

# KIC 006852488

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006852488-01	OBS	6775.01	2.172034	131.766231	130610.1	6.300	1806.1	2567.4	1.77	7128	74.37	5244.96
006852488-02	OBS	No	1.086019	131.766838	401.3	4.530	18.0	16.2	1.77	7128	3.77	13216.42
006852488-03	OBS	No	2.172021	132.542244	467.5	2.500	8.3	-1.0	1.77	7128	3.89	5245.00

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006852488-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—HAS_SEC_TCE
006852488-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006852488-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

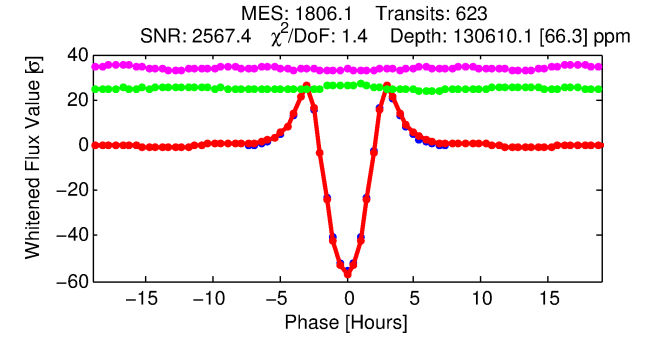
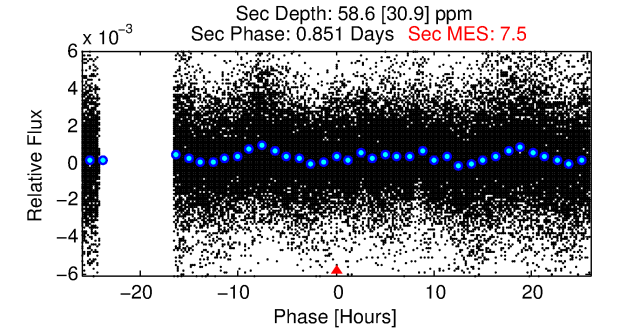
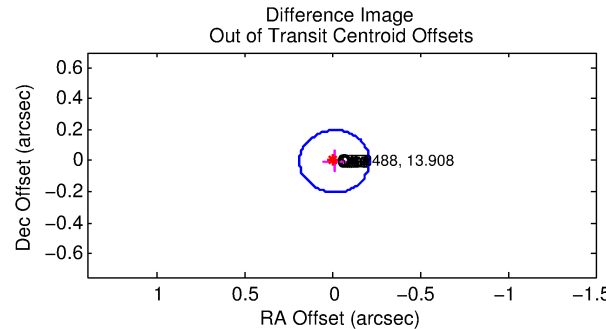
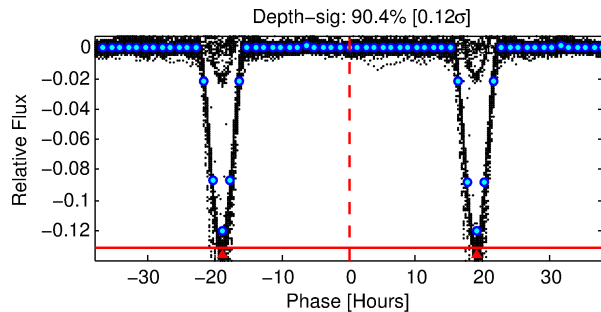
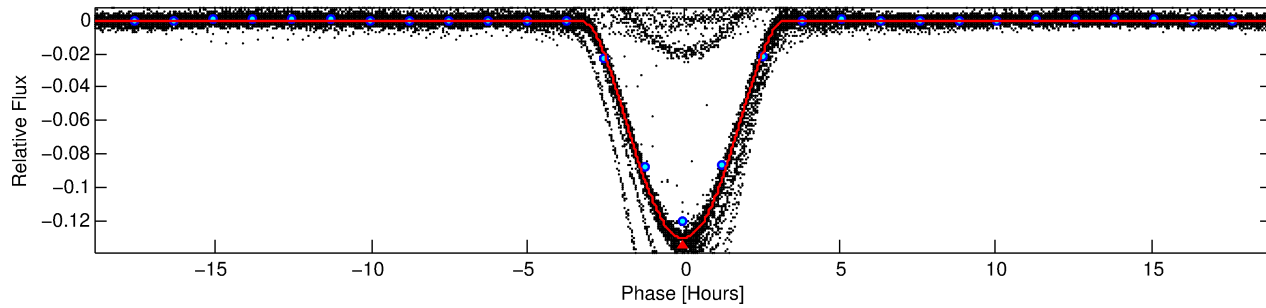
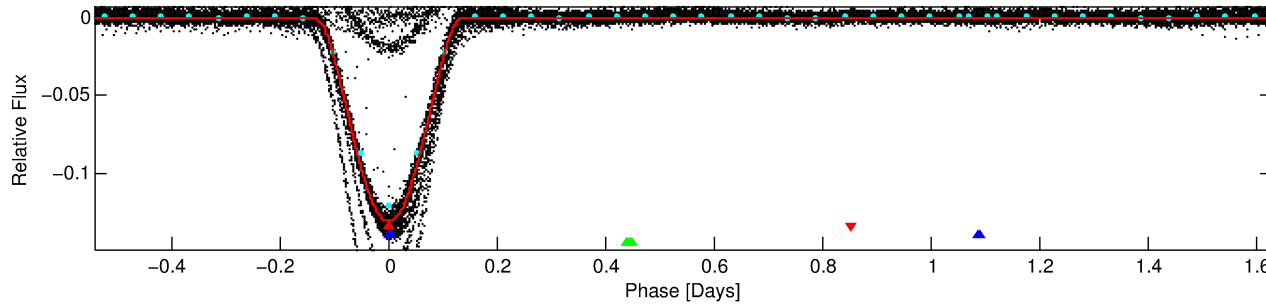
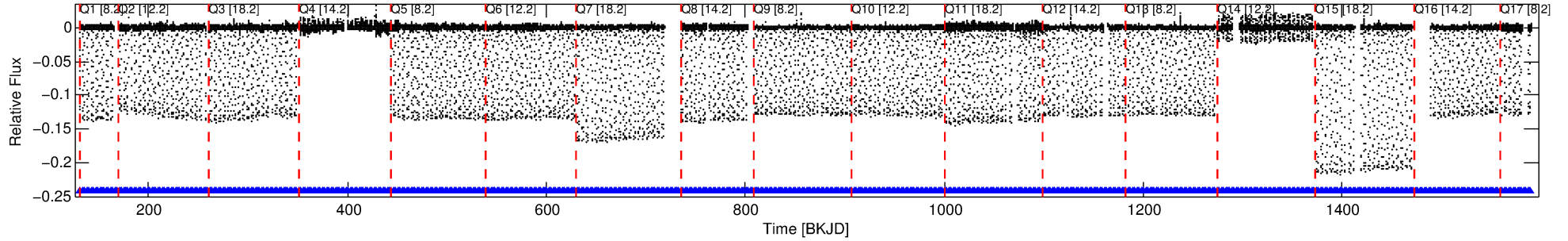
Ephemeris Match Information For 006852488-01

No Significant Match Found

# DV One-Page Summary

KIC: 6852488 Candidate: 1 of 3 Period: 2.172 d  
KOI: K06775.01 Corr: 0.882

Kp: 13.91 R\*: 1.77 Rs Teff: 7128.0 K Logg: 4.11 Fe/H: -0.140



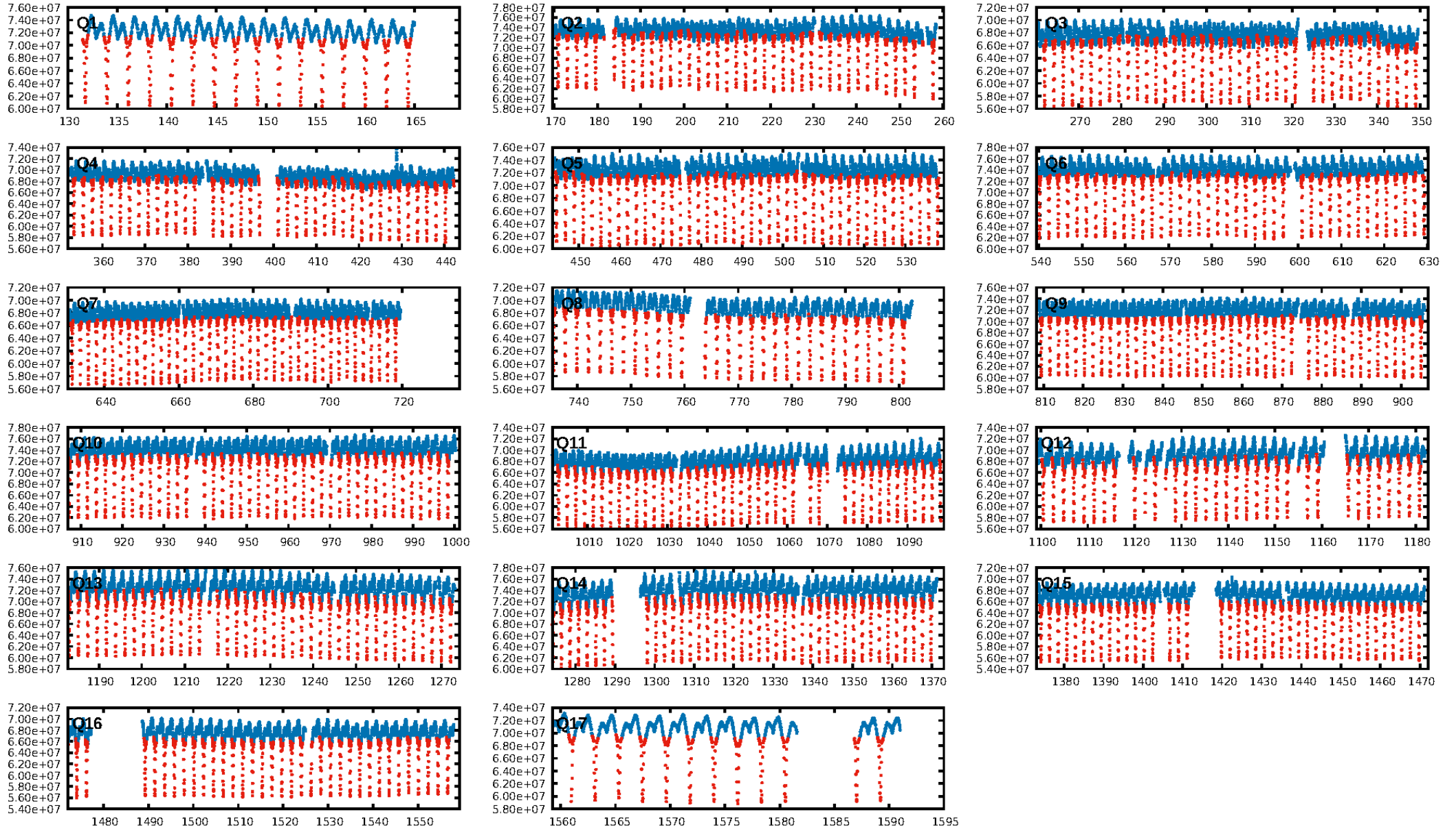
## DV Fit Results:

Period = 2.17203 [0.00000] d  
Epoch = 131.7662 [0.0000] BKJD  
Rp/R\* = 0.3840 [0.0007]  
a/R\* = 3.26 [0.00]  
b = 0.72 [0.00]  
Seff = 5244.96 [1236.87]  
Teff = 2170 [128] K  
Rp = 74.37 [14.08] Re  
a = 0.0373 [0.0059] AU  
Ag = 0.01 [0.00] [-212.85σ]  
Teffp = 1007 [133] K [-6.30σ]

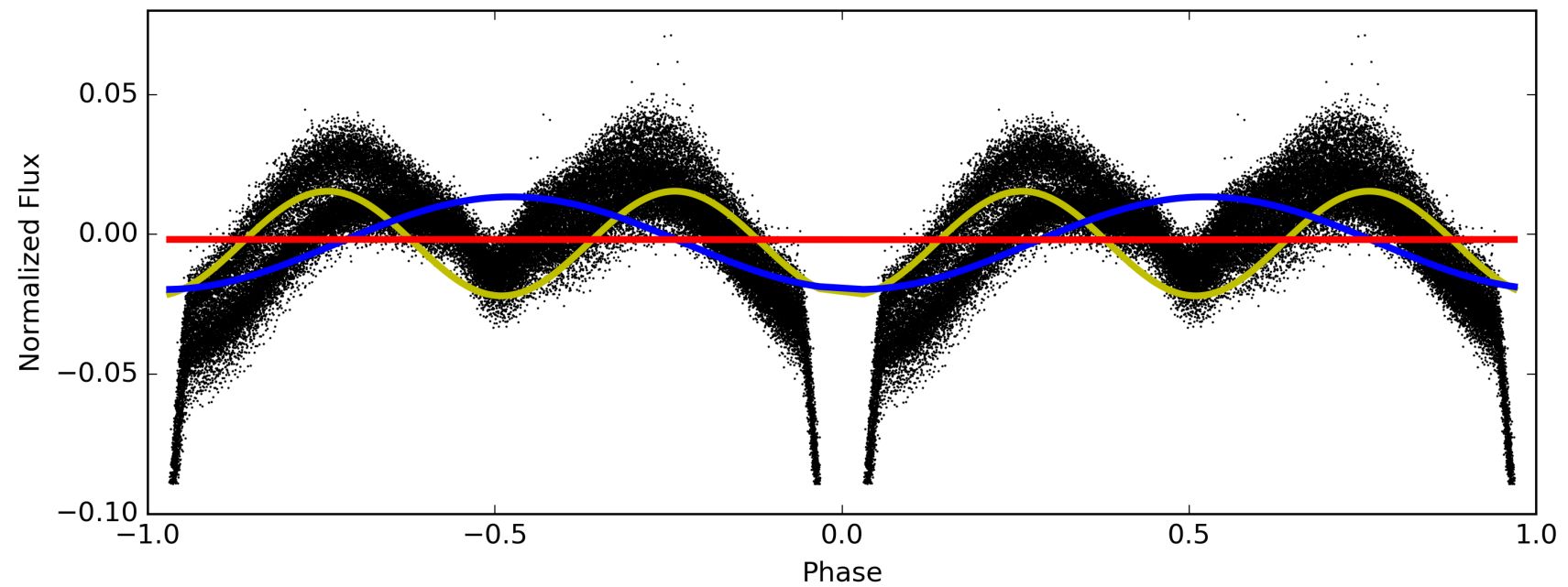
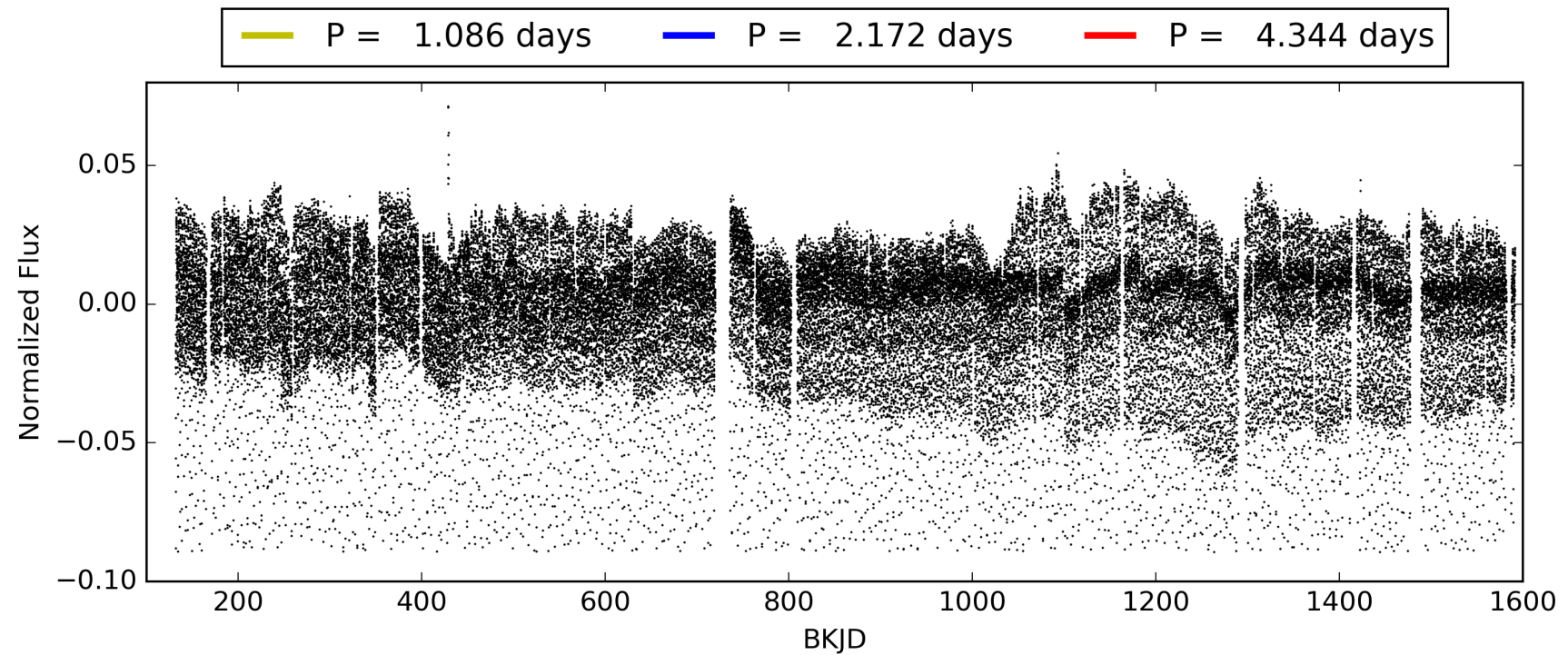
## DV Diagnostic Results:

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 [595/595]  
GhostDiagnostic-chr: 1.58  
Centroid-sig: N/A  
Centroid-so: 0.099 arcsec [145.84σ]  
OotOffset-rm: 0.012 arcsec [0.18σ]  
KicOffset-rm: 0.042 arcsec [0.63σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.00 [0/17]

# TCE 006852488-01, PDC Light Curves

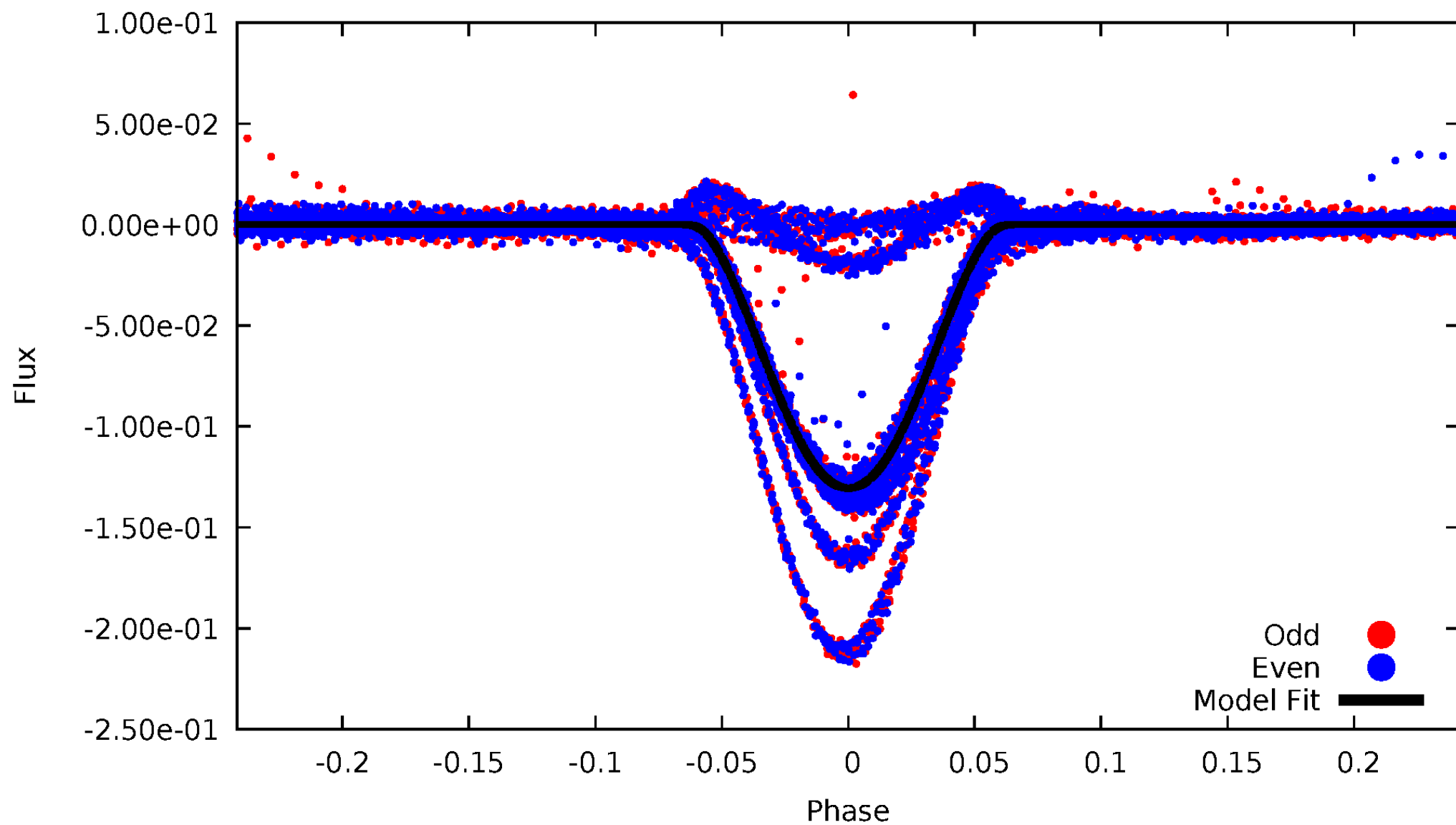


TCE 006852488-01



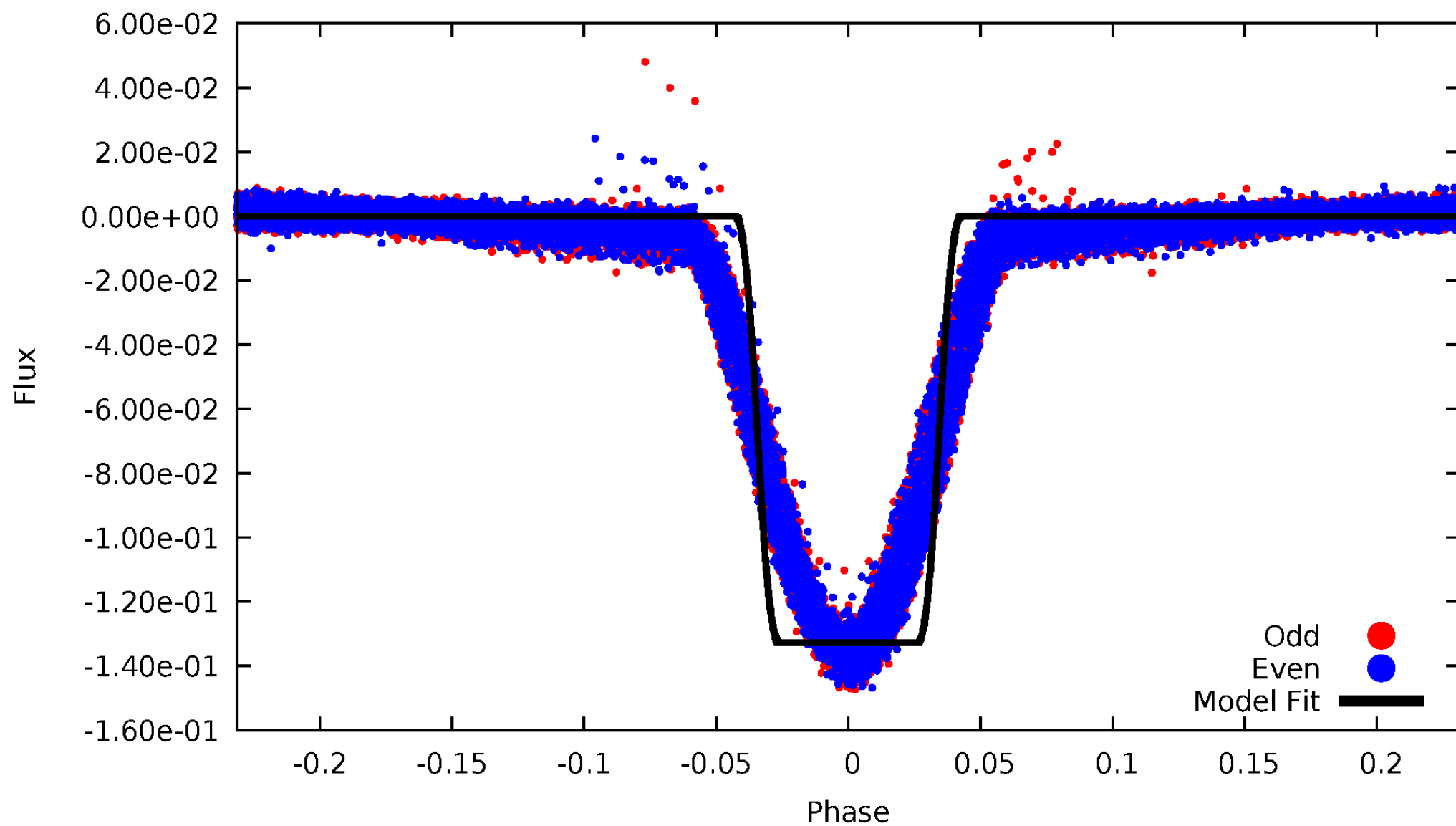
# DV Odd/Even

TCE 006852488-01



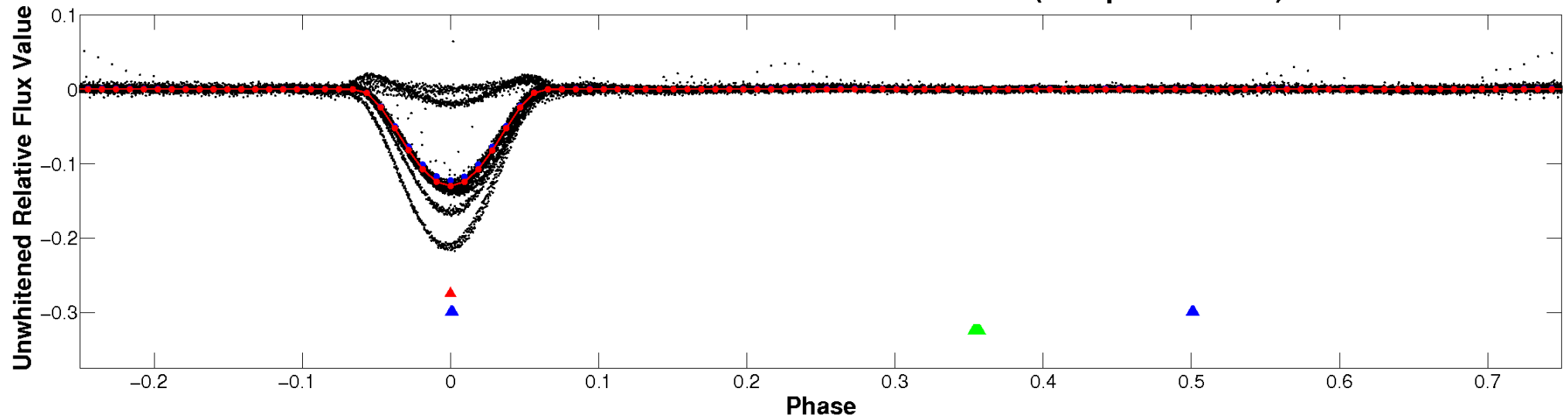
# ALT Odd/Even

TCE 006852488-01

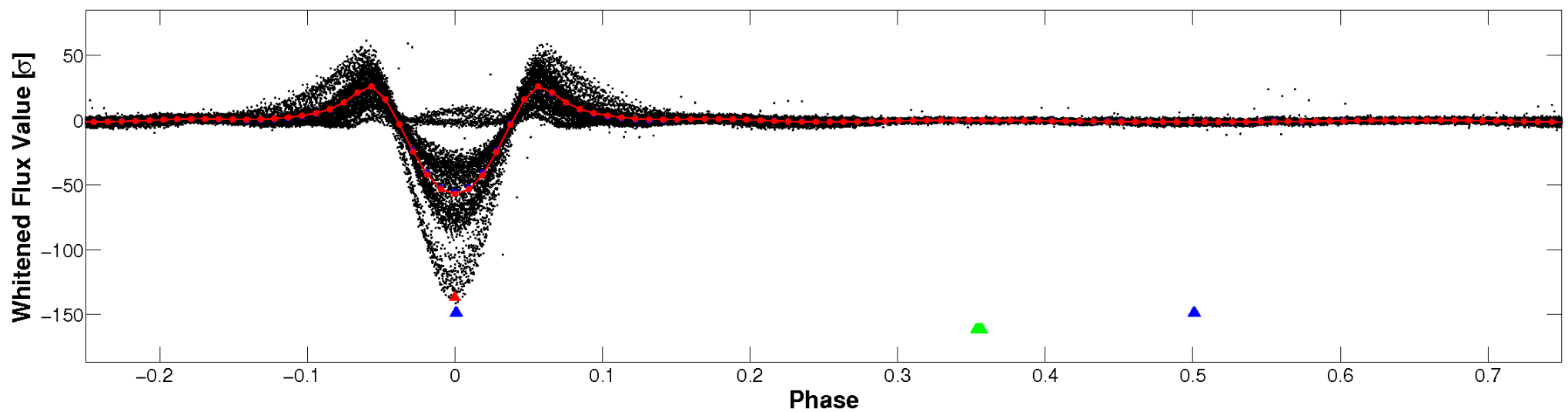


# Non-Whitened Vs. Whitened Light Curve

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



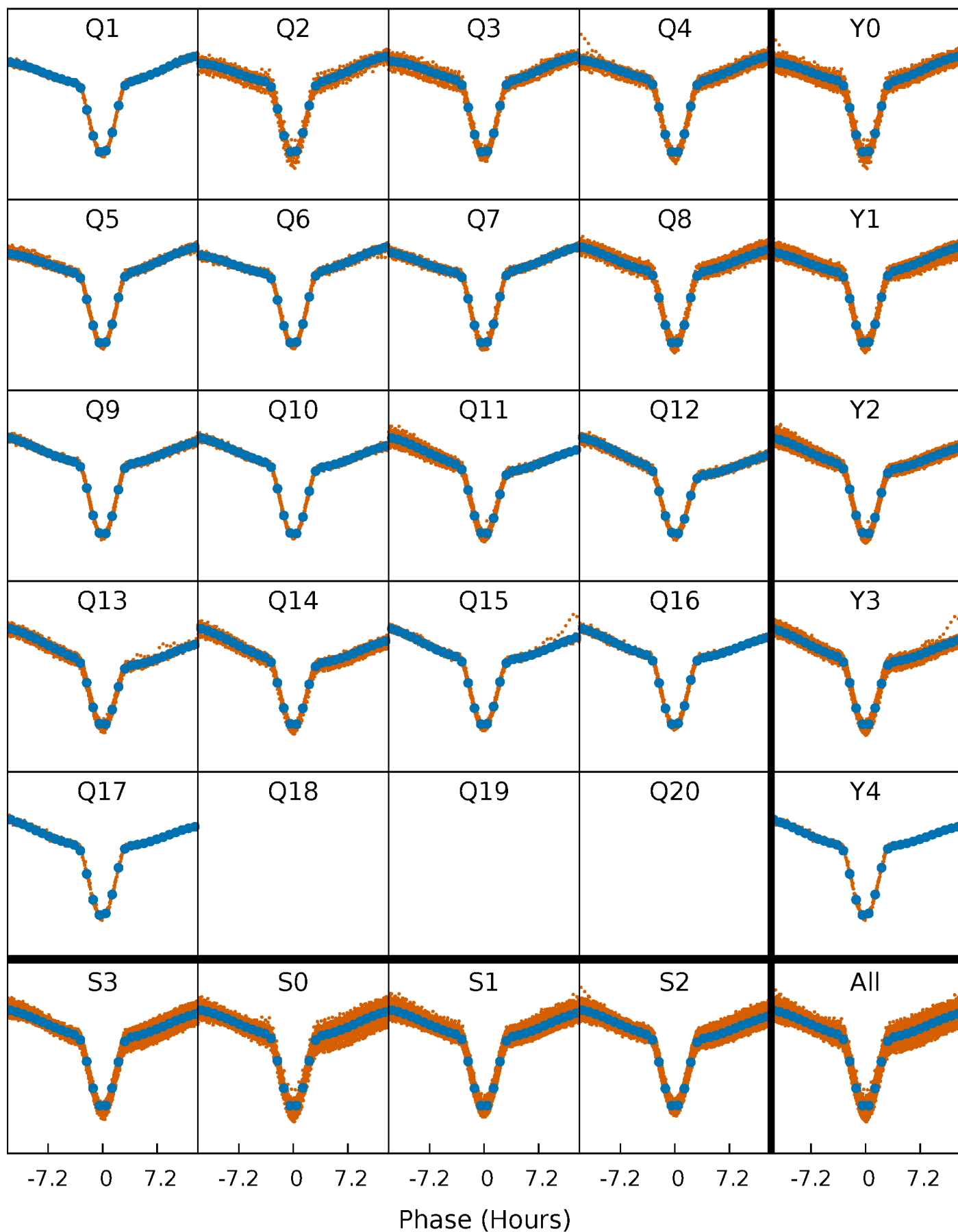
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

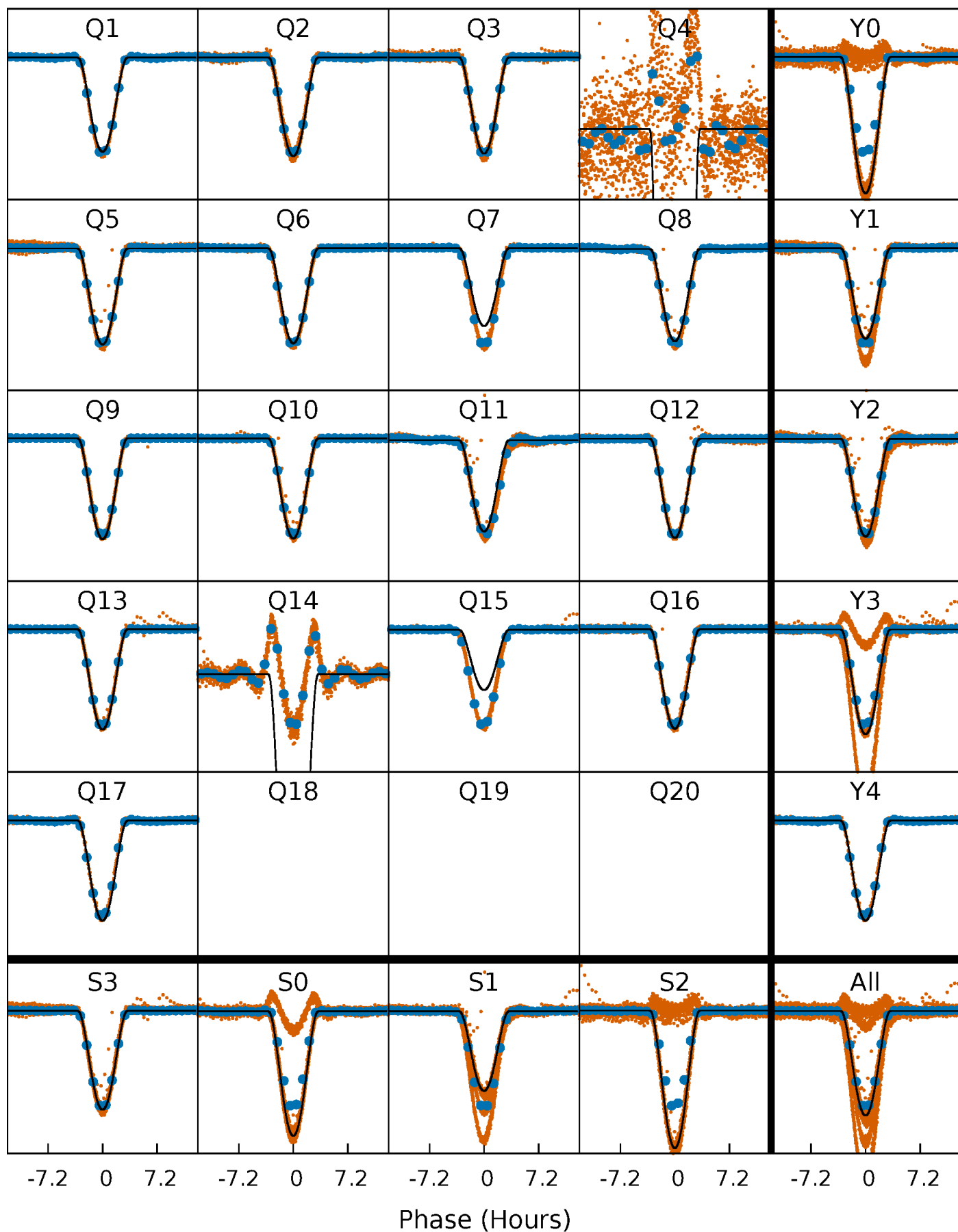
TCE 006852488-01 P= 2.172034 Days  $T_0=131.766231$  (BKJD)





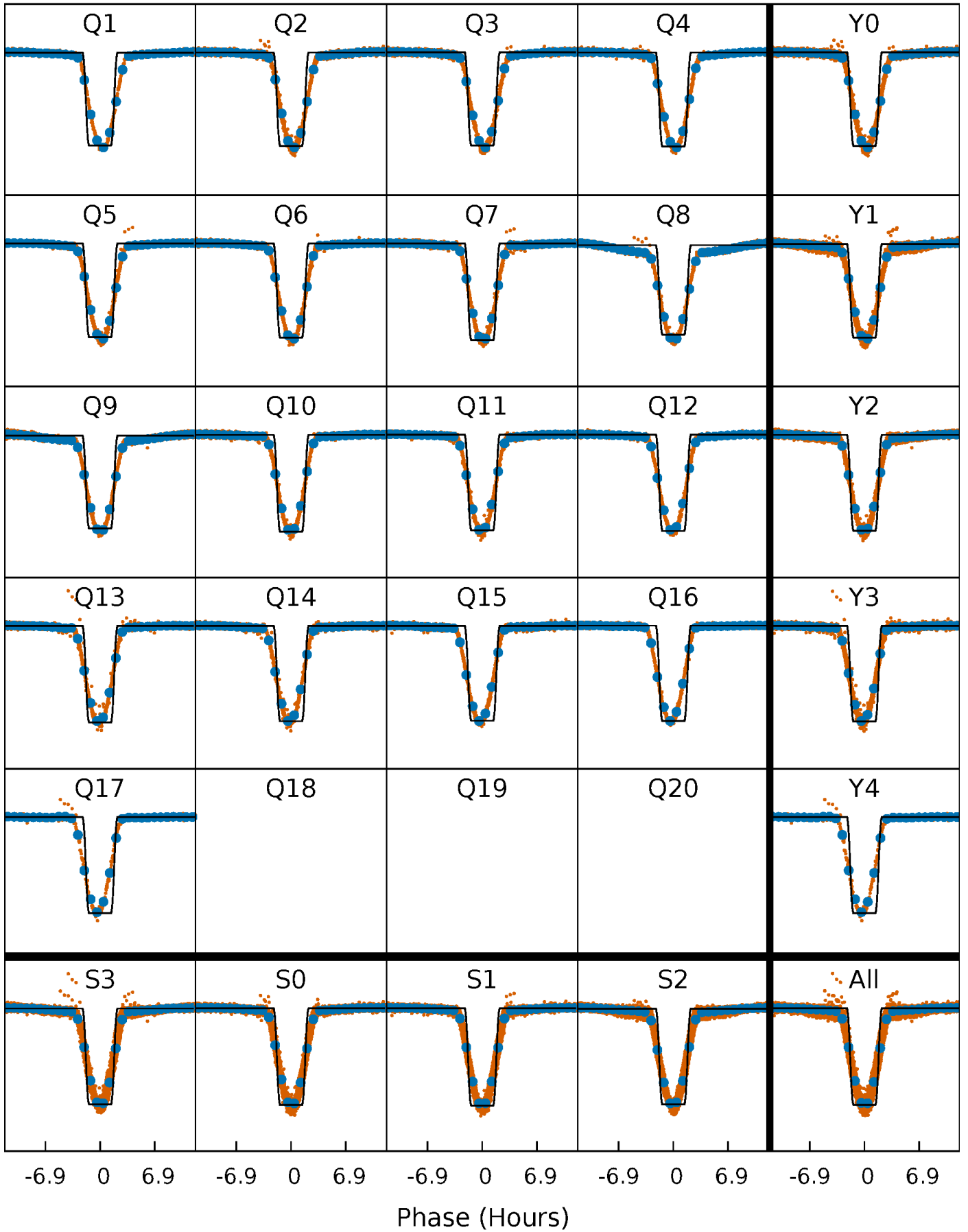
# DV Quarter-Phased Transit Curves

TCE 006852488-01 P= 2.172034 Days  $T_0=131.766231$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

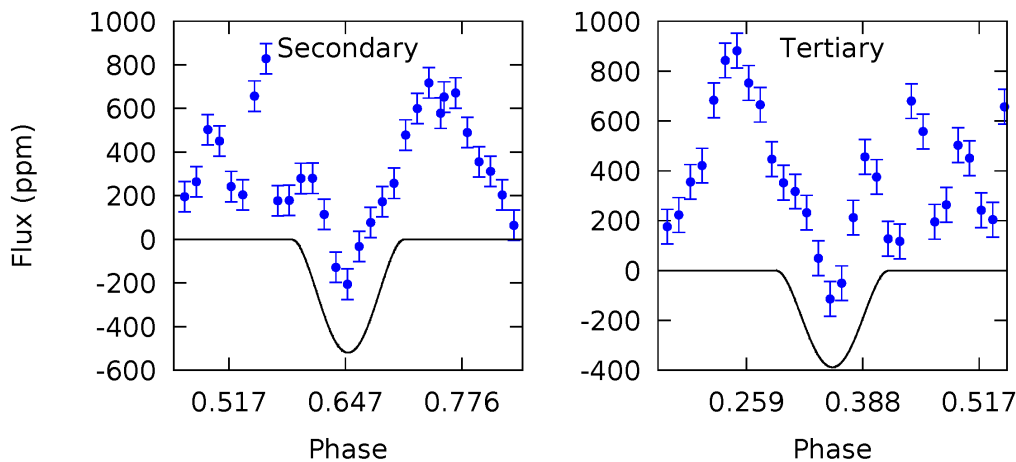
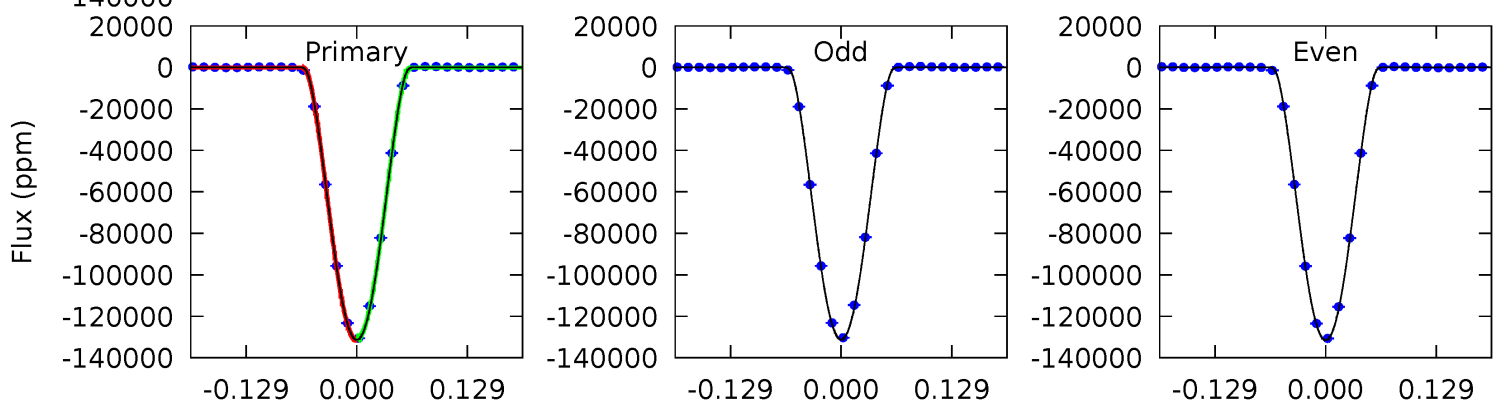
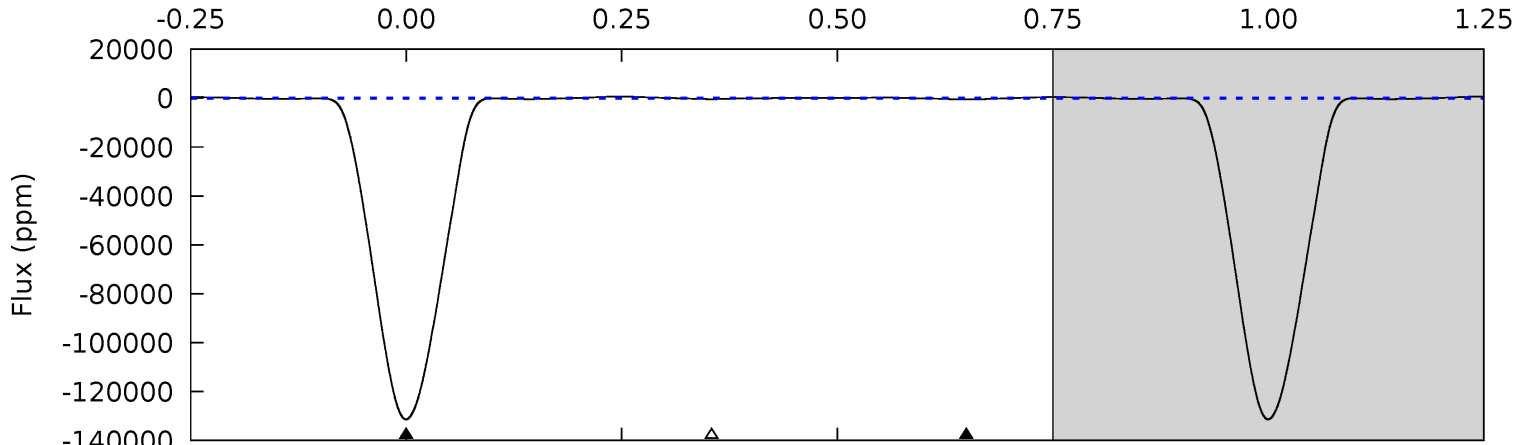
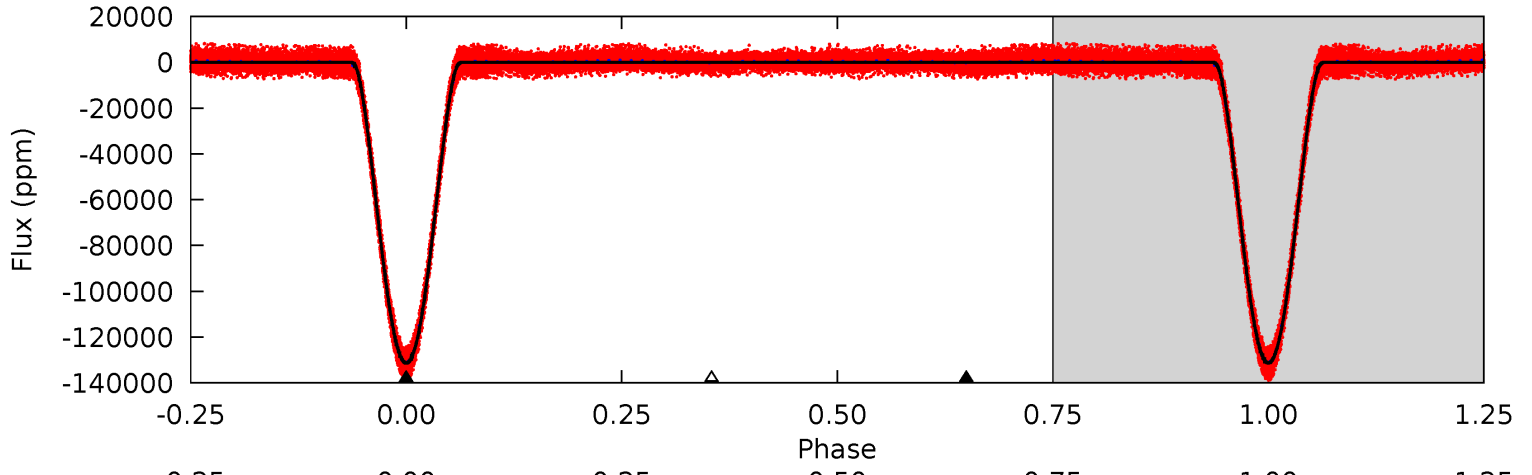
TCE 006852488-01 P= 2.172072 Days  $T_0=131.752623$  (BKJD)



# DV Model-Shift Uniqueness Test

006852488-01, P = 2.172034 Days, E = 129.594197 Days

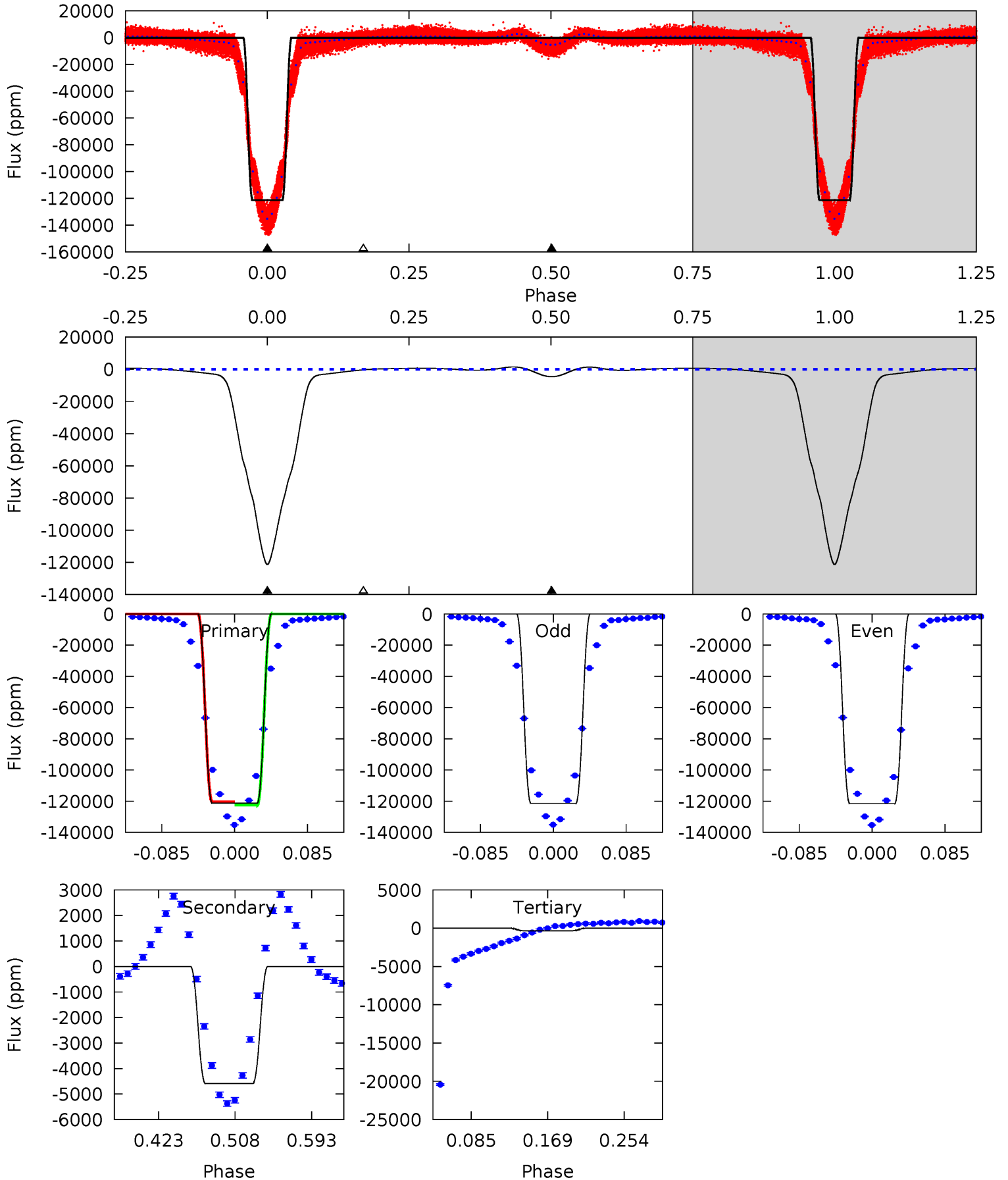
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5740	22.7	17.0	0	4.51	1.52	12.1	5723	5740	5.73	22.7	5.92	0.93	0.00	17.3



# Alt Model-Shift Uniqueness Test

006852488-01, P = 2.172072 Days, E = 129.580551 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
3150	119.1	8.63	0	4.60	1.72	28.0	3141	3150	110.5	119.1	2.06	1.00	0.01	26.6



### Stellar Parameters For KIC 006852488

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7128^{+71}_{-85}$	$4.105^{+0.115}_{-0.126}$	$-0.140^{+0.150}_{-0.150}$	$1.775^{+0.336}_{-0.280}$	$1.461^{+0.116}_{-0.116}$	$0.368^{+0.205}_{-0.132}$
	+1%/-1%	+3%/-3%	+107%/-107%	+19%/-16%	+8%/-8%	+56%/-36%
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 006852488-01 / KOI 6775.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-519 \pm 23$	$74.47^{+7.55}_{-6.28}$	$3035^{+137}_{-127}$	$-2984^{+95}_{-97}$	$0.071^{+0.014}_{-0.012}$
Alt.	$-4587 \pm 39$	$71.22^{+6.99}_{-5.93}$	$3040^{+141}_{-128}$	$3231^{+56}_{-76}$	$0.694^{+0.129}_{-0.112}$

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

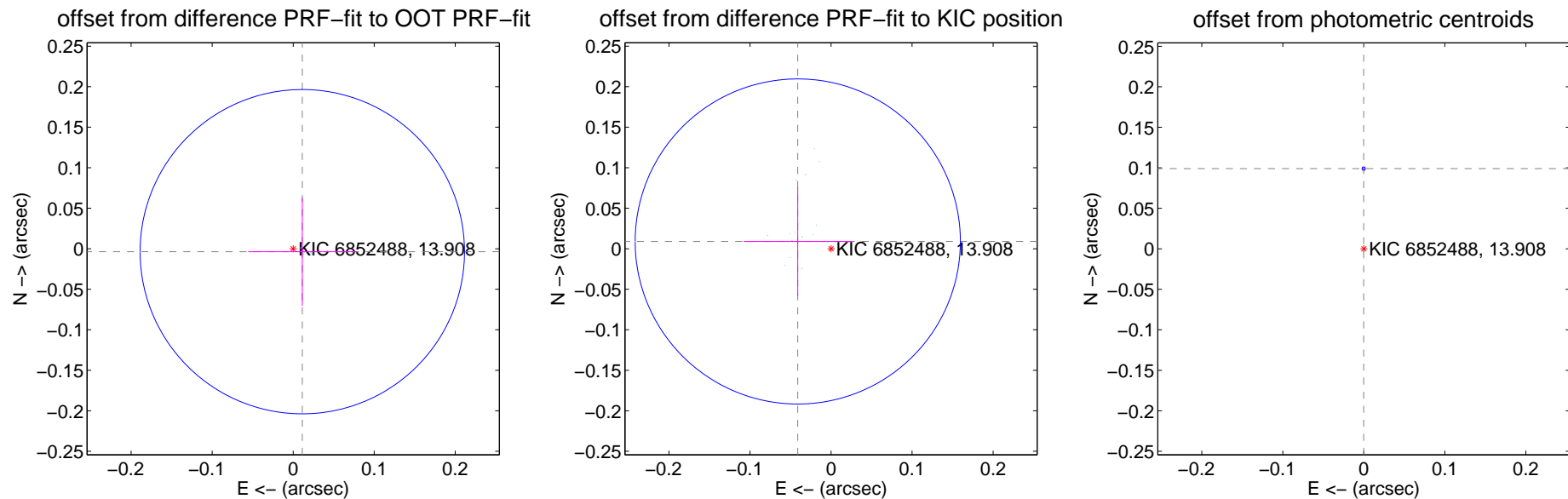
## DV Centroid Data

Supplemental centroid analysis for 006852488-01. Kepler magnitude: 13.91. Transit SNR 2567.38

There are 17 quarters with good PRF difference image offsets

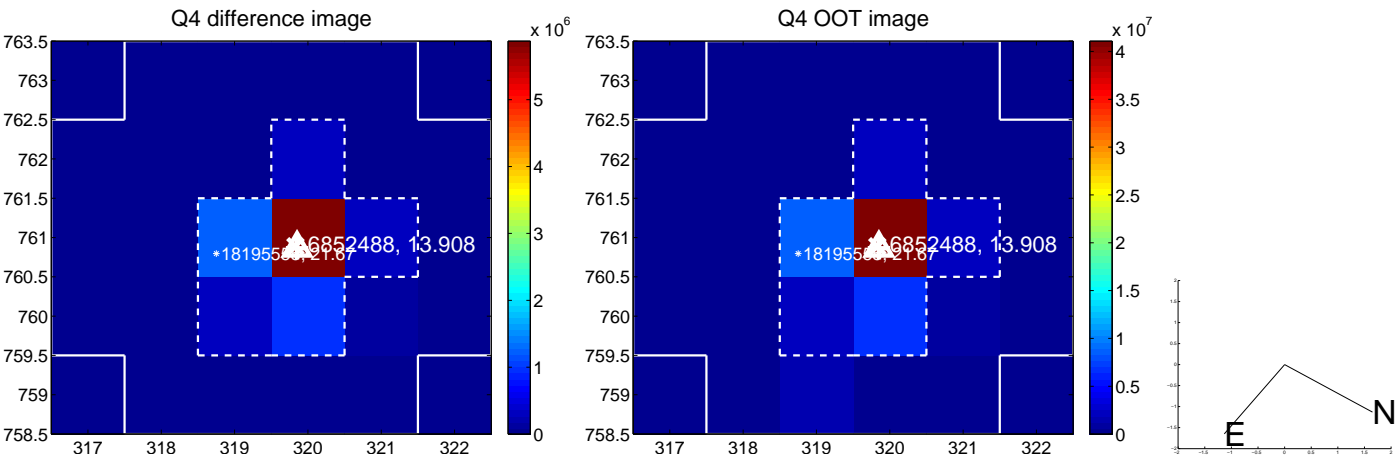
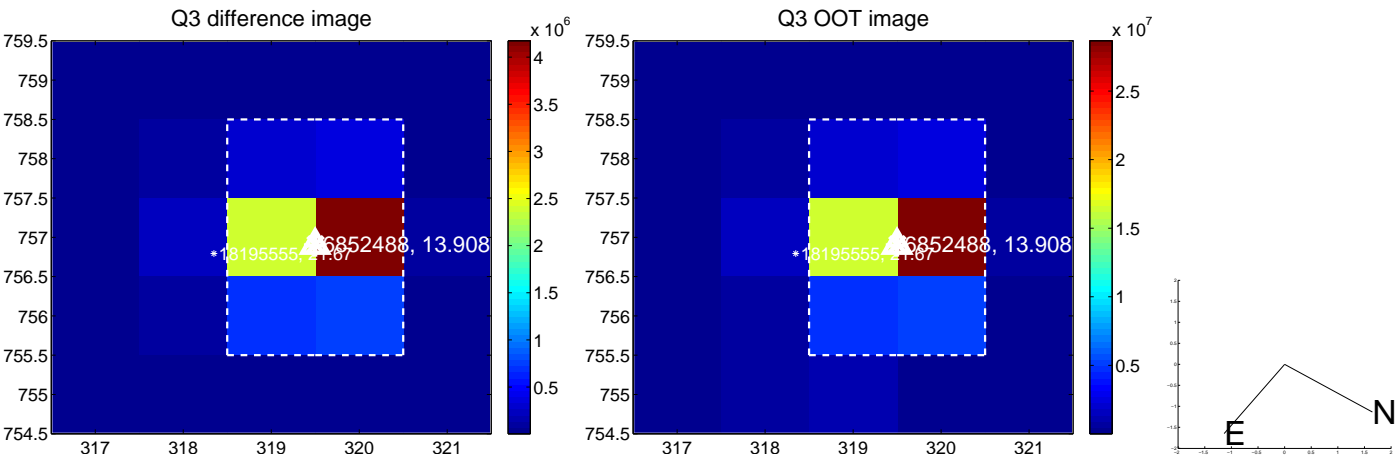
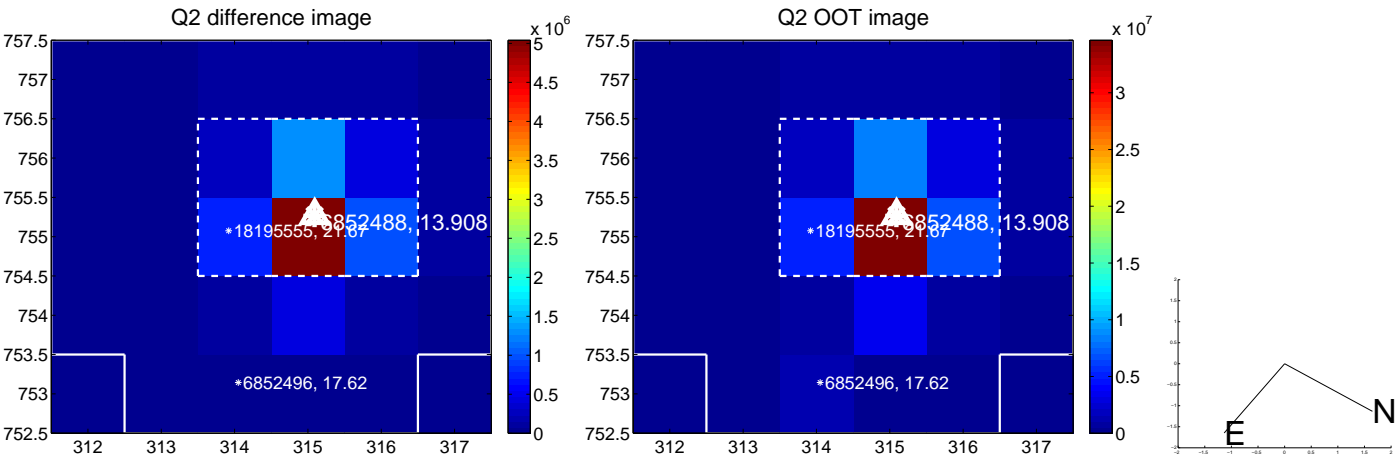
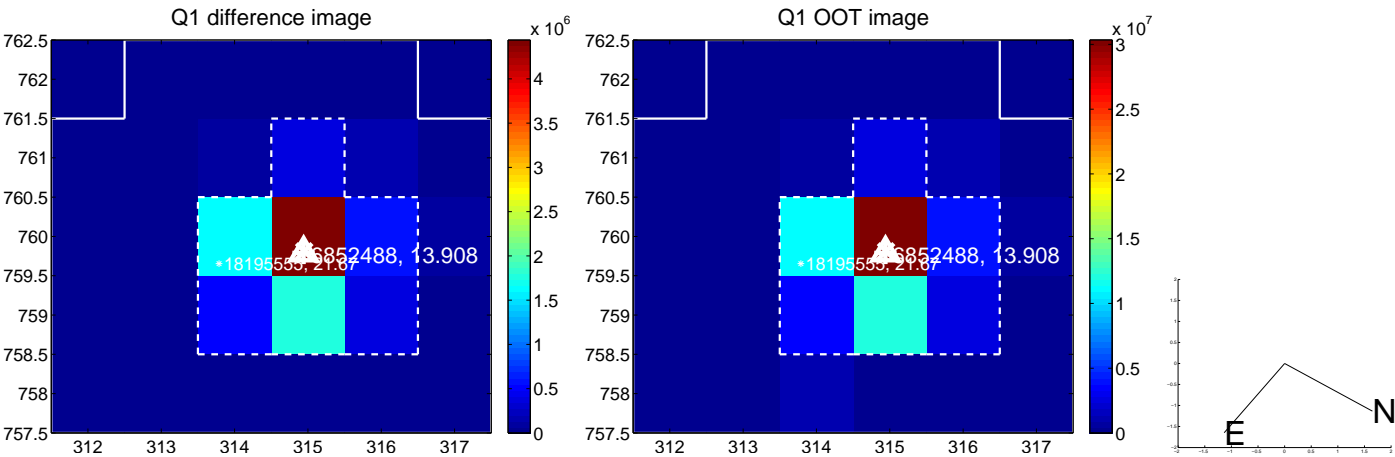
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.012 \pm 0.067$	0.18	$-0.011 \pm 0.067$	$-0.004 \pm 0.067$
PRF-fit source offset from KIC position	$0.042 \pm 0.067$	0.63	$0.041 \pm 0.067$	$0.009 \pm 0.067$
photometric centroid source offset	$0.10 \pm 0.00$	145.84	$0.00 \pm 0.00$	$0.10 \pm 0.00$



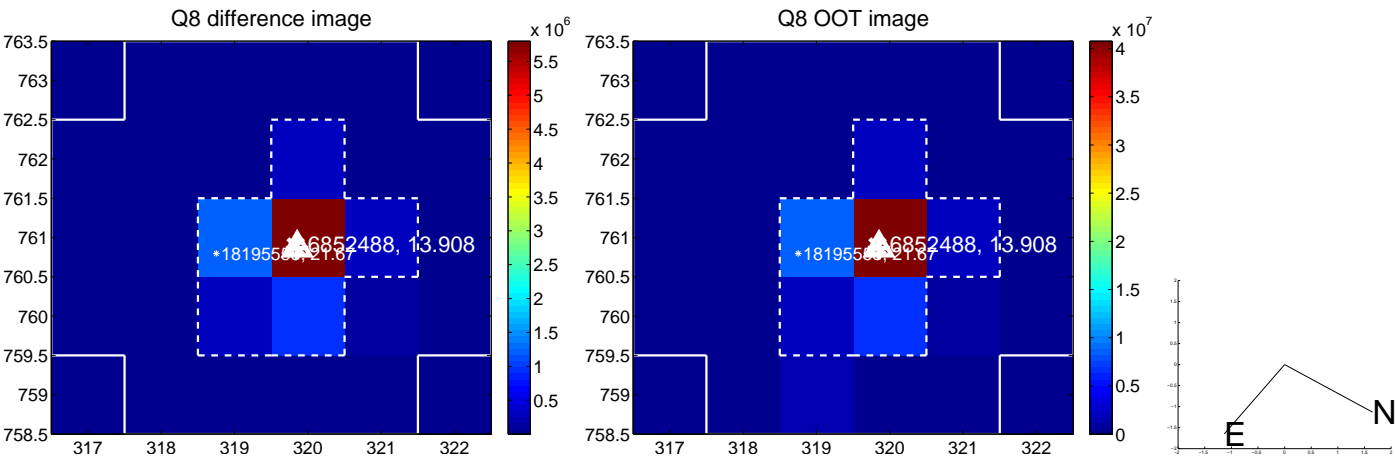
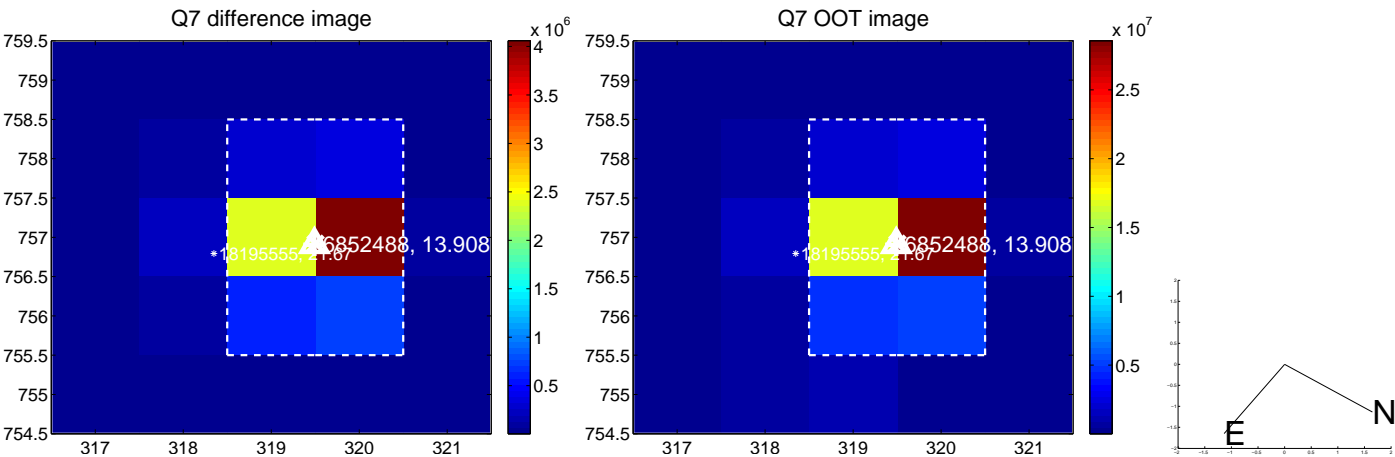
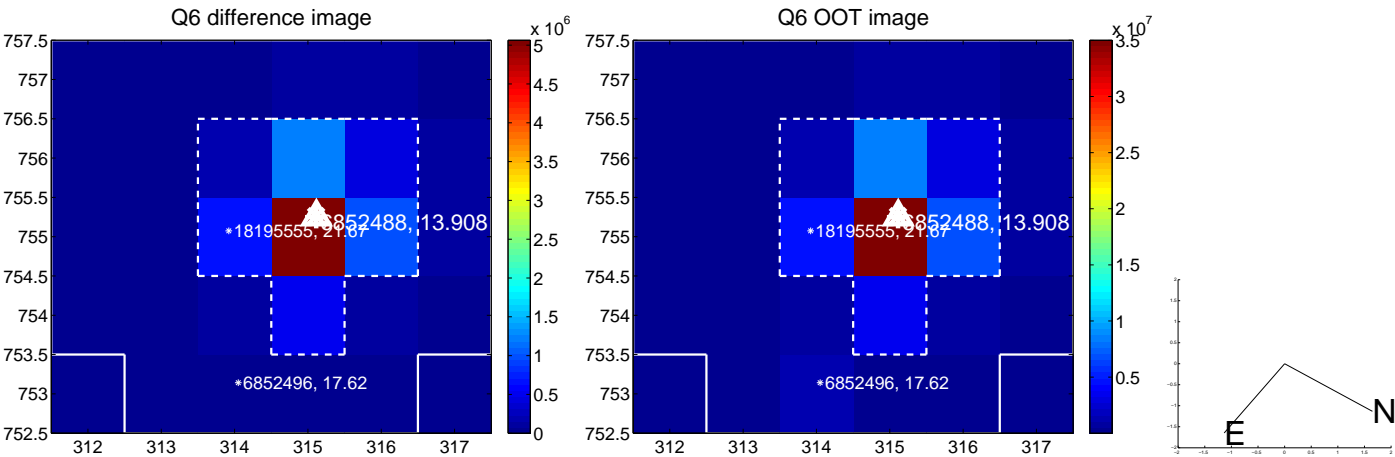
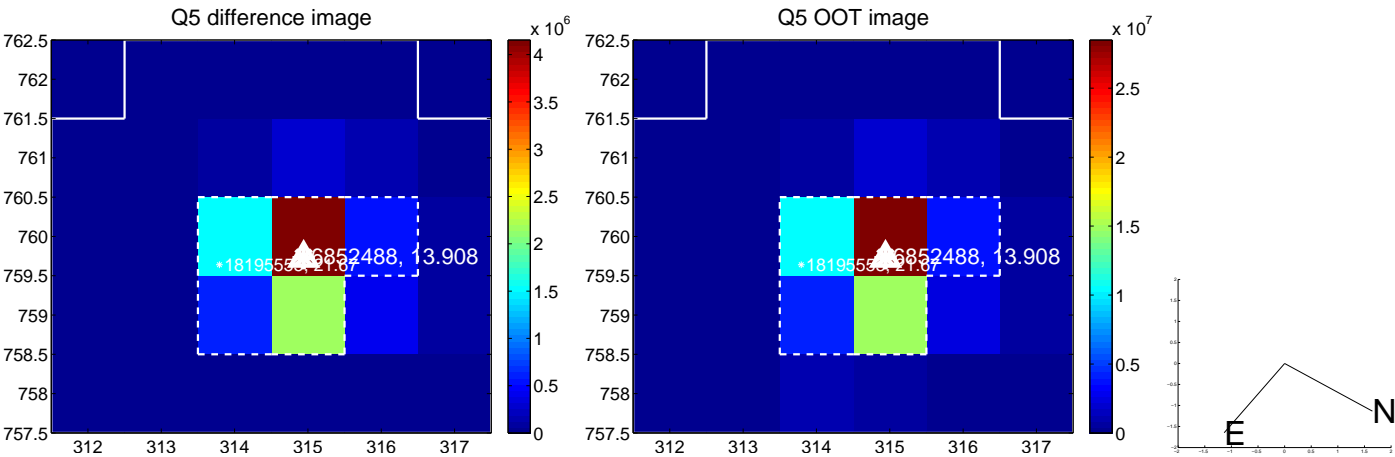
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

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

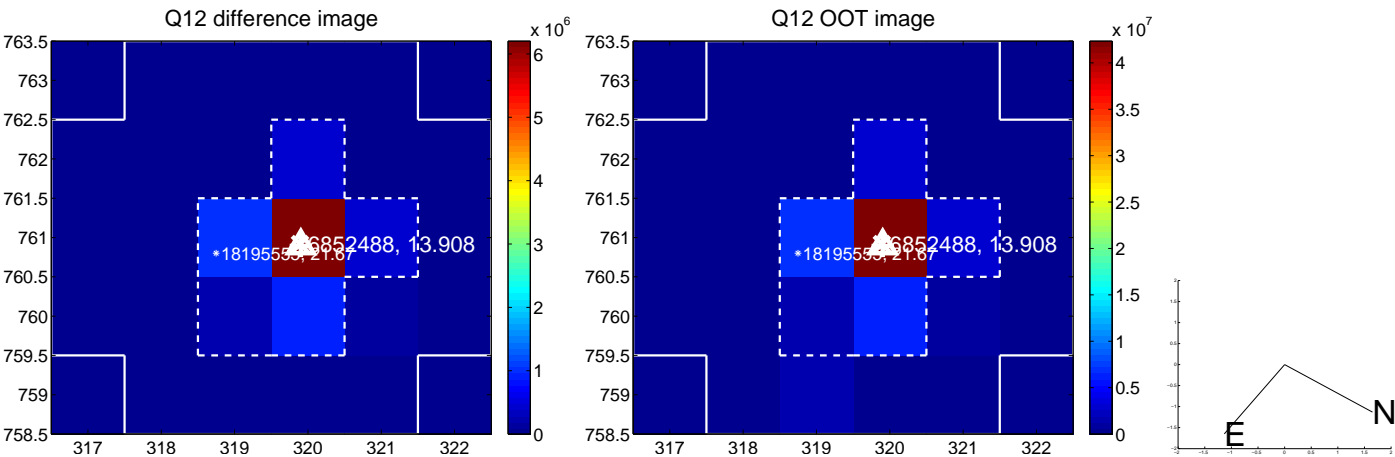
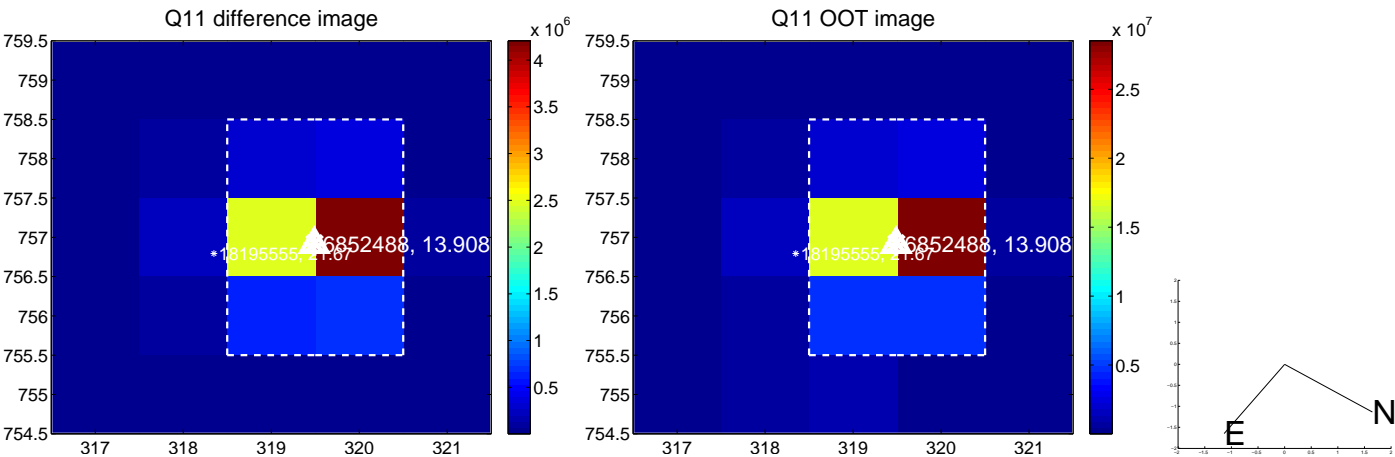
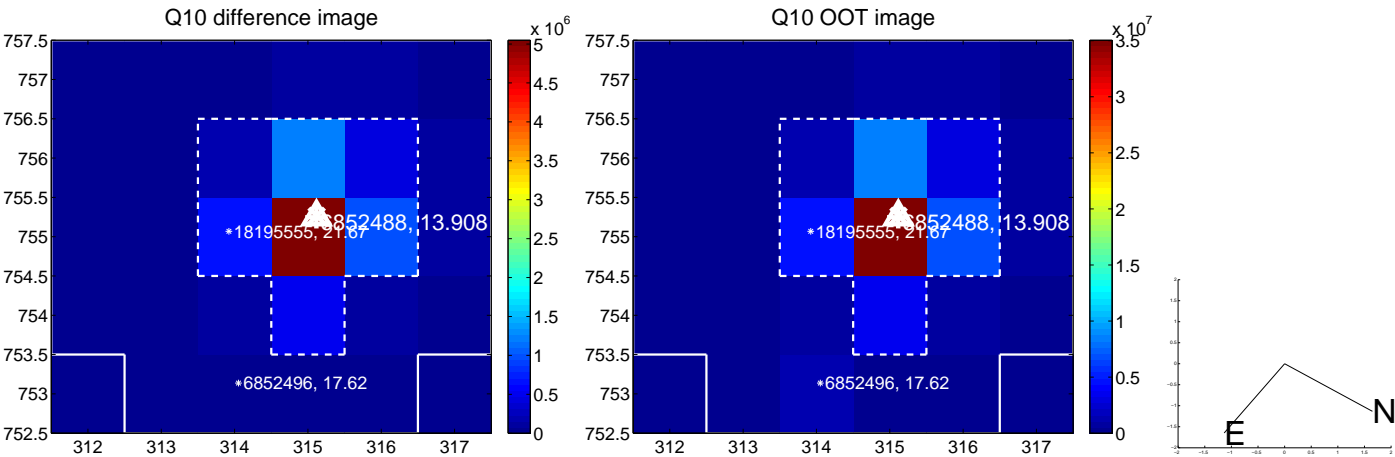
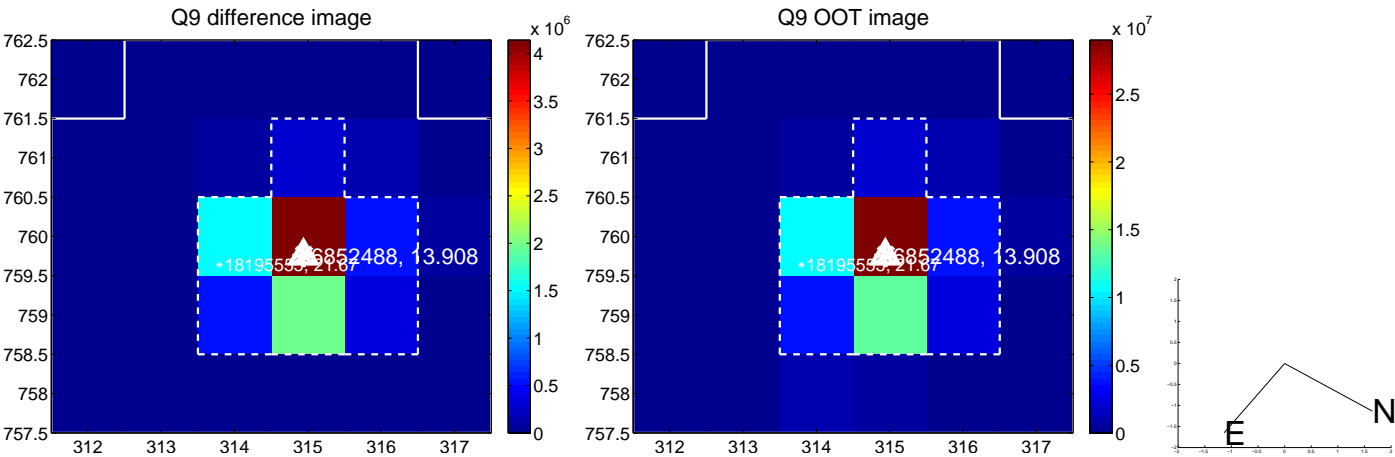




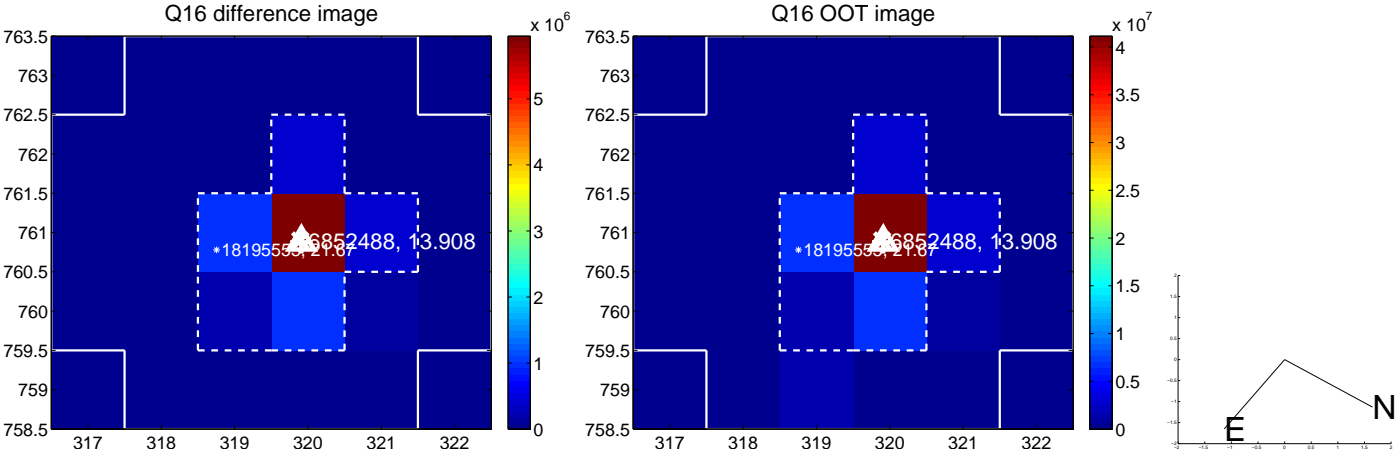
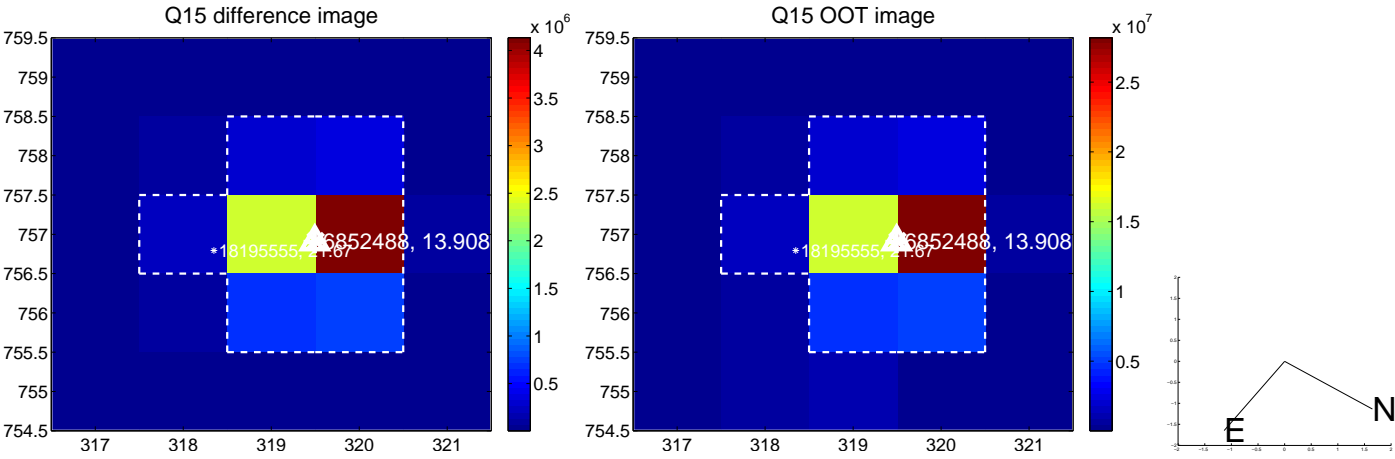
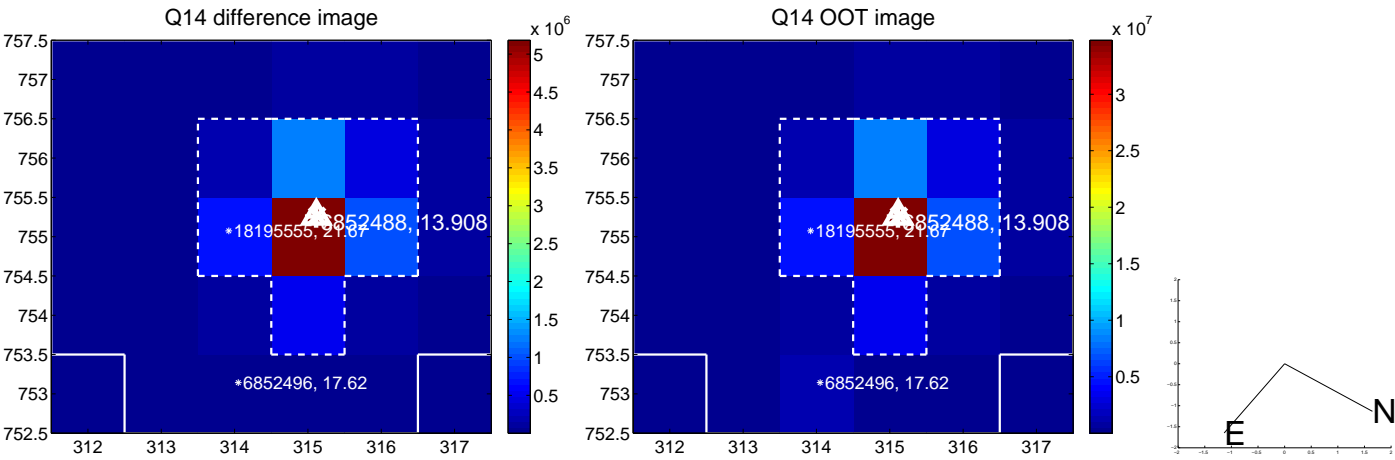
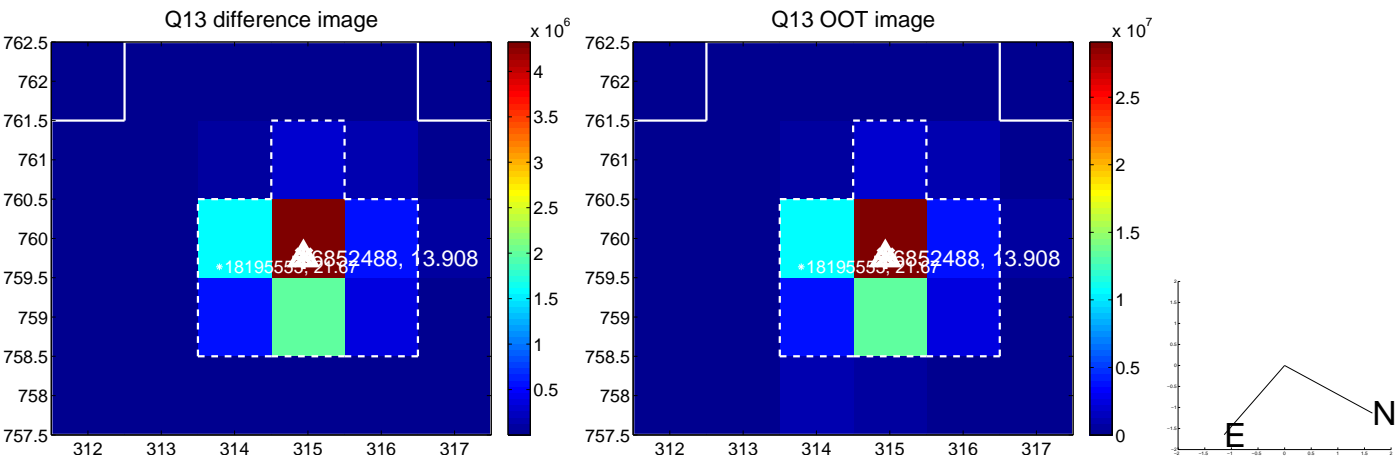
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



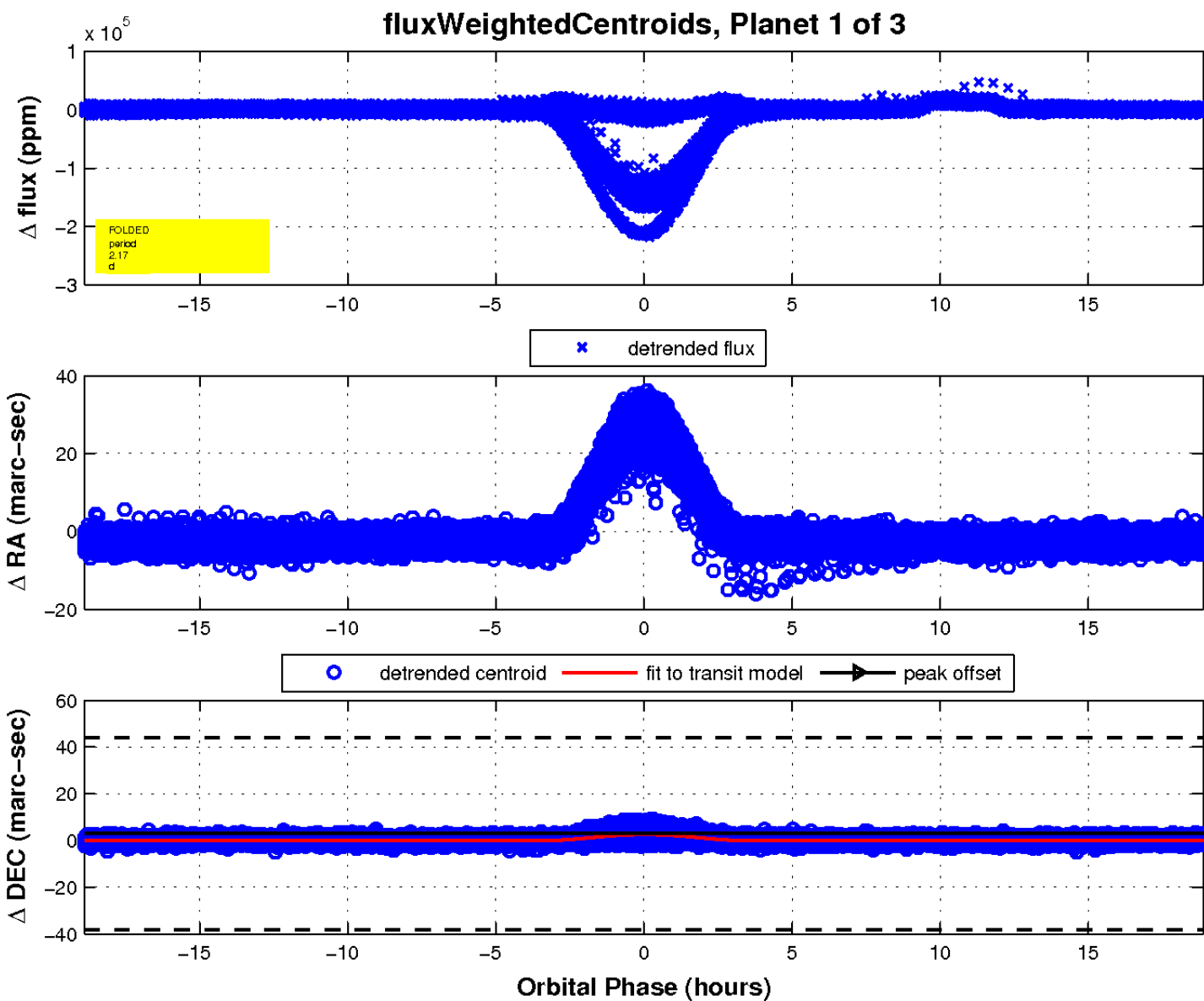
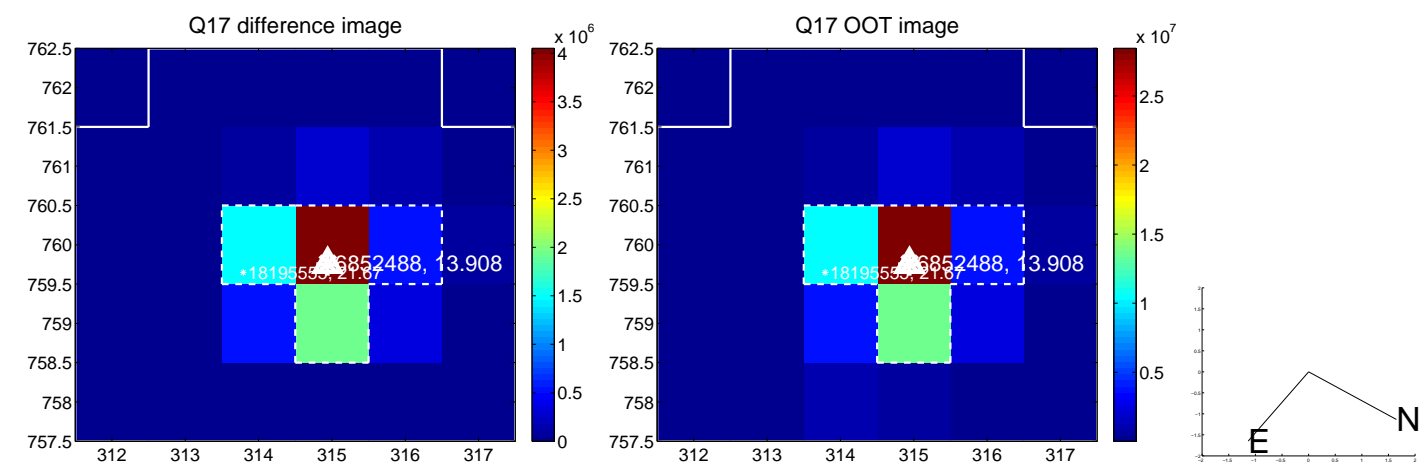
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

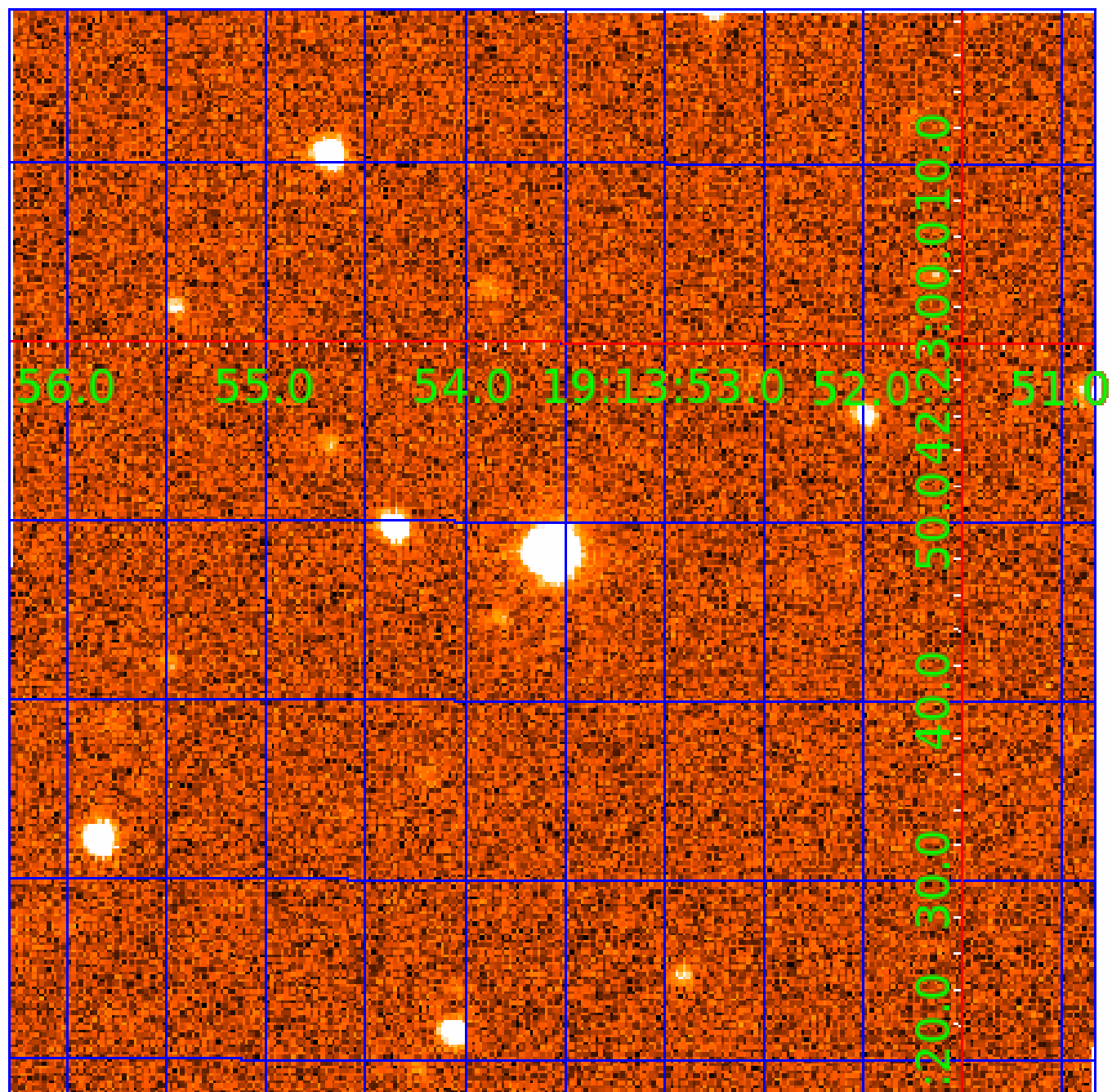


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 006852488

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
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006852488-03	OBS	No	2.172021	132.542244	467.5	2.500	8.3	-1.0	1.77	7128	3.89	5245.00

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006852488-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—HAS_SEC_TCE
006852488-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006852488-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

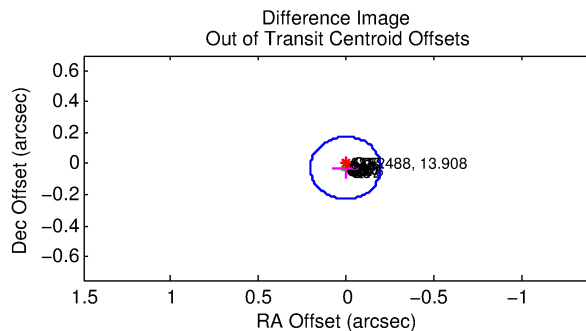
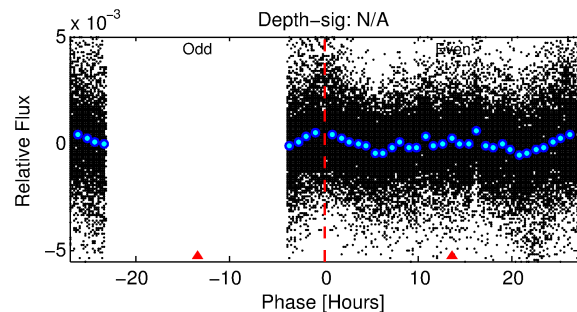
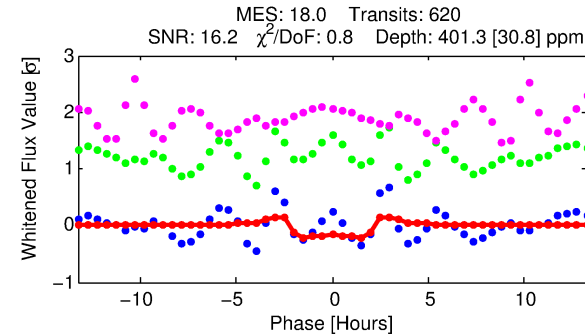
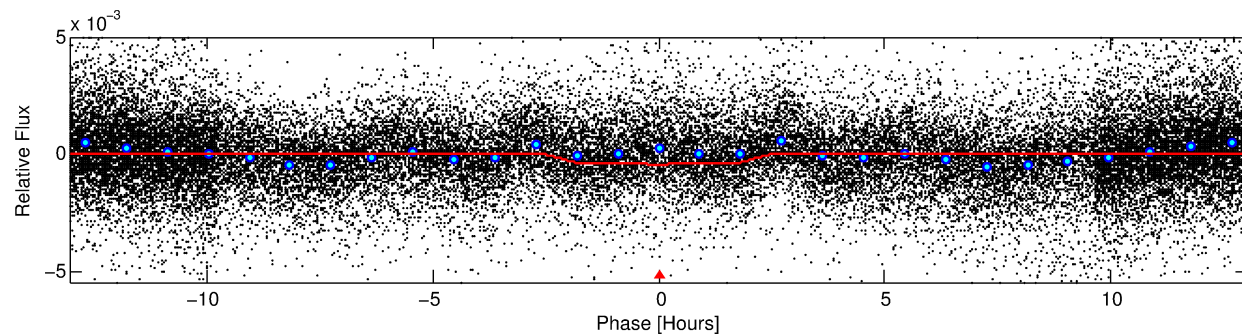
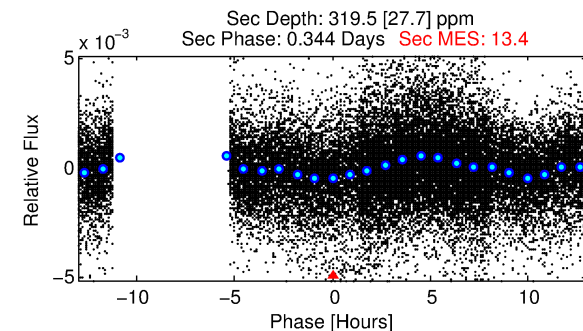
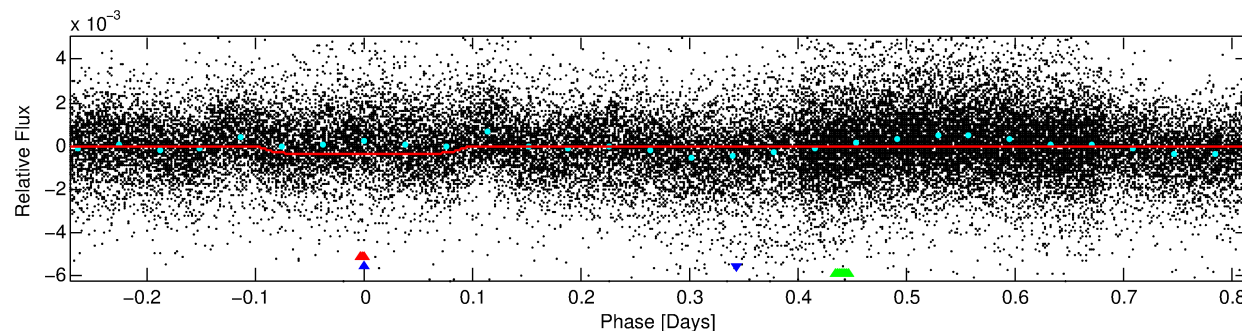
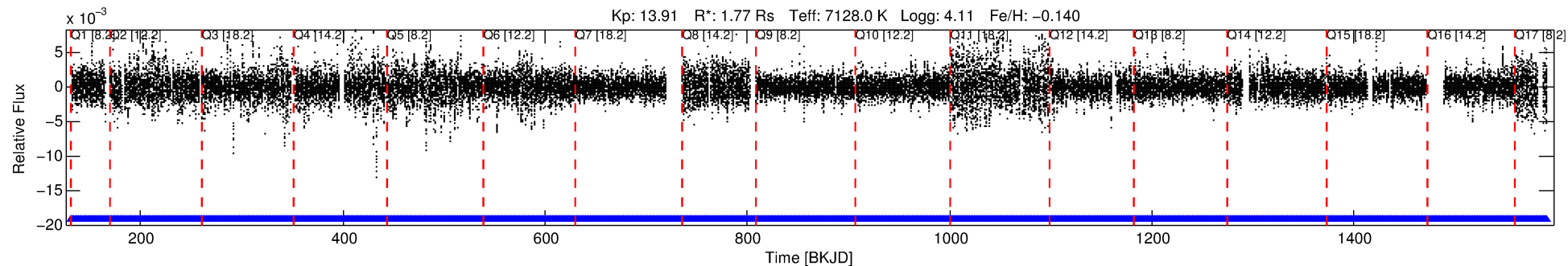
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 006852488-02

No Significant Match Found

# DV One-Page Summary

KIC: 6852488 Candidate: 2 of 3 Period: 1.086 d  
KOI: K06775 Corr: No Ephemeris Match



## DV Fit Results:

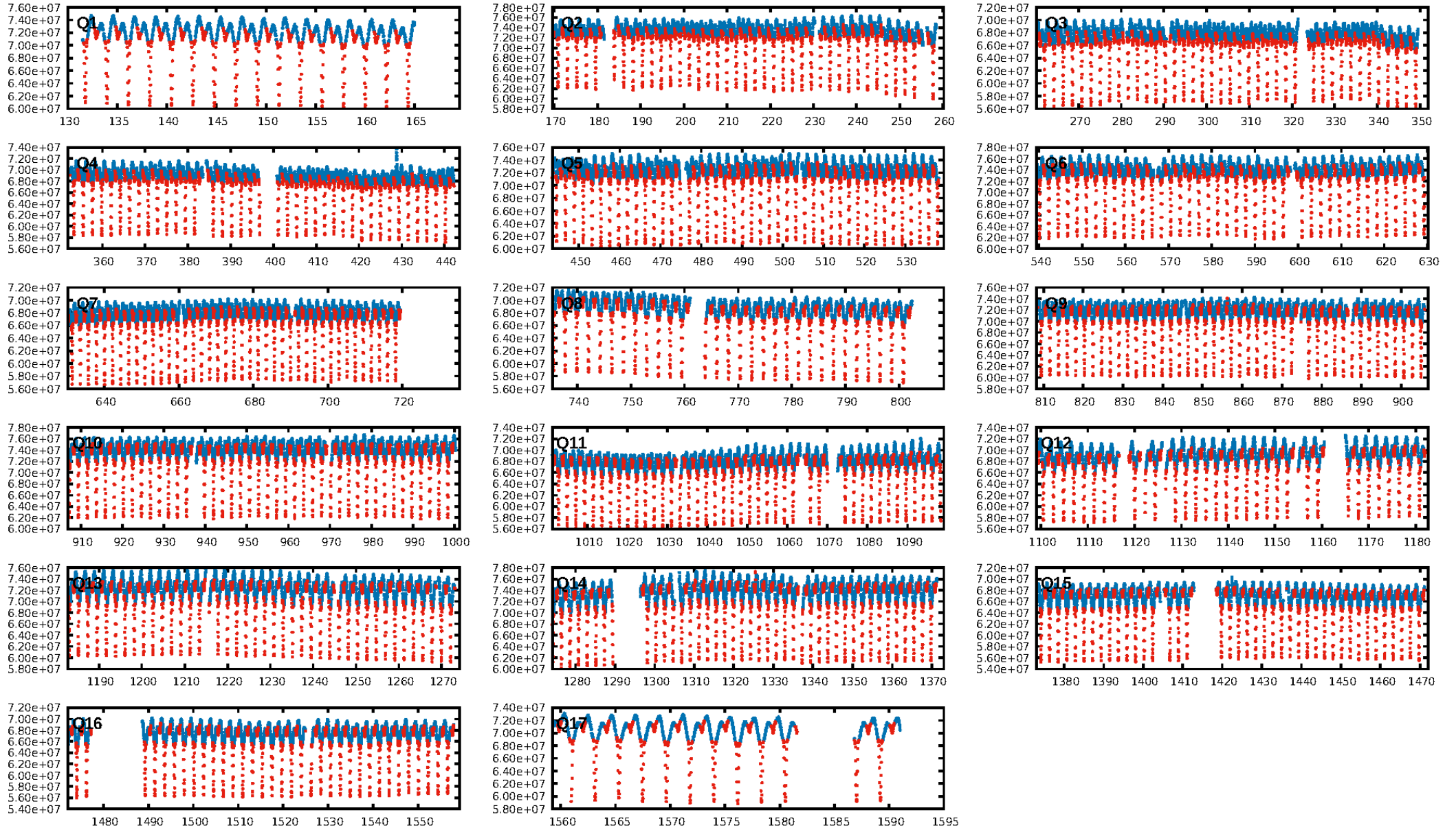
Period = 1.08602 [0.00001] d  
Epoch = 131.7668 [0.0017] BKJD  
Rp/R\* = 0.0195 [0.0058]  
a/R\* = 1.65 [1.84]  
b = 0.65 [1.60]  
Seff = 13216.42 [3116.70]  
Teq = 2734 [161] K  
Rp = 3.77 [1.34] Re  
a = 0.0235 [0.0037] AU  
Ag = 6.82 [4.43] [1.31σ]  
Teffp = 6832 [1040] K [3.89σ]

## DV Diagnostic Results:

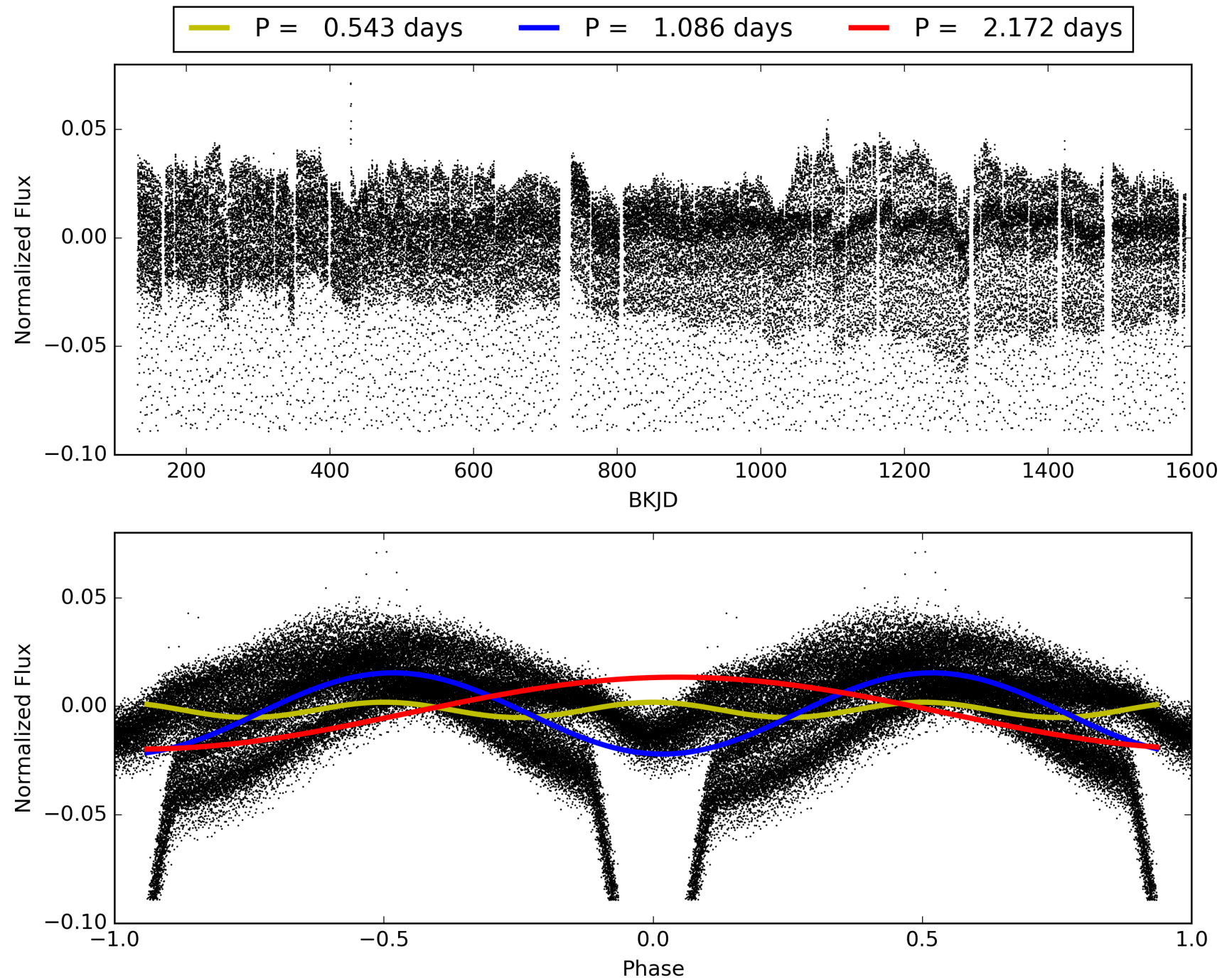
ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [5.04σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [592/592]  
GhostDiagnostic-chr: 1.759  
Centroid-sig: N/A  
Centroid-so: 0.180 arcsec [1.51σ]  
OotOffset-rm: 0.028 arcsec [0.41σ]  
KicOffset-rm: 0.058 arcsec [0.87σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]



# TCE 006852488-02, PDC Light Curves

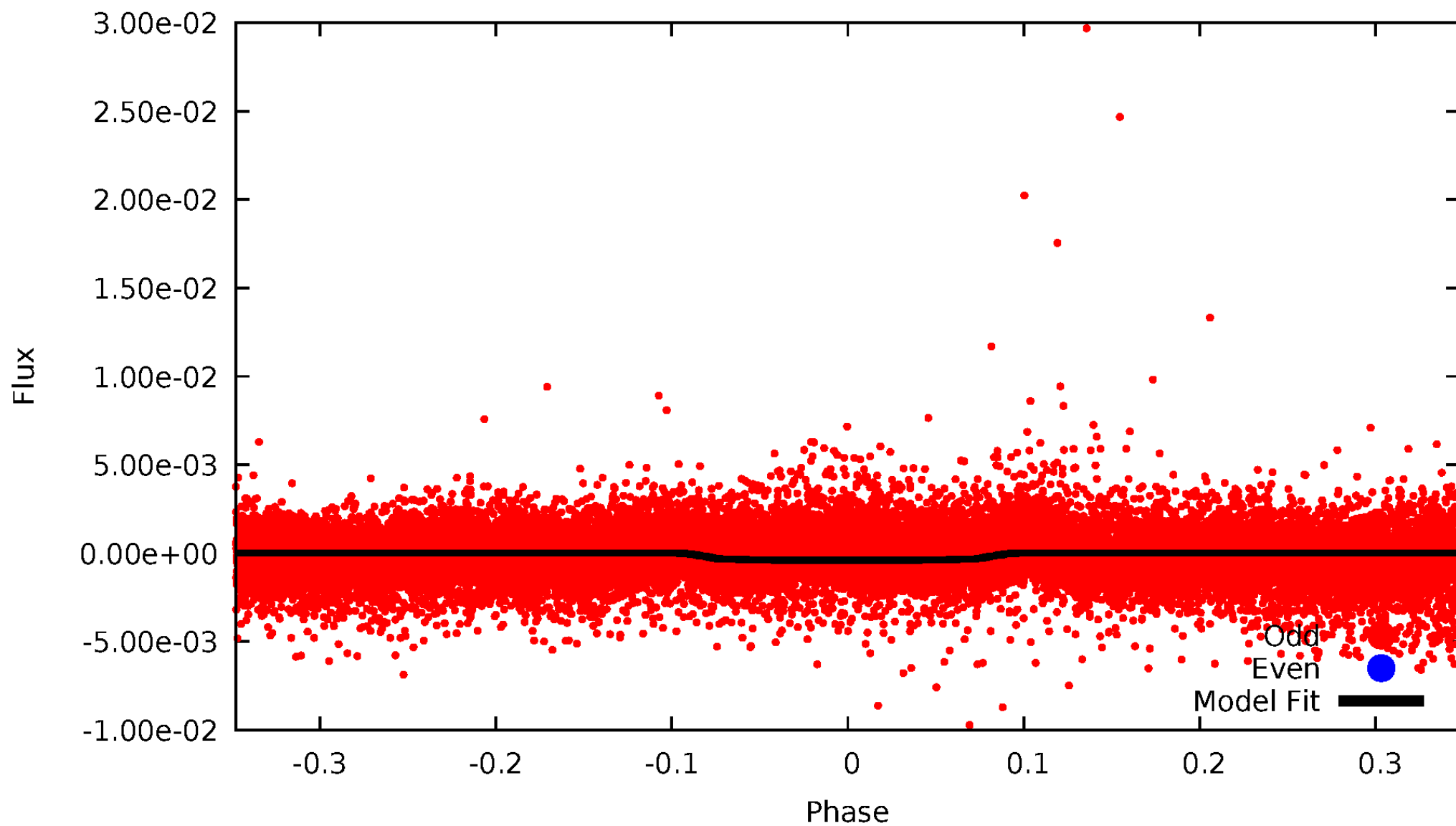


TCE 006852488-02



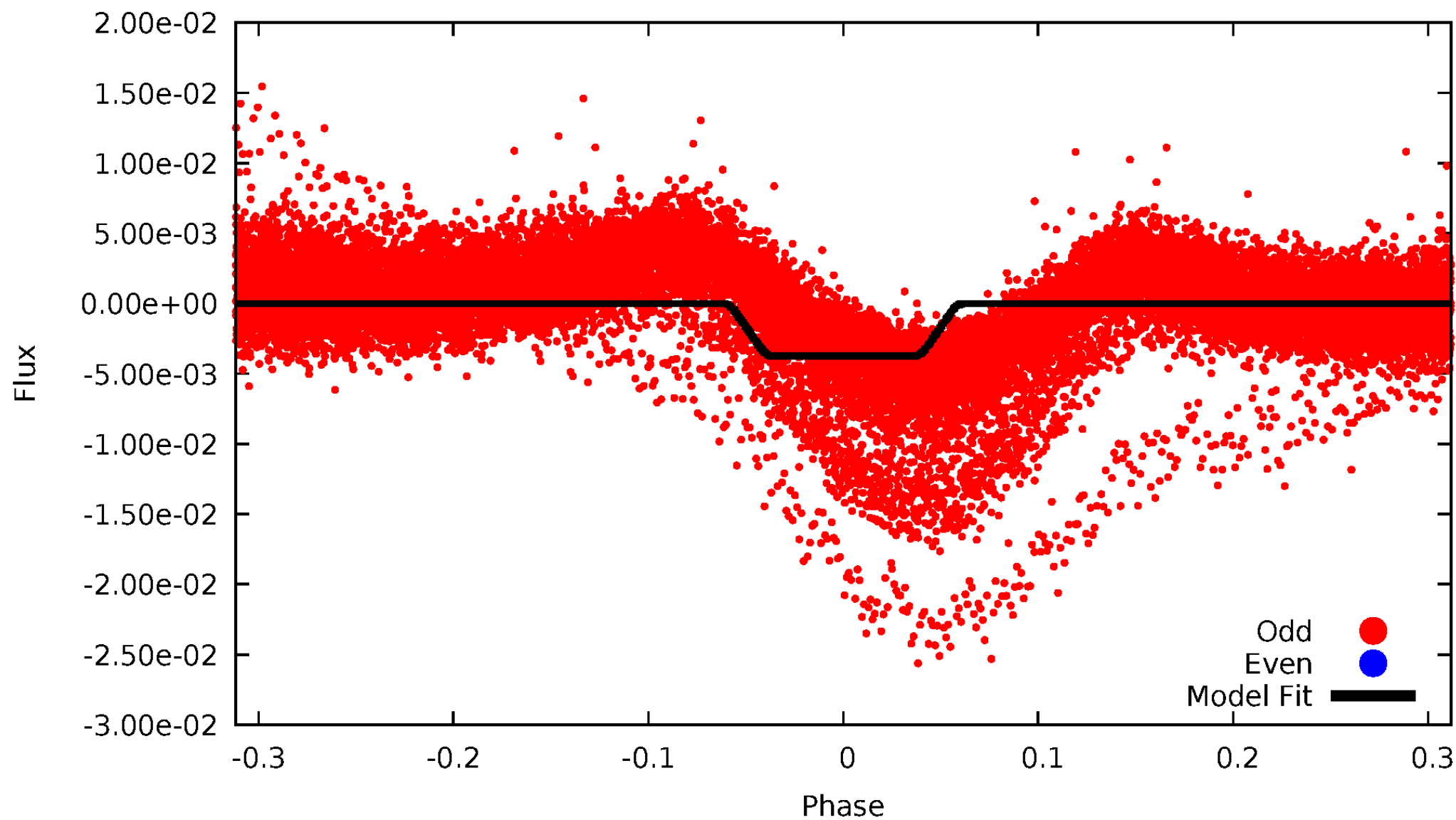
# DV Odd/Even

TCE 006852488-02



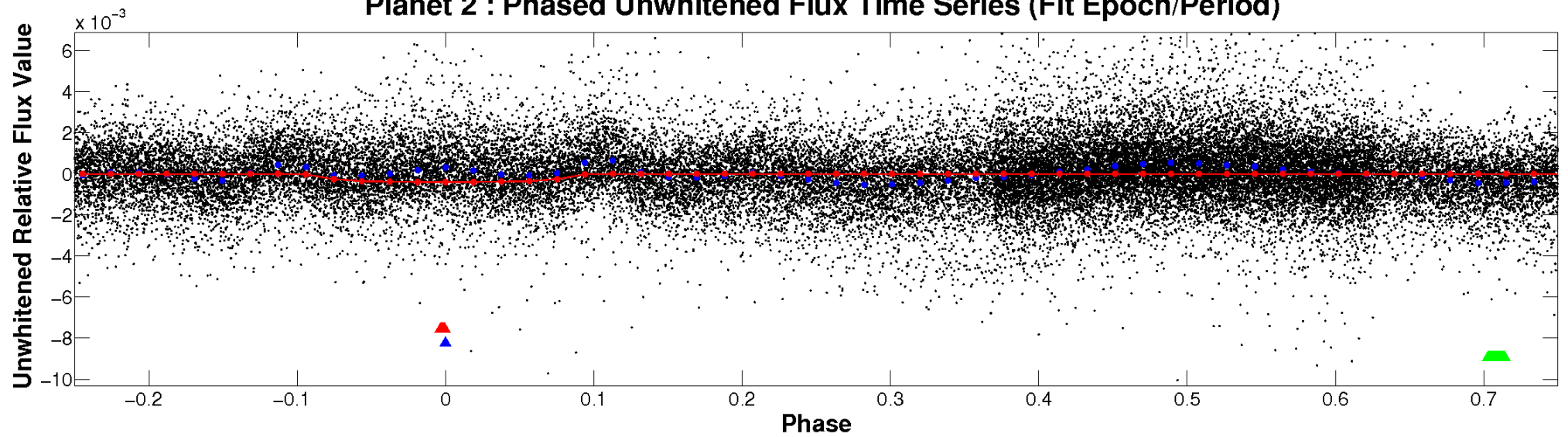
# ALT Odd/Even

TCE 006852488-02

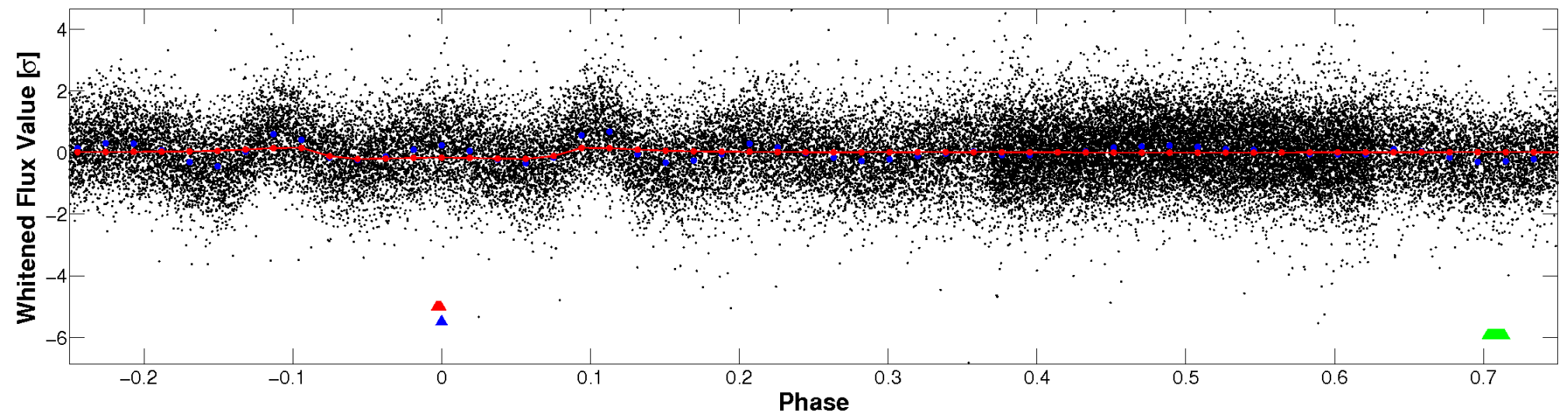


# Non-Whitened Vs. Whitened Light Curve

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



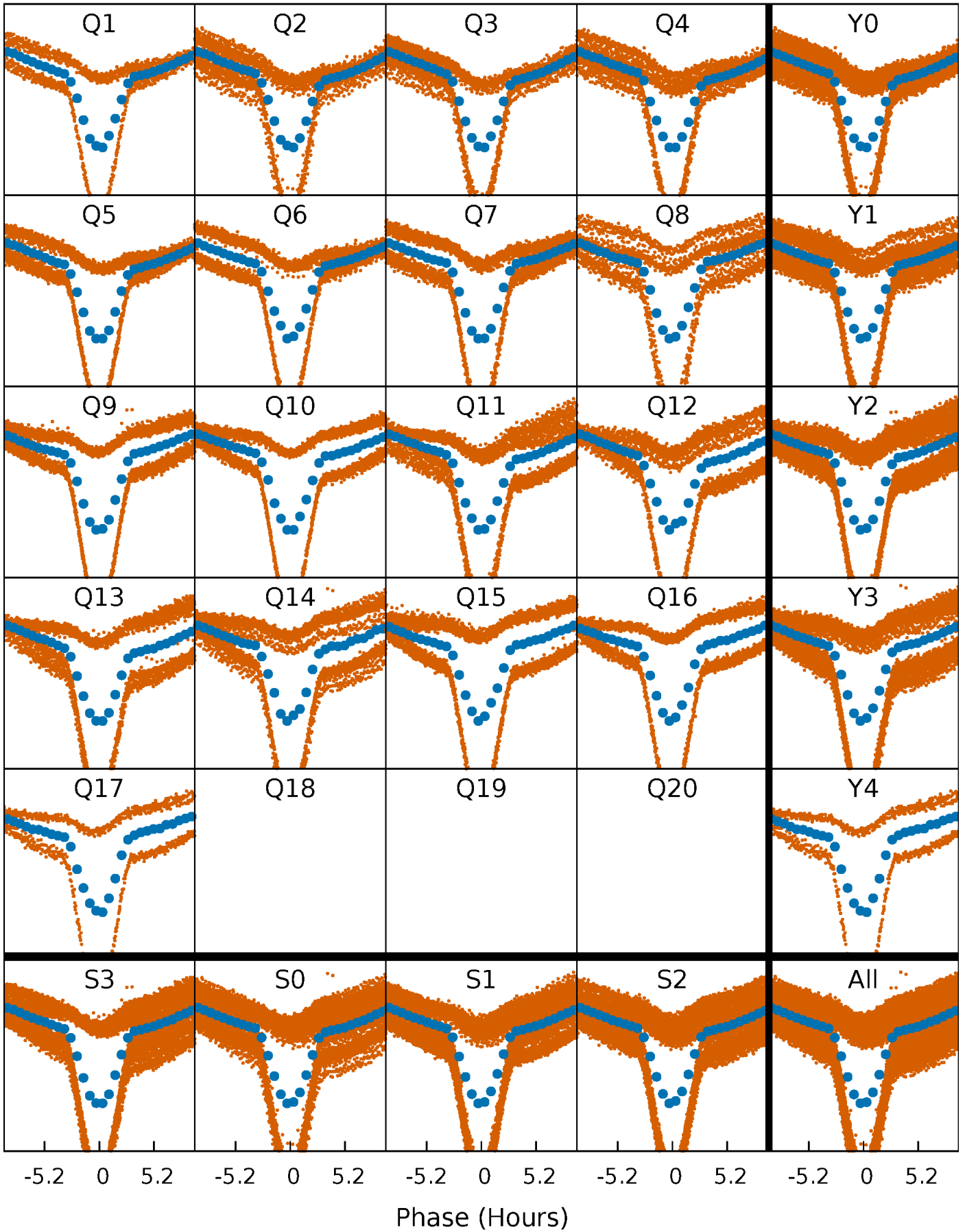
**Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





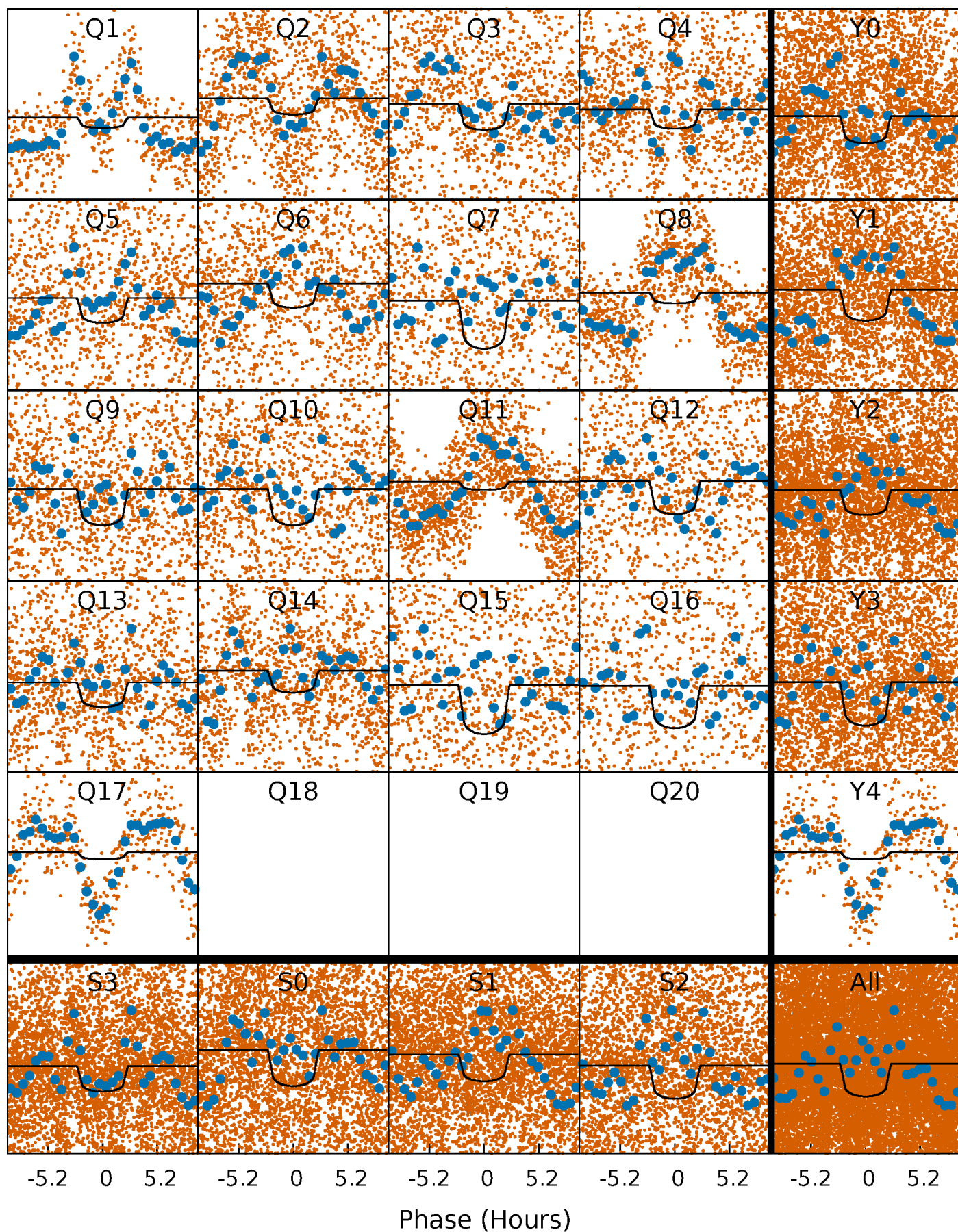
# PDC Quarter-Phased Transit Curves

TCE 006852488-02   P= 1.086019 Days    $T_0=131.766838$  (BKJD)



# DV Quarter-Phased Transit Curves

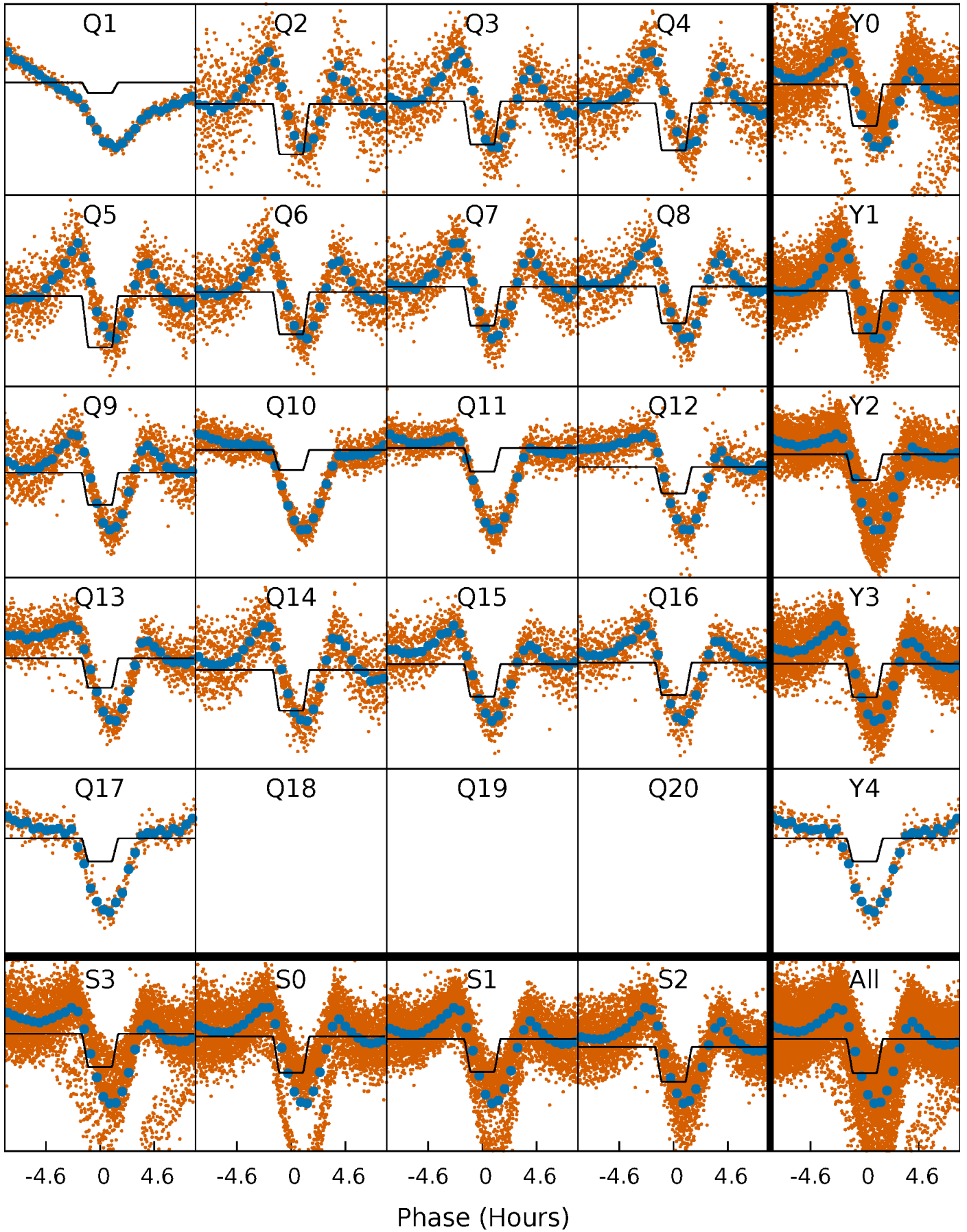
TCE 006852488-02   P= 1.086019 Days    $T_0=131.766838$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

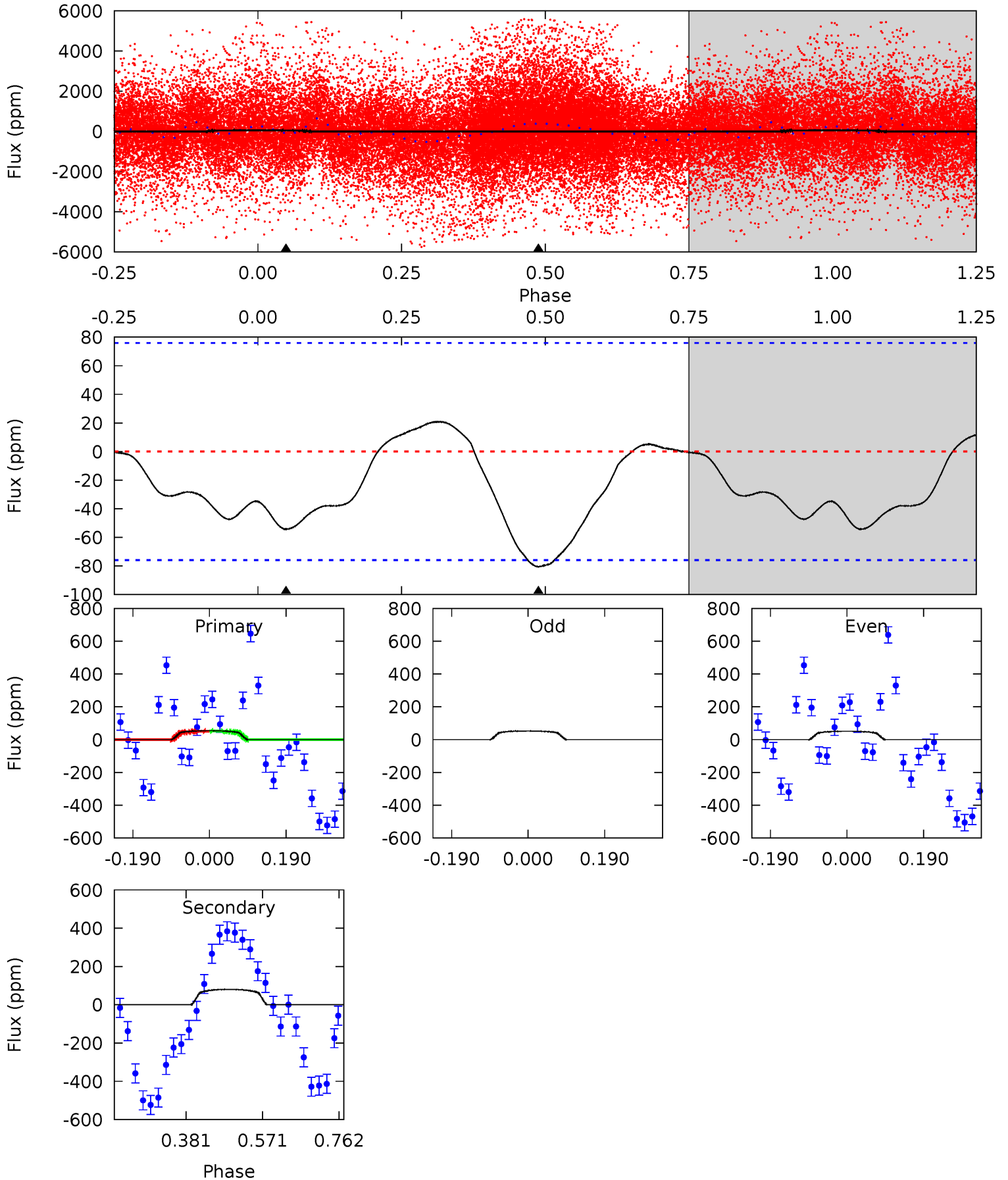
TCE 006852488-02     $P = 1.086028$  Days     $T_0 = 131.720445$  (BKJD)



# DV Model-Shift Uniqueness Test

006852488-02, P = 1.086019 Days, E = 131.766838 Days

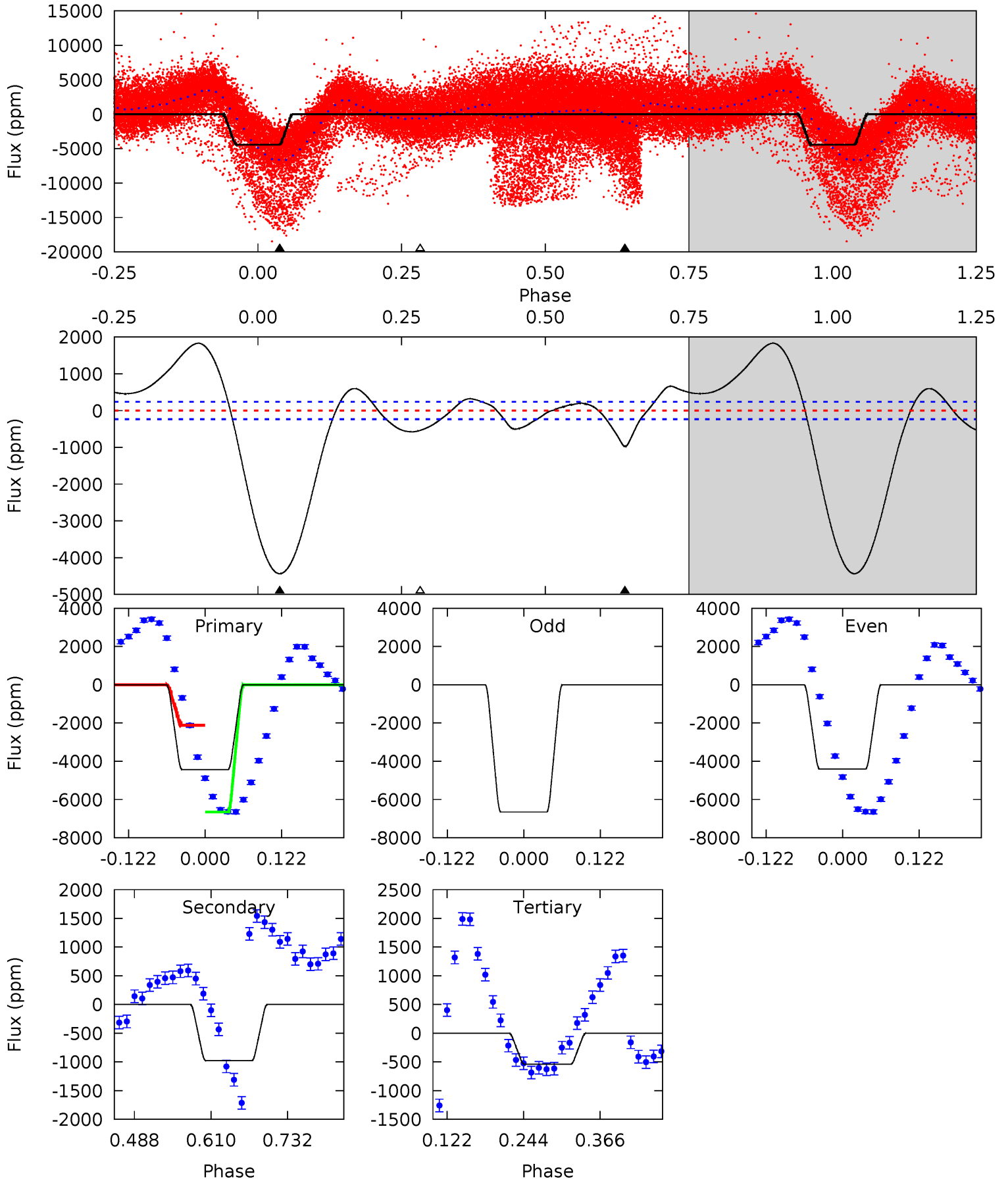
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.17	4.69	0	0	4.43	1.31	0.88	3.17	3.17	4.69	4.69	0.06	-0.69	0.21	0.04



# Alt Model-Shift Uniqueness Test

006852488-02, P = 1.086028 Days, E = 131.720445 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
84.6	18.7	10.3	0	4.52	1.55	12.5	74.3	84.6	8.35	18.7	30.2	1.37	0.29	49.4



### Stellar Parameters For KIC 006852488

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7128^{+71}_{-85}$	$4.105^{+0.115}_{-0.126}$	$-0.140^{+0.150}_{-0.150}$	$1.775^{+0.336}_{-0.280}$	$1.461^{+0.116}_{-0.116}$	$0.368^{+0.205}_{-0.132}$
	+1%/-1%	+3%/-3%	+107%/-107%	+19%/-16%	+8%/-8%	+56%/-36%
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 006852488-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-80 \pm 17$	$3.82^{+1.16}_{-1.20}$	$3827^{+193}_{-170}$	$4687^{+912}_{-597}$	$1.690^{+1.782}_{-0.765}$
Alt.	$-979 \pm 52$	$11.83^{+1.72}_{-1.54}$	$3838^{+175}_{-166}$	$4970^{+294}_{-235}$	$2.131^{+0.654}_{-0.495}$

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

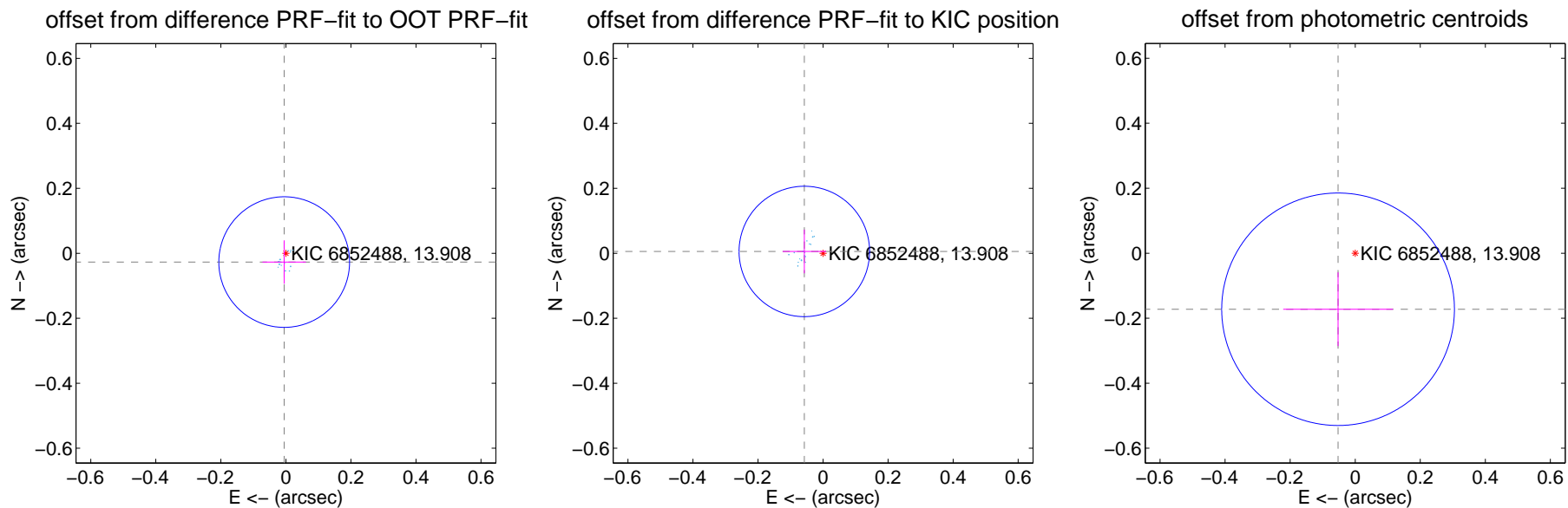
## DV Centroid Data

Supplemental centroid analysis for 006852488-02. Kepler magnitude: 13.91. Transit SNR 16.15

There are 17 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

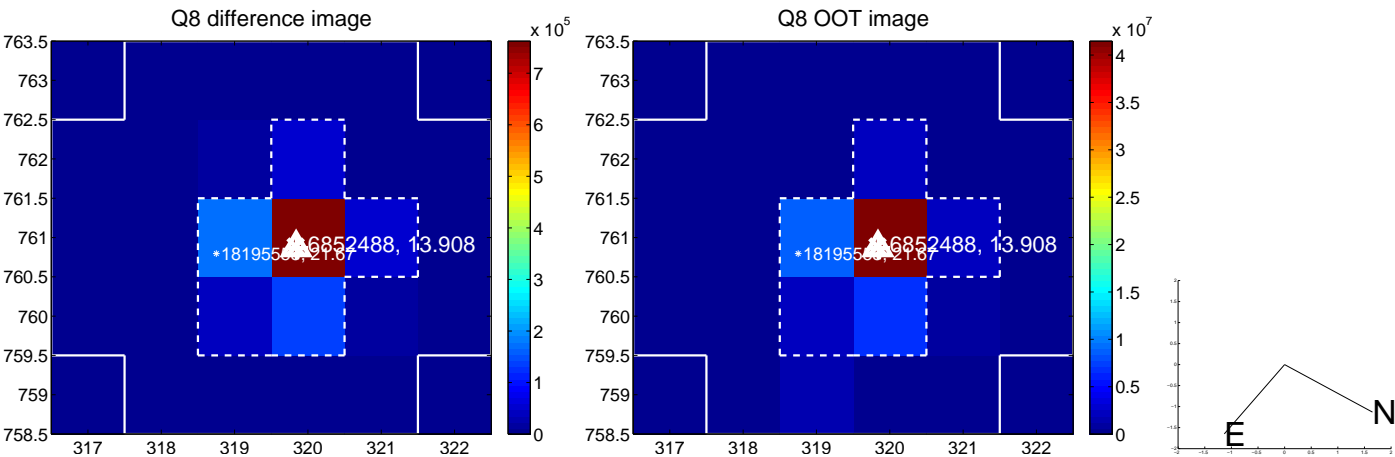
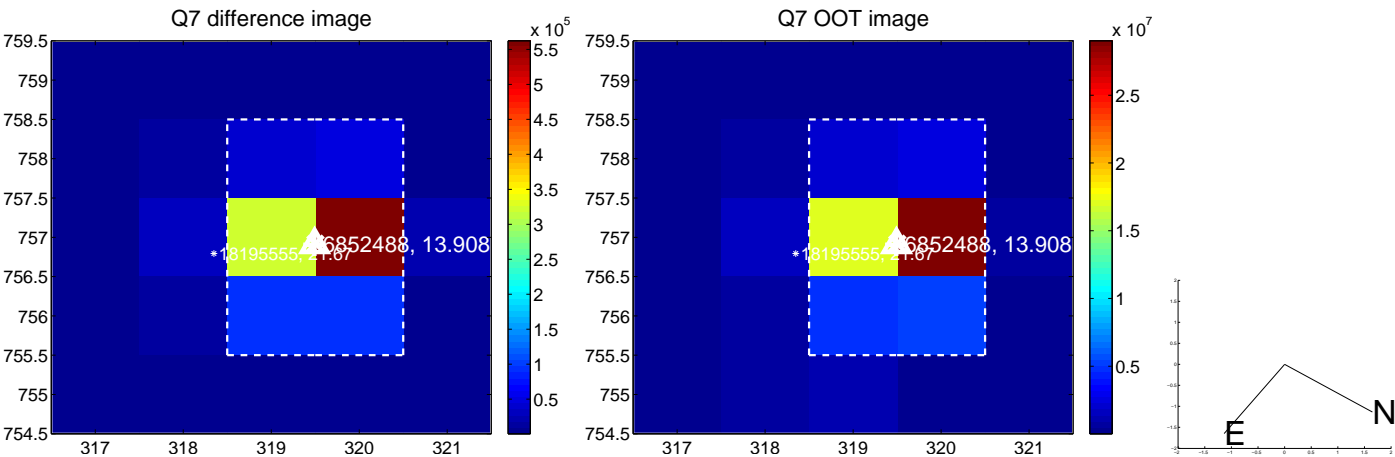
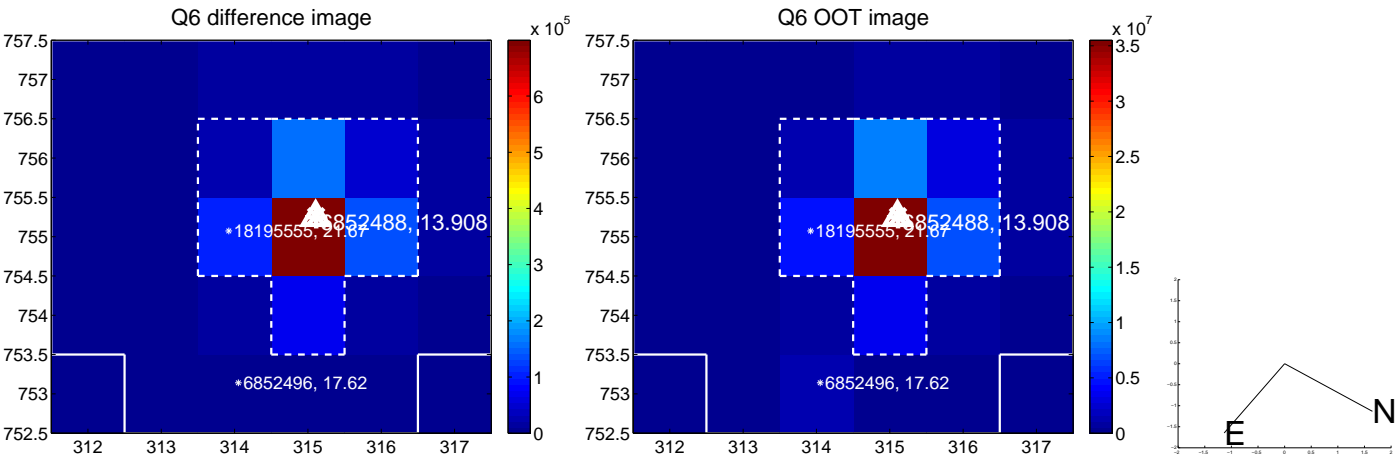
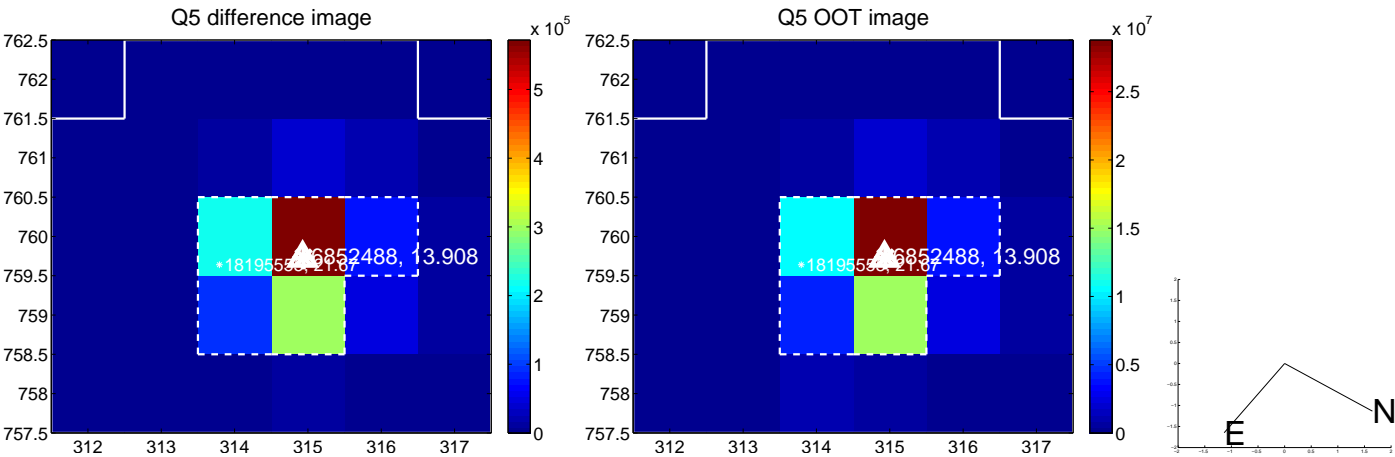
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.028 \pm 0.067$	0.41	$0.005 \pm 0.067$	$-0.027 \pm 0.067$
PRF-fit source offset from KIC position	$0.058 \pm 0.067$	0.87	$0.058 \pm 0.067$	$0.006 \pm 0.067$
photometric centroid source offset	$0.18 \pm 0.12$	1.51	$0.05 \pm 0.17$	$-0.17 \pm 0.11$



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.

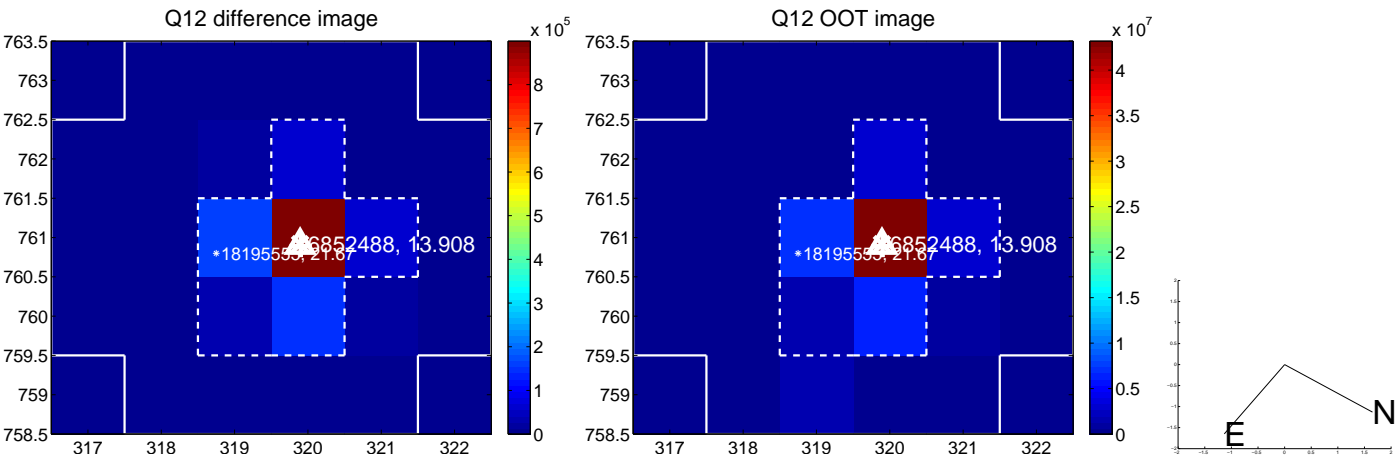
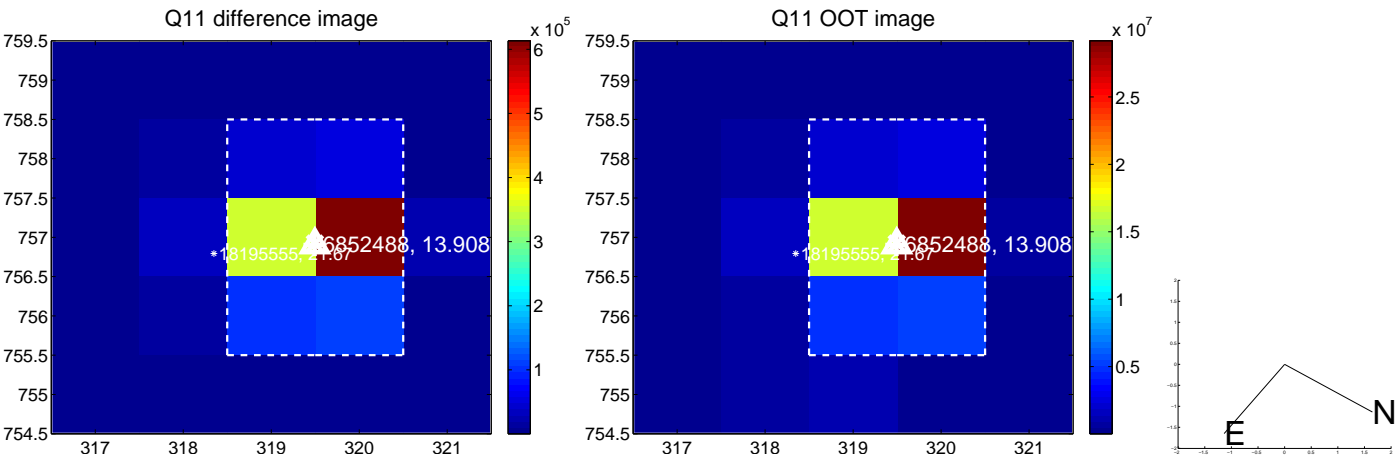
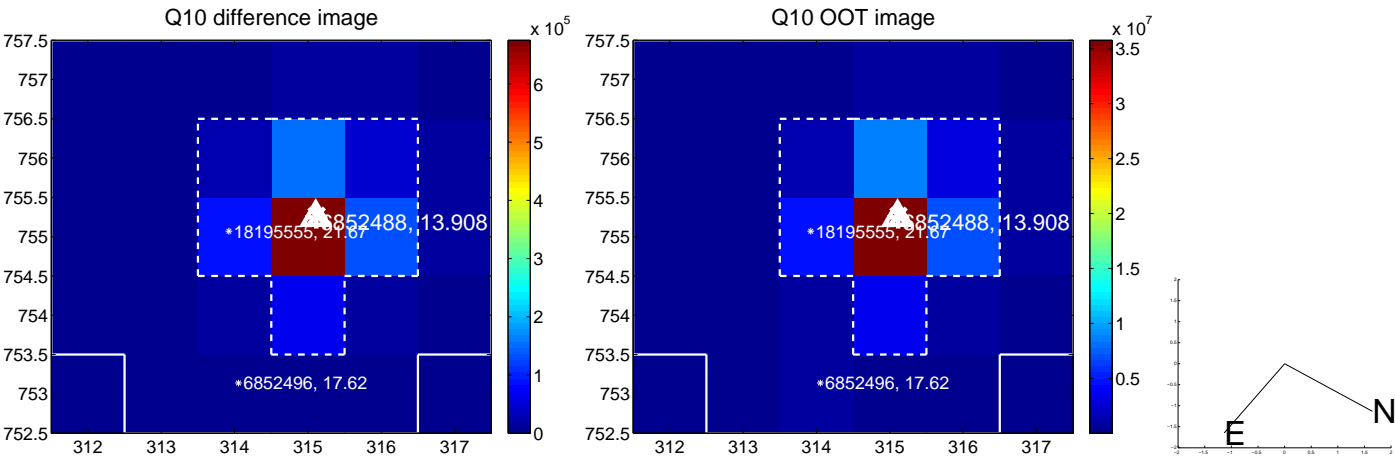
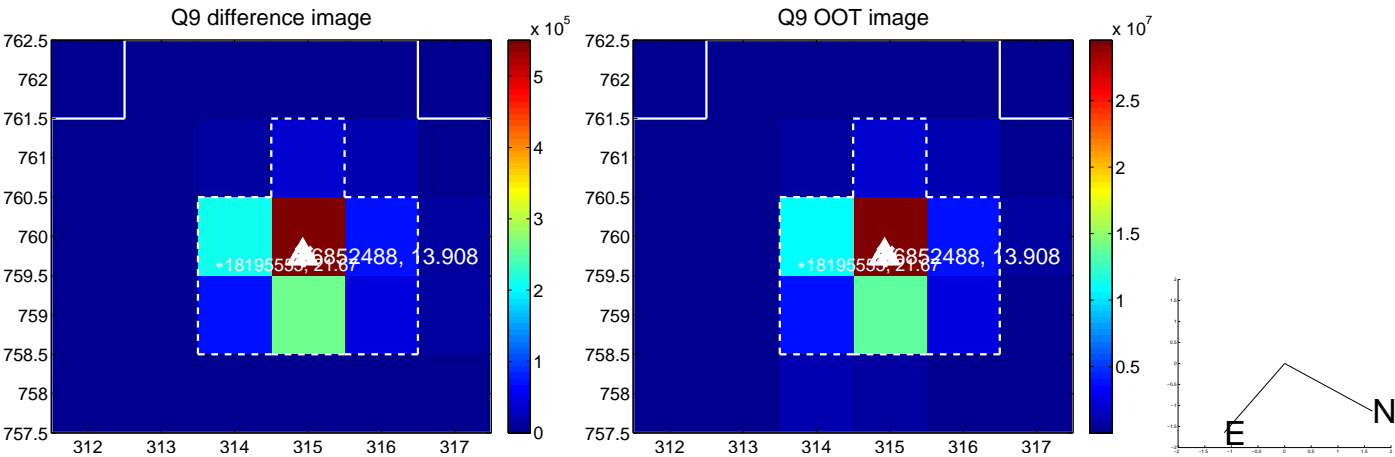


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

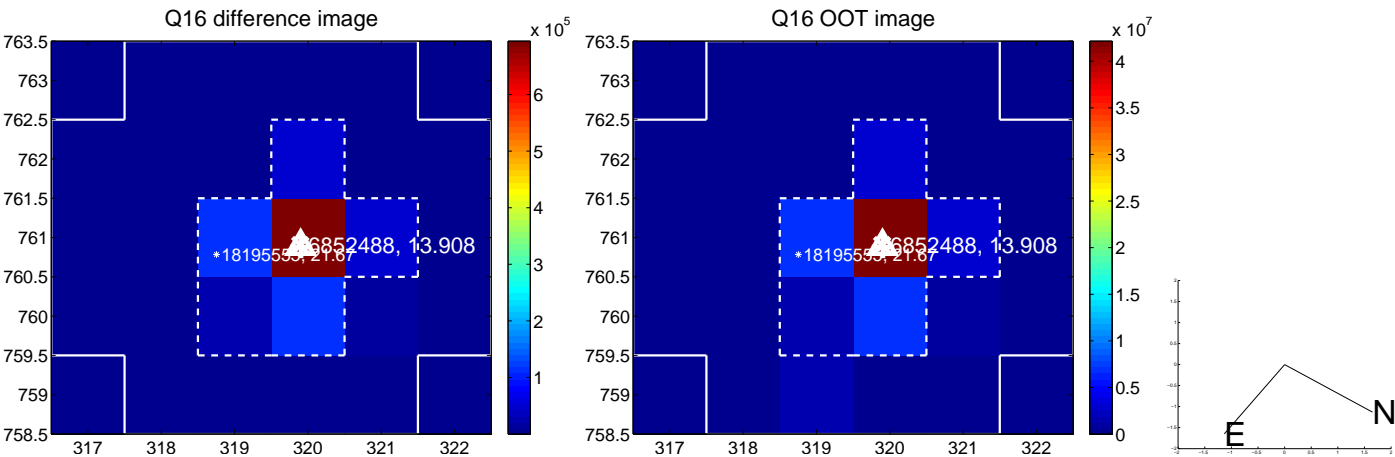
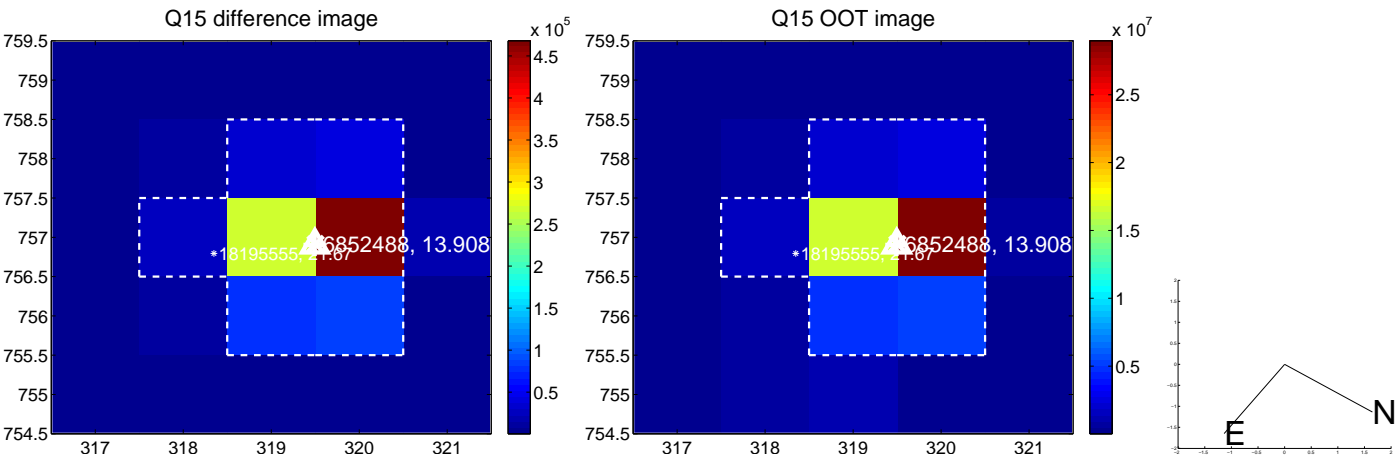
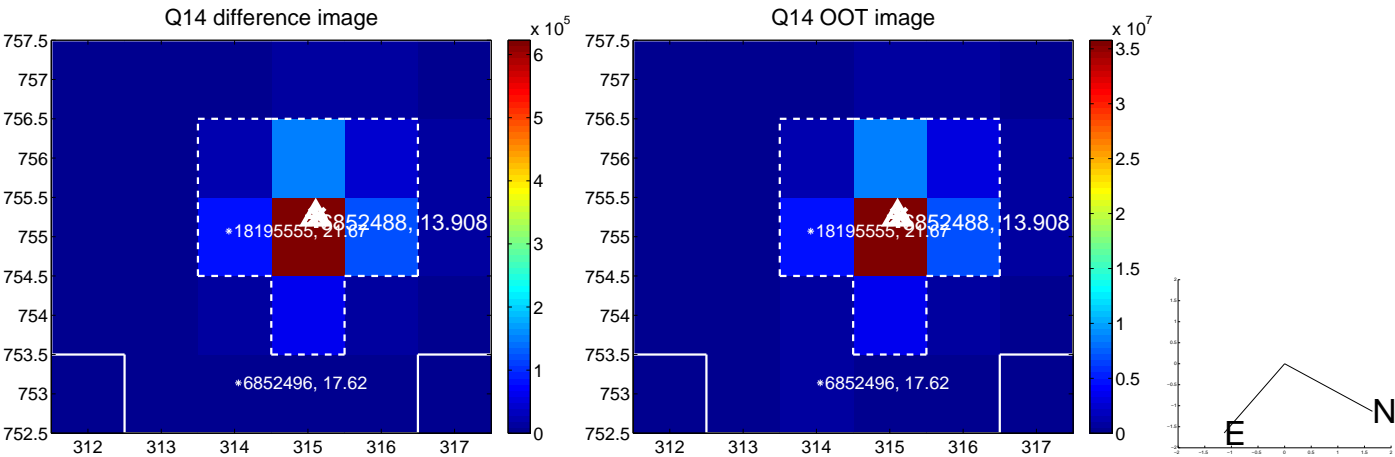
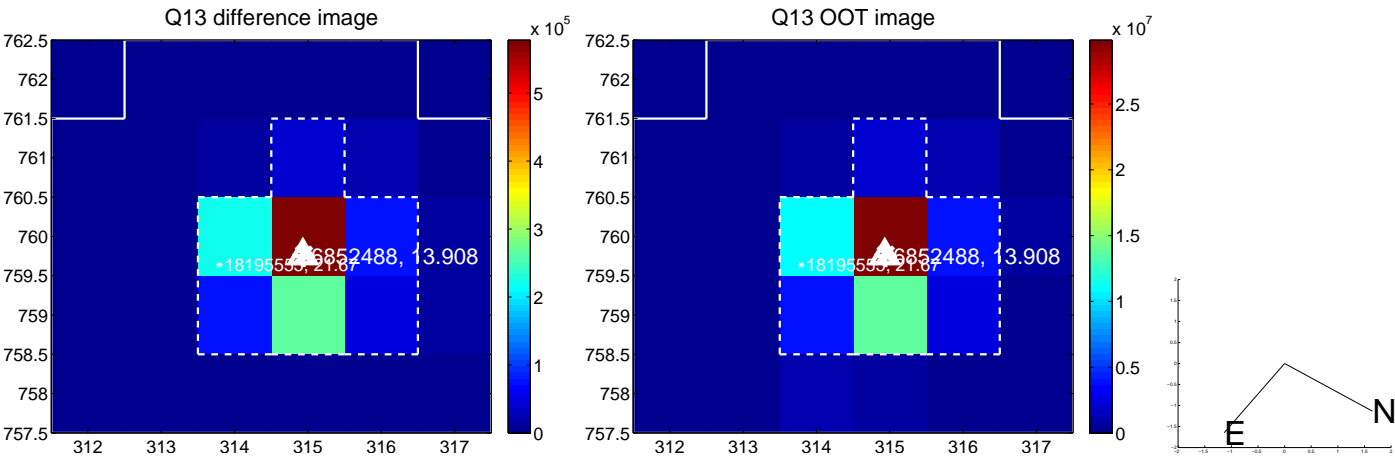




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



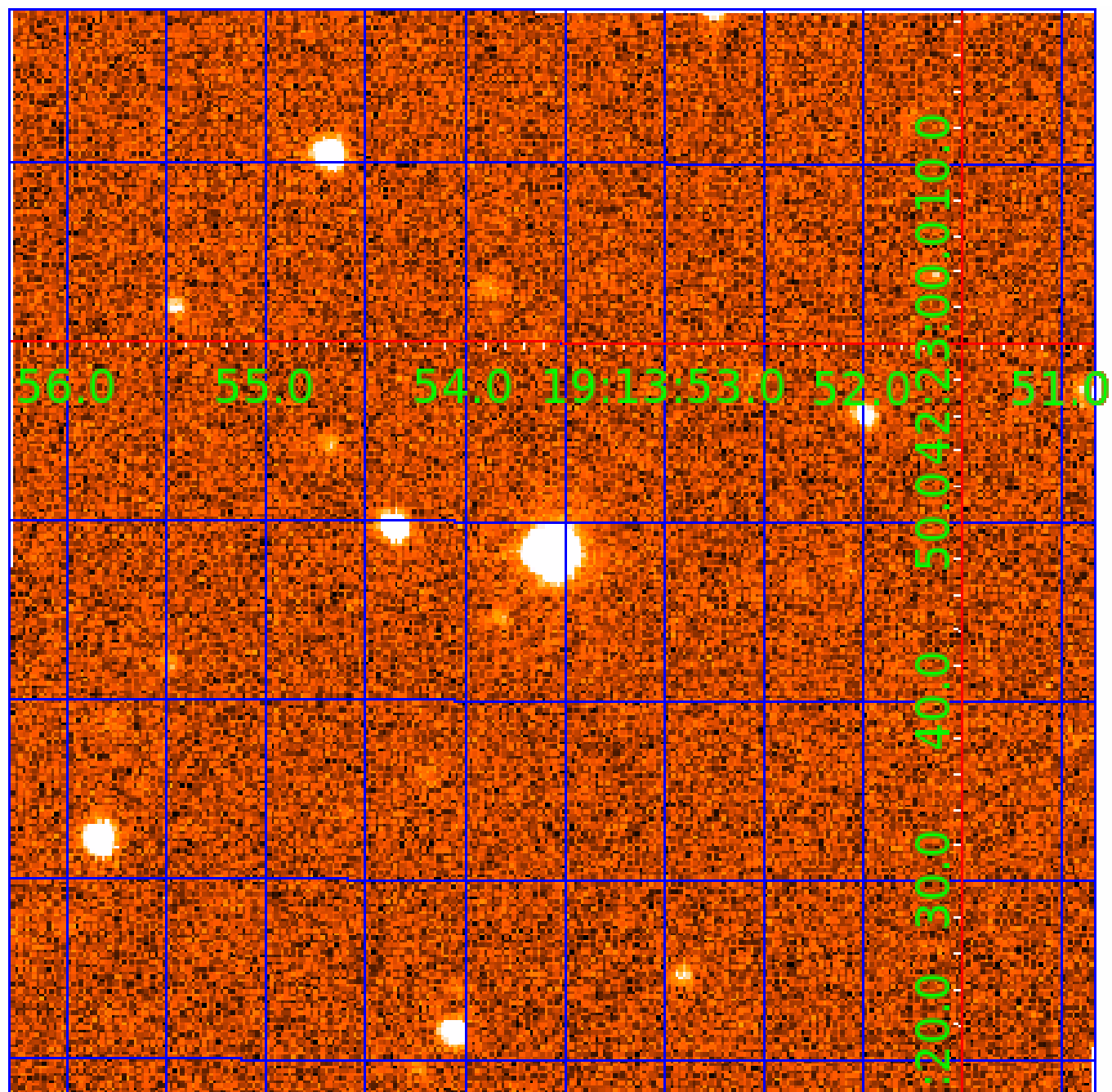
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

Declination



# KIC 006852488

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006852488-01	OBS	6775.01	2.172034	131.766231	130610.1	6.300	1806.1	2567.4	1.77	7128	74.37	5244.96
006852488-02	OBS	No	1.086019	131.766838	401.3	4.530	18.0	16.2	1.77	7128	3.77	13216.42
006852488-03	OBS	No	2.172021	132.542244	467.5	2.500	8.3	-1.0	1.77	7128	3.89	5245.00

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006852488-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—DEEP_V_SHAPED—HAS_SEC_TCE
006852488-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
006852488-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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 006852488-03

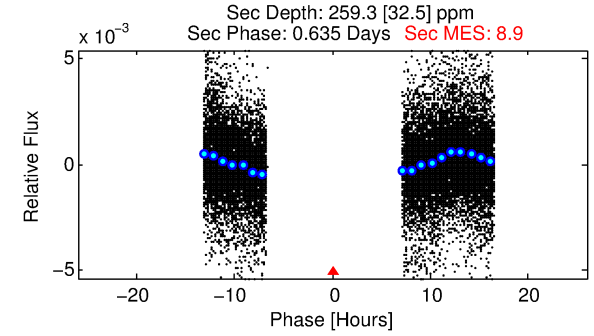
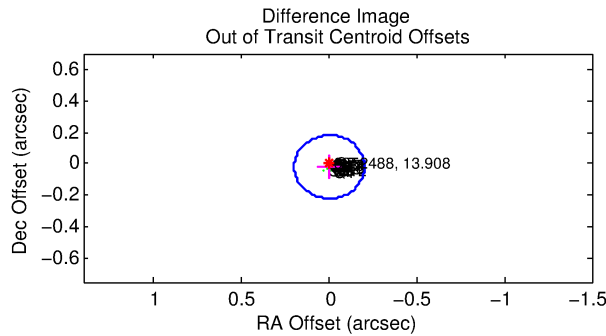
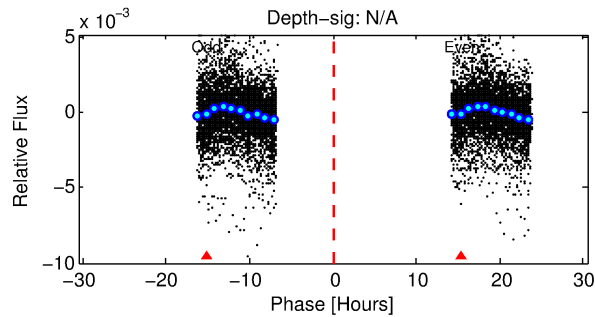
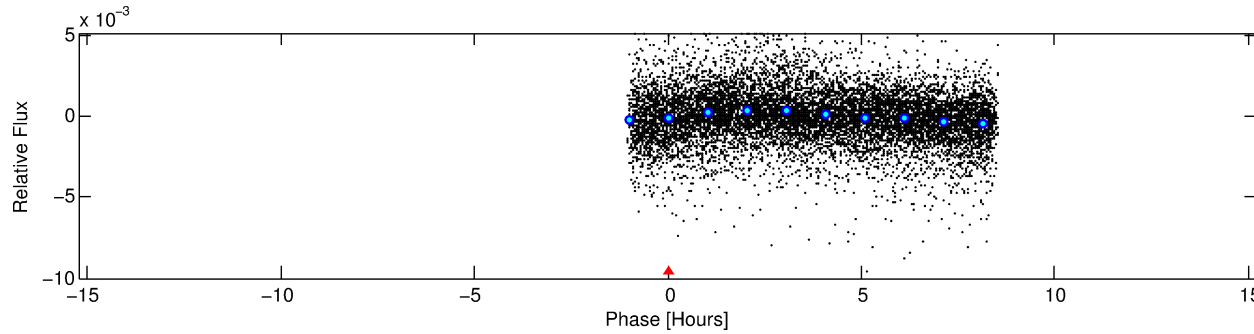
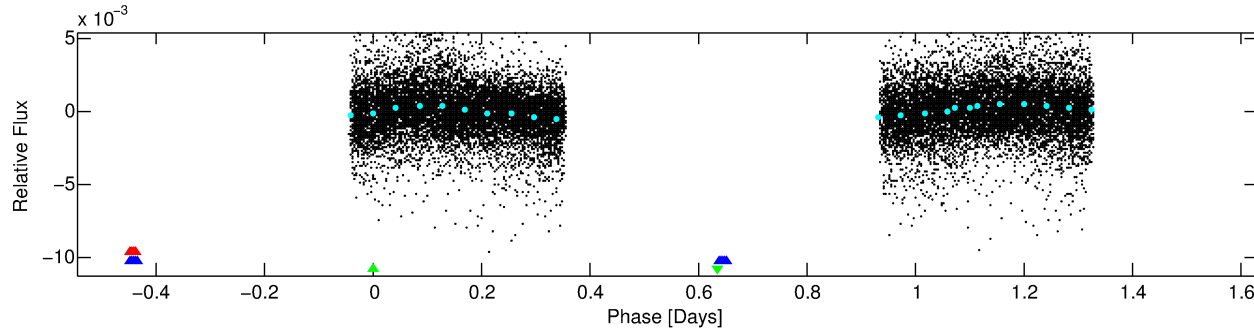
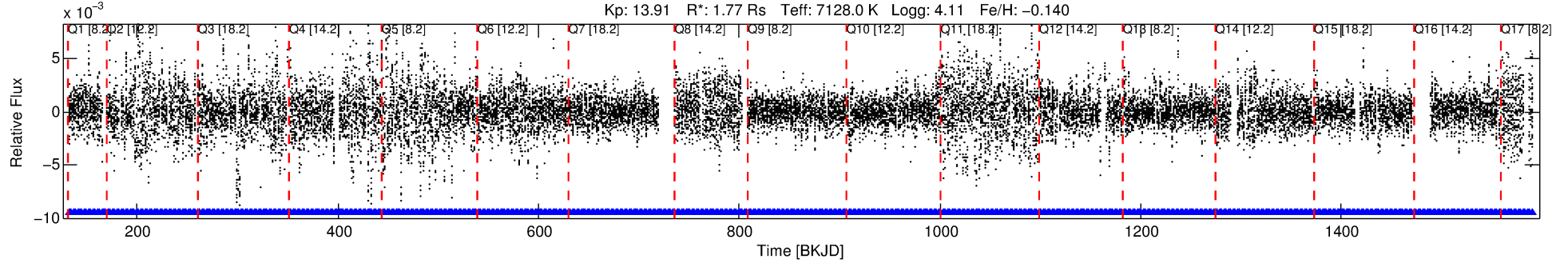
No Significant Match Found

# DV One-Page Summary

KIC: 6852488 Candidate: 3 of 3 Period: 2.172 d

KOI: K06775 Corr: No Ephemeris Match

Kp: 13.91 R\*: 1.77 Rs Teff: 7128.0 K Logg: 4.11 Fe/H: -0.140



## TPS TCE Results:

Period = 2.17202 d  
Epoch = 132.5422 BKJD

DV fit results are unavailable

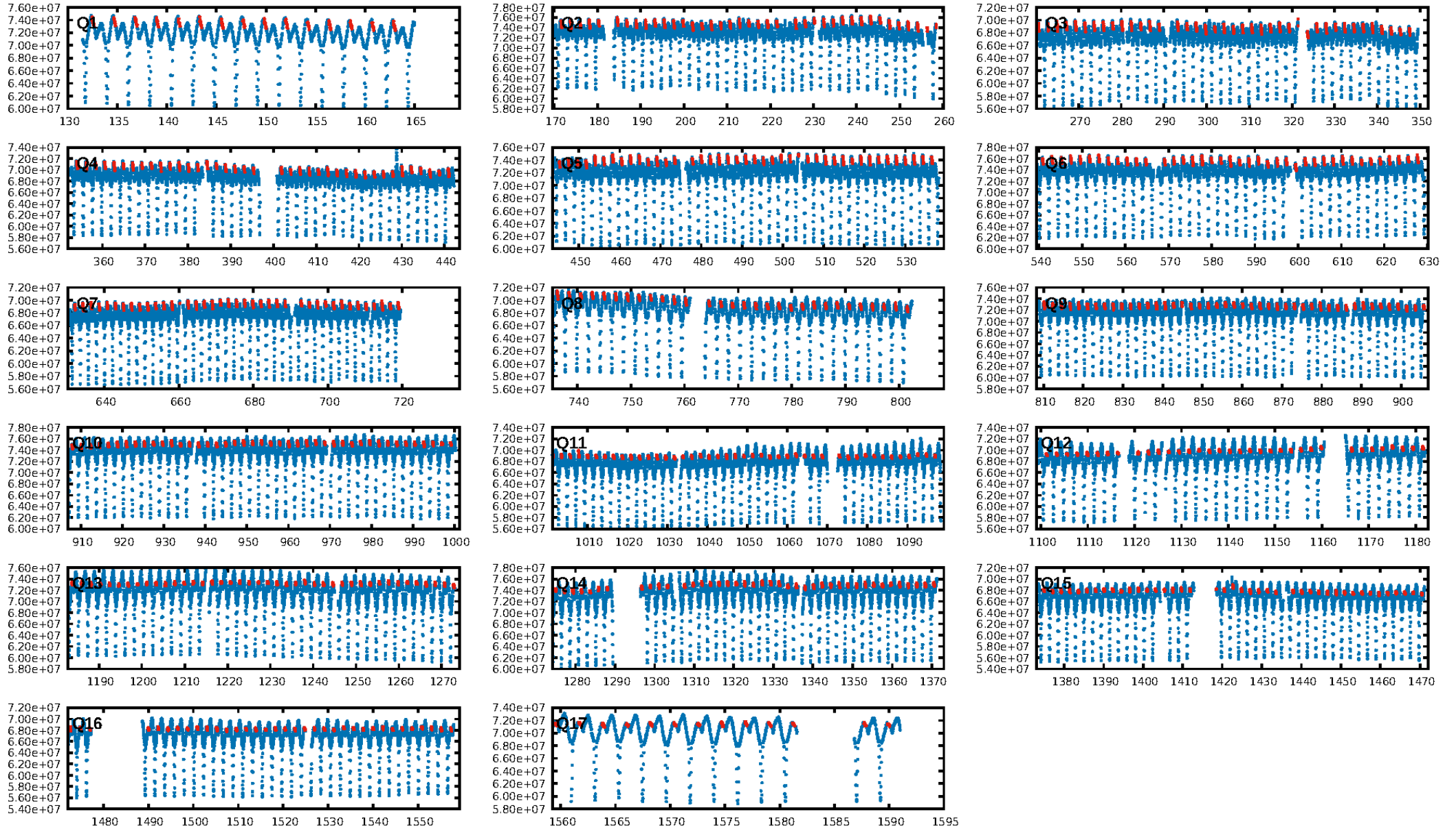
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.04 $\sigma$ ]  
LongPeriod-sig: 0.0% [0.00 $\sigma$ ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [588/588]  
GhostDiagnostic-chr: 2.148  
Centroid-sig: N/A  
Centroid-so: 0.253 arcsec [47.25 $\sigma$ ]  
OotOffset-rm: 0.019 arcsec [0.29 $\sigma$ ]  
KicOffset-rm: 0.050 arcsec [0.75 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.00 [0/17]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 02:11:17 Z

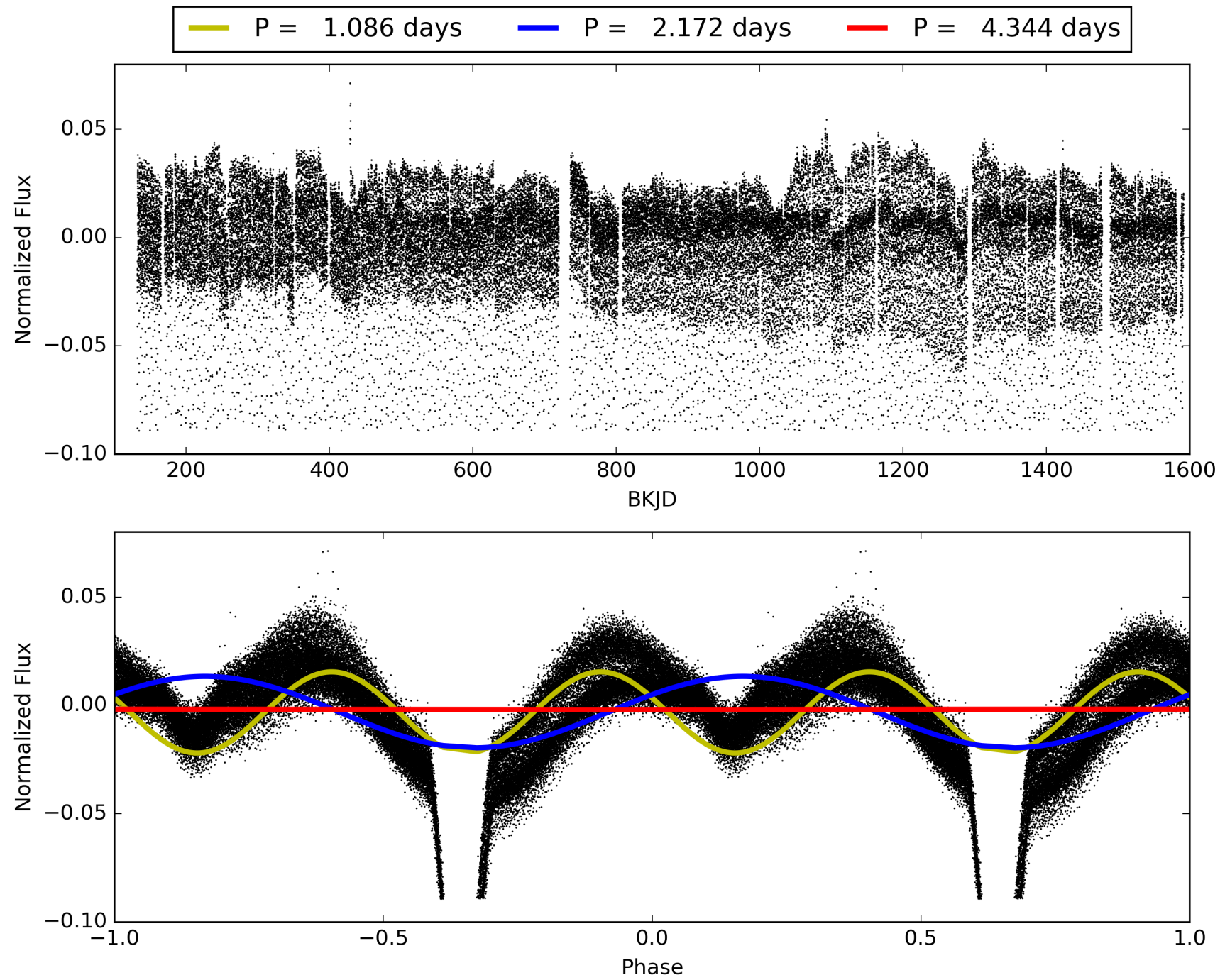
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 006852488-03, PDC Light Curves



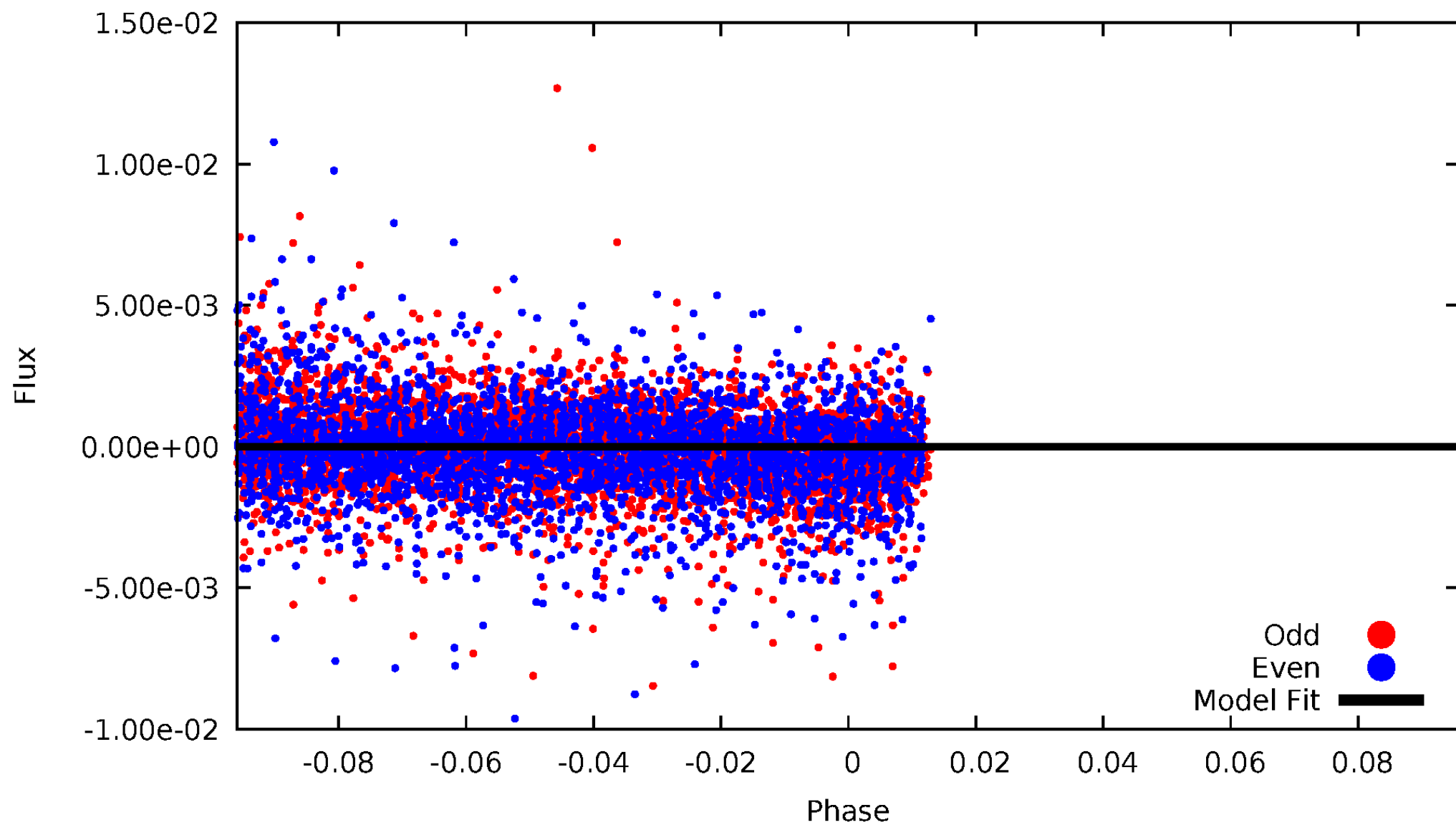


TCE 006852488-03



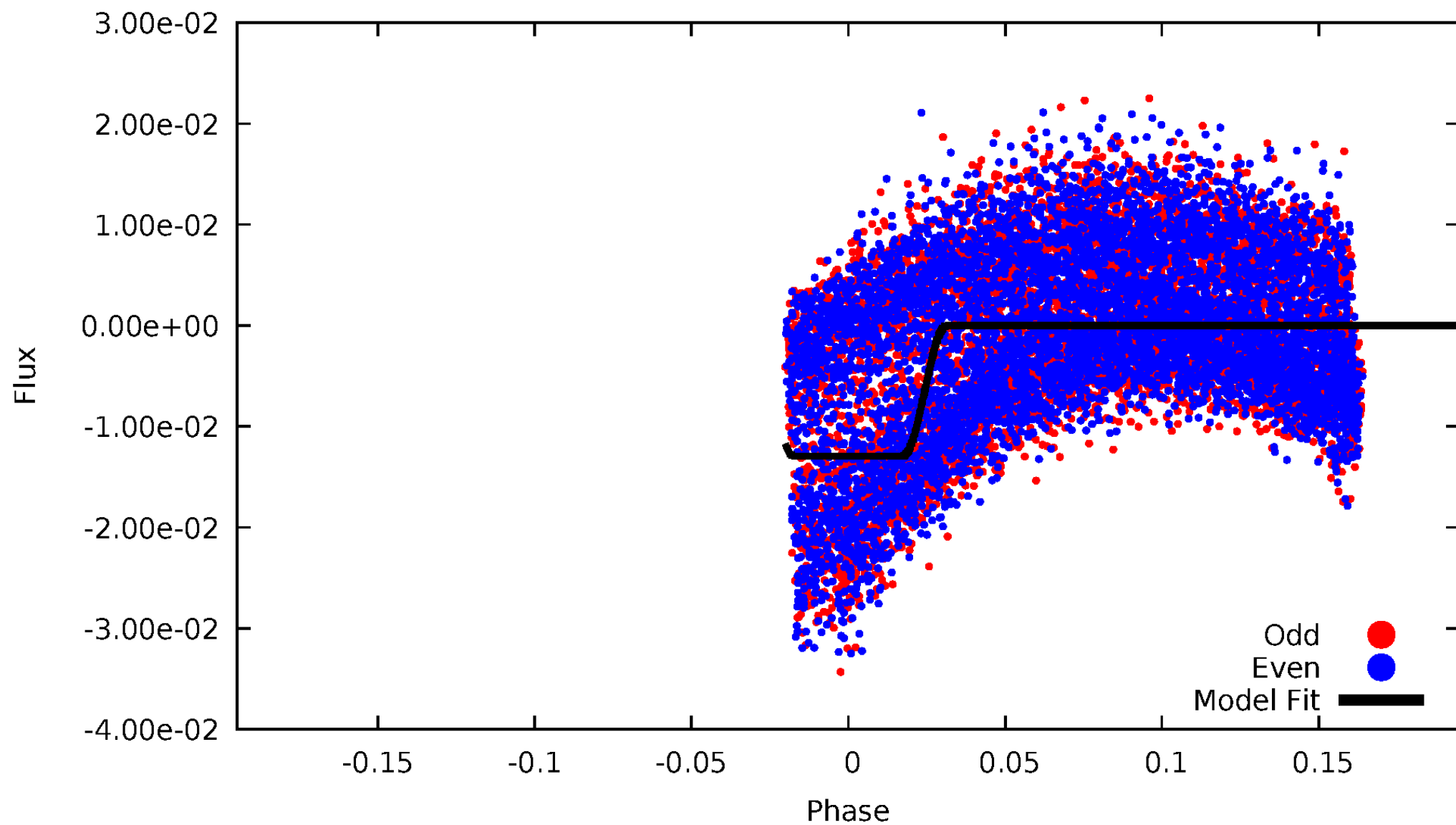
# DV Odd/Even

TCE 006852488-03

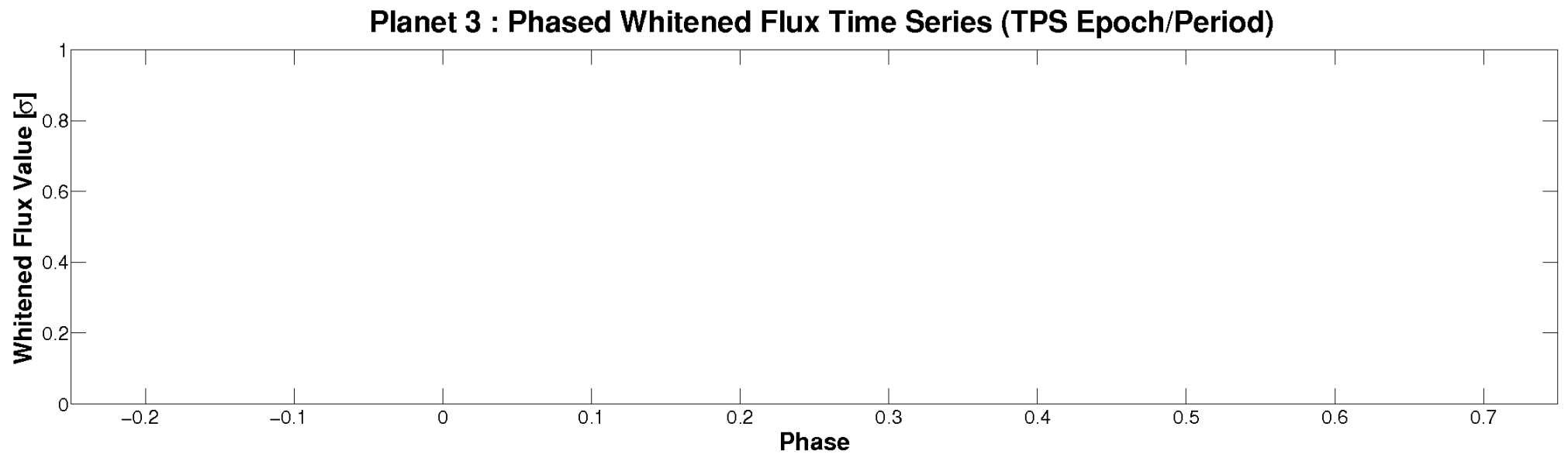
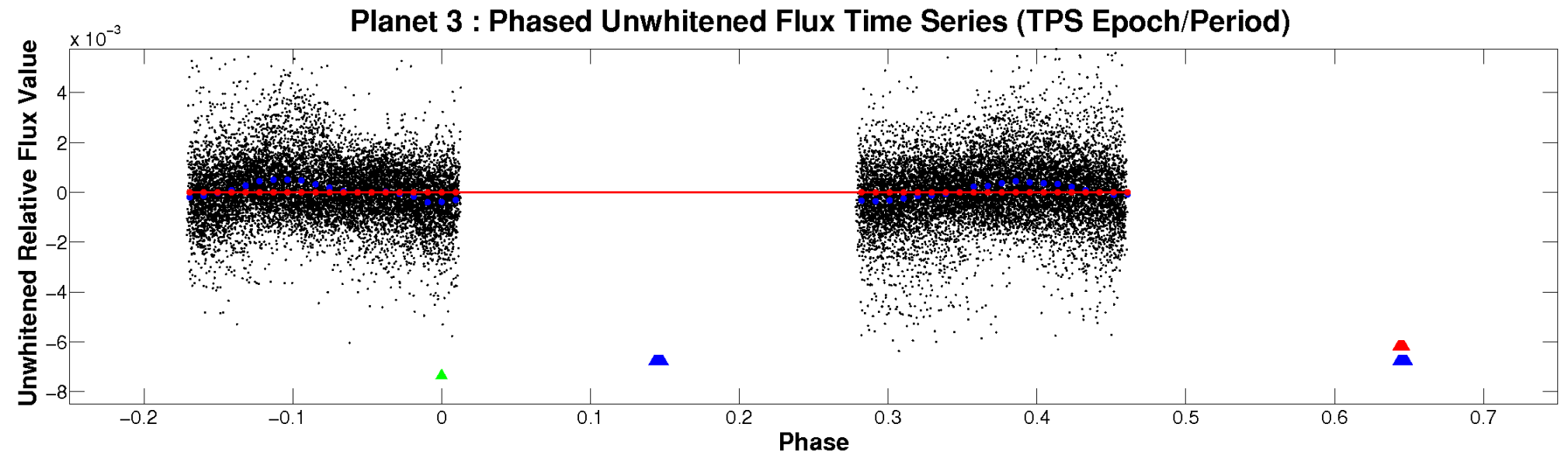


# ALT Odd/Even

TCE 006852488-03

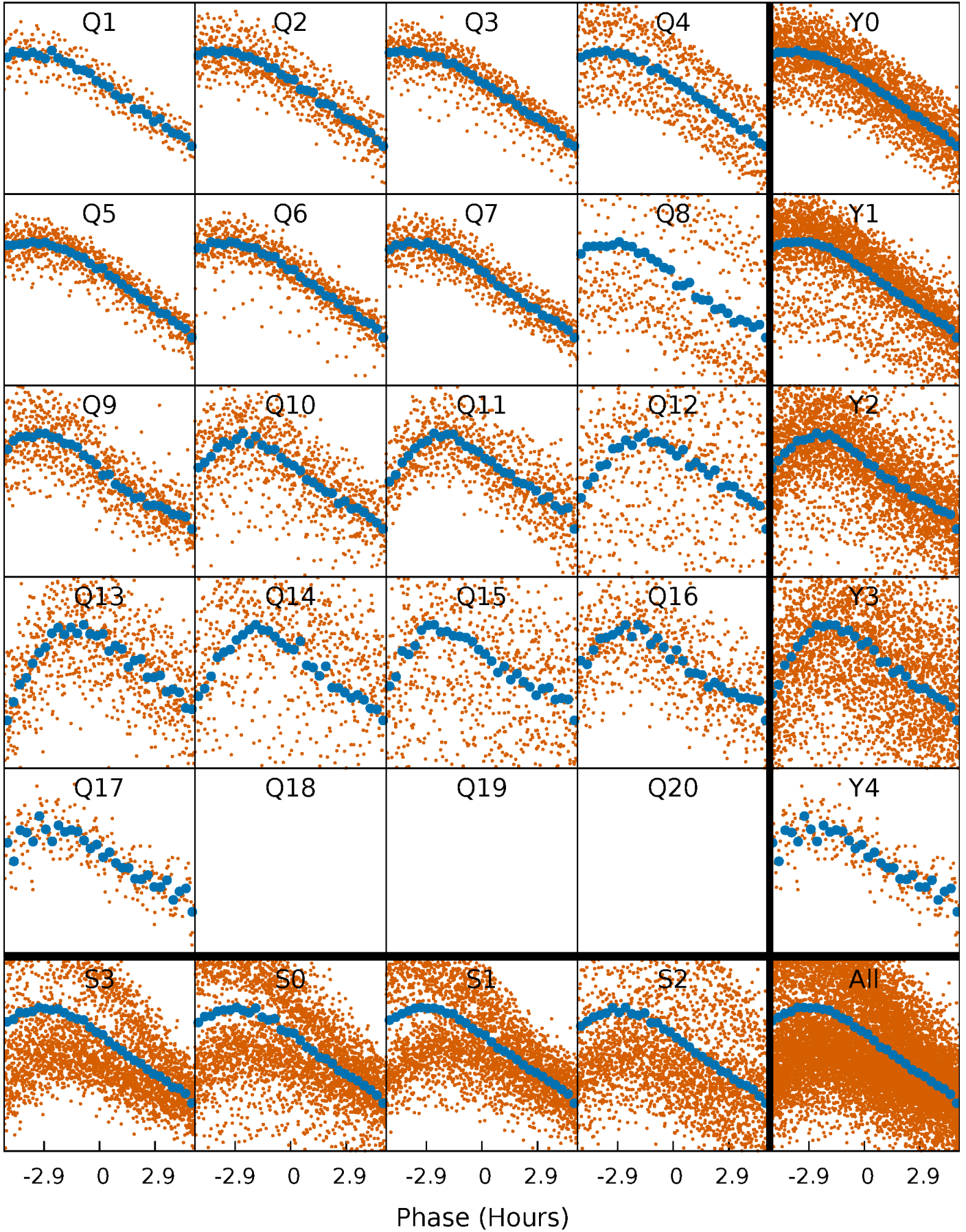


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

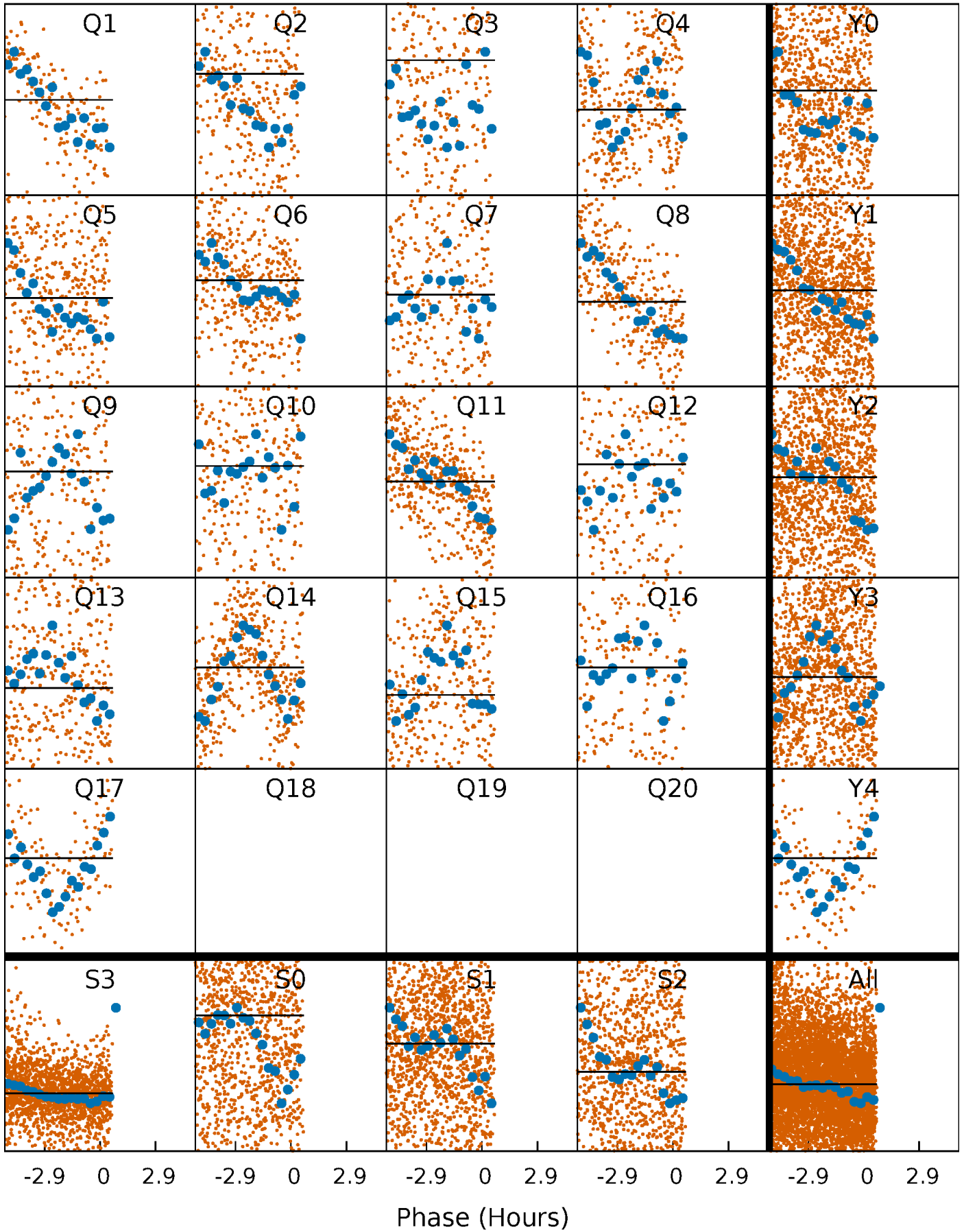
TCE 006852488-03 P= 2.172021 Days  $T_0=132.542244$  (BKJD)





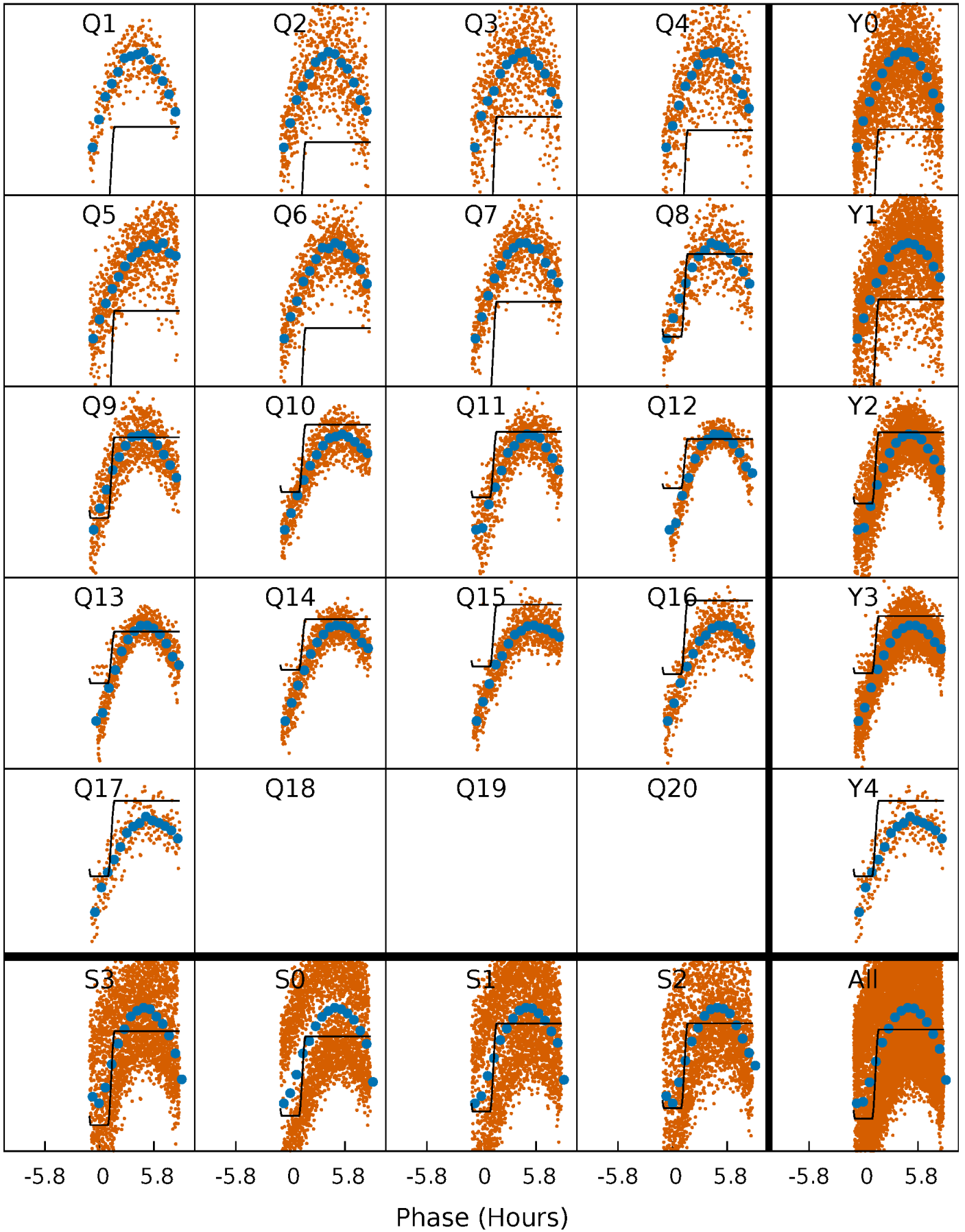
# DV Quarter-Phased Transit Curves

TCE 006852488-03   P= 2.172021 Days    $T_0=132.542244$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 006852488-03 P= 2.172021 Days  $T_0=132.214138$  (BKJD)

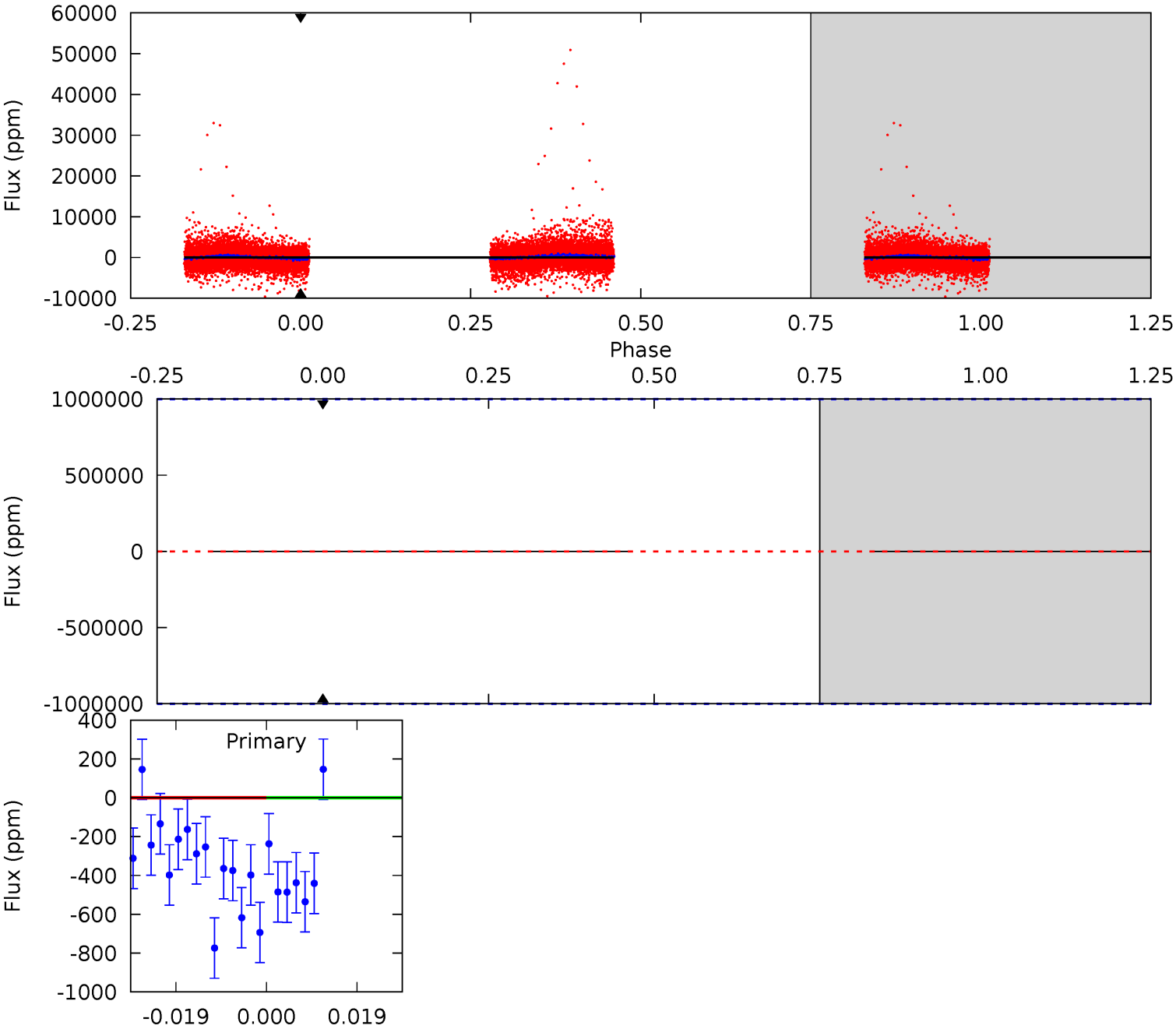




# DV Model-Shift Uniqueness Test

006852488-03, P = 2.172021 Days, E = 130.370223 Days

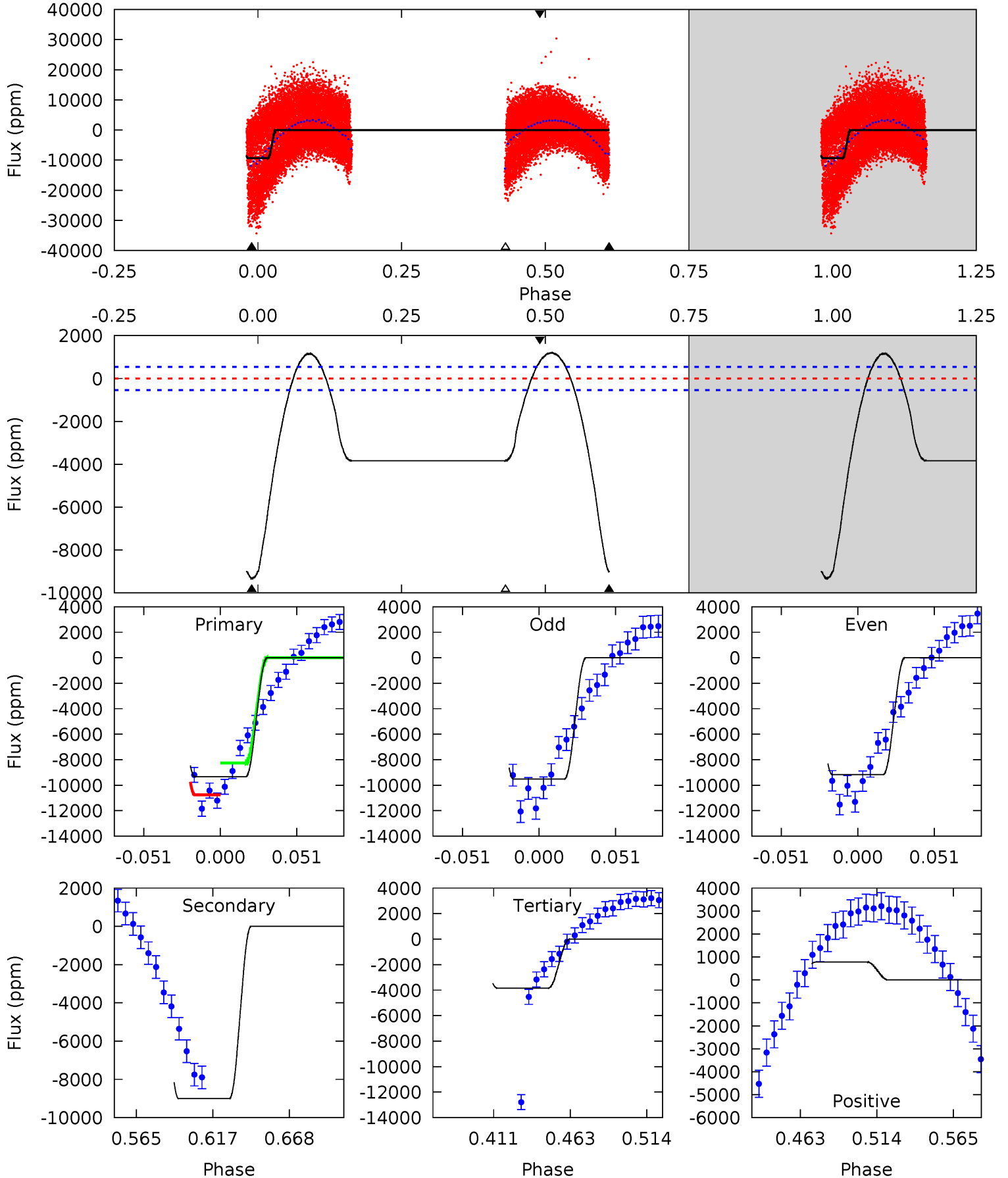
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

006852488-03, P = 2.172021 Days, E = 130.042117 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
81.7	78.7	33.6	6.80	4.70	1.95	14.0	48.1	74.8	45.1	71.9	1.51	0.91	0.12	9.95



### Stellar Parameters For KIC 006852488

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7128^{+71}_{-85}$	$4.105^{+0.115}_{-0.126}$	$-0.140^{+0.150}_{-0.150}$	$1.775^{+0.336}_{-0.280}$	$1.461^{+0.116}_{-0.116}$	$0.368^{+0.205}_{-0.132}$
	+1%/-1%	+3%/-3%	+107%/-107%	+19%/-16%	+8%/-8%	+56%/-36%
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 006852488-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$14.11^{+15.41}_{-10.14}$	$3037^{+154}_{-138}$	$5499^{+30971}_{-37901}$	$6.604^{+709.732}_{-620.164}$
Alt.	$-9001 \pm 114$	$25.09^{+18.92}_{-15.17}$	$3035^{+143}_{-128}$	$6068^{+4626}_{-1398}$	$11^{+58}_{-7}$

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

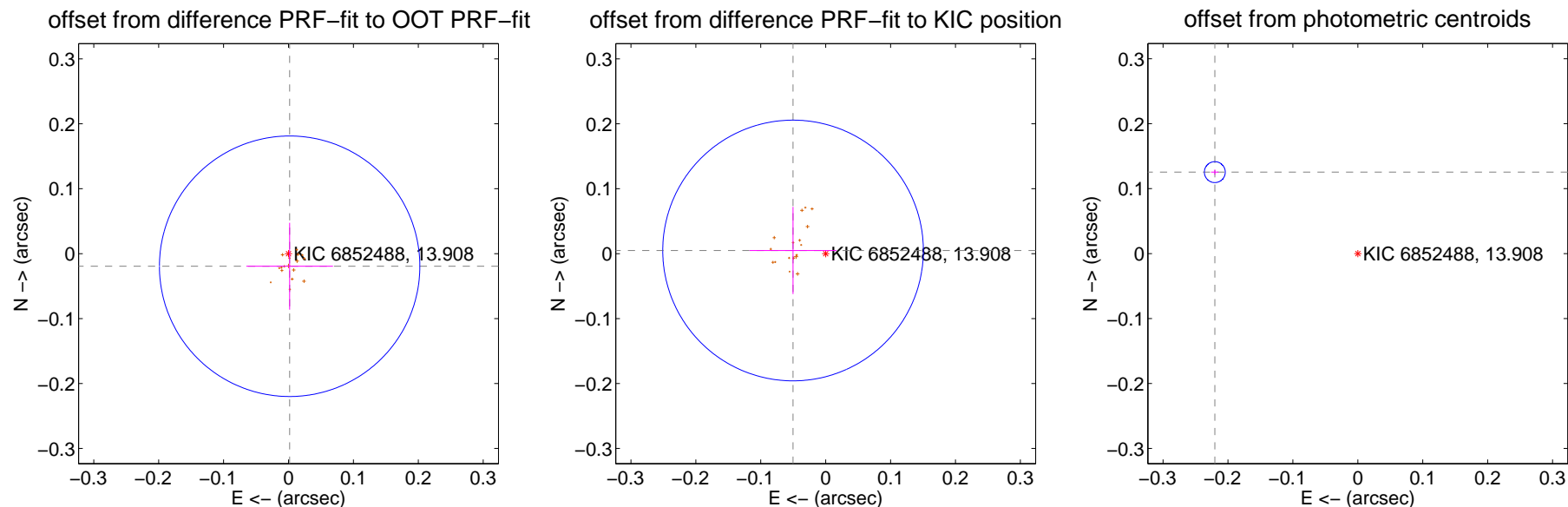
## DV Centroid Data

Supplemental centroid analysis for 006852488-03. Kepler magnitude: 13.91. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

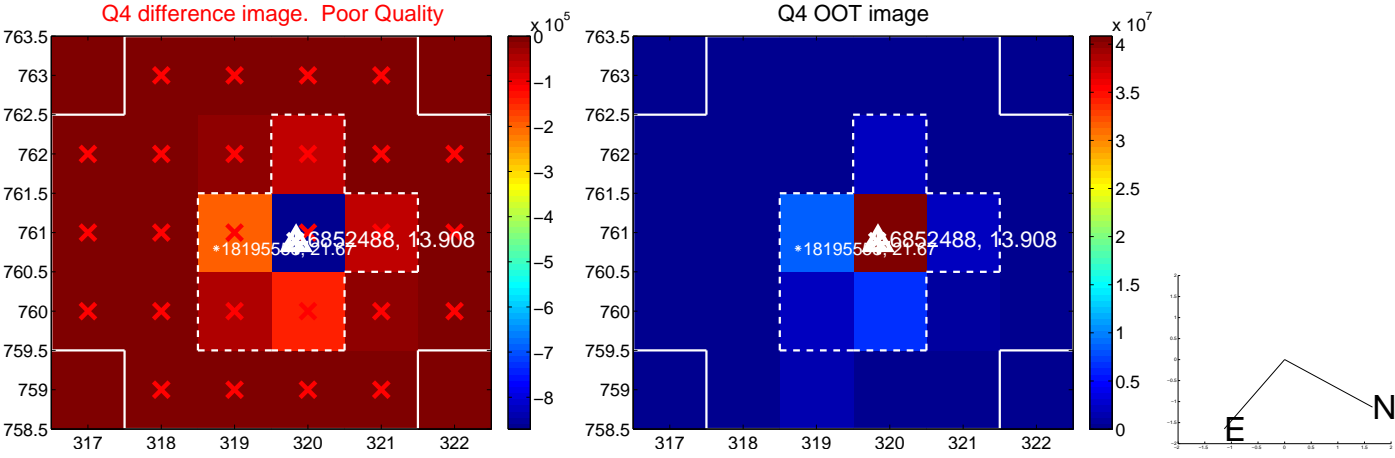
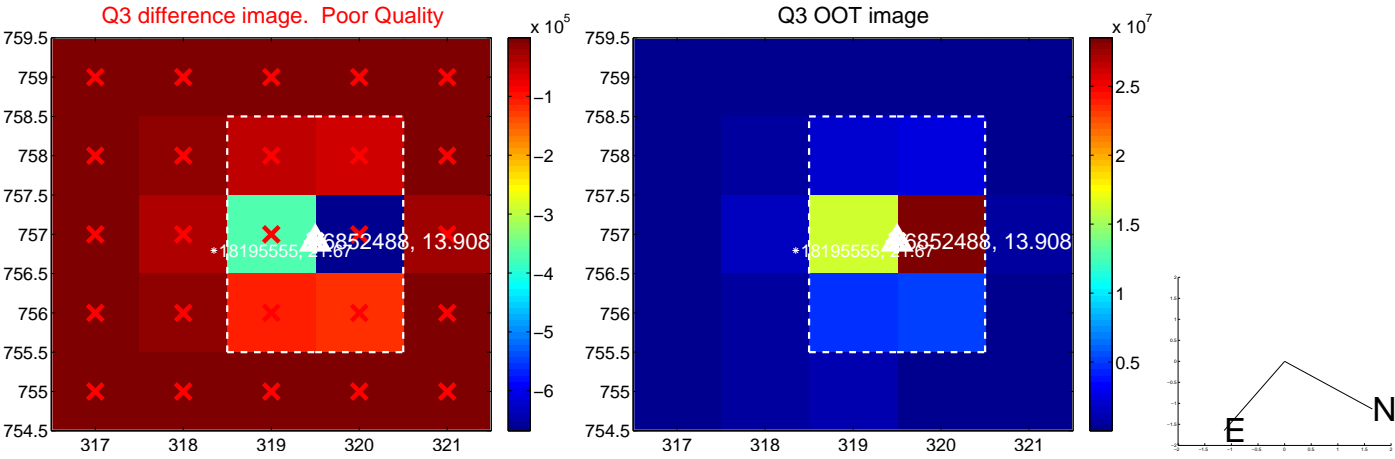
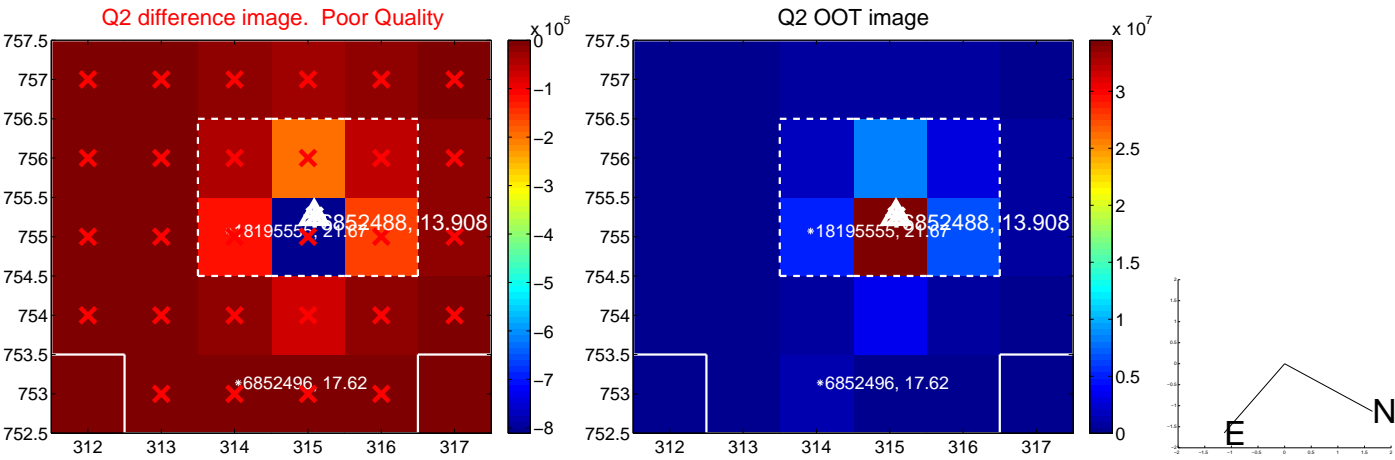
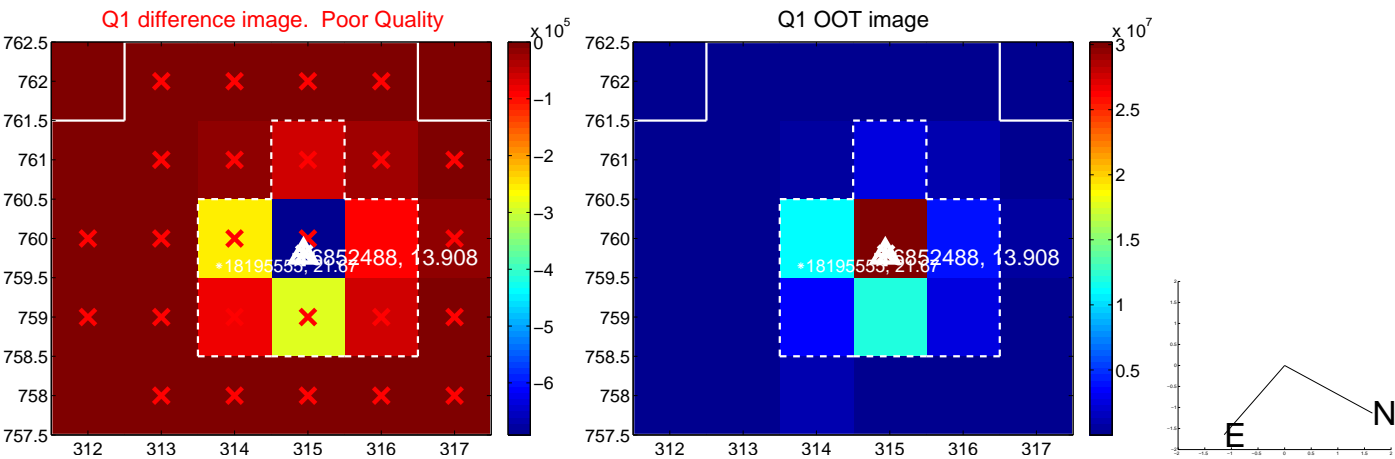
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.019 \pm 0.067$	0.29	$-0.002 \pm 0.067$	$-0.019 \pm 0.067$
PRF-fit source offset from KIC position	$0.050 \pm 0.067$	0.75	$0.050 \pm 0.067$	$0.005 \pm 0.067$
photometric centroid source offset	$0.25 \pm 0.01$	47.25	$0.22 \pm 0.01$	$0.13 \pm 0.00$

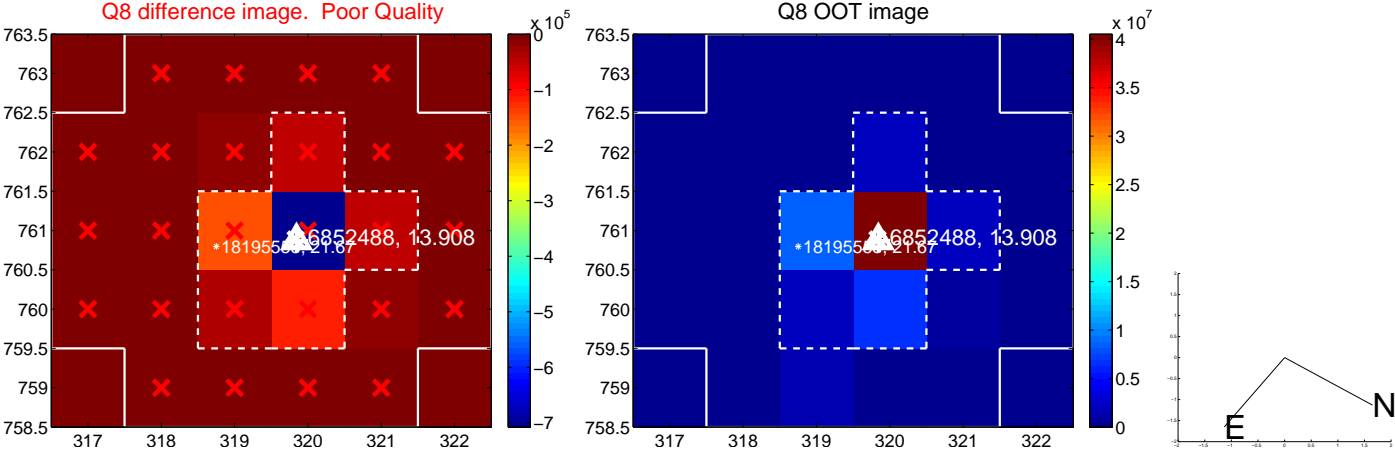
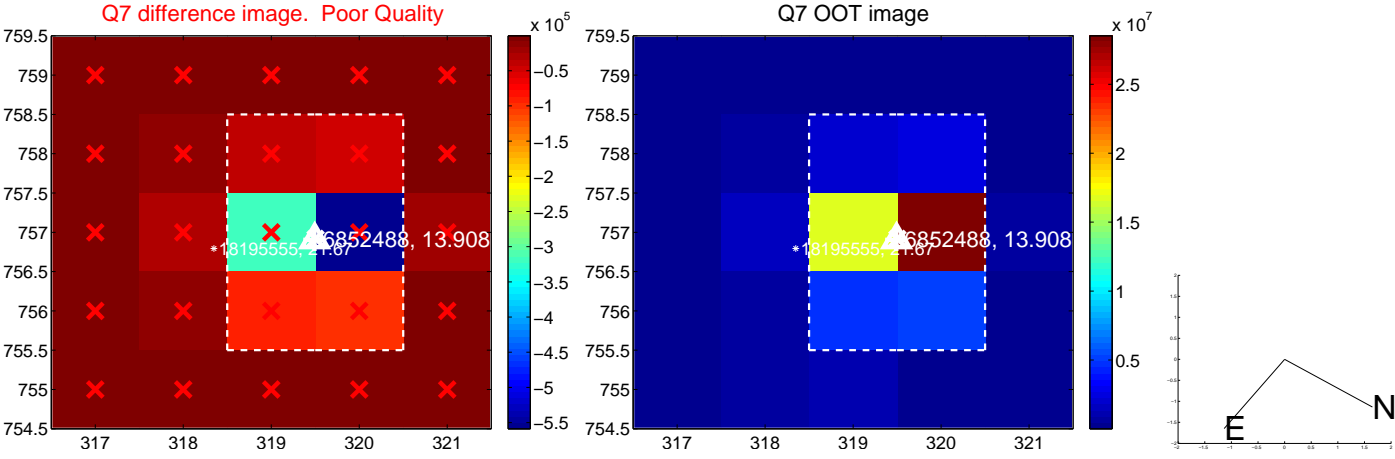
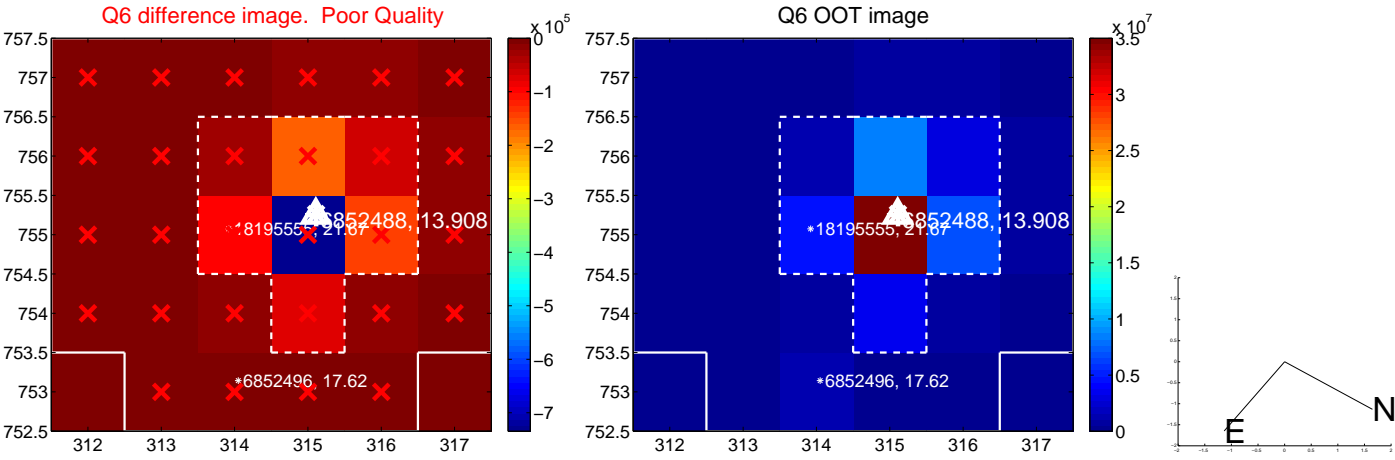
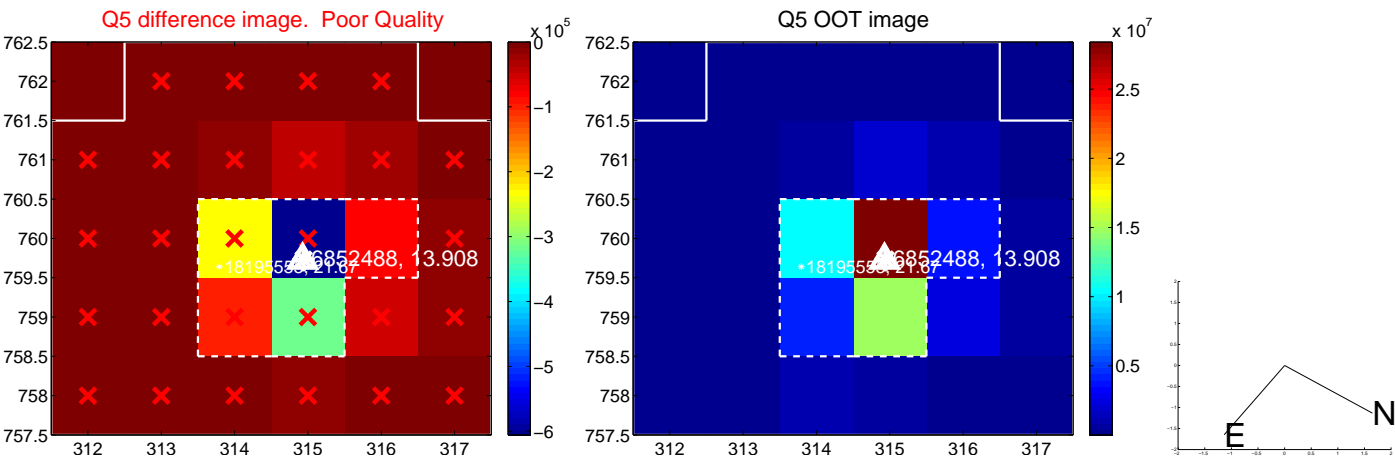


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

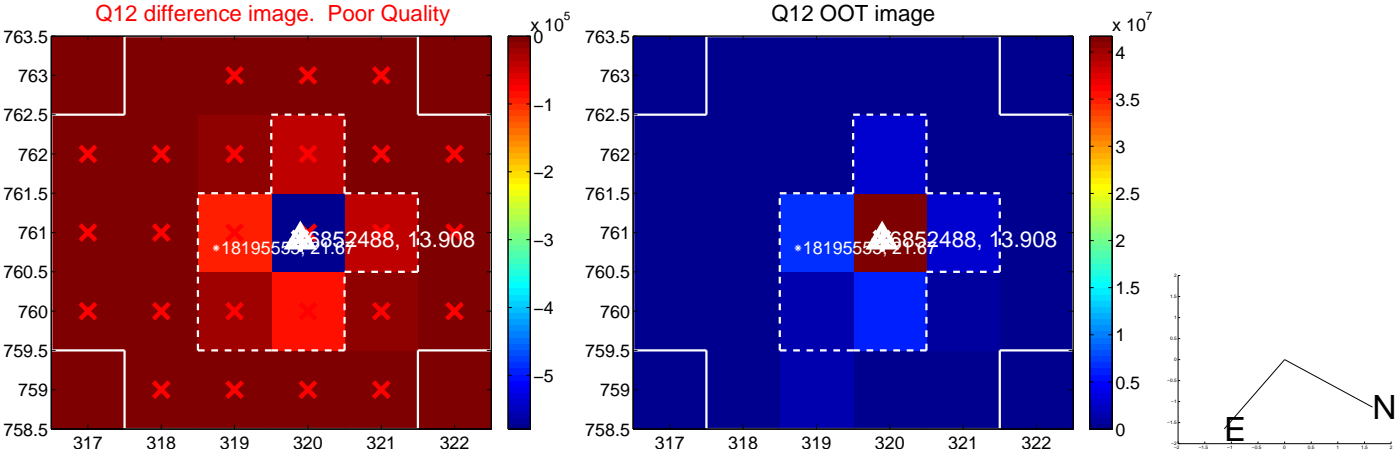
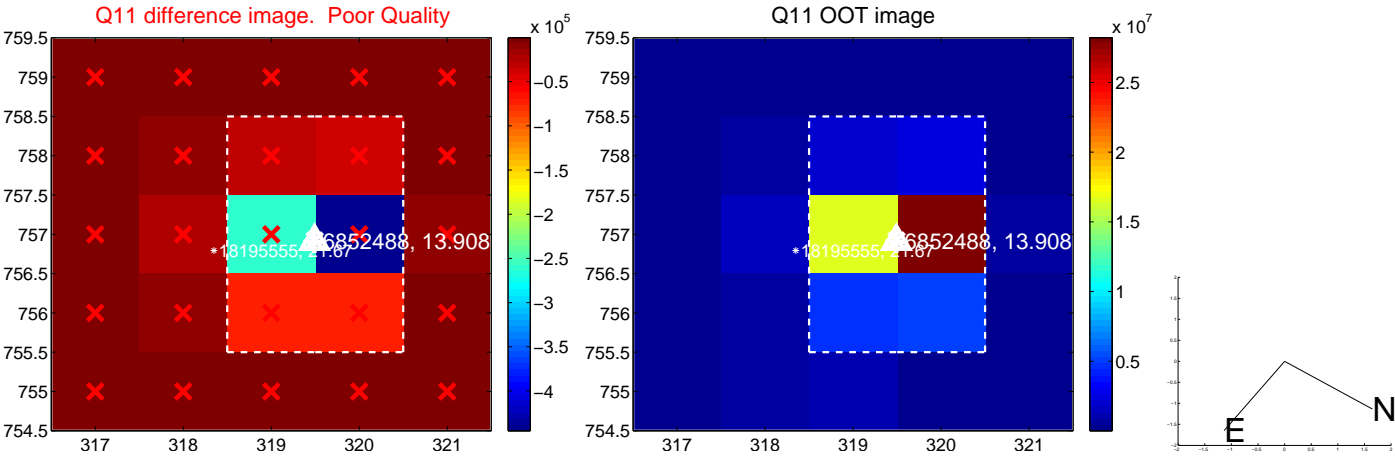
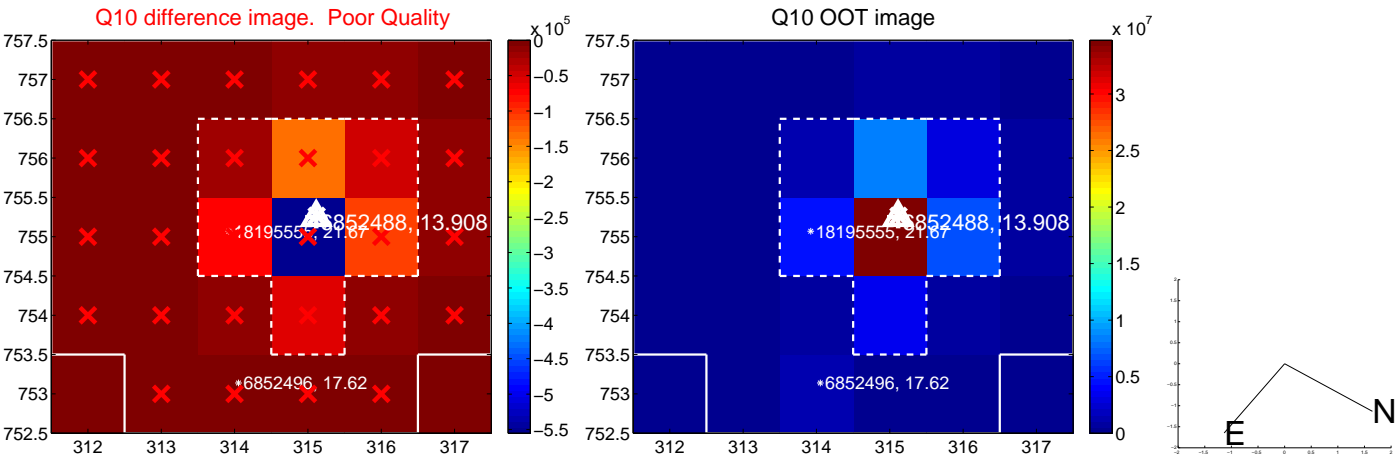
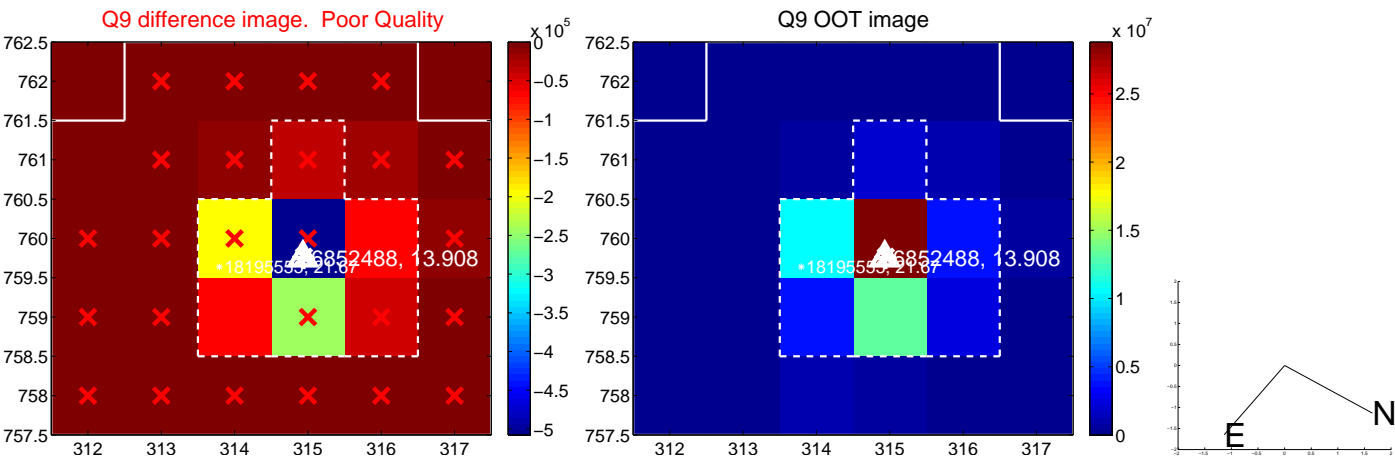
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

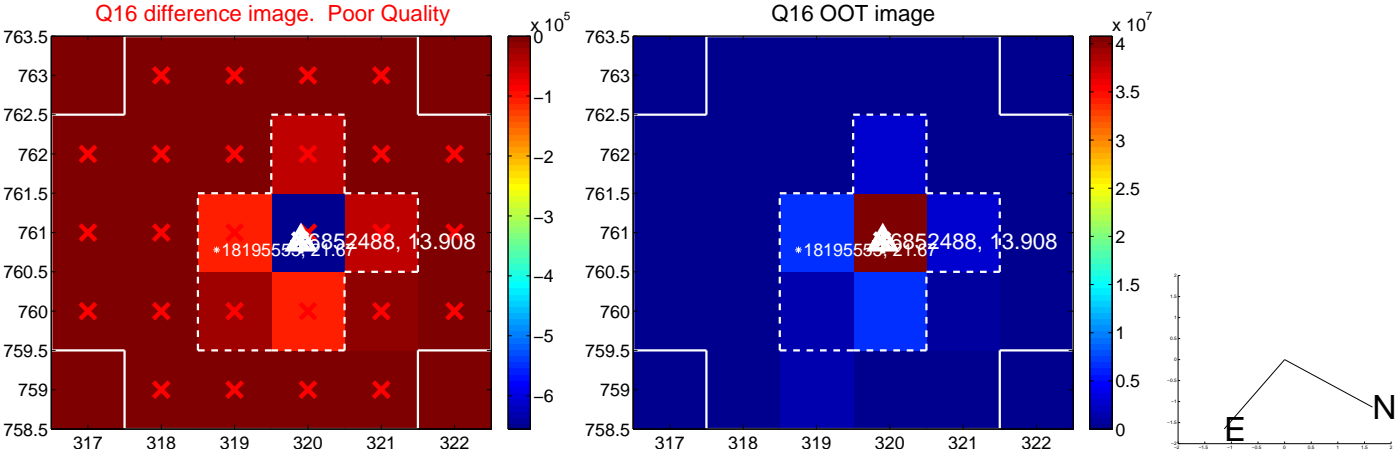
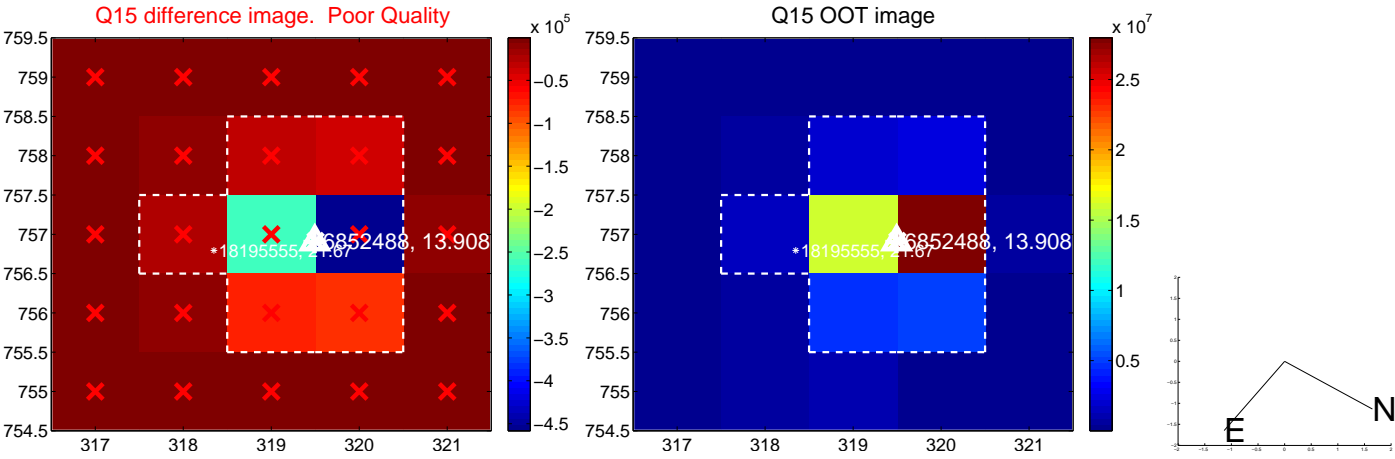
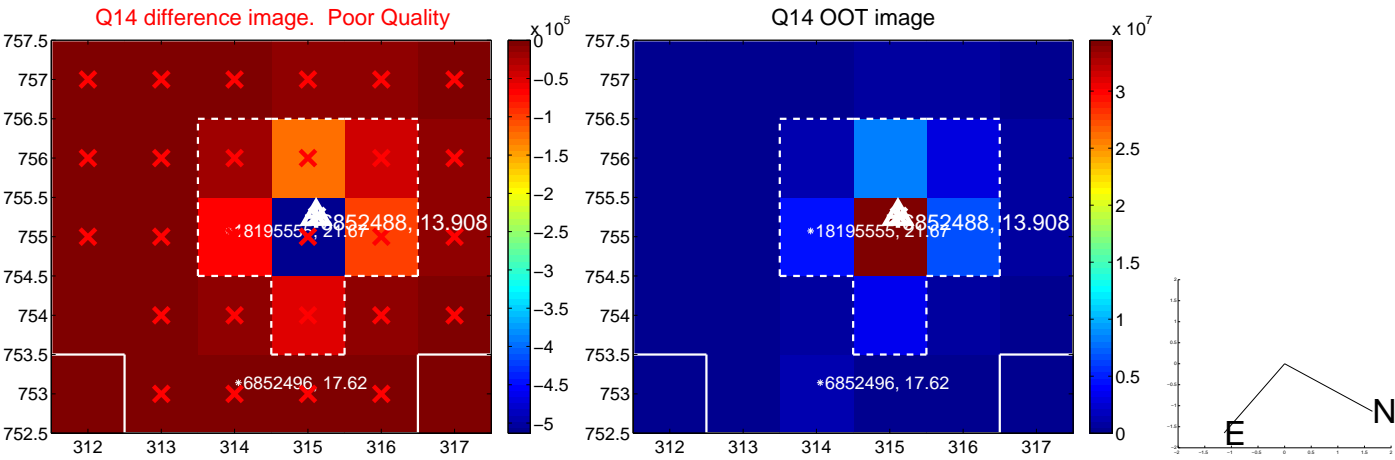
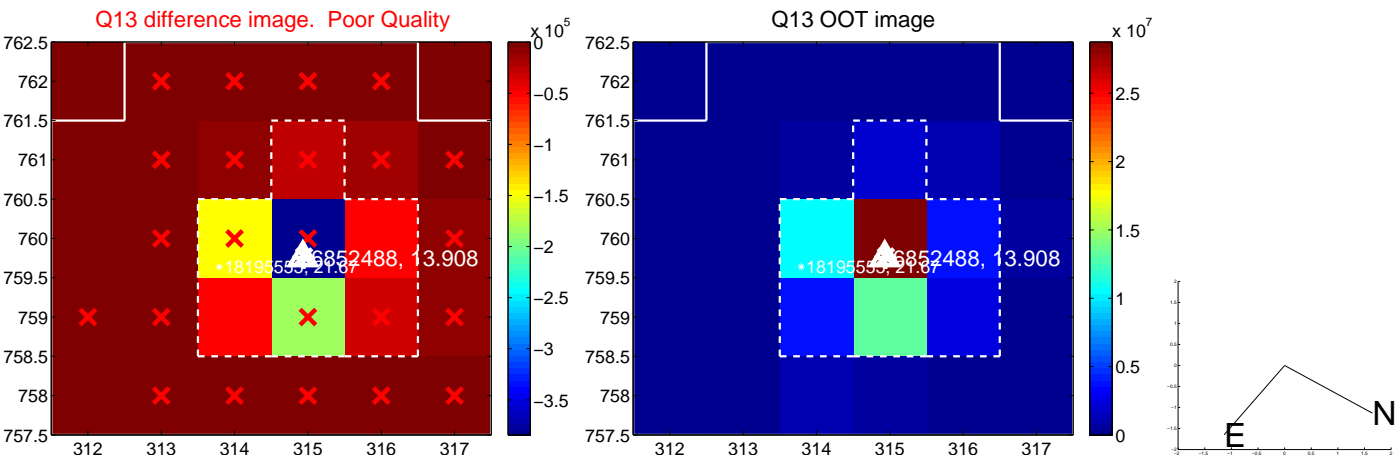


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

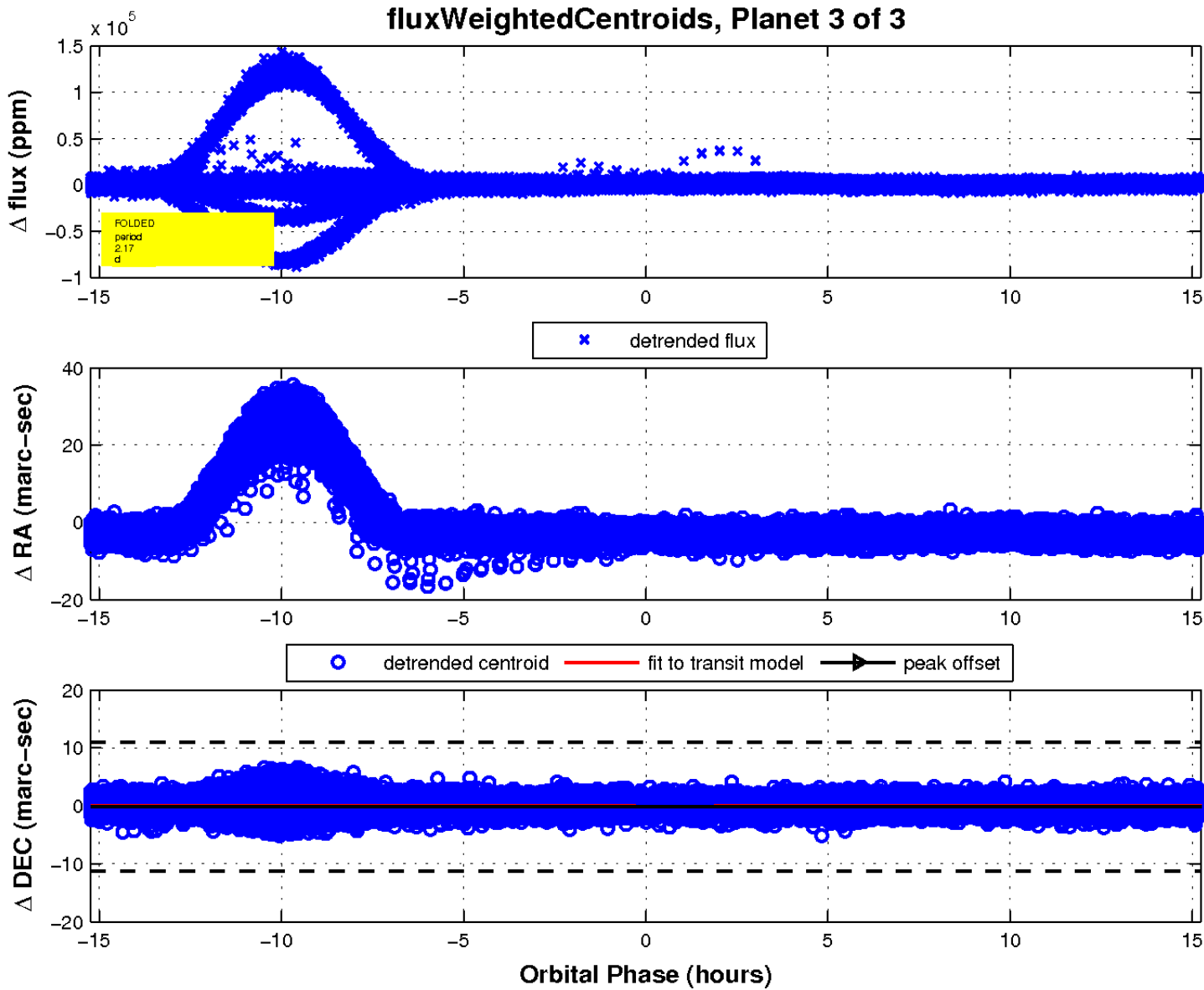
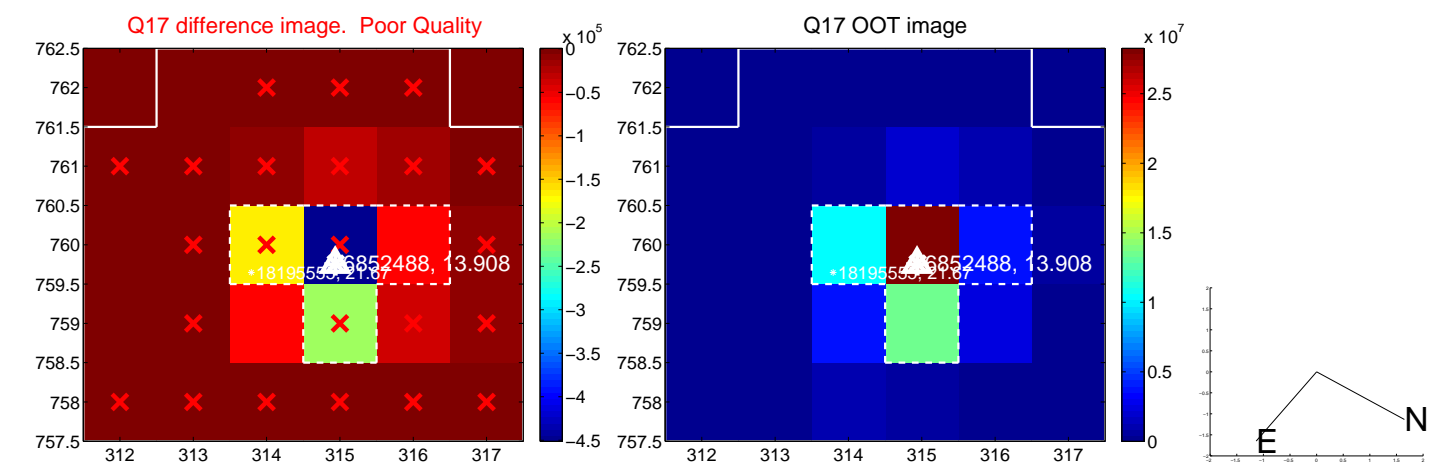




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

Declination

