

KIC 003863594

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 003863594-01 | OBS | No | 1.278404 | 132.325017 | 4.0 | 14.587 | 10.2 | 1.3 | 1.52 | 7217 | 0.31 | 7865.15 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 003863594-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_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.

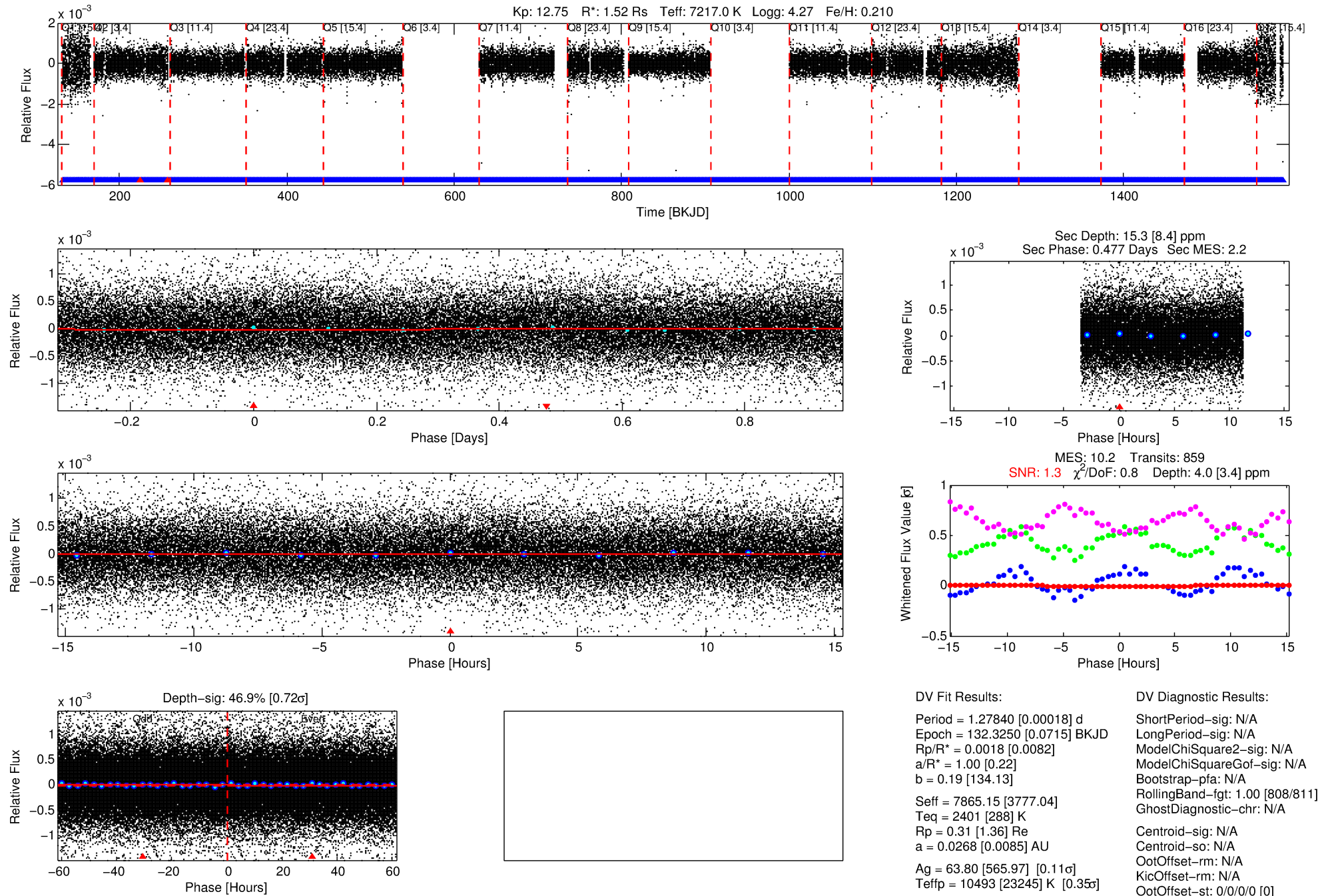
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003863594-01

No Significant Match Found

DV One-Page Summary

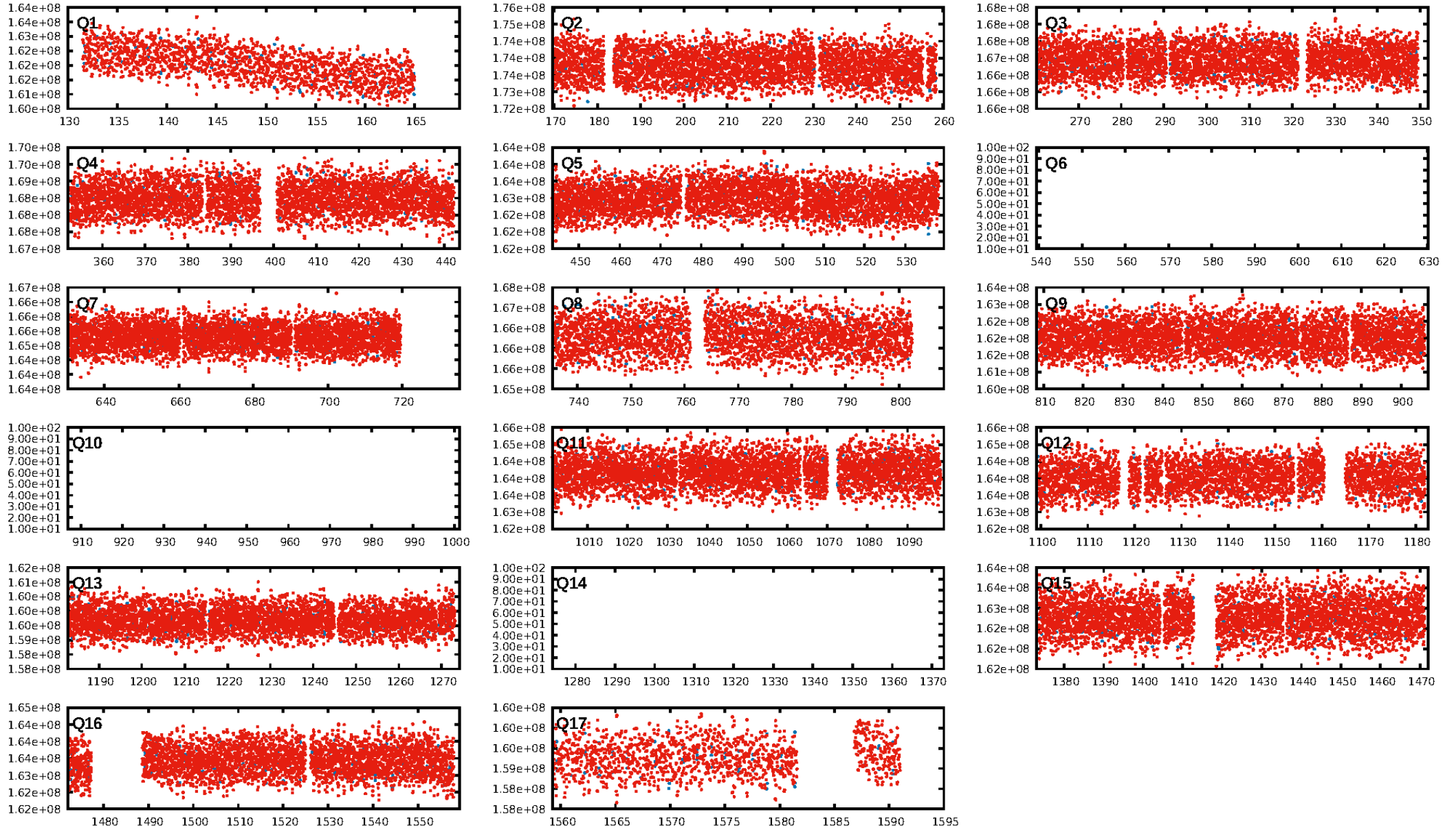
KIC: 3863594 Candidate: 1 of 1 Period: 1.278 d



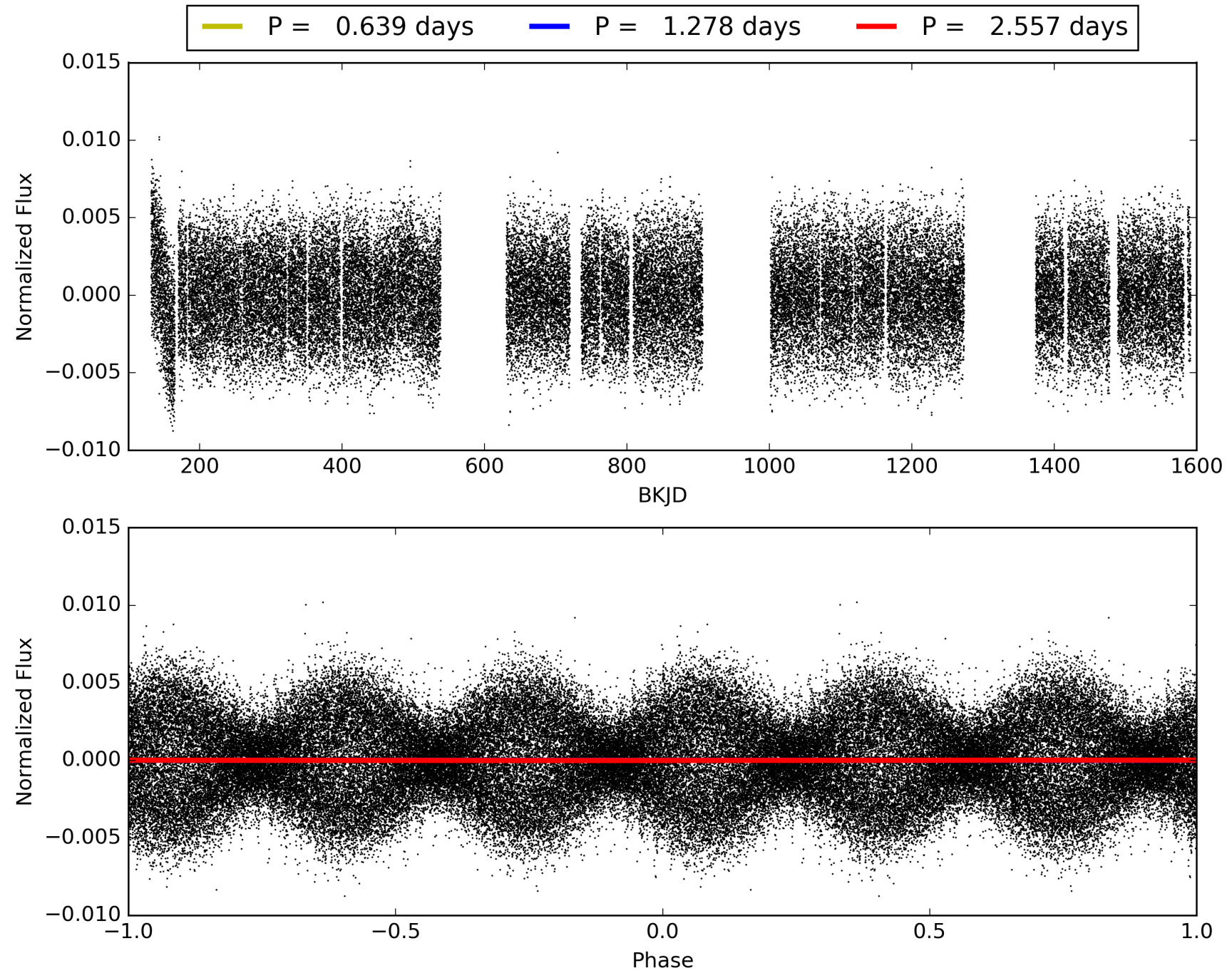
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:02:09 Z

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

TCE 003863594-01, PDC Light Curves

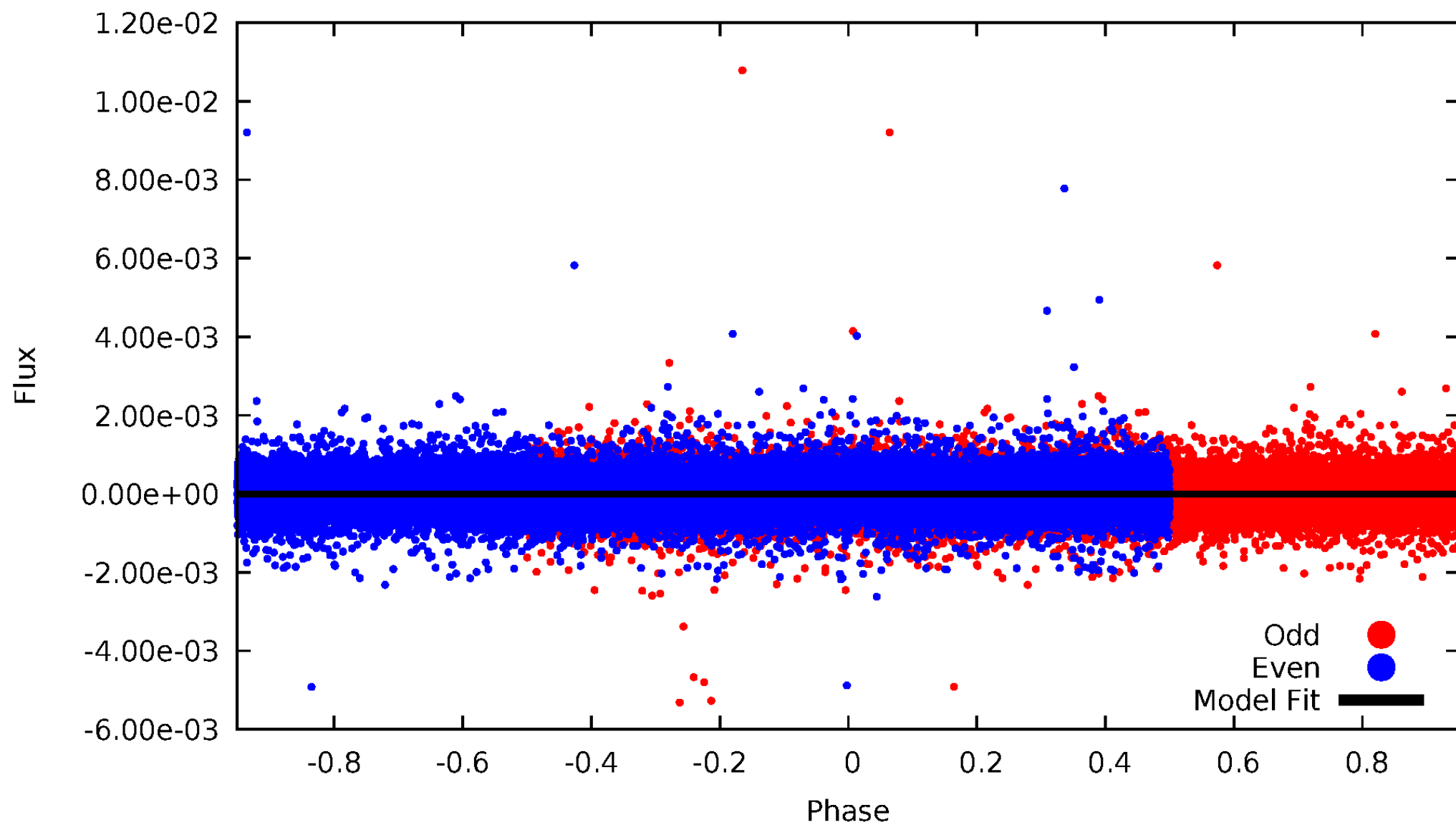


TCE 003863594-01



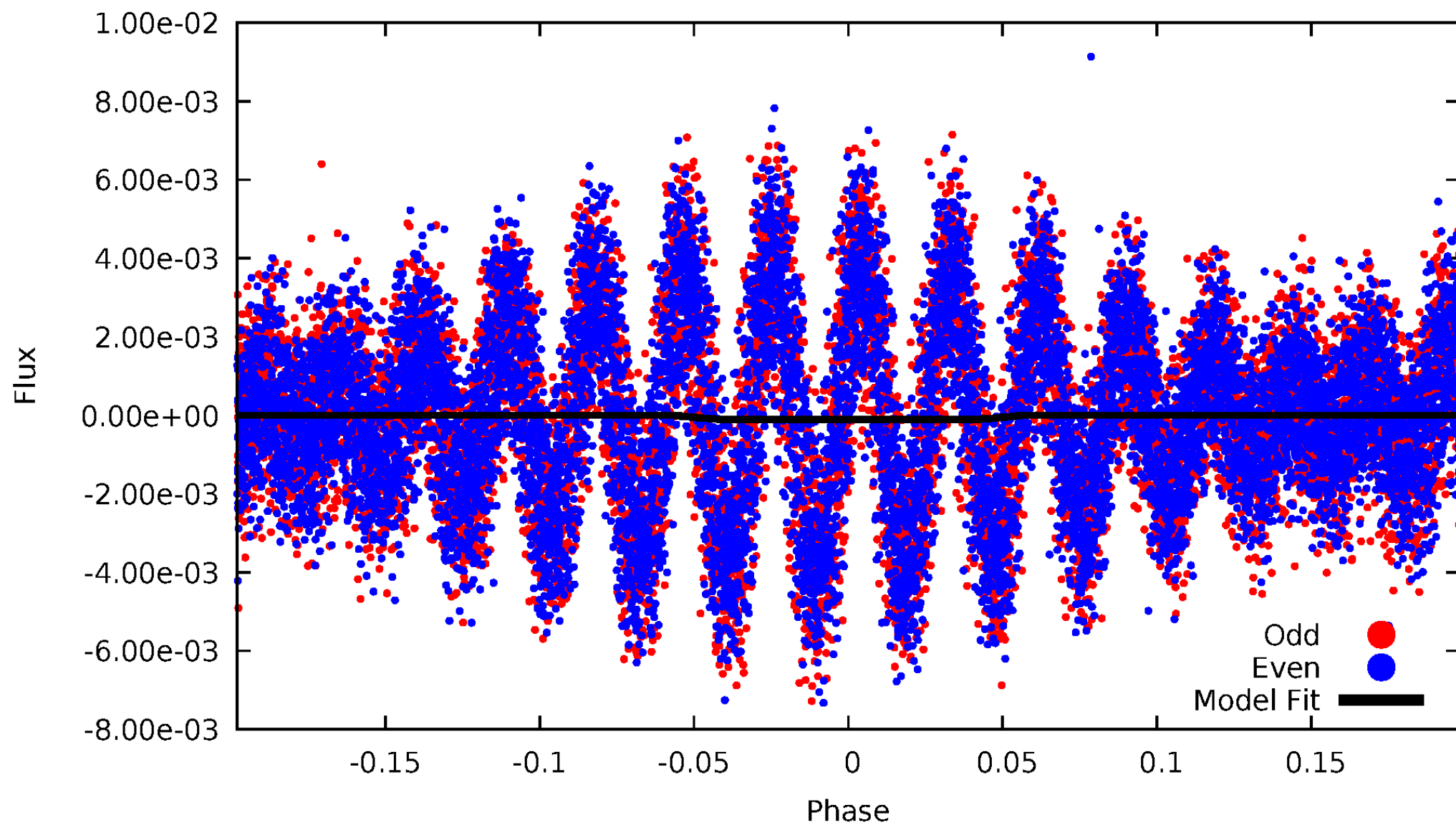
DV Odd/Even

TCE 003863594-01

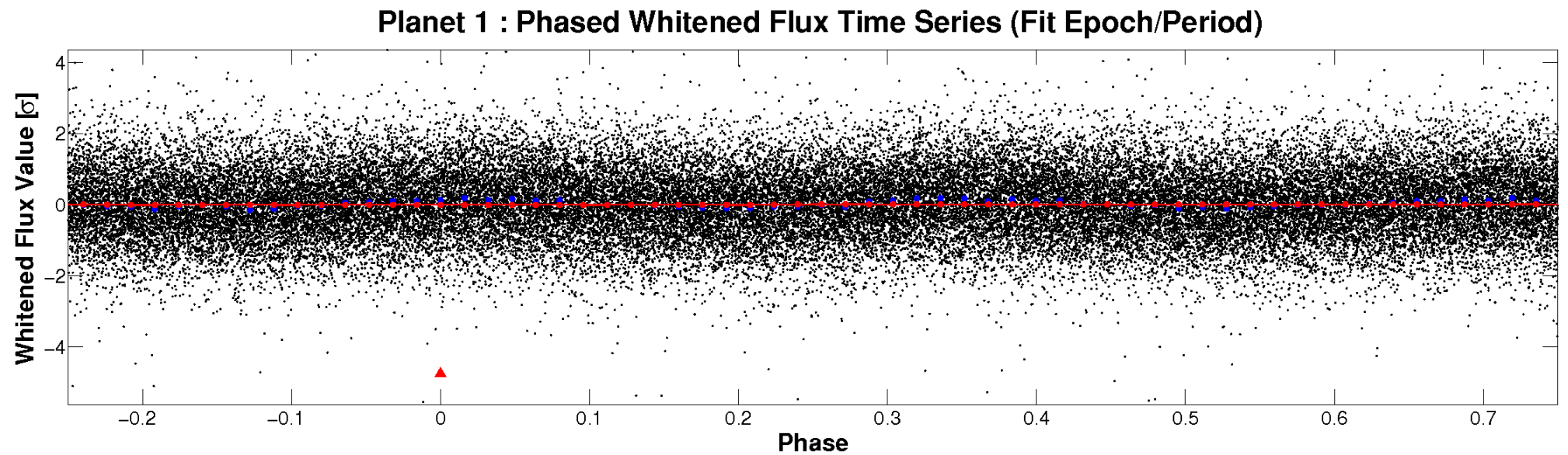
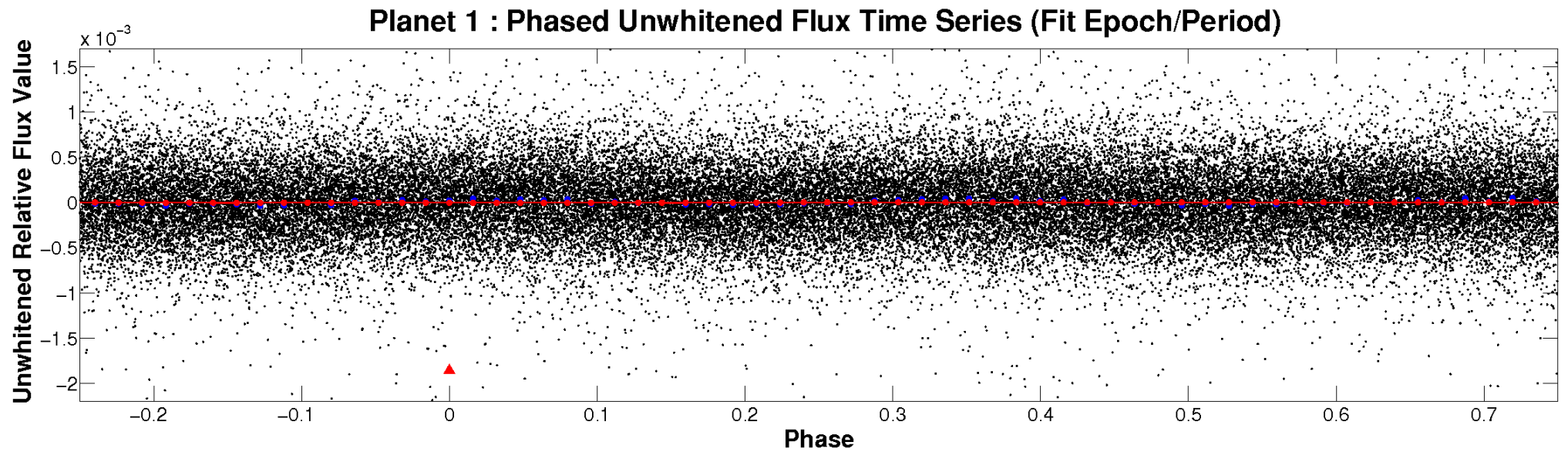


ALT Odd/Even

TCE 003863594-01

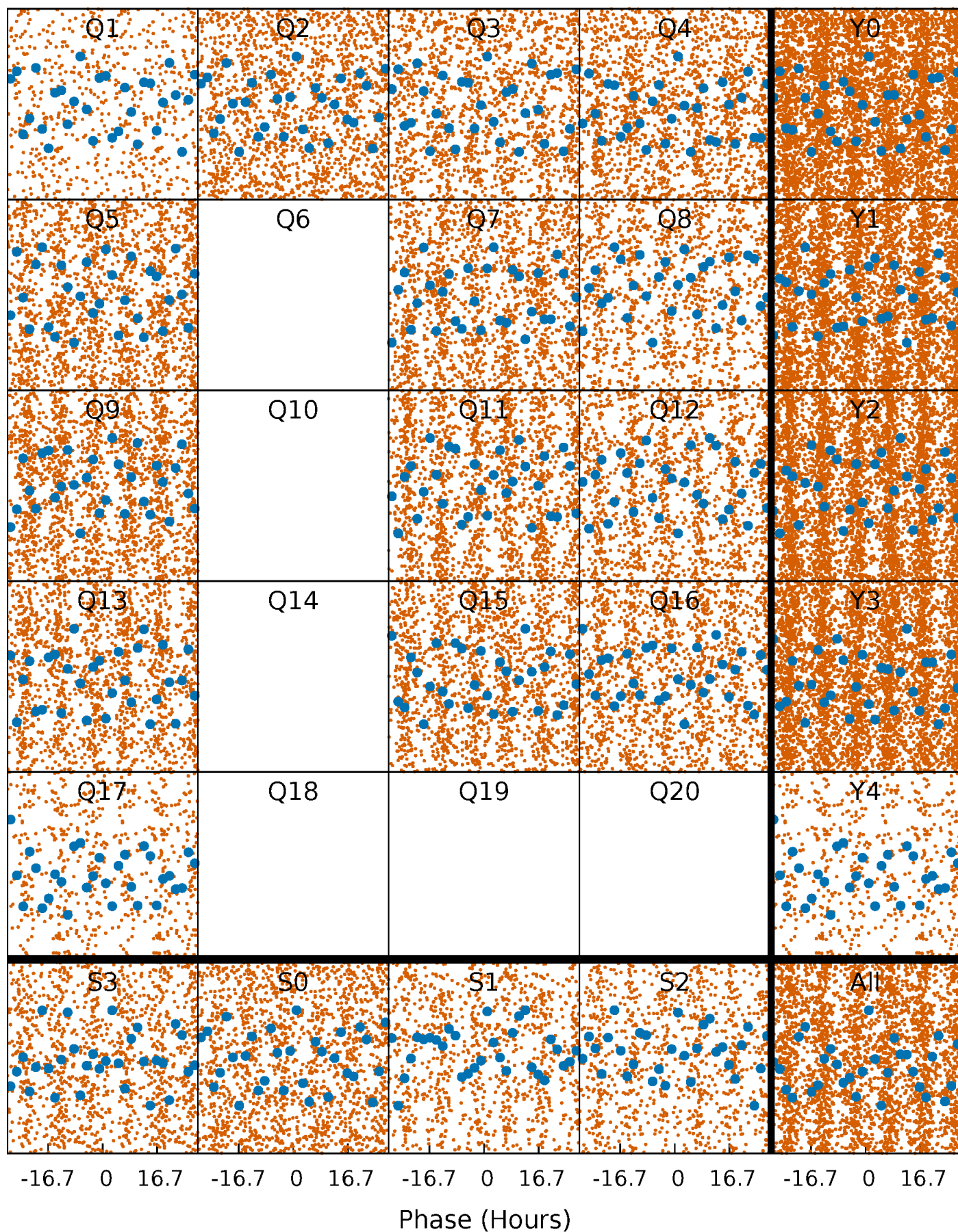


Non-Whitened Vs. Whitened Light Curve



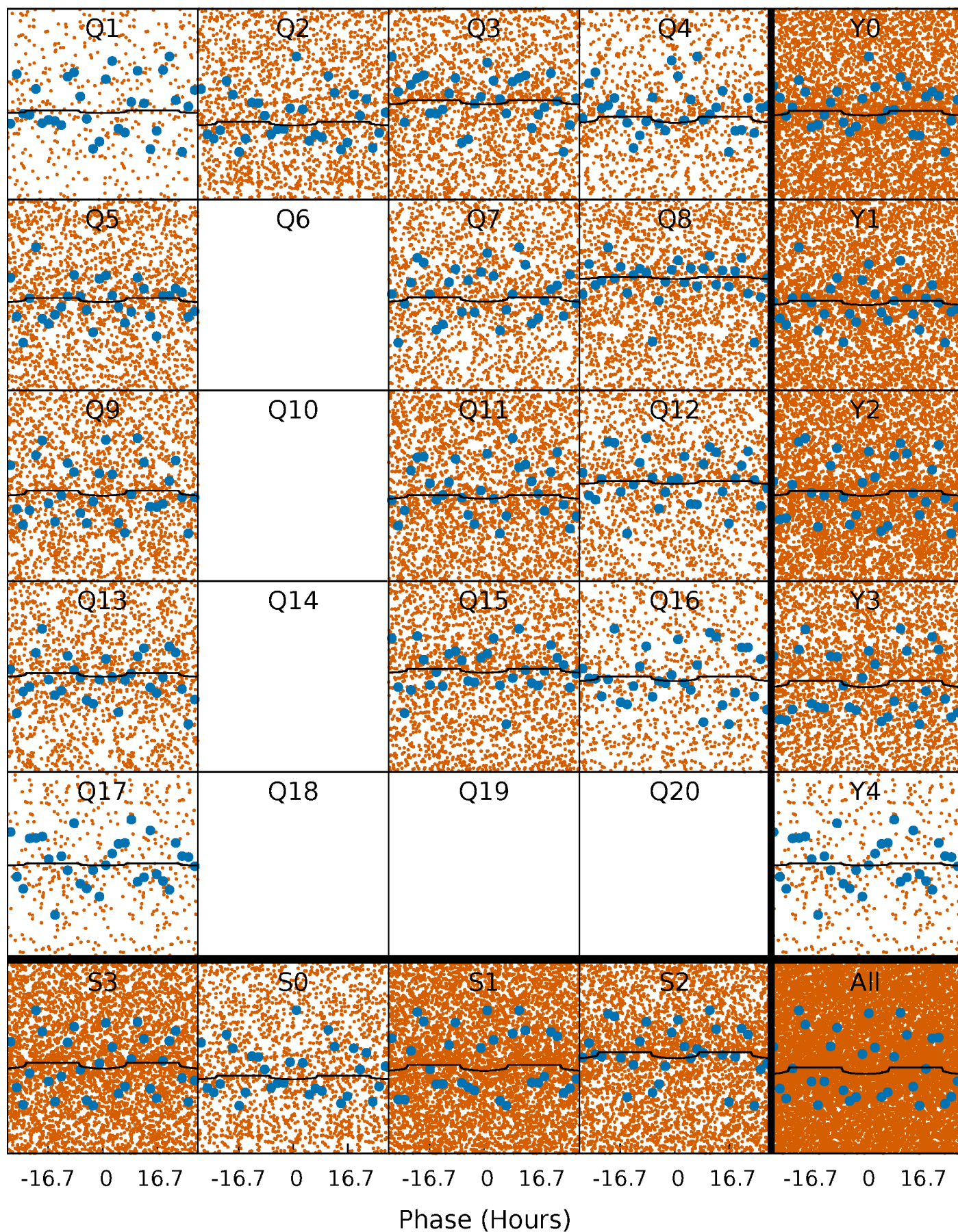
PDC Quarter-Phased Transit Curves

TCE 003863594-01 P= 1.278404 Days $T_0=132.325017$ (BKJD)



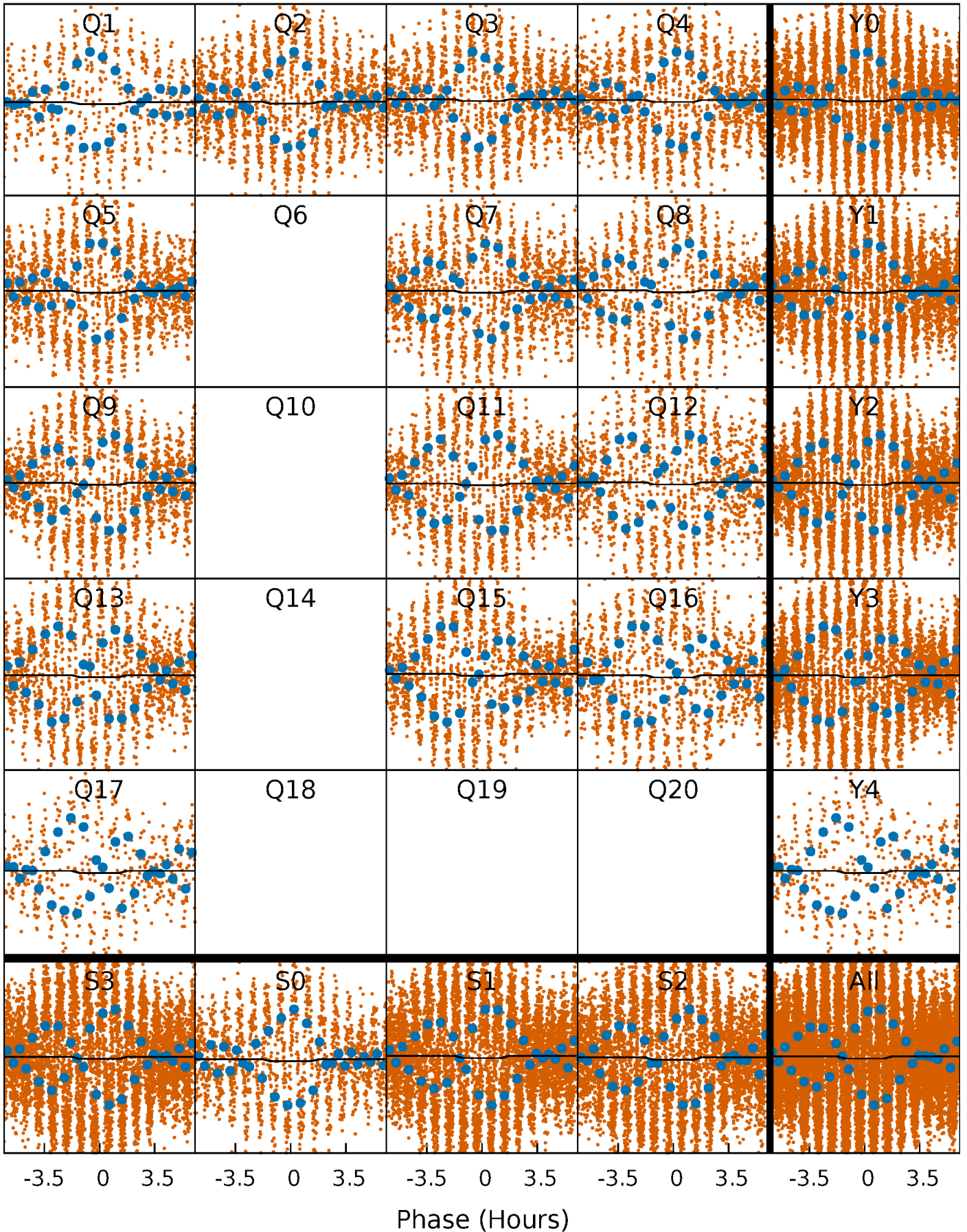
DV Quarter-Phased Transit Curves

TCE 003863594-01 P= 1.278404 Days $T_0=132.325017$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

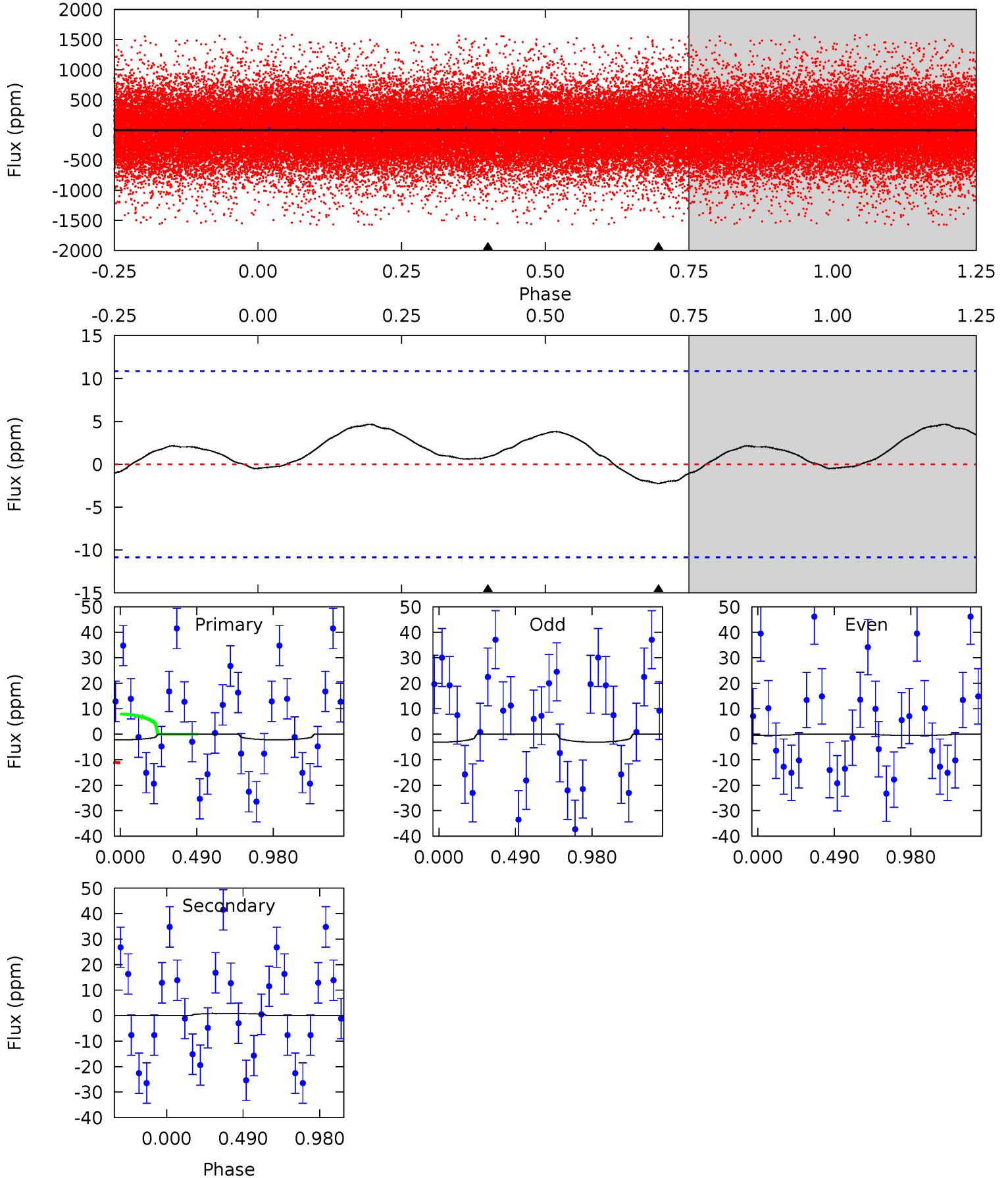
TCE 003863594-01 P= 1.278443 Days $T_0=131.996104$ (BKJD)



DV Model-Shift Uniqueness Test

003863594-01, P = 1.278404 Days, E = 131.046613 Days

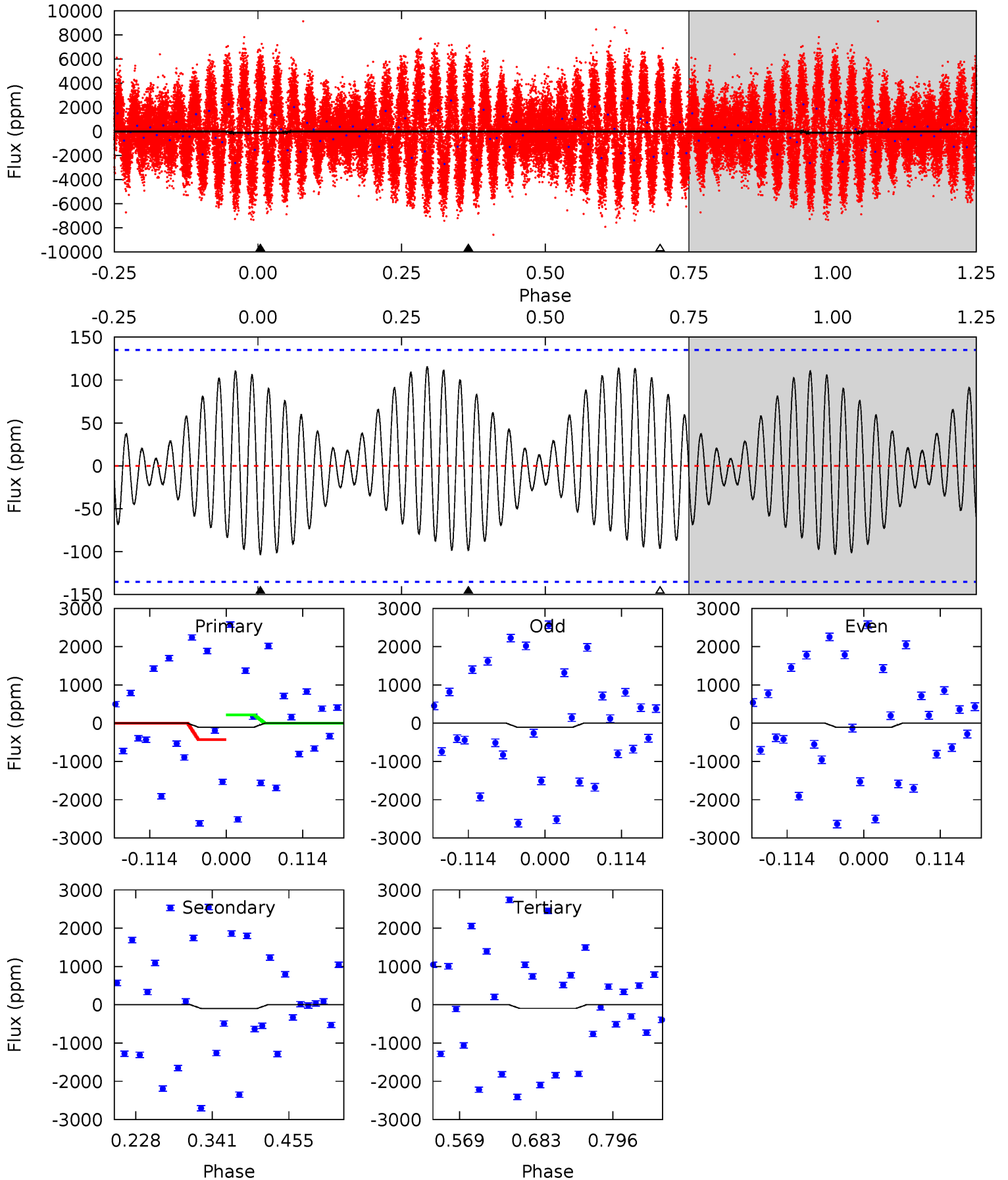
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|-------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 0.86 | -0.34 | 0 | 0 | 4.22 | 0.69 | 0.24 | 0.86 | 0.86 | -0.34 | -0.34 | 0.54 | 1.47 | 0.68 | 0.64 |



Alt Model-Shift Uniqueness Test

003863594-01, P = 1.278443 Days, E = 130.717661 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 3.47 | 3.31 | 3.23 | 0 | 4.54 | 1.58 | 1.54 | 0.24 | 3.47 | 0.08 | 3.31 | 0.02 | 1.22 | 0.53 | 3.18 |



Stellar Parameters For KIC 003863594

| | $T_{\text{eff}}(K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 7217^{+200}_{-300} | $4.267^{+0.060}_{-0.240}$ | $0.210^{+0.150}_{-0.350}$ | $1.522^{+0.592}_{-0.185}$ | $1.570^{+0.211}_{-0.190}$ | $0.627^{+0.201}_{-0.352}$ |
| | +3%/-4% | +1%/-6% | +71%/-167% | +39%/-12% | +13%/-12% | +32%/-56% |
| 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 003863594-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|-------------------------|----------------------------|
| DV | 1 ± 3 | $1.10^{+1.12}_{-0.79}$ | 3427^{+305}_{-187} | -3573^{+7079}_{-1642} | $-0.128^{+0.869}_{-2.863}$ |
| Alt. | -99 ± 30 | $1.95^{+1.46}_{-1.09}$ | 3448^{+289}_{-197} | 6812^{+4856}_{-1755} | $9.895^{+38.058}_{-6.867}$ |

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 $A_{obs} \gg 1.0$

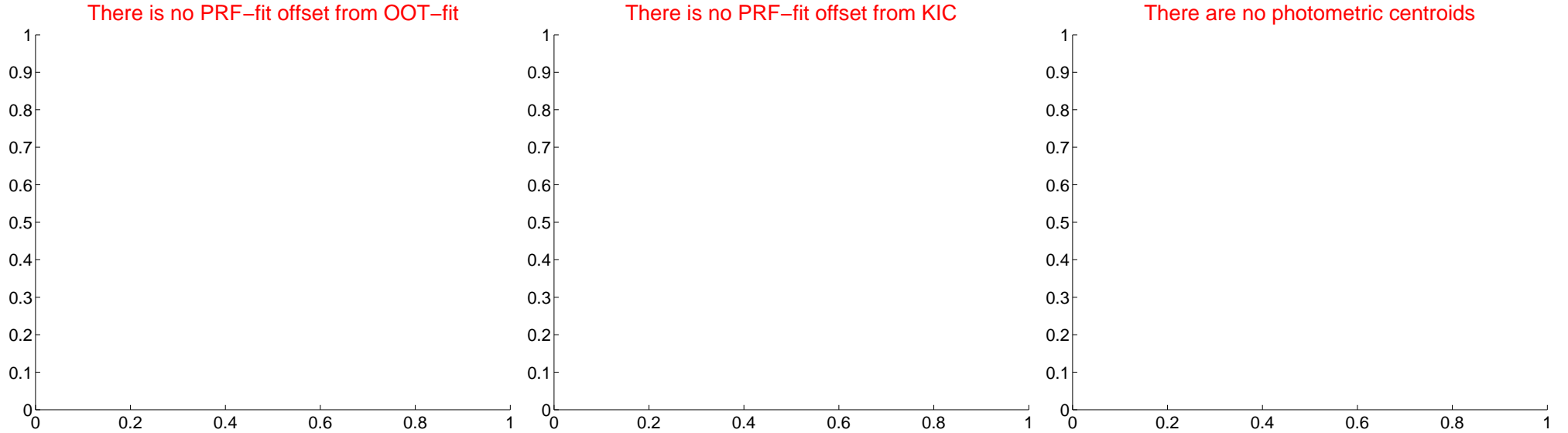
DV Centroid Data

Supplemental centroid analysis for 003863594-01. Kepler magnitude: 12.75. Transit SNR 1.30

There are 0 quarters with good PRF difference image offsets

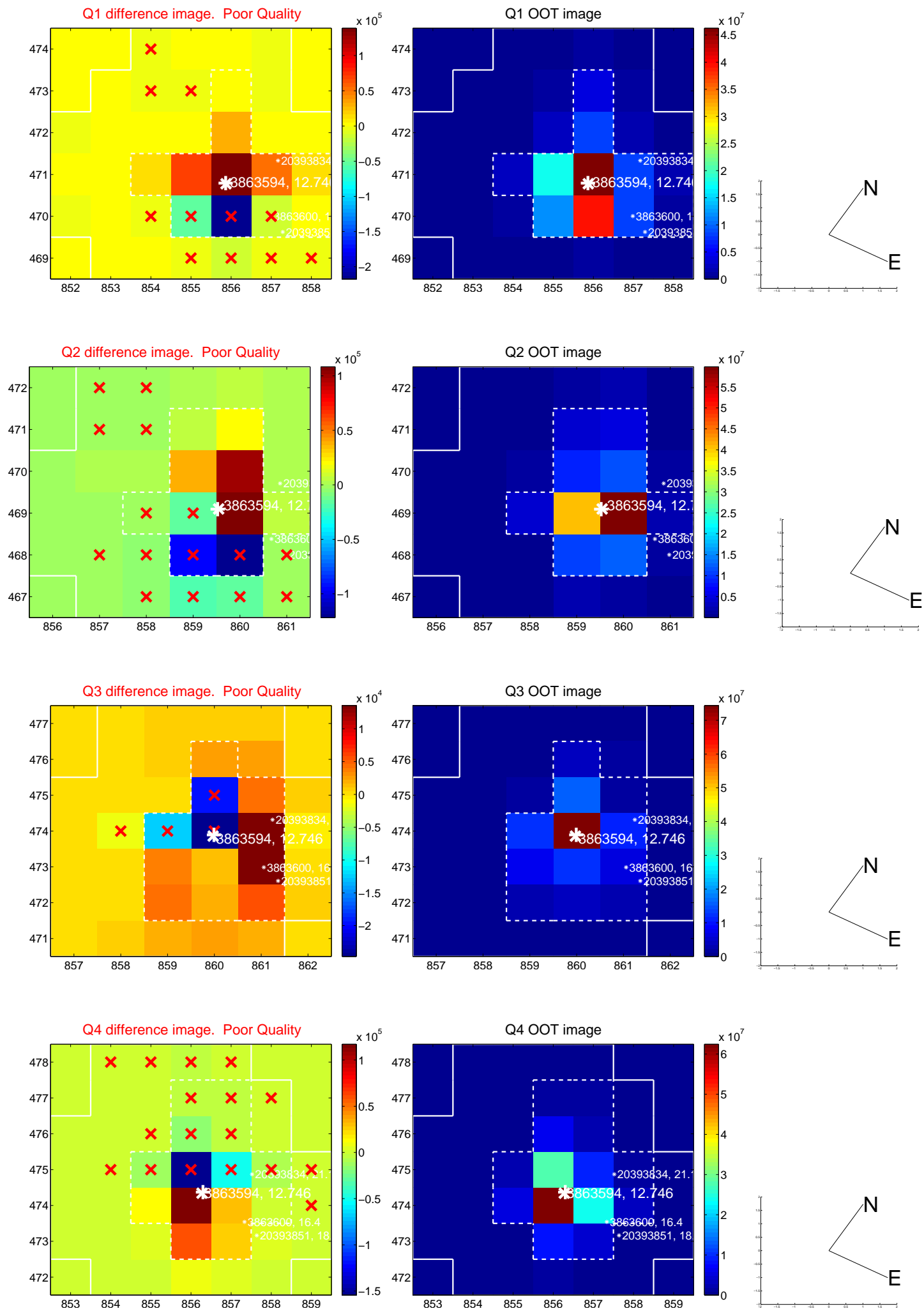
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------|--------------|
| PRF-fit source offset from OOT | — | — | — | — |
| PRF-fit source offset from KIC position | — | — | — | — |
| photometric centroid source offset | — | — | — | — |

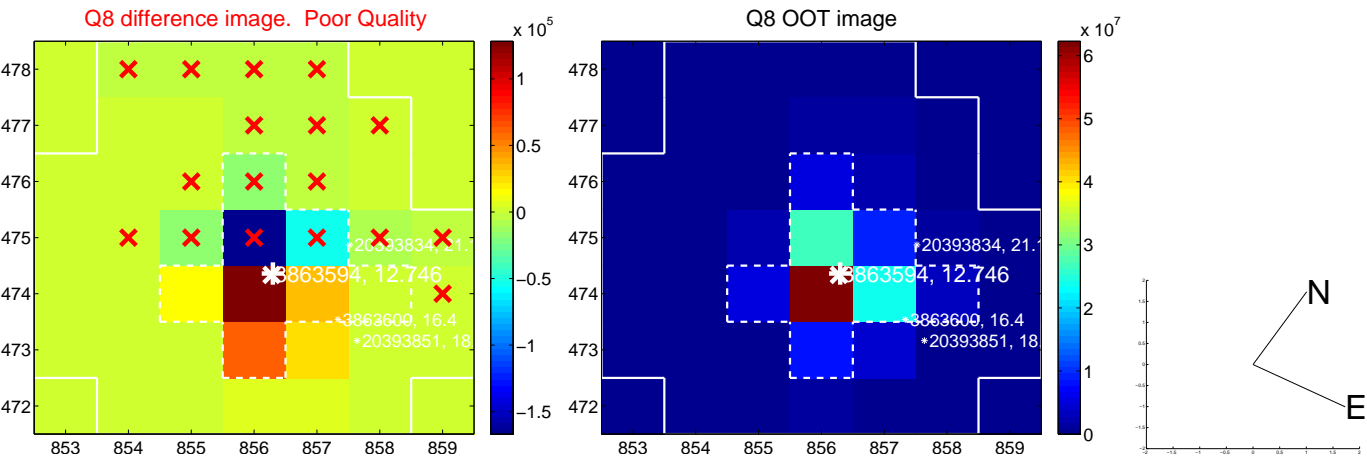
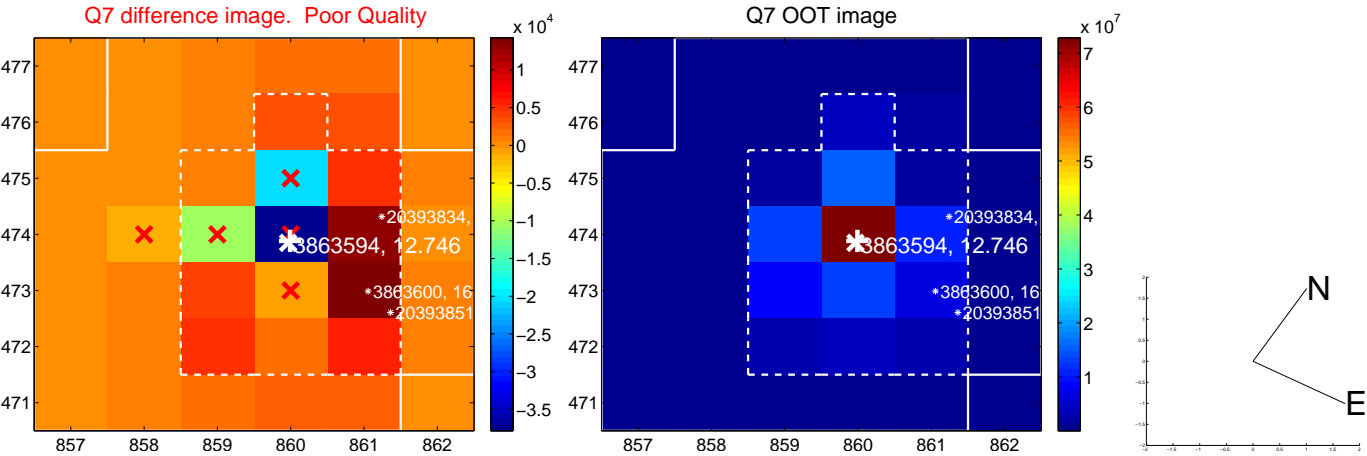
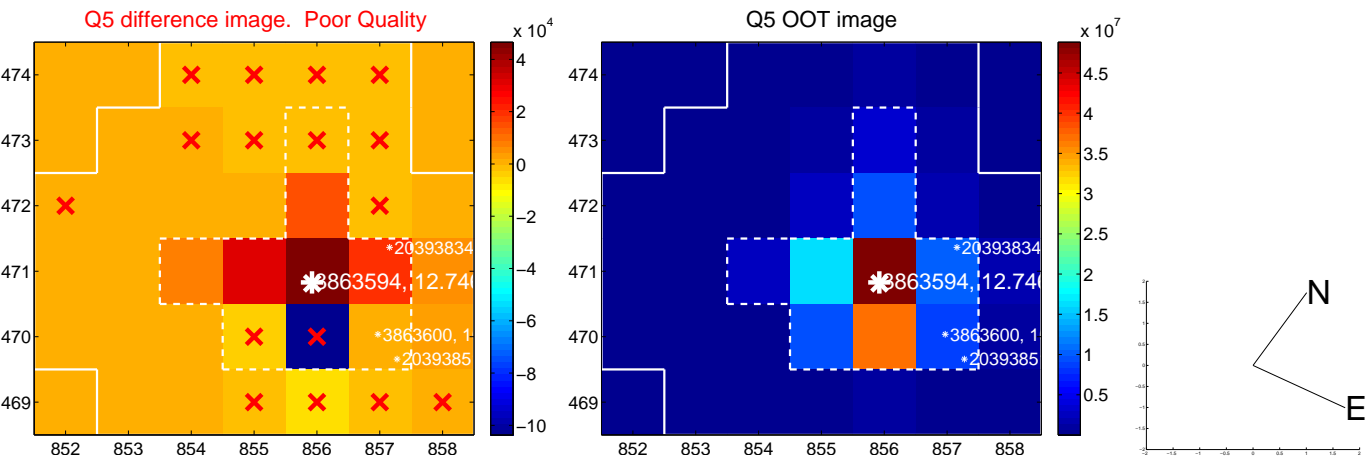


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

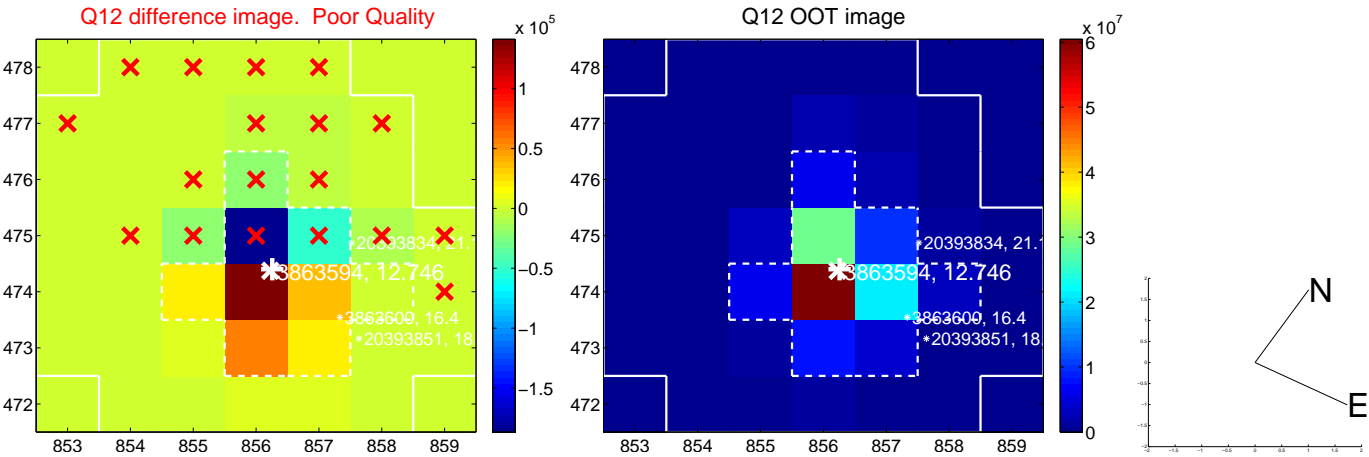
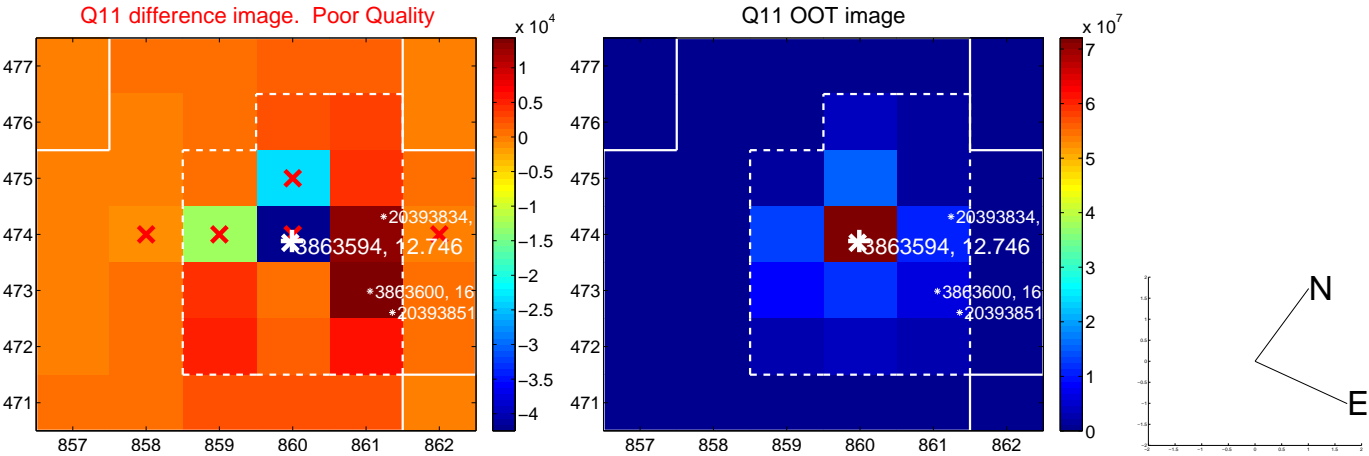
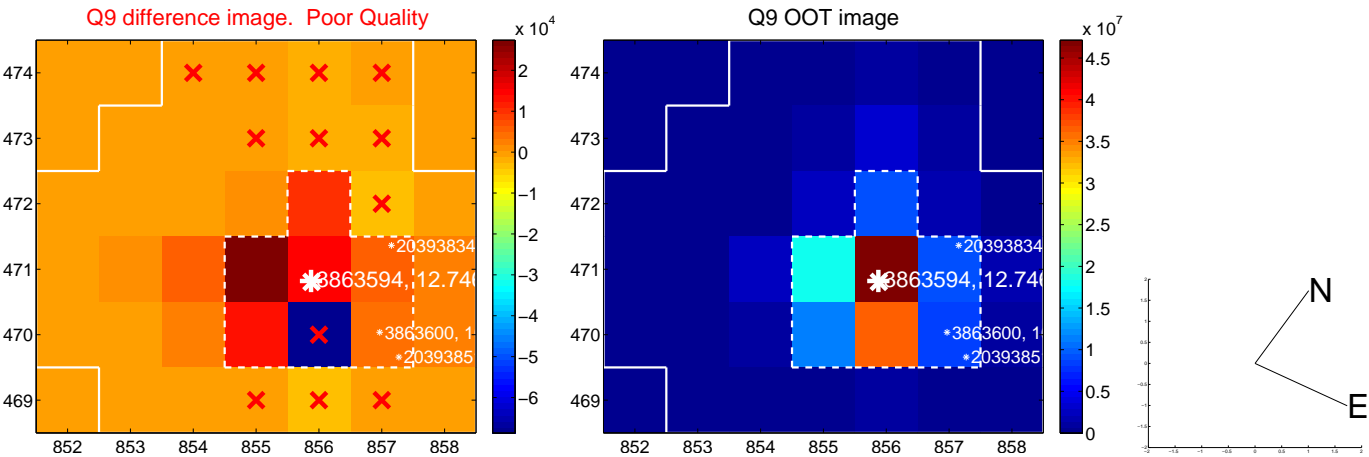
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



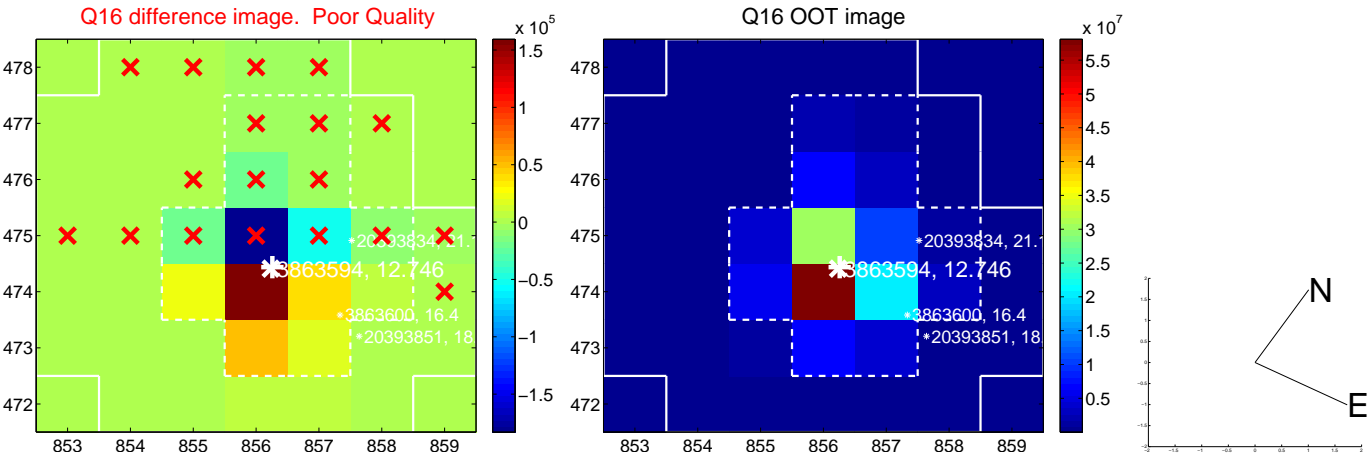
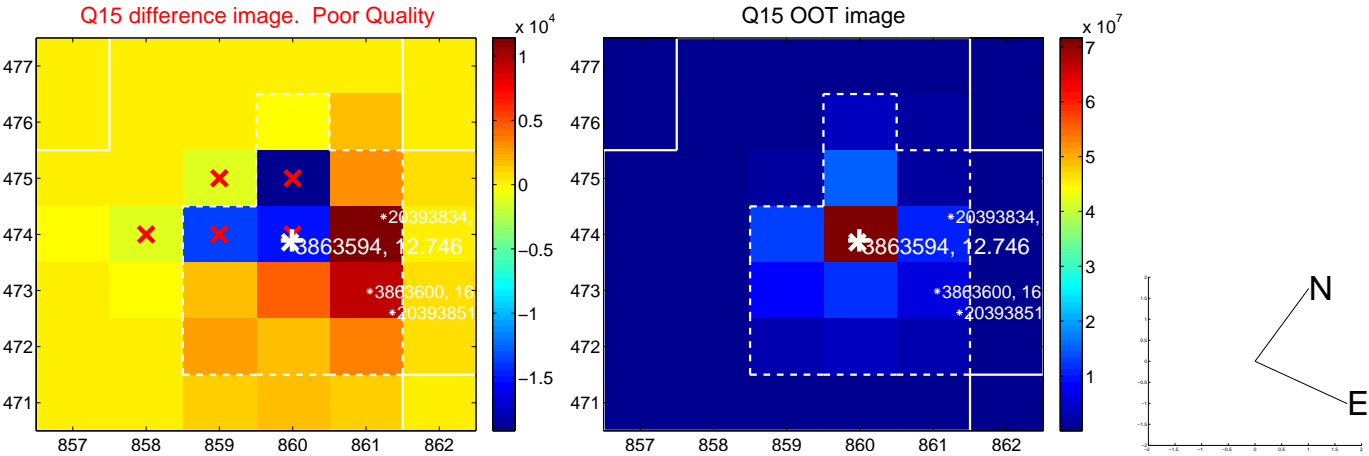
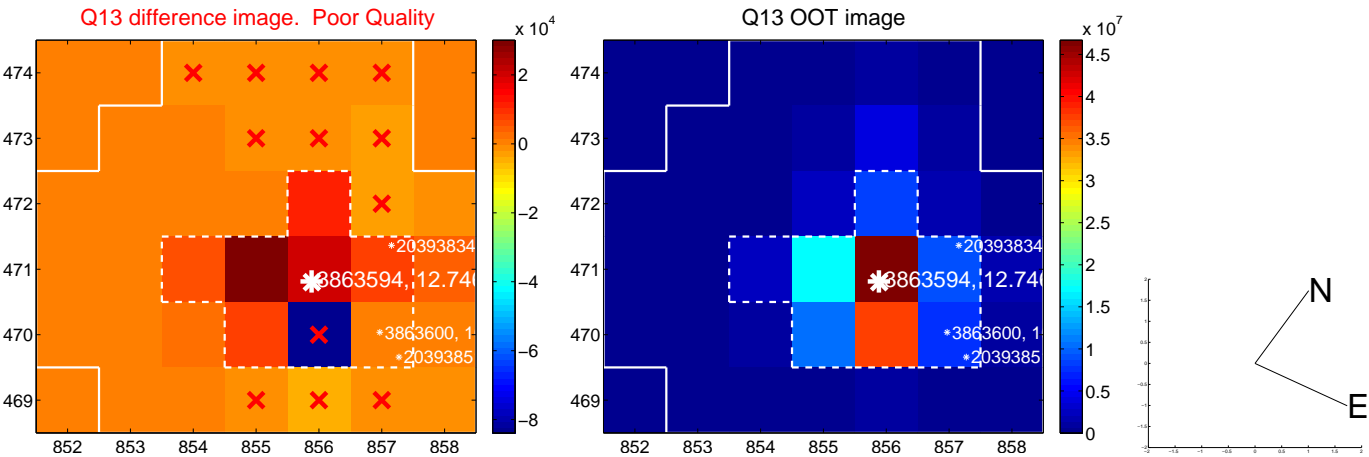
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



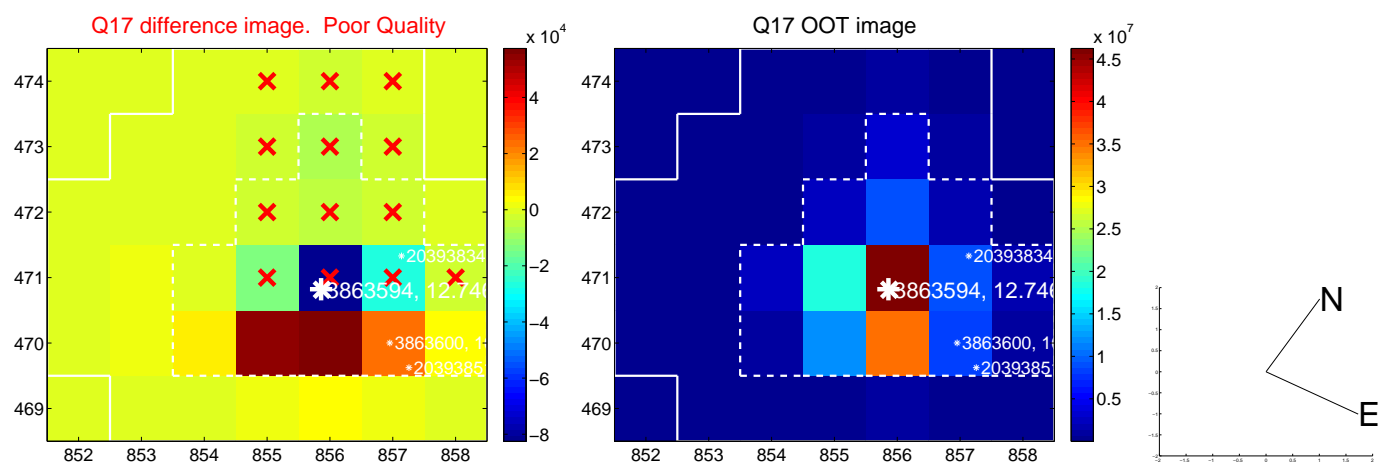
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

