

# KIC 011619868

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011619868-01	OBS	No	0.557786	131.658097	0.1	5.255	8.4	0.0	1.90	7638	0.05	44005.92

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011619868-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

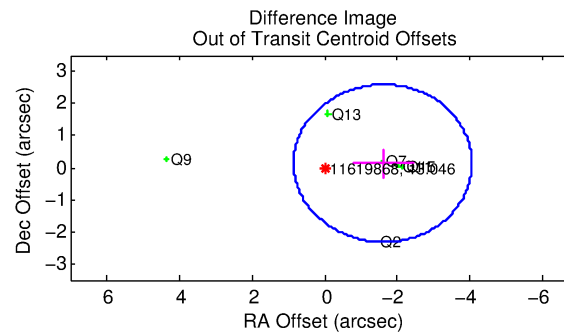
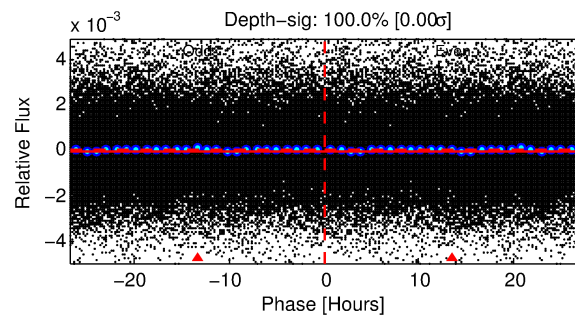
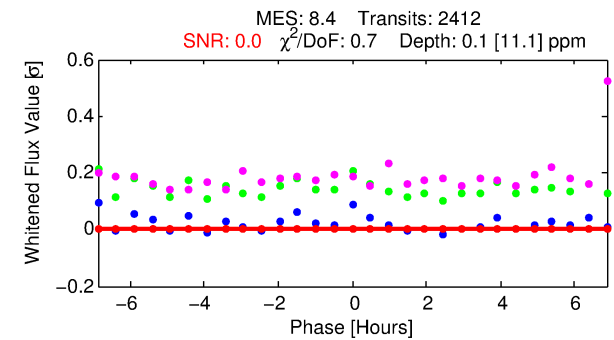
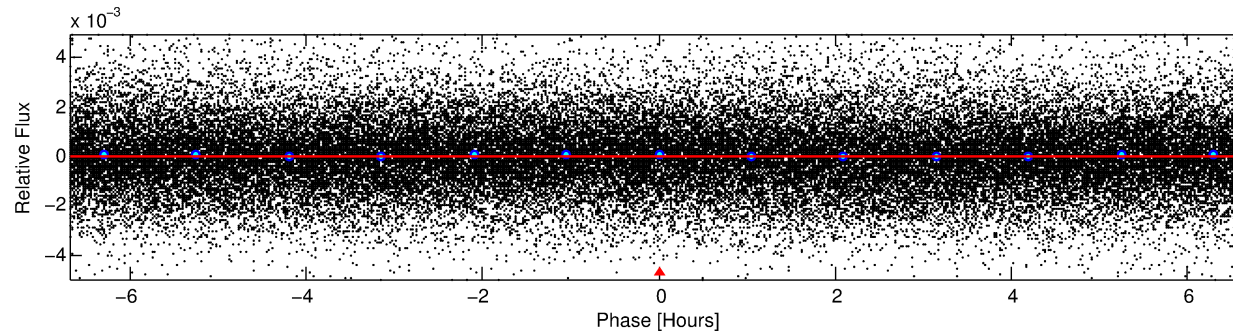
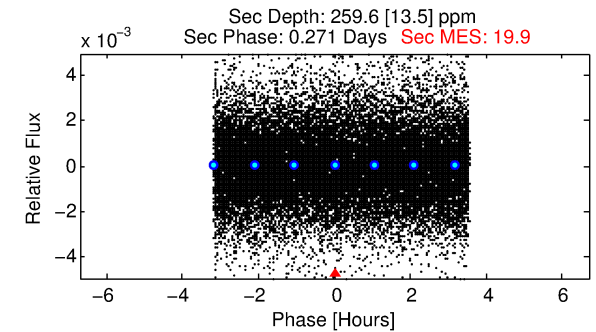
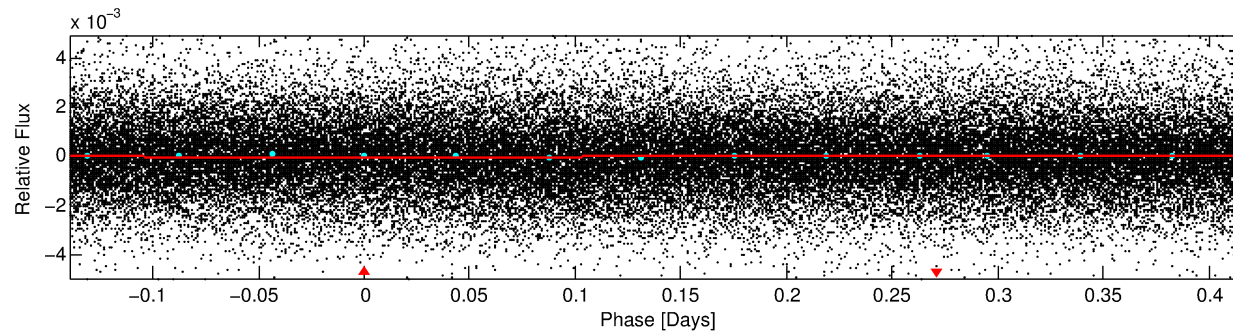
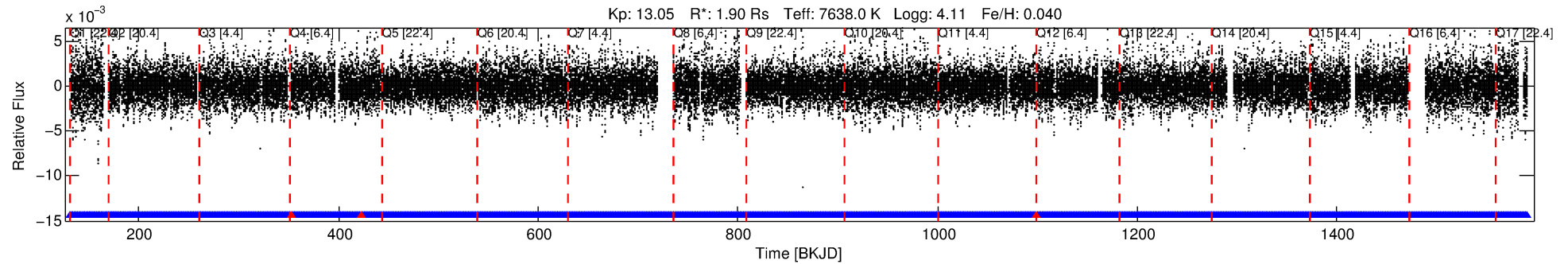
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011619868-01

No Significant Match Found

# DV One-Page Summary

KIC: 11619868 Candidate: 1 of 1 Period: 0.558 d



## DV Fit Results:

Period = 0.55779 [0.01289] d  
Epoch = 131.6581 [1.4181] BKJD  
Rp/R\* = 0.0002 [0.0273]  
a/R\* = 1.06 [60.15]  
b = 0.10 [5202.33]  
Seff = 44005.92 [16559.05]  
Teq = 3693 [347] K  
Rp = 0.05 [5.66] Re  
a = 0.0158 [0.0037] AU  
Ag = 14042.55 [3148805.86] [0.00σ]  
Teffp = 62159 [3484760] K [0.02σ]

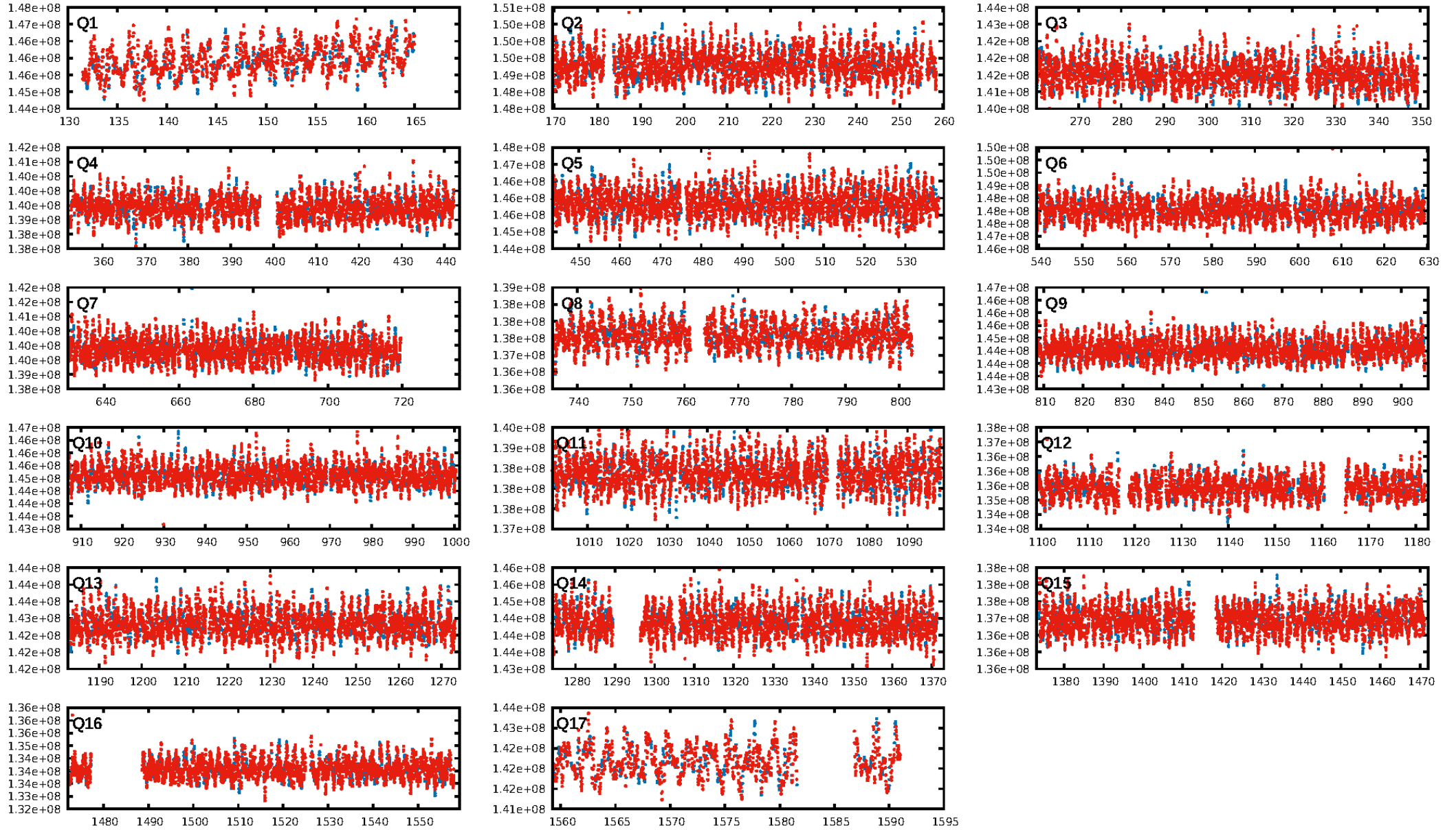
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2301/2304]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 1.607 arcsec [1.97σ]  
KicOffset-rm: 1.598 arcsec [1.55σ]  
OotOffset-st: 1/3/0/2 [6]  
KicOffset-st: 1/3/0/2 [6]  
DiffImageQuality-fgm: 0.33 [2/6]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:59:28 Z

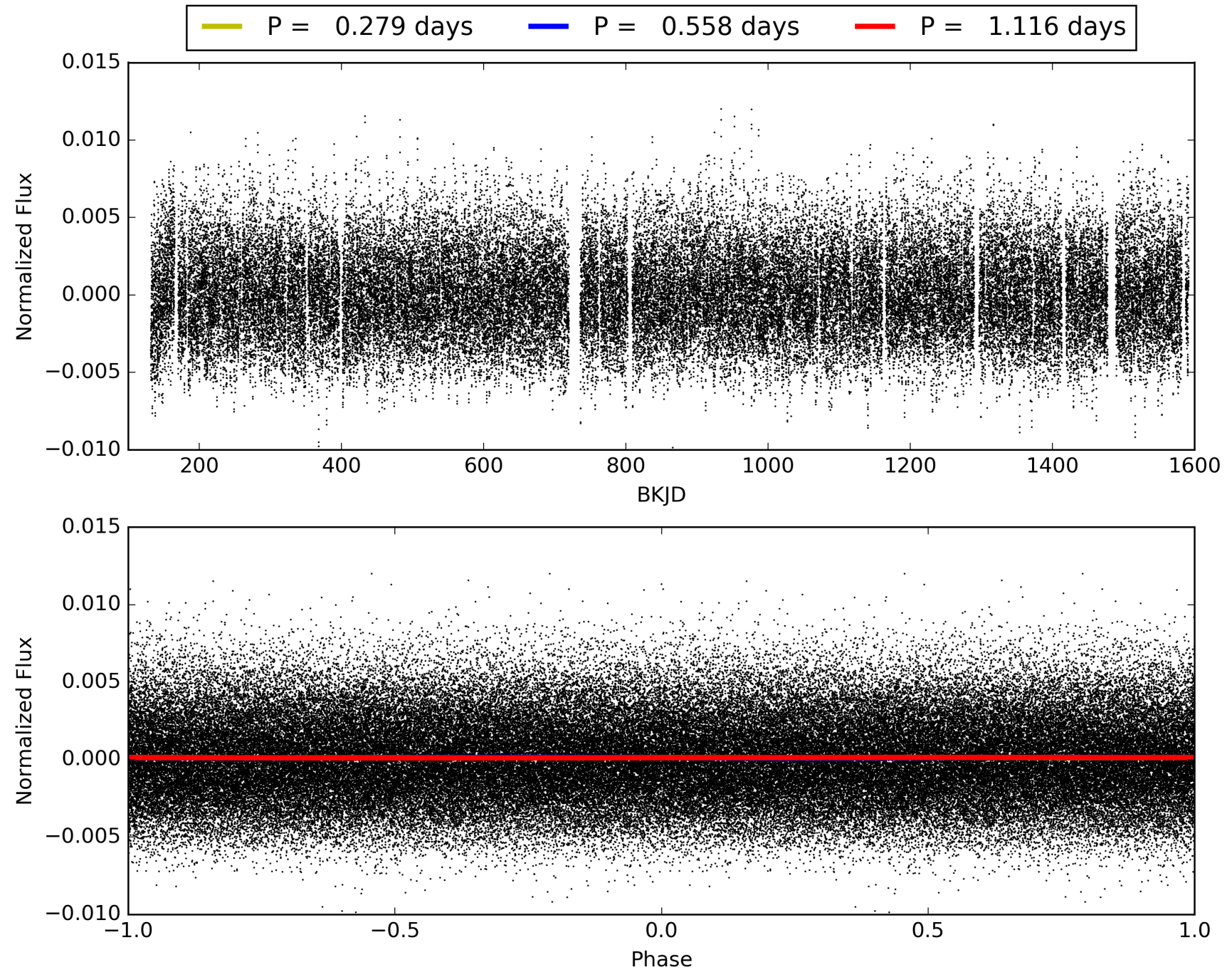
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 011619868-01, PDC Light Curves



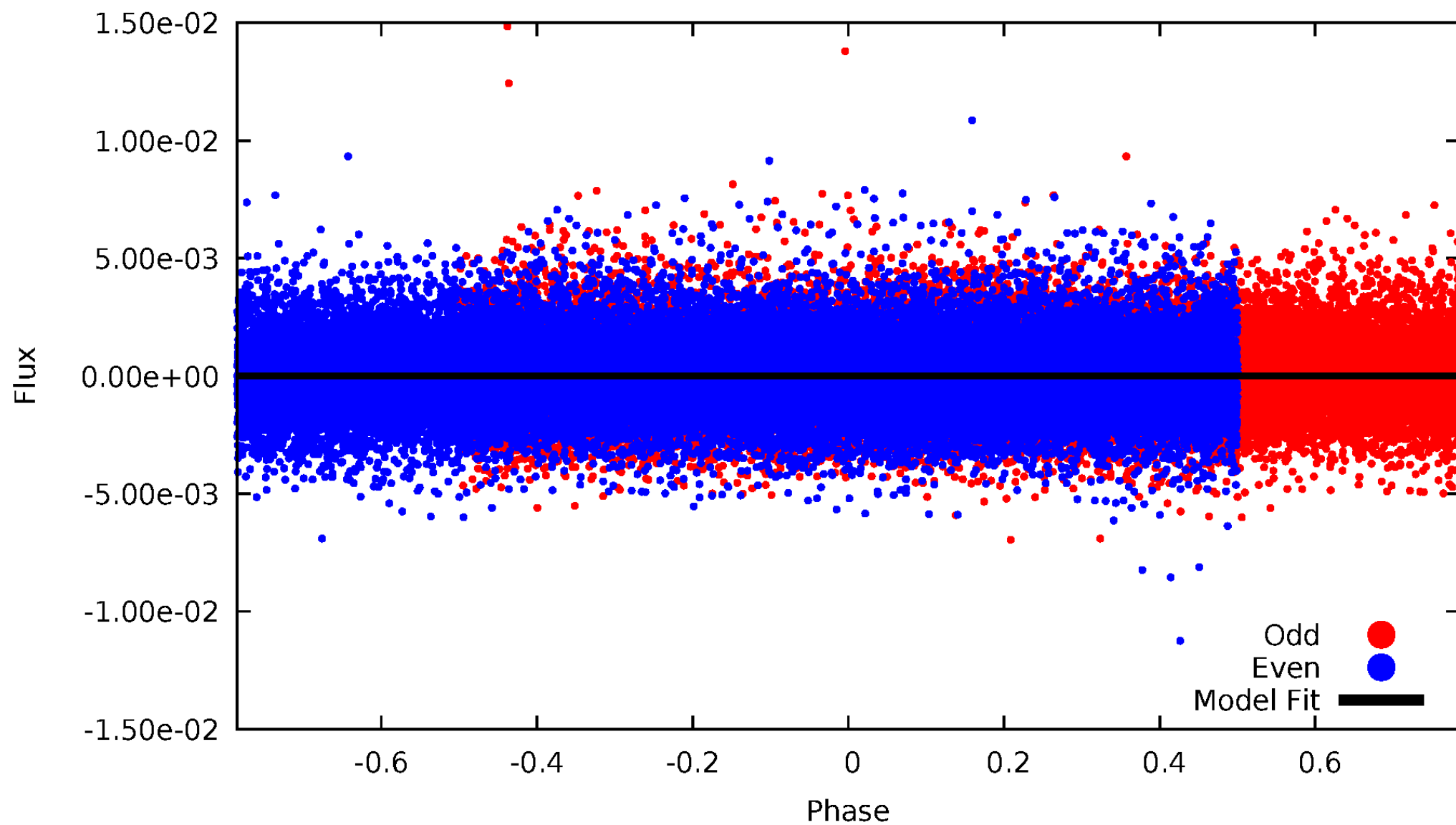


# TCE 011619868-01



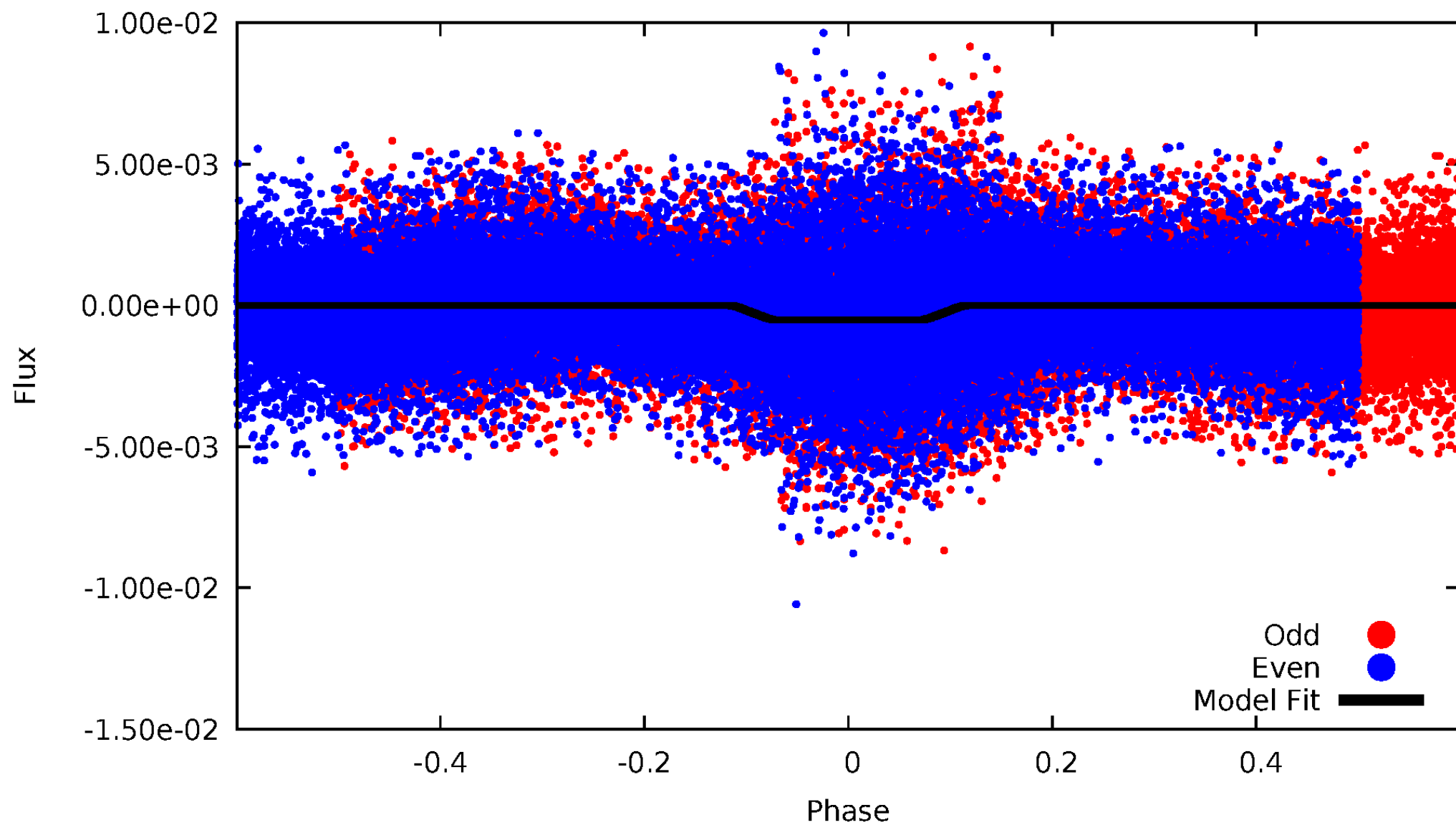
# DV Odd/Even

TCE 011619868-01



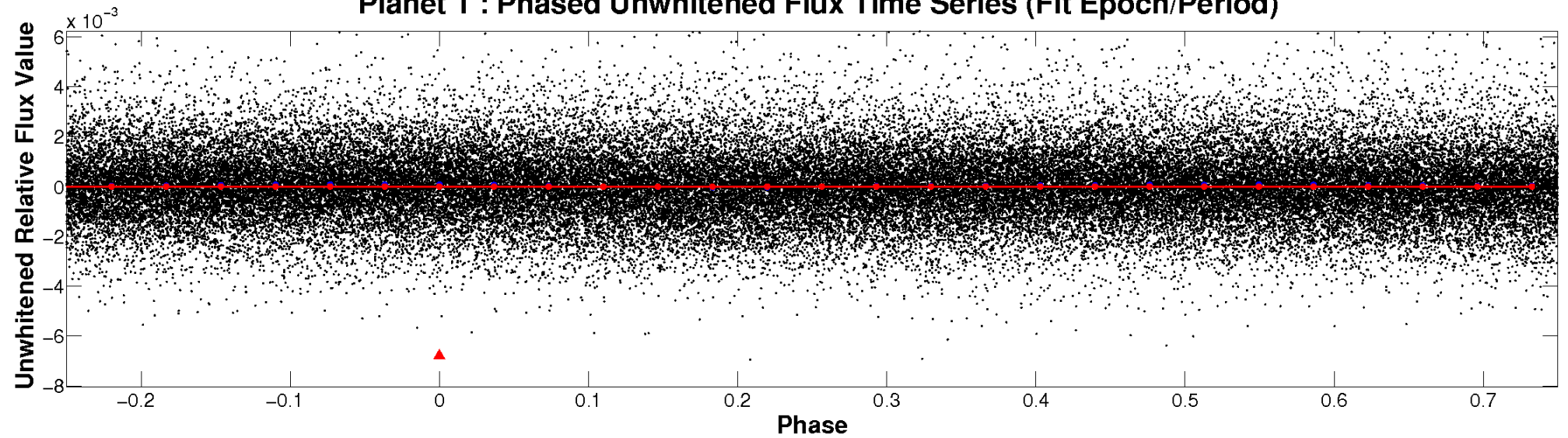
# ALT Odd/Even

TCE 011619868-01

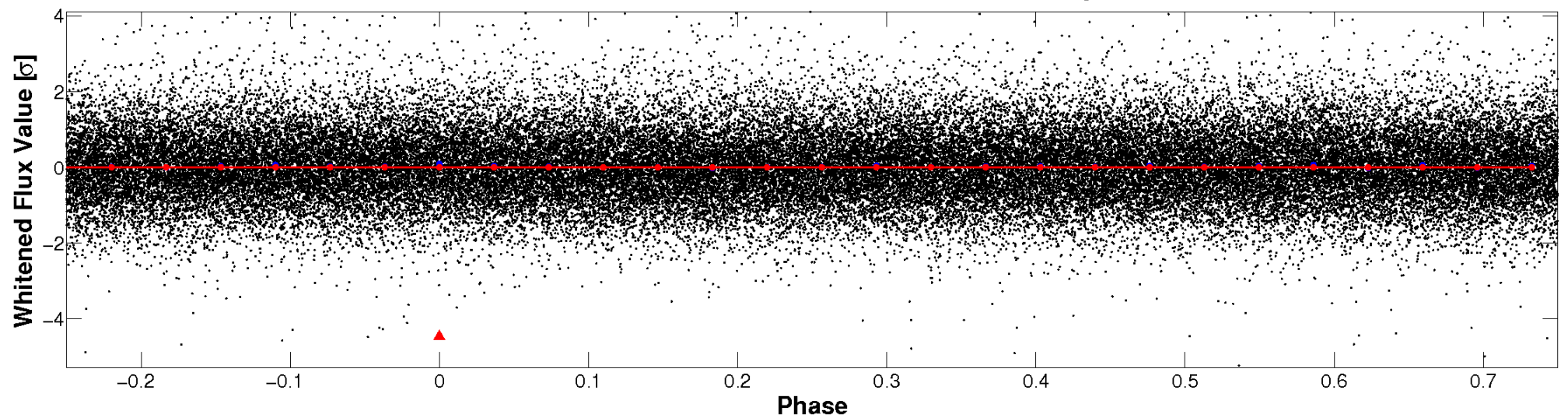


# Non-Whitened Vs. Whitened Light Curve

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



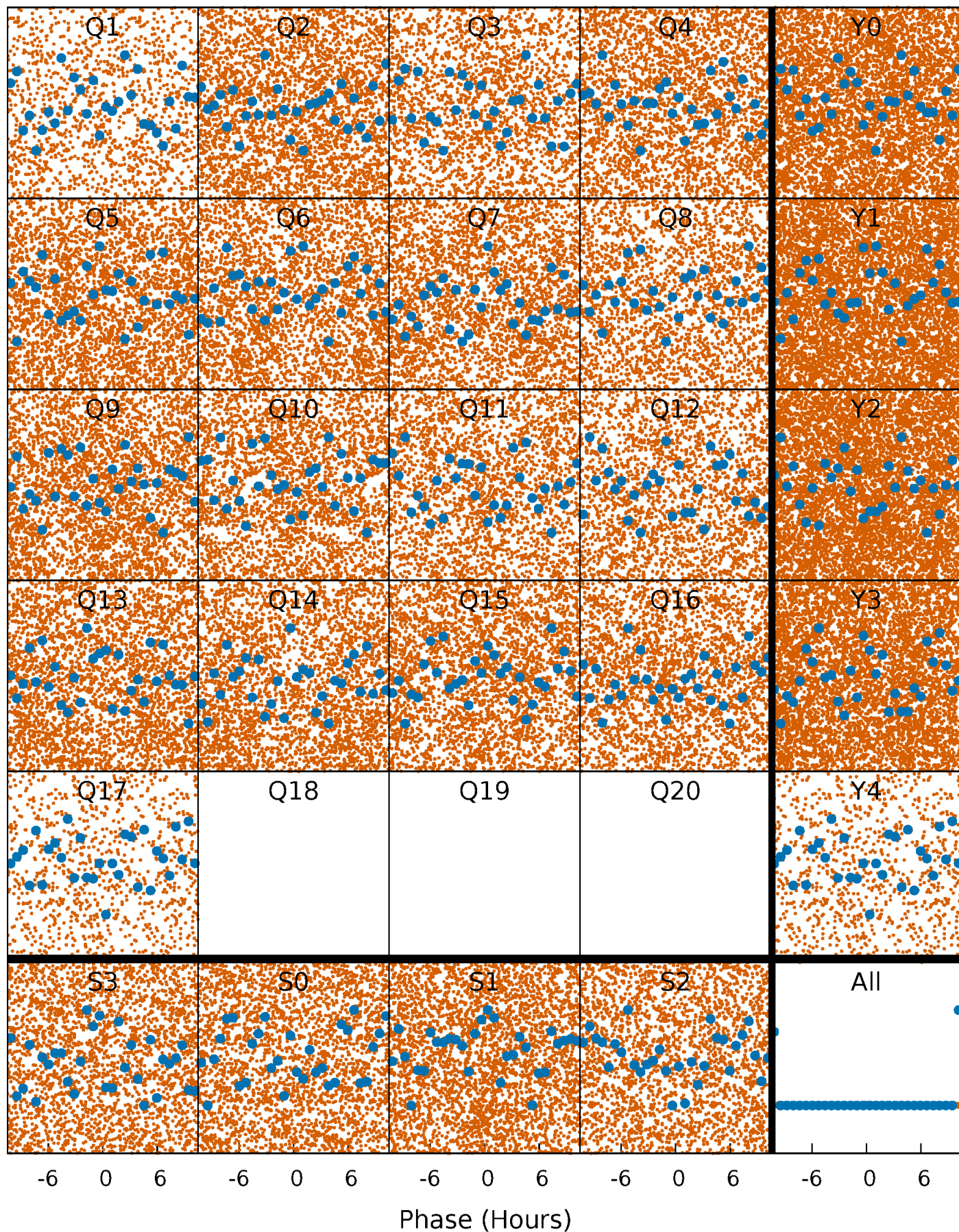
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

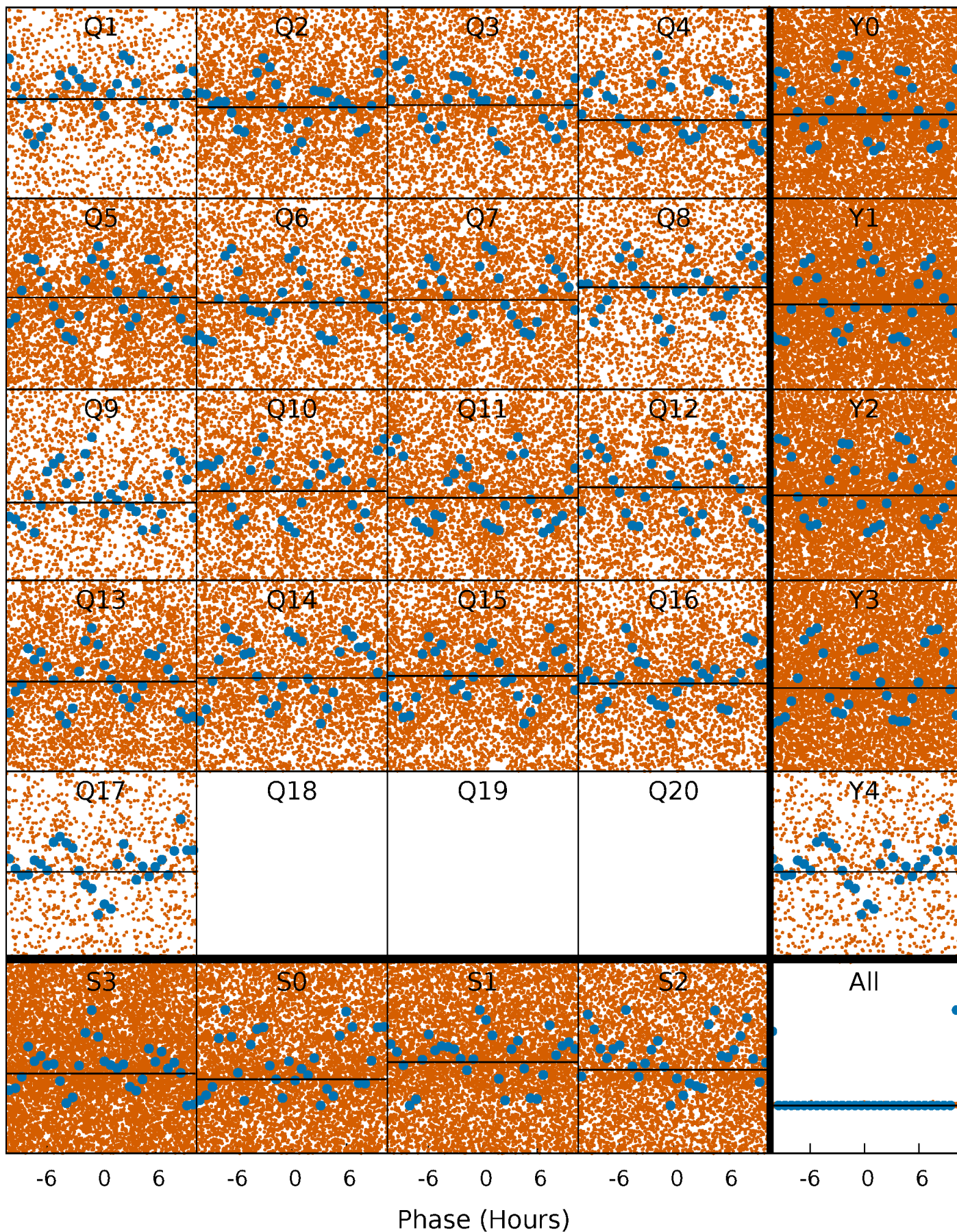
TCE 011619868-01 P= 0.557786 Days  $T_0=131.658097$  (BKJD)





# DV Quarter-Phased Transit Curves

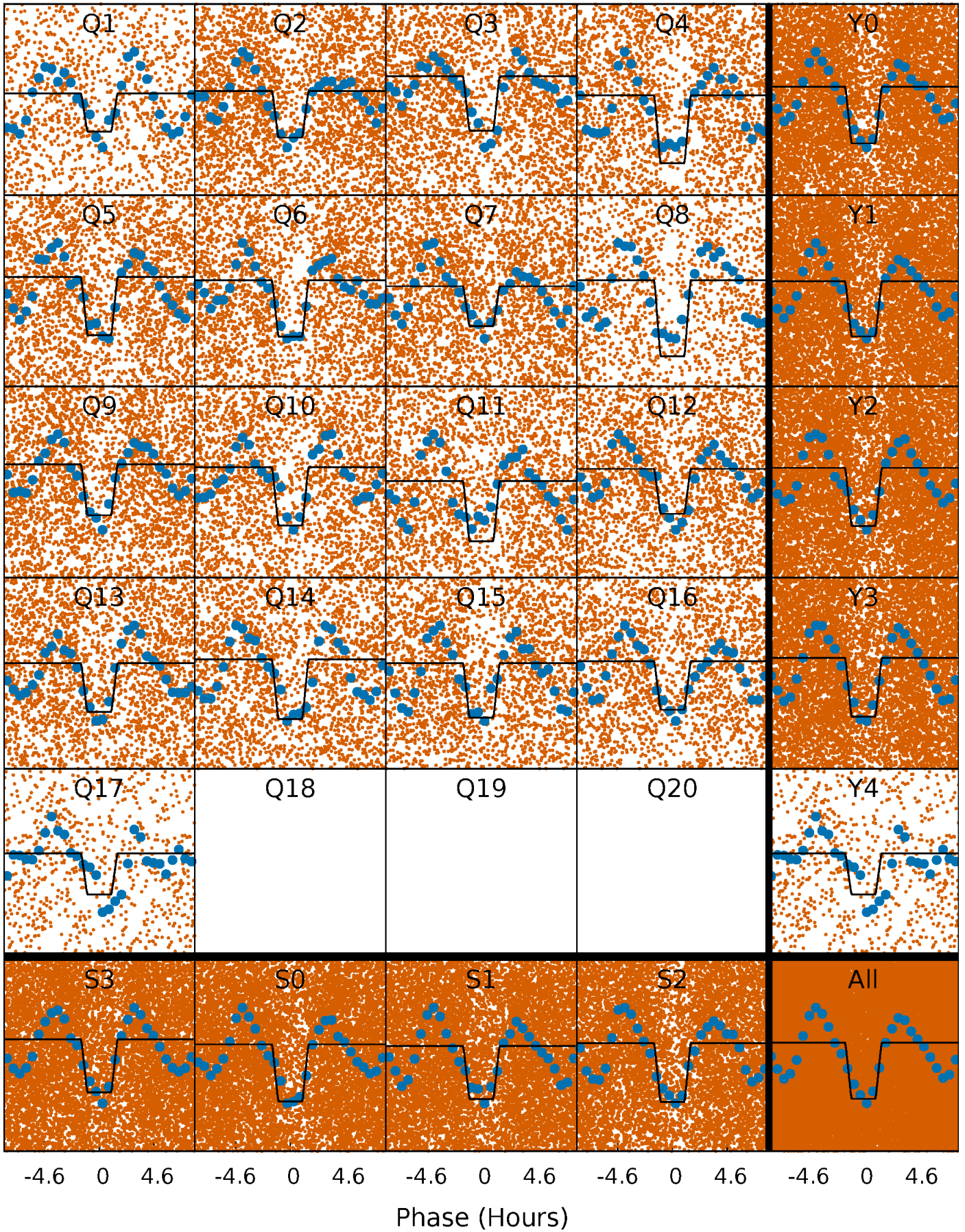
TCE 011619868-01 P= 0.557786 Days  $T_0=131.658097$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

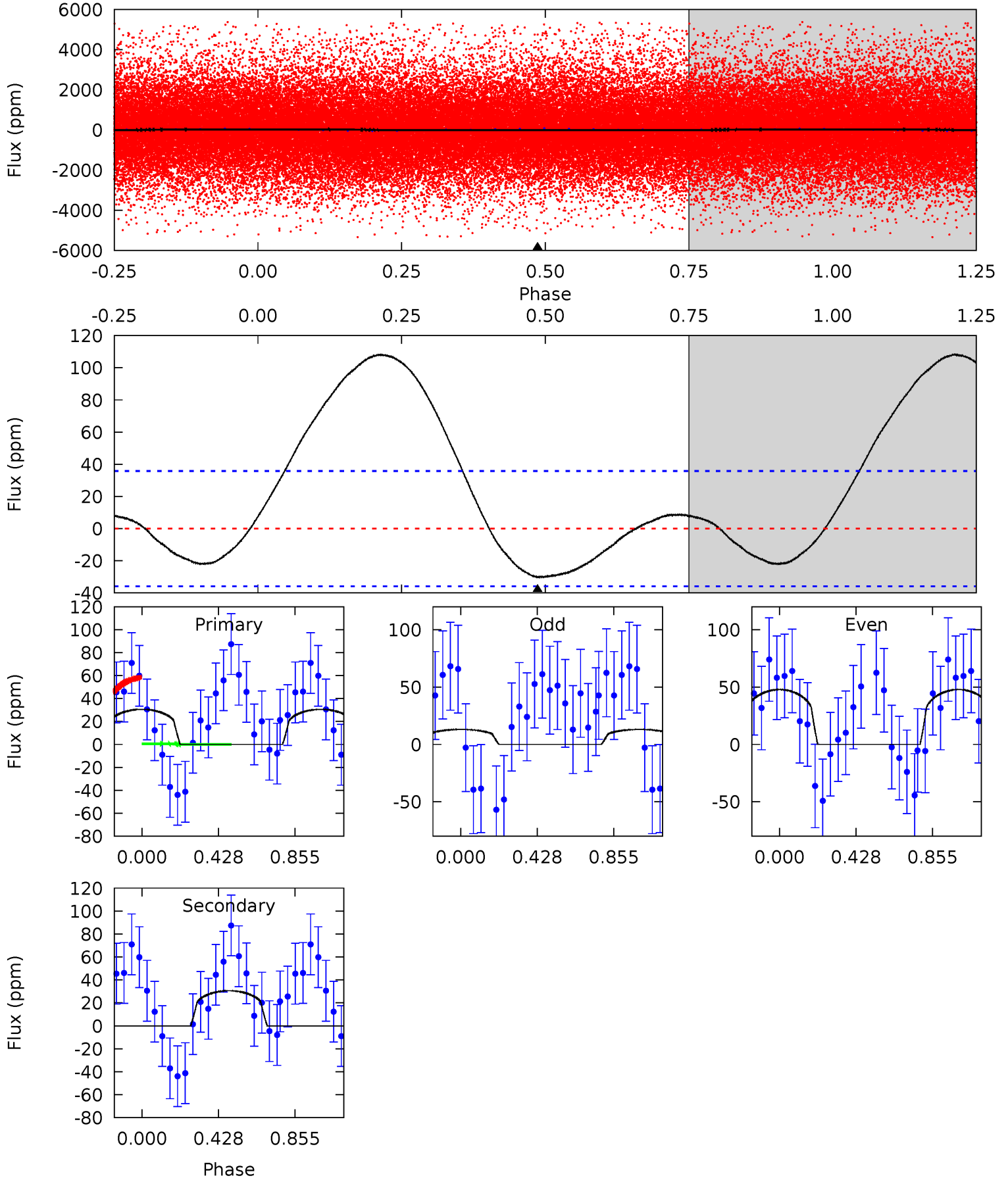
TCE 011619868-01 P= 0.557992 Days  $T_0=131.653443$  (BKJD)



# DV Model-Shift Uniqueness Test

011619868-01, P = 0.557786 Days, E = 131.100311 Days

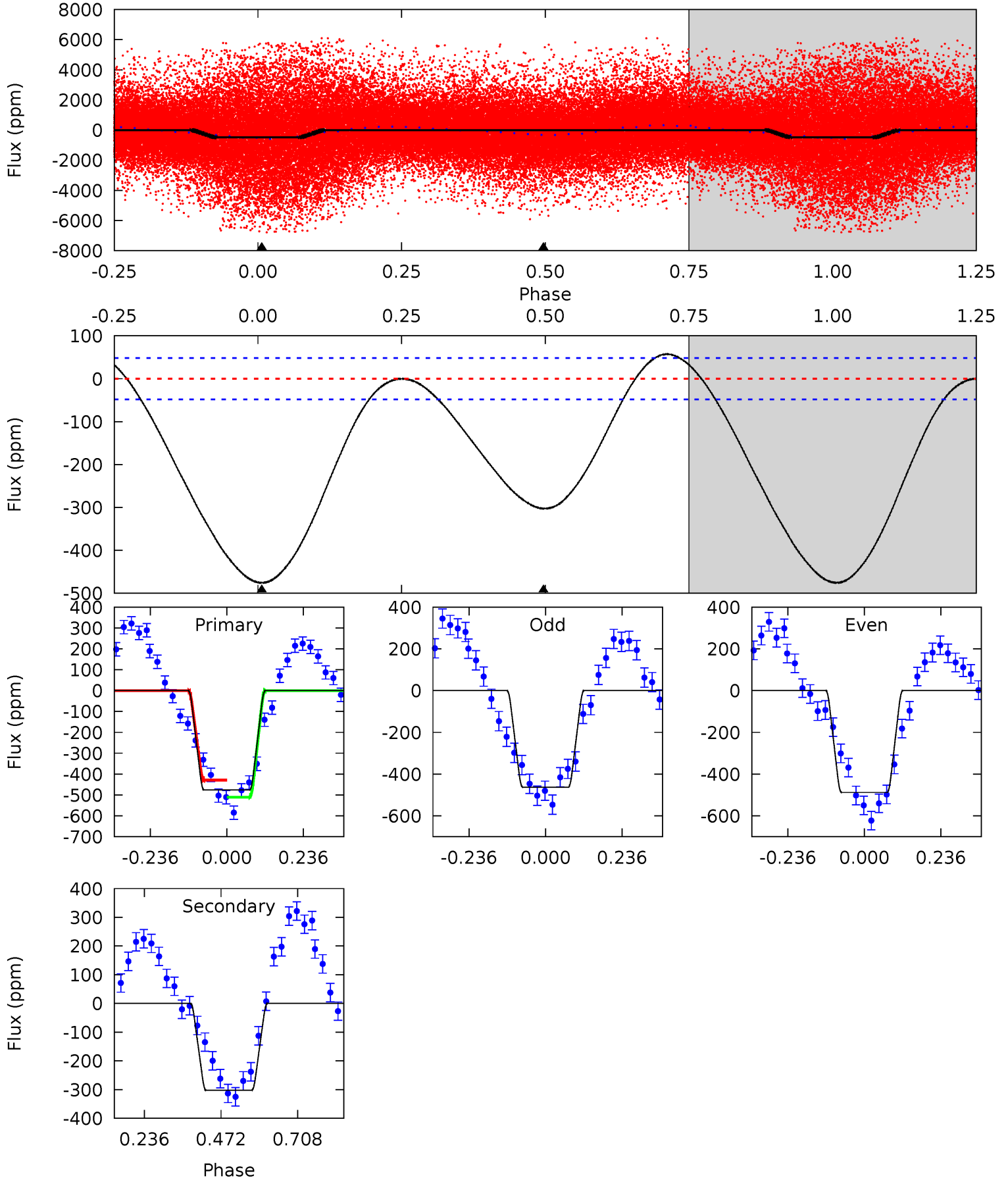
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.62	3.62	0	0	4.25	0.79	2.37	3.62	3.62	3.62	3.62	2.01	0.84	0.78	3.41



# Alt Model-Shift Uniqueness Test

011619868-01, P = 0.557992 Days, E = 131.095451 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
43.3	27.6	0	0	4.38	1.19	2.00	43.3	43.3	27.6	27.6	1.16	1.04	0.11	3.33





### Stellar Parameters For KIC 011619868

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7638^{+214}_{-322}$	$4.110^{+0.120}_{-0.180}$	$0.040^{+0.200}_{-0.350}$	$1.901^{+0.540}_{-0.360}$	$1.698^{+0.218}_{-0.267}$	$0.348^{+0.243}_{-0.168}$
	+3%/-4%	+3%/-4%	+500%/-875%	+28%/-19%	+13%/-16%	+70%/-48%
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 011619868-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-31 \pm 8$	$3.70^{+4.19}_{-2.51}$	$5194^{+384}_{-357}$	$-2649^{+9870}_{-1573}$	$0.287^{+2.726}_{-0.226}$
Alt.	$-303 \pm 11$	$6.18^{+5.43}_{-3.97}$	$5186^{+419}_{-340}$	$5421^{+5135}_{-2723}$	$1.118^{+7.648}_{-0.804}$

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

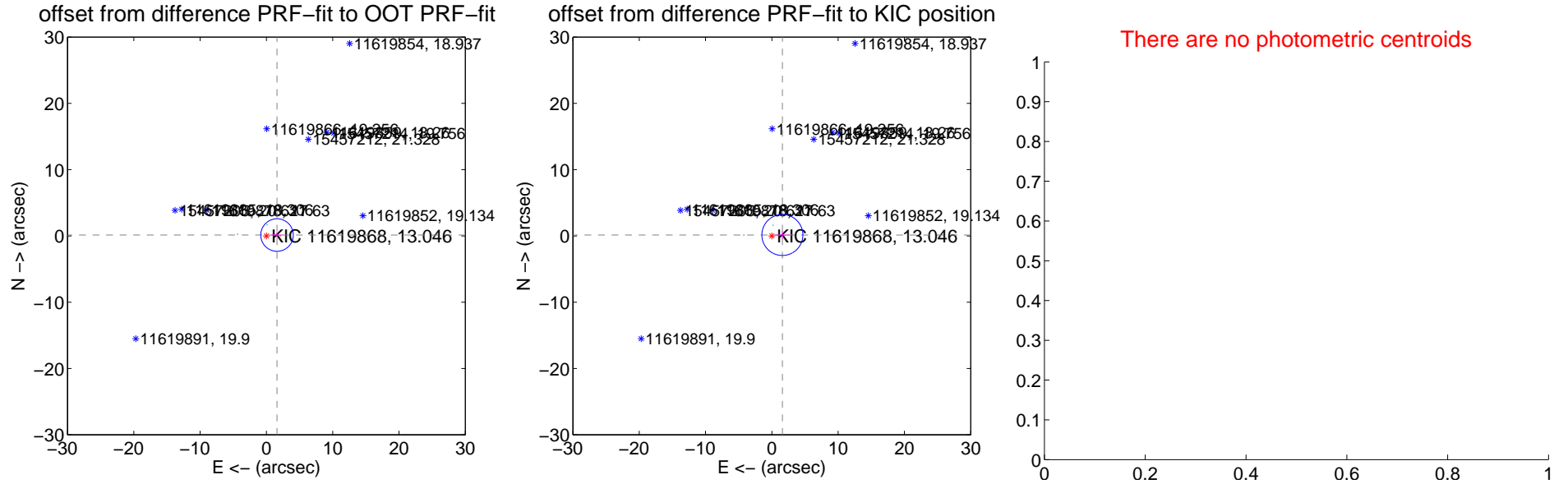
## DV Centroid Data

Supplemental centroid analysis for 011619868-01. Kepler magnitude: 13.05. Transit SNR 0.01

There are 2 quarters with good PRF difference image offsets

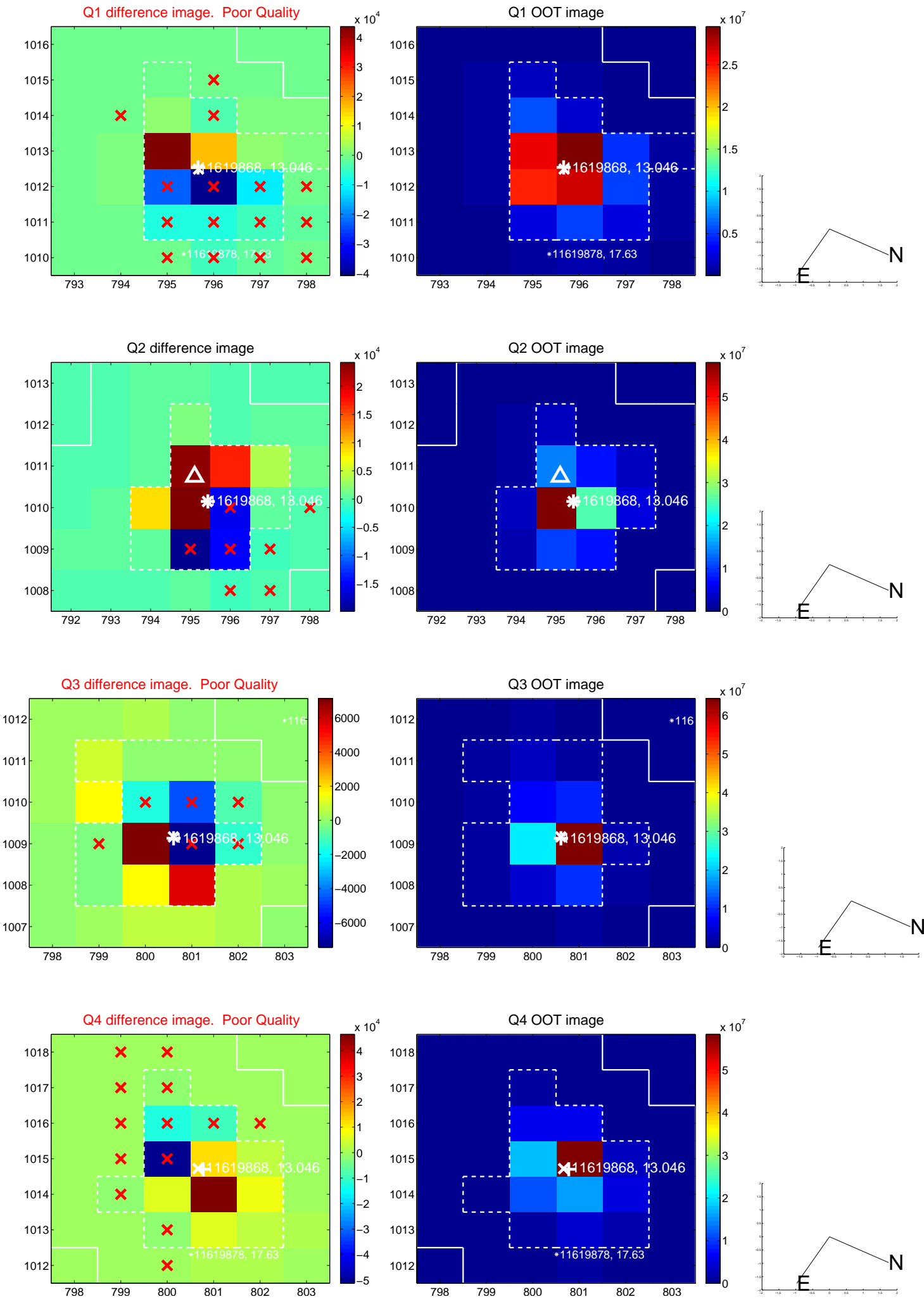
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.607 \pm 0.818$	1.97	$-1.602 \pm 0.826$	$0.134 \pm 0.437$
PRF-fit source offset from KIC position	$1.598 \pm 1.031$	1.55	$-1.591 \pm 1.048$	$0.142 \pm 0.573$
photometric centroid source offset	—	—	—	—

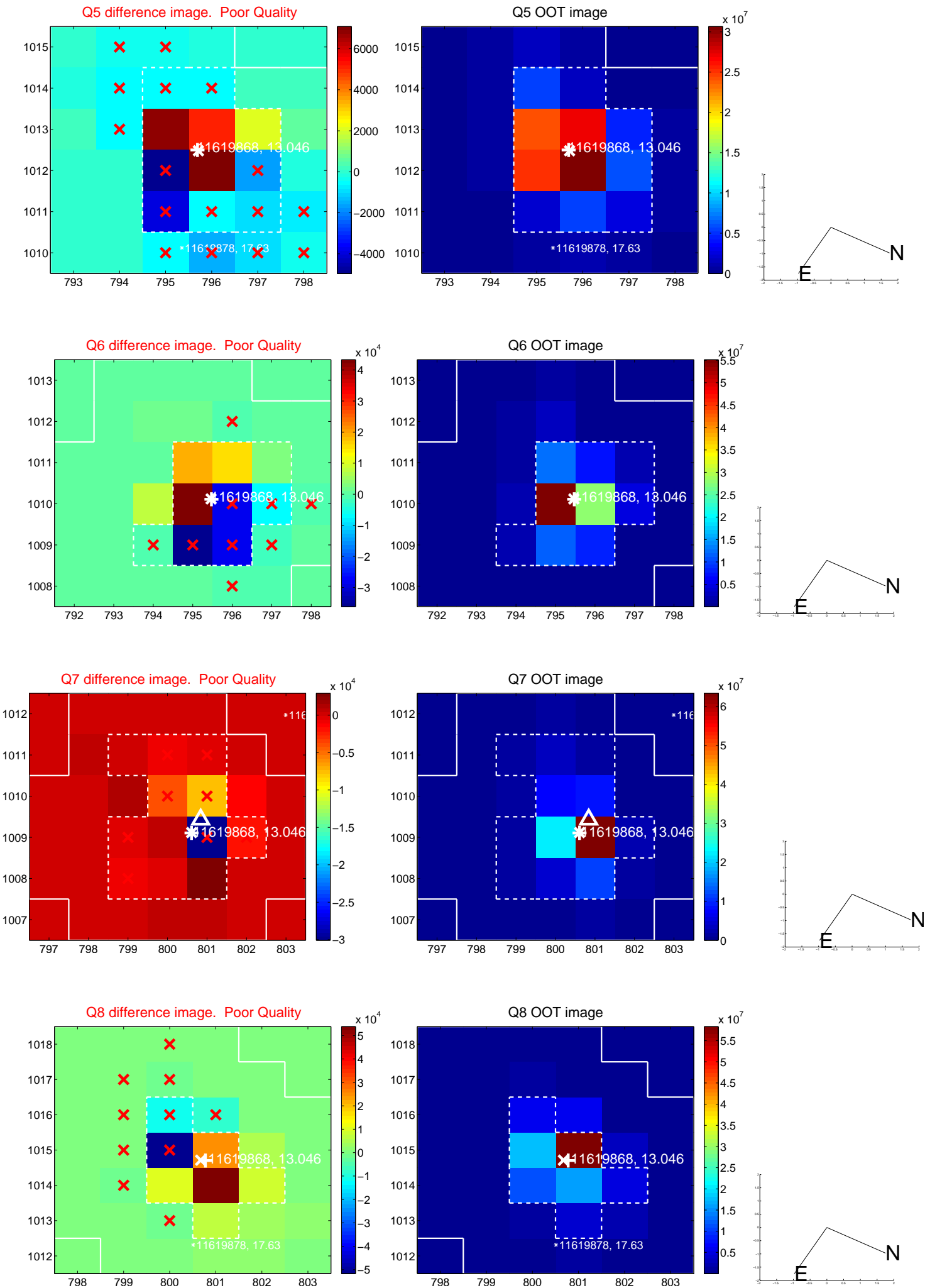


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

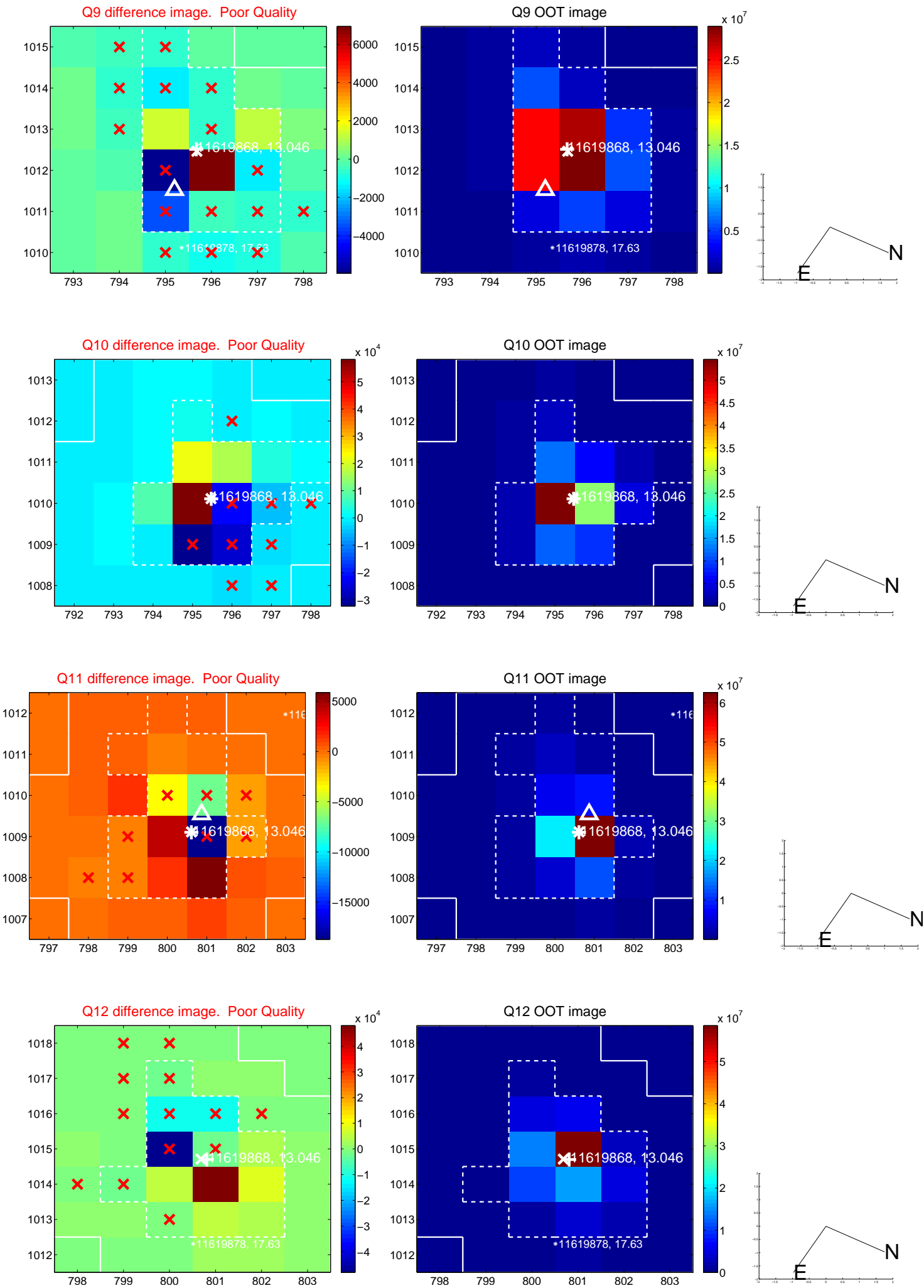


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

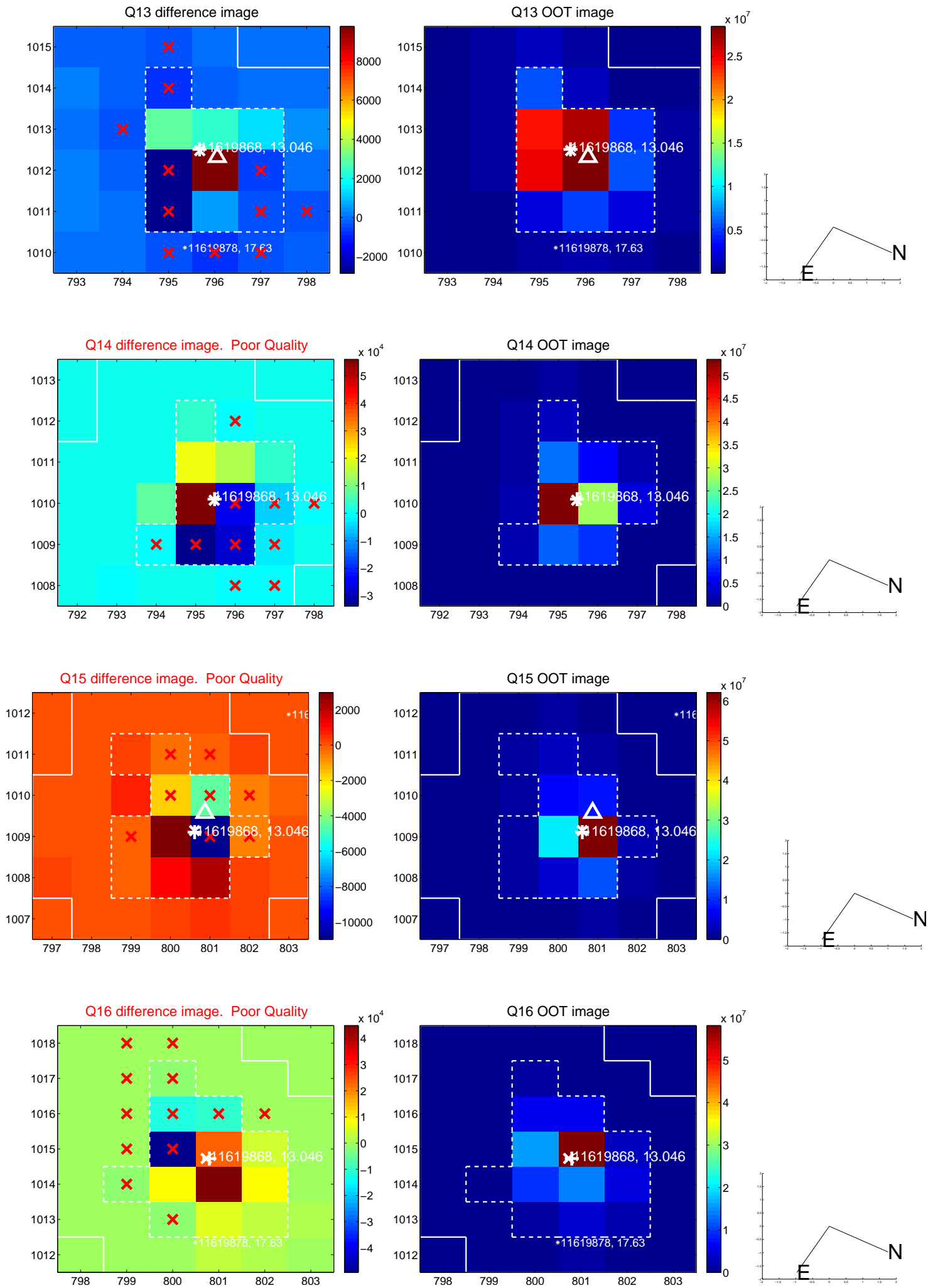




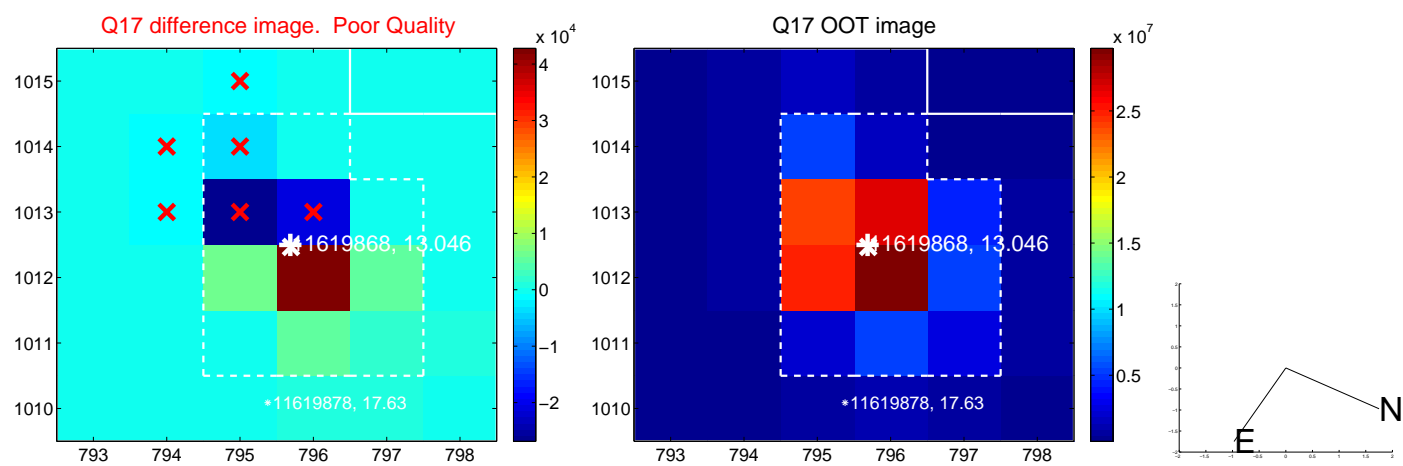
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



folded centroid time series figure for this object.

# UKIRT Image

Declination

