

# KIC 008260198

## 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) | $R_p$ ( $R_{\oplus}$ ) | $S_p$ ( $S_{\oplus}$ ) |
|--------------|----------|---------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 008260198-01 | OBS      | 3888.01 | 0.955285      | 132.181863   | 498.3       | 1.262            | 34.5 | 41.5 | 0.73                        | 5319            | 1.97                   | 1367.21                |

## Robovetter Results

| TCE          | Run Type | Disp | Score | N | S | C | E | Comments                           |
|--------------|----------|------|-------|---|---|---|---|------------------------------------|
| 008260198-01 | OBS      | FP   | 0.00  | 0 | 1 | 1 | 0 | MOD_SEC_ALT—CENT_UNRESOLVED_OFFSET |

**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 008260198-01

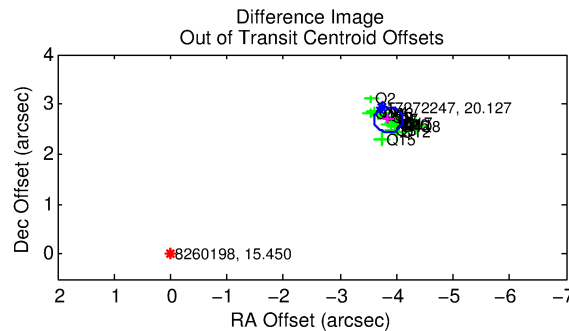
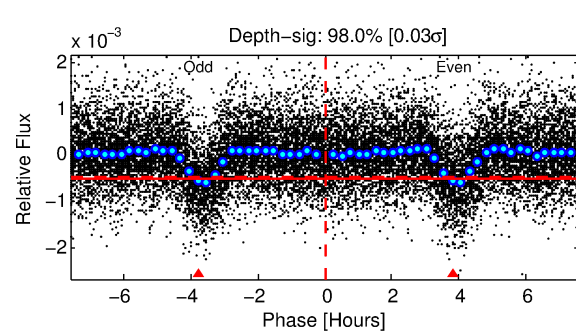
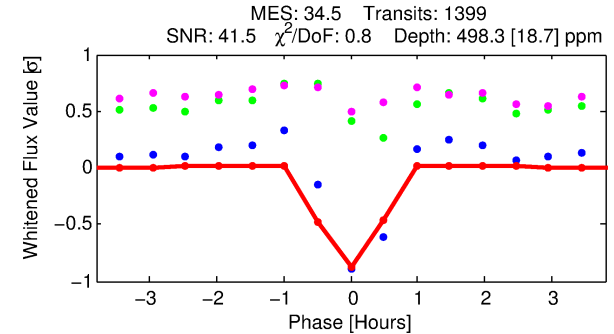
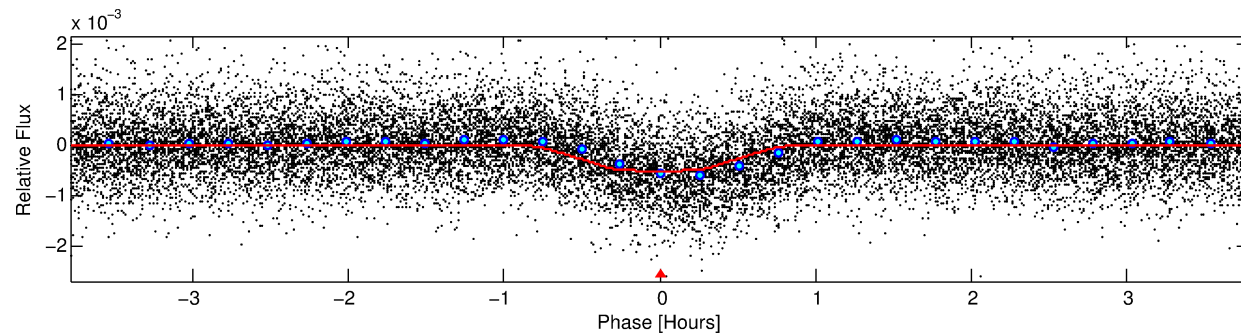
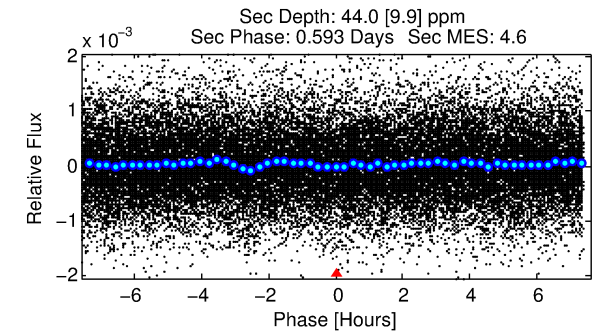
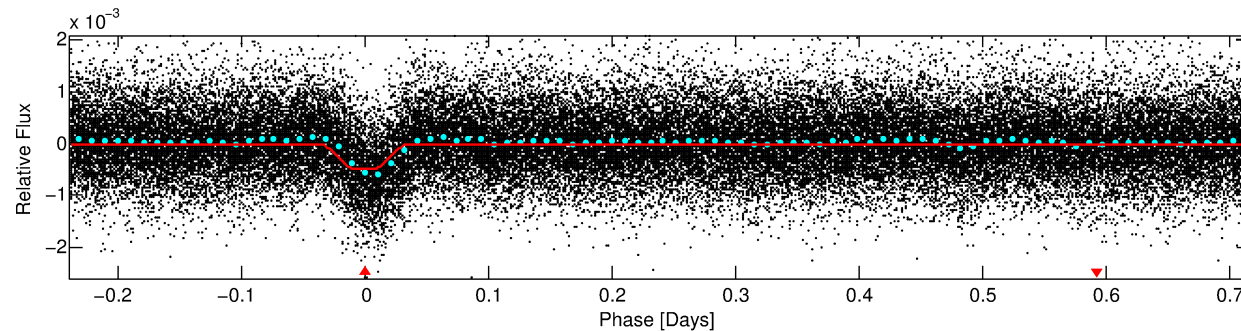
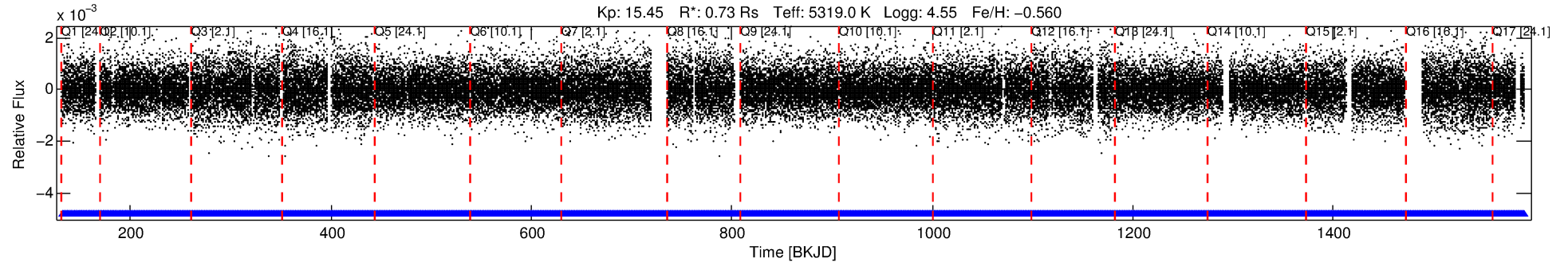
No Significant Match Found

# DV One-Page Summary

KIC: 8260198 Candidate: 1 of 1 Period: 0.955 d

KOI: K03888.01 Corr: 0.843

Kp: 15.45 R\*: 0.73 Rs Teff: 5319.0 K Logg: 4.55 Fe/H: -0.560



## DV Fit Results:

Period = 0.95529 [0.00000] d  
Epoch = 132.1819 [0.0005] BKJD  
Rp/R\* = 0.0246 [0.0043]  
a/R\* = 2.98 [1.99]  
b = 0.90 [0.16]  
Seff = 1367.21 [279.64]  
Teq = 1551 [79] K  
Rp = 1.97 [0.41] Re  
a = 0.0168 [0.0018] AU  
Ag = 1.76 [0.78] [0.97σ]  
Teff = 2760 [297] K [3.94σ]

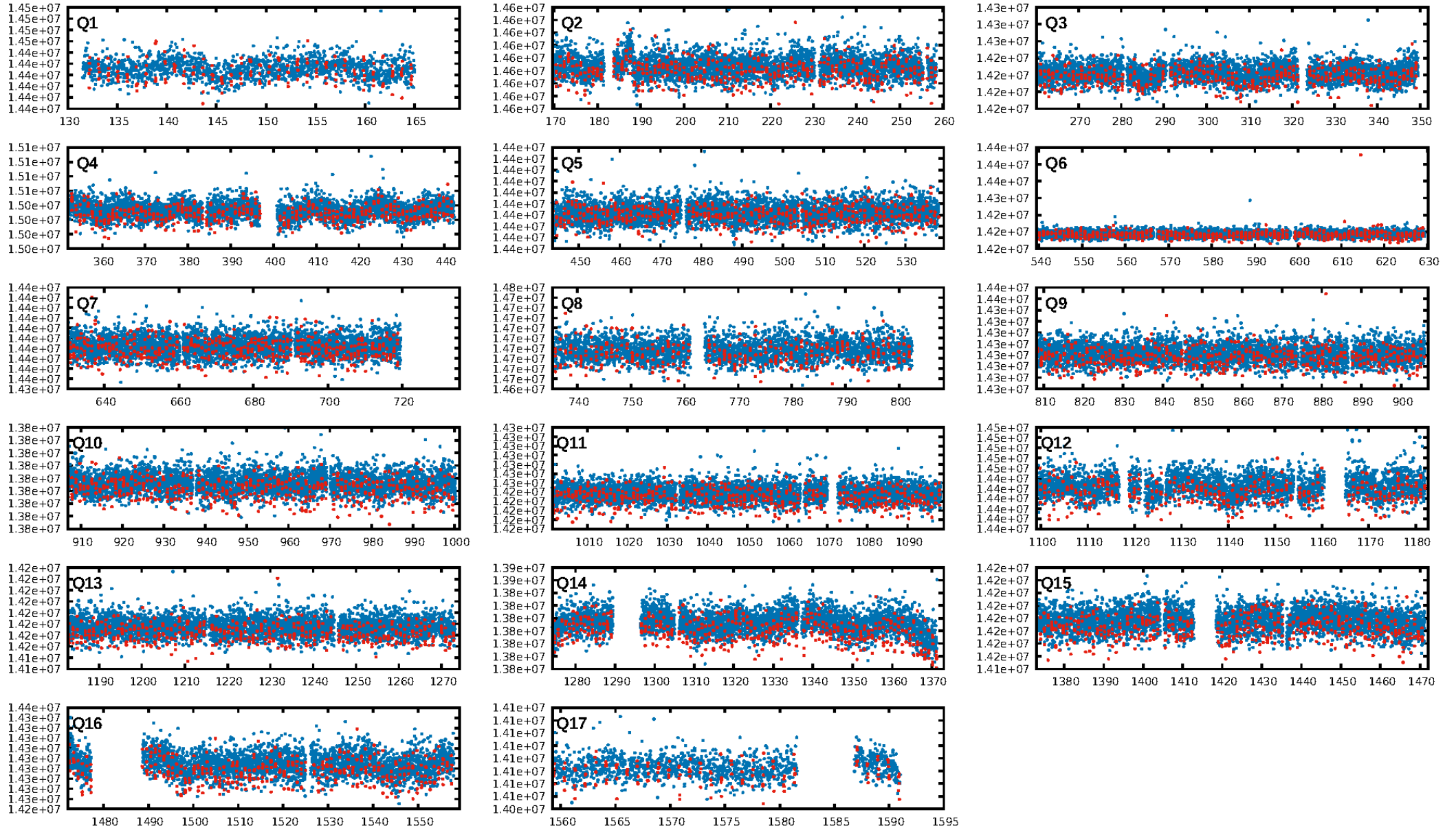
## DV Diagnostic Results:

ShortPeriod-sig: N/A  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 1.09e-246  
RollingBand-fgt: 1.00 [1335/1335]  
**GhostDiagnostic-chr: 0.7502**  
Centroid-sig: 0.0%  
Centroid-so: 6.359 arcsec [19.74σ]  
OotOffset-rm: 4.697 arcsec [55.94σ]  
KicOffset-rm: 4.745 arcsec [62.49σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 1.00 [17/17]  
DiffImageOverlap-fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 20:36:18 Z

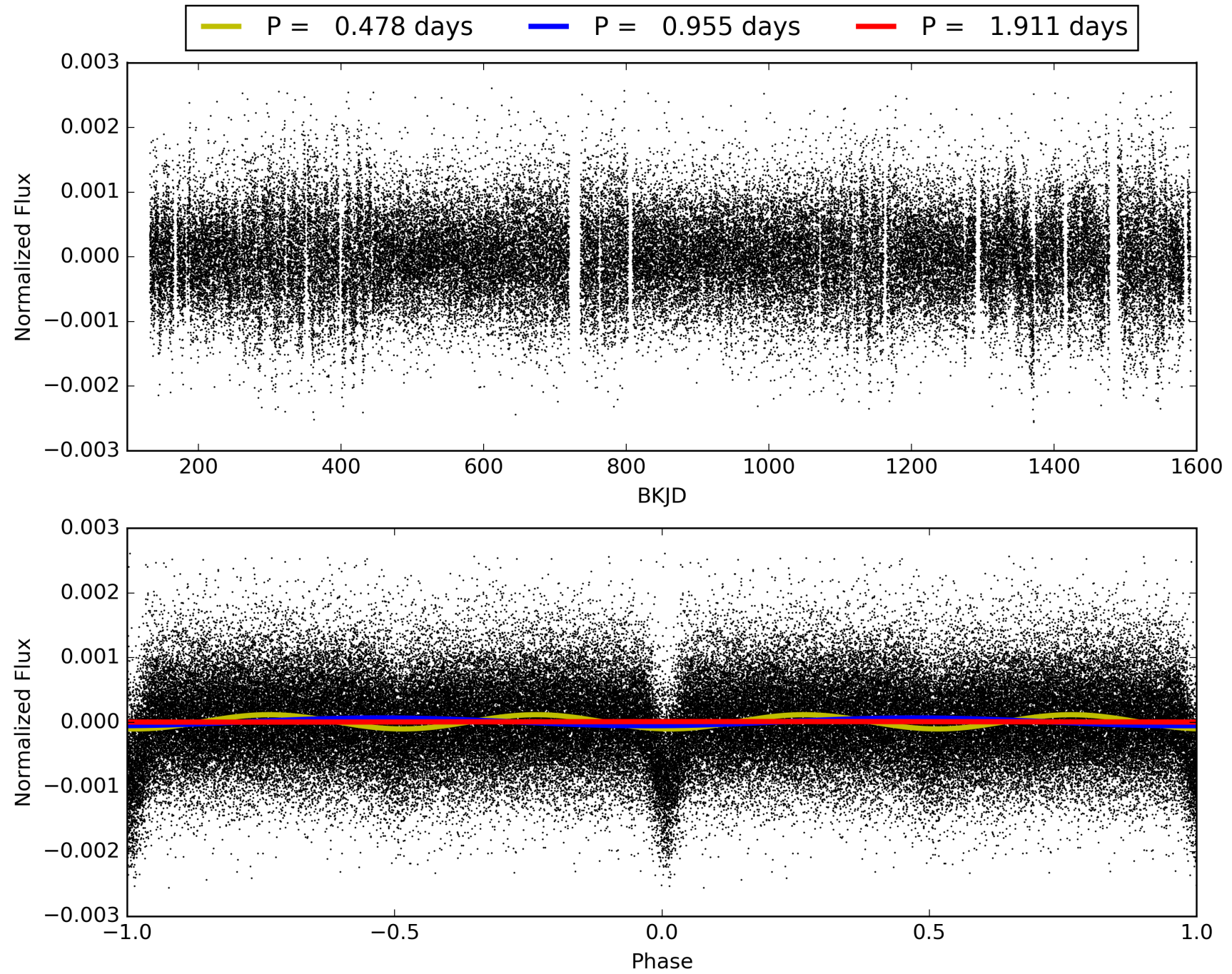
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 008260198-01, PDC Light Curves



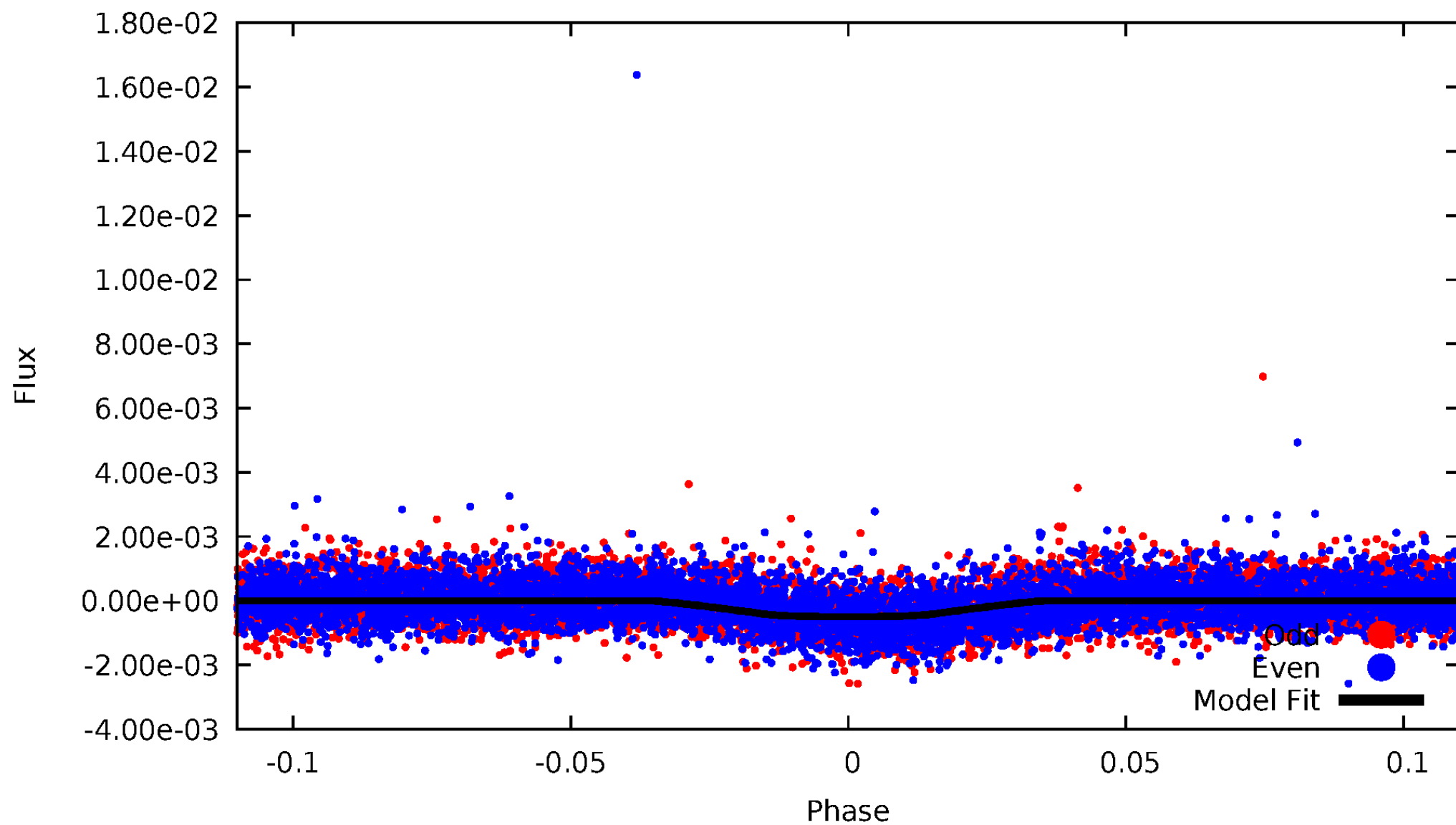


TCE 008260198-01



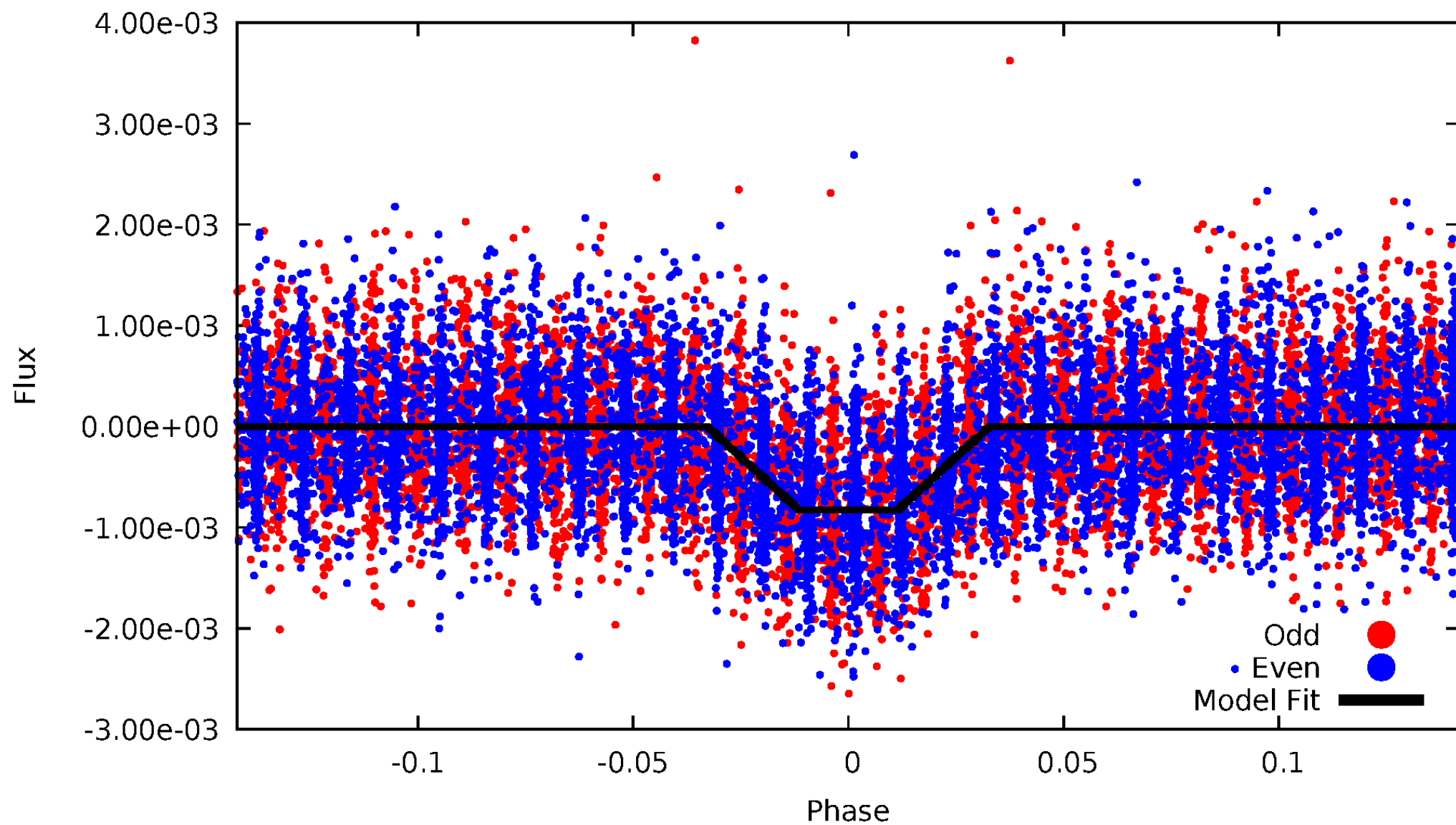
# DV Odd/Even

TCE 008260198-01

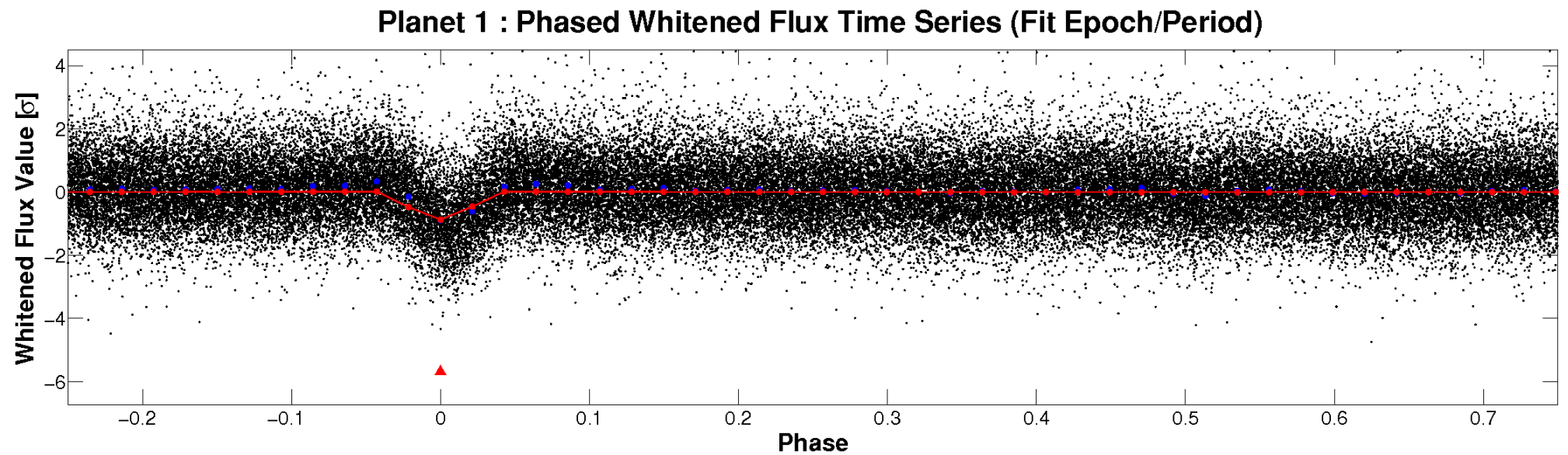
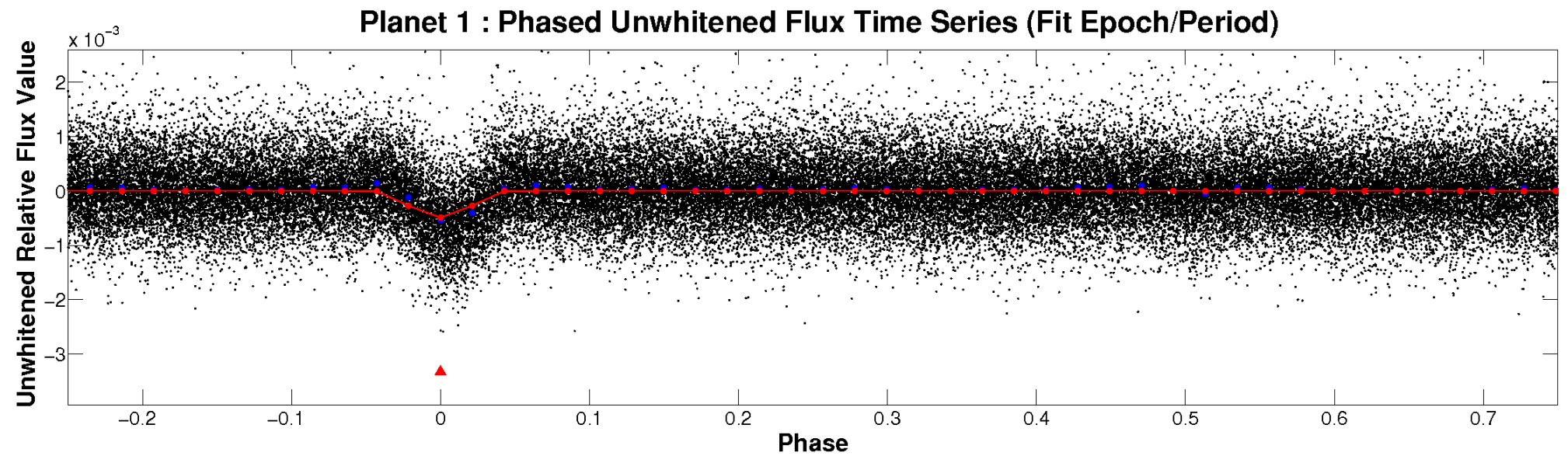


# ALT Odd/Even

TCE 008260198-01



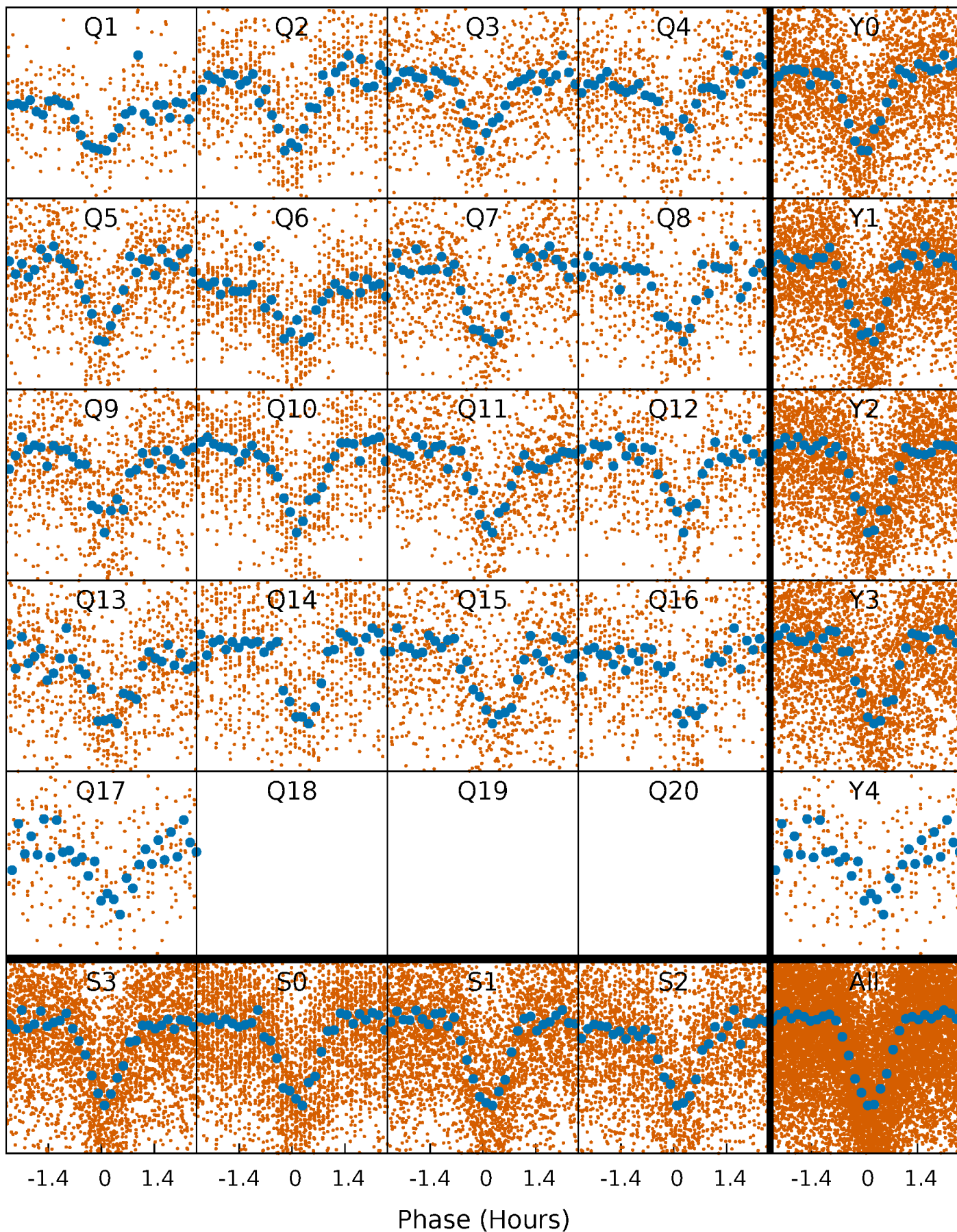
# Non-Whitened Vs. Whitened Light Curve





# PDC Quarter-Phased Transit Curves

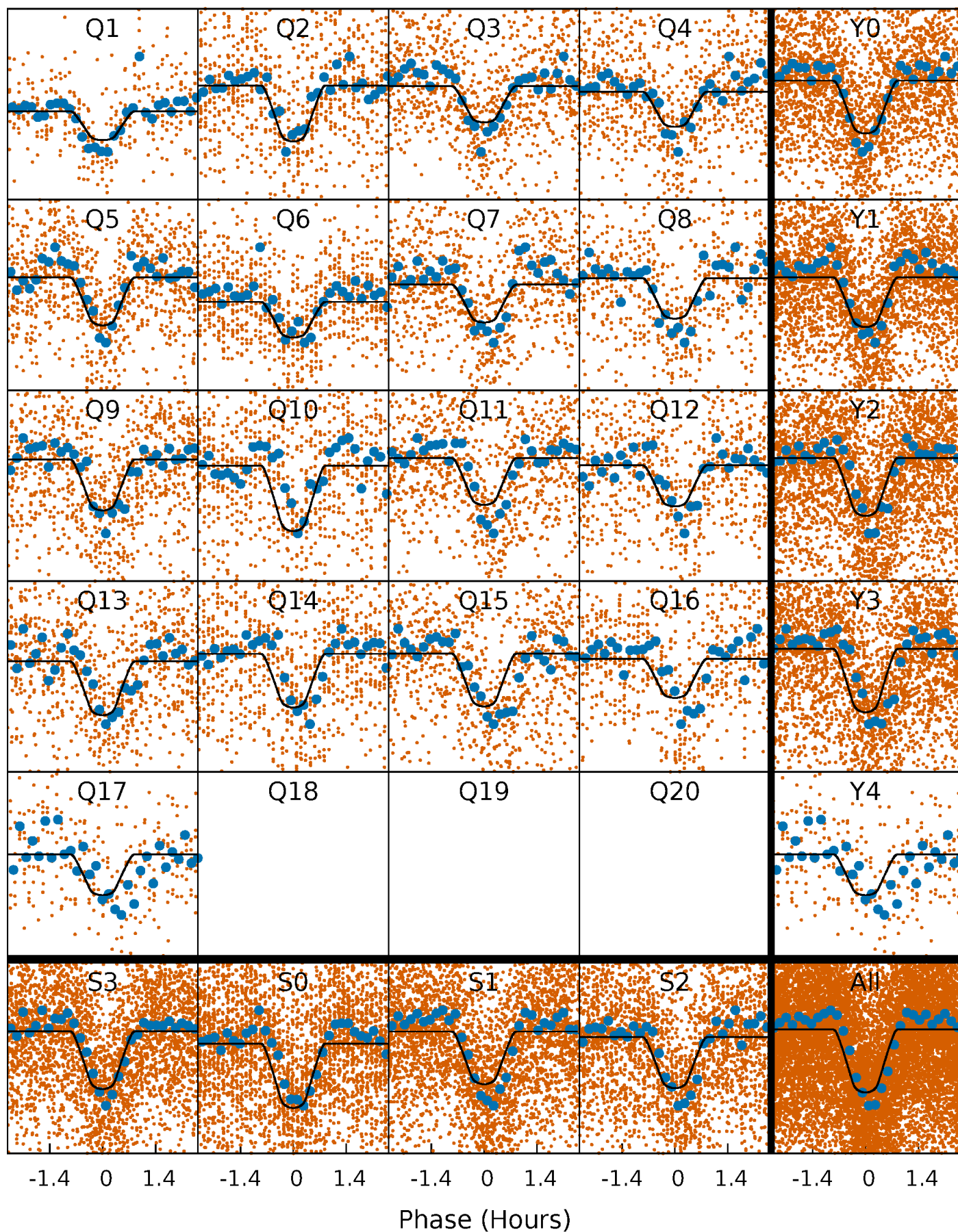
TCE 008260198-01 P= 0.955285 Days  $T_0=132.181863$  (BKJD)





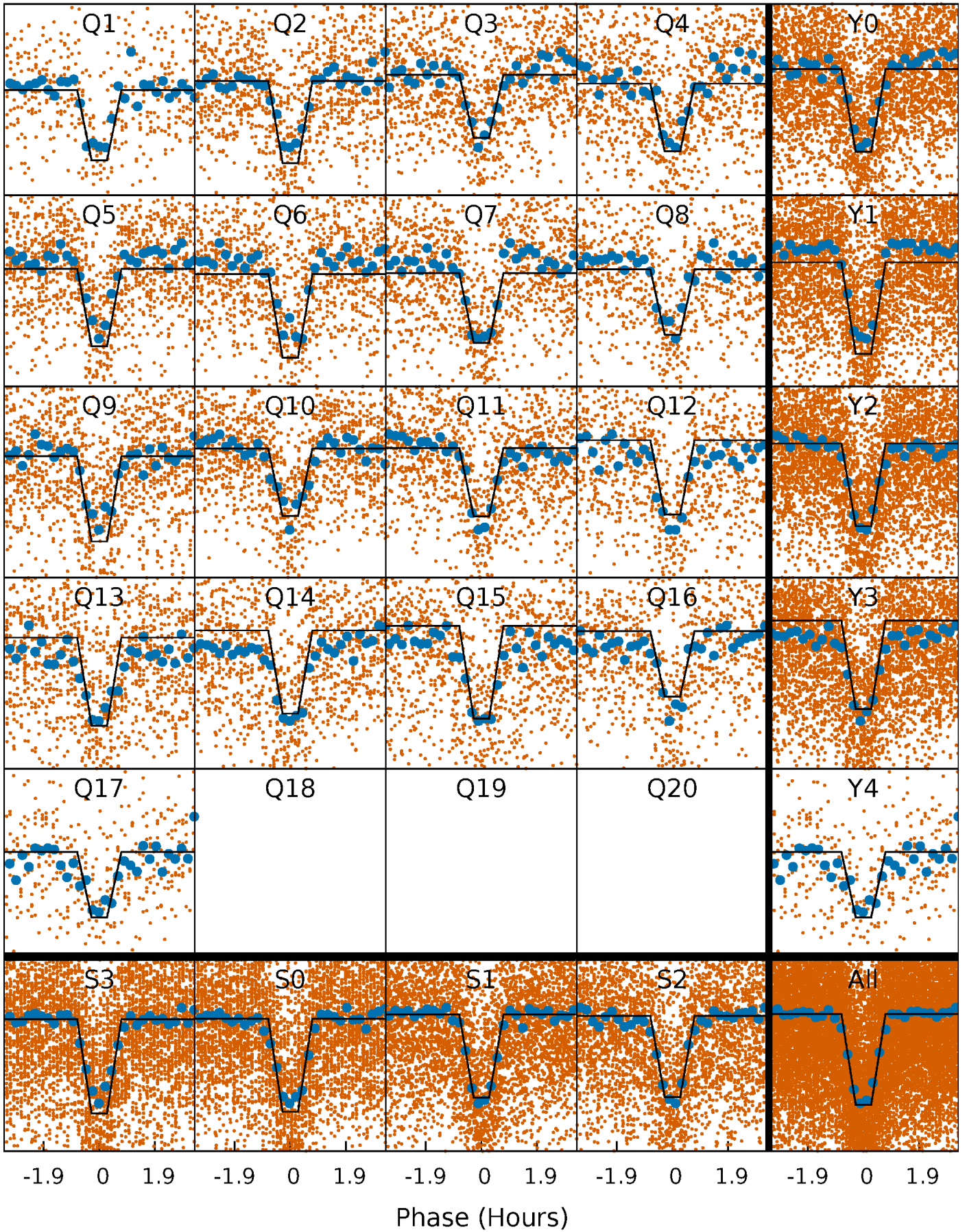
# DV Quarter-Phased Transit Curves

TCE 008260198-01 P= 0.955285 Days  $T_0=132.181863$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

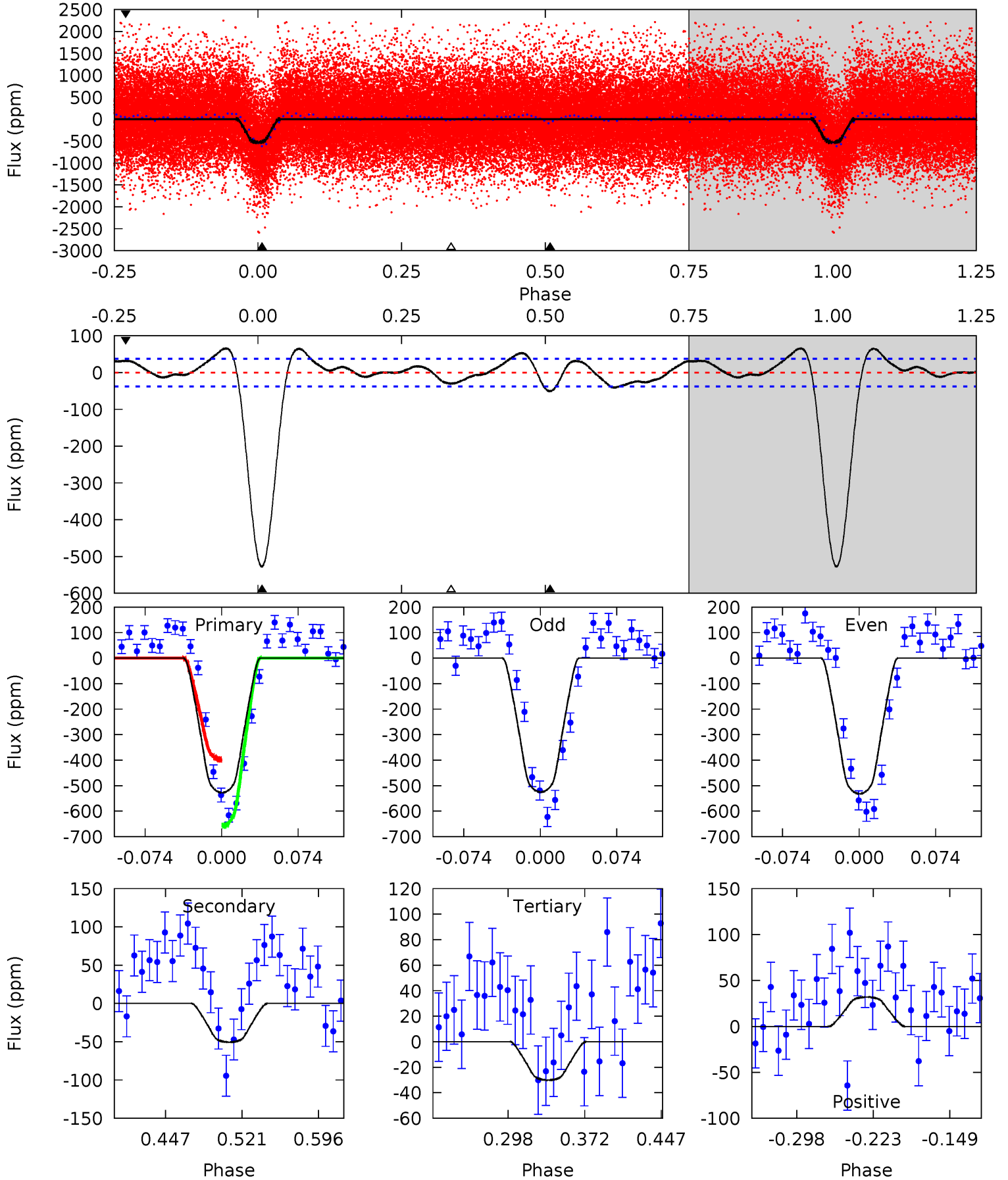
TCE 008260198-01 P= 0.955297 Days  $T_0=132.179402$  (BKJD)



# DV Model-Shift Uniqueness Test

008260198-01, P = 0.955285 Days, E = 131.226578 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  |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 64.7 | 6.21 | 3.69 | 3.92 | 4.63            | 1.78            | 2.50             | 61.0    | 60.8    | 2.52    | 2.29    | 0.41    | 0.98 | 0.11  | 16.0 |

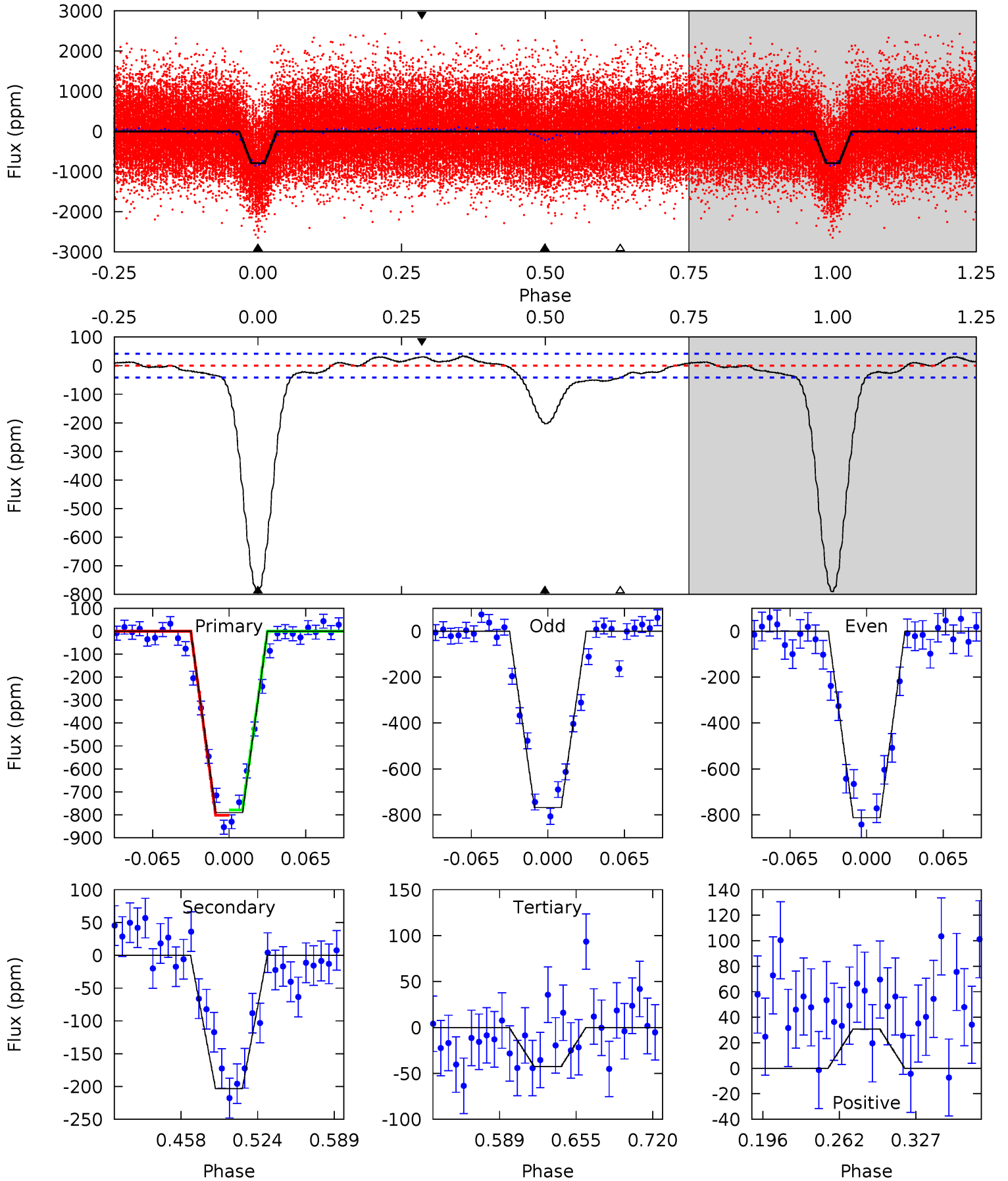




# Alt Model-Shift Uniqueness Test

008260198-01, P = 0.955297 Days, E = 131.224105 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  |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 88.5 | 22.8 | 4.78 | 3.44 | 4.65            | 1.84            | 2.62             | 83.7    | 85.0    | 18.0    | 19.3    | 2.49    | 1.00 | 0.04  | 1.30 |





### Stellar Parameters For KIC 008260198

|        | $T_{\text{eff}}(K)$  | $\log(g)$                 | [Fe/H]                     | $R (R_{\odot})$           | $M(M_{\odot})$            | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
|        | $5319^{+159}_{-159}$ | $4.548^{+0.096}_{-0.064}$ | $-0.560^{+0.350}_{-0.300}$ | $0.734^{+0.084}_{-0.084}$ | $0.694^{+0.092}_{-0.039}$ | $2.474^{+1.008}_{-0.558}$                 |
|        | +3%/-3%              | +2%/-1%                   | +62%/-54%                  | +11%/-11%                 | +13%/-6%                  | +41%/-23%                                 |
| 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 008260198-01 / KOI 3888.01

| Detrend | Depth (ppm)  | $R_p (R_{\oplus})$     | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | $A_{\text{obs}}$          |
|---------|--------------|------------------------|----------------------|----------------------|---------------------------|
| DV      | $-51 \pm 8$  | $1.99^{+0.37}_{-0.37}$ | $2160^{+85}_{-91}$   | $3279^{+258}_{-216}$ | $2.037^{+1.096}_{-0.634}$ |
| Alt.    | $-203 \pm 9$ | $2.31^{+0.38}_{-0.41}$ | $2155^{+89}_{-86}$   | $3996^{+289}_{-221}$ | $6.096^{+2.805}_{-1.638}$ |

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

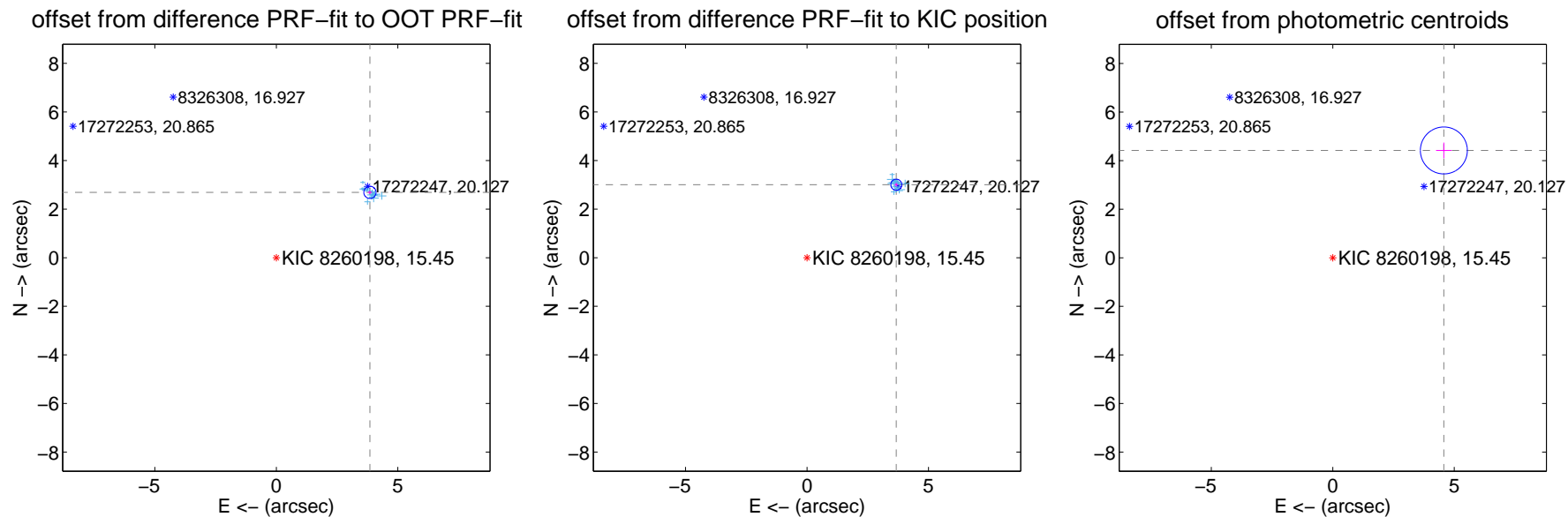
## DV Centroid Data

Supplemental centroid analysis for 008260198-01. Kepler magnitude: 15.45. Transit SNR 41.47

There are 17 quarters with good PRF difference image offsets

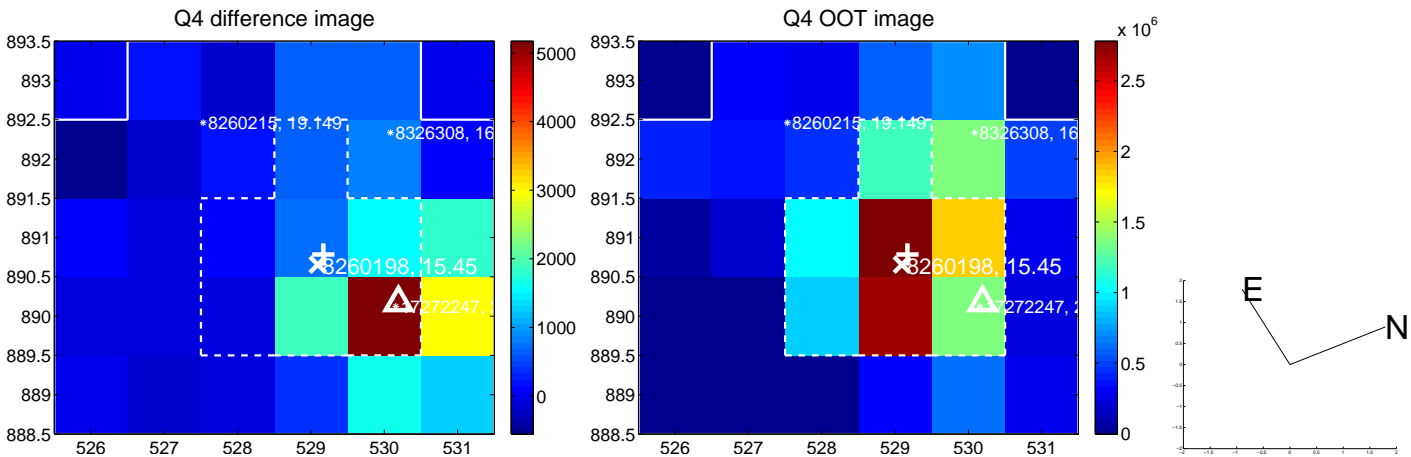
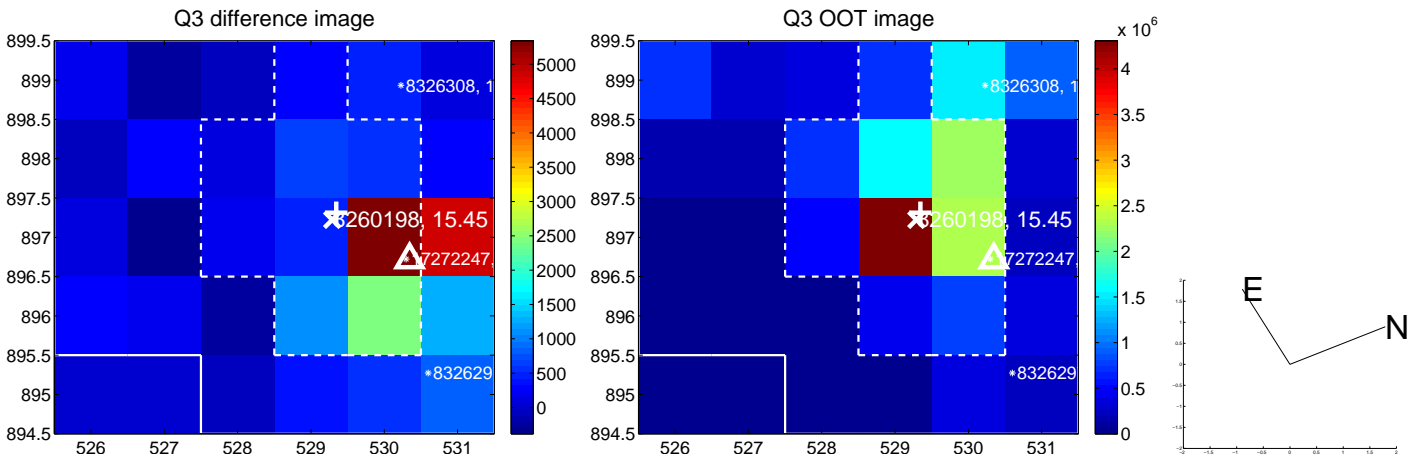
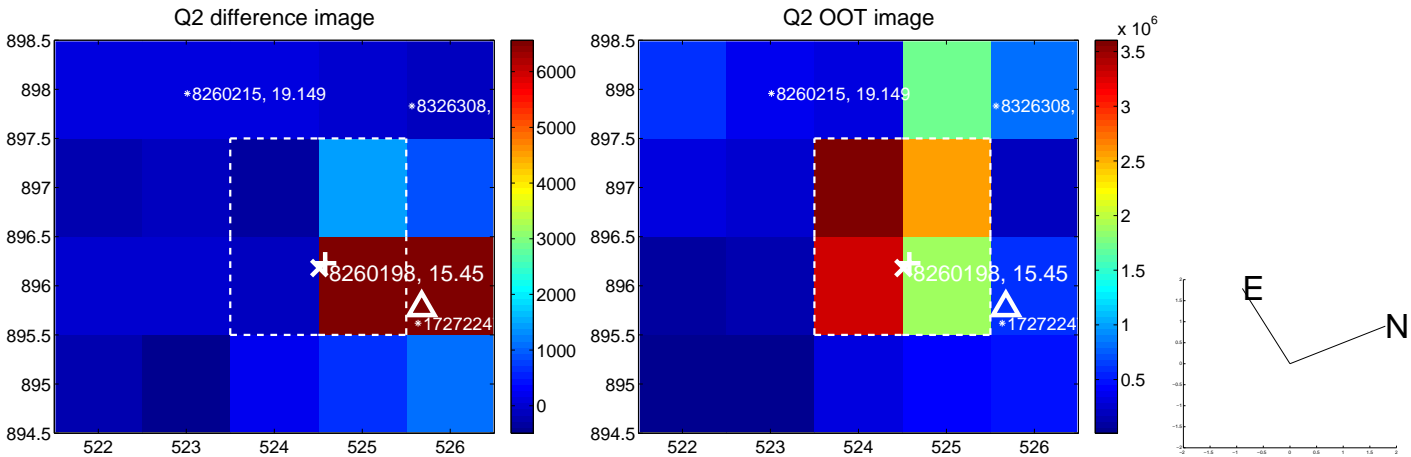
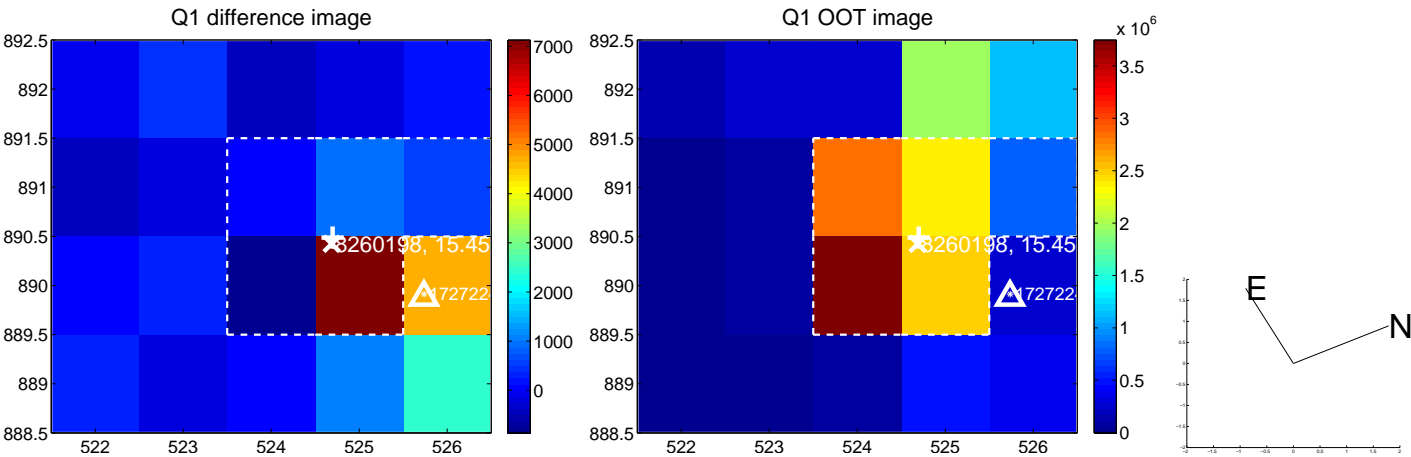
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

|   | Distance in arcsec | Distance / $\sigma$ | $\Delta$ RA        | $\Delta$ Dec      |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT          | 4.697 $\pm$ 0.084  | 55.94               | -3.850 $\pm$ 0.087 | 2.690 $\pm$ 0.077 |
| PRF-fit source offset from KIC position | 4.745 $\pm$ 0.076  | 62.49               | -3.673 $\pm$ 0.074 | 3.005 $\pm$ 0.079 |
| photometric centroid source offset      | 6.36 $\pm$ 0.32    | 19.74               | -4.57 $\pm$ 0.32   | 4.42 $\pm$ 0.32   |

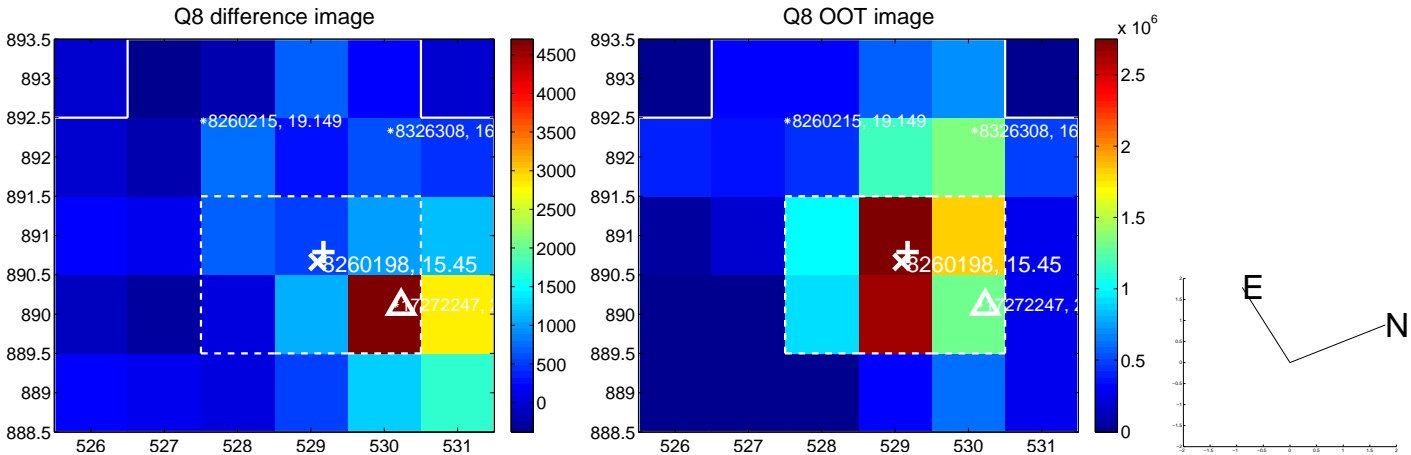
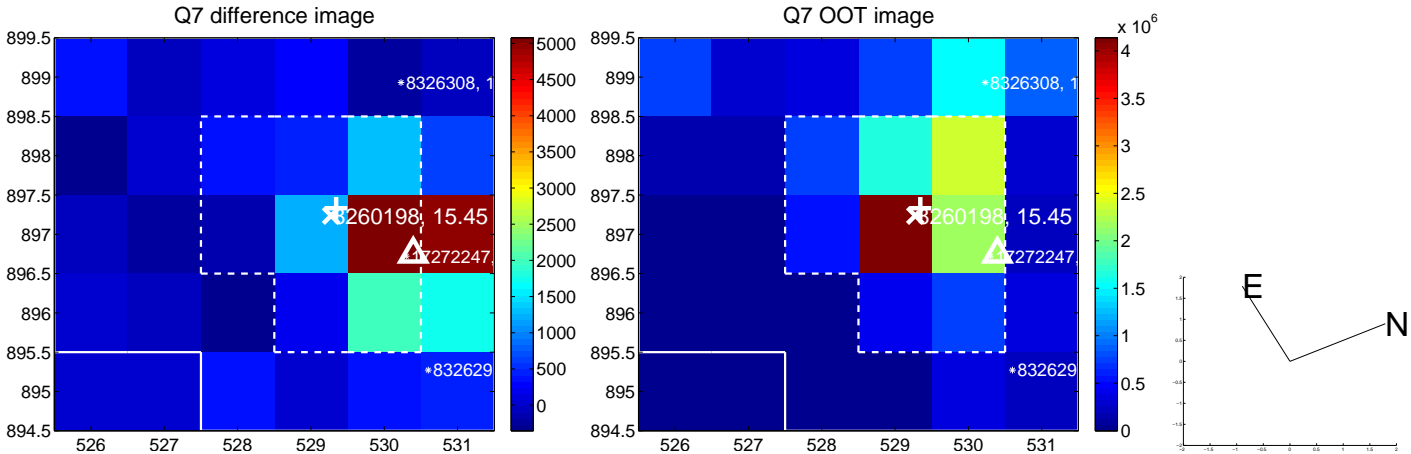
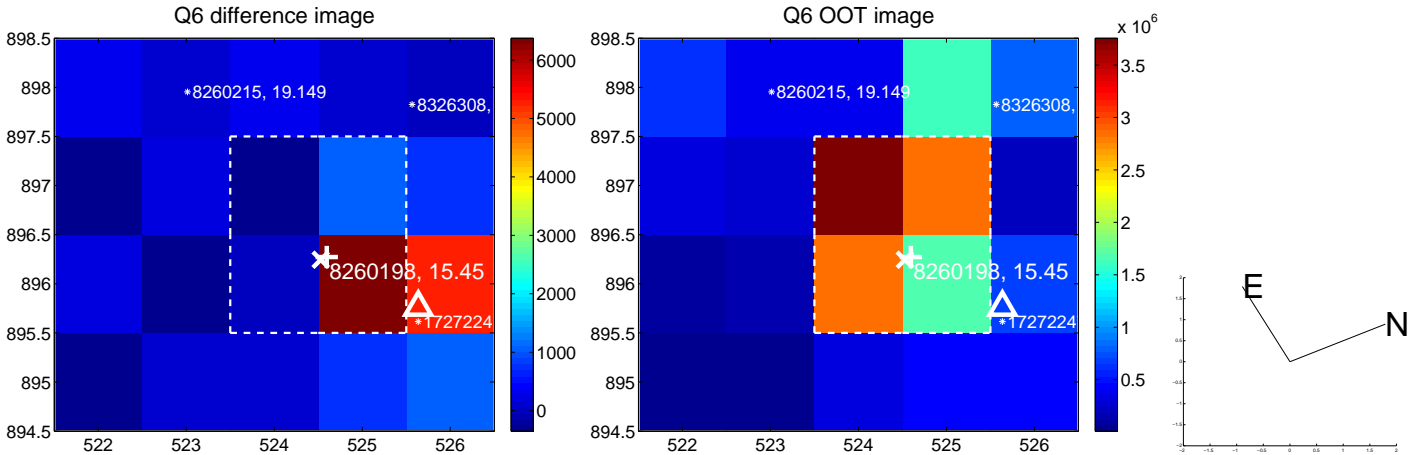
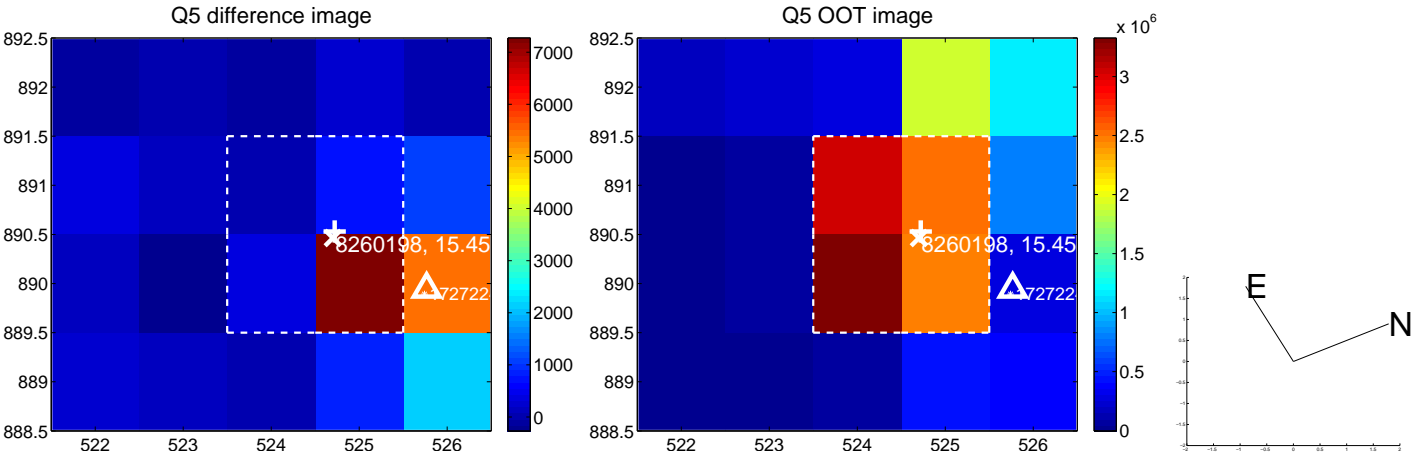


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three-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

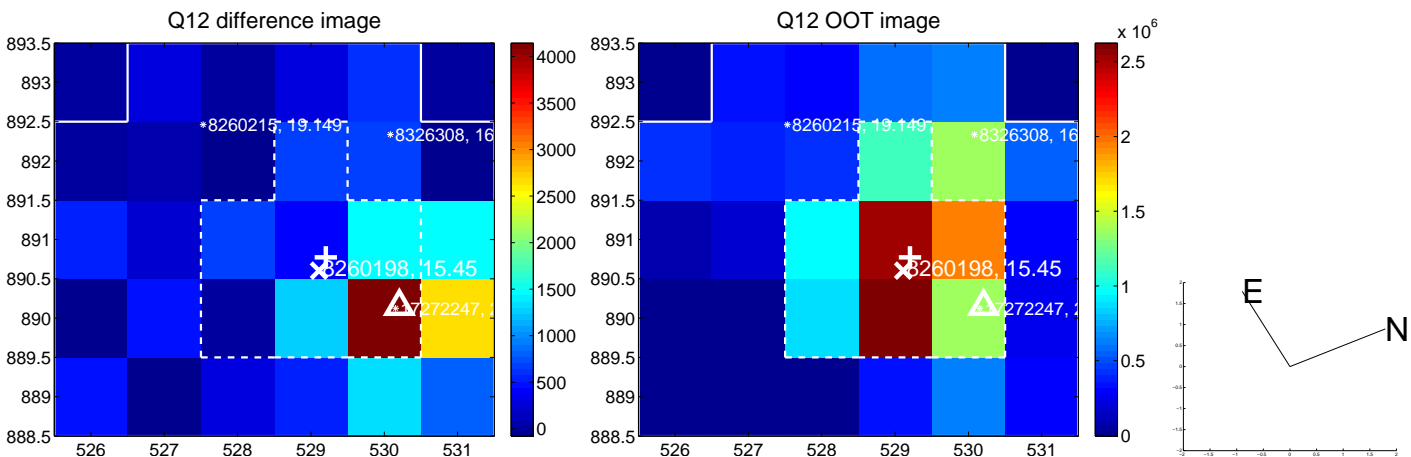
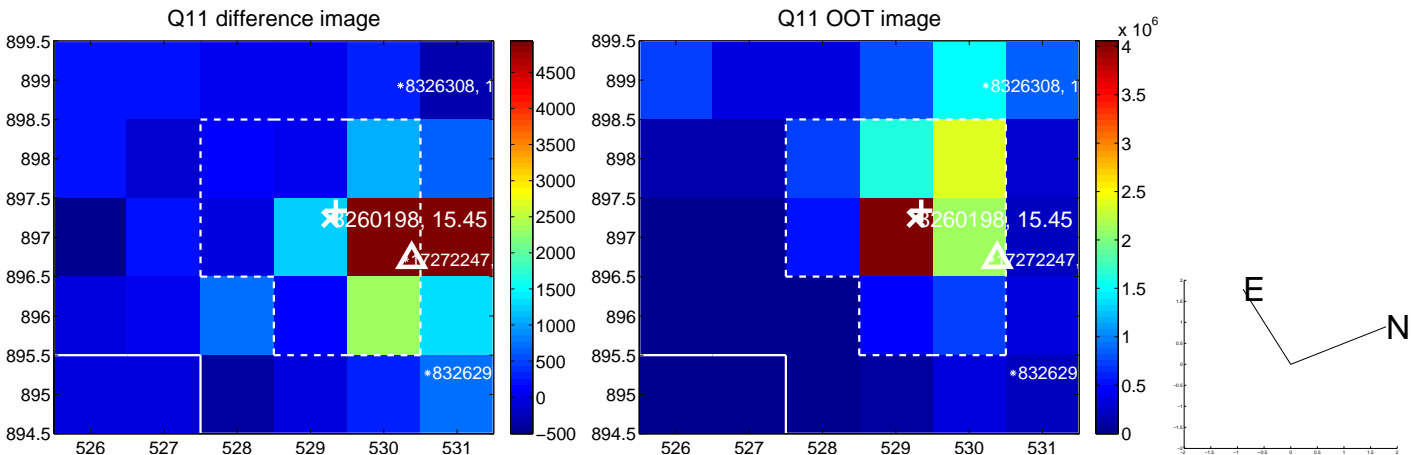
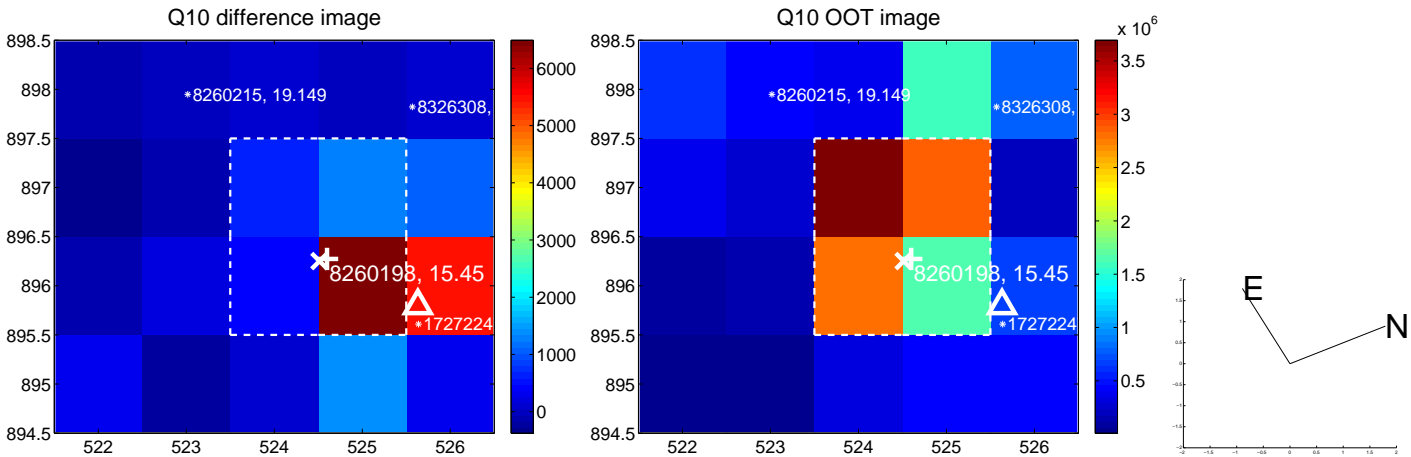
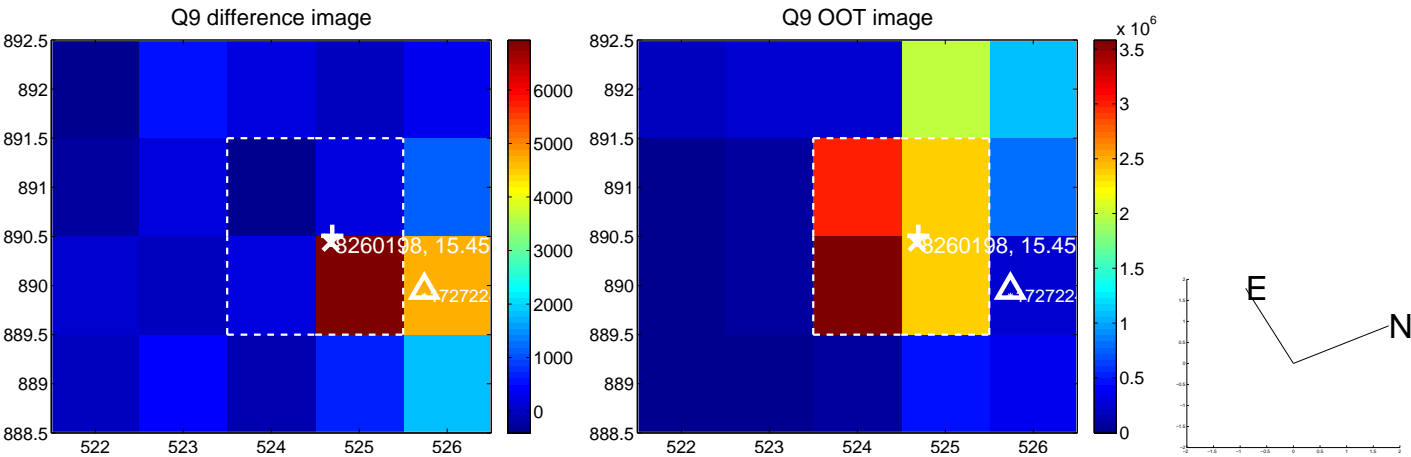


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

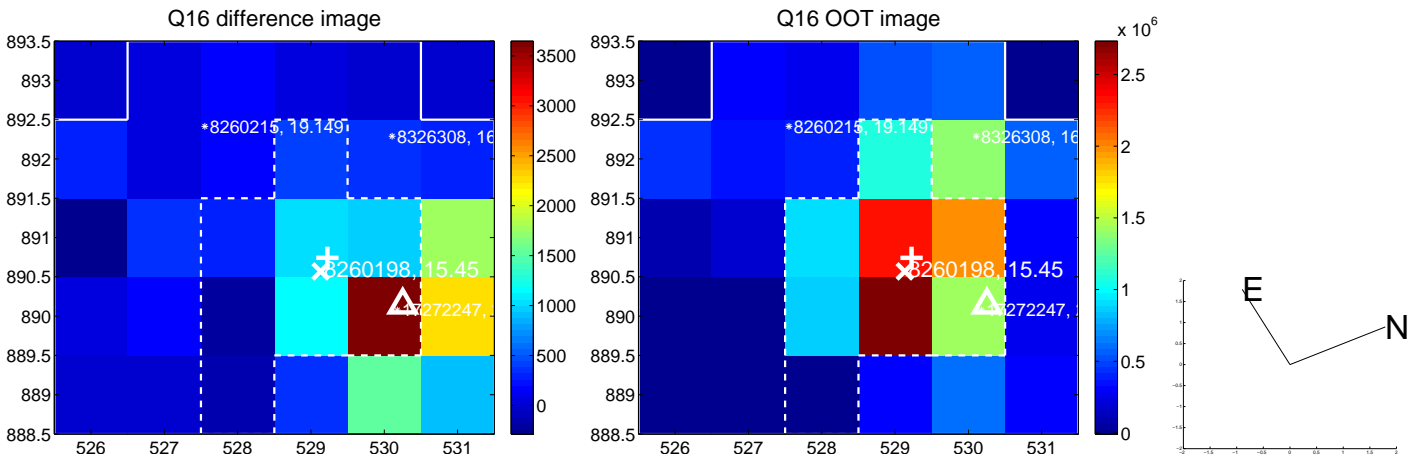
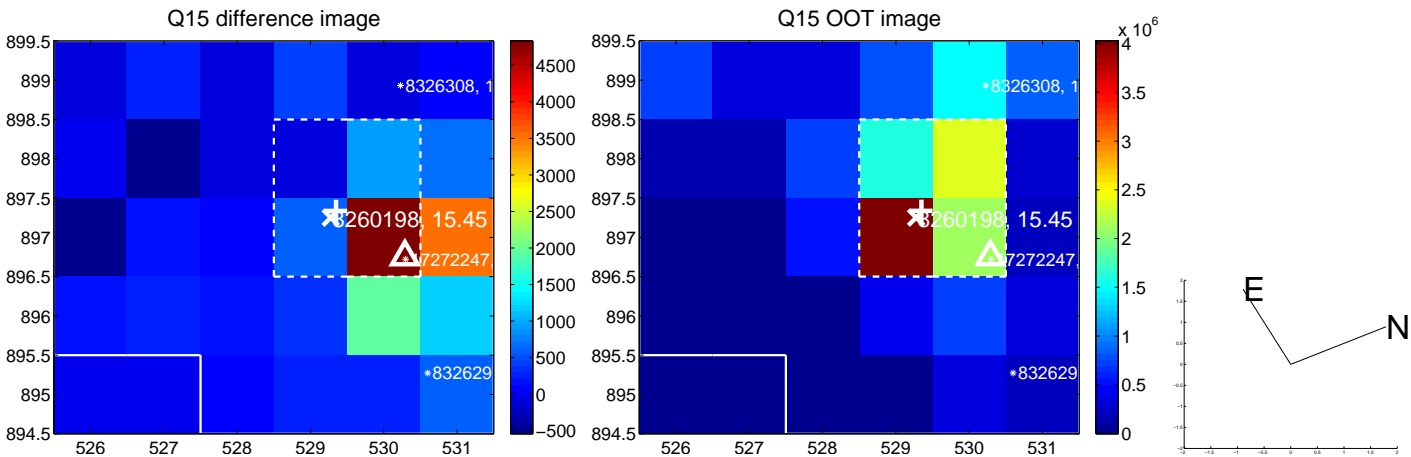
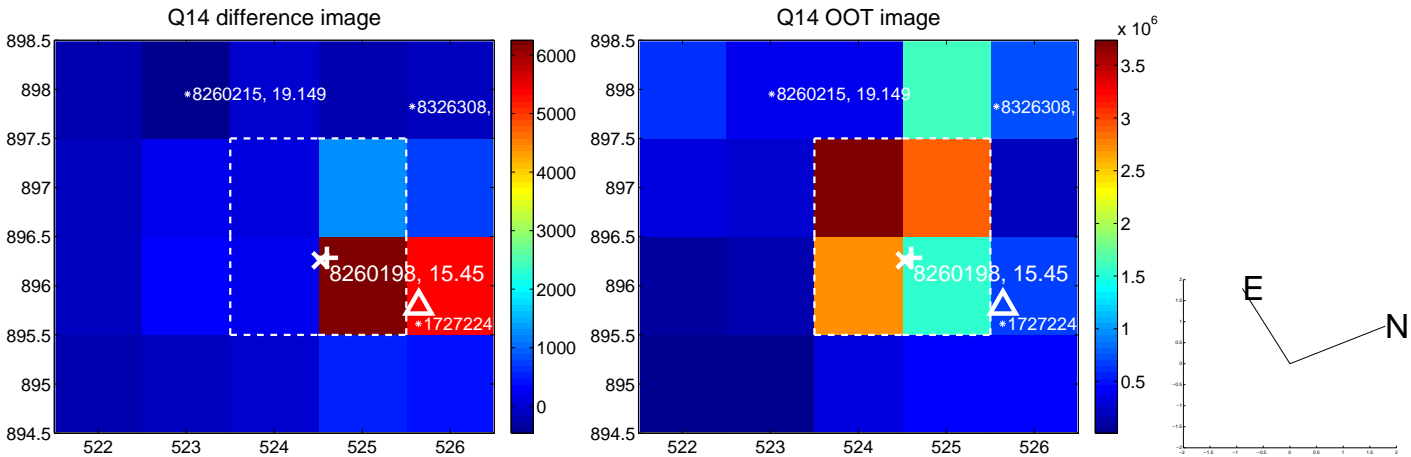
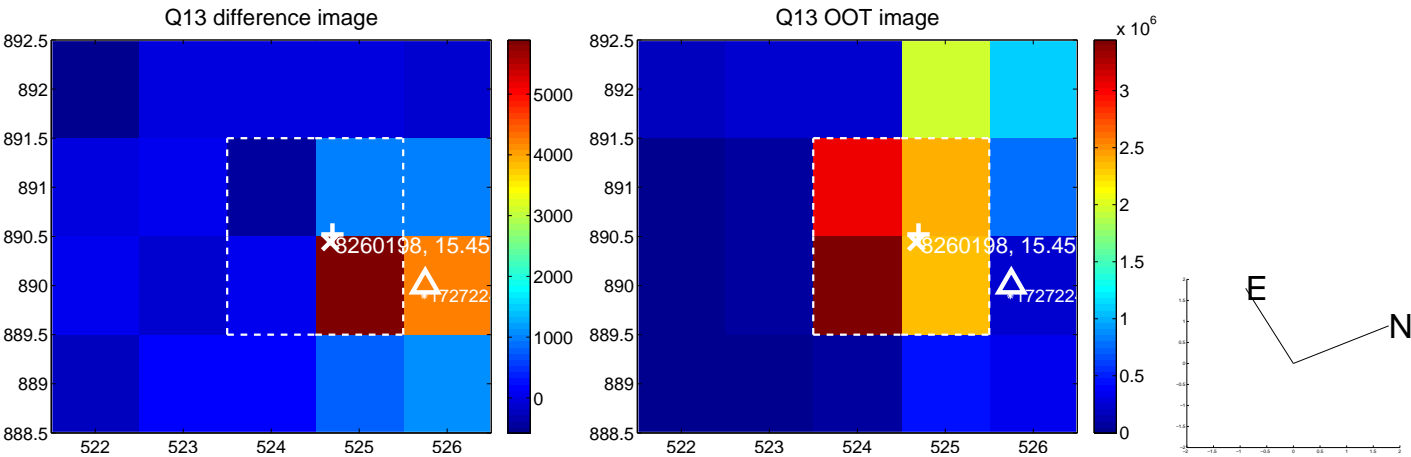




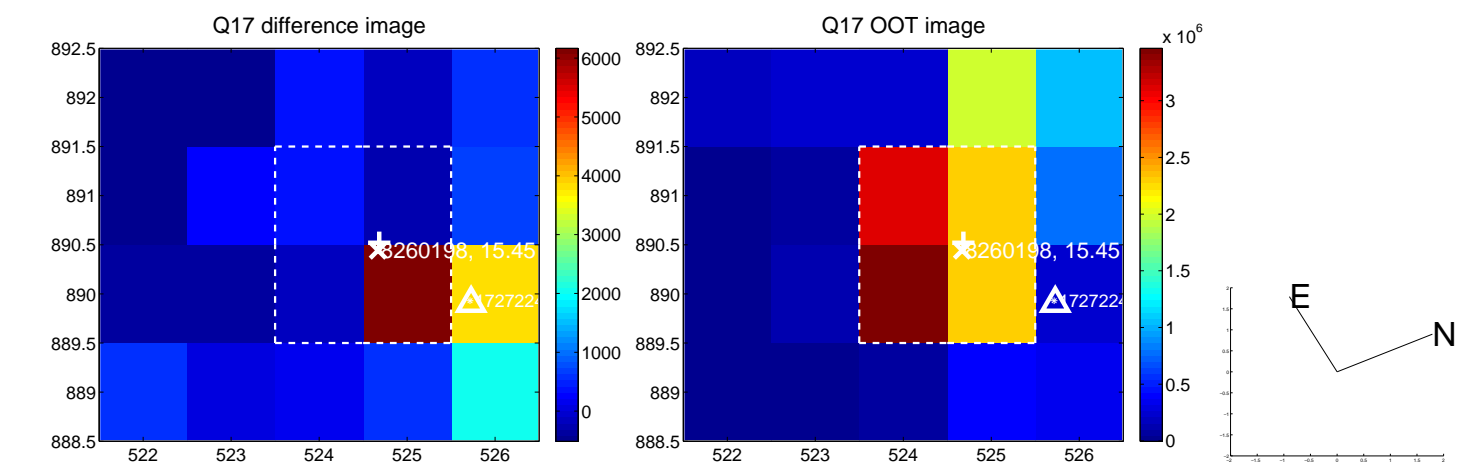
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



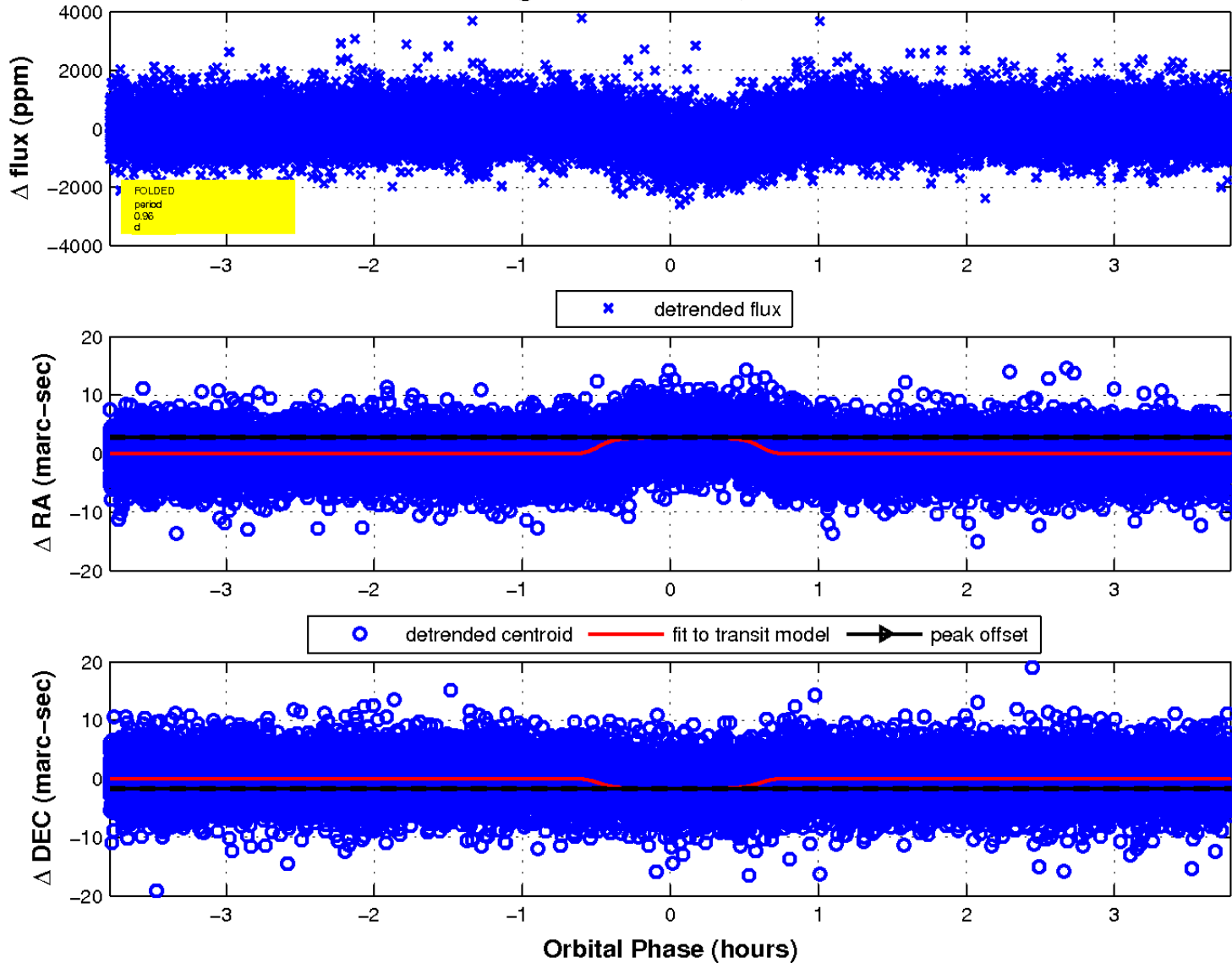
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

