

# KIC 011125706

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011125706-01	OBS	No	0.614508	131.920338	96.4	1.241	25.8	6.1	1.43	6385	1.65	13009.11
011125706-02	OBS	No	0.610377	131.918516	23.4	0.929	15.5	1.1	1.43	6385	0.74	13126.62
011125706-03	OBS	No	0.611677	131.860994	213.2	1.500	10.4	-1.0	1.43	6385	2.10	13089.46

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011125706-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011125706-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011125706-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED

**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.

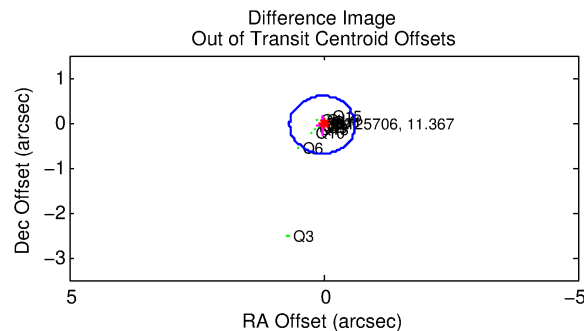
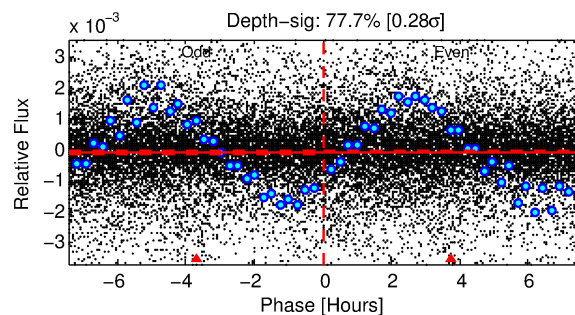
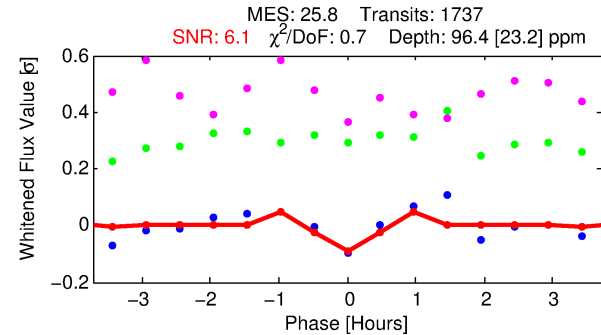
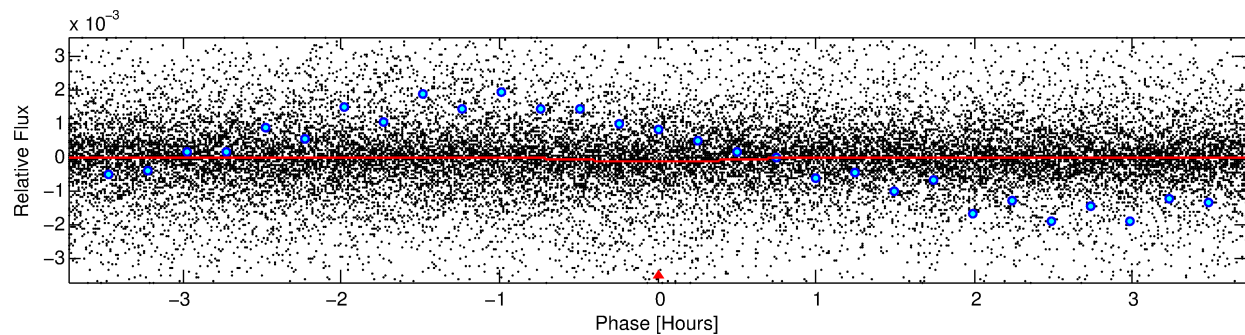
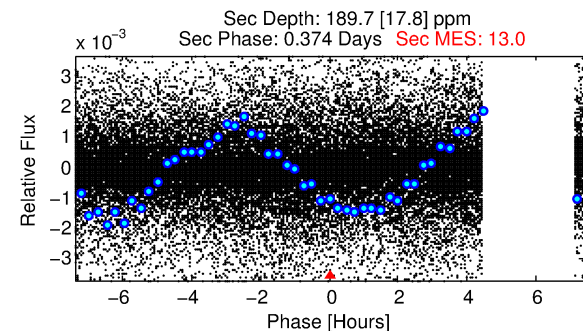
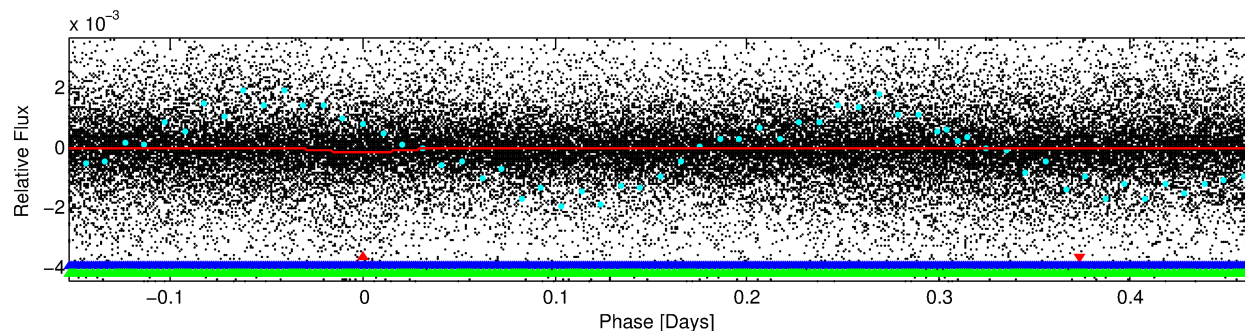
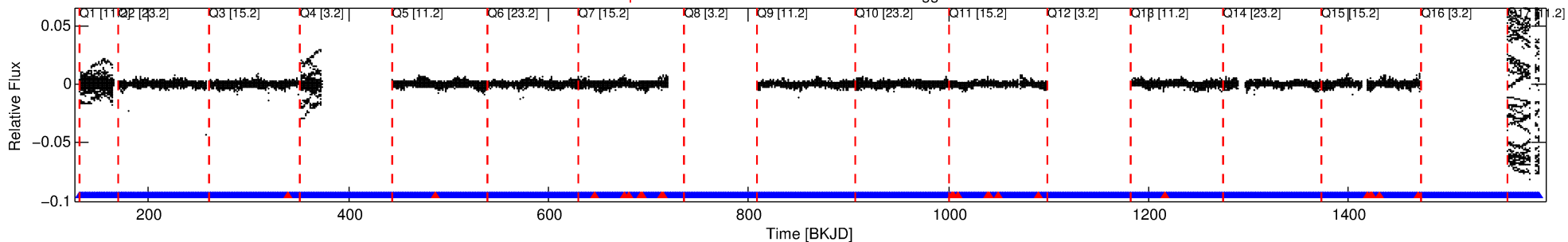
Ephemeris Match Information For 011125706-01

No Significant Match Found

# DV One-Page Summary

KIC: 11125706 Candidate: 1 of 3 Period: 0.615 d

Kp: 11.37 R\*: 1.43 Rs Teff: 6385.0 K Logg: 4.23 Fe/H: 0.070



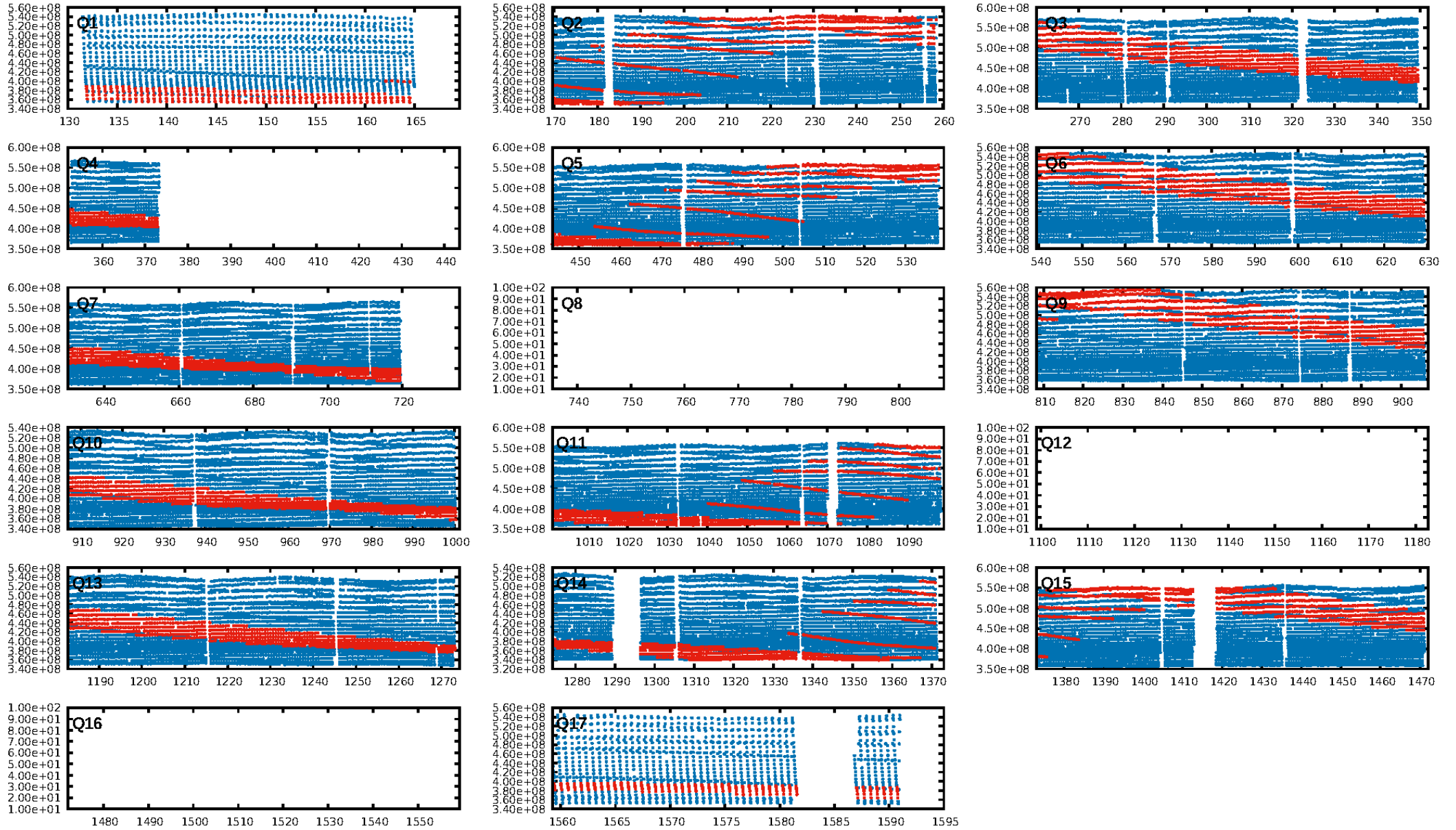
## DV Fit Results:

Period = 0.61451 [0.00002] d  
Epoch = 131.9203 [0.0018] BKJD  
Rp/R\* = 0.0106 [0.0060]  
a/R\* = 1.98 [4.48]  
b = 0.90 [0.65]  
Seff = 13009.11 [5330.40]  
Teff = 2723 [279] K  
Rp = 1.65 [1.08] Re  
a = 0.0153 [0.0041] AU  
Ag = 8.93 [10.72] [0.74σ]  
Teffp = 7278 [2091] K [2.16σ]

## DV Diagnostic Results:

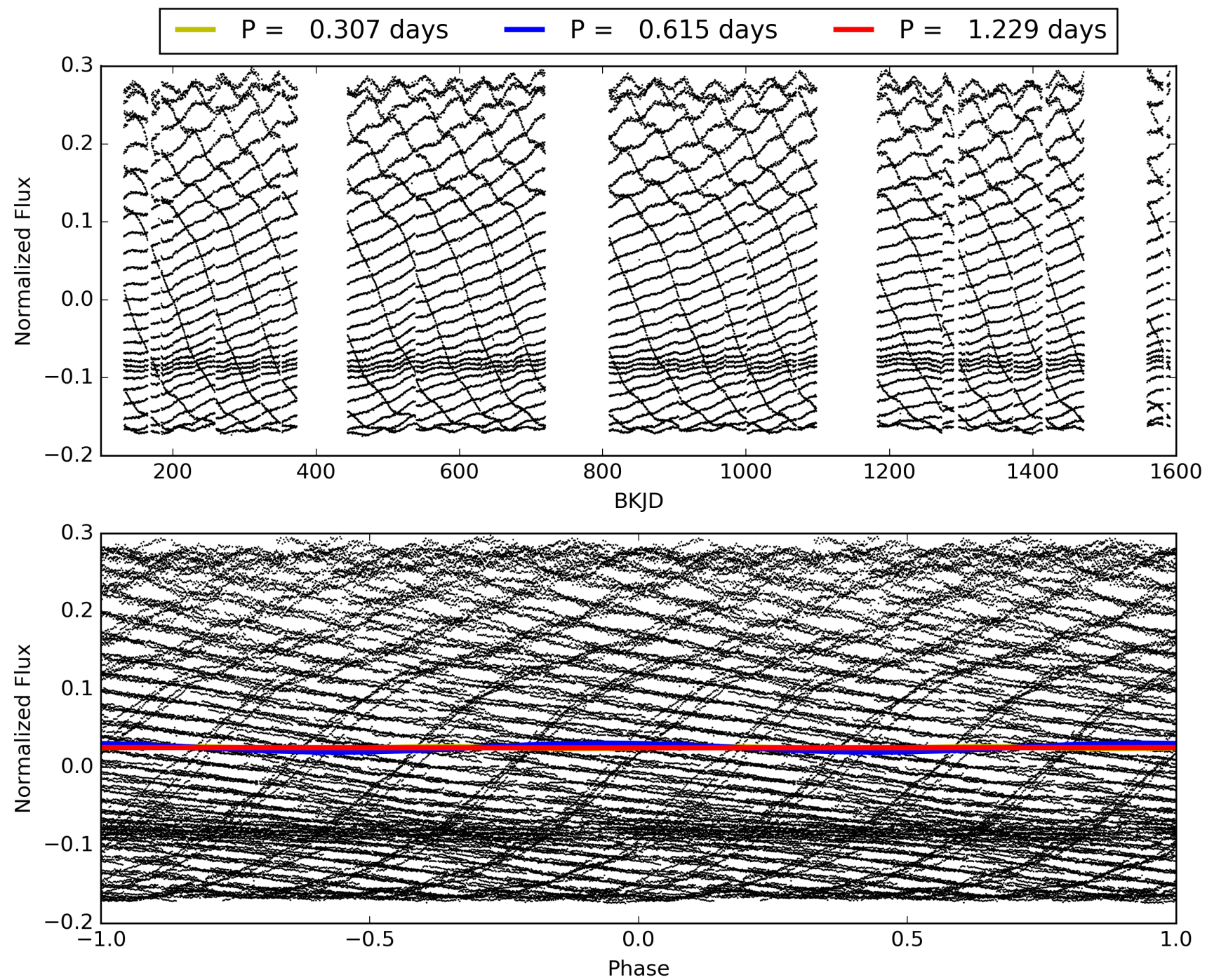
ShortPeriod-sig: 2.8% [0.03σ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.99 [1583/1605]  
GhostDiagnostic-chr: 0.5637  
Centroid-sig: N/A  
Centroid-so: 2.100 arcsec [6.19σ]  
OotOffset-rm: 0.051 arcsec [0.24σ]  
KicOffset-rm: 0.266 arcsec [1.60σ]  
OotOffset-st: 4/4/1/5 [14]  
KicOffset-st: 4/4/1/5 [14]  
DiffImageQuality-fgm: 0.64 [9/14]  
DiffImageOverlap-fno: 0.29 [4/14]

# TCE 011125706-01, PDC Light Curves





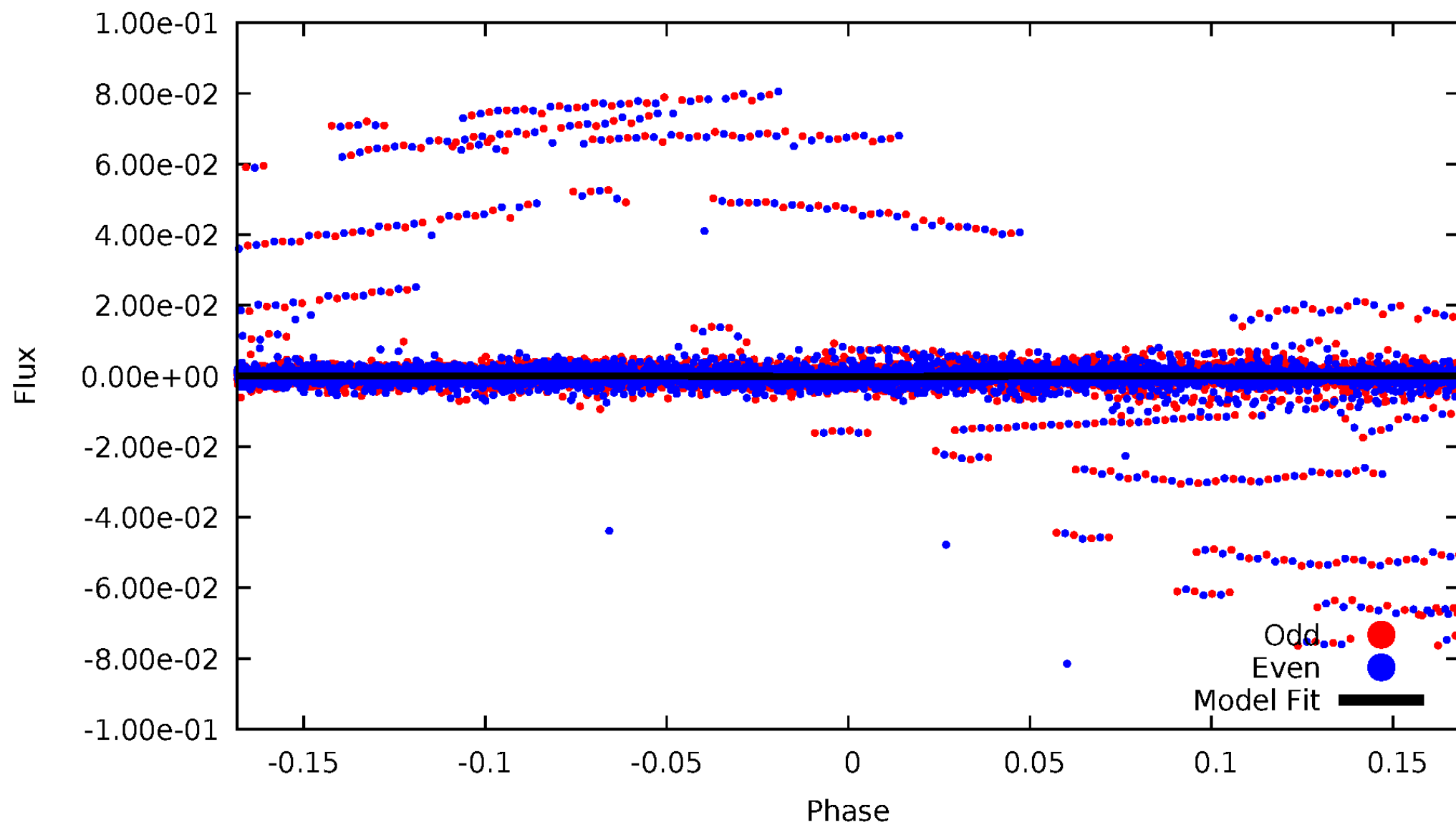
TCE 011125706-01





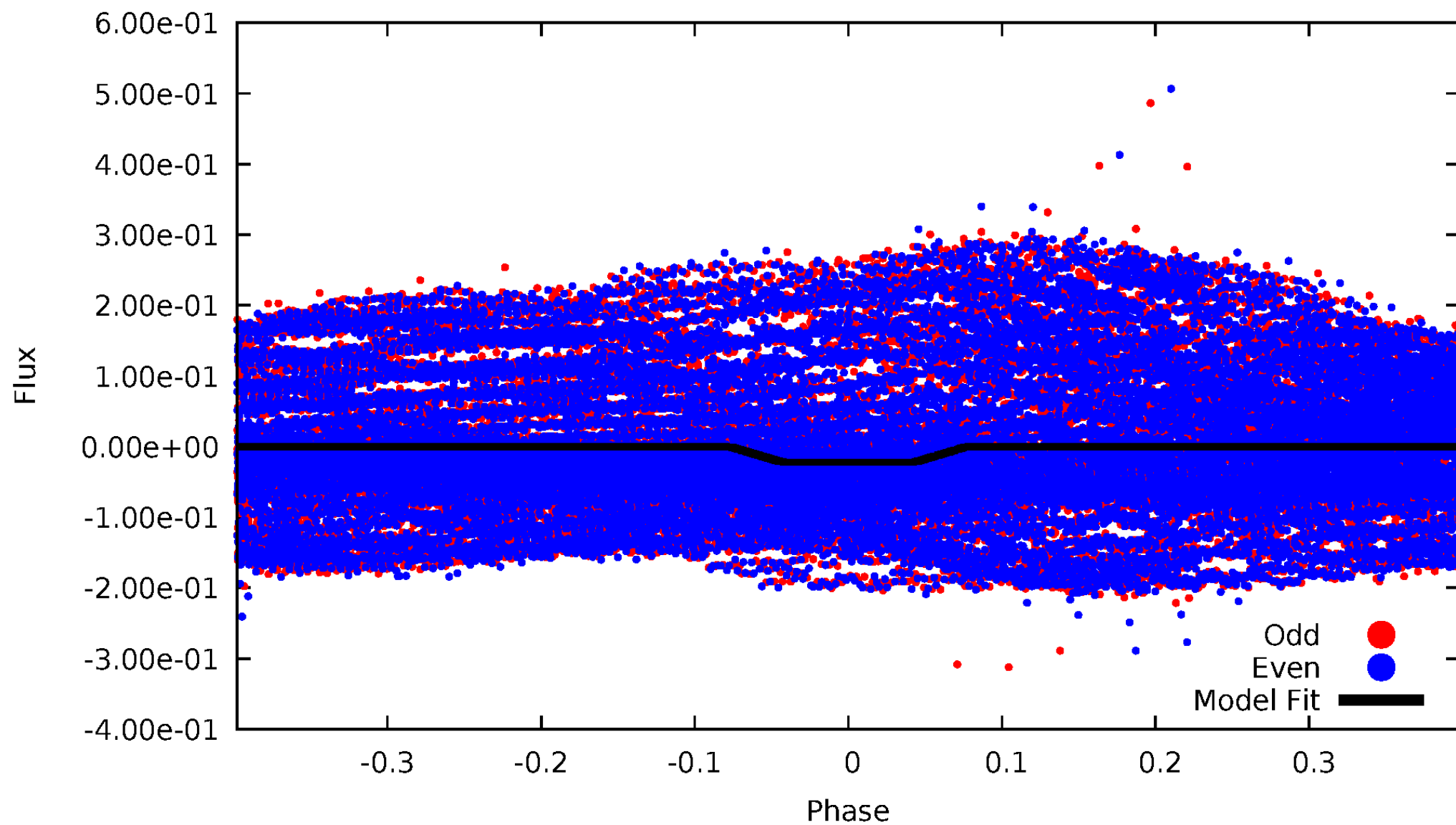
# DV Odd/Even

TCE 011125706-01

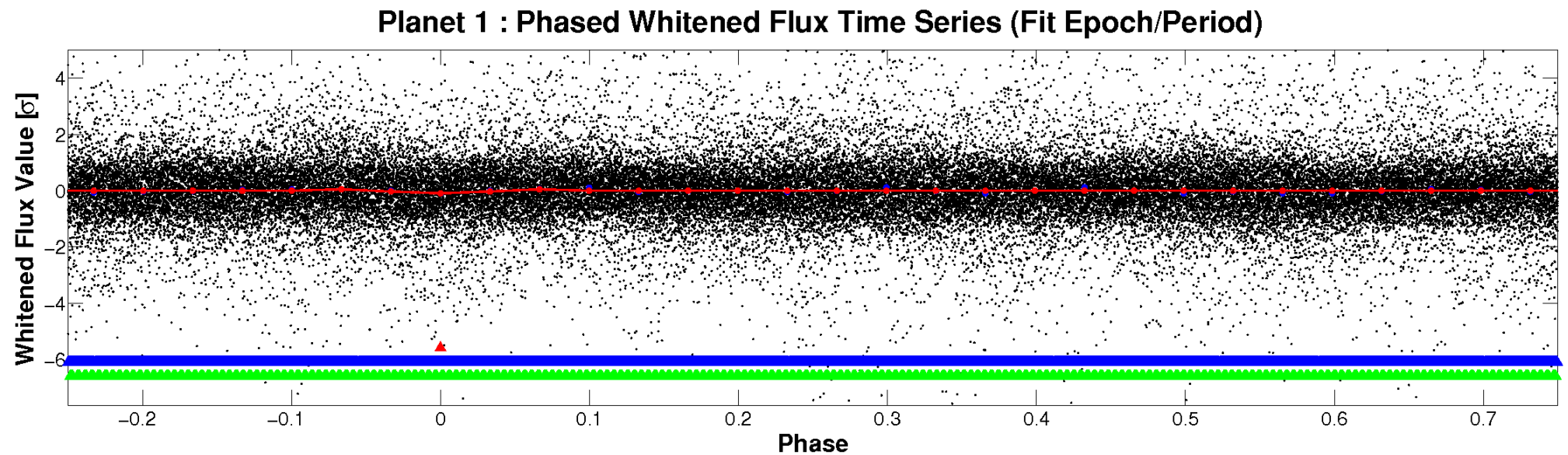
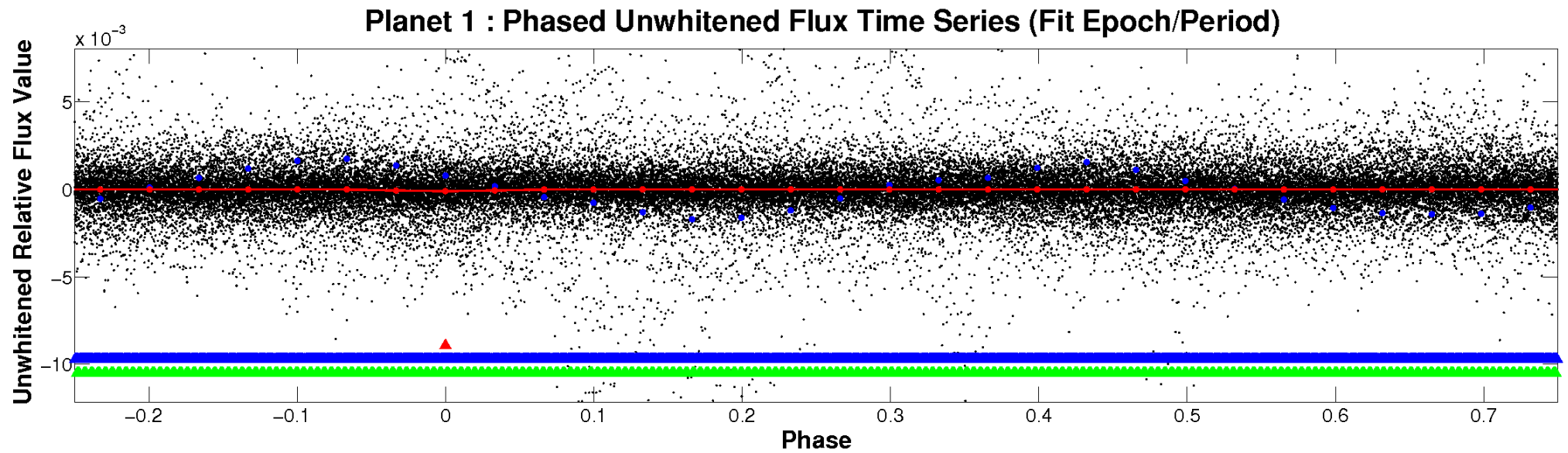


# ALT Odd/Even

TCE 011125706-01



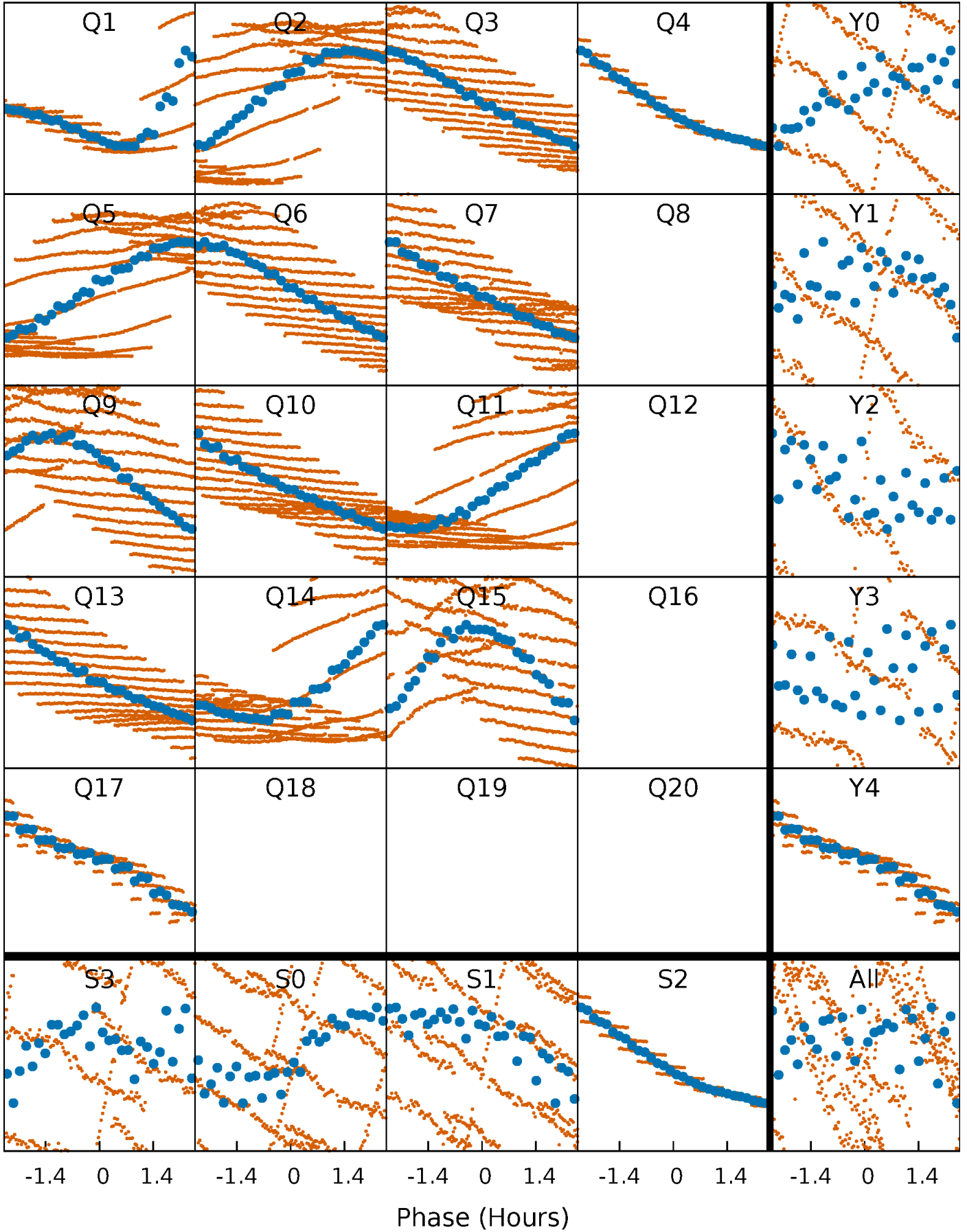
# Non-Whitened Vs. Whitened Light Curve





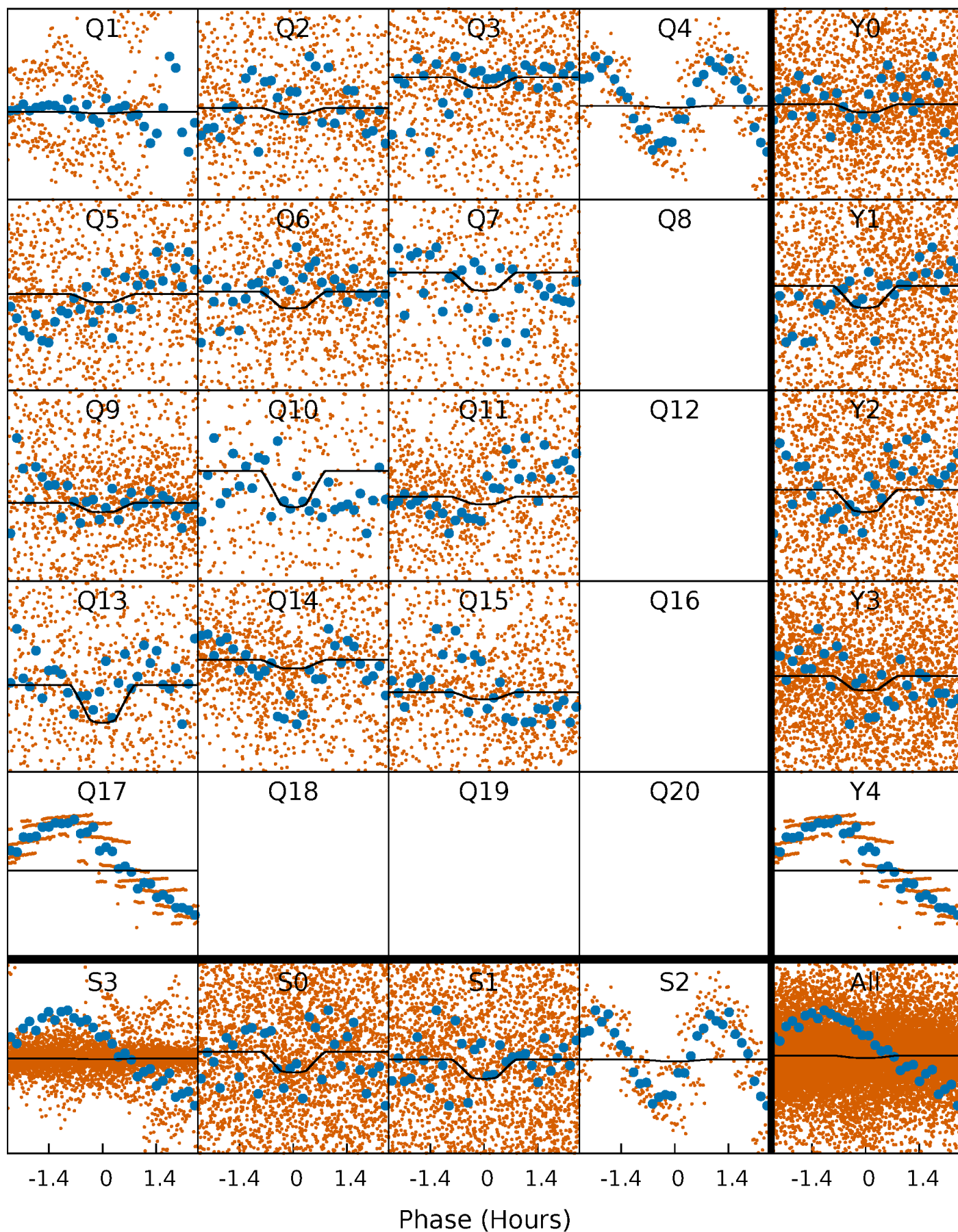
# PDC Quarter-Phased Transit Curves

TCE 011125706-01 P= 0.614508 Days  $T_0=131.920338$  (BKJD)



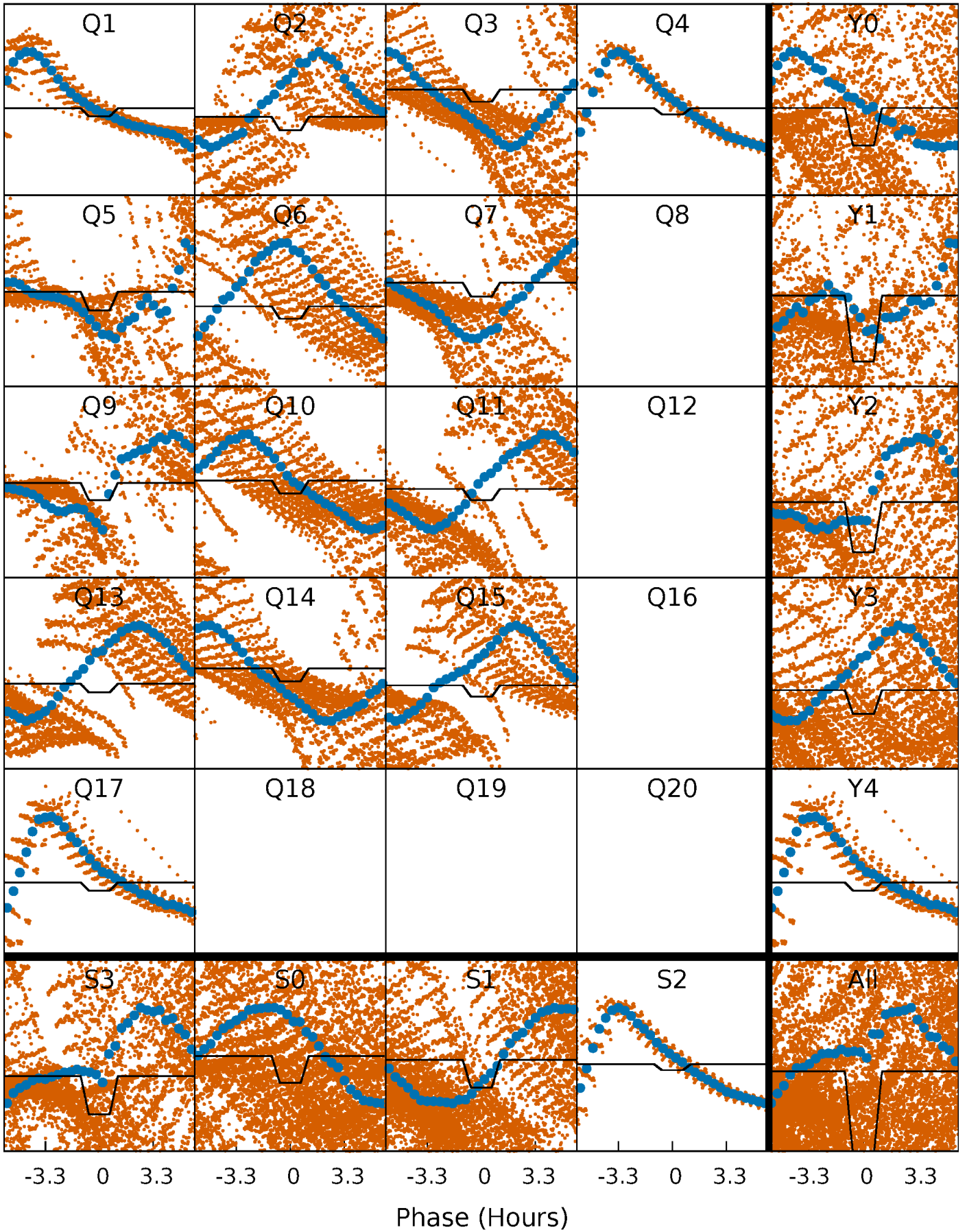
# DV Quarter-Phased Transit Curves

TCE 011125706-01 P= 0.614508 Days  $T_0=131.920338$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 011125706-01 P= 0.611357 Days  $T_0=131.746800$  (BKJD)

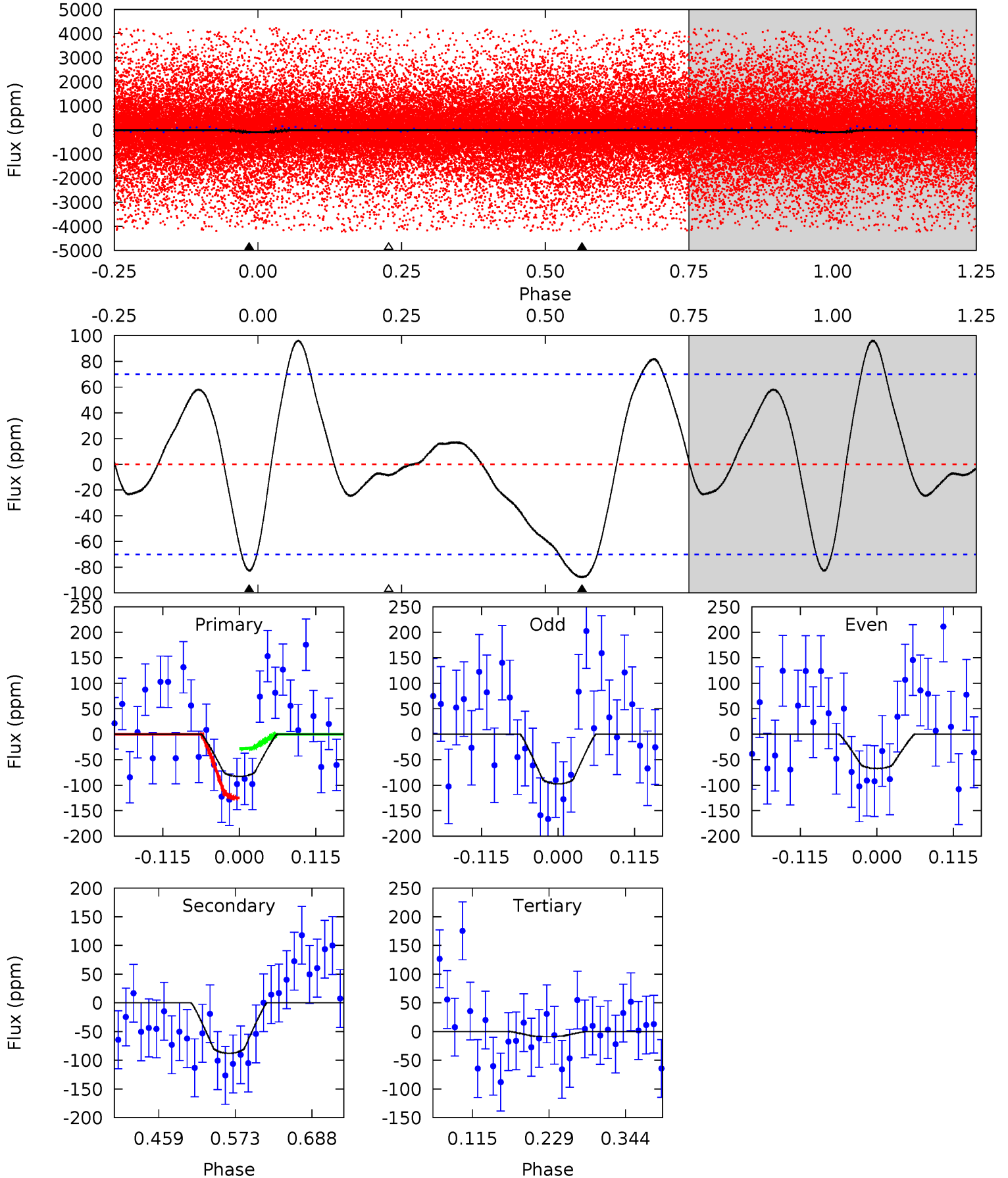




# DV Model-Shift Uniqueness Test

011125706-01, P = 0.614508 Days, E = 131.305830 Days

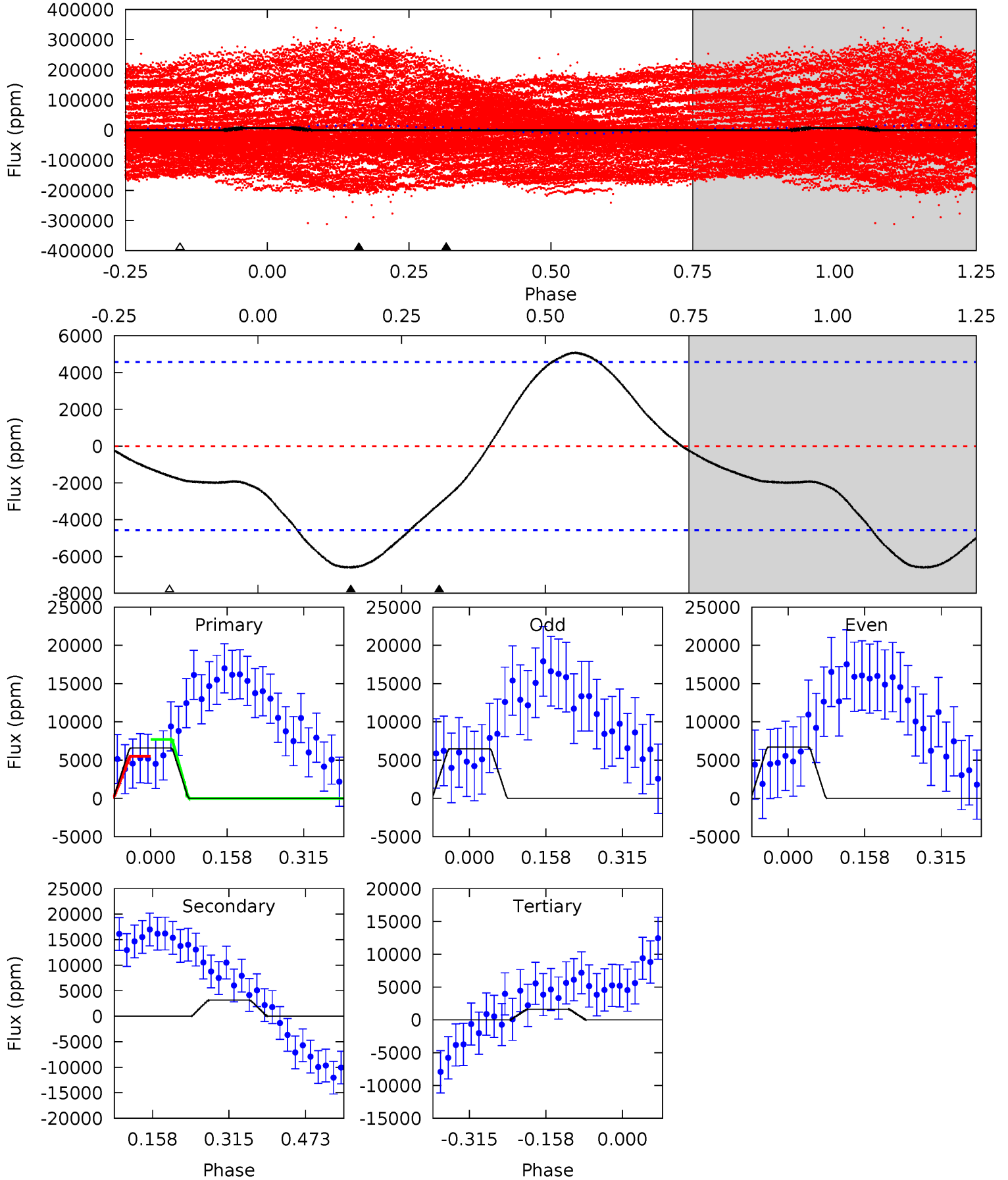
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.35	5.68	0.56	0	4.54	1.58	1.73	4.80	5.35	5.13	5.68	1.00	-75.7	0.52	3.17



# Alt Model-Shift Uniqueness Test

011125706-01, P = 0.611357 Days, E = 131.135443 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
6.46	3.08	1.59	0	4.47	1.41	2.64	4.87	6.46	1.49	3.08	0.12	-0.36	0.44	1.05



### Stellar Parameters For KIC 011125706

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6385^{+177}_{-243}$	$4.228^{+0.153}_{-0.204}$	$0.070^{+0.250}_{-0.300}$	$1.426^{+0.462}_{-0.308}$	$1.252^{+0.189}_{-0.189}$	$0.608^{+0.419}_{-0.315}$
	+3%/-4%	+4%/-5%	+357%/-429%	+32%/-22%	+15%/-15%	+69%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 011125706-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-88 \pm 15$	$1.71^{+1.03}_{-0.86}$	$3822^{+312}_{-246}$	$5809^{+2951}_{-1211}$	$3.900^{+11.759}_{-2.484}$
Alt.	$-3147 \pm 1022$	$23.23^{+4.23}_{-2.90}$	$3838^{+296}_{-267}$	$3792^{+360}_{-519}$	$0.707^{+0.373}_{-0.261}$

$T_{max}$  = 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

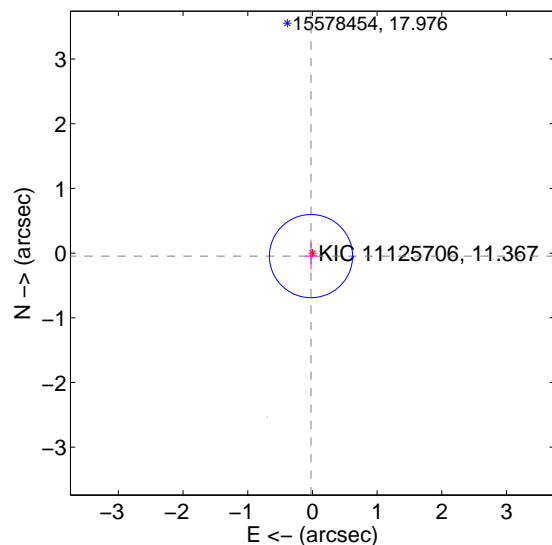
Supplemental centroid analysis for 011125706-01. **Kepler magnitude: 11.37.** Transit SNR 6.06

There are 9 quarters with good PRF difference image offsets

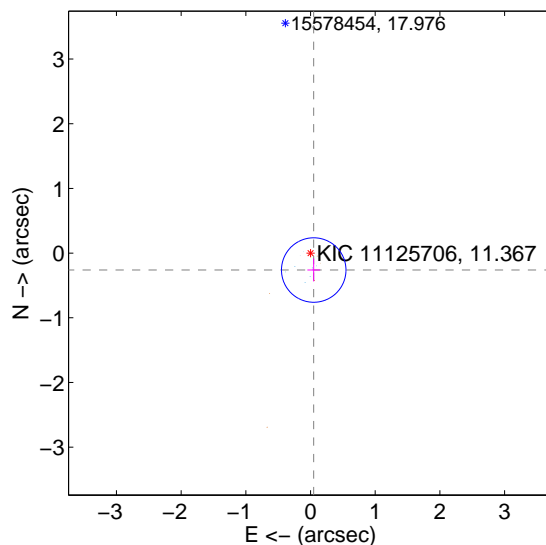
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.051 \pm 0.214$	0.24	$0.022 \pm 0.094$	$-0.046 \pm 0.208$
PRF-fit source offset from KIC position	$0.266 \pm 0.166$	1.60	$-0.049 \pm 0.099$	$-0.262 \pm 0.177$
photometric centroid source offset	<b><math>2.10 \pm 0.34</math></b>	<b>6.19</b>	$-2.04 \pm 0.34$	$0.50 \pm 0.33$

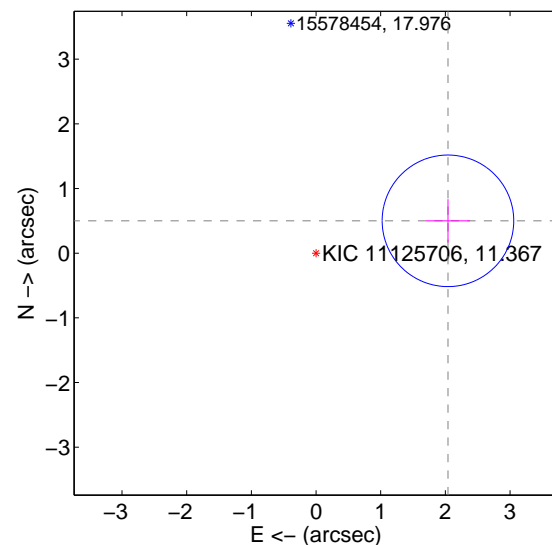
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

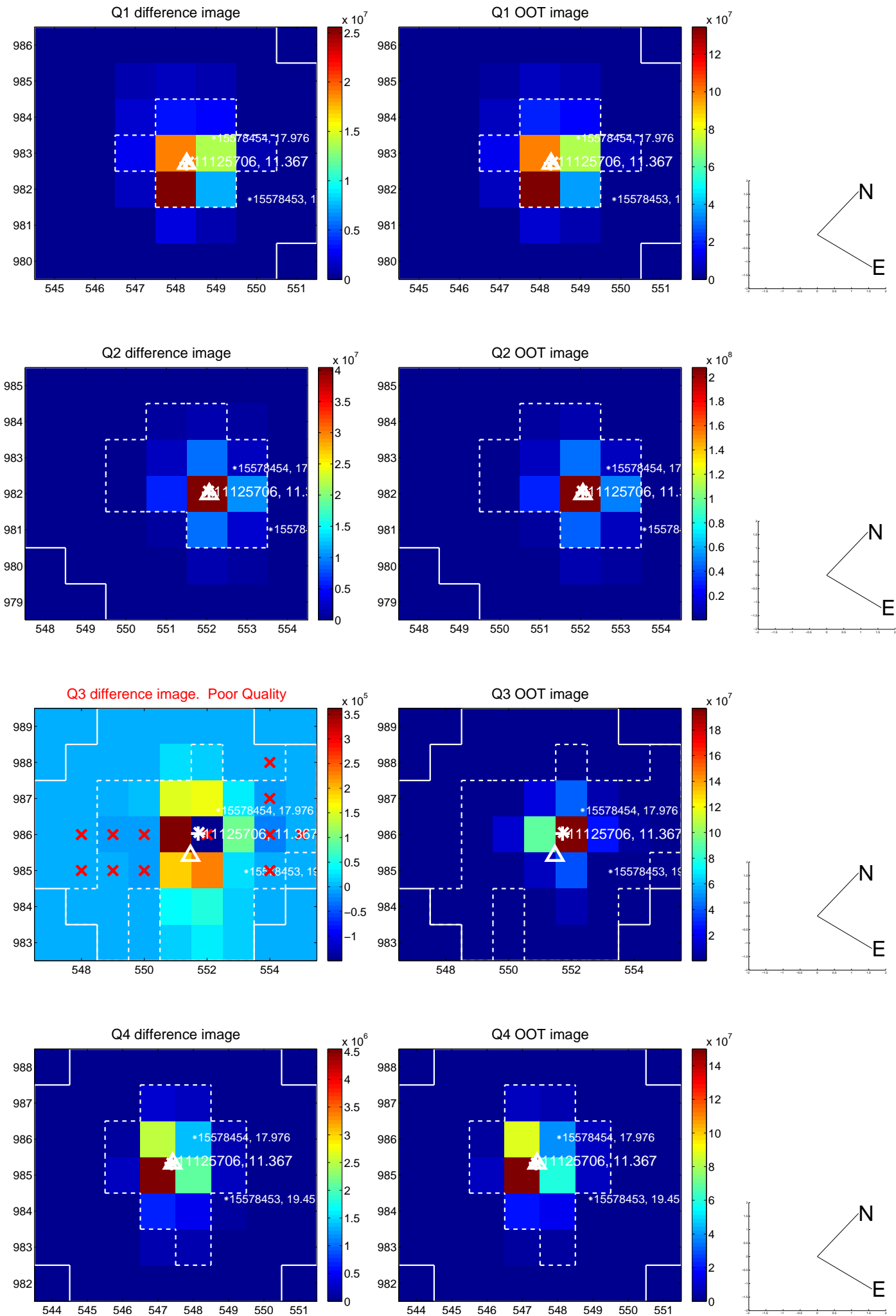


offset from photometric centroids

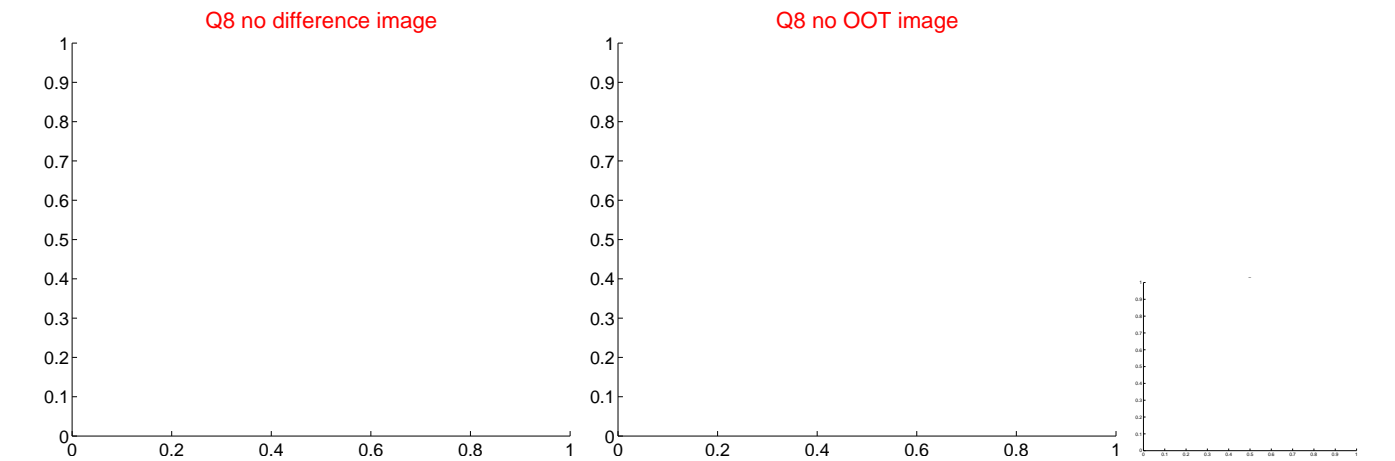
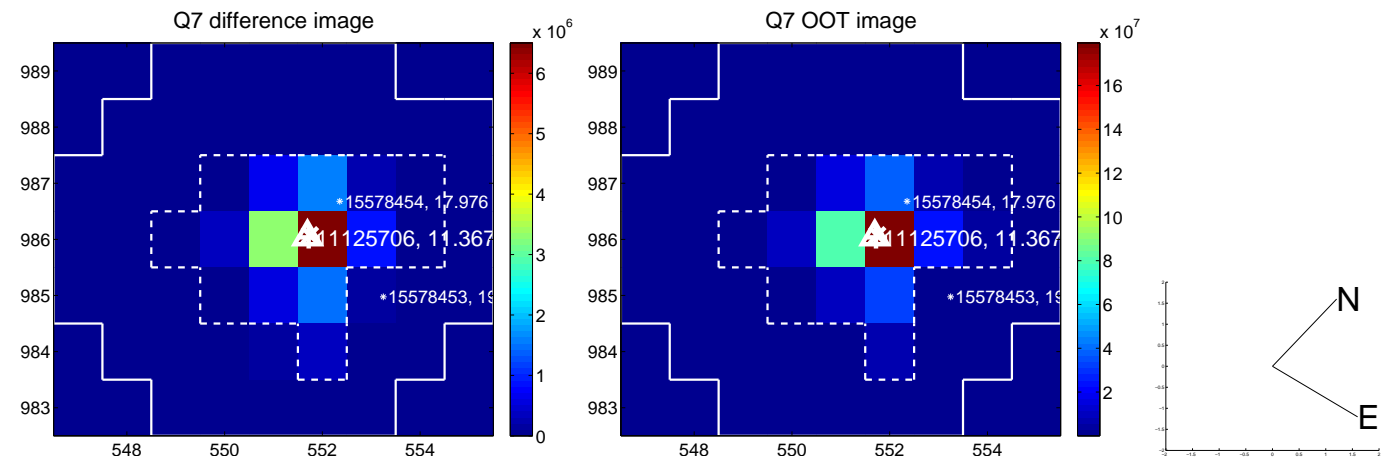
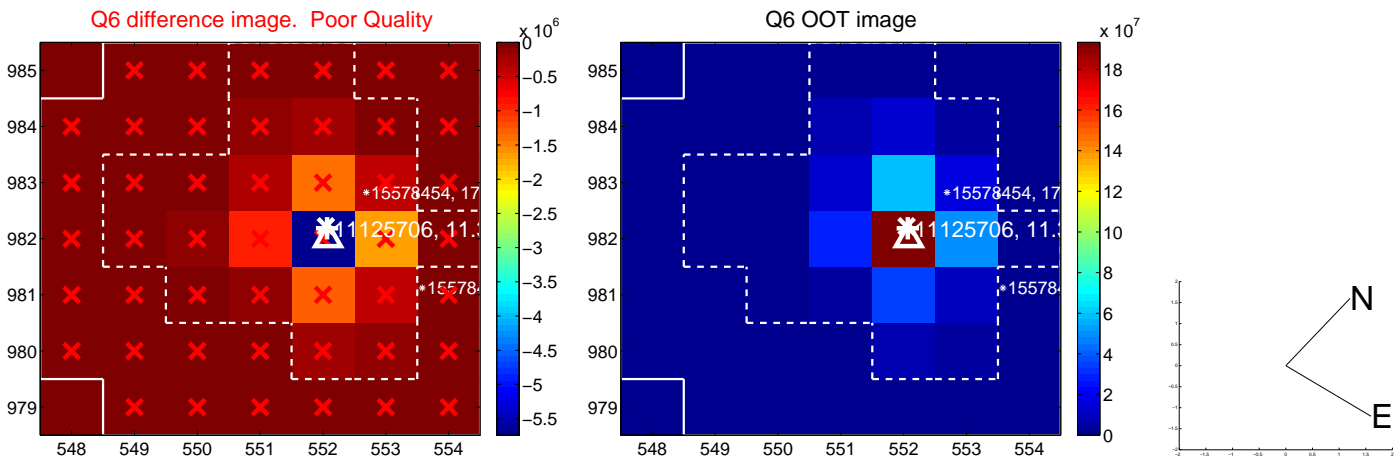
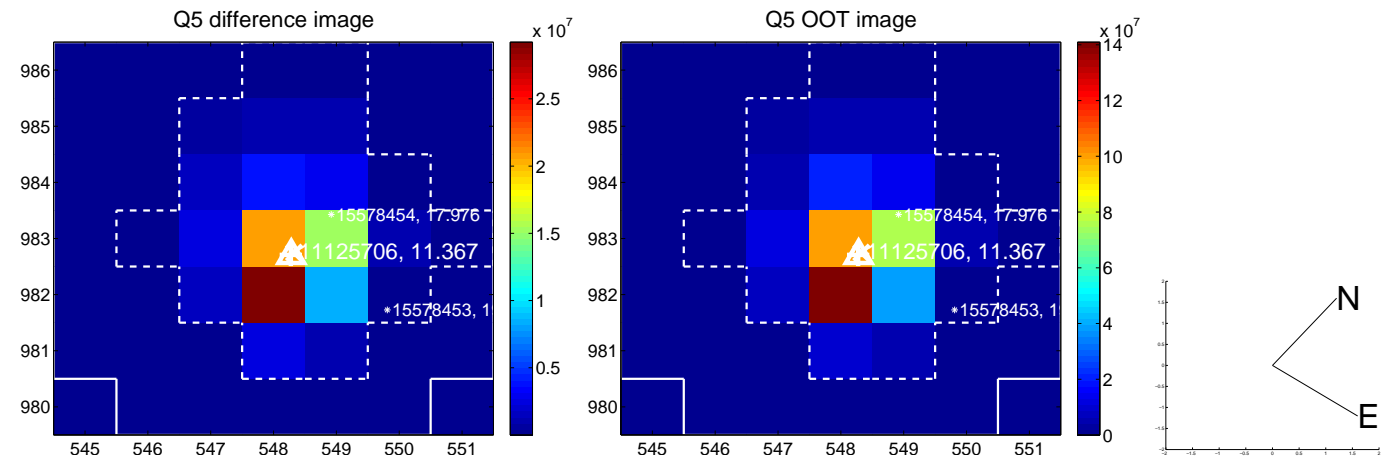


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

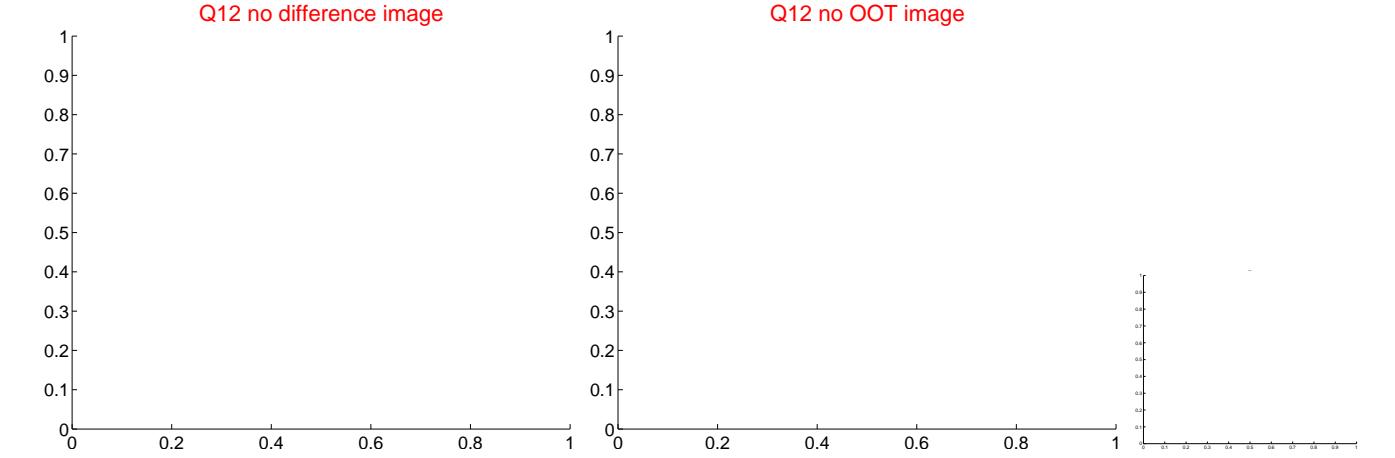
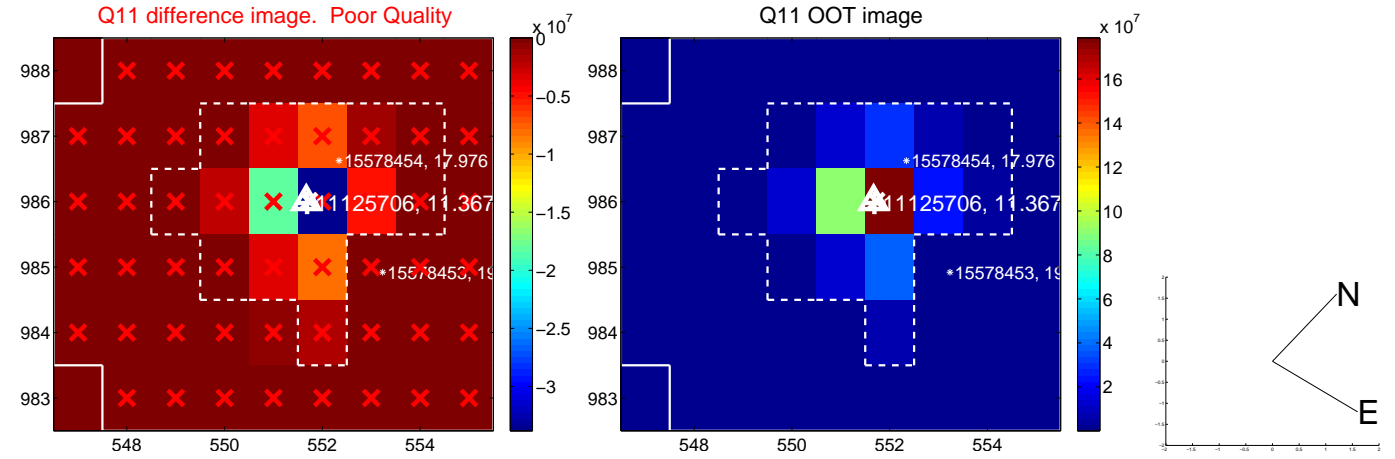
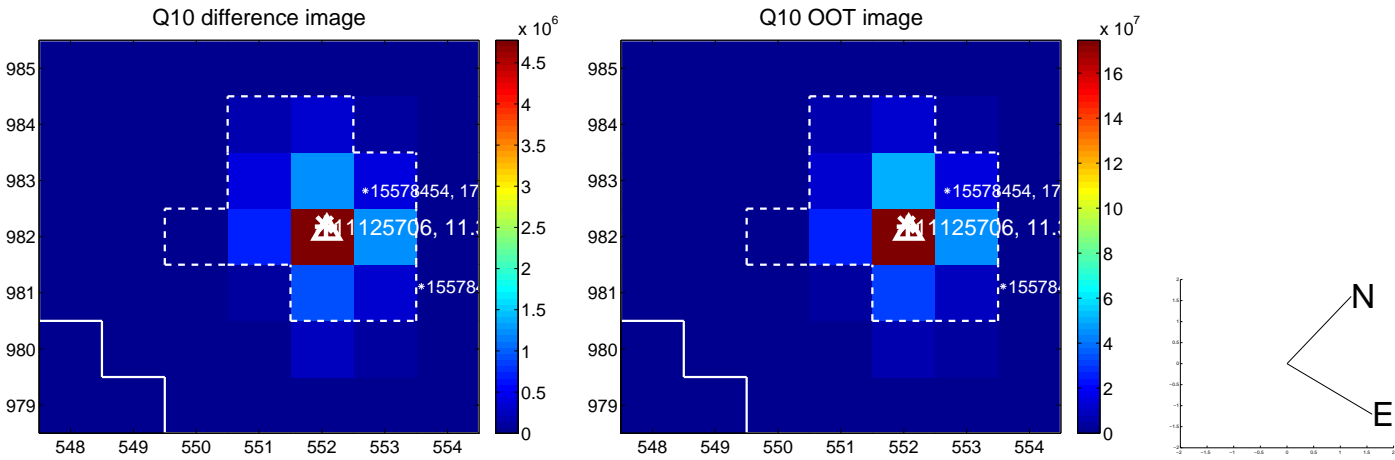
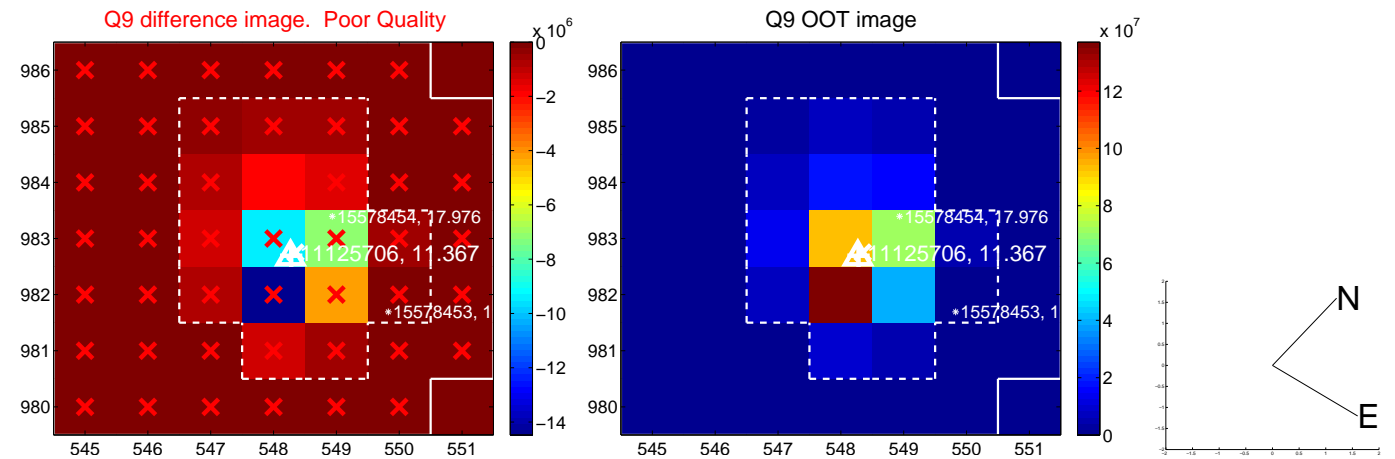


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

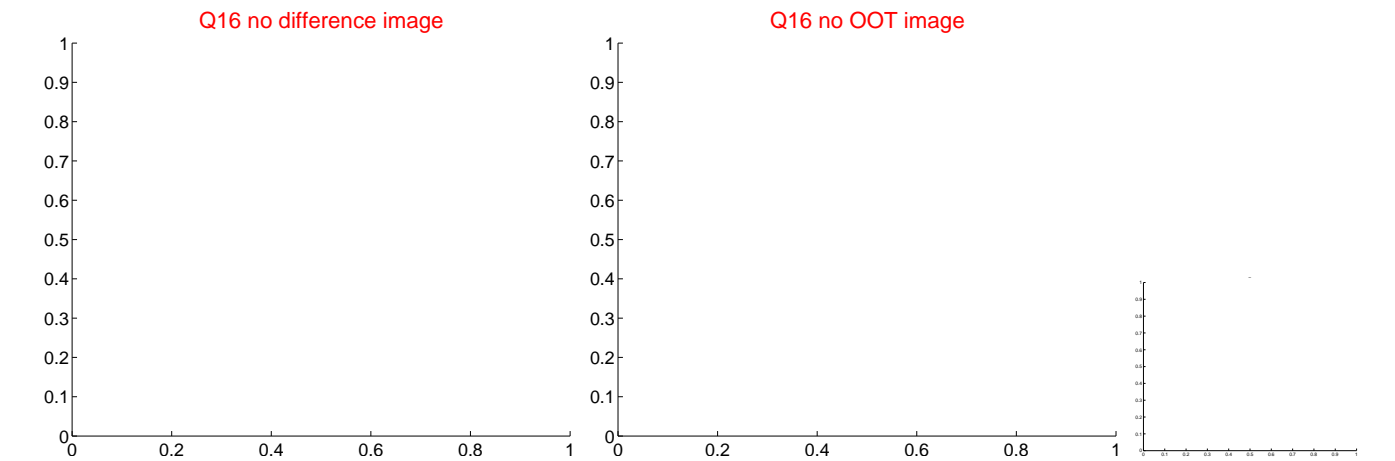
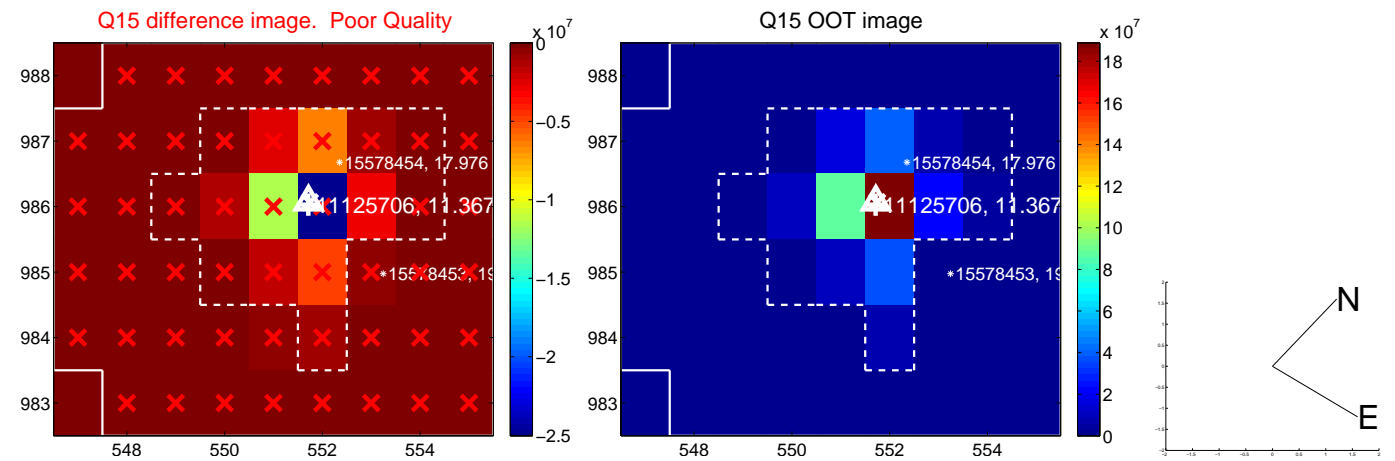
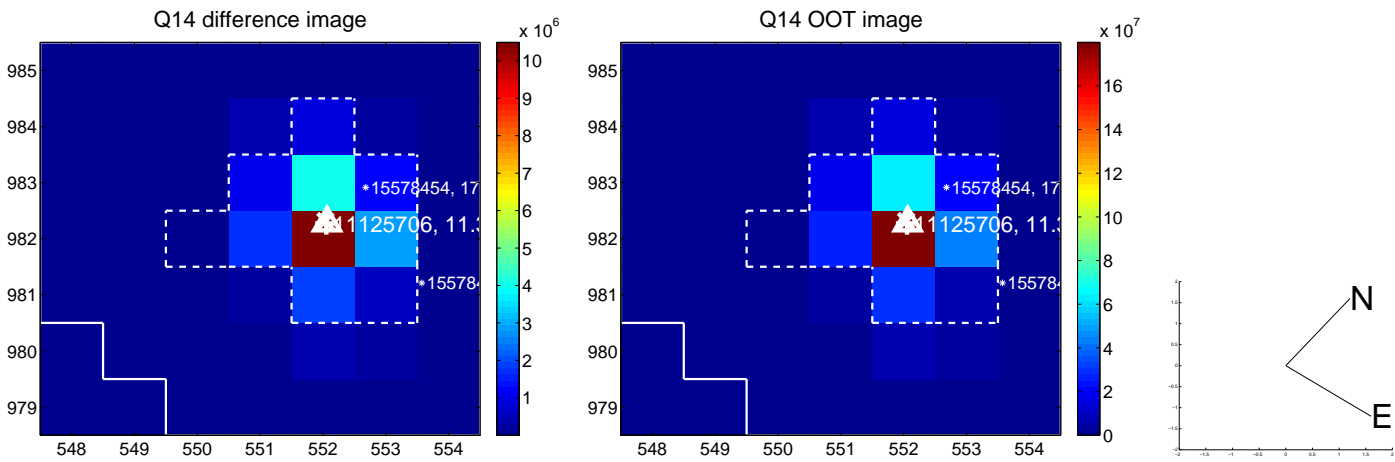
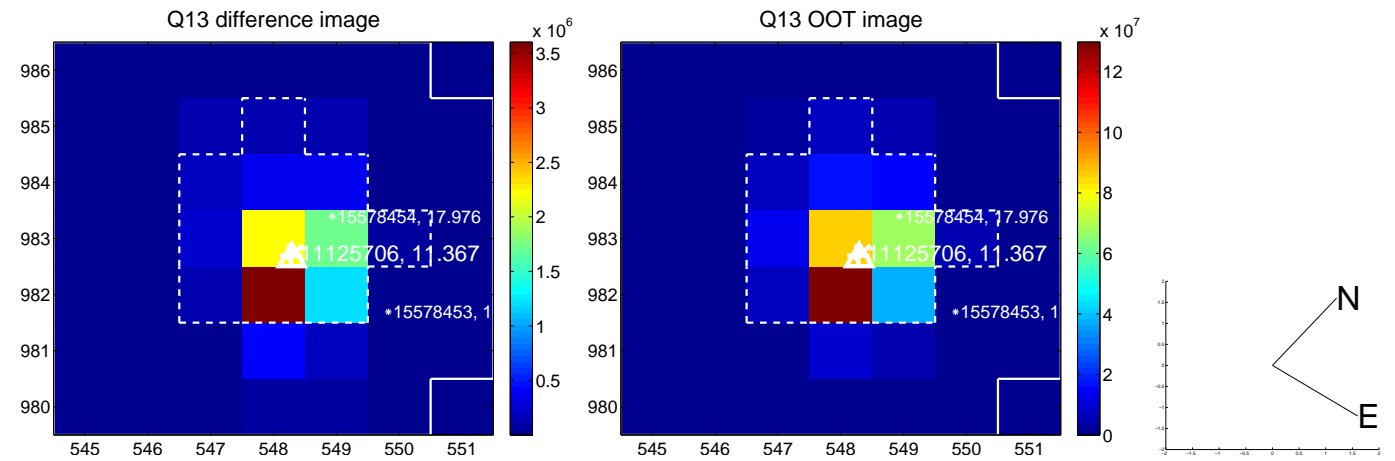




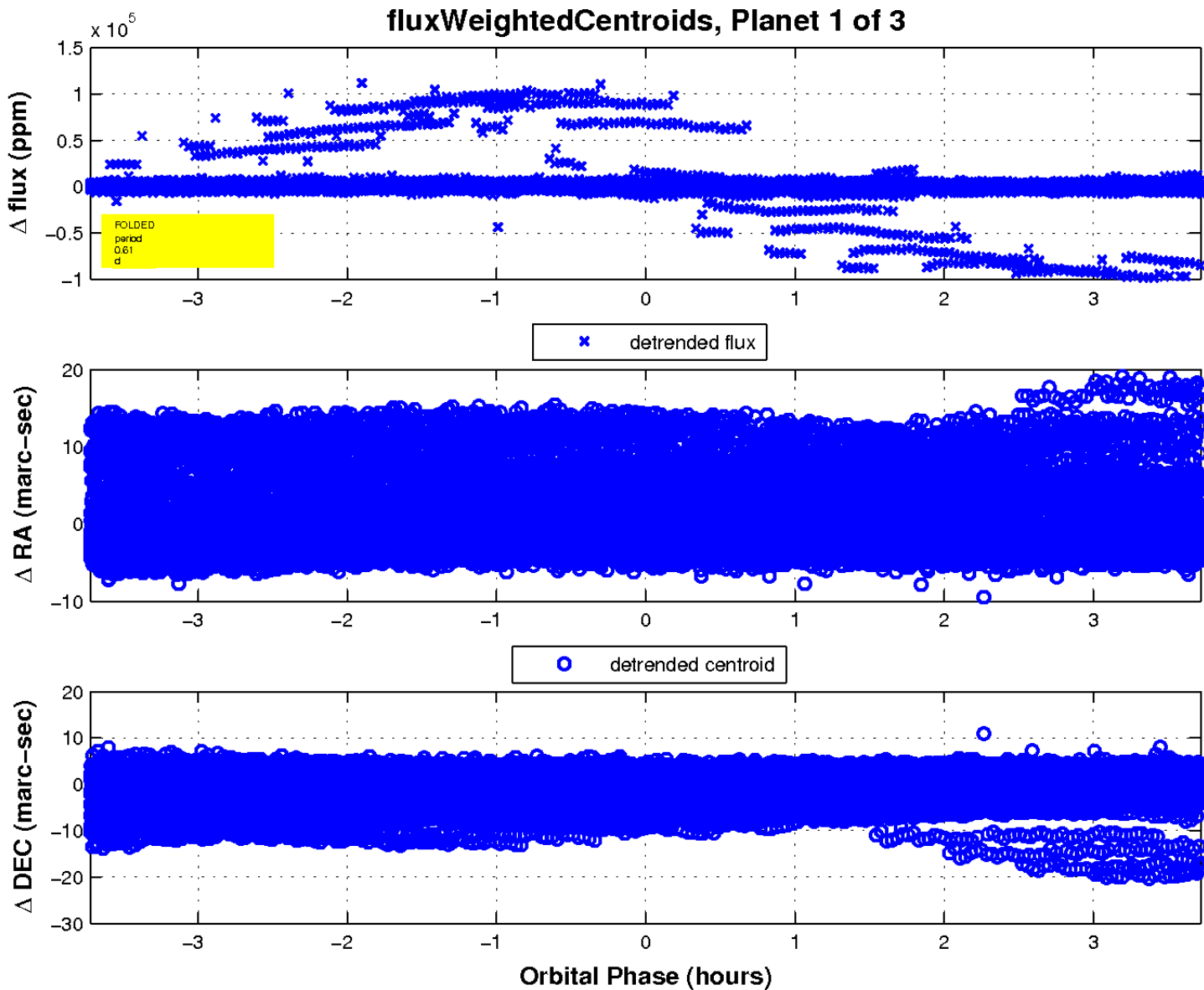
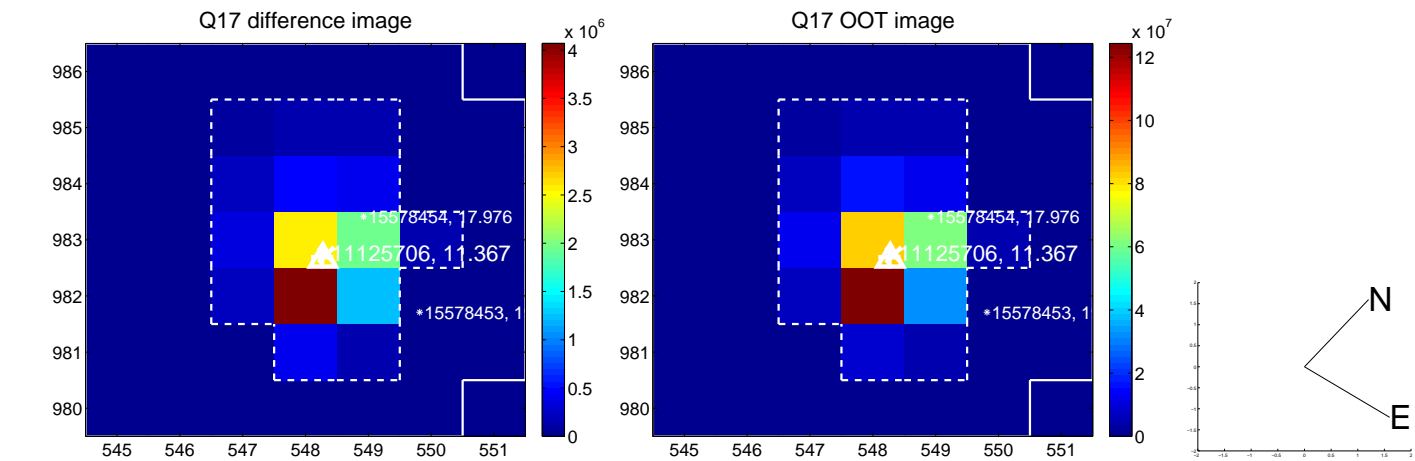
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

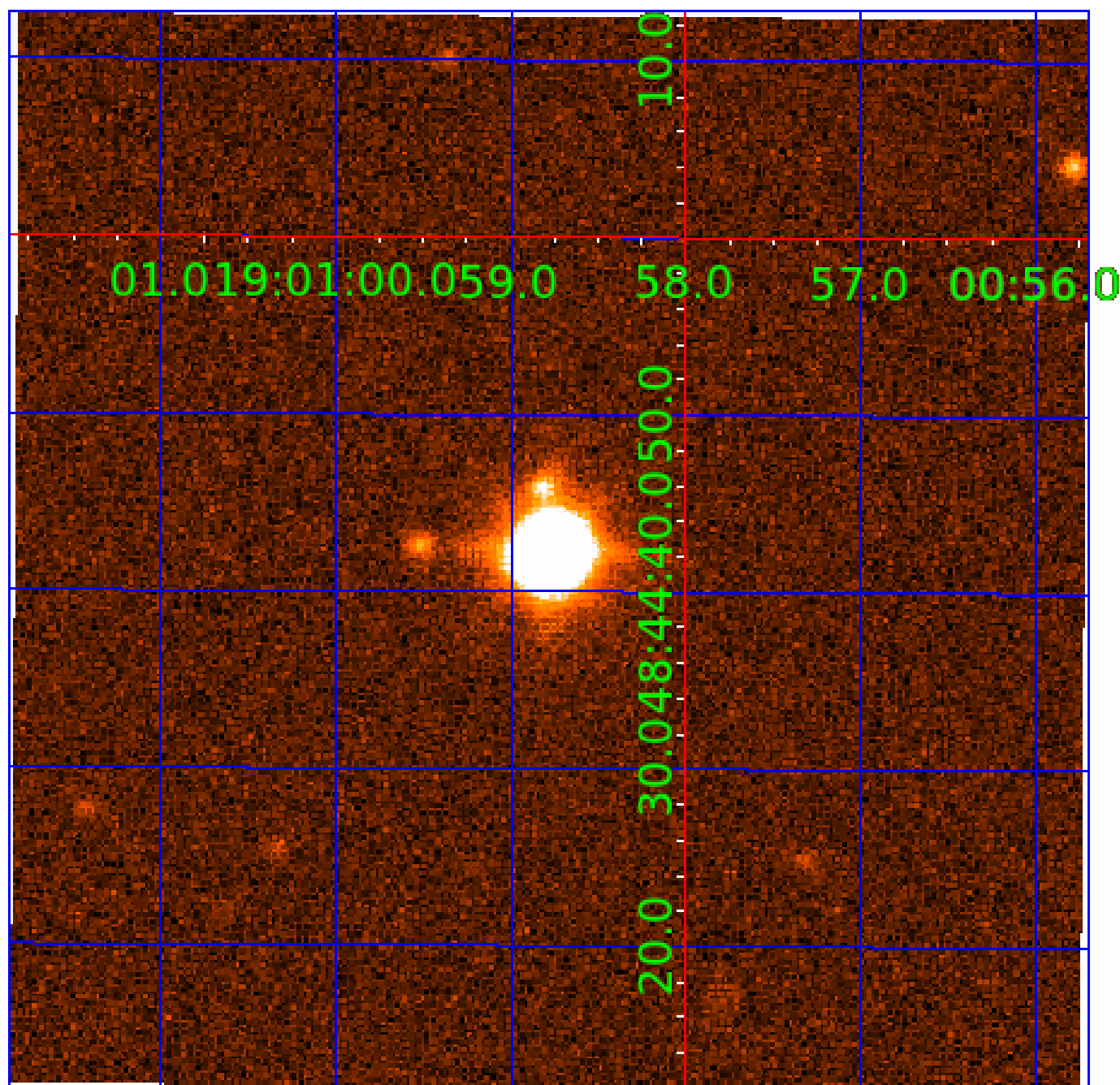


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 011125706

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011125706-01	OBS	No	0.614508	131.920338	96.4	1.241	25.8	6.1	1.43	6385	1.65	13009.11
011125706-02	OBS	No	0.610377	131.918516	23.4	0.929	15.5	1.1	1.43	6385	0.74	13126.62
011125706-03	OBS	No	0.611677	131.860994	213.2	1.500	10.4	-1.0	1.43	6385	2.10	13089.46

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011125706-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011125706-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011125706-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED

**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.

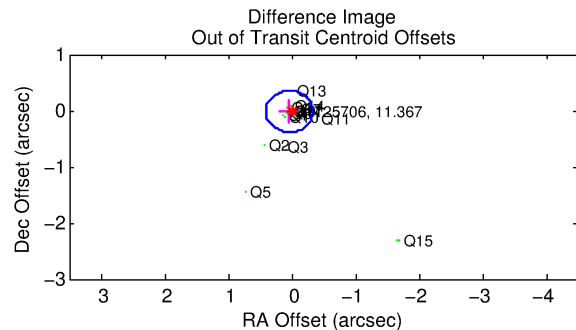
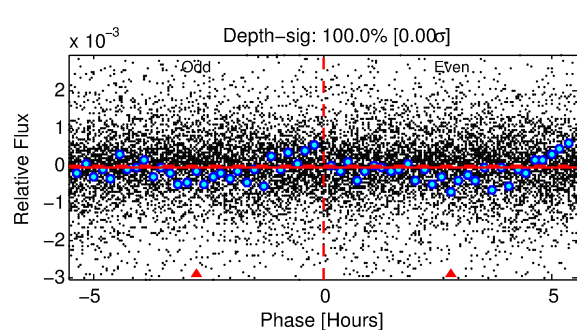
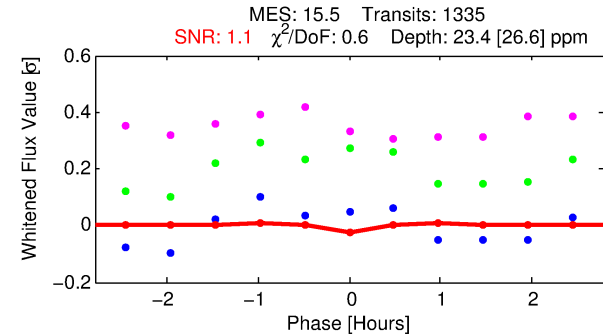
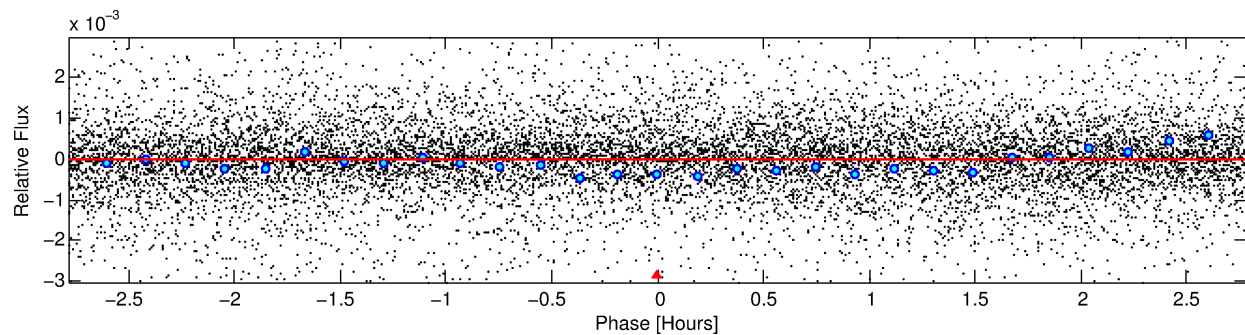
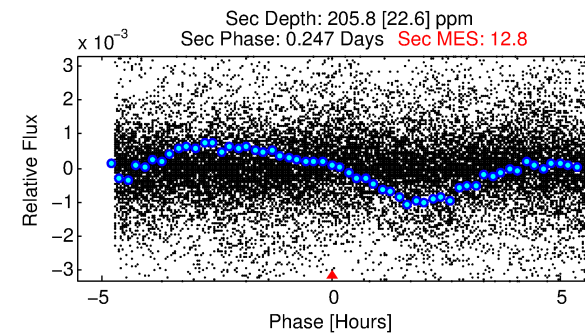
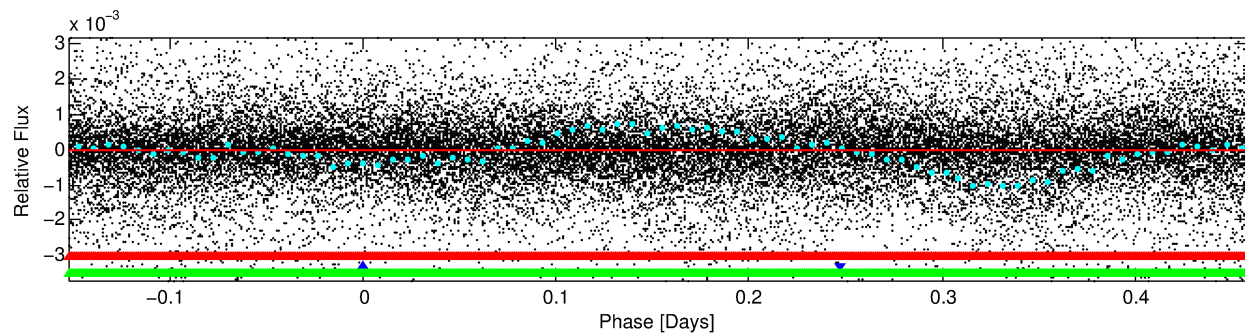
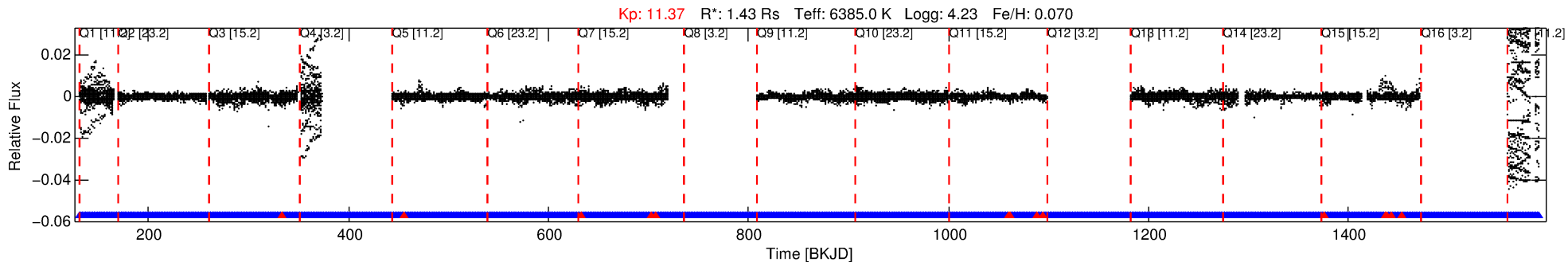
## Ephemeris Match Information For 011125706-02

No Significant Match Found



# DV One-Page Summary

KIC: 11125706 Candidate: 2 of 3 Period: 0.610 d



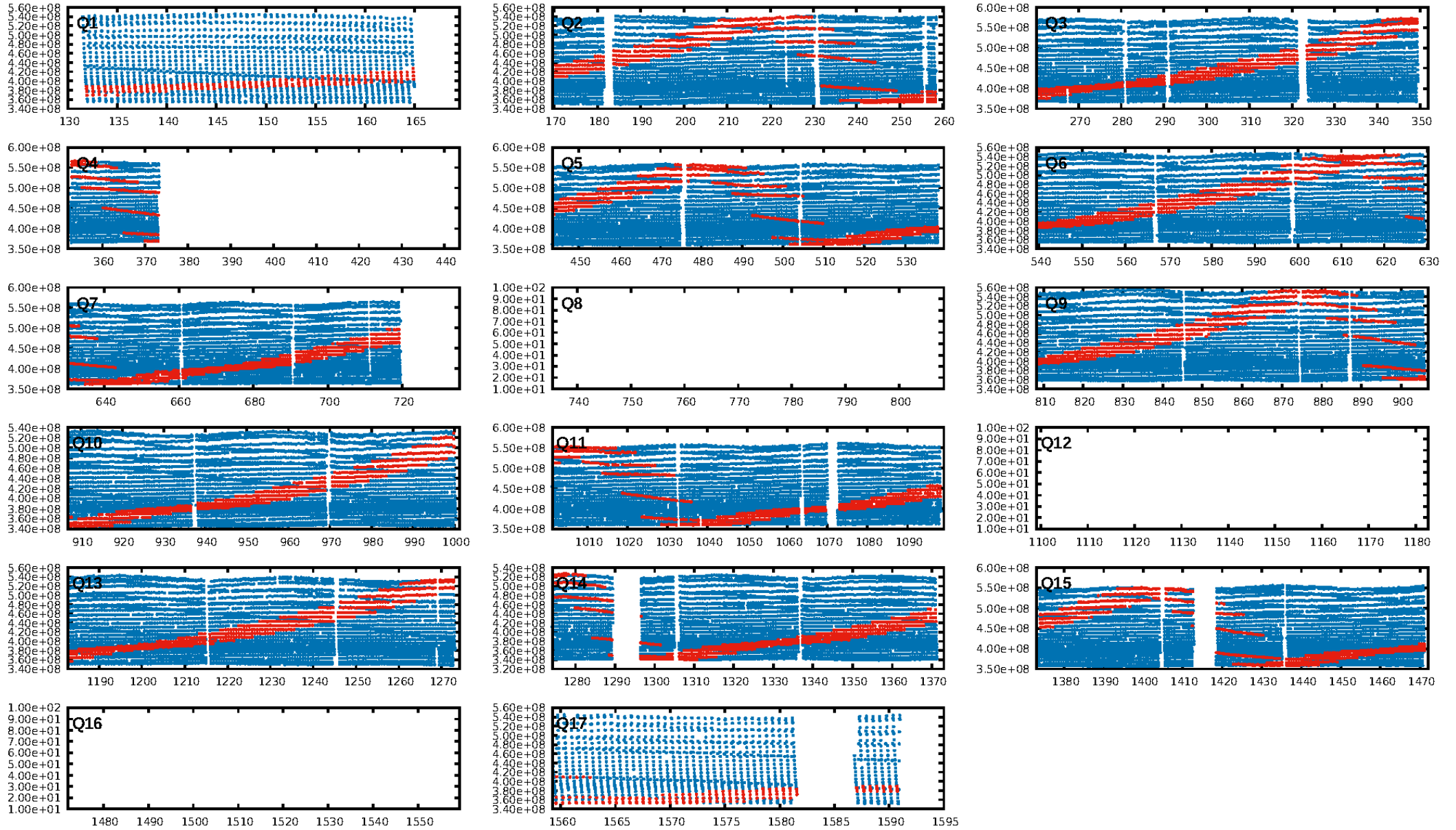
## DV Fit Results:

Period = 0.61038 [0.00009] d  
Epoch = 131.9185 [0.0086] BKJD  
Rp/R\* = 0.0048 [0.0053]  
a/R\* = 3.71 [17.07]  
b = 0.70 [3.63]  
Seff = 13126.62 [5378.55]  
Teq = 2729 [280] K  
Rp = 0.75 [0.86] Re  
a = 0.0152 [0.0041] AU  
Ag = 47.00 [105.14] [0.44σ]  
Teffp = 11049 [6104] K [1.36σ]

## DV Diagnostic Results:

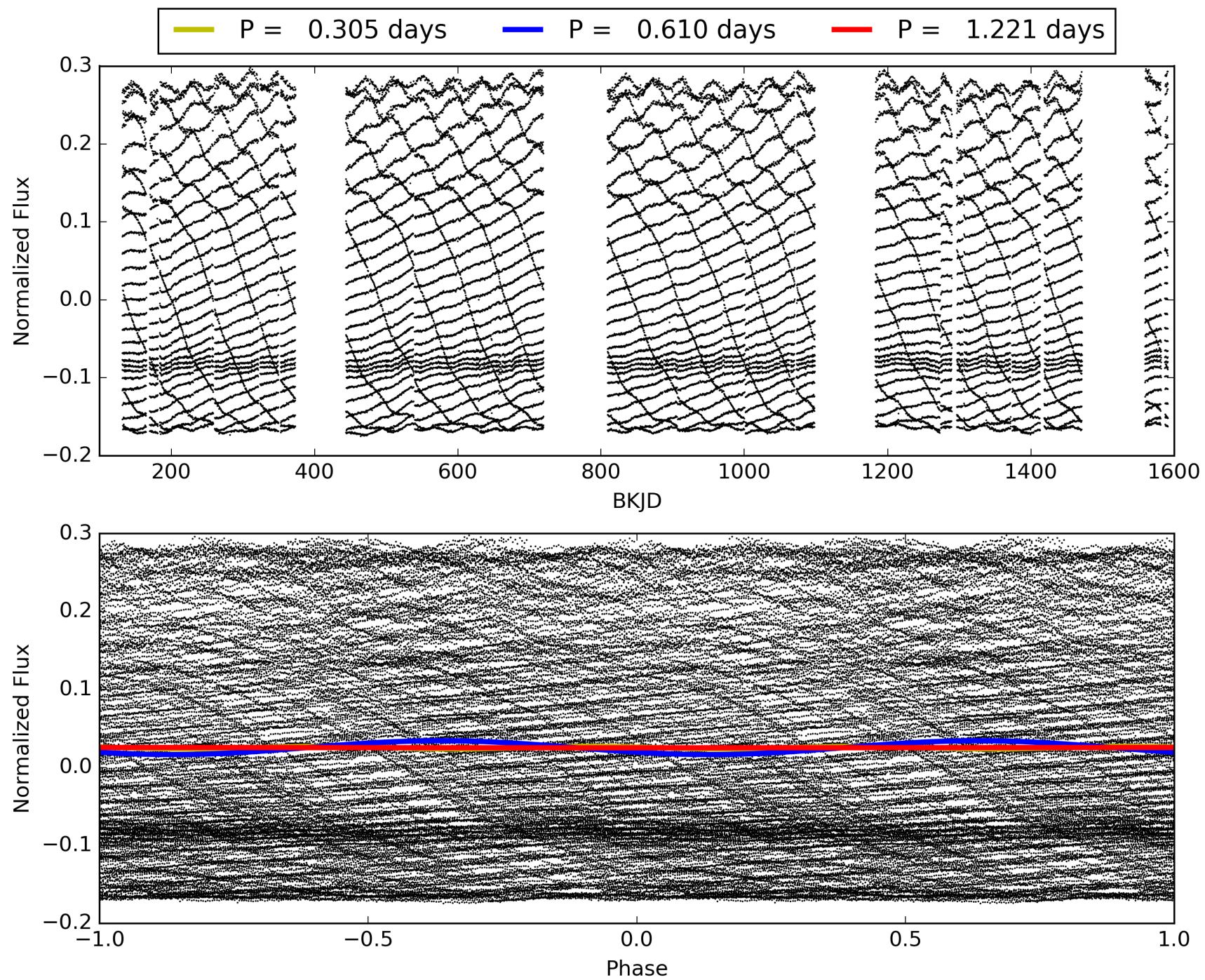
ShortPeriod-sig: N/A  
LongPeriod-sig: 1.4% [0.02σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.99 [1225/1239]  
**GhostDiagnostic-chr: -3.296**  
Centroid-sig: N/A  
**Centroid-so: 6.621 arcsec [4.53σ]**  
OotOffset-rm: 0.044 arcsec [0.36σ]  
KicOffset-rm: 0.255 arcsec [1.43σ]  
OotOffset-st: 4/4/1/5 [14]  
KicOffset-st: 4/4/1/5 [14]  
DiffImageQuality-fgm: 0.57 [8/14]  
DiffImageOverlap-fno: 0.36 [5/14]

# TCE 011125706-02, PDC Light Curves



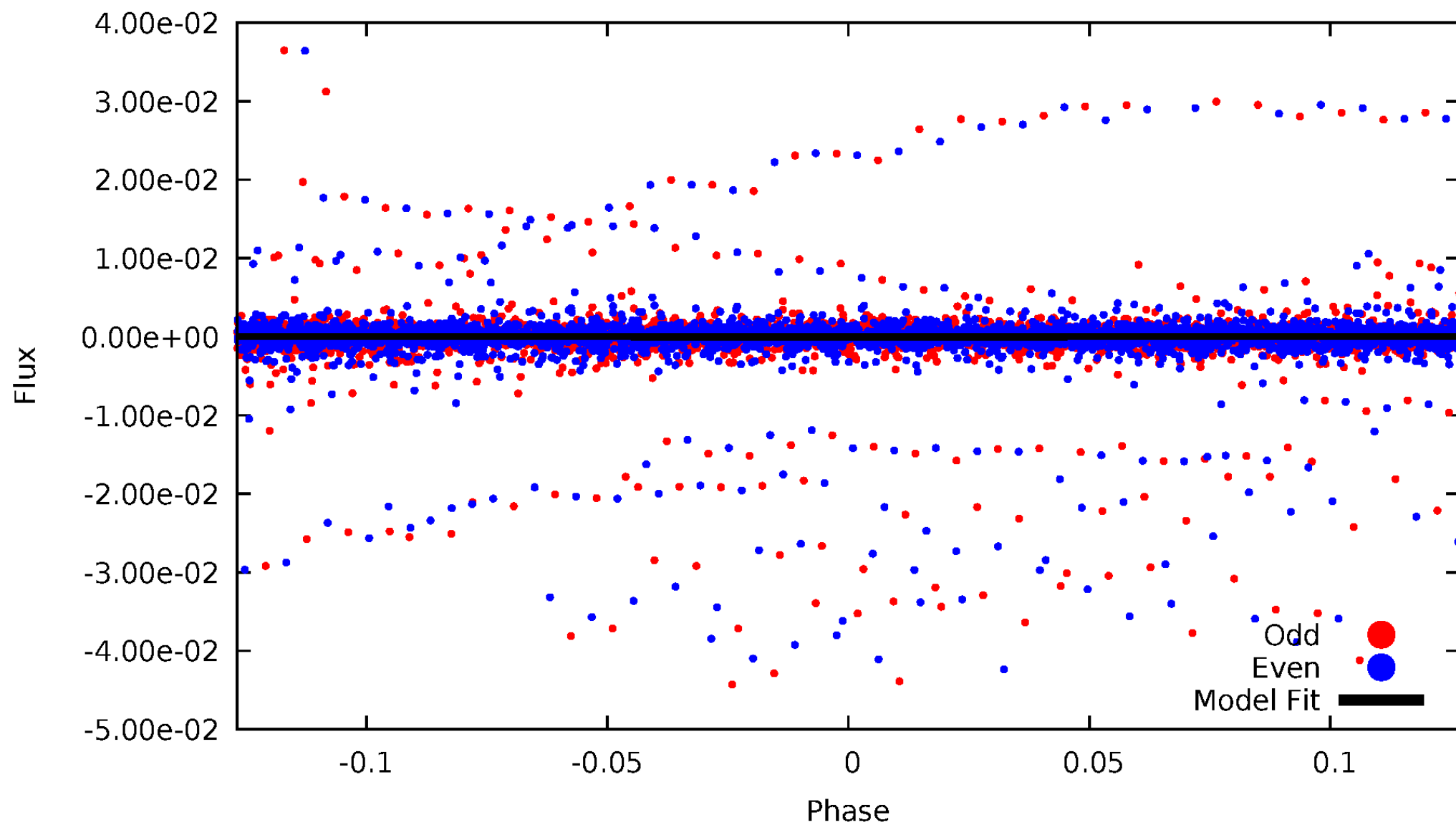


TCE 011125706-02



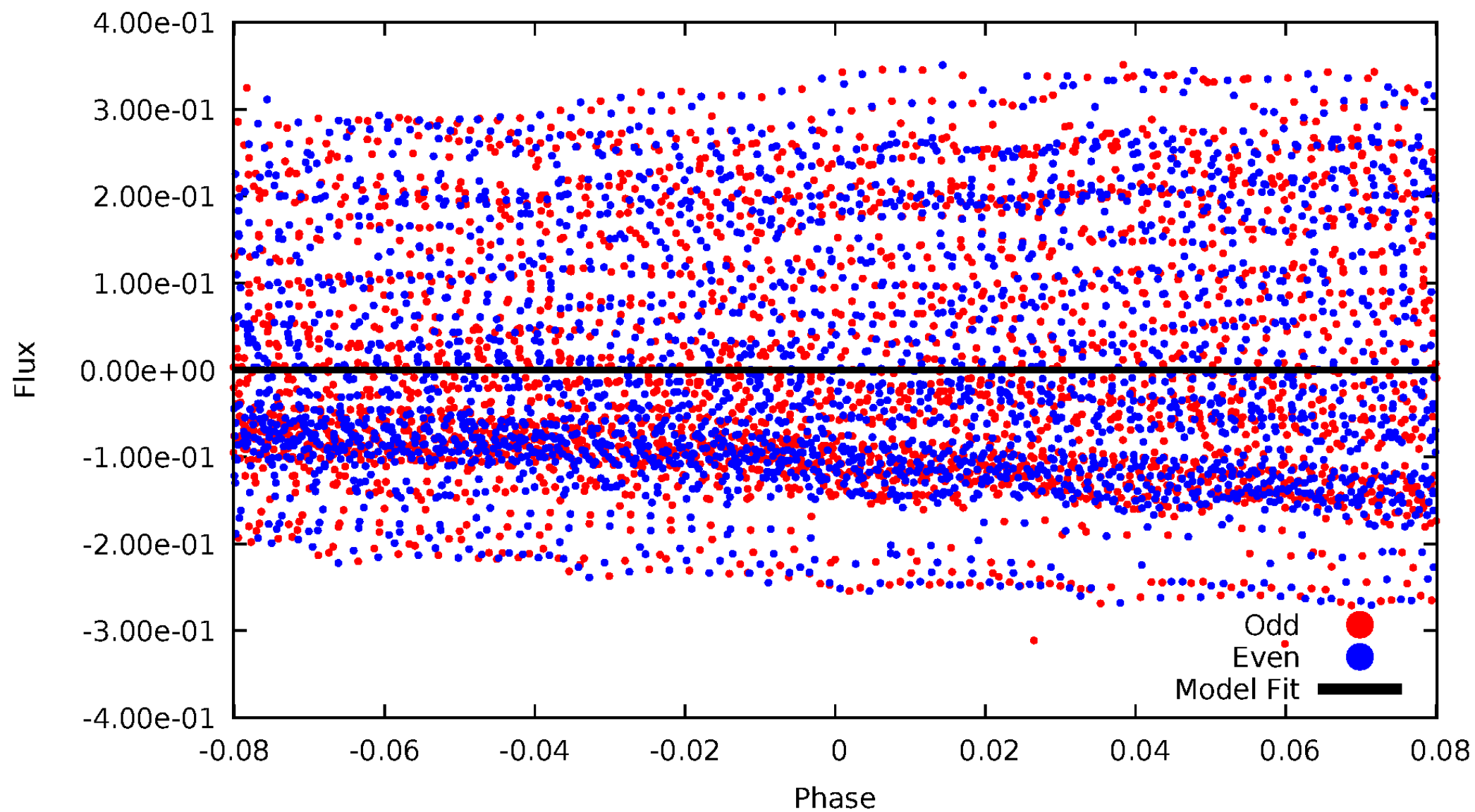
# DV Odd/Even

TCE 011125706-02



# ALT Odd/Even

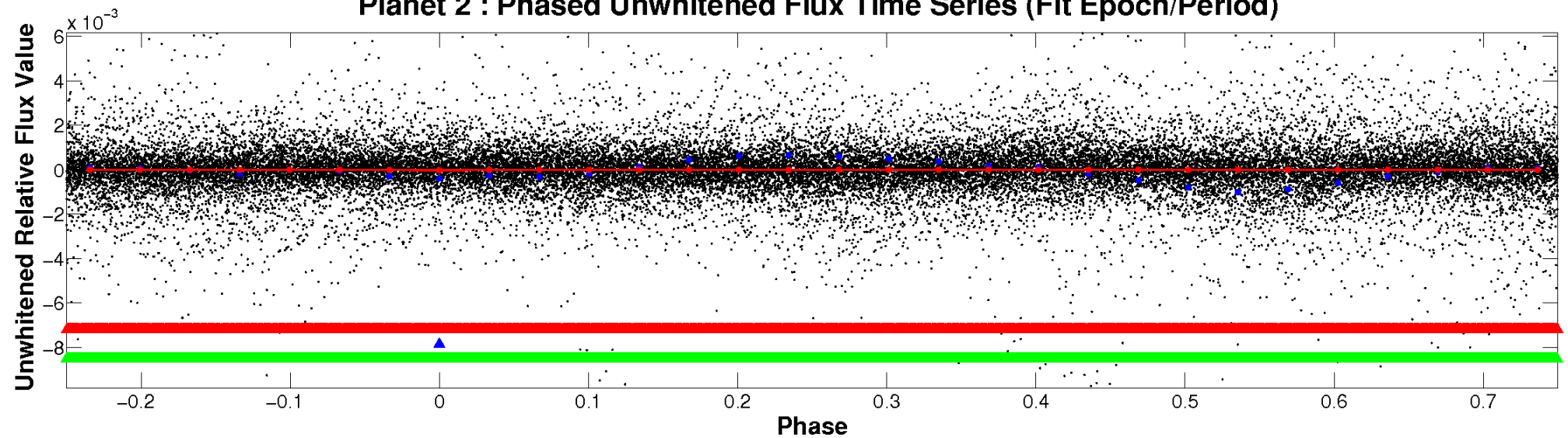
TCE 011125706-02



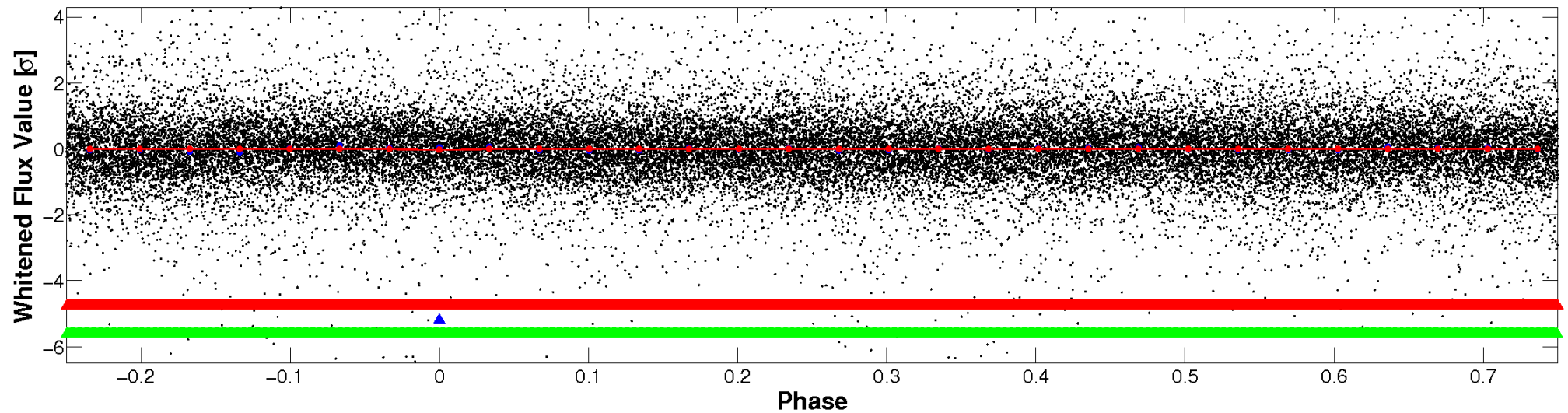


# Non-Whitened Vs. Whitened Light Curve

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

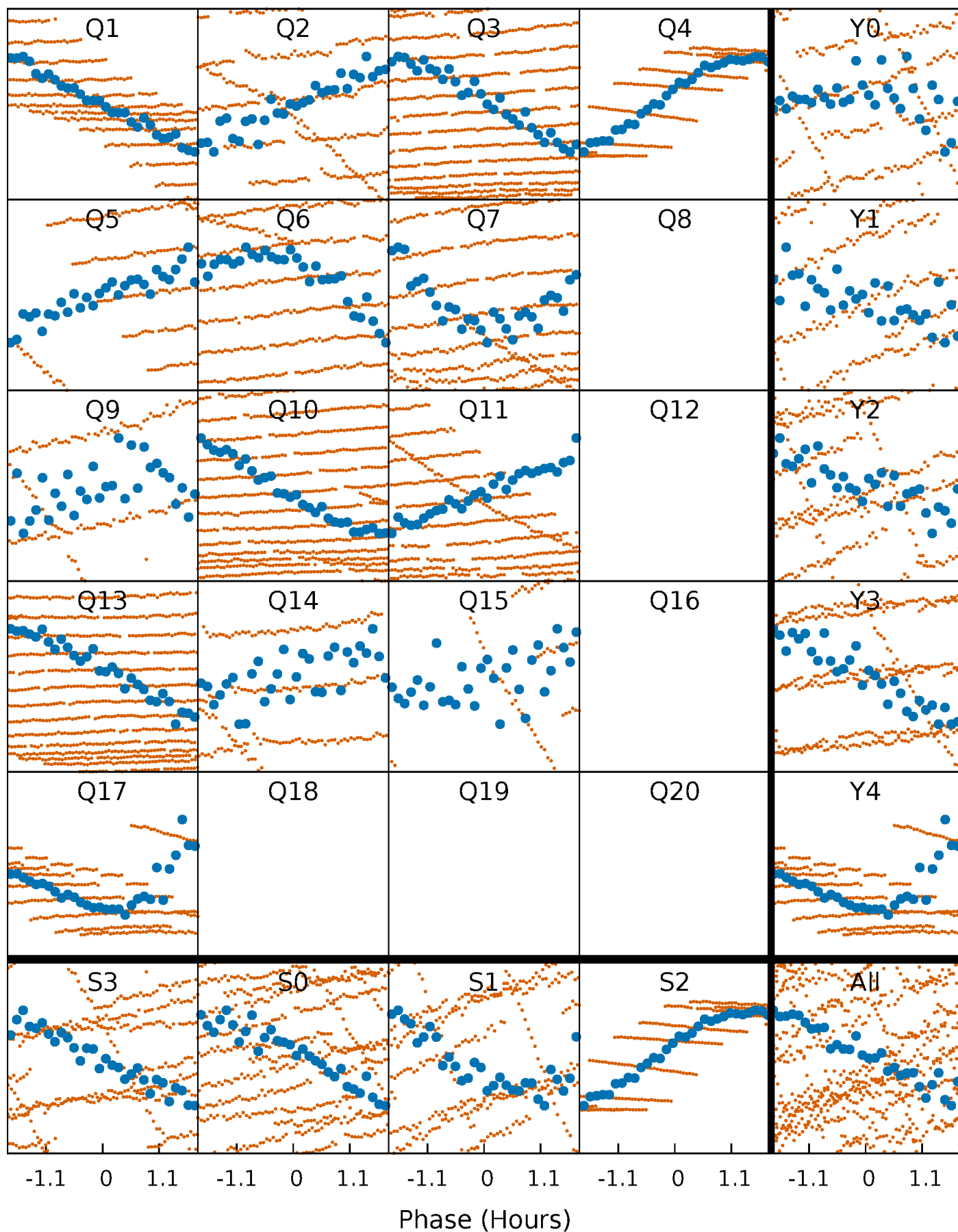


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



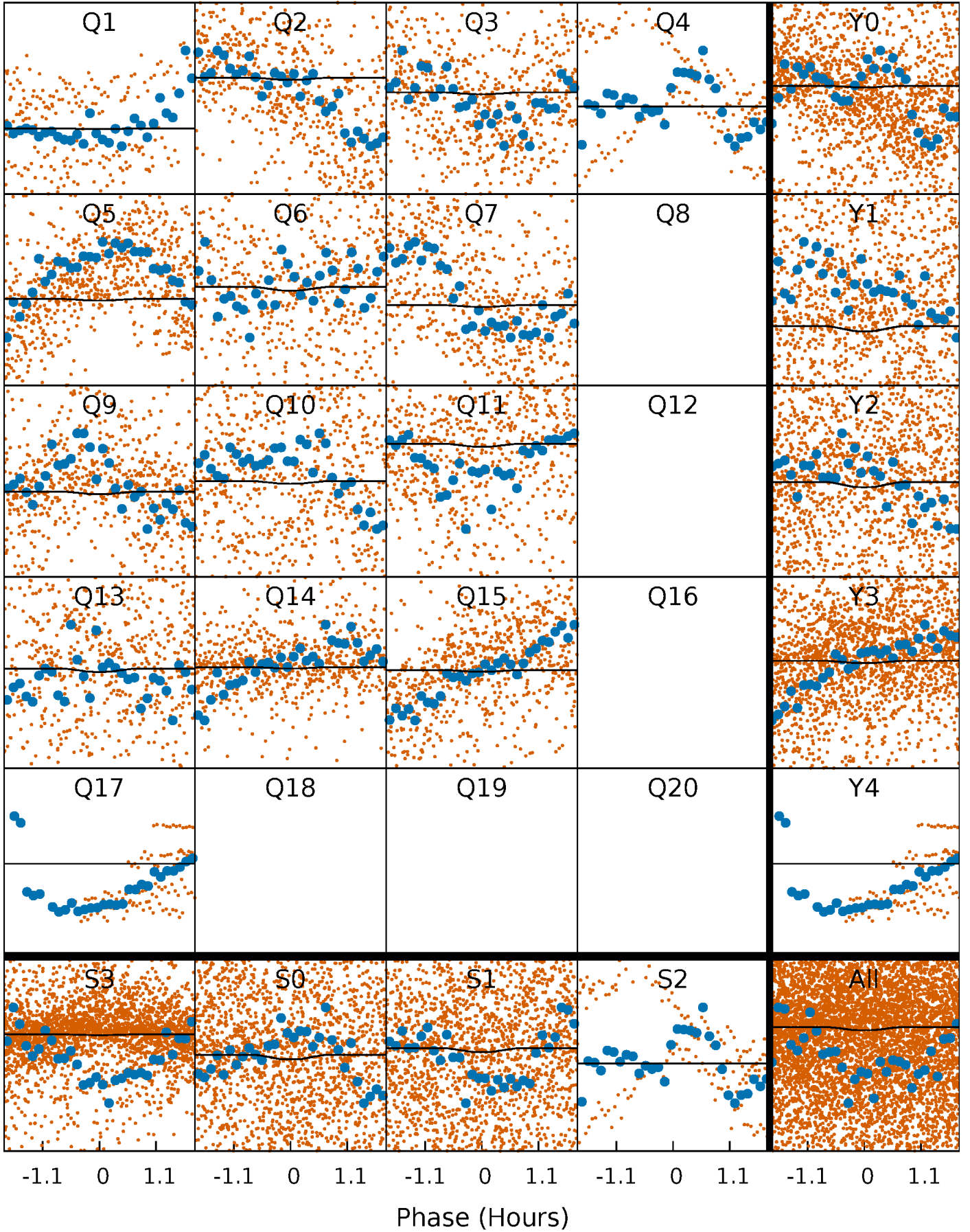
# PDC Quarter-Phased Transit Curves

TCE 011125706-02     $P = 0.610377$  Days     $T_0 = 131.918516$  (BKJD)



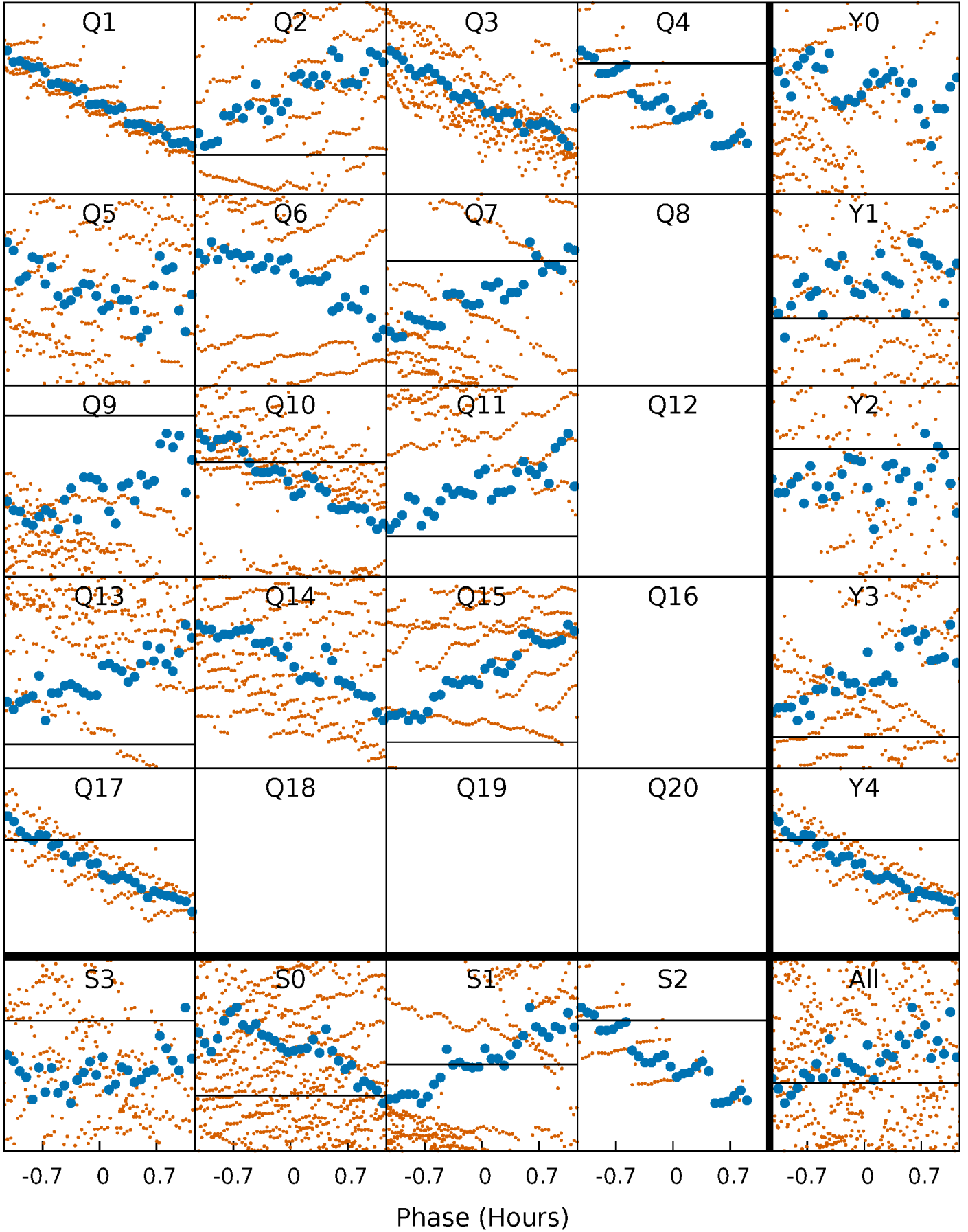
# DV Quarter-Phased Transit Curves

TCE 011125706-02     $P = 0.610377$  Days     $T_0 = 131.918516$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 011125706-02   P= 0.611357 Days    $T_0=131.774003$  (BKJD)

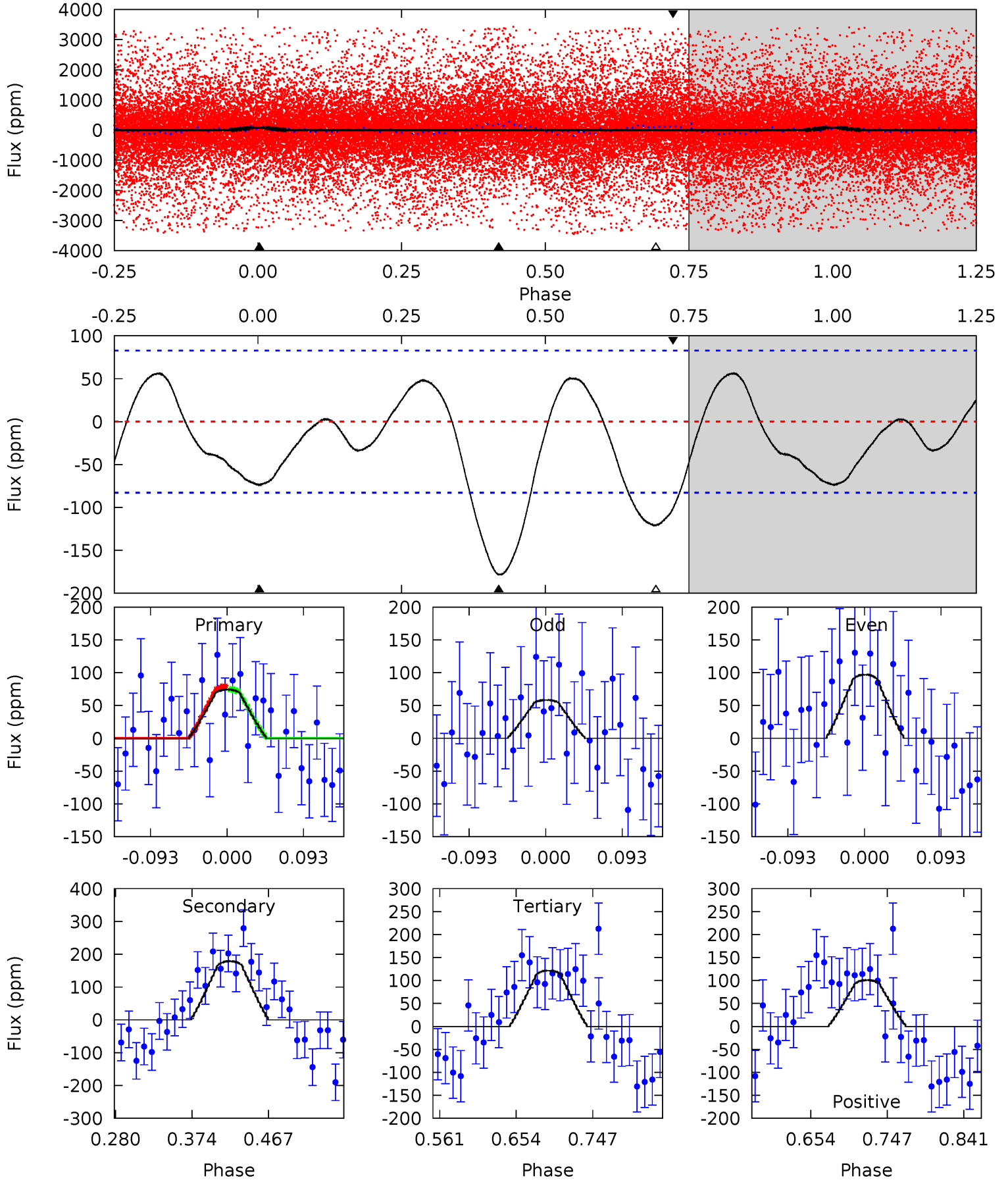




# DV Model-Shift Uniqueness Test

011125706-02, P = 0.610377 Days, E = 131.308139 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
4.11	9.89	6.73	-5.57	4.58	1.68	2.86	-2.62	9.68	3.16	15.5	1.09	-12.5	0.24	0.13

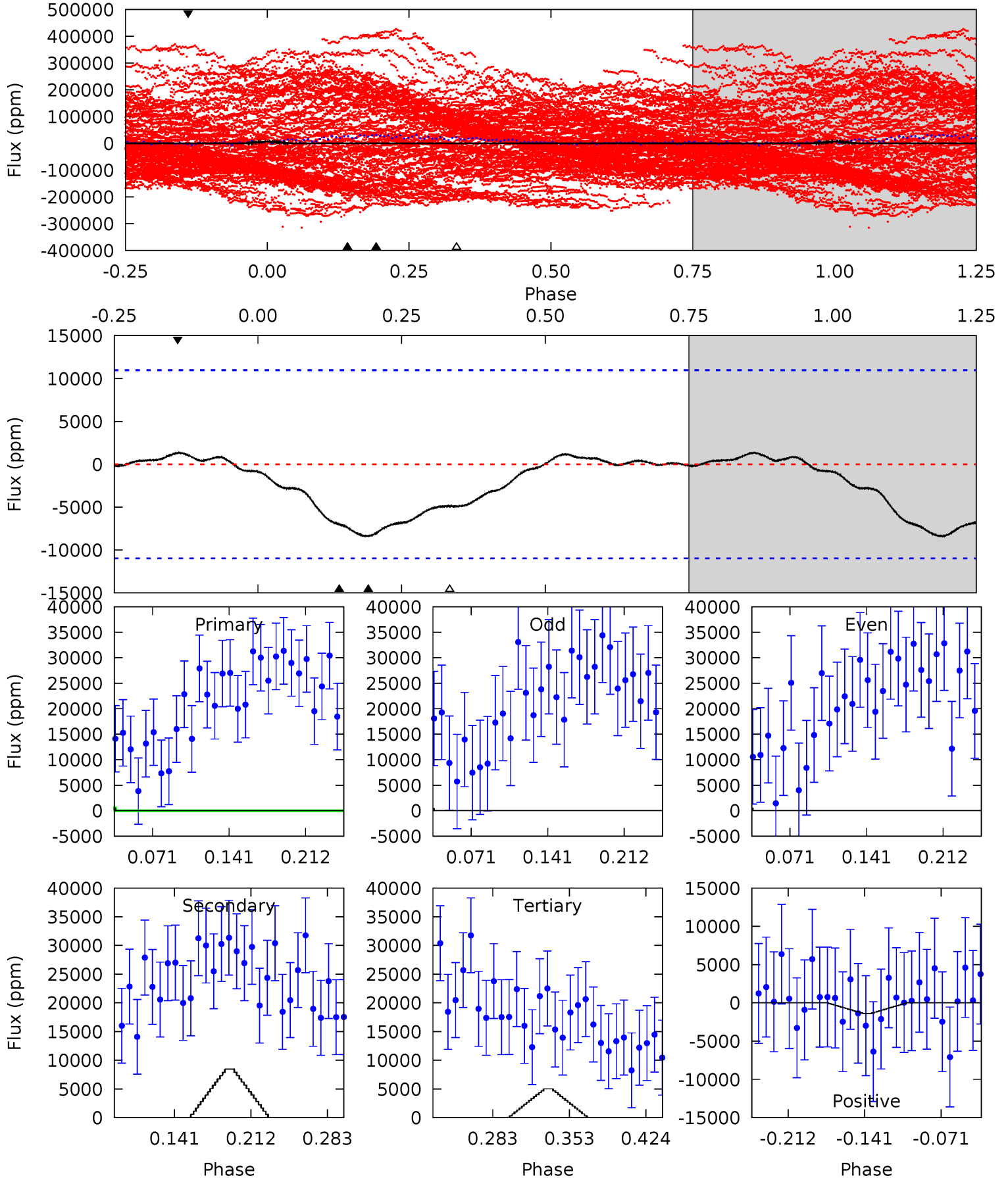




# Alt Model-Shift Uniqueness Test

011125706-02, P = 0.611357 Days, E = 131.162646 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
3.01	3.57	2.12	0.59	4.64	1.81	0.87	0.89	2.42	1.46	2.99	0.29	-0.22	0.14	0.62



### Stellar Parameters For KIC 011125706

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6385^{+177}_{-243}$	$4.228^{+0.153}_{-0.204}$	$0.070^{+0.250}_{-0.300}$	$1.426^{+0.462}_{-0.308}$	$1.252^{+0.189}_{-0.189}$	$0.608^{+0.419}_{-0.315}$
	+3%/-4%	+4%/-5%	+357%/-429%	+32%/-22%	+15%/-15%	+69%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 011125706-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-179 \pm 18$	$0.94^{+0.77}_{-0.60}$	$3836^{+303}_{-263}$	$10631^{+18622}_{-3539}$	$26^{+172}_{-18}$
Alt.	$-8459 \pm 2367$	$0.68^{+0.68}_{-0.48}$	$3825^{+316}_{-265}$	$210057^{+2446796}_{-143641}$	$2231^{+23430}_{-1682}$

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

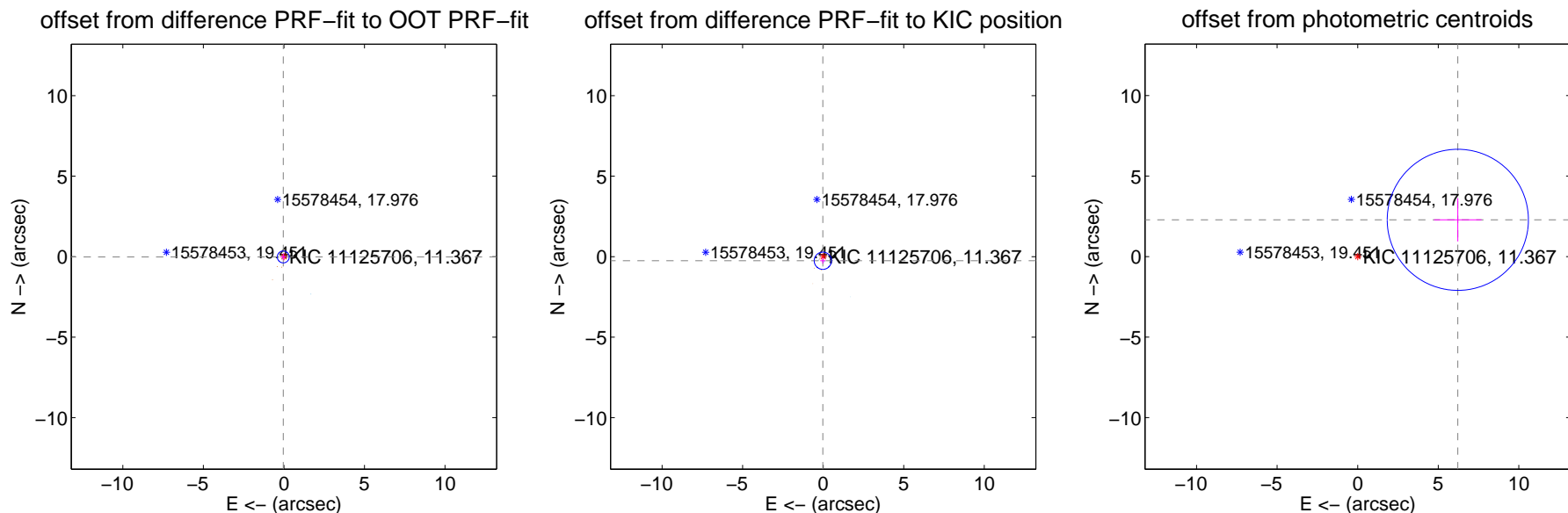
## DV Centroid Data

Supplemental centroid analysis for 011125706-02. **Kepler magnitude: 11.37.** Transit SNR 1.09

There are 8 quarters with good PRF difference image offsets

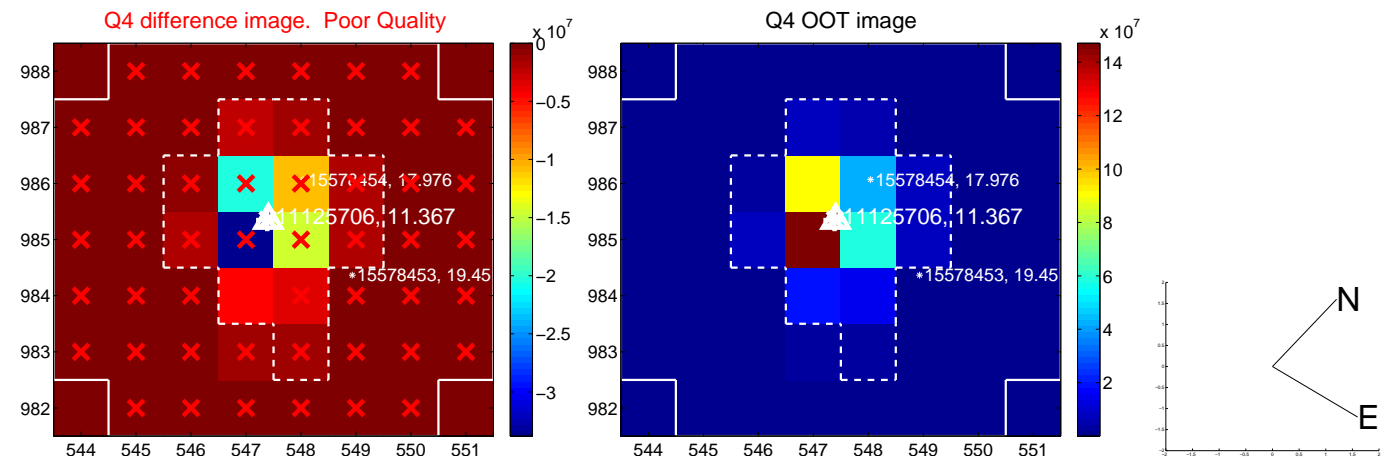
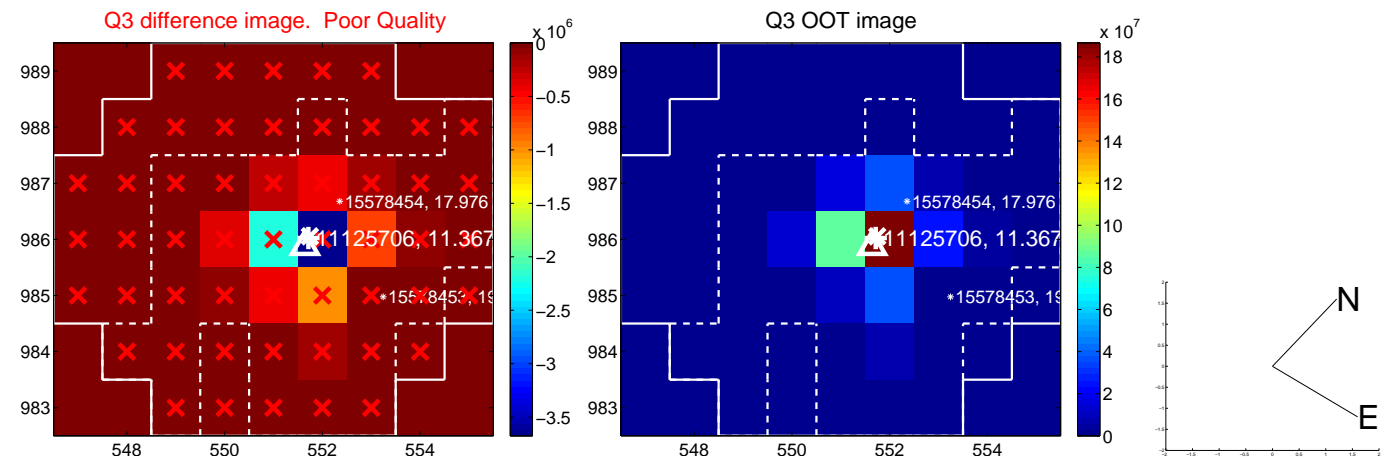
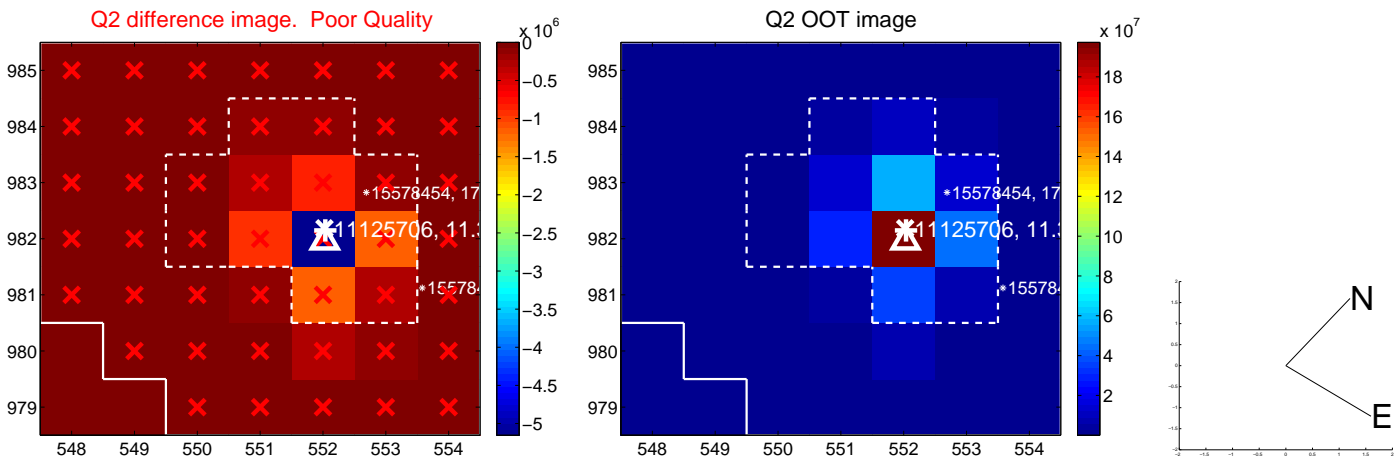
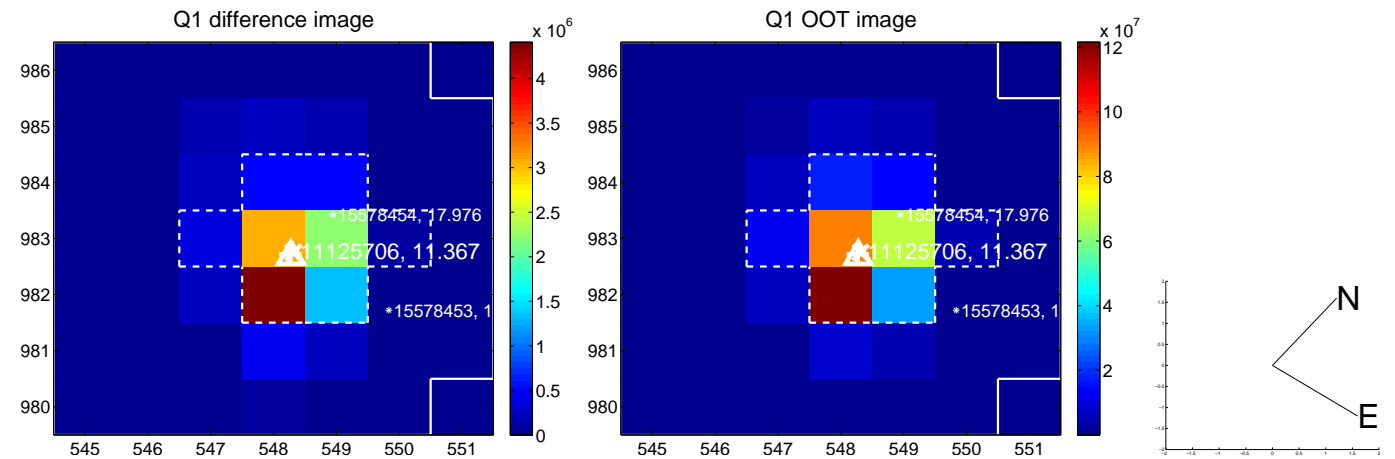
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.044 \pm 0.123$	0.36	$0.041 \pm 0.148$	$-0.018 \pm 0.201$
PRF-fit source offset from KIC position	$0.255 \pm 0.179$	1.43	$0.022 \pm 0.164$	$-0.254 \pm 0.184$
photometric centroid source offset	<b><math>6.62 \pm 1.46</math></b>	<b>4.53</b>	$-6.21 \pm 1.48$	$2.28 \pm 1.34$

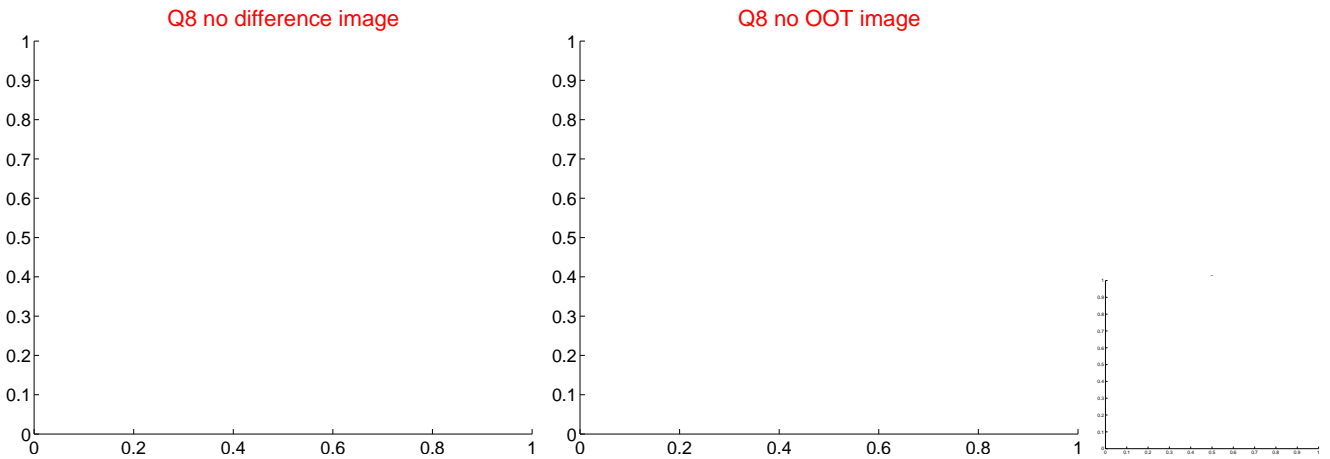
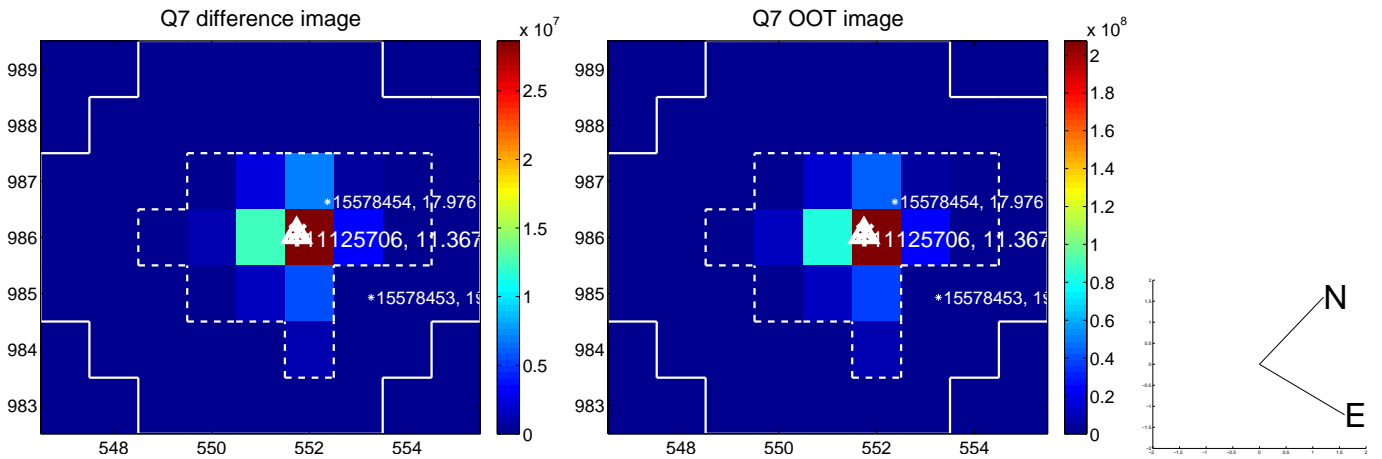
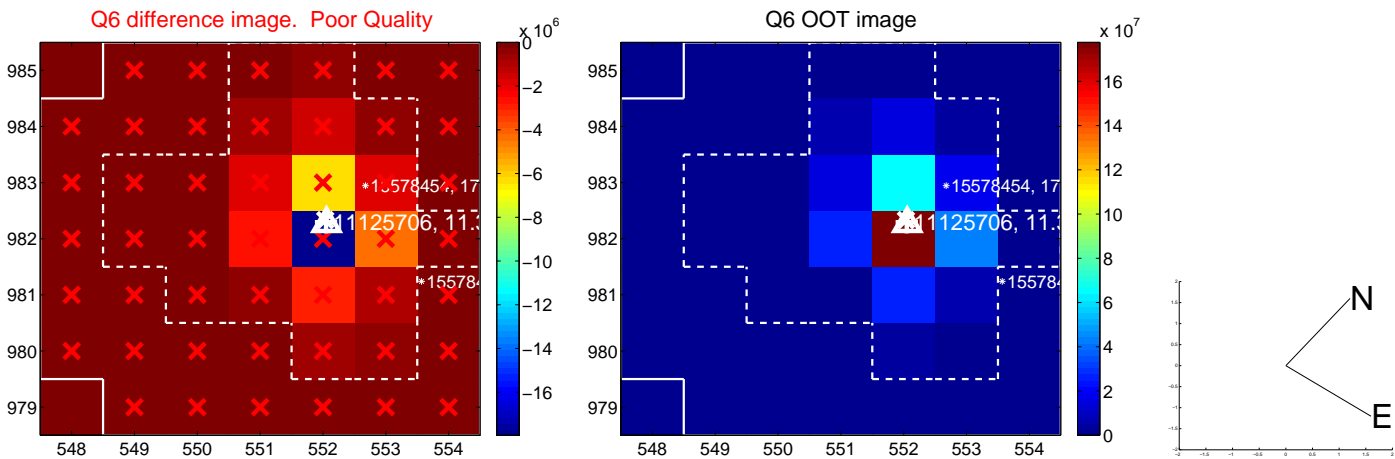
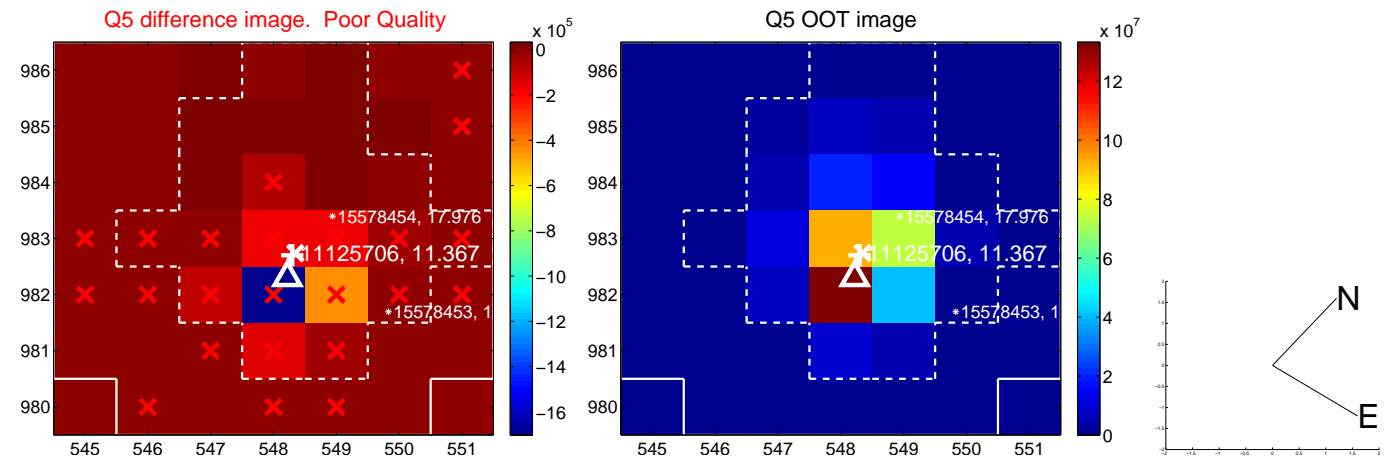


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

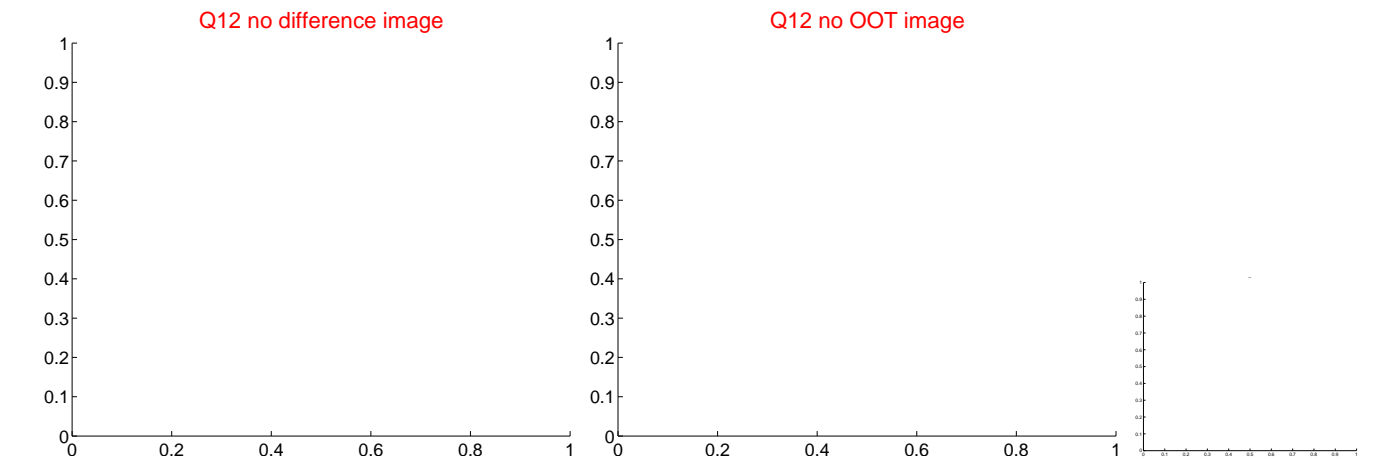
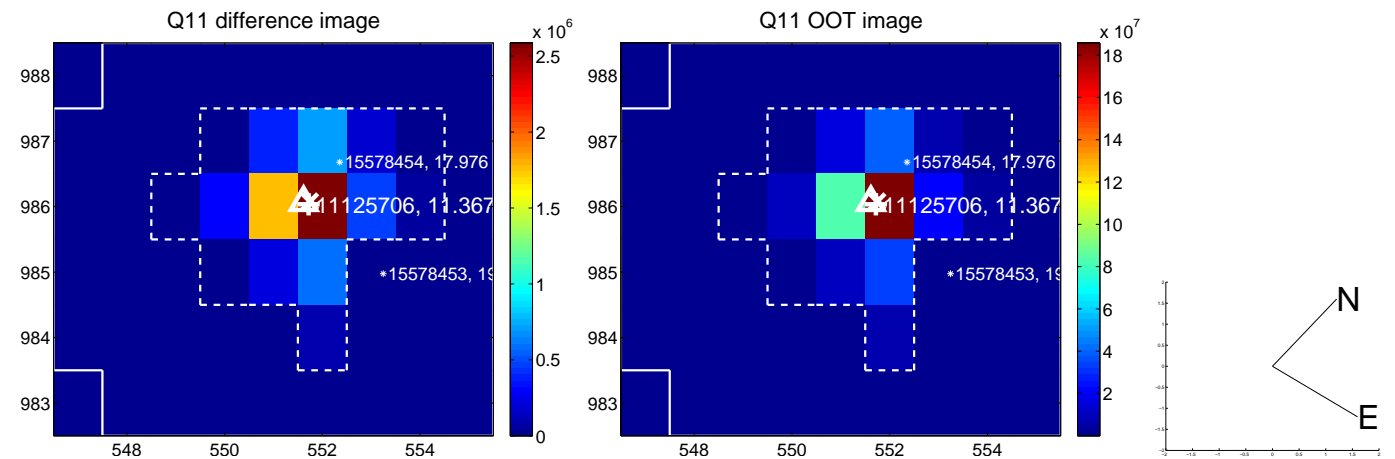
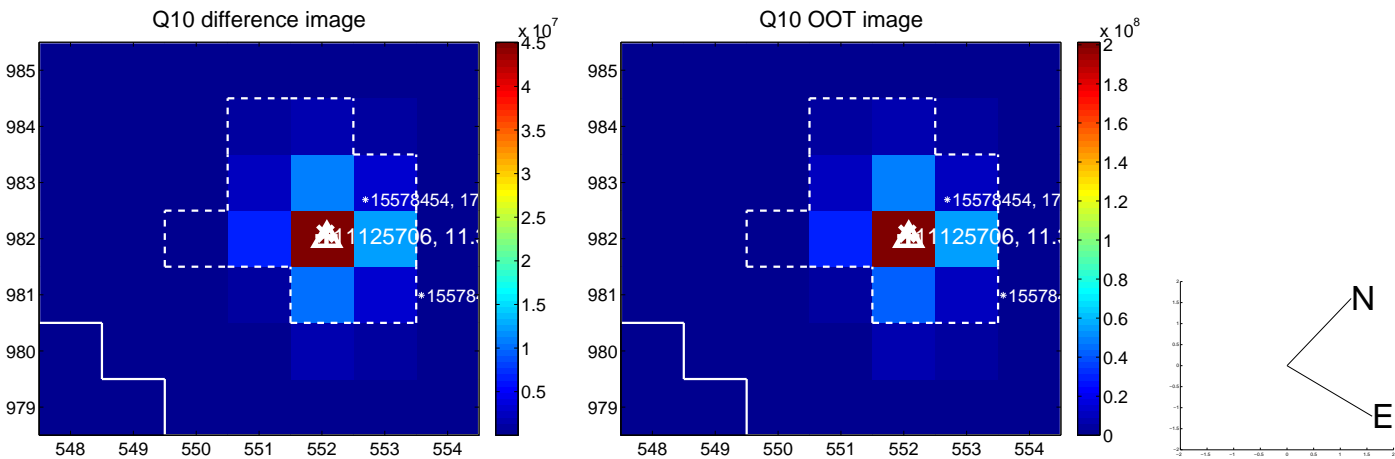
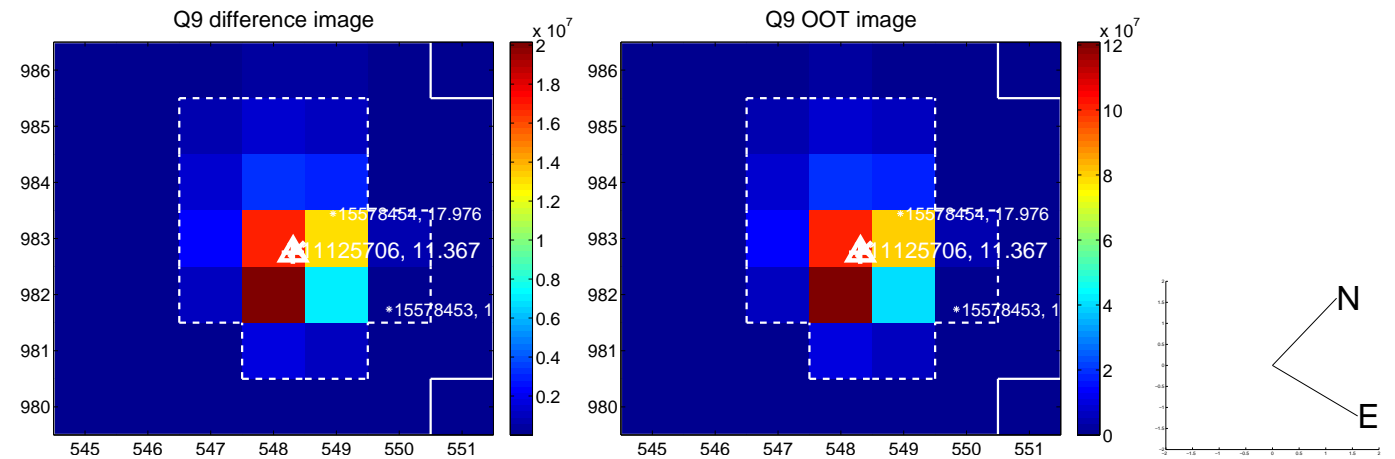


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

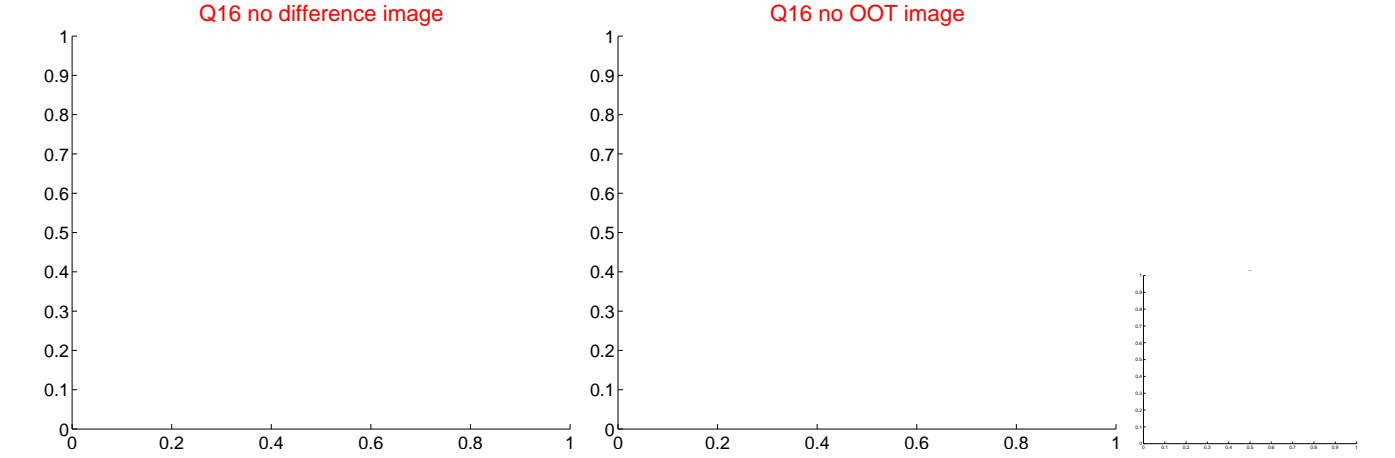
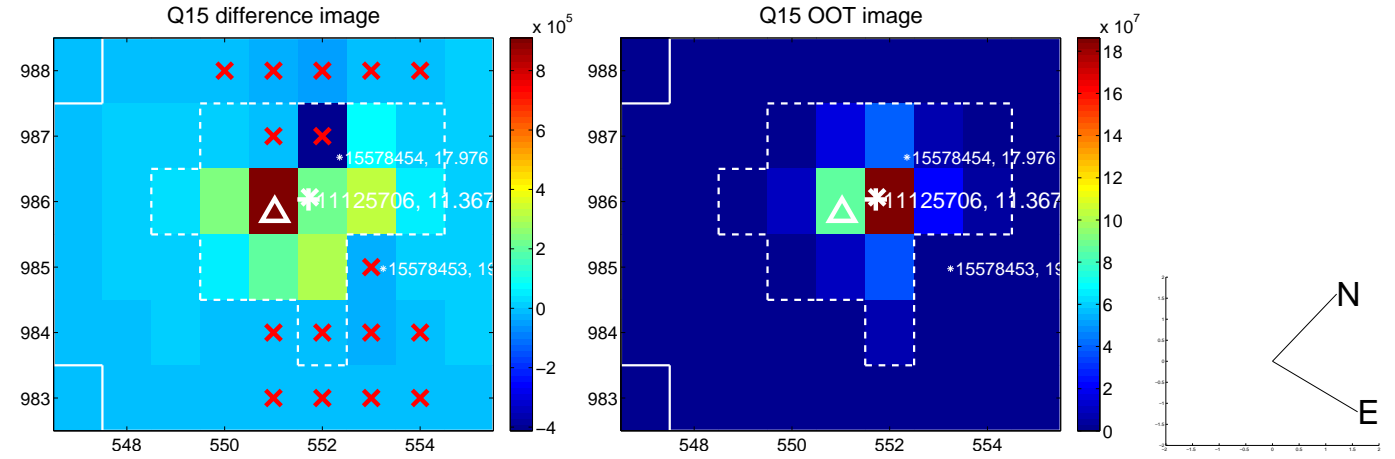
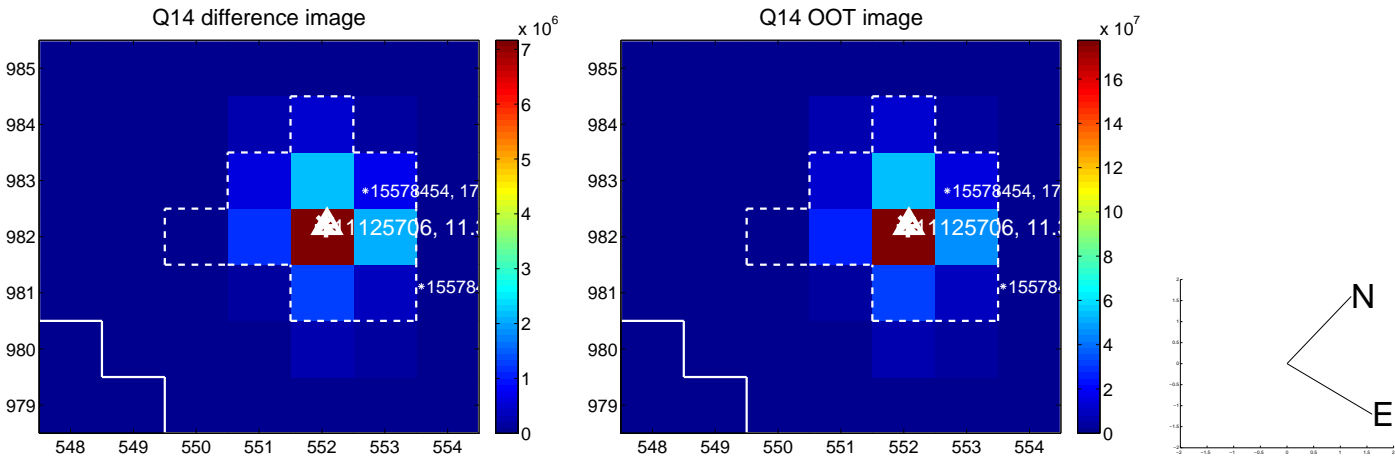
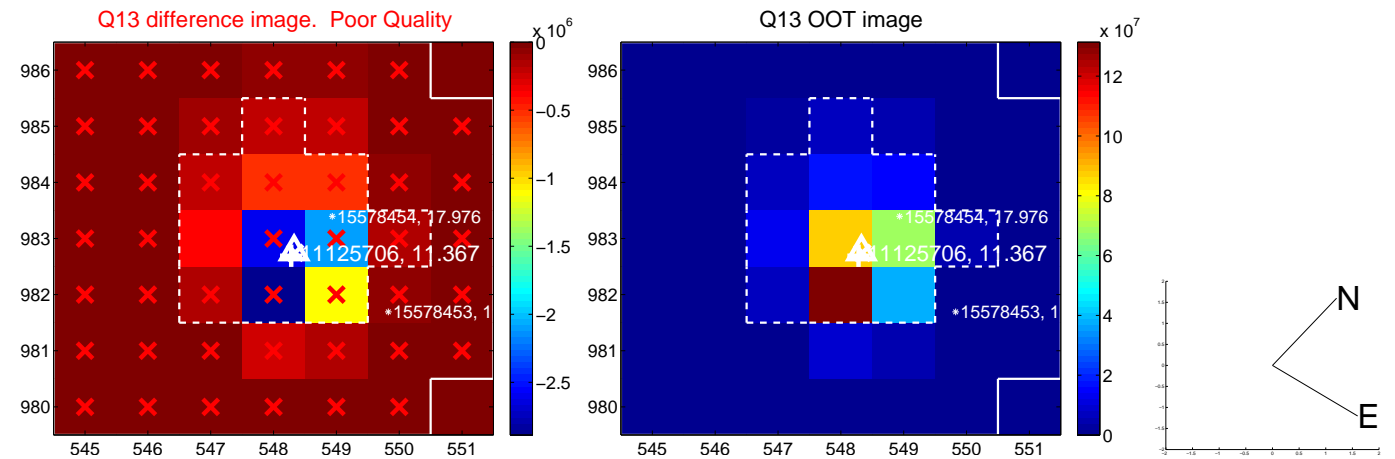




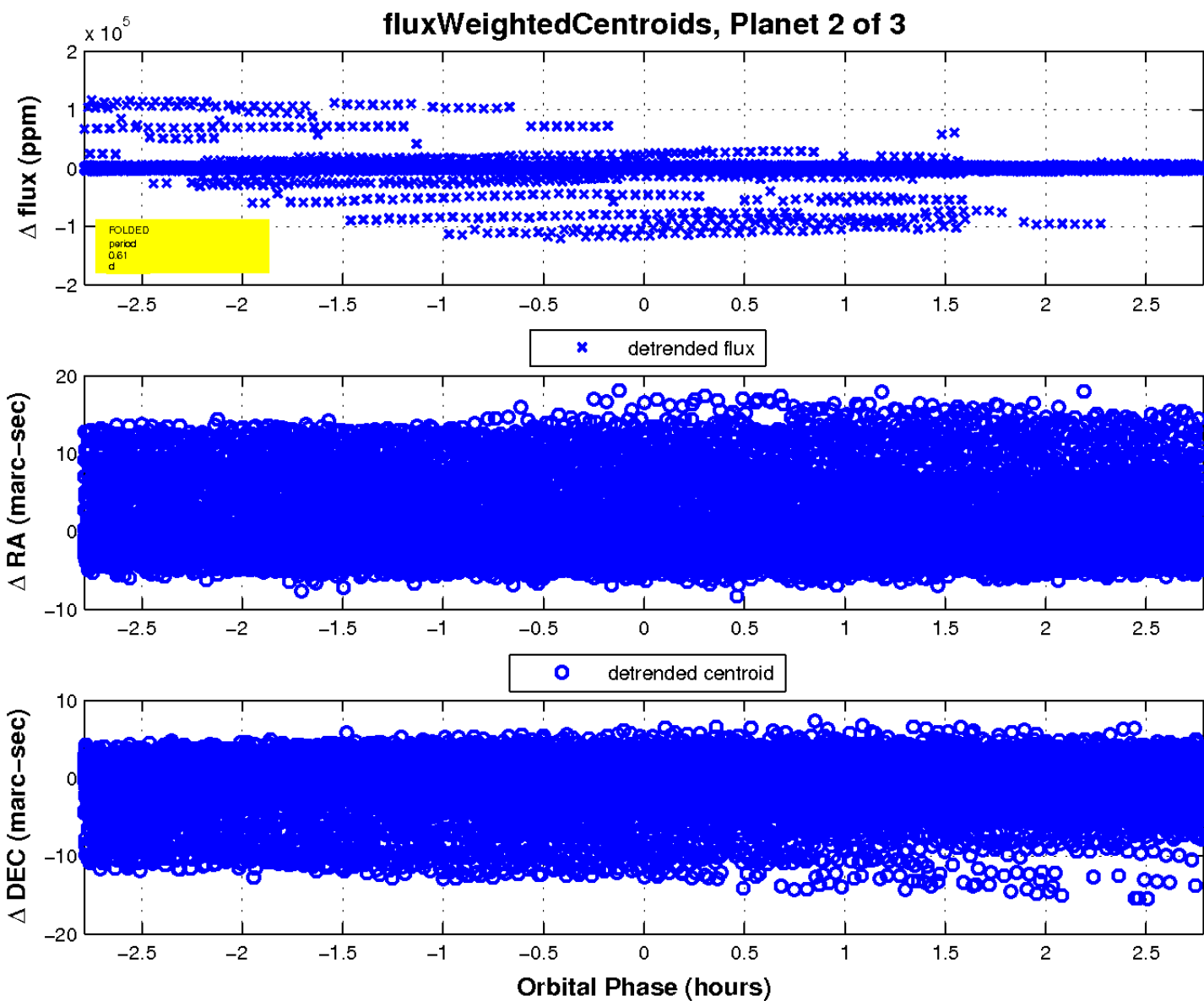
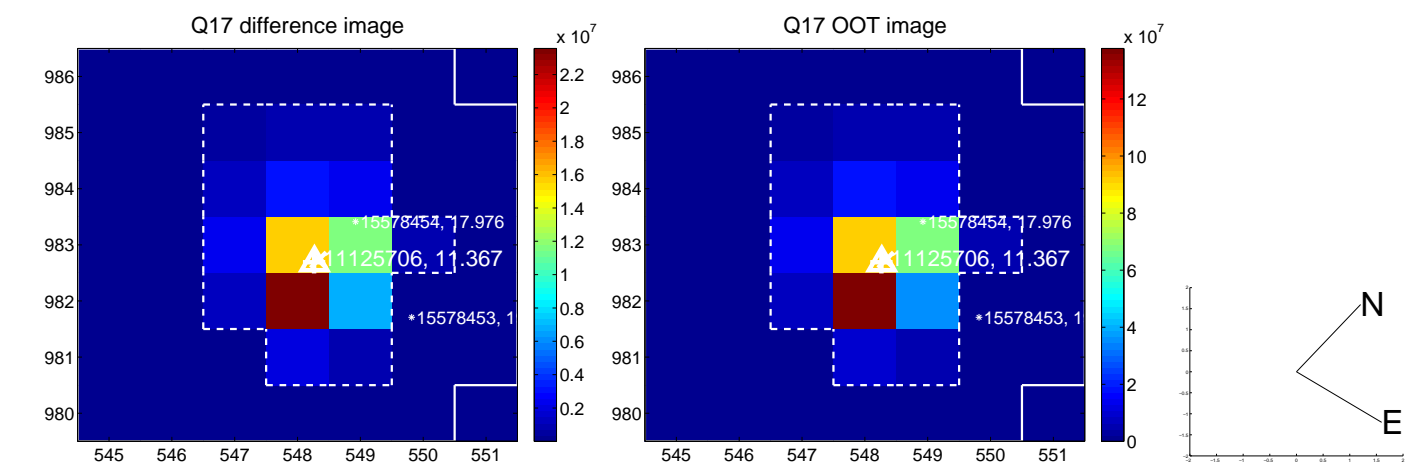
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

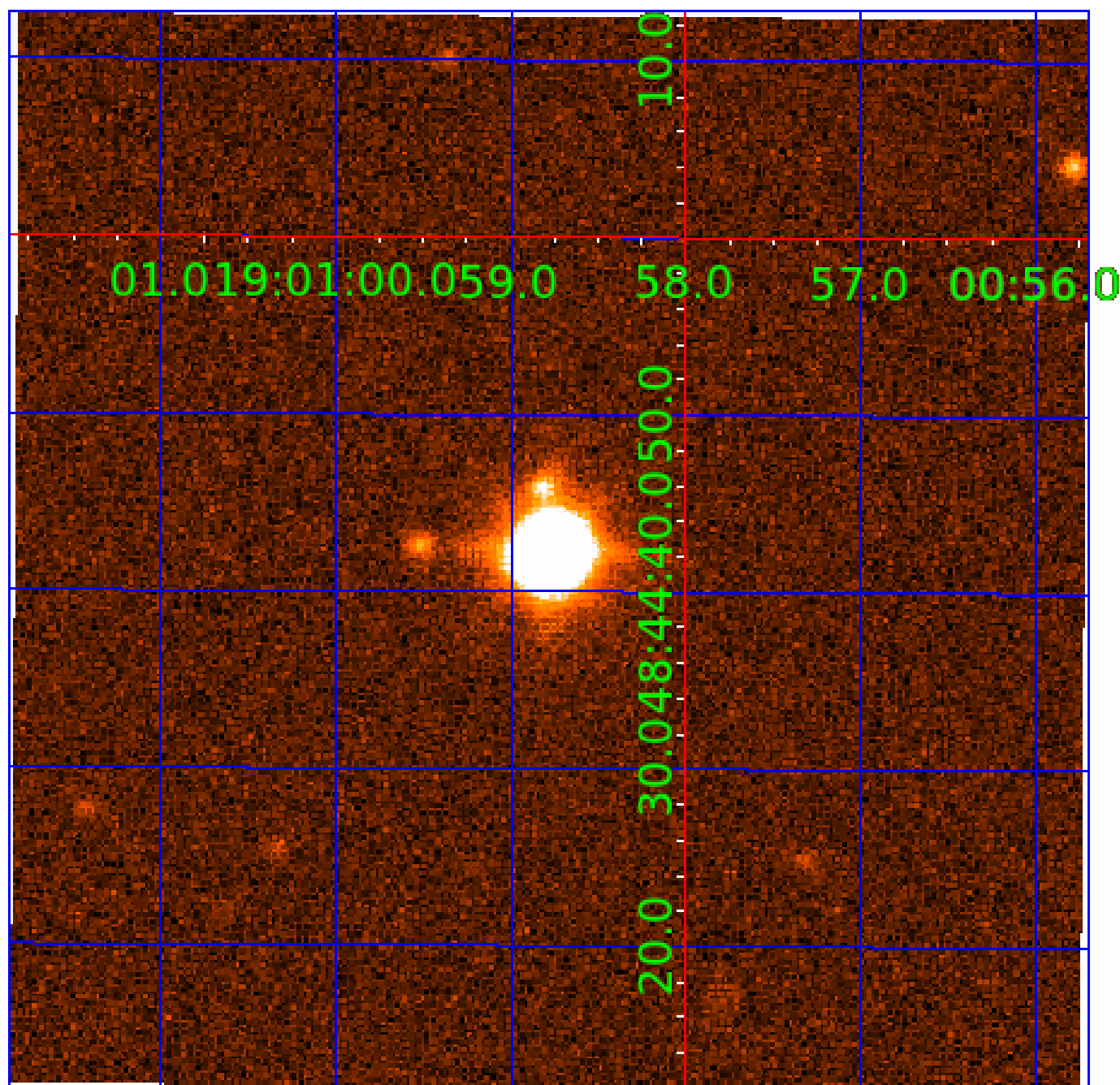


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 011125706

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011125706-01	OBS	No	0.614508	131.920338	96.4	1.241	25.8	6.1	1.43	6385	1.65	13009.11
011125706-02	OBS	No	0.610377	131.918516	23.4	0.929	15.5	1.1	1.43	6385	0.74	13126.62
011125706-03	OBS	No	0.611677	131.860994	213.2	1.500	10.4	-1.0	1.43	6385	2.10	13089.46

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011125706-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011125706-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
011125706-03	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED

**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.

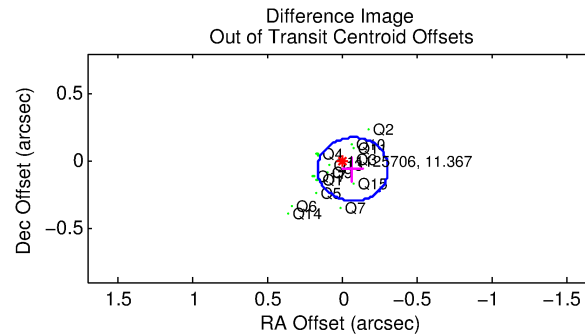
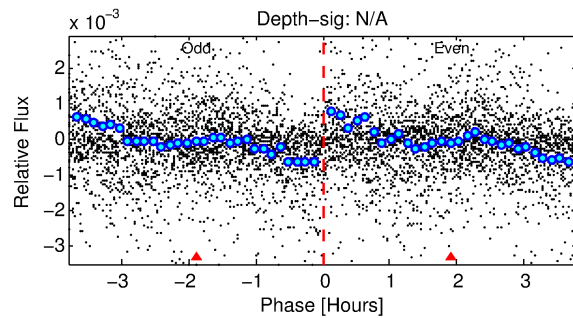
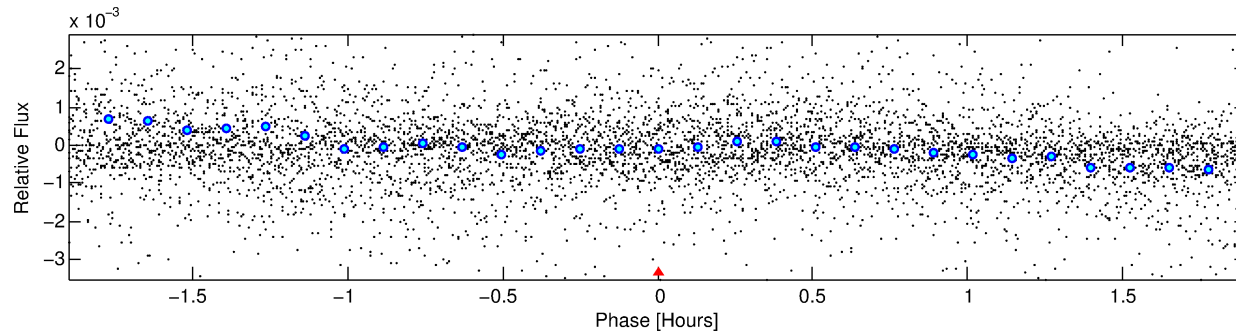
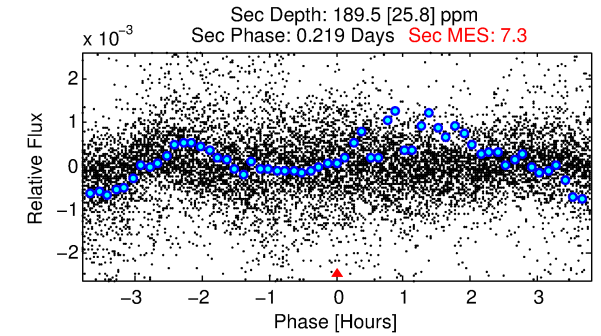
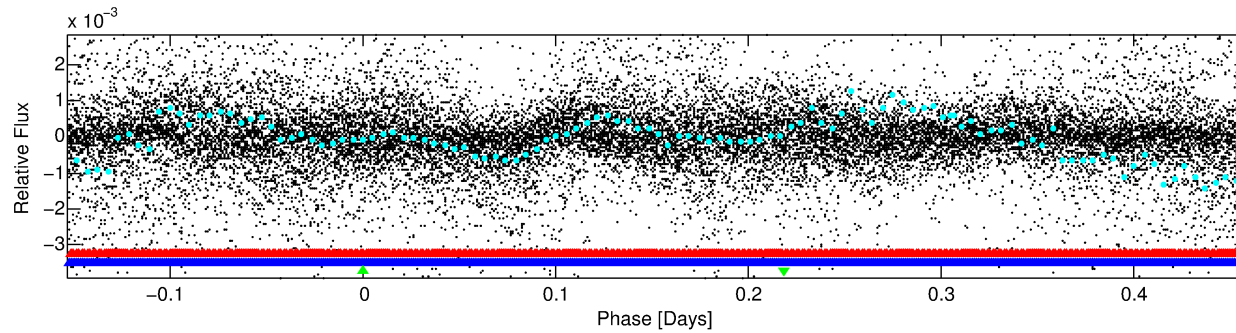
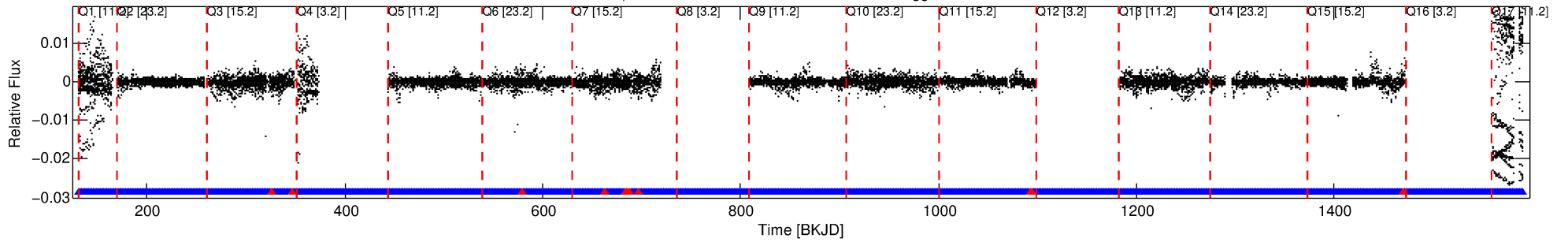
Ephemeris Match Information For 011125706-03

No Significant Match Found

# DV One-Page Summary

KIC: 11125706 Candidate: 3 of 3 Period: 0.612 d

Kp: 11.37 R\*: 1.43 Rs Teff: 6385.0 K Logg: 4.23 Fe/H: 0.070



## TPS TCE Results:

Period = 0.61168 d  
Epoch = 131.8610 BKJD

DV fit results are unavailable

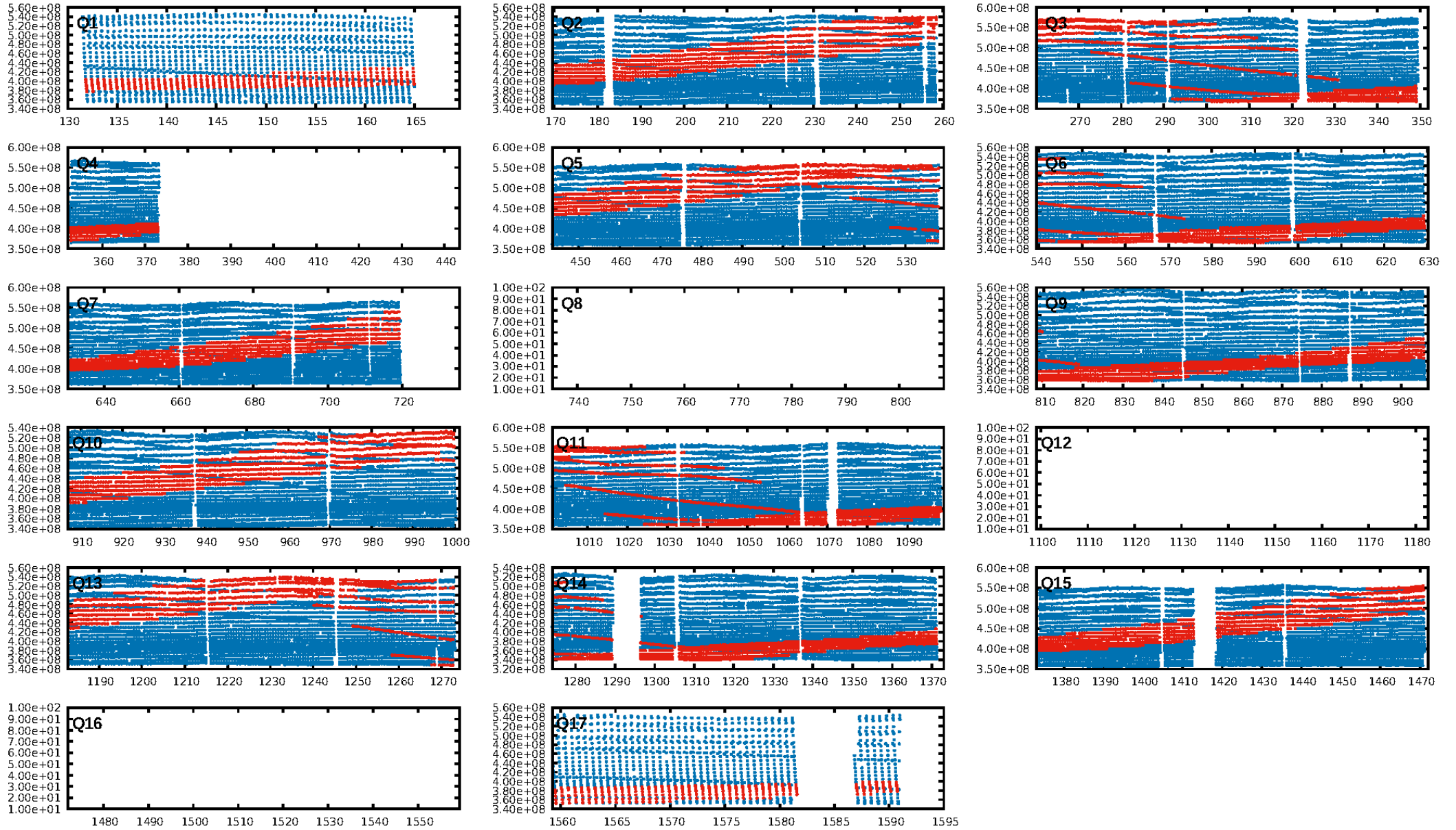
## DV Diagnostic Results:

ShortPeriod-sig: 1.4% [0.02σ]  
LongPeriod-sig: 2.8% [0.03σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.99 [924/936]  
GhostDiagnostic-chr: -1.124

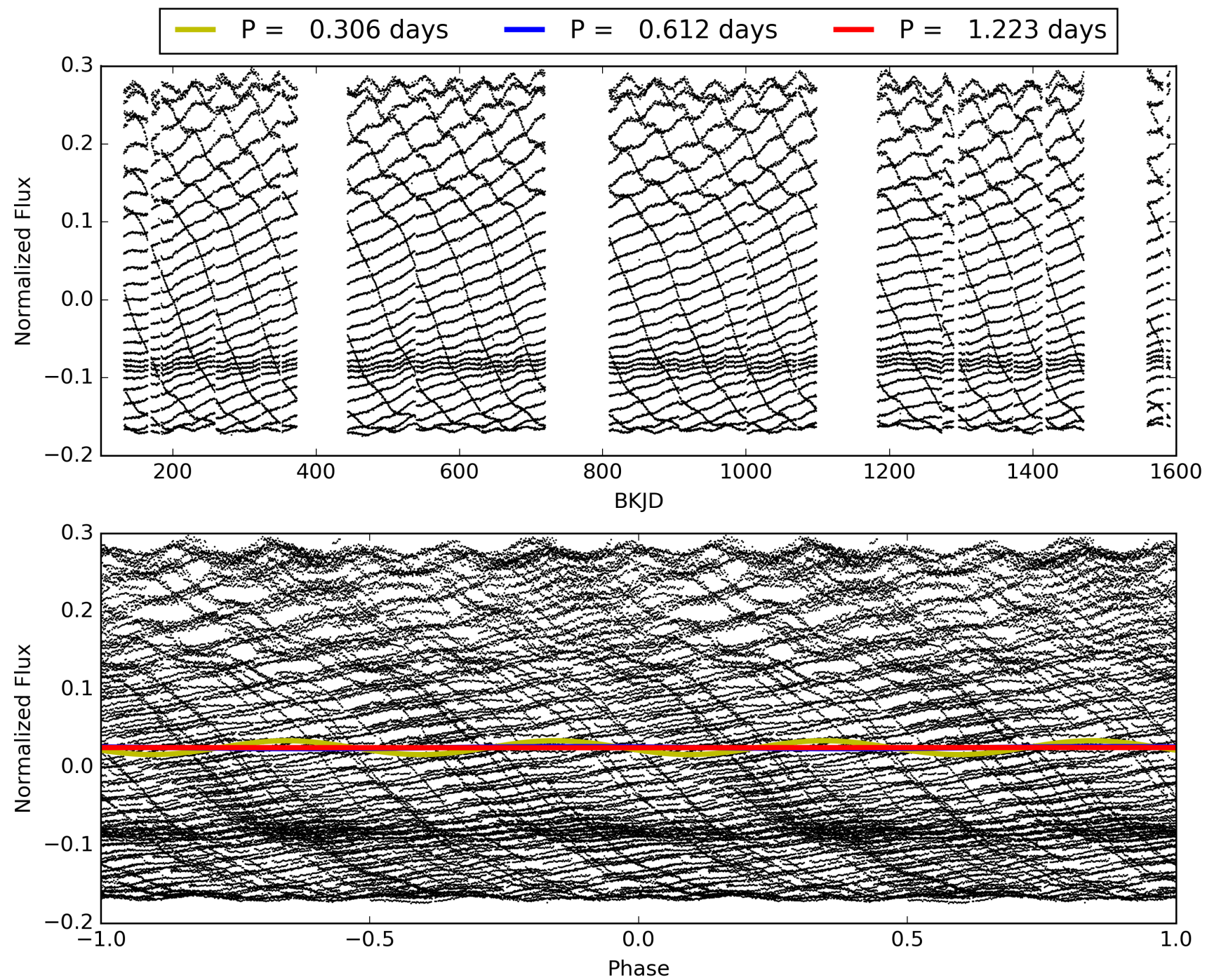
Centroid-sig: N/A  
Centroid-so: 0.143 arcsec [2.35σ]  
OotOffset-rm: 0.096 arcsec [1.22σ]  
KicOffset-rm: 0.220 arcsec [2.34σ]  
OotOffset-st: 4/4/1/5 [14]  
KicOffset-st: 4/4/1/5 [14]  
DiffImageQuality-fgm: 0.57 [8/14]  
DiffImageOverlap-fno: 0.14 [2/14]



# TCE 011125706-03, PDC Light Curves

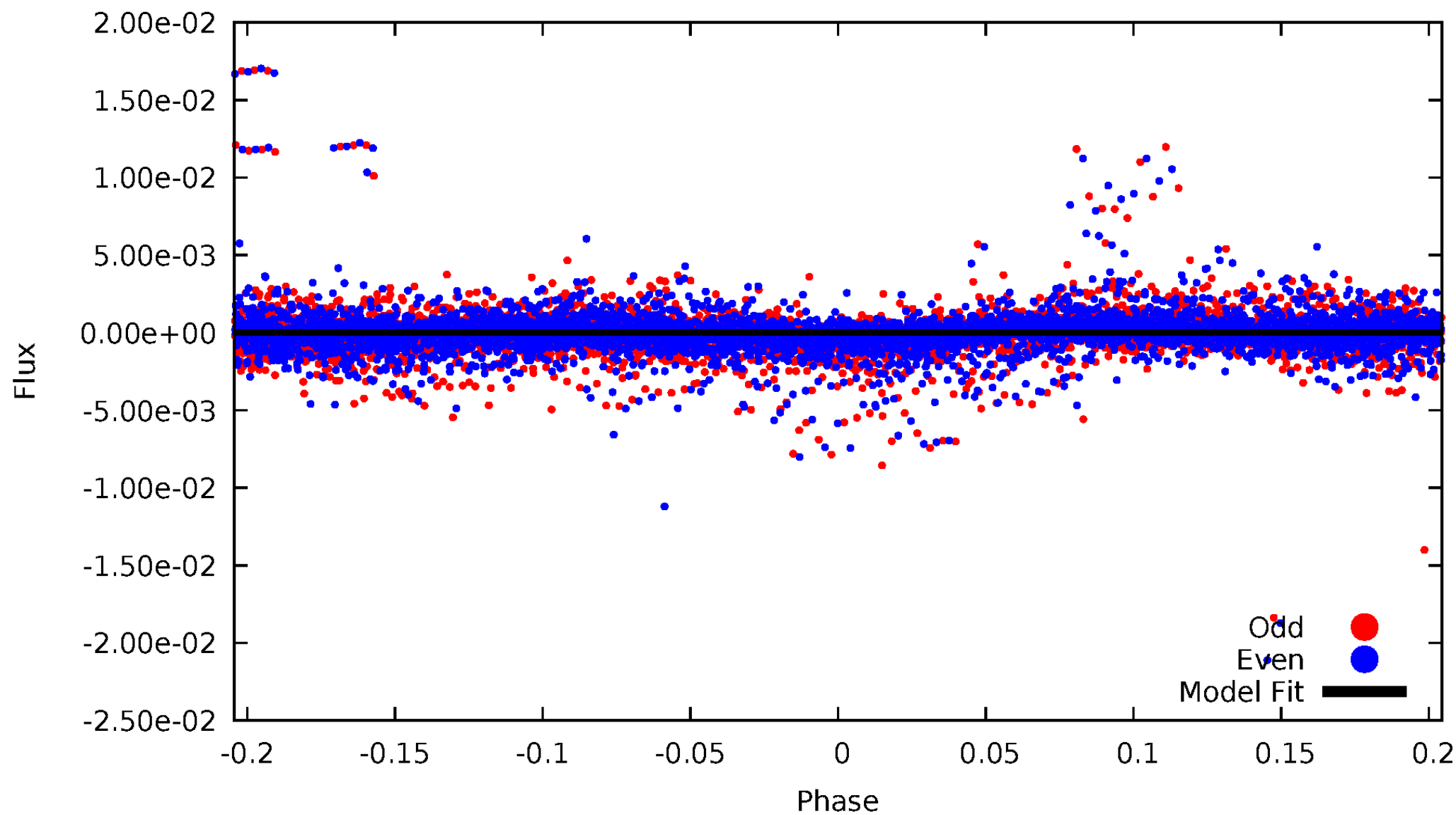


TCE 011125706-03



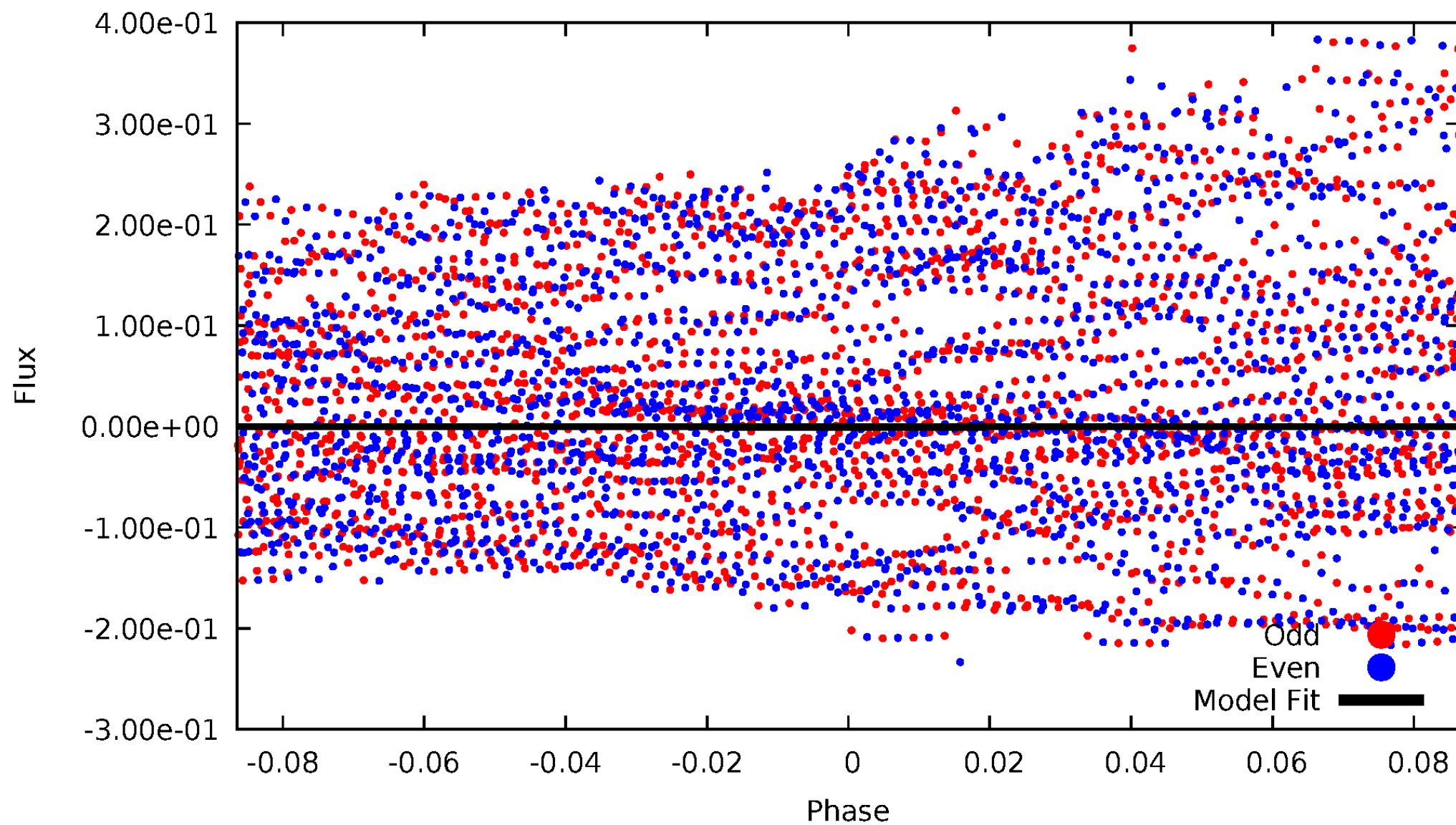
# DV Odd/Even

TCE 011125706-03



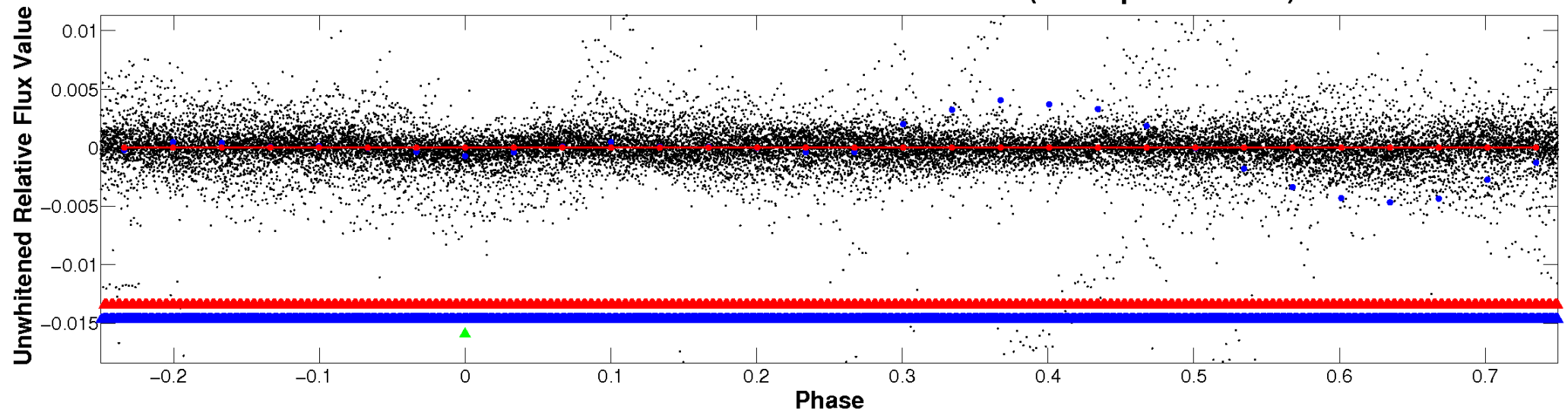
# ALT Odd/Even

TCE 011125706-03

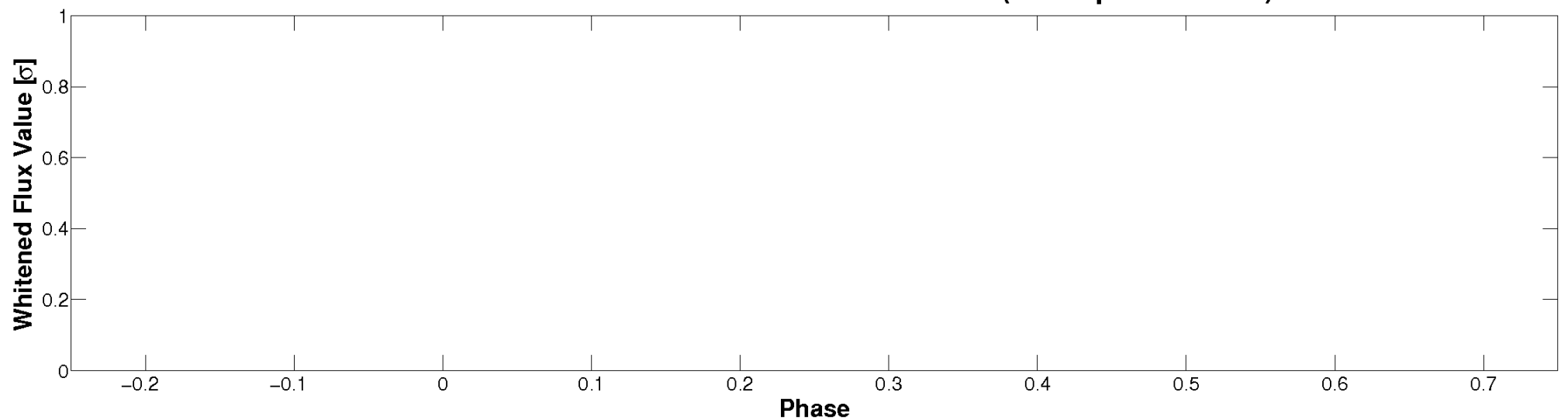


# Non-Whitened Vs. Whitened Light Curve

**Planet 3 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)**



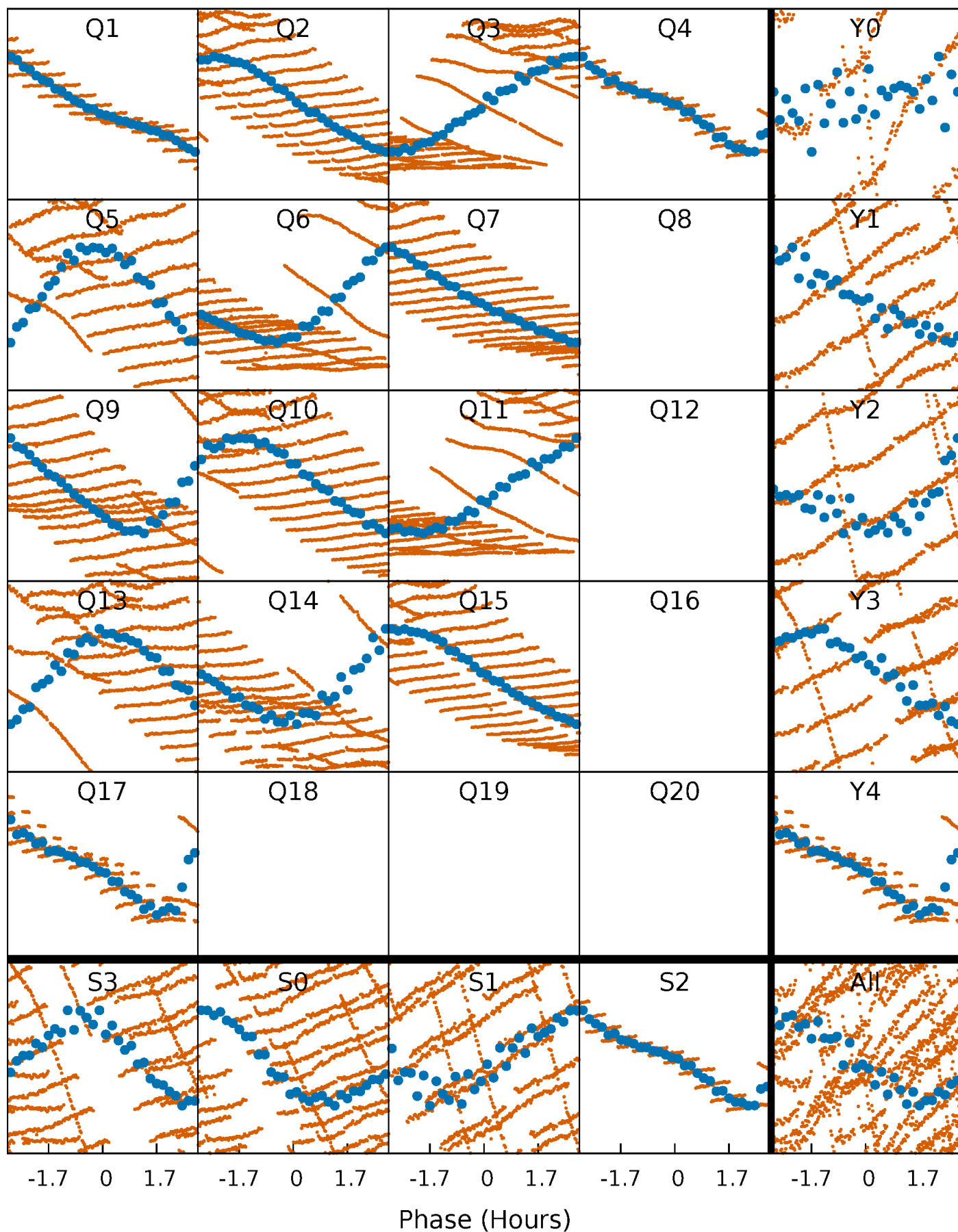
**Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)**





# PDC Quarter-Phased Transit Curves

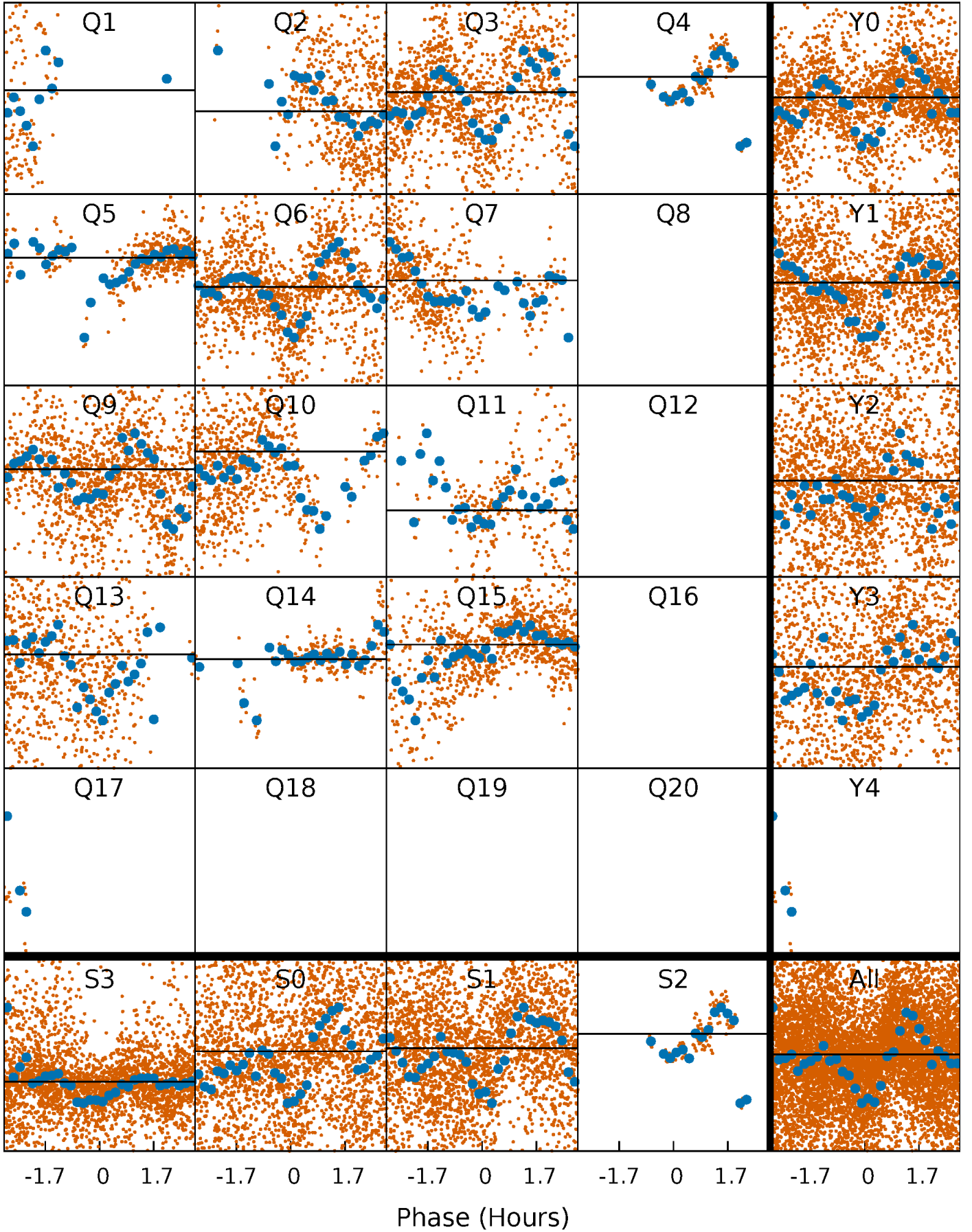
TCE 011125706-03 P= 0.611677 Days  $T_0=131.860994$  (BKJD)





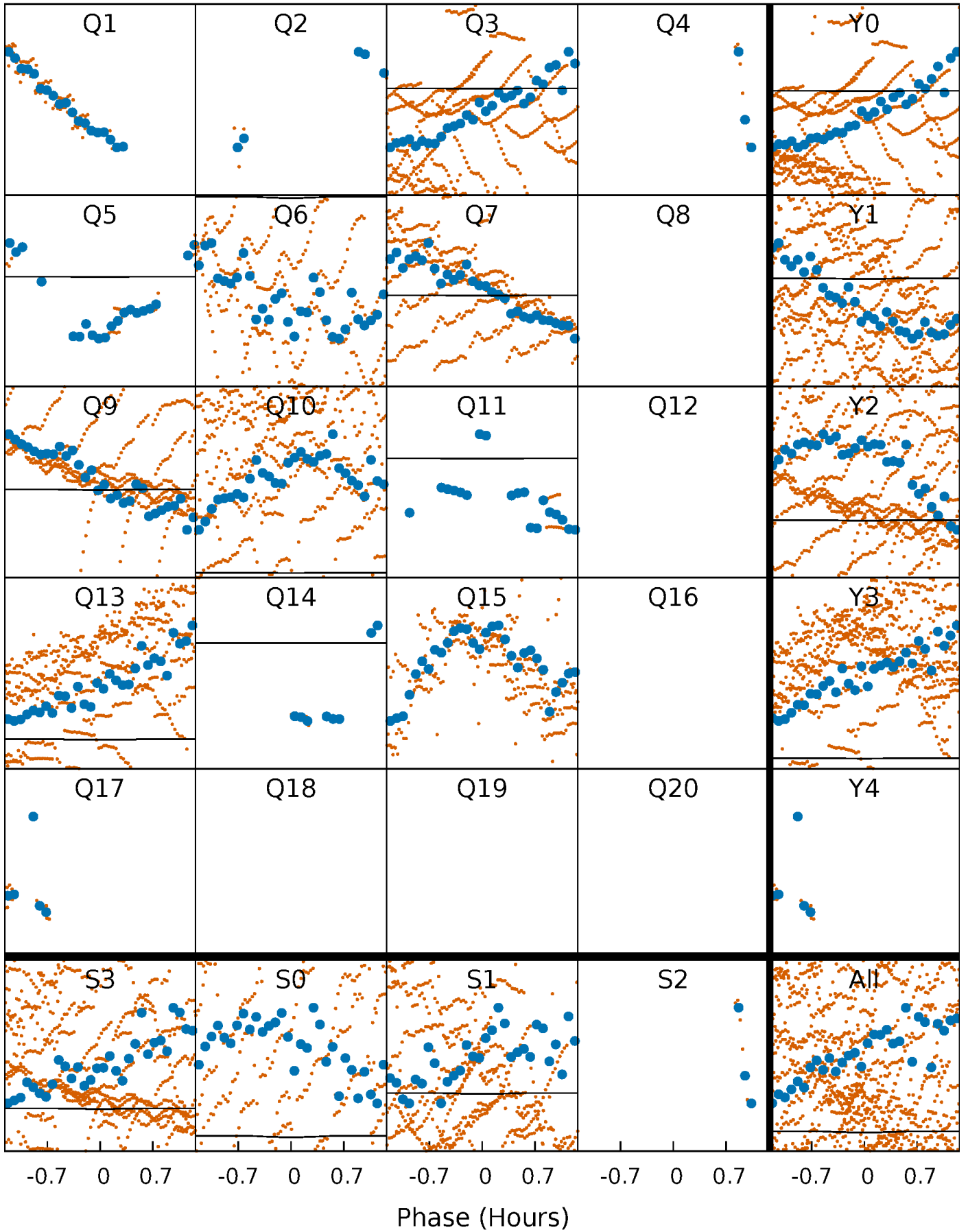
# DV Quarter-Phased Transit Curves

TCE 011125706-03   P= 0.611677 Days    $T_0=131.860994$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

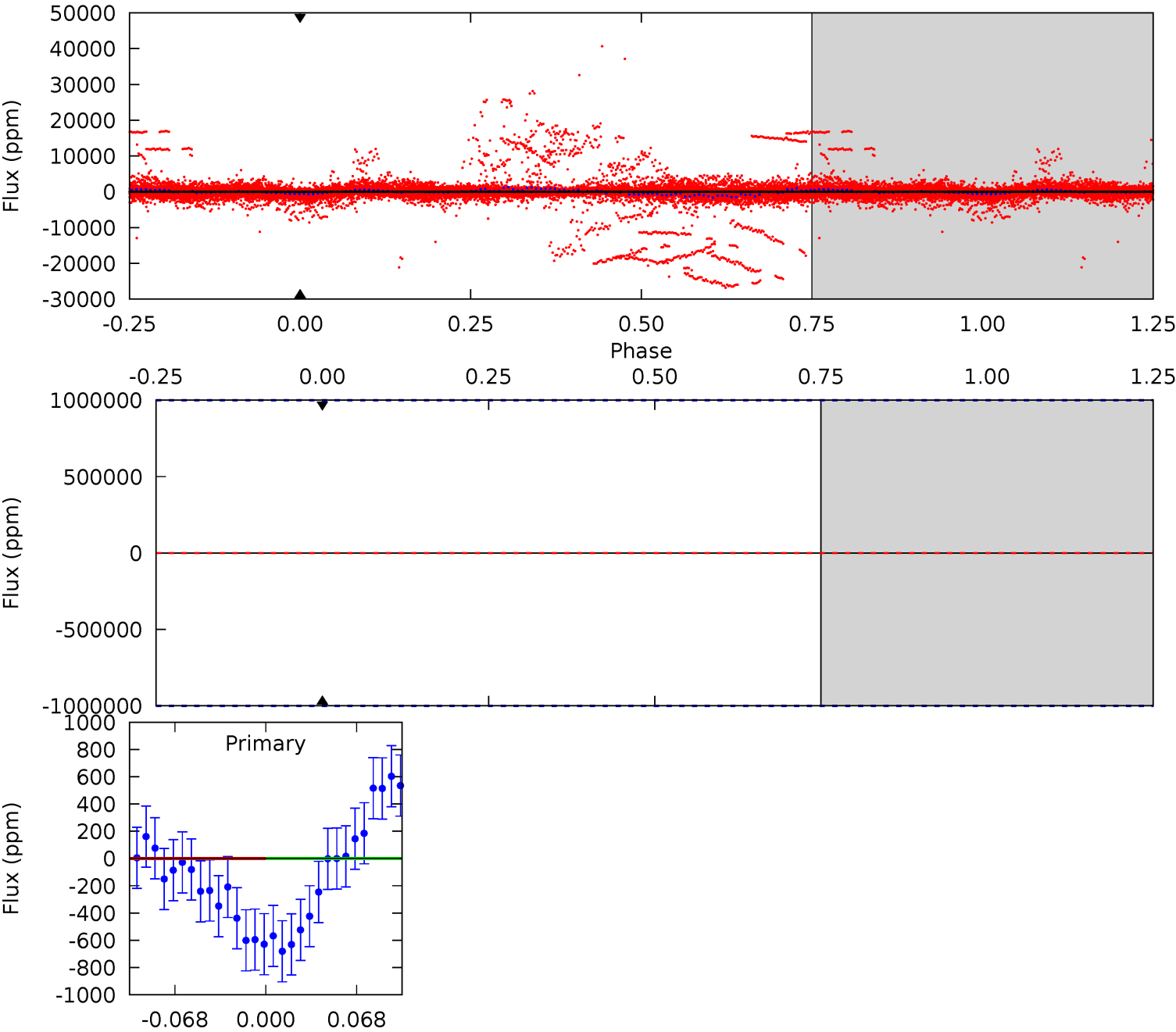
TCE 011125706-03 P= 0.611677 Days  $T_0=131.792971$  (BKJD)



DV Model-Shift Uniqueness Test

011125706-03, P = 0.611677 Days, E = 131.249317 Days

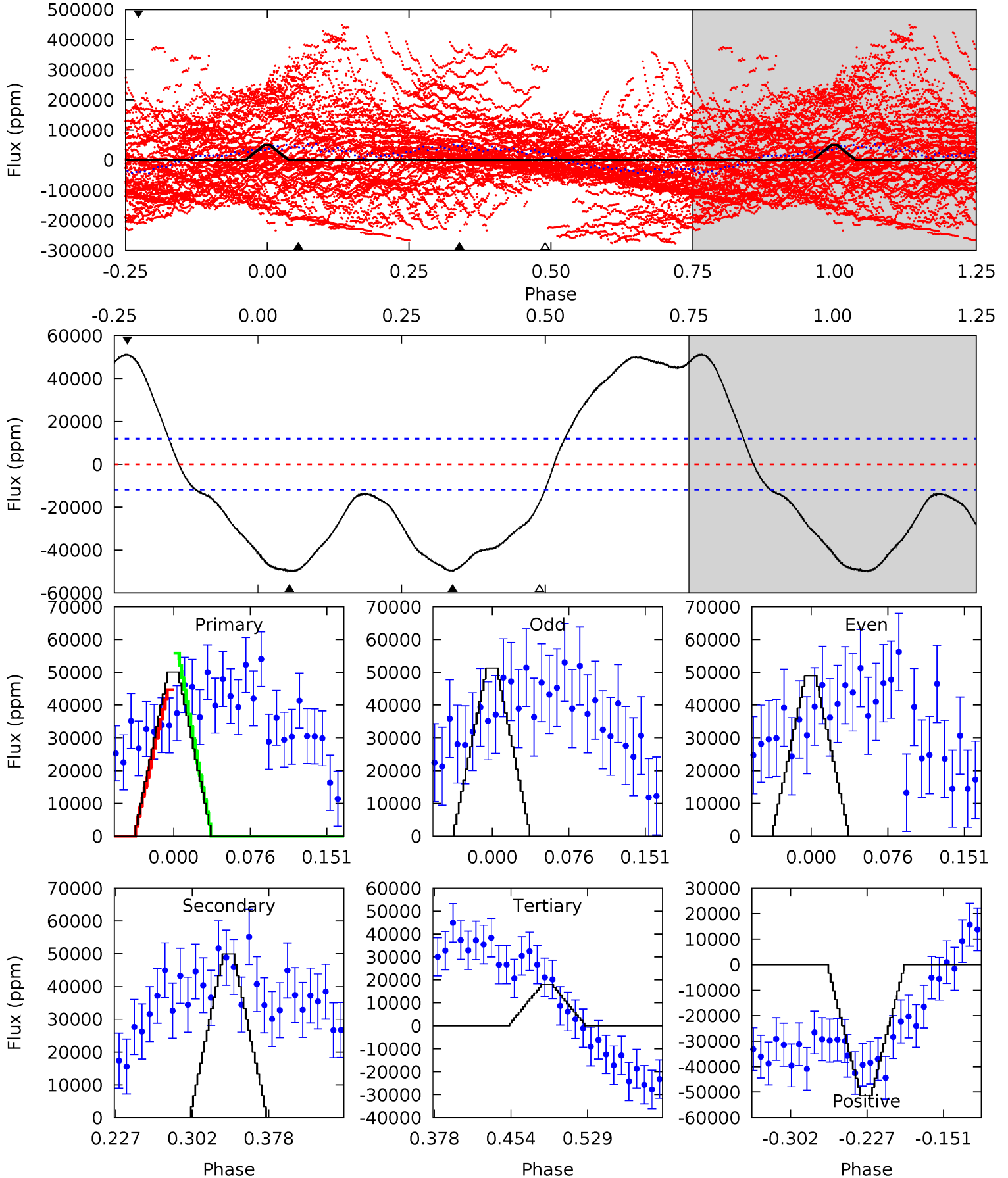
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

011125706-03, P = 0.611677 Days, E = 131.181294 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
19.6	19.5	7.02	20.1	4.62	1.78	12.2	12.6	-0.55	12.5	-0.61	0.46	2.43	0.51	2.16



### Stellar Parameters For KIC 011125706

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6385^{+177}_{-243}$	$4.228^{+0.153}_{-0.204}$	$0.070^{+0.250}_{-0.300}$	$1.426^{+0.462}_{-0.308}$	$1.252^{+0.189}_{-0.189}$	$0.608^{+0.419}_{-0.315}$
	+3%/-4%	+4%/-5%	+357%/-429%	+32%/-22%	+15%/-15%	+69%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 011125706-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$11.16^{+12.26}_{-7.76}$	$3826^{+317}_{-261}$	$-5241^{+33130}_{-25910}$	$-2.229^{+171.707}_{-210.276}$
Alt.	$-49934 \pm 2555$	$11.95^{+12.24}_{-8.71}$	$3816^{+307}_{-259}$	$13314^{+55947}_{-5437}$	$46^{+565}_{-35}$

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

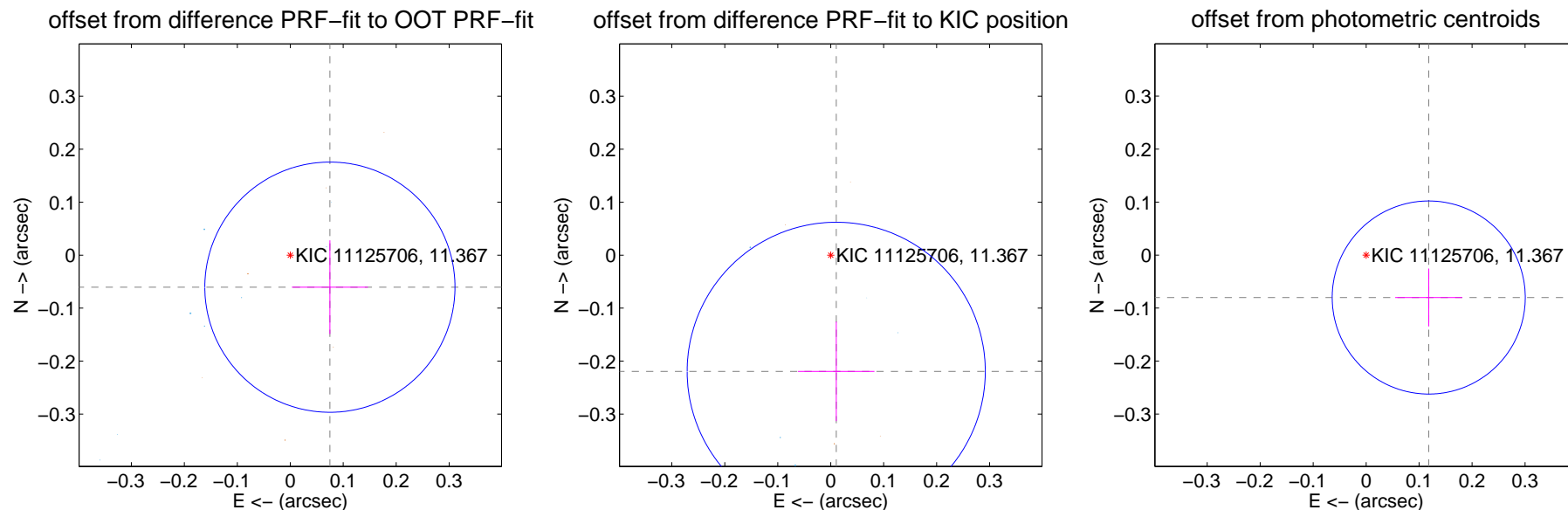
## DV Centroid Data

Supplemental centroid analysis for 011125706-03. **Kepler magnitude: 11.37.** Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

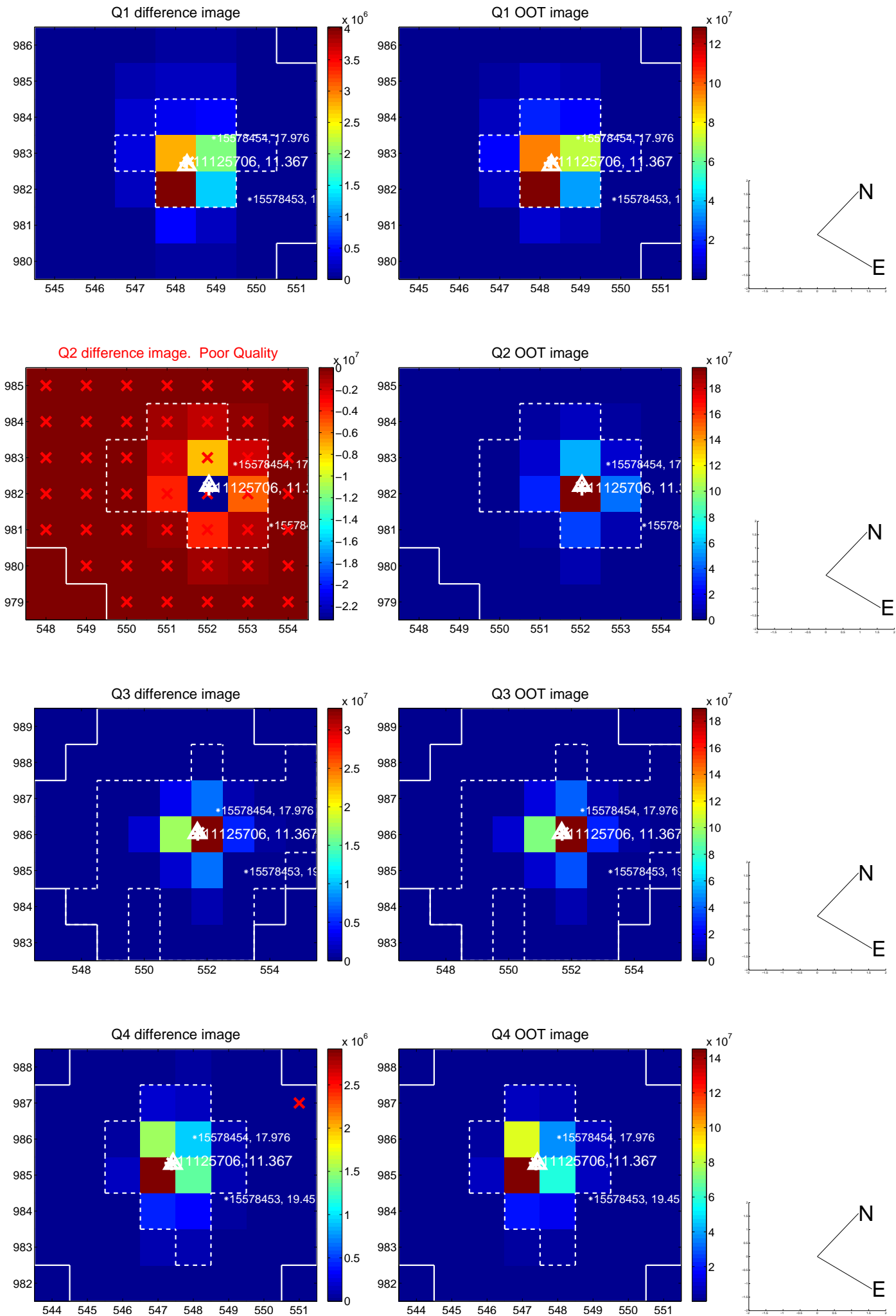
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.096 \pm 0.079$	1.22	$-0.075 \pm 0.072$	$-0.060 \pm 0.088$
PRF-fit source offset from KIC position	$0.220 \pm 0.094$	2.34	$-0.010 \pm 0.072$	$-0.219 \pm 0.094$
photometric centroid source offset	$0.14 \pm 0.06$	2.35	$-0.12 \pm 0.06$	$-0.08 \pm 0.05$



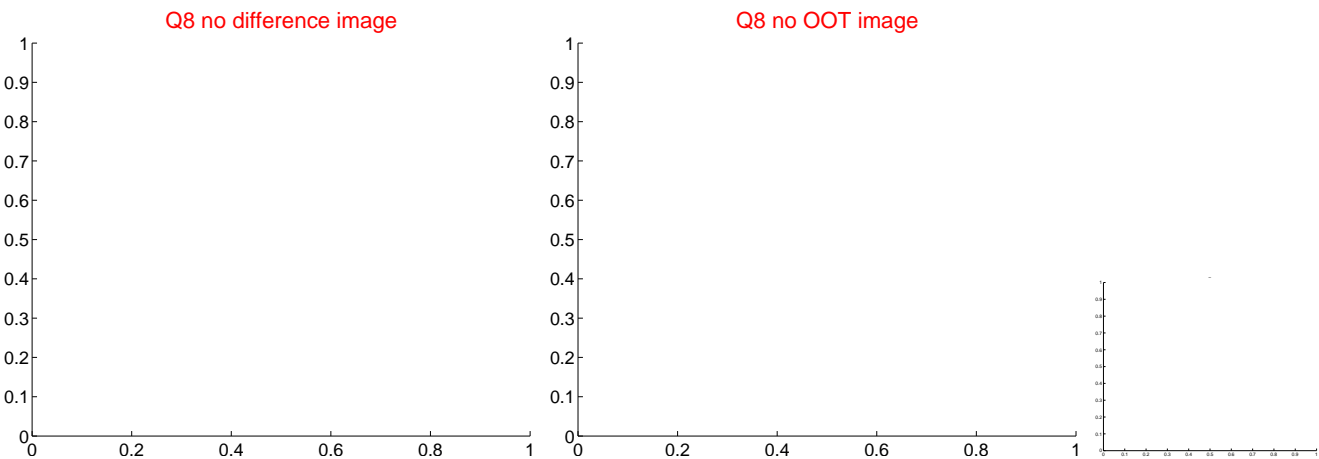
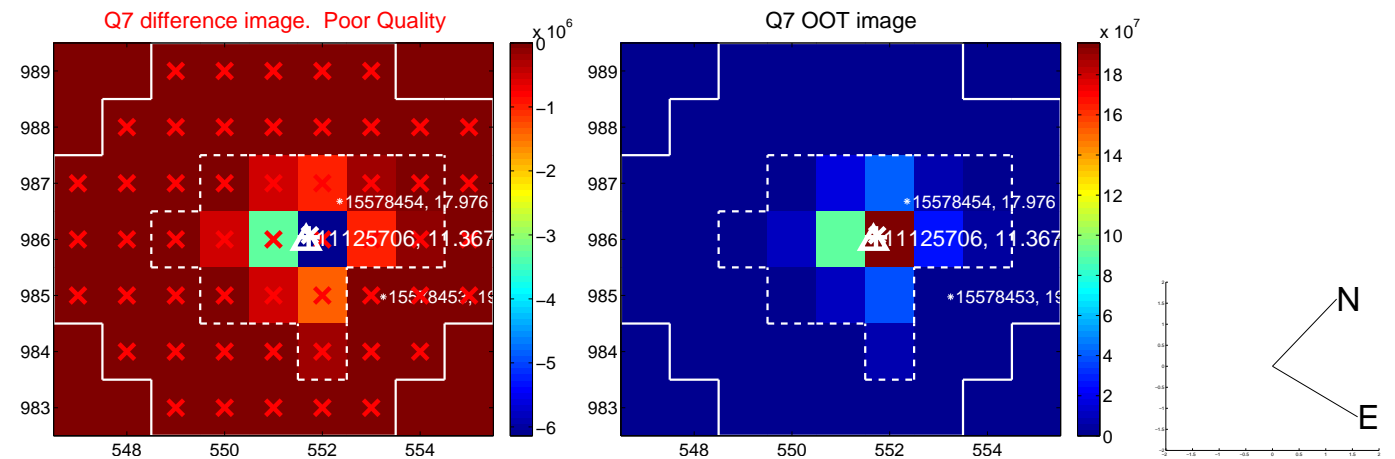
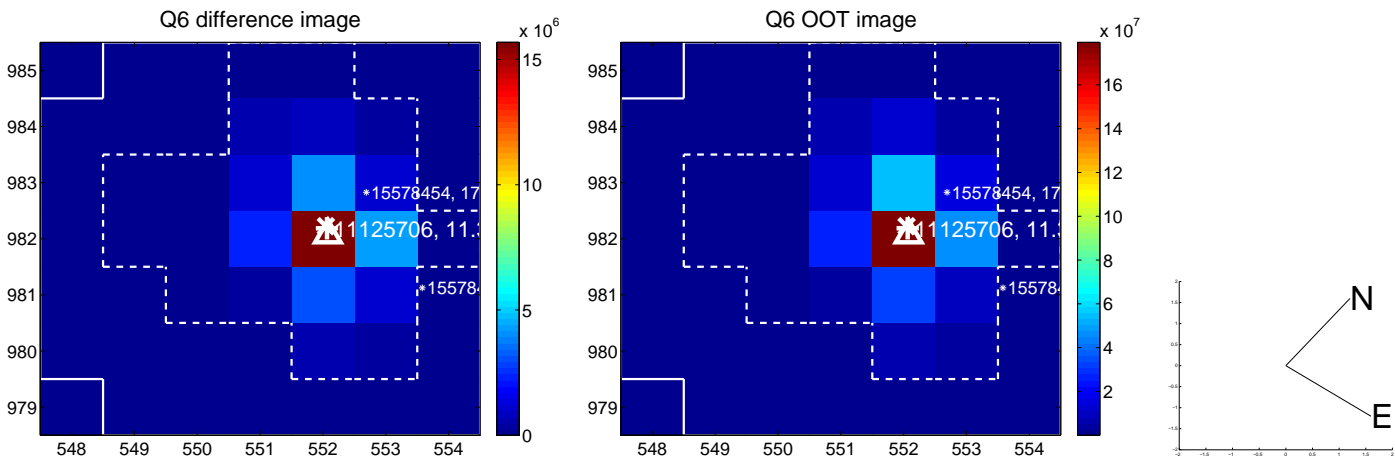
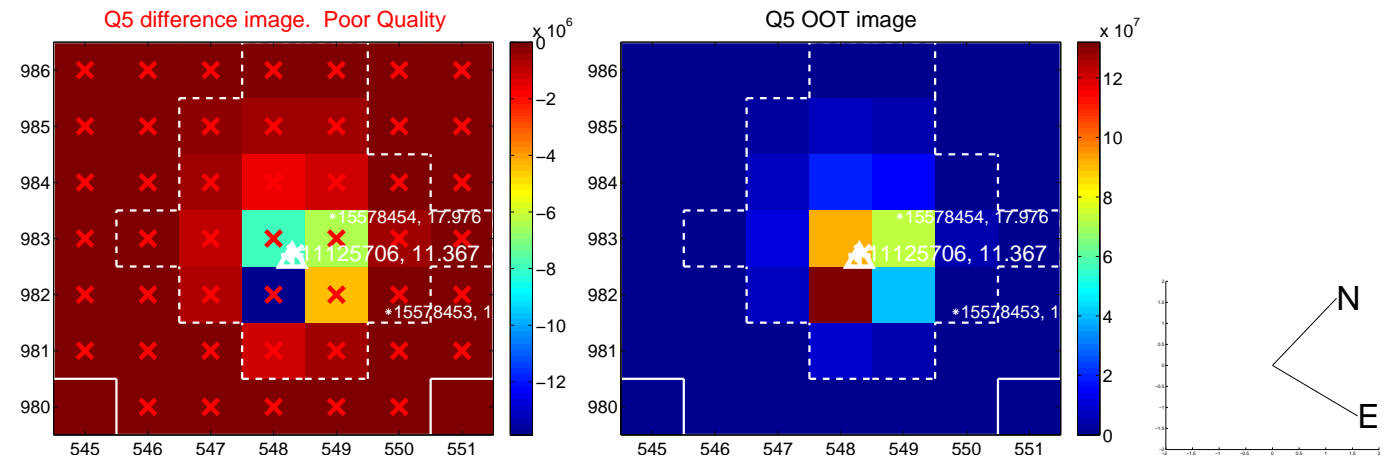
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



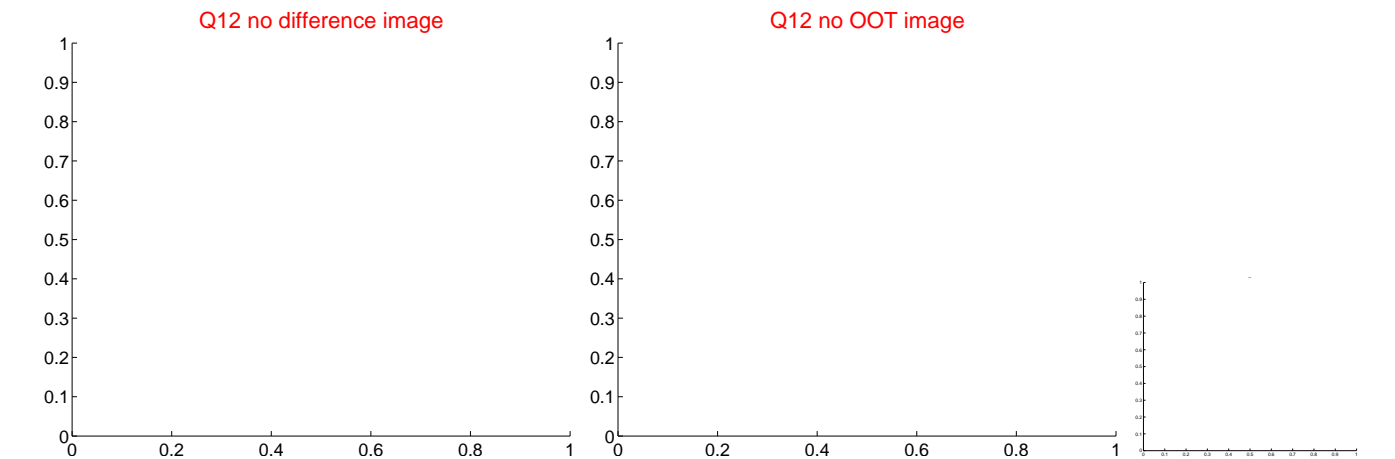
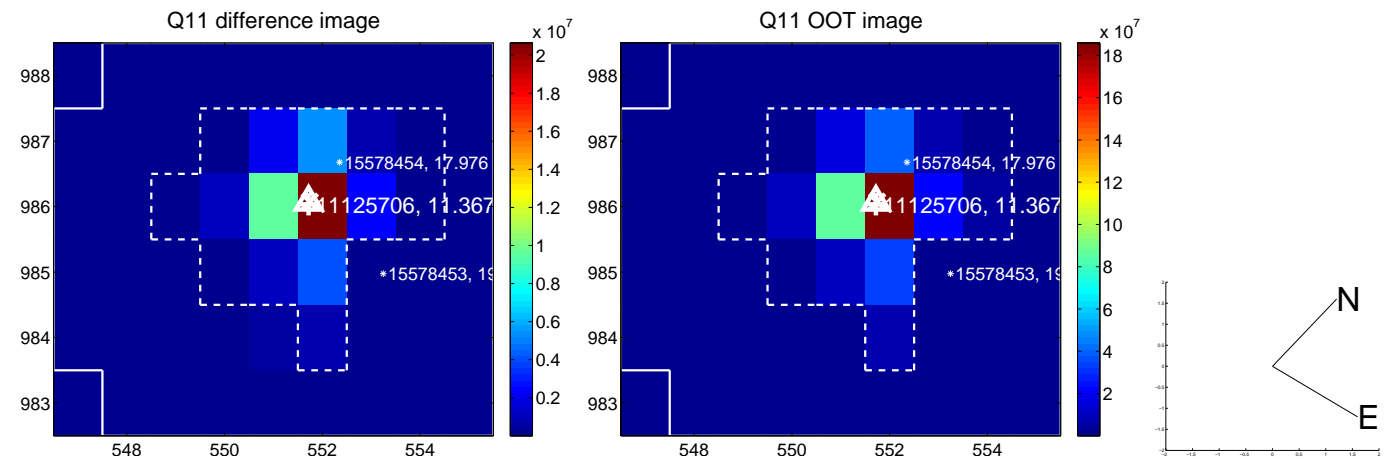
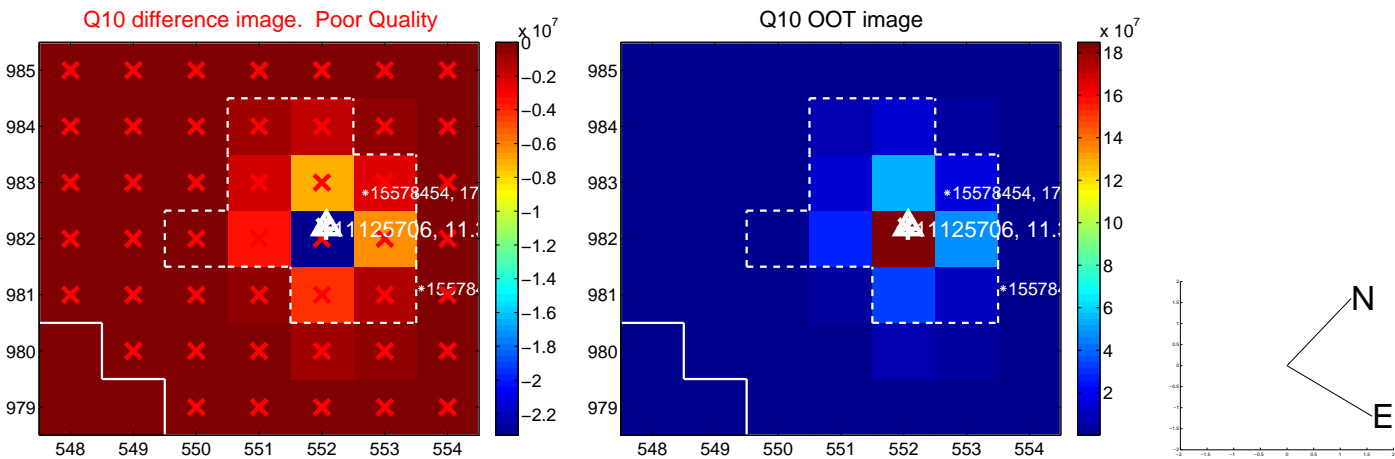
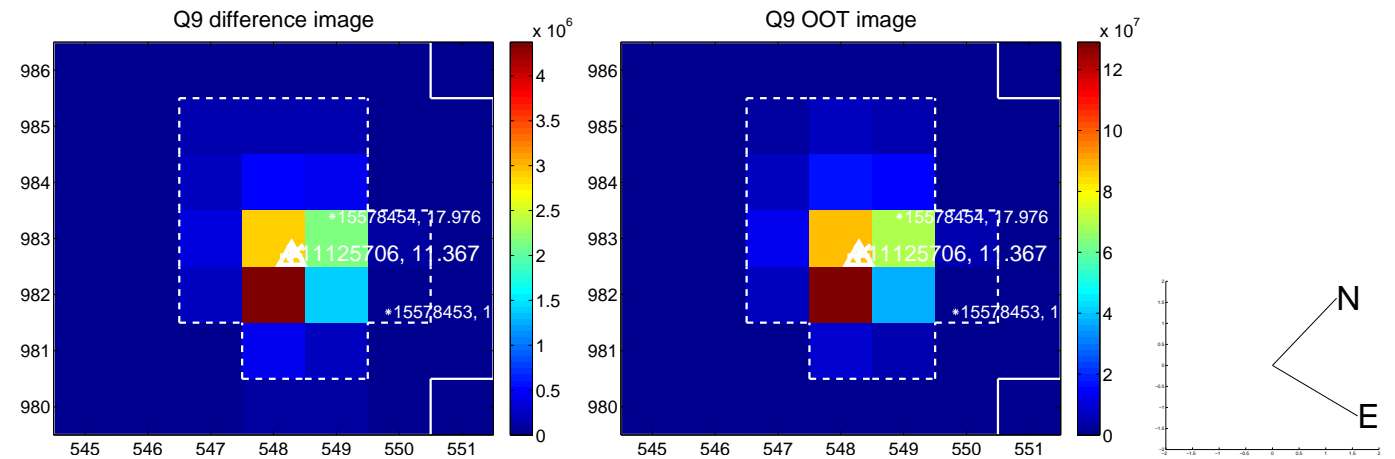
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



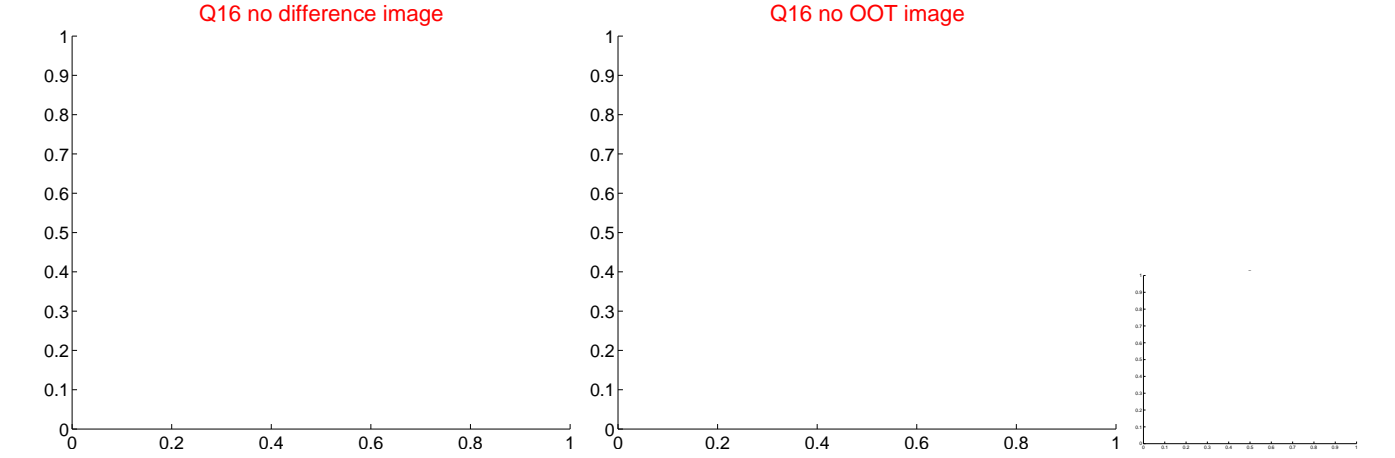
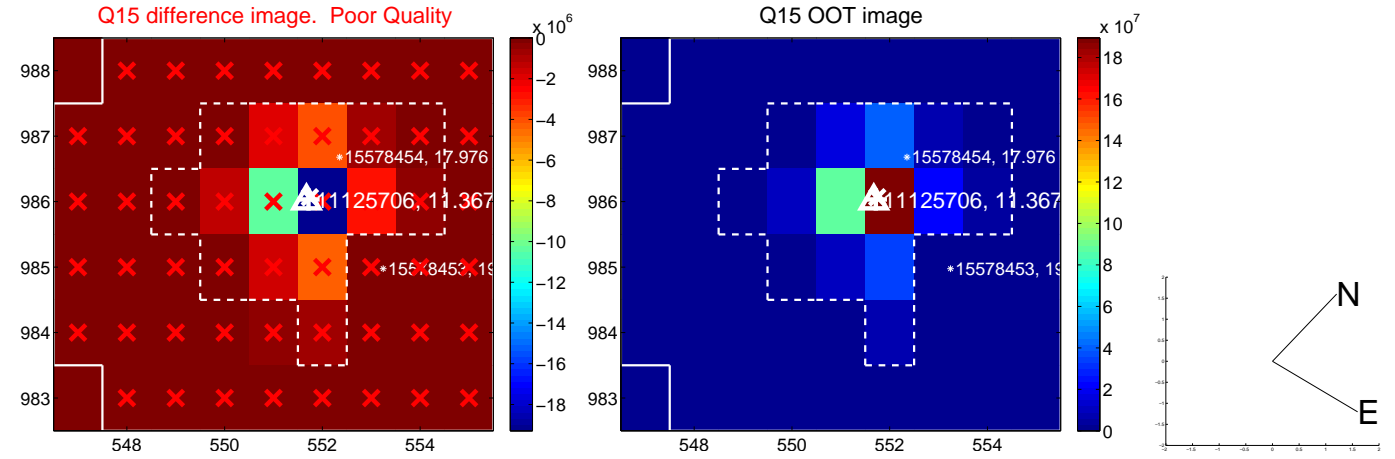
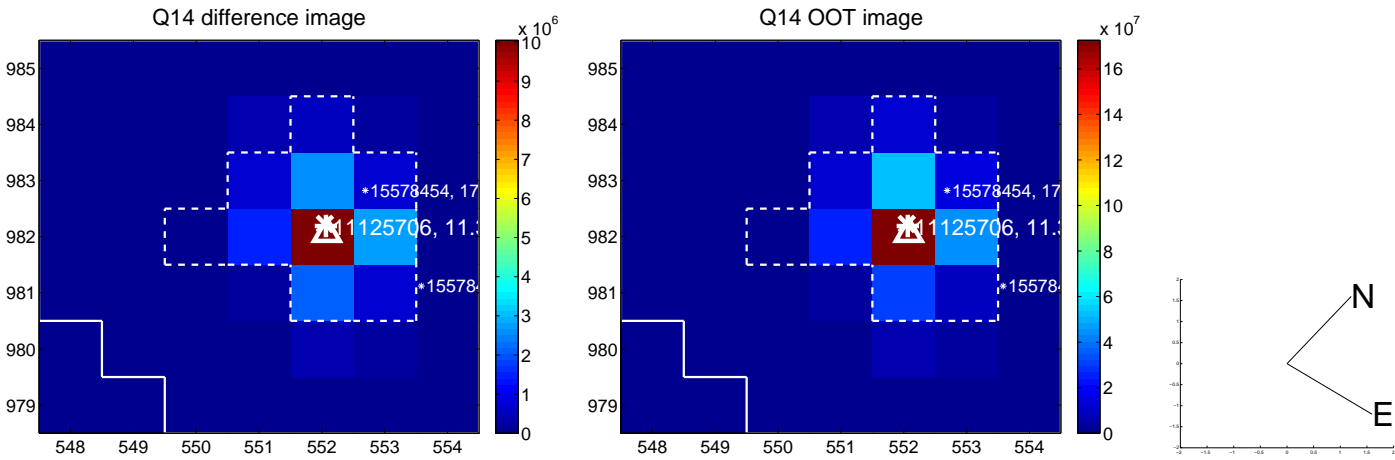
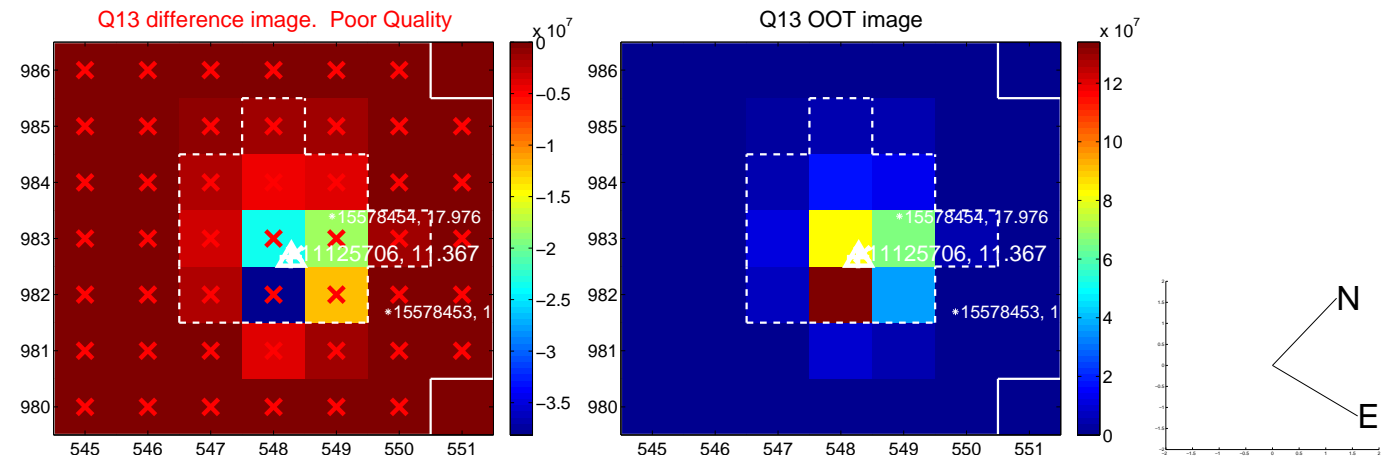
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



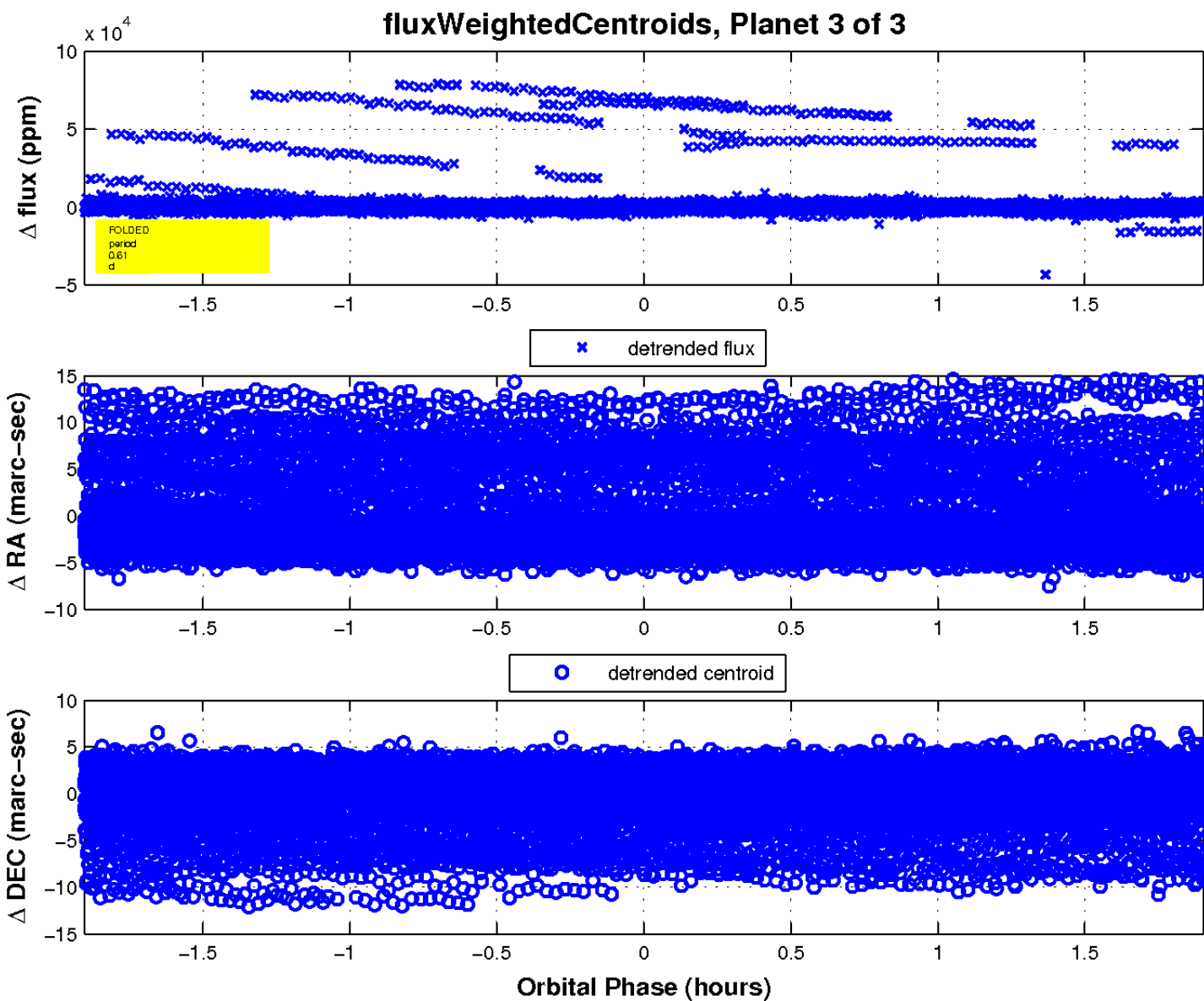
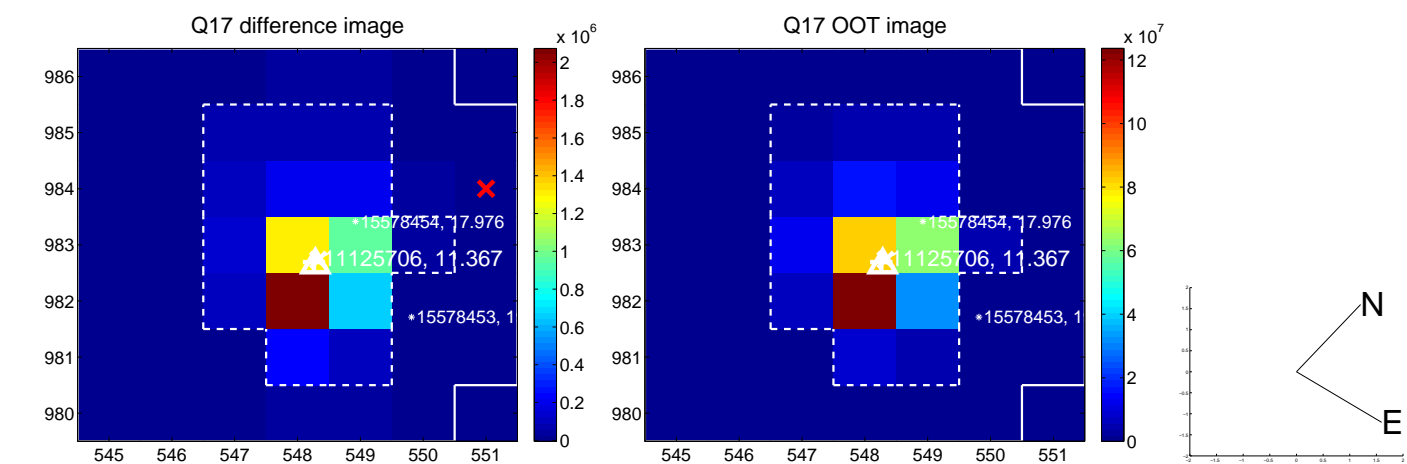
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

