

# KIC 008005892

## 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) | $R_p$ ( $R_{\oplus}$ ) | $S_p$ ( $S_{\oplus}$ ) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-------|-------|-----------------------------|-----------------|------------------------|------------------------|
| 008005892-01 | OBS      | No   | 479.002761    | 608.383171   | 9896.8      | 13.582           | 108.4 | 135.5 | 0.80                        | 5221            | 8.96                   | 0.36                   |

## Robovetter Results

| TCE          | Run Type | Disp | Score | N | S | C | E | Comments  |
|--------------|----------|------|-------|---|---|---|---|---|
| 008005892-01 | OBS      | FP   | 0.00  | 1 | 0 | 0 | 0 | INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—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.

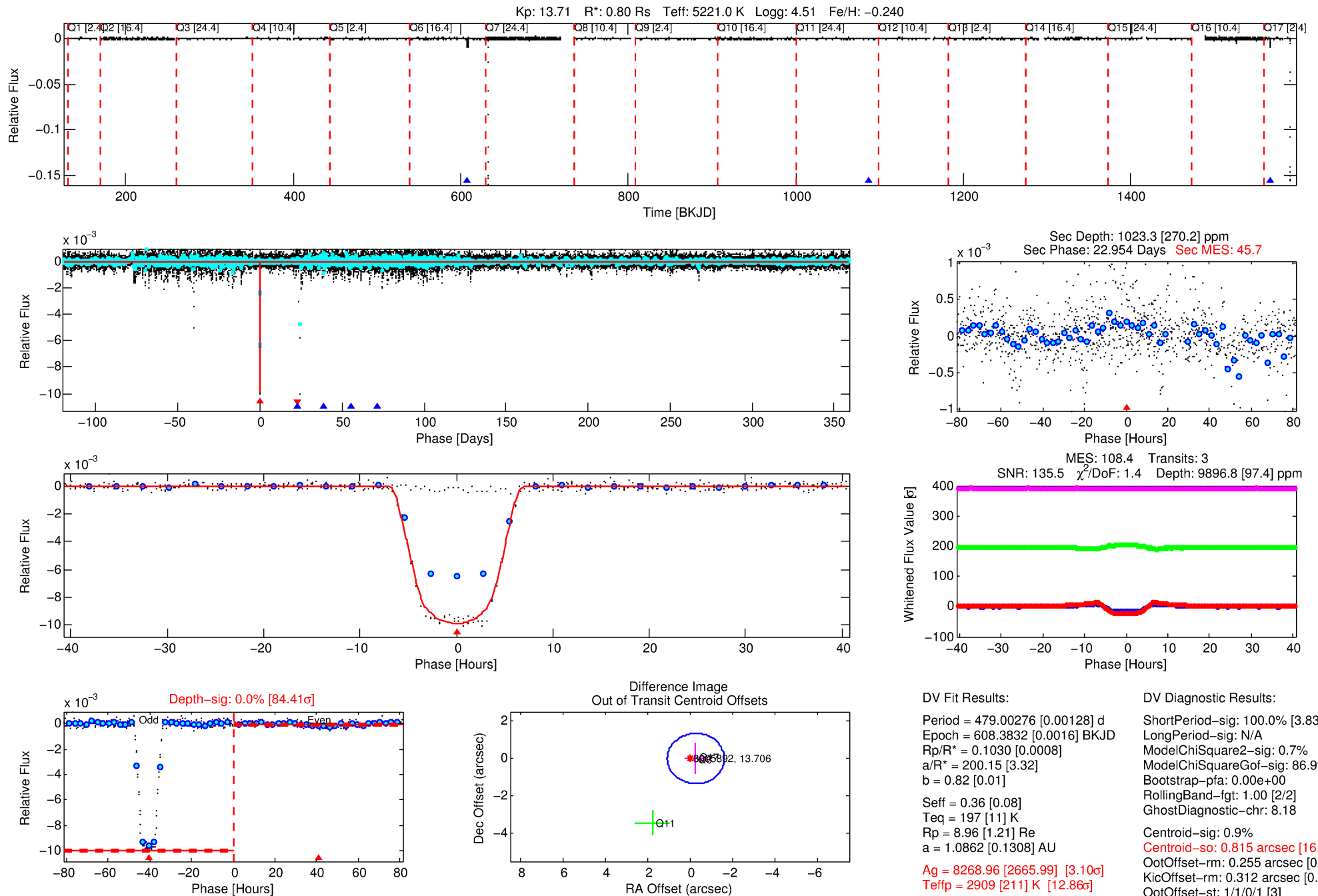
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008005892-01

No Significant Match Found

# DV One-Page Summary

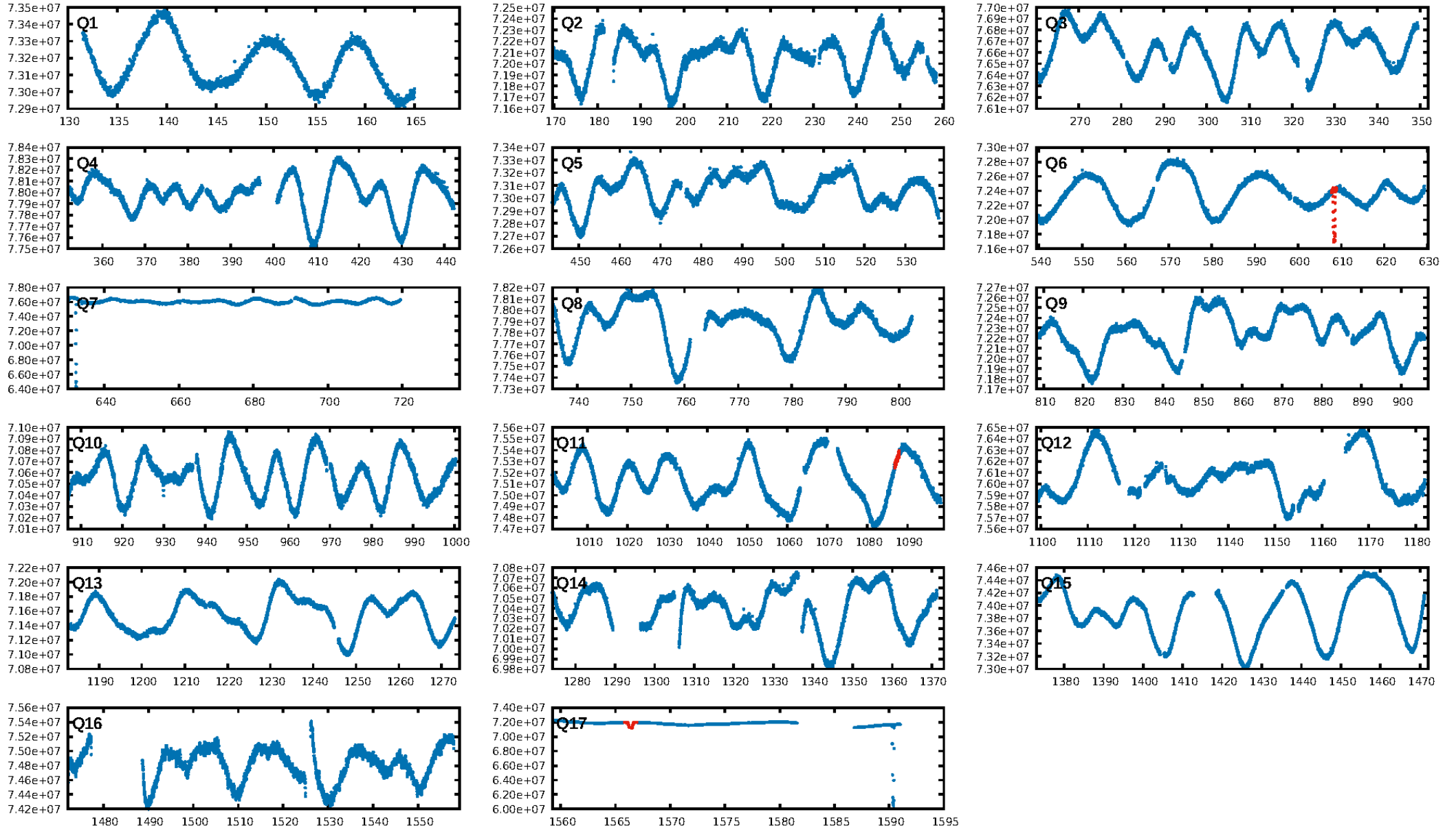
KIC: 8005892 Candidate: 1 of 2 Period: 479.003 d



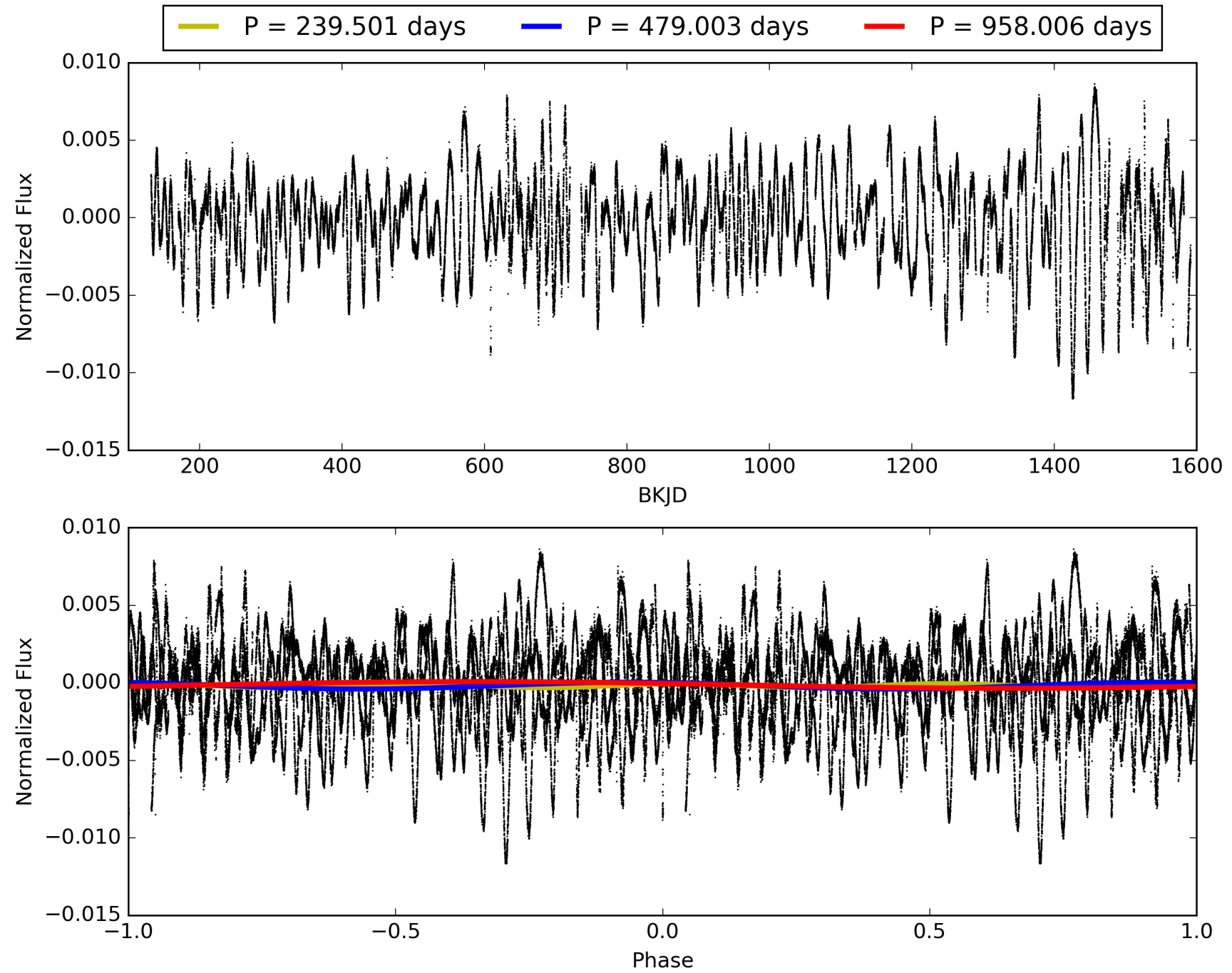
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 12:10:22 Z

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

# TCE 008005892-01, PDC Light Curves

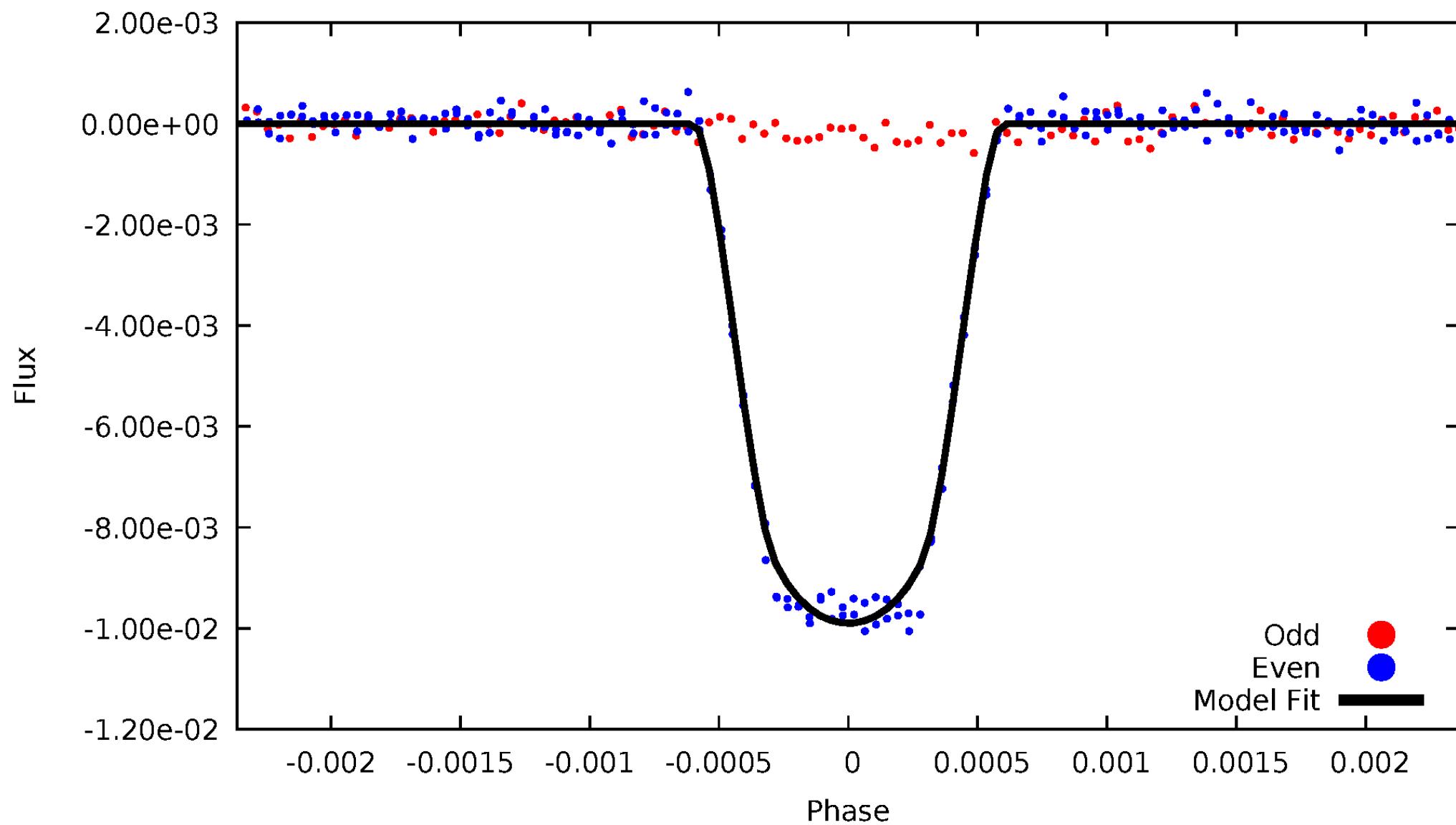


TCE 008005892-01



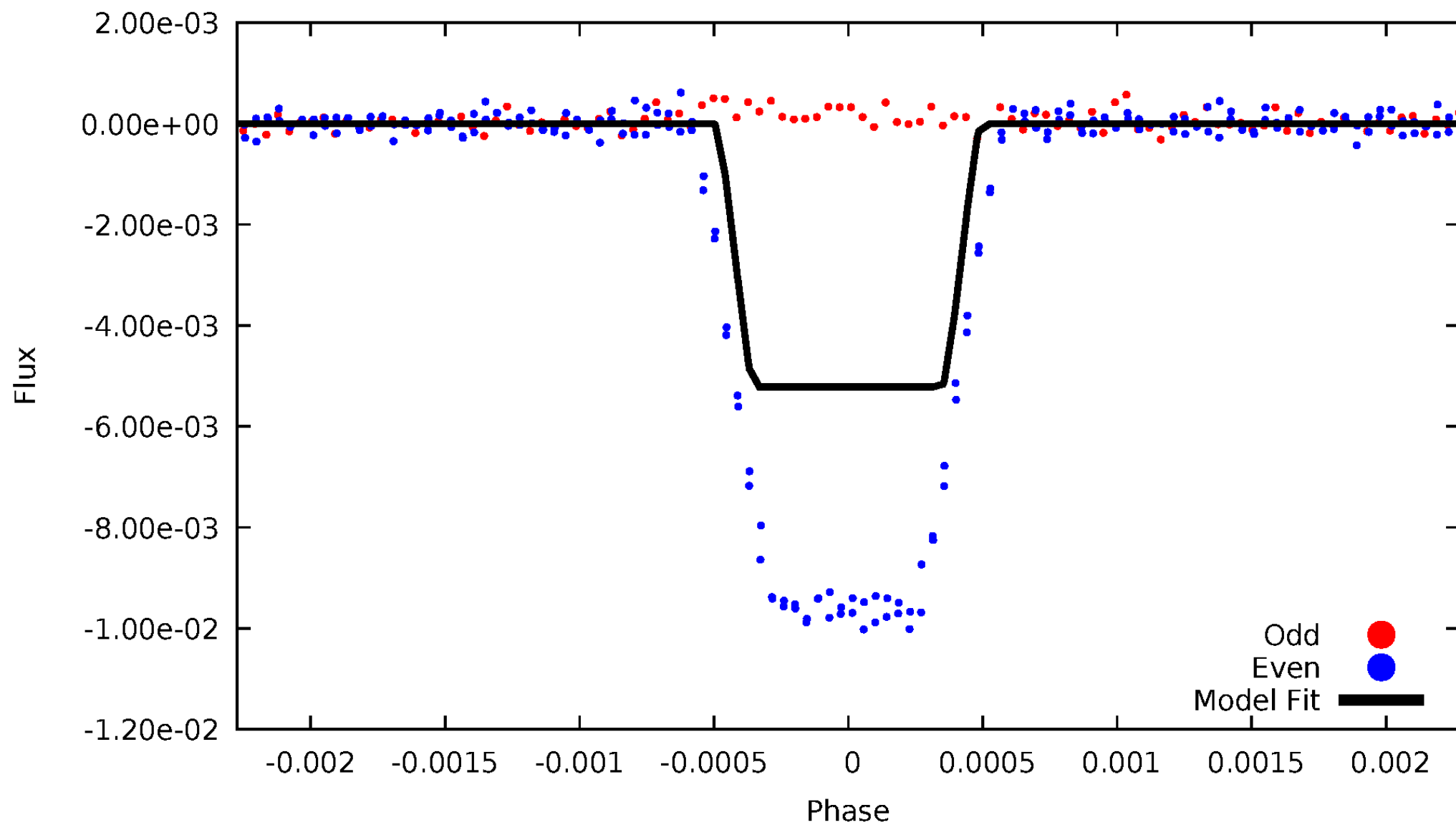
# DV Odd/Even

TCE 008005892-01



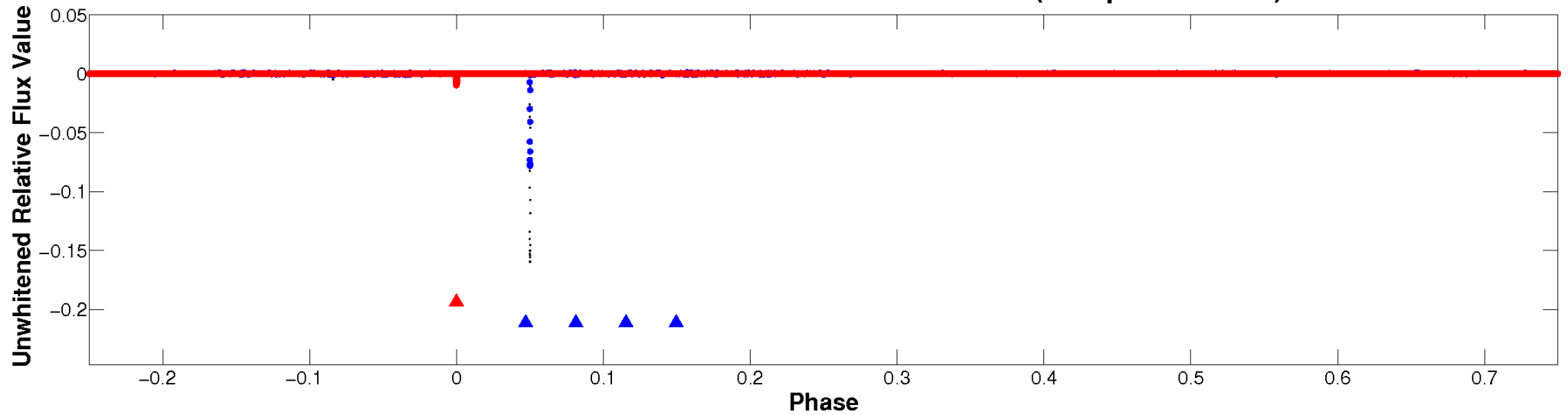
# ALT Odd/Even

TCE 008005892-01

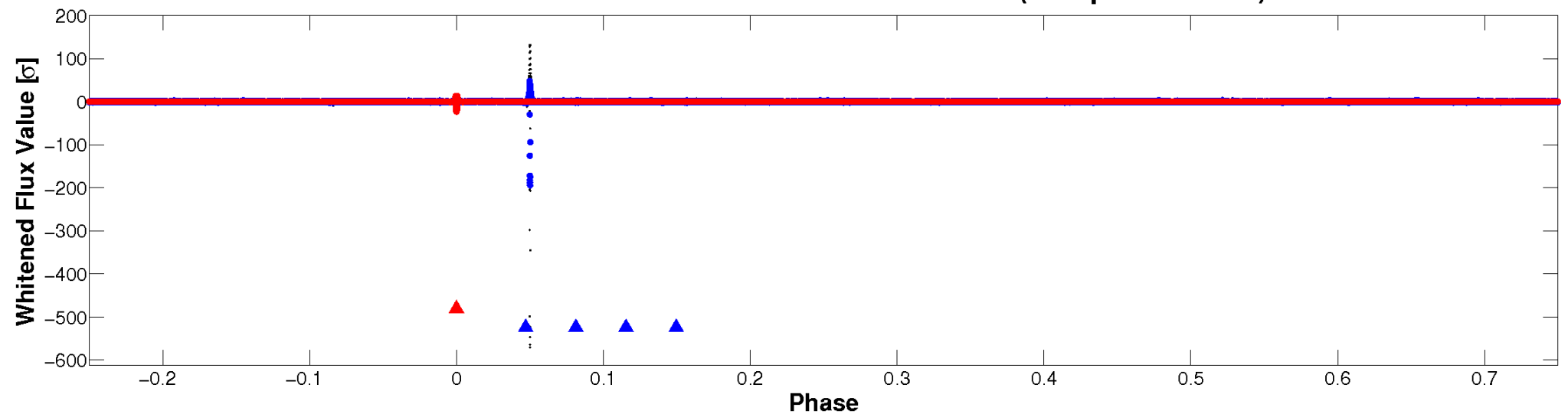


# Non-Whitened Vs. Whitened Light Curve

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

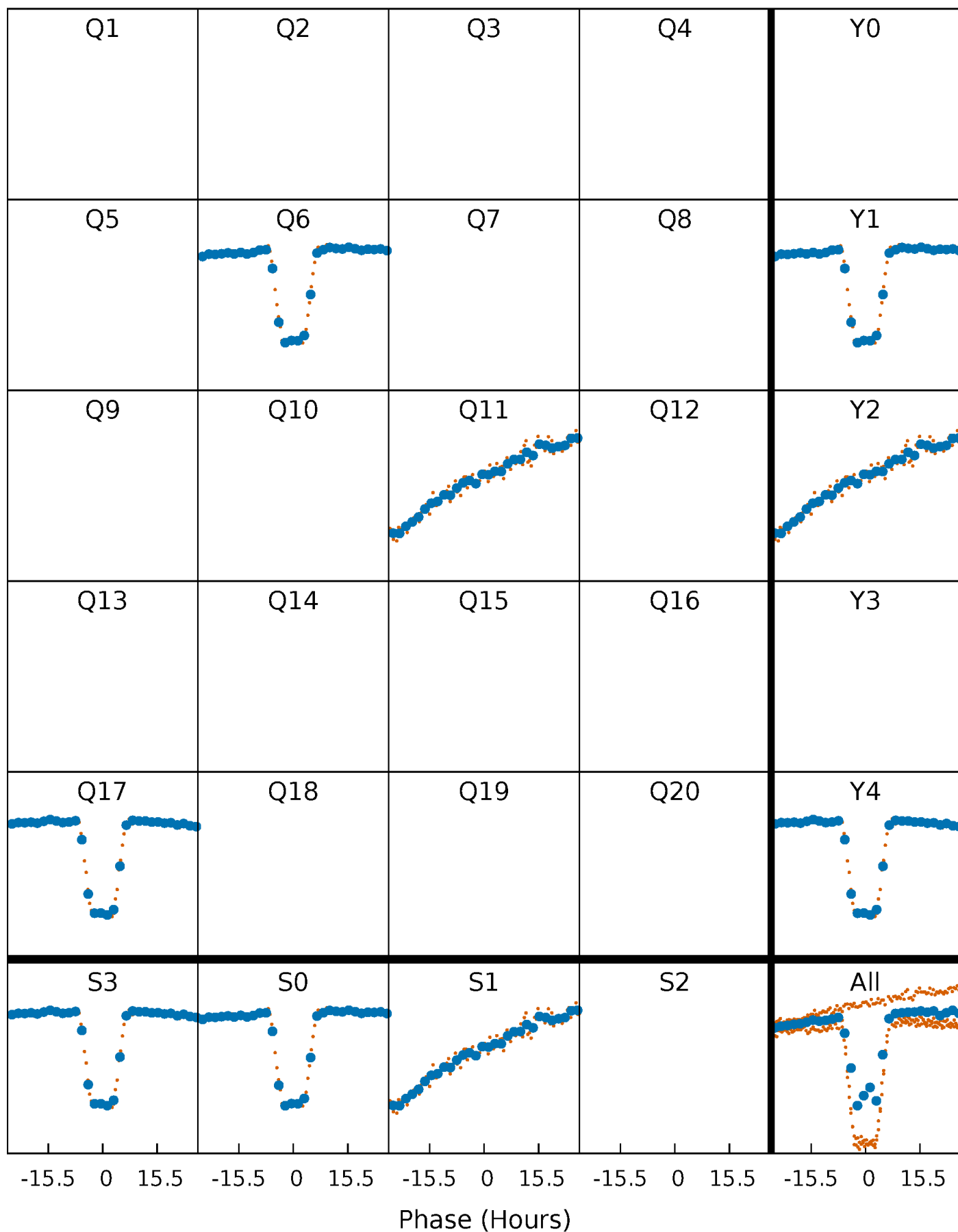


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

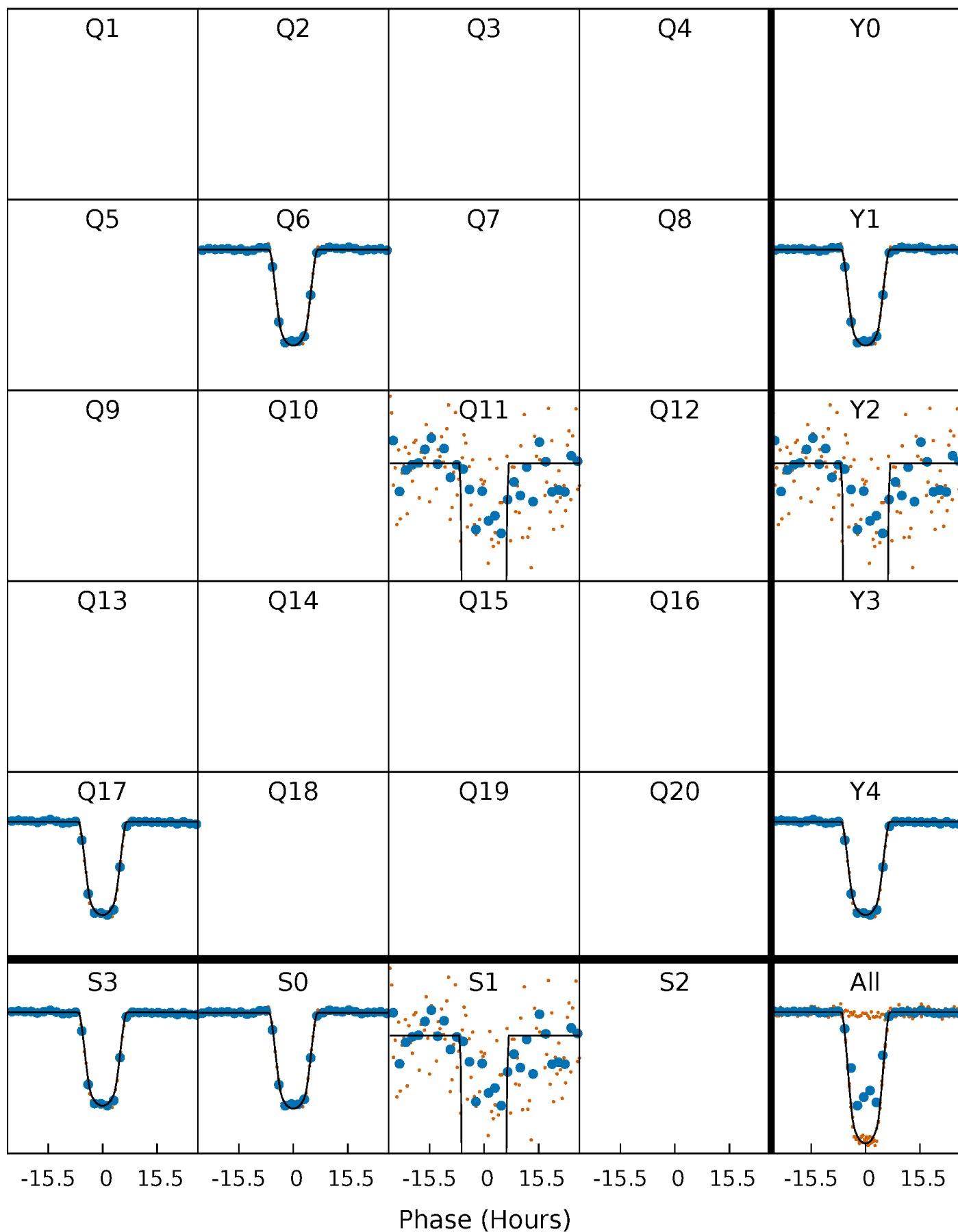
TCE 008005892-01 P=479.002761 Days  $T_0=608.383171$  (BKJD)





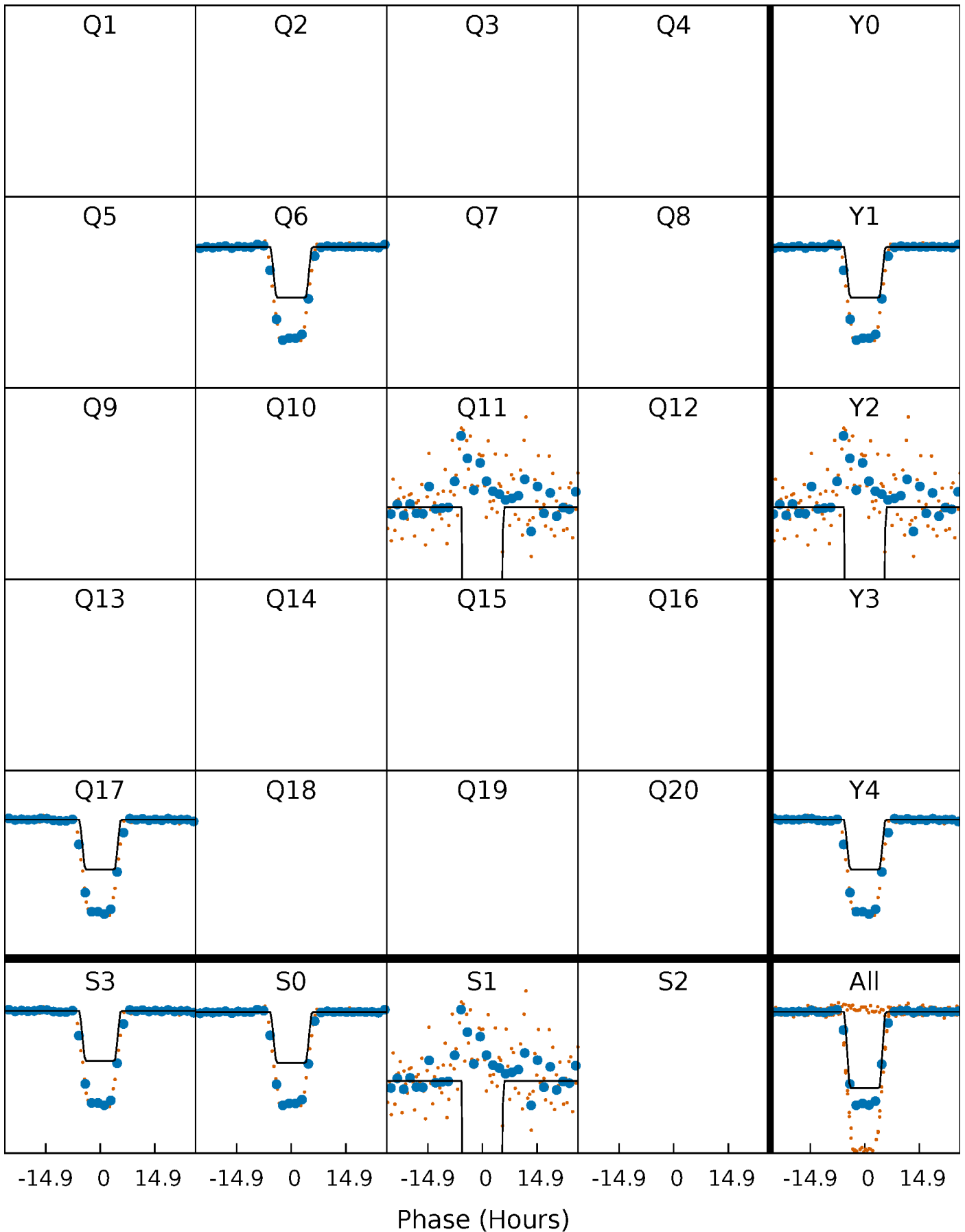
# DV Quarter-Phased Transit Curves

TCE 008005892-01 P=479.002761 Days  $T_0=608.383171$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

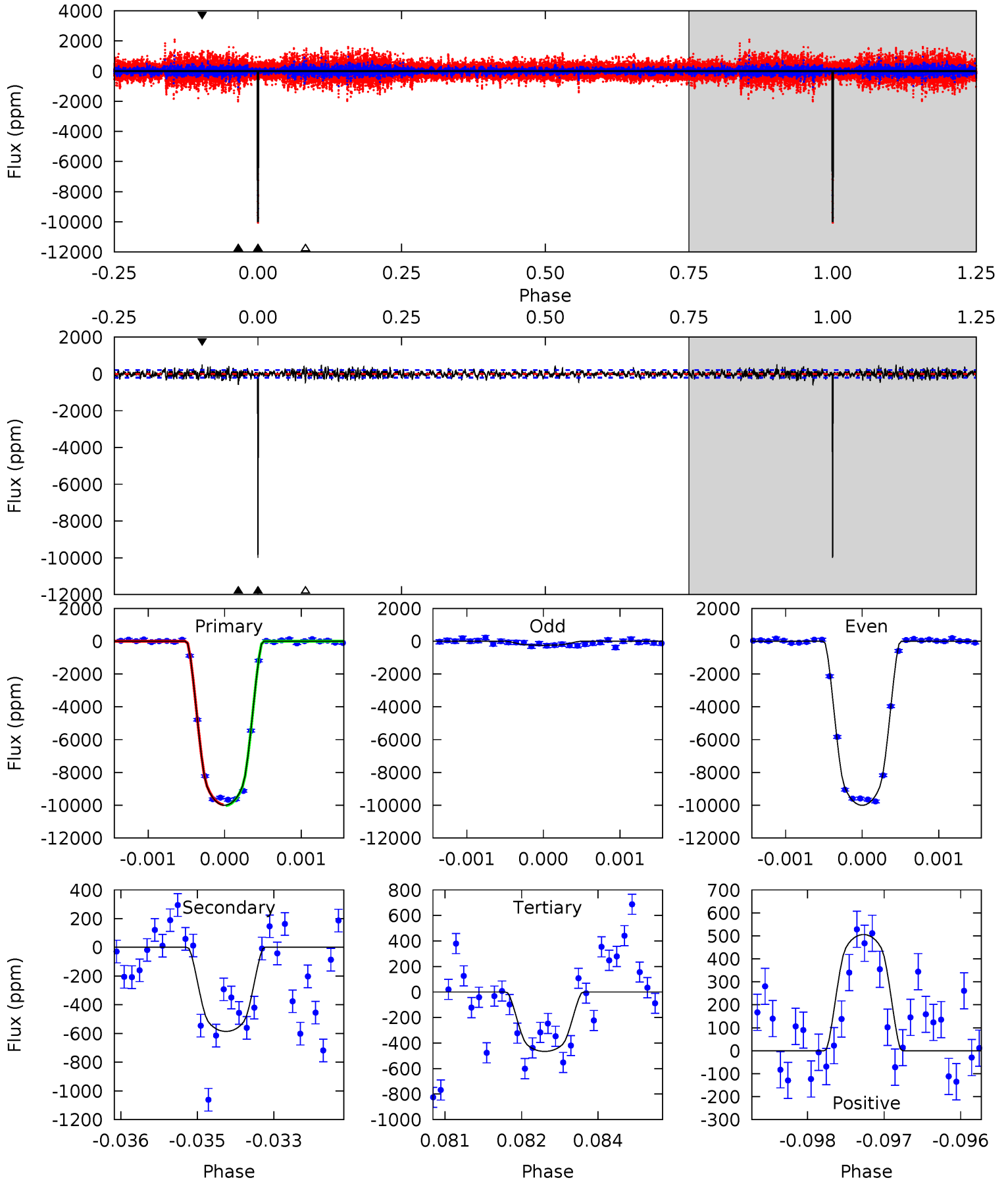
TCE 008005892-01 P=479.003513 Days  $T_0=608.385099$  (BKJD)



# DV Model-Shift Uniqueness Test

008005892-01, P = 479.002761 Days, E = 129.380410 Days

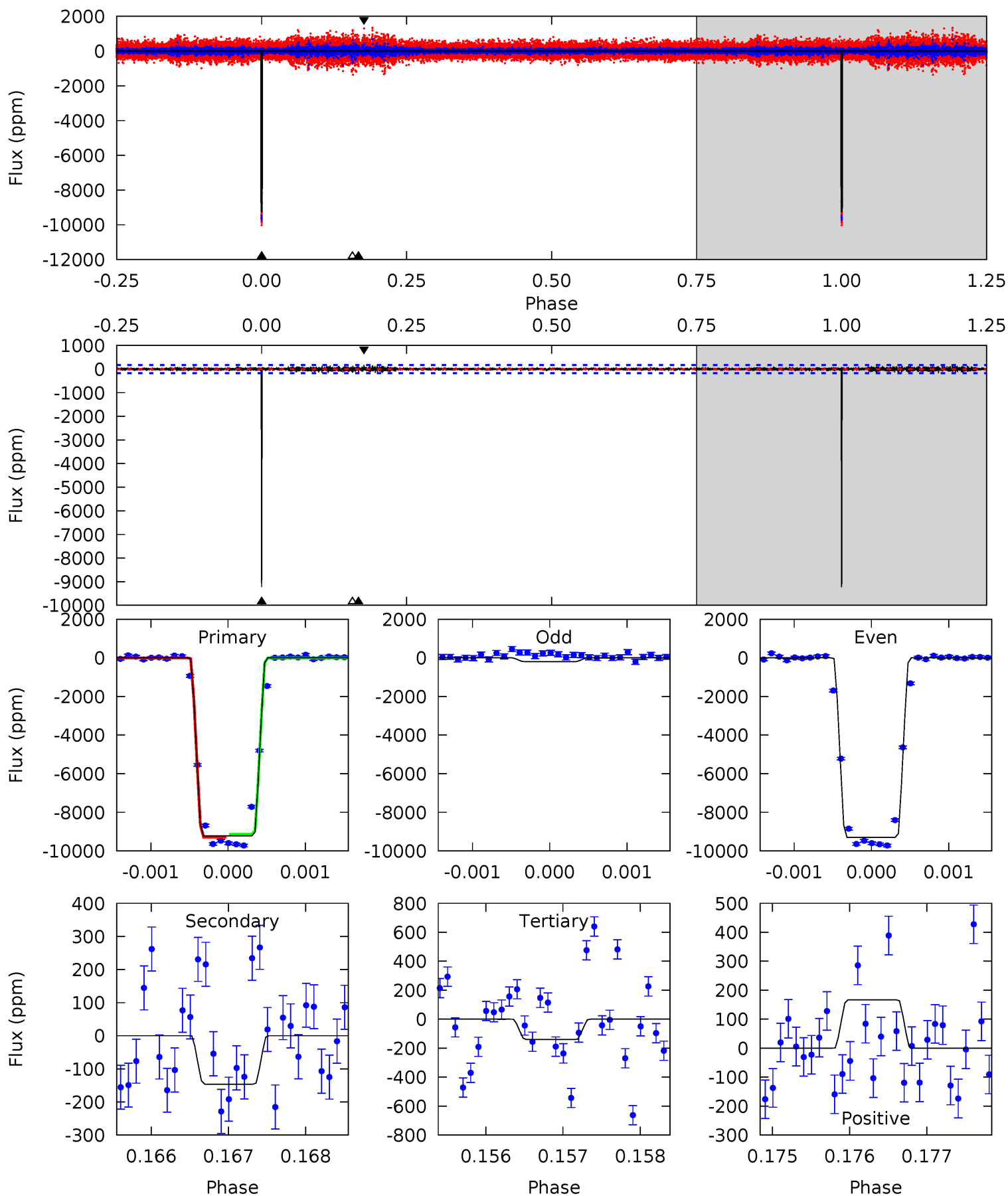
| Pri   | Sec  | Ter  | Pos  | FA <sub>1</sub> | FA <sub>2</sub> | F <sub>Red</sub> | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM  | Shape | TAT  |
|-------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 260.9 | 15.3 | 12.1 | 13.2 | 5.42            | 3.24            | 2.92             | 248.7   | 247.7   | 3.13    | 2.09    | 143.7   | 0.69 | 0.05  | 0.71 |



# Alt Model-Shift Uniqueness Test

008005892-01, P = 479.003513 Days, E = 129.381586 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  |
|-------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 295.5 | 4.68 | 4.50 | 5.34 | 5.45            | 3.28            | 0.73             | 291.0   | 290.1   | 0.18    | -0.66   | 176.3   | 0.67 | 0.02  | 2.17 |



### Stellar Parameters For KIC 008005892

|        | $T_{\text{eff}}(K)$  | $\log(g)$                 | [Fe/H]                     | $R (R_{\odot})$           | $M(M_{\odot})$            | $p_{\star} (g \cdot \text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|--------------------------------------|
|        | $5221^{+154}_{-138}$ | $4.507^{+0.095}_{-0.105}$ | $-0.240^{+0.300}_{-0.300}$ | $0.797^{+0.107}_{-0.097}$ | $0.744^{+0.107}_{-0.058}$ | $2.073^{+0.863}_{-0.611}$            |
|        | +3%/-3%              | +2%/-2%                   | +125%/-125%                | +13%/-12%                 | +14%/-8%                  | +42%/-29%                            |
| Source | PHO1                 | 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 008005892-01 / KOI

| Detrend | Depth (ppm)   | $R_p (R_{\oplus})$     | $T_{max} (K)$     | $T_{obs} (K)$       | $A_{obs}$            |
|---------|---------------|------------------------|-------------------|---------------------|----------------------|
| DV      | $-586 \pm 38$ | $9.01^{+0.77}_{-0.68}$ | $277^{+12}_{-13}$ | $3128^{+71}_{-62}$  | $4718^{+832}_{-663}$ |
| Alt.    | $-146 \pm 31$ | $6.35^{+0.55}_{-0.47}$ | $277^{+14}_{-12}$ | $2843^{+96}_{-102}$ | $2390^{+678}_{-603}$ |

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

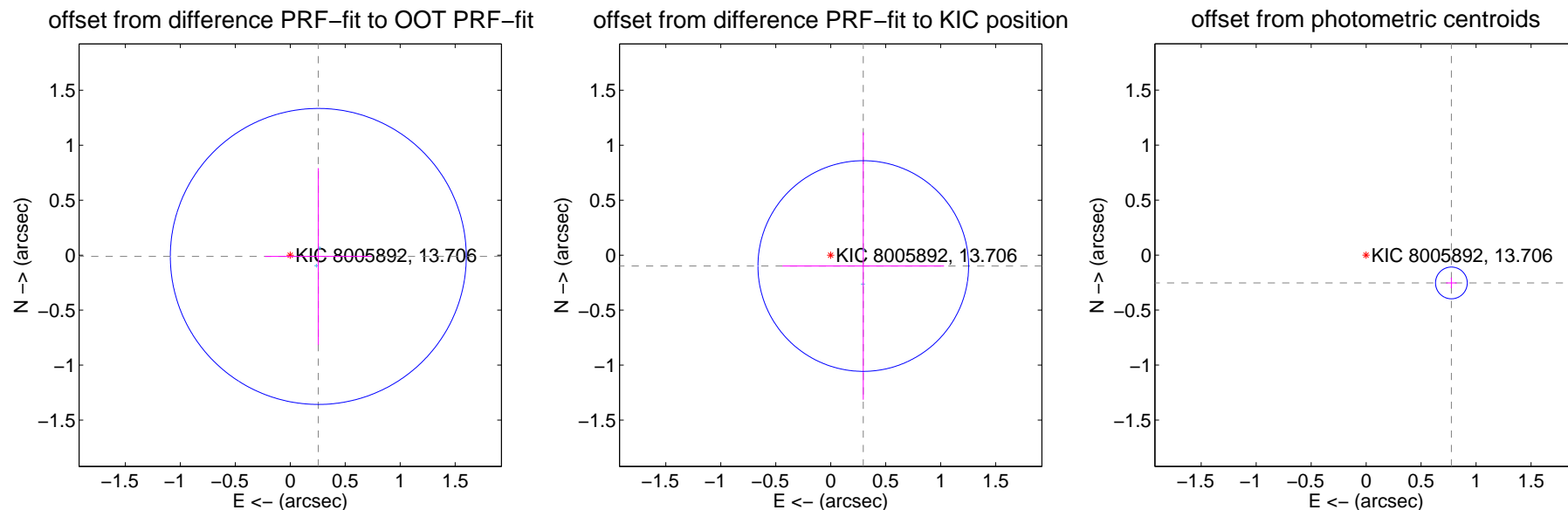
## DV Centroid Data

Supplemental centroid analysis for 008005892-01. Kepler magnitude: 13.71. Transit SNR 135.51

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

|   | Distance in arcsec | Distance / $\sigma$ | $\Delta$ RA        | $\Delta$ Dec       |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT          | $0.255 \pm 0.449$  | 0.57                | $-0.255 \pm 0.485$ | $-0.012 \pm 0.803$ |
| PRF-fit source offset from KIC position | $0.312 \pm 0.319$  | 0.98                | $-0.296 \pm 0.735$ | $-0.099 \pm 1.215$ |
| photometric centroid source offset      | $0.82 \pm 0.05$    | 16.95               | $-0.78 \pm 0.05$   | $-0.25 \pm 0.05$   |



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.

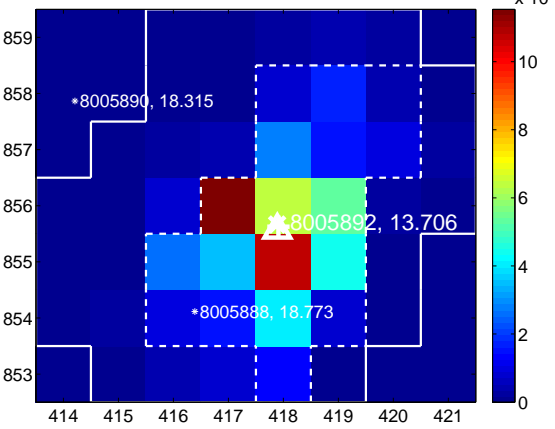
Q5 no difference image



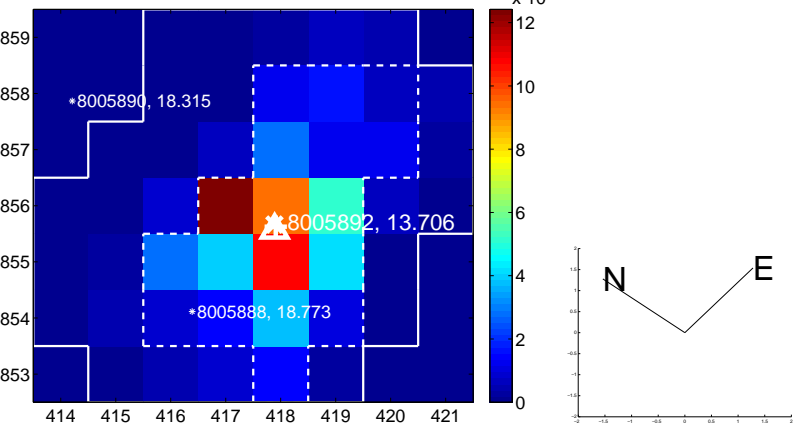
Q5 no OOT image



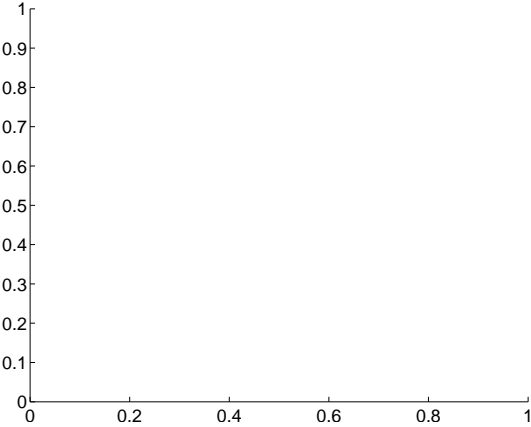
Q6 difference image



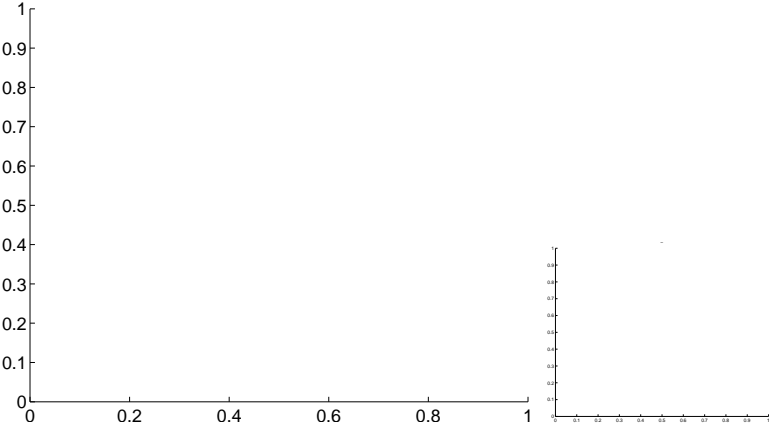
Q6 OOT image



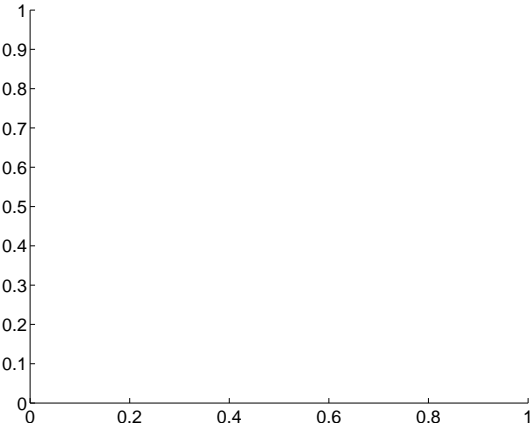
Q7 no difference image



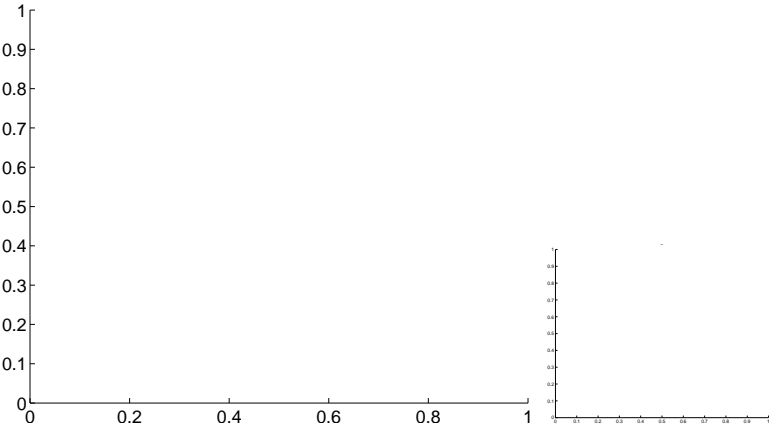
Q7 no OOT image



Q8 no difference image

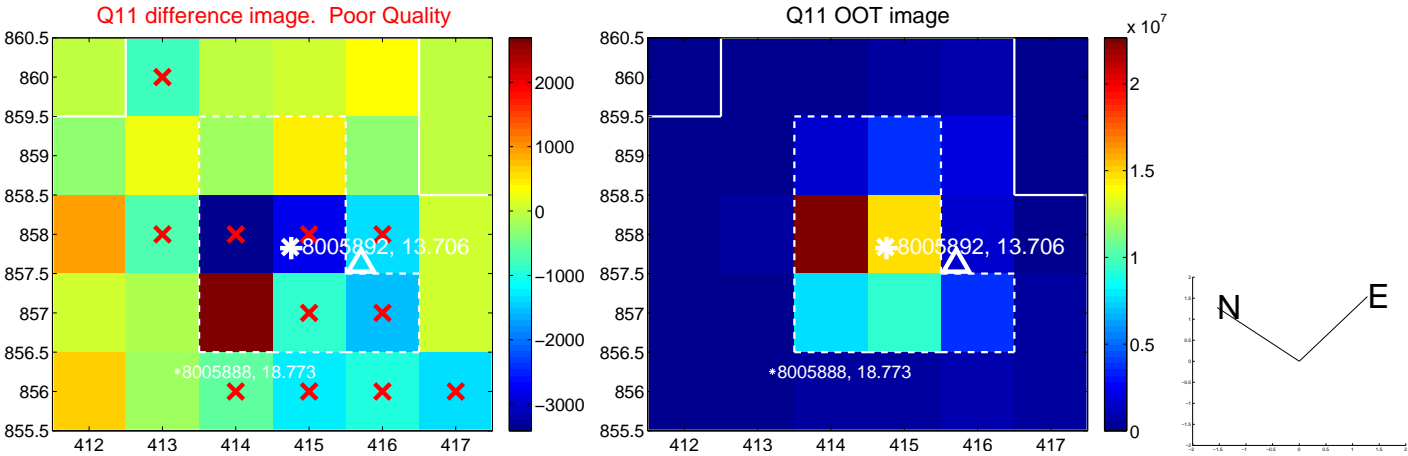


Q8 no OOT image





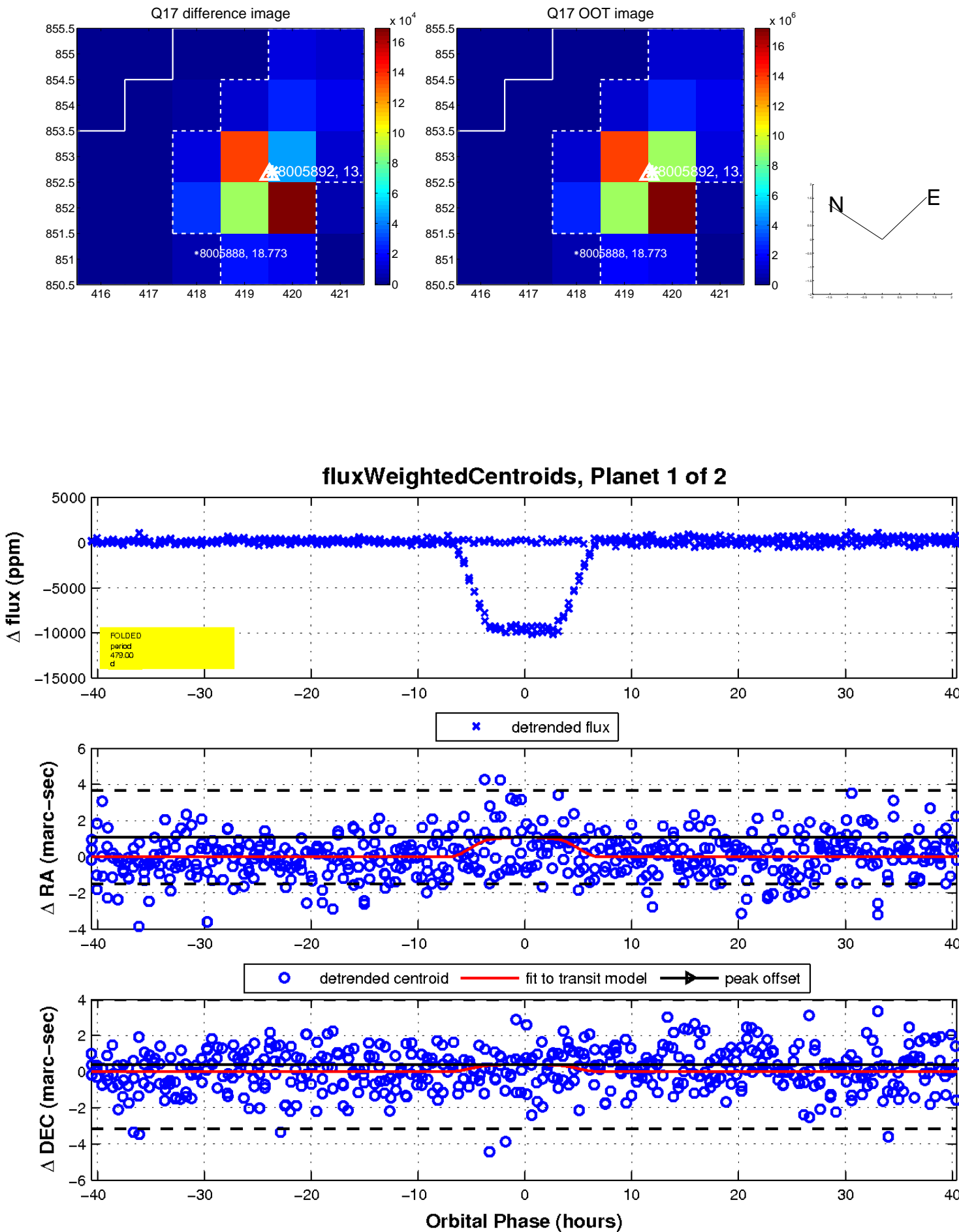
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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.



UKIRT Image

Declination

