

# KIC 005467113

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005467113-01	OBS	3825.01	2.845771	134.259308	147281.4	6.000	3708.9	-1.0	1.78	5641	67.93	1826.76

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005467113-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—SEASONAL_DEPTH_ALT—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.

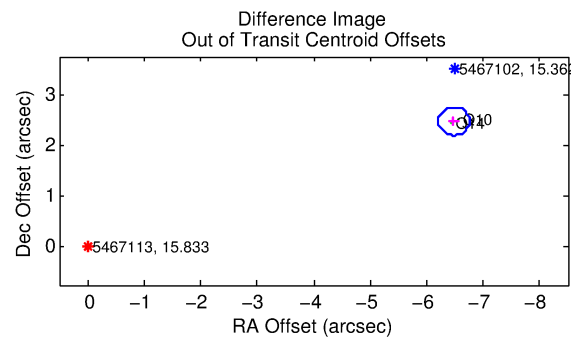
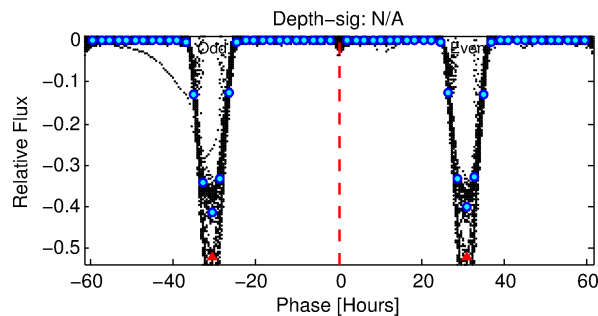
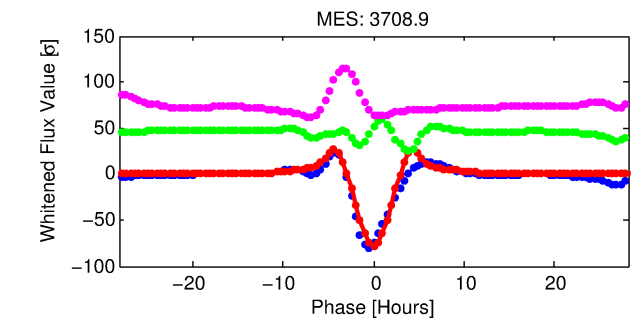
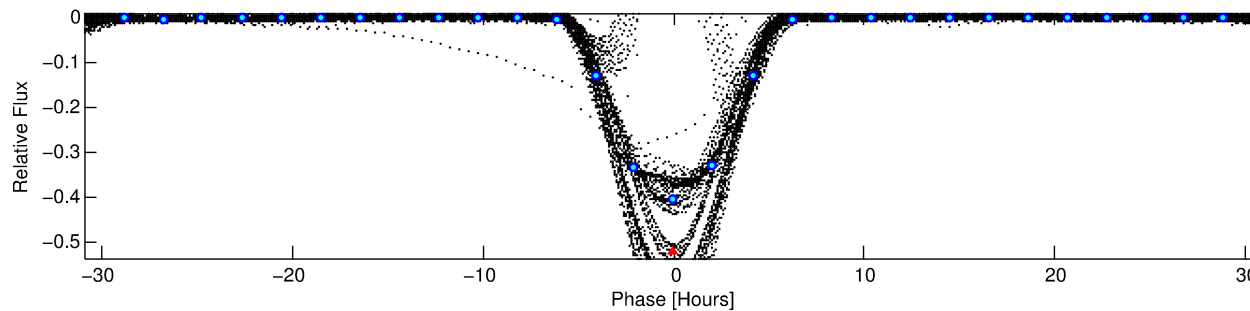
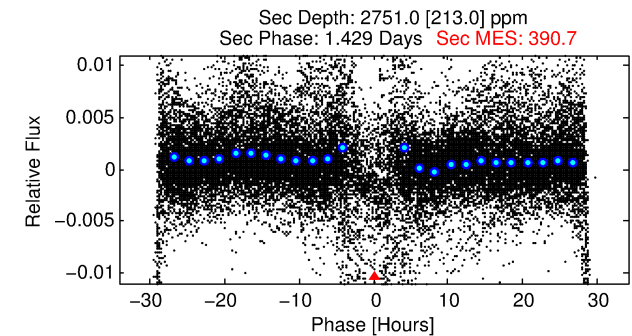
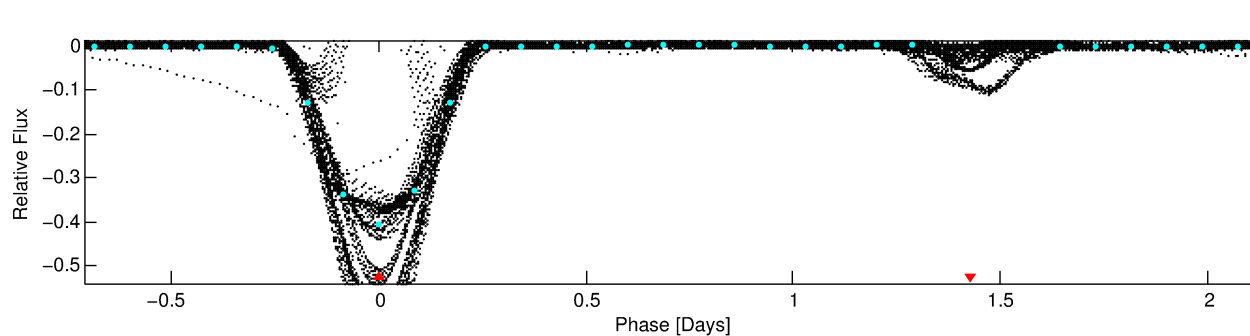
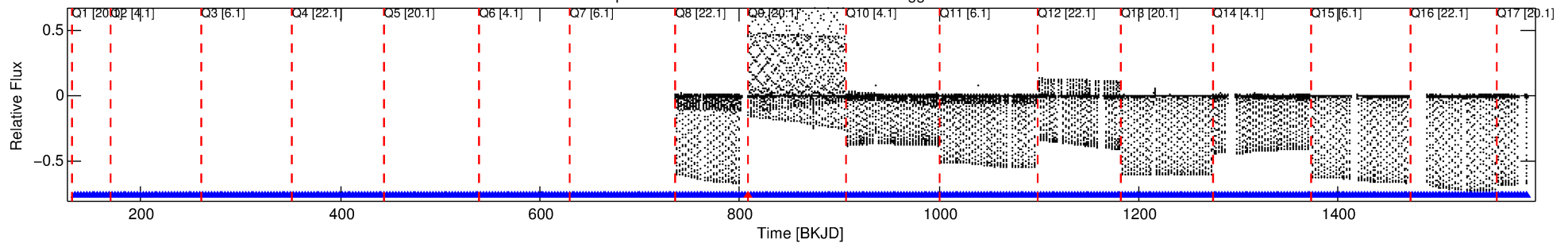
## Ephemeris Match Information For 005467113-01

No Significant Match Found

# DV One-Page Summary

KIC: 5467113 Candidate: 1 of 1 Period: 2.846 d  
KOI: K03825 Corr: No Ephemeris Match

Kp: 15.83 R\*: 1.78 Rs Teff: 5641.0 K Logg: 3.95 Fe/H: -0.120



## TPS TCE Results:

Period = 2.84577 d  
Epoch = 134.2593 BKJD

DV fit results are unavailable

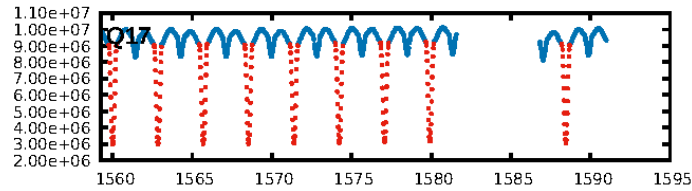
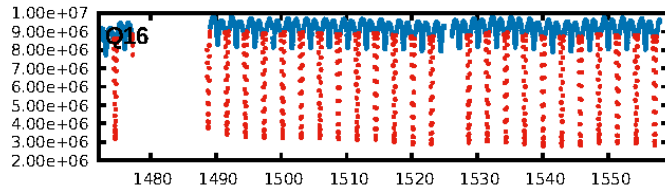
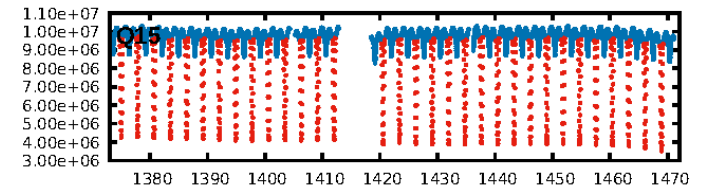
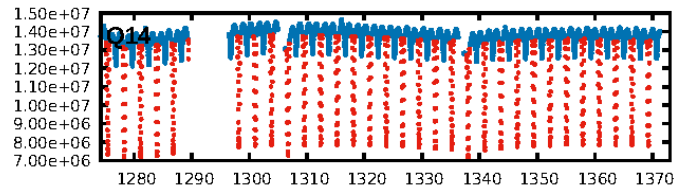
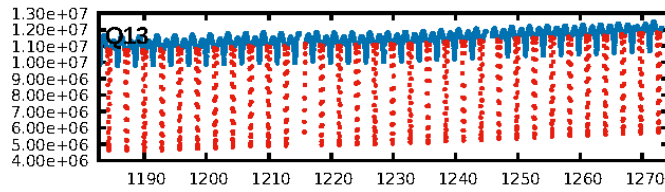
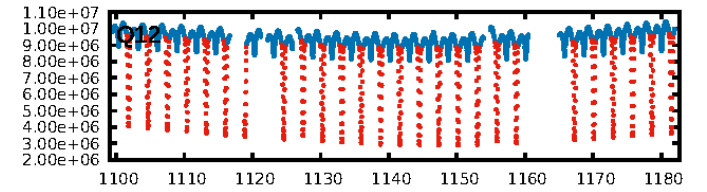
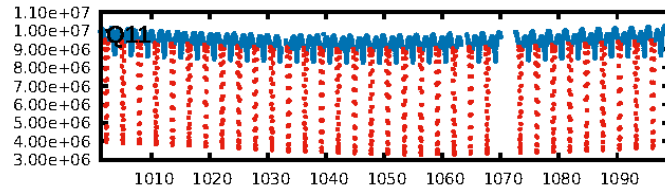
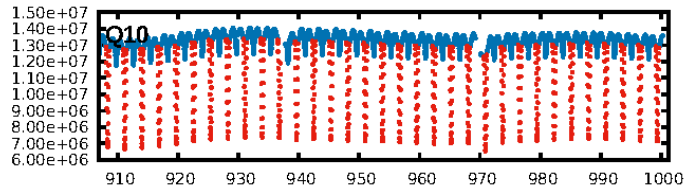
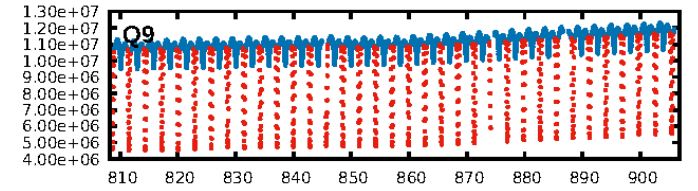
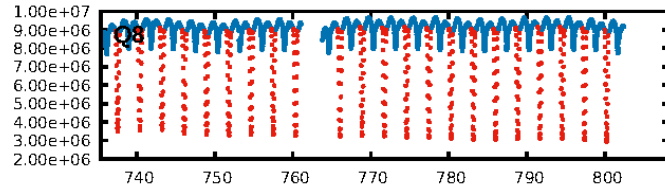
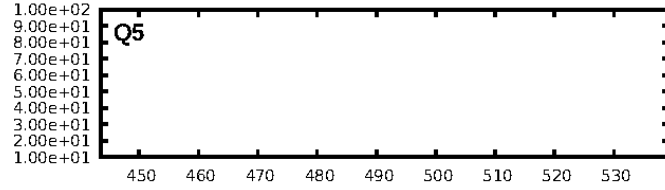
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [268/269]  
GhostDiagnostic-chr: 1.92  
Centroid-sig: N/A  
Centroid-so: 4.097 arcsec [8394.89σ]  
OotOffset-rm: 6.936 arcsec [75.02σ]  
KicOffset-rm: 0.098 arcsec [1.44σ]  
OotOffset-st: 2/0/0/0 [2]  
KicOffset-st: 2/2/3/3 [10]  
DiffImageQuality-fgm: 1.00 [10/10]  
DiffImageOverlap-fno: 1.00 [10/10]

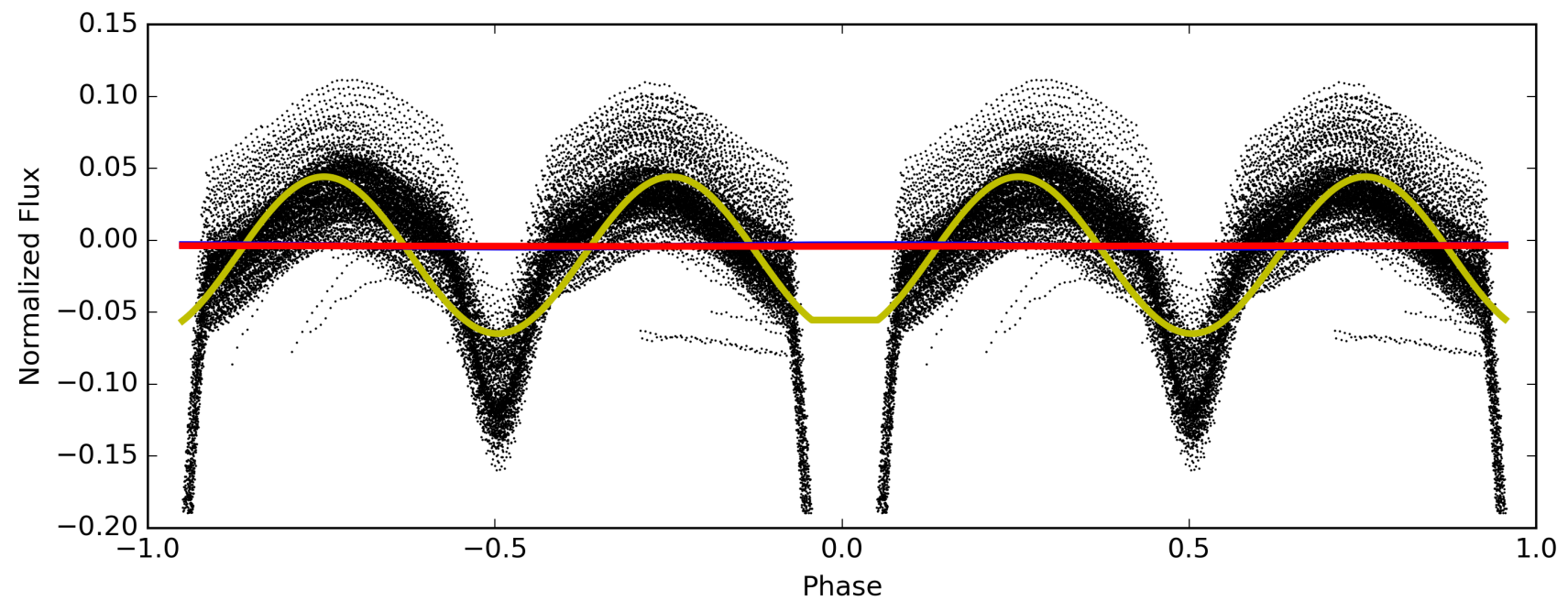
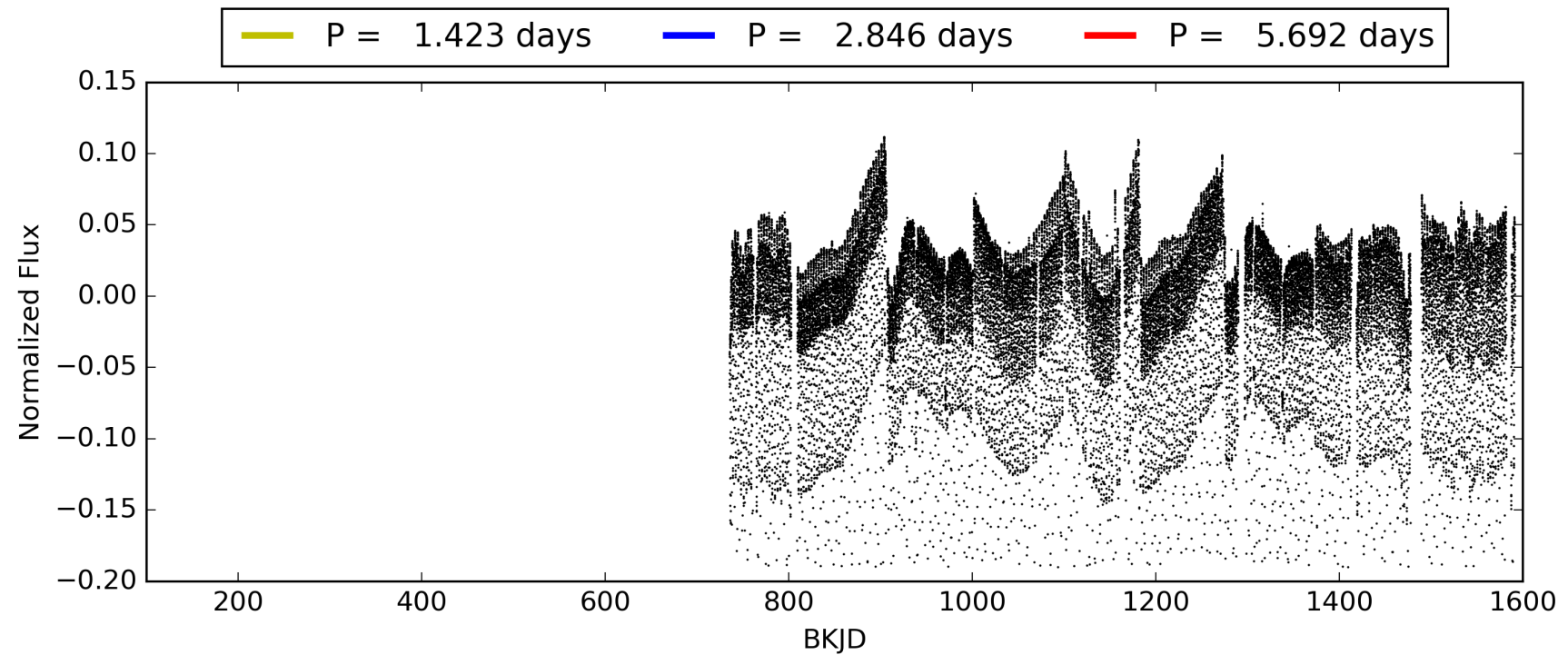
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:45:51 Z

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

# TCE 005467113-01, PDC Light Curves

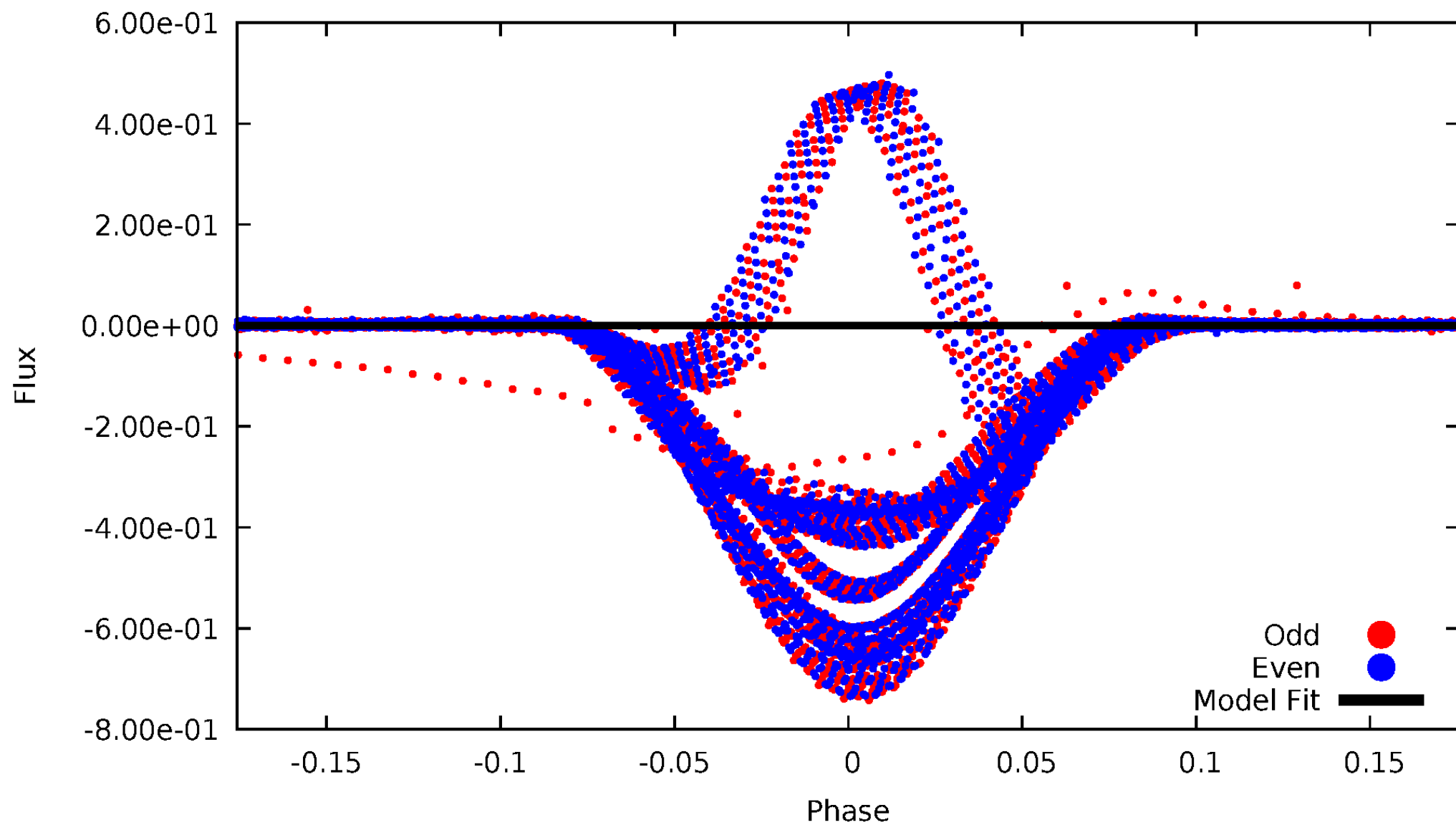


TCE 005467113-01



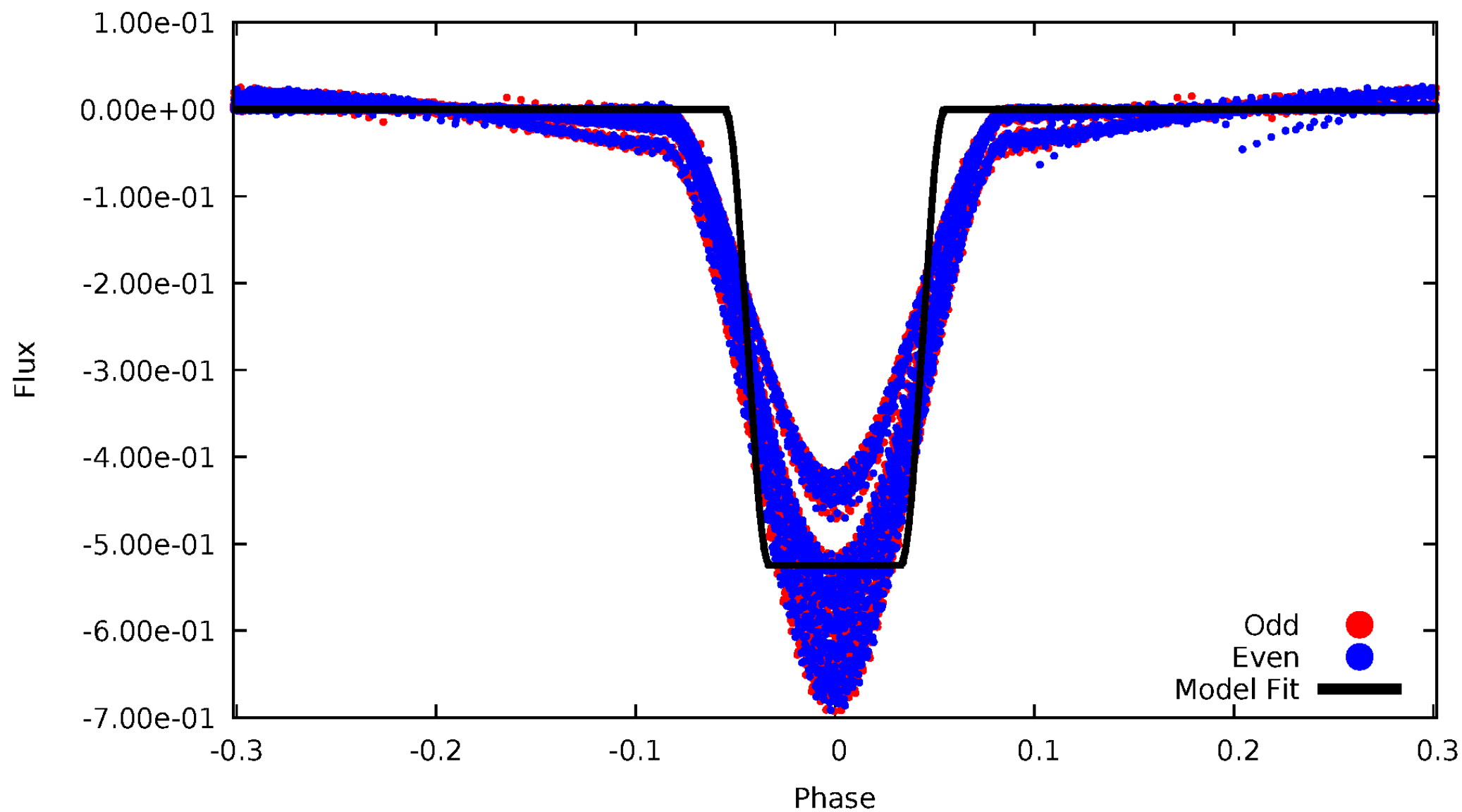
# DV Odd/Even

TCE 005467113-01



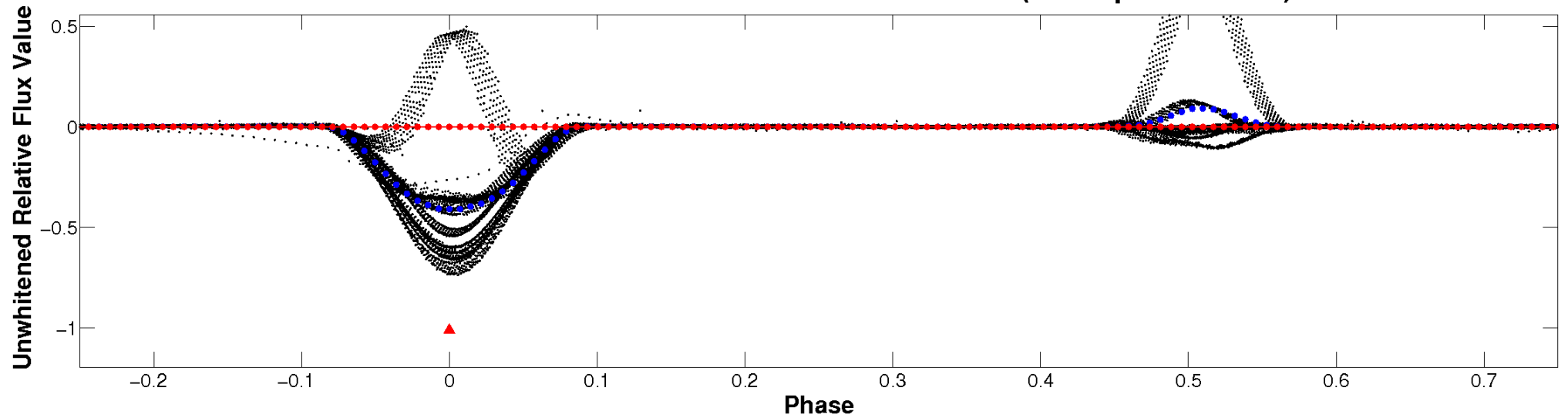
# ALT Odd/Even

TCE 005467113-01



# Non-Whitened Vs. Whitened Light Curve

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

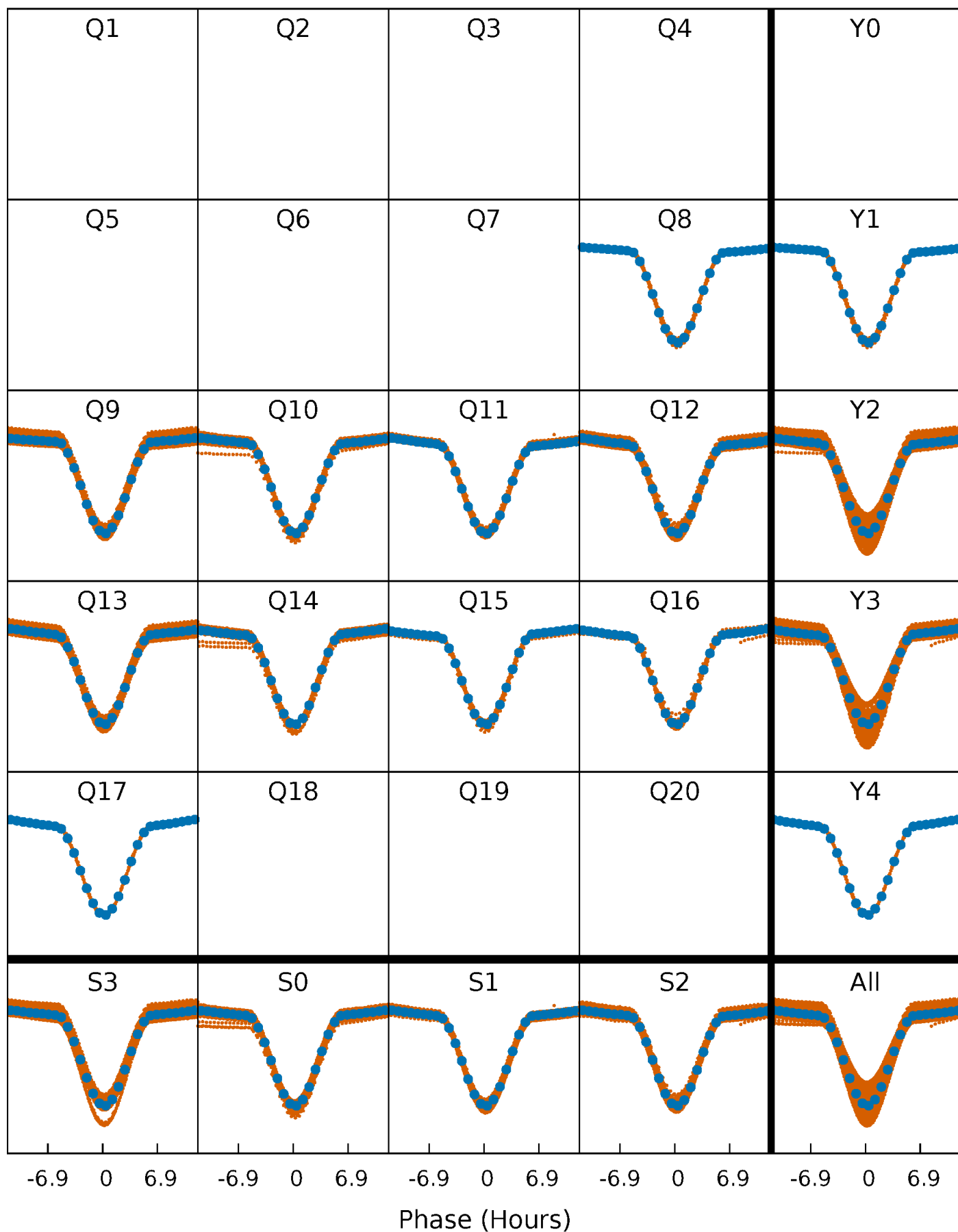


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

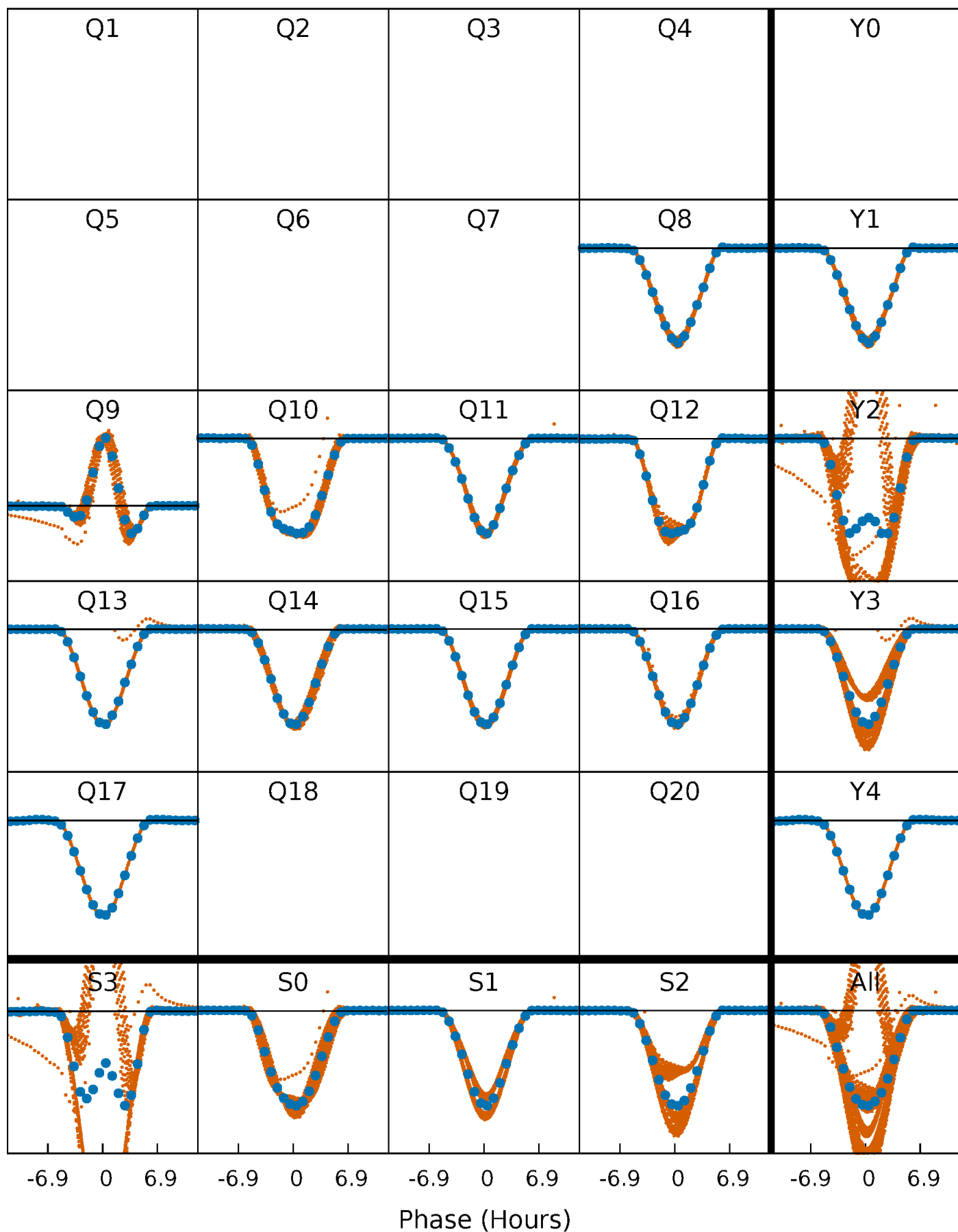
TCE 005467113-01 P= 2.845771 Days  $T_0=134.259308$  (BKJD)





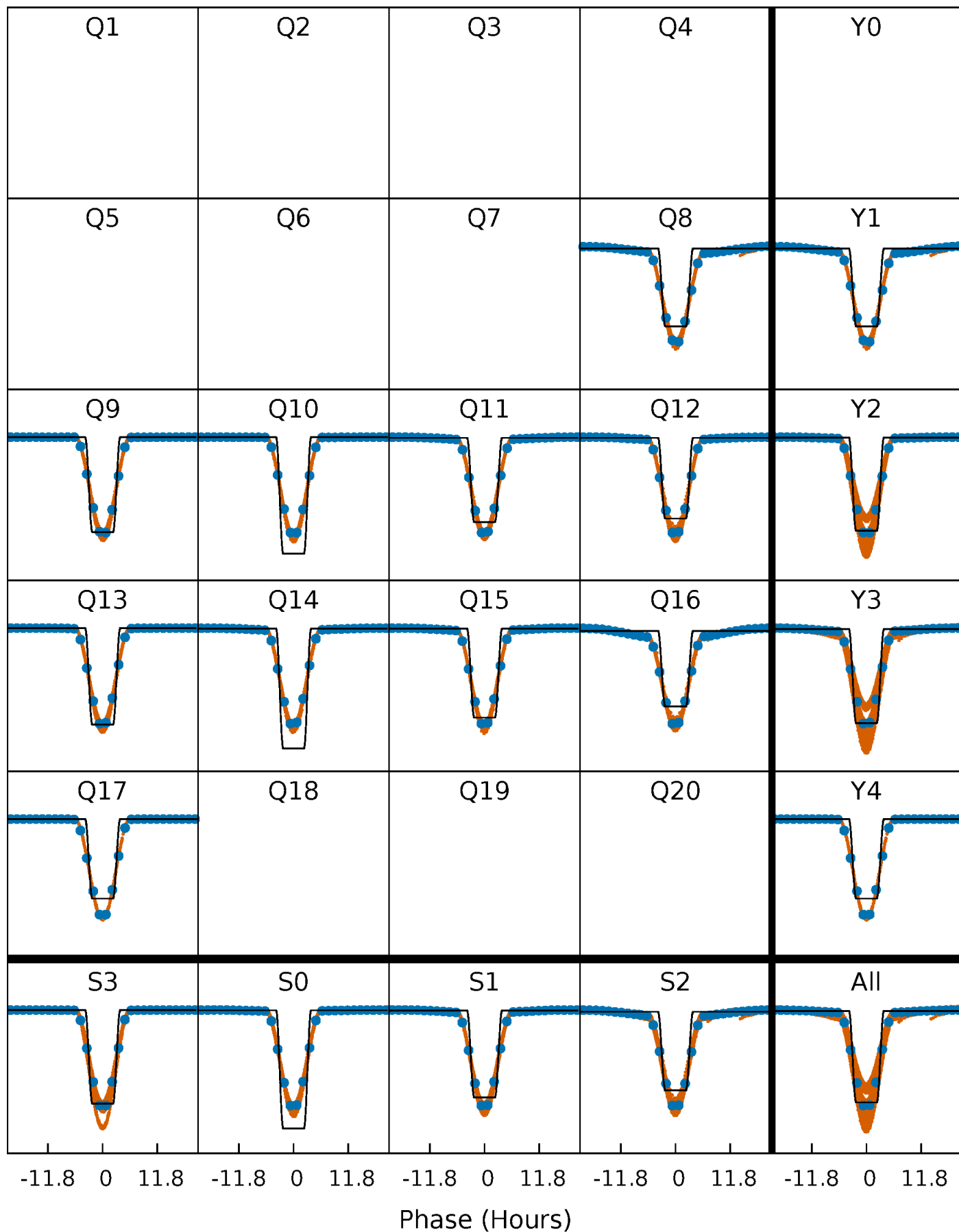
# DV Quarter-Phased Transit Curves

TCE 005467113-01 P= 2.845771 Days  $T_0=134.259308$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

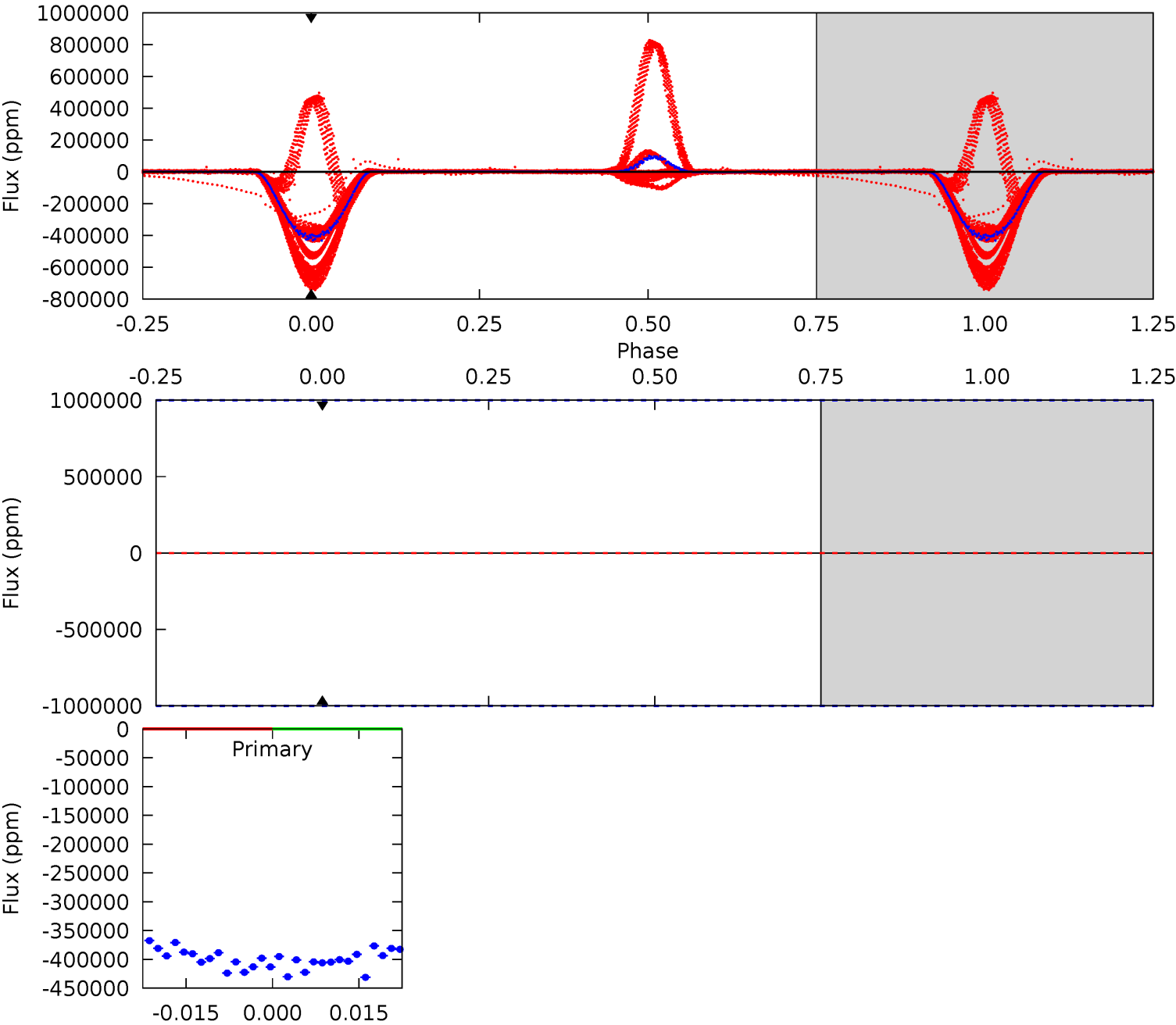
TCE 005467113-01 P= 2.845771 Days  $T_0=134.268459$  (BKJD)



# DV Model-Shift Uniqueness Test

005467113-01, P = 2.845771 Days, E = 134.259308 Days

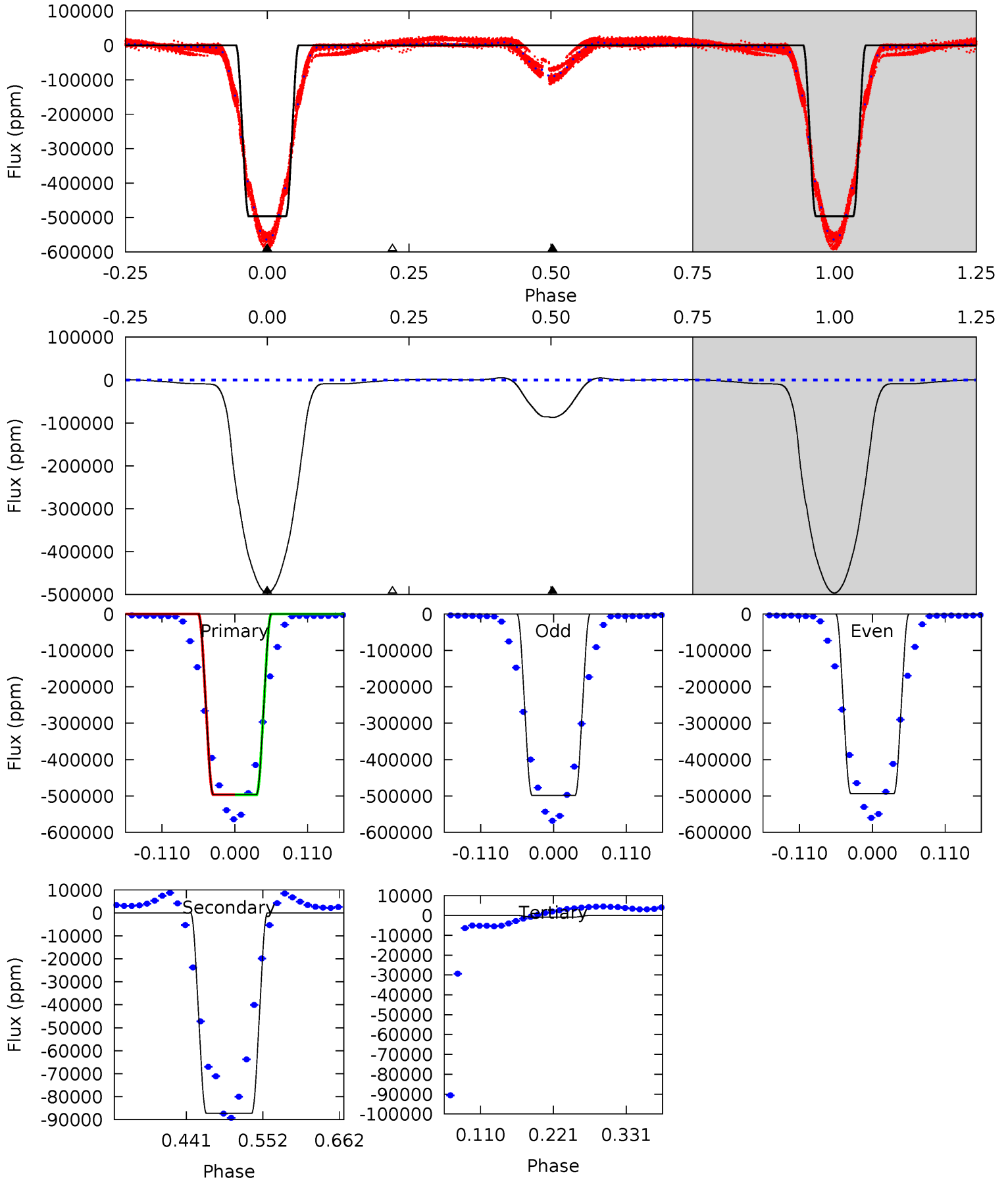
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

005467113-01, P = 2.845771 Days, E = 134.268459 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
2848	501.1	4.76	0	4.54	1.60	20.2	2844	2848	496.3	501.1	14.0	1.00	0.01	0



### Stellar Parameters For KIC 005467113

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5641^{+186}_{-169}$	$3.948^{+0.495}_{-0.165}$	$-0.120^{+0.300}_{-0.250}$	$1.776^{+0.453}_{-0.841}$	$1.021^{+0.128}_{-0.157}$	$0.257^{+1.266}_{-0.115}$
	+3%/-3%	+13%/-4%	+250%/-208%	+26%/-47%	+13%/-15%	+493%/-45%
Source	KIC0	KIC0	KIC0	DSEP		

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

### Secondary Eclipse Parameters for KIC 005467113-01 / KOI 3825.01

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$61.78^{+24.72}_{-22.78}$	$2299^{+182}_{-305}$	$2788^{+2910}_{-8258}$	$0.729^{+28.246}_{-25.377}$
Alt.	$-87307 \pm 174$	$134.23^{+32.52}_{-35.55}$	$2292^{+198}_{-282}$	$3947^{+233}_{-197}$	$4.699^{+3.668}_{-1.659}$

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

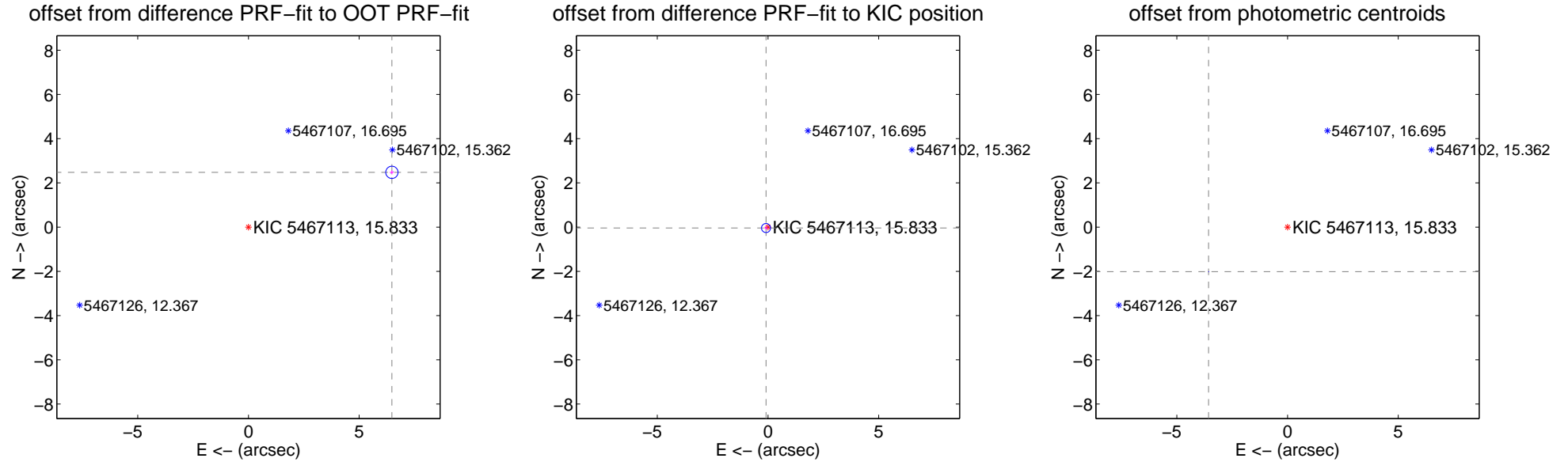
## DV Centroid Data

Supplemental centroid analysis for 005467113-01. Kepler magnitude: 15.83. Transit SNR -1.00

There are 10 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 6.94 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$6.936 \pm 0.092$	75.02	$-6.478 \pm 0.093$	$2.477 \pm 0.089$
PRF-fit source offset from KIC position	$0.098 \pm 0.068$	1.44	$0.089 \pm 0.068$	$-0.041 \pm 0.070$
photometric centroid source offset	$4.10 \pm 0.00$	8394.88	$3.57 \pm 0.00$	$-2.02 \pm 0.00$

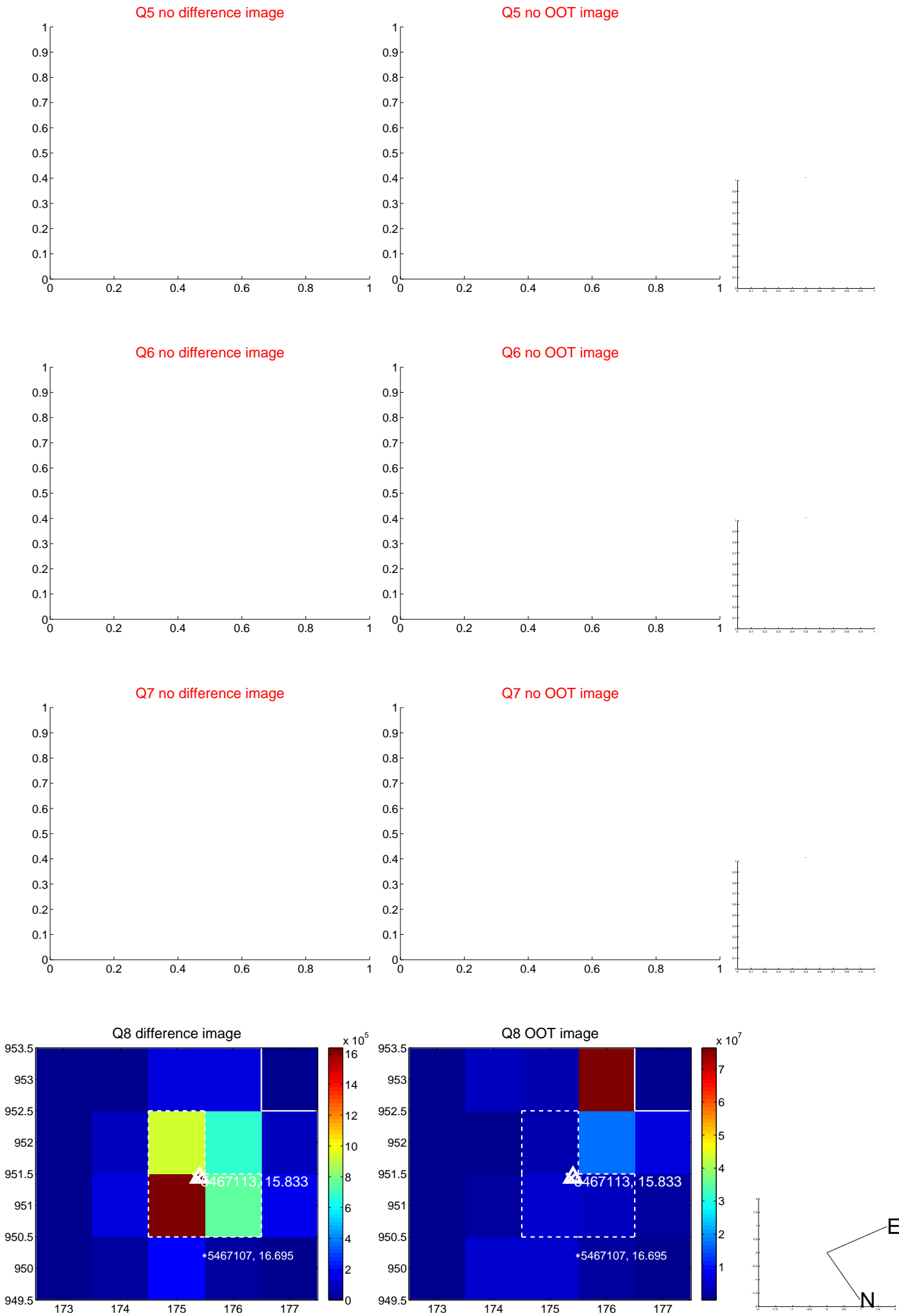


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

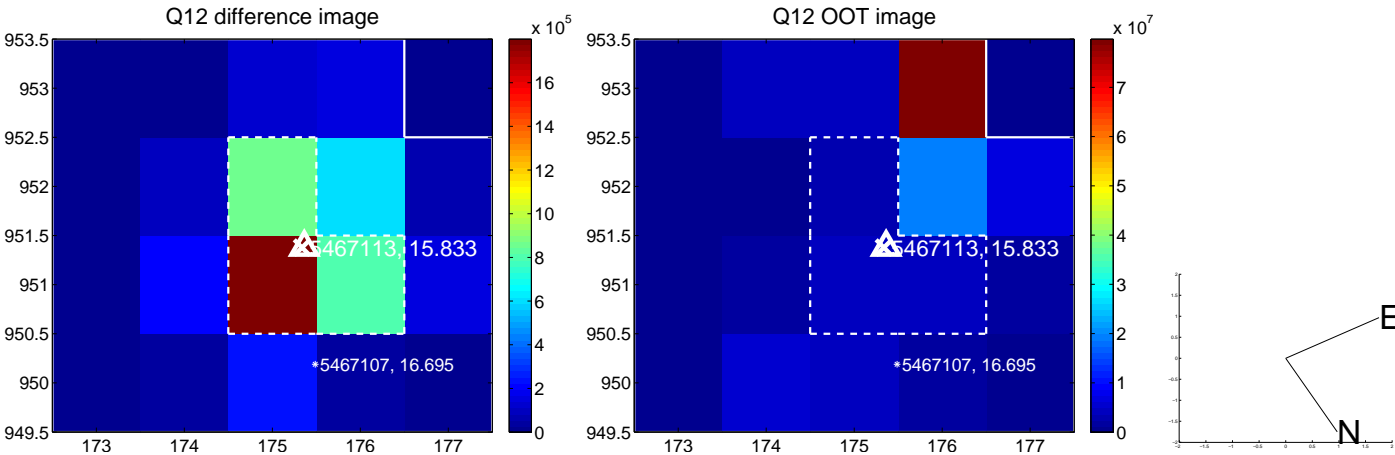
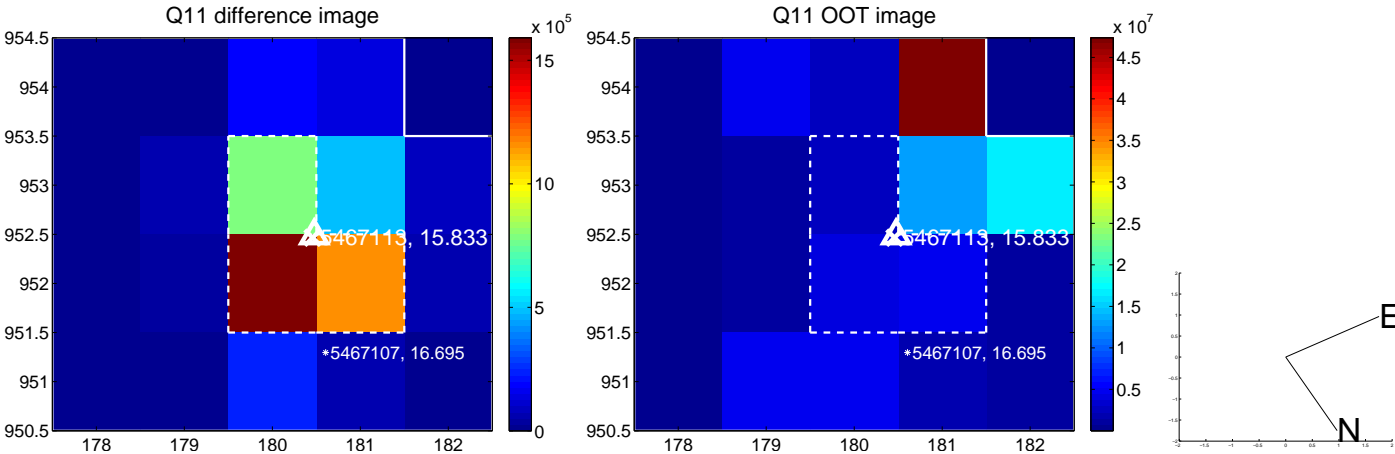
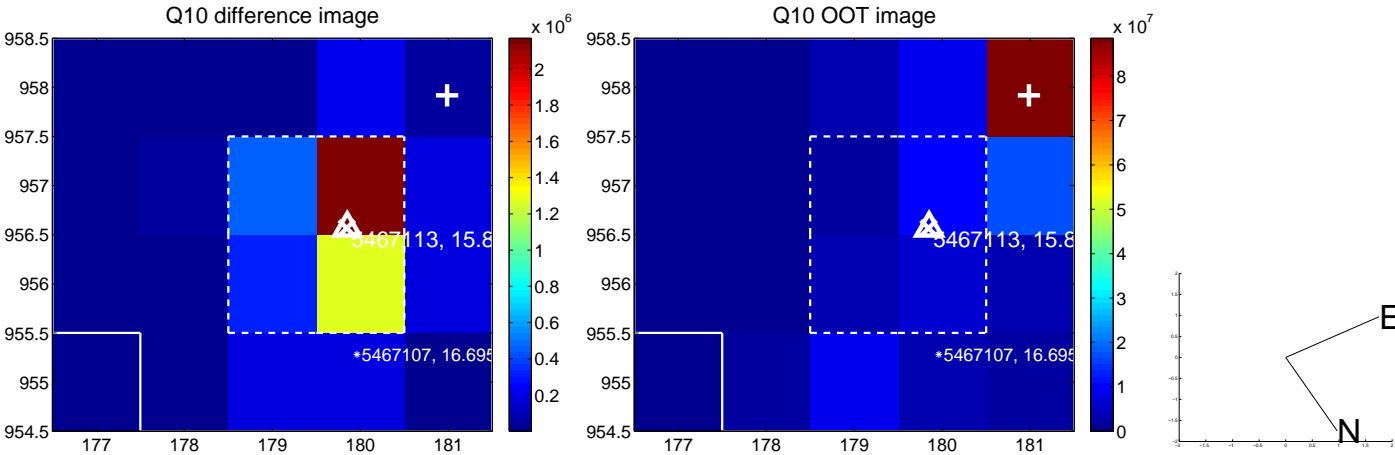
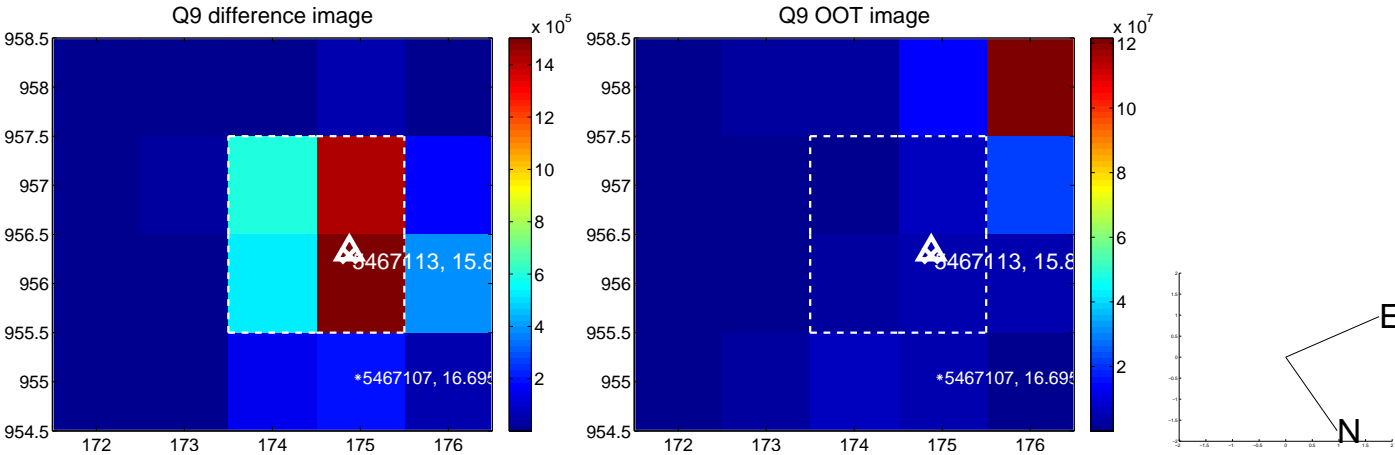


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

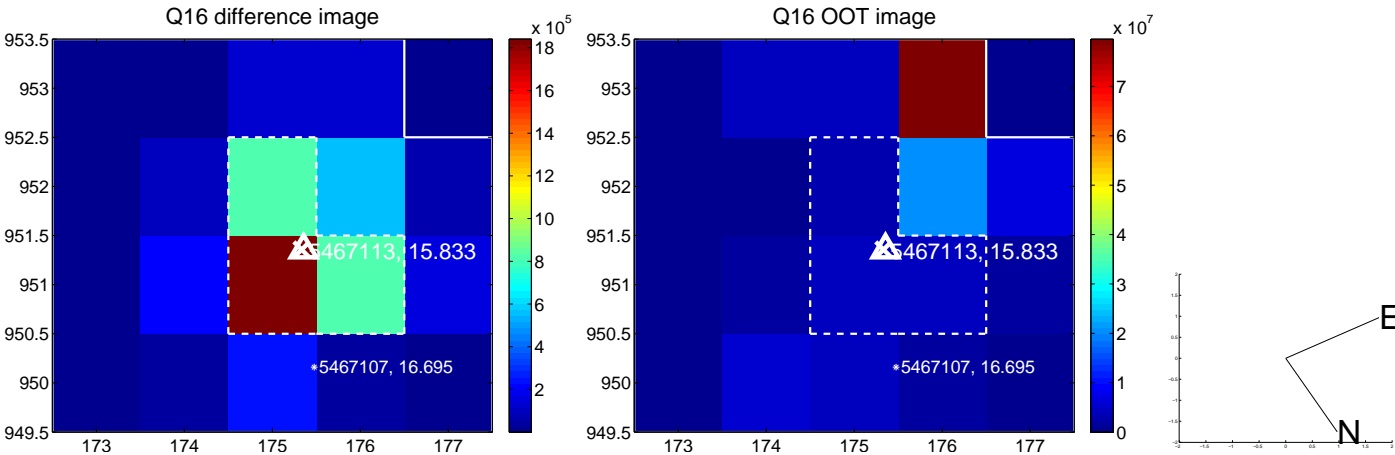
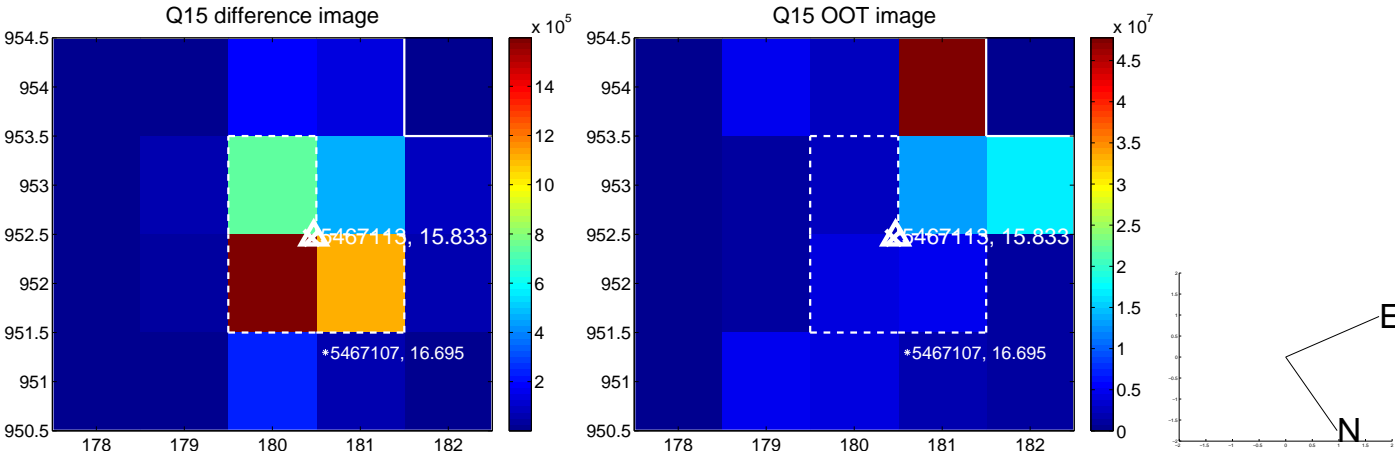
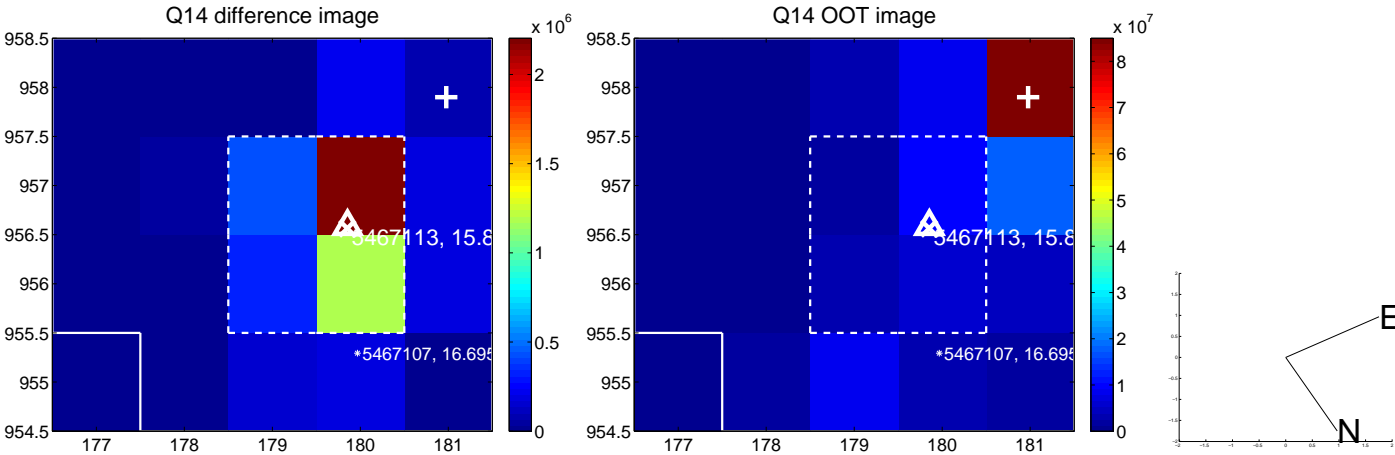
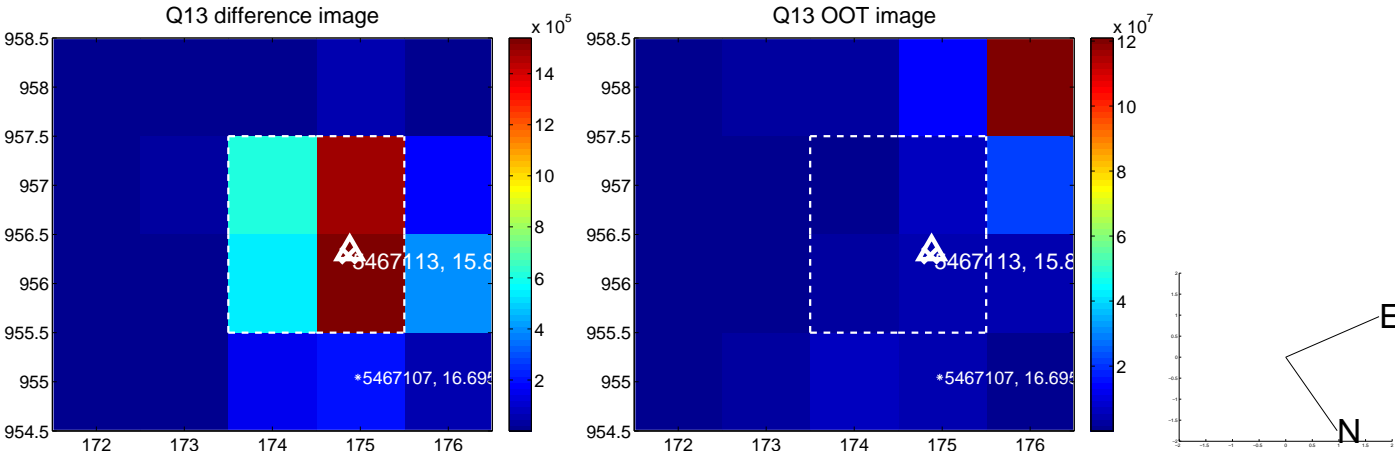




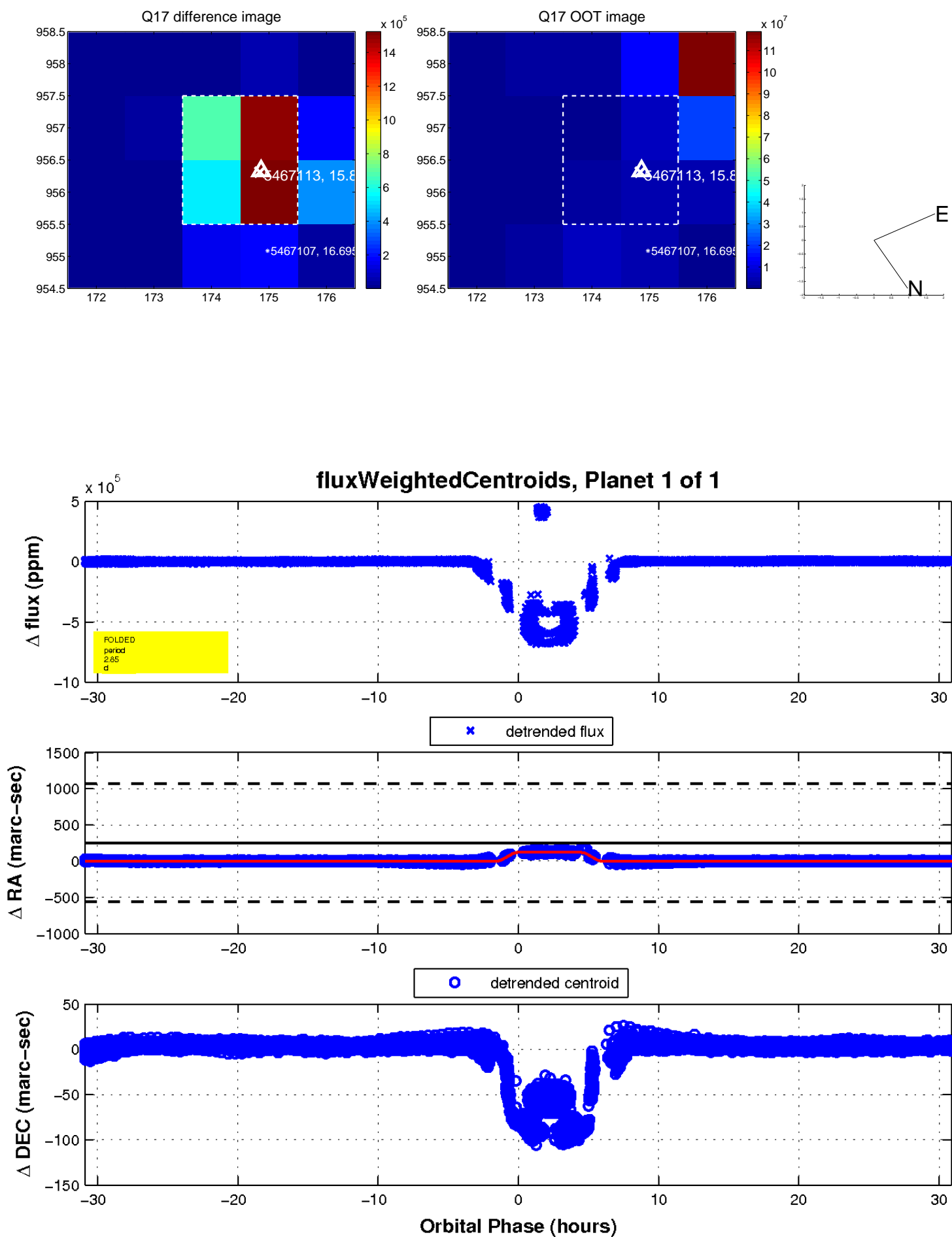
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination

