

# KIC 011700185

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
011700185-01	OBS	No	3.616652	134.831337	3.2	25.346	12.8	7.9	1.80	7725	0.33	3802.56

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011700185-01	OBS	FP	0.00	1	0	0	0	<del>SWEET_NTL</del> <del>—LPP_DV</del> <del>—CENT_SATURATED</del>

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

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

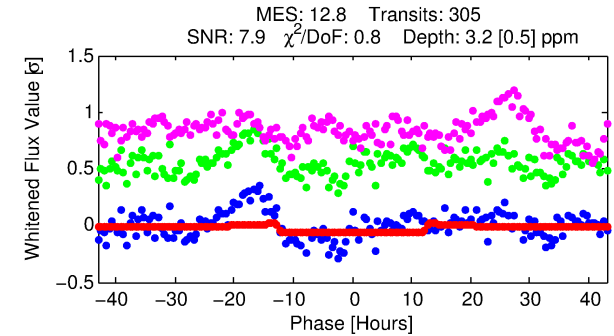
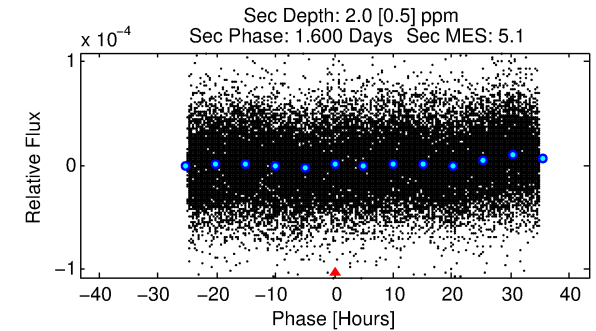
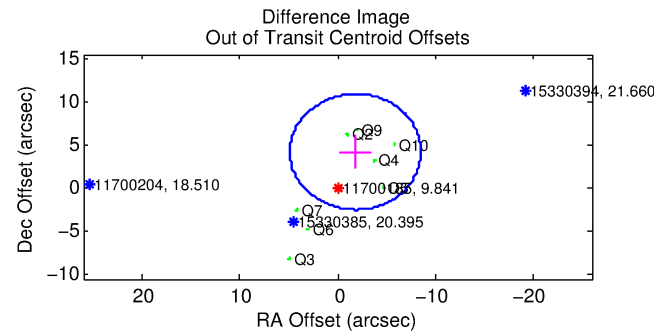
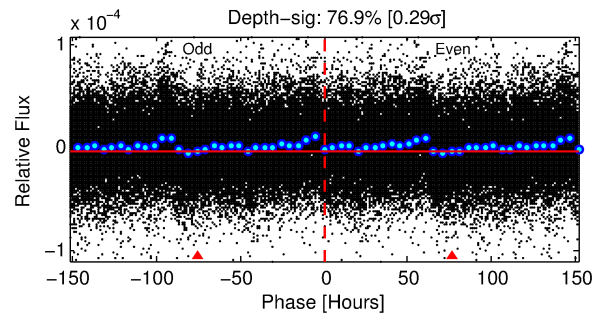
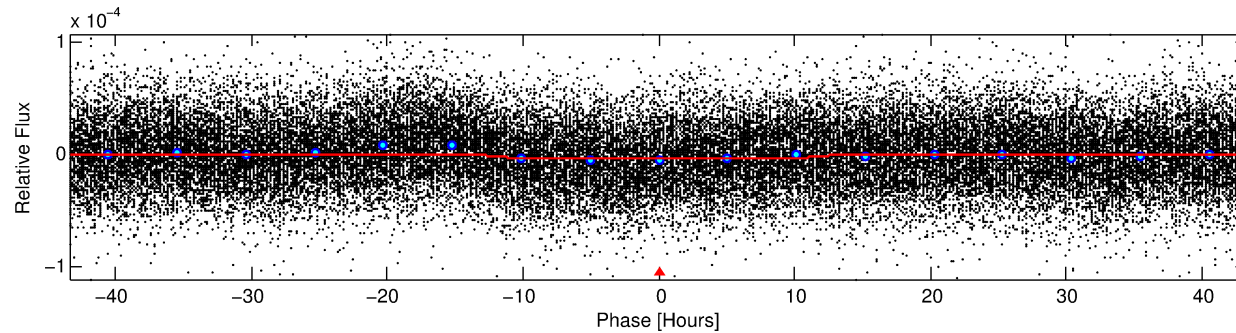
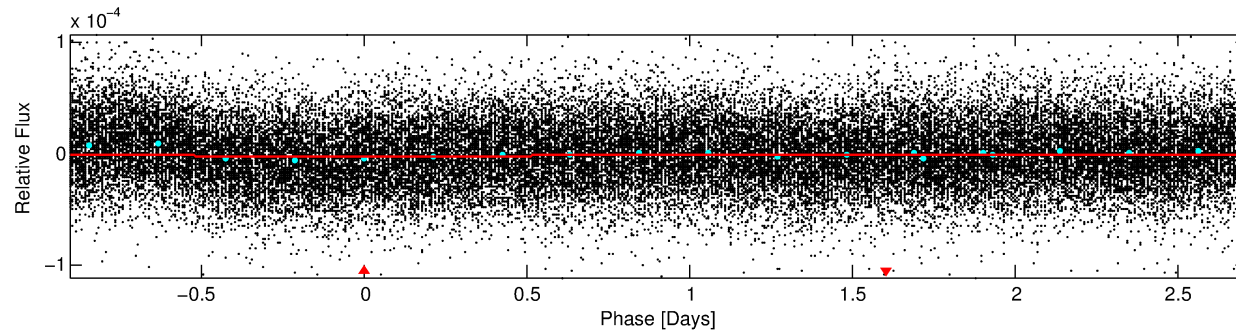
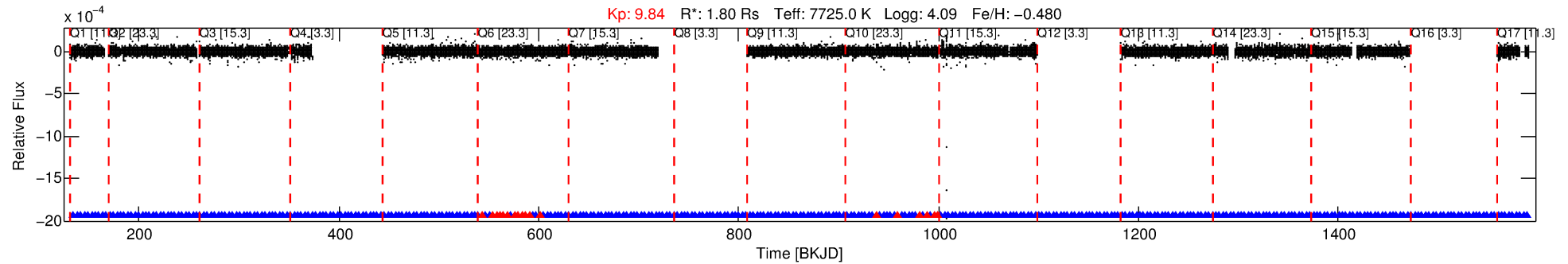
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 011700185-01

No Significant Match Found

# DV One-Page Summary

KIC: 11700185 Candidate: 1 of 1 Period: 3.617 d



## DV Fit Results:

Period = 3.61665 [0.00010] d  
Epoch = 134.8313 [0.0158] BKJD  
Rp/R\* = 0.0017 [0.0017]  
a/R\* = 1.26 [2.90]  
b = 0.14 [43.00]  
Seff = 3802.56 [1537.40]  
Teq = 2002 [202] K  
Rp = 0.33 [0.34] Re  
a = 0.0522 [0.0130] AU  
Ag = 28.20 [58.59] [0.46 $\sigma$ ]  
Teffp = 7134 [3659] K [1.40 $\sigma$ ]

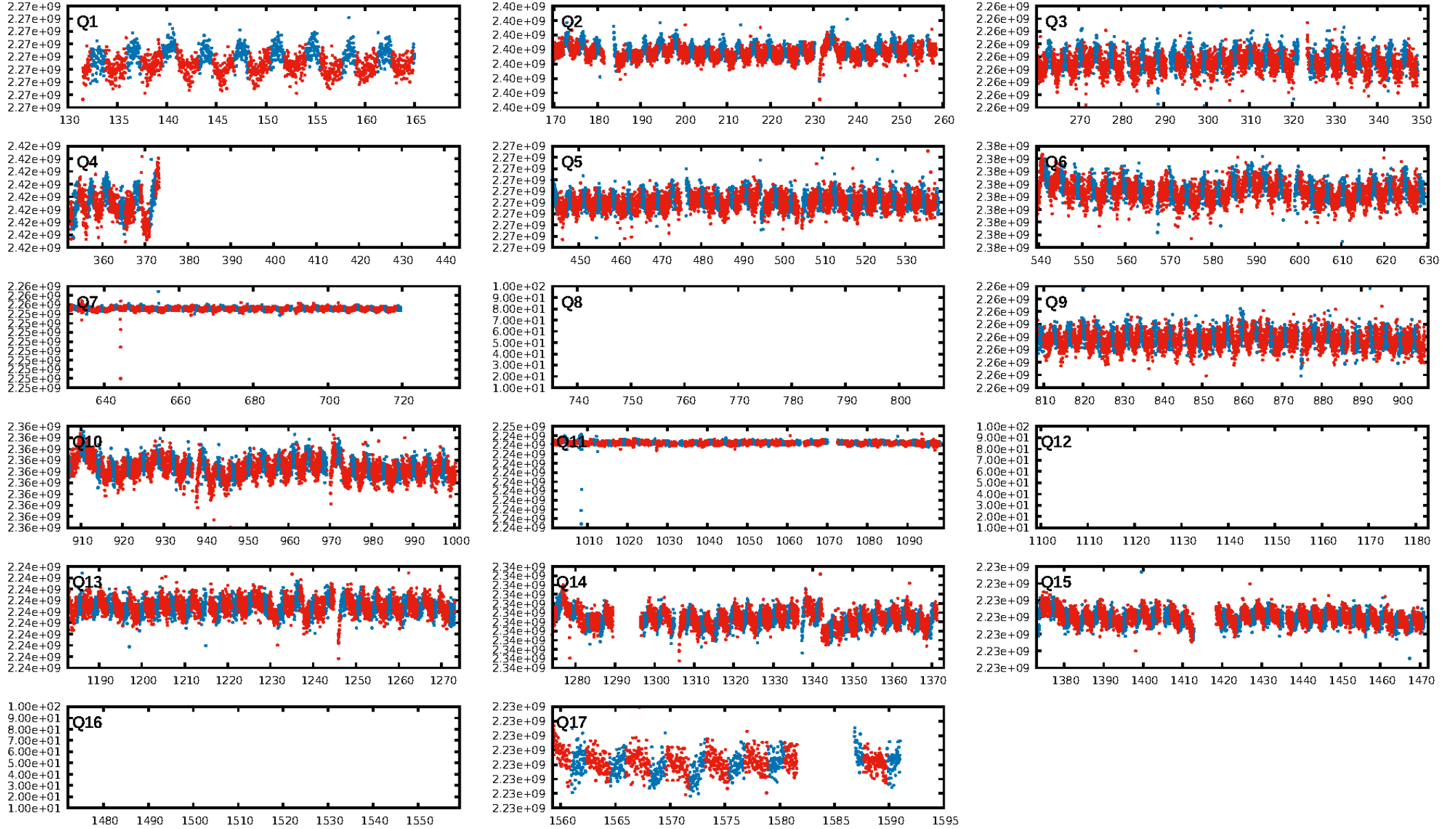
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.94 [263/281]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 4.581 arcsec [2.05 $\sigma$ ]  
KicOffset-rm: 3.916 arcsec [2.33 $\sigma$ ]  
OotOffset-st: 3/2/1/2 [8]  
KicOffset-st: 3/2/1/2 [8]  
DiffImageQuality-fgm: 0.25 [2/8]  
DiffImageOverlap-fno: 1.00 [14/14]

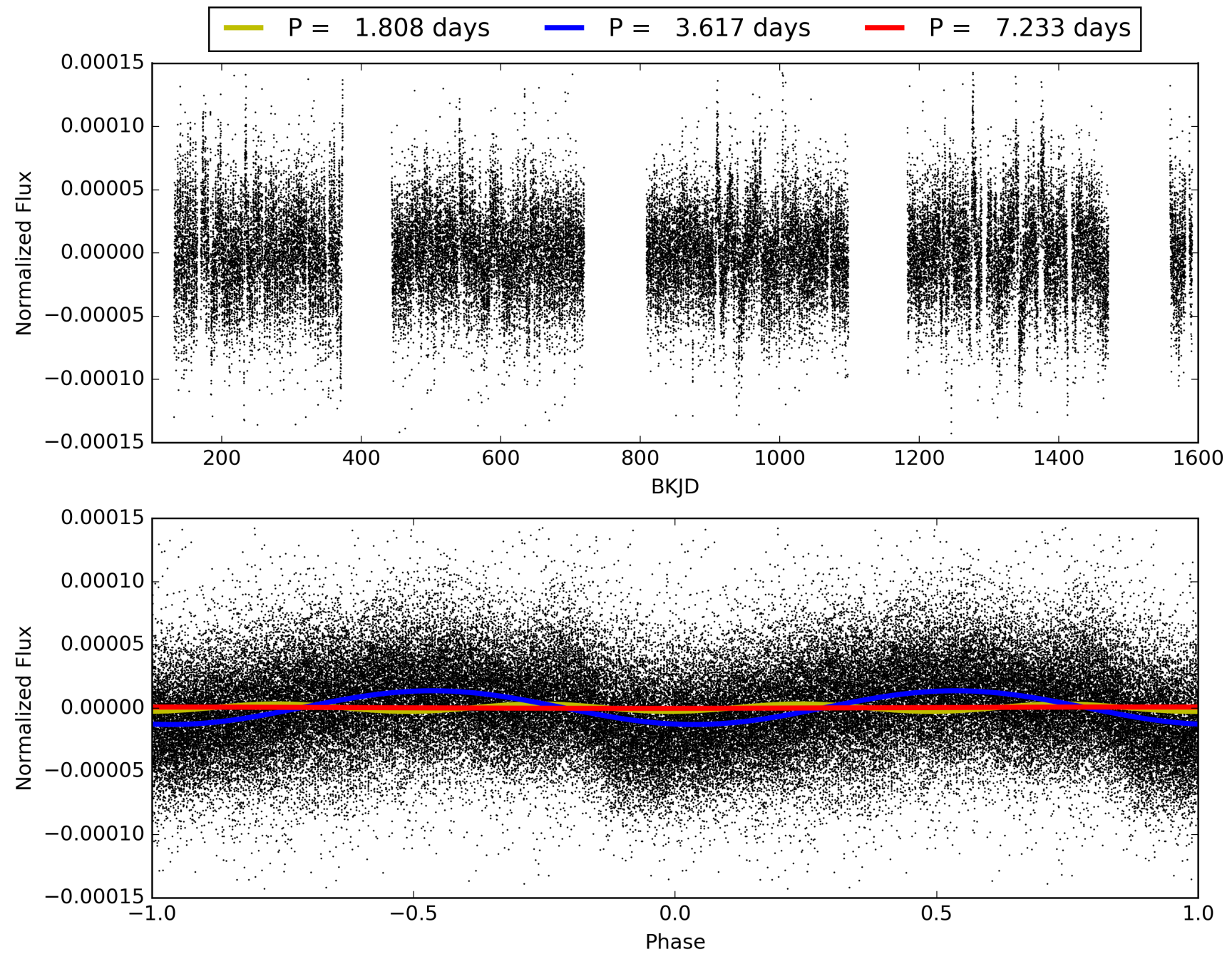
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:09:51 Z

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

# TCE 011700185-01, PDC Light Curves

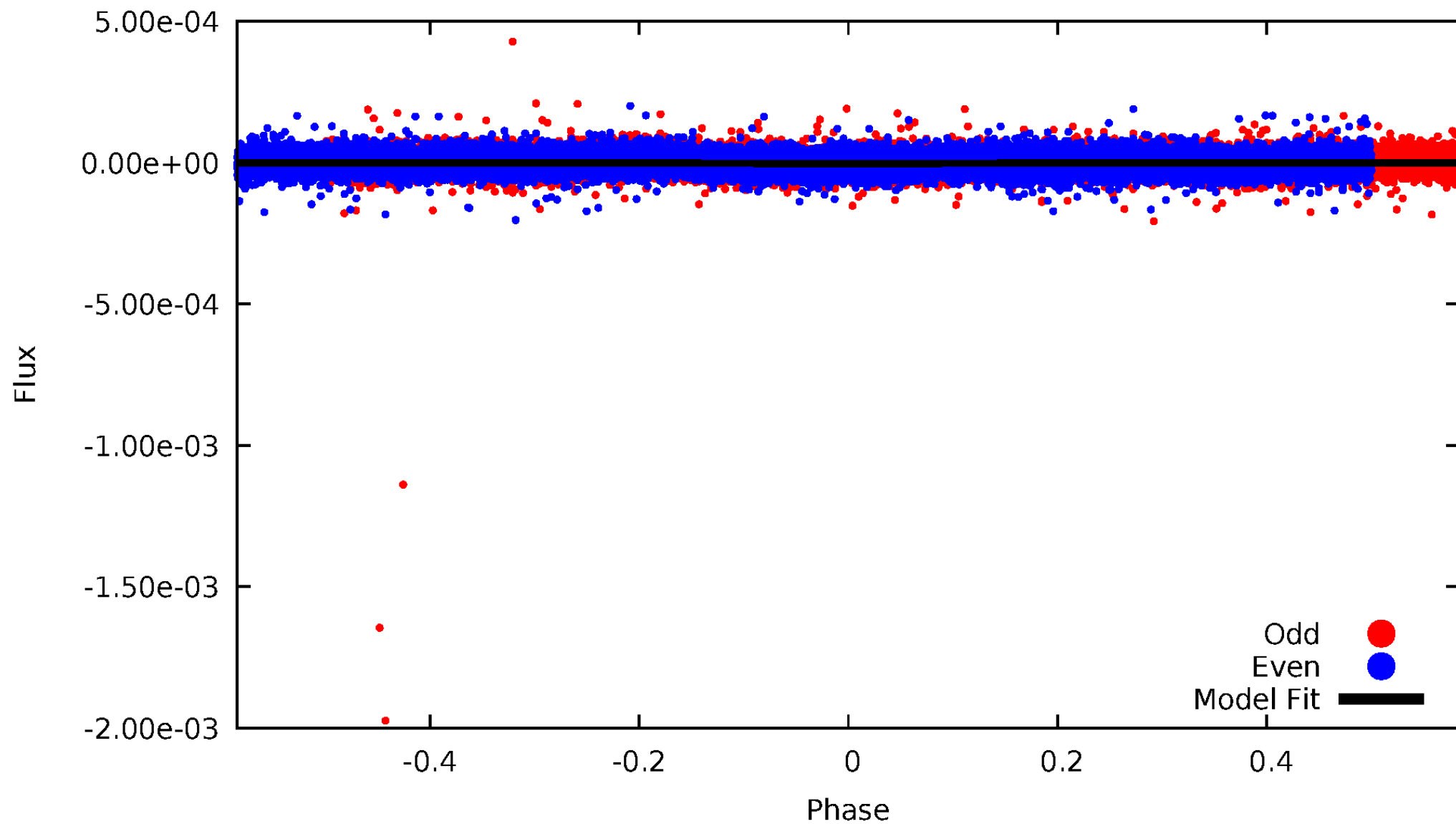


# TCE 011700185-01



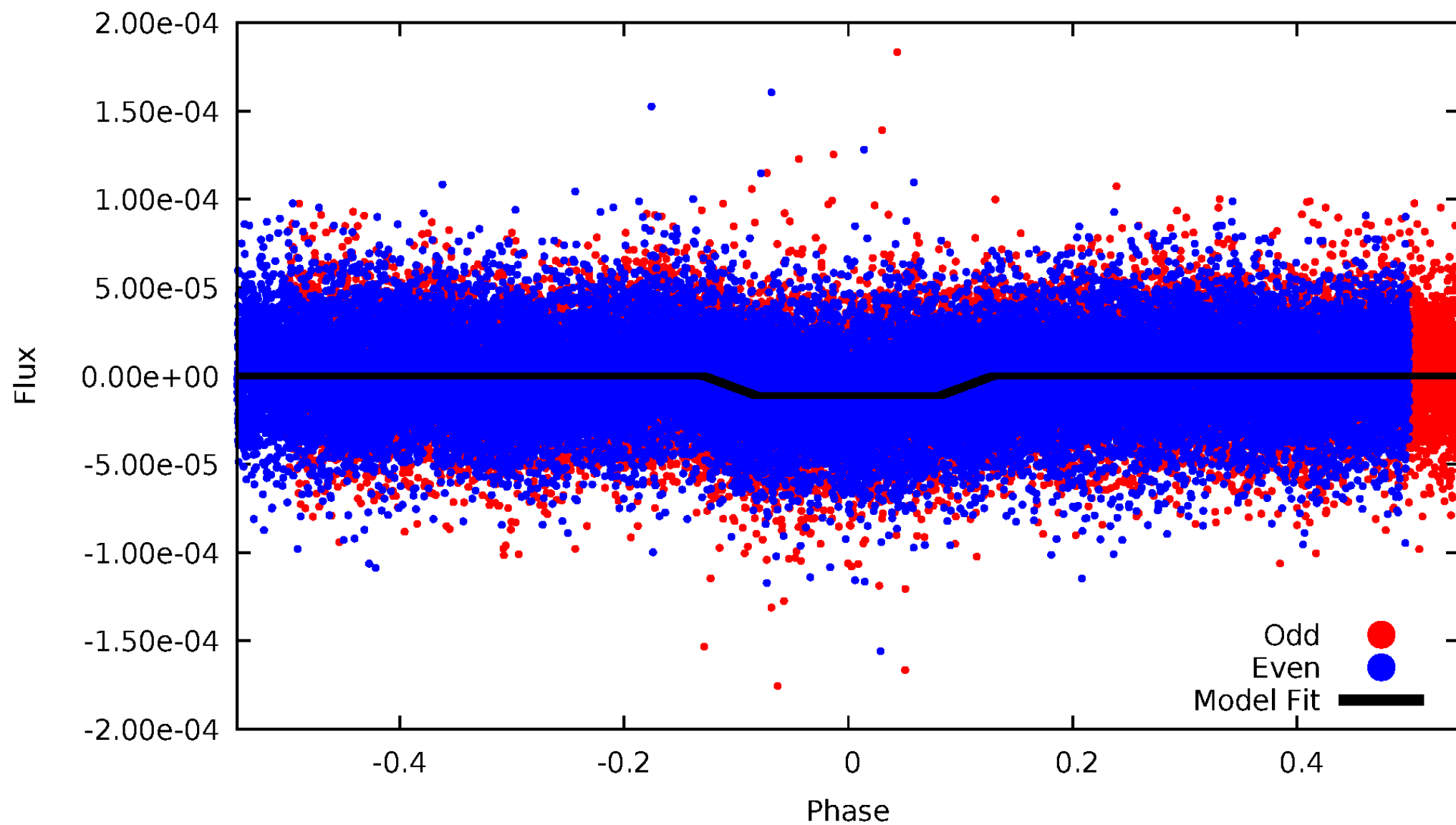
DV Odd/Even

TCE 011700185-01



# ALT Odd/Even

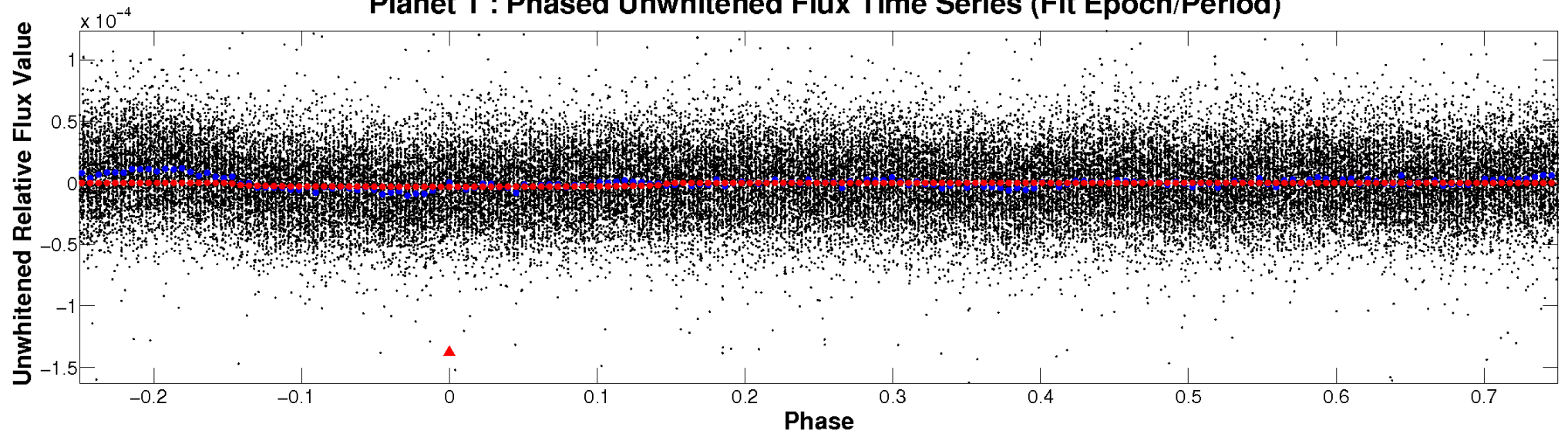
TCE 011700185-01



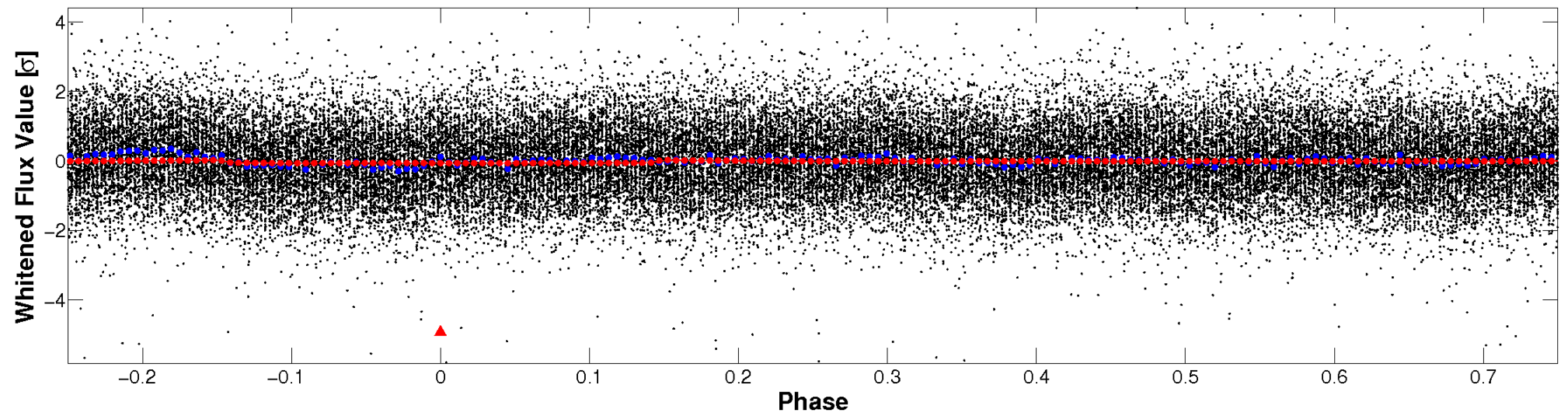


# Non-Whitened Vs. Whitened Light Curve

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

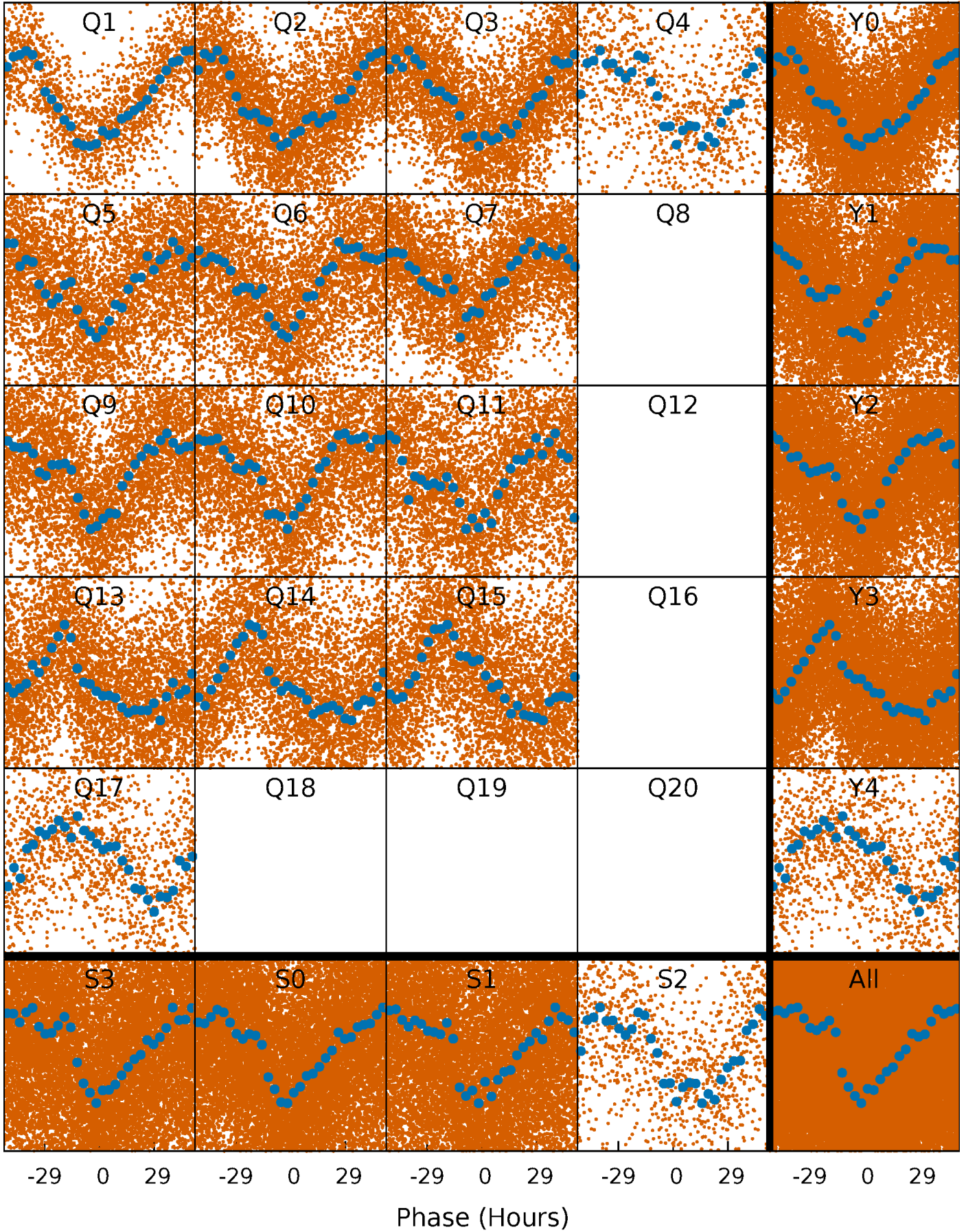


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

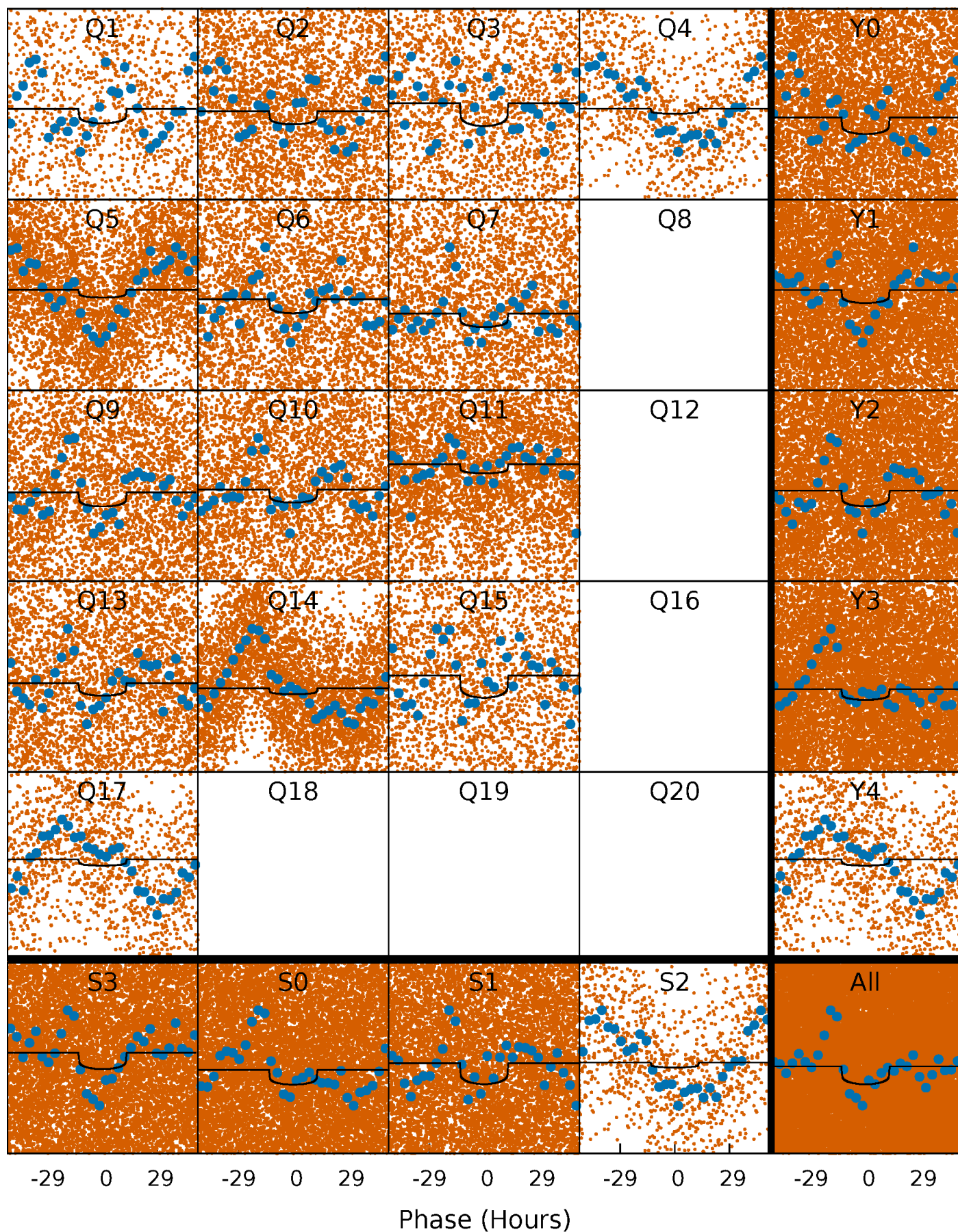
TCE 011700185-01 P= 3.616652 Days  $T_0=134.831337$  (BKJD)





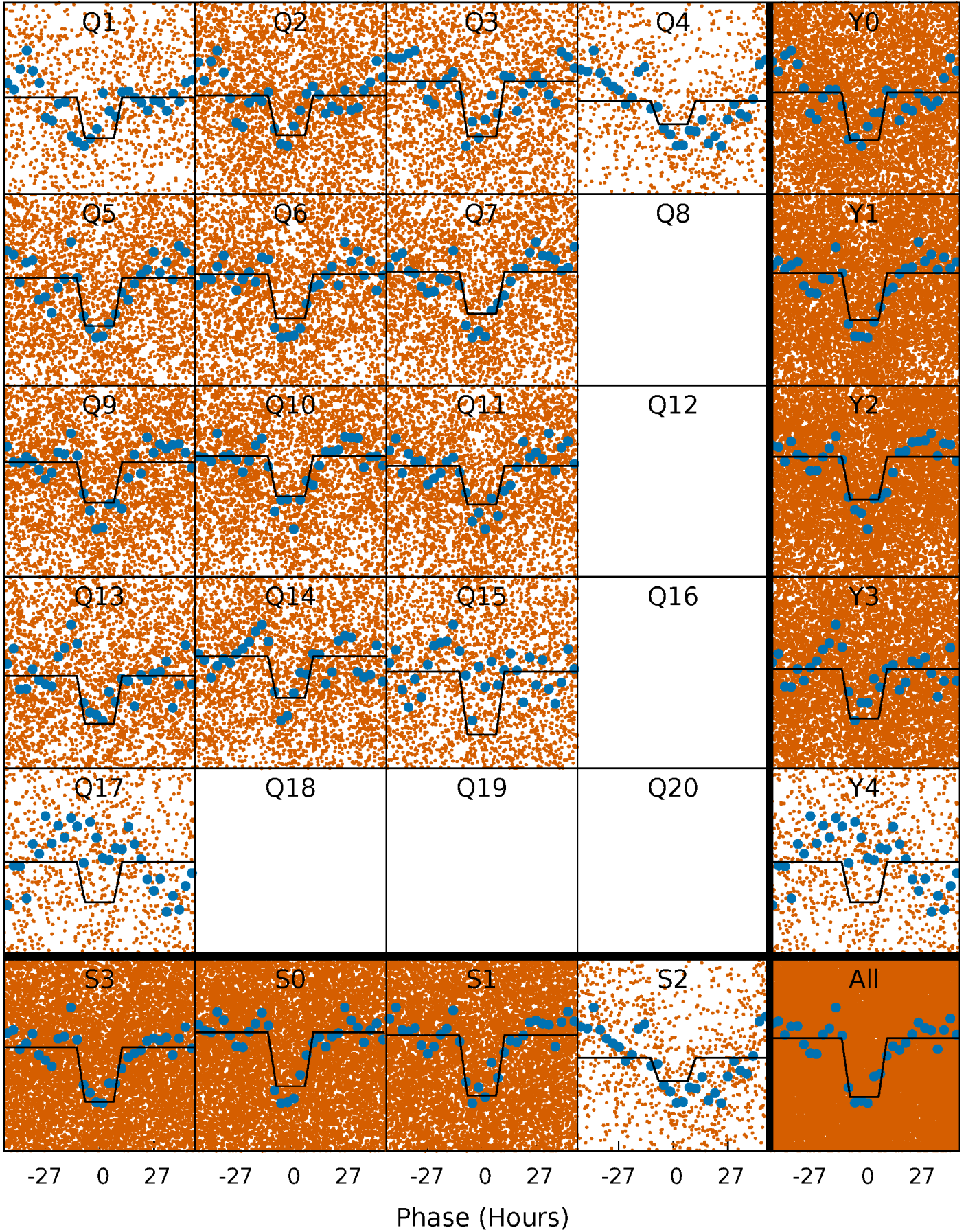
# DV Quarter-Phased Transit Curves

TCE 011700185-01 P= 3.616652 Days  $T_0=134.831337$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 011700185-01 P= 3.616138 Days  $T_0=134.799630$  (BKJD)

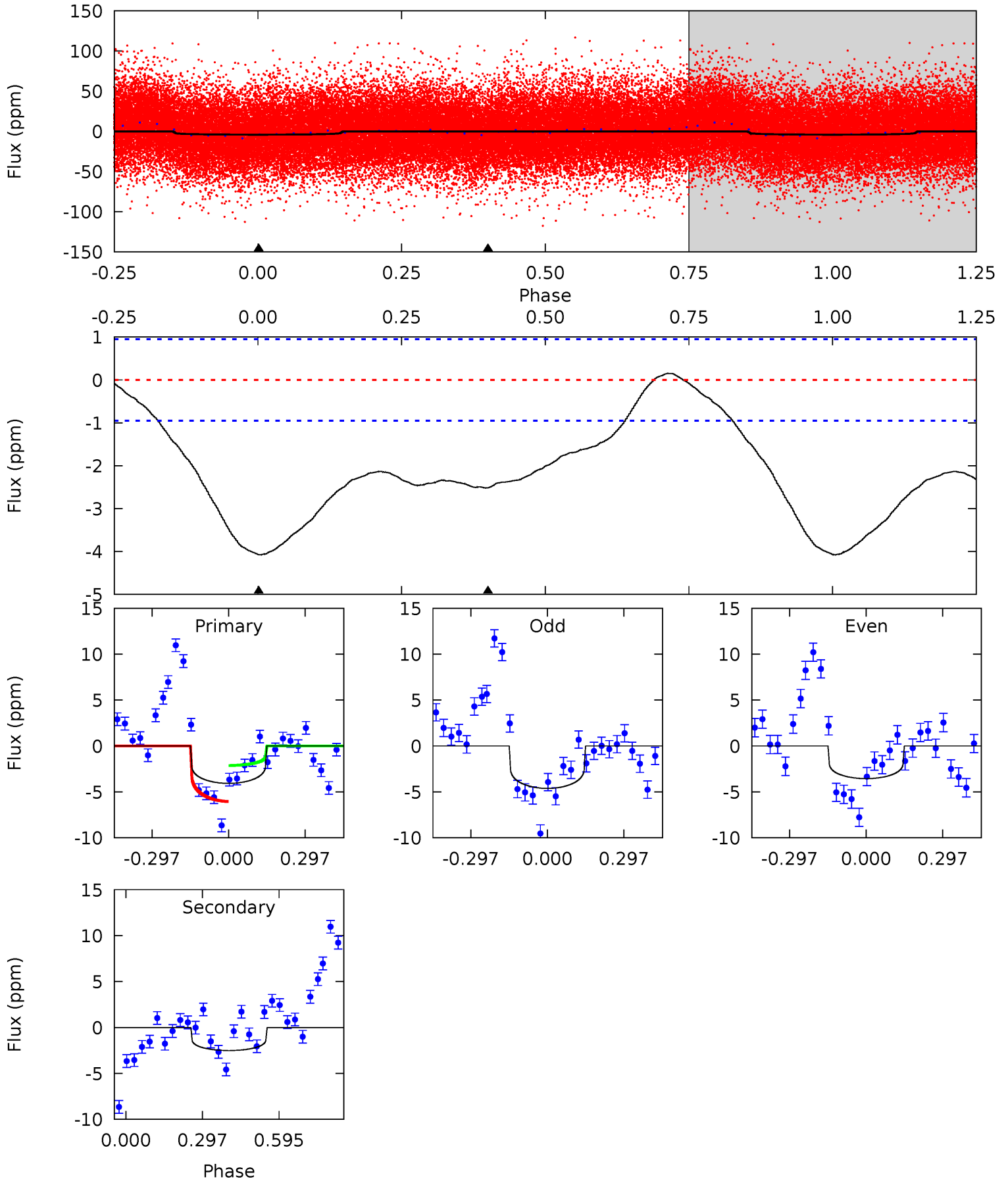




# DV Model-Shift Uniqueness Test

011700185-01, P = 3.616652 Days, E = 131.214685 Days

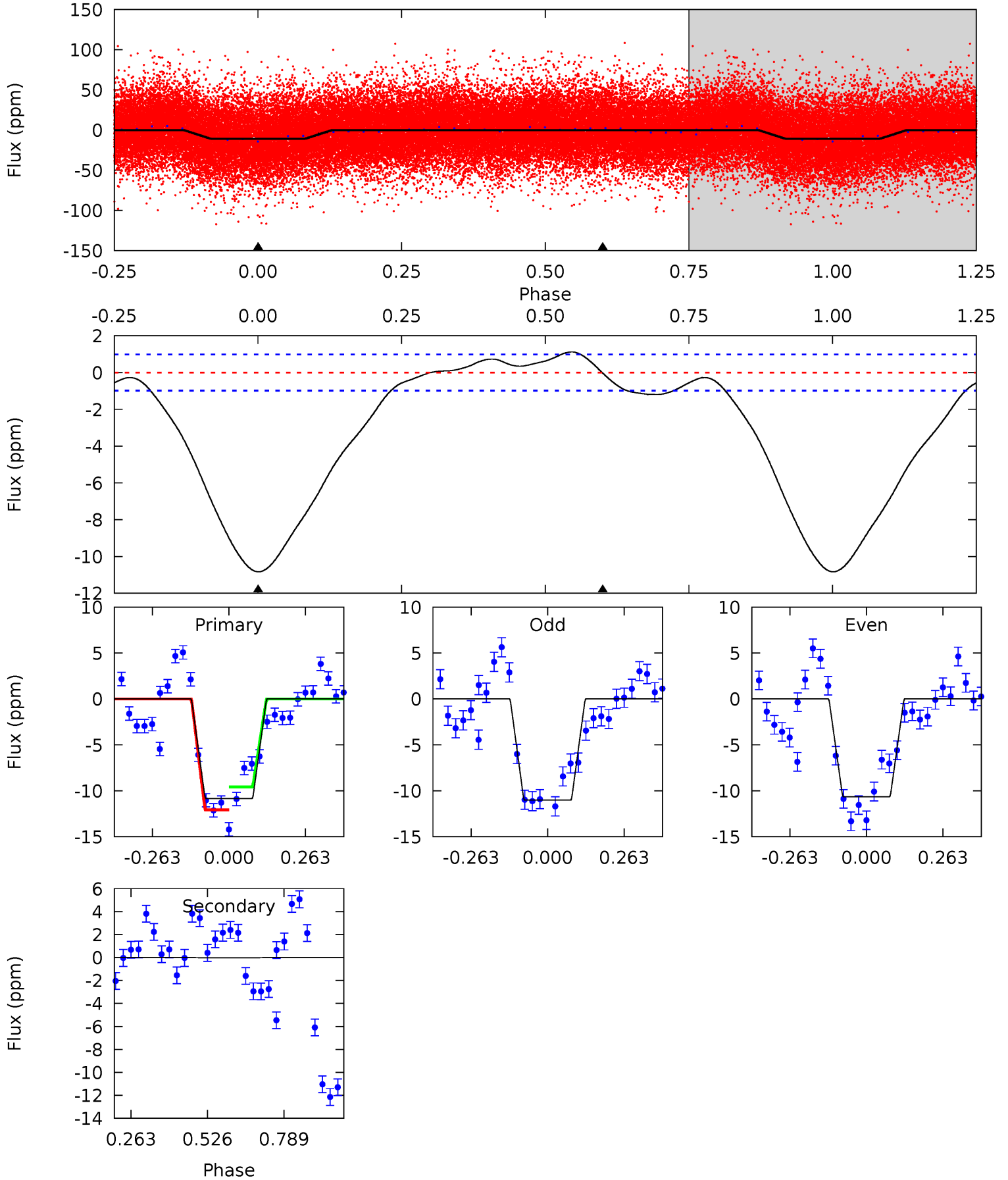
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	11.5	0	0	4.33	1.04	1.09	18.6	18.6	11.5	11.5	2.42	1.15	0.04	8.95



# Alt Model-Shift Uniqueness Test

011700185-01, P = 3.616138 Days, E = 131.183492 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
47.9	0.13	0	0	4.36	1.12	0.97	47.9	47.9	0.13	0.13	0.83	0.99	0.09	5.75





### Stellar Parameters For KIC 011700185

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$7725^{+243}_{-324}$	$4.088^{+0.204}_{-0.148}$	$-0.480^{+0.250}_{-0.350}$	$1.803^{+0.474}_{-0.522}$	$1.452^{+0.199}_{-0.243}$	$0.349^{+0.435}_{-0.143}$
	+3%/-4%	+5%/-4%	+52%/-73%	+26%/-29%	+14%/-17%	+125%/-41%
Source	PHO54	PHO54	PHO54	DSEP		

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

### Secondary Eclipse Parameters for KIC 011700185-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-3 \pm 0$	$0.41^{+0.30}_{-0.26}$	$2788^{+219}_{-215}$	$6580^{+5666}_{-1539}$	$23^{+135}_{-16}$
Alt.	$-0 \pm 0$	$0.66^{+0.35}_{-0.32}$	$2760^{+206}_{-211}$	$-2881^{+6209}_{-666}$	$0.032^{+1.029}_{-0.922}$

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

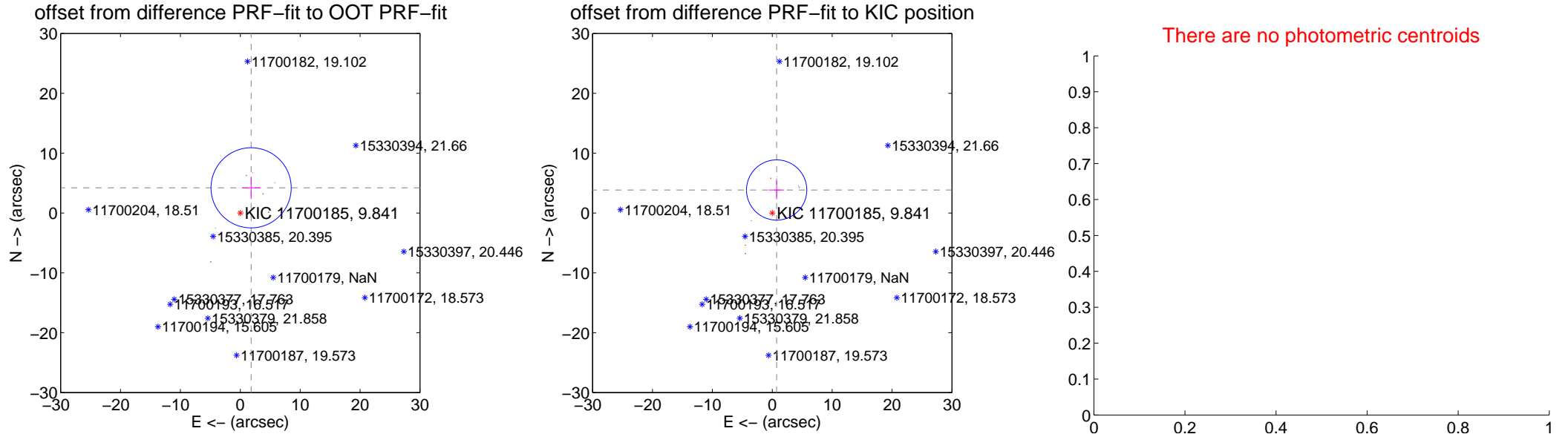
## DV Centroid Data

Supplemental centroid analysis for 011700185-01. **Kepler magnitude: 9.84.** Transit SNR 7.88

**There are 2 quarters with good PRF difference image offsets**

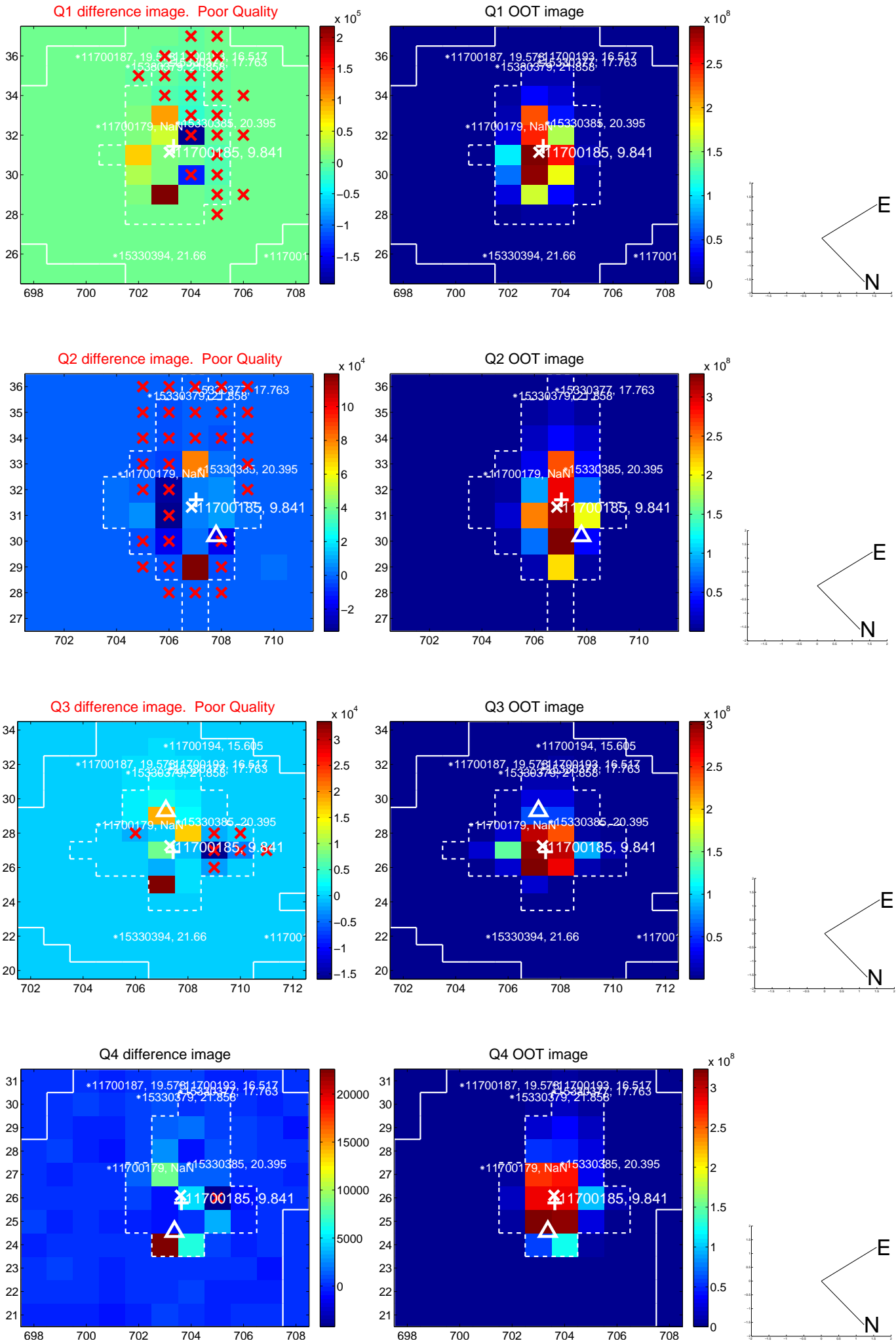
The direct PRF centroid is offset from the target star catalog position by about 1.49 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$4.581 \pm 2.232$	2.05	$-1.808 \pm 1.534$	$4.209 \pm 1.873$
PRF-fit source offset from KIC position	$3.916 \pm 1.677$	2.33	$-0.734 \pm 1.263$	$3.846 \pm 1.537$
photometric centroid source offset	—	—	—	—

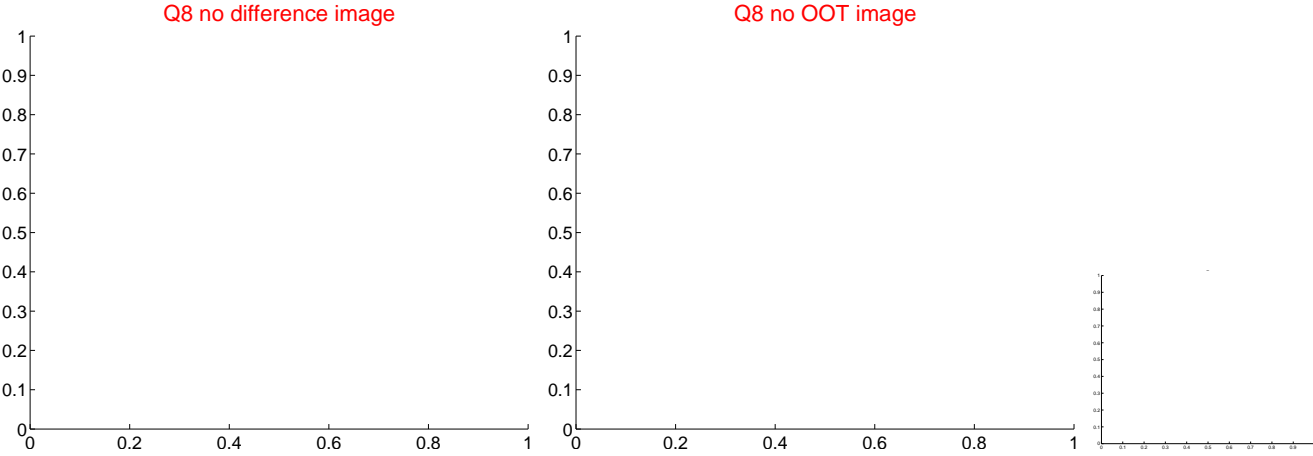
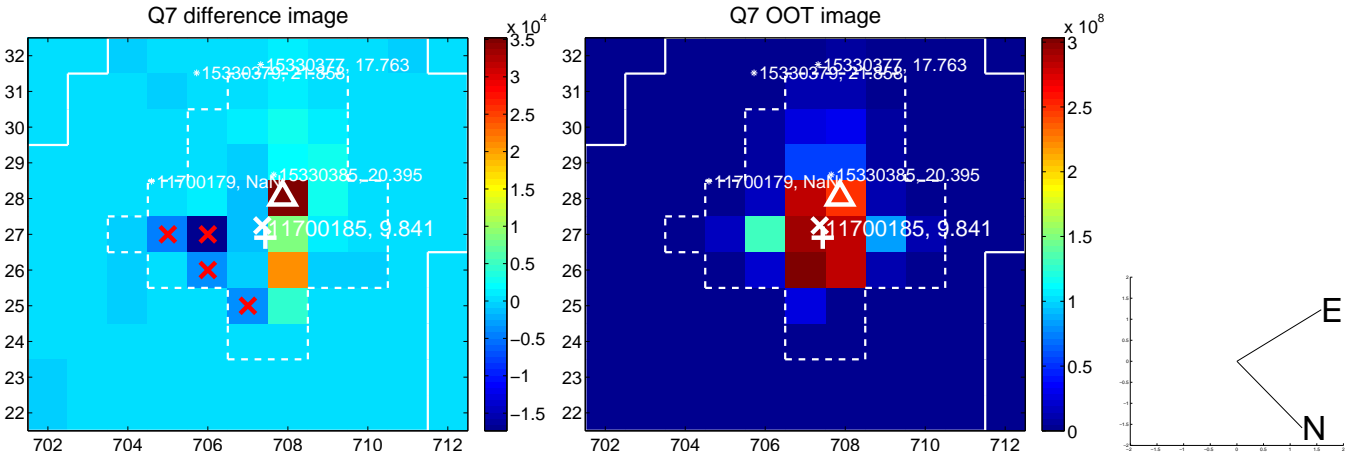
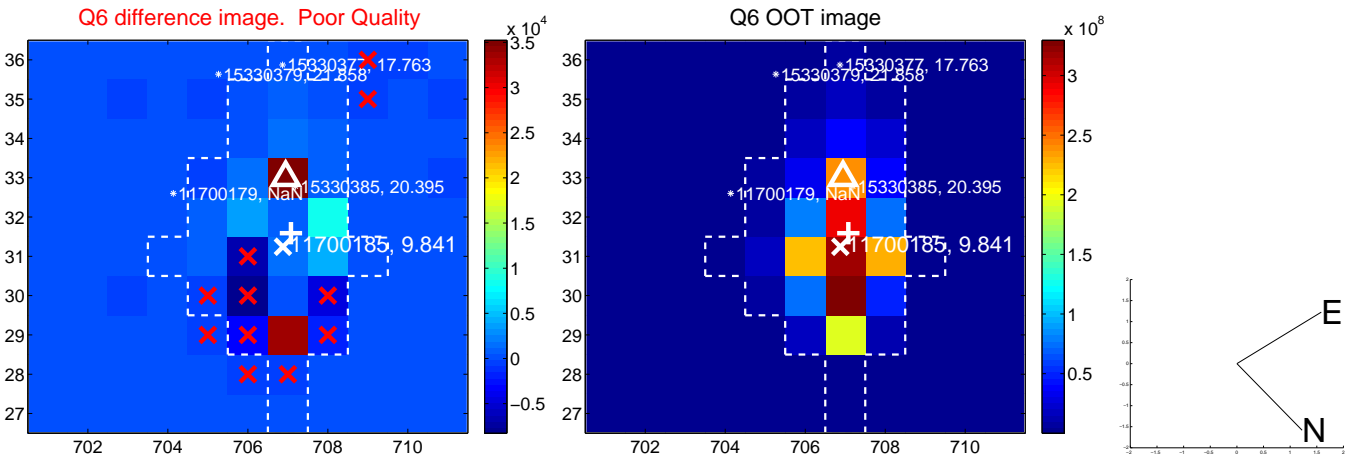
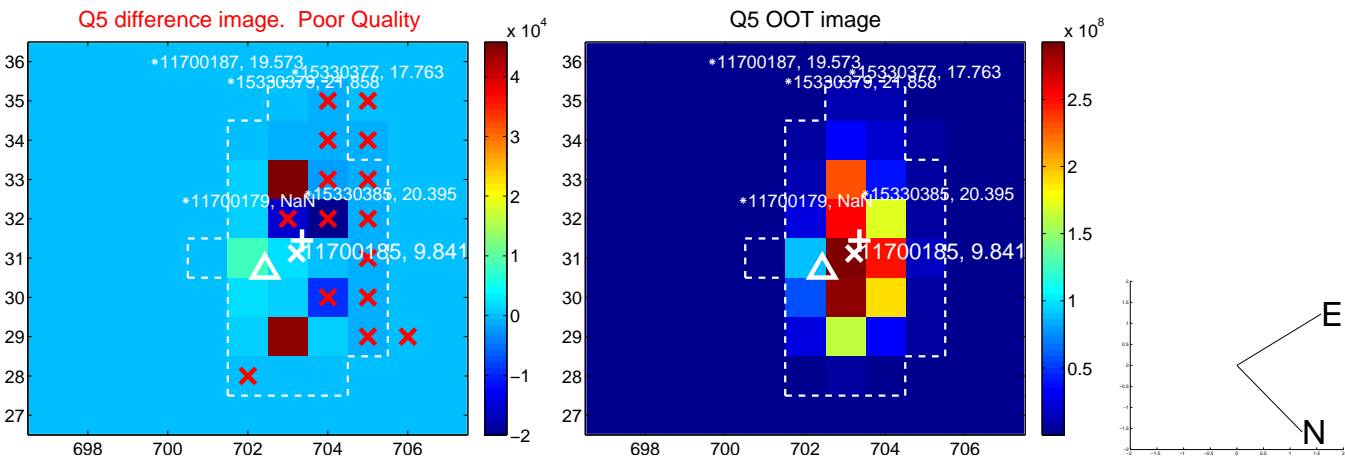


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

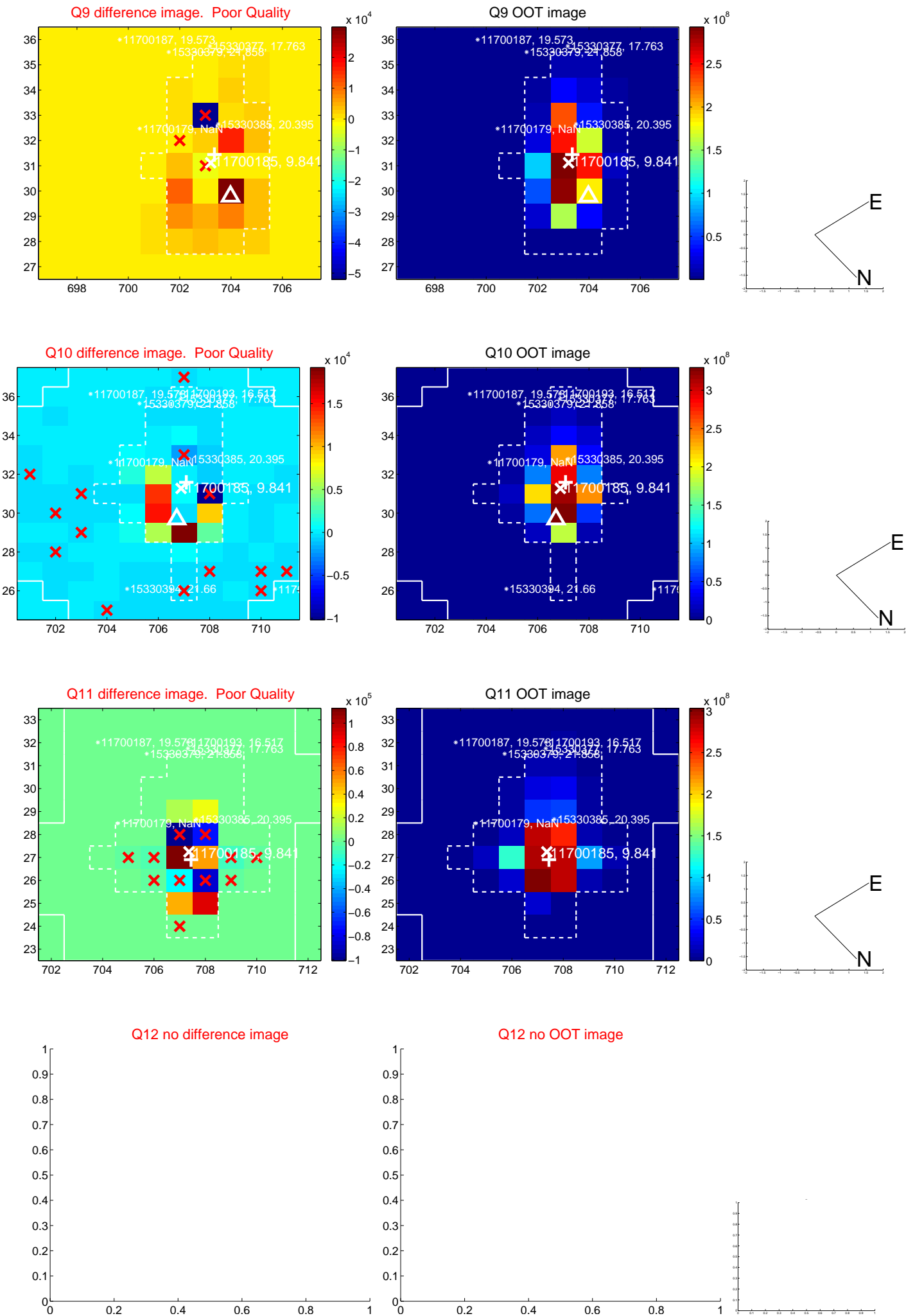


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

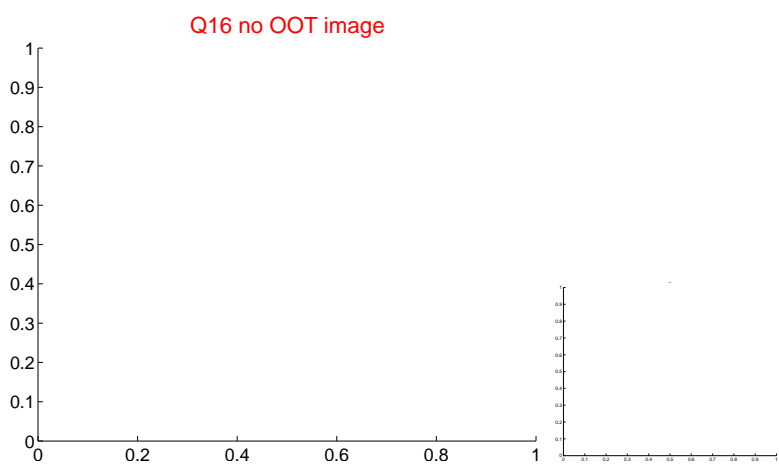
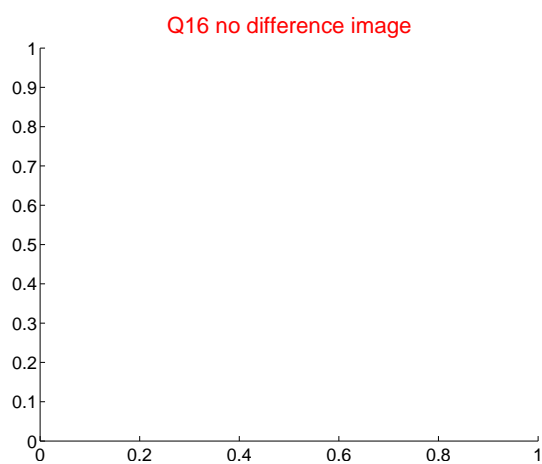
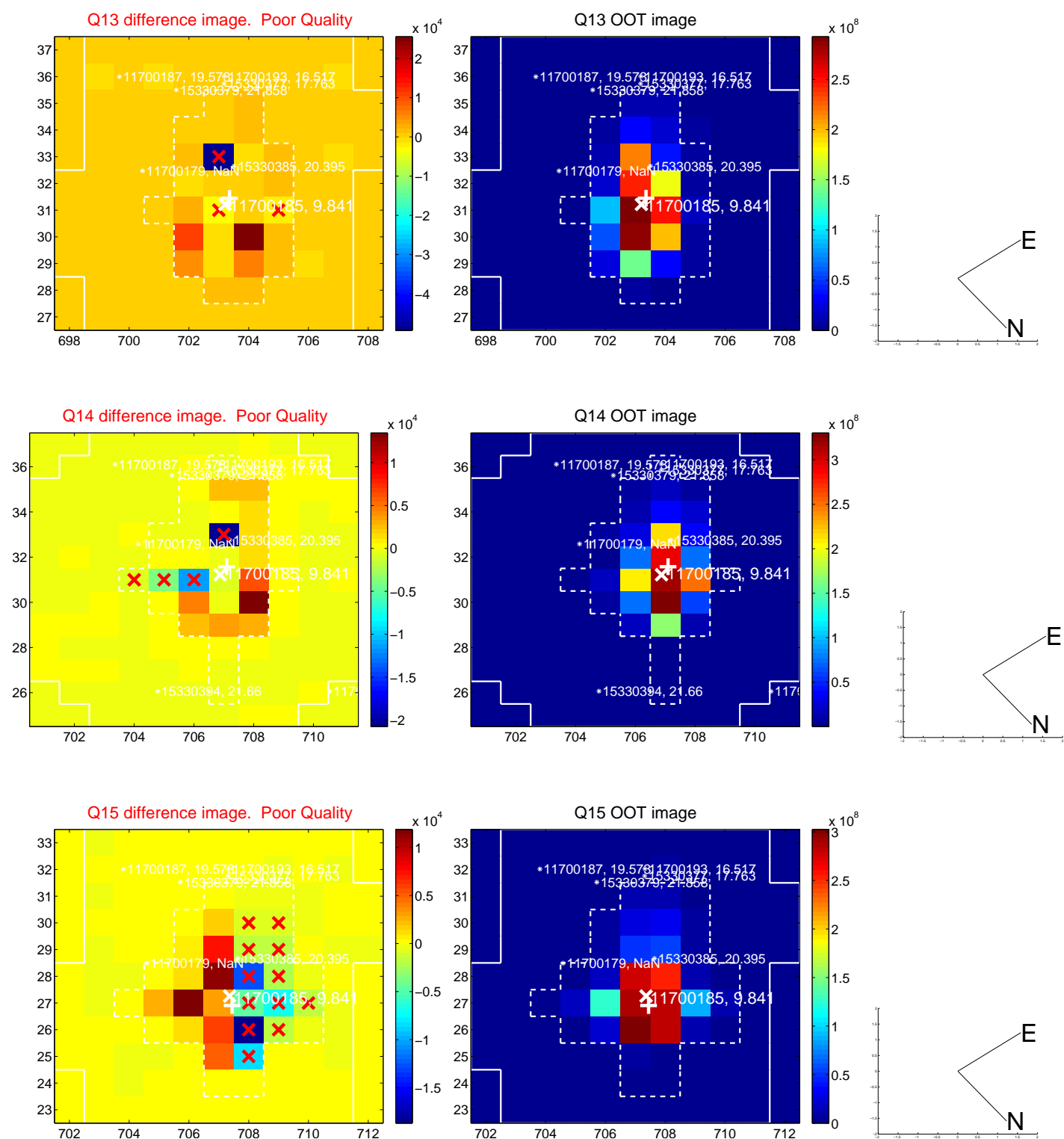




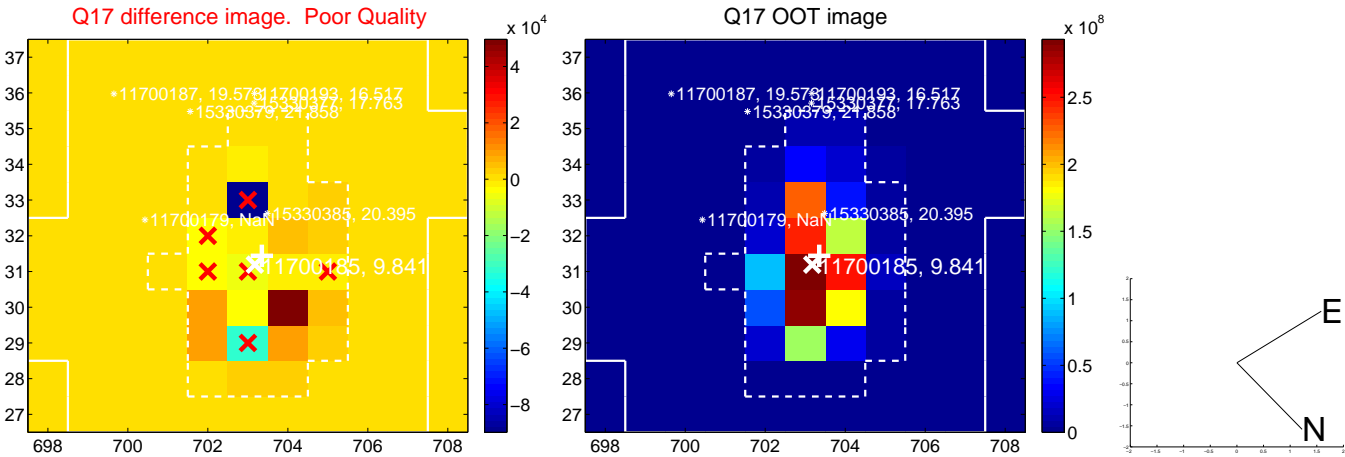
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



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

