

# KIC 005795465

## 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) | $R_p$ ( $R_{\oplus}$ ) | $S_p$ ( $S_{\oplus}$ ) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 005795465-01 | OBS      | No   | 310.304233    | 245.560114   | 8.6         | 1.013            | 11.1 | 0.6 | 55.19                       | 4025            | 20.95                  | 606.47                 |

## Robovetter Results

| TCE          | Run Type | Disp | Score | N | S | C | E | Comments   |
|--------------|----------|------|-------|---|---|---|---|--|
| 005795465-01 | OBS      | FP   | 0.00  | 1 | 0 | 0 | 0 | INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED |

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

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

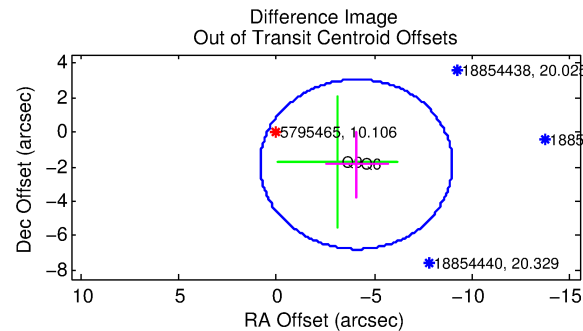
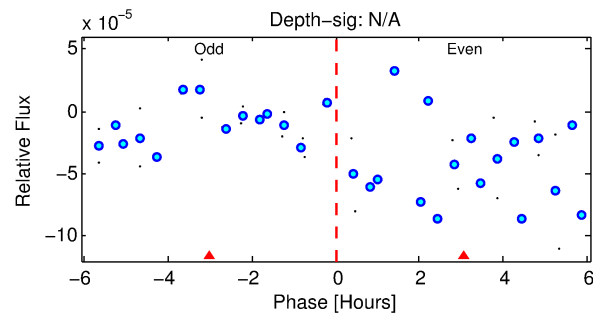
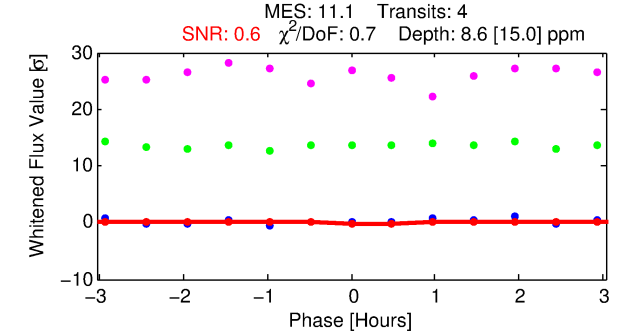
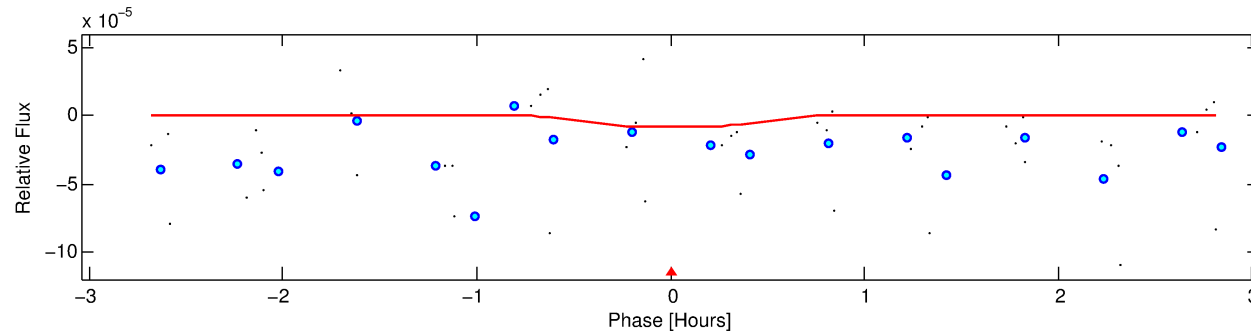
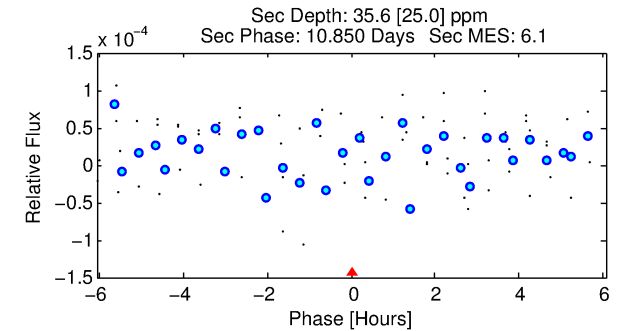
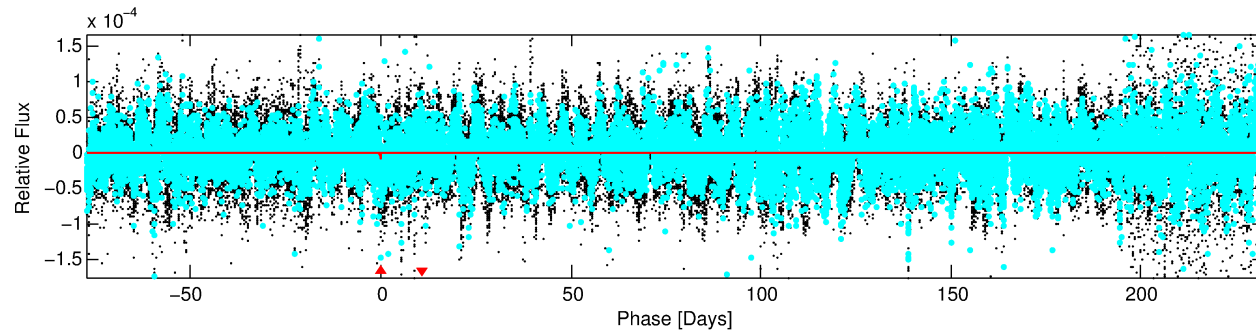
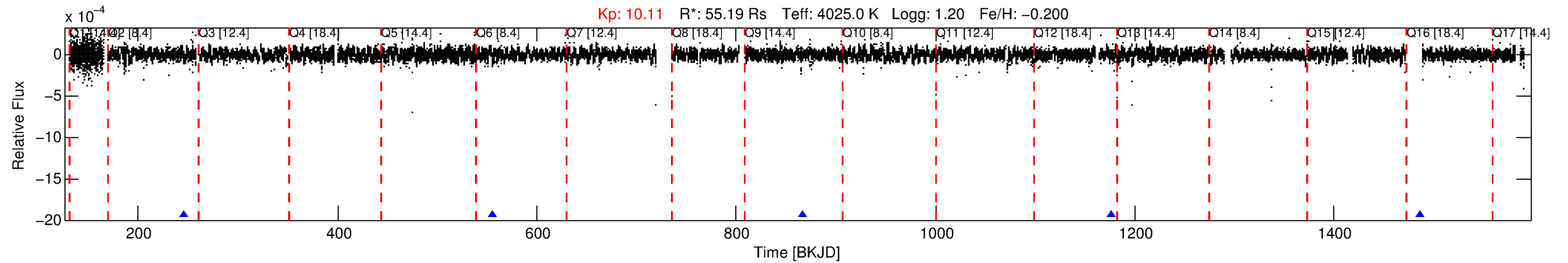
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005795465-01

No Significant Match Found

# DV One-Page Summary

KIC: 5795465 Candidate: 1 of 1 Period: 310.304 d



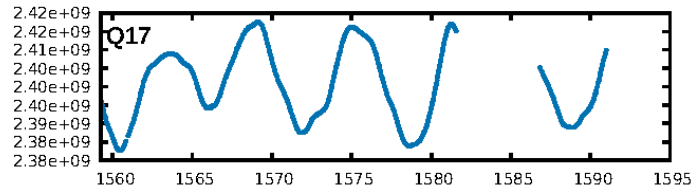
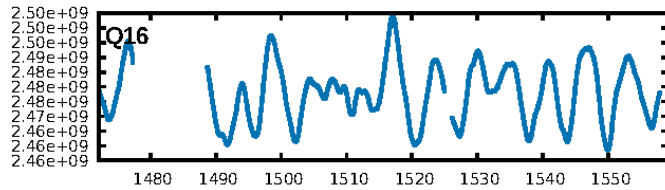
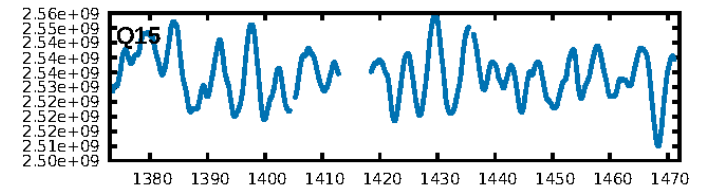
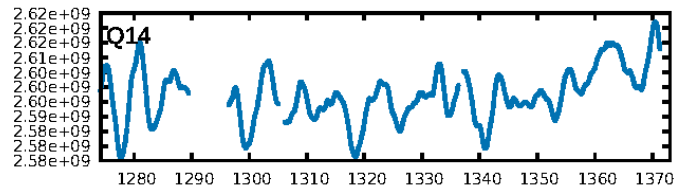
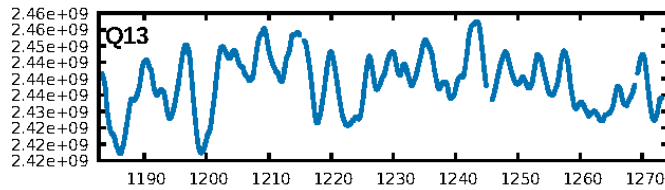
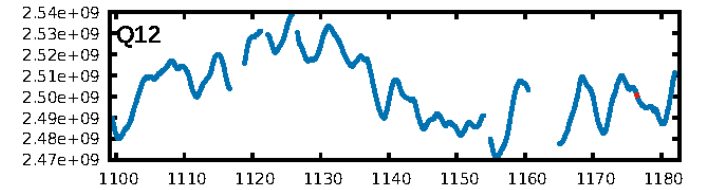
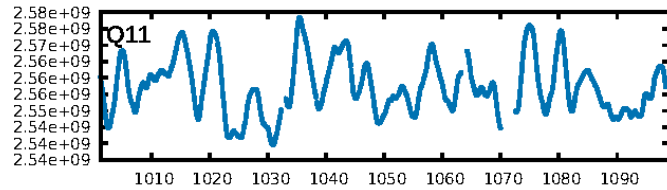
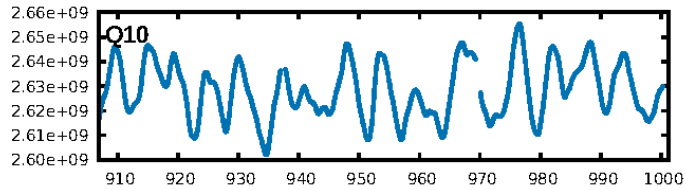
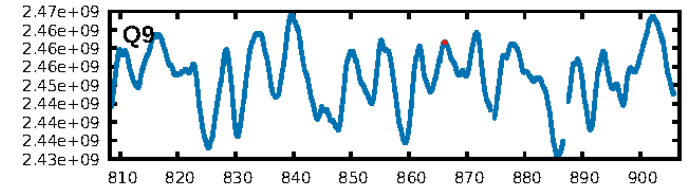
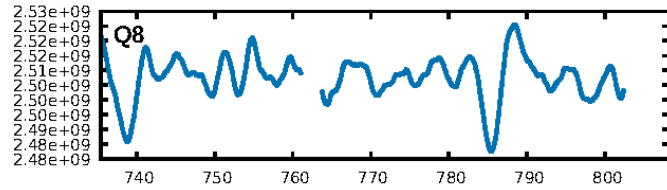
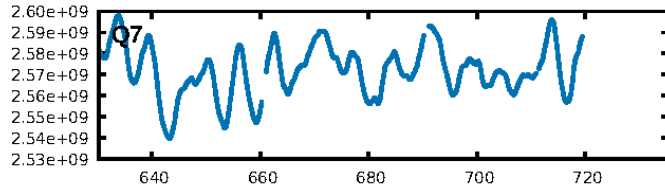
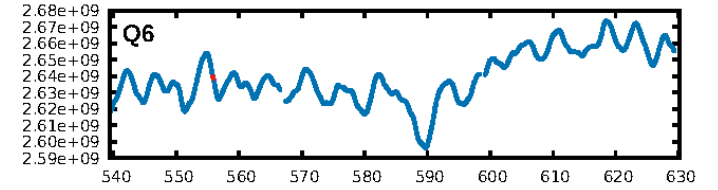
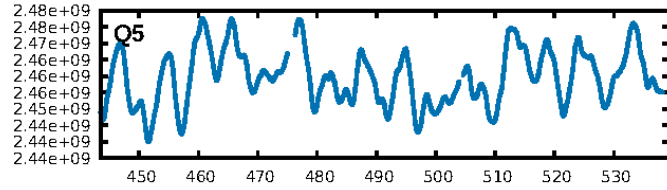
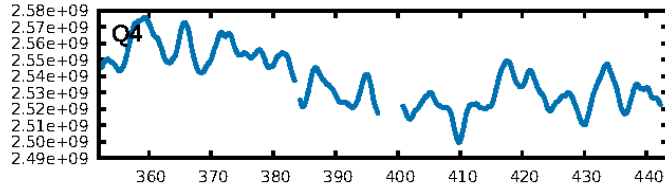
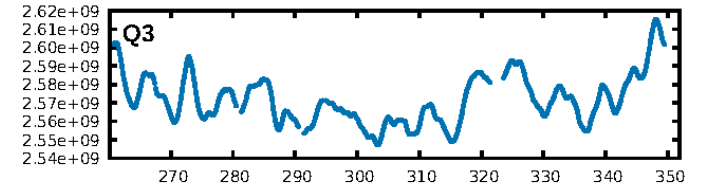
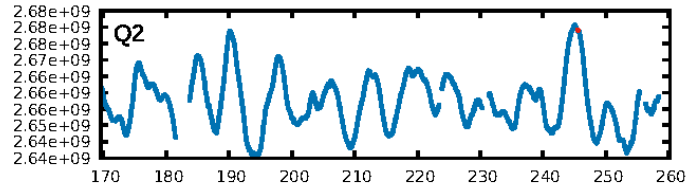
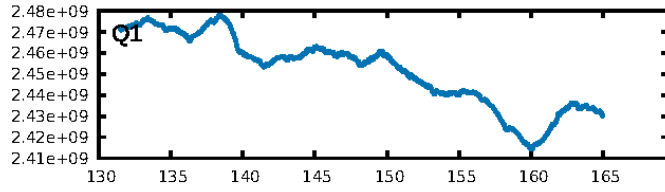
## DV Fit Results:

Period = 310.30423 [0.01295] d  
Epoch = 245.5601 [0.0297] BKJD  
Rp/R\* = 0.0035 [0.0173]  
a/R\* = 1025.99 [17579.15]  
b = 0.90 [3.48]  
Seff = 606.47 [109.45]  
Teff = 1265 [57] K  
Rp = 20.95 [104.28] Re  
a = 1.0867 [0.1499] AU  
Ag = 52.72 [525.73] [0.10σ]  
Teffp = 5272 [13142] K [0.30σ]

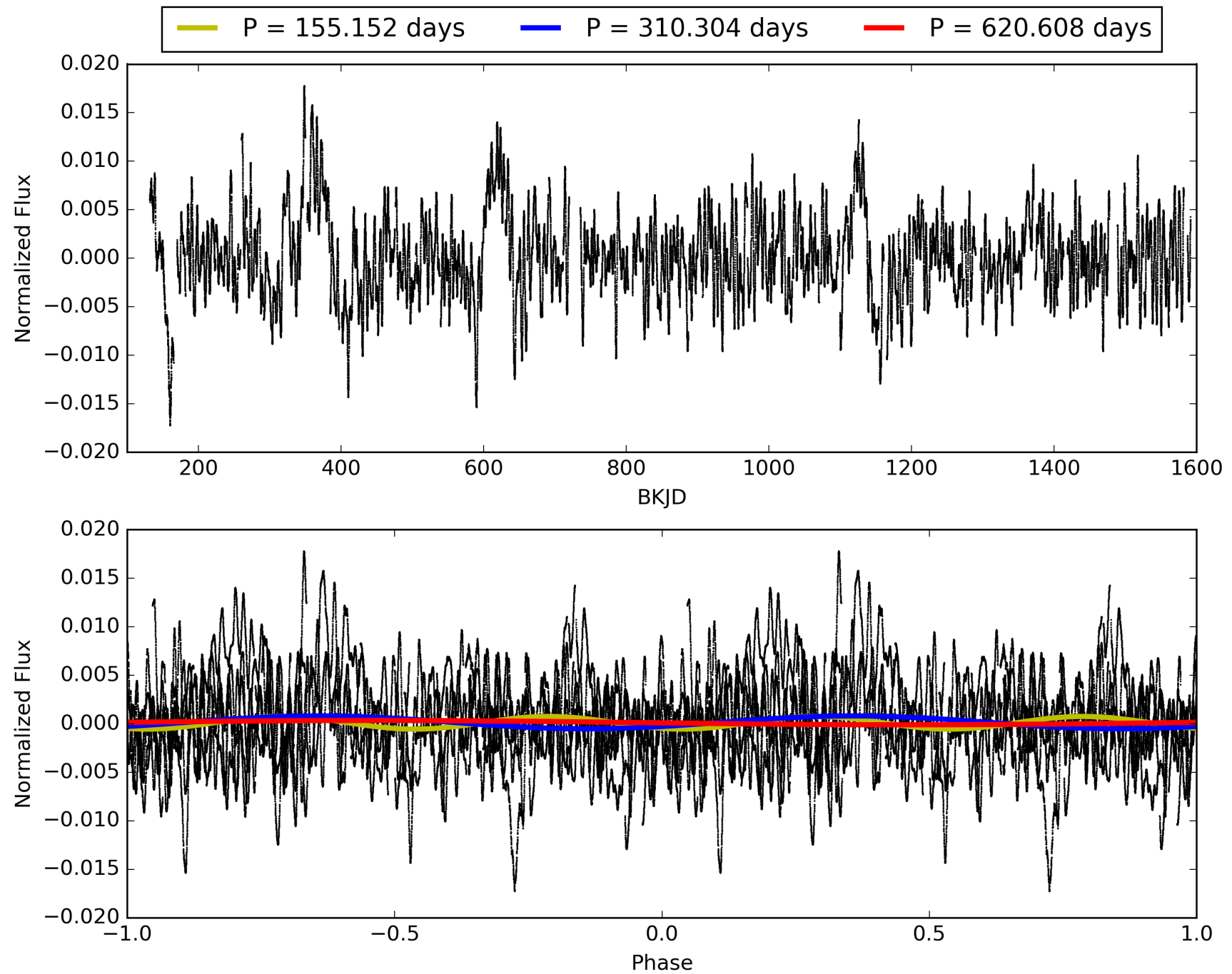
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 89.4%  
ModelChiSquareGof-sig: 91.0%  
Bootstrap-pfa: 1.12e-07  
RollingBand-fgt: 1.00 [4/4]  
GhostDiagnostic-chr: N/A  
Centroid-sig: 80.6%  
Centroid-so: 16.322 arcsec [0.36σ]  
OotOffset-rm: 4.484 arcsec [2.74σ]  
KicOffset-rm: 4.712 arcsec [2.88σ]  
OotOffset-st: 1/0/0/1 [2]  
KicOffset-st: 1/0/0/1 [2]  
DiffImageQuality-fgm: 0.00 [0/2]  
DiffImageOverlap-fno: 1.00 [4/4]

# TCE 005795465-01, PDC Light Curves

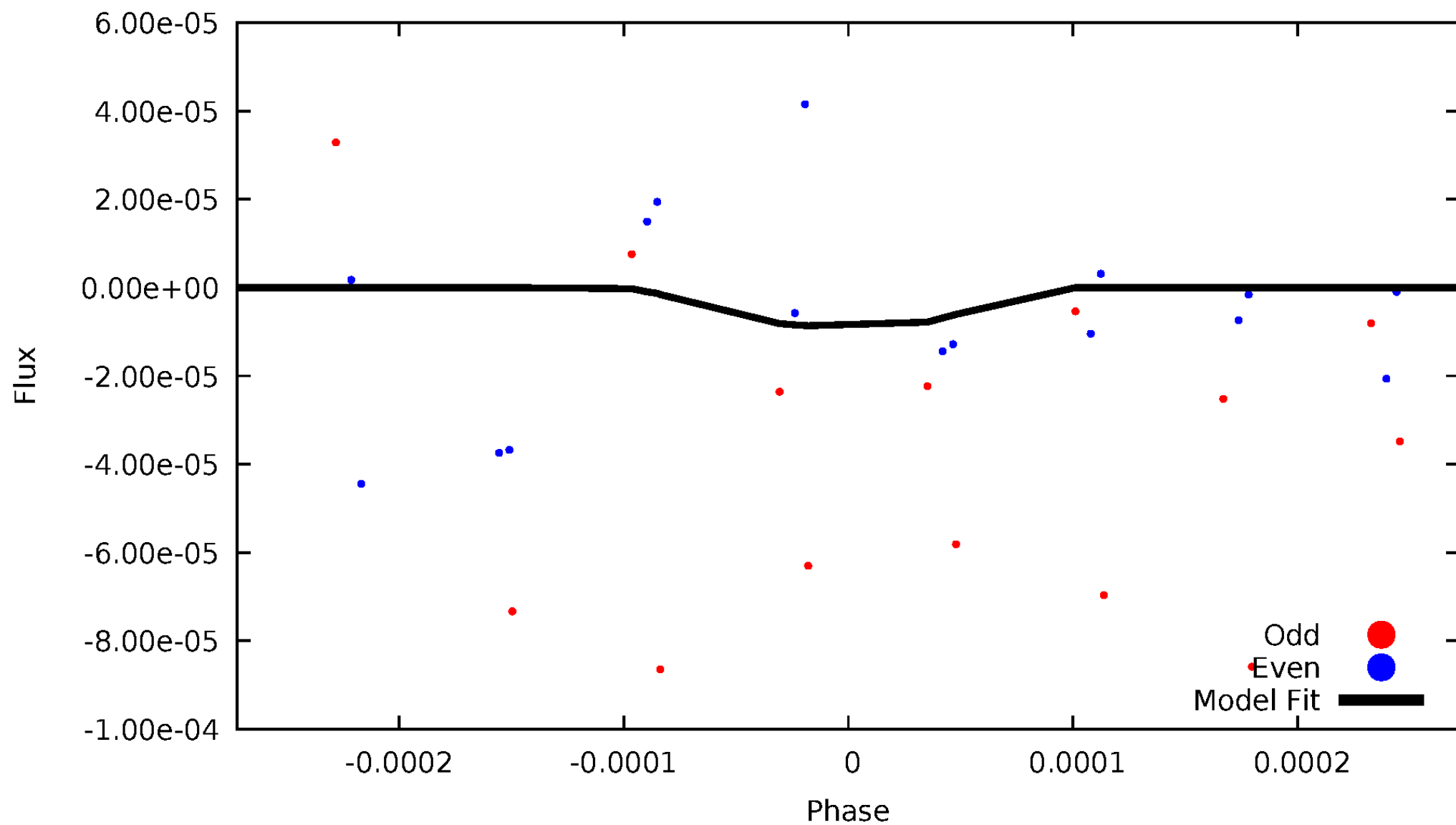


TCE 005795465-01



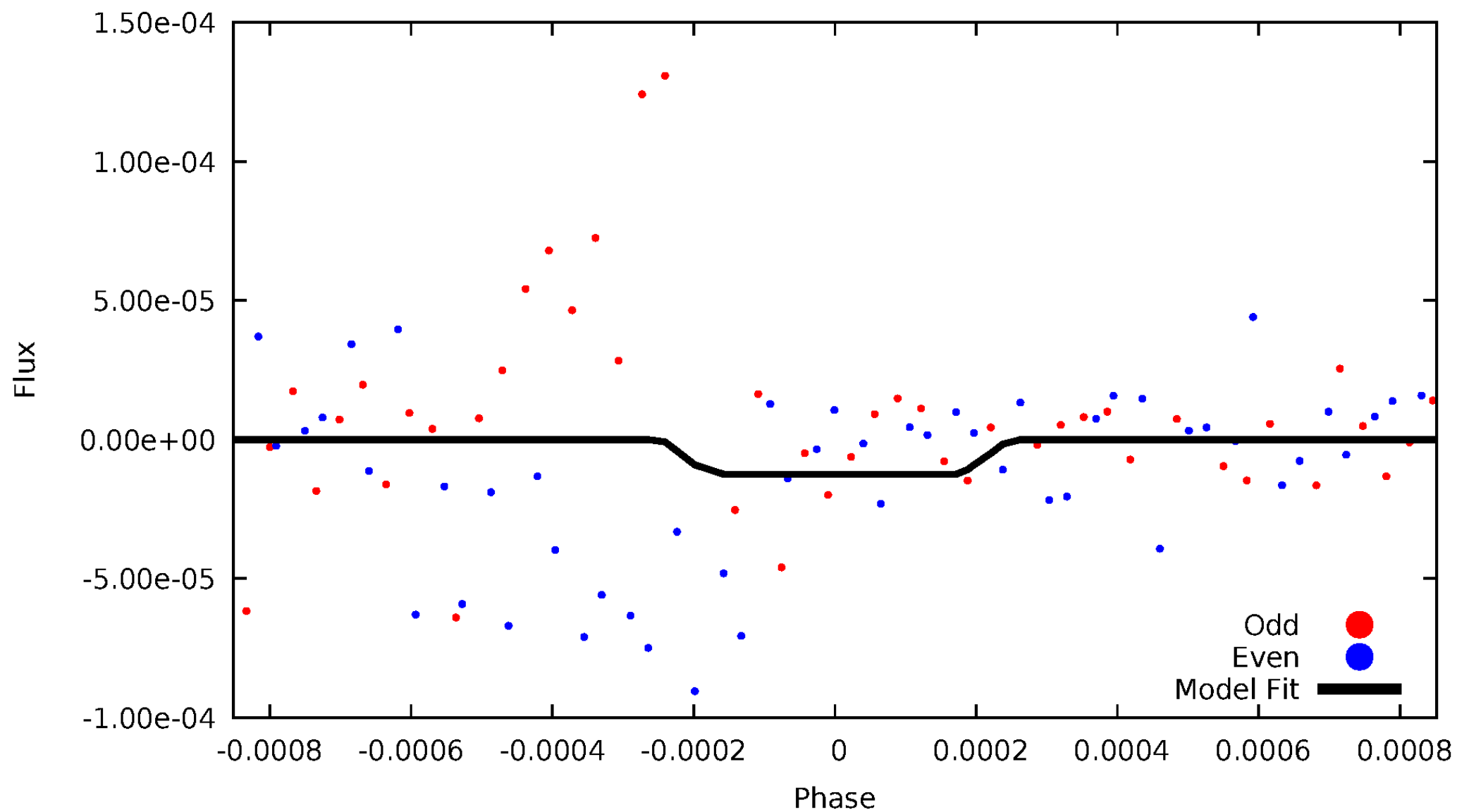
# DV Odd/Even

TCE 005795465-01



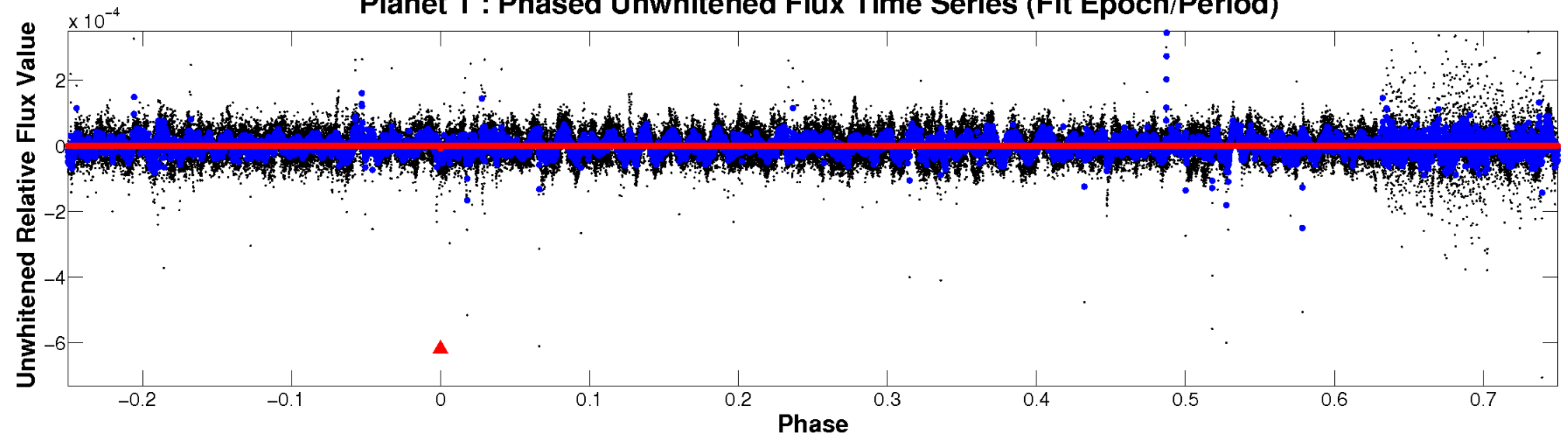
# ALT Odd/Even

TCE 005795465-01

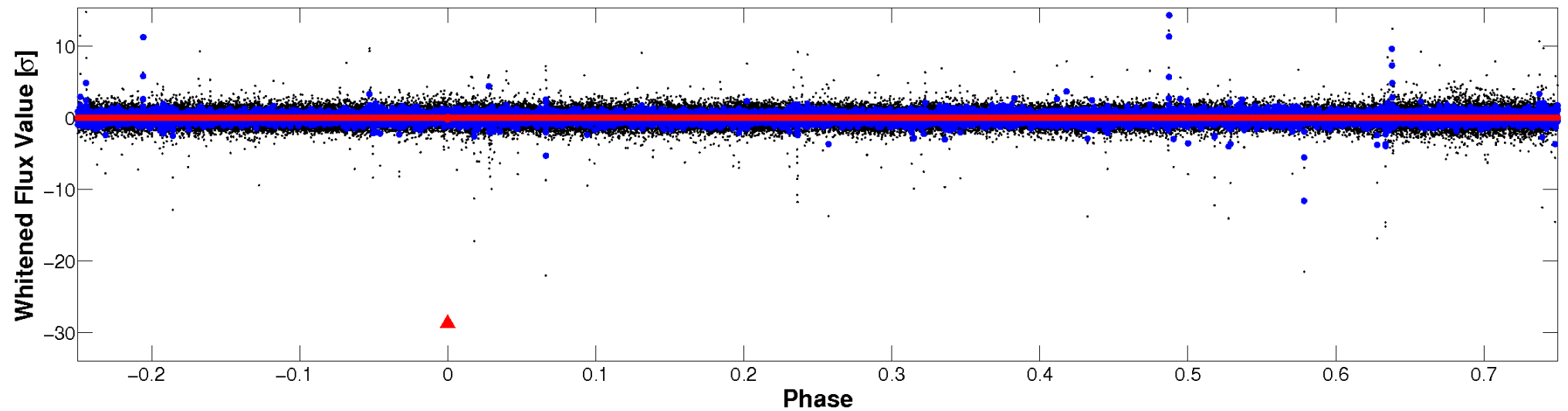


# Non-Whitened Vs. Whitened Light Curve

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

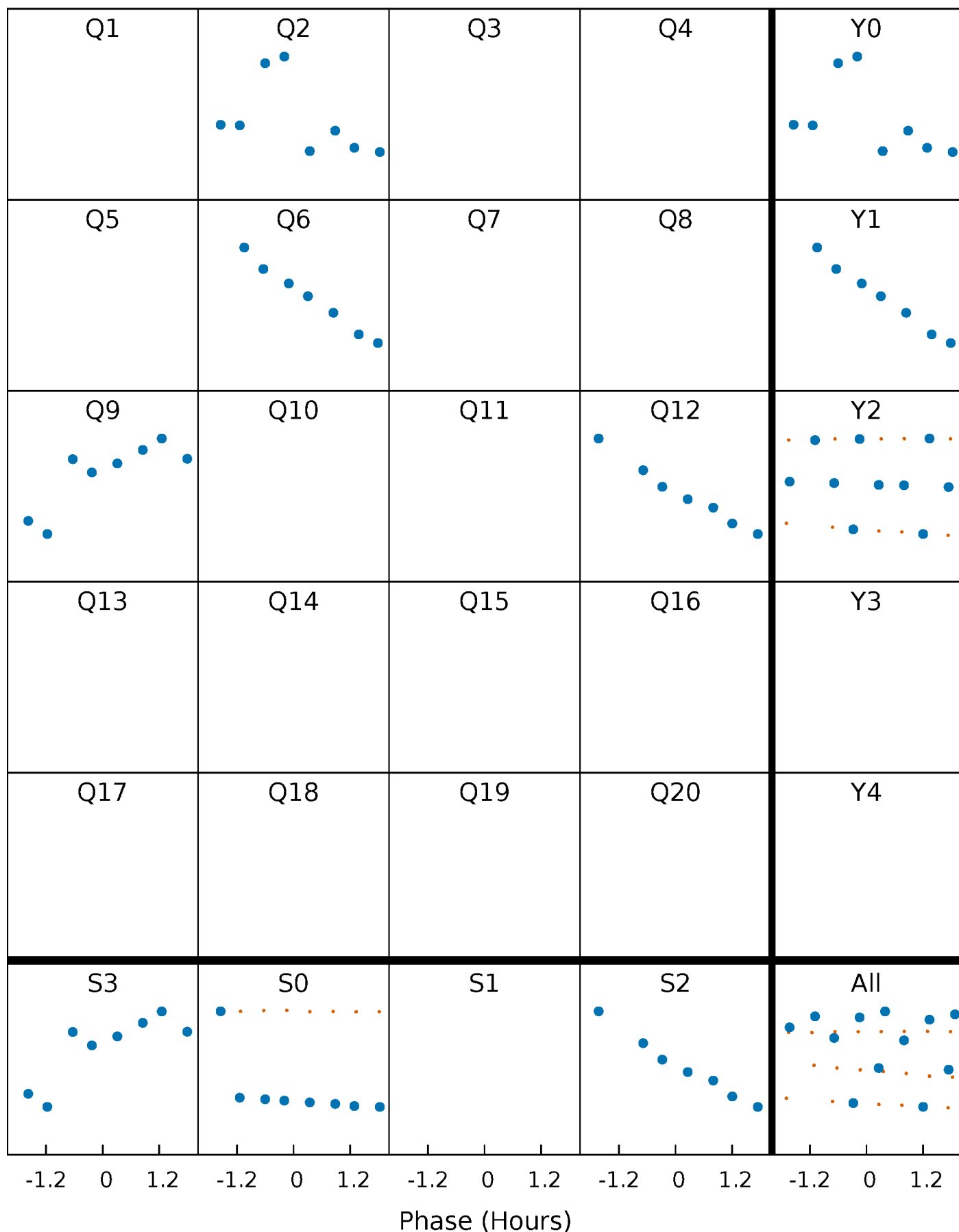


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

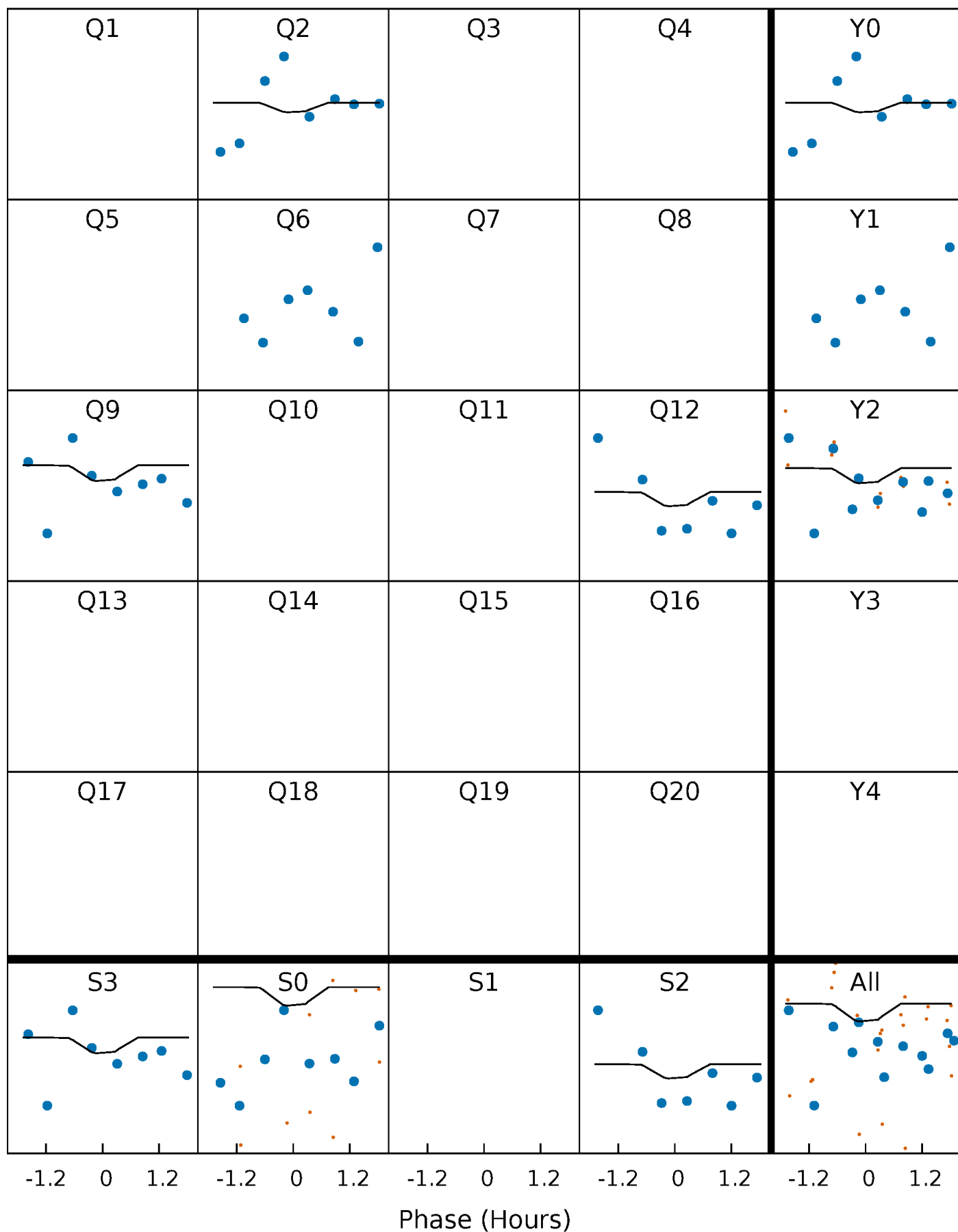
TCE 005795465-01 P=310.304233 Days  $T_0=245.560114$  (BKJD)





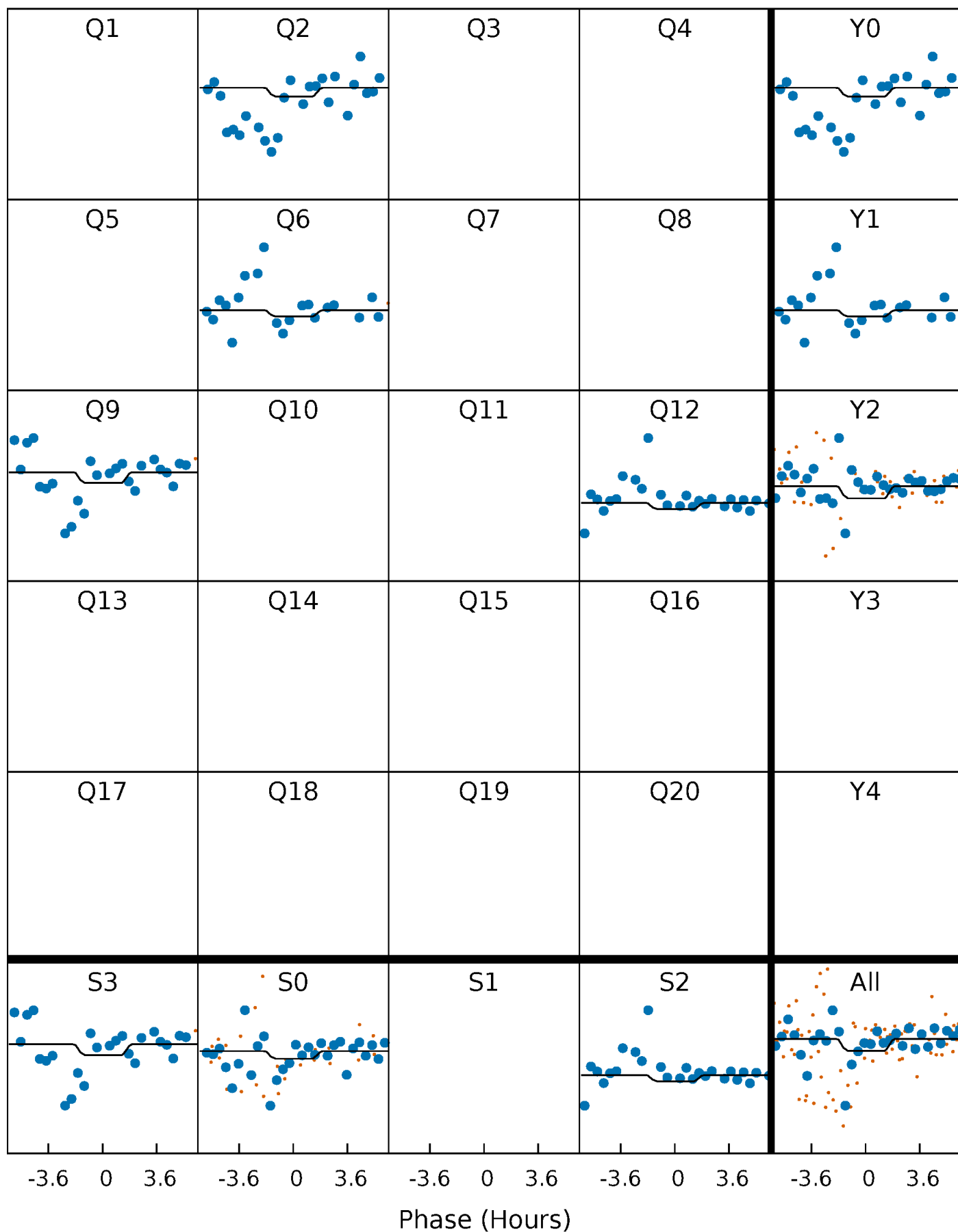
# DV Quarter-Phased Transit Curves

TCE 005795465-01 P=310.304233 Days  $T_0=245.560114$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

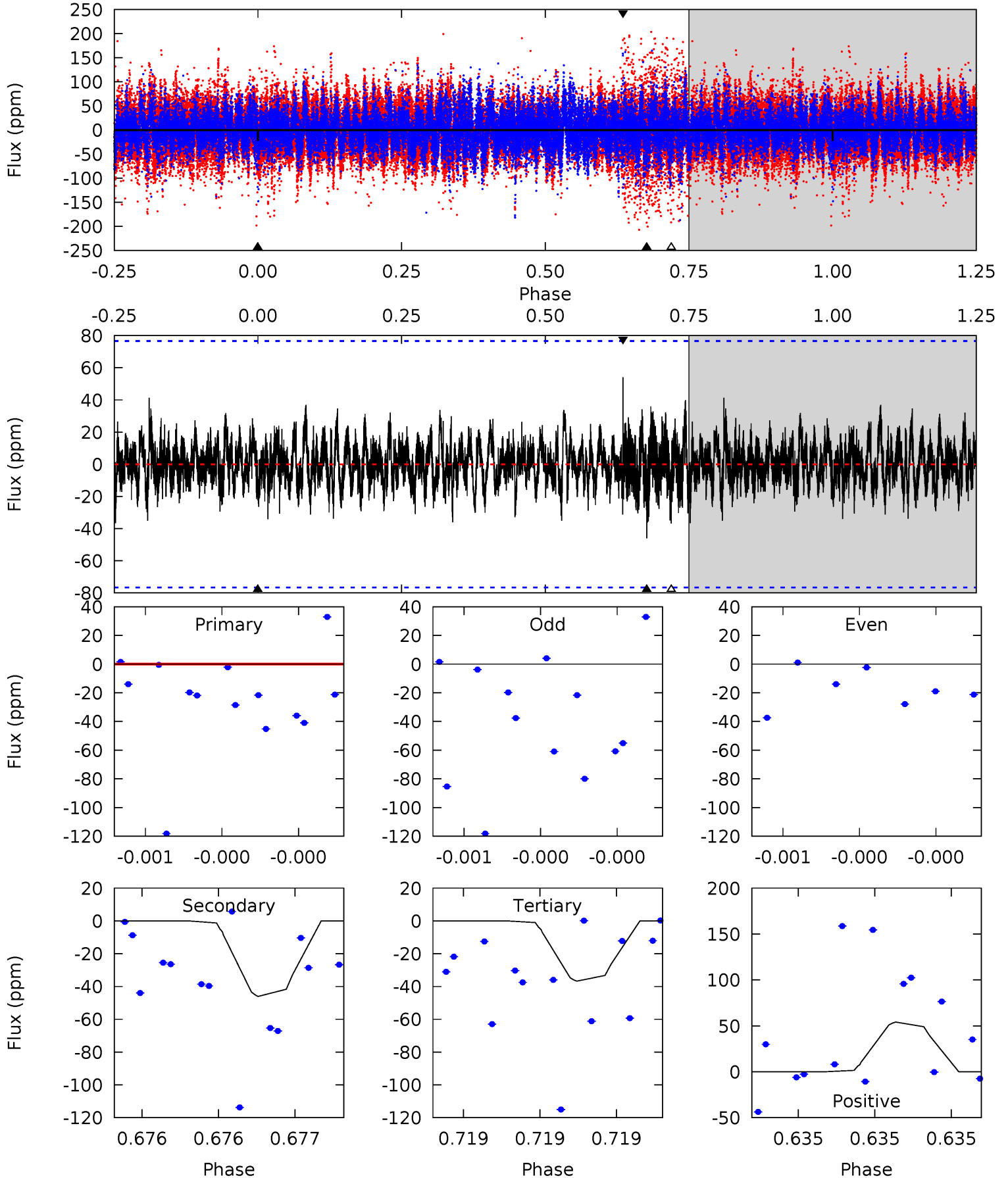
TCE 005795465-01 P=310.307401 Days  $T_0=245.554408$  (BKJD)



# DV Model-Shift Uniqueness Test

005795465-01, P = 310.304233 Days, E = 245.560114 Days

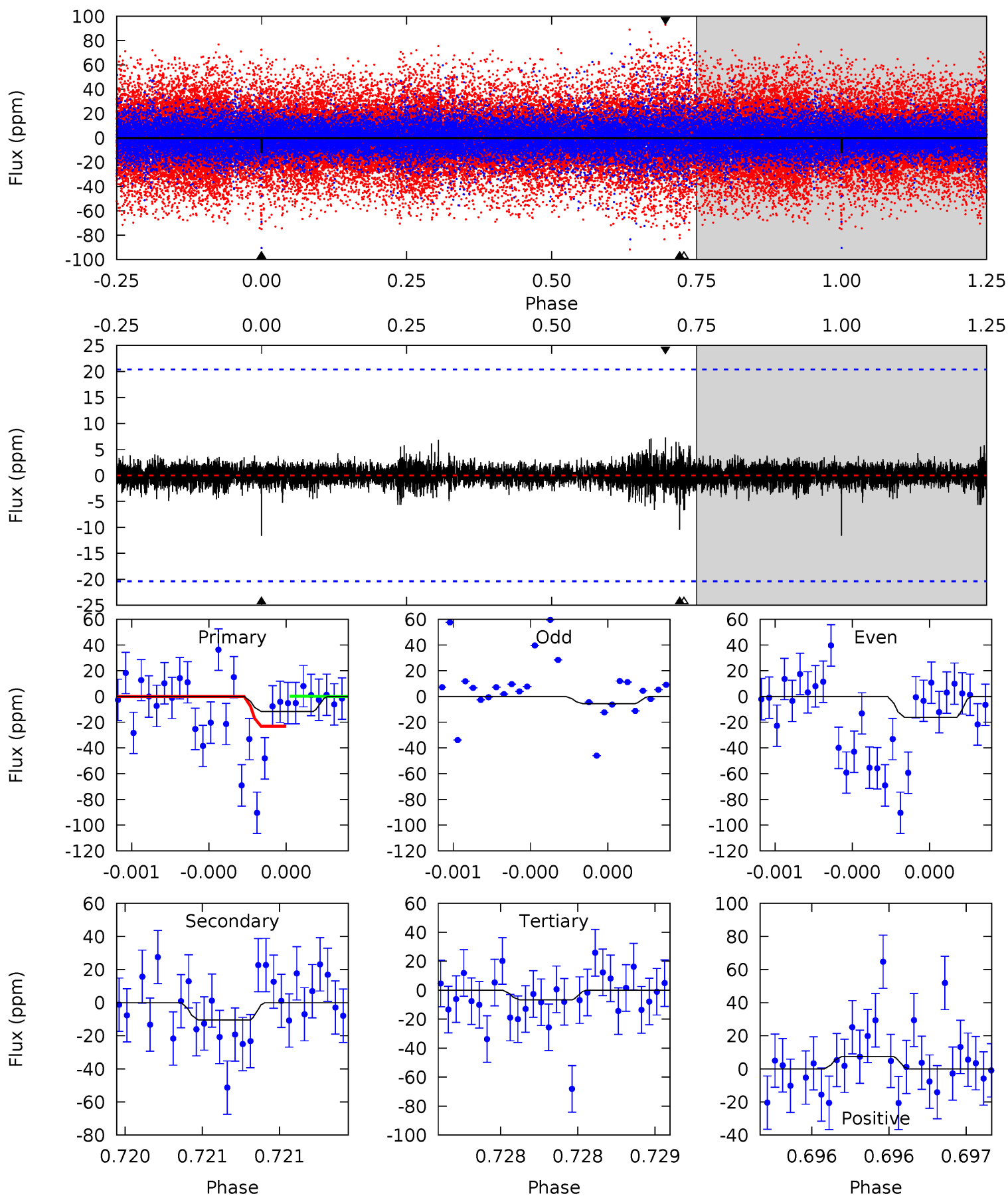
| Pri  | Sec  | Ter  | Pos  | FA <sub>1</sub> | FA <sub>2</sub> | F <sub>Red</sub> | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM  | Shape | TAT  |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 1.69 | 3.48 | 2.78 | 4.09 | 5.79            | 3.80            | 0.81             | -1.09   | -2.40   | 0.70    | -0.61   | 1.62    | 1.31 | 0.54  | 0.51 |



# Alt Model-Shift Uniqueness Test

005795465-01, P = 310.307401 Days, E = 245.554408 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  |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 3.17 | 2.85 | 1.83 | 2.00 | 5.58            | 3.49            | 0.35             | 1.34    | 1.17    | 1.02    | 0.85    | 1.44    | 1.03 | 0.39  | 3.11 |



### Stellar Parameters For KIC 005795465

|        | $T_{\text{eff}}(K)$ | $\log(g)$                 | [Fe/H]                     | $R (R_{\odot})$             | $M(M_{\odot})$            | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|---------------------|---------------------------|----------------------------|-----------------------------|---------------------------|---|
|        | $4025^{+90}_{-110}$ | $1.204^{+0.030}_{-0.030}$ | $-0.200^{+0.200}_{-0.250}$ | $55.189^{+1.987}_{-11.259}$ | $1.778^{+0.071}_{-0.640}$ | $0.000^{+0.000}_{-0.000}$                 |
|        | +2%/-3%             | +2%/-2%                   | +100%/-125%                | +4%/-20%                    | +4%/-36%                  | +29%/-8%                                  |
| Source | PHO54               | AST54                     | 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 005795465-01 / KOI

| Detrend | Depth (ppm)  | $R_p (R_{\oplus})$        | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$   | $A_{\text{obs}}$           |
|---------|--------------|---------------------------|----------------------|------------------------|----------------------------|
| DV      | $-46 \pm 13$ | $76.75^{+86.64}_{-52.07}$ | $1767^{+48}_{-54}$   | $3220^{+1600}_{-679}$  | $5.041^{+42.134}_{-3.955}$ |
| Alt.    | $-10 \pm 4$  | $79.31^{+78.17}_{-55.62}$ | $1767^{+44}_{-49}$   | $2505^{+1204}_{-4443}$ | $1.024^{+10.397}_{-0.799}$ |

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

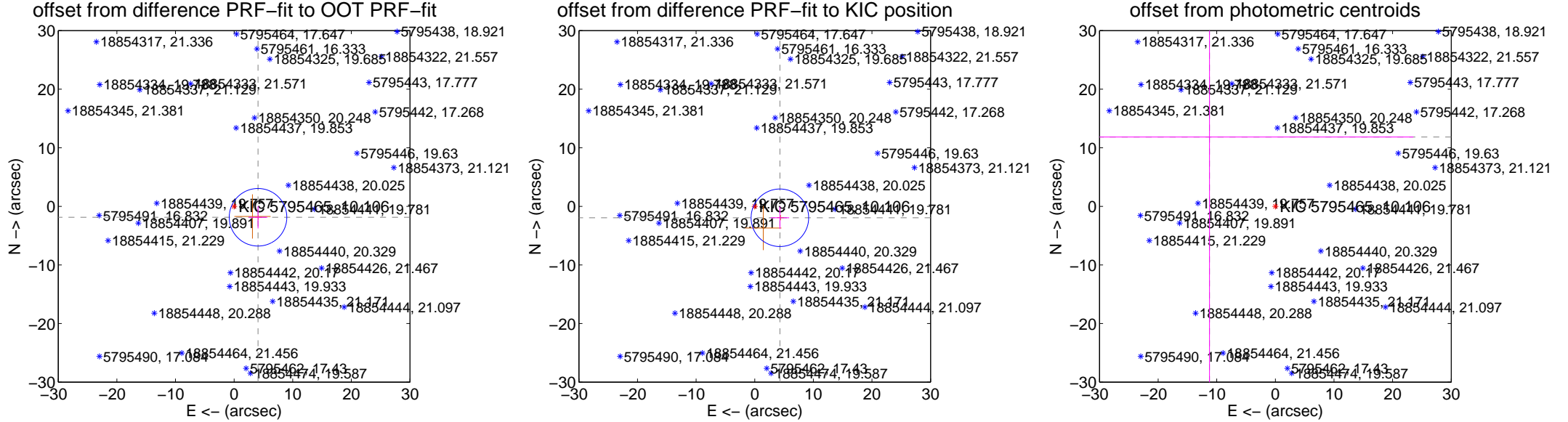
## DV Centroid Data

Supplemental centroid analysis for 005795465-01. **Kepler magnitude: 10.11.** Transit SNR 0.62

There are 0 quarters with good PRF difference image offsets

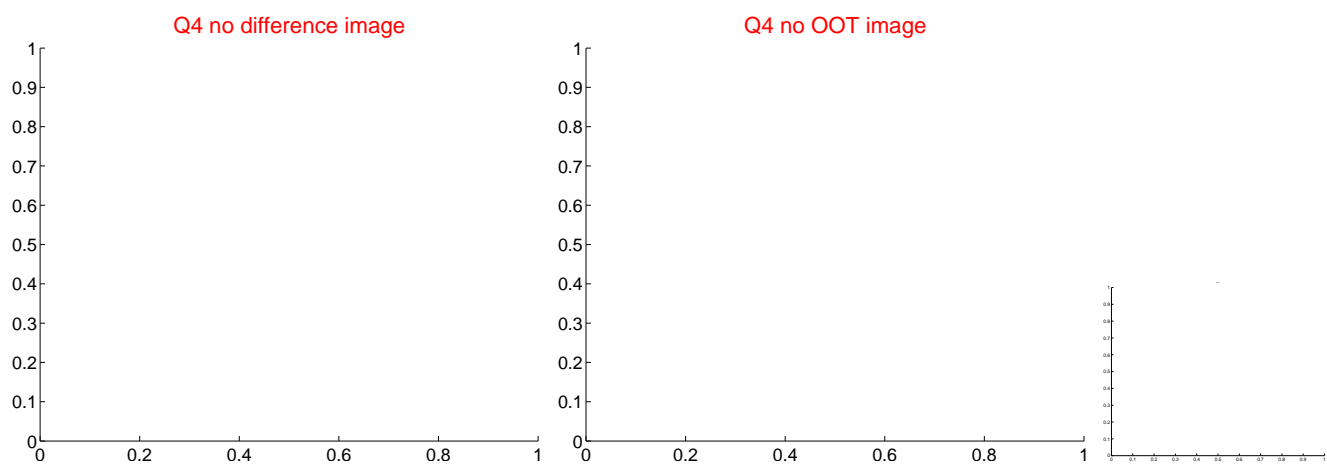
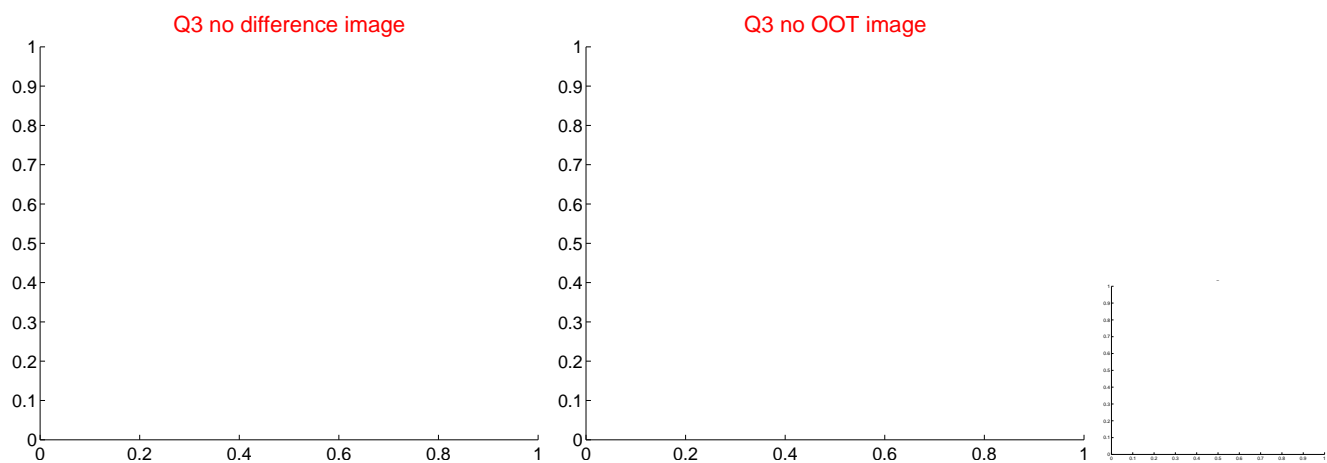
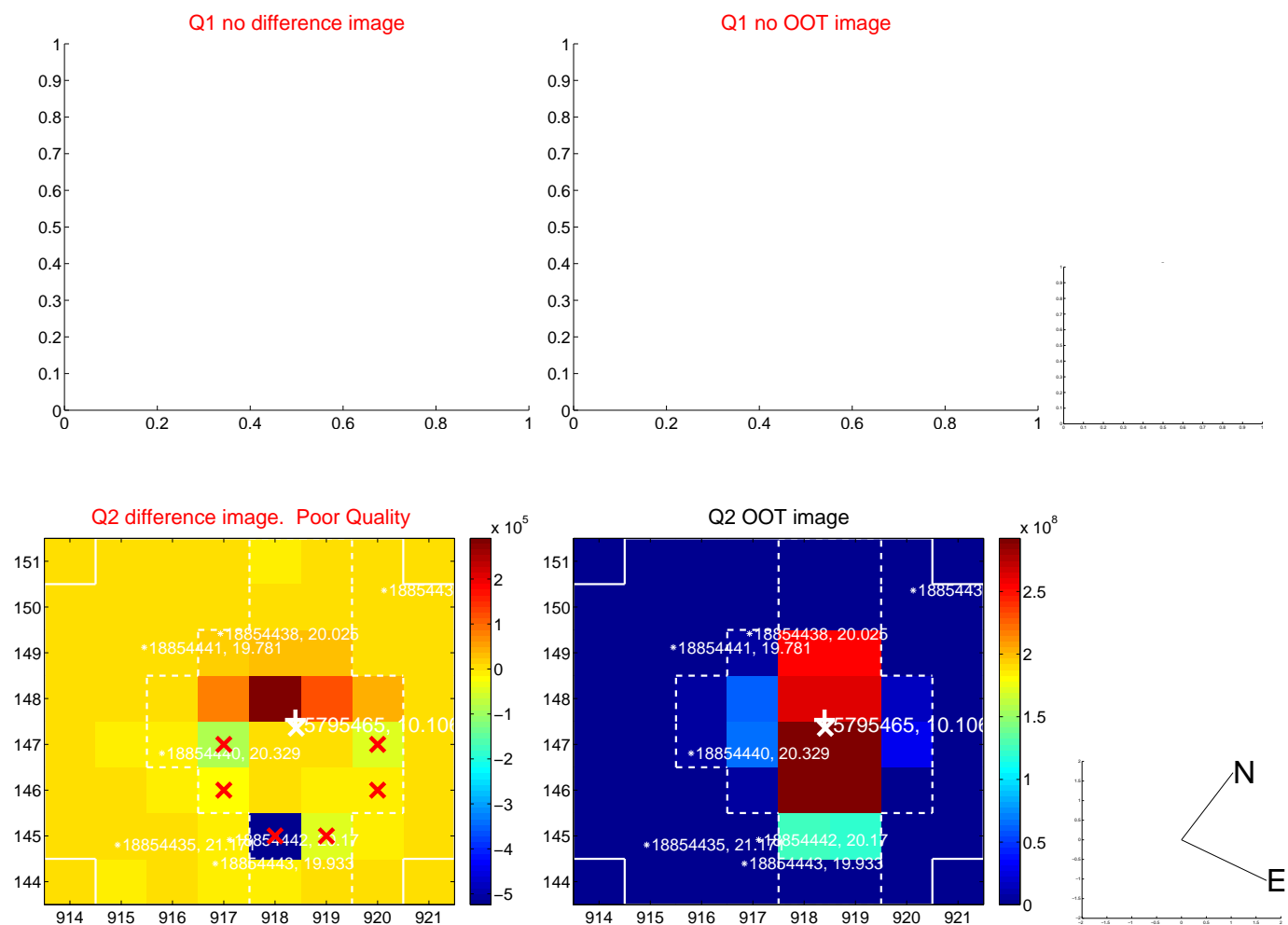
The OOT PRF centroid is offset from the target star catalog position by about 2.59 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

|   | Distance in arcsec | Distance / $\sigma$ | $\Delta$ RA        | $\Delta$ Dec       |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT          | $4.484 \pm 1.637$  | 2.74                | $-4.079 \pm 1.576$ | $-1.863 \pm 1.903$ |
| PRF-fit source offset from KIC position | $4.712 \pm 1.637$  | 2.88                | $-4.290 \pm 1.576$ | $-1.948 \pm 1.903$ |
| photometric centroid source offset      | $16.32 \pm 45.96$  | 0.36                | $11.24 \pm 34.78$  | $11.83 \pm 54.11$  |

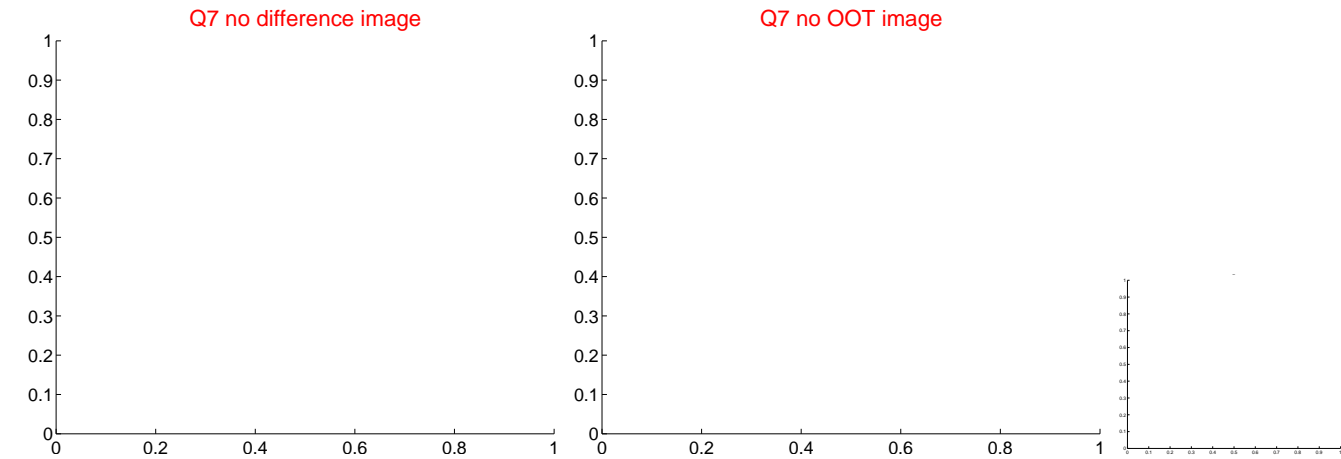
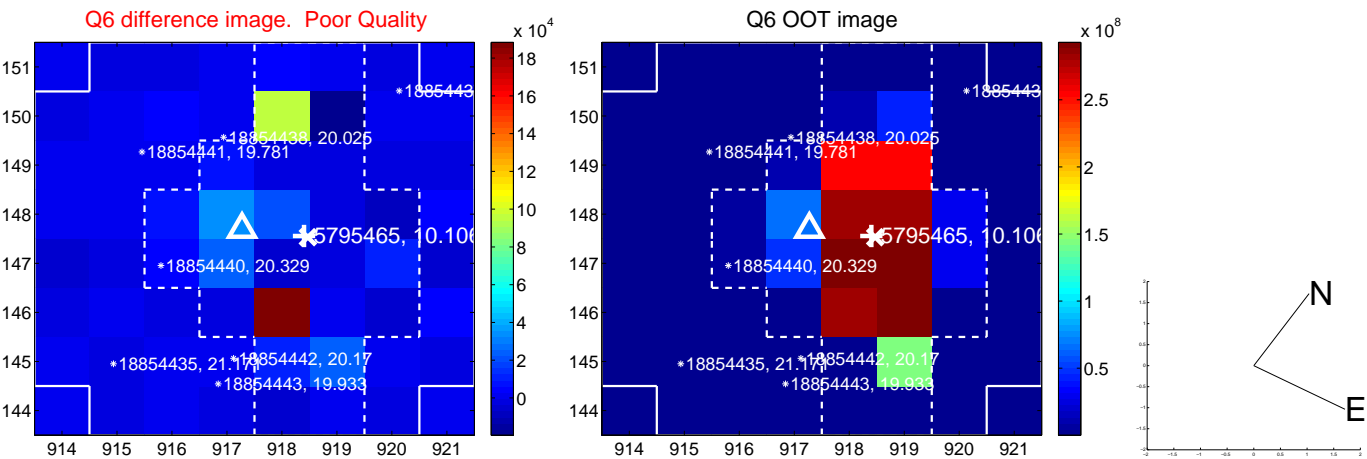


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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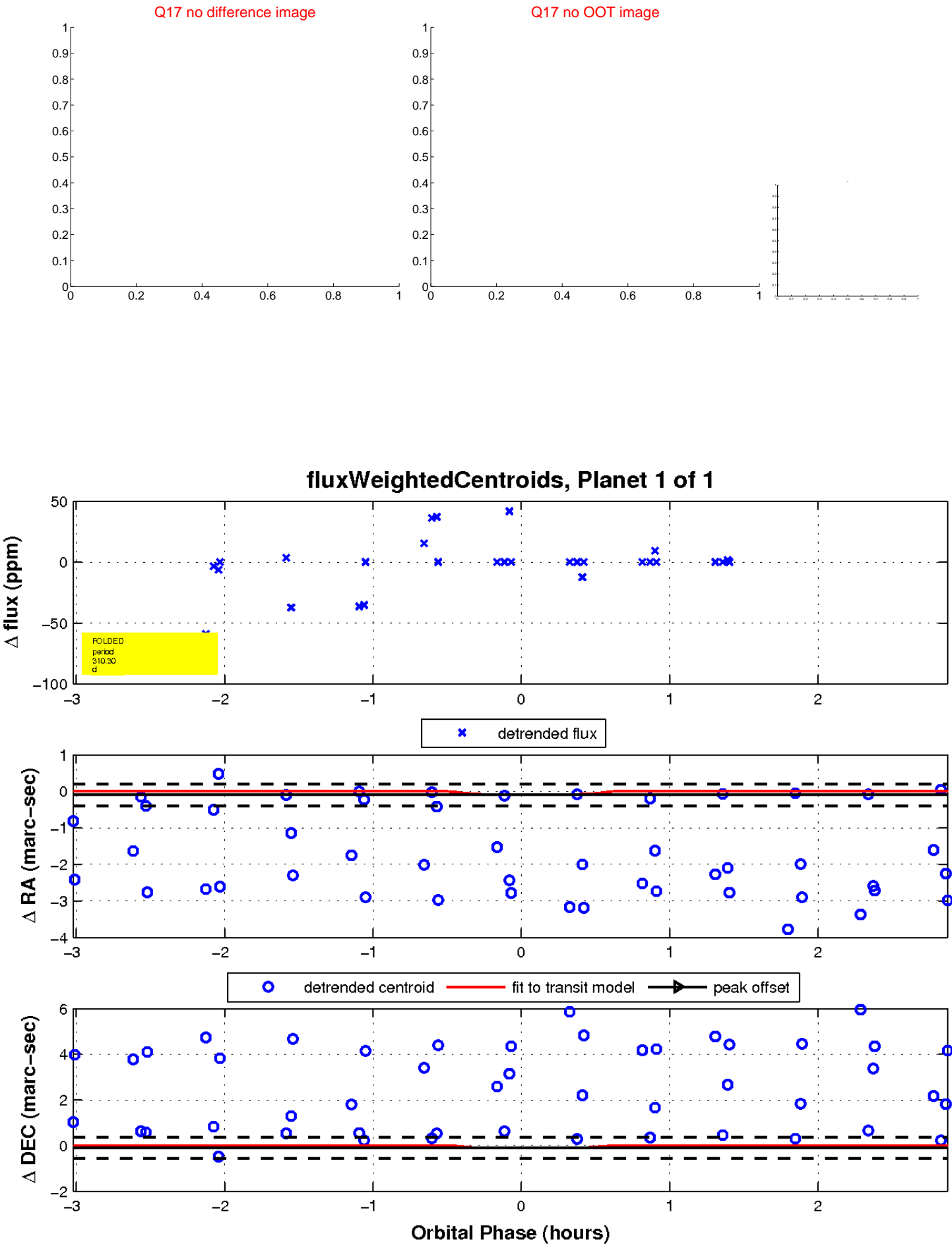




white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



UKIRT Image

