

KIC 006775034

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006775034-01 | OBS | No | 10.029204 | 132.600734 | 432.1 | 17.863 | 28.5 | 33.4 | 1.81 | 7187 | 7.14 | 793.47 |
| 006775034-02 | OBS | No | 4.744352 | 134.019162 | 62.7 | 17.987 | 9.3 | 9.7 | 1.81 | 7187 | 1.66 | 2152.69 |
| 006775034-03 | OBS | No | 0.948880 | 132.244954 | 42.7 | 4.827 | 9.0 | 11.3 | 1.81 | 7187 | 1.35 | 18405.00 |
| 006775034-04 | OBS | No | 99.061364 | 178.270755 | 287.1 | 1.414 | 8.6 | 2.2 | 1.81 | 7187 | 3.19 | 37.44 |
| 006775034-05 | OBS | No | 99.065888 | 178.834443 | 326.6 | 9.646 | 10.0 | 7.3 | 1.81 | 7187 | 3.71 | 37.44 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006775034-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 006775034-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 006775034-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD |
| 006775034-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 006775034-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD |

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

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

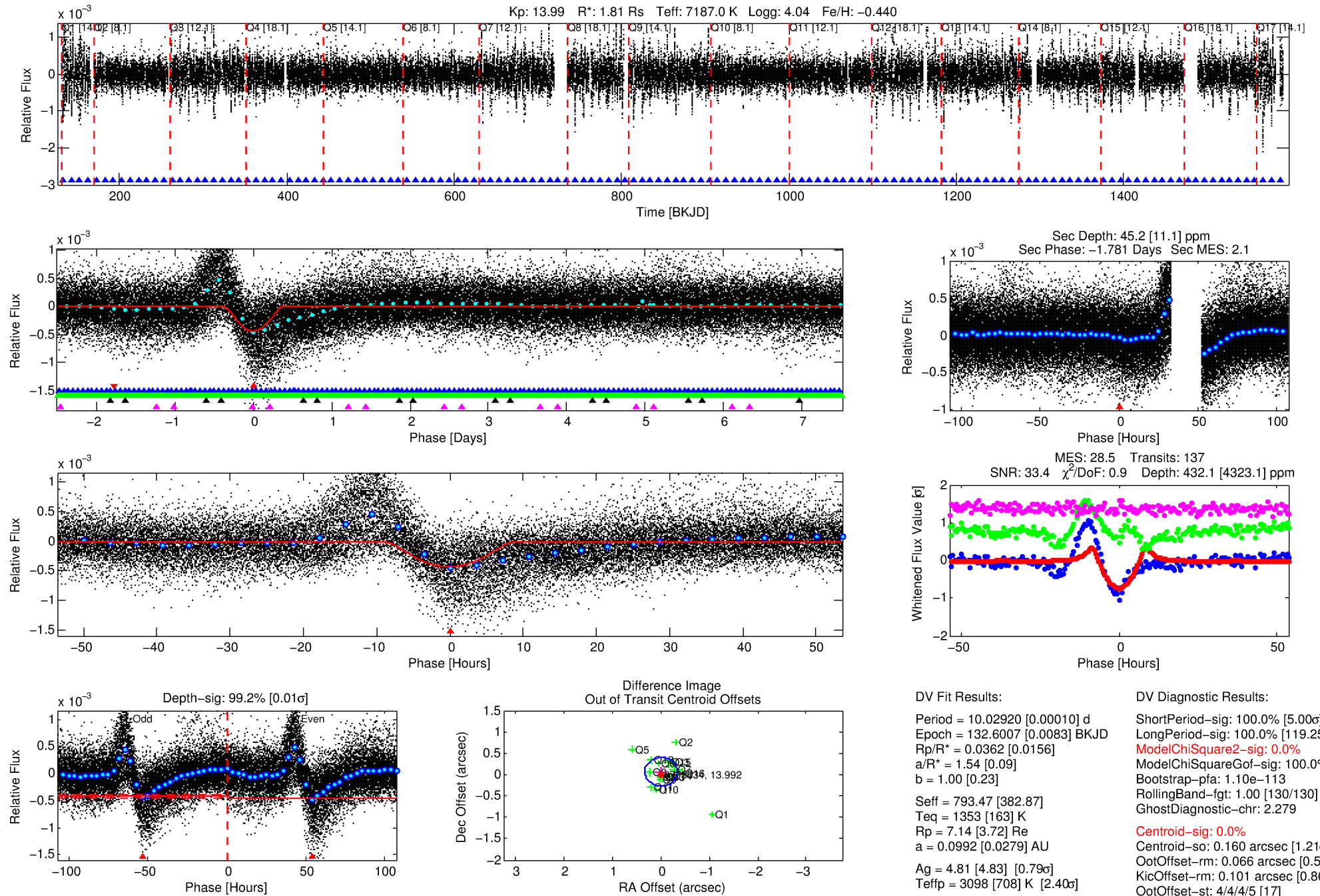
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006775034-01

No Significant Match Found

DV One-Page Summary

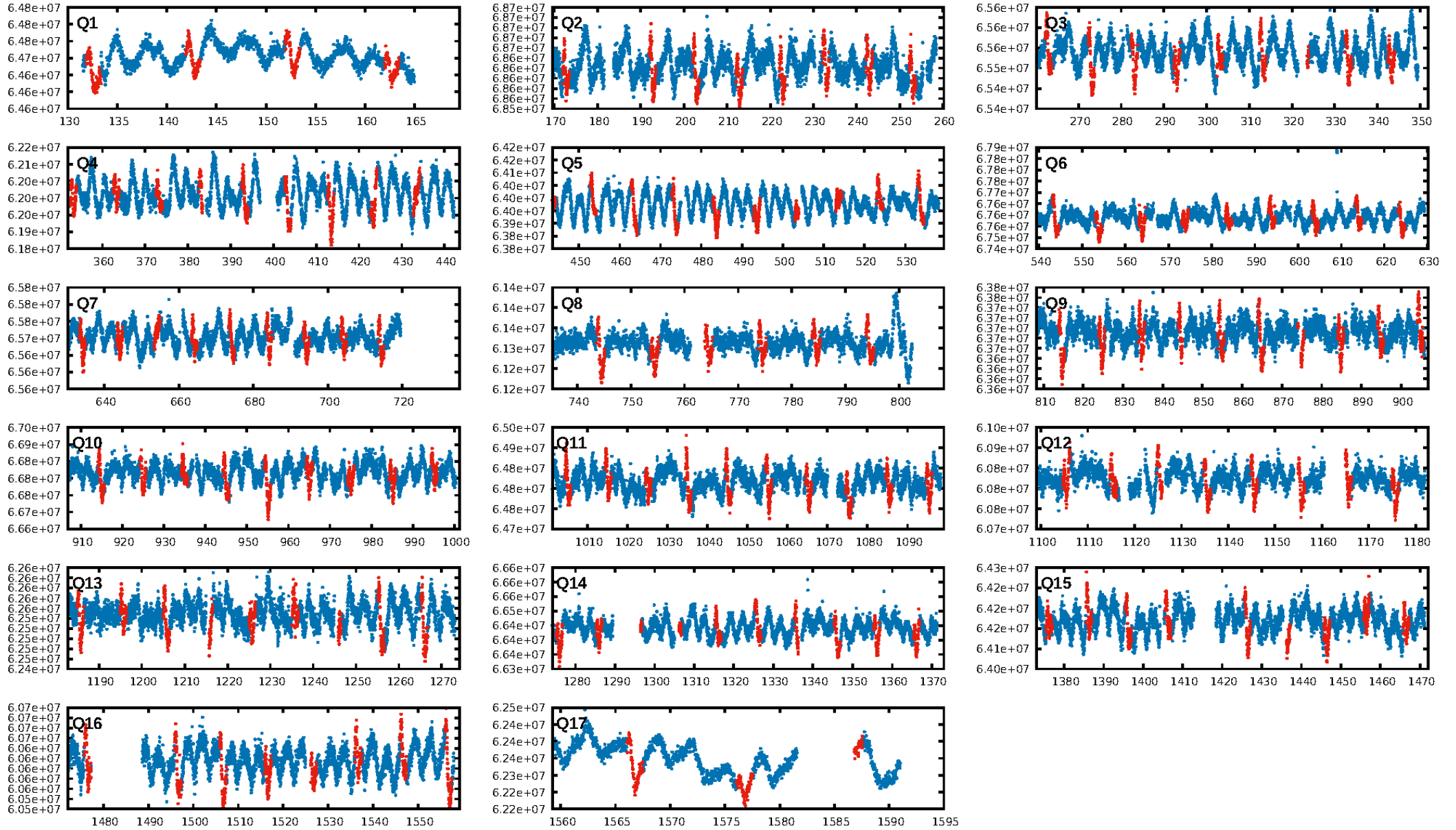
KIC: 6775034 Candidate: 1 of 5 Period: 10.029 d



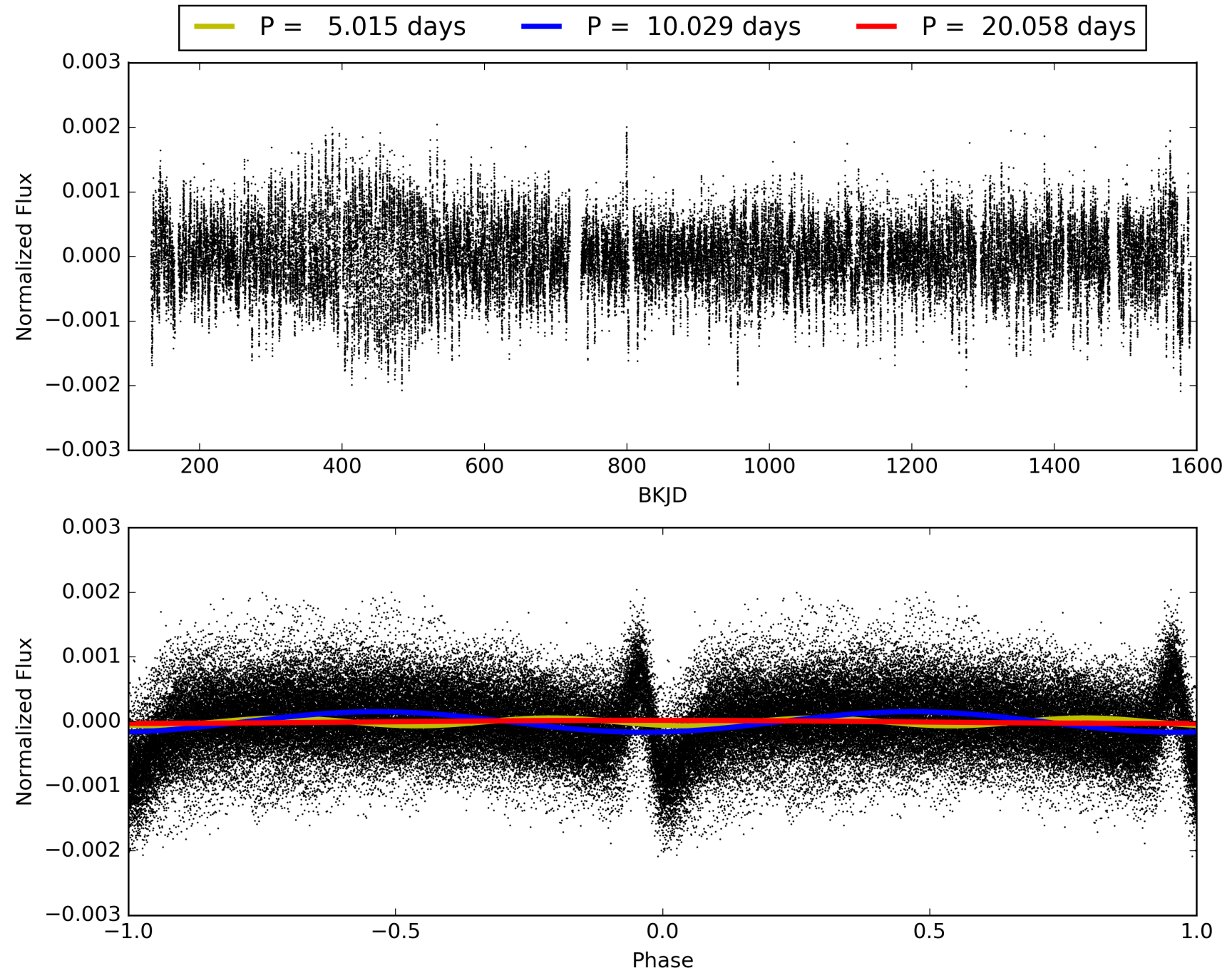
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:13:12 Z

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

TCE 006775034-01, PDC Light Curves

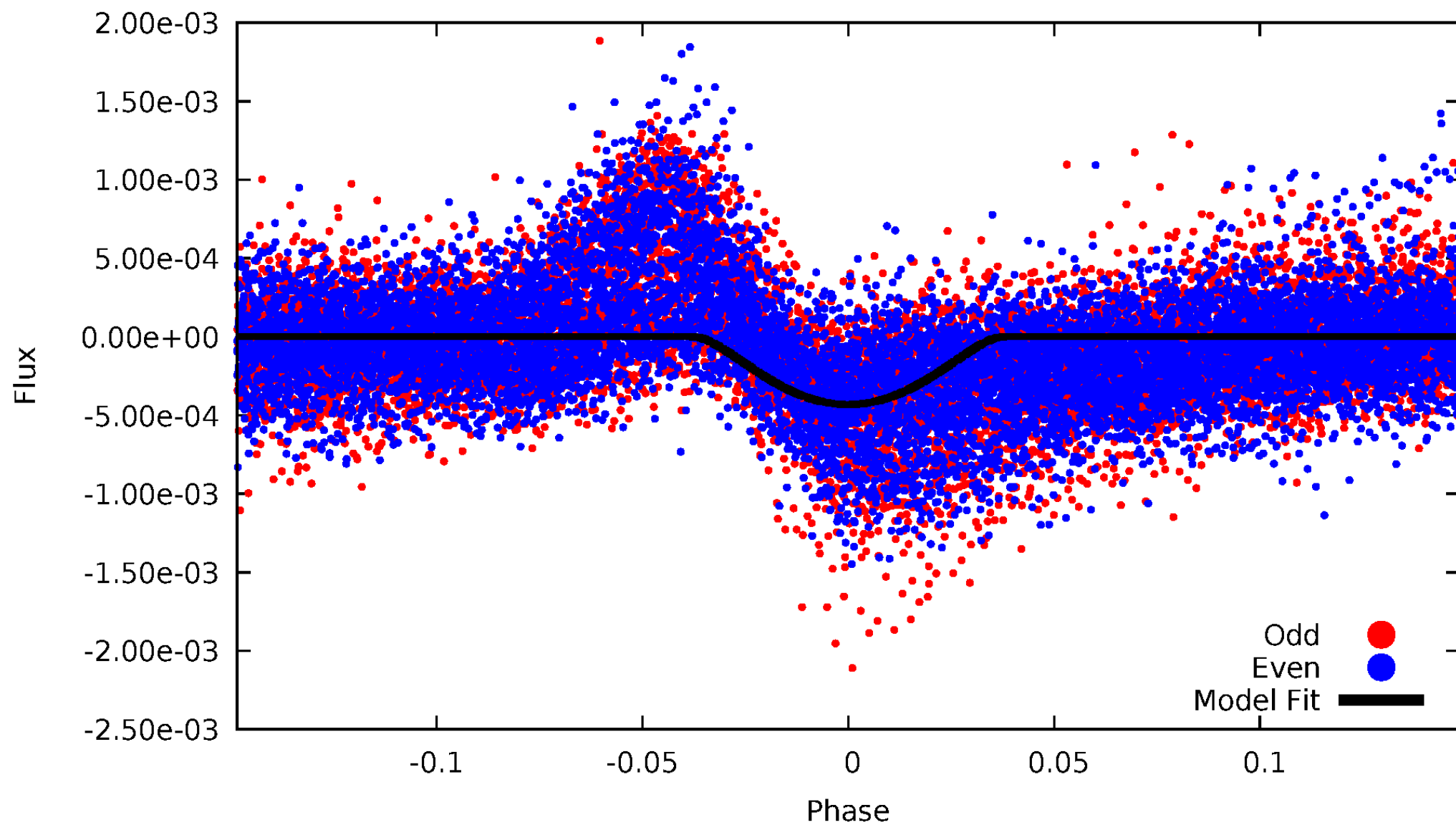


TCE 006775034-01



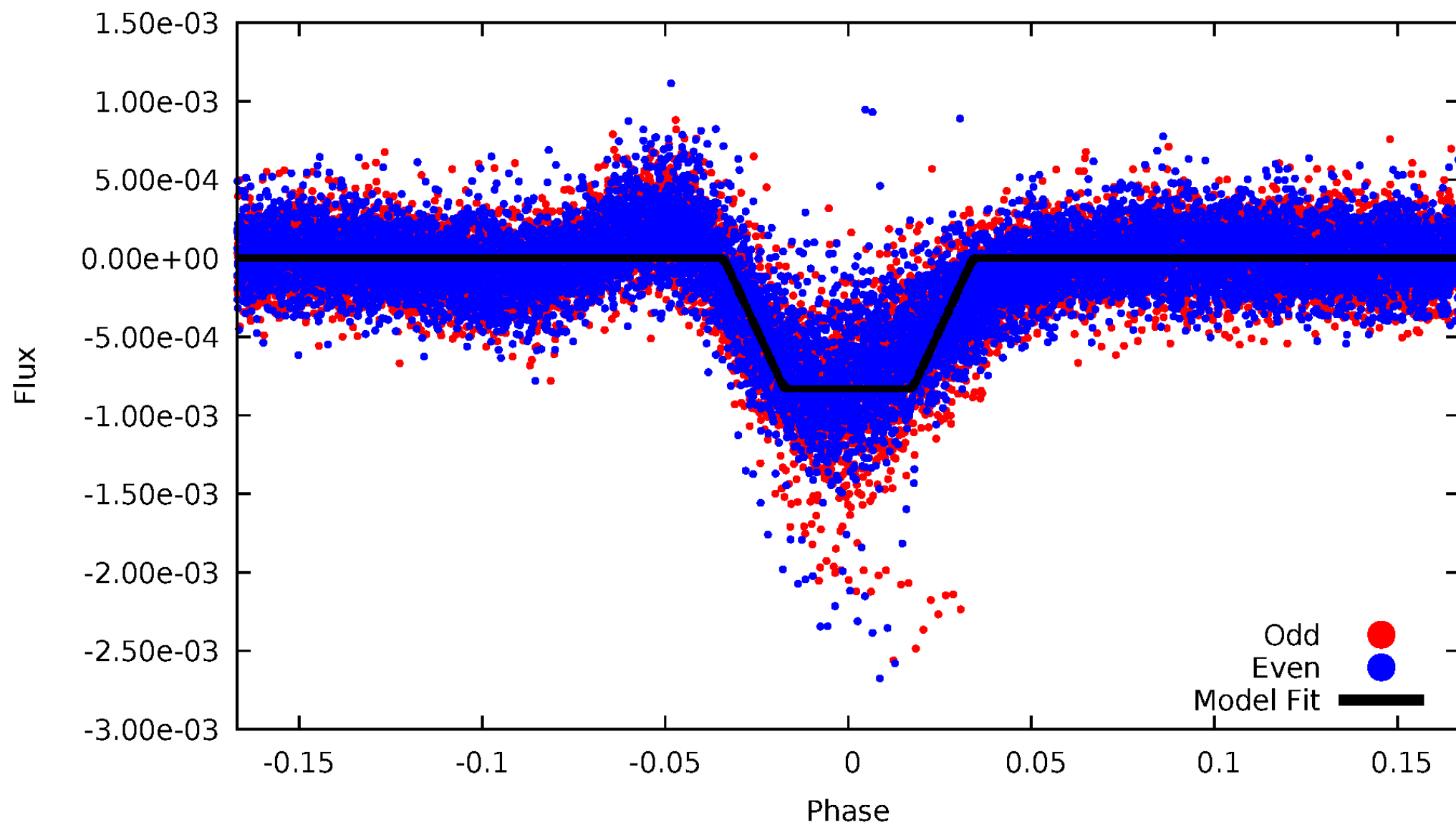
DV Odd/Even

TCE 006775034-01

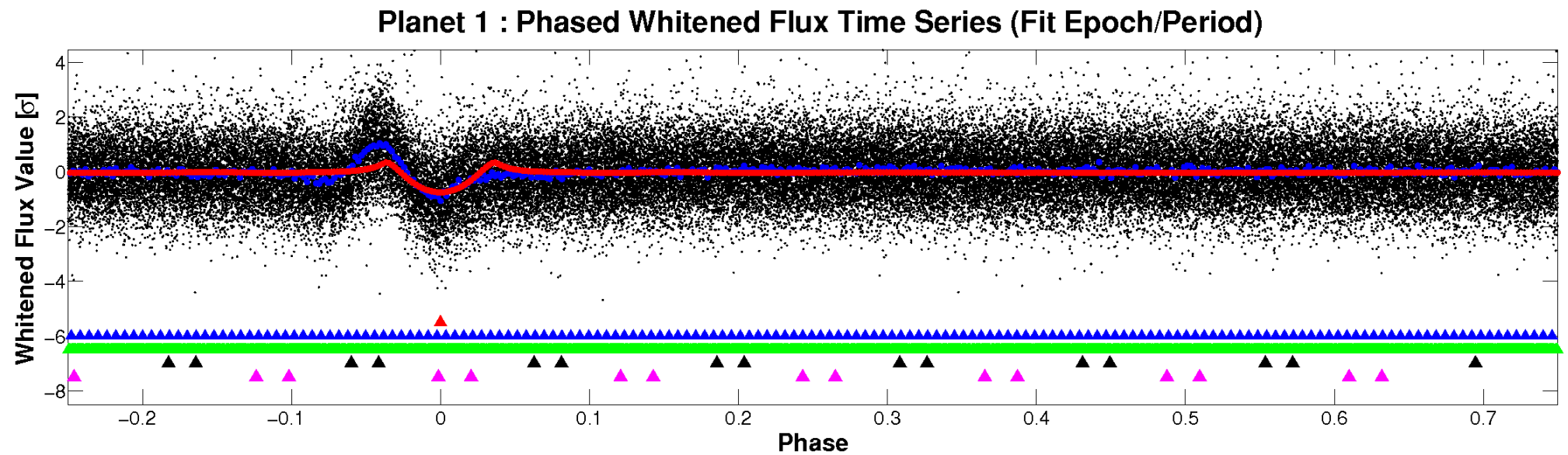
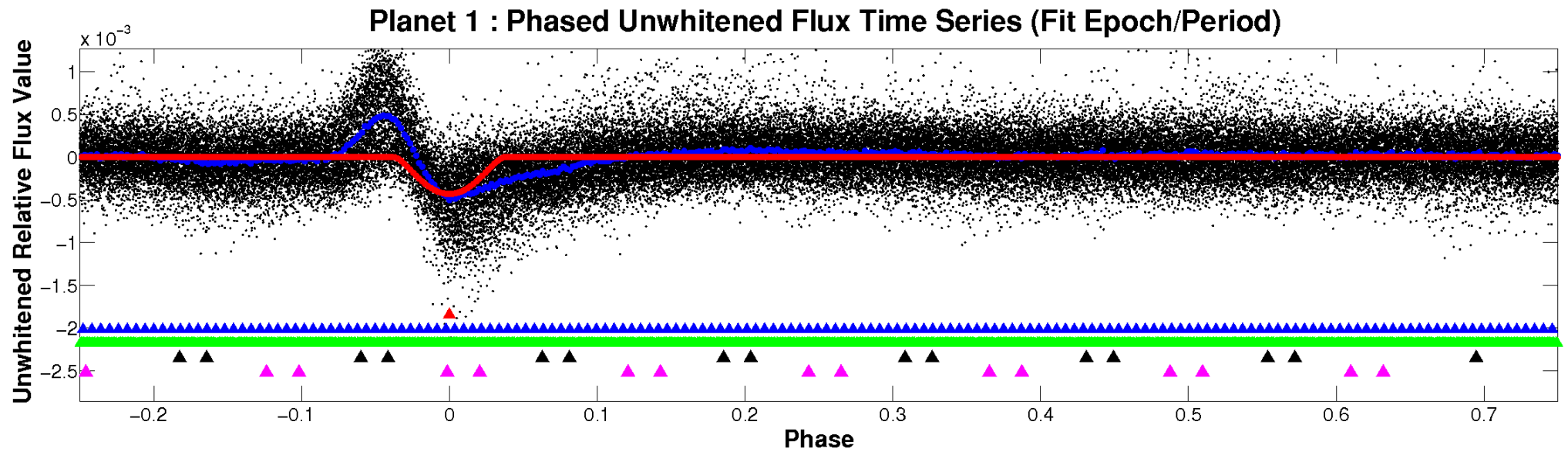


ALT Odd/Even

TCE 006775034-01

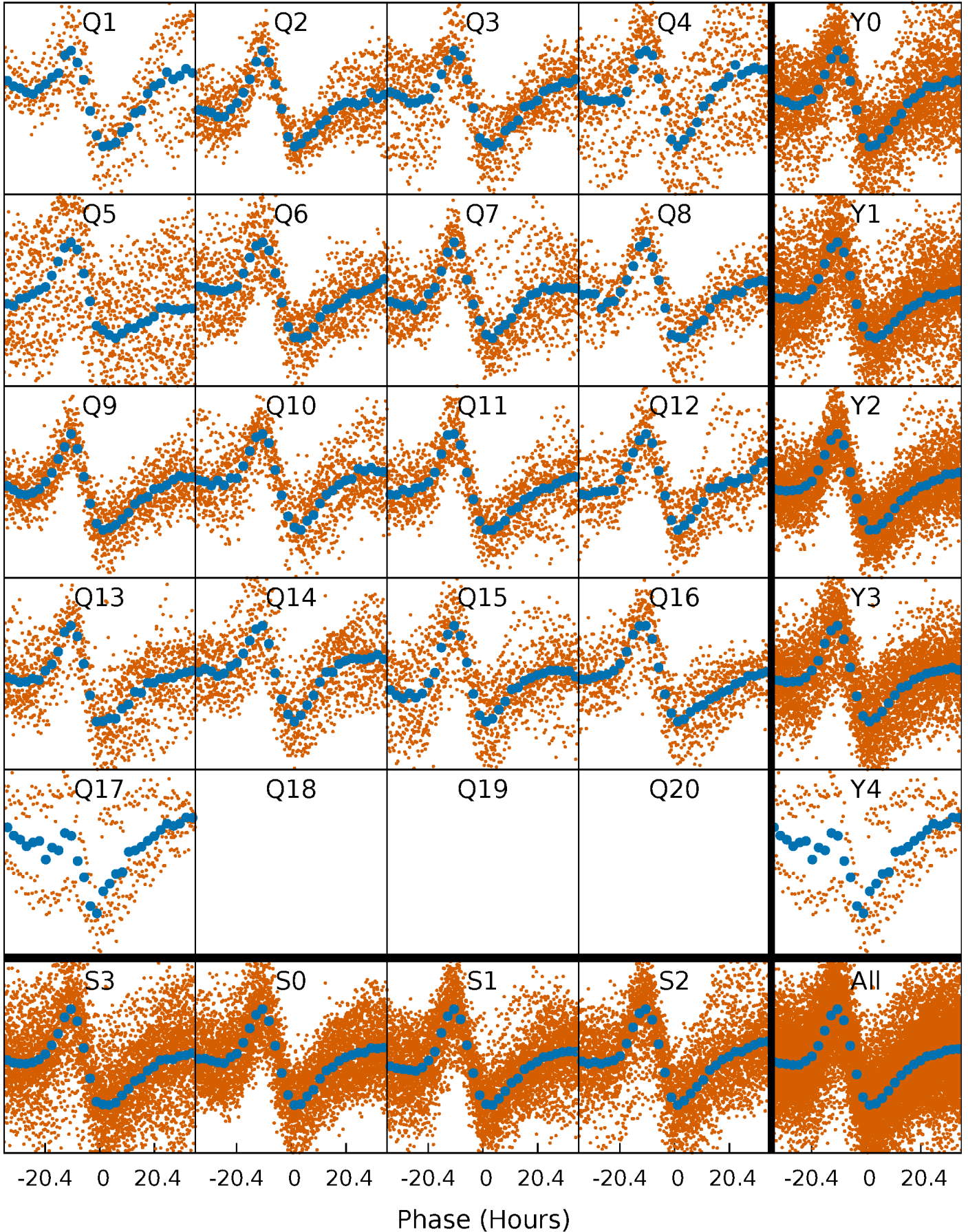


Non-Whitened Vs. Whitened Light Curve



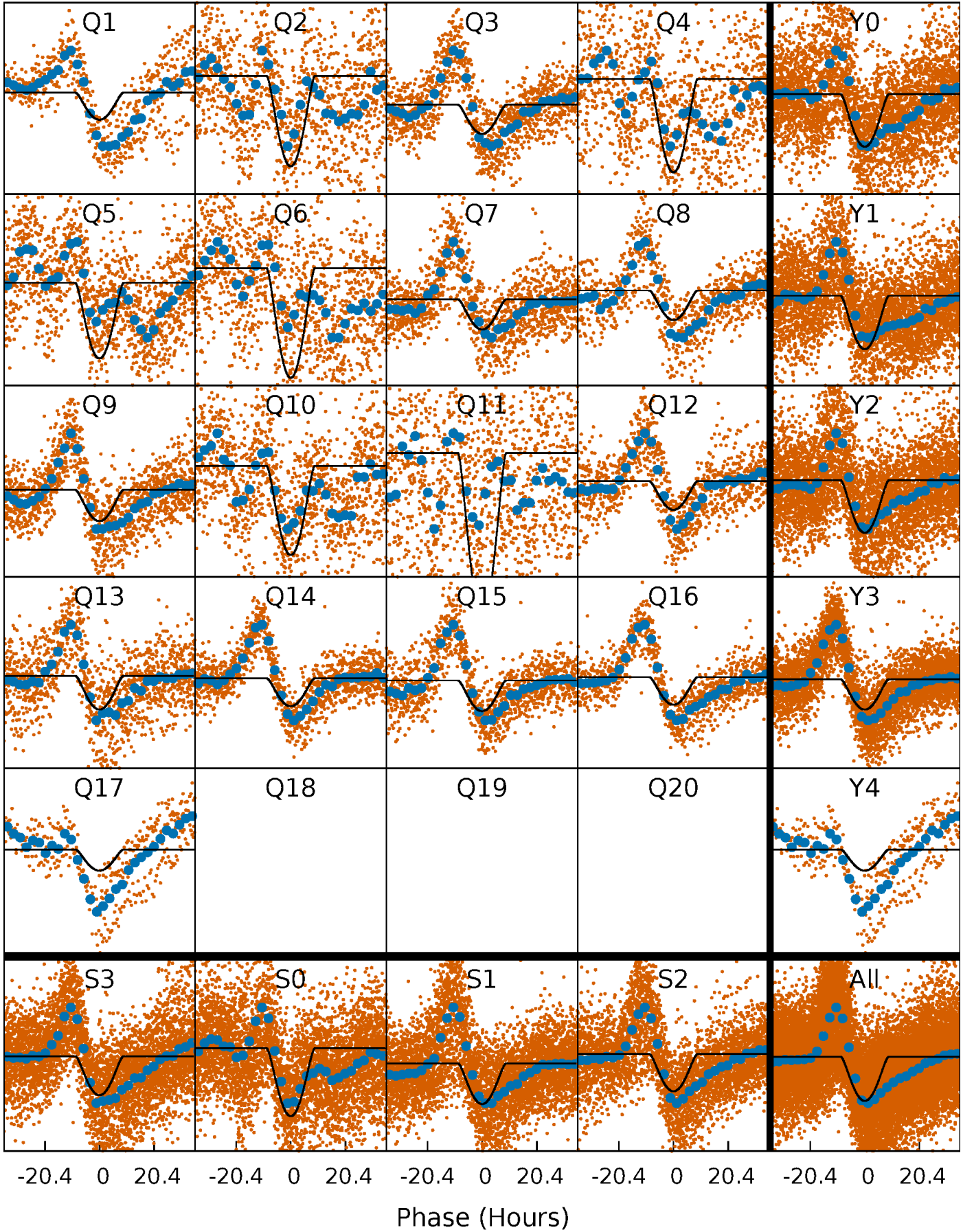
PDC Quarter-Phased Transit Curves

TCE 006775034-01 P= 10.029204 Days $T_0=132.600734$ (BKJD)



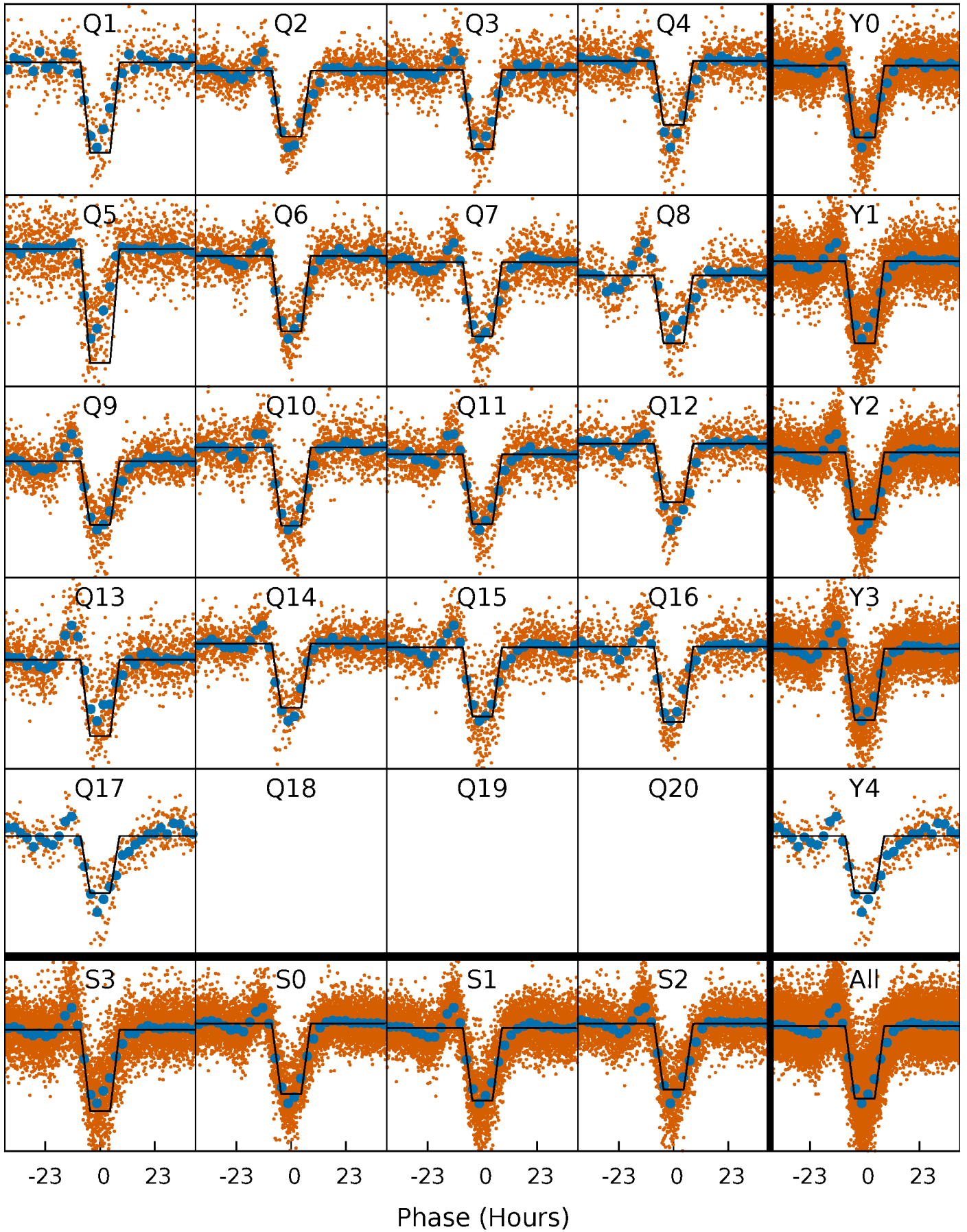
DV Quarter-Phased Transit Curves

TCE 006775034-01 P= 10.029204 Days $T_0=132.600734$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

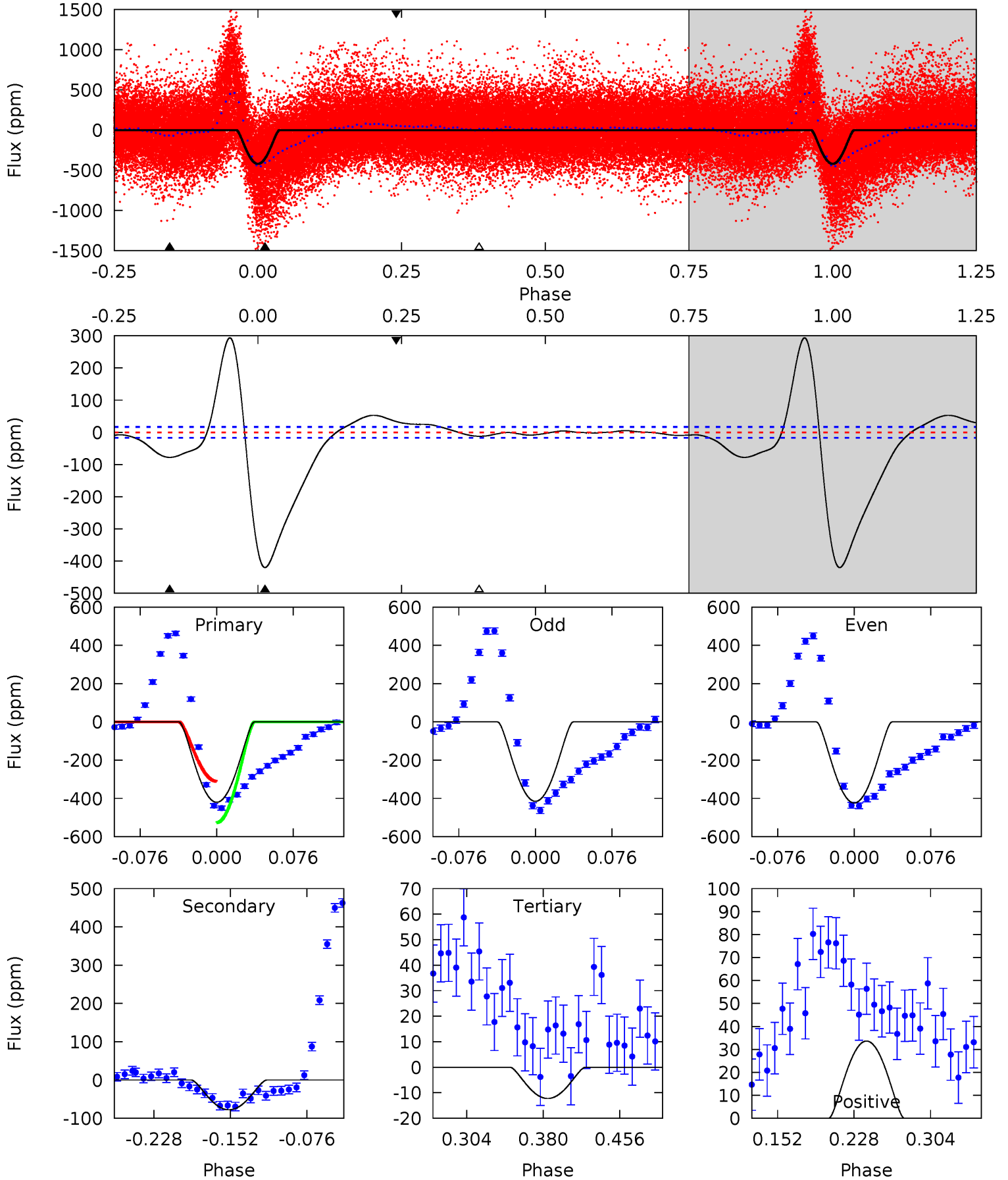
TCE 006775034-01 P= 10.029077 Days $T_0=132.662765$ (BKJD)



DV Model-Shift Uniqueness Test

006775034-01, P = 10.029204 Days, E = 122.571530 Days

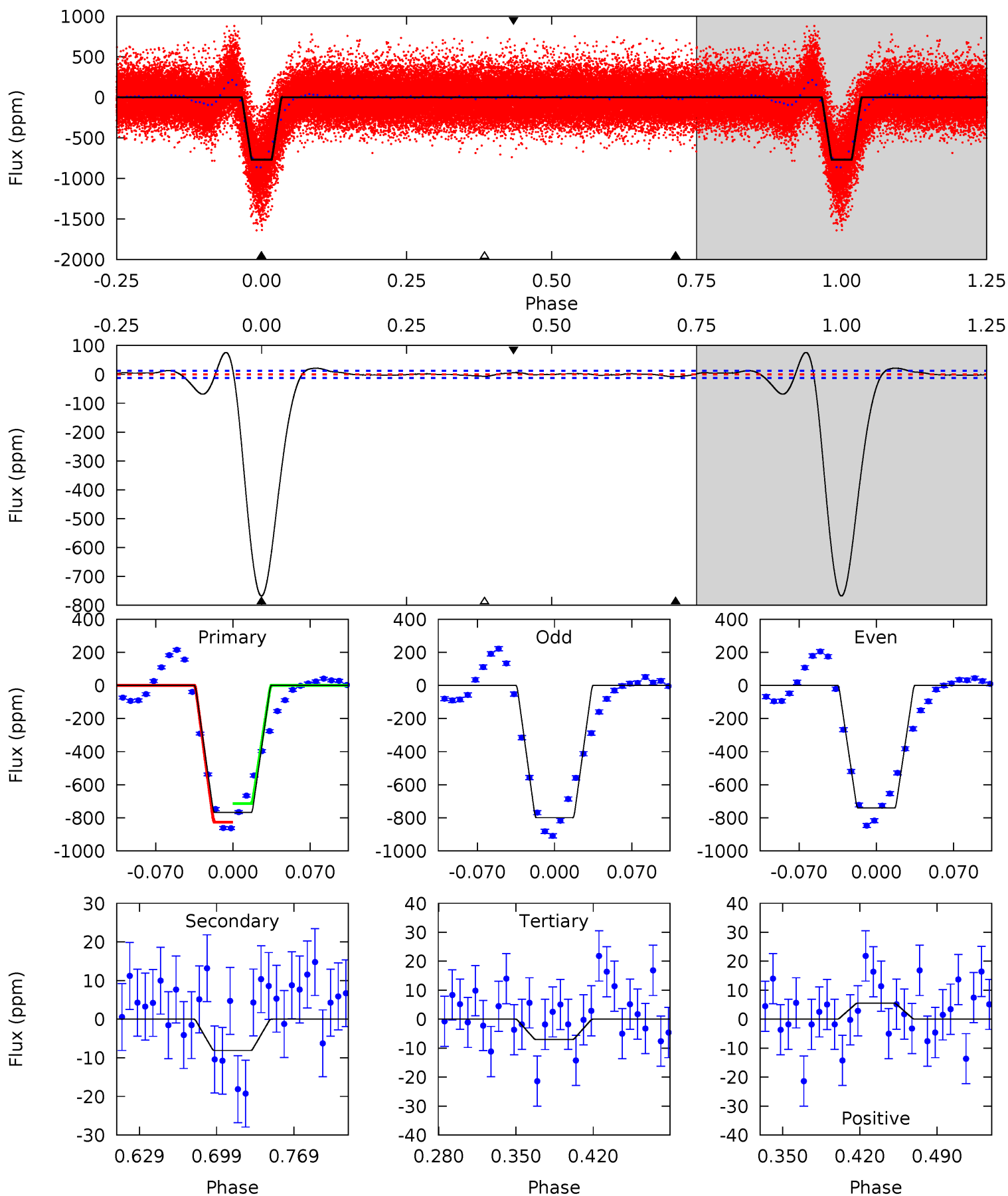
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 114.5 | 21.2 | 3.34 | 9.17 | 4.62 | 1.77 | 8.58 | 111.2 | 105.3 | 17.9 | 12.0 | 1.15 | 1.19 | 0.41 | 29.3 |



Alt Model-Shift Uniqueness Test

006775034-01, P = 10.029077 Days, E = 122.633688 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 282.6 | 2.98 | 2.58 | 2.03 | 4.64 | 1.81 | 5.30 | 280.0 | 280.6 | 0.40 | 0.95 | 10.8 | 1.00 | 0.09 | 20.7 |



Stellar Parameters For KIC 006775034

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7187^{+228}_{-304} | $4.036^{+0.266}_{-0.164}$ | $-0.440^{+0.300}_{-0.300}$ | $1.808^{+0.525}_{-0.525}$ | $1.297^{+0.233}_{-0.191}$ | $0.309^{+0.458}_{-0.139}$ |
| | +3%/-4% | +7%/-4% | +68%/-68% | +29%/-29% | +18%/-15% | +148%/-45% |
| 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 006775034-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|----------------------------|
| DV | -78 ± 4 | $7.03^{+3.56}_{-3.24}$ | 1862^{+167}_{-161} | 3827^{+897}_{-453} | $8.558^{+21.079}_{-4.795}$ |
| Alt. | -8 ± 3 | $5.66^{+3.16}_{-2.72}$ | 1863^{+151}_{-168} | 2774^{+717}_{-482} | $1.324^{+3.729}_{-0.838}$ |

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 $A_{obs} \gg 1.0$

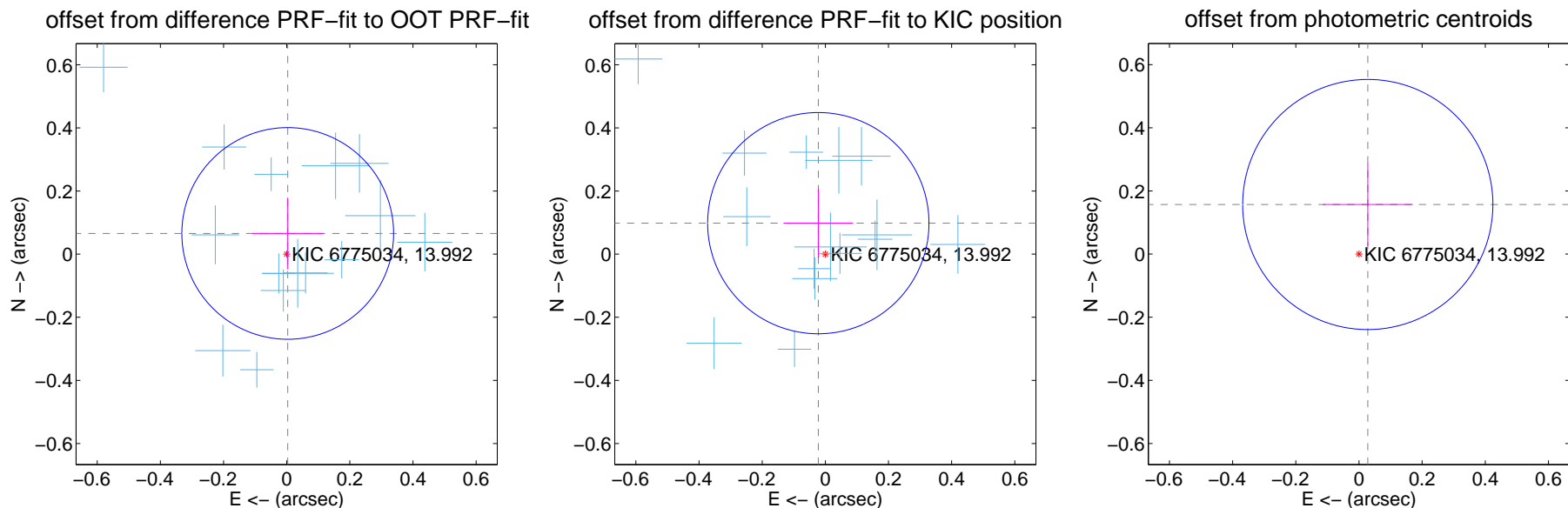
DV Centroid Data

Supplemental centroid analysis for 006775034-01. Kepler magnitude: 13.99. Transit SNR 33.42

There are 17 quarters with good PRF difference image offsets

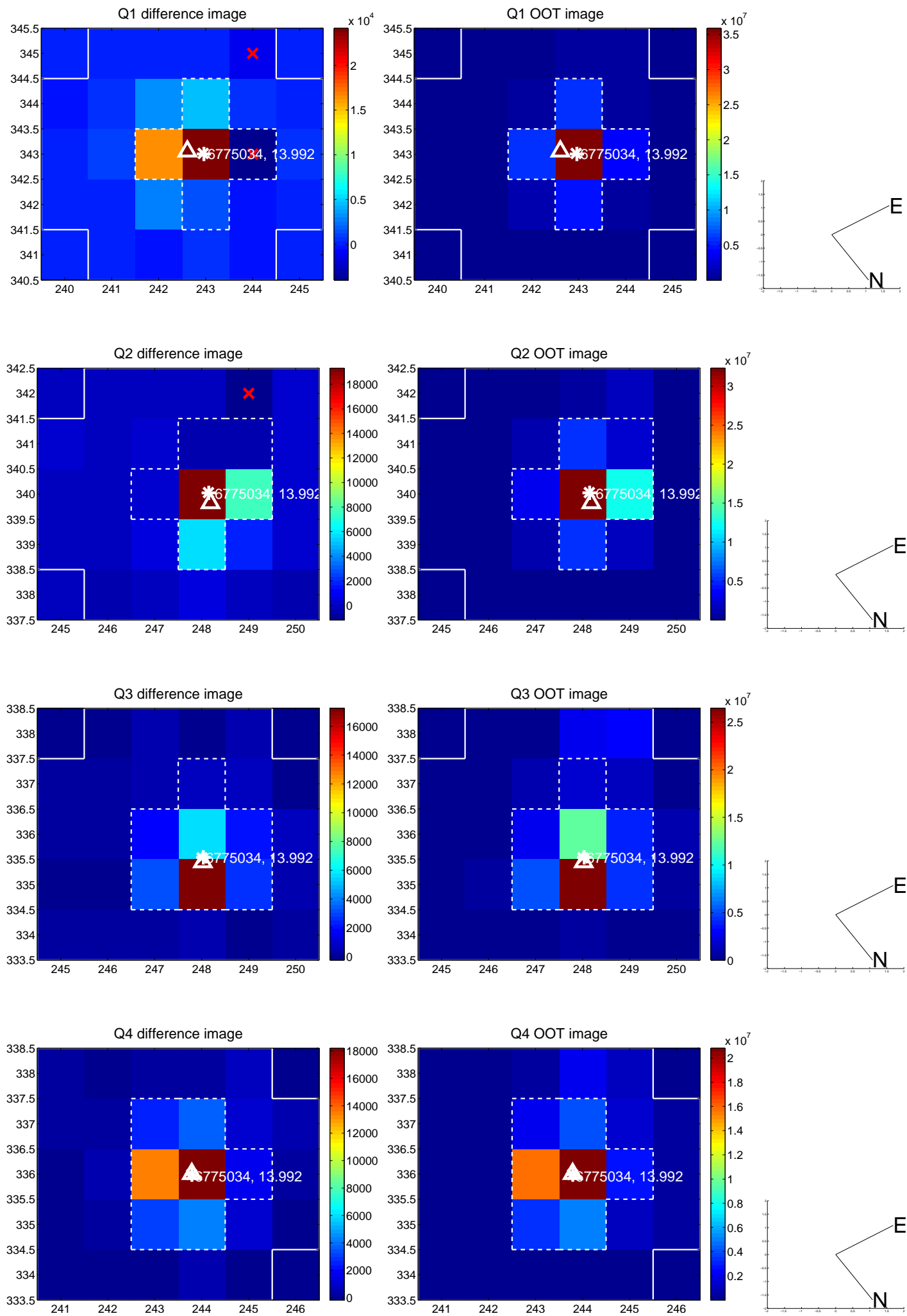
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 0.066 ± 0.112 | 0.59 | -0.003 ± 0.114 | 0.066 ± 0.114 |
| PRF-fit source offset from KIC position | 0.101 ± 0.117 | 0.86 | 0.022 ± 0.110 | 0.098 ± 0.109 |
| photometric centroid source offset | 0.16 ± 0.13 | 1.21 | -0.03 ± 0.14 | 0.16 ± 0.13 |

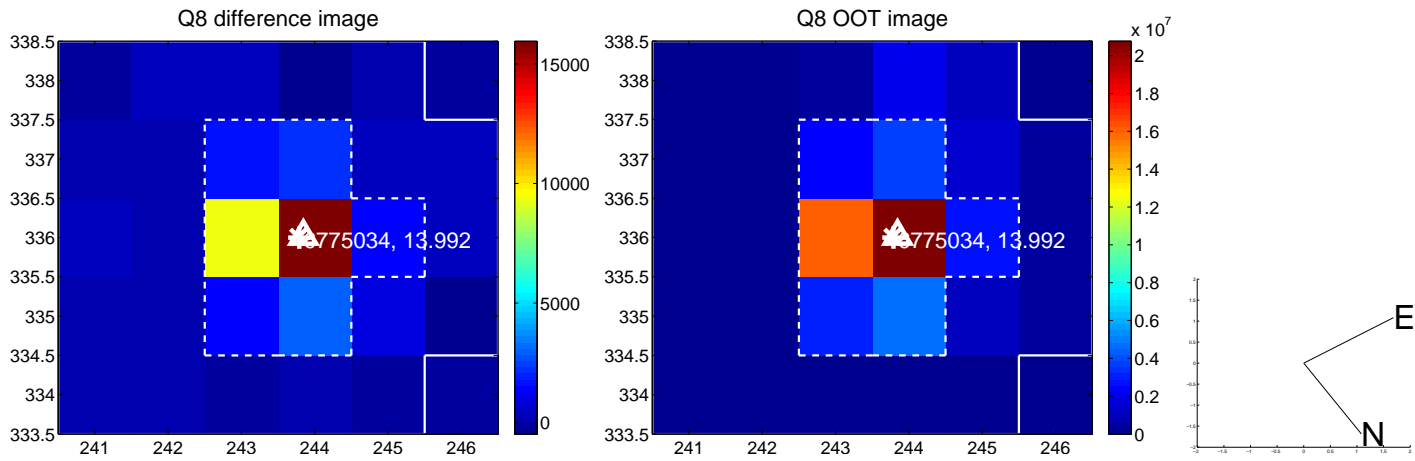
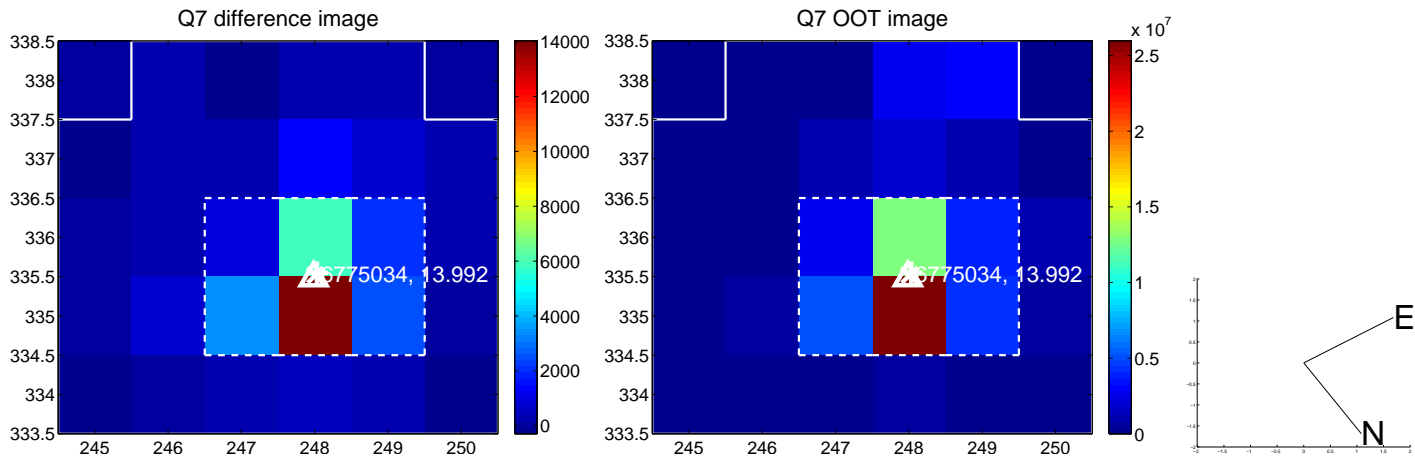
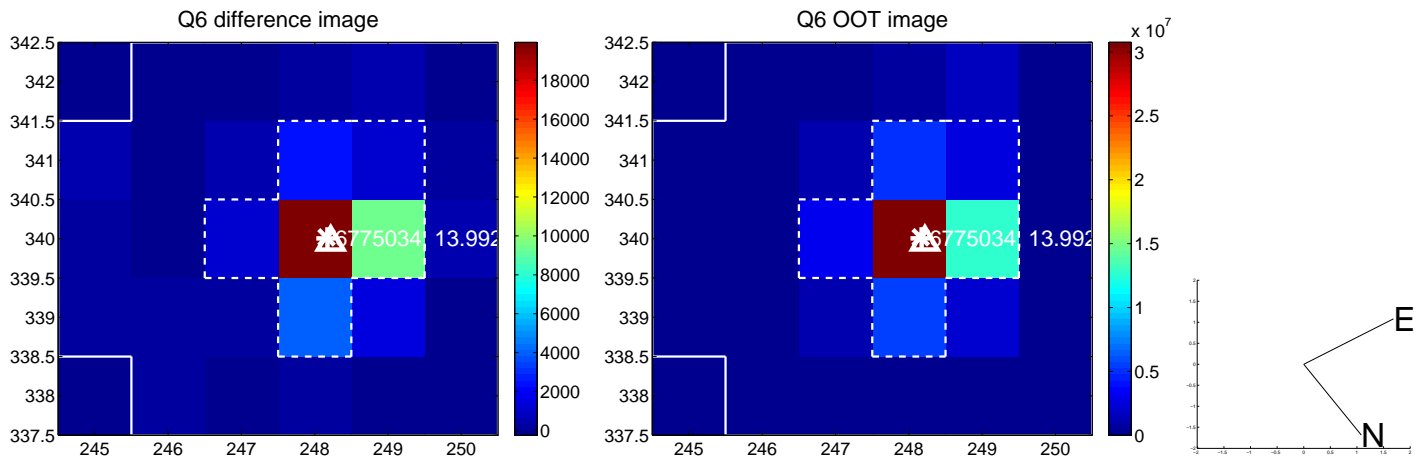
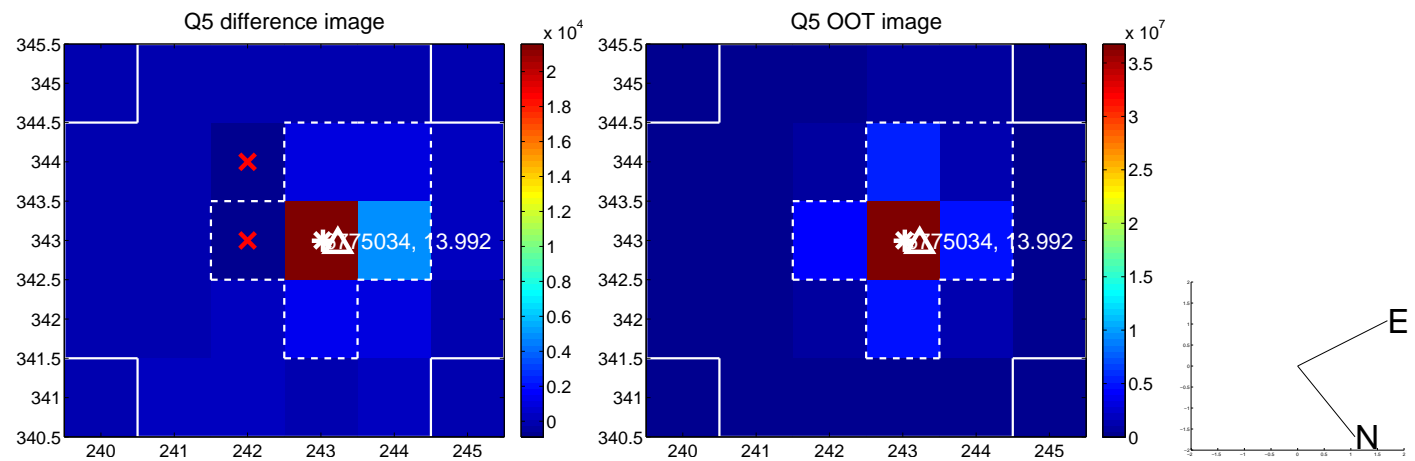


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

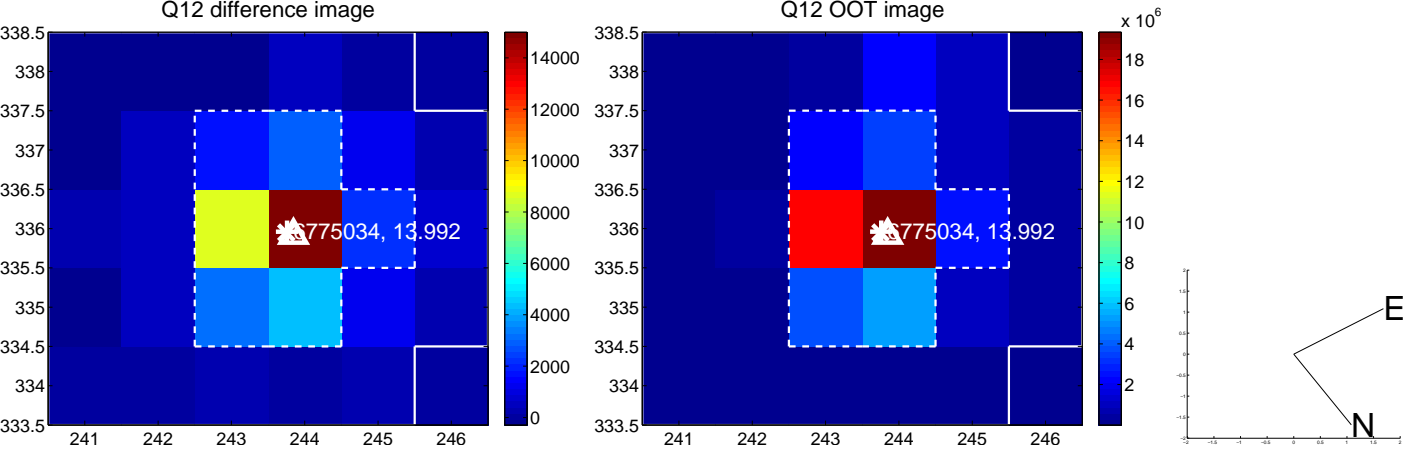
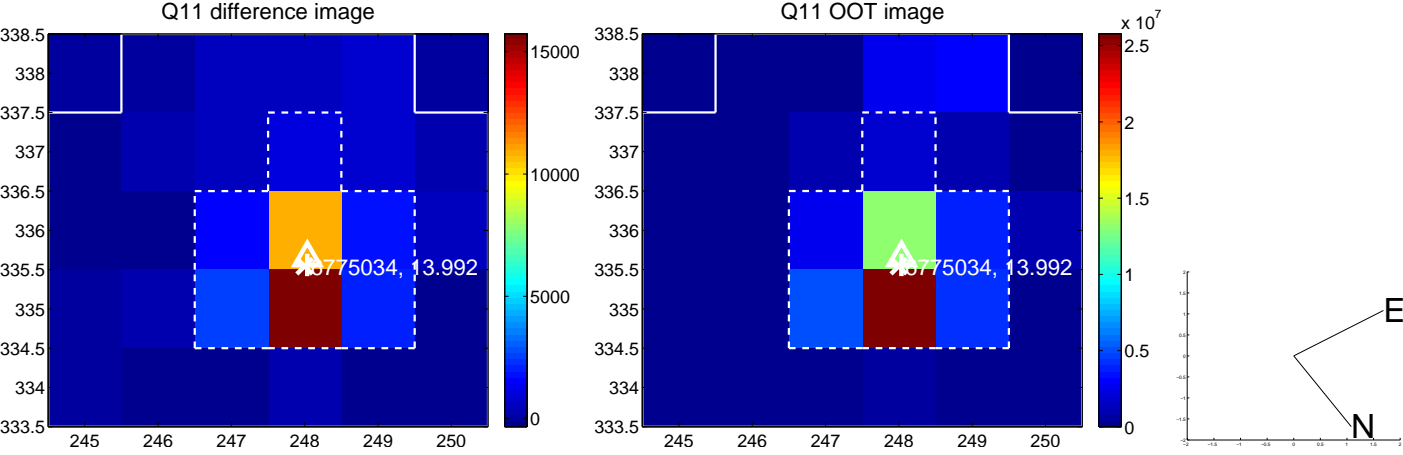
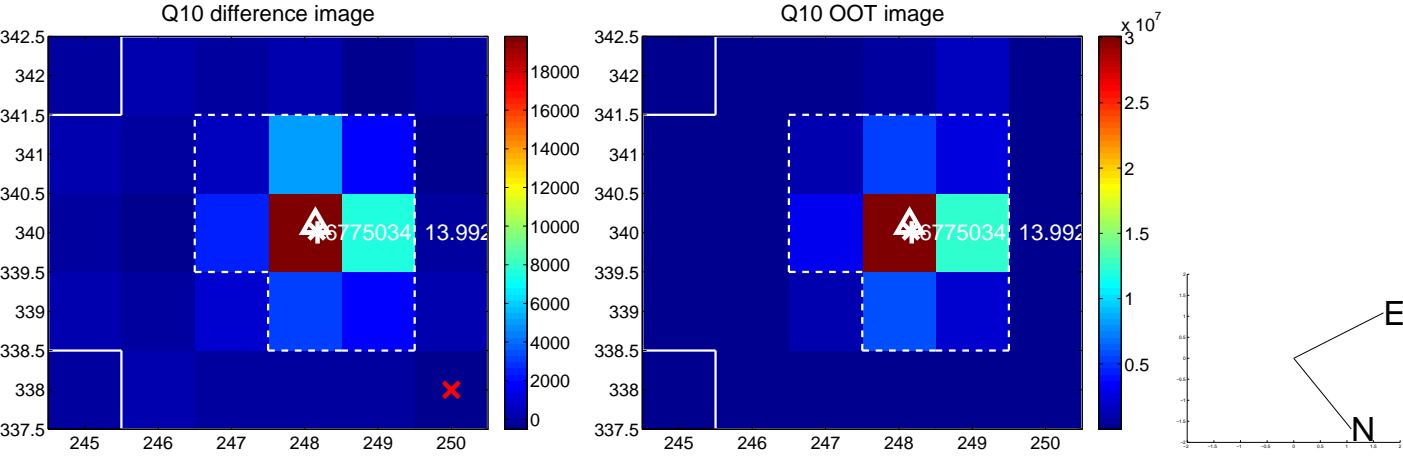
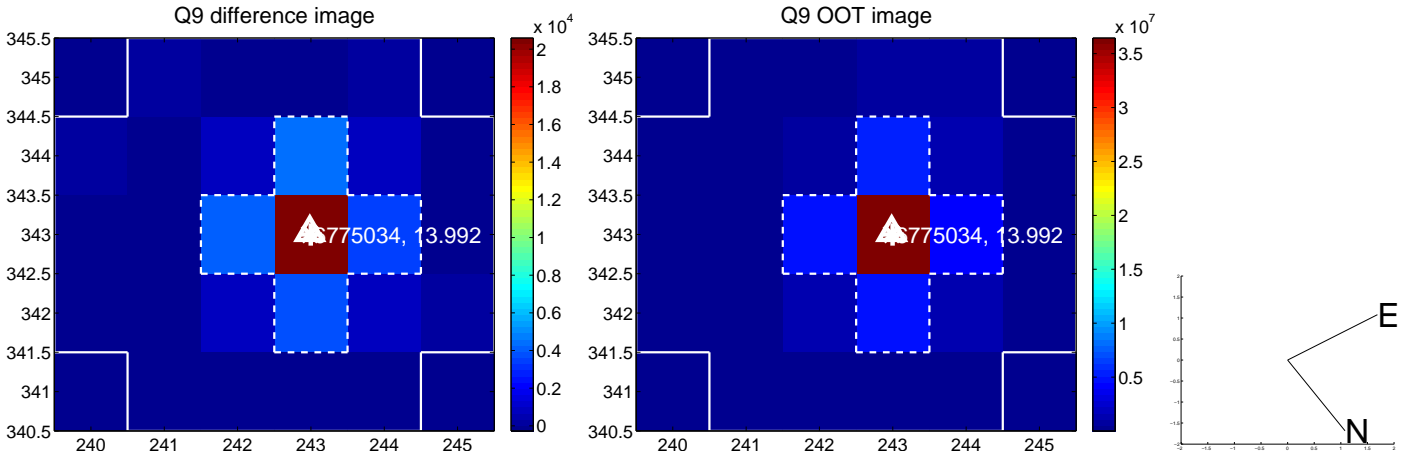
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



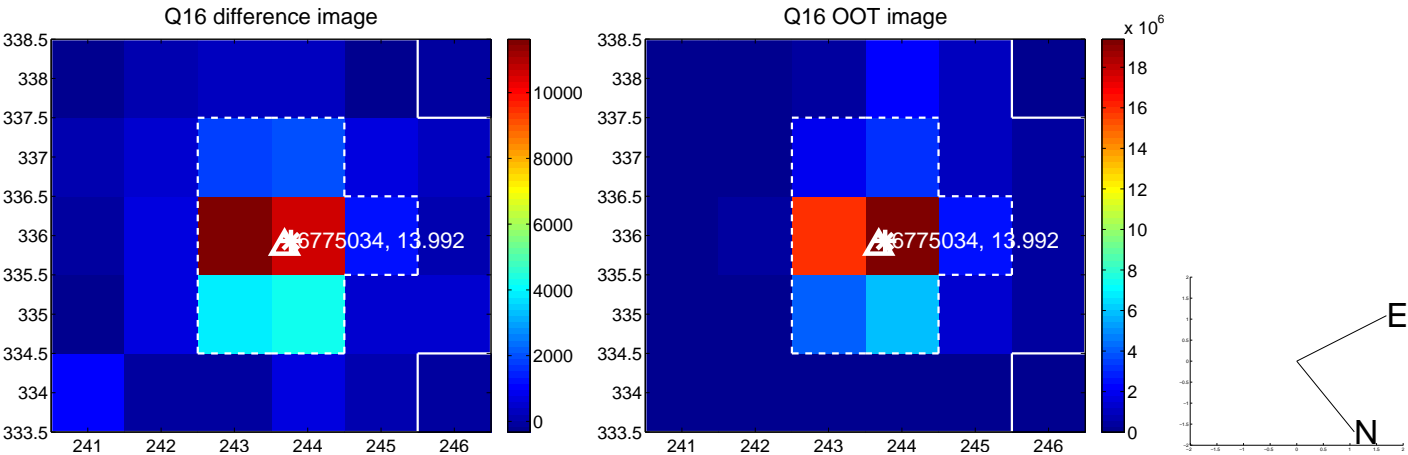
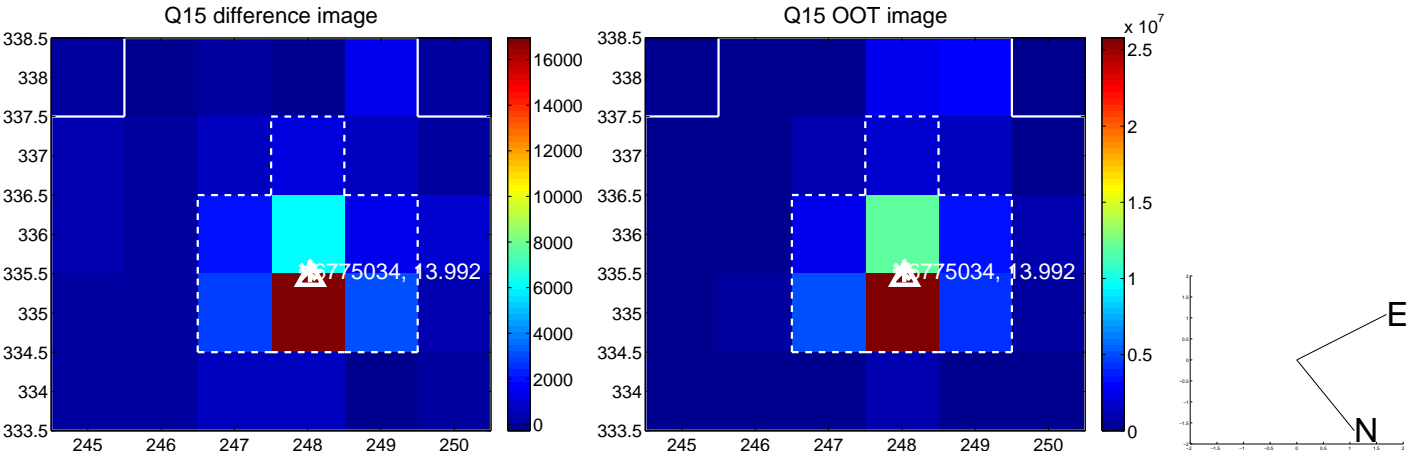
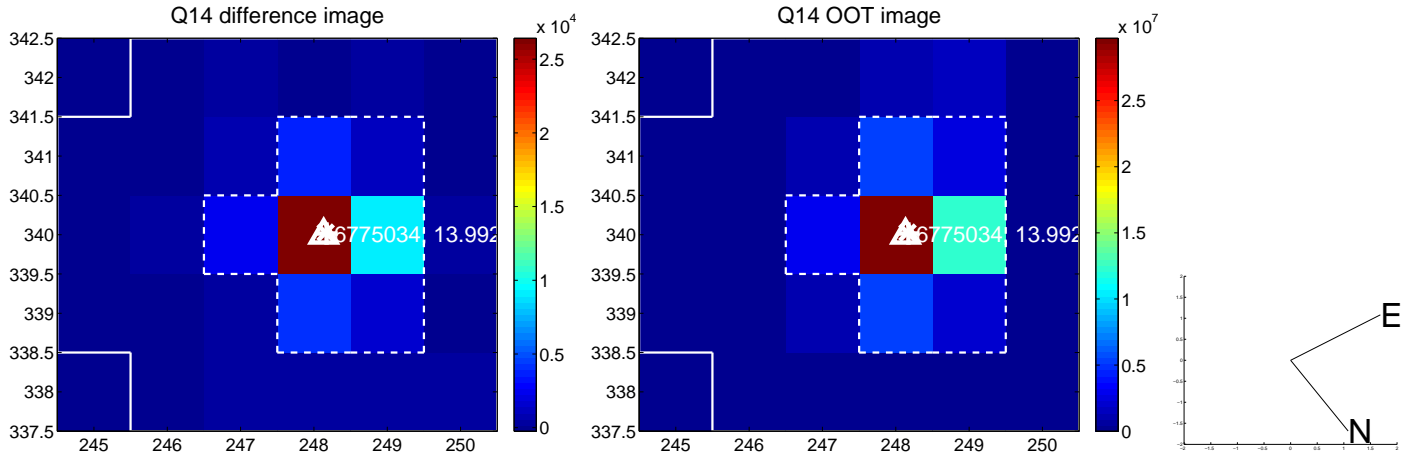
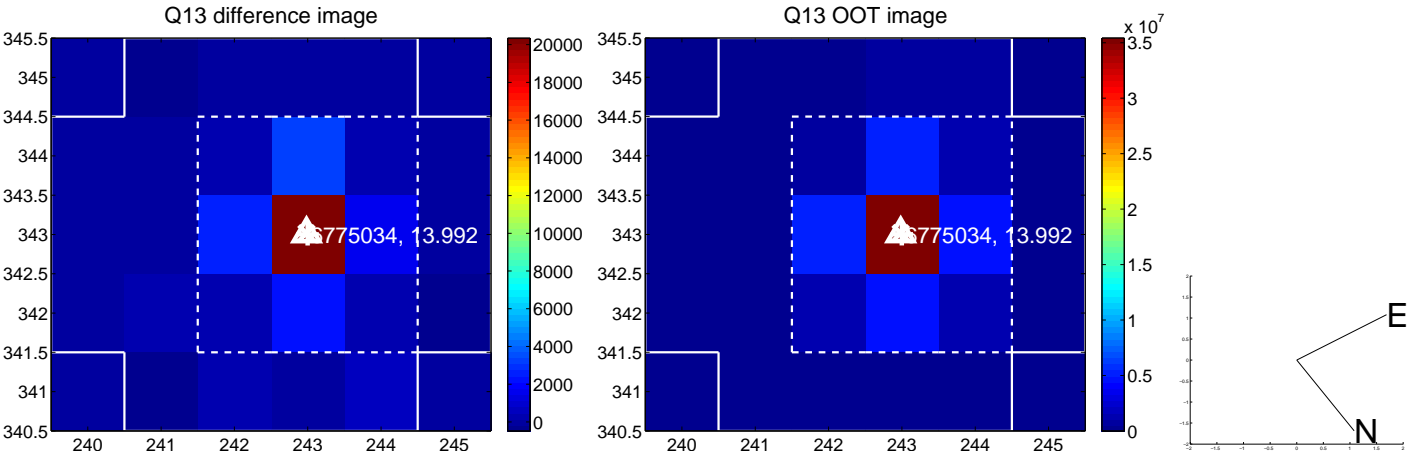
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



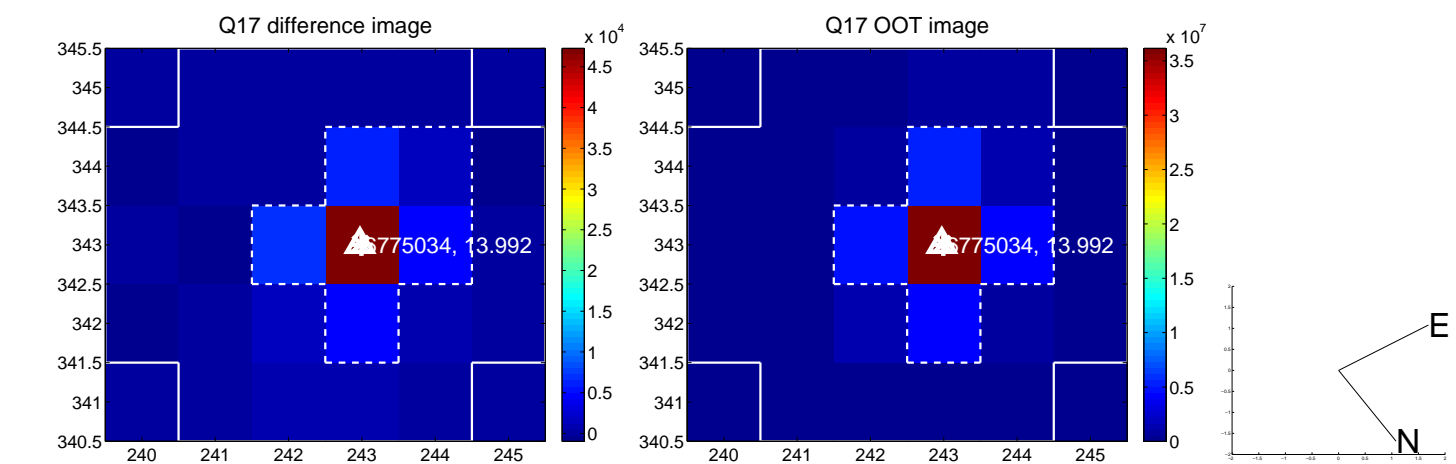
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



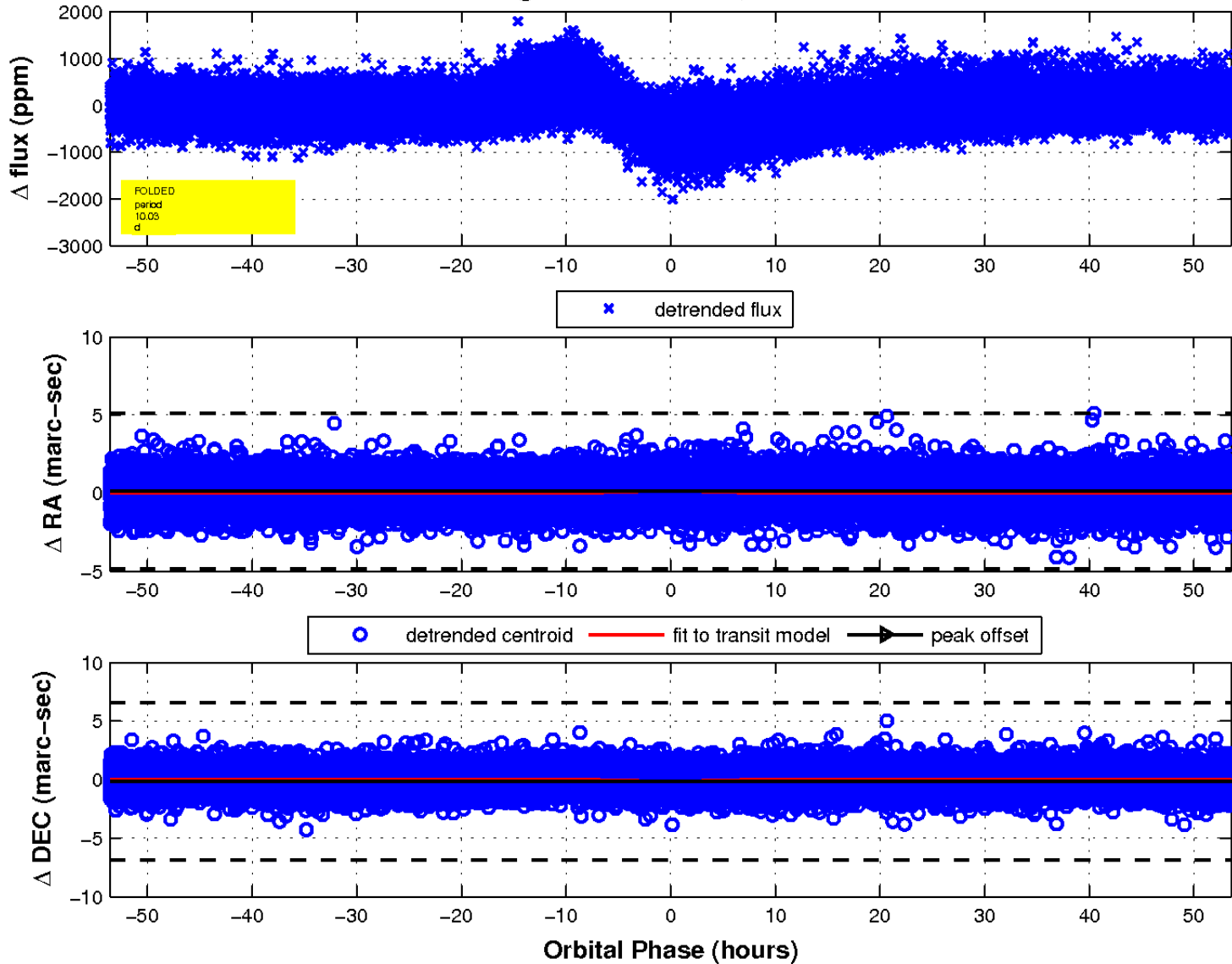
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

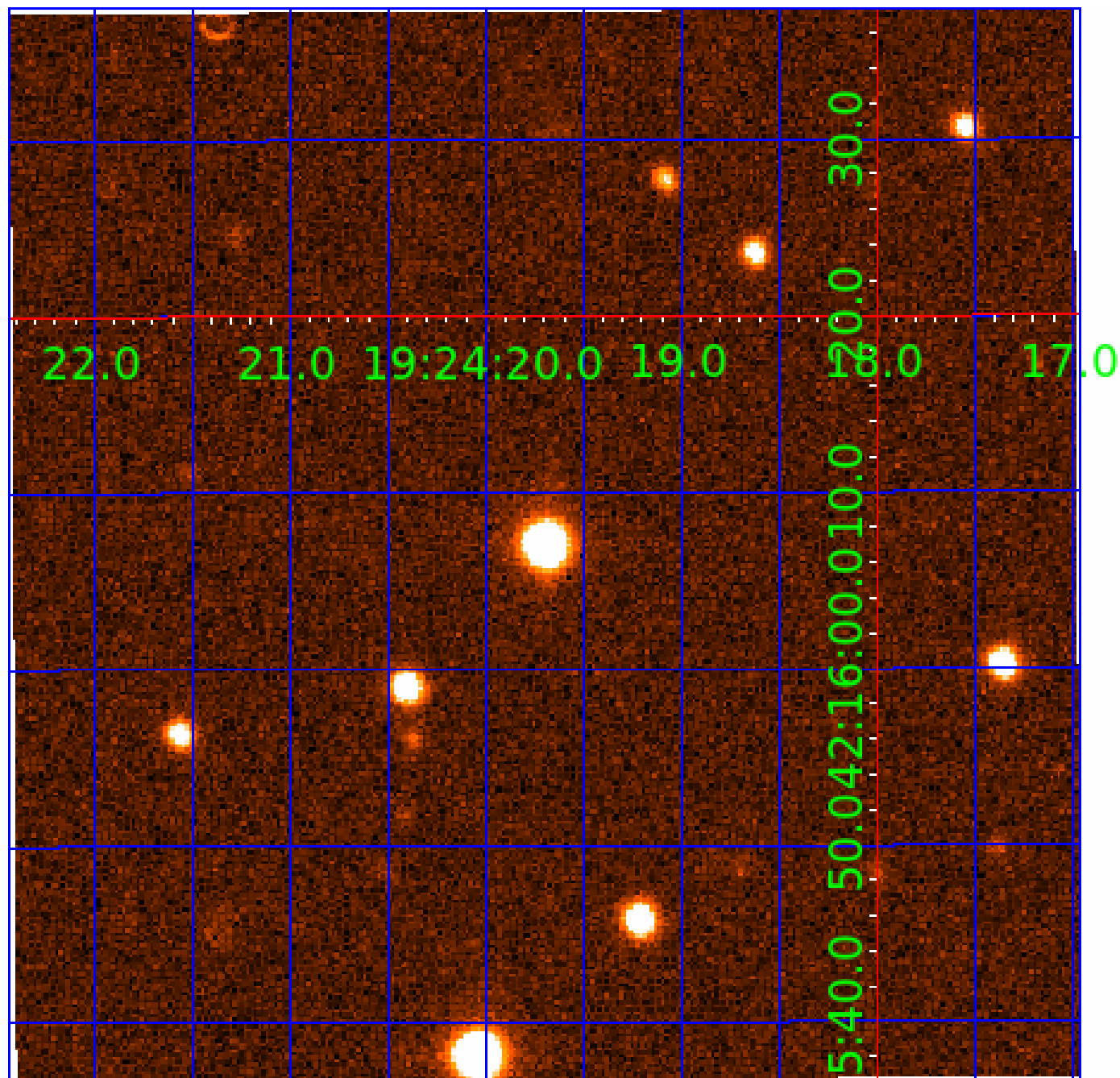


fluxWeightedCentroids, Planet 1 of 5



UKIRT Image

Declination



KIC 006775034

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006775034-01 | OBS | No | 10.029204 | 132.600734 | 432.1 | 17.863 | 28.5 | 33.4 | 1.81 | 7187 | 7.14 | 793.47 |
| 006775034-02 | OBS | No | 4.744352 | 134.019162 | 62.7 | 17.987 | 9.3 | 9.7 | 1.81 | 7187 | 1.66 | 2152.69 |
| 006775034-03 | OBS | No | 0.948880 | 132.244954 | 42.7 | 4.827 | 9.0 | 11.3 | 1.81 | 7187 | 1.35 | 18405.00 |
| 006775034-04 | OBS | No | 99.061364 | 178.270755 | 287.1 | 1.414 | 8.6 | 2.2 | 1.81 | 7187 | 3.19 | 37.44 |
| 006775034-05 | OBS | No | 99.065888 | 178.834443 | 326.6 | 9.646 | 10.0 | 7.3 | 1.81 | 7187 | 3.71 | 37.44 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006775034-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 006775034-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 006775034-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD |
| 006775034-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 006775034-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD |

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

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

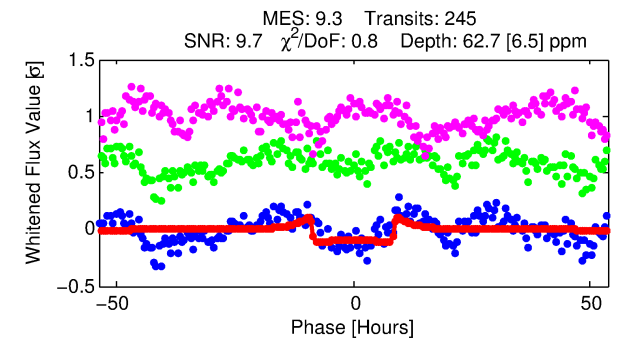
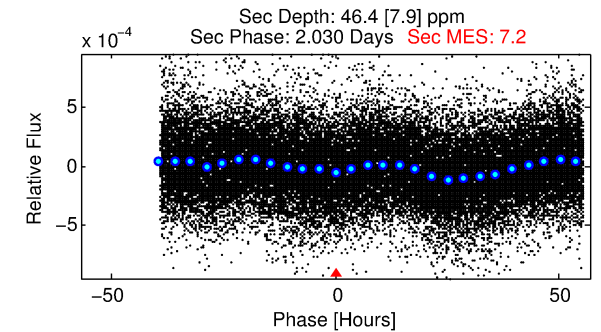
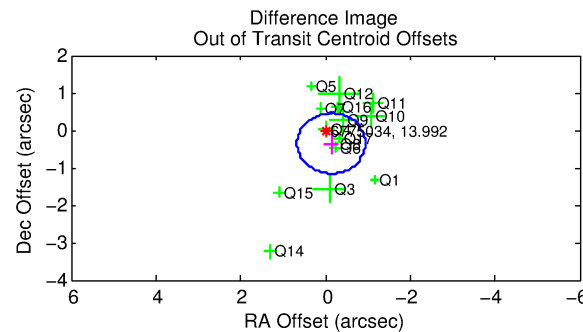
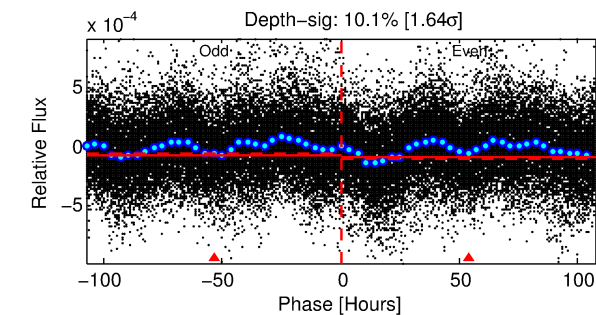
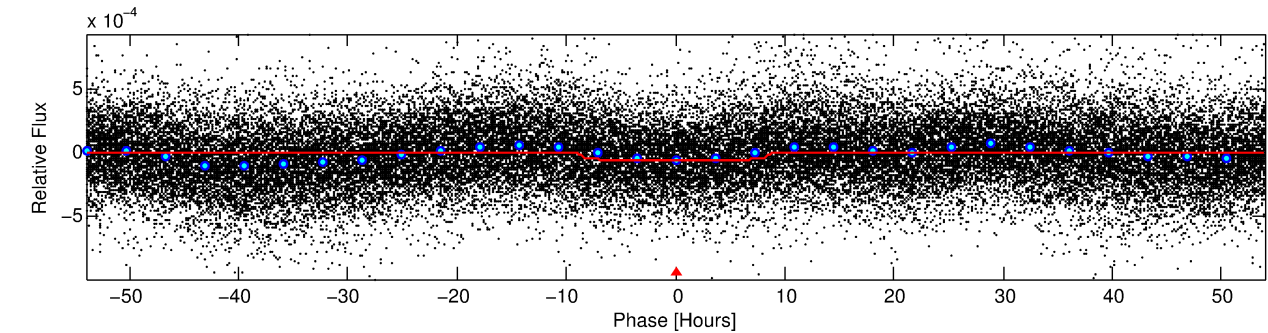
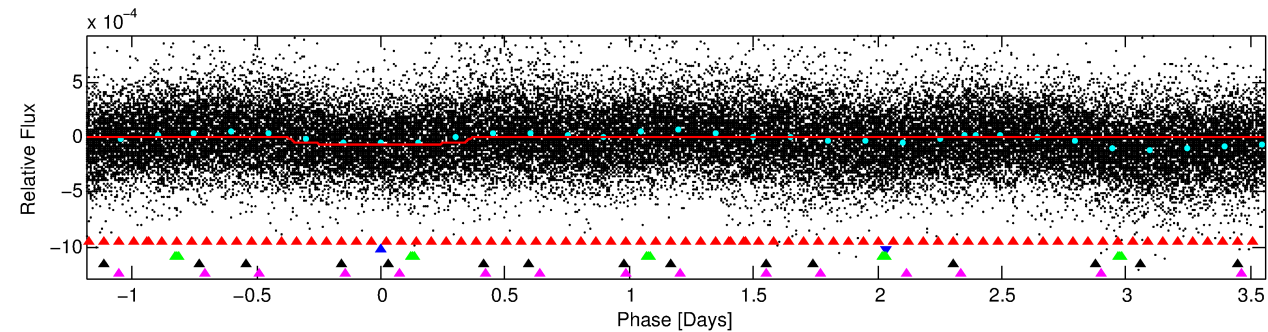
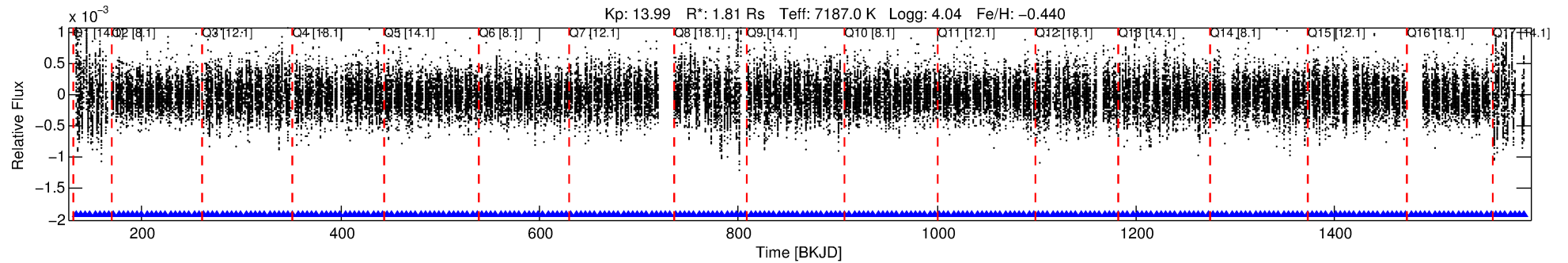
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006775034-02

No Significant Match Found

DV One-Page Summary

KIC: 6775034 Candidate: 2 of 5 Period: 4.744 d



DV Fit Results:

Period = 4.74435 [0.00006] d
Epoch = 134.0192 [0.0096] BKJD
Rp/R* = 0.0084 [0.0007]
a/R* = 1.31 [0.20]
b = 0.90 [0.08]
Seff = 2152.69 [1038.73]
Teff = 1737 [210] K
Rp = 1.66 [0.50] Re
a = 0.0602 [0.0170] AU
Ag = 33.68 [17.17] [1.90 σ]
Teffp = 6469 [470] K [9.20 σ]

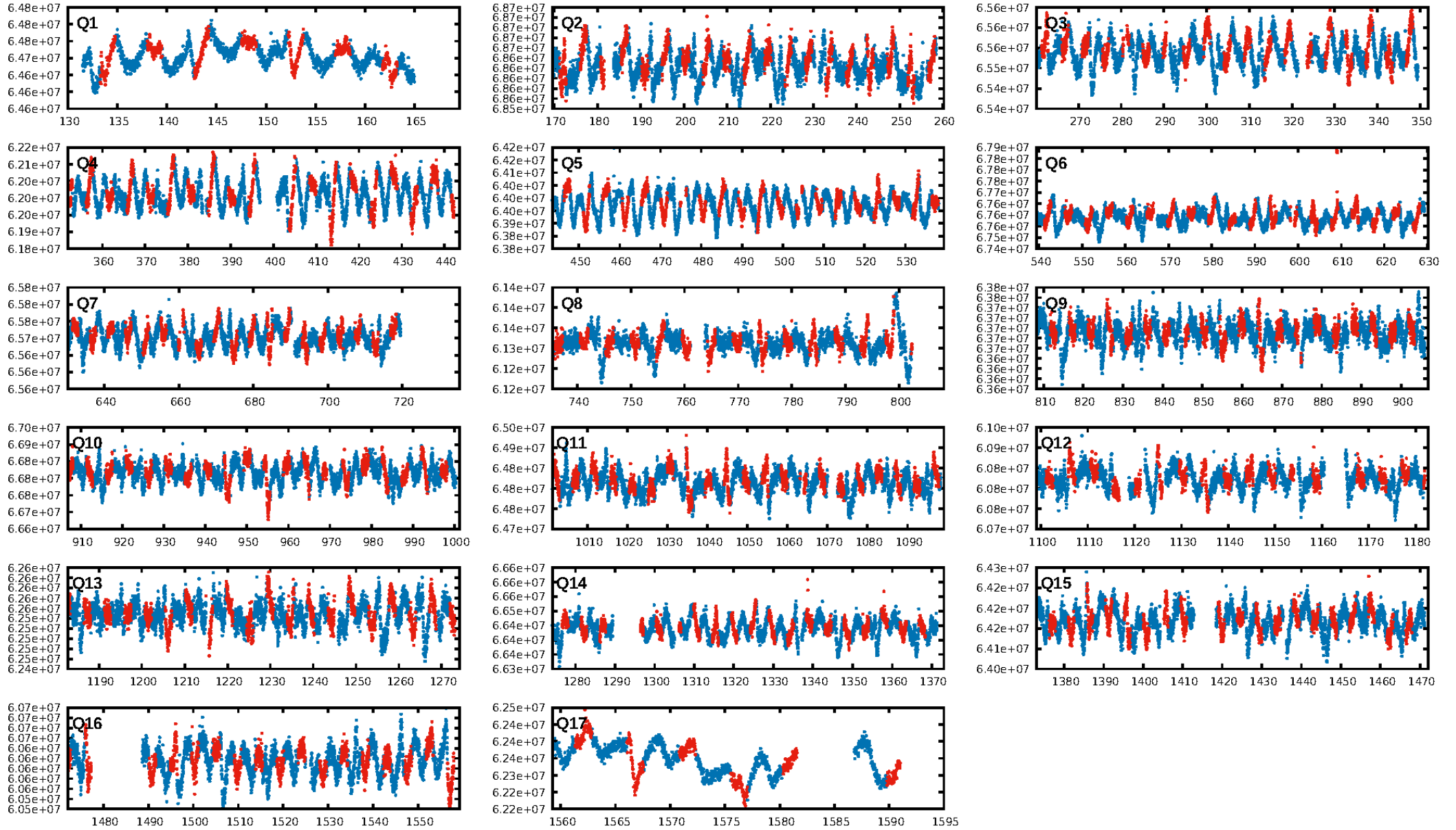
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.89 σ]
LongPeriod-sig: 100.0% [5.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.96e-22
RollingBand-fgt: 1.00 [236/236]
GhostDiagnostic-chr: -1.046
Centroid-sig: 12.0%
Centroid-so: 0.947 arcsec [1.80 σ]
OotOffset-rm: 0.376 arcsec [1.40 σ]
KicOffset-rm: 0.315 arcsec [1.18 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 0.00 [0/17]

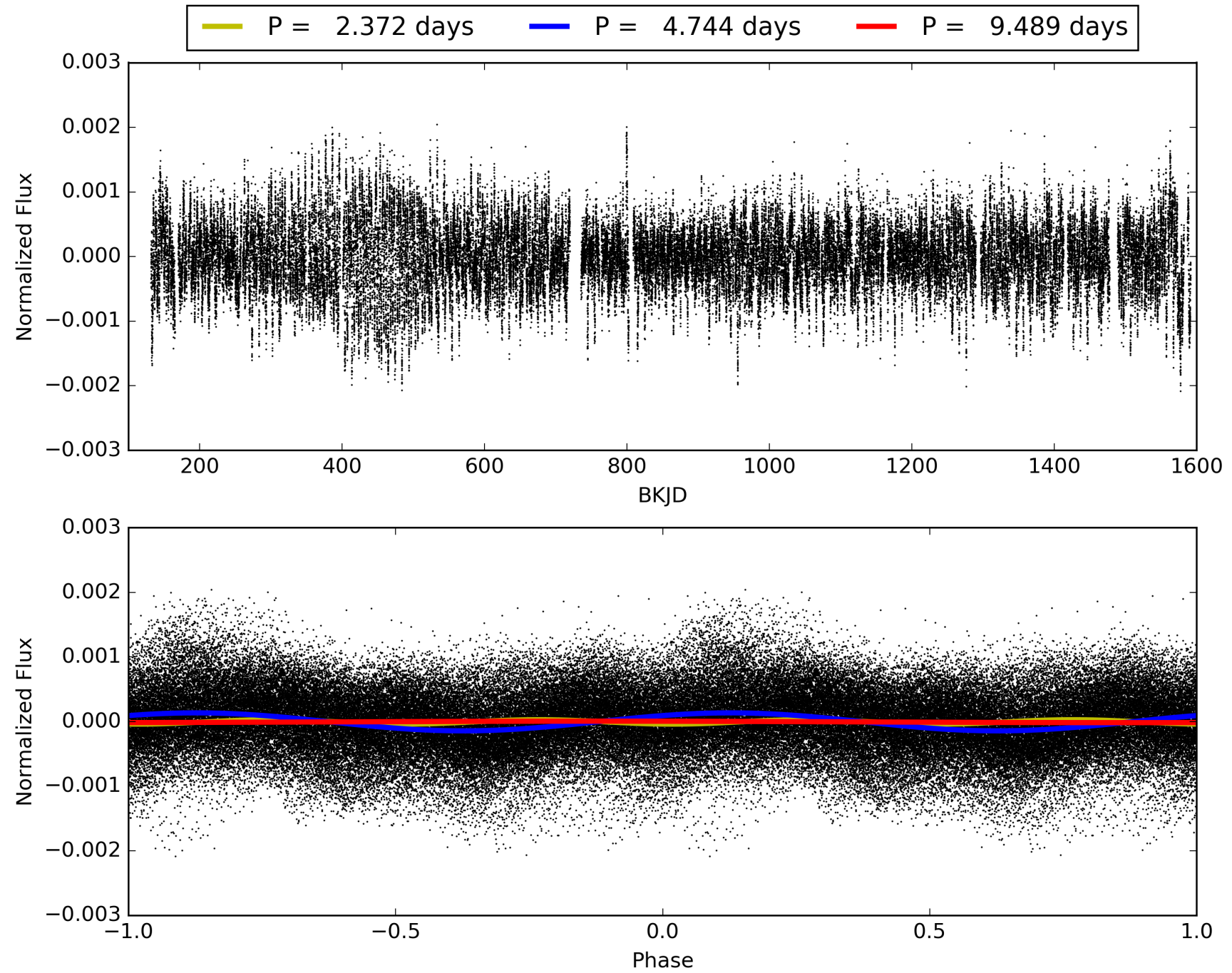
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:13:24 Z

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

TCE 006775034-02, PDC Light Curves

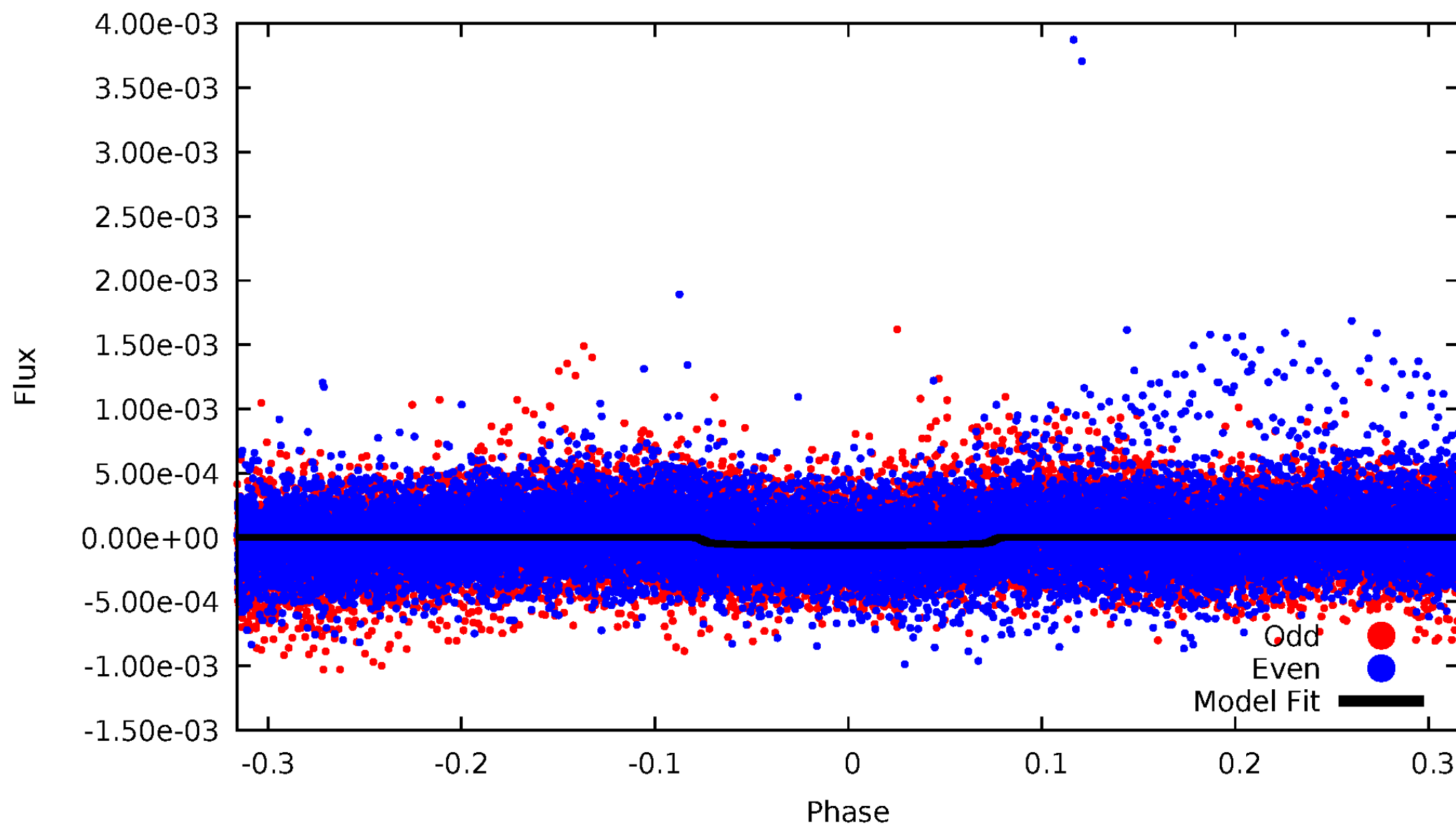


TCE 006775034-02



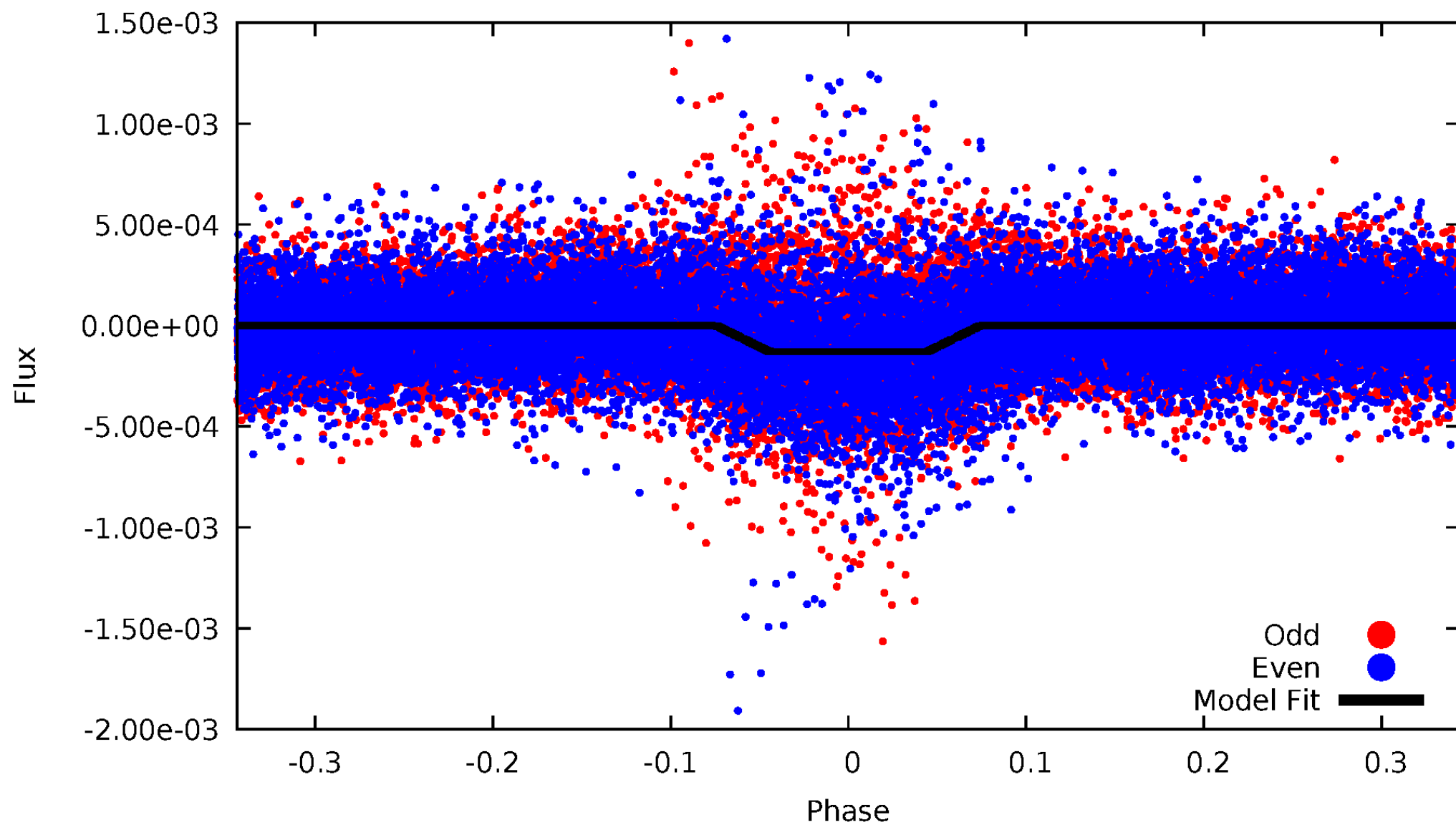
DV Odd/Even

TCE 006775034-02



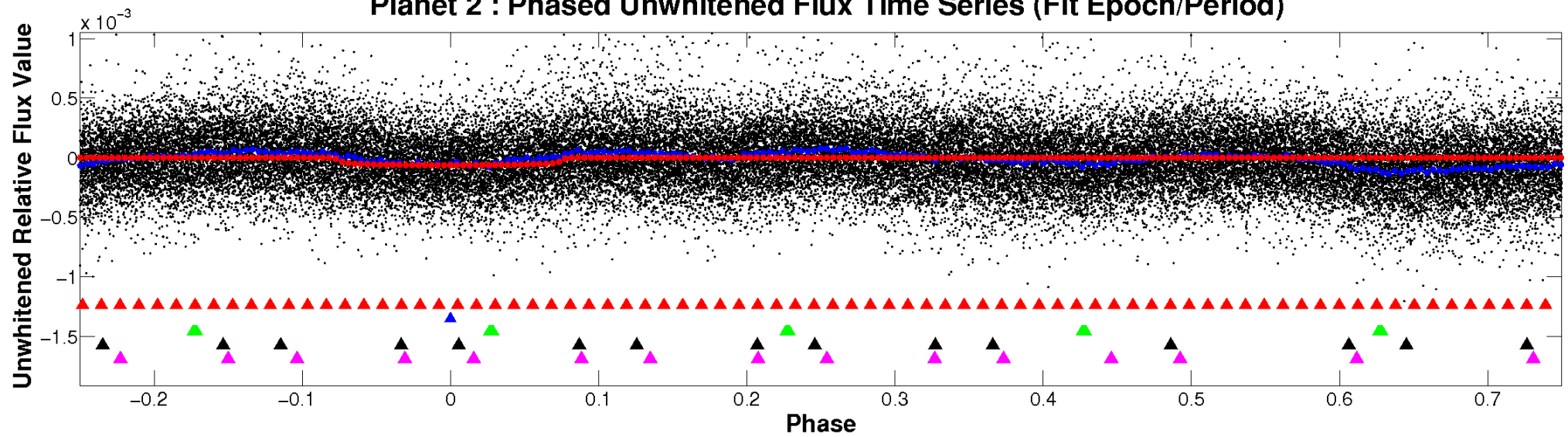
ALT Odd/Even

TCE 006775034-02

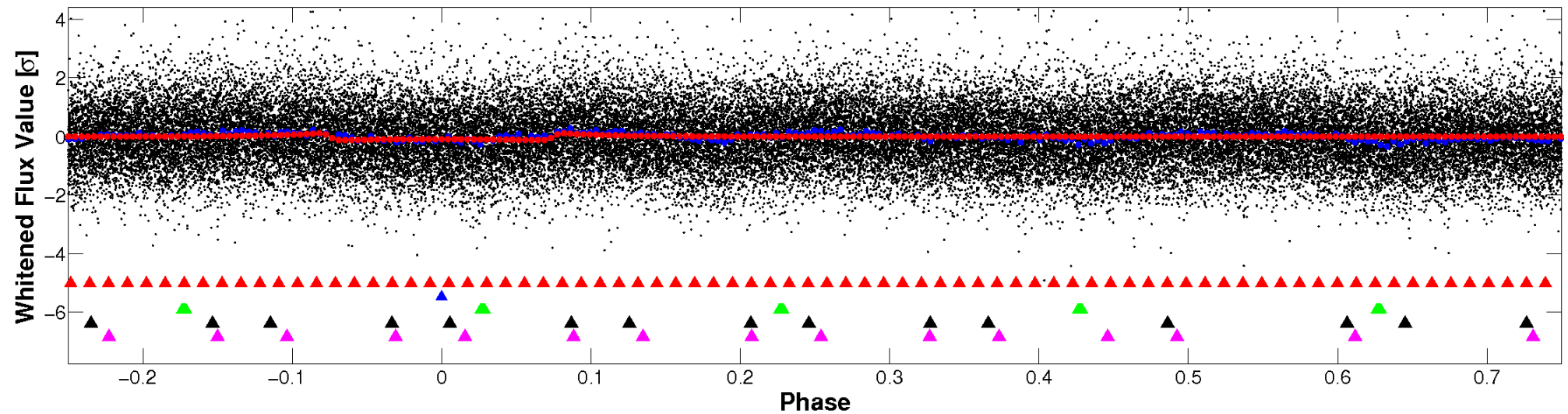


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

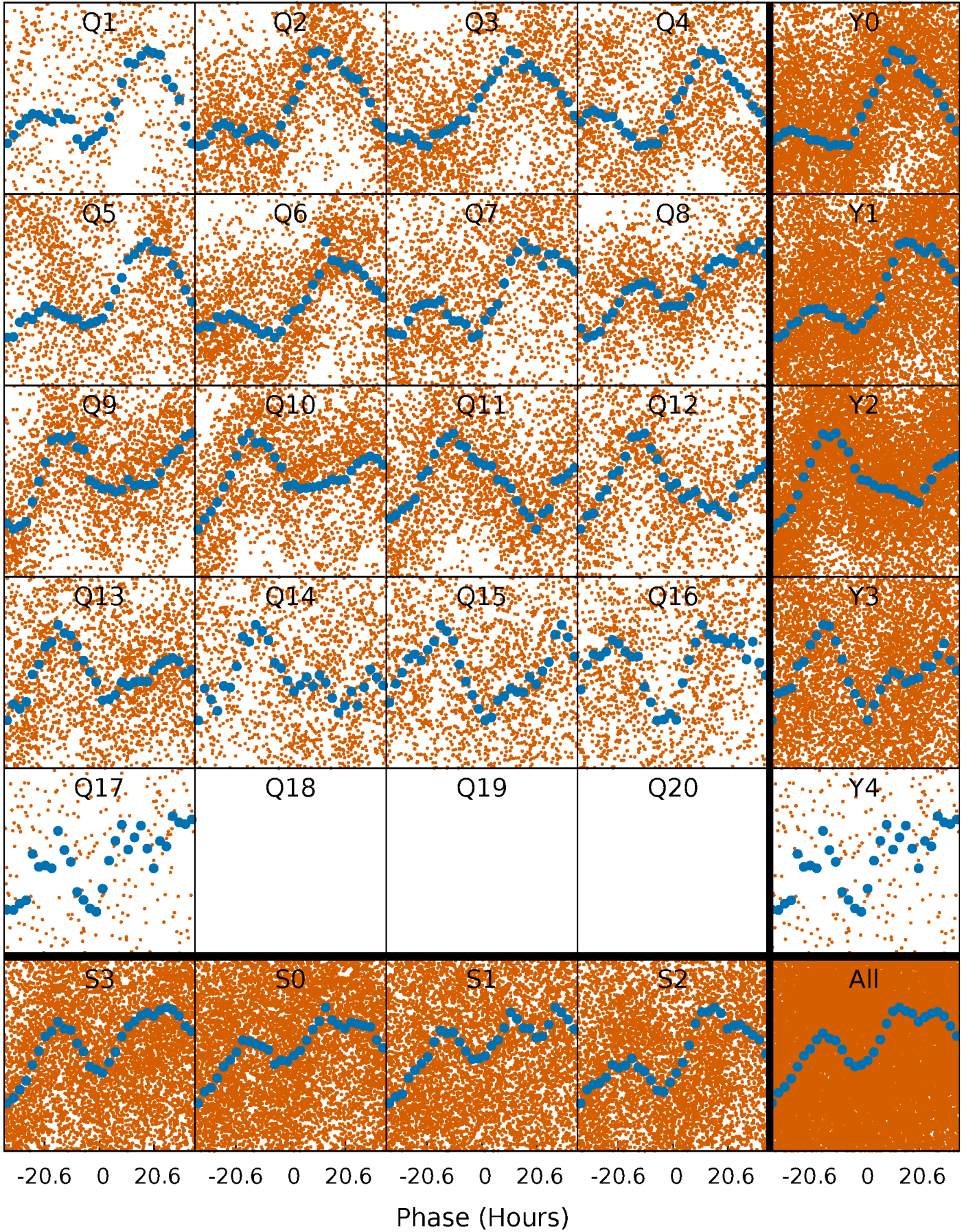


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



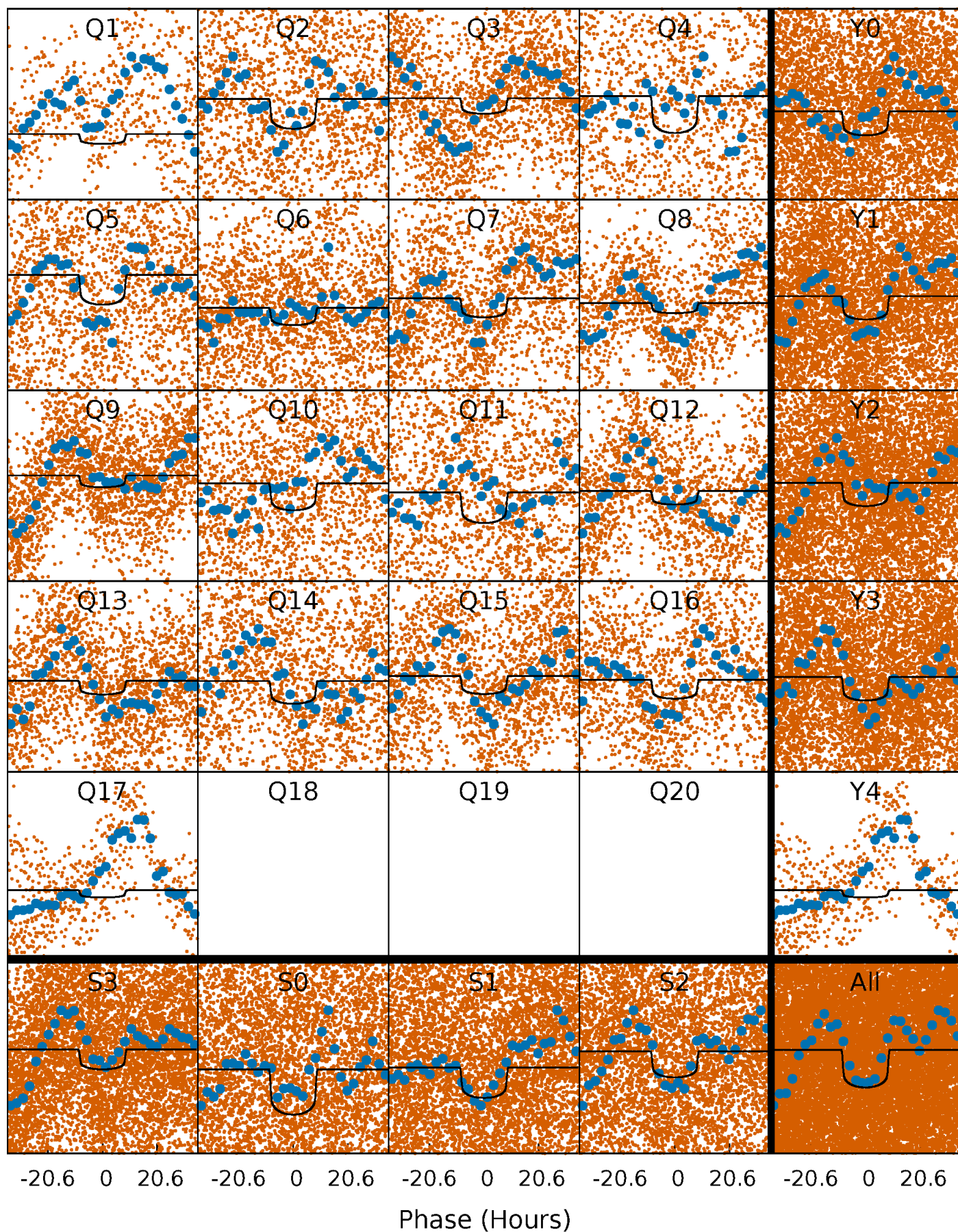
PDC Quarter-Phased Transit Curves

TCE 006775034-02 P= 4.744352 Days $T_0=134.019162$ (BKJD)



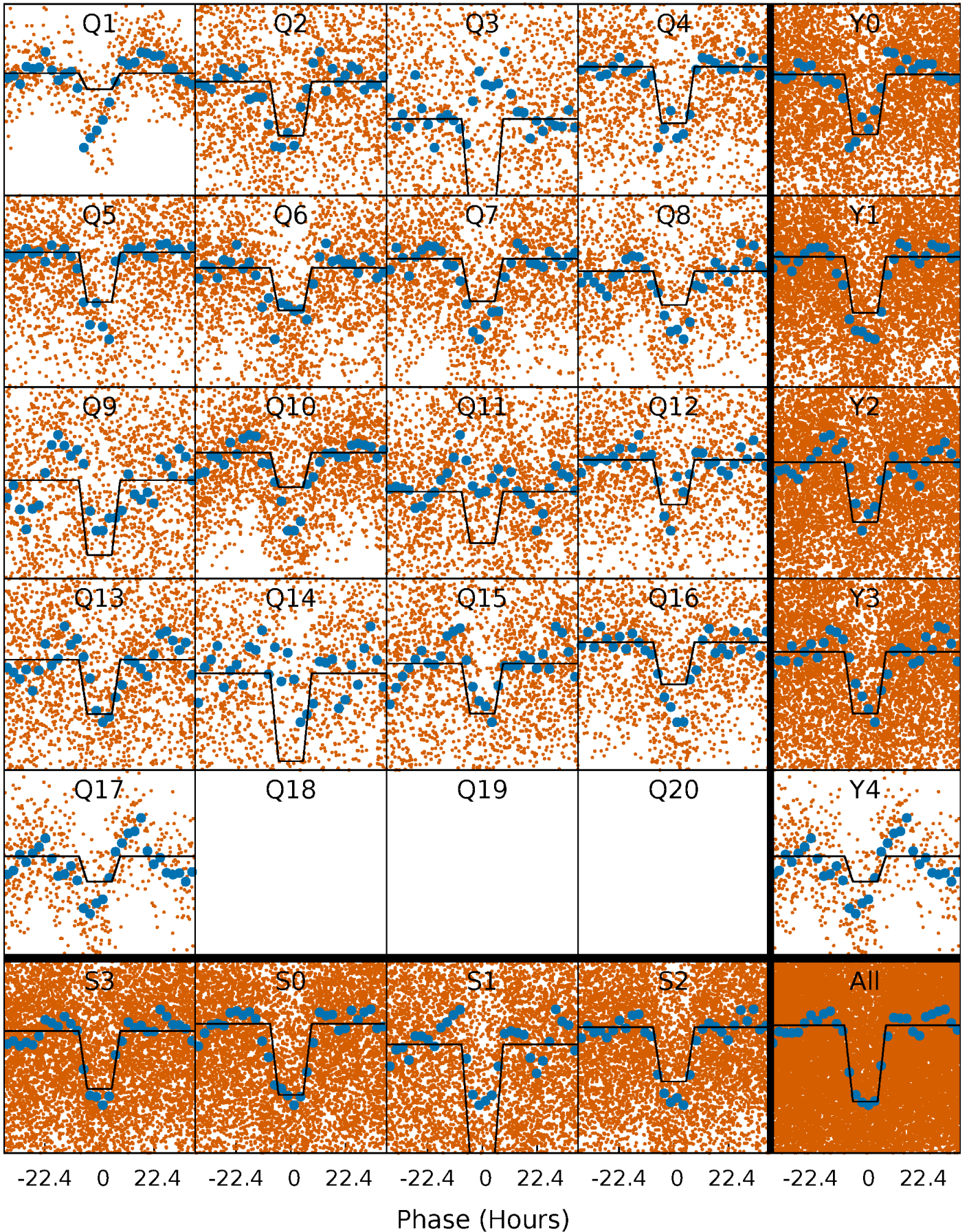
DV Quarter-Phased Transit Curves

TCE 006775034-02 P= 4.744352 Days $T_0=134.019162$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

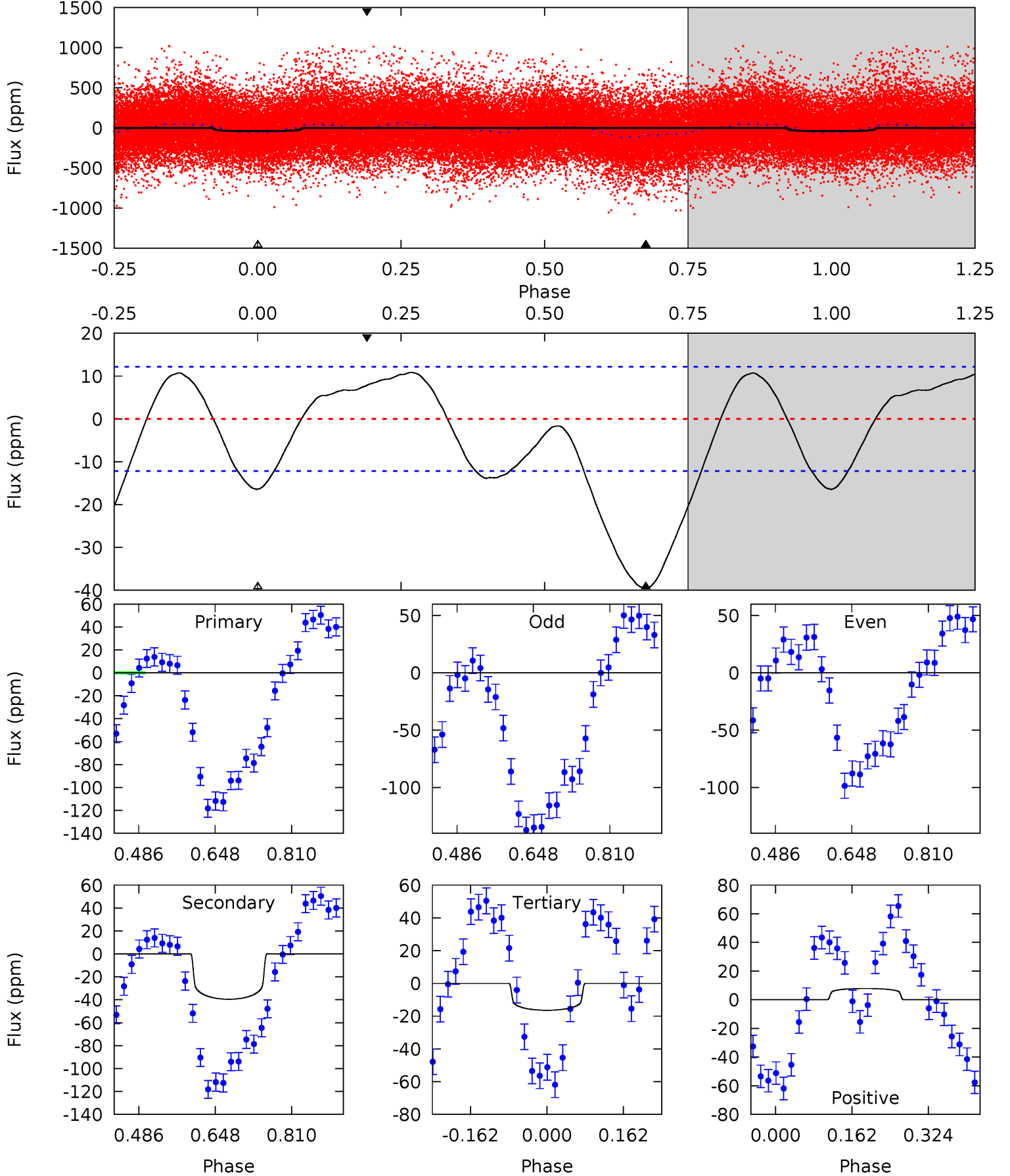
TCE 006775034-02 P= 4.743940 Days $T_0=134.054964$ (BKJD)



DV Model-Shift Uniqueness Test

006775034-02, P = 4.744352 Days, E = 129.274810 Days

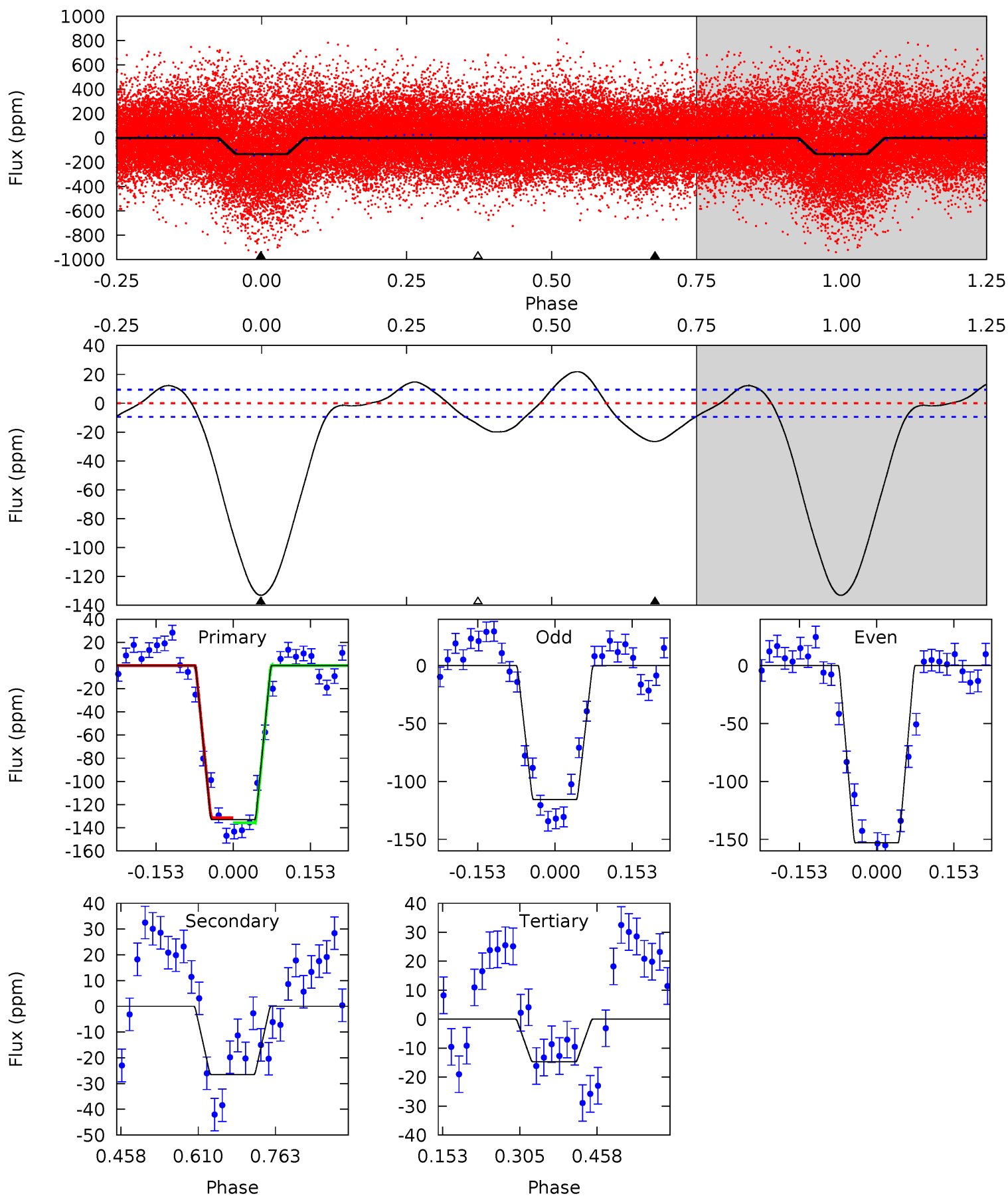
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 14.5 | 14.5 | 6.02 | 2.88 | 4.46 | 1.40 | 3.34 | 8.49 | 11.6 | 8.49 | 11.6 | 3.51 | 0.91 | 0.22 | 0.69 |



Alt Model-Shift Uniqueness Test

006775034-02, P = 4.743940 Days, E = 129.311024 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 63.4 | 12.6 | 6.99 | 0 | 4.48 | 1.43 | 5.34 | 56.4 | 63.4 | 5.63 | 12.6 | 8.90 | 0.75 | 0.14 | 1.08 |



Stellar Parameters For KIC 006775034

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7187^{+228}_{-304} | $4.036^{+0.266}_{-0.164}$ | $-0.440^{+0.300}_{-0.300}$ | $1.808^{+0.525}_{-0.525}$ | $1.297^{+0.233}_{-0.191}$ | $0.309^{+0.458}_{-0.139}$ |
| | +3%/-4% | +7%/-4% | +68%/-68% | +29%/-29% | +18%/-15% | +148%/-45% |
| 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 006775034-02 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|------------------|
| DV | -40 ± 3 | $1.64^{+0.31}_{-0.32}$ | 2392^{+196}_{-210} | 6120^{+364}_{-311} | 30^{+13}_{-9} |
| Alt. | -27 ± 2 | $2.23^{+0.41}_{-0.39}$ | 2400^{+207}_{-216} | 4847^{+219}_{-199} | 11^{+5}_{-3} |

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 $A_{\text{obs}} \gg 1.0$

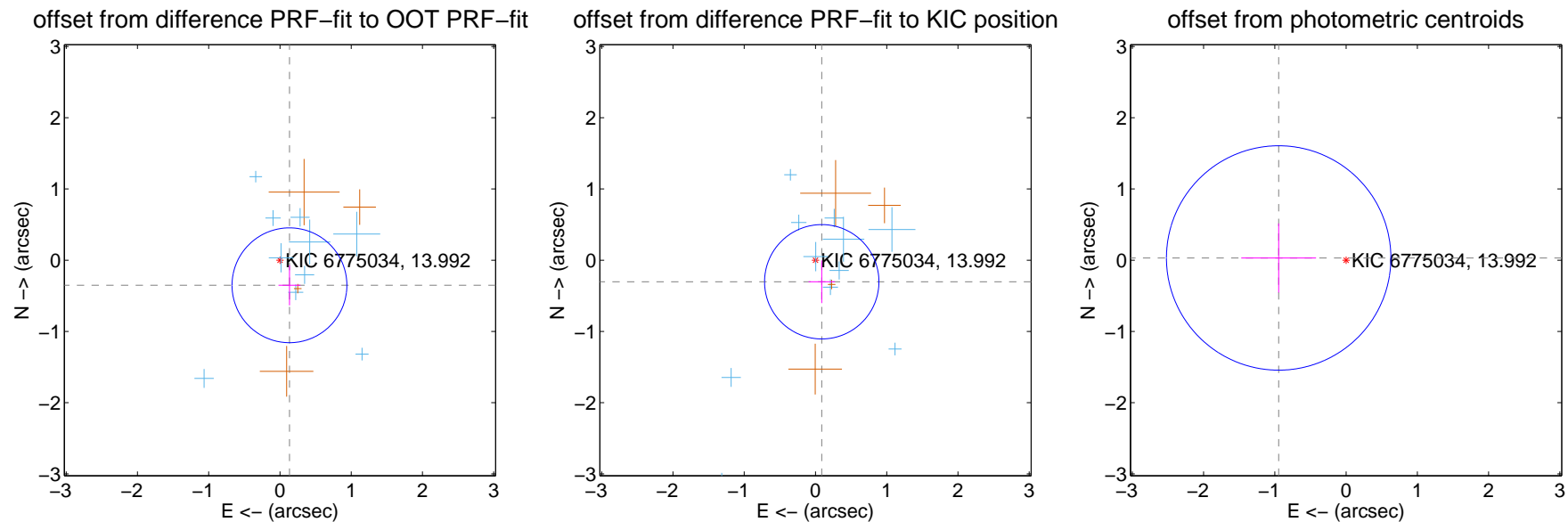
DV Centroid Data

Supplemental centroid analysis for 006775034-02. Kepler magnitude: 13.99. Transit SNR 9.74

There are 11 quarters with good PRF difference image offsets

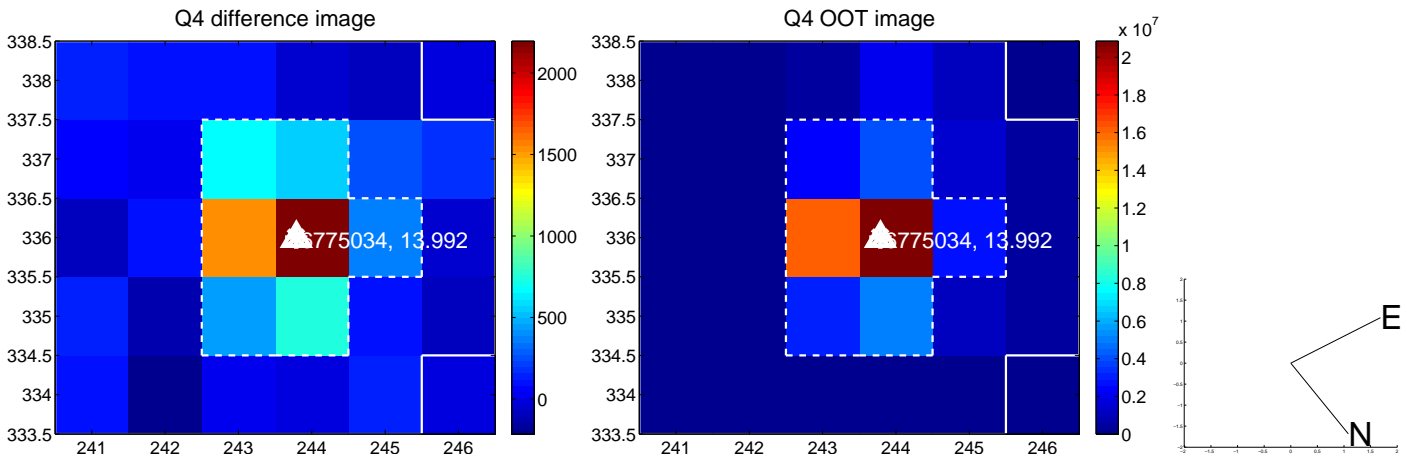
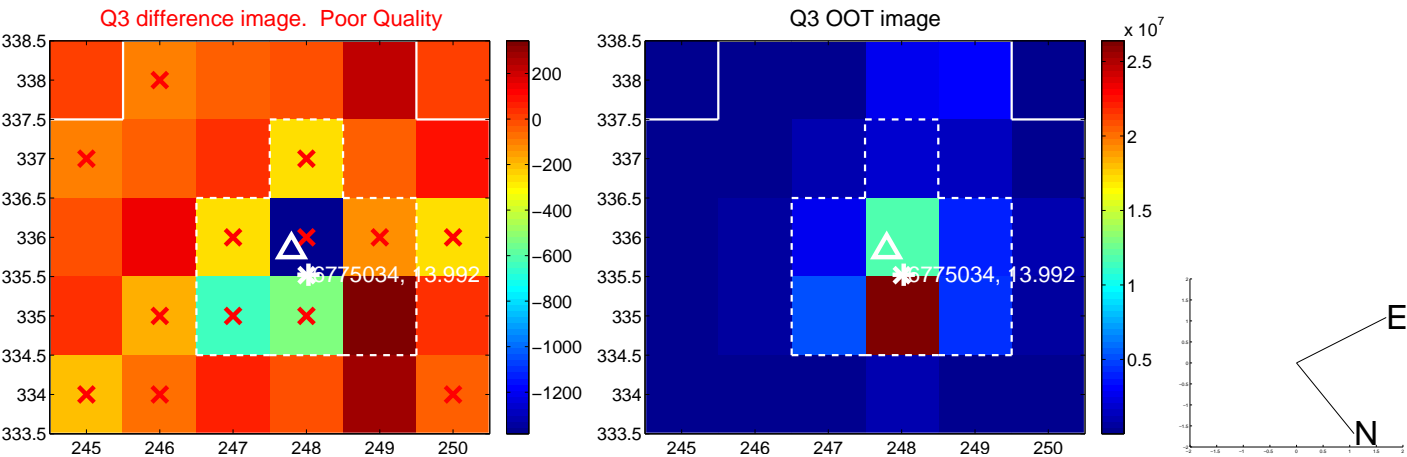
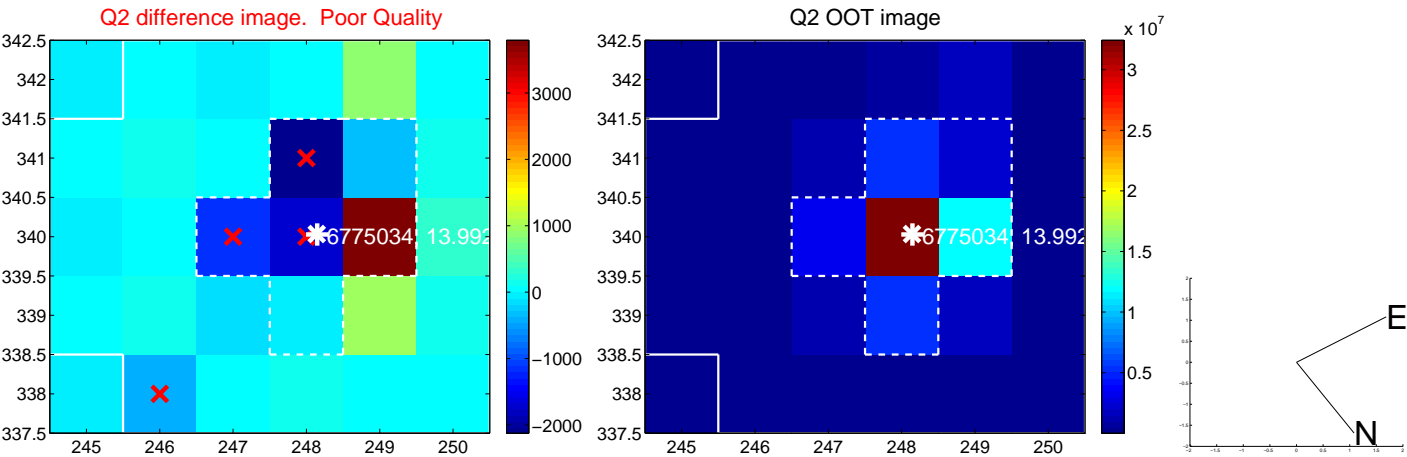
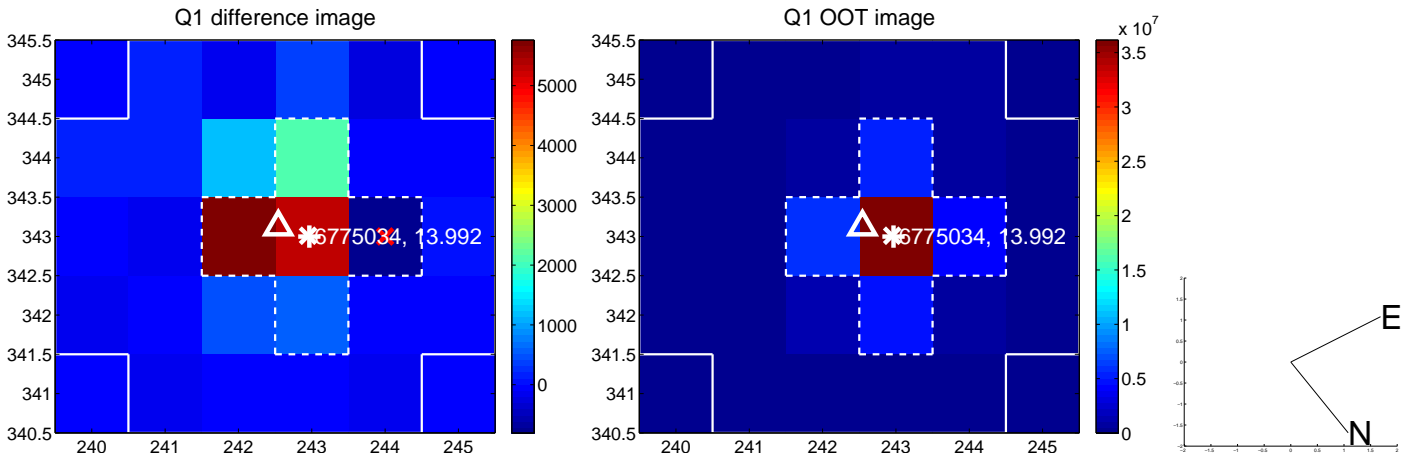
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.376 ± 0.269 | 1.40 | -0.133 ± 0.154 | -0.352 ± 0.281 |
| PRF-fit source offset from KIC position | 0.315 ± 0.268 | 1.18 | -0.088 ± 0.184 | -0.303 ± 0.300 |
| photometric centroid source offset | 0.95 ± 0.53 | 1.80 | 0.95 ± 0.53 | 0.03 ± 0.48 |

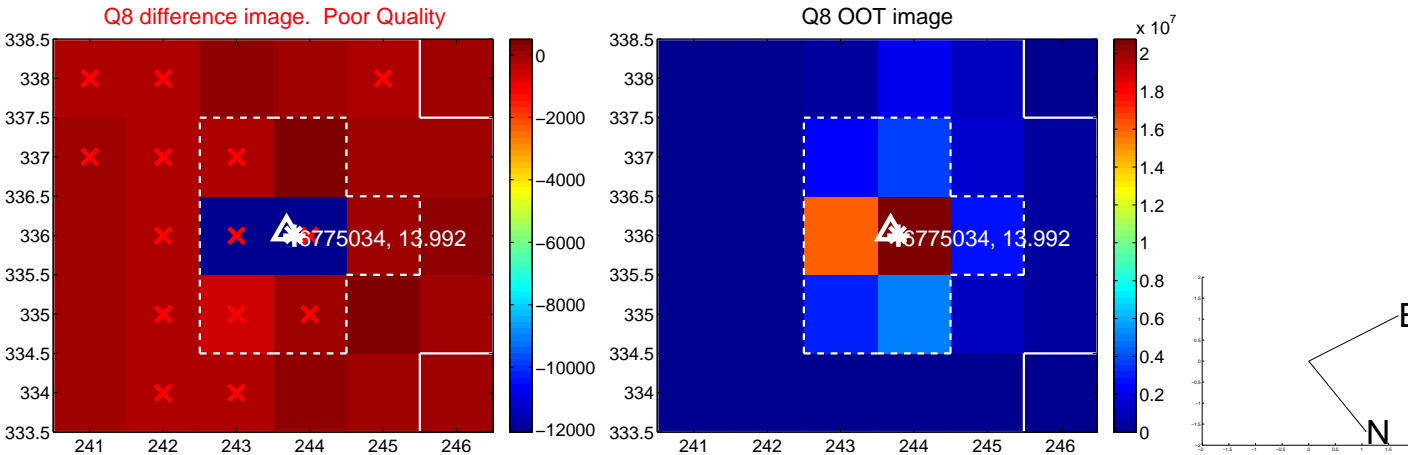
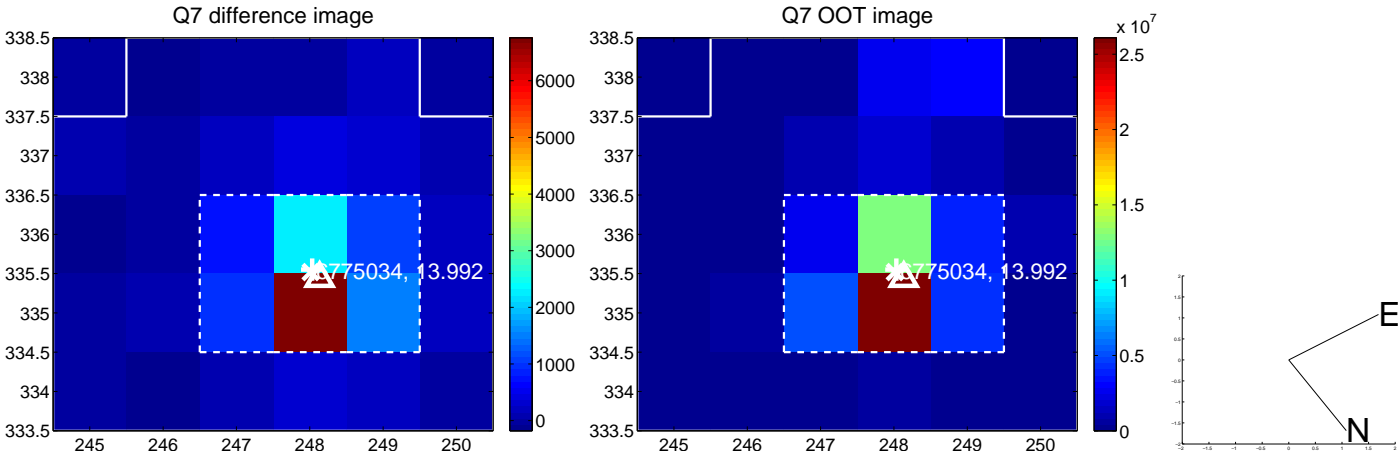
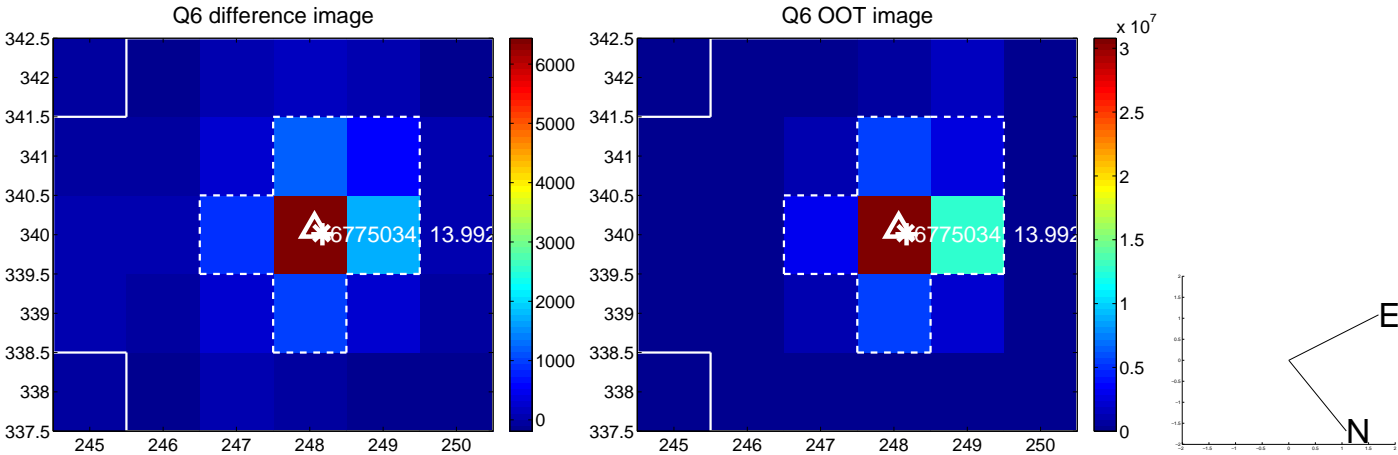
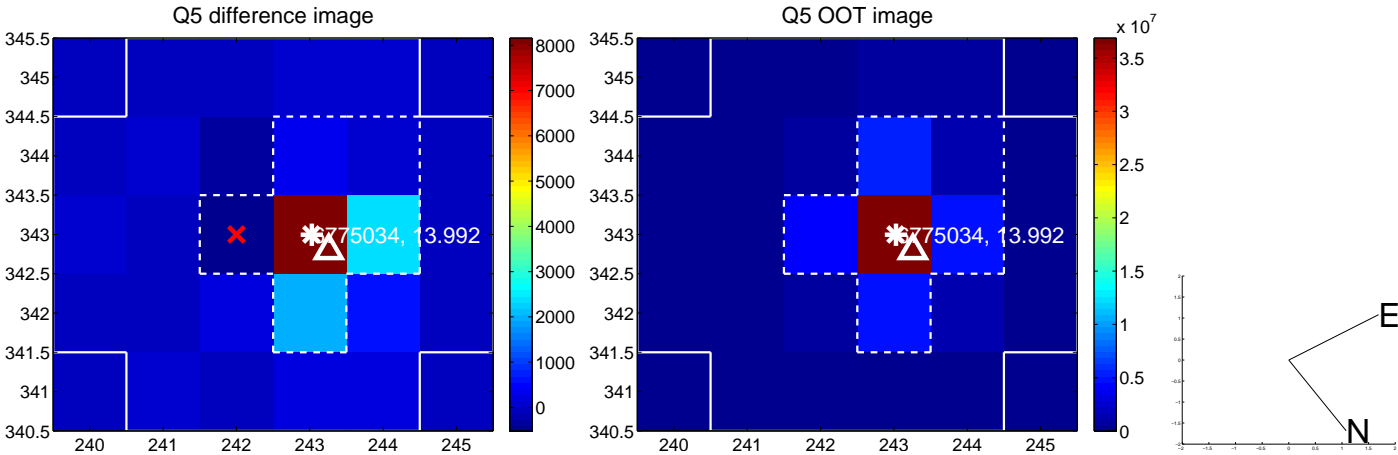


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

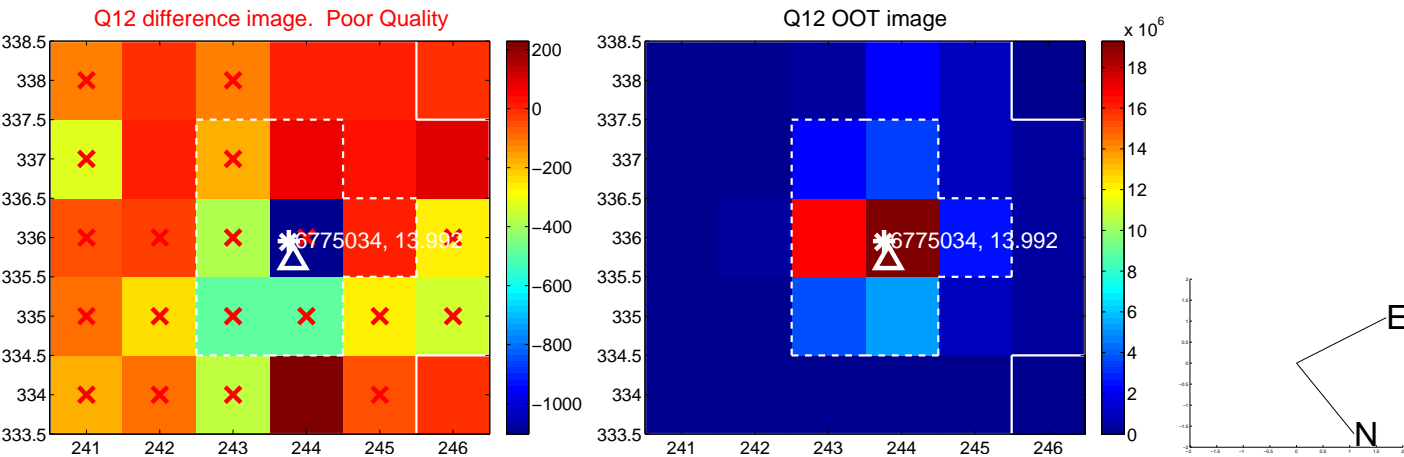
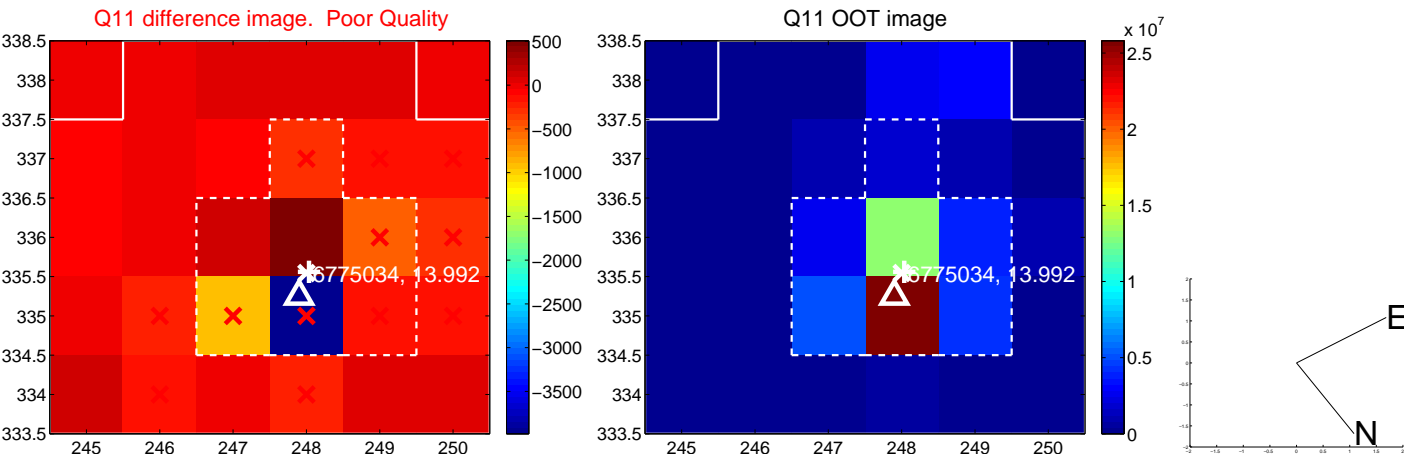
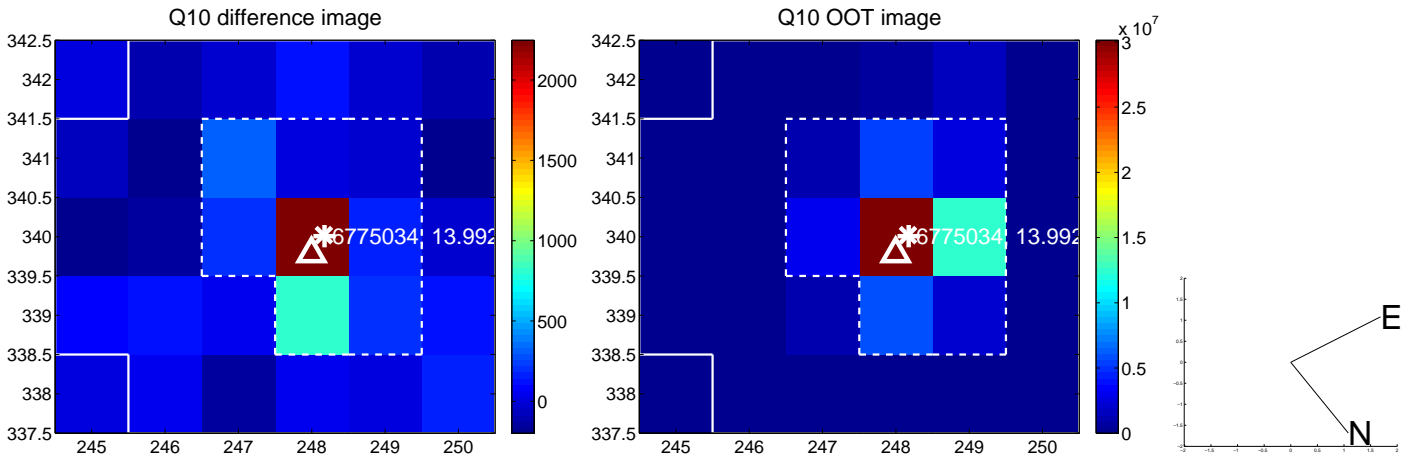
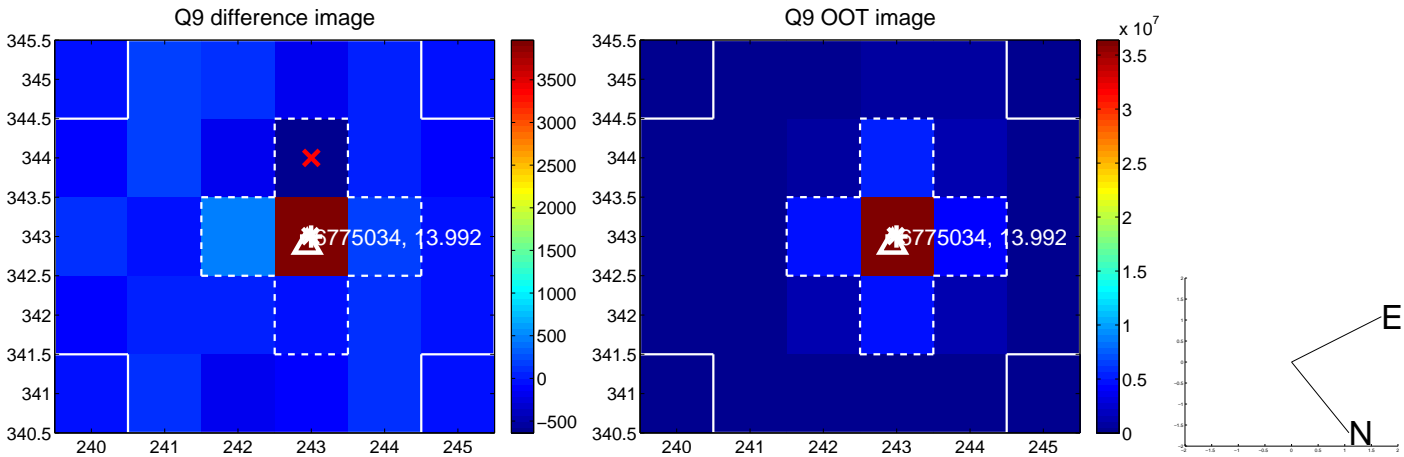
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



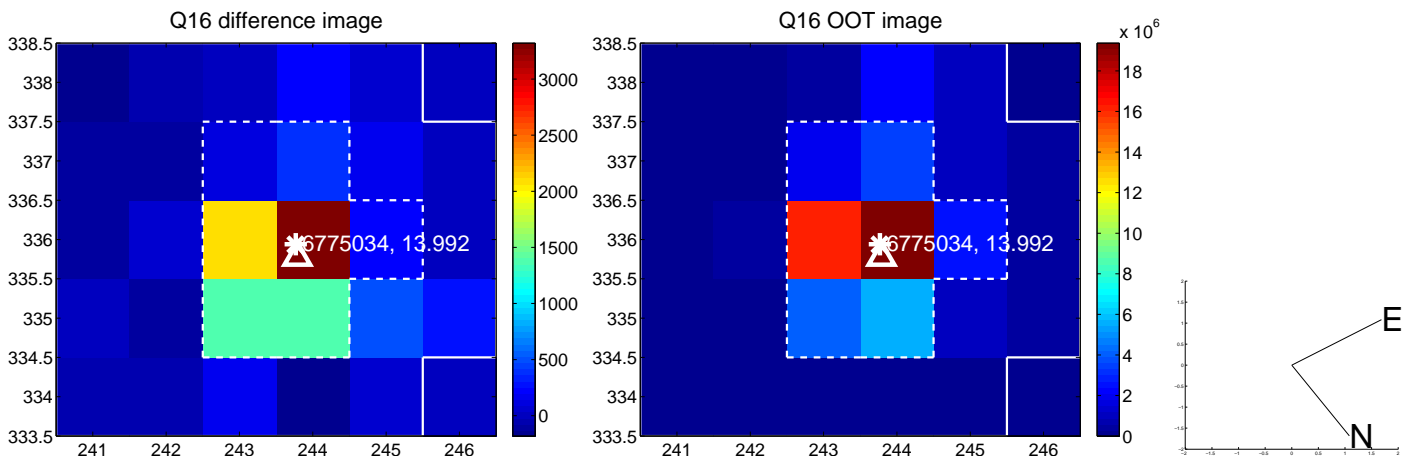
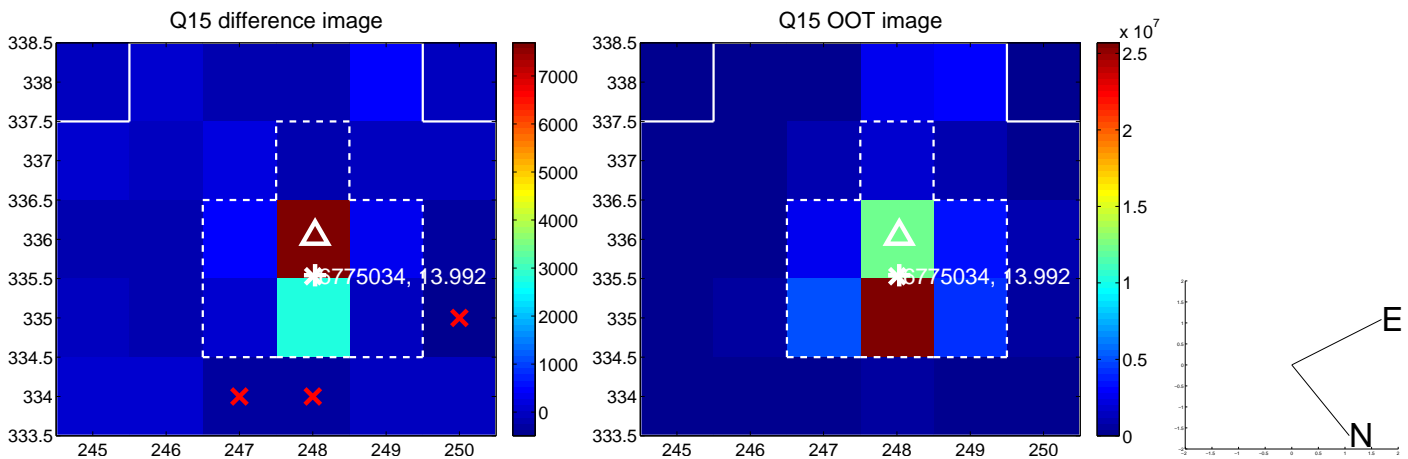
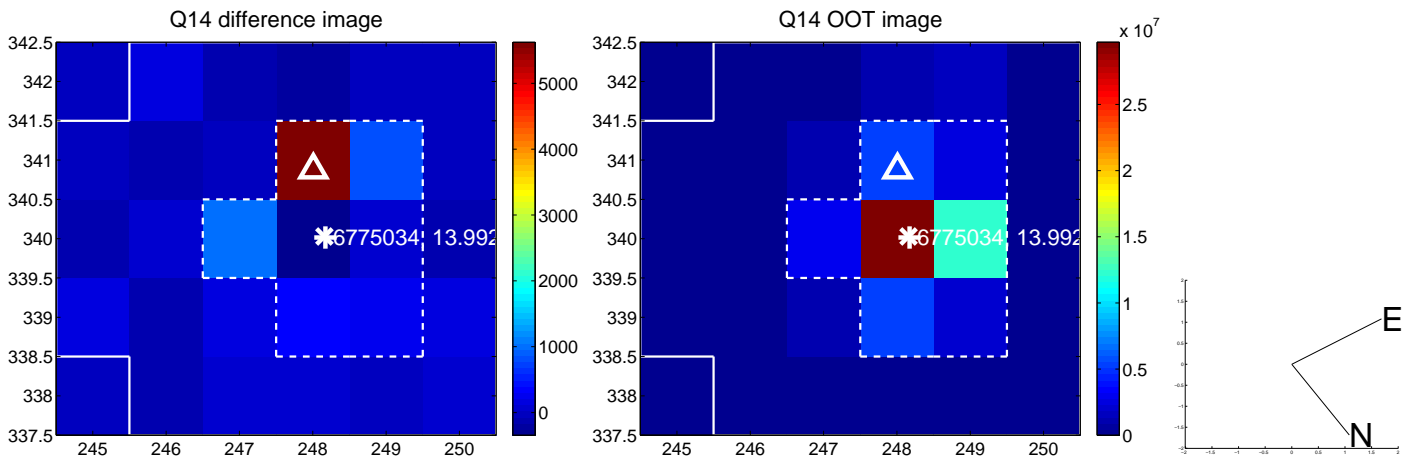
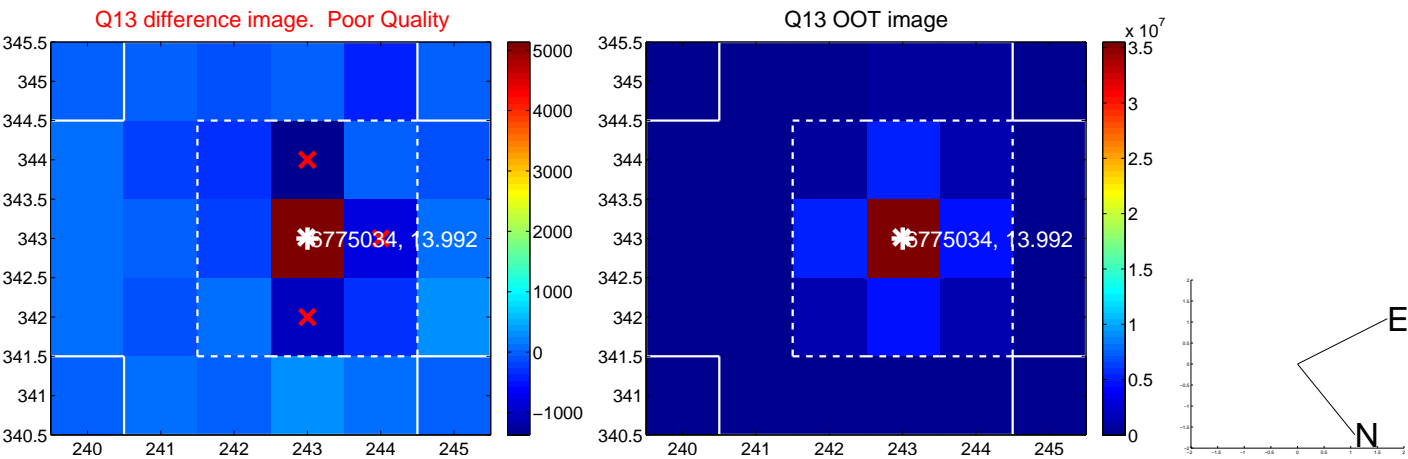
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



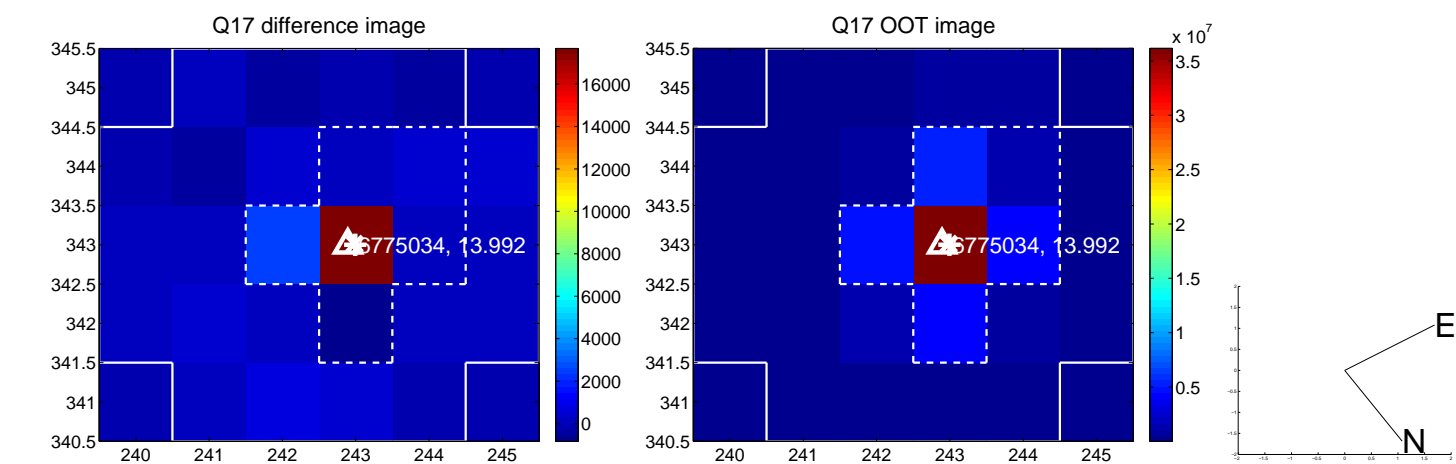
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



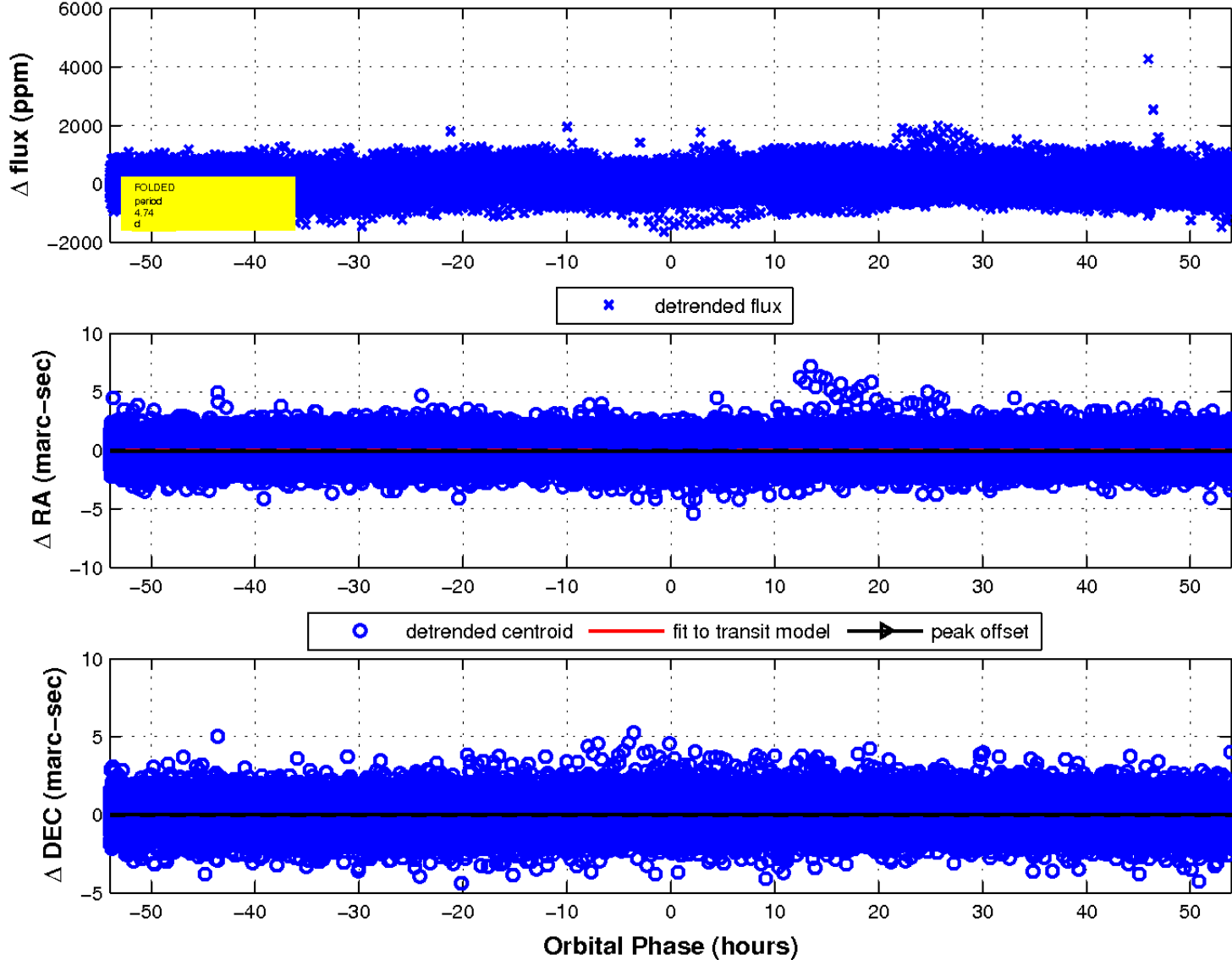
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

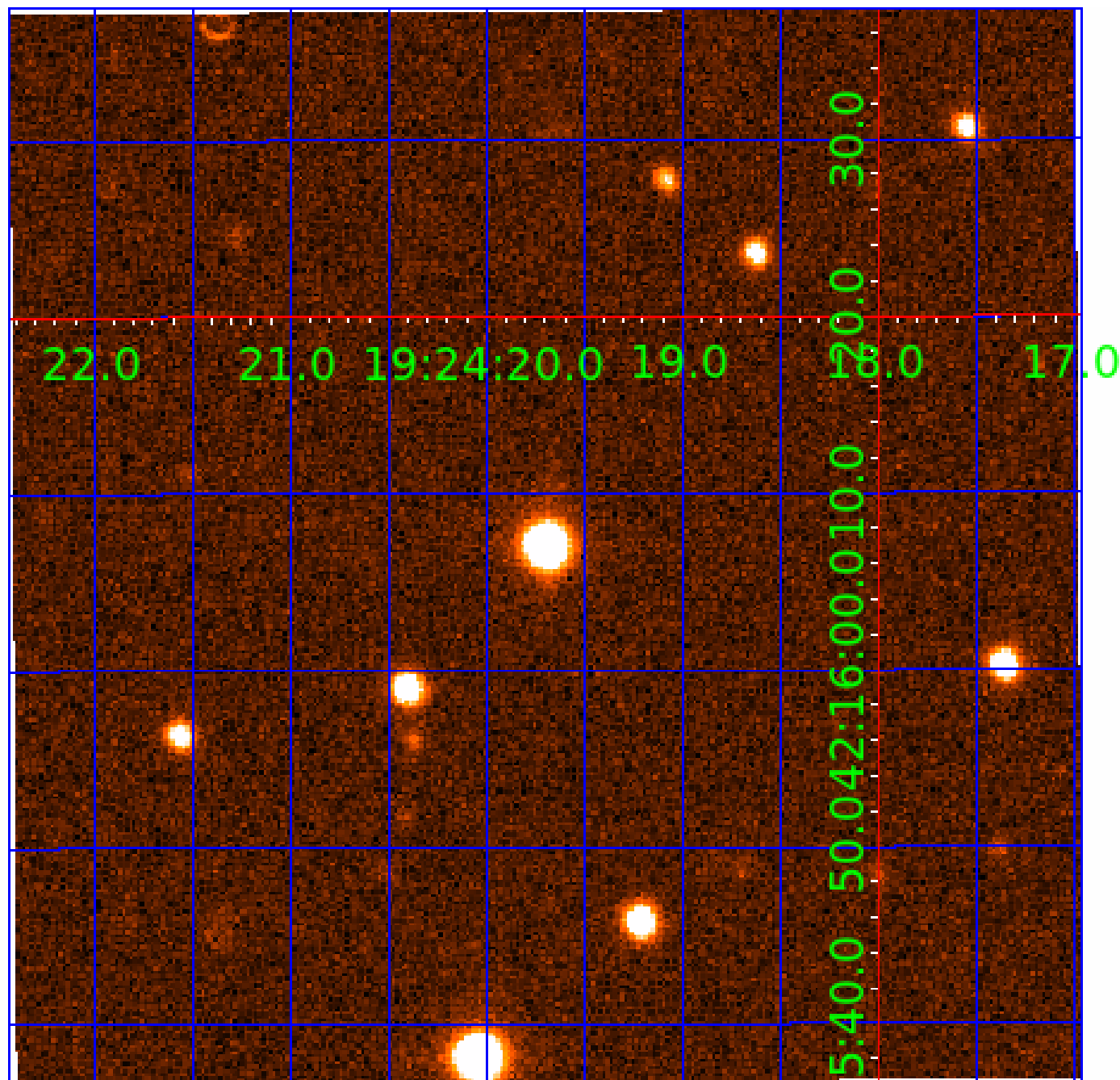


fluxWeightedCentroids, Planet 2 of 5



UKIRT Image

Declination



KIC 006775034

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006775034-01 | OBS | No | 10.029204 | 132.600734 | 432.1 | 17.863 | 28.5 | 33.4 | 1.81 | 7187 | 7.14 | 793.47 |
| 006775034-02 | OBS | No | 4.744352 | 134.019162 | 62.7 | 17.987 | 9.3 | 9.7 | 1.81 | 7187 | 1.66 | 2152.69 |
| 006775034-03 | OBS | No | 0.948880 | 132.244954 | 42.7 | 4.827 | 9.0 | 11.3 | 1.81 | 7187 | 1.35 | 18405.00 |
| 006775034-04 | OBS | No | 99.061364 | 178.270755 | 287.1 | 1.414 | 8.6 | 2.2 | 1.81 | 7187 | 3.19 | 37.44 |
| 006775034-05 | OBS | No | 99.065888 | 178.834443 | 326.6 | 9.646 | 10.0 | 7.3 | 1.81 | 7187 | 3.71 | 37.44 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006775034-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 006775034-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 006775034-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD |
| 006775034-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 006775034-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD |

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

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

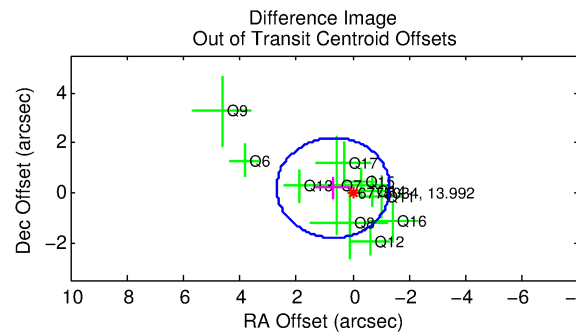
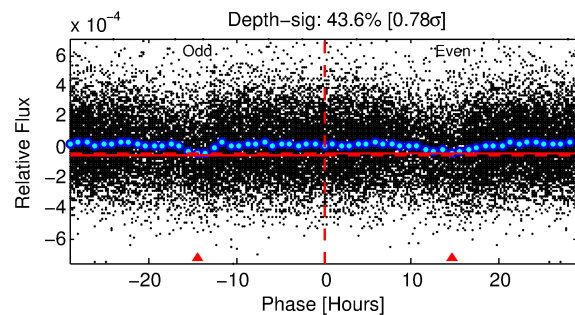
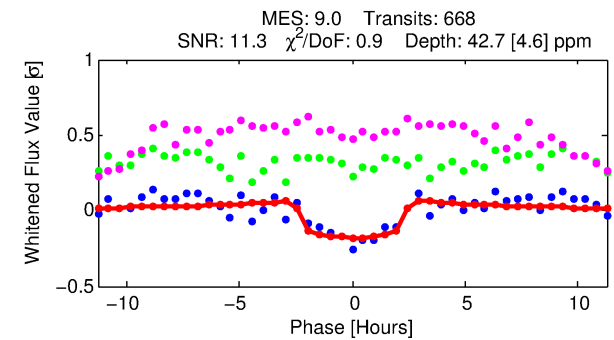
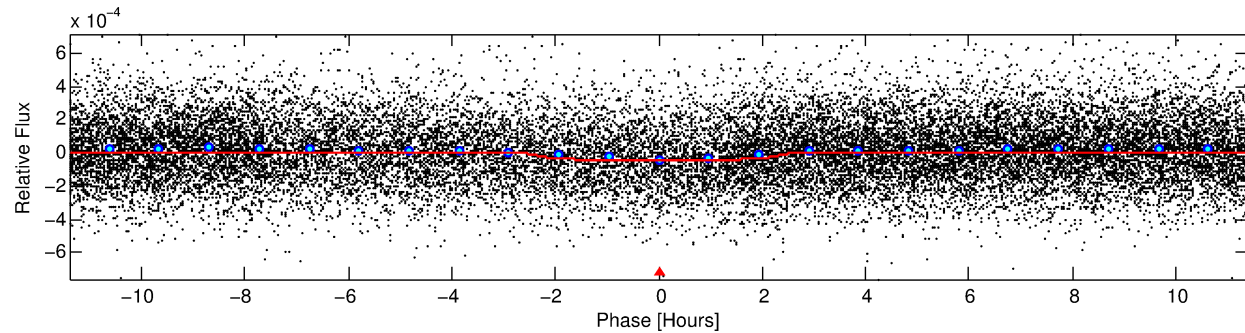
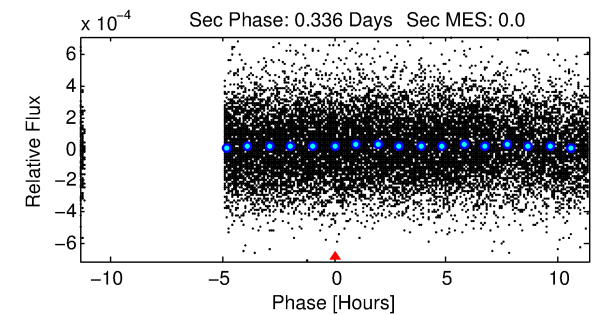
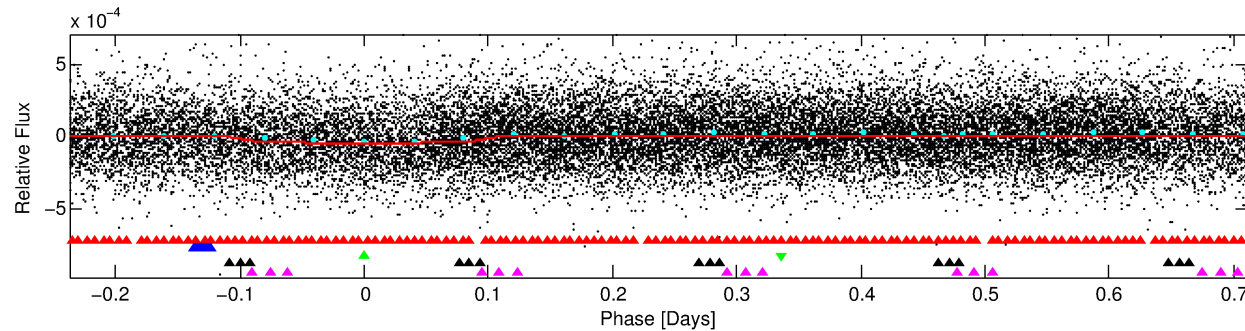
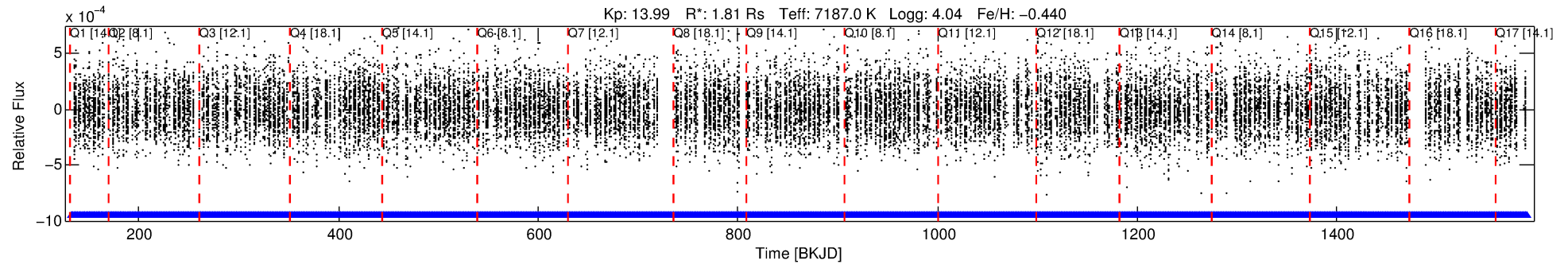
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006775034-03

No Significant Match Found

DV One-Page Summary

KIC: 6775034 Candidate: 3 of 5 Period: 0.949 d



DV Fit Results:

Period = 0.94888 [0.00001] d
Epoch = 132.2450 [0.0039] BKJD
Rp/R* = 0.0069 [0.0028]
a/R* = 1.18 [0.86]
b = 0.88 [0.65]
Seff = 18405.00 [8880.88]
Teq = 2970 [358] K
Rp = 1.35 [0.67] Re
a = 0.0206 [0.0058] AU
Ag = N/A
Teffp = N/A

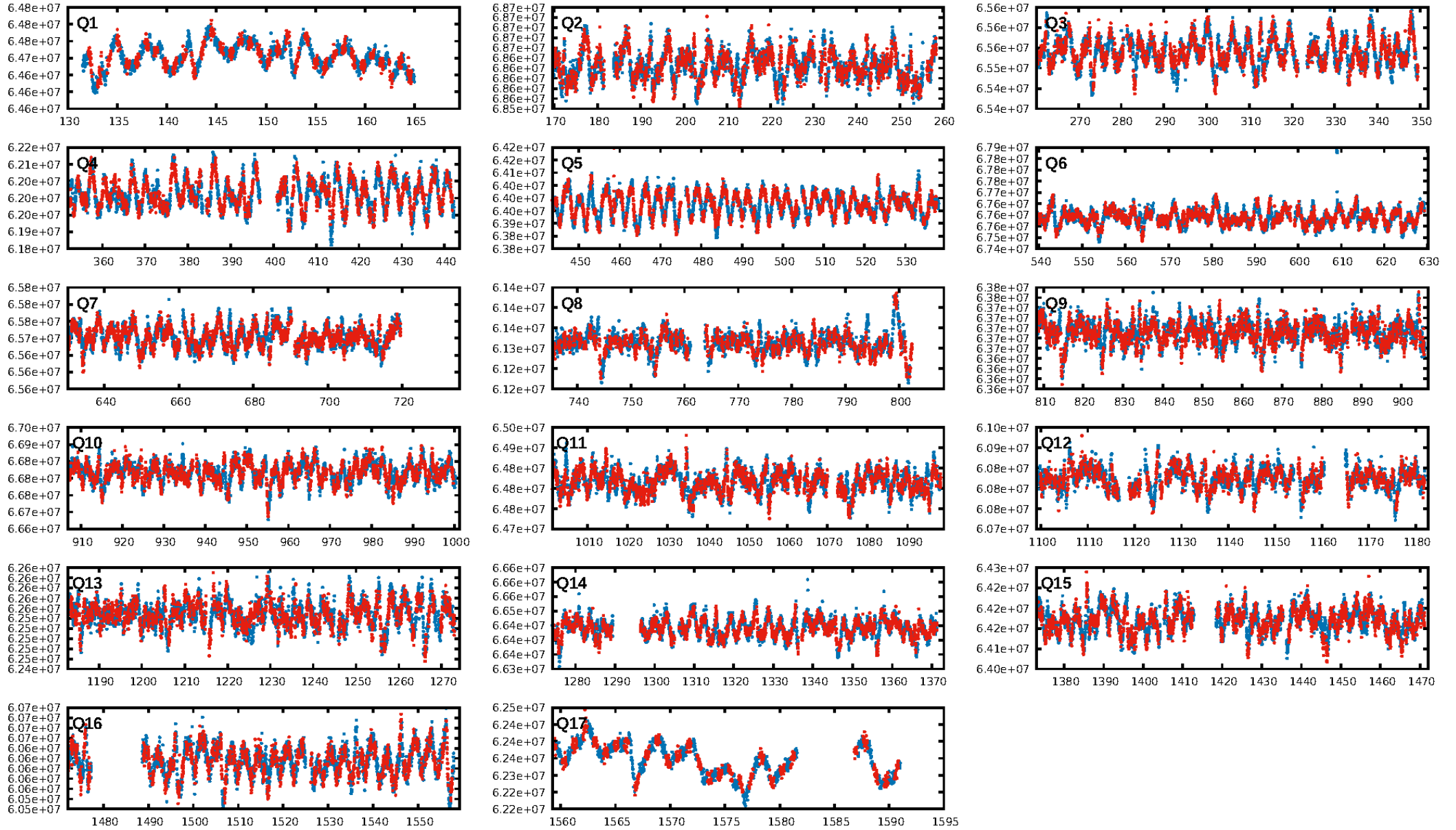
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [4.89σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.40e-15
RollingBand-fgt: 1.00 [636/636]
GhostDiagnostic-chr: 1.232
Centroid-sig: 0.1%
Centroid-so: 1.216 arcsec [2.11σ]
OotOffset-rm: 0.720 arcsec [1.08σ]
KicOffset-rm: 0.745 arcsec [1.18σ]
OotOffset-st: 2/3/3/3 [11]
KicOffset-st: 2/3/3/3 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [17/17]

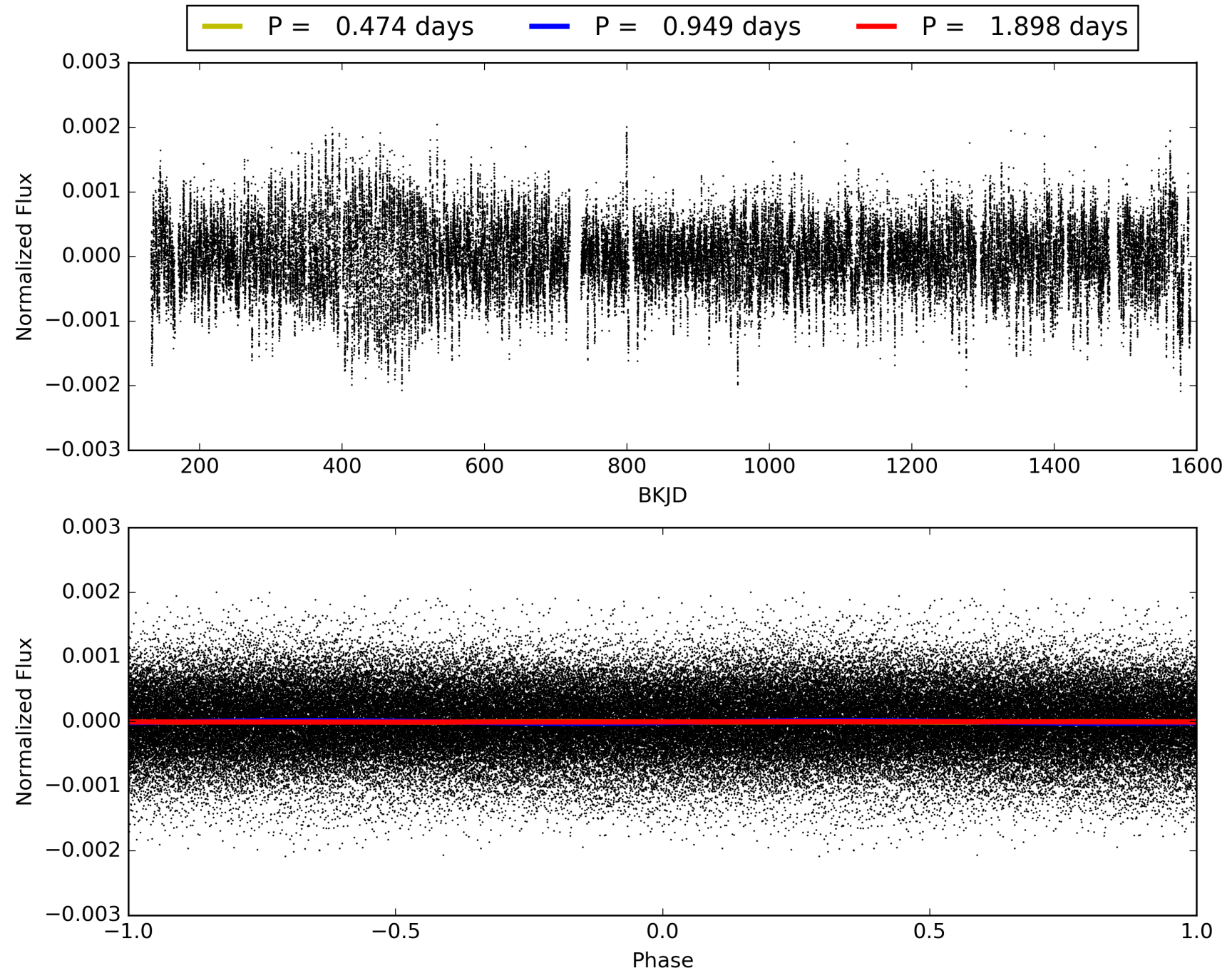
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:13:36 Z

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

TCE 006775034-03, PDC Light Curves

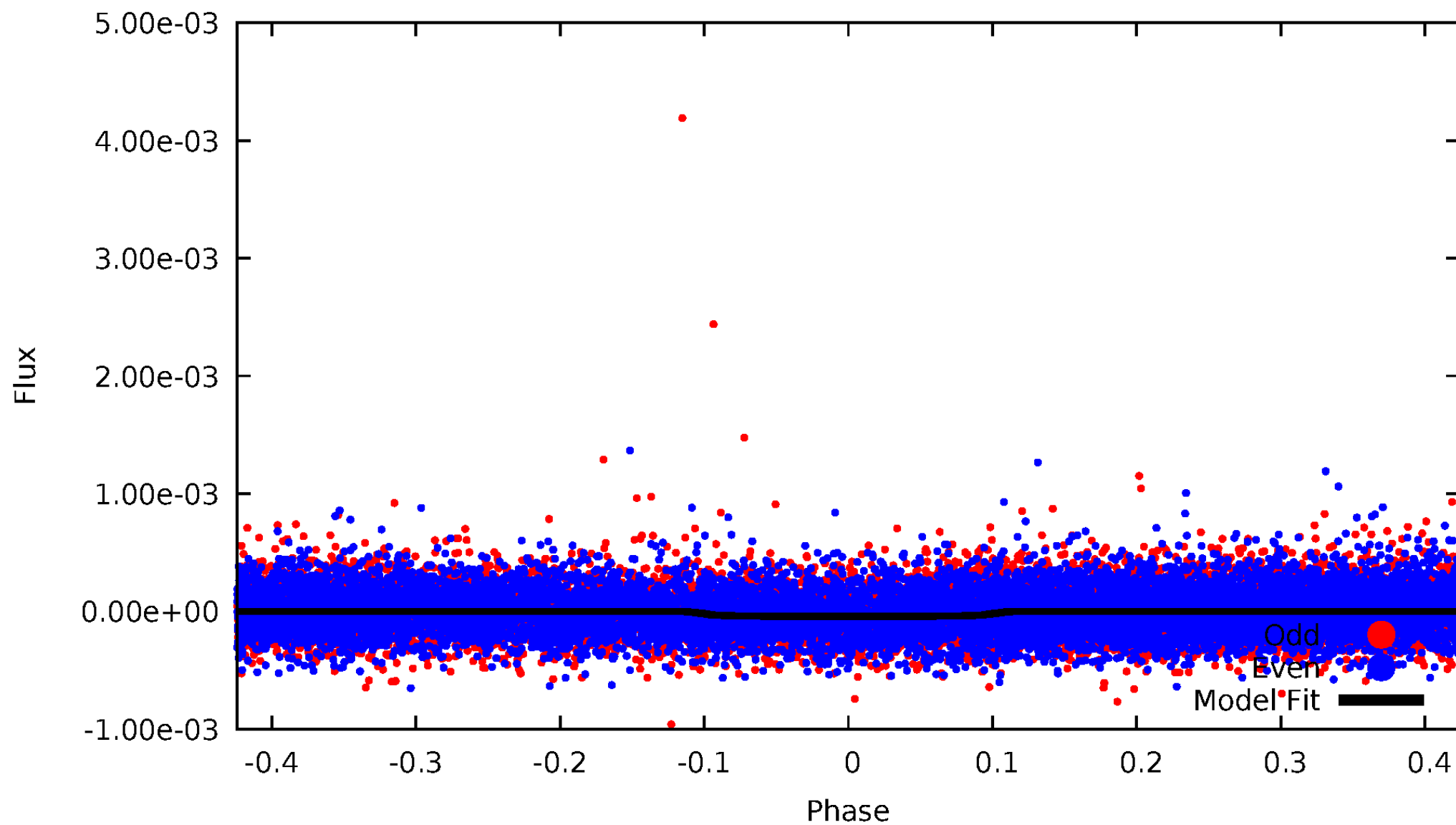


TCE 006775034-03



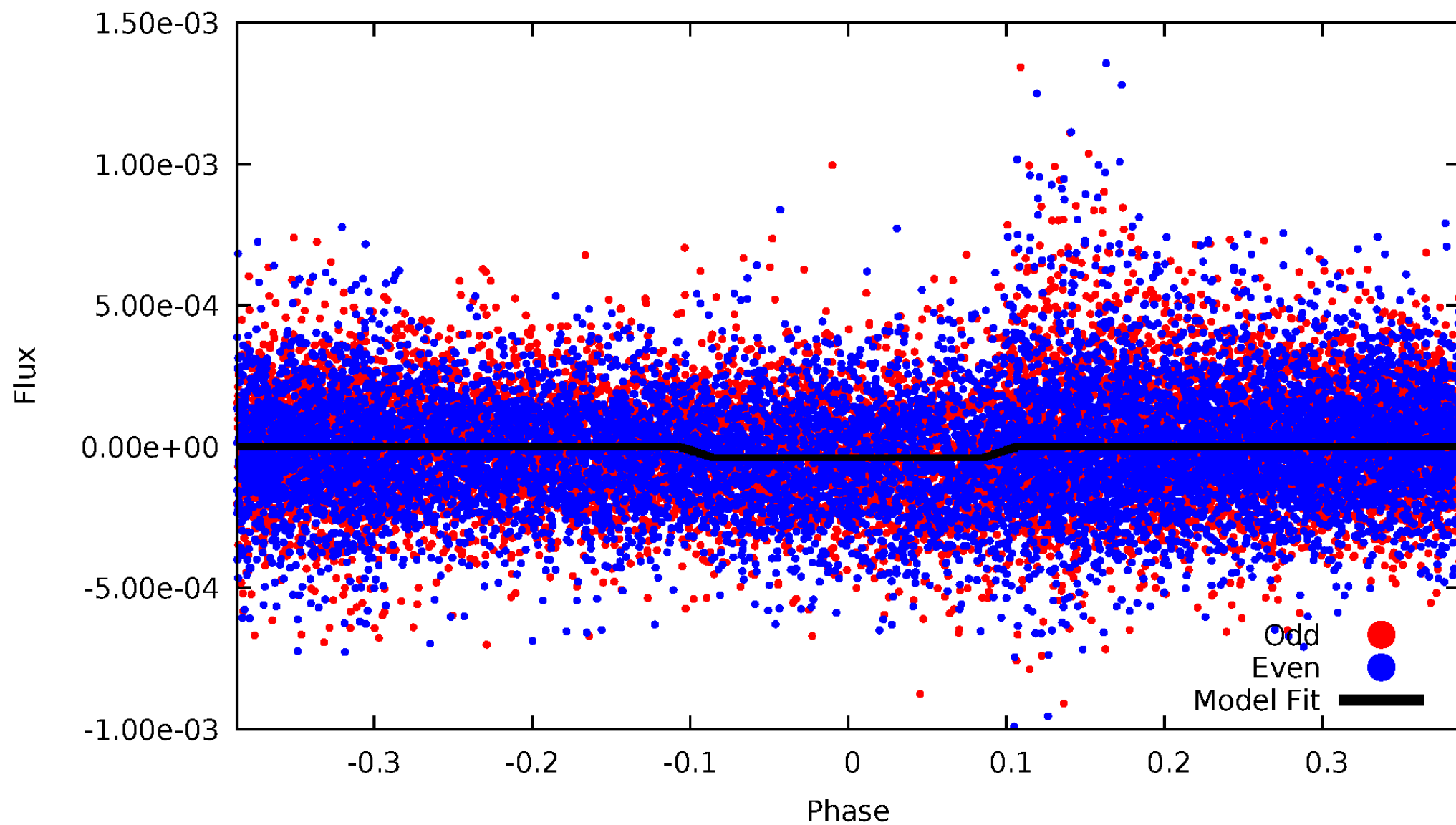
DV Odd/Even

TCE 006775034-03

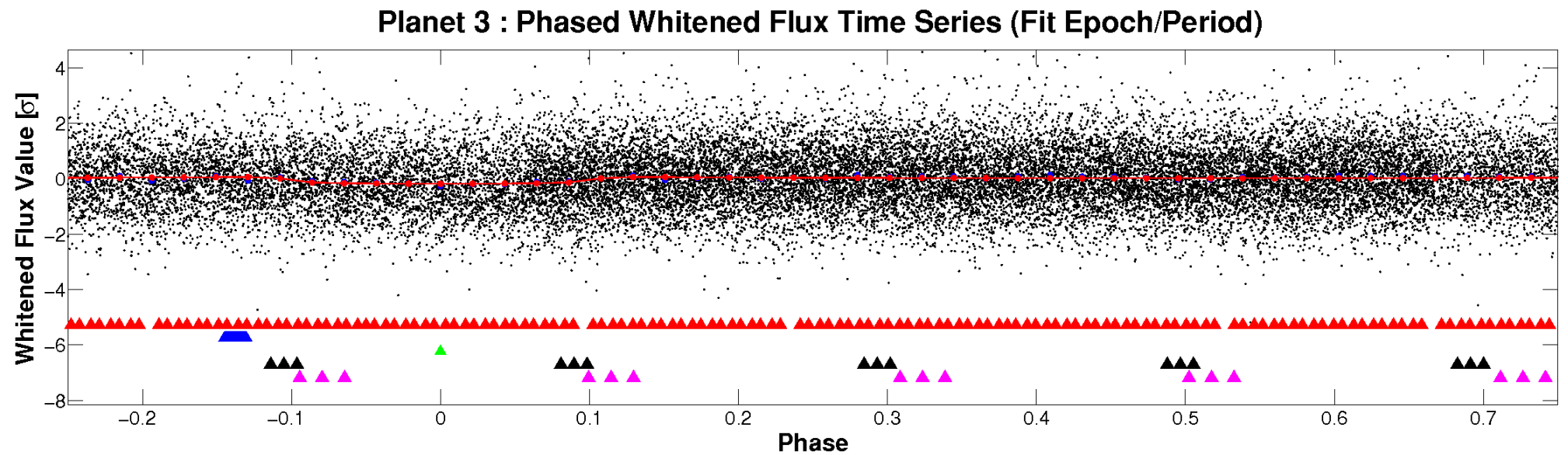
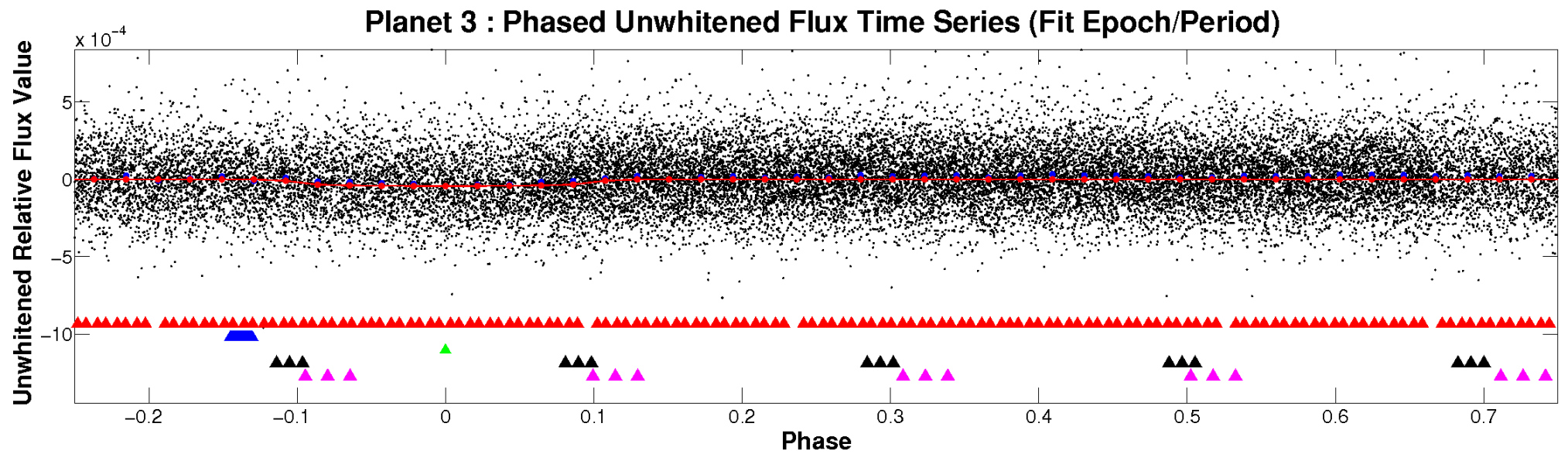


ALT Odd/Even

TCE 006775034-03

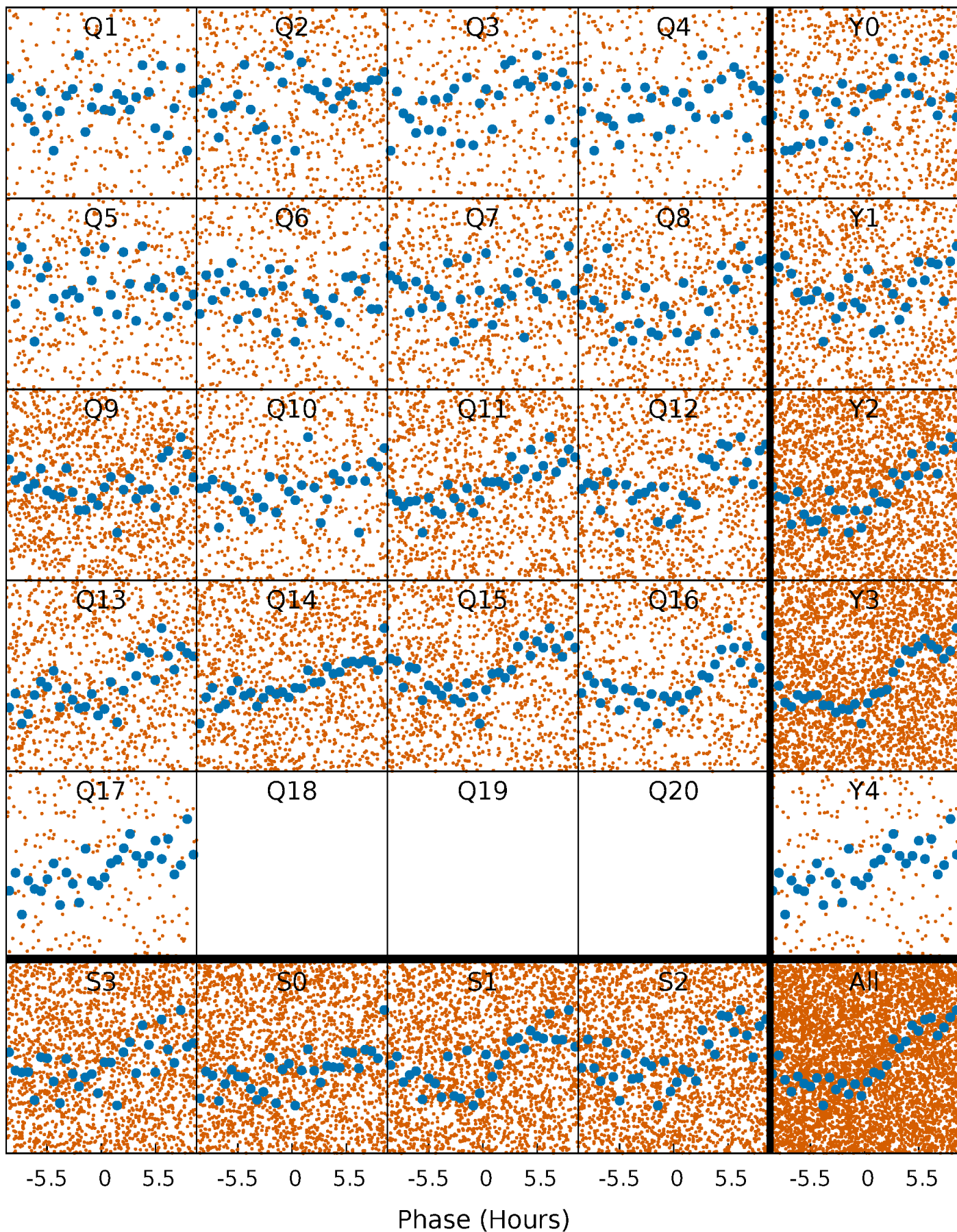


Non-Whitened Vs. Whitened Light Curve



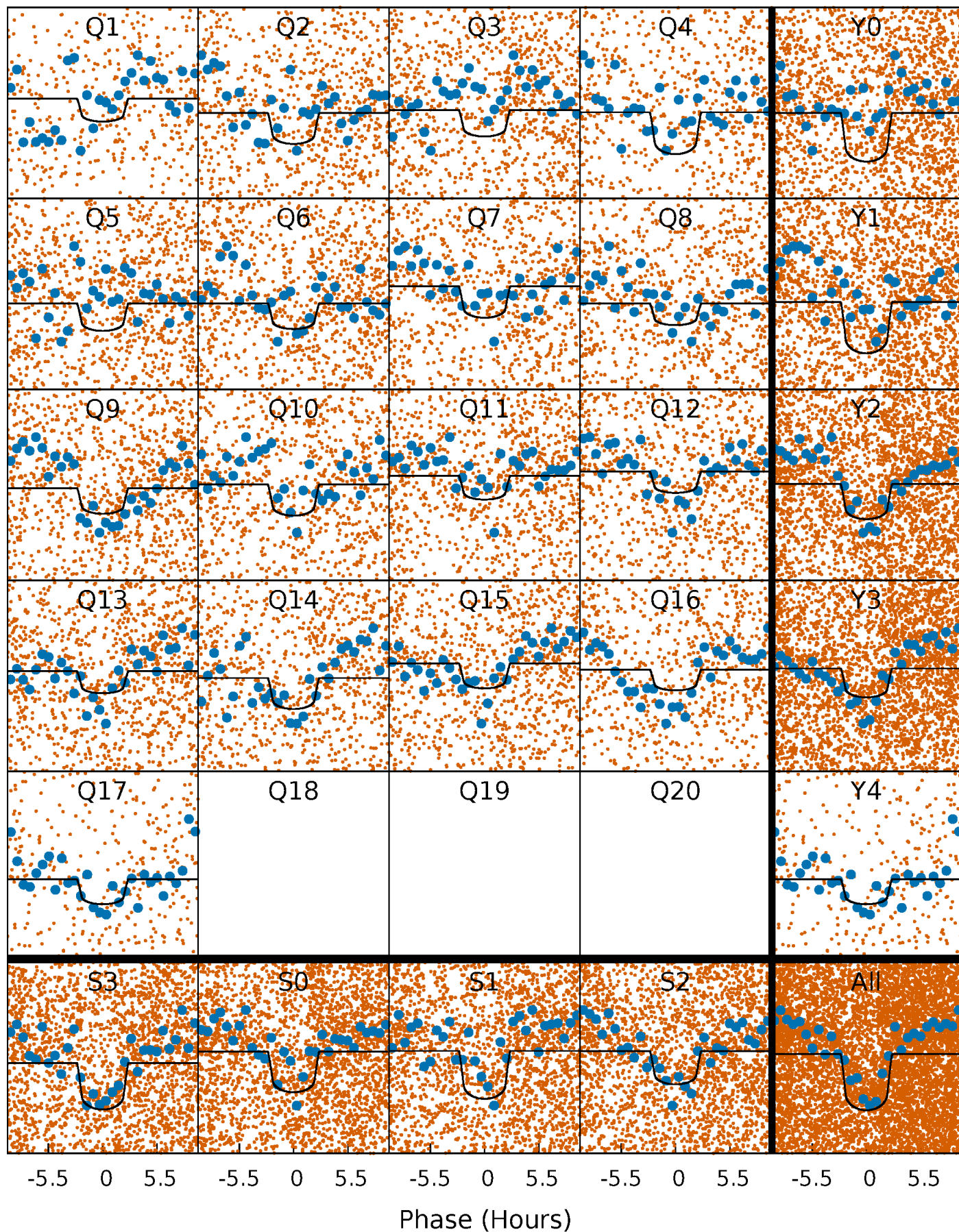
PDC Quarter-Phased Transit Curves

TCE 006775034-03 P= 0.948880 Days $T_0=132.244954$ (BKJD)



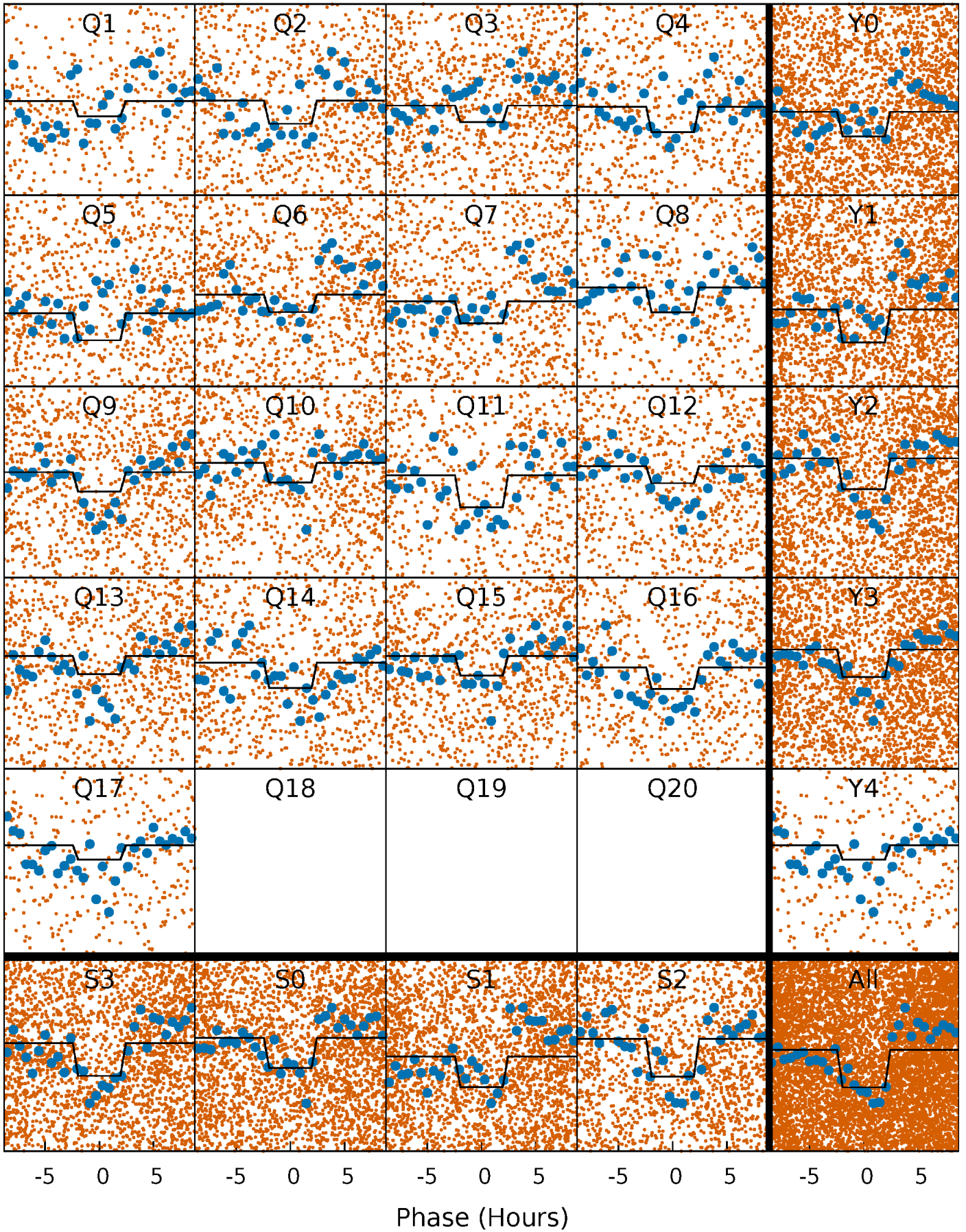
DV Quarter-Phased Transit Curves

TCE 006775034-03 P= 0.948880 Days $T_0=132.244954$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

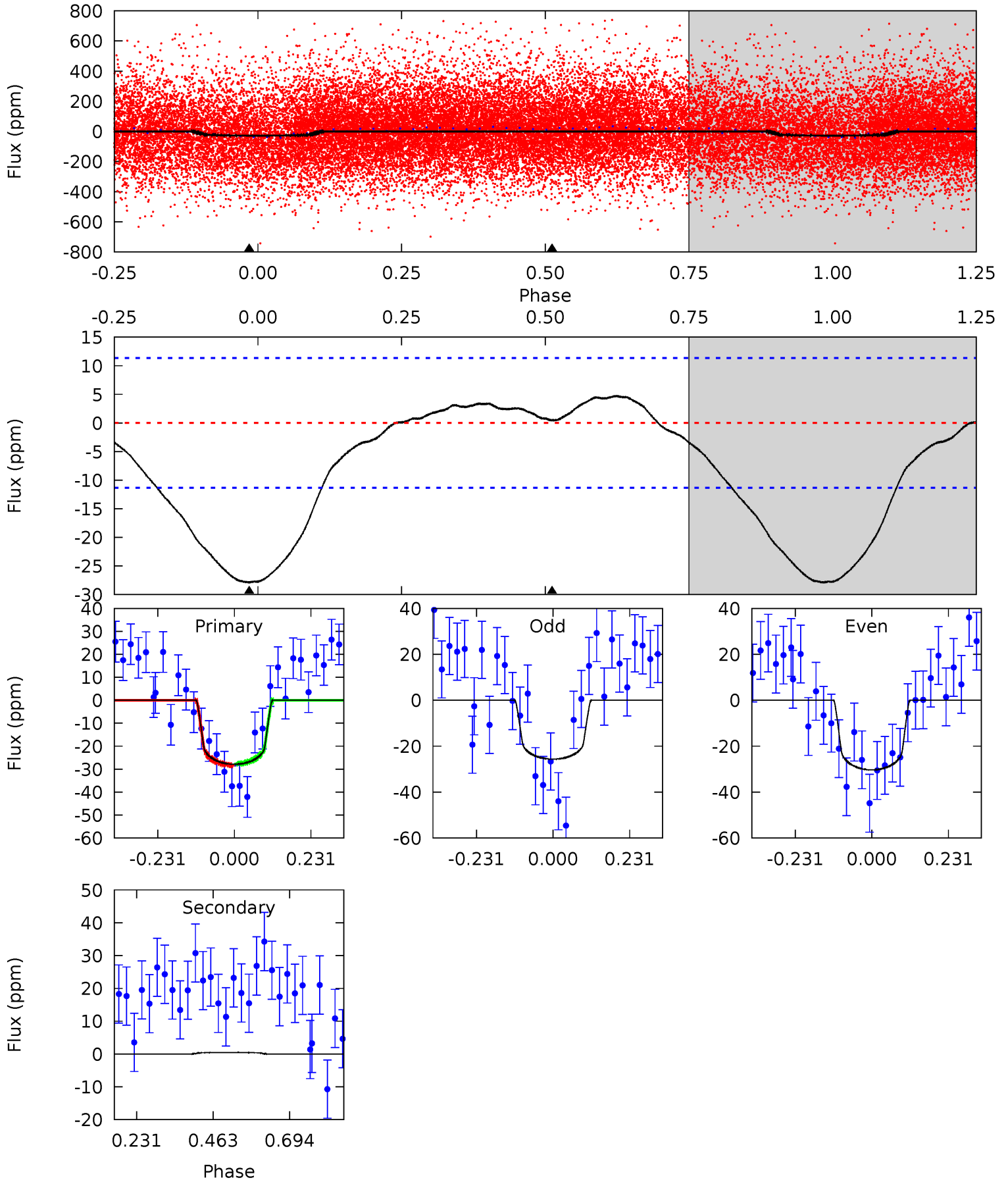
TCE 006775034-03 P= 0.948878 Days $T_0=132.207205$ (BKJD)



DV Model-Shift Uniqueness Test

006775034-03, P = 0.948880 Days, E = 132.244954 Days

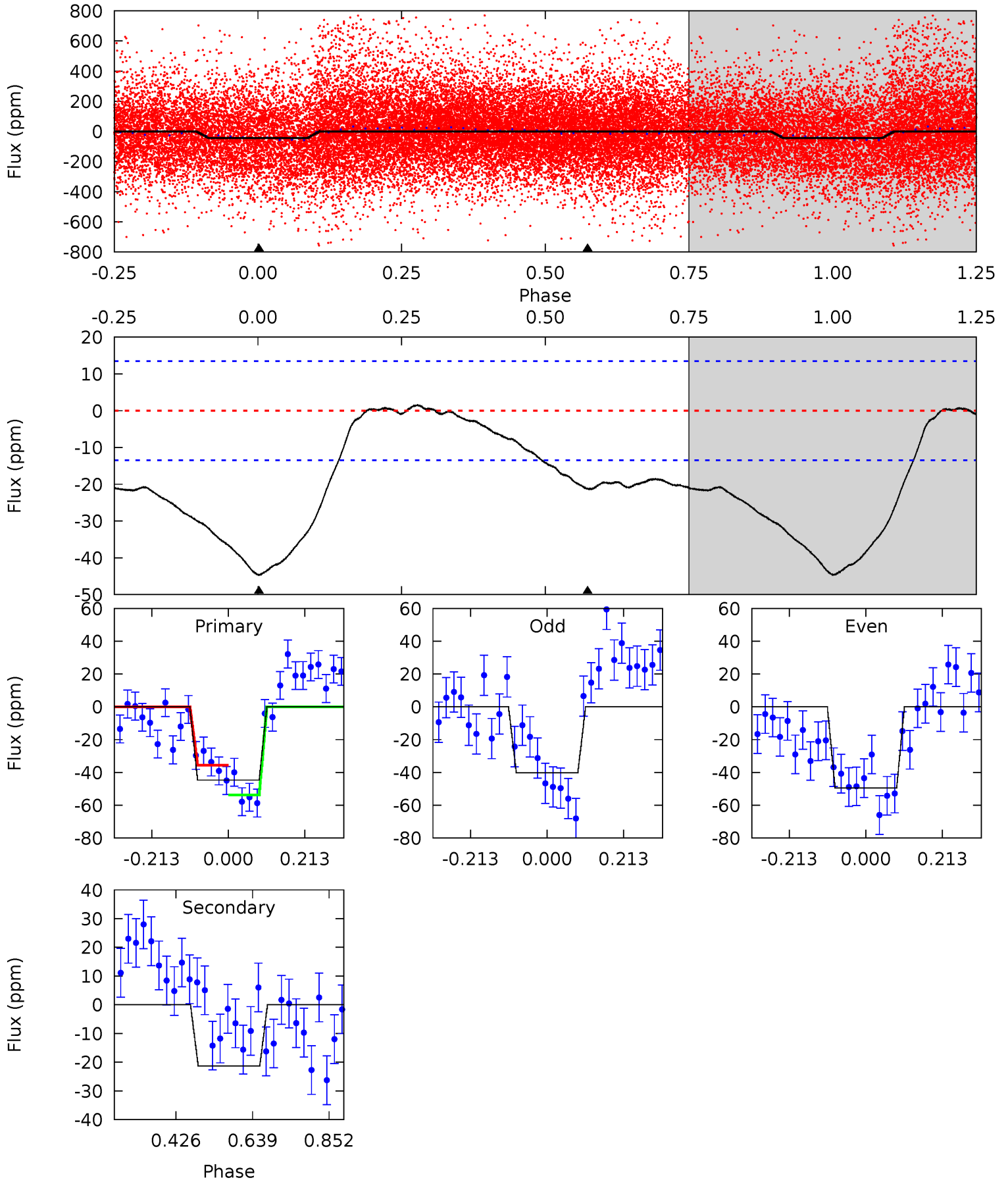
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|-------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 10.8 | -0.18 | 0 | 0 | 4.39 | 1.20 | 0.55 | 10.8 | 10.8 | -0.18 | -0.18 | 0.89 | 0.36 | 0.14 | 0.11 |



Alt Model-Shift Uniqueness Test

006775034-03, P = 0.948878 Days, E = 132.207205 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 14.6 | 6.95 | 0 | 0 | 4.40 | 1.25 | 0.73 | 14.6 | 14.6 | 6.95 | 6.95 | 1.53 | 1.23 | 0.03 | 3.00 |



Stellar Parameters For KIC 006775034

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (g \cdot \text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|--------------------------------------|
| | 7187^{+228}_{-304} | $4.036^{+0.266}_{-0.164}$ | $-0.440^{+0.300}_{-0.300}$ | $1.808^{+0.525}_{-0.525}$ | $1.297^{+0.233}_{-0.191}$ | $0.309^{+0.458}_{-0.139}$ |
| | +3%/-4% | +7%/-4% | +68%/-68% | +29%/-29% | +18%/-15% | +148%/-45% |
| 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 006775034-03 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|------------------------|----------------------------|
| DV | 0 ± 3 | $1.31^{+0.66}_{-0.58}$ | 4115^{+335}_{-393} | -3861^{+1646}_{-721} | $-0.042^{+0.335}_{-0.566}$ |
| Alt. | -21 ± 3 | $1.23^{+0.58}_{-0.56}$ | 4112^{+342}_{-374} | 5939^{+2377}_{-1096} | $3.279^{+7.868}_{-1.836}$ |

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 $A_{obs} \gg 1.0$

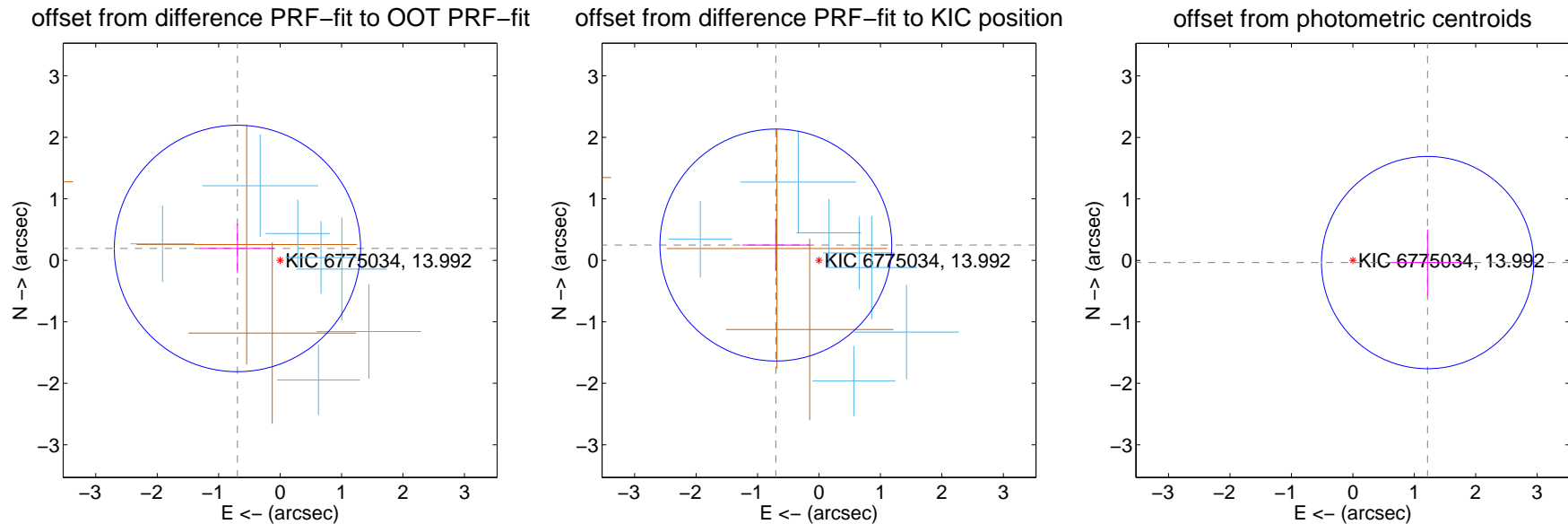
DV Centroid Data

Supplemental centroid analysis for 006775034-03. Kepler magnitude: 13.99. Transit SNR 11.31

There are 7 quarters with good PRF difference image offsets

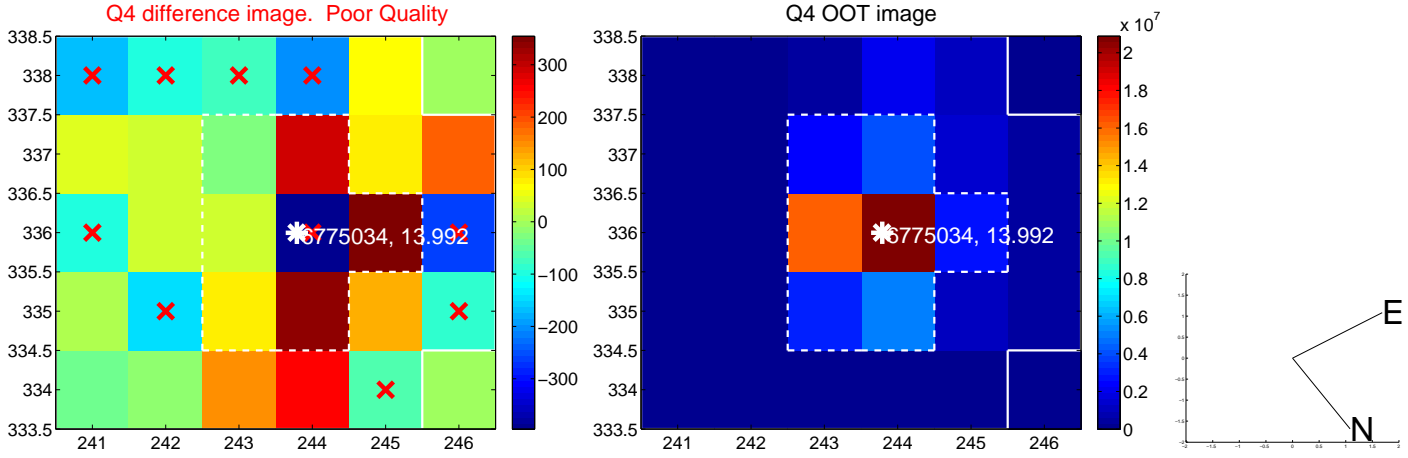
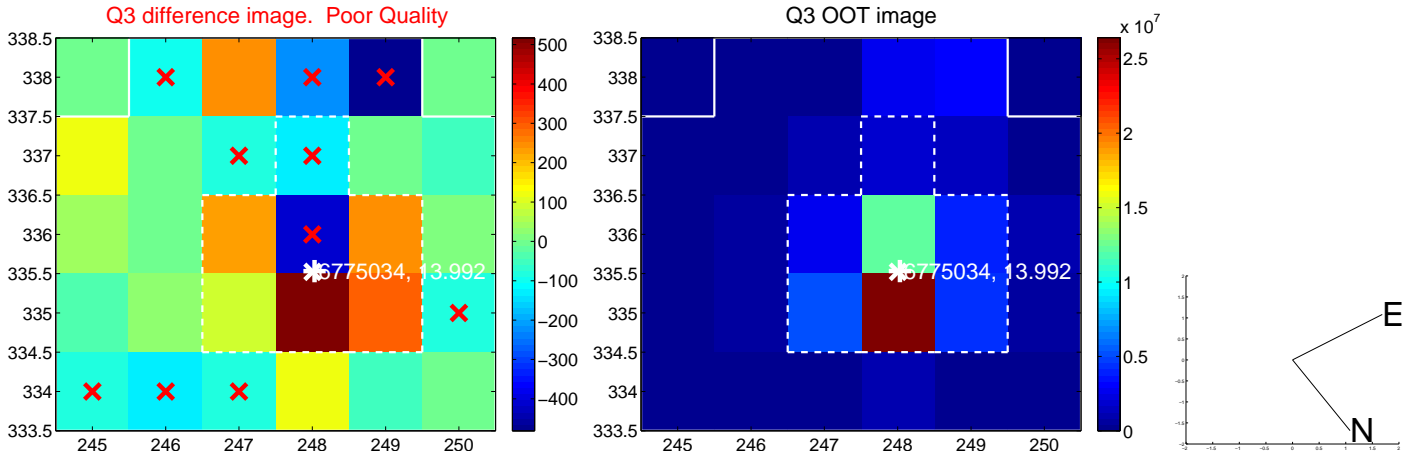
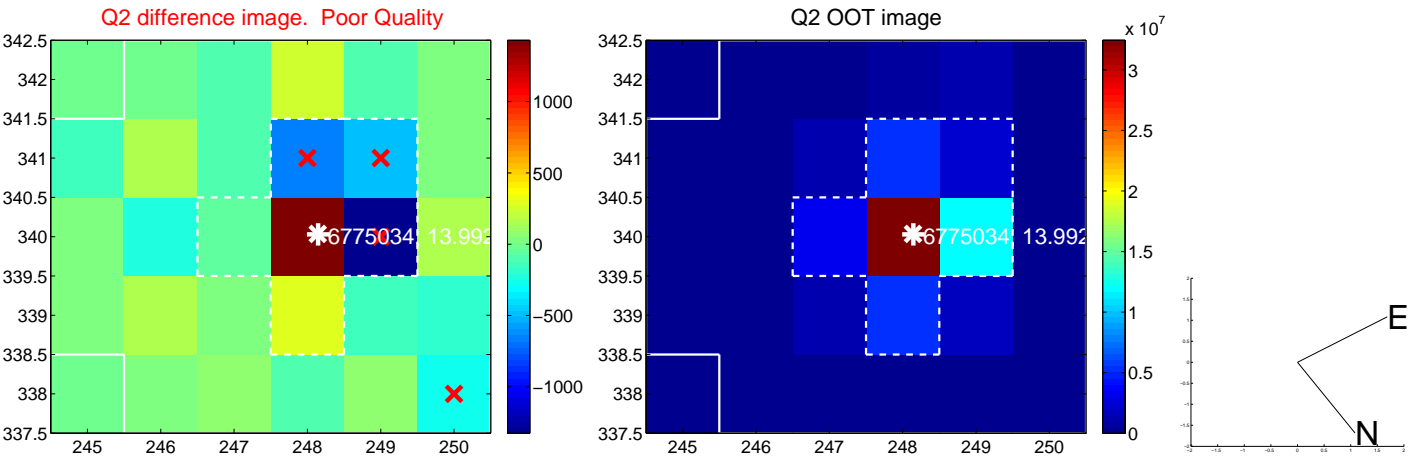
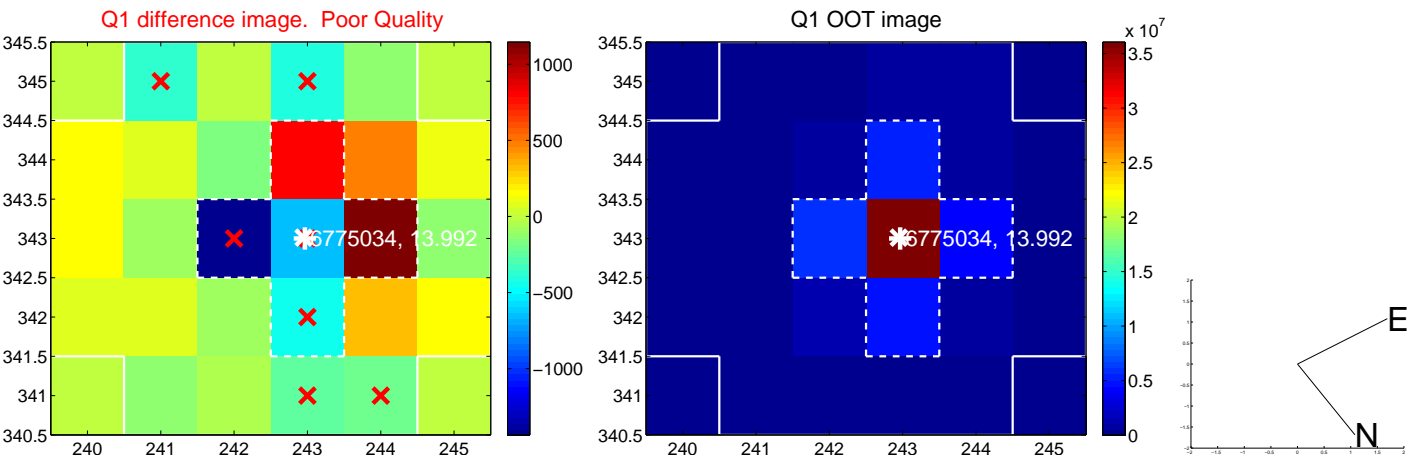
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|-------------------|
| PRF-fit source offset from OOT | 0.720 ± 0.668 | 1.08 | 0.694 ± 0.604 | 0.192 ± 0.403 |
| PRF-fit source offset from KIC position | 0.745 ± 0.629 | 1.18 | 0.702 ± 0.548 | 0.248 ± 0.423 |
| photometric centroid source offset | 1.22 ± 0.58 | 2.11 | -1.22 ± 0.58 | -0.04 ± 0.54 |

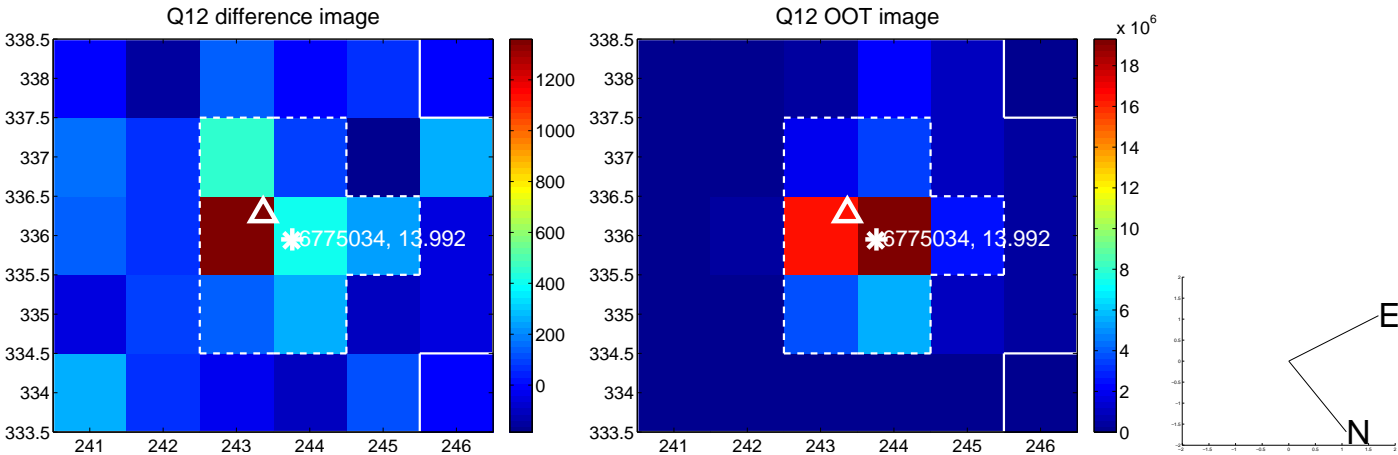
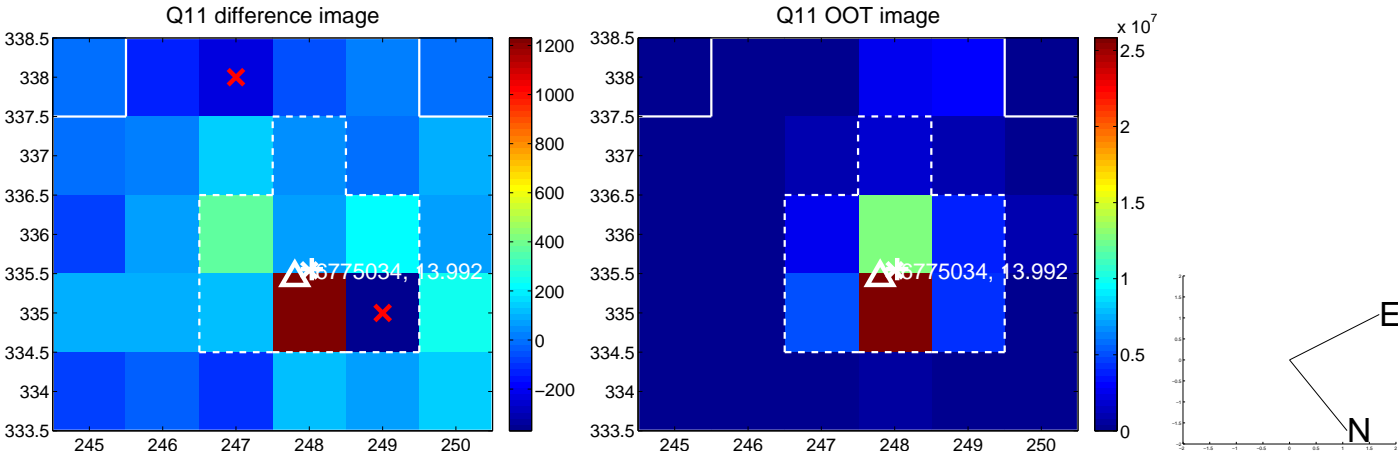
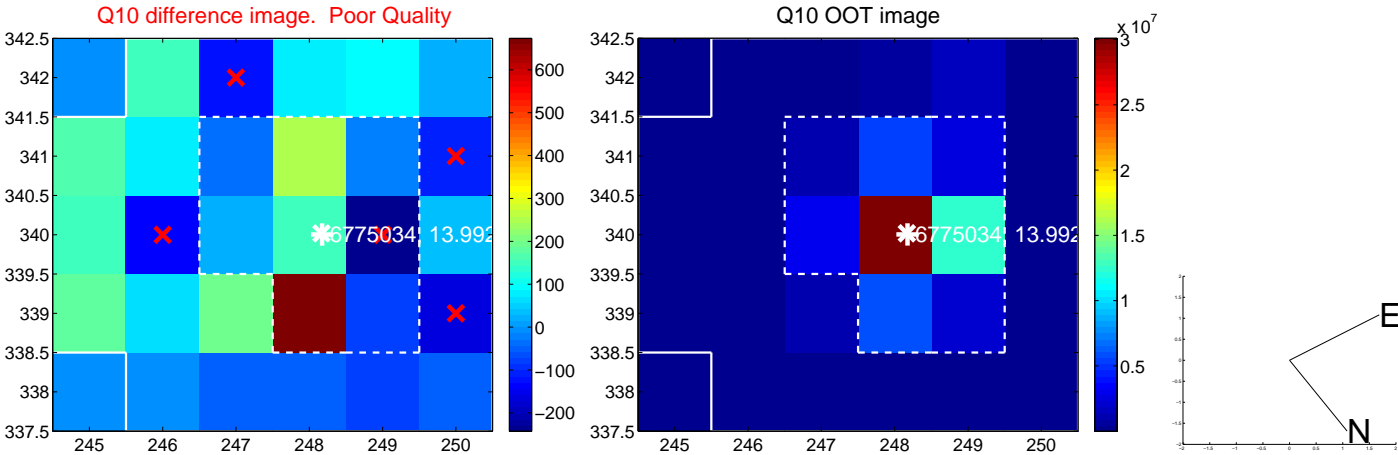
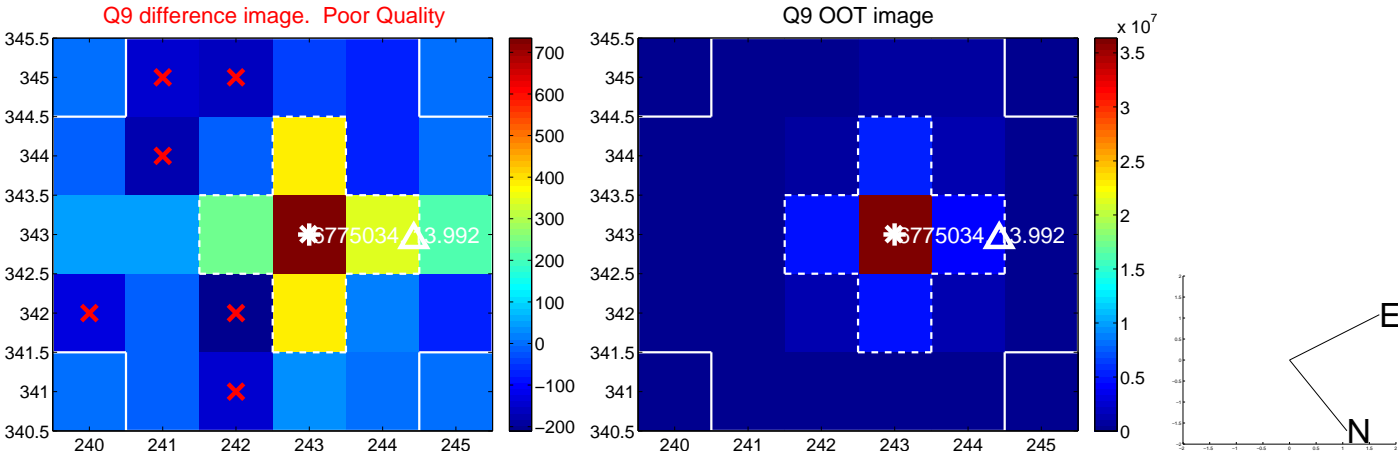


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

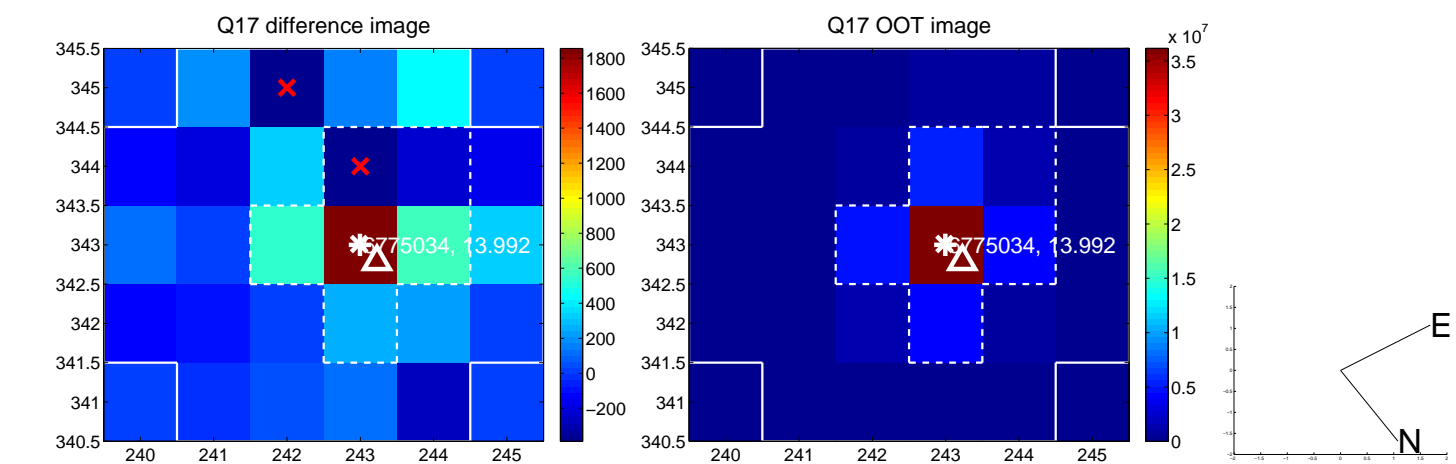
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



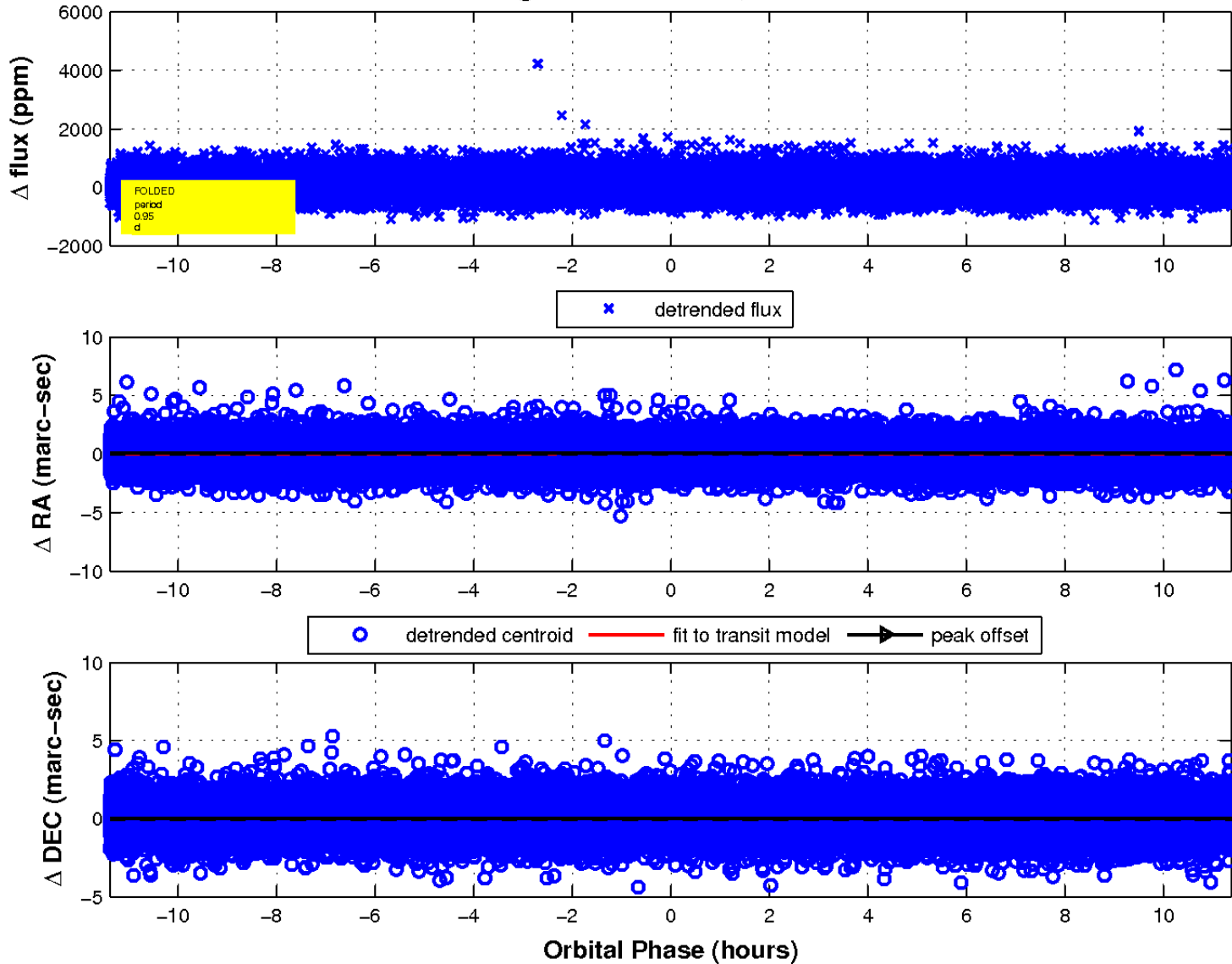
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

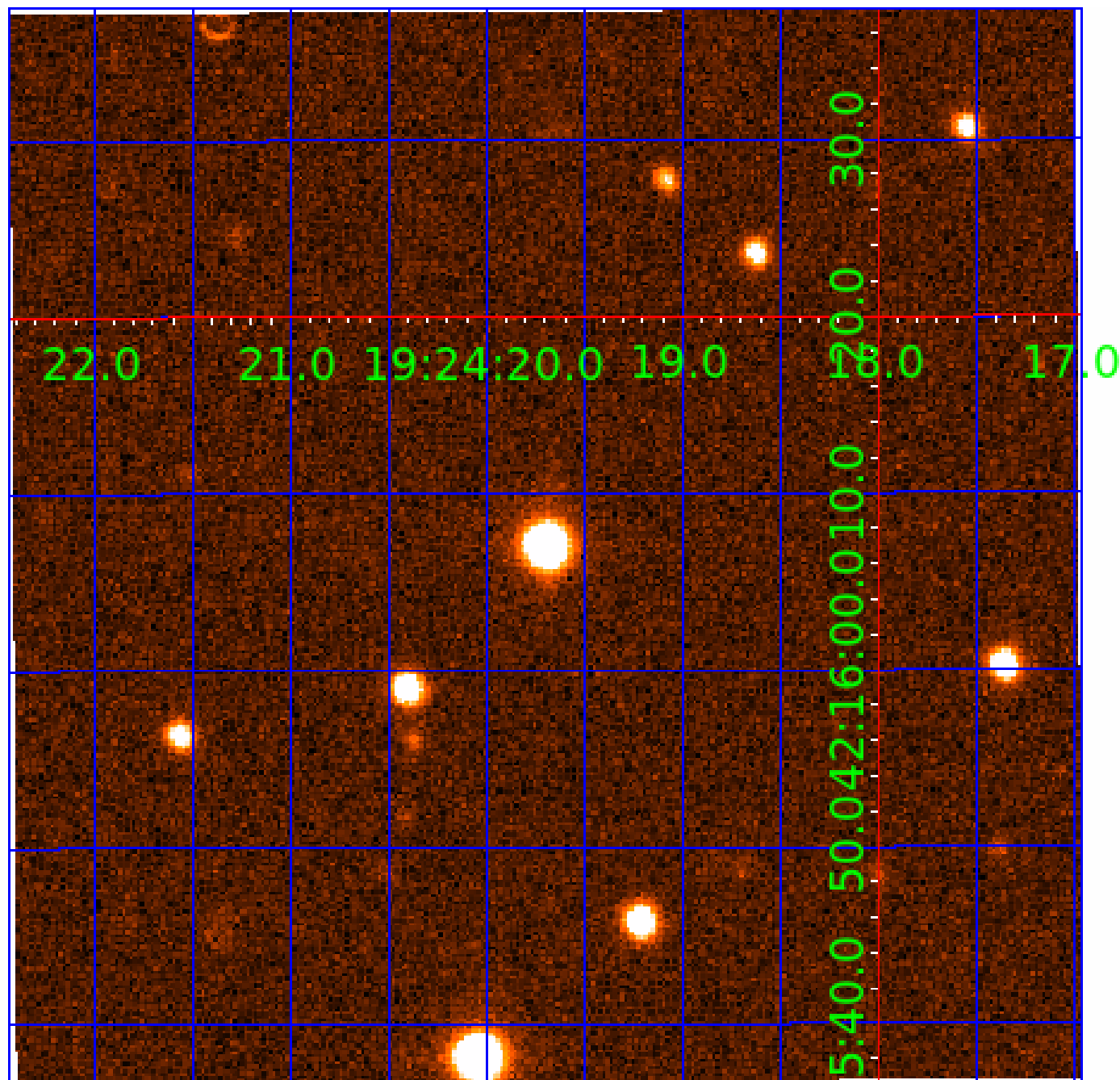


fluxWeightedCentroids, Planet 3 of 5



UKIRT Image

Declination



KIC 006775034

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006775034-01 | OBS | No | 10.029204 | 132.600734 | 432.1 | 17.863 | 28.5 | 33.4 | 1.81 | 7187 | 7.14 | 793.47 |
| 006775034-02 | OBS | No | 4.744352 | 134.019162 | 62.7 | 17.987 | 9.3 | 9.7 | 1.81 | 7187 | 1.66 | 2152.69 |
| 006775034-03 | OBS | No | 0.948880 | 132.244954 | 42.7 | 4.827 | 9.0 | 11.3 | 1.81 | 7187 | 1.35 | 18405.00 |
| 006775034-04 | OBS | No | 99.061364 | 178.270755 | 287.1 | 1.414 | 8.6 | 2.2 | 1.81 | 7187 | 3.19 | 37.44 |
| 006775034-05 | OBS | No | 99.065888 | 178.834443 | 326.6 | 9.646 | 10.0 | 7.3 | 1.81 | 7187 | 3.71 | 37.44 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006775034-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 006775034-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 006775034-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD |
| 006775034-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 006775034-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD |

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

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

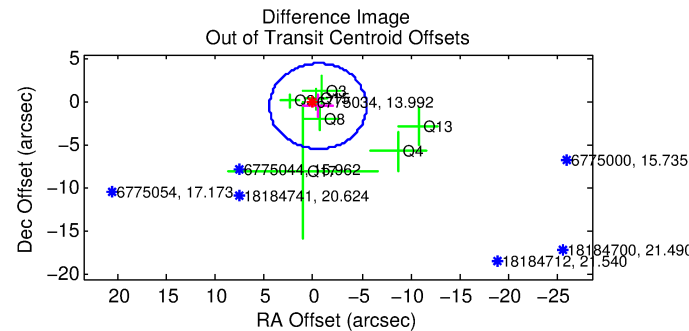
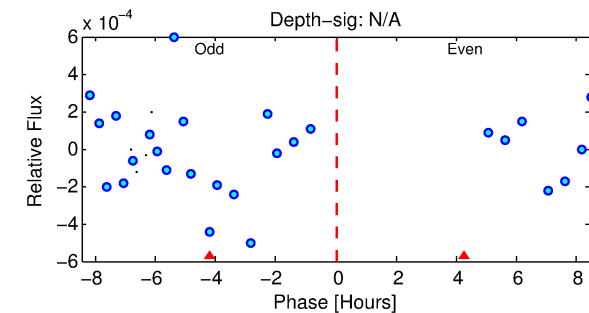
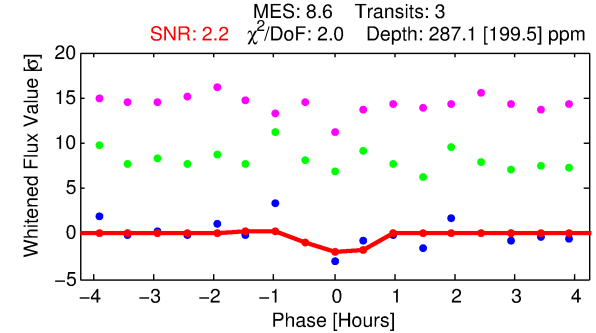
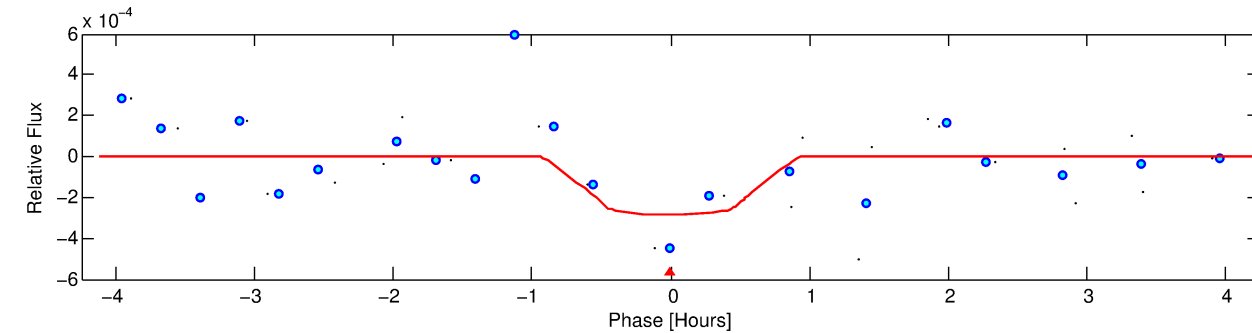
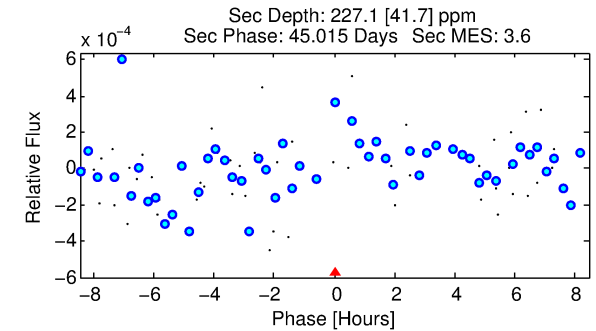
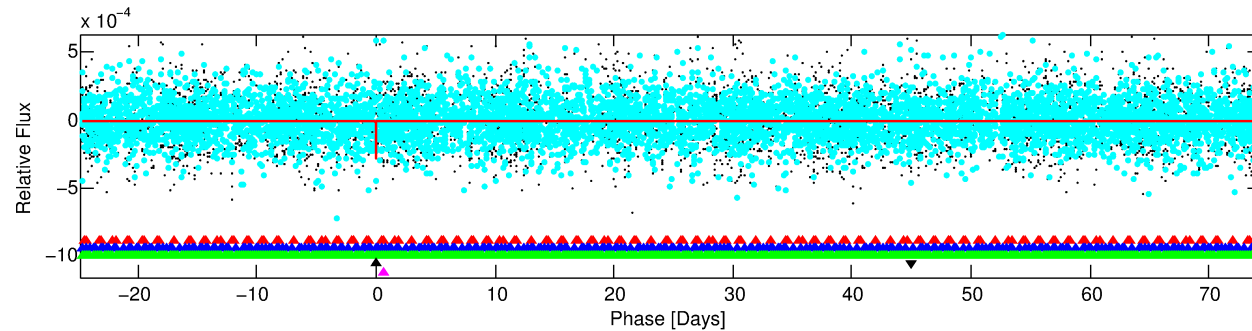
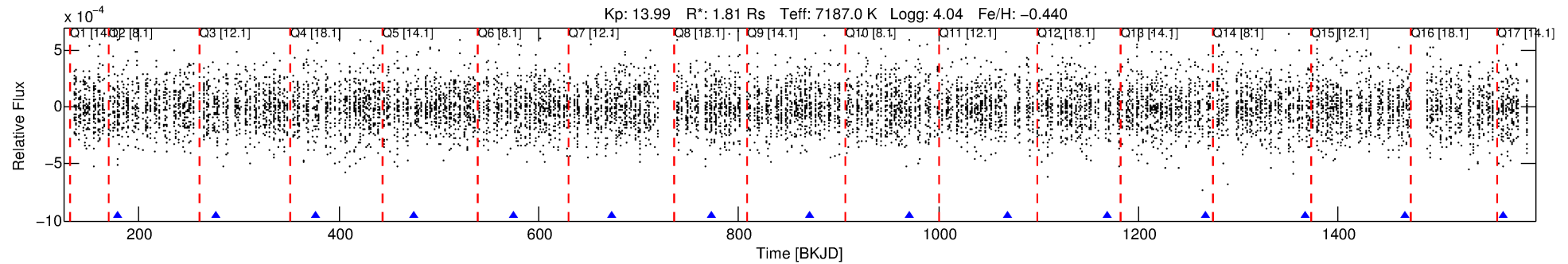
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006775034-04

No Significant Match Found

DV One-Page Summary

KIC: 6775034 Candidate: 4 of 5 Period: 99.061 d



DV Fit Results:

Period = 99.06136 [0.05438] d
Epoch = 178.2708 [0.0128] BKJD
Rp/R* = 0.0162 [0.3324]
a/R* = 468.66 [57449.34]
b = 0.52 [175.72]
Seff = 37.44 [18.07]
Teq = 631 [76] K
Rp = 3.20 [65.58] Re
a = 0.4568 [0.1285] AU
Ag = 2554.49 [104858.81] [0.02] σ
Teffp = 6933 [71145] K [0.09] σ

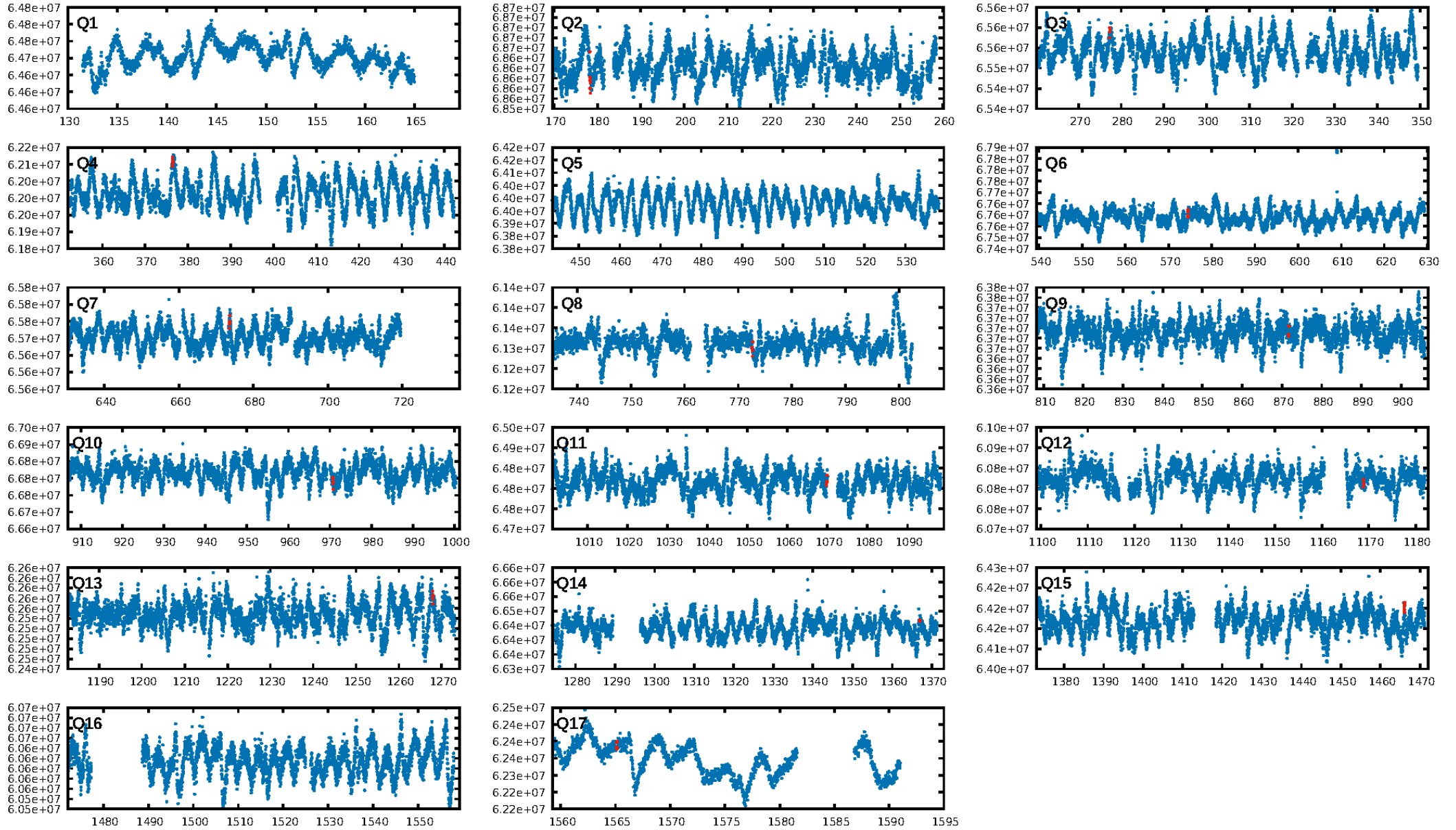
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [119.25] σ
LongPeriod-sig: 0.9% [0.01] σ
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 78.7%
Bootstrap-pfa: 8.07e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4573
Centroid-sig: 4.8%
Centroid-so: 2.074 arcsec [1.41] σ
OotOffset-rm: 0.692 arcsec [0.42] σ
OotOffset-st: 1/2/2/2 [7]
KicOffset-rm: 0.607 arcsec [0.41] σ
KicOffset-st: 1/2/2/2 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 0.15 [2/13]

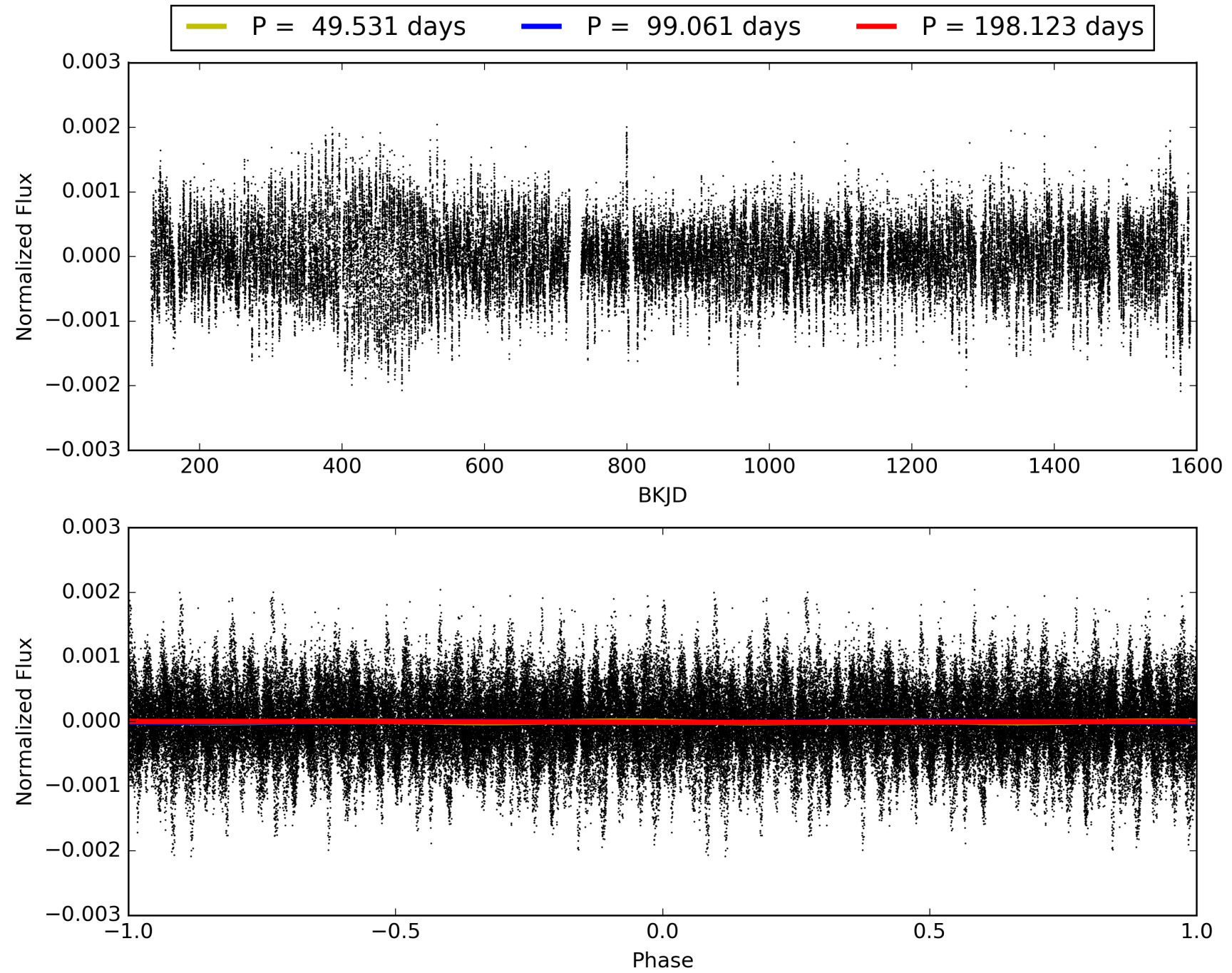
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:13:44 Z

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

TCE 006775034-04, PDC Light Curves

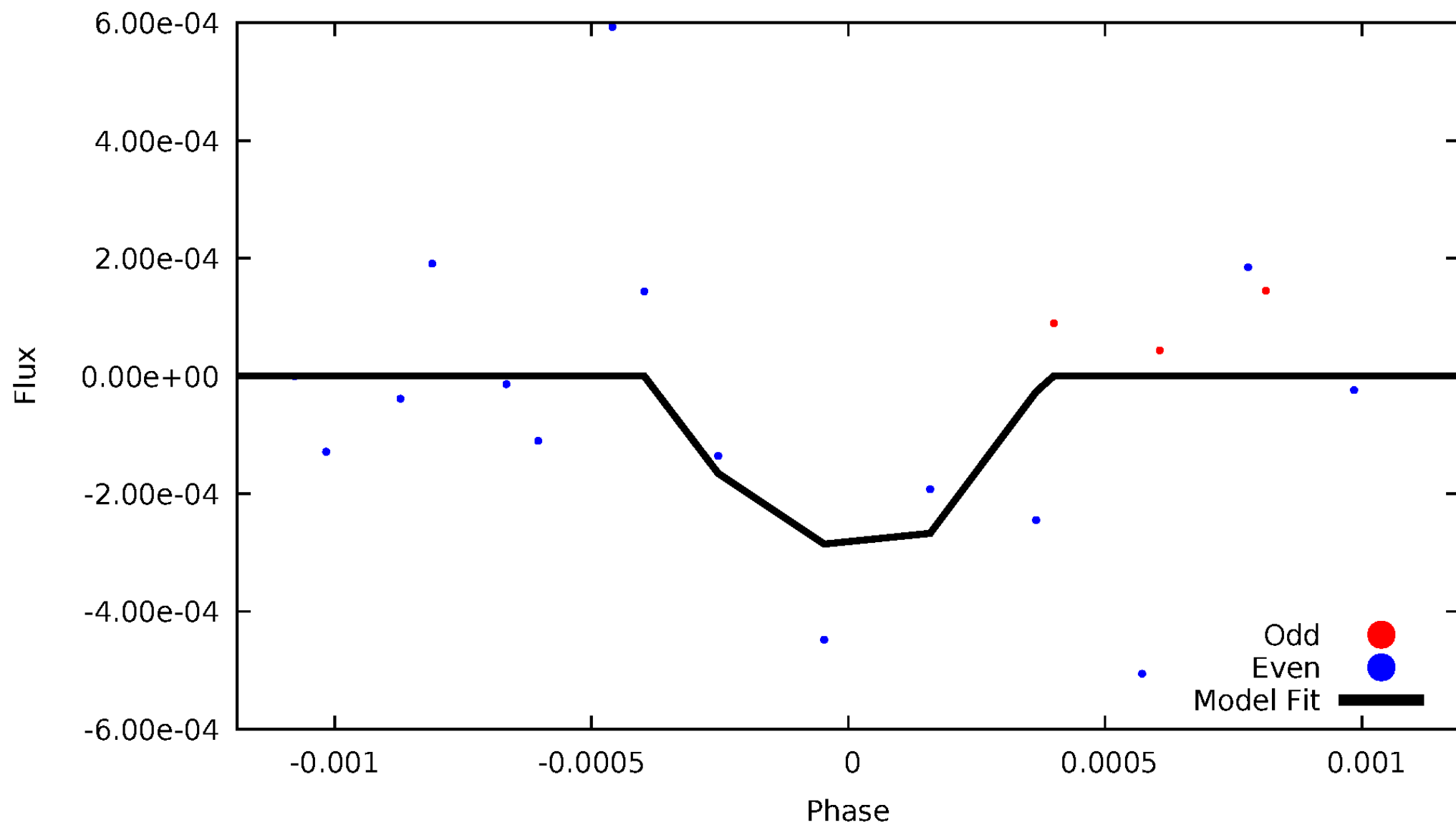


TCE 006775034-04



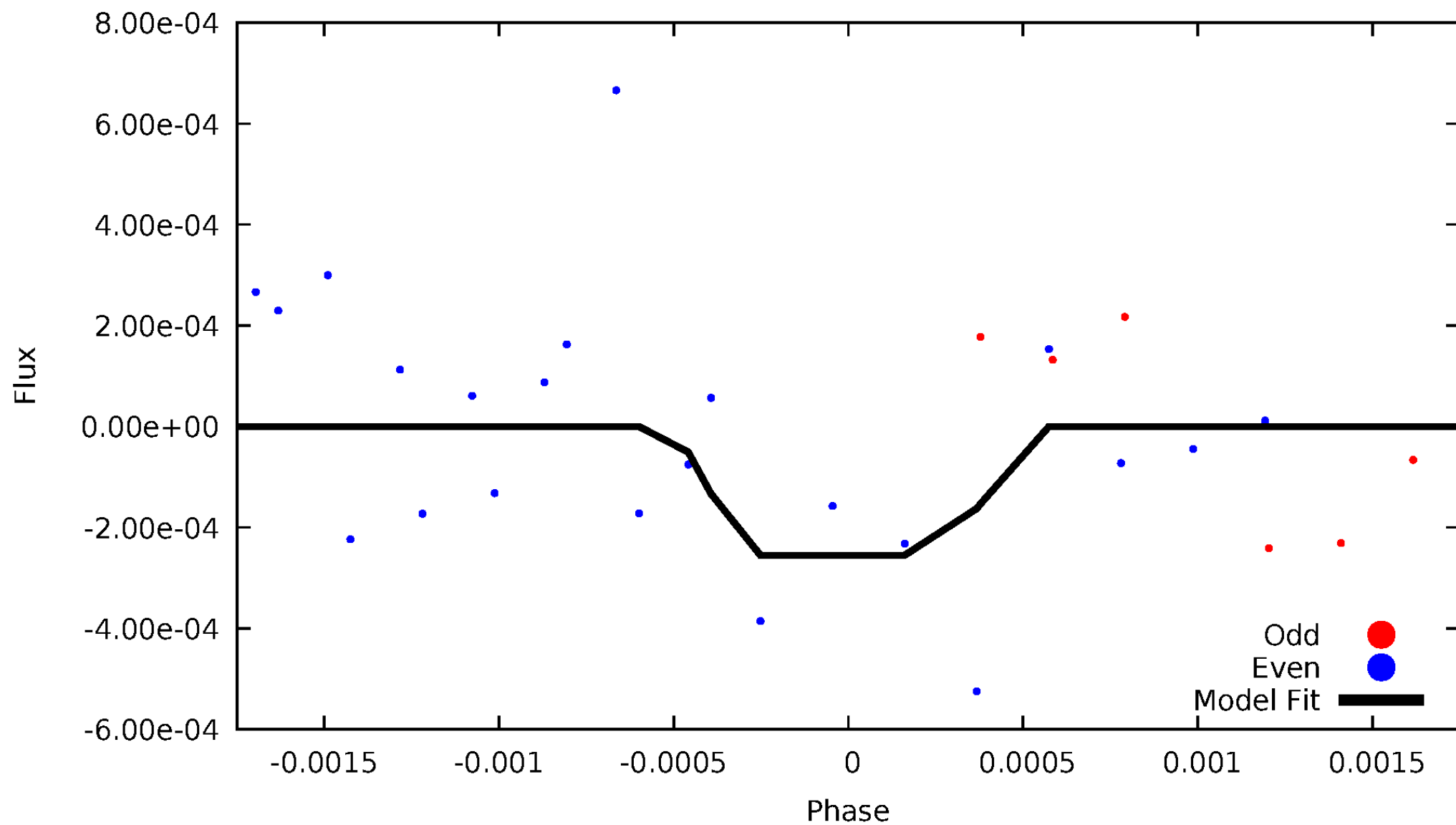
DV Odd/Even

TCE 006775034-04



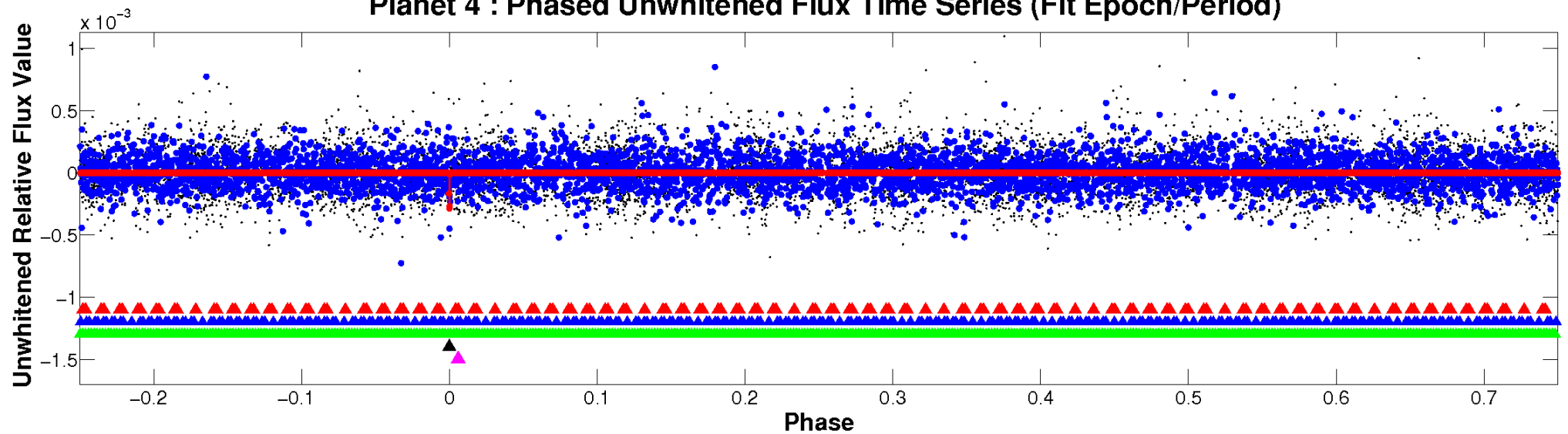
ALT Odd/Even

TCE 006775034-04

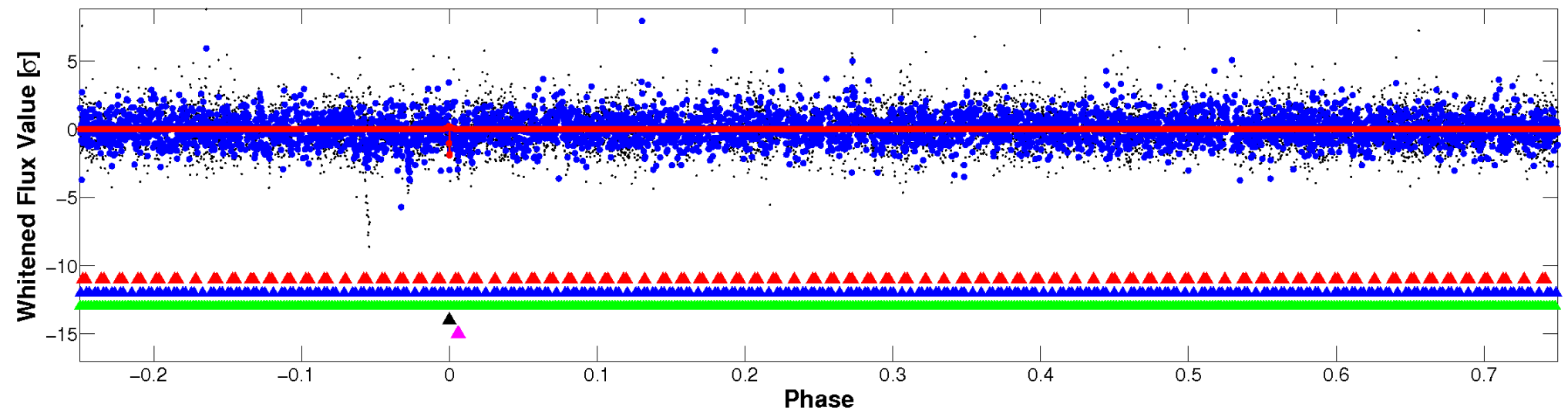


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

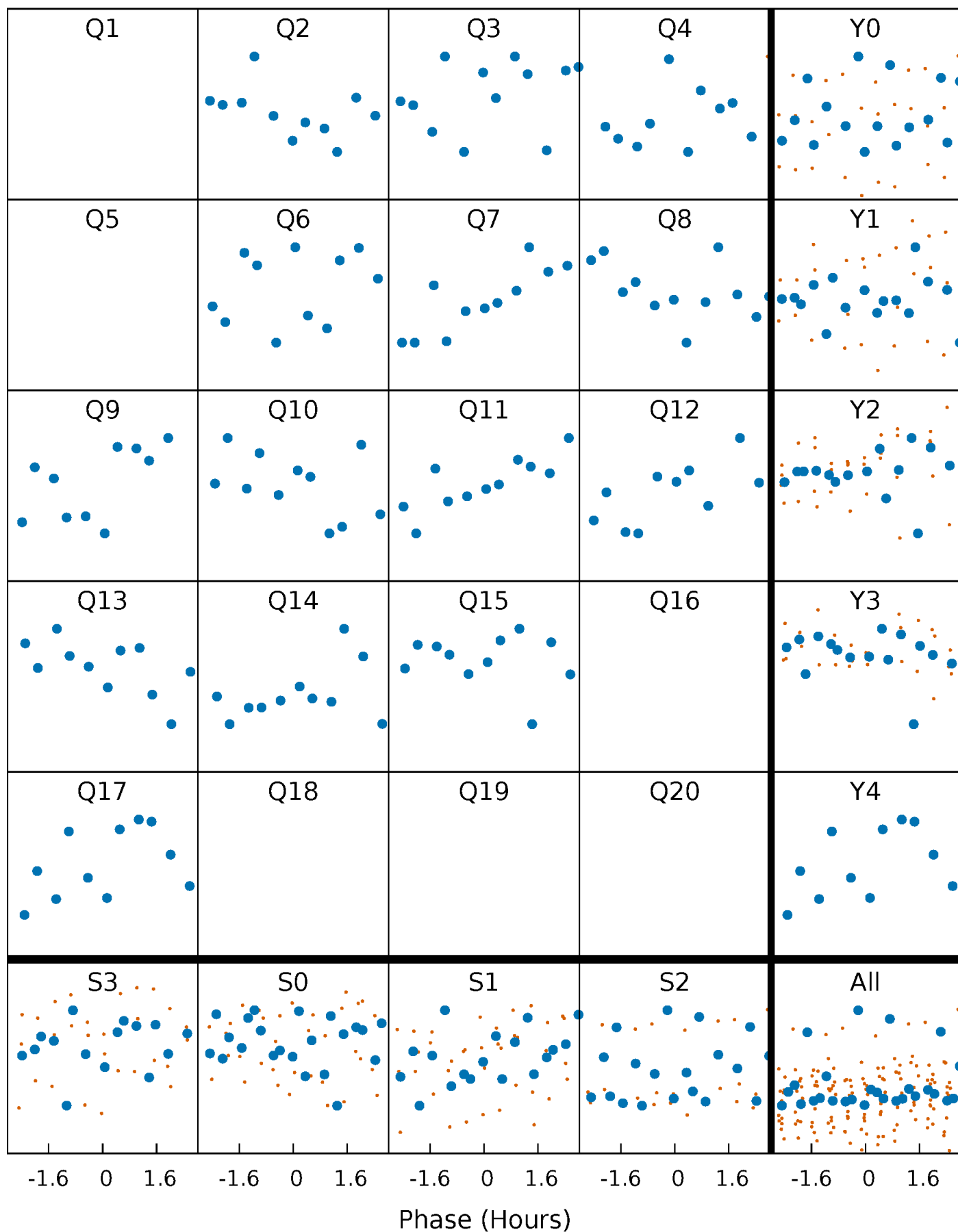


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



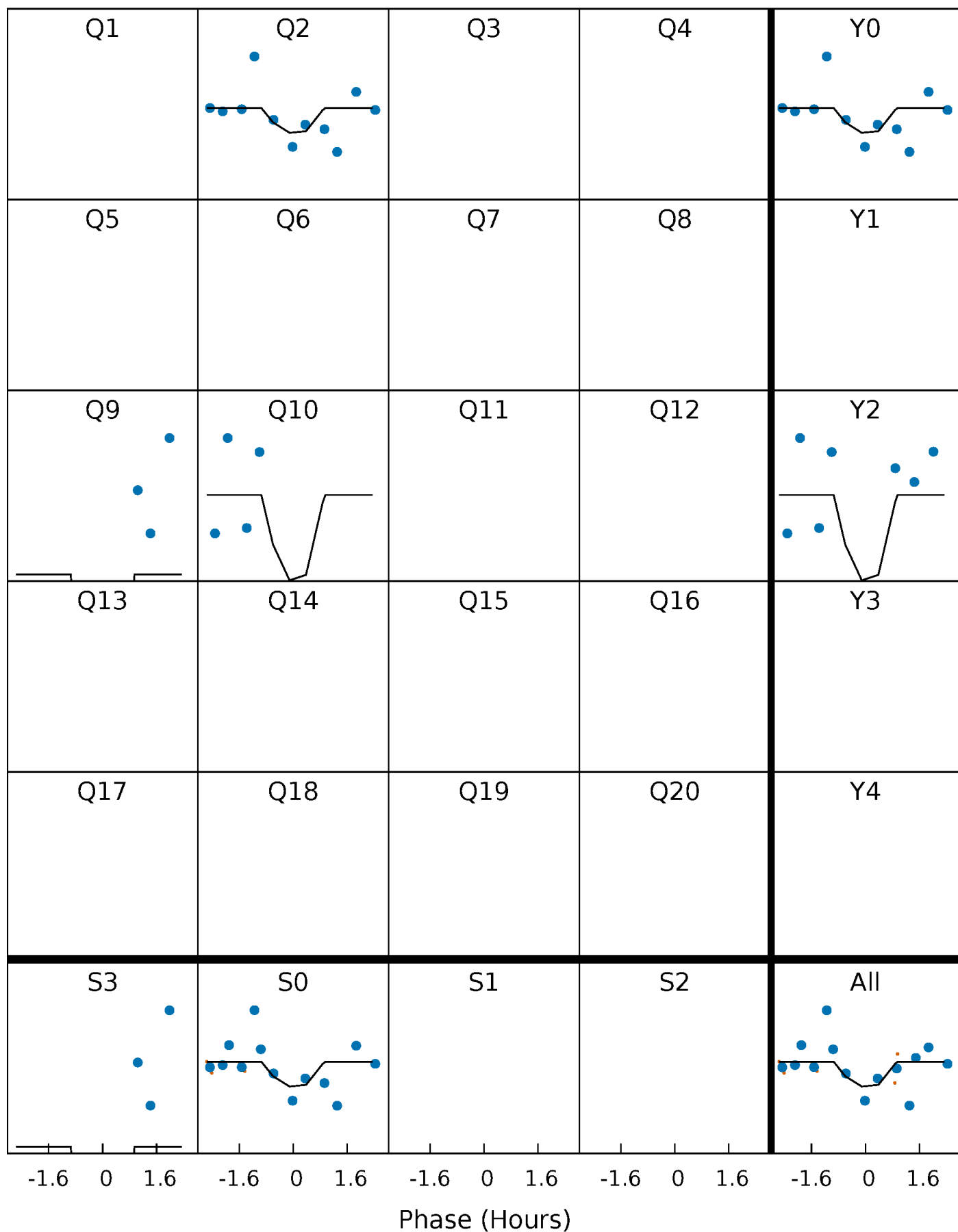
PDC Quarter-Phased Transit Curves

TCE 006775034-04 P= 99.061364 Days $T_0=178.270755$ (BKJD)



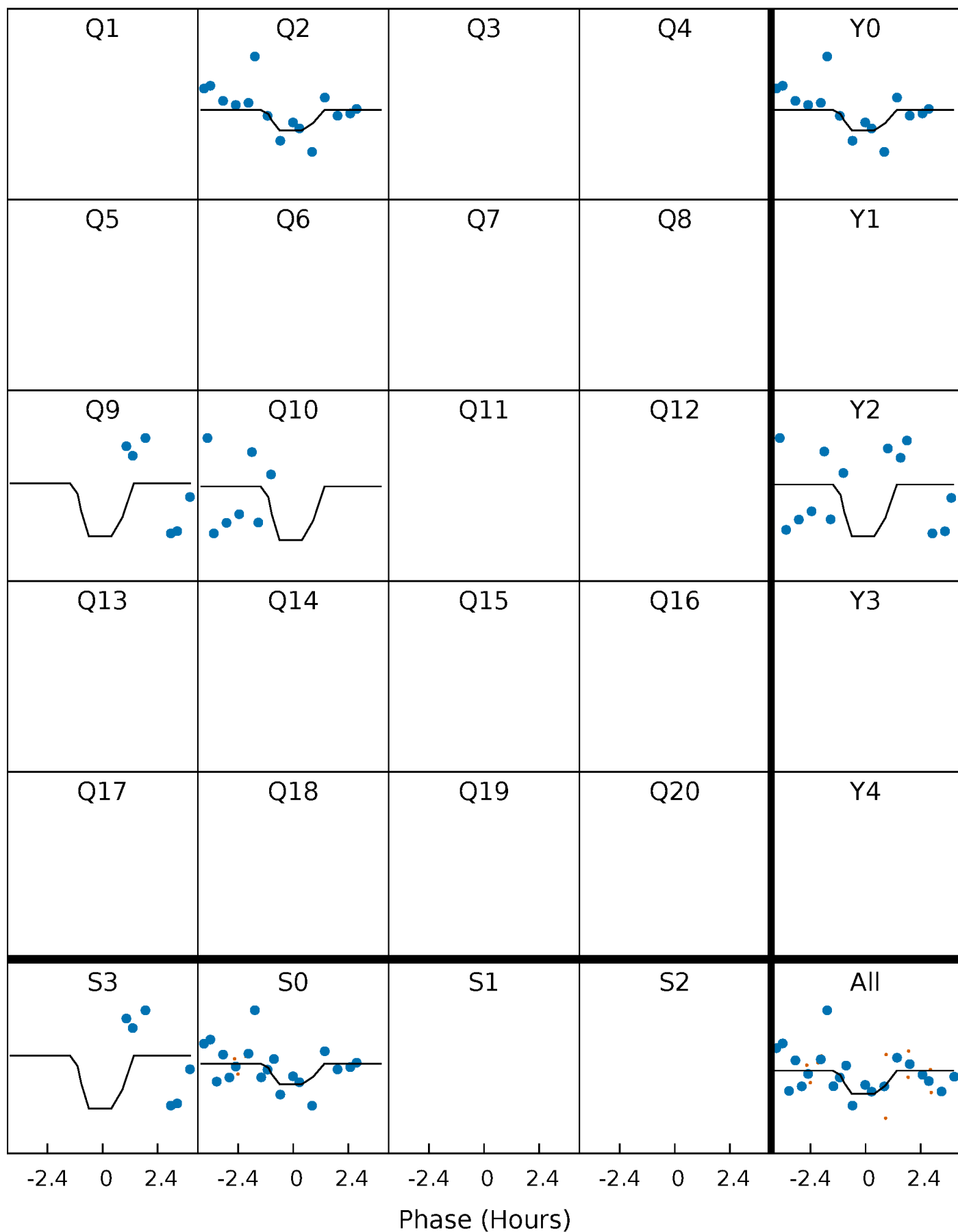
DV Quarter-Phased Transit Curves

TCE 006775034-04 P= 99.061364 Days $T_0=178.270755$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

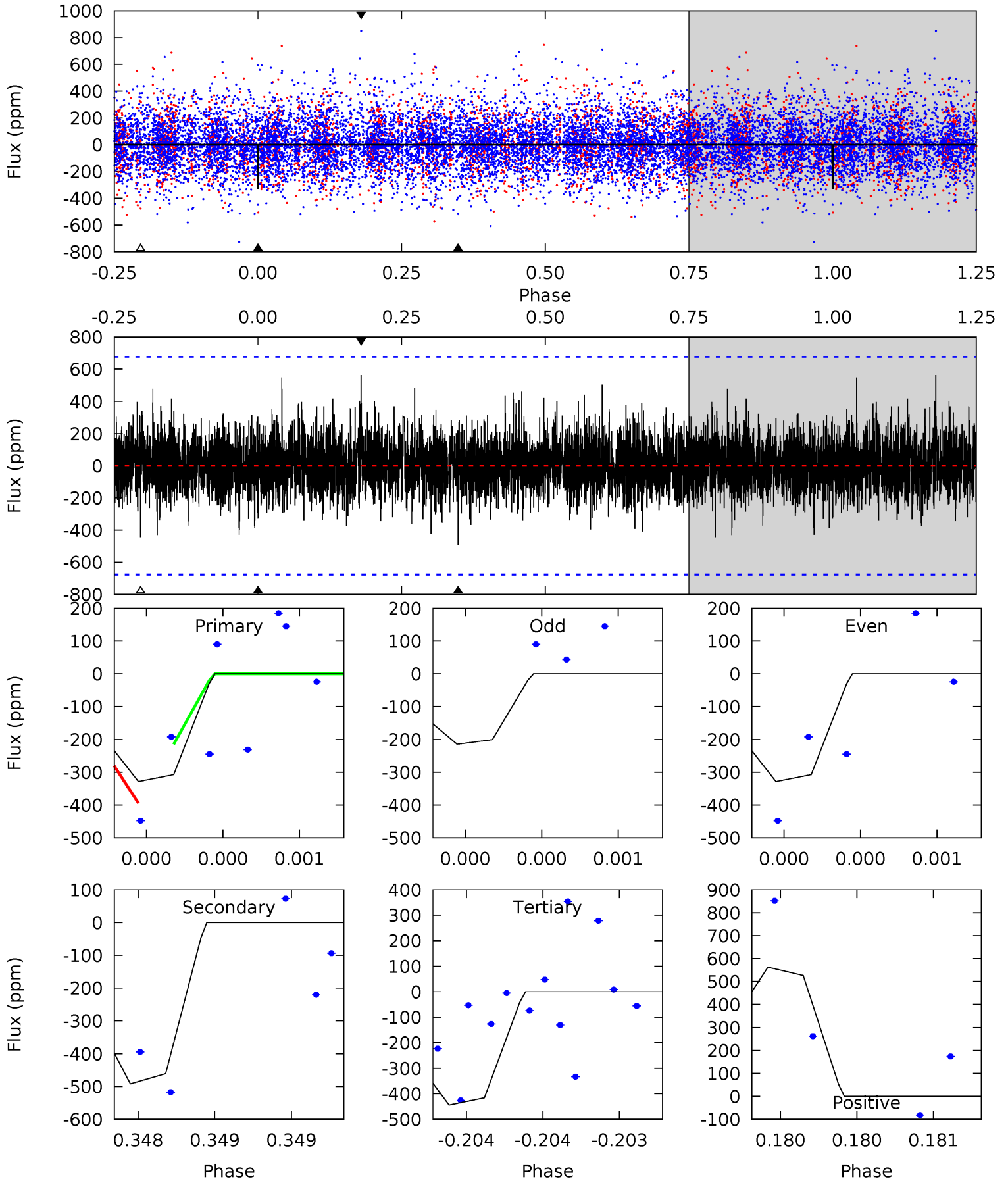
TCE 006775034-04 P= 99.058776 Days $T_0=178.291004$ (BKJD)



DV Model-Shift Uniqueness Test

006775034-04, P = 99.061364 Days, E = 79.209391 Days

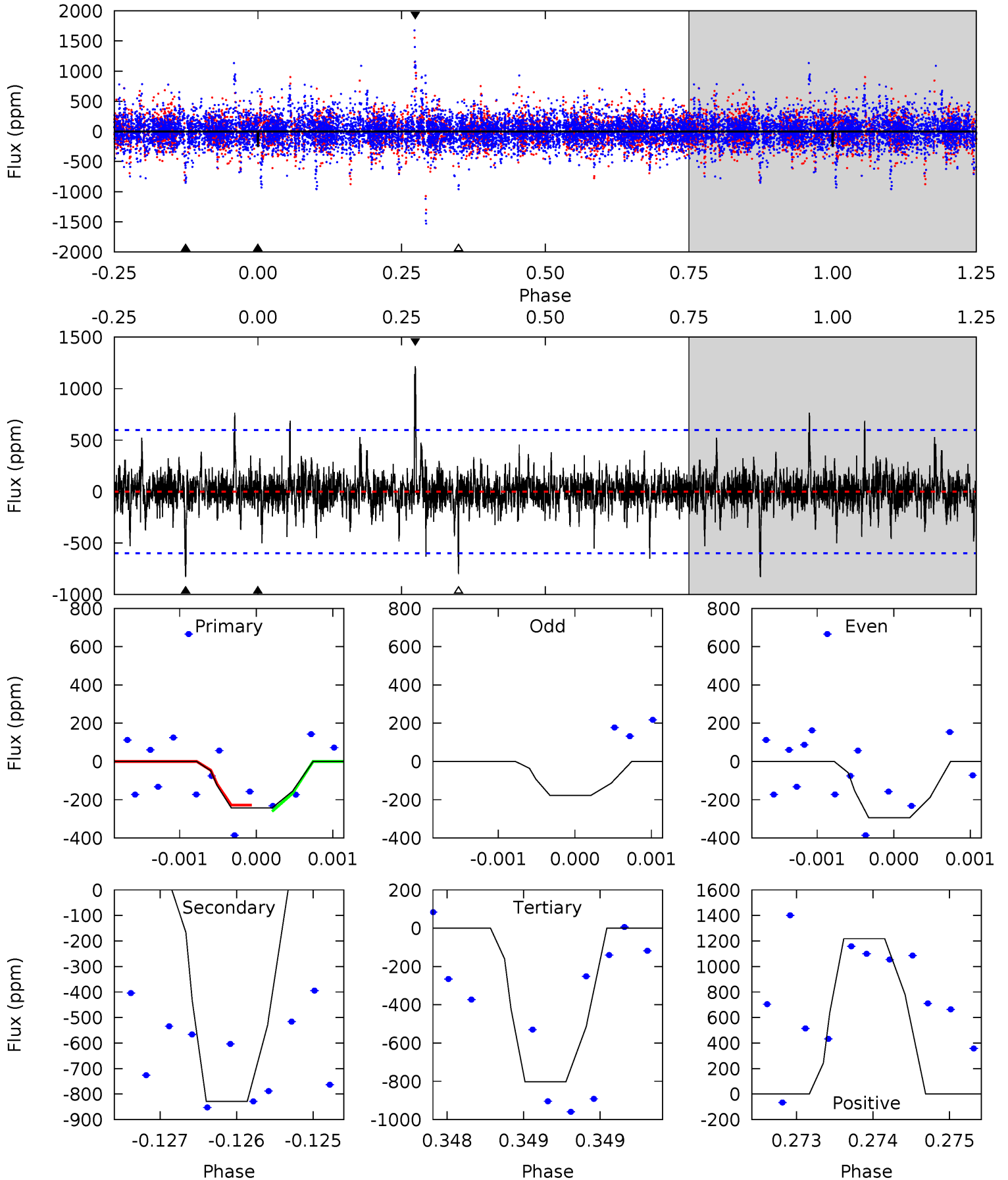
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 2.71 | 4.07 | 3.67 | 4.65 | 5.59 | 3.51 | 0.99 | -0.96 | -1.93 | 0.40 | -0.58 | 0.66 | 1.00 | 0.53 | 0.00 |



Alt Model-Shift Uniqueness Test

006775034-04, P = 99.058776 Days, E = 79.232228 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 2.23 | 7.62 | 7.37 | 11.2 | 5.50 | 3.36 | 1.18 | -5.14 | -8.96 | 0.25 | -3.57 | 0.59 | 1.00 | 0.59 | 0.15 |



Stellar Parameters For KIC 006775034

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7187^{+228}_{-304} | $4.036^{+0.266}_{-0.164}$ | $-0.440^{+0.300}_{-0.300}$ | $1.808^{+0.525}_{-0.525}$ | $1.297^{+0.233}_{-0.191}$ | $0.309^{+0.458}_{-0.139}$ |
| | +3%/-4% | +7%/-4% | +68%/-68% | +29%/-29% | +18%/-15% | +148%/-45% |
| 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 006775034-04 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|----------------|---------------------------|-------------------|-----------------------|-------------------|
| DV | -492 ± 121 | $48.13^{+51.46}_{-34.07}$ | 871^{+74}_{-79} | 2819^{+1394}_{-459} | 23^{+265}_{-18} |
| Alt. | -829 ± 109 | $40.89^{+48.58}_{-27.86}$ | 866^{+68}_{-67} | 3199^{+1432}_{-623} | 58^{+487}_{-46} |

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

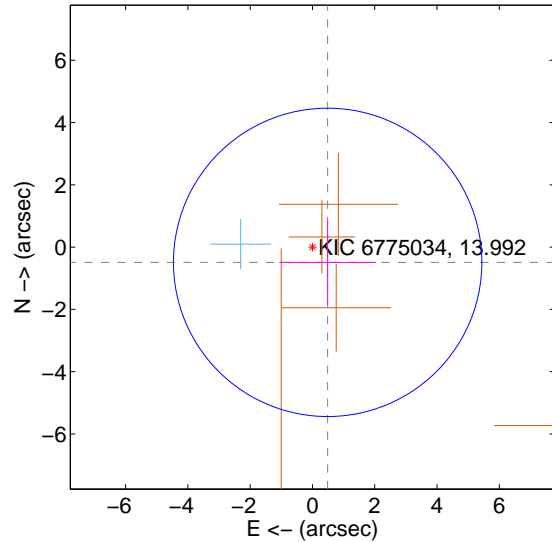
Supplemental centroid analysis for 006775034-04. Kepler magnitude: 13.99. Transit SNR 2.24

There are 1 quarters with good PRF difference image offsets

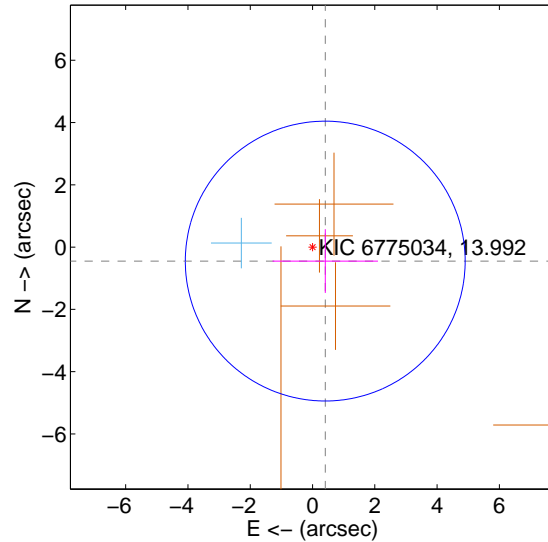
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.692 ± 1.650 | 0.42 | -0.488 ± 1.555 | -0.490 ± 1.375 |
| PRF-fit source offset from KIC position | 0.607 ± 1.498 | 0.41 | -0.408 ± 1.693 | -0.449 ± 1.023 |
| photometric centroid source offset | 2.07 ± 1.47 | 1.41 | -1.57 ± 1.50 | 1.36 ± 1.42 |

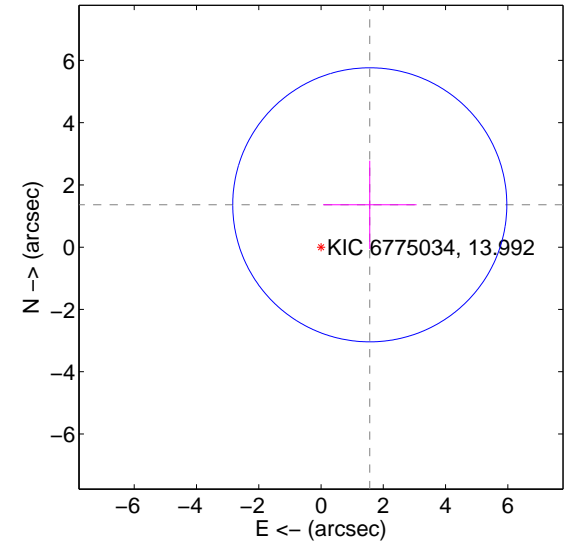
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

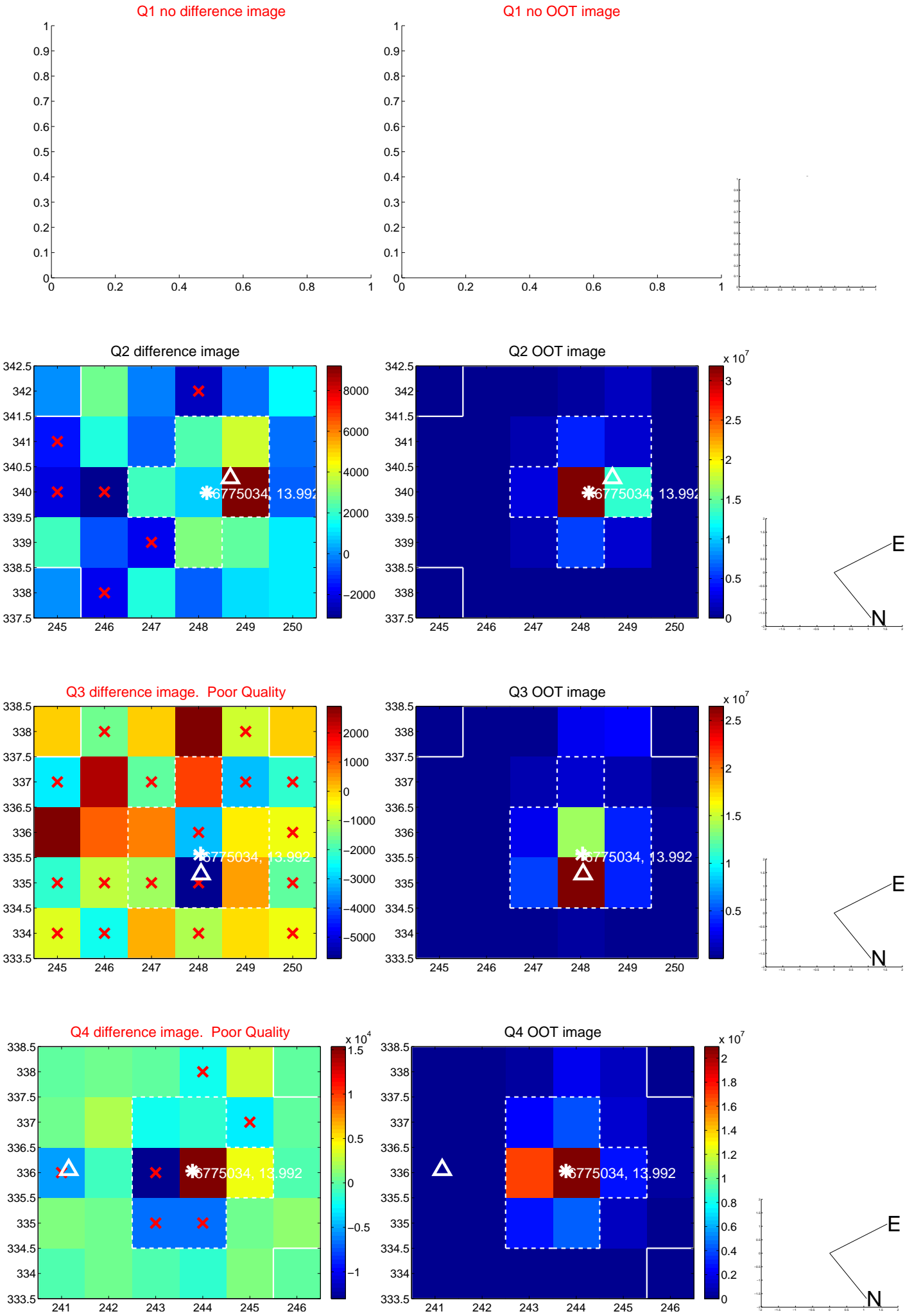


offset from photometric centroids

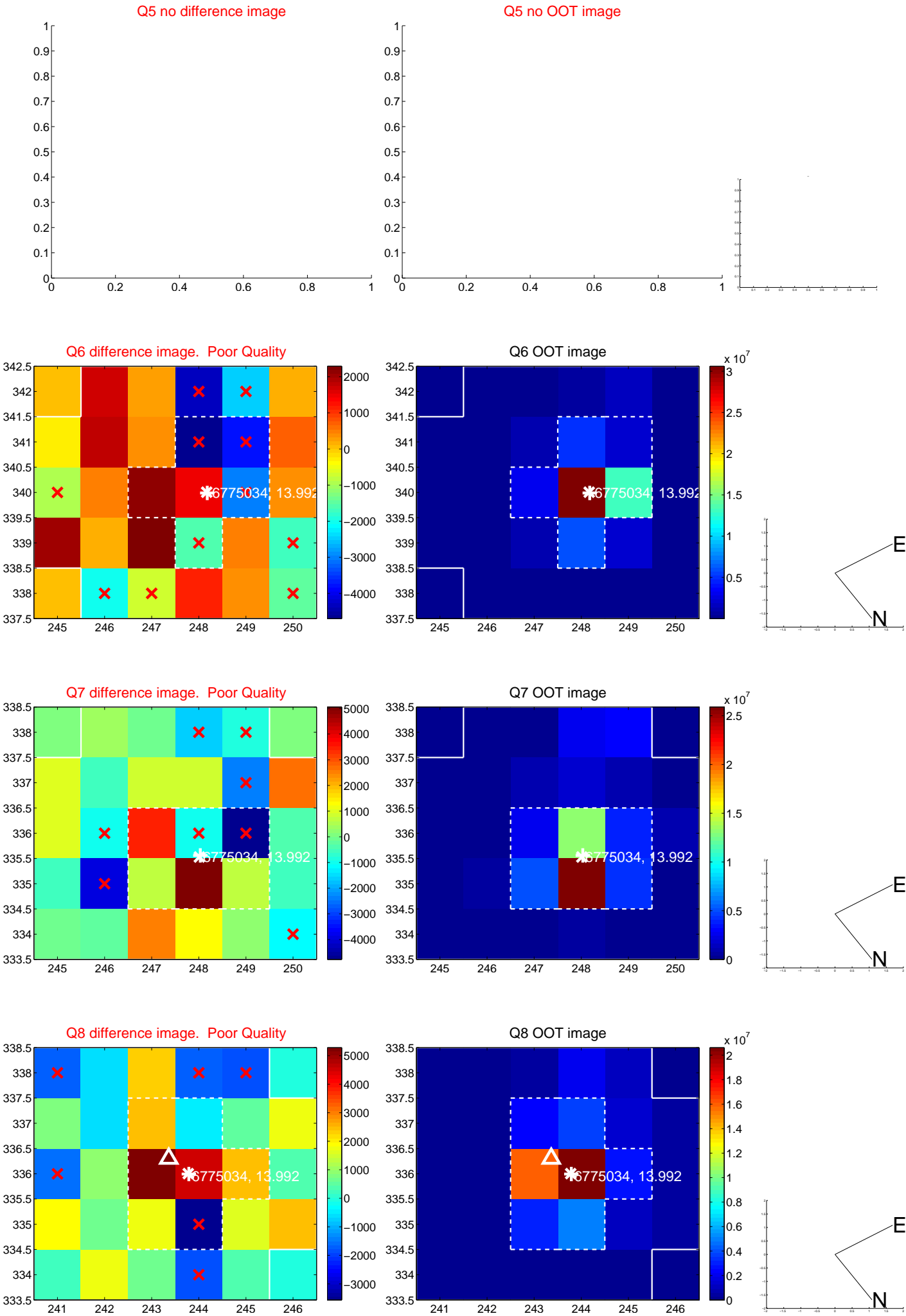


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

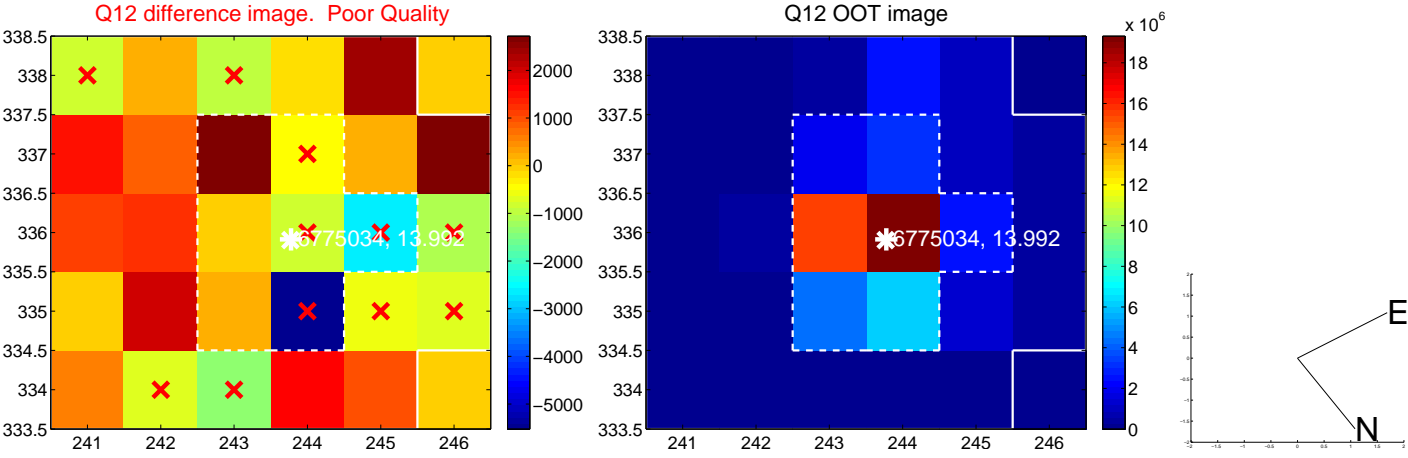
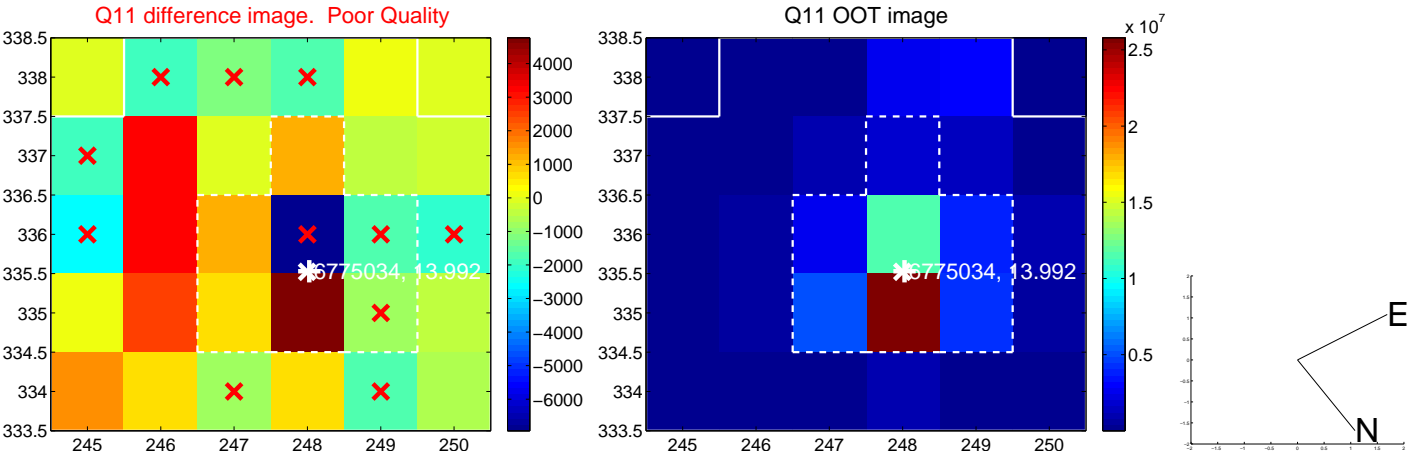
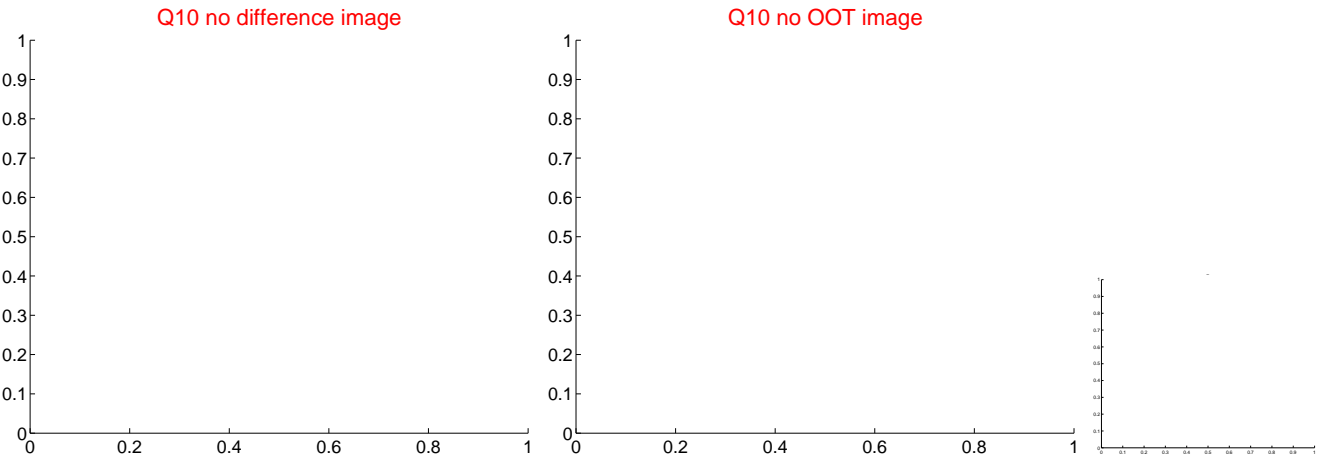
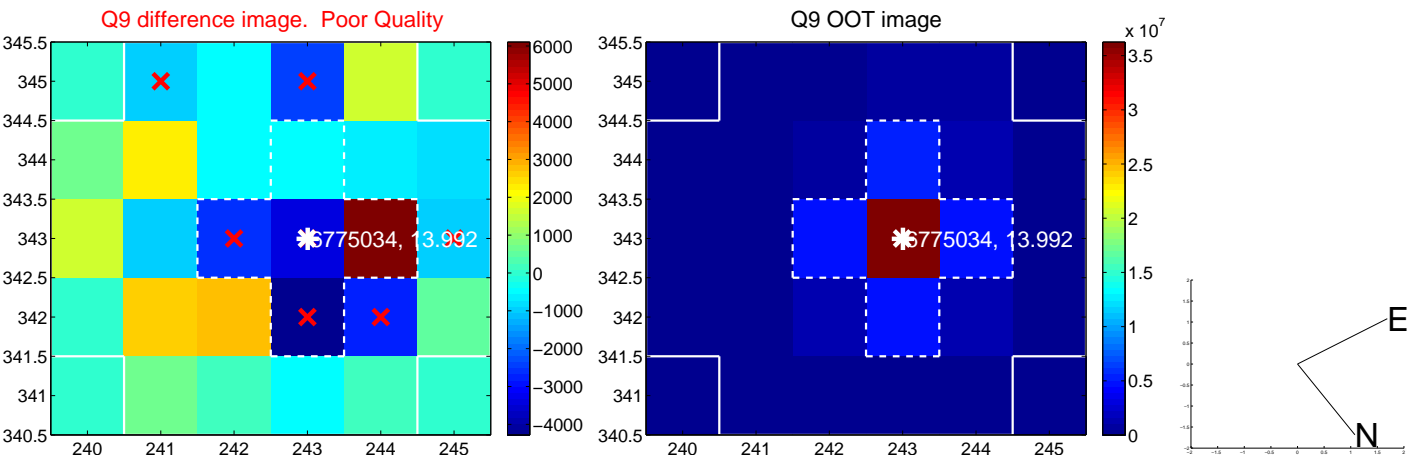
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



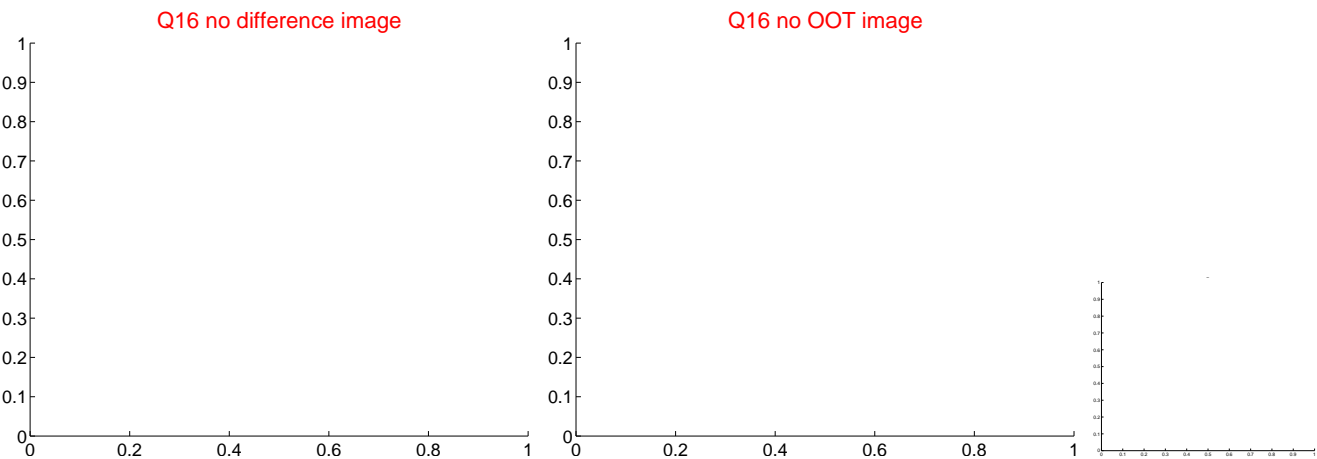
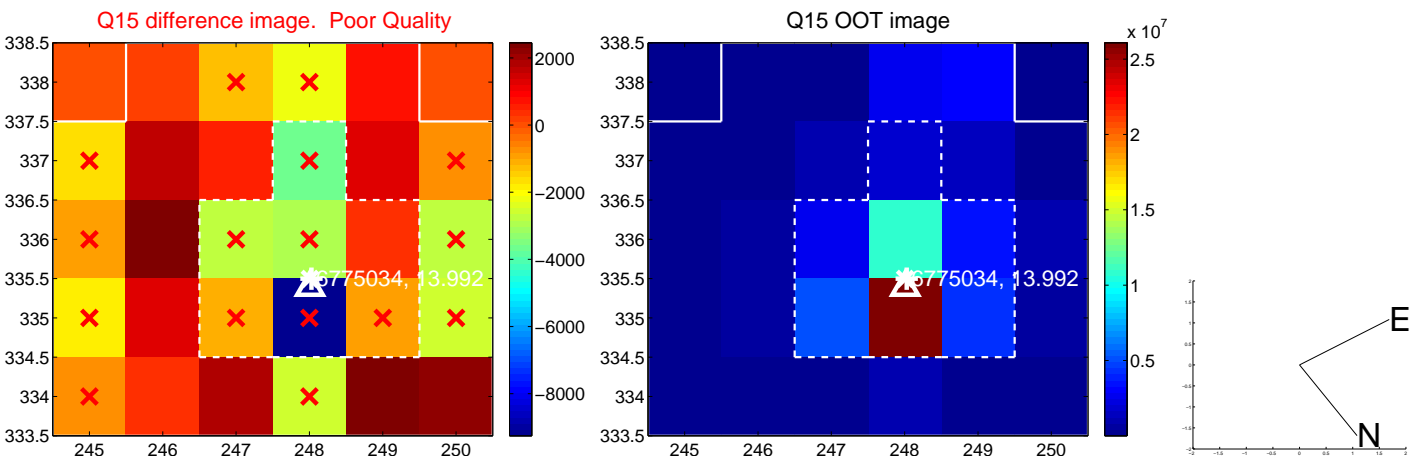
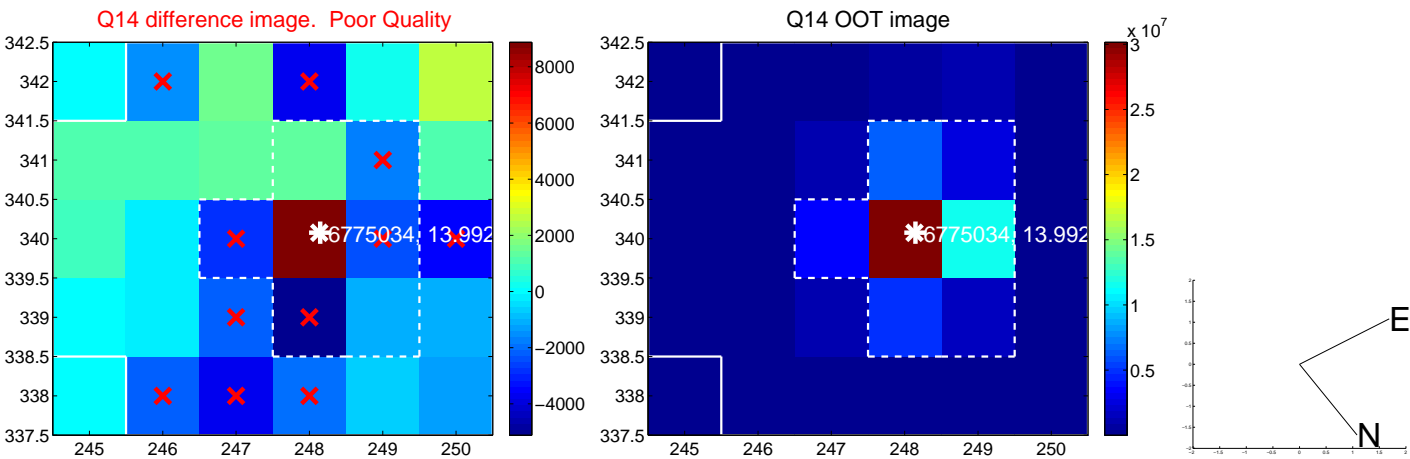
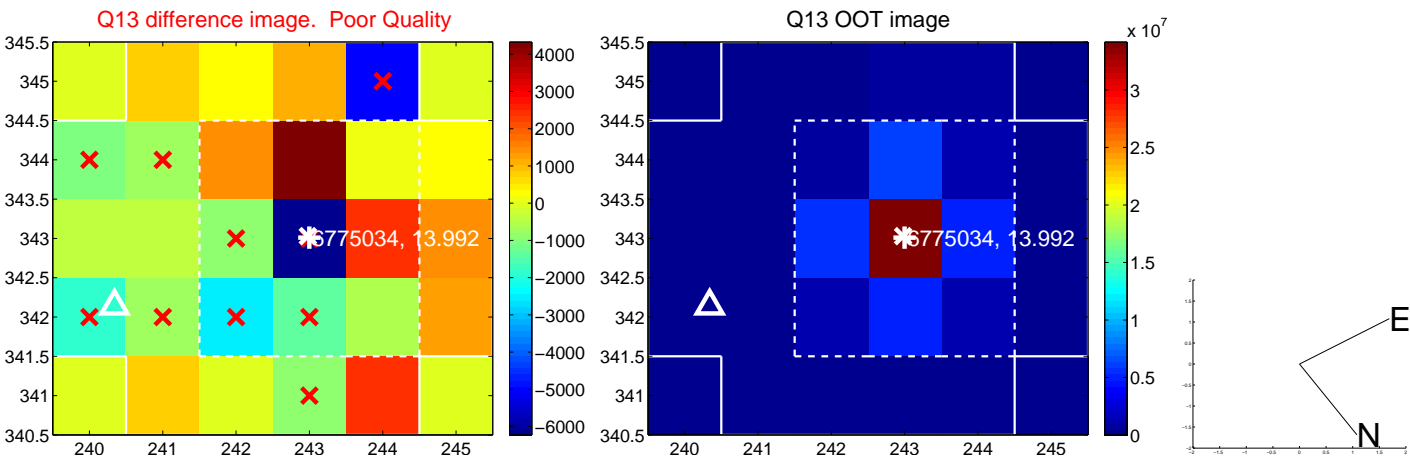
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



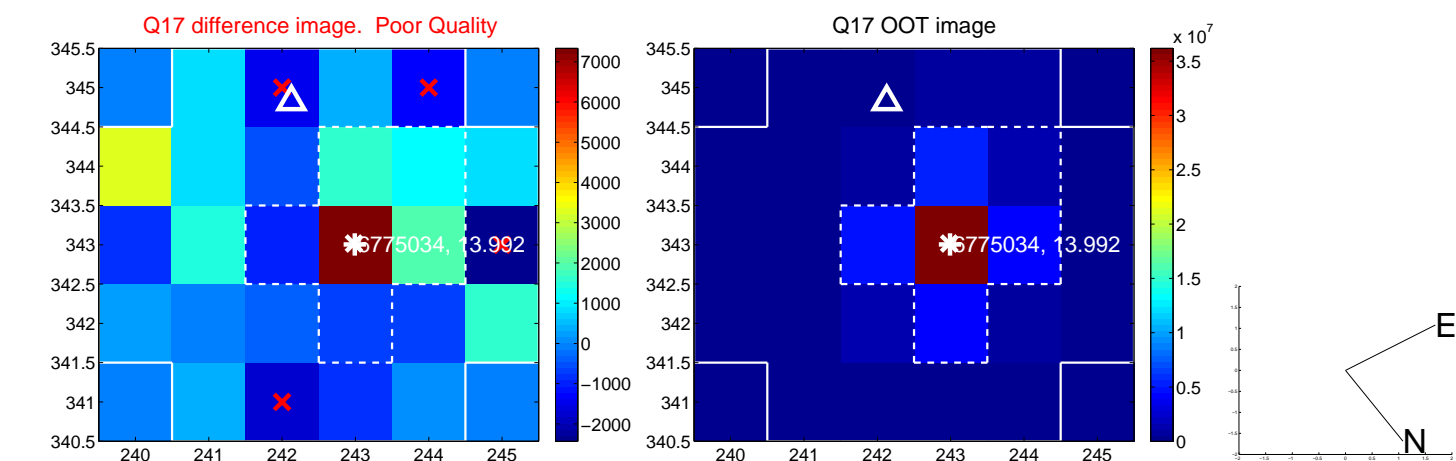
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



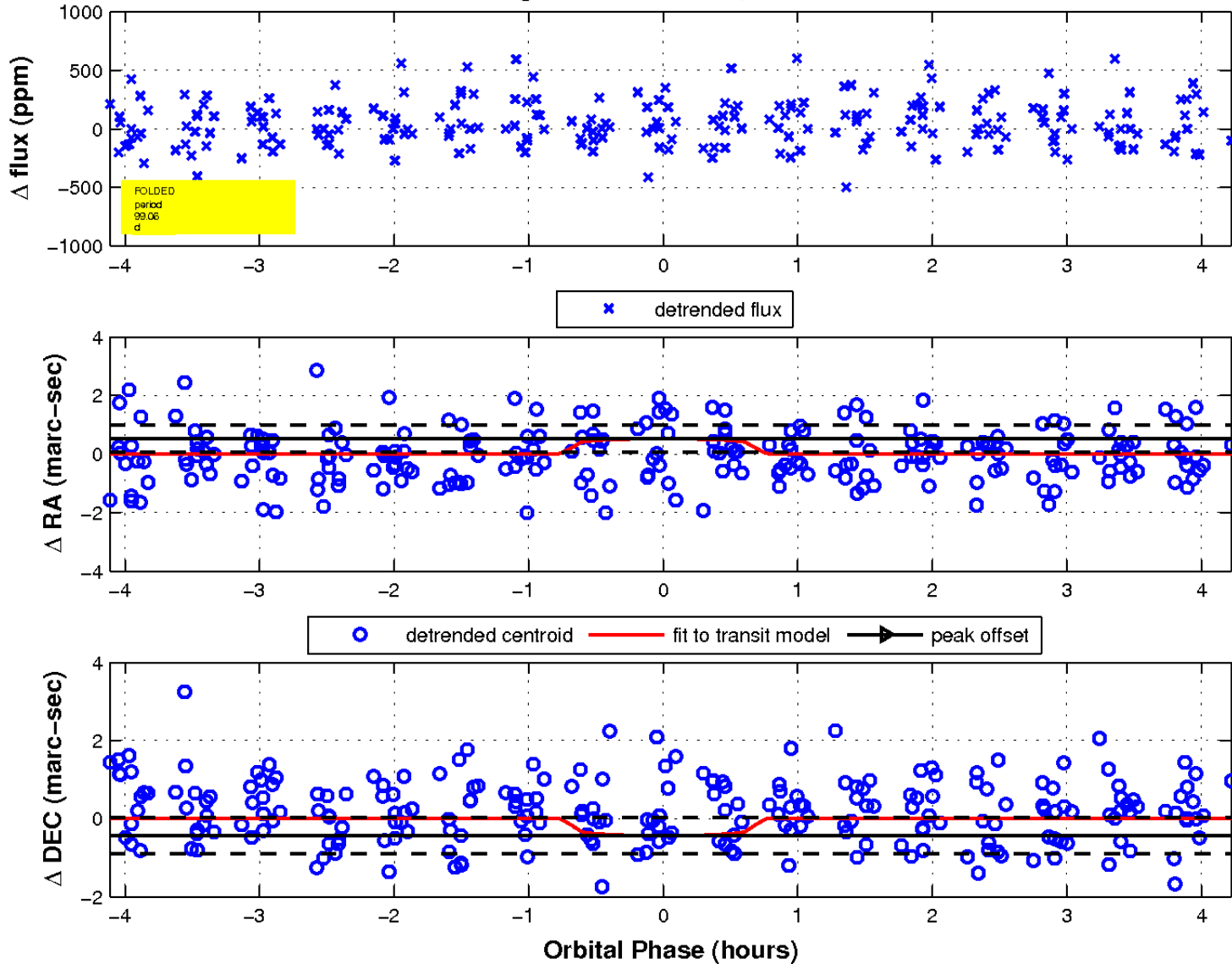
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

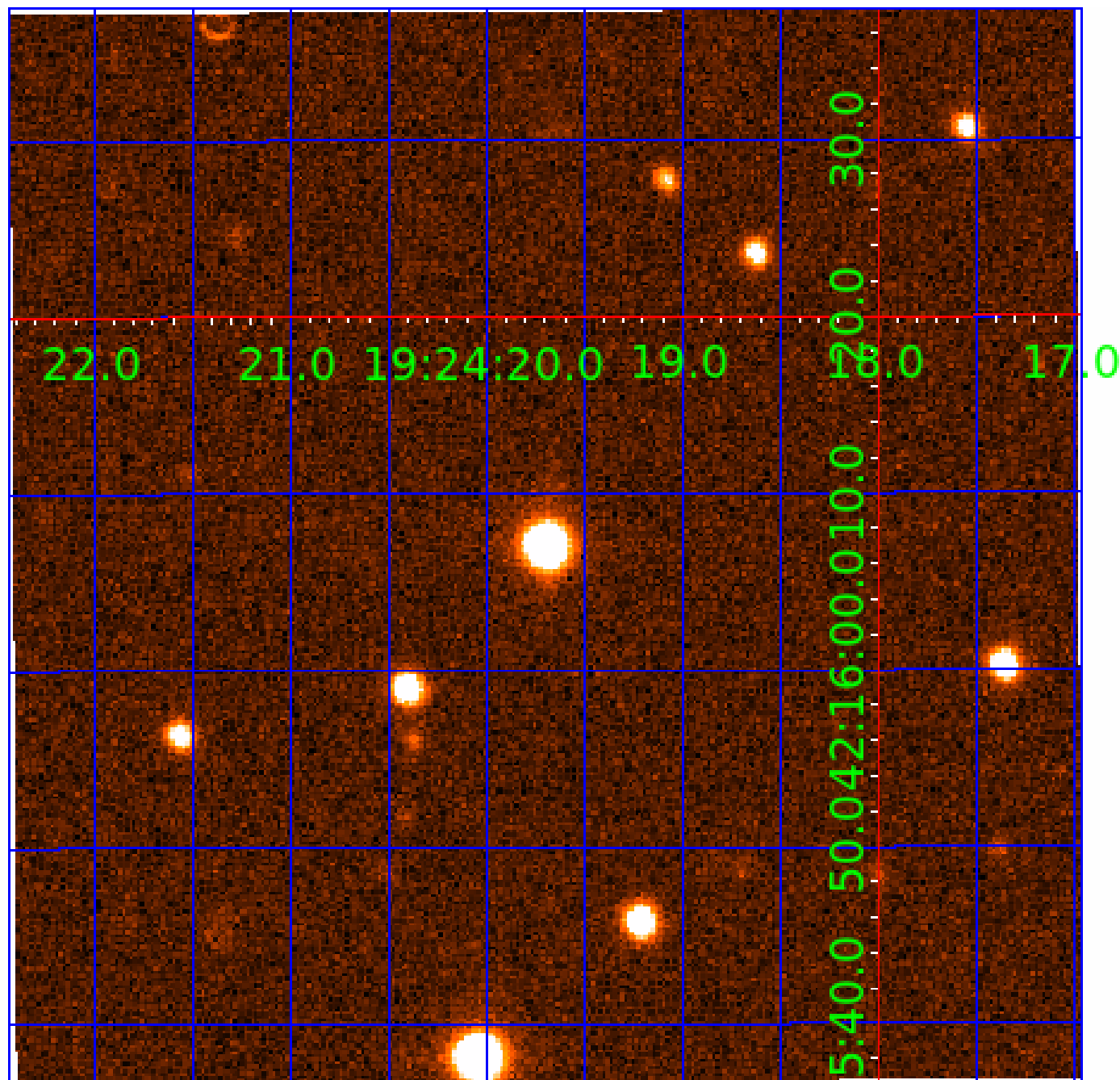


fluxWeightedCentroids, Planet 4 of 5



UKIRT Image

Declination



KIC 006775034

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006775034-01 | OBS | No | 10.029204 | 132.600734 | 432.1 | 17.863 | 28.5 | 33.4 | 1.81 | 7187 | 7.14 | 793.47 |
| 006775034-02 | OBS | No | 4.744352 | 134.019162 | 62.7 | 17.987 | 9.3 | 9.7 | 1.81 | 7187 | 1.66 | 2152.69 |
| 006775034-03 | OBS | No | 0.948880 | 132.244954 | 42.7 | 4.827 | 9.0 | 11.3 | 1.81 | 7187 | 1.35 | 18405.00 |
| 006775034-04 | OBS | No | 99.061364 | 178.270755 | 287.1 | 1.414 | 8.6 | 2.2 | 1.81 | 7187 | 3.19 | 37.44 |
| 006775034-05 | OBS | No | 99.065888 | 178.834443 | 326.6 | 9.646 | 10.0 | 7.3 | 1.81 | 7187 | 3.71 | 37.44 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006775034-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 006775034-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 006775034-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD |
| 006775034-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 006775034-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD |

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

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

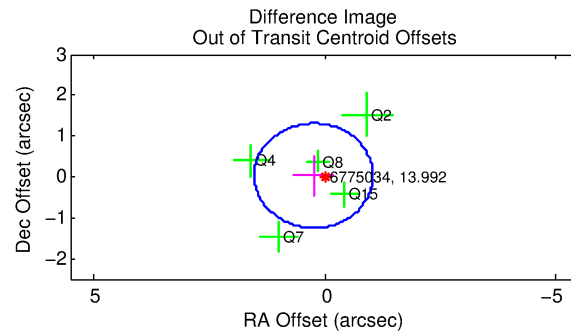
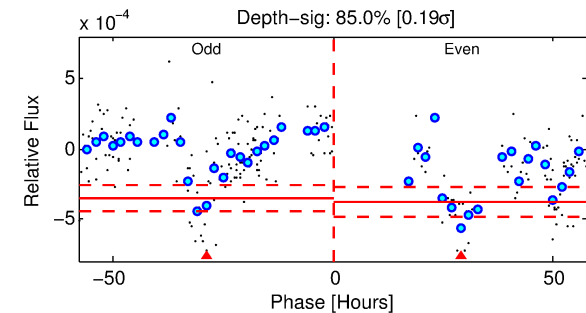
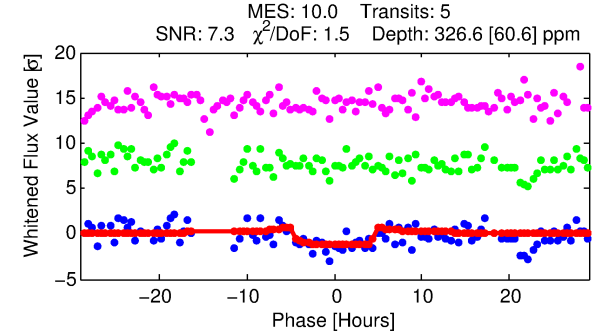
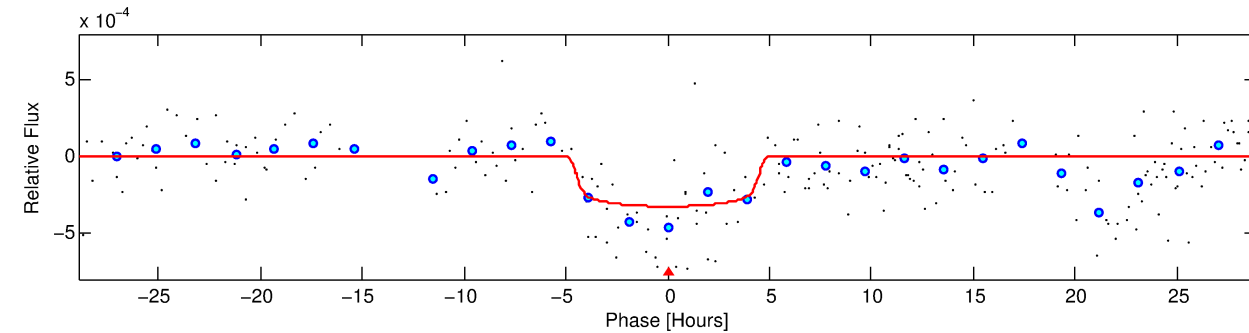
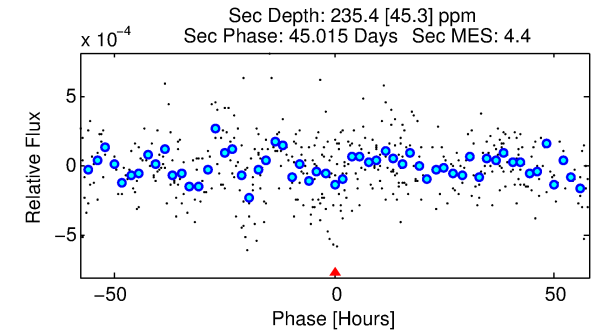
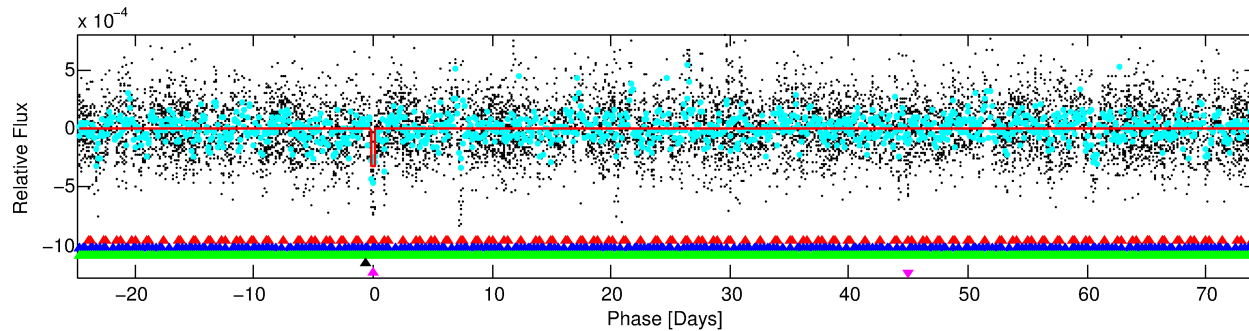
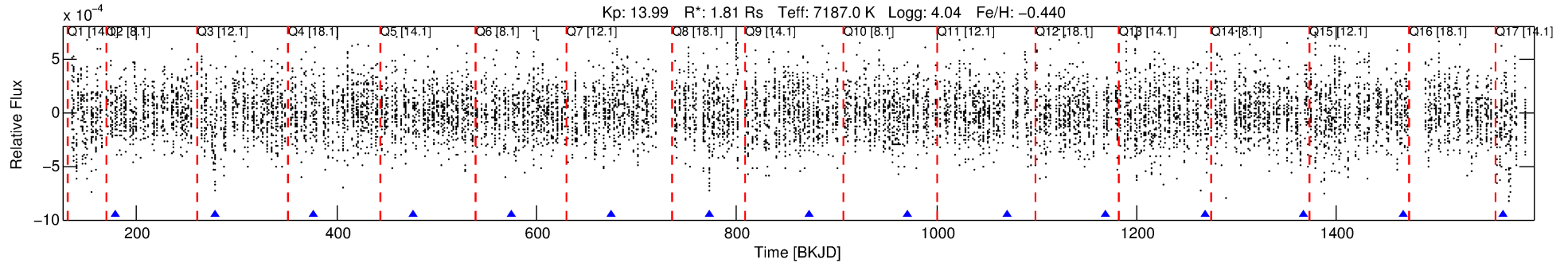
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006775034-05

No Significant Match Found

DV One-Page Summary

KIC: 6775034 Candidate: 5 of 5 Period: 99.066 d



DV Fit Results:

Period = 99.06589 [0.00593] d
Epoch = 178.8344 [0.0627] BKJD
Rp/R* = 0.0188 [0.0047]
a/R* = 42.12 [61.01]
b = 0.87 [0.41]
Seff = 37.44 [18.07]
Teq = 631 [76] K
Rp = 3.71 [1.42] Re
a = 0.4569 [0.1285] AU
Ag = 1967.00 [1381.47] [1.42σ]
Teffp = 6495 [915] K [6.39σ]

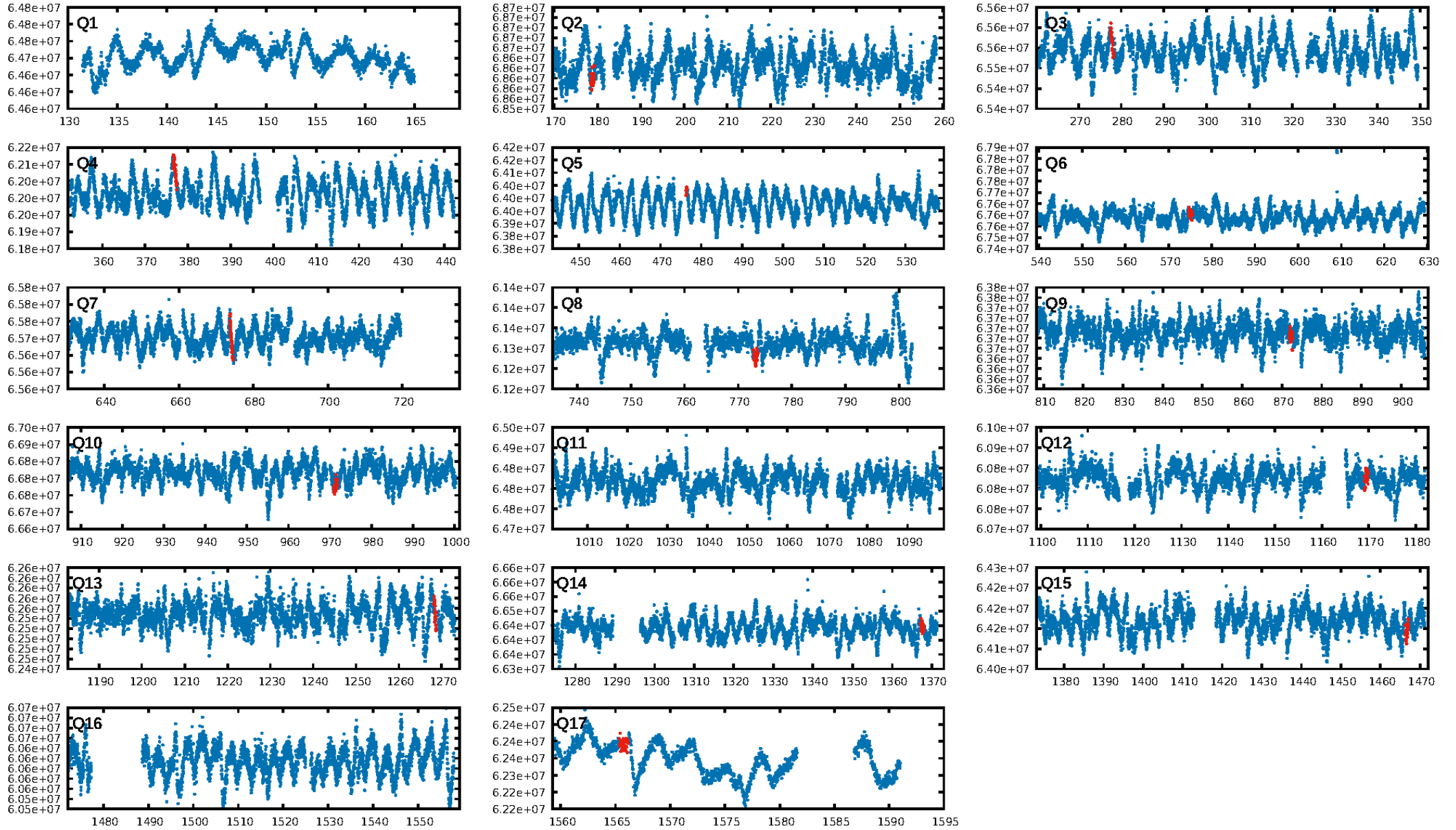
DV Diagnostic Results:

ShortPeriod-sig: 0.9% [0.01σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.25e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.5701
Centroid-sig: 0.0%
Centroid-so: 1.725 arcsec [3.11σ]
OotOffset-rm: 0.243 arcsec [0.57σ]
KicOffset-rm: 0.298 arcsec [0.69σ]
OotOffset-st: 1/2/2/0 [5]
KicOffset-st: 1/2/2/0 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 0.00 [0/11]

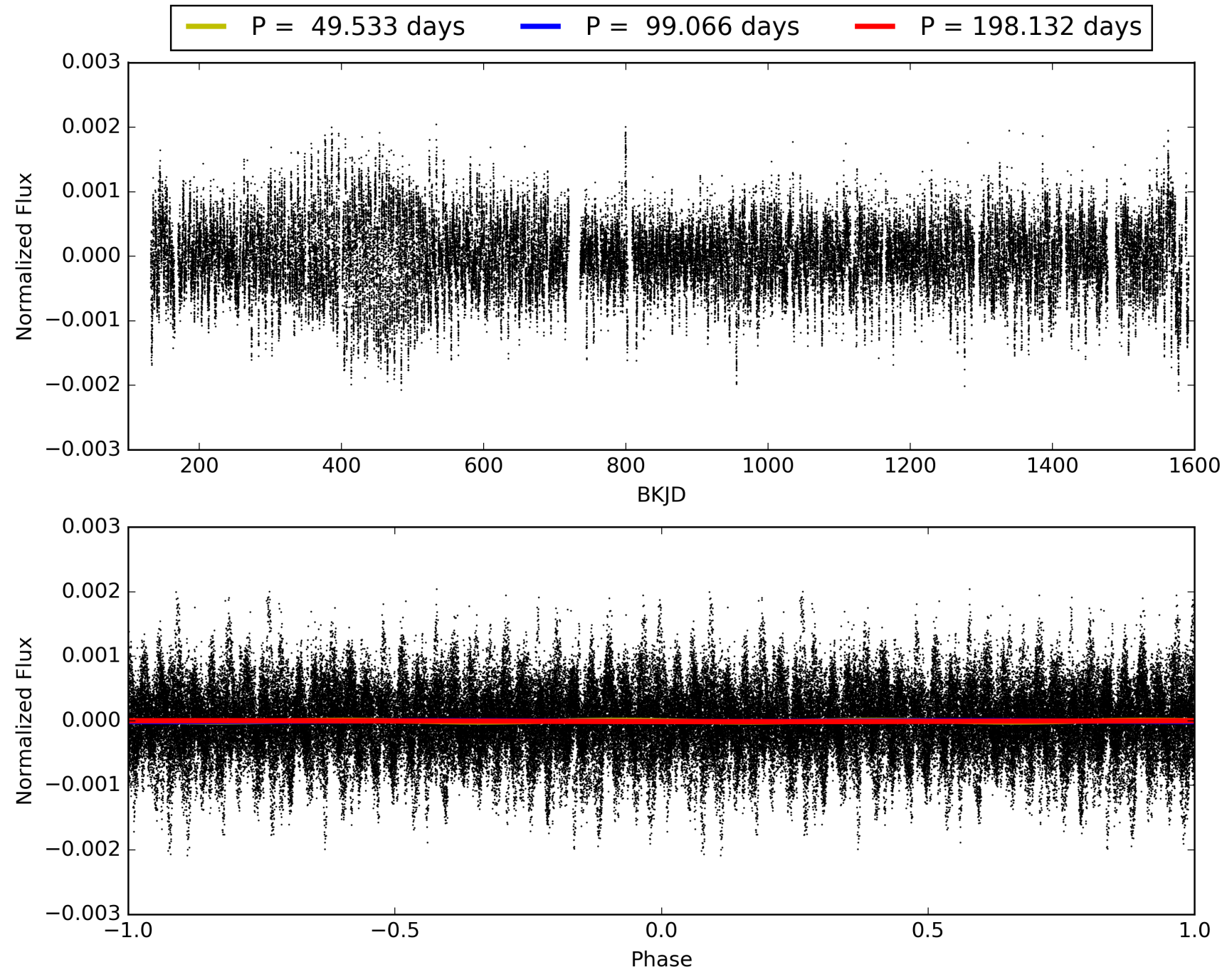
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:13:48 Z

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

TCE 006775034-05, PDC Light Curves

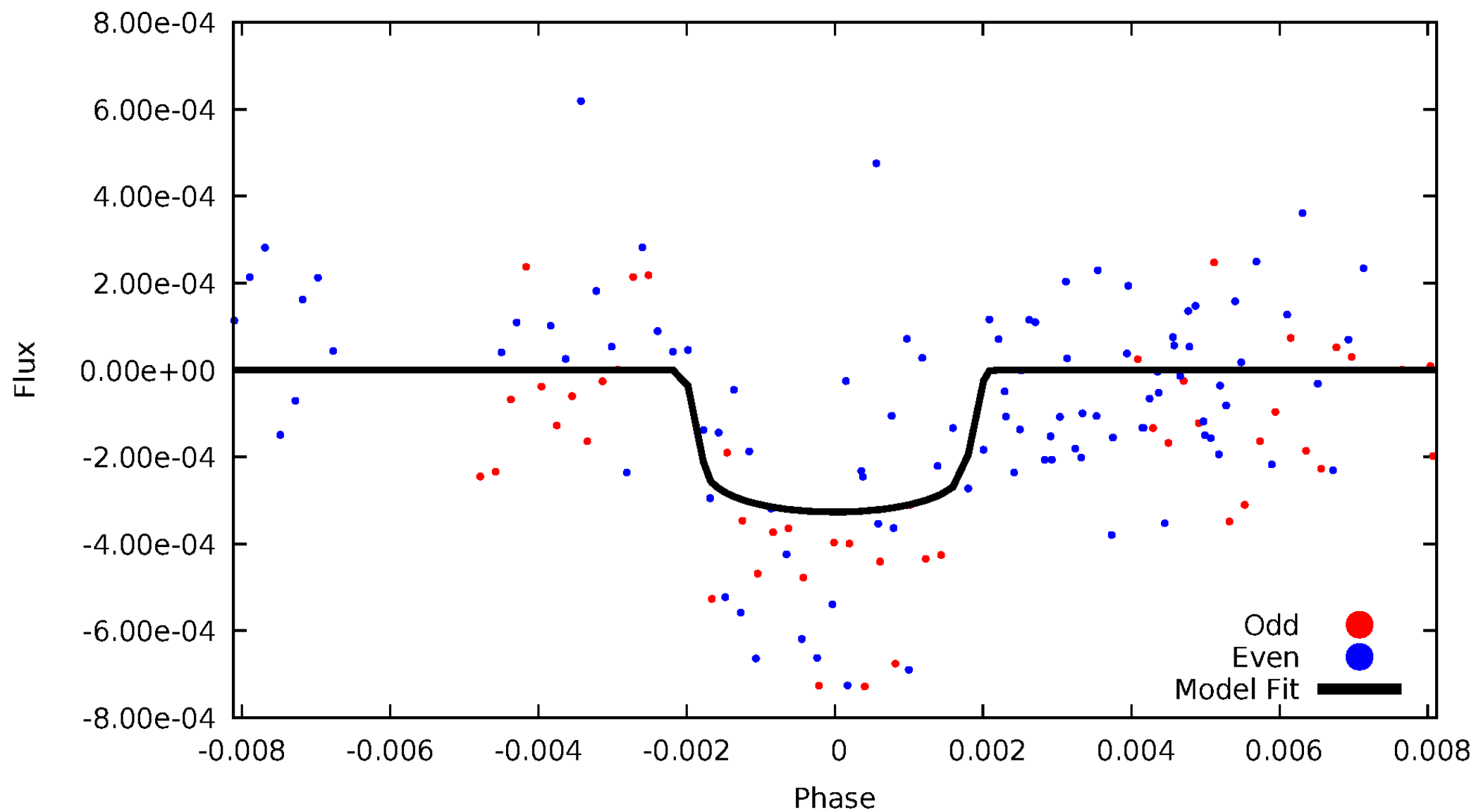


TCE 006775034-05



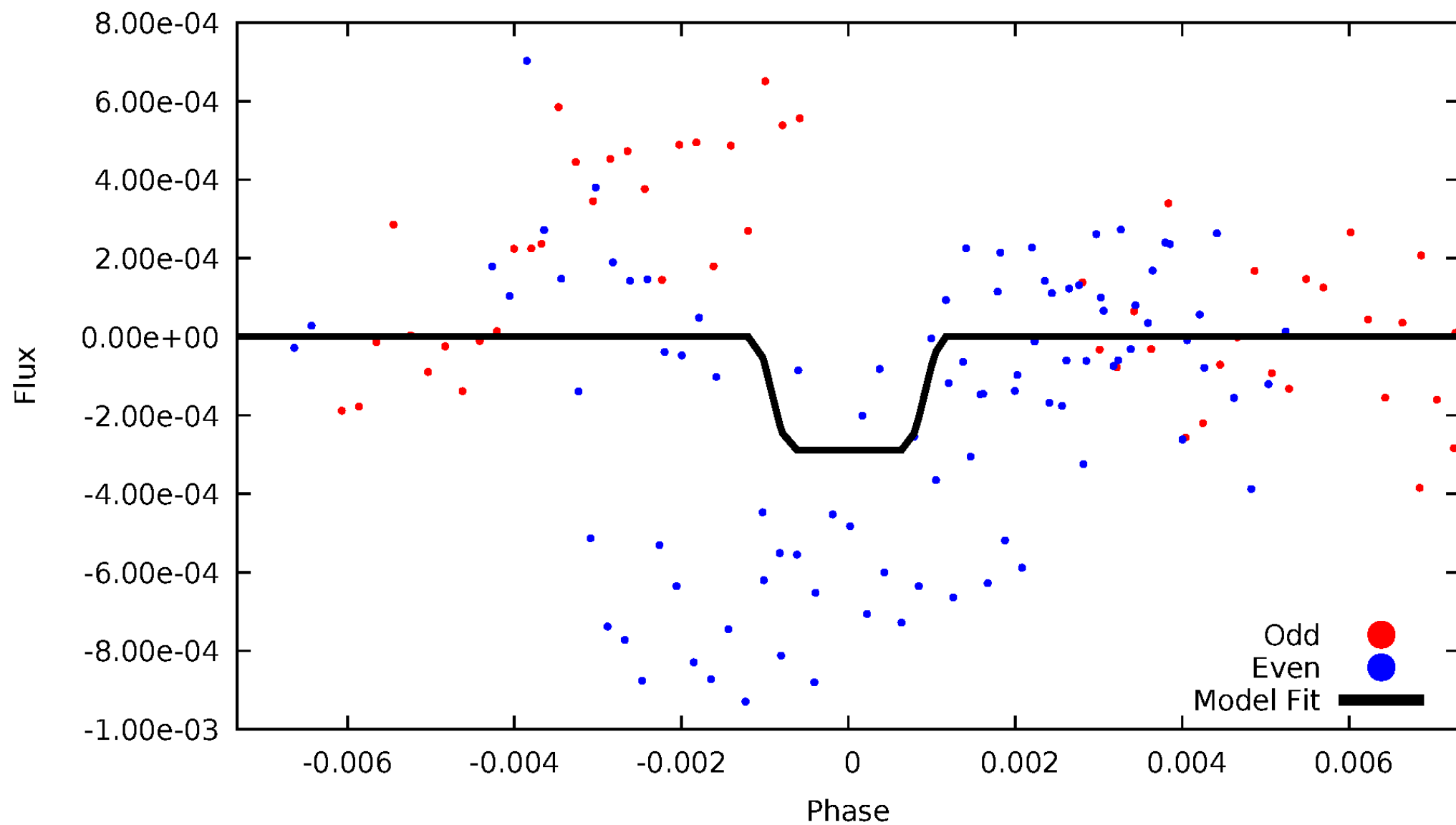
DV Odd/Even

TCE 006775034-05

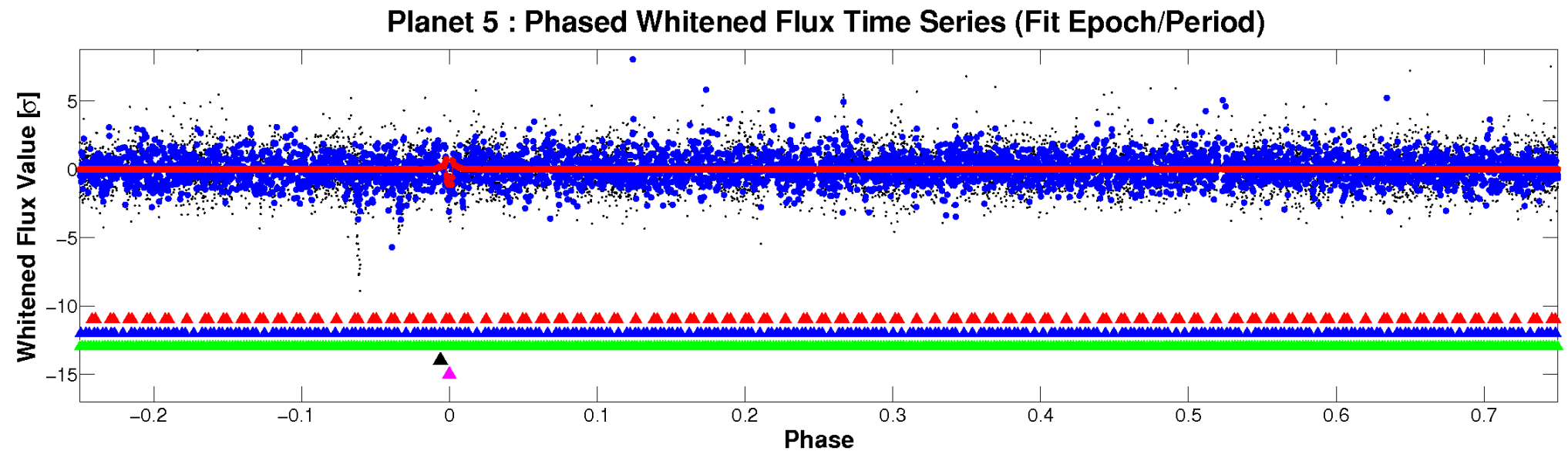
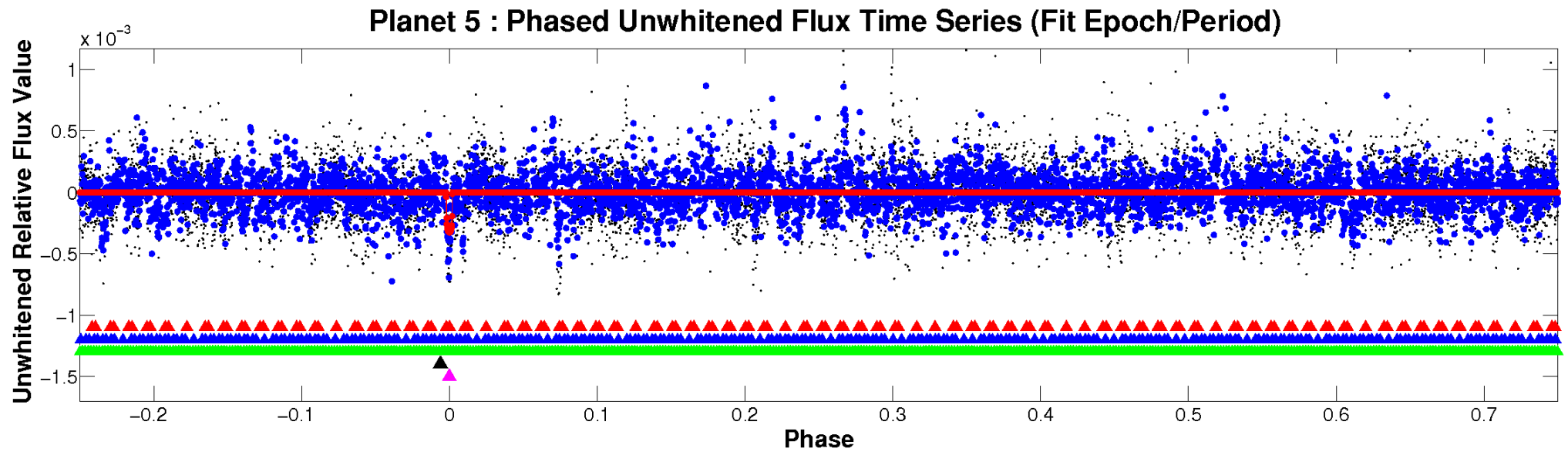


ALT Odd/Even

TCE 006775034-05

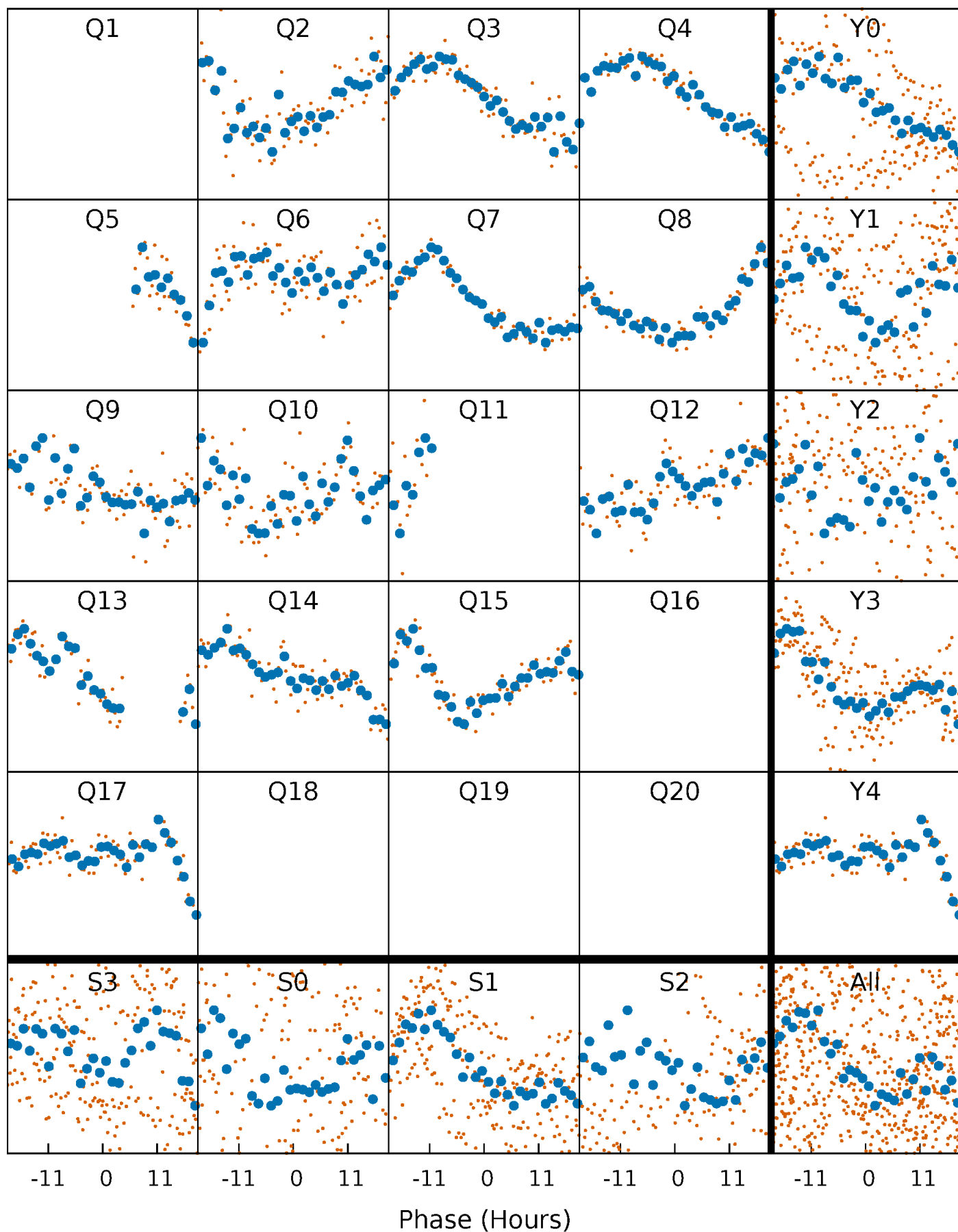


Non-Whitened Vs. Whitened Light Curve



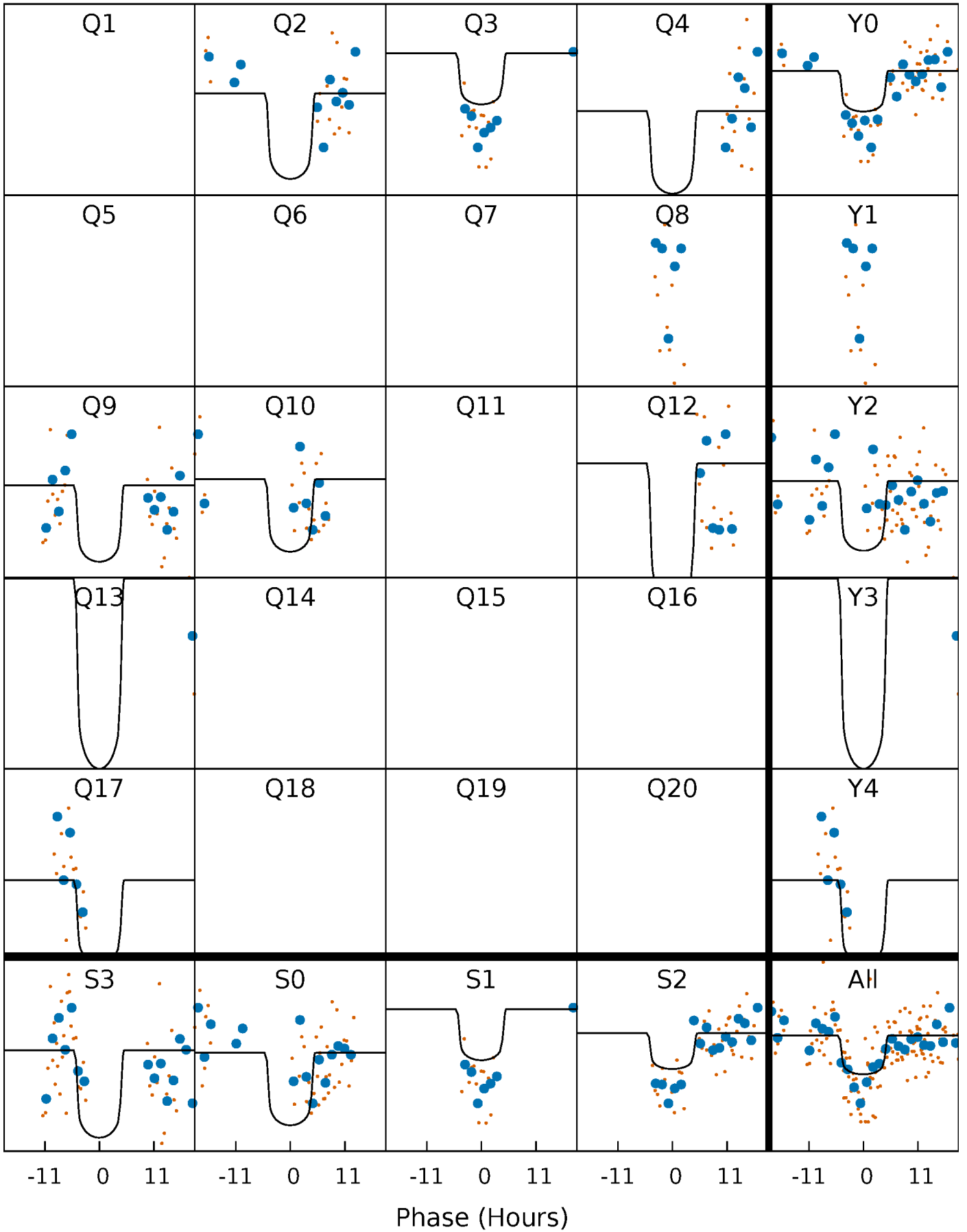
PDC Quarter-Phased Transit Curves

TCE 006775034-05 $P = 99.065888$ Days $T_0 = 178.834443$ (BKJD)



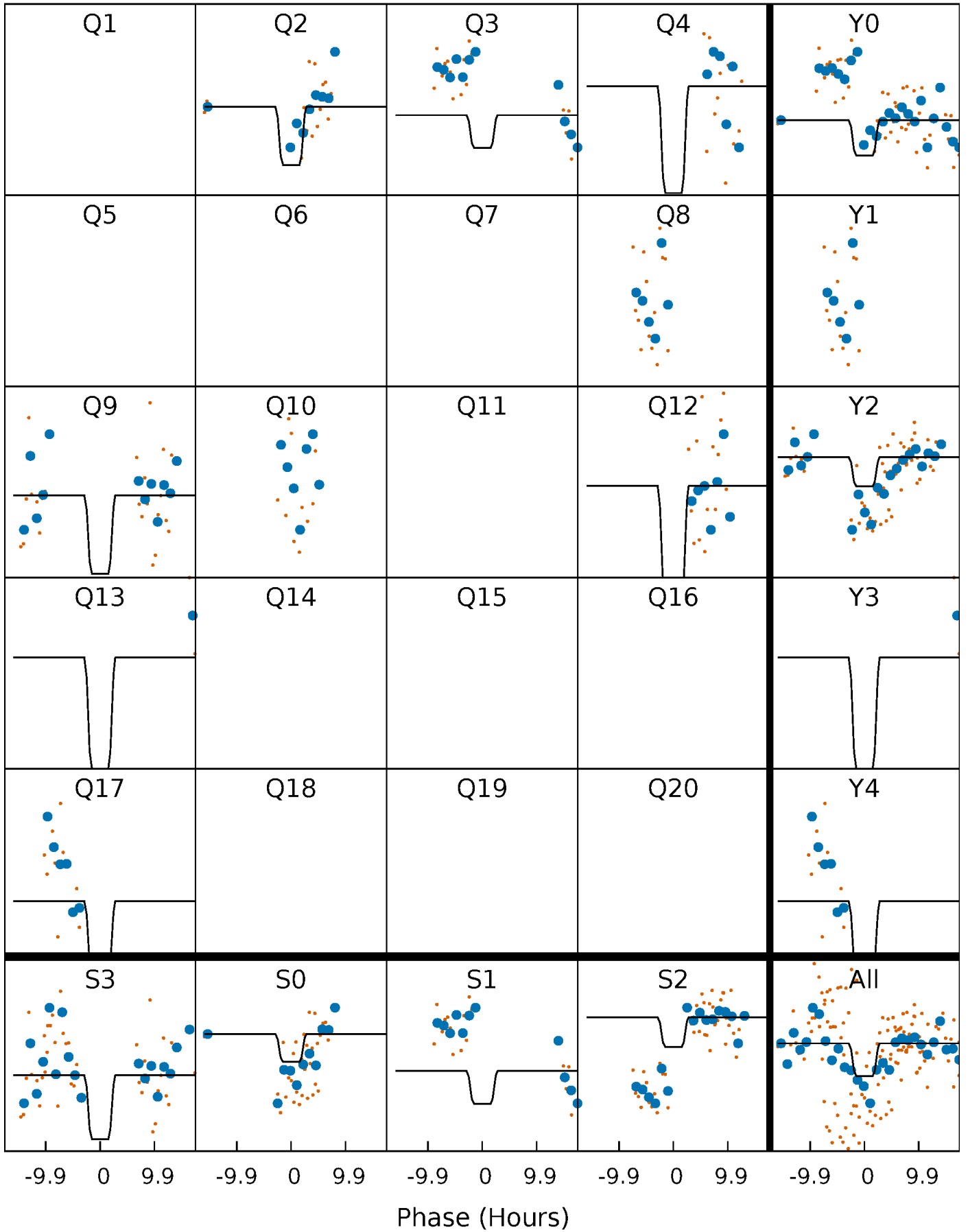
DV Quarter-Phased Transit Curves

TCE 006775034-05 P= 99.065888 Days $T_0=178.834443$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

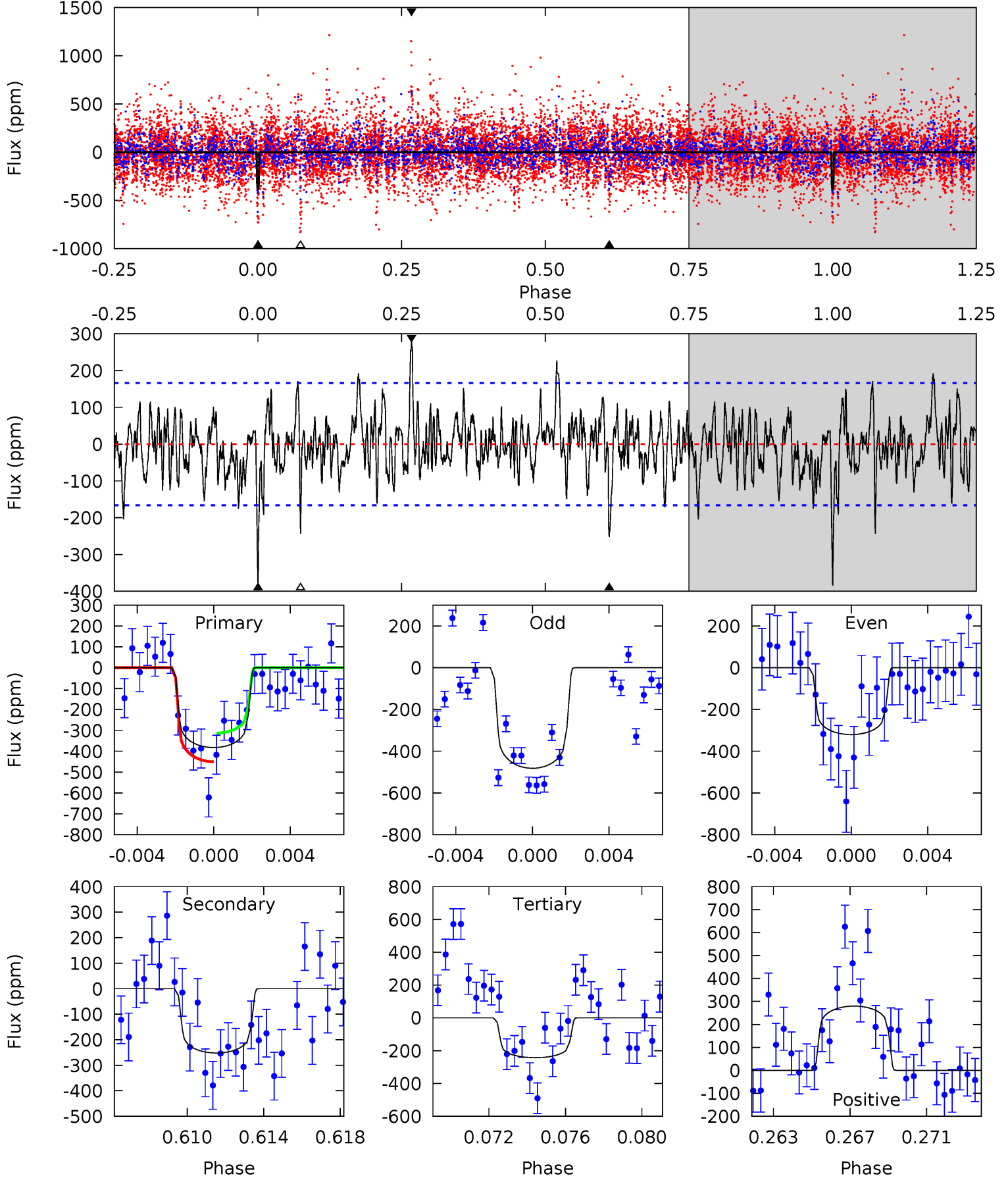
TCE 006775034-05 P= 99.053776 Days $T_0=179.046211$ (BKJD)



DV Model-Shift Uniqueness Test

006775034-05, P = 99.065888 Days, E = 79.768555 Days

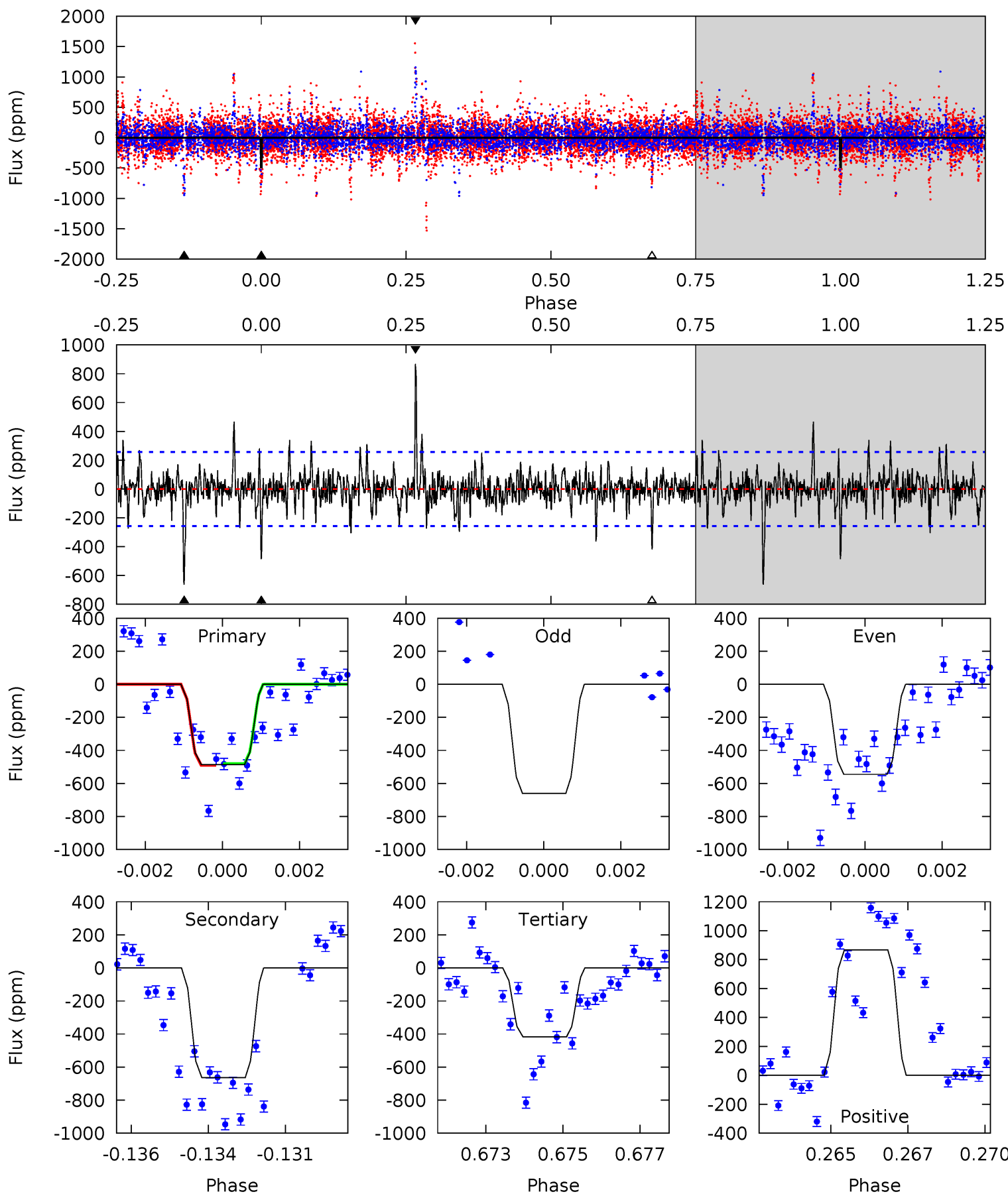
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 12.0 | 7.88 | 7.59 | 8.75 | 5.20 | 2.88 | 1.97 | 4.37 | 3.21 | 0.29 | -0.87 | 2.46 | 0.94 | 0.42 | 2.15 |



Alt Model-Shift Uniqueness Test

006775034-05, P = 99.053776 Days, E = 79.992435 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 10.0 | 13.7 | 8.62 | 17.9 | 5.31 | 3.06 | 1.85 | 1.40 | -7.87 | 5.06 | -4.21 | 0.94 | 0.55 | 0.57 | 0.10 |



Stellar Parameters For KIC 006775034

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7187^{+228}_{-304} | $4.036^{+0.266}_{-0.164}$ | $-0.440^{+0.300}_{-0.300}$ | $1.808^{+0.525}_{-0.525}$ | $1.297^{+0.233}_{-0.191}$ | $0.309^{+0.458}_{-0.139}$ |
| | +3%/-4% | +7%/-4% | +68%/-68% | +29%/-29% | +18%/-15% | +148%/-45% |
| 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 006775034-05 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|---------------|------------------------|----------------------|------------------------|------------------------|
| DV | -252 ± 32 | $3.66^{+1.19}_{-0.99}$ | 875^{+73}_{-72} | 6537^{+1187}_{-760} | 2233^{+1905}_{-983} |
| Alt. | -664 ± 49 | $3.25^{+1.25}_{-1.03}$ | 869^{+73}_{-75} | 9349^{+2426}_{-1485} | 7287^{+7892}_{-3413} |

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 $A_{\text{obs}} \gg 1.0$

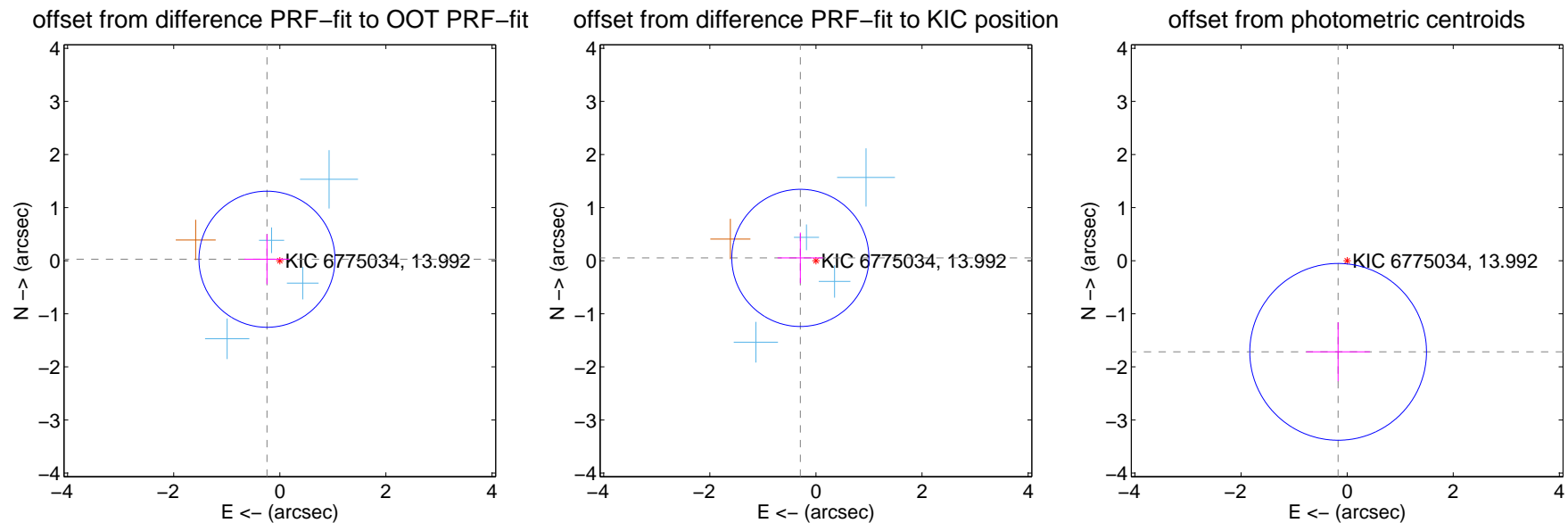
DV Centroid Data

Supplemental centroid analysis for 006775034-05. Kepler magnitude: 13.99. Transit SNR 7.33

There are 4 quarters with good PRF difference image offsets

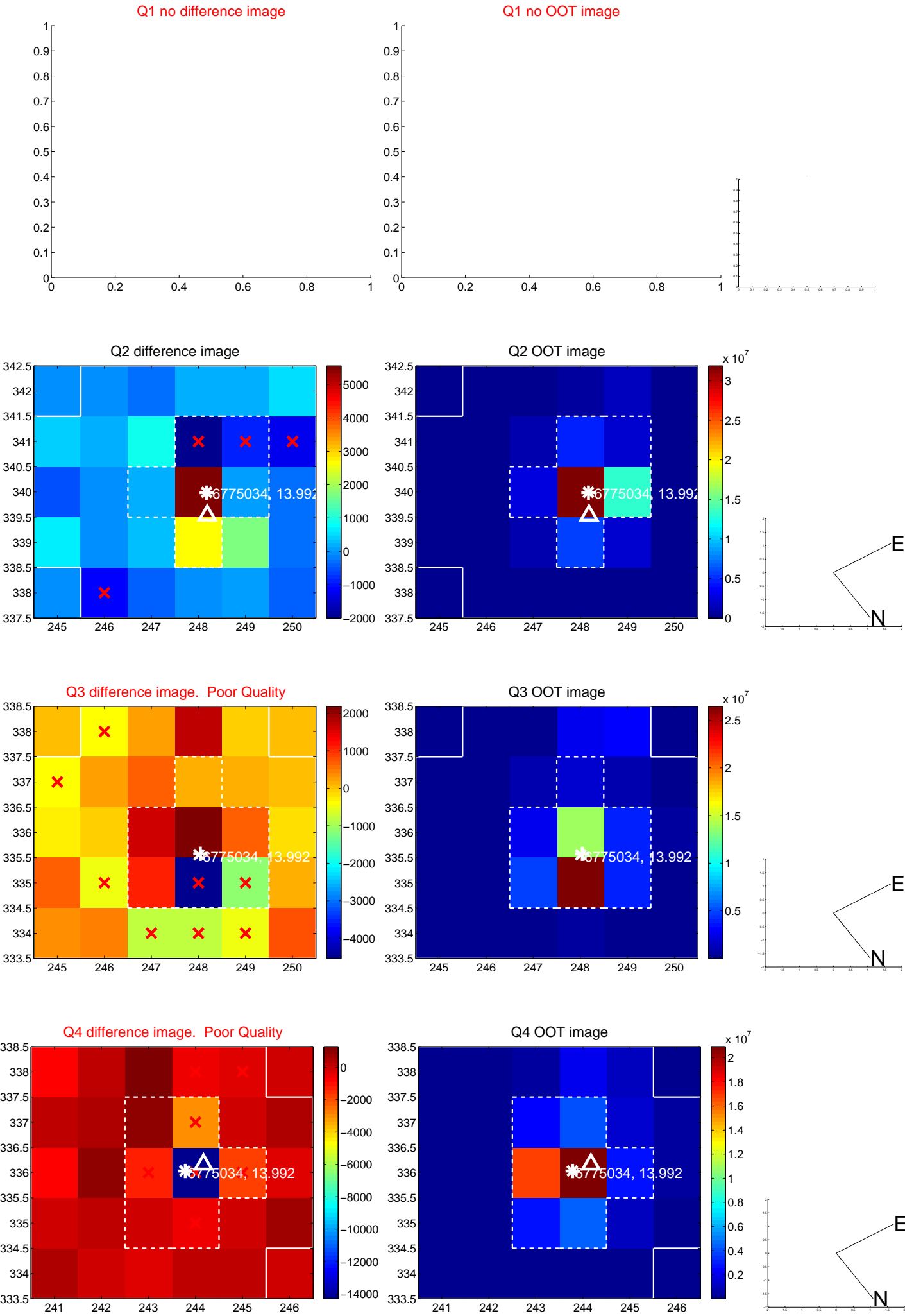
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|-------------------|
| PRF-fit source offset from OOT | 0.243 ± 0.427 | 0.57 | 0.242 ± 0.427 | 0.027 ± 0.469 |
| PRF-fit source offset from KIC position | 0.298 ± 0.431 | 0.69 | 0.293 ± 0.429 | 0.053 ± 0.478 |
| photometric centroid source offset | 1.73 ± 0.55 | 3.11 | 0.17 ± 0.60 | -1.72 ± 0.55 |

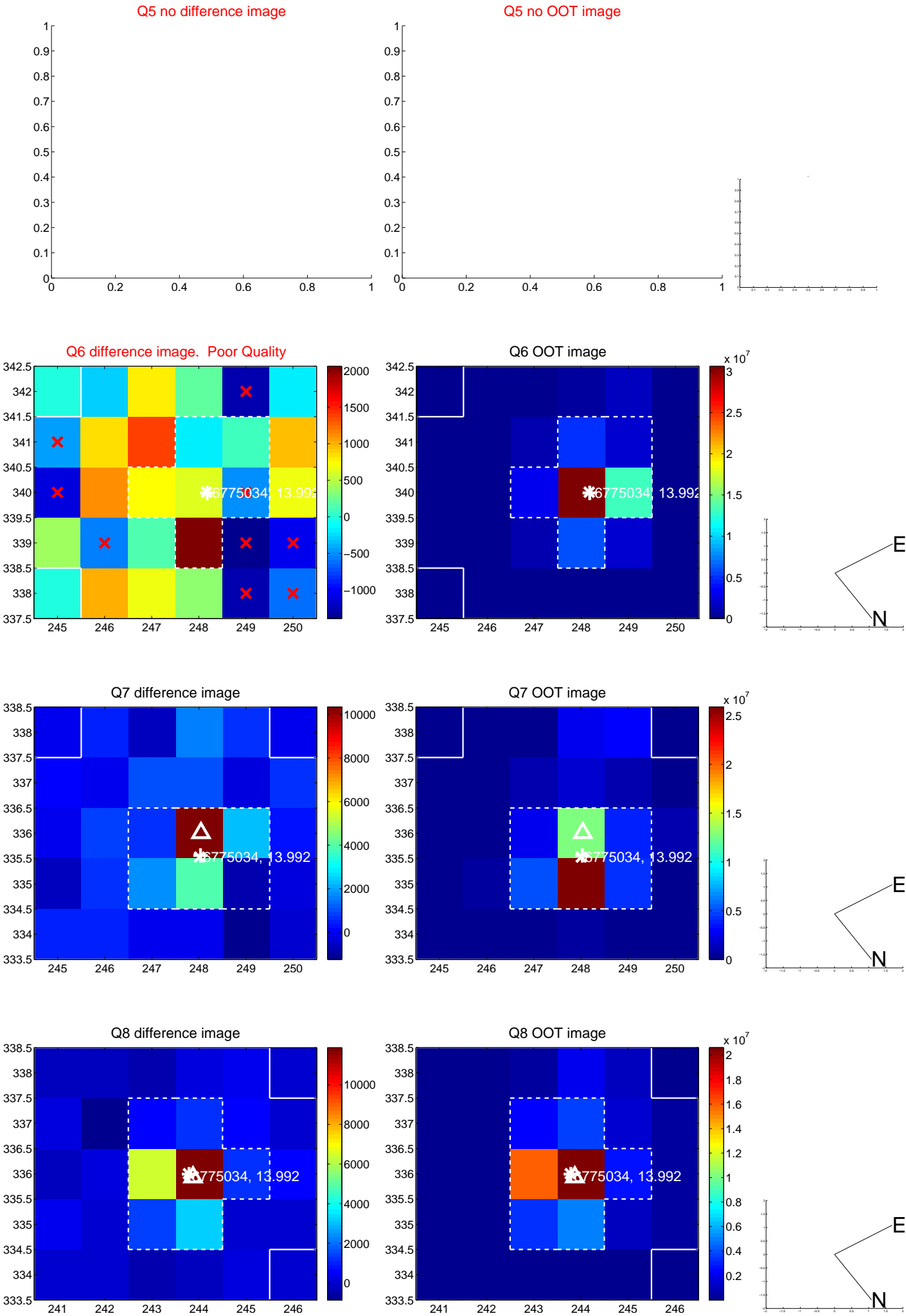


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

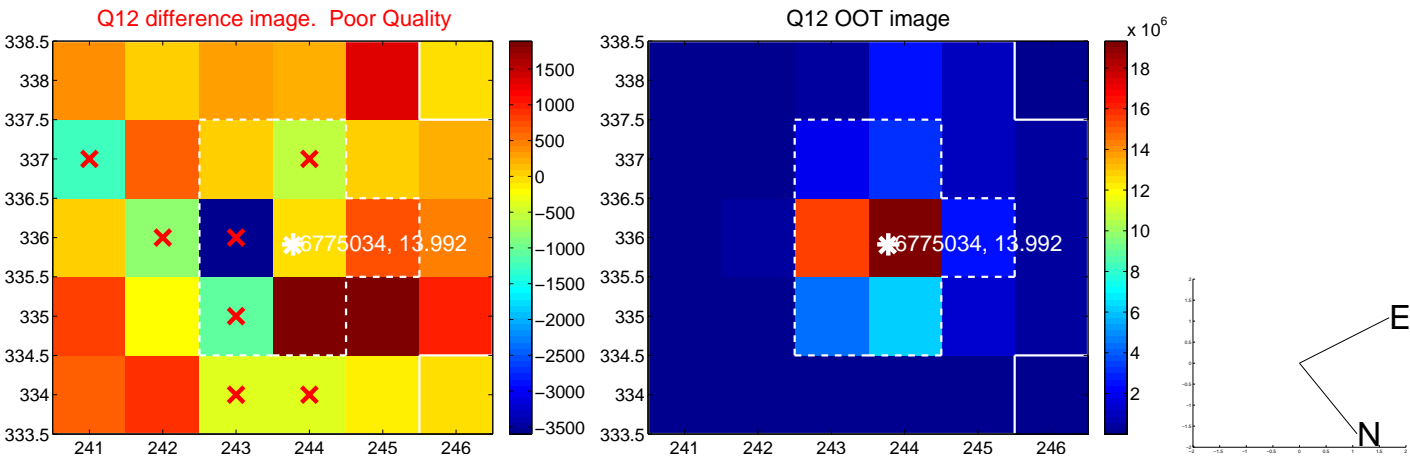
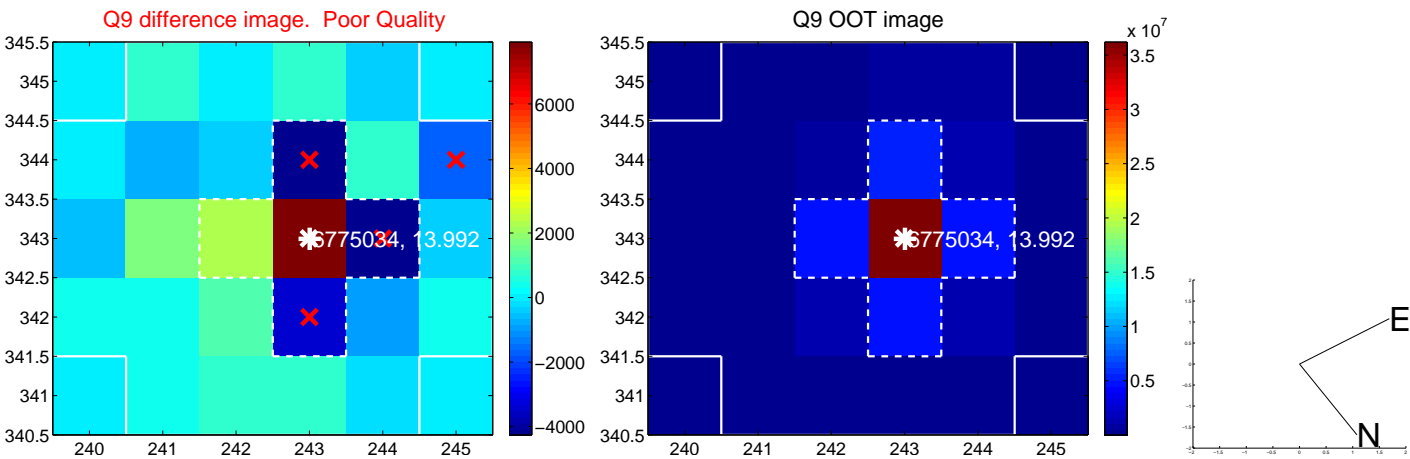
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

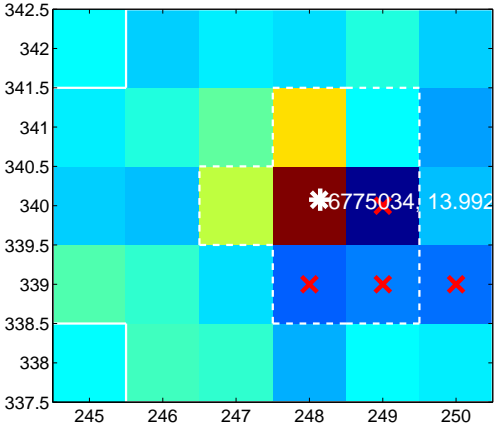
Q13 no difference image



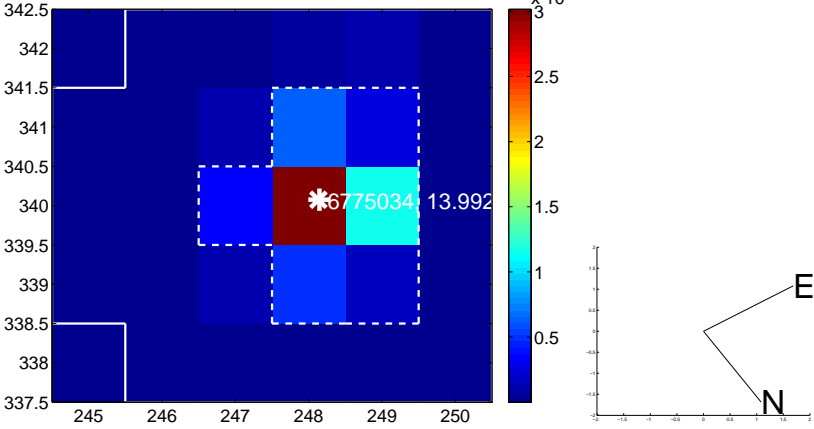
Q13 no OOT image



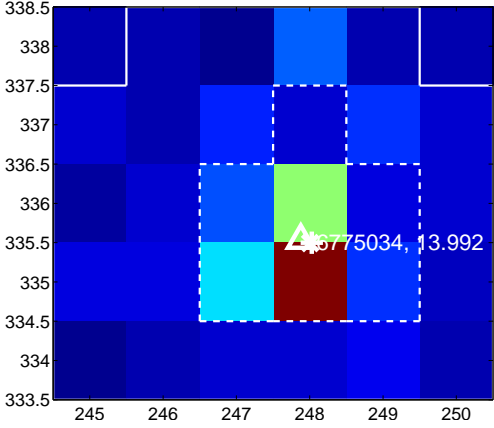
Q14 difference image. Poor Quality



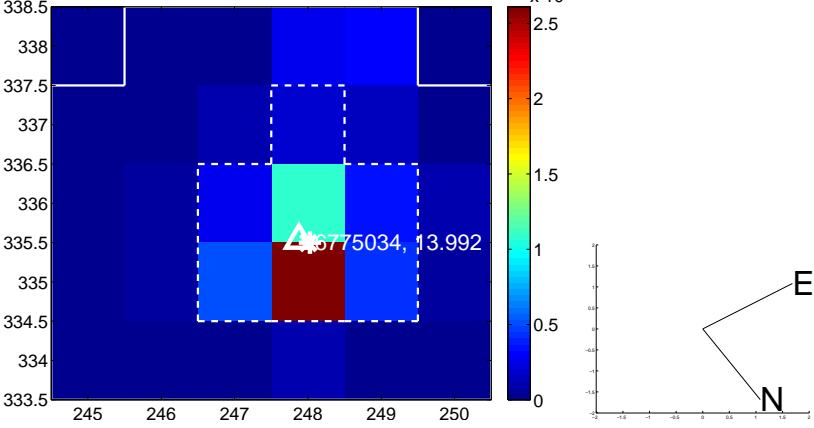
Q14 OOT image



Q15 difference image



Q15 OOT image



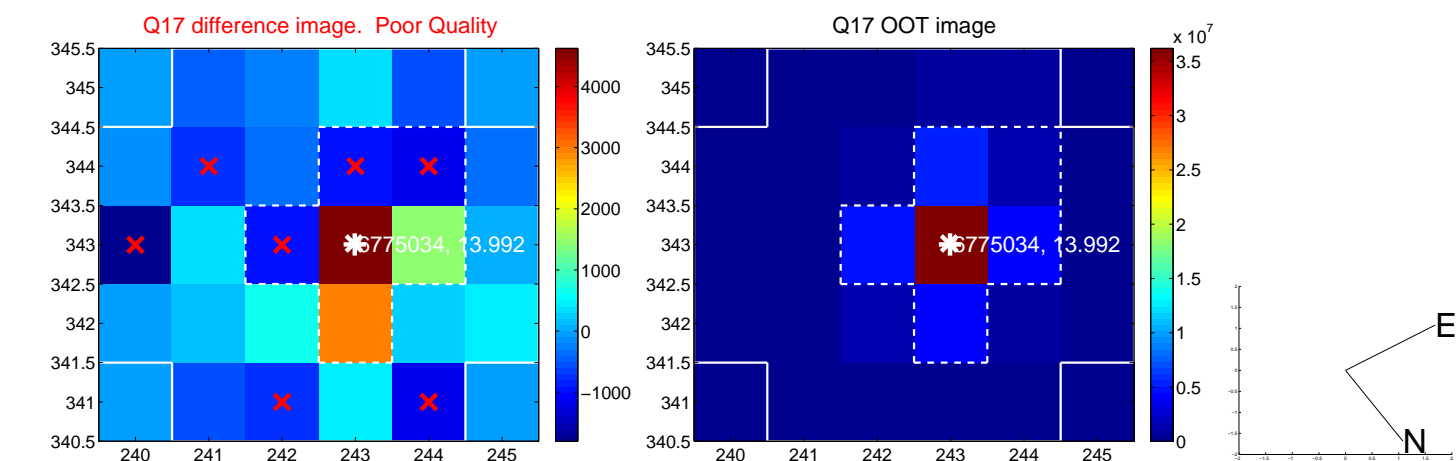
Q16 no difference image



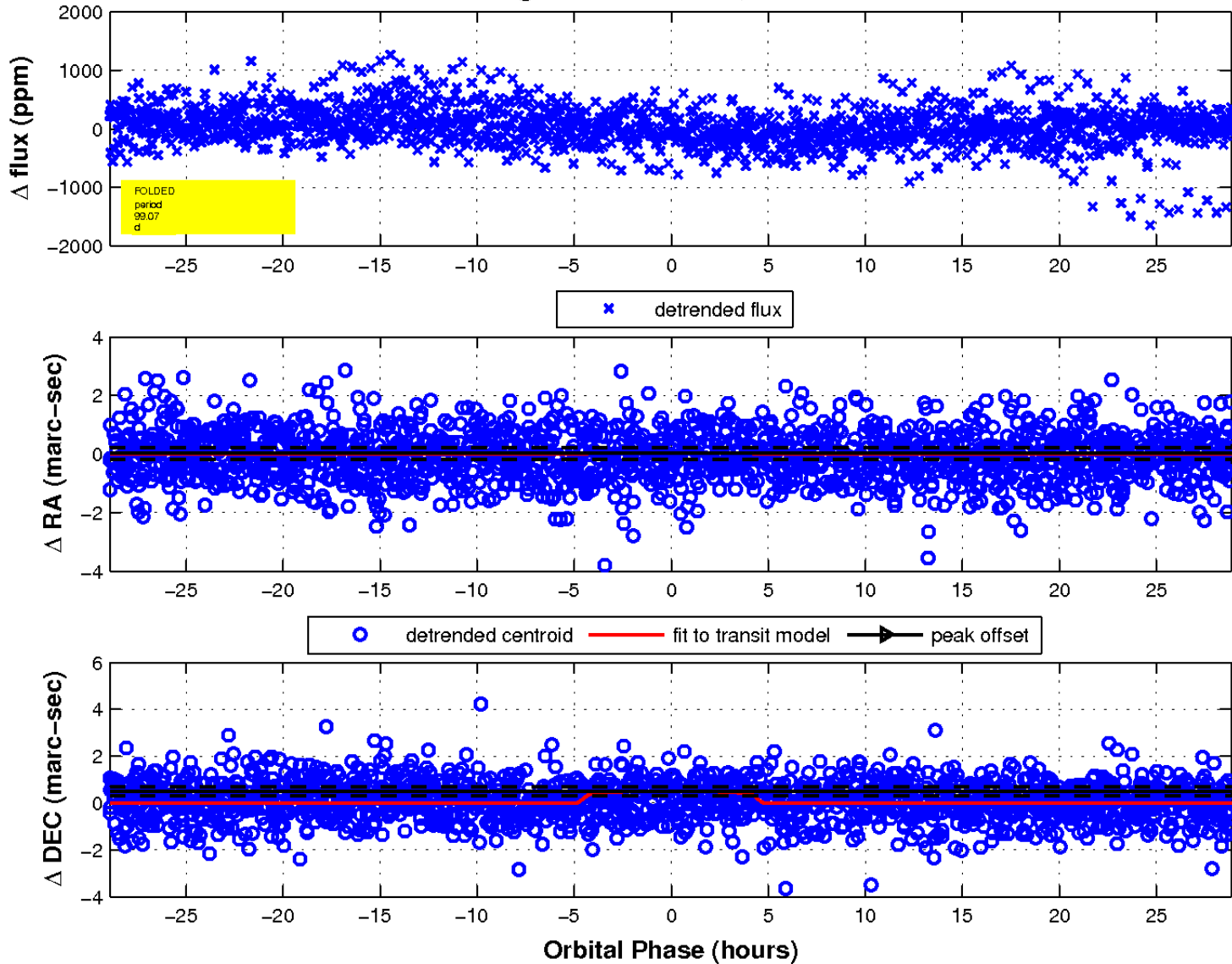
Q16 no OOT image



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



fluxWeightedCentroids, Planet 5 of 5



UKIRT Image

Declination

