

# KIC 004261467

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
004261467-01	OBS	No	363.785024	358.543766	932.2	2.840	9.6	7.6	1.69	5566	5.62	2.83
004261467-02	OBS	No	345.525698	329.073545	667.9	4.496	9.0	6.1	1.69	5566	4.40	3.04
004261467-03	OBS	No	601.377056	224.126205	1083.3	10.862	14.3	6.6	1.69	5566	6.94	1.45

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004261467-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004261467-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004261467-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

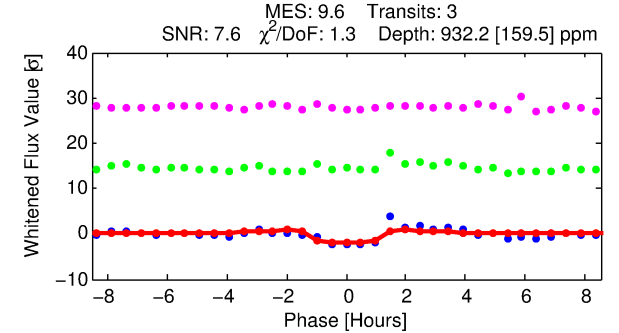
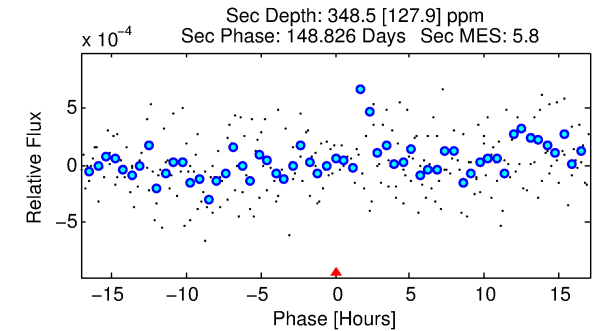
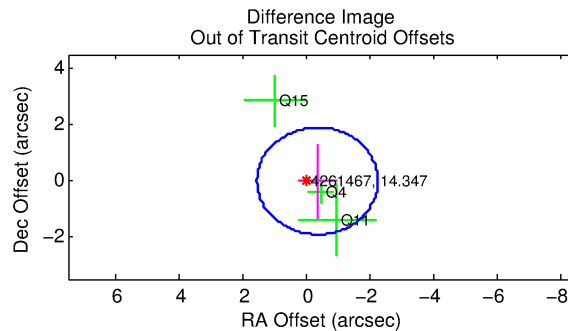
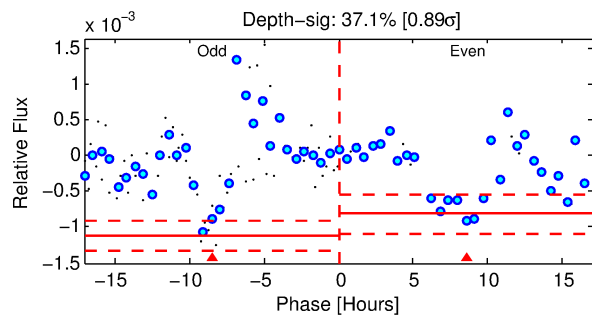
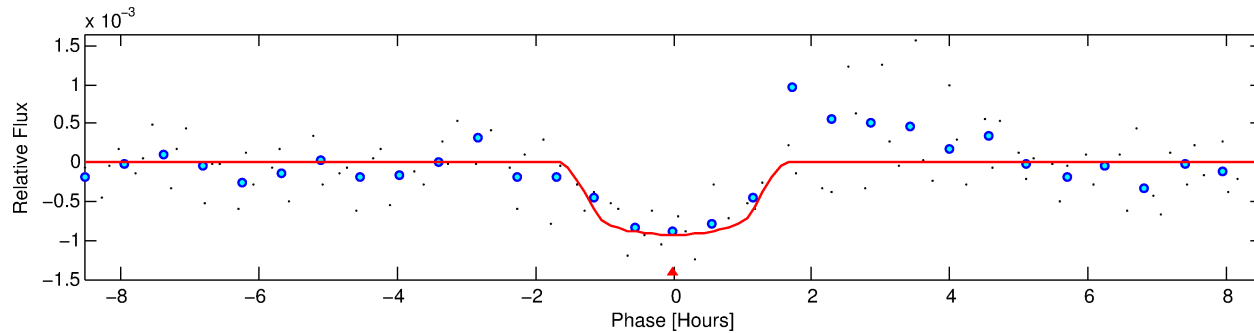
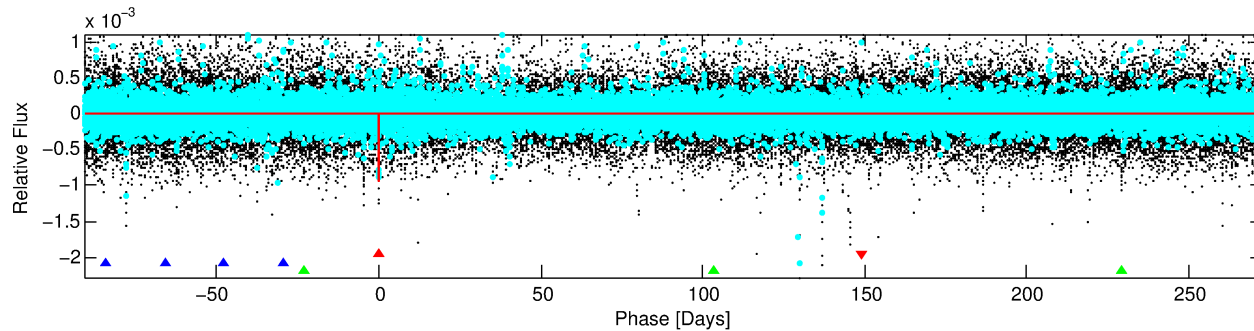
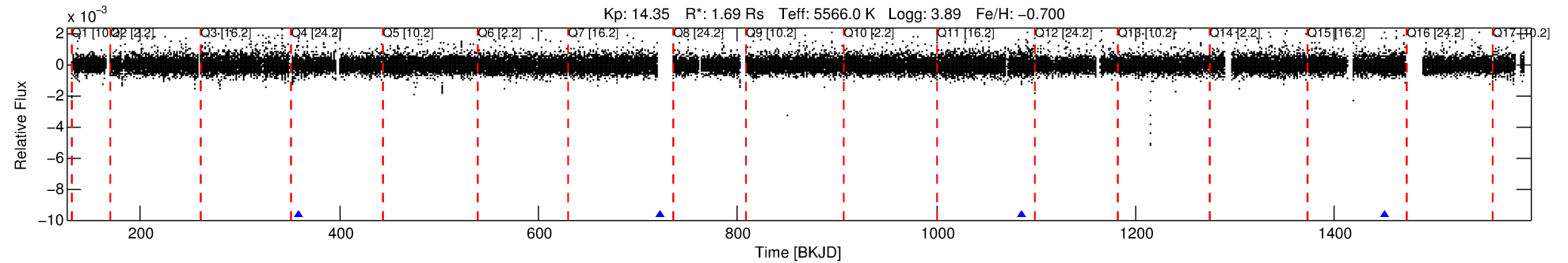
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 004261467-01

No Significant Match Found

# DV One-Page Summary

KIC: 4261467 Candidate: 1 of 3 Period: 363.785 d



## DV Fit Results:

Period = 363.78502 [0.00312] d  
Epoch = 358.5438 [0.0069] BKJD  
Rp/R\* = 0.0306 [0.0265]  
a/R\* = 677.01 [2685.78]  
b = 0.76 [2.20]  
Seff = 2.83 [2.70]  
Teq = 331 [79] K  
Rp = 5.62 [5.67] Re  
a = 0.9282 [0.5205] AU  
Ag = 5227.04 [10522.23] [0.50 $\sigma$ ]  
Teffp = 4349 [1931] K [2.08 $\sigma$ ]

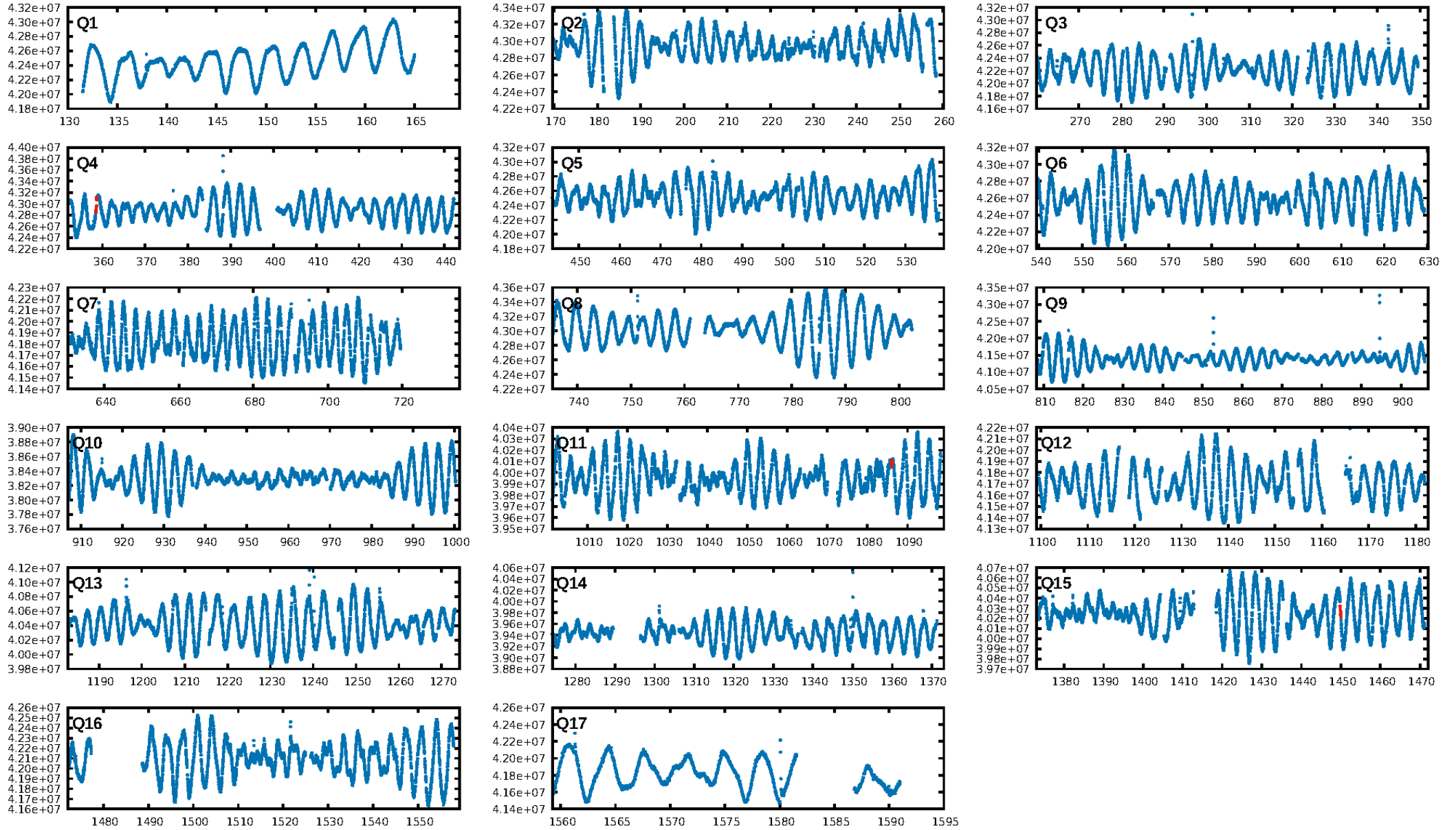
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [82.41 $\sigma$ ]  
LongPeriod-sig: 100.0% [507.88 $\sigma$ ]  
ModelChiSquare2-sig: 28.4%  
ModelChiSquareGof-sig: 92.2%  
**Bootstrap-pfa: 2.33e-11**  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 5.859  
Centroid-sig: 29.0%  
Centroid-so: 1.197 arcsec [0.91 $\sigma$ ]  
OotOffset-rm: 0.341 arcsec [0.54 $\sigma$ ]  
OotOffset-st: 0.2/1/0 [3]  
KicOffset-rm: 0.336 arcsec [0.59 $\sigma$ ]  
KicOffset-st: 0.2/1/0 [3]  
DiffImageQuality-fgm: 0.33 [1/3]  
DiffImageOverlap-fno: 1.00 [3/3]

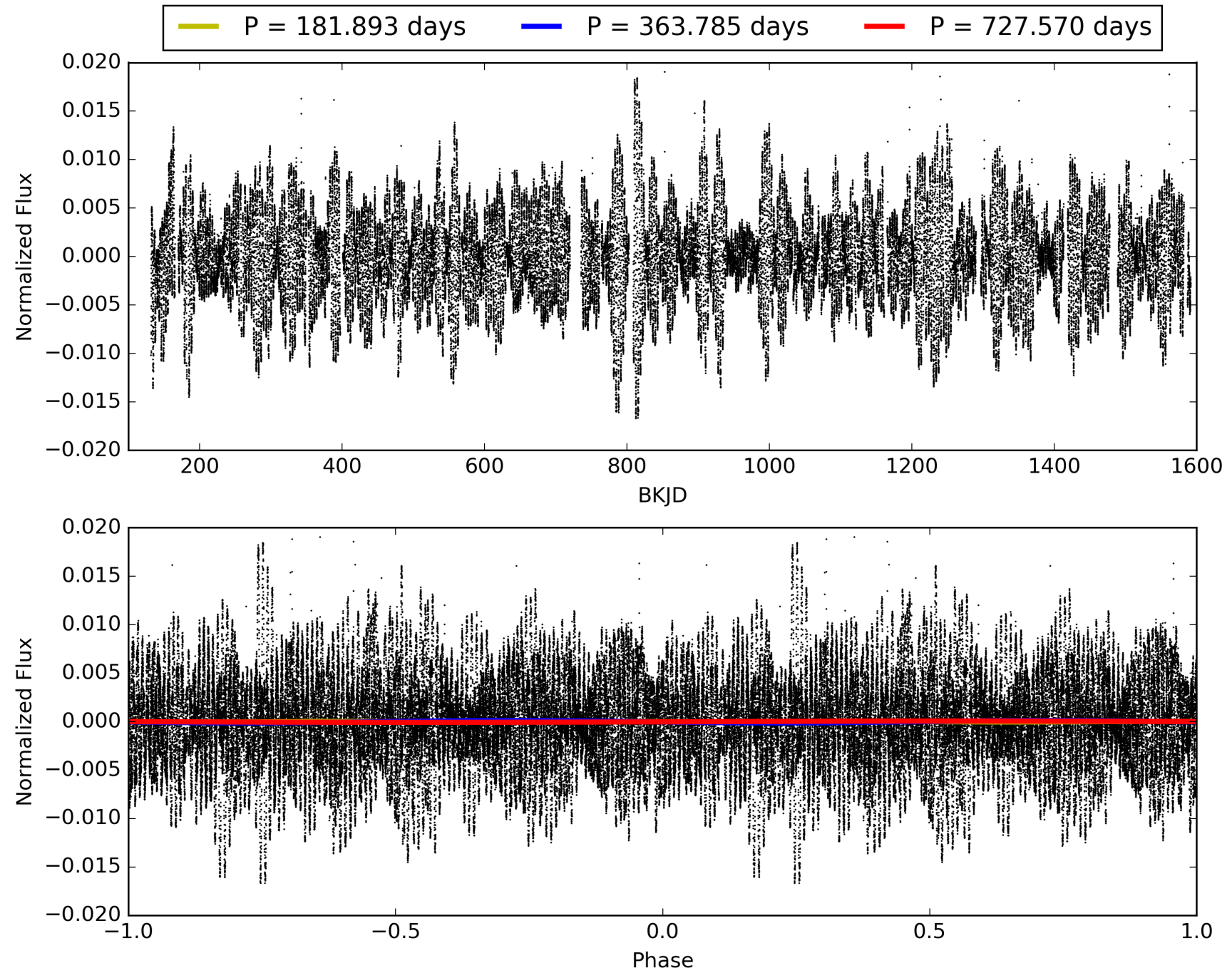
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:43:36 Z

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

# TCE 004261467-01, PDC Light Curves

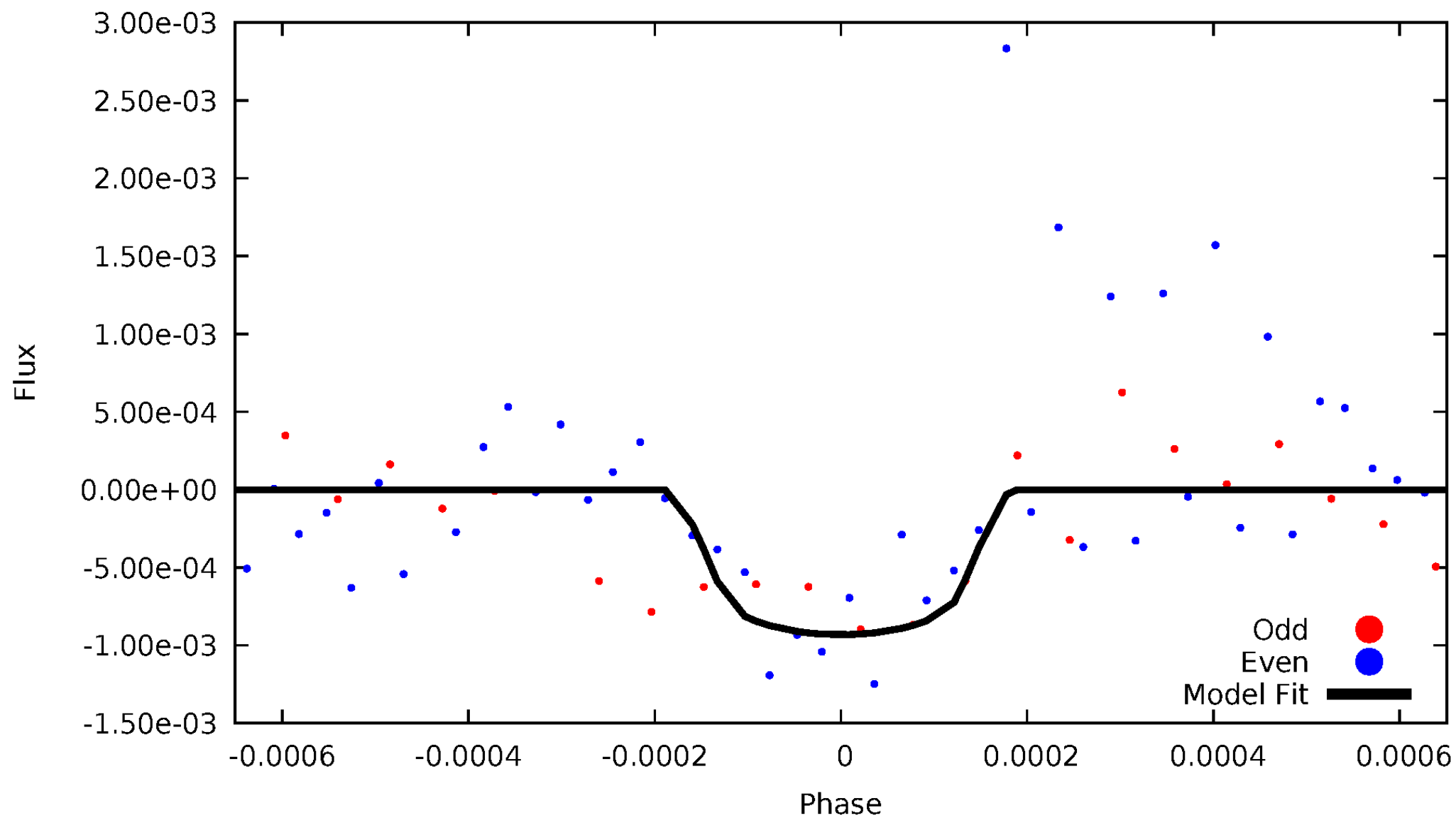


TCE 004261467-01



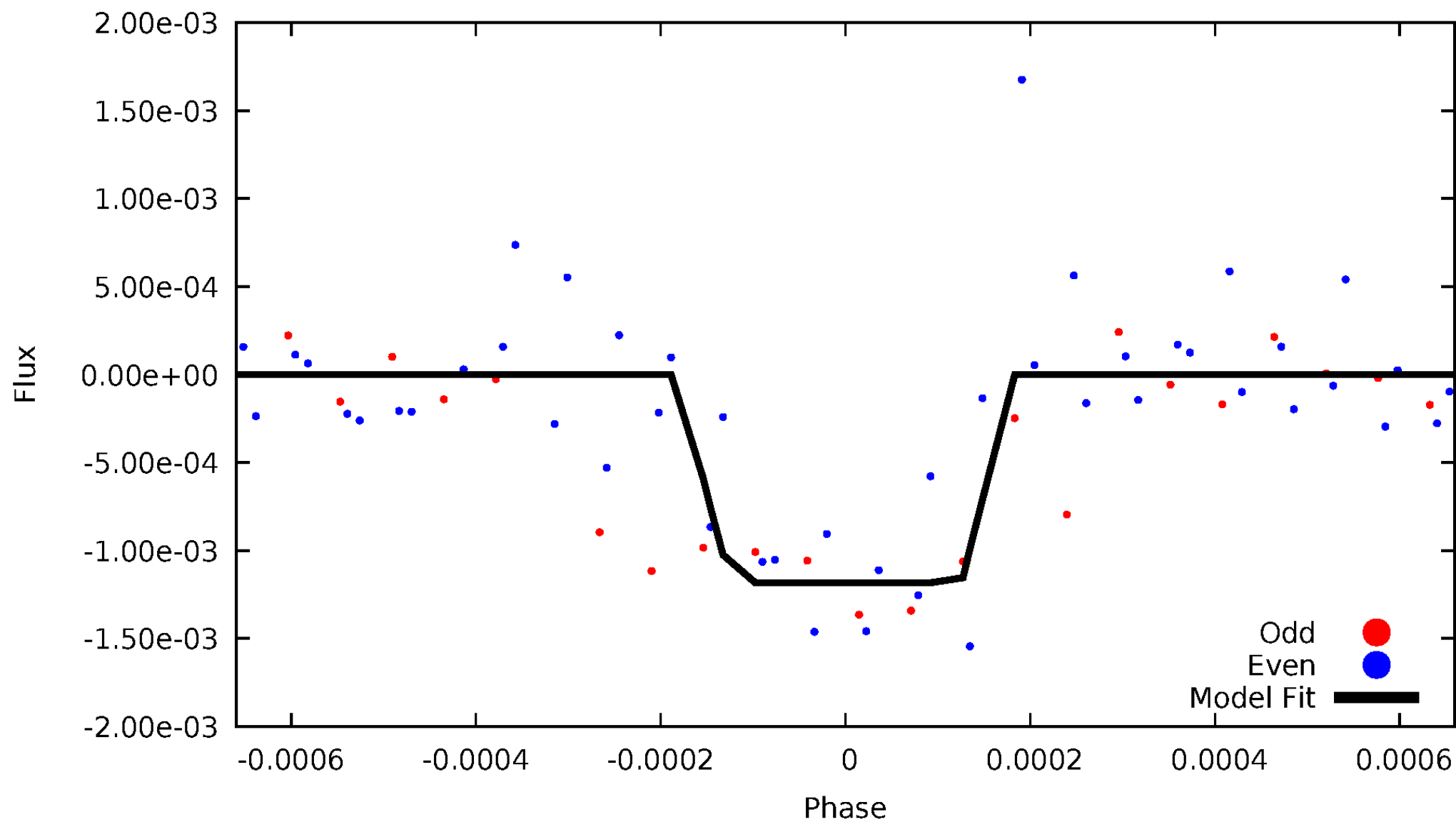
# DV Odd/Even

TCE 004261467-01



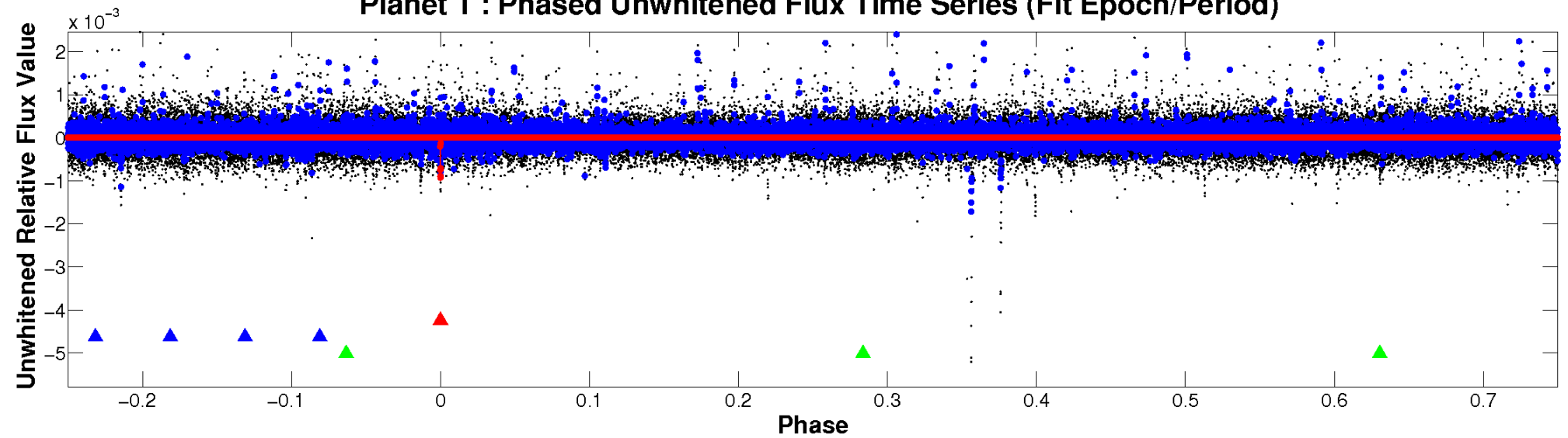
# ALT Odd/Even

TCE 004261467-01

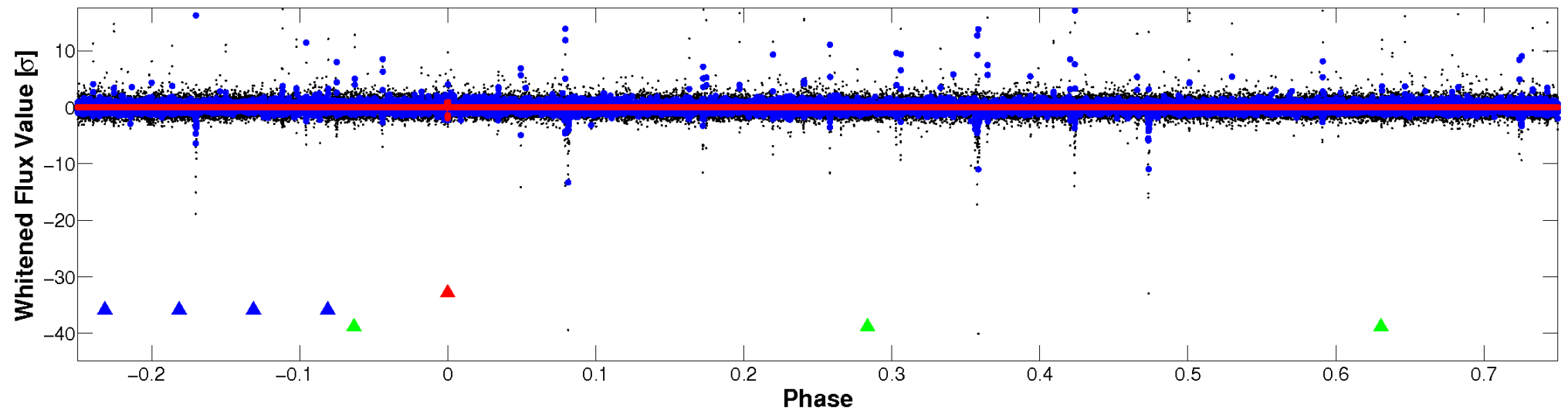


# Non-Whitened Vs. Whitened Light Curve

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

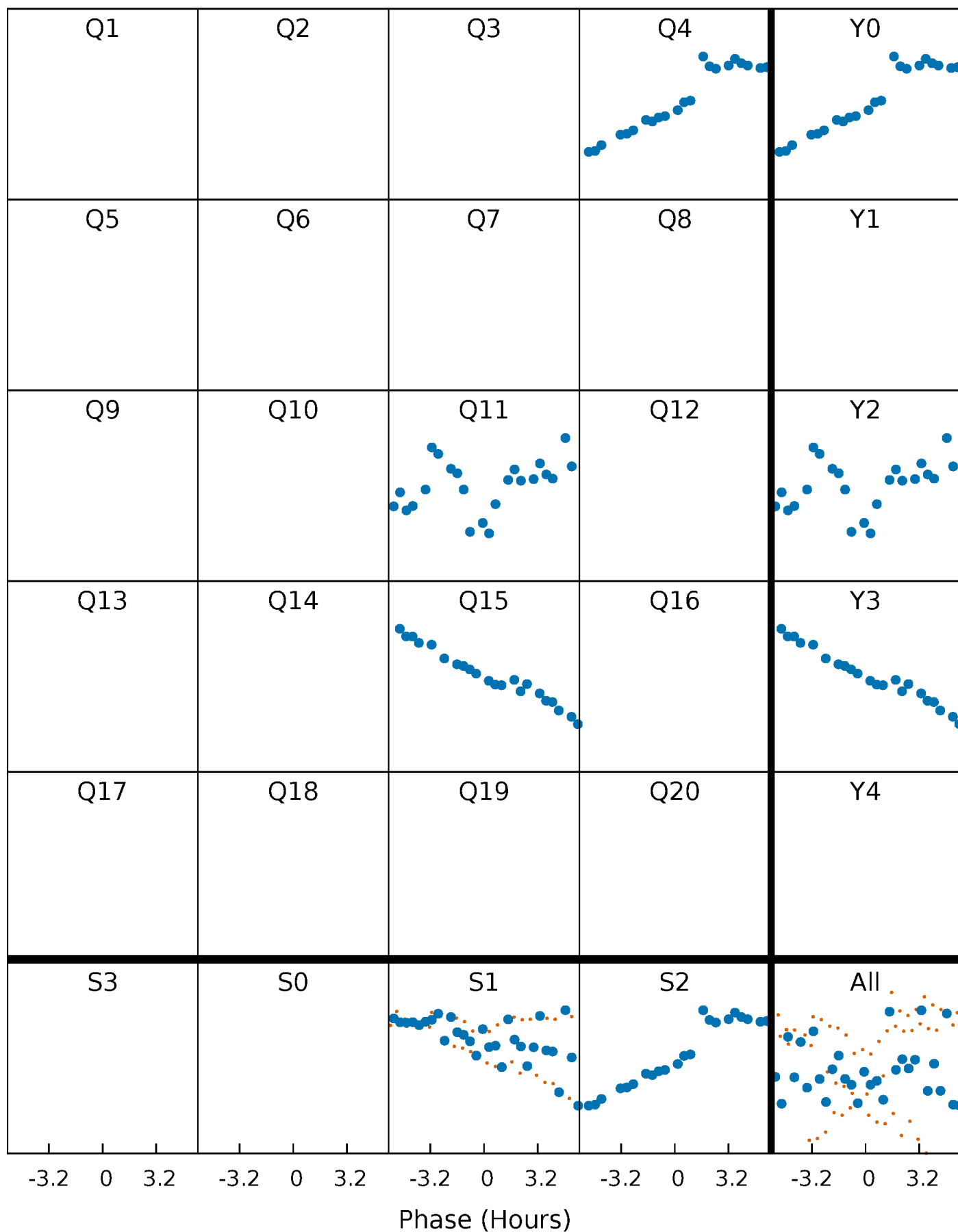


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

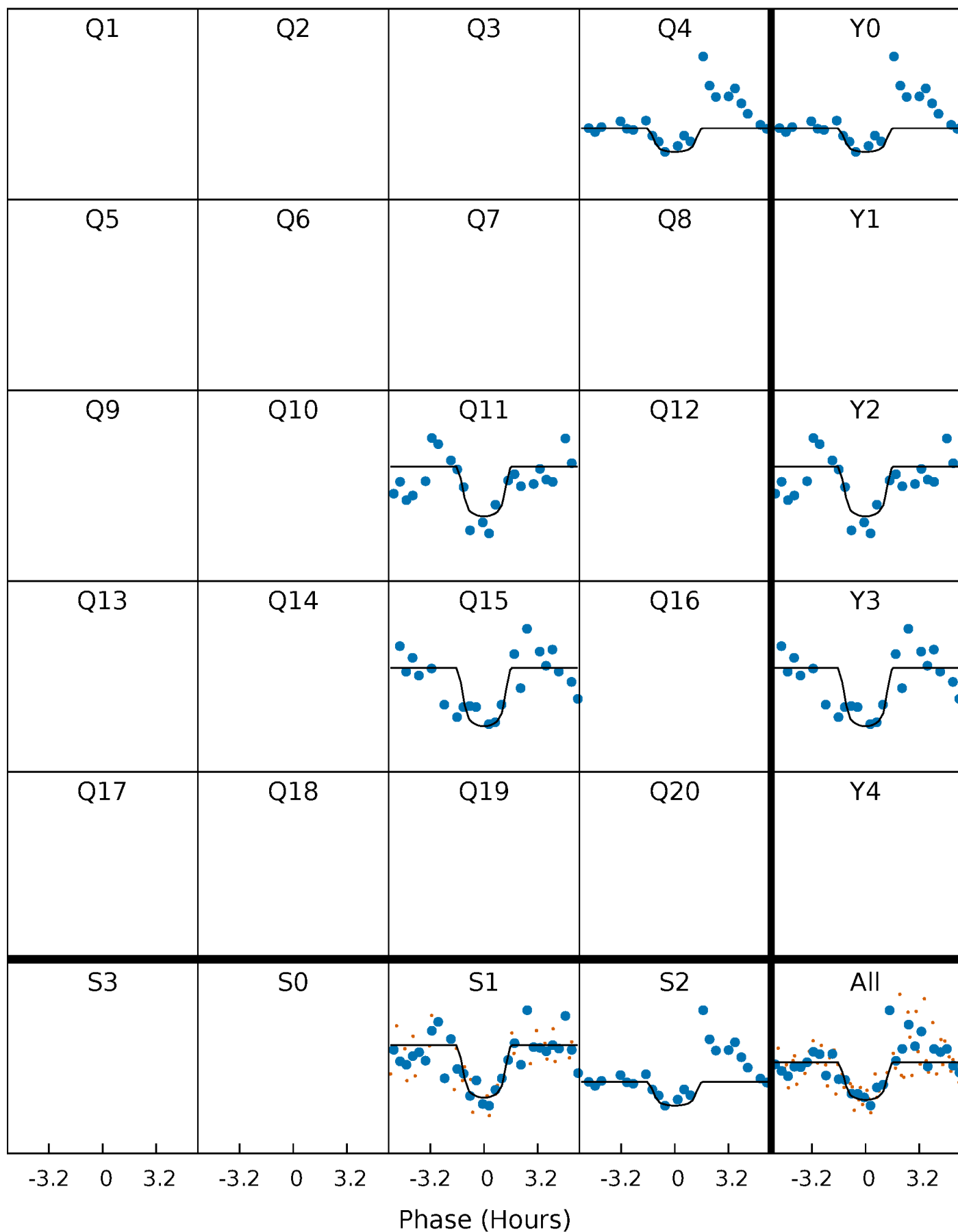
TCE 004261467-01 P=363.785024 Days  $T_0=358.543766$  (BKJD)





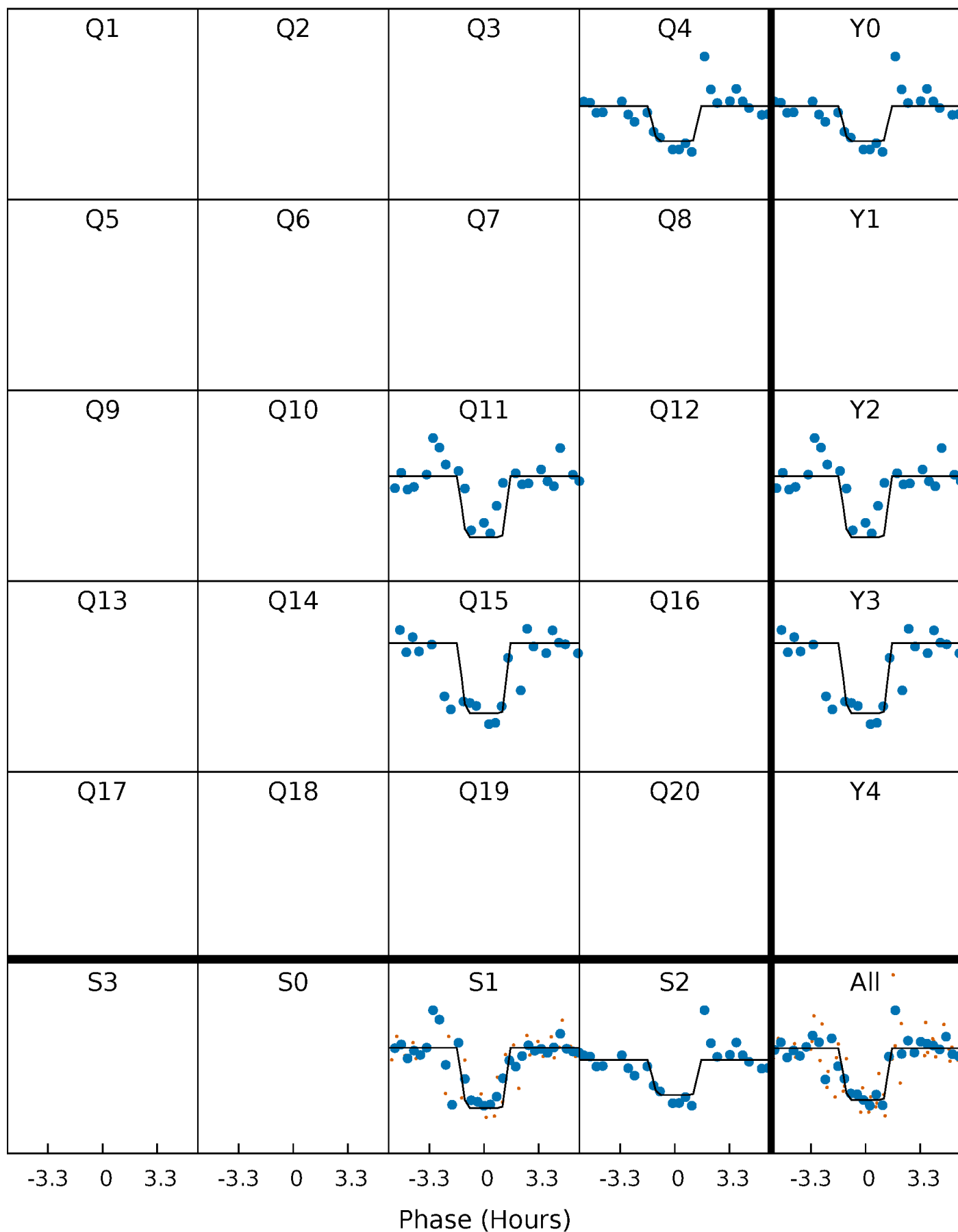
# DV Quarter-Phased Transit Curves

TCE 004261467-01 P=363.785024 Days  $T_0=358.543766$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

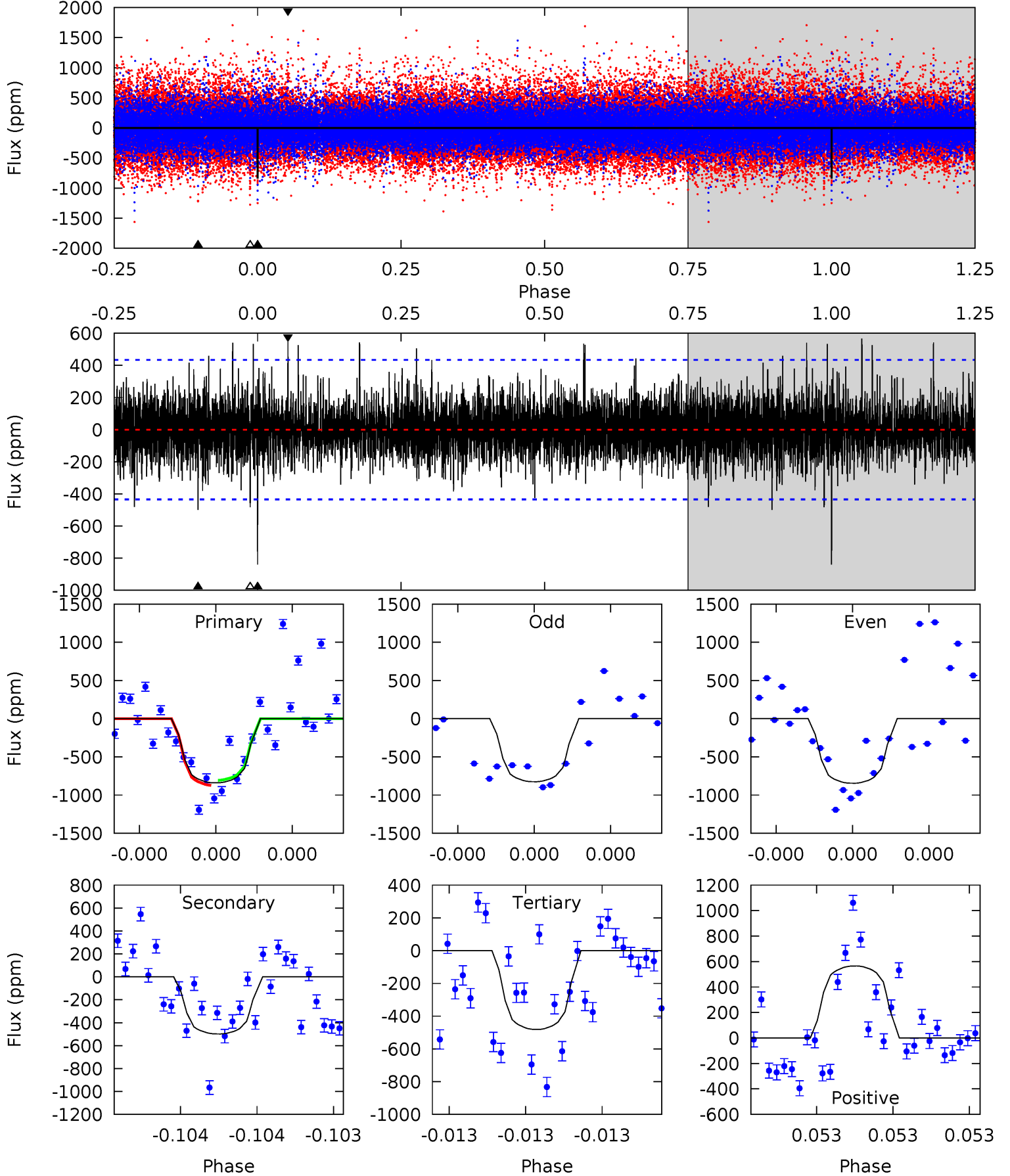
TCE 004261467-01 P=363.787413 Days  $T_0=358.538925$  (BKJD)



# DV Model-Shift Uniqueness Test

004261467-01, P = 363.785024 Days, E = 358.543766 Days

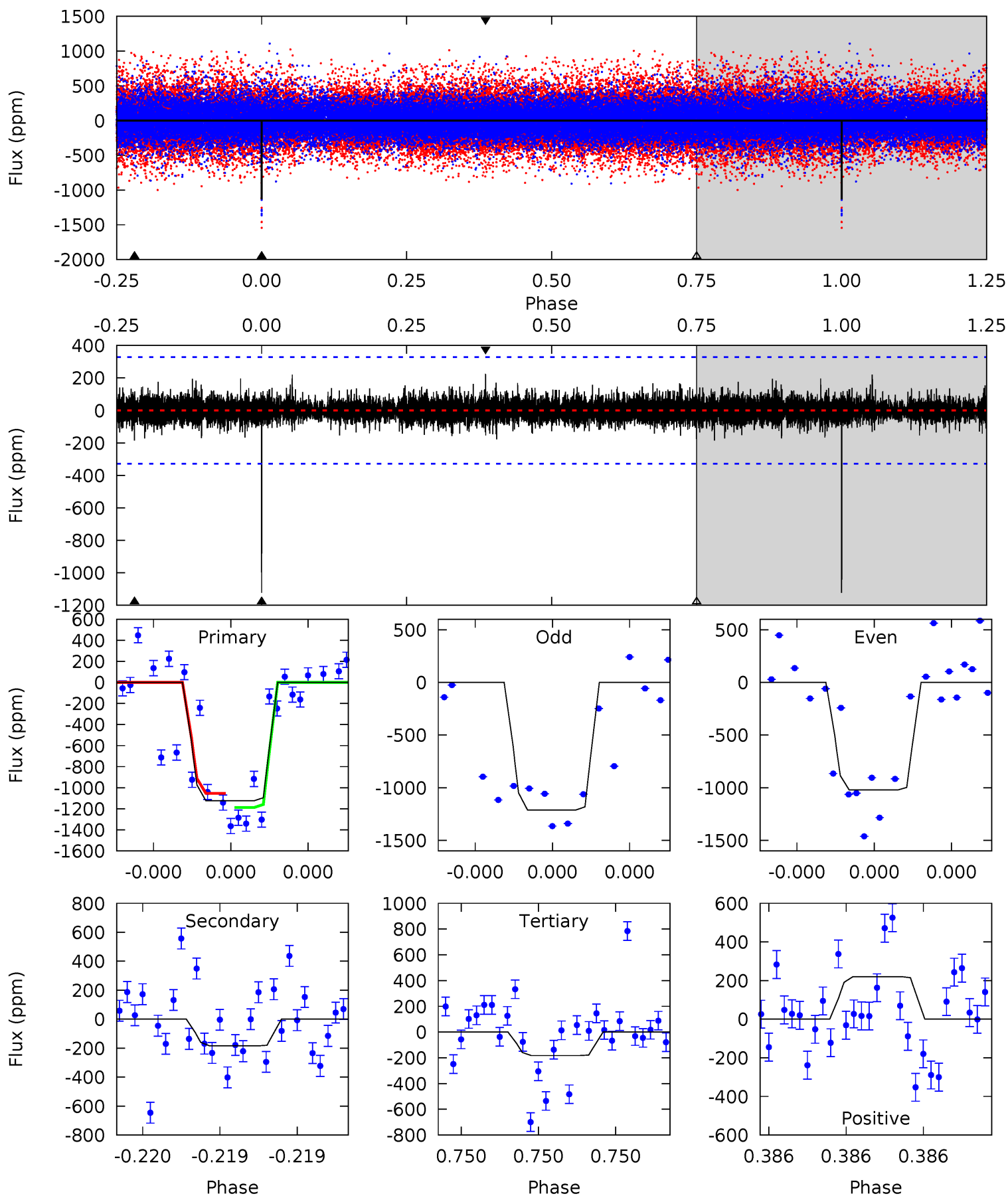
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	6.49	6.27	7.36	5.65	3.59	1.48	4.66	3.57	0.22	-0.87	0.09	1.01	0.40	0.42



# Alt Model-Shift Uniqueness Test

004261467-01, P = 363.787413 Days, E = 358.538925 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
19.4	3.18	3.15	3.80	5.66	3.61	0.74	16.2	15.6	0.02	-0.62	1.51	0.93	0.16	1.17



### Stellar Parameters For KIC 004261467

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5566^{+100}_{-66}$	$3.891^{+0.578}_{-0.102}$	$-0.700^{+0.150}_{-0.100}$	$1.685^{+0.289}_{-0.867}$	$0.806^{+0.073}_{-0.082}$	$0.237^{+1.629}_{-0.071}$
	+2%/-1%	+15%/-3%	+21%/-14%	+17%/-51%	+9%/-10%	+686%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 004261467-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-499 \pm 77$	$5.59^{+4.31}_{-3.48}$	$454^{+27}_{-64}$	$4662^{+2595}_{-858}$	$7693^{+46784}_{-5270}$
Alt.	$-184 \pm 58$	$6.19^{+4.75}_{-3.70}$	$454^{+27}_{-63}$	$3733^{+1420}_{-609}$	$2271^{+12905}_{-1612}$

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

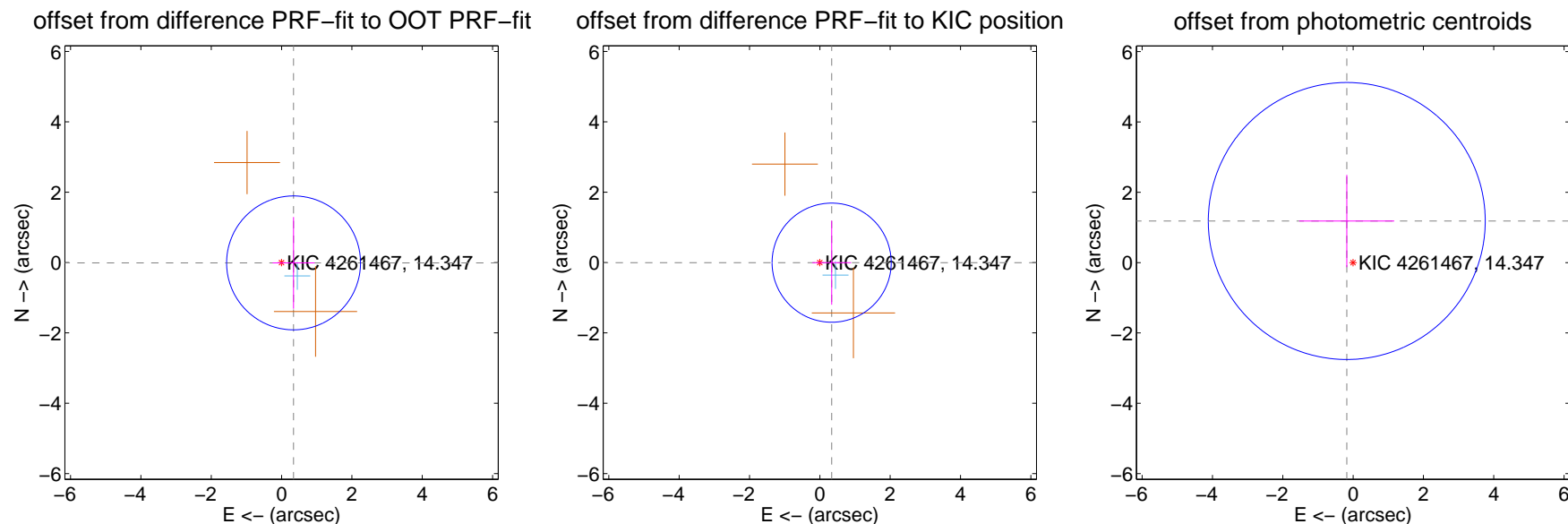
## DV Centroid Data

Supplemental centroid analysis for 004261467-01. Kepler magnitude: 14.35. Transit SNR 7.55

There are 1 quarters with good PRF difference image offsets

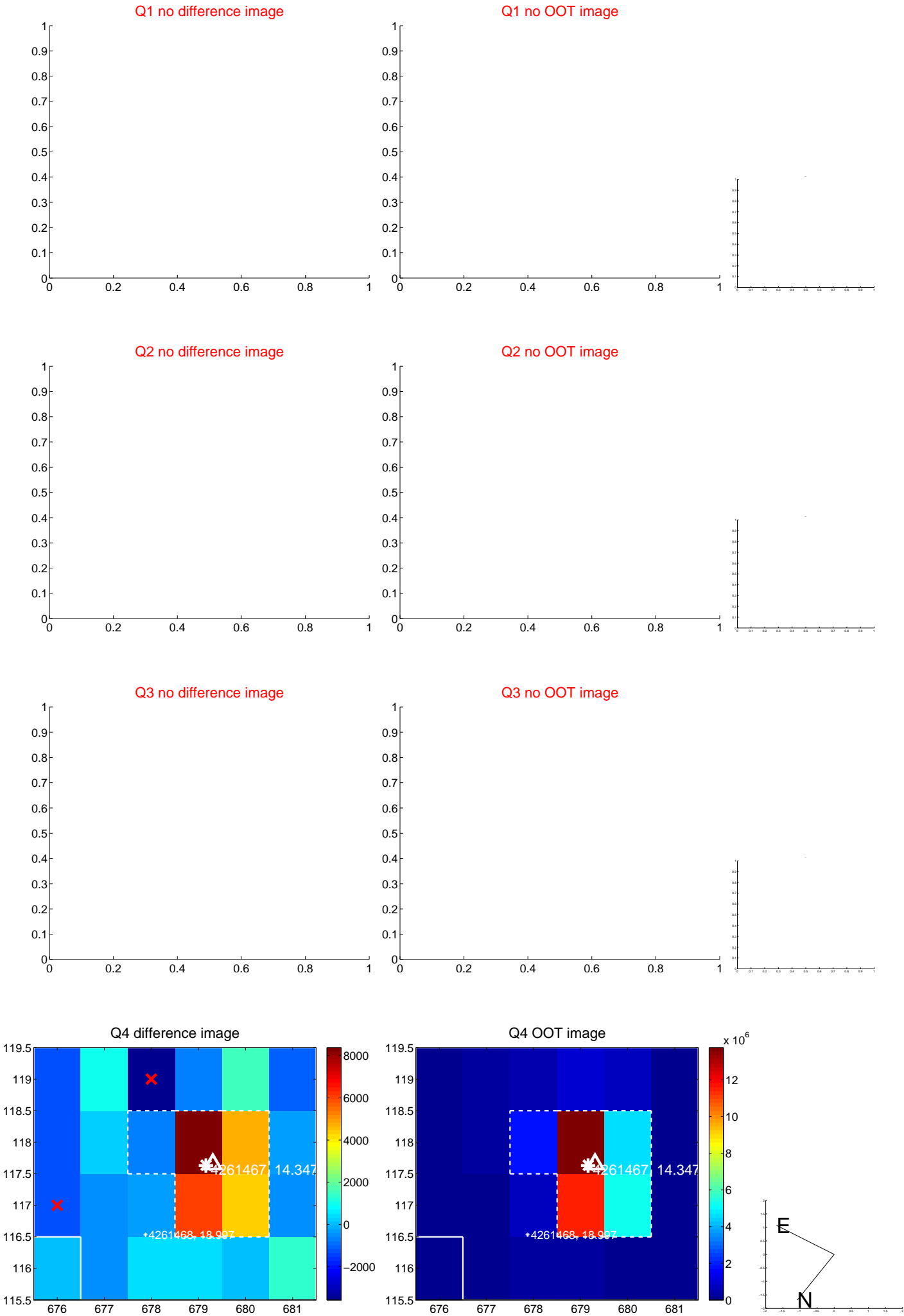
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.341 \pm 0.634$	0.54	$-0.341 \pm 0.597$	$-0.010 \pm 1.303$
PRF-fit source offset from KIC position	$0.336 \pm 0.564$	0.59	$-0.336 \pm 0.551$	$-0.004 \pm 1.195$
photometric centroid source offset	$1.20 \pm 1.31$	0.91	$0.18 \pm 1.35$	$1.18 \pm 1.31$



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

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



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





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

Q9 no difference image



Q9 no OOT image



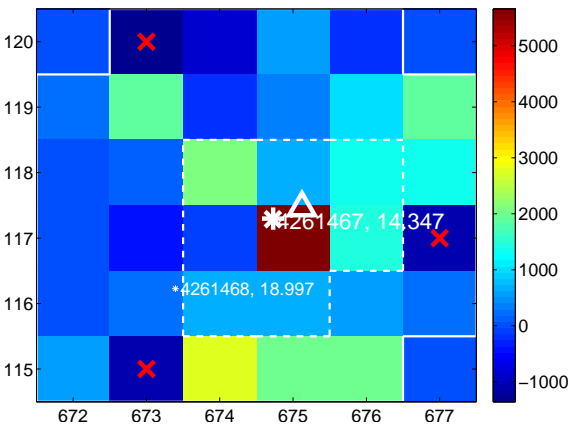
Q10 no difference image



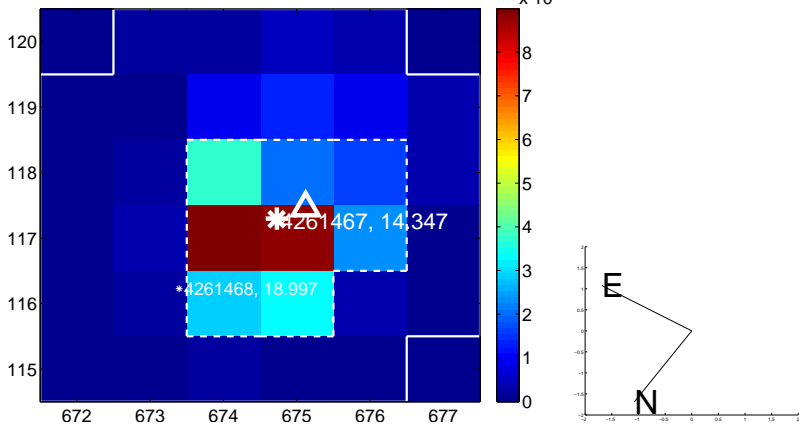
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



Q12 no difference image



Q12 no OOT image



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

Q13 no difference image



Q13 no OOT image



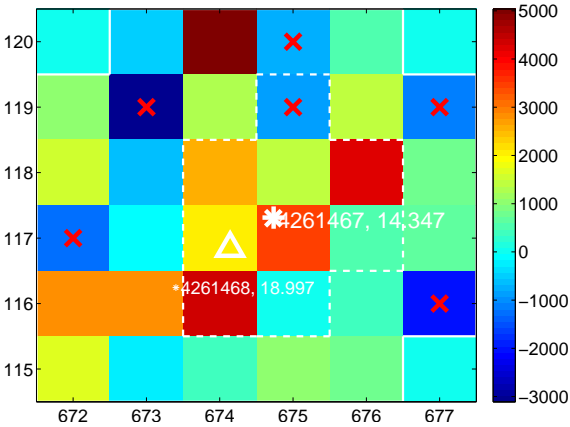
Q14 no difference image



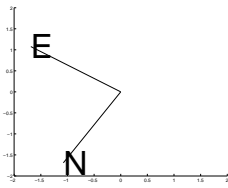
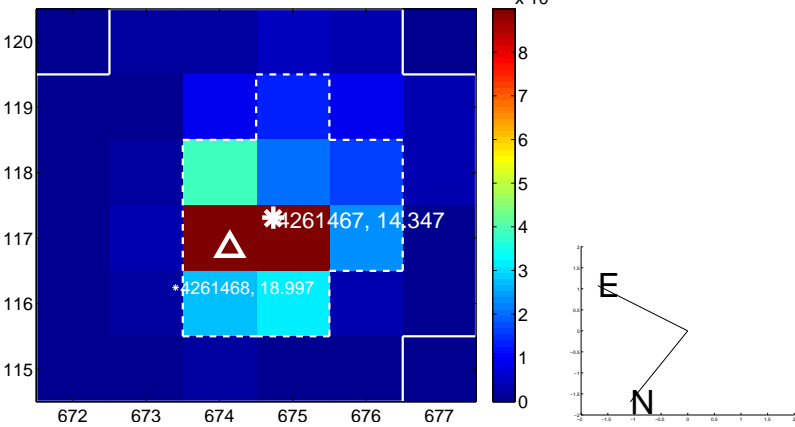
Q14 no OOT image



Q15 difference image. Poor Quality



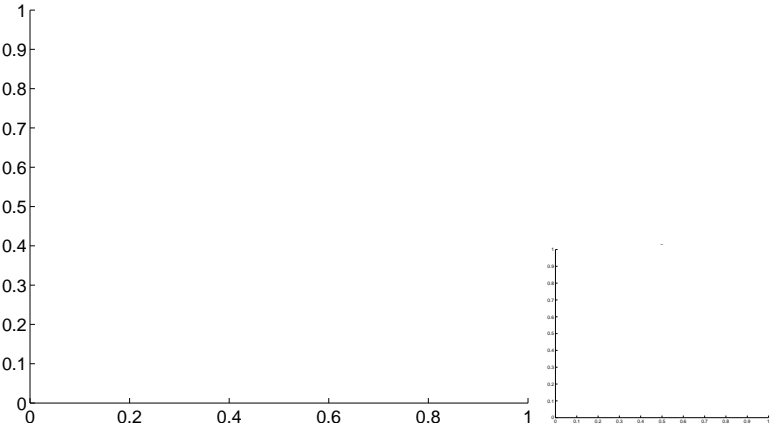
Q15 OOT image



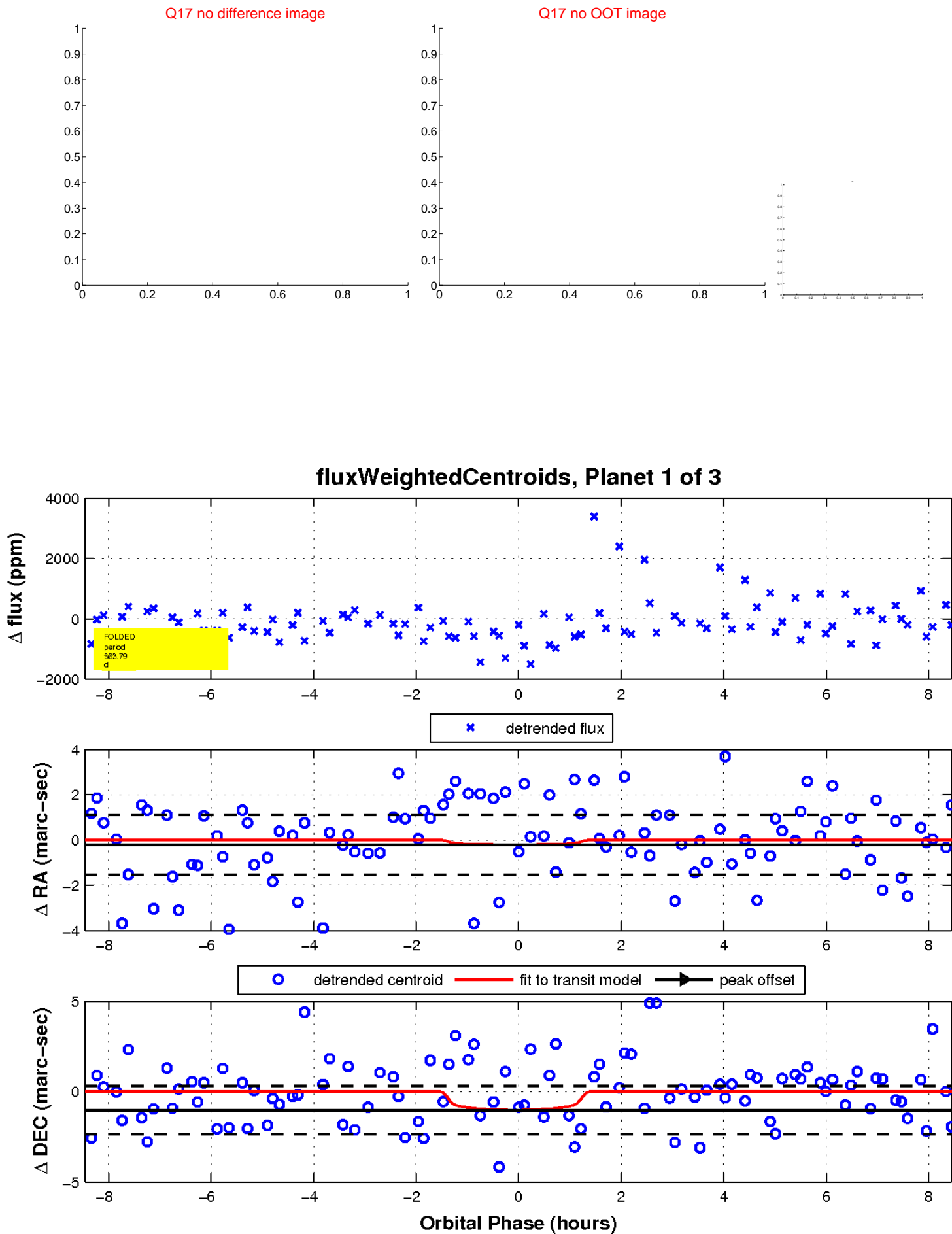
Q16 no difference image



Q16 no OOT image

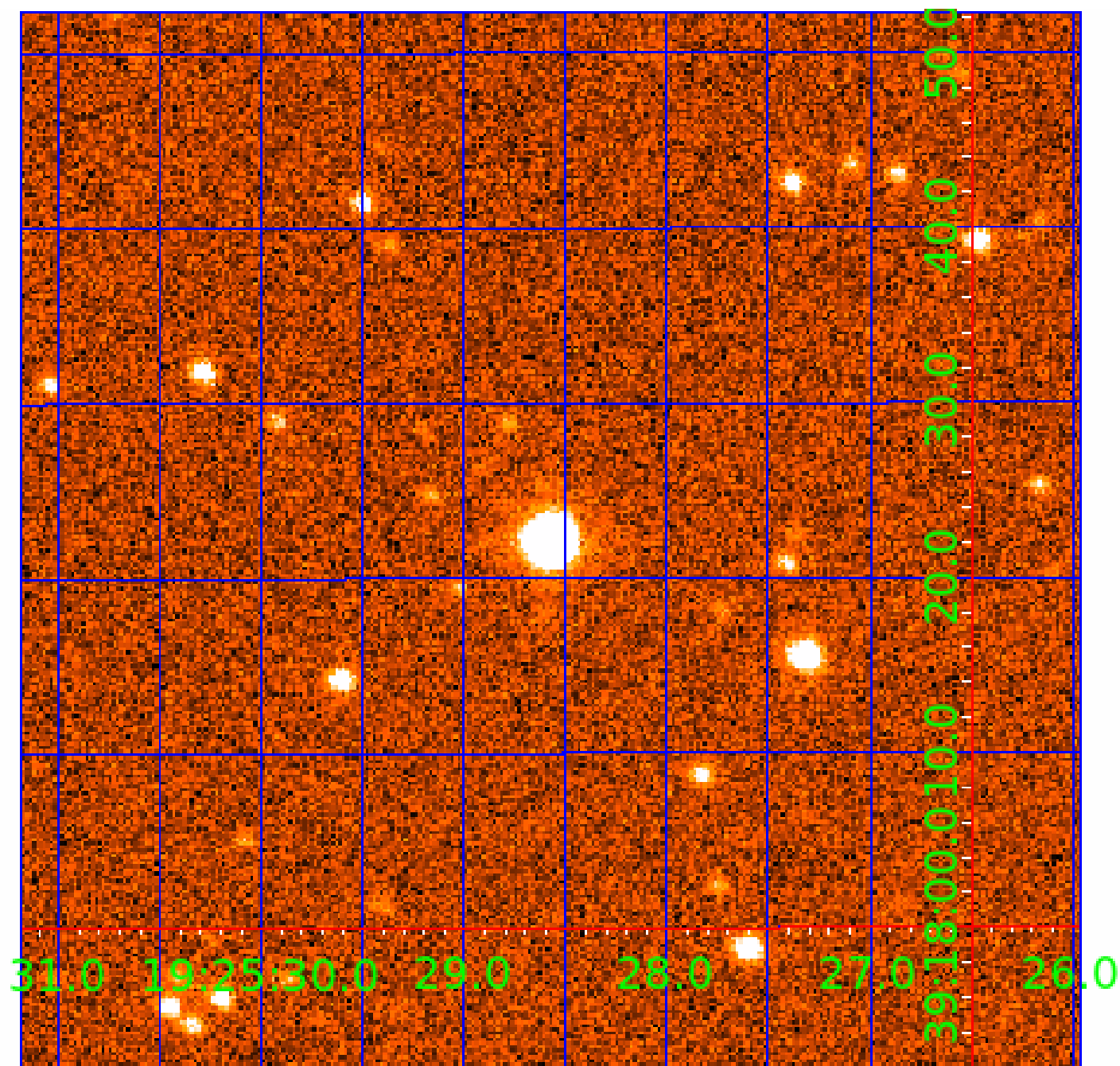


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 004261467

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
004261467-01	OBS	No	363.785024	358.543766	932.2	2.840	9.6	7.6	1.69	5566	5.62	2.83
004261467-02	OBS	No	345.525698	329.073545	667.9	4.496	9.0	6.1	1.69	5566	4.40	3.04
004261467-03	OBS	No	601.377056	224.126205	1083.3	10.862	14.3	6.6	1.69	5566	6.94	1.45

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004261467-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004261467-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004261467-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

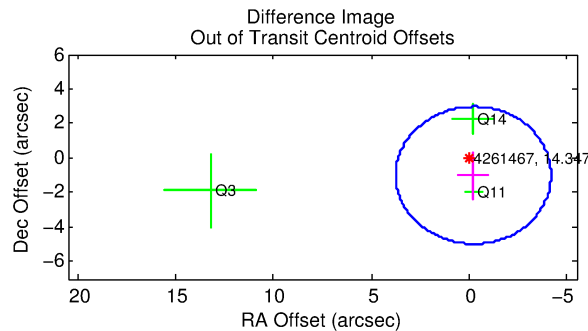
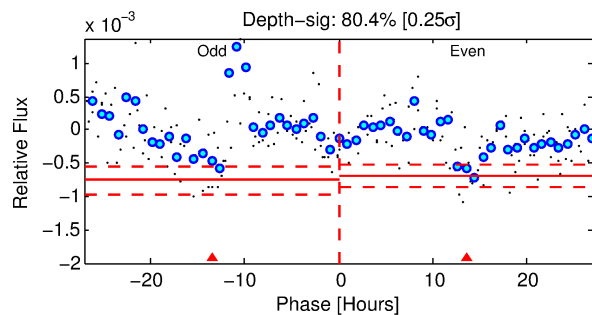
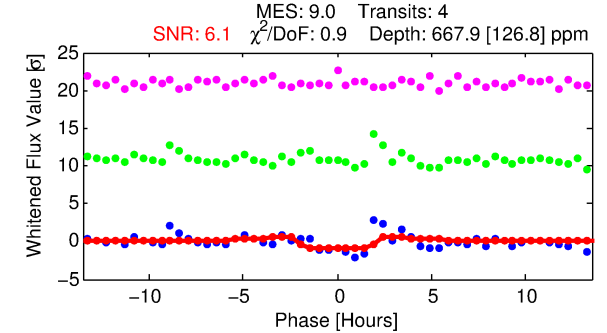
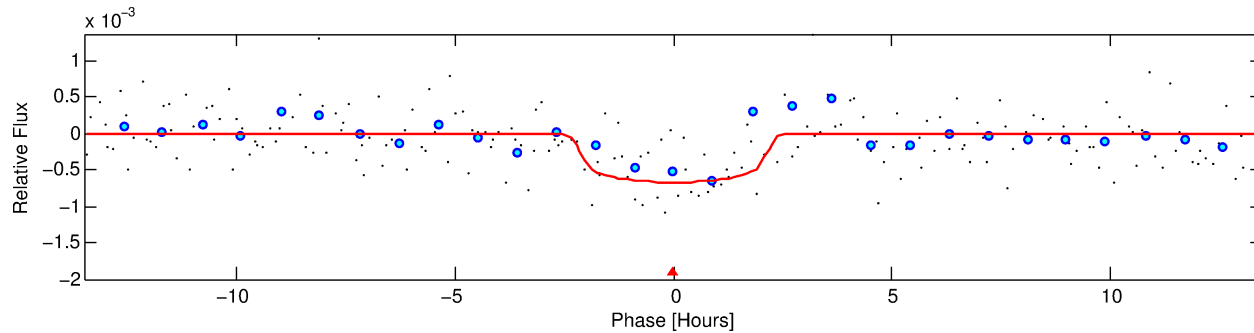
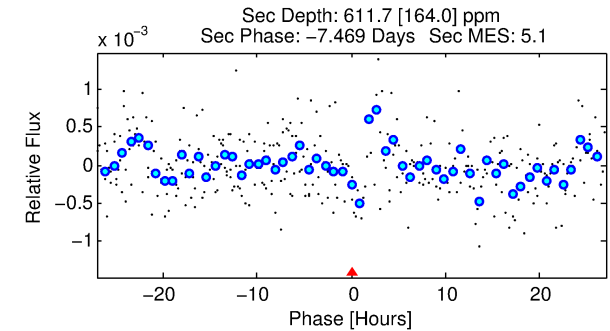
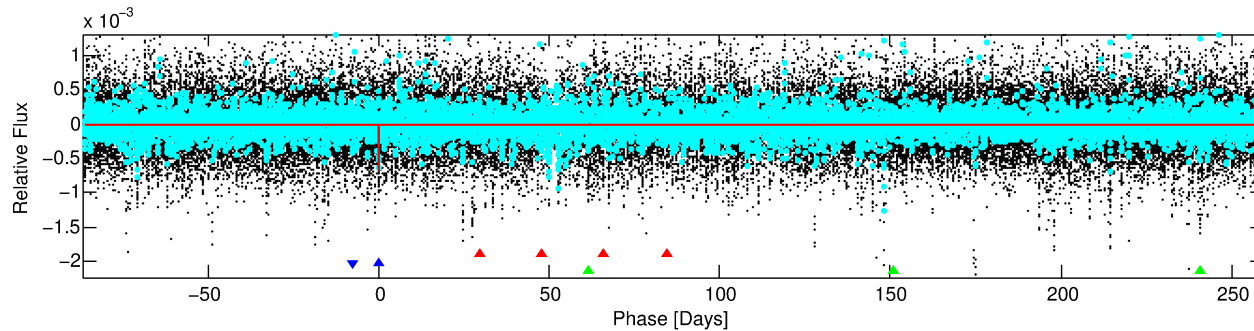
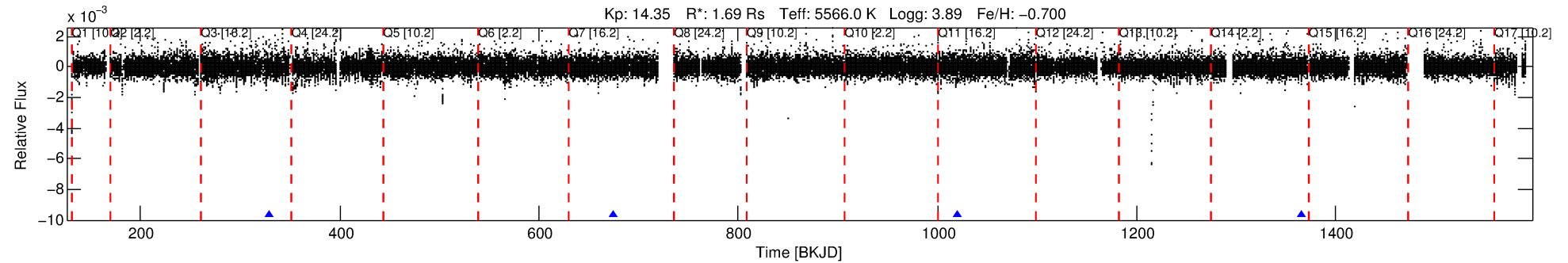
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 004261467-02

No Significant Match Found

# DV One-Page Summary

KIC: 4261467 Candidate: 2 of 3 Period: 345.526 d



## DV Fit Results:

Period = 345.52570 [0.00475] d  
Epoch = 329.0735 [0.0083] BKJD  
Rp/R\* = 0.0239 [0.0853]  
a/R\* = 559.50 [9151.31]  
b = 0.37 [37.82]  
Seff = 3.04 [2.90]  
Teq = 337 [80] K  
Rp = 4.40 [15.84] Re  
a = 0.8969 [0.5030] AU  
Ag = 13999.05 [100801.88] [0.14 $\sigma$ ]  
Teff = 5660 [10100] K [0.53 $\sigma$ ]

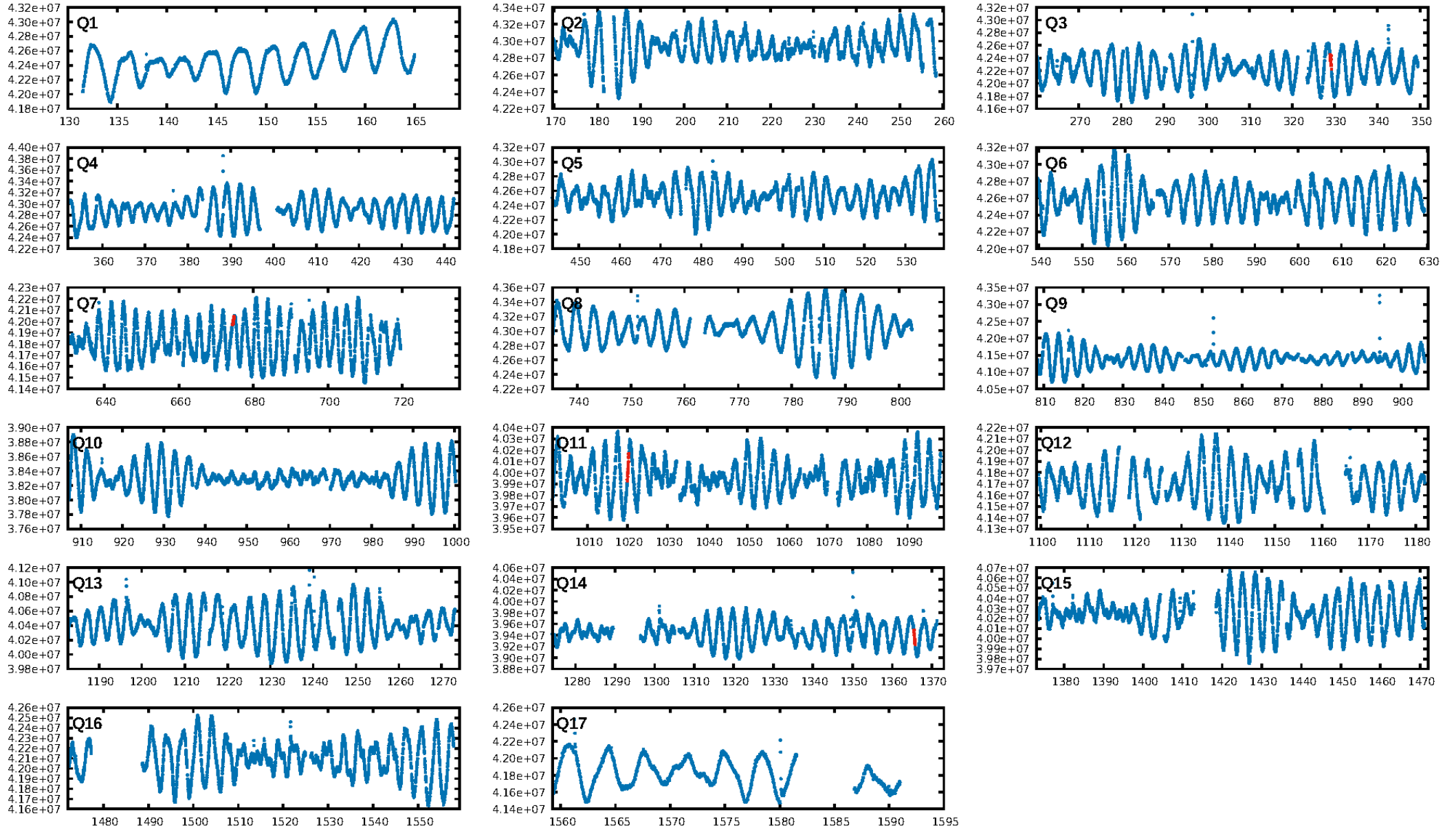
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [82.41 $\sigma$ ]  
ModelChiSquare2-sig: 33.8%  
ModelChiSquareGof-sig: 98.5%  
**Bootstrap-pfa: 1.28e-10**  
RollingBand-fgt: 1.00 [4/4]  
**GhostDiagnostic-chr: 0.7584**  
Centroid-sig: 81.6%  
Centroid-so: 0.550 arcsec [0.40 $\sigma$ ]  
OotOffset-rm: 1.022 arcsec [0.77 $\sigma$ ]  
OotOffset-st: 1/2/0/0 [3]  
KicOffset-rm: 1.071 arcsec [0.84 $\sigma$ ]  
KicOffset-st: 1/2/0/0 [3]  
DiffImageQuality-fgm: 0.33 [1/3]  
DiffImageOverlap-fno: 1.00 [4/4]

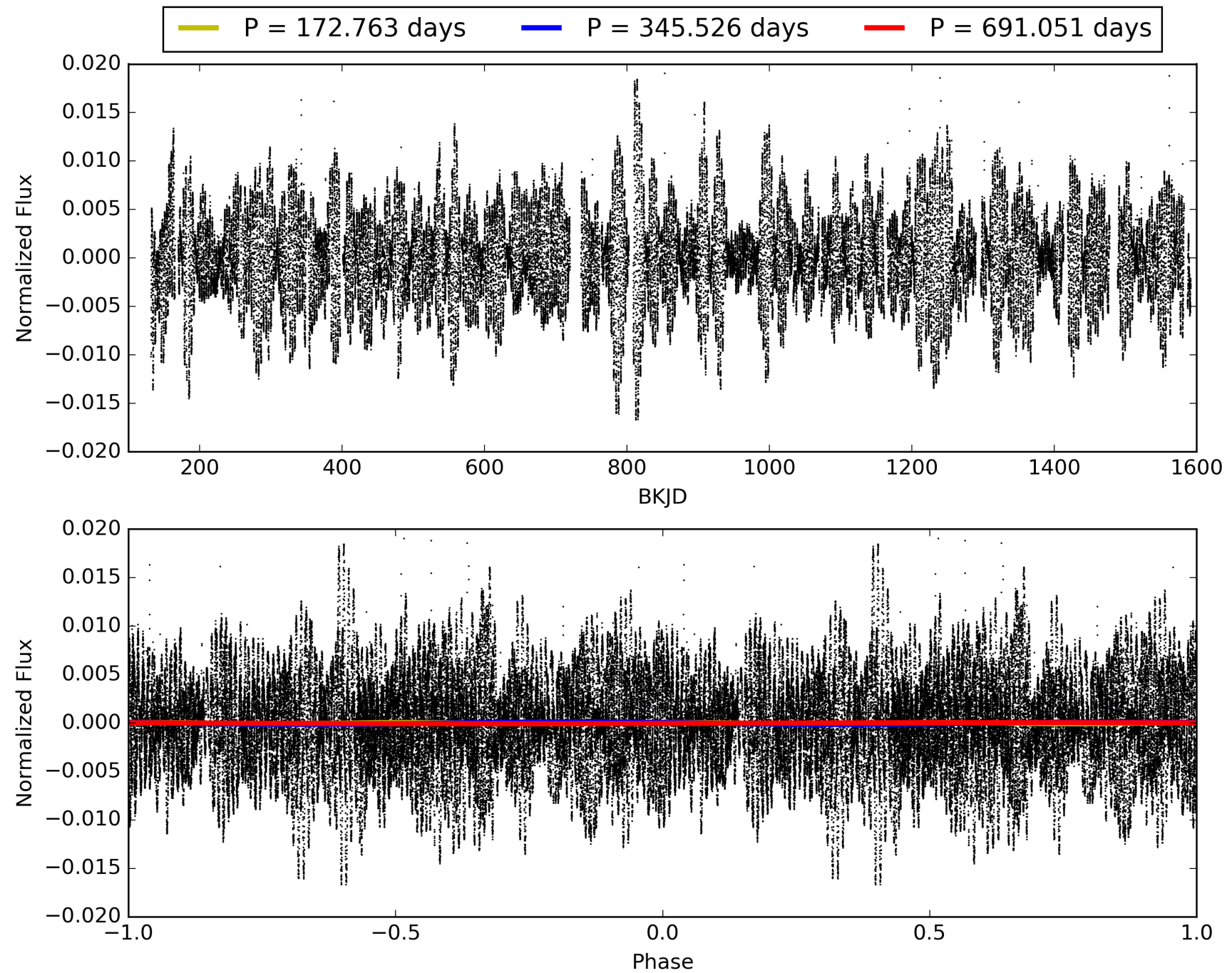
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:43:50 Z

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

# TCE 004261467-02, PDC Light Curves



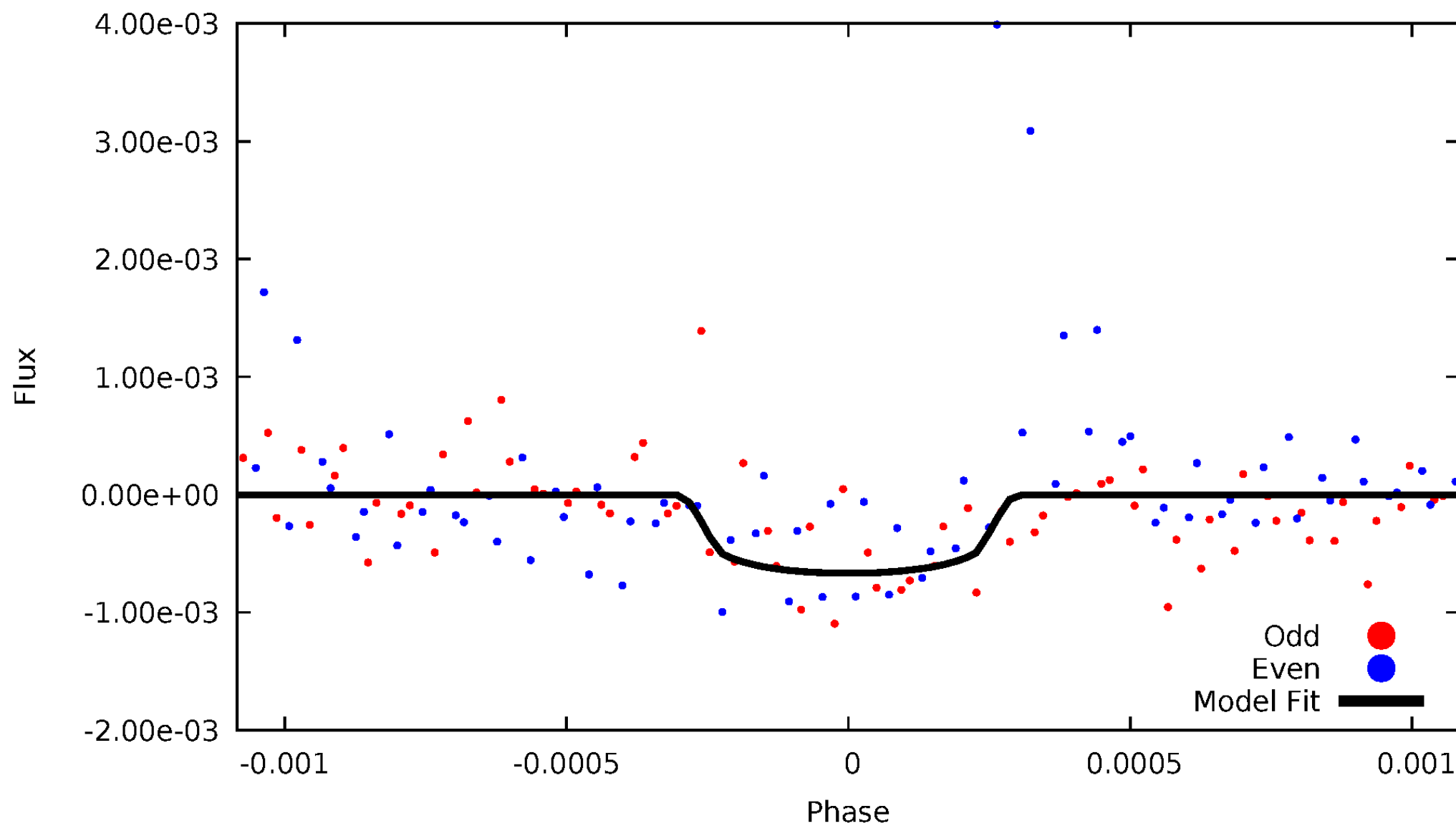
TCE 004261467-02





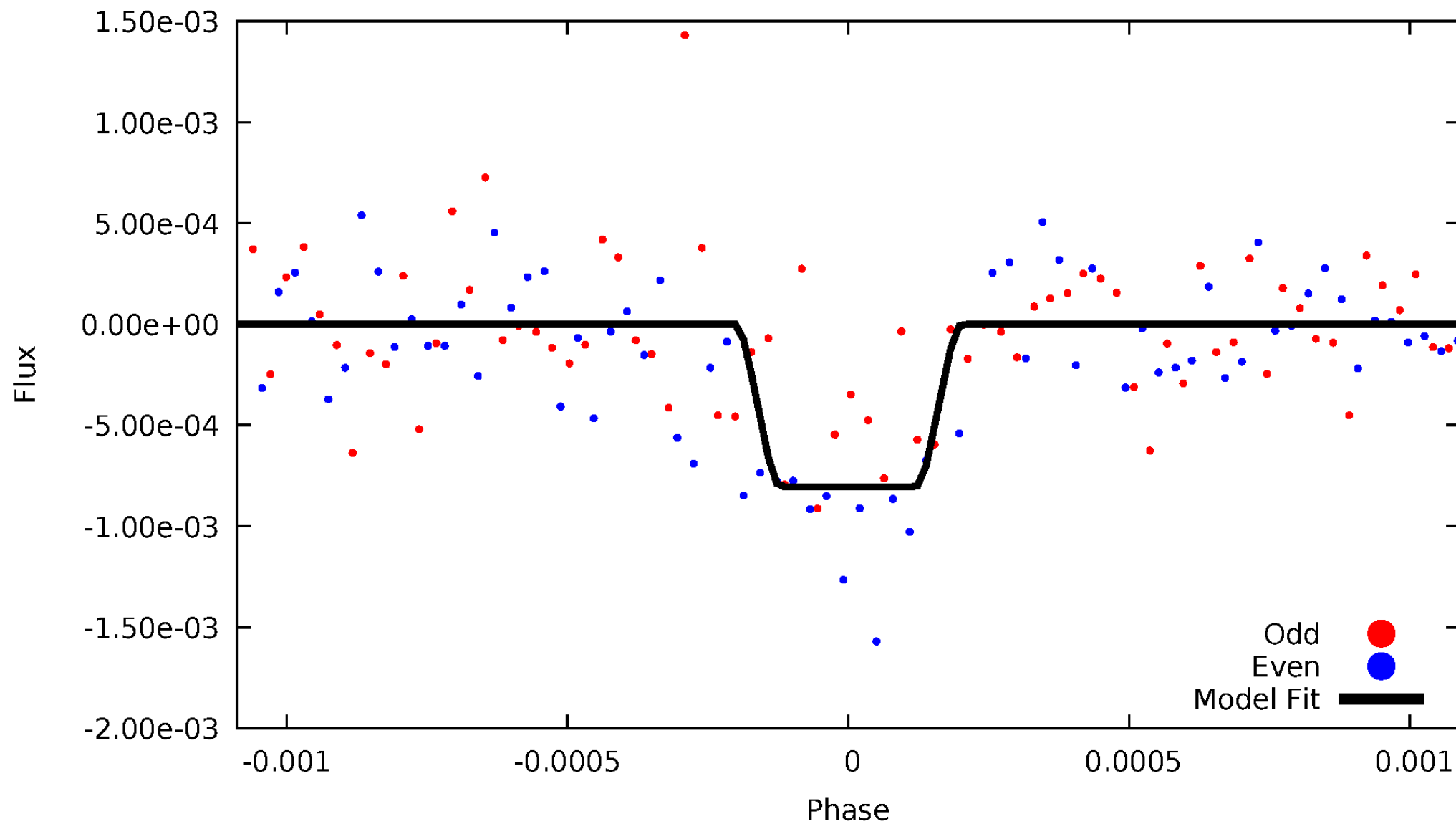
# DV Odd/Even

TCE 004261467-02



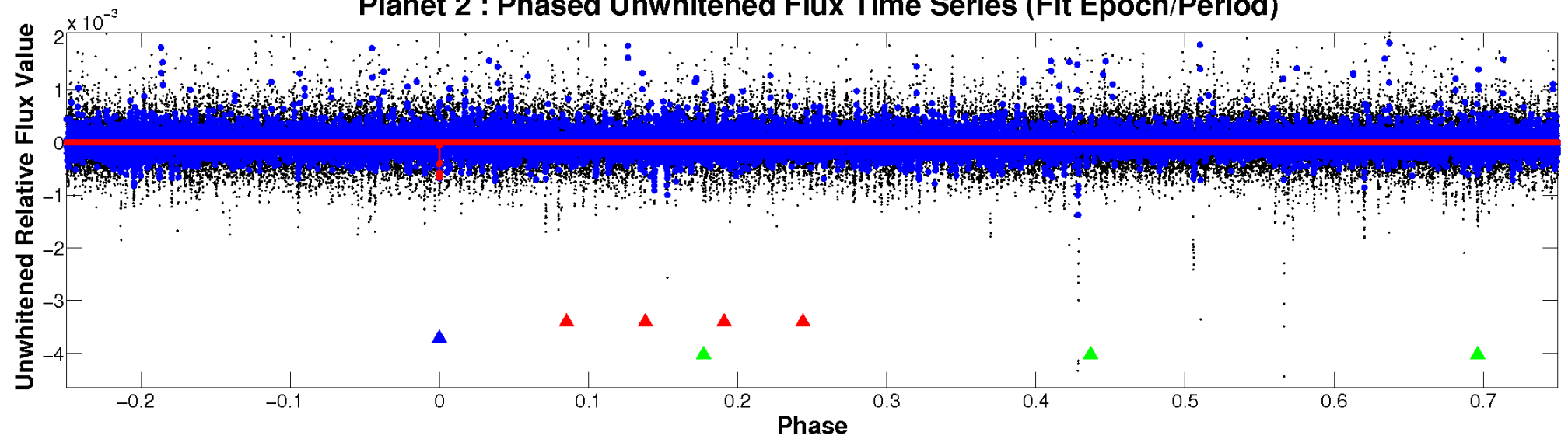
# ALT Odd/Even

TCE 004261467-02

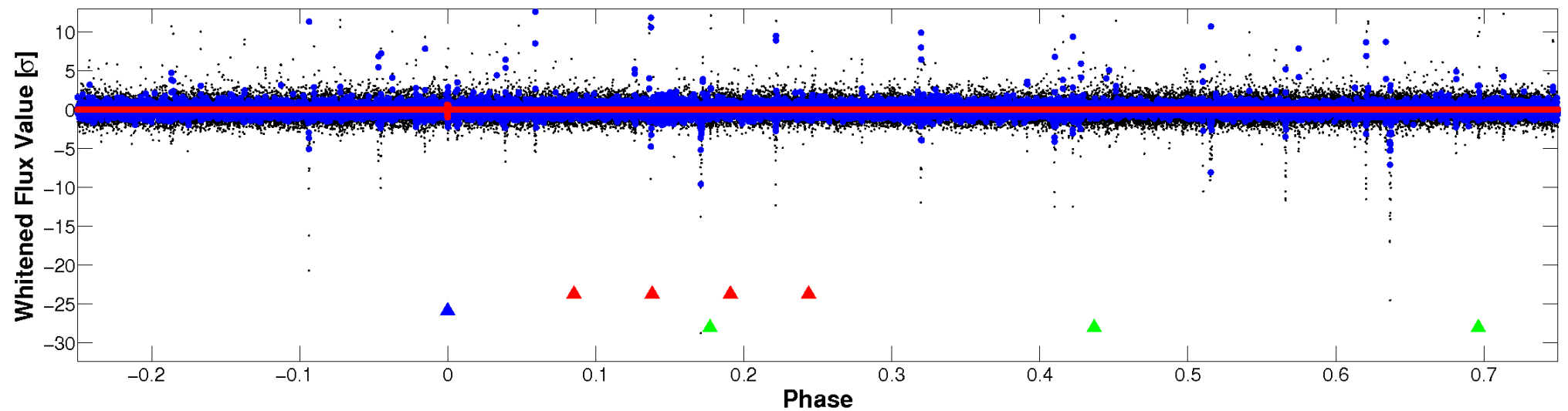


# Non-Whitened Vs. Whitened Light Curve

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

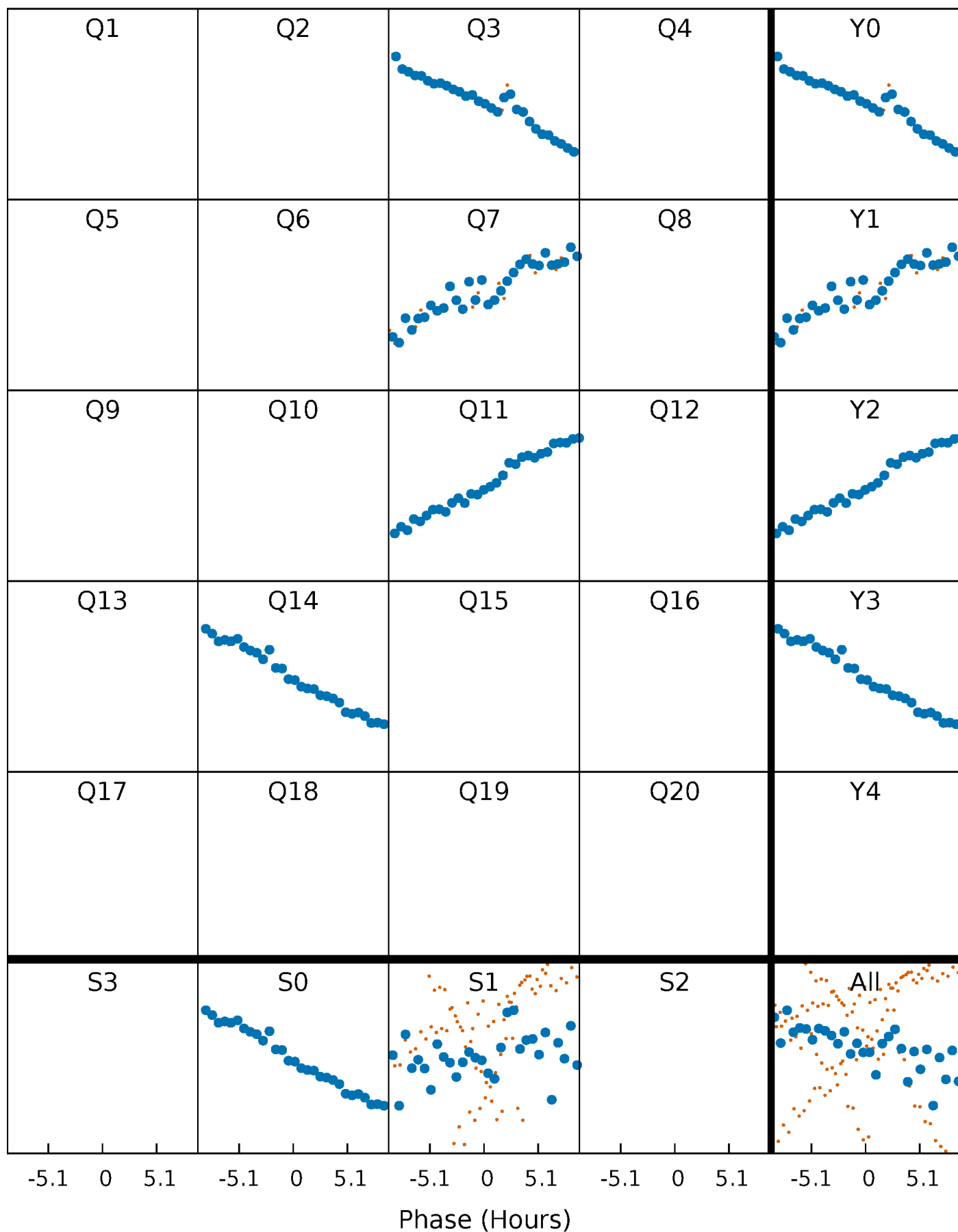


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



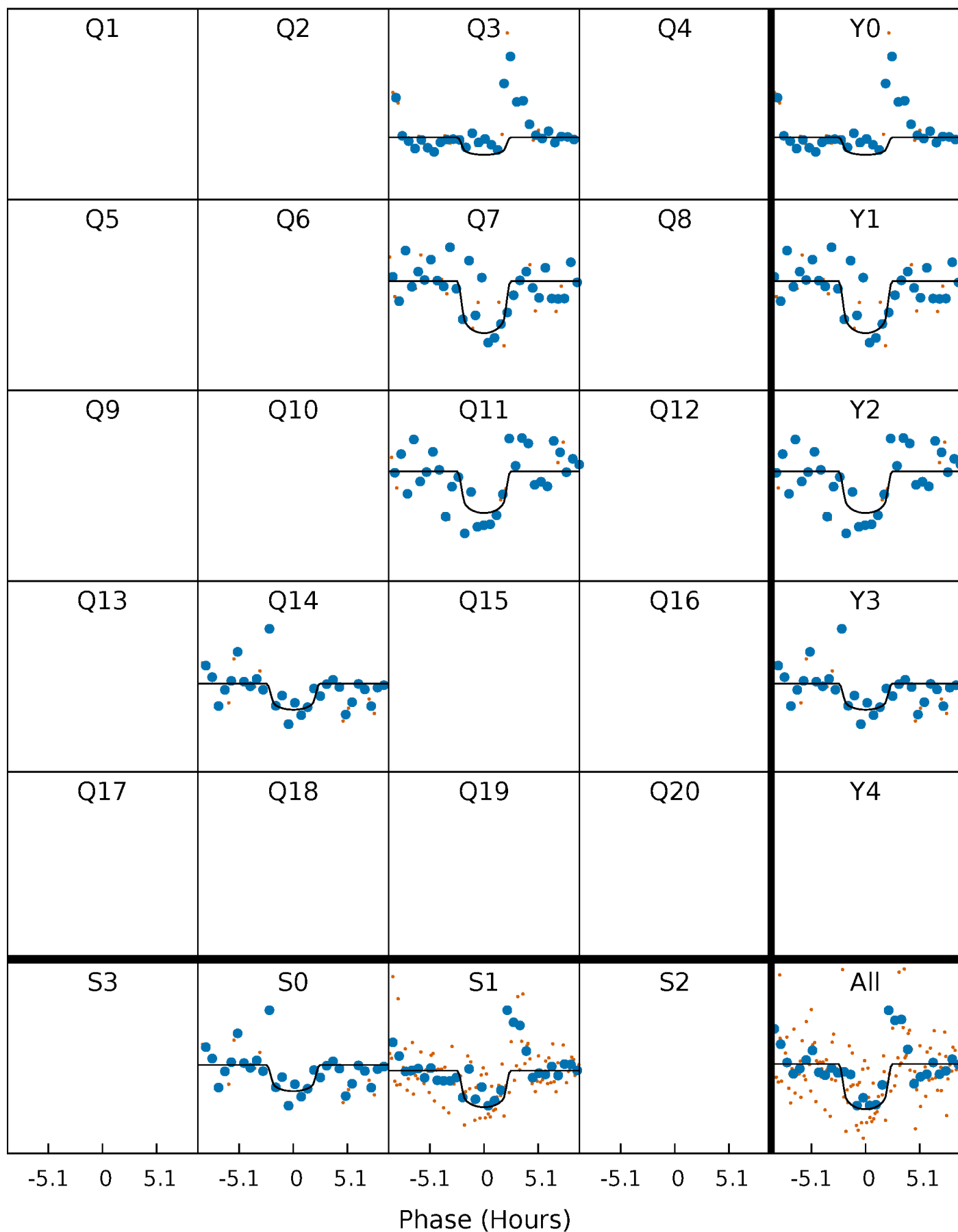
# PDC Quarter-Phased Transit Curves

TCE 004261467-02     $P=345.525698$  Days     $T_0=329.073545$  (BKJD)



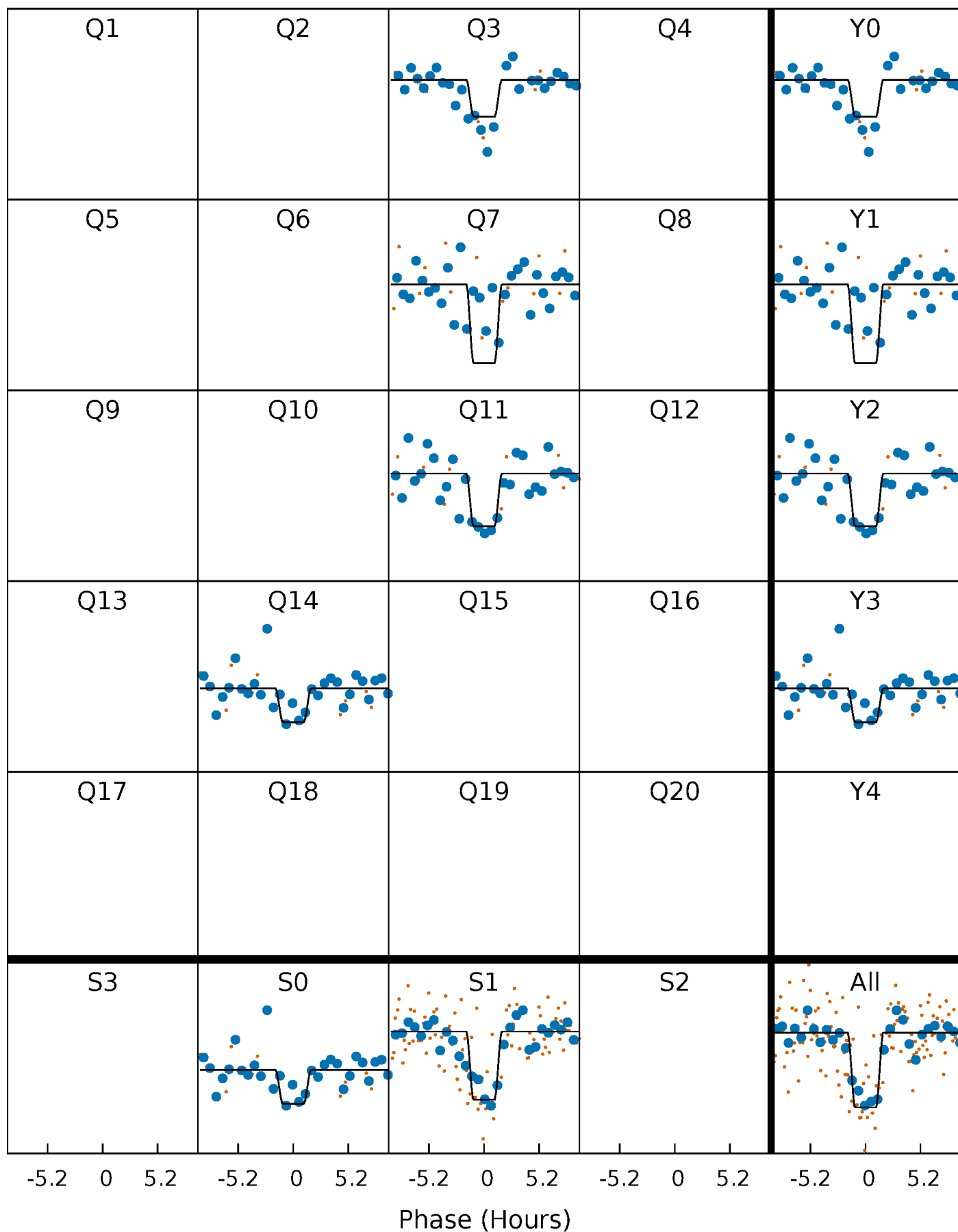
# DV Quarter-Phased Transit Curves

TCE 004261467-02     $P=345.525698$  Days     $T_0=329.073545$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

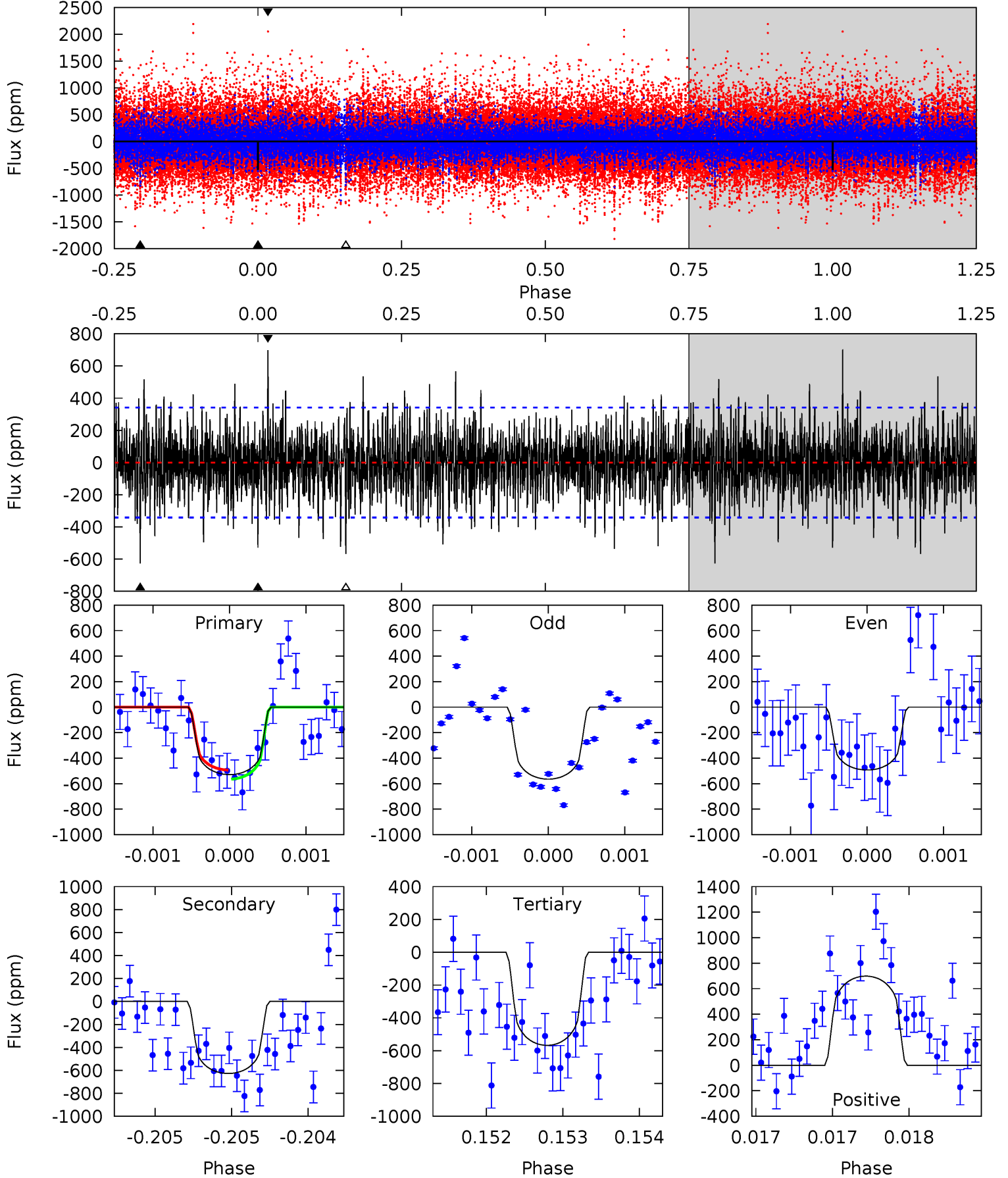
TCE 004261467-02     $P=345.518182$  Days     $T_0=329.106515$  (BKJD)



# DV Model-Shift Uniqueness Test

004261467-02, P = 345.525698 Days, E = 329.073545 Days

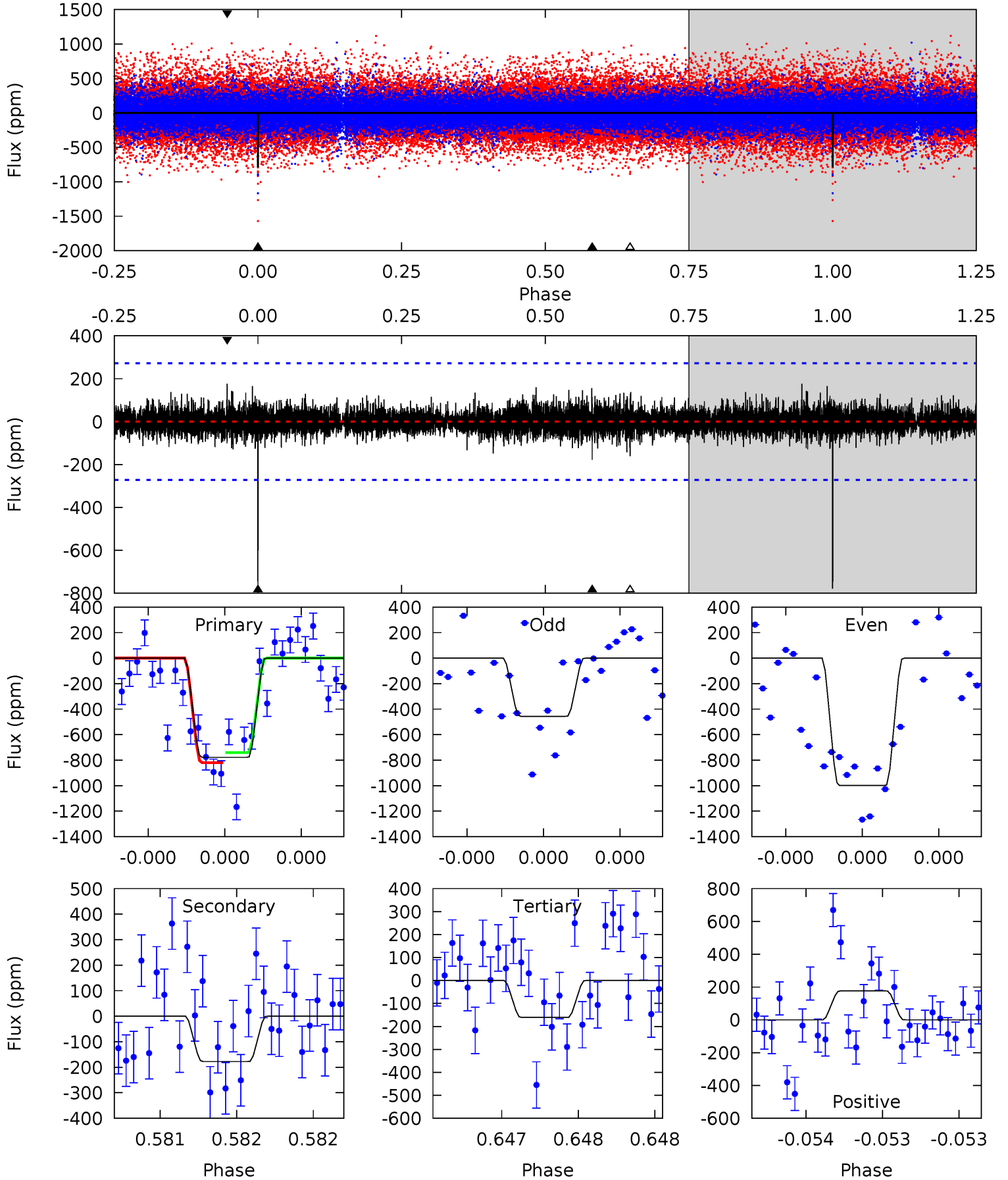
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.59	10.2	9.22	11.3	5.55	3.45	2.37	-0.63	-2.76	0.97	-1.16	0.57	0.88	0.53	0.58



# Alt Model-Shift Uniqueness Test

004261467-02, P = 345.518182 Days, E = 329.106515 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	3.66	3.32	3.64	5.62	3.55	0.74	12.7	12.4	0.34	0.02	5.84	0.95	0.18	0.81





### Stellar Parameters For KIC 004261467

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5566^{+100}_{-66}$	$3.891^{+0.578}_{-0.102}$	$-0.700^{+0.150}_{-0.100}$	$1.685^{+0.289}_{-0.867}$	$0.806^{+0.073}_{-0.082}$	$0.237^{+1.629}_{-0.071}$
	+2%/-1%	+15%/-3%	+21%/-14%	+17%/-51%	+9%/-10%	+686%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 004261467-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-627 \pm 62$	$11.14^{+11.64}_{-7.84}$	$466^{+26}_{-69}$	$3774^{+2214}_{-735}$	$2255^{+21495}_{-1722}$
Alt.	$-178 \pm 48$	$10.47^{+13.66}_{-6.91}$	$461^{+26}_{-63}$	$3088^{+1412}_{-552}$	$670^{+5563}_{-545}$

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

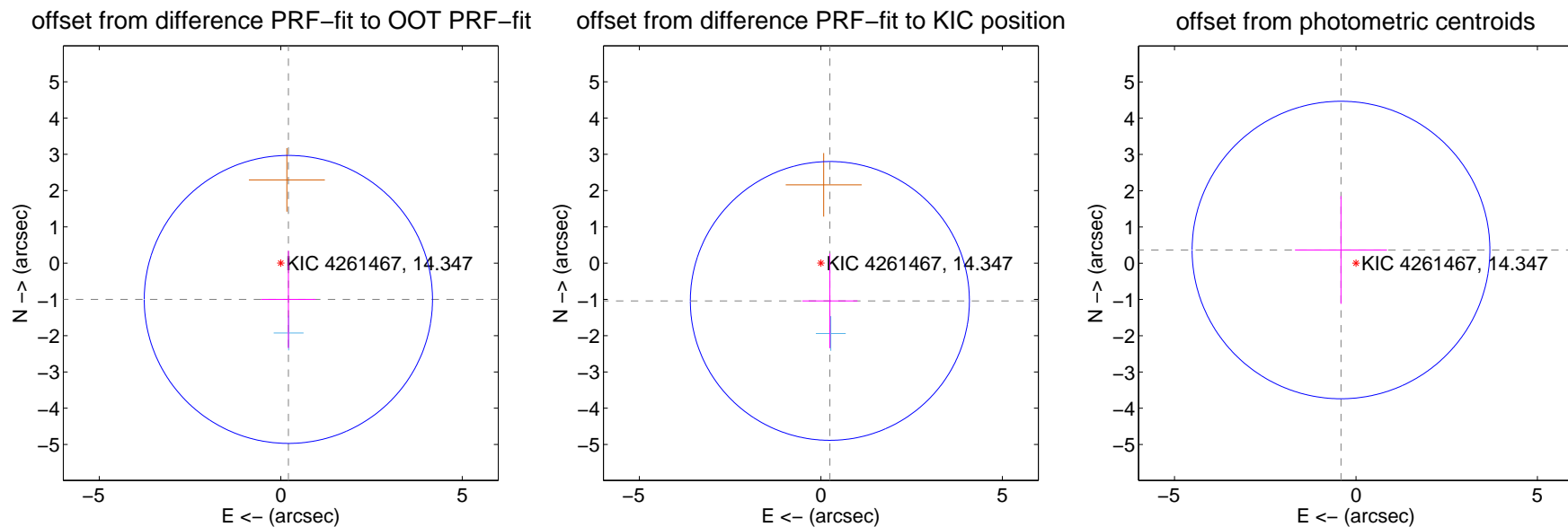
## DV Centroid Data

Supplemental centroid analysis for 004261467-02. Kepler magnitude: 14.35. Transit SNR 6.13

There are 1 quarters with good PRF difference image offsets

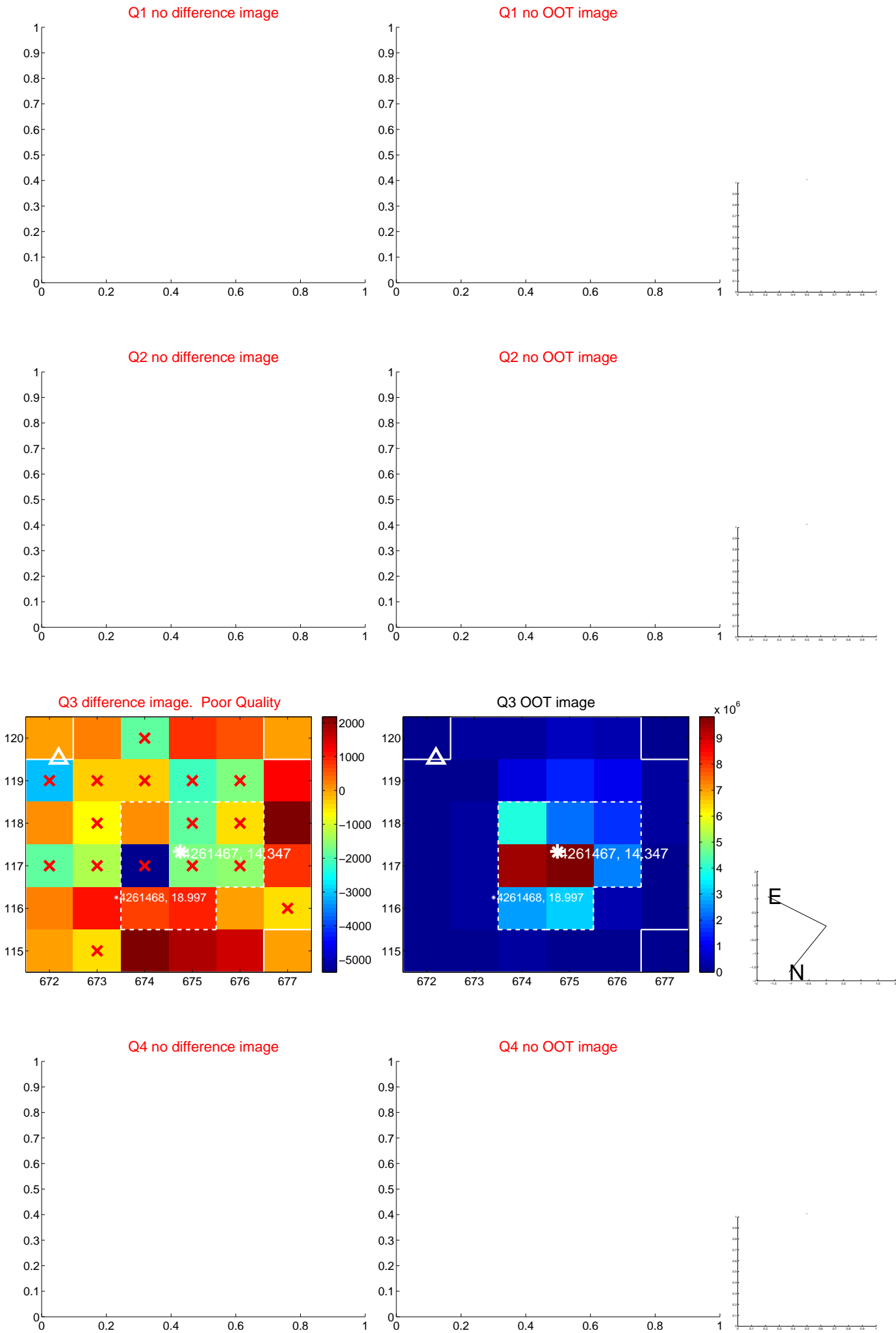
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.022 \pm 1.323$	0.77	$-0.210 \pm 0.752$	$-1.000 \pm 1.343$
PRF-fit source offset from KIC position	$1.071 \pm 1.281$	0.84	$-0.248 \pm 0.761$	$-1.042 \pm 1.305$
photometric centroid source offset	$0.55 \pm 1.37$	0.40	$0.41 \pm 1.27$	$0.36 \pm 1.49$



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.

Q5 no difference image



Q5 no OOT image



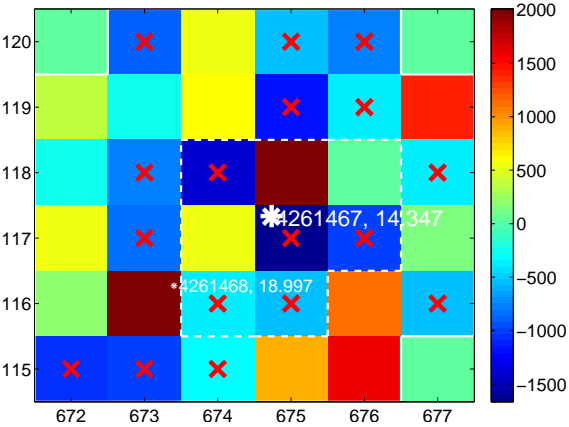
Q6 no difference image



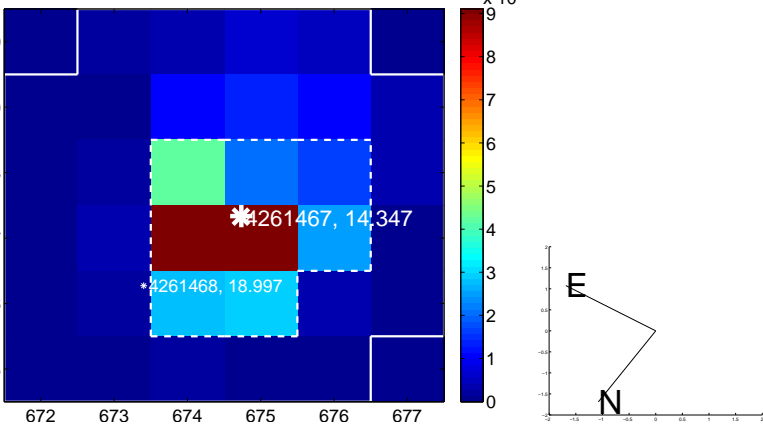
Q6 no OOT image



Q7 difference image. Poor Quality



Q7 OOT image



Q8 no difference image



Q8 no OOT image



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

Q9 no difference image



Q9 no OOT image



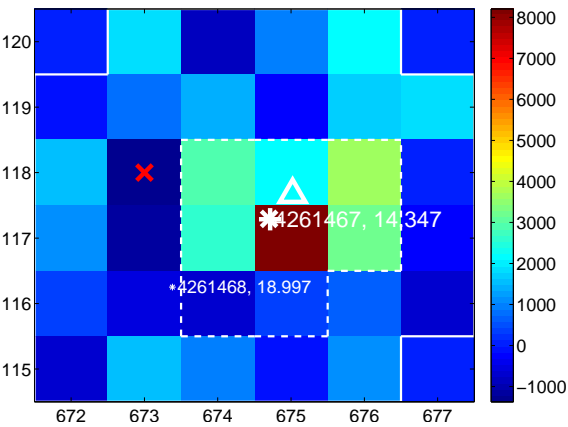
Q10 no difference image



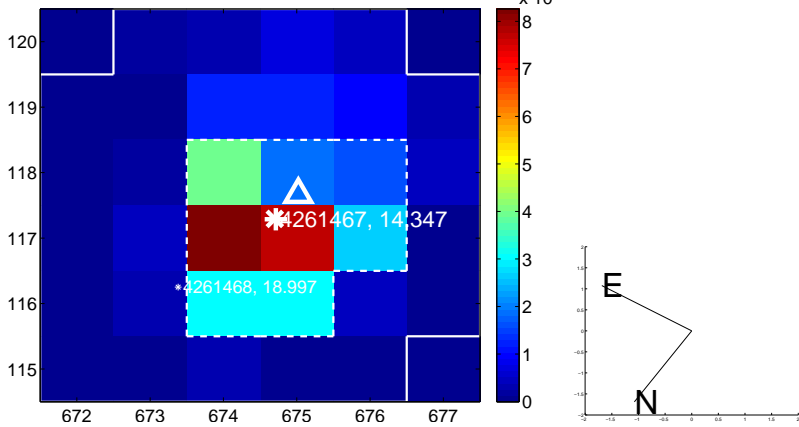
Q10 no OOT image



Q11 difference image



Q11 OOT image



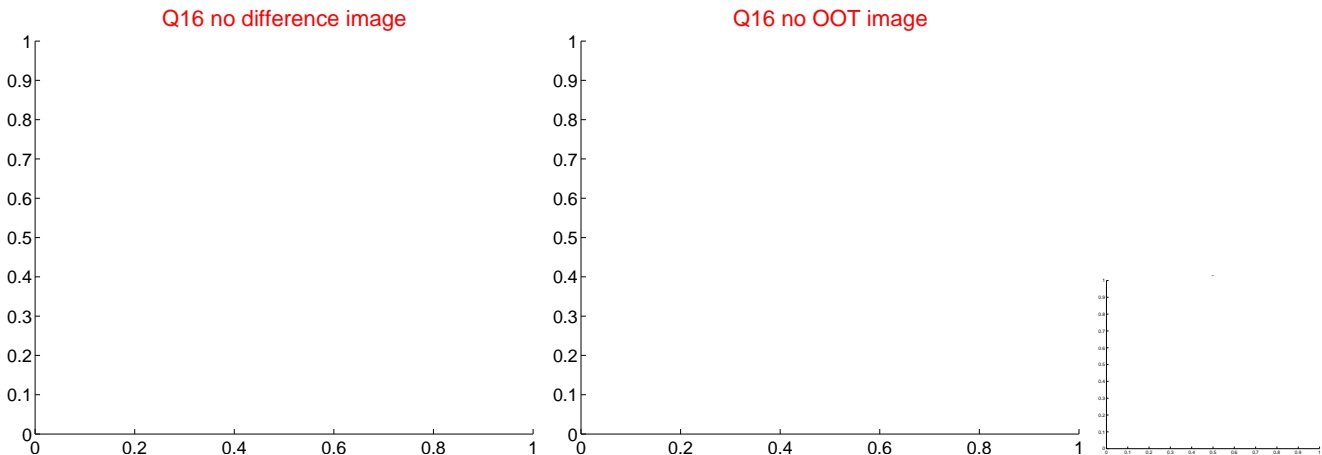
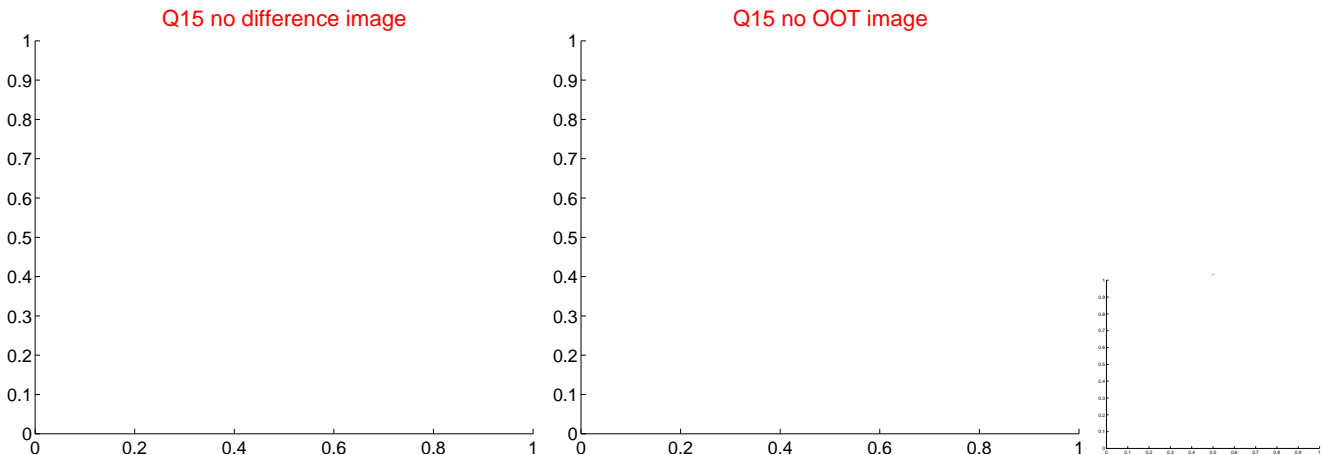
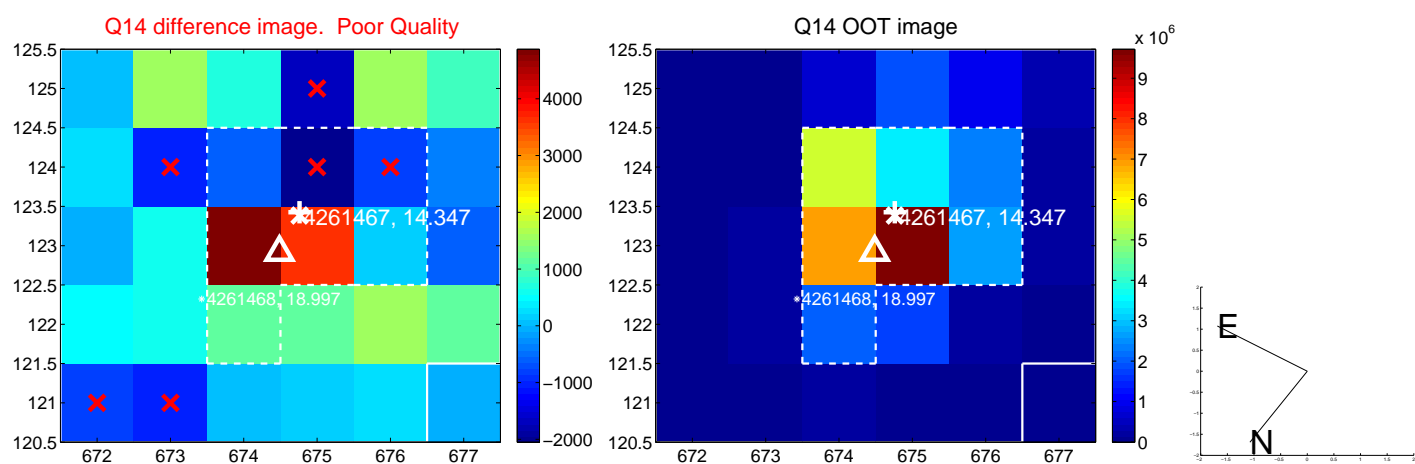
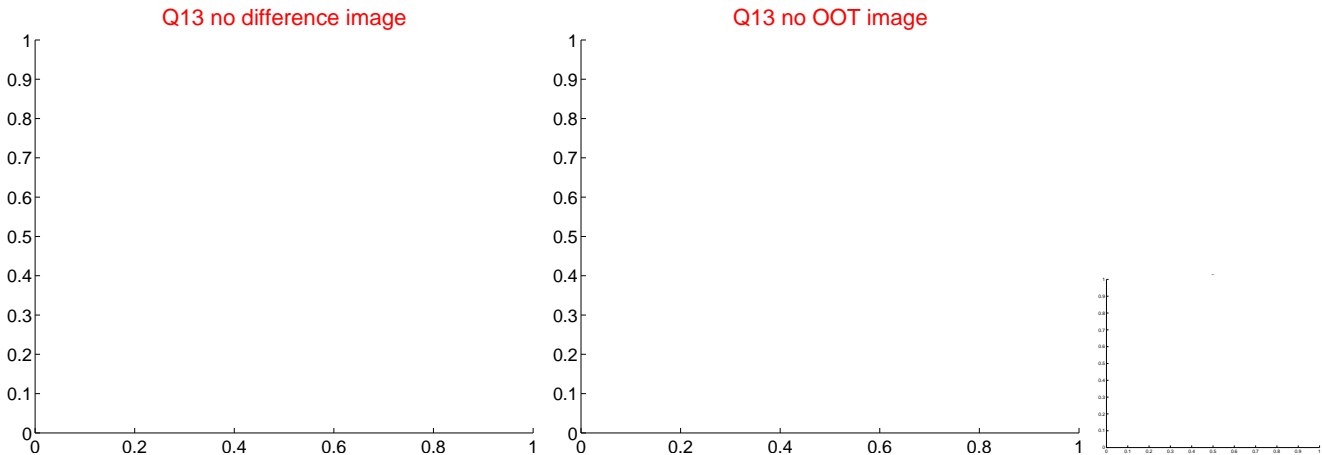
Q12 no difference image



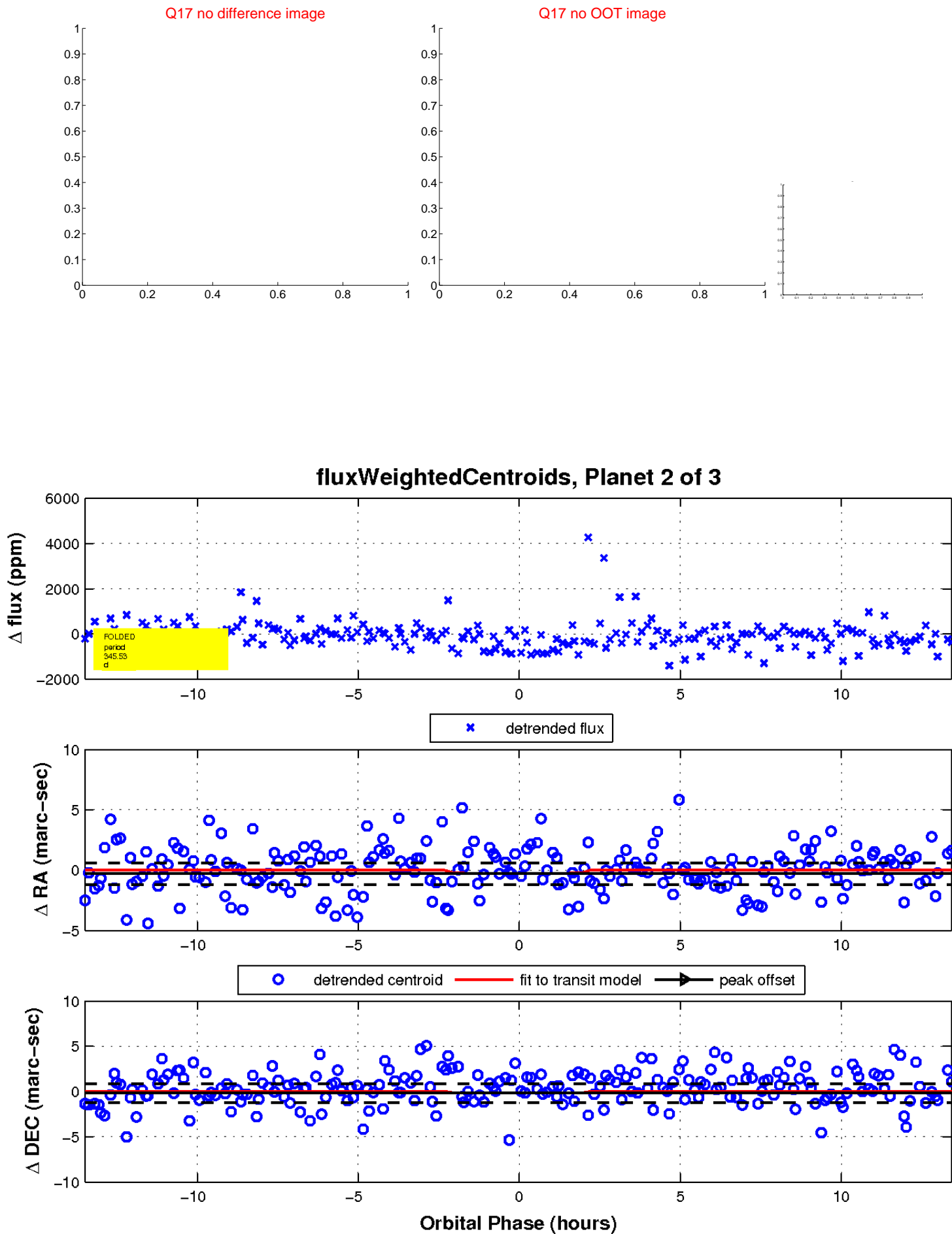
Q12 no OOT image



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

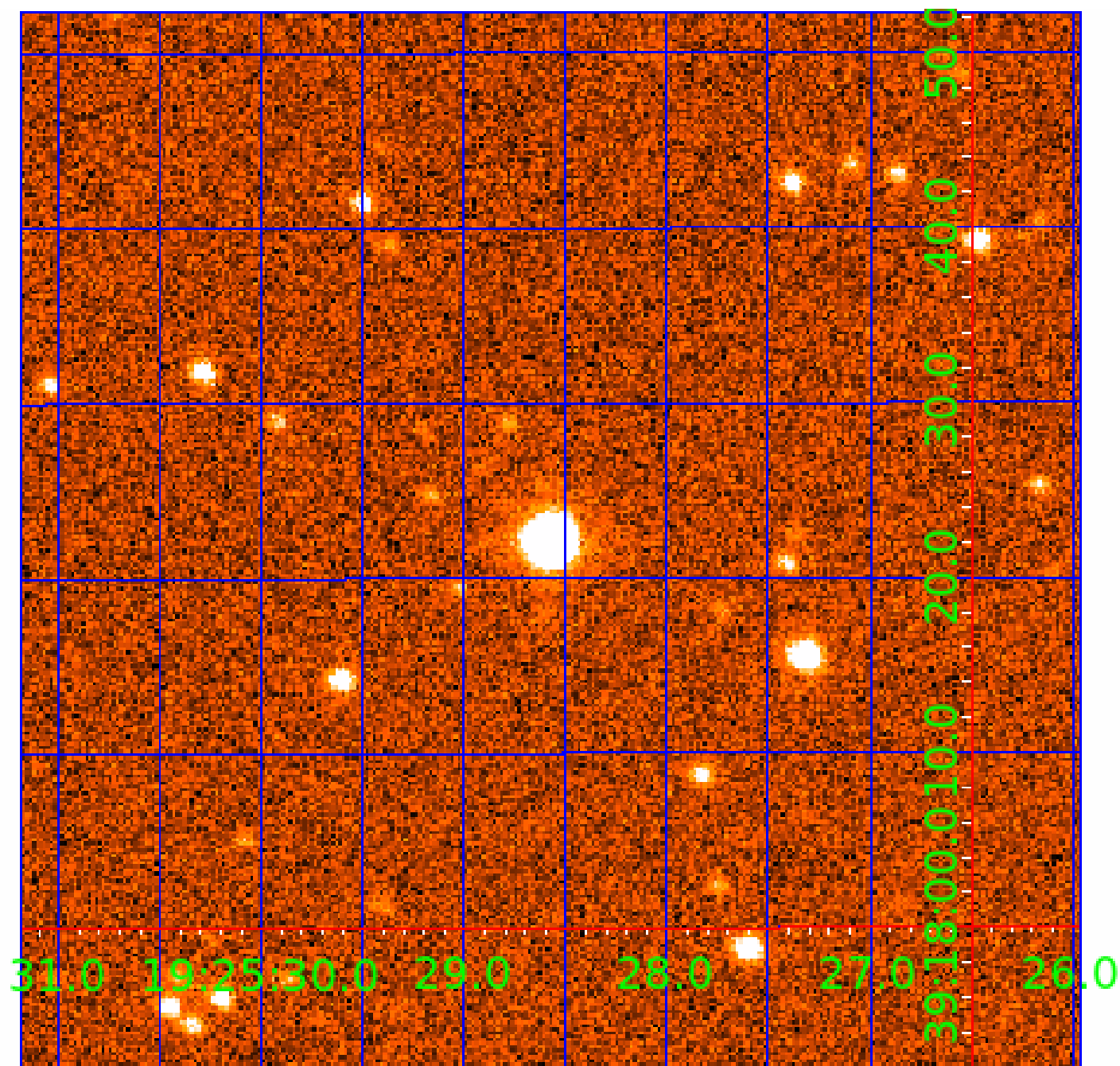


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 004261467

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
004261467-01	OBS	No	363.785024	358.543766	932.2	2.840	9.6	7.6	1.69	5566	5.62	2.83
004261467-02	OBS	No	345.525698	329.073545	667.9	4.496	9.0	6.1	1.69	5566	4.40	3.04
004261467-03	OBS	No	601.377056	224.126205	1083.3	10.862	14.3	6.6	1.69	5566	6.94	1.45

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004261467-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004261467-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004261467-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

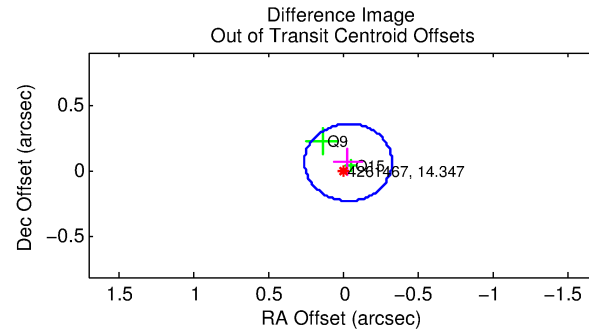
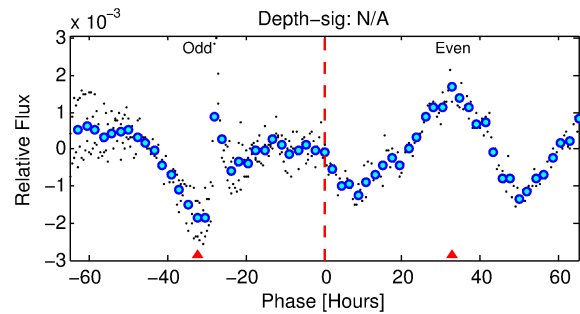
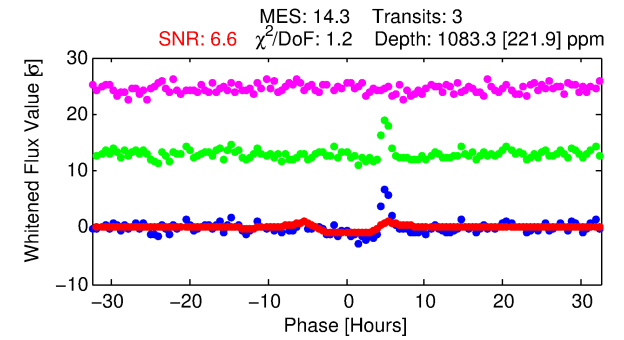
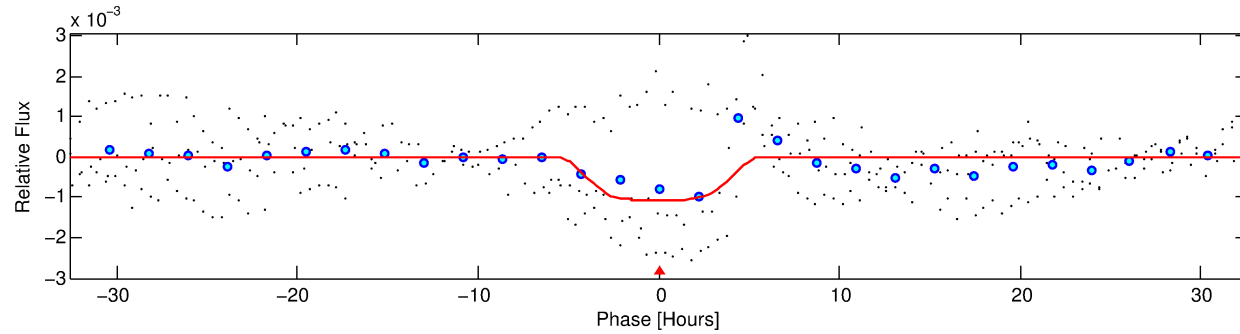
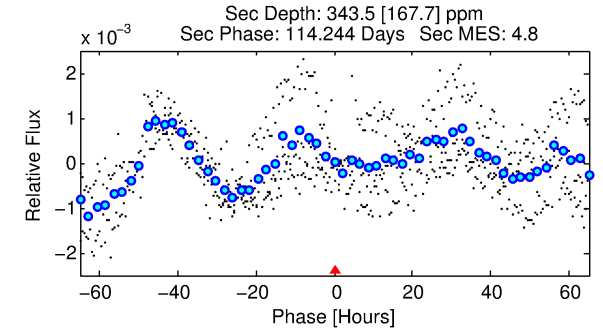
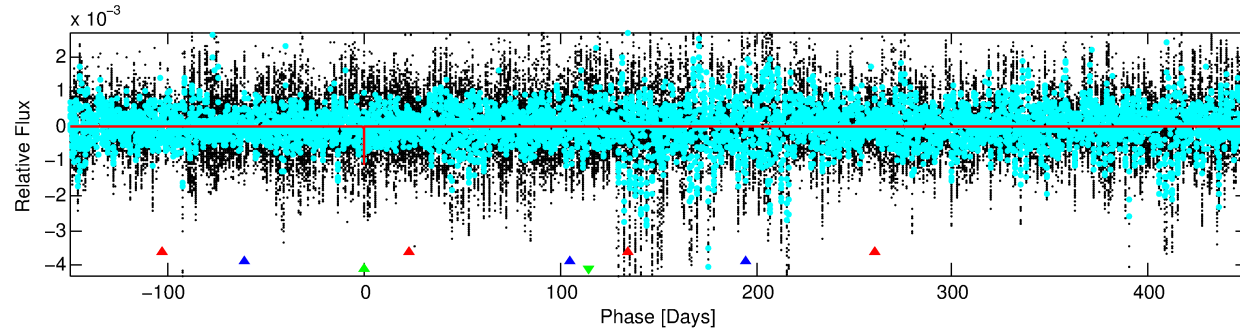
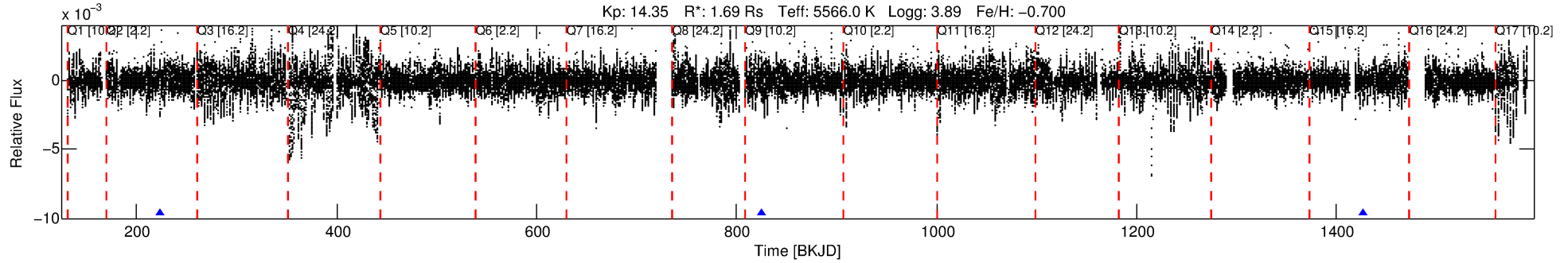
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

Ephemeris Match Information For 004261467-03

No Significant Match Found

# DV One-Page Summary

KIC: 4261467 Candidate: 3 of 3 Period: 601.377 d



## DV Fit Results:

Period = 601.37706 [0.01445] d  
Epoch = 224.1262 [0.0193] BKJD  
Rp/R\* = 0.0377 [0.0044]  
a/R\* = 182.86 [31.29]  
b = 0.94 [0.02]  
Seff = 1.45 [1.38]  
Teq = 280 [67] K  
Rp = 6.94 [3.66] Re  
a = 1.2978 [0.7278] AU  
Ag = 6612.39 [7236.34] [0.91σ]  
Teffp = 3901 [532] K [6.75σ]

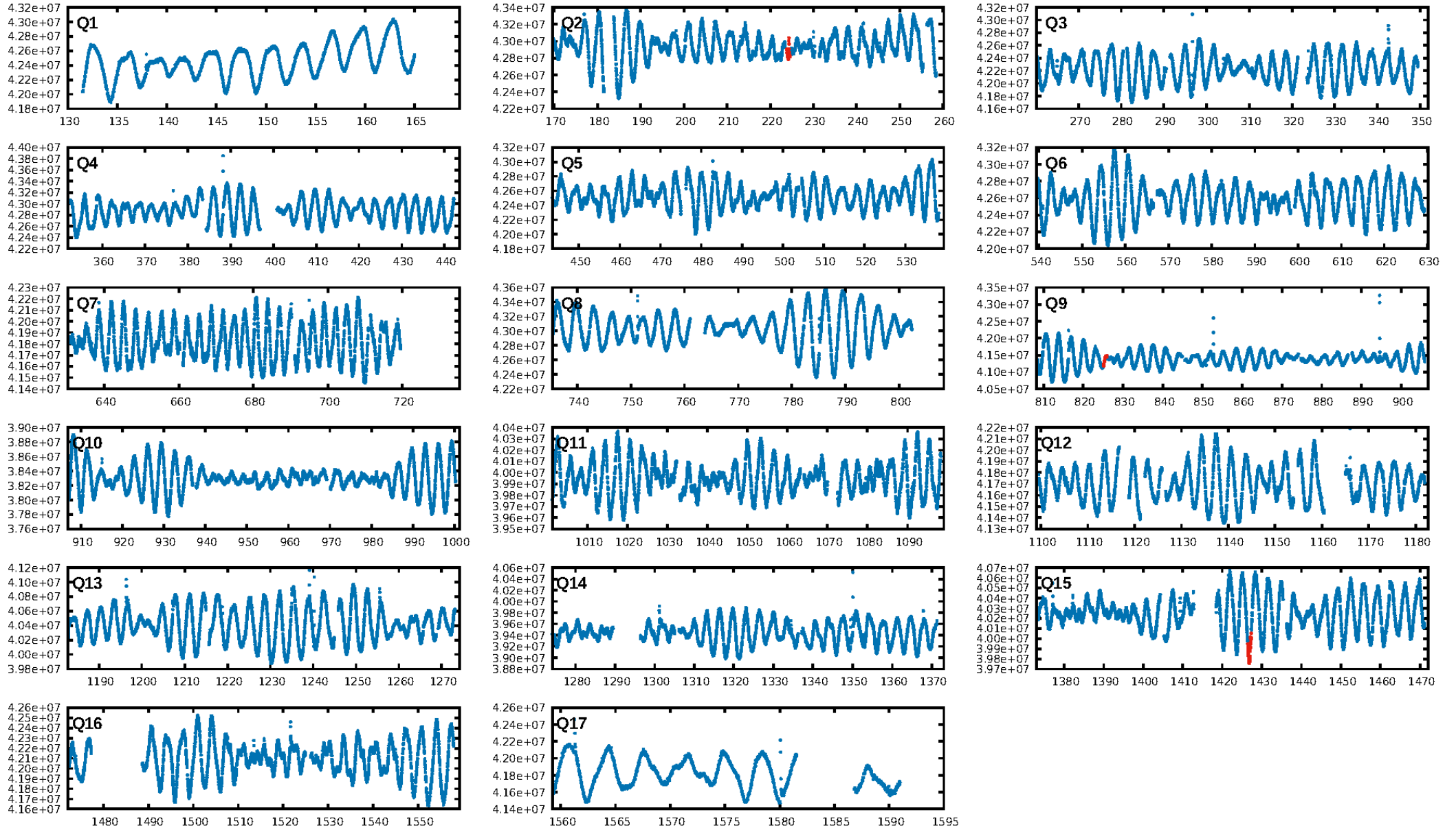
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [507.88σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 0.0%  
ModelChiSquareGof-sig: 36.8%  
Bootstrap-pfa: 7.84e-15  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 3.73  
Centroid-sig: 53.2%  
Centroid-so: 0.512 arcsec [0.73σ]  
OotOffset-rm: 0.077 arcsec [0.79σ]  
OotOffset-st: 0/1/0/1 [2]  
KicOffset-rm: 0.046 arcsec [0.52σ]  
KicOffset-st: 0/1/0/1 [2]  
DiffImageQuality-fgm: 0.50 [1/2]  
DiffImageOverlap-fno: 1.00 [2/2]

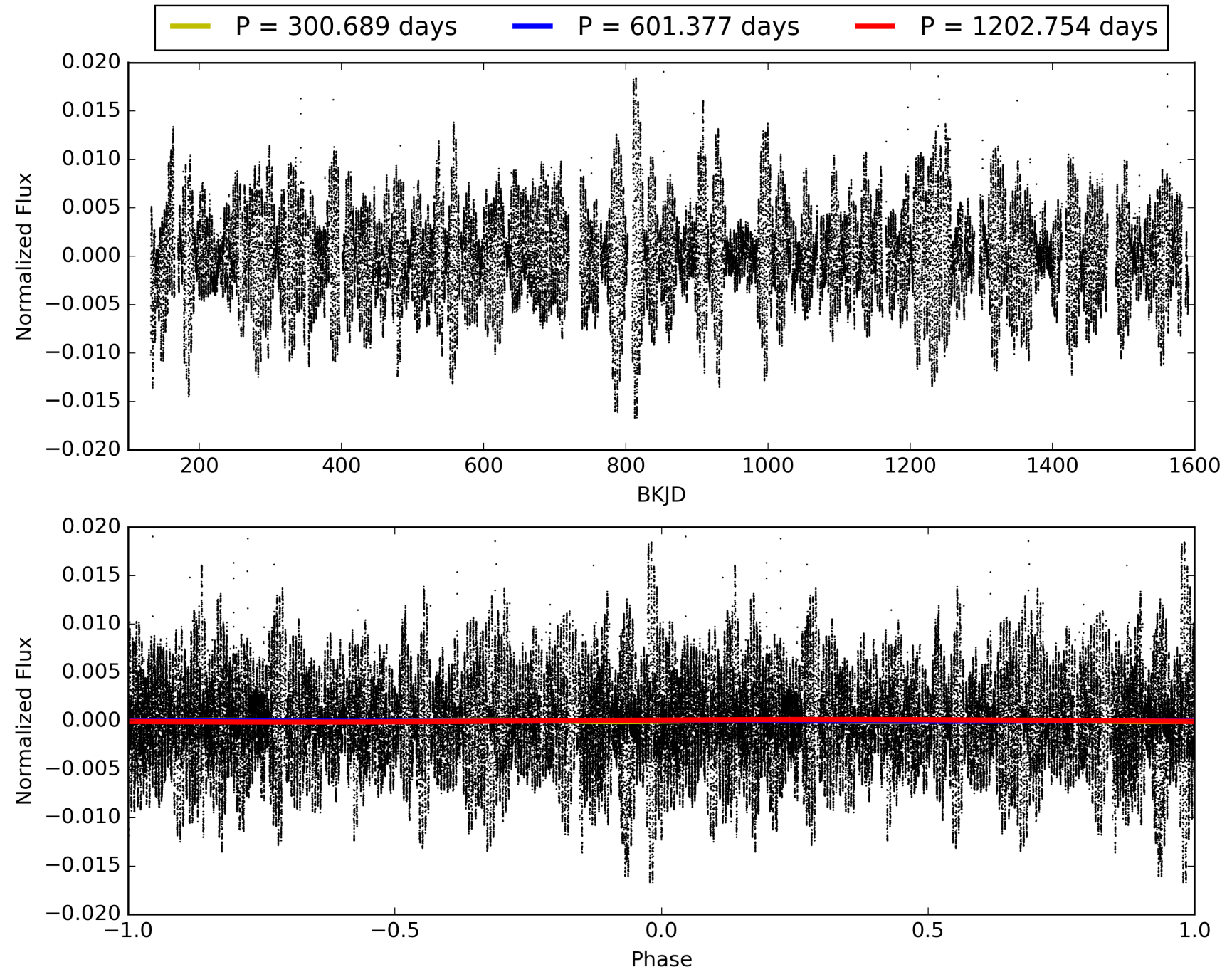
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:44:01 Z

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

# TCE 004261467-03, PDC Light Curves

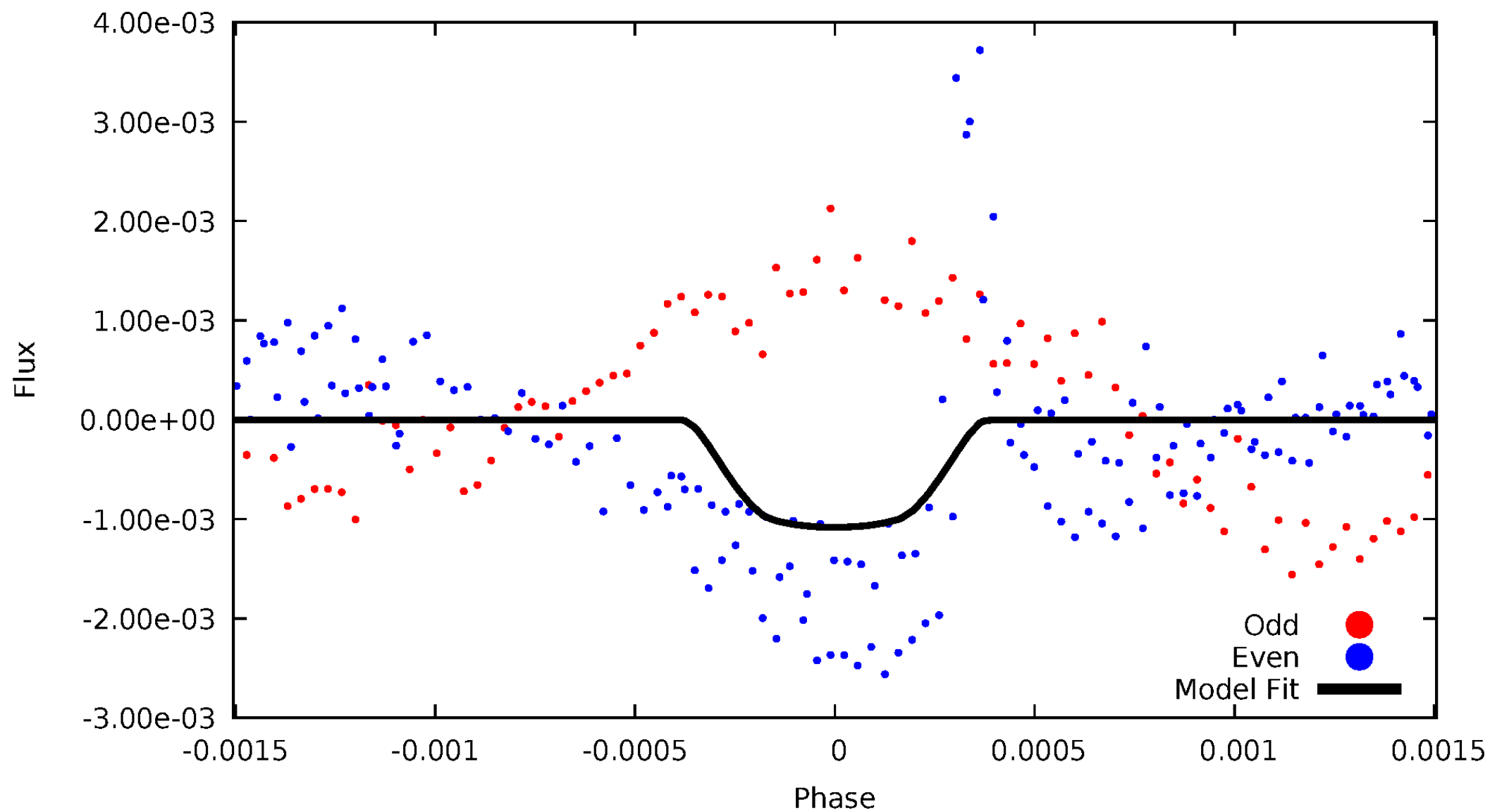


# TCE 004261467-03



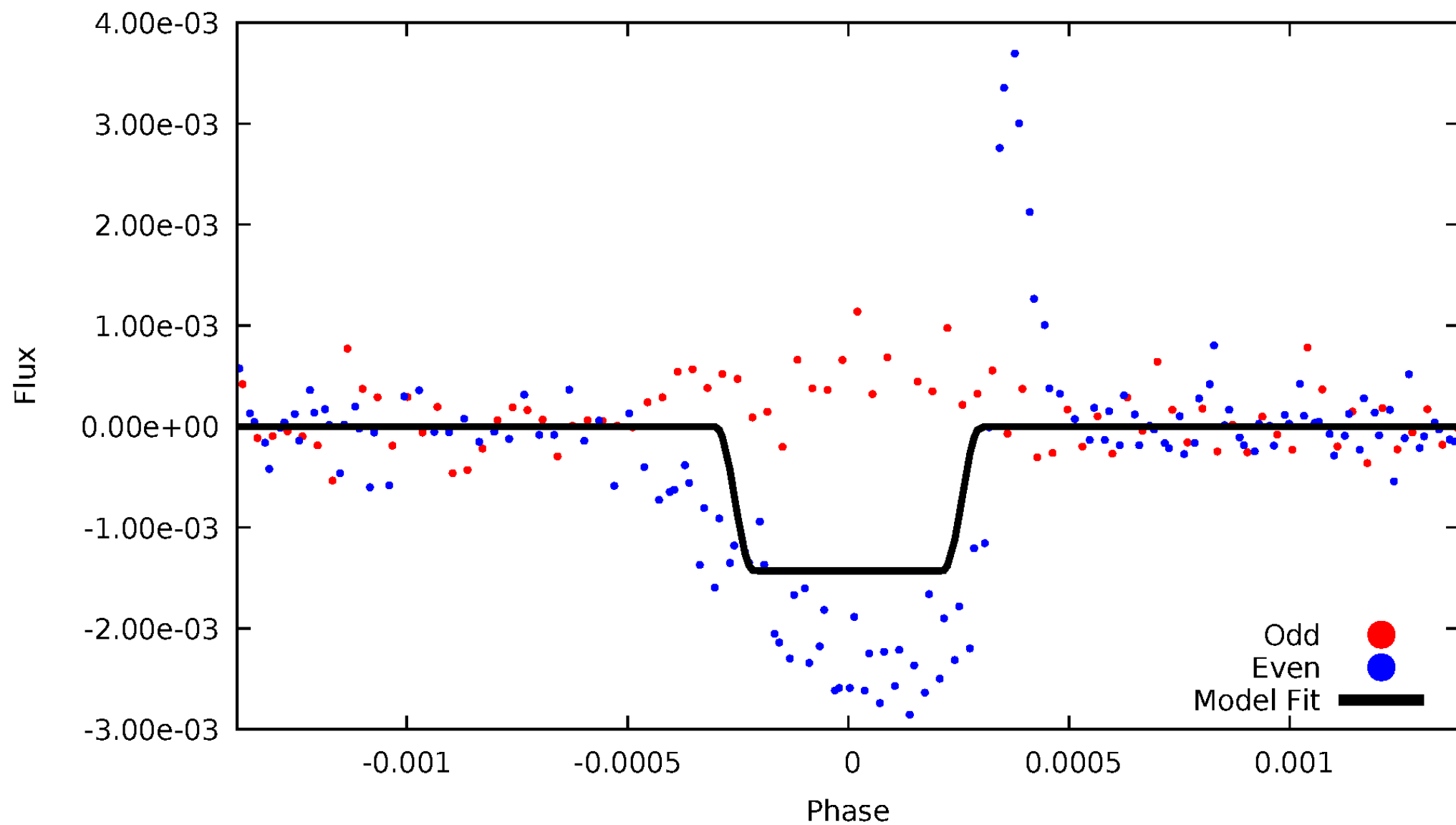
# DV Odd/Even

TCE 004261467-03

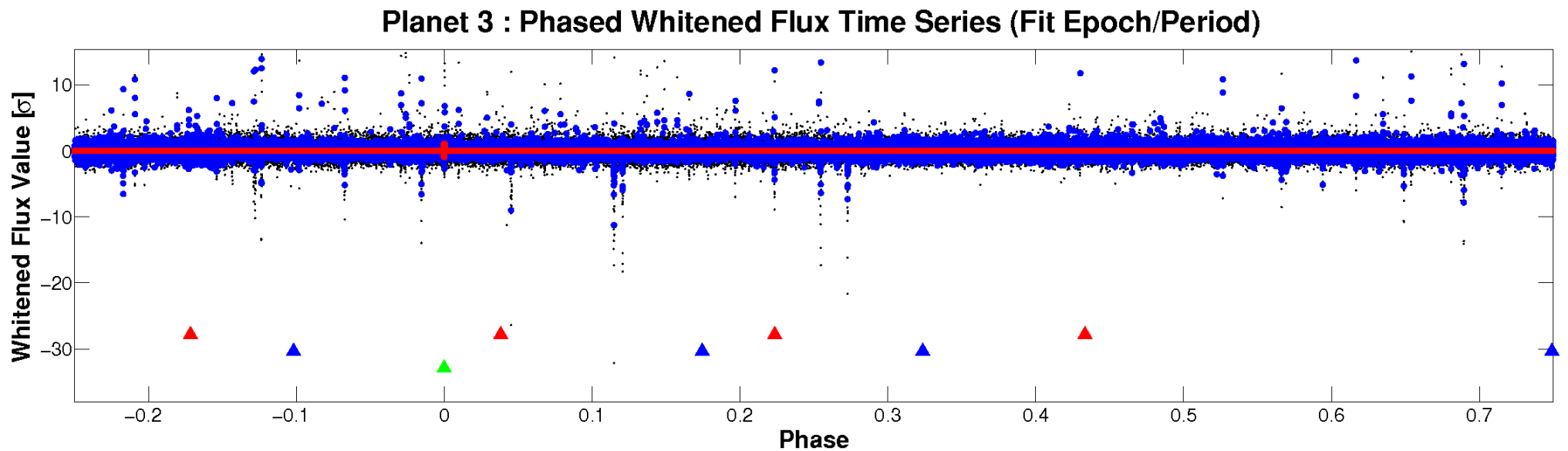
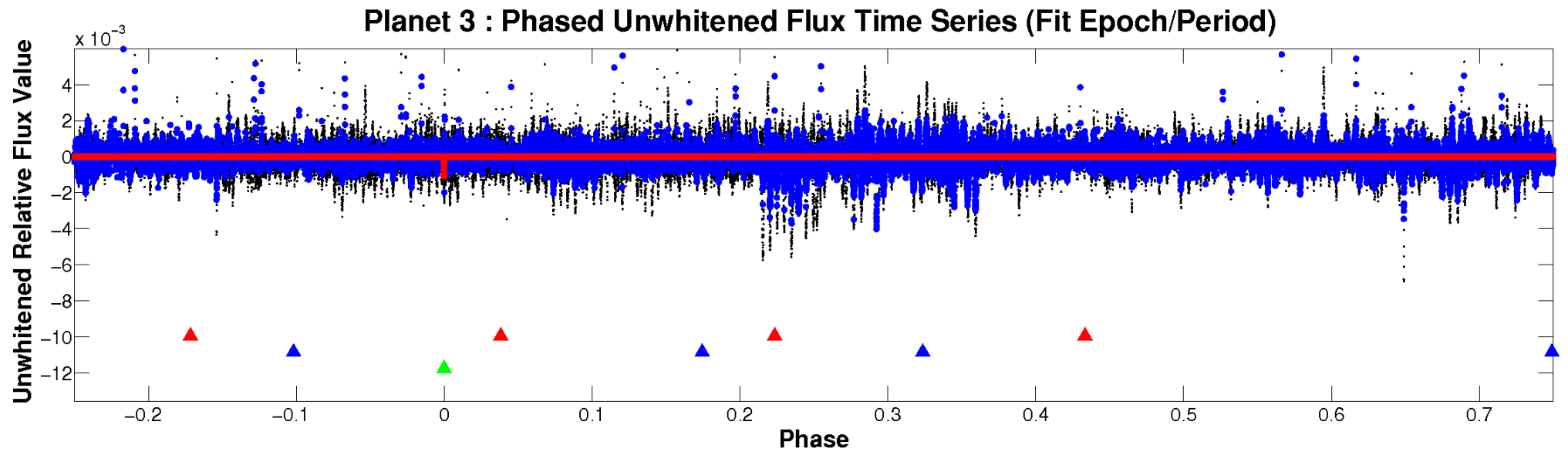


# ALT Odd/Even

TCE 004261467-03

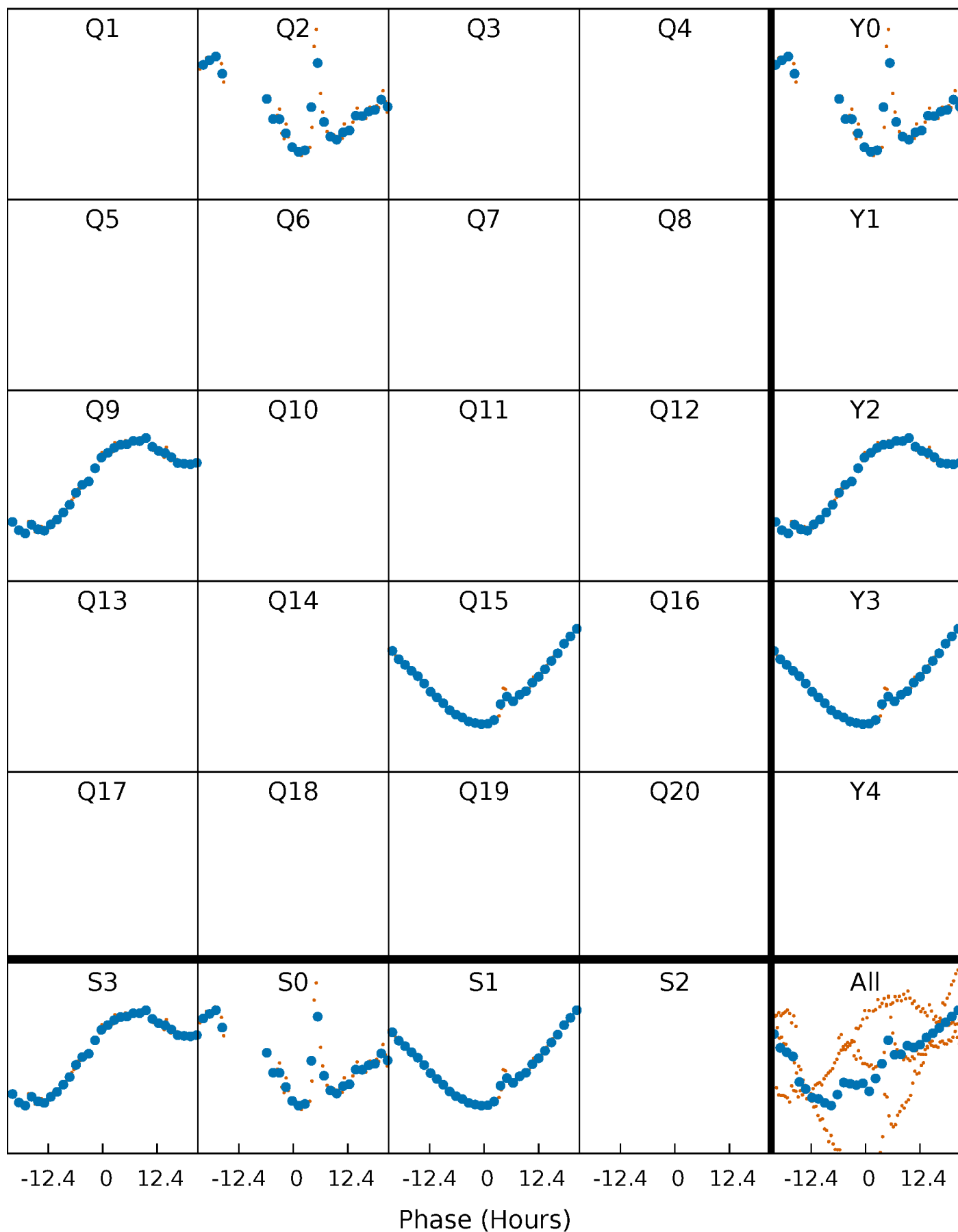


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

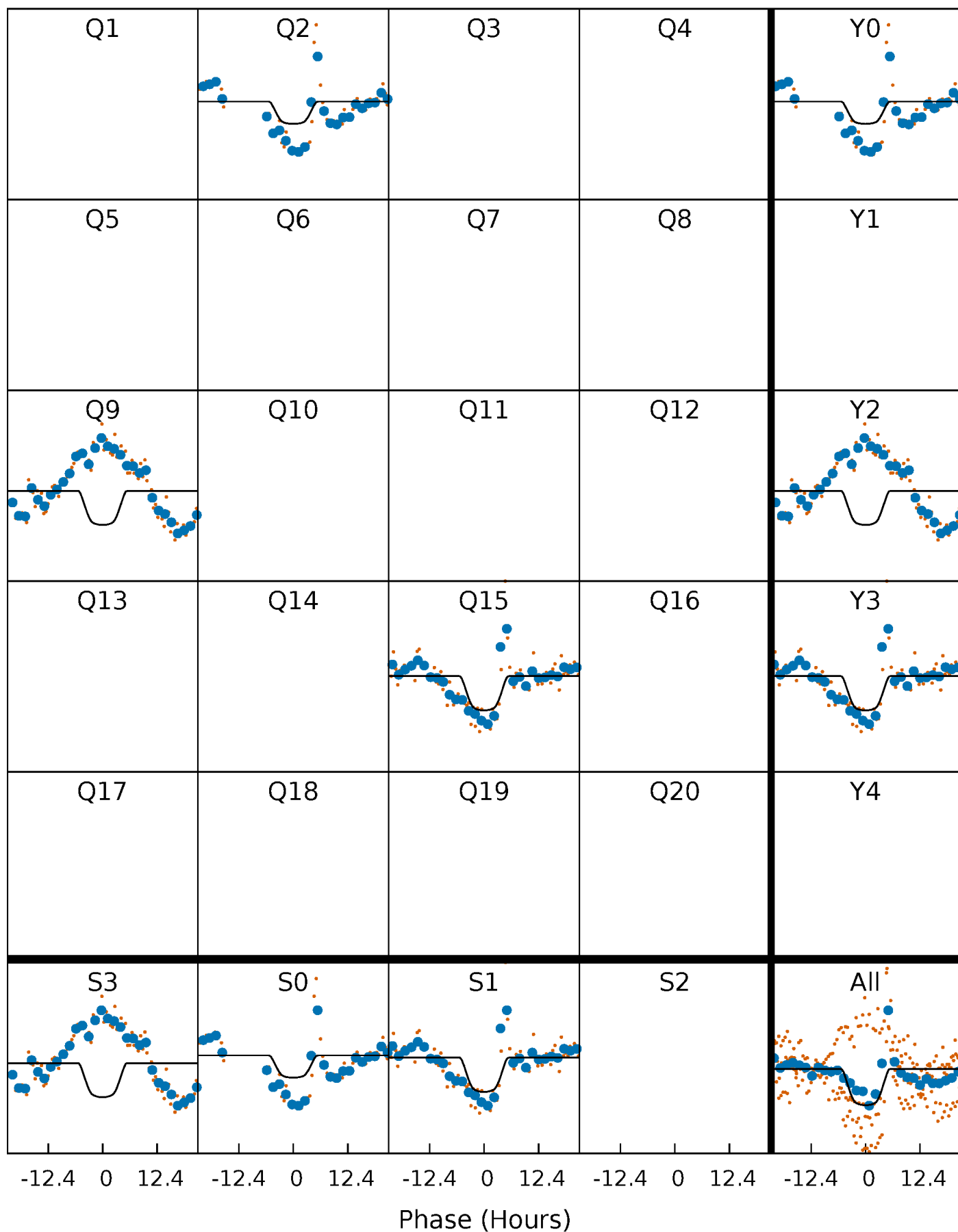
TCE 004261467-03     $P=601.377056$  Days     $T_0=224.126205$  (BKJD)





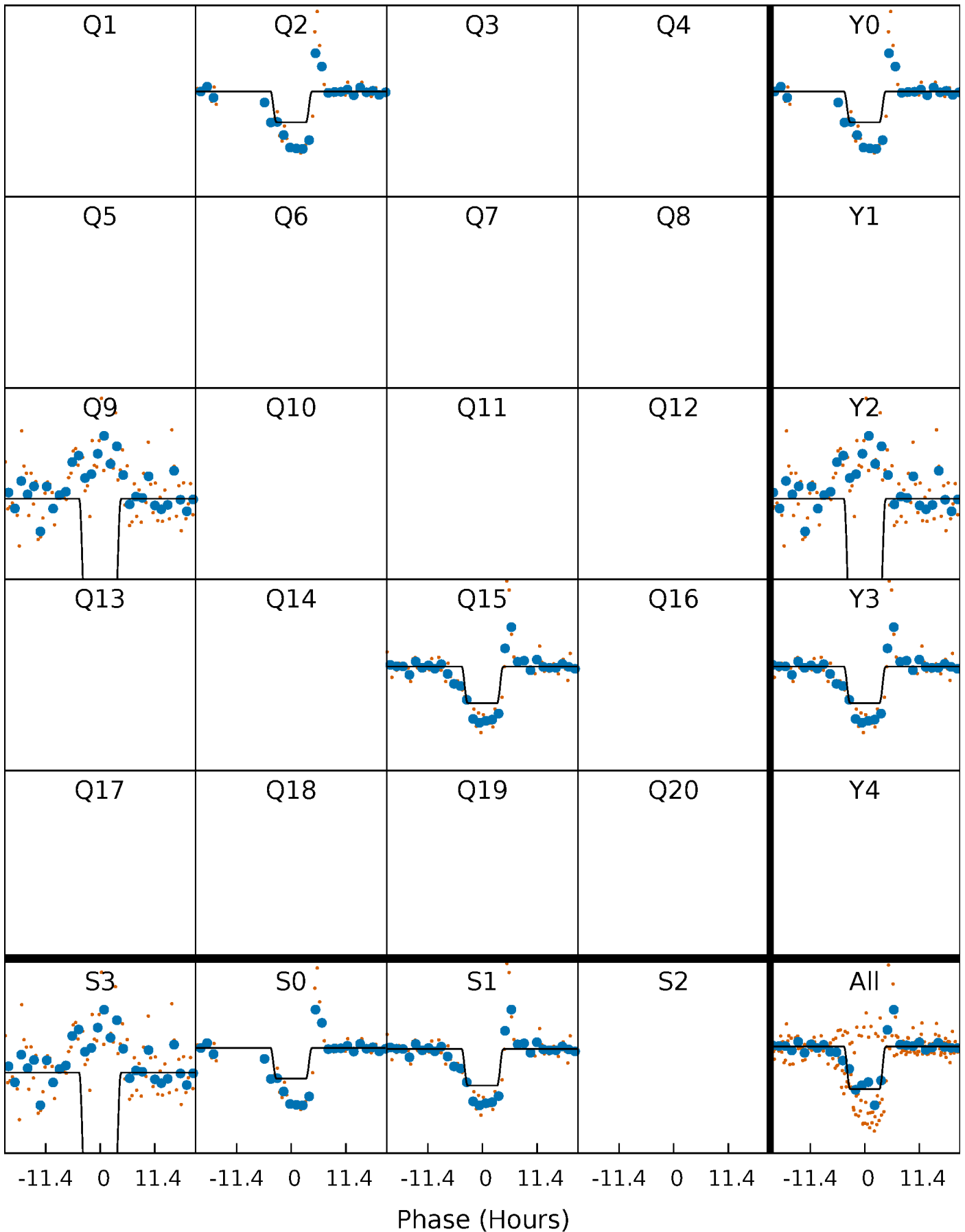
# DV Quarter-Phased Transit Curves

TCE 004261467-03     $P=601.377056$  Days     $T_0=224.126205$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

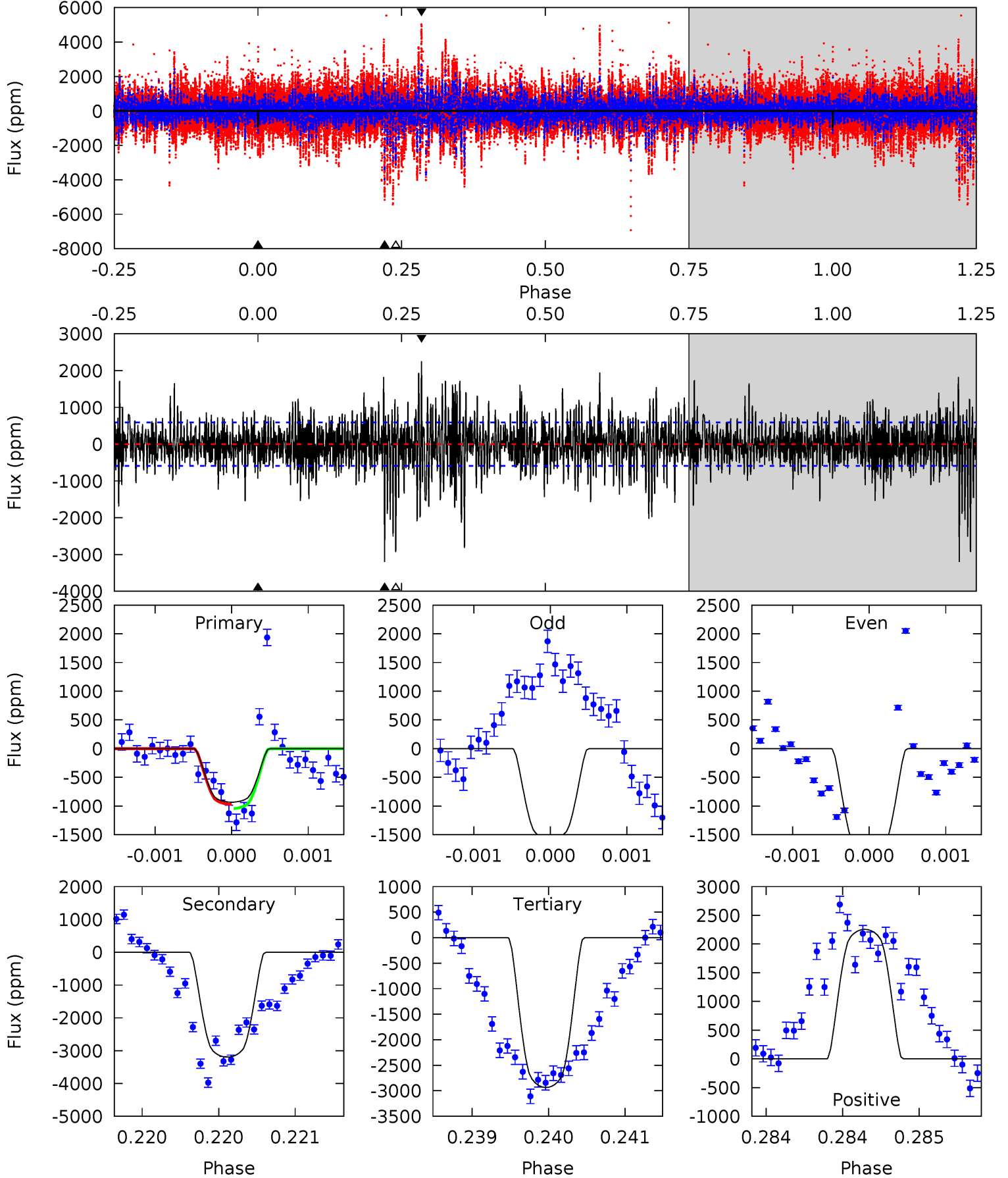
TCE 004261467-03 P=601.366482 Days  $T_0=224.117684$  (BKJD)



# DV Model-Shift Uniqueness Test

004261467-03, P = 601.377056 Days, E = 224.126205 Days

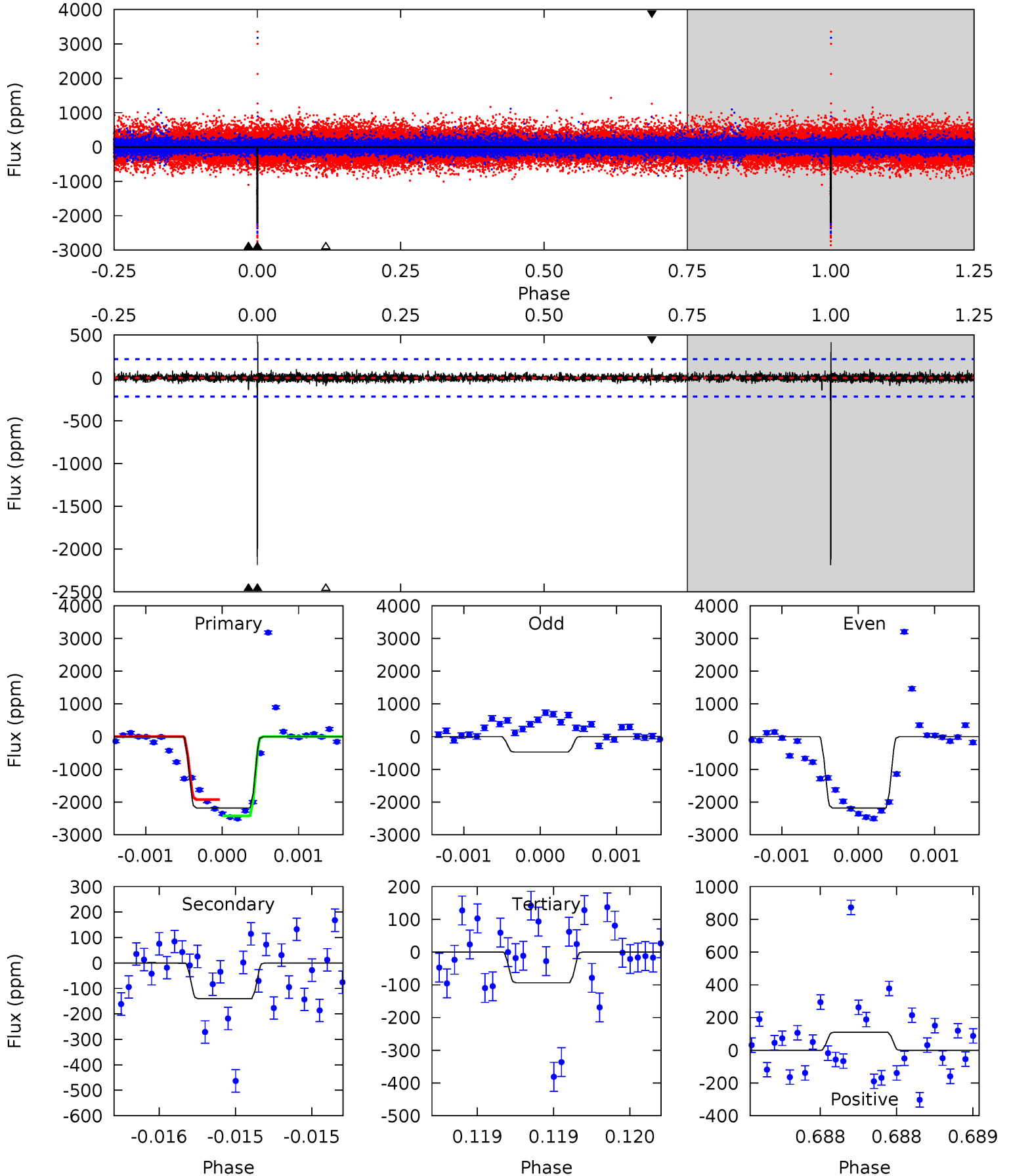
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.69	29.8	27.3	21.0	5.50	3.36	5.06	-18.6	-12.3	2.43	8.77	1.01	0.52	0.41	0.34



# Alt Model-Shift Uniqueness Test

004261467-03, P = 601.366482 Days, E = 224.117684 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
55.4	3.57	2.38	2.80	5.54	3.43	0.51	53.0	52.6	1.19	0.77	23.9	0.64	0.16	0



### Stellar Parameters For KIC 004261467

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5566^{+100}_{-66}$	$3.891^{+0.578}_{-0.102}$	$-0.700^{+0.150}_{-0.100}$	$1.685^{+0.289}_{-0.867}$	$0.806^{+0.073}_{-0.082}$	$0.237^{+1.629}_{-0.071}$
	+2%/-1%	+15%/-3%	+21%/-14%	+17%/-51%	+9%/-10%	+686%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 004261467-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-3197 \pm 107$	$6.52^{+1.22}_{-1.83}$	$386^{+21}_{-59}$	$6856^{+483}_{-404}$	$70410^{+60461}_{-20199}$
Alt.	$-141 \pm 39$	$6.42^{+1.45}_{-1.60}$	$384^{+22}_{-57}$	$3567^{+222}_{-223}$	$3188^{+2695}_{-1334}$

$T_{\text{max}}$  = 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

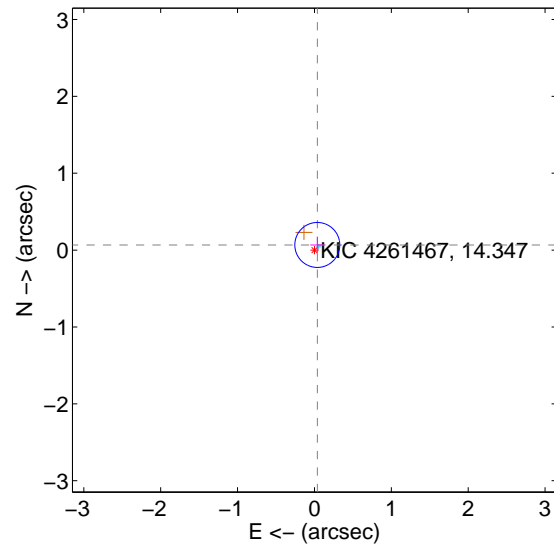
Supplemental centroid analysis for 004261467-03. Kepler magnitude: 14.35. Transit SNR 6.60

There are 1 quarters with good PRF difference image offsets

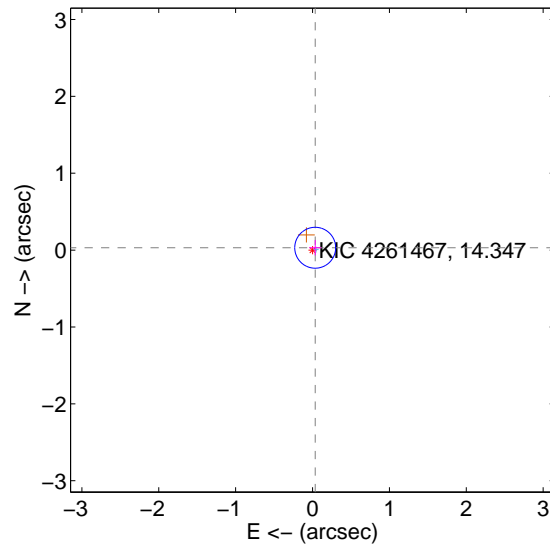
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.077 \pm 0.097$	0.79	$-0.037 \pm 0.092$	$0.067 \pm 0.099$
PRF-fit source offset from KIC position	$0.046 \pm 0.089$	0.52	$-0.035 \pm 0.079$	$0.031 \pm 0.100$
photometric centroid source offset	$0.51 \pm 0.70$	0.73	$0.47 \pm 0.68$	$0.20 \pm 0.81$

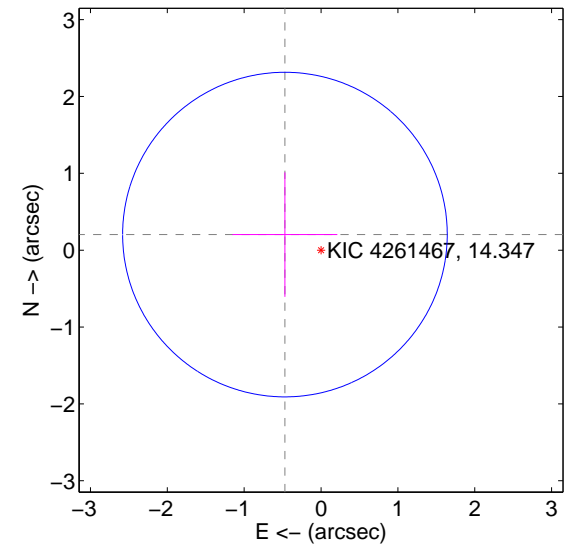
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



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

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

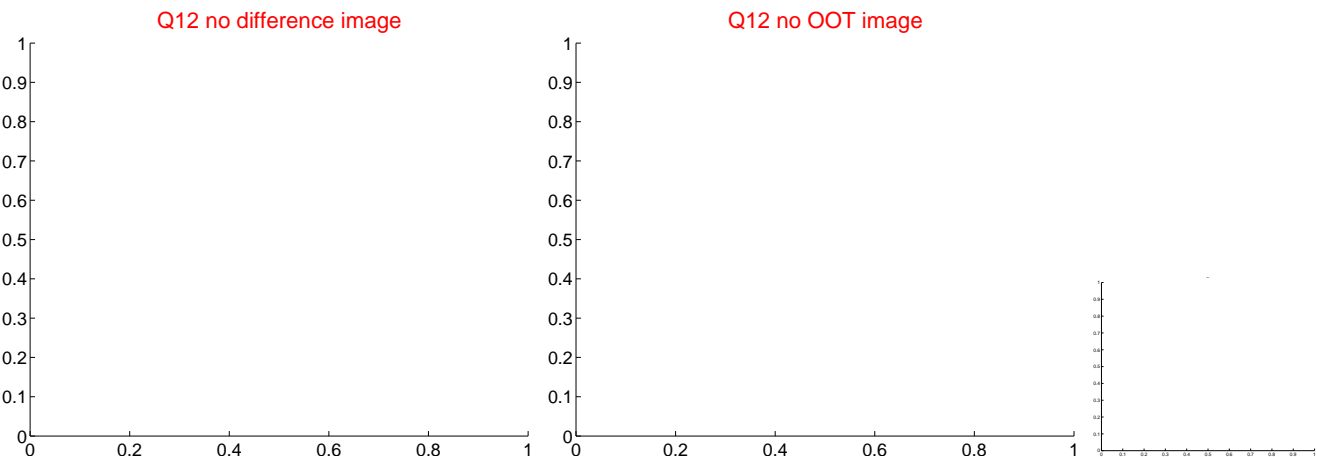
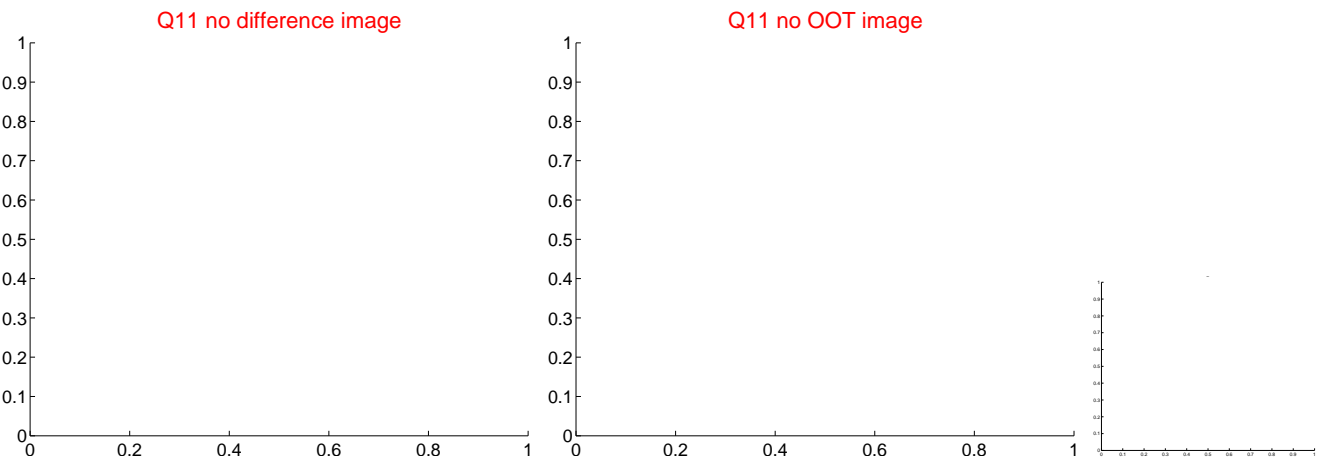
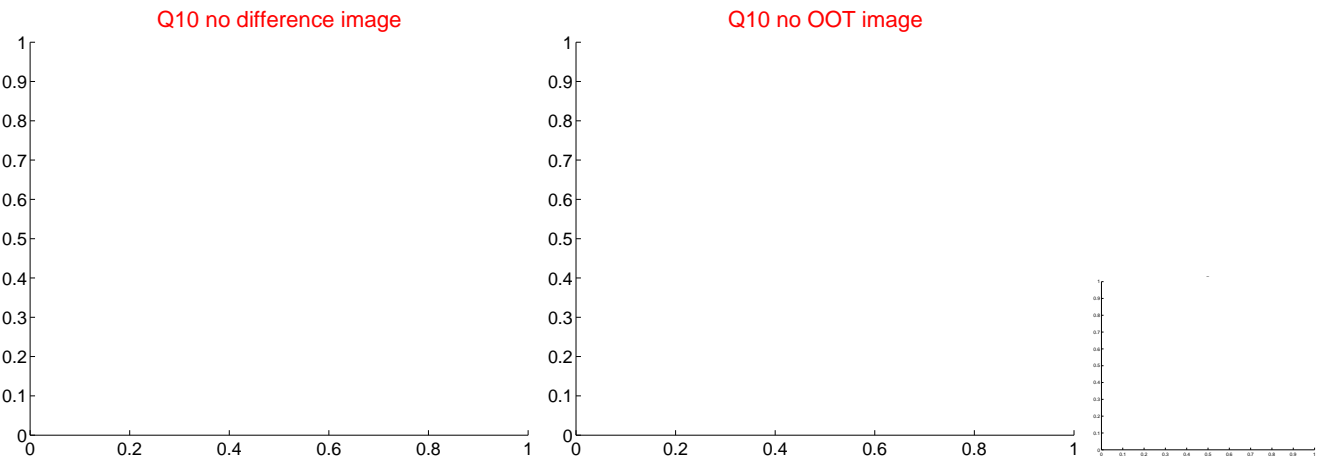
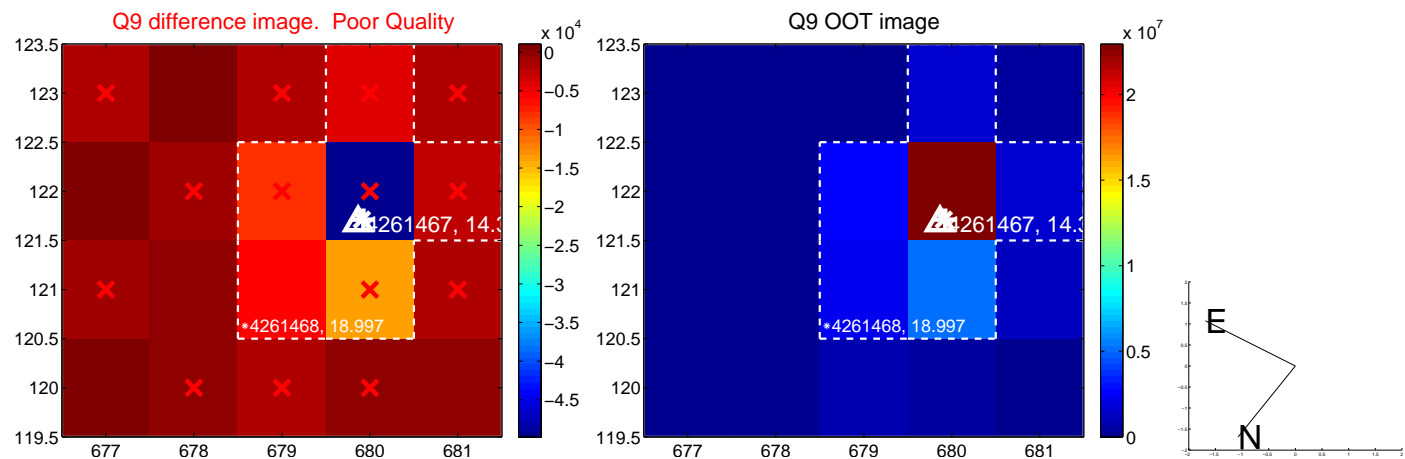


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

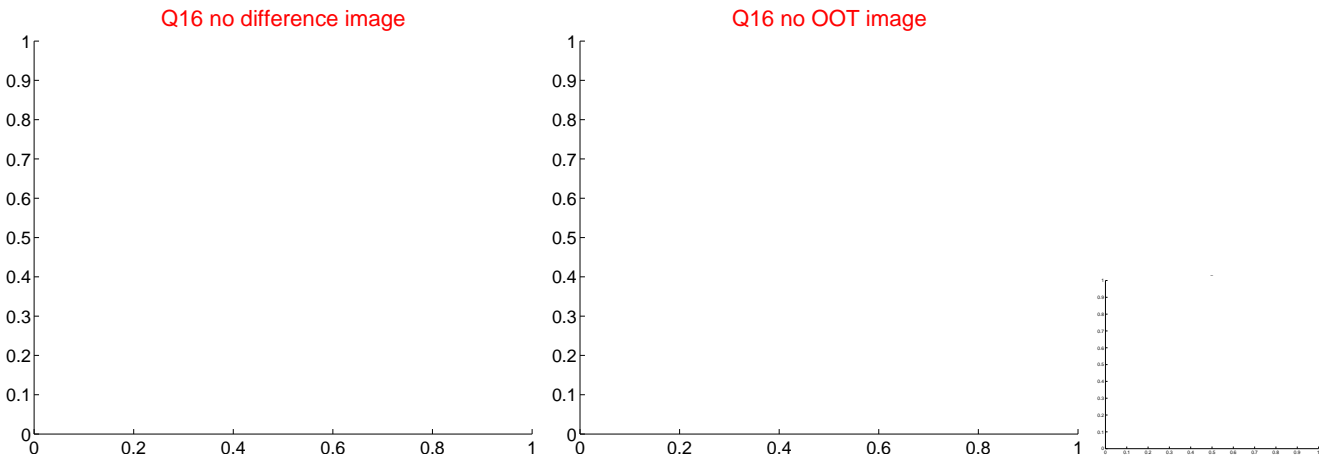
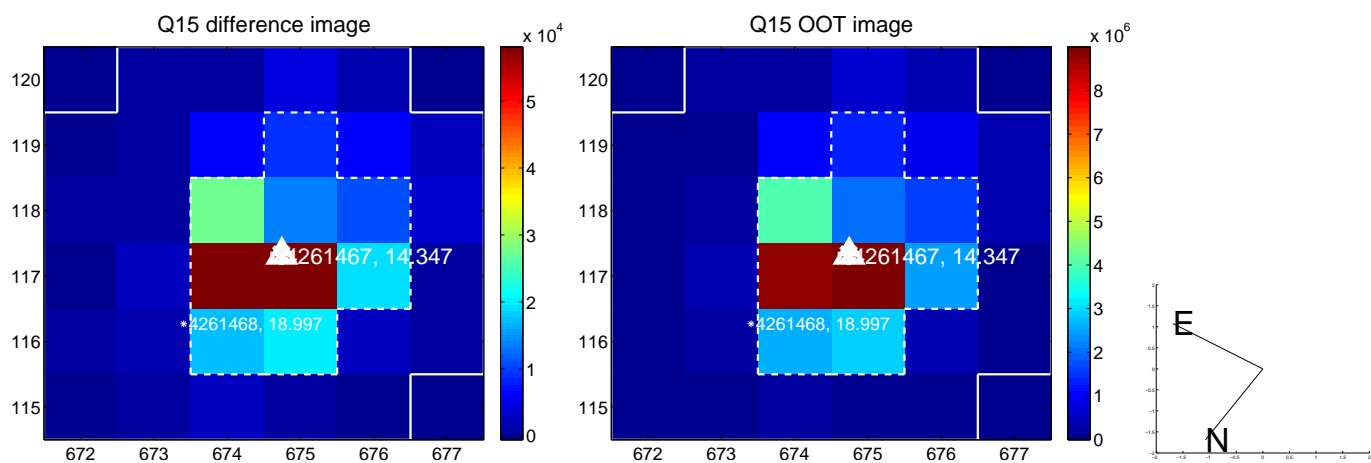
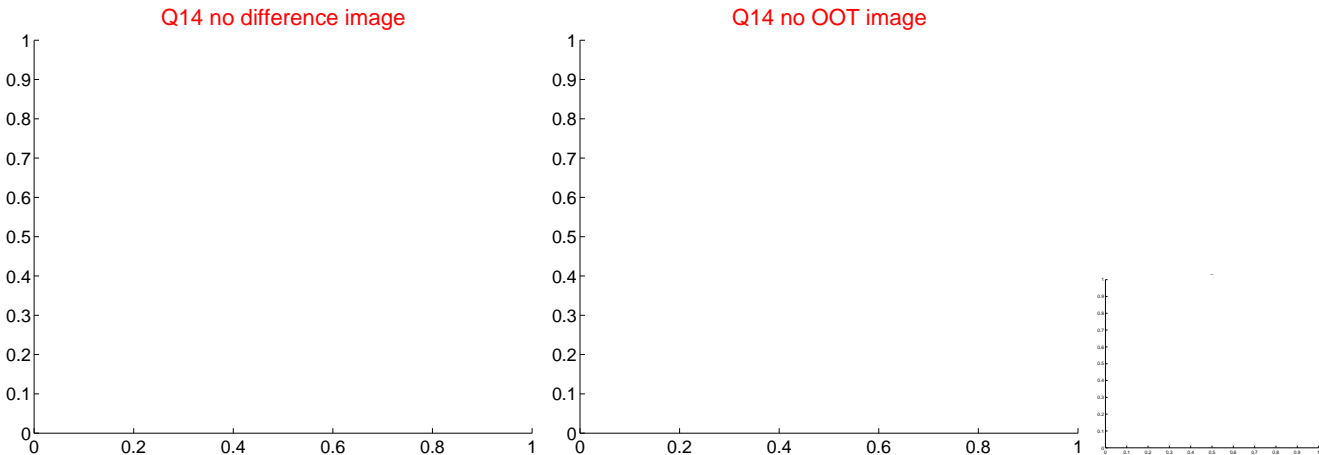
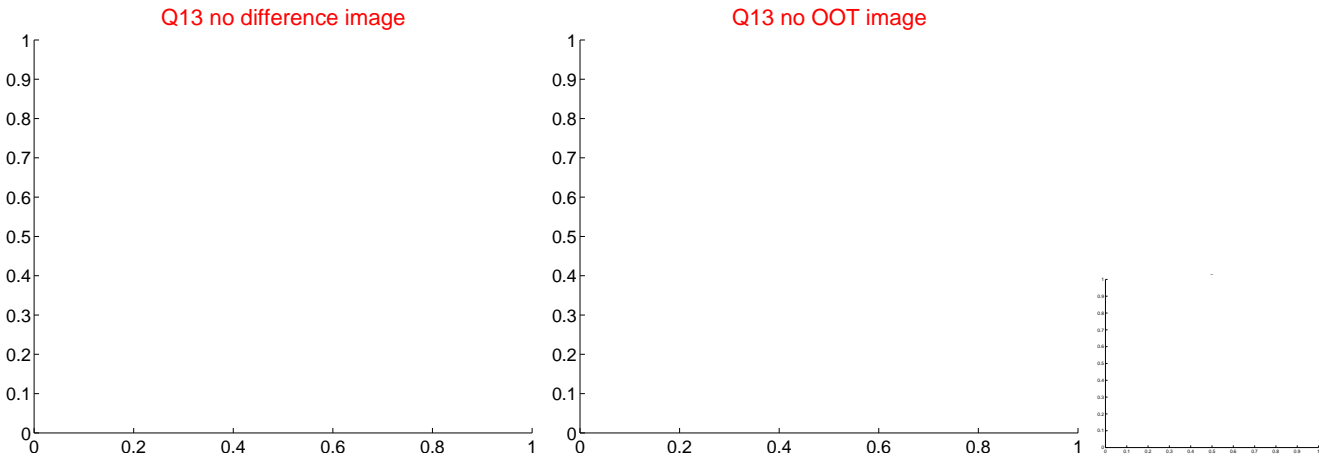




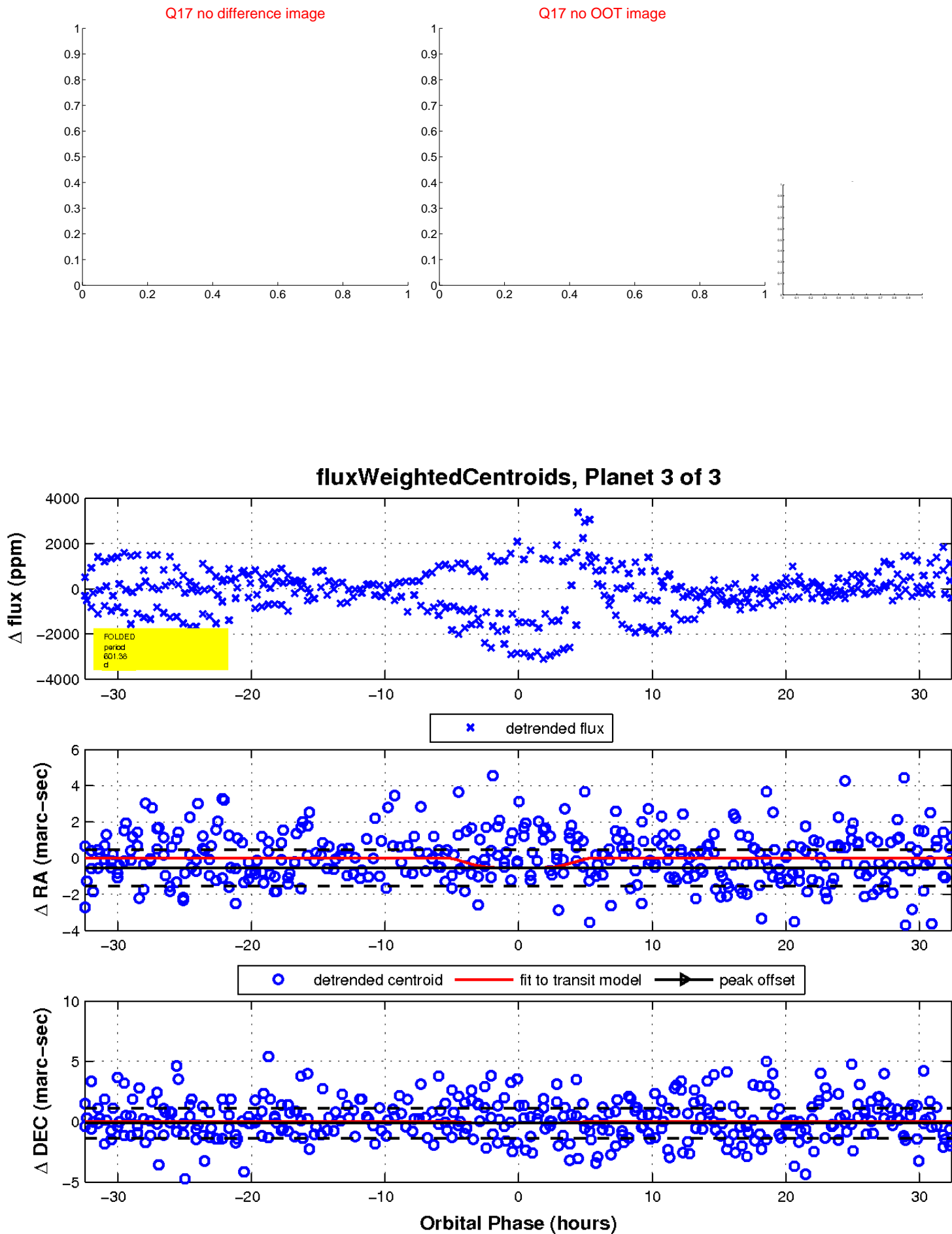
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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



UKIRT Image

Declination

