

# KIC 008010260

## 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) | $R_p$ ( $R_{\oplus}$ ) | $S_p$ ( $S_{\oplus}$ ) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 008010260-01 | OBS      | No   | 369.616659    | 370.350612   | 69.1        | 16.652           | 22.8 | 2.8 | 63.79                       | 3386            | 63.12                  | 481.37                 |

## Robovetter Results

| TCE          | Run Type | Disp | Score | N | S | C | E | Comments  |
|--------------|----------|------|-------|---|---|---|---|---|
| 008010260-01 | OBS      | FP   | 0.00  | 1 | 0 | 0 | 0 | INDIV_TRANS_CHASES—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—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.

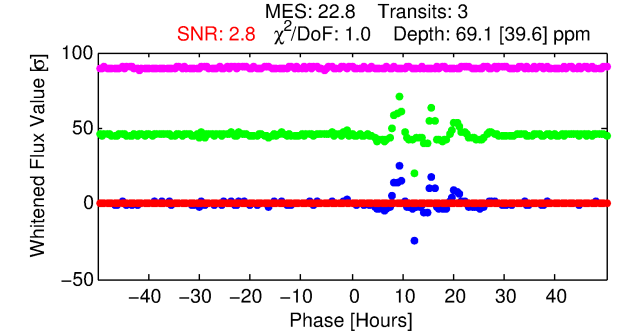
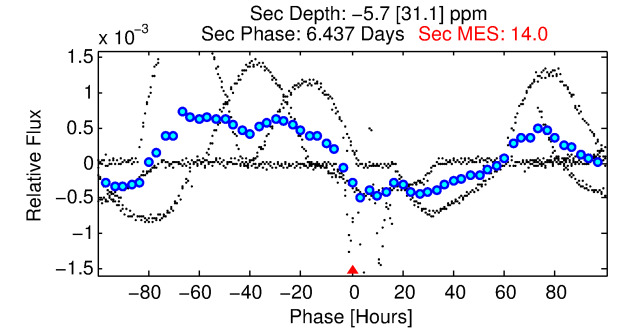
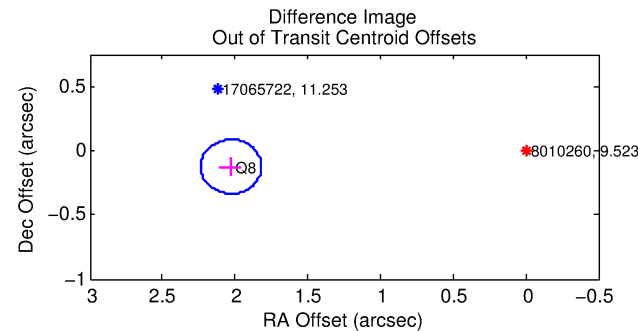
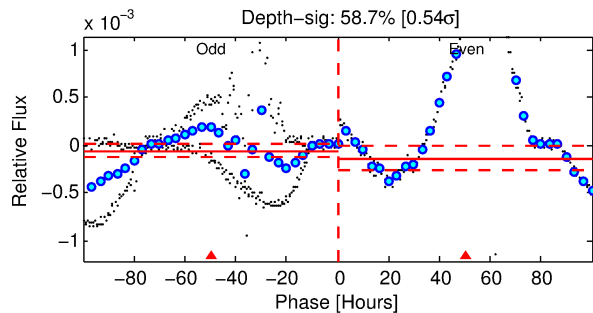
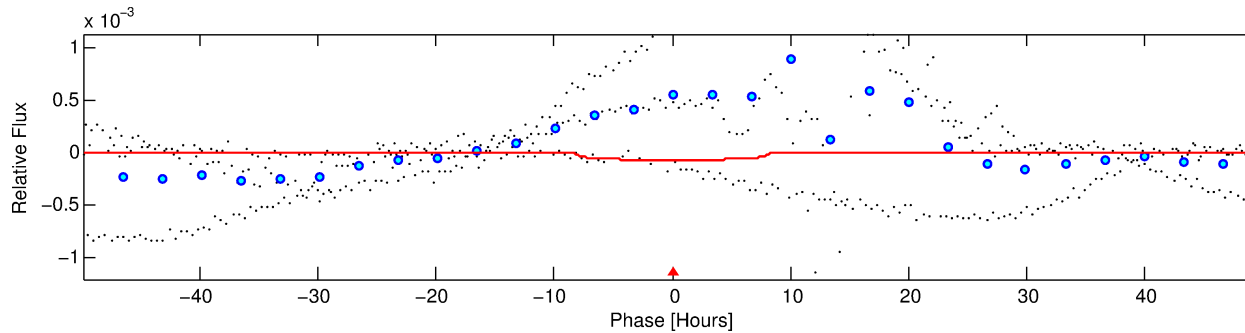
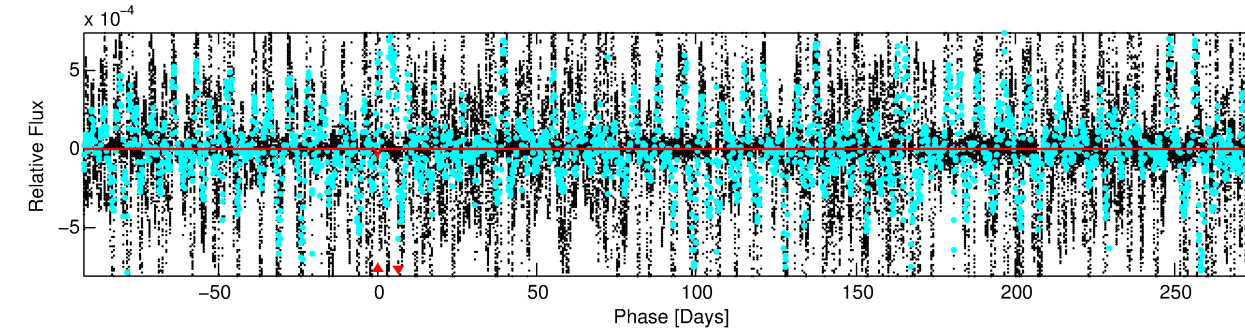
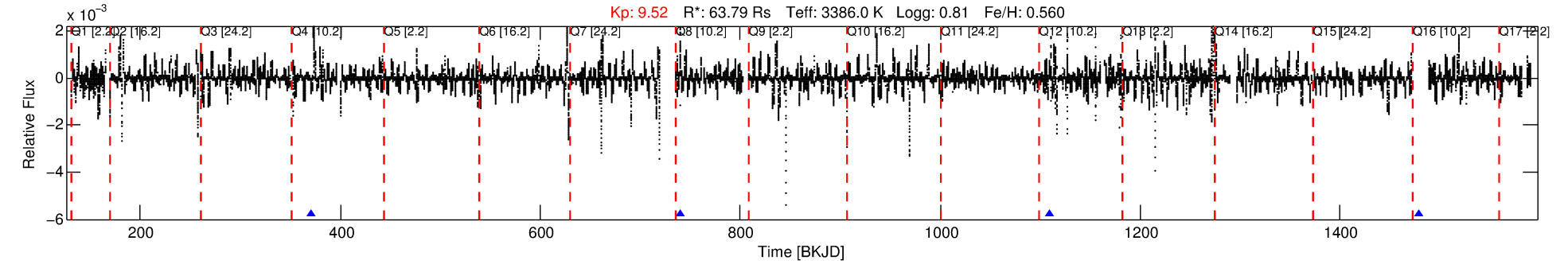
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 008010260-01

No Significant Match Found

# DV One-Page Summary

KIC: 8010260 Candidate: 1 of 1 Period: 369.617 d



## DV Fit Results:

Period = 369.61666 [0.02513] d  
Epoch = 370.3506 [0.0274] BKJD  
Rp/R\* = 0.0091 [0.0060]  
a/R\* = 94.19 [197.04]  
b = 0.84 [0.73]  
Seff = 481.37 [238.59]  
Teq = 1194 [148] K  
Rp = 63.12 [51.69] Re  
a = 0.9978 [0.3623] AU  
Ag = N/A  
Teffp = N/A

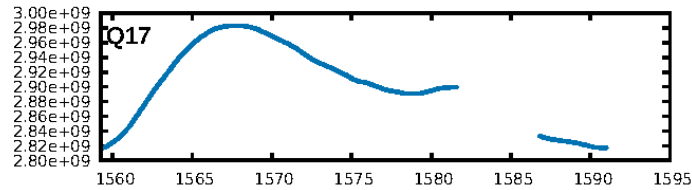
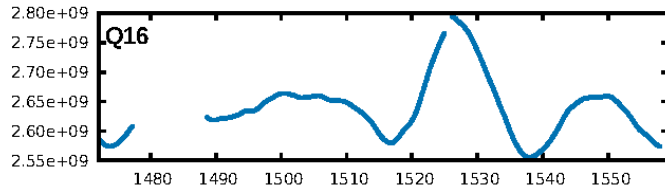
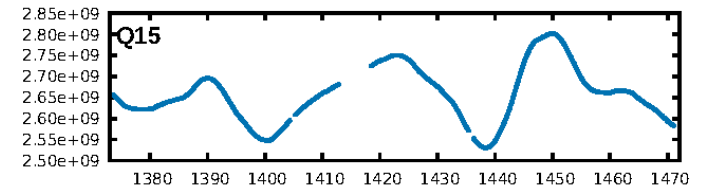
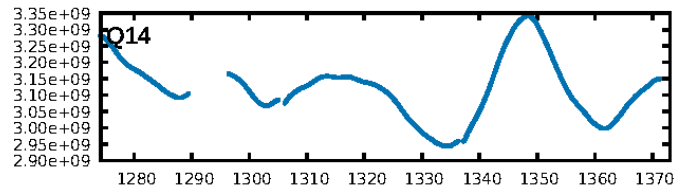
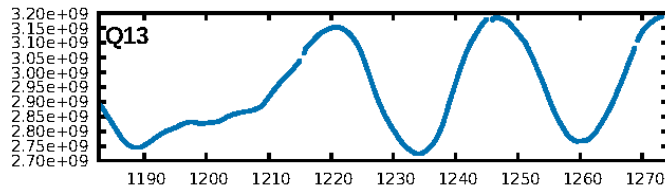
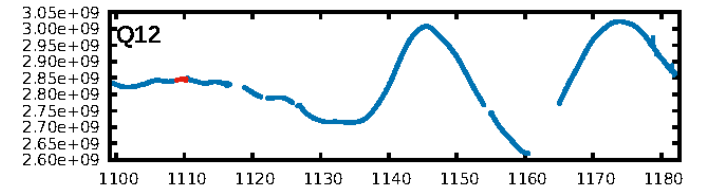
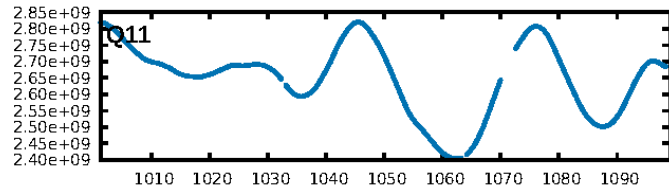
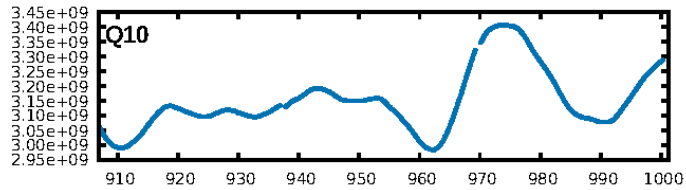
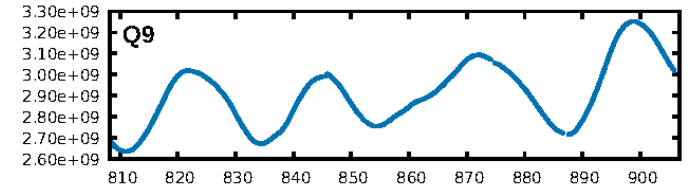
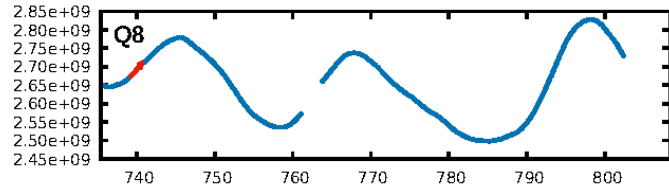
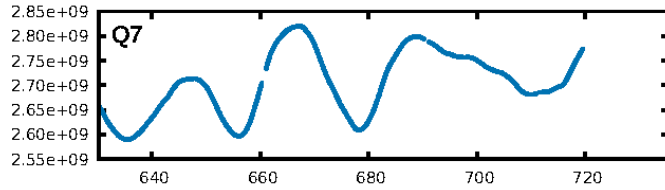
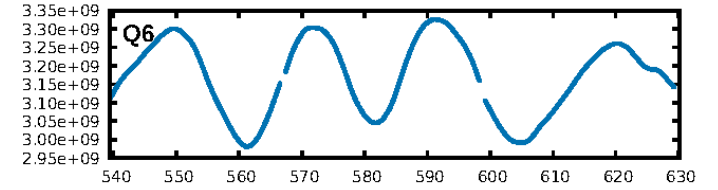
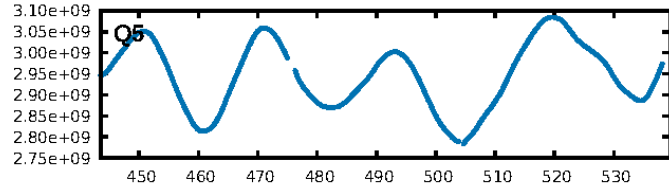
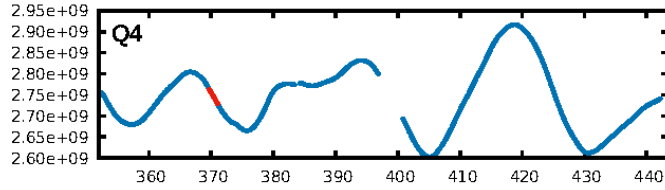
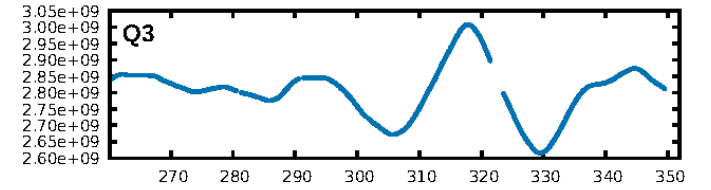
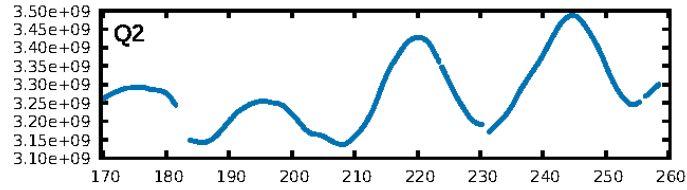
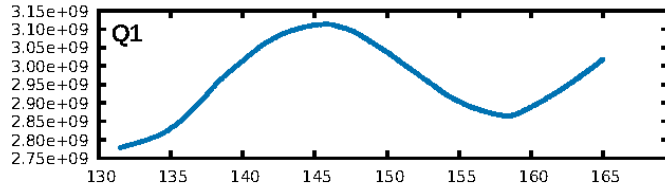
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 42.1%  
ModelChiSquareGof-sig: 99.9%  
Bootstrap-pfa: 1.42e-08  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: N/A  
Centroid-sig: 84.1%  
Centroid-so: 11.012 arcsec [0.35σ]  
OotOffset-rm: 2.034 arcsec [29.03σ]  
KicOffset-rm: 2.579 arcsec [36.82σ]  
OotOffset-st: 0/0/1/0 [1]  
KicOffset-st: 0/0/1/0 [1]  
DiffImageQuality-fgm: 0.00 [0/1]  
DiffImageOverlap-fno: 1.00 [2/2]

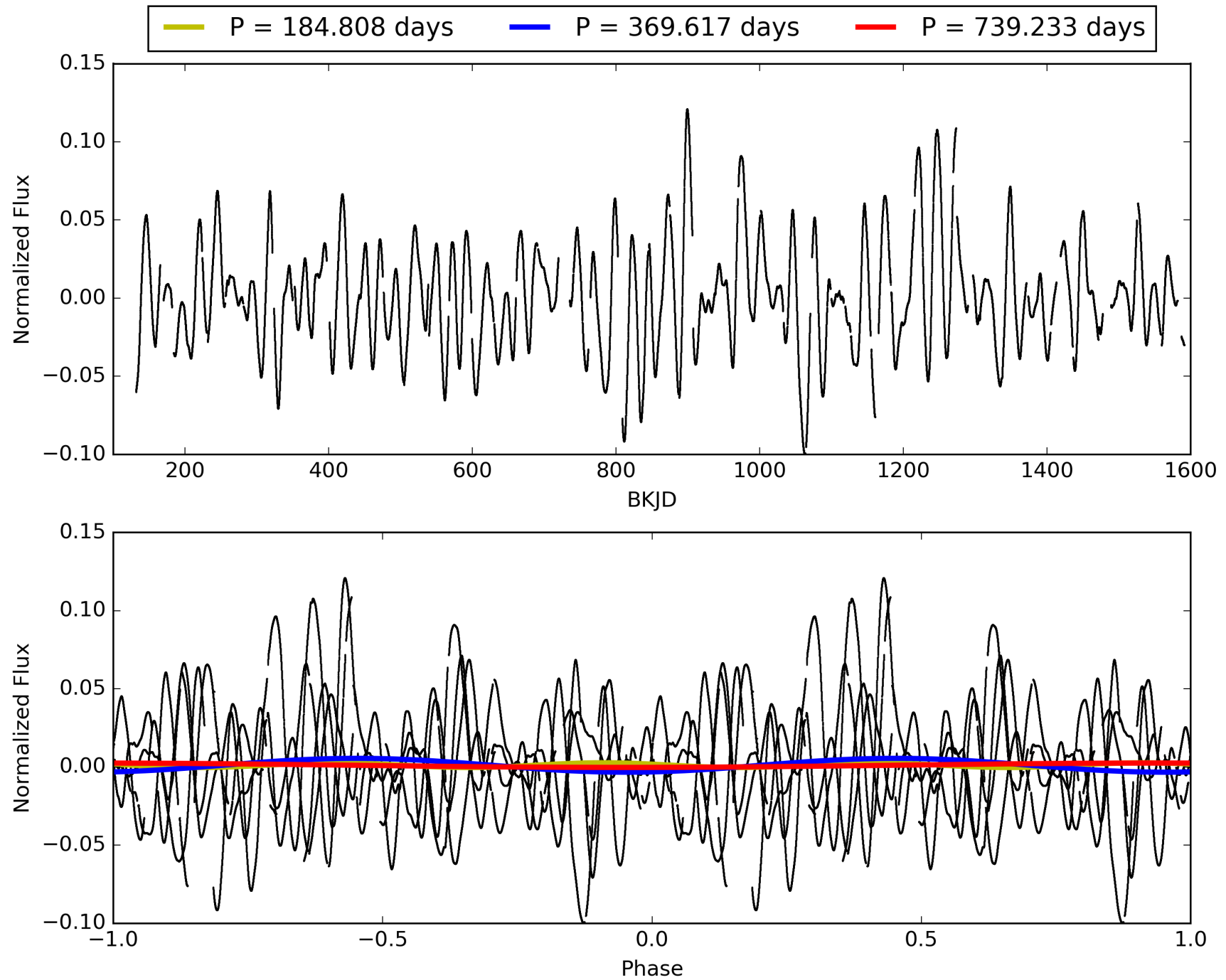
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 16:53:03 Z

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

# TCE 008010260-01, PDC Light Curves

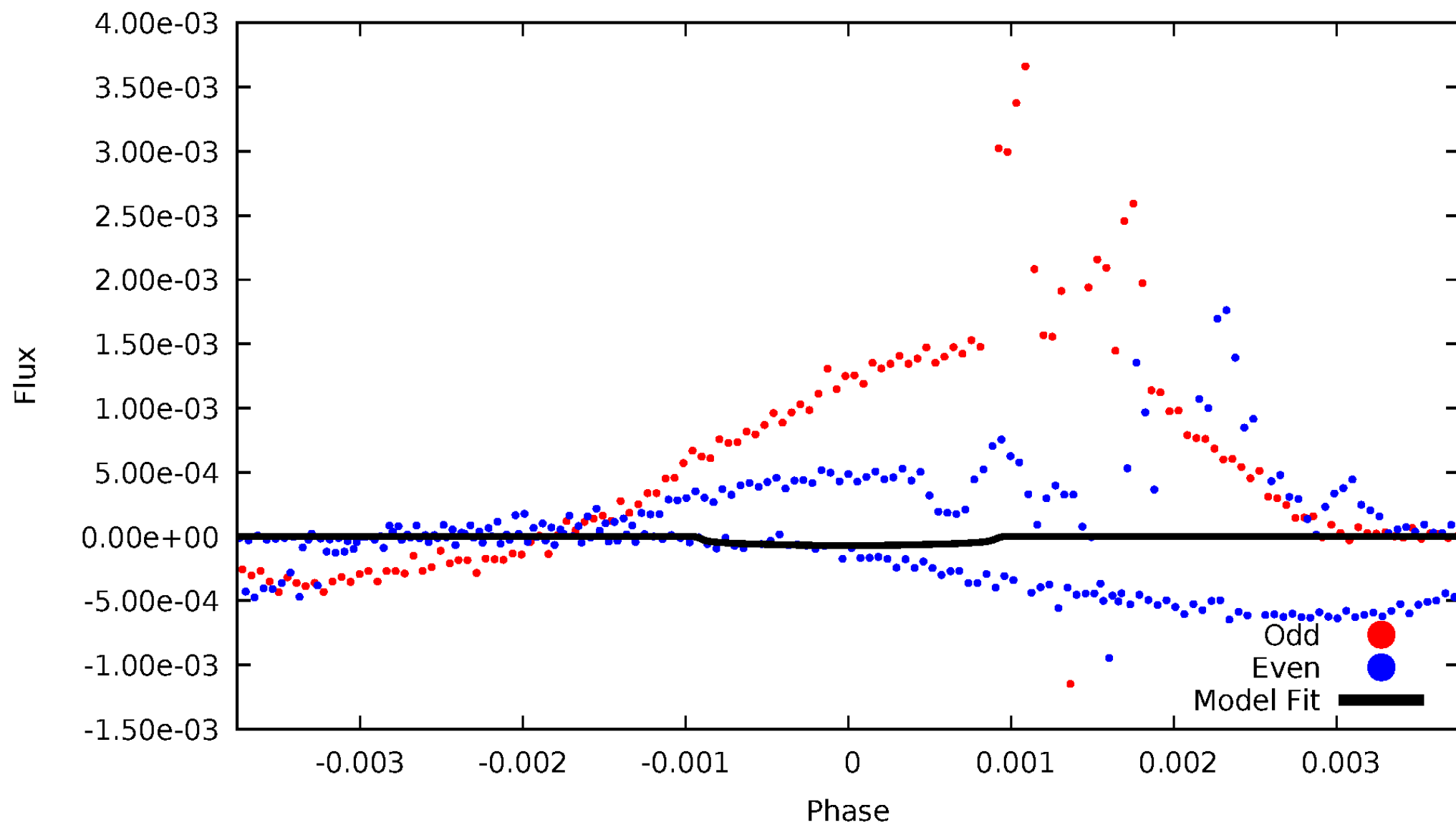


TCE 008010260-01



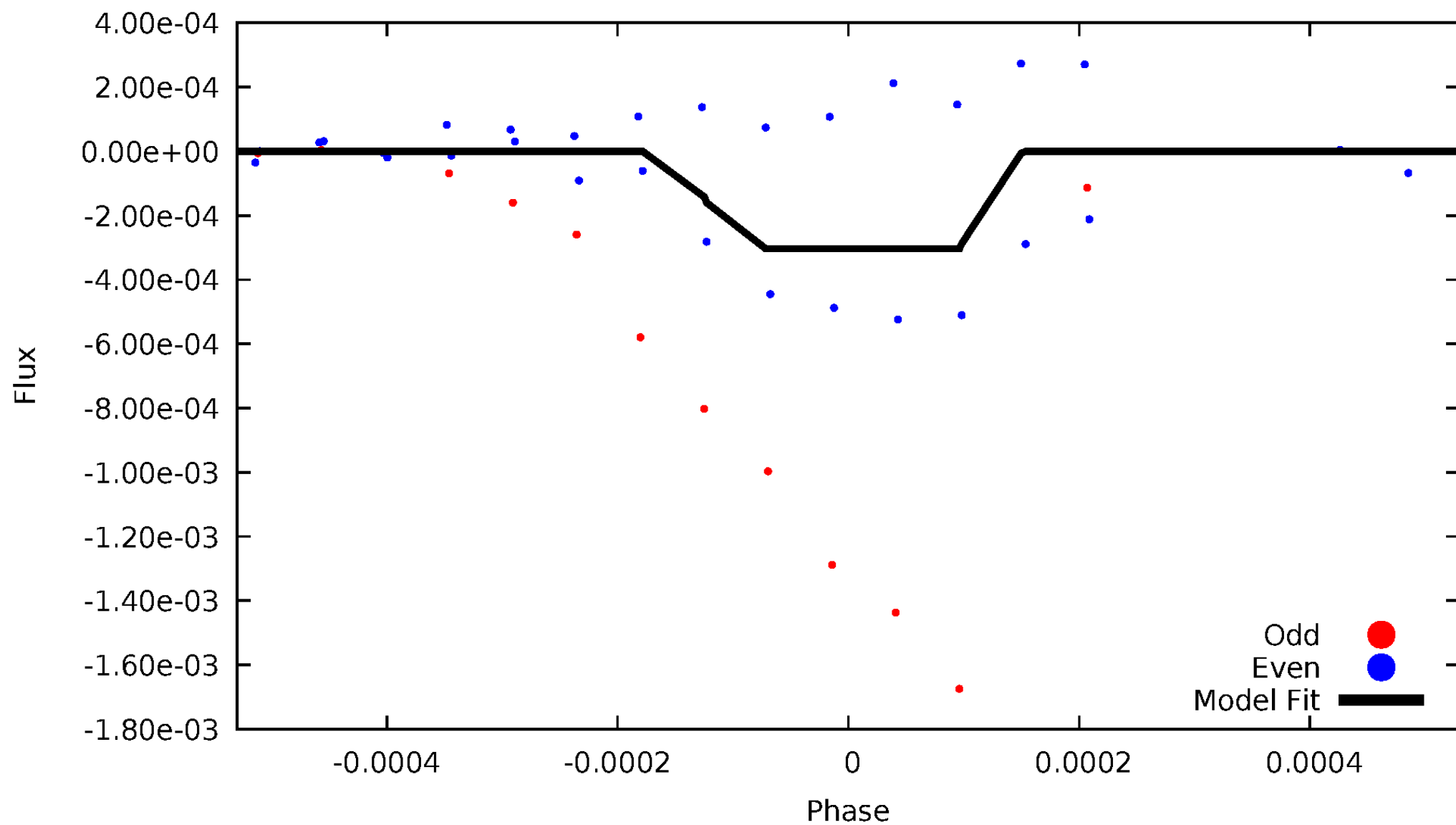
# DV Odd/Even

TCE 008010260-01



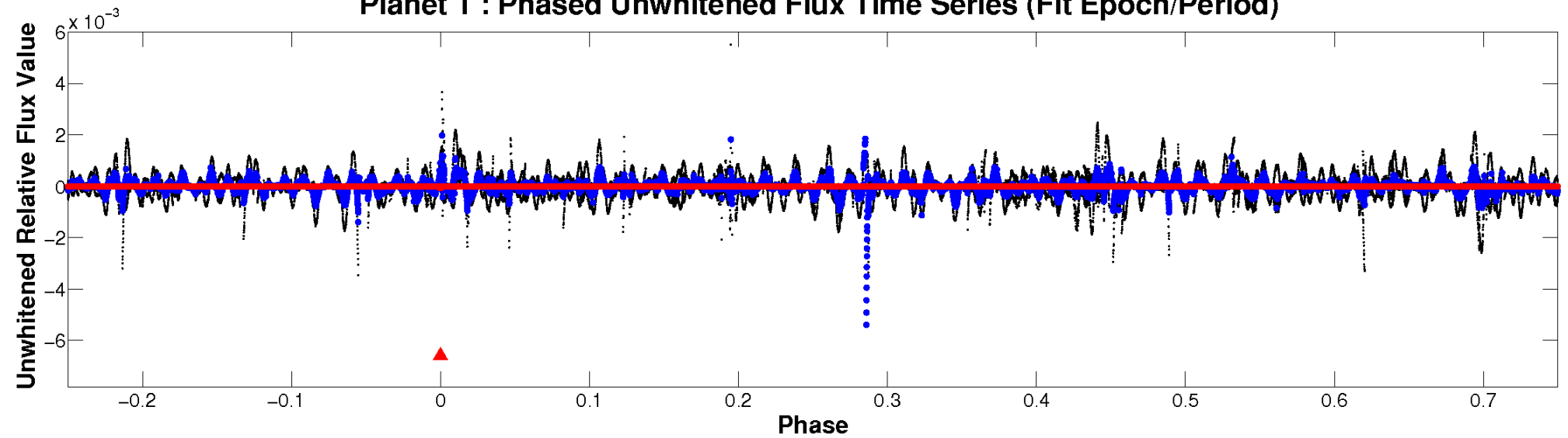
# ALT Odd/Even

TCE 008010260-01

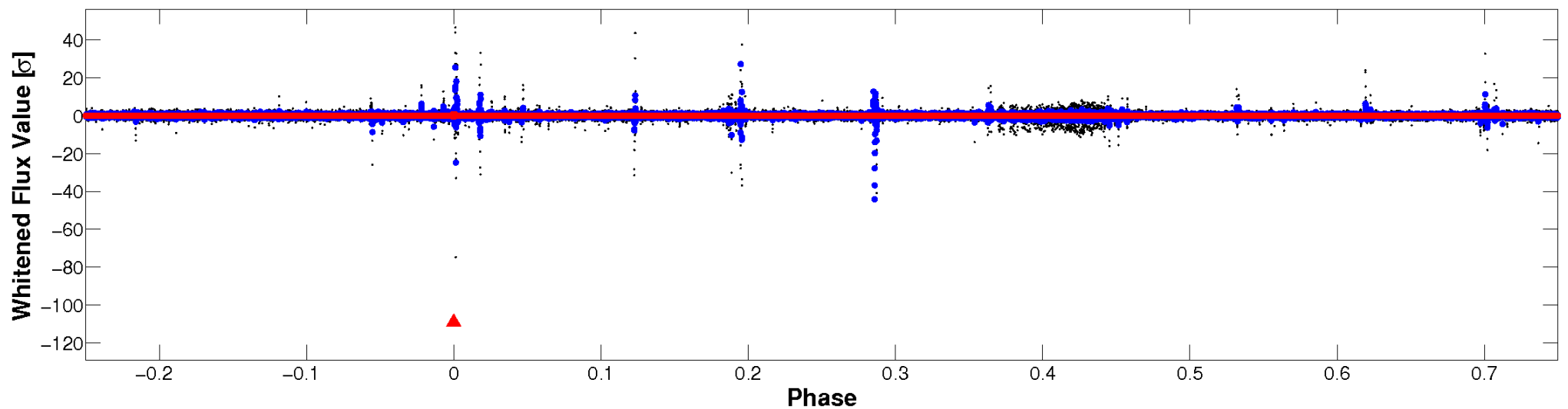


# Non-Whitened Vs. Whitened Light Curve

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

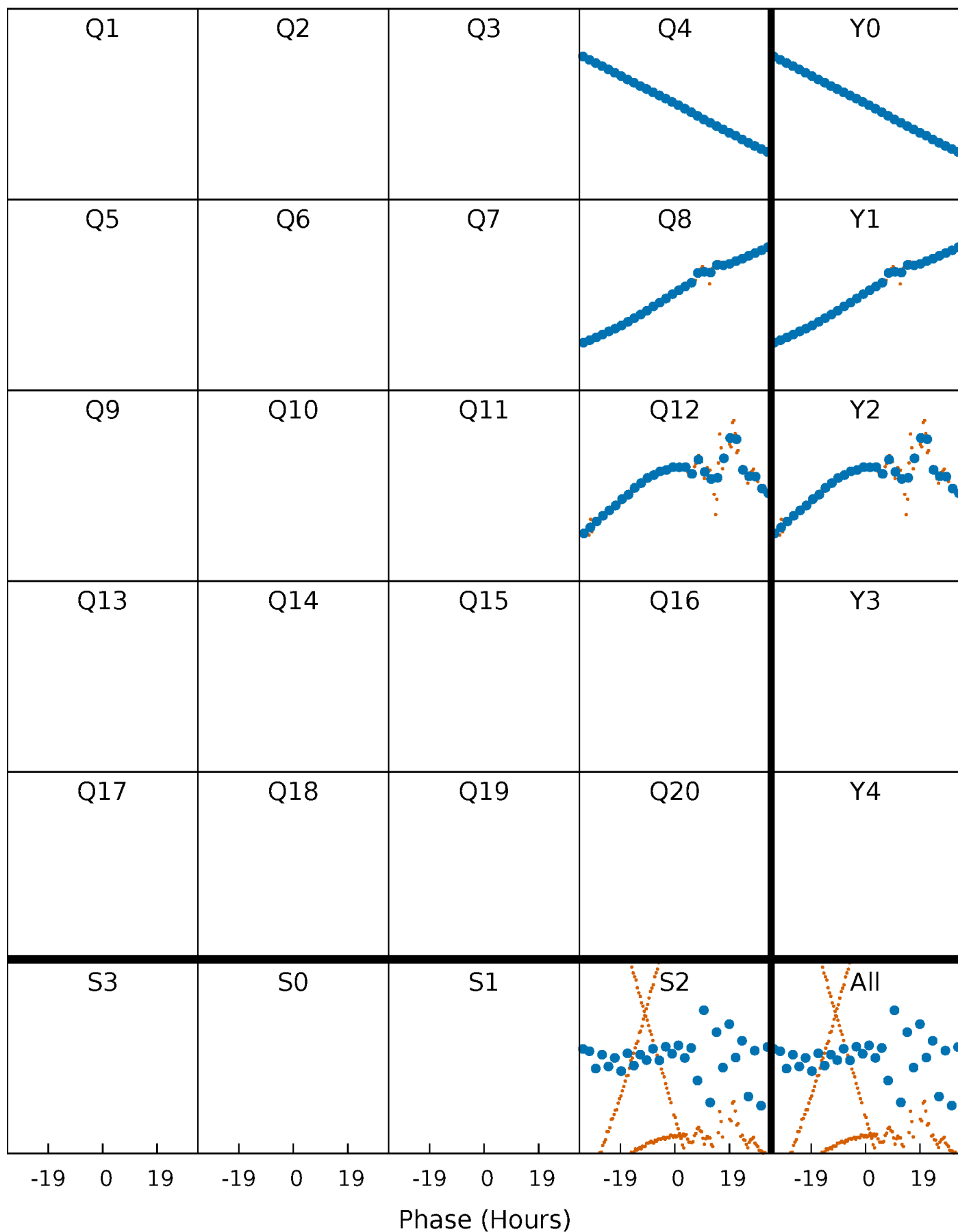


**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**



# PDC Quarter-Phased Transit Curves

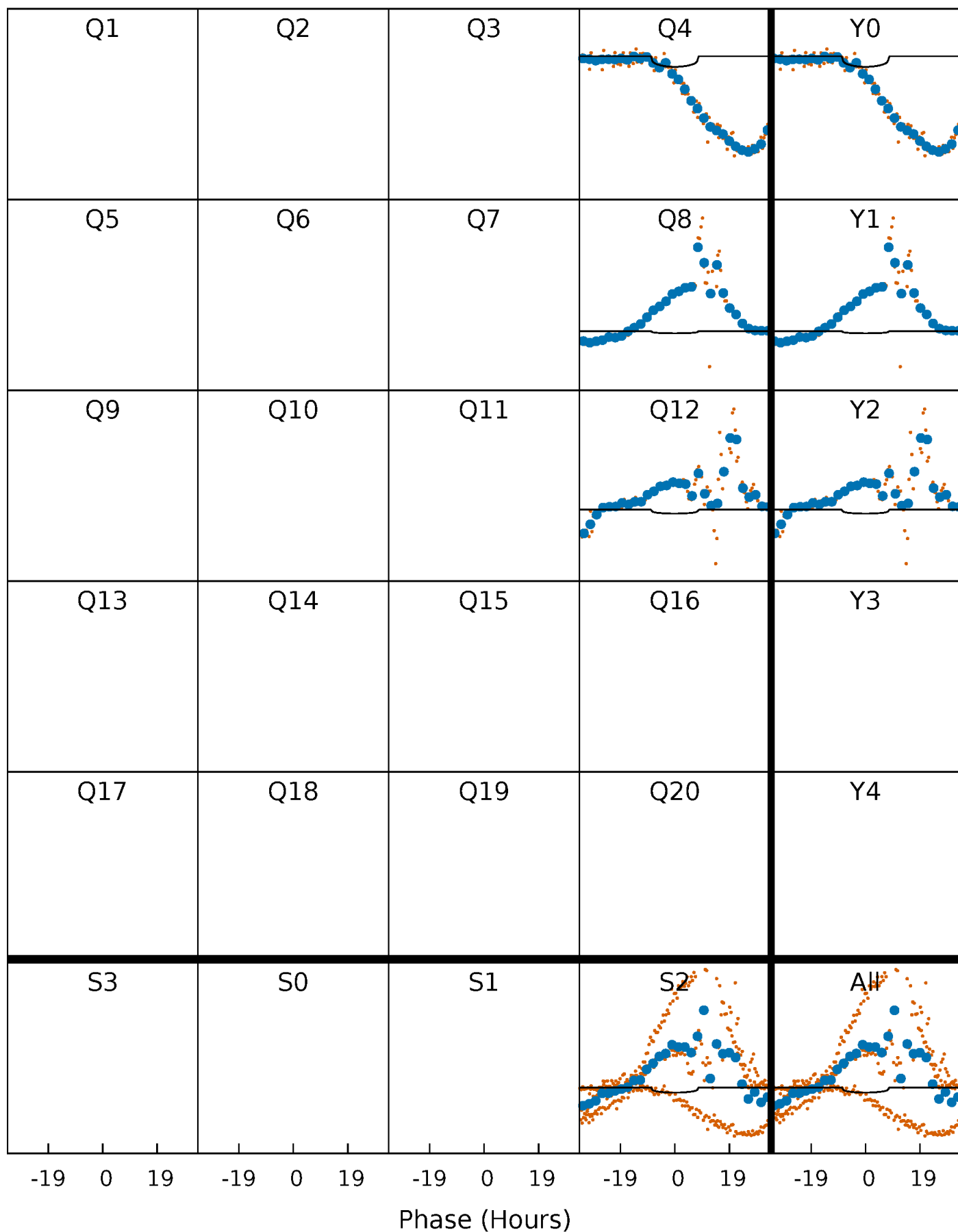
TCE 008010260-01 P=369.616659 Days  $T_0=370.350612$  (BKJD)





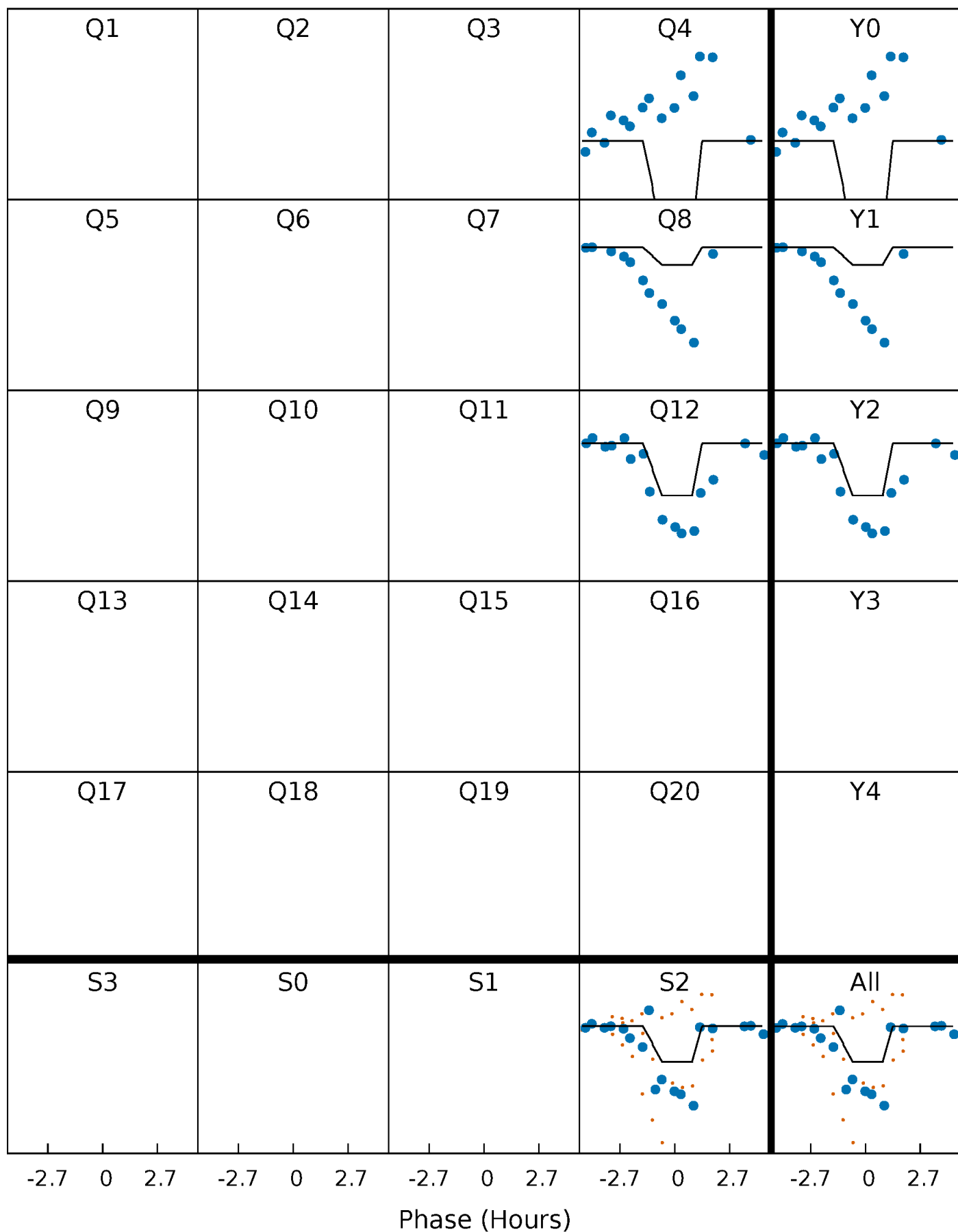
# DV Quarter-Phased Transit Curves

TCE 008010260-01     $P=369.616659$  Days     $T_0=370.350612$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

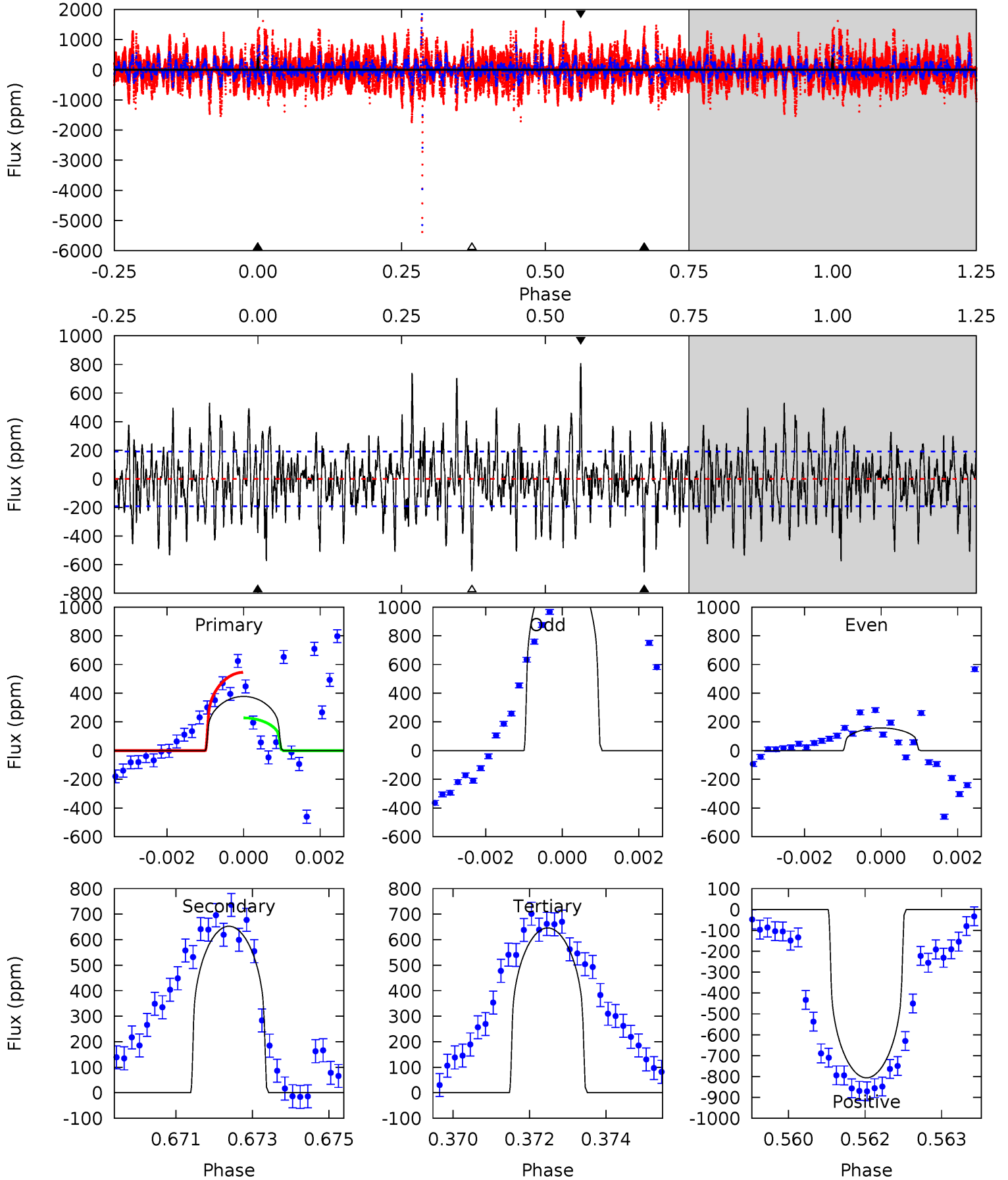
TCE 008010260-01 P=369.581800 Days  $T_0=370.649848$  (BKJD)



# DV Model-Shift Uniqueness Test

008010260-01, P = 369.616659 Days, E = 0.733953 Days

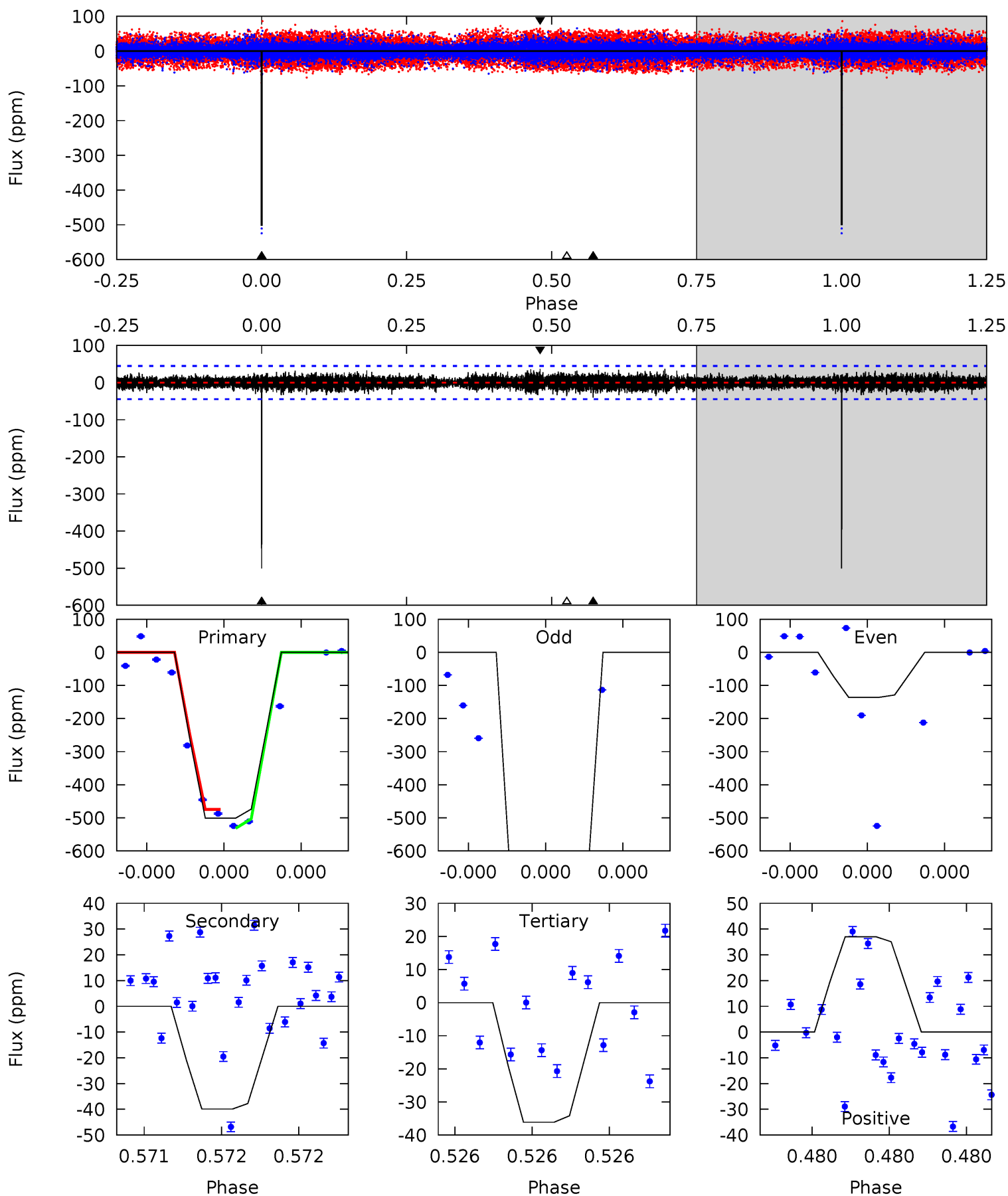
| Pri  | Sec  | Ter  | Pos  | FA <sub>1</sub> | FA <sub>2</sub> | F <sub>Red</sub> | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM  | Shape | TAT  |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 10.5 | 18.2 | 18.0 | 22.5 | 5.33            | 3.10            | 5.00             | -7.47   | -11.9   | 0.19    | -4.28   | 13.5    | 1.14 | 0.55  | 4.42 |



# Alt Model-Shift Uniqueness Test

008010260-01, P = 369.581800 Days, E = 1.068048 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  |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 63.5 | 5.06 | 4.58 | 4.70 | 5.67            | 3.63            | 1.00             | 58.9    | 58.8    | 0.48    | 0.36    | 81.4    | 1.15 | 0.07  | 3.55 |



### Stellar Parameters For KIC 008010260

|        | $T_{\text{eff}} (K)$ | $\log(g)$                 | $[\text{Fe}/\text{H}]$    | $R (R_{\odot})$              | $M (M_{\odot})$           | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|------------------------------|---------------------------|---|
|        | $3386^{+132}_{-84}$  | $0.815^{+0.164}_{-0.225}$ | $0.560^{+0.050}_{-0.150}$ | $63.790^{+30.568}_{-10.189}$ | $0.970^{+0.443}_{-0.025}$ | $0.000^{+0.000}_{-0.000}$                 |
|        | +4%/-2%              | +20%/-28%                 | +9%/-27%                  | +48%/-16%                    | +46%/-3%                  | +82%/-63%                                 |
| 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 008010260-01 / KOI

| Detrend | Depth (ppm)   | $R_p (R_{\oplus})$         | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$  | $A_{\text{obs}}$          |
|---------|---------------|----------------------------|----------------------|-----------------------|---------------------------|
| DV      | $-653 \pm 36$ | $68.05^{+49.61}_{-38.33}$  | $1684^{+166}_{-113}$ | $4855^{+2474}_{-841}$ | $82^{+364}_{-53}$         |
| Alt.    | $-40 \pm 8$   | $126.57^{+53.09}_{-44.88}$ | $1678^{+175}_{-121}$ | $2491^{+335}_{-269}$  | $1.436^{+2.118}_{-0.735}$ |

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

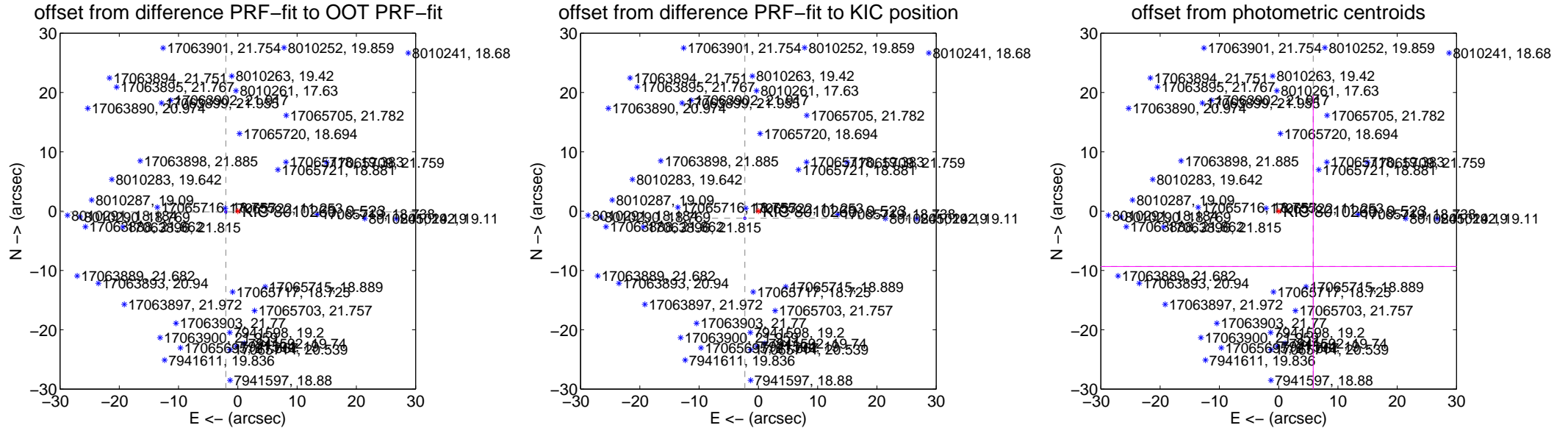
## DV Centroid Data

Supplemental centroid analysis for 008010260-01. **Kepler magnitude: 9.52.** Transit SNR 2.81

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

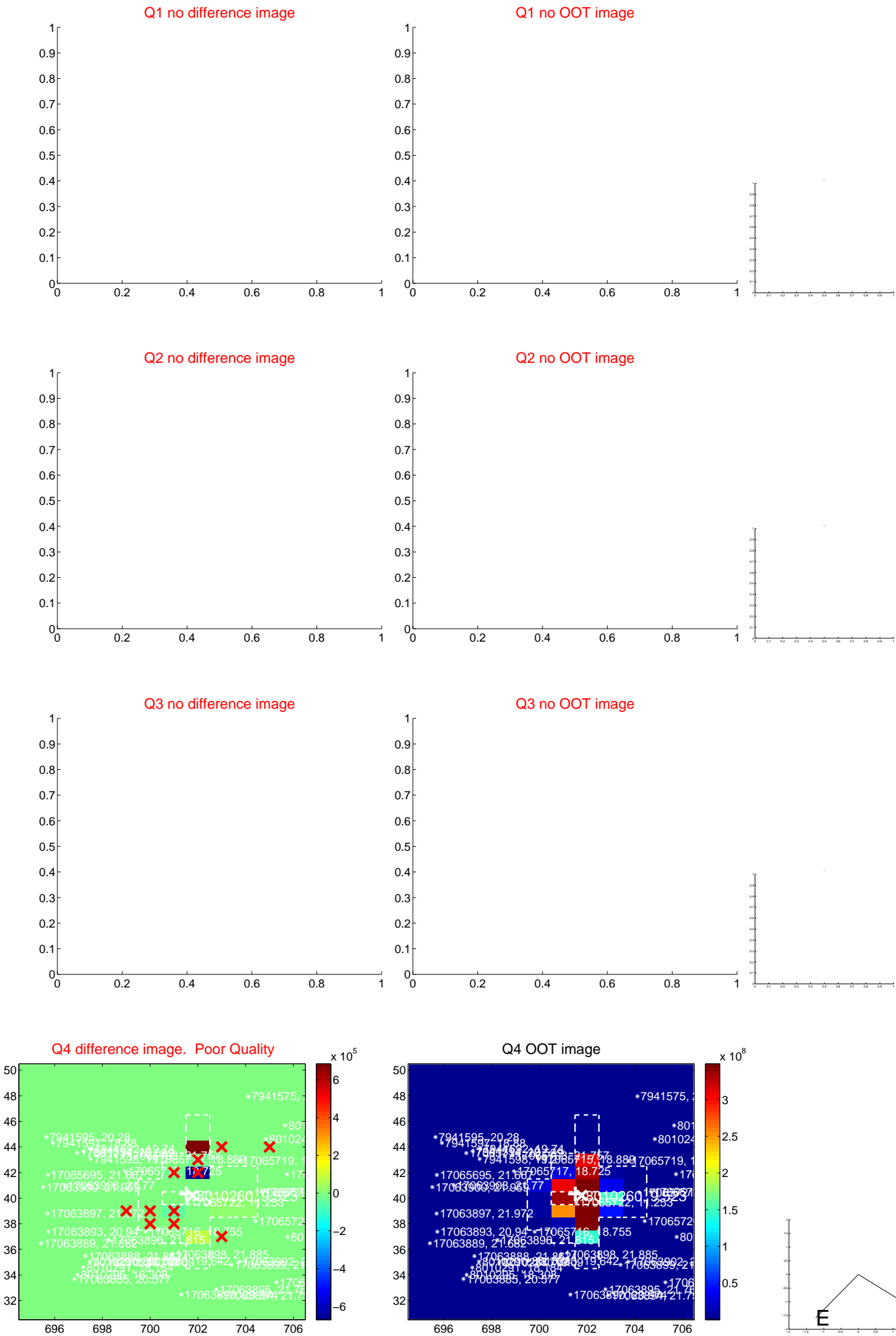
The direct PRF centroid is offset from the target star catalog position by about 1.10 arcsec

|   | Distance in arcsec                  | Distance / $\sigma$ | $\Delta$ RA       | $\Delta$ Dec       |
|---|-------------------------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT          | <b><math>2.034 \pm 0.070</math></b> | <b>29.03</b>        | $2.030 \pm 0.070$ | $-0.125 \pm 0.070$ |
| PRF-fit source offset from KIC position | <b><math>2.579 \pm 0.070</math></b> | <b>36.82</b>        | $2.283 \pm 0.070$ | $-1.200 \pm 0.070$ |
| photometric centroid source offset      | $11.01 \pm 31.40$                   | 0.35                | $-5.83 \pm 37.15$ | $-9.34 \pm 28.84$  |

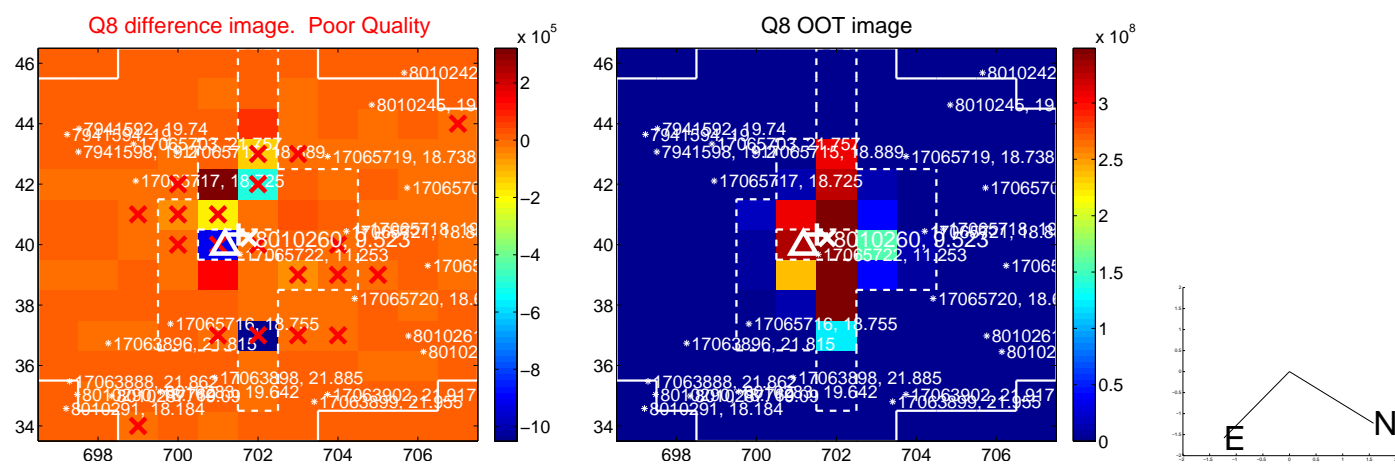
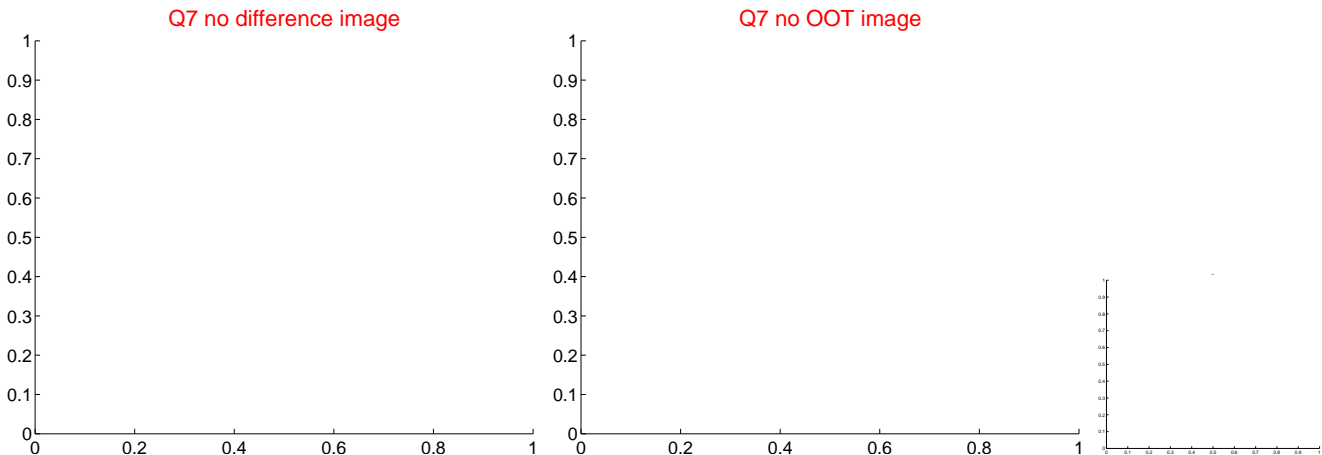
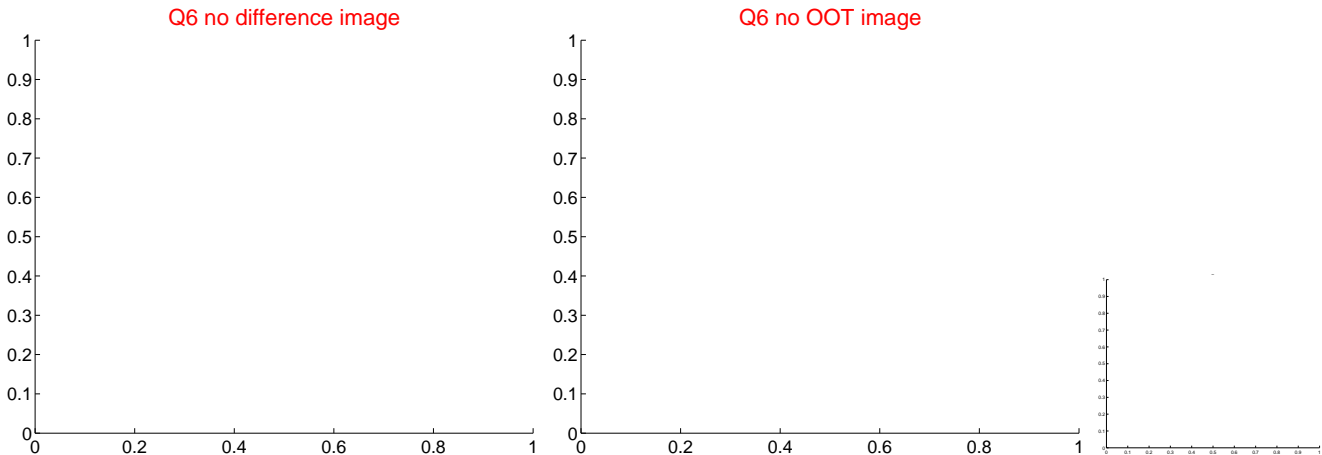
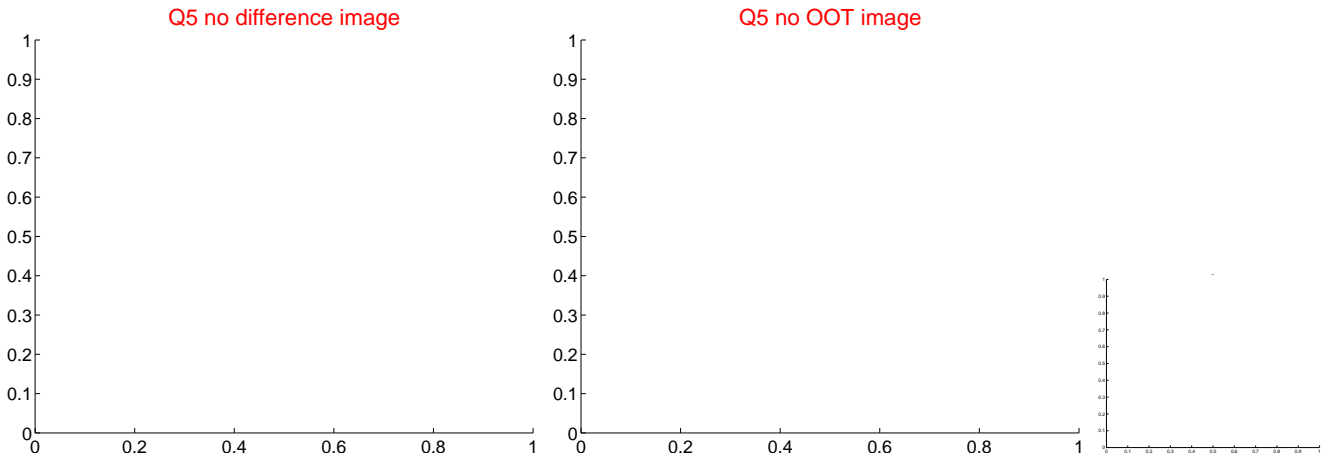


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: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





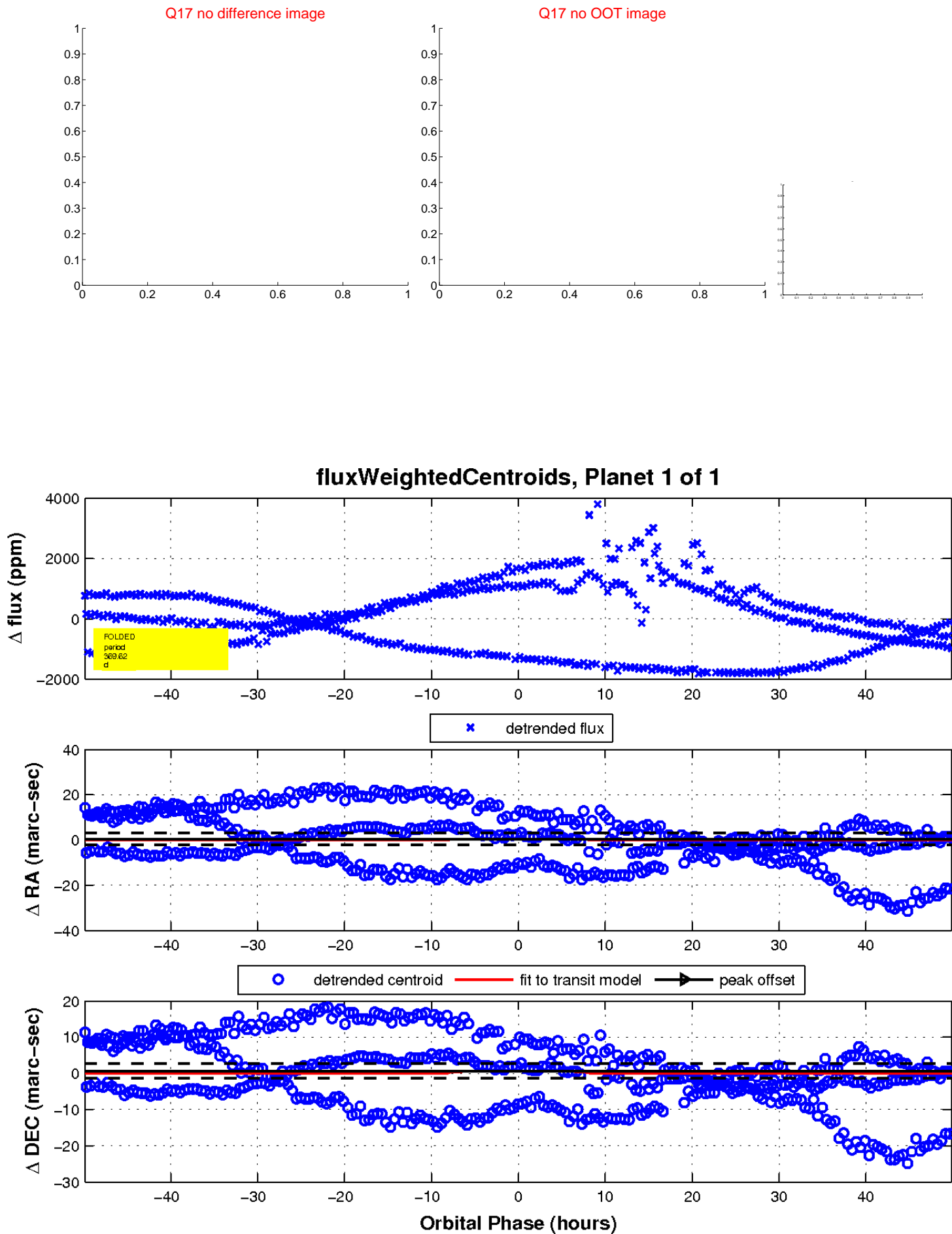
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



# UKIRT Image

Declination

