

# KIC 003446197

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
003446197-01	OBS	No	0.667364	131.697463	21.1	6.132	7.2	6.3	1.84	6590	0.85	21095.17

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003446197-01	OBS	FP	0.00	1	0	0	0	LPP_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.

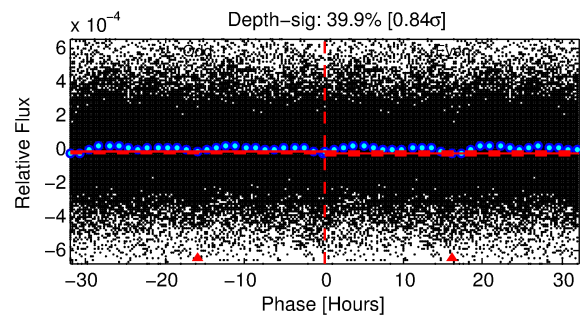
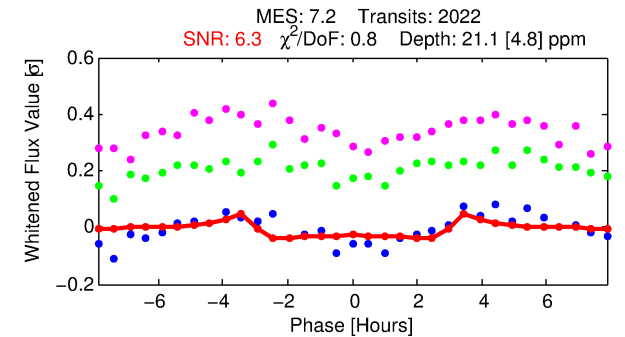
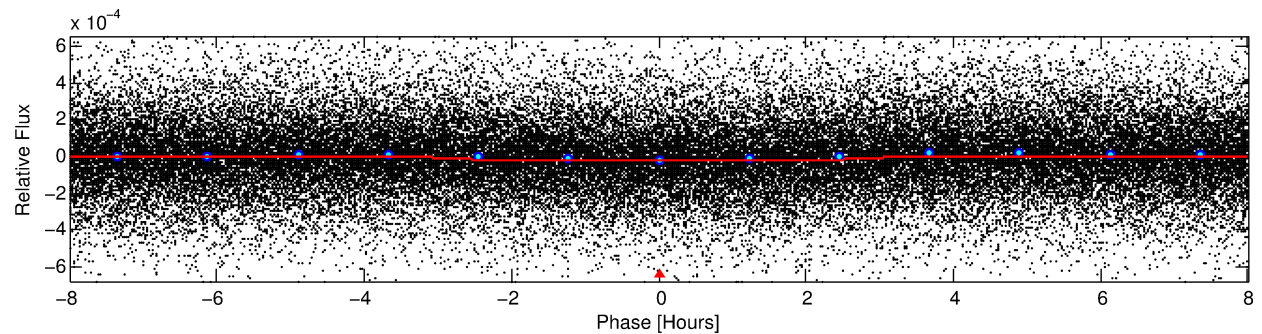
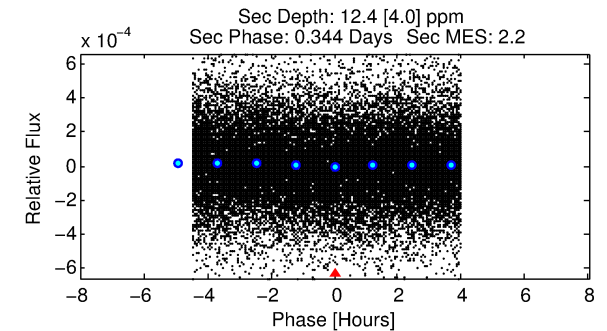
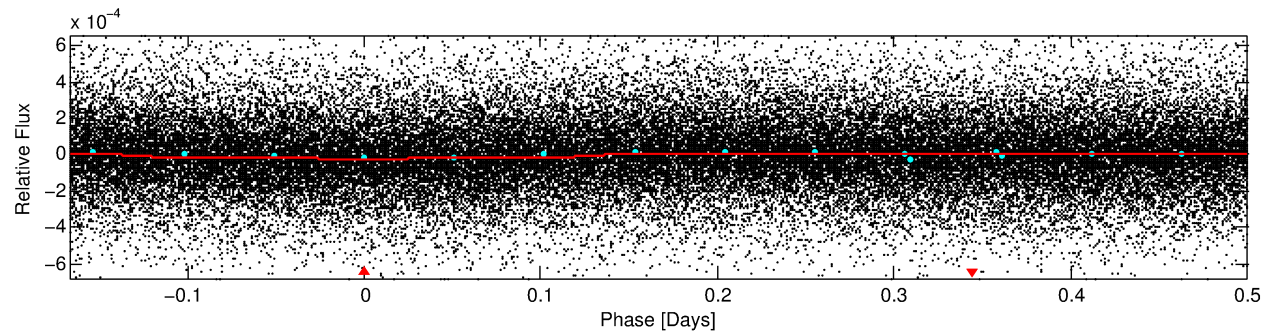
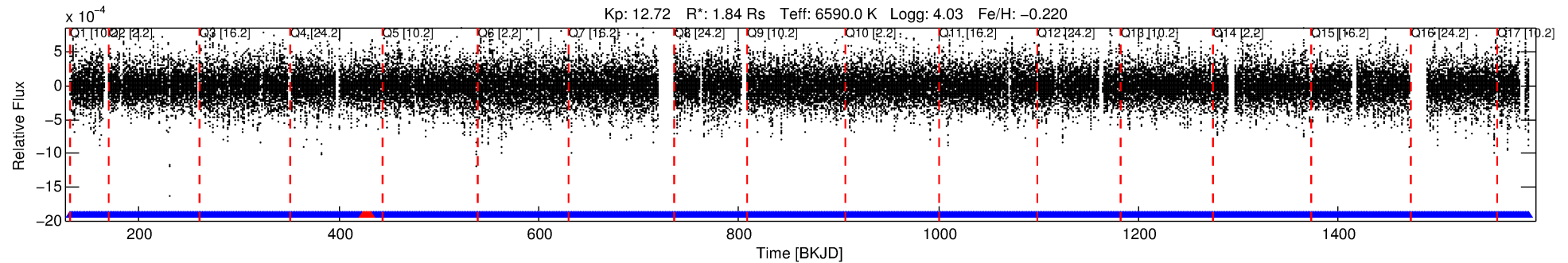
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 003446197-01

No Significant Match Found

# DV One-Page Summary

KIC: 3446197 Candidate: 1 of 1 Period: 0.667 d



## DV Fit Results:

Period = 0.66736 [0.00002] d  
Epoch = 131.6975 [0.0034] BKJD  
Rp/R\* = 0.0043 [0.0026]  
a/R\* = 1.07 [0.47]  
b = 0.28 [11.32]  
Seff = 21095.17 [7189.06]  
Teq = 3073 [262] K  
Rp = 0.86 [0.56] Re  
a = 0.0165 [0.0035] AU  
Ag = 2.52 [3.33] [0.46σ]  
Teffp = 5987 [1911] K [1.51σ]

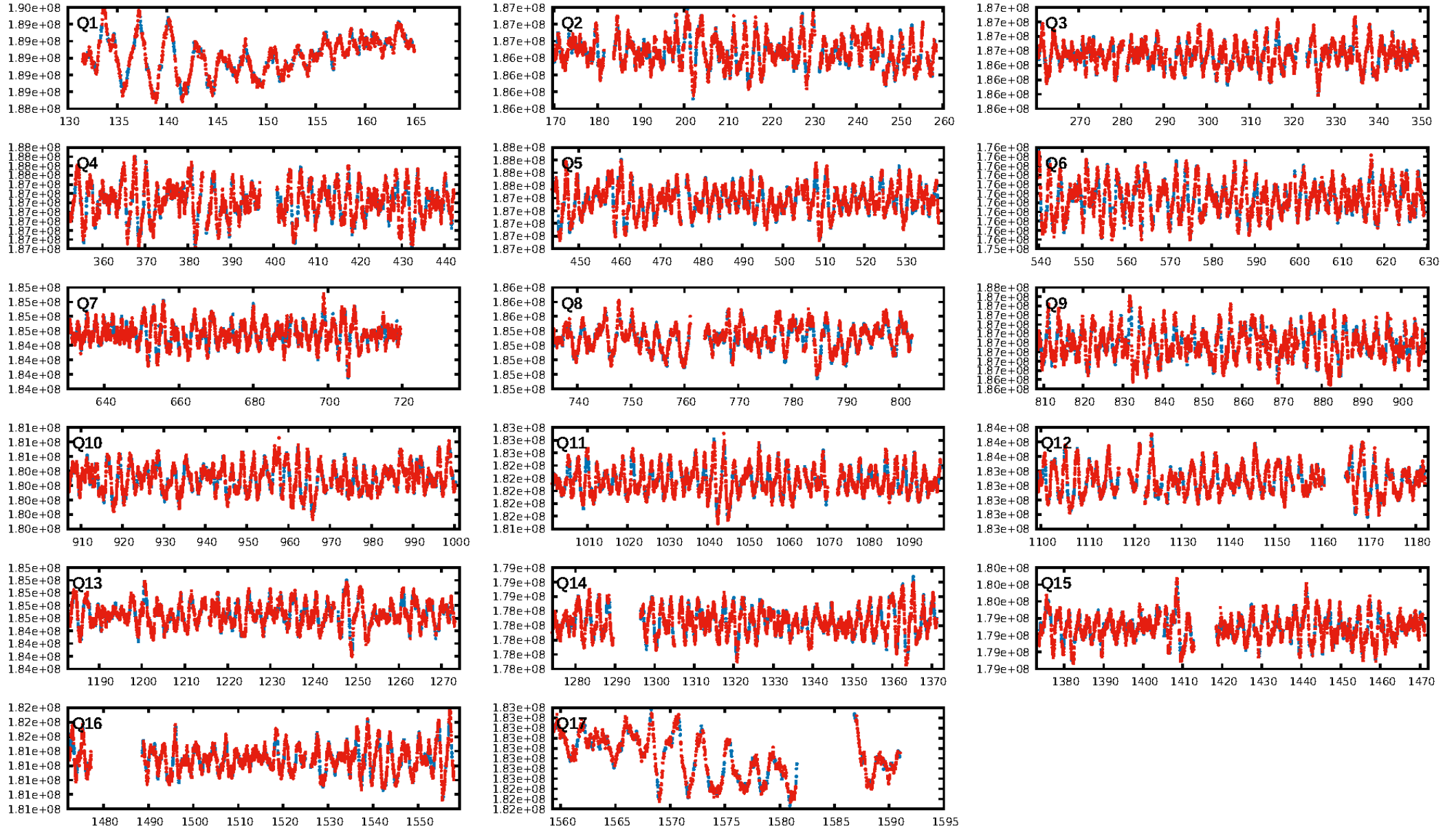
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 0.99 [1920/1931]  
GhostDiagnostic-chr: 1.548  
Centroid-sig: N/A  
Centroid-so: 0.271 arcsec [0.42σ]  
OotOffset-rm: N/A  
KicOffset-rm: N/A  
OotOffset-st: 0/0/0 [0]  
KicOffset-st: 0/0/0 [0]  
DiffImageQuality-fgm: N/A  
DiffImageOverlap-fno: 1.00 [17/17]

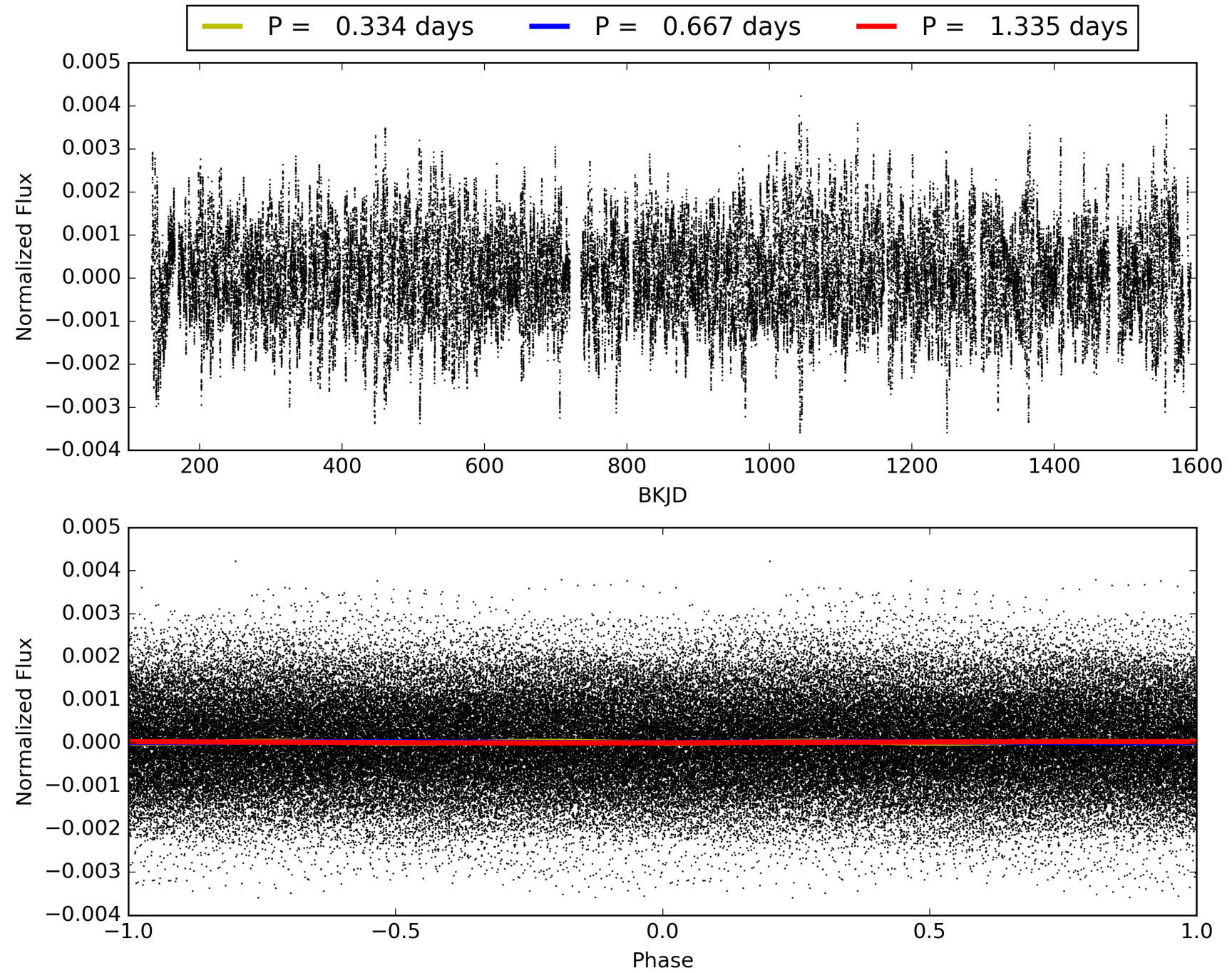
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:44:17 Z

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

# TCE 003446197-01, PDC Light Curves



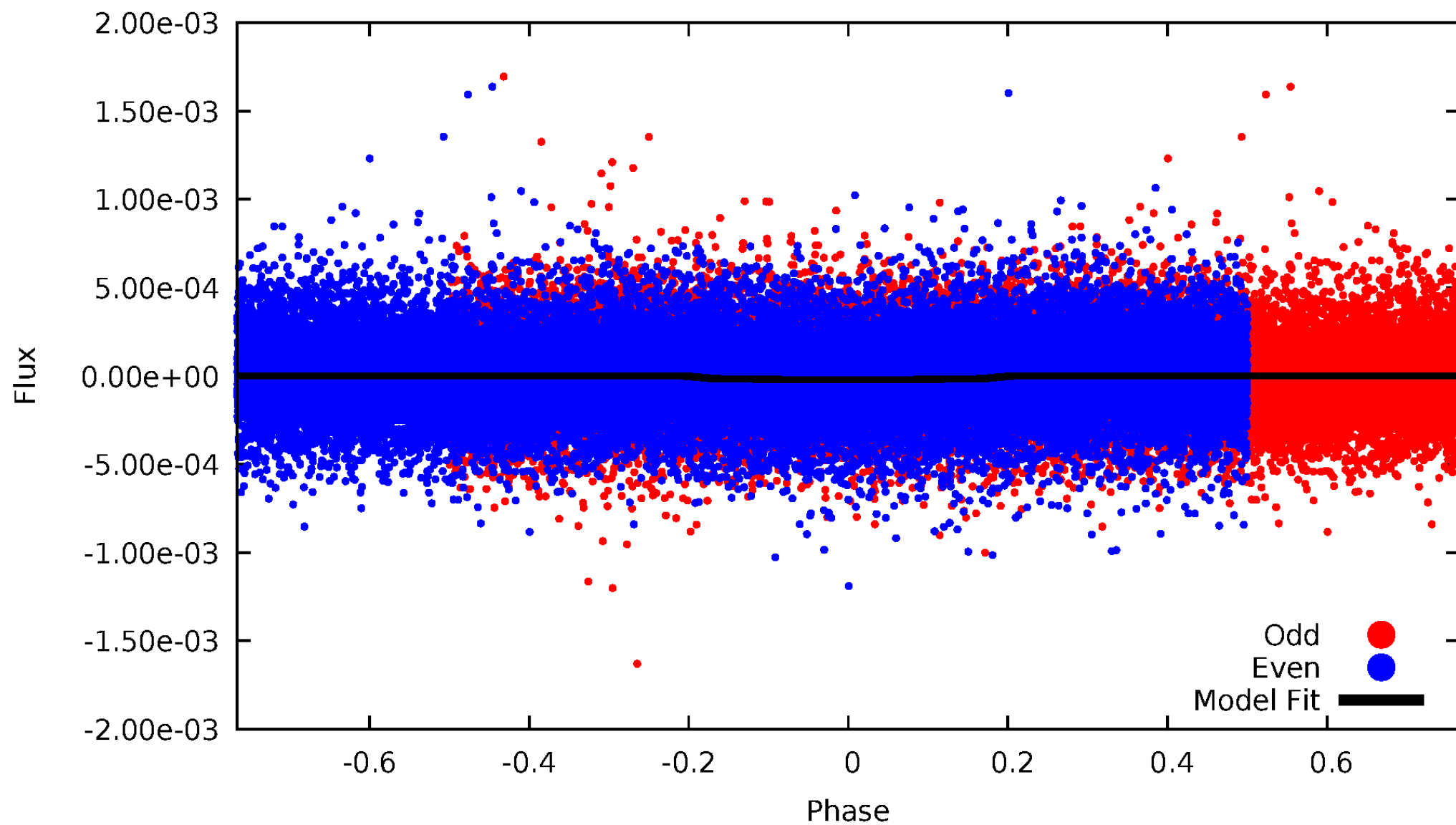
TCE 003446197-01





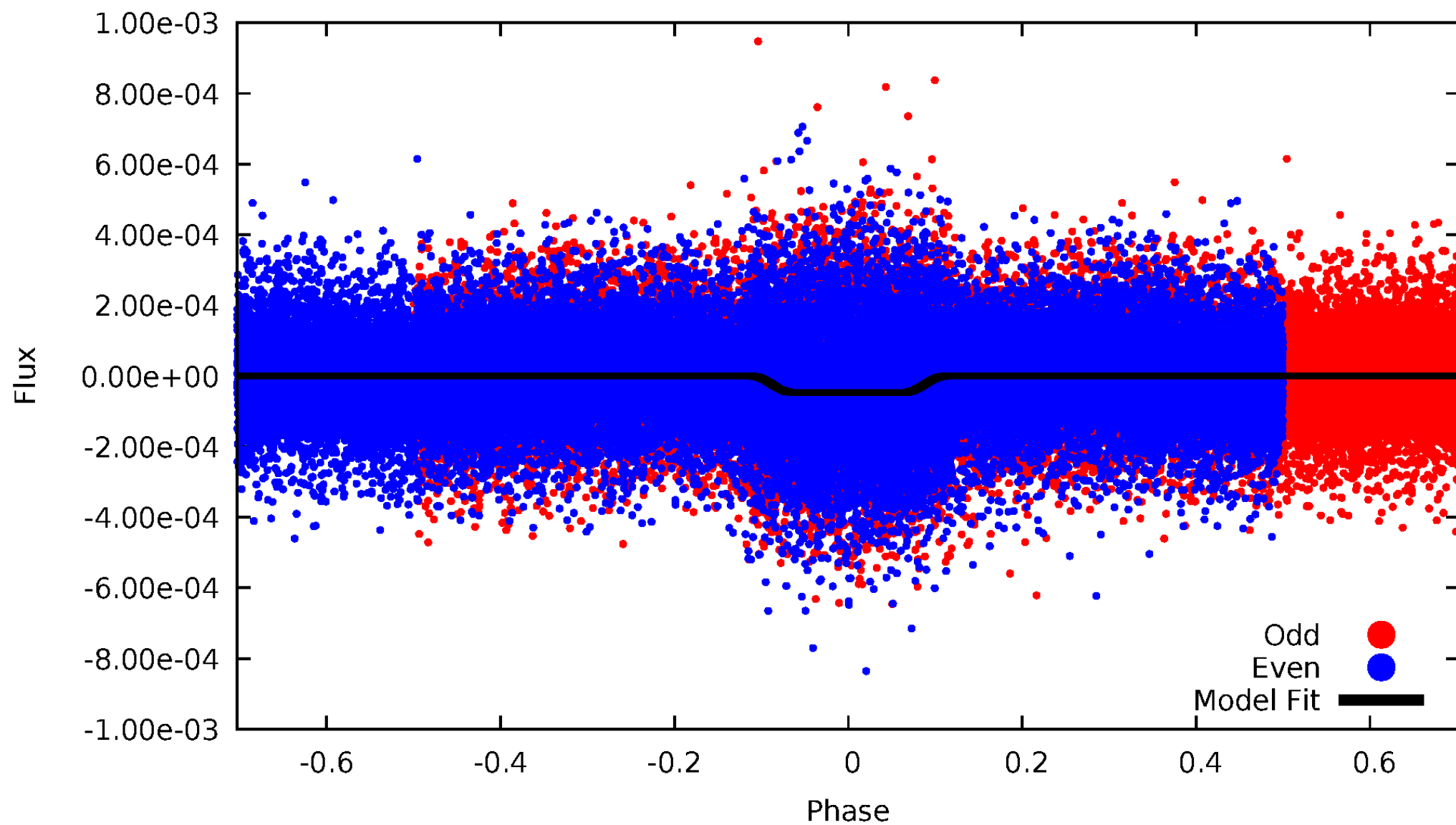
# DV Odd/Even

TCE 003446197-01

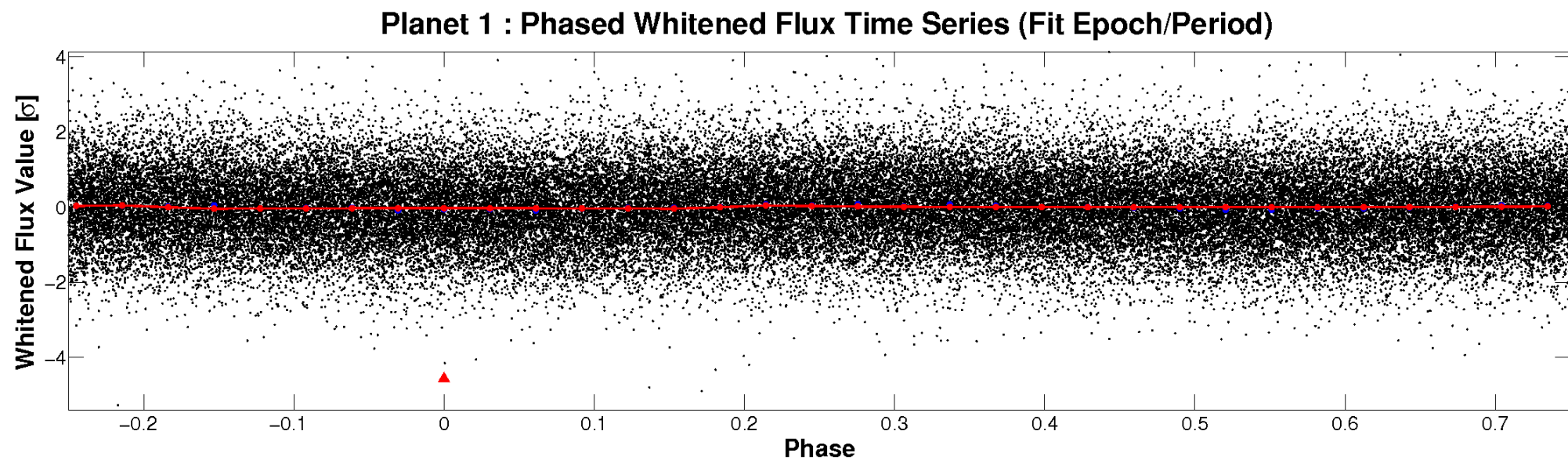
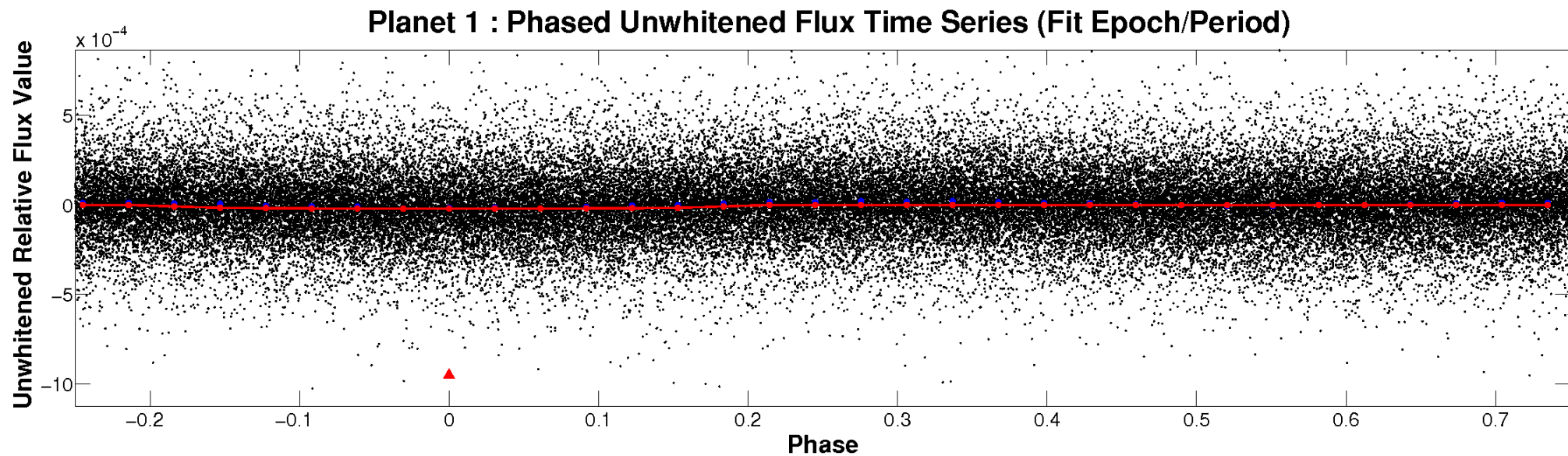


# ALT Odd/Even

TCE 003446197-01

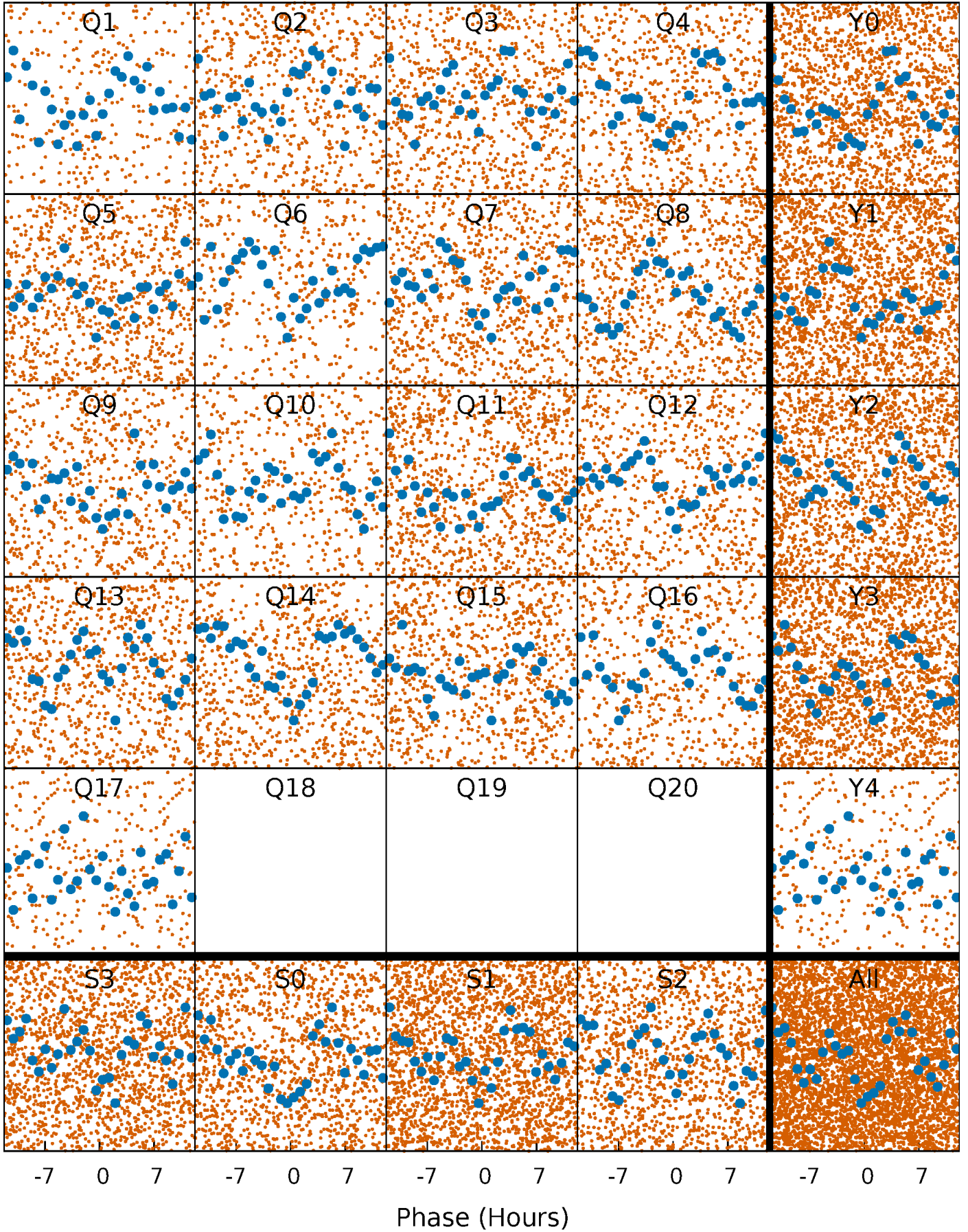


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

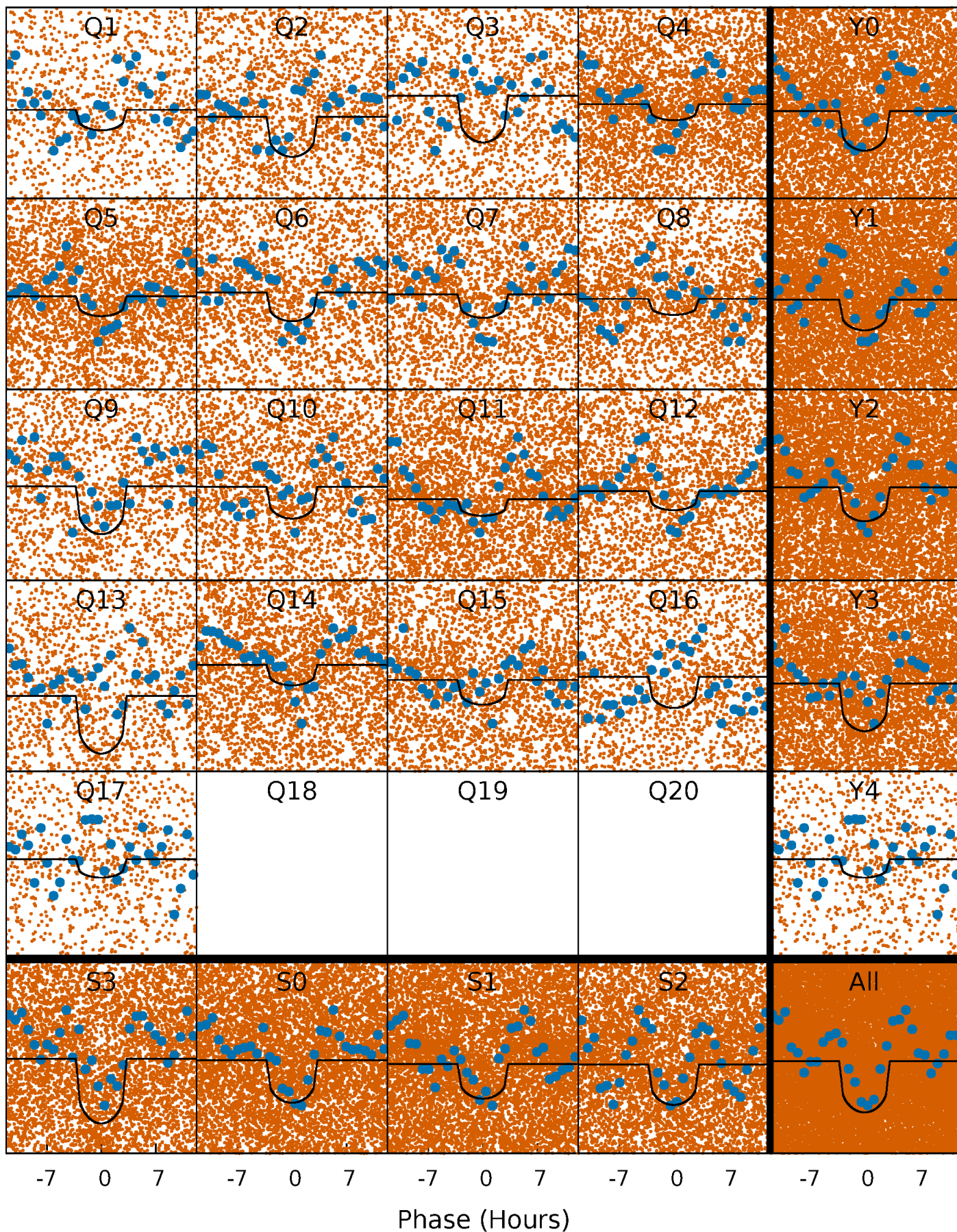
TCE 003446197-01 P= 0.667364 Days  $T_0=131.697463$  (BKJD)





# DV Quarter-Phased Transit Curves

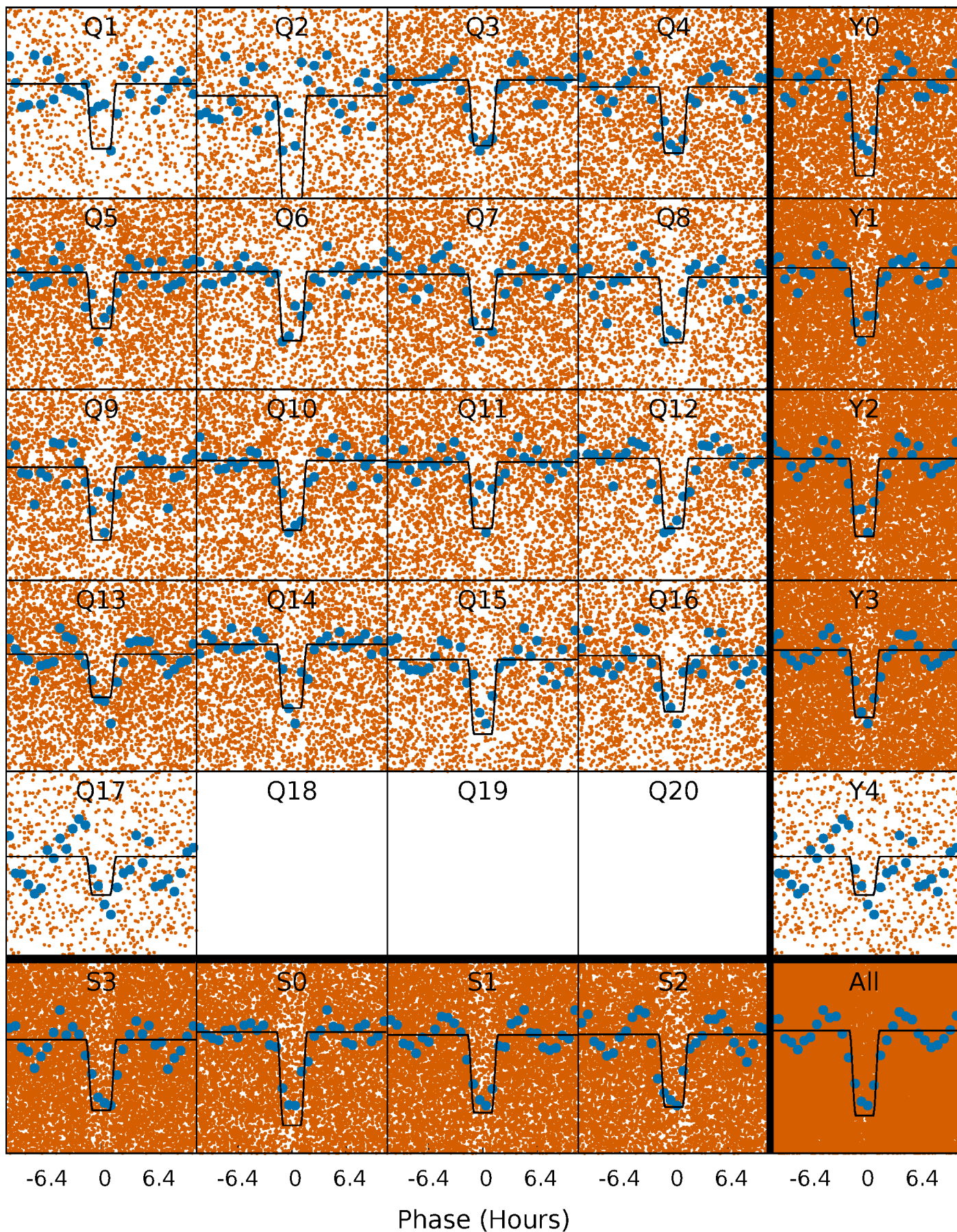
TCE 003446197-01   P= 0.667364 Days    $T_0=131.697463$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

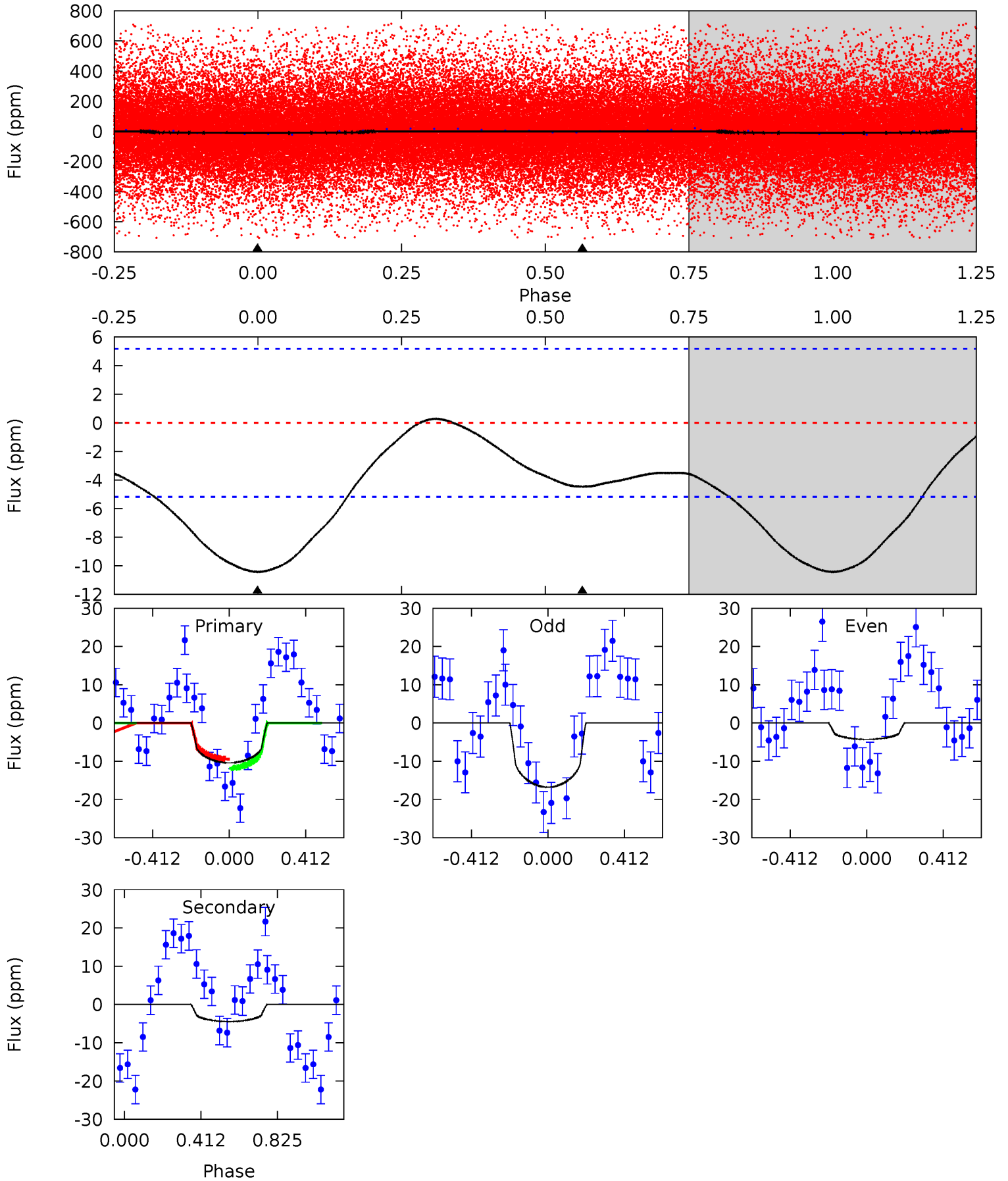
TCE 003446197-01 P= 0.667401 Days  $T_0=131.674774$  (BKJD)



# DV Model-Shift Uniqueness Test

003446197-01, P = 0.667364 Days, E = 131.030099 Days

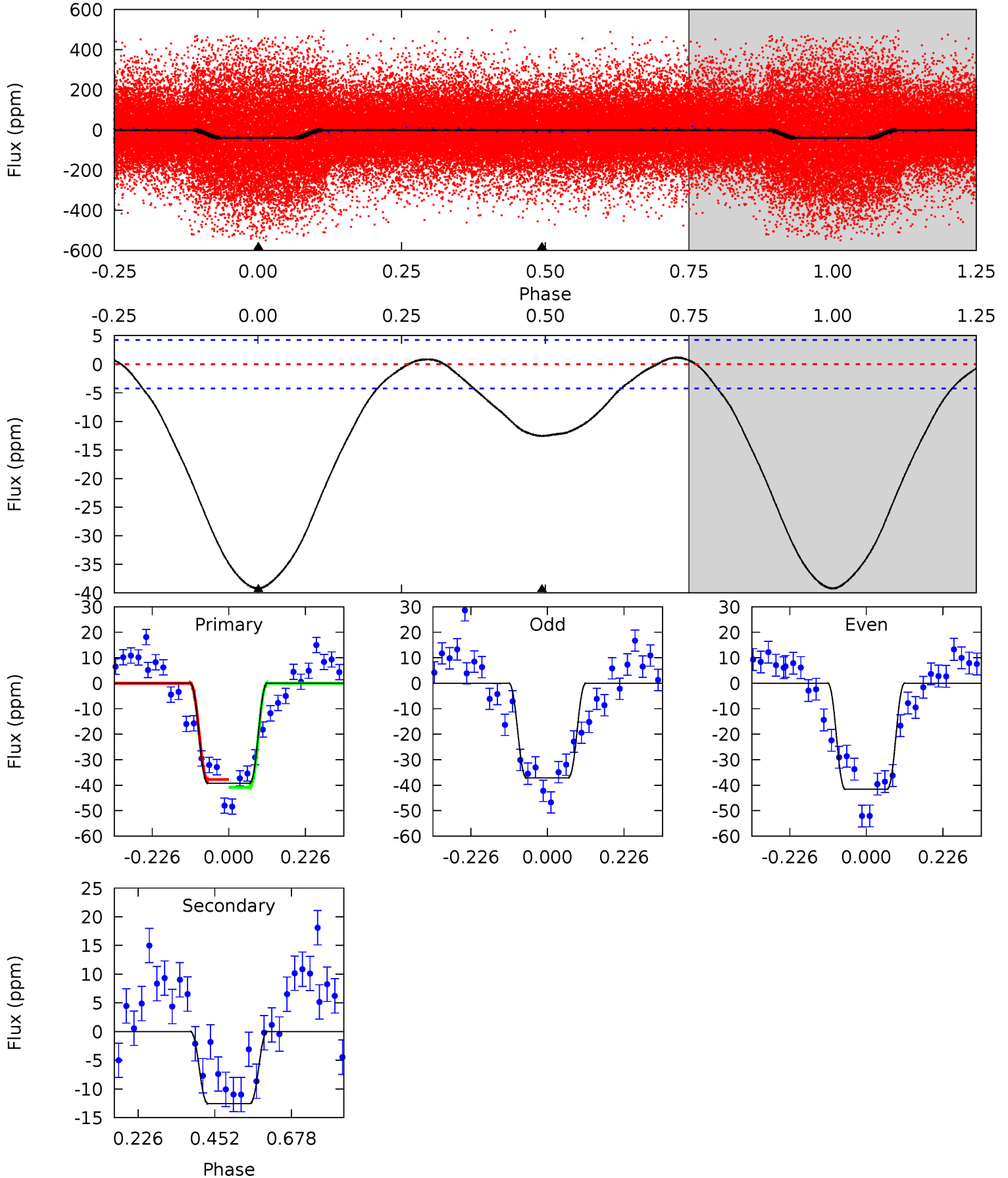
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.58	3.67	0	0	4.26	0.82	0.49	8.58	8.58	3.67	3.67	5.17	0.68	0.03	1.00



# Alt Model-Shift Uniqueness Test

003446197-01, P = 0.667401 Days, E = 131.007373 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
40.7	13.0	0	0	4.39	1.21	1.08	40.7	40.7	13.0	13.0	2.29	1.01	0.03	1.59





### Stellar Parameters For KIC 003446197

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$6590^{+72}_{-85}$	$4.034^{+0.195}_{-0.105}$	$-0.220^{+0.150}_{-0.150}$	$1.838^{+0.310}_{-0.426}$	$1.336^{+0.108}_{-0.170}$	$0.303^{+0.313}_{-0.096}$
	+1%/-1%	+5%/-3%	+68%/-68%	+17%/-23%	+8%/-13%	+103%/-31%
Source	SPE68	SPE68	SPE68	DSEP		

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

### Secondary Eclipse Parameters for KIC 003446197-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	$A_{\text{obs}}$
DV	$-4 \pm 1$	$0.87^{+0.51}_{-0.48}$	$4272^{+196}_{-248}$	$4206^{+2258}_{-1860}$	$0.824^{+3.216}_{-0.512}$
Alt.	$-13 \pm 1$	$1.33^{+0.53}_{-0.46}$	$4278^{+207}_{-272}$	$4557^{+1179}_{-876}$	$1.062^{+1.393}_{-0.525}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

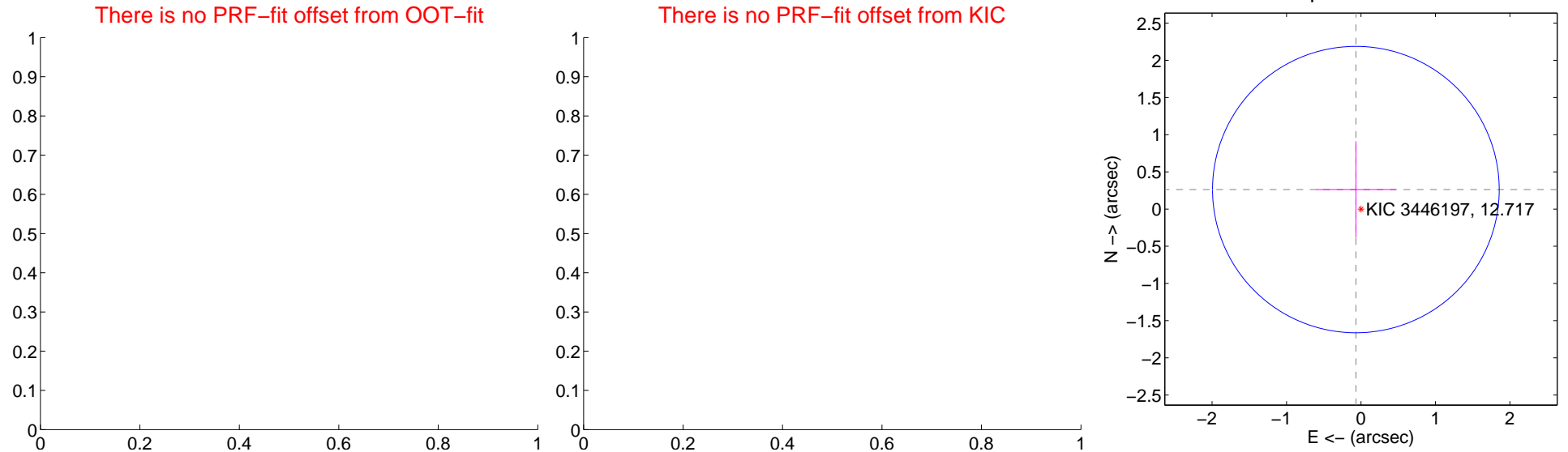
## DV Centroid Data

Supplemental centroid analysis for 003446197-01. Kepler magnitude: 12.72. Transit SNR 6.26

There are 0 quarters with good PRF difference image offsets

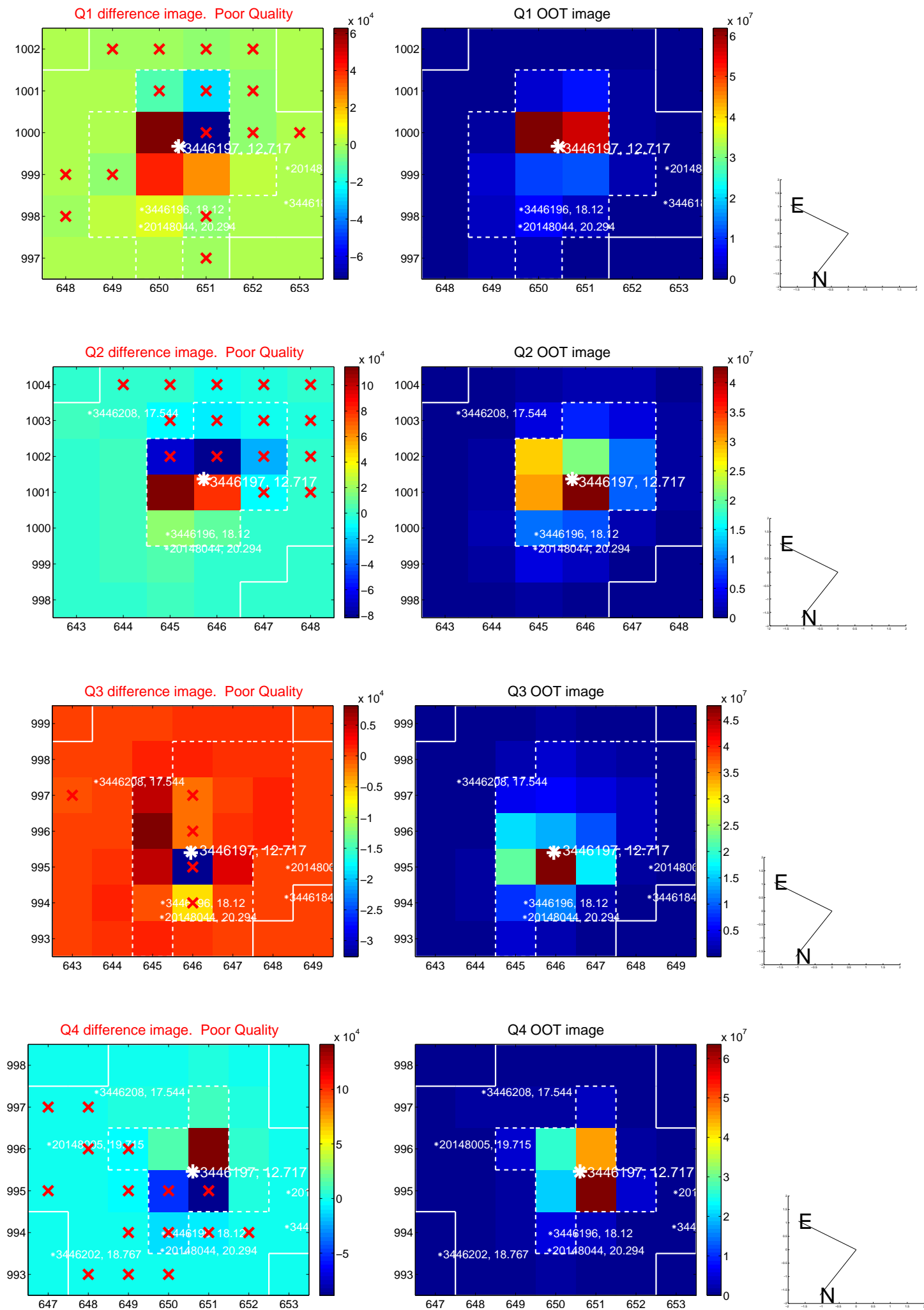
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	$0.27 \pm 0.64$	0.42	$0.07 \pm 0.54$	$0.26 \pm 0.65$

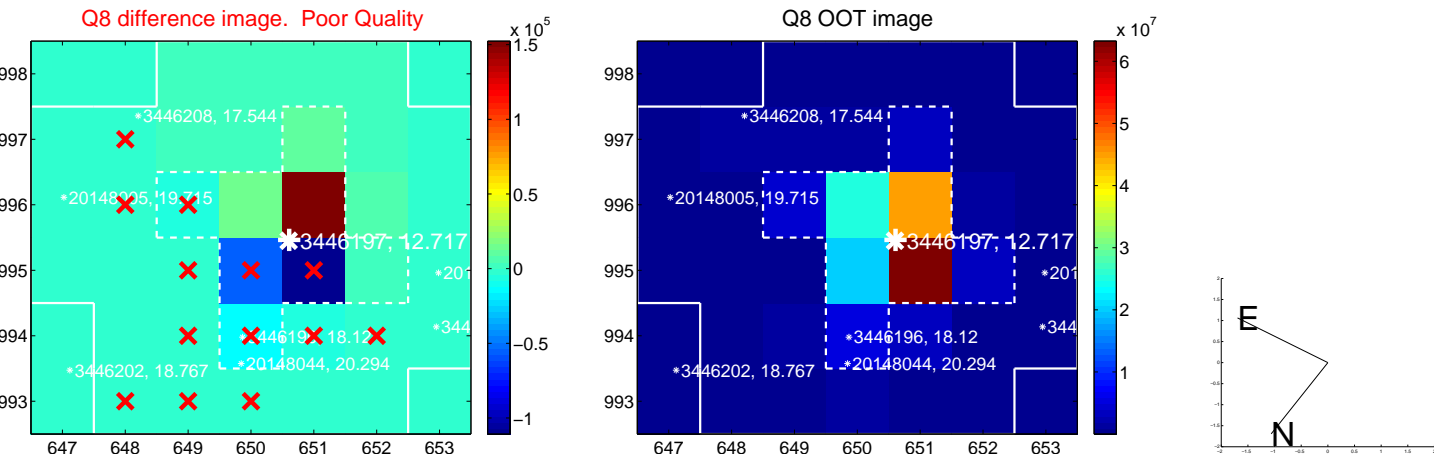
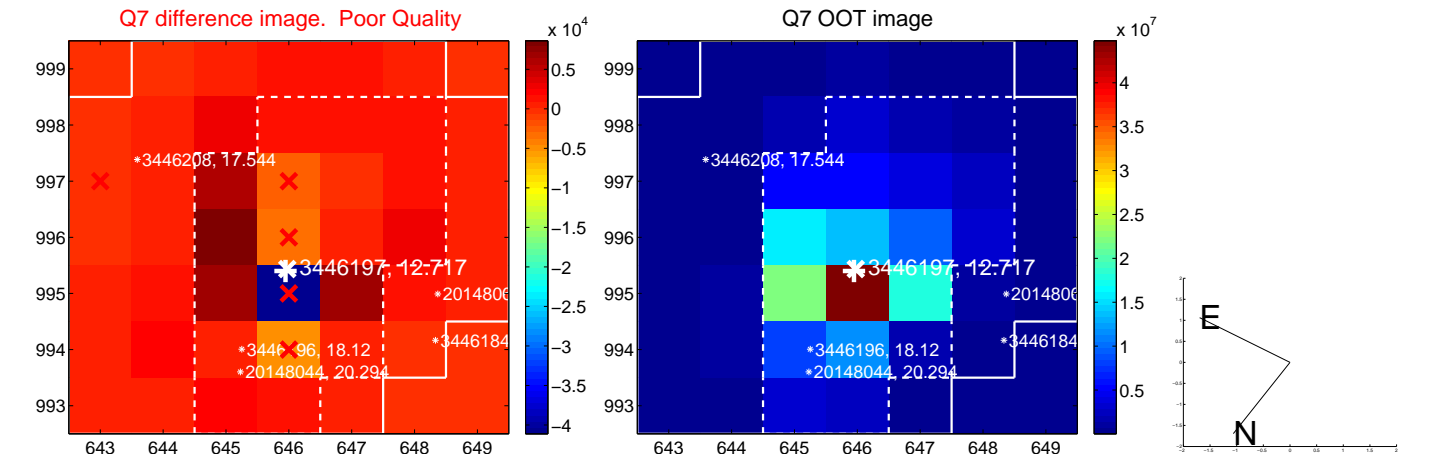
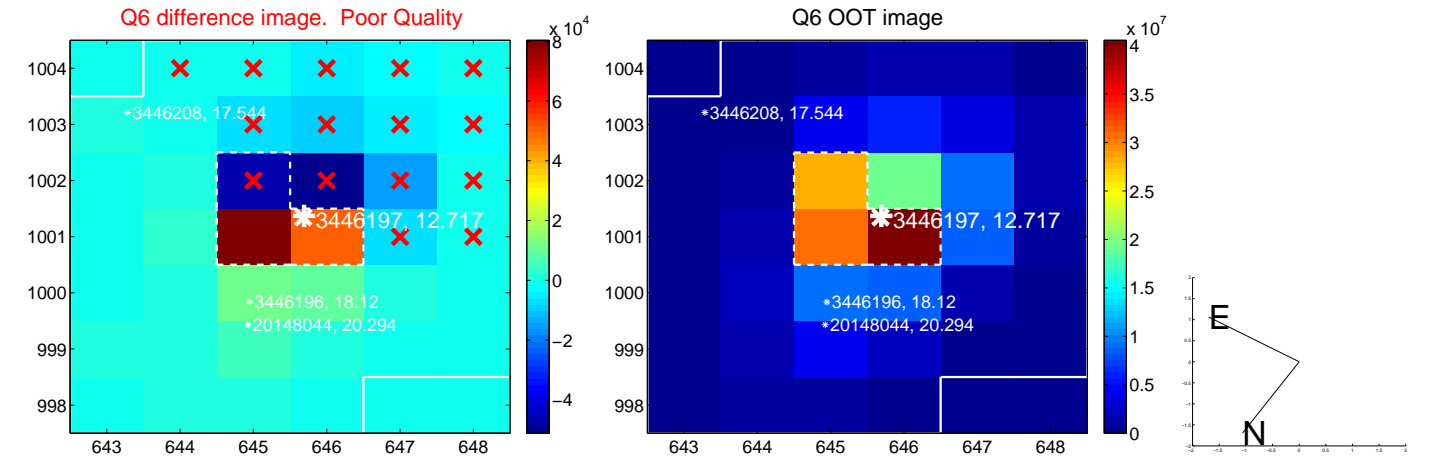
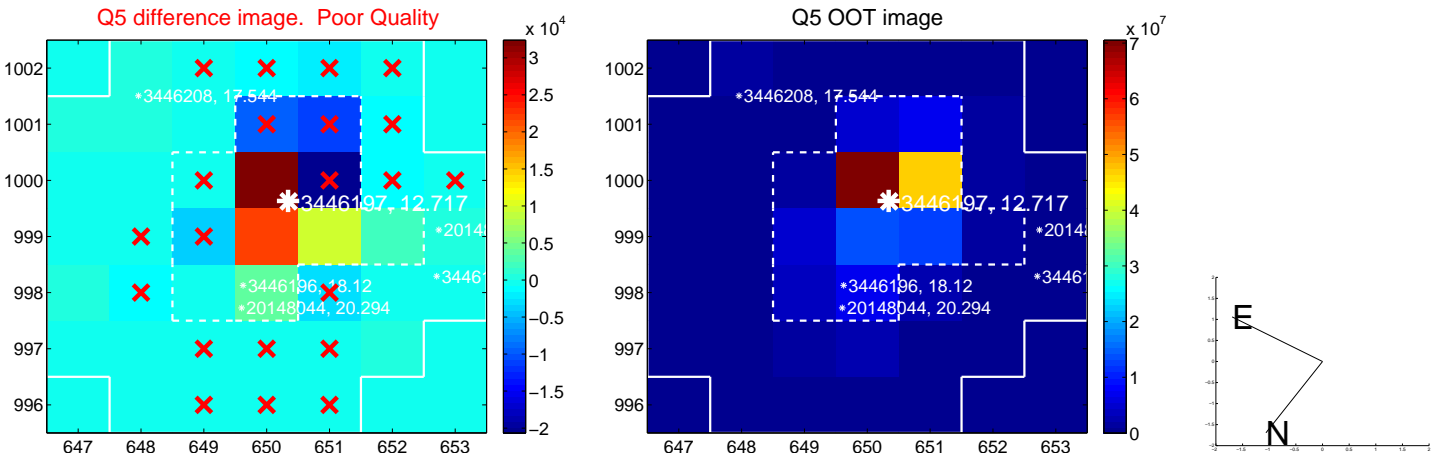


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

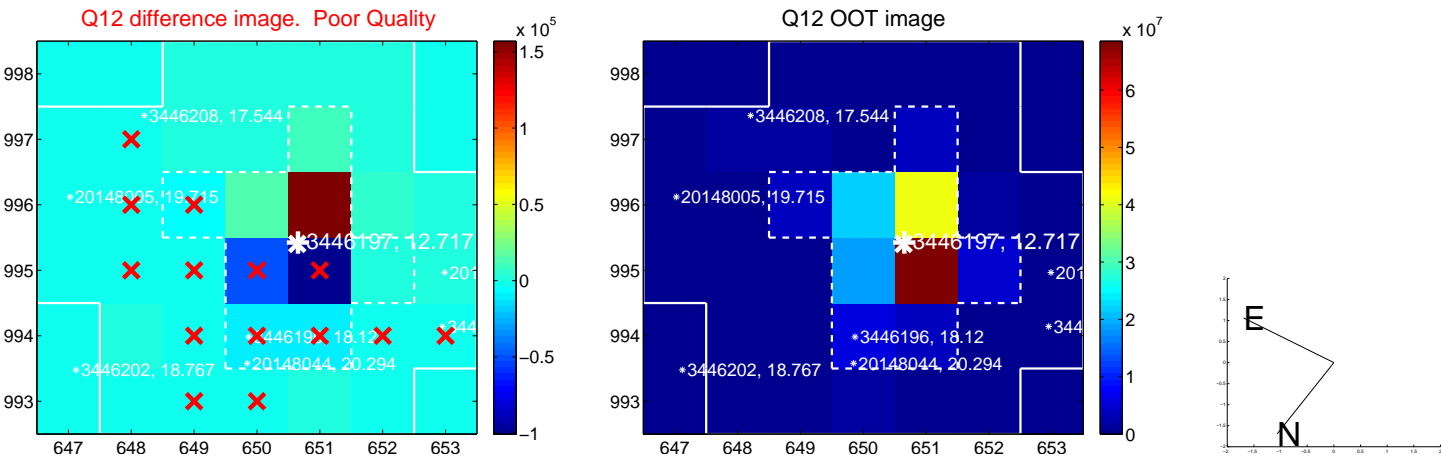
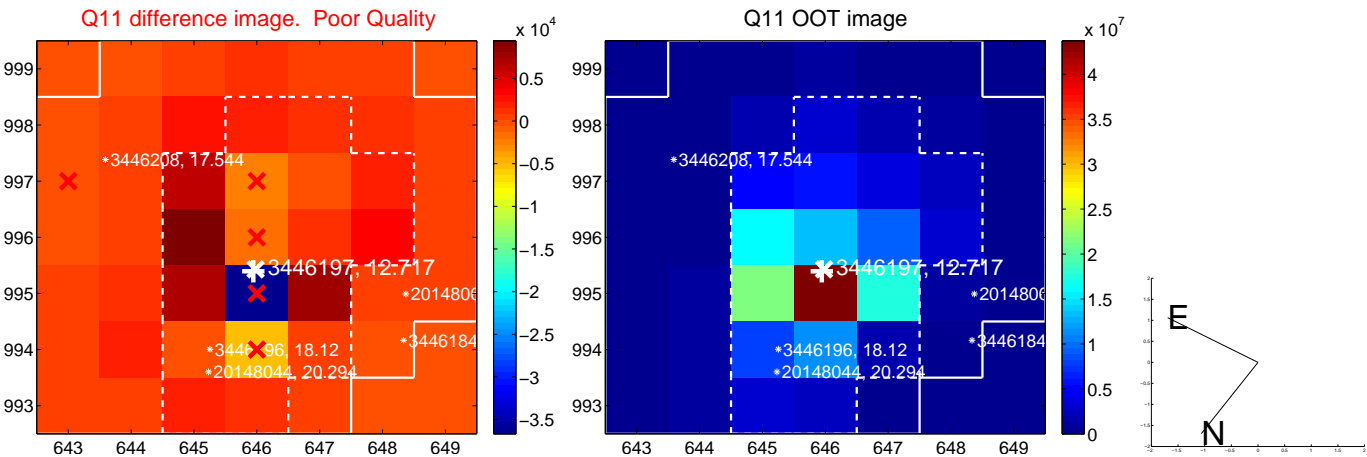
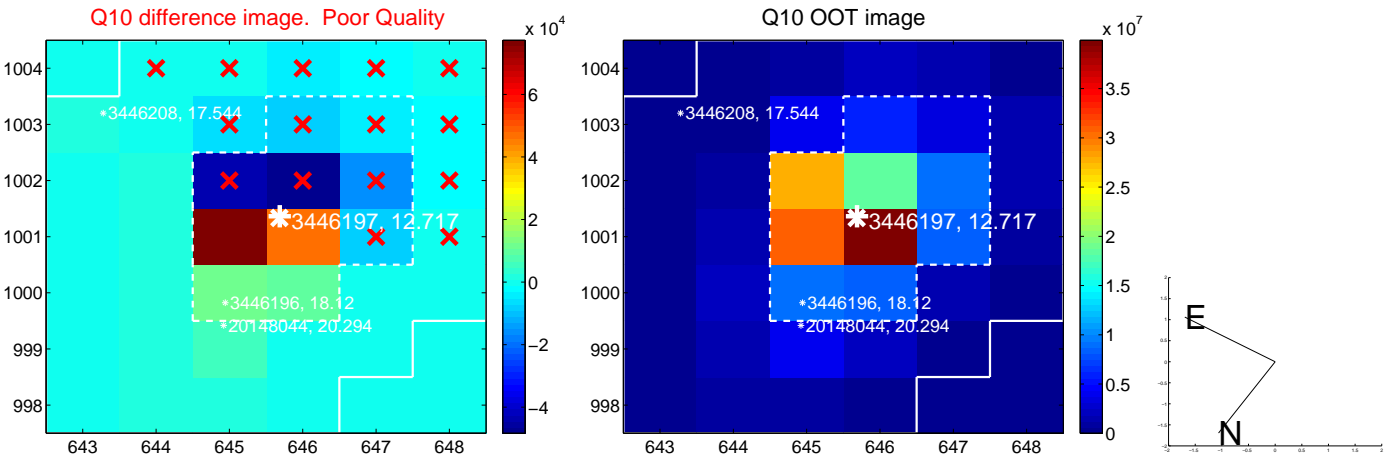
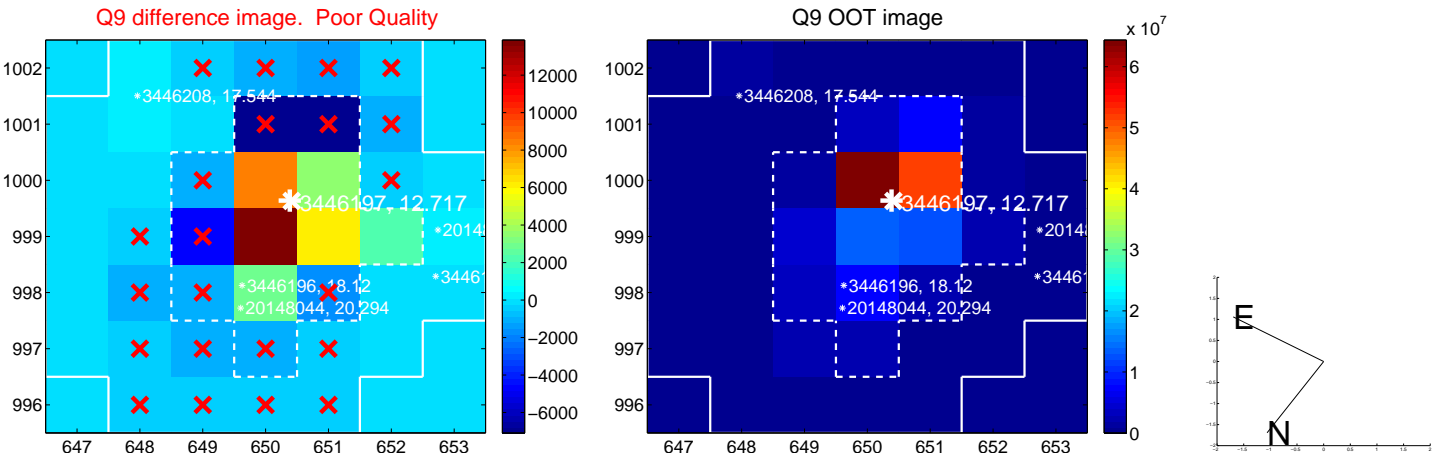


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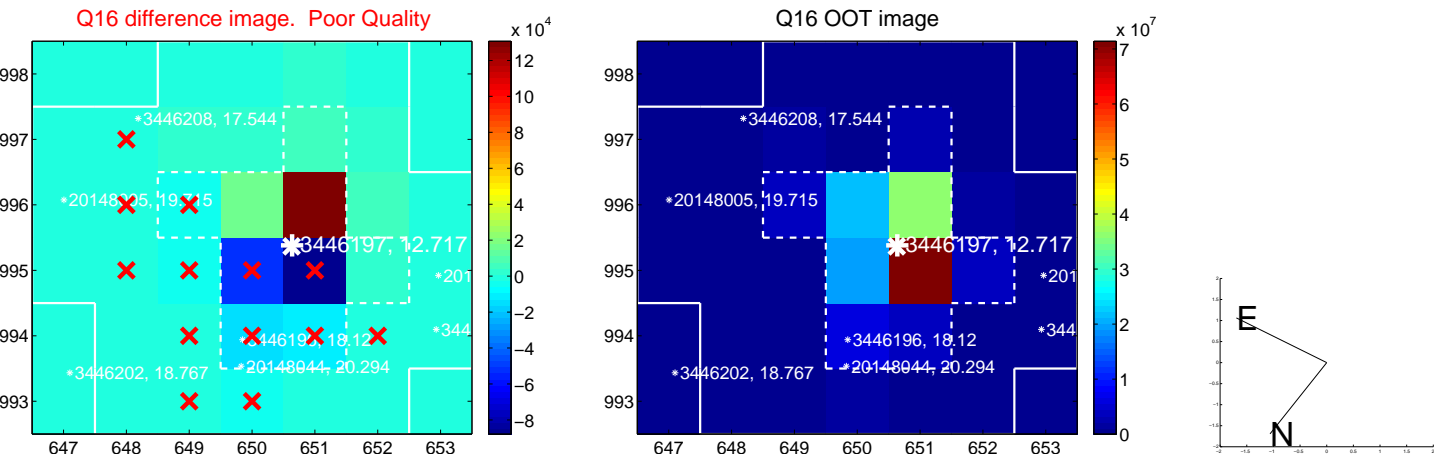
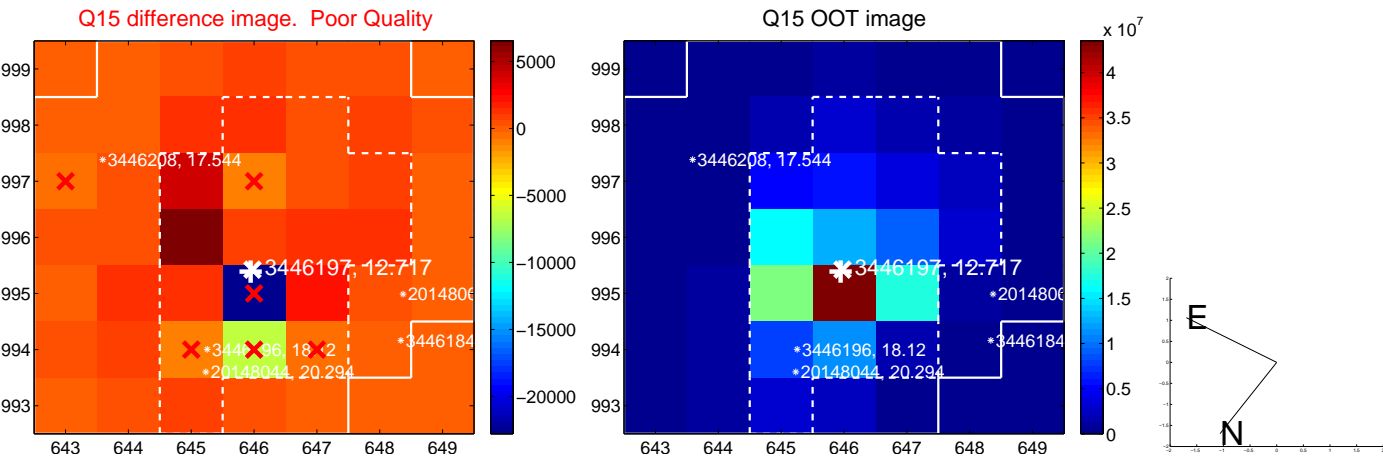
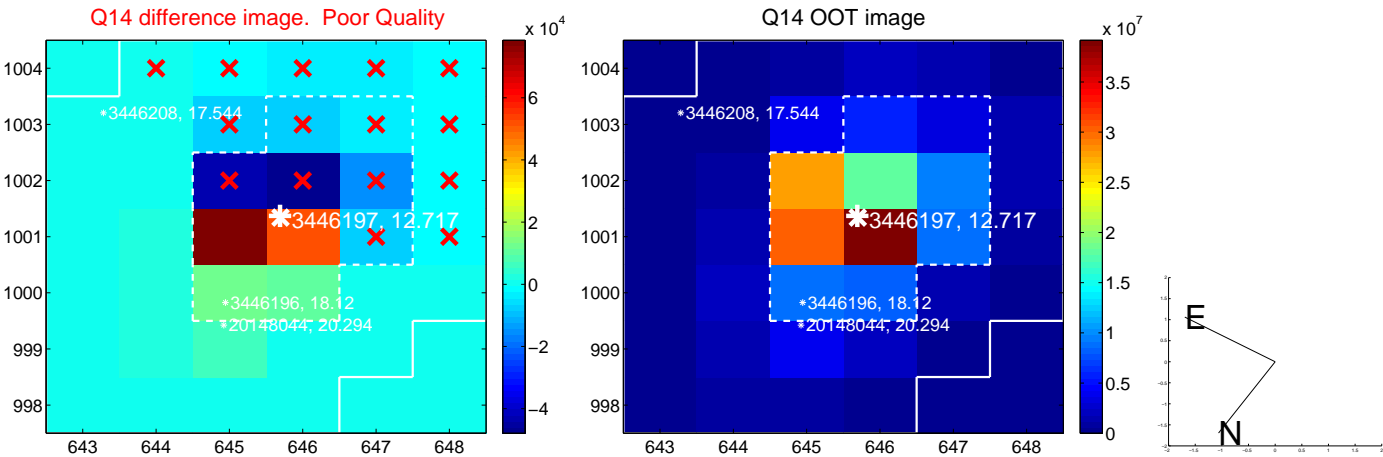
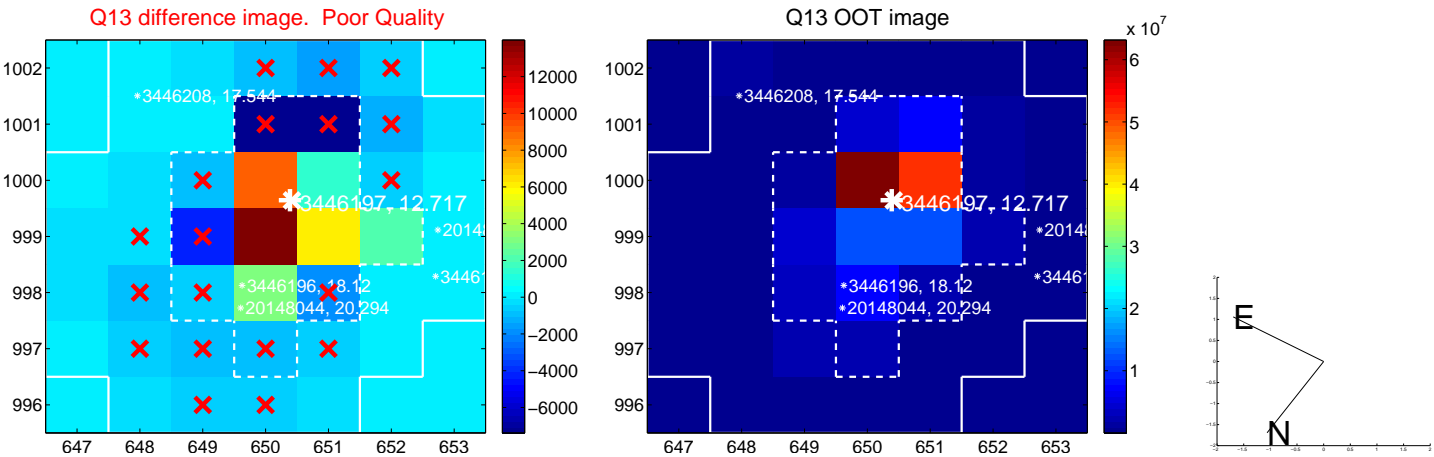




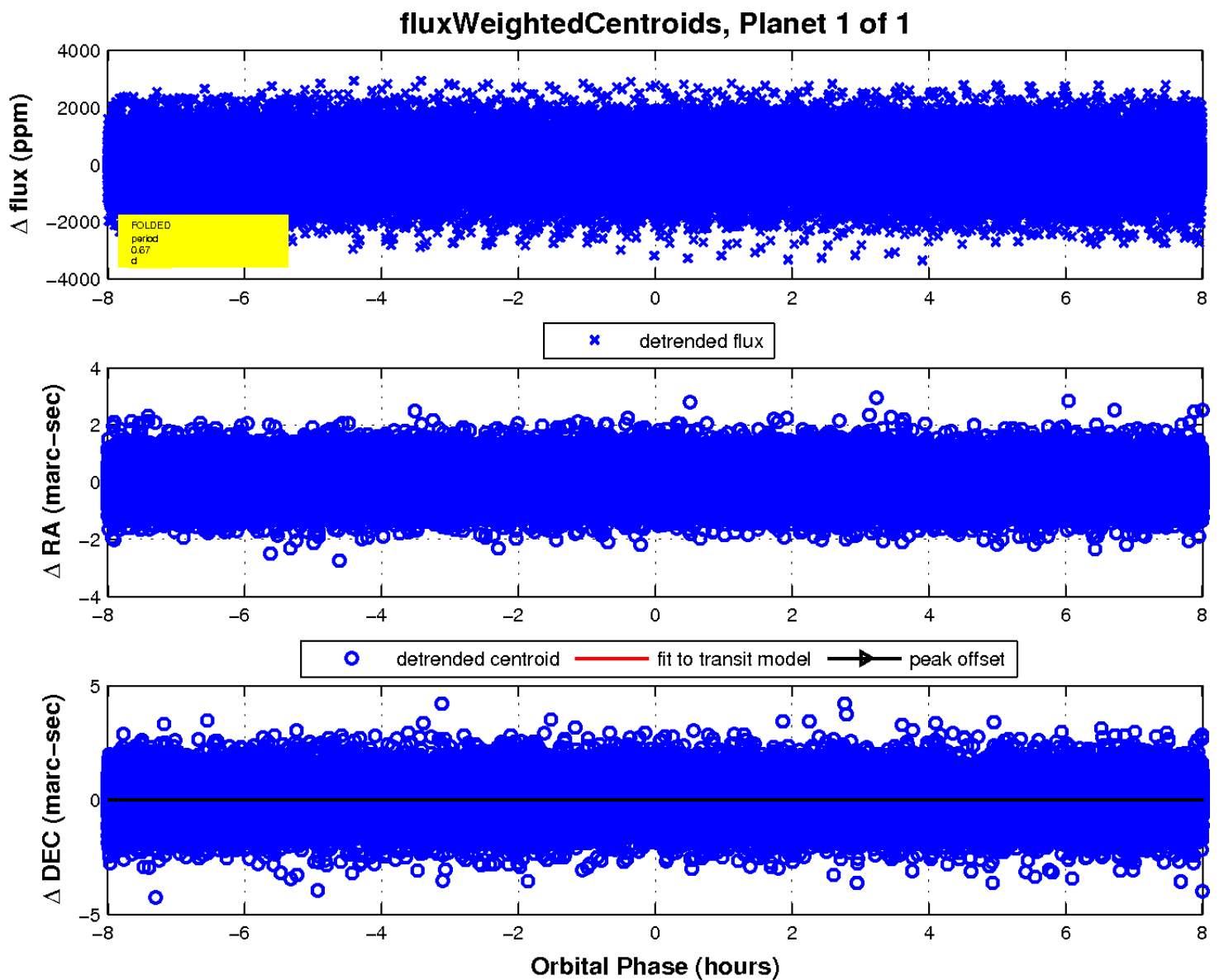
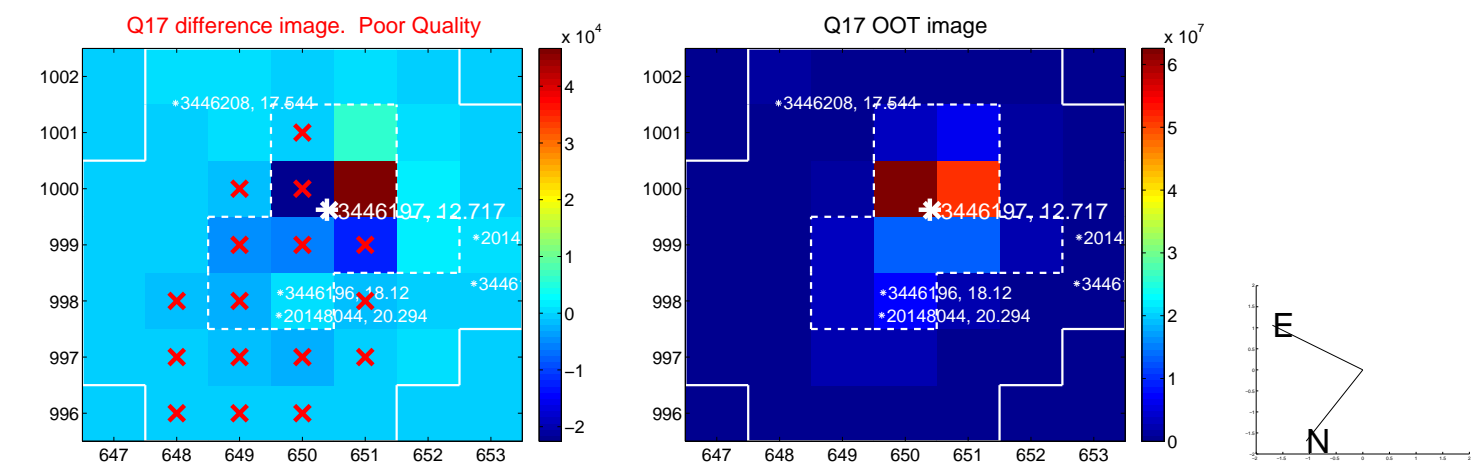
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

Declination

