

# KIC 007967100

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007967100-01	OBS	6941.01	1.927316	132.361174	8166.1	2.176	988.0	688.0	1.11	6057	12.46	1605.23
007967100-02	OBS	No	1.927441	133.303528	169.6	0.630	31.2	15.4	1.11	6057	2.24	1605.09
007967100-03	OBS	No	0.963256	131.707027	290.0	3.000	9.5	-1.0	1.11	6057	1.89	4047.16

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007967100-01	OBS	PC	0.79	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—HAS_SEC_TCE
007967100-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007967100-03	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—CENT_NOFITS—HALO_GHOST

**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.

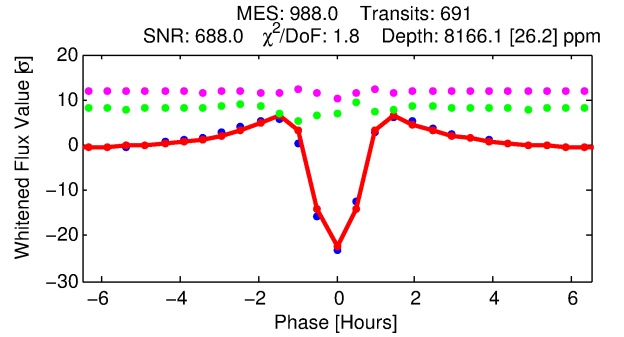
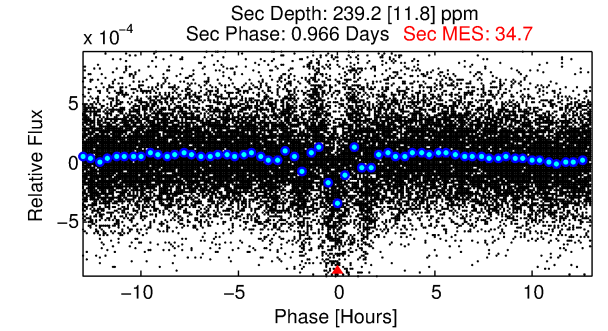
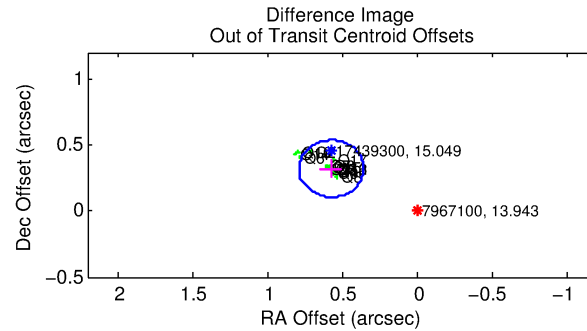
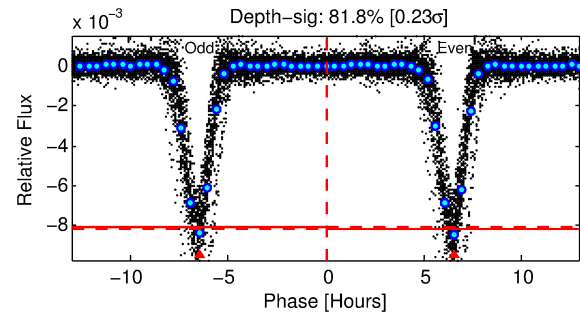
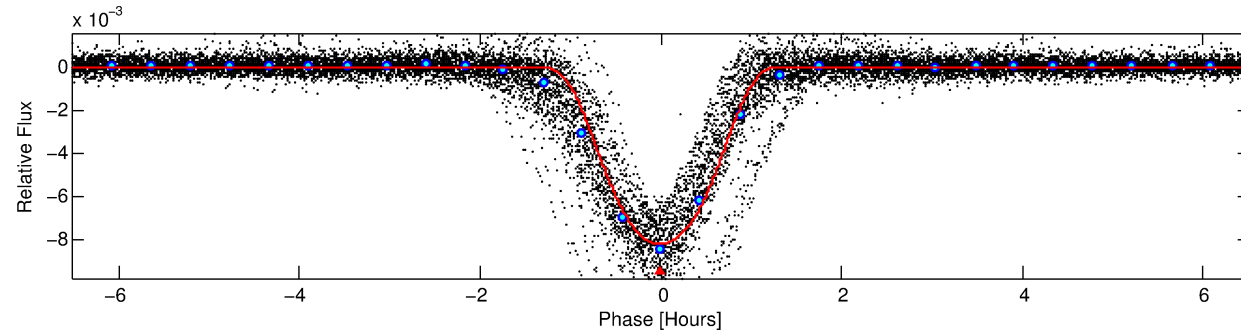
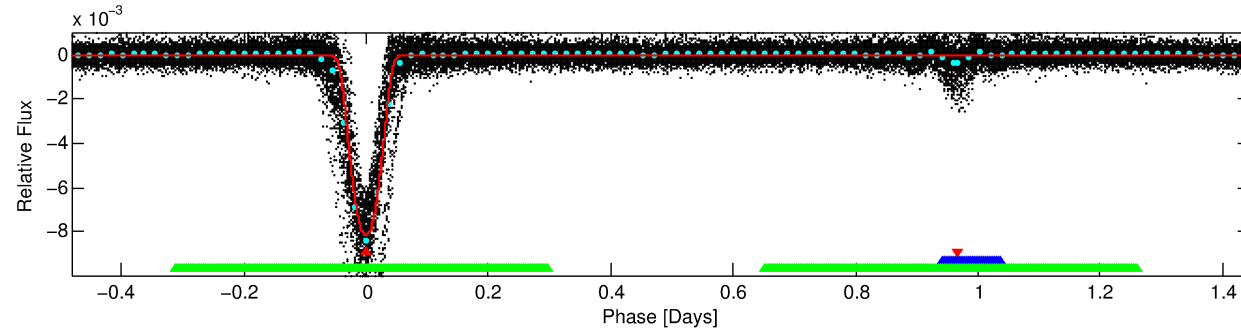
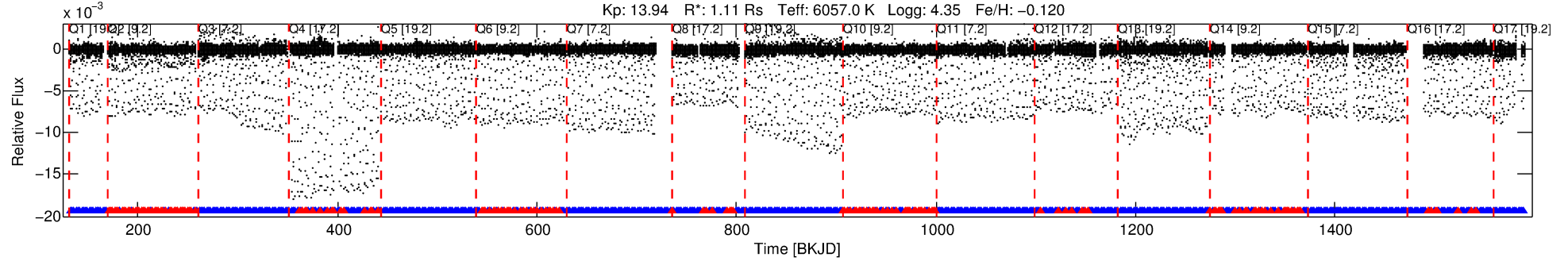
## Ephemeris Match Information For 007967100-01

No Significant Match Found

# DV One-Page Summary

KIC: 7967100 Candidate: 1 of 3 Period: 1.927 d

KOI: K06941.01 Corr: 0.923



## DV Fit Results:

Period = 1.92732 [0.00000] d  
Epoch = 132.3612 [0.0000] BKJD  
Rp/R\* = 0.1029 [0.0009]  
a/R\* = 4.30 [0.02]  
b = 0.91 [0.00]  
Seff = 1605.23 [642.60]  
Teq = 1614 [162] K  
Rp = 12.46 [3.80] Re  
a = 0.0304 [0.0079] AU  
Ag = 0.78 [0.30] [-0.72 $\sigma$ ]  
Teffp = 2348 [83] K [4.05 $\sigma$ ]

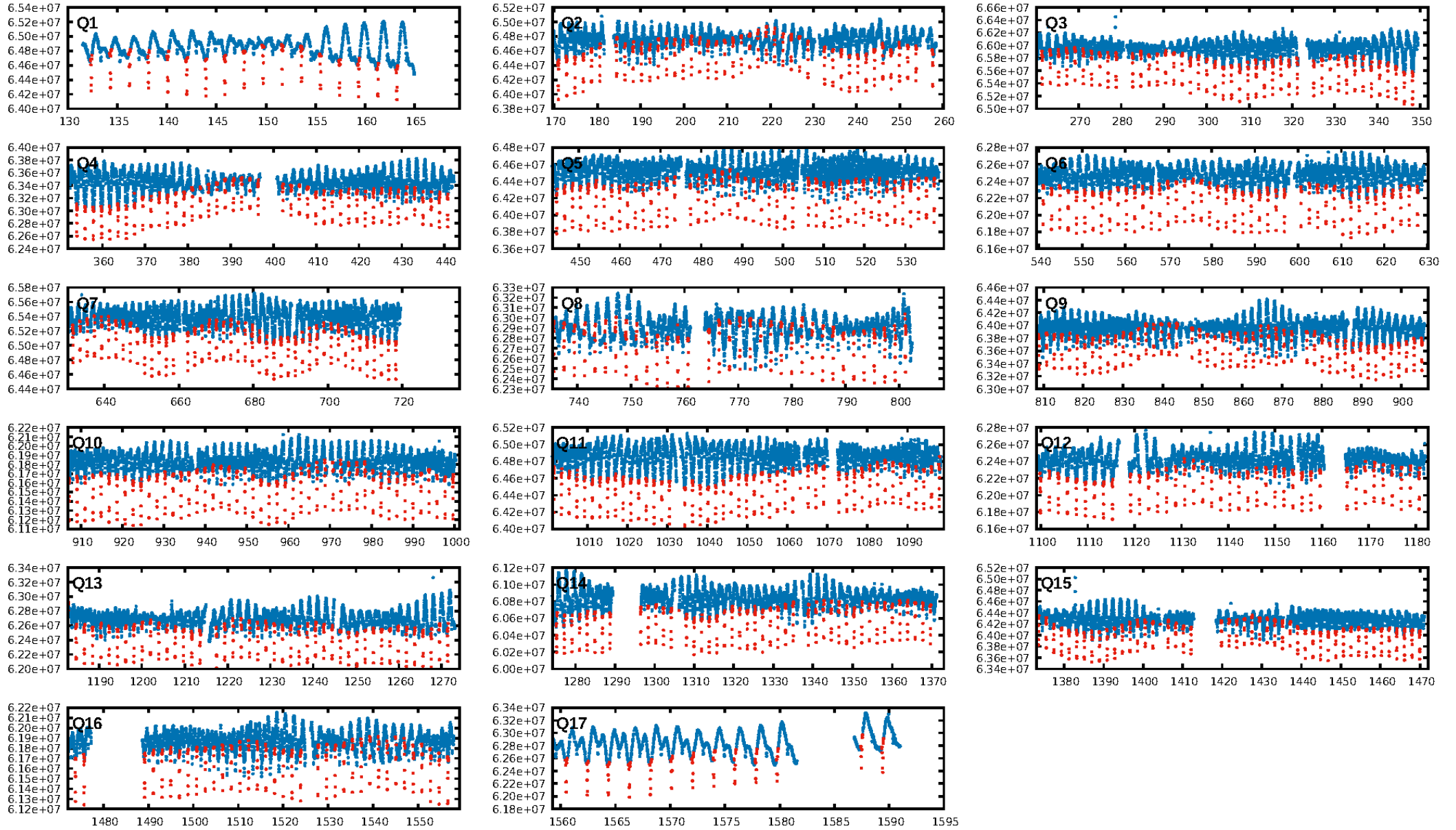
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.24 $\sigma$ ]  
LongPeriod-sig: 0.1% [0.00 $\sigma$ ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.76 [500/661]  
GhostDiagnostic-chr: 3.078  
Centroid-sig: 0.0%  
Centroid-so: 0.356 arcsec [38.85 $\sigma$ ]  
OotOffset-rm: 0.655 arcsec [9.11 $\sigma$ ]  
KicOffset-rm: 0.772 arcsec [11.38 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.00 [0/17]

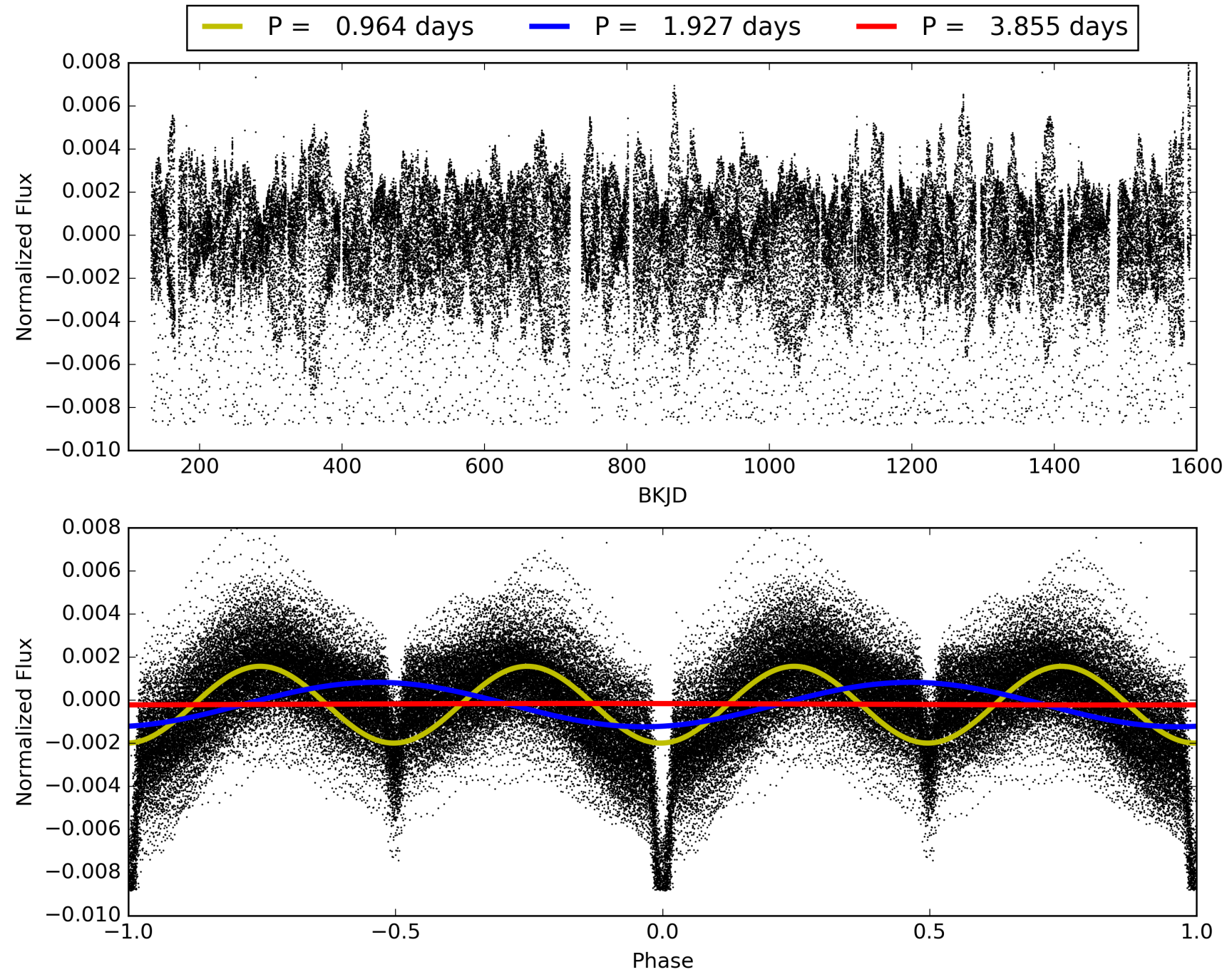
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:55:27 Z

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

# TCE 007967100-01, PDC Light Curves



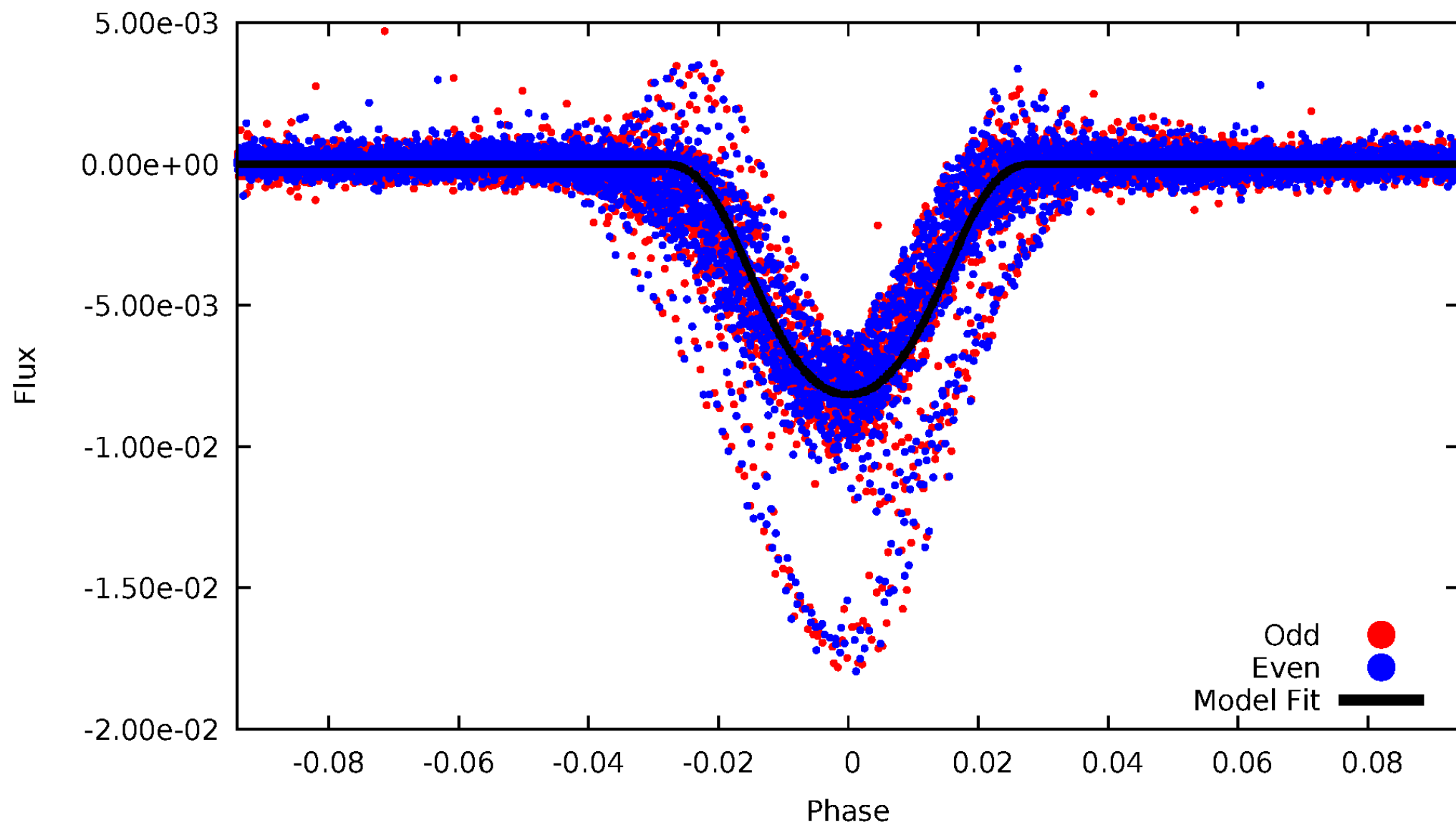
TCE 007967100-01





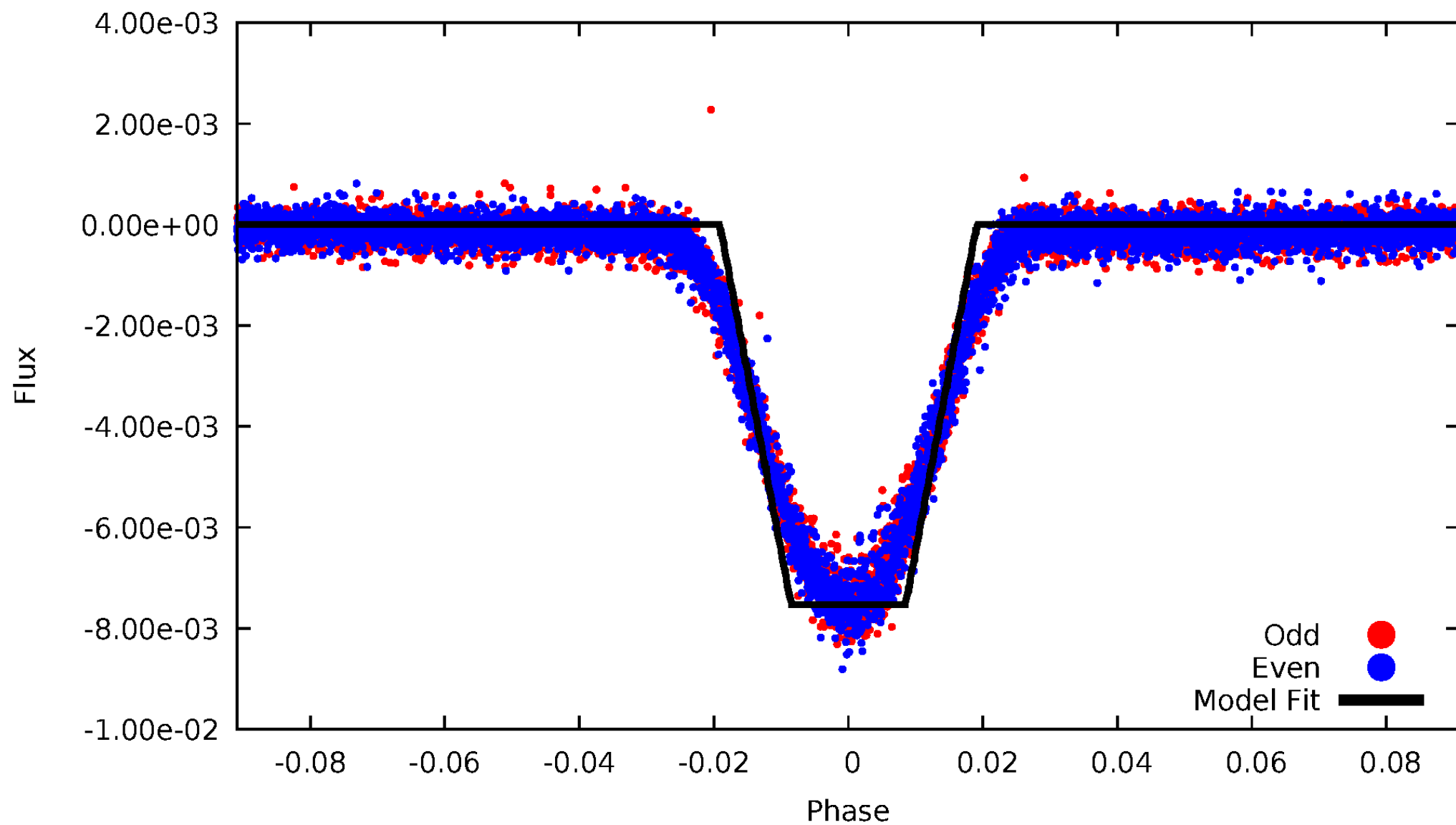
DV Odd/Even

TCE 007967100-01



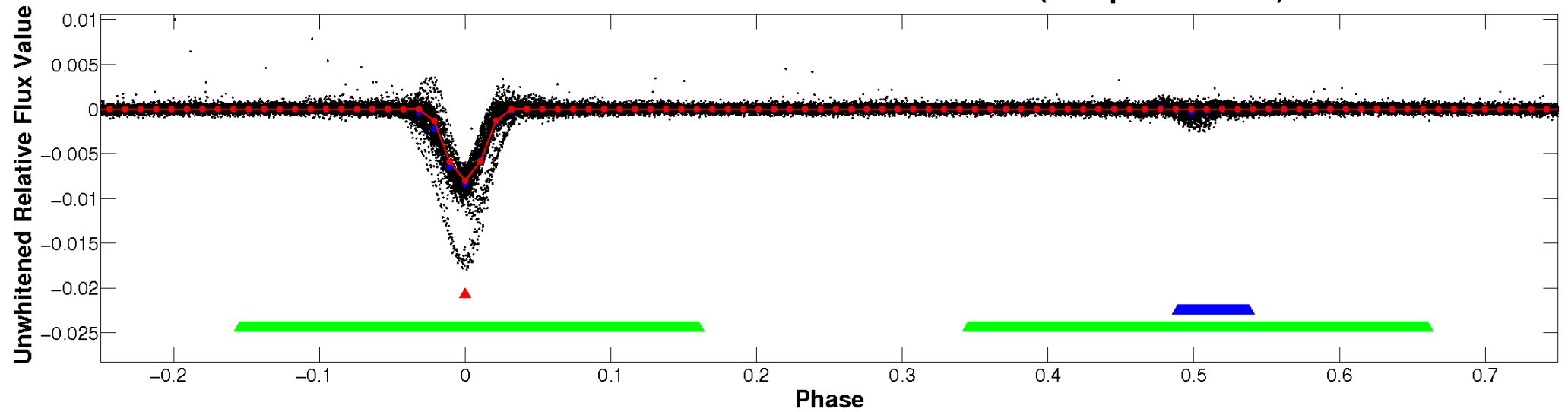
# ALT Odd/Even

TCE 007967100-01

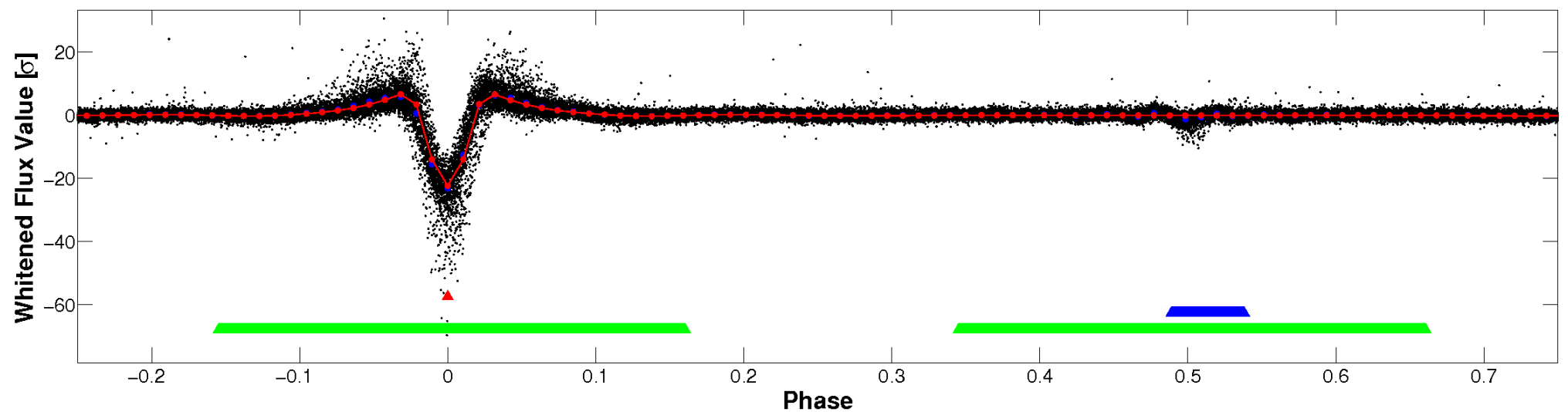


# Non-Whitened Vs. Whitened Light Curve

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

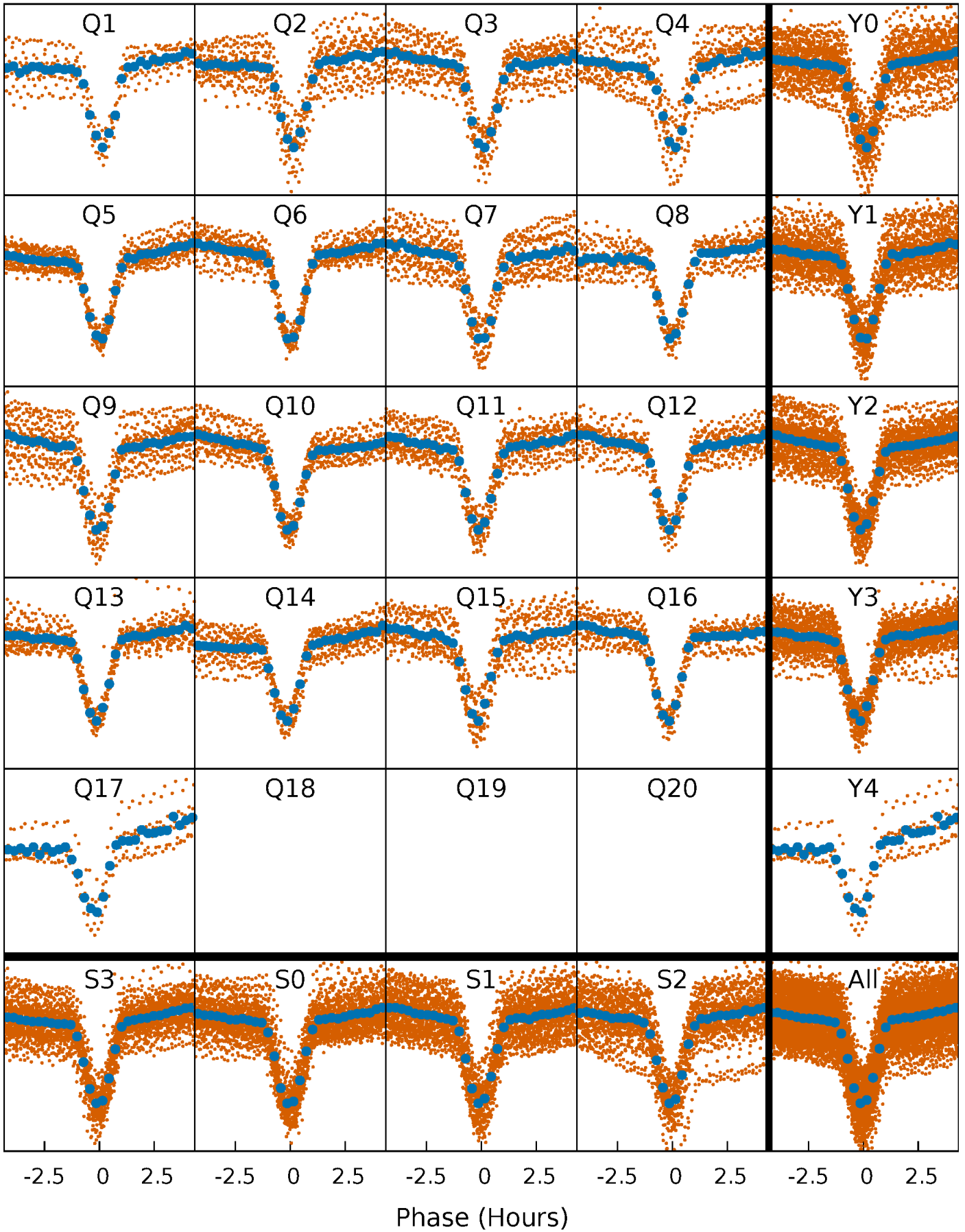


## Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

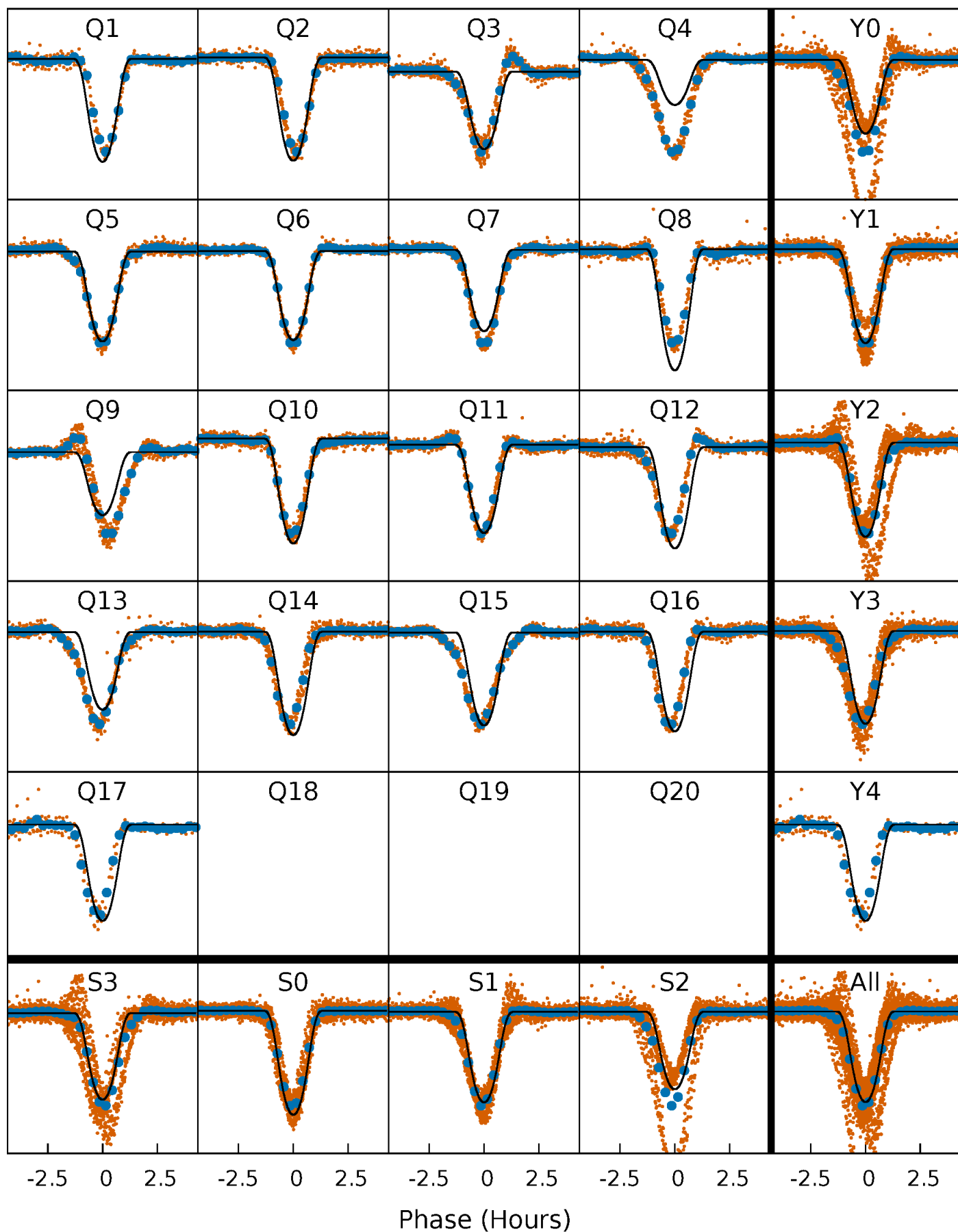
TCE 007967100-01 P= 1.927316 Days  $T_0=132.361174$  (BKJD)





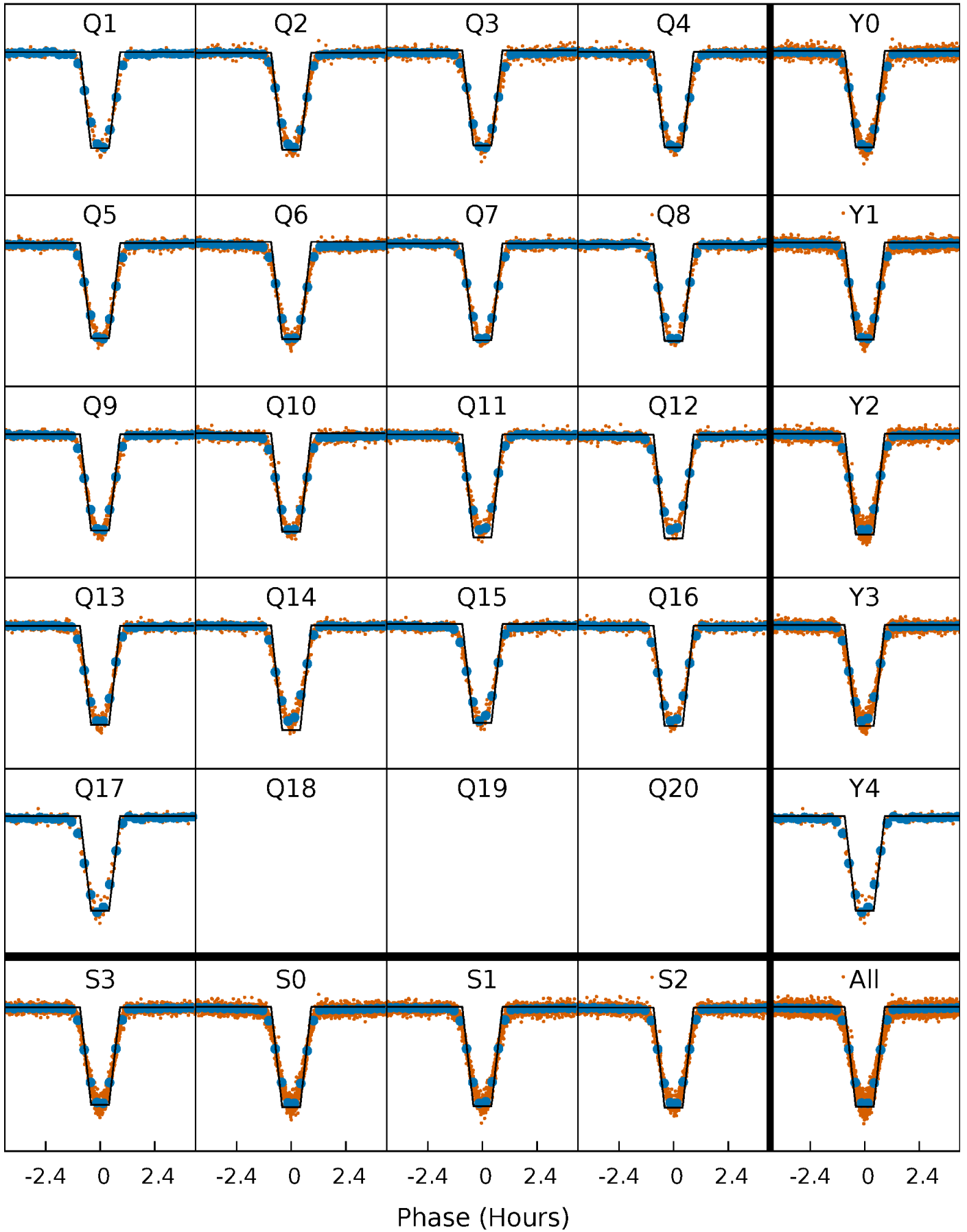
# DV Quarter-Phased Transit Curves

TCE 007967100-01 P= 1.927316 Days  $T_0=132.361174$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

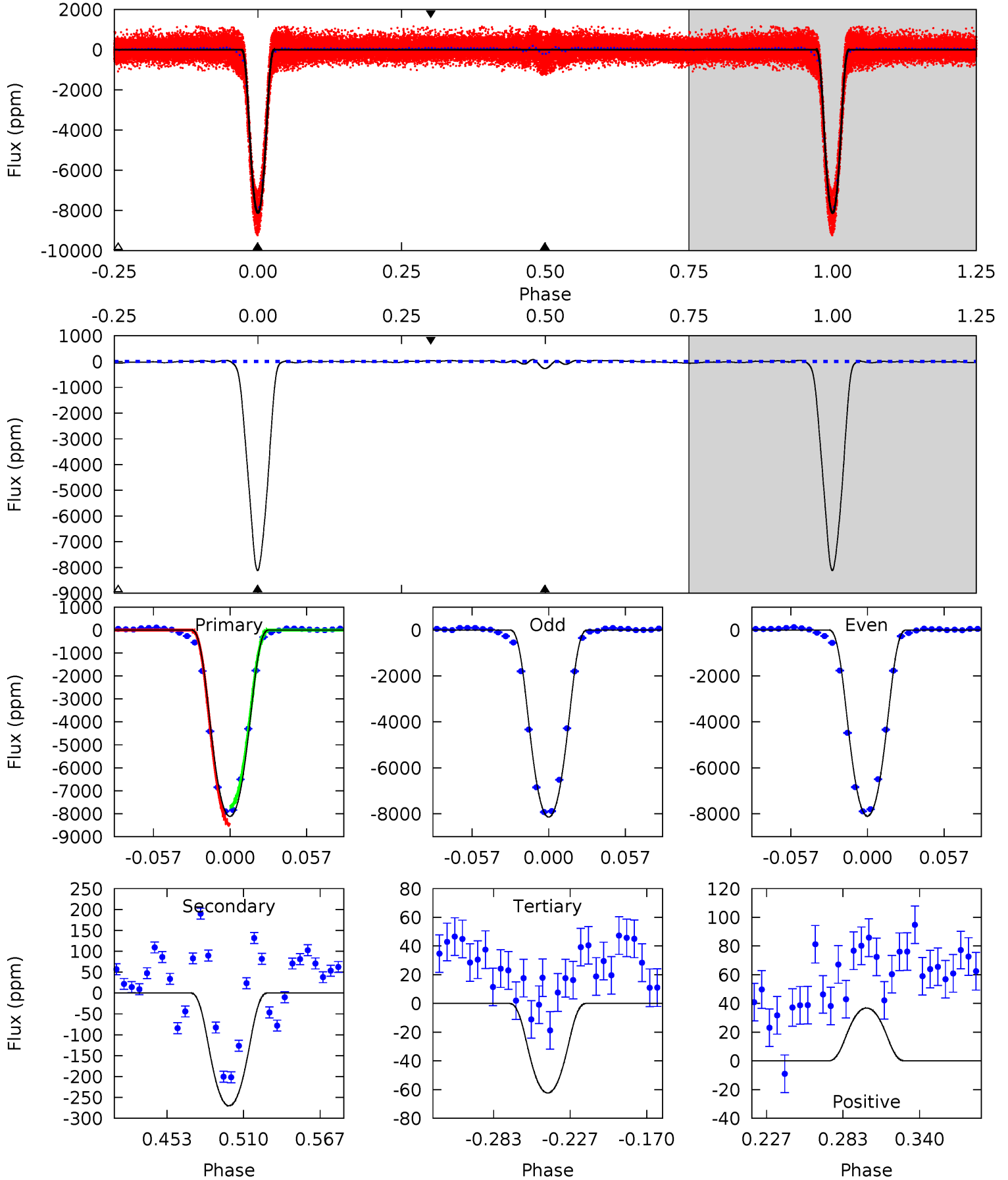
TCE 007967100-01     $P = 1.927300$  Days     $T_0 = 132.365092$  (BKJD)



# DV Model-Shift Uniqueness Test

007967100-01, P = 1.927316 Days, E = 130.433858 Days

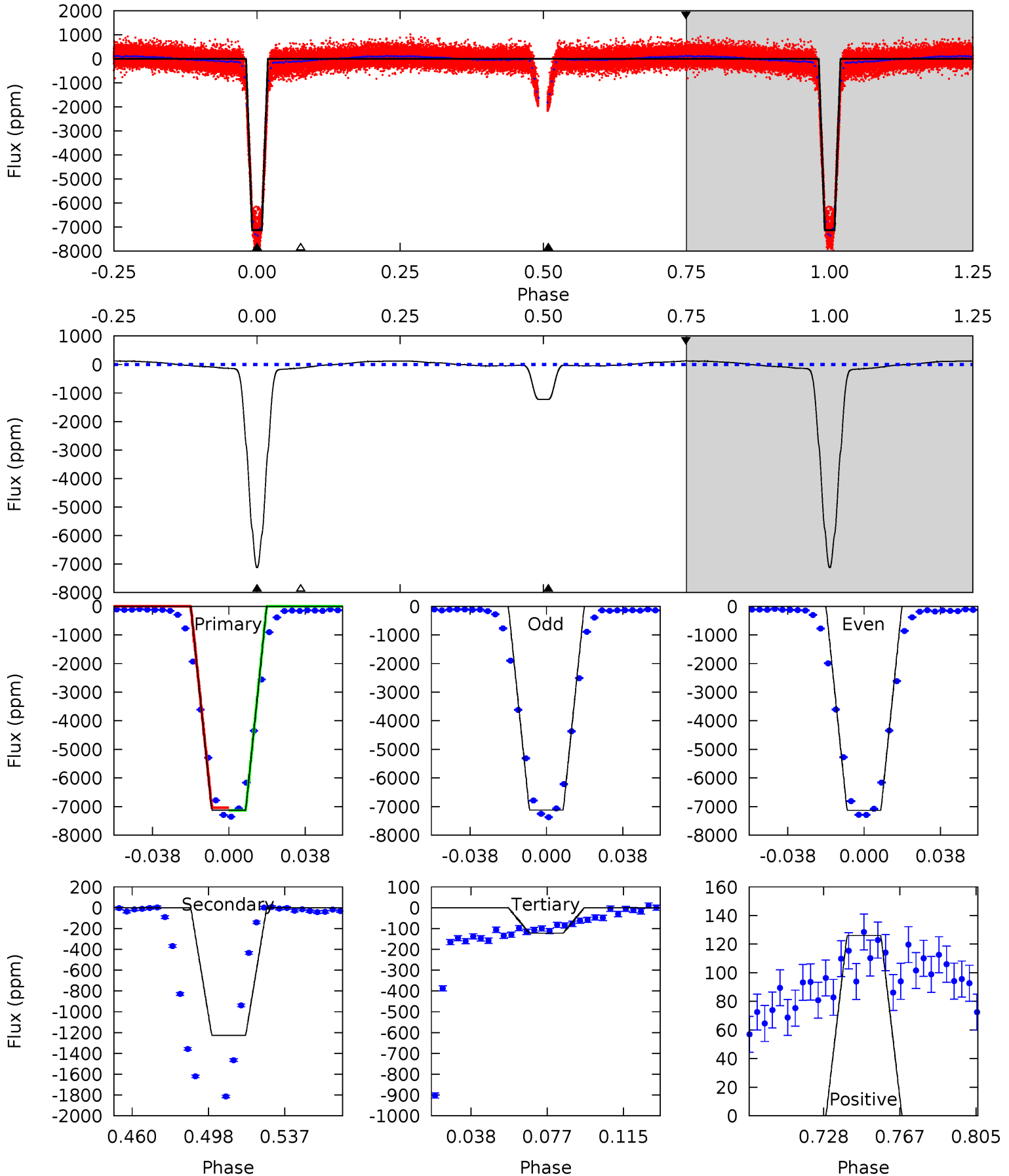
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1404	46.7	10.8	6.37	4.68	1.91	4.53	1393	1398	35.9	40.4	3.89	1.08	0.01	67.7



# Alt Model-Shift Uniqueness Test

007967100-01, P = 1.927300 Days, E = 130.437792 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
1463	252.0	25.1	25.9	4.76	2.07	16.3	1438	1437	226.9	226.2	1.08	1.00	0.02	9.86





### Stellar Parameters For KIC 007967100

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6057^{+180}_{-198}$	$4.352^{+0.112}_{-0.208}$	$-0.120^{+0.300}_{-0.300}$	$1.110^{+0.338}_{-0.182}$	$1.009^{+0.167}_{-0.112}$	$1.040^{+0.601}_{-0.512}$
	+3%/-3%	+3%/-5%	+250%/-250%	+30%/-16%	+17%/-11%	+58%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

### Secondary Eclipse Parameters for KIC 007967100-01 / KOI 6941.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-270 \pm 6$	$12.77^{+2.12}_{-1.28}$	$2290^{+177}_{-142}$	$2877^{+65}_{-96}$	$0.841^{+0.183}_{-0.212}$
Alt.	$-1228 \pm 5$	$10.65^{+1.97}_{-0.94}$	$2278^{+187}_{-135}$	$4085^{+91}_{-102}$	$5.499^{+1.071}_{-1.517}$

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

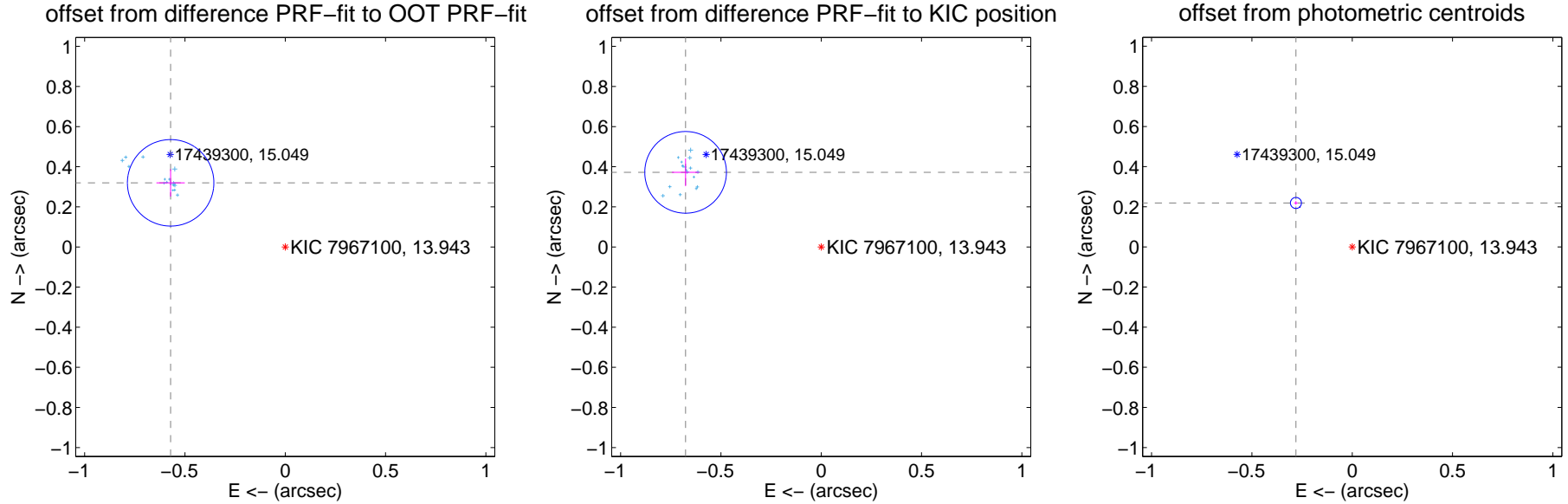
## DV Centroid Data

Supplemental centroid analysis for 007967100-01. Kepler magnitude: 13.94. Transit SNR 687.98

There are 17 quarters with good PRF difference image offsets

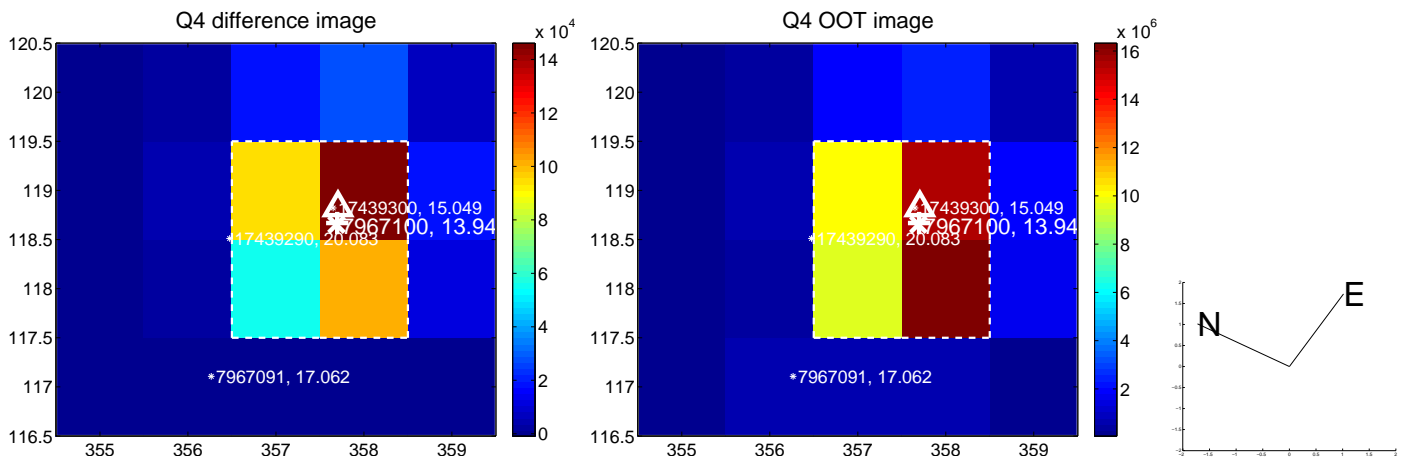
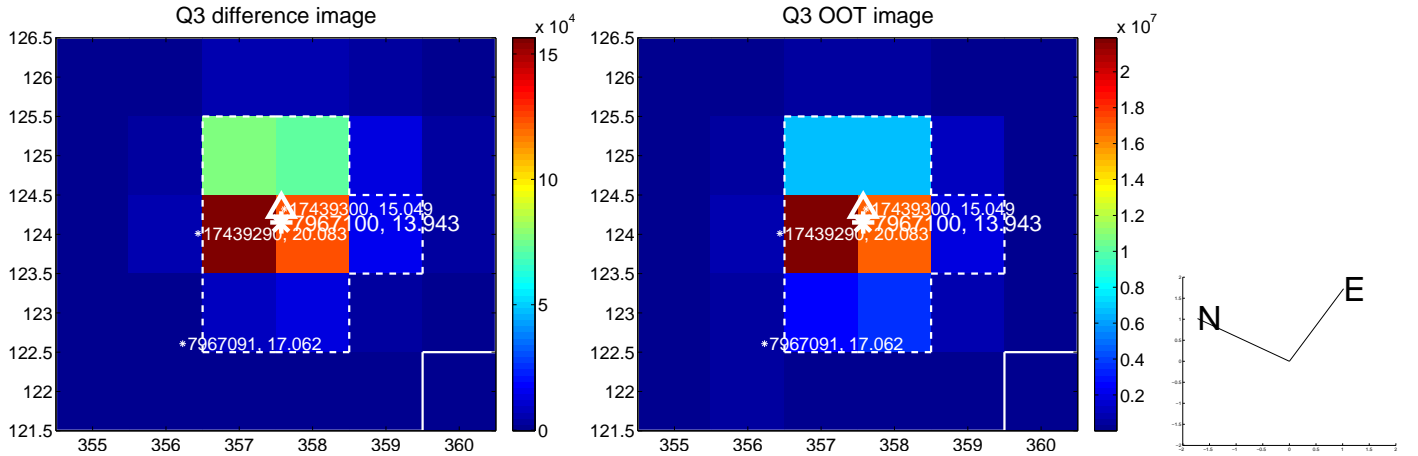
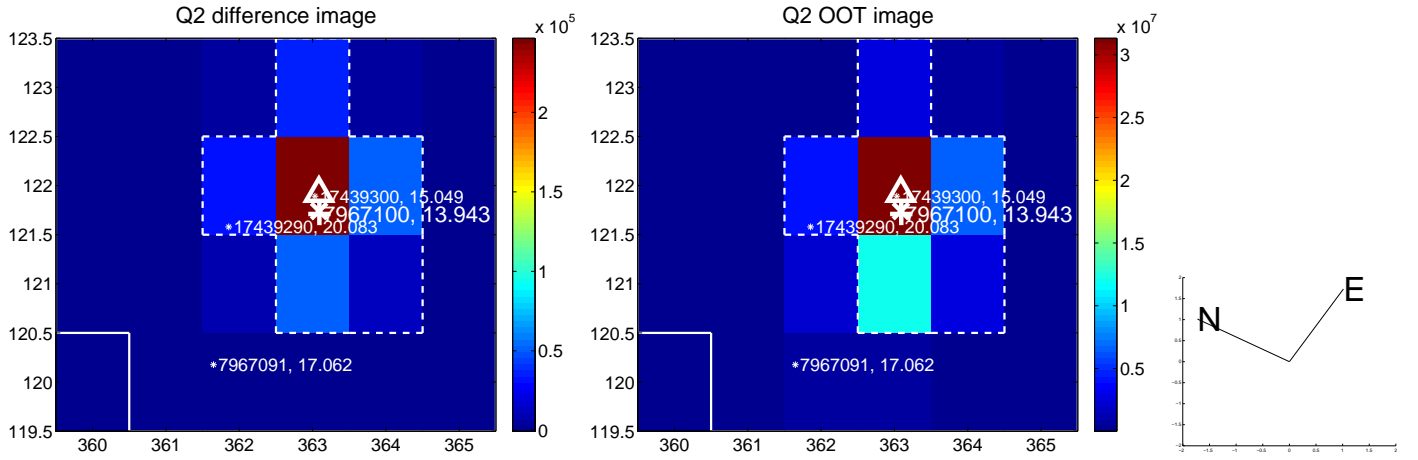
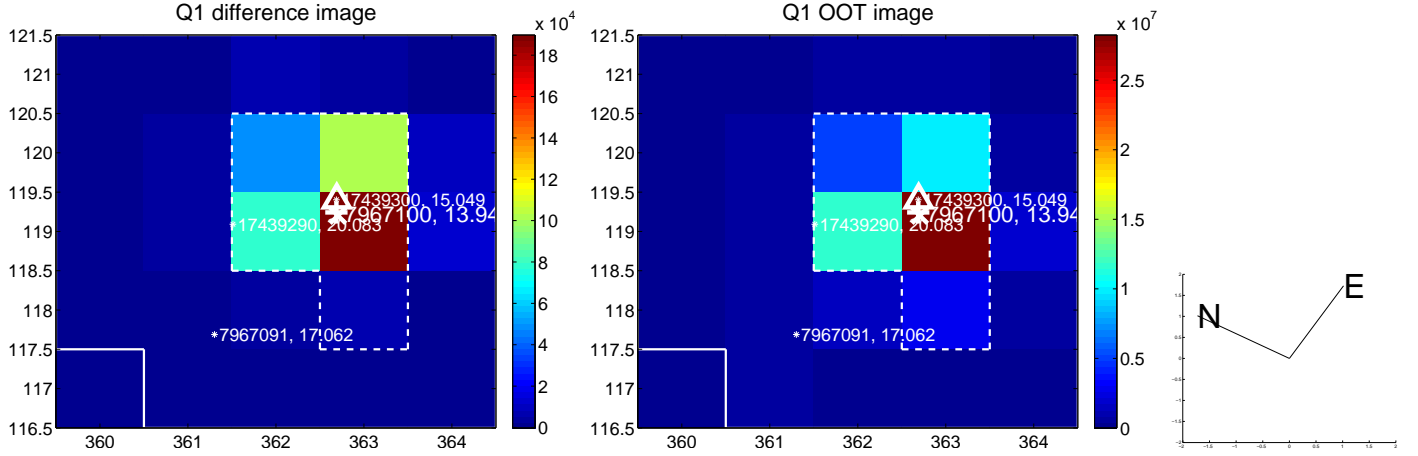
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.655 \pm 0.072$	9.11	$0.571 \pm 0.071$	$0.320 \pm 0.068$
PRF-fit source offset from KIC position	$0.772 \pm 0.068$	11.38	$0.676 \pm 0.068$	$0.372 \pm 0.069$
photometric centroid source offset	$0.36 \pm 0.01$	38.85	$0.28 \pm 0.01$	$0.22 \pm 0.01$

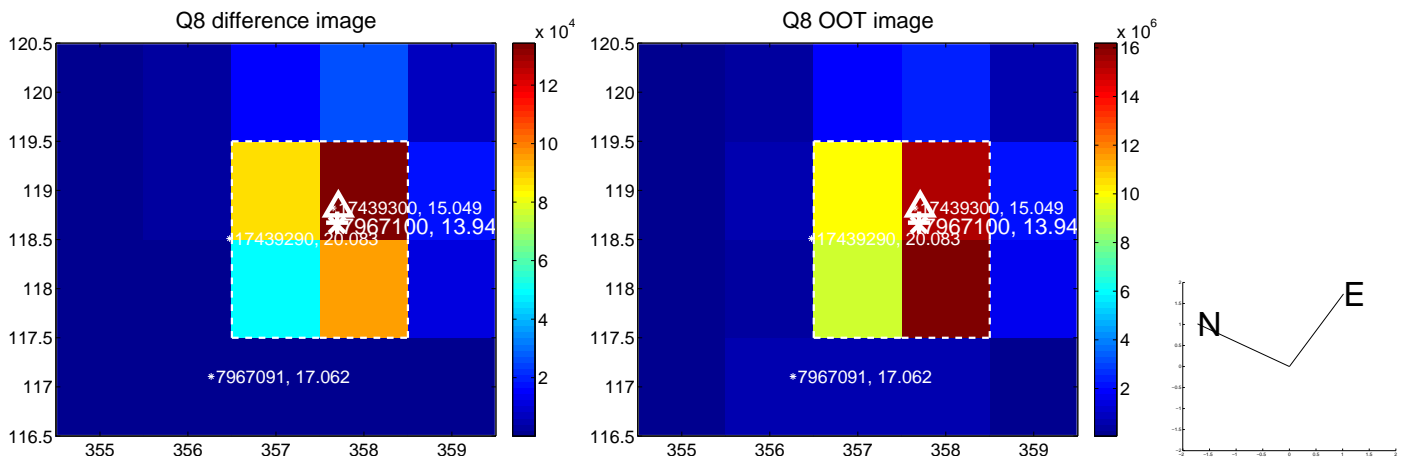
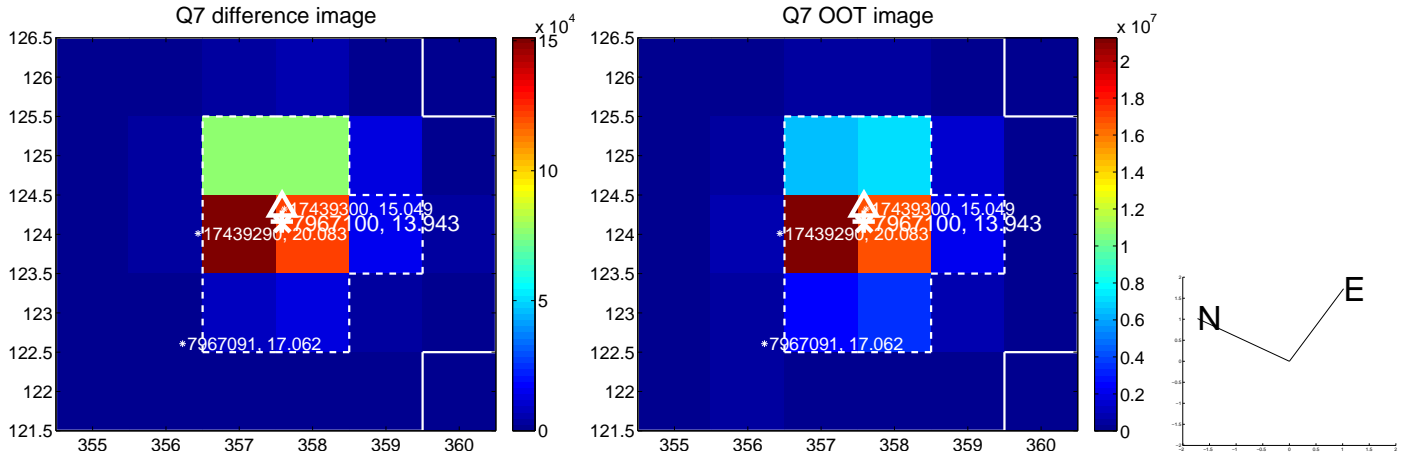
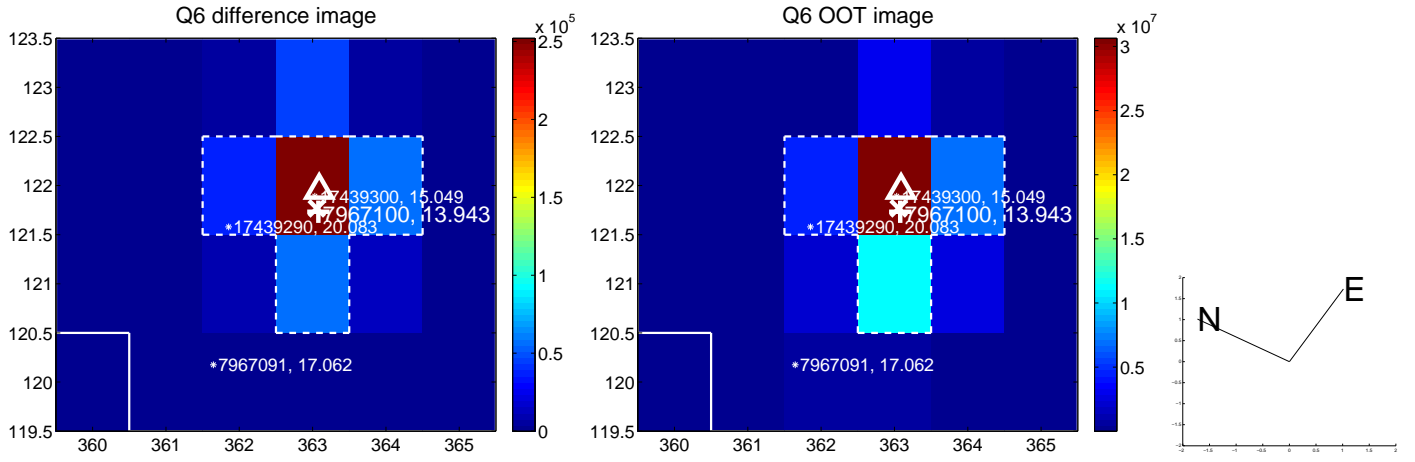
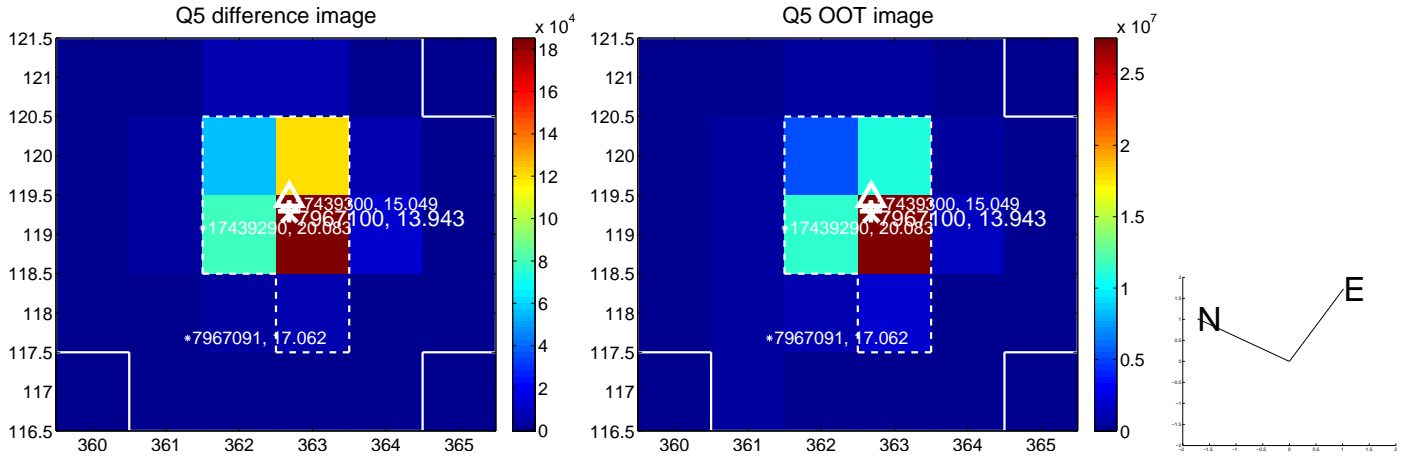


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

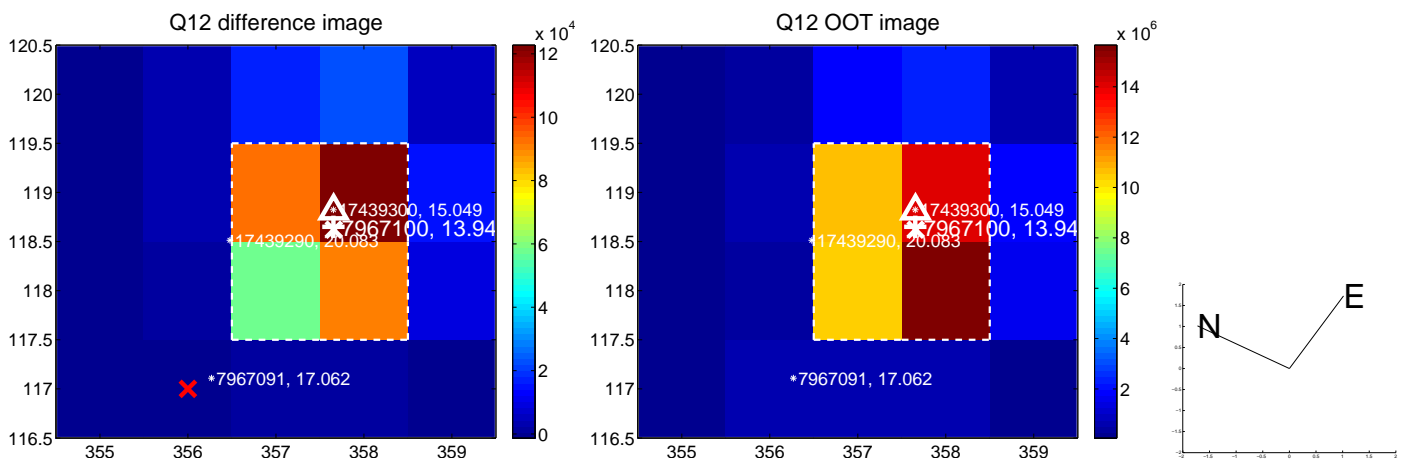
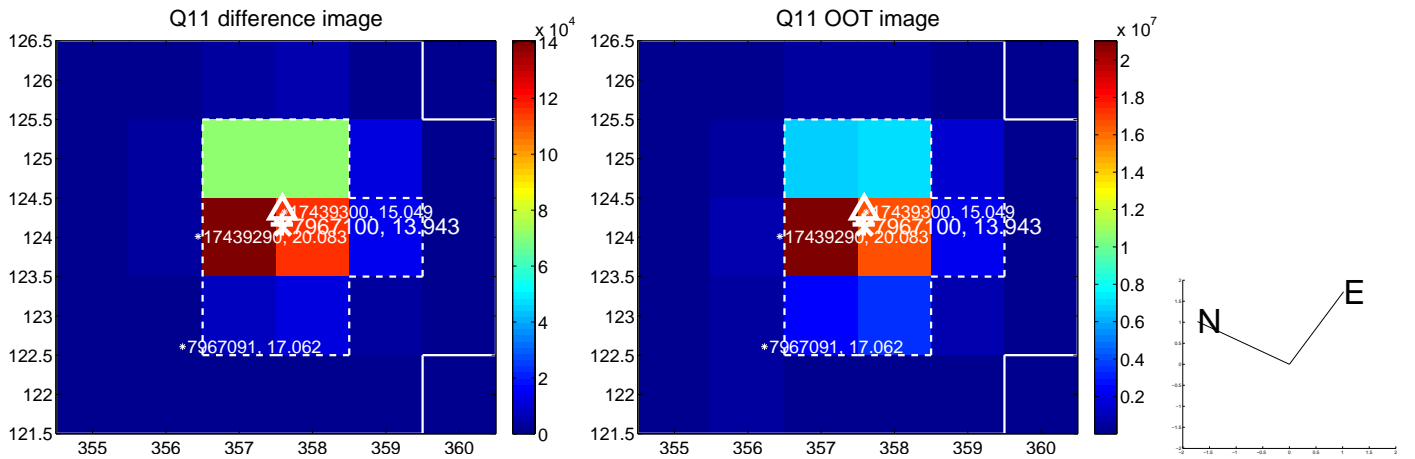
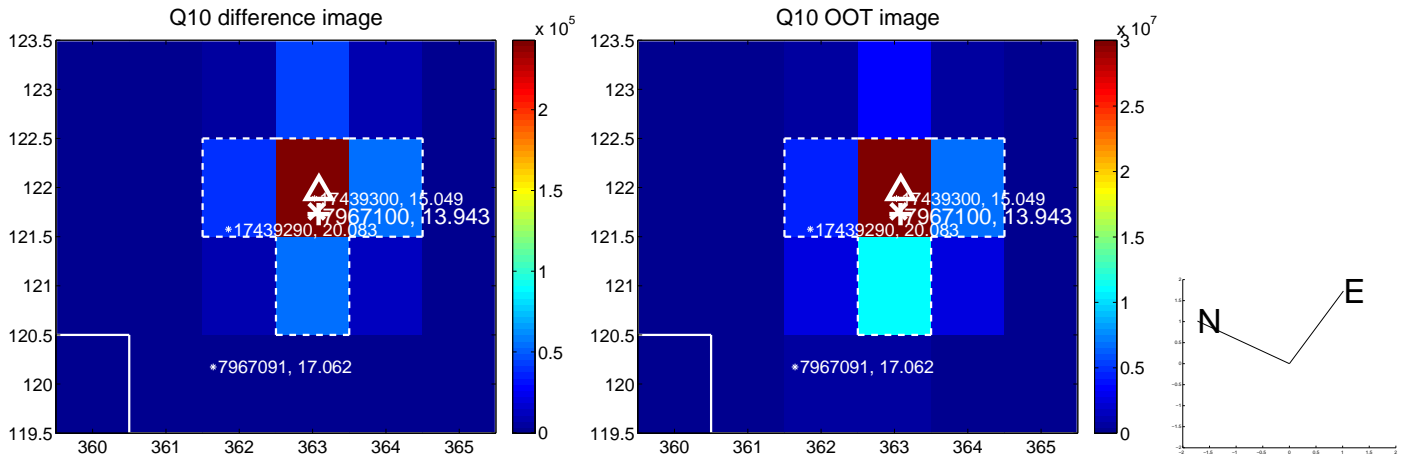
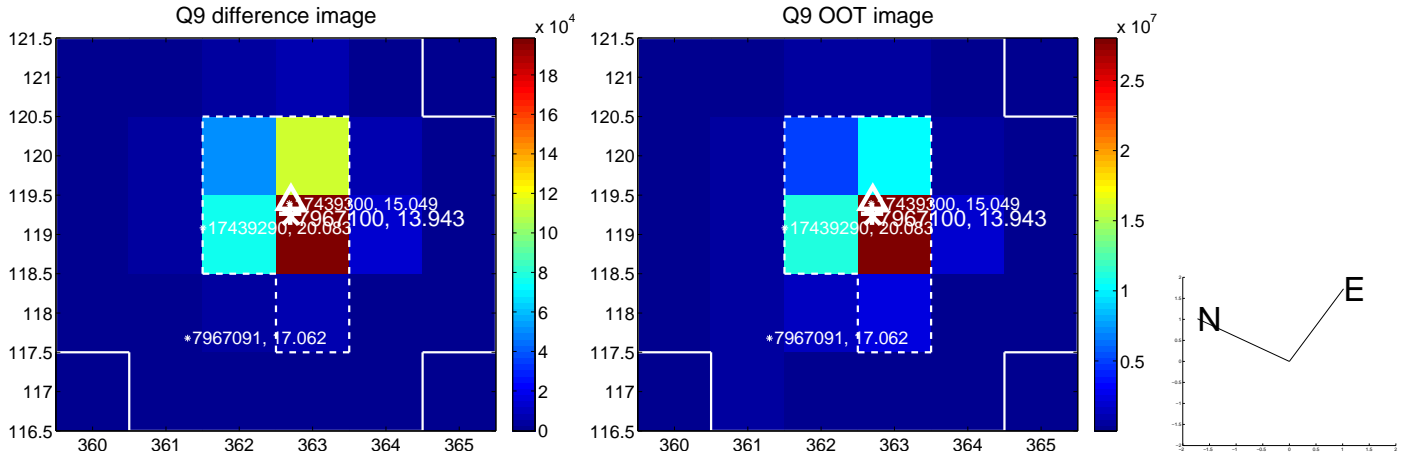


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

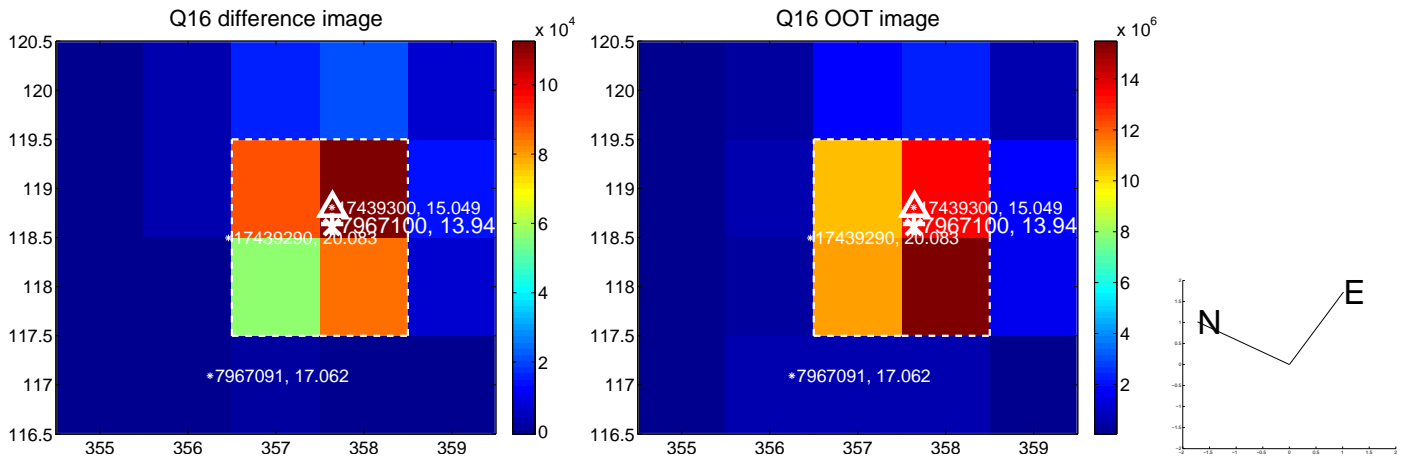
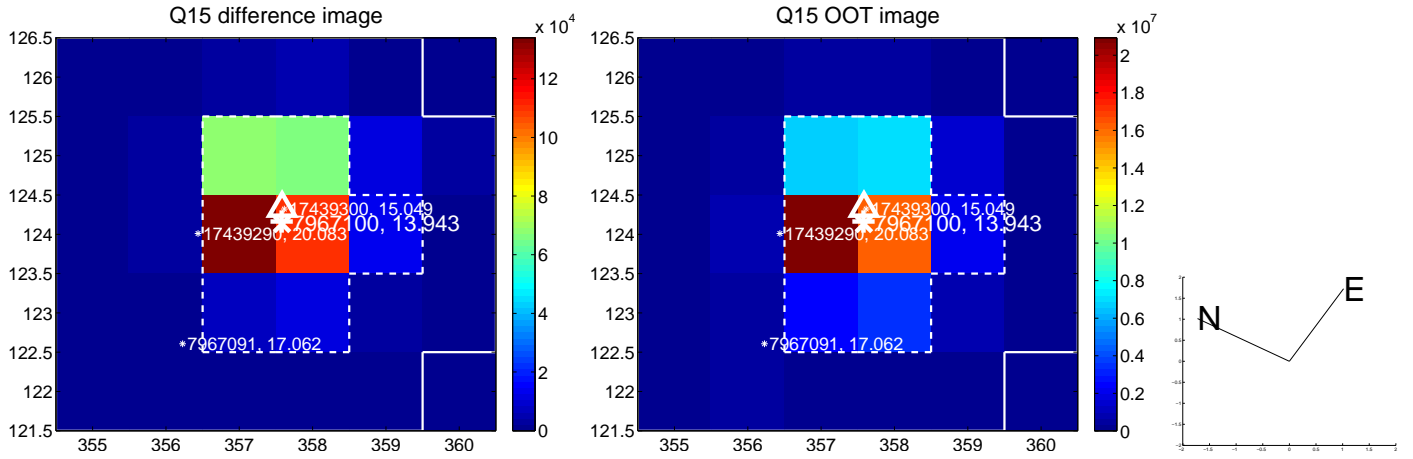
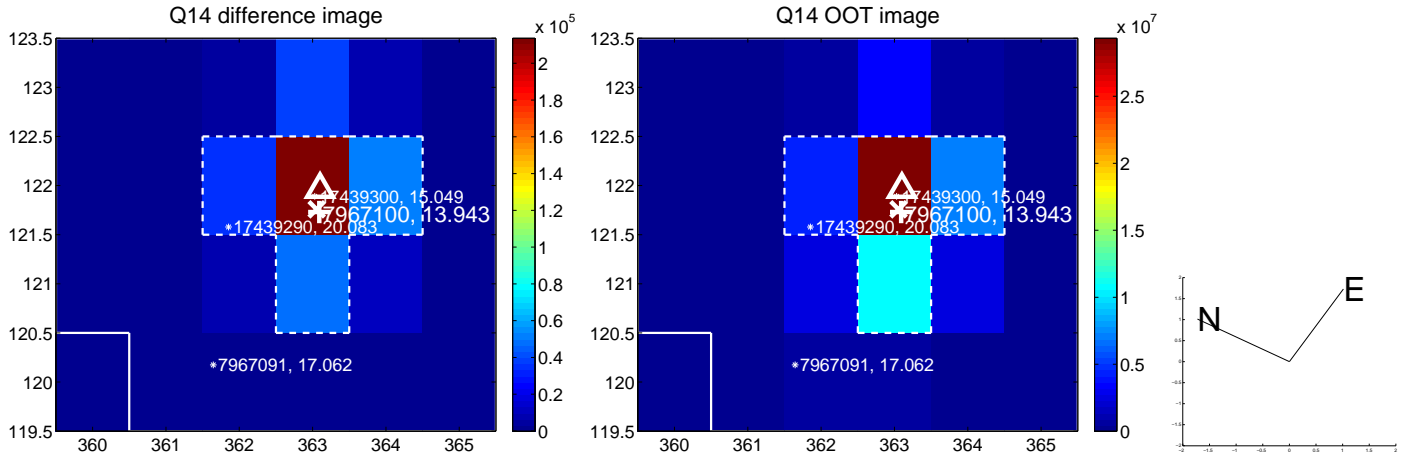
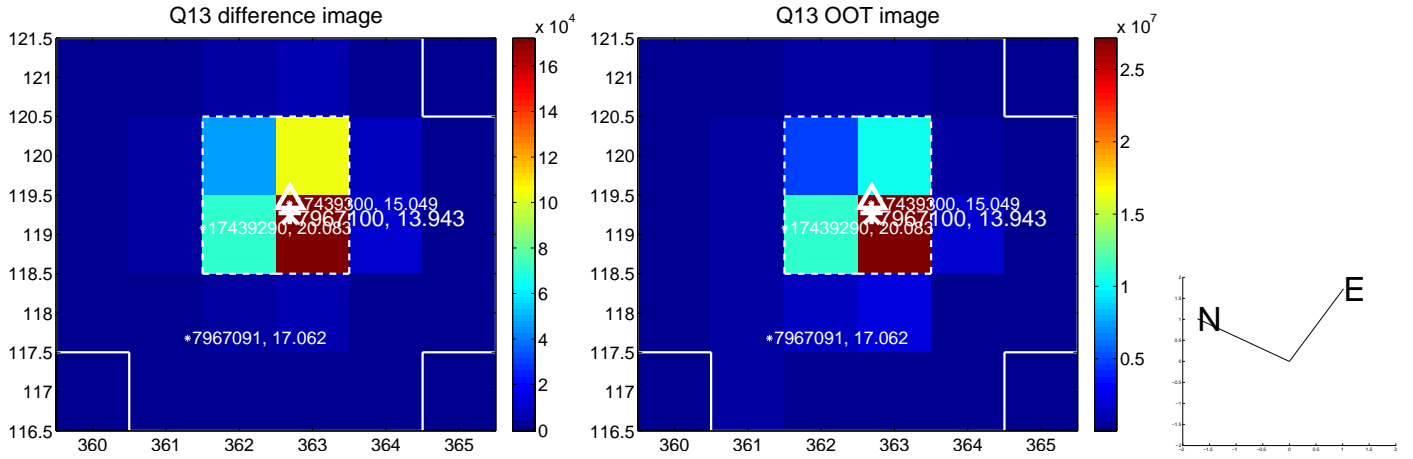




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



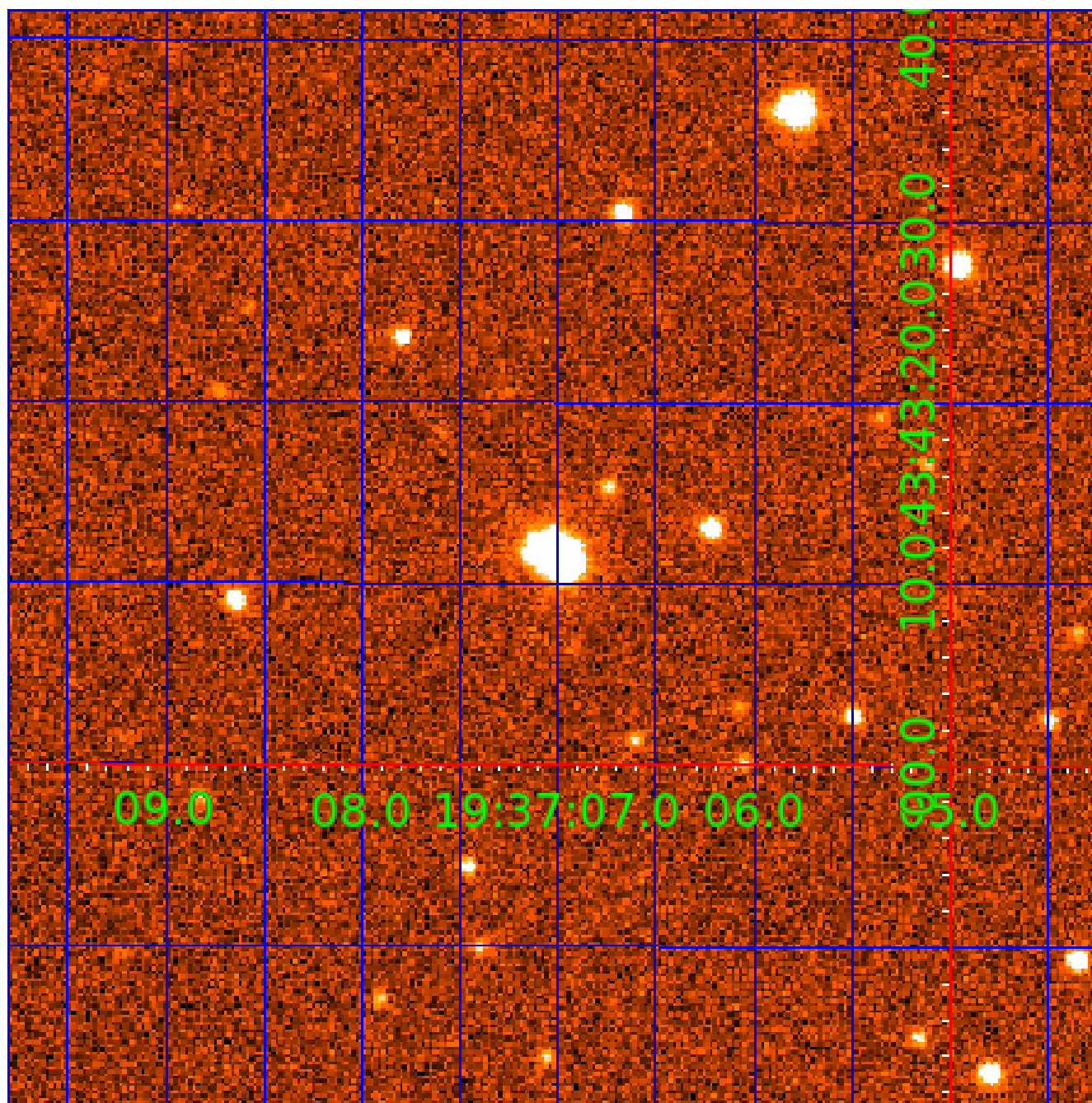
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





# UKIRT Image

Declination





# KIC 007967100

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007967100-01	OBS	6941.01	1.927316	132.361174	8166.1	2.176	988.0	688.0	1.11	6057	12.46	1605.23
007967100-02	OBS	No	1.927441	133.303528	169.6	0.630	31.2	15.4	1.11	6057	2.24	1605.09
007967100-03	OBS	No	0.963256	131.707027	290.0	3.000	9.5	-1.0	1.11	6057	1.89	4047.16

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007967100-01	OBS	PC	0.79	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—HAS_SEC_TCE
007967100-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007967100-03	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—CENT_NOFITS—HALO_GHOST

**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.

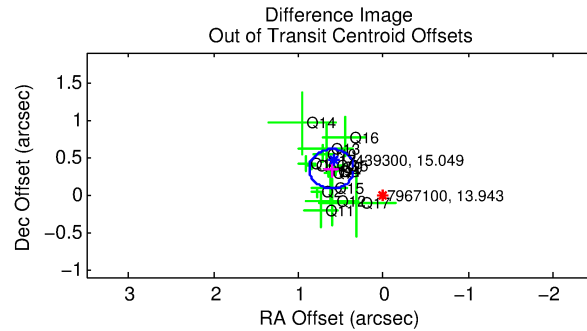
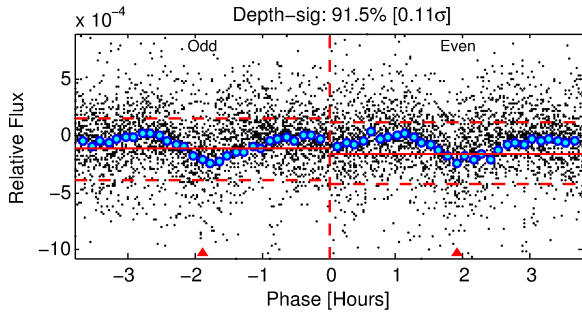
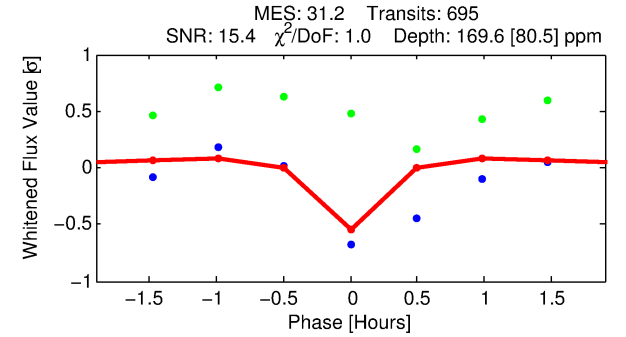
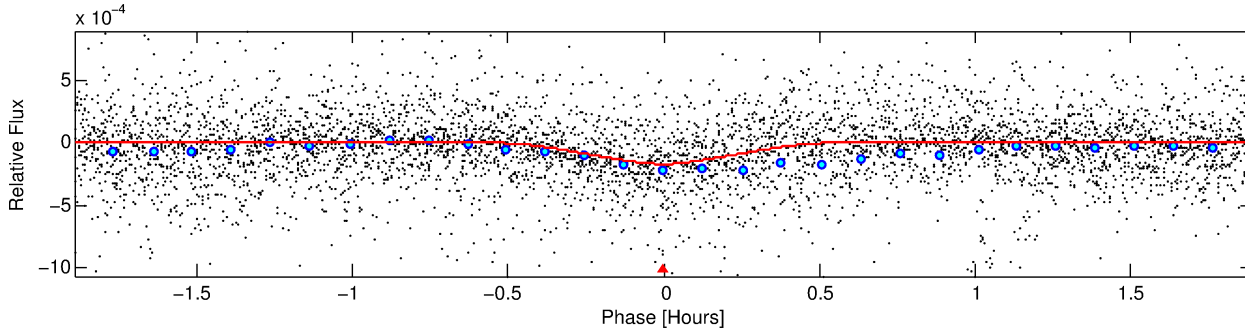
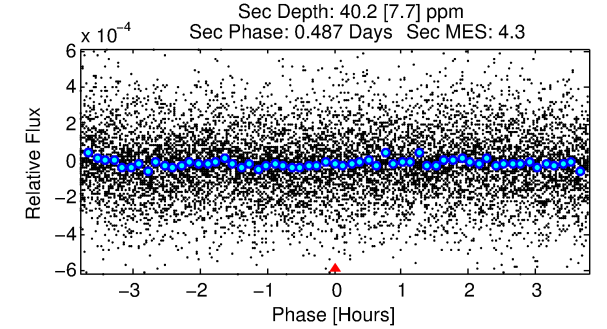
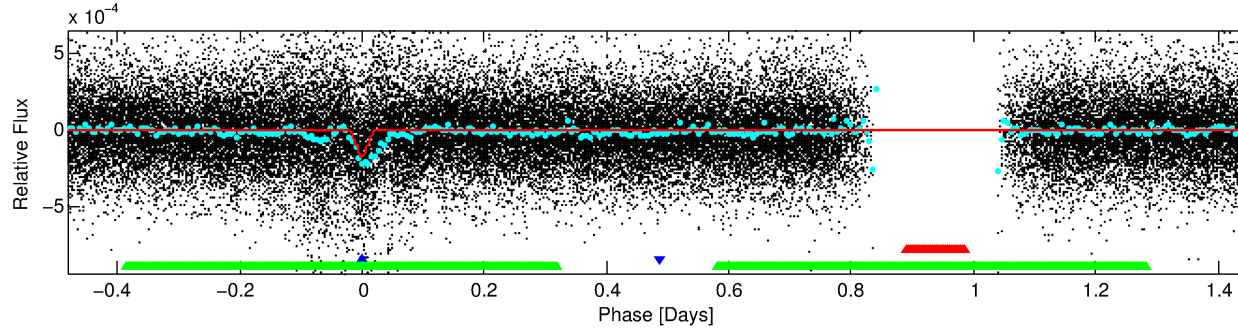
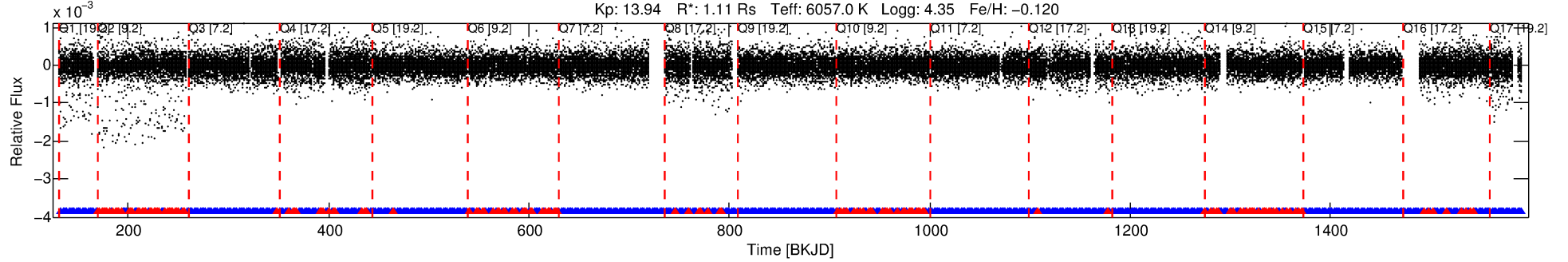
## Ephemeris Match Information For 007967100-02

No Significant Match Found

# DV One-Page Summary

KIC: 7967100 Candidate: 2 of 3 Period: 1.927 d  
KOI: K06941 Corr: No Ephemeris Match

Kp: 13.94 R\*: 1.11 Rs Teff: 6057.0 K Logg: 4.35 Fe/H: -0.120



## DV Fit Results:

Period = 1.92744 [0.00001] d  
Epoch = 133.3035 [0.0008] BKJD  
Rp/R\* = 0.0185 [0.0146]  
a/R\* = 6.36 [5.23]  
b = 0.98 [0.05]  
Seff = 1605.09 [642.55]  
Teq = 1614 [162] K  
Rp = 2.24 [1.90] Re  
a = 0.0304 [0.0079] AU  
Ag = 4.07 [6.66] [0.46σ]  
Teffp = 3545 [1414] K [1.36σ]

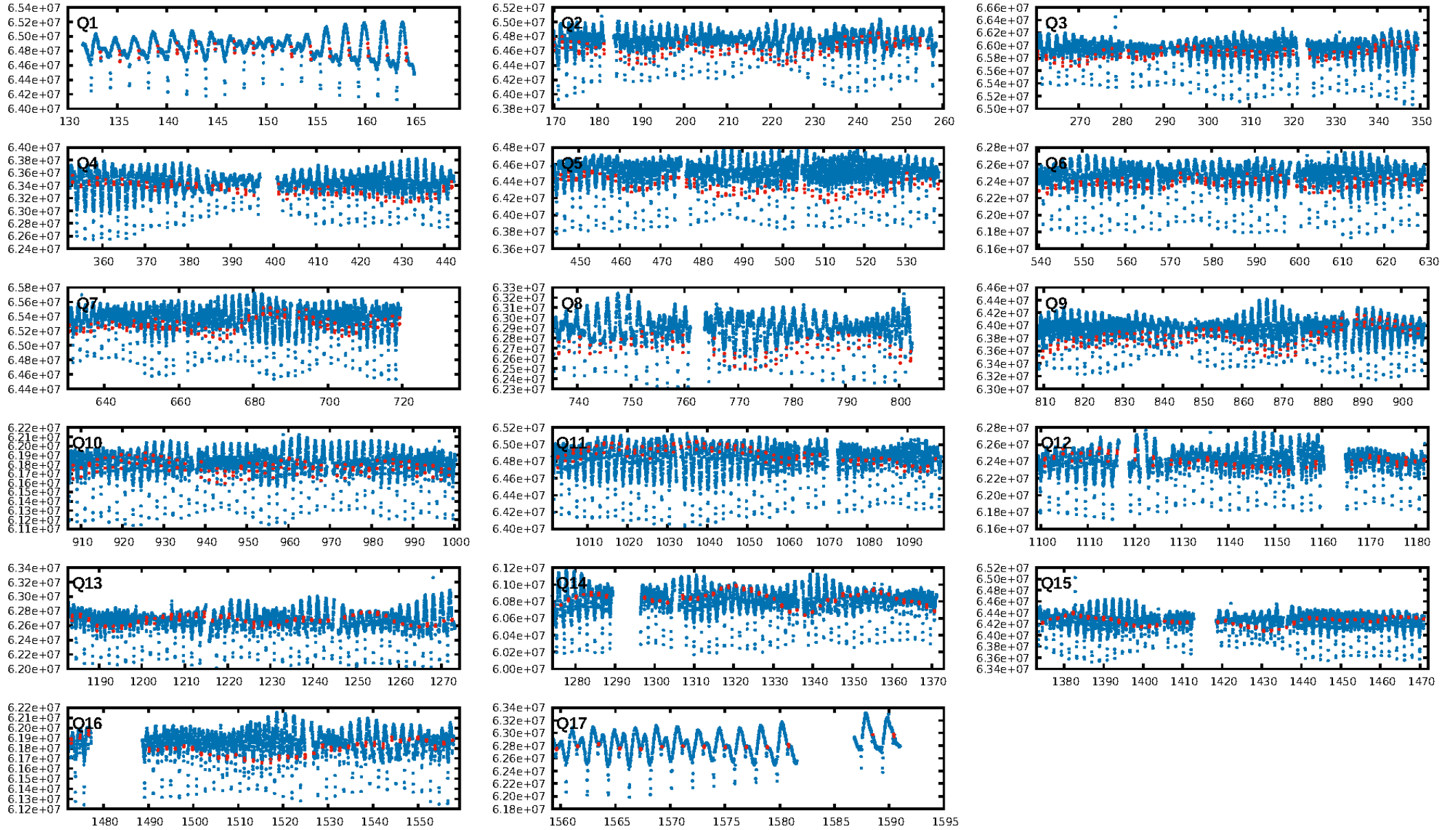
## DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.78 [518/664]  
GhostDiagnostic-chr: -2.159  
Centroid-sig: 0.0%  
Centroid-so: 2.298 arcsec [3.54σ]  
OotOffset-rm: 0.699 arcsec [7.95σ]  
KicOffset-rm: 0.760 arcsec [9.02σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 0.00 [0/17]

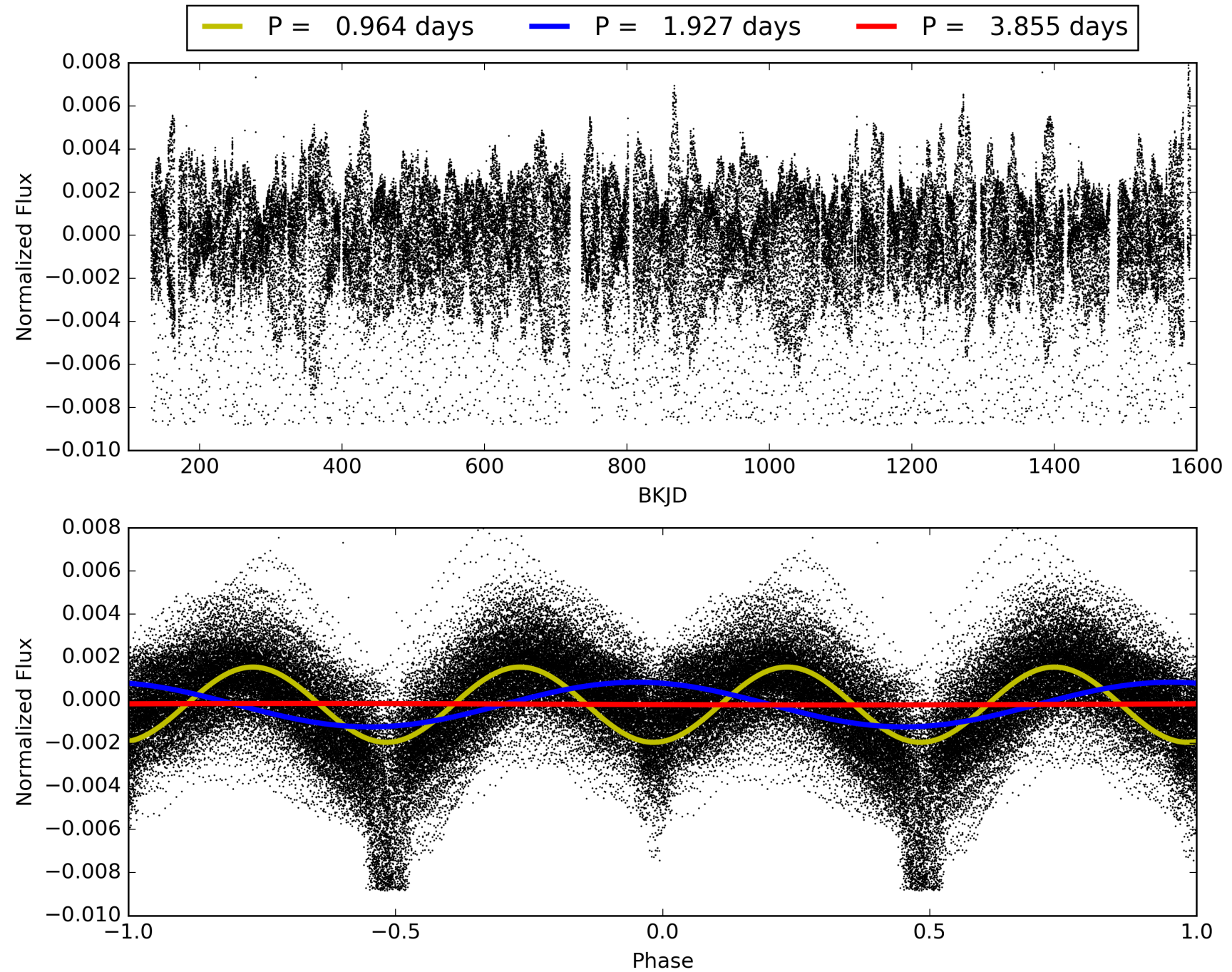
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:55:34 Z

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

# TCE 007967100-02, PDC Light Curves

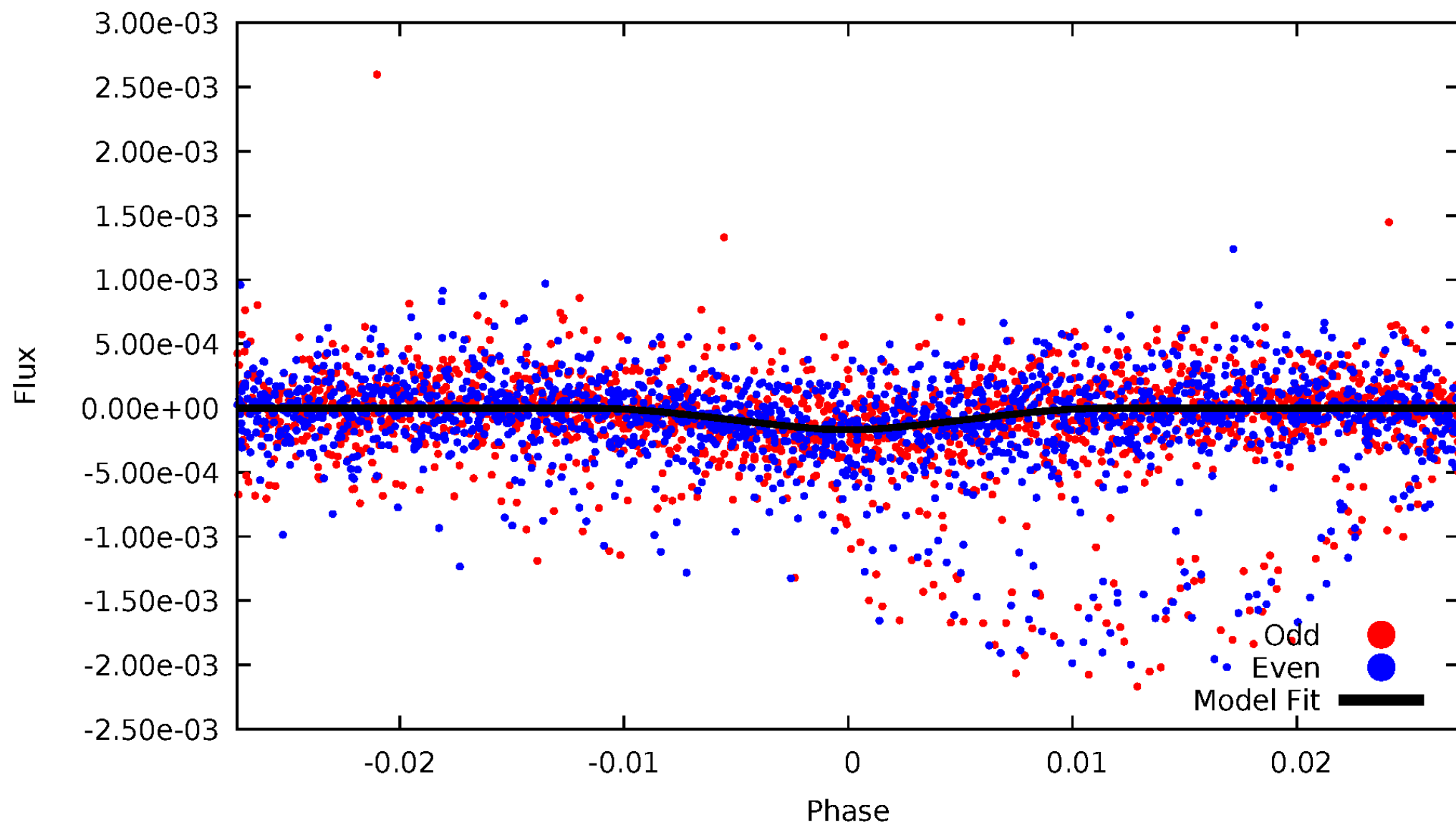


TCE 007967100-02



# DV Odd/Even

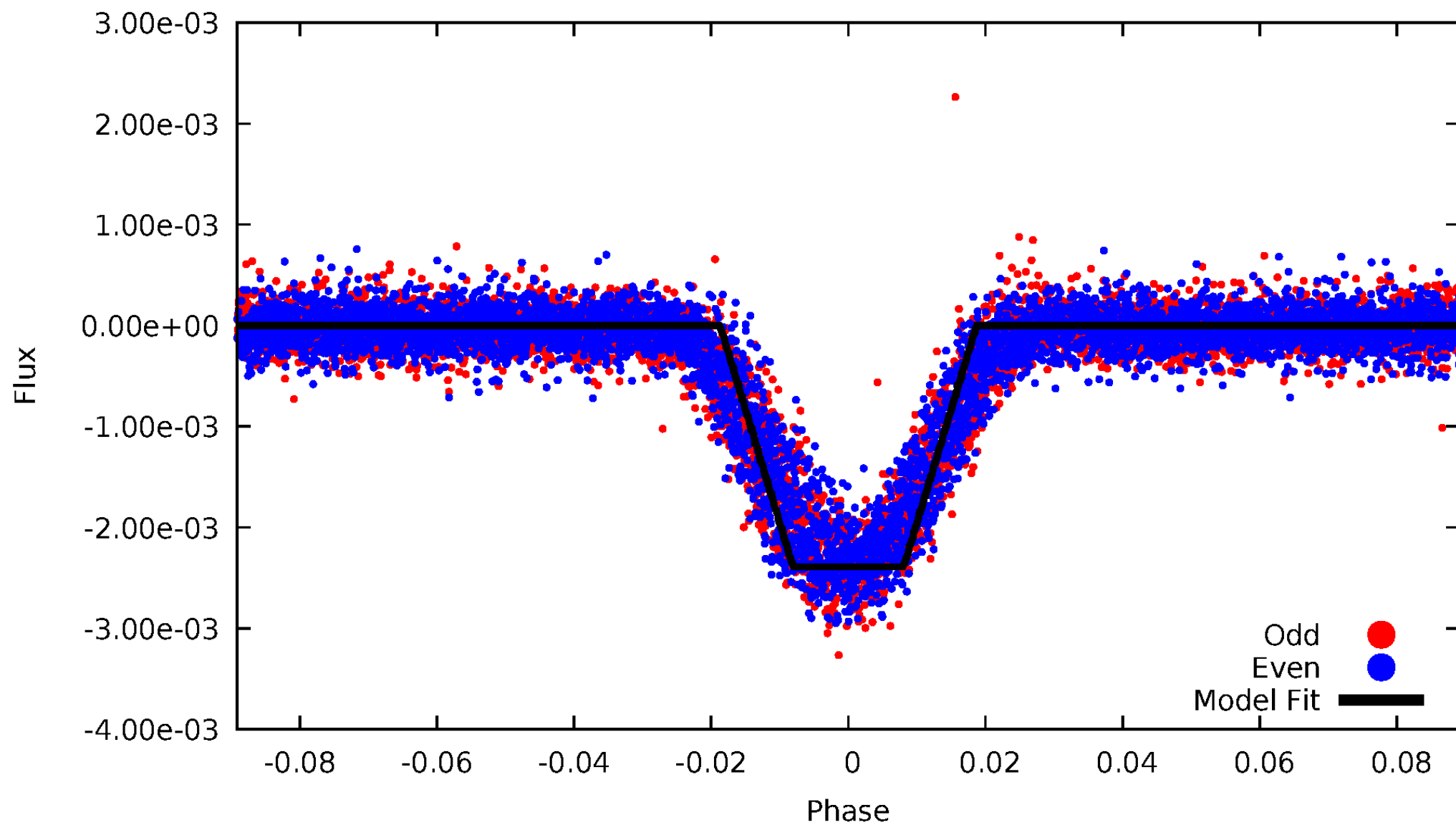
TCE 007967100-02





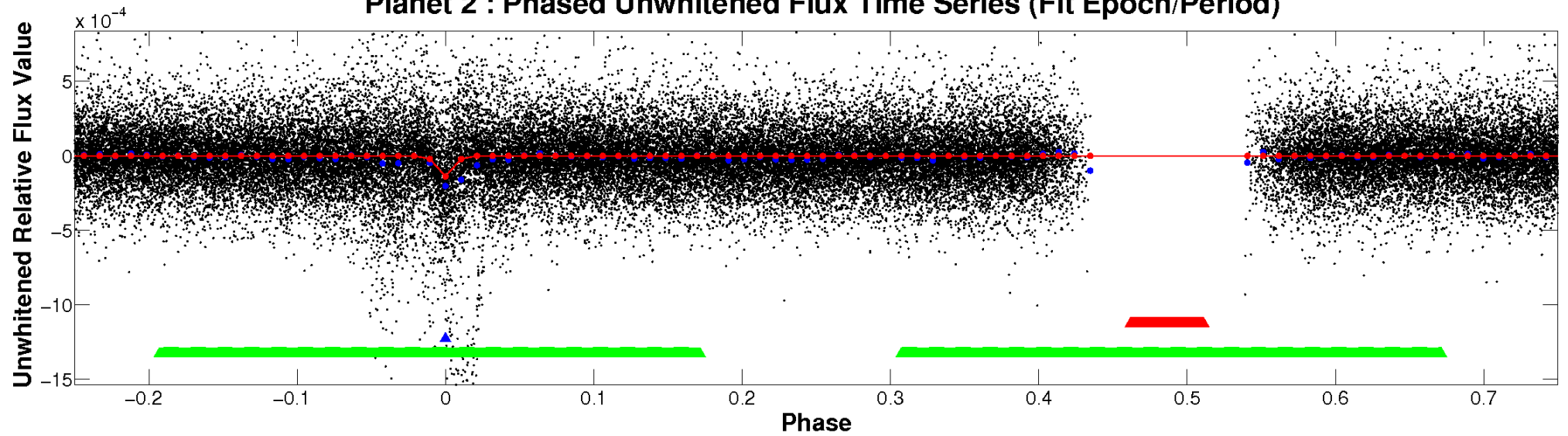
# ALT Odd/Even

TCE 007967100-02

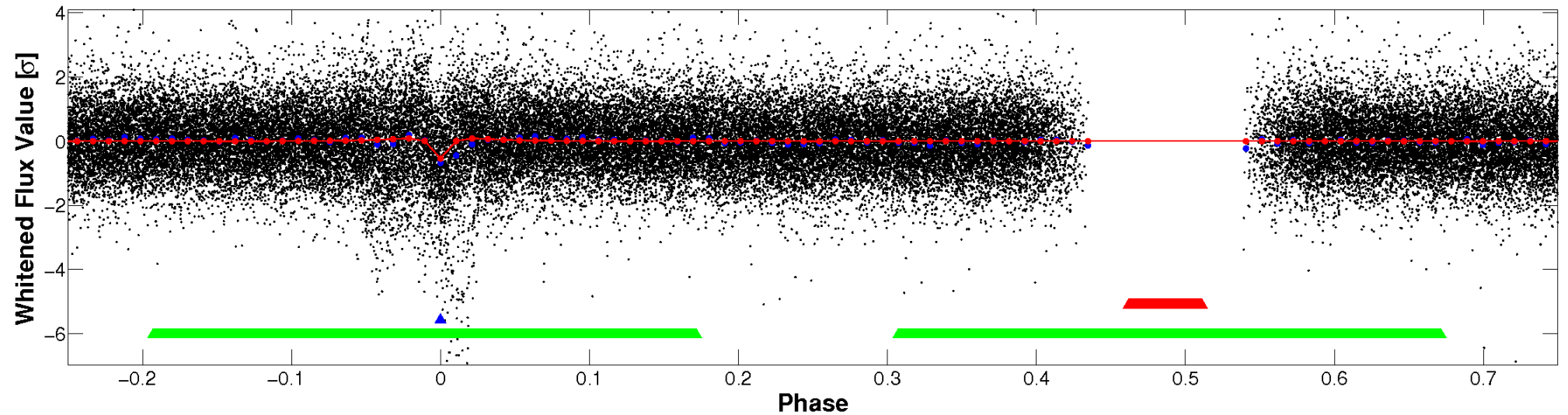


# Non-Whitened Vs. Whitened Light Curve

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

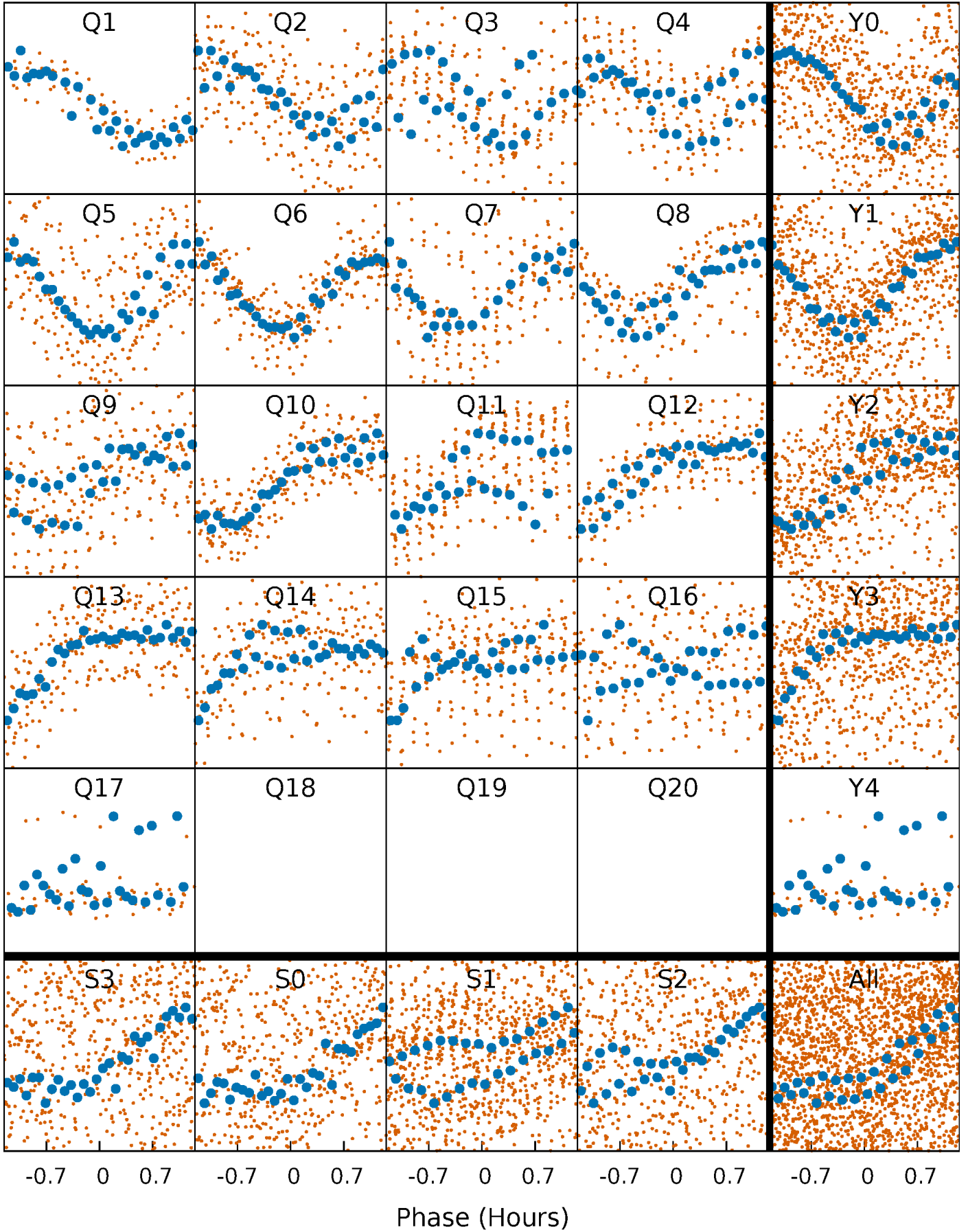


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



# PDC Quarter-Phased Transit Curves

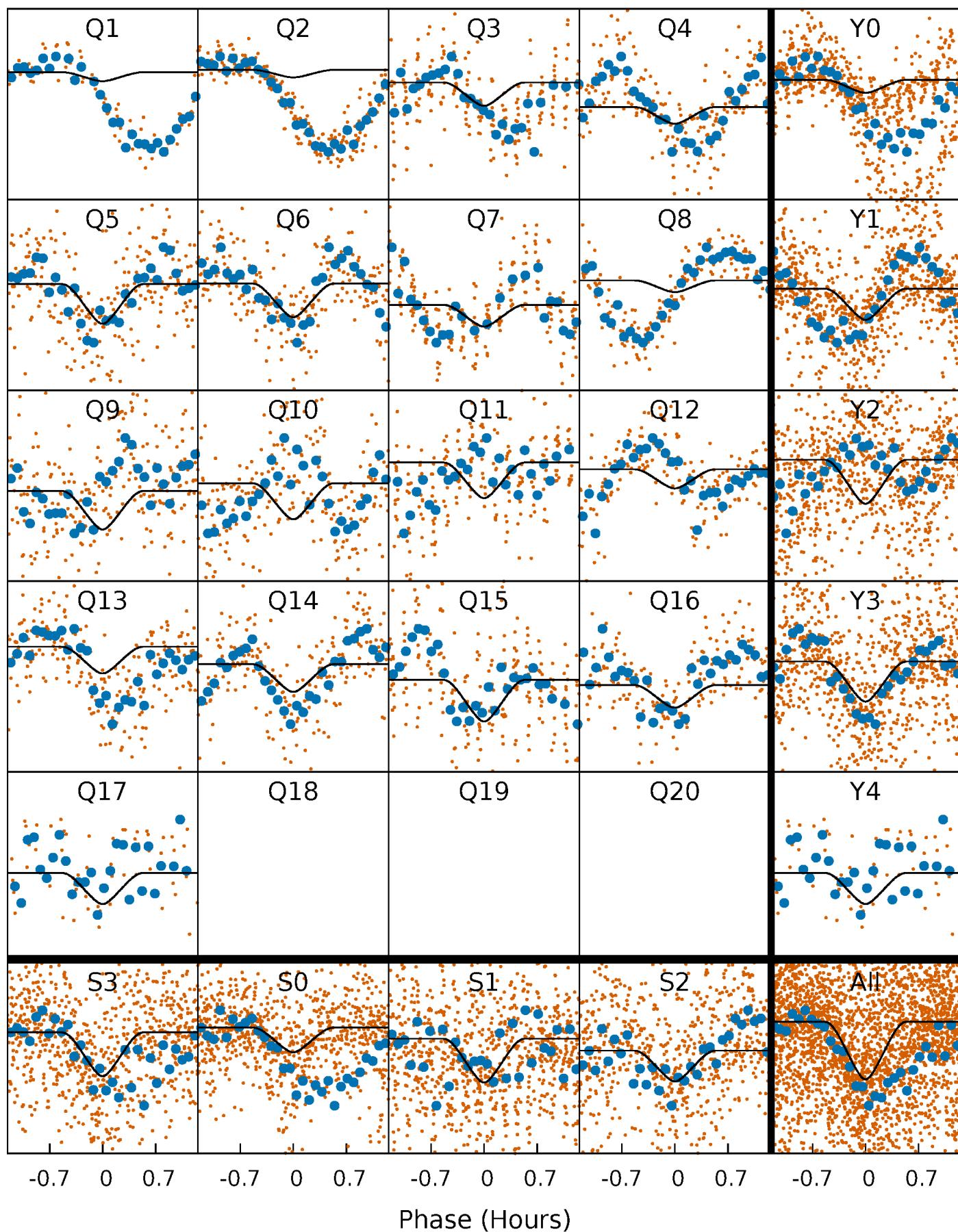
TCE 007967100-02    P= 1.927441 Days     $T_0=133.303528$  (BKJD)





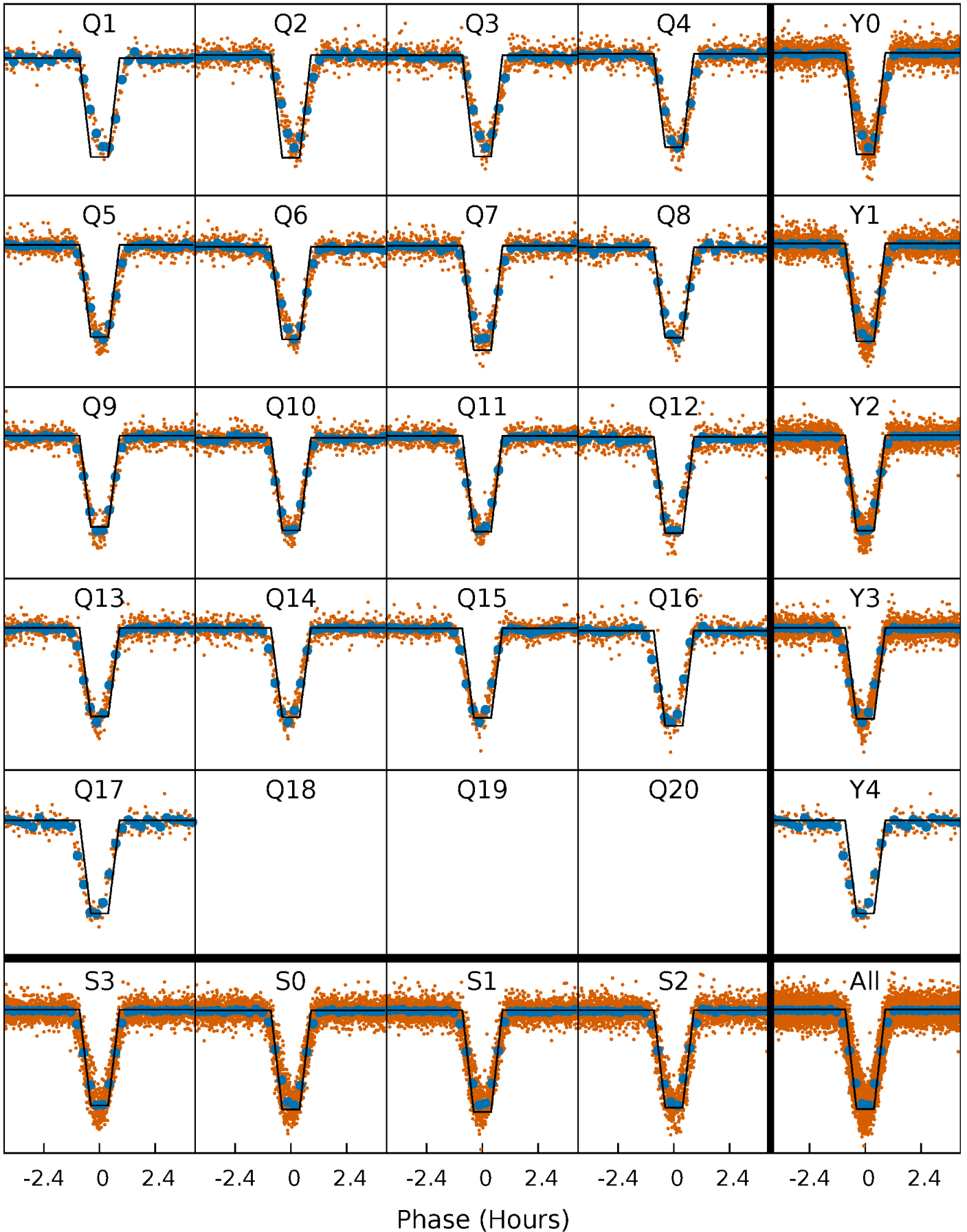
# DV Quarter-Phased Transit Curves

TCE 007967100-02 P= 1.927441 Days  $T_0=133.303528$  (BKJD)



## Alt. Detrend Quarter-Phased Transit Curves

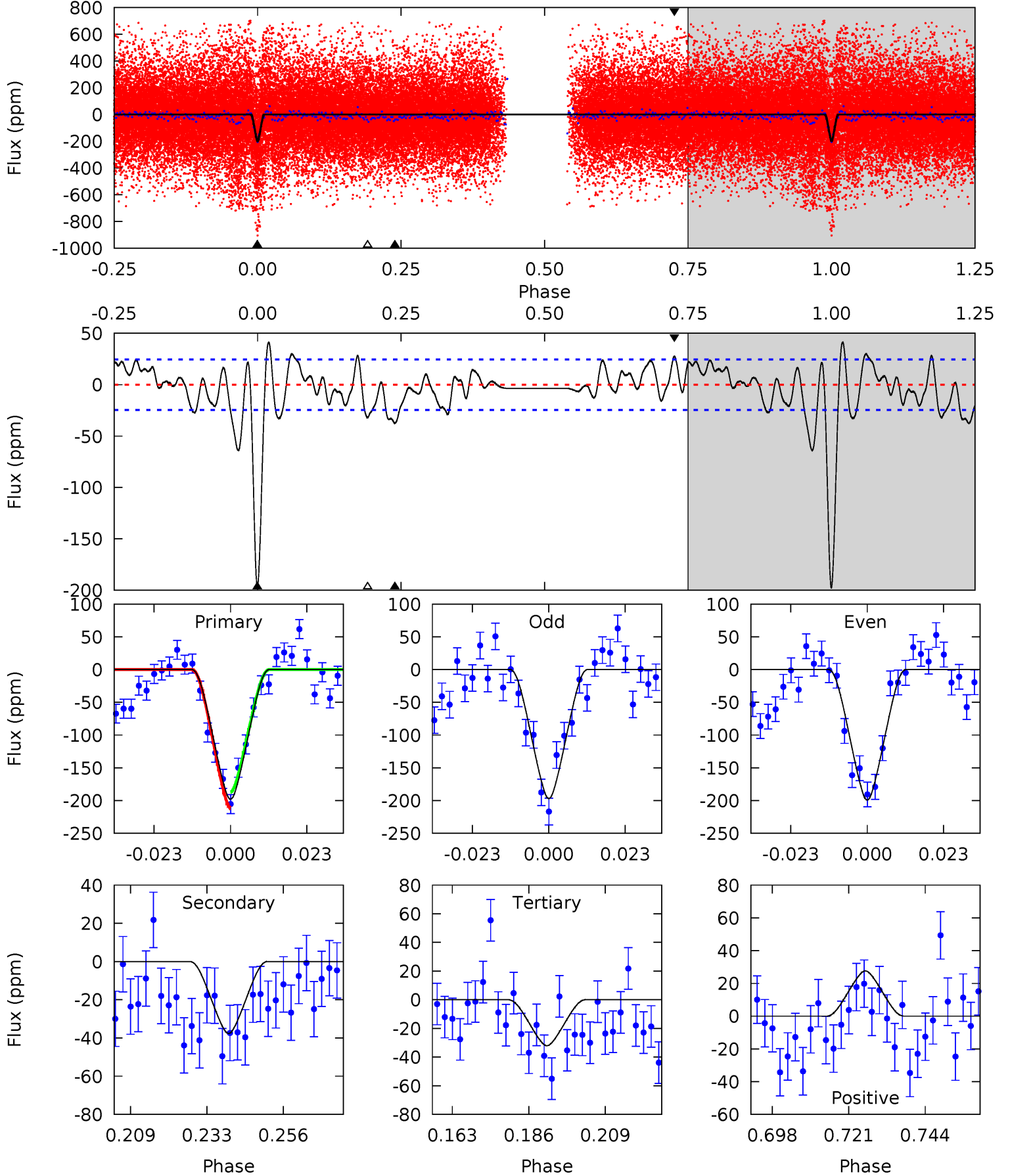
TCE 007967100-02   P= 1.927316 Days    $T_0=133.322397$  (BKJD)



# DV Model-Shift Uniqueness Test

007967100-02, P = 1.927441 Days, E = 131.376087 Days

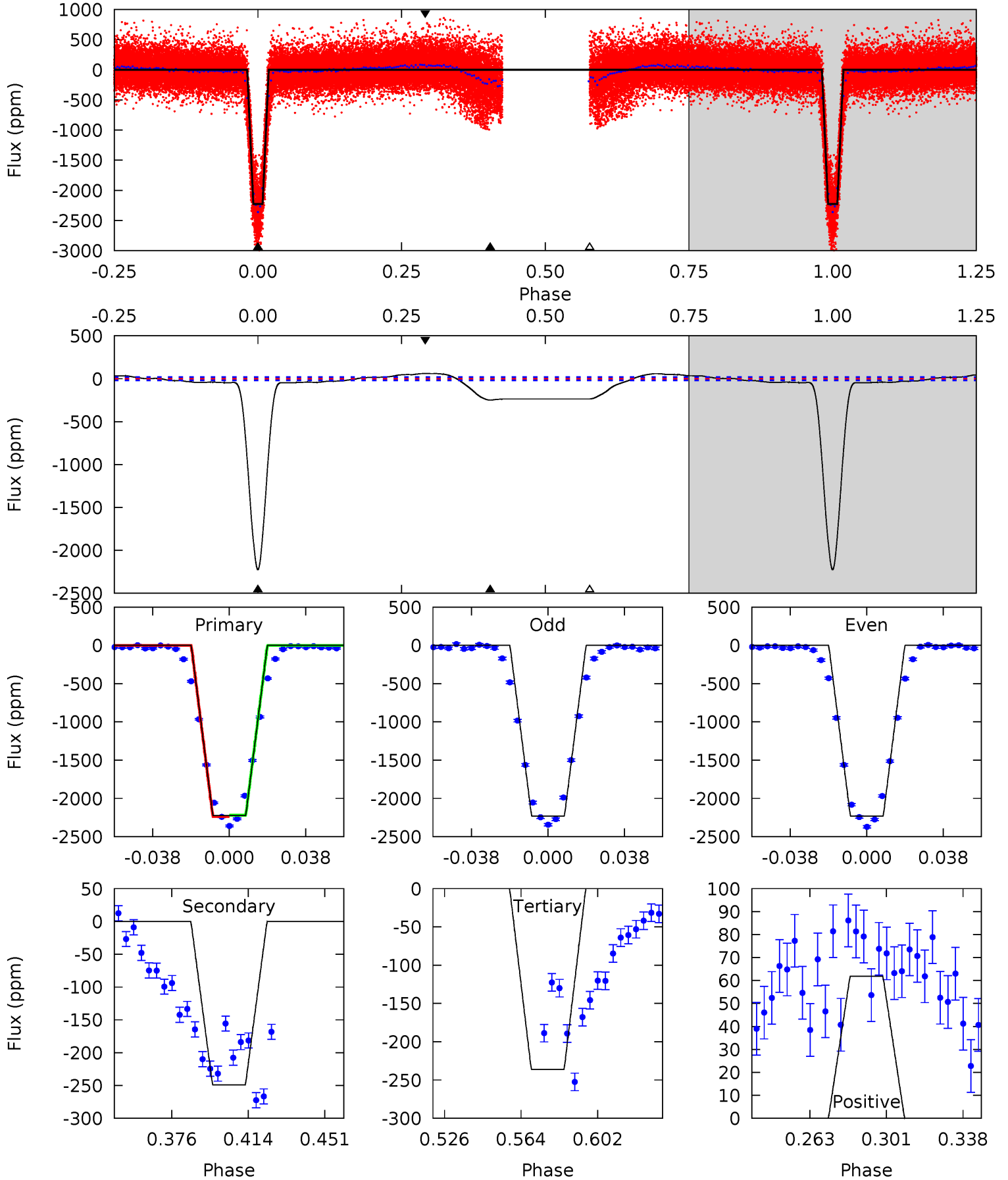
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.1	7.44	6.34	5.46	4.86	2.27	3.21	32.8	33.7	1.11	1.98	0.24	1.28	0.17	2.37



# Alt Model-Shift Uniqueness Test

007967100-02, P = 1.927316 Days, E = 131.395081 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
541.4	60.7	57.5	15.1	4.77	2.08	12.8	483.9	526.3	3.18	45.6	0.35	0.99	0.03	2.05



### Stellar Parameters For KIC 007967100

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6057^{+180}_{-198}$	$4.352^{+0.112}_{-0.208}$	$-0.120^{+0.300}_{-0.300}$	$1.110^{+0.338}_{-0.182}$	$1.009^{+0.167}_{-0.112}$	$1.040^{+0.601}_{-0.512}$
	+3%/-3%	+3%/-5%	+250%/-250%	+30%/-16%	+17%/-11%	+58%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

### Secondary Eclipse Parameters for KIC 007967100-02 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-38 \pm 5$	$2.55^{+1.84}_{-1.49}$	$2275^{+180}_{-131}$	$3647^{+1451}_{-665}$	$2.977^{+13.905}_{-1.997}$
Alt.	$-249 \pm 4$	$6.13^{+2.13}_{-1.90}$	$2284^{+186}_{-131}$	$3750^{+541}_{-348}$	$3.378^{+3.578}_{-1.532}$

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

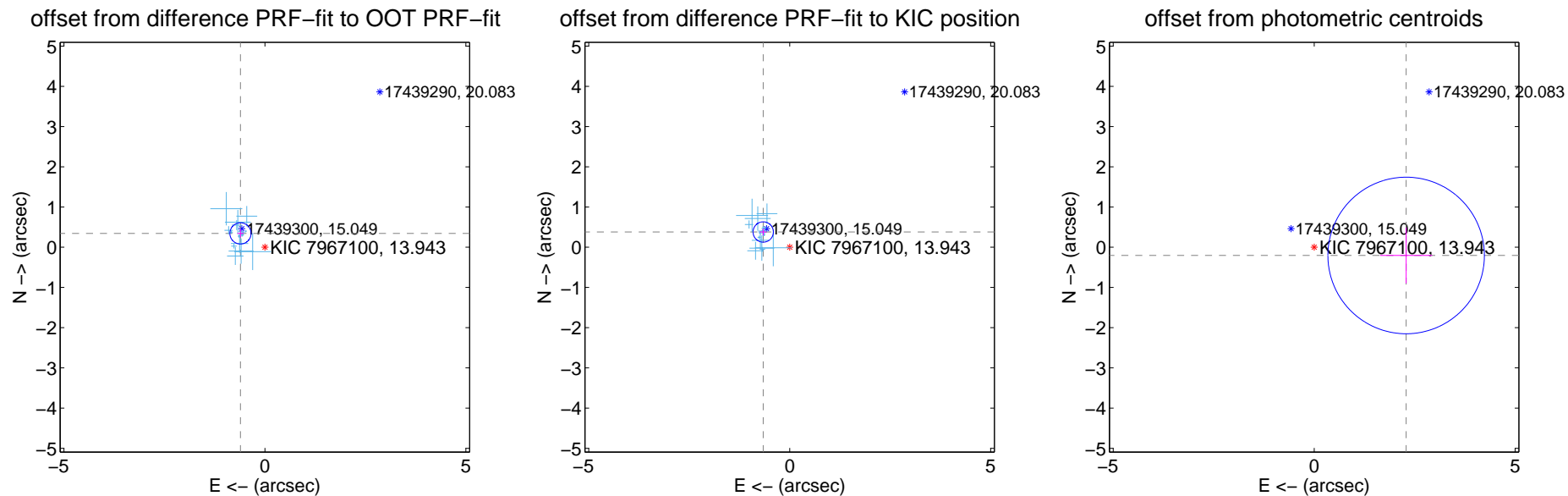
## DV Centroid Data

Supplemental centroid analysis for 007967100-02. Kepler magnitude: 13.94. Transit SNR 15.38

There are 17 quarters with good PRF difference image offsets

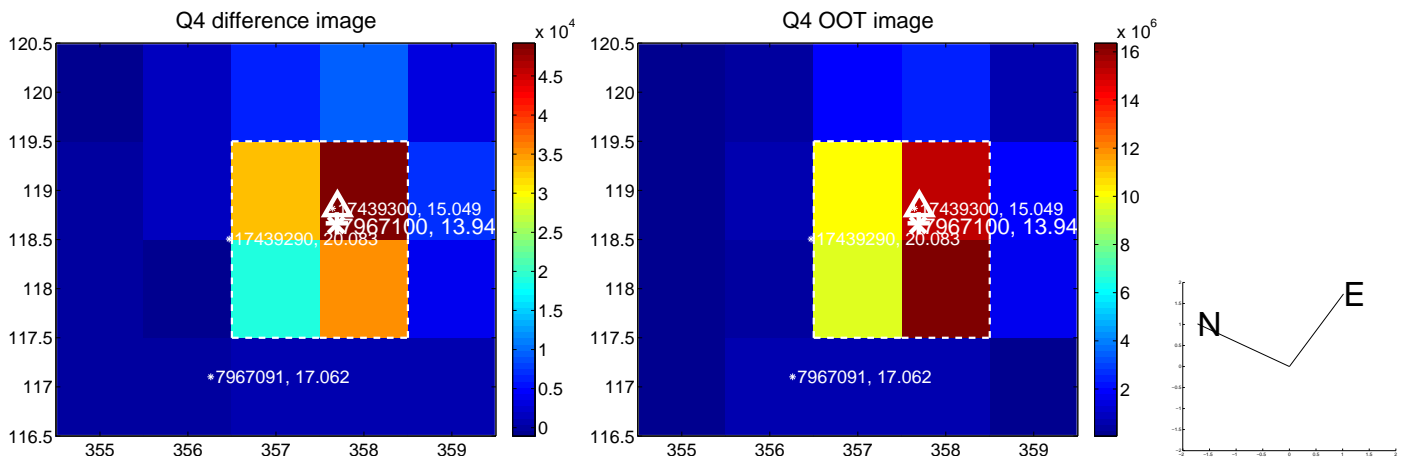
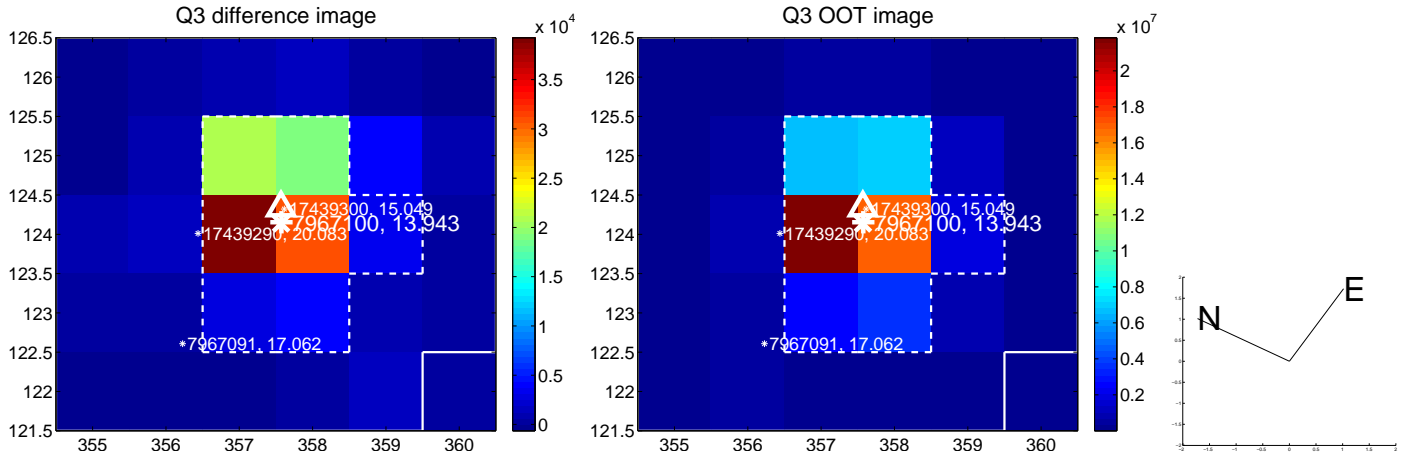
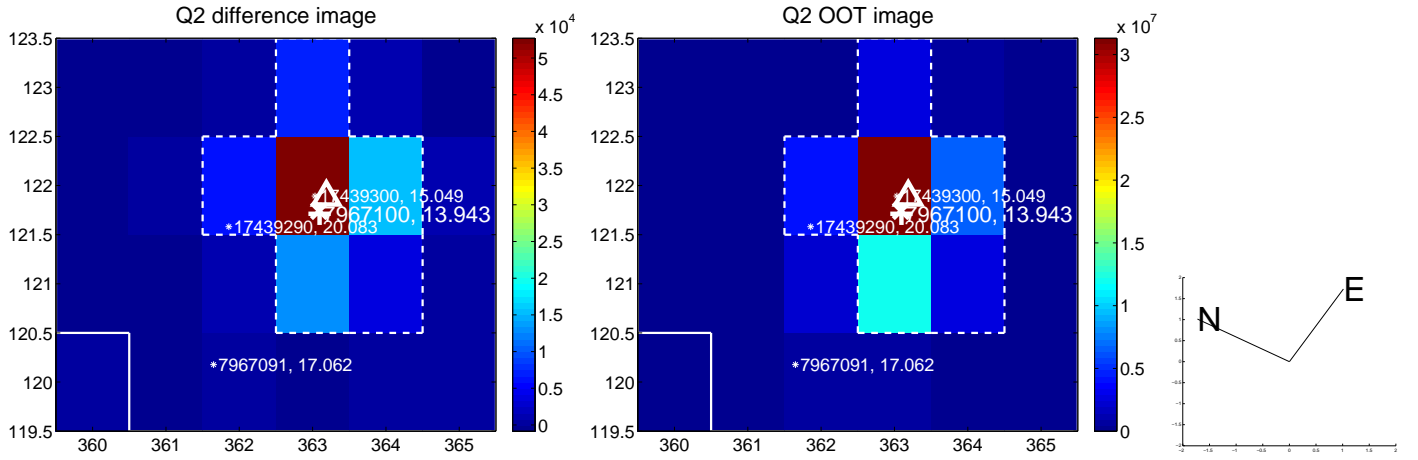
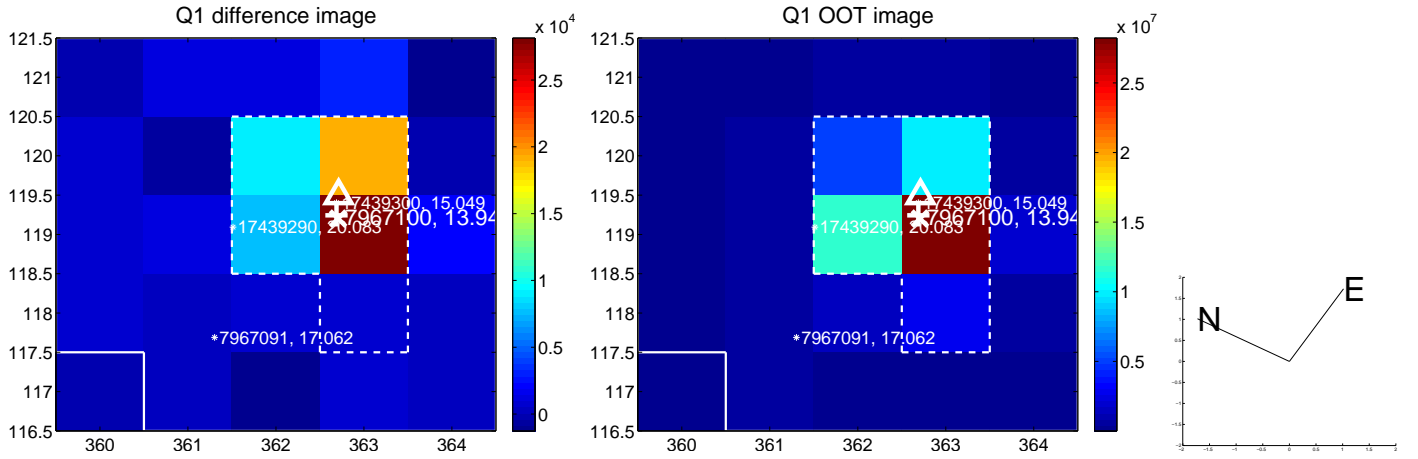
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.699 \pm 0.088$	7.95	$0.608 \pm 0.077$	$0.344 \pm 0.099$
PRF-fit source offset from KIC position	$0.760 \pm 0.084$	9.02	$0.659 \pm 0.084$	$0.379 \pm 0.085$
photometric centroid source offset	$2.30 \pm 0.65$	3.54	$-2.29 \pm 0.65$	$-0.20 \pm 0.69$

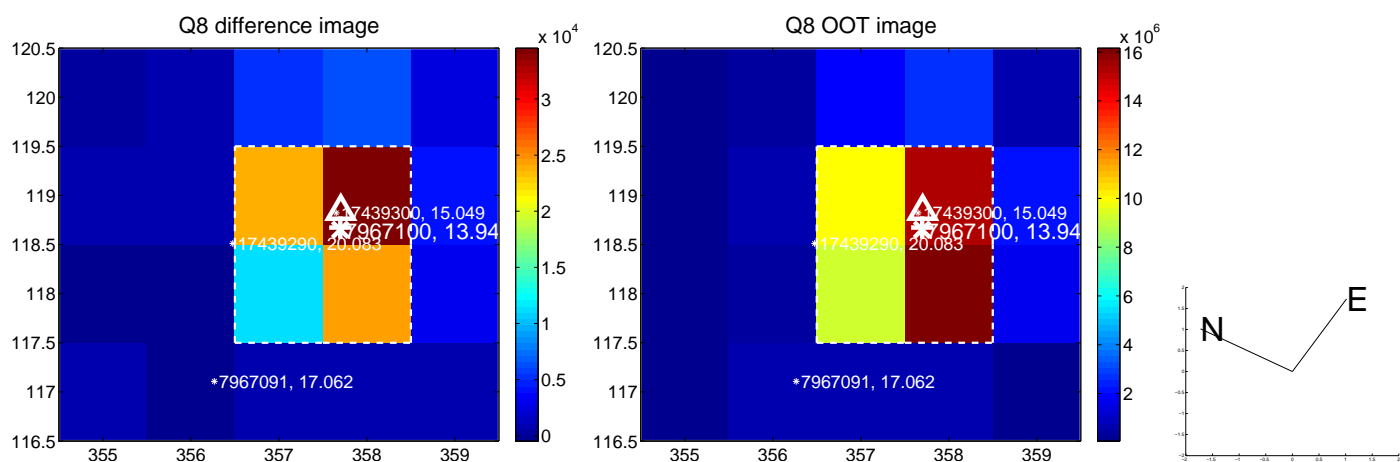
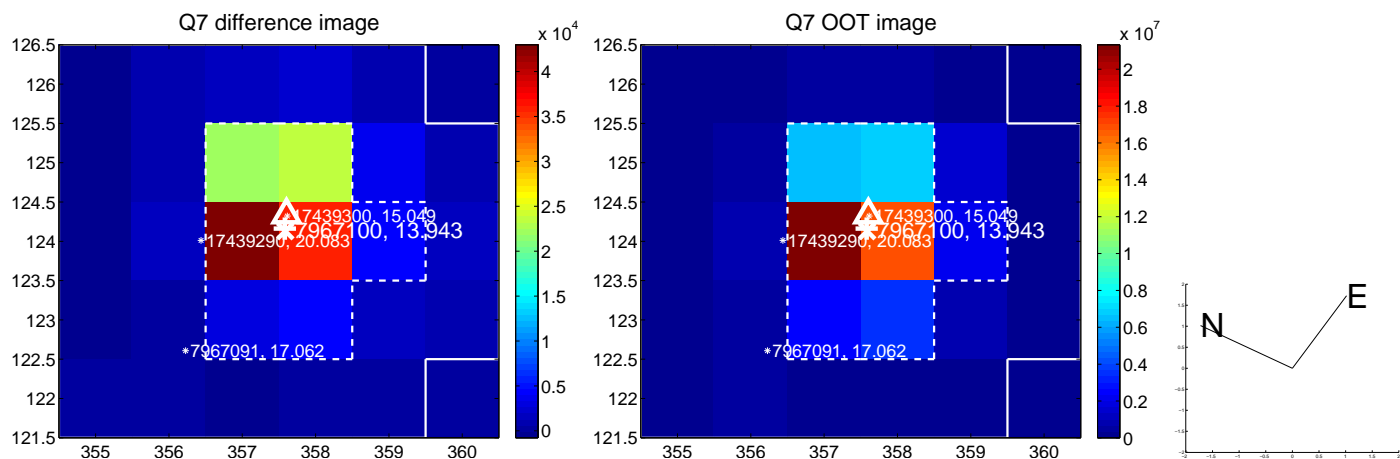
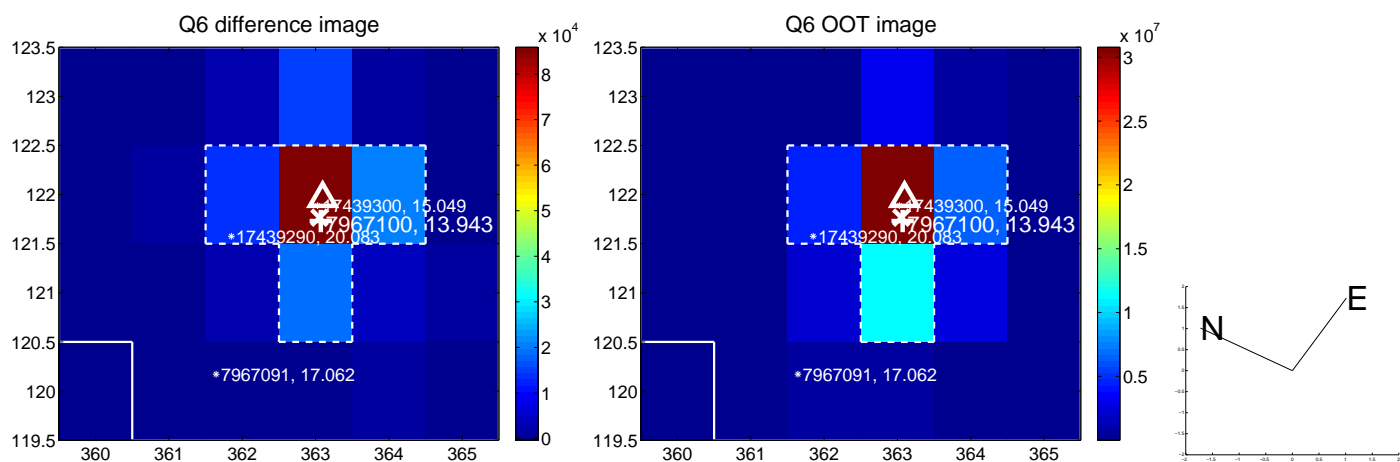
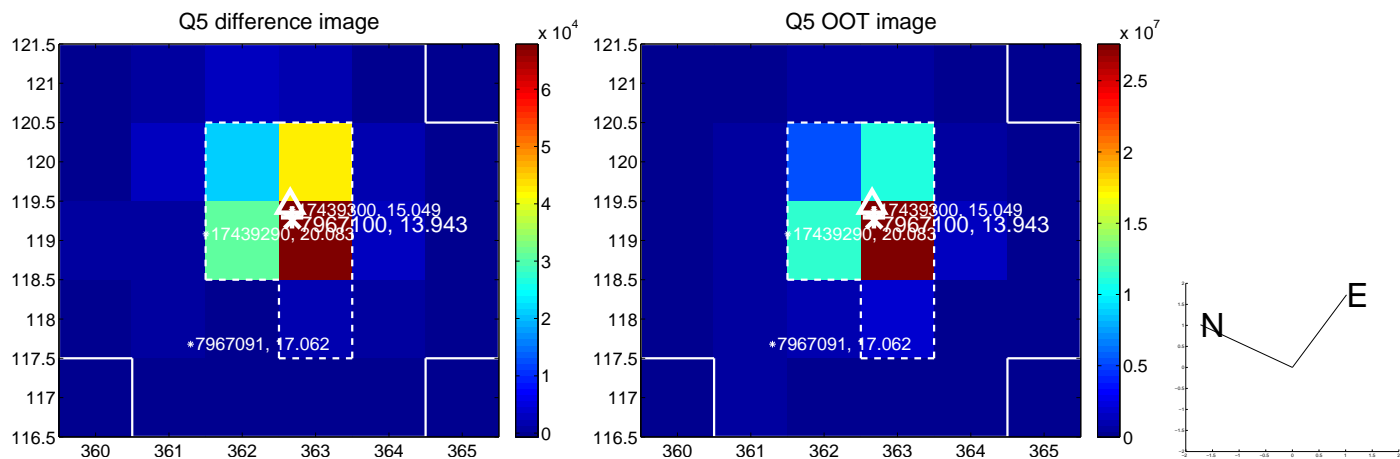


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

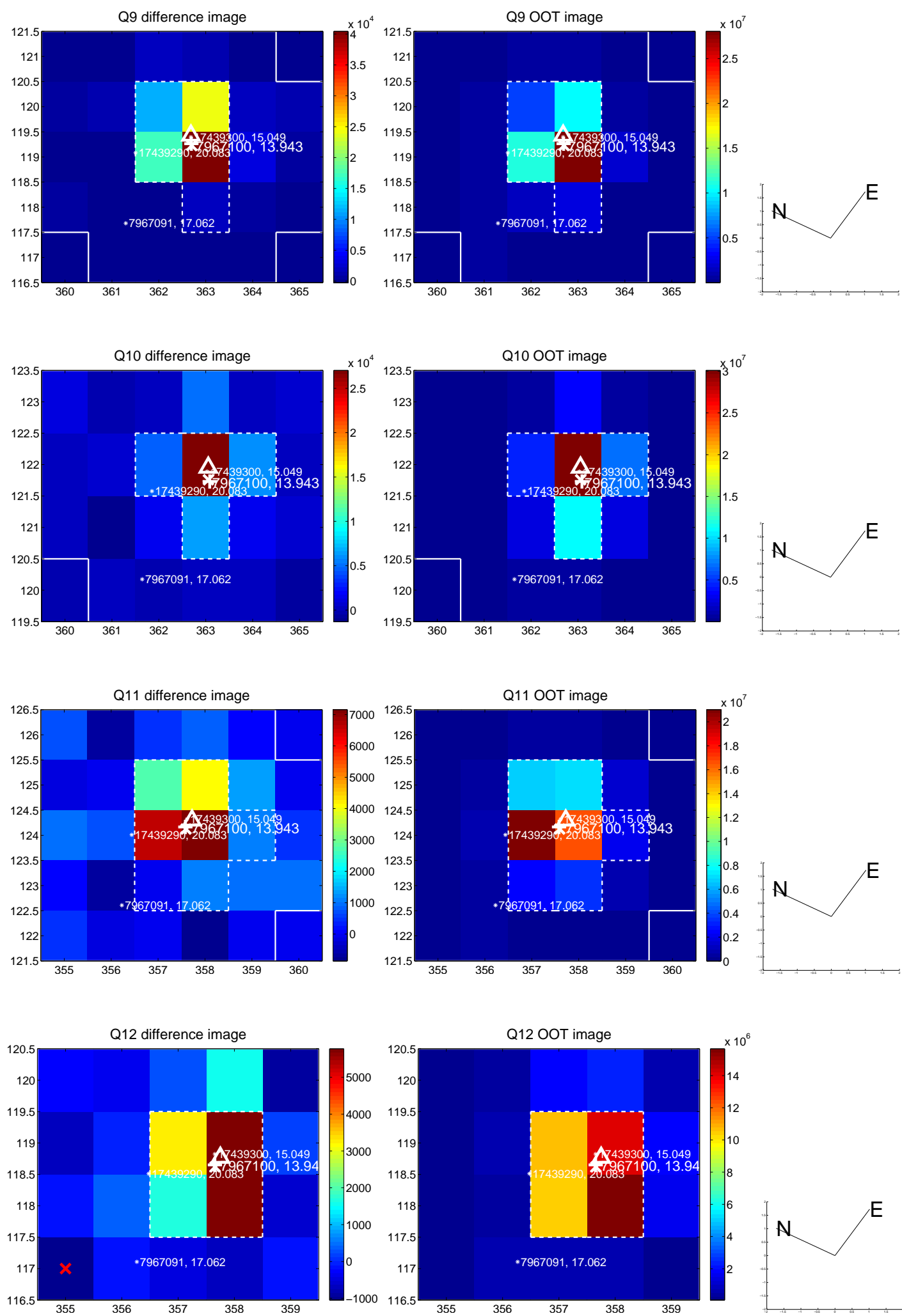


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

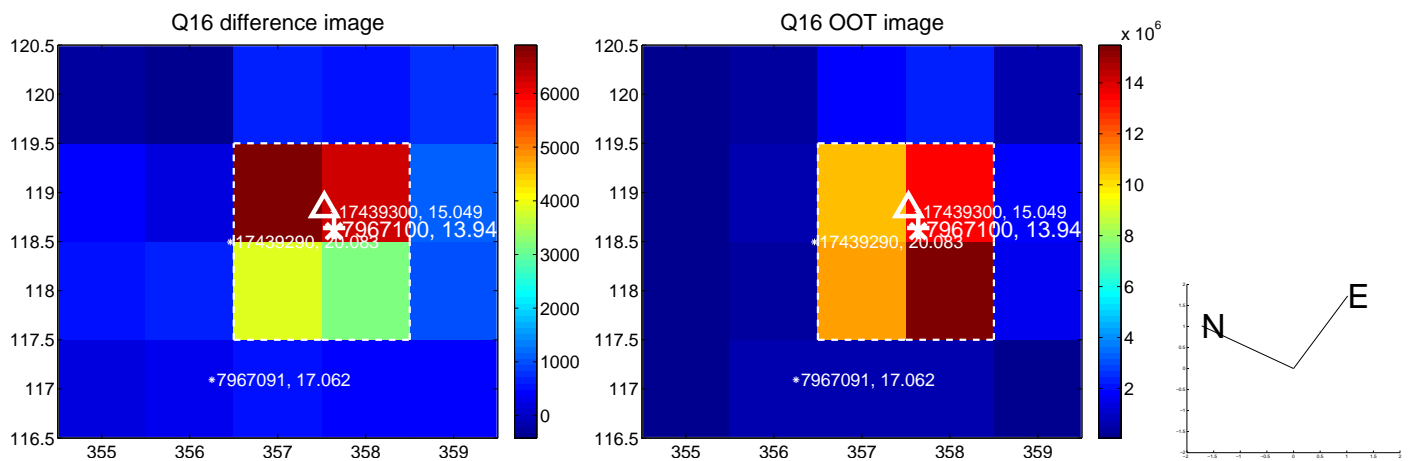
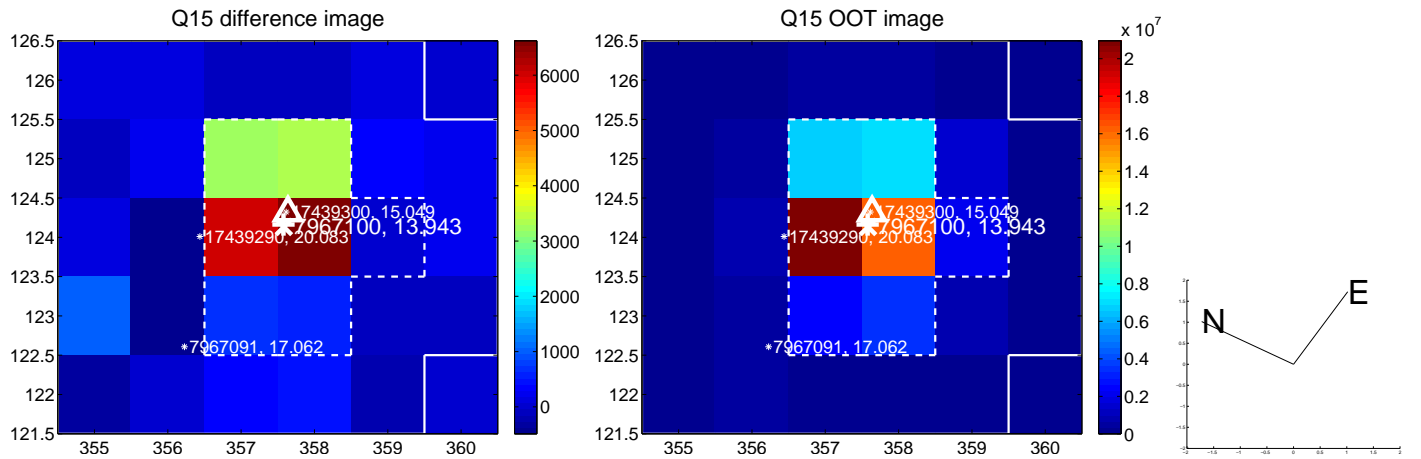
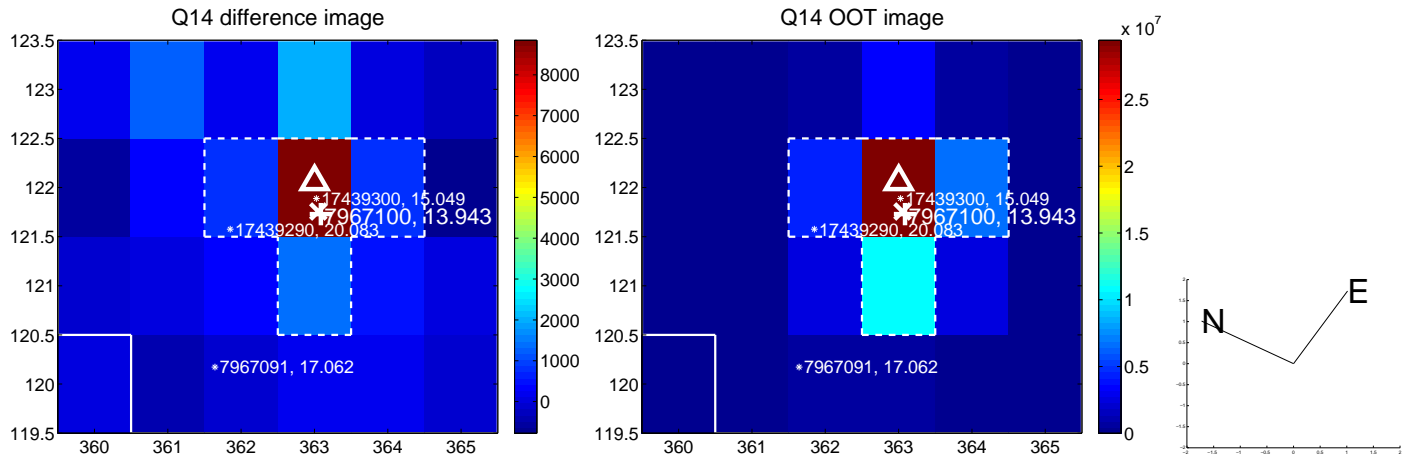
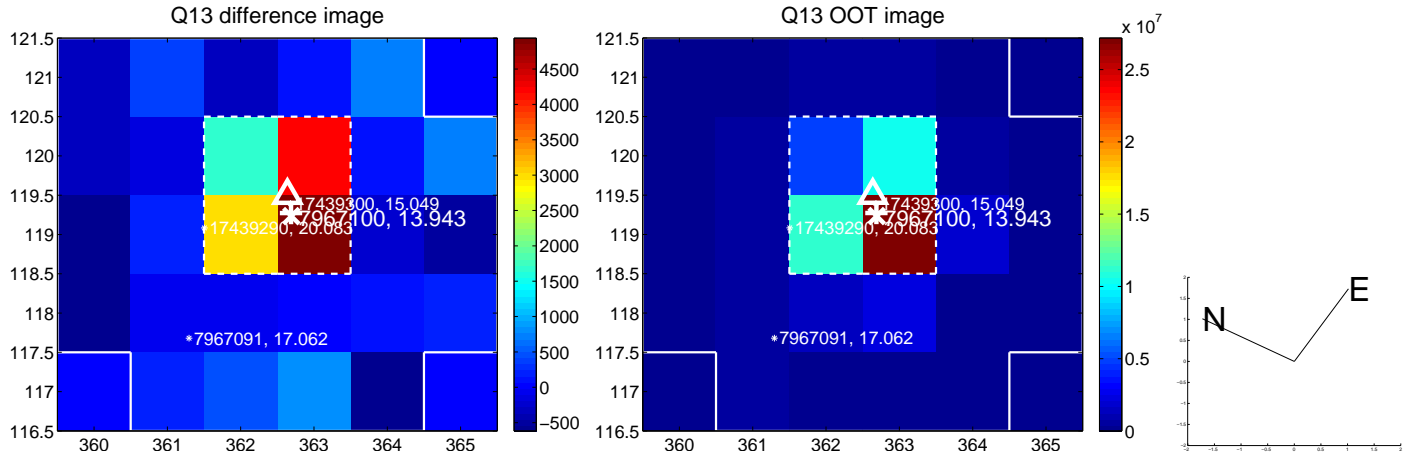




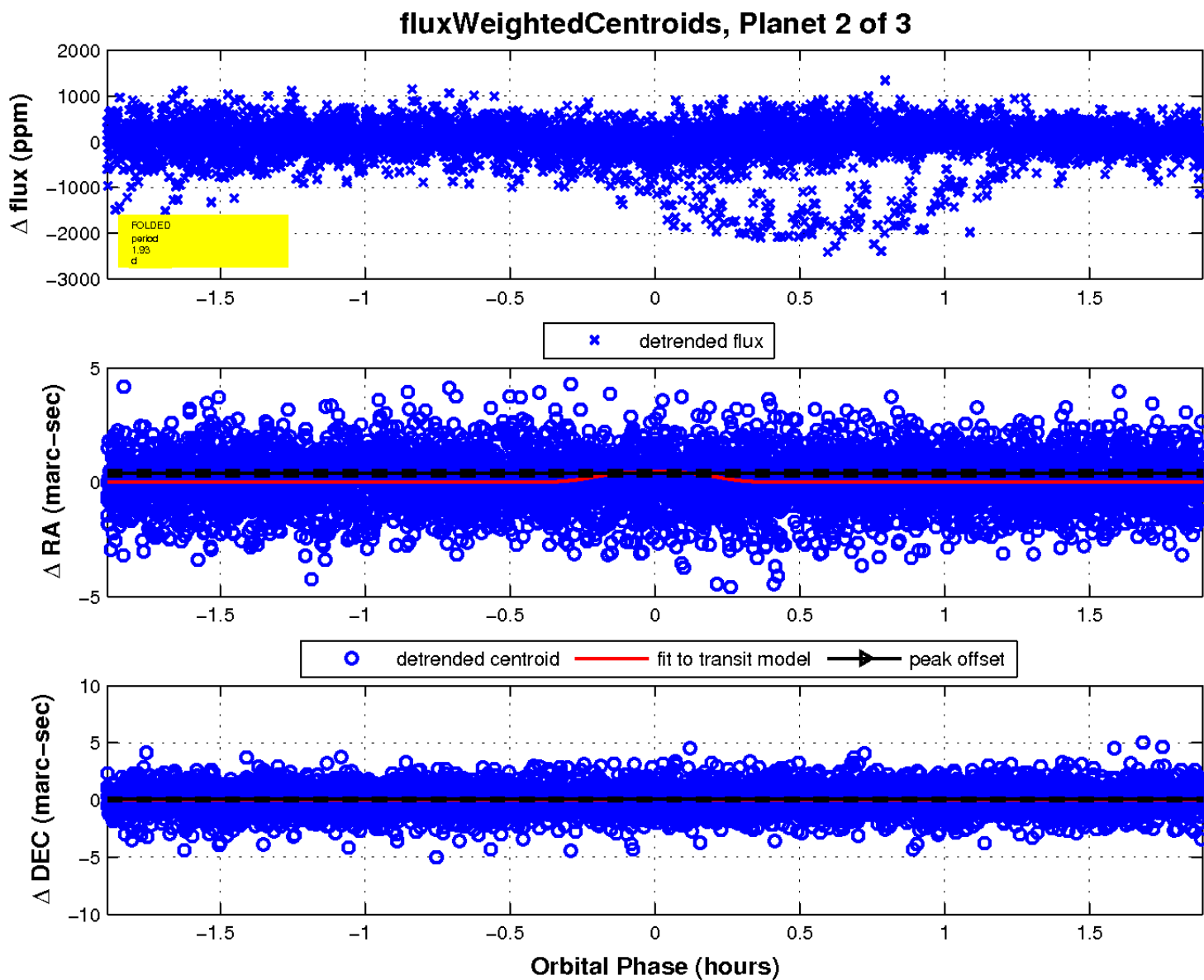
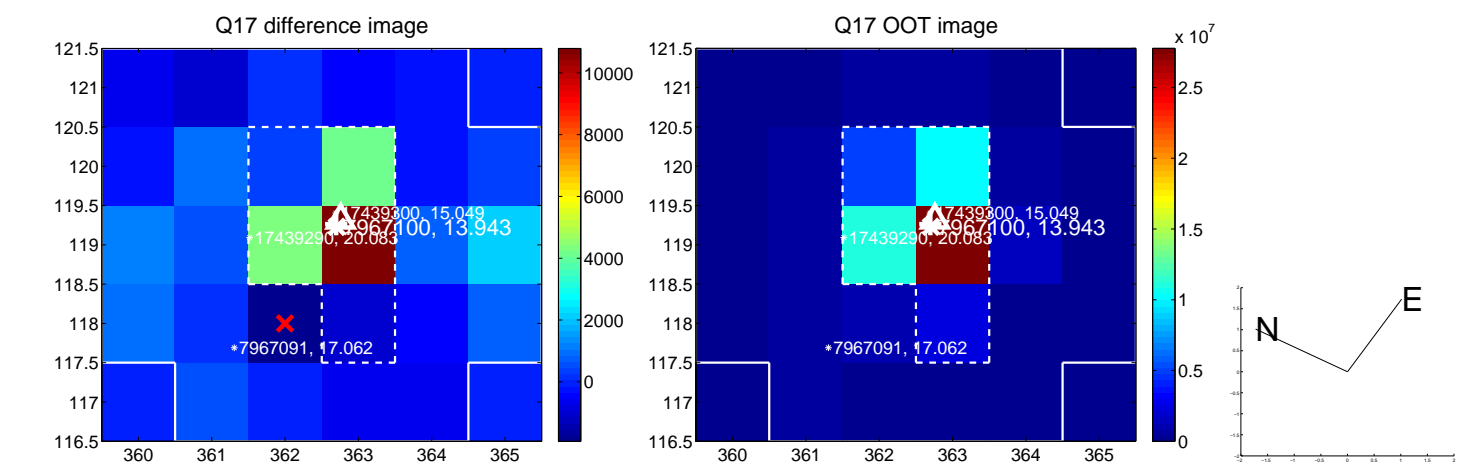
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

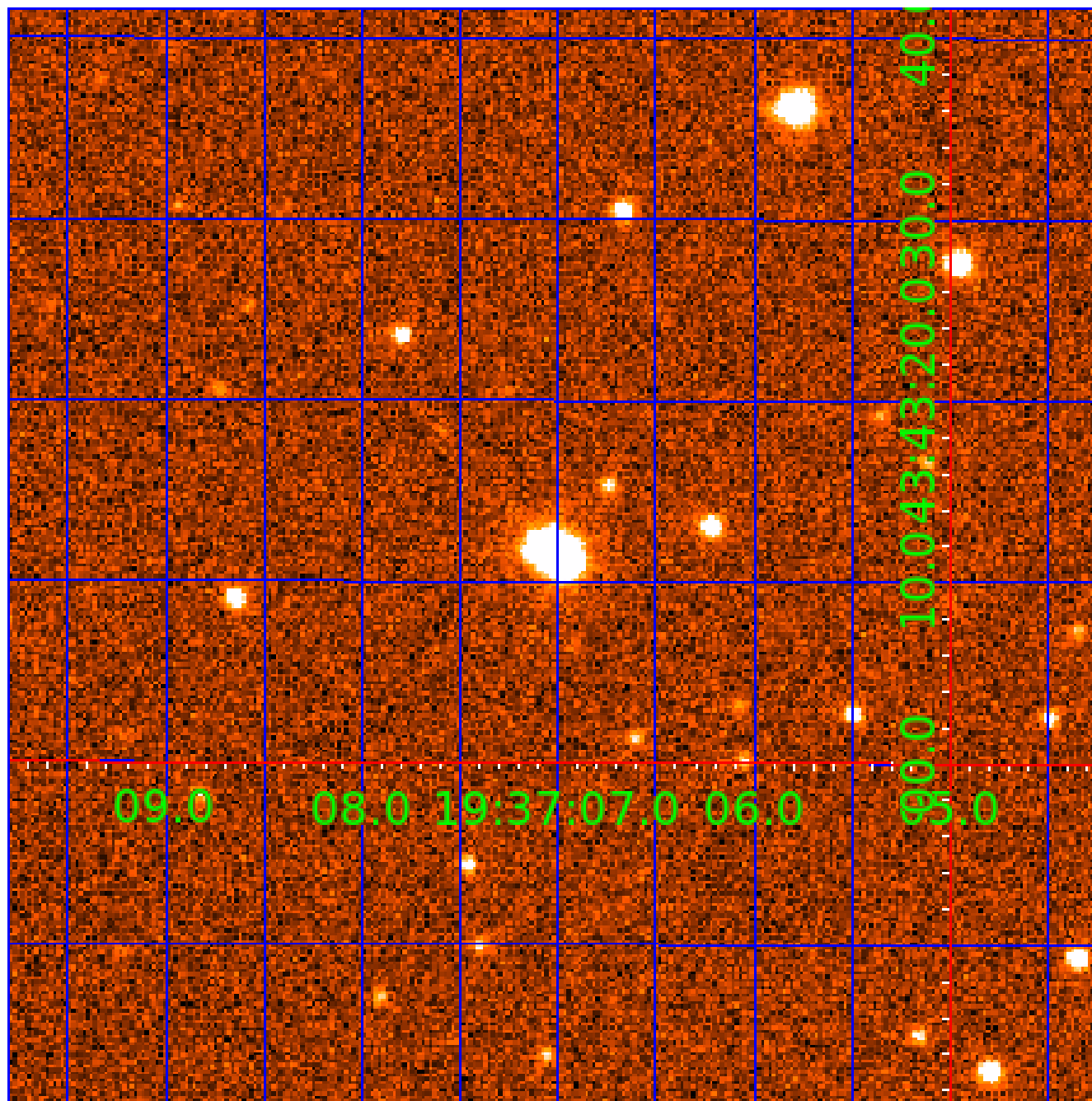


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



# UKIRT Image

Declination



# KIC 007967100

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007967100-01	OBS	6941.01	1.927316	132.361174	8166.1	2.176	988.0	688.0	1.11	6057	12.46	1605.23
007967100-02	OBS	No	1.927441	133.303528	169.6	0.630	31.2	15.4	1.11	6057	2.24	1605.09
007967100-03	OBS	No	0.963256	131.707027	290.0	3.000	9.5	-1.0	1.11	6057	1.89	4047.16

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007967100-01	OBS	PC	0.79	0	1	0	0	MOD_SEC_DV—PLANET_OCCULT_DV—MOD_SEC_ALT—HAS_SEC_TCE
007967100-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
007967100-03	OBS	FP	0.00	1	0	1	0	SWEET_NTL—LPP_DV—CENT_NOFITS—HALO_GHOST

**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.

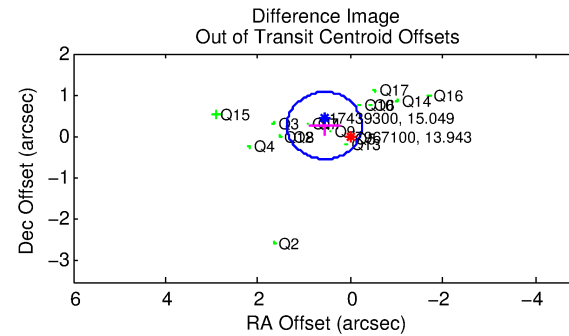
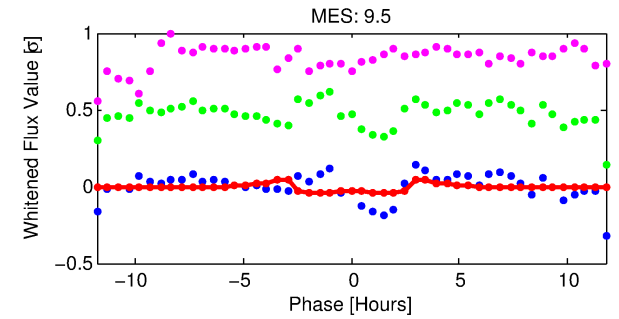
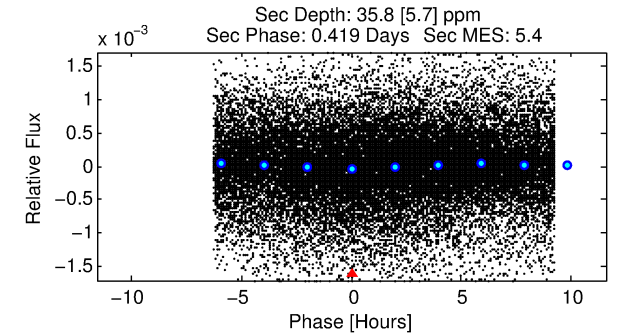
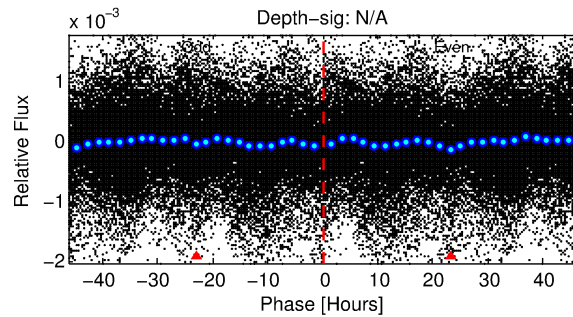
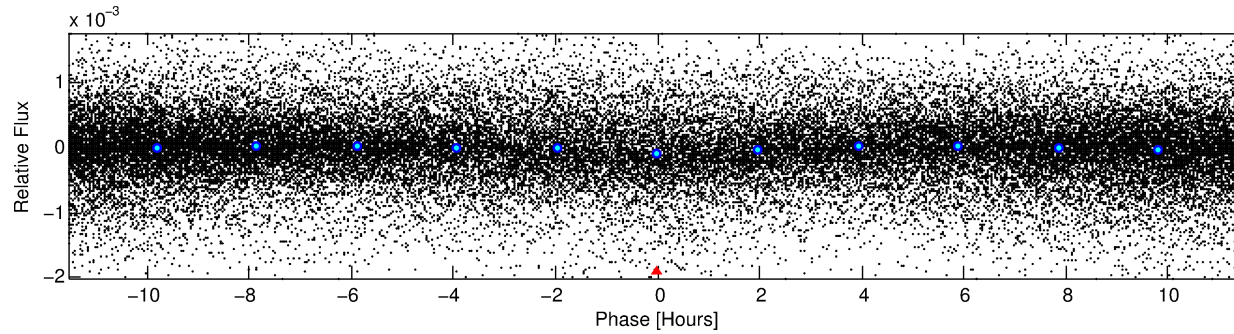
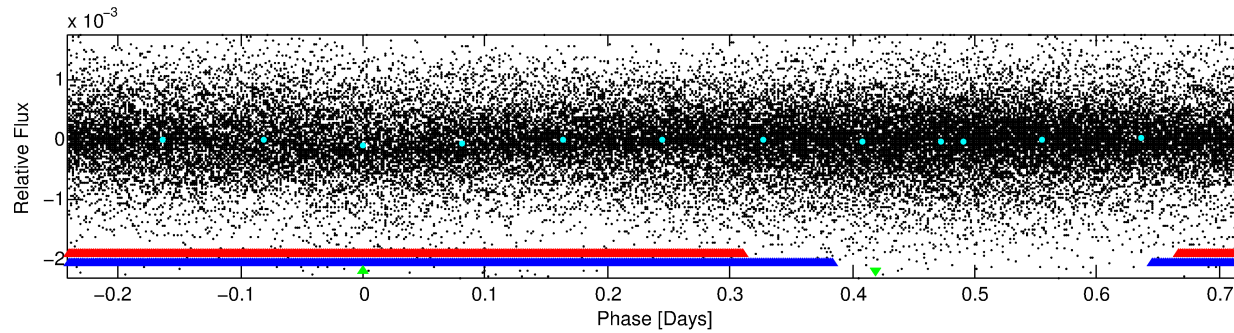
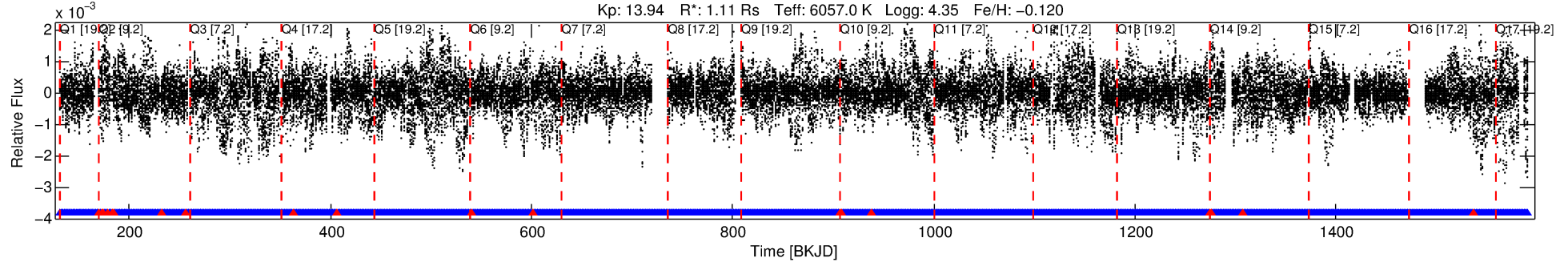
## Ephemeris Match Information For 007967100-03

No Significant Match Found

# DV One-Page Summary

KIC: 7967100 Candidate: 3 of 3 Period: 0.963 d  
KOI: K06941 Corr: No Ephemeris Match

Kp: 13.94 R\*: 1.11 Rs Teff: 6057.0 K Logg: 4.35 Fe/H: -0.120



TPS TCE Results:

Period = 0.96326 d  
Epoch = 131.7070 BKJD

DV fit results are unavailable

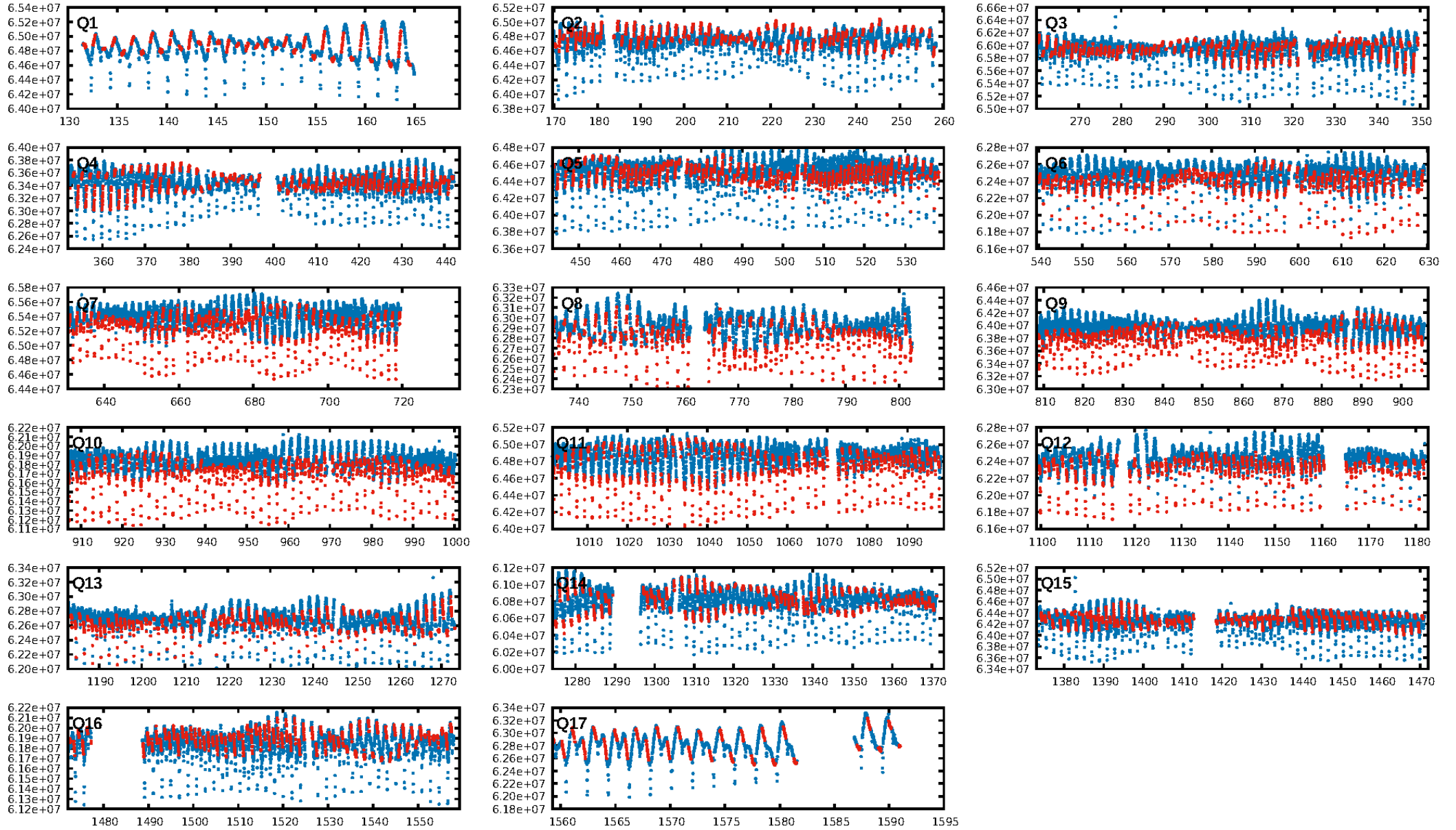
DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [6.24σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.98 [1318/1339]  
GhostDiagnostic-chr: -0.1784  
Centroid-sig: 2.8%  
Centroid-so: 0.300 arcsec [2.45σ]  
OotOffset-rm: 0.628 arcsec [2.34σ]  
KicOffset-rm: 0.727 arcsec [2.74σ]  
OotOffset-st: 4/4/4 [16]  
KicOffset-st: 4/4/4 [16]  
DiffImageQuality-fgm: 0.81 [13/16]  
DiffImageOverlap-fno: 0.00 [0/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:55:44 Z

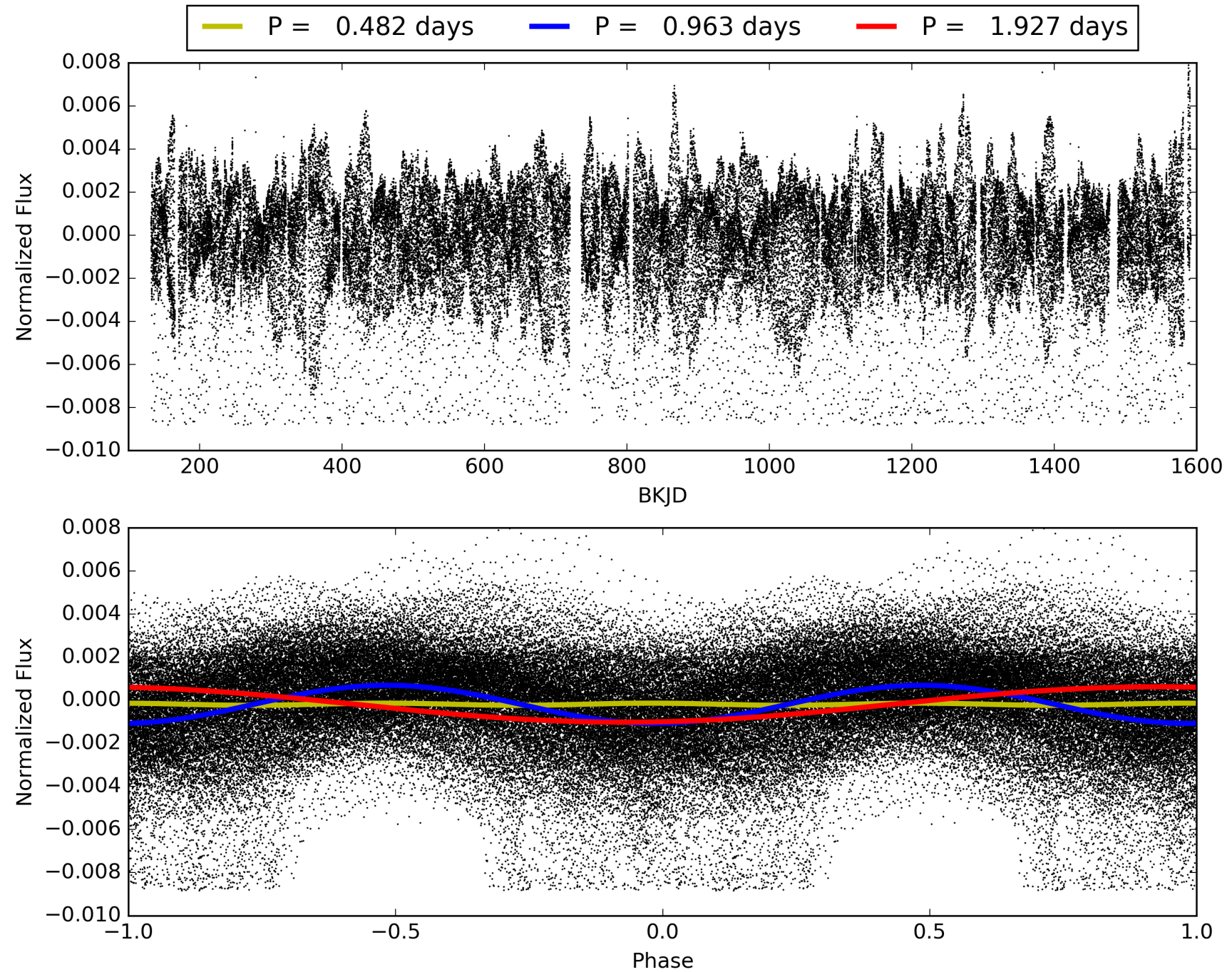
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 007967100-03, PDC Light Curves





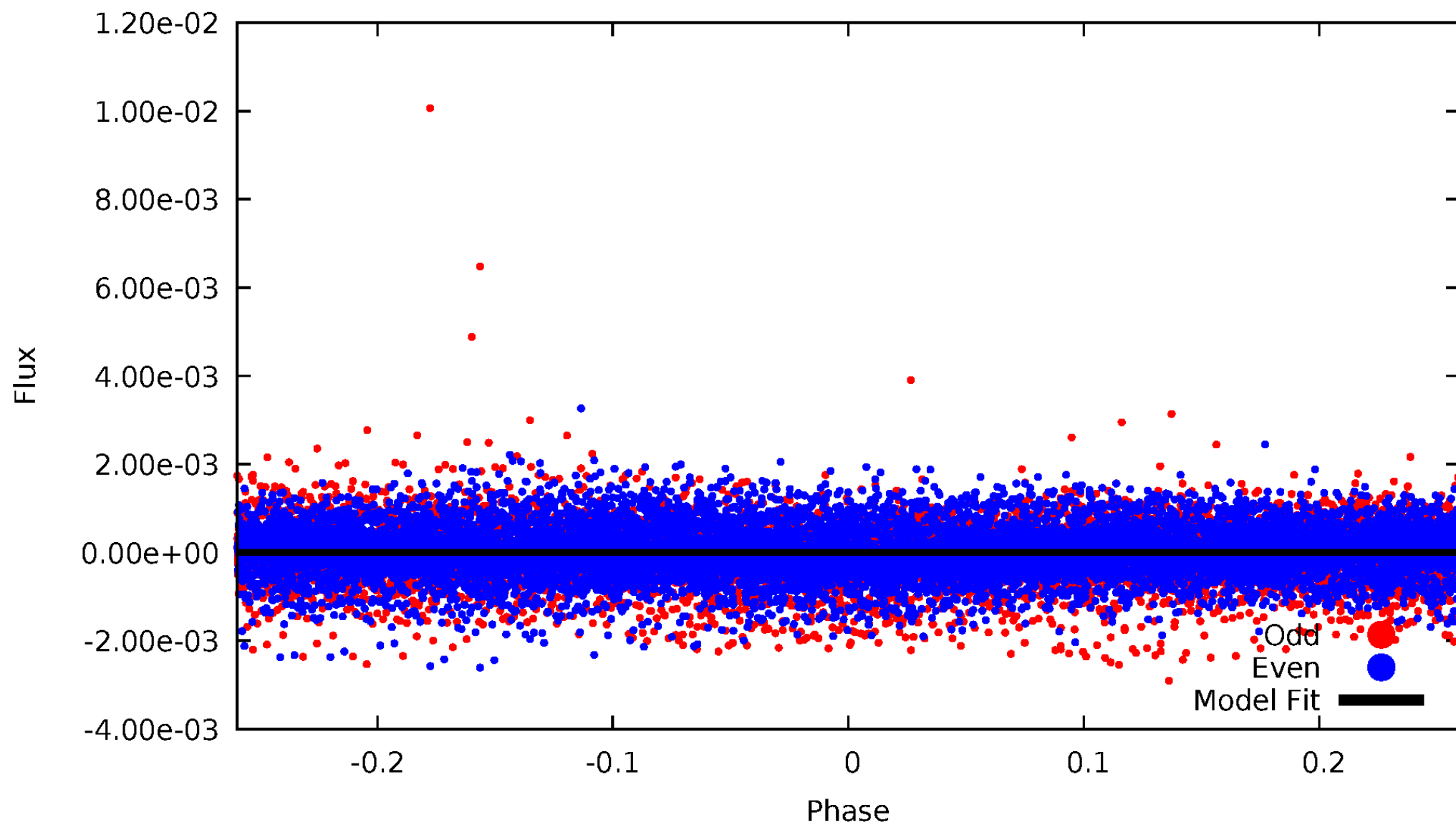
# TCE 007967100-03





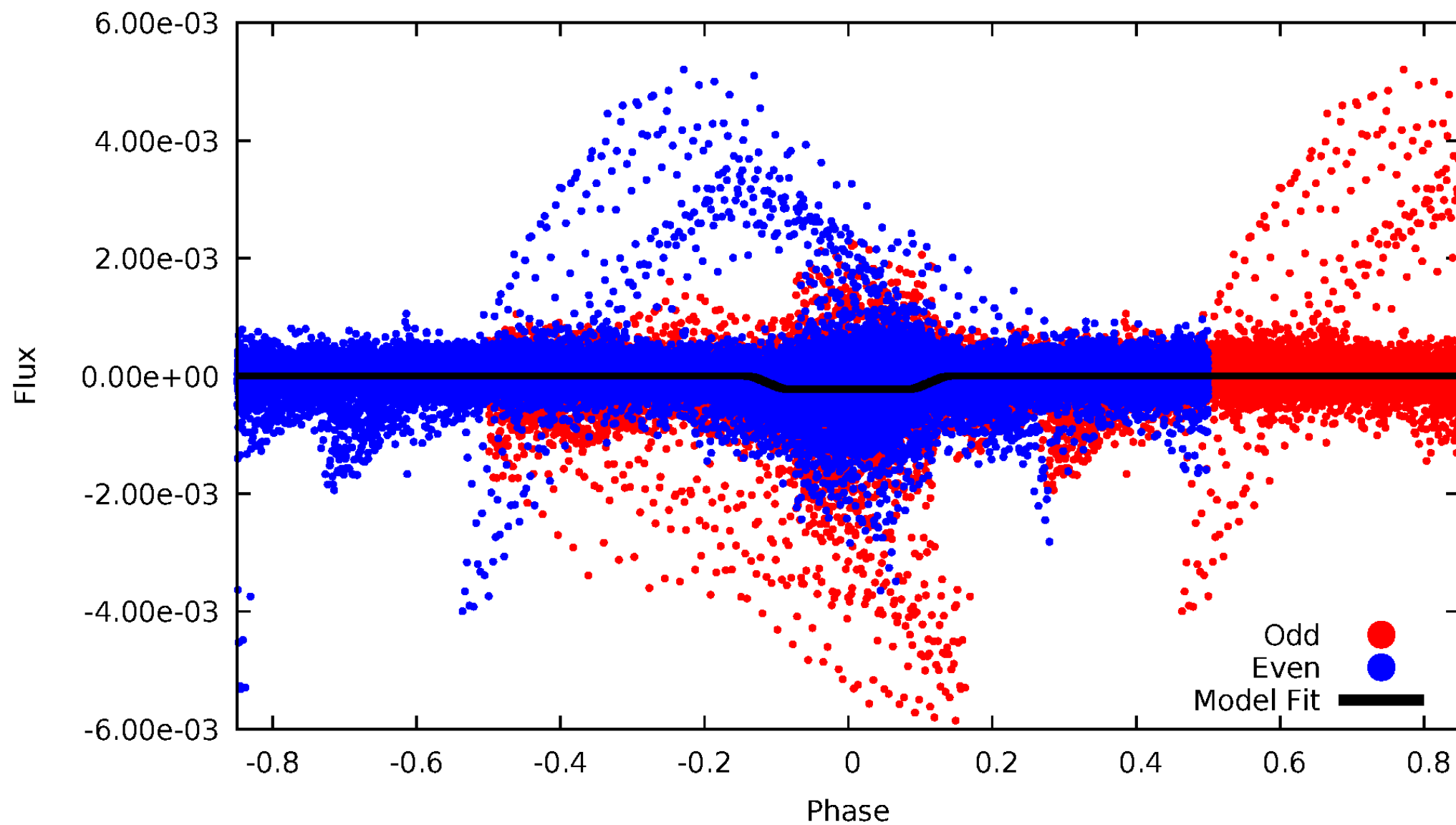
DV Odd/Even

TCE 007967100-03

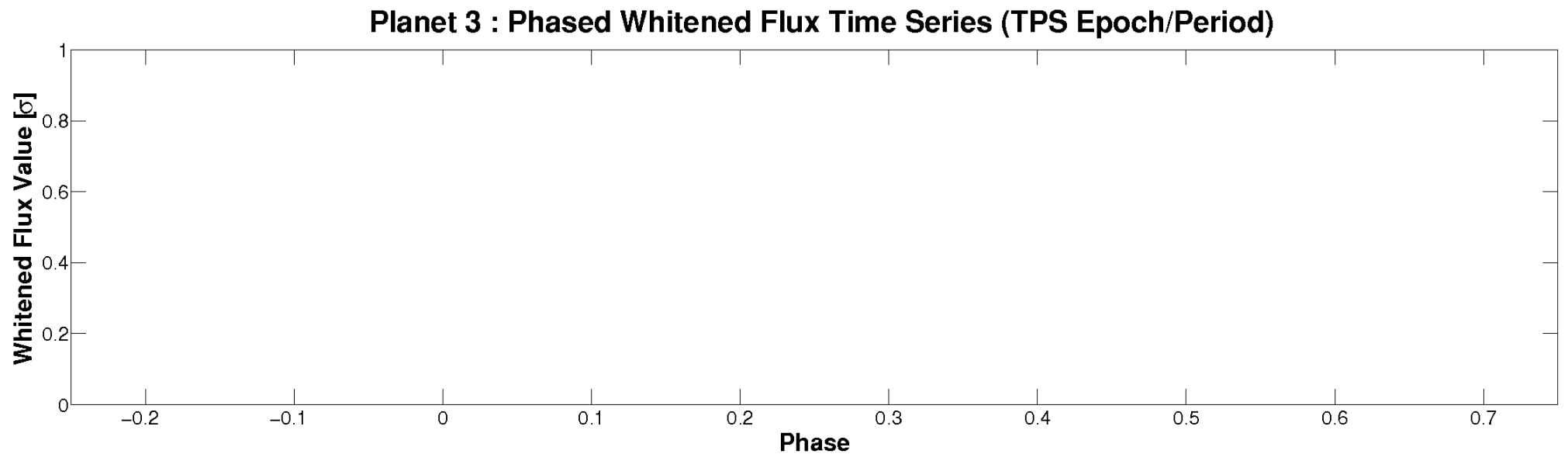
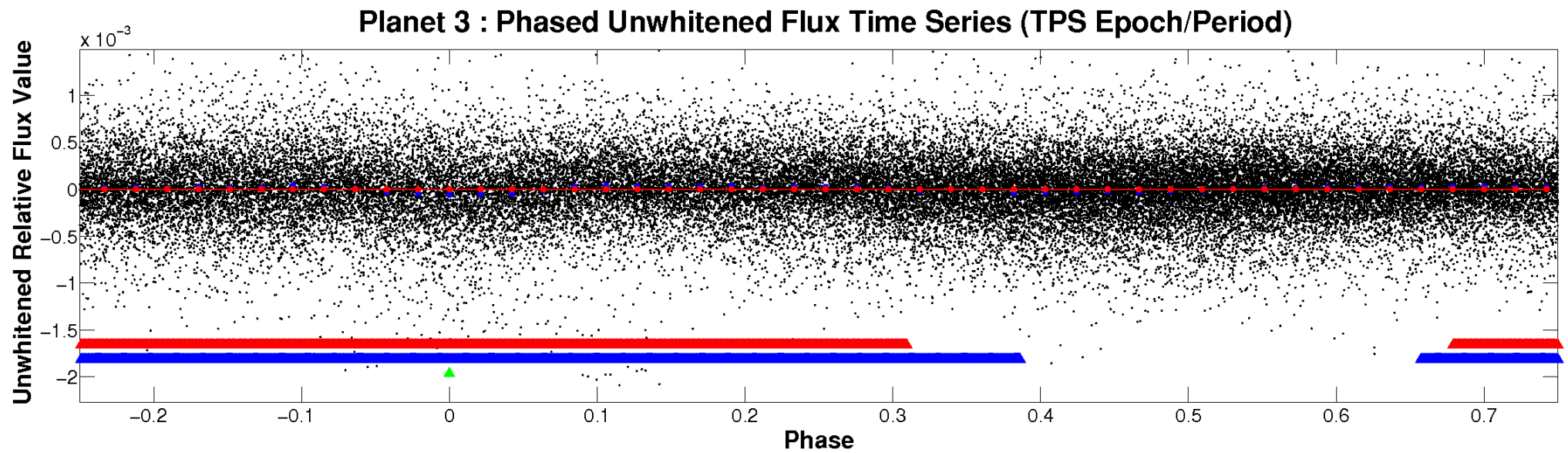


# ALT Odd/Even

TCE 007967100-03

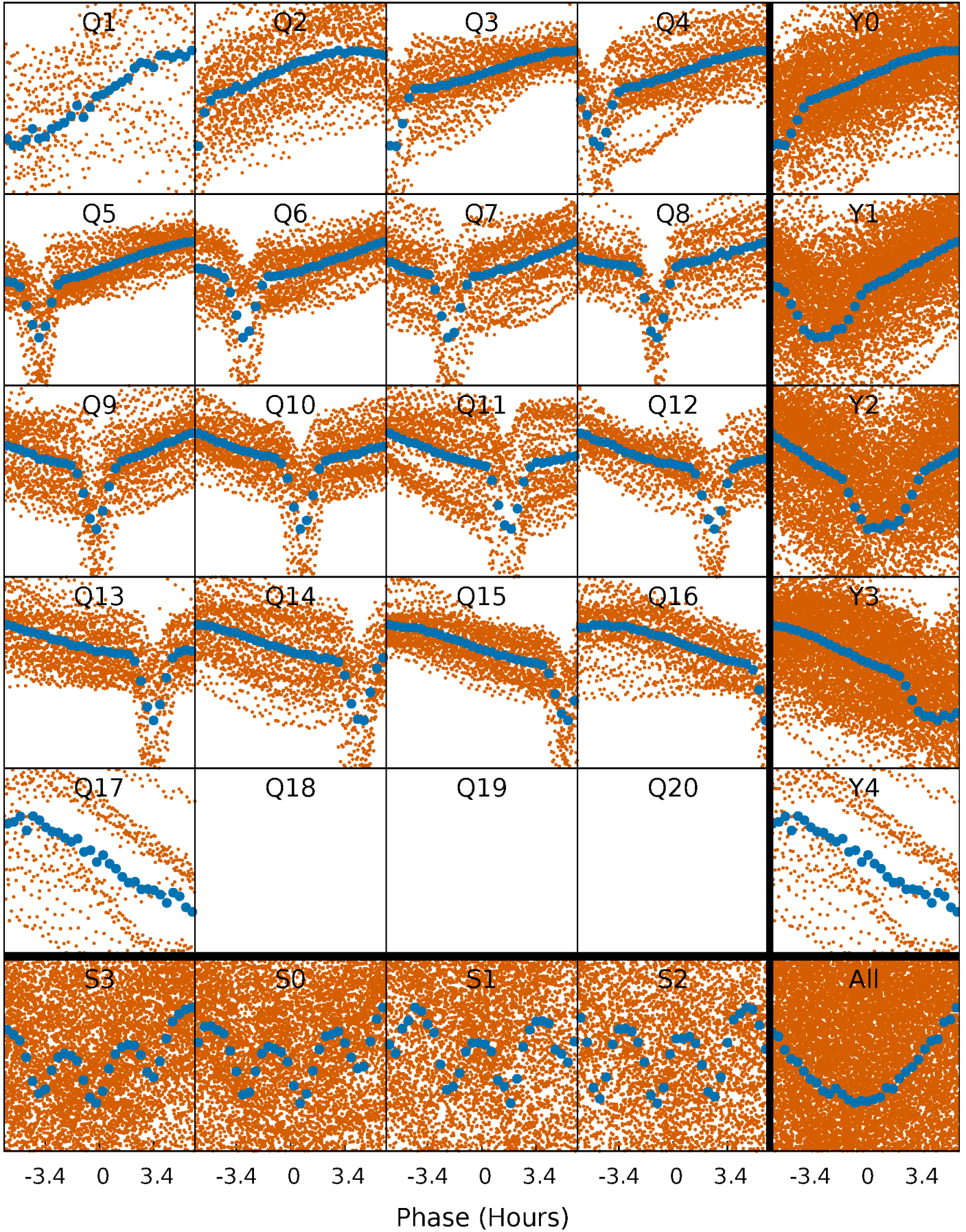


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

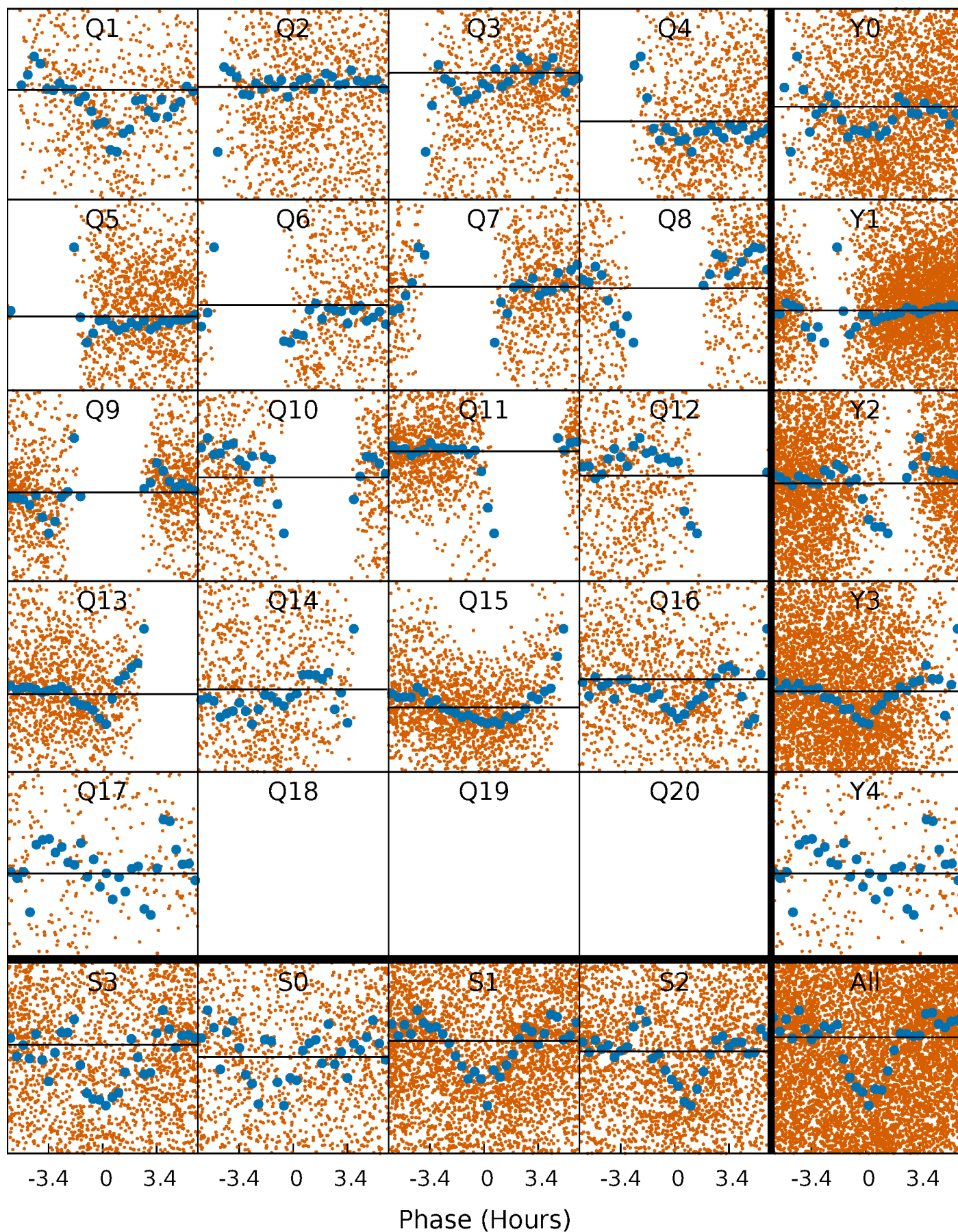
TCE 007967100-03   P= 0.963256 Days    $T_0=131.707027$  (BKJD)





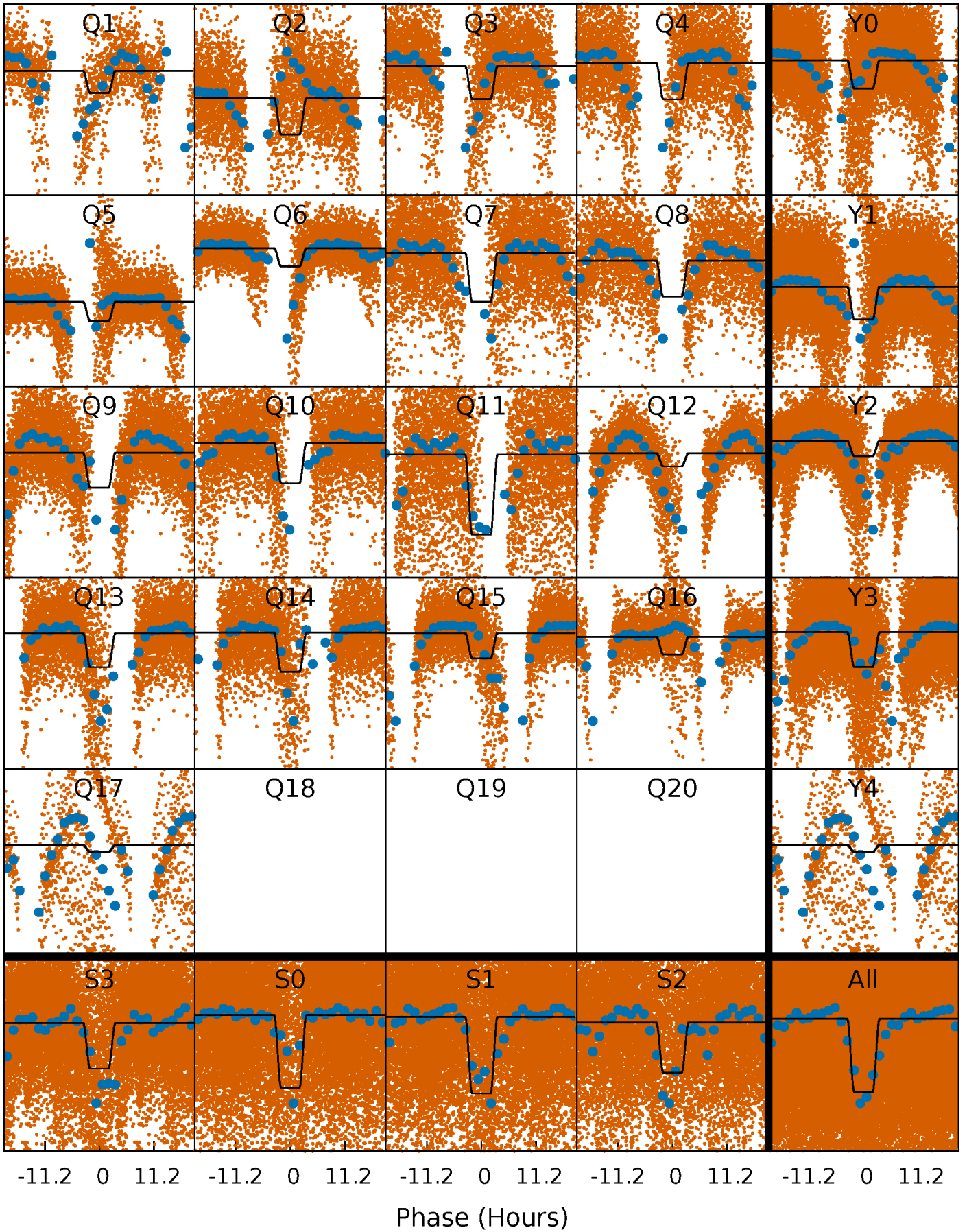
# DV Quarter-Phased Transit Curves

TCE 007967100-03 P= 0.963256 Days  $T_0=131.707027$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

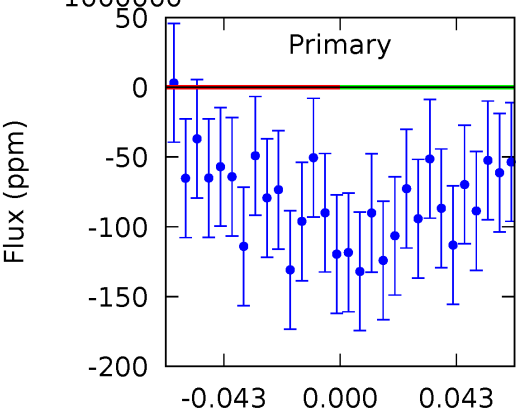
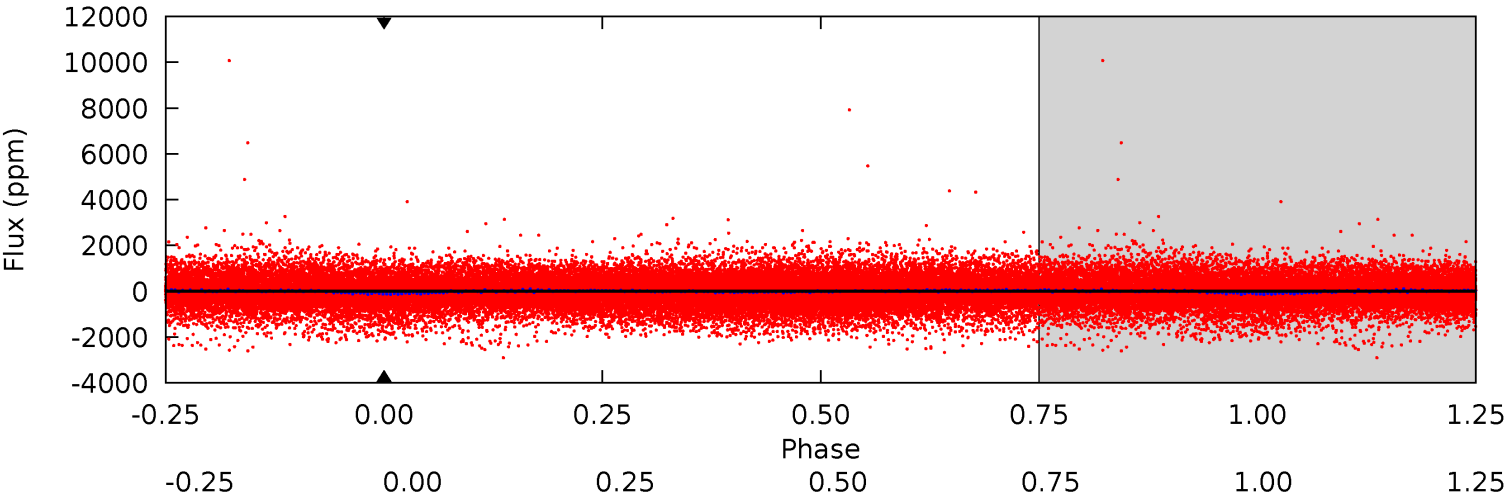
TCE 007967100-03   P= 0.963256 Days    $T_0=131.694518$  (BKJD)



# DV Model-Shift Uniqueness Test

007967100-03, P = 0.963256 Days, E = 130.743771 Days

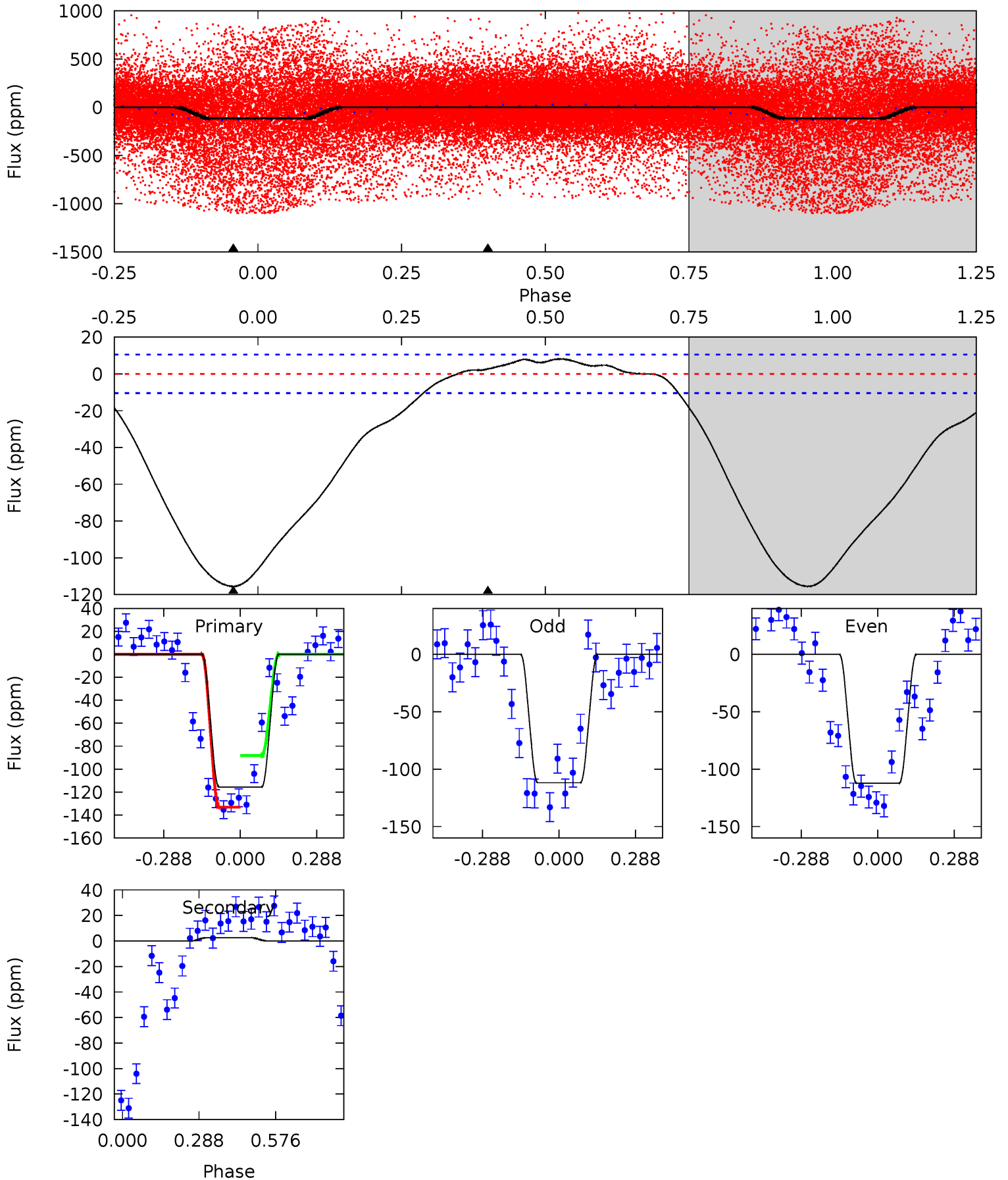
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

007967100-03, P = 0.963256 Days, E = 130.731262 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
47.7	-1.09	0	0	4.34	1.06	0.83	47.7	47.7	-1.09	-1.09	0.10	1.66	0.07	9.78





### Stellar Parameters For KIC 007967100

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6057^{+180}_{-198}$	$4.352^{+0.112}_{-0.208}$	$-0.120^{+0.300}_{-0.300}$	$1.110^{+0.338}_{-0.182}$	$1.009^{+0.167}_{-0.112}$	$1.040^{+0.601}_{-0.512}$
	+3%/-3%	+3%/-5%	+250%/-250%	+30%/-16%	+17%/-11%	+58%/-49%
Source	PHO1	KIC0	KIC0	DSEP		

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

### Secondary Eclipse Parameters for KIC 007967100-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$9.28^{+8.91}_{-7.01}$	$2879^{+224}_{-163}$	$-5832^{+29732}_{-21390}$	$-9.421^{+466.658}_{-507.423}$
Alt.	$3 \pm 2$	$9.12^{+9.92}_{-5.95}$	$2887^{+239}_{-179}$	$-3060^{+125}_{-199}$	$-0.005^{+0.005}_{-0.044}$

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

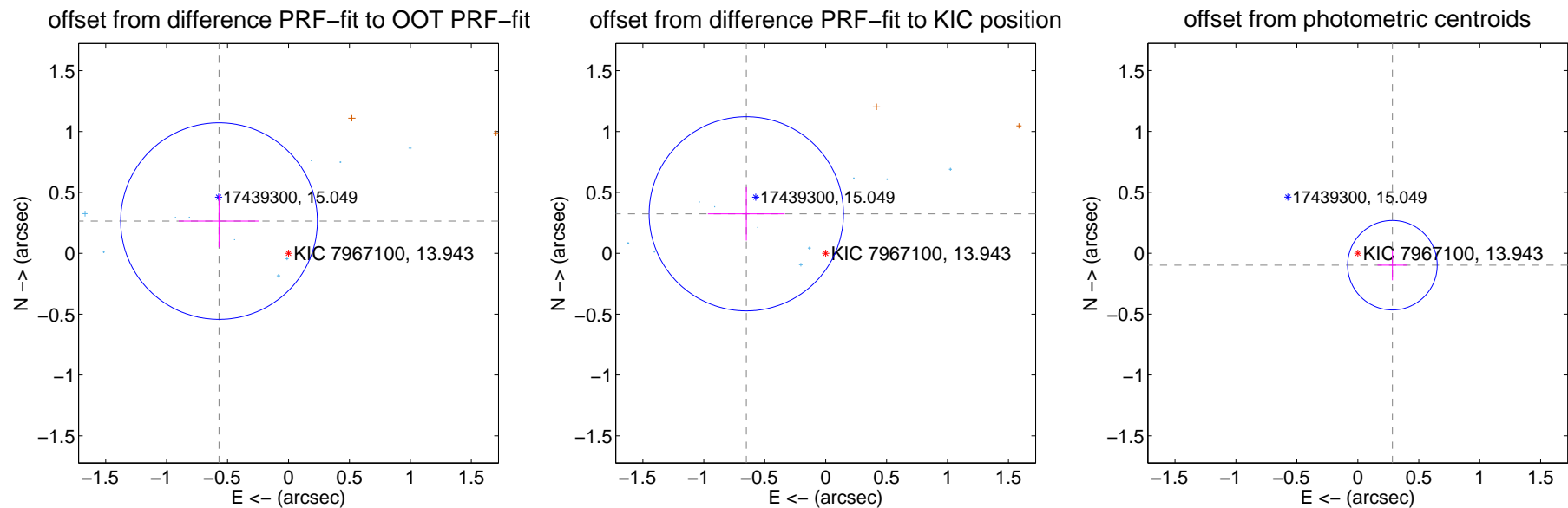
## DV Centroid Data

Supplemental centroid analysis for 007967100-03. Kepler magnitude: 13.94. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

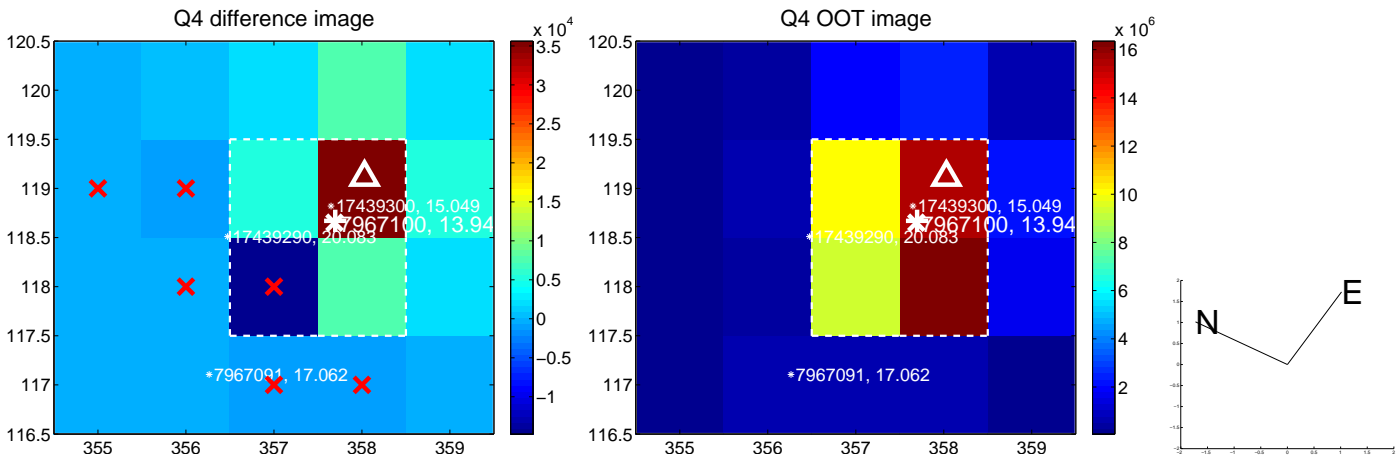
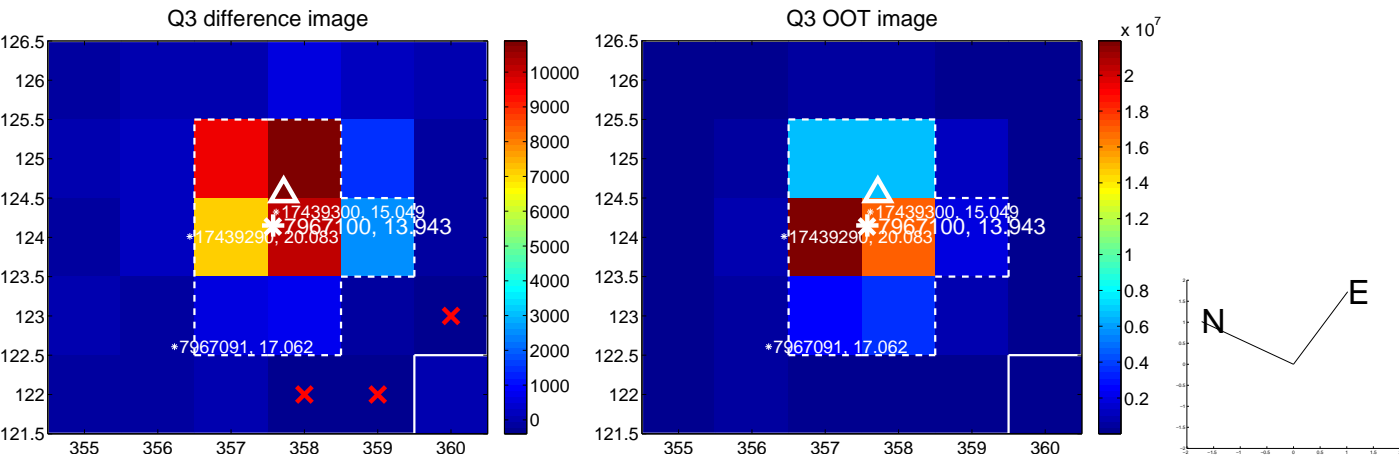
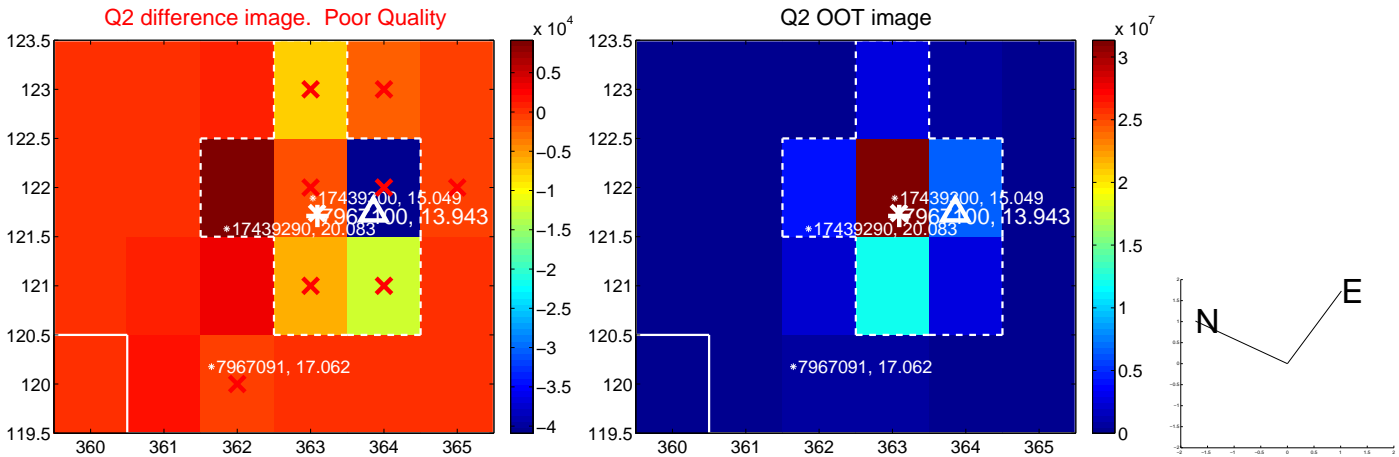
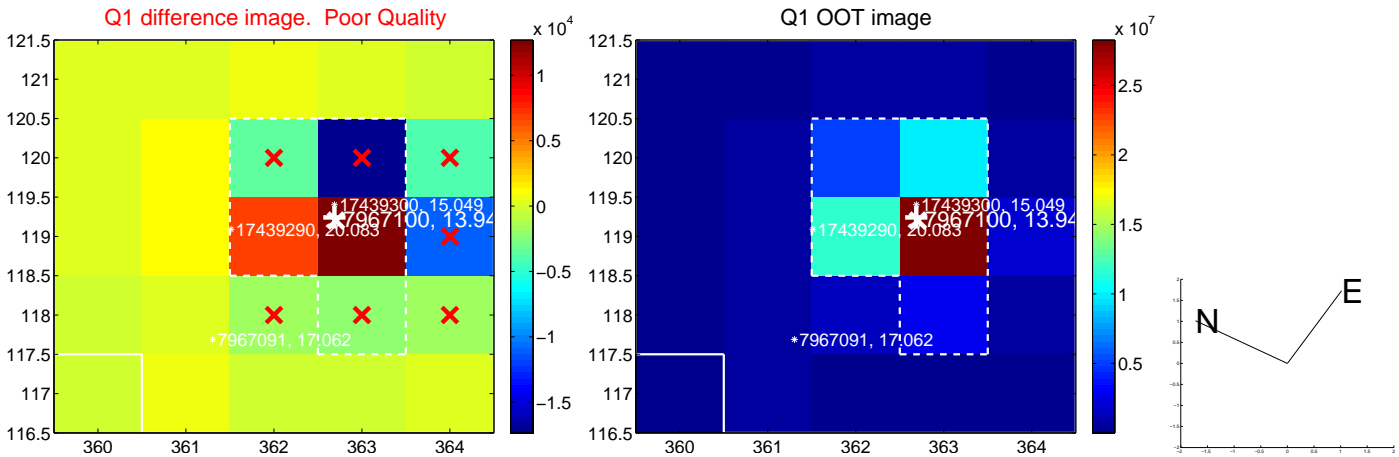
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.628 \pm 0.269$	2.34	$0.570 \pm 0.330$	$0.265 \pm 0.215$
PRF-fit source offset from KIC position	$0.727 \pm 0.266$	2.74	$0.651 \pm 0.316$	$0.324 \pm 0.219$
photometric centroid source offset	$0.30 \pm 0.12$	2.45	$-0.28 \pm 0.12$	$-0.10 \pm 0.12$

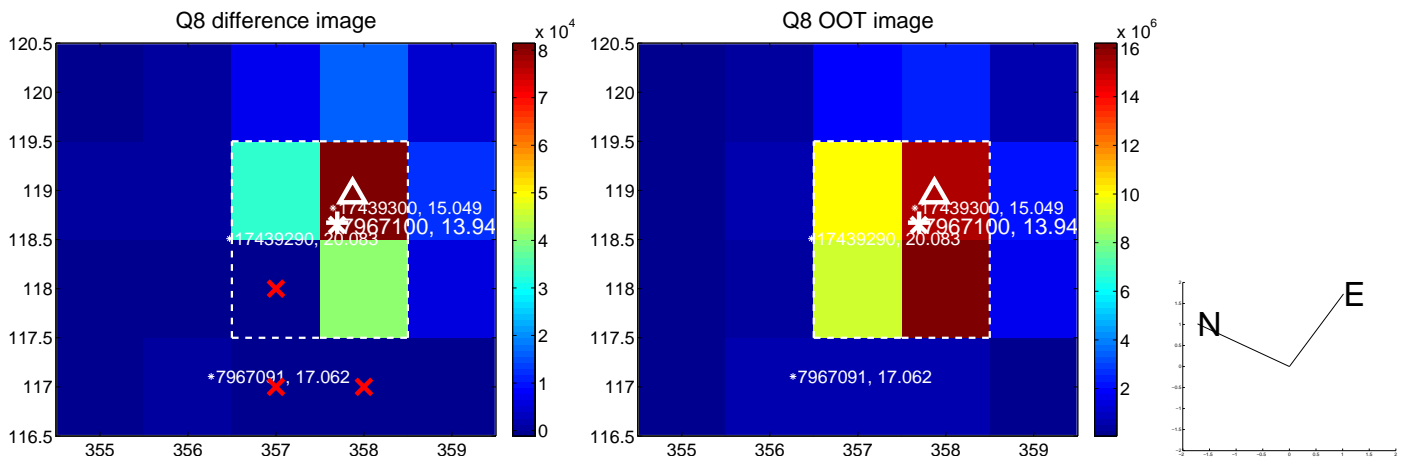
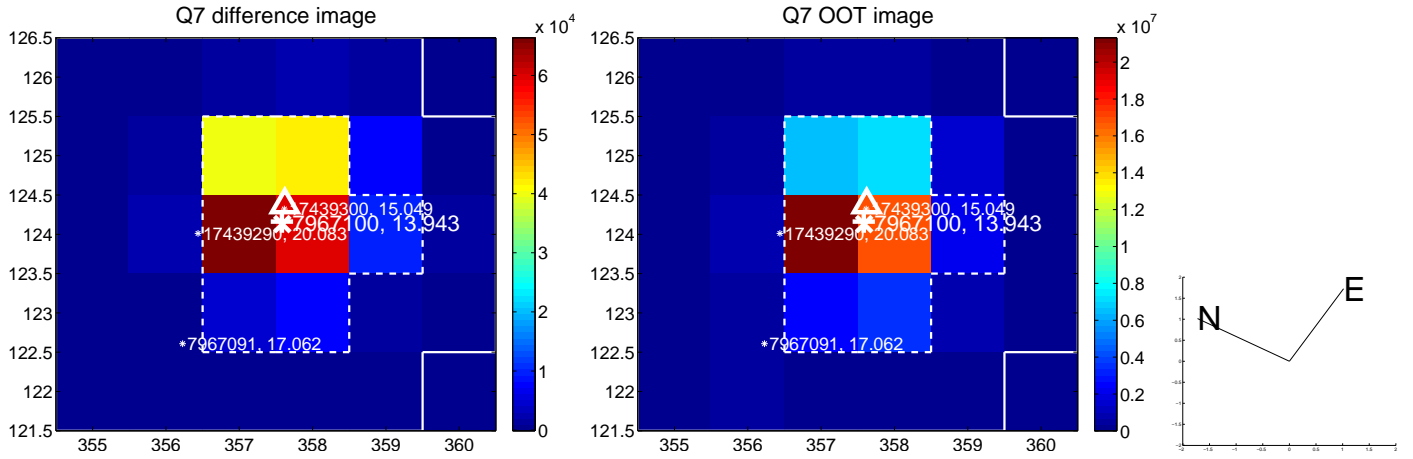
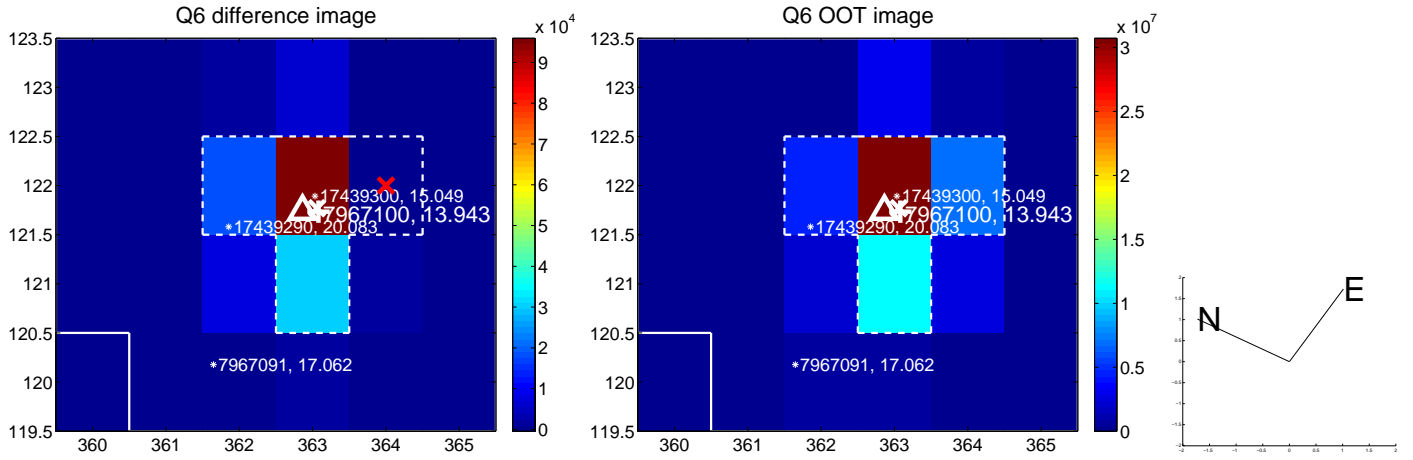
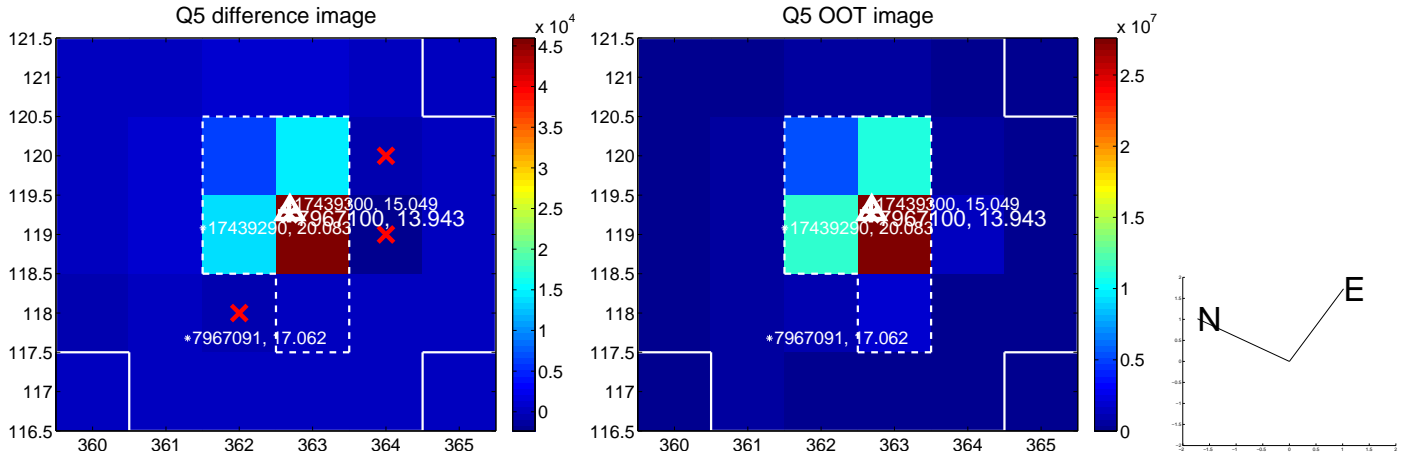


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

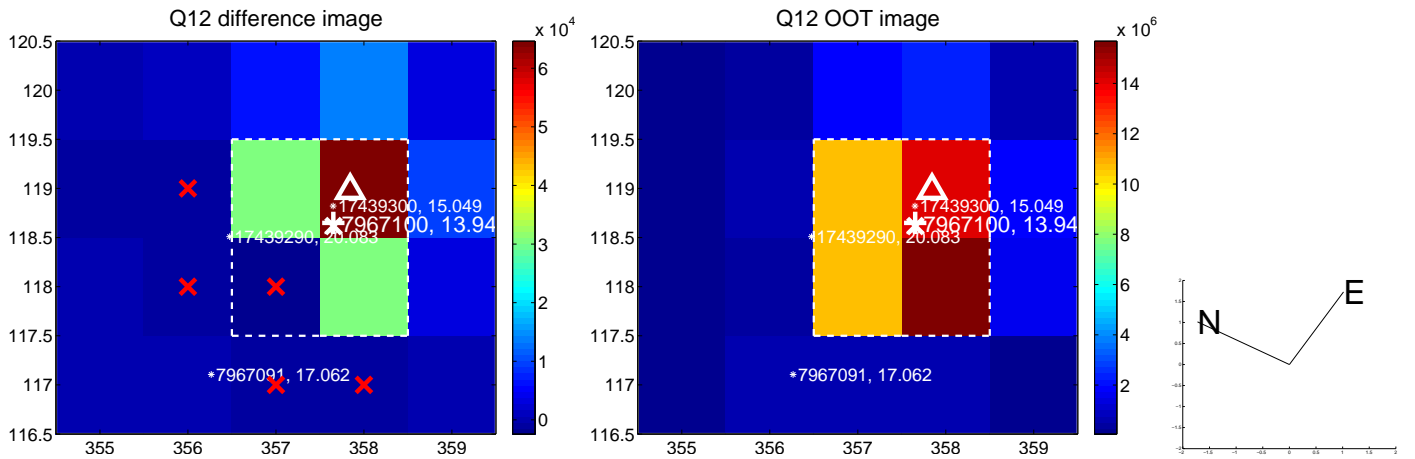
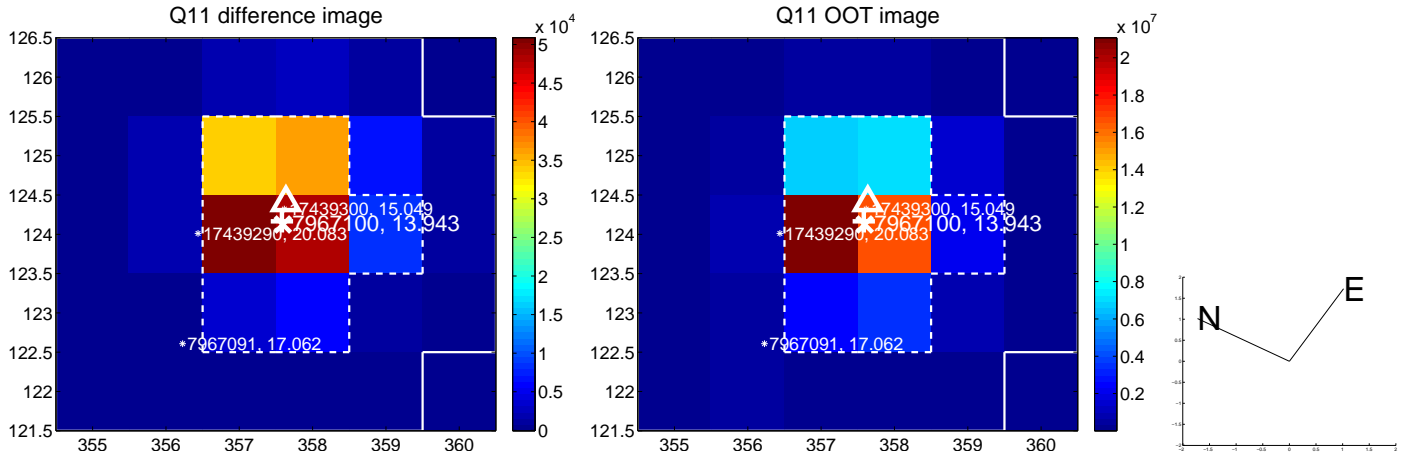
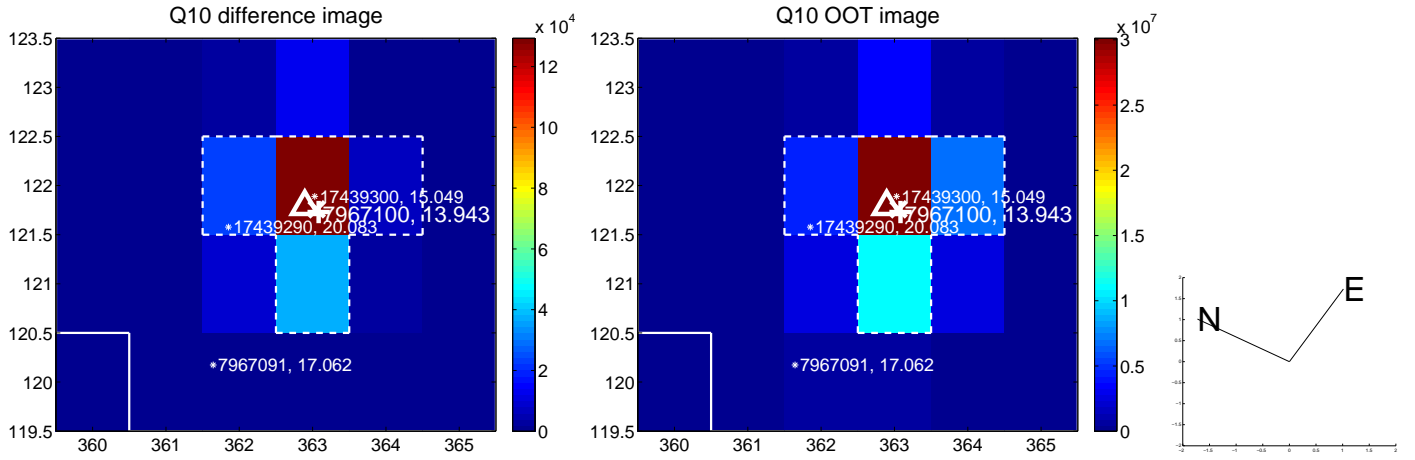
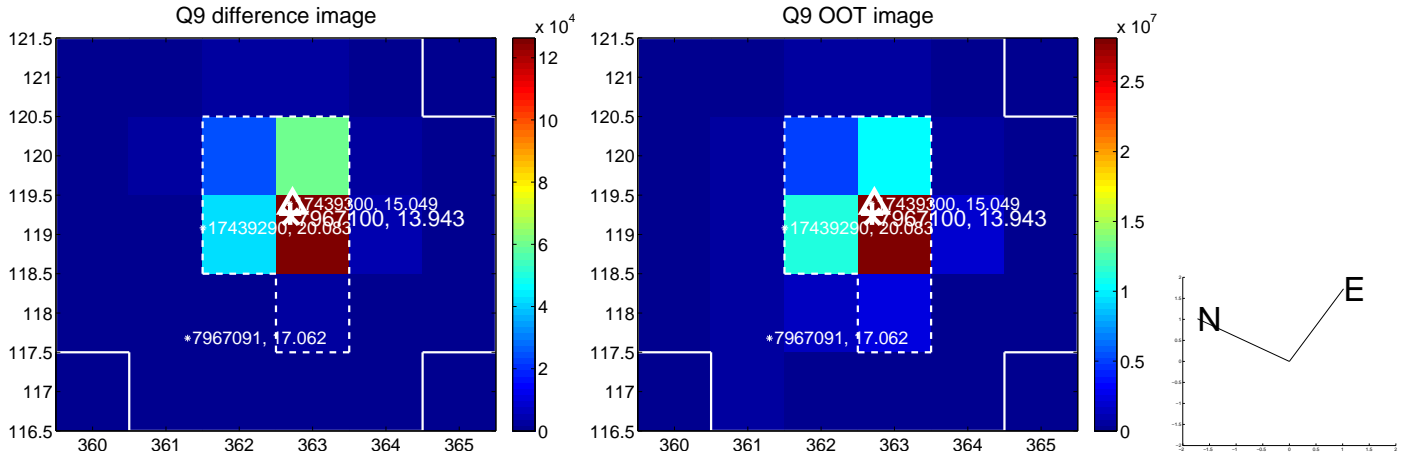
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



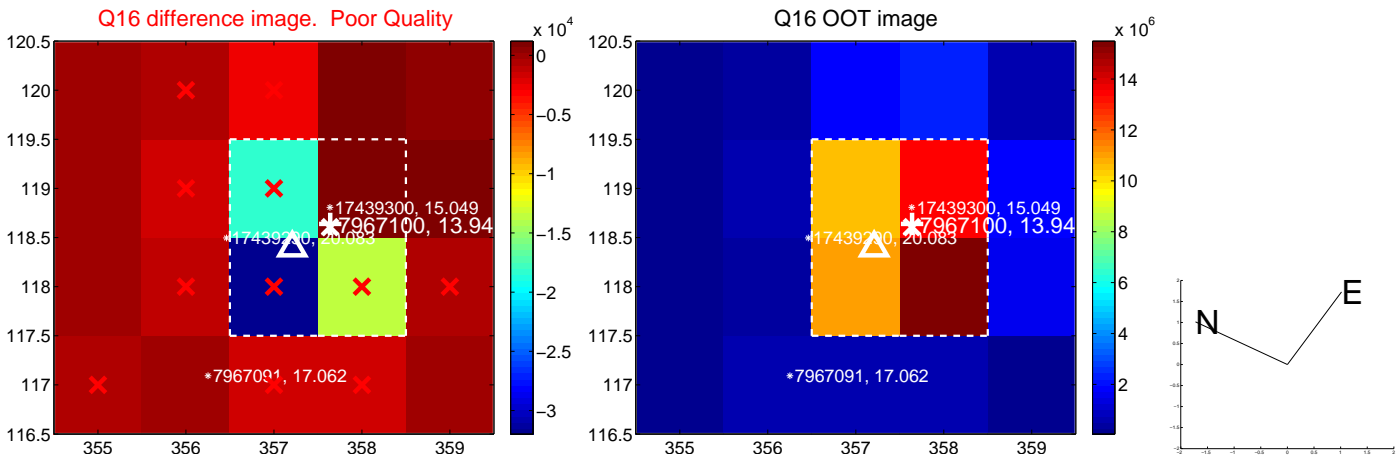
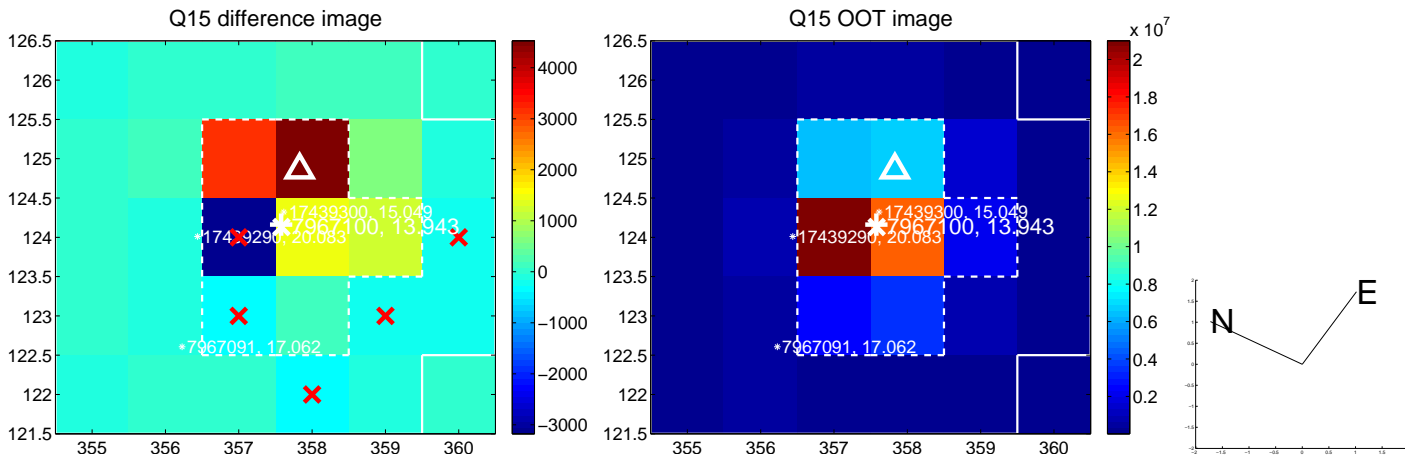
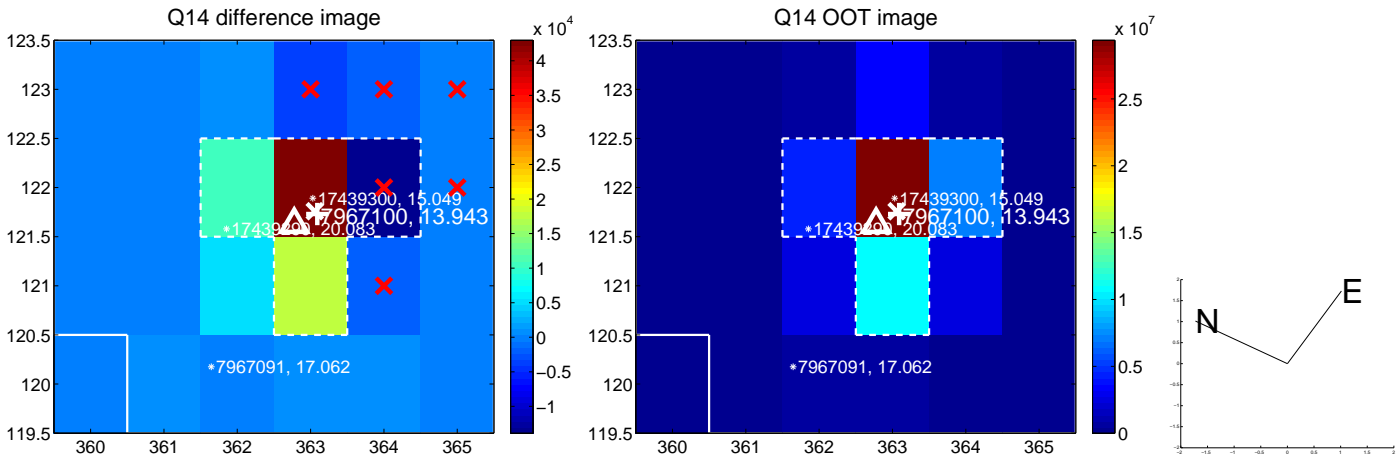
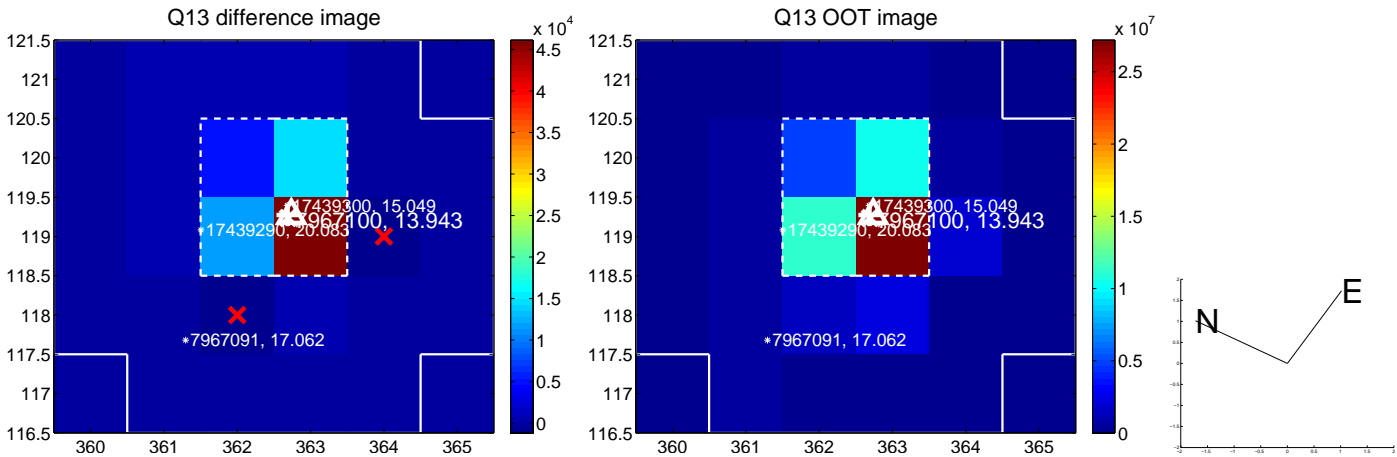
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



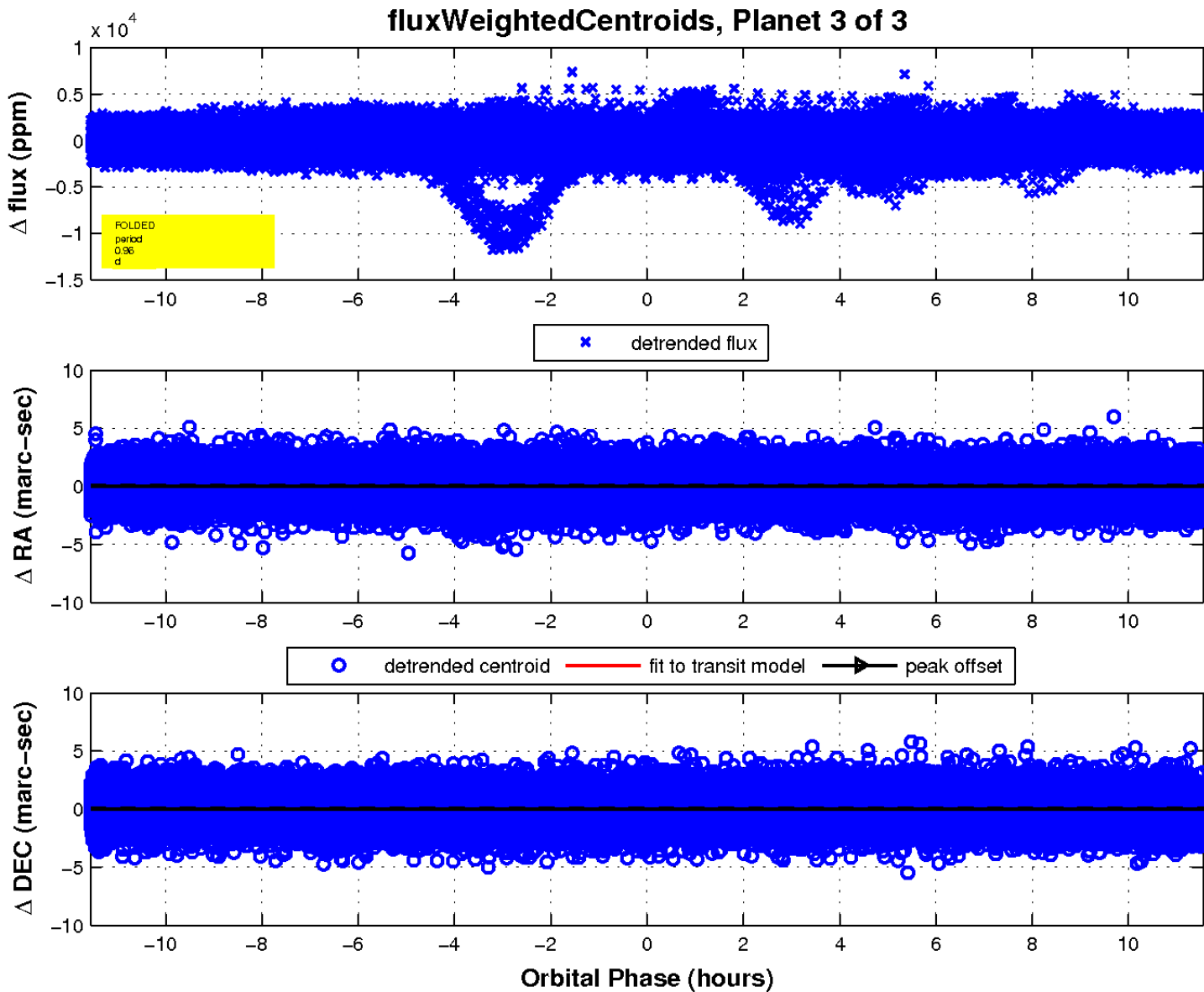
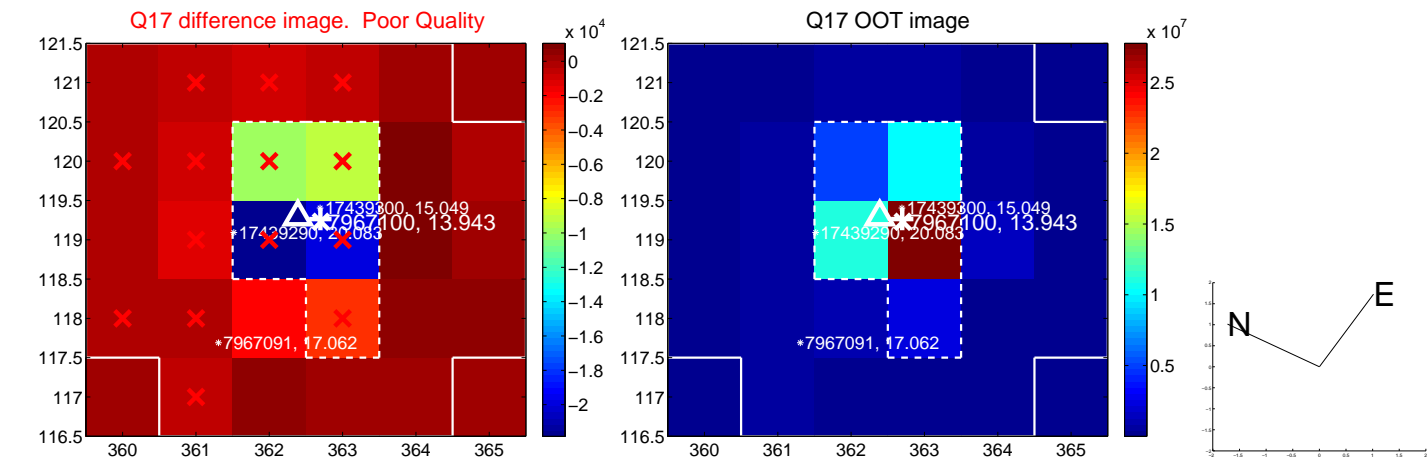
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

