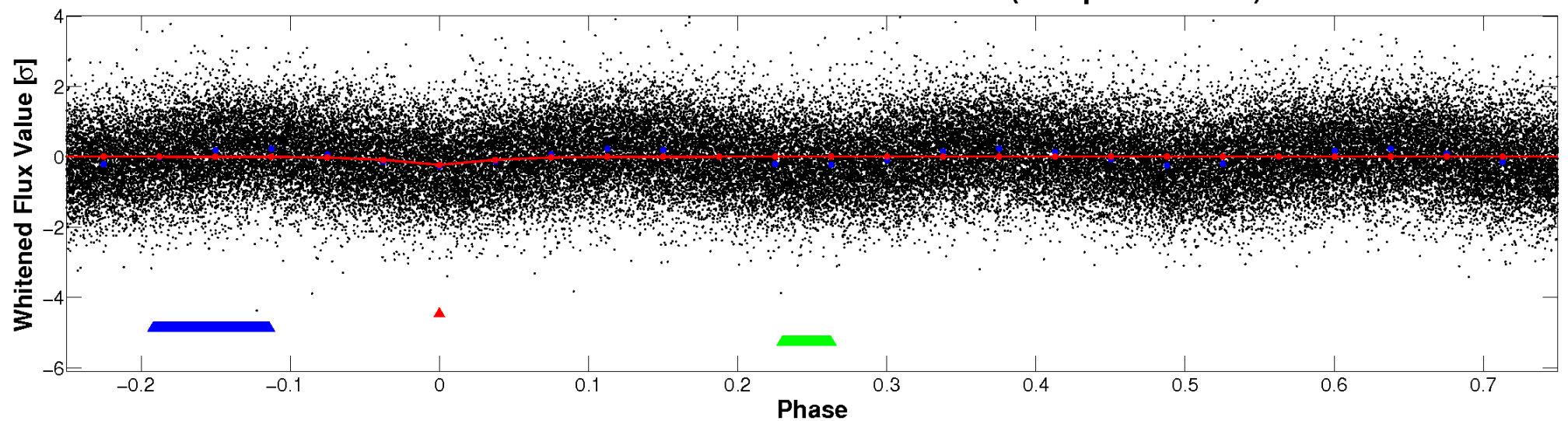


# Non-Whitened Vs. Whitened Light Curve

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



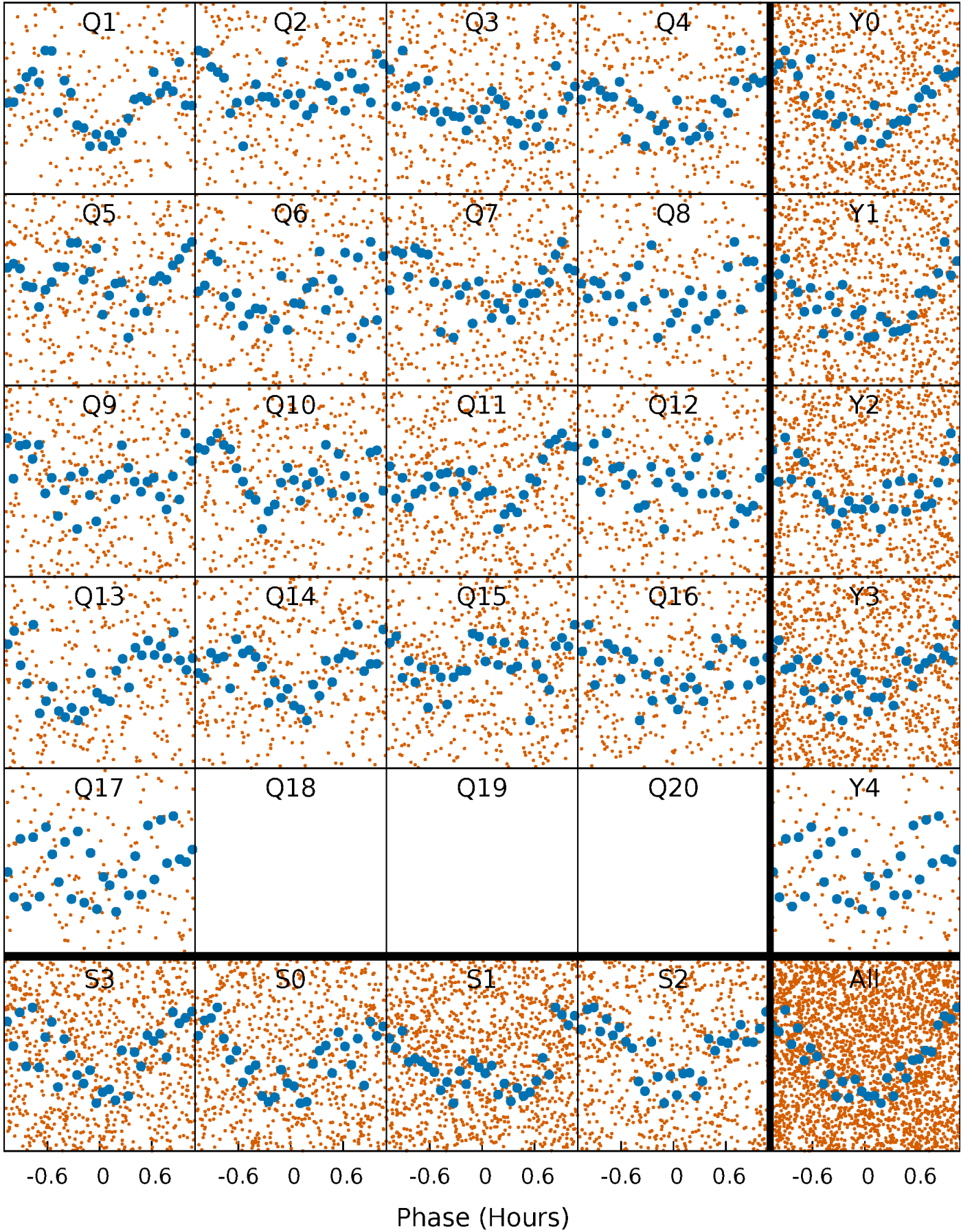
Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)





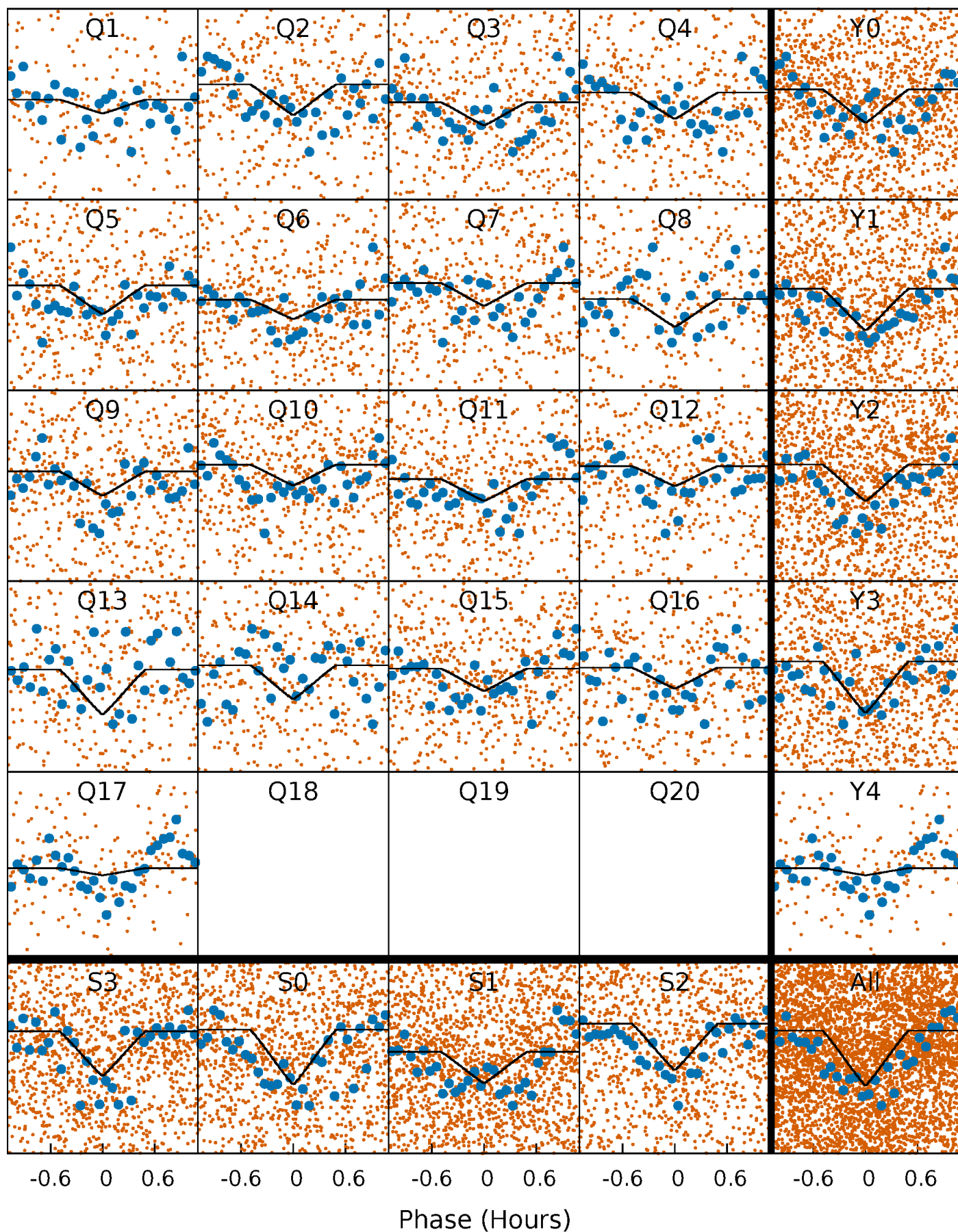
# PDC Quarter-Phased Transit Curves

TCE 007770256-01   P= 0.544478 Days    $T_0=131.949369$  (BKJD)



# DV Quarter-Phased Transit Curves

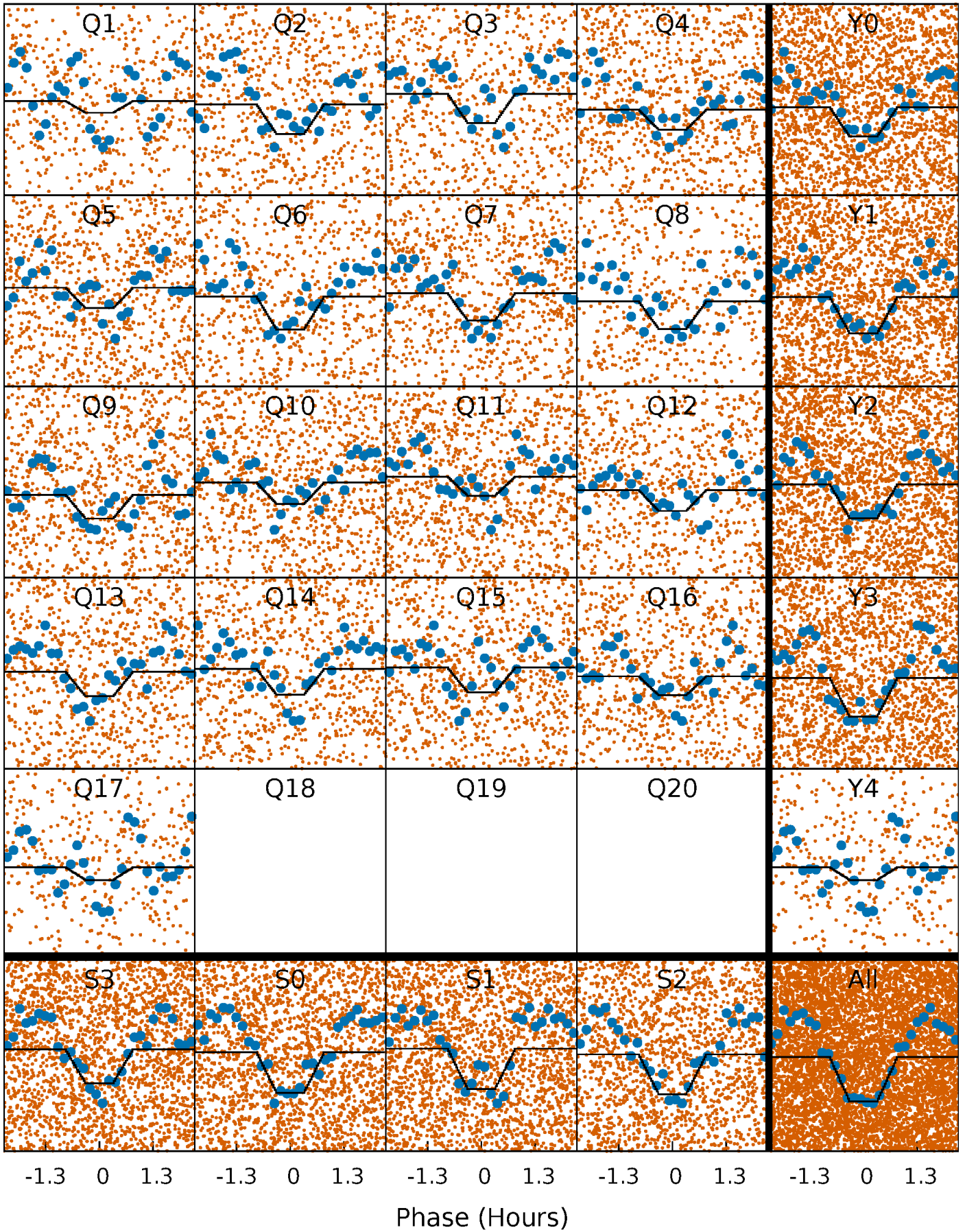
TCE 007770256-01 P= 0.544478 Days  $T_0=131.949369$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

TCE 007770256-01 P= 0.544478 Days  $T_0=131.949269$  (BKJD)

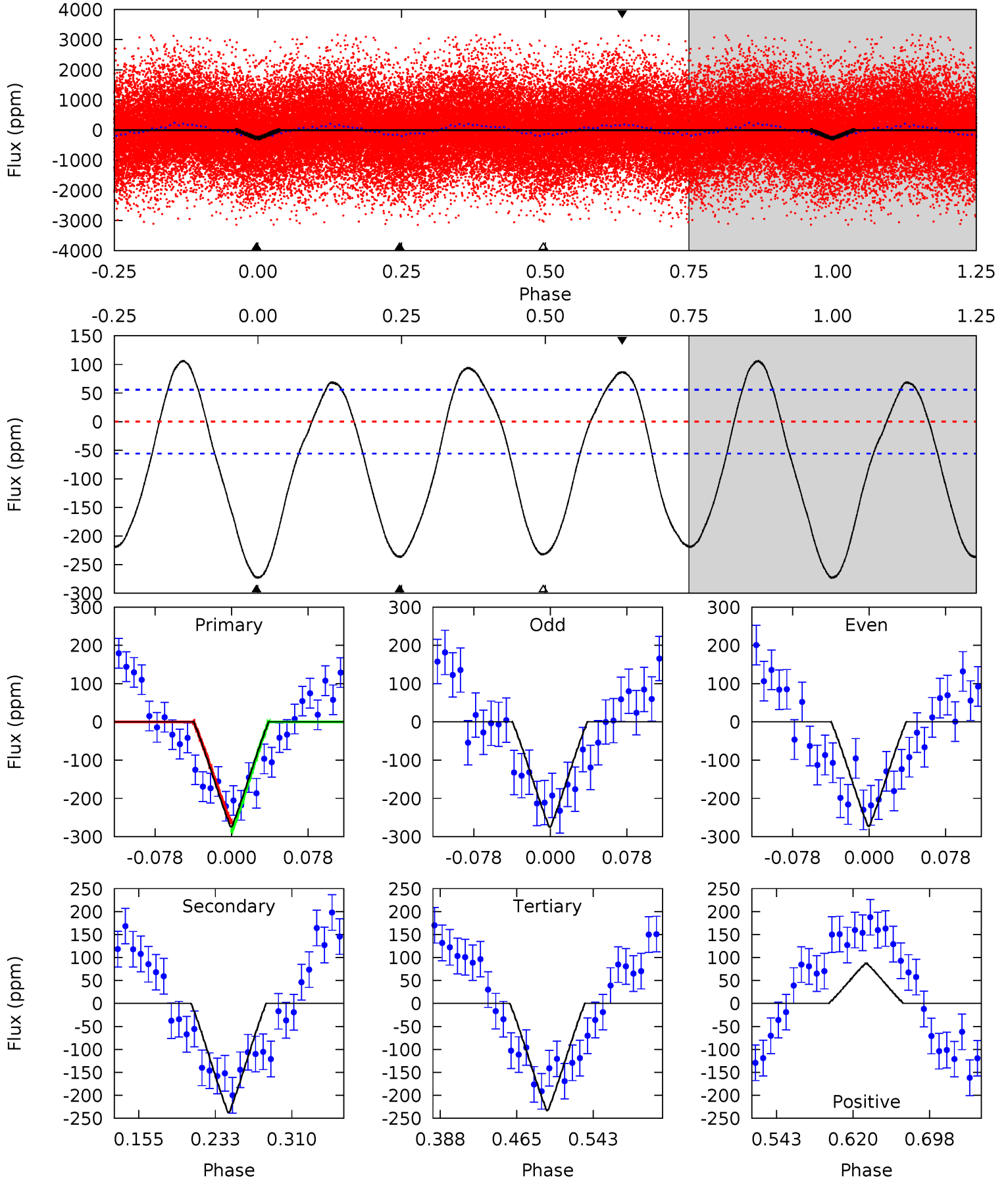




# DV Model-Shift Uniqueness Test

007770256-01, P = 0.544478 Days, E = 131.404891 Days

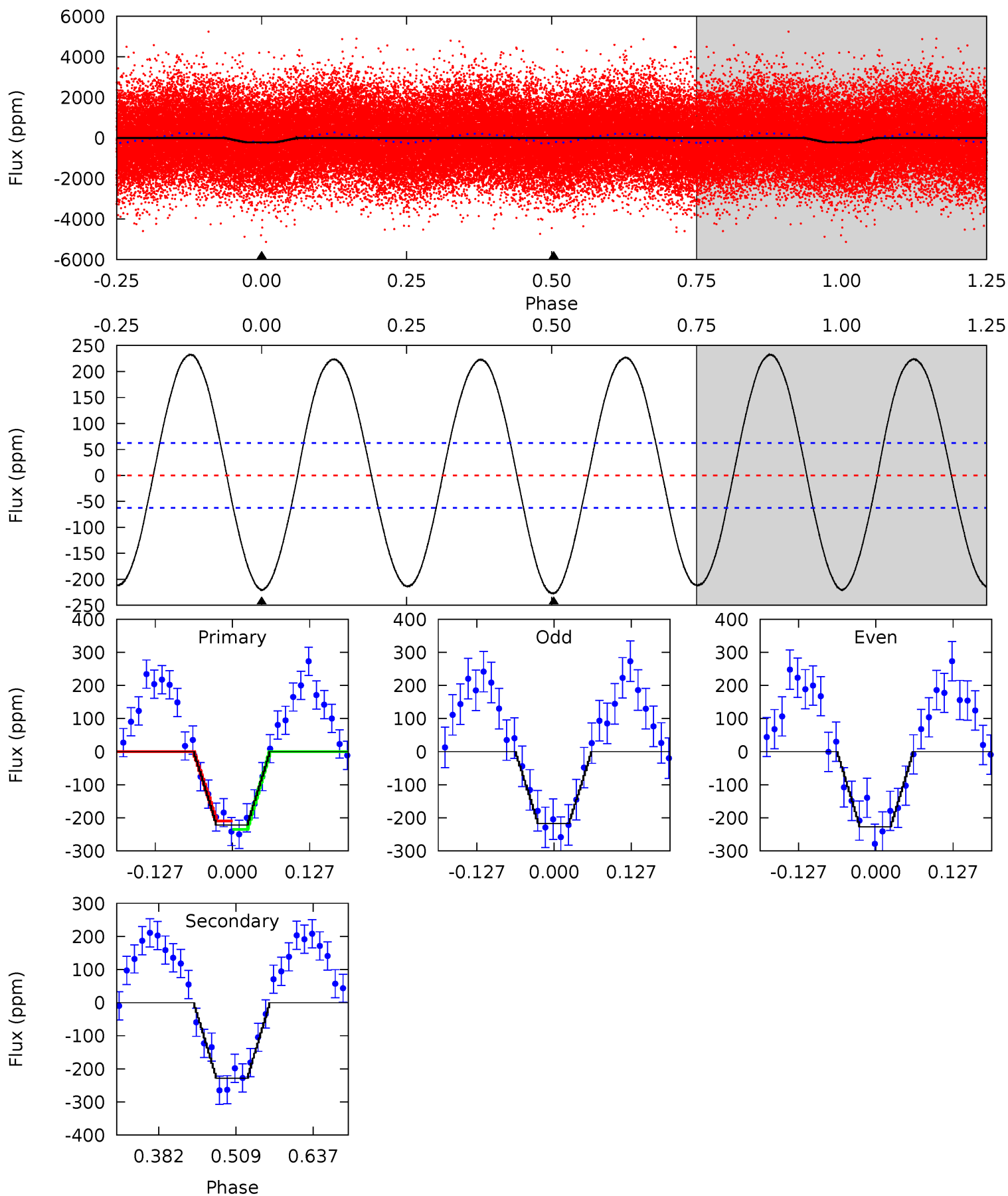
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	19.6	19.2	7.20	4.62	1.77	8.99	3.38	15.4	0.36	12.4	0.09	1.09	0.28	1.04



# Alt Model-Shift Uniqueness Test

007770256-01, P = 0.544478 Days, E = 131.404791 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
16.0	16.5	0	0	4.51	1.52	11.1	16.0	16.0	16.5	16.5	0.35	1.01	0.51	0.93



### Stellar Parameters For KIC 007770256

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7333^{+228}_{-304}$	$3.732^{+0.392}_{-0.098}$	$-0.020^{+0.200}_{-0.350}$	$3.025^{+0.444}_{-1.244}$	$1.799^{+0.205}_{-0.380}$	$0.092^{+0.312}_{-0.029}$
	+3%/-4%	+11%/-3%	+1000%/-1750%	+15%/-41%	+11%/-21%	+341%/-31%
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 007770256-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-236 \pm 12$	$4.62^{+1.13}_{-1.28}$	$6068^{+450}_{-599}$	$7000^{+1237}_{-836}$	$1.569^{+1.217}_{-0.568}$
Alt.	$-228 \pm 14$	$4.52^{+1.32}_{-1.24}$	$6081^{+418}_{-644}$	$6936^{+1358}_{-918}$	$1.537^{+1.281}_{-0.607}$

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



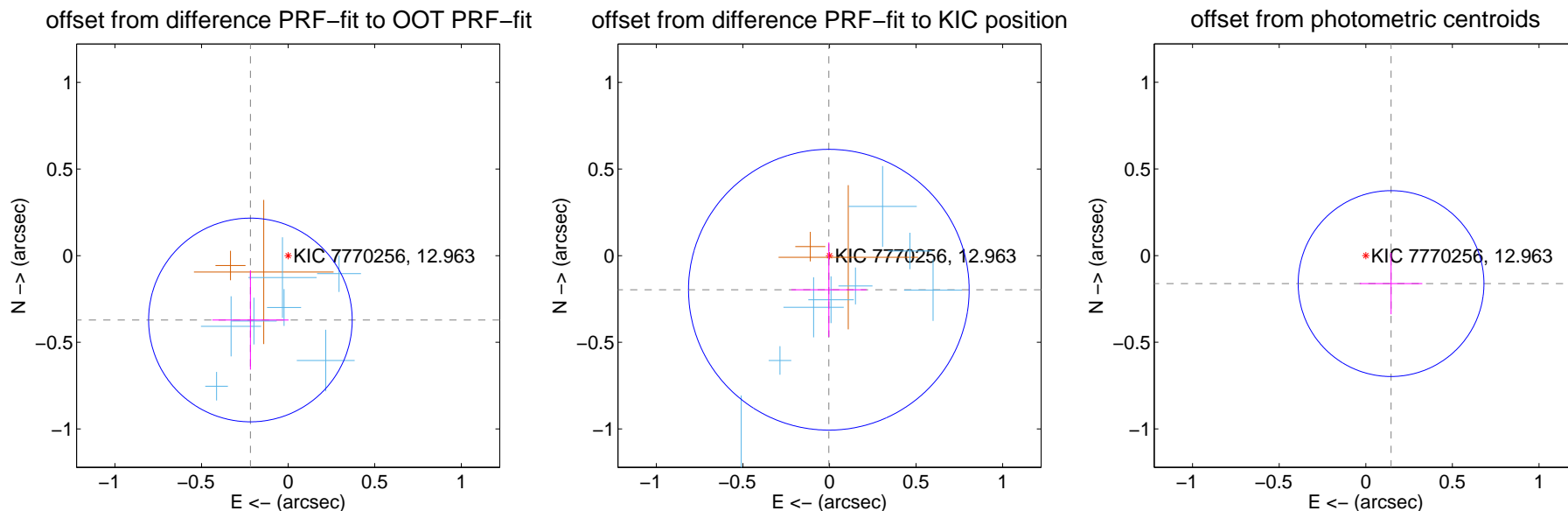
## DV Centroid Data

Supplemental centroid analysis for 007770256-01. Kepler magnitude: 12.96. Transit SNR 13.00

There are 11 quarters with good PRF difference image offsets

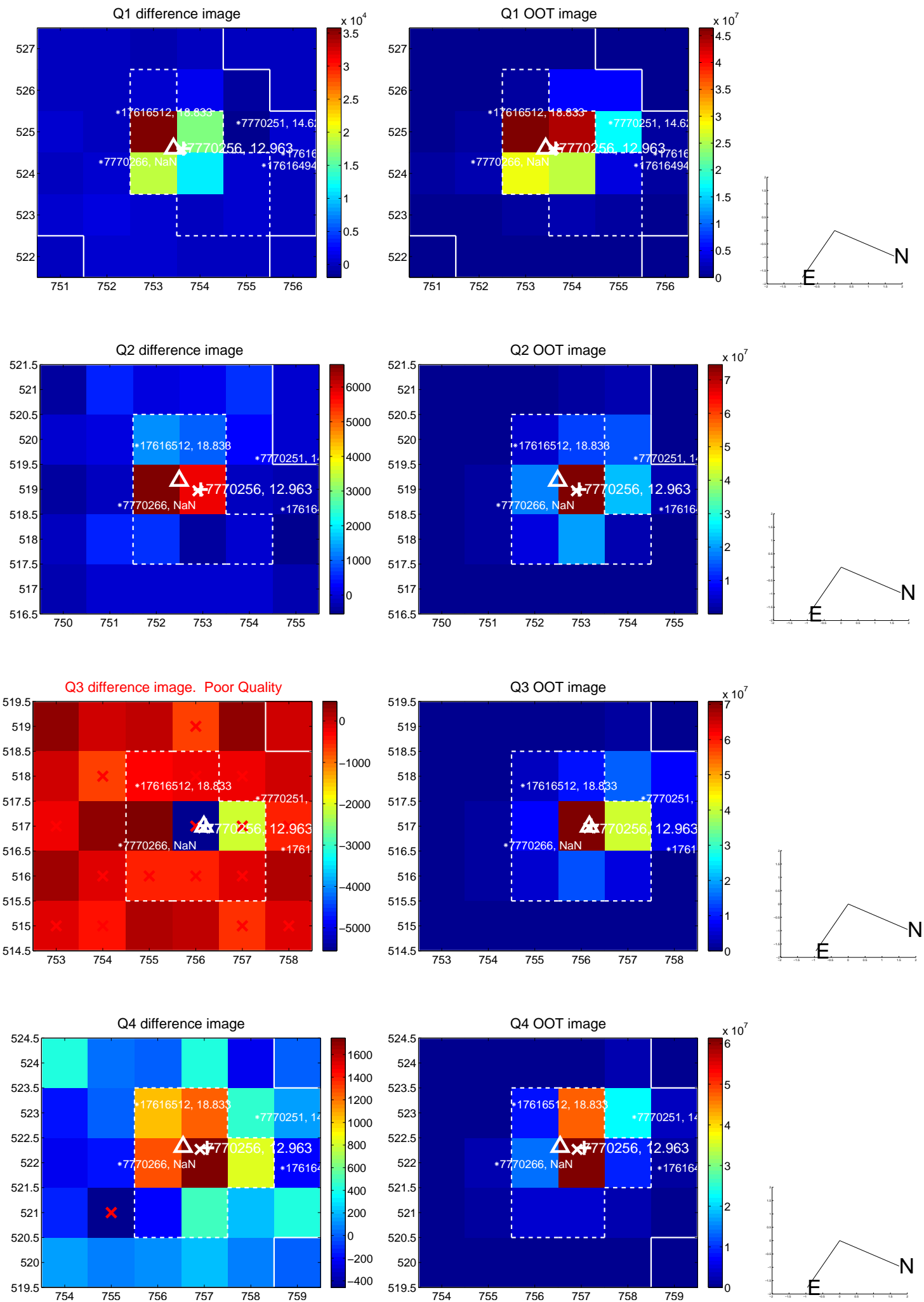
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.430 \pm 0.196$	2.20	$0.218 \pm 0.220$	$-0.371 \pm 0.286$
PRF-fit source offset from KIC position	$0.197 \pm 0.270$	0.73	$0.004 \pm 0.217$	$-0.197 \pm 0.273$
photometric centroid source offset	$0.22 \pm 0.18$	1.22	$-0.15 \pm 0.18$	$-0.16 \pm 0.18$

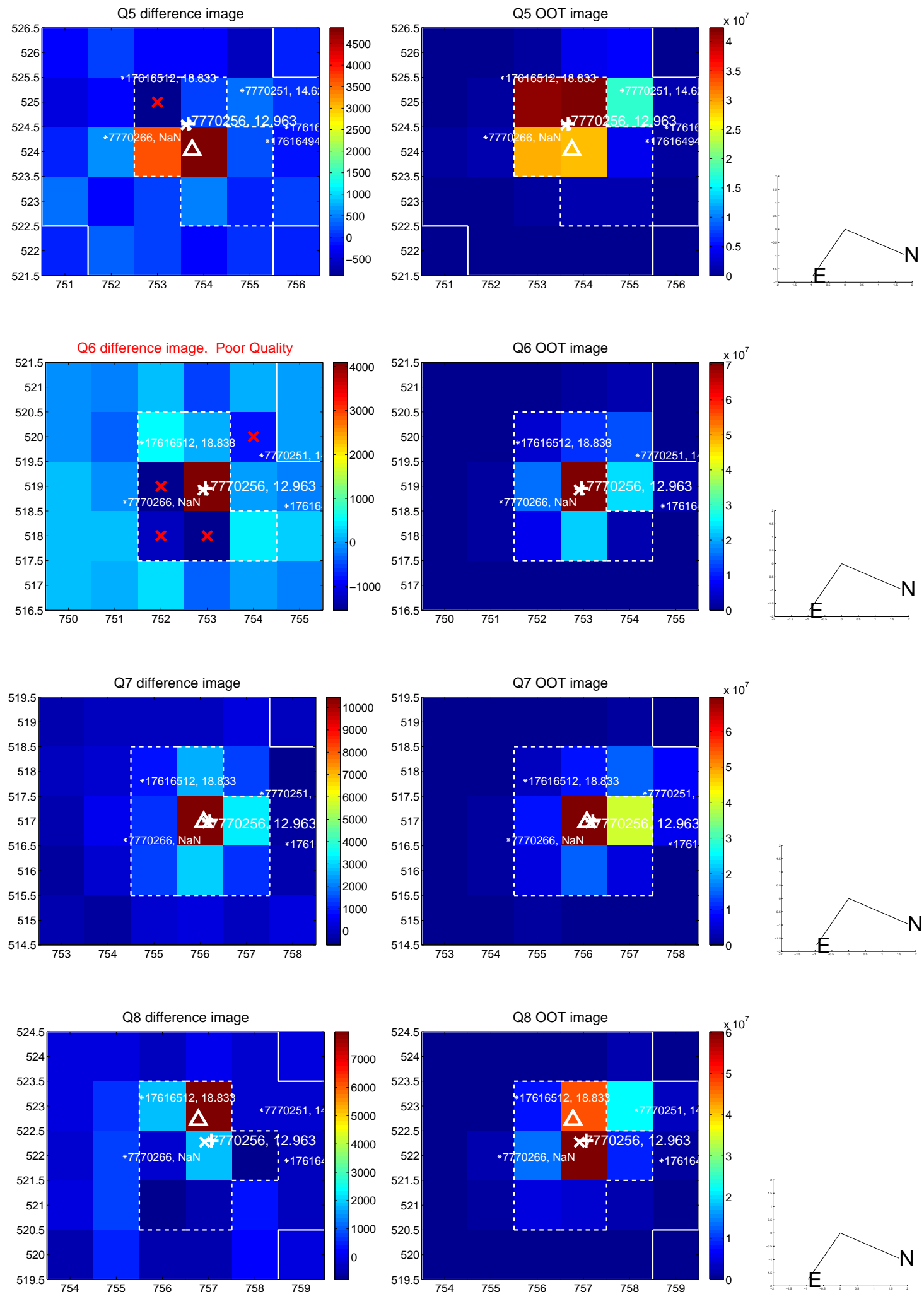


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

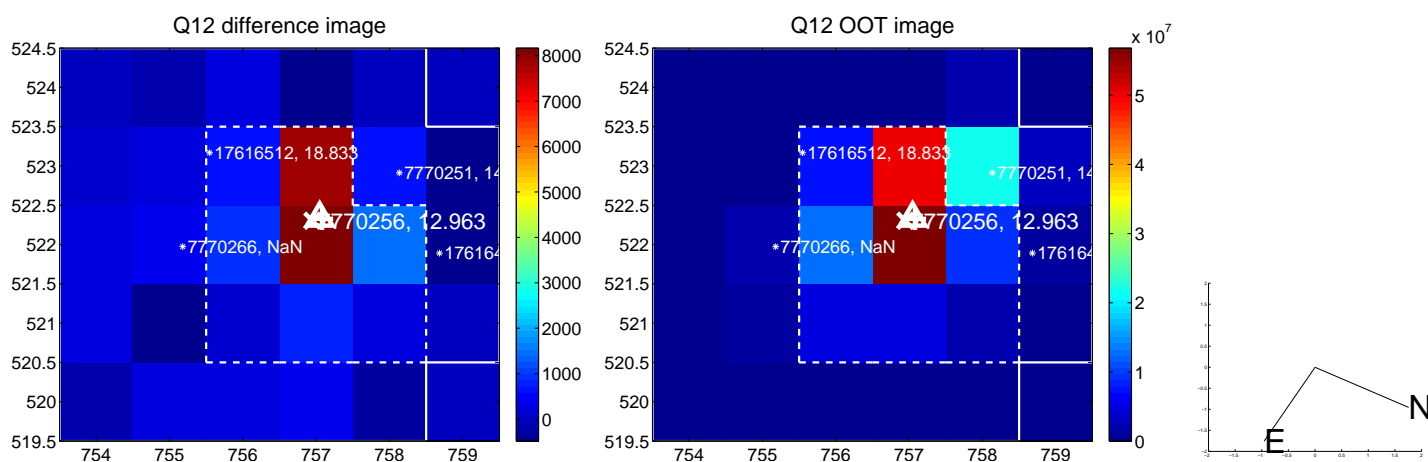
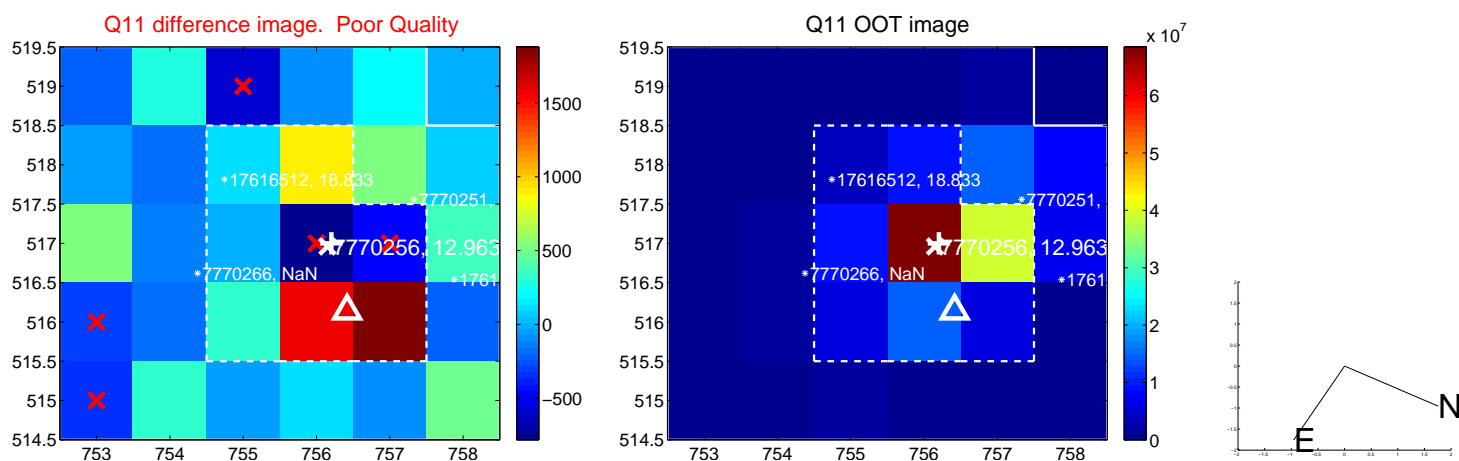
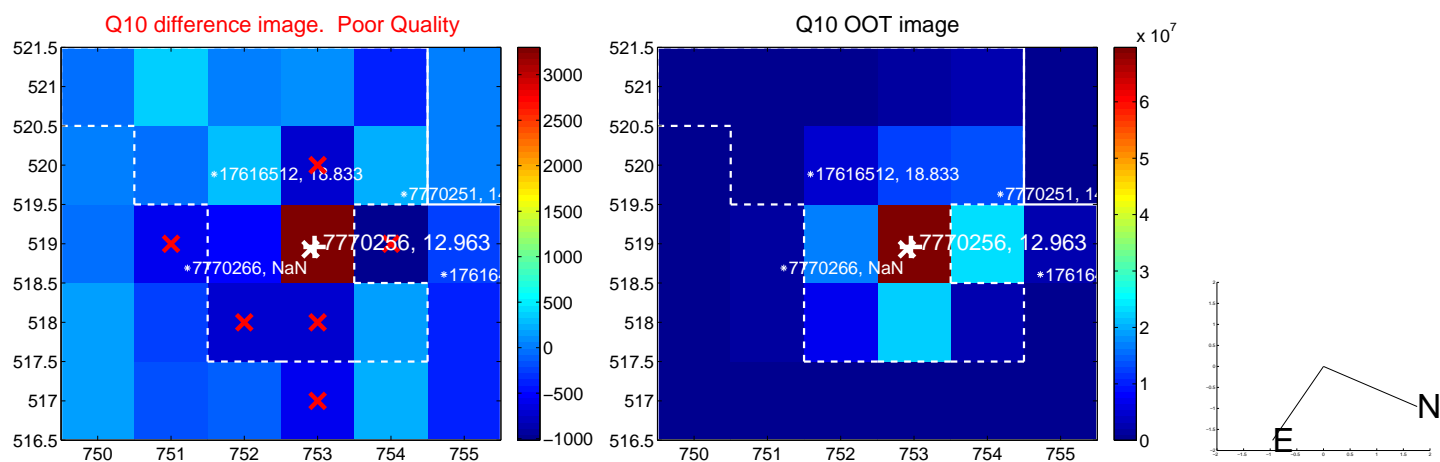
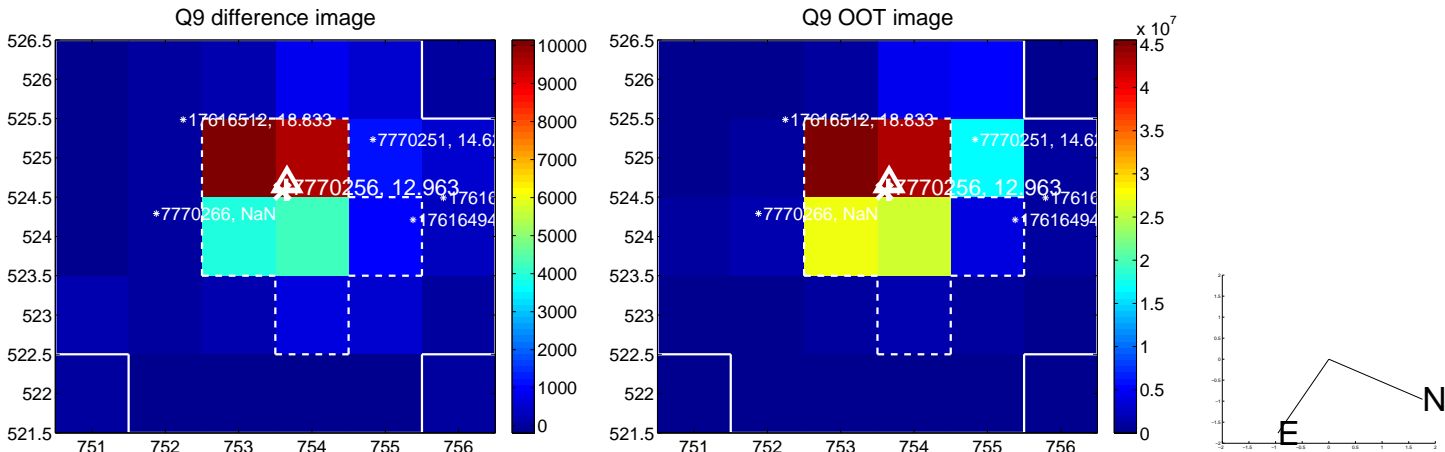


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

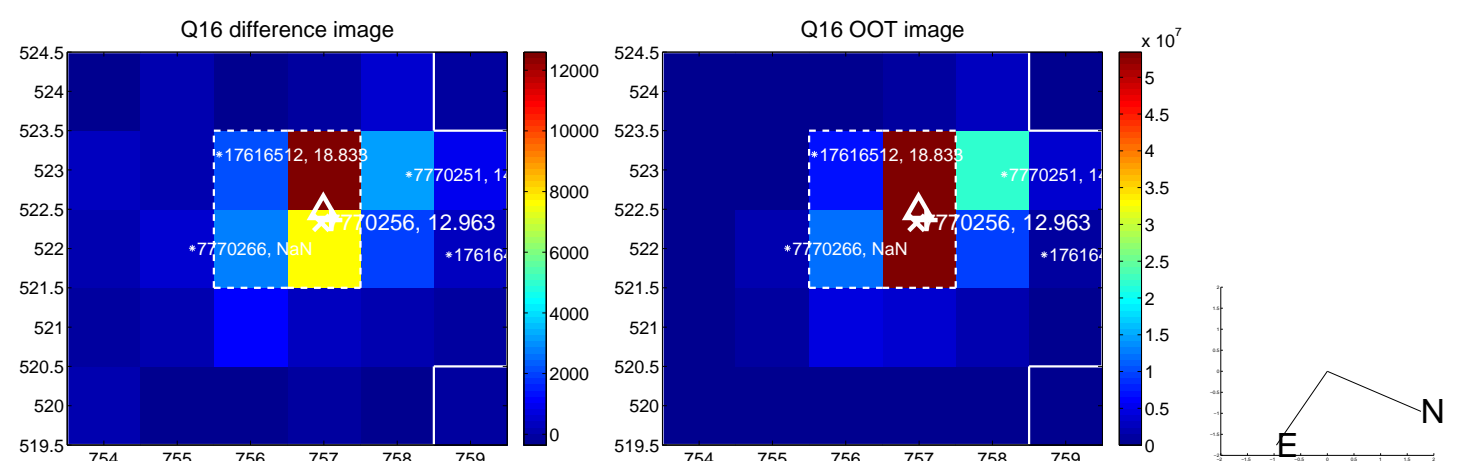
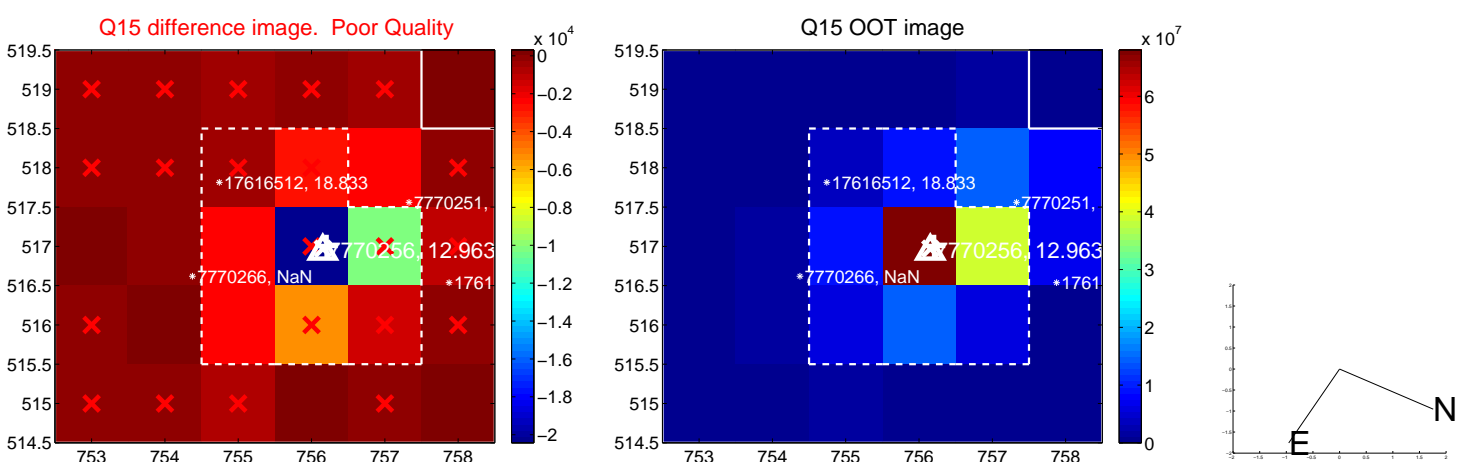
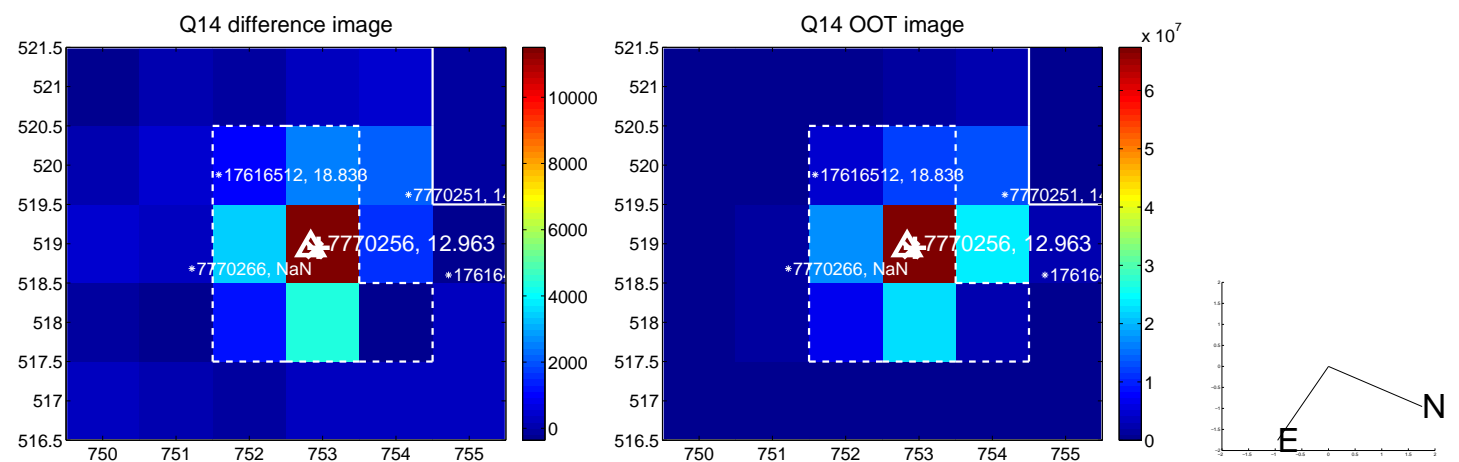
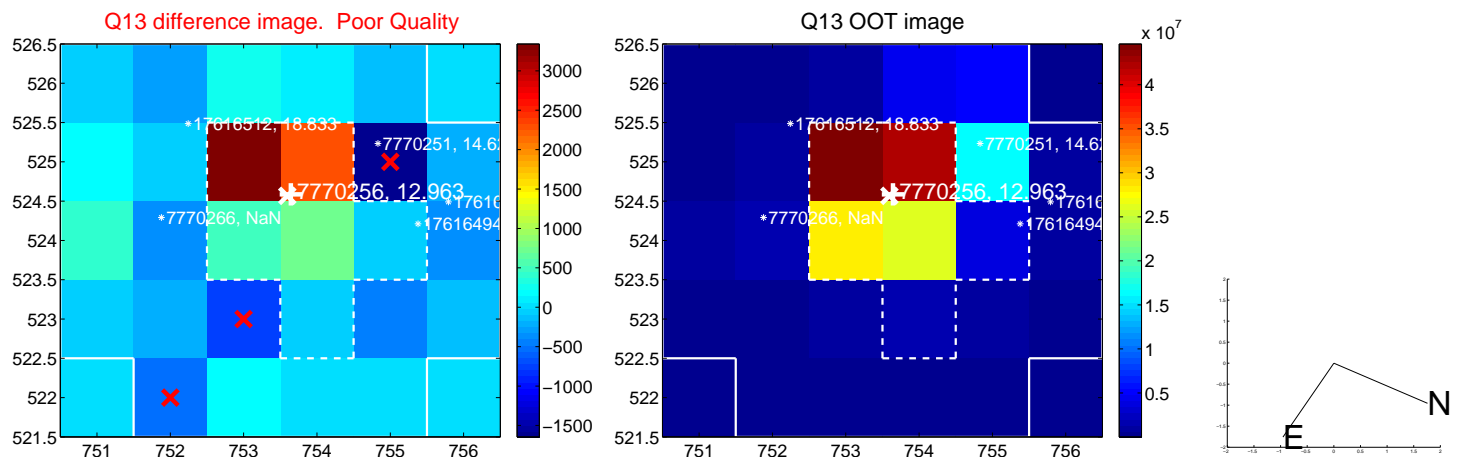




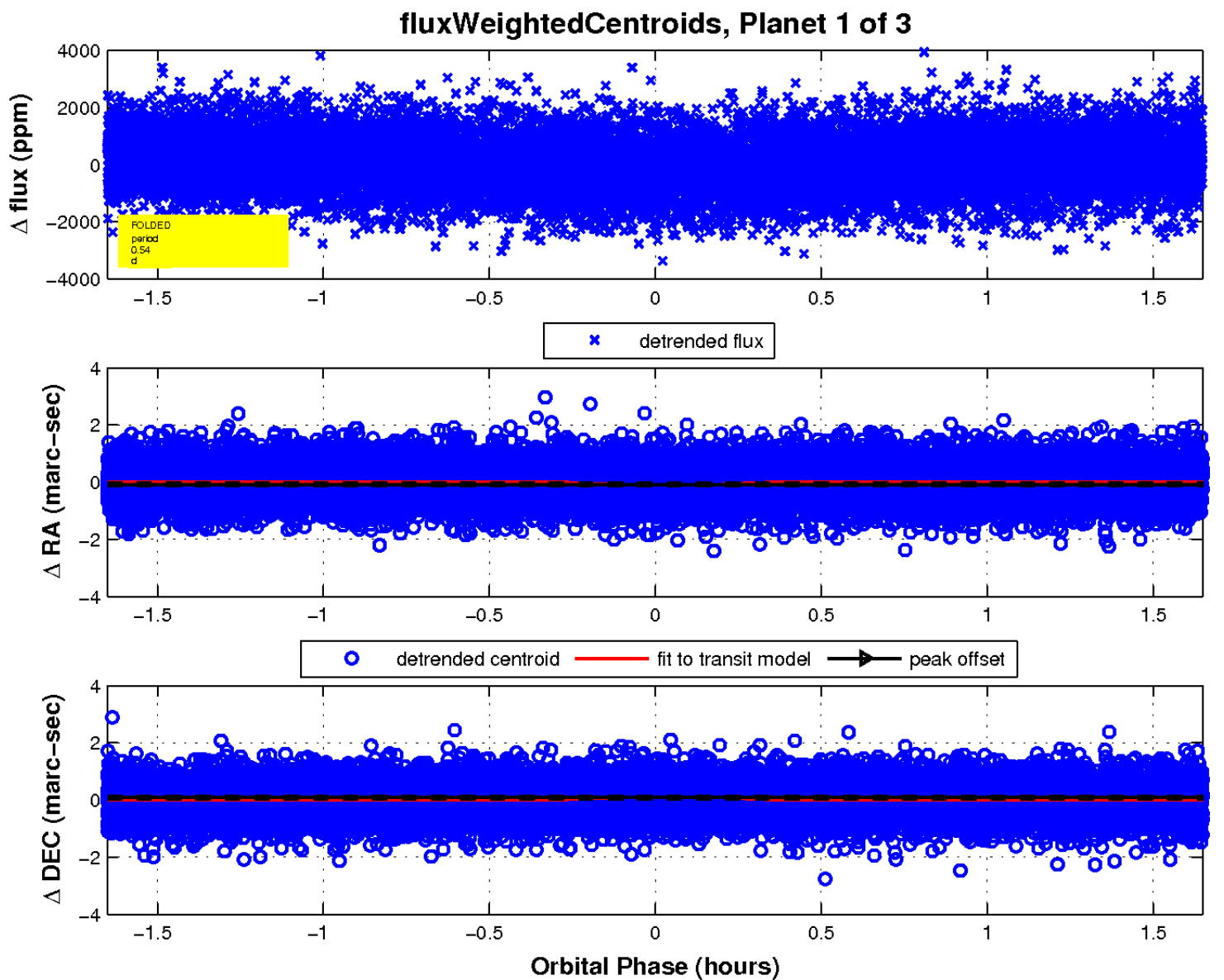
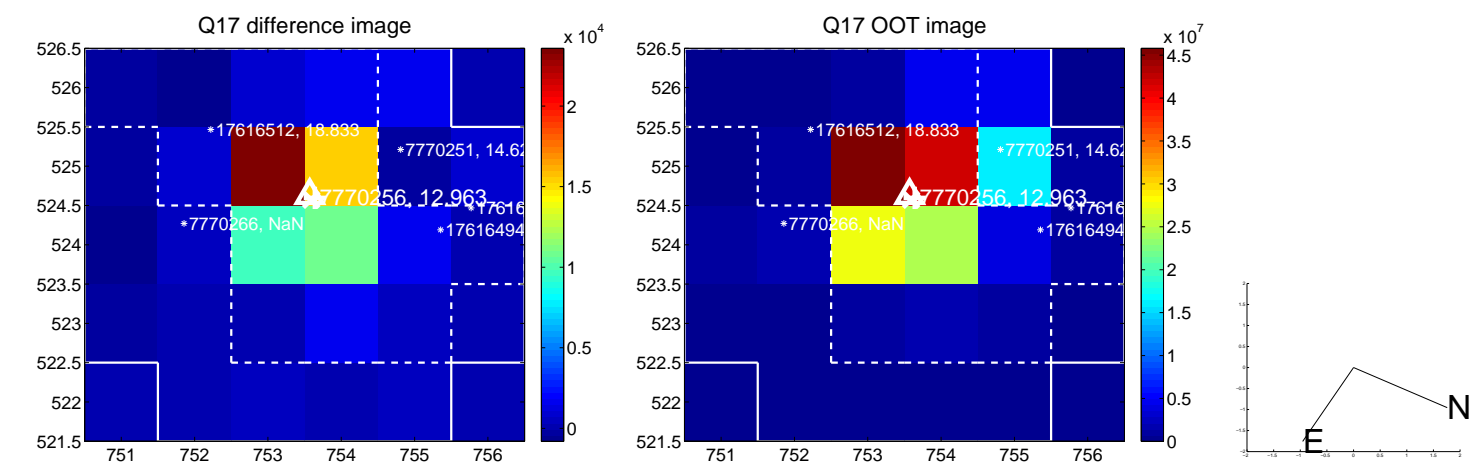
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

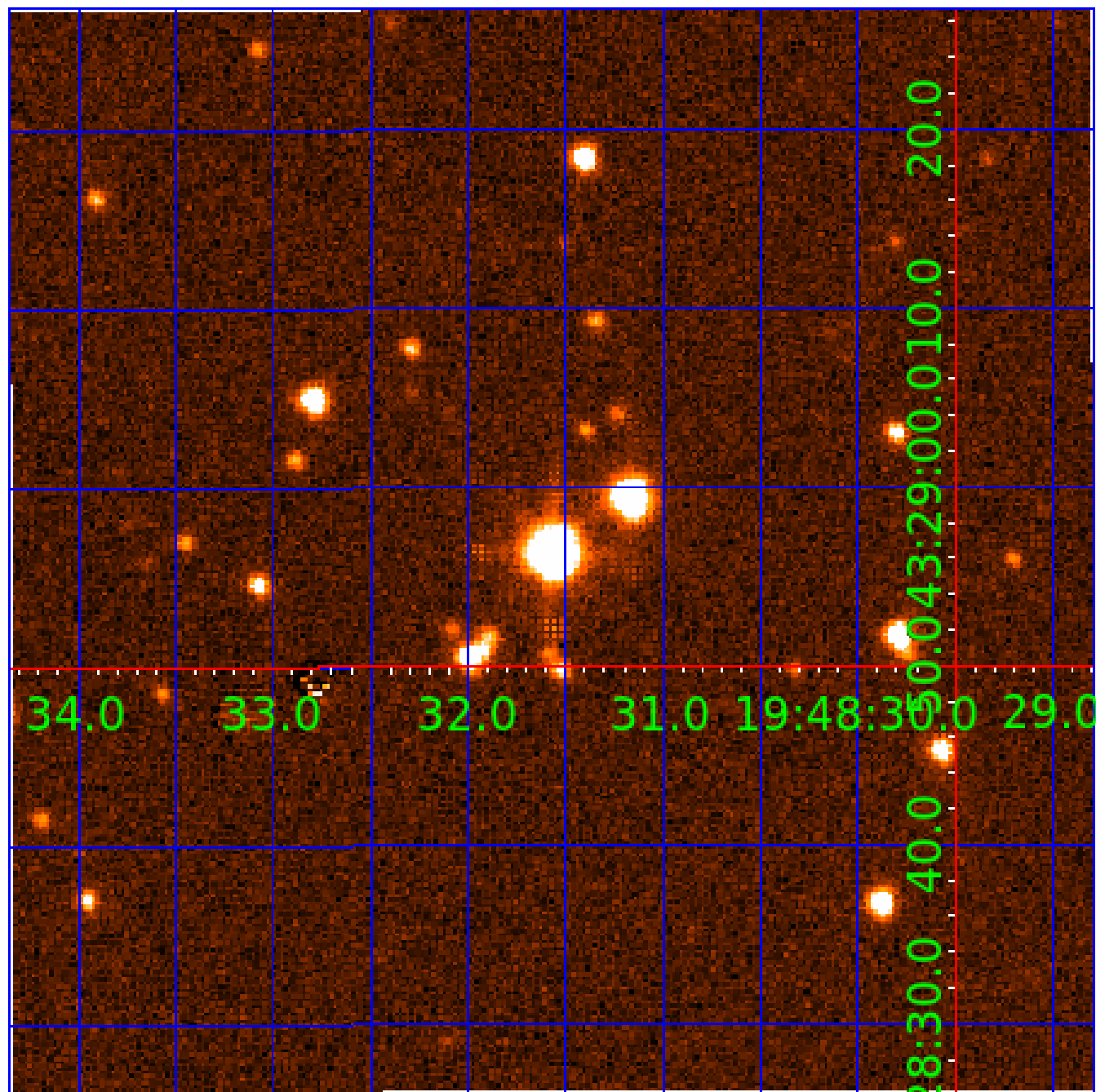


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 007770256

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007770256-01	OBS	No	0.544478	131.949369	185.9	0.550	10.8	13.0	3.02	7333	4.94	94015.13
007770256-02	OBS	No	0.544494	131.844864	118.3	3.197	11.3	13.0	3.02	7333	3.53	94011.48
007770256-03	OBS	No	0.544471	131.547841	219.0	1.462	13.1	21.2	3.02	7333	4.81	94016.65

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007770256-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007770256-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFS
007770256-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

**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.

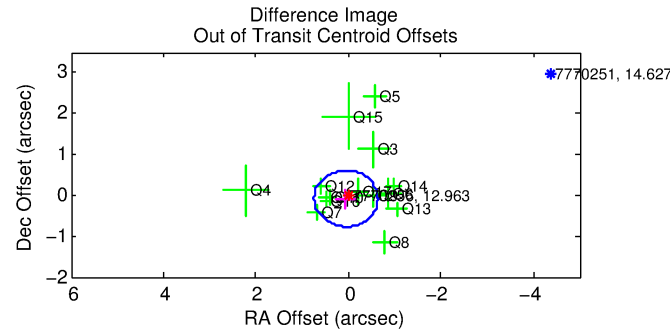
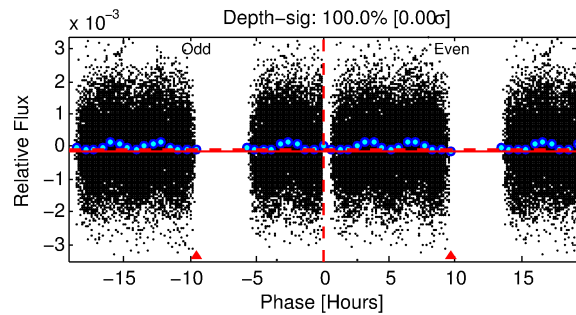
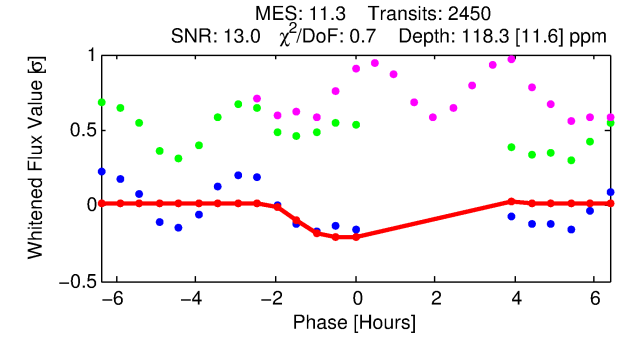
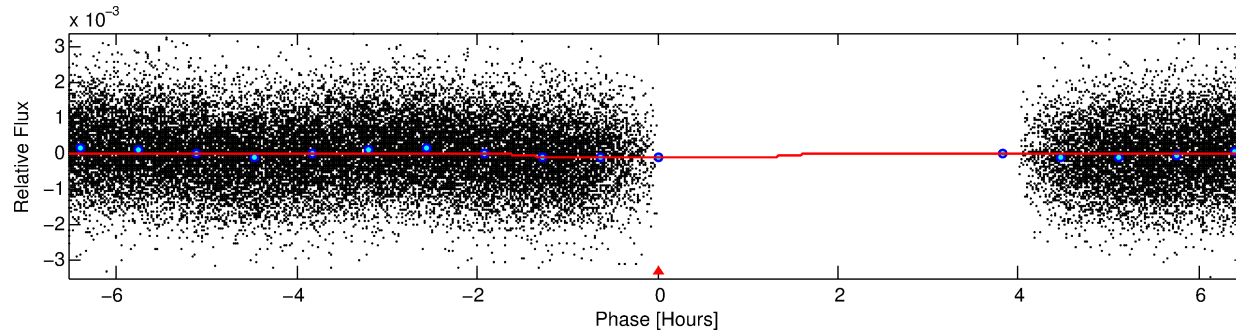
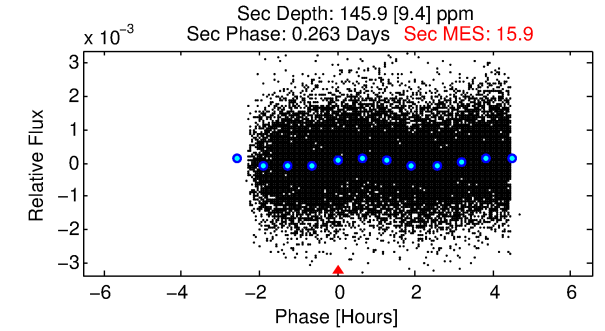
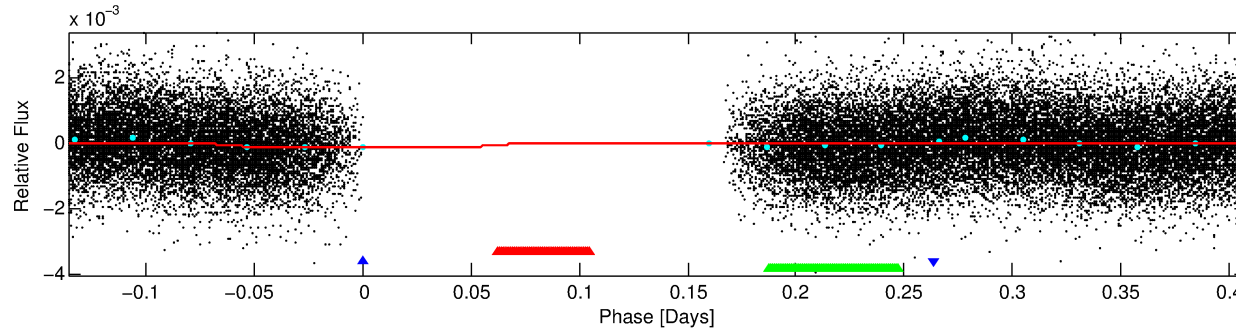
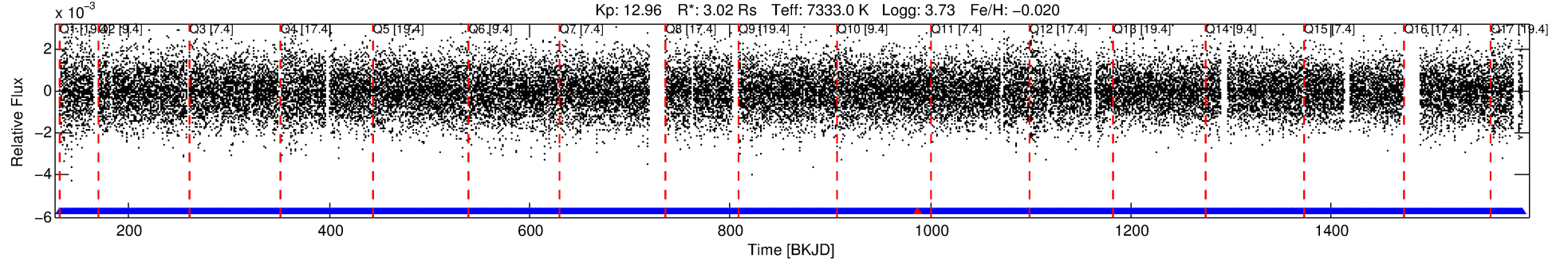
## Ephemeris Match Information For 007770256-02

No Significant Match Found



# DV One-Page Summary

KIC: 7770256 Candidate: 2 of 3 Period: 0.544 d



## DV Fit Results:

Period = 0.54449 [0.00001] d  
Epoch = 131.8449 [0.0075] BKJD  
Rp/R\* = 0.0107 [0.0085]  
a/R\* = 1.26 [2.31]  
b = 0.70 [3.63]  
Seff = 94011.48 [64090.43]  
Teq = 4465 [761] K  
Rp = 3.53 [3.16] Re  
a = 0.0159 [0.0065] AU  
Ag = 1.63 [2.80] [0.22σ]  
Teffp = 7795 [3122] K [1.04σ]

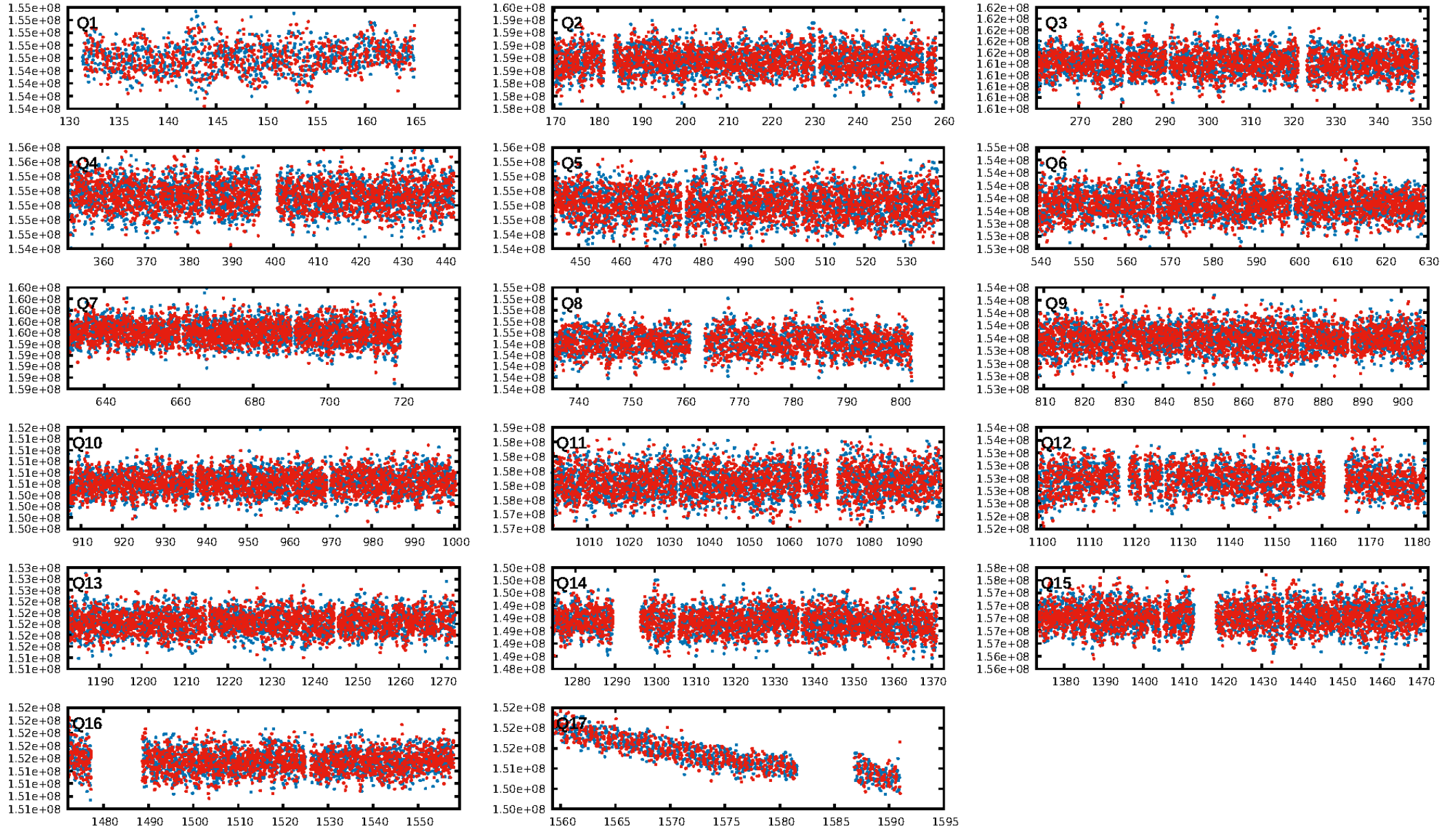
## DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2339/2340]  
GhostDiagnostic-chr: 0.9385  
Centroid-sig: 47.1%  
Centroid-so: 0.586 arcsec [5.93σ]  
OotOffset-rm: 0.100 arcsec [0.44σ]  
KicOffset-rm: 0.235 arcsec [1.05σ]  
OotOffset-st: 3/4/4/4 [15]  
KicOffset-st: 3/4/4/4 [15]  
DiffImageQuality-fgm: 0.07 [1/15]  
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Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:54:37 Z

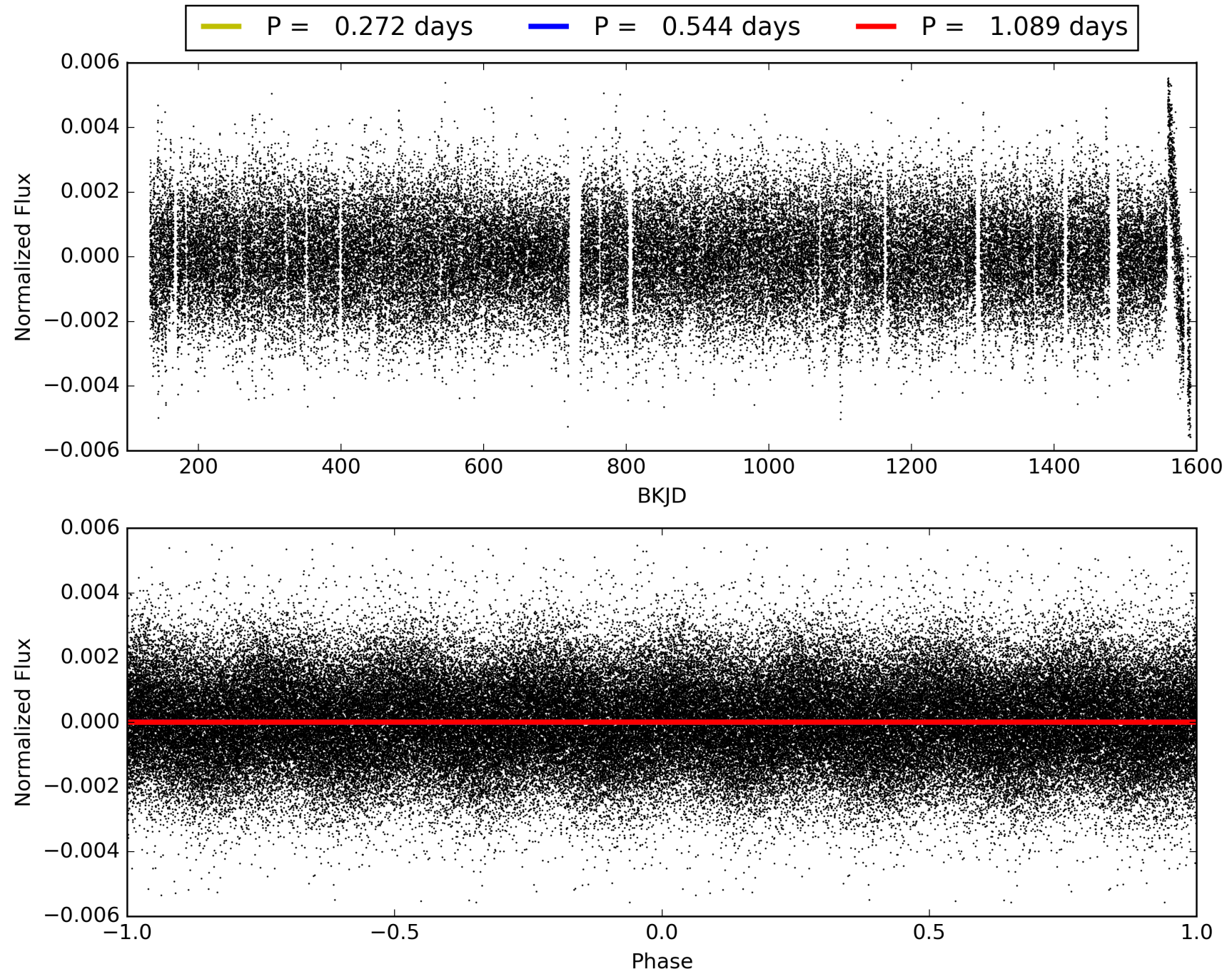
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007770256-02, PDC Light Curves



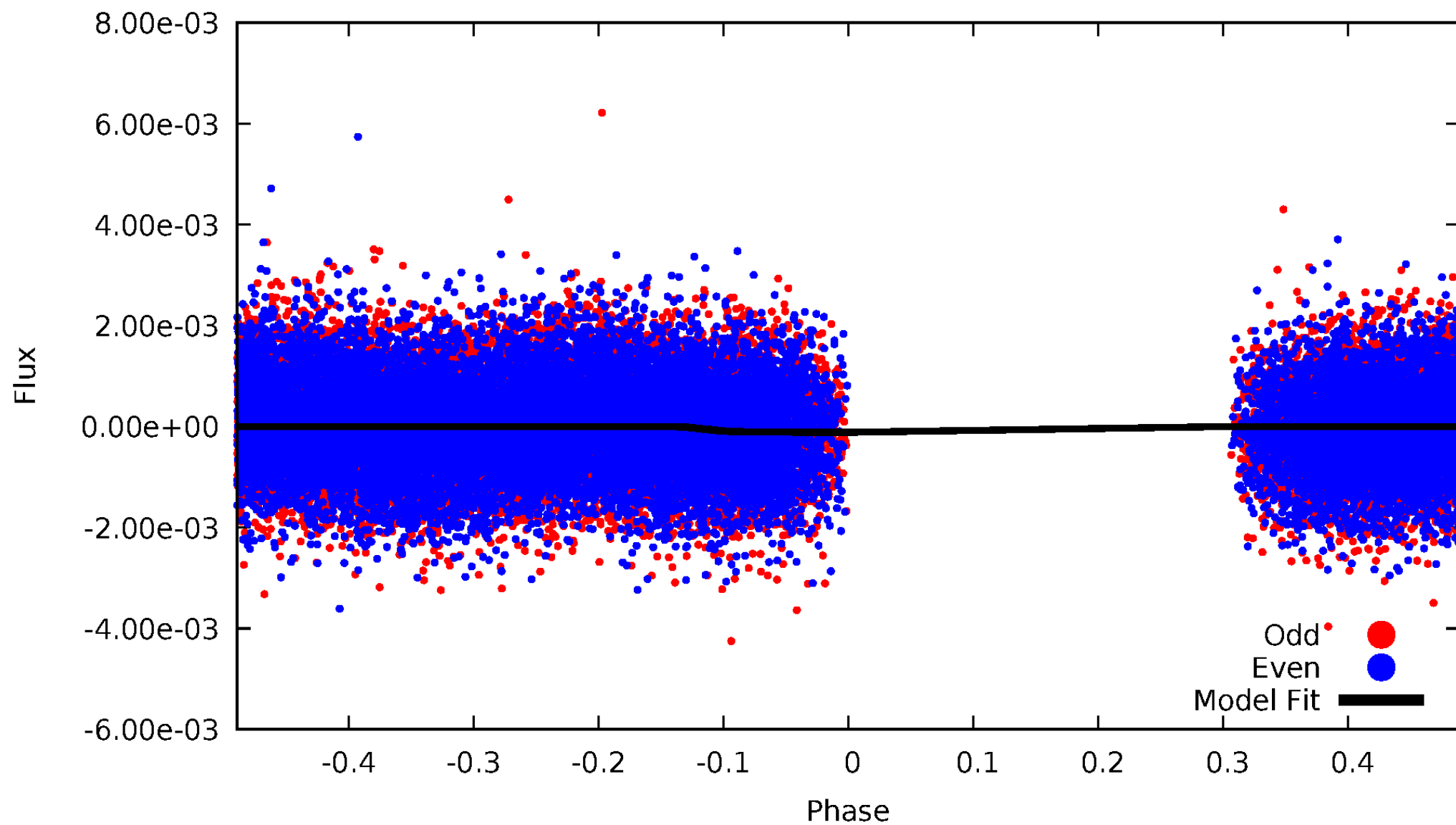


TCE 007770256-02



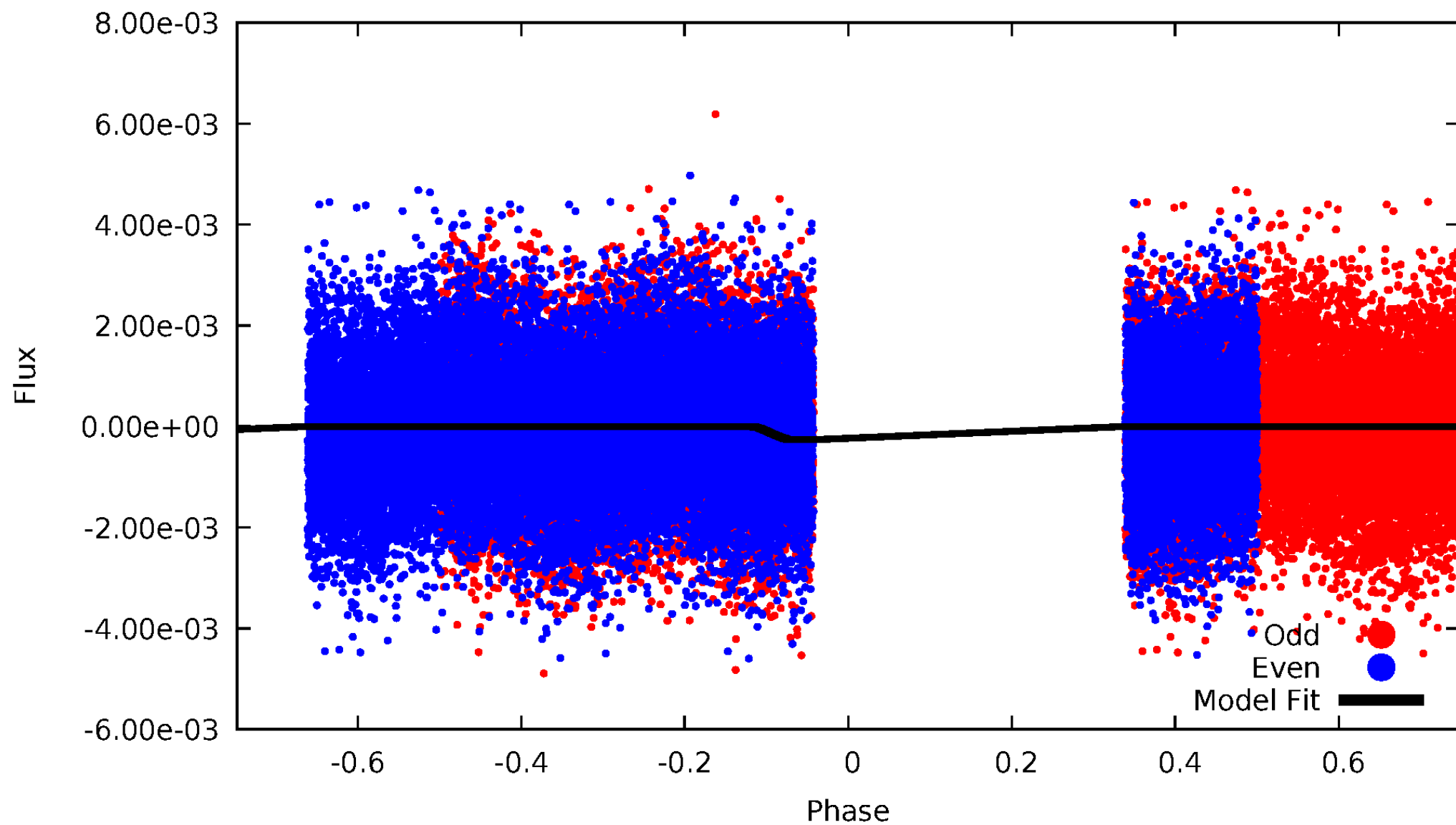
# DV Odd/Even

TCE 007770256-02



# ALT Odd/Even

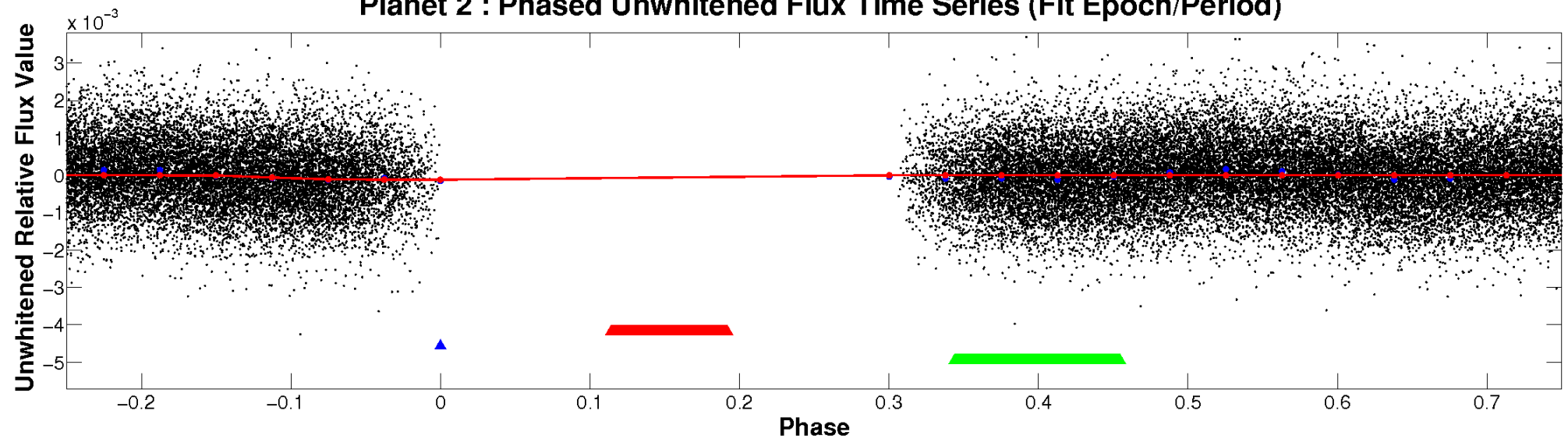
TCE 007770256-02



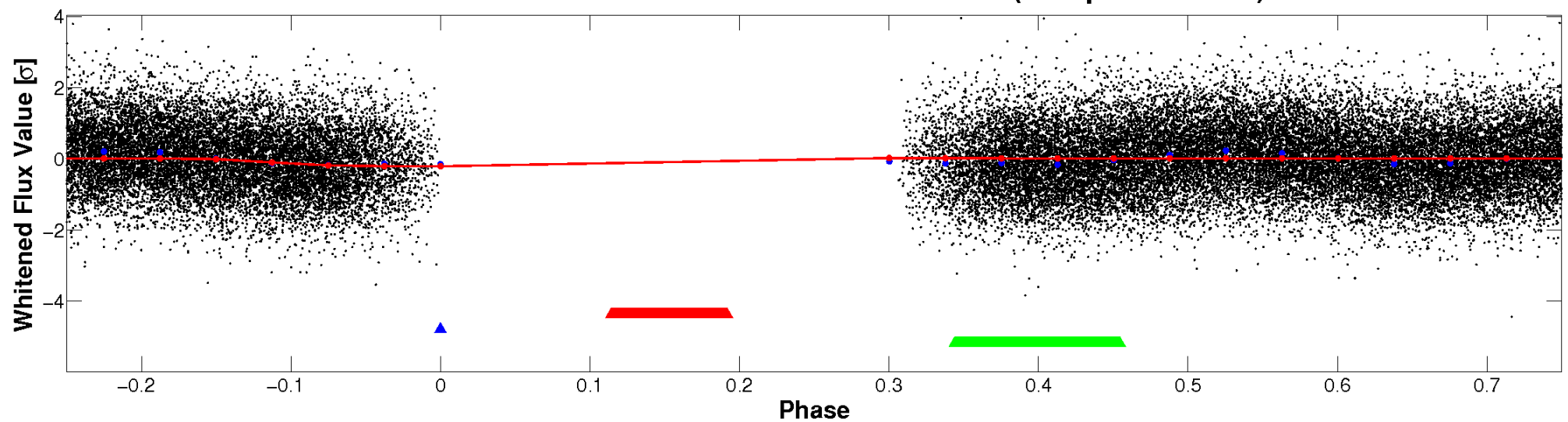


# Non-Whitened Vs. Whitened Light Curve

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

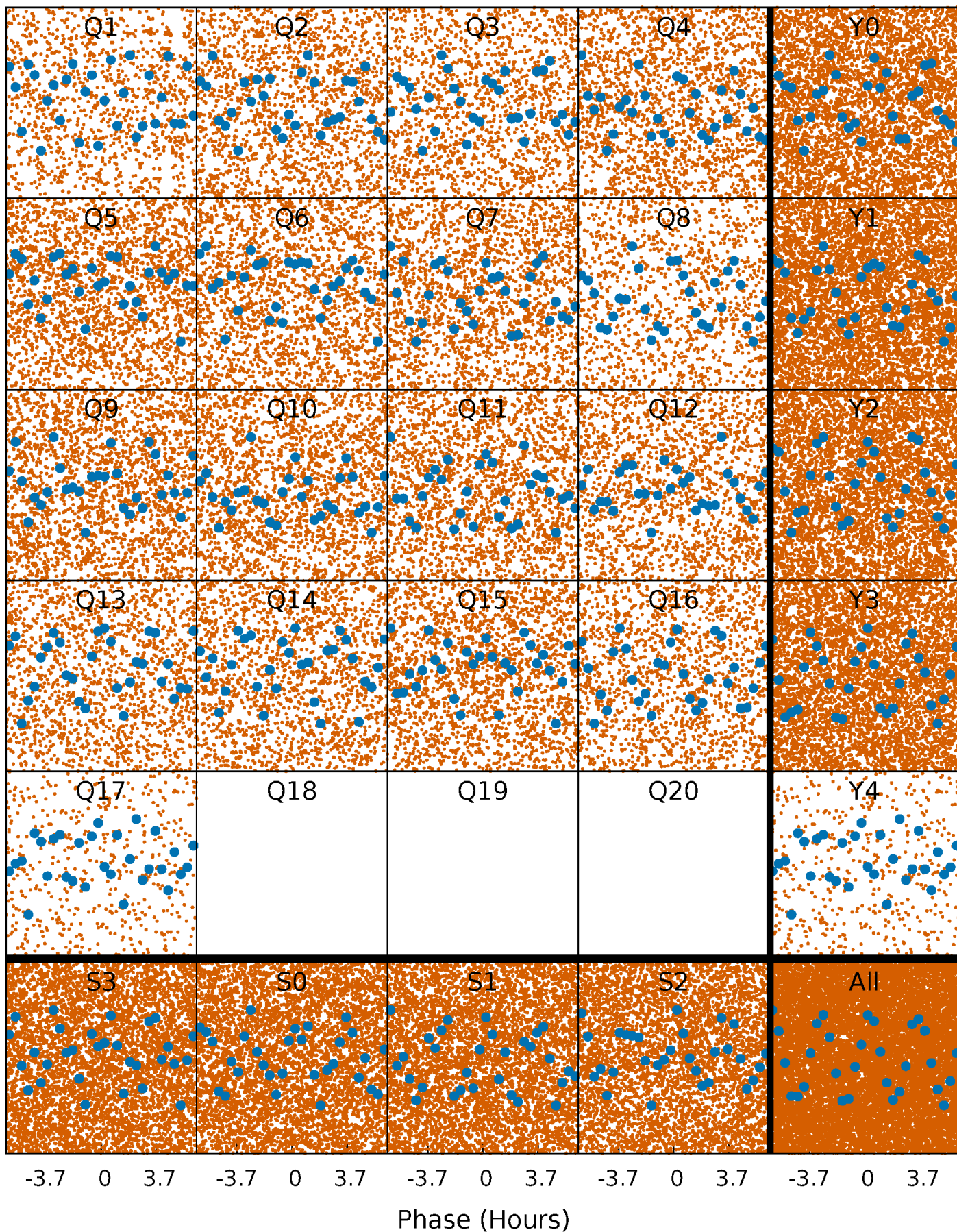


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

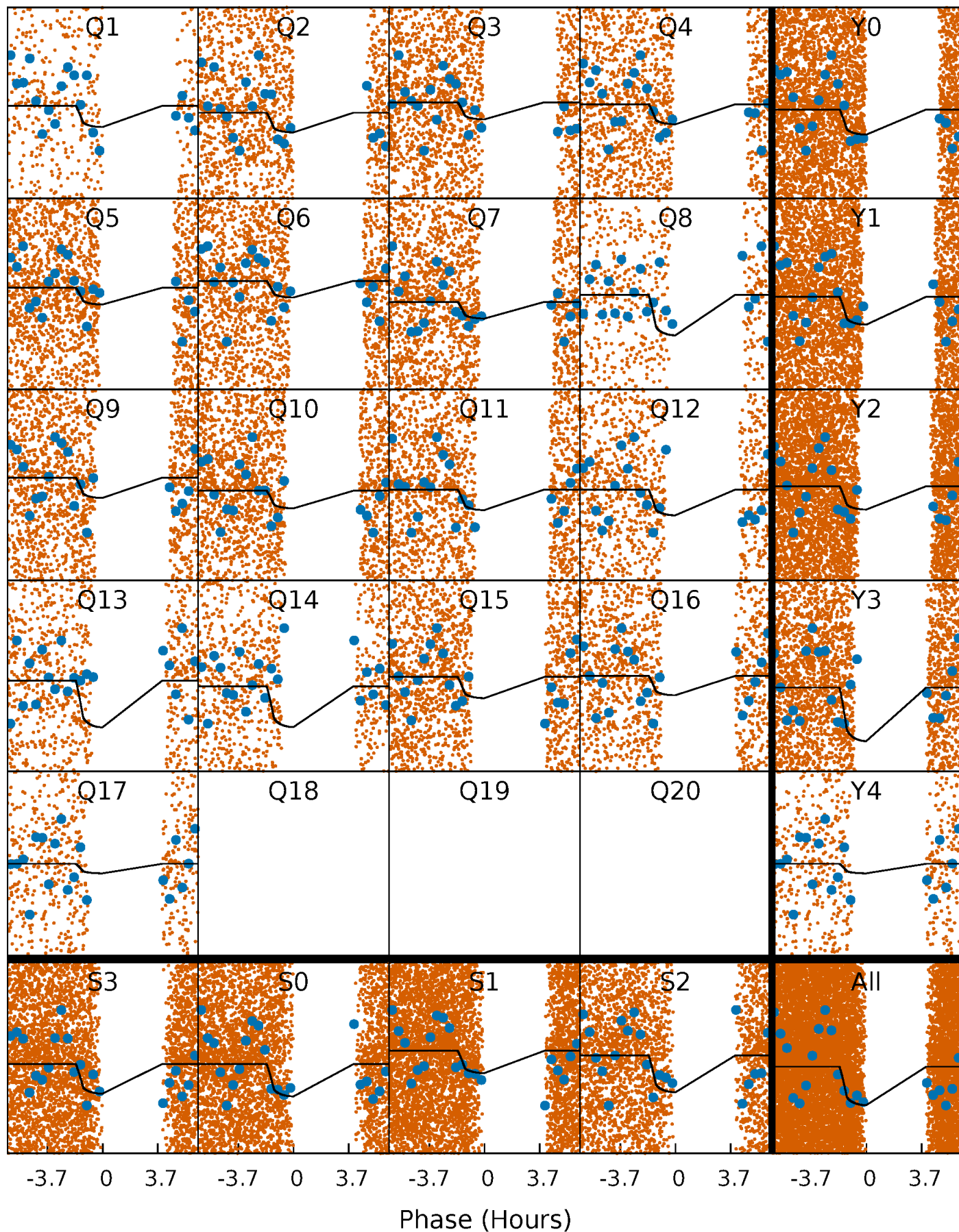
TCE 007770256-02   P= 0.544494 Days    $T_0=131.844864$  (BKJD)





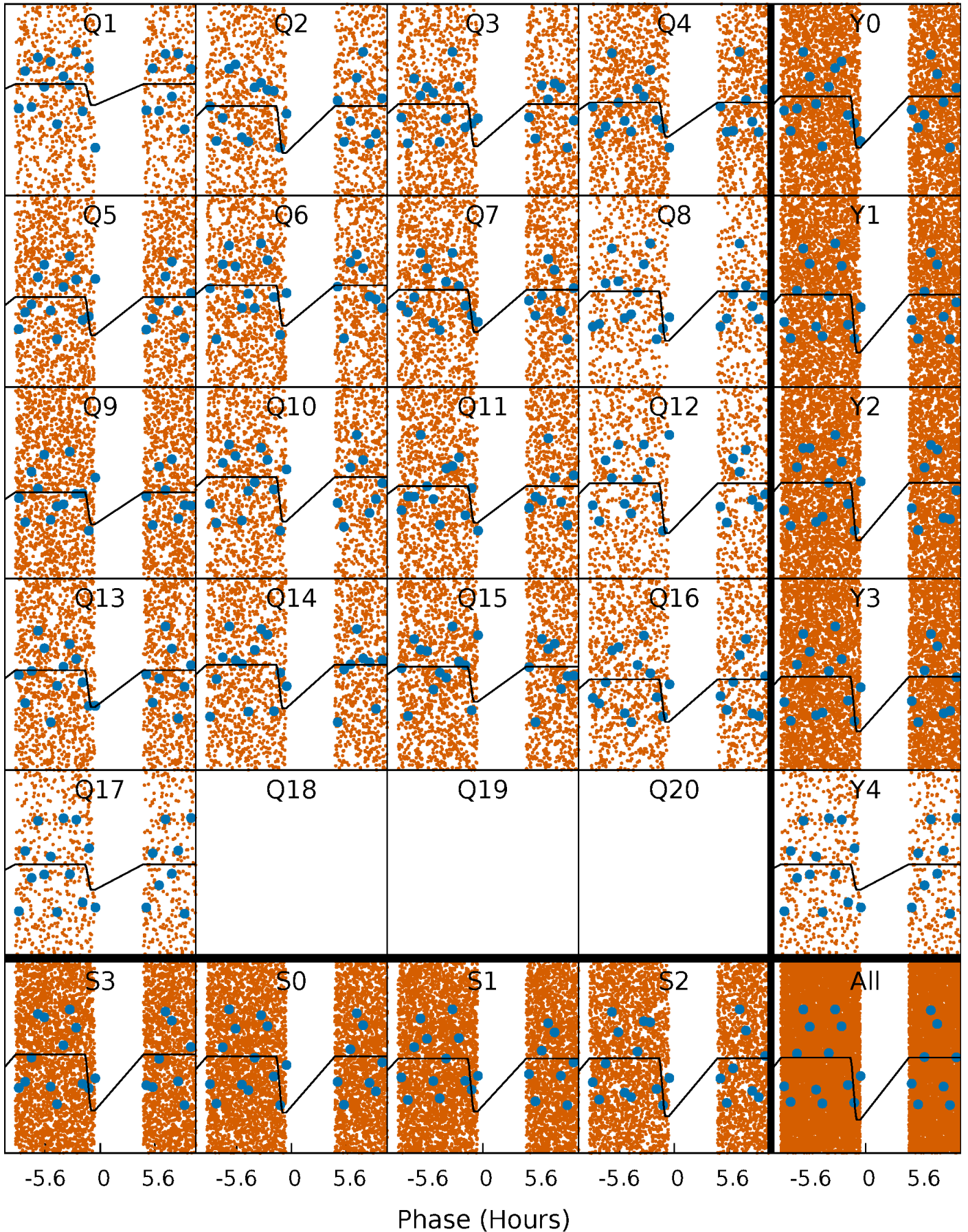
# DV Quarter-Phased Transit Curves

TCE 007770256-02   P= 0.544494 Days    $T_0=131.844864$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 007770256-02 P= 0.544478 Days  $T_0=131.869129$  (BKJD)

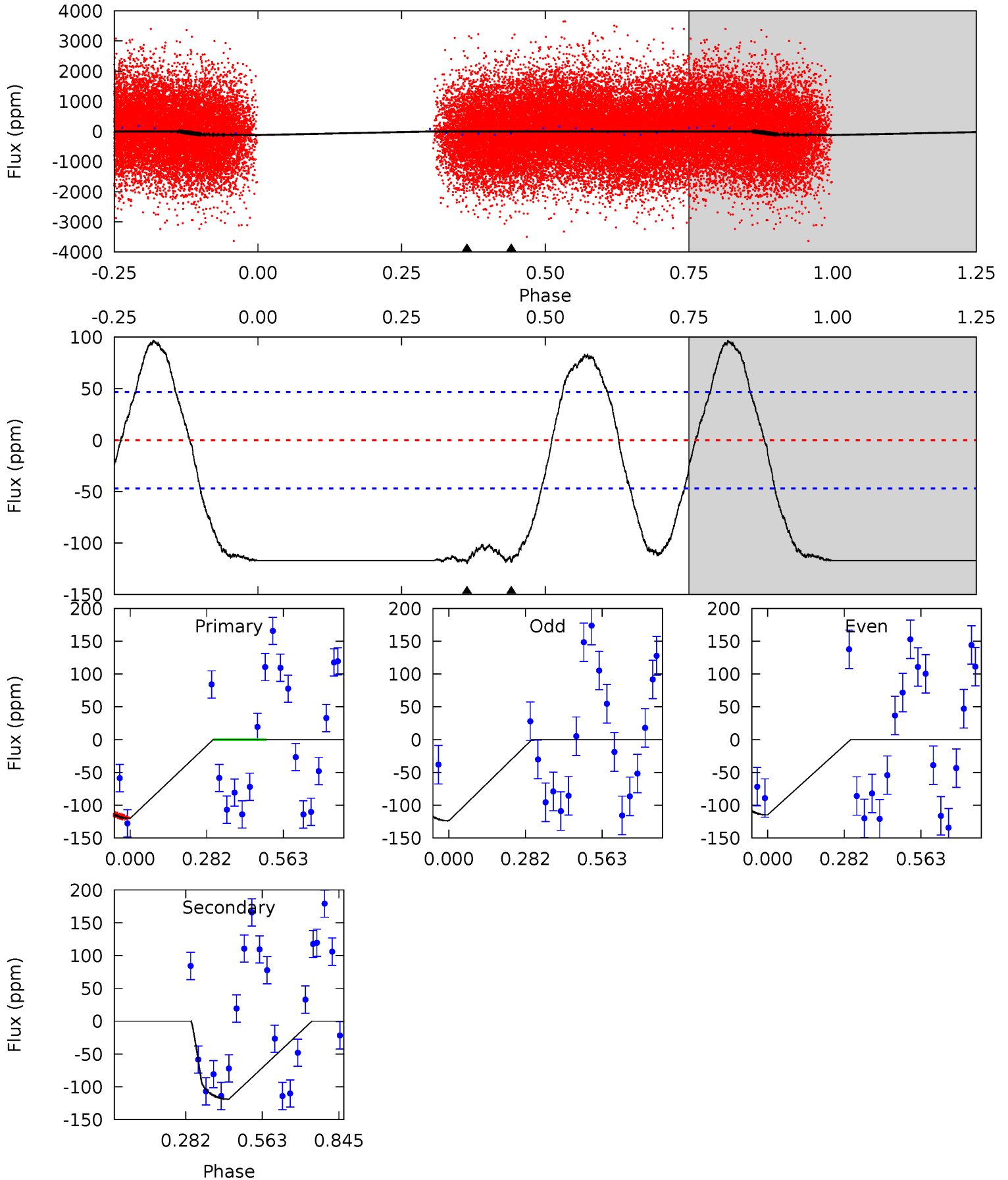




# DV Model-Shift Uniqueness Test

007770256-02, P = 0.544494 Days, E = 131.300370 Days

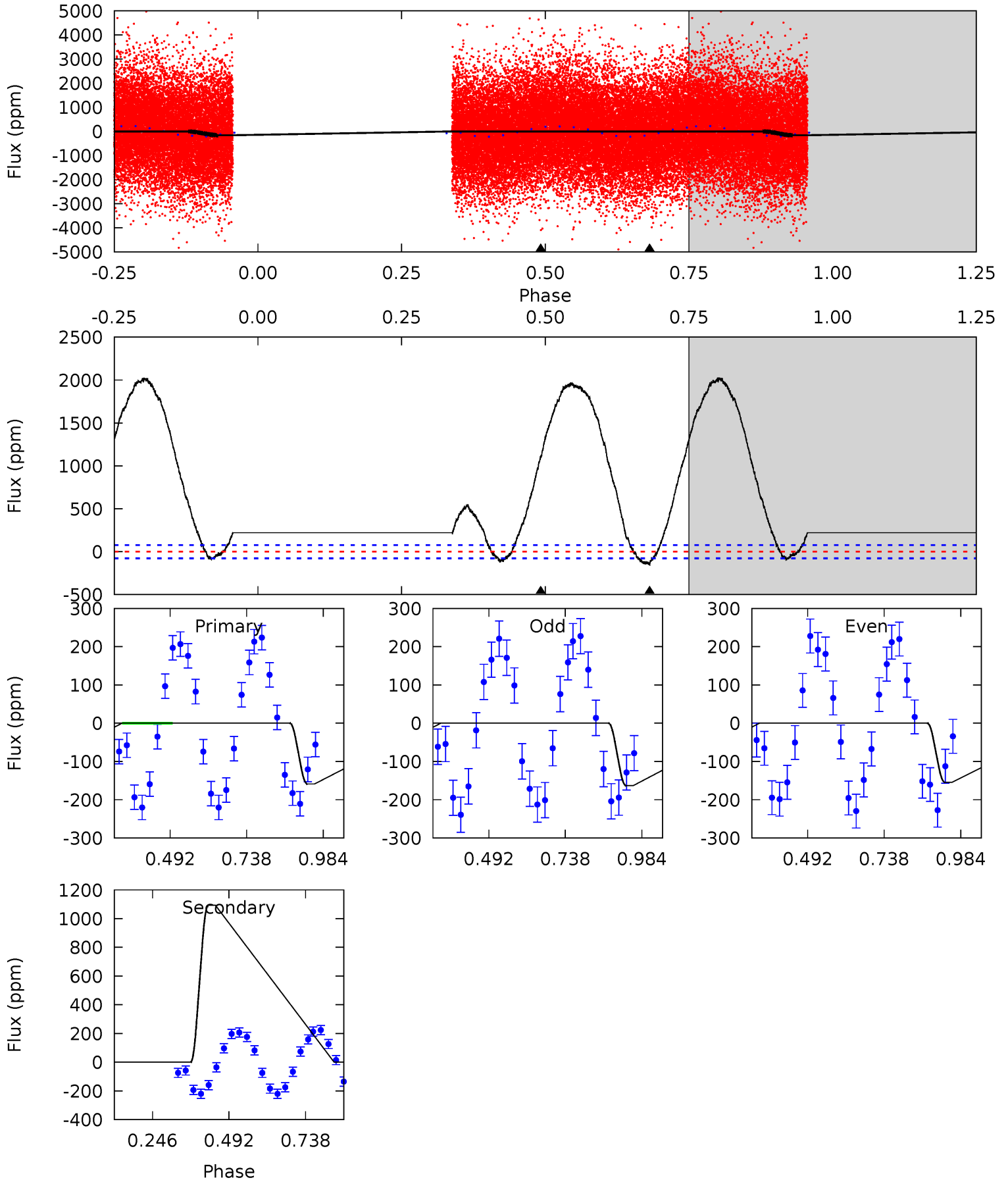
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	11.0	0	0	4.34	1.08	6.45	11.2	11.2	11.0	11.0	0.42	0	0.45	0



# Alt Model-Shift Uniqueness Test

007770256-02, P = 0.544478 Days, E = 131.324651 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
8.98	-61.9	0	0	4.37	1.16	5.07	8.98	8.98	-61.9	-61.9	0.25	0	0.93	0



### Stellar Parameters For KIC 007770256

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7333^{+228}_{-304}$	$3.732^{+0.392}_{-0.098}$	$-0.020^{+0.200}_{-0.350}$	$3.025^{+0.444}_{-1.244}$	$1.799^{+0.205}_{-0.380}$	$0.092^{+0.312}_{-0.029}$
	+3%/-4%	+11%/-3%	+1000%/-1750%	+15%/-41%	+11%/-21%	+341%/-31%
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 007770256-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-119 \pm 11$	$3.65^{+2.75}_{-2.08}$	$6075^{+425}_{-619}$	$6379^{+5099}_{-2316}$	$1.239^{+5.264}_{-0.834}$
Alt.	$1093 \pm 18$	$5.07^{+2.98}_{-2.52}$	$6144^{+359}_{-683}$	$-11953^{+2954}_{-11578}$	$-5.849^{+3.497}_{-17.616}$

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

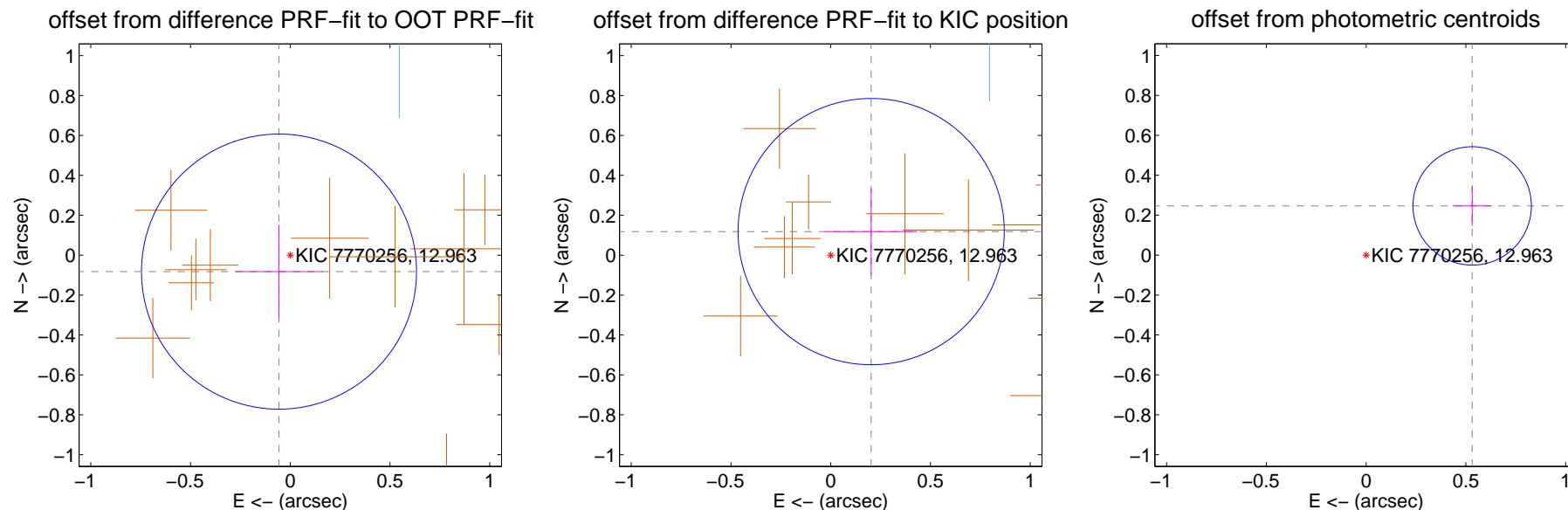
## DV Centroid Data

Supplemental centroid analysis for 007770256-02. Kepler magnitude: 12.96. Transit SNR 12.97

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

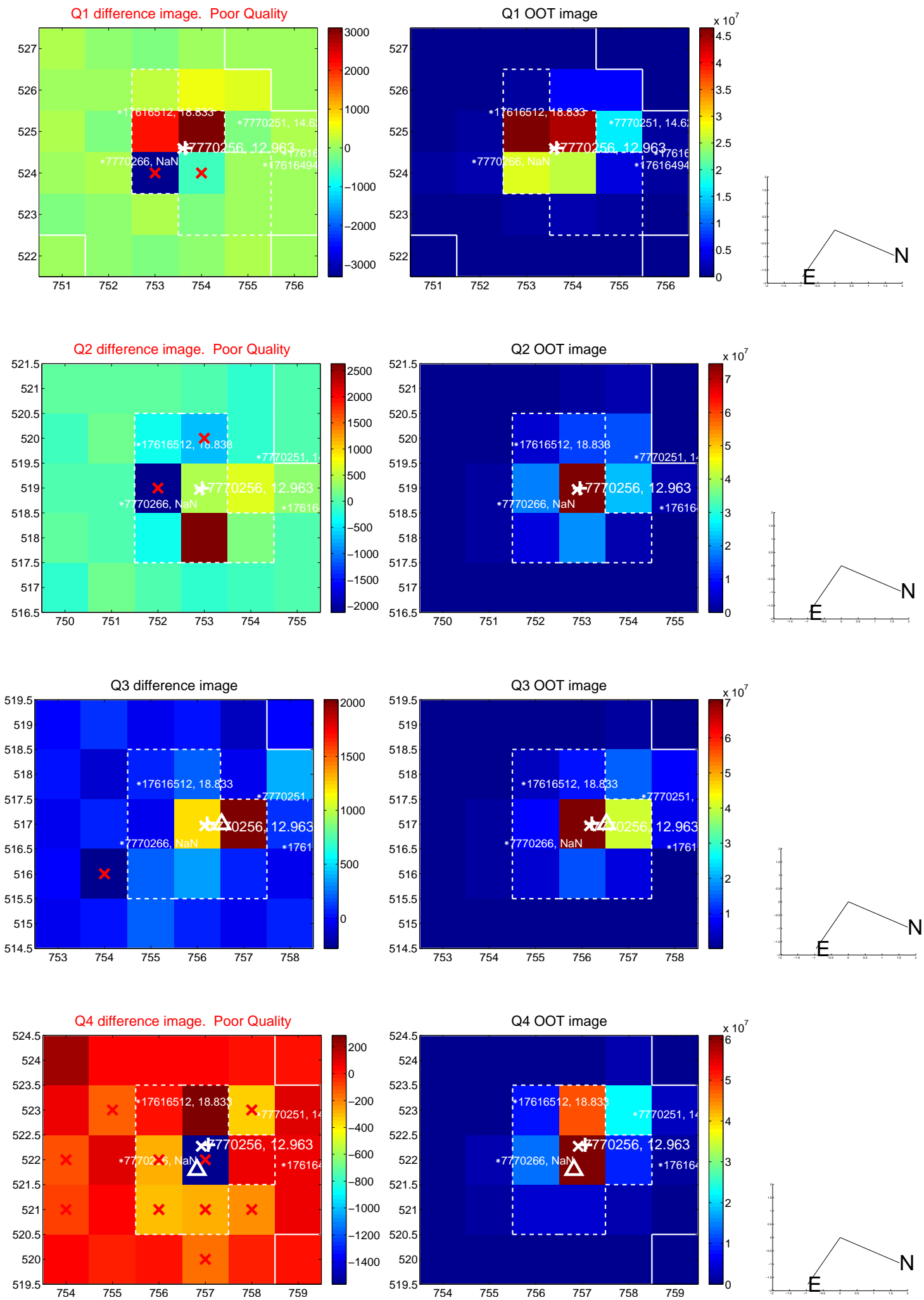
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.100 \pm 0.230$	0.44	$0.056 \pm 0.220$	$-0.083 \pm 0.235$
PRF-fit source offset from KIC position	$0.235 \pm 0.222$	1.05	$-0.203 \pm 0.231$	$0.118 \pm 0.217$
photometric centroid source offset	$0.59 \pm 0.10$	5.93	$-0.53 \pm 0.10$	$0.25 \pm 0.10$



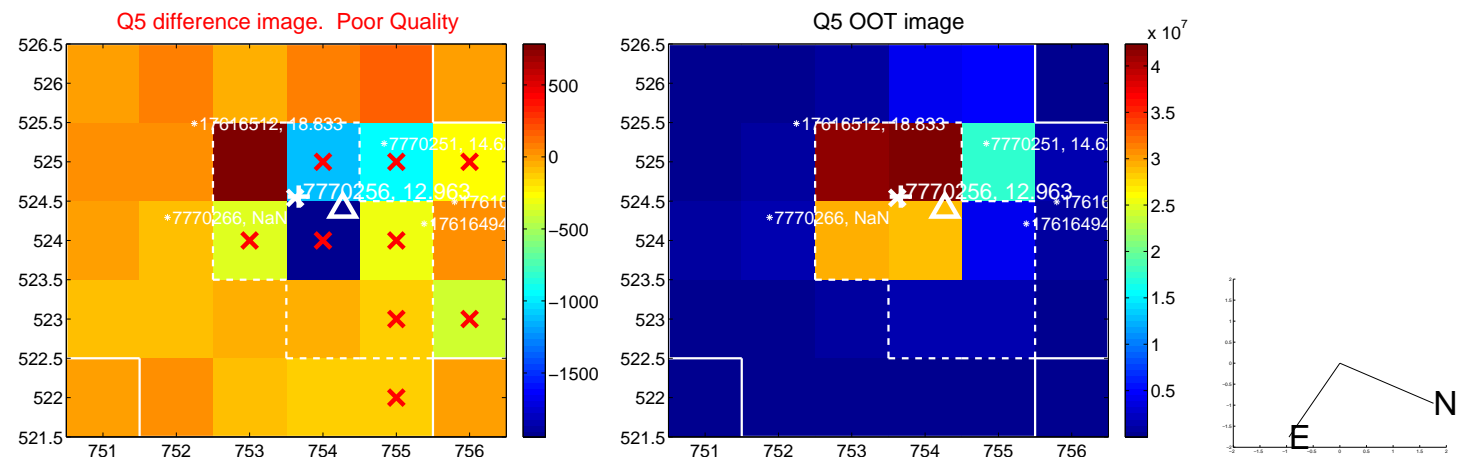
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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



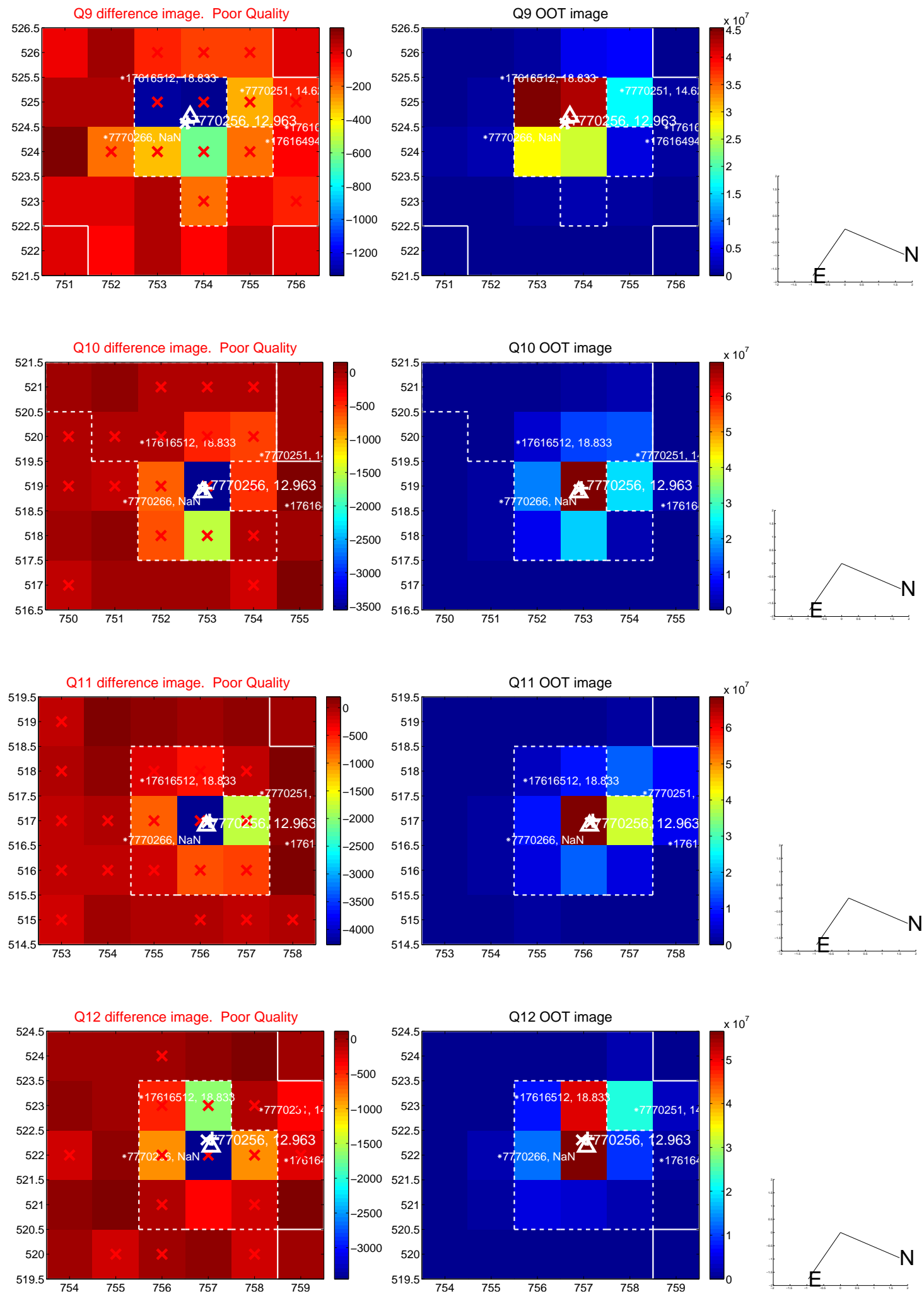
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



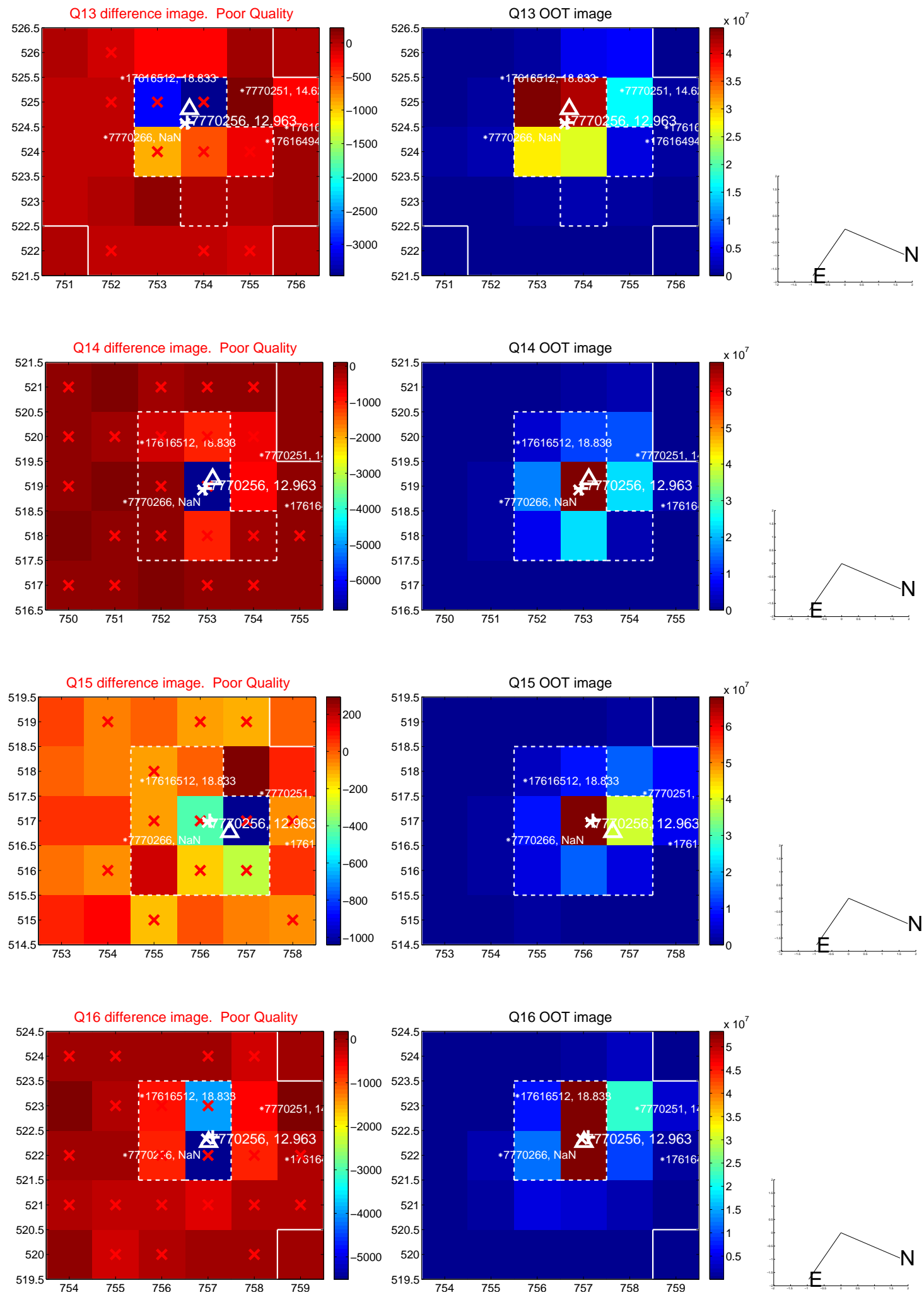
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



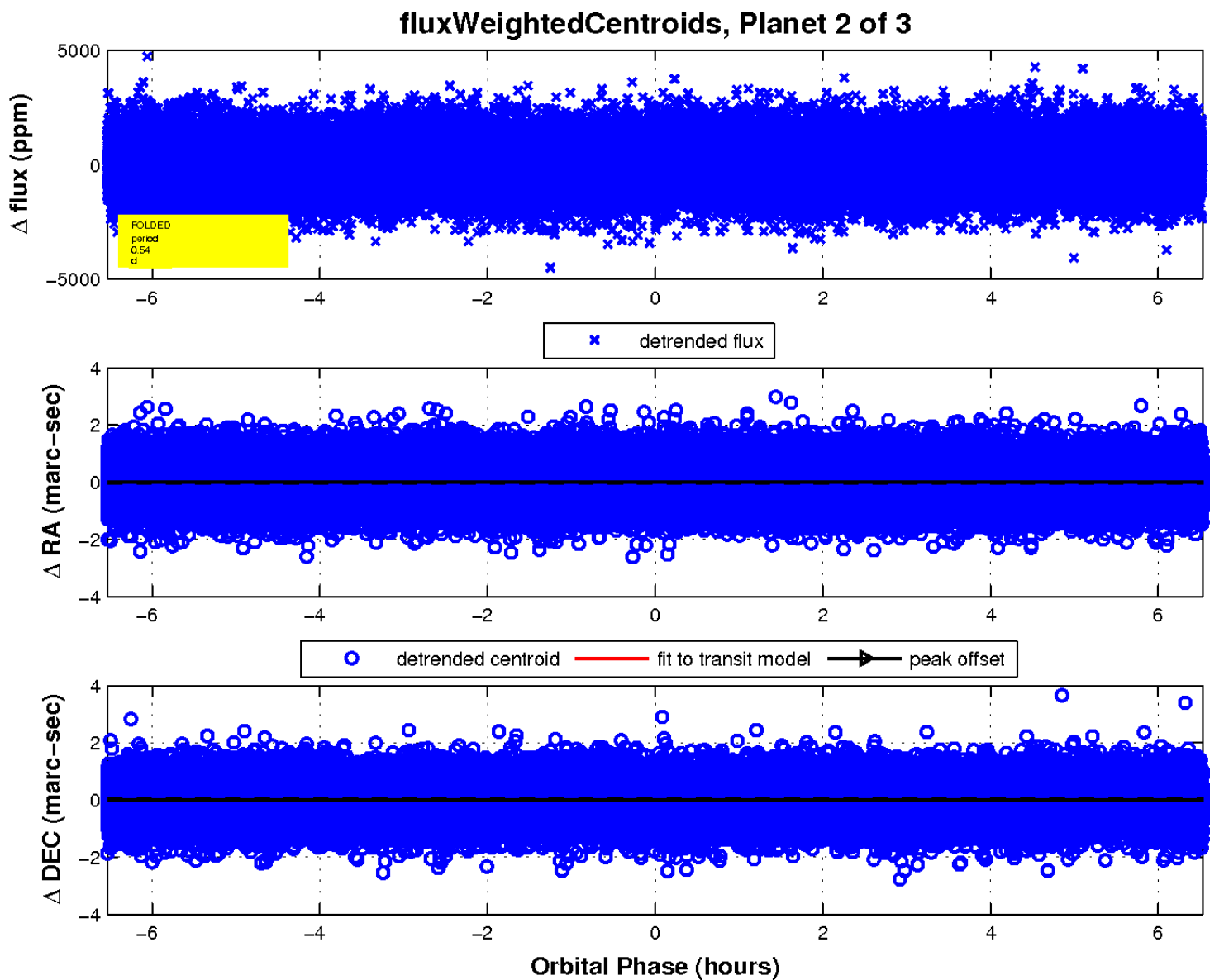
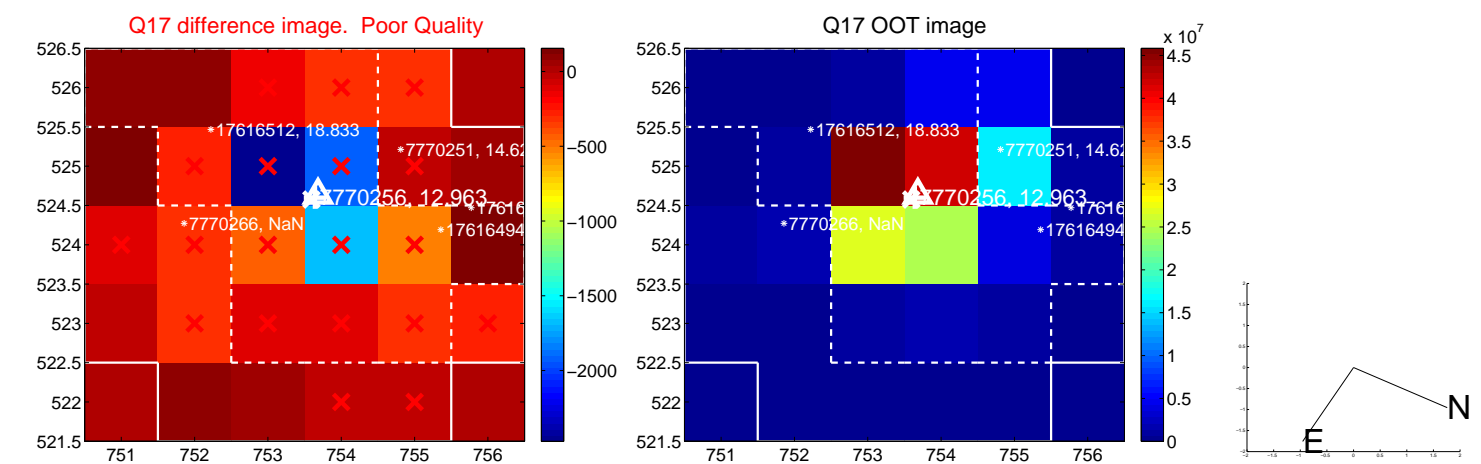
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

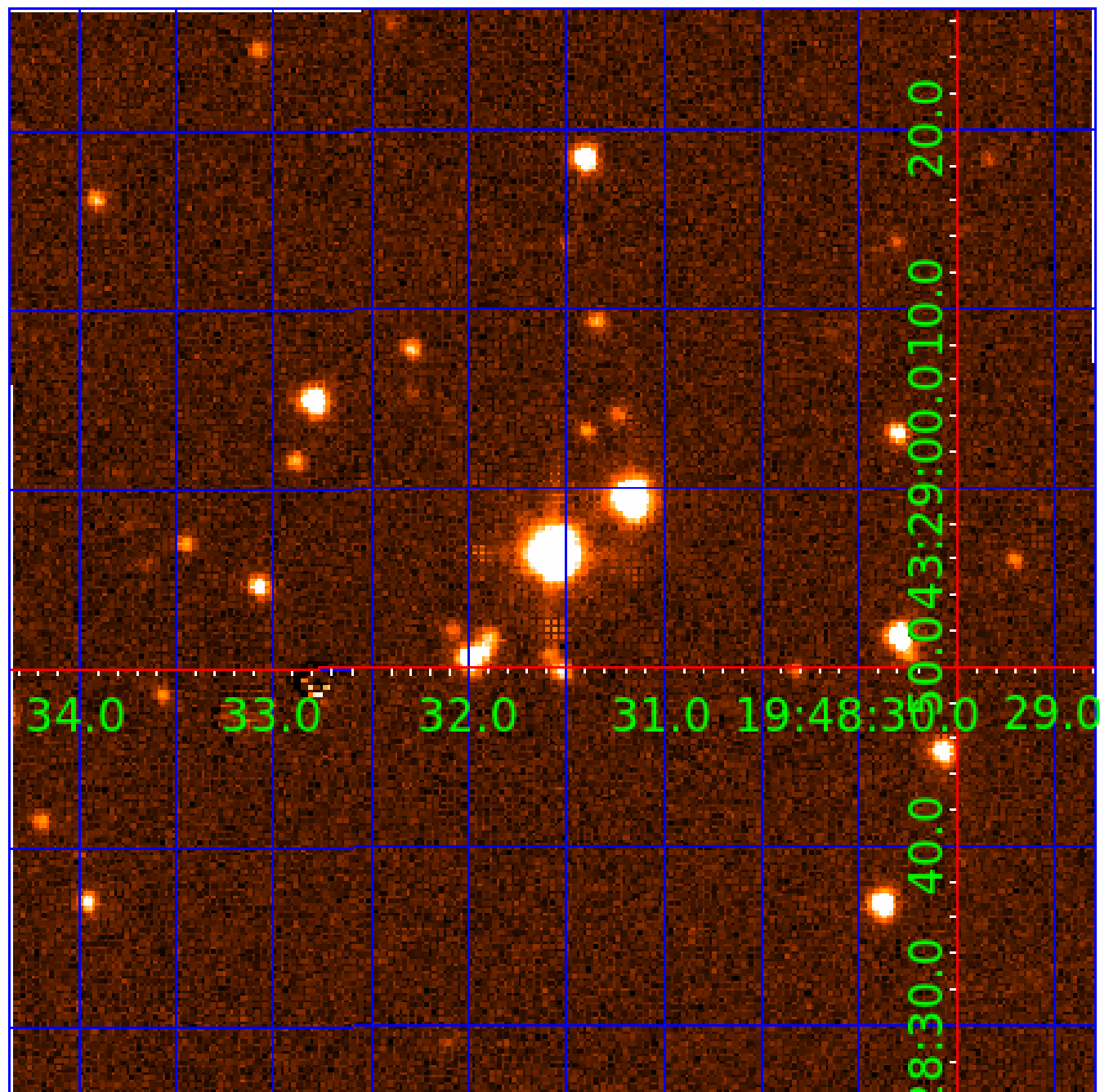


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 007770256

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007770256-01	OBS	No	0.544478	131.949369	185.9	0.550	10.8	13.0	3.02	7333	4.94	94015.13
007770256-02	OBS	No	0.544494	131.844864	118.3	3.197	11.3	13.0	3.02	7333	3.53	94011.48
007770256-03	OBS	No	0.544471	131.547841	219.0	1.462	13.1	21.2	3.02	7333	4.81	94016.65

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007770256-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007770256-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
007770256-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

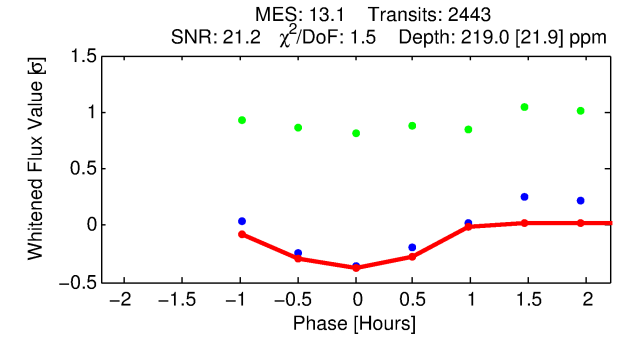
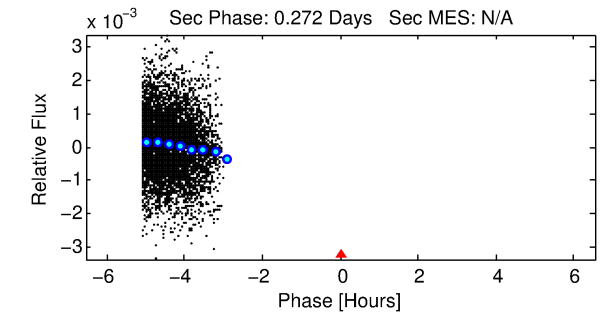
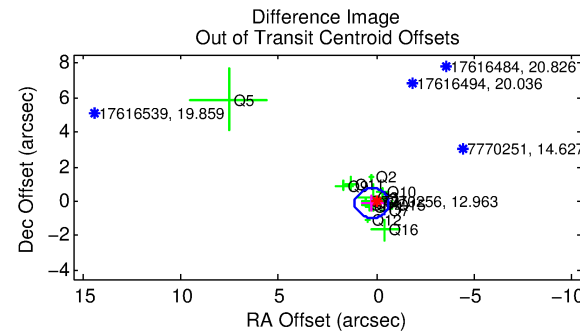
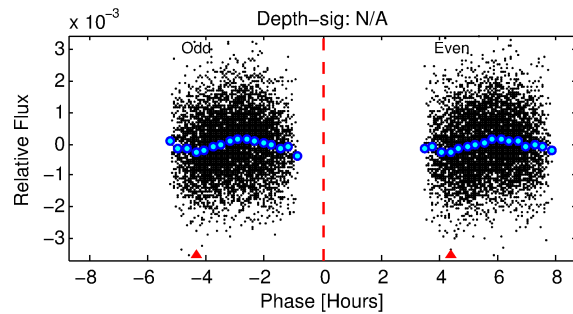
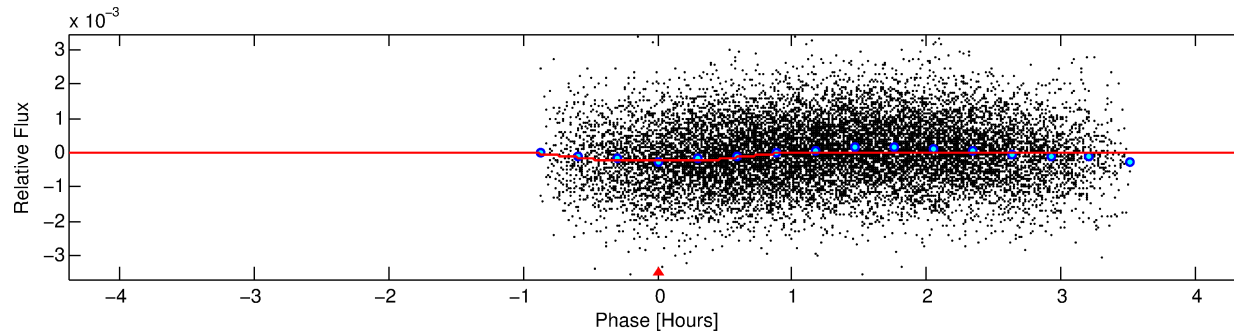
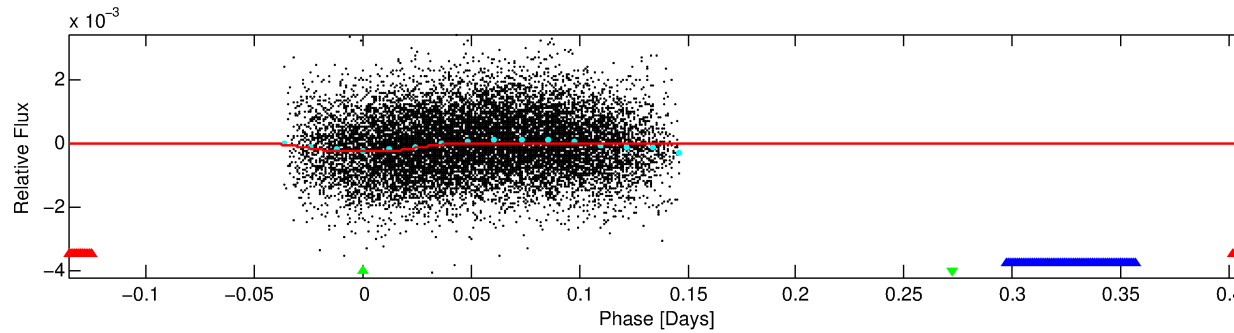
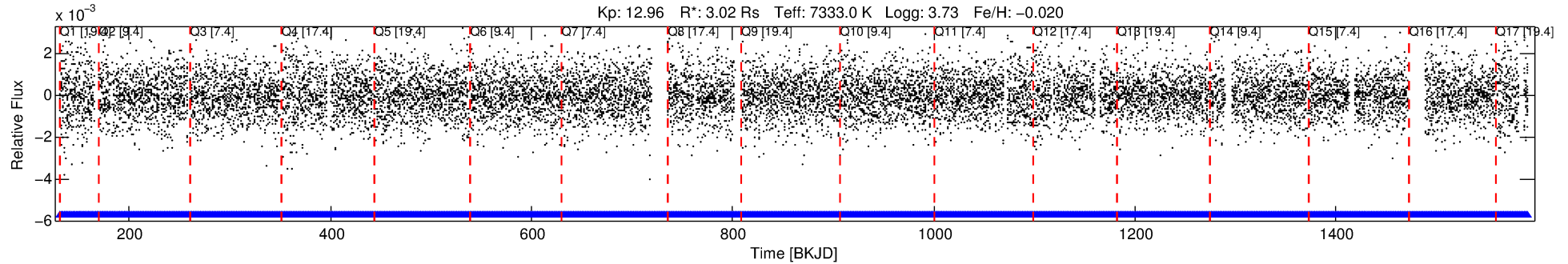
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007770256-03

No Significant Match Found

# DV One-Page Summary

KIC: 7770256 Candidate: 3 of 3 Period: 0.544 d



## DV Fit Results:

Period = 0.54447 [0.00001] d  
Epoch = 131.5478 [0.0021] BKJD  
Rp/R\* = 0.0146 [0.0046]  
a/R\* = 2.24 [3.47]  
b = 0.70 [1.41]  
Seff = 94016.65 [64093.95]  
Teff = 4465 [761] K  
Rp = 4.81 [2.50] Re  
a = 0.0159 [0.0065] AU

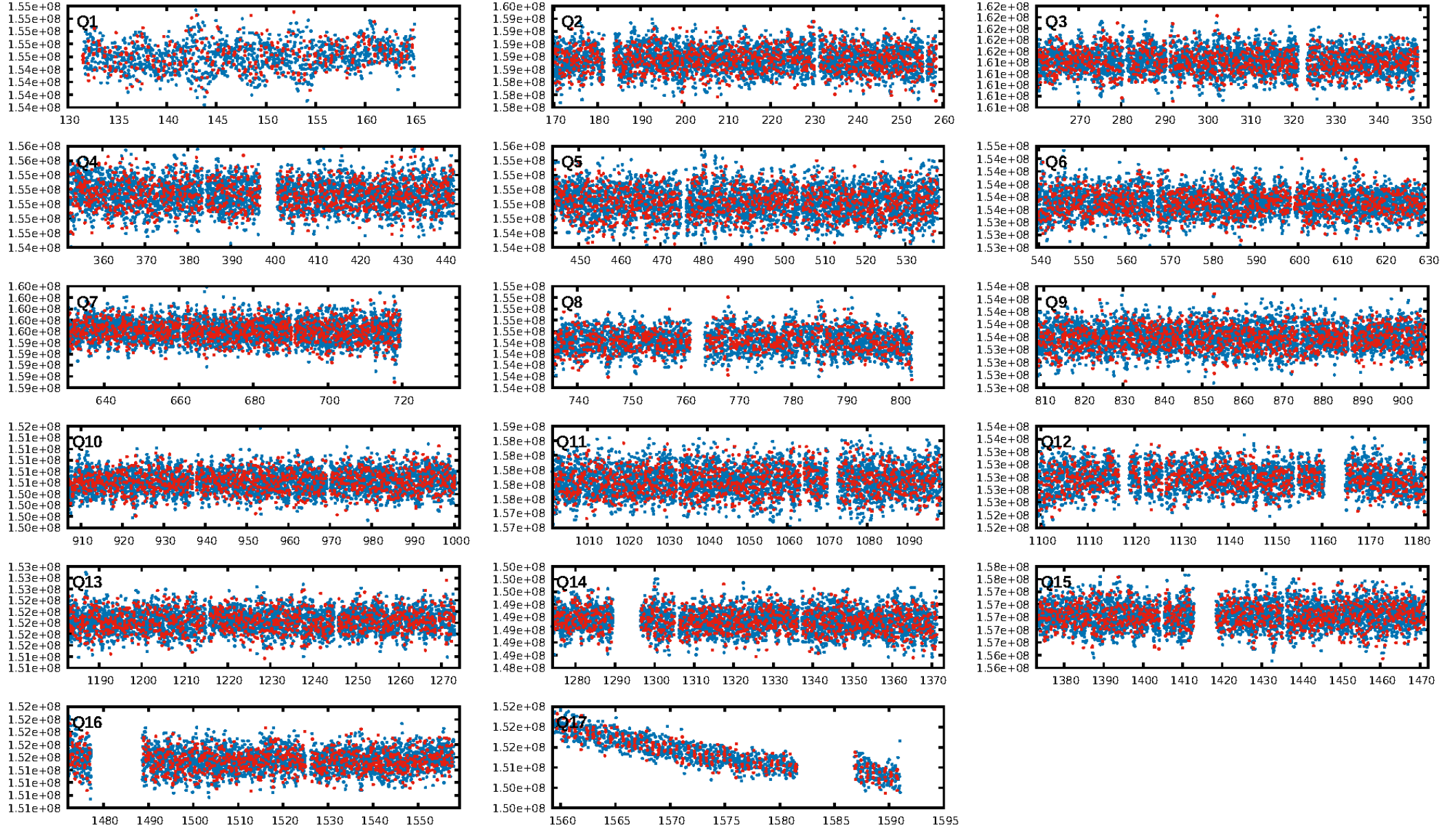
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: 0.0% [0.00σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2334/2334]  
GhostDiagnostic-chr: 0.3017  
Centroid-sig: 0.0%  
Centroid-so: 0.465 arcsec [5.77σ]  
OotOffset-rm: 0.258 arcsec [0.90σ]  
KicOffset-rm: 0.047 arcsec [0.14σ]  
OotOffset-st: 4/4/3/4 [15]  
KicOffset-st: 4/4/3/4 [15]  
DiffImageQuality-fgm: 0.60 [9/15]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:54:47 Z

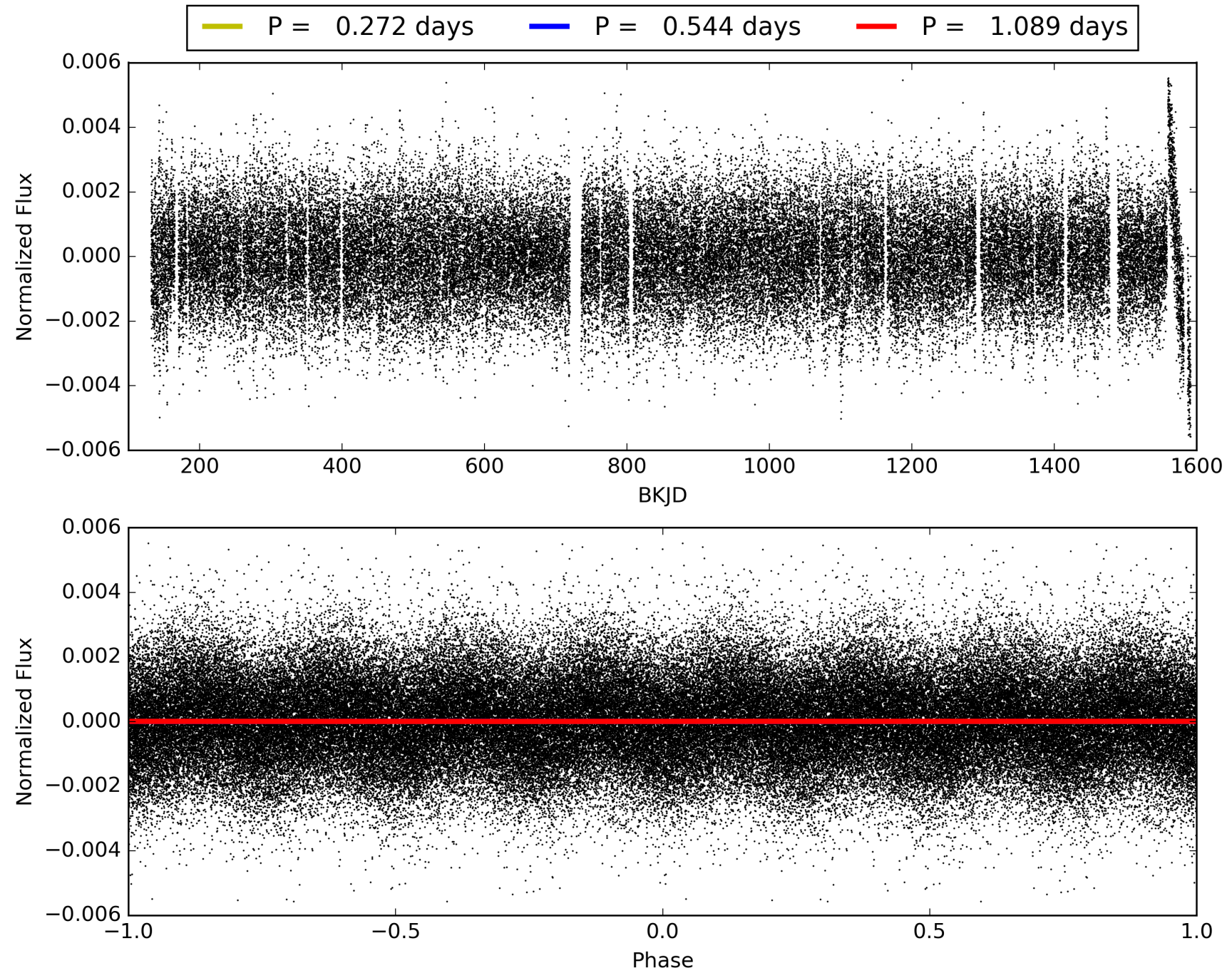
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007770256-03, PDC Light Curves



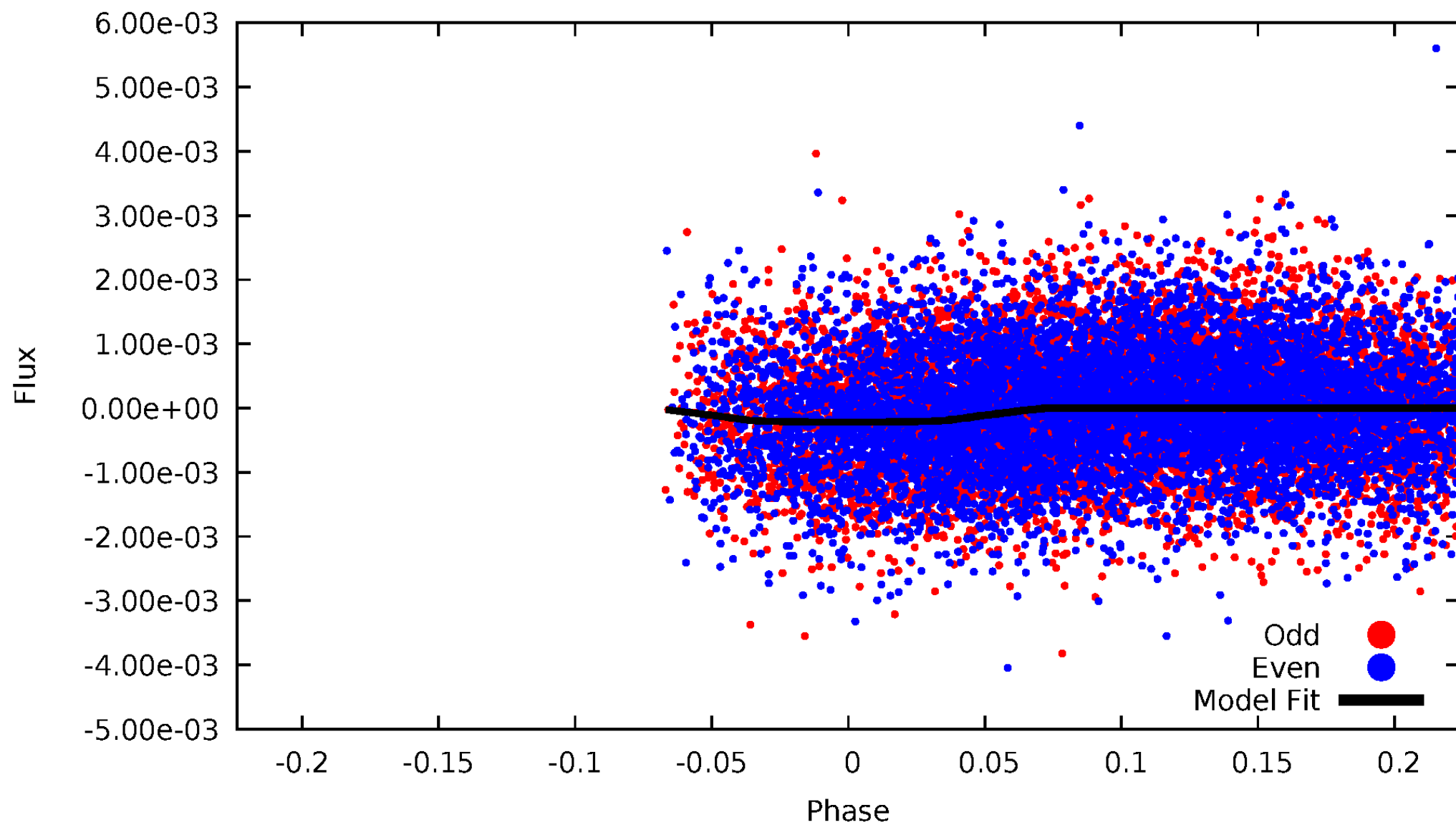


TCE 007770256-03



# DV Odd/Even

TCE 007770256-03





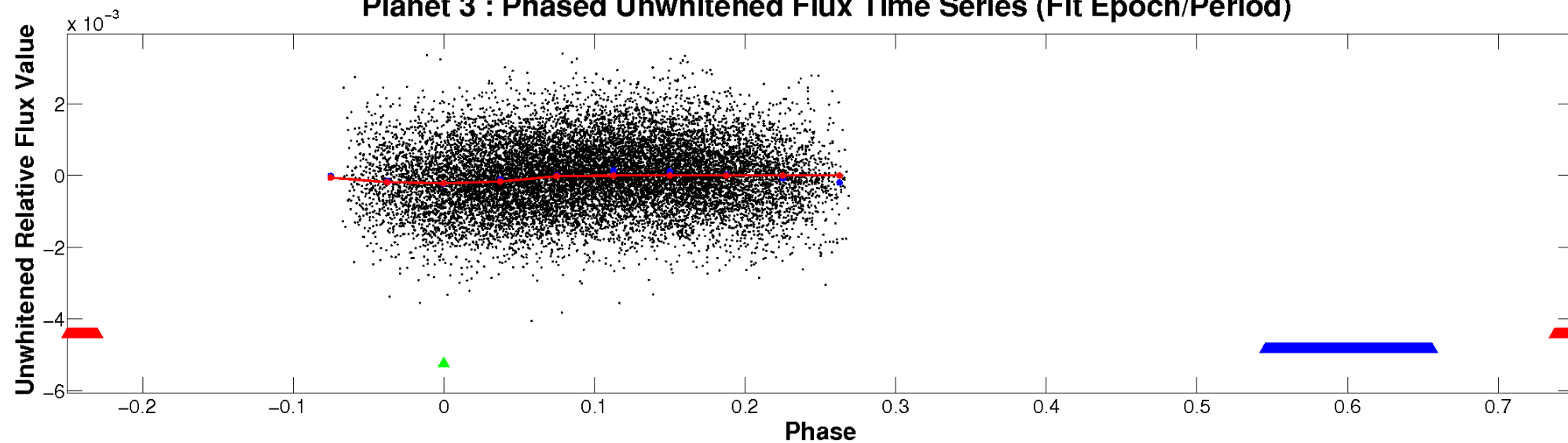


ALT Odd/Even

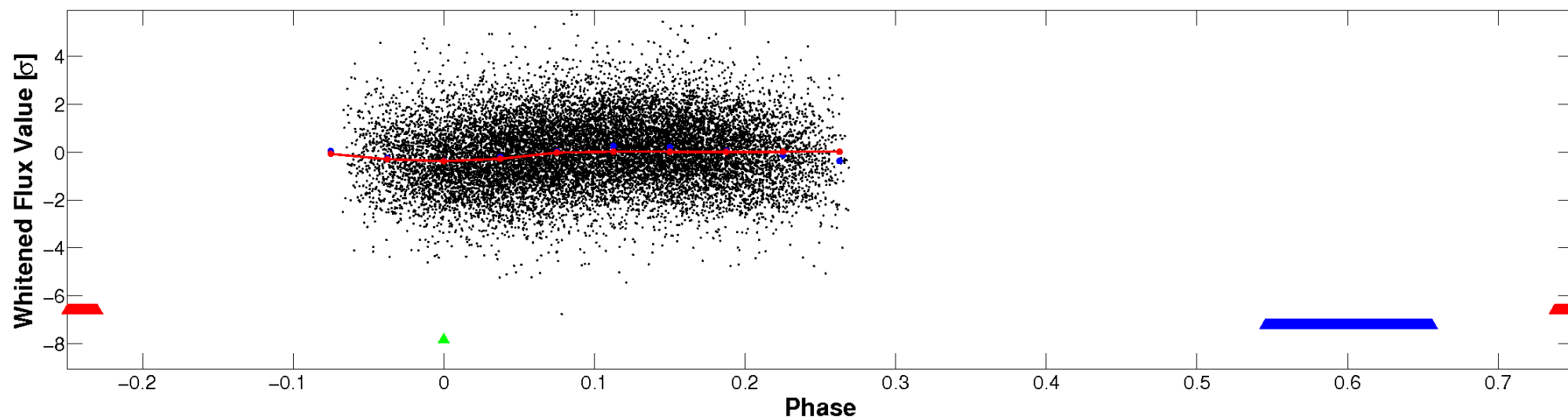
This plot does not exist for this TCE.

# Non-Whitened Vs. Whitened Light Curve

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

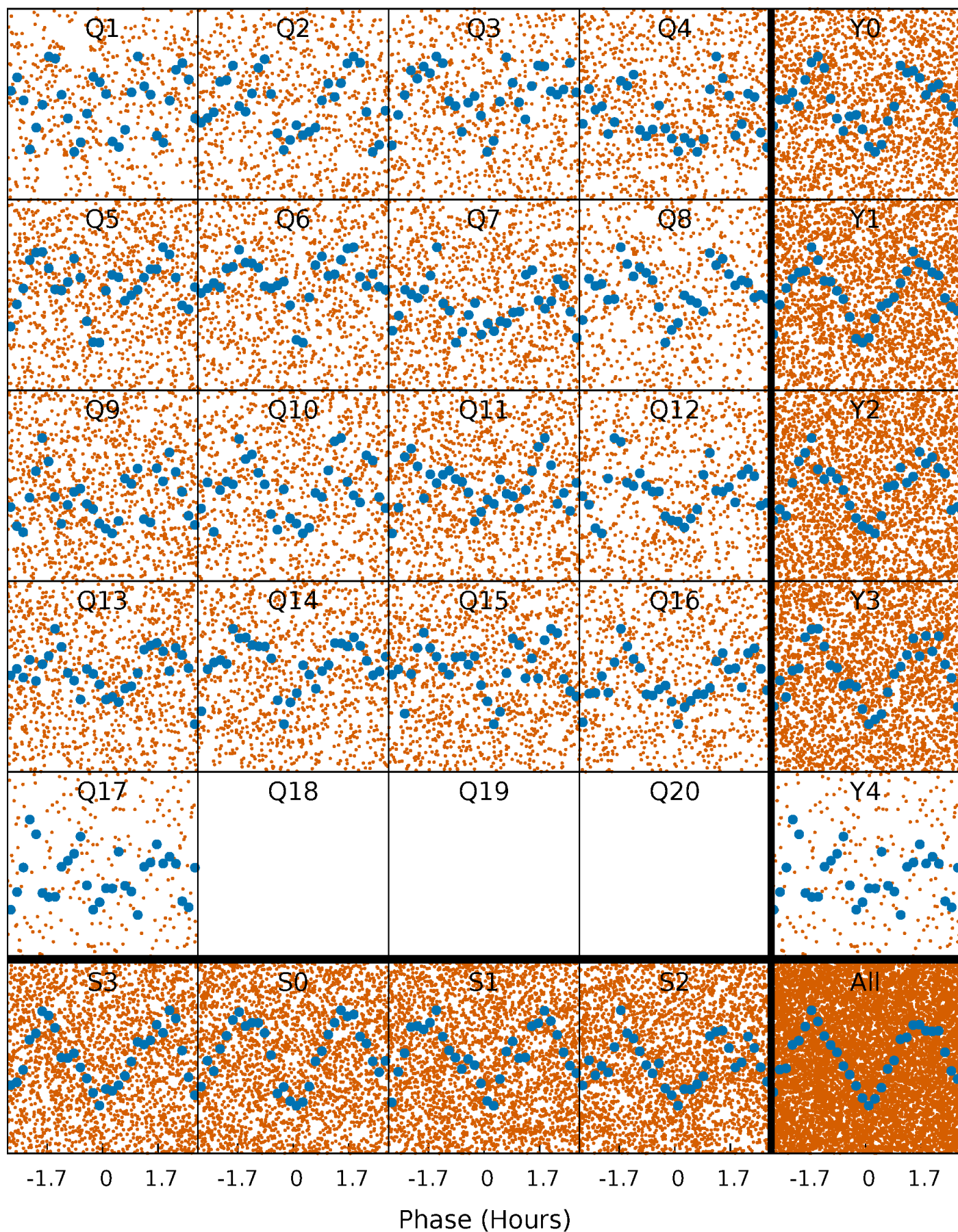


## Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



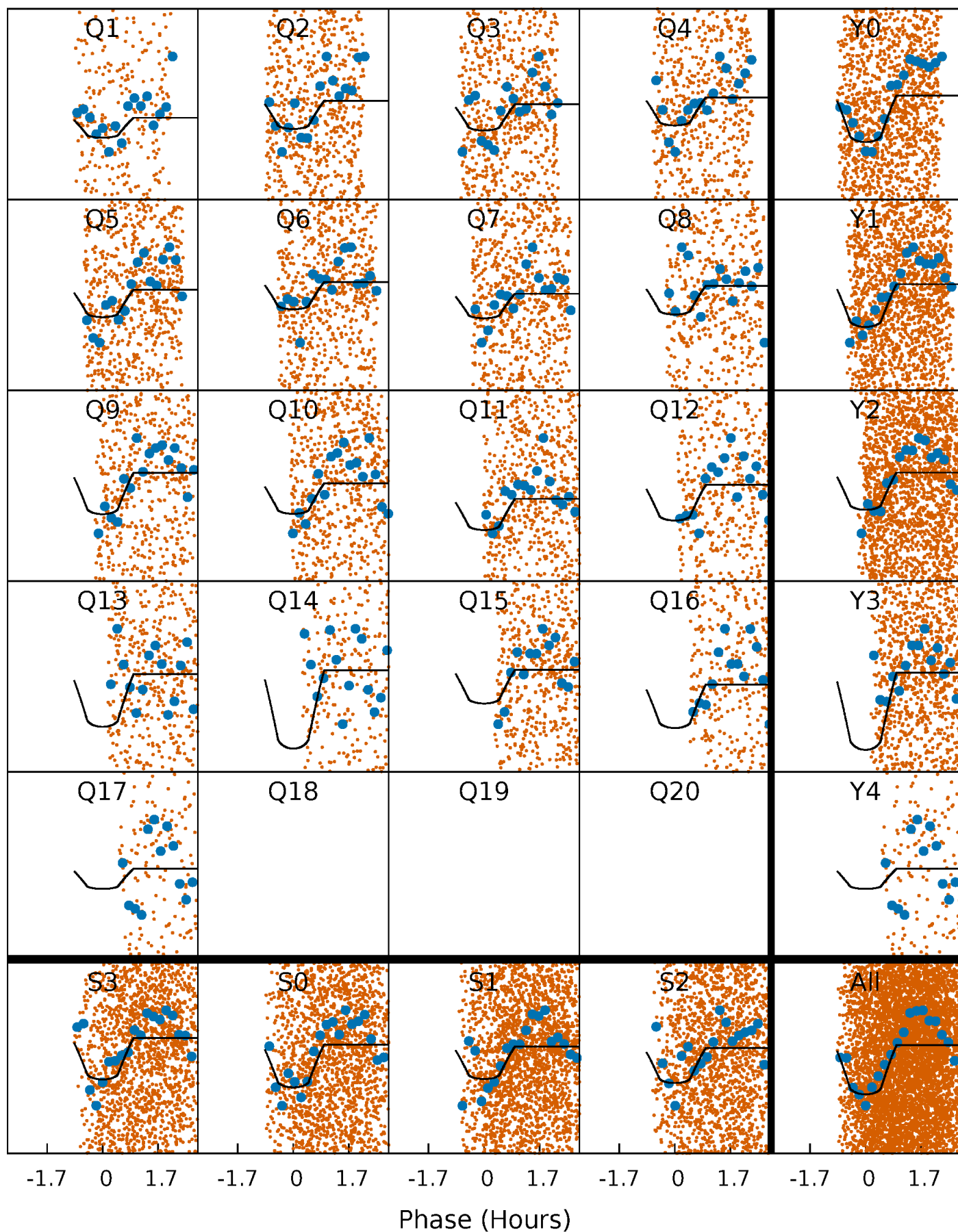
# PDC Quarter-Phased Transit Curves

TCE 007770256-03 P= 0.544471 Days  $T_0=131.547841$  (BKJD)



# DV Quarter-Phased Transit Curves

TCE 007770256-03 P= 0.544471 Days  $T_0=131.547841$  (BKJD)



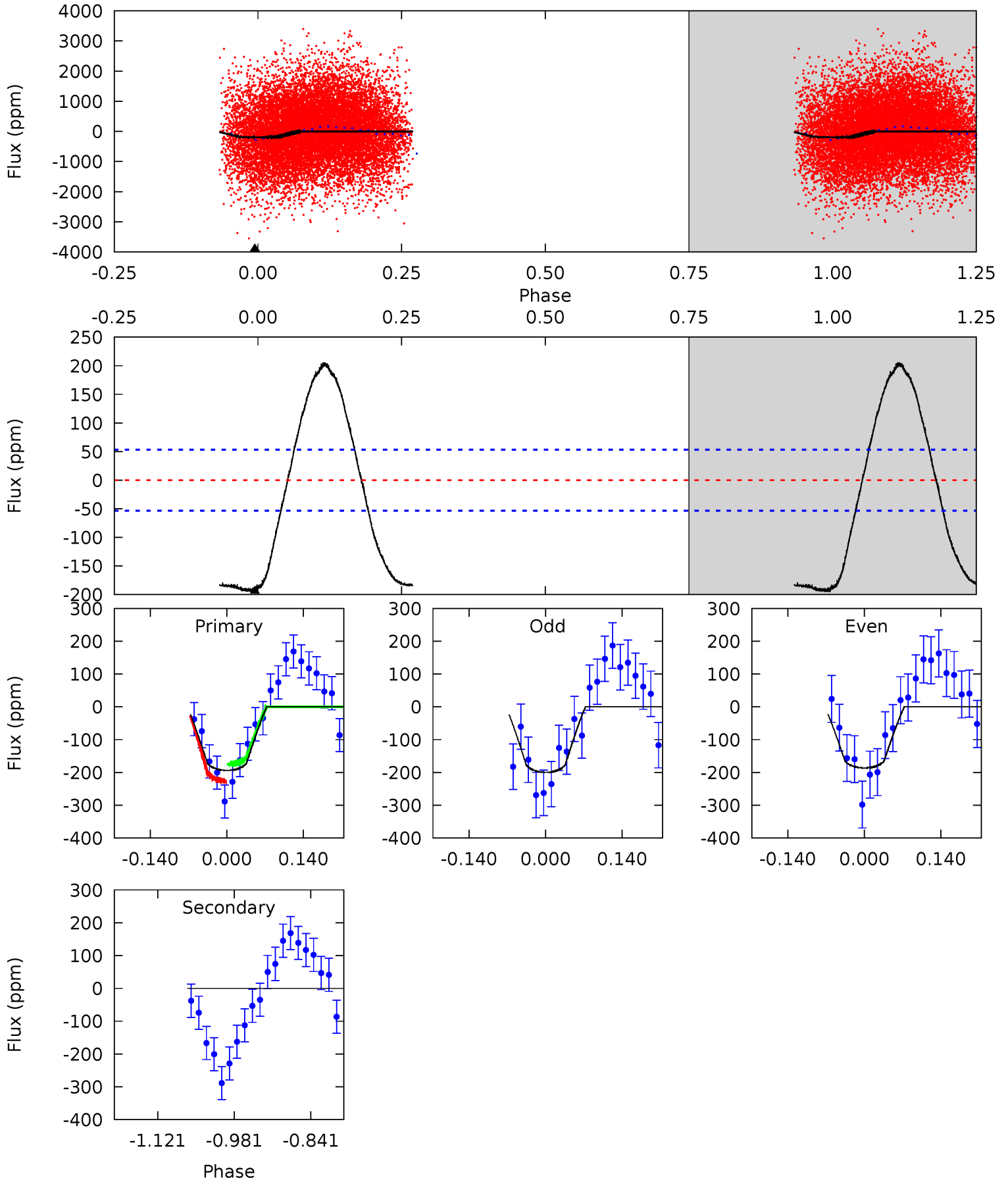
This plot does not exist for this TCE.



# DV Model-Shift Uniqueness Test

007770256-03, P = 0.544471 Days, E = 131.003370 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
16.4	0	0	0	4.49	1.48	9.15	16.4	16.4	0	0	0.56	0.90	0.51	1.73



## Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

### Stellar Parameters For KIC 007770256

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7333^{+228}_{-304}$	$3.732^{+0.392}_{-0.098}$	$-0.020^{+0.200}_{-0.350}$	$3.025^{+0.444}_{-1.244}$	$1.799^{+0.205}_{-0.380}$	$0.092^{+0.312}_{-0.029}$
	+3%/-4%	+11%/-3%	+1000%/-1750%	+15%/-41%	+11%/-21%	+341%/-31%
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 007770256-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 12$	$4.47^{+1.64}_{-1.54}$	$6052^{+434}_{-589}$	$-4978^{+552}_{-430}$	$-0.002^{+0.091}_{-0.097}$
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  $A_{obs} \gg 1.0$

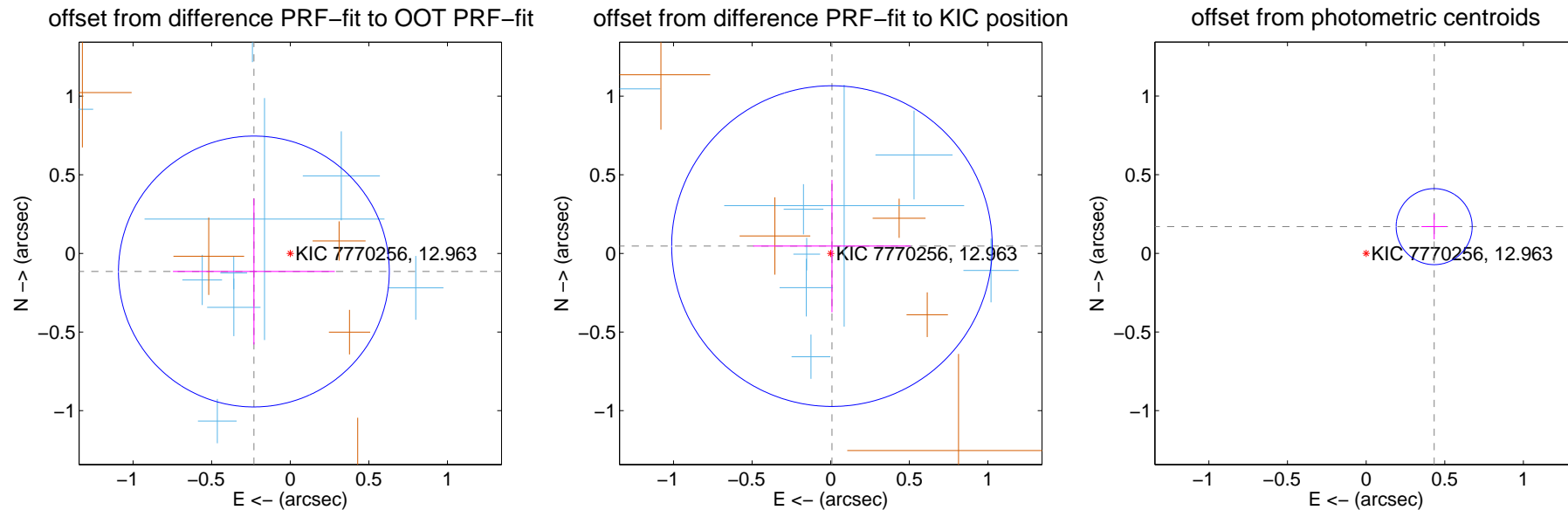
## DV Centroid Data

Supplemental centroid analysis for 007770256-03. Kepler magnitude: 12.96. Transit SNR 21.15

There are 9 quarters with good PRF difference image offsets

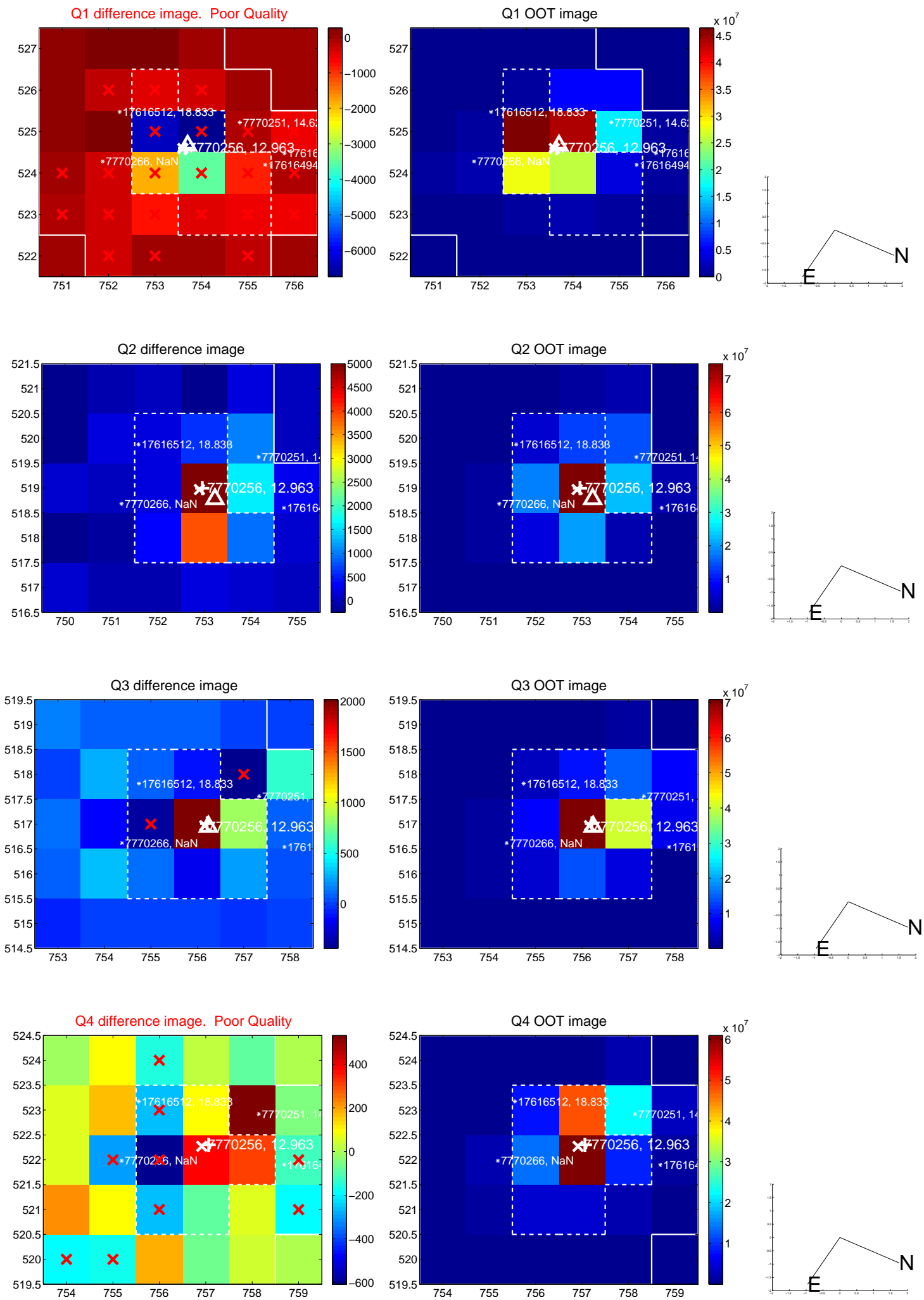
The direct PRF centroid is offset from the target star catalog position by about 0.56 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.258 \pm 0.287$	0.90	$0.231 \pm 0.515$	$-0.115 \pm 0.464$
PRF-fit source offset from KIC position	$0.047 \pm 0.340$	0.14	$-0.008 \pm 0.501$	$0.047 \pm 0.420$
photometric centroid source offset	$0.46 \pm 0.08$	5.77	$-0.43 \pm 0.08$	$0.17 \pm 0.08$



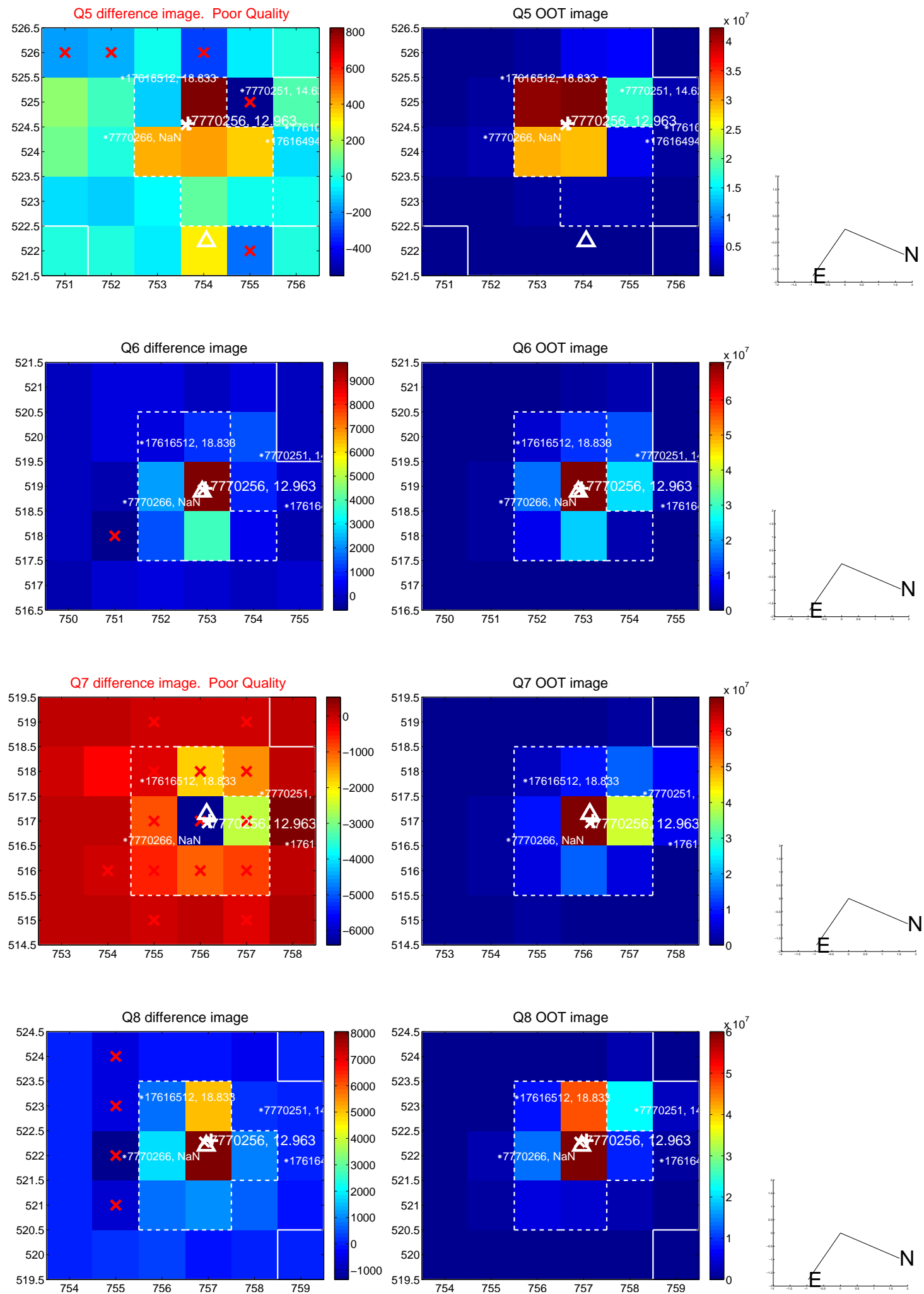
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

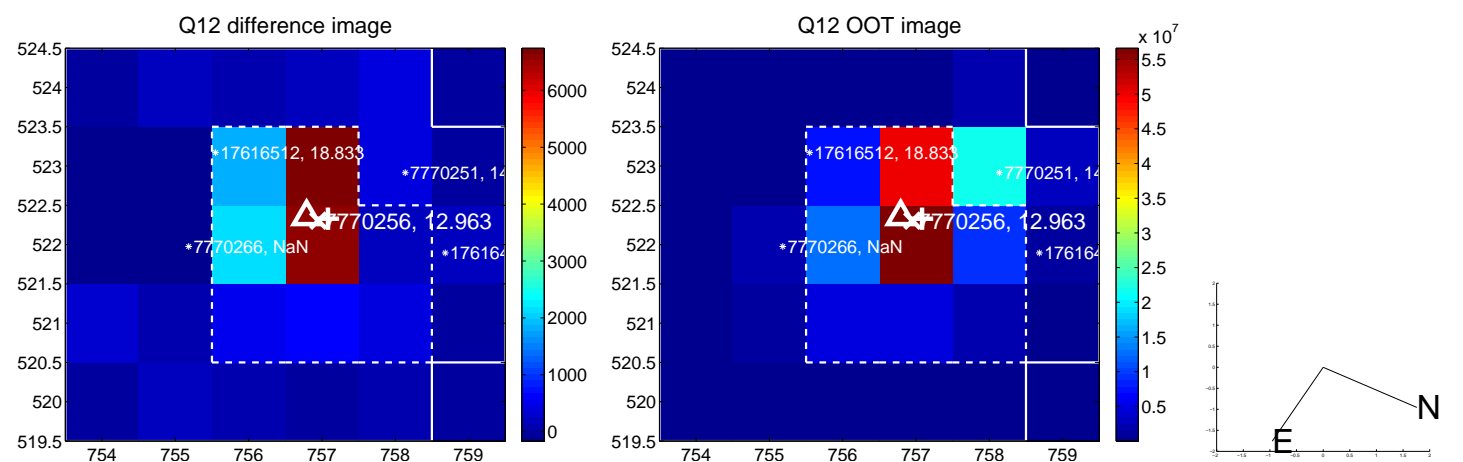
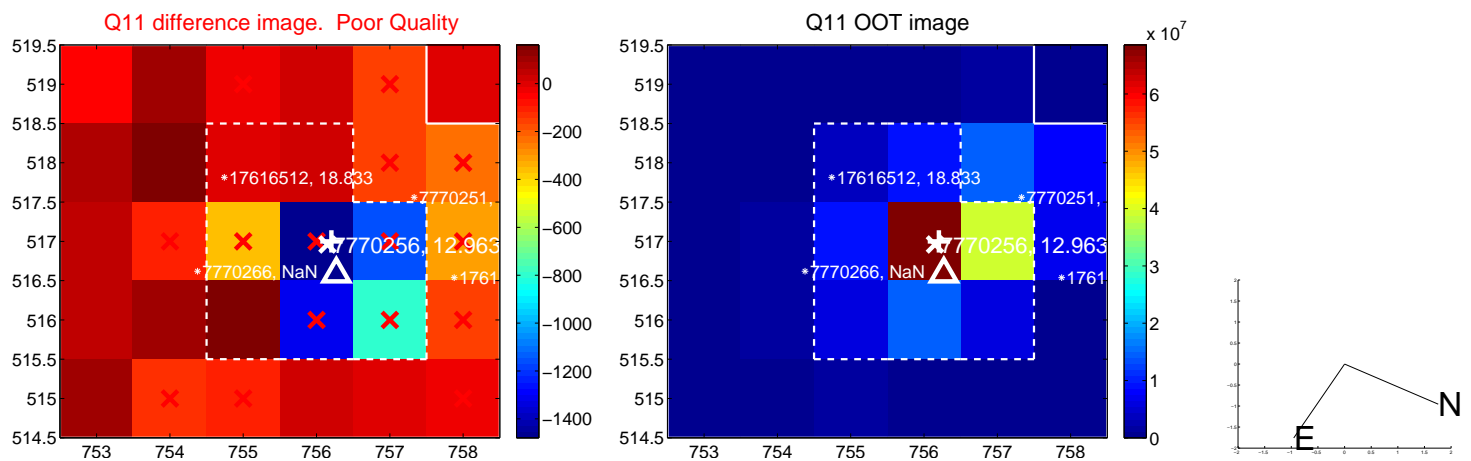
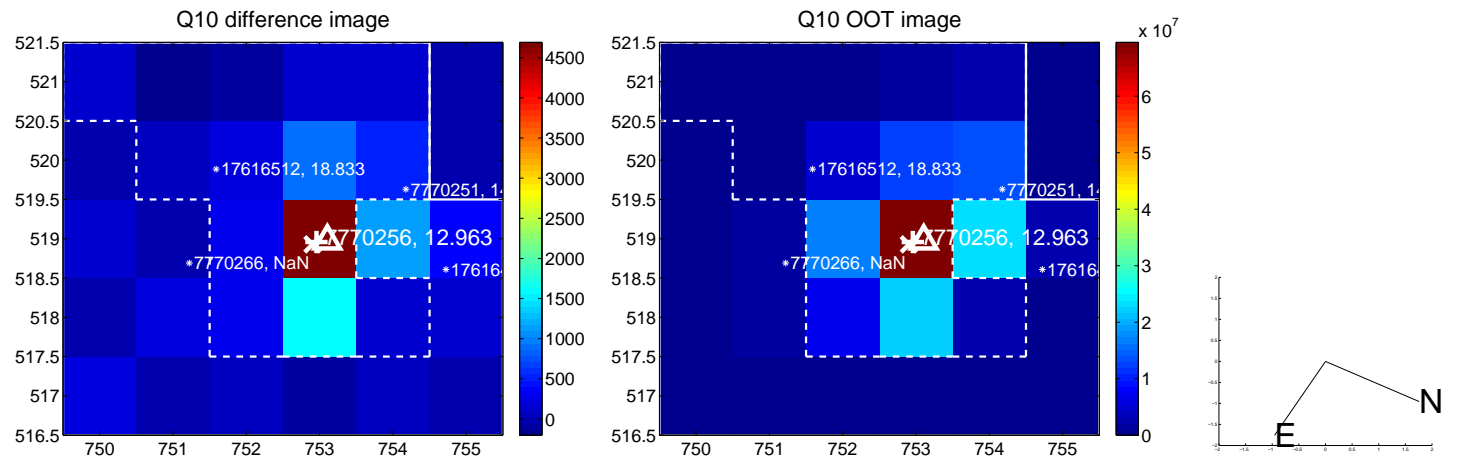
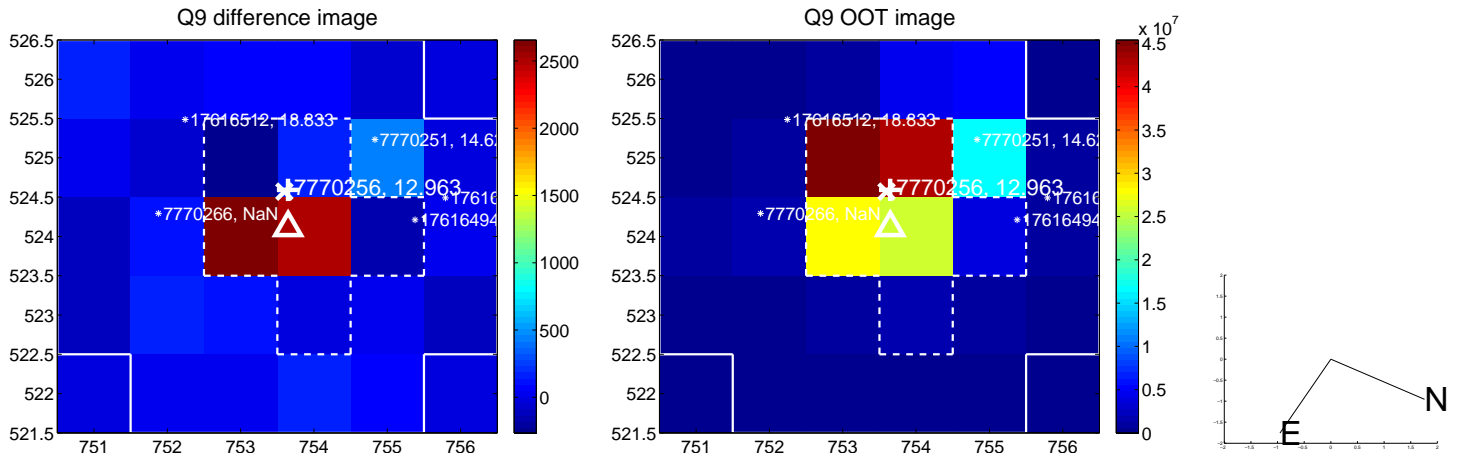




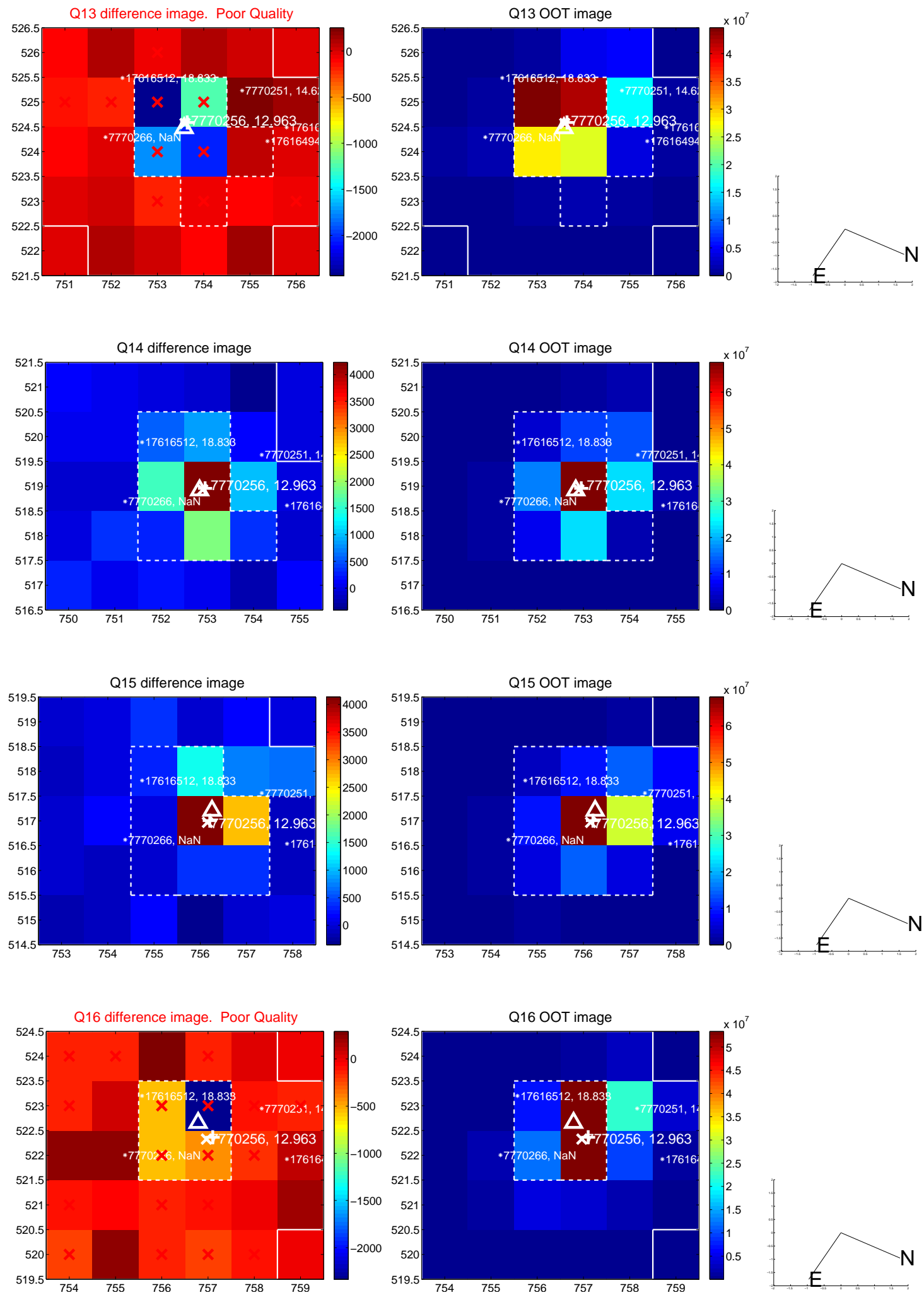
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



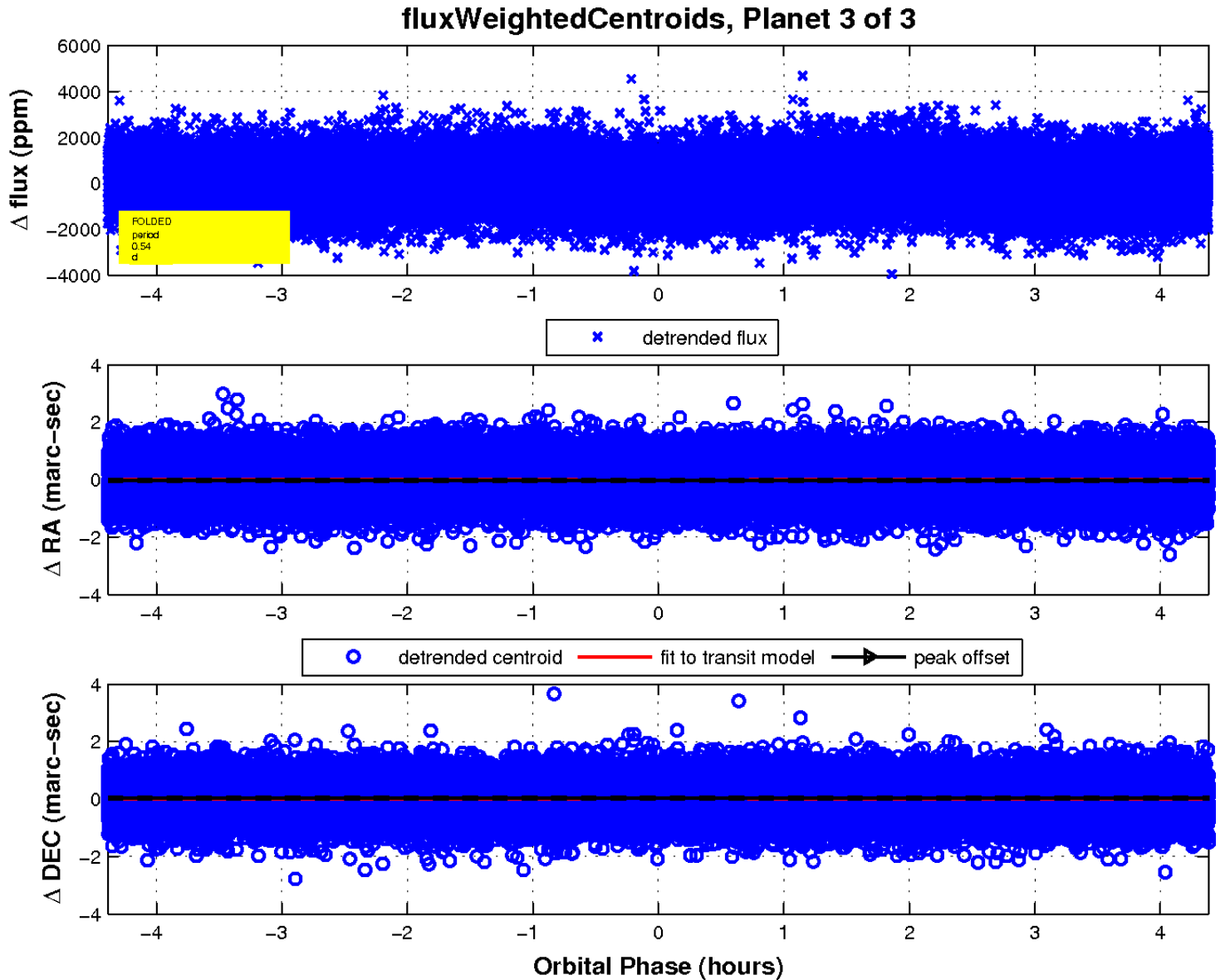
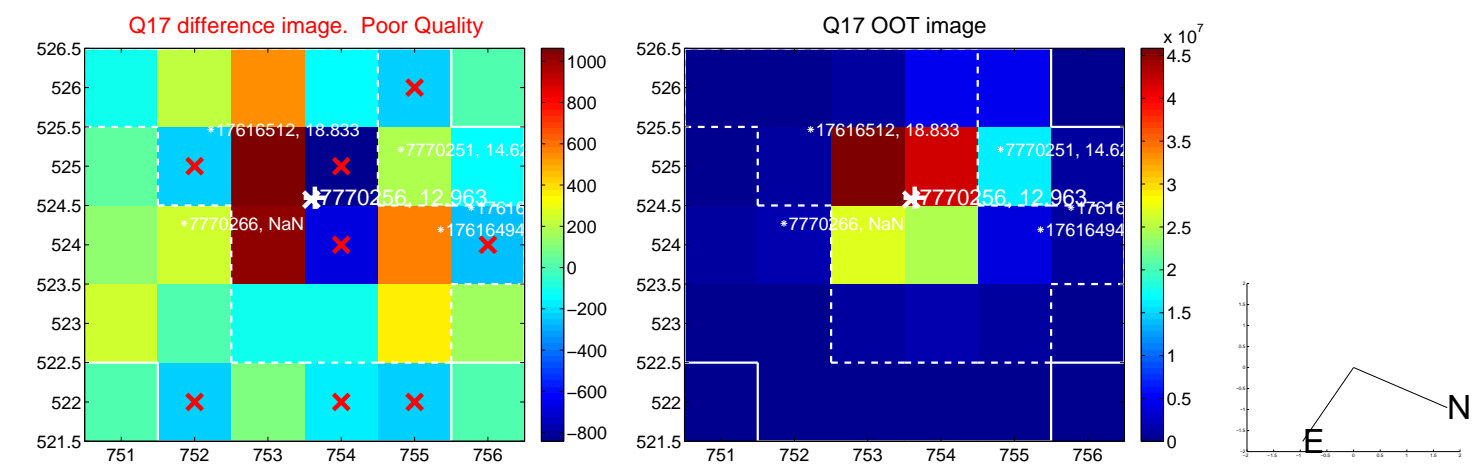
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

