

# KIC 005705613

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005705613-01	OBS	No	0.585668	132.045248	3.9	6.053	7.6	8.4	3.02	8617	0.60	150867.64

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005705613-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

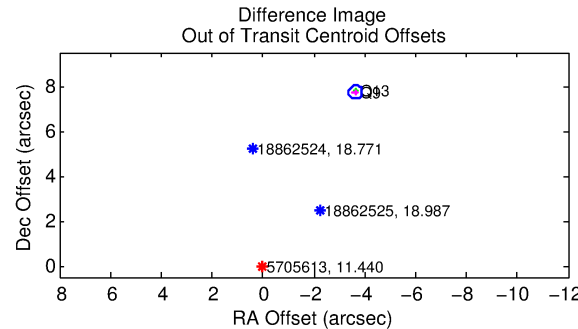
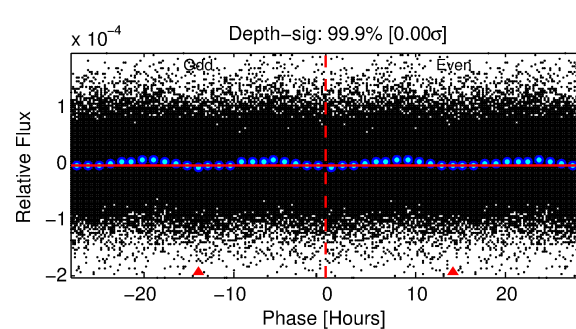
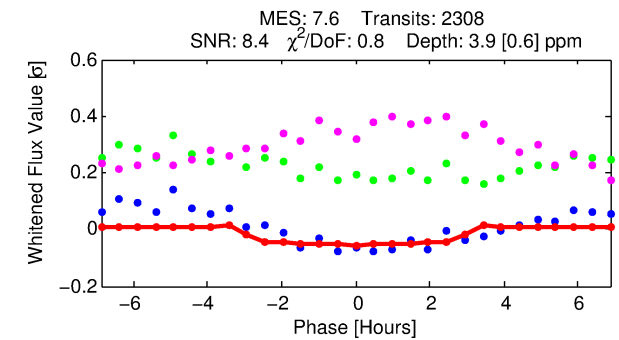
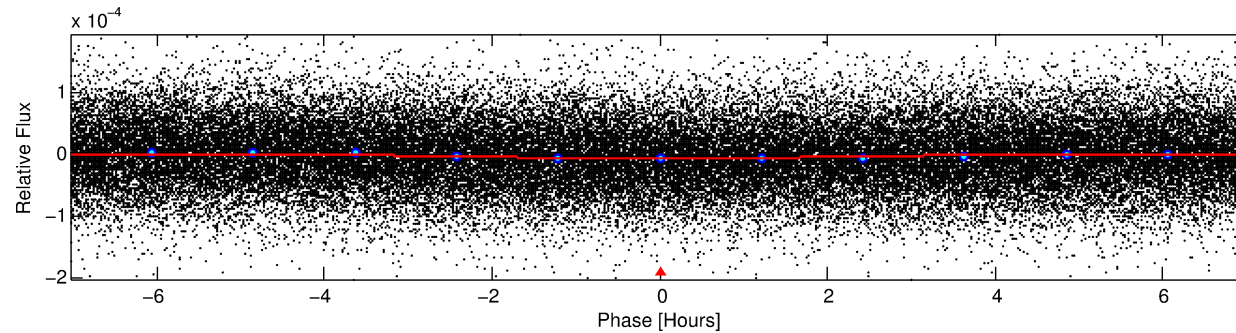
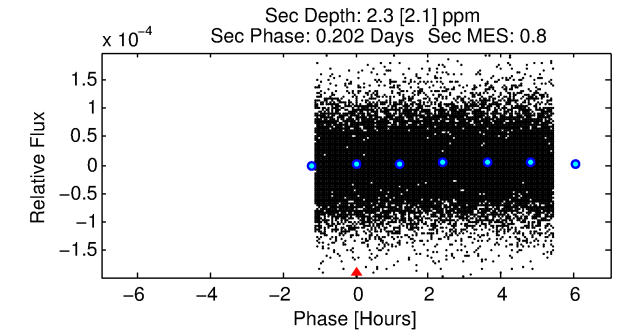
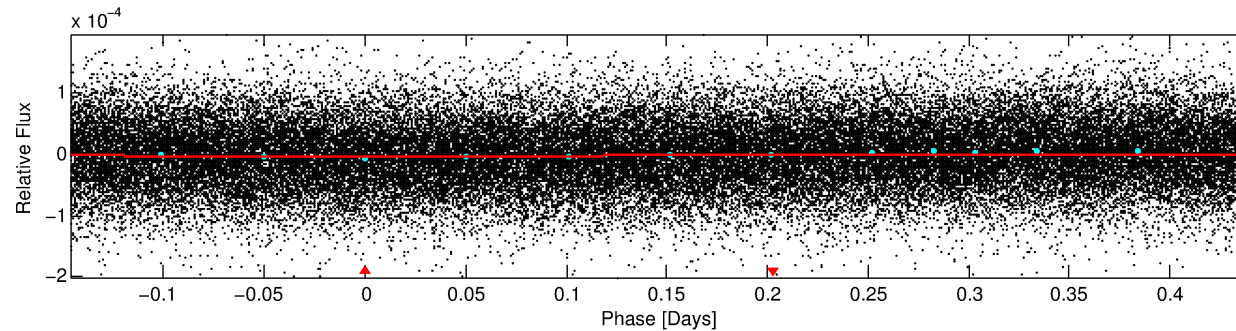
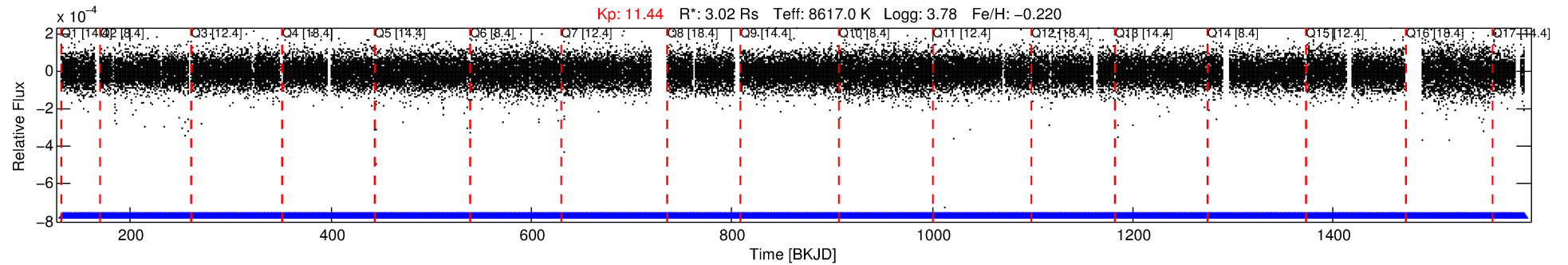
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005705613-01

No Significant Match Found

# DV One-Page Summary

KIC: 5705613 Candidate: 1 of 1 Period: 0.586 d



## DV Fit Results:

Period = 0.58567 [0.00001] d  
Epoch = 132.0452 [0.0063] BKJD  
Rp/R\* = 0.0018 [0.0013]  
a/R\* = 1.03 [0.22]  
b = 0.02 [190.23]  
Seff = 150867.64 [112019.09]  
Teq = 5025 [933] K  
Rp = 0.60 [0.51] Re  
a = 0.0173 [0.0072] AU  
Ag = 1.03 [1.90] [0.02σ]  
Teff = 7833 [3410] K [0.79σ]

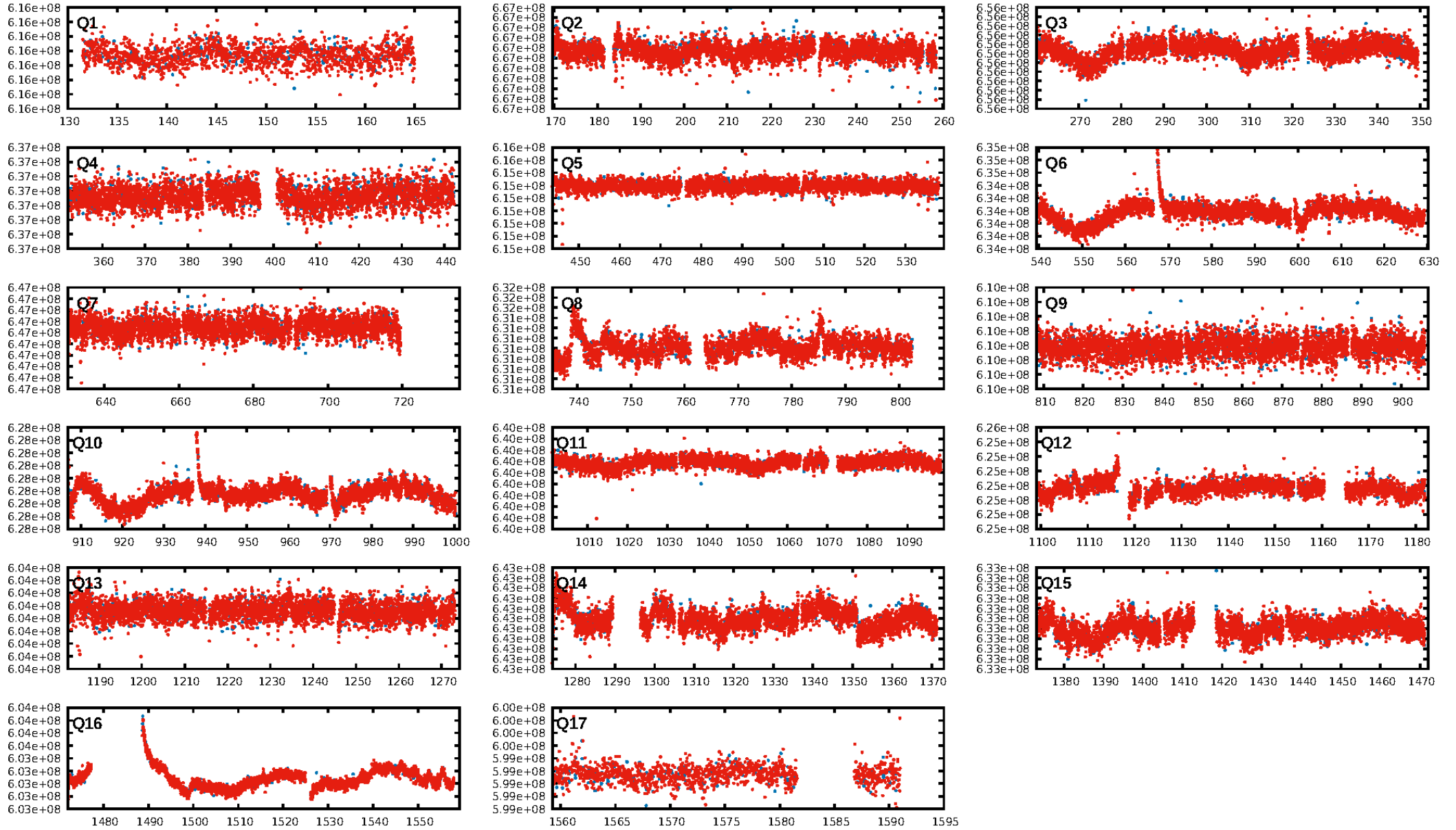
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGoF-sig: N/A  
Bootstrap-pfa: N/A  
RollingBand-fgt: 1.00 [2203/2203]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 8.541 arcsec [90.83σ]  
KicOffset-rm: 8.431 arcsec [89.57σ]  
OotOffset-st: 0/0/0/2 [2]  
KicOffset-st: 0/0/0/2 [2]  
DiffImageQuality-fgm: 0.00 [0/2]  
DiffImageOverlap-fno: 1.00 [17/17]

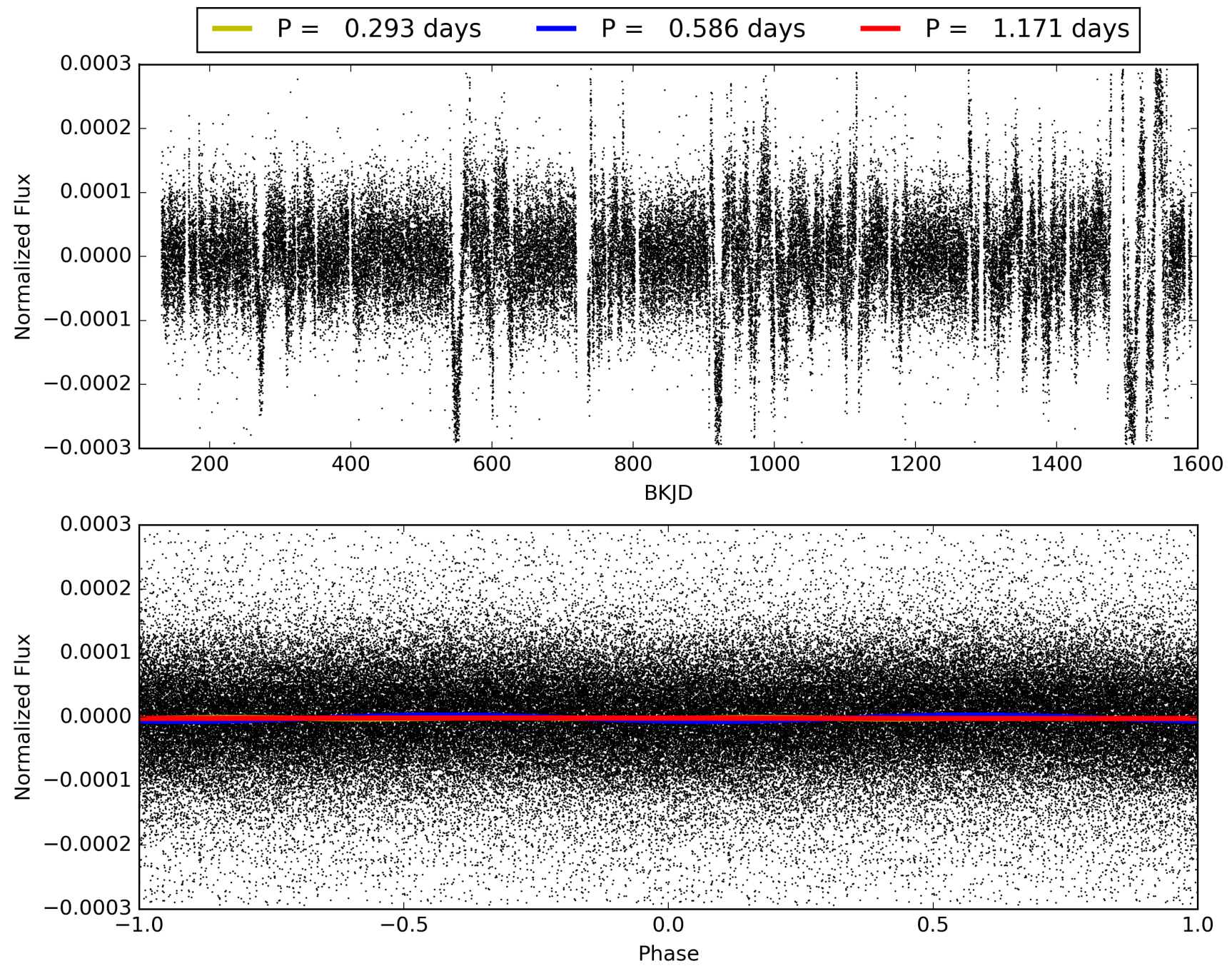
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:57:14 Z

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

# TCE 005705613-01, PDC Light Curves

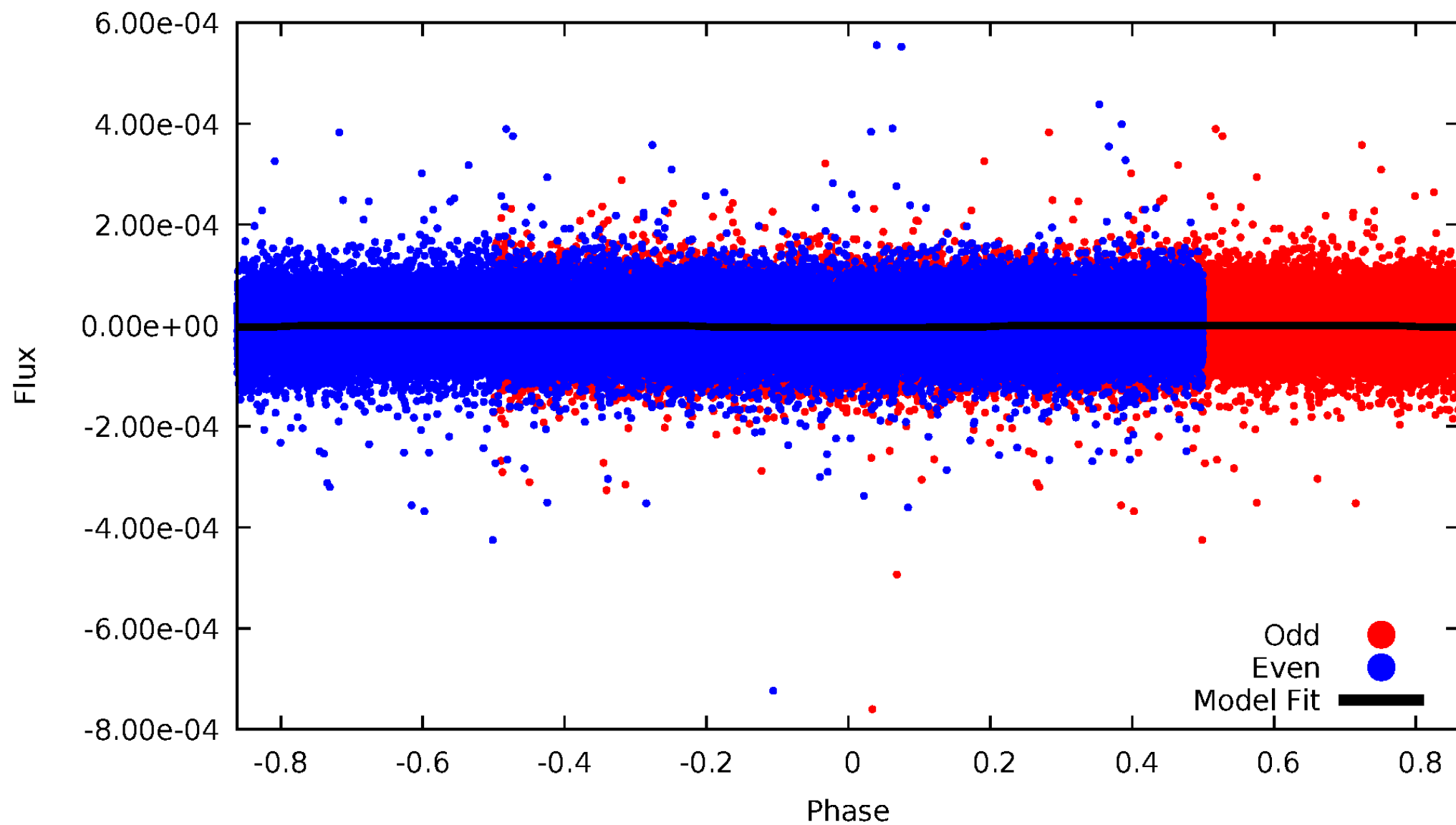


TCE 005705613-01



# DV Odd/Even

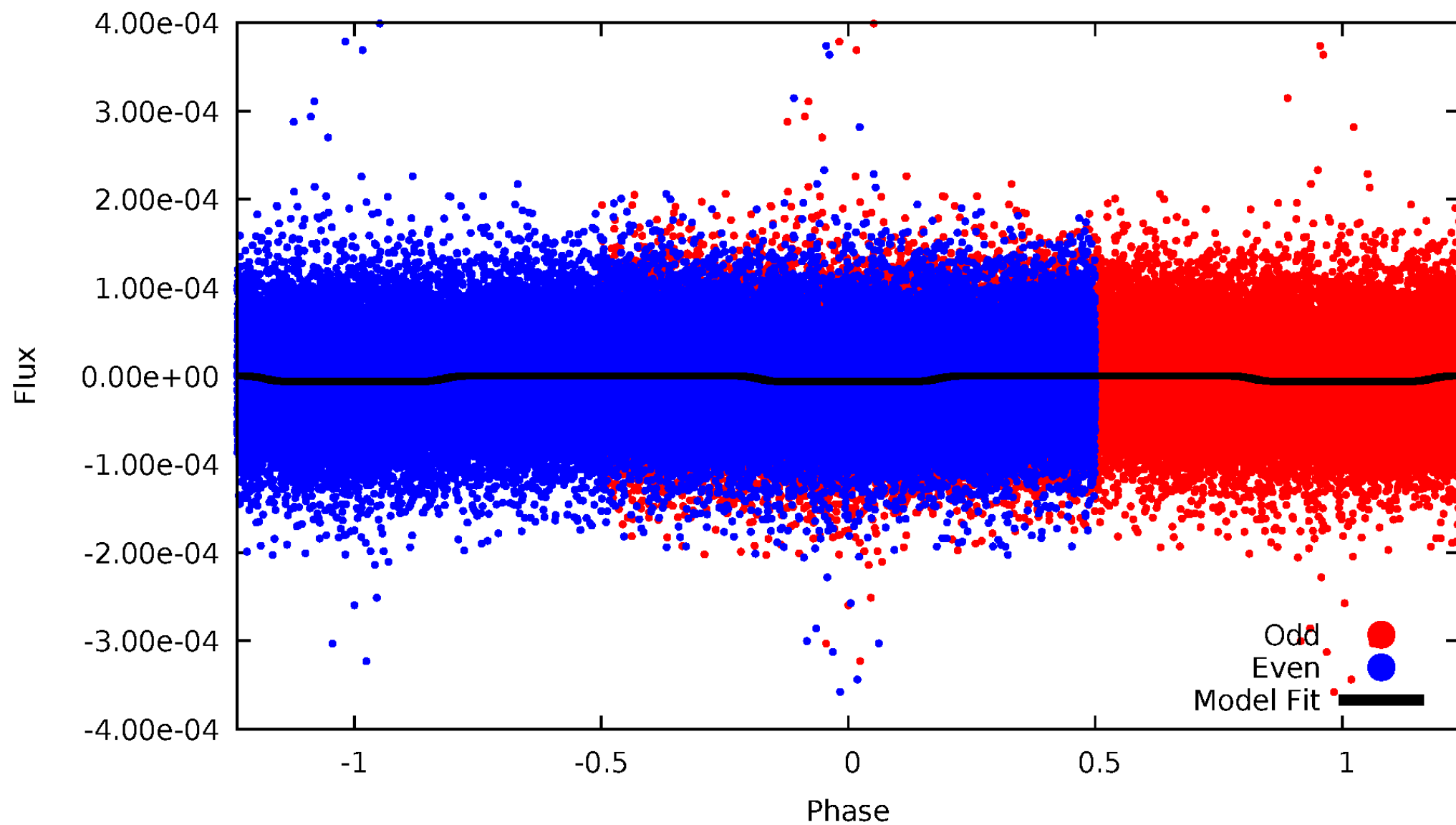
TCE 005705613-01



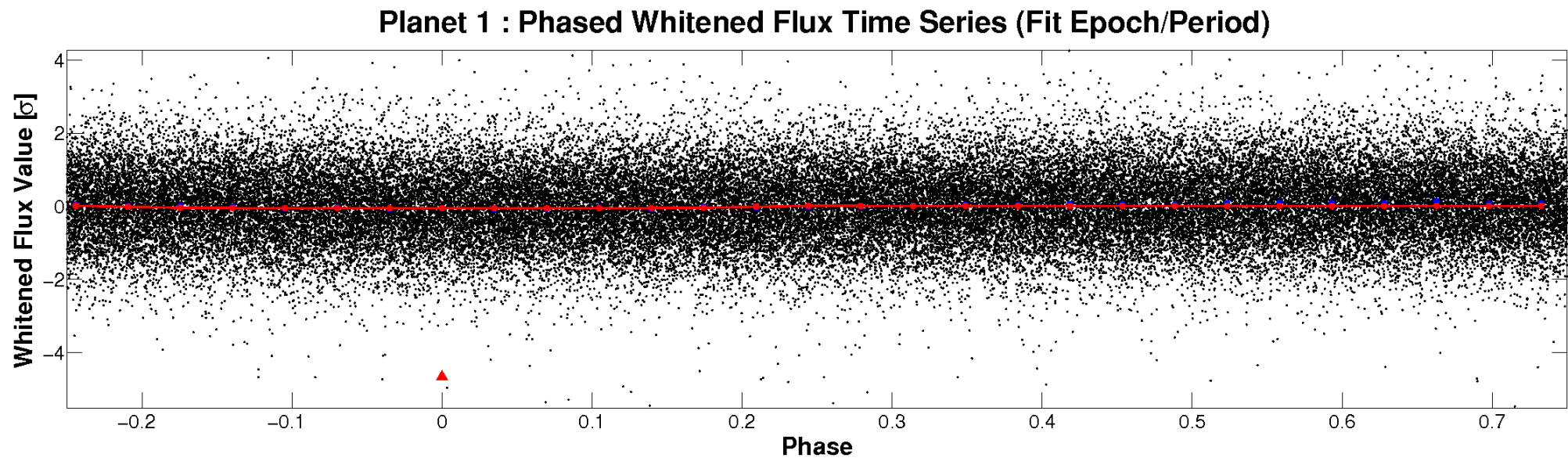
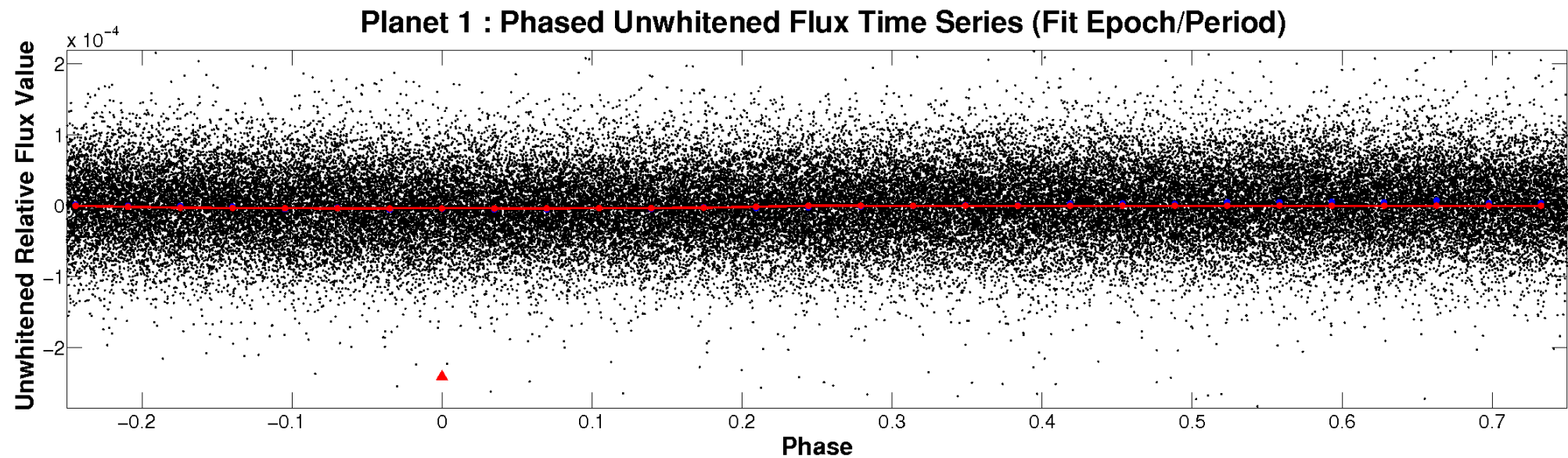


# ALT Odd/Even

TCE 005705613-01

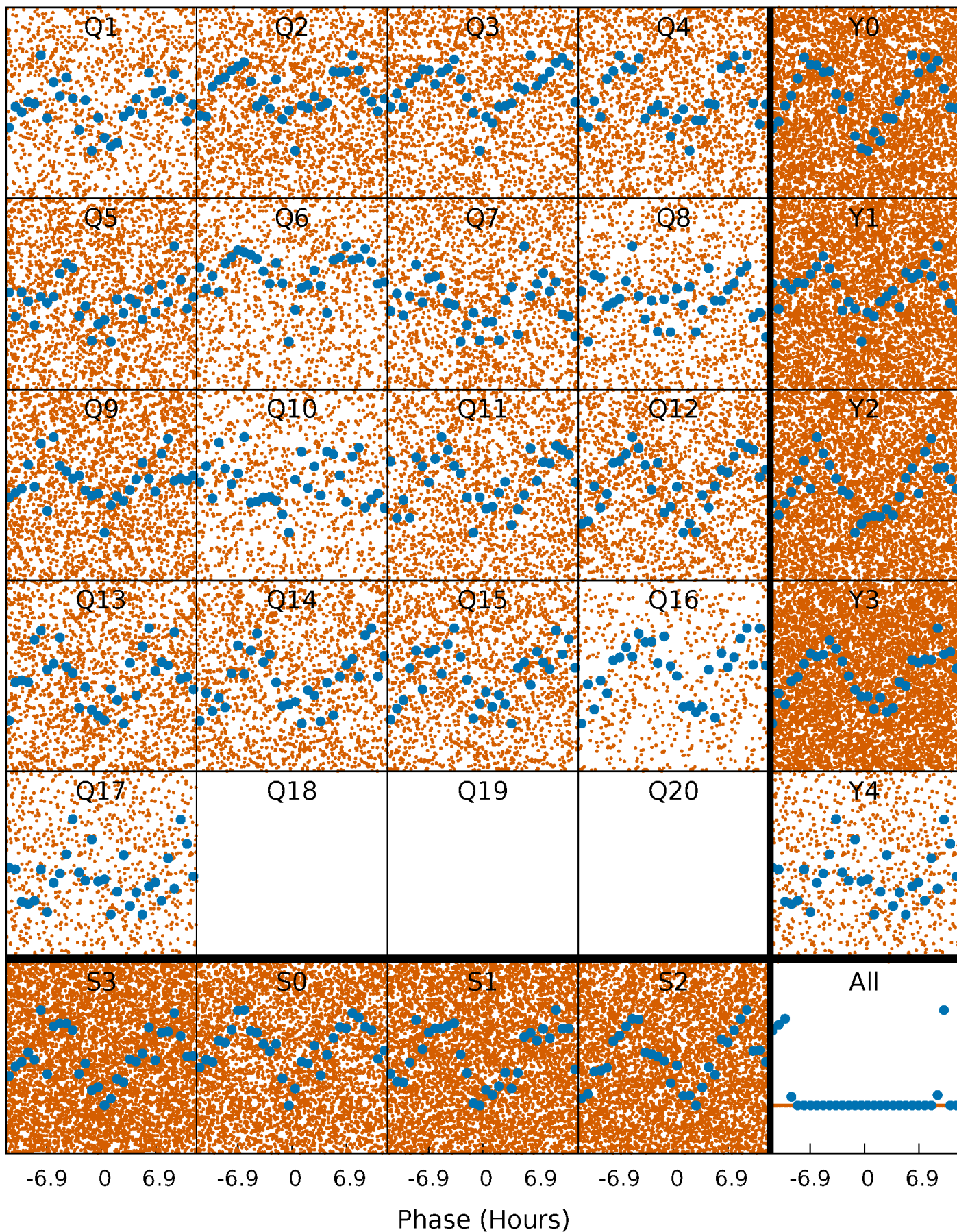


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

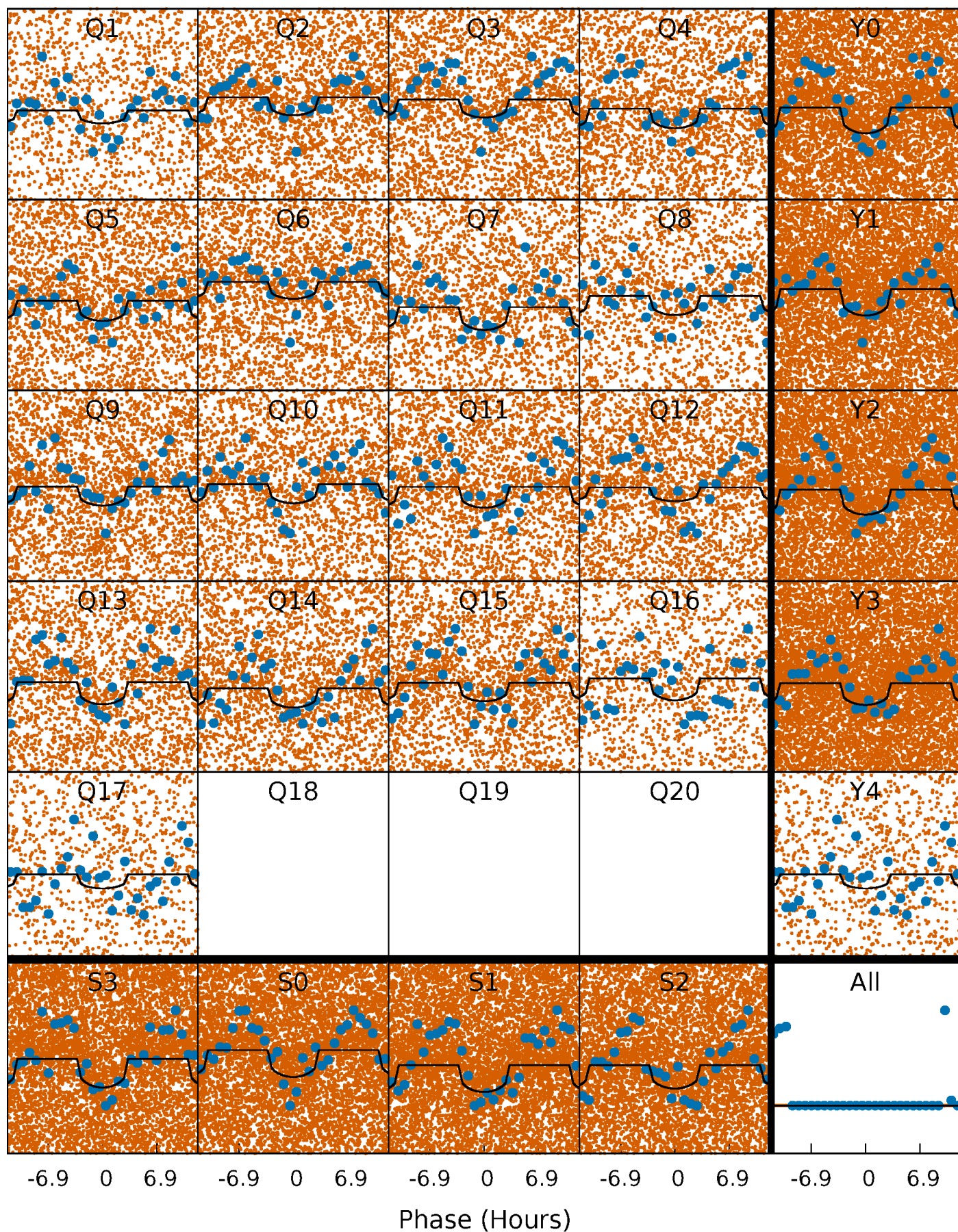
TCE 005705613-01 P= 0.585668 Days  $T_0=132.045248$  (BKJD)





# DV Quarter-Phased Transit Curves

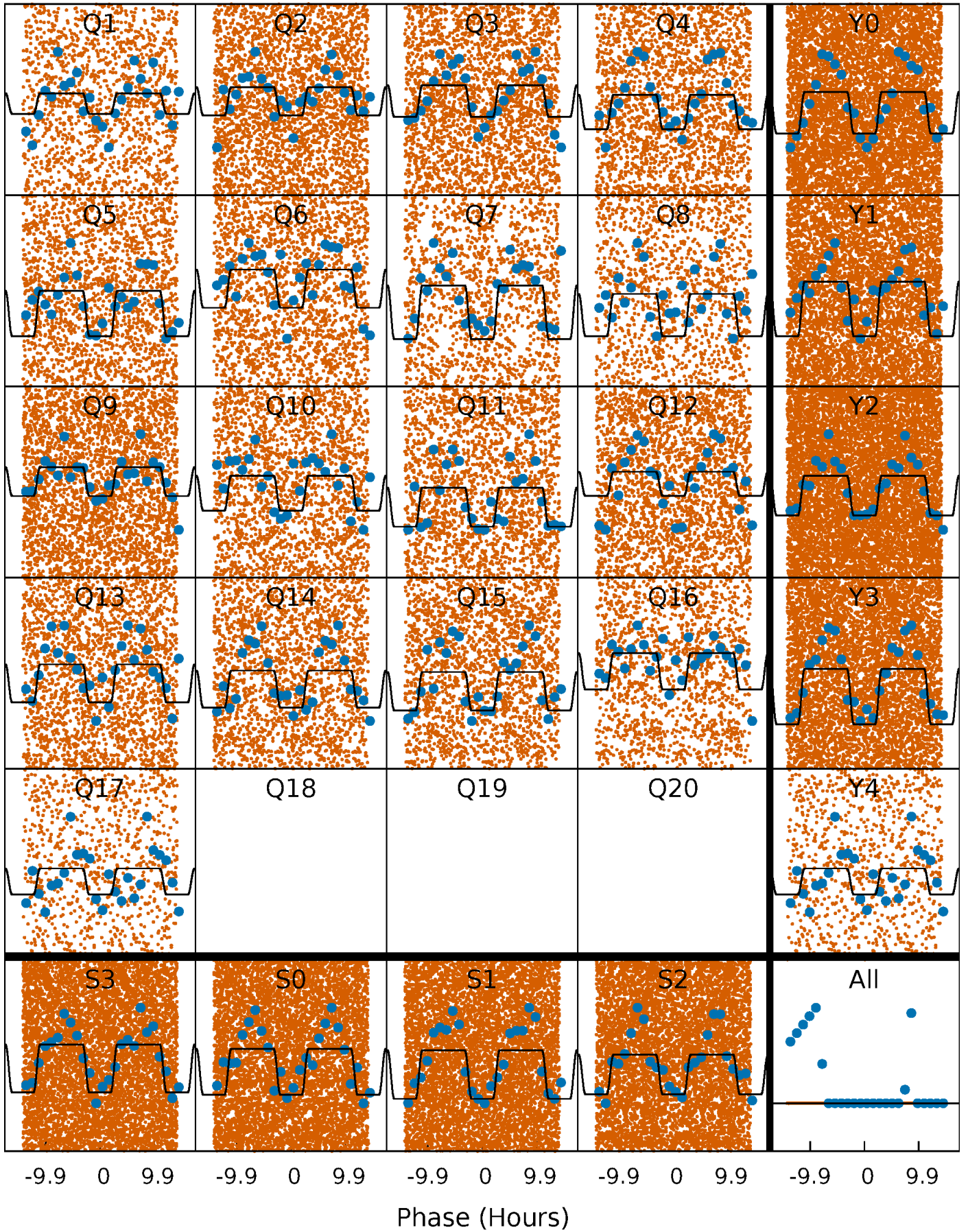
TCE 005705613-01 P= 0.585668 Days  $T_0=132.045248$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

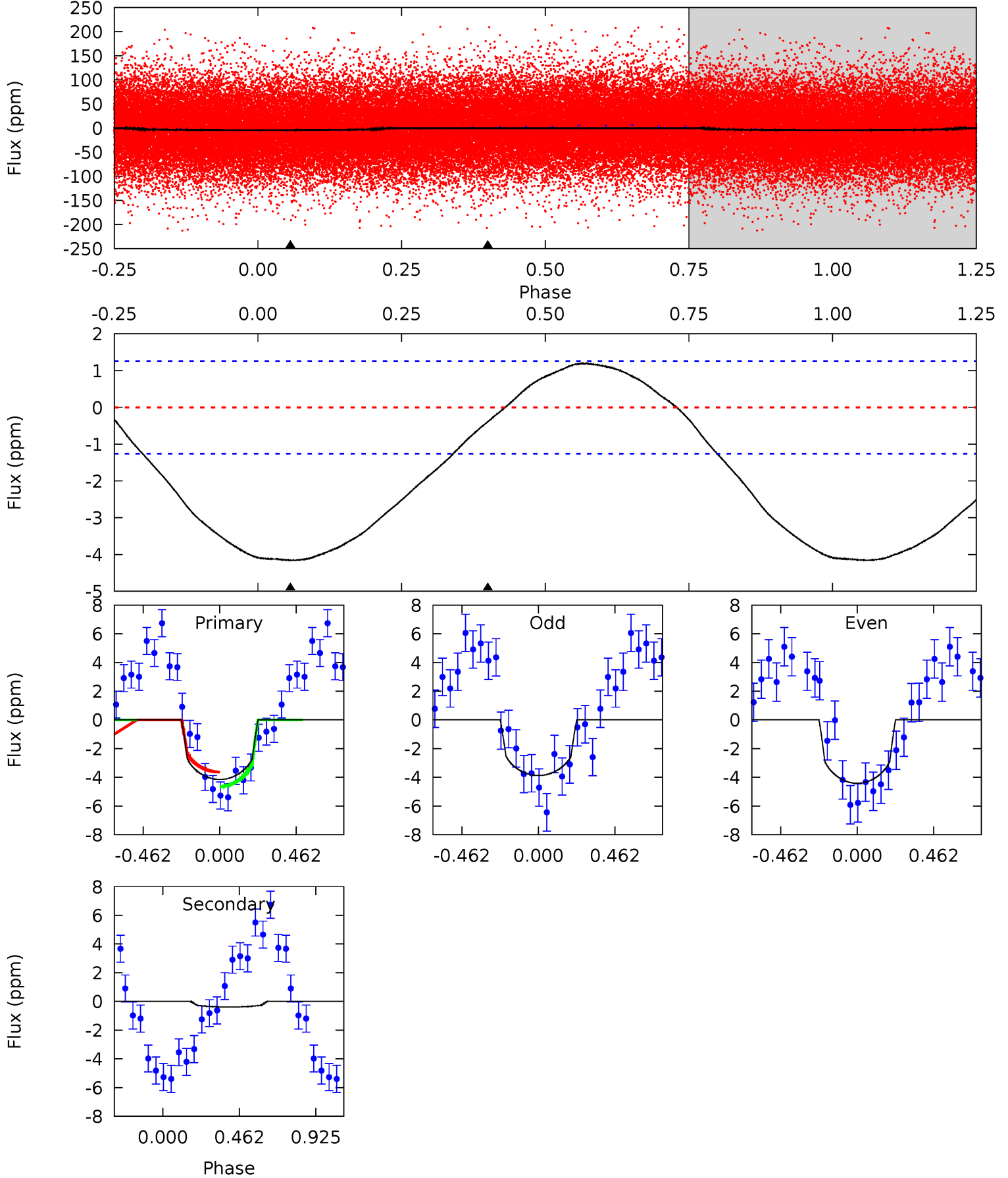
TCE 005705613-01 P= 0.585695 Days  $T_0=132.041937$  (BKJD)



# DV Model-Shift Uniqueness Test

005705613-01, P = 0.585668 Days, E = 131.459580 Days

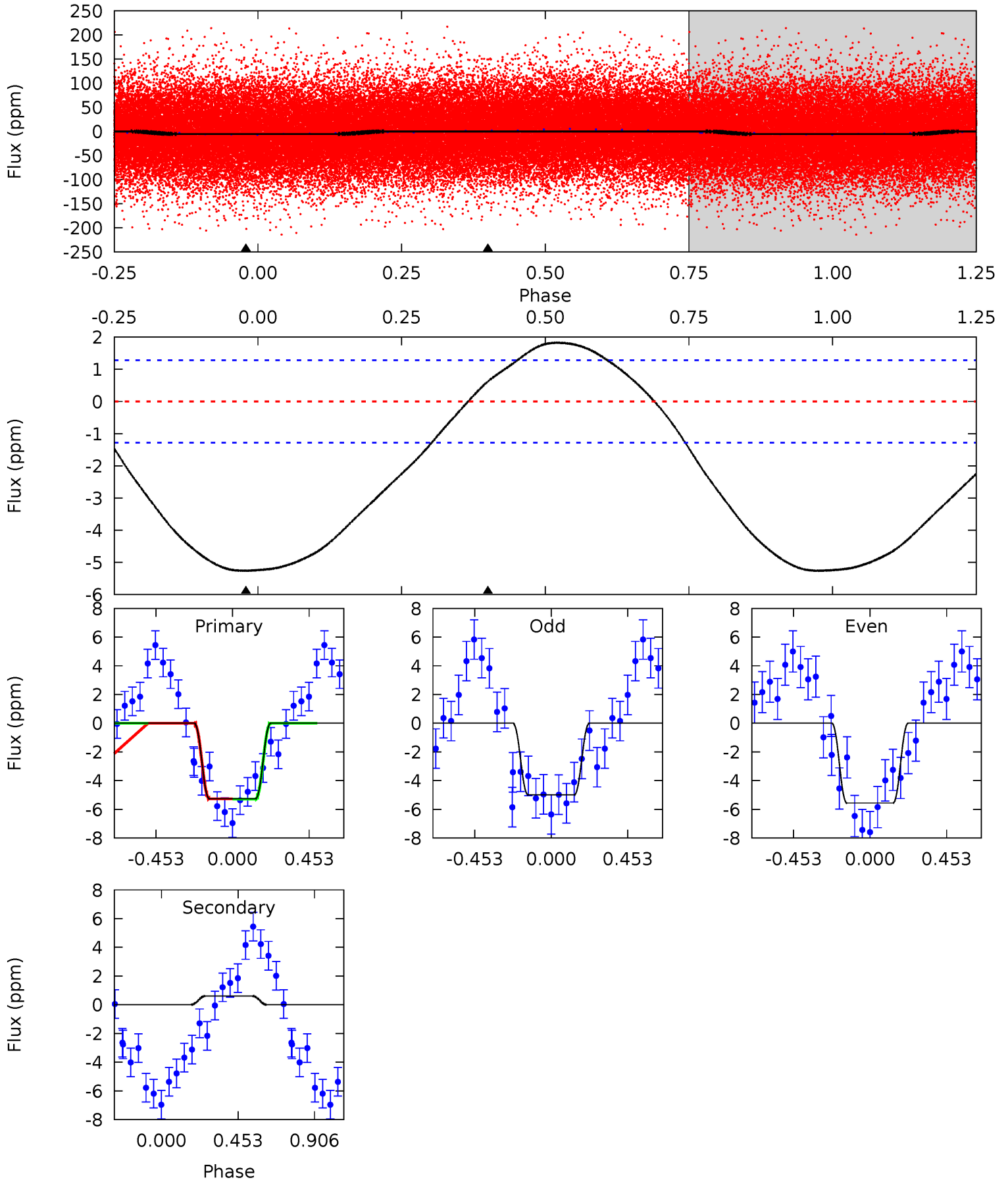
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	1.31	0	0	4.23	0.74	1.43	14.0	14.0	1.31	1.31	0.92	0.95	0.22	1.69



# Alt Model-Shift Uniqueness Test

005705613-01, P = 0.585695 Days, E = 131.456242 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
17.4	-2.04	0	0	4.24	0.75	2.00	17.4	17.4	-2.04	-2.04	0.95	0.90	0.26	0.04





### Stellar Parameters For KIC 005705613

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$8617^{+600}_{-666}$	$3.780^{+0.398}_{-0.133}$	$-0.220^{+0.250}_{-0.200}$	$3.018^{+0.975}_{-1.300}$	$2.002^{+0.439}_{-0.359}$	$0.102^{+0.342}_{-0.049}$
	+7%/-8%	+11%/-4%	+114%/-91%	+32%/-43%	+22%/-18%	+334%/-48%
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 005705613-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	-0±0	$0.61^{+0.42}_{-0.35}$	$6736^{+813}_{-926}$	$-4515^{+10334}_{-1007}$	$0.139^{+0.724}_{-0.114}$
Alt.	1±0	$0.75^{+0.44}_{-0.38}$	$6765^{+765}_{-826}$	$-6103^{+714}_{-1269}$	$-0.172^{+0.117}_{-0.584}$

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

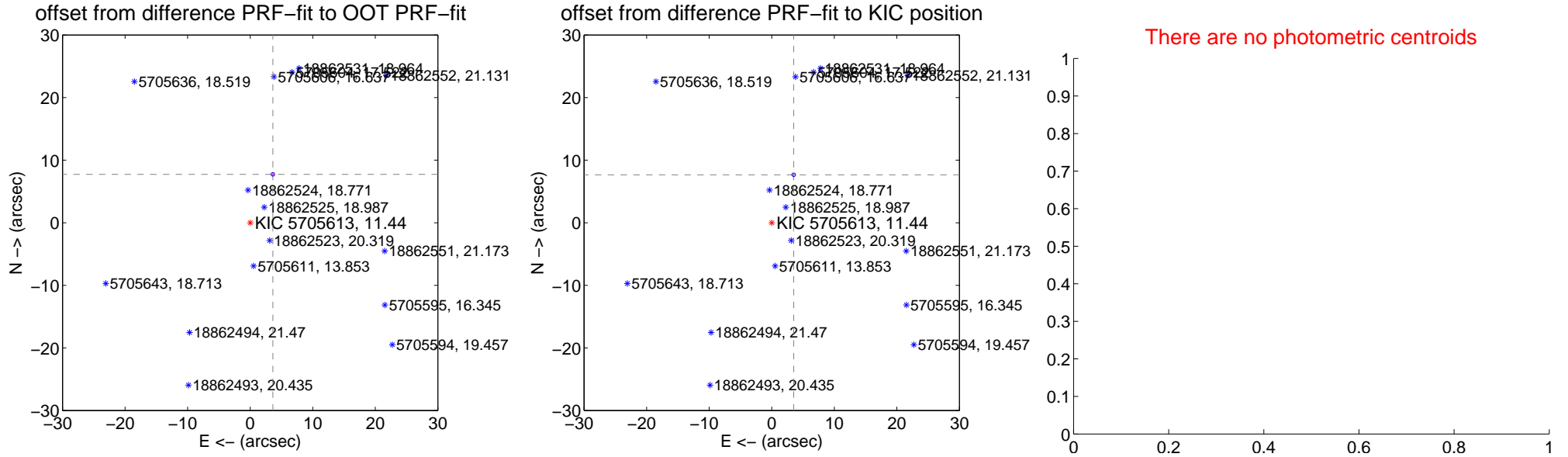
## DV Centroid Data

Supplemental centroid analysis for 005705613-01. **Kepler magnitude: 11.44.** Transit SNR 8.41

**There are 0 quarters with good PRF difference image offsets**

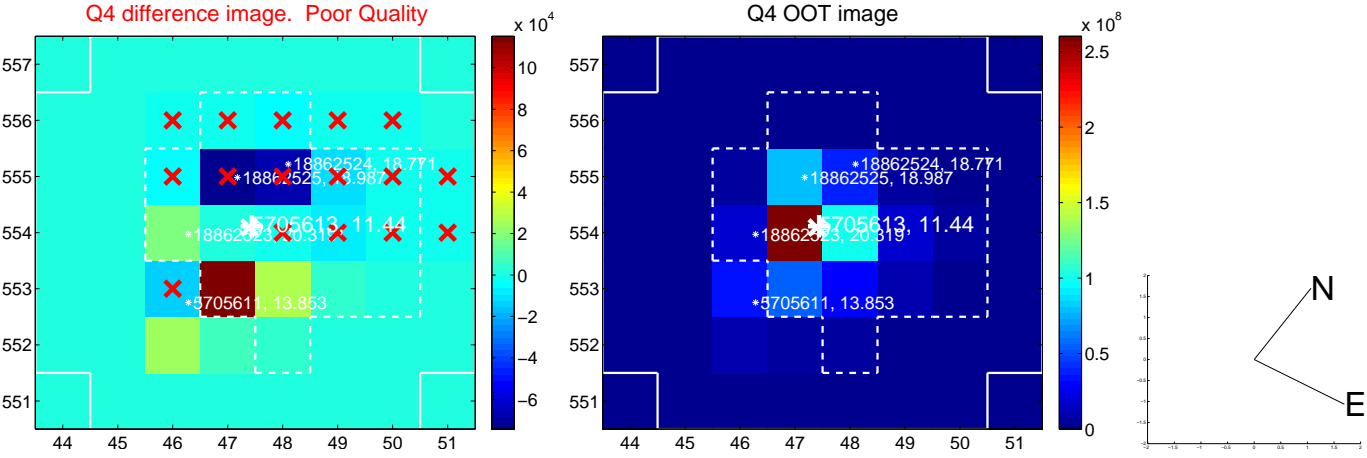
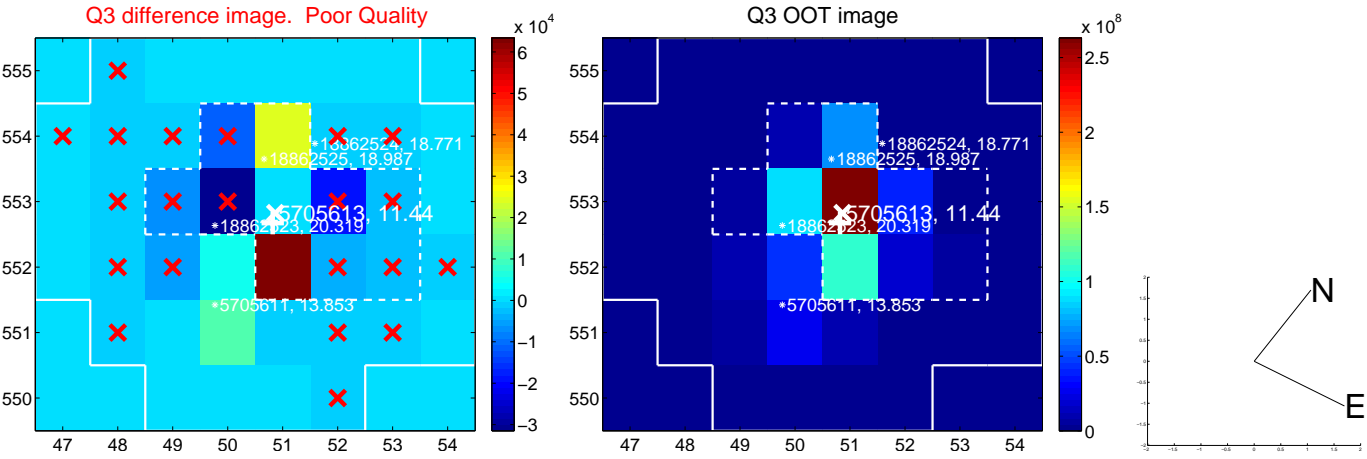
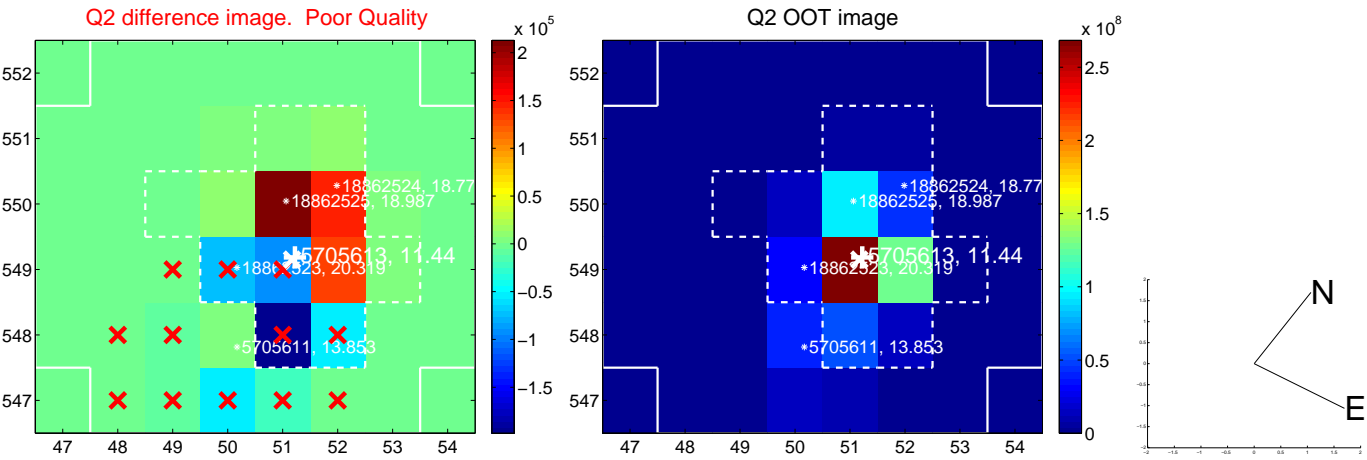
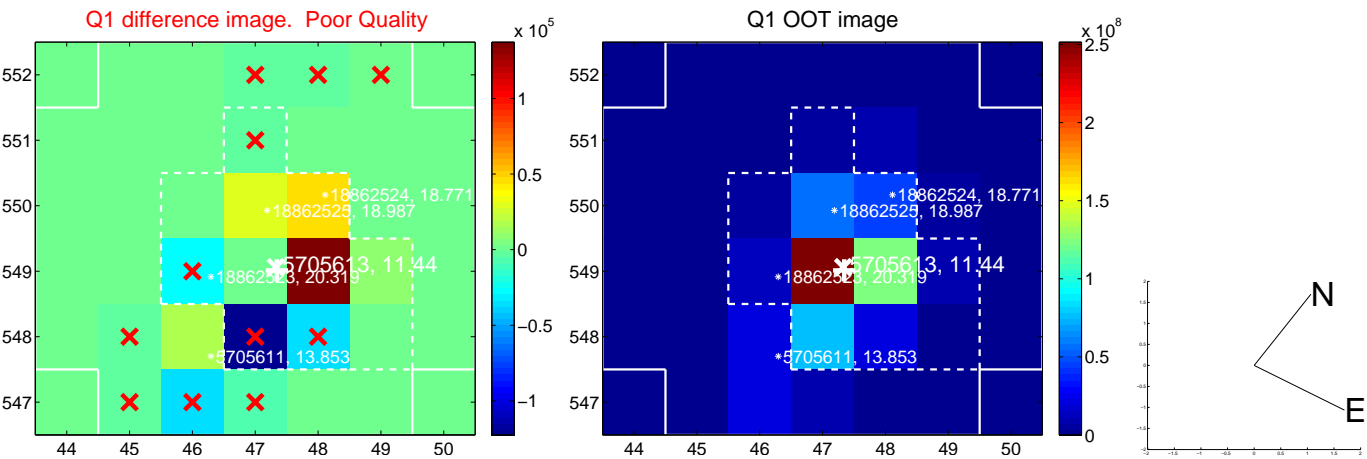
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	<b>8.541 <math>\pm</math> 0.094</b>	<b>90.83</b>	-3.623 $\pm$ 0.083	7.735 $\pm$ 0.096
PRF-fit source offset from KIC position	<b>8.431 <math>\pm</math> 0.094</b>	<b>89.57</b>	-3.510 $\pm$ 0.083	7.666 $\pm$ 0.096
photometric centroid source offset	—	—	—	—

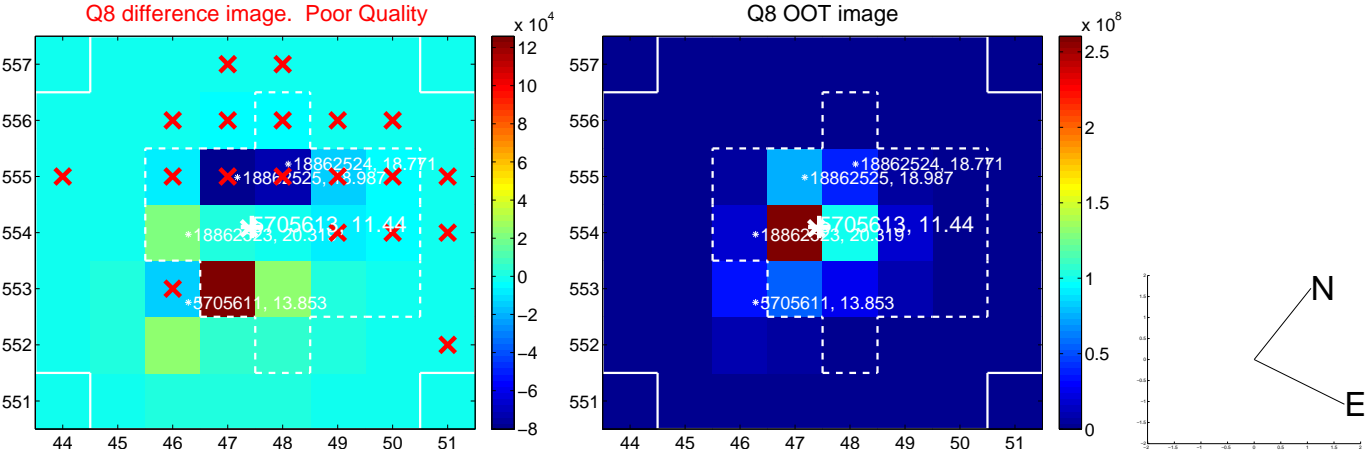
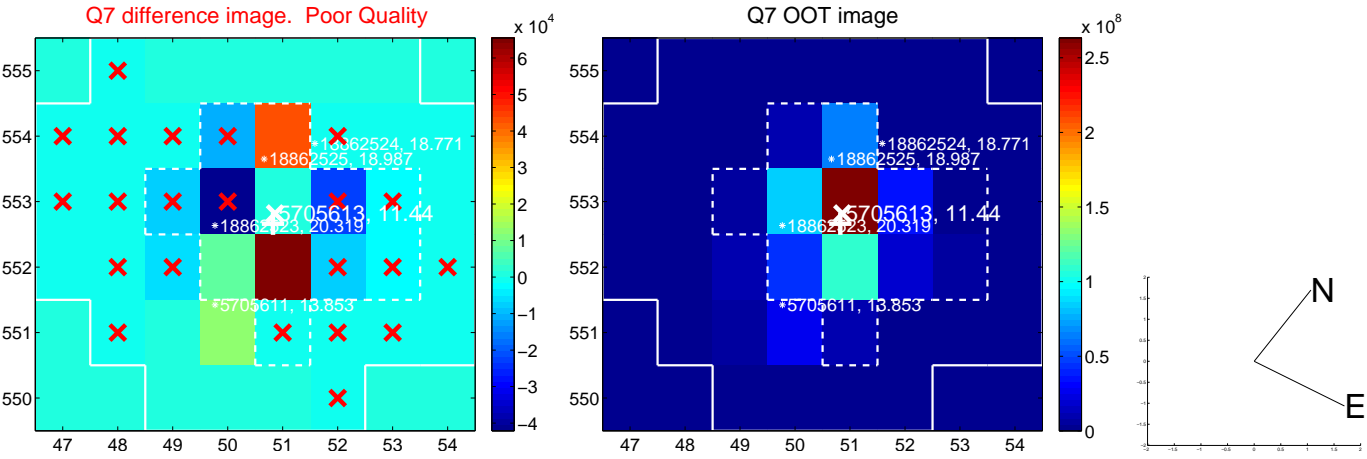
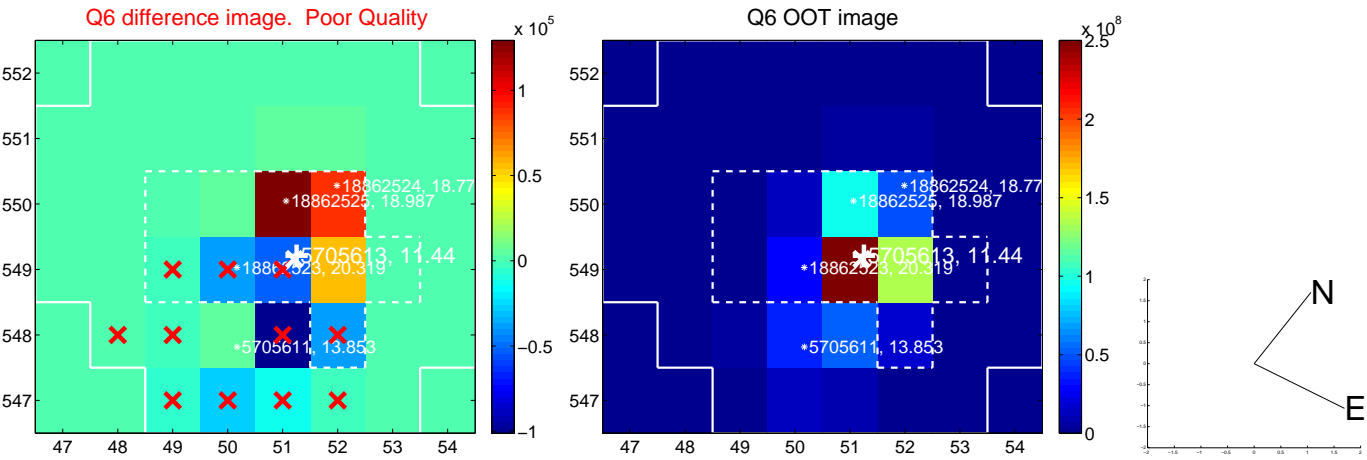
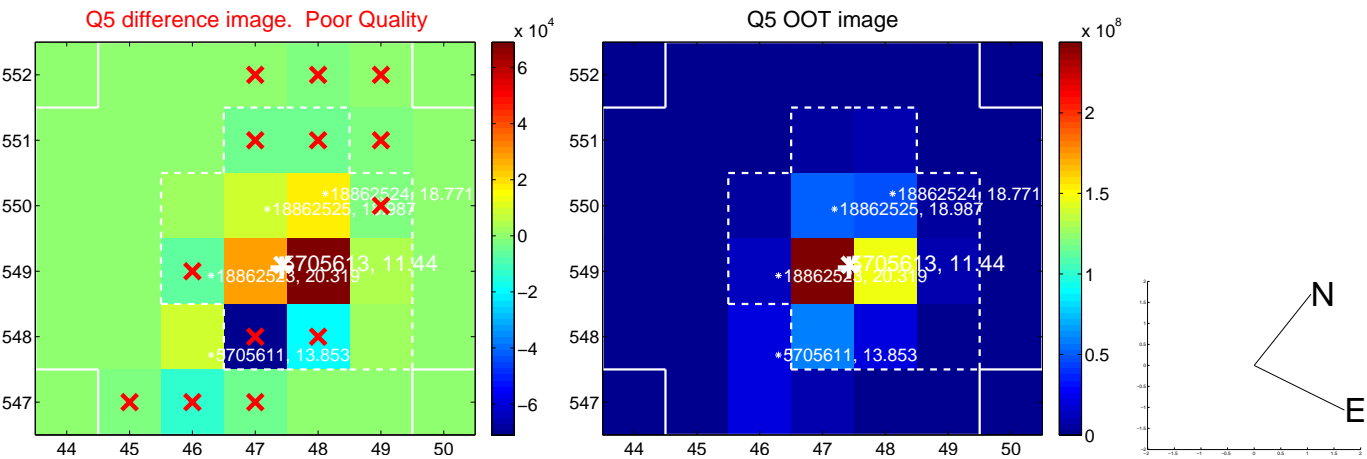


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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



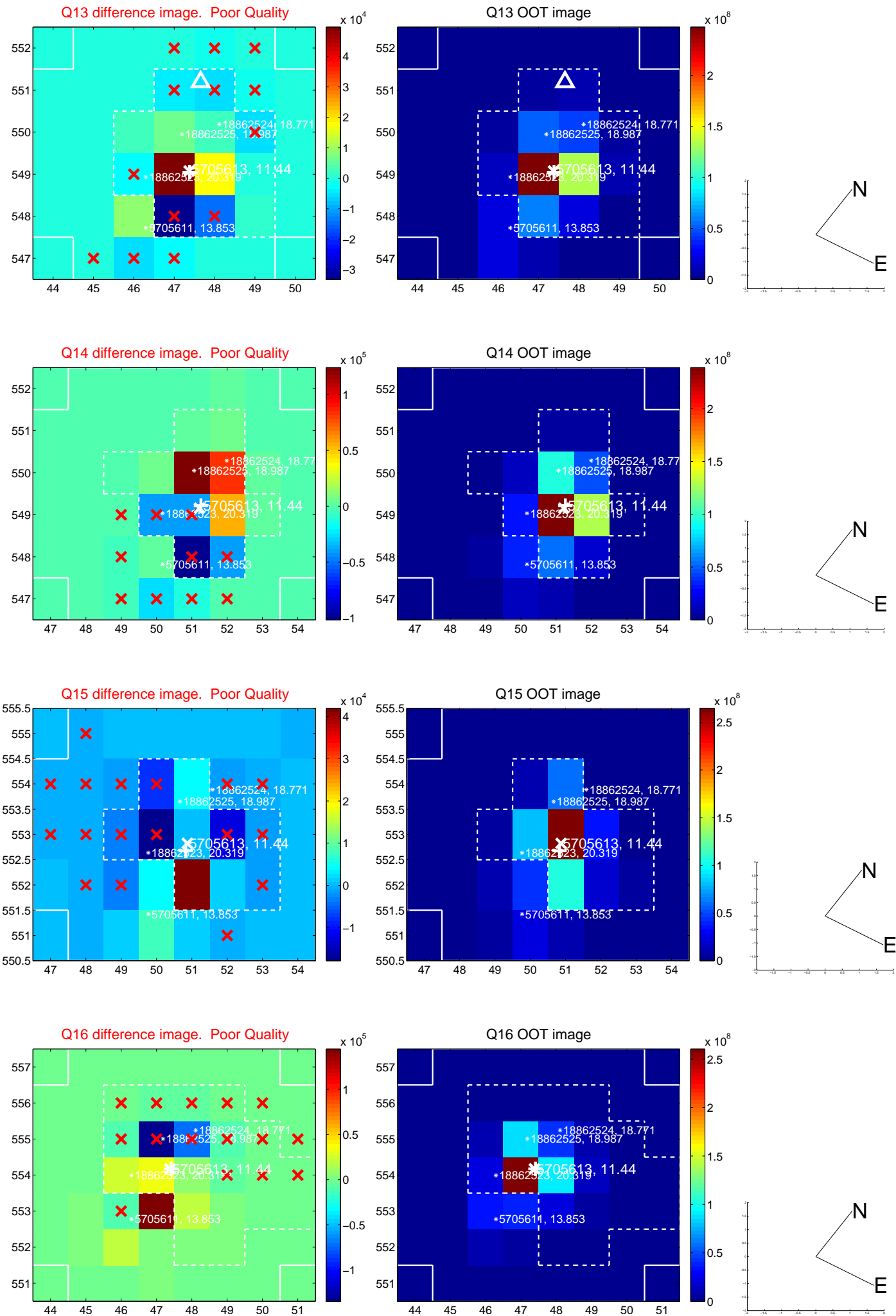
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



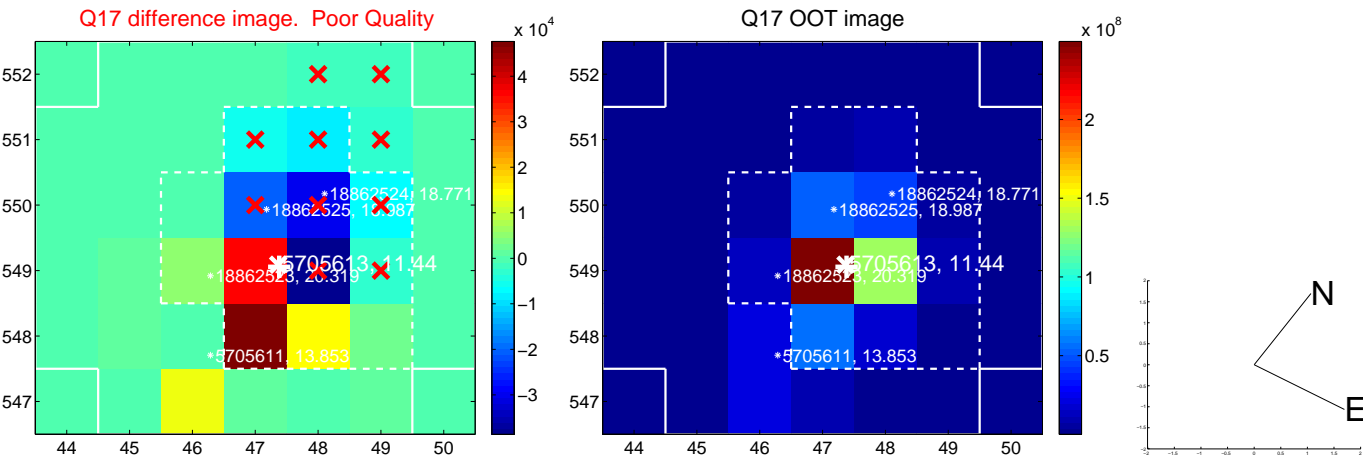




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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

