

KIC 006879594

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006879594-01 | OBS | No | 1.554408 | 132.822197 | 439.4 | 3.189 | 13.4 | 13.1 | 2.58 | 7143 | 6.31 | 15871.98 |
| 006879594-02 | OBS | No | 1.554535 | 132.270238 | 237.2 | 0.846 | 10.0 | 3.7 | 2.58 | 7143 | 4.16 | 15870.25 |
| 006879594-03 | OBS | No | 0.923116 | 132.122246 | 185.4 | 6.189 | 8.2 | 7.3 | 2.58 | 7143 | 3.76 | 31796.24 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006879594-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT |
| 006879594-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— SAME_NTL_PERIOD |
| 006879594-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT |

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

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

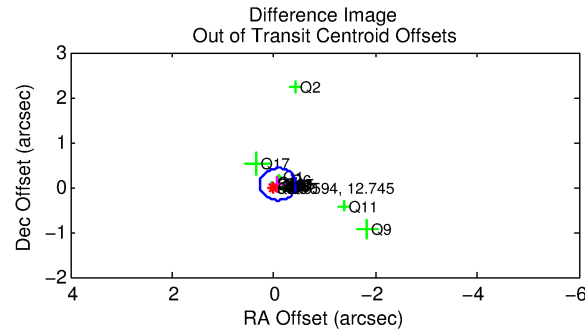
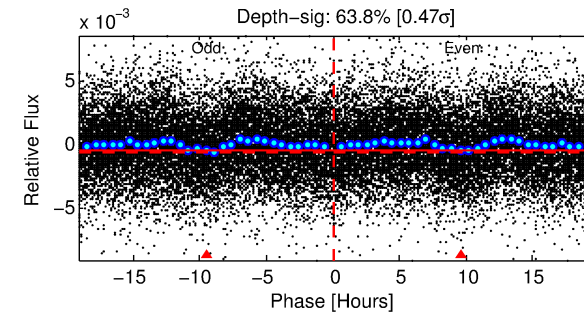
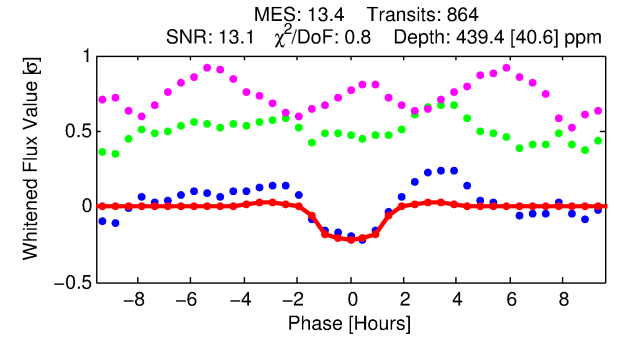
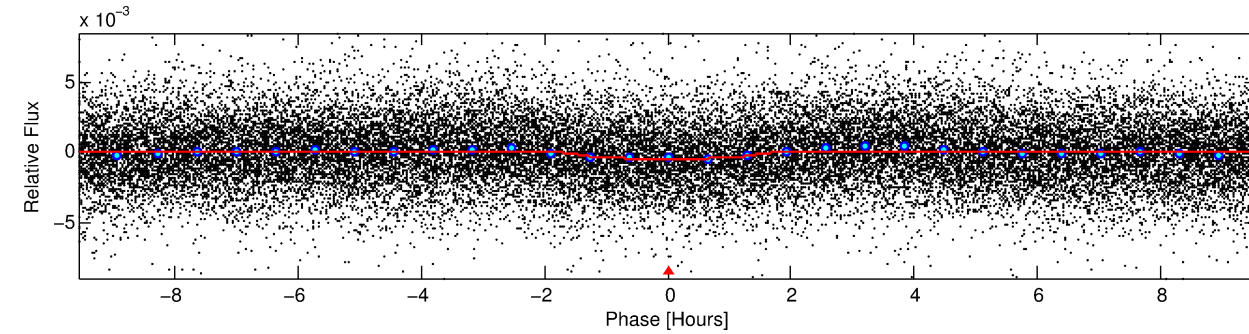
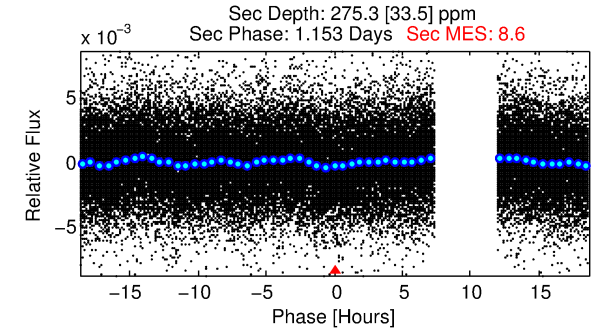
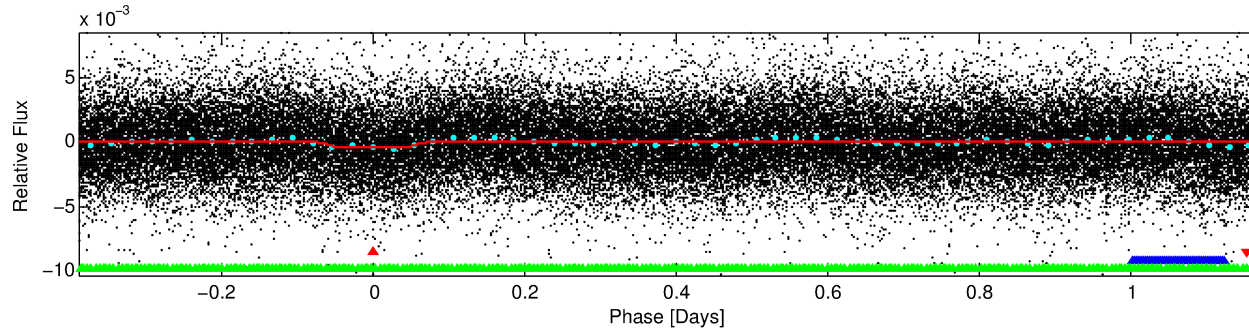
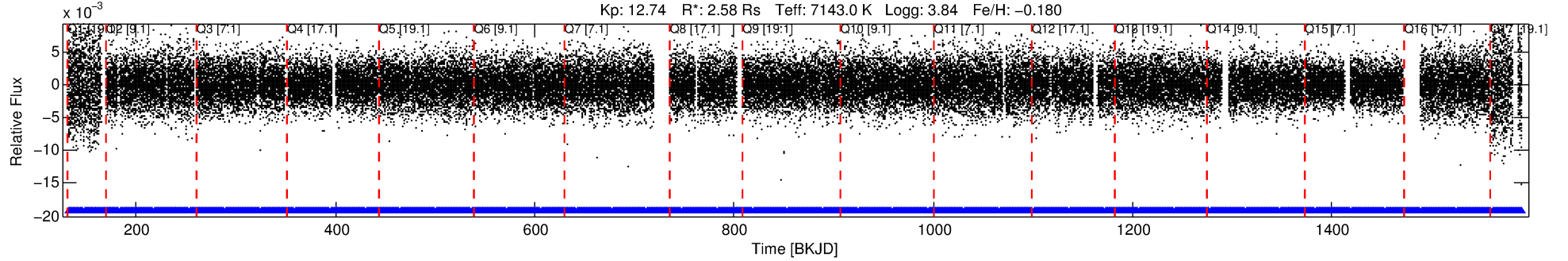
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006879594-01

No Significant Match Found

DV One-Page Summary

KIC: 6879594 Candidate: 1 of 3 Period: 1.554 d



DV Fit Results:

Period = 1.55441 [0.00001] d
Epoch = 132.8222 [0.0033] BKJD
Rp/R* = 0.0224 [0.0043]
a/R* = 2.04 [1.66]
b = 0.90 [0.23]
Seff = 15871.98 [10320.51]
Teff = 2862 [465] K
Rp = 6.31 [2.83] Re
a = 0.0313 [0.0122] AU
Ag = 3.71 [2.77] [0.98σ]
Teffp = 6143 [677] K [3.99σ]

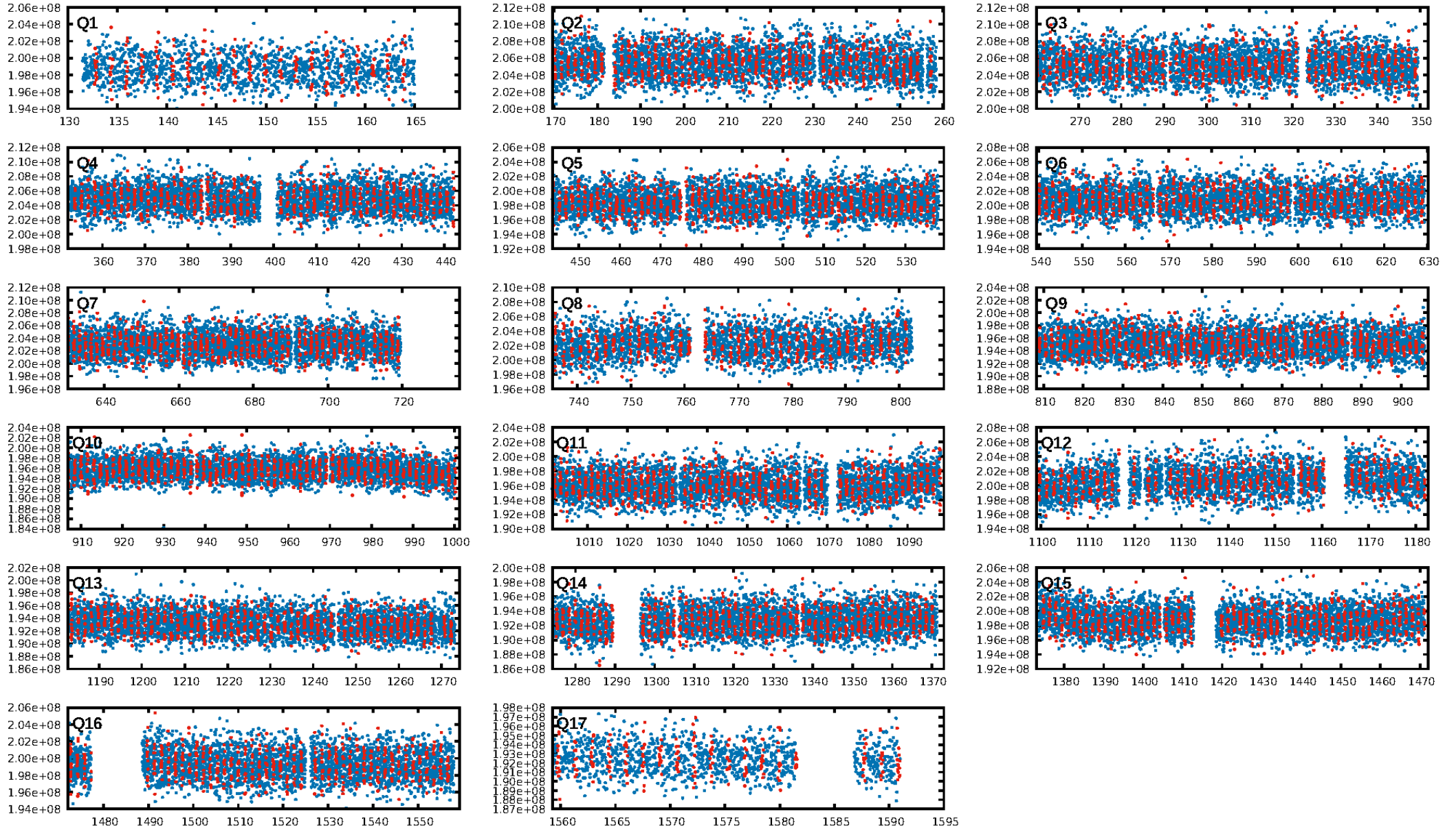
DV Diagnostic Results:

ShortPeriod-sig: 97.0% [2.18σ]
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.67e-18
RollingBand-fgt: 1.00 [825/825]
GhostDiagnostic-chr: 1.906
Centroid-sig: 6.9%
Centroid-so: 0.082 arcsec [1.95σ]
OotOffset-rm: 0.100 arcsec [0.84σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.205 arcsec [1.65σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.82 [14/17]
DiffImageOverlap-fno: 0.24 [4/17]

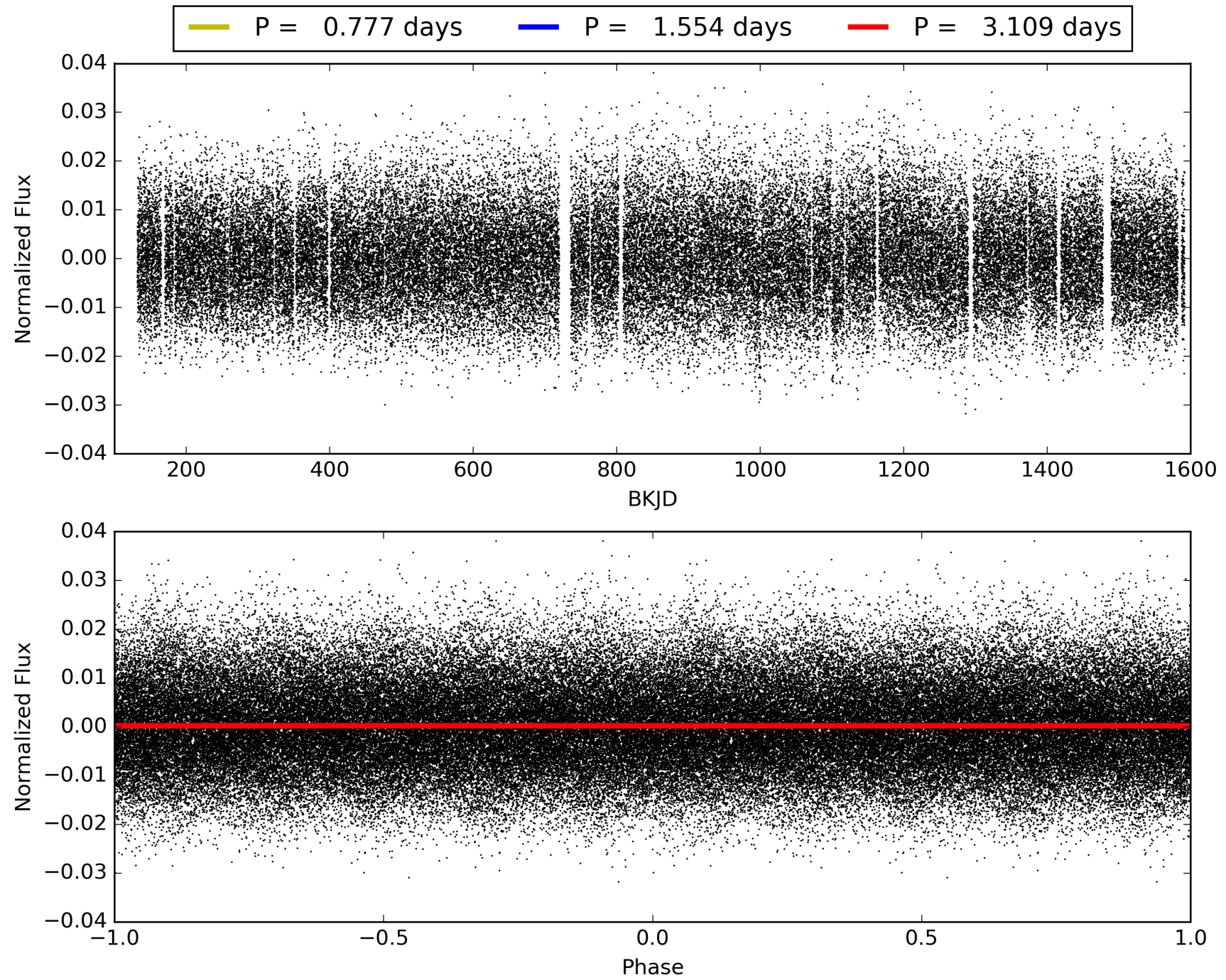
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:38:46 Z

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

TCE 006879594-01, PDC Light Curves

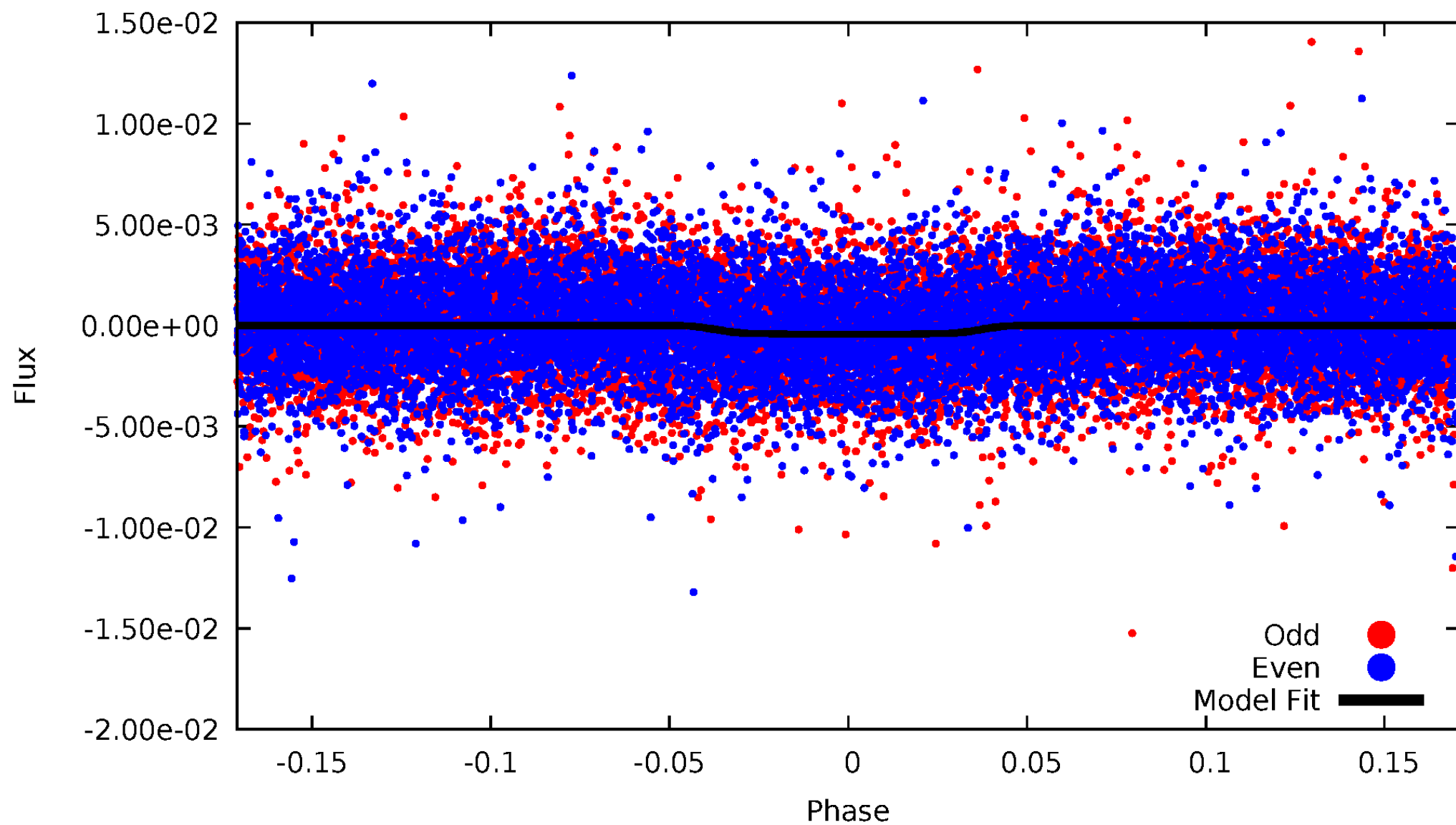


TCE 006879594-01



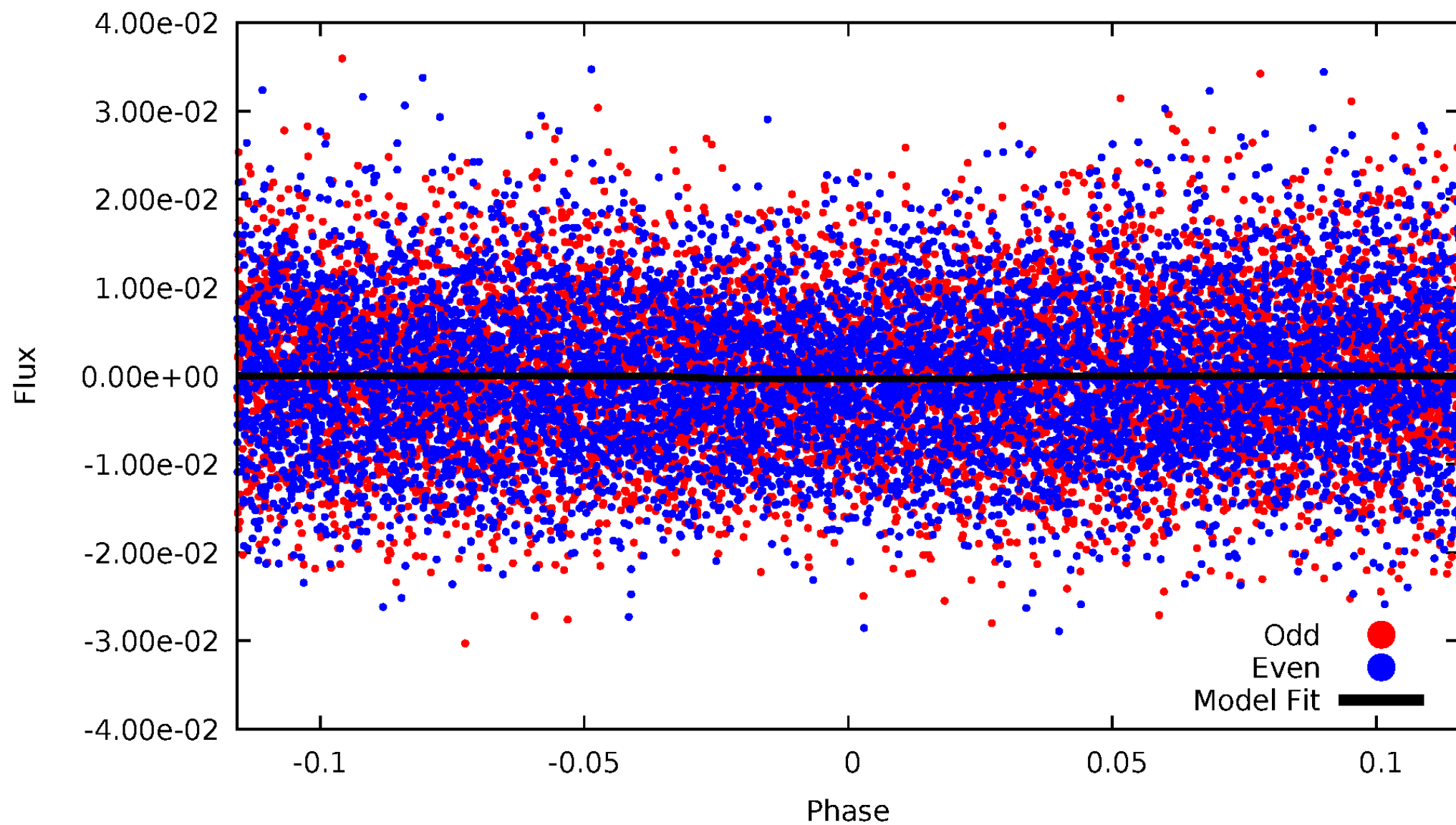
DV Odd/Even

TCE 006879594-01

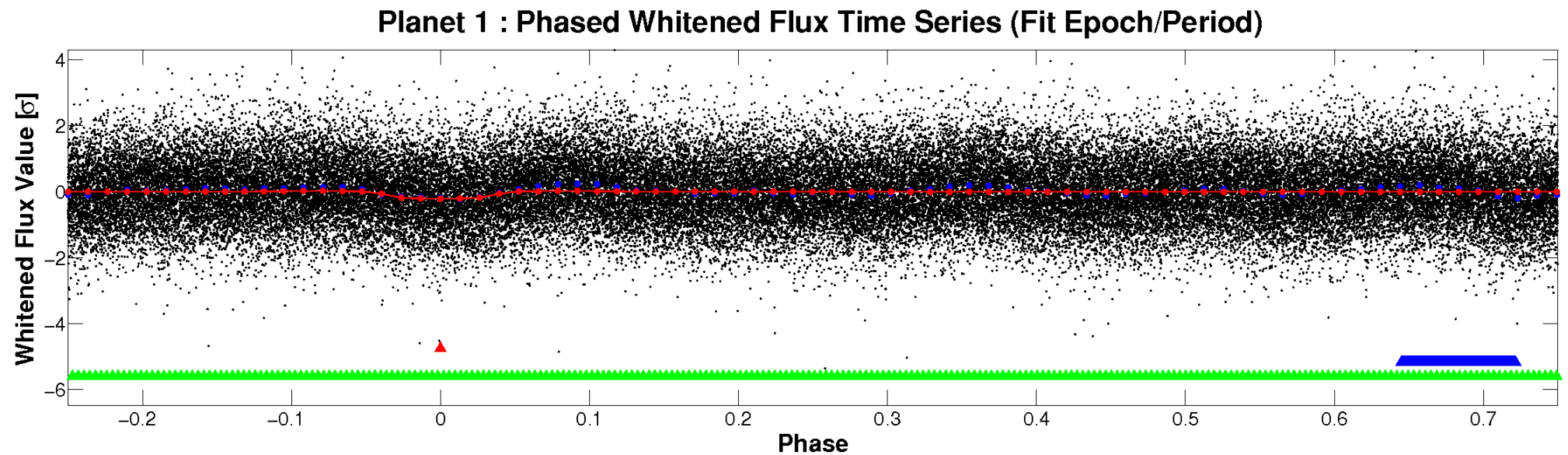
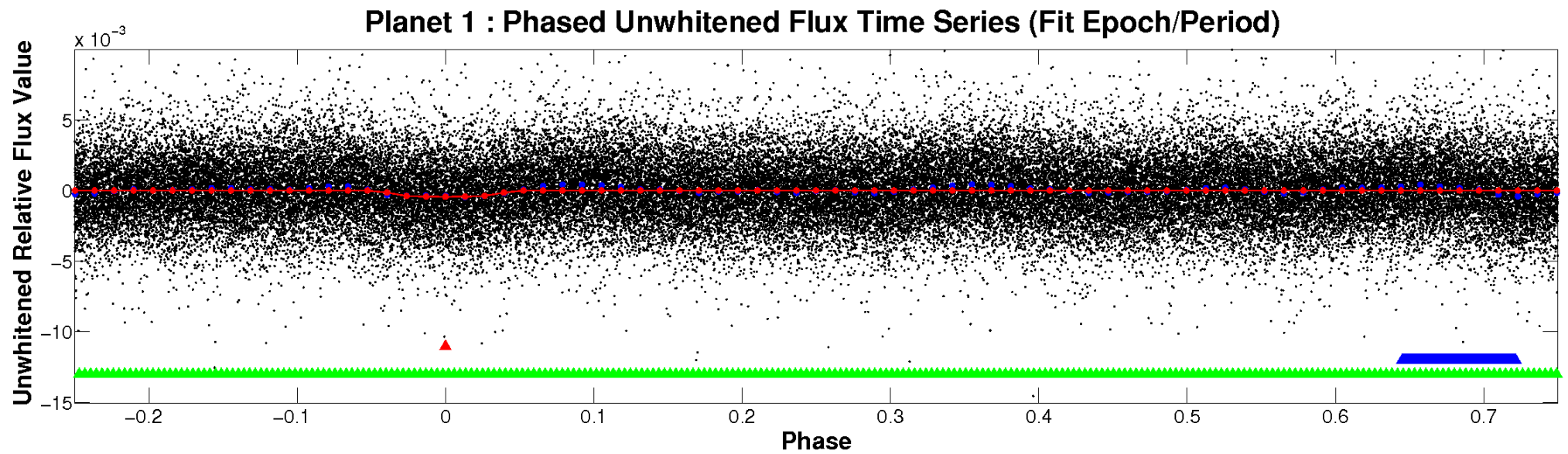


ALT Odd/Even

TCE 006879594-01

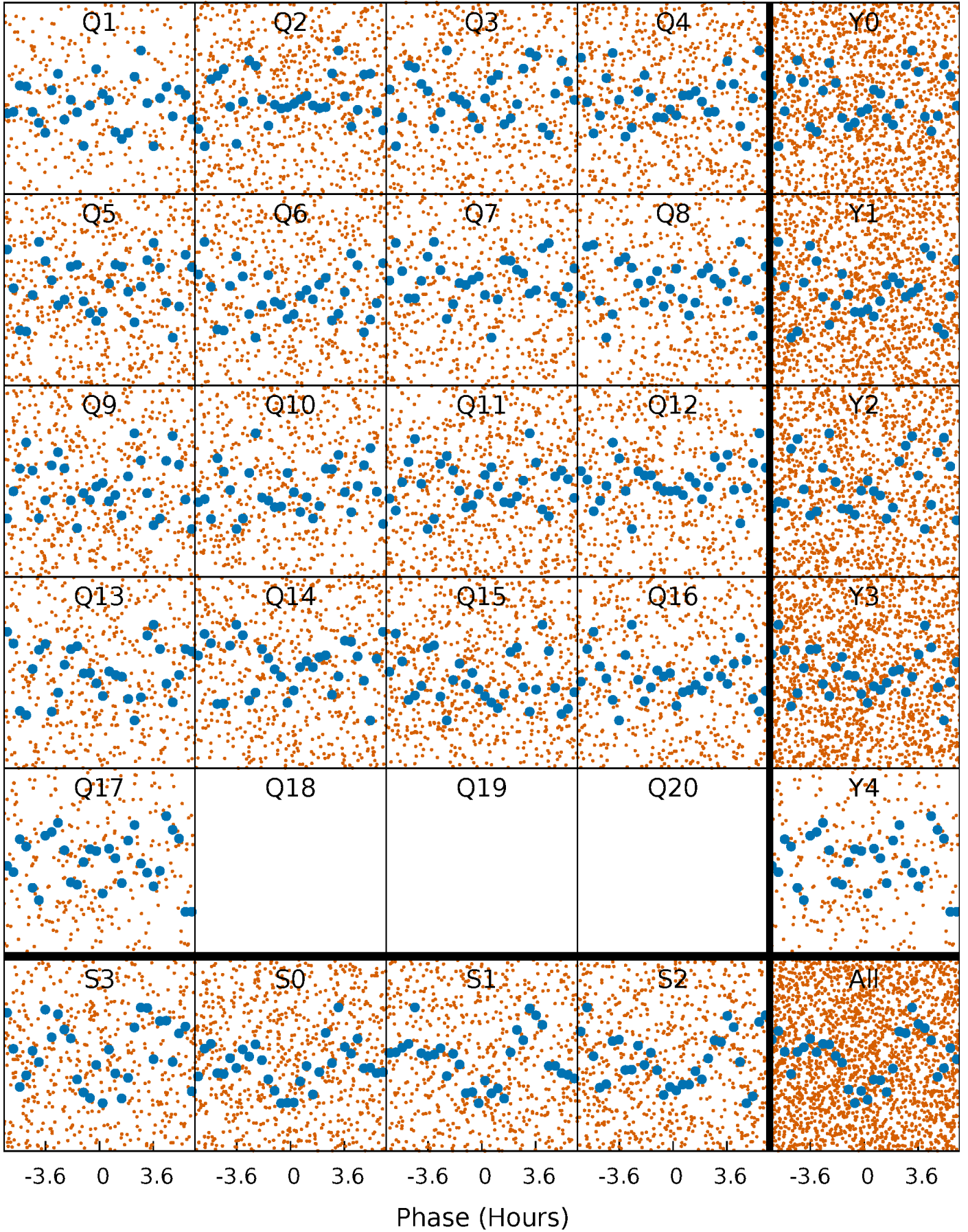


Non-Whitened Vs. Whitened Light Curve



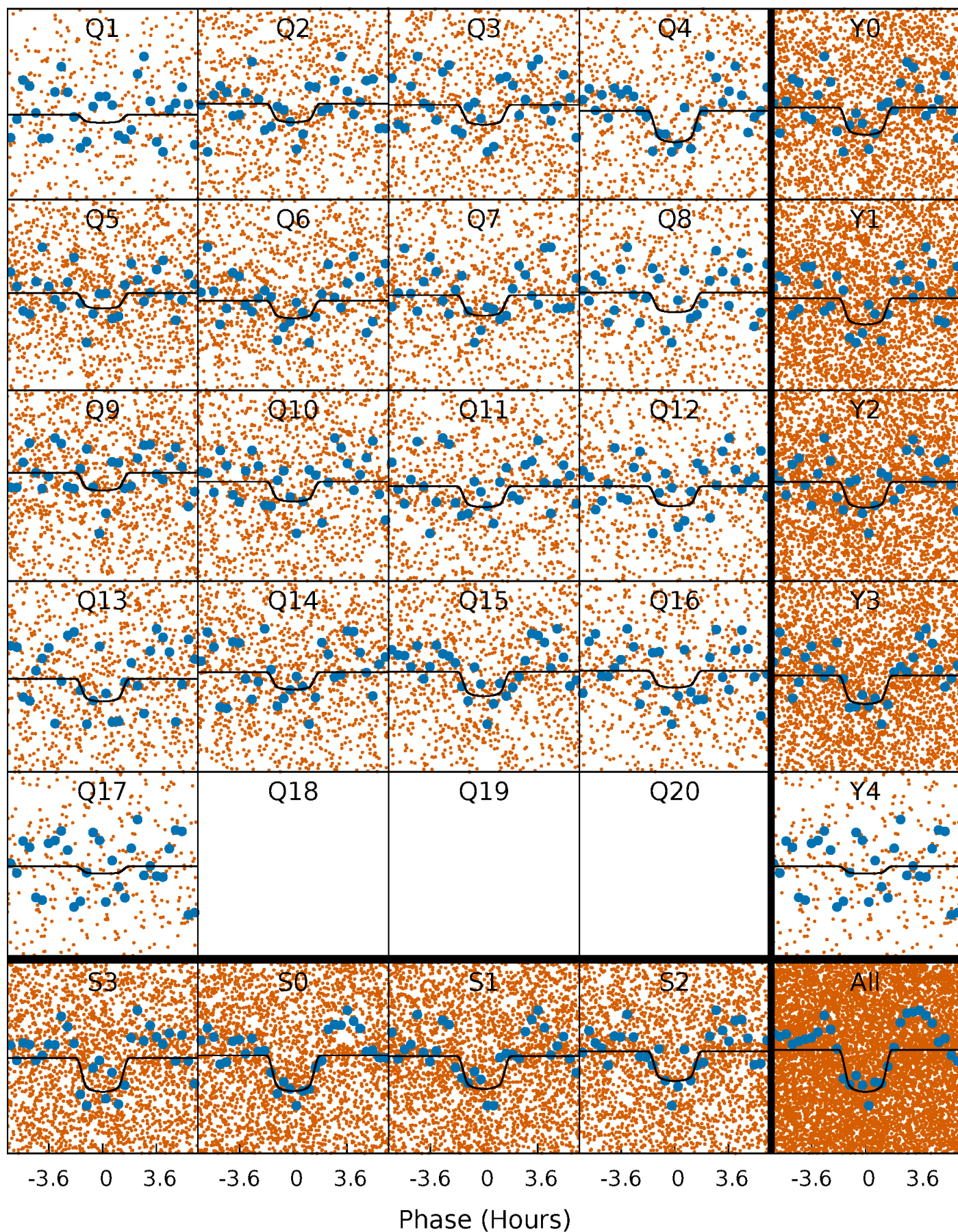
PDC Quarter-Phased Transit Curves

TCE 006879594-01 P= 1.554408 Days $T_0=132.822197$ (BKJD)



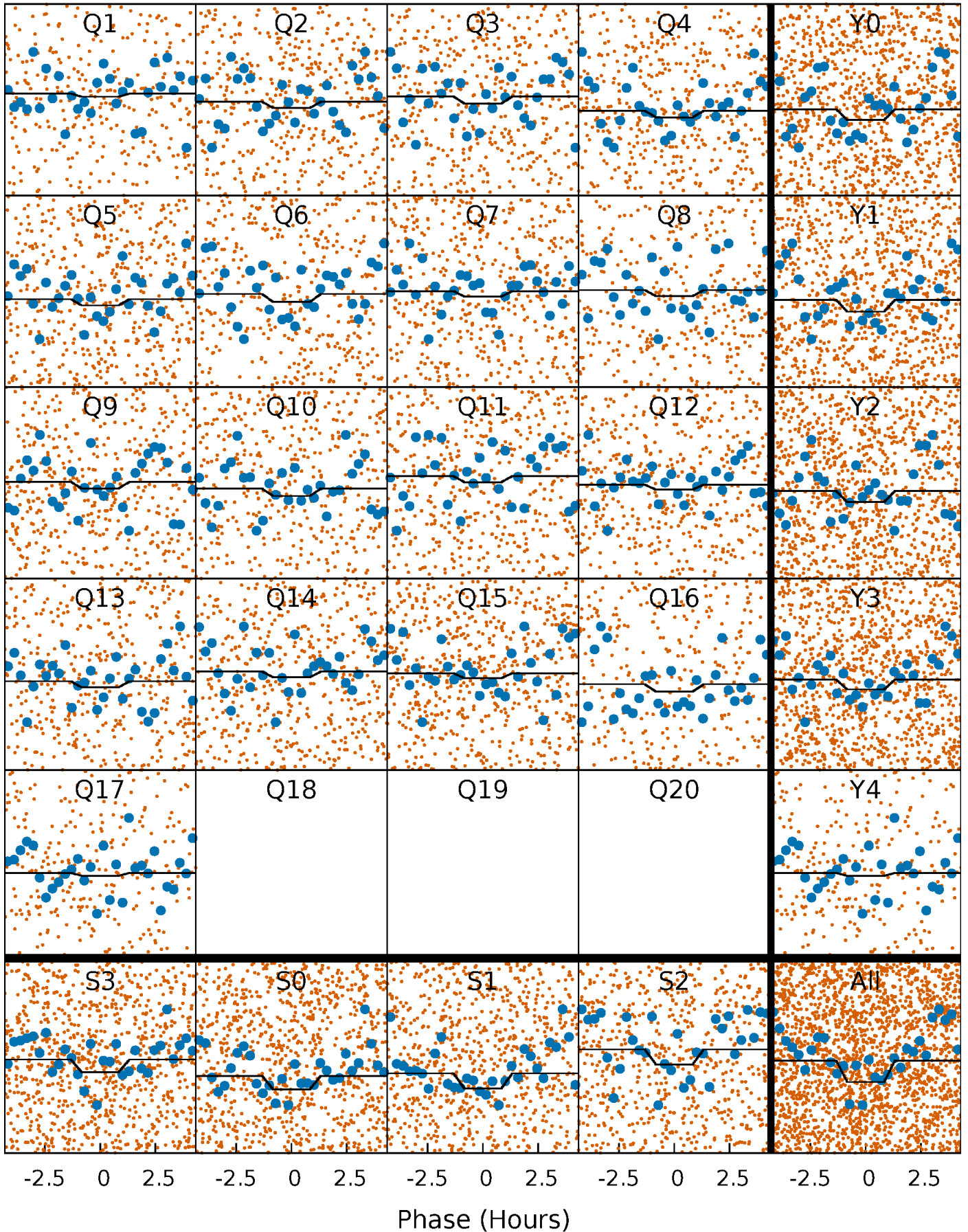
DV Quarter-Phased Transit Curves

TCE 006879594-01 P= 1.554408 Days $T_0=132.822197$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

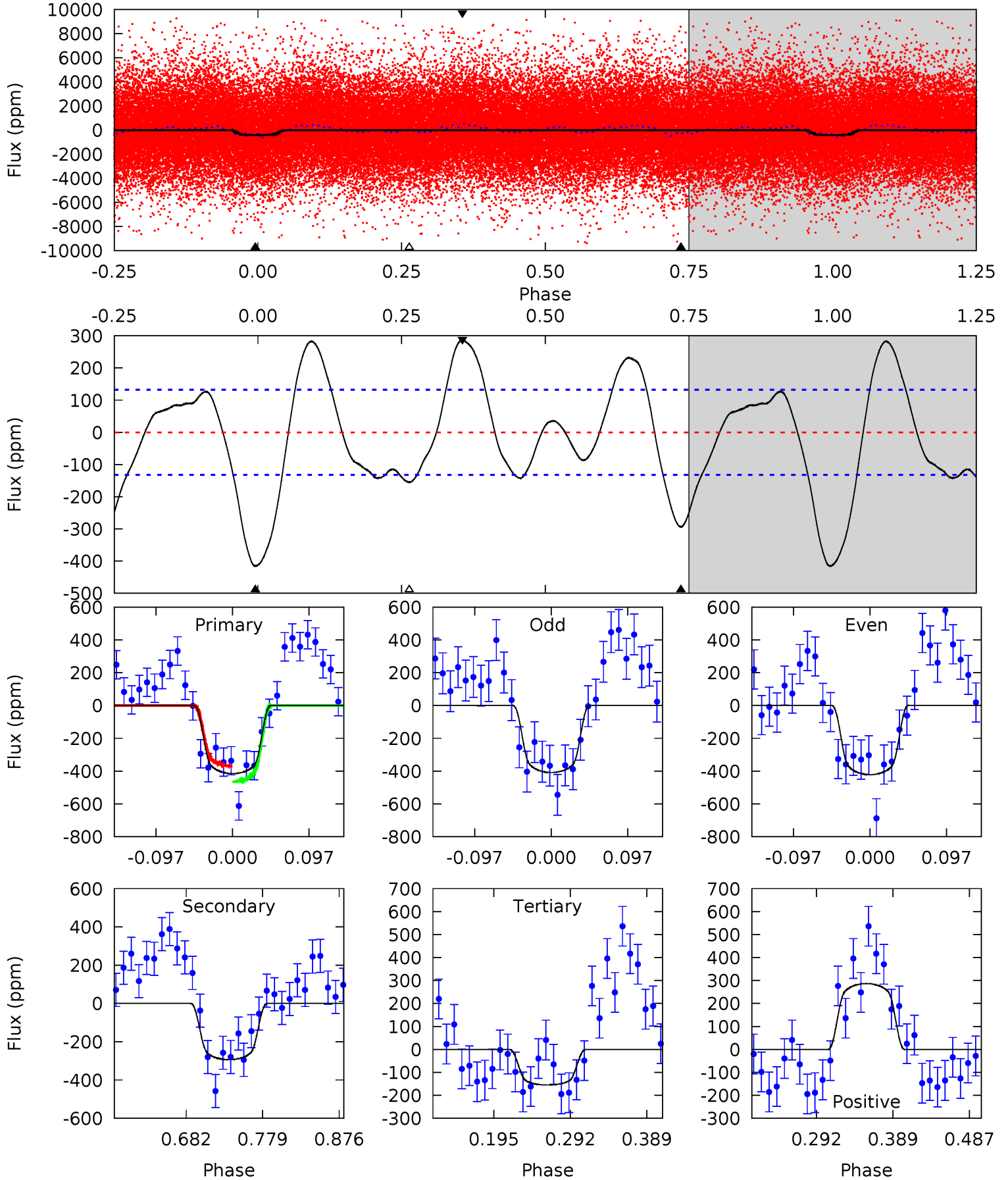
TCE 006879594-01 P= 1.554439 Days $T_0=132.812586$ (BKJD)



DV Model-Shift Uniqueness Test

006879594-01, P = 1.554408 Days, E = 131.267789 Days

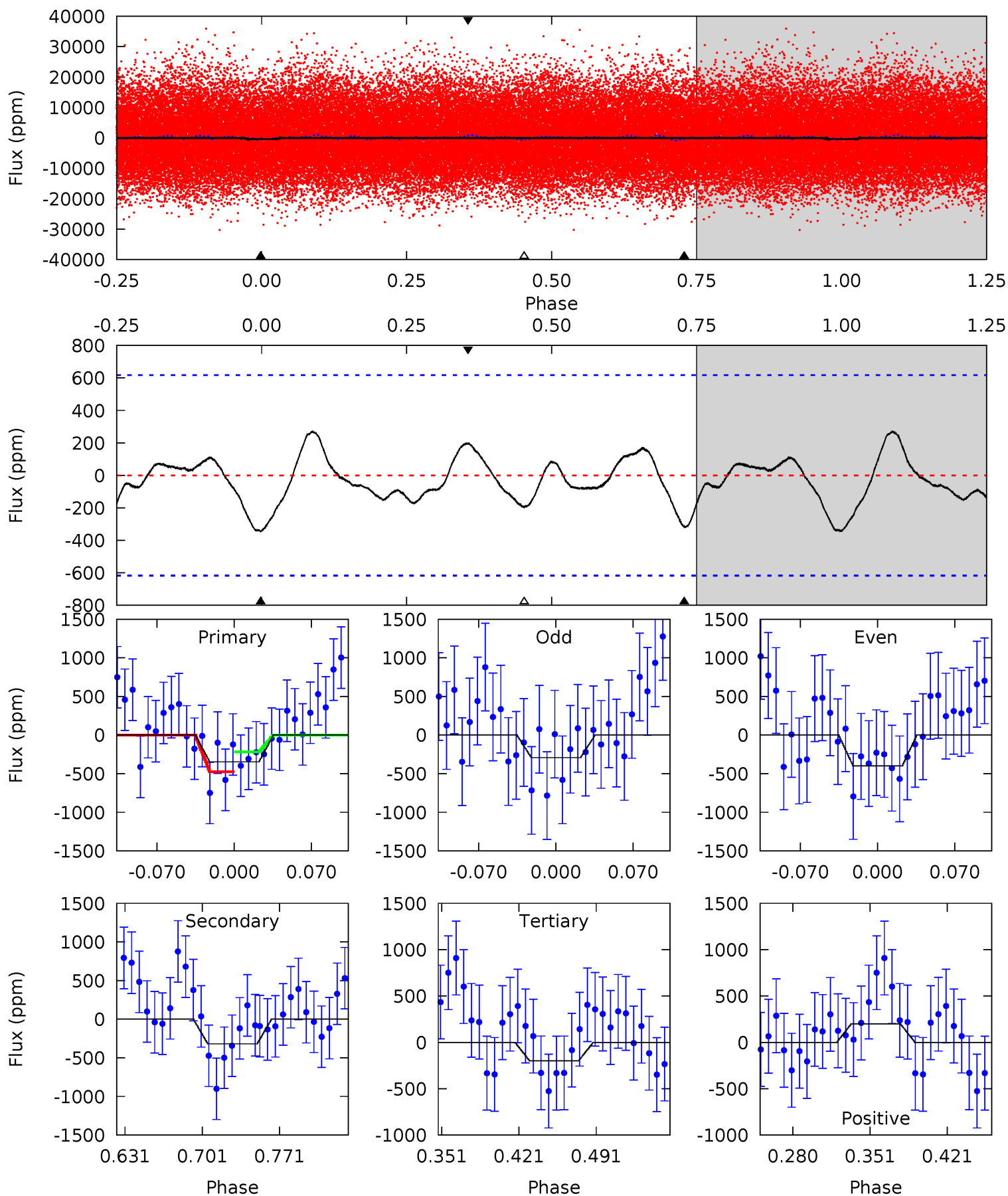
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 14.4 | 10.2 | 5.37 | 9.91 | 4.57 | 1.66 | 4.51 | 9.00 | 4.45 | 4.79 | 0.25 | 0.22 | 1.04 | 0.41 | 1.66 |



Alt Model-Shift Uniqueness Test

006879594-01, P = 1.554439 Days, E = 131.258147 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 2.60 | 2.41 | 1.49 | 1.50 | 4.64 | 1.81 | 0.83 | 1.11 | 1.11 | 0.92 | 0.91 | 0.40 | 0.84 | 0.44 | 0.95 |



Stellar Parameters For KIC 006879594

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7143^{+199}_{-313} | $3.842^{+0.368}_{-0.123}$ | $-0.180^{+0.250}_{-0.350}$ | $2.579^{+0.482}_{-1.045}$ | $1.686^{+0.180}_{-0.419}$ | $0.139^{+0.397}_{-0.049}$ |
| | +3%/-4% | +10%/-3% | +139%/-194% | +19%/-41% | +11%/-25% | +287%/-35% |
| 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 006879594-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|----------------|------------------------|----------------------|------------------------|---------------------------|
| DV | -294 ± 29 | $5.95^{+1.53}_{-1.60}$ | 3933^{+270}_{-388} | 6090^{+811}_{-598} | $4.436^{+3.644}_{-1.661}$ |
| Alt. | -320 ± 133 | $4.92^{+1.57}_{-1.55}$ | 3920^{+264}_{-433} | 6760^{+1551}_{-1178} | $6.710^{+8.939}_{-3.484}$ |

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 $A_{obs} \gg 1.0$

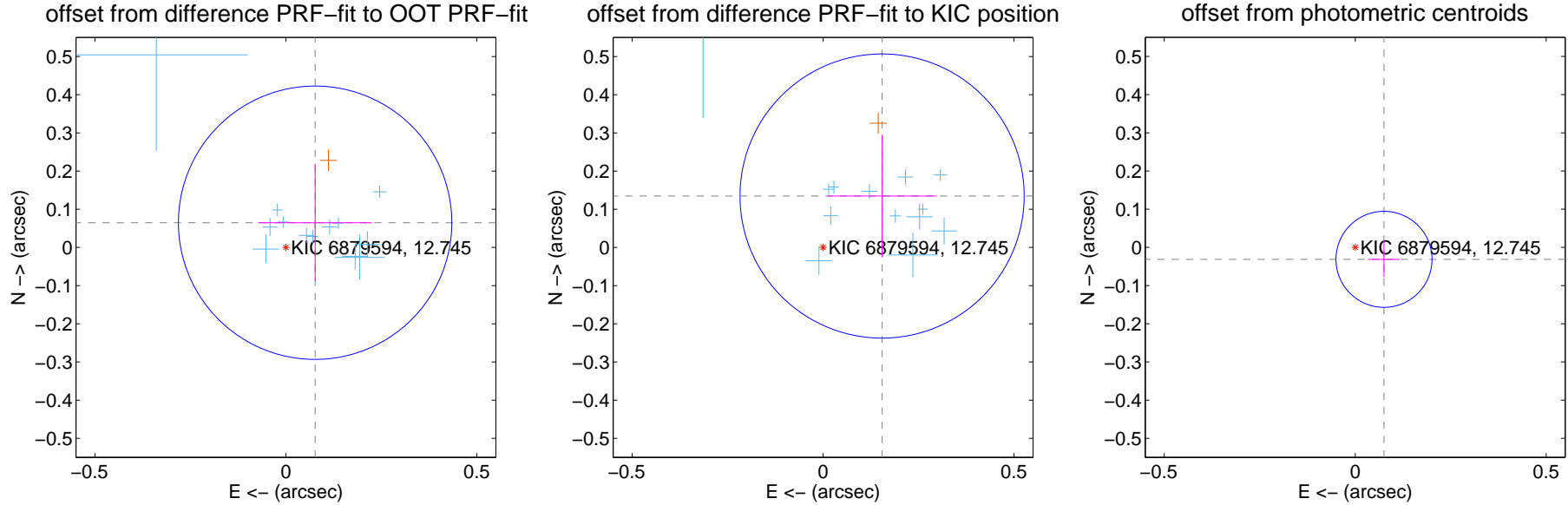
DV Centroid Data

Supplemental centroid analysis for 006879594-01. Kepler magnitude: 12.74. Transit SNR 13.10

There are 14 quarters with good PRF difference image offsets

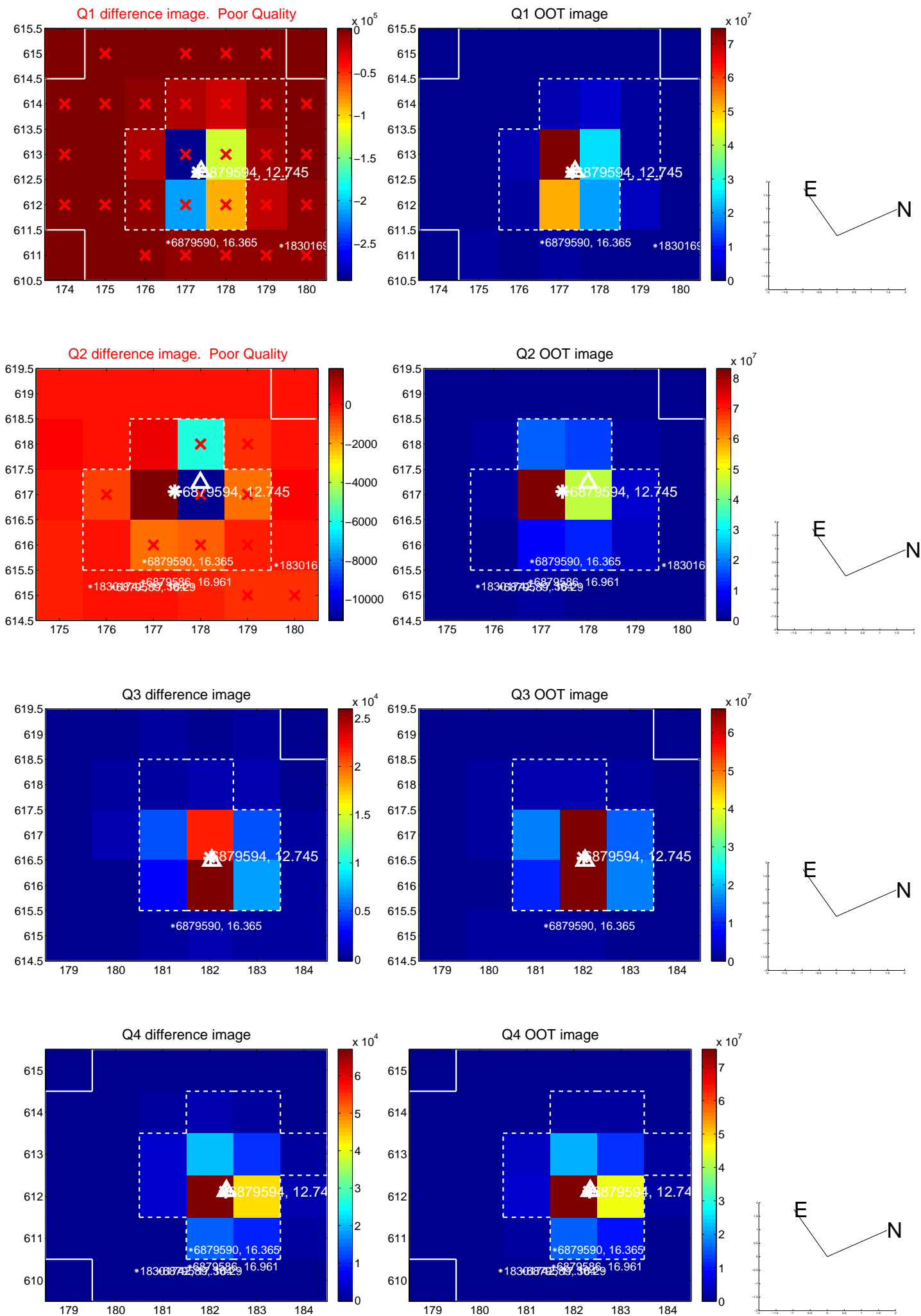
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 0.100 ± 0.119 | 0.84 | -0.077 ± 0.149 | 0.065 ± 0.153 |
| PRF-fit source offset from KIC position | 0.205 ± 0.124 | 1.65 | -0.155 ± 0.143 | 0.135 ± 0.160 |
| photometric centroid source offset | 0.08 ± 0.04 | 1.95 | -0.08 ± 0.04 | -0.03 ± 0.05 |

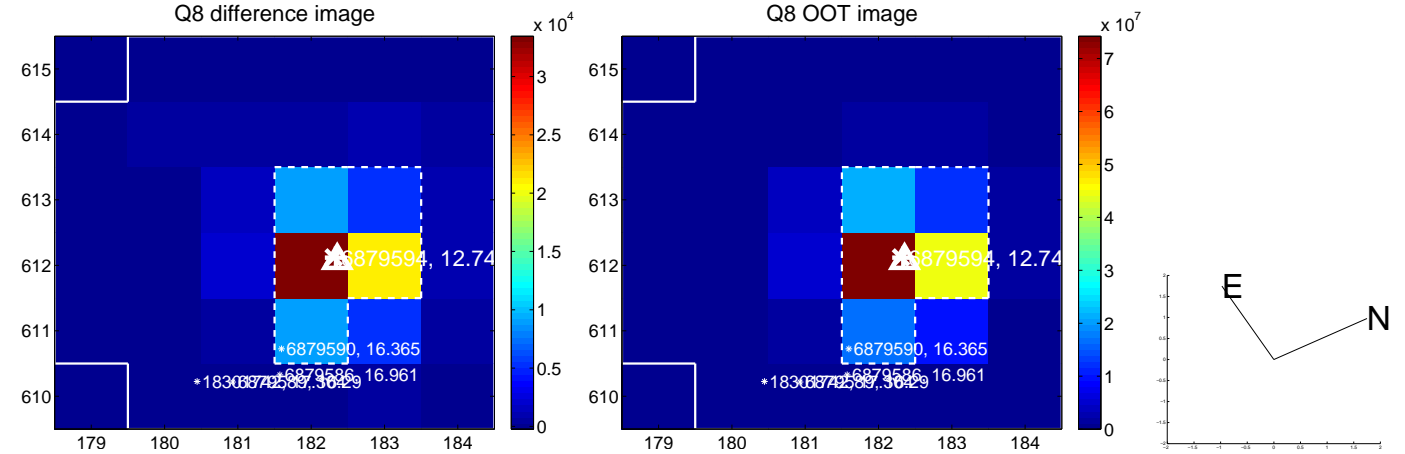
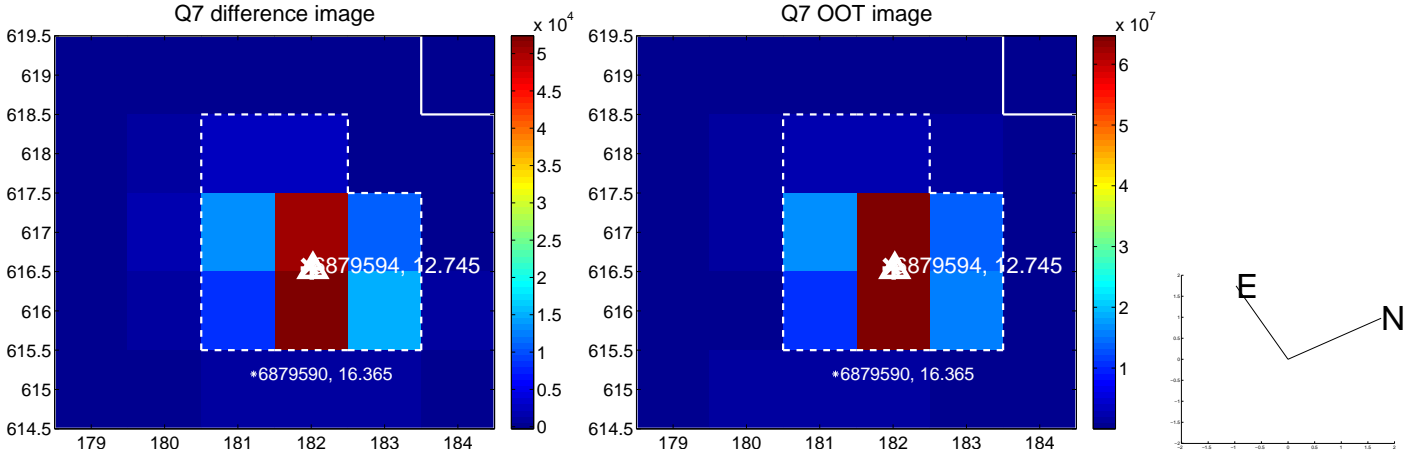
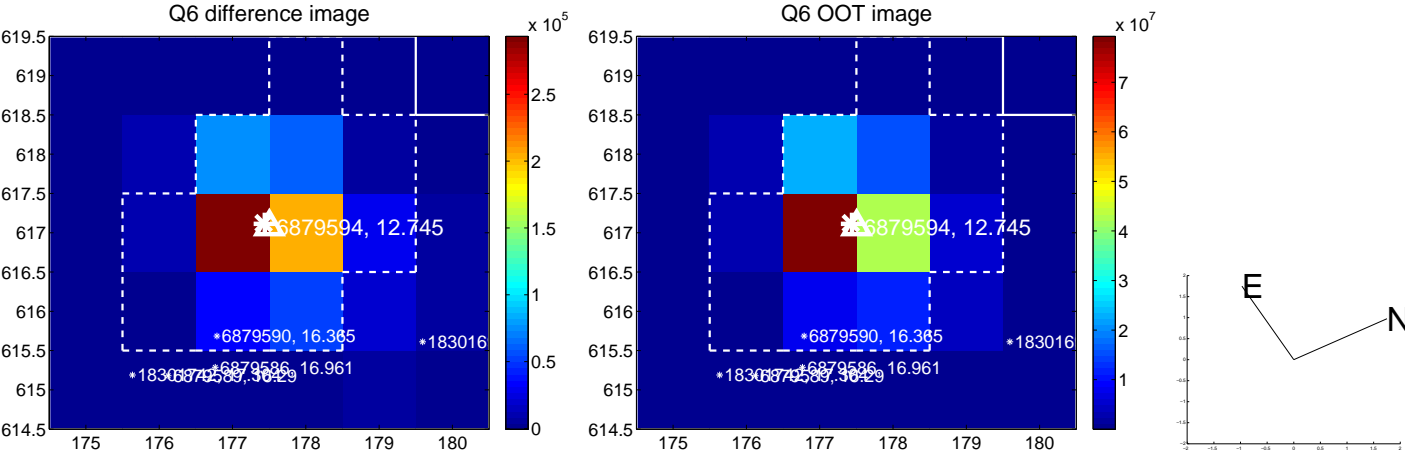
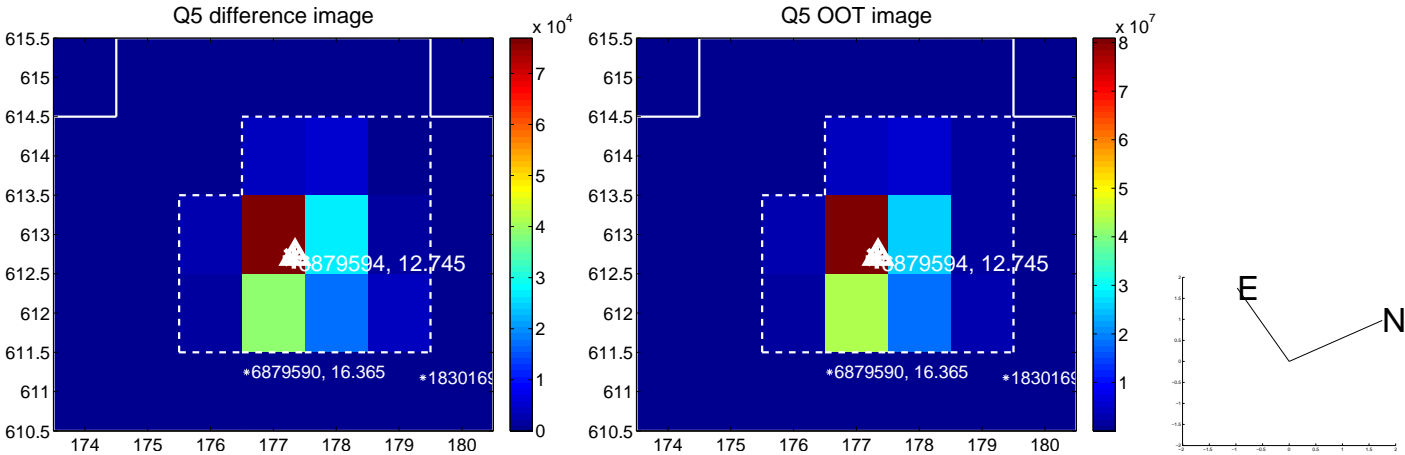


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

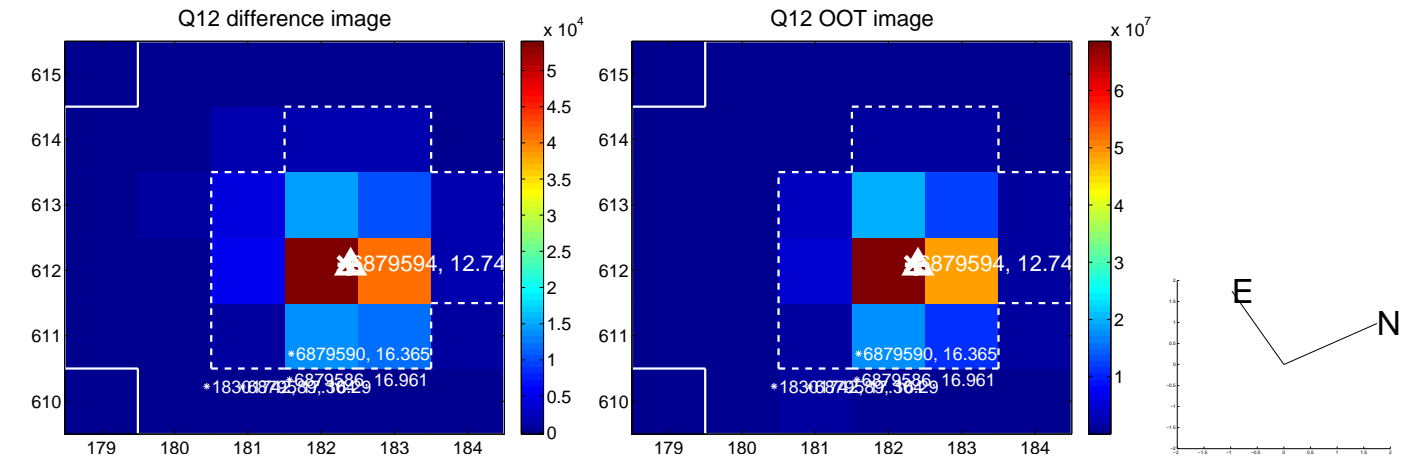
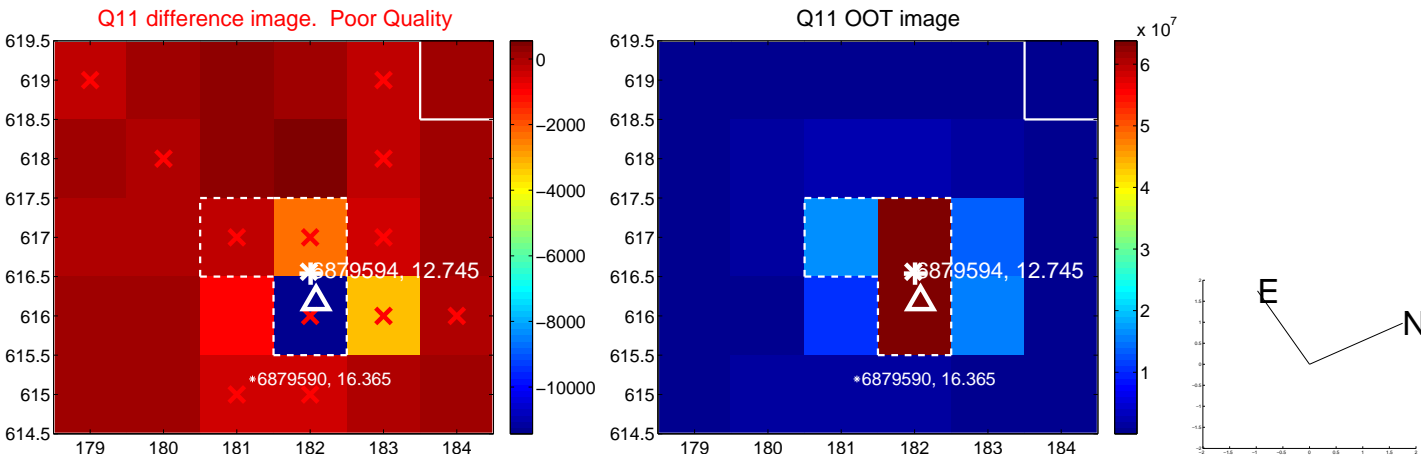
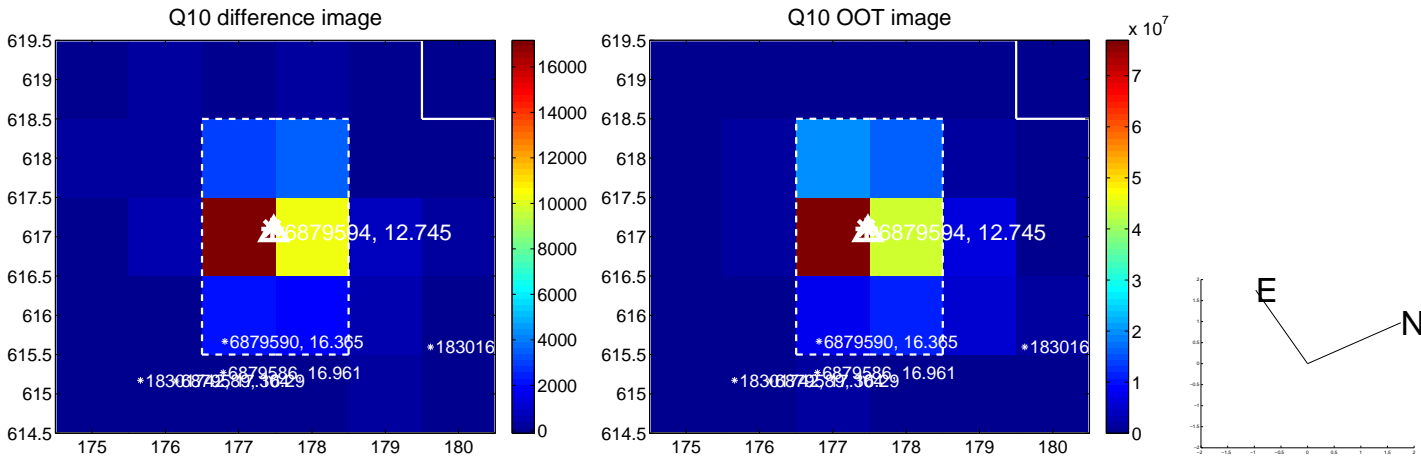
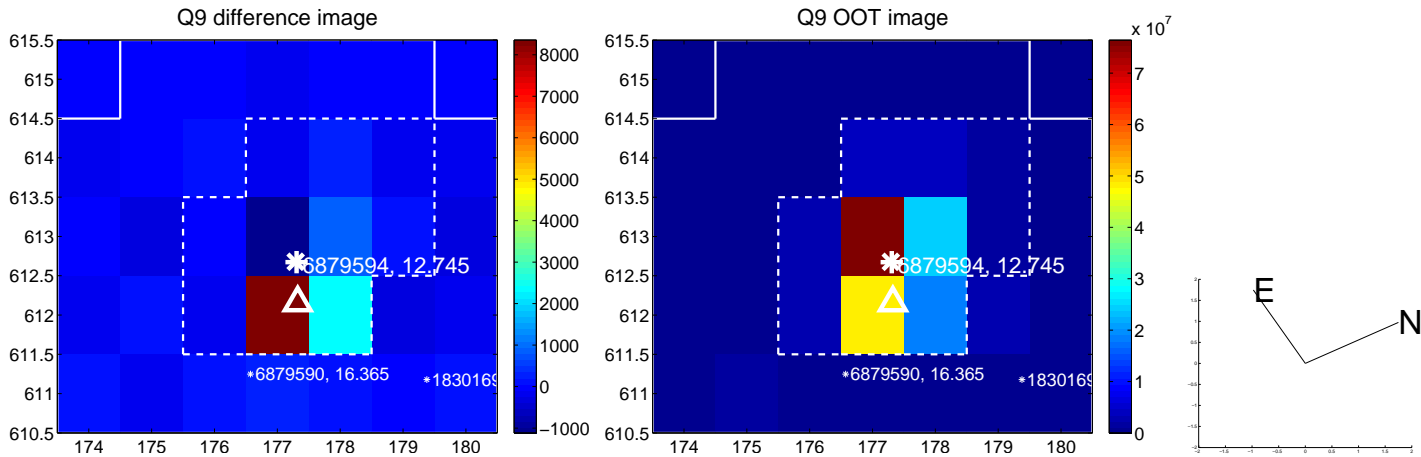
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



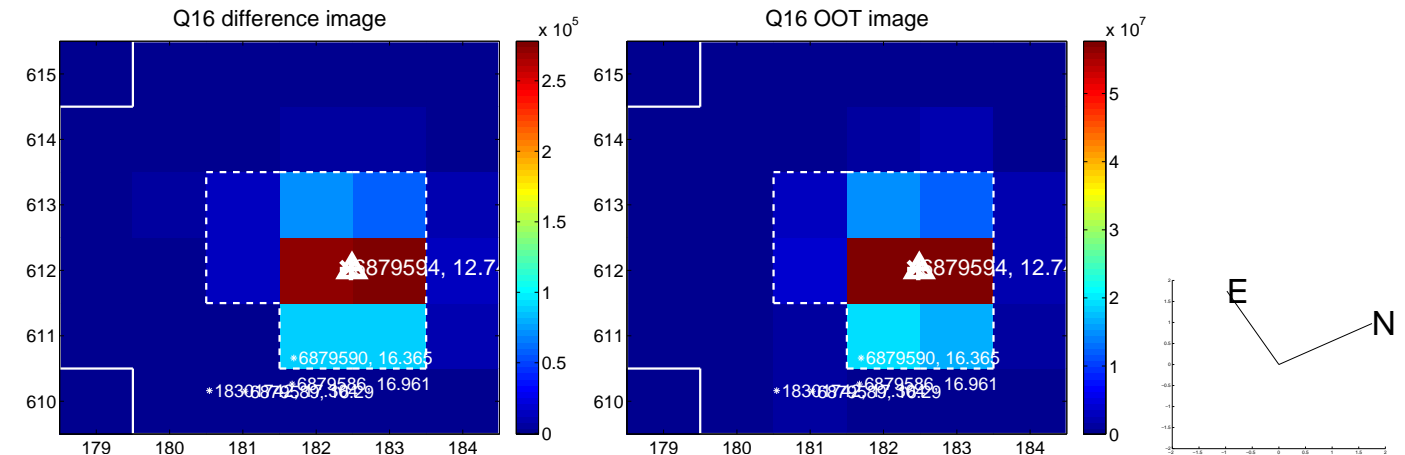
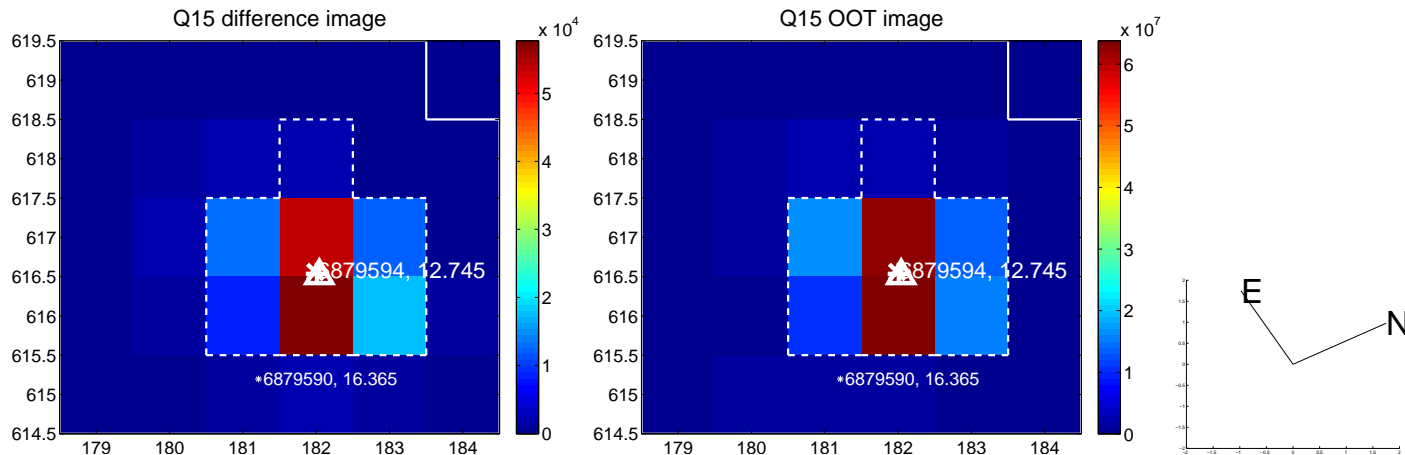
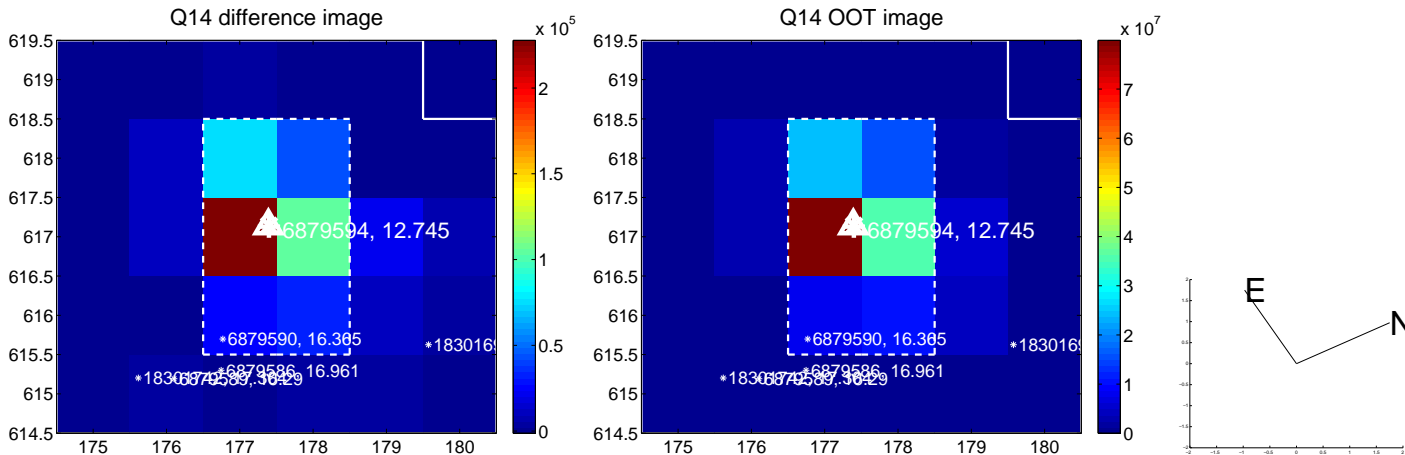
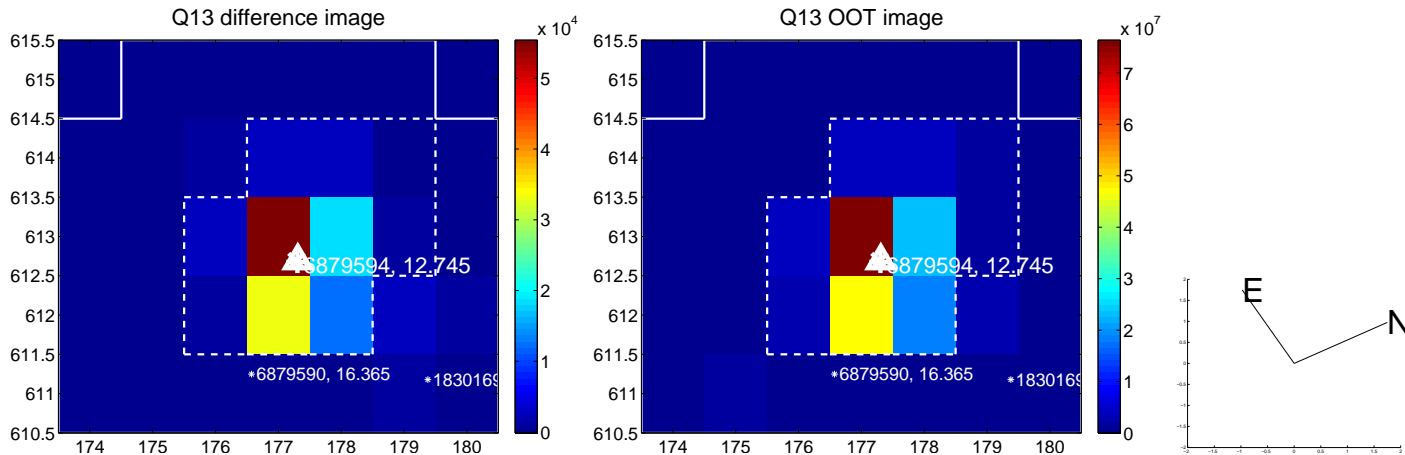
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

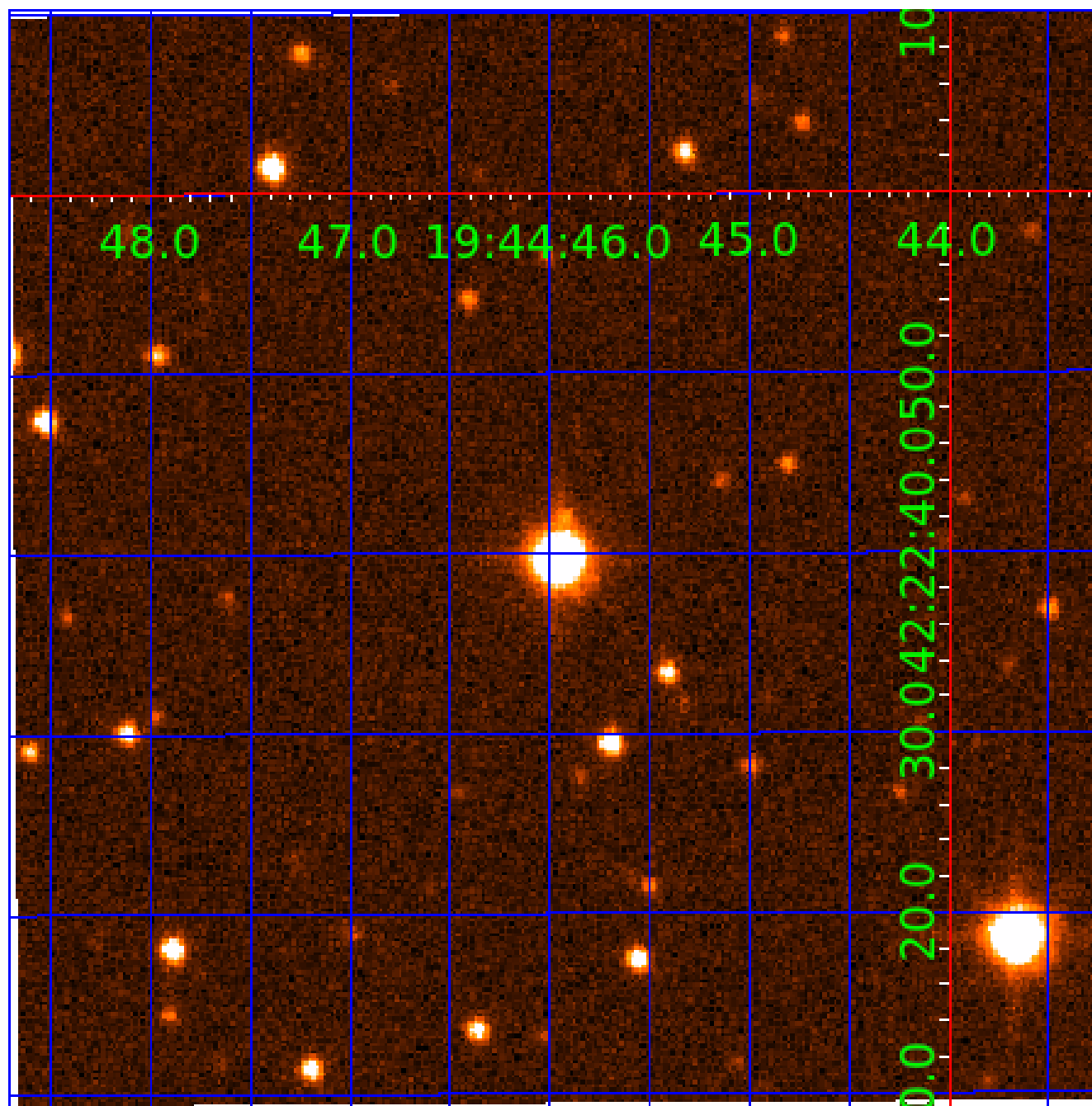


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006879594

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006879594-01 | OBS | No | 1.554408 | 132.822197 | 439.4 | 3.189 | 13.4 | 13.1 | 2.58 | 7143 | 6.31 | 15871.98 |
| 006879594-02 | OBS | No | 1.554535 | 132.270238 | 237.2 | 0.846 | 10.0 | 3.7 | 2.58 | 7143 | 4.16 | 15870.25 |
| 006879594-03 | OBS | No | 0.923116 | 132.122246 | 185.4 | 6.189 | 8.2 | 7.3 | 2.58 | 7143 | 3.76 | 31796.24 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006879594-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT |
| 006879594-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— SAME_NTL_PERIOD |
| 006879594-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT |

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

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

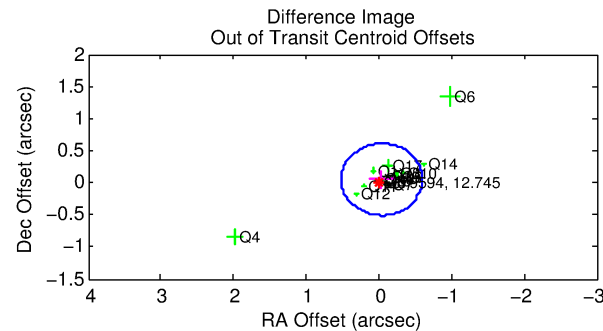
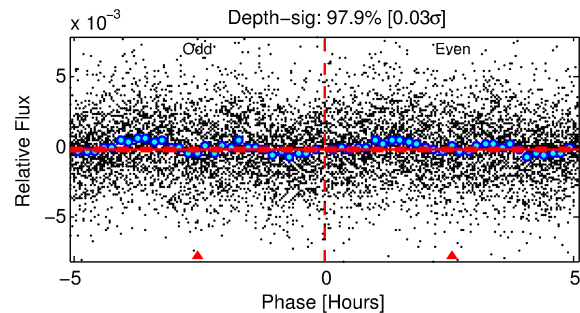
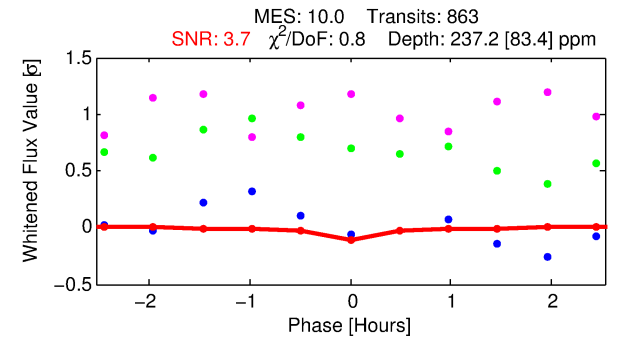
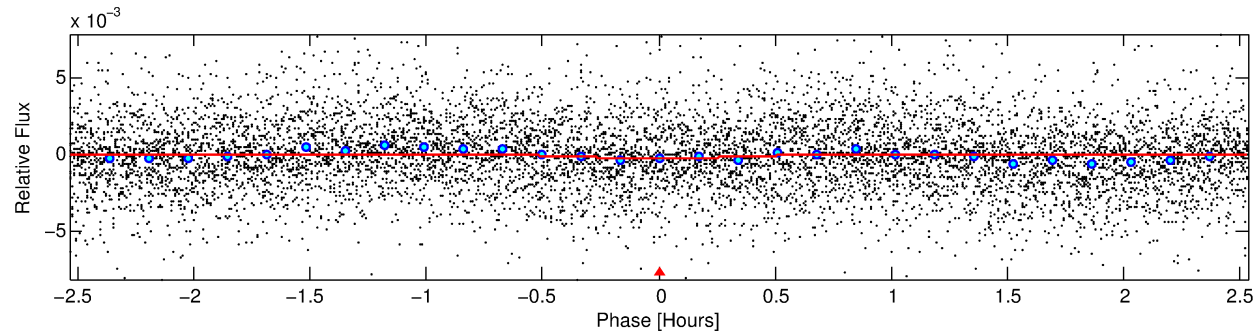
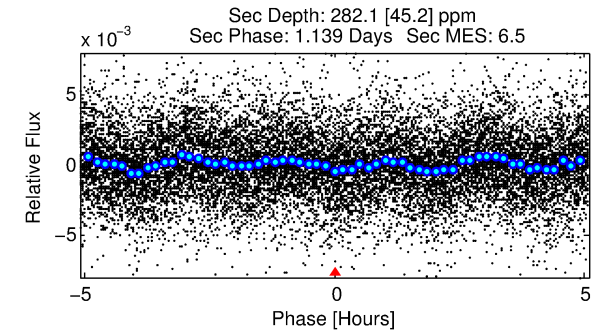
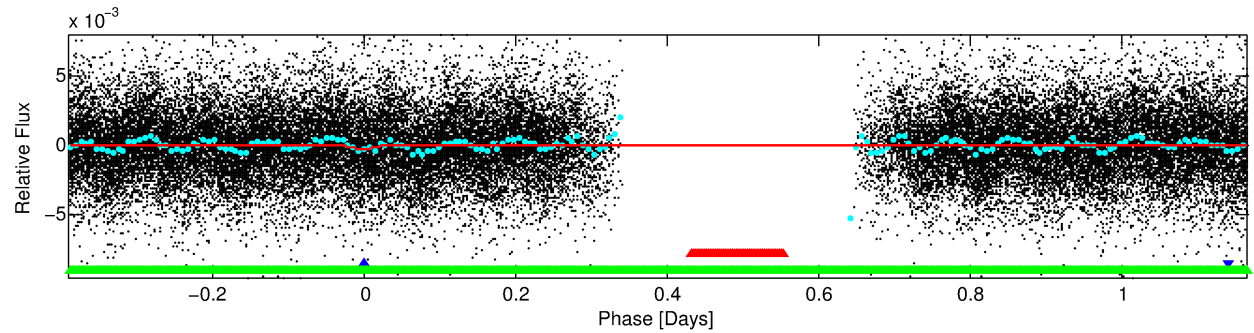
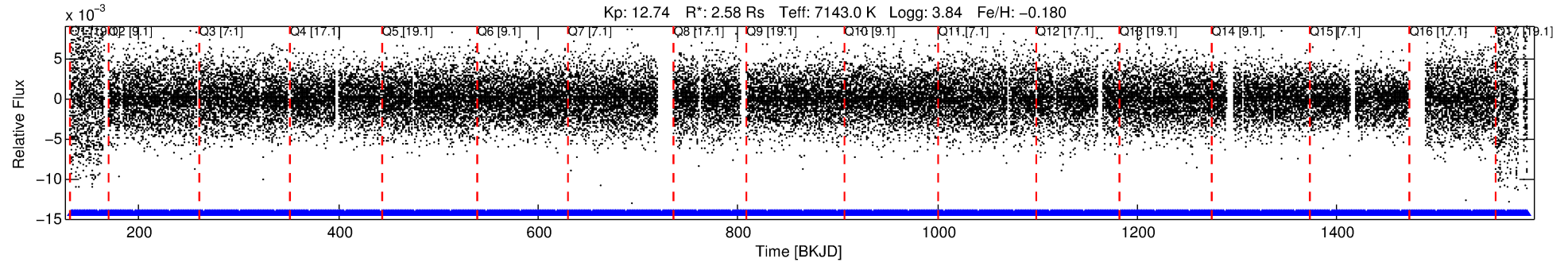
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006879594-02

No Significant Match Found

DV One-Page Summary

KIC: 6879594 Candidate: 2 of 3 Period: 1.555 d



DV Fit Results:

Period = 1.55454 [0.00003] d
Epoch = 132.2702 [0.0043] BKJD
Rp/R* = 0.0148 [0.0223]
a/R* = 12.36 [101.79]
b = 0.51 [12.19]
Seff = 15870.25 [10319.39]
Teq = 2862 [465] K
Rp = 4.16 [6.50] Re
a = 0.0313 [0.0122] AU
Ag = 8.78 [27.12] [0.29σ]
Teffp = 7616 [5772] K [0.82σ]

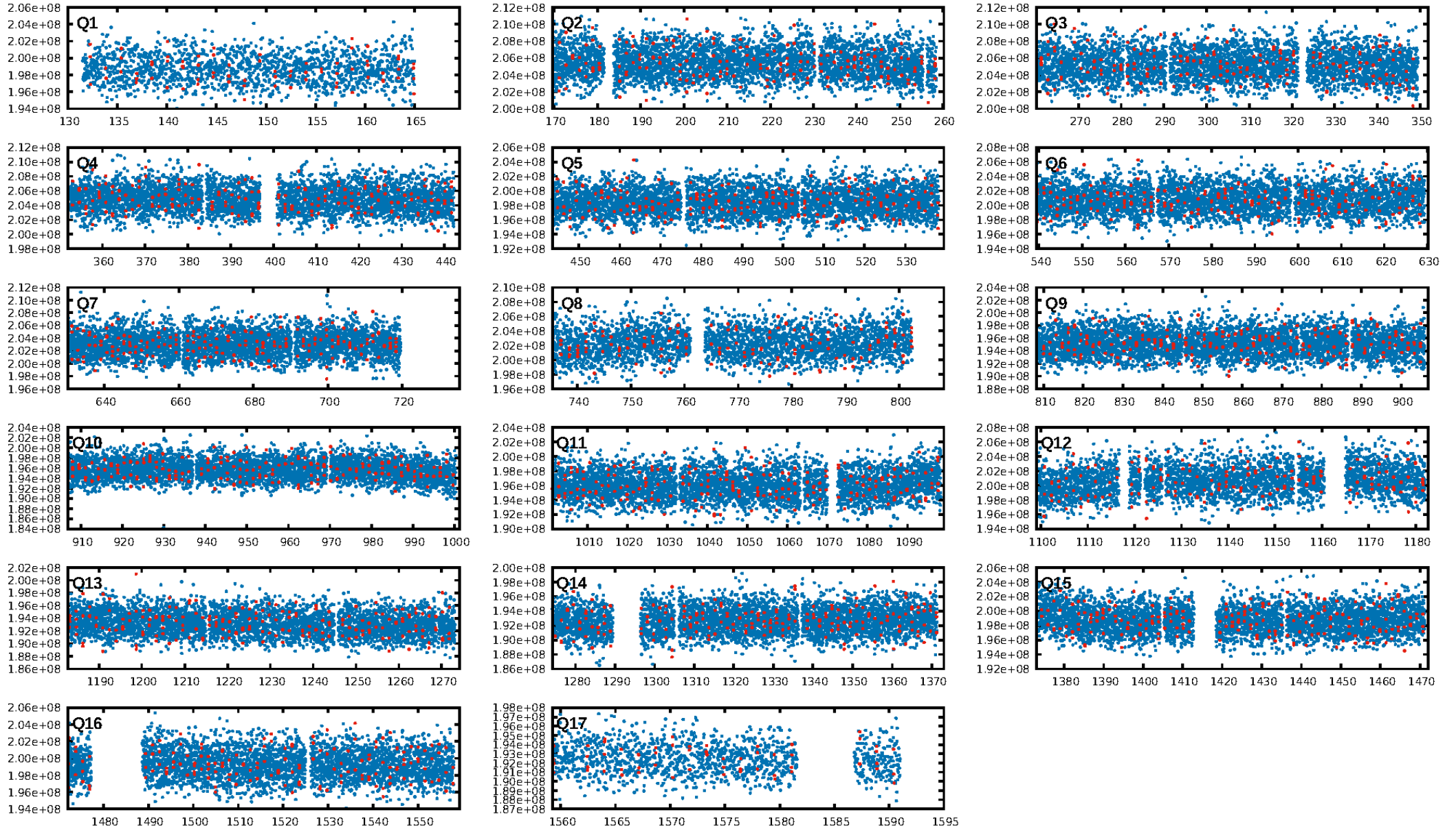
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.85e-07
RollingBand-fgt: 1.00 [824/824]
GhostDiagnostic-chr: 3.518
Centroid-sig: 23.1%
Centroid-so: 0.118 arcsec [0.74σ]
OotOffset-rm: 0.062 arcsec [0.33σ]
KicOffset-rm: 0.177 arcsec [0.99σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 1.00 [17/17]

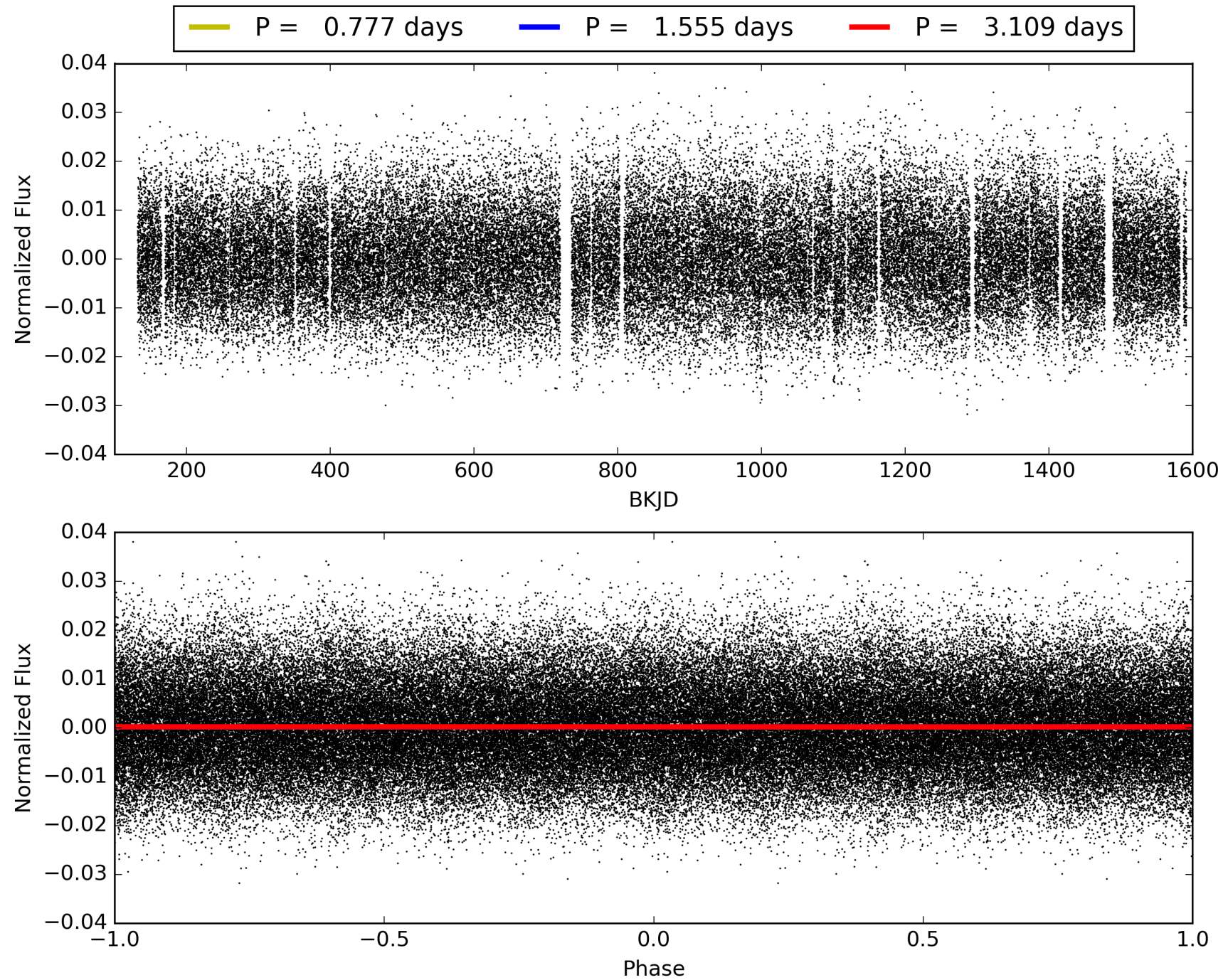
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:38:55 Z

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

TCE 006879594-02, PDC Light Curves

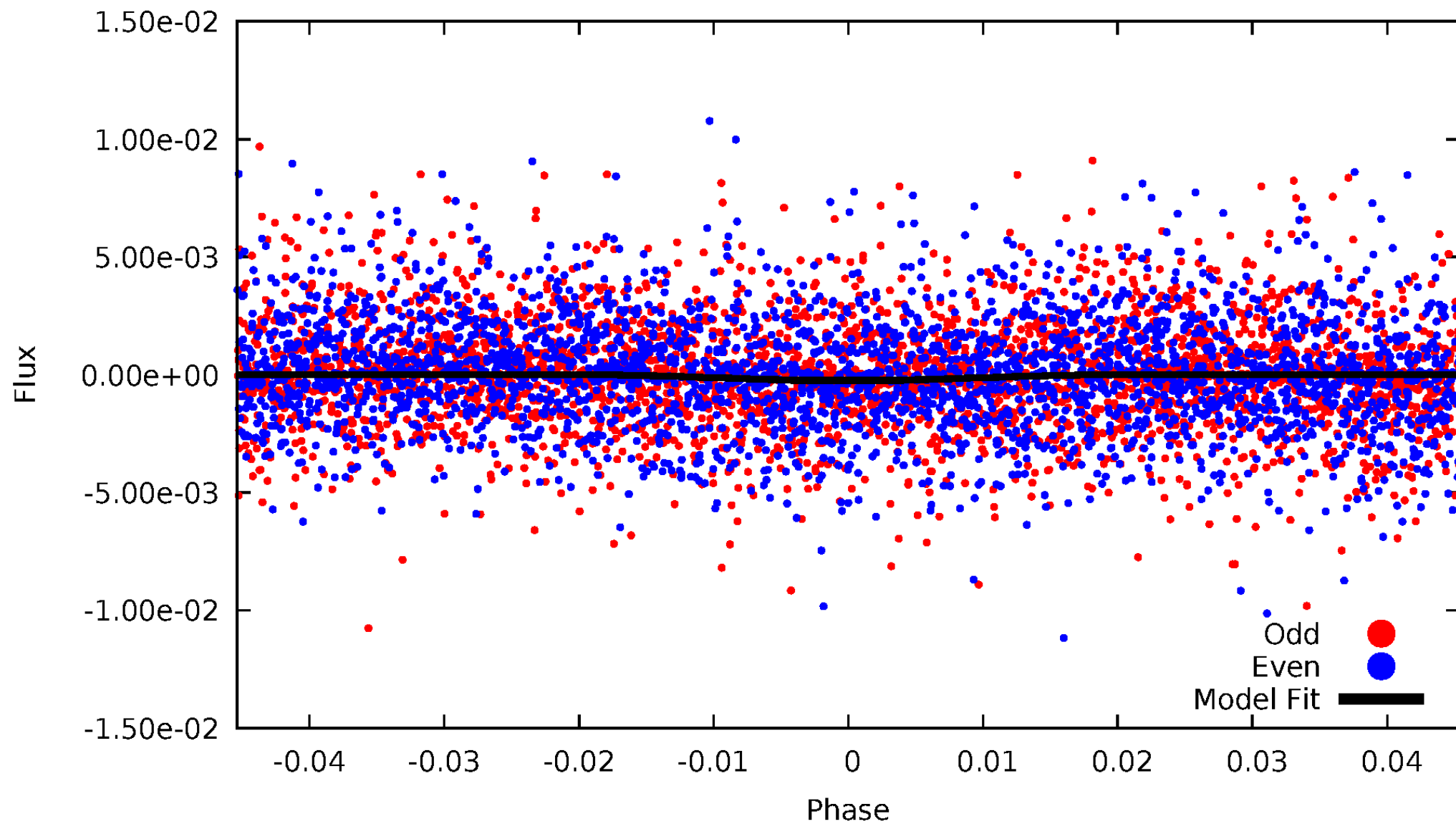


TCE 006879594-02



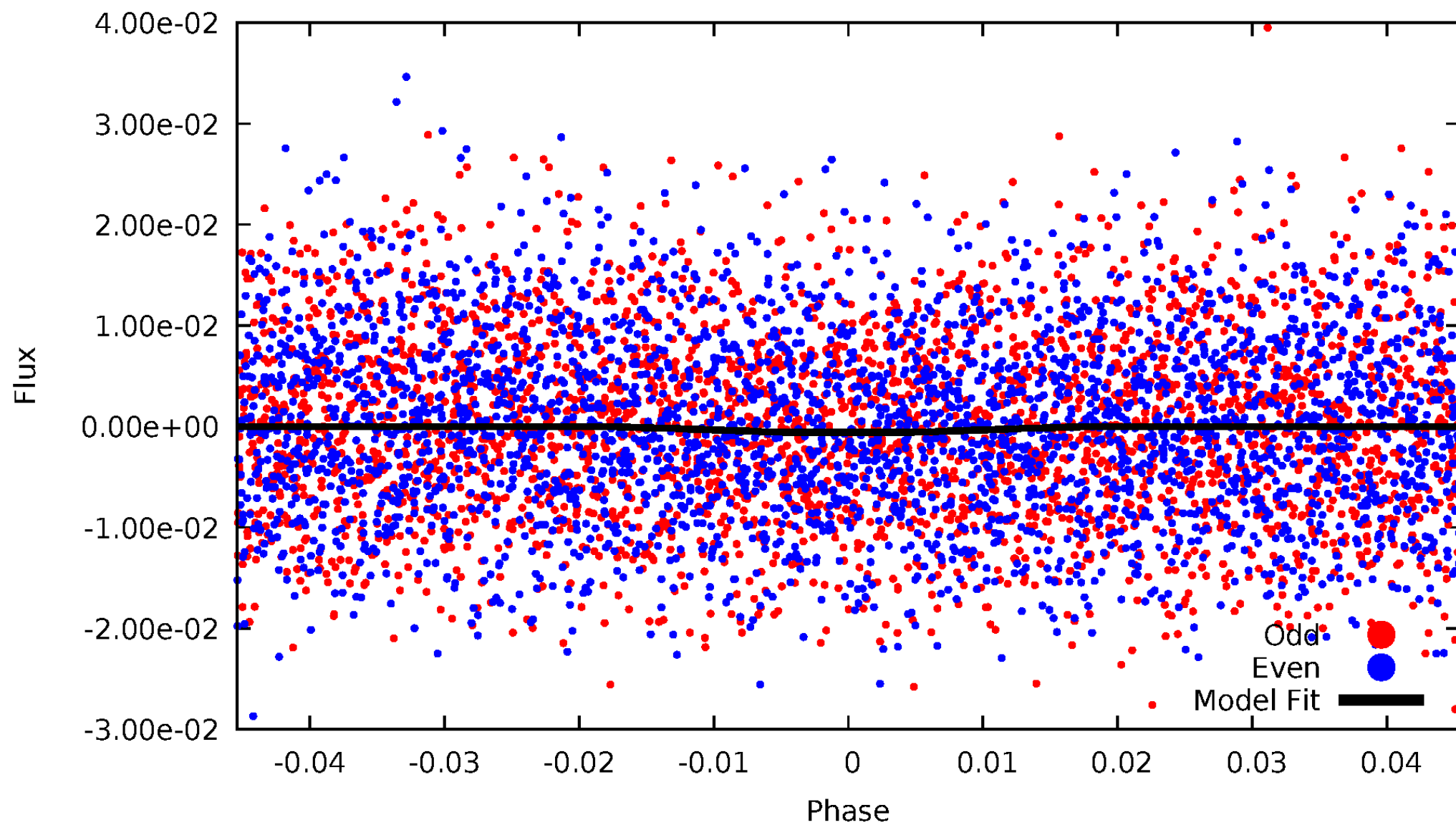
DV Odd/Even

TCE 006879594-02



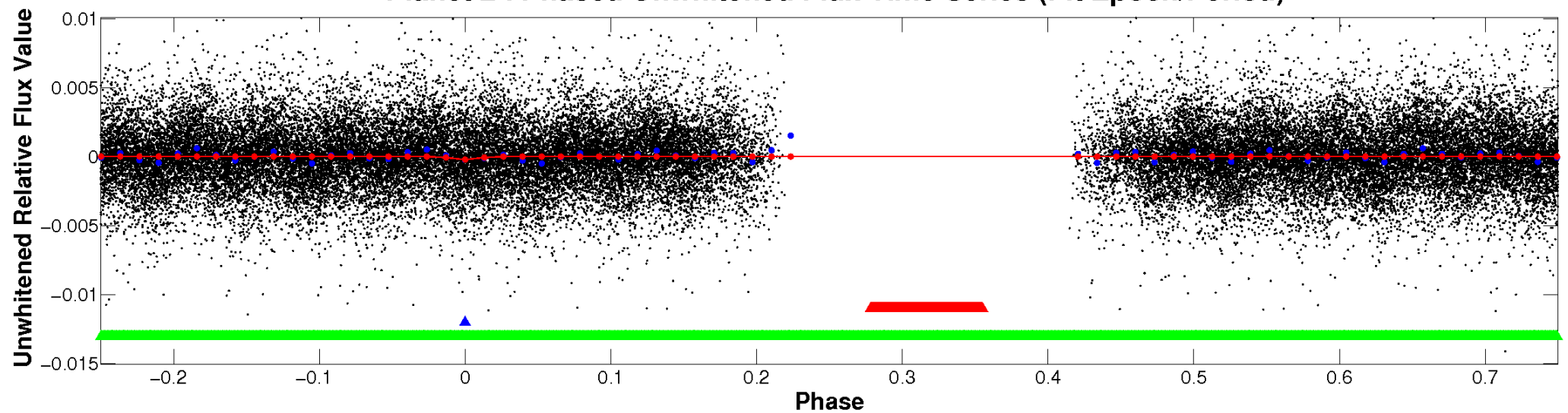
ALT Odd/Even

TCE 006879594-02

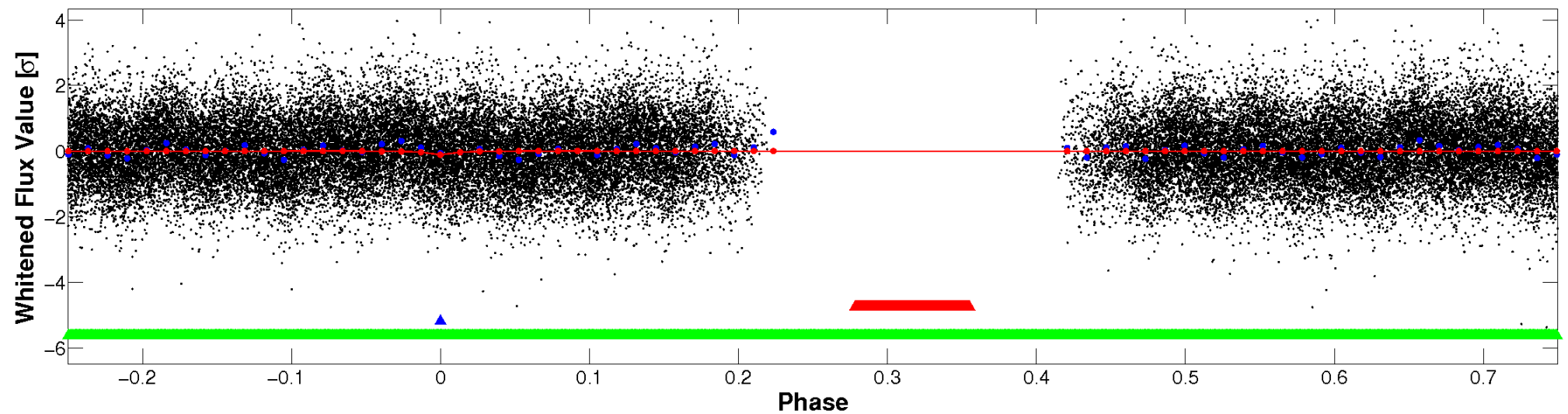


Non-Whitened Vs. Whitened Light Curve

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

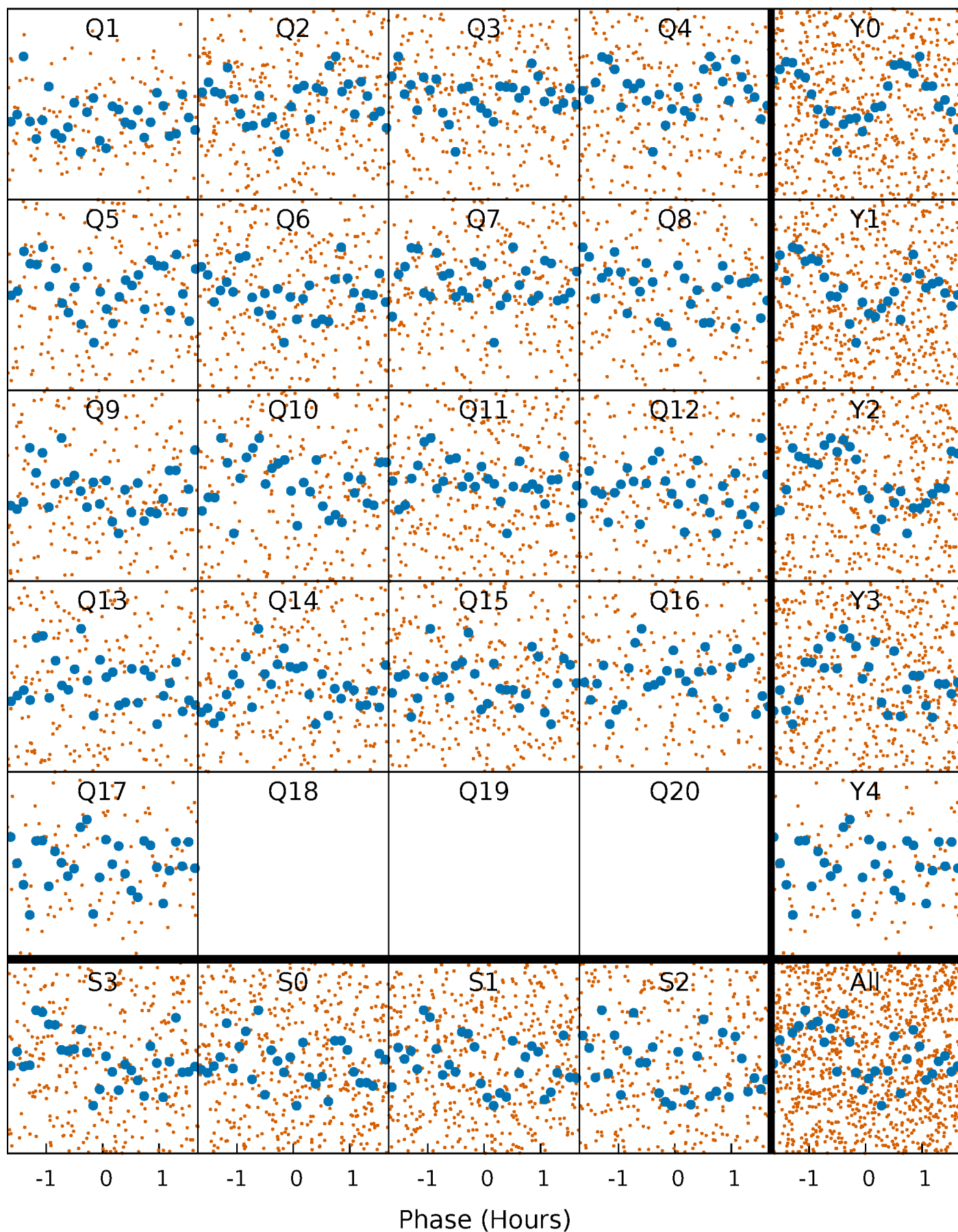


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



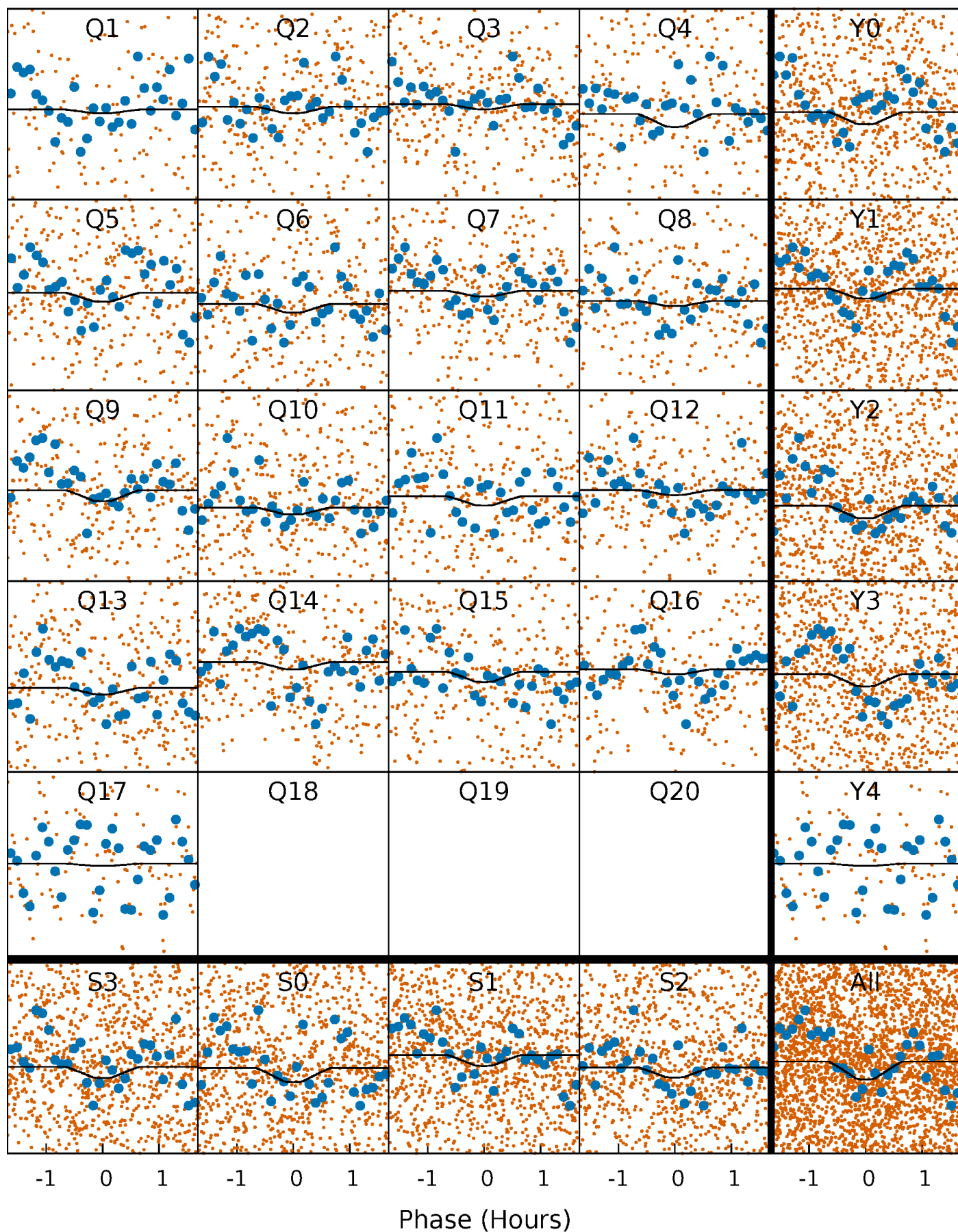
PDC Quarter-Phased Transit Curves

TCE 006879594-02 P= 1.554535 Days $T_0=132.270238$ (BKJD)



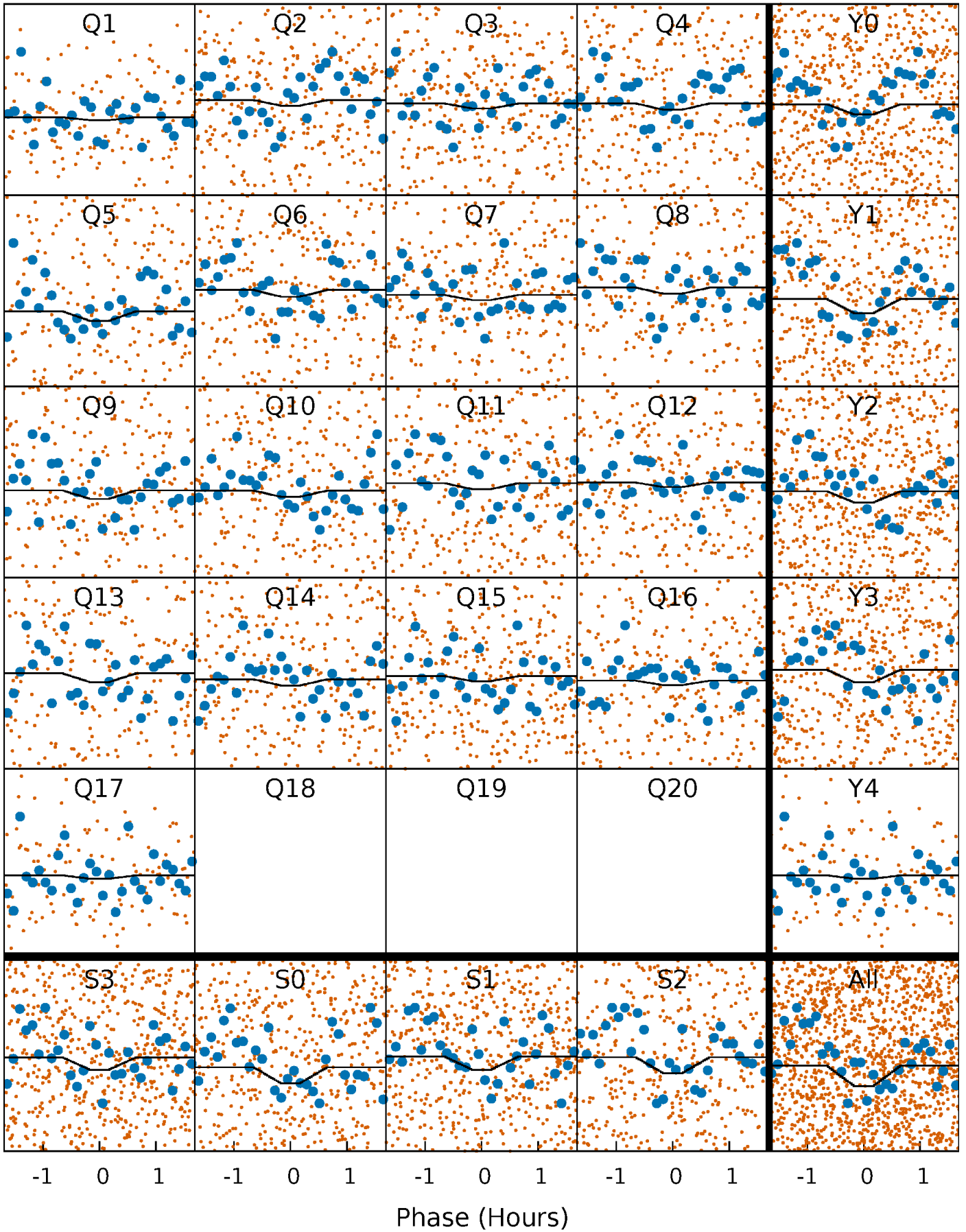
DV Quarter-Phased Transit Curves

TCE 006879594-02 P= 1.554535 Days $T_0=132.270238$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

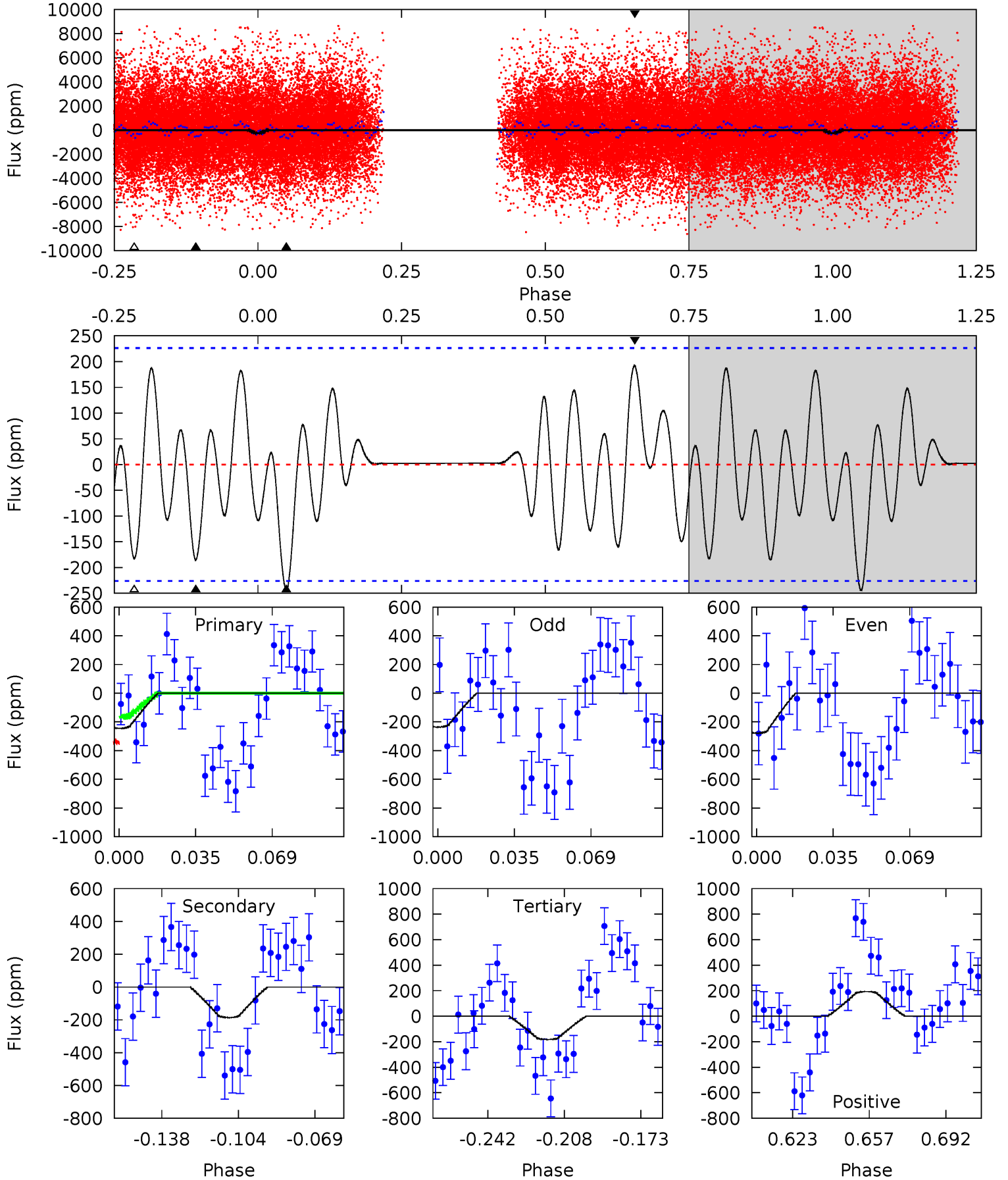
TCE 006879594-02 P= 1.554547 Days $T_0=132.270355$ (BKJD)



DV Model-Shift Uniqueness Test

006879594-02, P = 1.554535 Days, E = 130.715703 Days

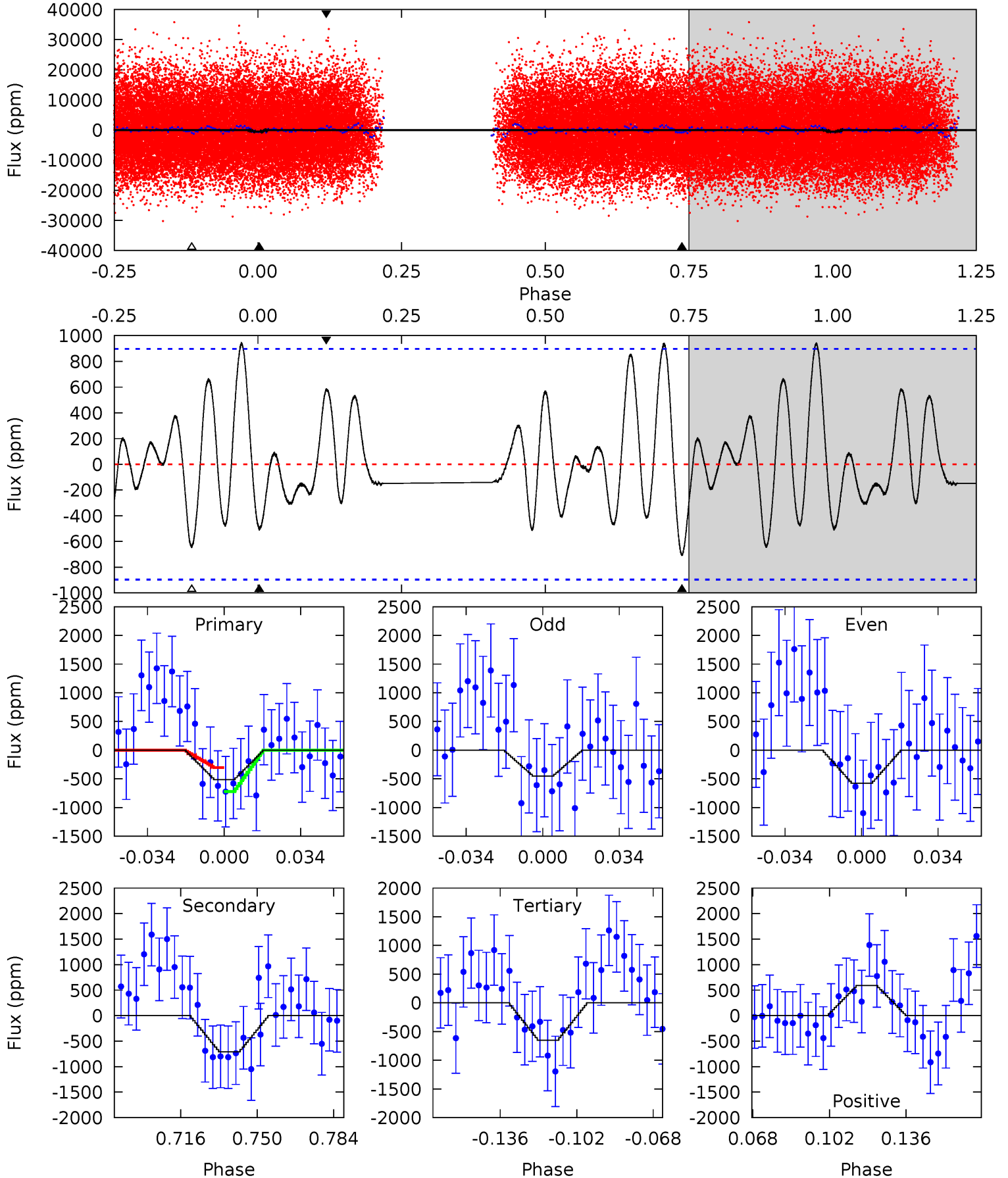
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 5.19 | 3.93 | 3.87 | 4.09 | 4.78 | 2.11 | 2.00 | 1.32 | 1.10 | 0.07 | -0.15 | 0.45 | 0.77 | 0.44 | 1.85 |



Alt Model-Shift Uniqueness Test

006879594-02, P = 1.554547 Days, E = 130.715808 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 2.75 | 3.80 | 3.46 | 3.15 | 4.79 | 2.12 | 1.78 | -0.72 | -0.40 | 0.34 | 0.65 | 0.34 | 0.77 | 0.57 | 1.12 |



Stellar Parameters For KIC 006879594

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7143^{+199}_{-313} | $3.842^{+0.368}_{-0.123}$ | $-0.180^{+0.250}_{-0.350}$ | $2.579^{+0.482}_{-1.045}$ | $1.686^{+0.180}_{-0.419}$ | $0.139^{+0.397}_{-0.049}$ |
| | +3%/-4% | +10%/-3% | +139%/-194% | +19%/-41% | +11%/-25% | +287%/-35% |
| 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 006879594-02 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|----------------|------------------------|----------------------|------------------------|----------------------------|
| DV | -186 ± 47 | $5.75^{+5.44}_{-4.05}$ | 3911^{+285}_{-426} | 5391^{+5669}_{-1563} | $2.986^{+27.518}_{-2.241}$ |
| Alt. | -712 ± 187 | $7.06^{+6.04}_{-4.29}$ | 3907^{+285}_{-404} | 6748^{+6911}_{-1722} | $6.908^{+41.624}_{-4.797}$ |

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 $A_{obs} \gg 1.0$

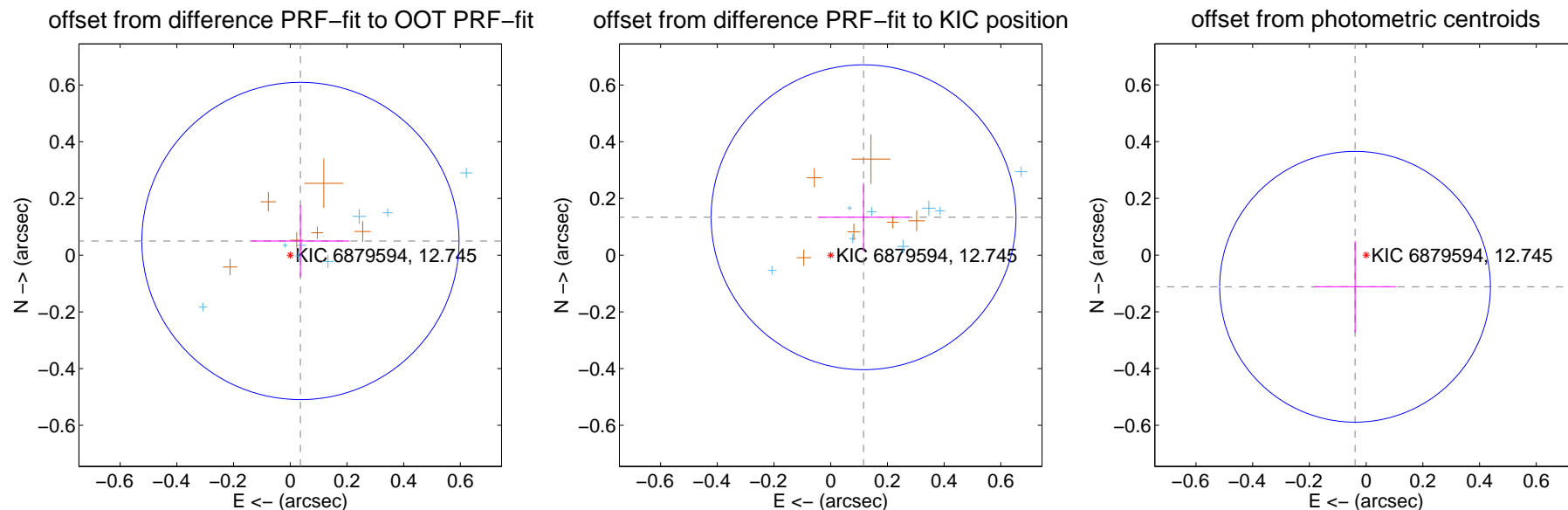
DV Centroid Data

Supplemental centroid analysis for 006879594-02. Kepler magnitude: 12.74. Transit SNR 3.66

There are 10 quarters with good PRF difference image offsets

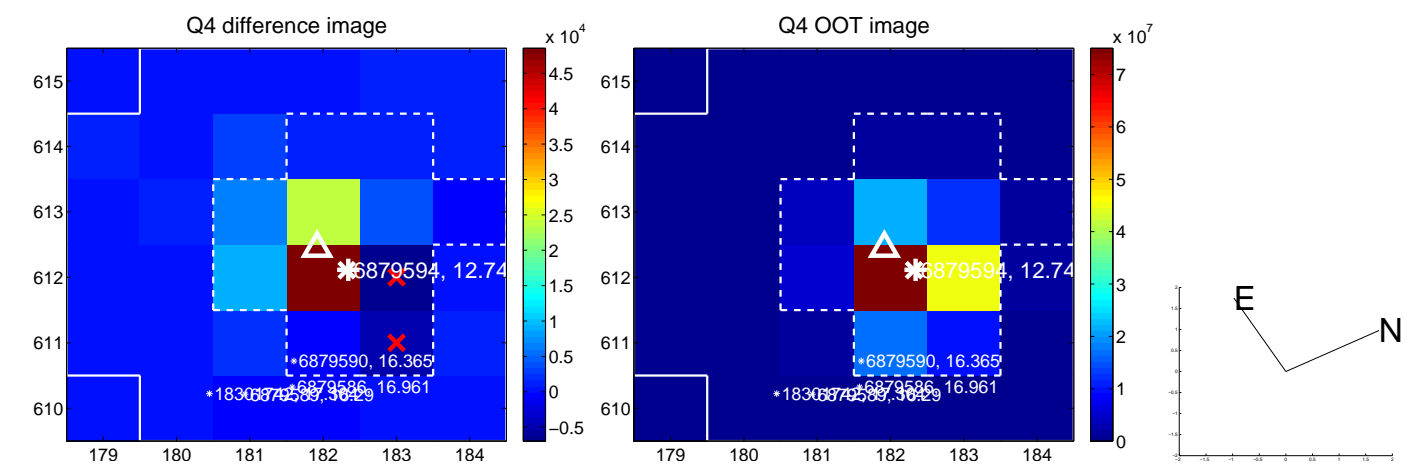
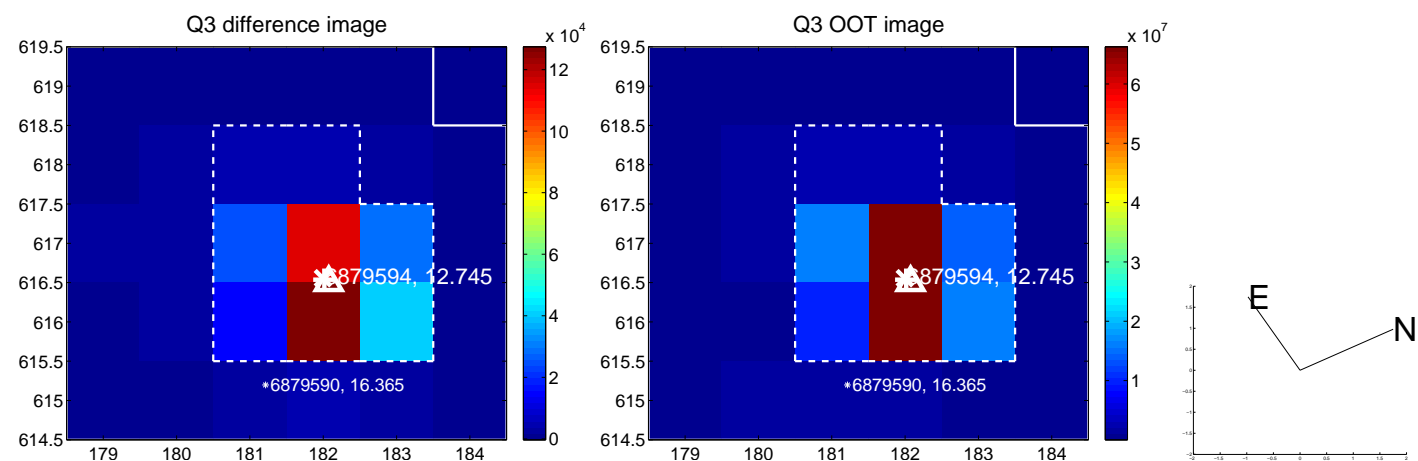
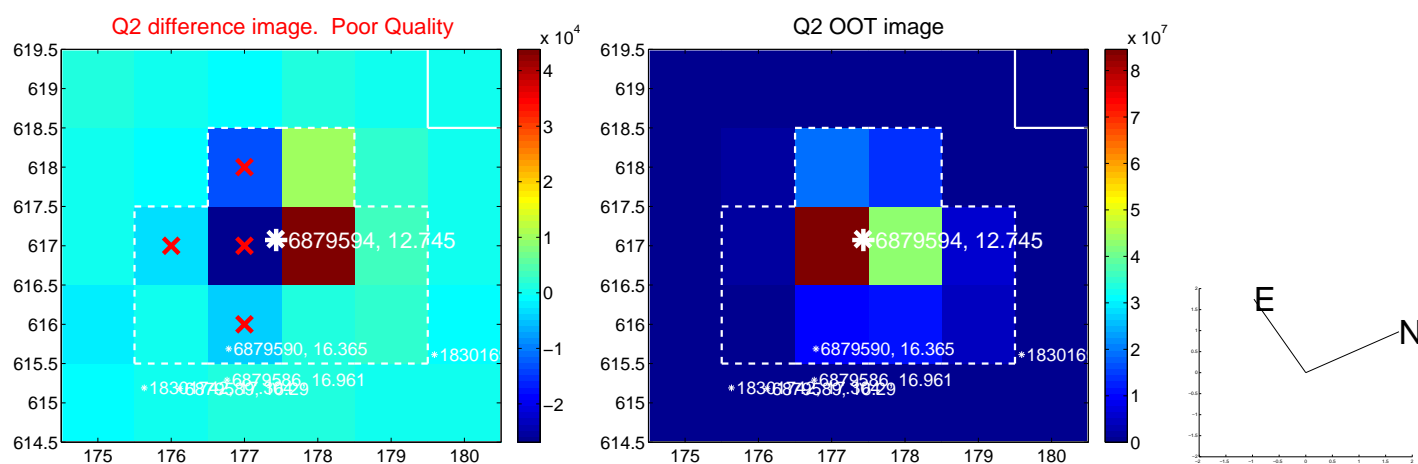
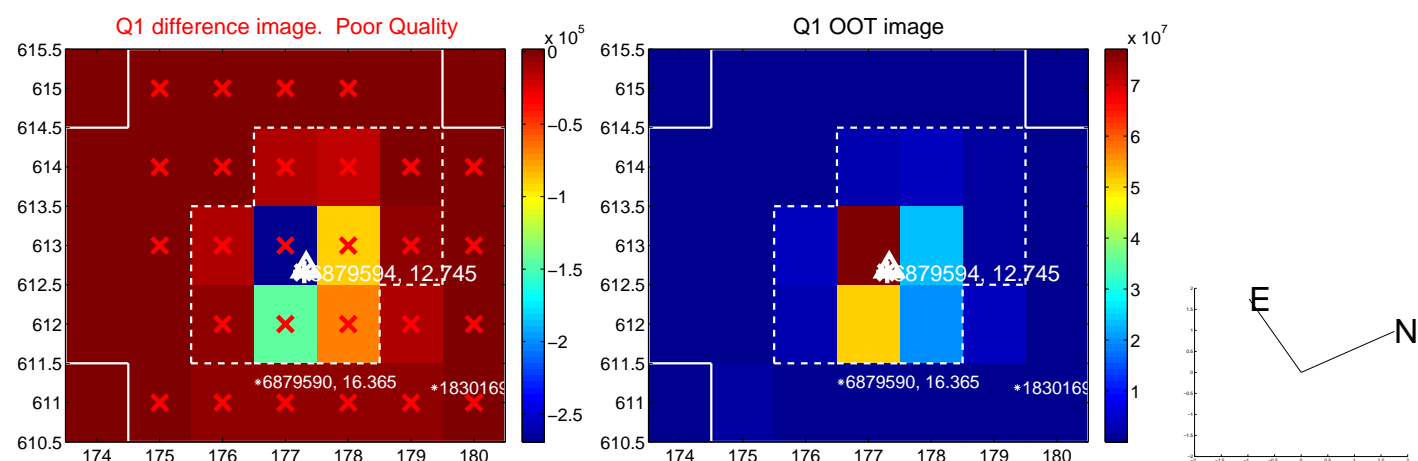
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 0.062 ± 0.186 | 0.33 | -0.036 ± 0.173 | 0.050 ± 0.126 |
| PRF-fit source offset from KIC position | 0.177 ± 0.179 | 0.99 | -0.116 ± 0.162 | 0.134 ± 0.121 |
| photometric centroid source offset | 0.12 ± 0.16 | 0.74 | 0.04 ± 0.14 | -0.11 ± 0.16 |

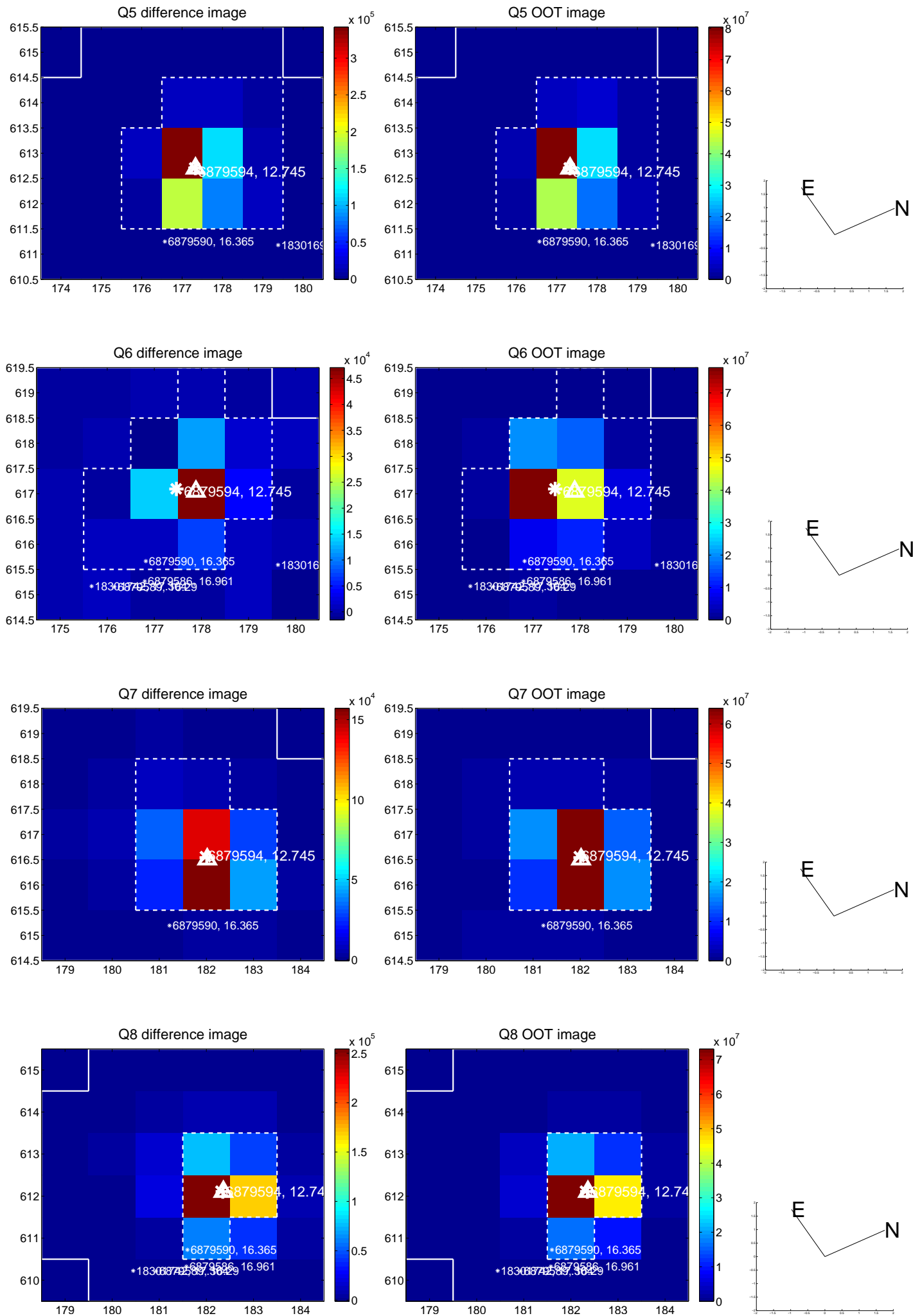


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

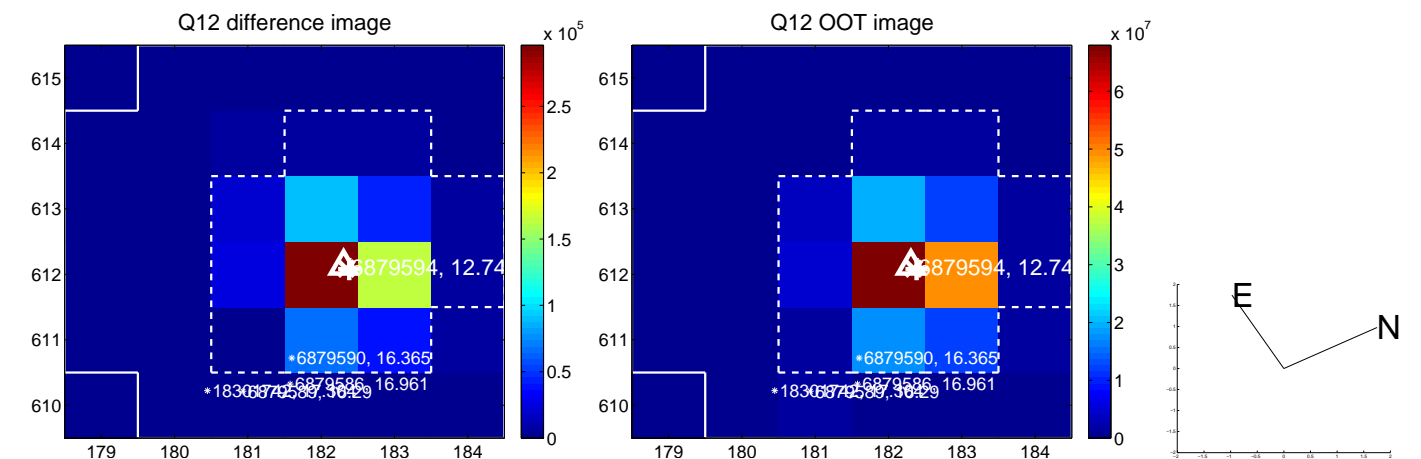
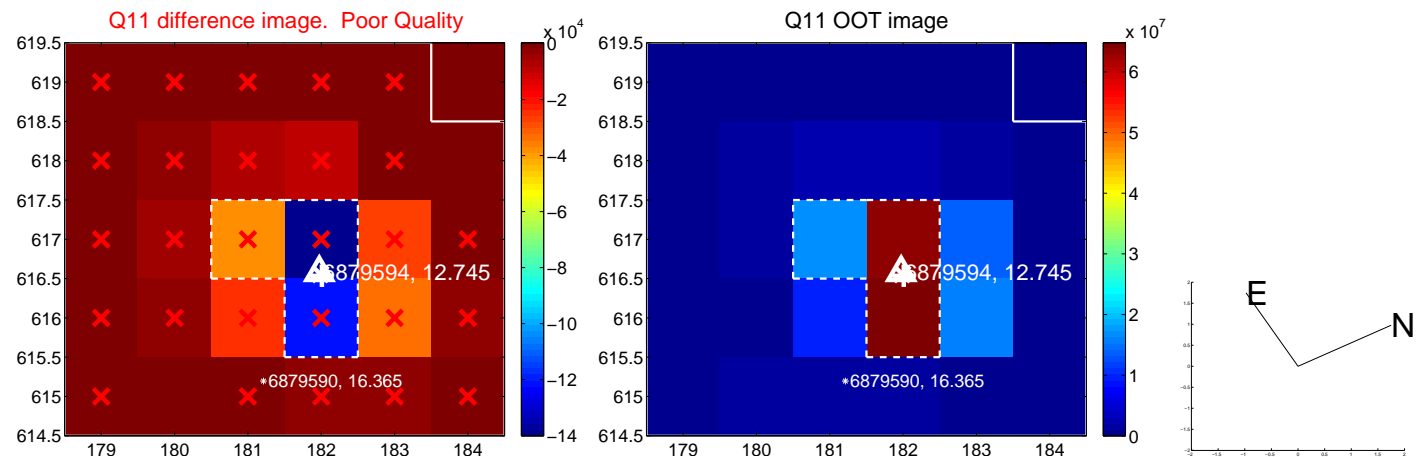
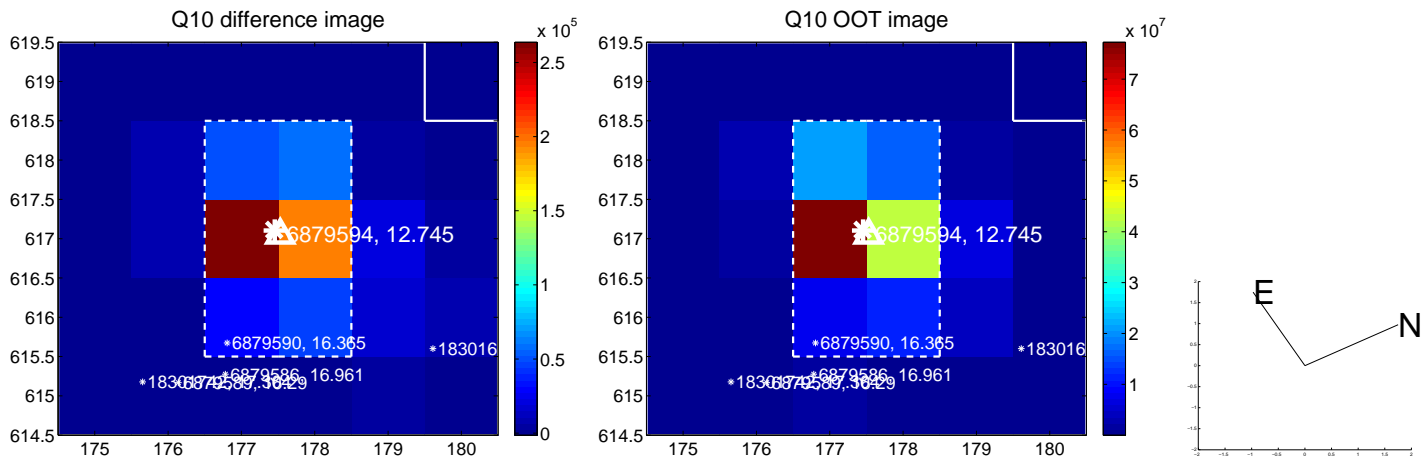
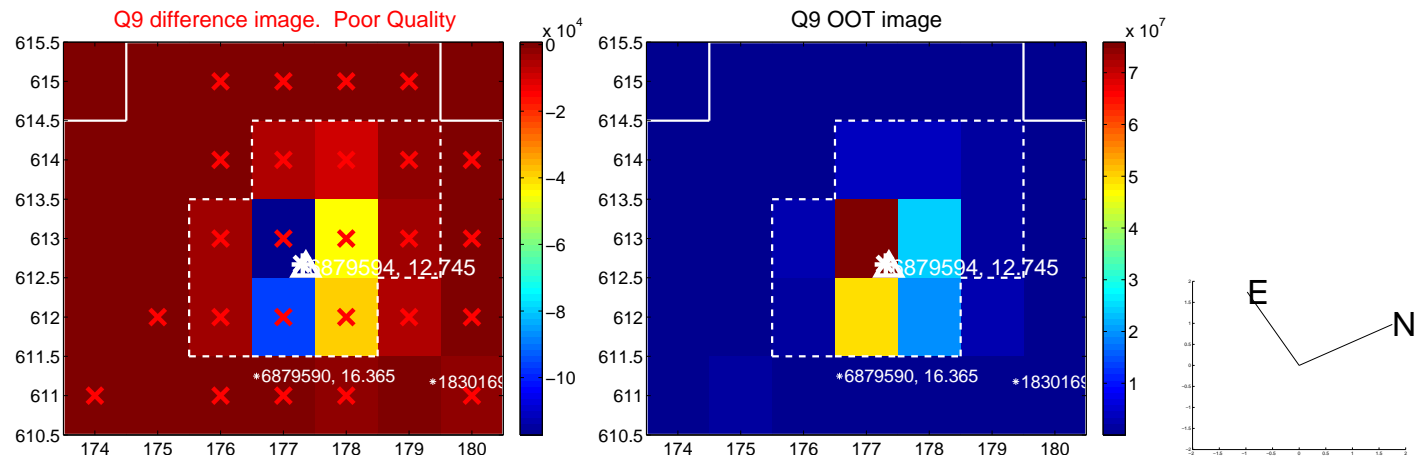
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



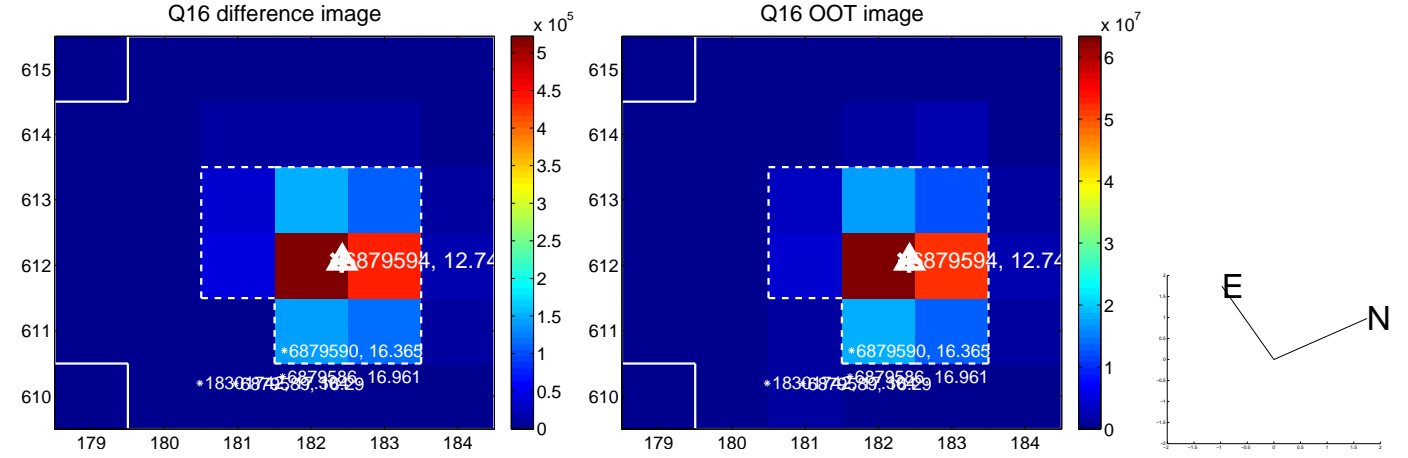
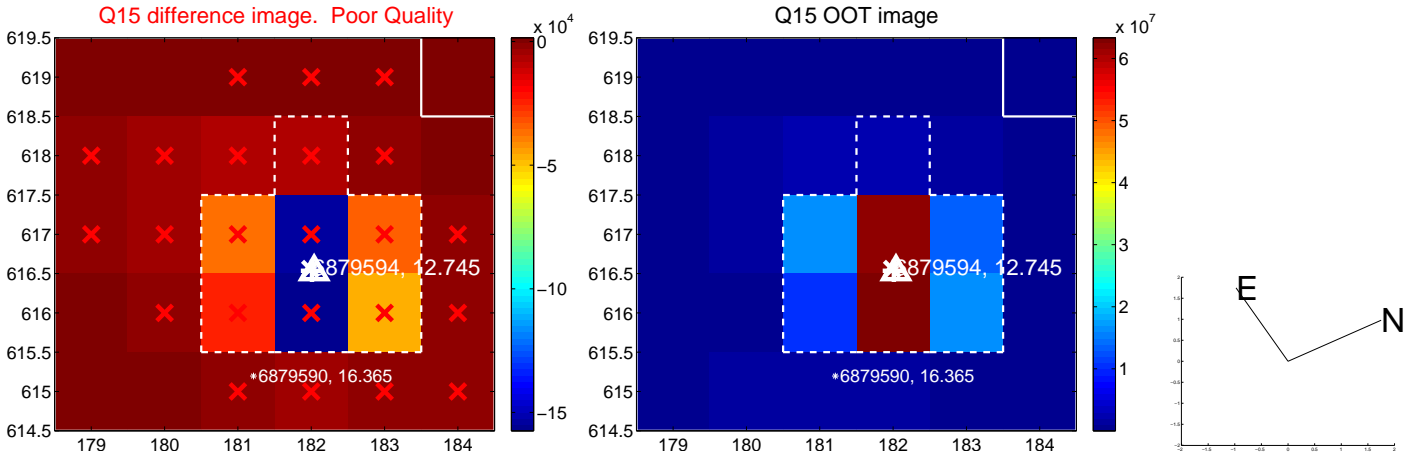
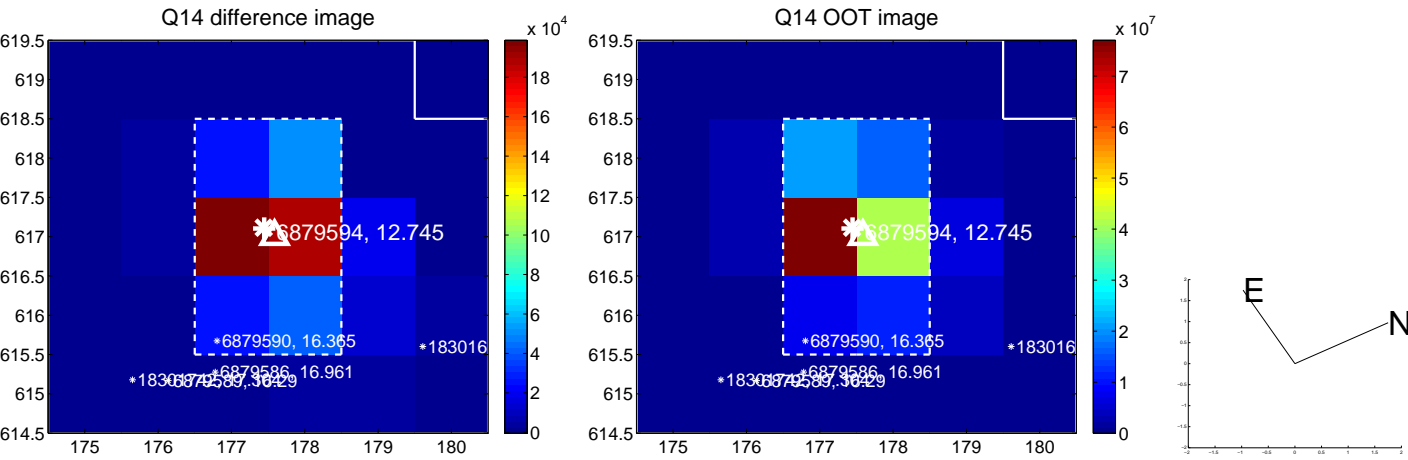
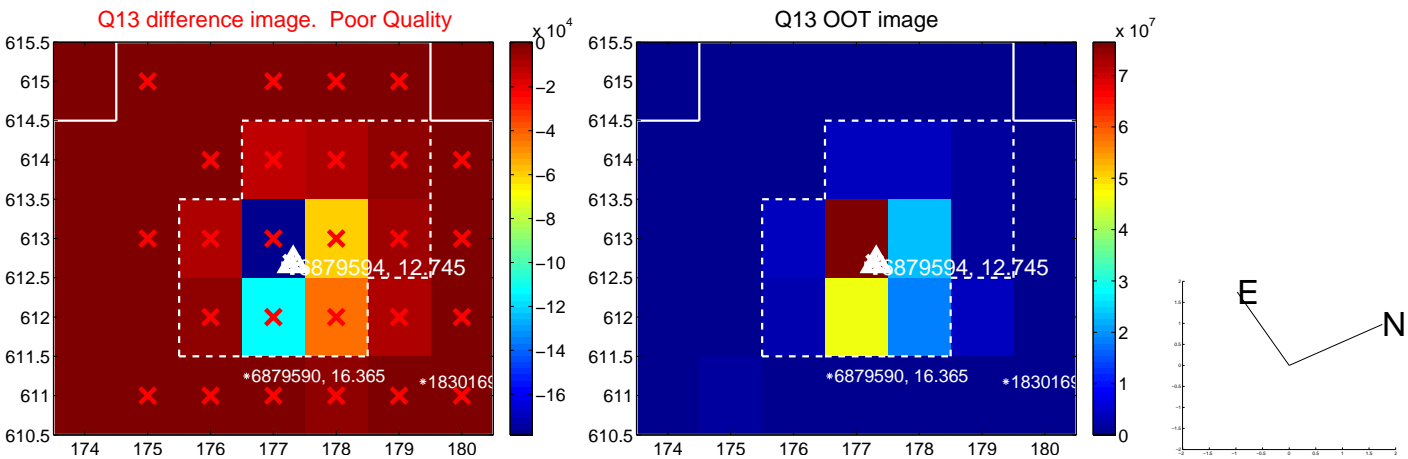
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



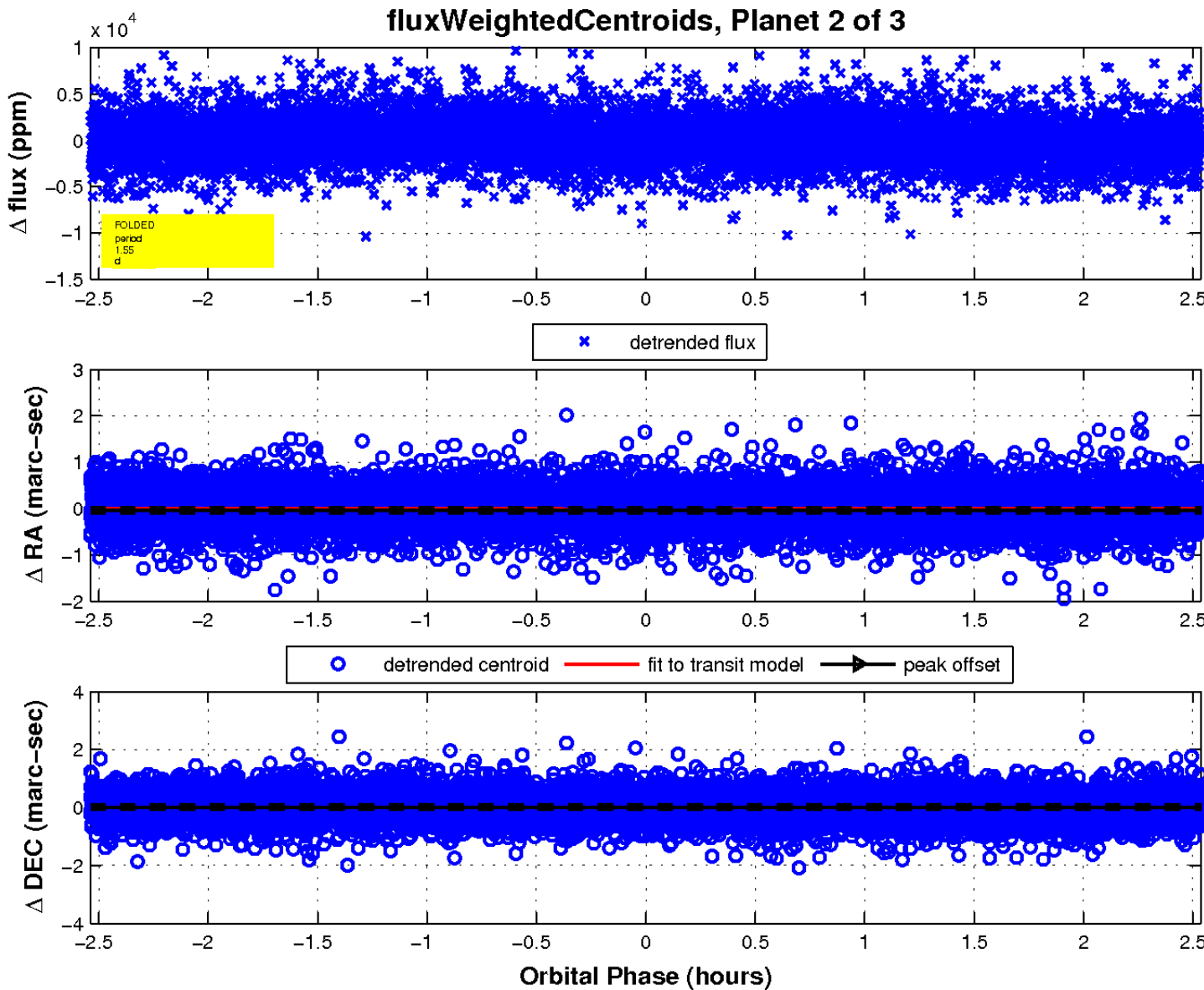
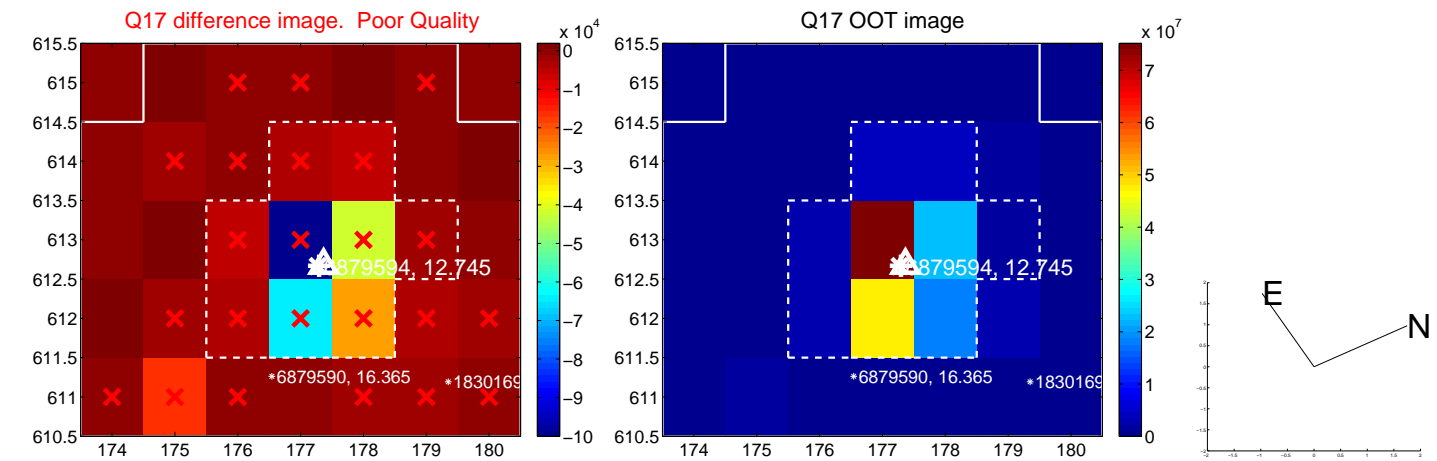
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

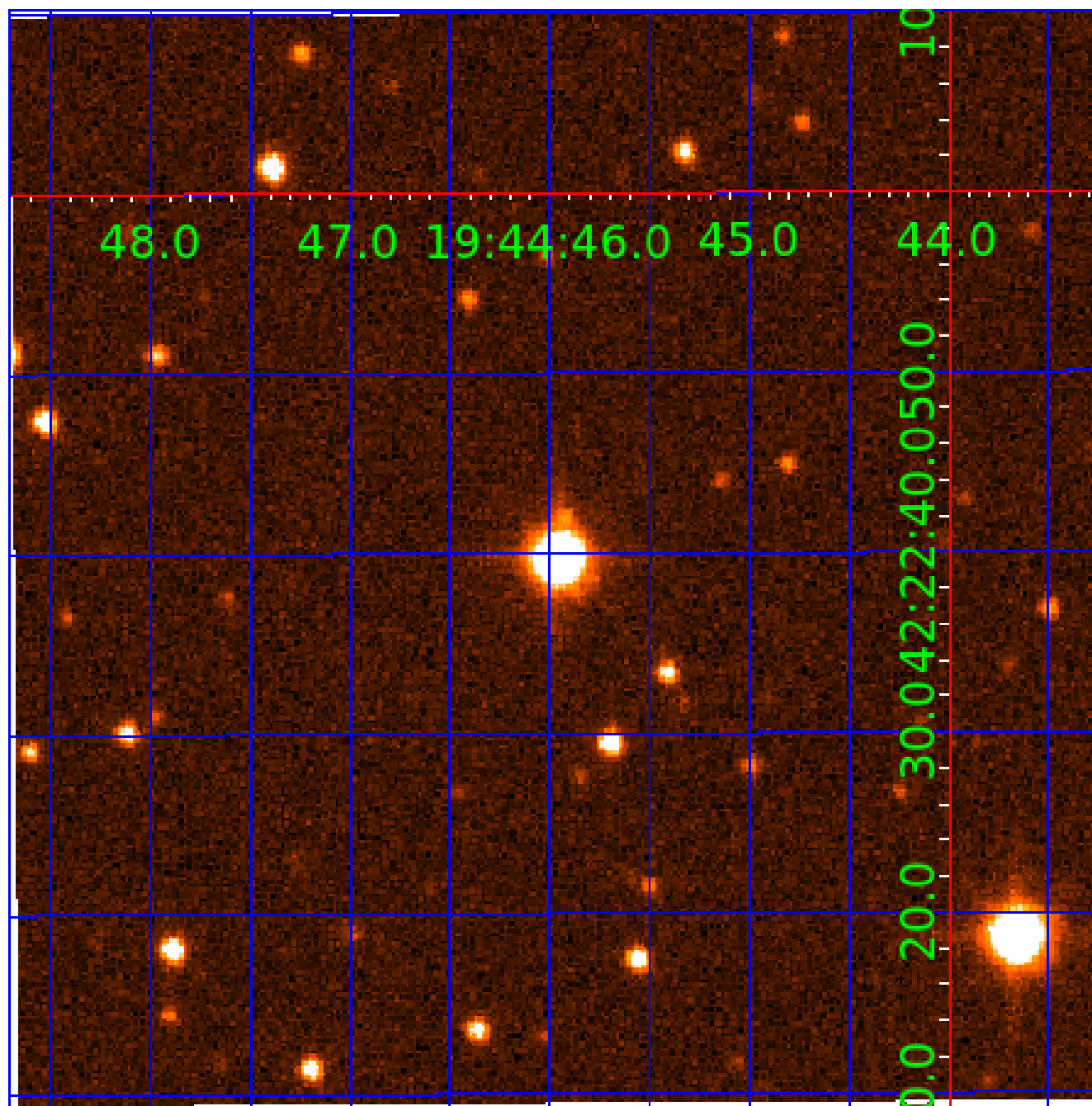


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 006879594

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006879594-01 | OBS | No | 1.554408 | 132.822197 | 439.4 | 3.189 | 13.4 | 13.1 | 2.58 | 7143 | 6.31 | 15871.98 |
| 006879594-02 | OBS | No | 1.554535 | 132.270238 | 237.2 | 0.846 | 10.0 | 3.7 | 2.58 | 7143 | 4.16 | 15870.25 |
| 006879594-03 | OBS | No | 0.923116 | 132.122246 | 185.4 | 6.189 | 8.2 | 7.3 | 2.58 | 7143 | 3.76 | 31796.24 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006879594-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT |
| 006879594-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— SAME_NTL_PERIOD |
| 006879594-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT |

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

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

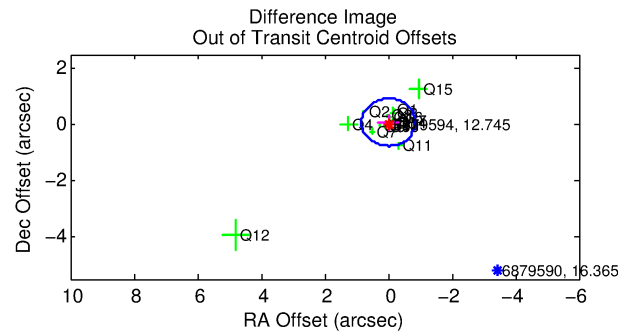
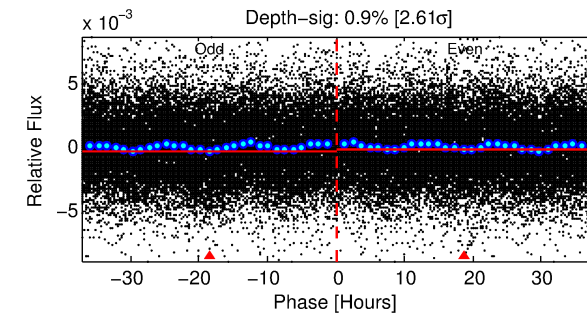
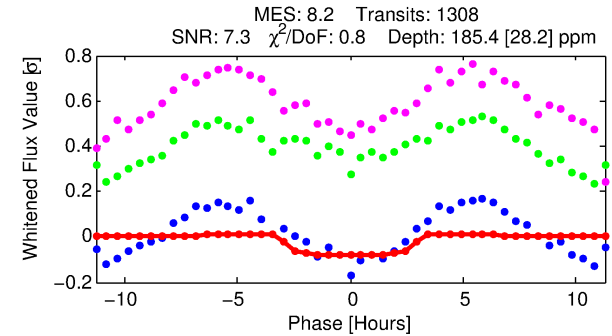
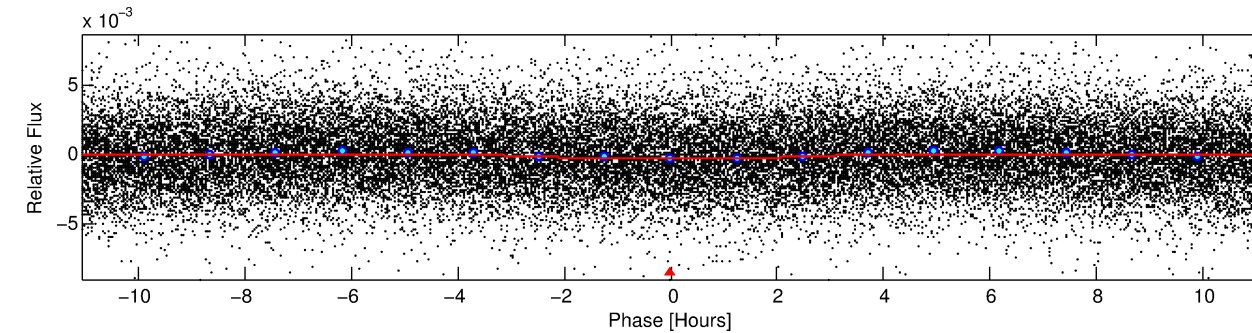
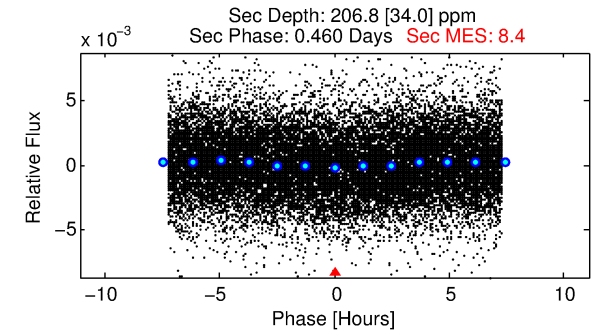
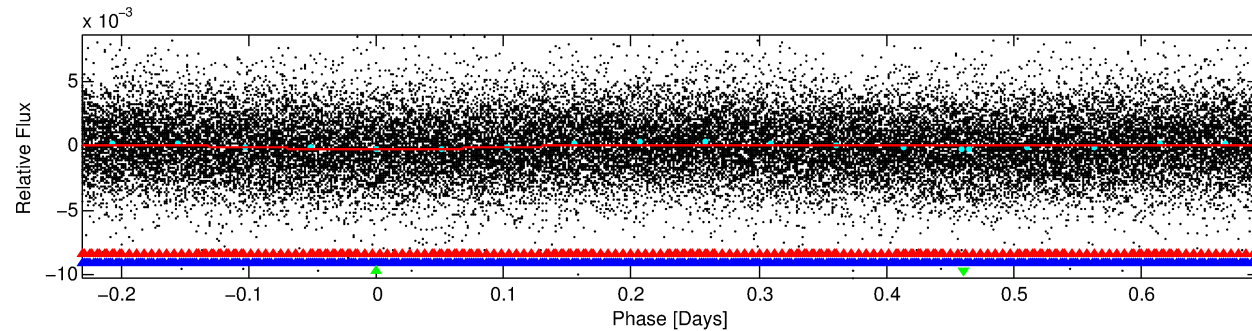
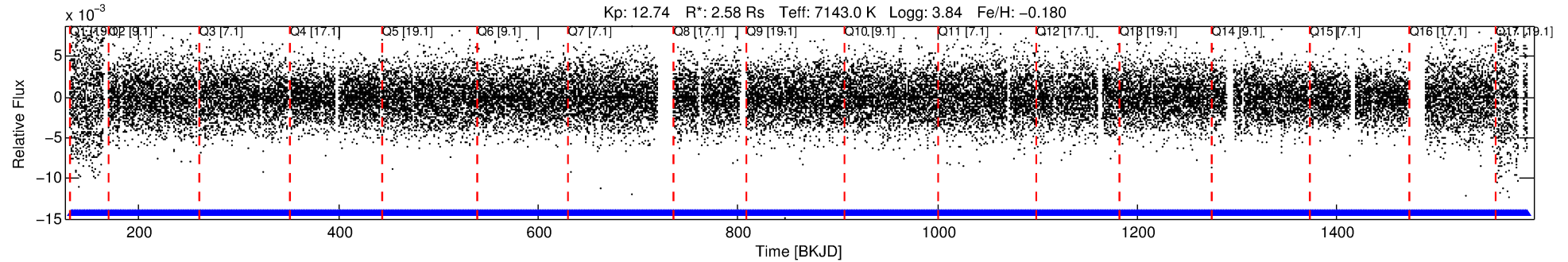
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006879594-03

No Significant Match Found

DV One-Page Summary

KIC: 6879594 Candidate: 3 of 3 Period: 0.923 d



DV Fit Results:

Period = 0.92312 [0.00002] d
Epoch = 132.1222 [0.0087] BKJD
Rp/R* = 0.0134 [0.0151]
a/R* = 1.18 [2.12]
b = 0.70 [4.65]
Seff = 31796.24 [20675.03]
Teff = 3405 [554] K
Rp = 3.76 [4.53] Re
a = 0.0221 [0.0086] AU
Ag = 3.92 [9.25] [0.32σ]
Teffp = 7410 [4223] K [0.94σ]

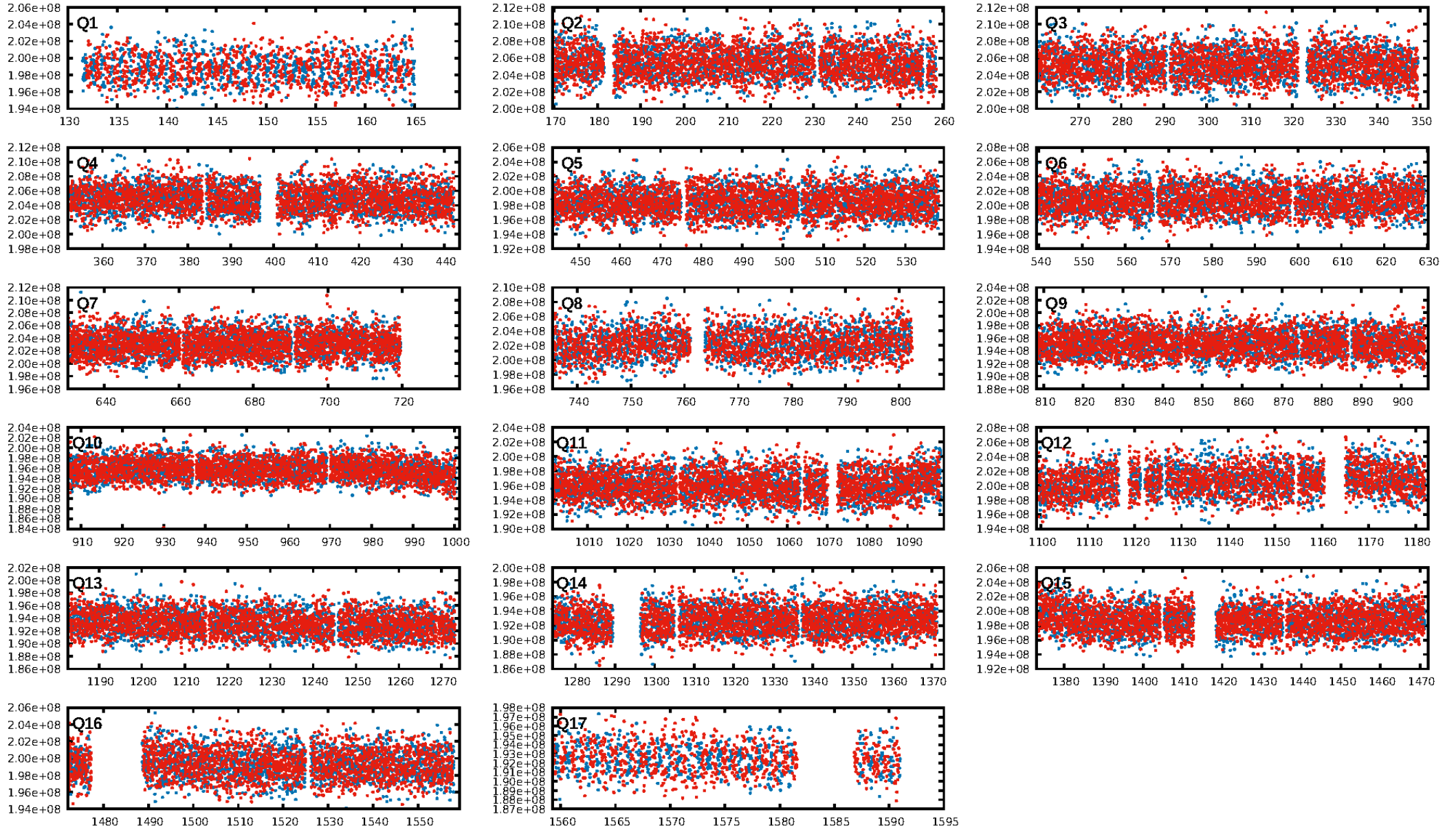
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 97.0% [2.18σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.04e-06
RollingBand-fgt: 1.00 [1249/1249]
GhostDiagnostic-chr: 0.5982
Centroid-sig: 0.0%
Centroid-so: 0.057 arcsec [1.03σ]
OotOffset-rm: 0.078 arcsec [0.28σ]
KicOffset-rm: 0.122 arcsec [0.33σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 0.00 [0/17]

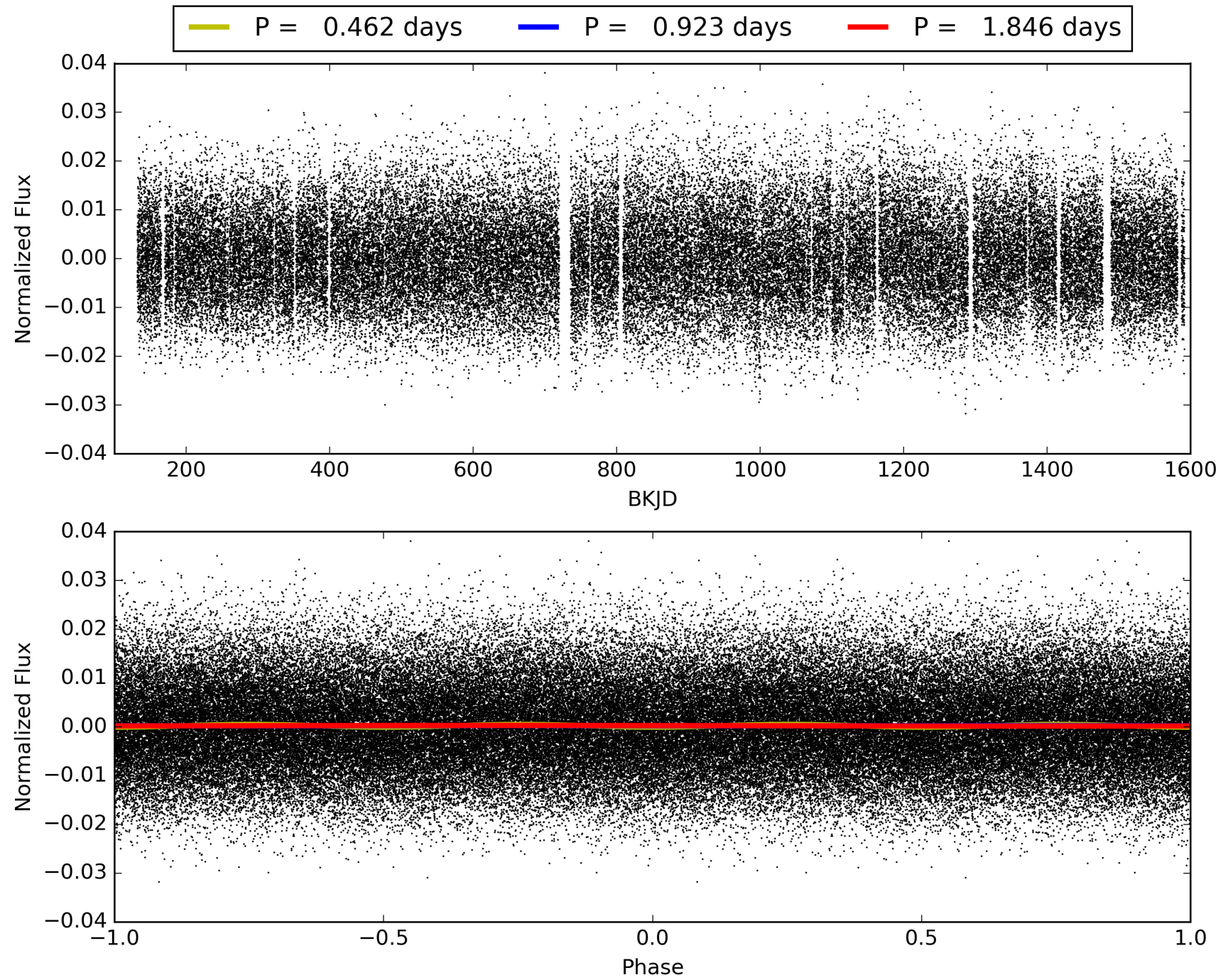
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 03:39:06 Z

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

TCE 006879594-03, PDC Light Curves

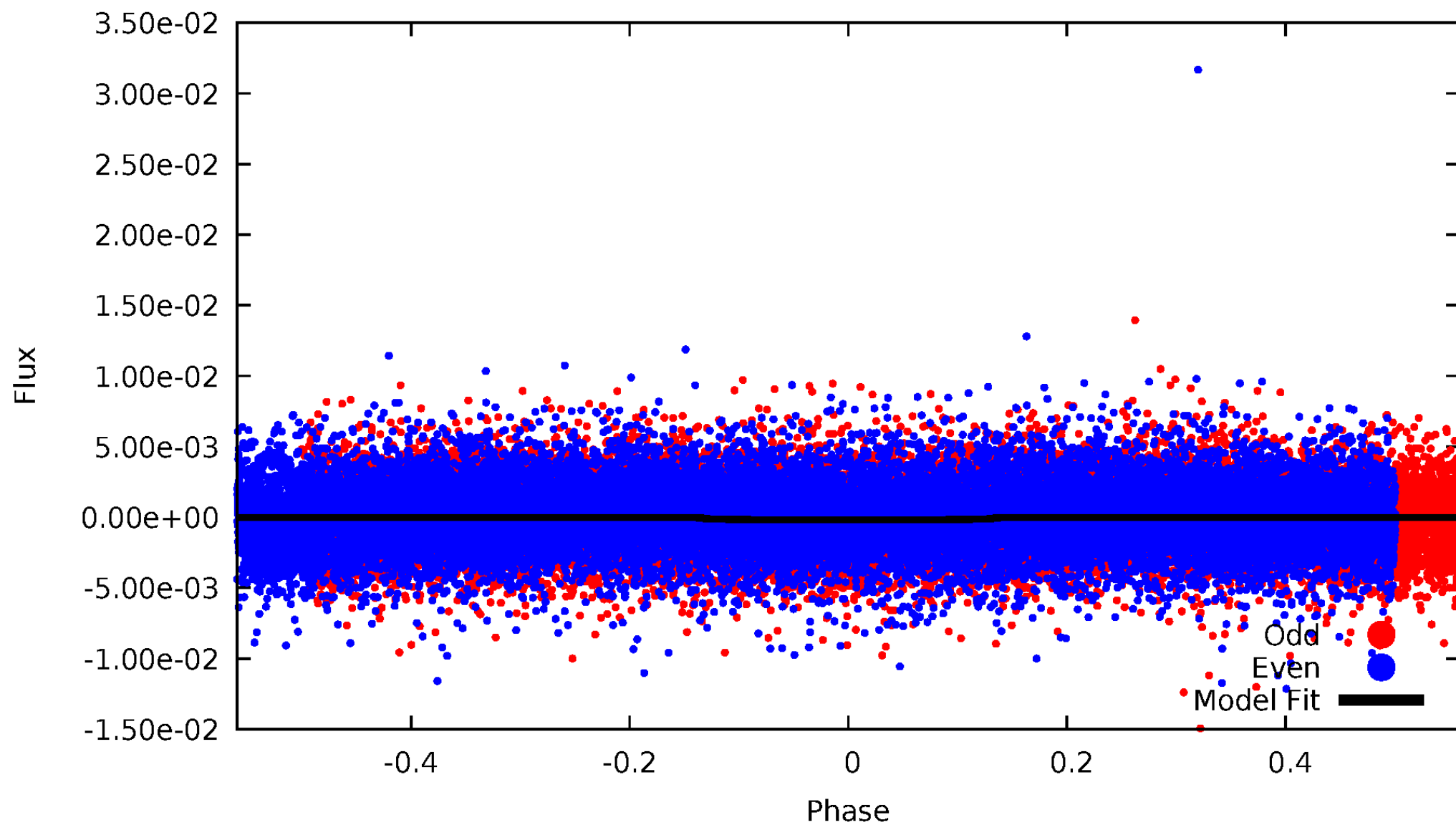


TCE 006879594-03



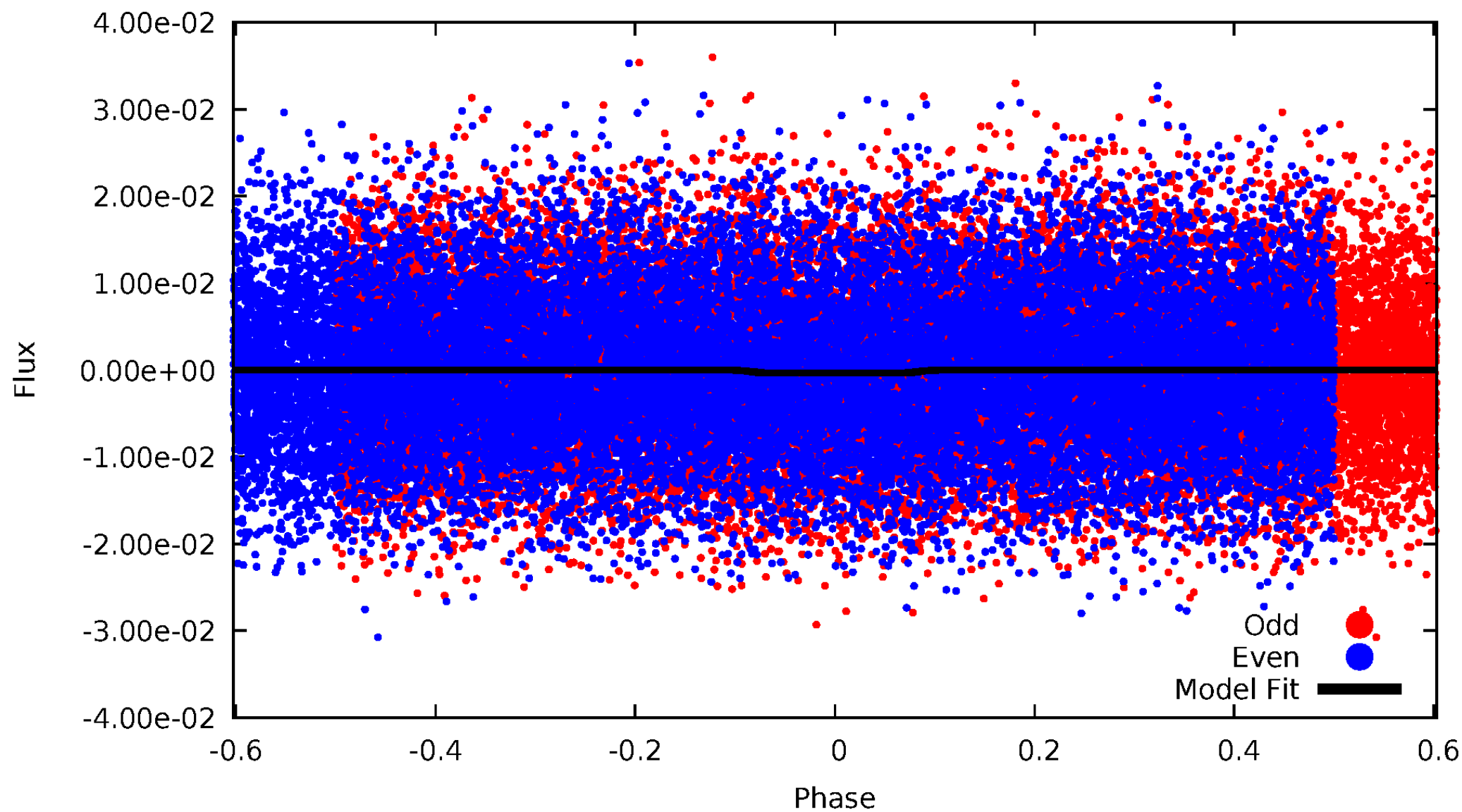
DV Odd/Even

TCE 006879594-03



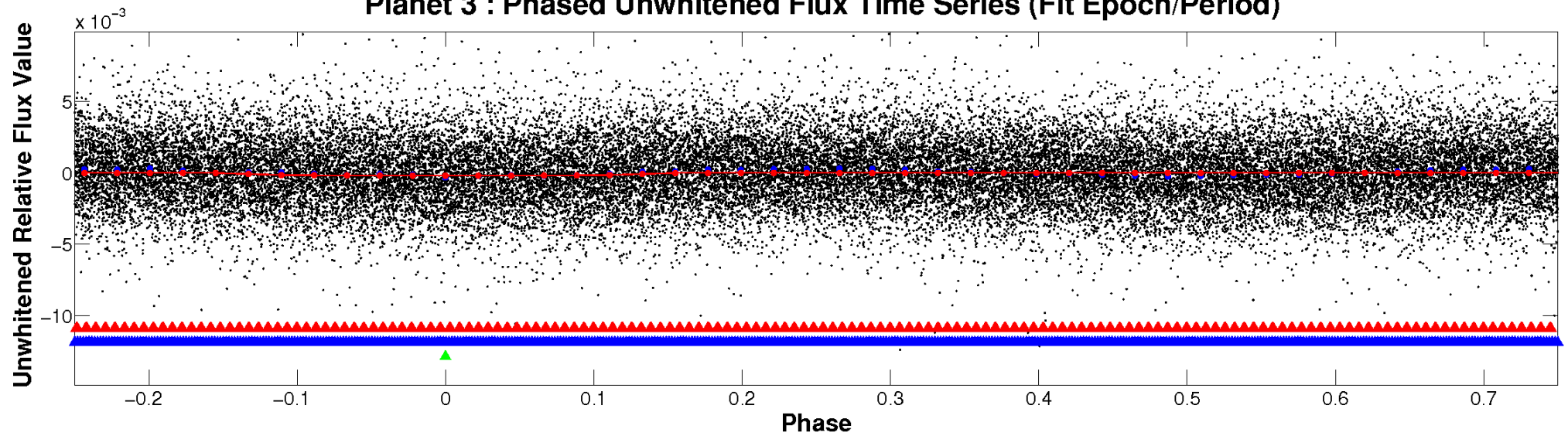
ALT Odd/Even

TCE 006879594-03

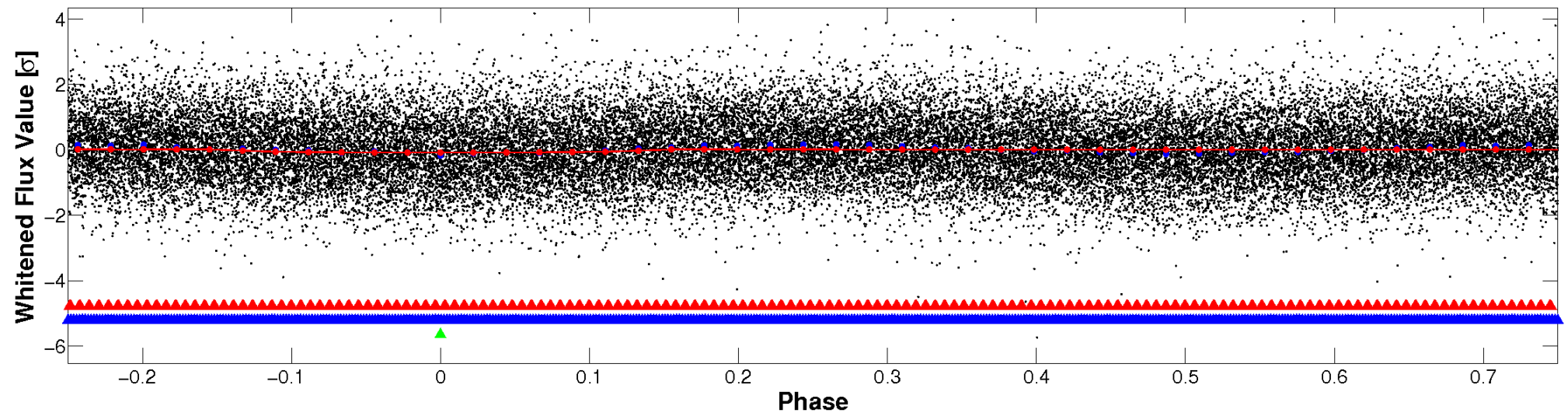


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

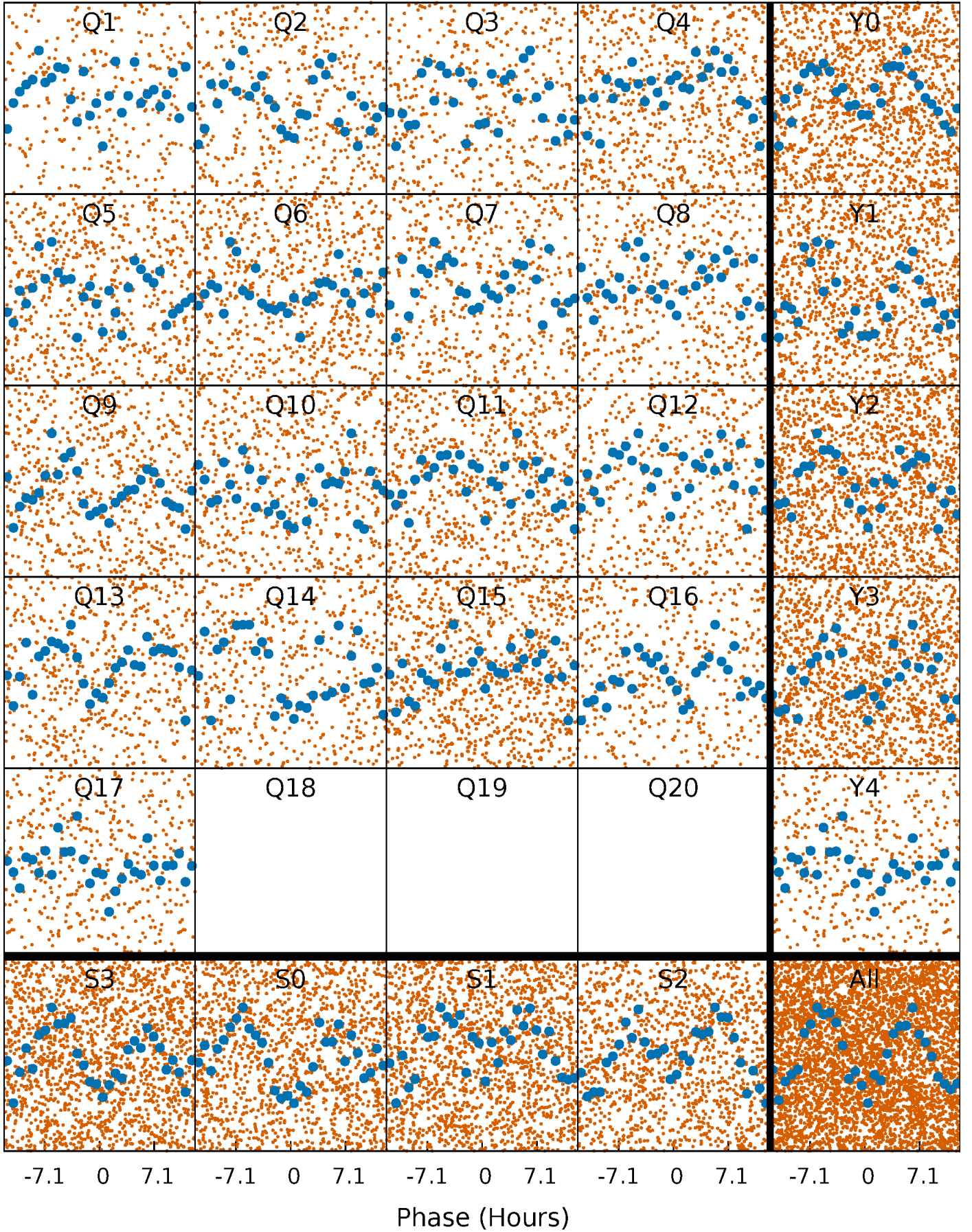


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



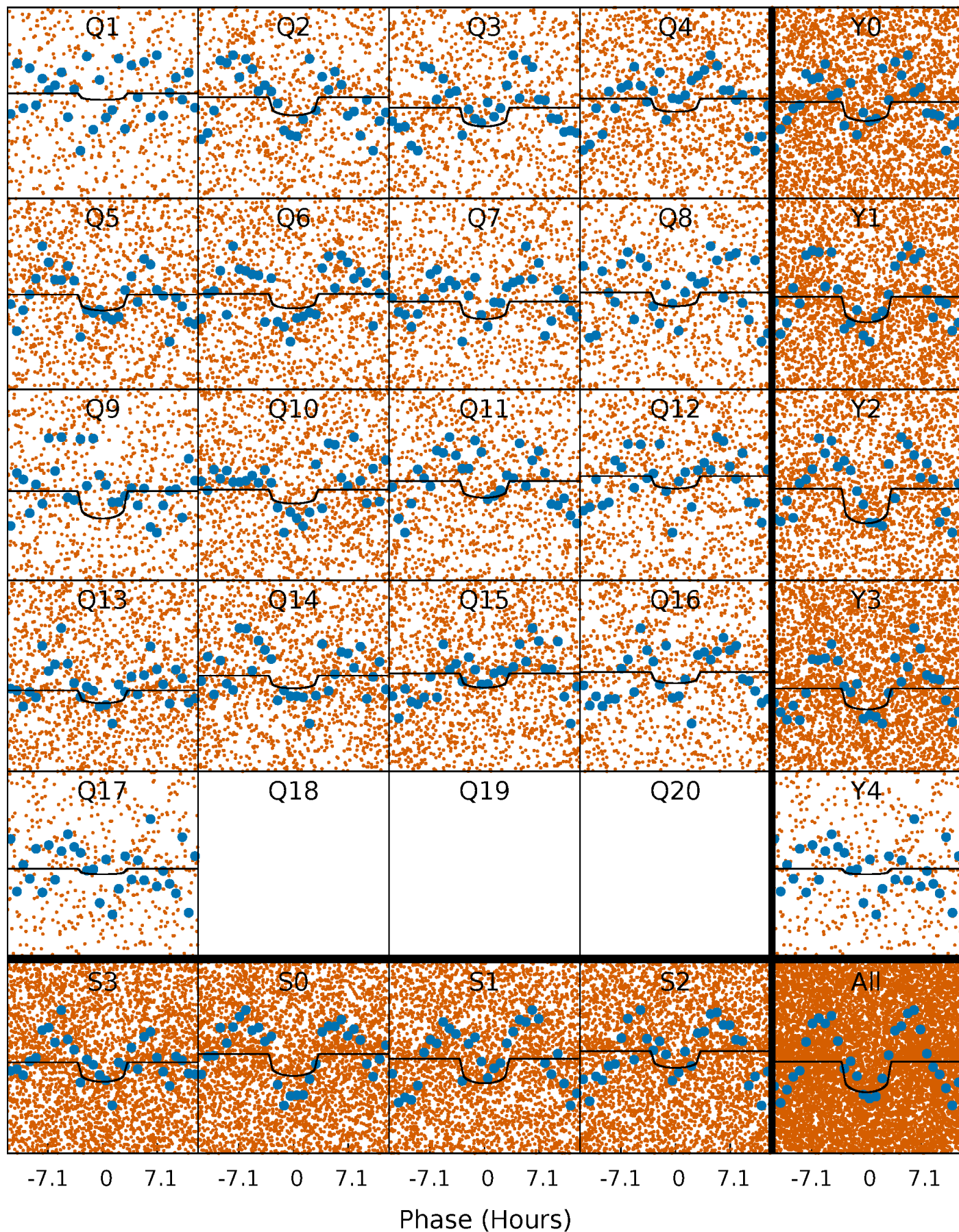
PDC Quarter-Phased Transit Curves

TCE 006879594-03 P= 0.923116 Days $T_0=132.122246$ (BKJD)



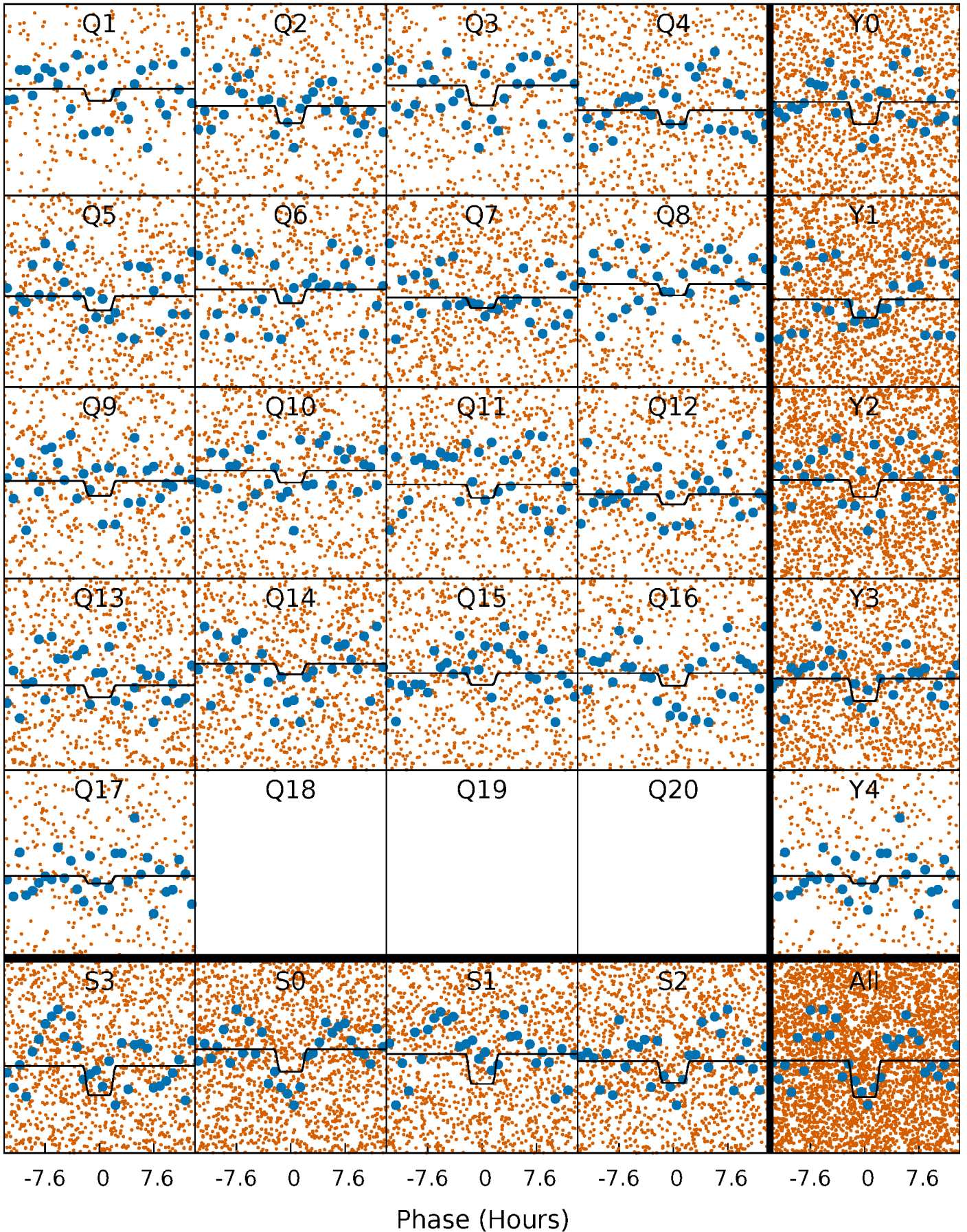
DV Quarter-Phased Transit Curves

TCE 006879594-03 $P = 0.923116$ Days $T_0 = 132.122246$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

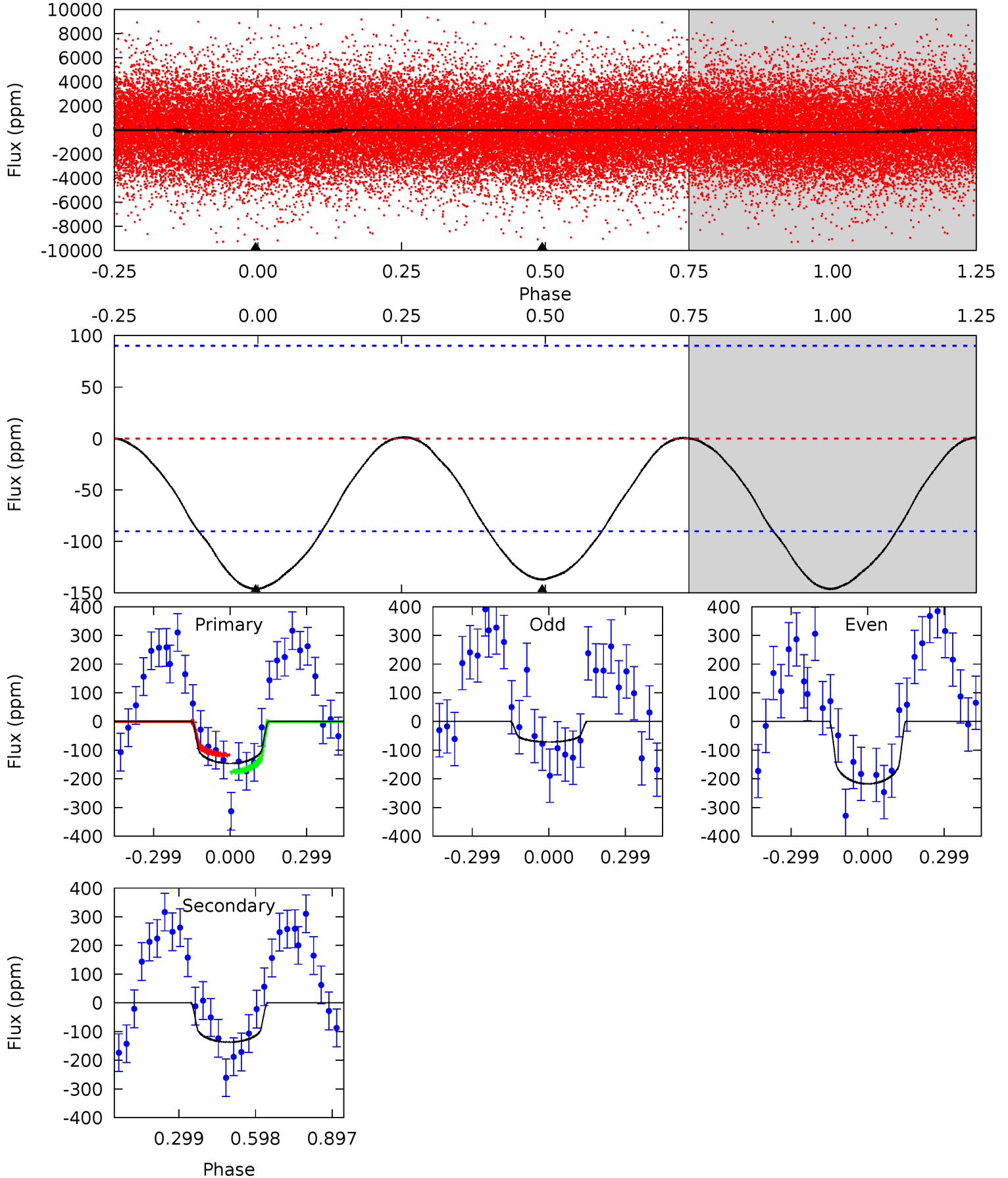
TCE 006879594-03 P= 0.923168 Days $T_0=132.093079$ (BKJD)



DV Model-Shift Uniqueness Test

006879594-03, P = 0.923116 Days, E = 131.199130 Days

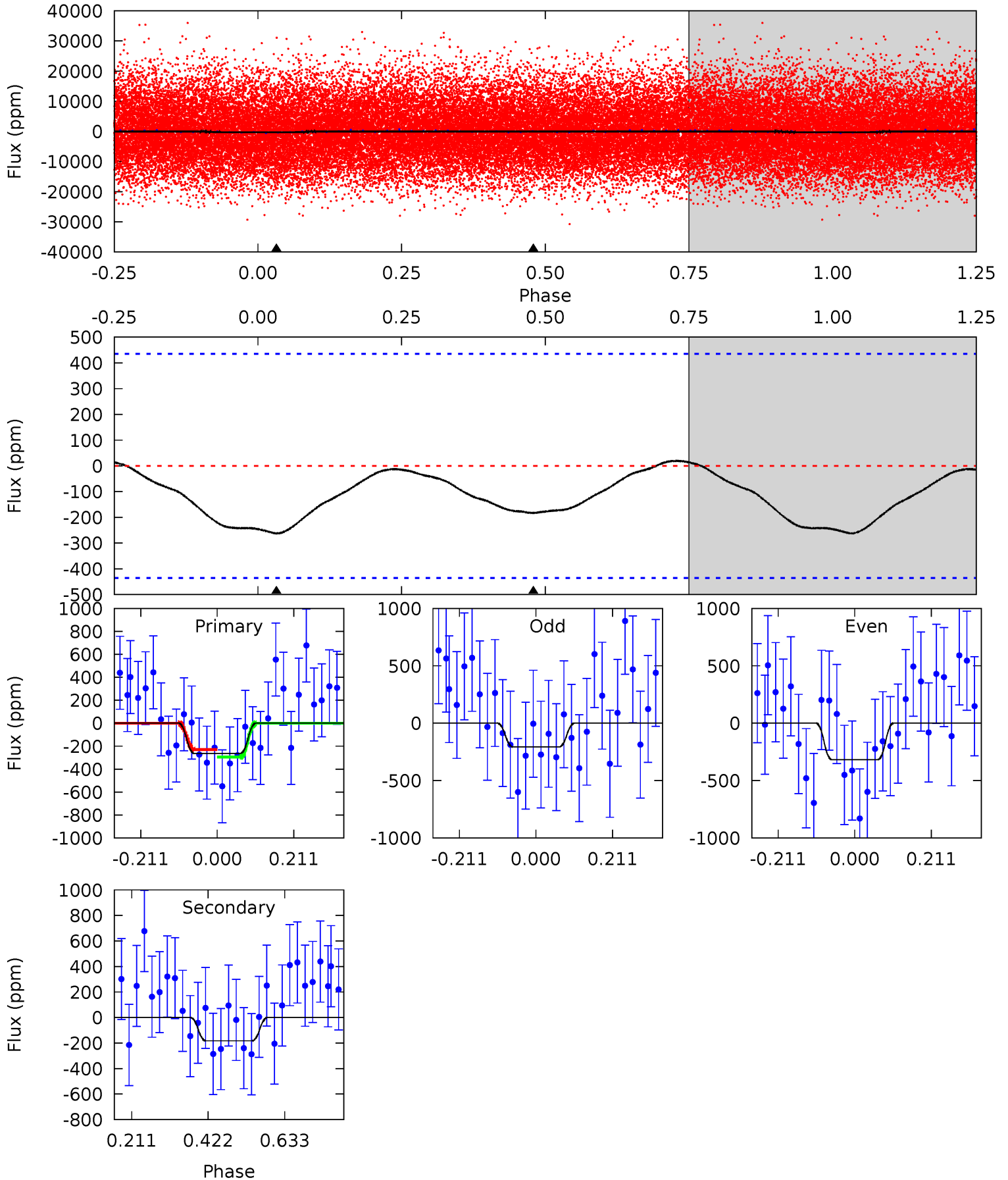
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 7.03 | 6.58 | 0 | 0 | 4.33 | 1.04 | 0.06 | 7.03 | 7.03 | 6.58 | 6.58 | 3.43 | 0.90 | 0.01 | 1.36 |



Alt Model-Shift Uniqueness Test

006879594-03, P = 0.923168 Days, E = 131.169911 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 2.66 | 1.85 | 0 | 0 | 4.41 | 1.25 | 0.24 | 2.66 | 2.66 | 1.85 | 1.85 | 0.56 | 0.84 | 0.07 | 0.33 |



Stellar Parameters For KIC 006879594

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 7143^{+199}_{-313} | $3.842^{+0.368}_{-0.123}$ | $-0.180^{+0.250}_{-0.350}$ | $2.579^{+0.482}_{-1.045}$ | $1.686^{+0.180}_{-0.419}$ | $0.139^{+0.397}_{-0.049}$ |
| | +3%/-4% | +10%/-3% | +139%/-194% | +19%/-41% | +11%/-25% | +287%/-35% |
| 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 006879594-03 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|---------------|------------------------|----------------------|------------------------|----------------------------|
| DV | -137 ± 21 | $4.38^{+3.98}_{-2.73}$ | 4644^{+358}_{-459} | 5552^{+4816}_{-1785} | $1.806^{+11.810}_{-1.308}$ |
| Alt. | -183 ± 99 | $5.26^{+4.14}_{-3.07}$ | 4631^{+341}_{-489} | 5289^{+3930}_{-2196} | $1.519^{+7.948}_{-1.169}$ |

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

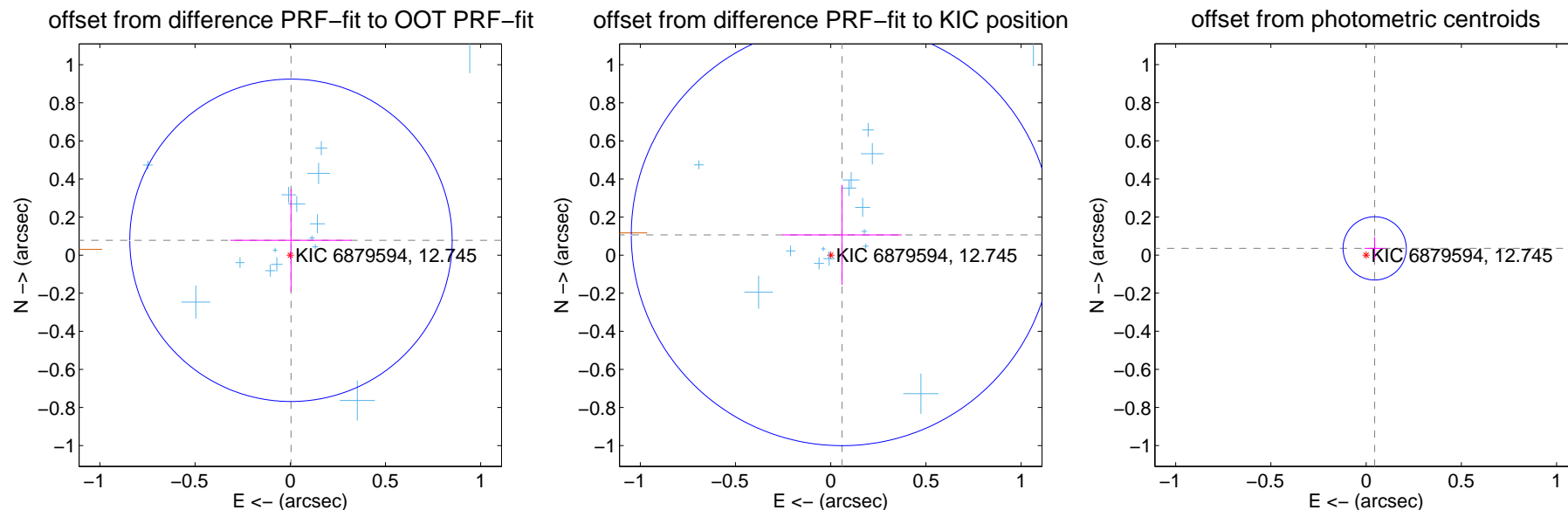
DV Centroid Data

Supplemental centroid analysis for 006879594-03. Kepler magnitude: 12.74. Transit SNR 7.35

There are 15 quarters with good PRF difference image offsets

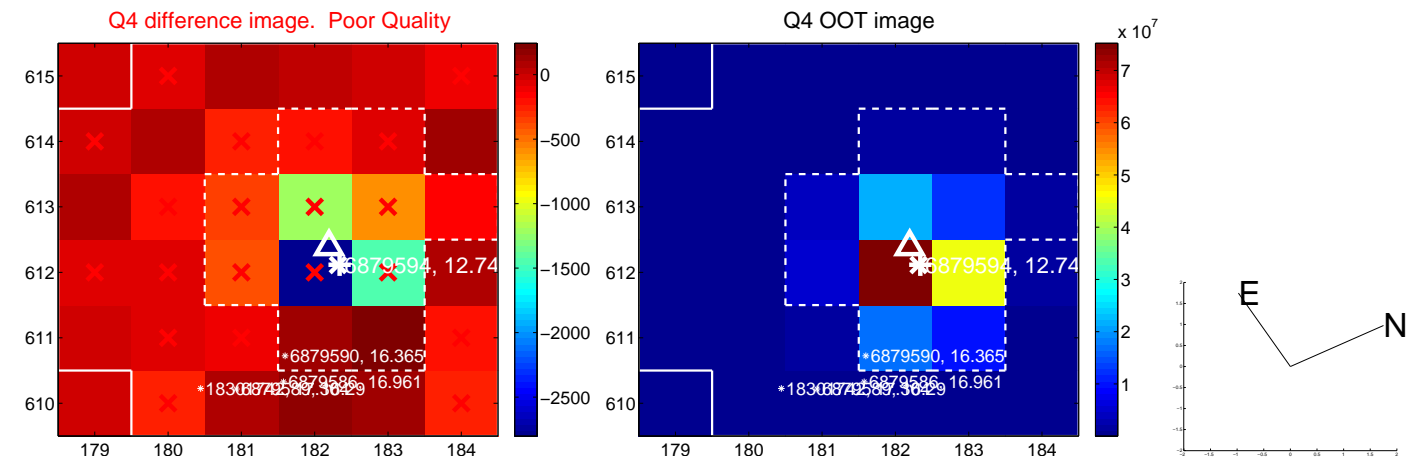
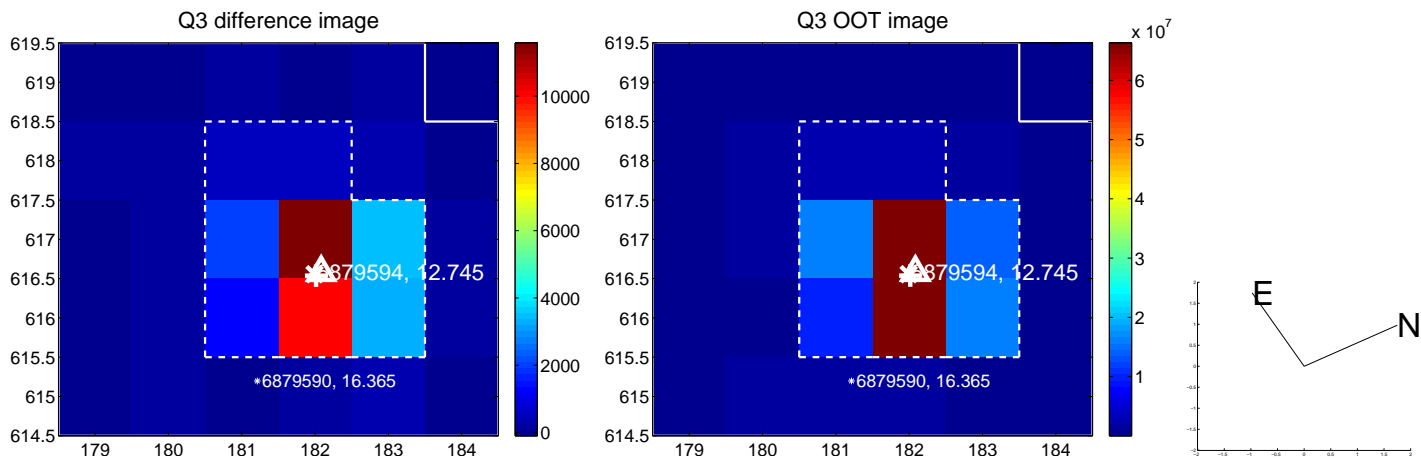
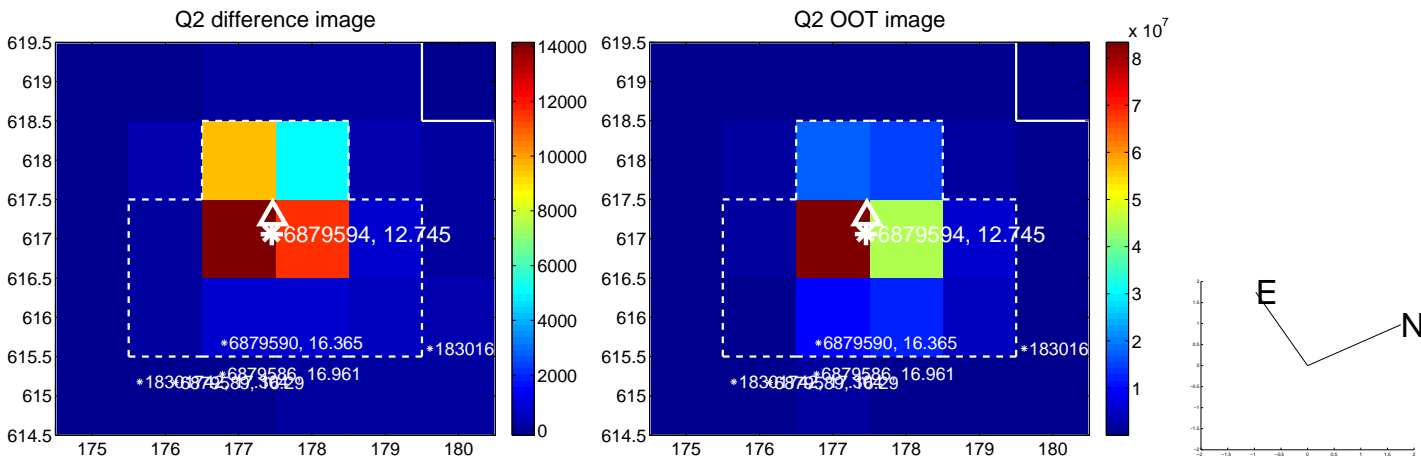
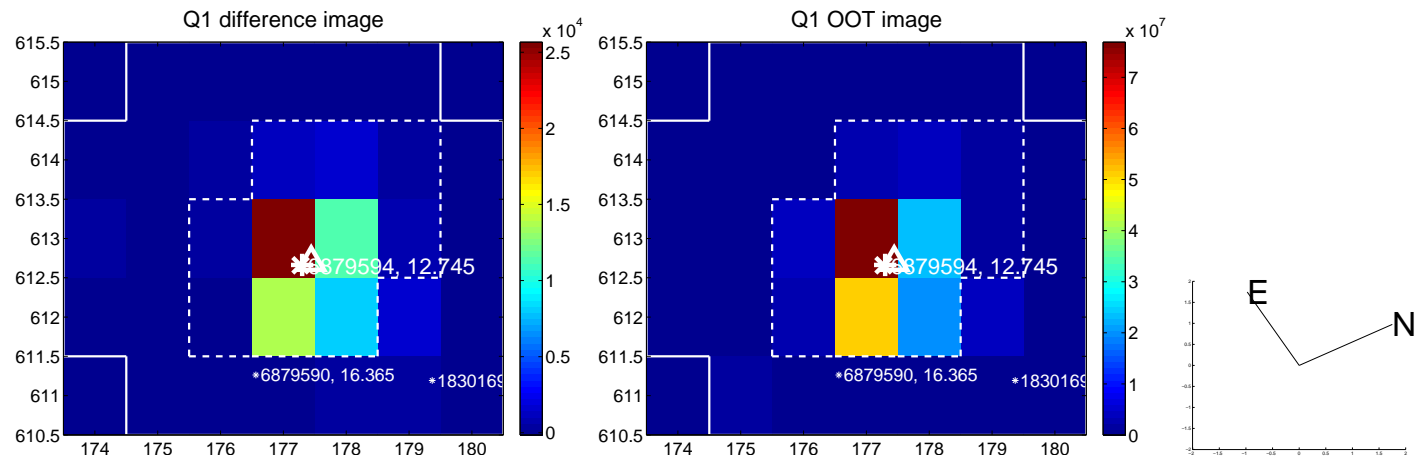
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 0.078 ± 0.282 | 0.28 | -0.004 ± 0.318 | 0.078 ± 0.269 |
| PRF-fit source offset from KIC position | 0.122 ± 0.369 | 0.33 | -0.059 ± 0.314 | 0.106 ± 0.263 |
| photometric centroid source offset | 0.06 ± 0.06 | 1.03 | -0.04 ± 0.05 | 0.04 ± 0.06 |

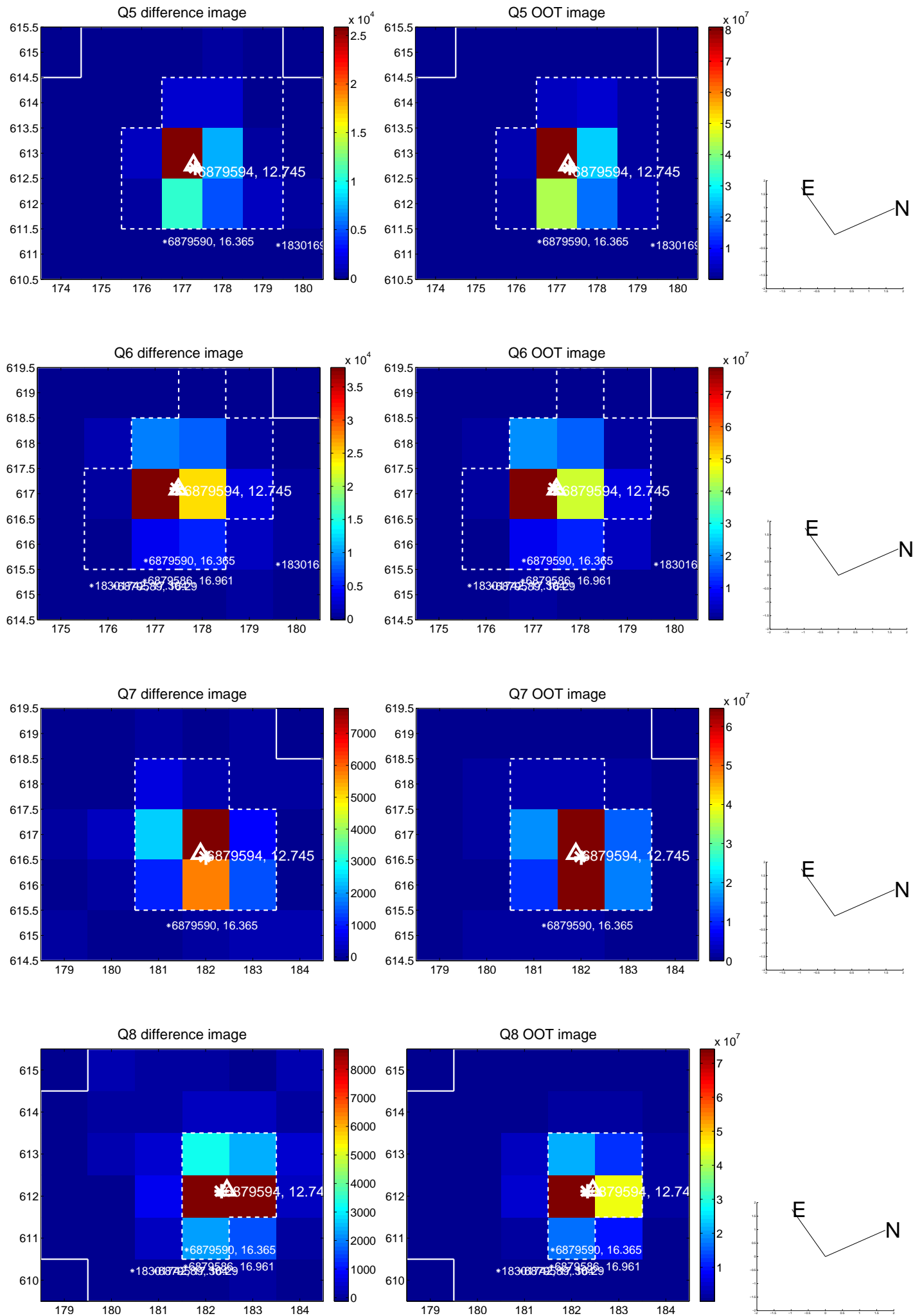


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

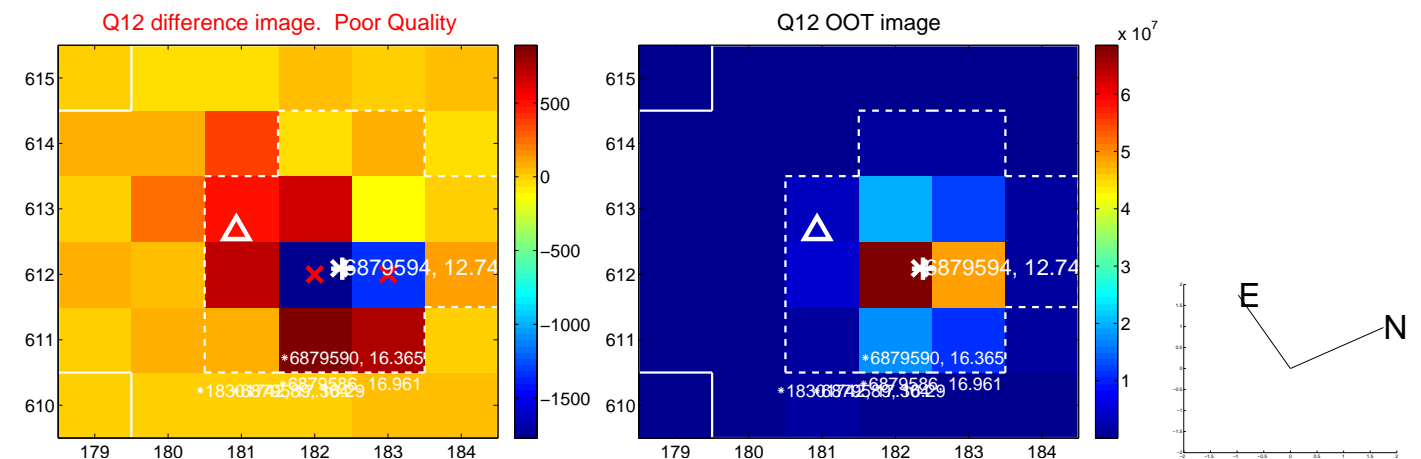
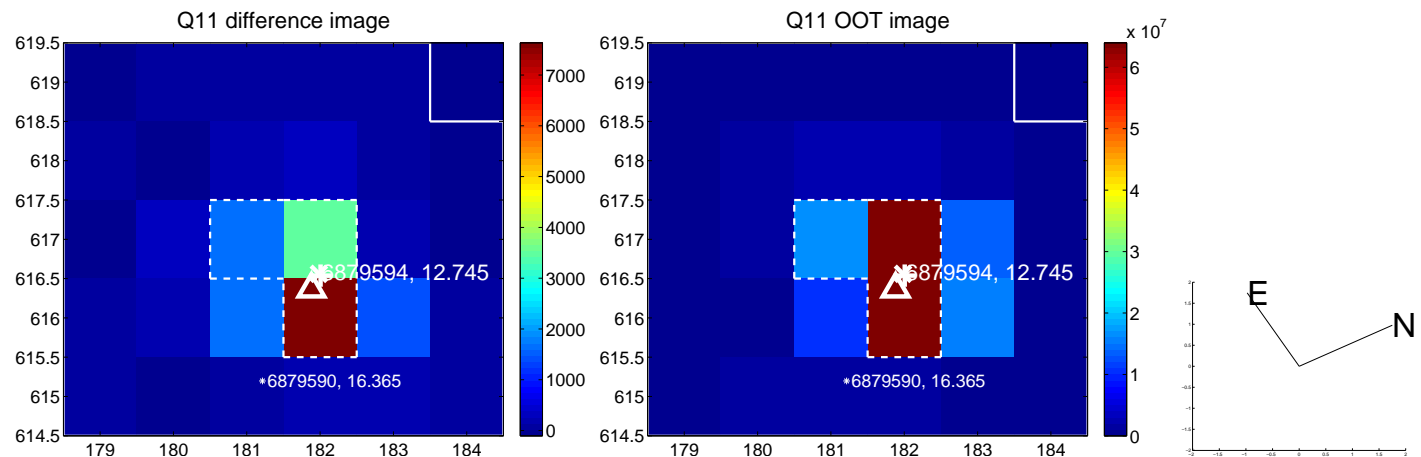
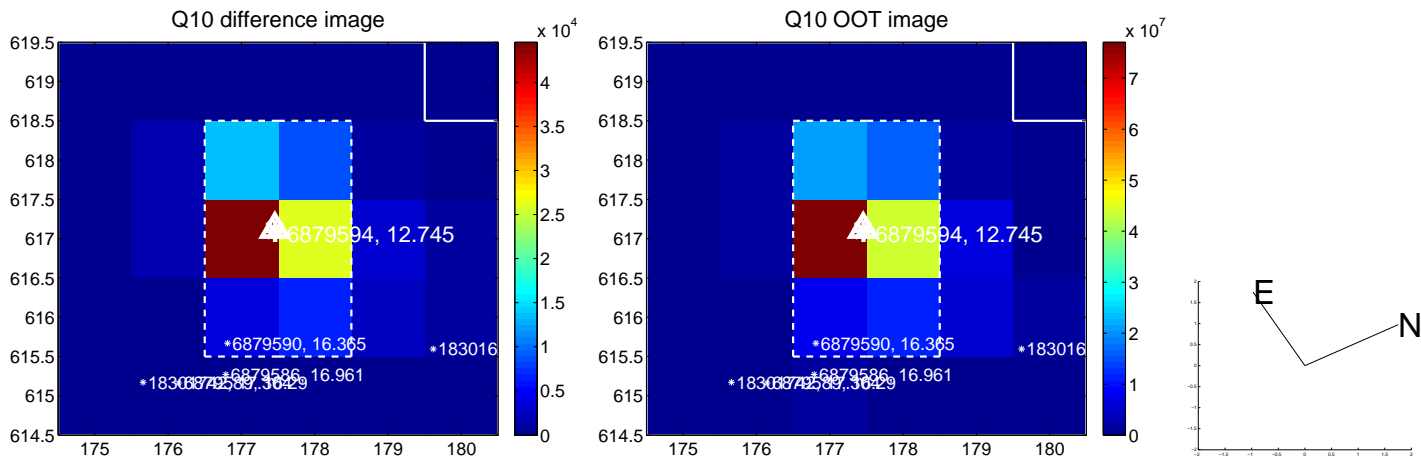
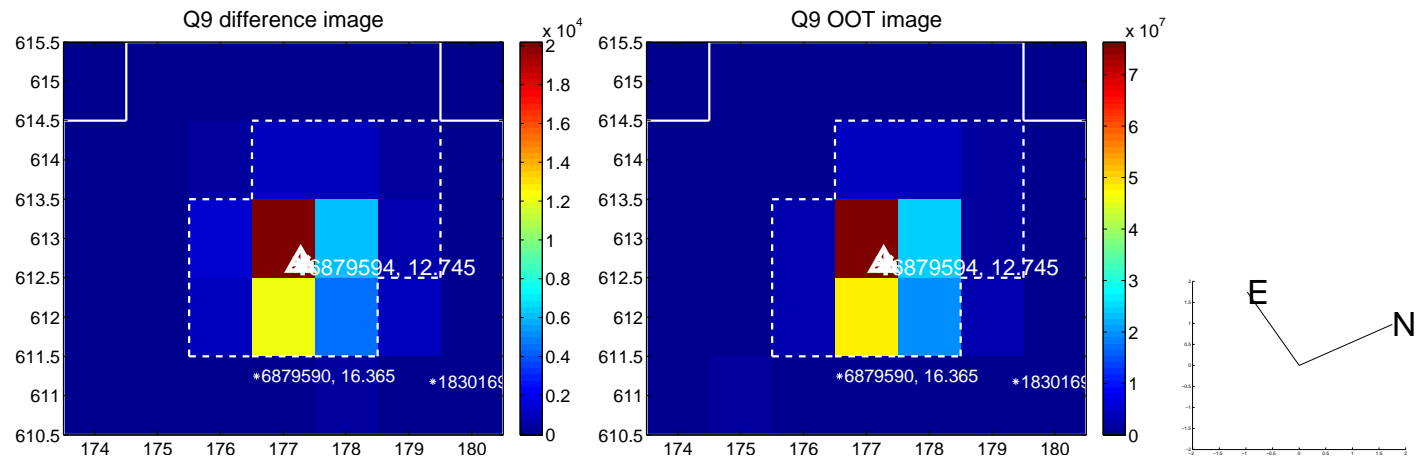
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



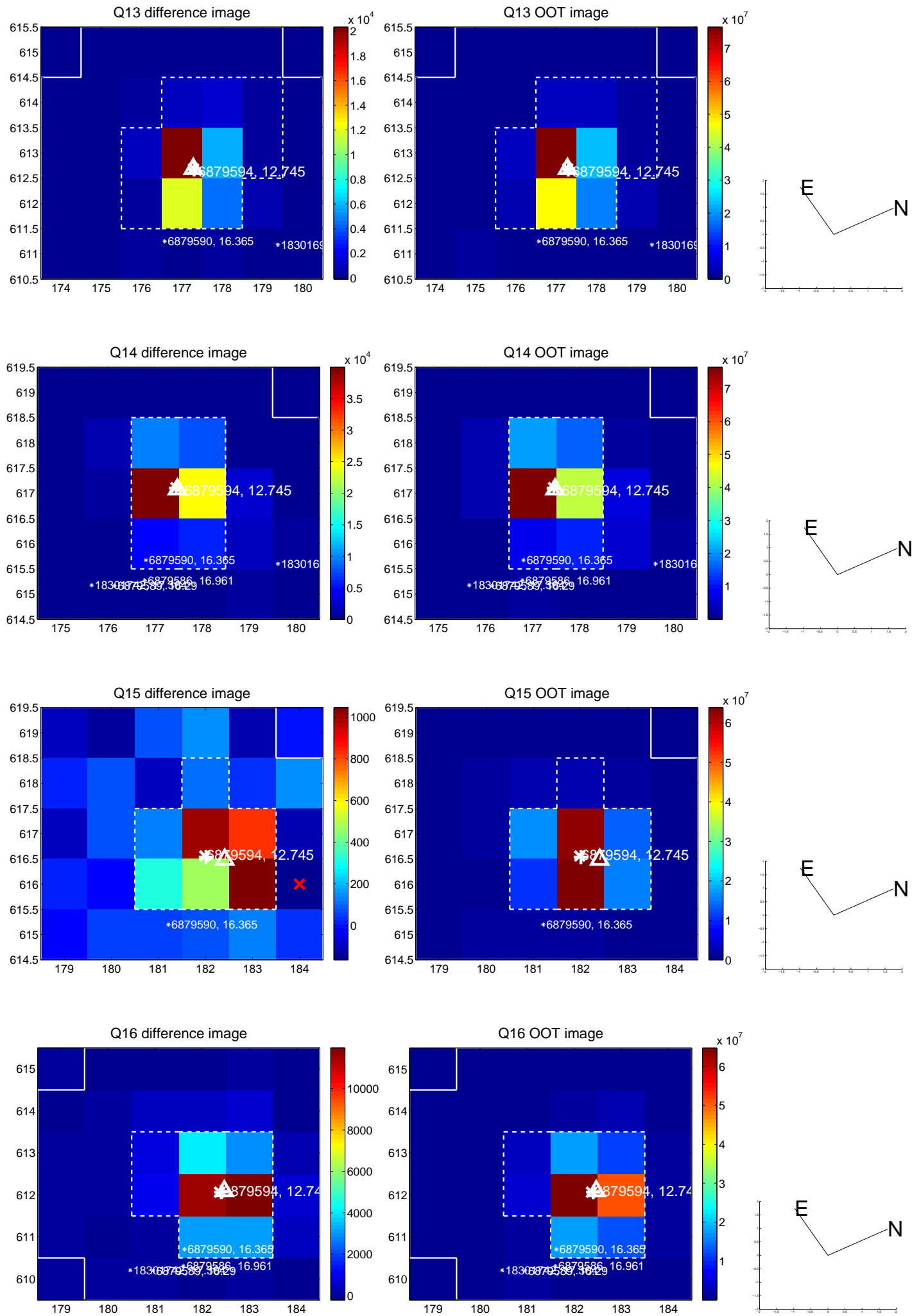
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



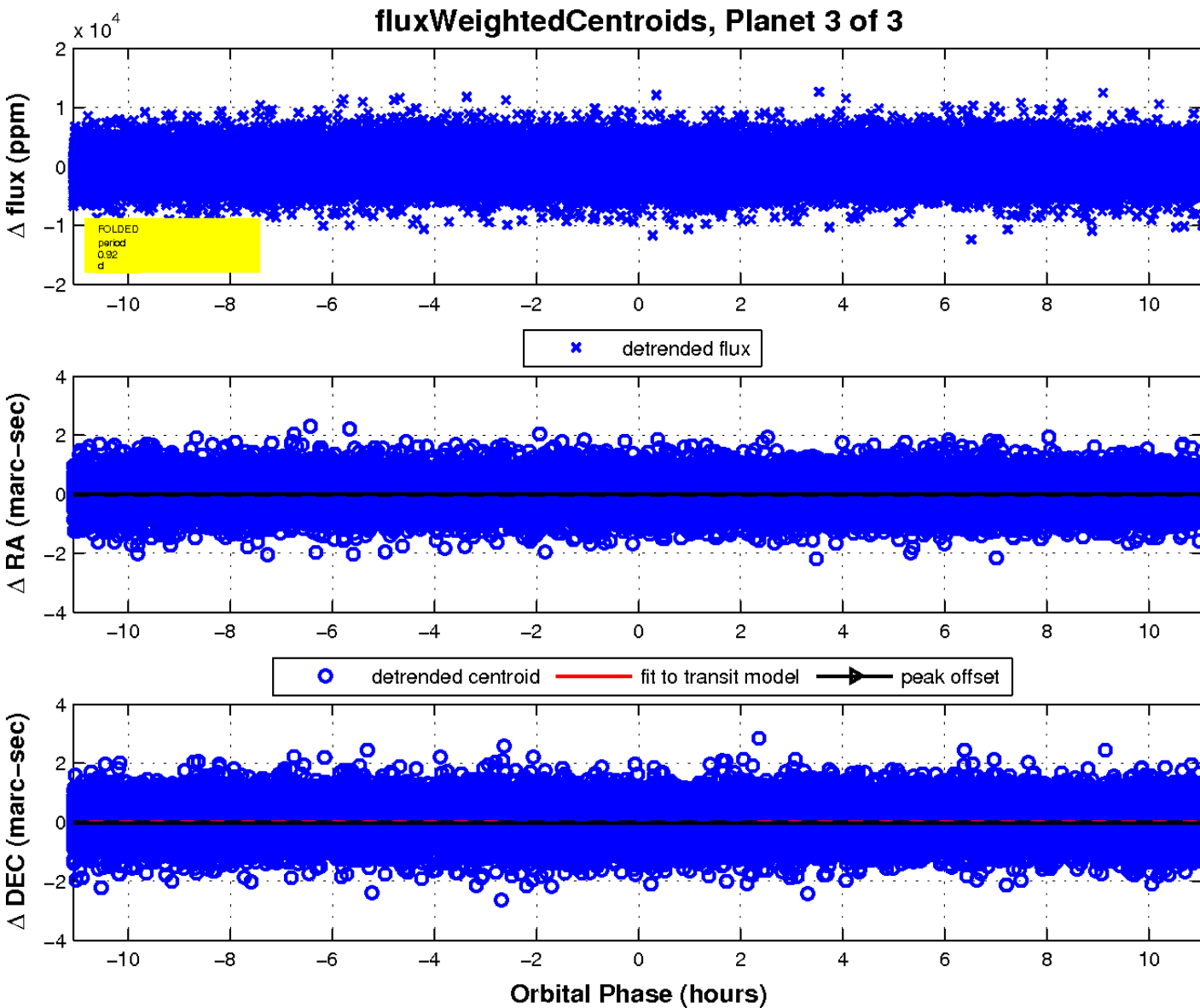
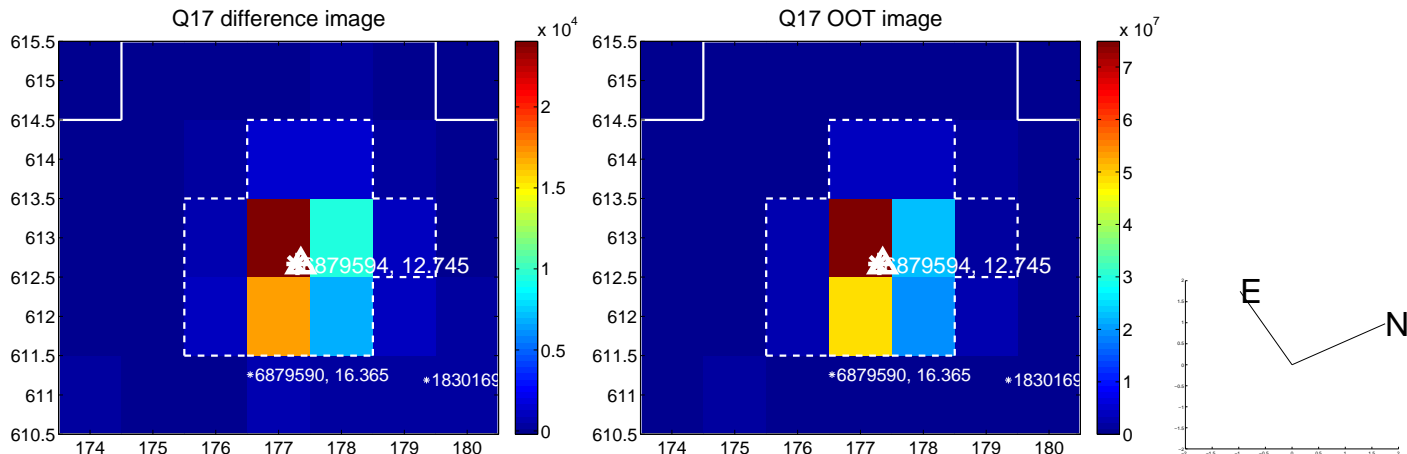
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

