

KIC 005772419

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 005772419-01 | OBS | No | 318.913382 | 175.068533 | 955.9 | 10.500 | 10.1 | -1.0 | 0.72 | 4831 | 2.14 | 0.38 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 005772419-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—CENT_NOFITS |

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

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

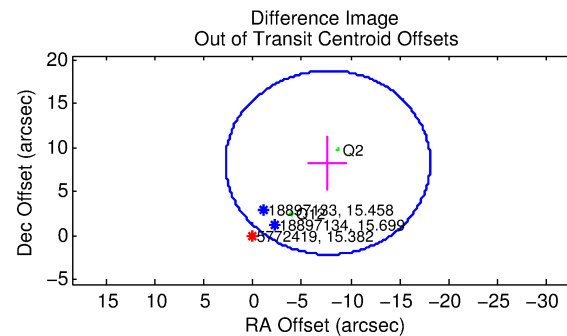
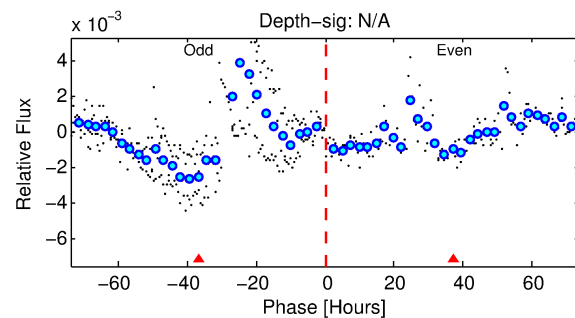
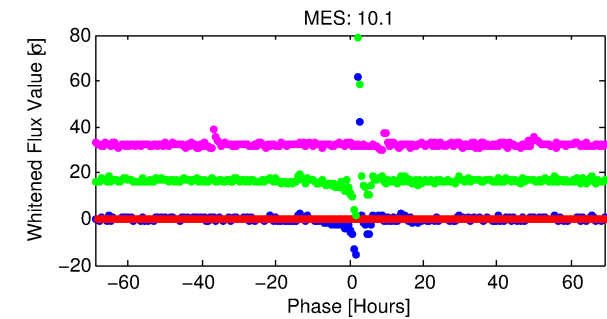
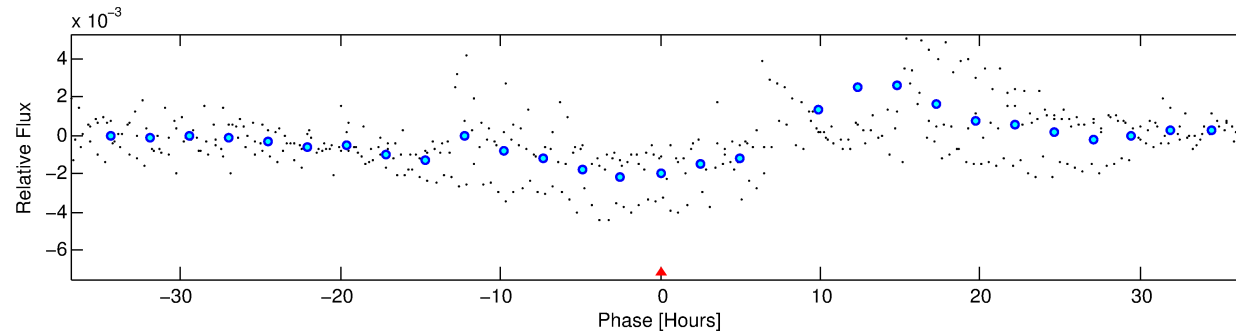
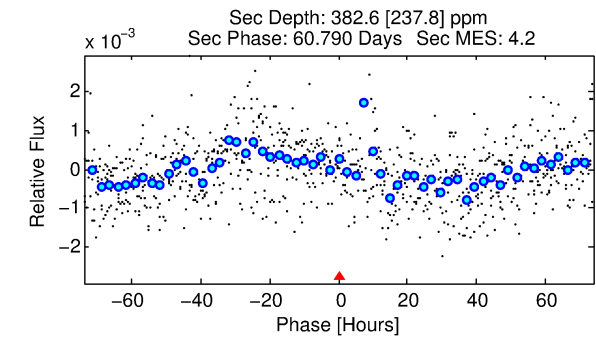
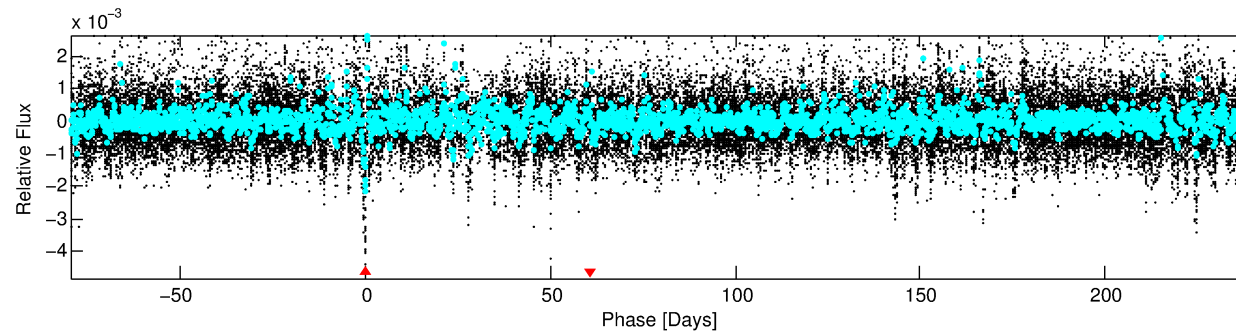
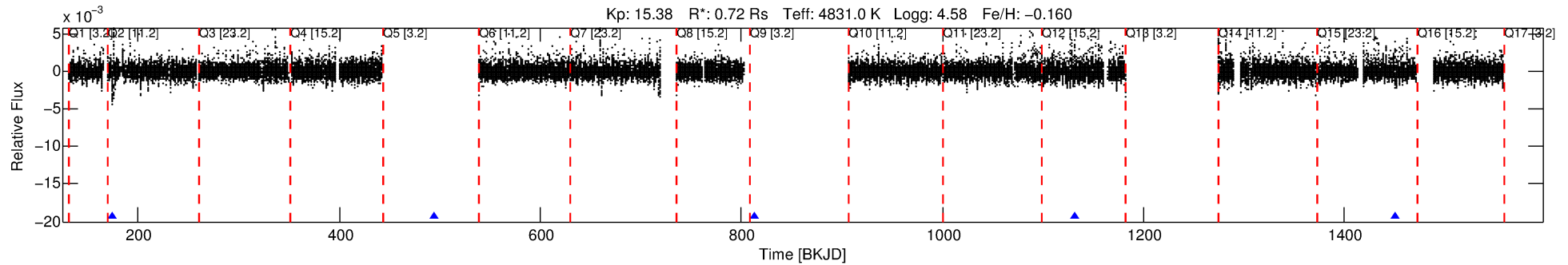
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005772419-01

No Significant Match Found

DV One-Page Summary

KIC: 5772419 Candidate: 1 of 1 Period: 318.913 d



TPS TCE Results:

Period = 318.91338 d
Epoch = 175.0685 BKJD

DV fit results are unavailable

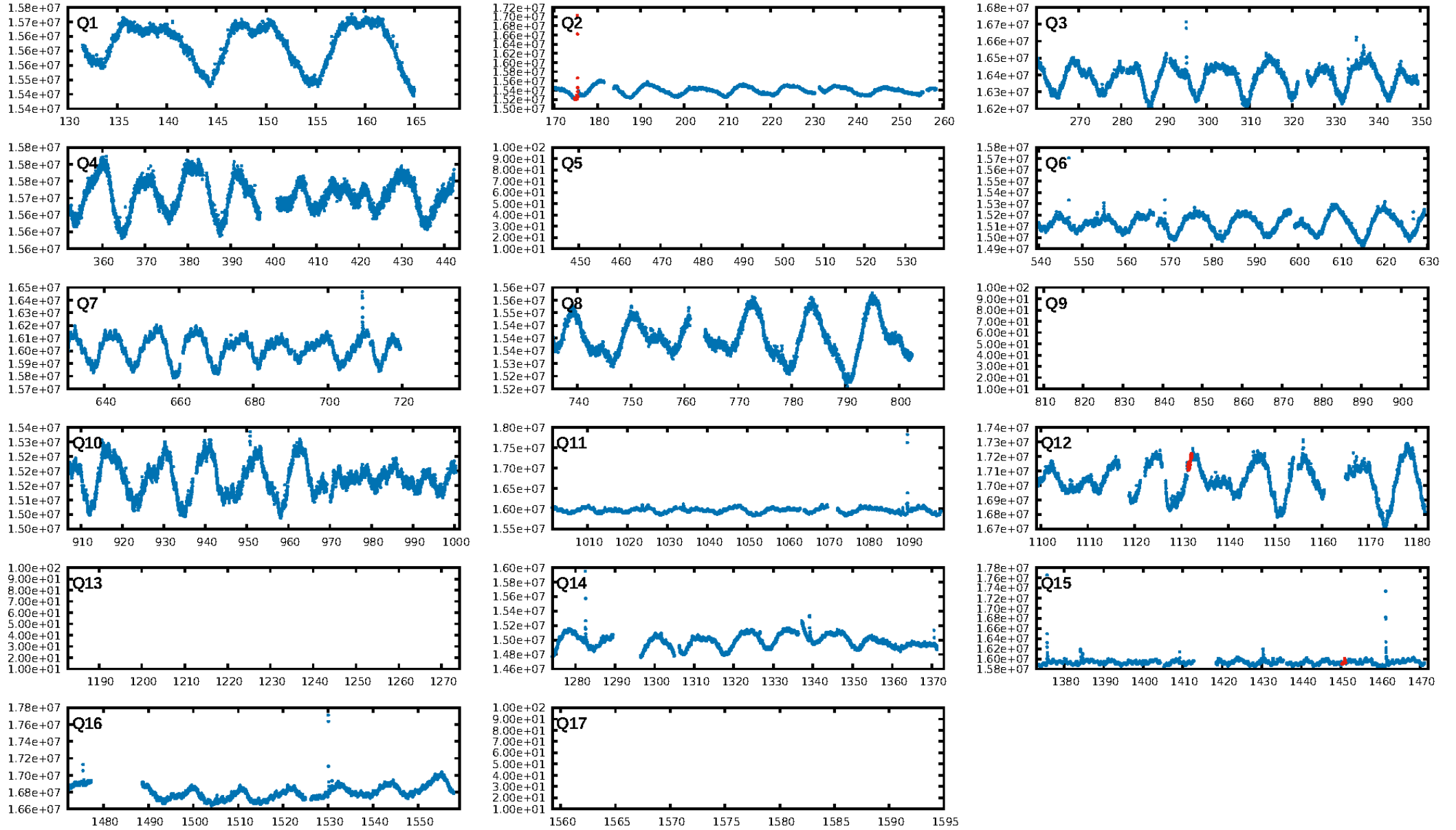
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.52e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.767
Centroid-sig: 0.0%
Centroid-so: 12.150 arcsec [17.79σ]
OotOffset-rm: 11.290 arcsec [3.24σ]
KicOffset-rm: 3.009 arcsec [3.10σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

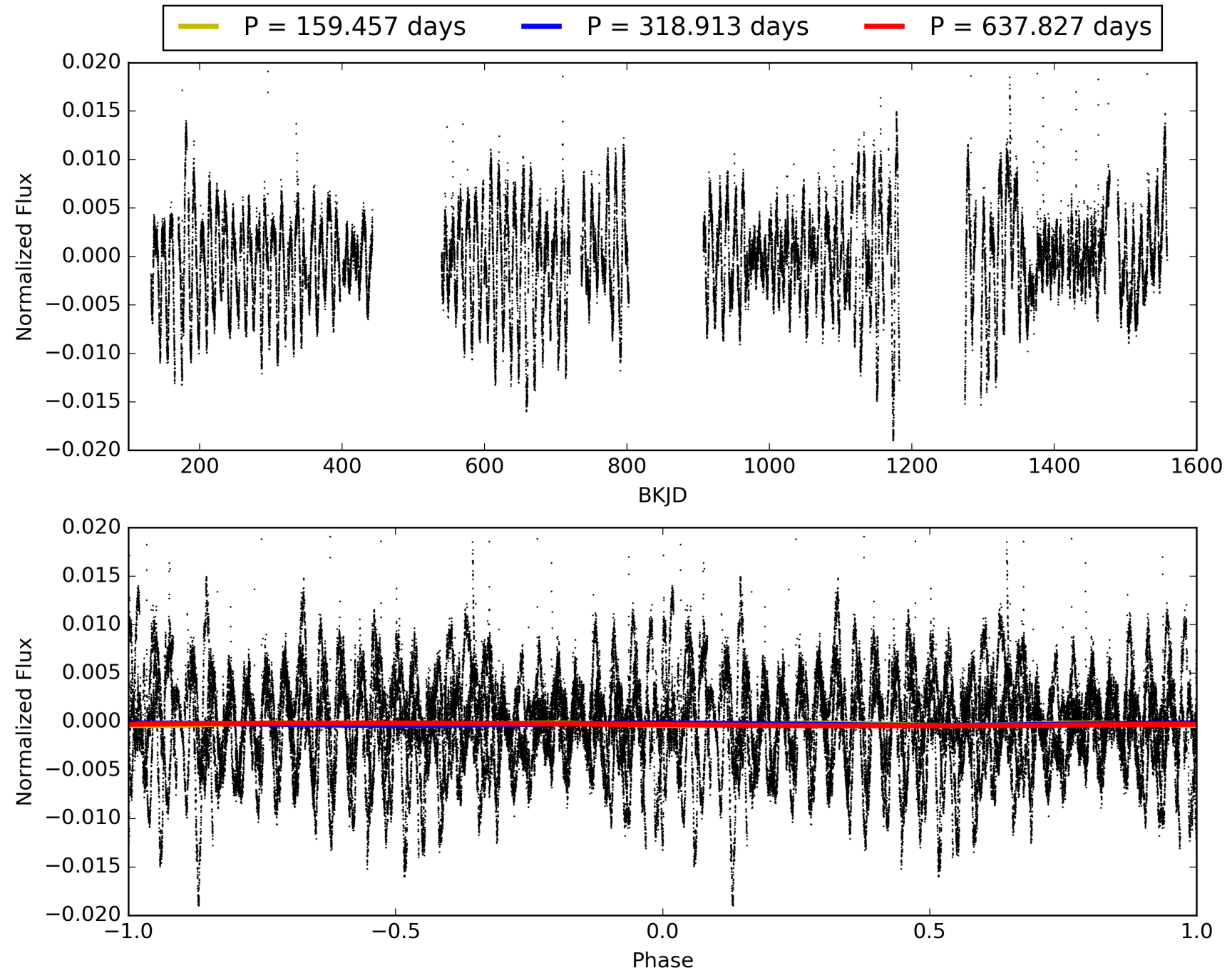
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:26:07 Z

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

TCE 005772419-01, PDC Light Curves

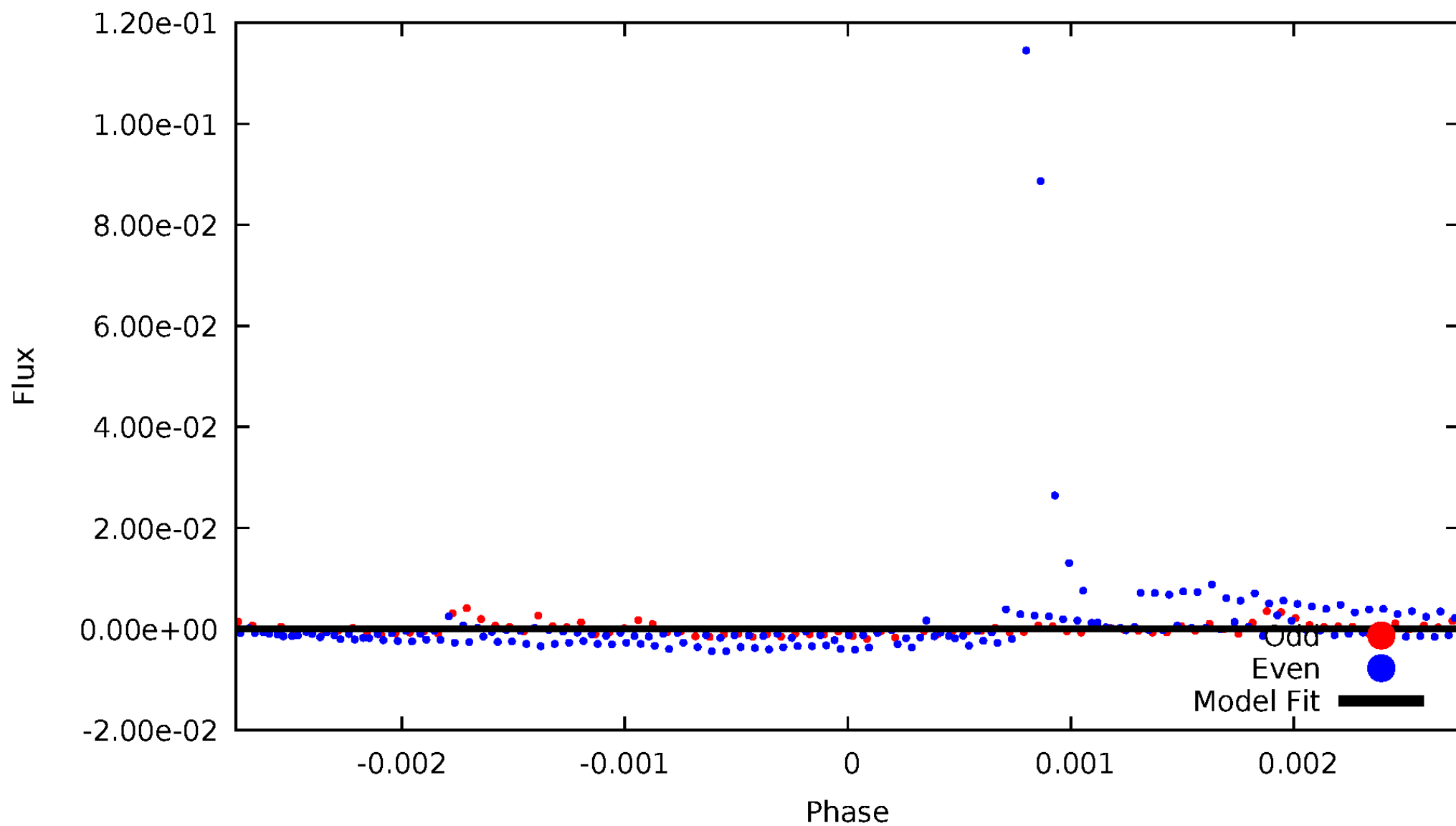


TCE 005772419-01



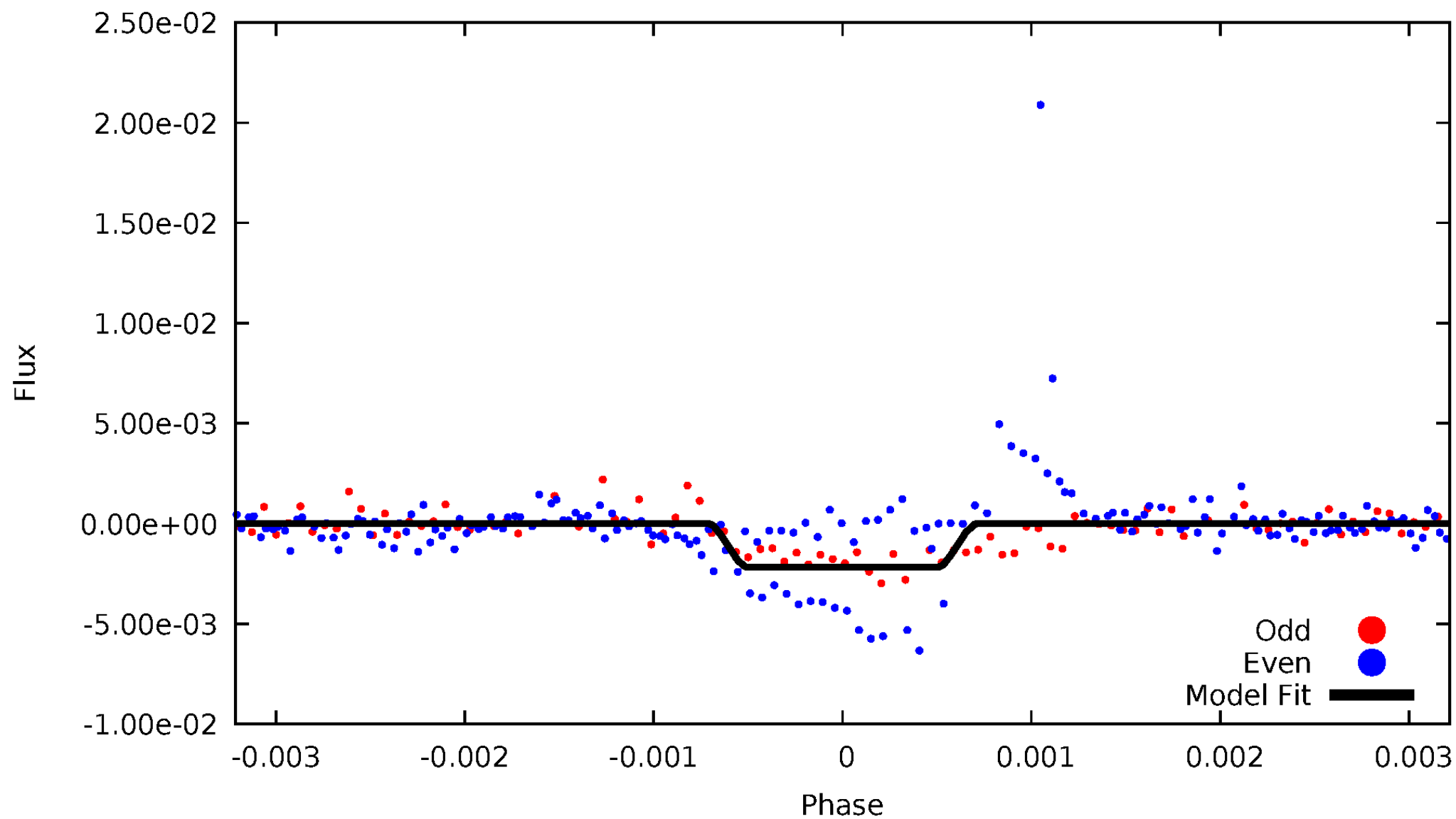
DV Odd/Even

TCE 005772419-01

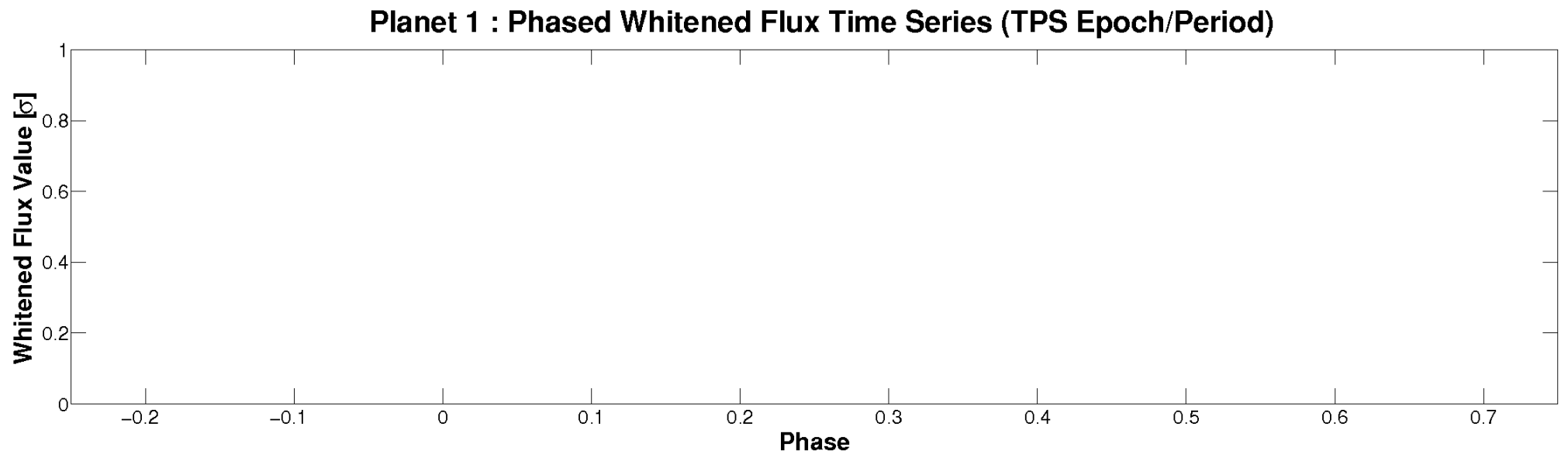
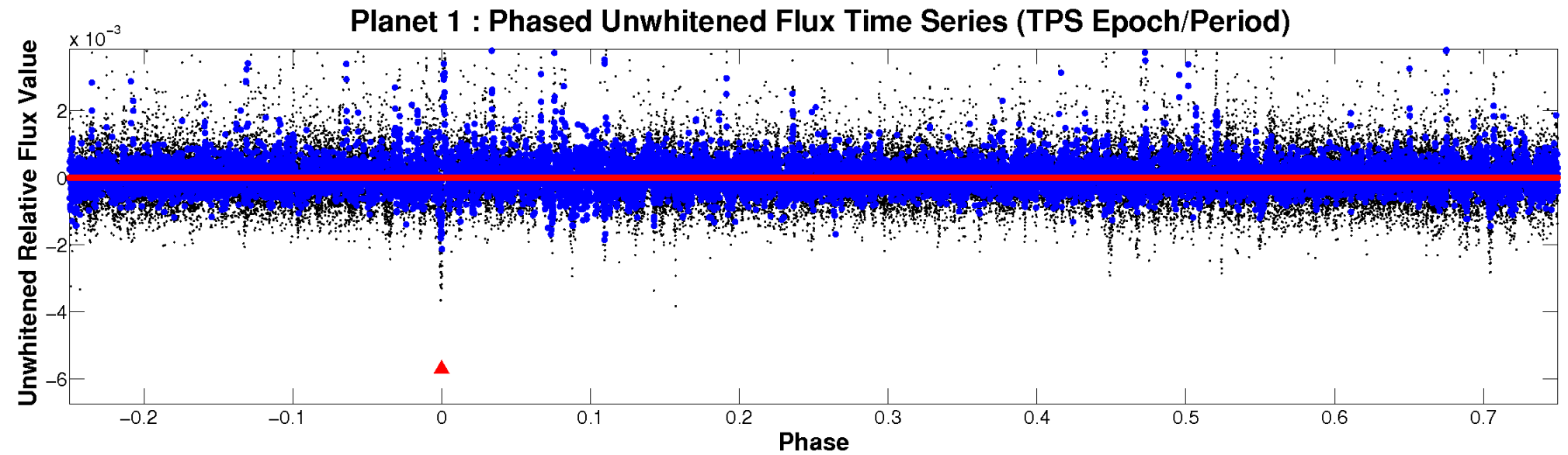


ALT Odd/Even

TCE 005772419-01

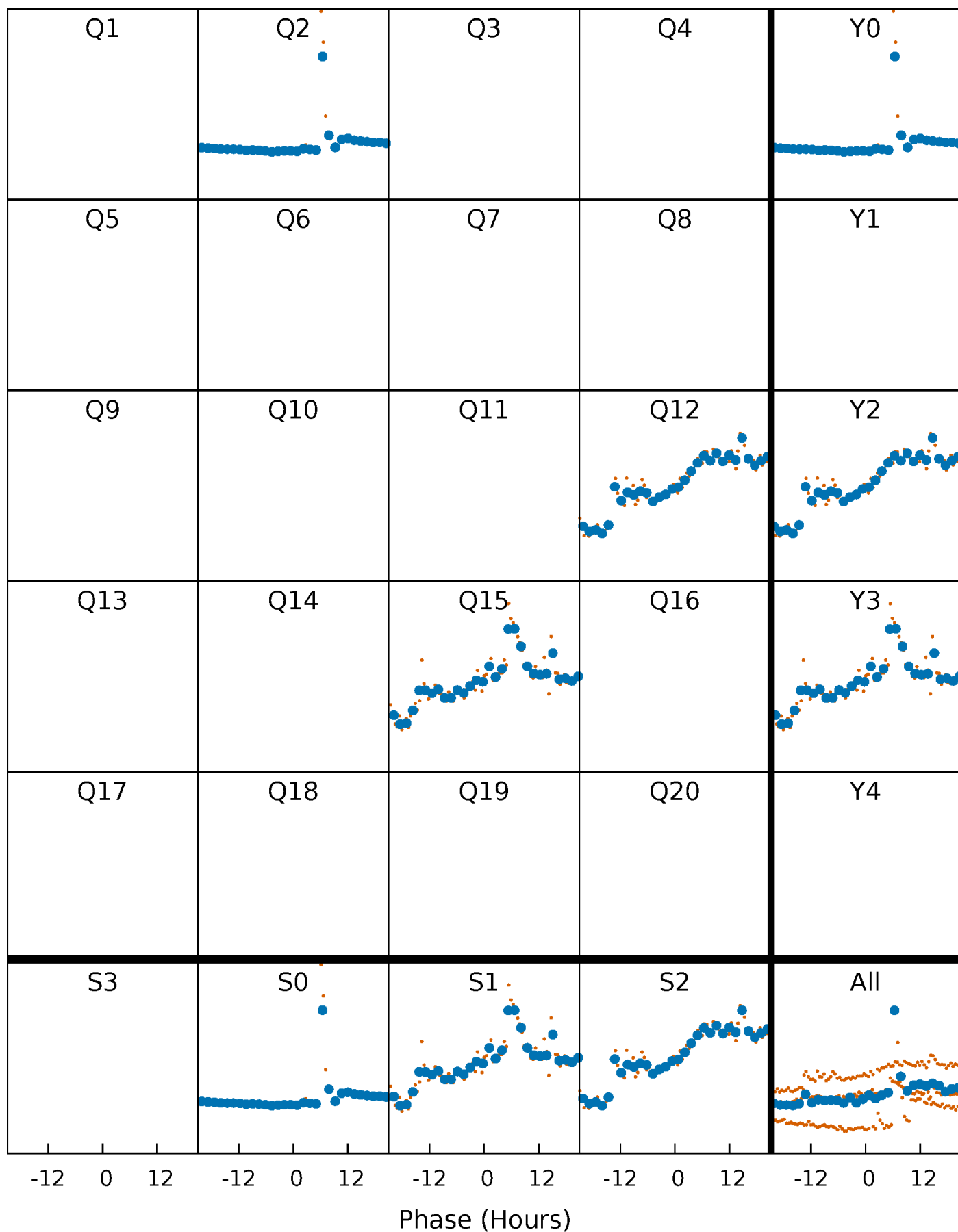


Non-Whitened Vs. Whitened Light Curve



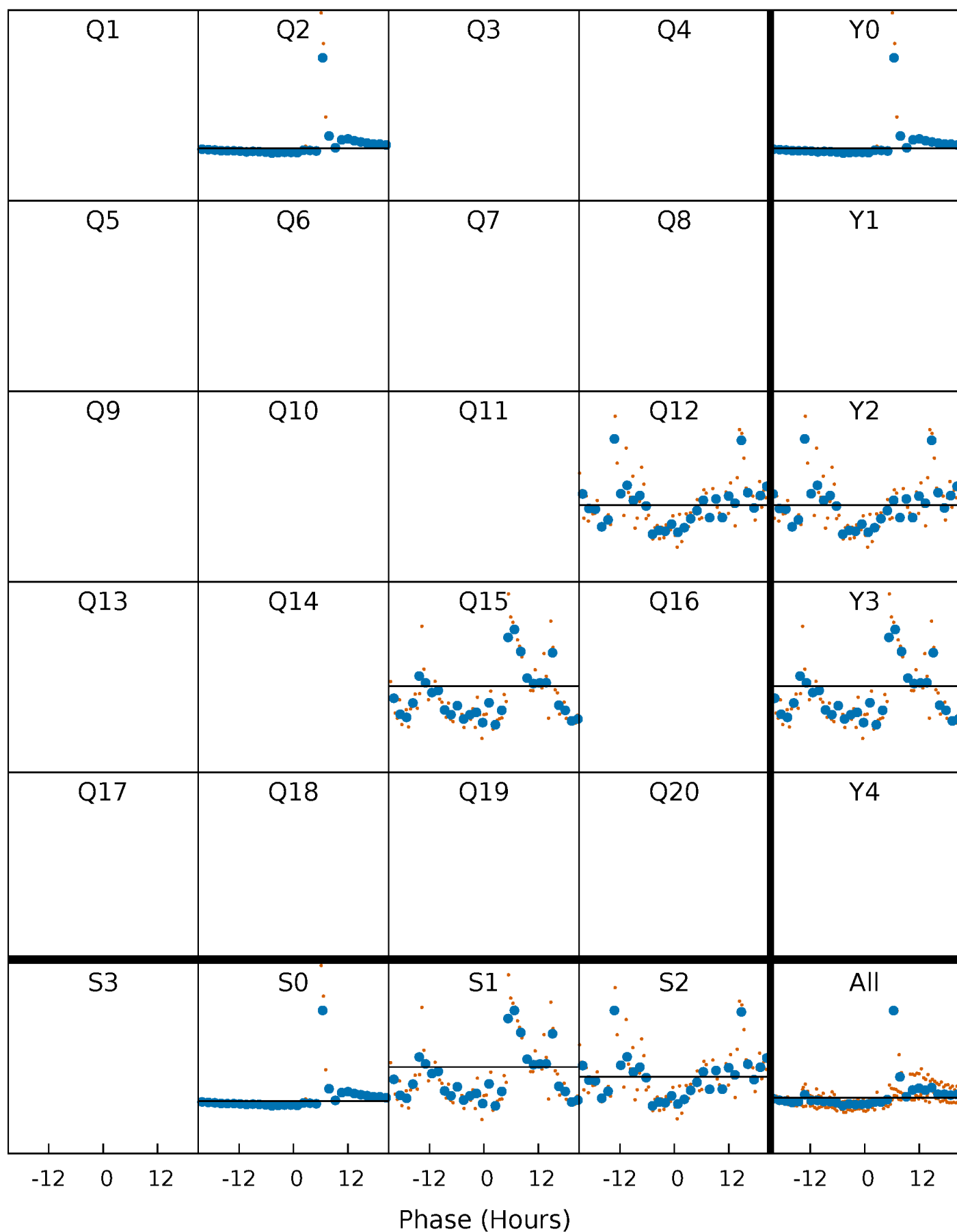
PDC Quarter-Phased Transit Curves

TCE 005772419-01 P=318.913382 Days $T_0=175.068533$ (BKJD)



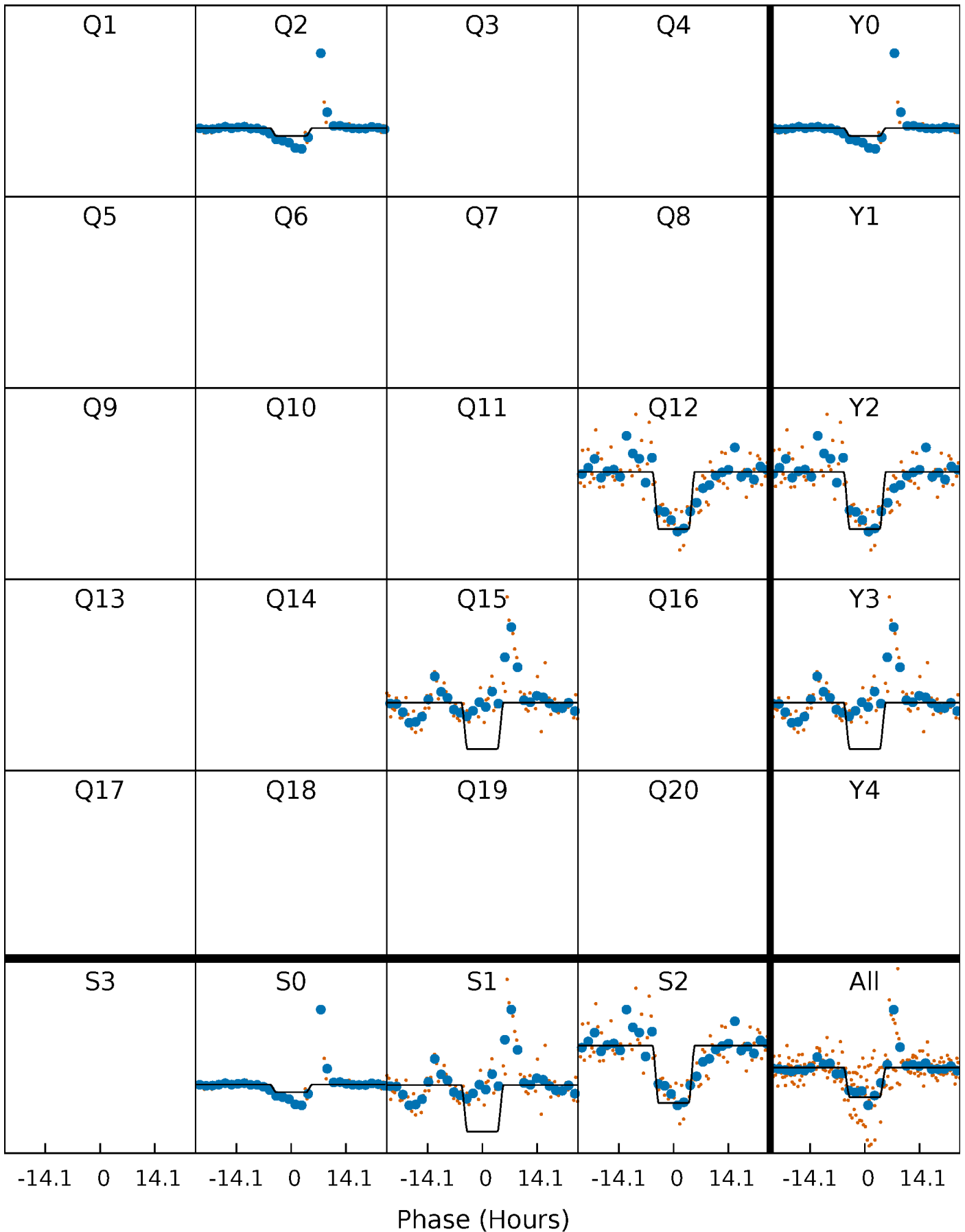
DV Quarter-Phased Transit Curves

TCE 005772419-01 P=318.913382 Days $T_0=175.068533$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

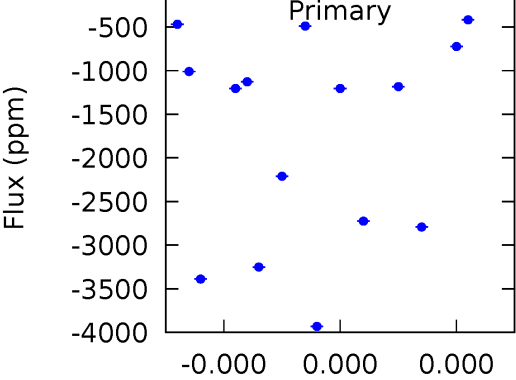
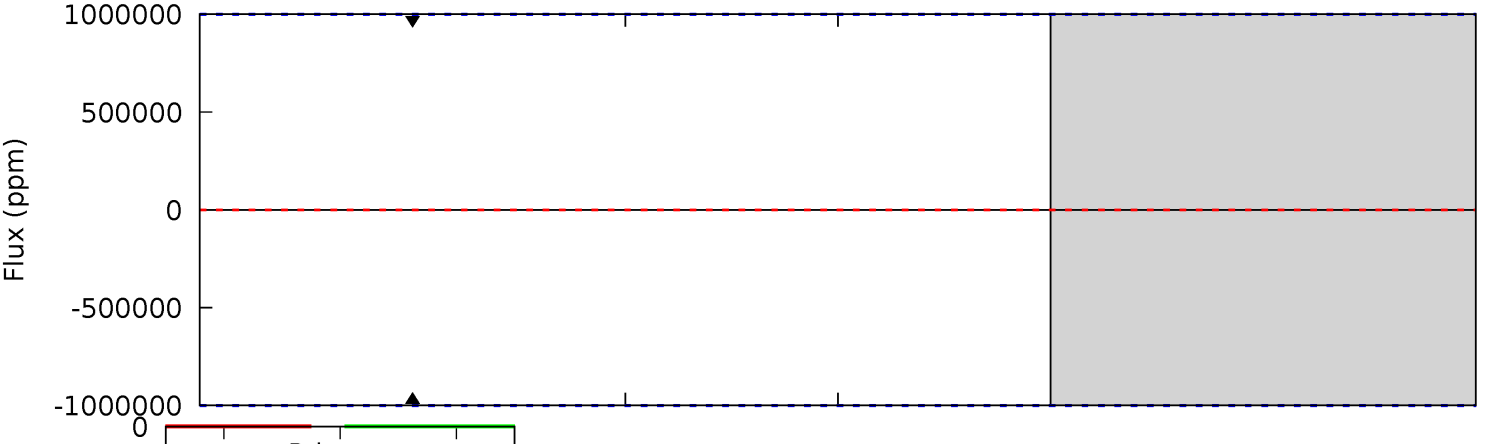
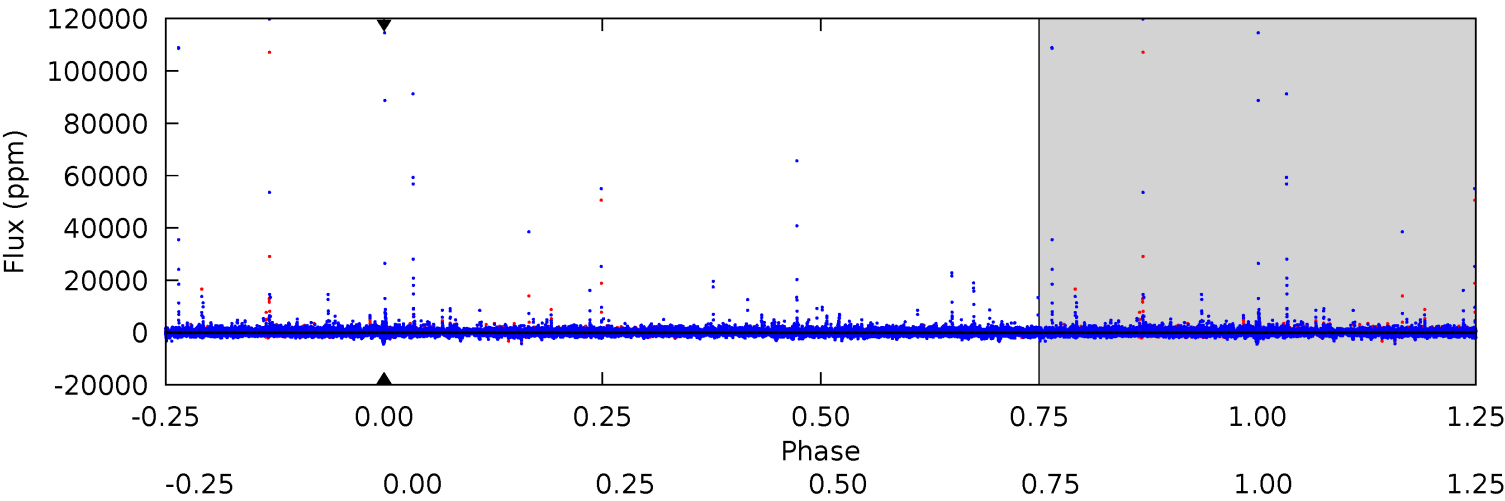
TCE 005772419-01 P=318.913382 Days $T_0=175.030524$ (BKJD)



DV Model-Shift Uniqueness Test

005772419-01, P = 318.913382 Days, E = 175.068533 Days

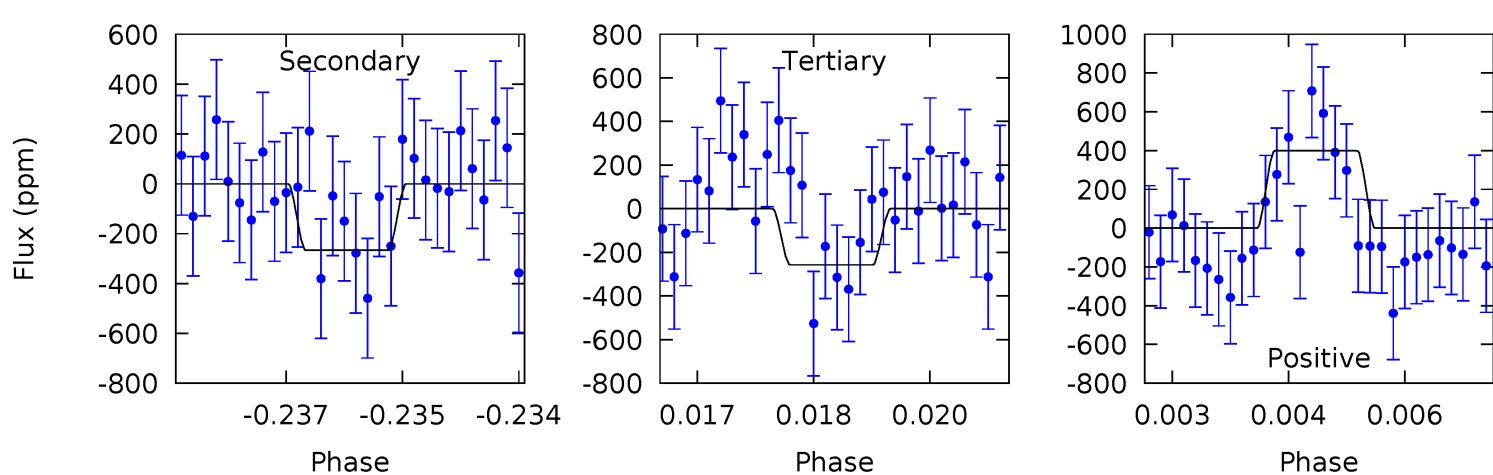
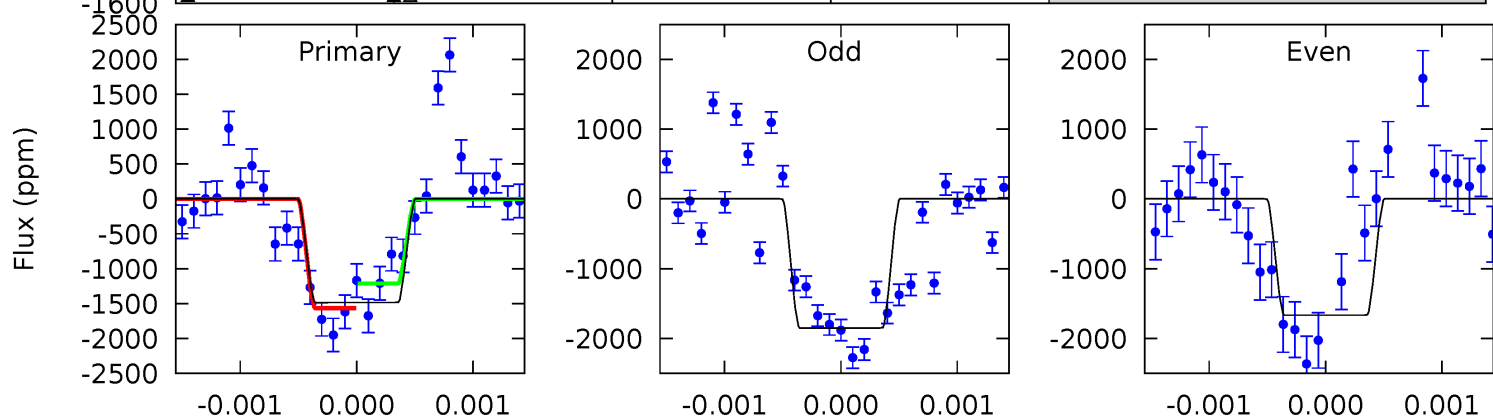
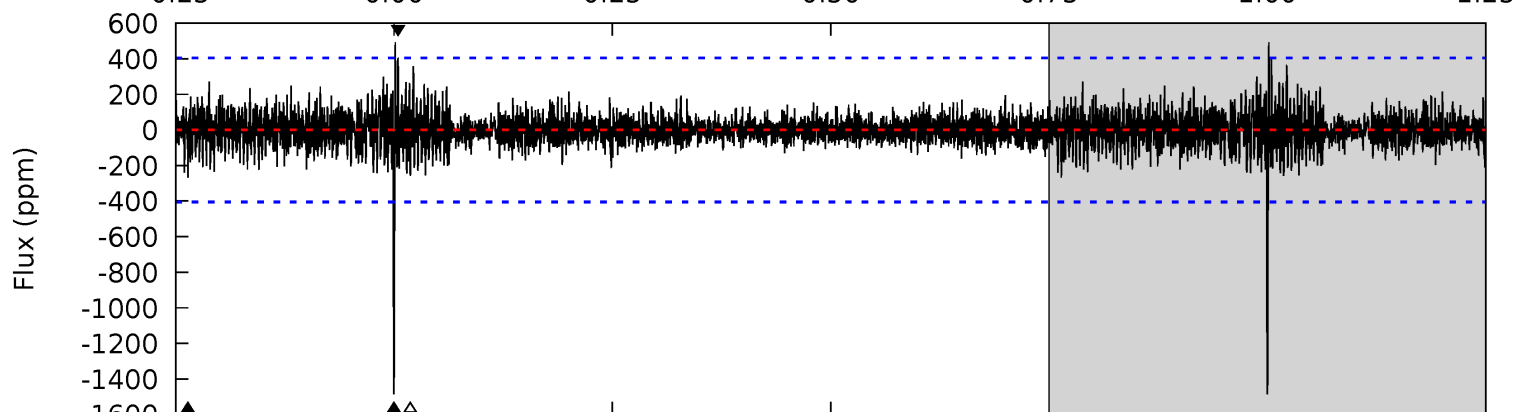
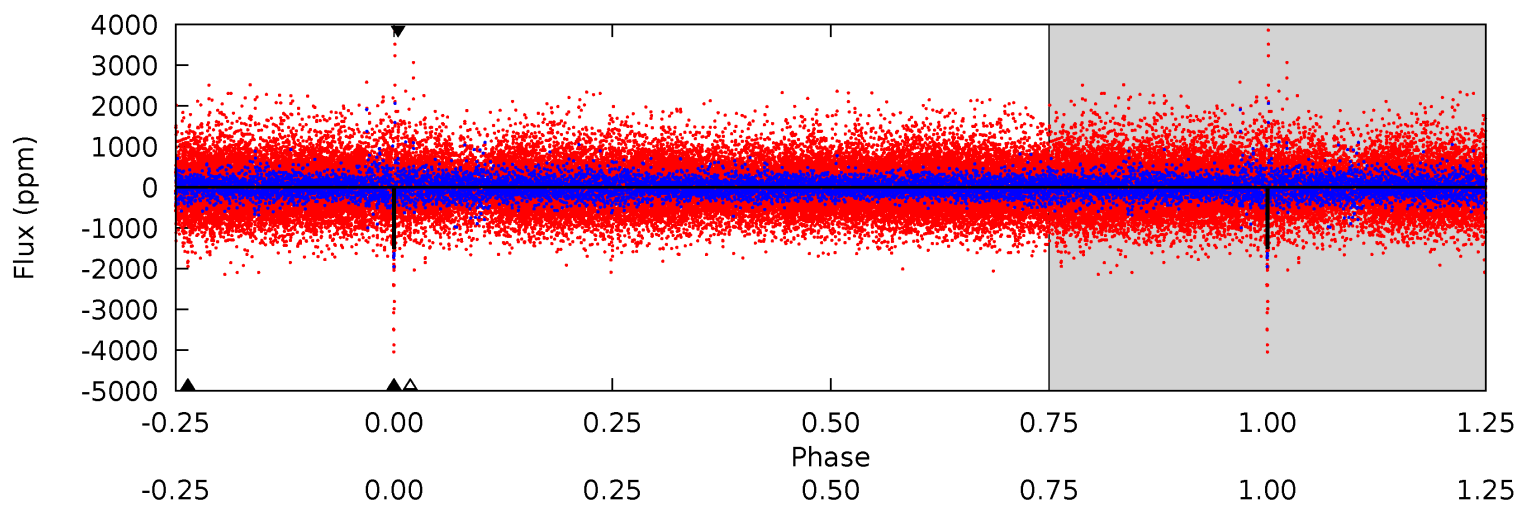
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-----|-----|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|-----|-------|-----|
| 0 | 0 | 0 | 0 | 1.00 | 1.00 | 1.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Alt Model-Shift Uniqueness Test

005772419-01, P = 318.913382 Days, E = 175.030524 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 19.8 | 3.55 | 3.43 | 5.31 | 5.39 | 3.19 | 0.90 | 16.3 | 14.4 | 0.12 | -1.76 | 1.28 | 1.10 | 0.25 | 2.31 |



Stellar Parameters For KIC 005772419

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (g \cdot \text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|--------------------------------------|
| | 4831^{+146}_{-131} | $4.576^{+0.055}_{-0.035}$ | $-0.160^{+0.300}_{-0.300}$ | $0.716^{+0.062}_{-0.062}$ | $0.705^{+0.081}_{-0.054}$ | $2.704^{+0.715}_{-0.391}$ |
| | +3%/-3% | +1%/-1% | +188%/-188% | +9%/-9% | +11%/-8% | +26%/-14% |
| 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 005772419-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|-----------------|------------------------|----------------------|--------------------------|--|
| DV | 0 ± 1000000 | $6.43^{+6.24}_{-4.57}$ | 278^{+10}_{-9} | -3663^{+17700}_{-8612} | $-12450.843^{+2018899.017}_{-1421863.763}$ |
| Alt. | -267 ± 75 | $6.70^{+6.53}_{-4.35}$ | 278^{+9}_{-9} | 2781^{+1043}_{-448} | 2117^{+14071}_{-1609} |

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

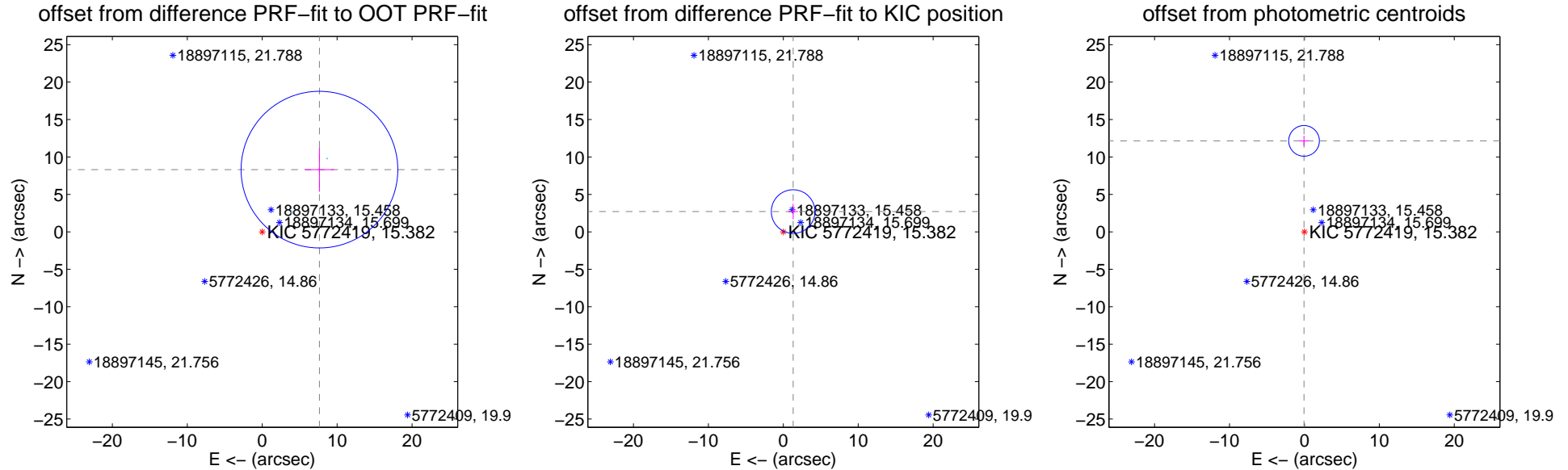
DV Centroid Data

Supplemental centroid analysis for 005772419-01. Kepler magnitude: 15.38. Transit SNR -1.00

There are 2 quarters with good PRF difference image offsets

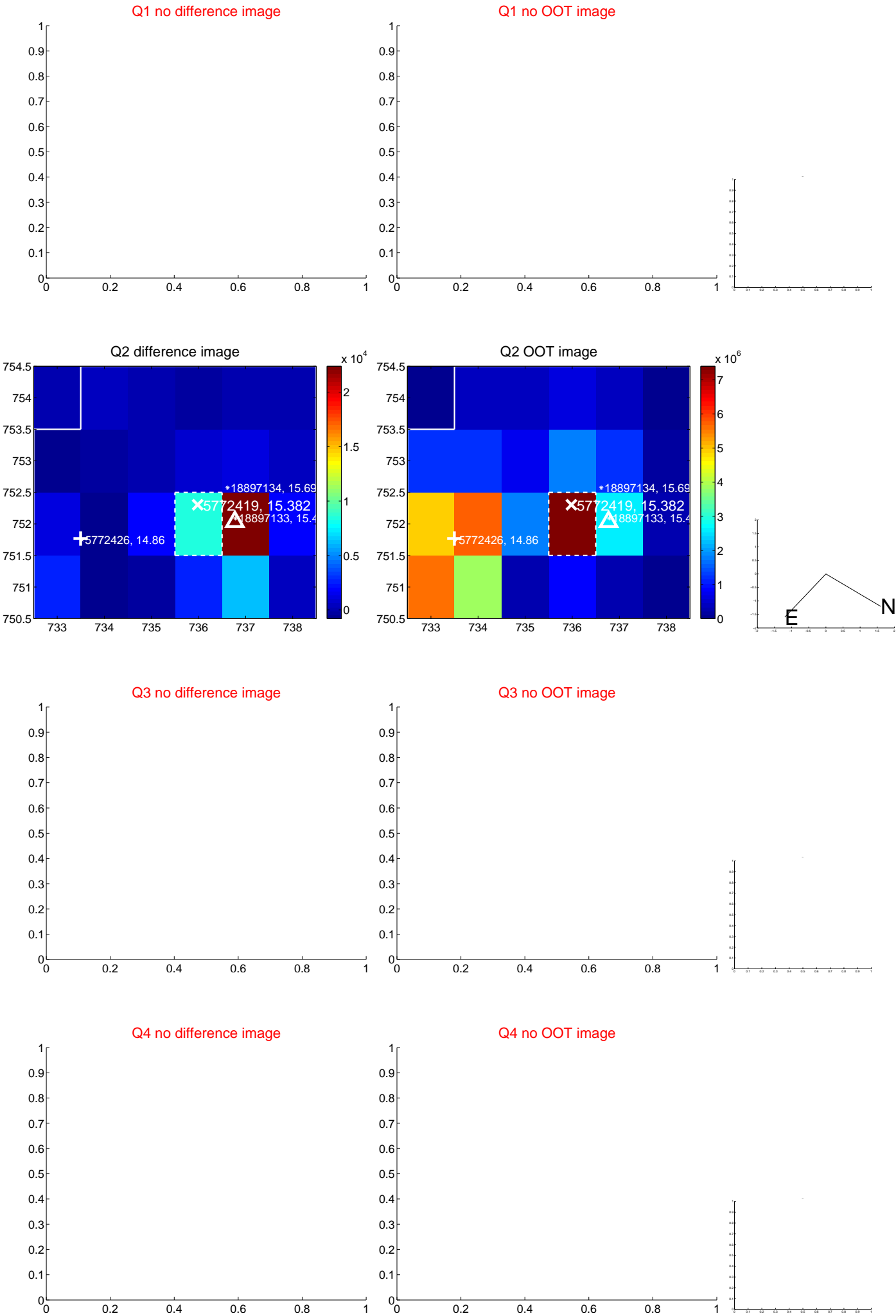
The OOT PRF centroid is offset from the target star catalog position by about 2.23 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 11.290 ± 3.487 | 3.24 | -7.642 ± 1.944 | 8.311 ± 2.950 |
| PRF-fit source offset from KIC position | 3.009 ± 0.971 | 3.10 | -1.311 ± 0.633 | 2.709 ± 1.034 |
| photometric centroid source offset | 12.15 ± 0.68 | 17.79 | 0.05 ± 0.61 | 12.15 ± 0.68 |



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.

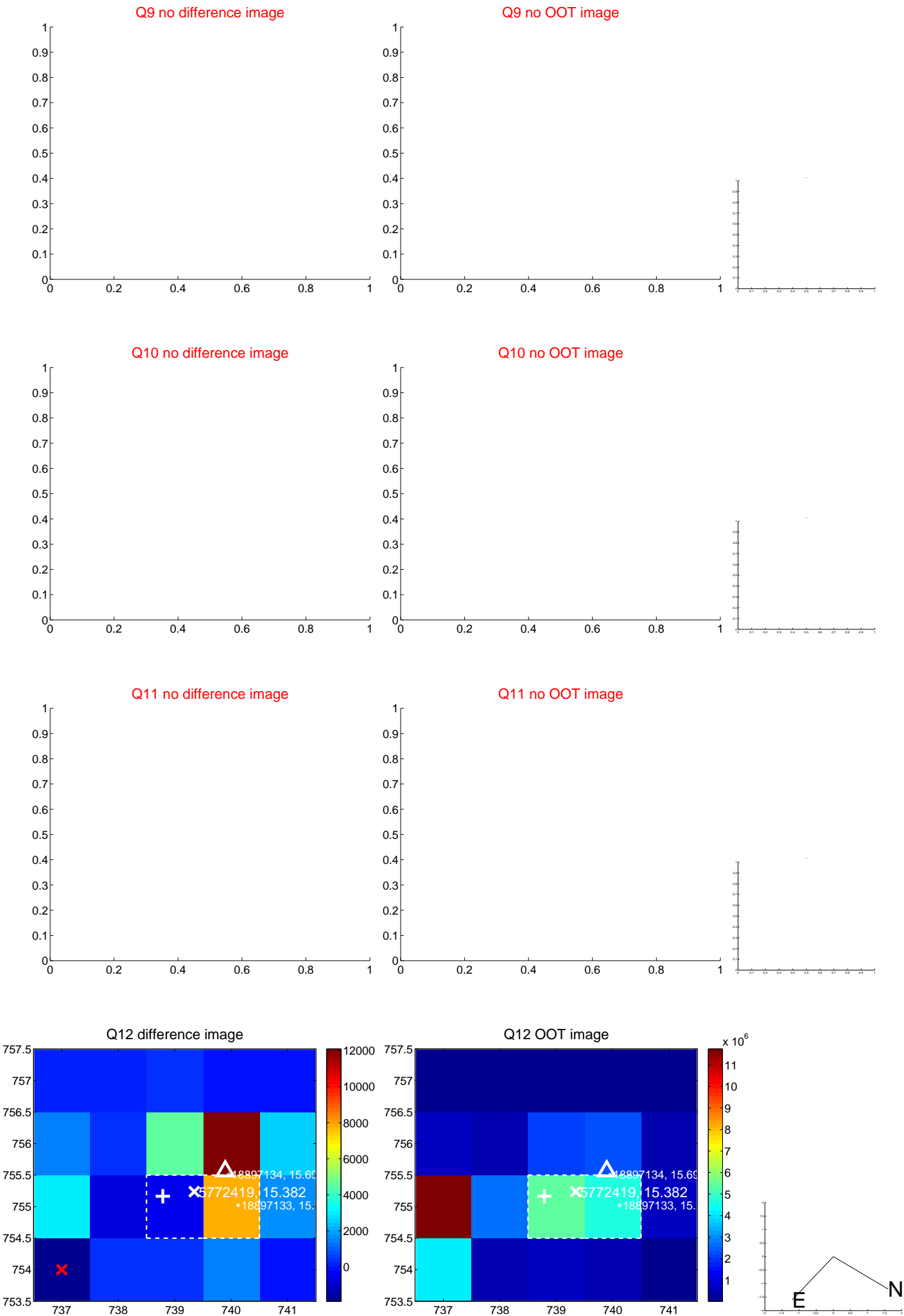
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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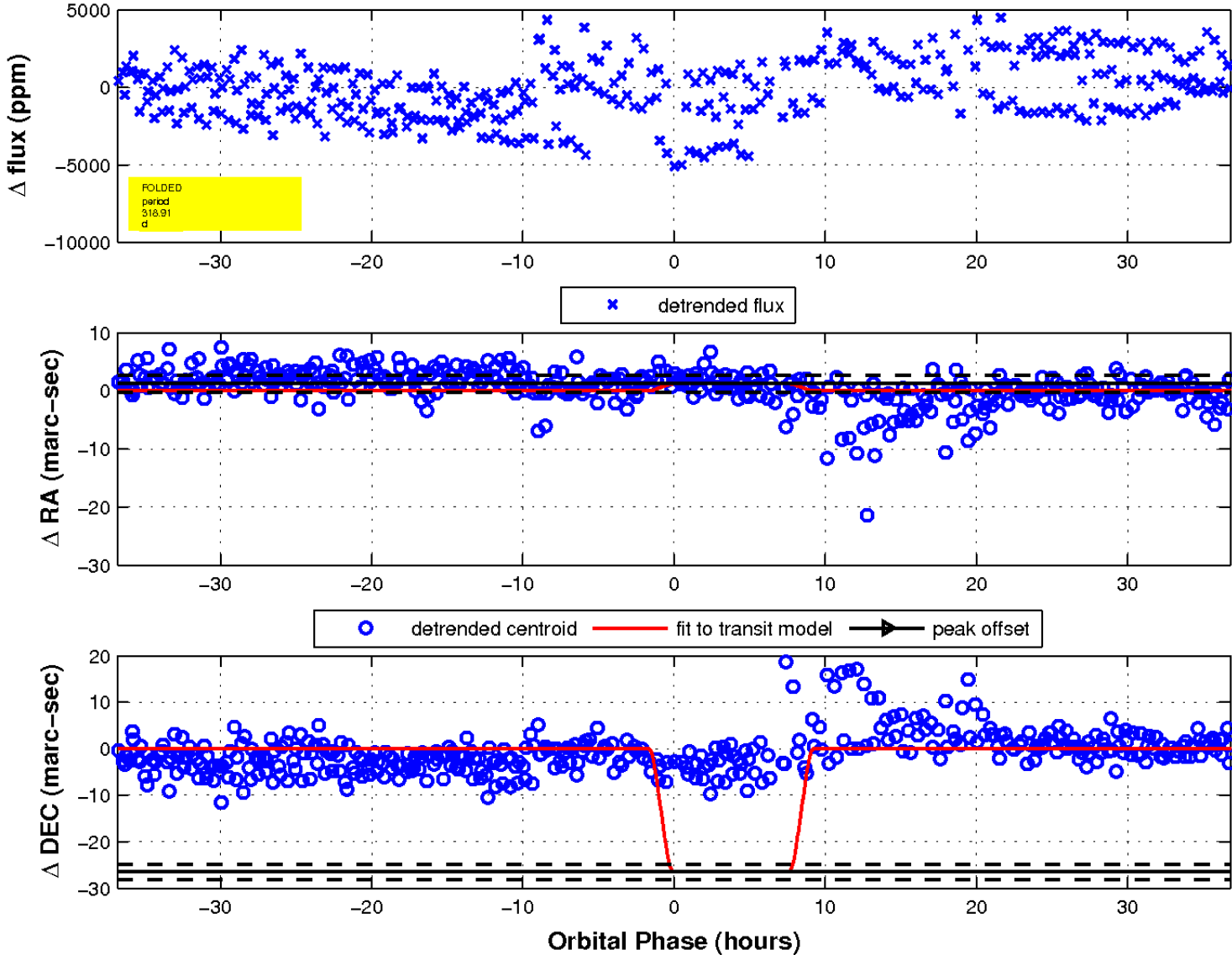
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

