

# KIC 011802860

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011802860-01	OBS	No	0.687206	131.542444	87979.2	2.000	12083.1	-1.0	1.72	6519	51.66	18830.04

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011802860-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_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.

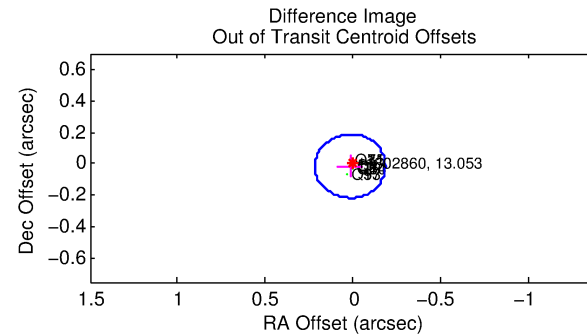
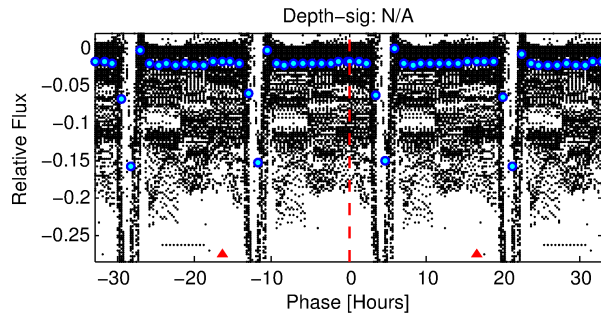
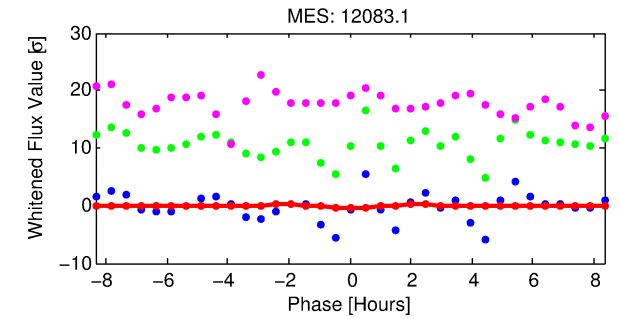
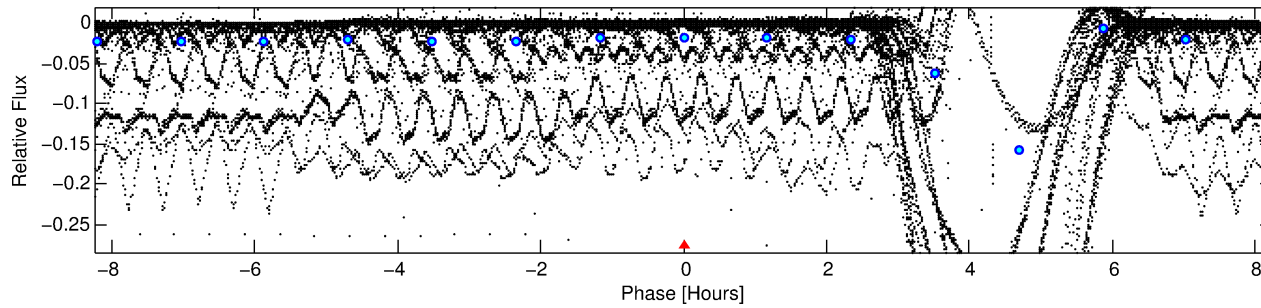
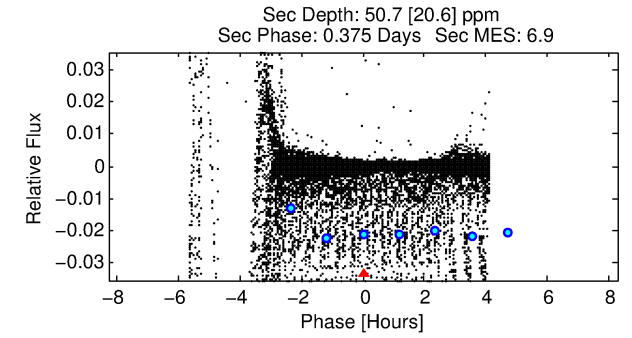
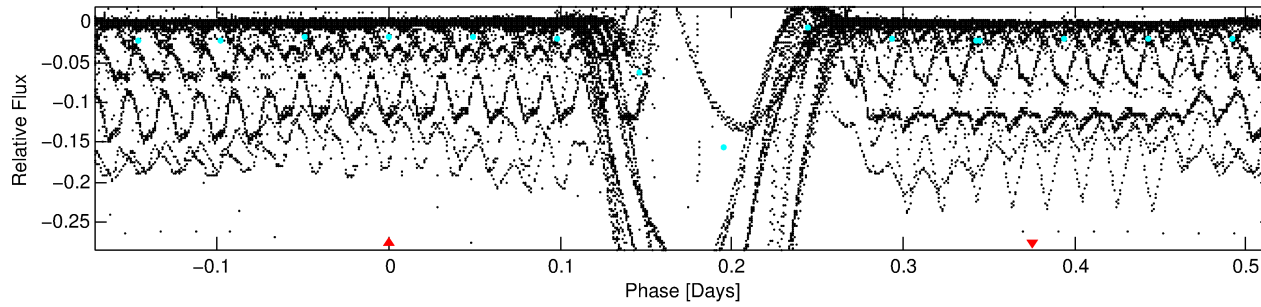
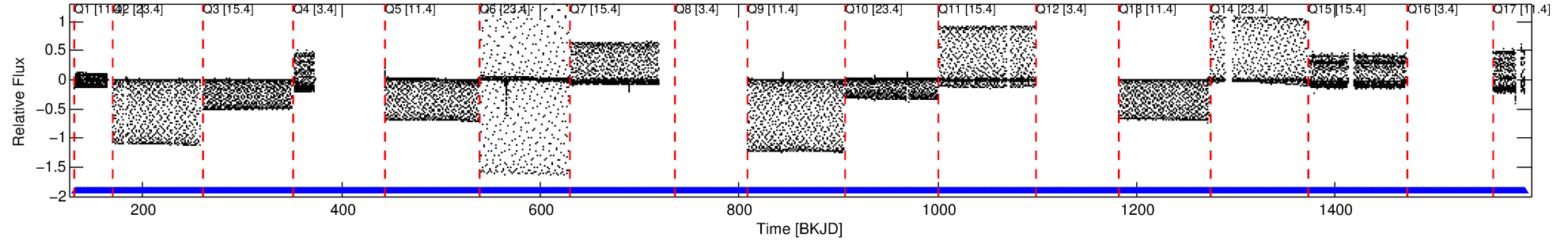
## Ephemeris Match Information For 011802860-01

No Significant Match Found

# DV One-Page Summary

KIC: 11802860 Candidate: 1 of 1 Period: 0.687 d

Kp: 13.05 R\*: 1.72 Rs Teff: 6519.0 K Logg: 4.03 Fe/H: -0.380



TPS TCE Results:

Period = 0.68721 d  
Epoch = 131.5424 BKJD

DV fit results are unavailable

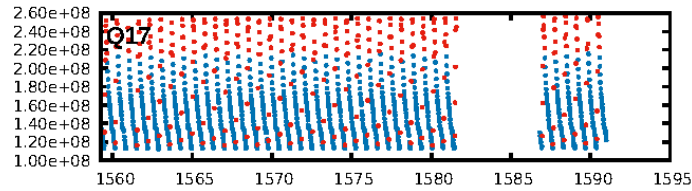
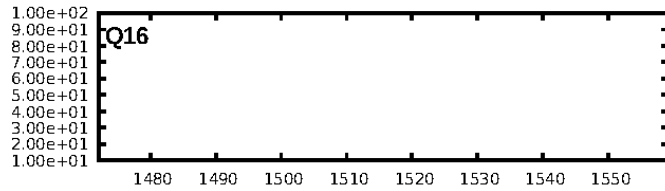
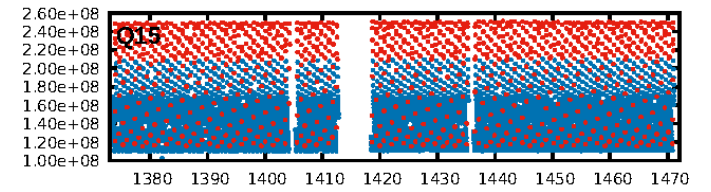
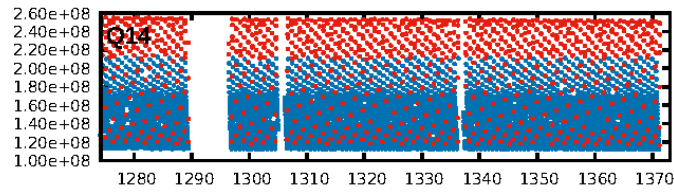
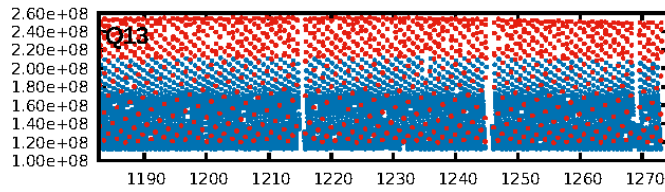
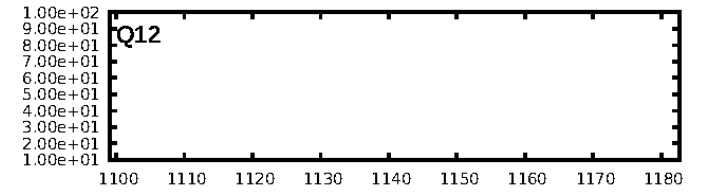
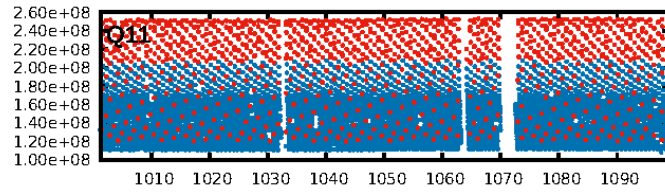
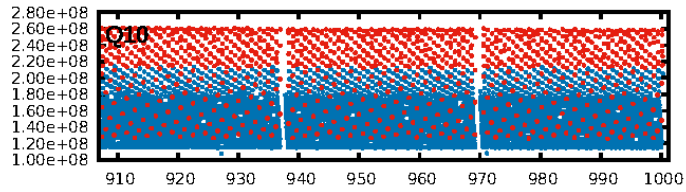
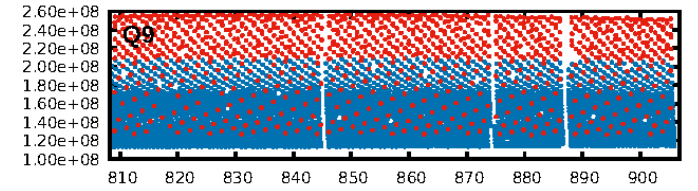
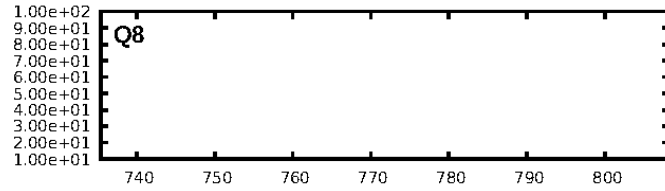
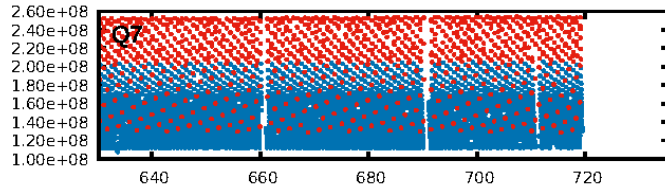
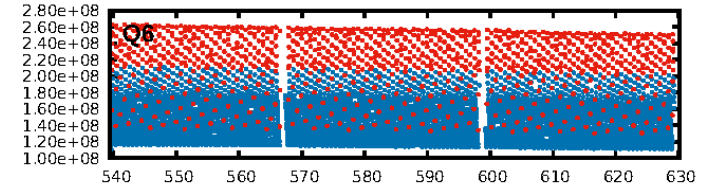
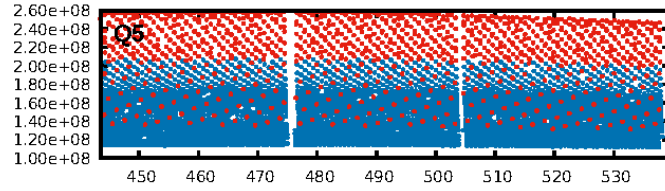
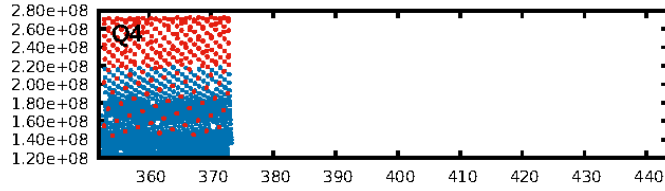
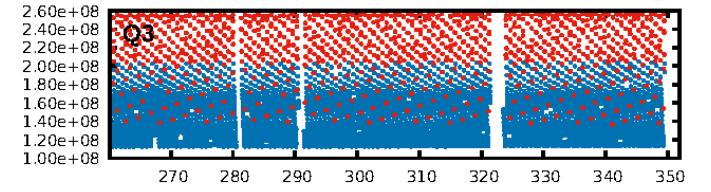
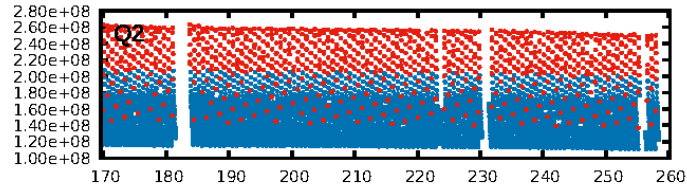
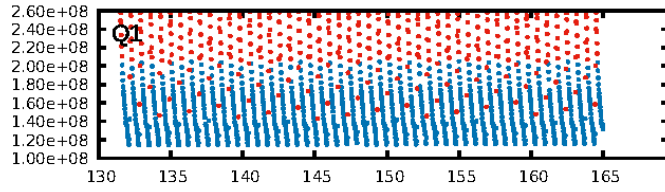
DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [1450/1450]  
GhostDiagnostic-chr: N/A  
Centroid-sig: 0.0%  
Centroid-so: 0.209 arcsec [518.33σ]  
OotOffset-rm: 0.022 arcsec [0.33σ]  
KicOffset-rm: 0.212 arcsec [3.04σ]  
OotOffset-st: 4/4/1/5 [14]  
KicOffset-st: 4/4/1/5 [14]  
DiffImageQuality-fgm: 1.00 [14/14]  
DiffImageOverlap-fno: 1.00 [14/14]

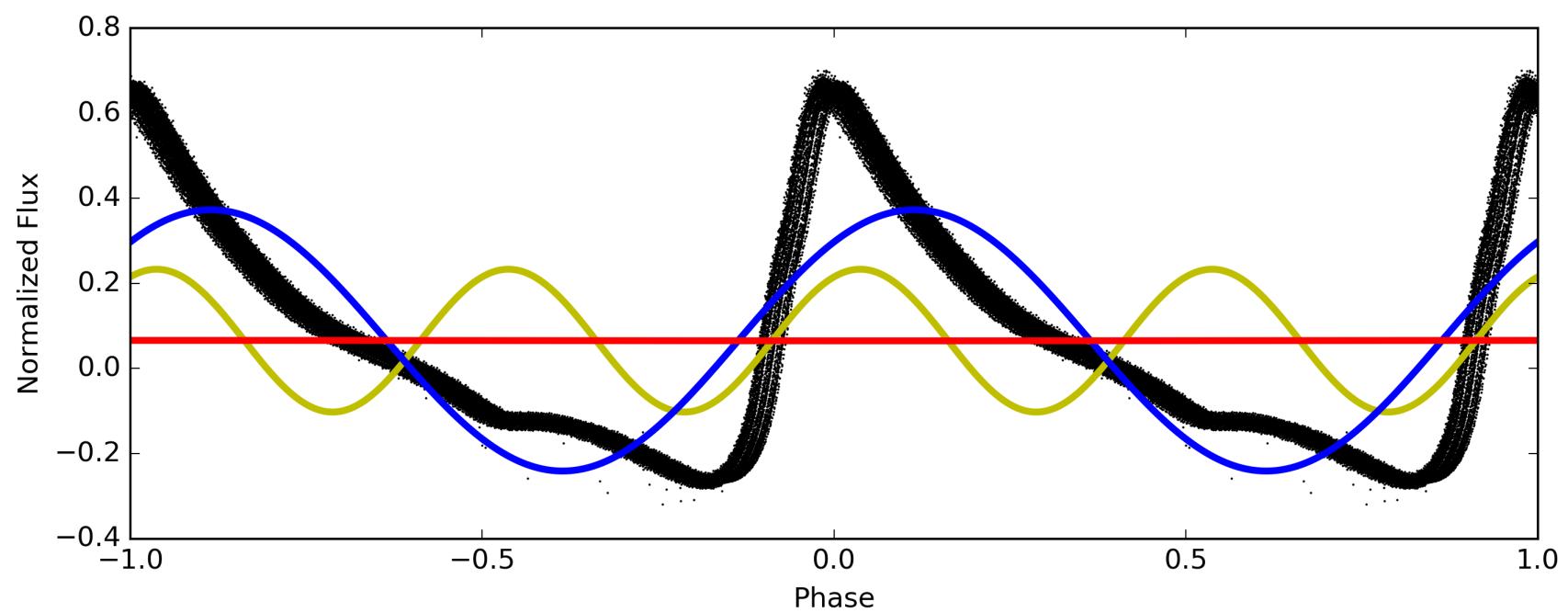
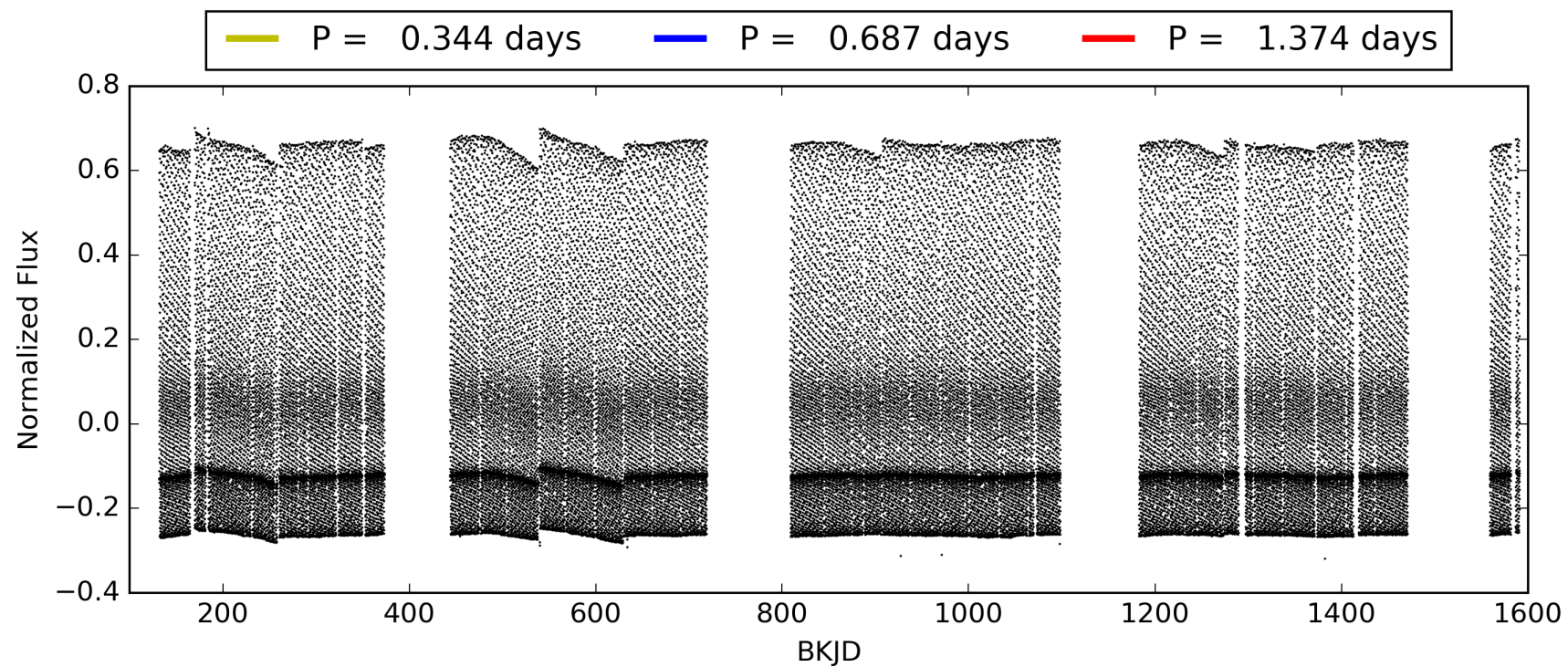
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 13:02:36 Z

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

# TCE 011802860-01, PDC Light Curves

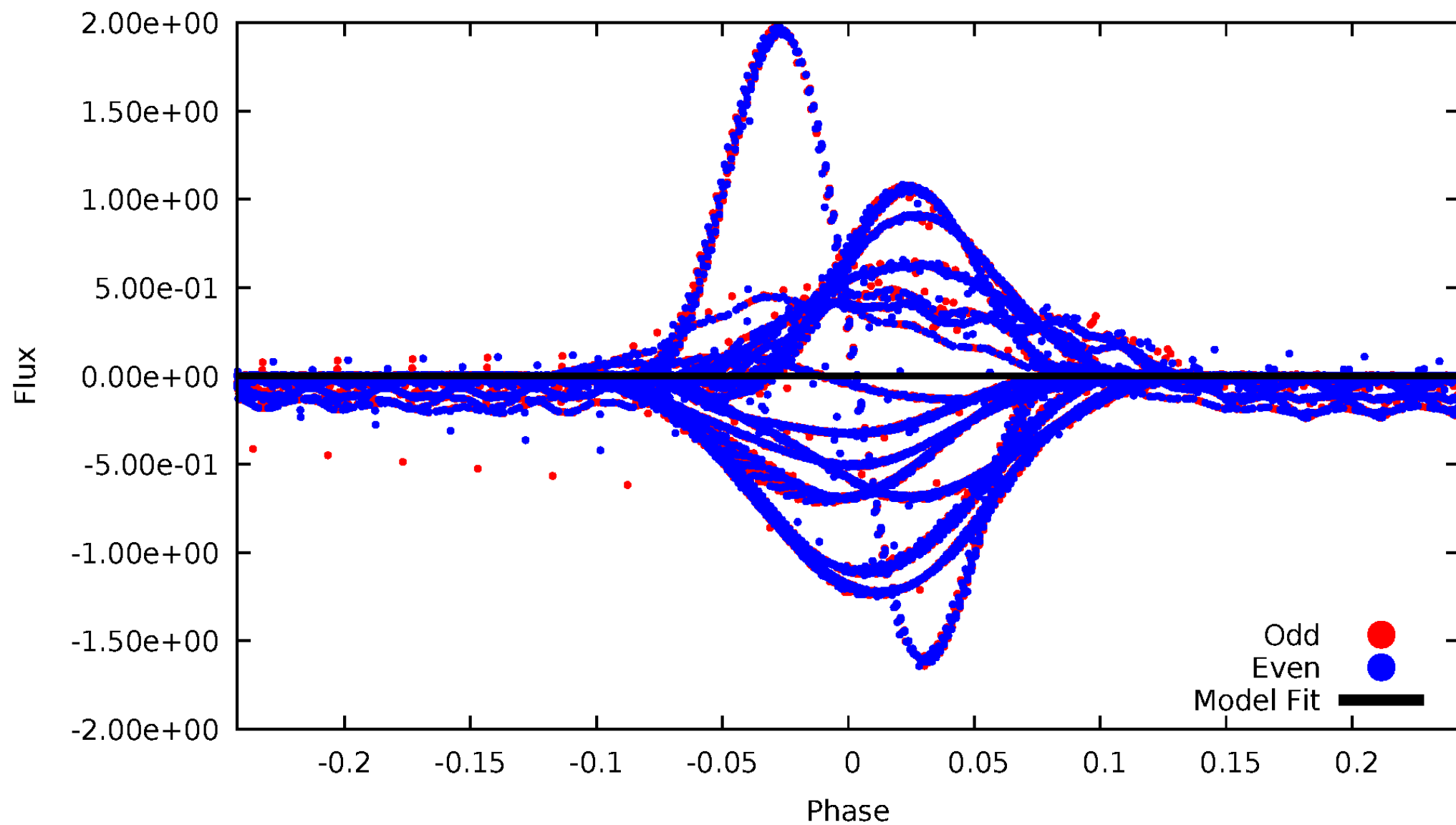


TCE 011802860-01



# DV Odd/Even

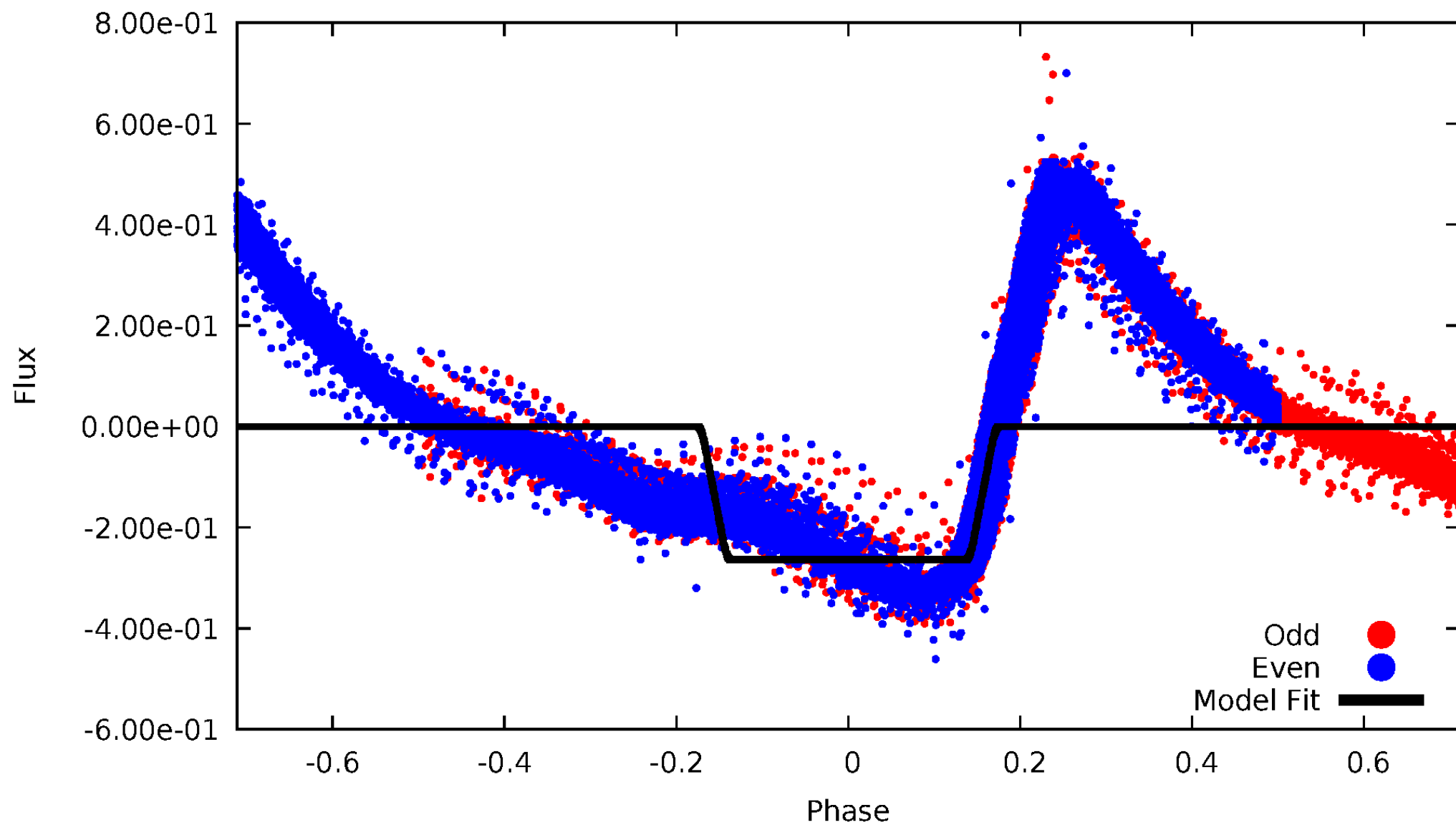
TCE 011802860-01





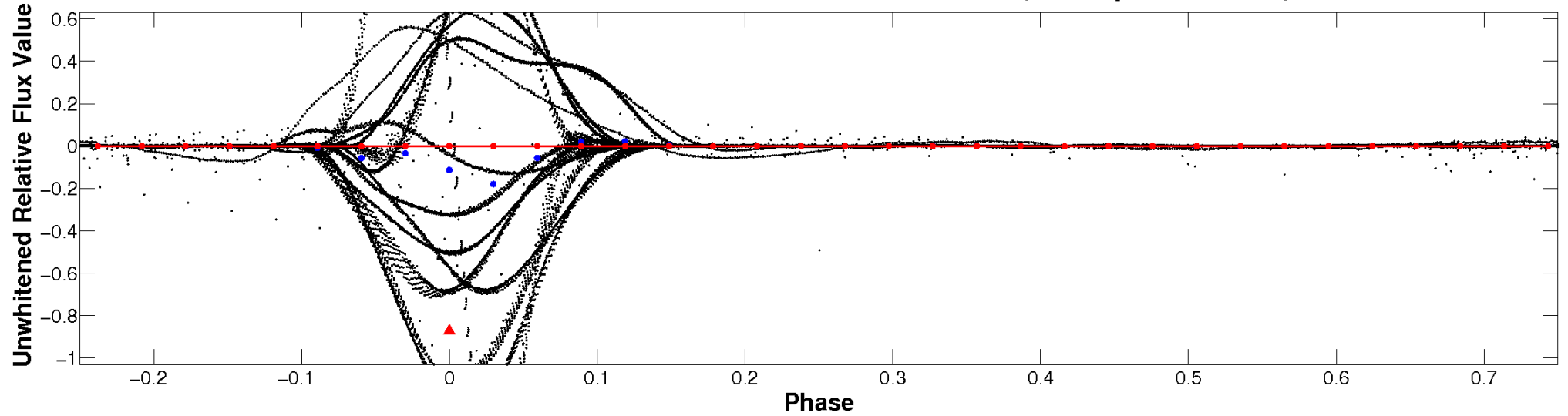
# ALT Odd/Even

TCE 011802860-01

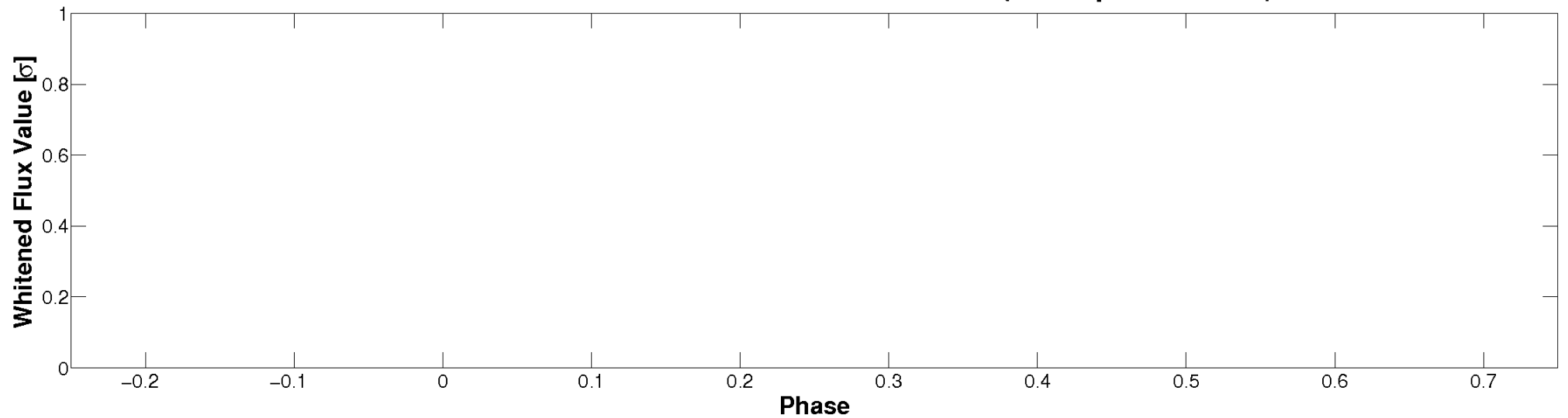


# Non-Whitened Vs. Whitened Light Curve

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

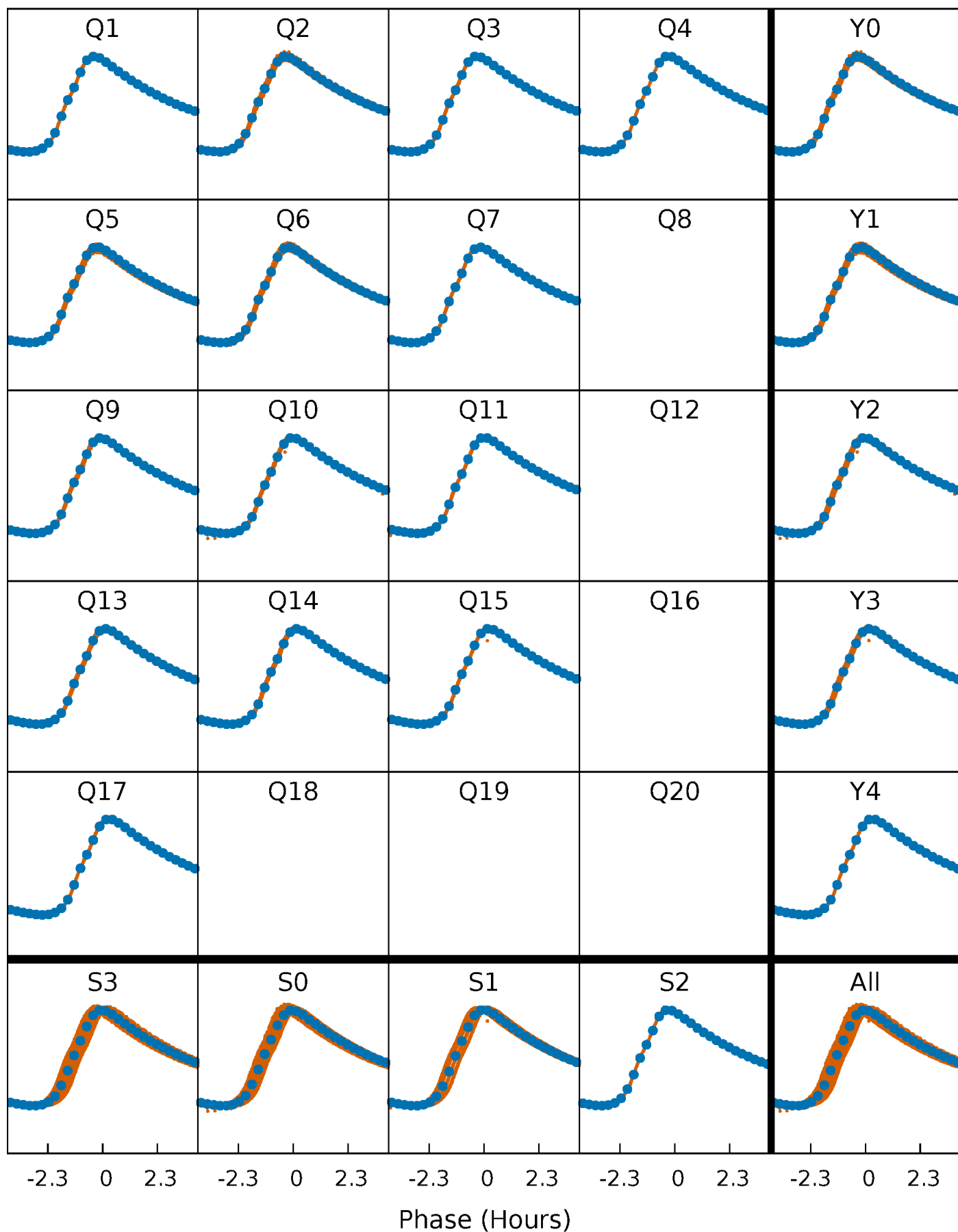


**Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)**



# PDC Quarter-Phased Transit Curves

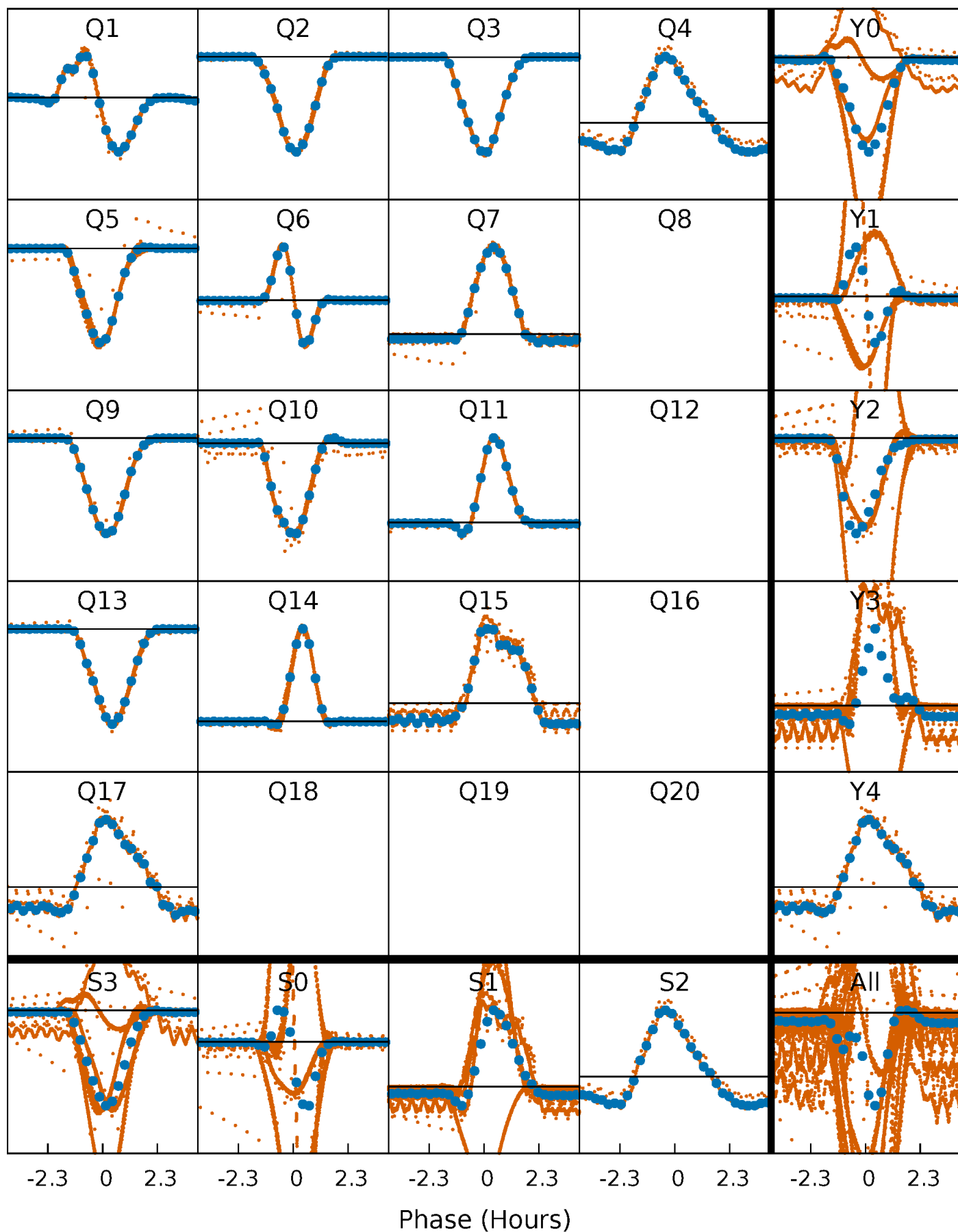
TCE 011802860-01   P= 0.687206 Days    $T_0=131.542444$  (BKJD)





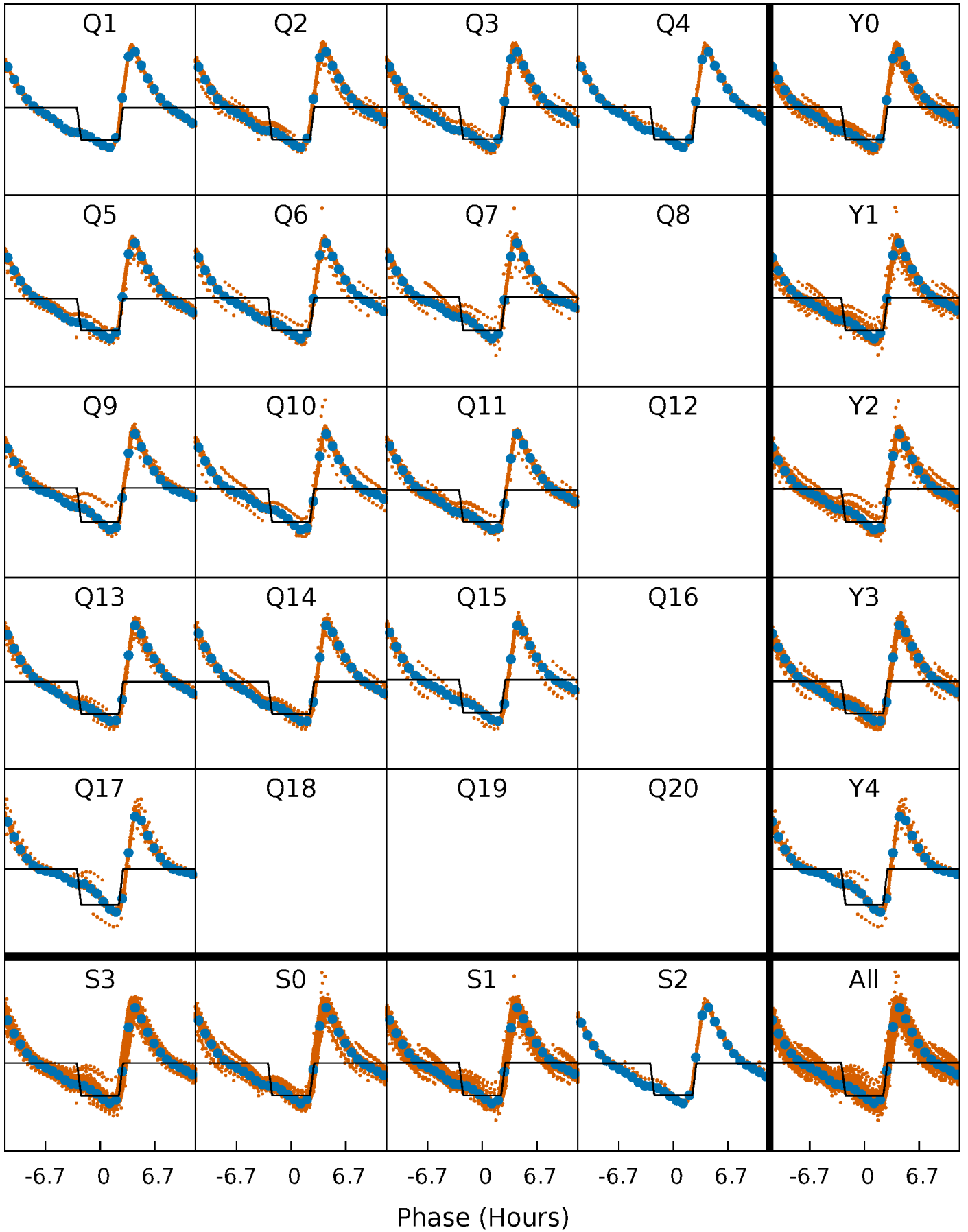
# DV Quarter-Phased Transit Curves

TCE 011802860-01 P= 0.687206 Days  $T_0=131.542444$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

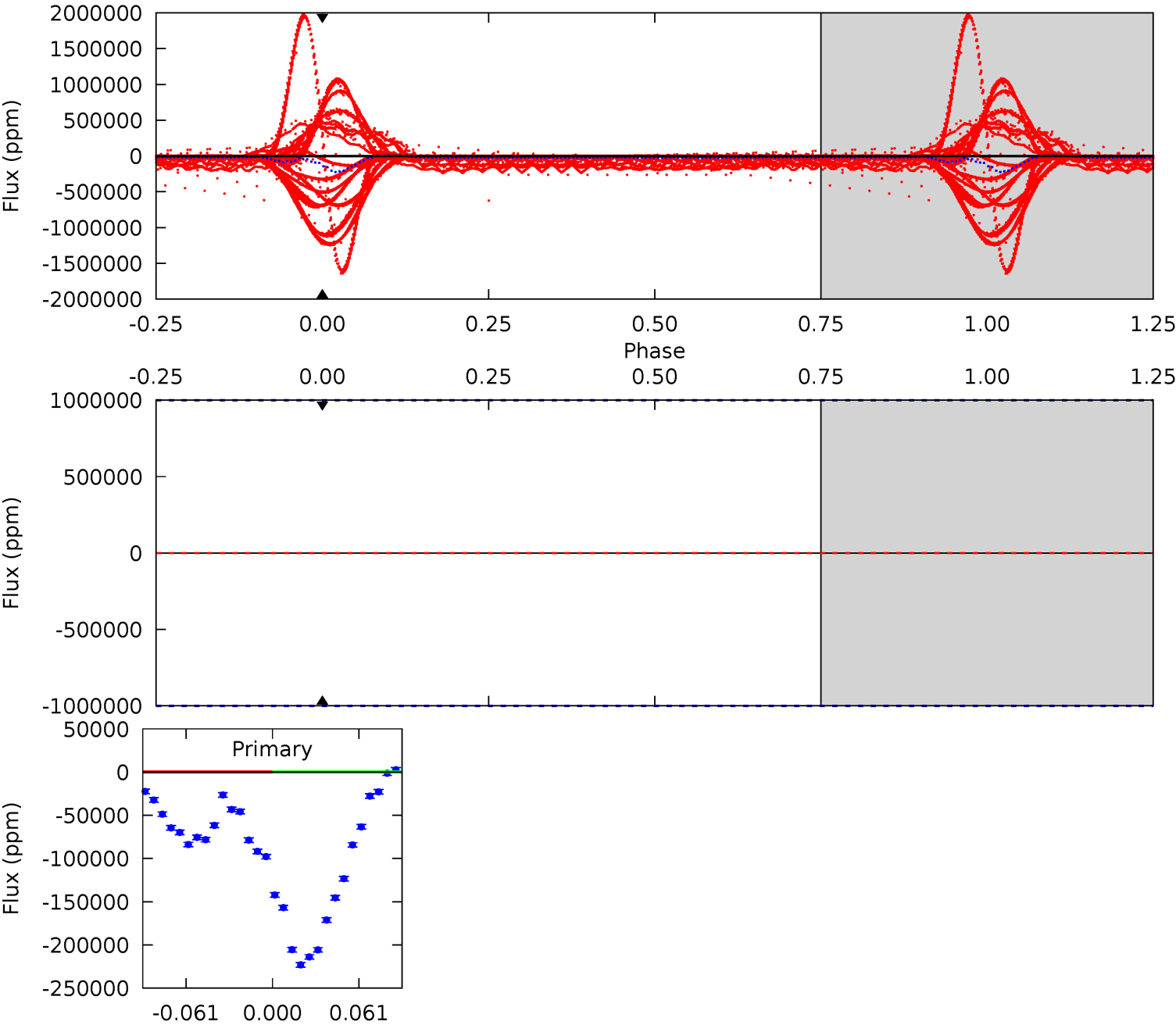
TCE 011802860-01   P= 0.687206 Days    $T_0=132.052196$  (BKJD)



DV Model-Shift Uniqueness Test

011802860-01, P = 0.687206 Days, E = 130.855238 Days

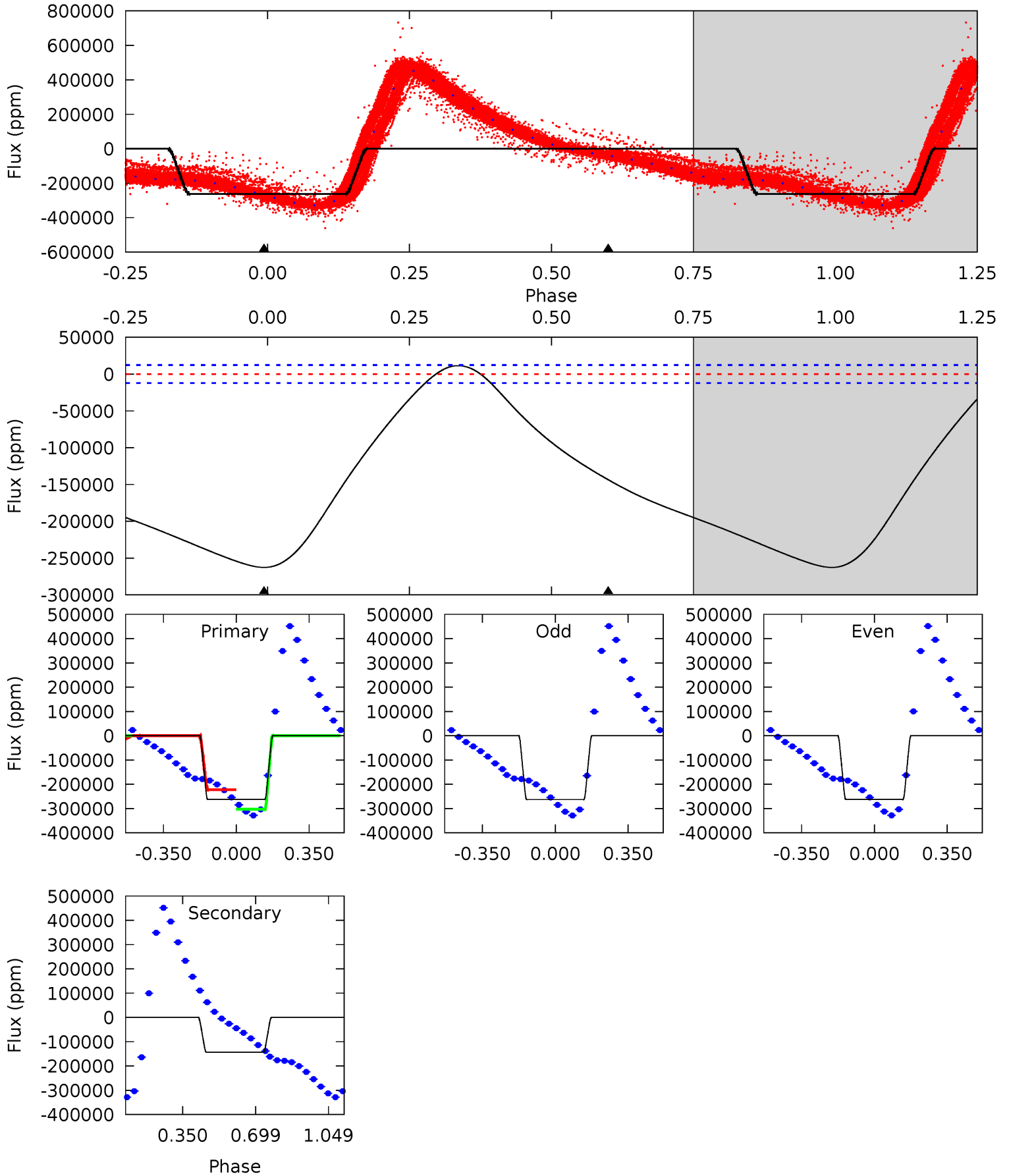
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

011802860-01, P = 0.687206 Days, E = 131.364990 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
91.8	50.1	0	0	4.29	0.94	5.38	91.8	91.8	50.1	50.1	0.06	0.99	0.04	49.5



### Stellar Parameters For KIC 011802860

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$6519^{+162}_{-194}$	$4.025^{+0.336}_{-0.144}$	$-0.380^{+0.300}_{-0.300}$	$1.718^{+0.461}_{-0.614}$	$1.139^{+0.174}_{-0.174}$	$0.317^{+0.731}_{-0.139}$
	+2%/-3%	+8%/-4%	+79%/-79%	+27%/-36%	+15%/-15%	+231%/-44%
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 011802860-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$0 \pm 1000000$	$48.56^{+20.38}_{-19.48}$	$4095^{+315}_{-386}$	$-3917^{+11352}_{-3410}$	$-0.125^{+7.659}_{-6.721}$
Alt.	$-143534 \pm 2862$	$92.55^{+24.66}_{-21.53}$	$4103^{+304}_{-386}$	$5625^{+681}_{-516}$	$2.721^{+1.984}_{-0.993}$

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

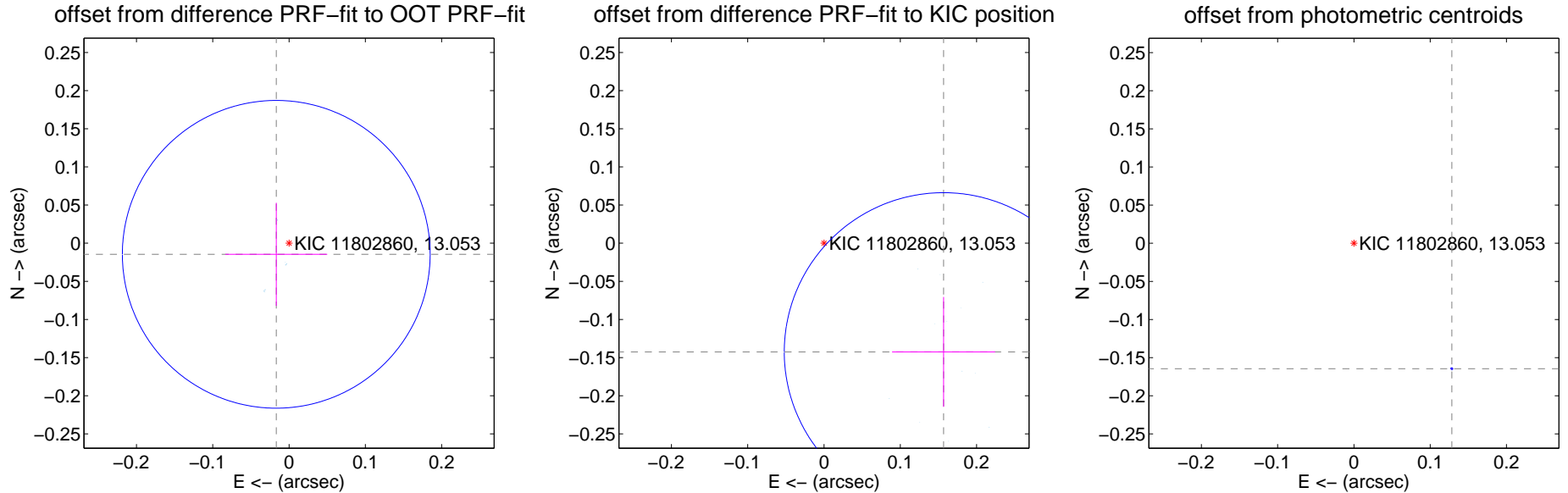
## DV Centroid Data

Supplemental centroid analysis for 011802860-01. Kepler magnitude: 13.05. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

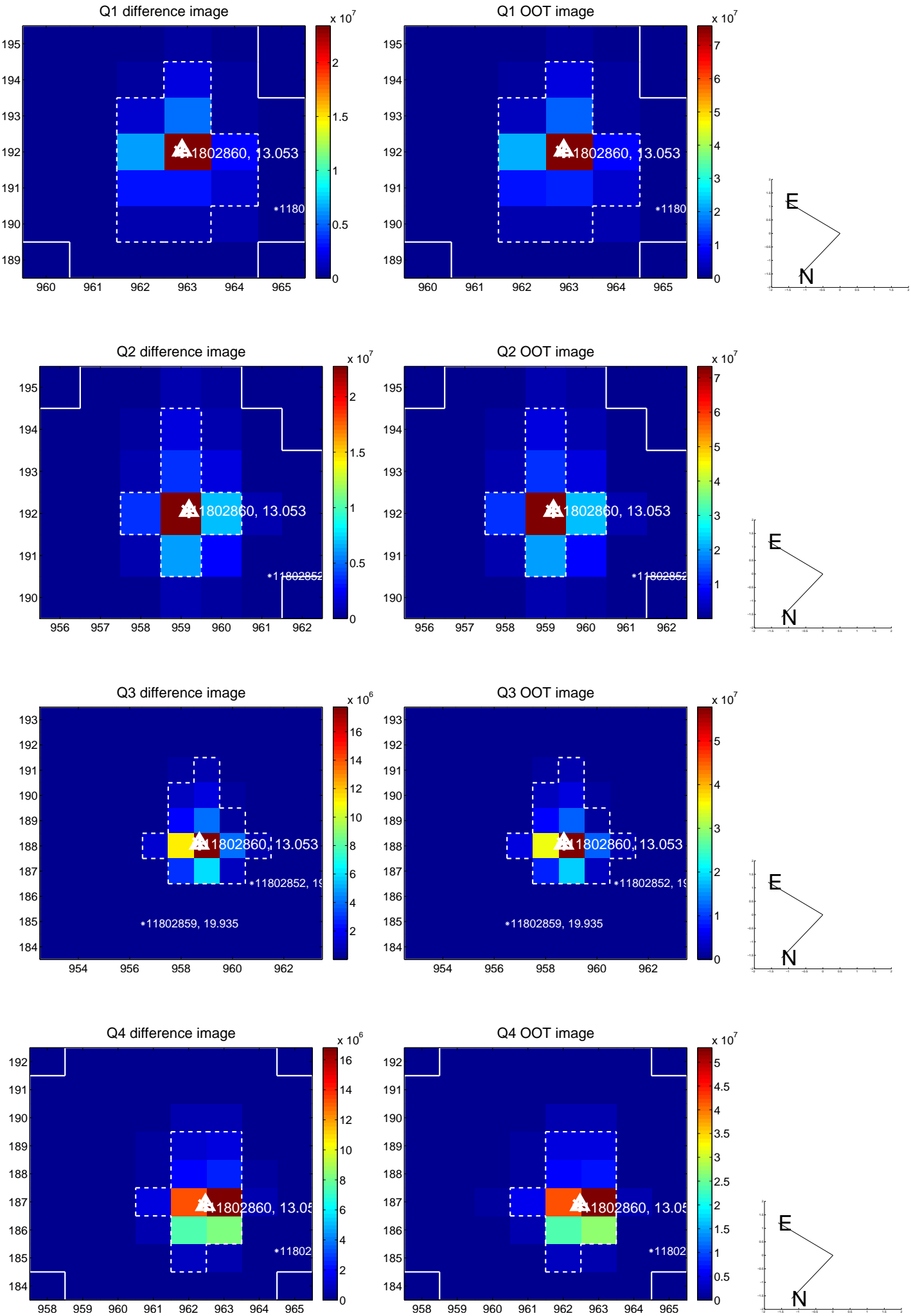
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.022 \pm 0.067$	0.33	$0.017 \pm 0.067$	$-0.015 \pm 0.068$
PRF-fit source offset from KIC position	<b><math>0.212 \pm 0.070</math></b>	<b>3.04</b>	$-0.157 \pm 0.068$	$-0.143 \pm 0.072$
photometric centroid source offset	<b><math>0.21 \pm 0.00</math></b>	<b>518.33</b>	$-0.13 \pm 0.00$	$-0.16 \pm 0.00$



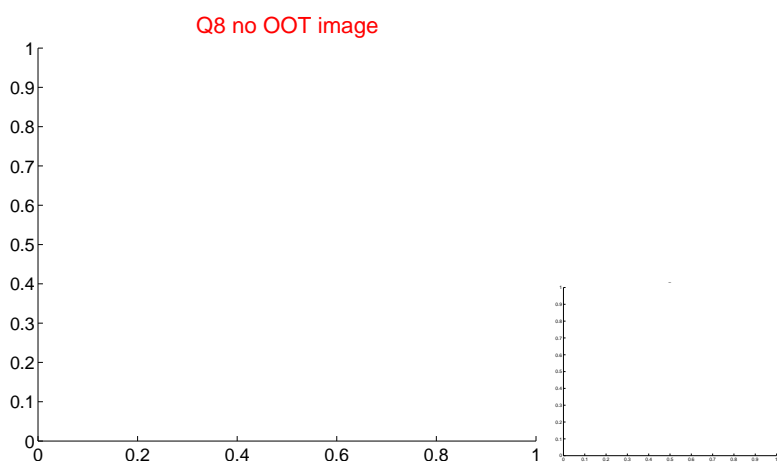
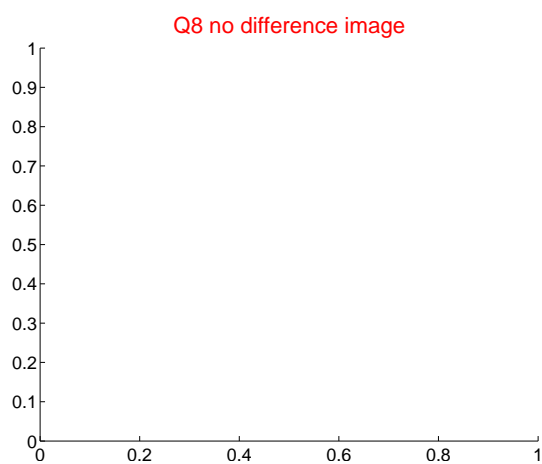
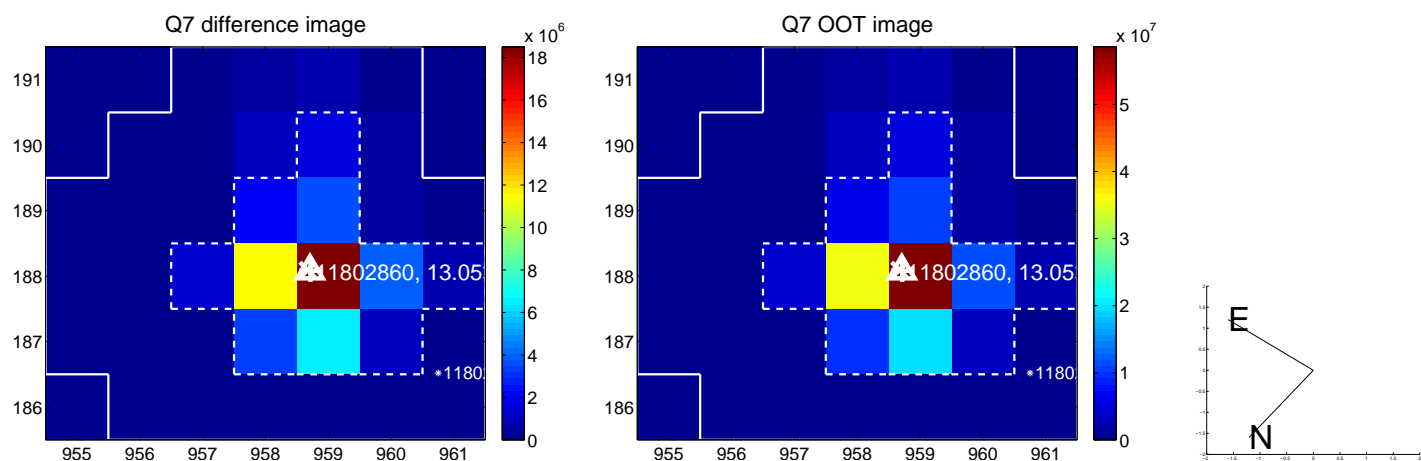
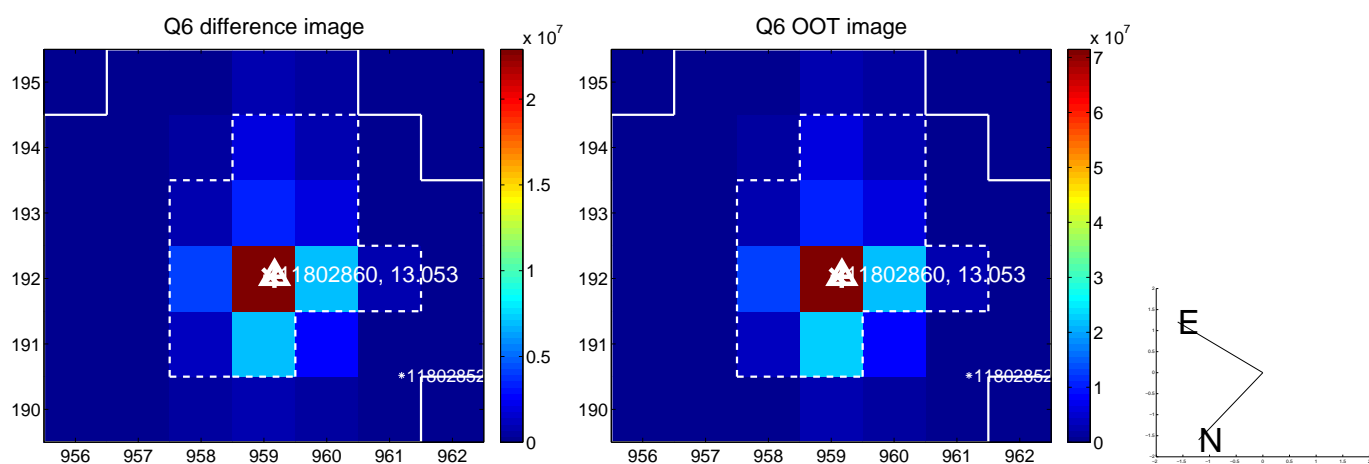
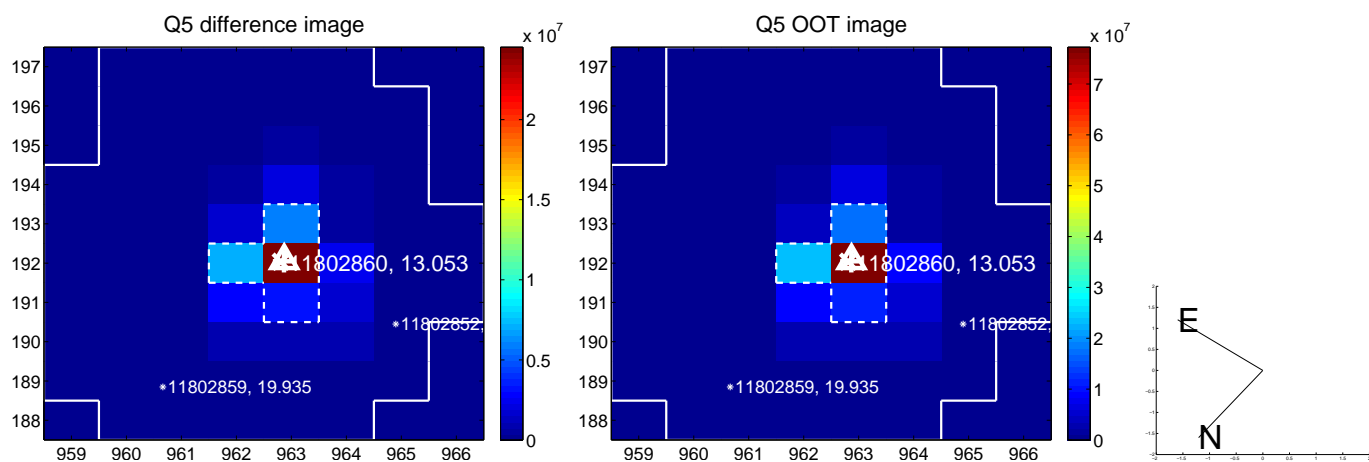
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



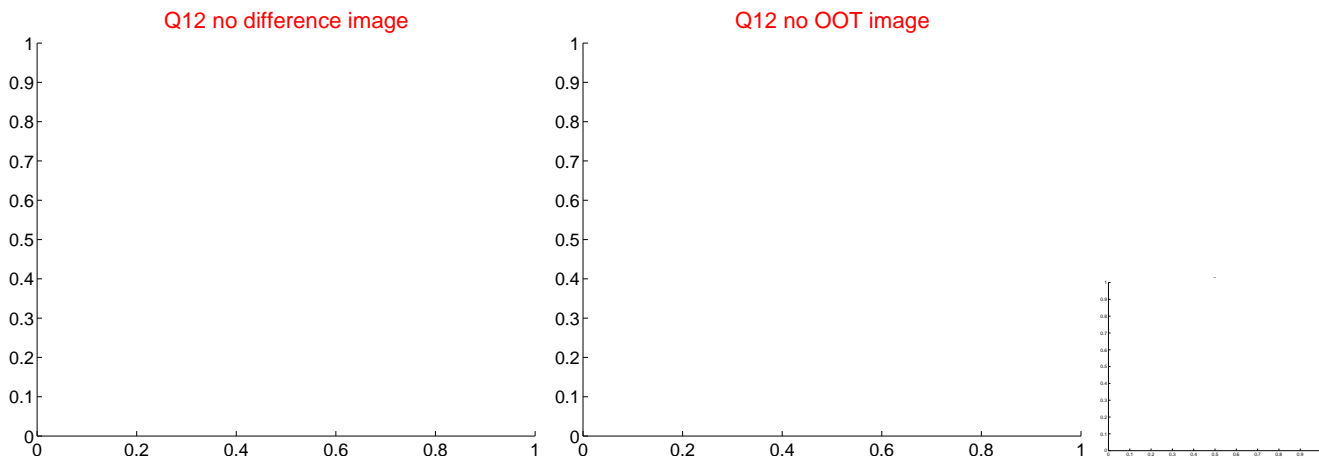
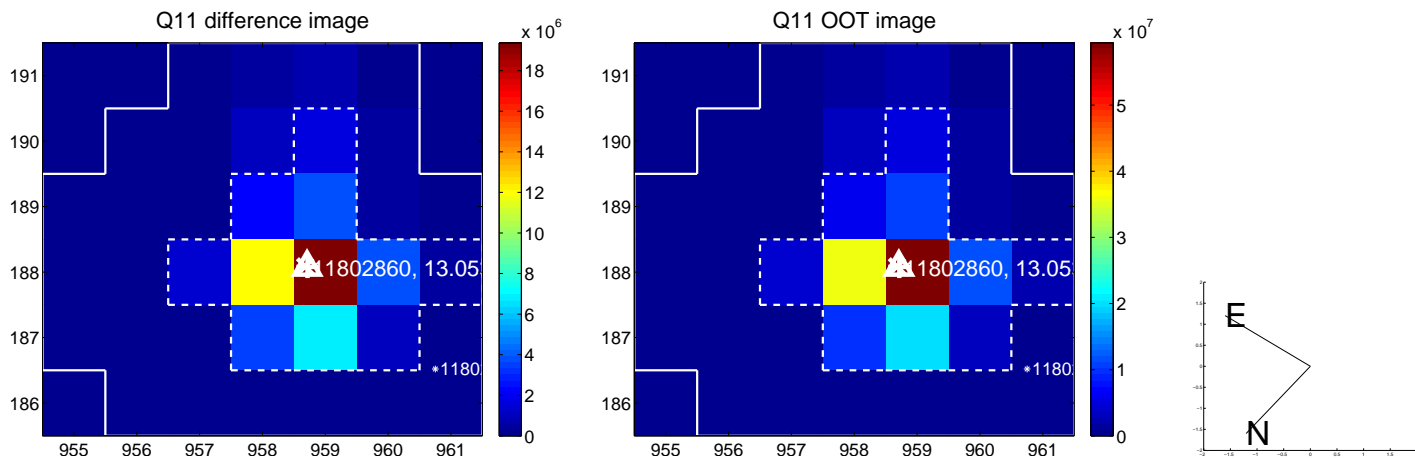
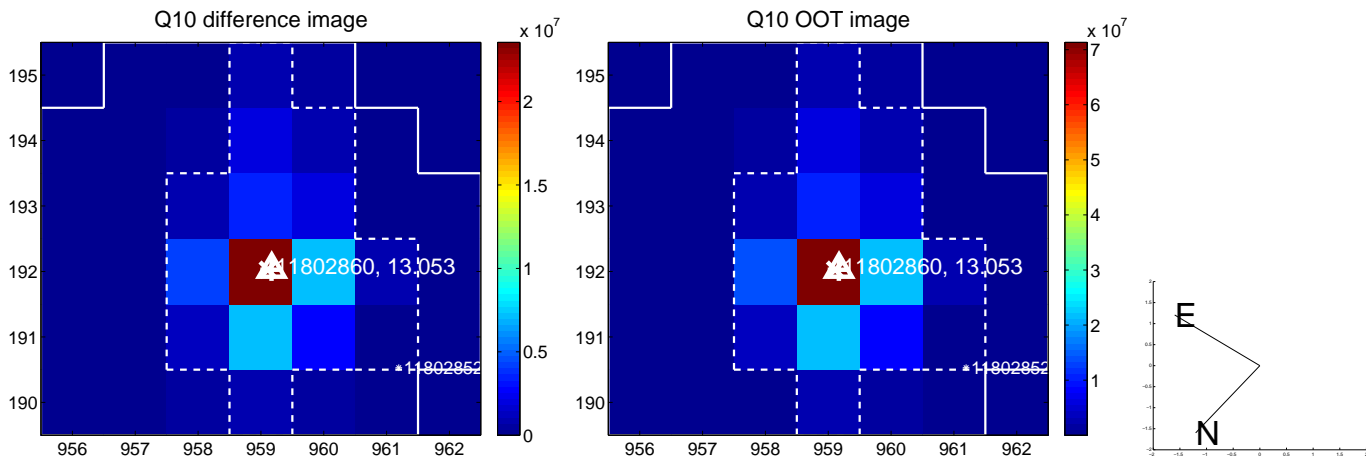
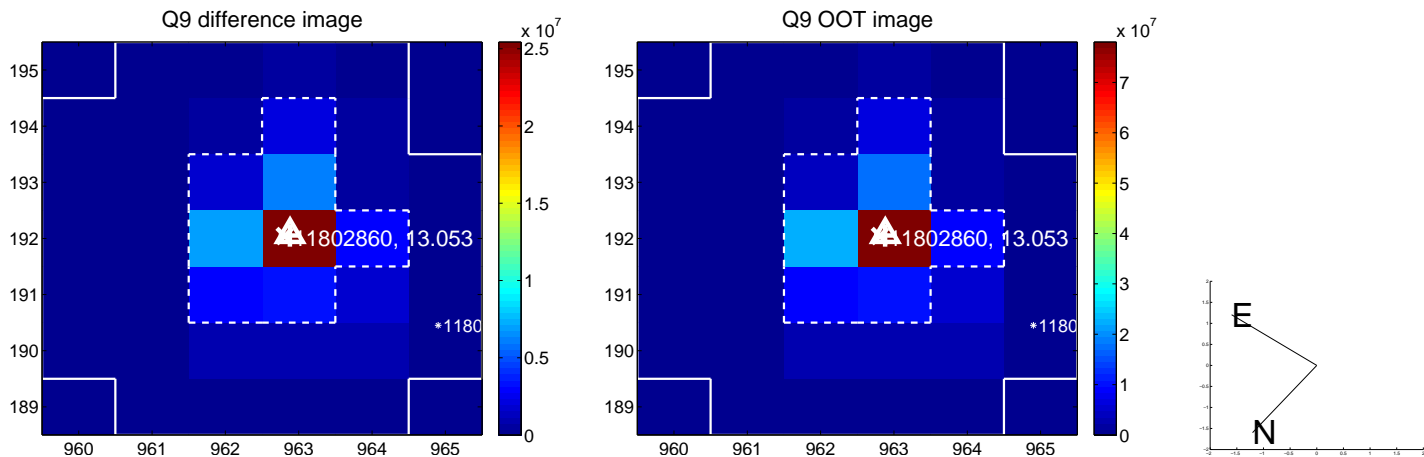
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



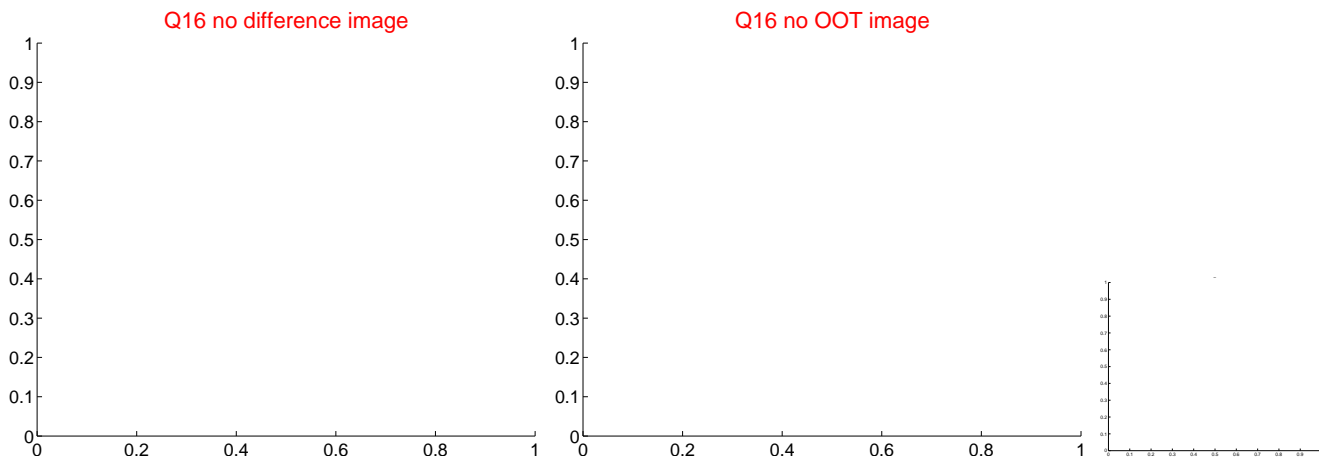
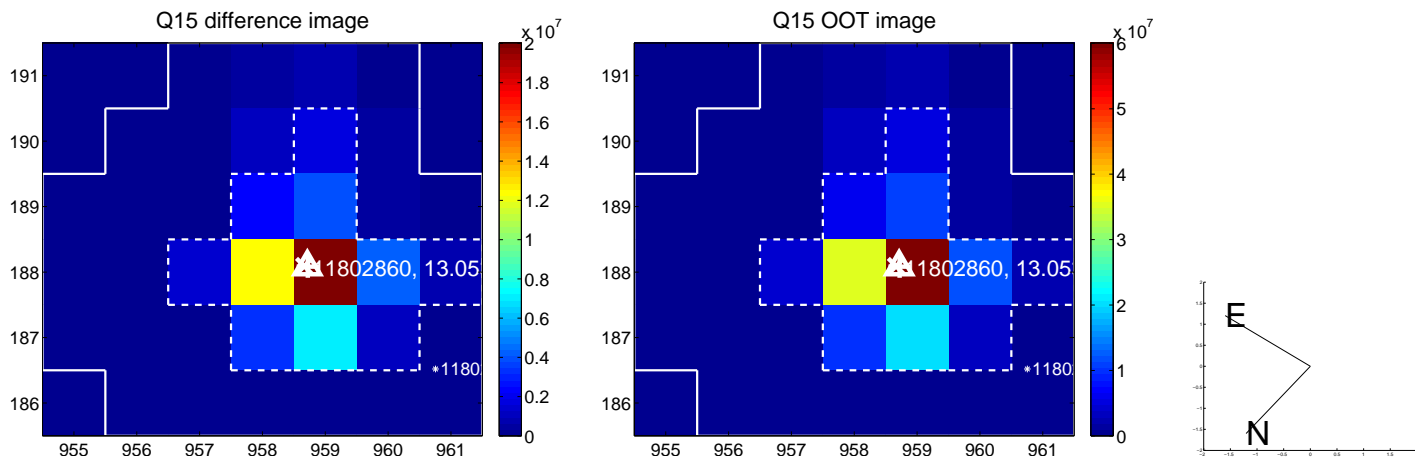
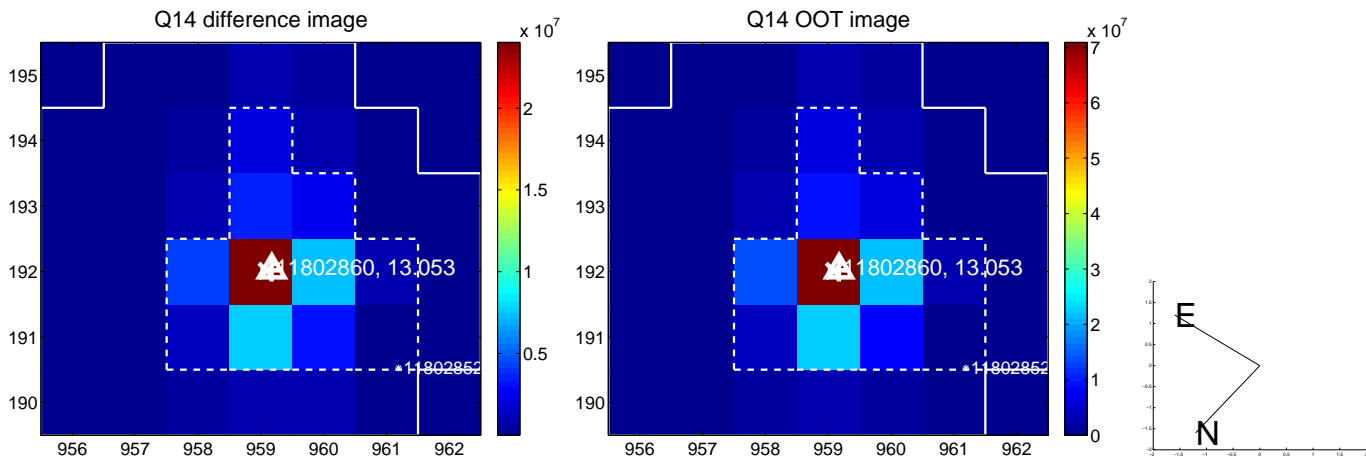
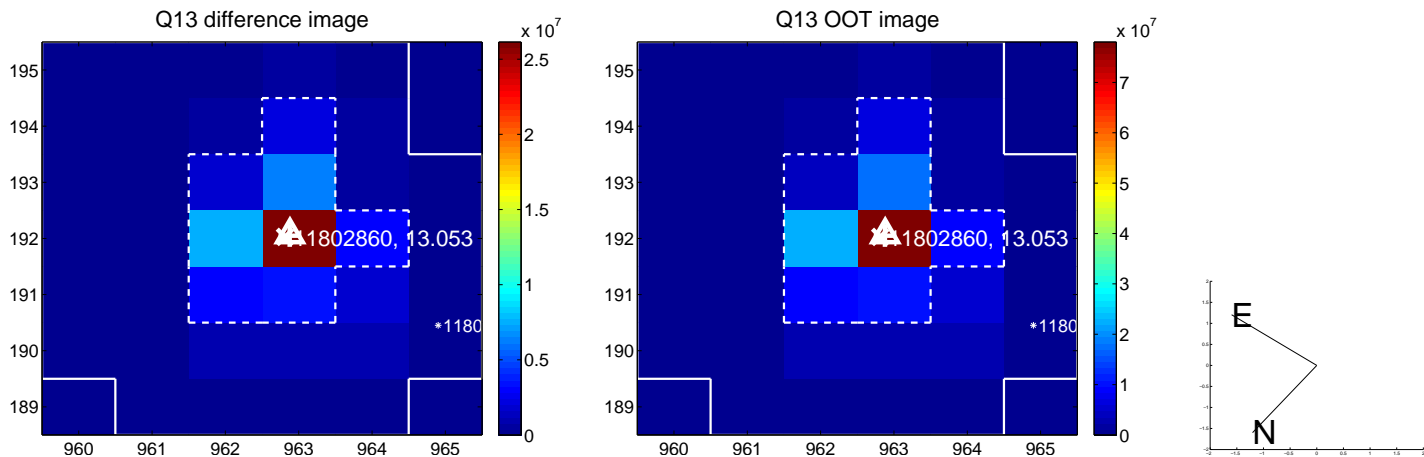
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value



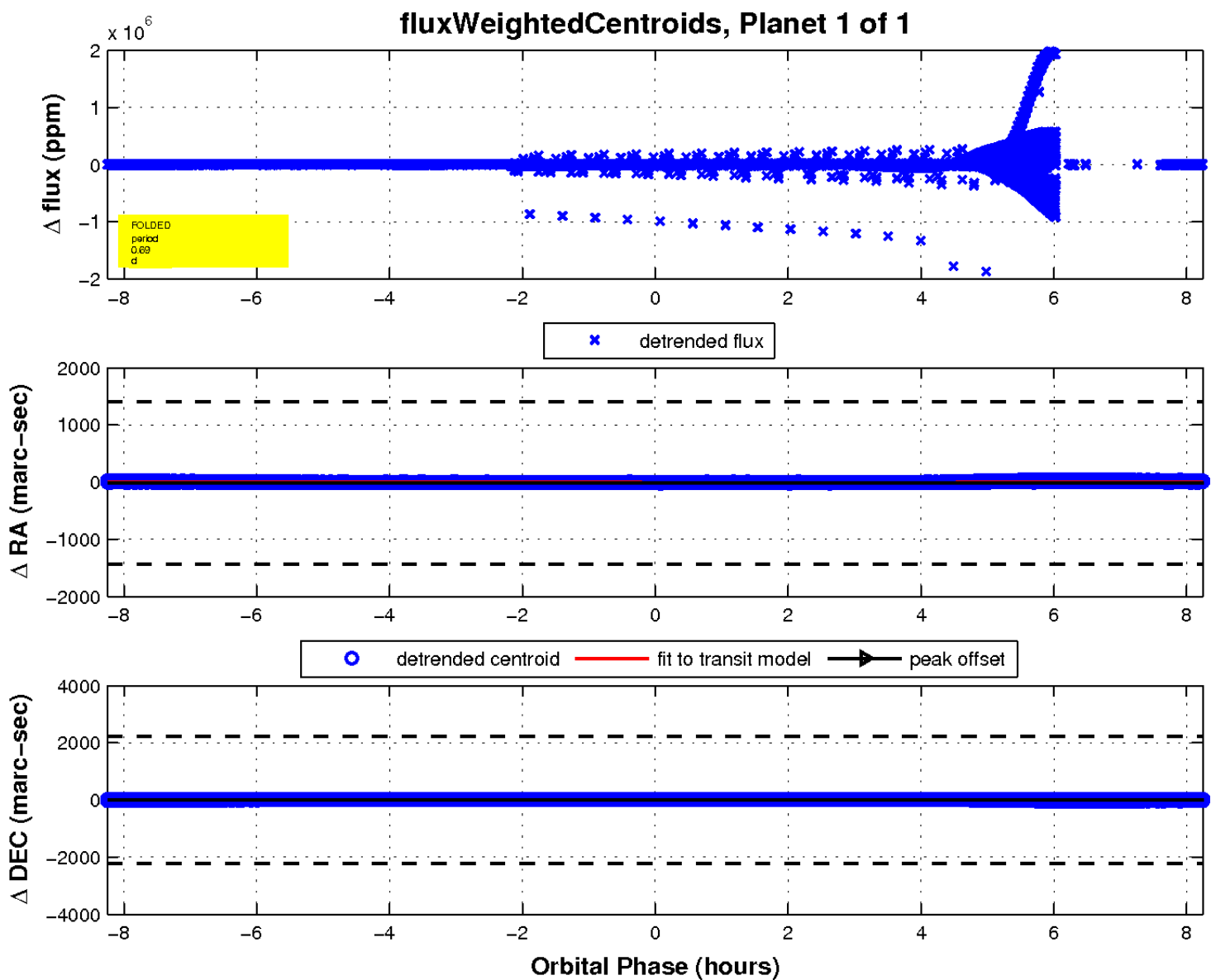
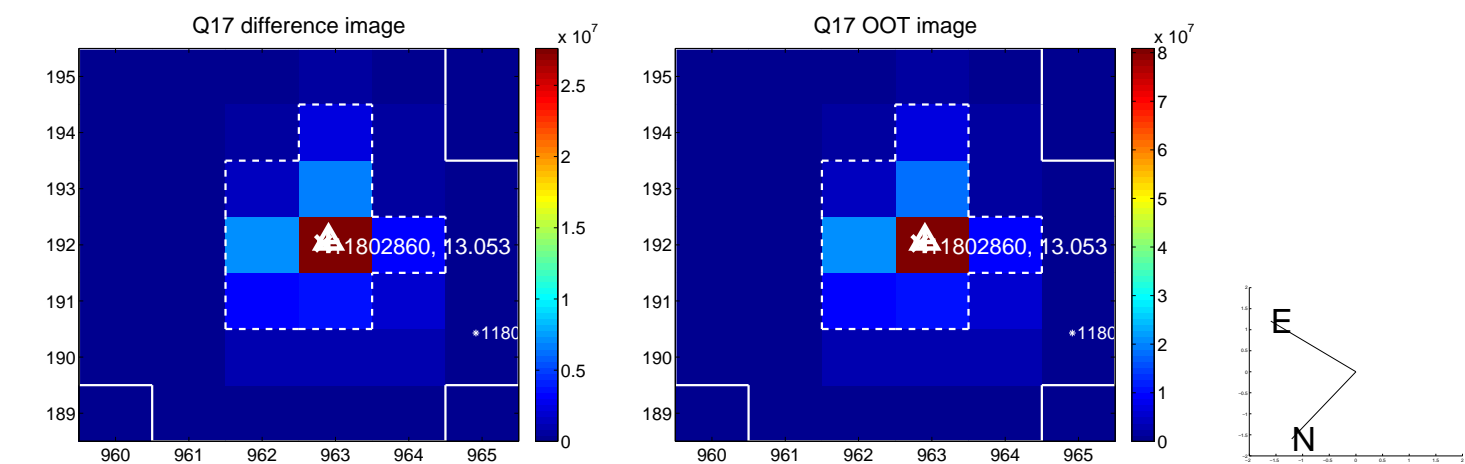
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



# UKIRT Image

Declination

