

# KIC 008693545

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
008693545-01	OBS	No	0.981508	131.665040	1.8	4.787	10.2	2.8	3.17	8262	0.50	70237.09

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008693545-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV

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

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

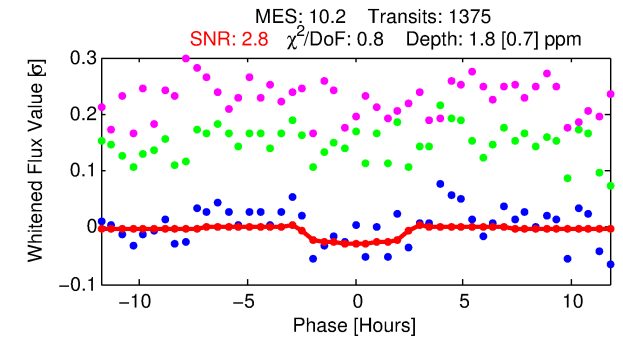
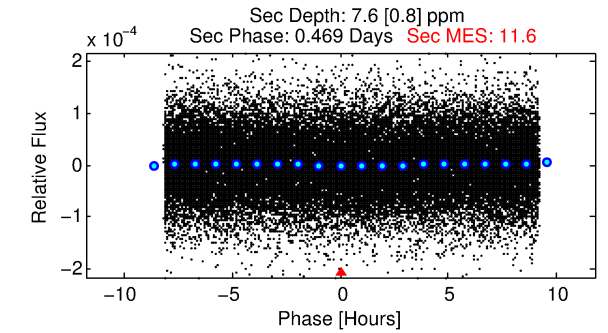
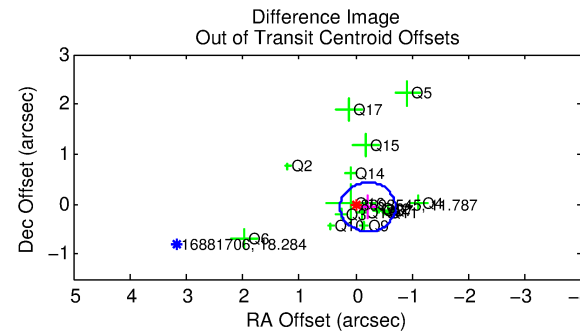
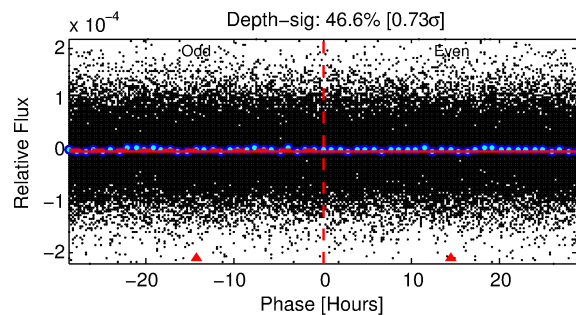
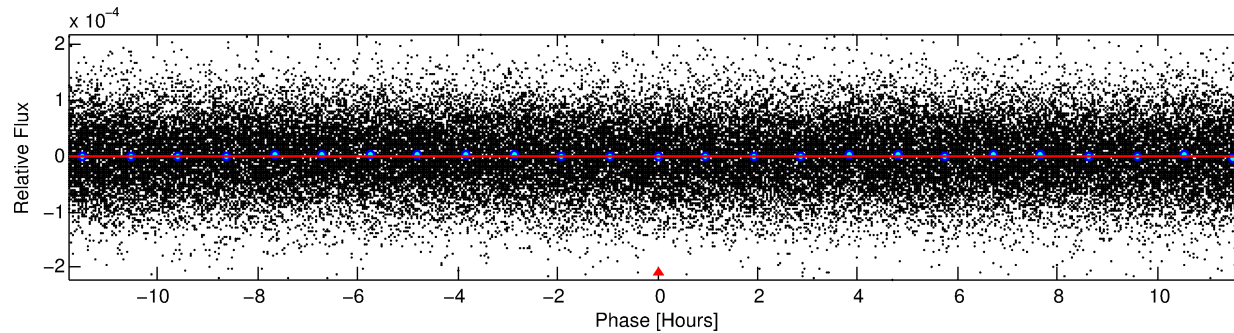
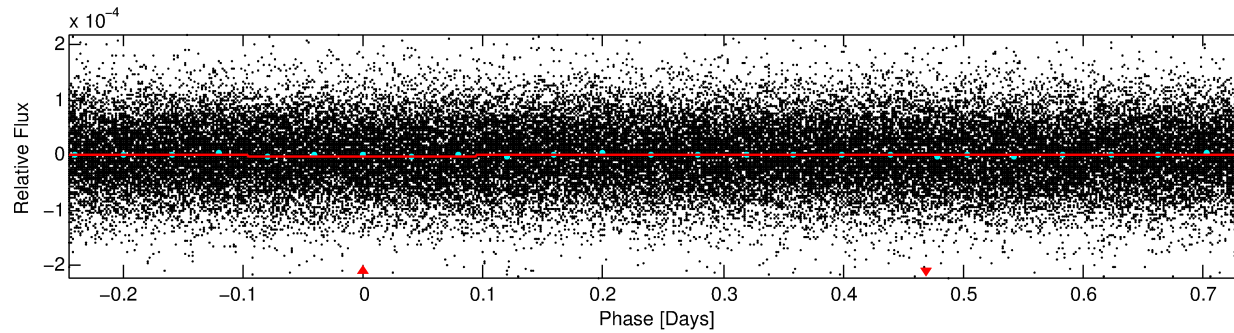
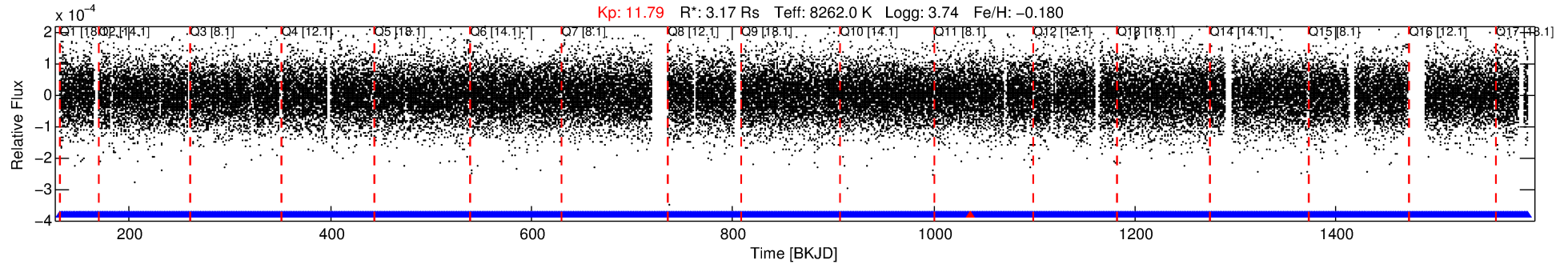
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008693545-01

No Significant Match Found

# DV One-Page Summary

KIC: 8693545 Candidate: 1 of 1 Period: 0.982 d



## DV Fit Results:

Period = 0.98151 [0.00005] d  
Epoch = 131.6650 [0.0169] BKJD  
Rp/R\* = 0.0014 [0.0007]  
a/R\* = 1.15 [0.83]  
b = 0.91 [0.57]  
Seff = 70237.09 [52737.24]  
Teq = 4151 [779] K  
Rp = 0.50 [0.34] Re  
a = 0.0244 [0.0110] AU  
Ag = 10.01 [12.45] [0.72 $\sigma$ ]  
Teffp = 11415 [2922] K [2.40 $\sigma$ ]

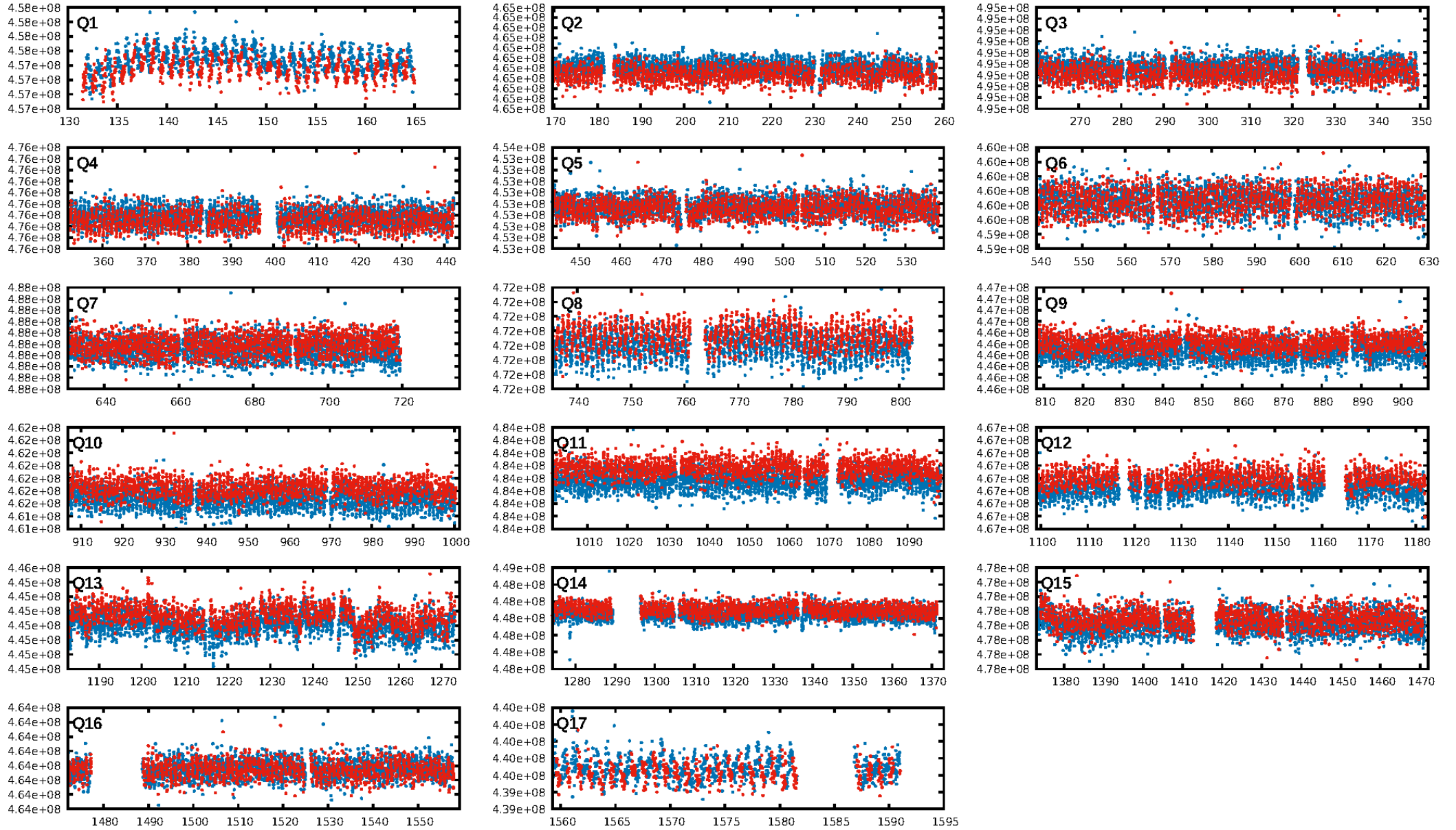
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 9.05e-18  
RollingBand-fgt: 1.00 [1312/1313]  
GhostDiagnostic-chr: N/A  
Centroid-sig: N/A  
Centroid-so: N/A  
OotOffset-rm: 0.217 arcsec [1.32 $\sigma$ ]  
KicOffset-rm: 0.190 arcsec [0.91 $\sigma$ ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.41 [7/17]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:23:49 Z

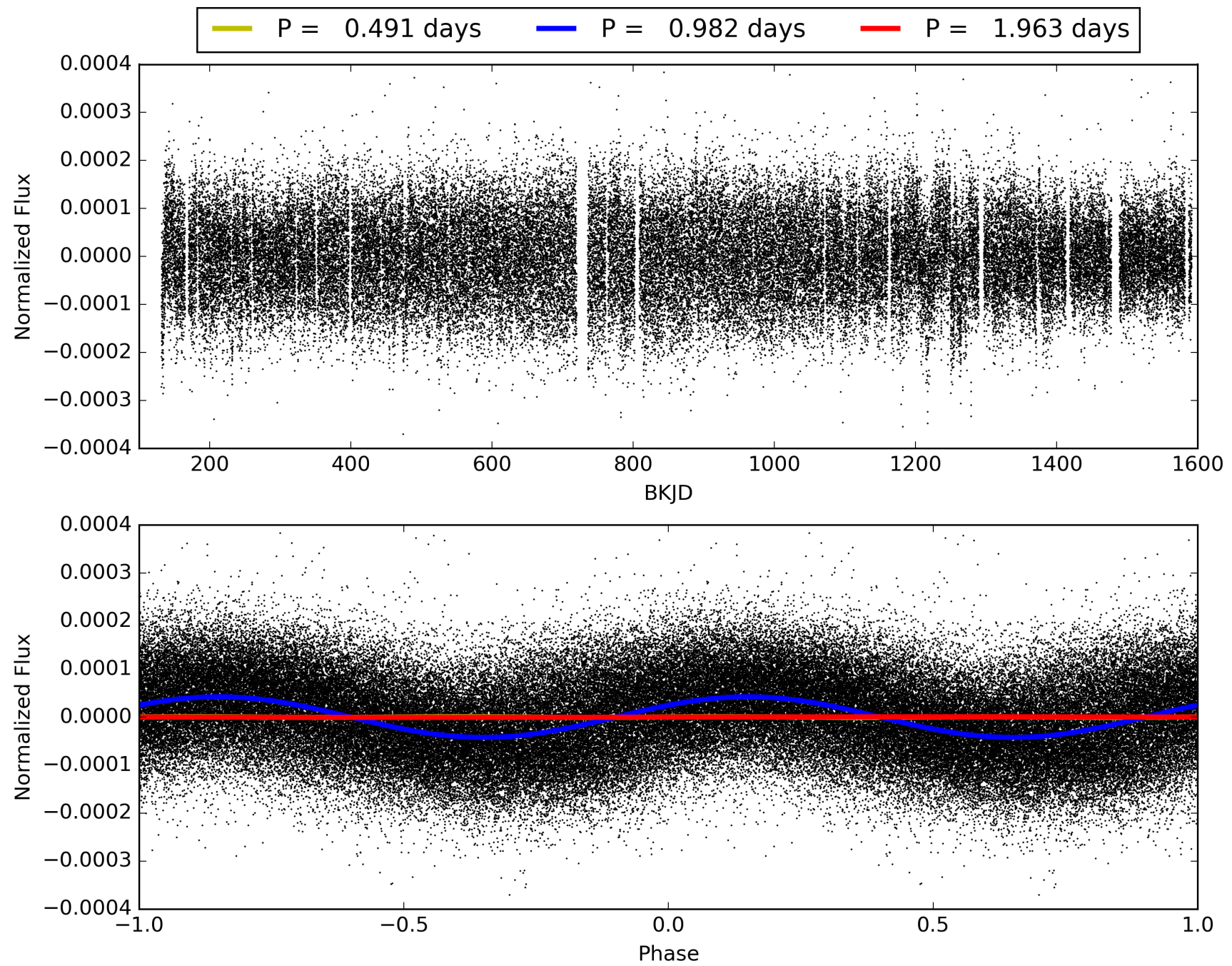
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008693545-01, PDC Light Curves



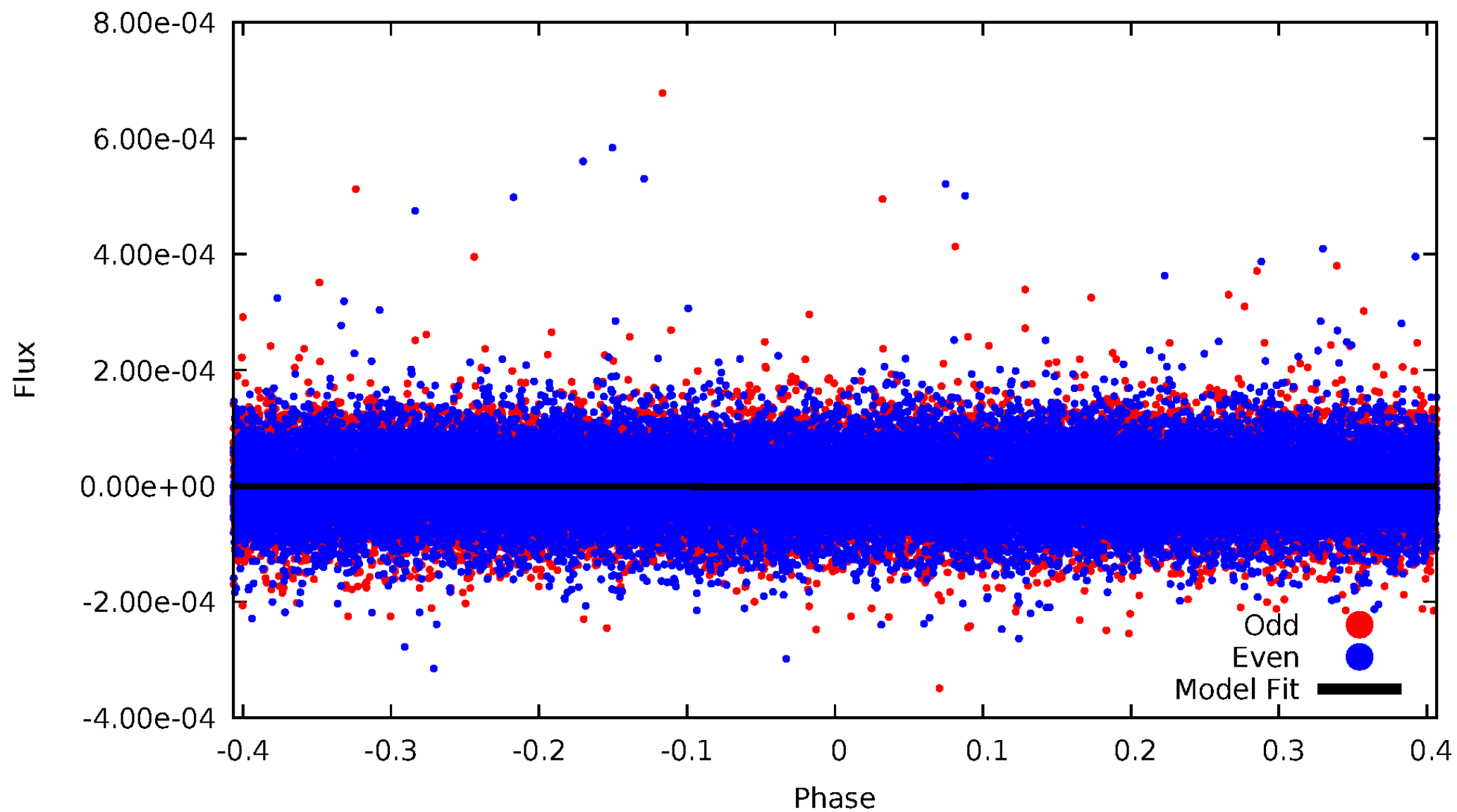


TCE 008693545-01



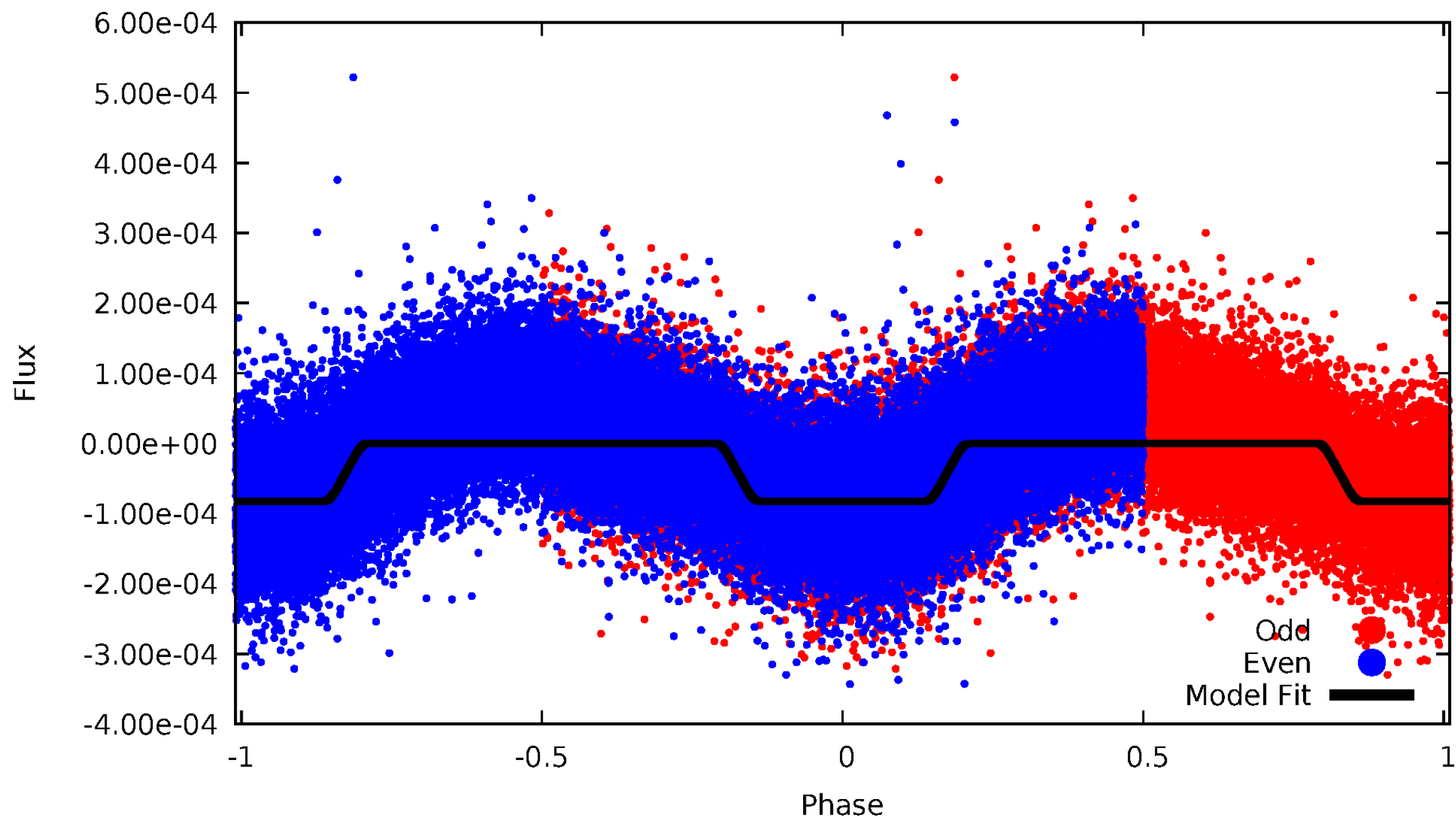
# DV Odd/Even

TCE 008693545-01



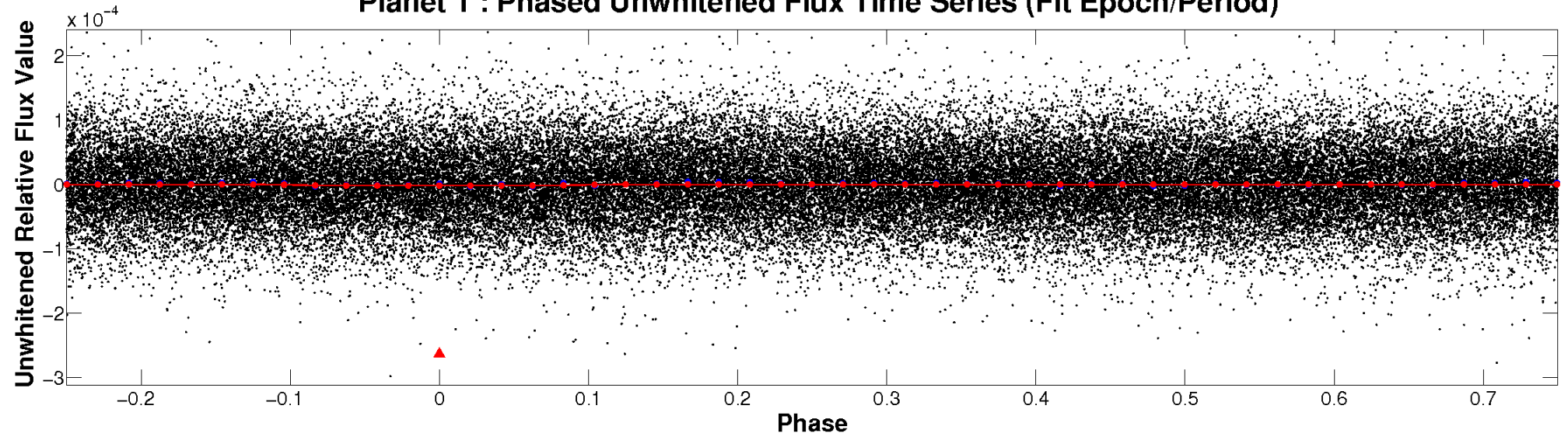
# ALT Odd/Even

TCE 008693545-01

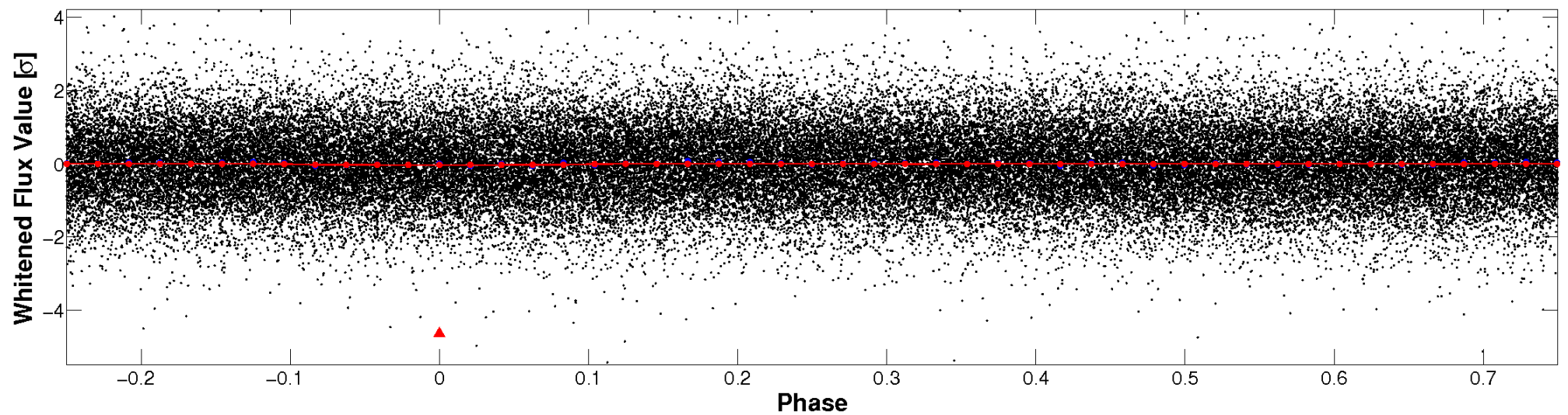


# Non-Whitened Vs. Whitened Light Curve

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



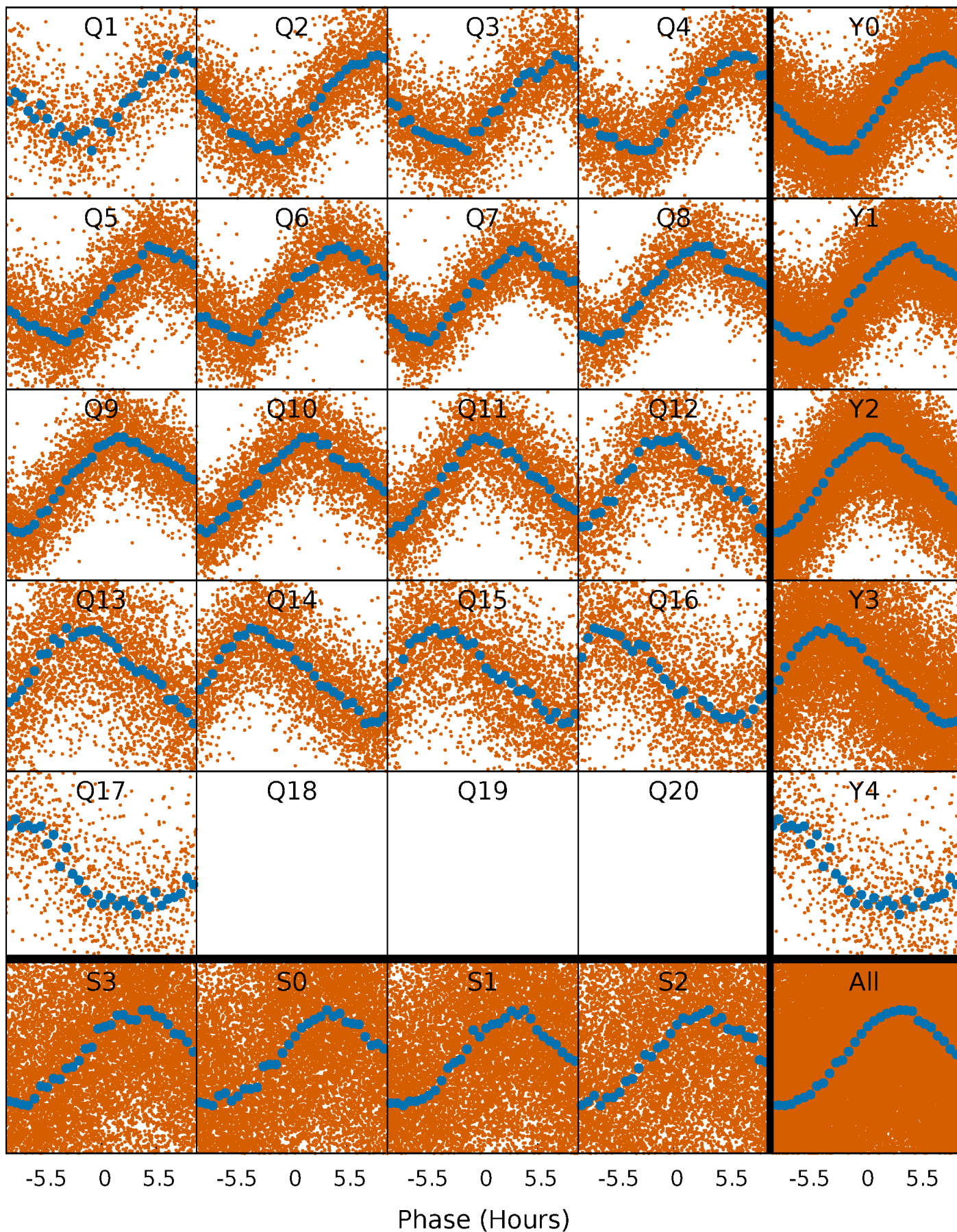
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

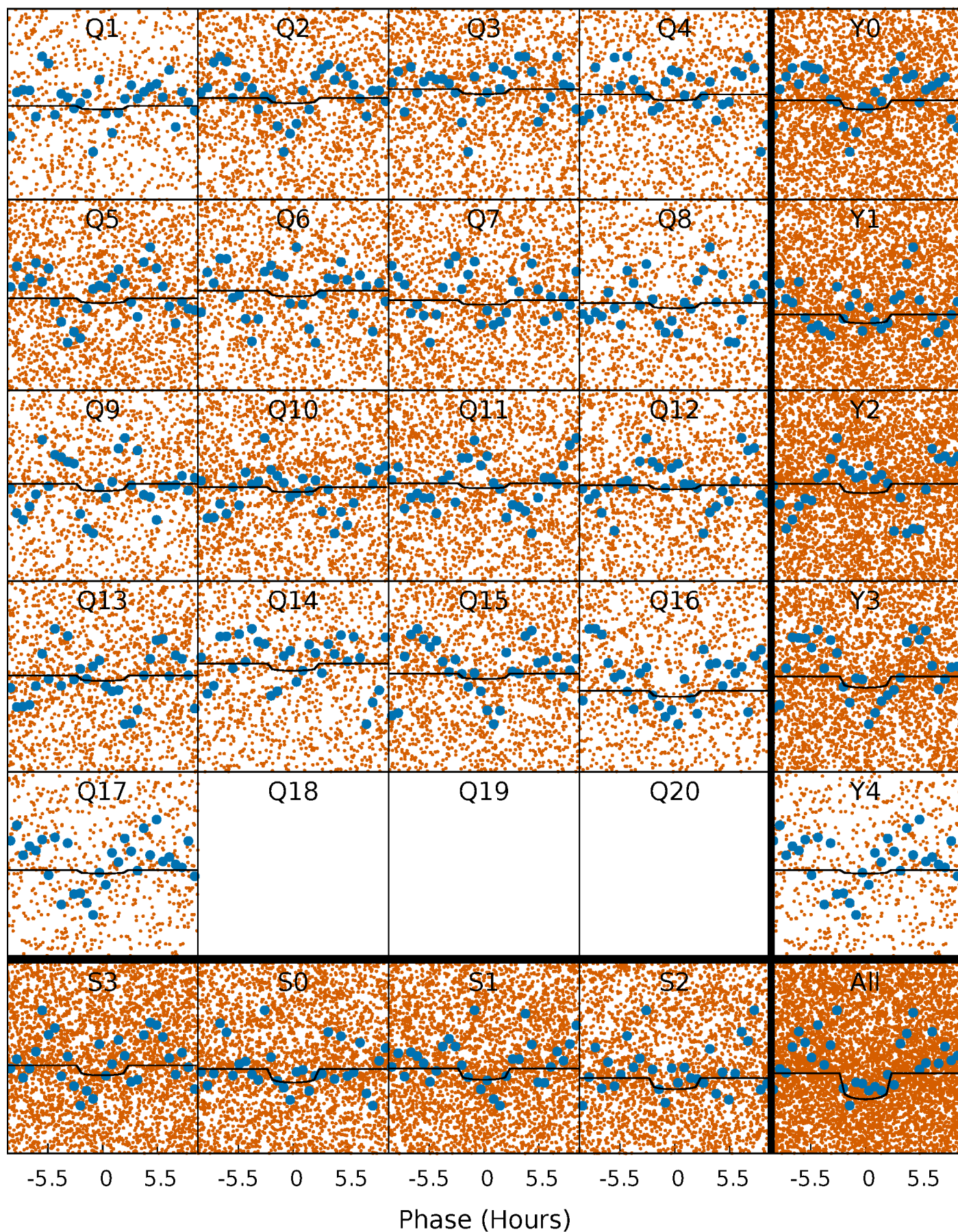
TCE 008693545-01   P= 0.981508 Days    $T_0=131.665040$  (BKJD)





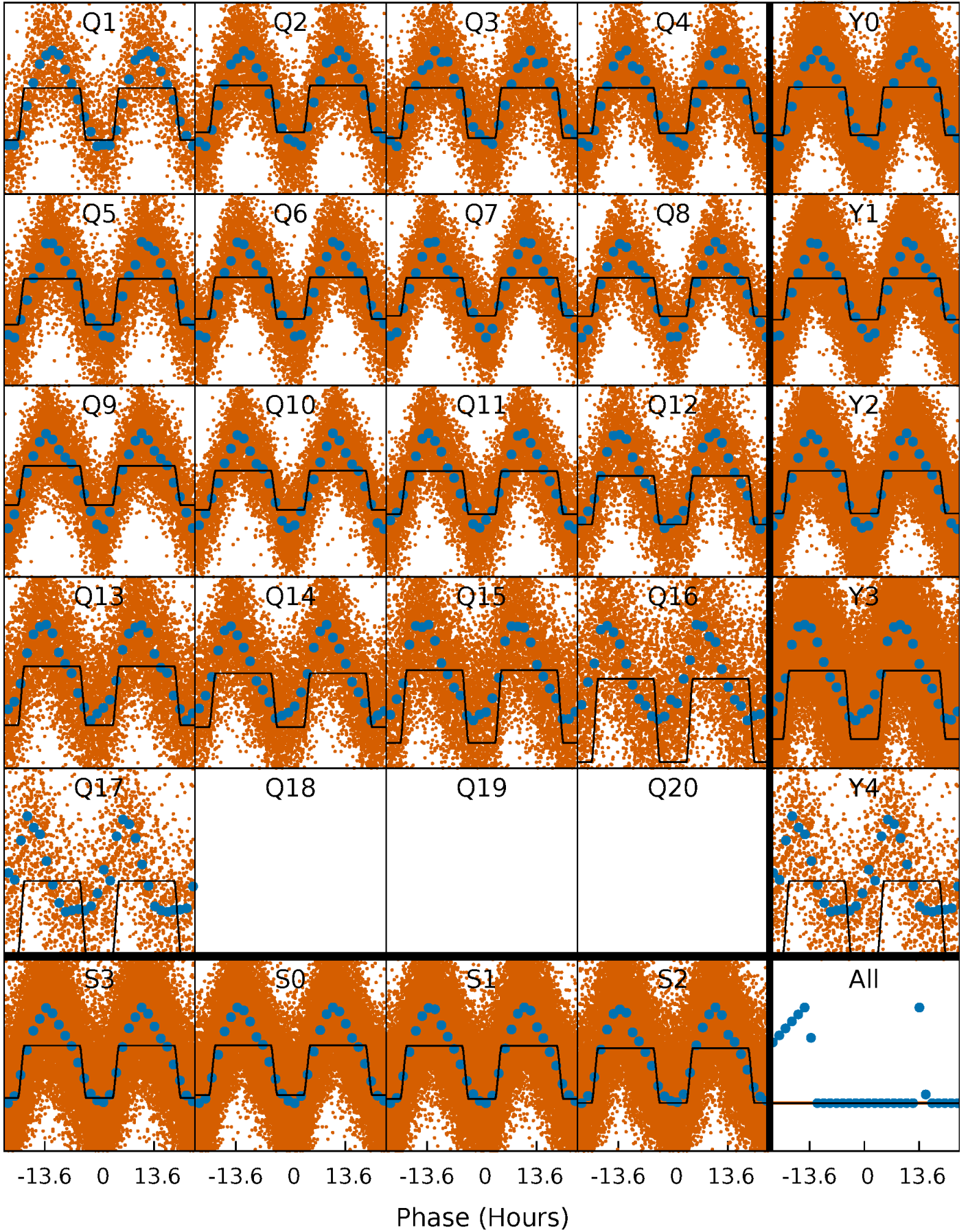
# DV Quarter-Phased Transit Curves

TCE 008693545-01 P= 0.981508 Days  $T_0=131.665040$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 008693545-01   P= 0.981185 Days    $T_0=131.545647$  (BKJD)

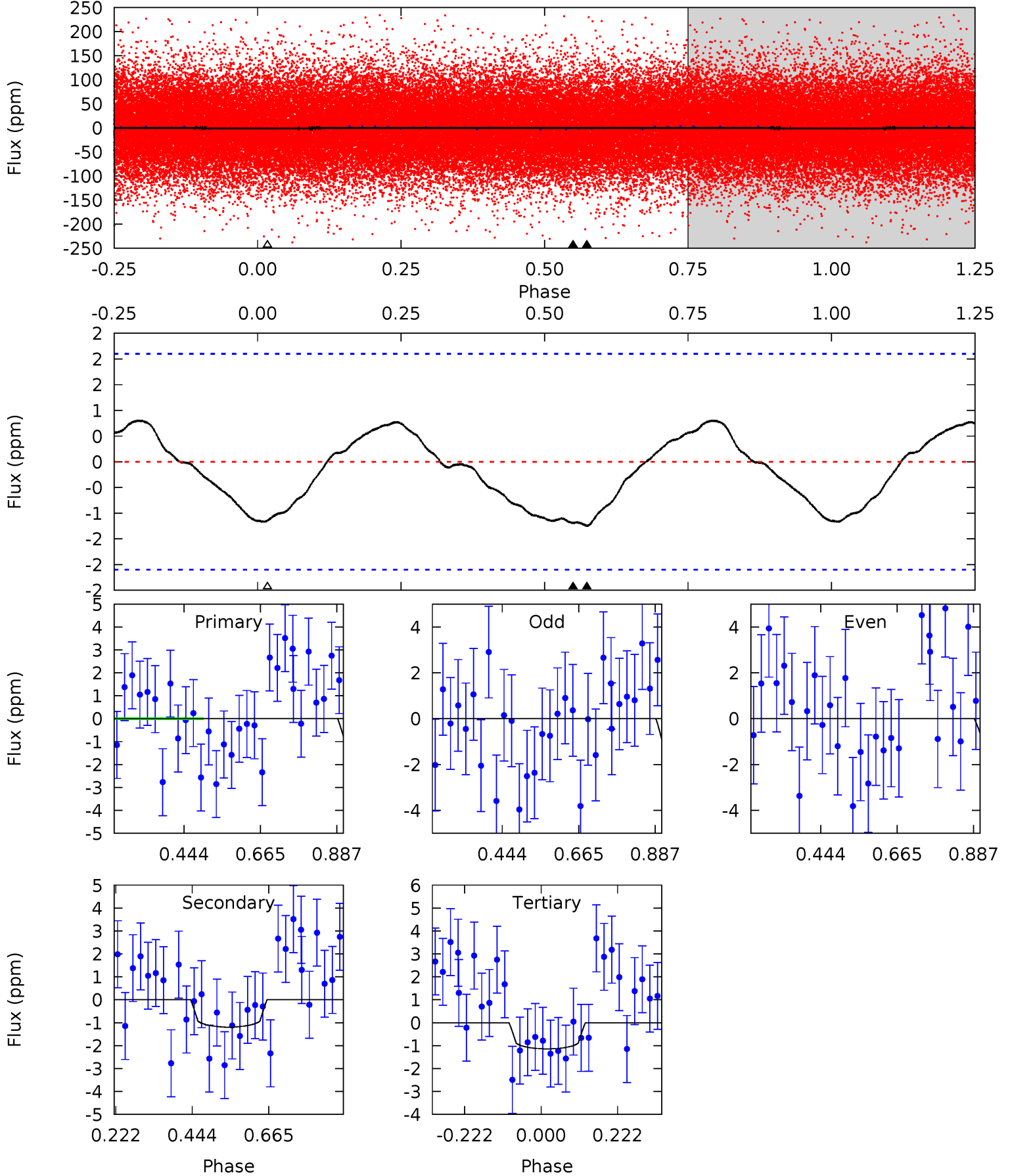




# DV Model-Shift Uniqueness Test

008693545-01, P = 0.981508 Days, E = 130.683532 Days

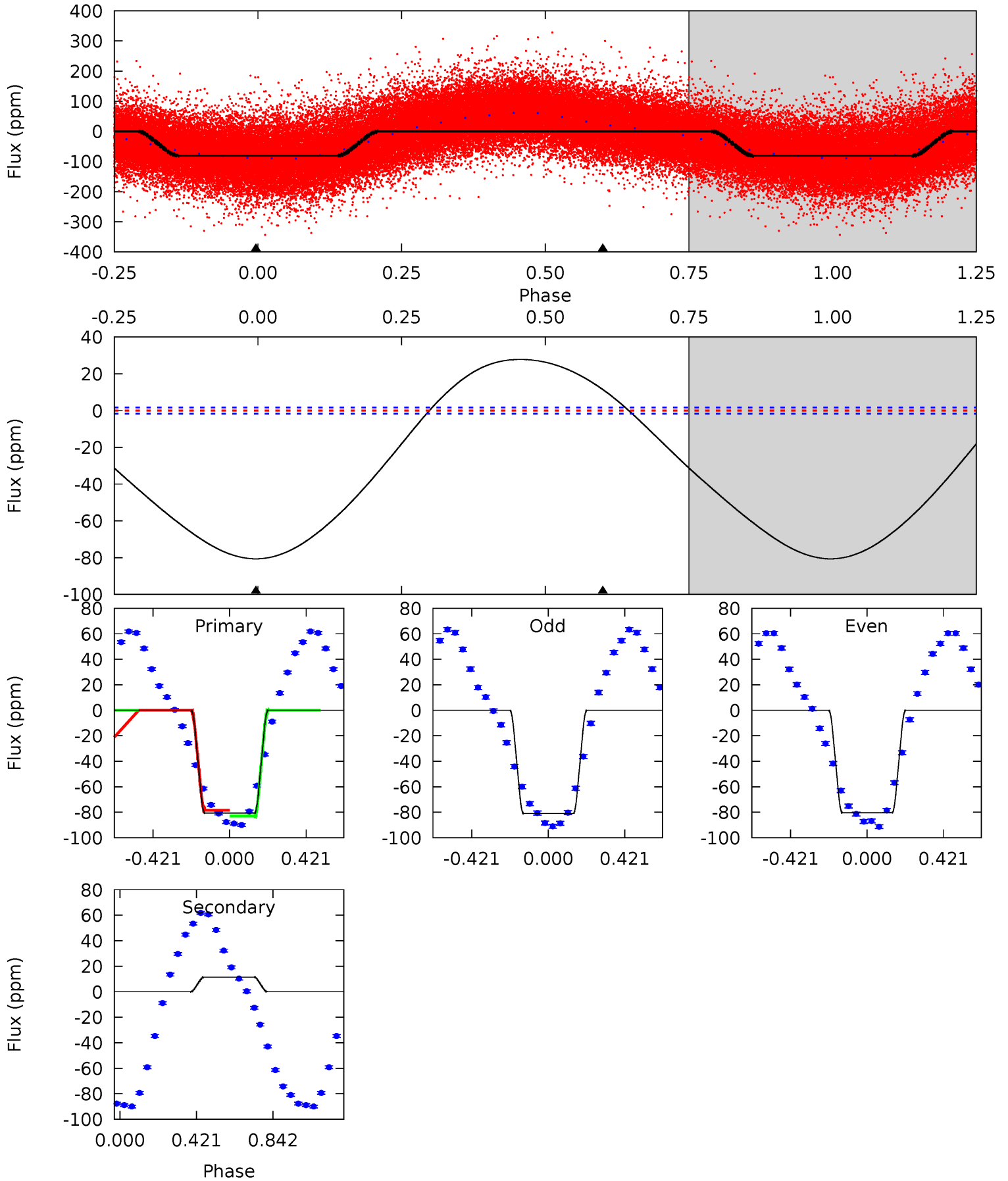
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.61	2.50	2.40	0	4.39	1.22	1.29	0.22	2.61	0.10	2.50	0.46	0.84	0.39	0.03



# Alt Model-Shift Uniqueness Test

008693545-01, P = 0.981185 Days, E = 130.564462 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
204.0	-29.0	0	0	4.25	0.80	25.6	204.0	204.0	-29.0	-29.0	0.68	0.95	0.26	5.99





### Stellar Parameters For KIC 008693545

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$8262^{+200}_{-372}$	$3.741^{+0.432}_{-0.108}$	$-0.180^{+0.250}_{-0.350}$	$3.168^{+0.774}_{-1.438}$	$2.016^{+0.372}_{-0.496}$	$0.089^{+0.363}_{-0.035}$
	+2%/-5%	+12%/-3%	+139%/-194%	+24%/-45%	+18%/-25%	+407%/-39%
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 008693545-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-1 \pm 0$	$0.45^{+0.26}_{-0.24}$	$5591^{+444}_{-655}$	$6555^{+4026}_{-1820}$	$1.882^{+6.286}_{-1.249}$
Alt.	$11 \pm 0$	$2.96^{+0.59}_{-0.73}$	$5587^{+414}_{-680}$	$-5551^{+255}_{-262}$	$-0.429^{+0.111}_{-0.282}$

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

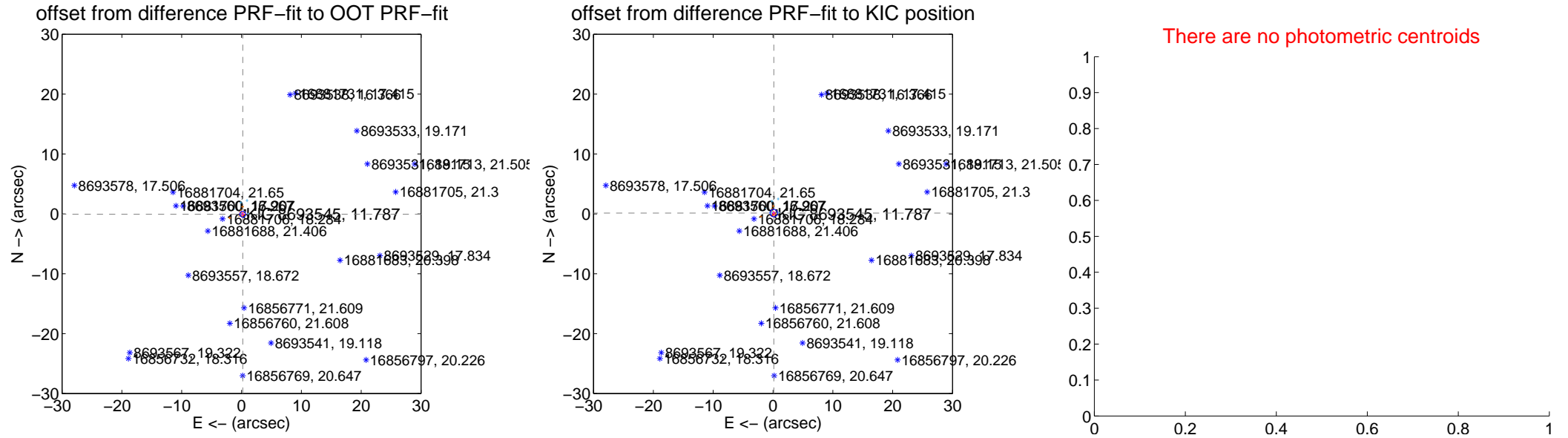
## DV Centroid Data

Supplemental centroid analysis for 008693545-01. **Kepler magnitude: 11.79.** Transit SNR 2.82

There are 7 quarters with good PRF difference image offsets

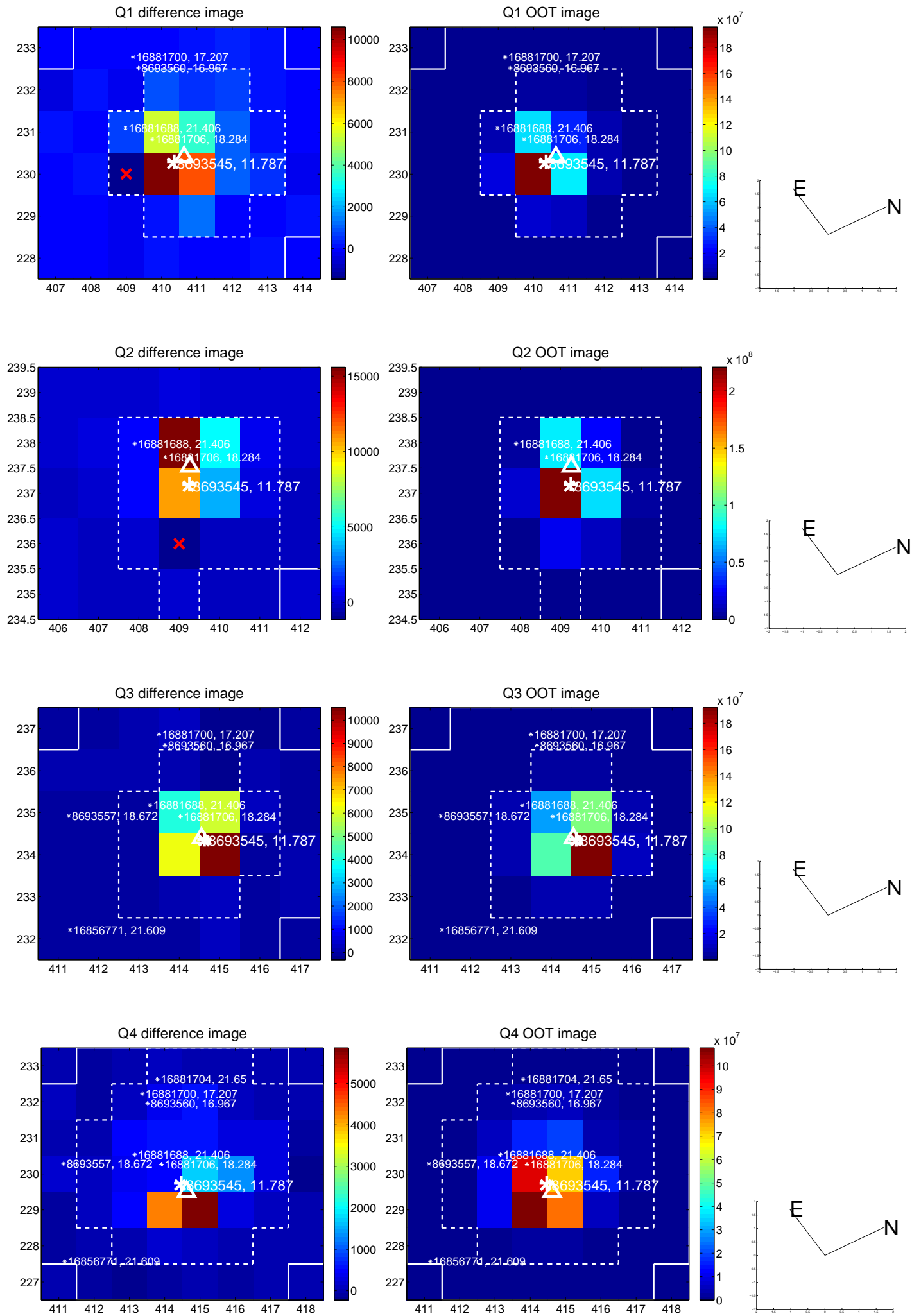
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.217 \pm 0.164$	1.32	$-0.208 \pm 0.178$	$-0.060 \pm 0.218$
PRF-fit source offset from KIC position	$0.190 \pm 0.210$	0.91	$-0.132 \pm 0.187$	$0.137 \pm 0.204$
photometric centroid source offset	—	—	—	—

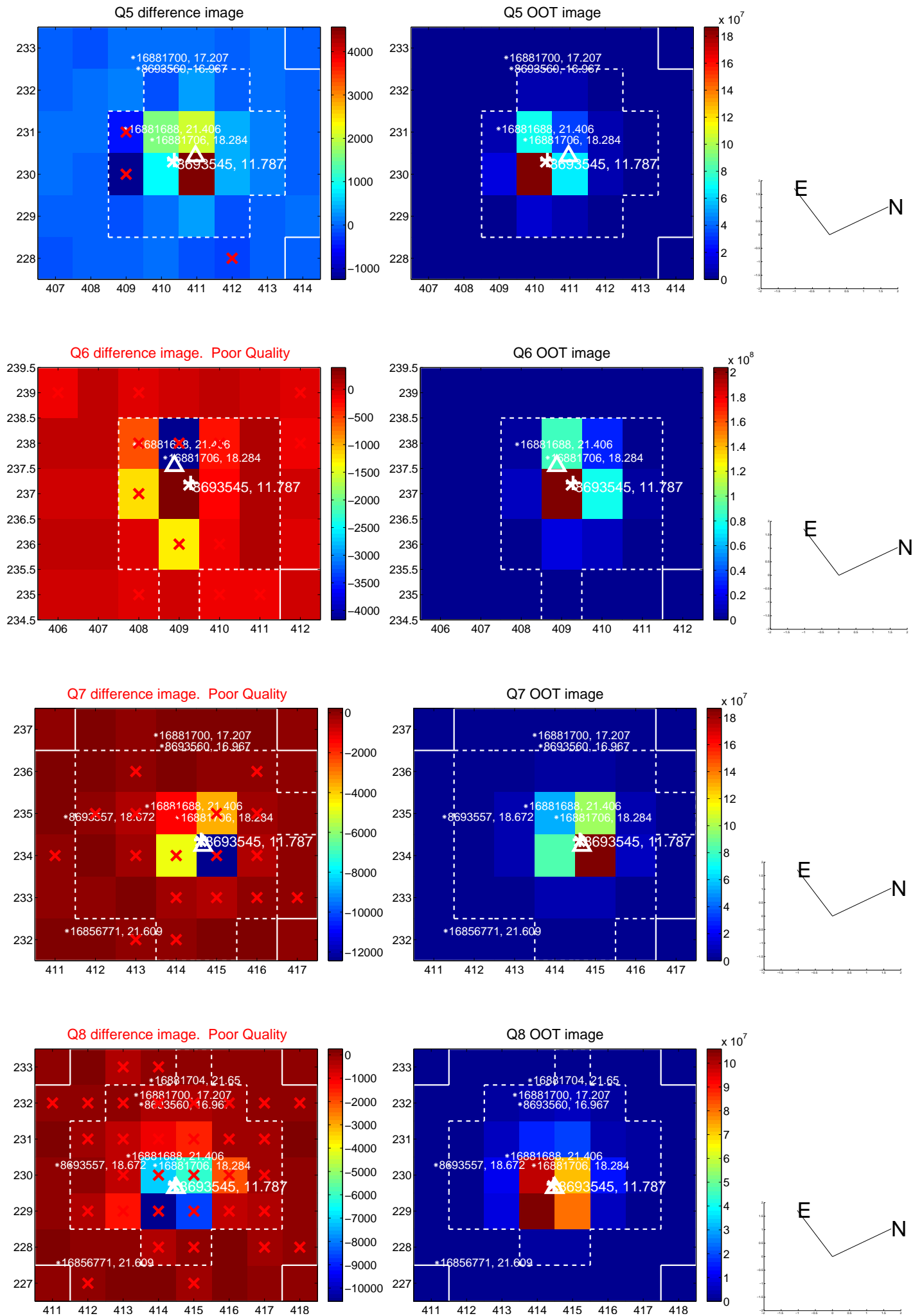


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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

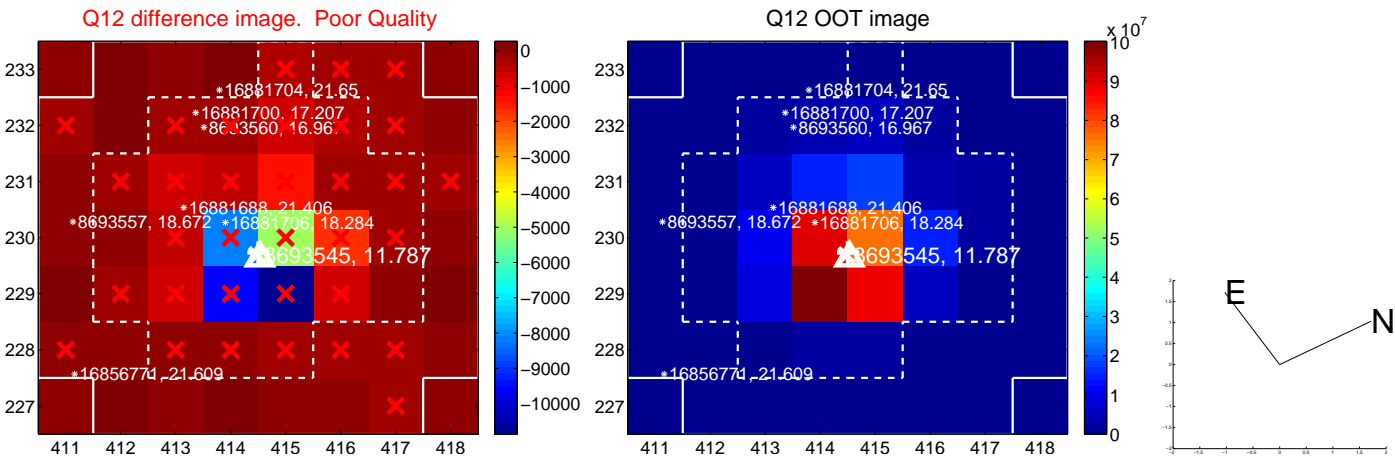
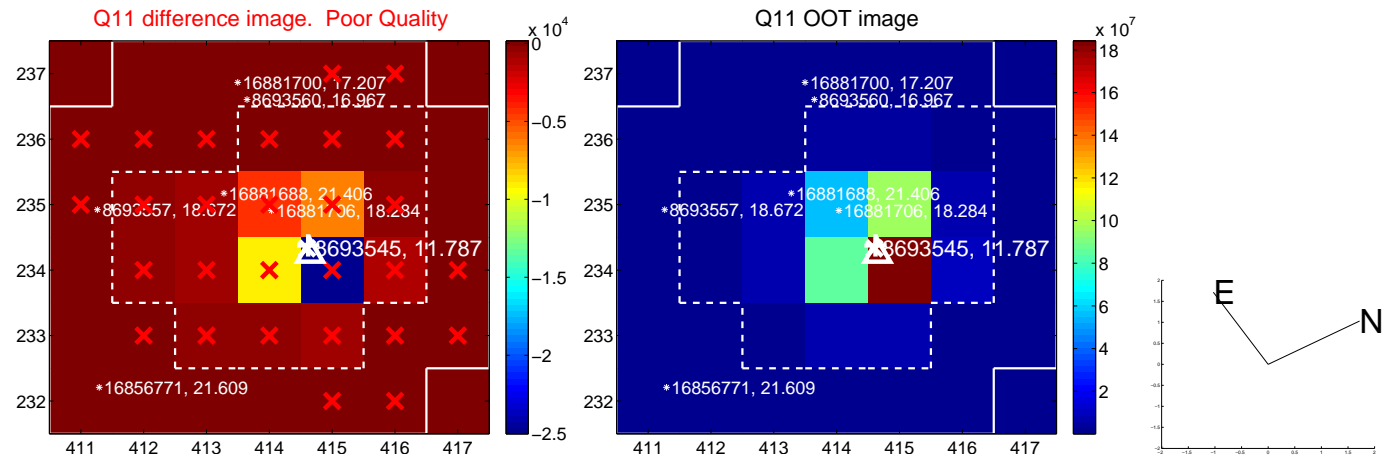
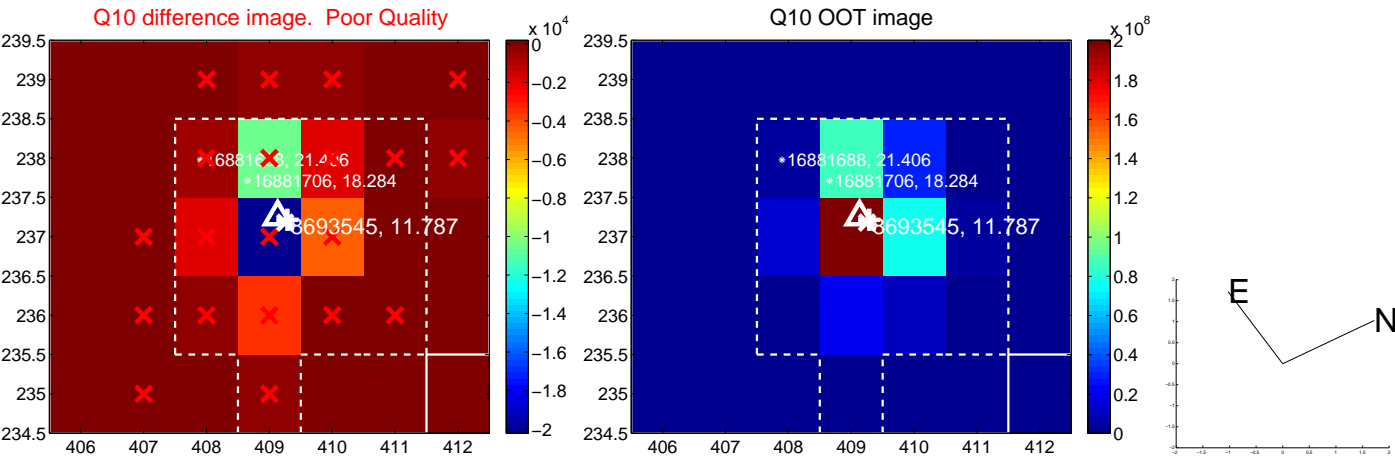
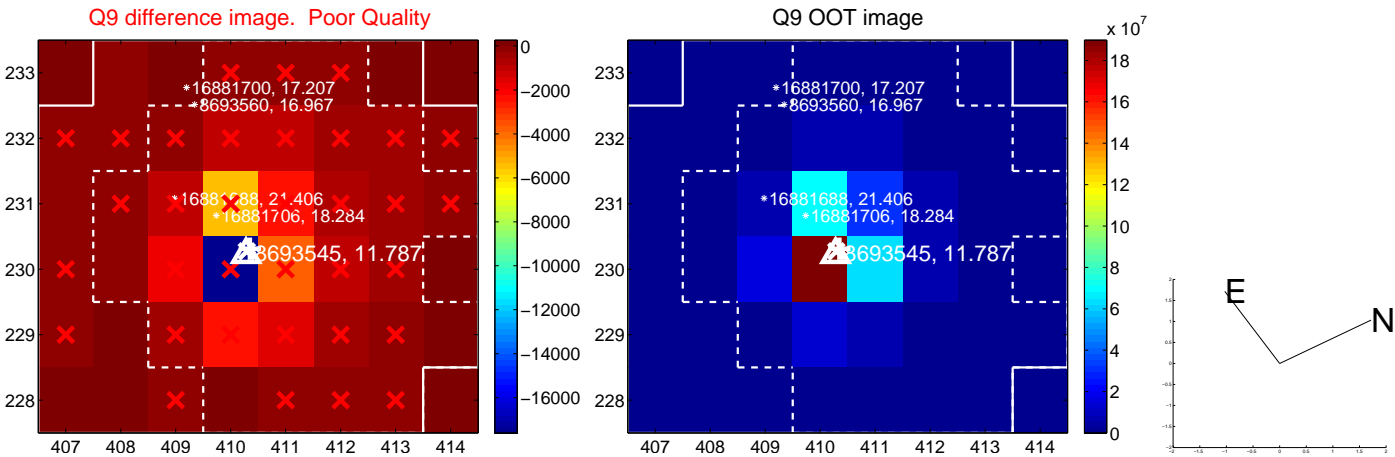


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

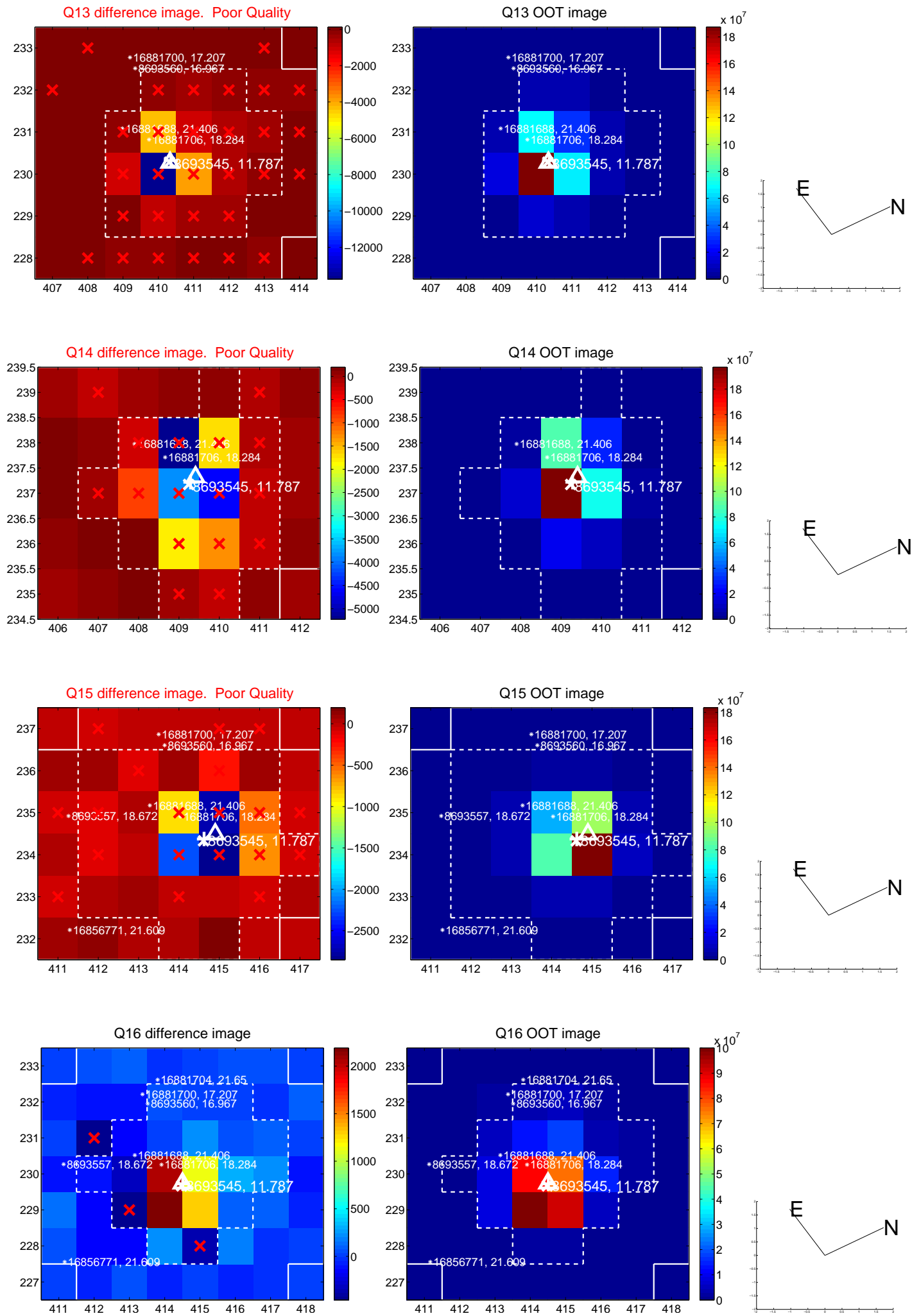




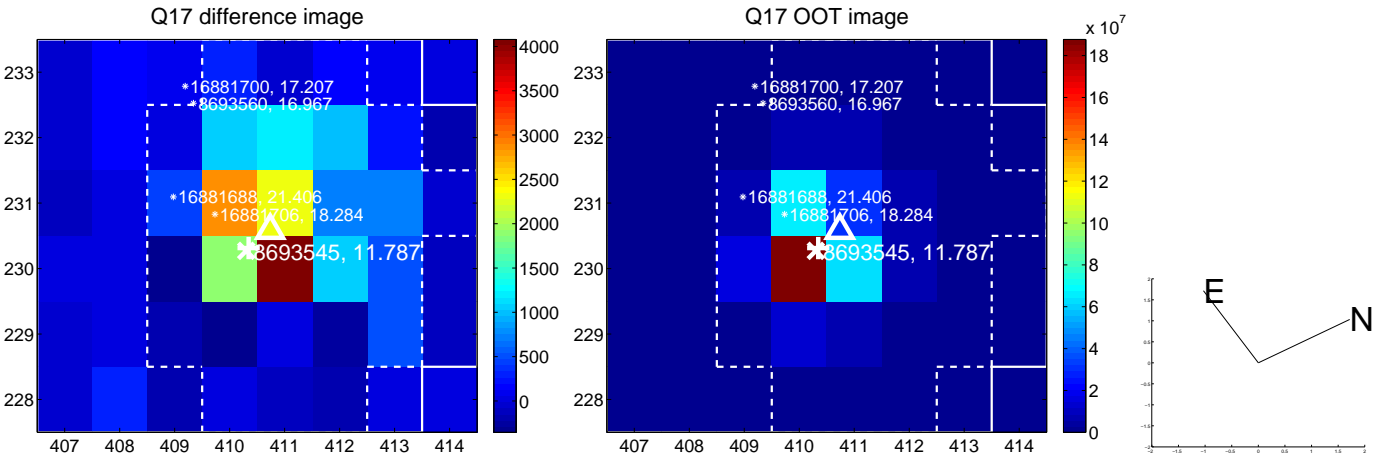
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white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

