

KIC 010600261

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}) |
|--------------|----------|---------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 010600261-01 | OBS | 0597.01 | 17.308001 | 142.325956 | 619.2 | 5.365 | 36.0 | 39.6 | 1.44 | 5565 | 4.10 | 104.50 |
| 010600261-02 | OBS | 0597.02 | 2.092279 | 133.061148 | 193.0 | 2.460 | 24.5 | 26.9 | 1.44 | 5565 | 2.43 | 1748.38 |
| 010600261-03 | OBS | 0597.03 | 52.815031 | 164.902057 | 572.4 | 7.372 | 21.9 | 24.5 | 1.44 | 5565 | 3.65 | 23.61 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--------------|
| 010600261-01 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | CENT_KIC_POS |
| 010600261-02 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | CENT_KIC_POS |
| 010600261-03 | OBS | PC | 0.90 | 0 | 0 | 0 | 0 | CENT_KIC_POS |

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.

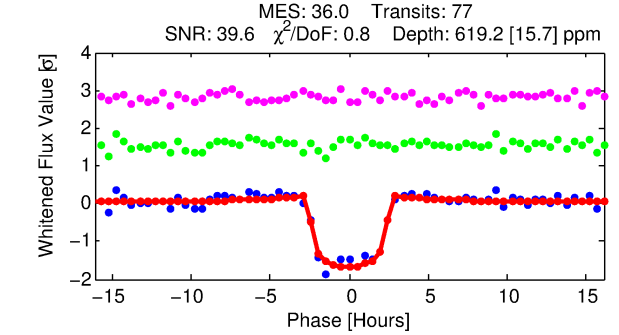
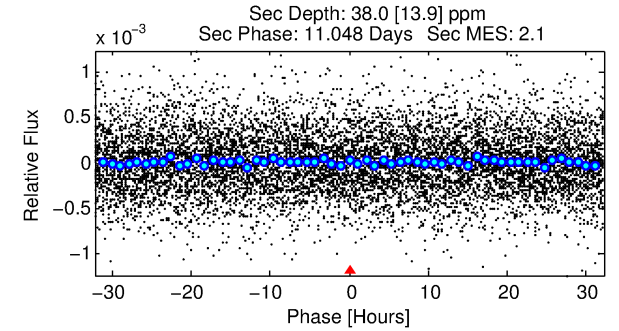
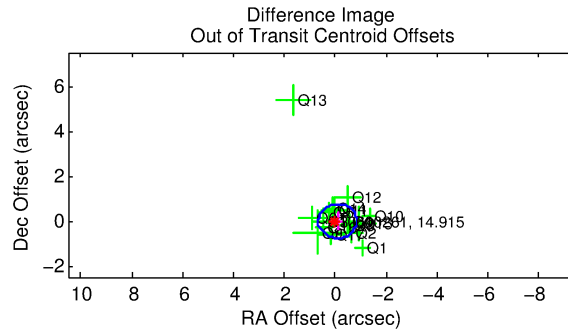
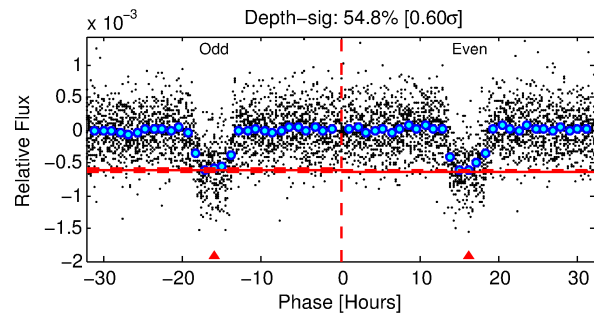
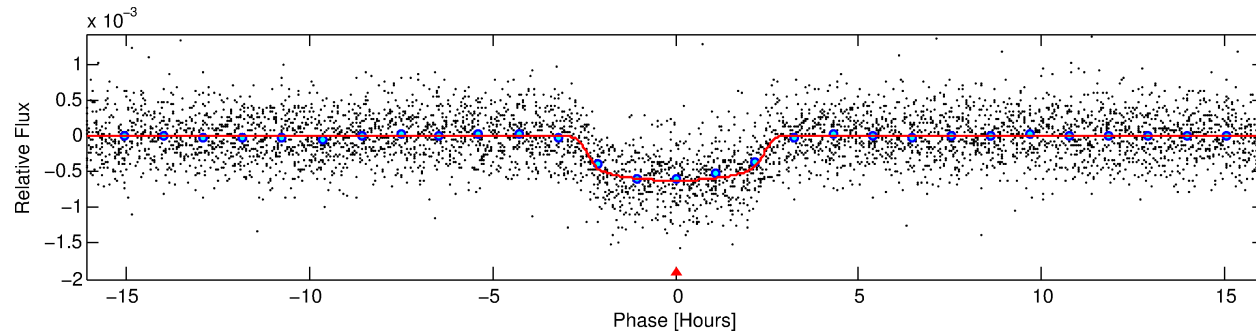
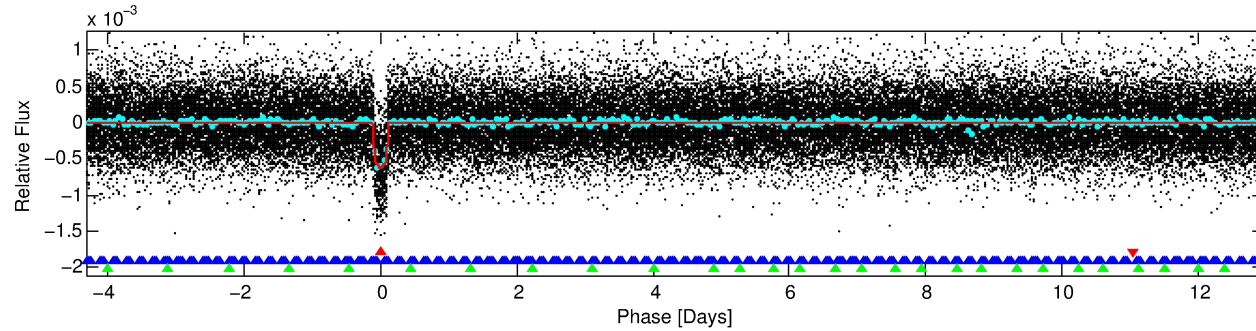
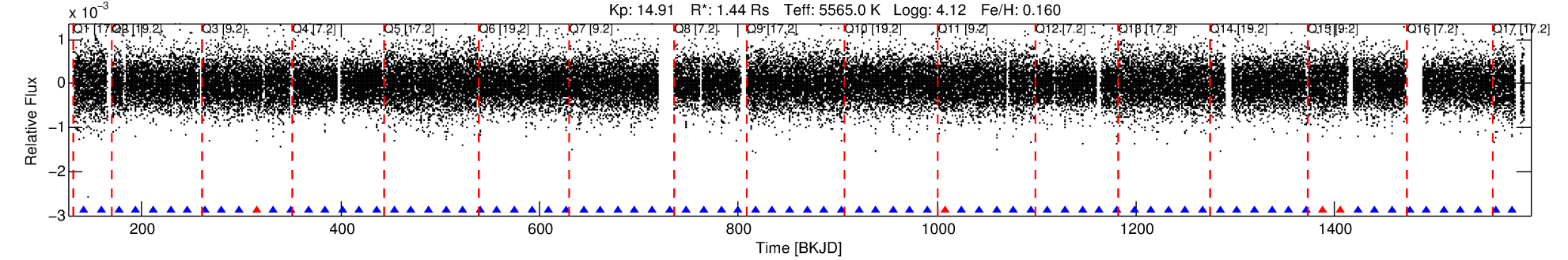
Ephemeris Match Information For 010600261-01

No Significant Match Found

DV One-Page Summary

KIC: 10600261 Candidate: 1 of 3 Period: 17.308 d
KOI: K00597.01 Name: Kepler-194c Corr: 0.968

Kp: 14.91 R*: 1.44 Rs Teff: 5565.0 K Logg: 4.12 Fe/H: 0.160



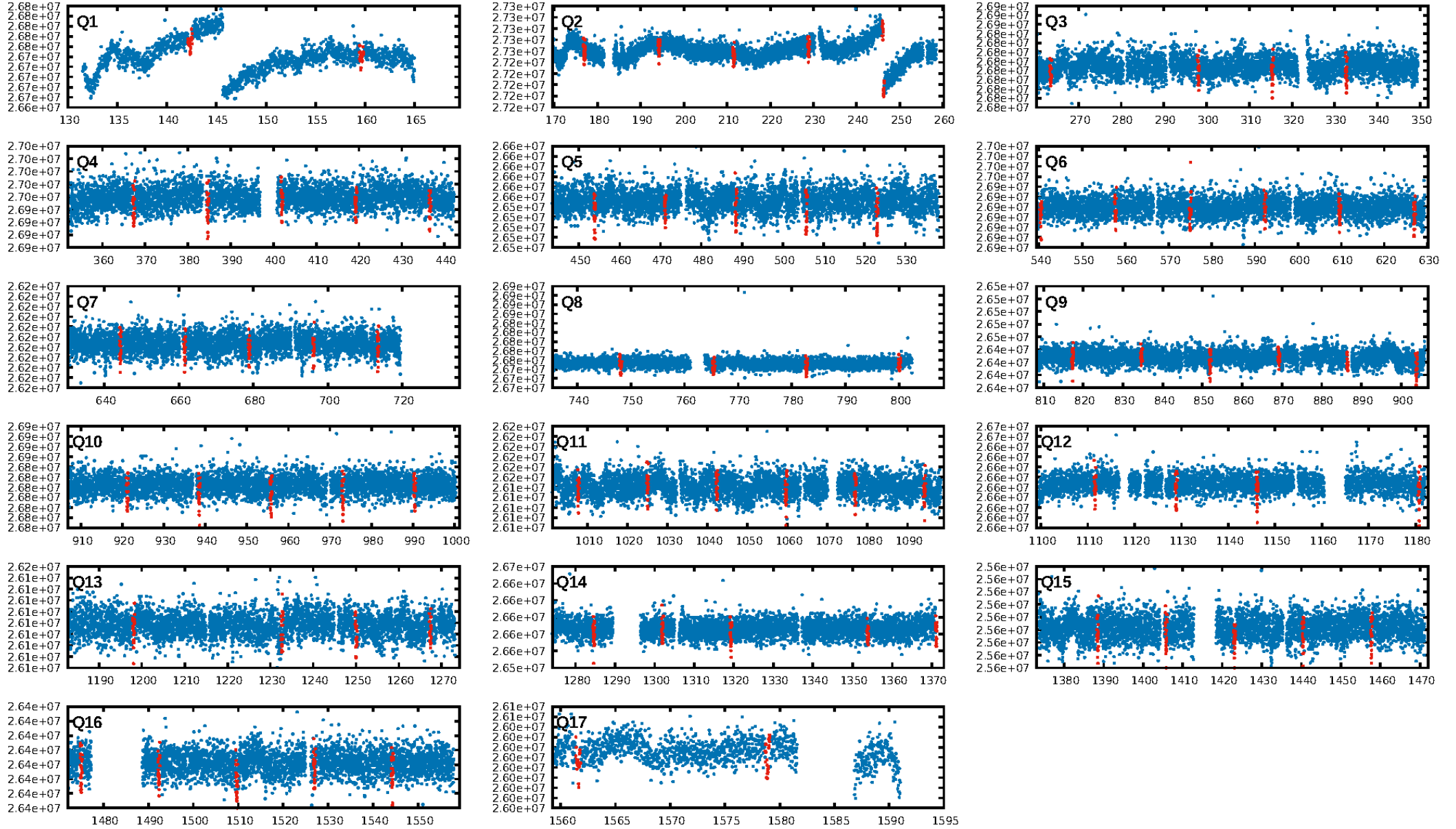
DV Fit Results:

Period = 17.30800 [0.00006] d
Epoch = 142.3260 [0.0026] BKJD
Rp/R* = 0.0261 [0.0023]
a/R* = 14.37 [5.25]
b = 0.85 [0.13]
Seff = 104.50 [36.21]
Teq = 815 [71] K
Rp = 4.10 [0.97] Re
a = 0.1305 [0.0277] AU
Ag = 21.22 [11.24] [1.80σ]
Teffp = 2705 [277] K [6.62σ]

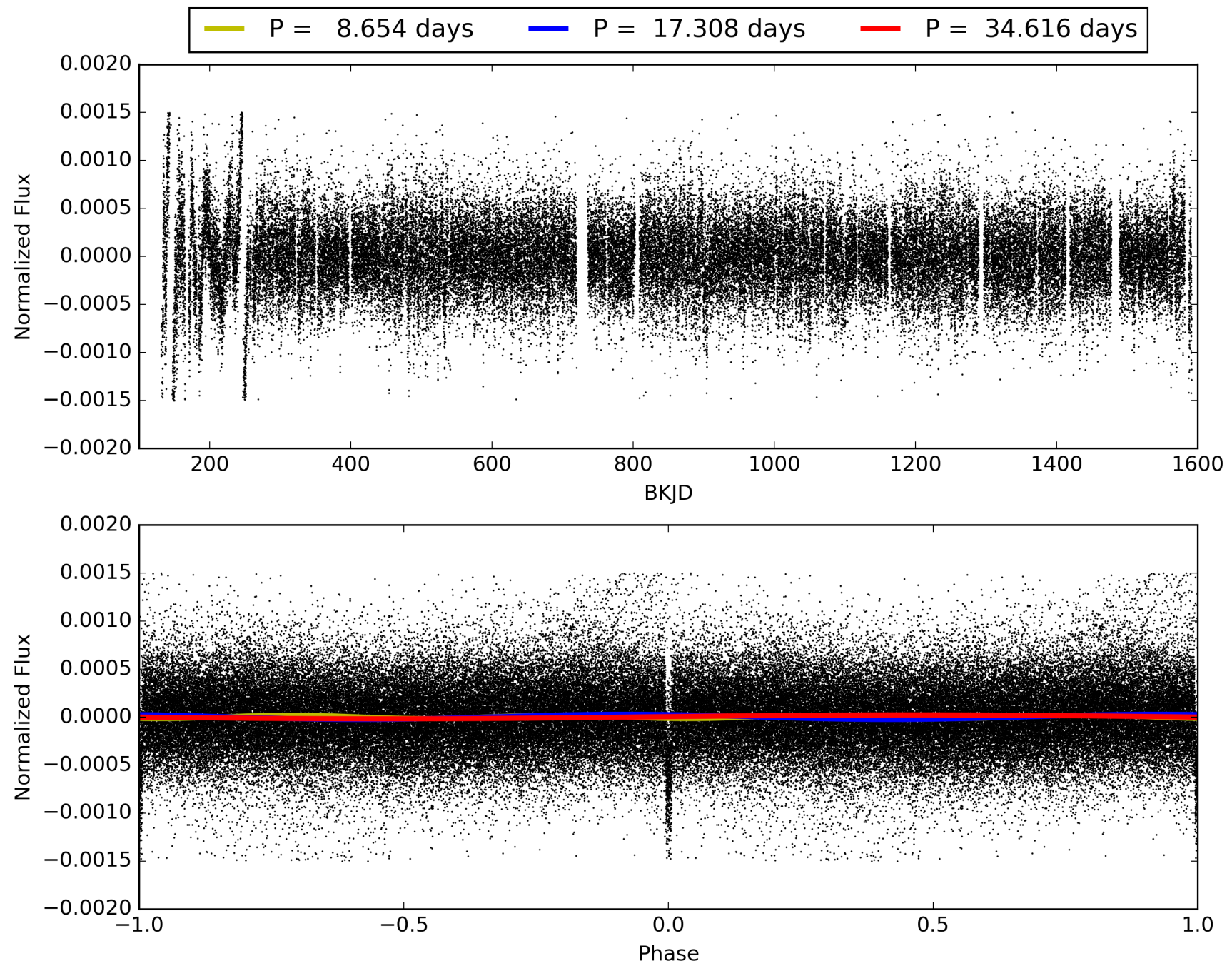
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [61.87σ]
LongPeriod-sig: 100.0% [93.46σ]
ModelChiSquare2-sig: 98.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.68e-276
RollingBand-fgt: 0.95 [69/73]
GhostDiagnostic-chr: 3.803
Centroid-sig: 67.2%
Centroid-so: 0.491 arcsec [1.47σ]
OotOffset-rm: 0.094 arcsec [0.37σ]
KicOffset-rm: 0.416 arcsec [1.15σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 0.88 [15/17]

TCE 010600261-01, PDC Light Curves

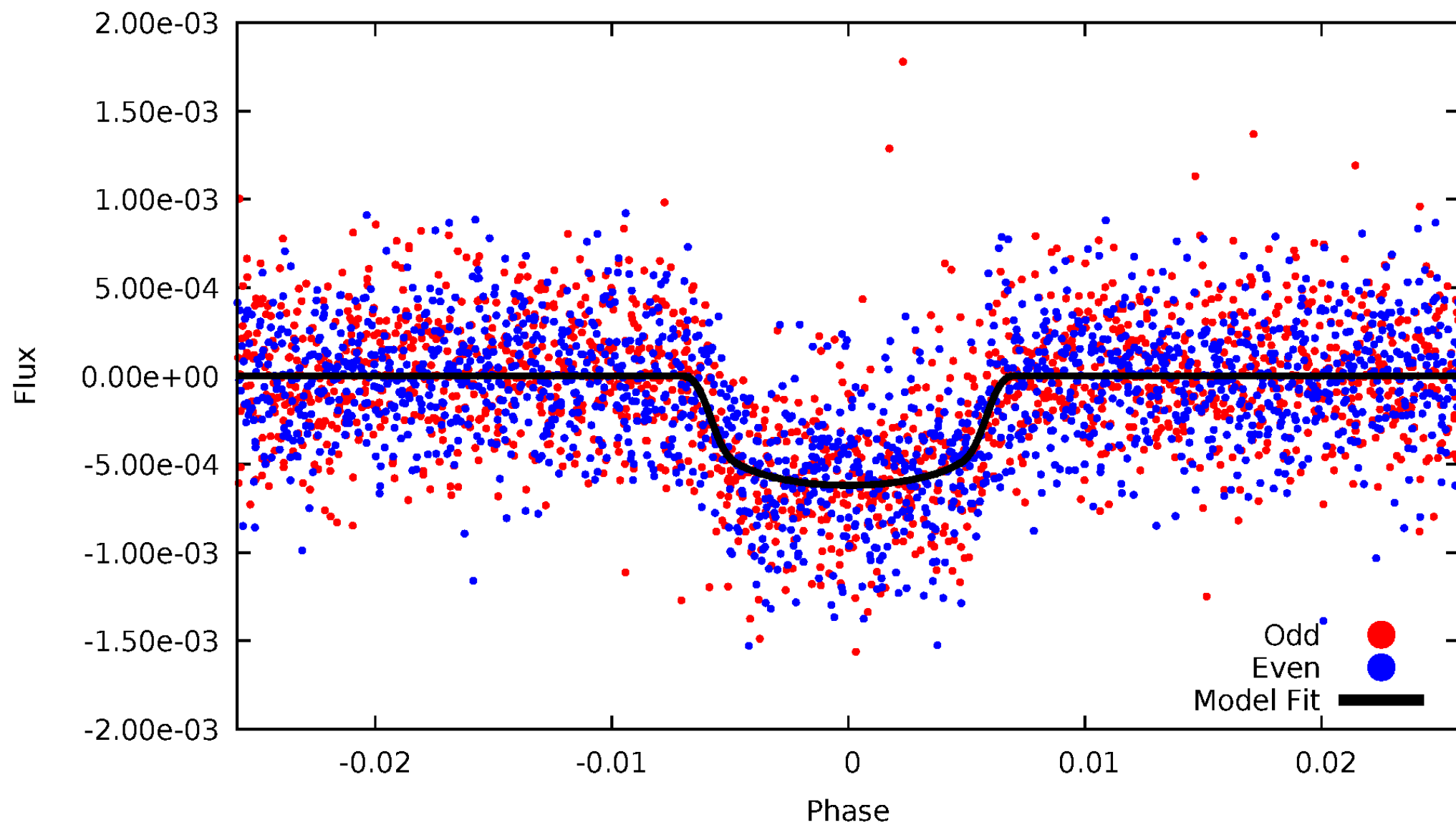


TCE 010600261-01



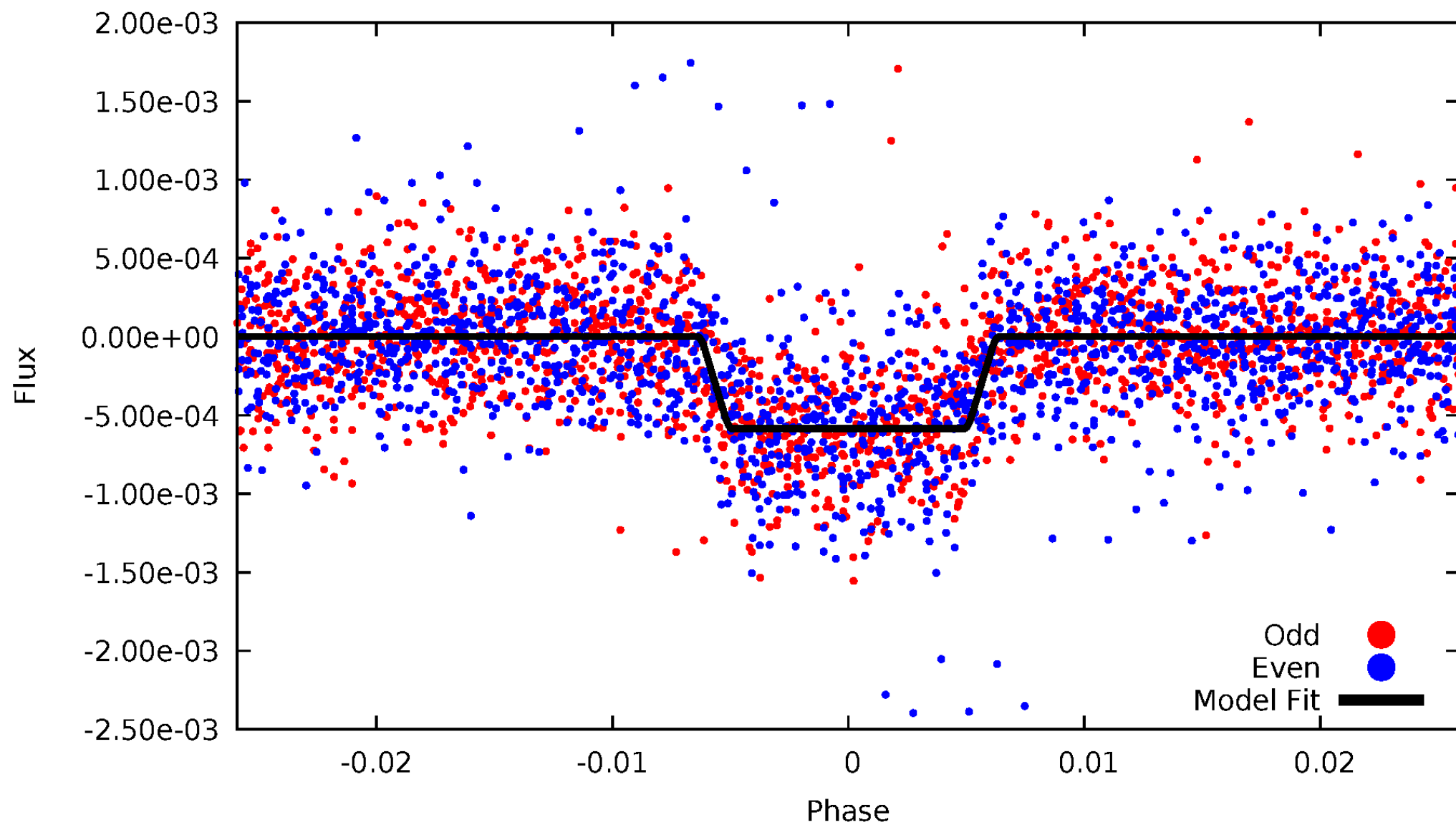
DV Odd/Even

TCE 010600261-01



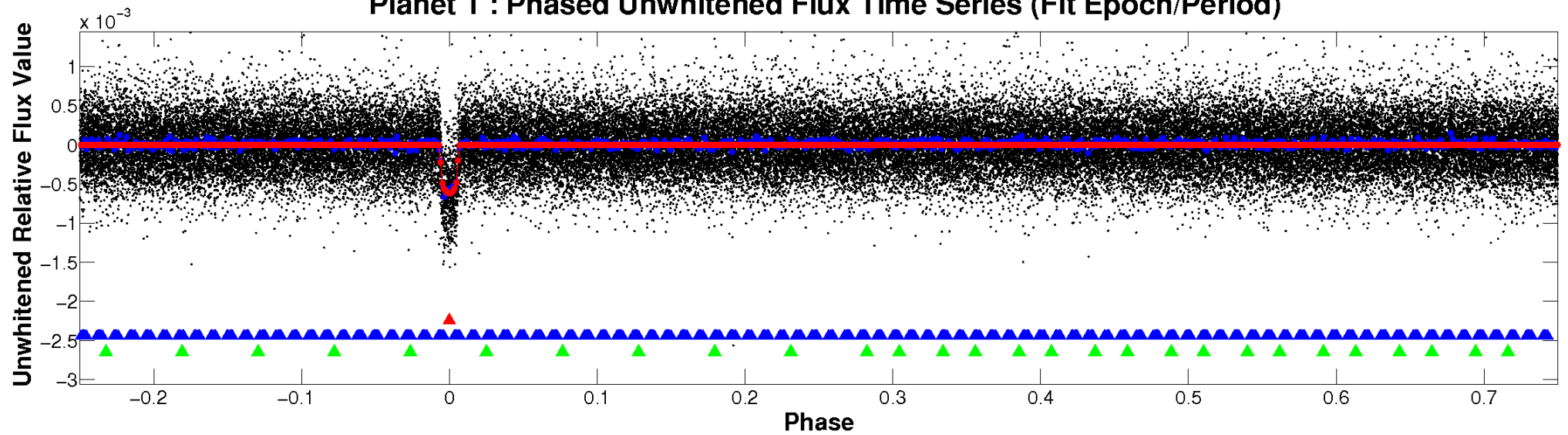
ALT Odd/Even

TCE 010600261-01

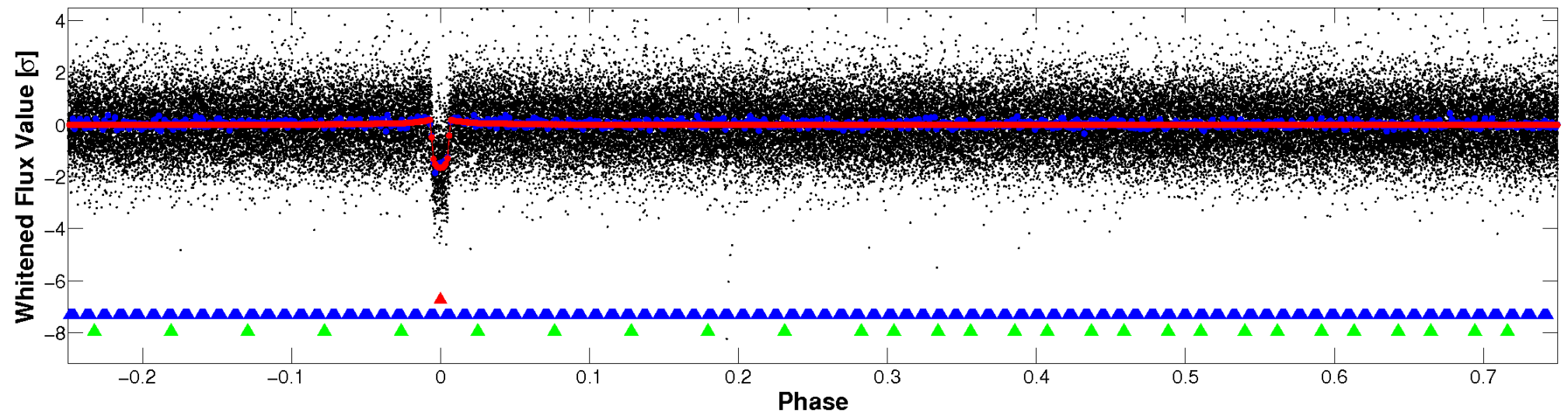


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

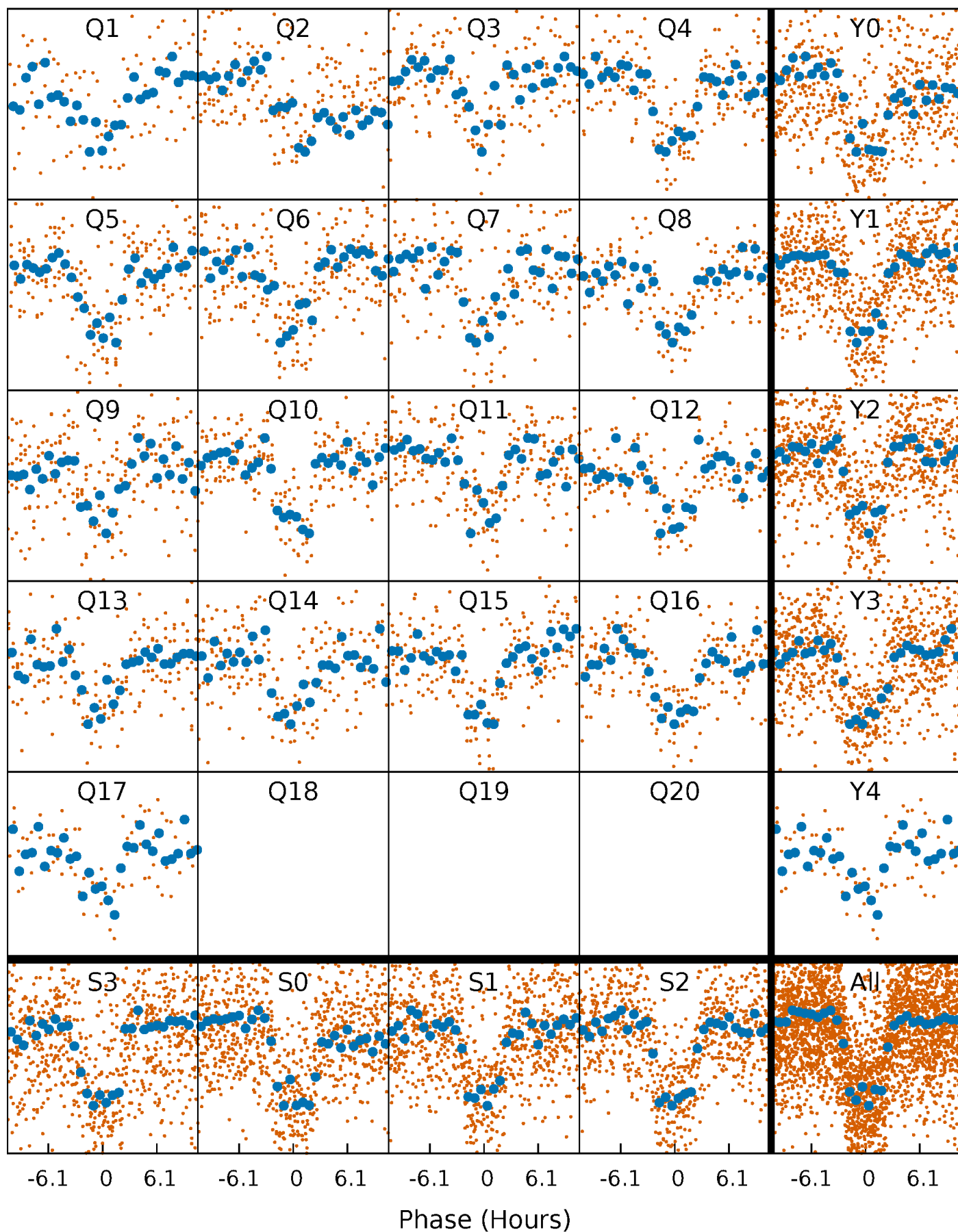


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



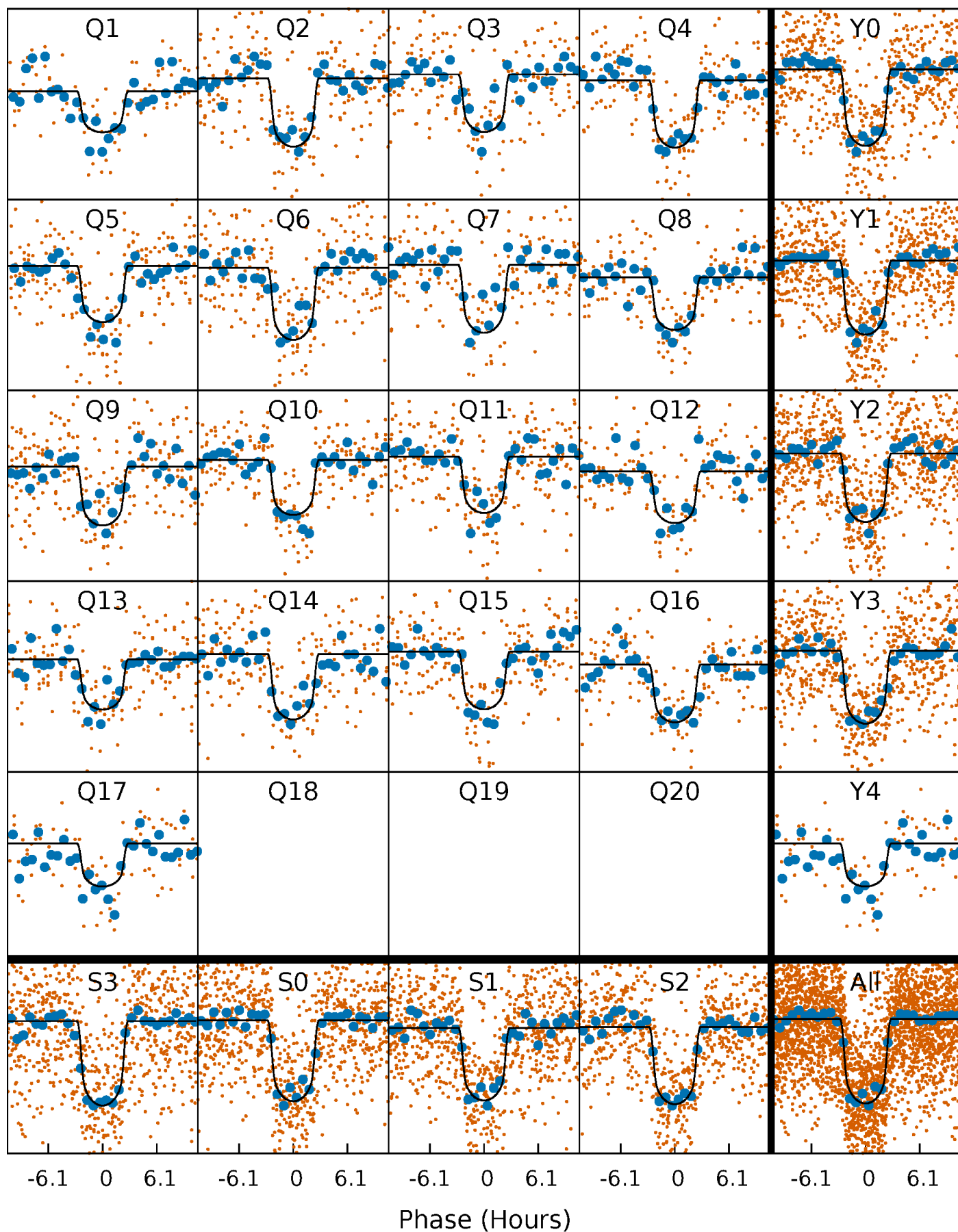
PDC Quarter-Phased Transit Curves

TCE 010600261-01 P= 17.308001 Days $T_0=142.325956$ (BKJD)



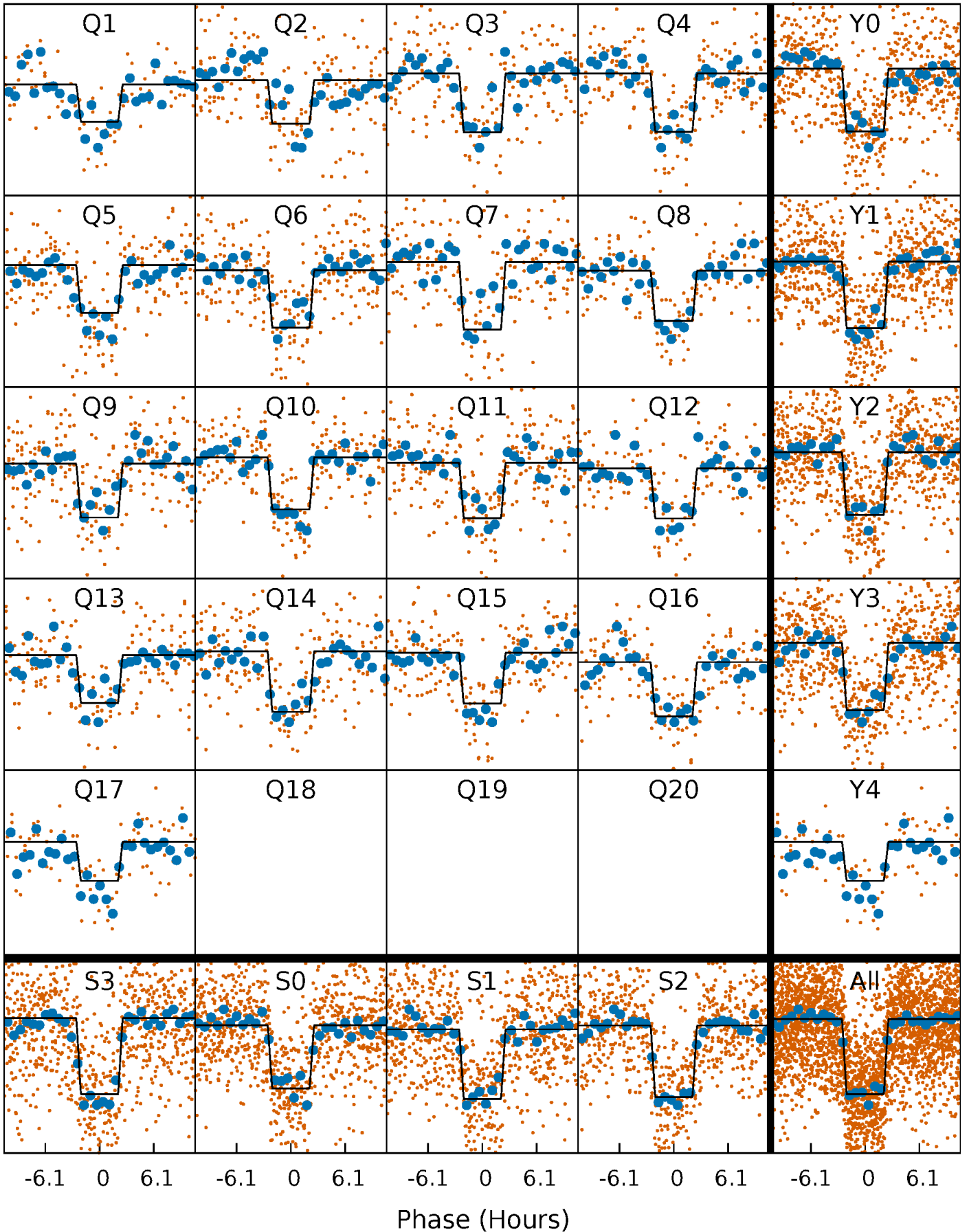
DV Quarter-Phased Transit Curves

TCE 010600261-01 P= 17.308001 Days $T_0=142.325956$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

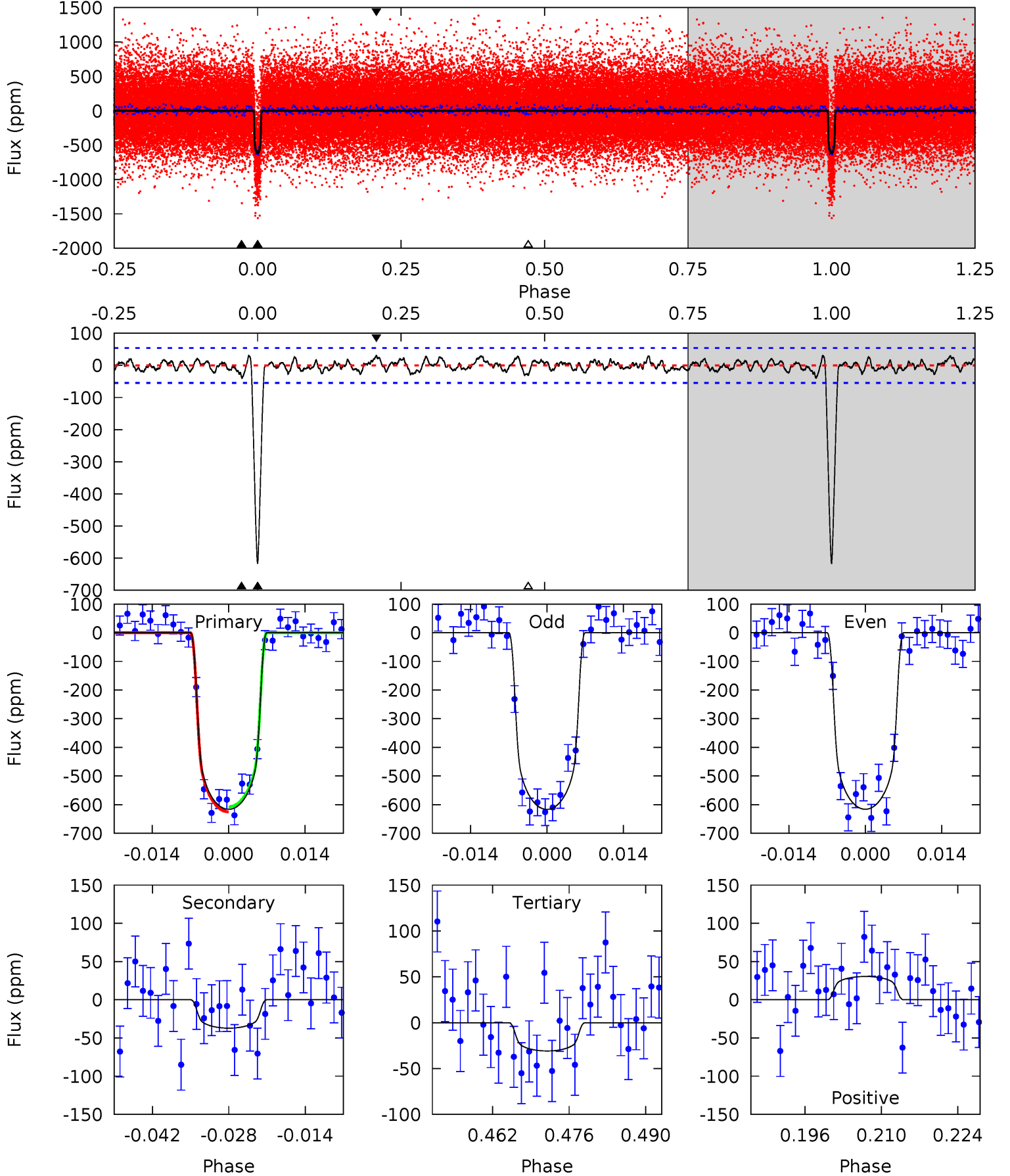
TCE 010600261-01 P= 17.307863 Days $T_0=142.333054$ (BKJD)



DV Model-Shift Uniqueness Test

010600261-01, P = 17.308001 Days, E = 125.017955 Days

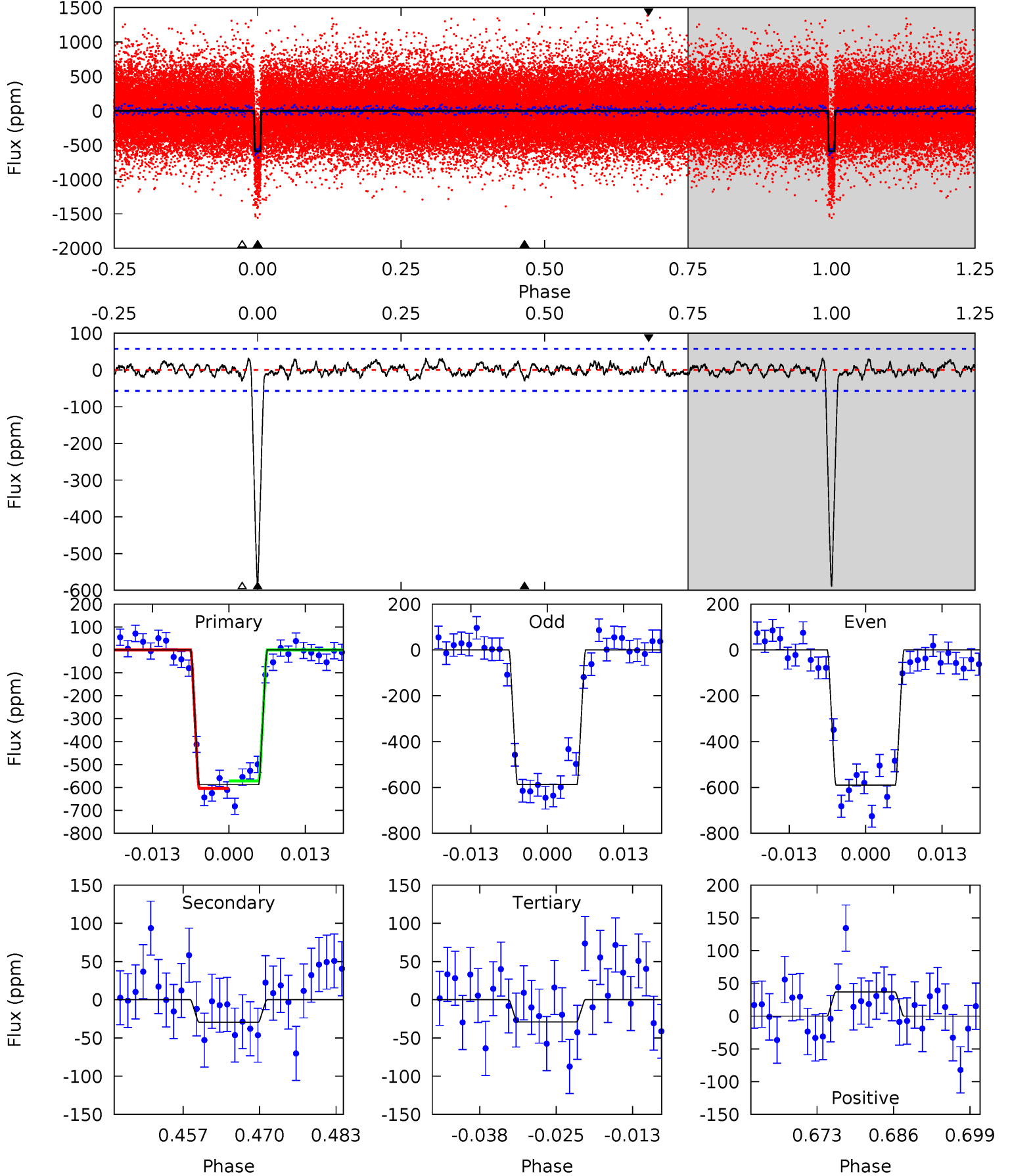
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 56.3 | 3.39 | 2.82 | 2.78 | 4.96 | 2.46 | 1.13 | 53.5 | 53.5 | 0.57 | 0.61 | 0.02 | 0.97 | 0.05 | 0.79 |



Alt Model-Shift Uniqueness Test

010600261-01, P = 17.307863 Days, E = 125.025191 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 51.1 | 2.55 | 2.52 | 3.20 | 4.98 | 2.49 | 0.99 | 48.6 | 47.9 | 0.03 | -0.65 | 0.10 | 0.96 | 0.06 | 1.41 |



Stellar Parameters For KIC 010600261

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 5565^{+83}_{-66} | $4.117^{+0.201}_{-0.093}$ | $0.160^{+0.150}_{-0.100}$ | $1.439^{+0.229}_{-0.315}$ | $0.989^{+0.075}_{-0.068}$ | $0.468^{+0.498}_{-0.152}$ |
| | +1%/-1% | +5%/-2% | +94%/-62% | +16%/-22% | +8%/-7% | +106%/-32% |
| Source | SPE90 | SPE90 | SPE90 | DSEP | | |

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010600261-01 / KOI 0597.01

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|--------------|------------------------|--------------------|----------------------|-----------------|
| DV | -37 ± 11 | $4.00^{+0.56}_{-0.51}$ | 1131^{+50}_{-69} | 3242^{+163}_{-177} | 21^{+11}_{-7} |
| Alt. | -29 ± 12 | $3.74^{+0.51}_{-0.57}$ | 1135^{+49}_{-70} | 3204^{+196}_{-248} | 19^{+12}_{-8} |

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 $A_{obs} \gg 1.0$

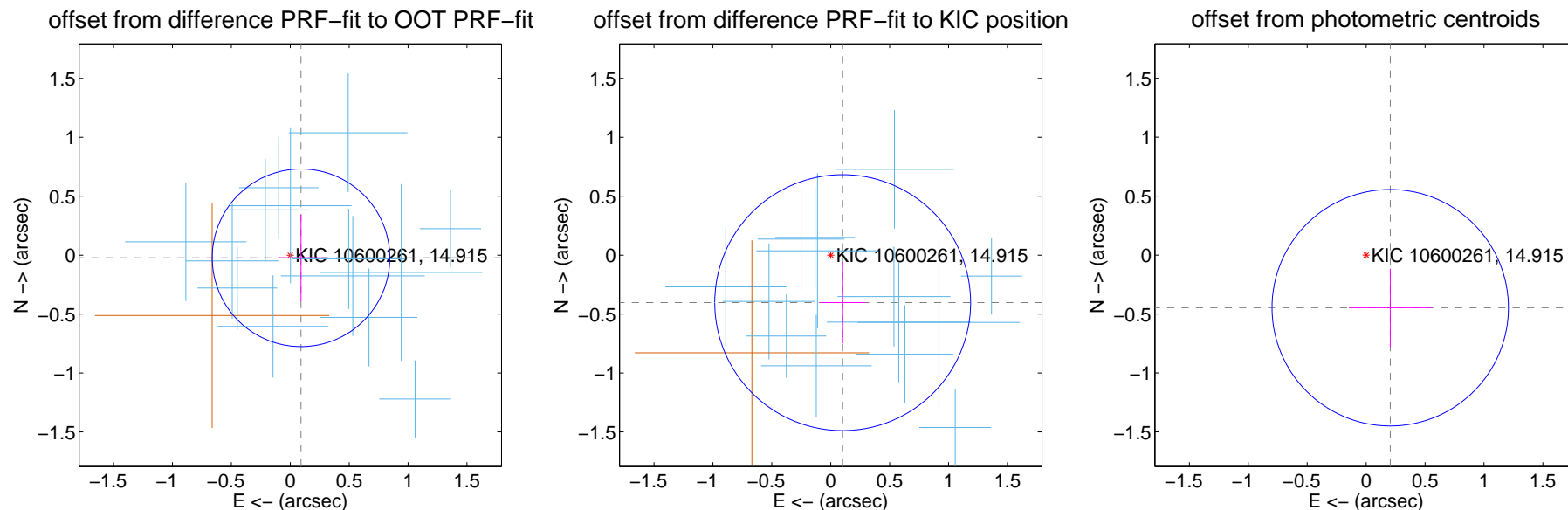
DV Centroid Data

Supplemental centroid analysis for 010600261-01. Kepler magnitude: 14.91. Transit SNR 39.59

There are 14 quarters with good PRF difference image offsets

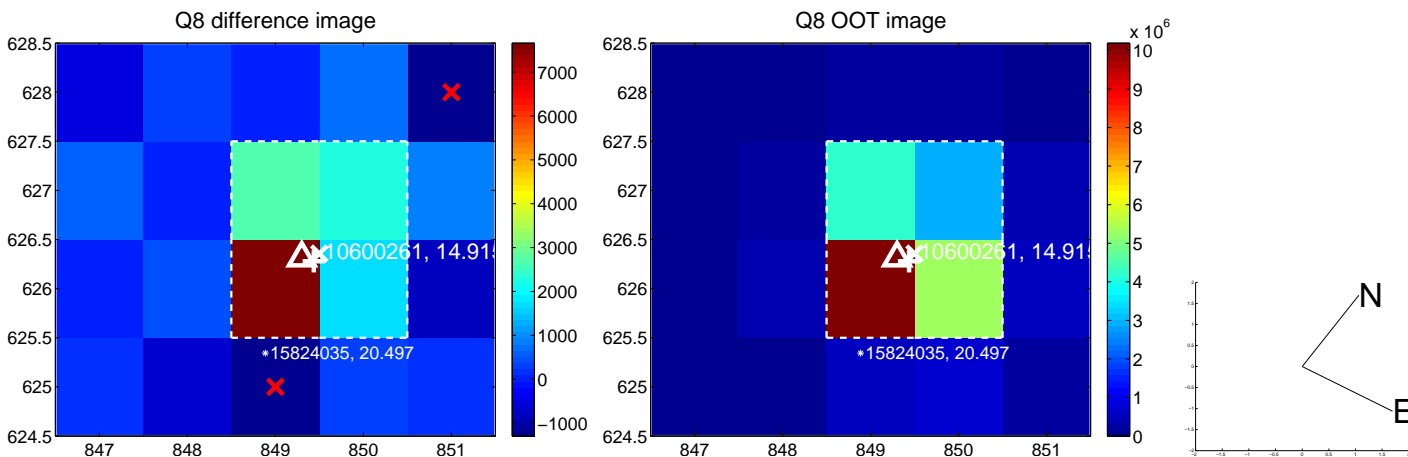
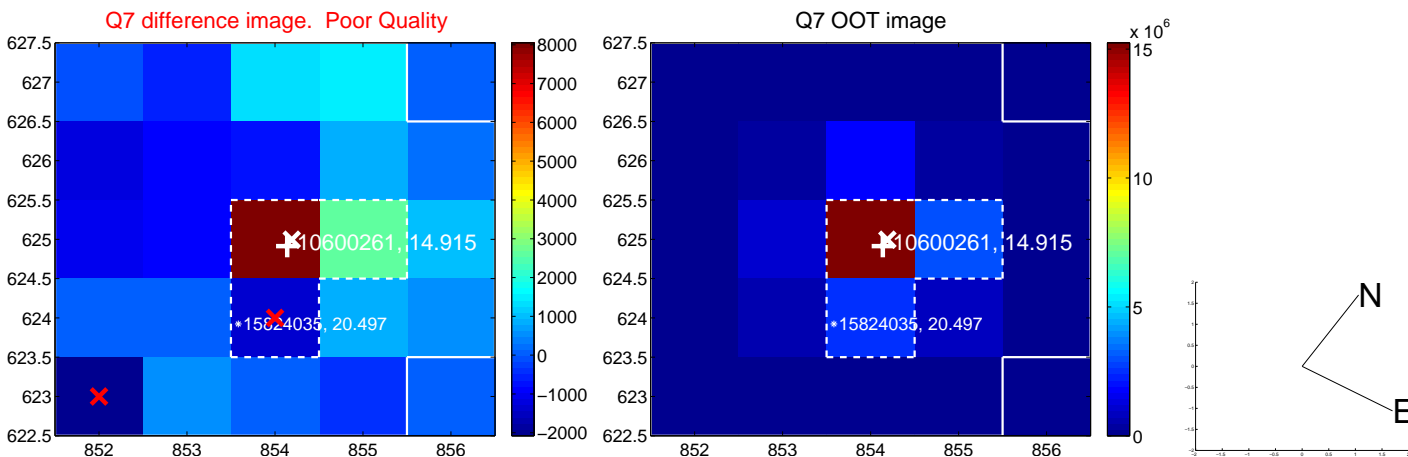
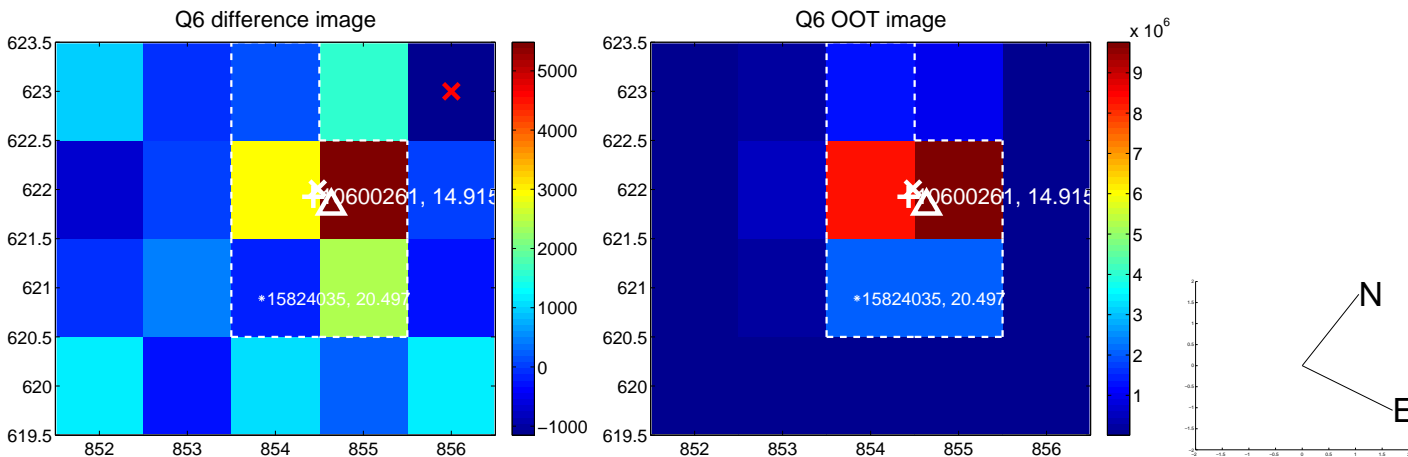
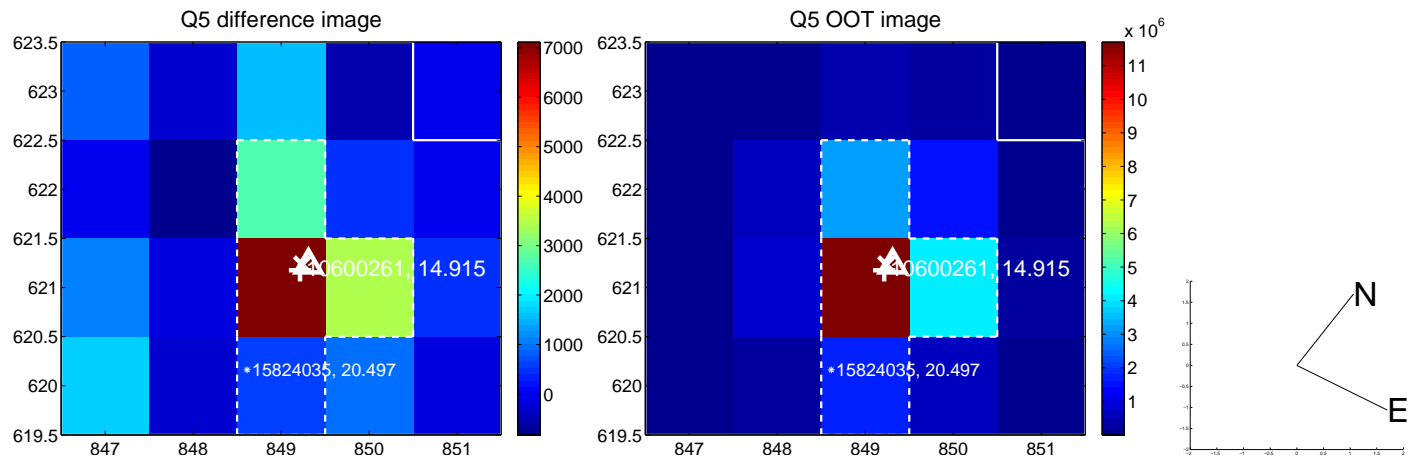
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.094 ± 0.251 | 0.37 | -0.091 ± 0.200 | -0.022 ± 0.370 |
| PRF-fit source offset from KIC position | 0.416 ± 0.362 | 1.15 | -0.101 ± 0.193 | -0.403 ± 0.346 |
| photometric centroid source offset | 0.49 ± 0.33 | 1.47 | -0.20 ± 0.35 | -0.45 ± 0.33 |

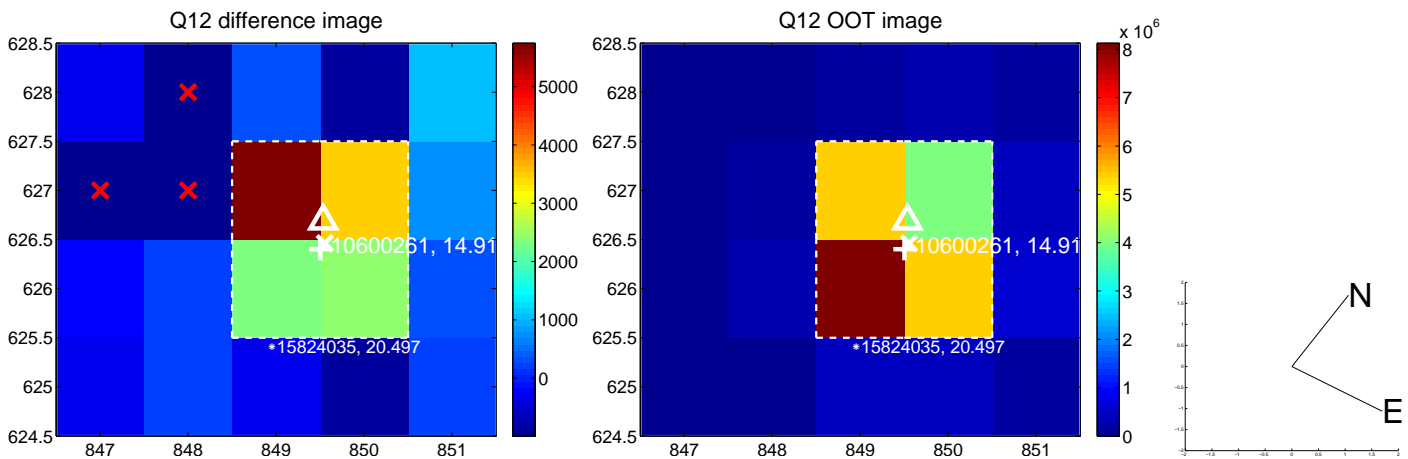
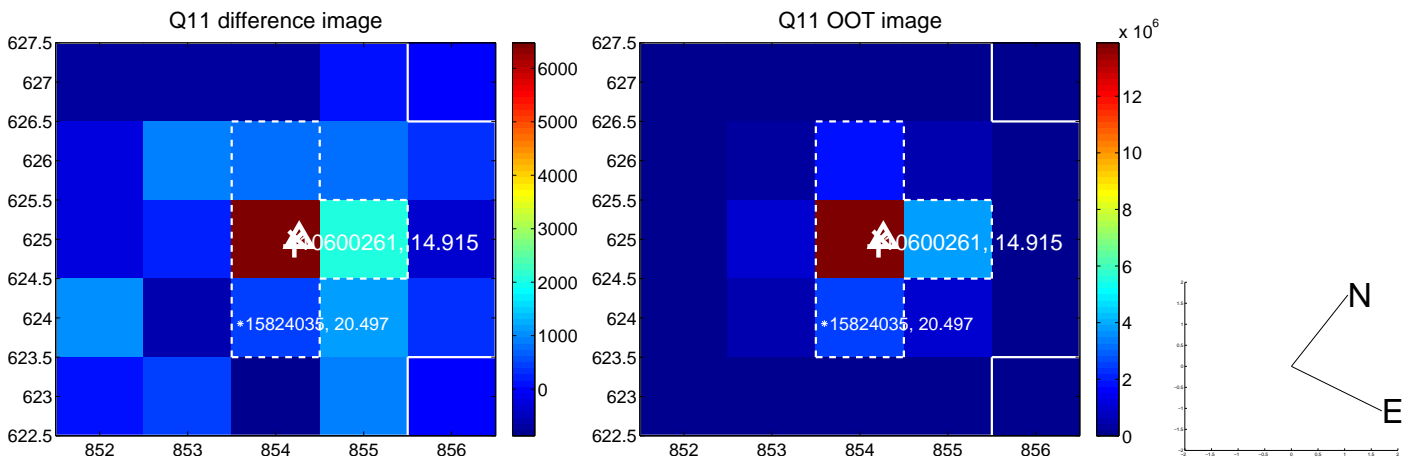
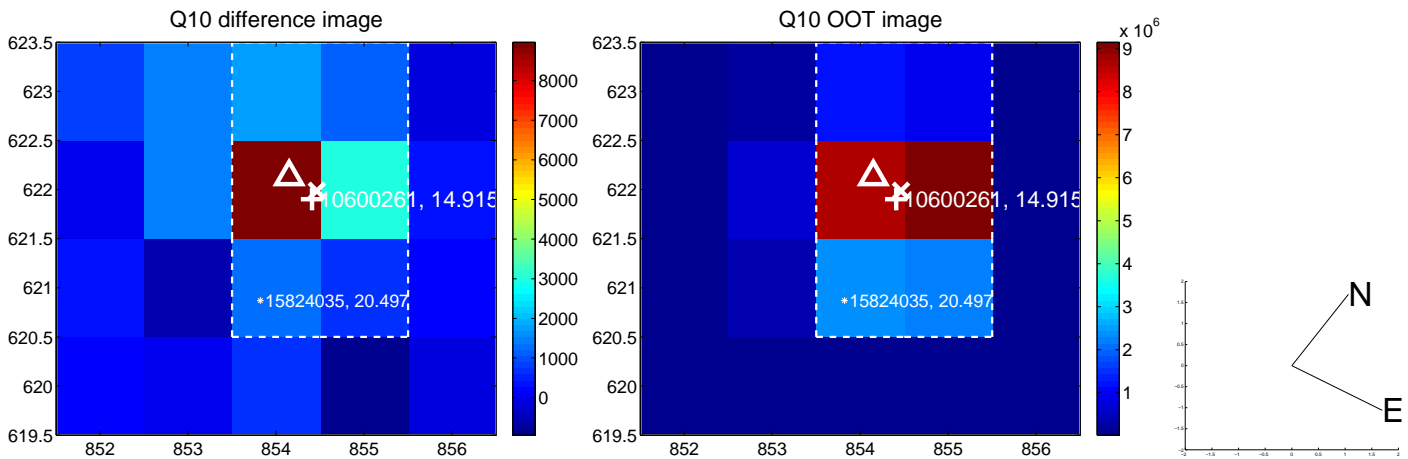
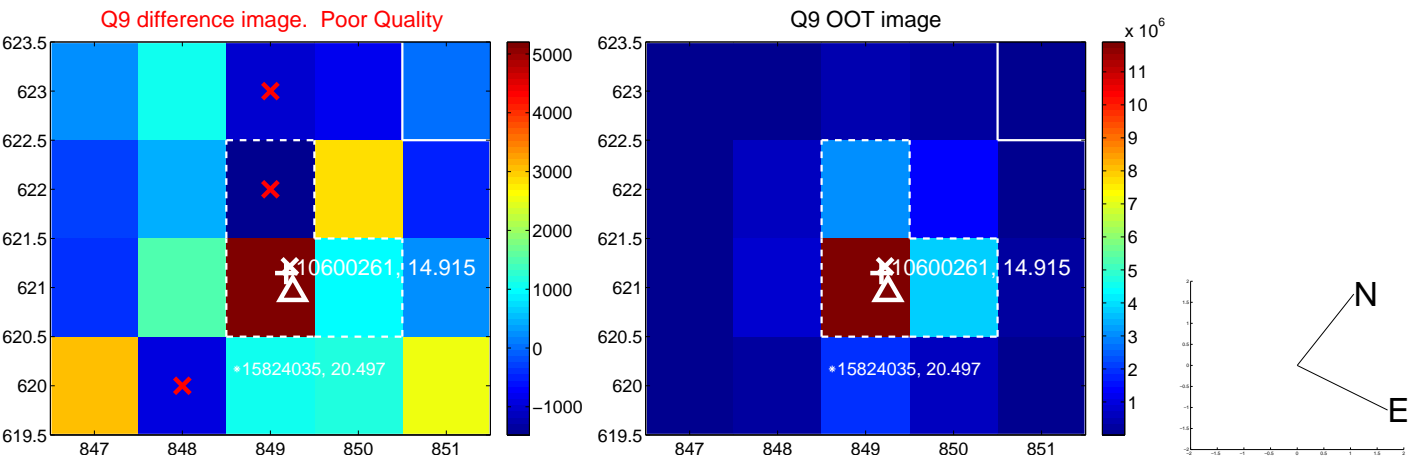


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

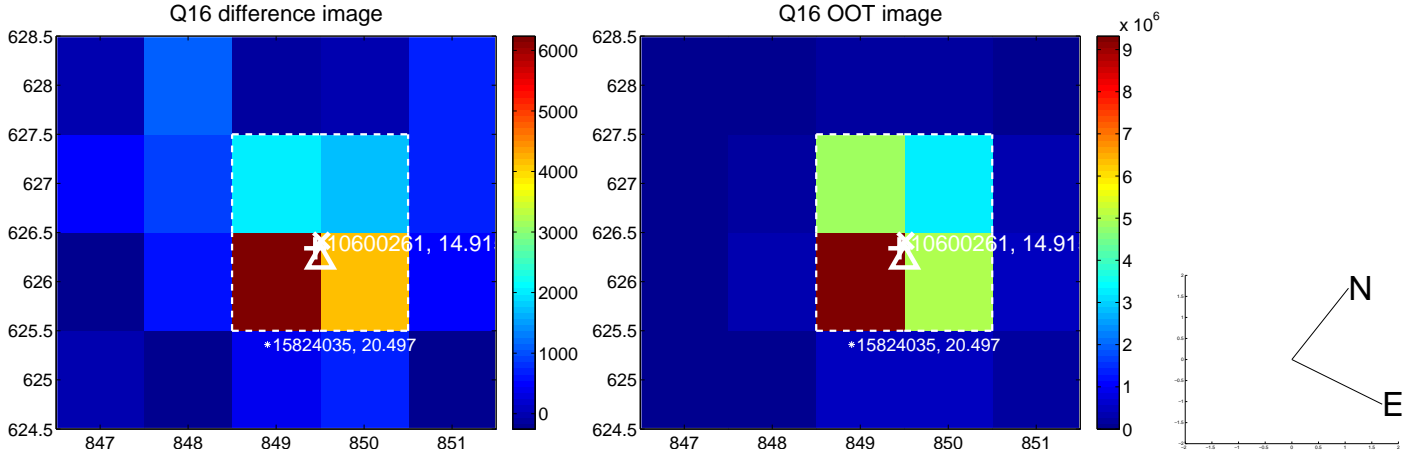
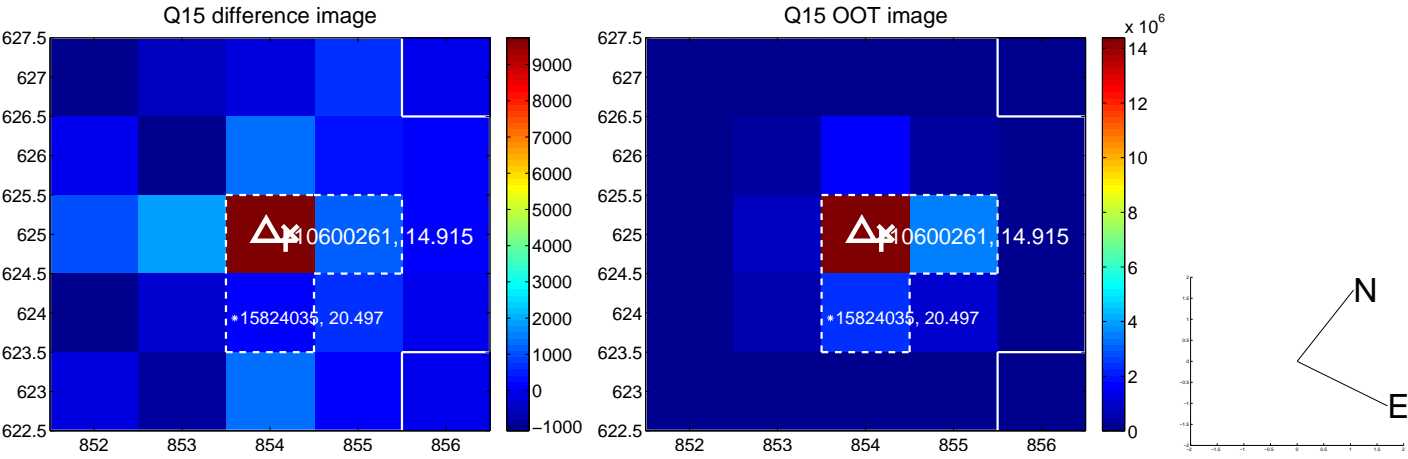
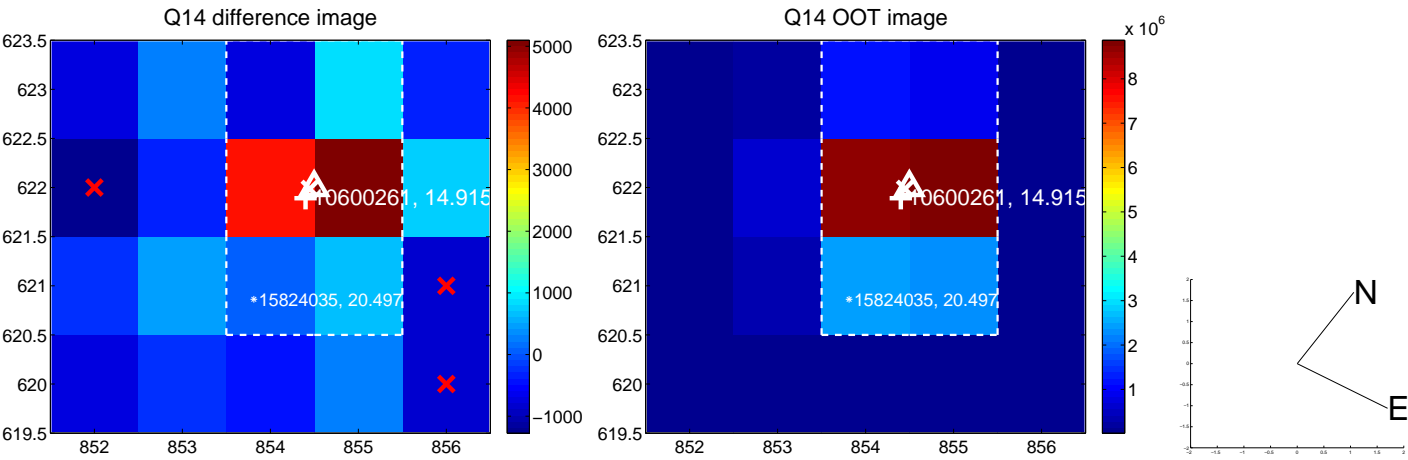
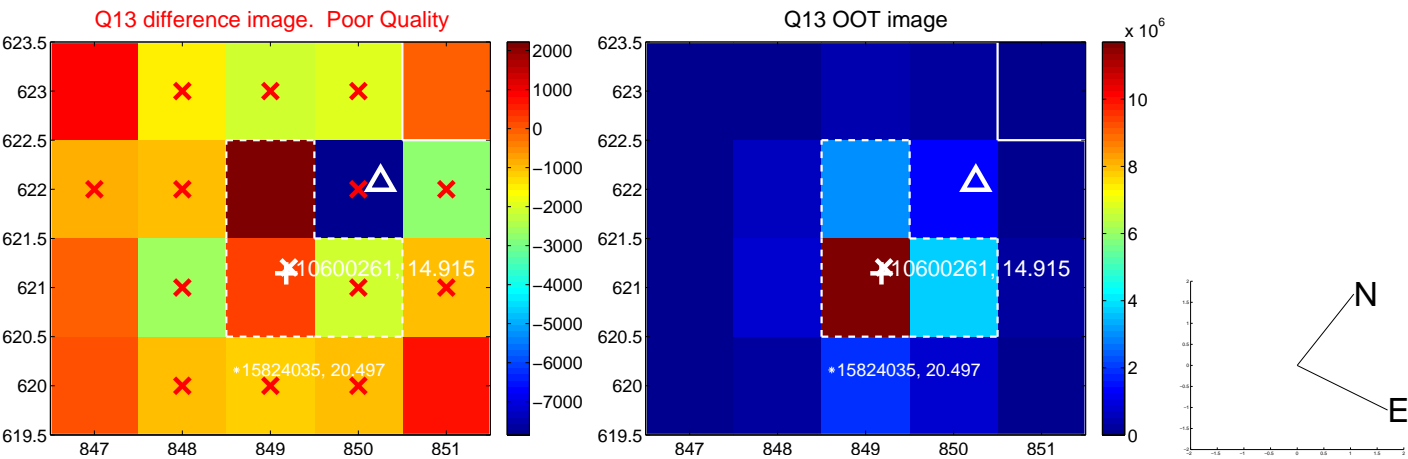
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



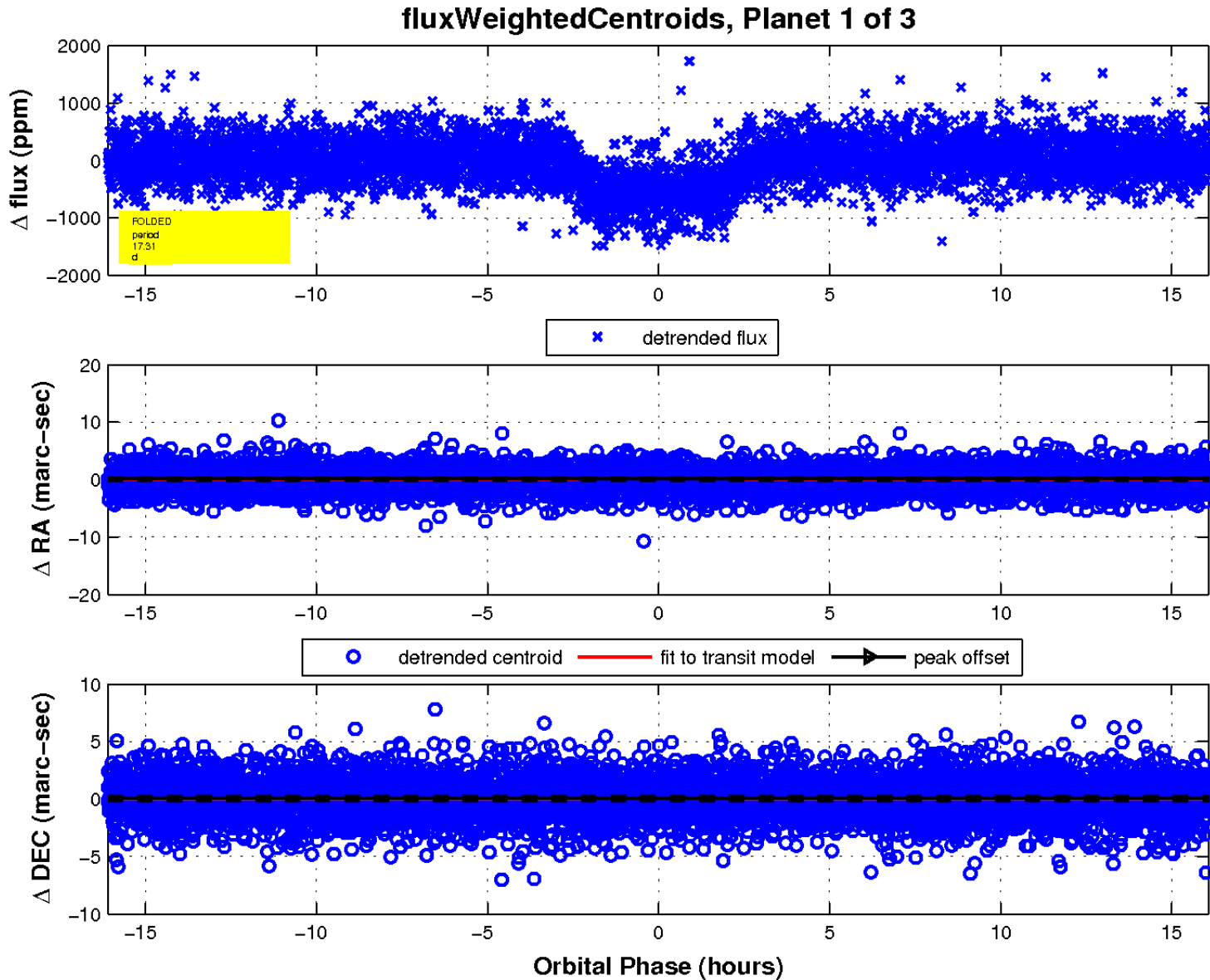
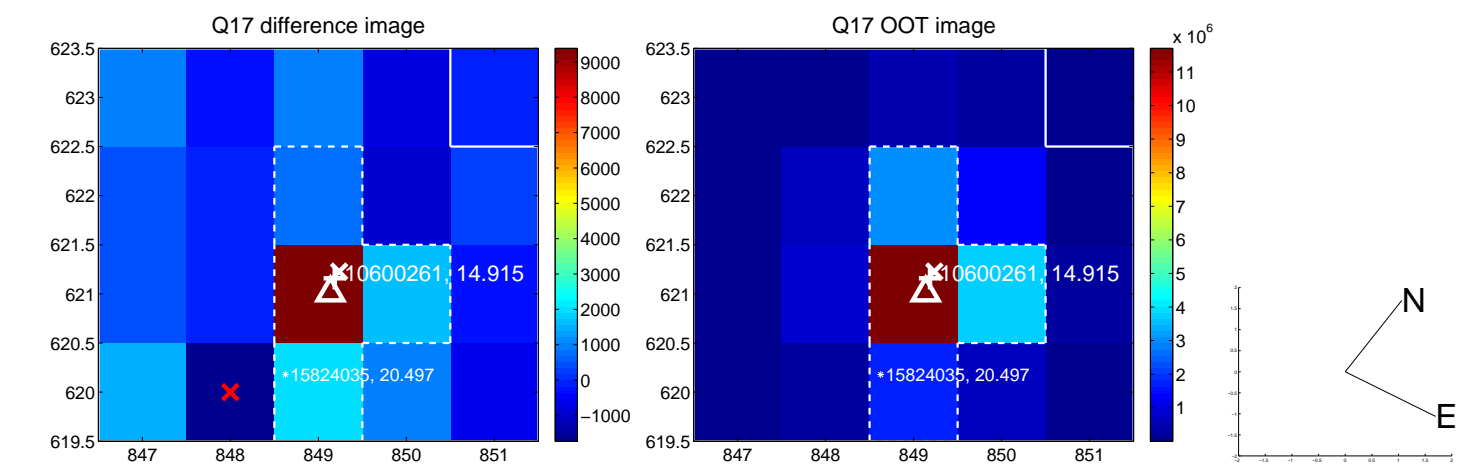
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

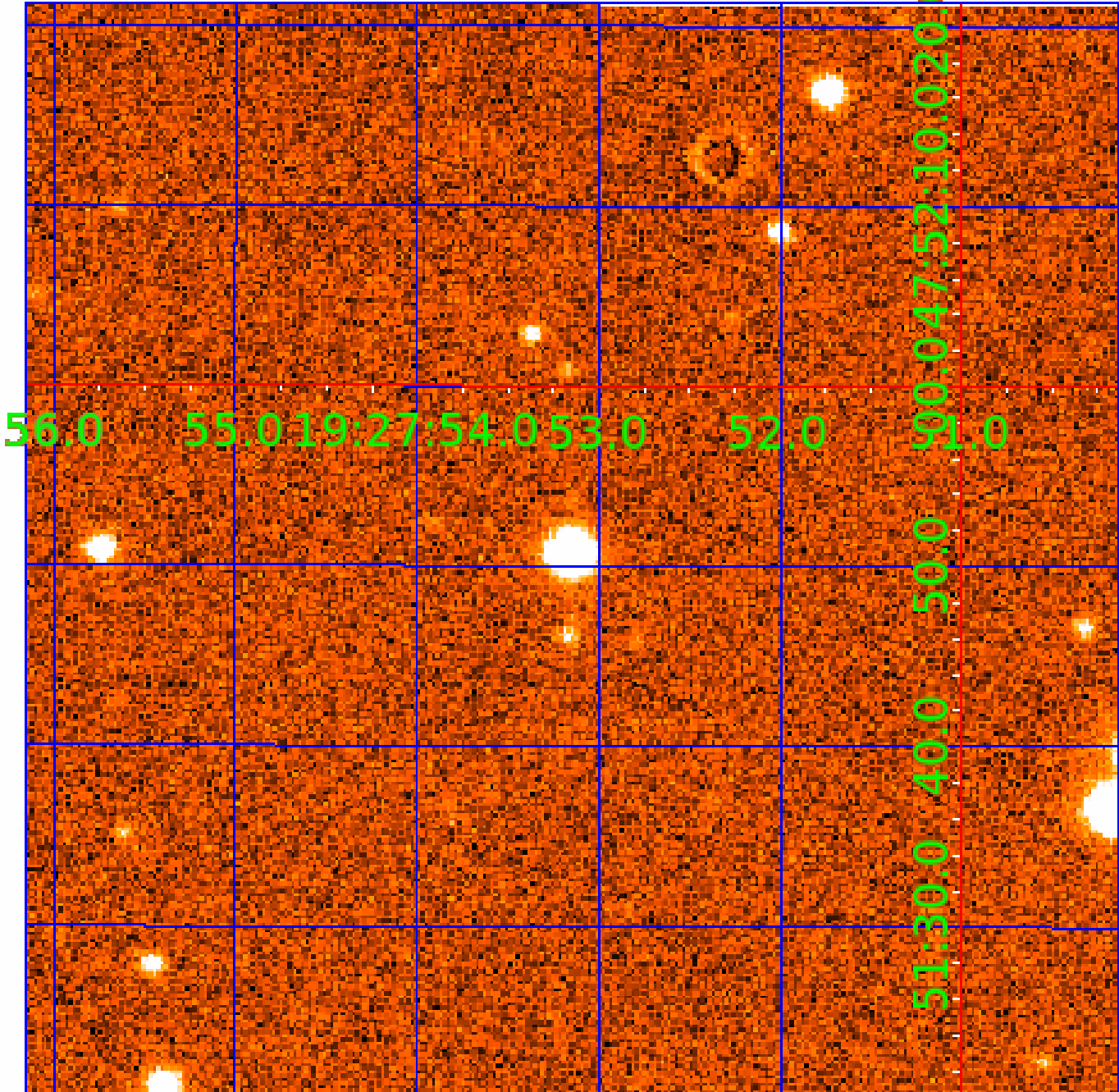


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010600261

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}) |
|--------------|----------|---------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 010600261-01 | OBS | 0597.01 | 17.308001 | 142.325956 | 619.2 | 5.365 | 36.0 | 39.6 | 1.44 | 5565 | 4.10 | 104.50 |
| 010600261-02 | OBS | 0597.02 | 2.092279 | 133.061148 | 193.0 | 2.460 | 24.5 | 26.9 | 1.44 | 5565 | 2.43 | 1748.38 |
| 010600261-03 | OBS | 0597.03 | 52.815031 | 164.902057 | 572.4 | 7.372 | 21.9 | 24.5 | 1.44 | 5565 | 3.65 | 23.61 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--------------|
| 010600261-01 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | CENT_KIC_POS |
| 010600261-02 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | CENT_KIC_POS |
| 010600261-03 | OBS | PC | 0.90 | 0 | 0 | 0 | 0 | CENT_KIC_POS |

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

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

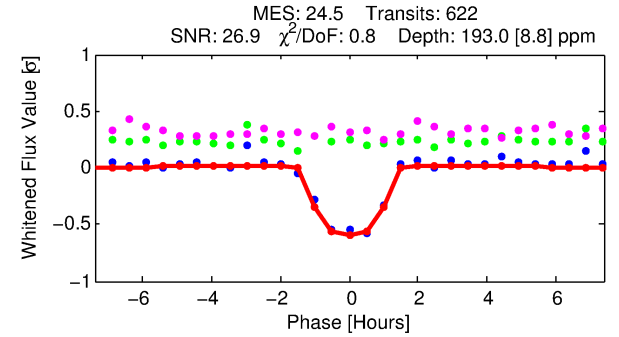
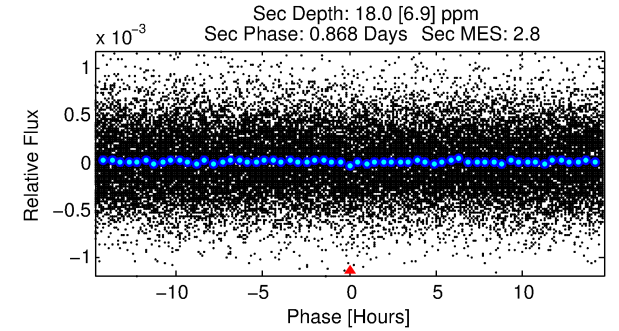
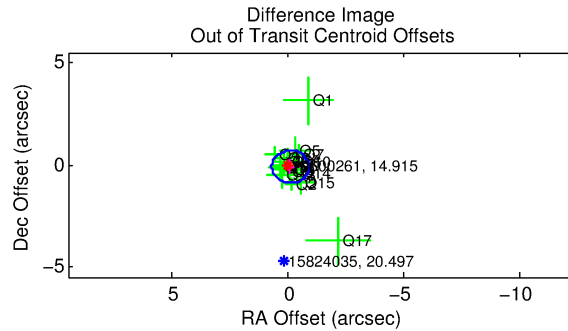
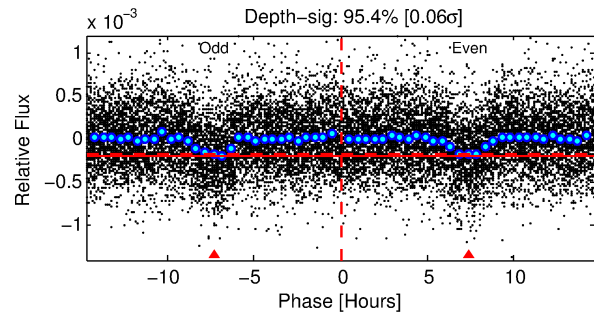
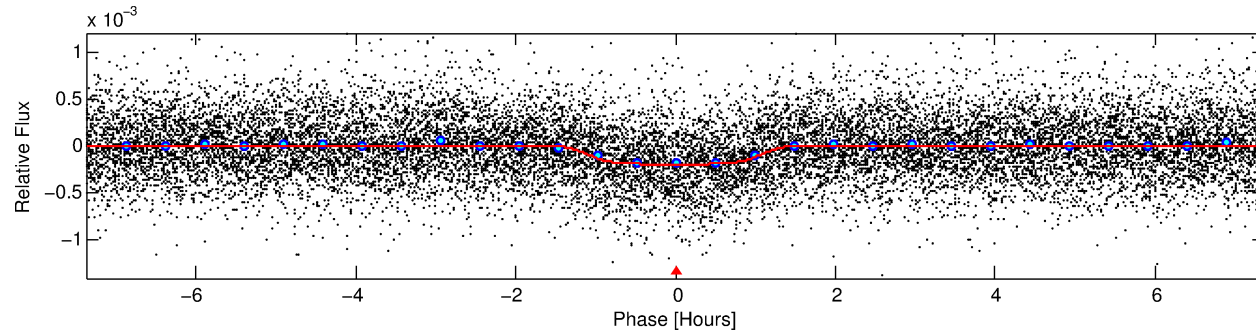
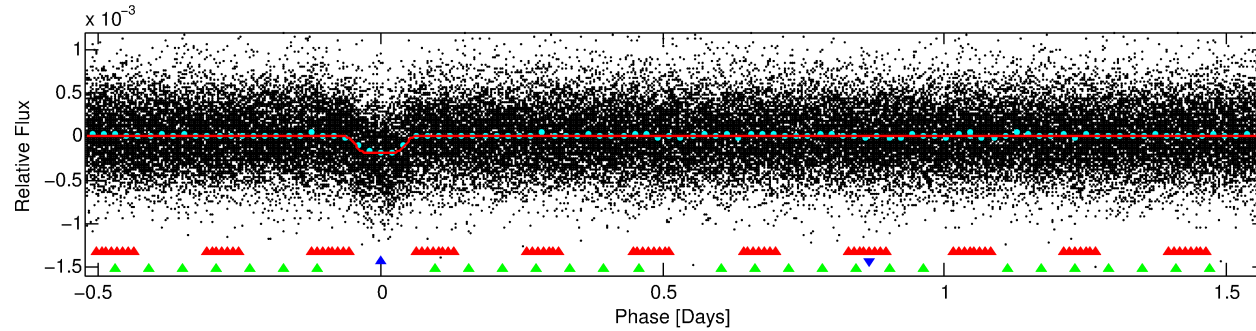
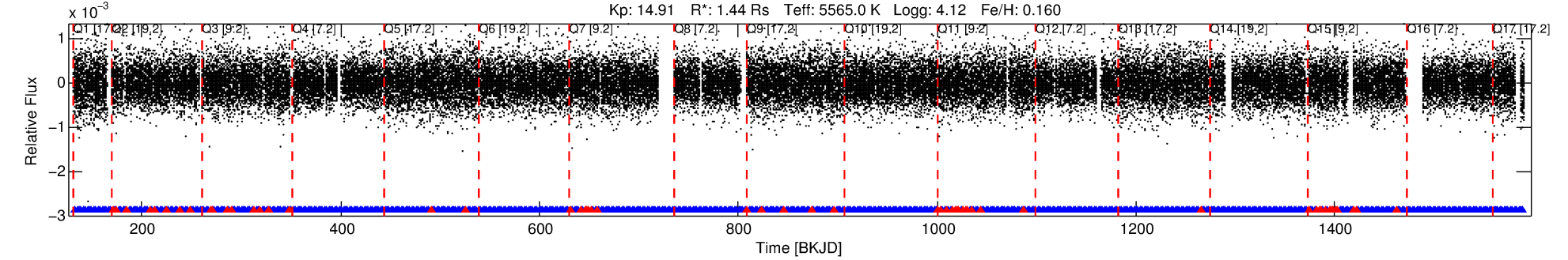
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010600261-02

No Significant Match Found

DV One-Page Summary

KIC: 10600261 Candidate: 2 of 3 Period: 2.092 d
KOI: K00597.02 Name: Kepler-194b Corr: 0.978



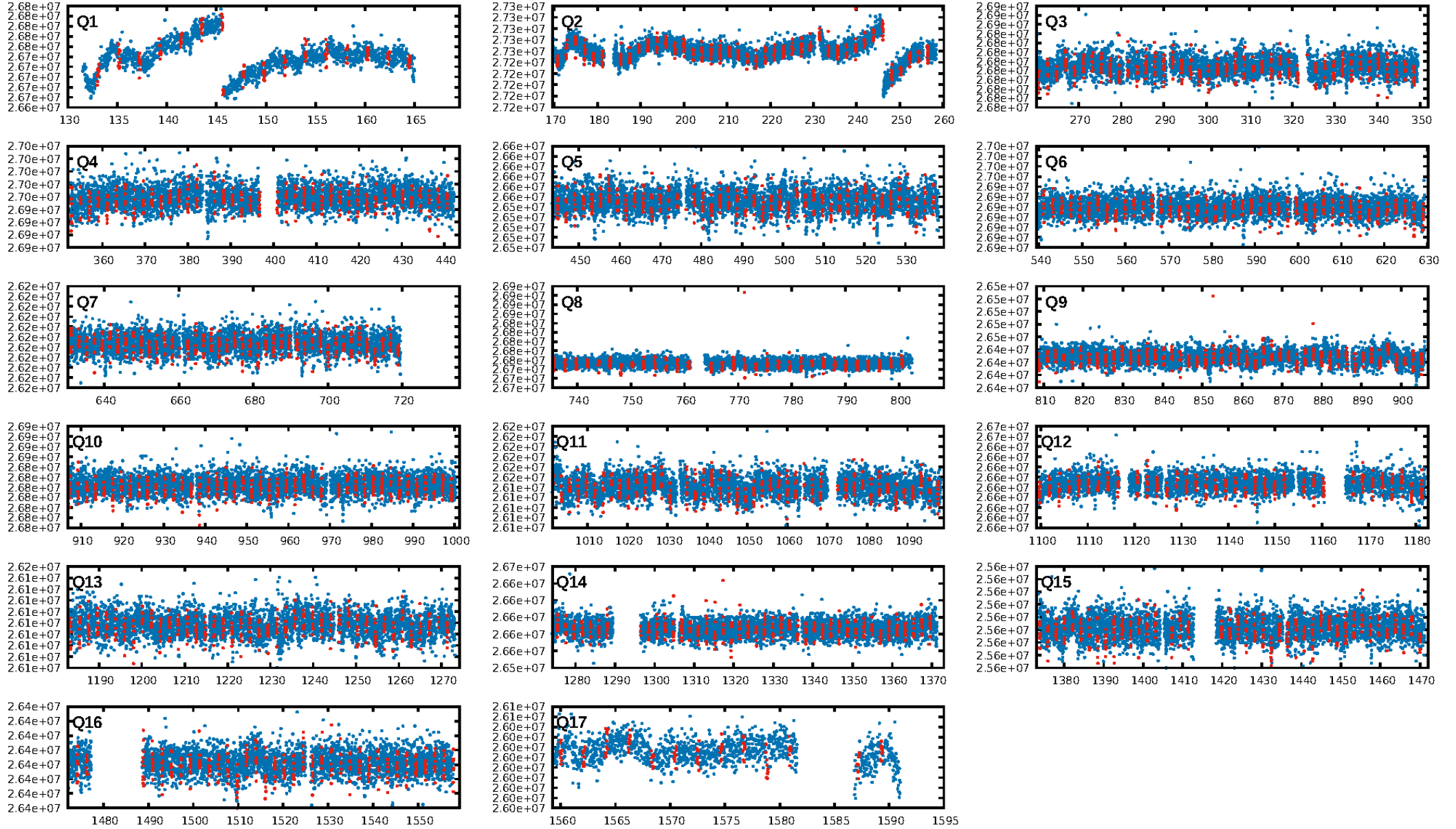
DV Fit Results:

Period = 2.09228 [0.00001] d
Epoch = 133.0611 [0.0014] BKJD
Rp/R* = 0.0155 [0.0037]
a/R* = 3.05 [2.92]
b = 0.91 [0.20]
Seff = 1748.38 [605.80]
Teq = 1649 [143] K
Rp = 2.43 [0.78] Re
a = 0.0319 [0.0068] AU
Ag = 1.70 [1.19] [0.59 σ]
Teffp = 2912 [444] K [2.71 σ]

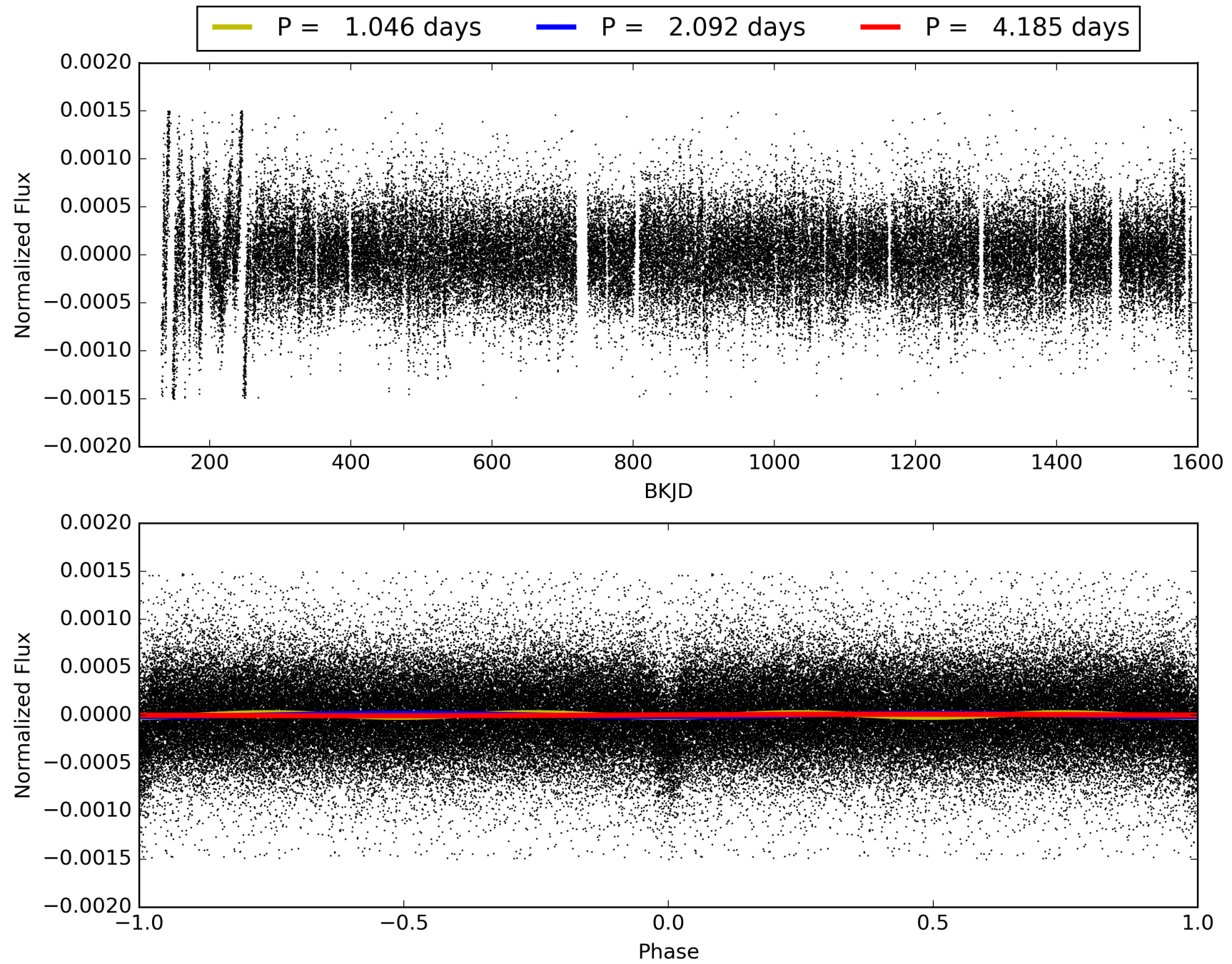
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [61.87 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.24e-131
RollingBand-fgt: 0.90 [537/594]
GhostDiagnostic-chr: 2.492
Centroid-sig: 42.8%
Centroid-so: 0.331 arcsec [0.62 σ]
OotOffset-rm: 0.149 arcsec [0.56 σ]
KicOffset-rm: 0.502 arcsec [1.55 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.88 [15/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010600261-02, PDC Light Curves

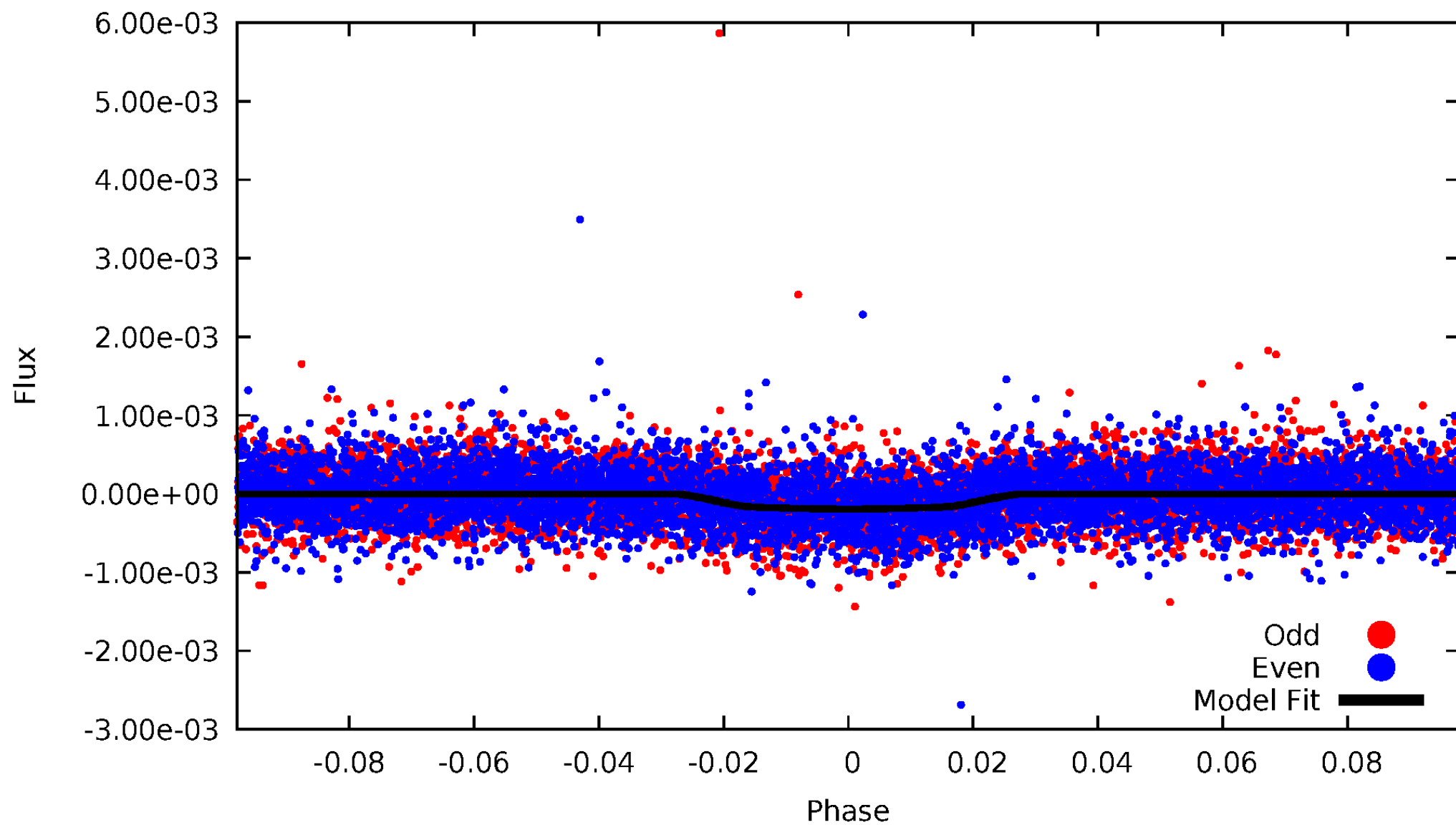


TCE 010600261-02



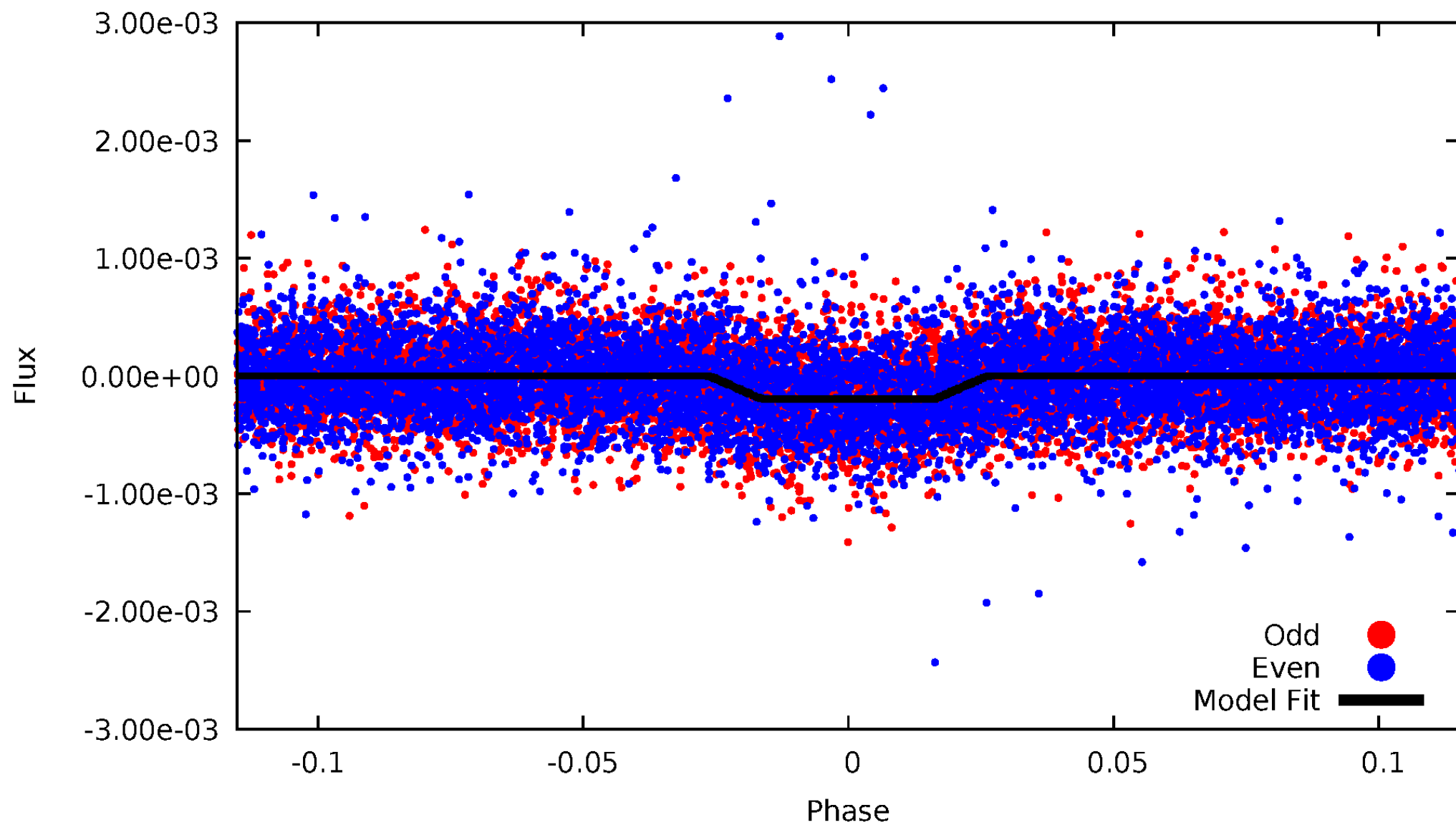
DV Odd/Even

TCE 010600261-02



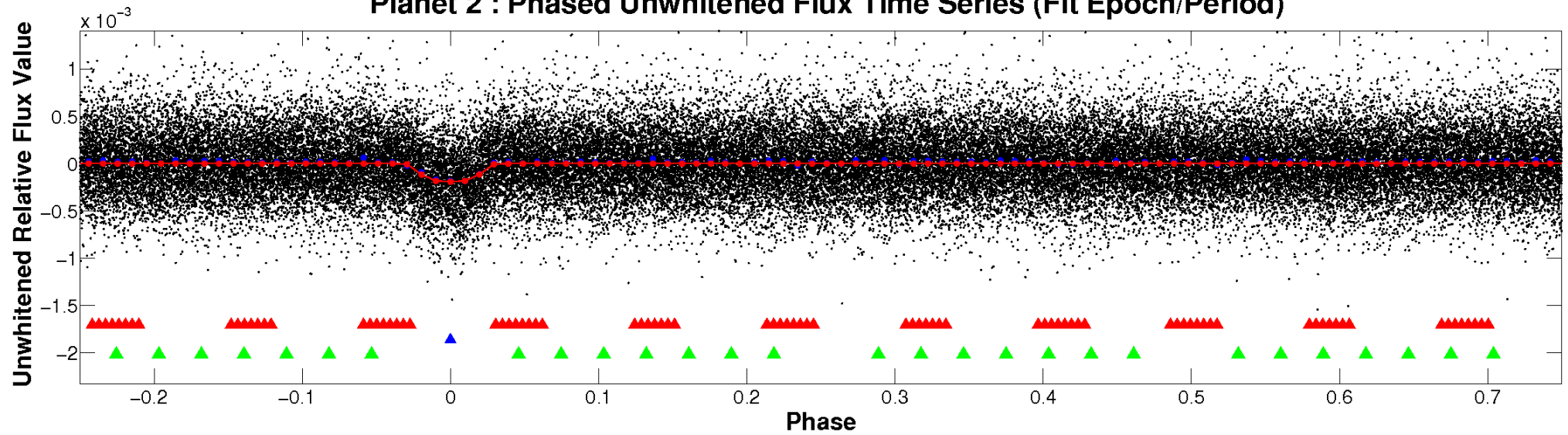
ALT Odd/Even

TCE 010600261-02

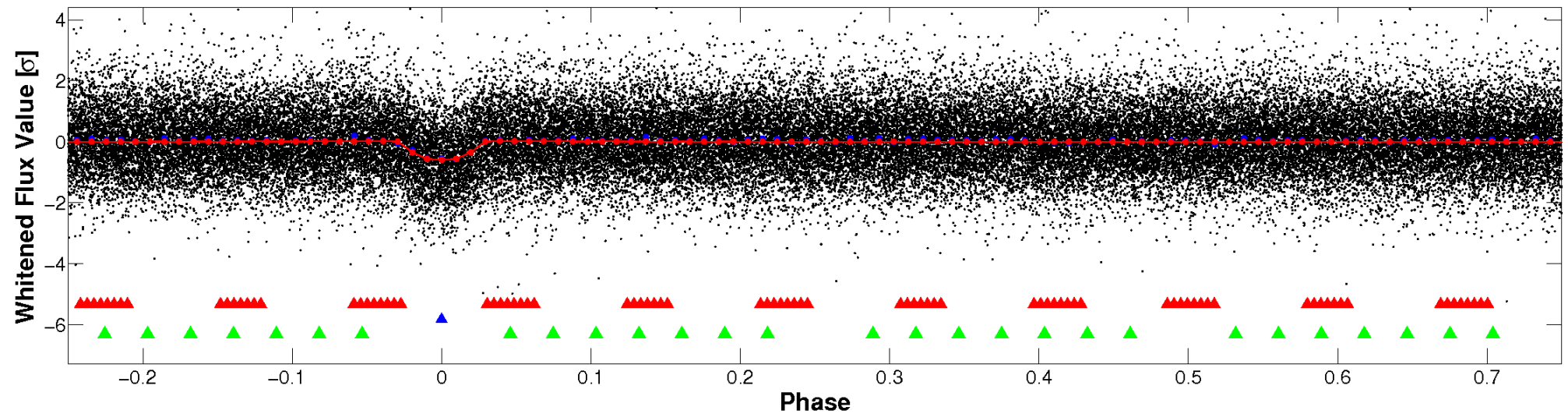


Non-Whitened Vs. Whitened Light Curve

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

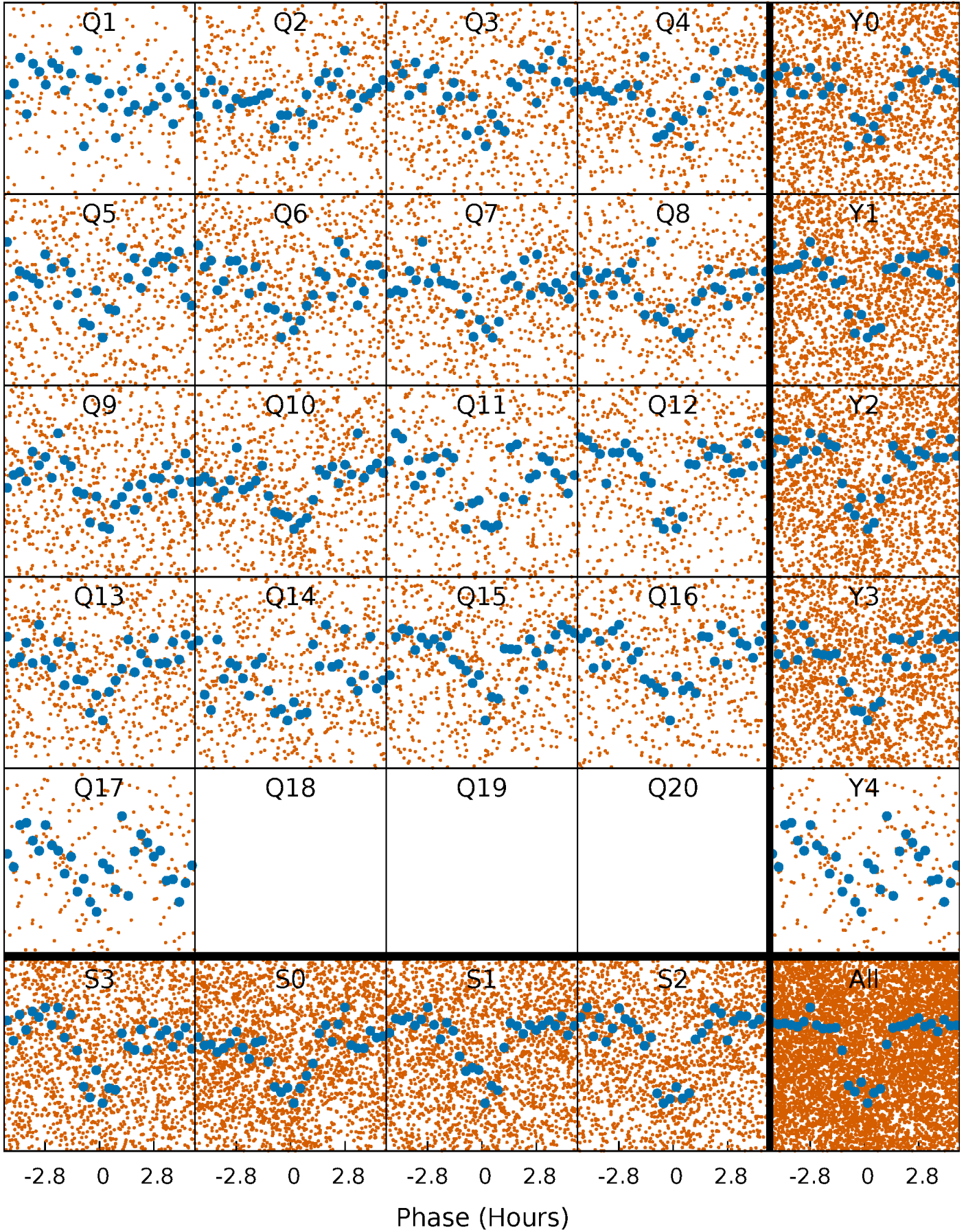


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



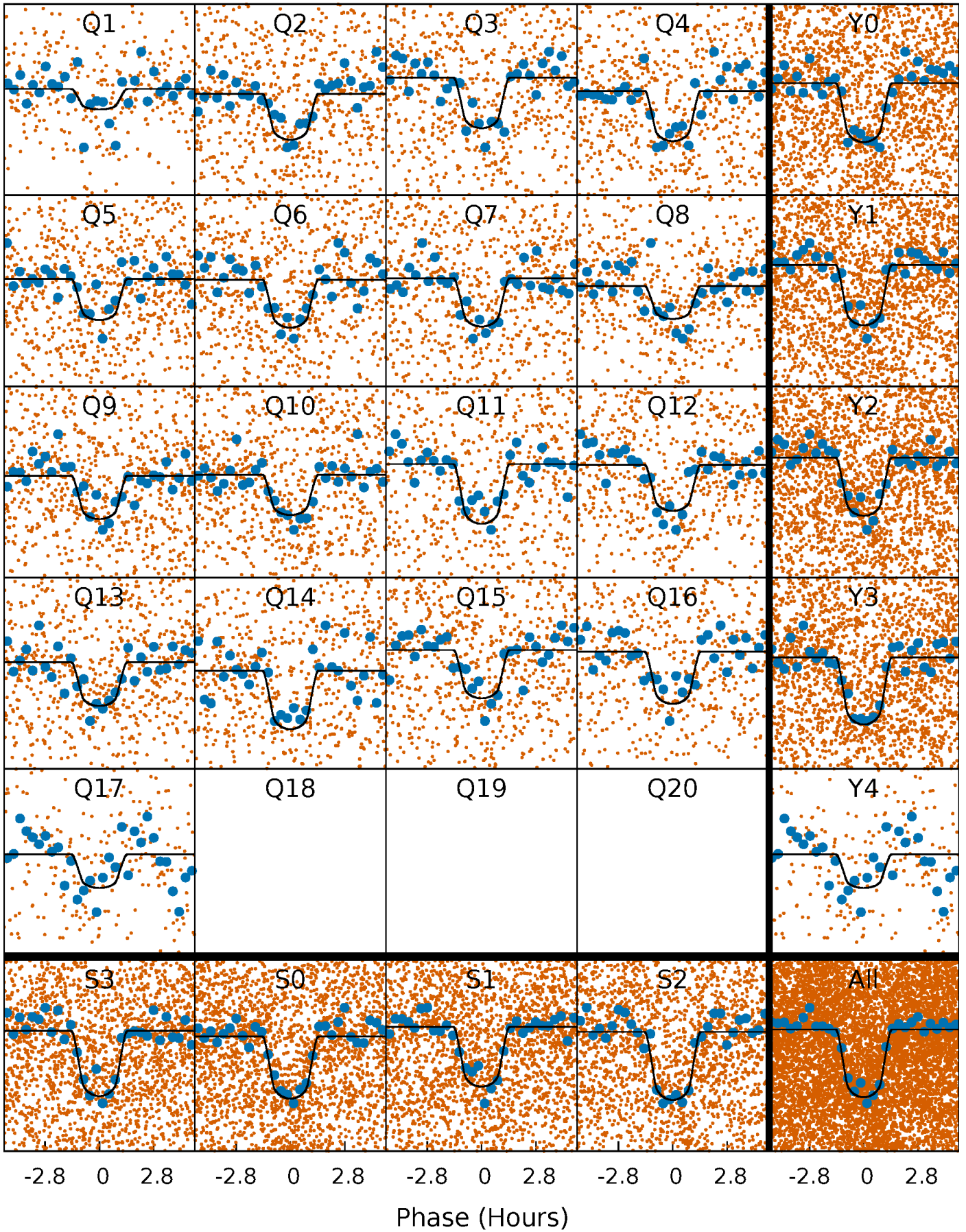
PDC Quarter-Phased Transit Curves

TCE 010600261-02 P= 2.092279 Days $T_0=133.061148$ (BKJD)



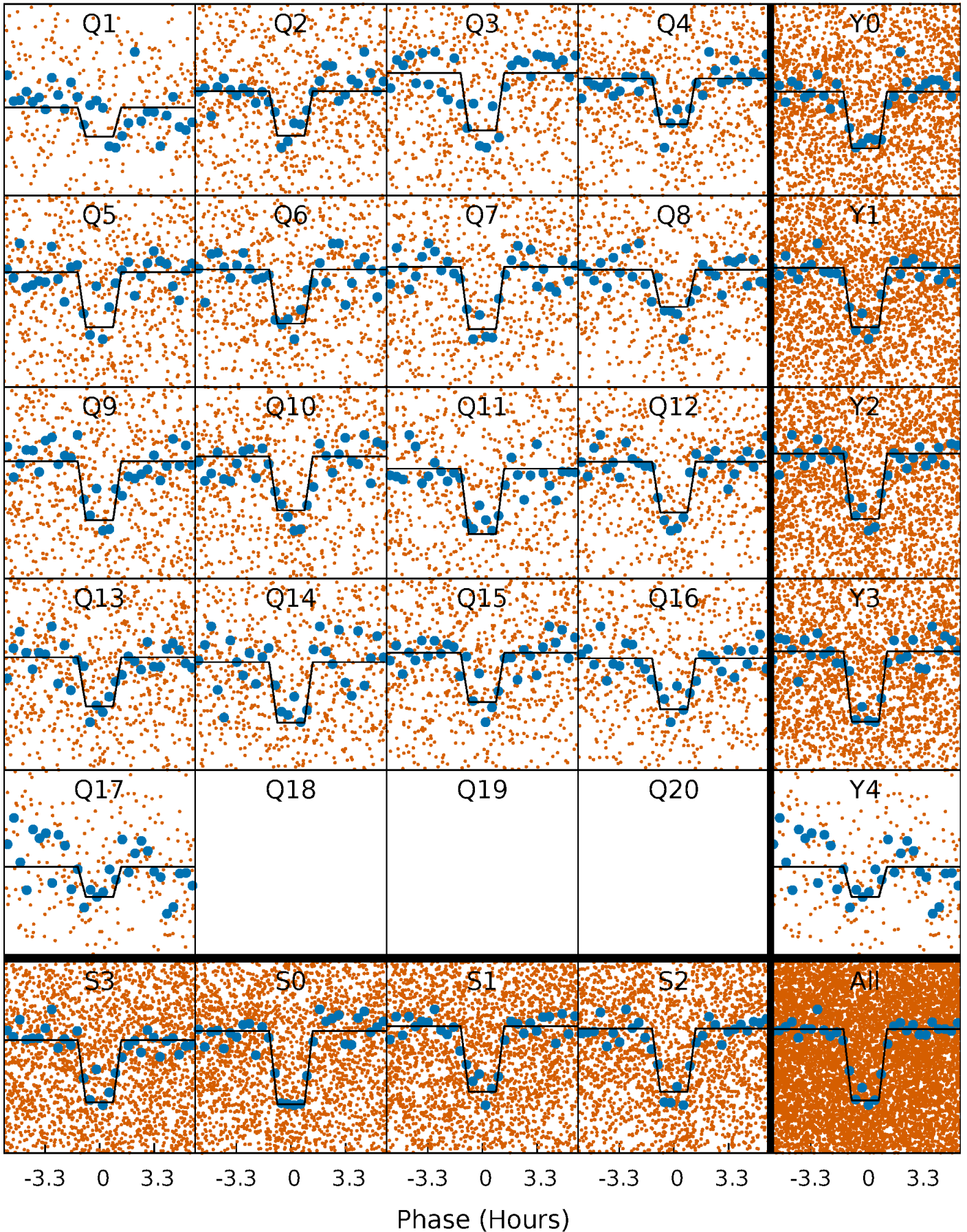
DV Quarter-Phased Transit Curves

TCE 010600261-02 $P = 2.092279$ Days $T_0 = 133.061148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

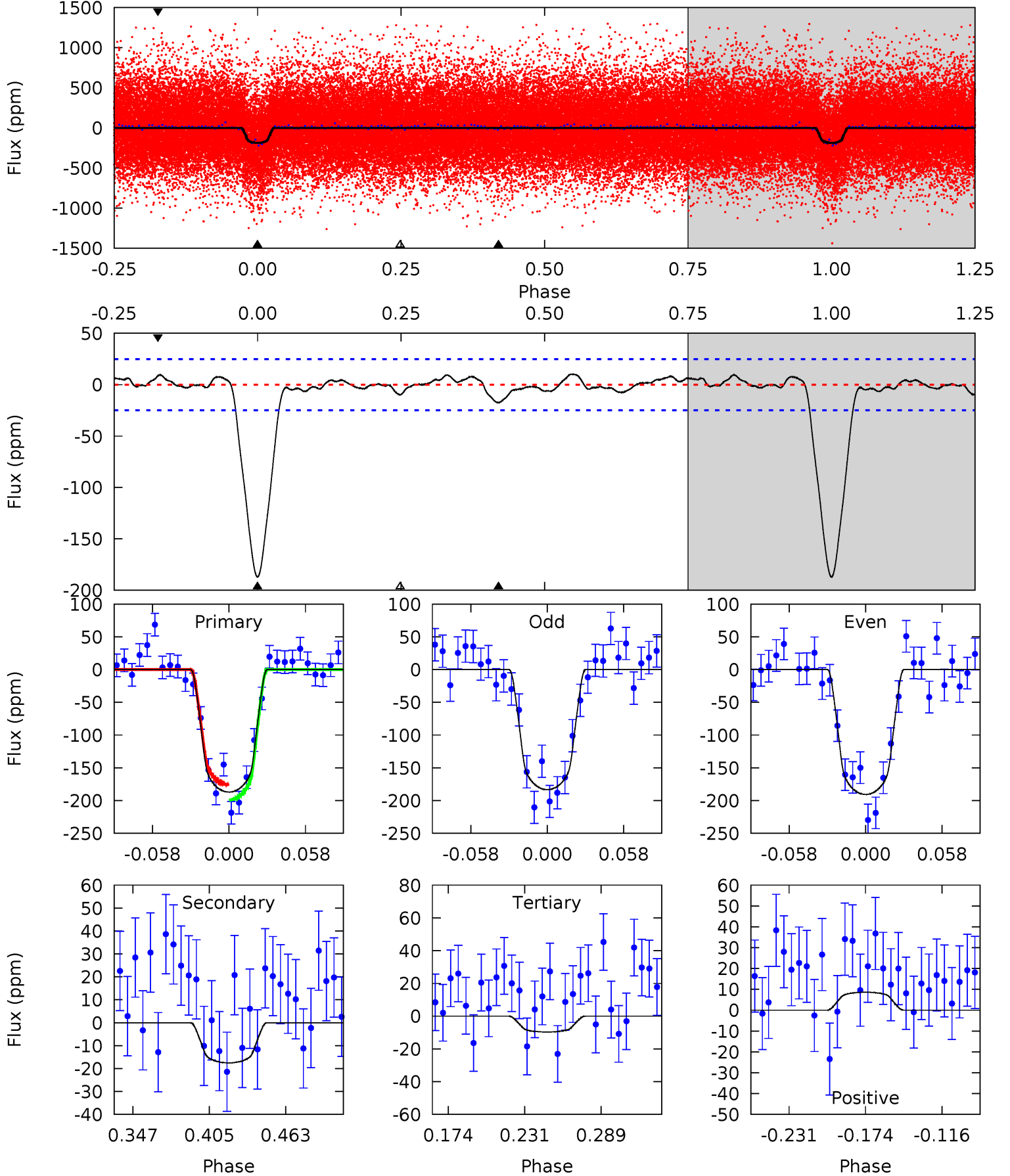
TCE 010600261-02 $P = 2.092266$ Days $T_0 = 133.064858$ (BKJD)



DV Model-Shift Uniqueness Test

010600261-02, P = 2.092279 Days, E = 130.968869 Days

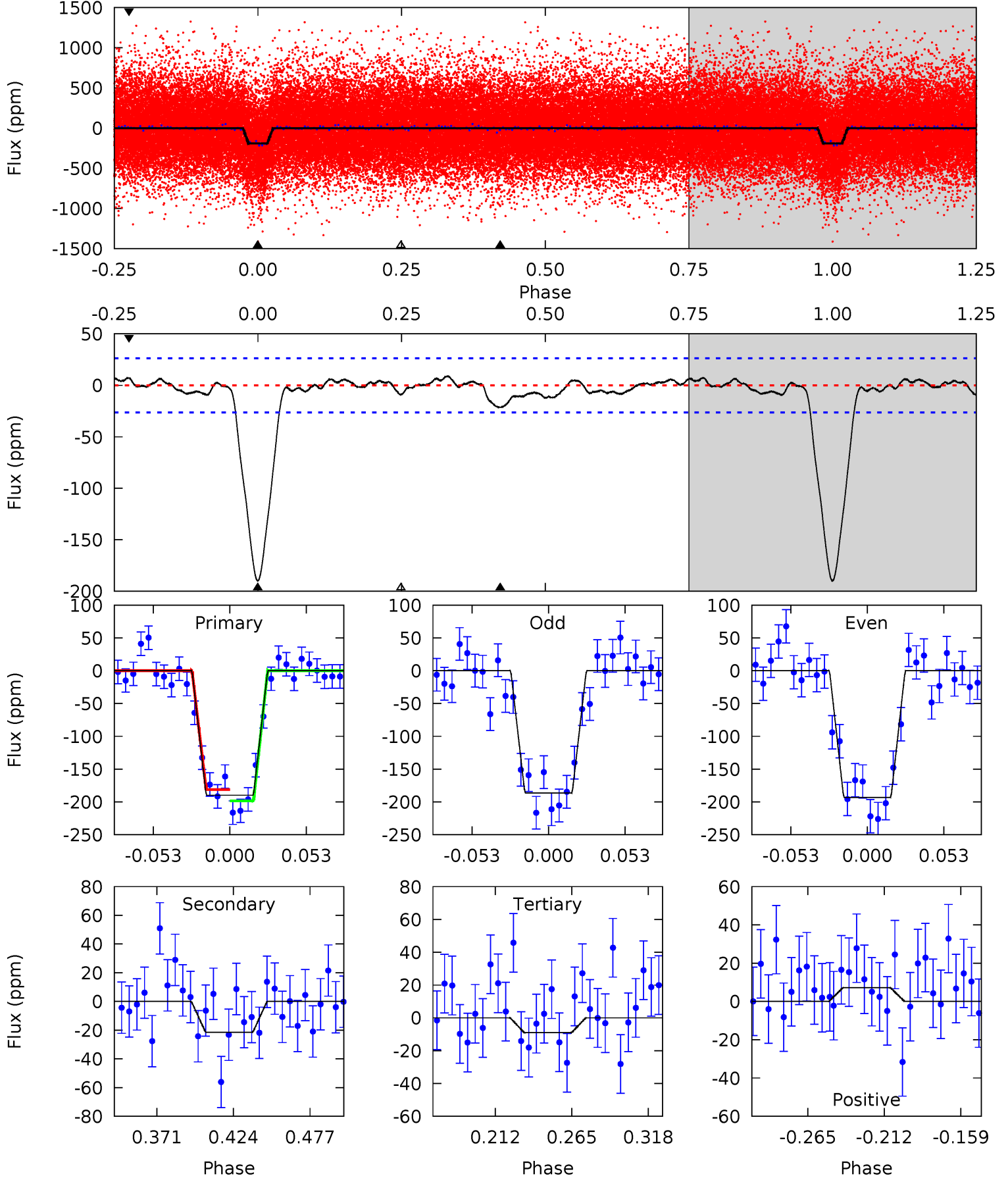
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 35.2 | 3.30 | 1.82 | 1.62 | 4.68 | 1.90 | 0.85 | 33.4 | 33.6 | 1.48 | 1.68 | 0.70 | 0.99 | 0.05 | 2.19 |



Alt Model-Shift Uniqueness Test

010600261-02, P = 2.092266 Days, E = 130.972592 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 33.9 | 3.82 | 1.61 | 1.29 | 4.70 | 1.93 | 0.87 | 32.3 | 32.6 | 2.21 | 2.53 | 0.60 | 0.96 | 0.04 | 1.55 |



Stellar Parameters For KIC 010600261

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 5565^{+83}_{-66} | $4.117^{+0.201}_{-0.093}$ | $0.160^{+0.150}_{-0.100}$ | $1.439^{+0.229}_{-0.315}$ | $0.989^{+0.075}_{-0.068}$ | $0.468^{+0.498}_{-0.152}$ |
| | +1%/-1% | +5%/-2% | +94%/-62% | +16%/-22% | +8%/-7% | +106%/-32% |
| Source | SPE90 | SPE90 | SPE90 | DSEP | | |

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010600261-02 / KOI 0597.02

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|-------------|------------------------|---------------------|----------------------|---------------------------|
| DV | -18 ± 5 | $2.36^{+0.64}_{-0.61}$ | 2291^{+98}_{-129} | 3306^{+371}_{-360} | $1.692^{+1.517}_{-0.755}$ |
| Alt. | -21 ± 6 | $2.13^{+0.58}_{-0.60}$ | 2291^{+96}_{-132} | 3577^{+449}_{-375} | $2.712^{+2.820}_{-1.251}$ |

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 $A_{obs} \gg 1.0$

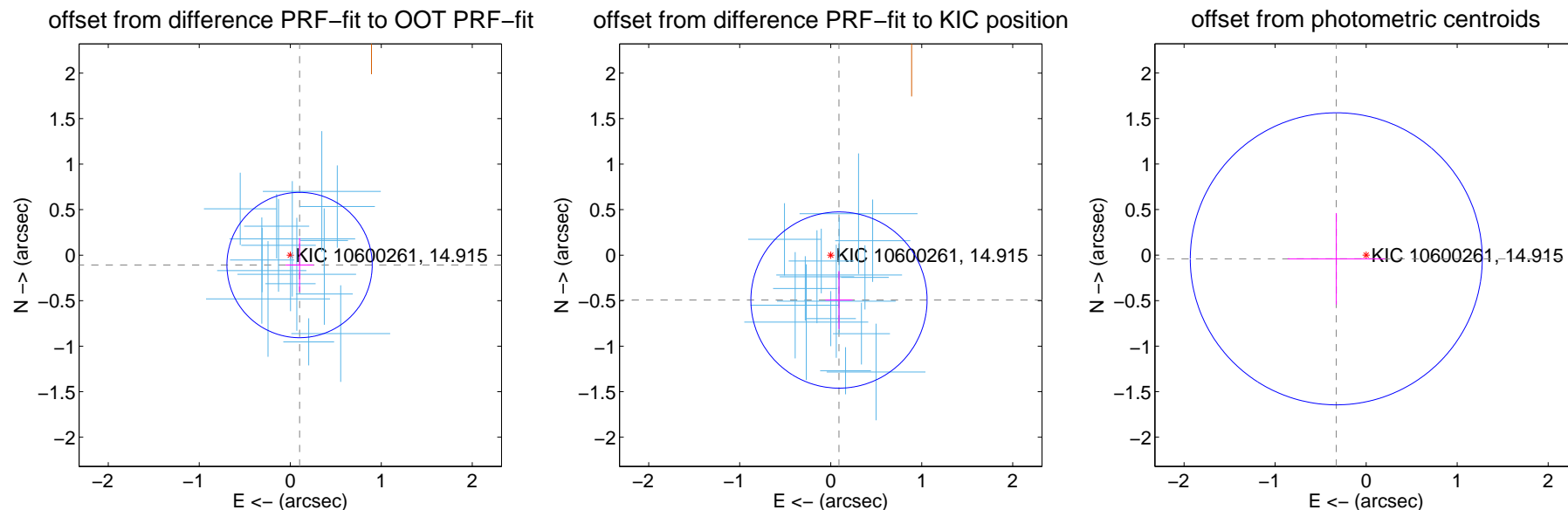
DV Centroid Data

Supplemental centroid analysis for 010600261-02. Kepler magnitude: 14.91. Transit SNR 26.89

There are 15 quarters with good PRF difference image offsets

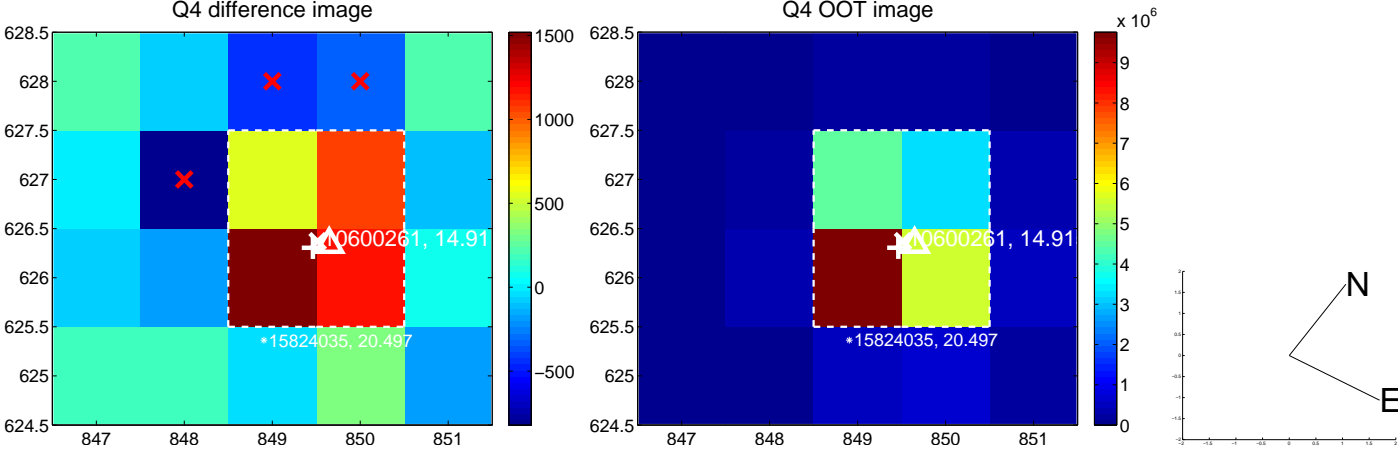
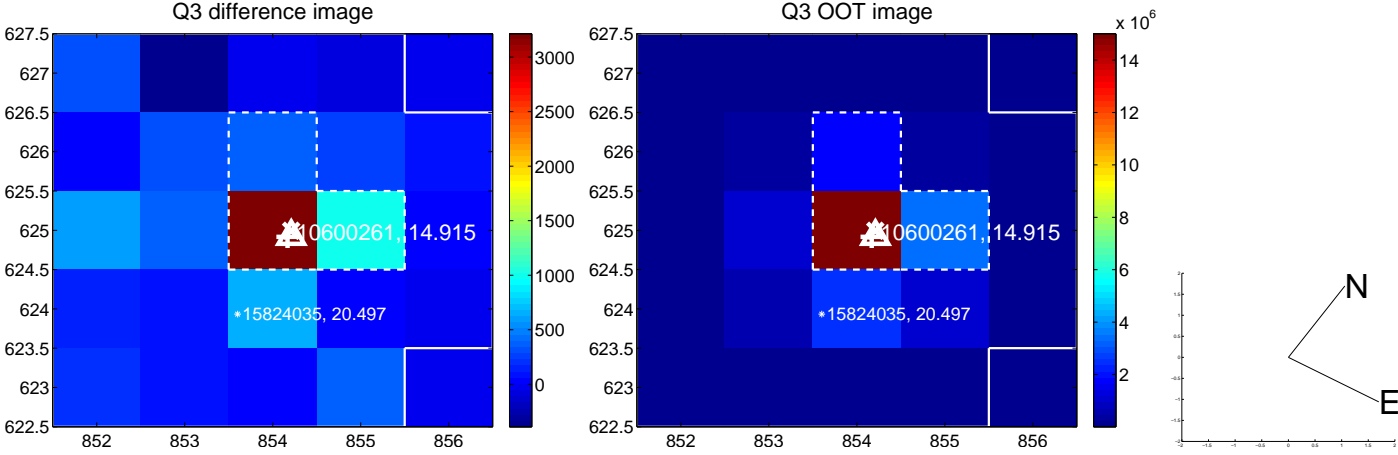
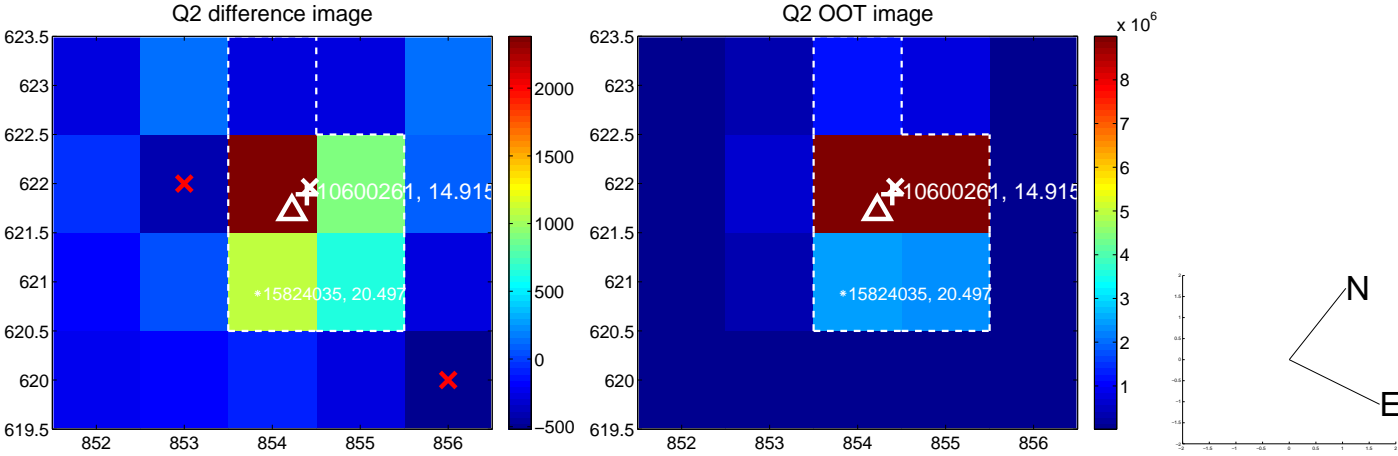
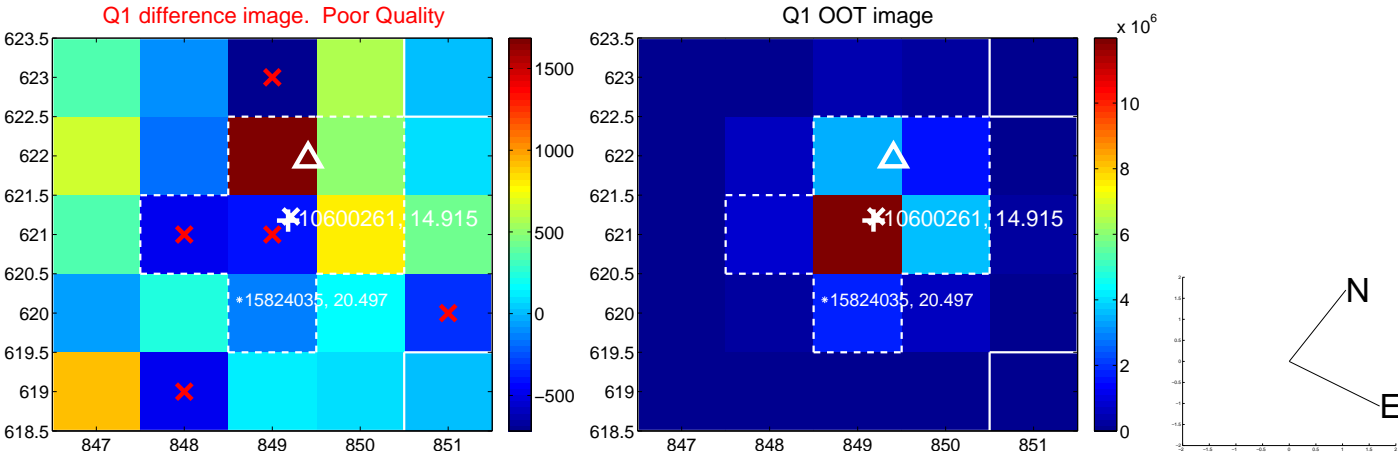
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.149 ± 0.266 | 0.56 | -0.102 ± 0.153 | -0.109 ± 0.297 |
| PRF-fit source offset from KIC position | 0.502 ± 0.323 | 1.55 | -0.091 ± 0.148 | -0.493 ± 0.319 |
| photometric centroid source offset | 0.33 ± 0.53 | 0.62 | 0.33 ± 0.54 | -0.04 ± 0.50 |

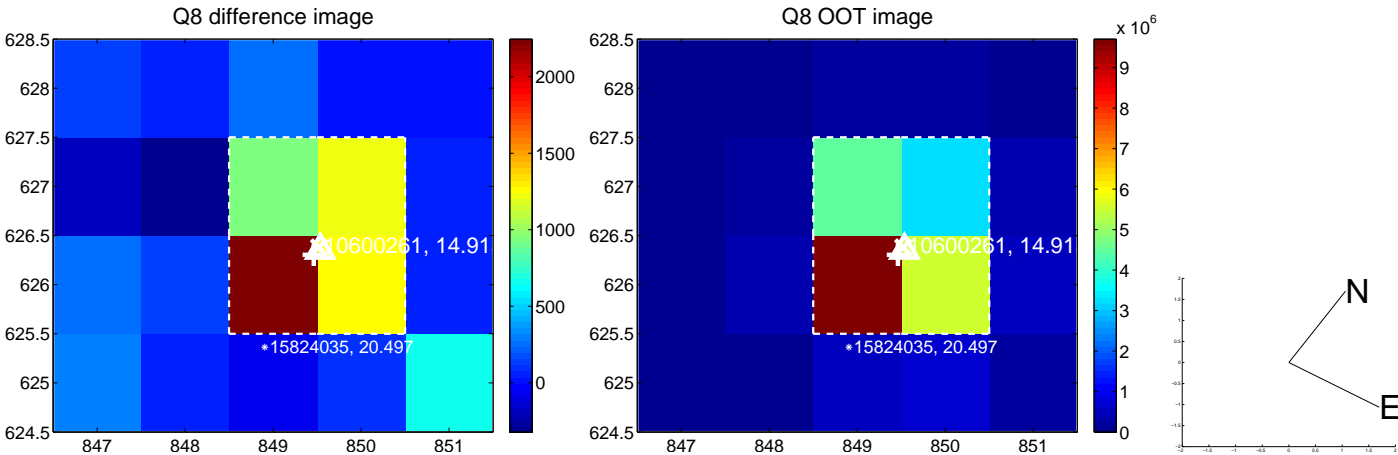
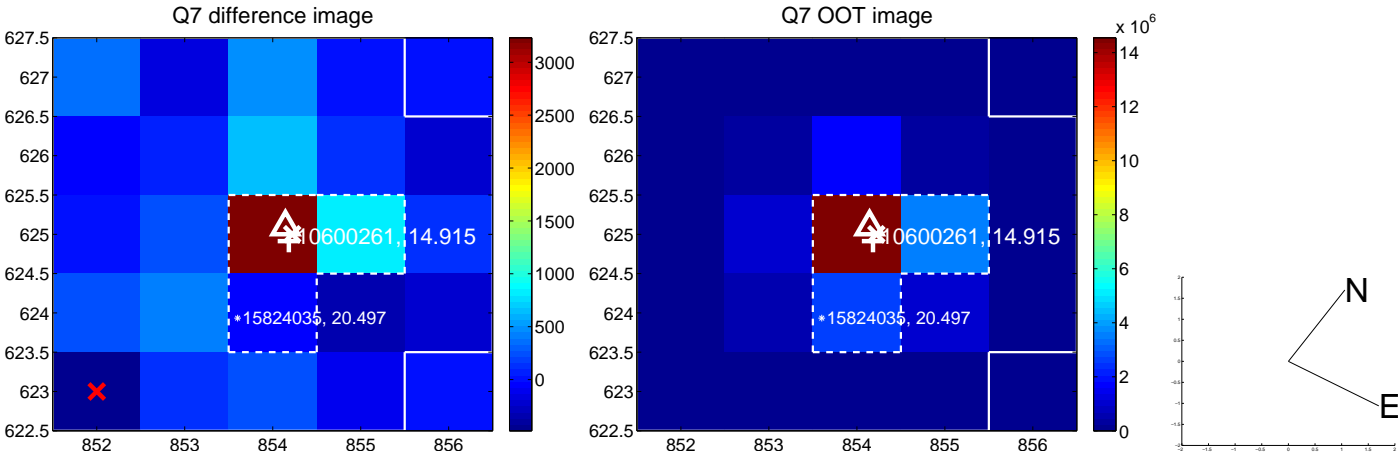
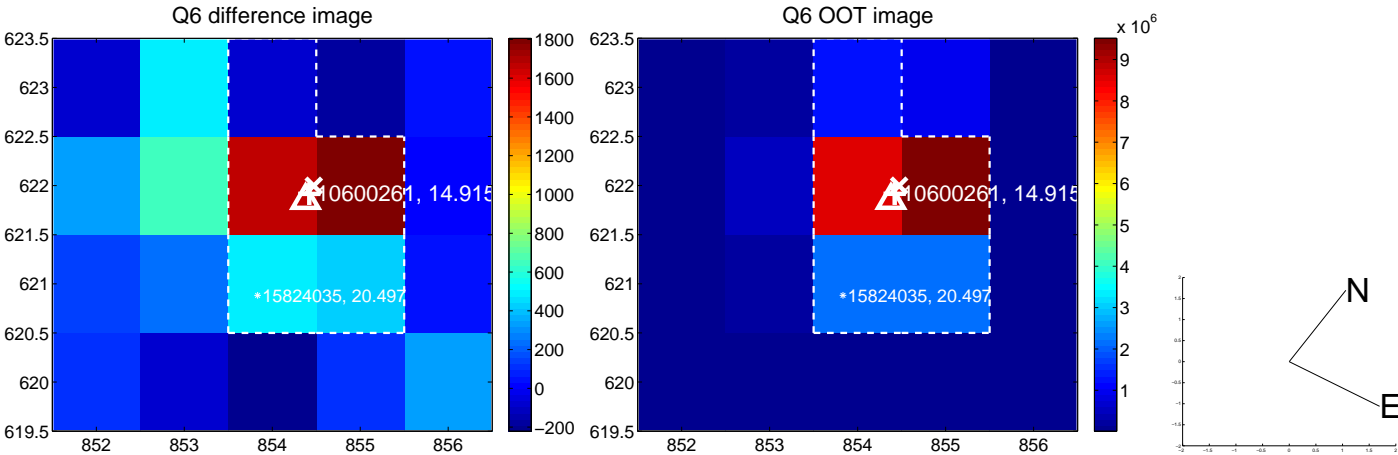
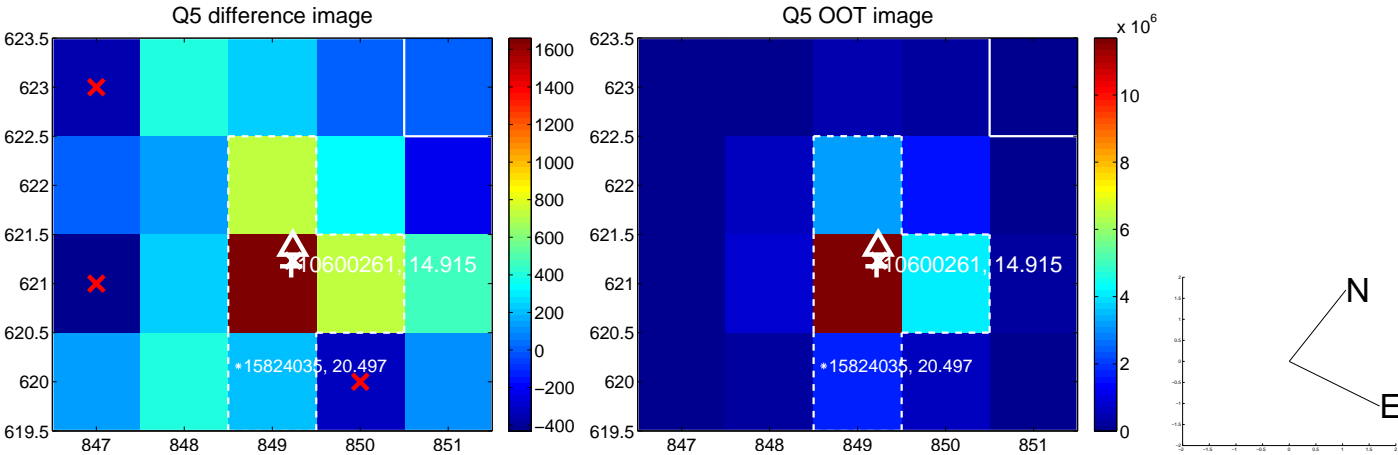


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

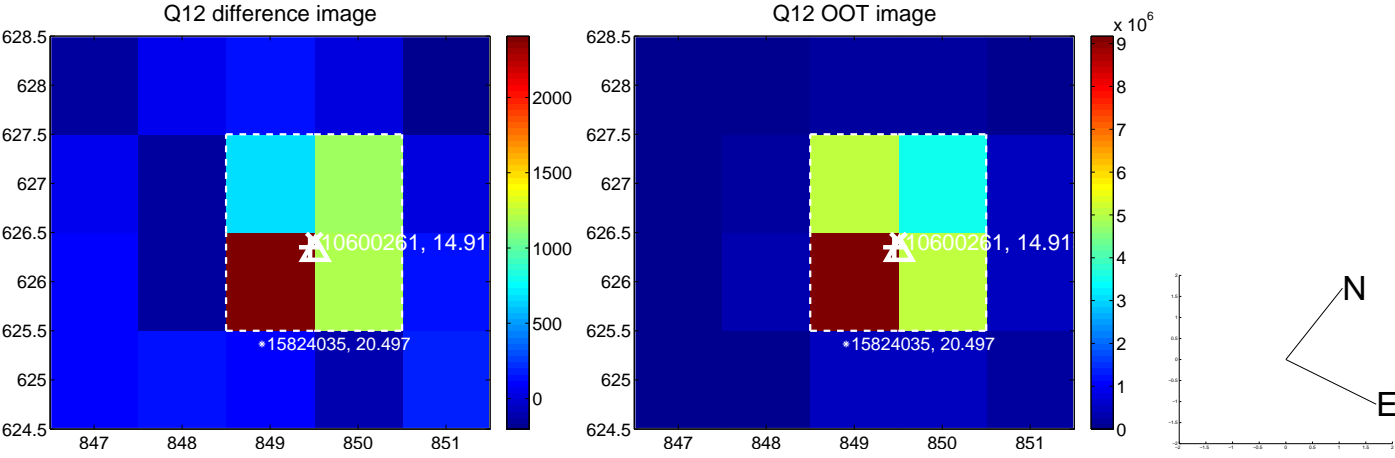
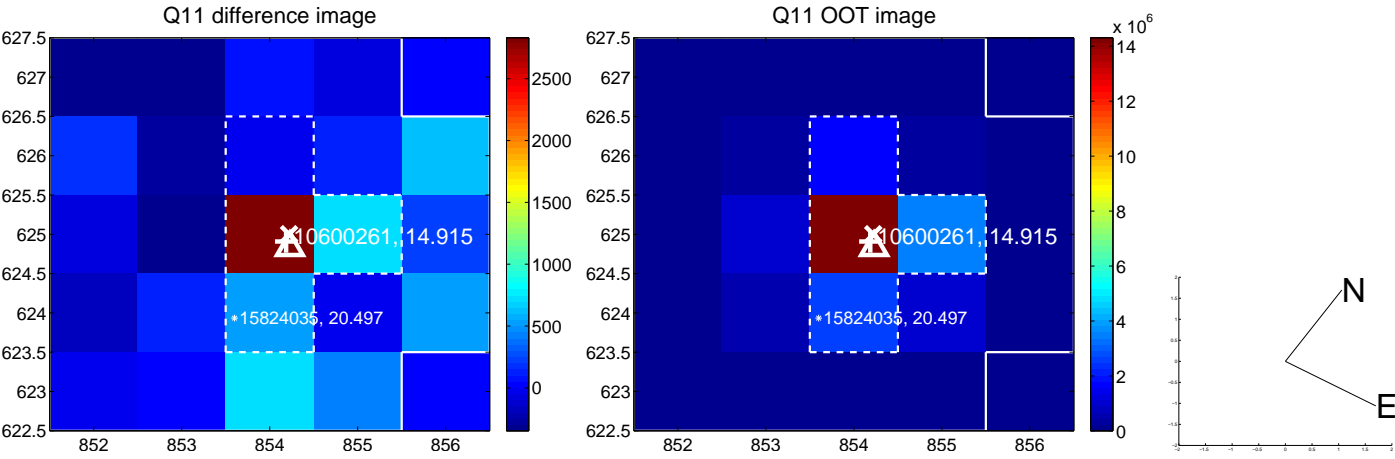
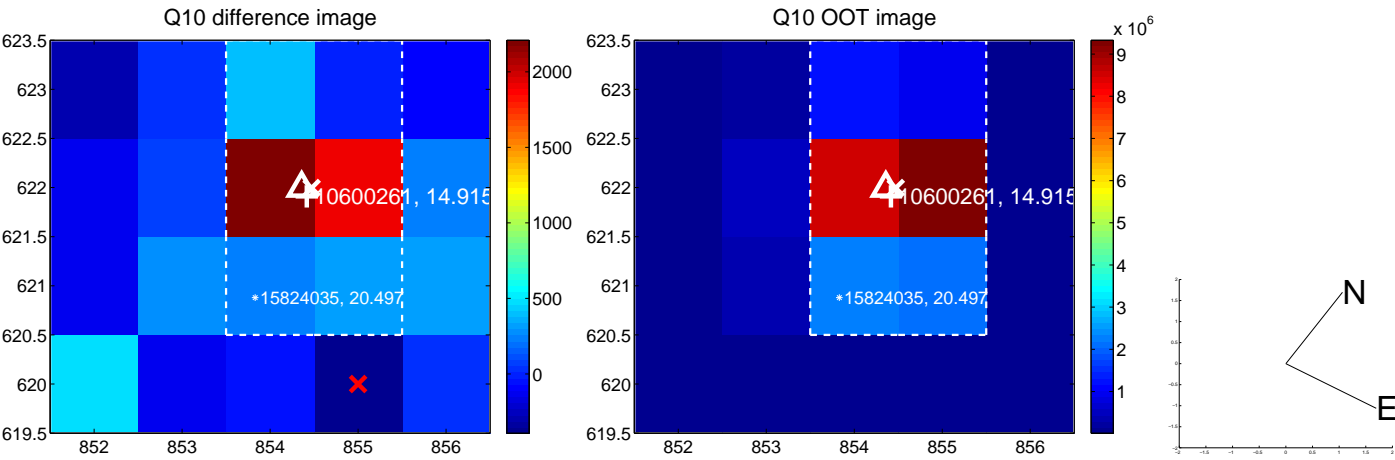
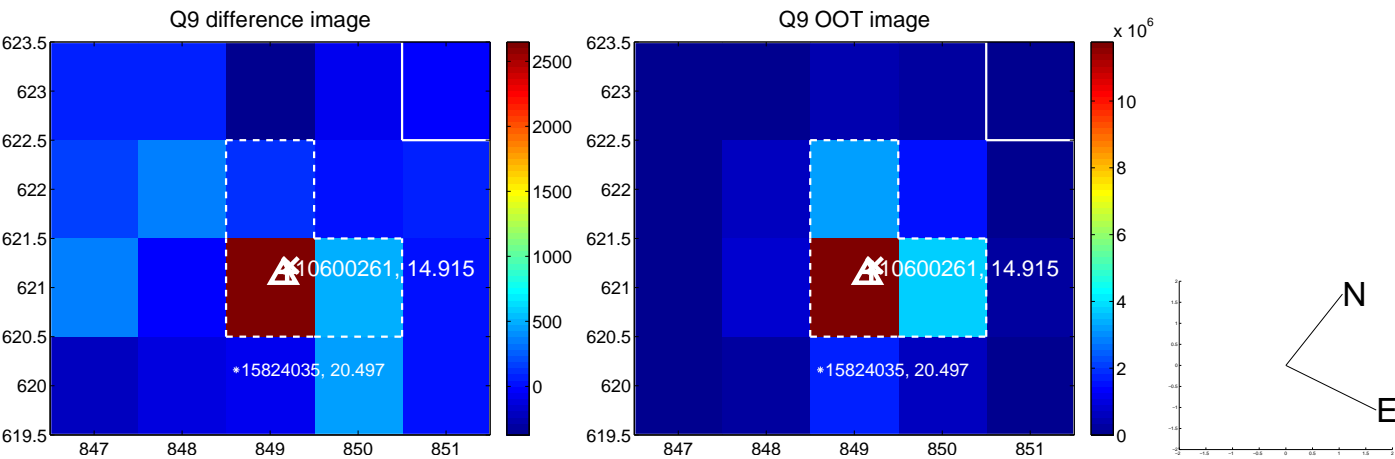
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



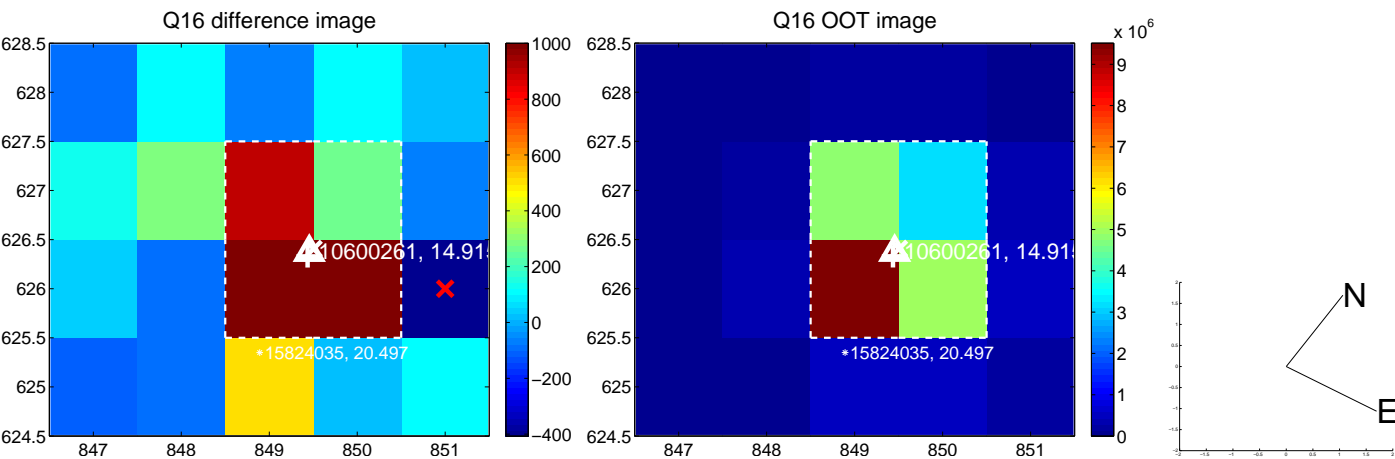
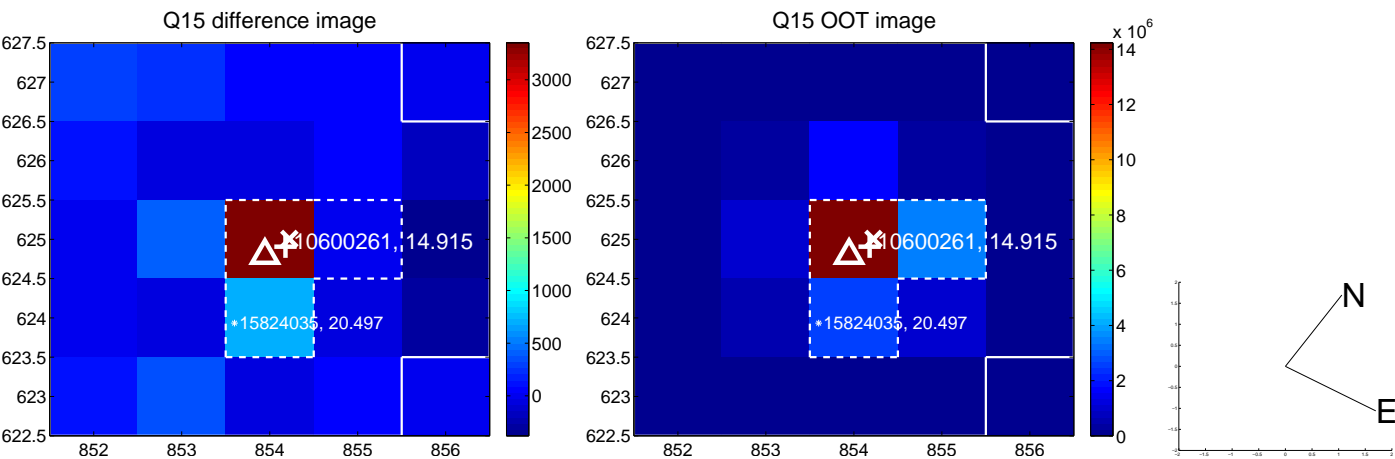
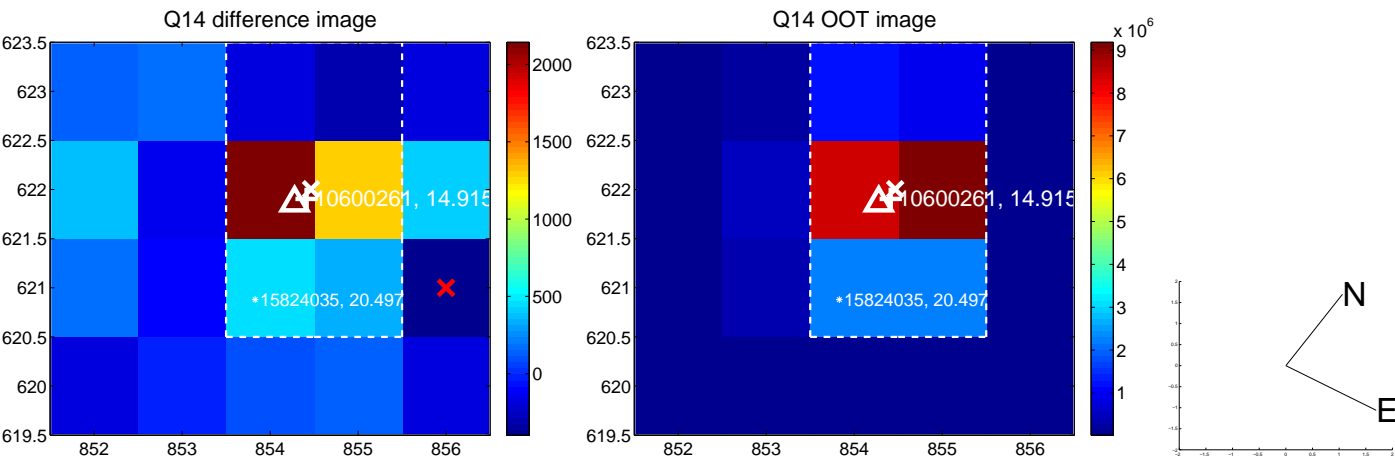
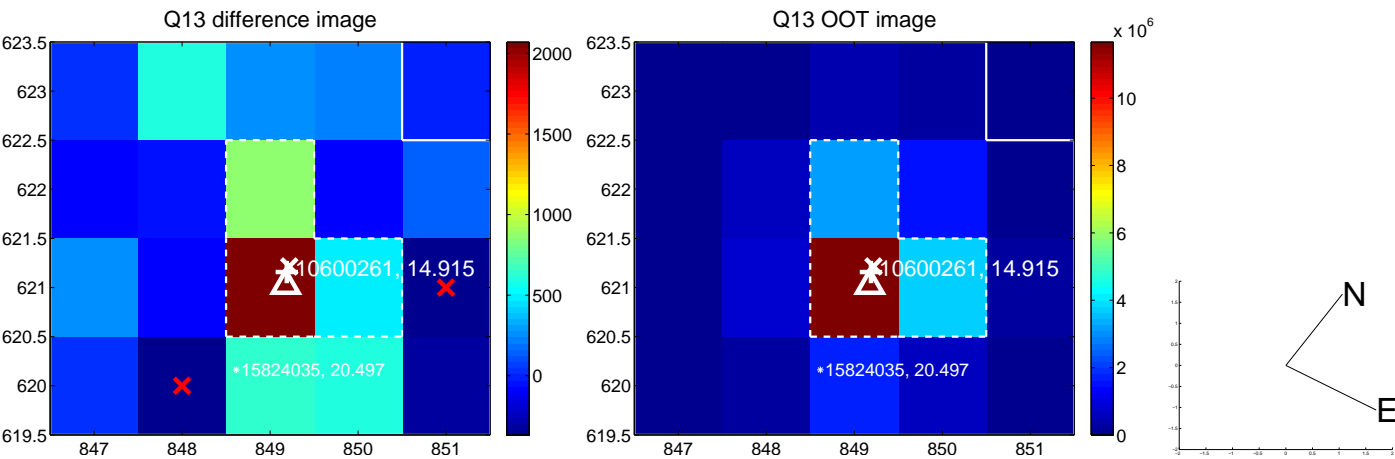
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



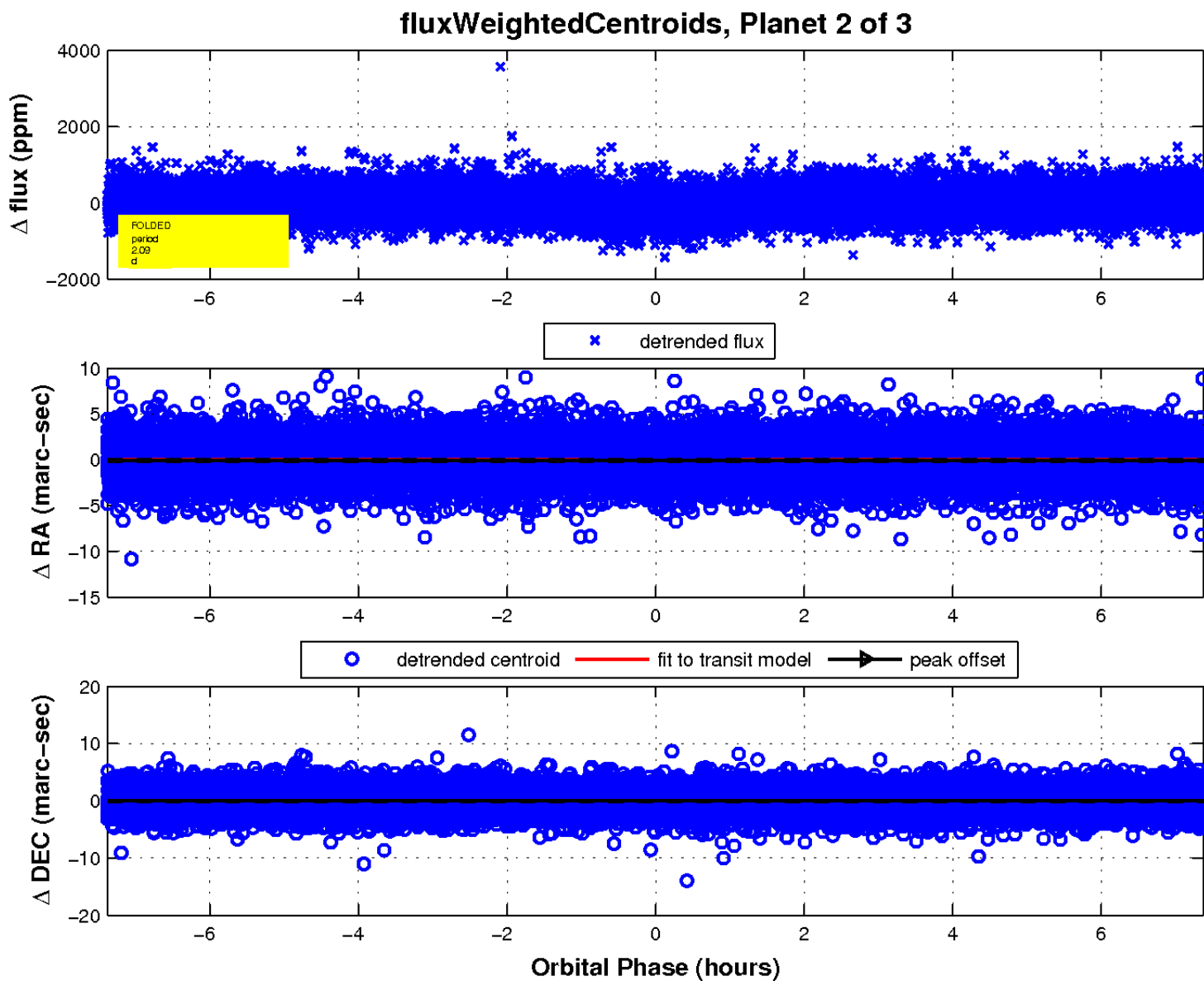
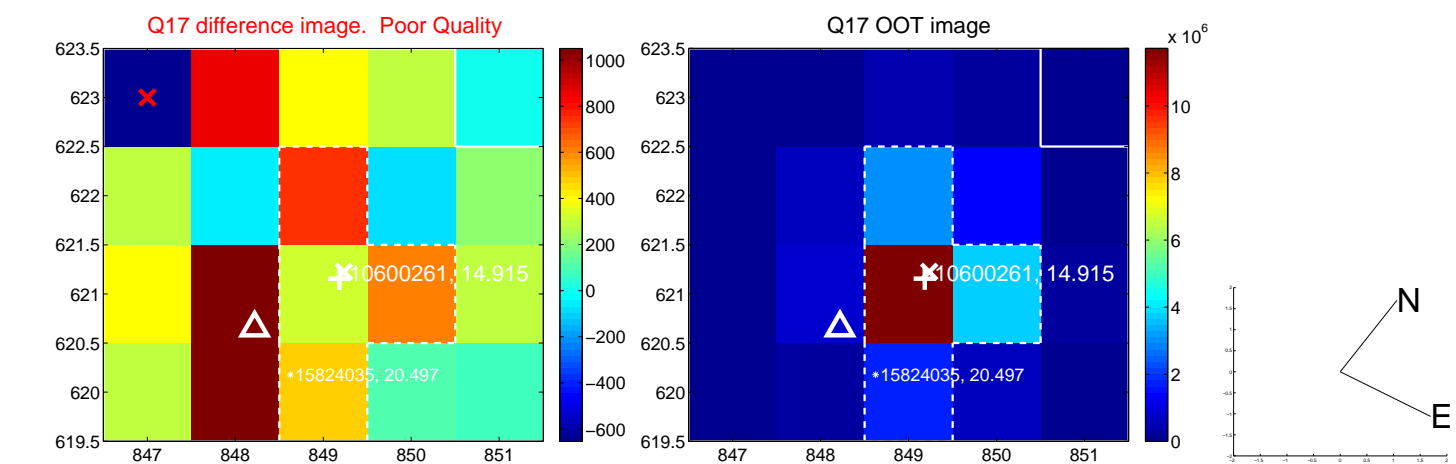
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

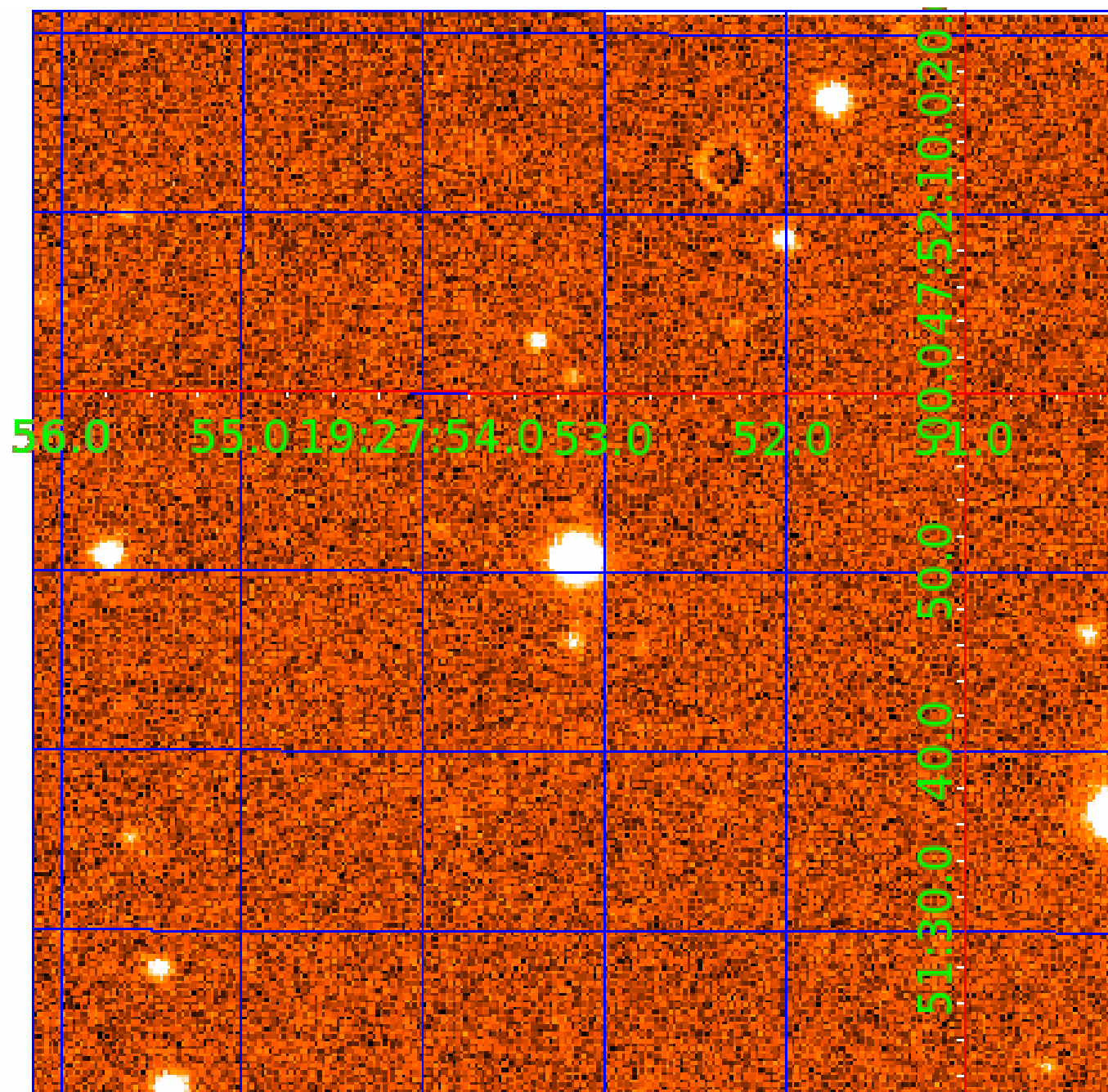


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010600261

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}) |
|--------------|----------|---------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 010600261-01 | OBS | 0597.01 | 17.308001 | 142.325956 | 619.2 | 5.365 | 36.0 | 39.6 | 1.44 | 5565 | 4.10 | 104.50 |
| 010600261-02 | OBS | 0597.02 | 2.092279 | 133.061148 | 193.0 | 2.460 | 24.5 | 26.9 | 1.44 | 5565 | 2.43 | 1748.38 |
| 010600261-03 | OBS | 0597.03 | 52.815031 | 164.902057 | 572.4 | 7.372 | 21.9 | 24.5 | 1.44 | 5565 | 3.65 | 23.61 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--------------|
| 010600261-01 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | CENT_KIC_POS |
| 010600261-02 | OBS | PC | 1.00 | 0 | 0 | 0 | 0 | CENT_KIC_POS |
| 010600261-03 | OBS | PC | 0.90 | 0 | 0 | 0 | 0 | CENT_KIC_POS |

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

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

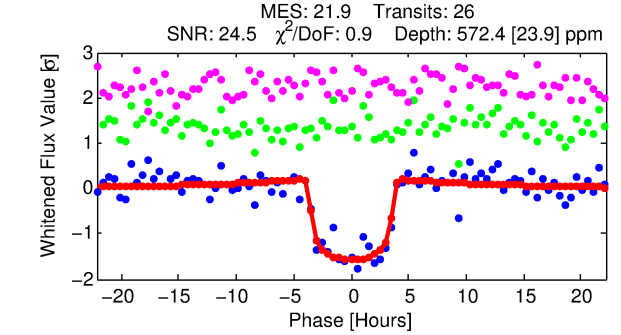
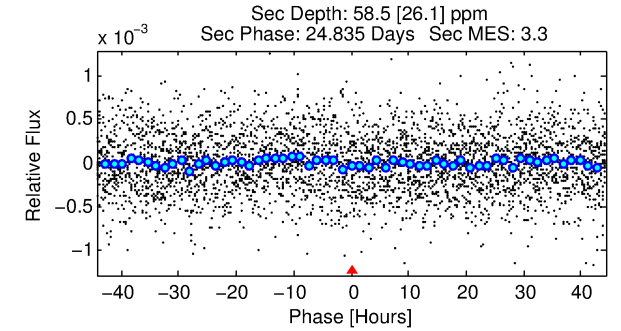
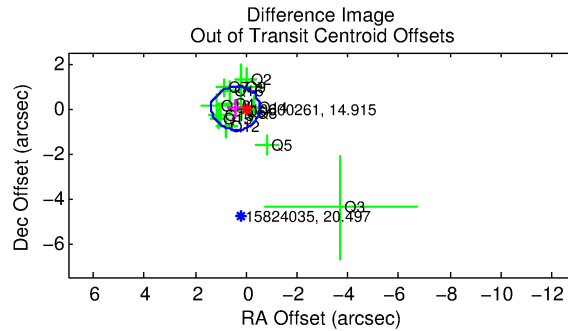
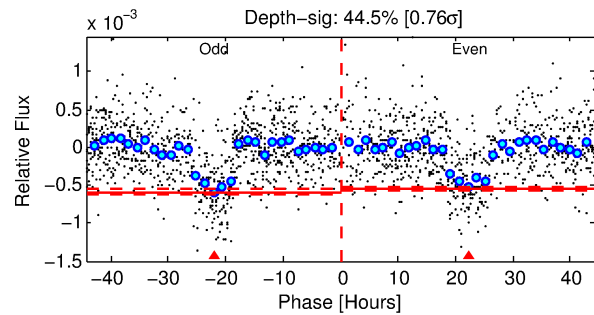
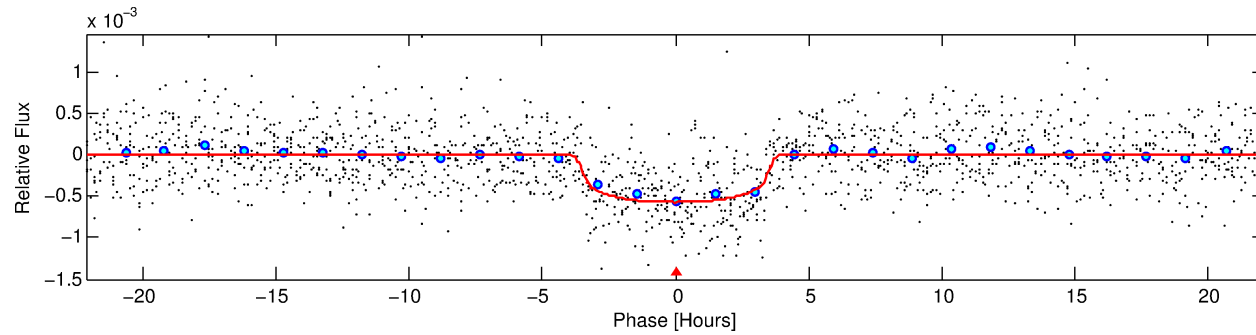
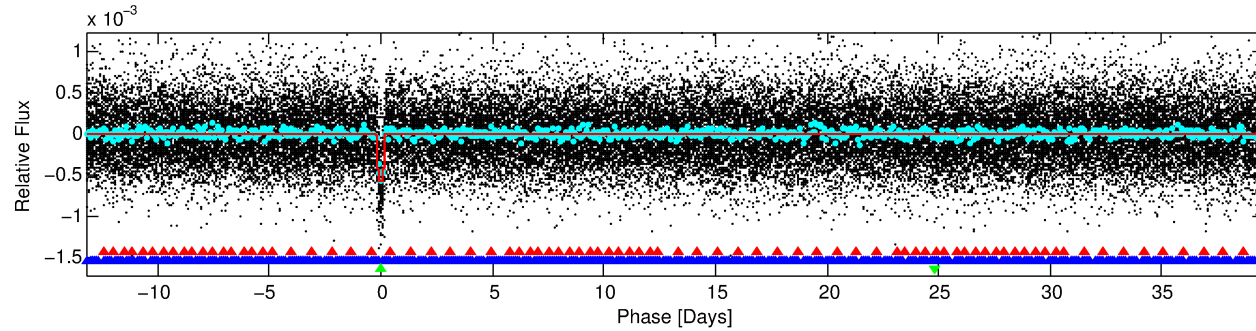
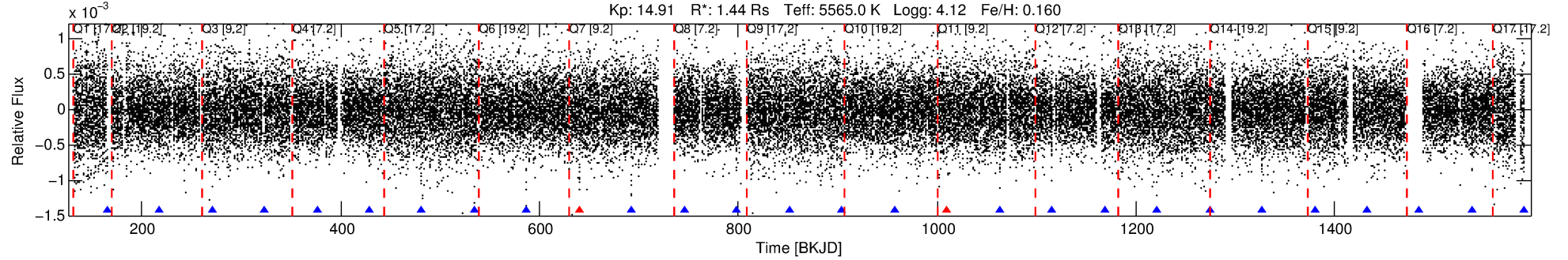
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010600261-03

No Significant Match Found

DV One-Page Summary

KIC: 10600261 Candidate: 3 of 3 Period: 52.815 d
KOI: K00597.03 Name: Kepler-194d Corr: 0.991



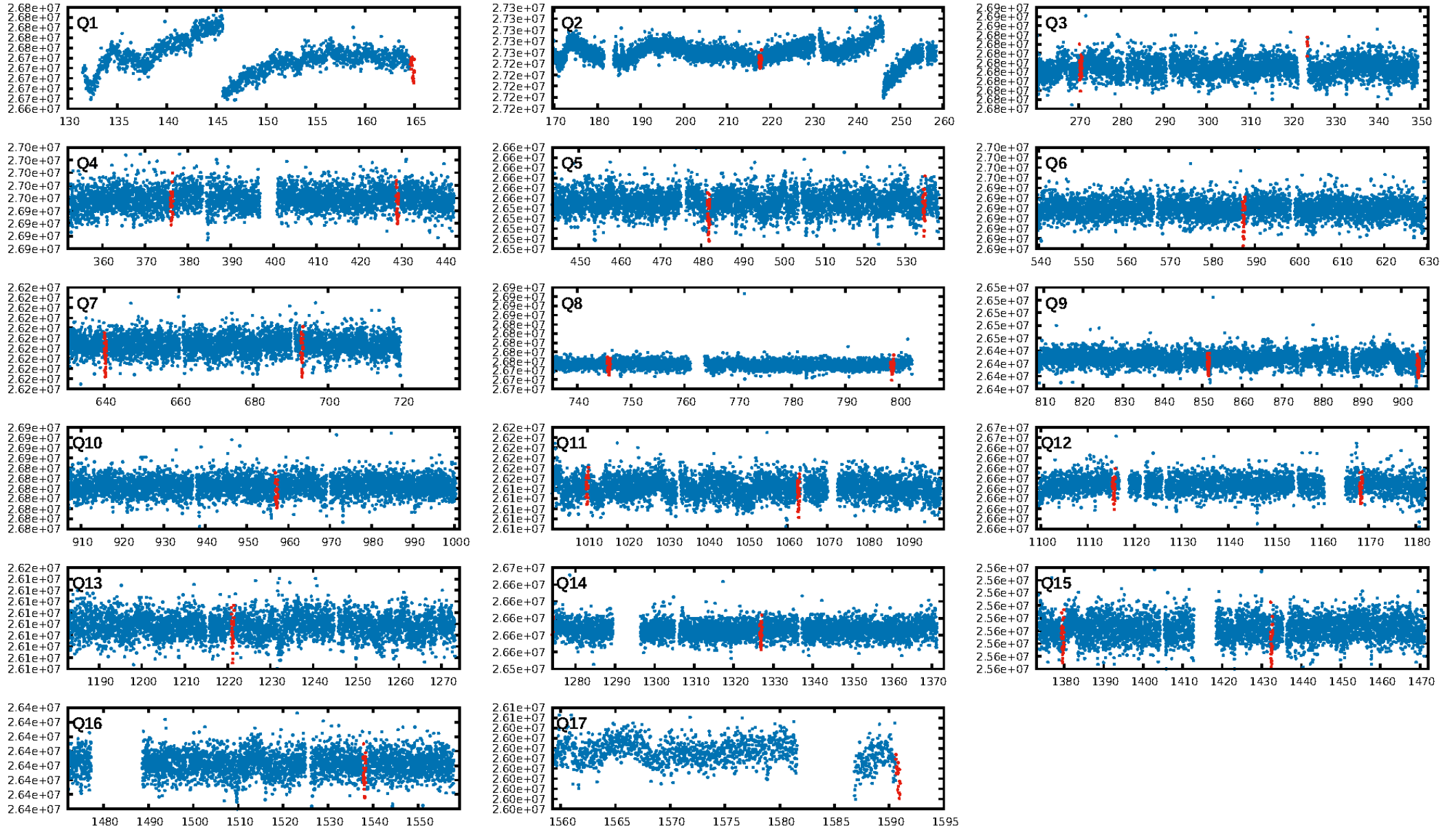
DV Fit Results:

Period = 52.81503 [0.00038] d
Epoch = 164.9021 [0.0058] BKJD
Rp/R* = 0.0233 [0.0073]
a/R* = 41.76 [53.15]
b = 0.68 [1.01]
Seff = 23.61 [8.18]
Teff = 562 [49] K
Rp = 3.65 [1.40] Re
a = 0.2745 [0.0583] AU
Ag = 181.92 [153.58] [1.18 σ]
Teffp = 3192 [618] K [4.24 σ]

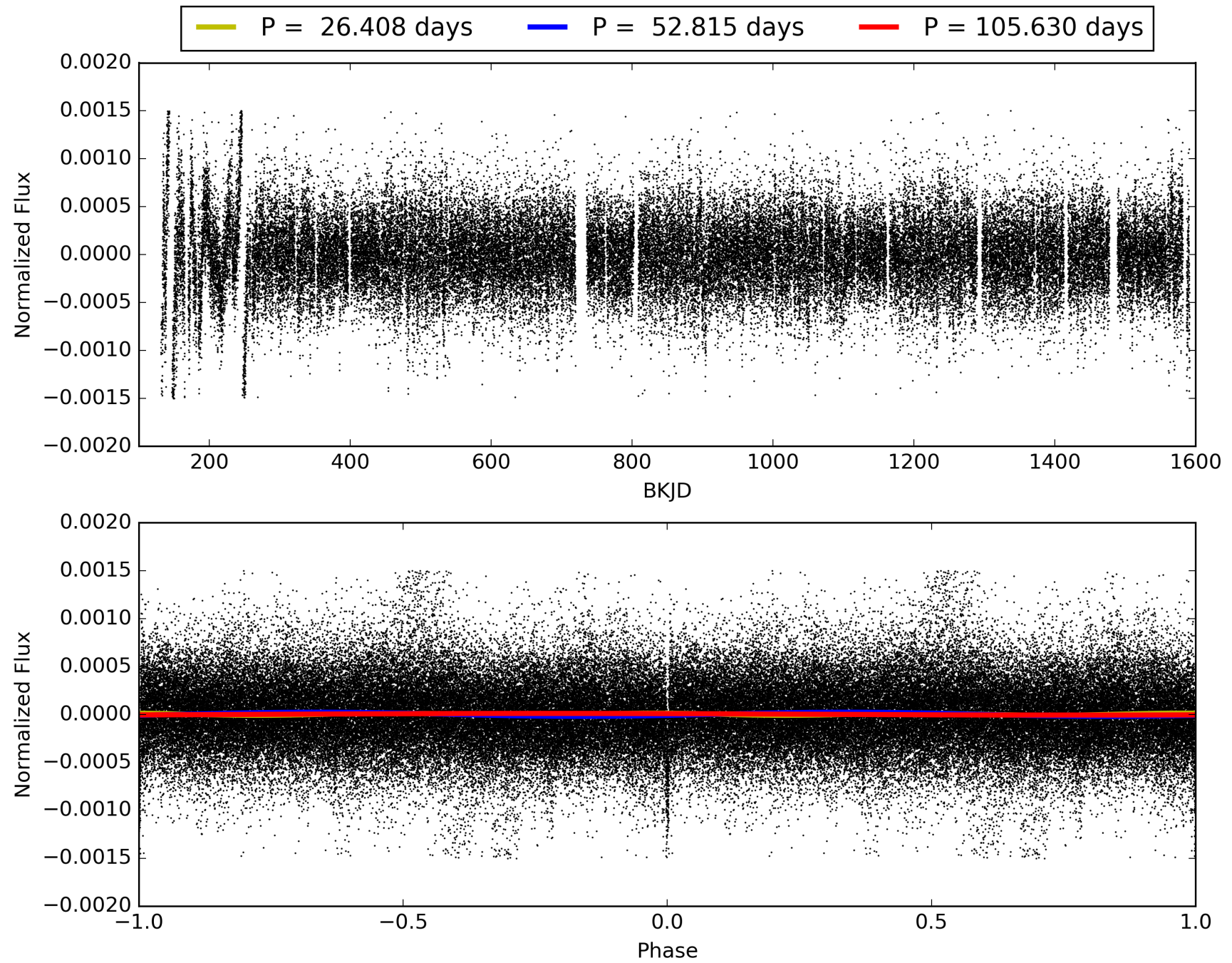
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [93.46 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 38.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.77e-96
RollingBand-fgt: 0.92 [22/24]
GhostDiagnostic-chr: 5.619
Centroid-sig: 34.4%
Centroid-so: 0.787 arcsec [1.45 σ]
OotOffset-rm: 0.411 arcsec [1.28 σ]
KicOffset-rm: 0.563 arcsec [2.36 σ]
OotOffset-st: 4/3/4/3 [14]
KicOffset-st: 4/3/4/3 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.47 [7/15]

TCE 010600261-03, PDC Light Curves

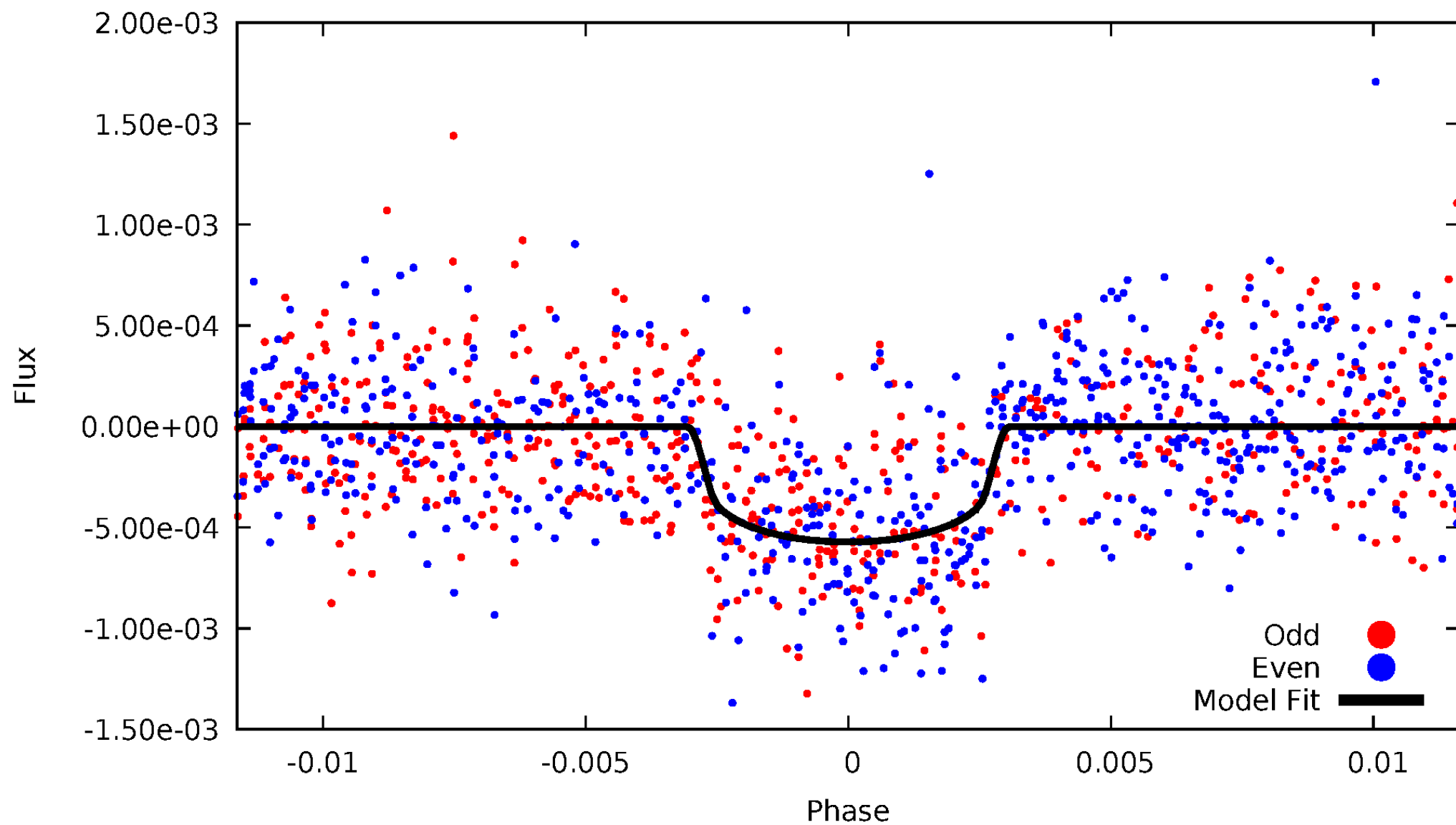


TCE 010600261-03



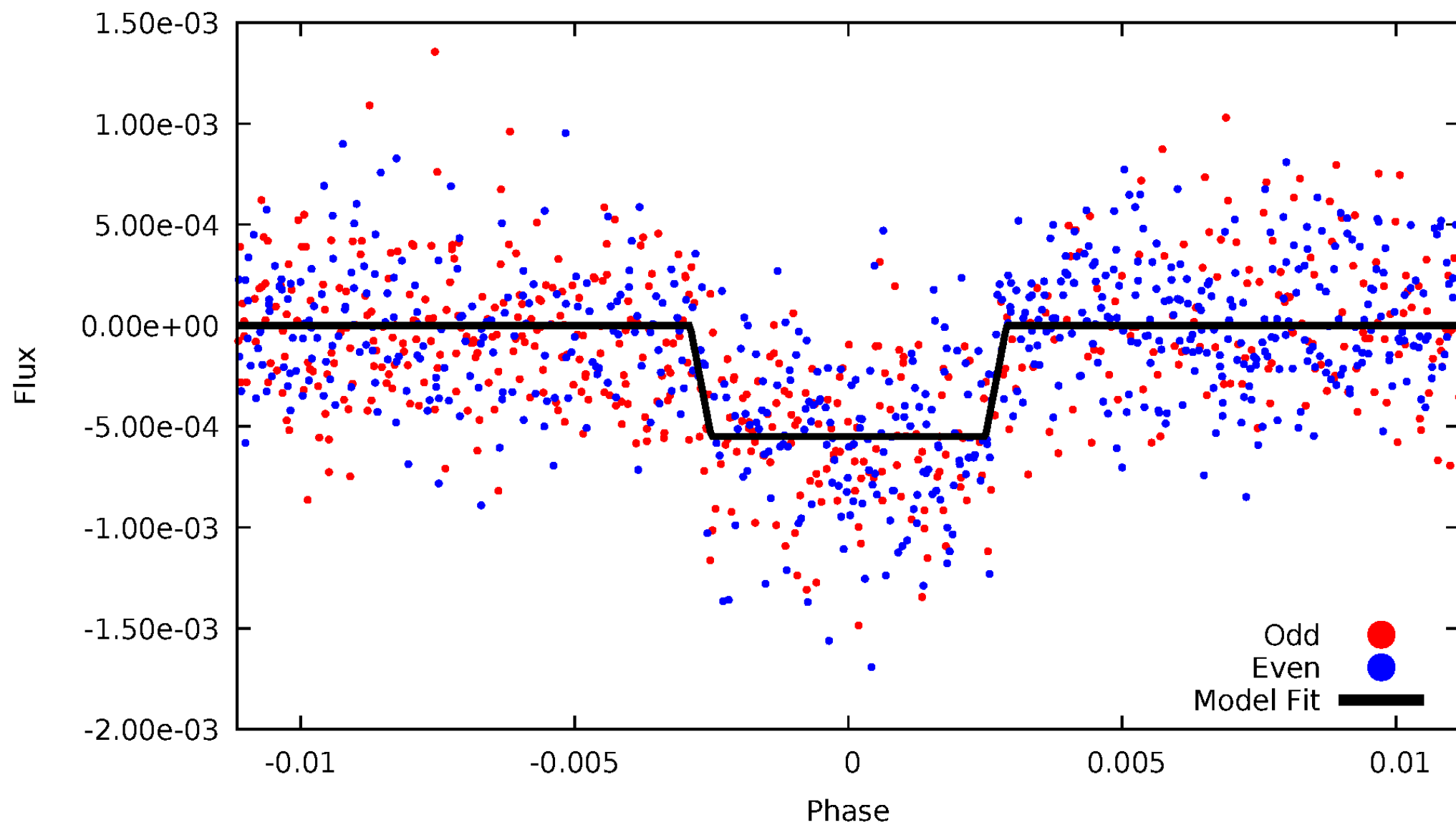
DV Odd/Even

TCE 010600261-03



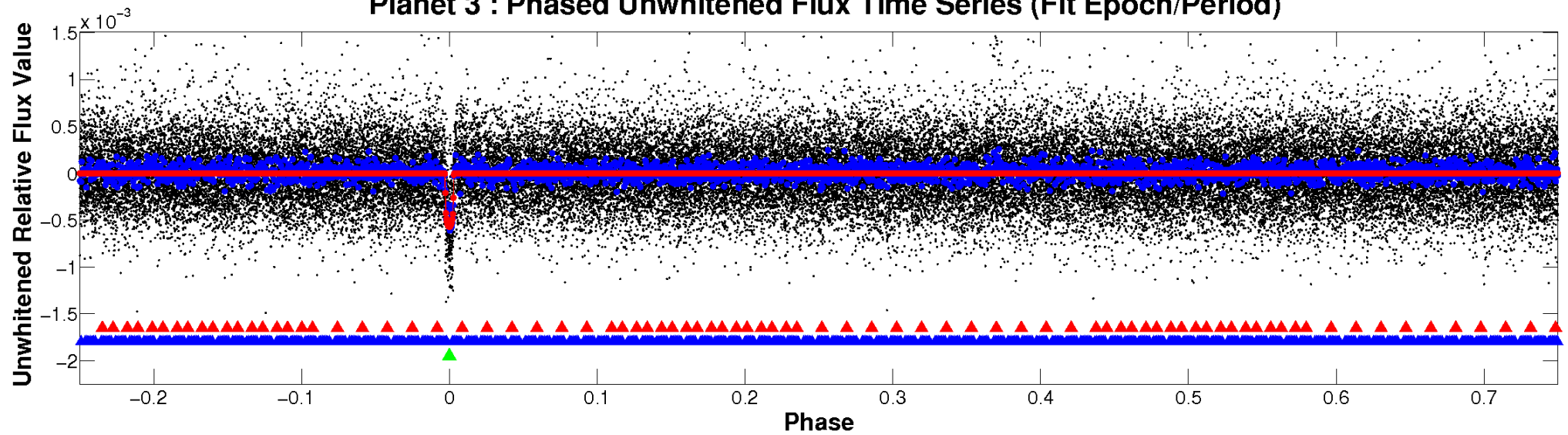
ALT Odd/Even

TCE 010600261-03

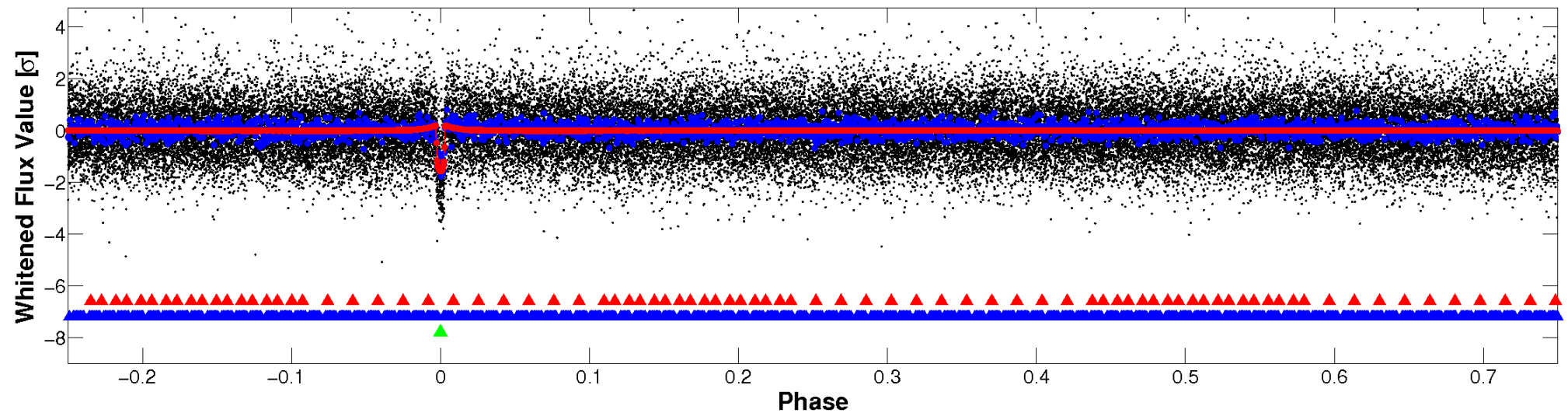


Non-Whitened Vs. Whitened Light Curve

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

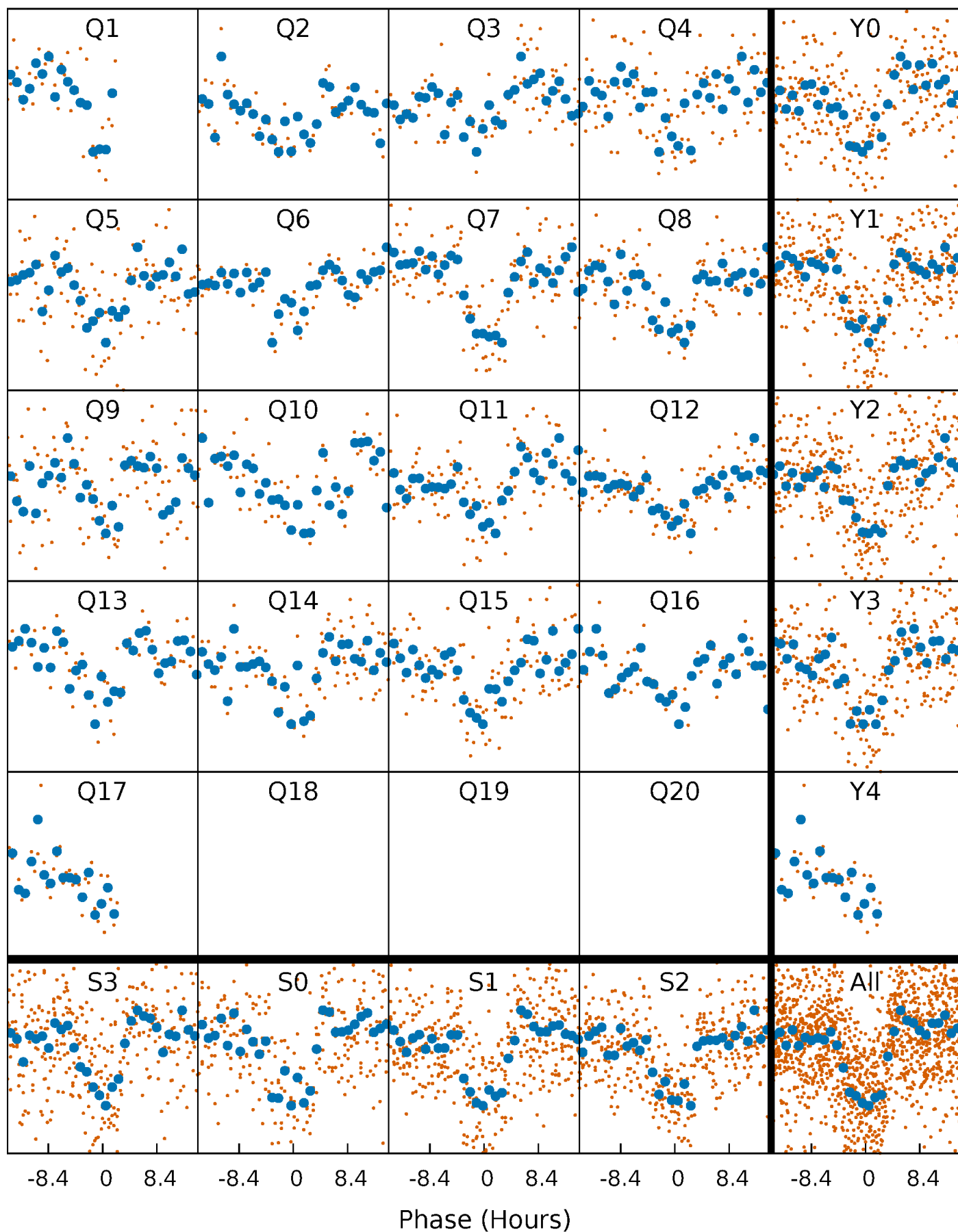


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



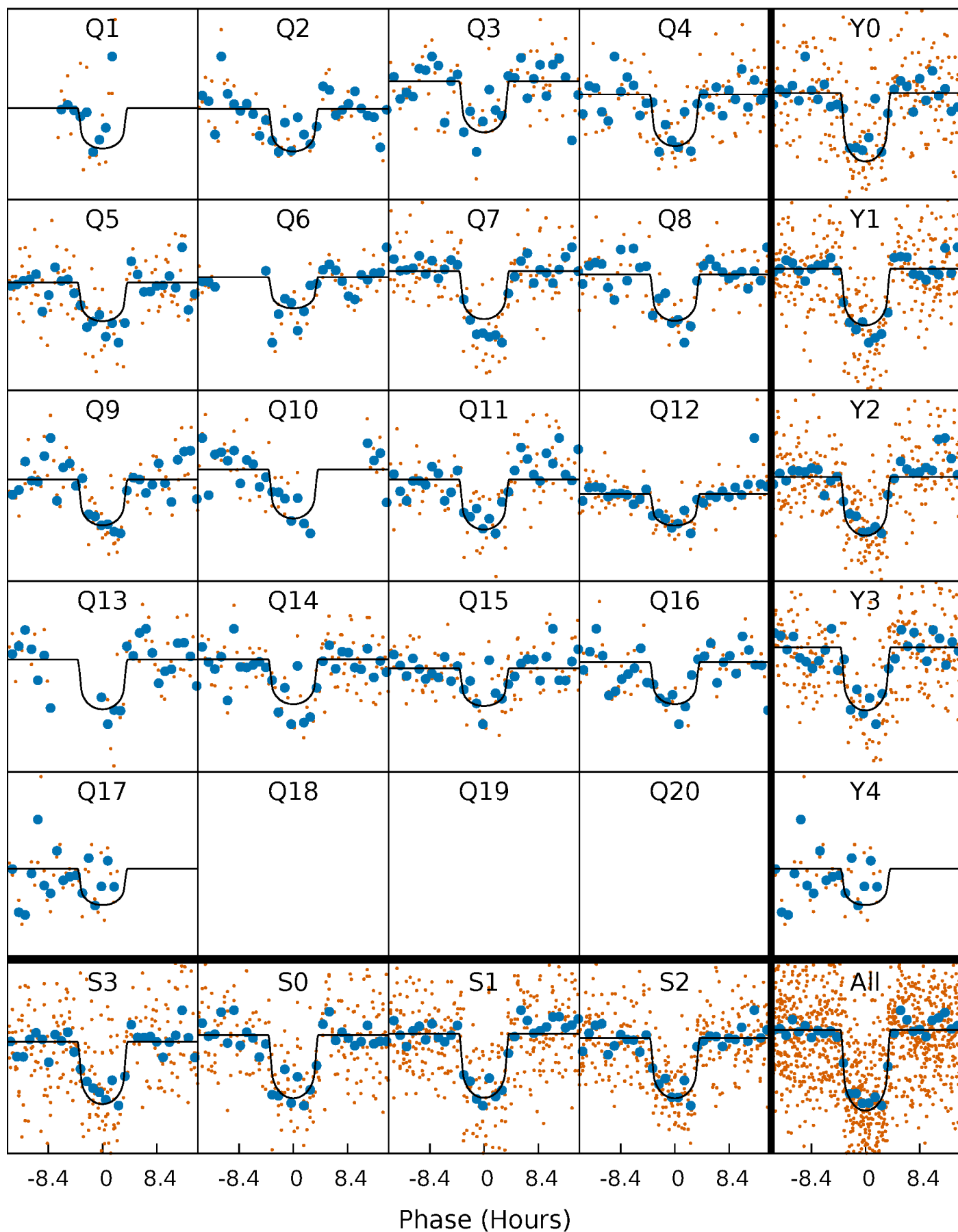
PDC Quarter-Phased Transit Curves

TCE 010600261-03 P= 52.815031 Days $T_0=164.902056$ (BKJD)



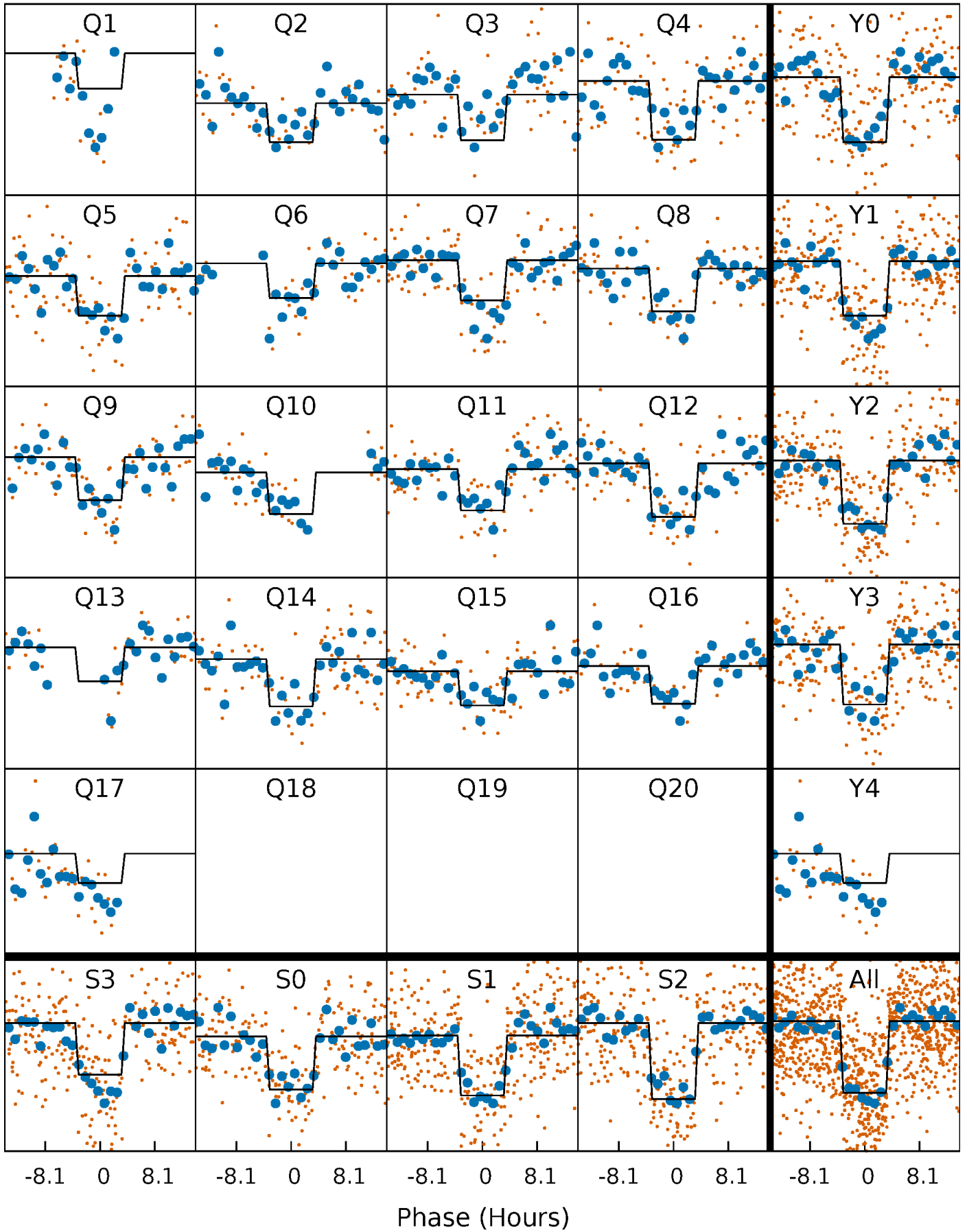
DV Quarter-Phased Transit Curves

TCE 010600261-03 P= 52.815031 Days $T_0=164.902056$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

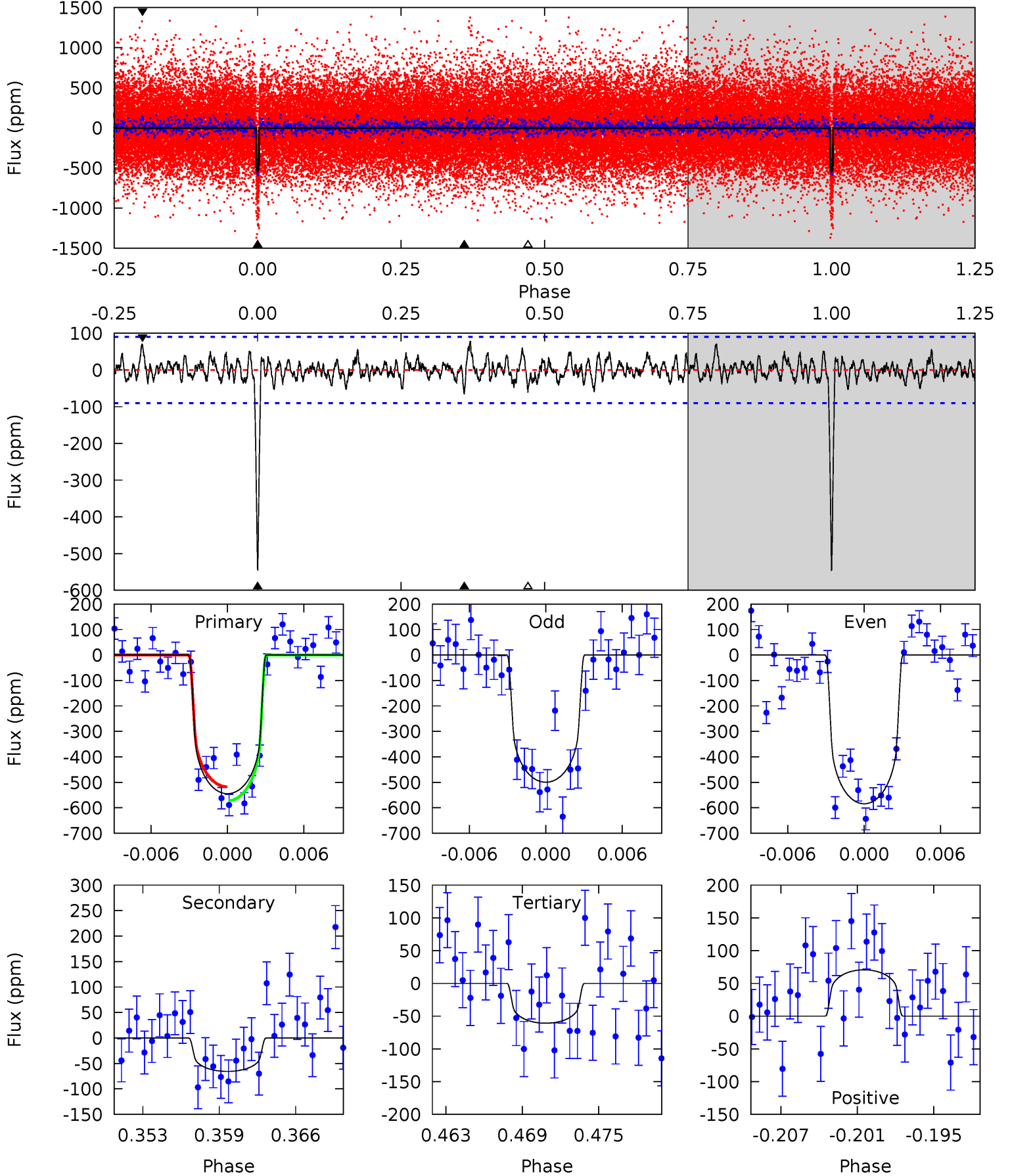
TCE 010600261-03 $P = 52.815175$ Days $T_0 = 164.899855$ (BKJD)



DV Model-Shift Uniqueness Test

010600261-03, P = 52.815031 Days, E = 112.087025 Days

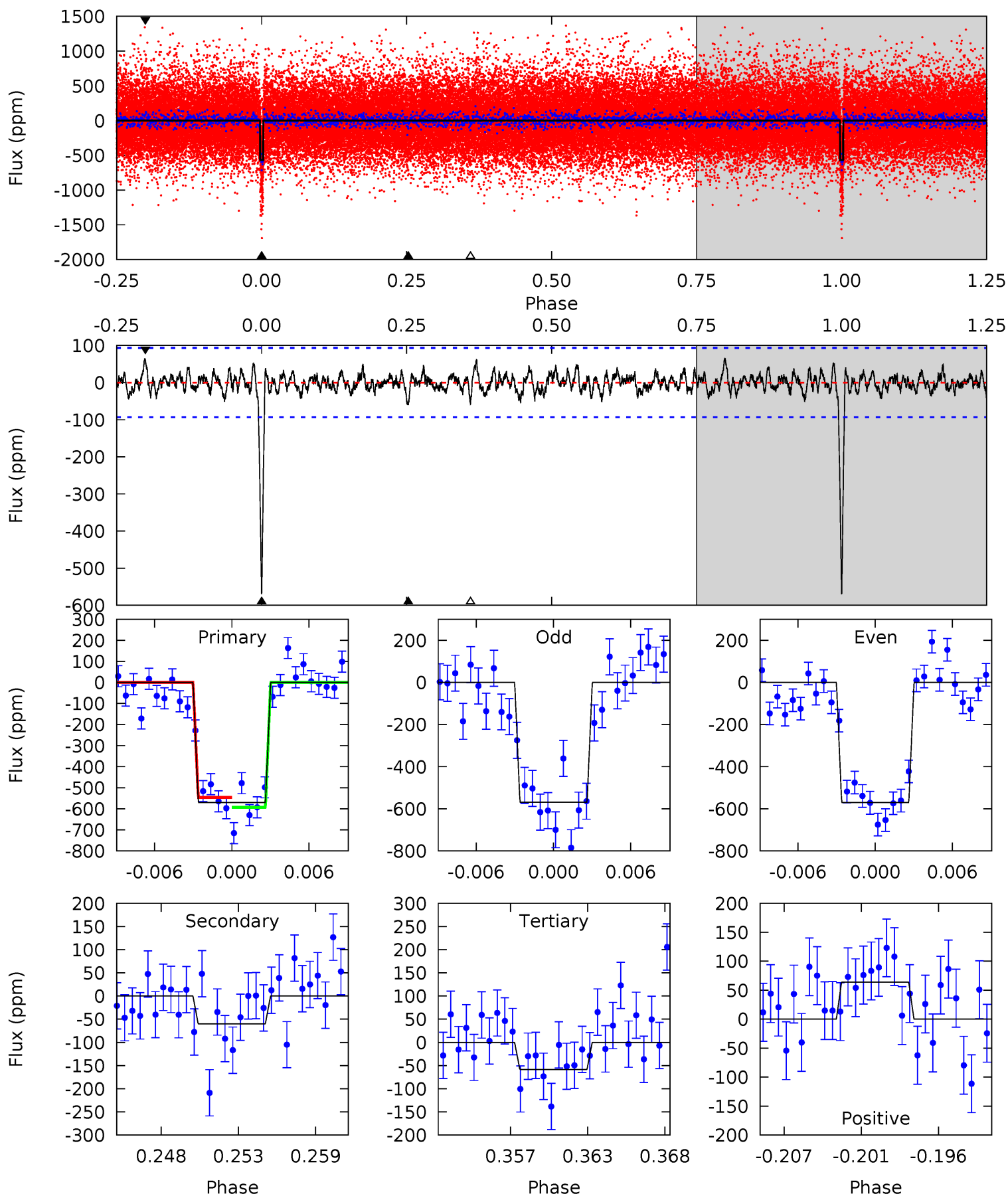
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 30.9 | 3.72 | 3.45 | 4.01 | 5.12 | 2.74 | 1.21 | 27.4 | 26.9 | 0.27 | -0.28 | 2.39 | 1.01 | 0.13 | 1.56 |



Alt Model-Shift Uniqueness Test

010600261-03, $P = 52.815175$ Days, $E = 112.084680$ Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 31.4 | 3.31 | 3.22 | 3.52 | 5.13 | 2.76 | 1.06 | 28.1 | 27.8 | 0.09 | -0.21 | 0.04 | 1.01 | 0.10 | 1.30 |



Stellar Parameters For KIC 010600261

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 5565^{+83}_{-66} | $4.117^{+0.201}_{-0.093}$ | $0.160^{+0.150}_{-0.100}$ | $1.439^{+0.229}_{-0.315}$ | $0.989^{+0.075}_{-0.068}$ | $0.468^{+0.498}_{-0.152}$ |
| | +1%/-1% | +5%/-2% | +94%/-62% | +16%/-22% | +8%/-7% | +106%/-32% |
| Source | SPE90 | SPE90 | SPE90 | DSEP | | |

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010600261-03 / KOI 0597.03

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|--------------|------------------------|-------------------|----------------------|---------------------|
| DV | -66 ± 18 | $3.50^{+1.20}_{-1.24}$ | 781^{+35}_{-50} | 3694^{+633}_{-367} | 218^{+339}_{-111} |
| Alt. | -60 ± 18 | $3.50^{+1.17}_{-1.16}$ | 779^{+36}_{-45} | 3650^{+531}_{-363} | 201^{+257}_{-99} |

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 $A_{obs} \gg 1.0$

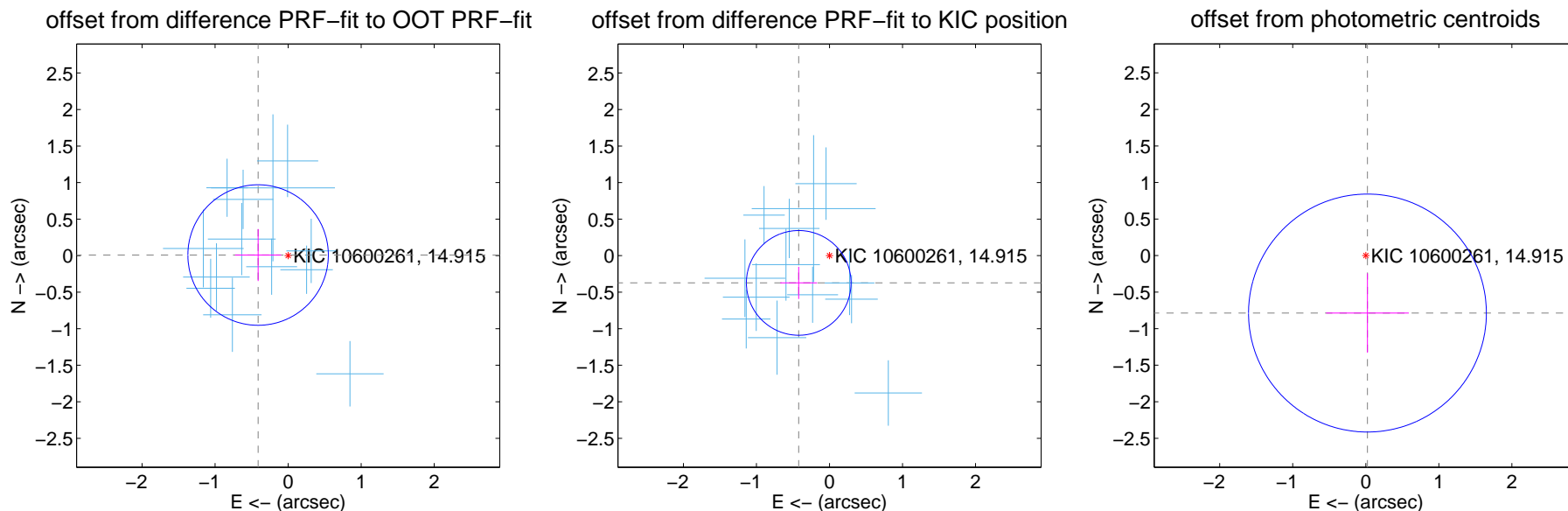
DV Centroid Data

Supplemental centroid analysis for 010600261-03. Kepler magnitude: 14.91. Transit SNR 24.48

There are 13 quarters with good PRF difference image offsets

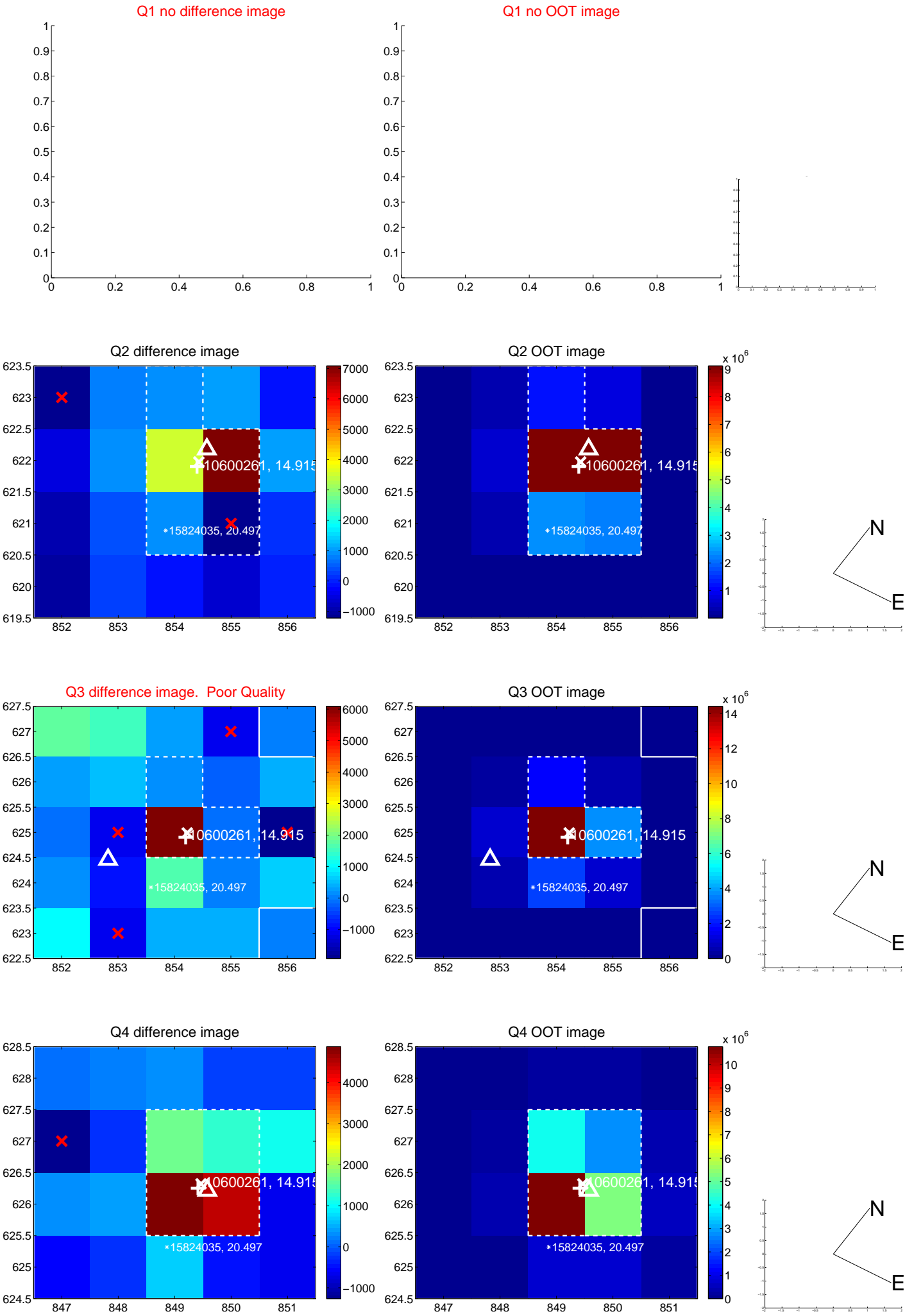
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 0.411 ± 0.321 | 1.28 | 0.411 ± 0.315 | 0.008 ± 0.355 |
| PRF-fit source offset from KIC position | 0.563 ± 0.239 | 2.36 | 0.421 ± 0.252 | -0.373 ± 0.221 |
| photometric centroid source offset | 0.79 ± 0.54 | 1.45 | -0.02 ± 0.57 | -0.79 ± 0.54 |

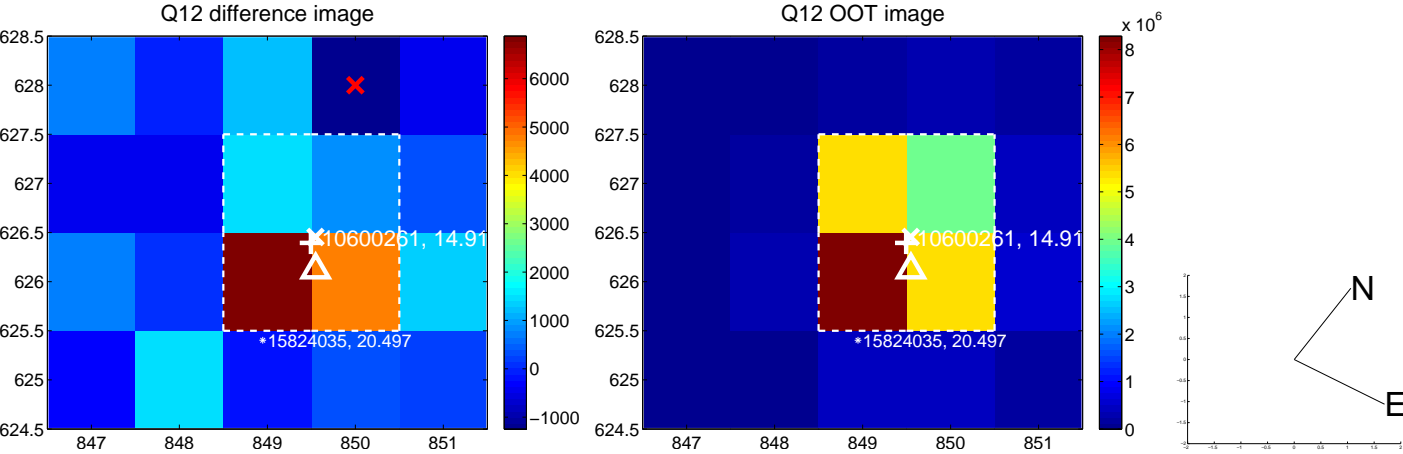
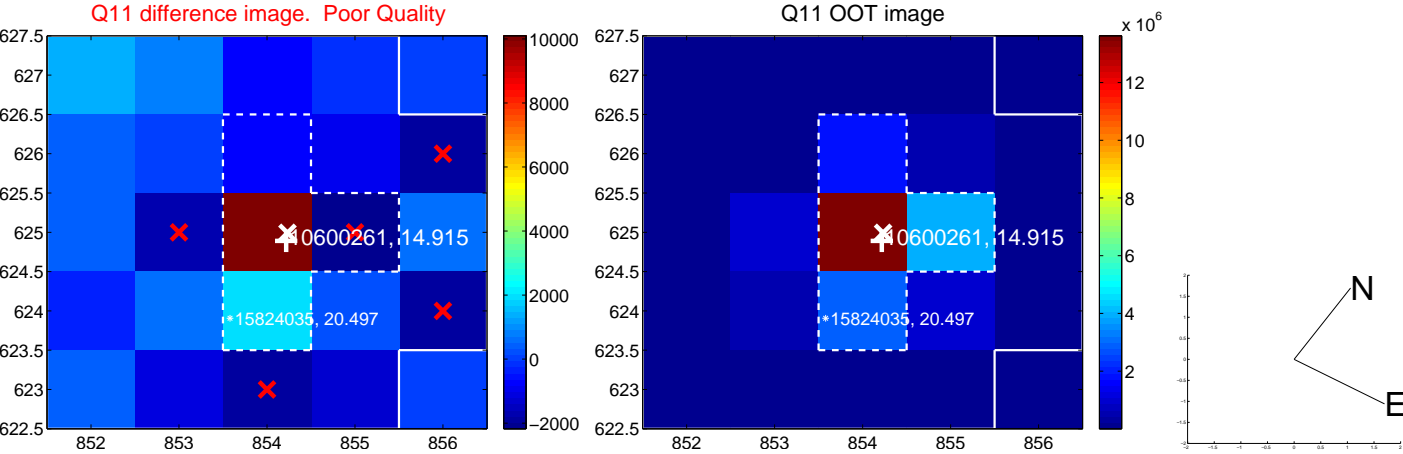
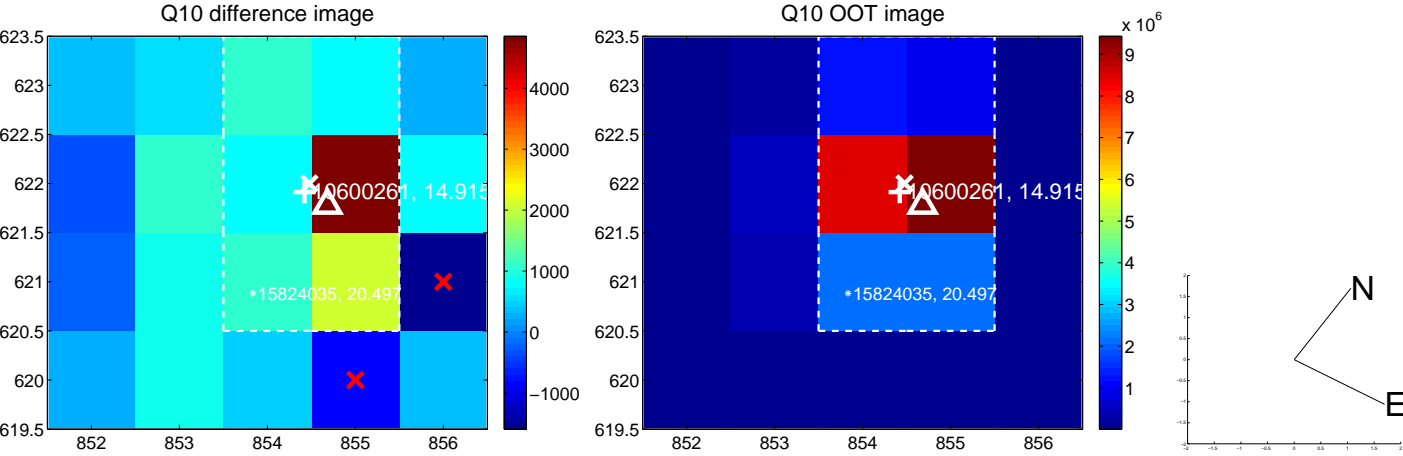
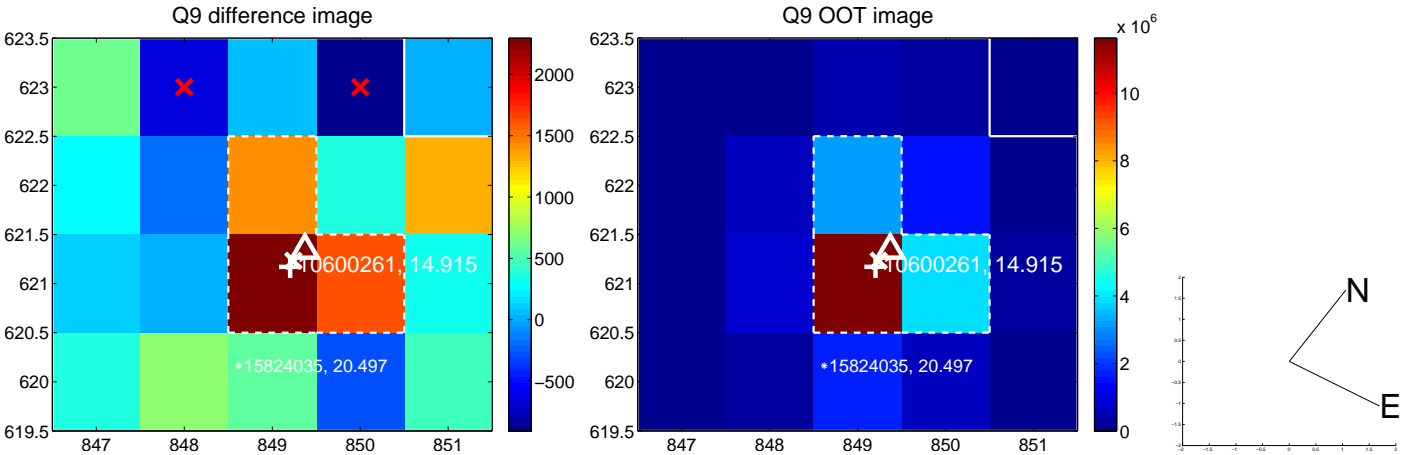


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

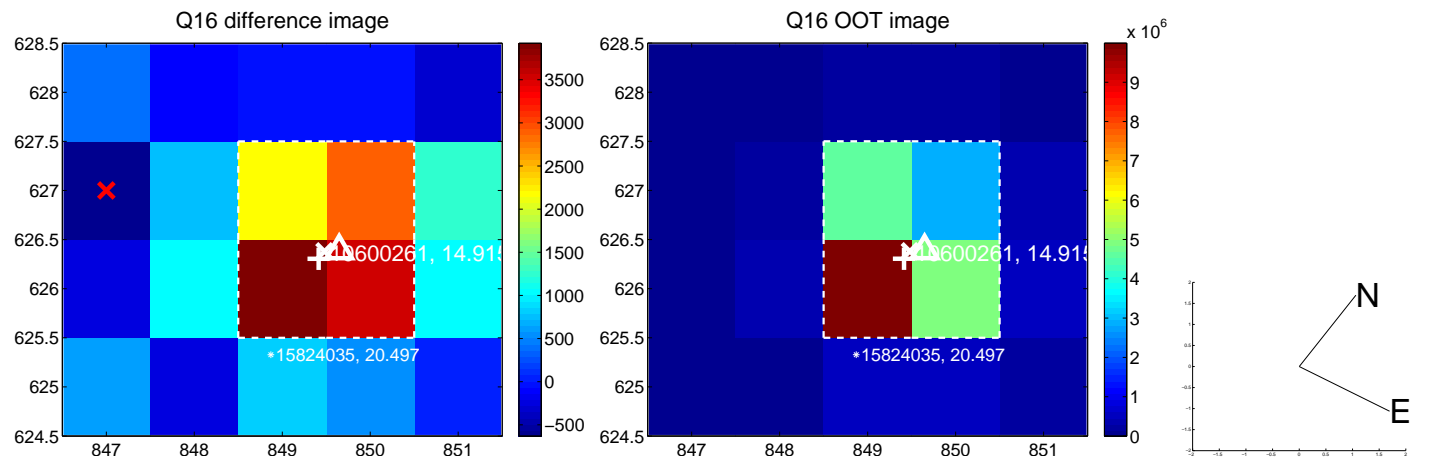
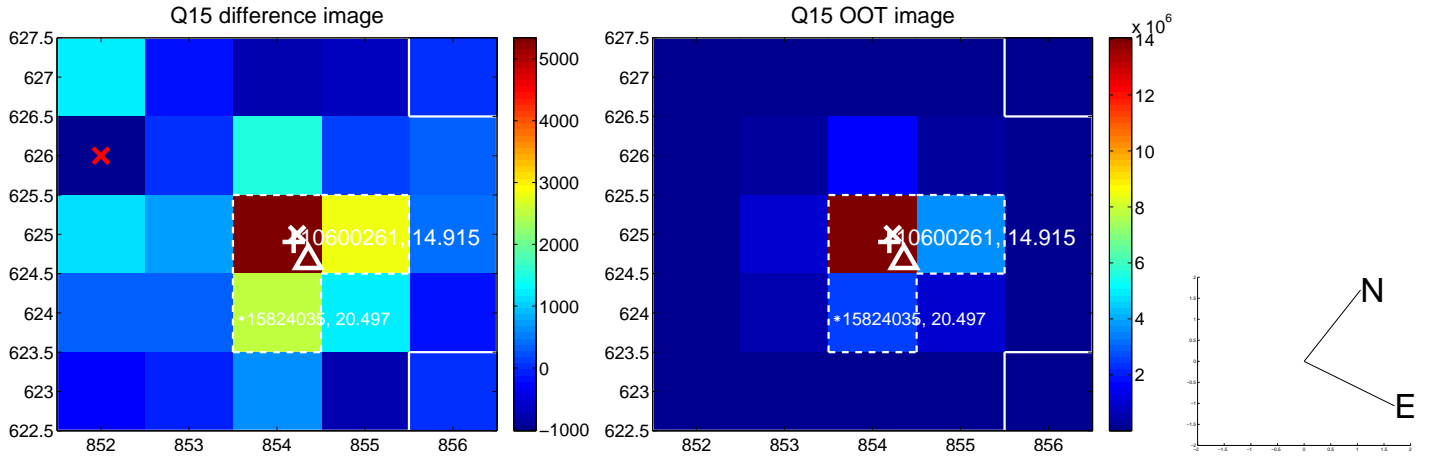
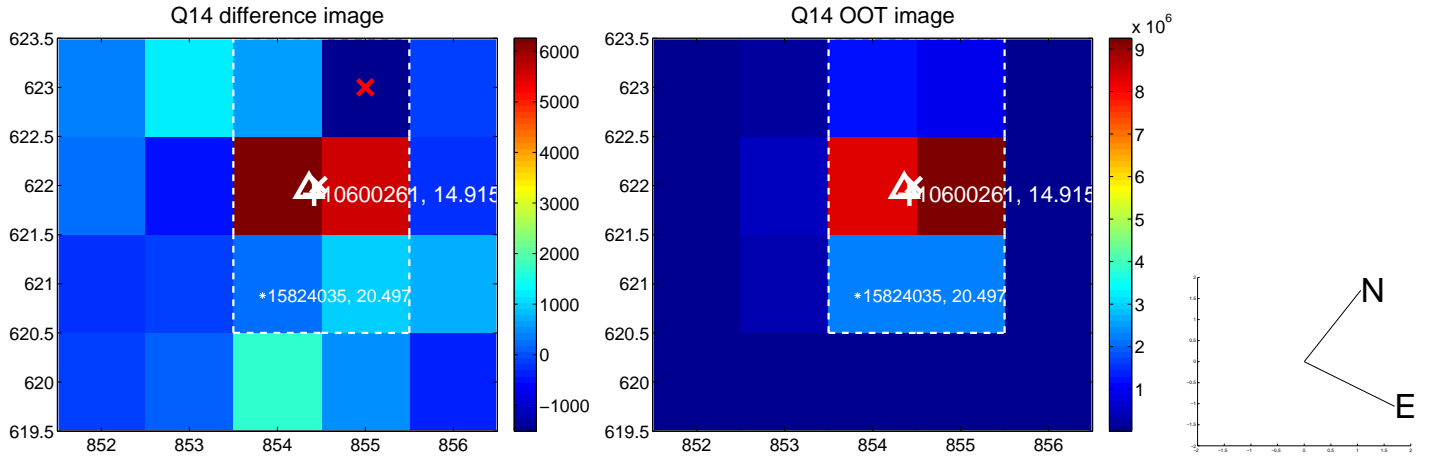
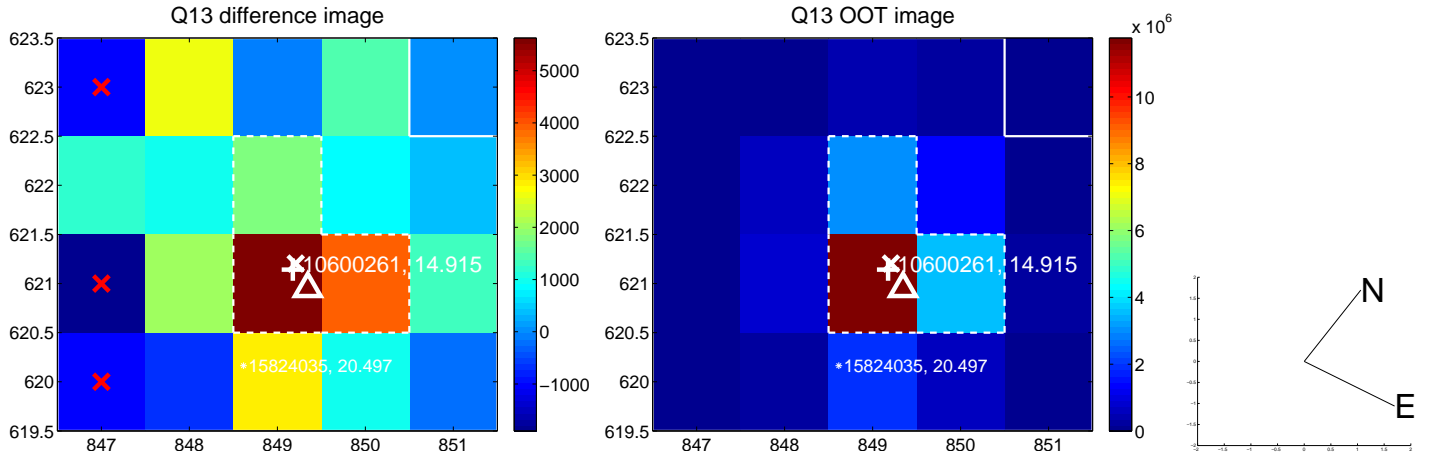
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



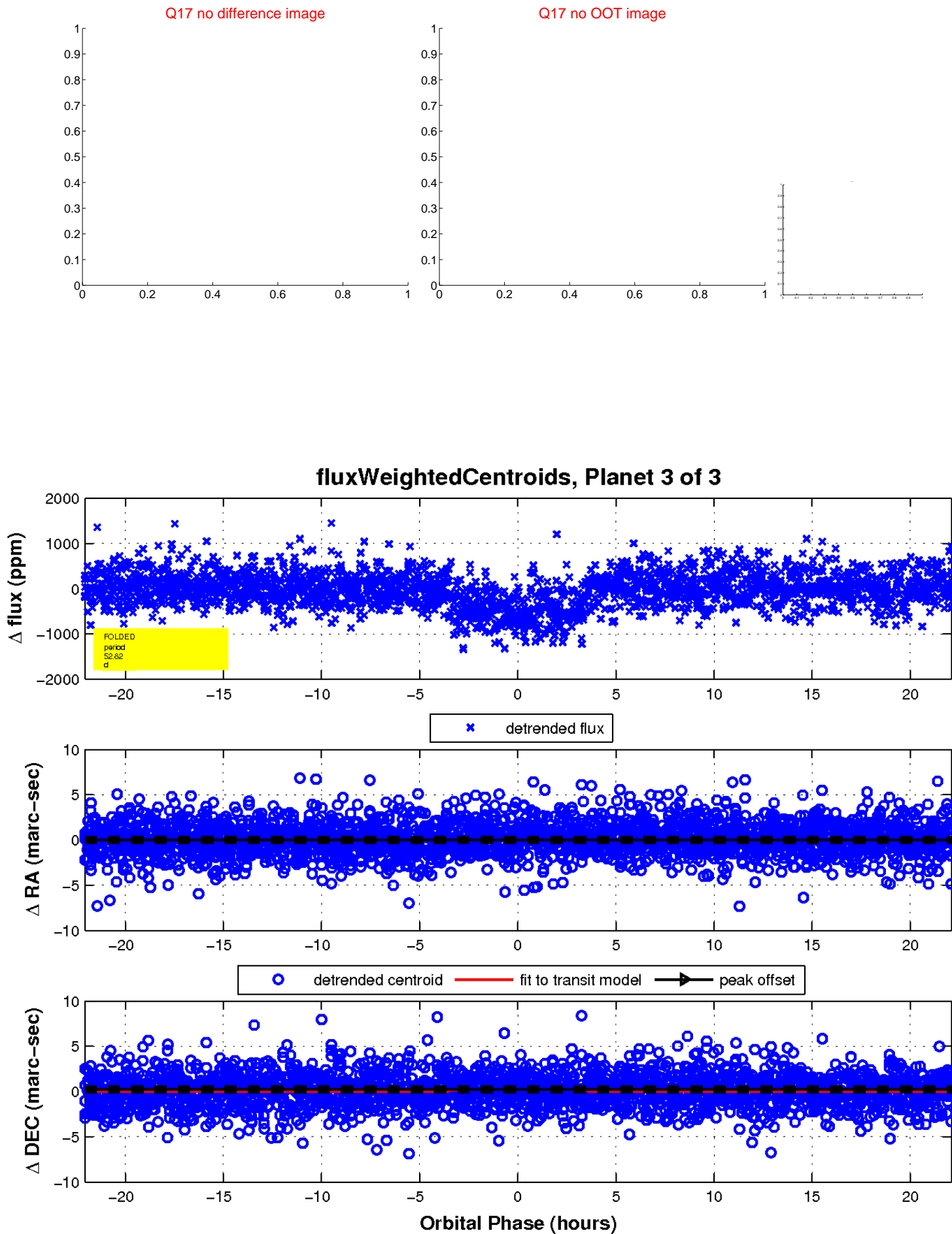
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

