

# KIC 006190535

## 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)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
006190535-01	OBS	7769.01	3.652759	134.798005	130.8	1.645	7.2	6.5	0.83	5213	1.14	250.89

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006190535-01	OBS	FP	0.08	1	0	0	0	MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

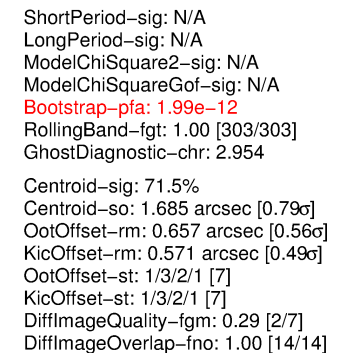
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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.

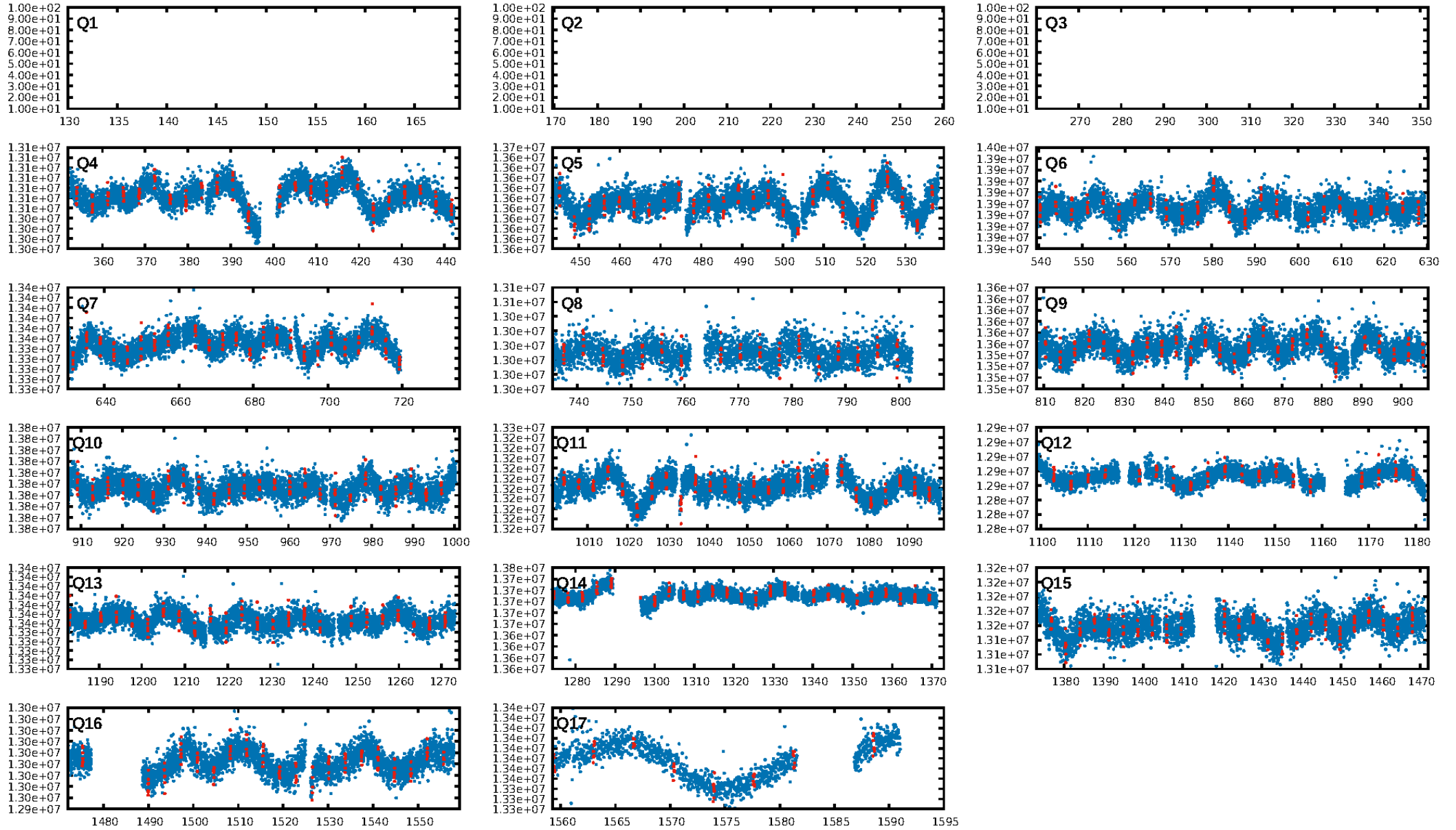
## Ephemeris Match Information For 006190535-01

No Significant Match Found

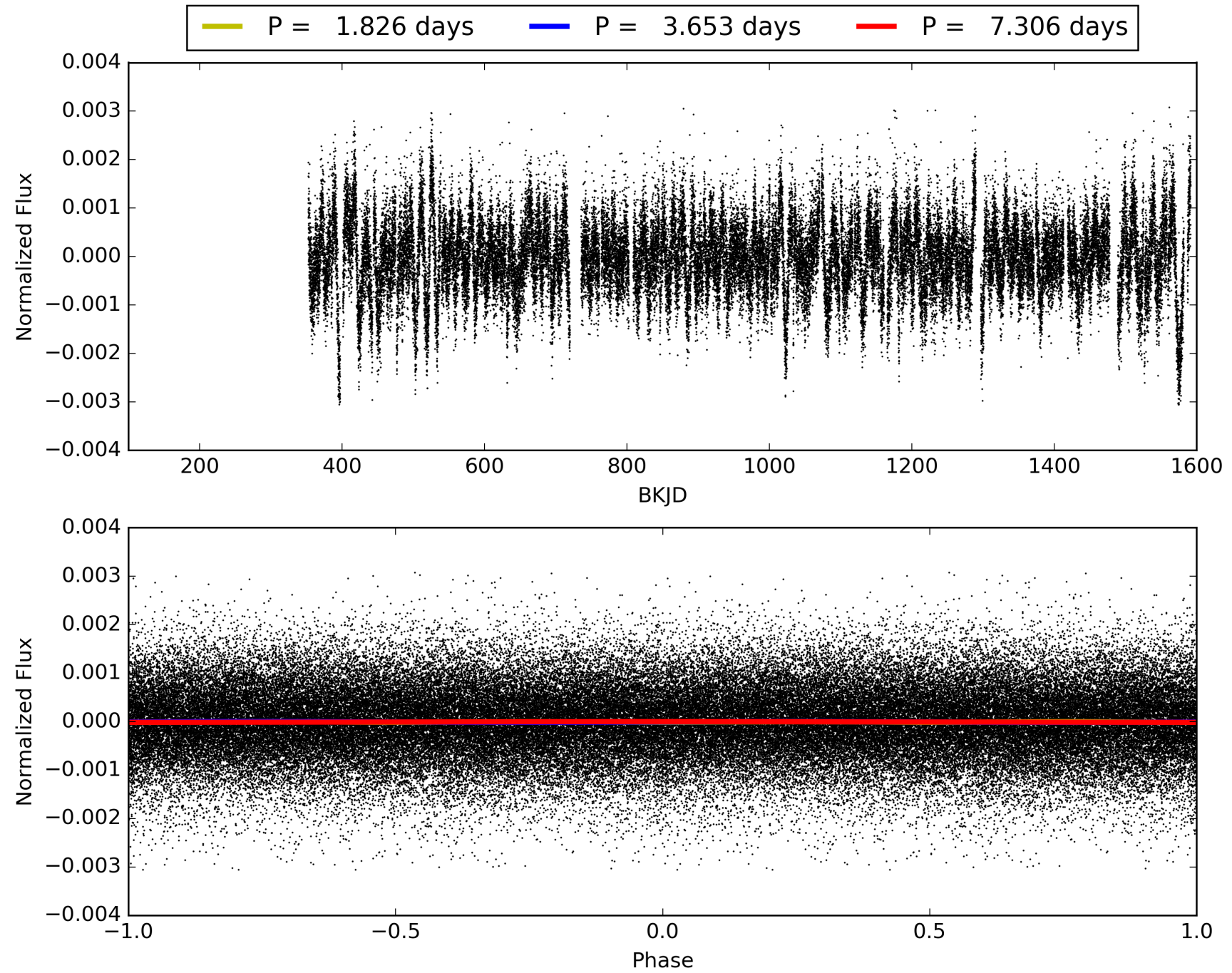
## KIC: 6190535    Candidate: 1 of 1    Period: 3.653 d



# TCE 006190535-01, PDC Light Curves

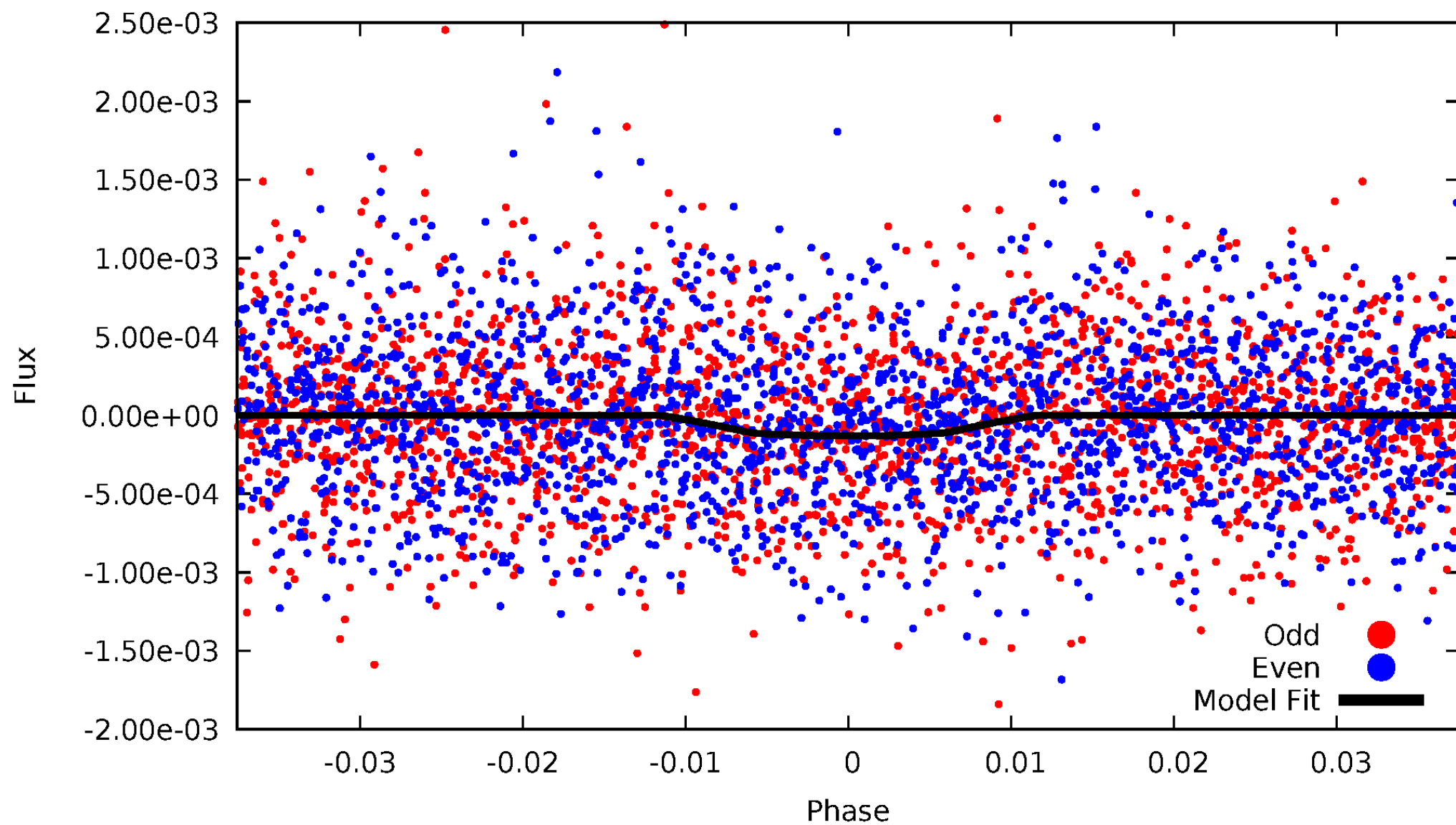


TCE 006190535-01



# DV Odd/Even

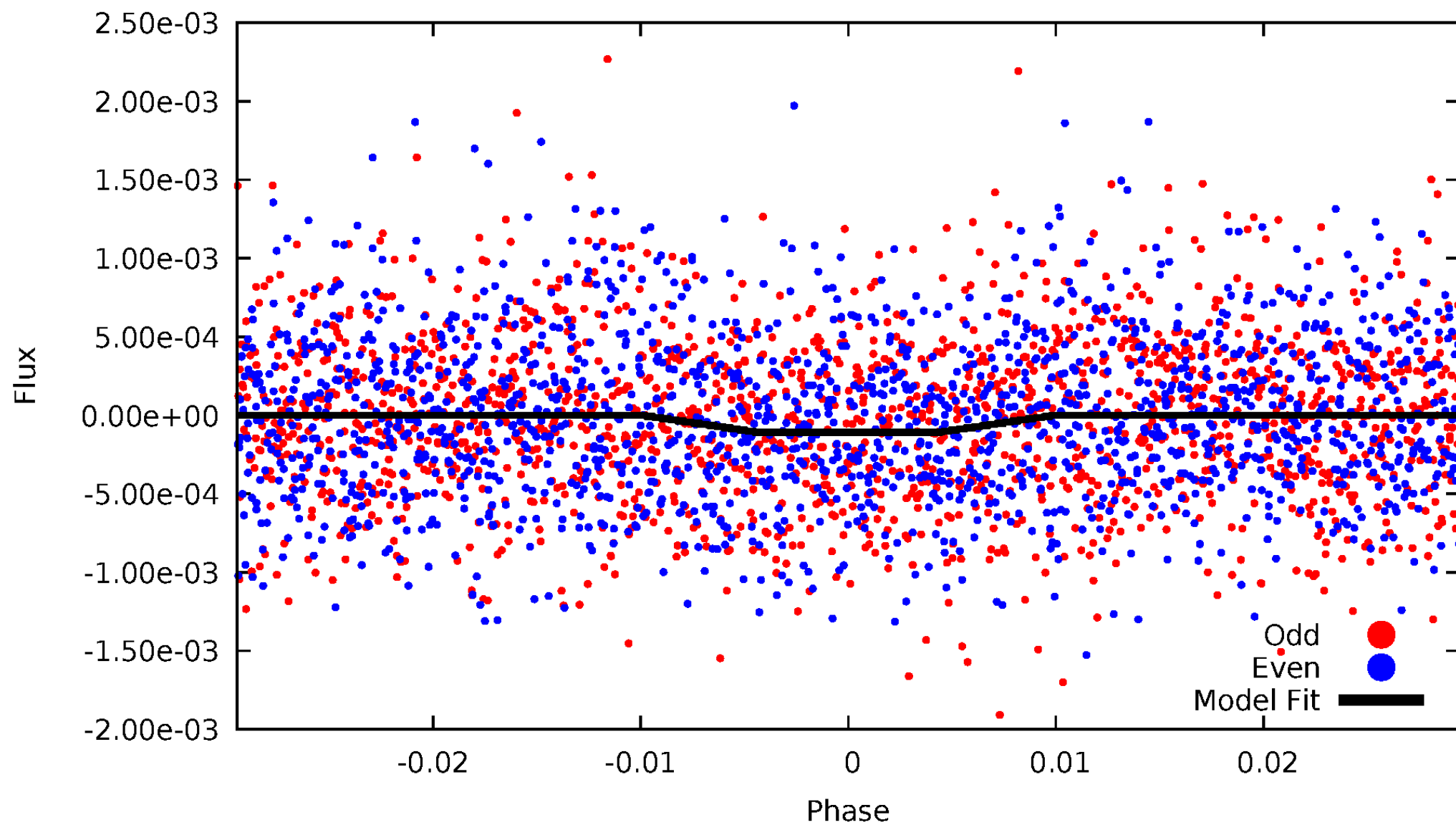
TCE 006190535-01



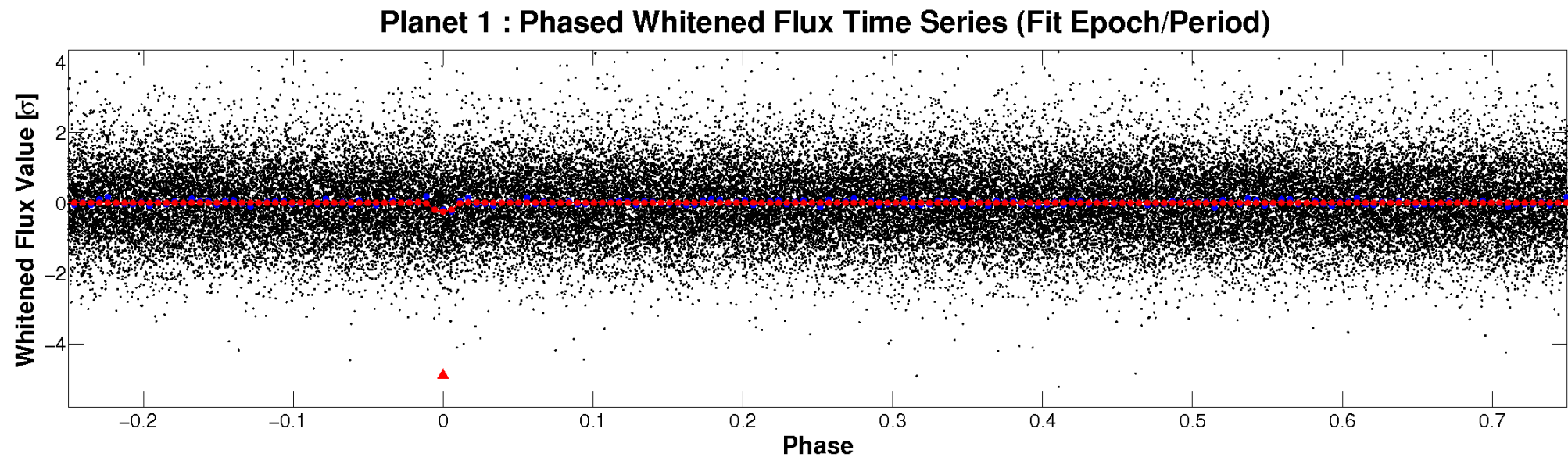
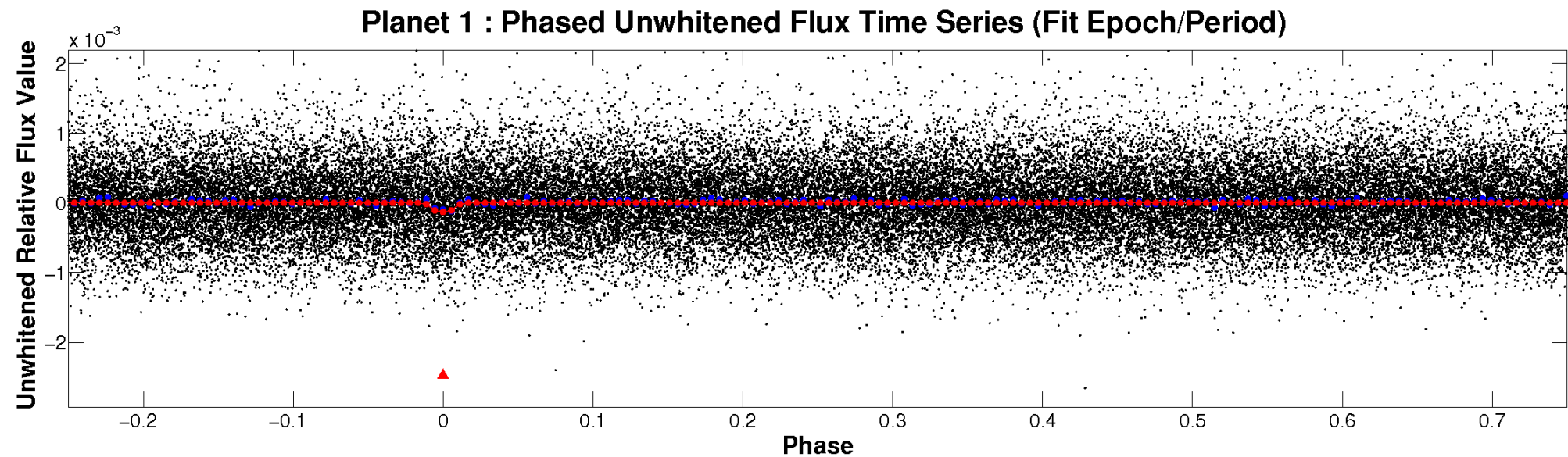


# ALT Odd/Even

TCE 006190535-01

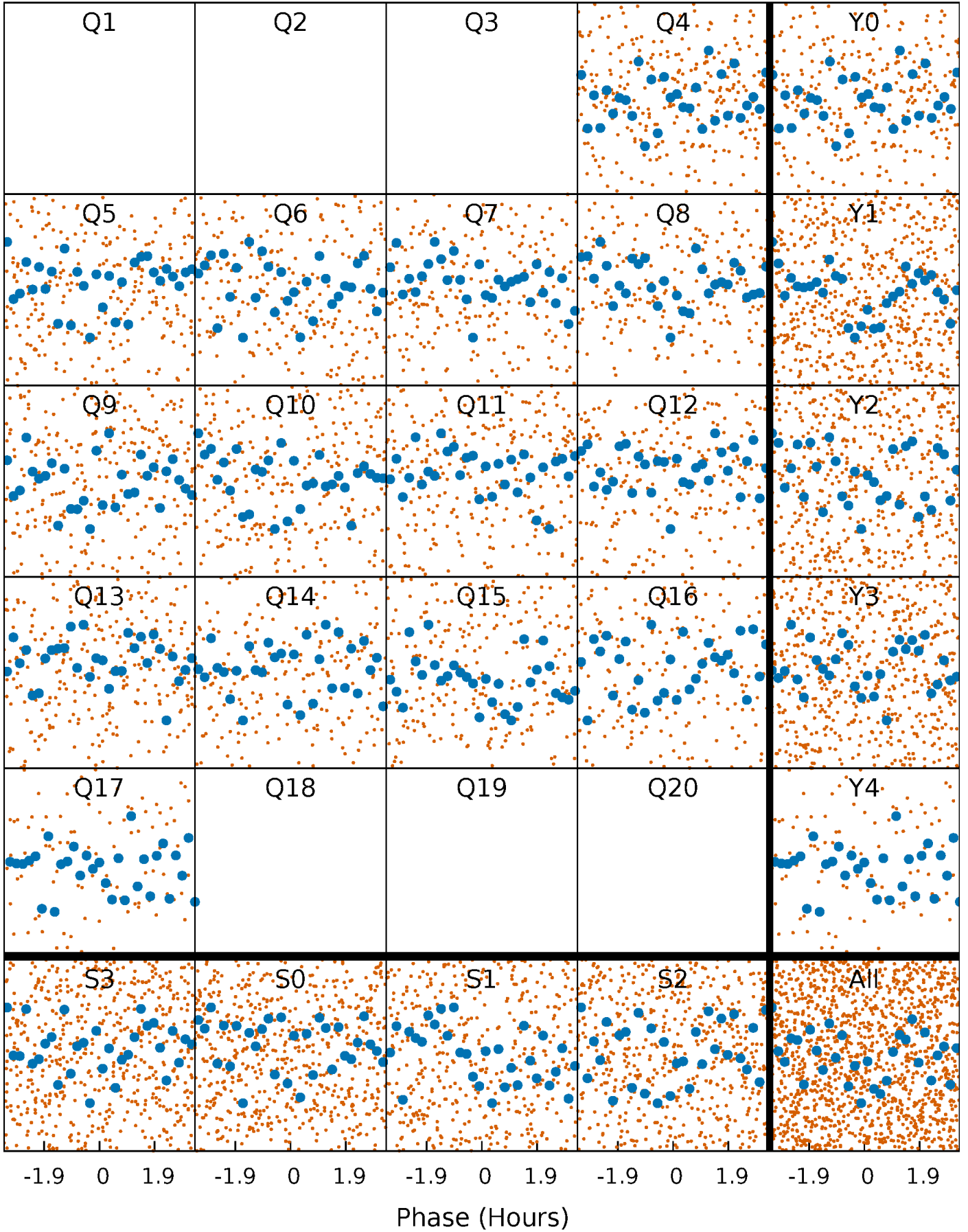


# Non-Whitened Vs. Whitened Light Curve



# PDC Quarter-Phased Transit Curves

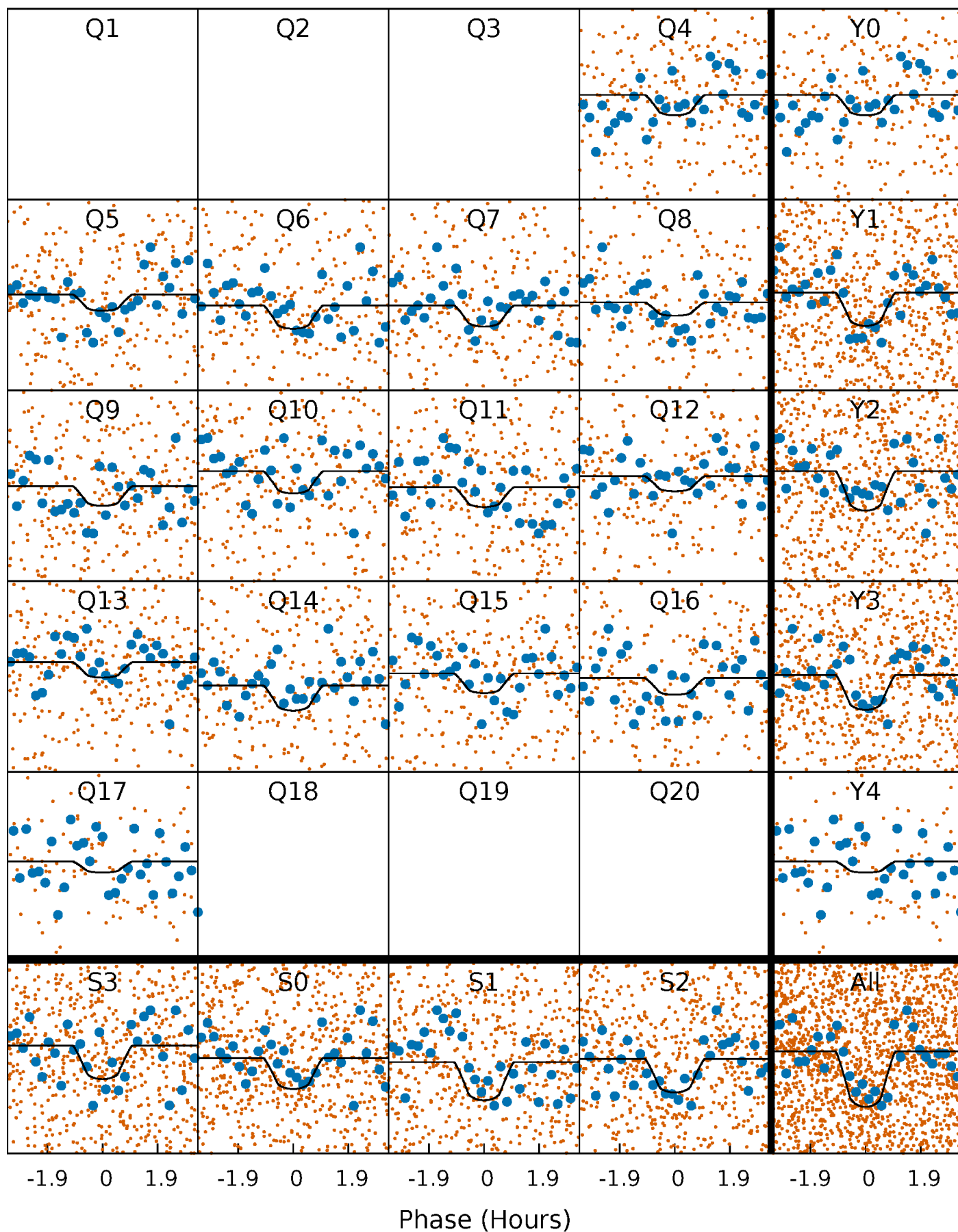
TCE 006190535-01   P= 3.652759 Days    $T_0=134.798005$  (BKJD)





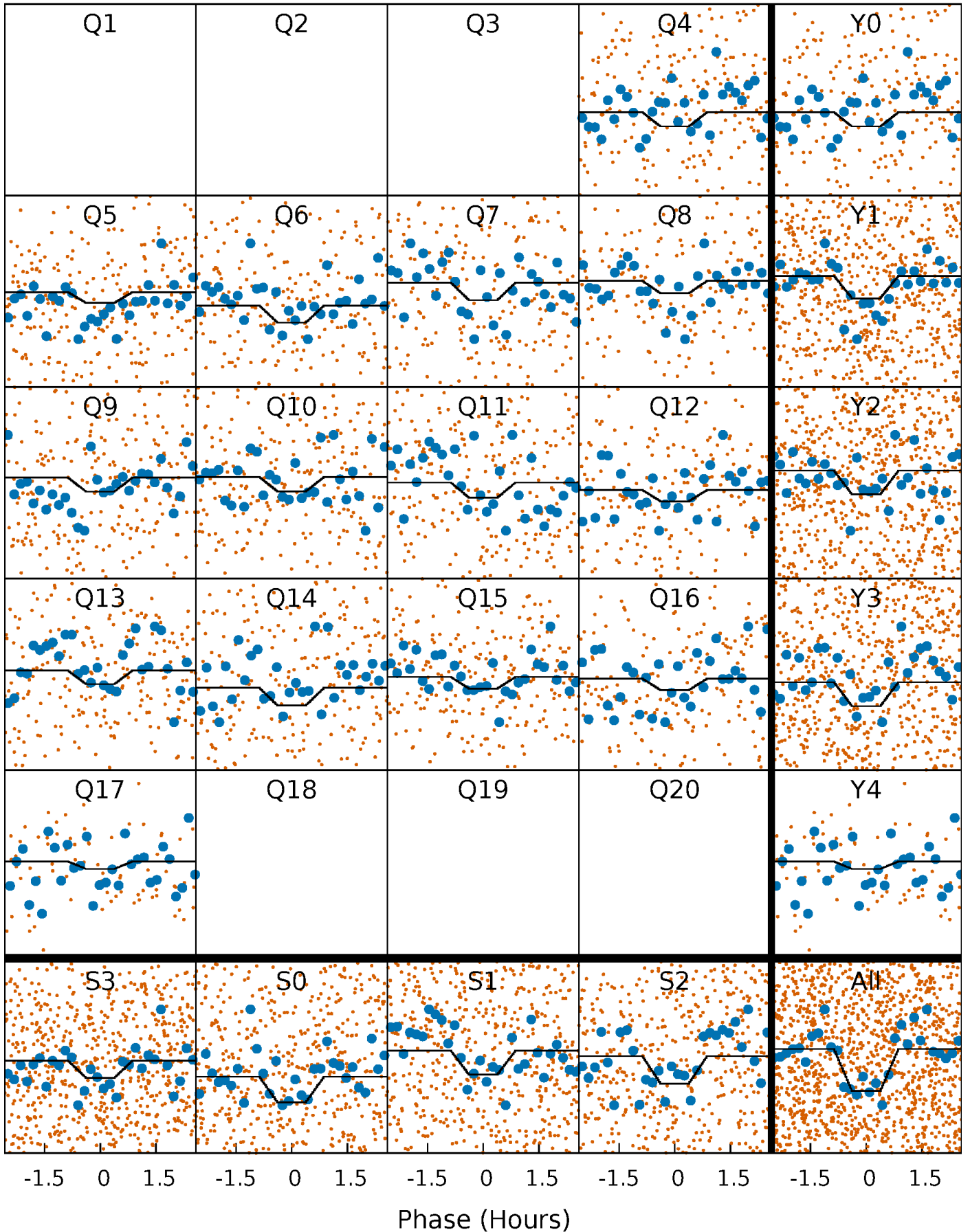
# DV Quarter-Phased Transit Curves

TCE 006190535-01 P= 3.652759 Days  $T_0=134.798005$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

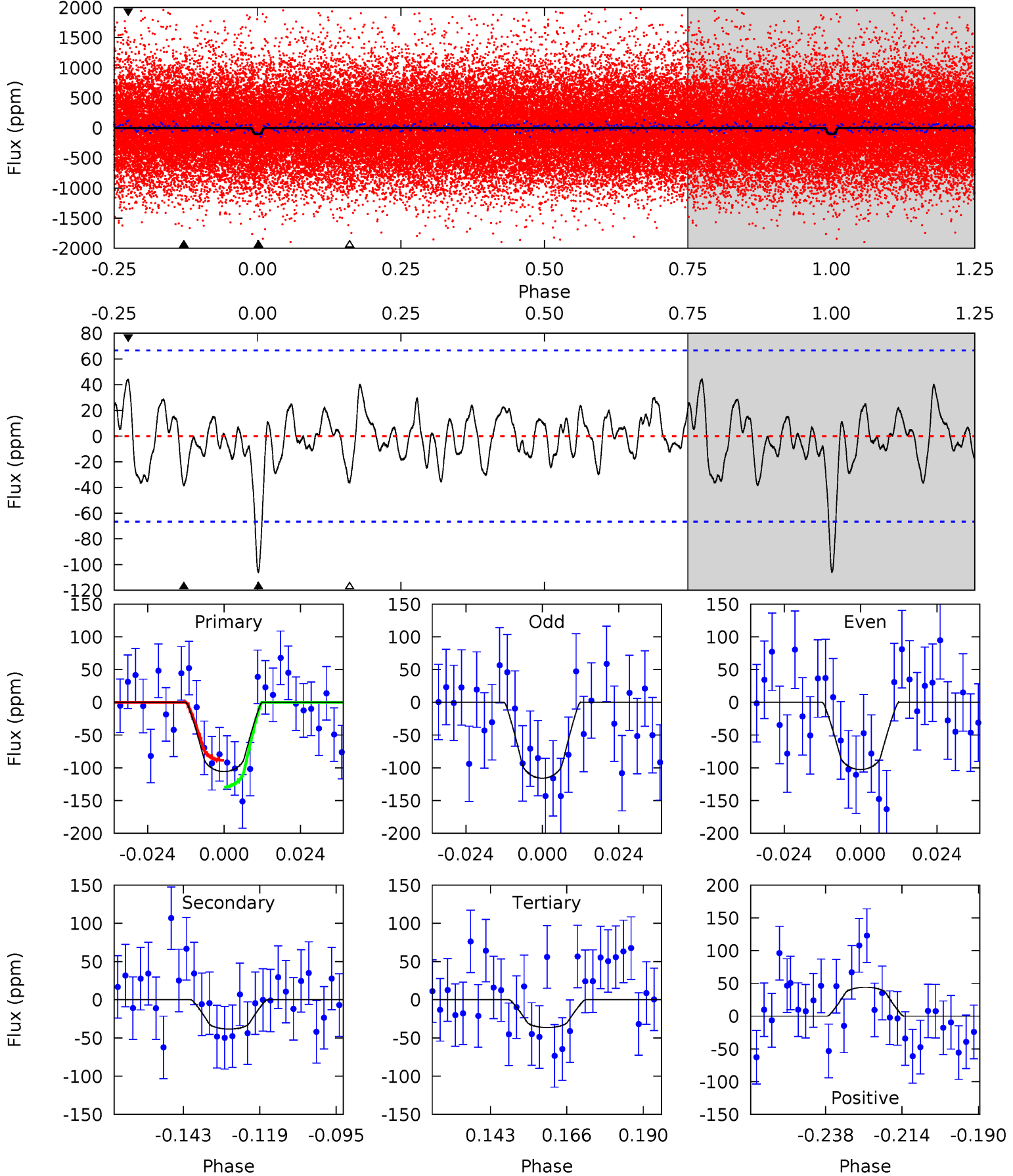
TCE 006190535-01 P= 3.652799 Days  $T_0=134.795068$  (BKJD)



# DV Model-Shift Uniqueness Test

006190535-01, P = 3.652759 Days, E = 134.798005 Days

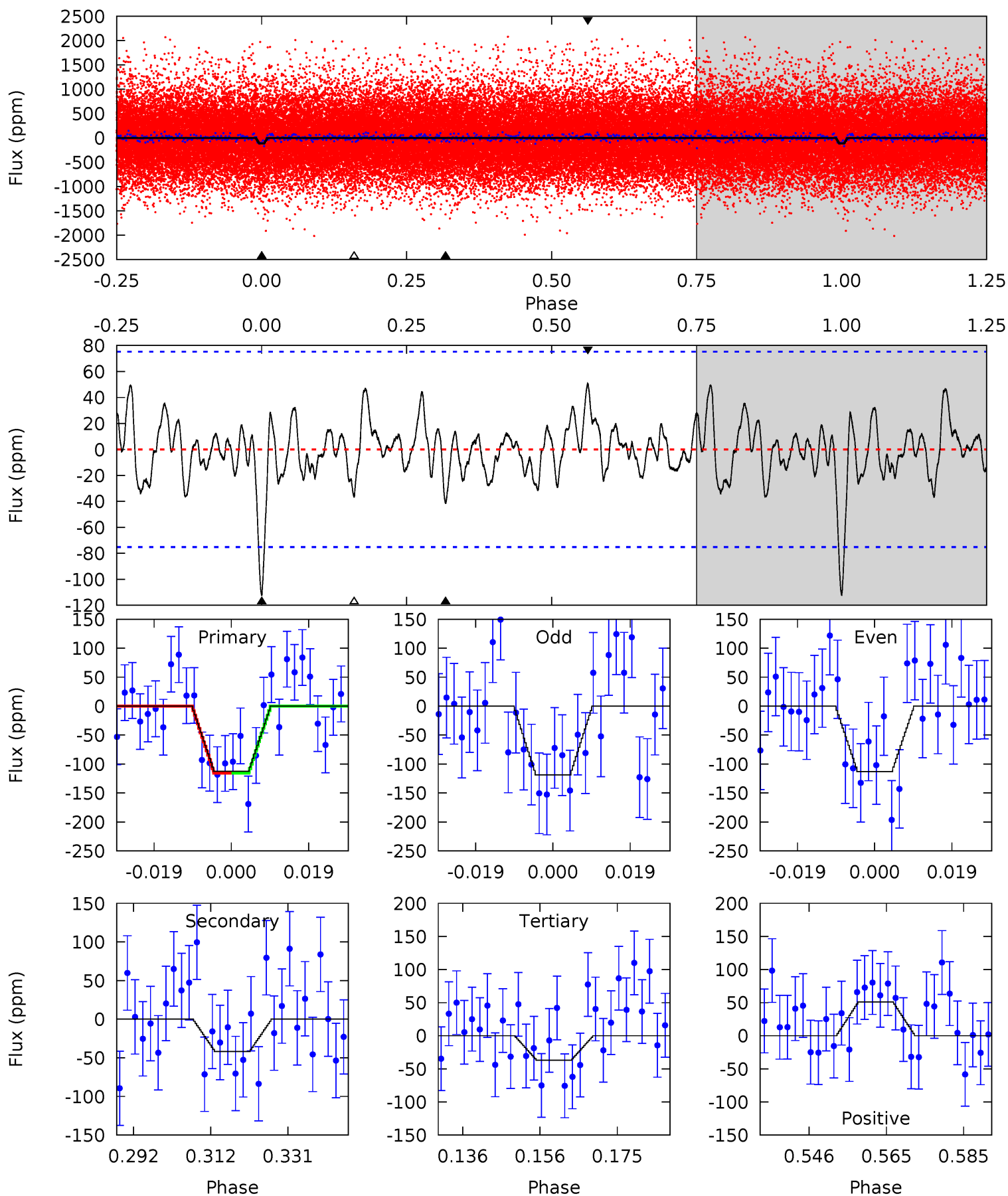
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.71	2.79	2.65	3.21	4.86	2.26	1.17	5.06	4.50	0.14	-0.42	0.49	0.91	0.29	1.49



# Alt Model-Shift Uniqueness Test

006190535-01, P = 3.652799 Days, E = 134.795068 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
7.33	2.72	2.41	3.33	4.90	2.34	1.12	4.92	4.00	0.31	-0.61	0.19	0.92	0.31	0.01



### Stellar Parameters For KIC 006190535

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$5213^{+184}_{-184}$	$4.489^{+0.100}_{-0.100}$	$-0.100^{+0.300}_{-0.300}$	$0.831^{+0.112}_{-0.102}$	$0.777^{+0.103}_{-0.060}$	$1.905^{+0.806}_{-0.564}$
	+4%/-4%	+2%/-2%	+300%/-300%	+13%/-12%	+13%/-8%	+42%/-30%
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 006190535-01 / KOI 7769.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-38 \pm 14$	$1.49^{+1.18}_{-0.95}$	$1419^{+71}_{-74}$	$3604^{+1639}_{-667}$	$18^{+107}_{-13}$
Alt.	$-42 \pm 15$	$1.35^{+1.22}_{-0.89}$	$1421^{+74}_{-70}$	$3776^{+2009}_{-766}$	$22^{+157}_{-17}$

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



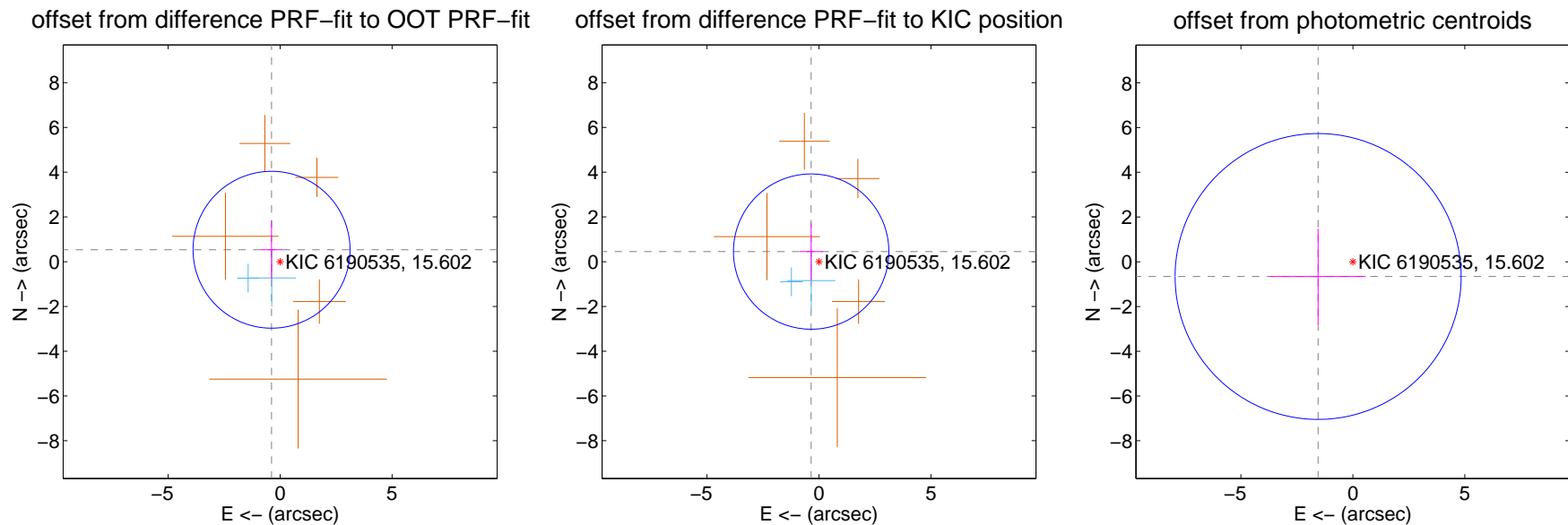
## DV Centroid Data

Supplemental centroid analysis for 006190535-01. Kepler magnitude: 15.60. Transit SNR 6.47

There are 2 quarters with good PRF difference image offsets

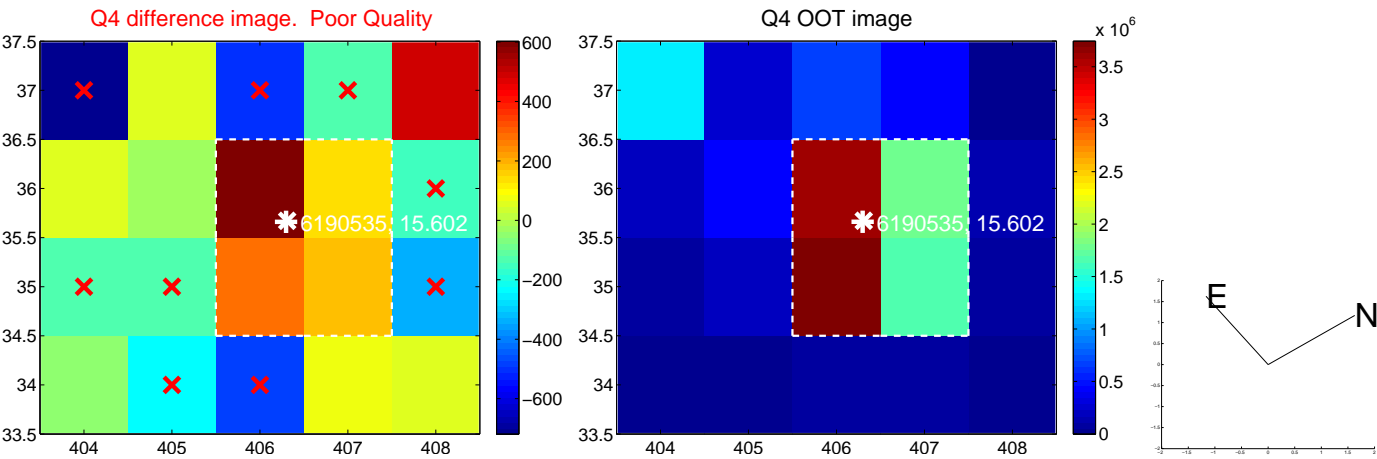
The direct PRF centroid is offset from the target star catalog position by about 0.01 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.657 \pm 1.168$	0.56	$0.382 \pm 0.497$	$0.534 \pm 1.292$
PRF-fit source offset from KIC position	$0.571 \pm 1.156$	0.49	$0.349 \pm 0.510$	$0.452 \pm 1.263$
photometric centroid source offset	$1.69 \pm 2.13$	0.79	$1.55 \pm 2.13$	$-0.66 \pm 2.13$

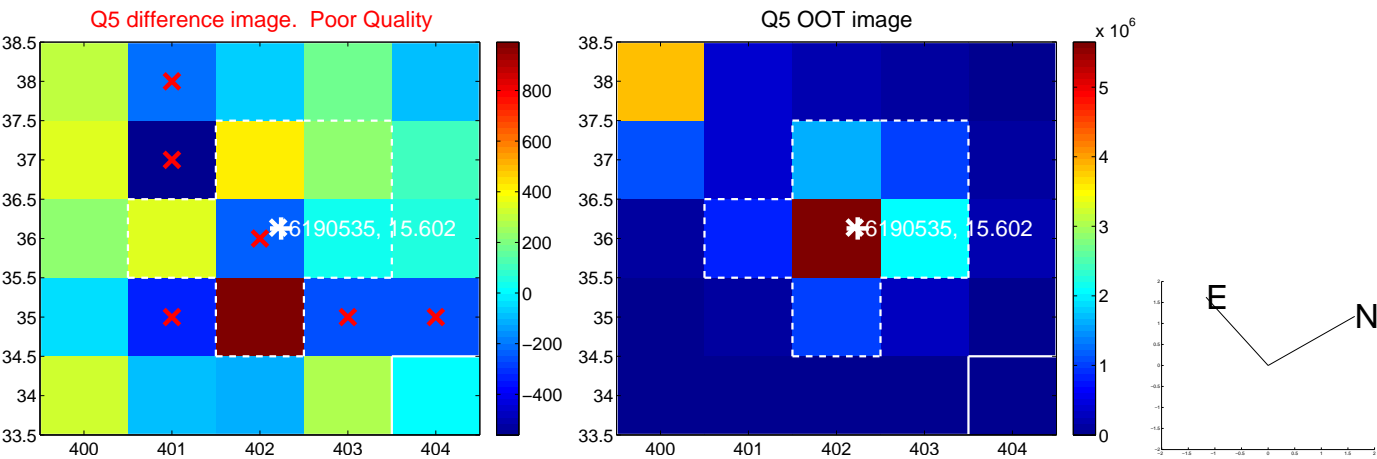


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

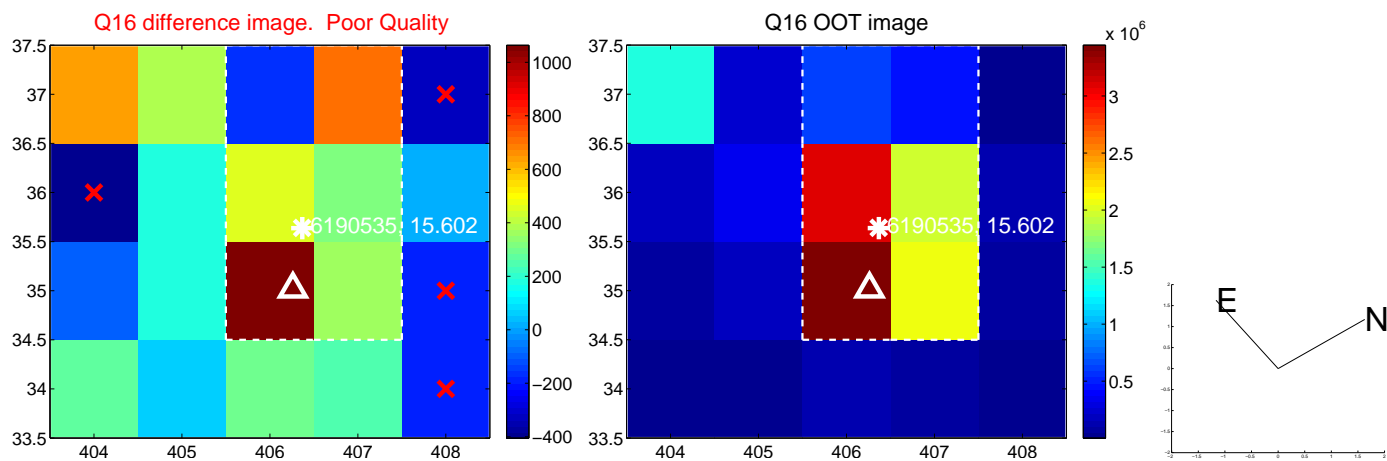
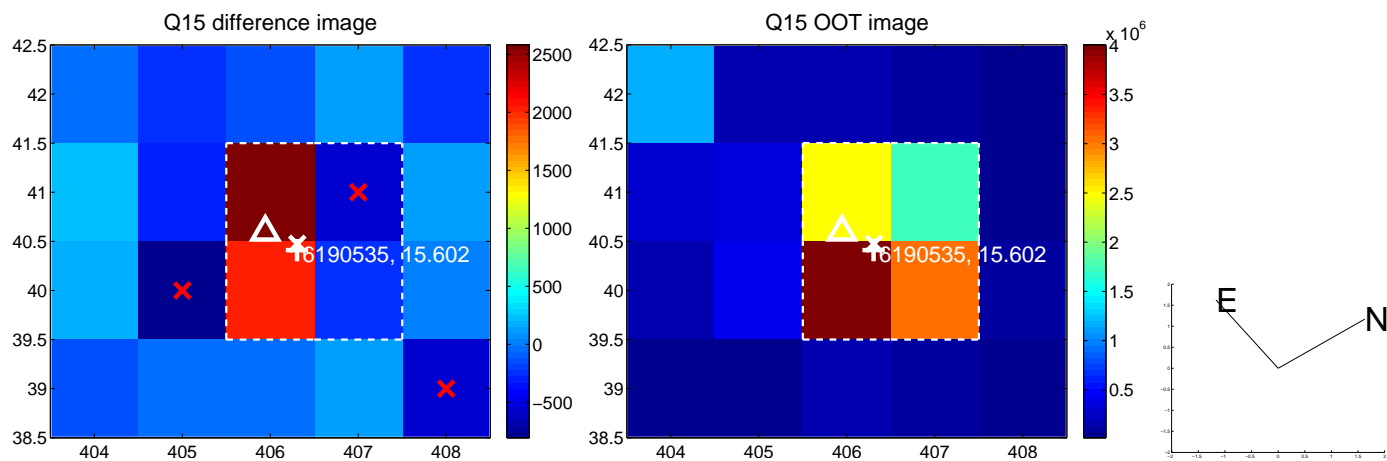
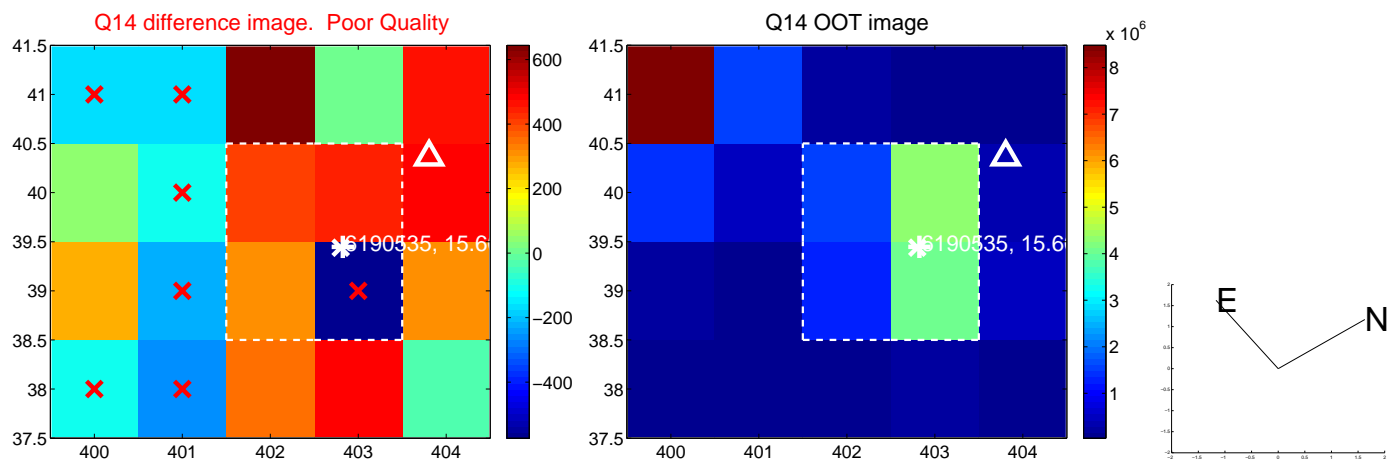
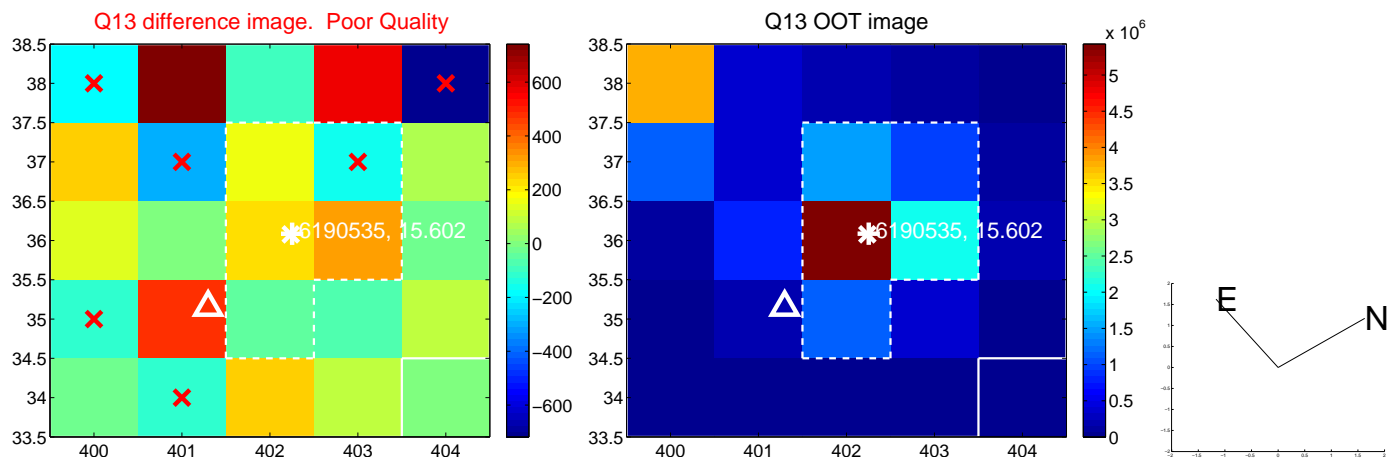


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



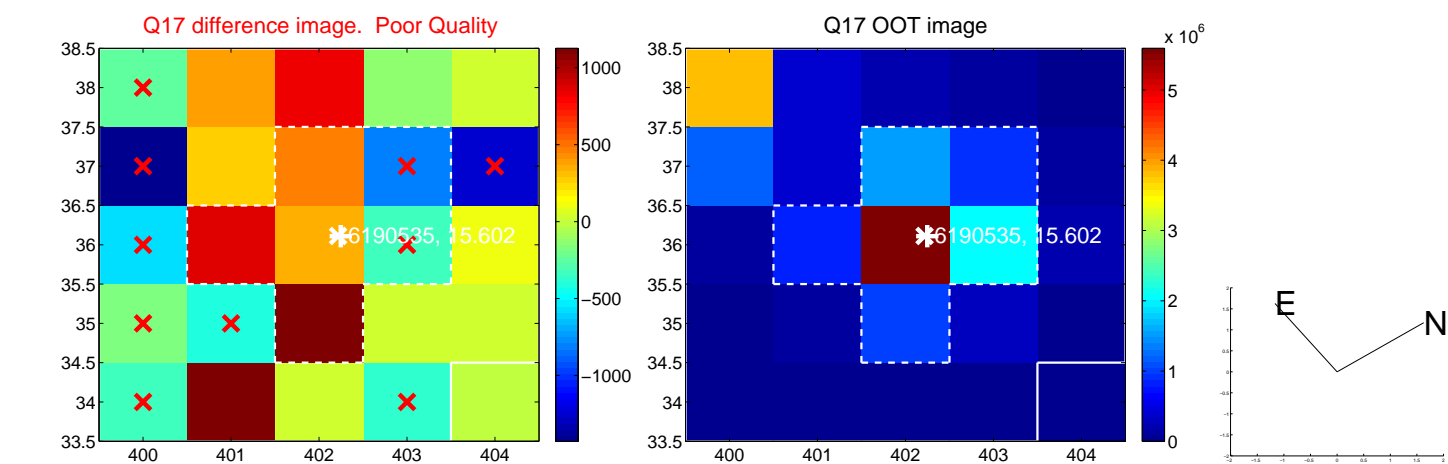


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

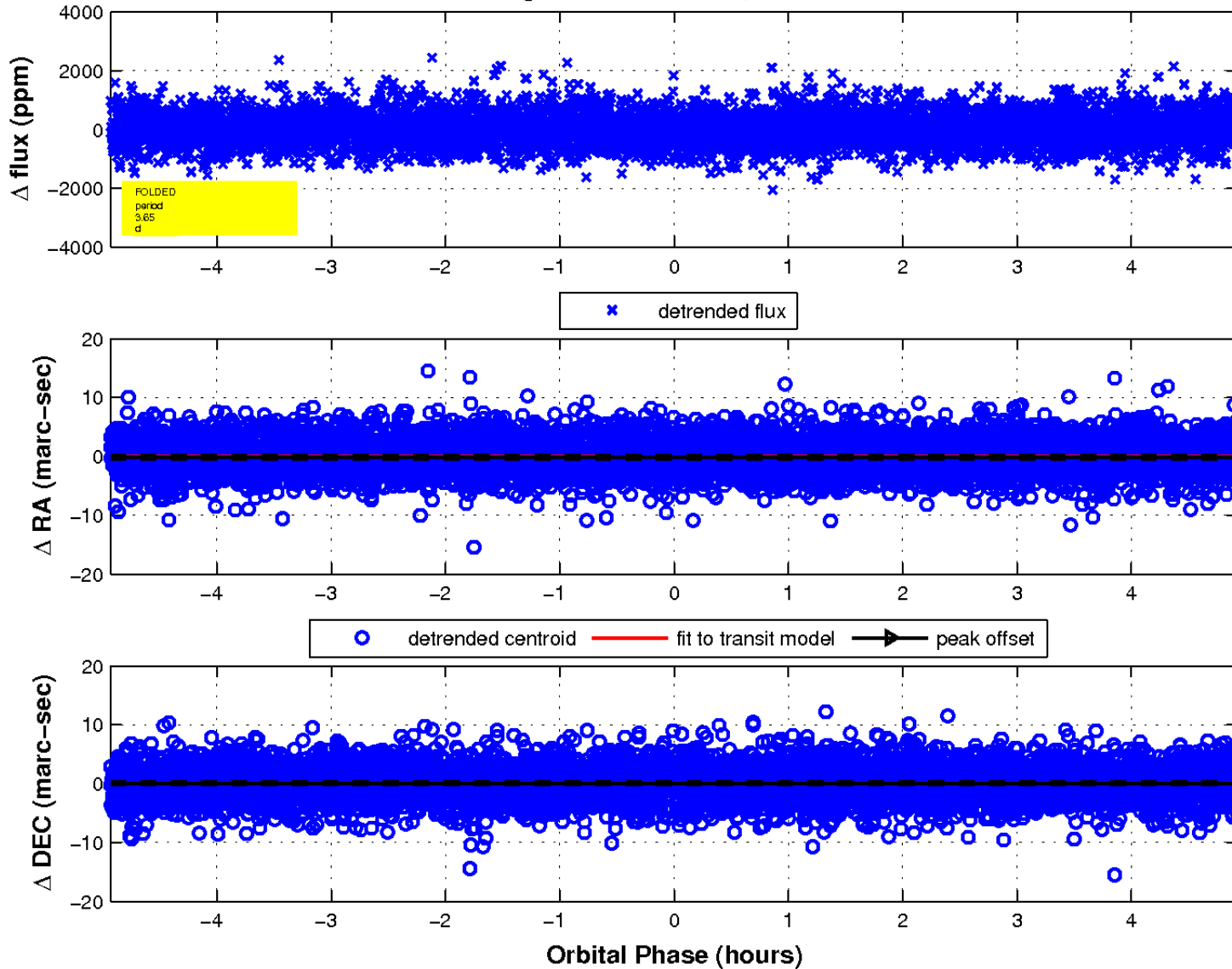




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

