

# KIC 011809346

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011809346-01	OBS	No	0.624599	131.721610	371.3	2.000	8.6	-1.0	1.13	6351	2.19	8885.70

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011809346-01	OBS	FP	0.00	1	0	0	0	<del>SWEET_NTL</del> <del>—LPP_DV</del> <del>—CENT_NOFITS</del>

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

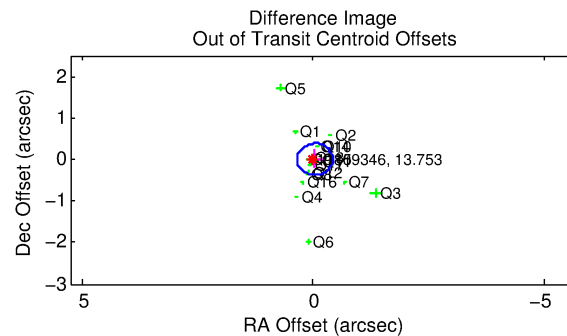
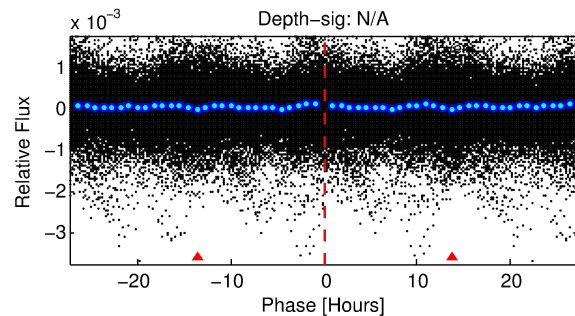
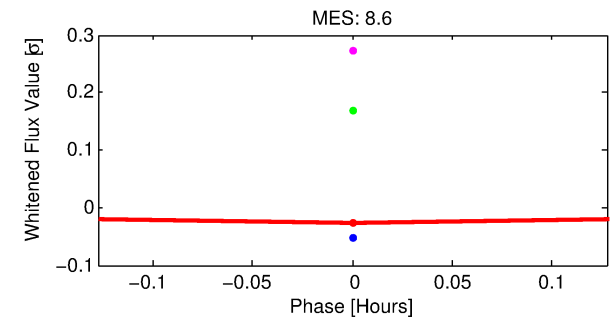
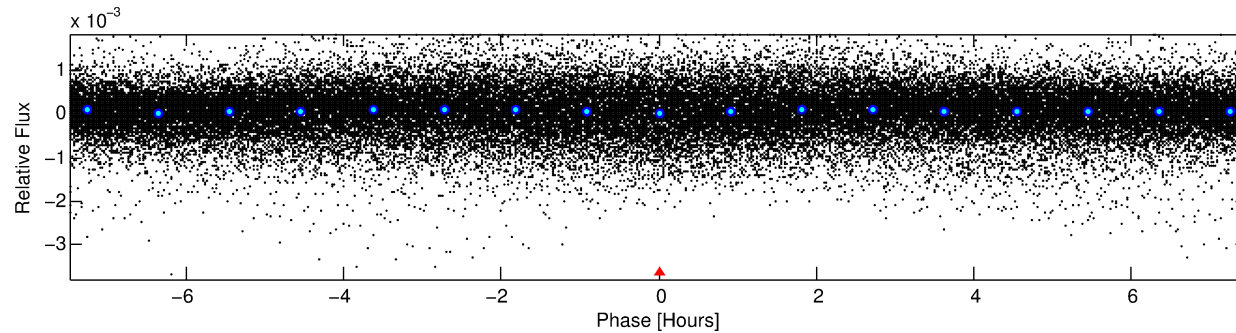
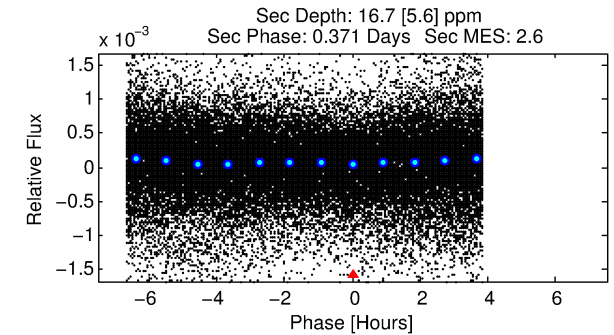
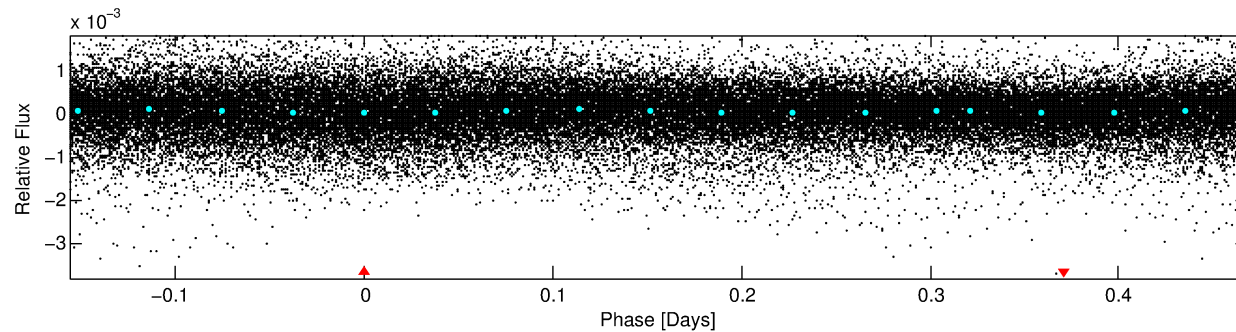
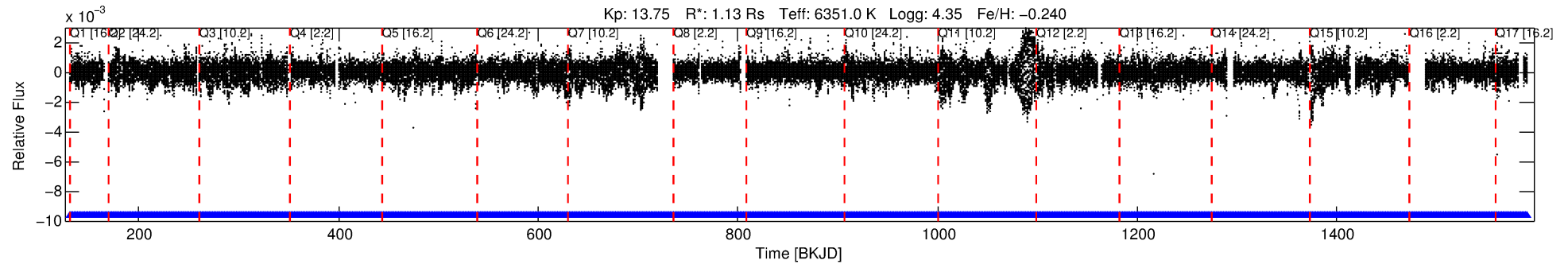
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011809346-01

No Significant Match Found

# DV One-Page Summary

KIC: 11809346 Candidate: 1 of 1 Period: 0.625 d



## TPS TCE Results:

Period = 0.62460 d  
Epoch = 131.7216 BKJD

DV fit results are unavailable

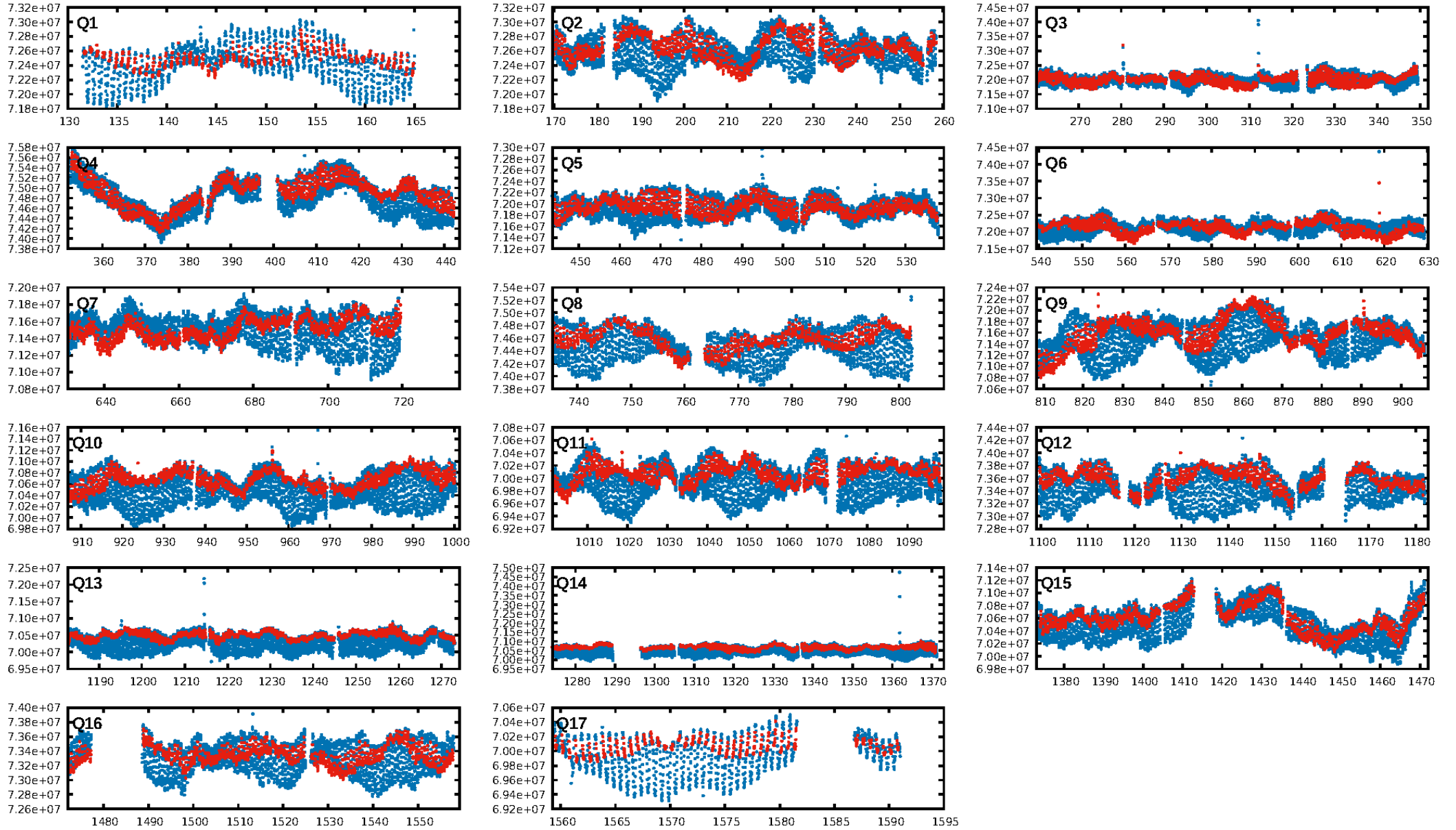
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 2.45e-15  
RollingBand-fgt: 1.00 [2055/2055]  
GhostDiagnostic-chr: 0.9314  
Centroid-sig: 26.9%  
Centroid-so: 0.112 arcsec [7.52 $\sigma$ ]  
OotOffset-rm: 0.040 arcsec [0.31 $\sigma$ ]  
KicOffset-rm: 0.043 arcsec [0.30 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.06 [1/17]  
DiffImageOverlap-fno: 1.00 [17/17]

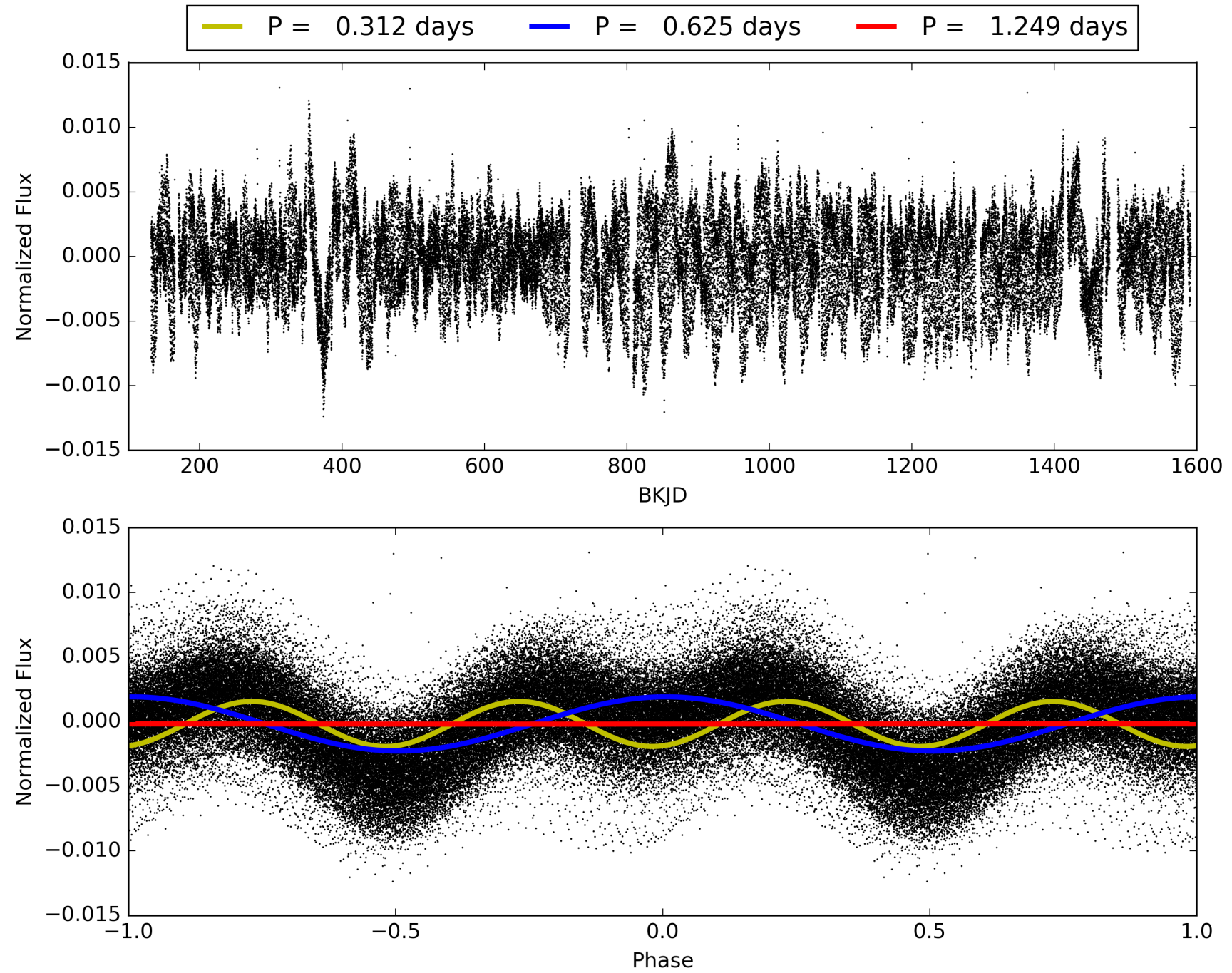
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:12:02 Z

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

# TCE 011809346-01, PDC Light Curves

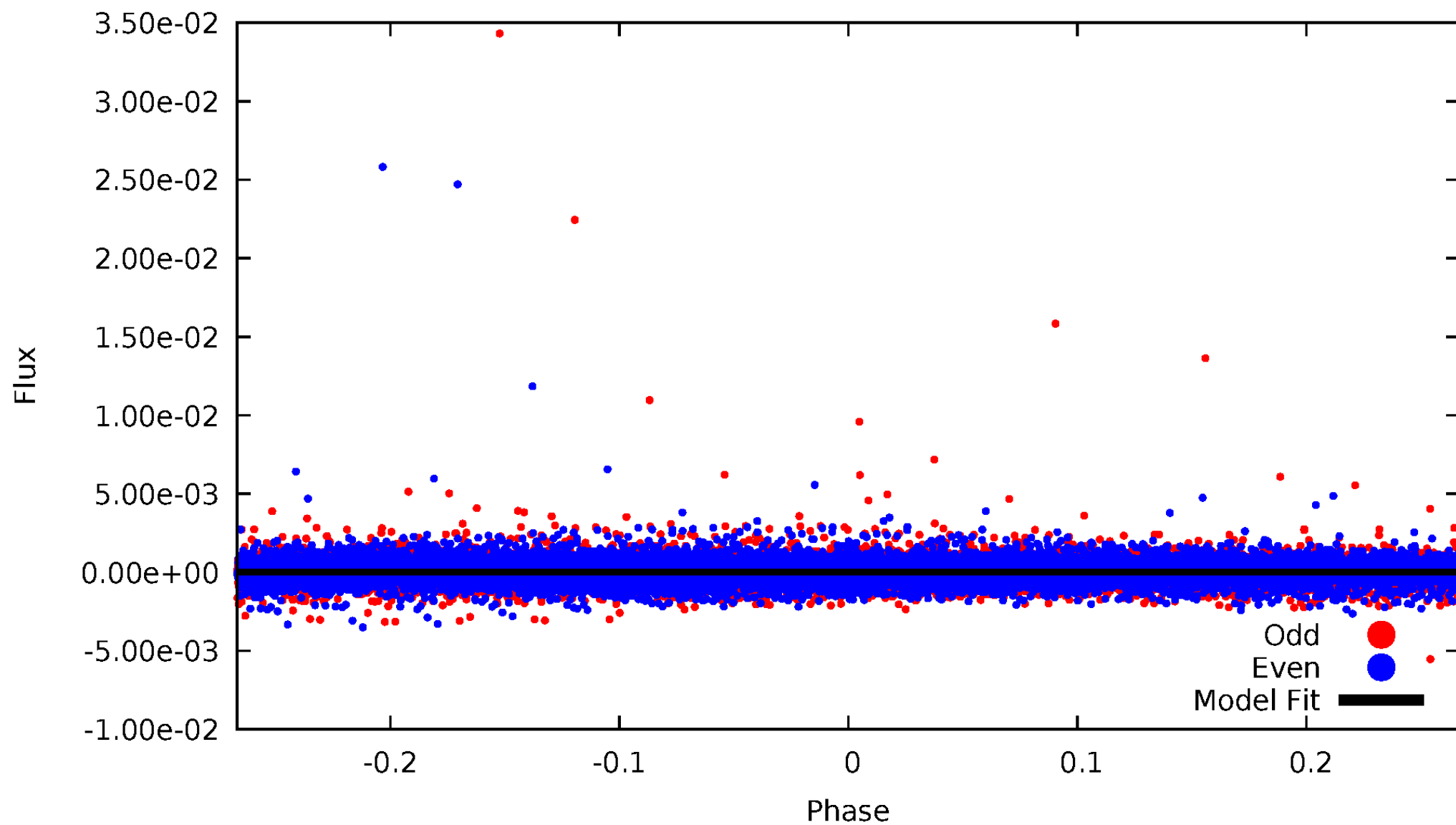


TCE 011809346-01



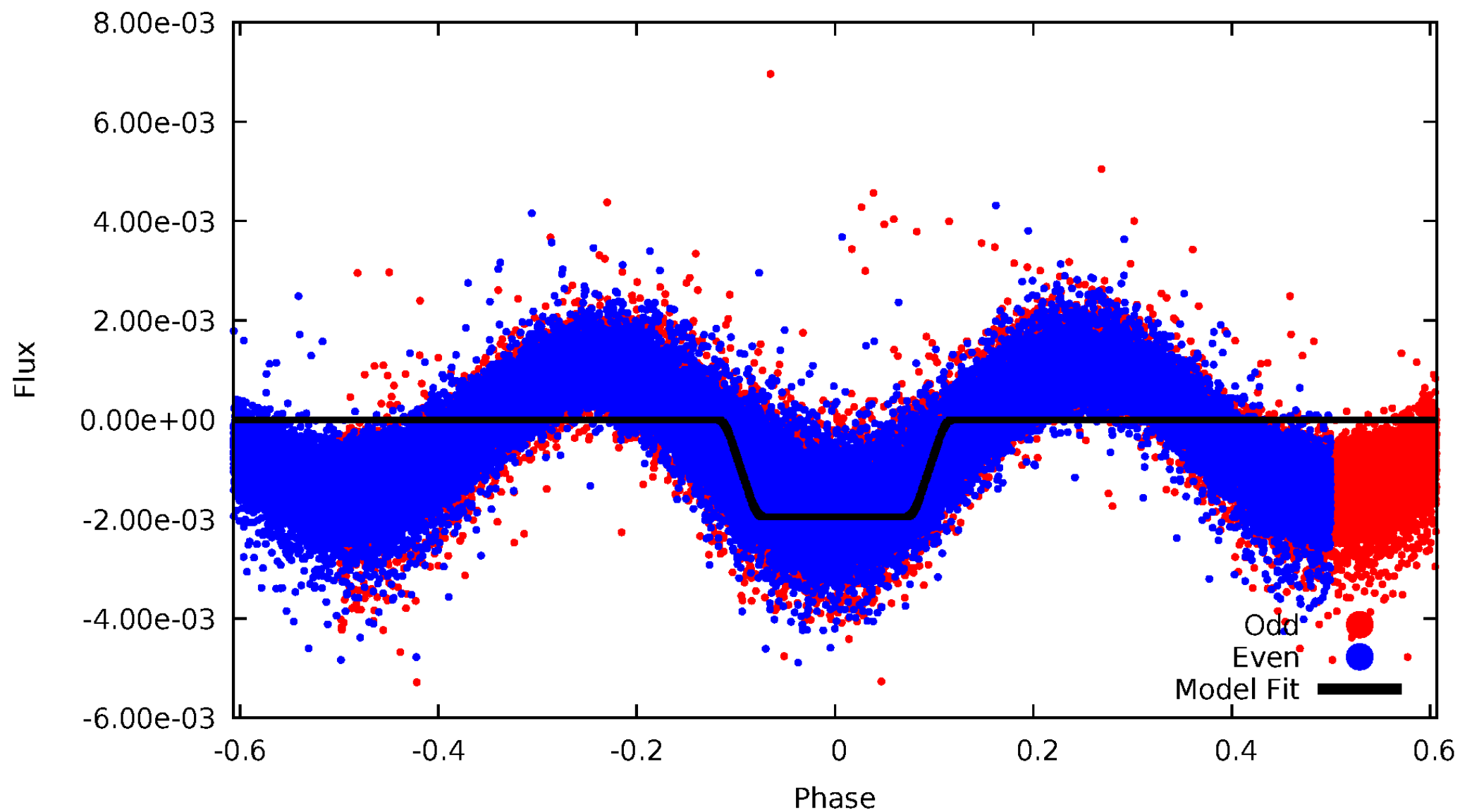
# DV Odd/Even

TCE 011809346-01



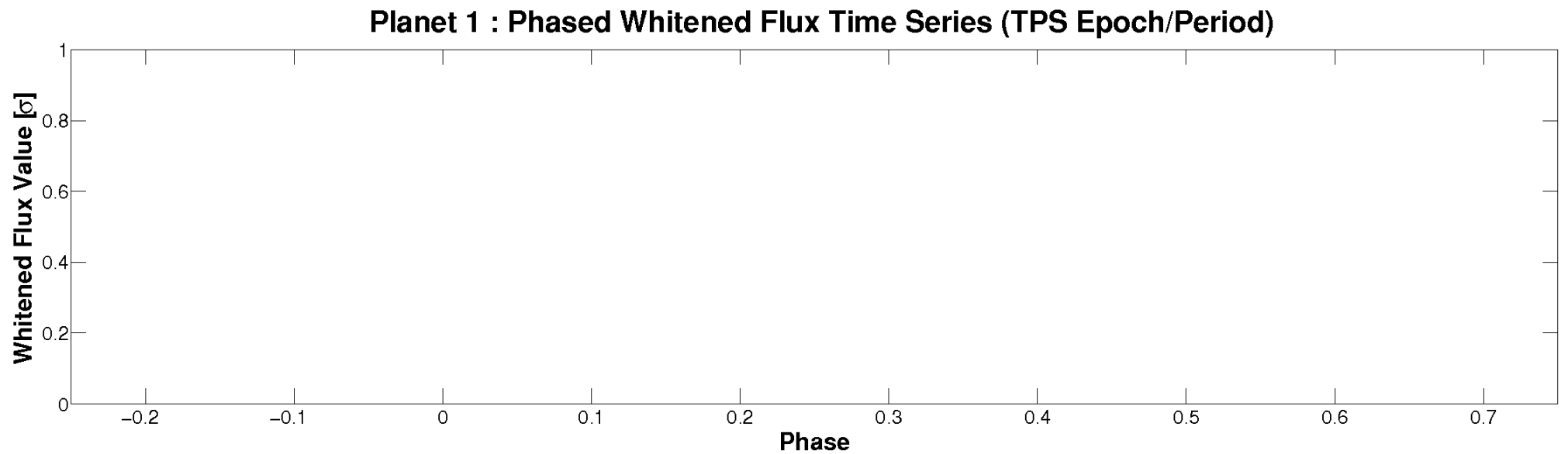
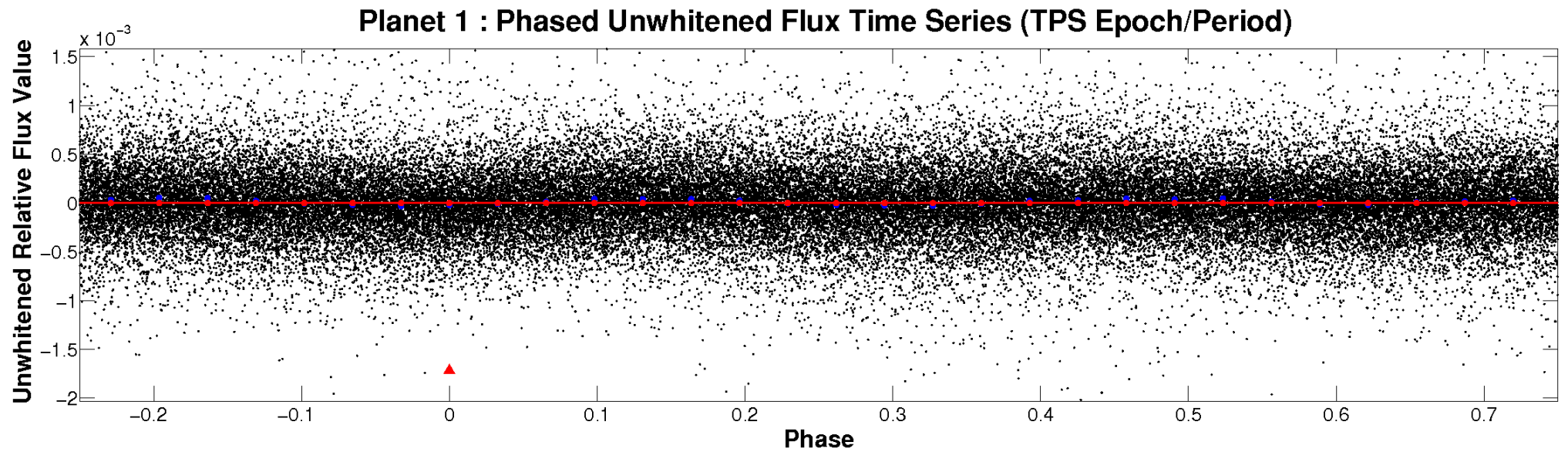
# ALT Odd/Even

TCE 011809346-01



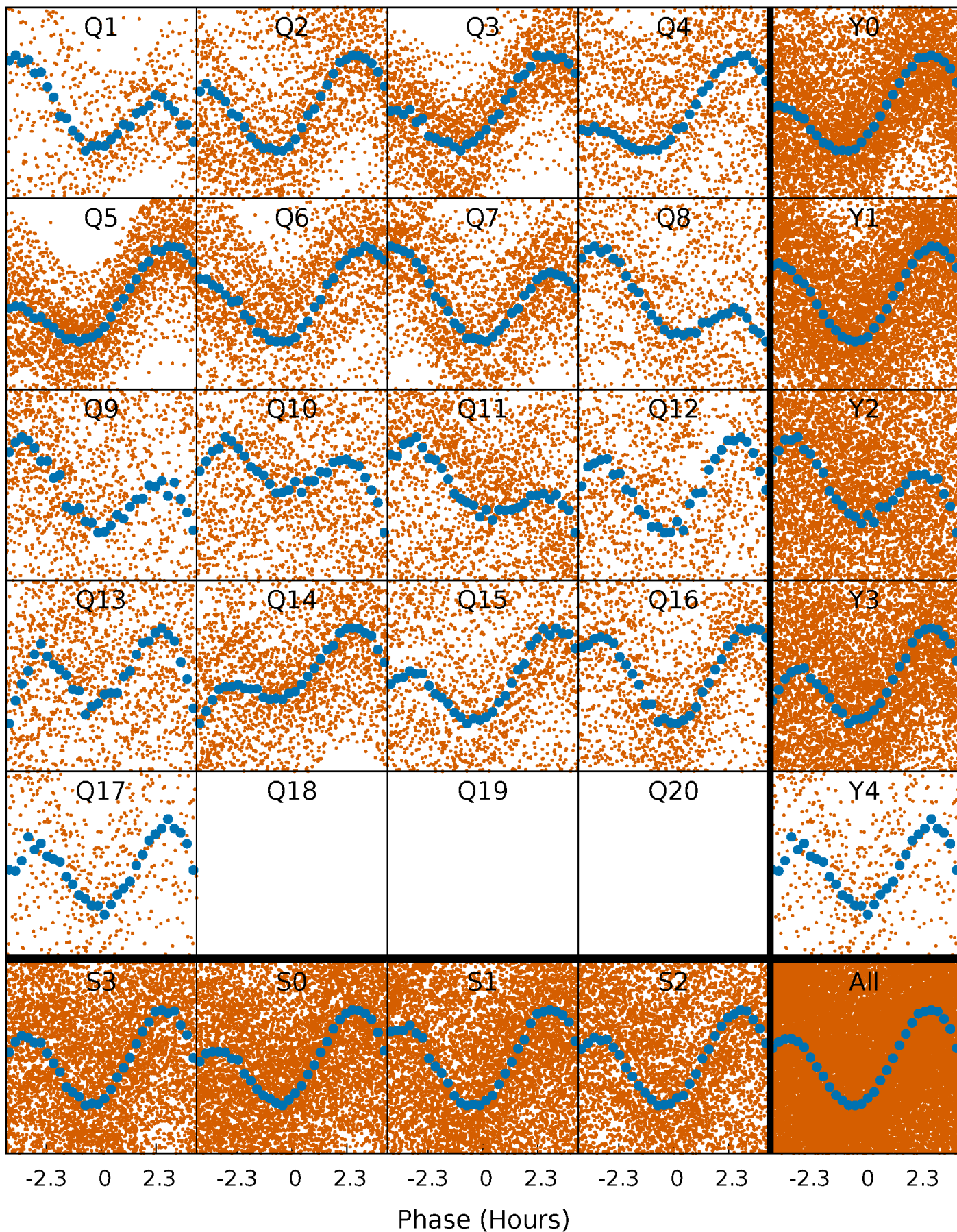


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

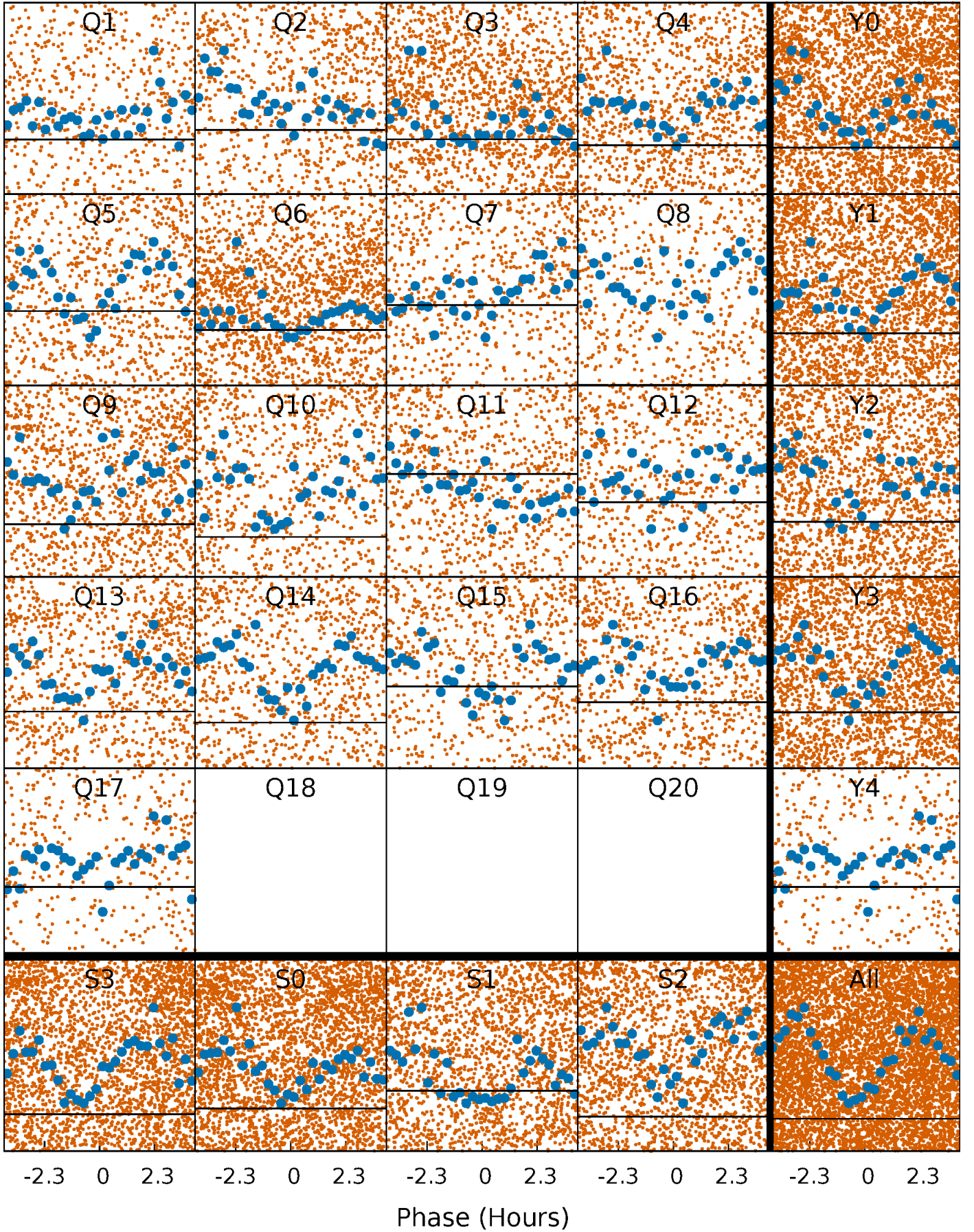
TCE 011809346-01 P= 0.624599 Days  $T_0=131.721610$  (BKJD)





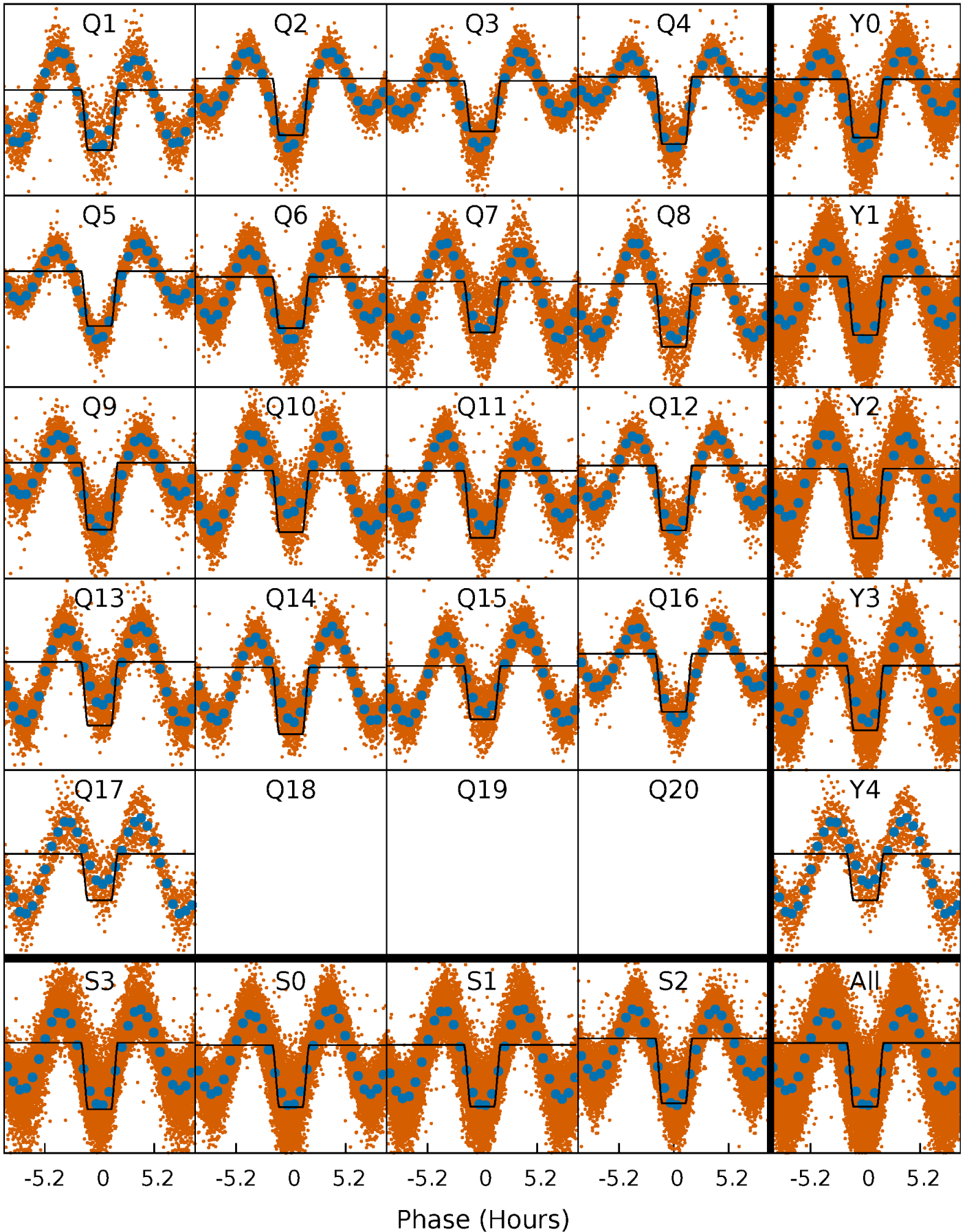
# DV Quarter-Phased Transit Curves

TCE 011809346-01 P= 0.624599 Days  $T_0=131.721610$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

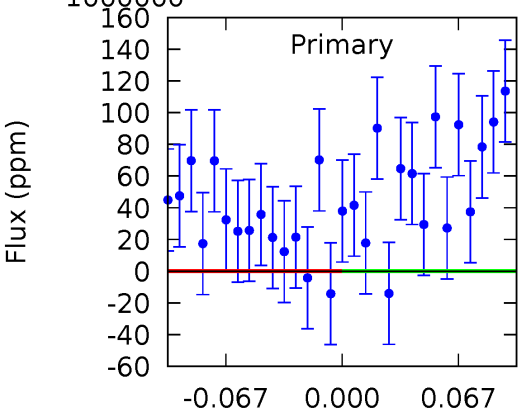
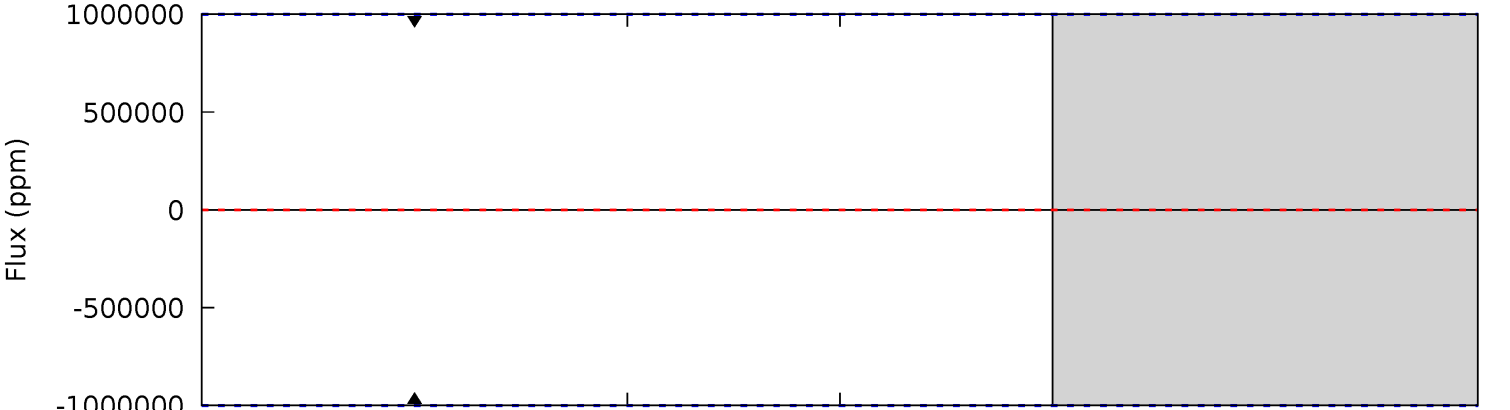
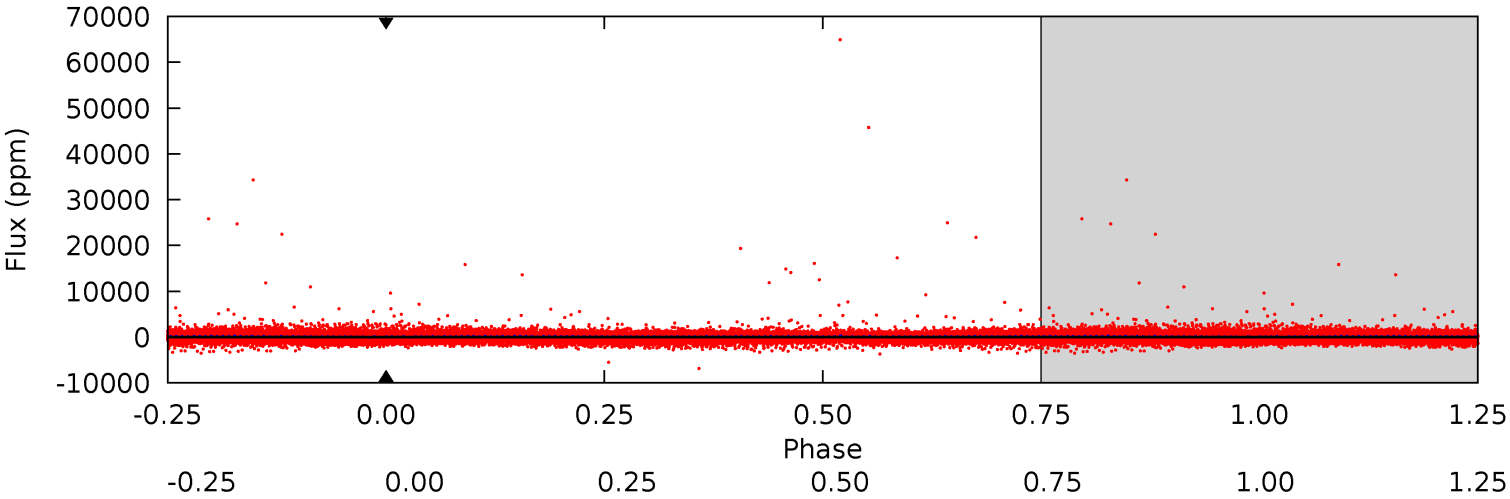
TCE 011809346-01   P= 0.624599 Days    $T_0=131.708041$  (BKJD)



# DV Model-Shift Uniqueness Test

011809346-01, P = 0.624599 Days, E = 131.097011 Days

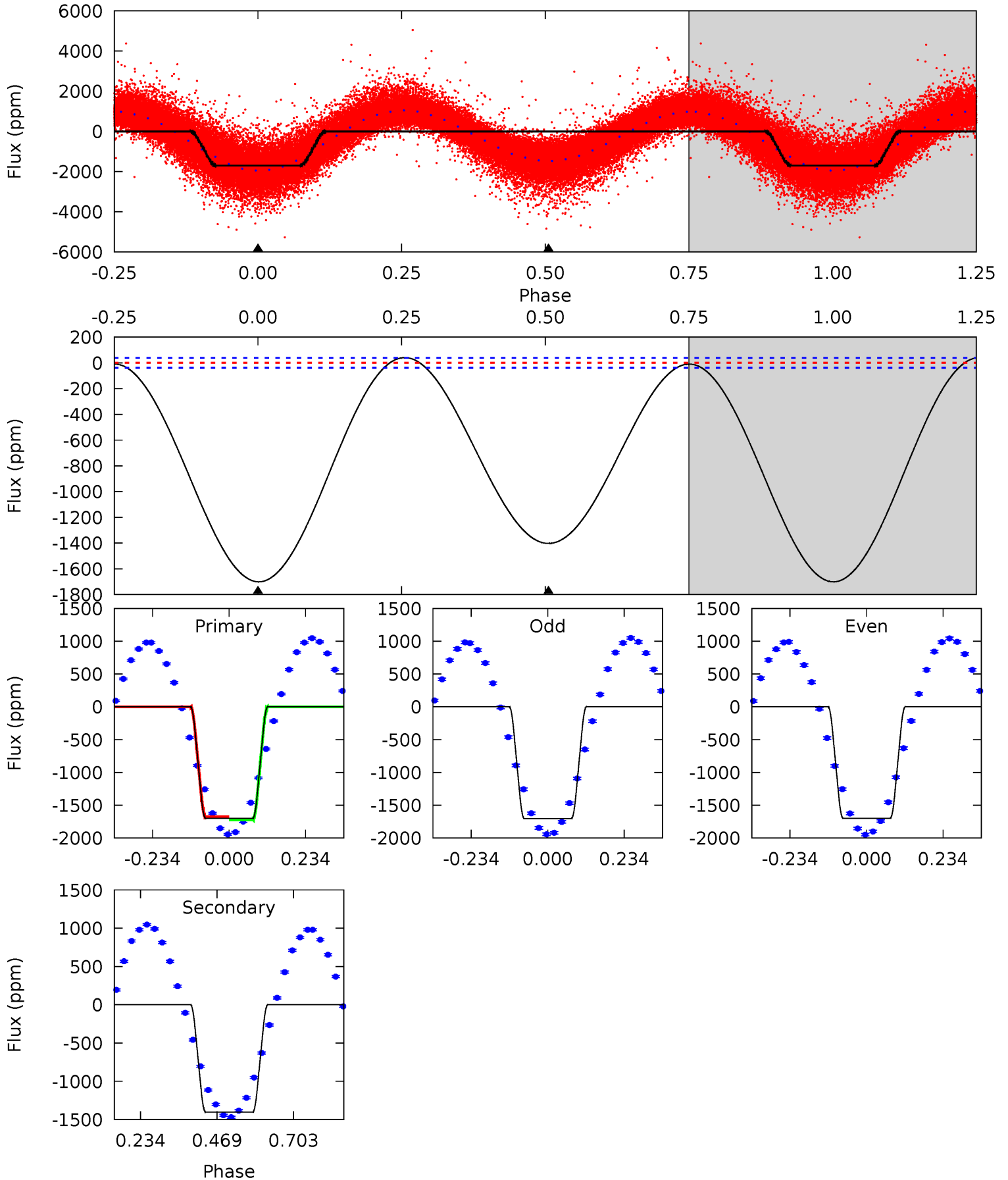
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

011809346-01, P = 0.624599 Days, E = 131.083442 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
191.7	158.1	0	0	4.38	1.19	2.95	191.7	191.7	158.1	158.1	0.30	0.98	0.02	3.72



### Stellar Parameters For KIC 011809346

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6351^{+157}_{-189}$	$4.348^{+0.105}_{-0.195}$	$-0.240^{+0.250}_{-0.300}$	$1.132^{+0.352}_{-0.176}$	$1.035^{+0.172}_{-0.114}$	$1.006^{+0.452}_{-0.496}$
	+2%/-3%	+2%/-4%	+104%/-125%	+31%/-16%	+17%/-11%	+45%/-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 011809346-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$0 \pm 1000000$	$9.65^{+9.50}_{-6.42}$	$3488^{+261}_{-186}$	$4321^{+24504}_{-27464}$	$1.466^{+254.654}_{-171.653}$
Alt.	$-1402 \pm 9$	$10.95^{+10.97}_{-7.22}$	$3496^{+258}_{-189}$	$4172^{+2942}_{-1589}$	$1.351^{+10.336}_{-1.016}$

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



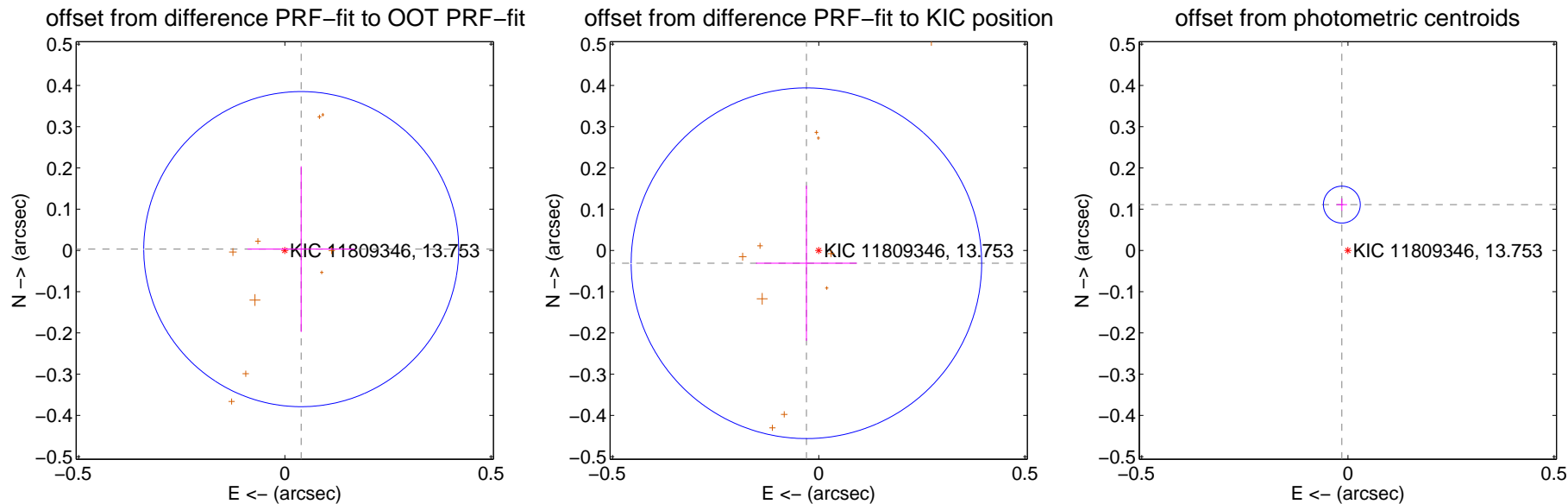
## DV Centroid Data

Supplemental centroid analysis for 011809346-01. Kepler magnitude: 13.75. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

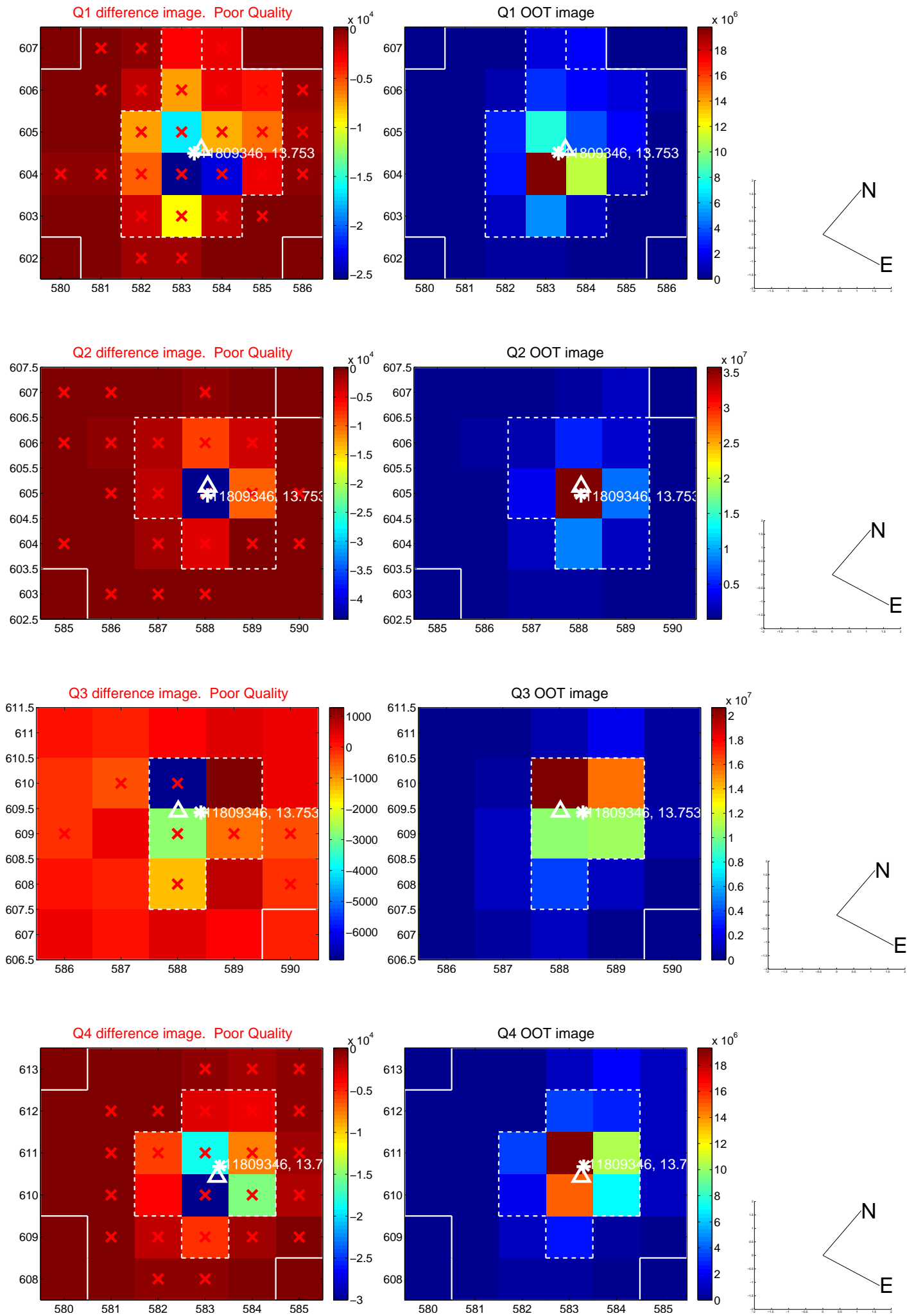
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.040 \pm 0.127$	0.31	$-0.040 \pm 0.130$	$0.003 \pm 0.201$
PRF-fit source offset from KIC position	$0.043 \pm 0.142$	0.30	$0.030 \pm 0.122$	$-0.031 \pm 0.188$
photometric centroid source offset	$0.11 \pm 0.01$	7.52	$0.01 \pm 0.01$	$0.11 \pm 0.01$

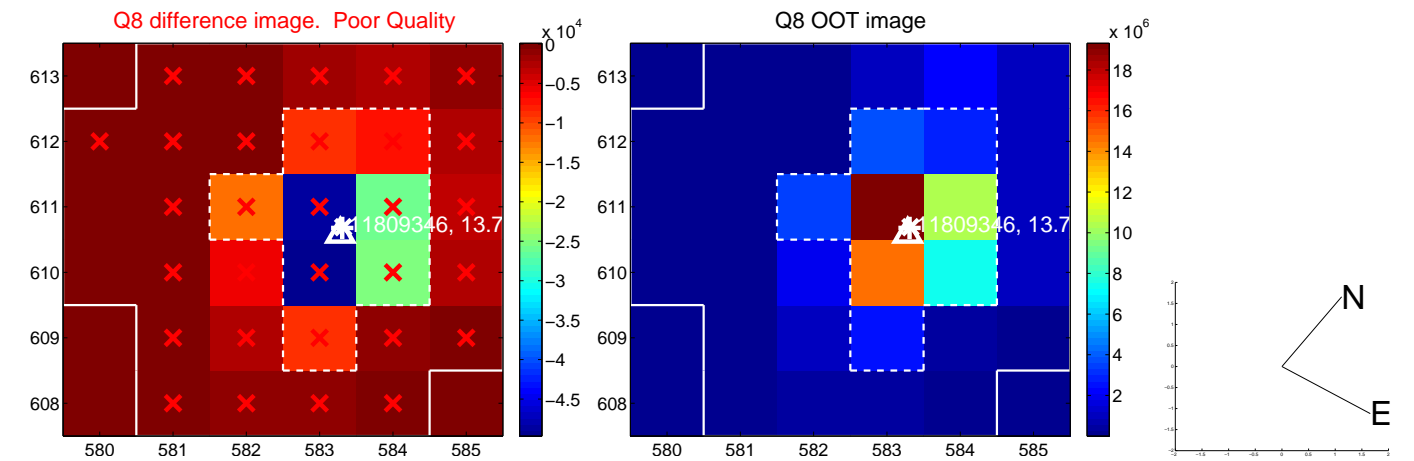
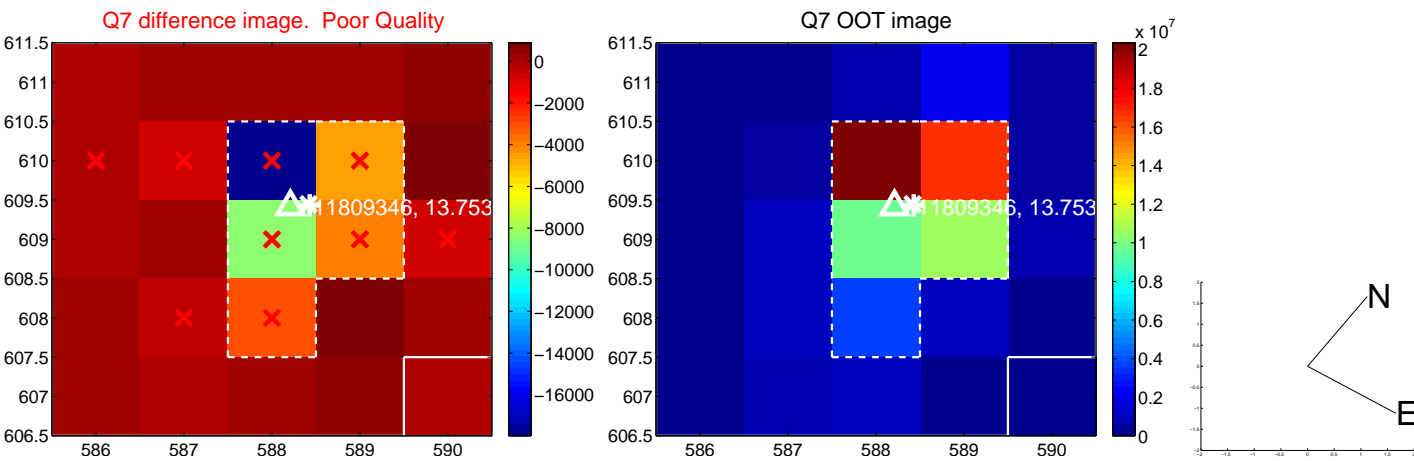
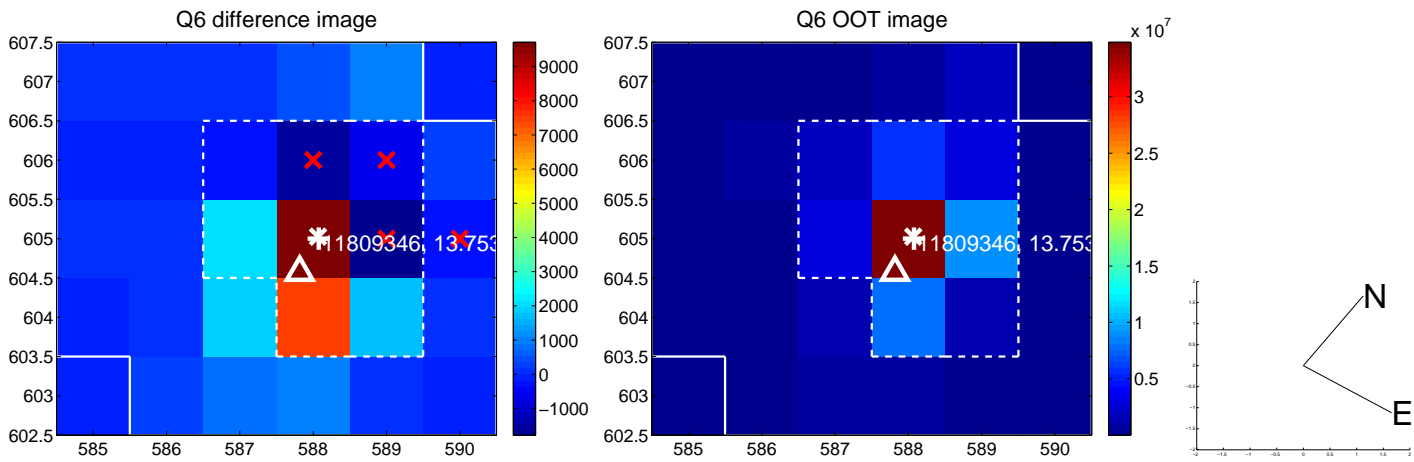
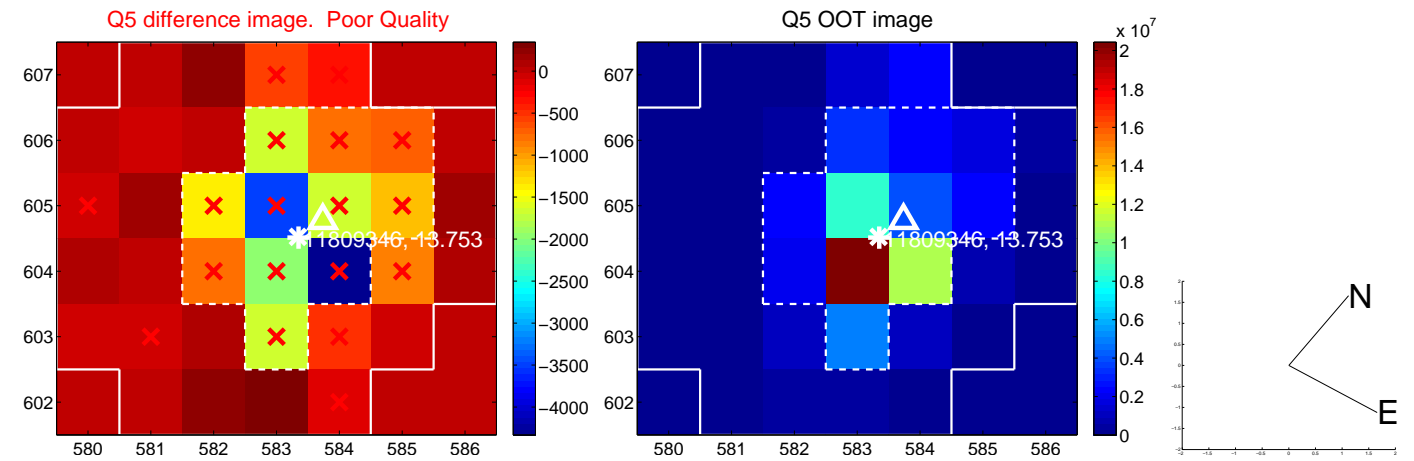


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

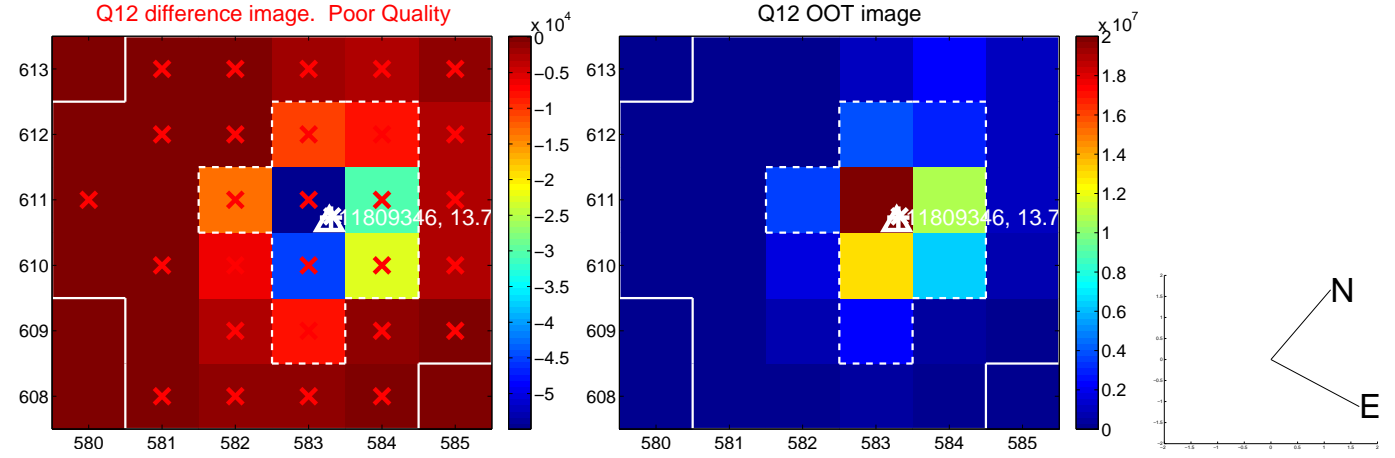
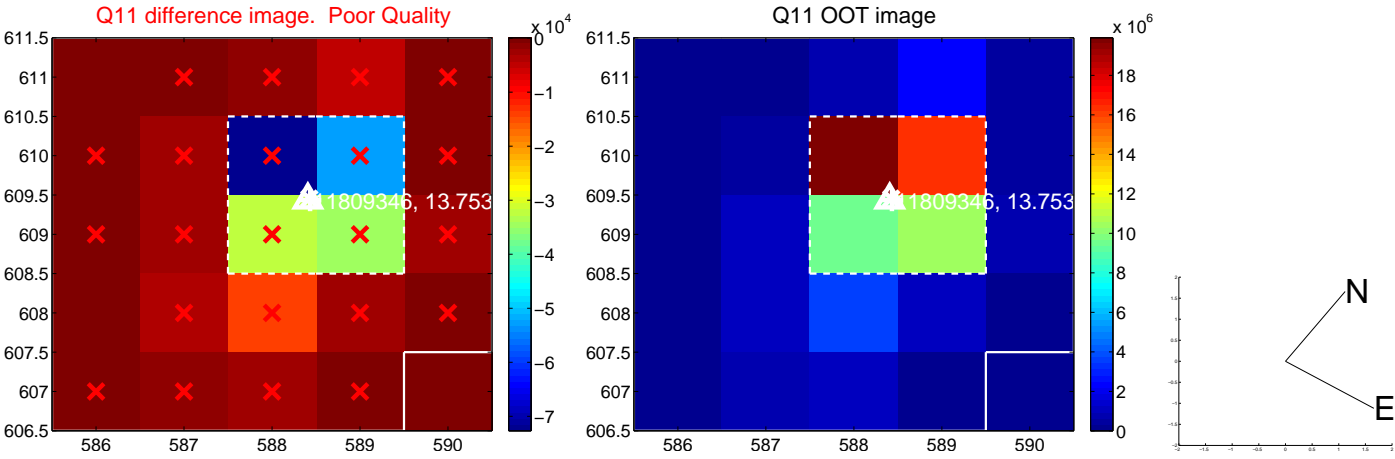
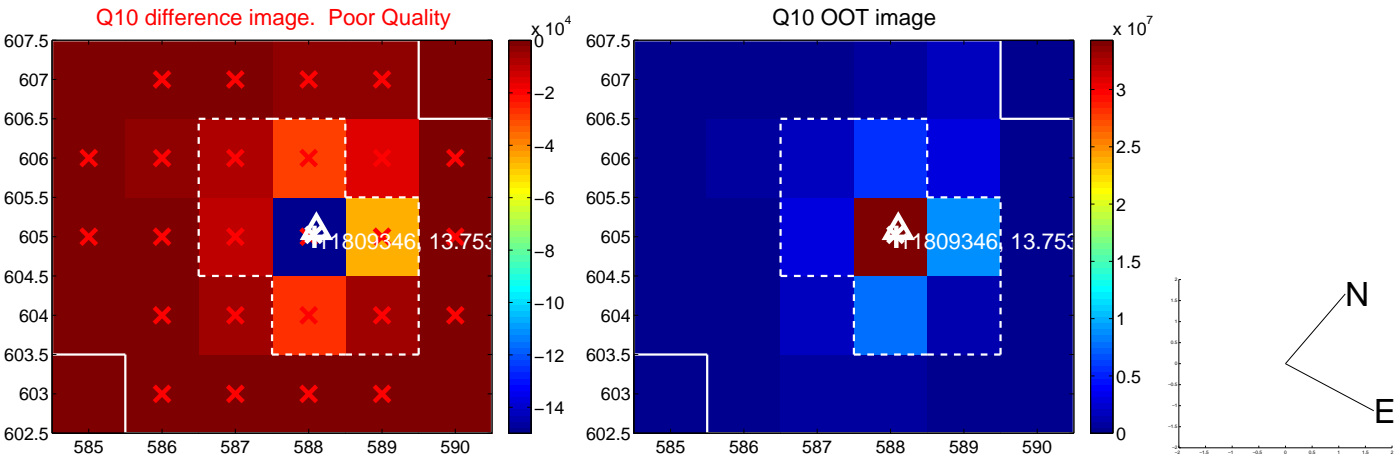
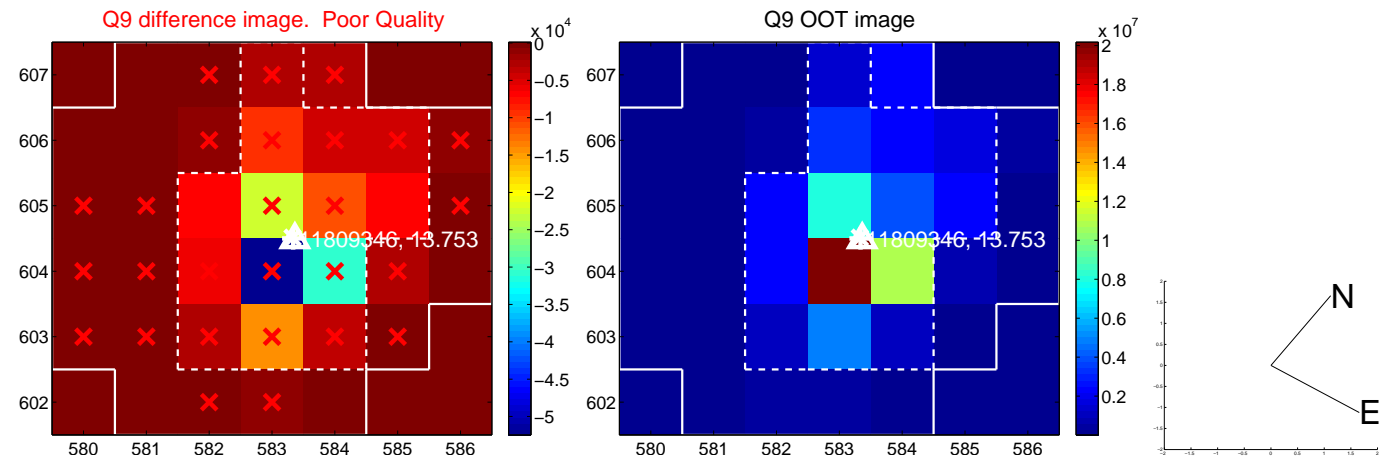
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



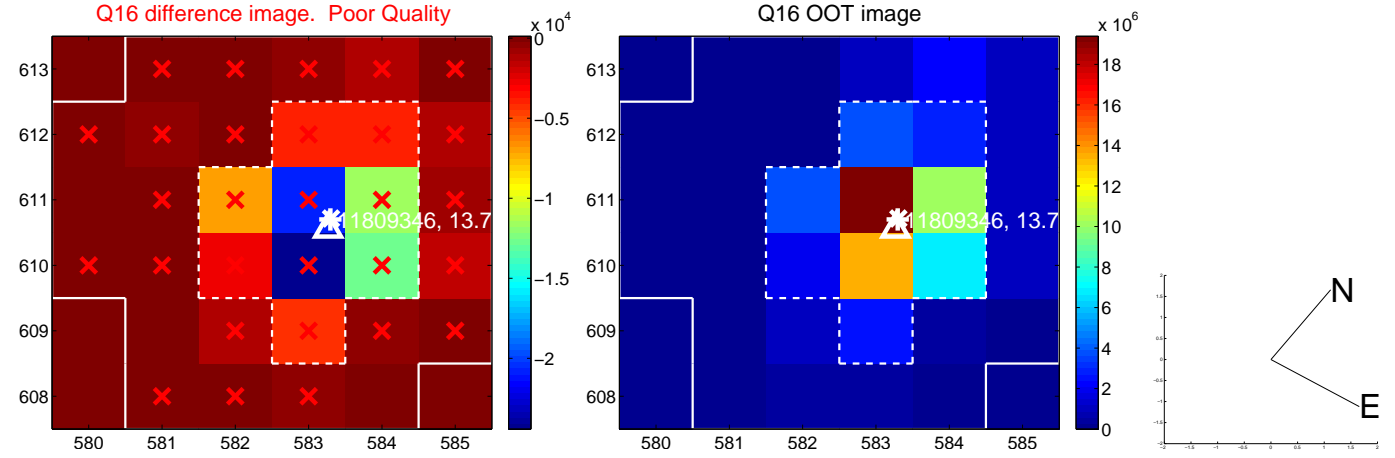
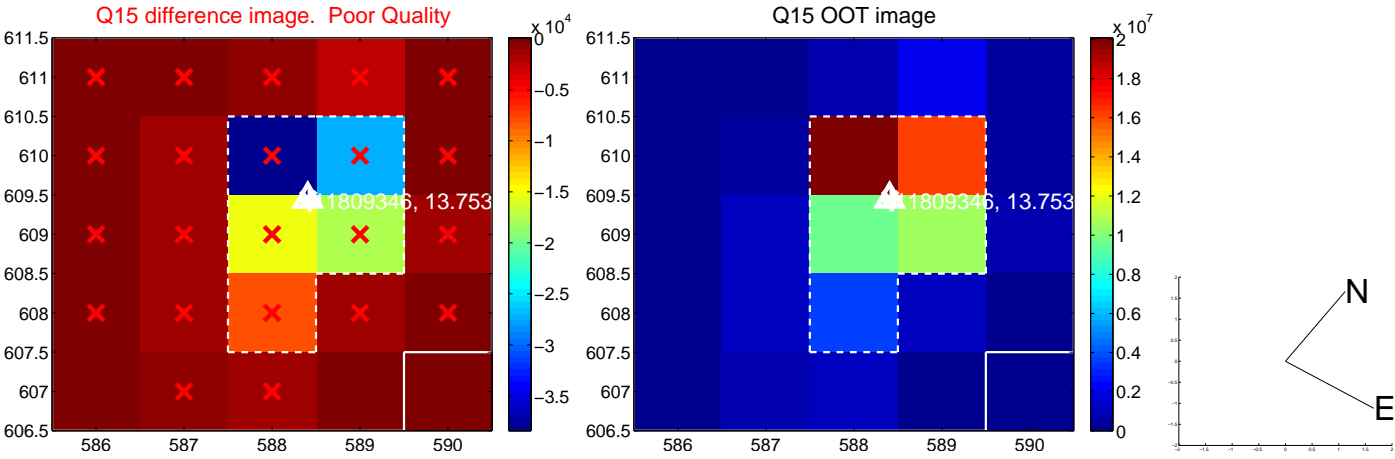
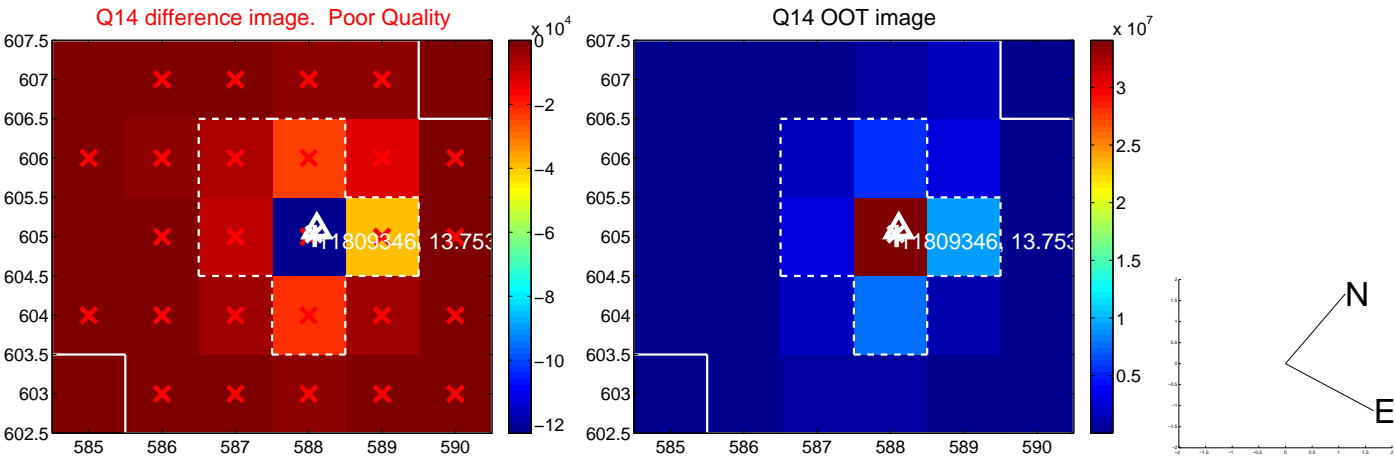
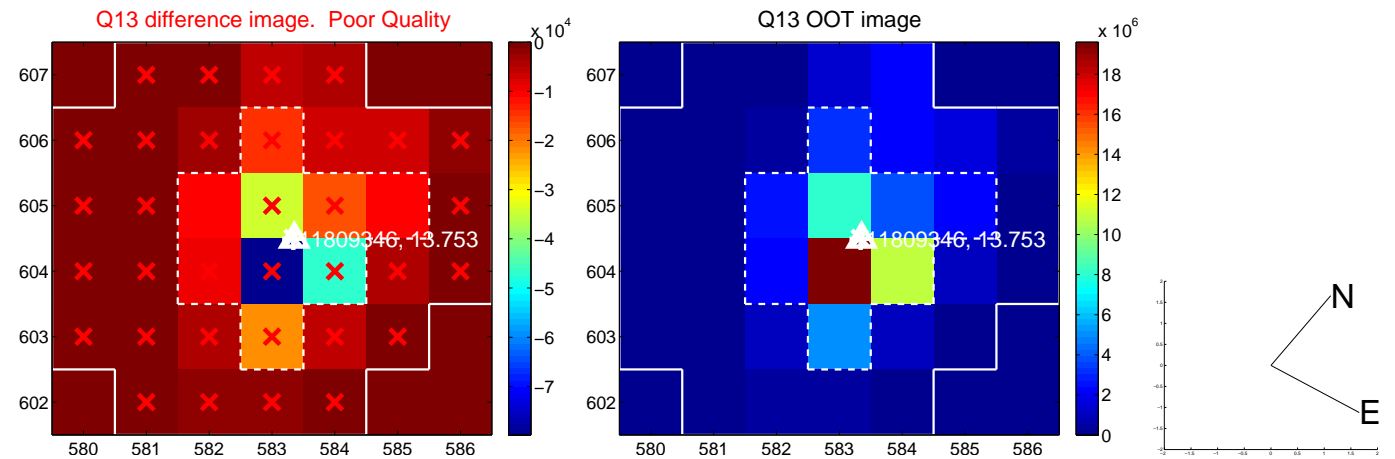
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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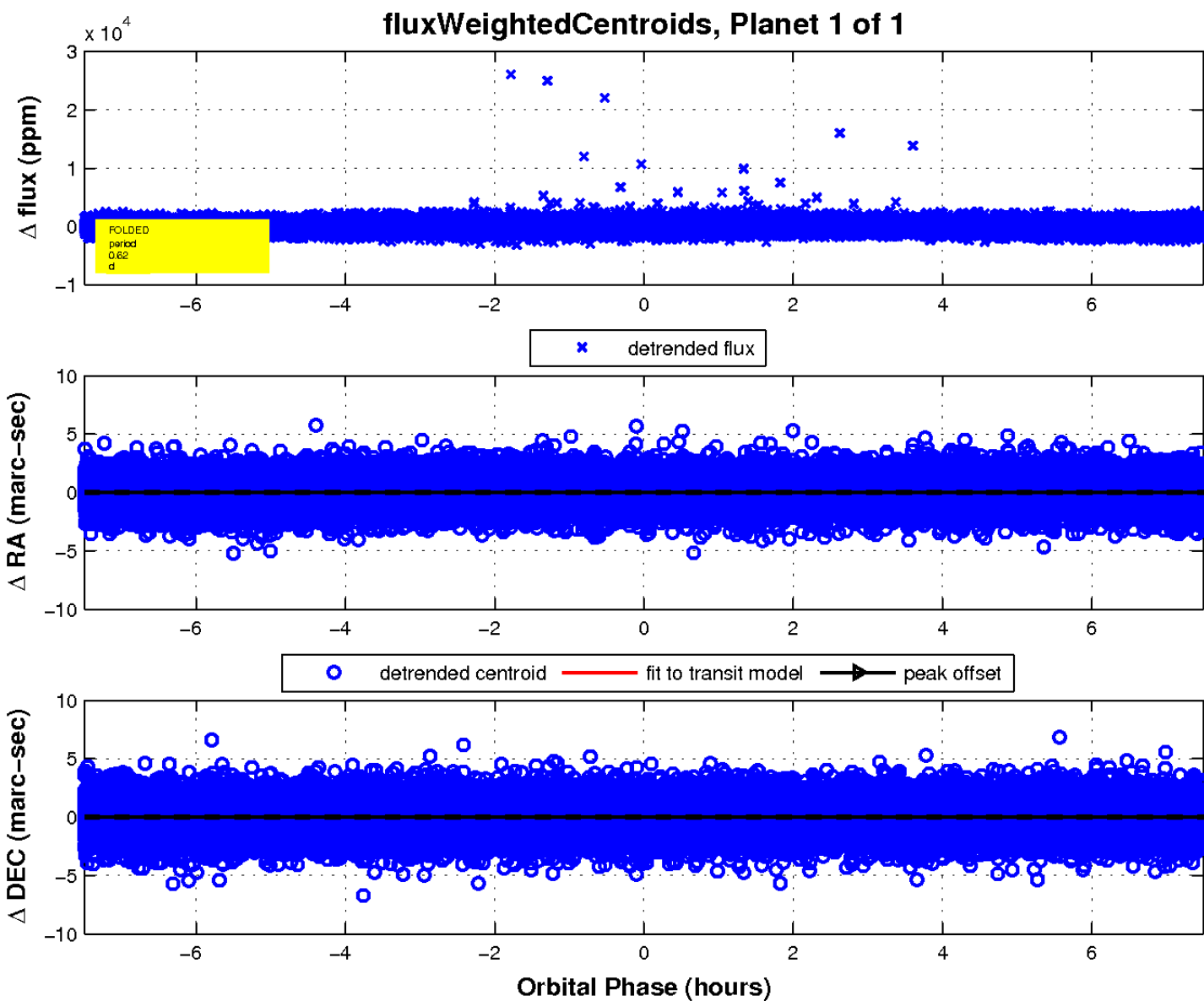
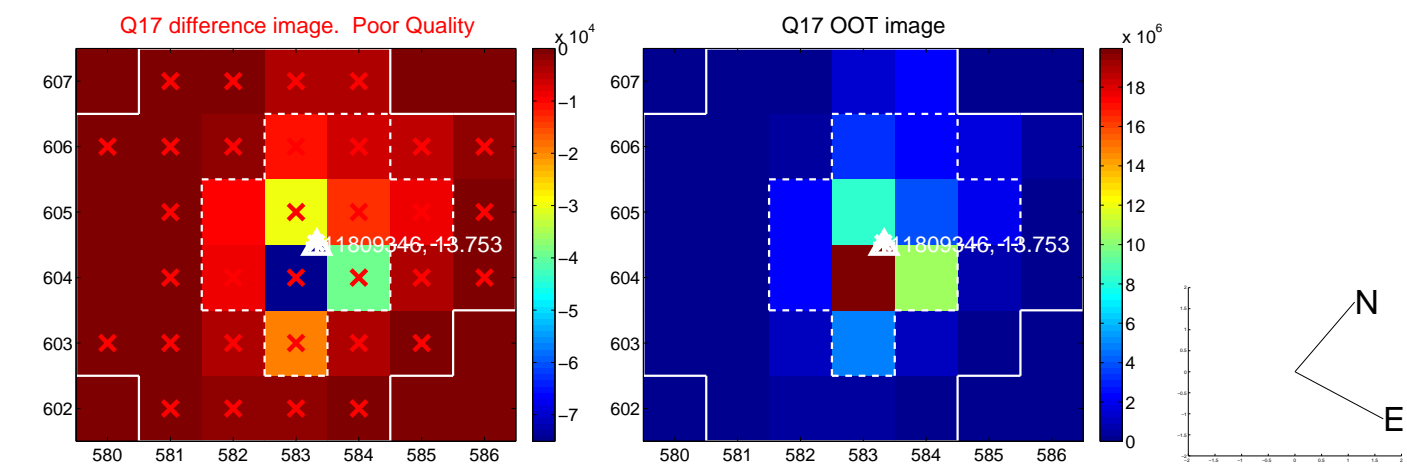


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





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



57.5 19:16:56.0 54.5

40.0 50:05:00.0

Declination