

# KIC 007199058

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
007199058-01	OBS	No	0.566329	131.740669	0.0	0.573	9.9	0.0	1.14	6434	0.02	9972.90

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007199058-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—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.

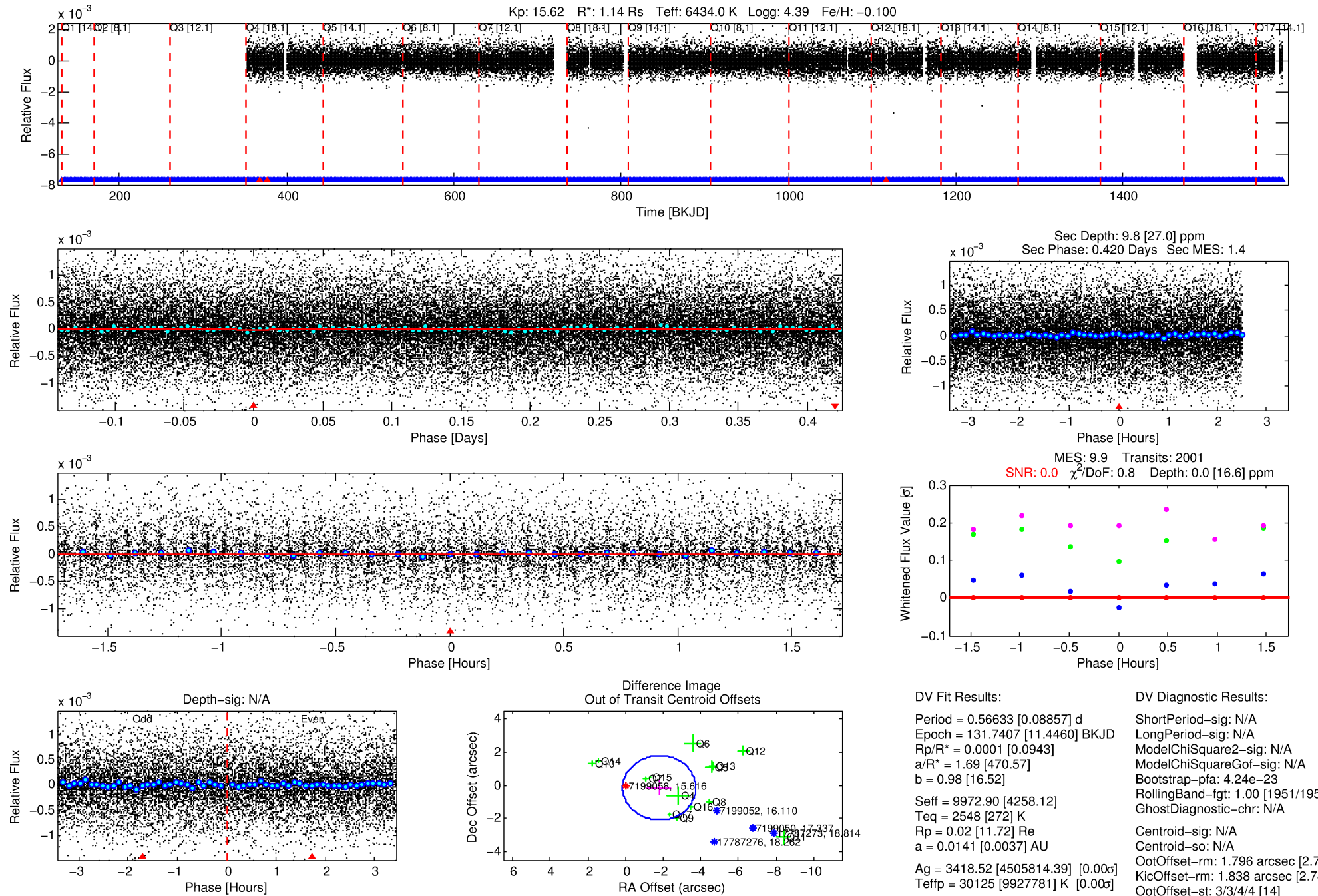
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 007199058-01

No Significant Match Found

# DV One-Page Summary

KIC: 7199058 Candidate: 1 of 1 Period: 0.566 d



## DV Fit Results:

Period = 0.56633 [0.08857] d  
Epoch = 131.7407 [11.4460] BKJD  
Rp/R\* = 0.0001 [0.0943]  
a/R\* = 1.69 [470.57]  
b = 0.98 [16.52]  
Seff = 9972.90 [4258.12]  
Teff = 2548 [272] K  
Rp = 0.02 [11.72] Re  
a = 0.0141 [0.0037] AU  
Ag = 3418.52 [4505814.39] [0.00σ]  
Teffp = 30125 [9927781] K [0.00σ]

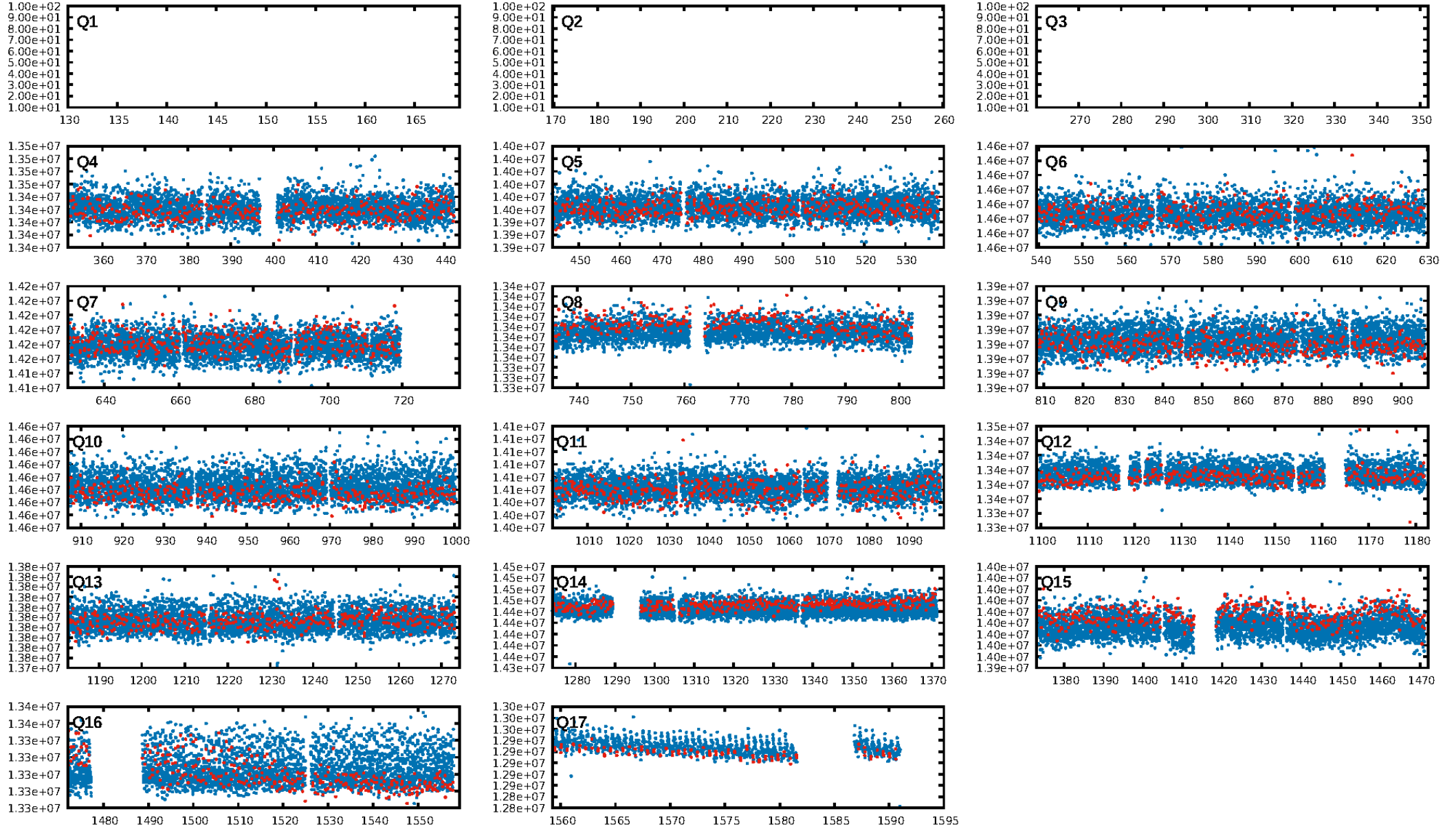
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 4.24e-23  
RollingBand-fgt: 1.00 [1951/1954]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 1.796 arcsec [2.77σ]  
KicOffset-rm: 1.838 arcsec [2.74σ]  
OotOffset-st: 3/3/4/4 [14]  
KicOffset-st: 3/3/4/4 [14]  
DiffImageQuality-fgm: 0.00 [0/14]  
DiffImageOverlap-fno: 1.00 [14/14]

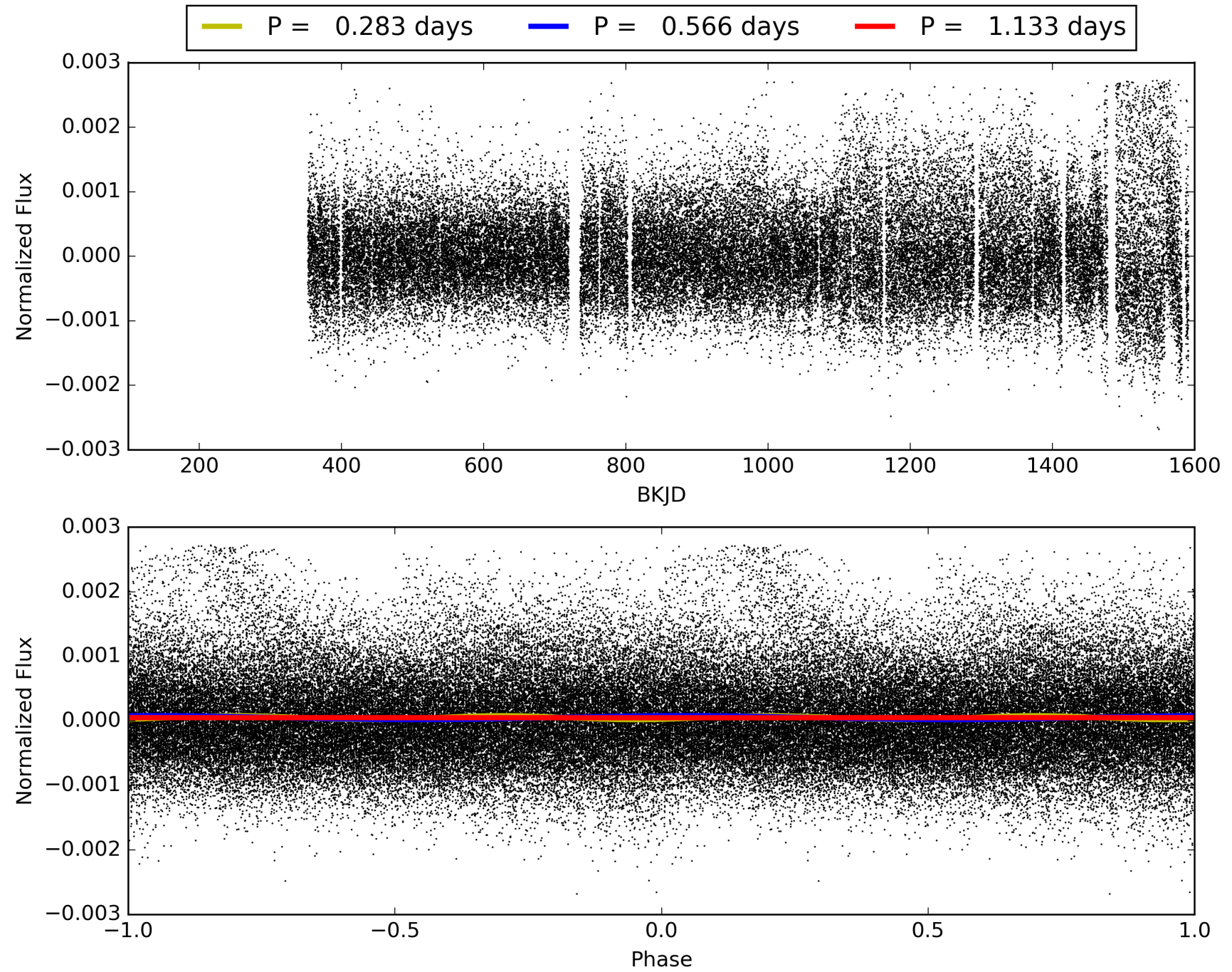
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:17:28 Z

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

# TCE 007199058-01, PDC Light Curves



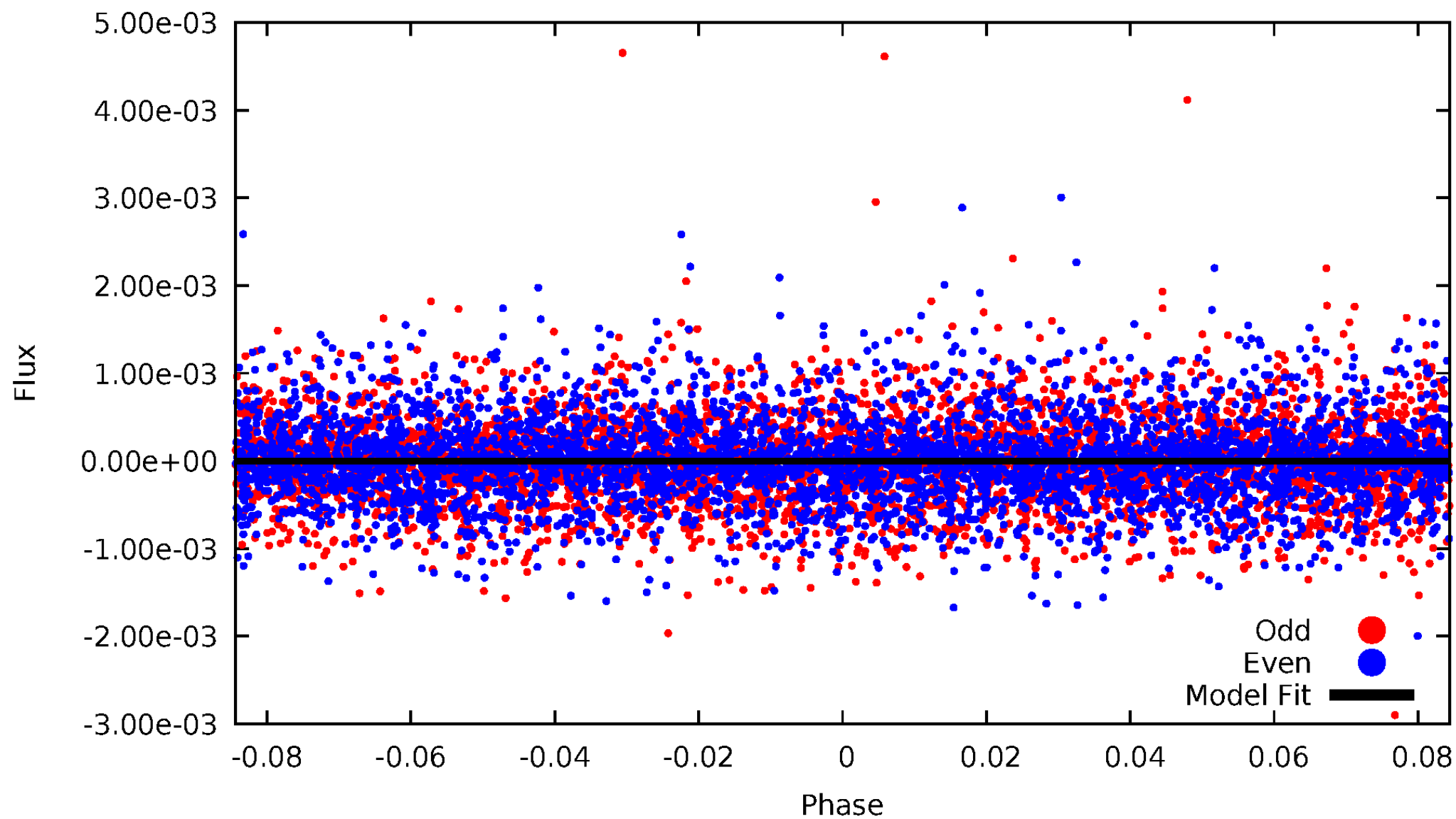
# TCE 007199058-01





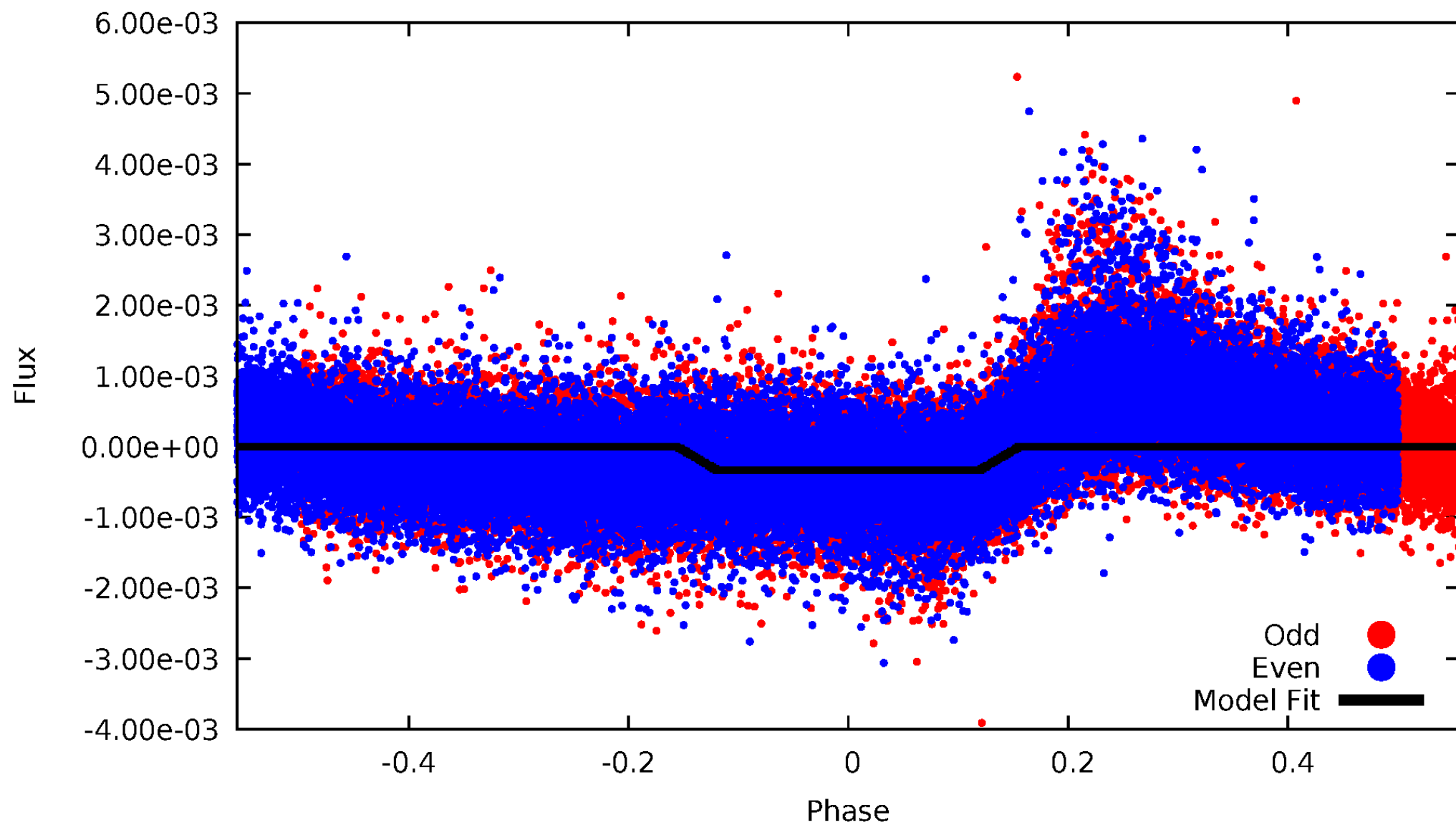
# DV Odd/Even

TCE 007199058-01



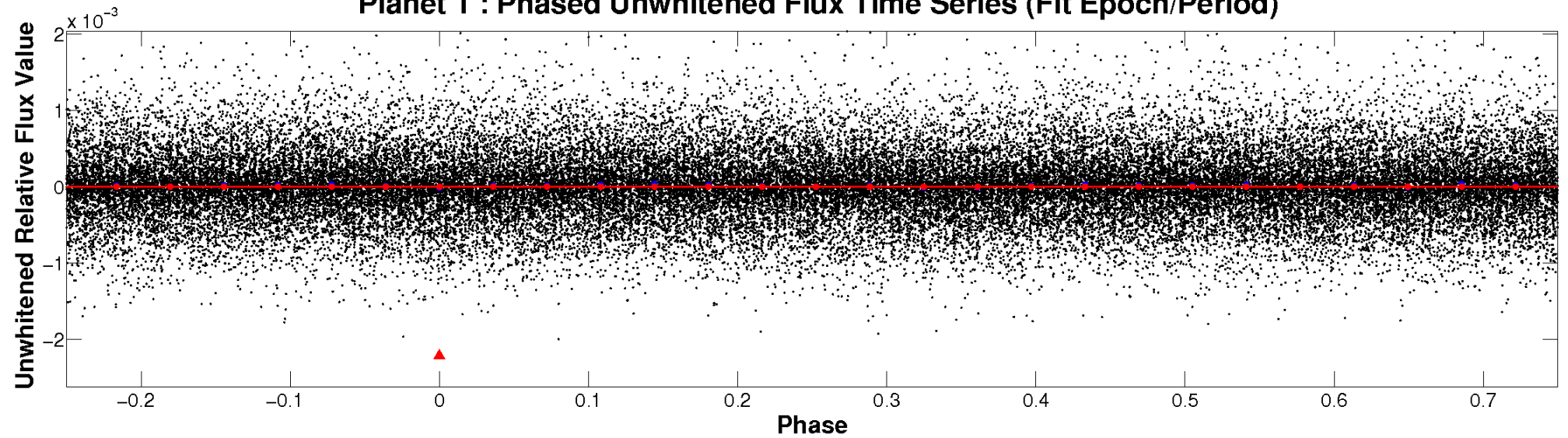
# ALT Odd/Even

TCE 007199058-01

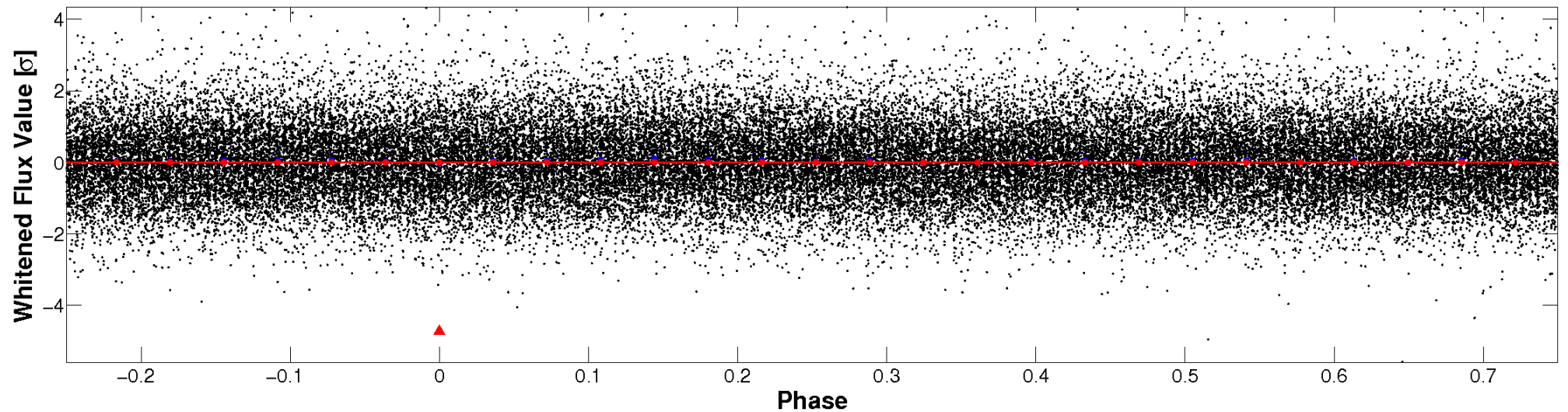


# Non-Whitened Vs. Whitened Light Curve

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

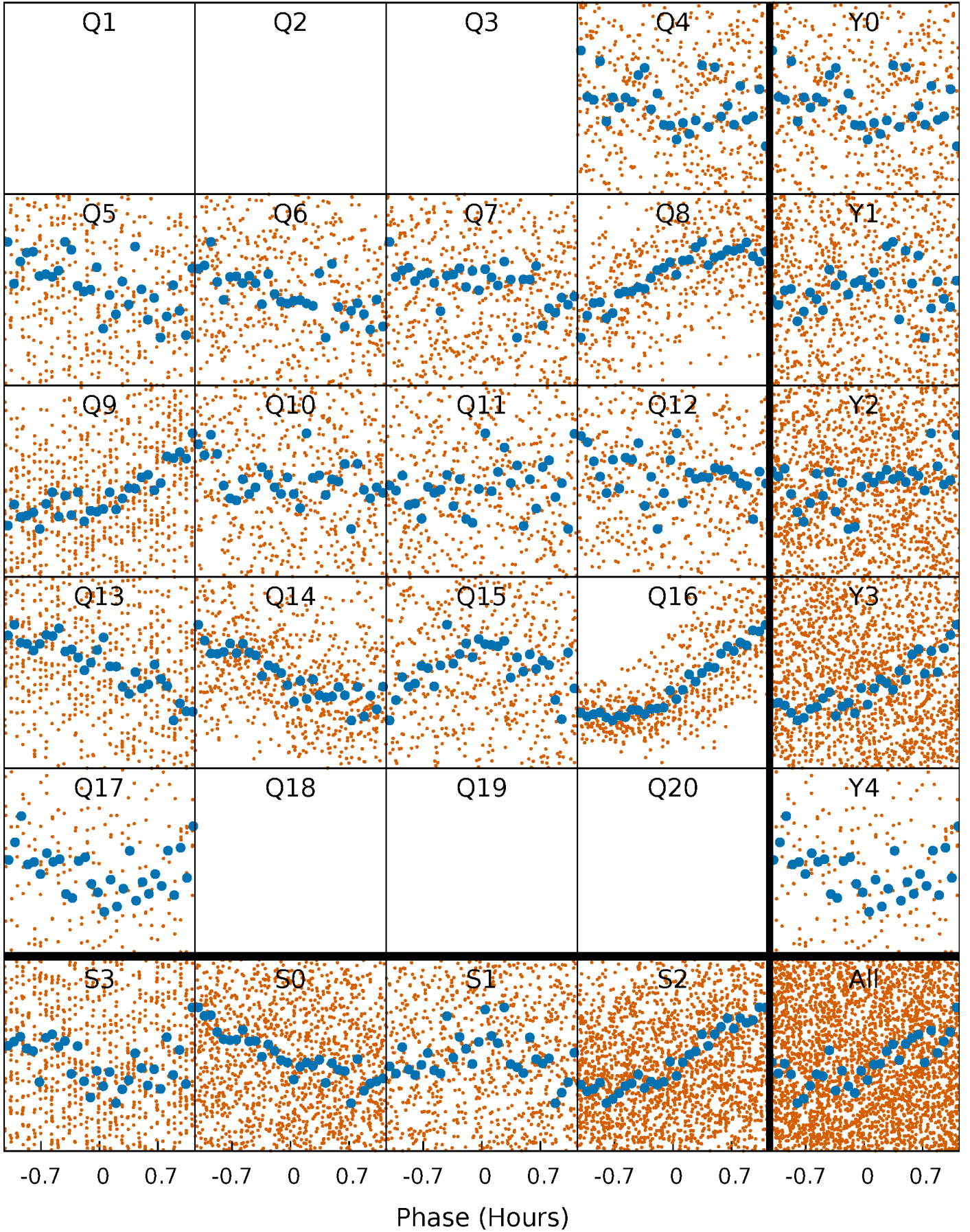


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

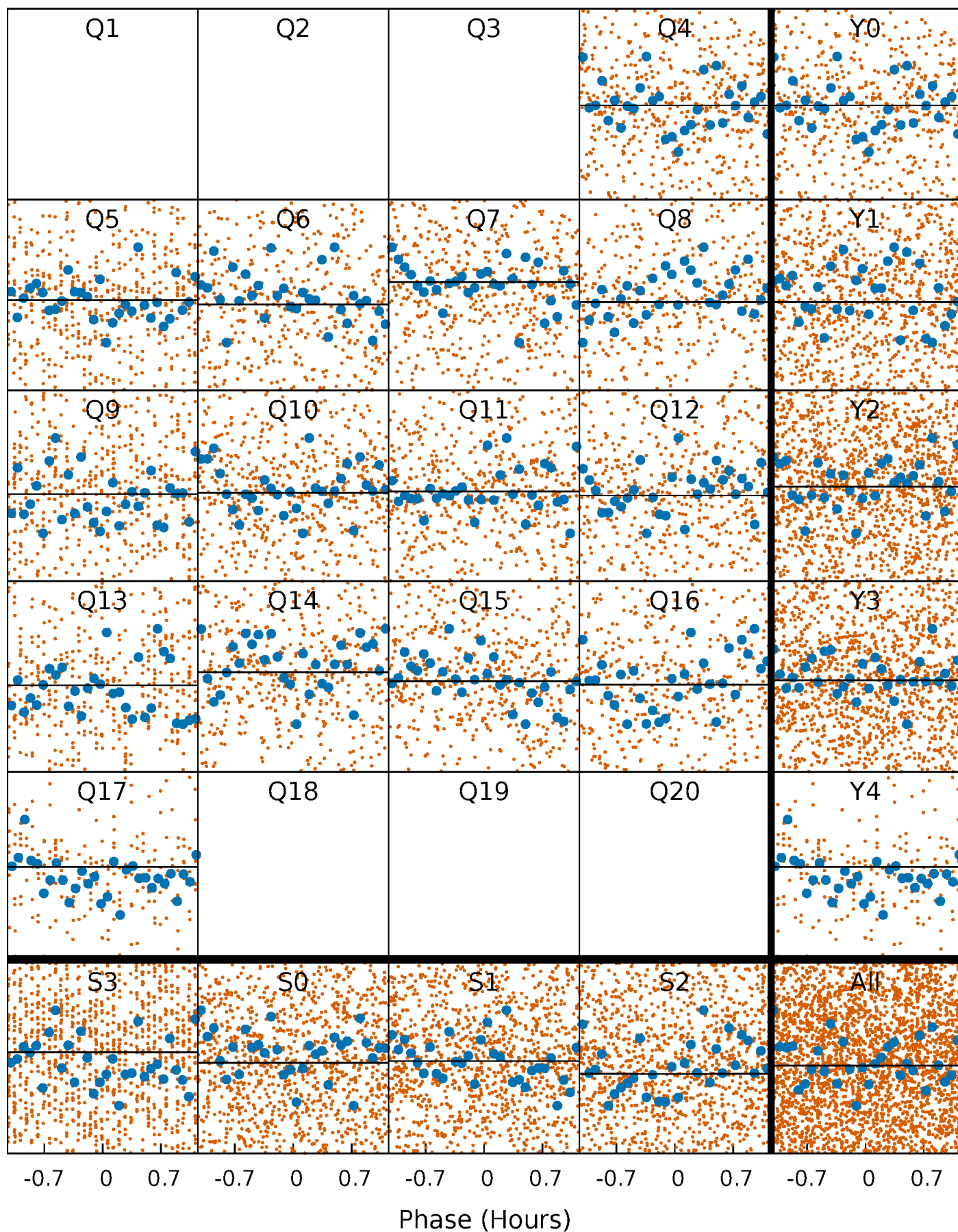
TCE 007199058-01 P= 0.566329 Days  $T_0=131.740669$  (BKJD)





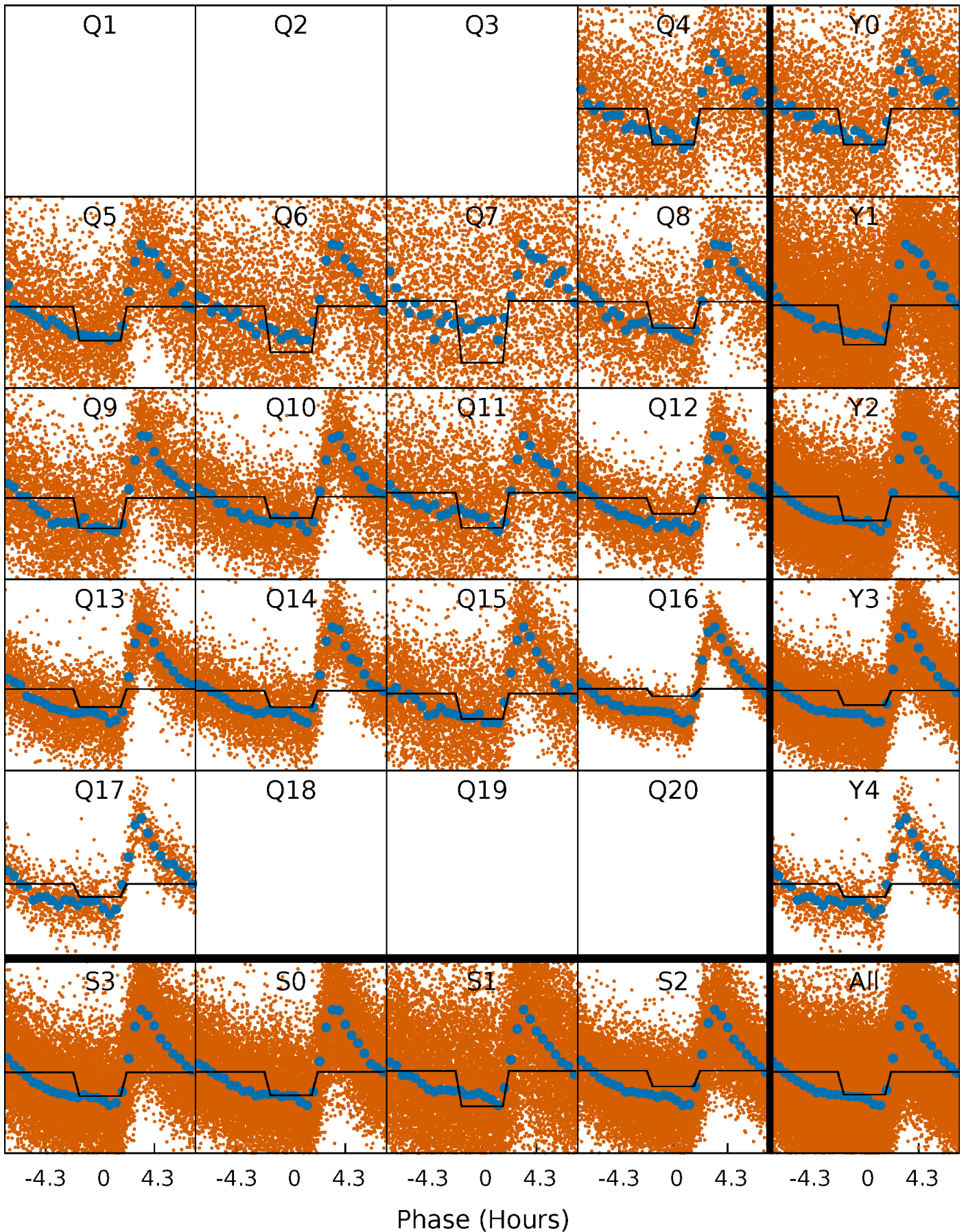
# DV Quarter-Phased Transit Curves

TCE 007199058-01 P= 0.566329 Days  $T_0=131.740669$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

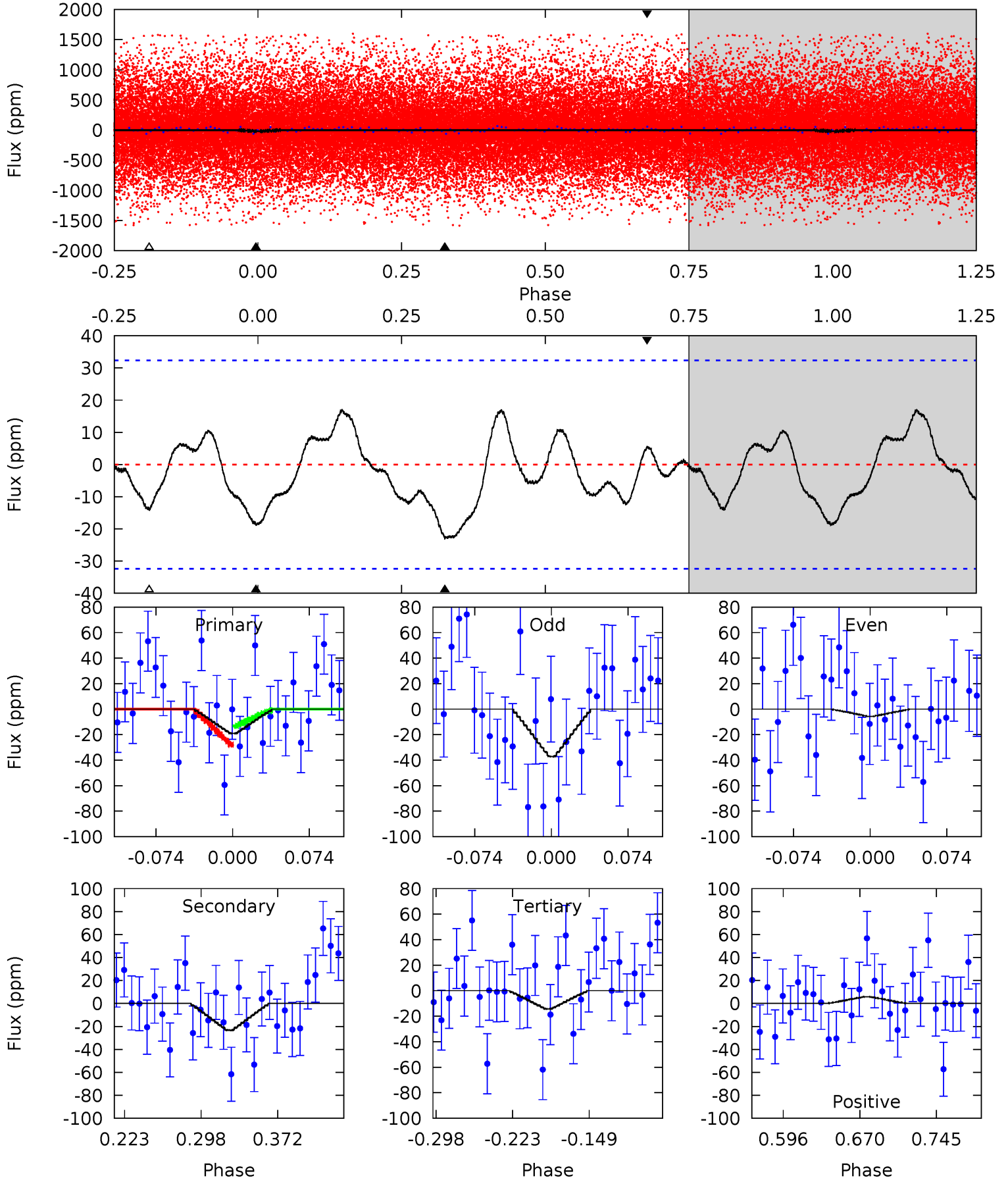
TCE 007199058-01 P= 0.566803 Days  $T_0=131.648143$  (BKJD)



# DV Model-Shift Uniqueness Test

007199058-01, P = 0.566329 Days, E = 131.740669 Days

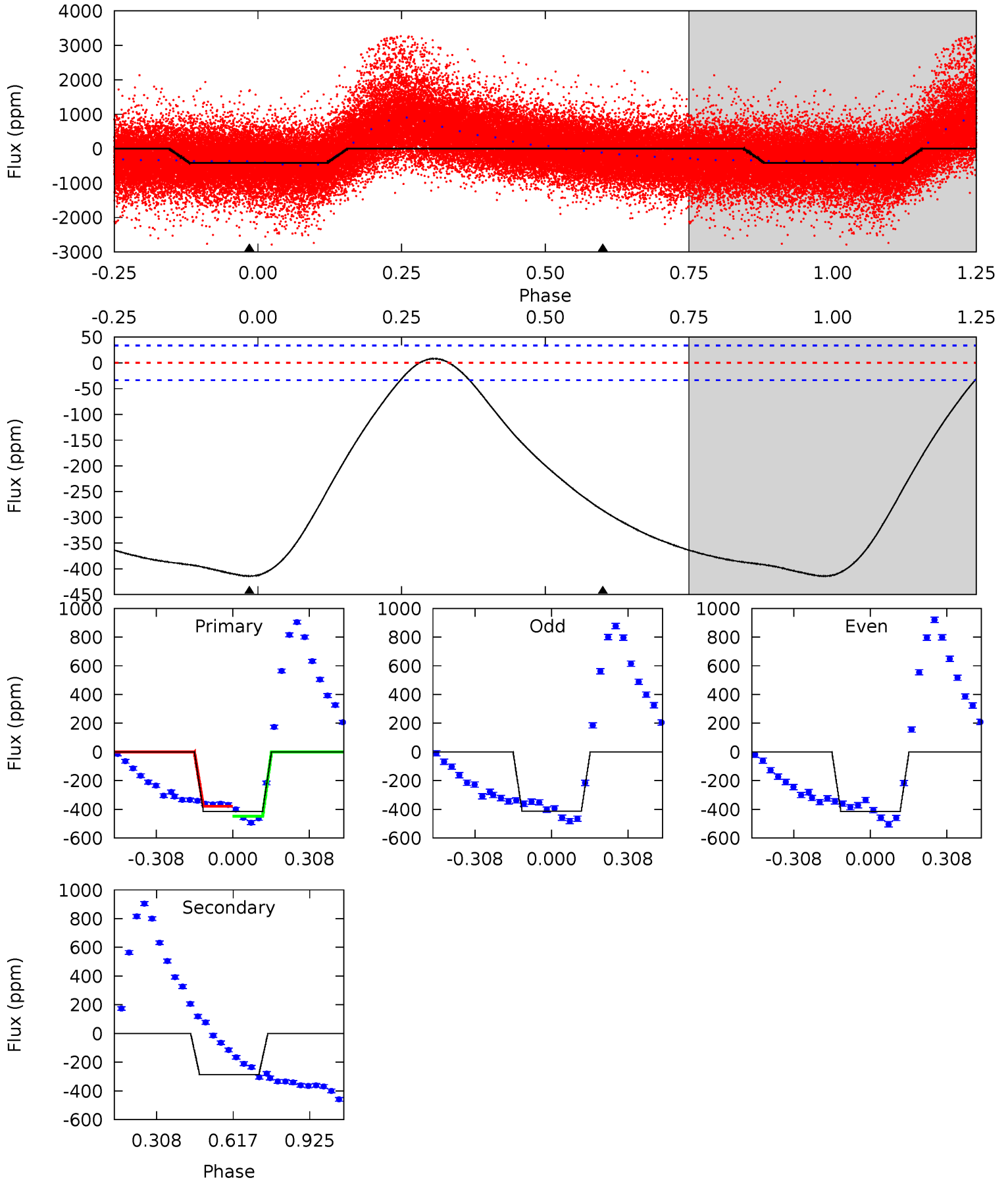
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.72	3.33	2.04	0.82	4.63	1.78	1.09	0.68	1.90	1.29	2.51	2.26	-0.06	0.43	1.04



# Alt Model-Shift Uniqueness Test

007199058-01, P = 0.566803 Days, E = 131.648143 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
53.3	36.8	0	0	4.32	1.02	1.79	53.3	53.3	36.8	36.8	0.20	1.11	0.02	5.02





### Stellar Parameters For KIC 007199058

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6434^{+156}_{-246}$	$4.394^{+0.065}_{-0.182}$	$-0.100^{+0.250}_{-0.300}$	$1.138^{+0.330}_{-0.141}$	$1.169^{+0.162}_{-0.162}$	$1.119^{+0.382}_{-0.558}$
	+2%/-4%	+1%/-4%	+250%/-300%	+29%/-12%	+14%/-14%	+34%/-50%
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 007199058-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-23 \pm 7$	$7.91^{+8.85}_{-5.54}$	$3614^{+308}_{-259}$	$-3315^{+6485}_{-240}$	$0.039^{+0.424}_{-0.031}$
Alt.	$-286 \pm 8$	$9.25^{+9.33}_{-6.33}$	$3634^{+338}_{-271}$	$2604^{+2805}_{-5920}$	$0.337^{+3.090}_{-0.252}$

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

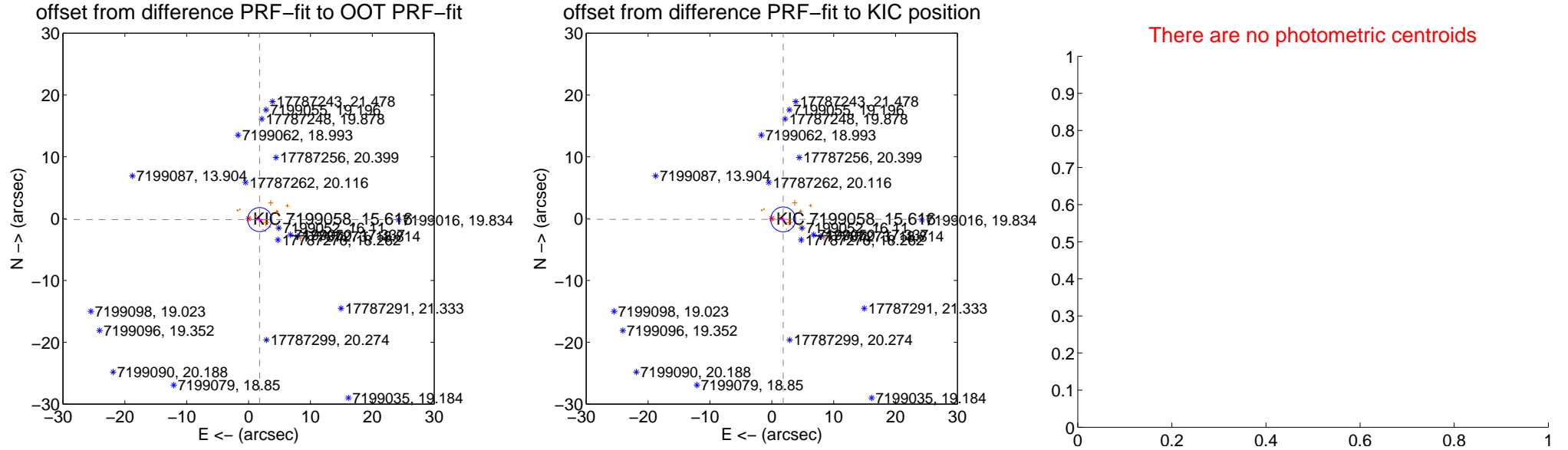
## DV Centroid Data

Supplemental centroid analysis for 007199058-01. Kepler magnitude: 15.62. Transit SNR 0.00

There are 0 quarters with good PRF difference image offsets

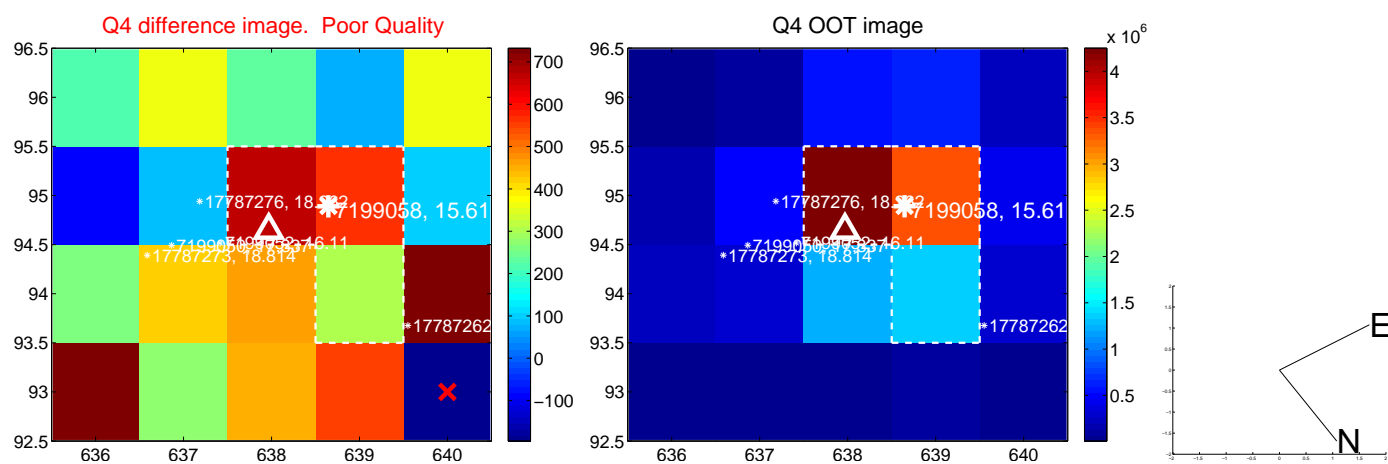
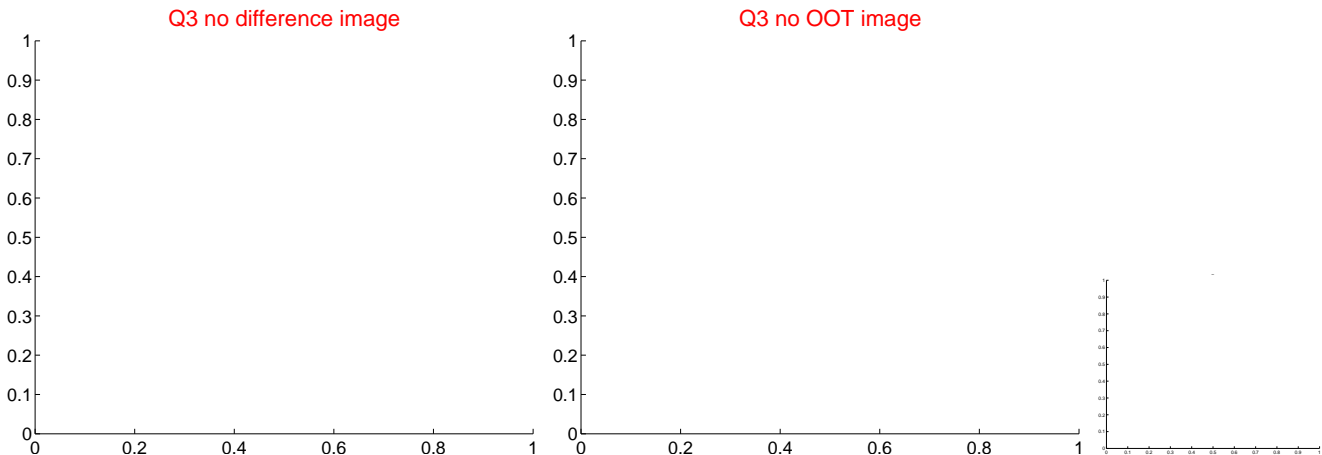
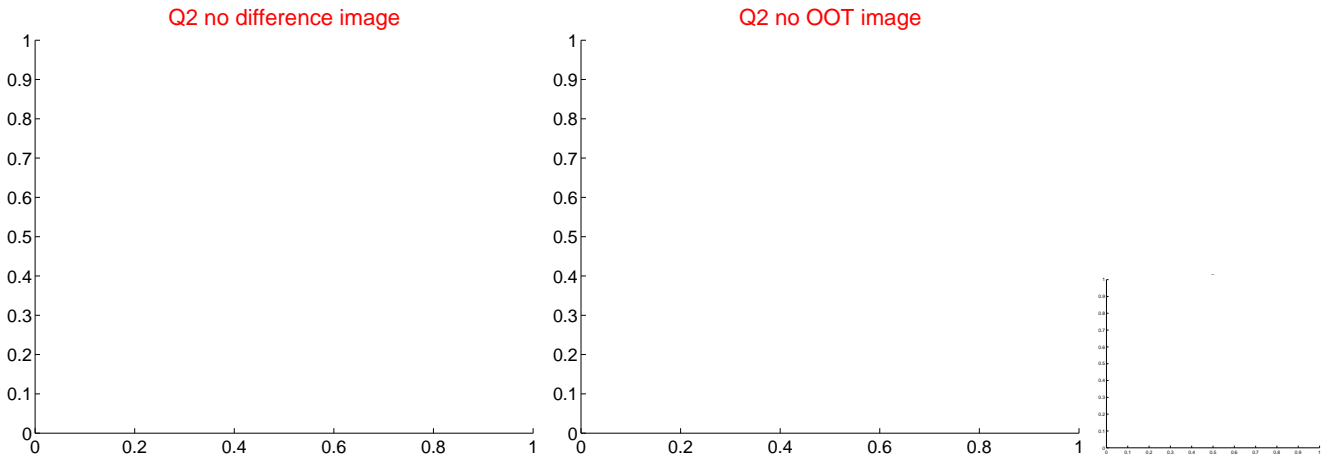
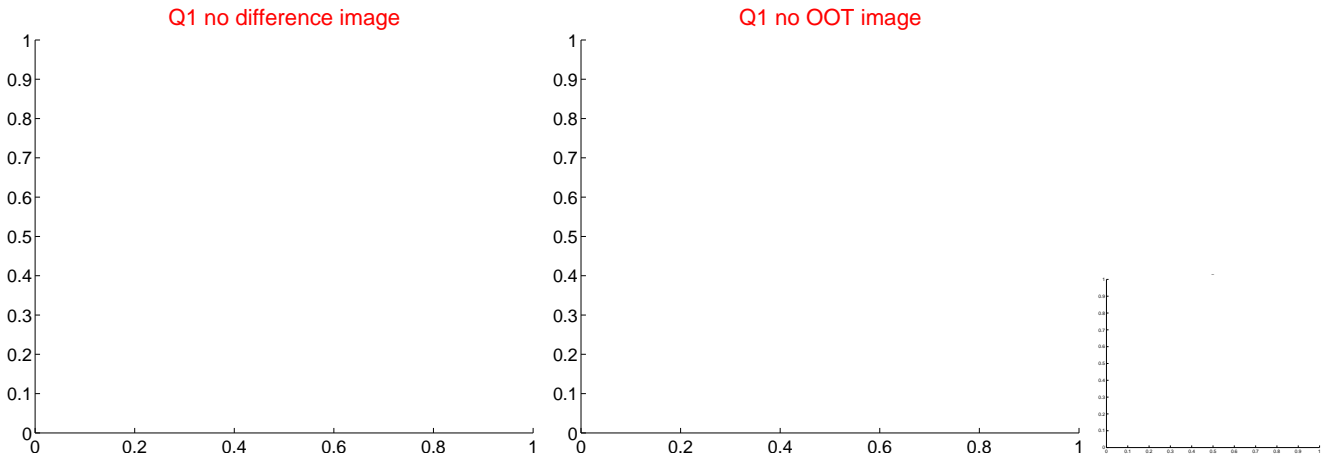
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$1.796 \pm 0.648$	2.77	$-1.789 \pm 0.639$	$-0.157 \pm 0.425$
PRF-fit source offset from KIC position	$1.838 \pm 0.670$	2.74	$-1.834 \pm 0.662$	$-0.126 \pm 0.430$
photometric centroid source offset	—	—	—	—

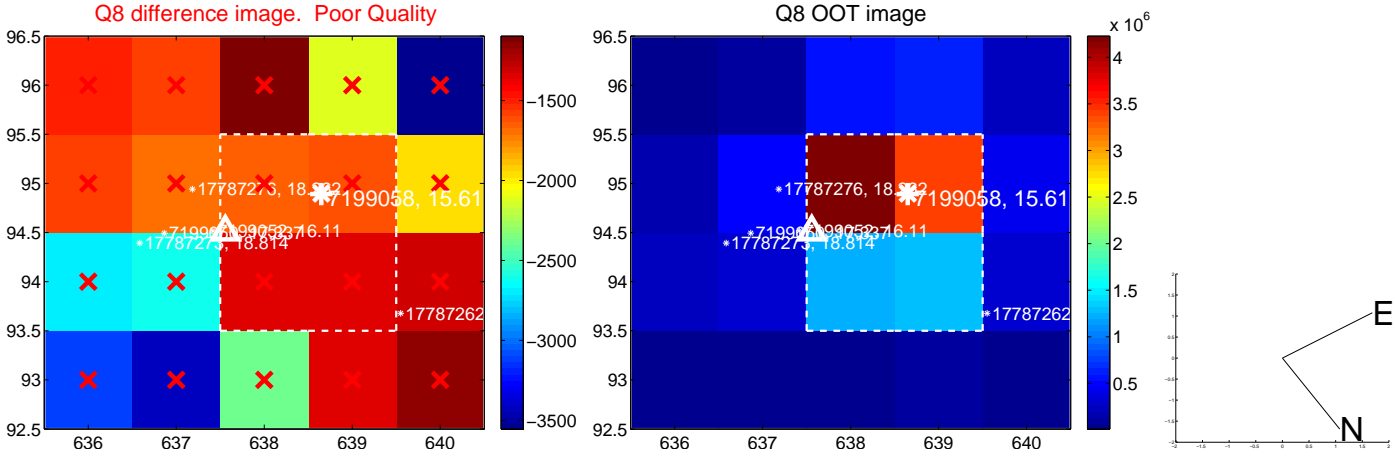
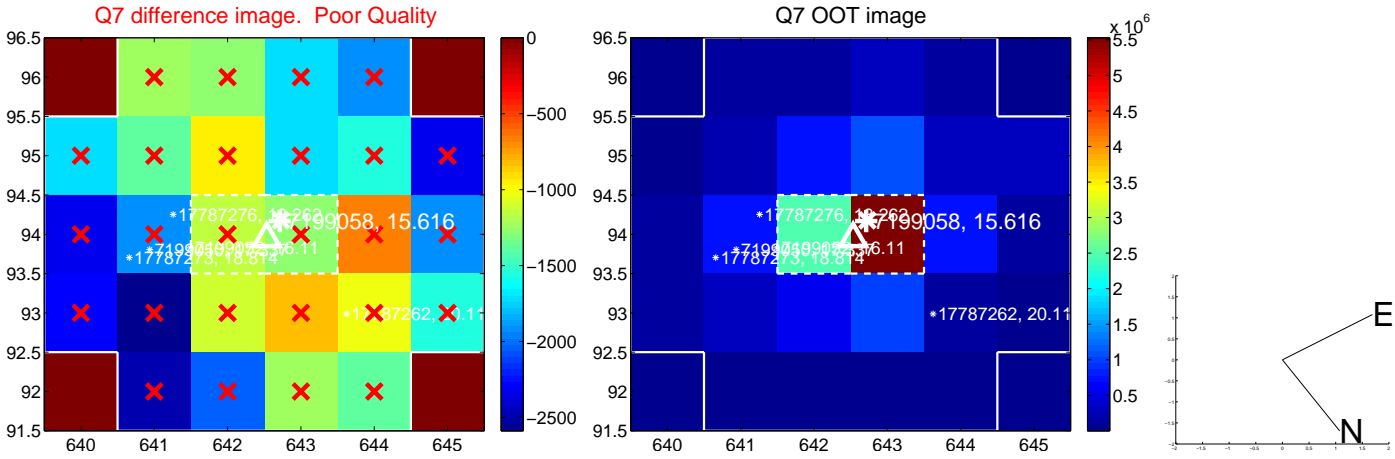
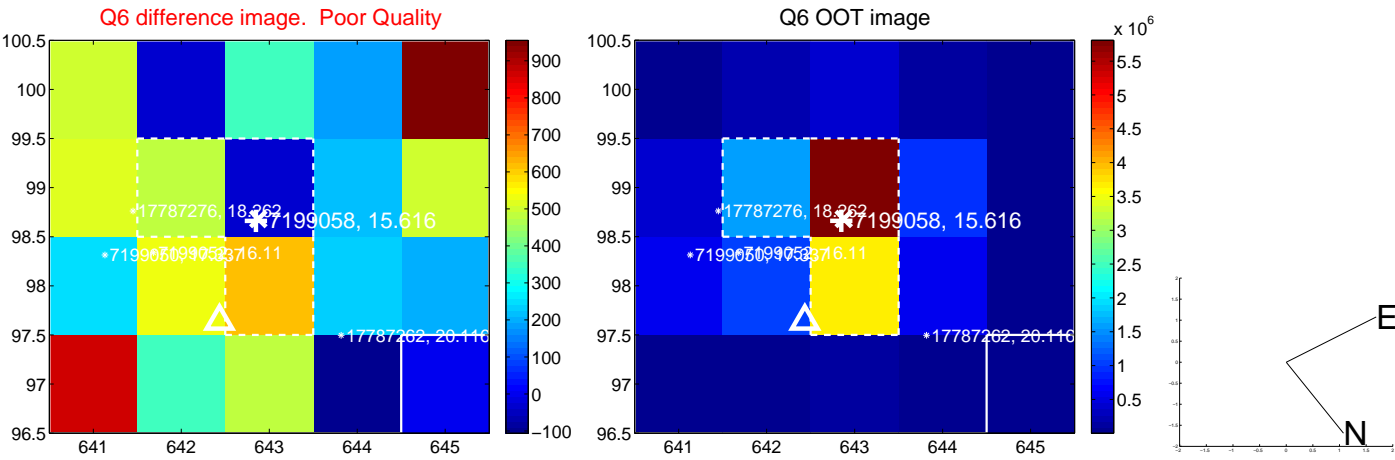
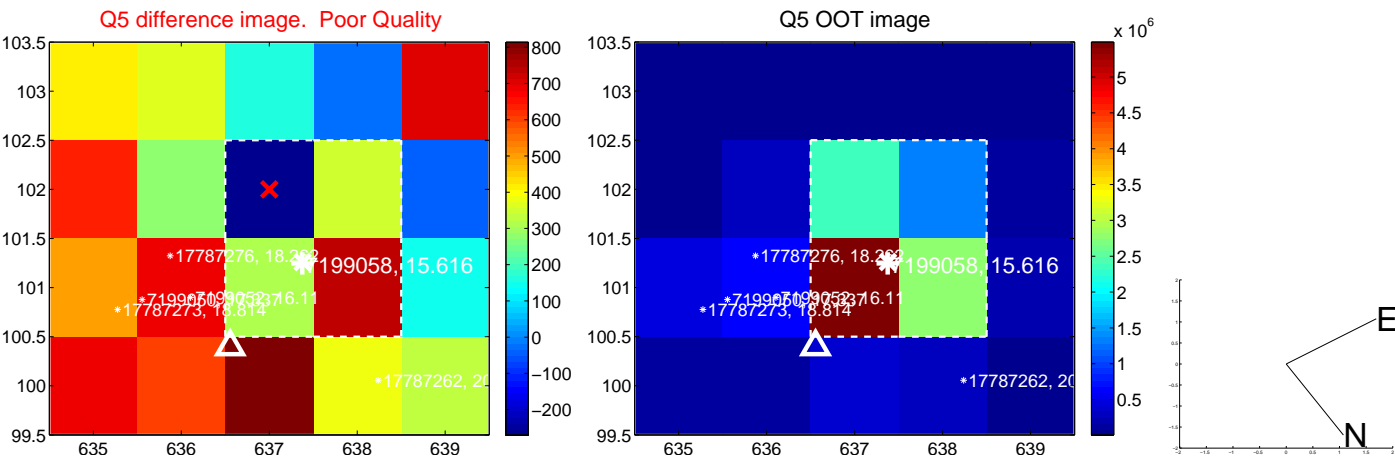


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

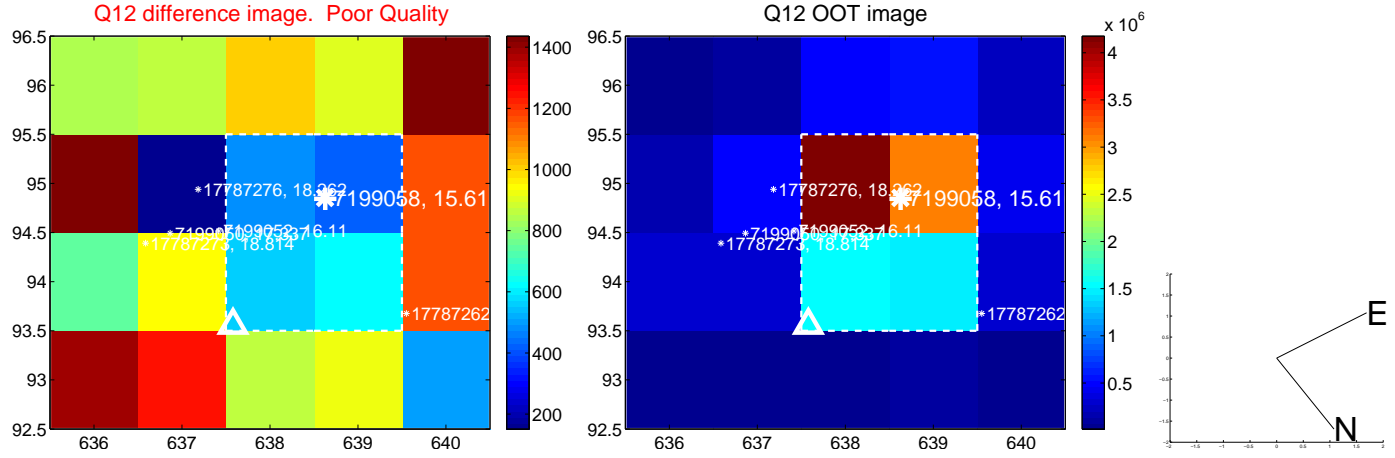
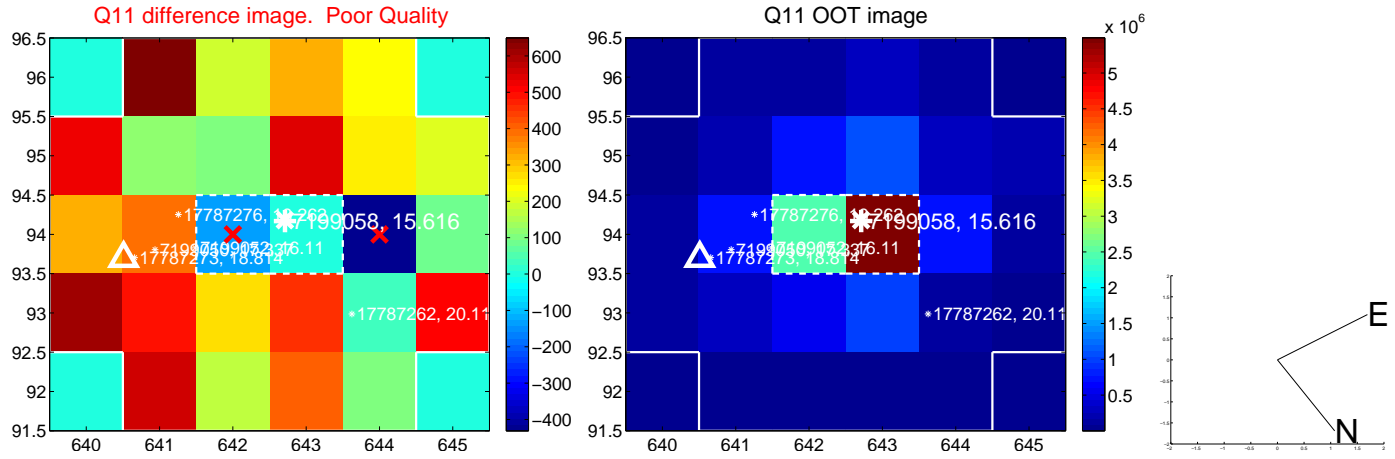
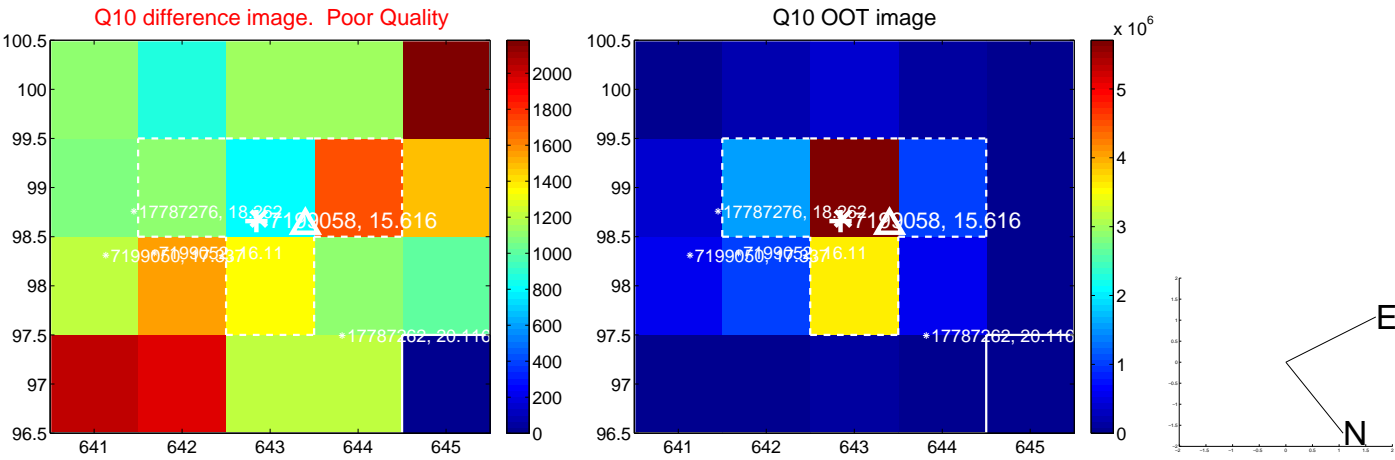
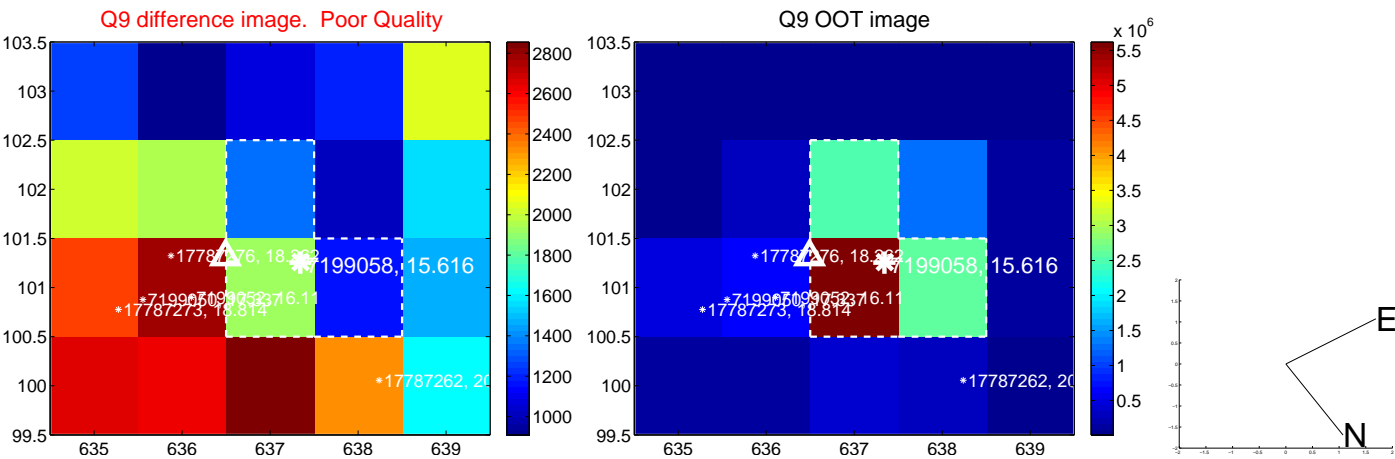


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

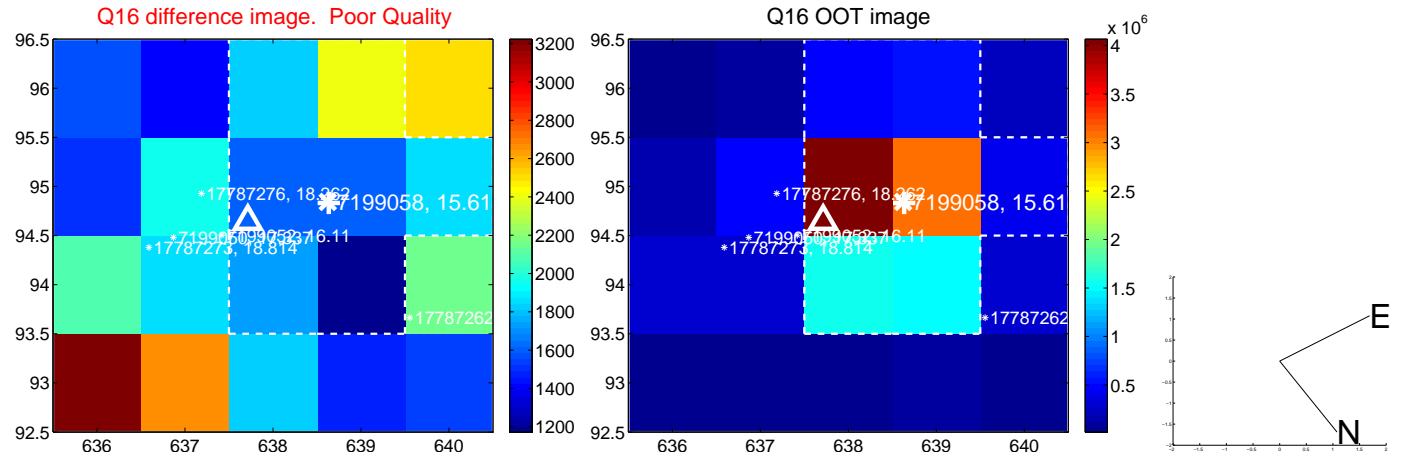
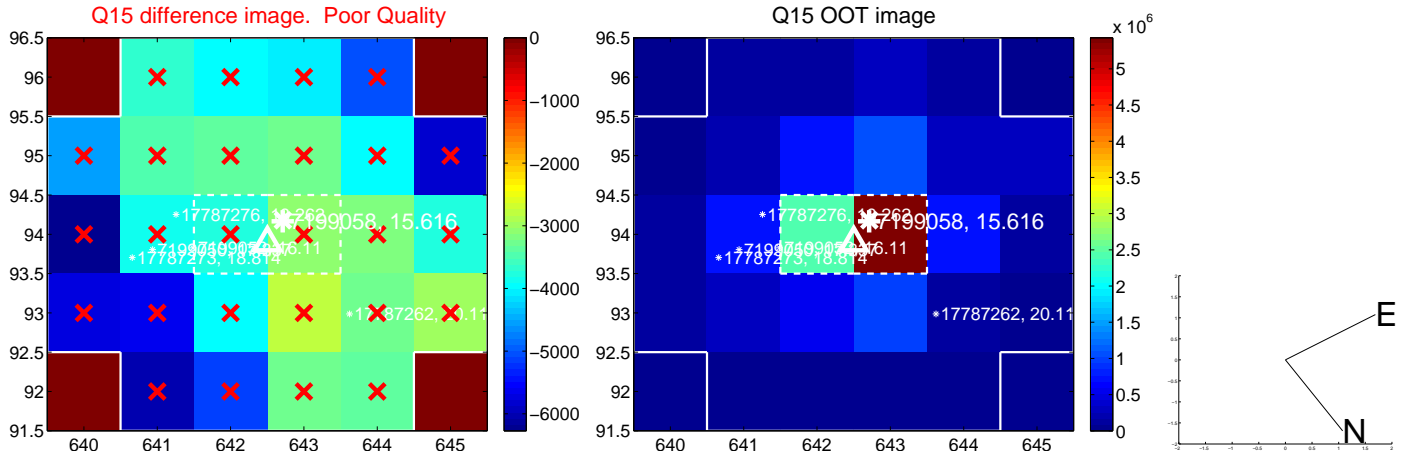
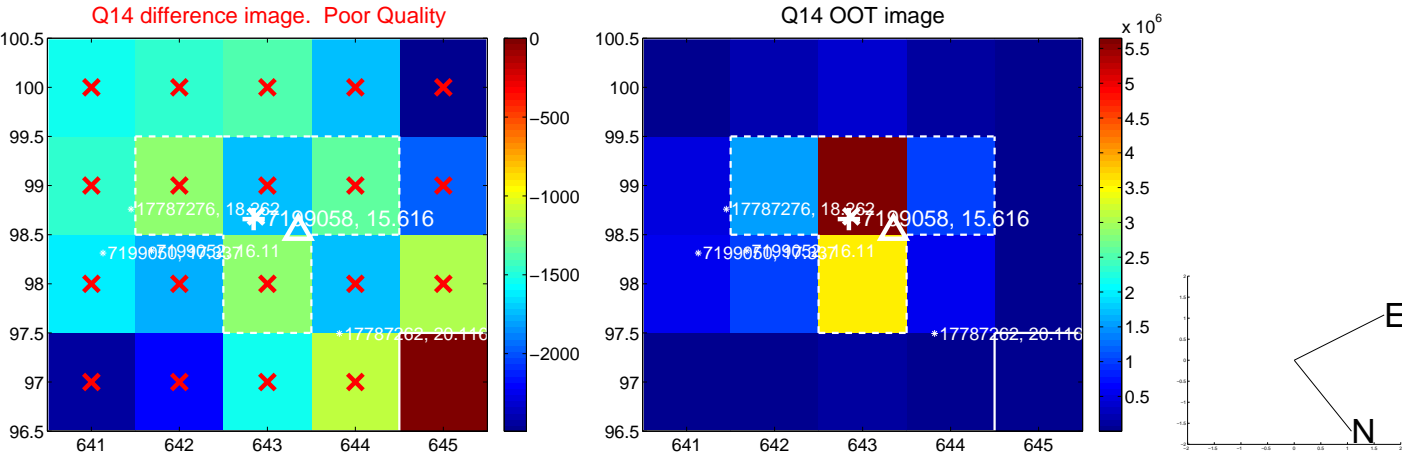
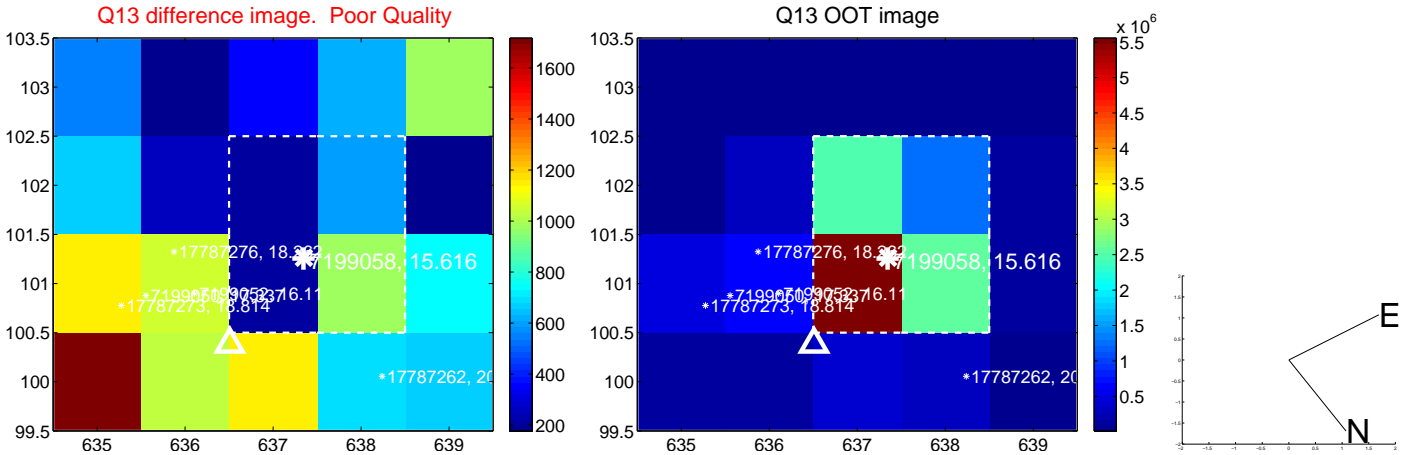




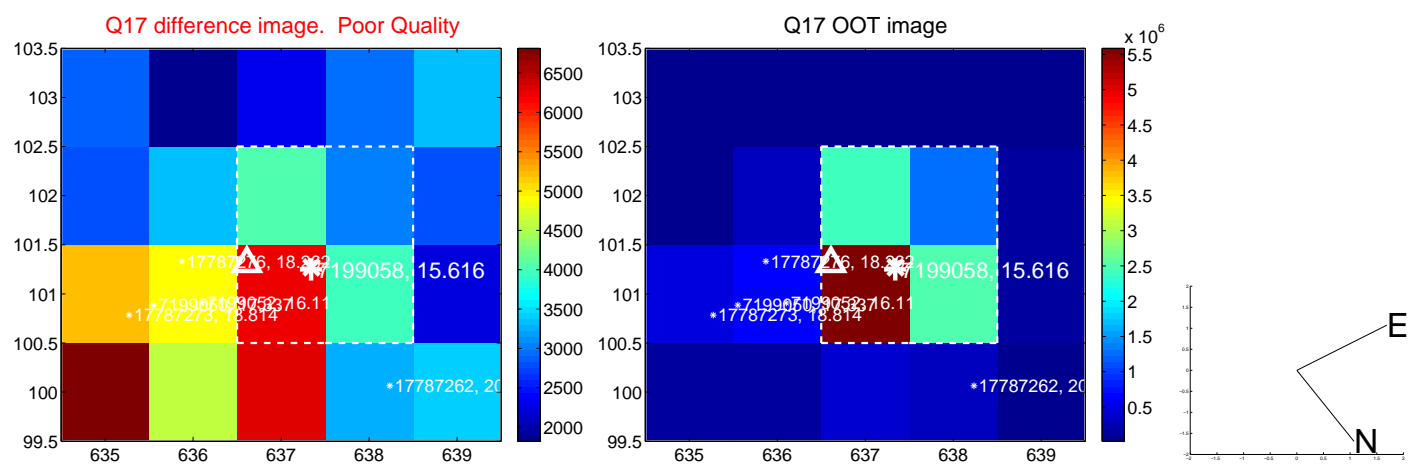
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



folded centroid time series figure for this object.



UKIRT Image

Declination

