

KIC 006211547

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006211547-01 | OBS | No | 4.870897 | 133.132450 | 2.9 | 1.245 | 10.6 | 0.4 | 1.82 | 6483 | 0.36 | 1419.87 |
| 006211547-02 | OBS | No | 4.870933 | 133.000628 | 42.9 | 10.977 | 10.4 | 6.7 | 1.82 | 6483 | 1.37 | 1419.86 |
| 006211547-03 | OBS | No | 4.871089 | 134.281408 | 59.4 | 12.687 | 11.3 | 12.4 | 1.82 | 6483 | 1.66 | 1419.80 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006211547-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |
| 006211547-02 | OBS | FP | 0.00 | 1 | 0 | 1 | 0 | INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—HALO_GHOST |
| 006211547-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—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.

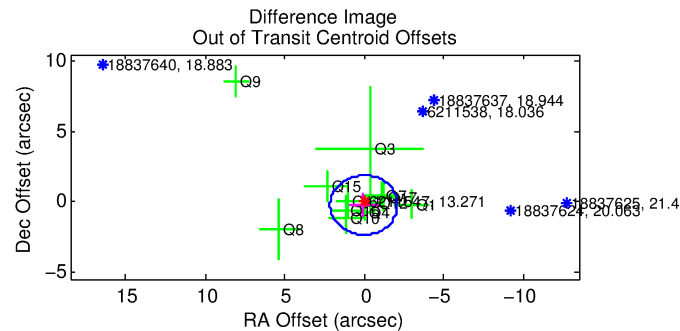
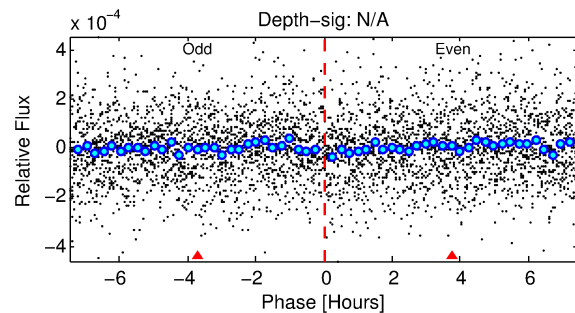
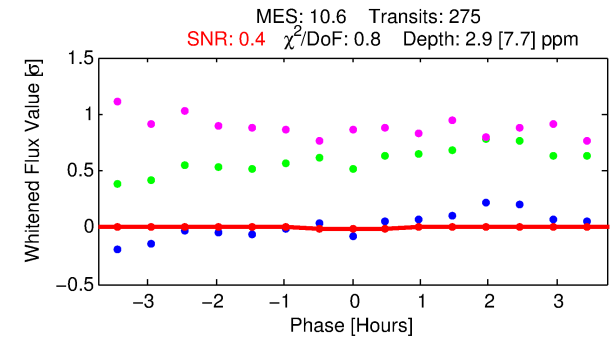
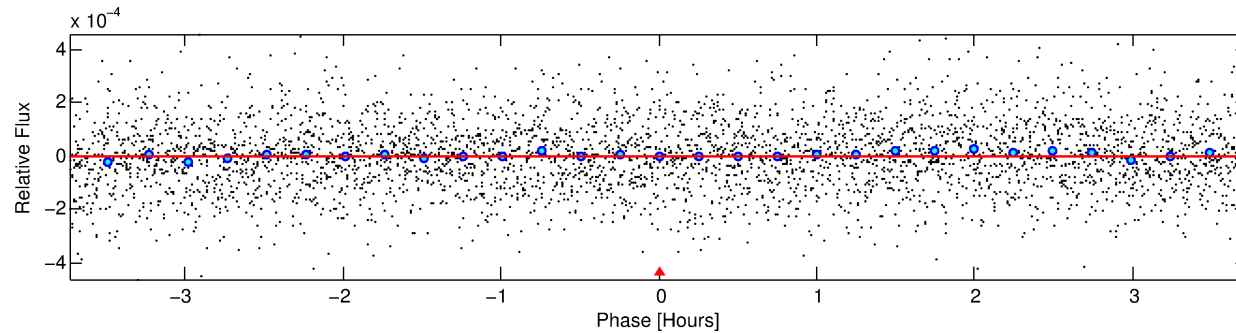
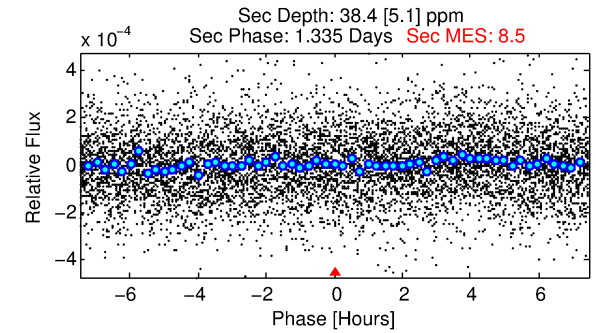
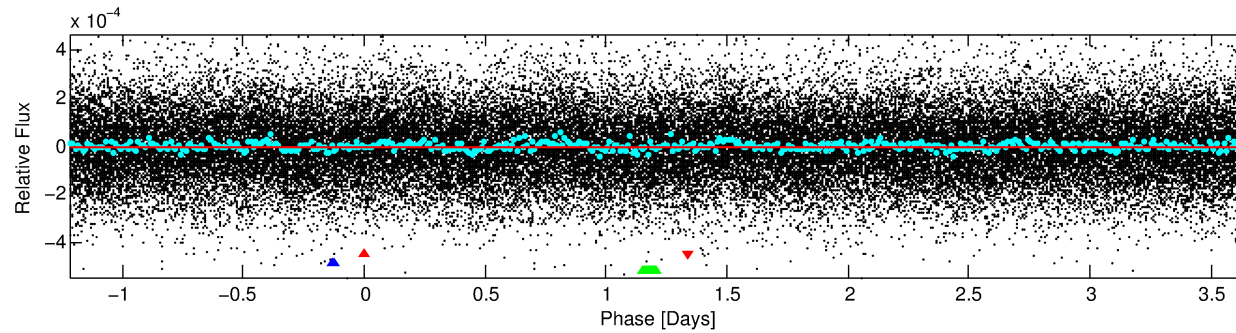
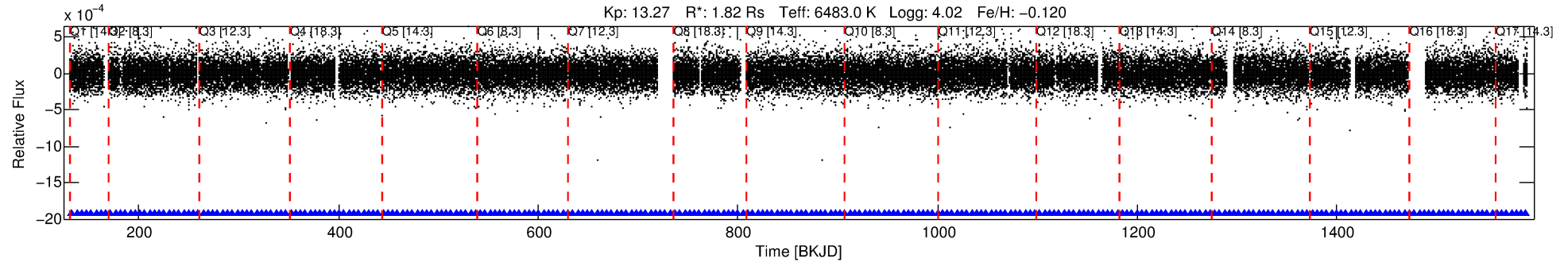
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006211547-01

No Significant Match Found

DV One-Page Summary

KIC: 6211547 Candidate: 1 of 3 Period: 4.871 d



DV Fit Results:

Period = 4.87090 [0.00046] d
Epoch = 133.1324 [0.0613] BKJD
Rp/R* = 0.0018 [0.0034]
a/R* = 13.19 [96.61]
b = 0.90 [1.57]
Seff = 1419.87 [598.00]
Teff = 1565 [165] K
Rp = 0.36 [0.68] Re
a = 0.0607 [0.0156] AU
Ag = 594.39 [2231.89] [0.27σ]
Teffp = 11949 [11158] K [0.93σ]

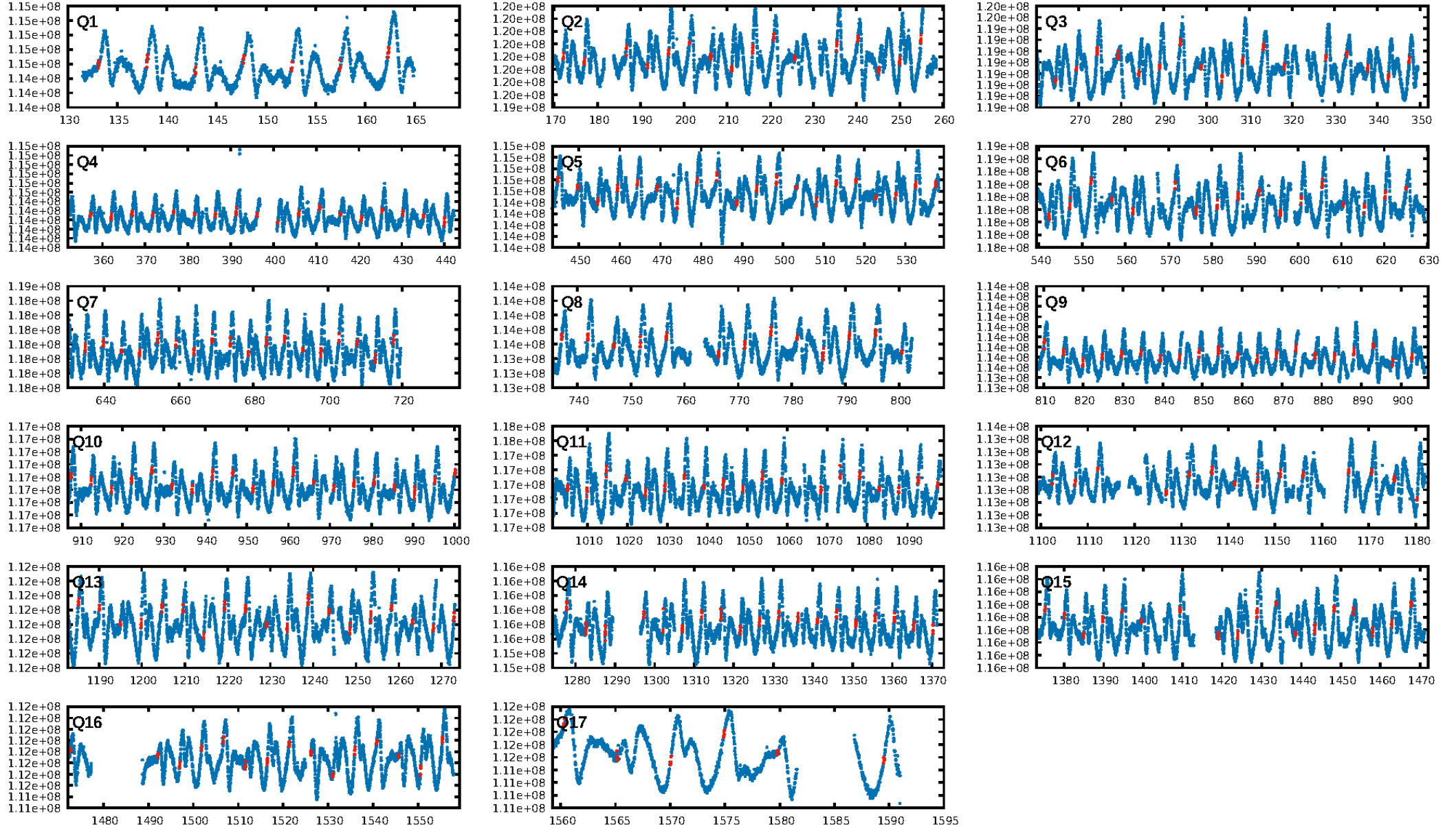
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.31e-17
RollingBand-fgt: 1.00 [262/262]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.239 arcsec [0.34σ]
KicOffset-rm: 0.361 arcsec [0.47σ]
OotOffset-st: 1/4/4/3 [12]
KicOffset-st: 1/4/4/3 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 0.00 [0/17]

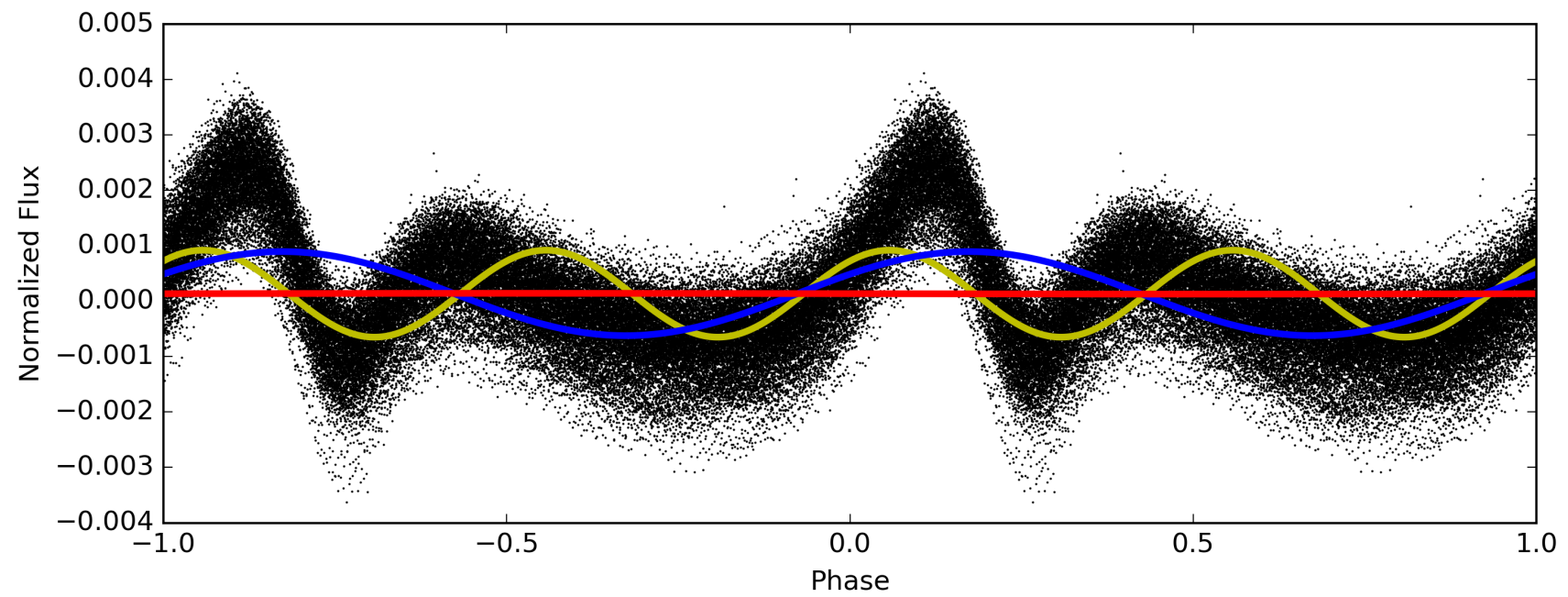
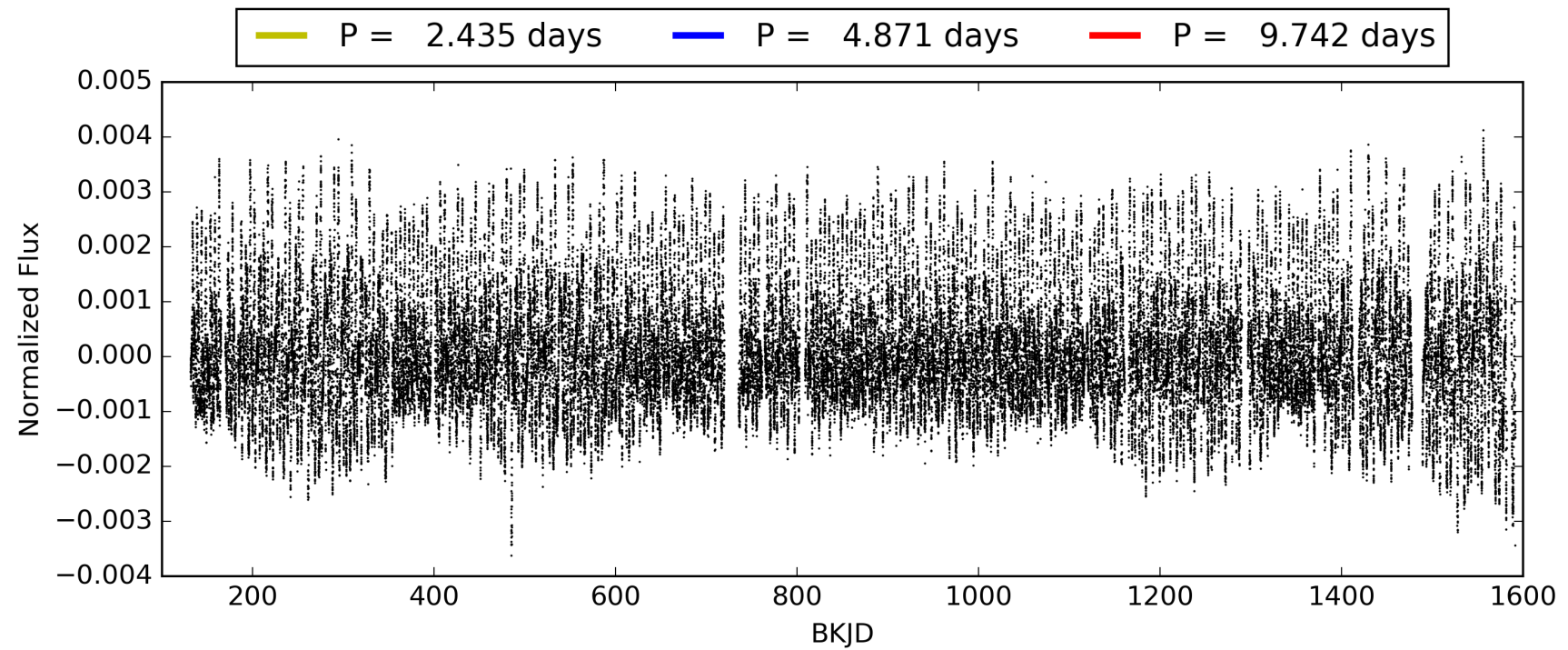
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:14:49 Z

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

TCE 006211547-01, PDC Light Curves

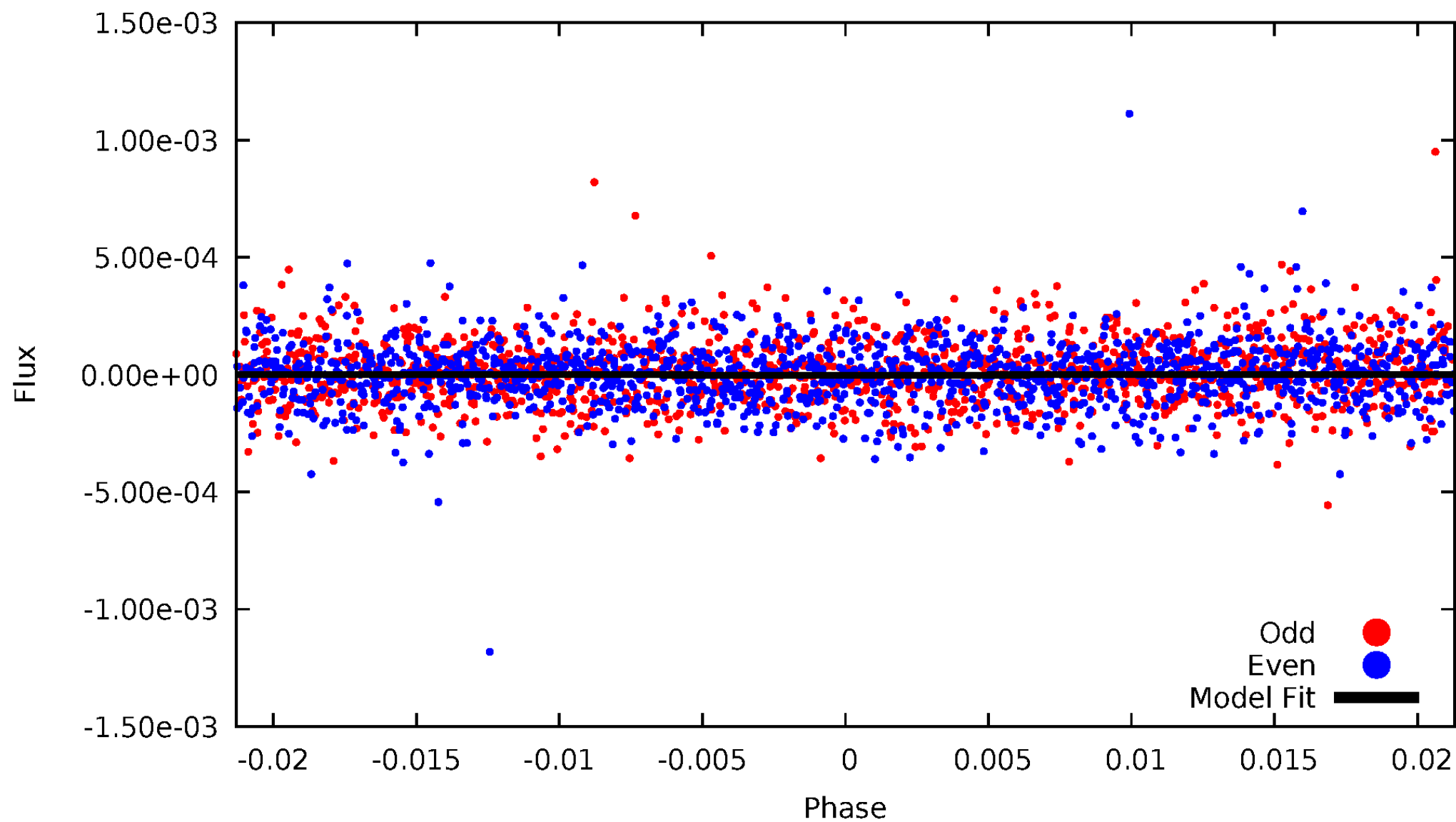


TCE 006211547-01



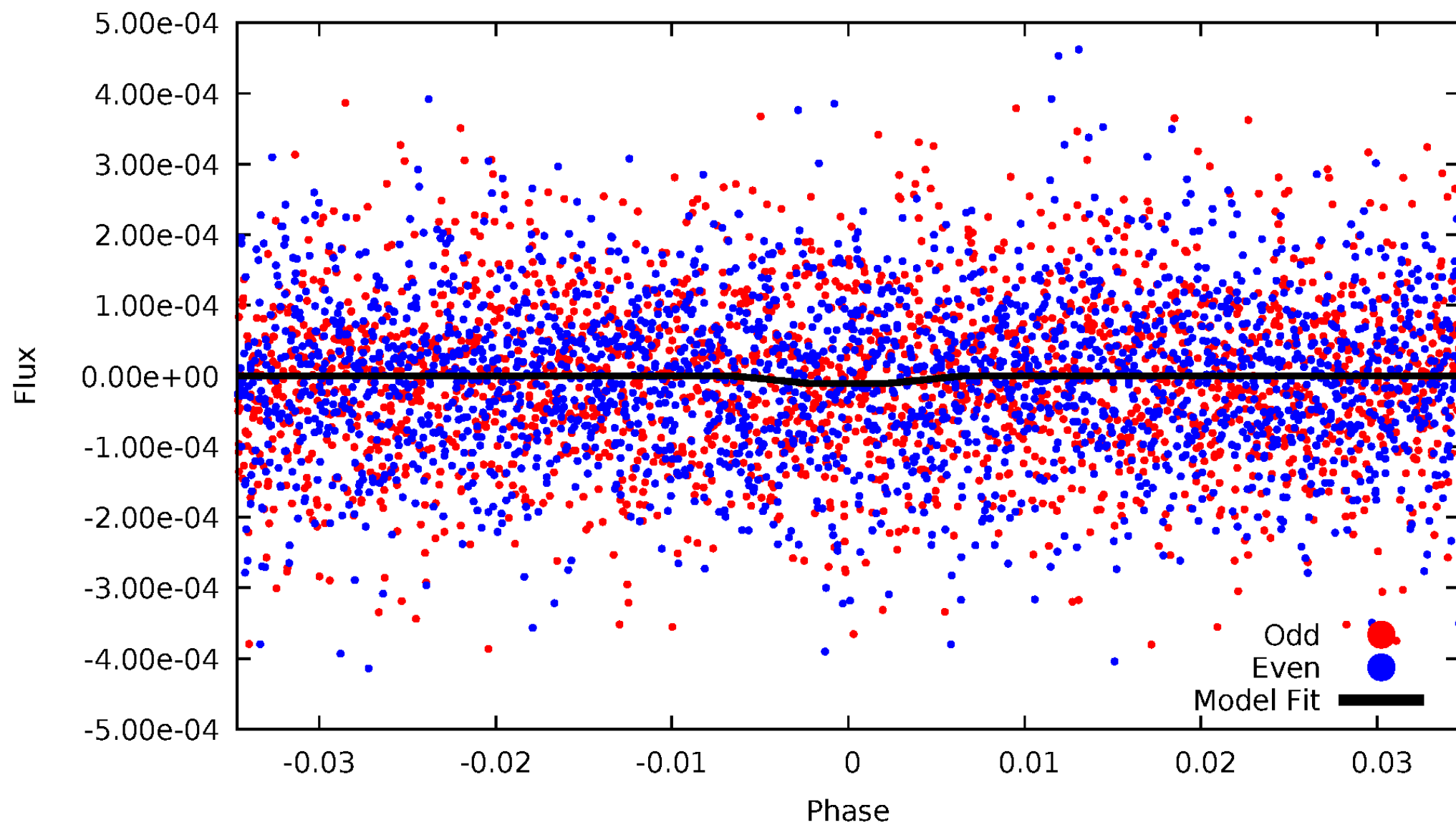
DV Odd/Even

TCE 006211547-01



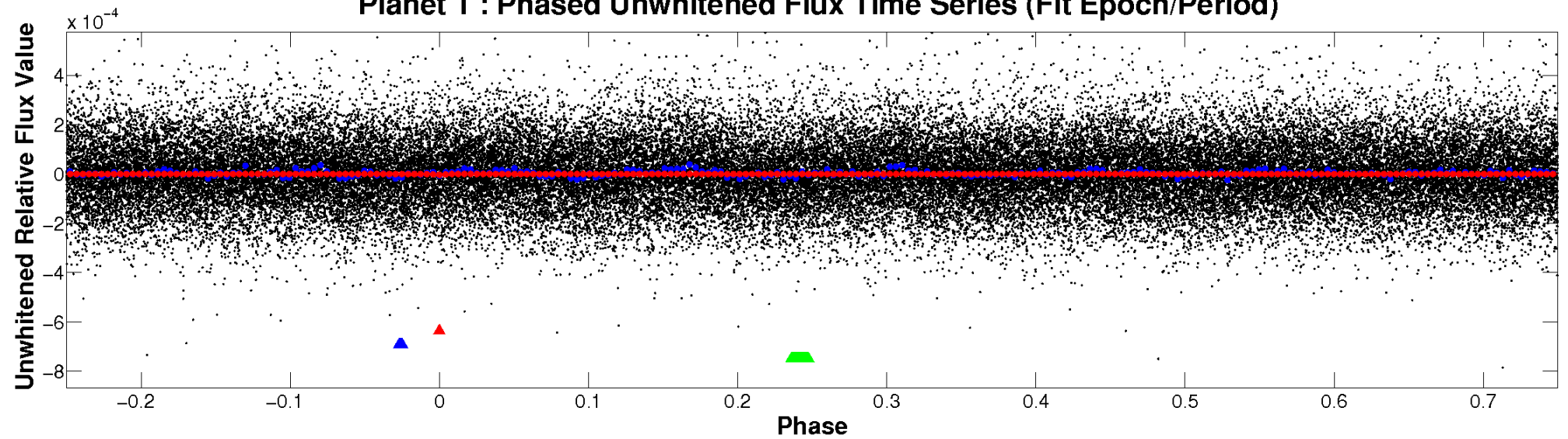
ALT Odd/Even

TCE 006211547-01

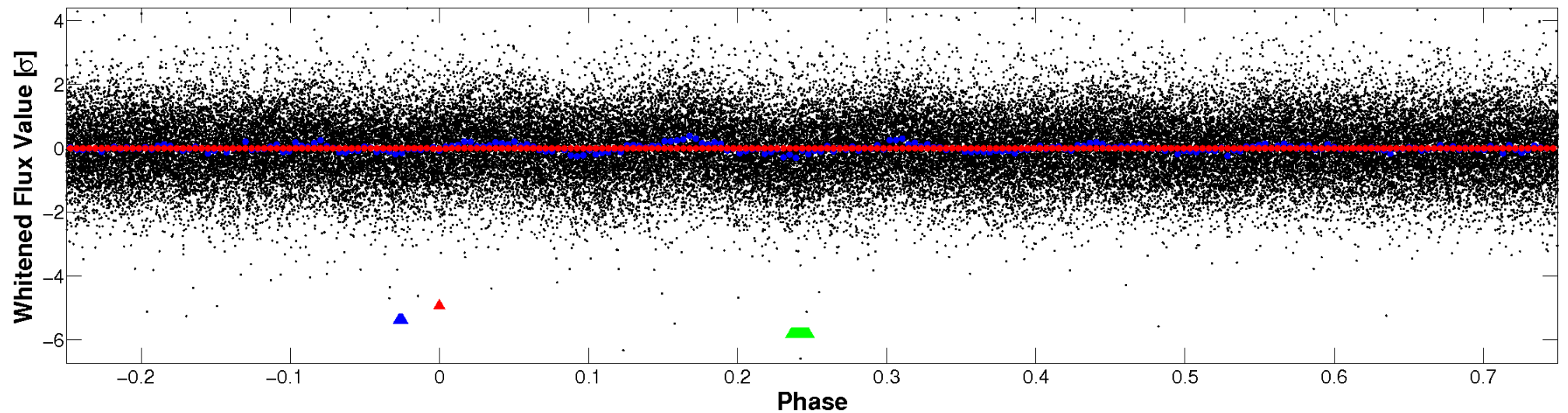


Non-Whitened Vs. Whitened Light Curve

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

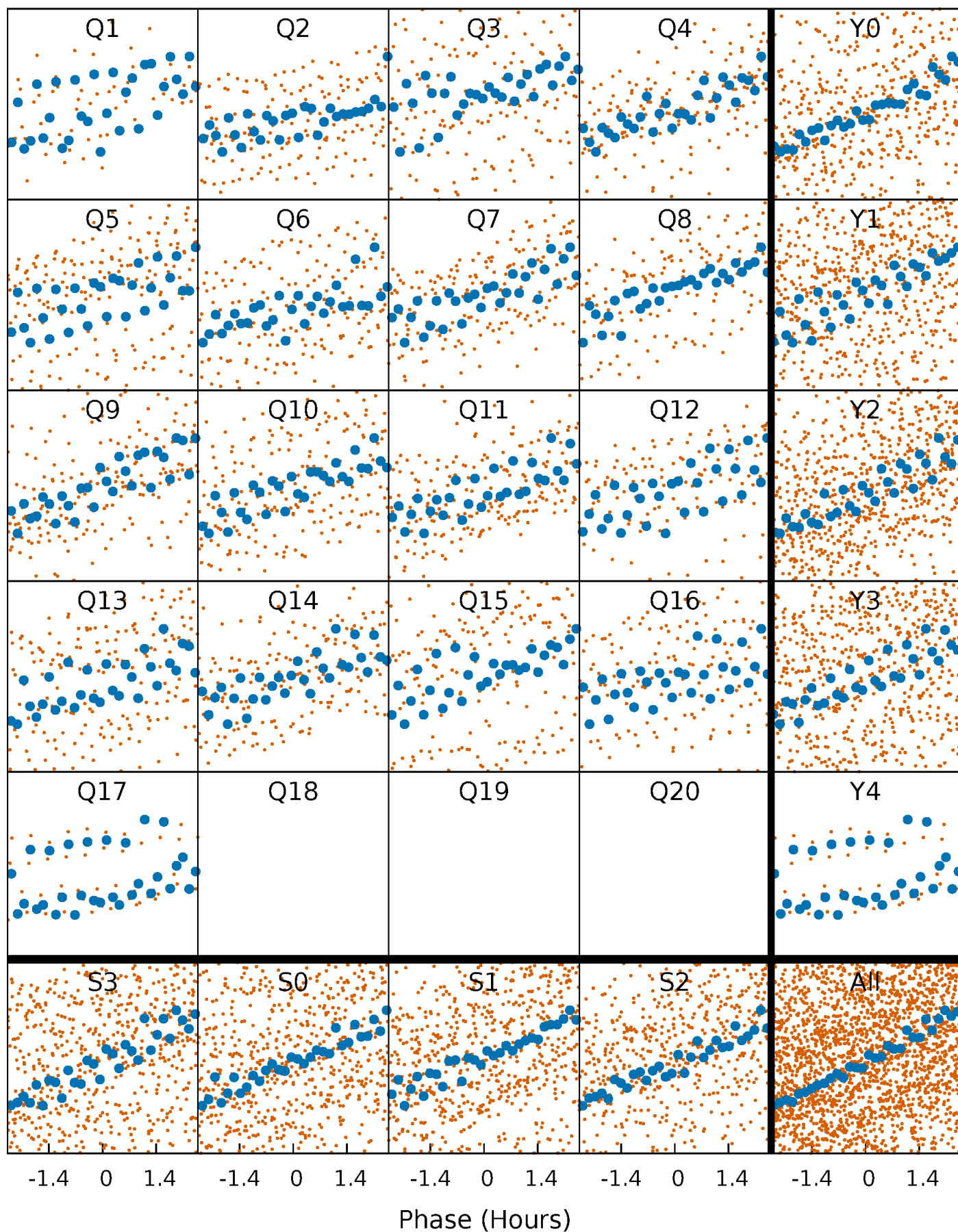


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



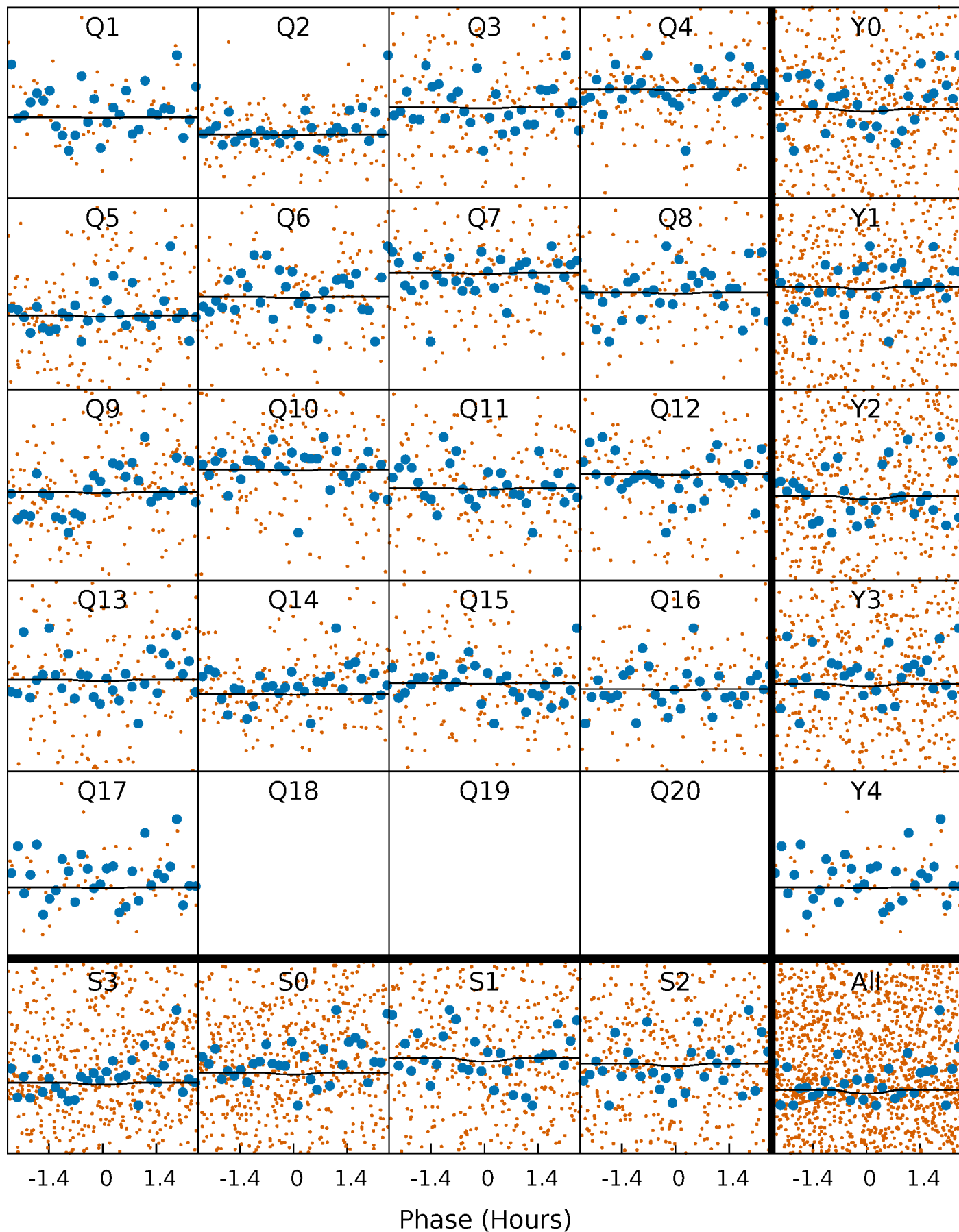
PDC Quarter-Phased Transit Curves

TCE 006211547-01 P= 4.870897 Days $T_0=133.132450$ (BKJD)



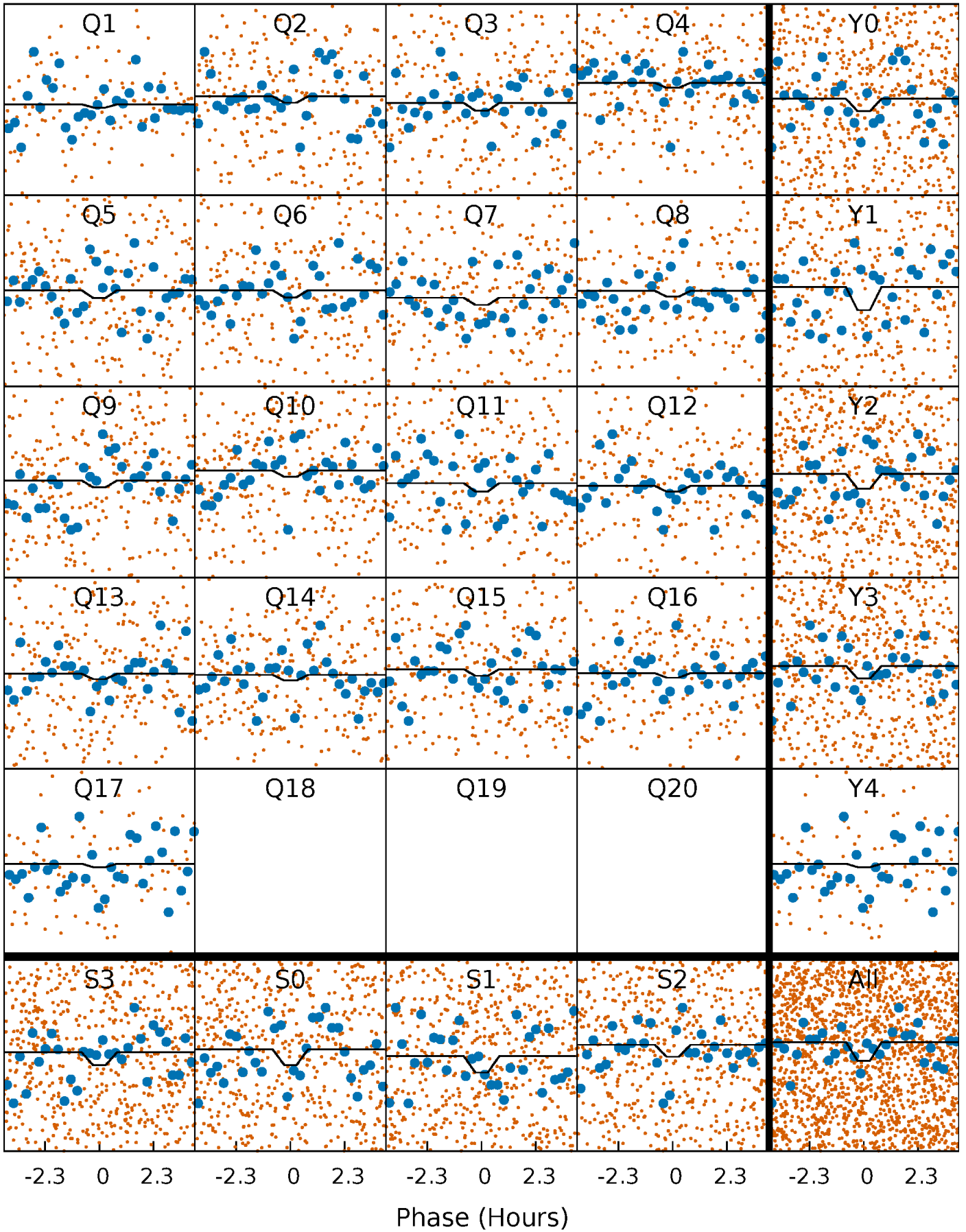
DV Quarter-Phased Transit Curves

TCE 006211547-01 P= 4.870897 Days $T_0=133.132450$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

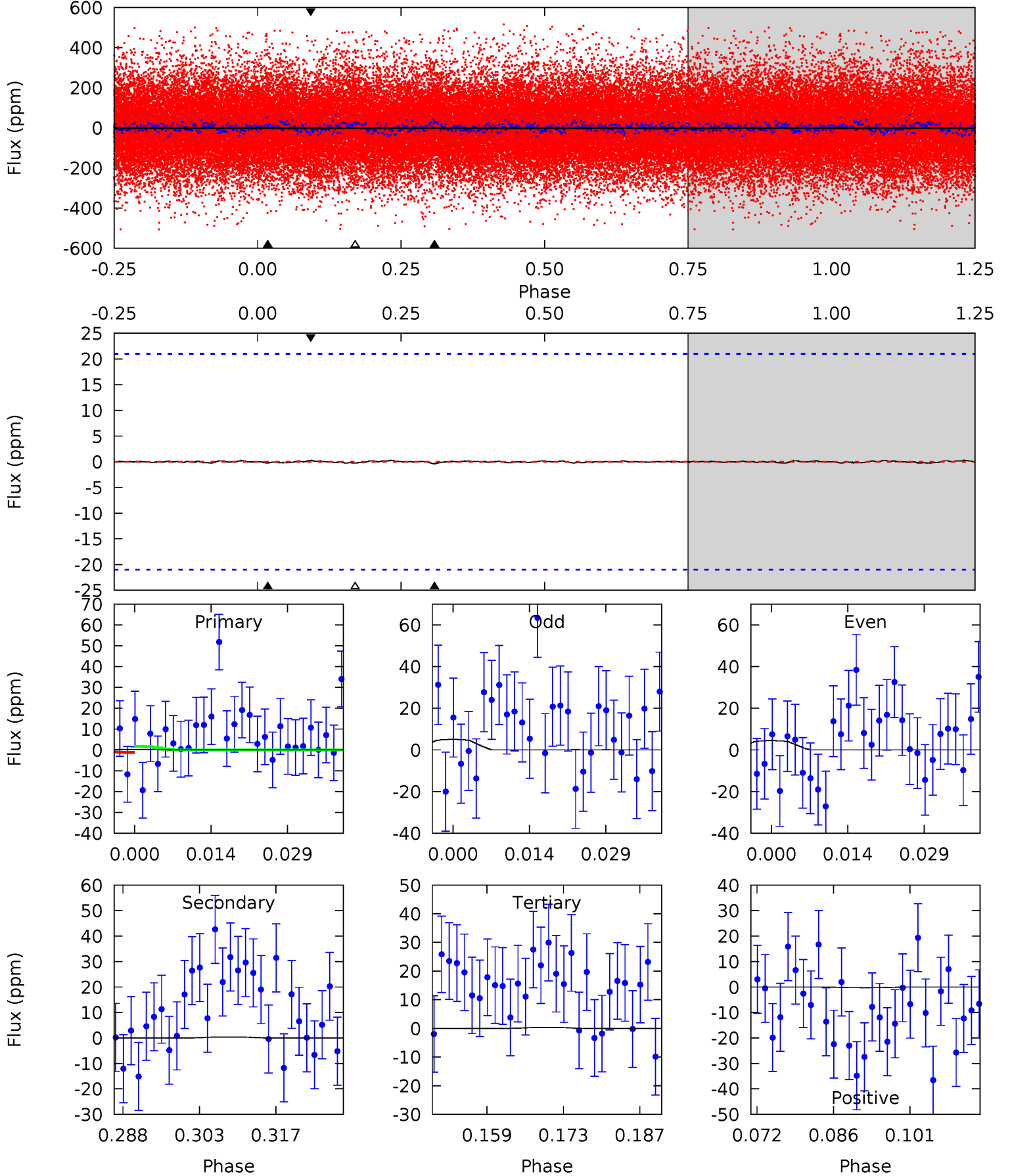
TCE 006211547-01 P= 4.870886 Days $T_0=133.145811$ (BKJD)



DV Model-Shift Uniqueness Test

006211547-01, P = 4.870897 Days, E = 128.261553 Days

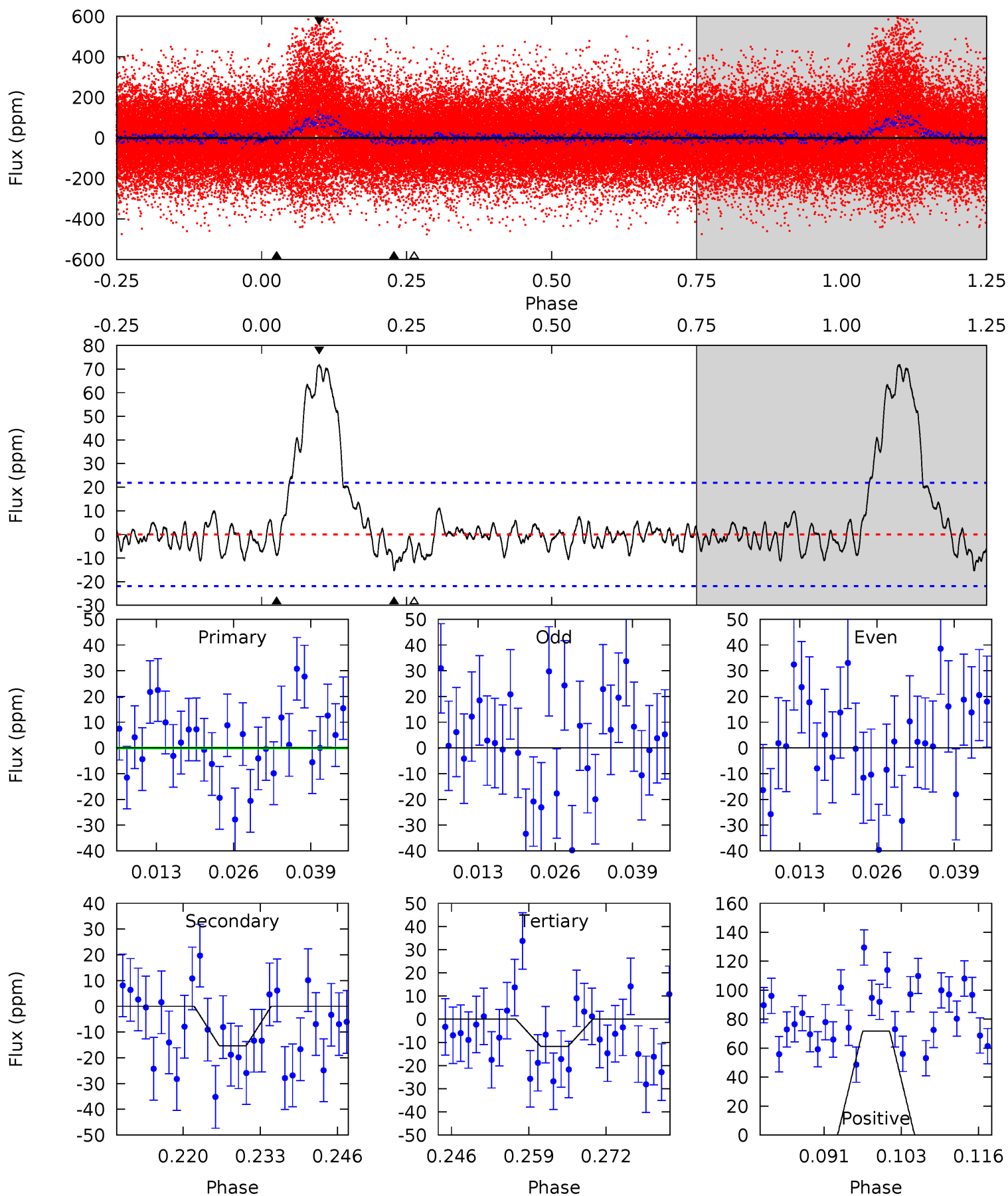
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 0.06 | 0.09 | 0.07 | 0.06 | 4.96 | 2.45 | 0.02 | -0.01 | -0.00 | 0.02 | 0.02 | 0.07 | 0.00 | 0.42 | 0.06 |



Alt Model-Shift Uniqueness Test

006211547-01, P = 4.870886 Days, E = 128.274925 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 1.98 | 3.49 | 2.68 | 16.3 | 4.98 | 2.49 | 3.86 | -0.69 | -14.3 | 0.81 | -12.8 | 0.09 | 3.13 | 0.82 | 1.41 |



Stellar Parameters For KIC 006211547

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6483^{+162}_{-194} | $4.018^{+0.234}_{-0.126}$ | $-0.120^{+0.250}_{-0.250}$ | $1.818^{+0.411}_{-0.503}$ | $1.258^{+0.201}_{-0.181}$ | $0.295^{+0.405}_{-0.108}$ |
| | +2%/-3% | +6%/-3% | +208%/-208% | +23%/-28% | +16%/-14% | +137%/-37% |
| Source | PHO1 | FLK73 | 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 006211547-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|------------------------|-----------------------------|
| DV | -0 ± 4 | $0.62^{+0.51}_{-0.40}$ | 2160^{+140}_{-160} | 2909^{+3169}_{-8504} | $1.086^{+40.515}_{-29.888}$ |
| Alt. | -15 ± 4 | $0.72^{+0.66}_{-0.47}$ | 2172^{+133}_{-161} | 6604^{+6979}_{-1779} | 57^{+442}_{-42} |

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

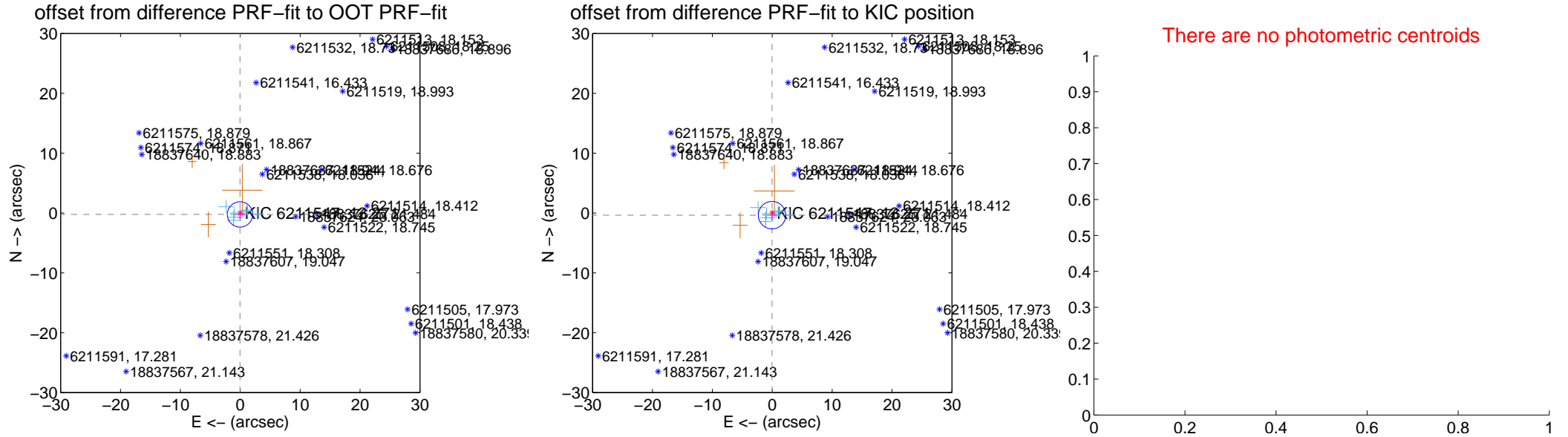
DV Centroid Data

Supplemental centroid analysis for 006211547-01. Kepler magnitude: 13.27. Transit SNR 0.41

There are 9 quarters with good PRF difference image offsets

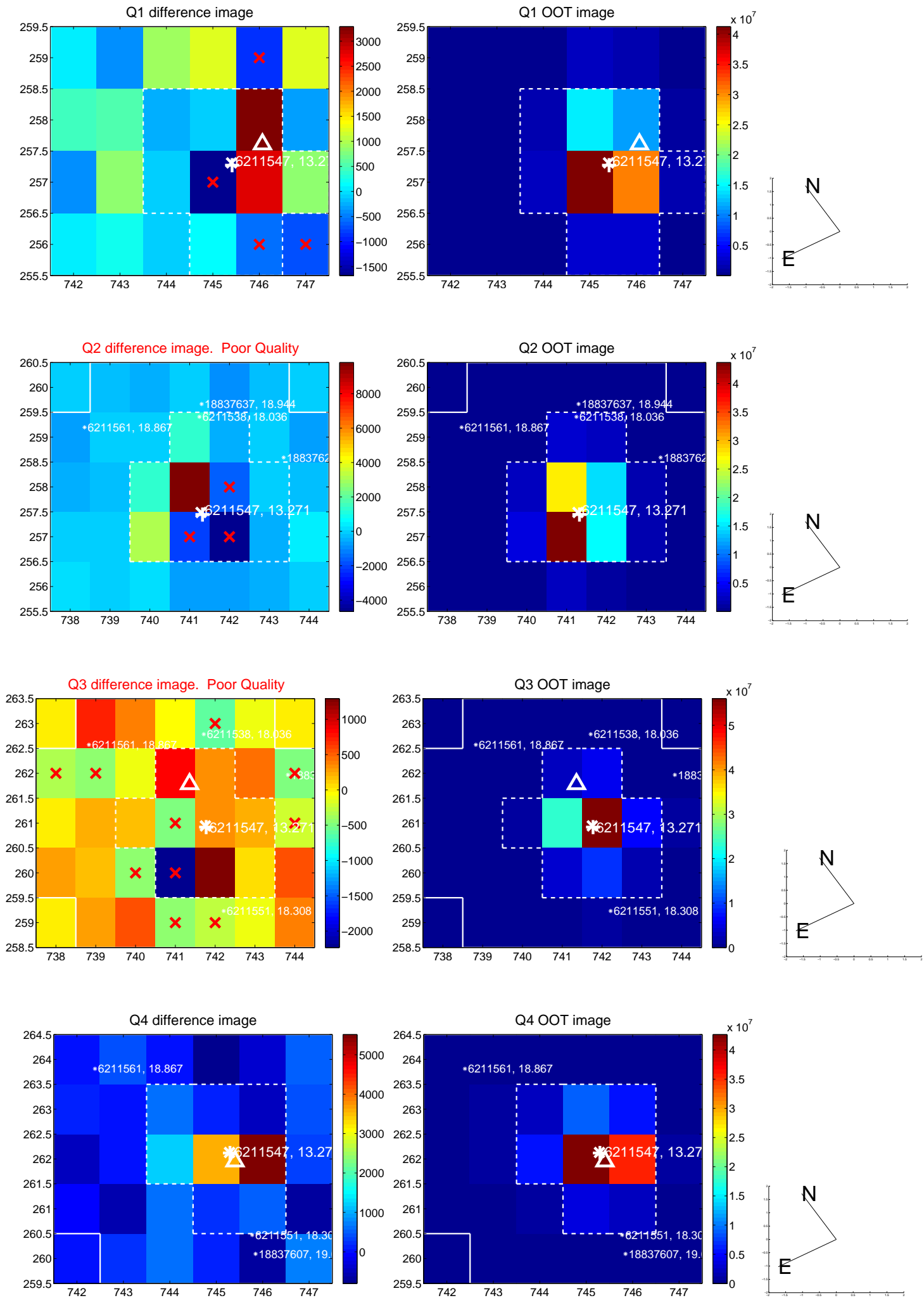
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 0.239 ± 0.705 | 0.34 | 0.045 ± 0.842 | -0.235 ± 0.785 |
| PRF-fit source offset from KIC position | 0.361 ± 0.763 | 0.47 | 0.035 ± 0.731 | -0.359 ± 0.799 |
| photometric centroid source offset | — | — | — | — |

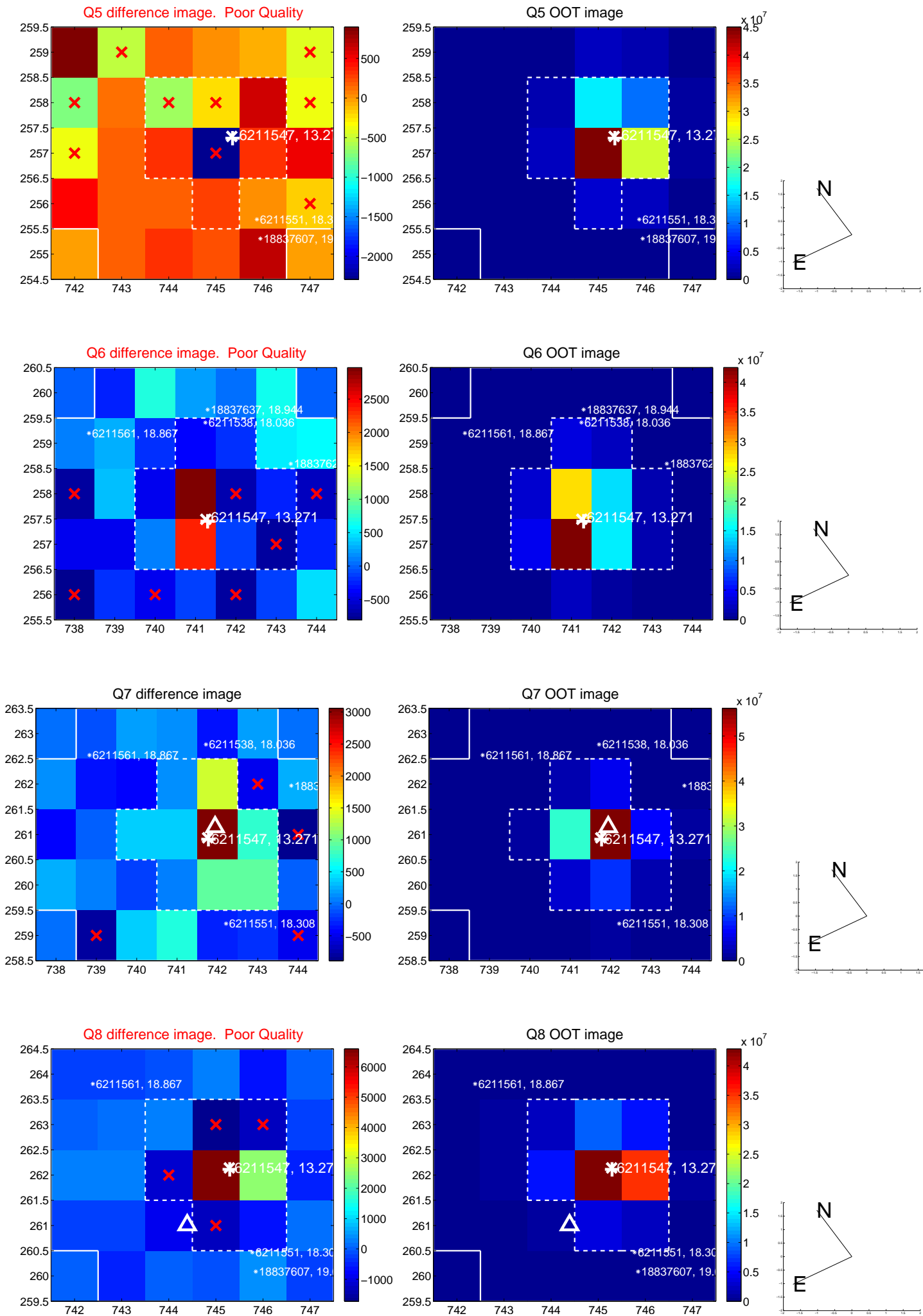


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

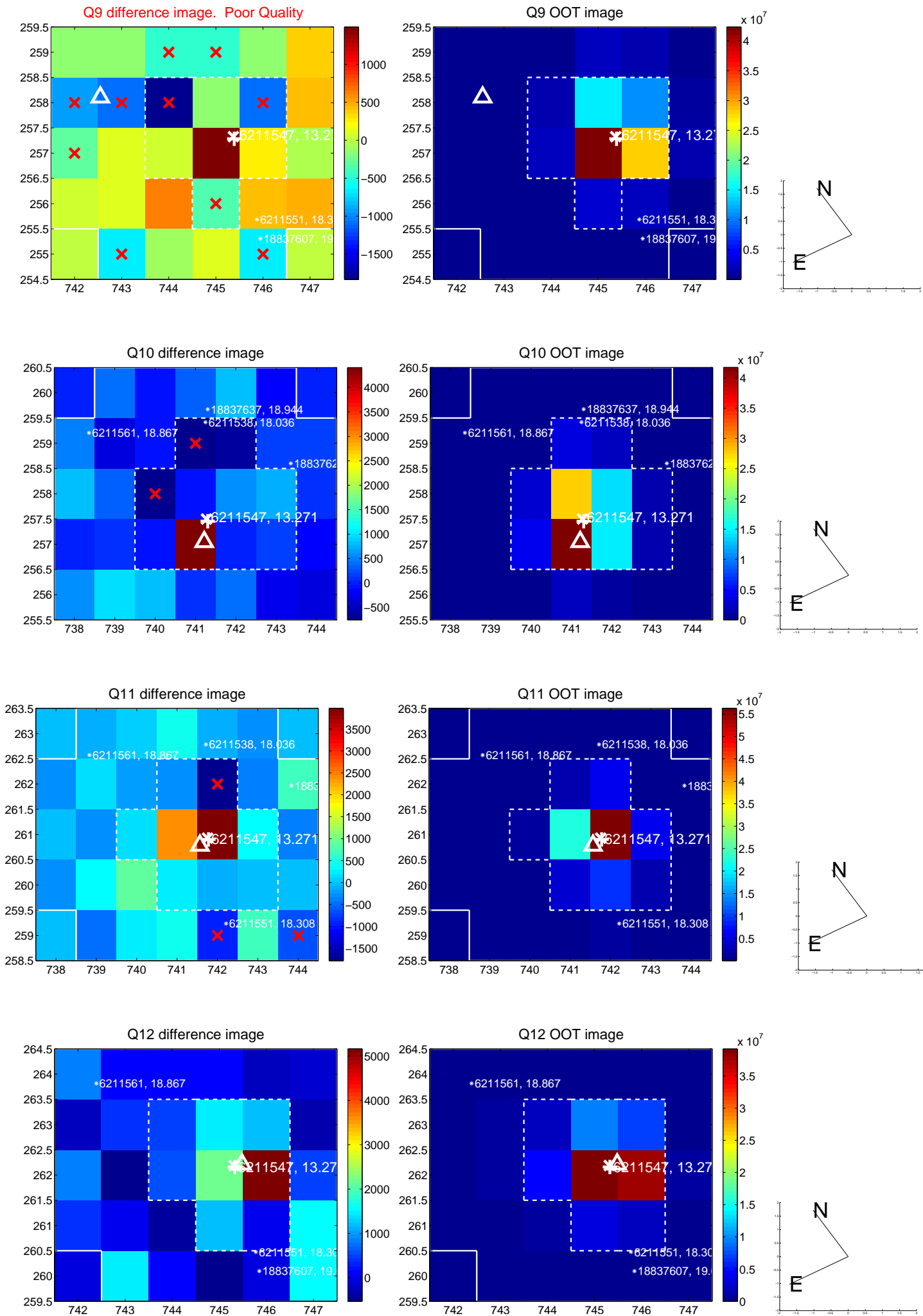
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



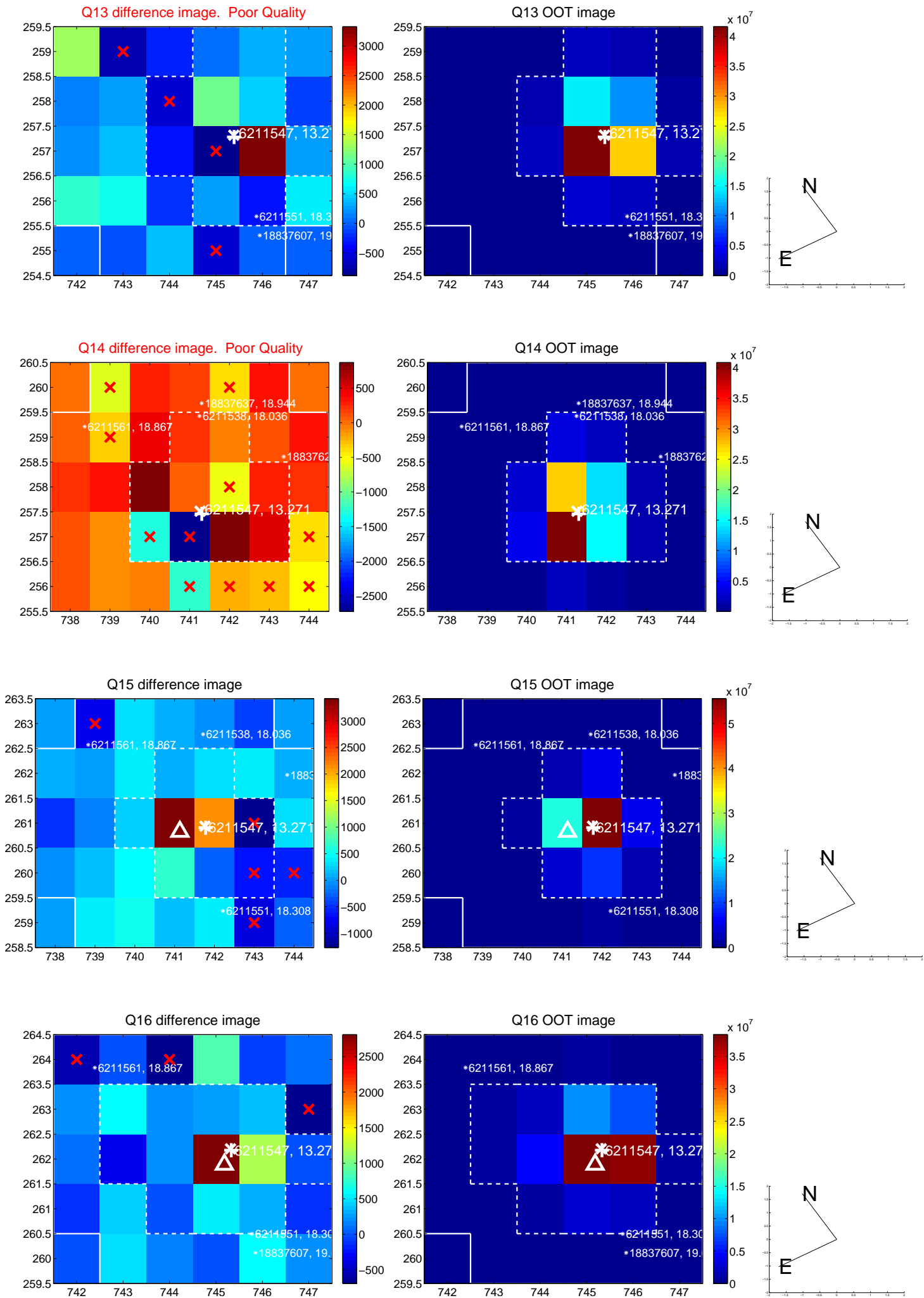
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



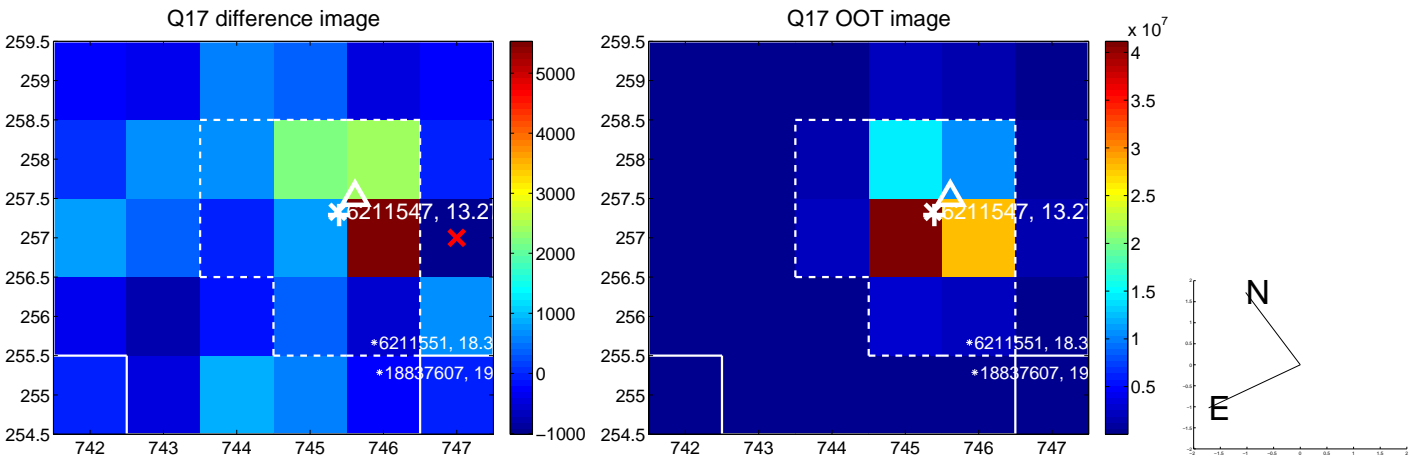
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



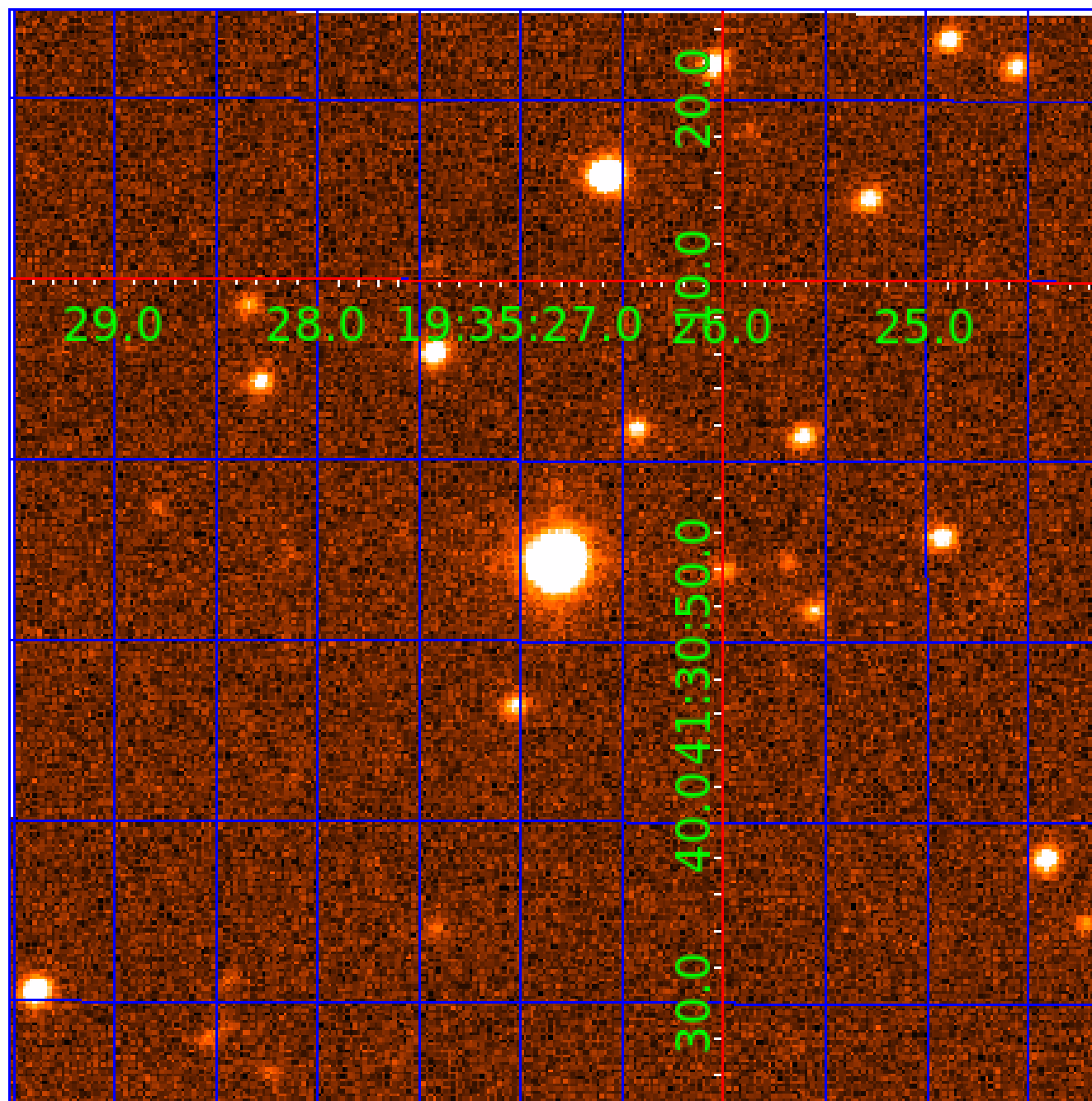
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 006211547

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006211547-01 | OBS | No | 4.870897 | 133.132450 | 2.9 | 1.245 | 10.6 | 0.4 | 1.82 | 6483 | 0.36 | 1419.87 |
| 006211547-02 | OBS | No | 4.870933 | 133.000628 | 42.9 | 10.977 | 10.4 | 6.7 | 1.82 | 6483 | 1.37 | 1419.86 |
| 006211547-03 | OBS | No | 4.871089 | 134.281408 | 59.4 | 12.687 | 11.3 | 12.4 | 1.82 | 6483 | 1.66 | 1419.80 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006211547-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |
| 006211547-02 | OBS | FP | 0.00 | 1 | 0 | 1 | 0 | INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—HALO_GHOST |
| 006211547-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—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.

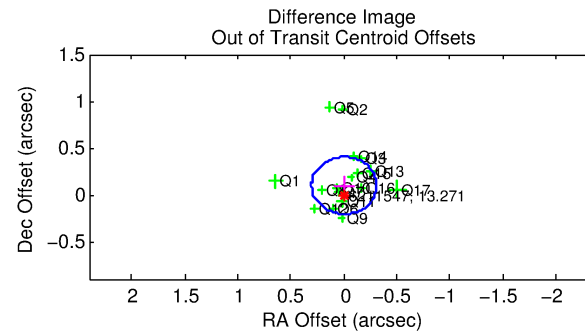
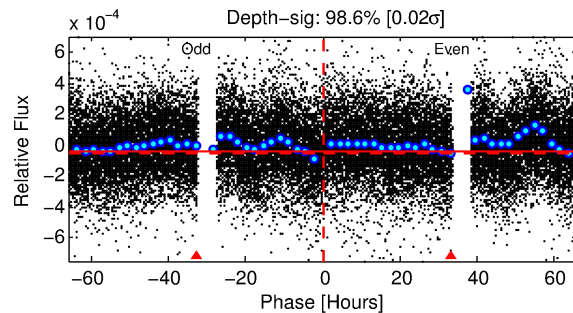
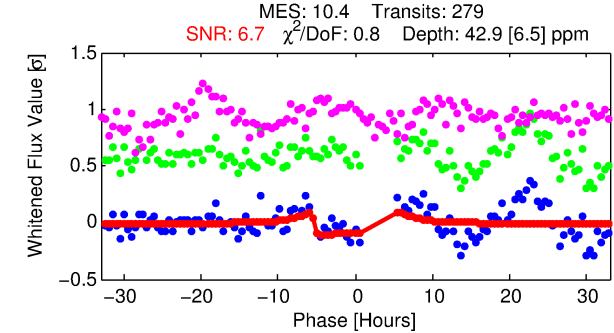
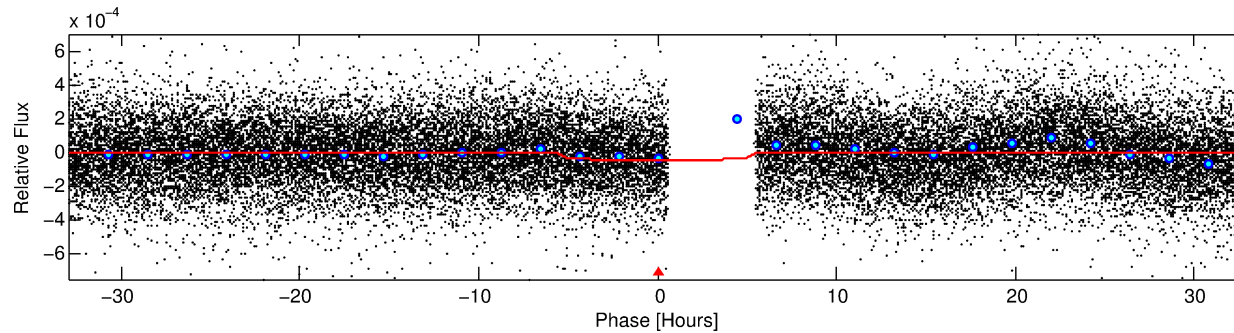
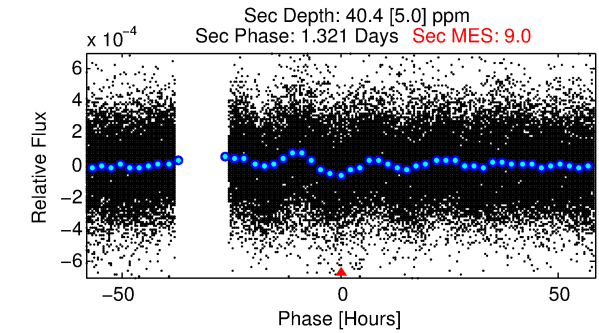
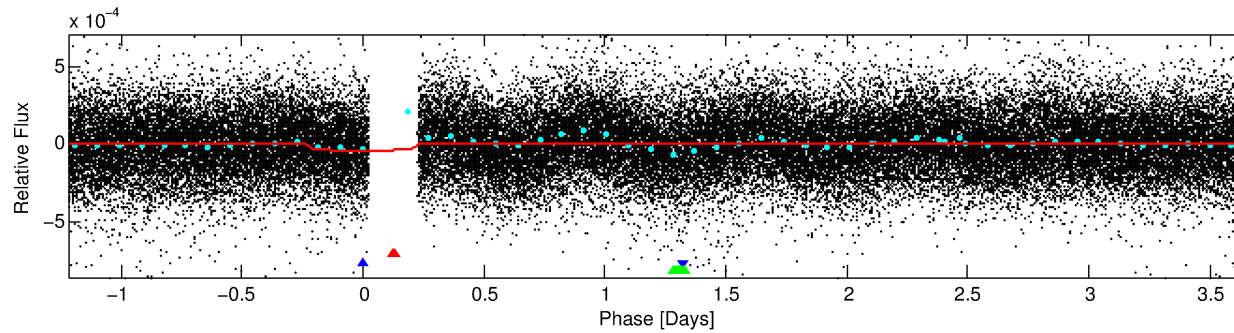
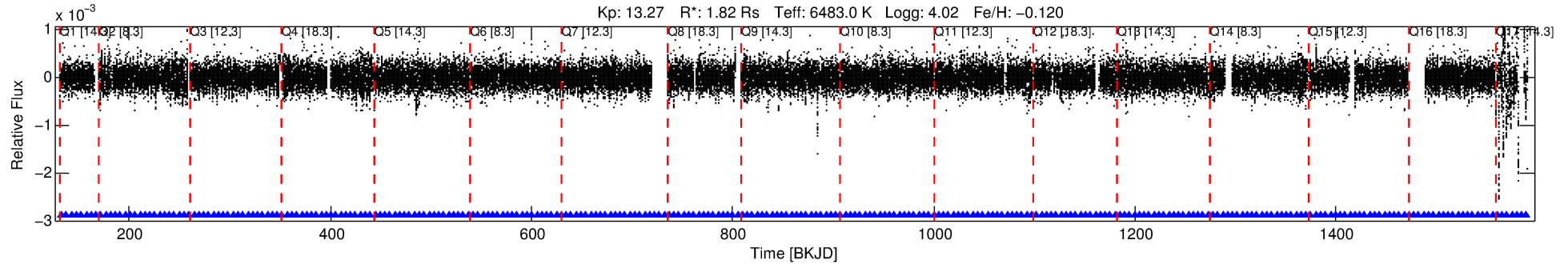
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006211547-02

No Significant Match Found

DV One-Page Summary

KIC: 6211547 Candidate: 2 of 3 Period: 4.871 d



DV Fit Results:

Period = 4.87093 [0.00005] d
Epoch = 133.0006 [0.0137] BKJD
Rp/R* = 0.0069 [0.0015]
a/R* = 1.92 [1.58]
b = 0.88 [0.31]
Seff = 1419.86 [597.99]
Teq = 1565 [165] K
Rp = 1.37 [0.49] Re
a = 0.0607 [0.0156] AU
Ag = 43.76 [26.81] [1.59σ]
Teffp = 6224 [741] K [6.14σ]

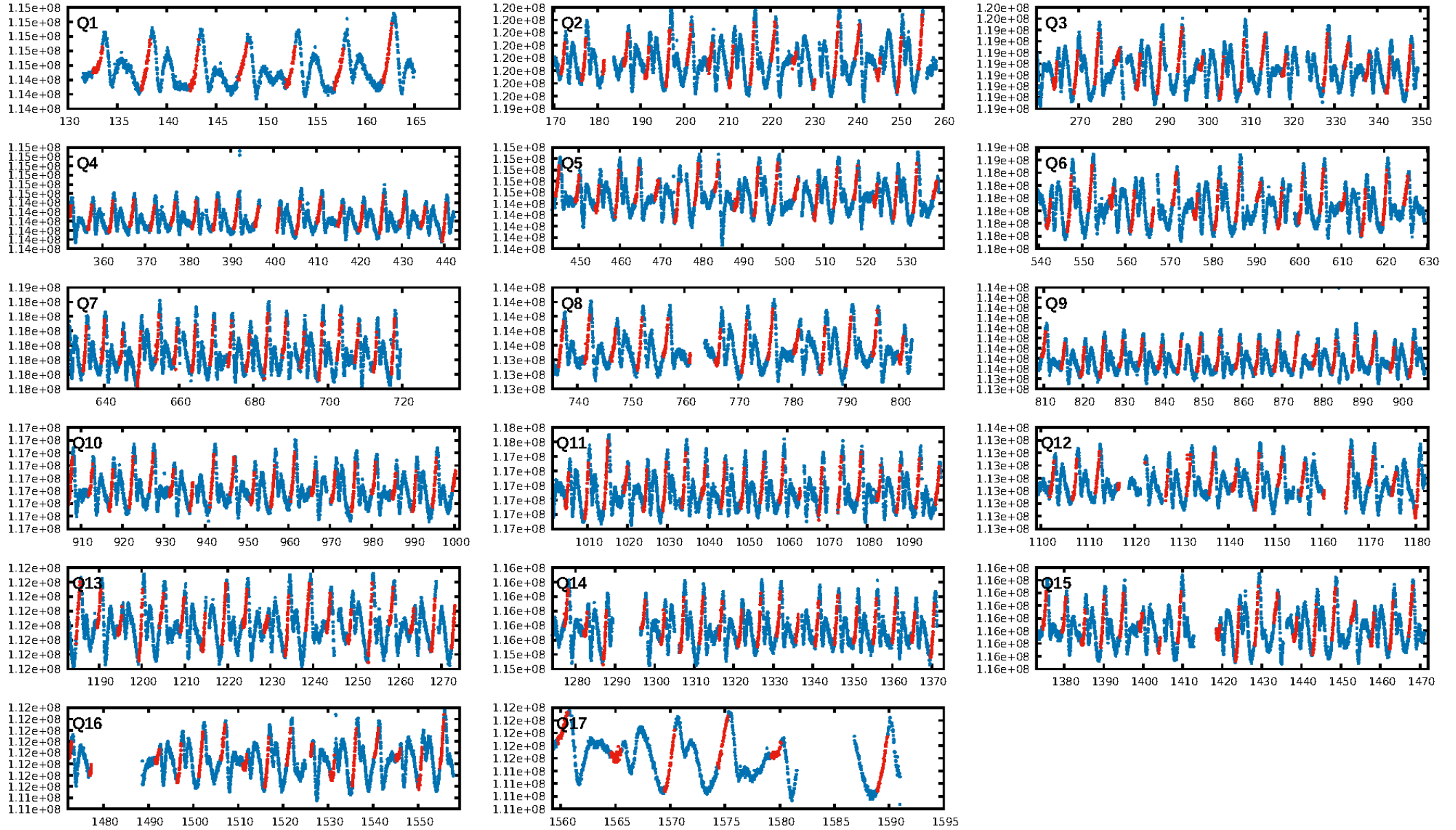
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.52e-16
RollingBand-fgt: 1.00 [266/266]
GhostDiagnostic-chr: -0.03274
Centroid-sig: 18.9%
Centroid-so: 0.772 arcsec [1.30σ]
OotOffset-rm: 0.098 arcsec [0.96σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.032 arcsec [0.31σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.00 [0/17]

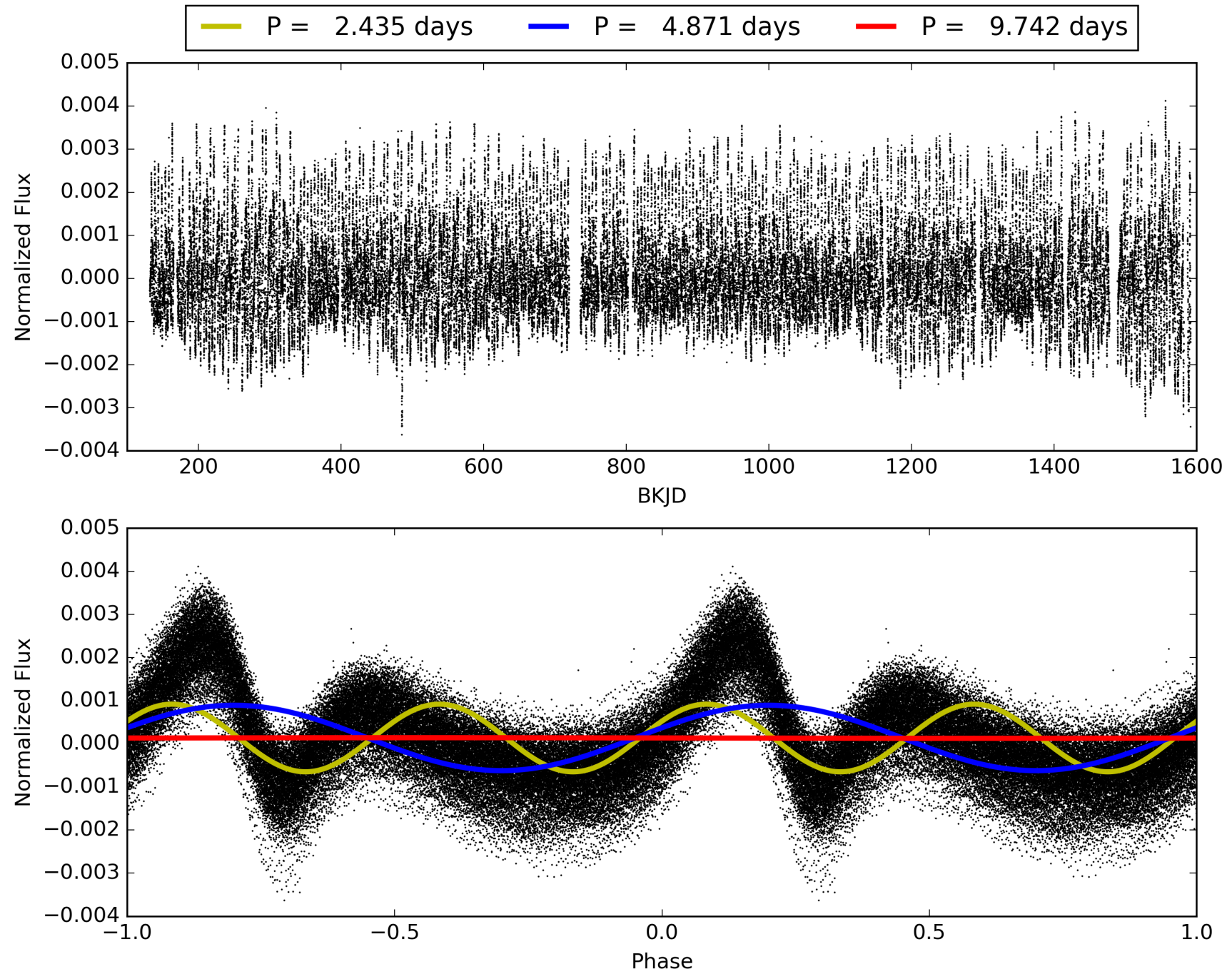
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:14:57 Z

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

TCE 006211547-02, PDC Light Curves

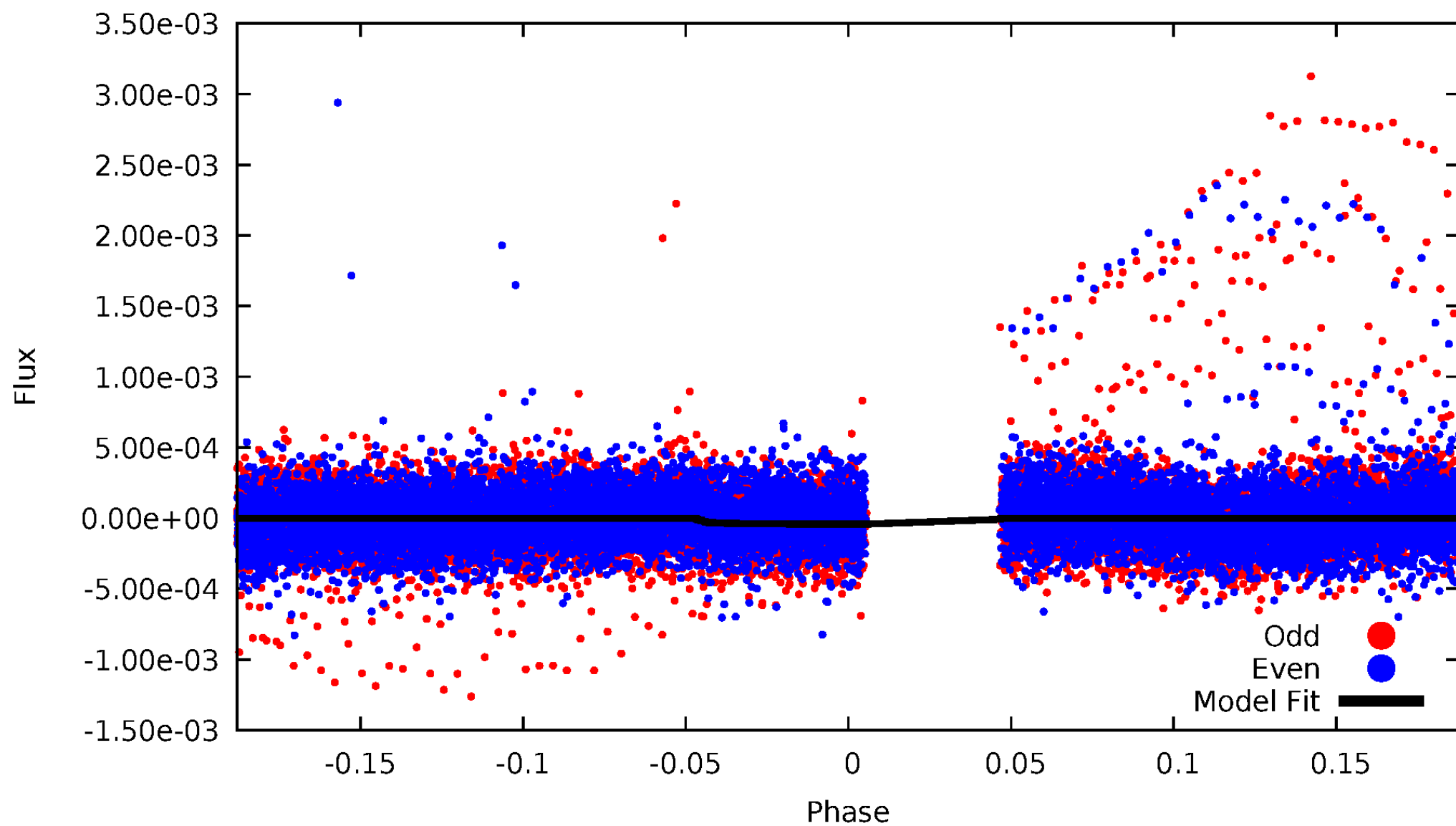


TCE 006211547-02



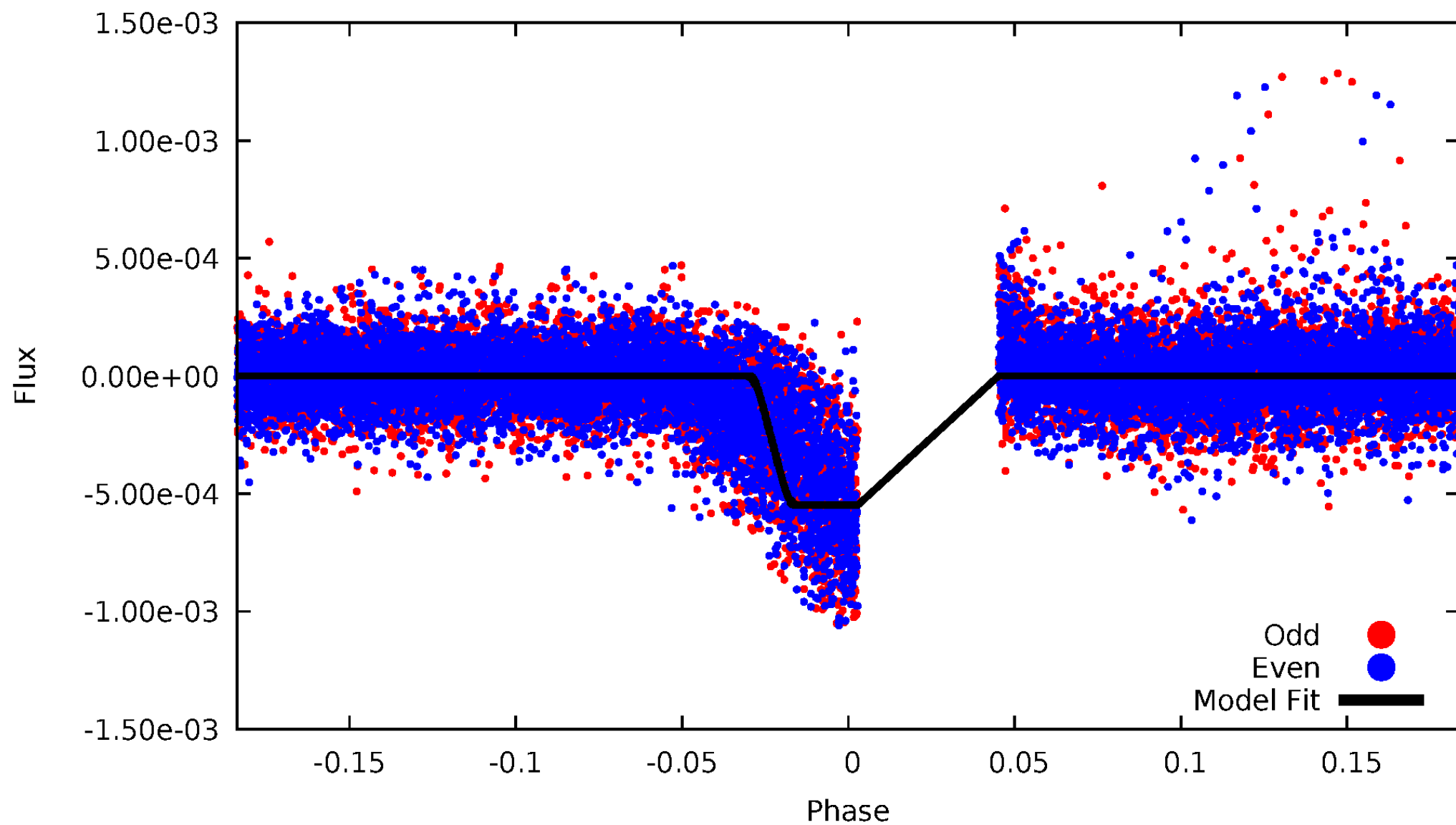
DV Odd/Even

TCE 006211547-02



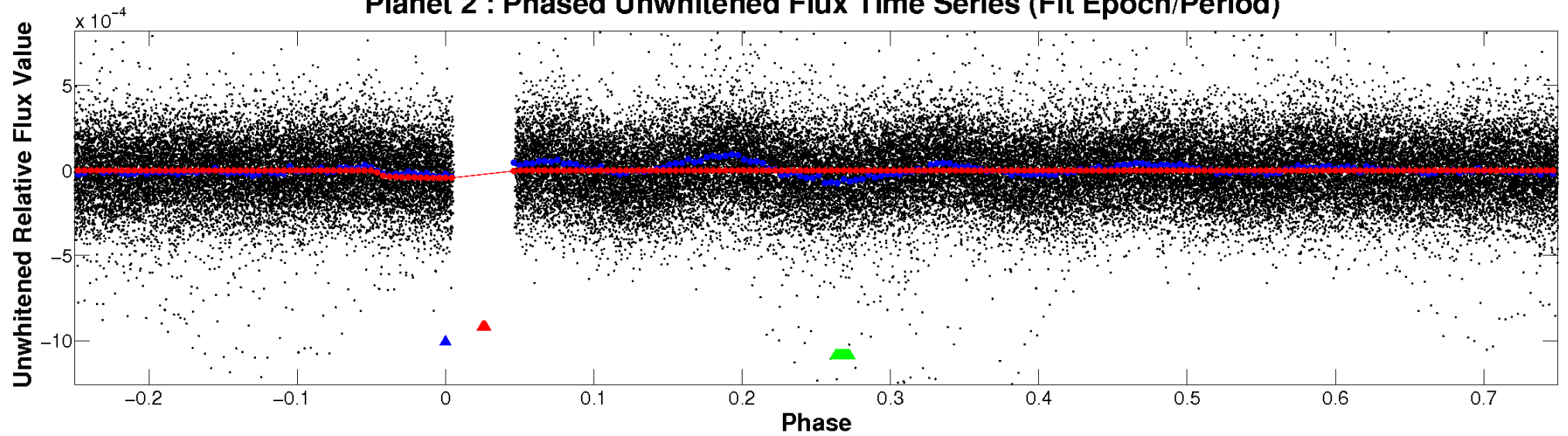
ALT Odd/Even

TCE 006211547-02

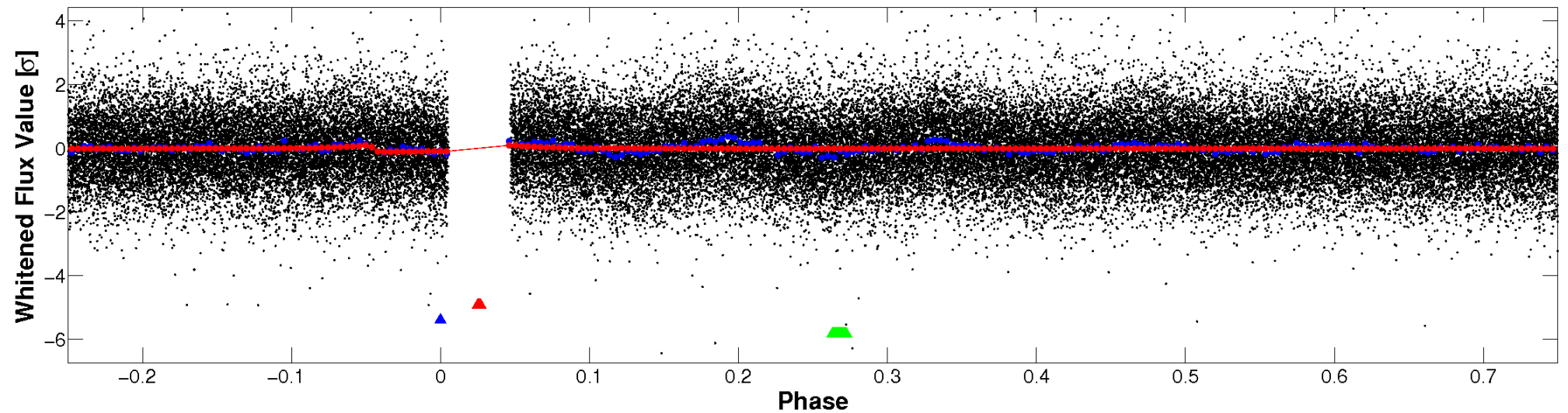


Non-Whitened Vs. Whitened Light Curve

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

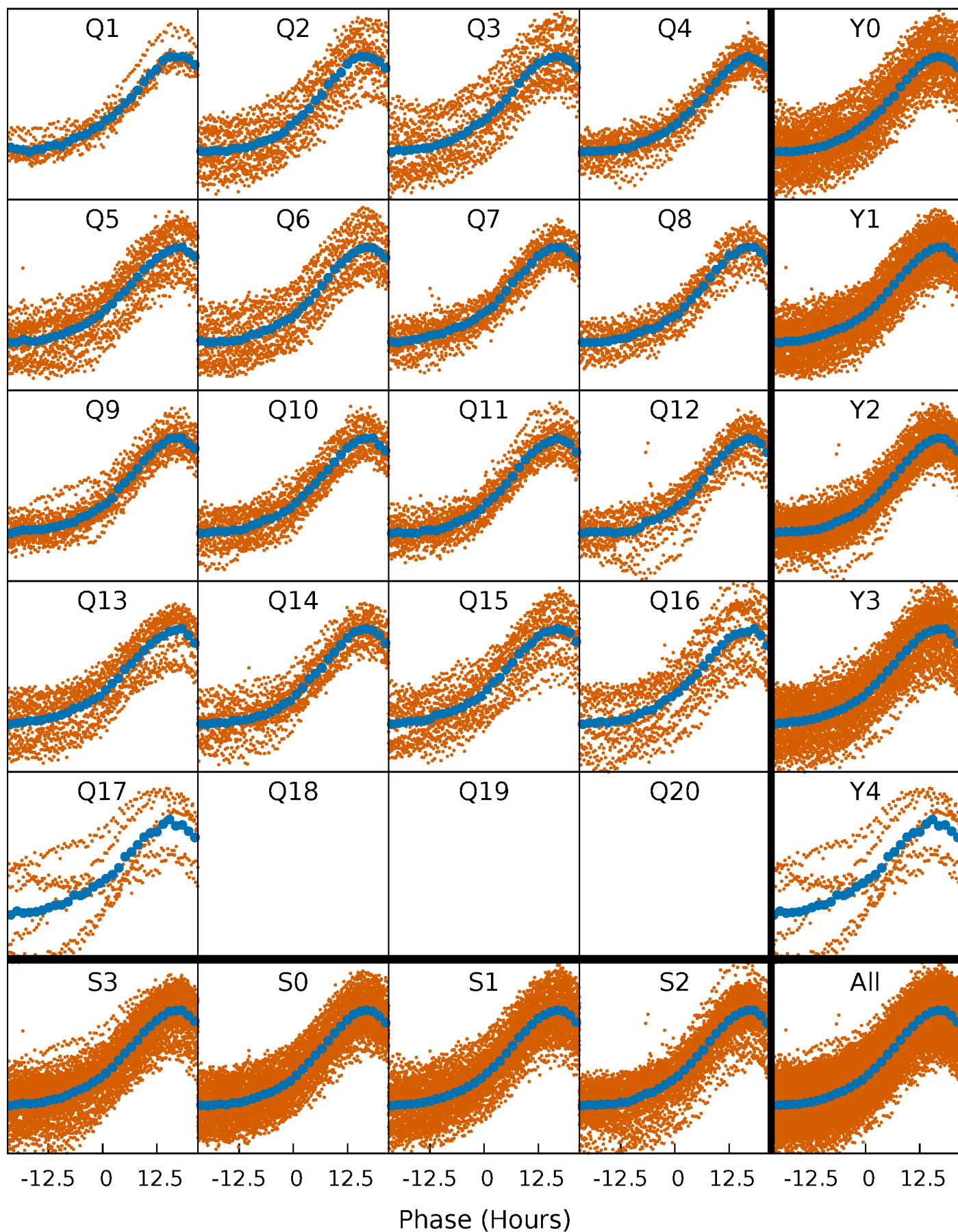


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



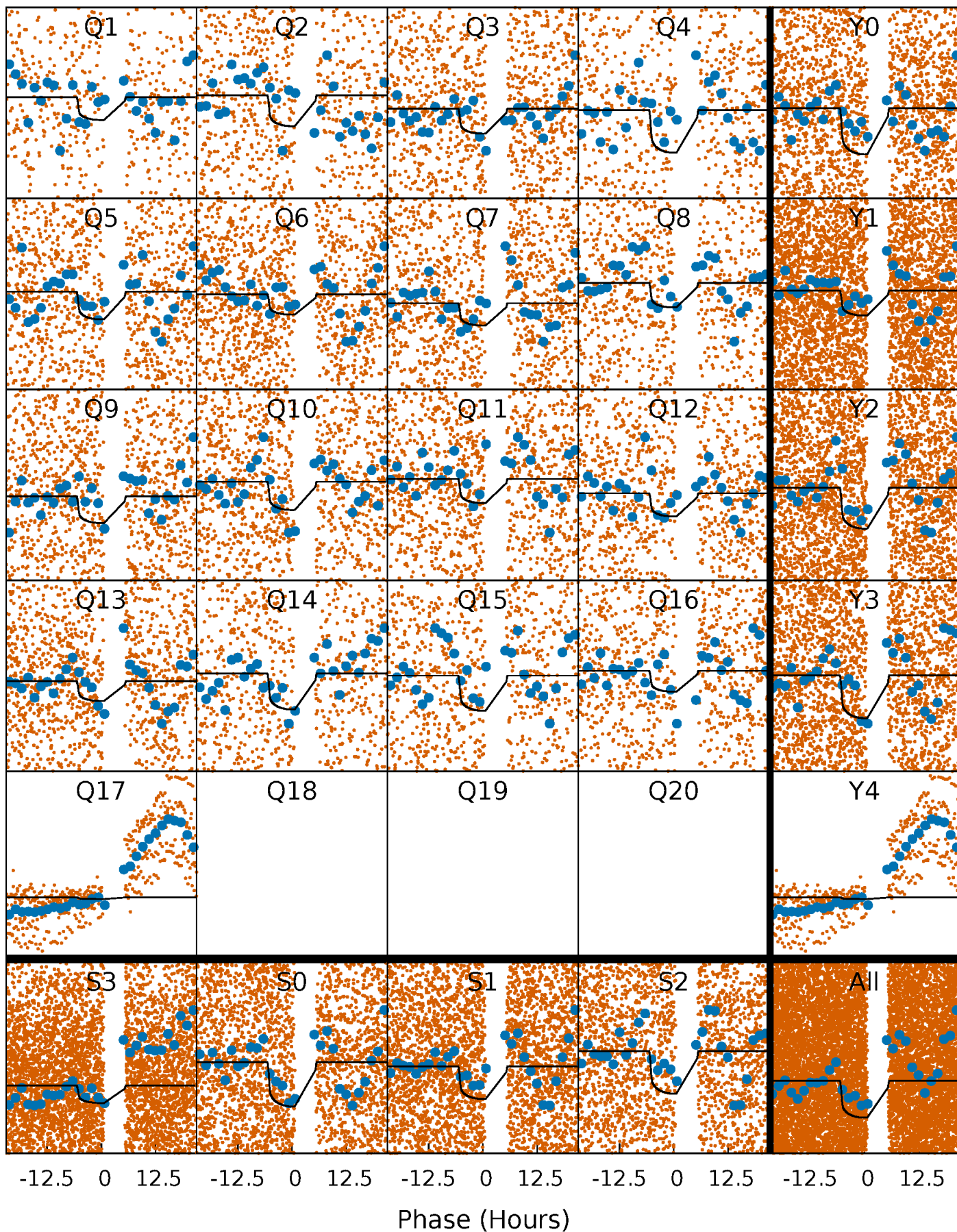
PDC Quarter-Phased Transit Curves

TCE 006211547-02 P= 4.870933 Days $T_0=133.000628$ (BKJD)



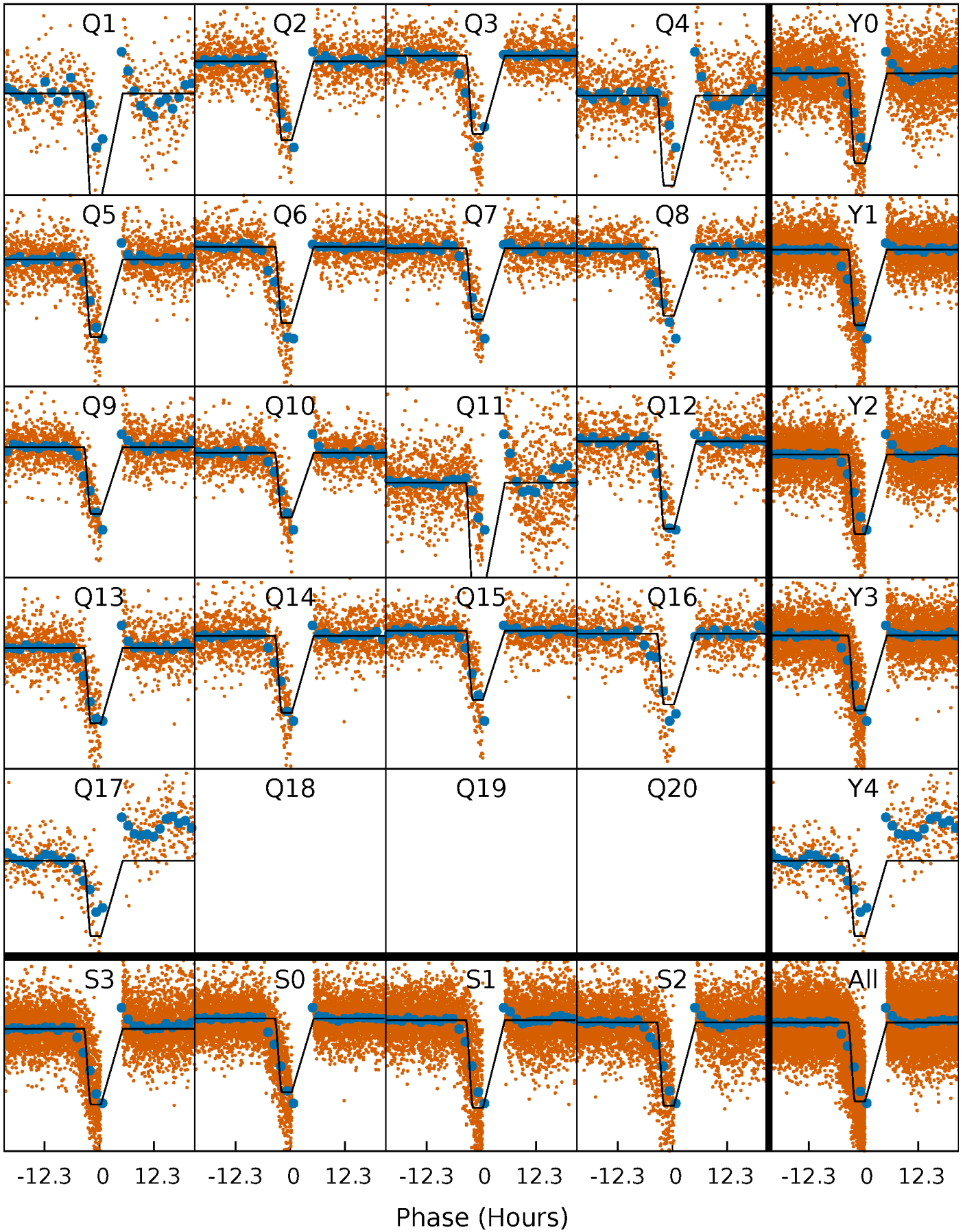
DV Quarter-Phased Transit Curves

TCE 006211547-02 P= 4.870933 Days $T_0=133.000628$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

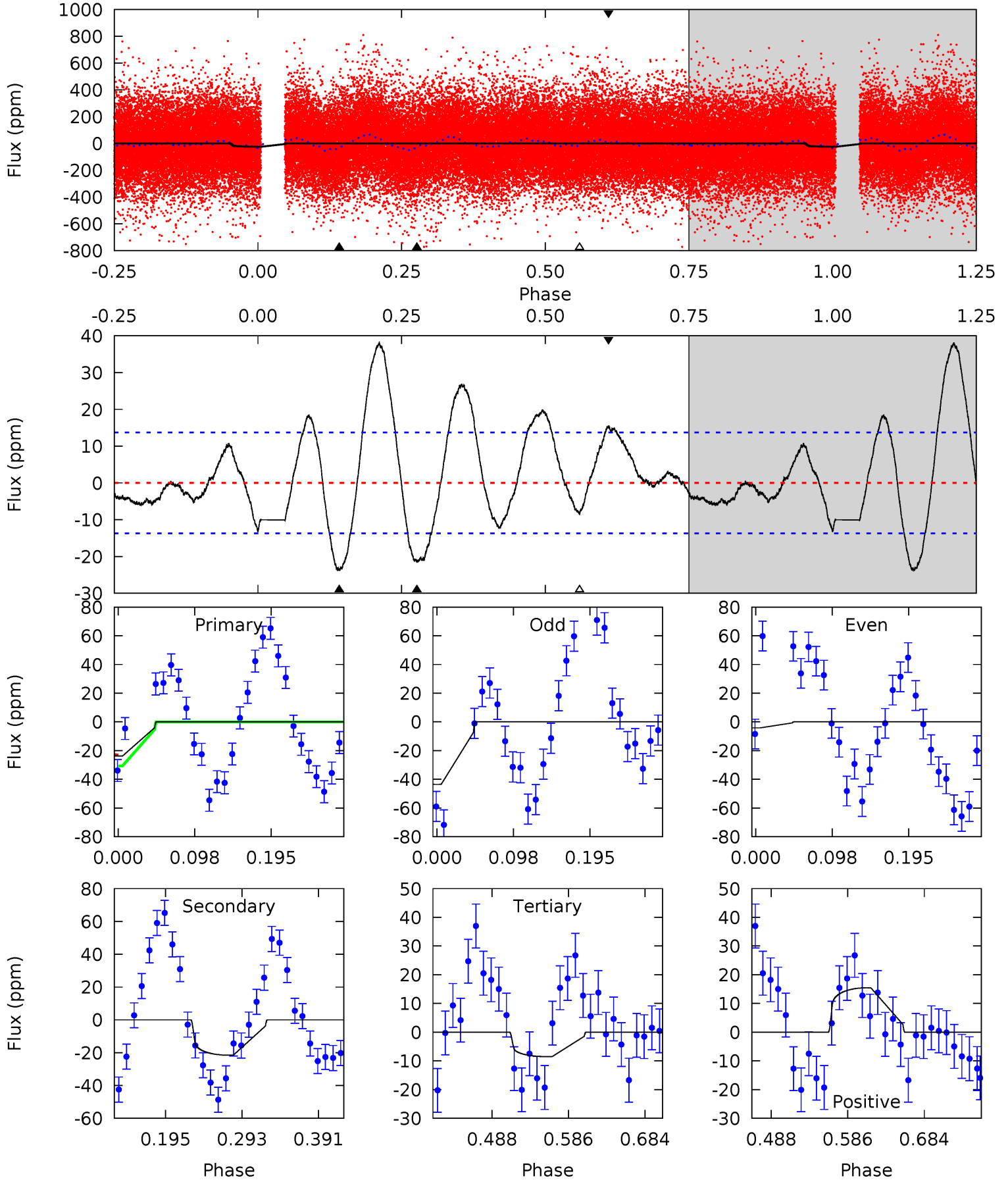
TCE 006211547-02 P= 4.870886 Days $T_0=133.017445$ (BKJD)



DV Model-Shift Uniqueness Test

006211547-02, P = 4.870933 Days, E = 128.129695 Days

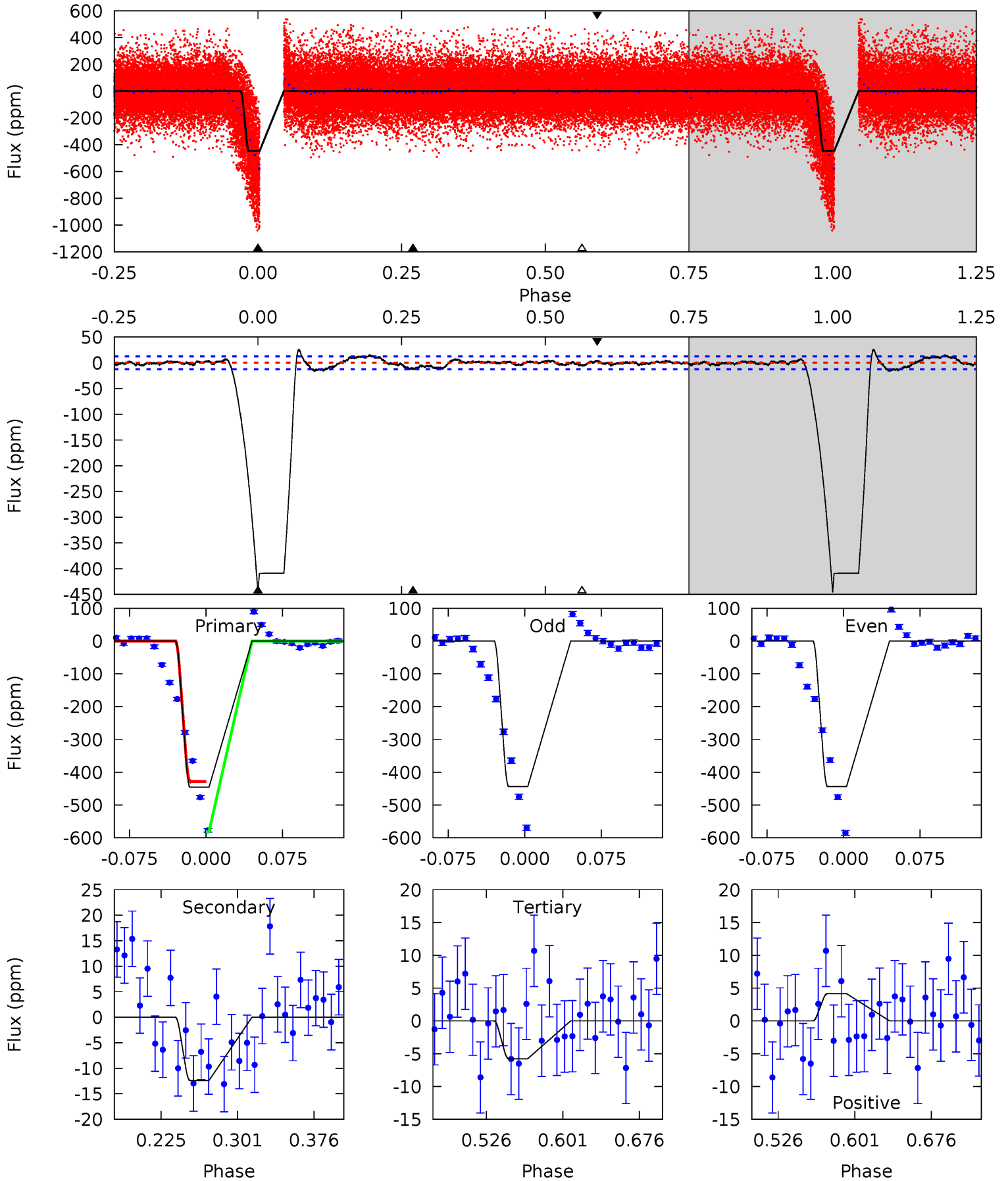
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 7.95 | 7.18 | 2.85 | 5.15 | 4.57 | 1.66 | 2.55 | 5.10 | 2.80 | 4.34 | 2.03 | 6.61 | 1.64 | 0.62 | 0.80 |



Alt Model-Shift Uniqueness Test

006211547-02, P = 4.870886 Days, E = 128.146559 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 165.1 | 4.59 | 2.14 | 1.54 | 4.62 | 1.78 | 1.74 | 163.0 | 163.5 | 2.45 | 3.05 | 0.01 | 0.99 | 0.05 | 14.7 |



Stellar Parameters For KIC 006211547

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6483^{+162}_{-194} | $4.018^{+0.234}_{-0.126}$ | $-0.120^{+0.250}_{-0.250}$ | $1.818^{+0.411}_{-0.503}$ | $1.258^{+0.201}_{-0.181}$ | $0.295^{+0.405}_{-0.108}$ |
| | +2%/-3% | +6%/-3% | +208%/-208% | +23%/-28% | +16%/-14% | +137%/-37% |
| Source | PHO1 | FLK73 | 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 006211547-02 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|---------------------------|
| DV | -22 ± 3 | $1.31^{+0.39}_{-0.32}$ | 2158^{+146}_{-179} | 5327^{+696}_{-465} | 26^{+19}_{-10} |
| Alt. | -12 ± 3 | $4.54^{+0.67}_{-0.71}$ | 2147^{+143}_{-147} | 3007^{+138}_{-165} | $1.217^{+0.578}_{-0.329}$ |

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

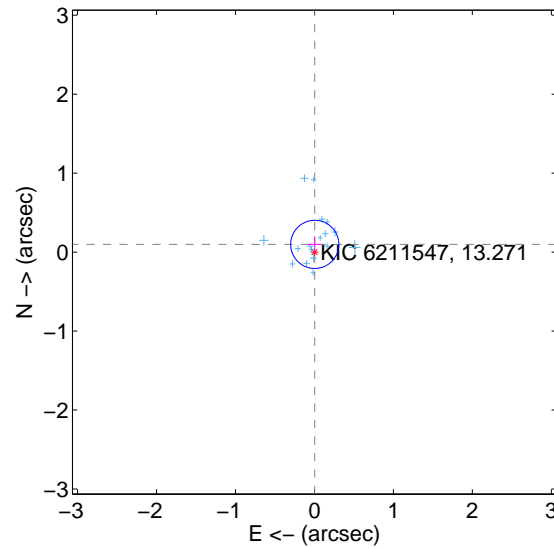
Supplemental centroid analysis for 006211547-02. Kepler magnitude: 13.27. Transit SNR 6.69

There are 17 quarters with good PRF difference image offsets

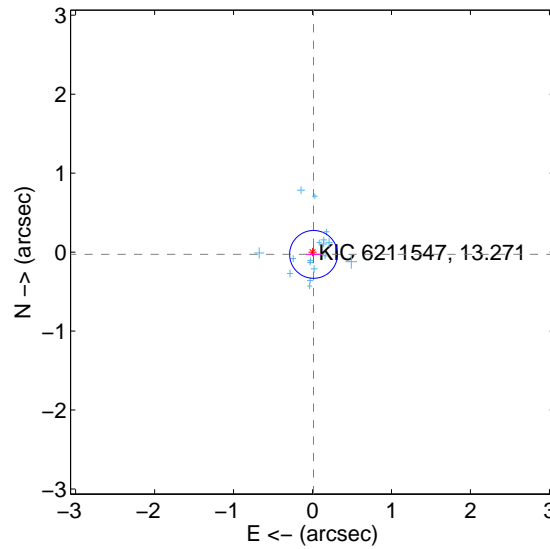
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.098 ± 0.102 | 0.96 | -0.004 ± 0.087 | 0.098 ± 0.102 |
| PRF-fit source offset from KIC position | 0.032 ± 0.101 | 0.31 | -0.013 ± 0.092 | -0.029 ± 0.104 |
| photometric centroid source offset | 0.77 ± 0.59 | 1.30 | 0.37 ± 0.58 | -0.68 ± 0.60 |

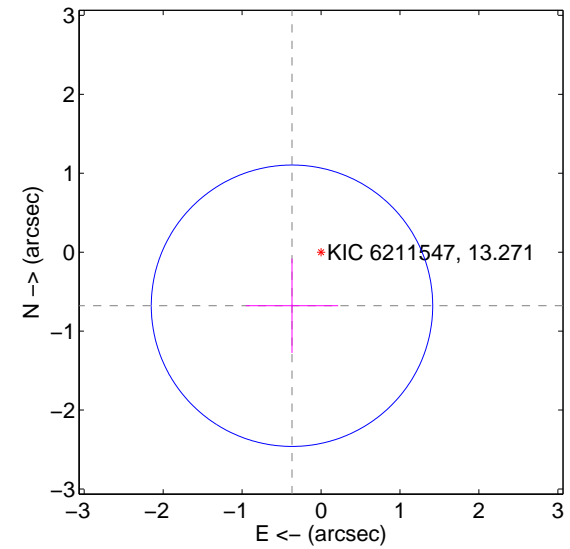
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

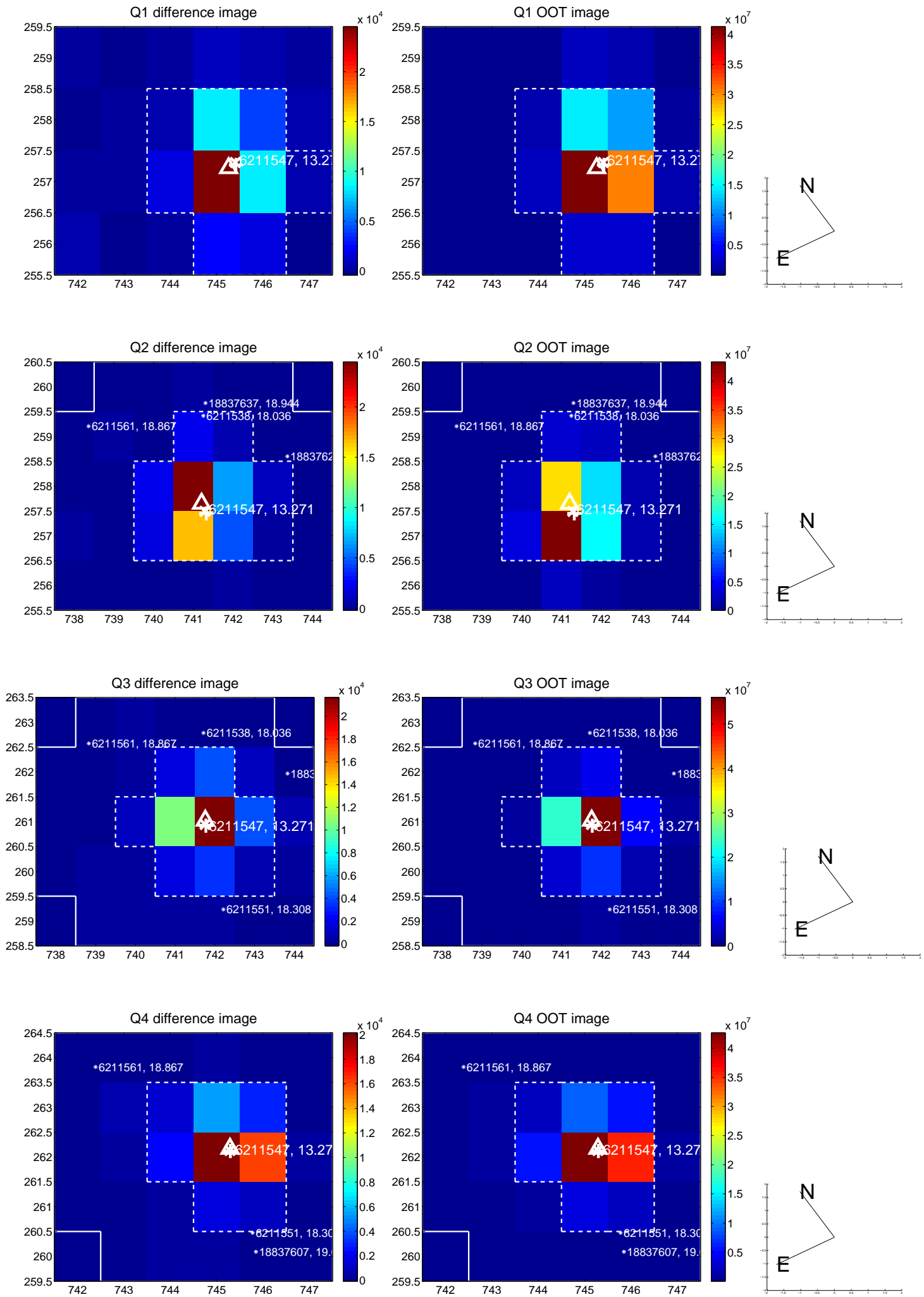


offset from photometric centroids

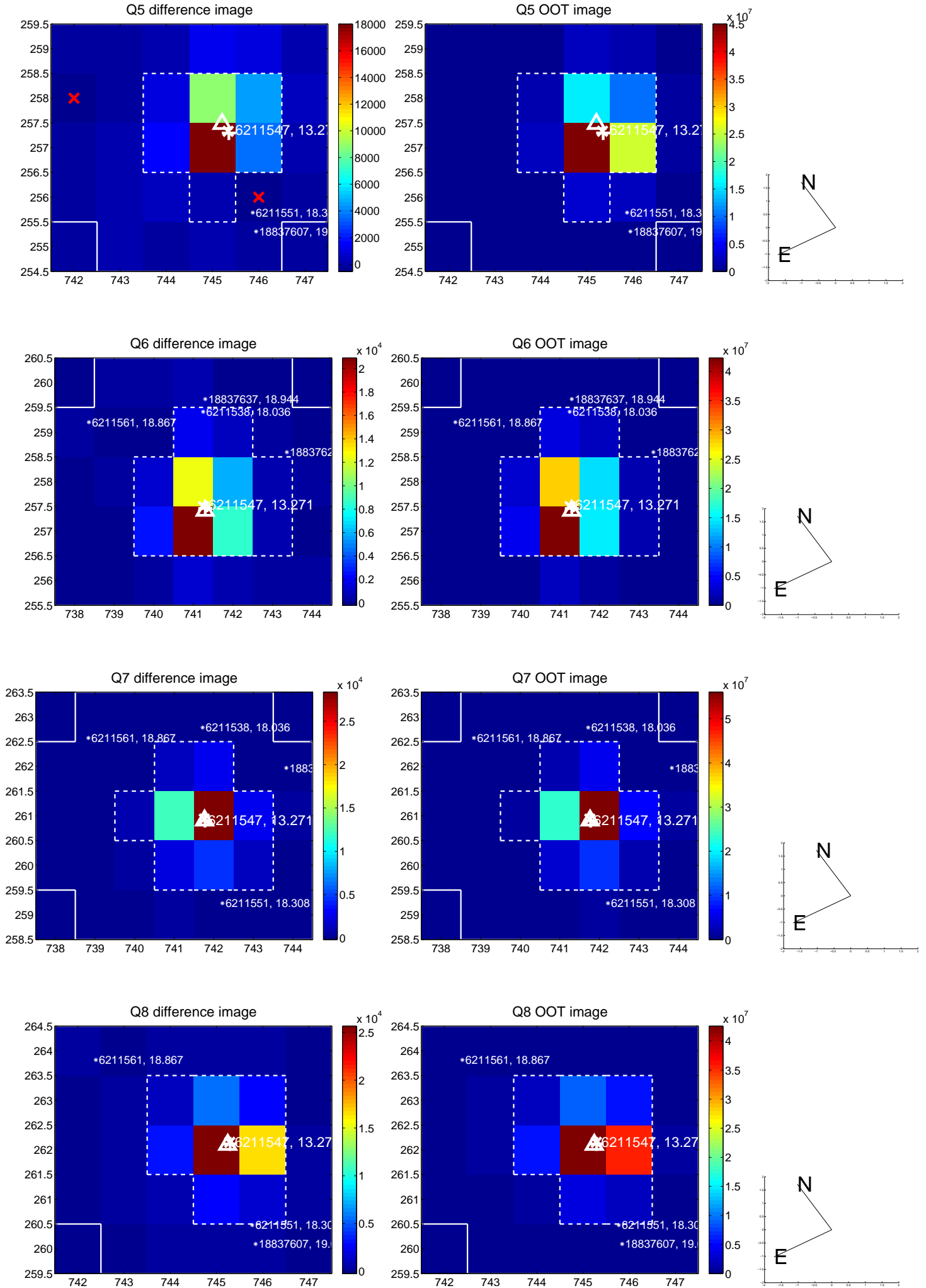


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

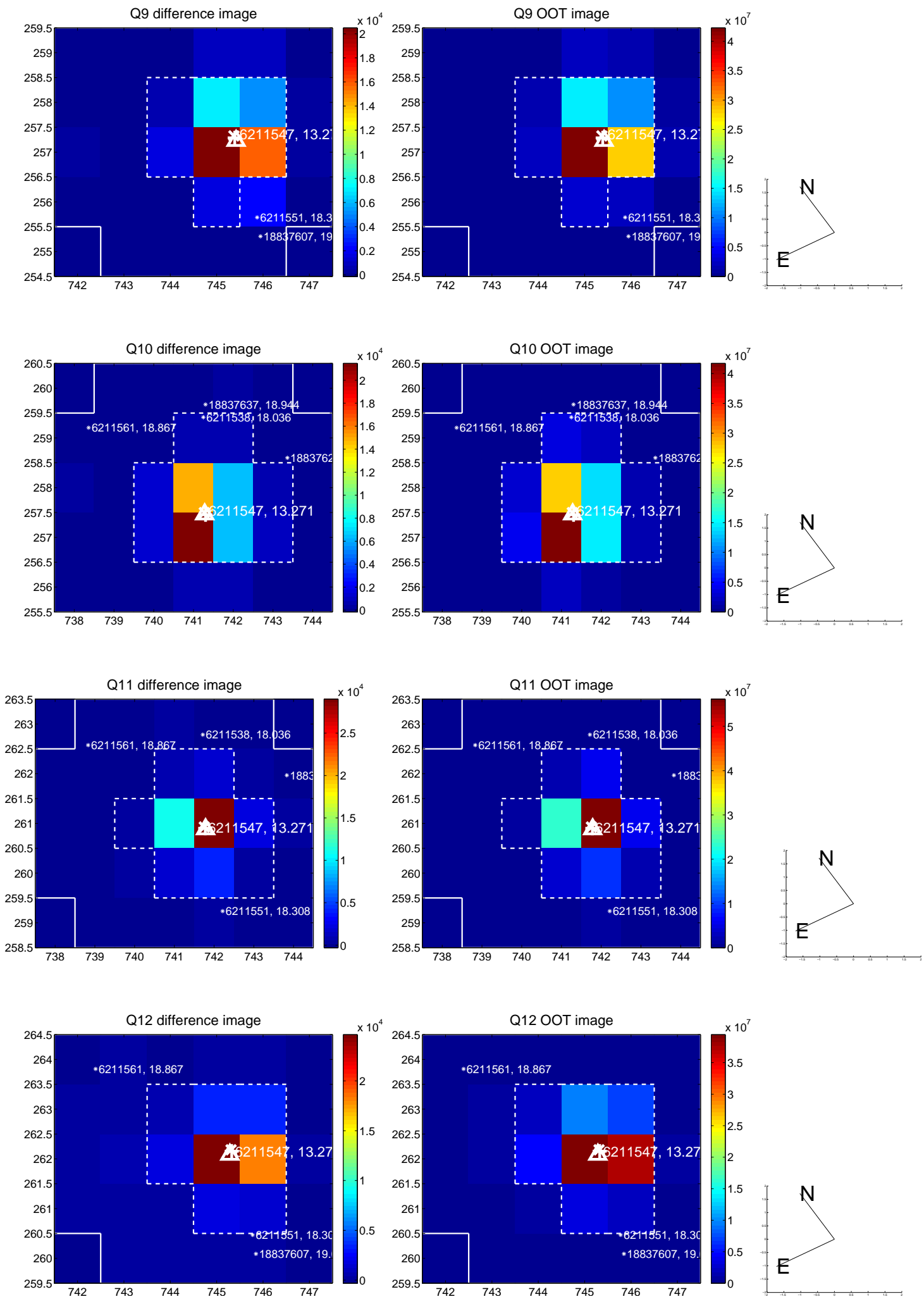
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



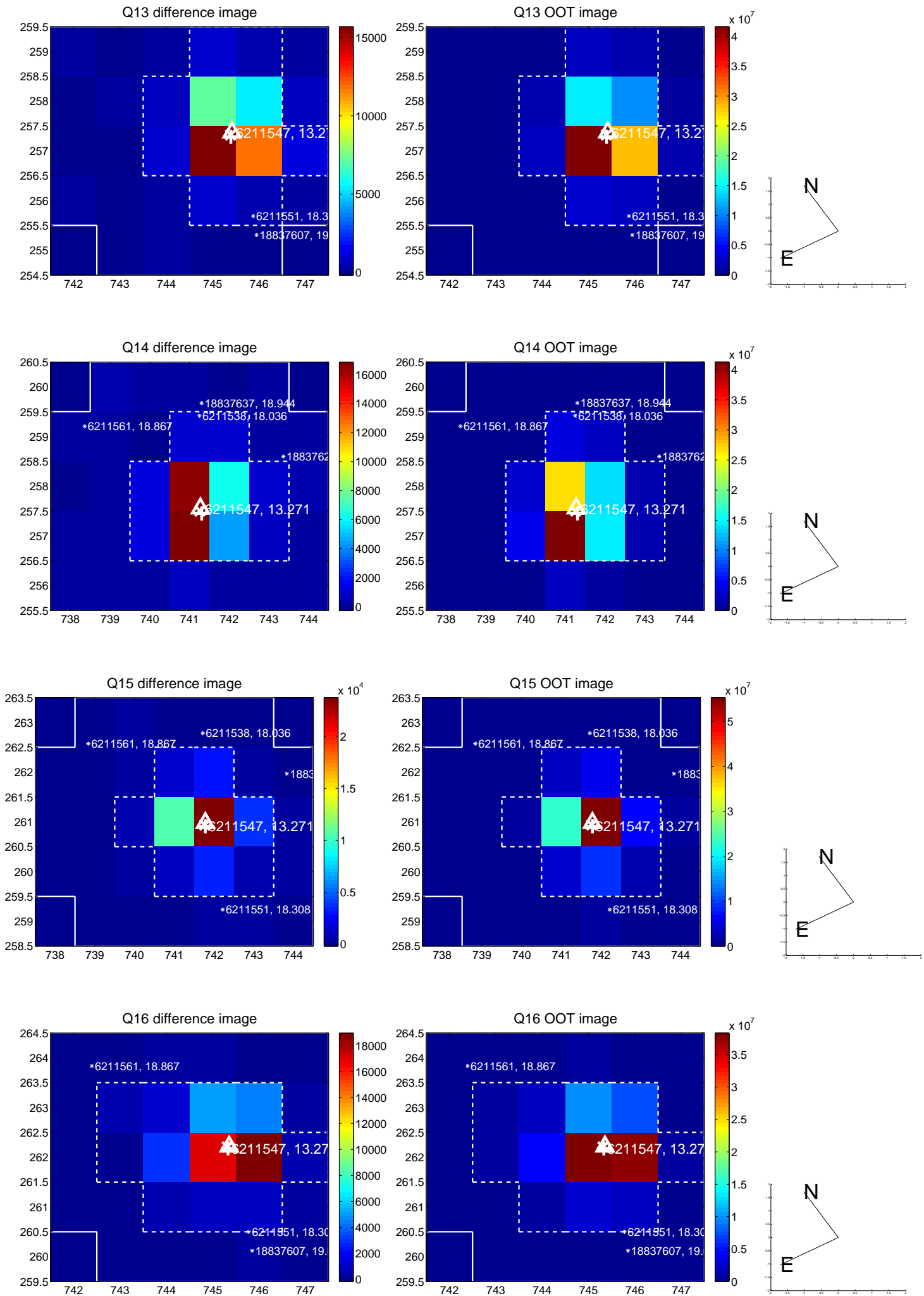
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



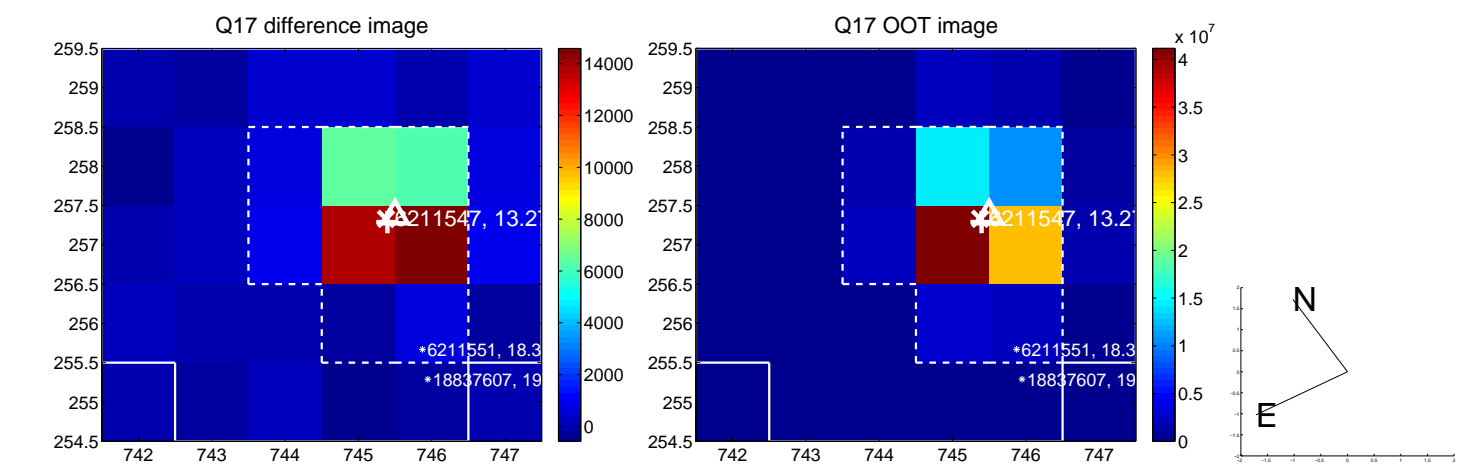
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



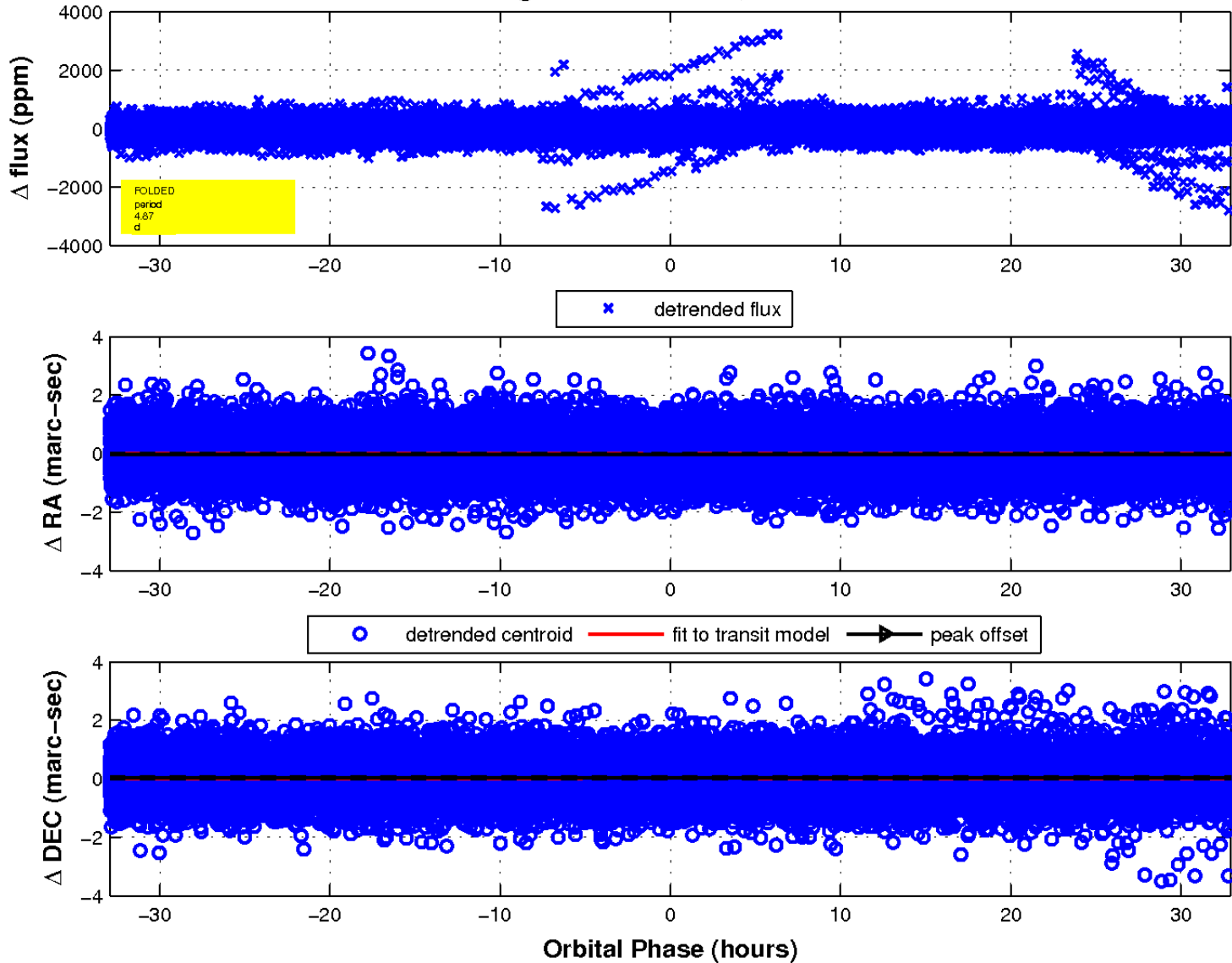
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

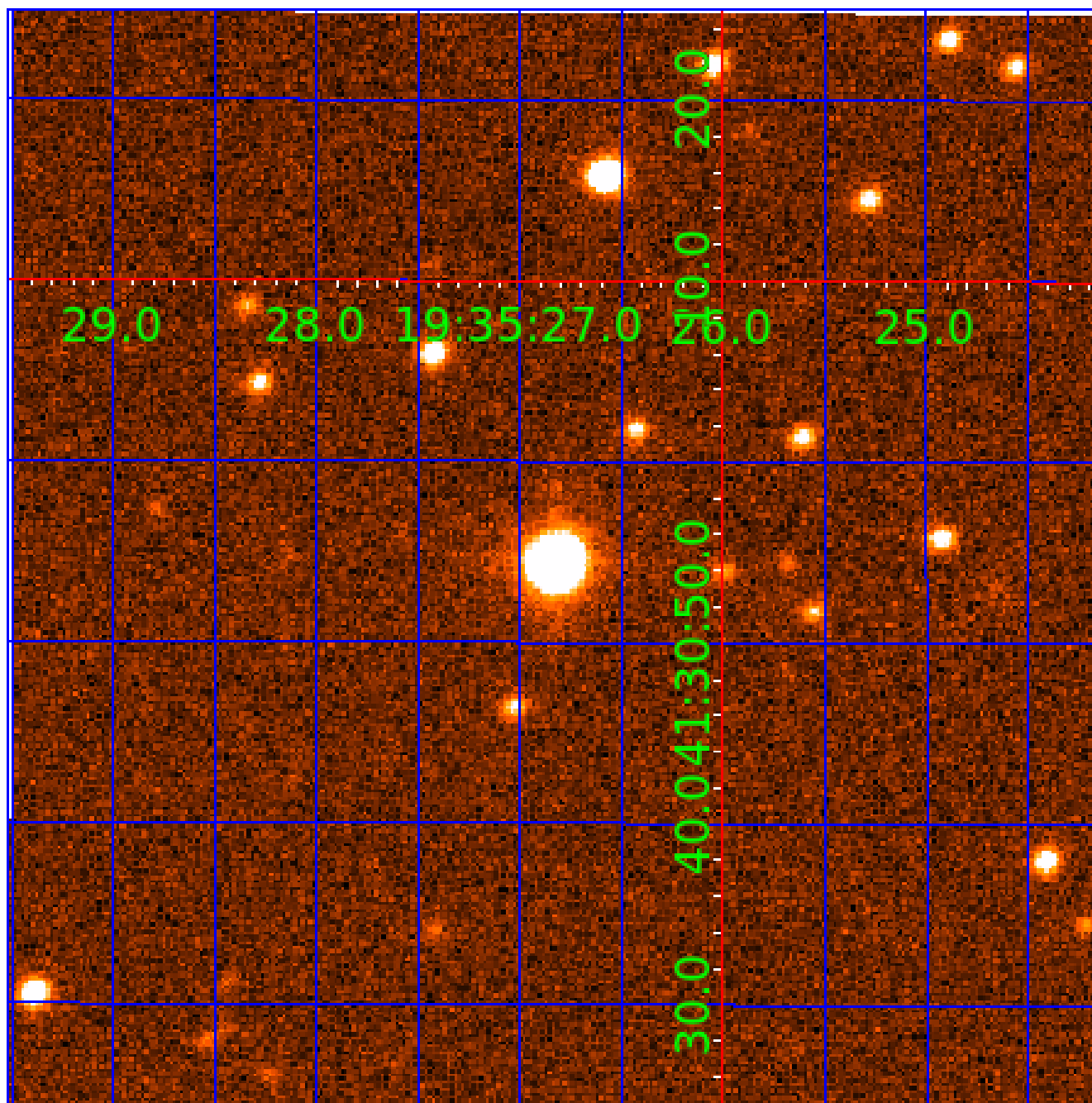


fluxWeightedCentroids, Planet 2 of 3



UKIRT Image

Declination



KIC 006211547

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006211547-01 | OBS | No | 4.870897 | 133.132450 | 2.9 | 1.245 | 10.6 | 0.4 | 1.82 | 6483 | 0.36 | 1419.87 |
| 006211547-02 | OBS | No | 4.870933 | 133.000628 | 42.9 | 10.977 | 10.4 | 6.7 | 1.82 | 6483 | 1.37 | 1419.86 |
| 006211547-03 | OBS | No | 4.871089 | 134.281408 | 59.4 | 12.687 | 11.3 | 12.4 | 1.82 | 6483 | 1.66 | 1419.80 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006211547-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |
| 006211547-02 | OBS | FP | 0.00 | 1 | 0 | 1 | 0 | INDIV_TRANS_RUBBLE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD—HALO_GHOST |
| 006211547-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—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.

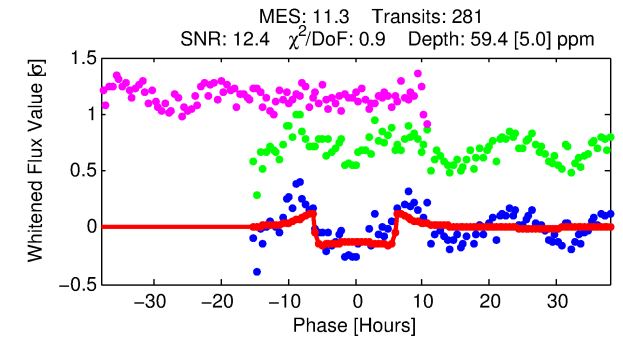
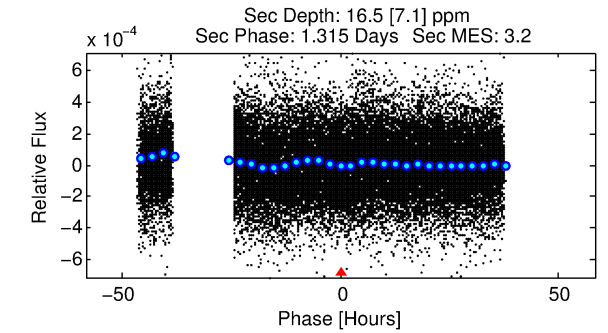
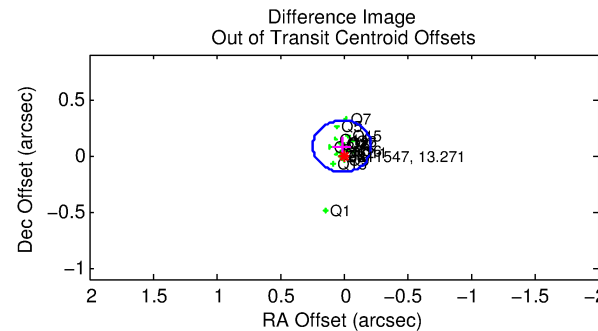
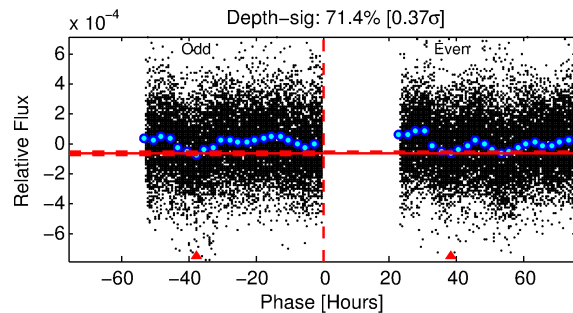
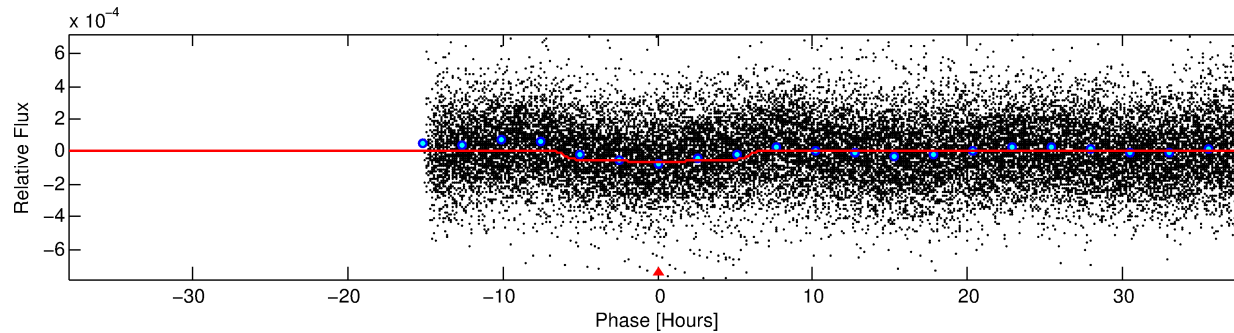
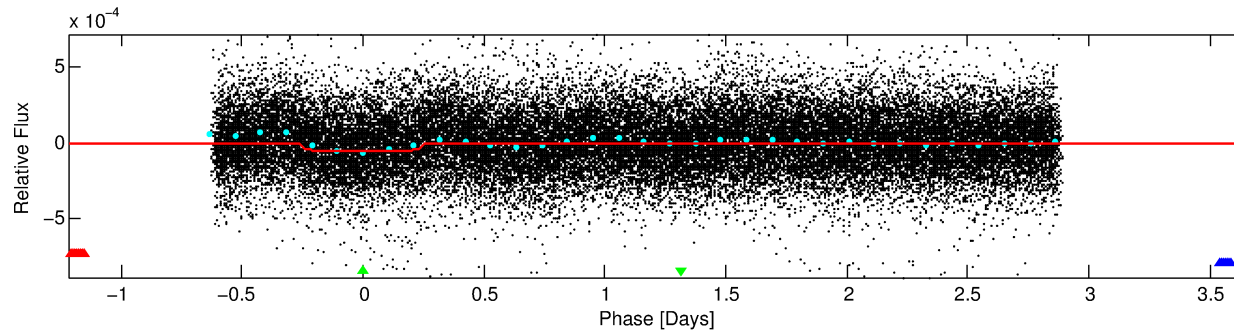
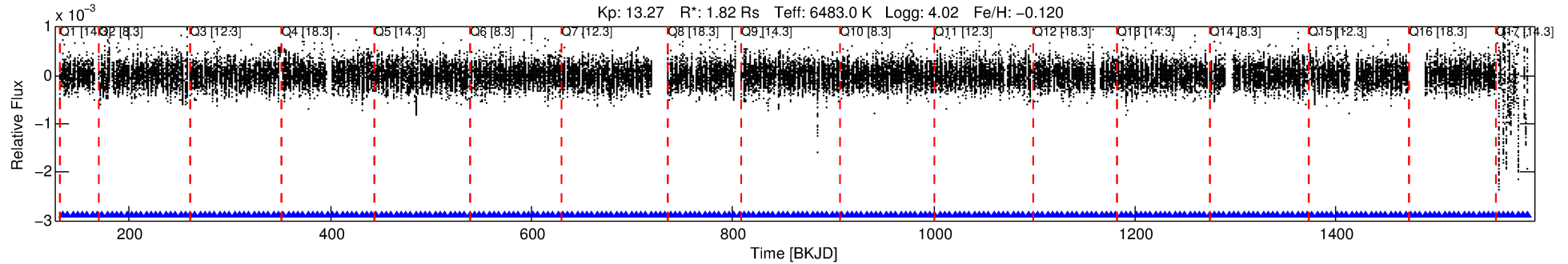
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006211547-03

No Significant Match Found

DV One-Page Summary

KIC: 6211547 Candidate: 3 of 3 Period: 4.871 d



DV Fit Results:

Period = 4.87109 [0.00004] d
Epoch = 134.2814 [0.0060] BKJD
Rp/R* = 0.0084 [0.0006]
a/R* = 1.56 [0.31]
b = 0.92 [0.06]
Seff = 1419.80 [597.96]
Teq = 1565 [165] K
Rp = 1.66 [0.48] Re
a = 0.0607 [0.0156] AU
Ag = 12.18 [7.40] [1.51 σ]
Teff = 4521 [531] K [5.32 σ]

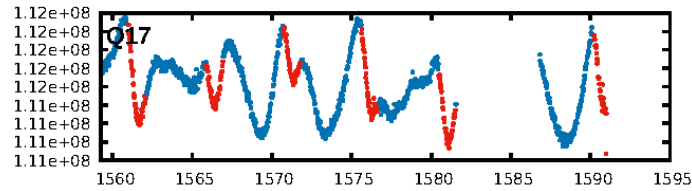
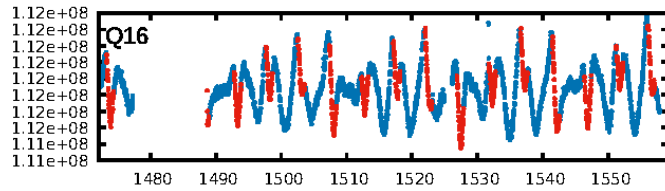
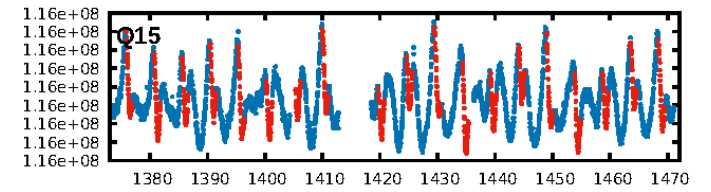
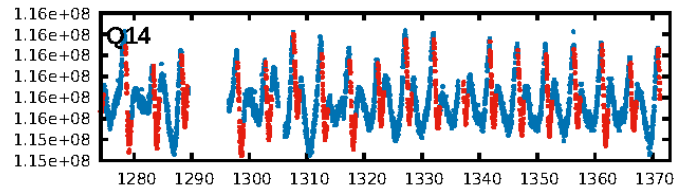
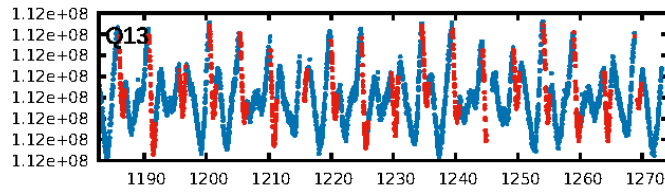
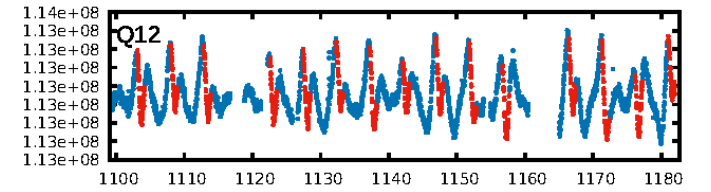
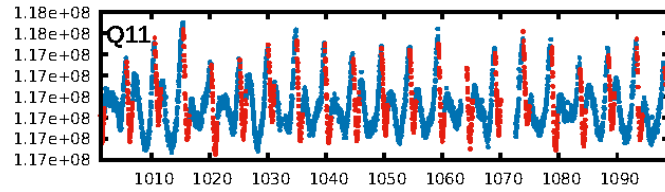
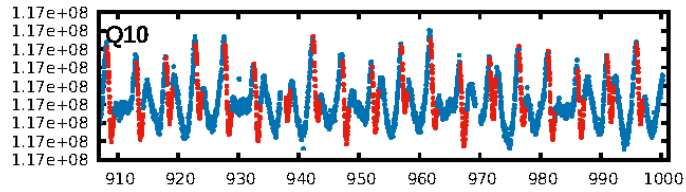
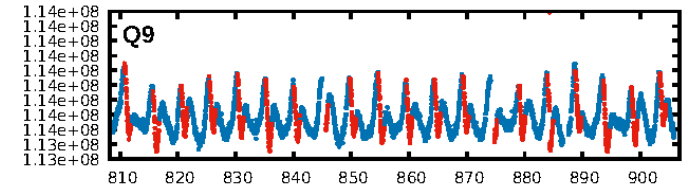
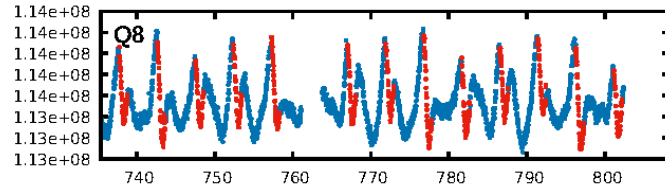
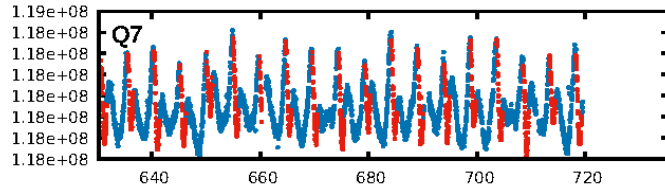
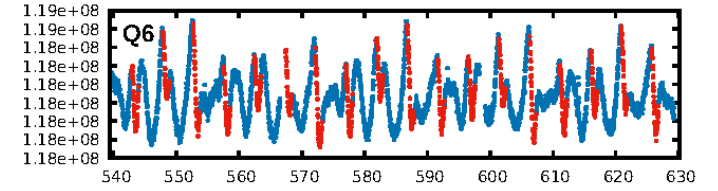
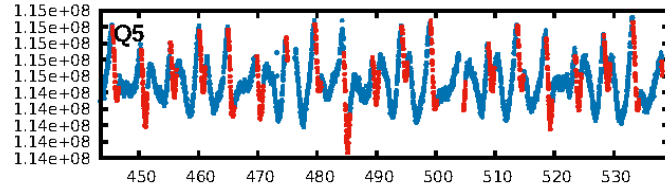
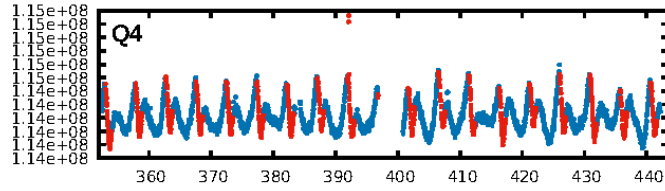
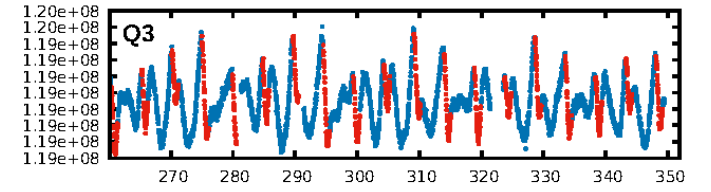
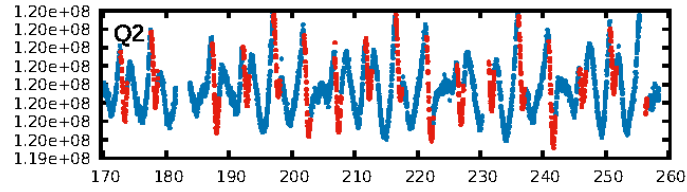
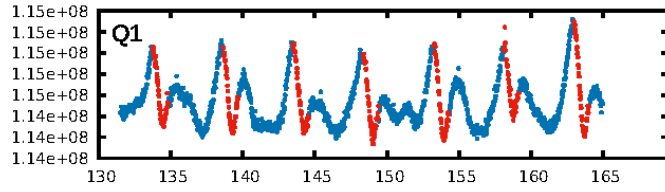
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.77e-17
RollingBand-fgt: 1.00 [268/268]
GhostDiagnostic-chr: 1.375
Centroid-sig: 0.2%
Centroid-so: 0.703 arcsec [1.71 σ]
OotOffset-rm: 0.083 arcsec [1.08 σ]
KicOffset-rm: 0.093 arcsec [1.16 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

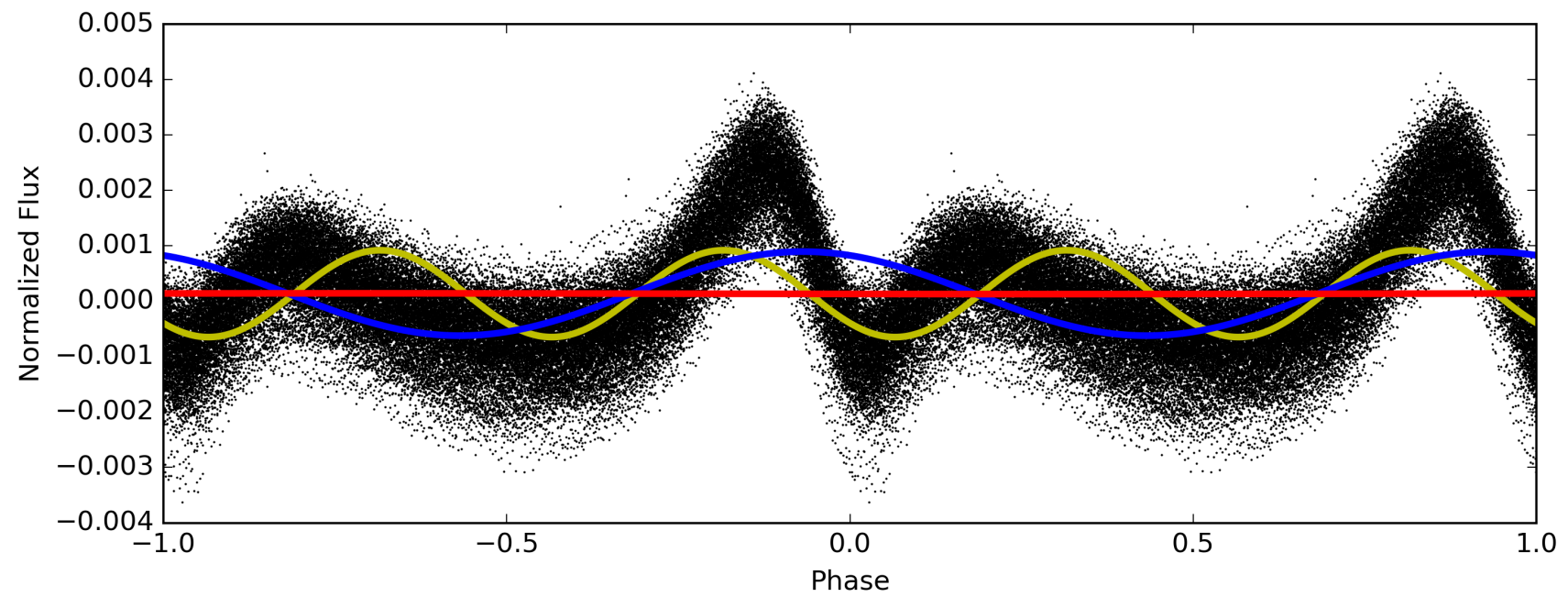
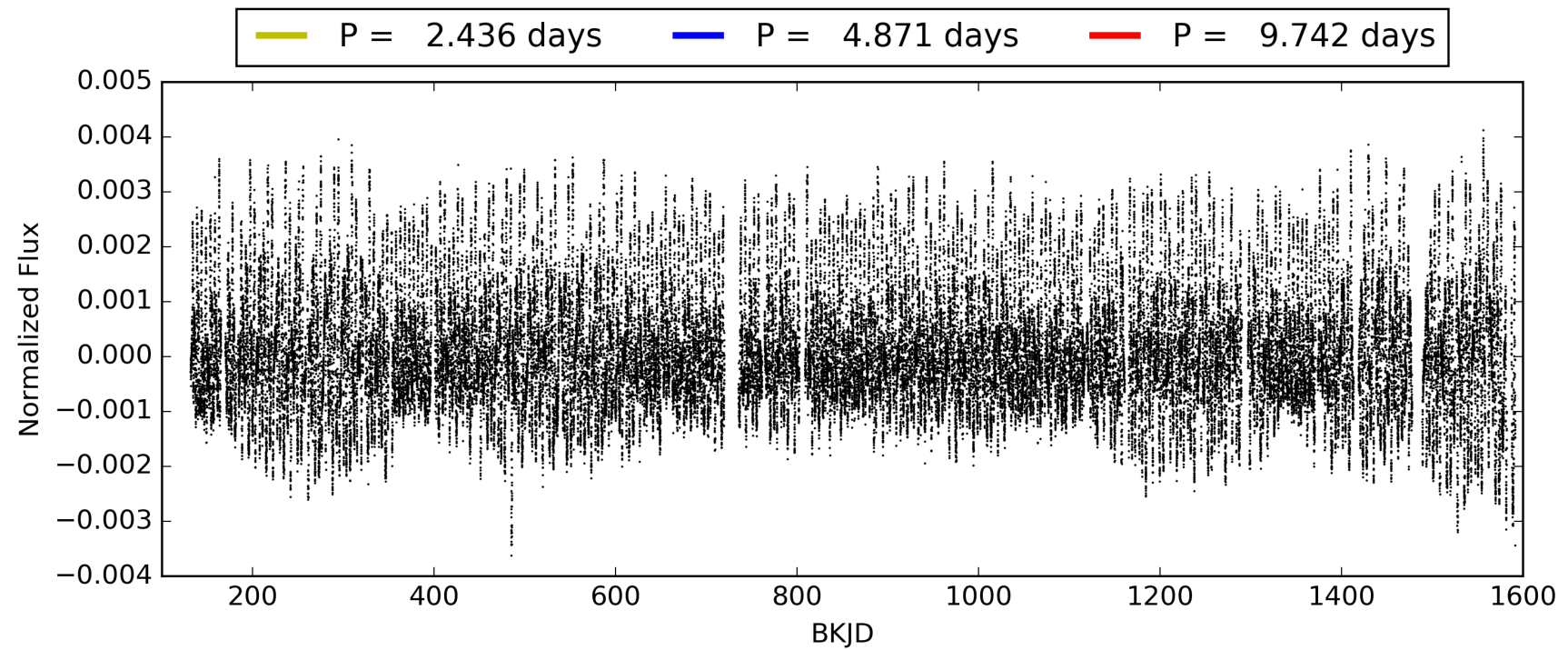
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:15:07 Z

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

TCE 006211547-03, PDC Light Curves

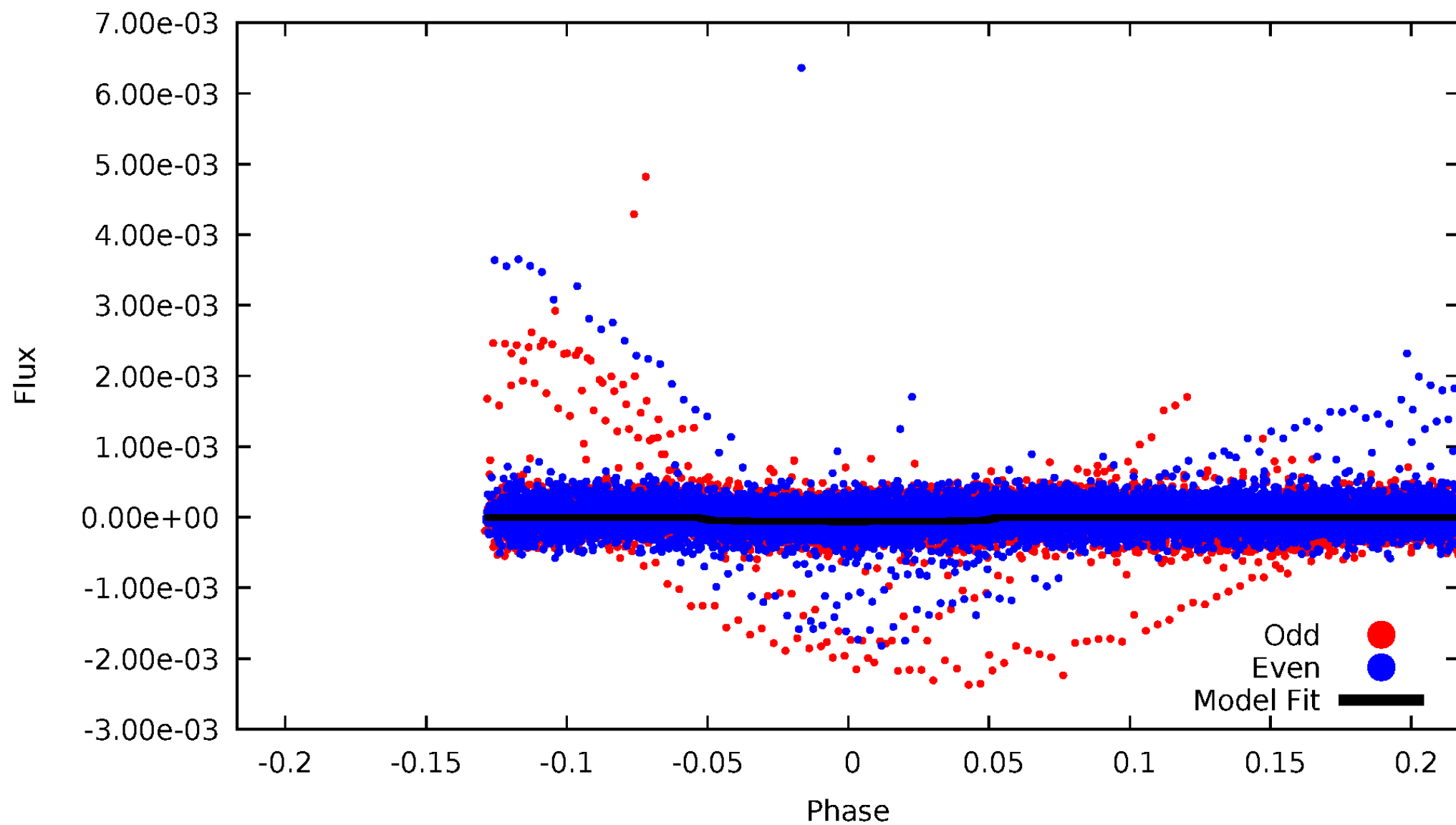


TCE 006211547-03



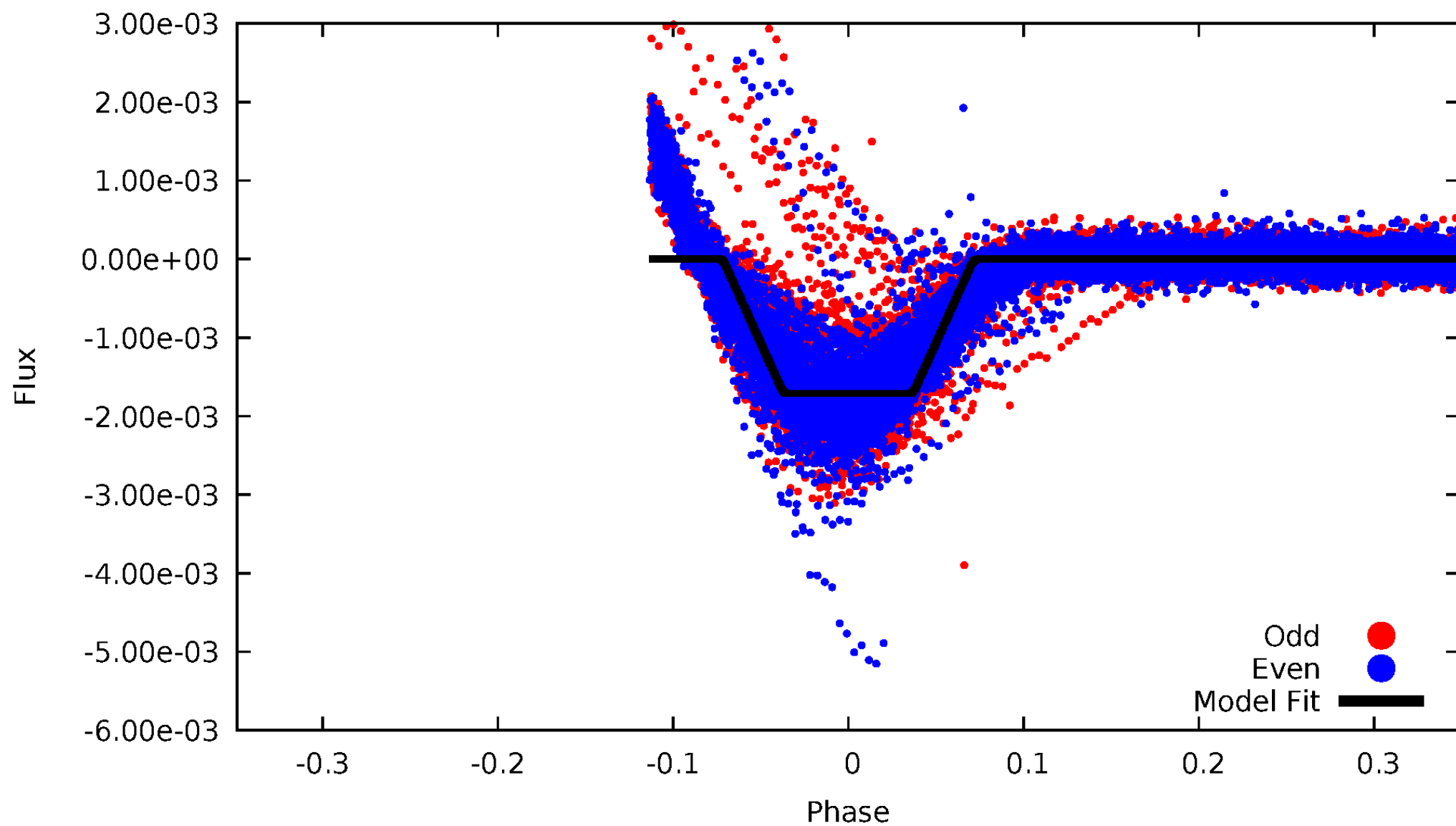
DV Odd/Even

TCE 006211547-03

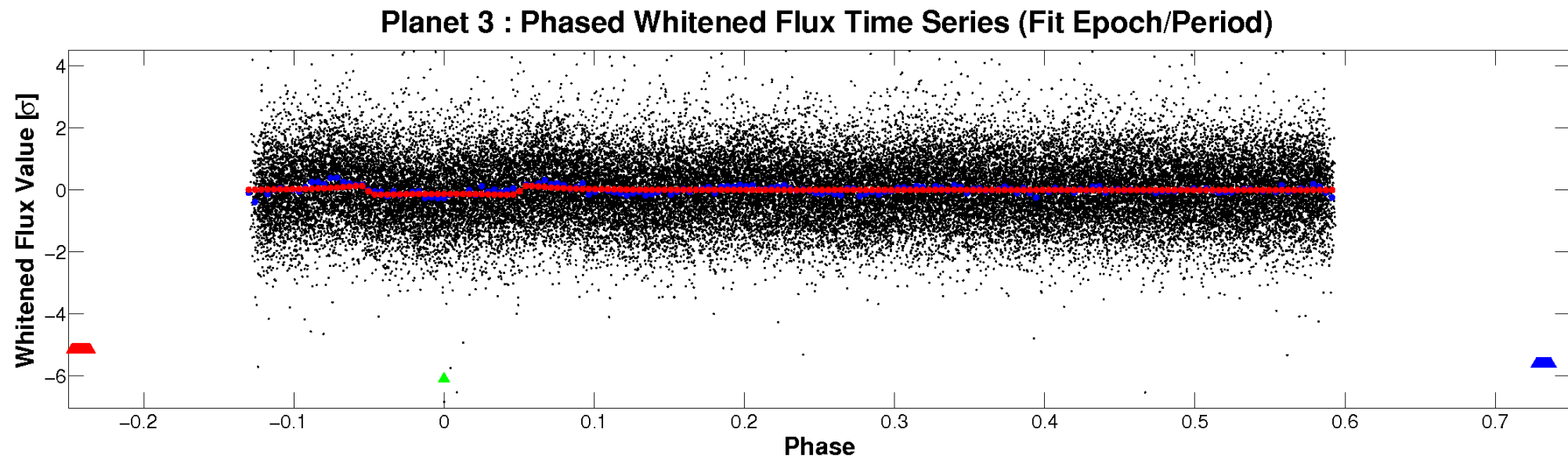
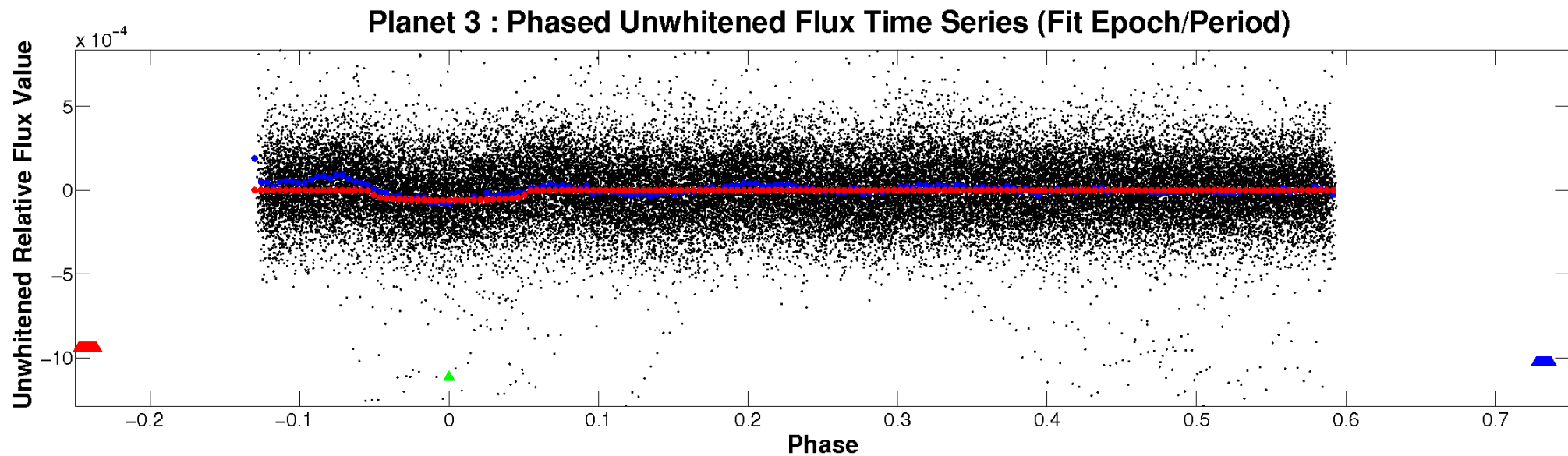


ALT Odd/Even

TCE 006211547-03

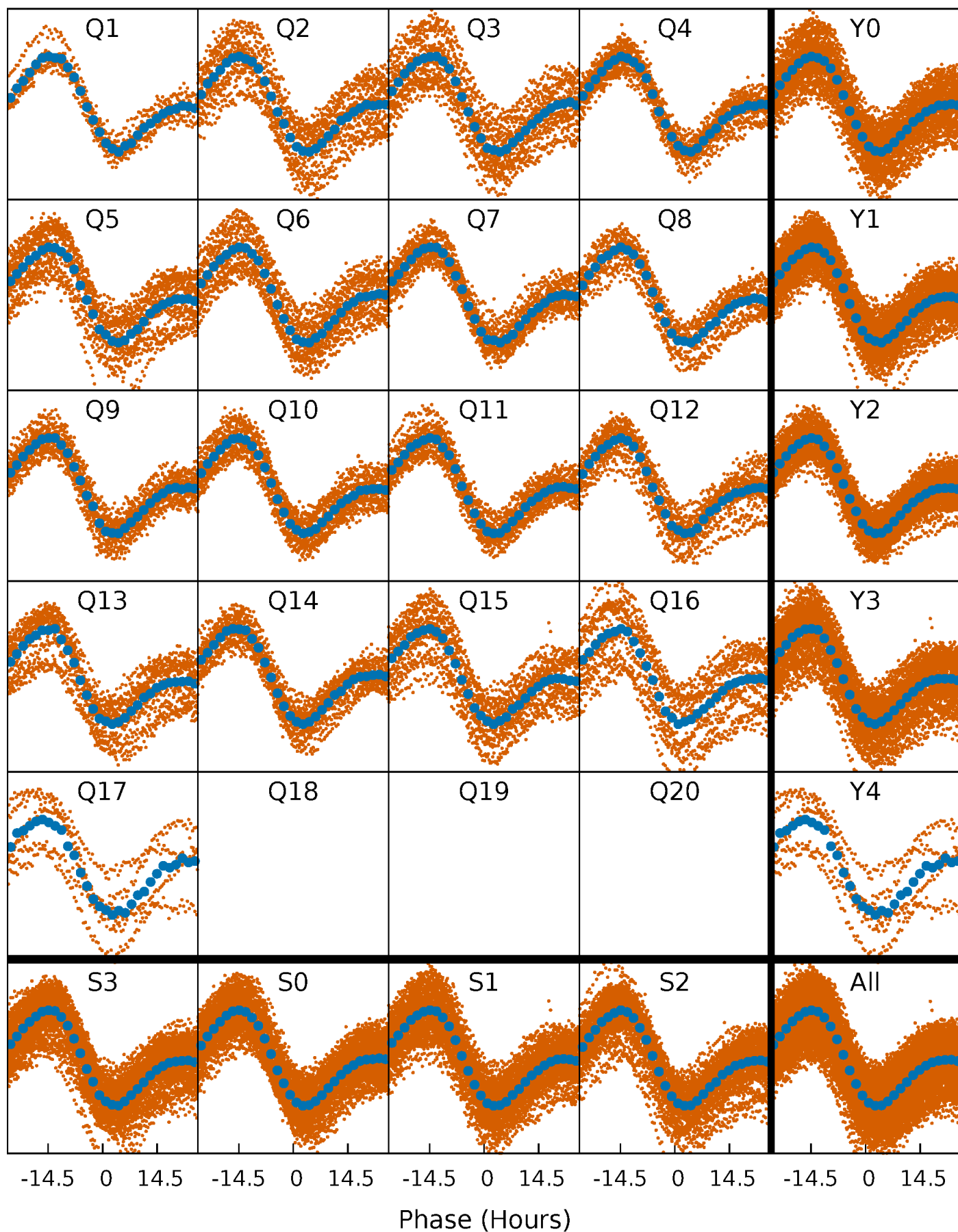


Non-Whitened Vs. Whitened Light Curve



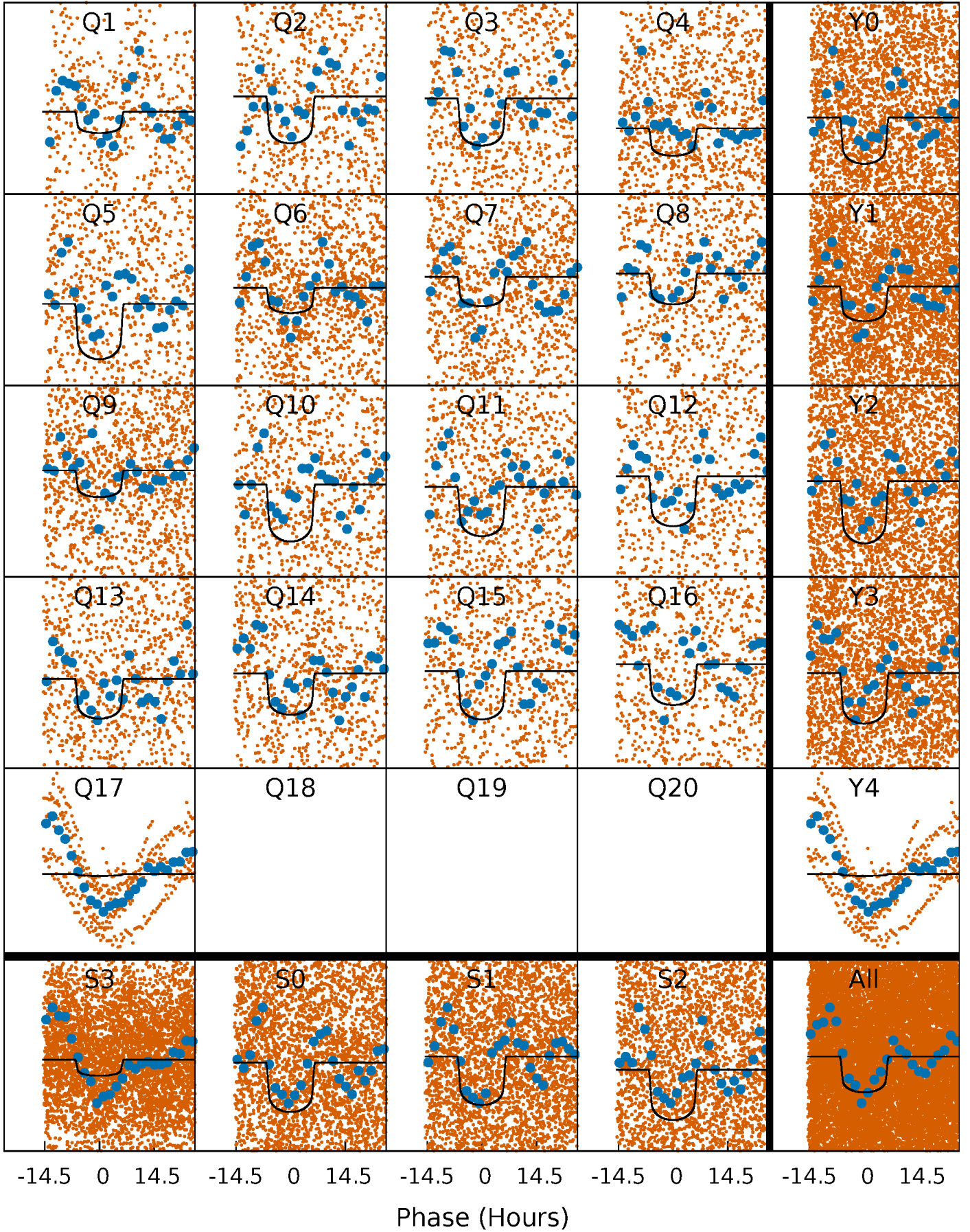
PDC Quarter-Phased Transit Curves

TCE 006211547-03 P= 4.871089 Days $T_0=134.281408$ (BKJD)



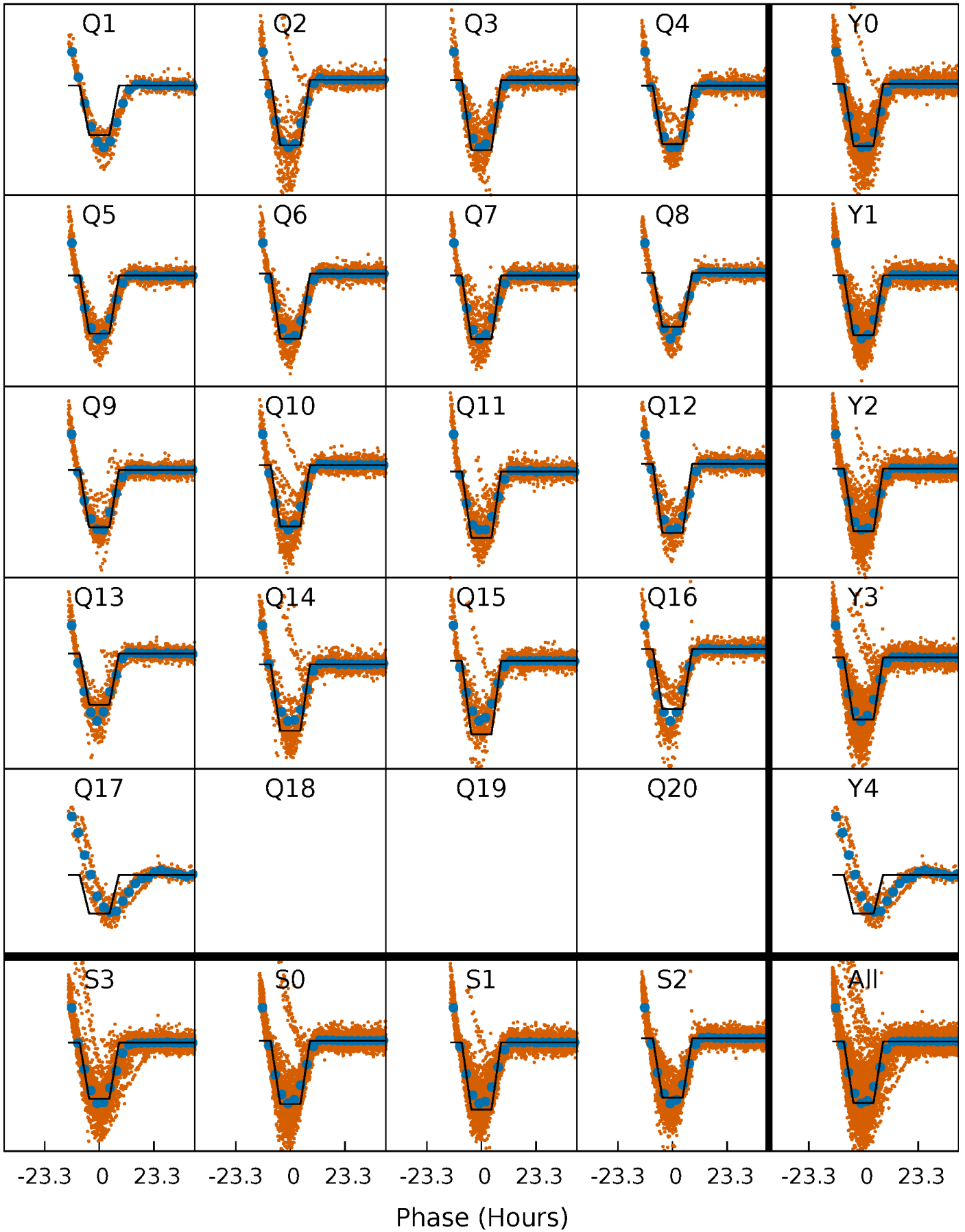
DV Quarter-Phased Transit Curves

TCE 006211547-03 P= 4.871089 Days $T_0=134.281408$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

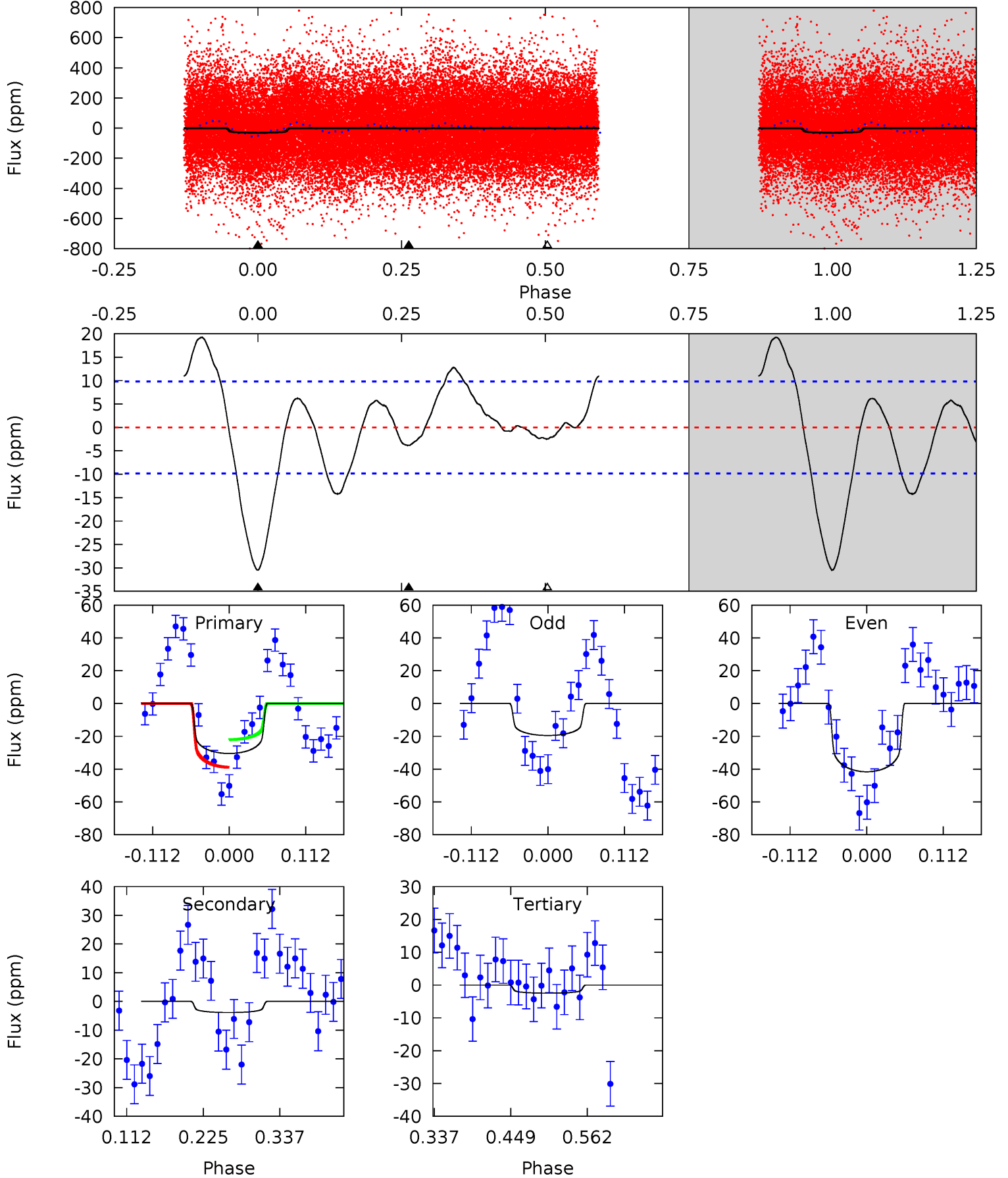
TCE 006211547-03 $P = 4.870965$ Days $T_0 = 134.240506$ (BKJD)



DV Model-Shift Uniqueness Test

006211547-03, P = 4.871089 Days, E = 129.410319 Days

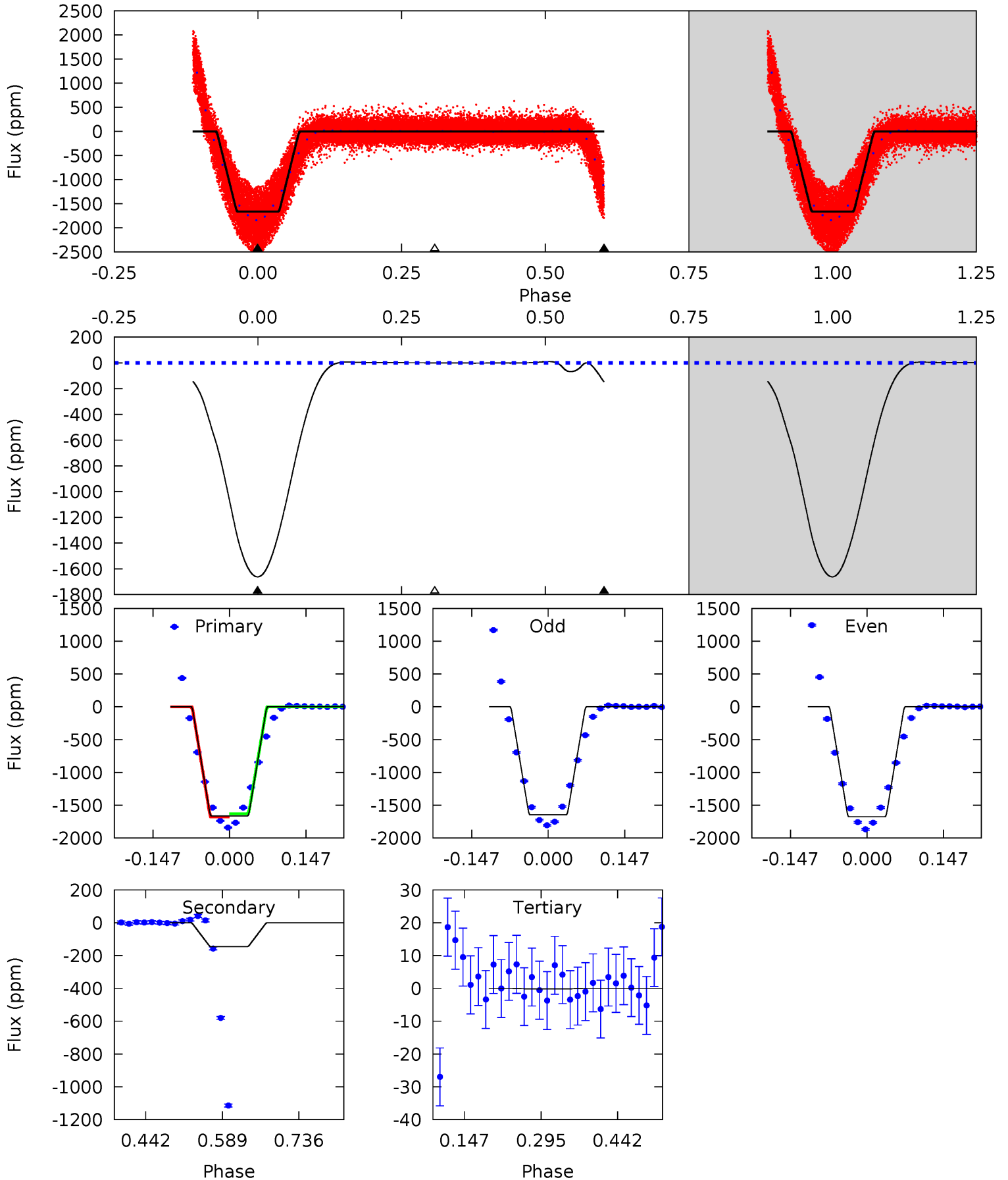
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 14.1 | 1.79 | 1.15 | 0 | 4.54 | 1.59 | 2.82 | 13.0 | 14.1 | 0.64 | 1.79 | 5.15 | 1.58 | 0.39 | 3.81 |



Alt Model-Shift Uniqueness Test

006211547-03, P = 4.870965 Days, E = 129.369541 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|-------|------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 1229 | 107.6 | 0.12 | 0 | 4.48 | 1.45 | 1.48 | 1229 | 1229 | 107.5 | 107.6 | 10.9 | 0.94 | 0.01 | 3.20 |



Stellar Parameters For KIC 006211547

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6483^{+162}_{-194} | $4.018^{+0.234}_{-0.126}$ | $-0.120^{+0.250}_{-0.250}$ | $1.818^{+0.411}_{-0.503}$ | $1.258^{+0.201}_{-0.181}$ | $0.295^{+0.405}_{-0.108}$ |
| | +2%/-3% | +6%/-3% | +208%/-208% | +23%/-28% | +16%/-14% | +137%/-37% |
| Source | PHO1 | FLK73 | 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 006211547-03 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|--------------|------------------------|----------------------|----------------------|---------------------------|
| DV | -4 ± 2 | $1.63^{+0.26}_{-0.26}$ | 2165^{+134}_{-159} | 3518^{+328}_{-463} | $2.969^{+2.219}_{-1.733}$ |
| Alt. | -146 ± 1 | $8.13^{+0.94}_{-1.21}$ | 2160^{+137}_{-162} | 3813^{+71}_{-84} | $4.535^{+1.515}_{-0.868}$ |

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

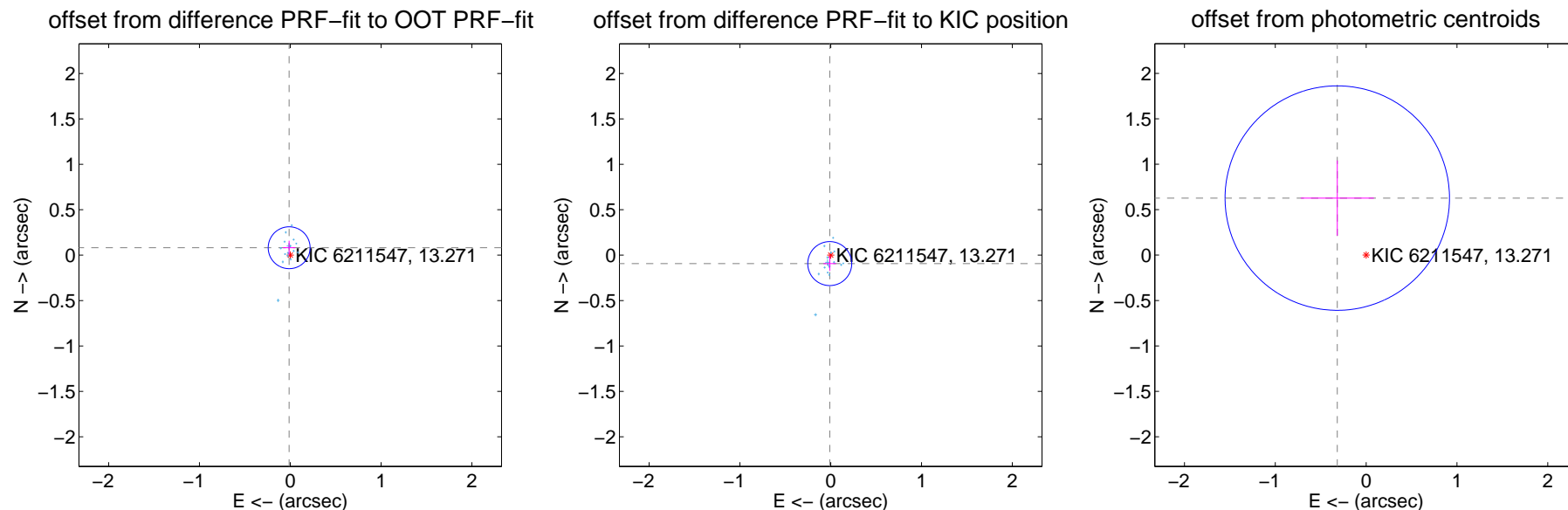
DV Centroid Data

Supplemental centroid analysis for 006211547-03. Kepler magnitude: 13.27. Transit SNR 12.36

There are 17 quarters with good PRF difference image offsets

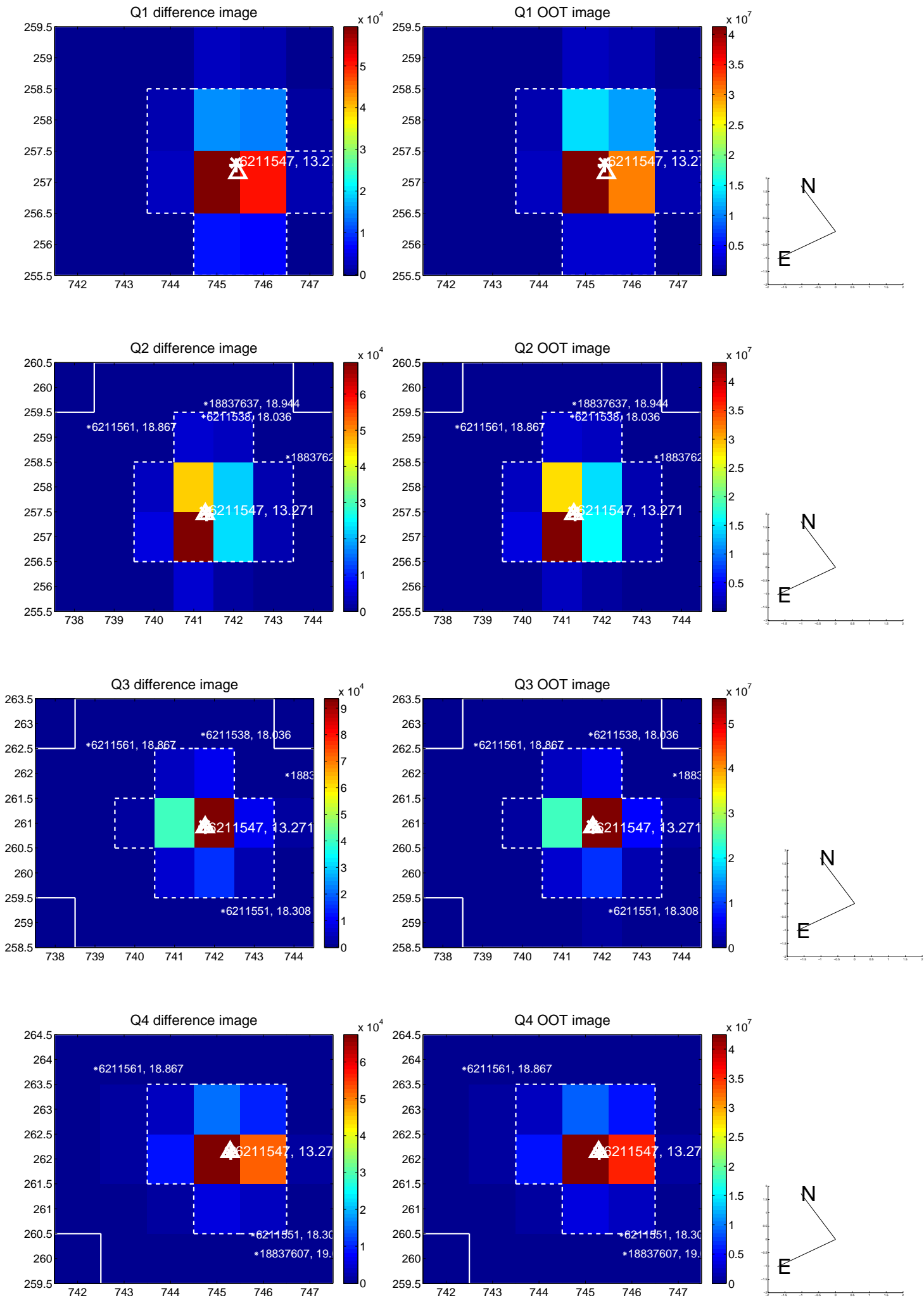
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 0.083 ± 0.077 | 1.08 | 0.012 ± 0.068 | 0.082 ± 0.078 |
| PRF-fit source offset from KIC position | 0.093 ± 0.081 | 1.16 | 0.011 ± 0.069 | -0.093 ± 0.080 |
| photometric centroid source offset | 0.70 ± 0.41 | 1.71 | 0.32 ± 0.40 | 0.63 ± 0.41 |

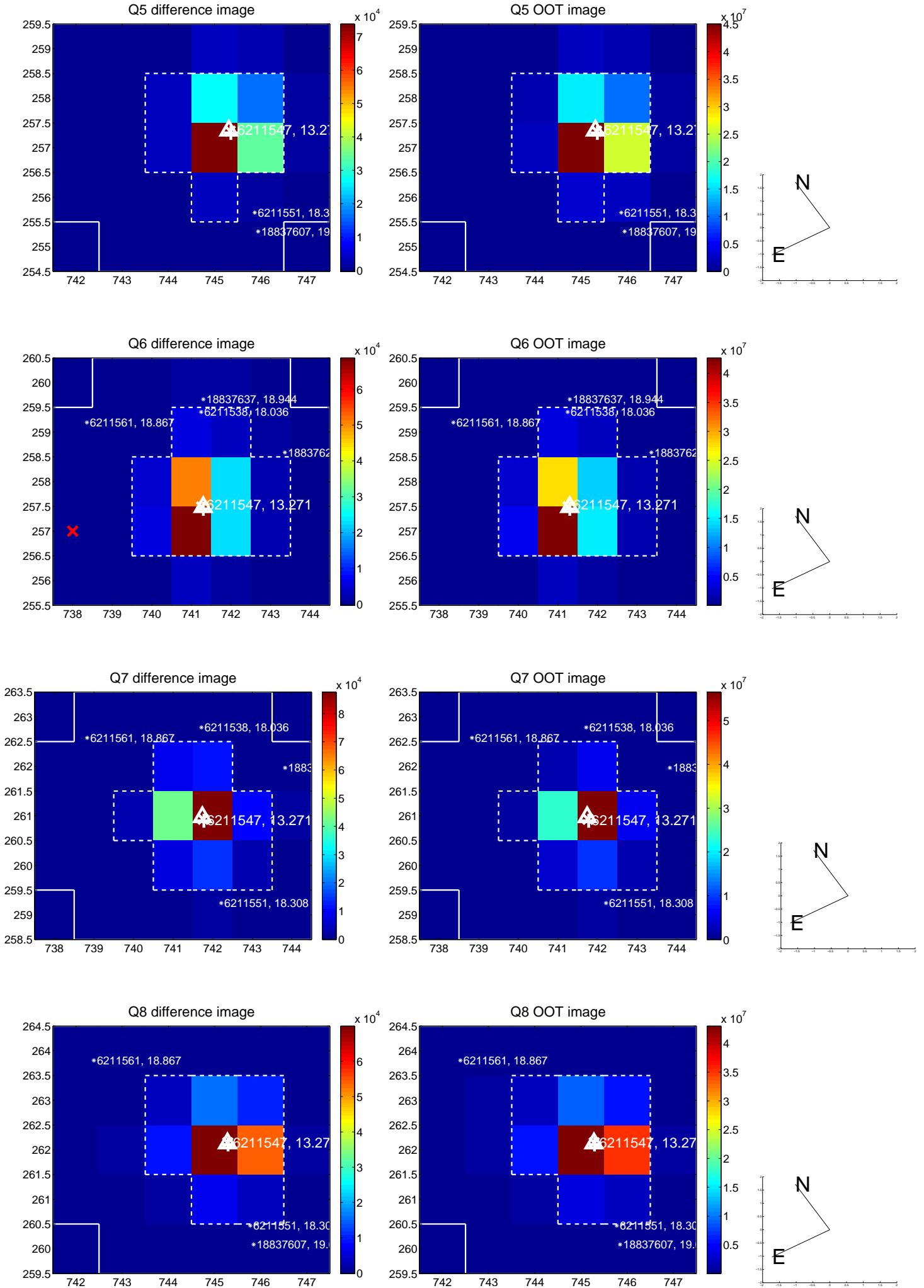


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

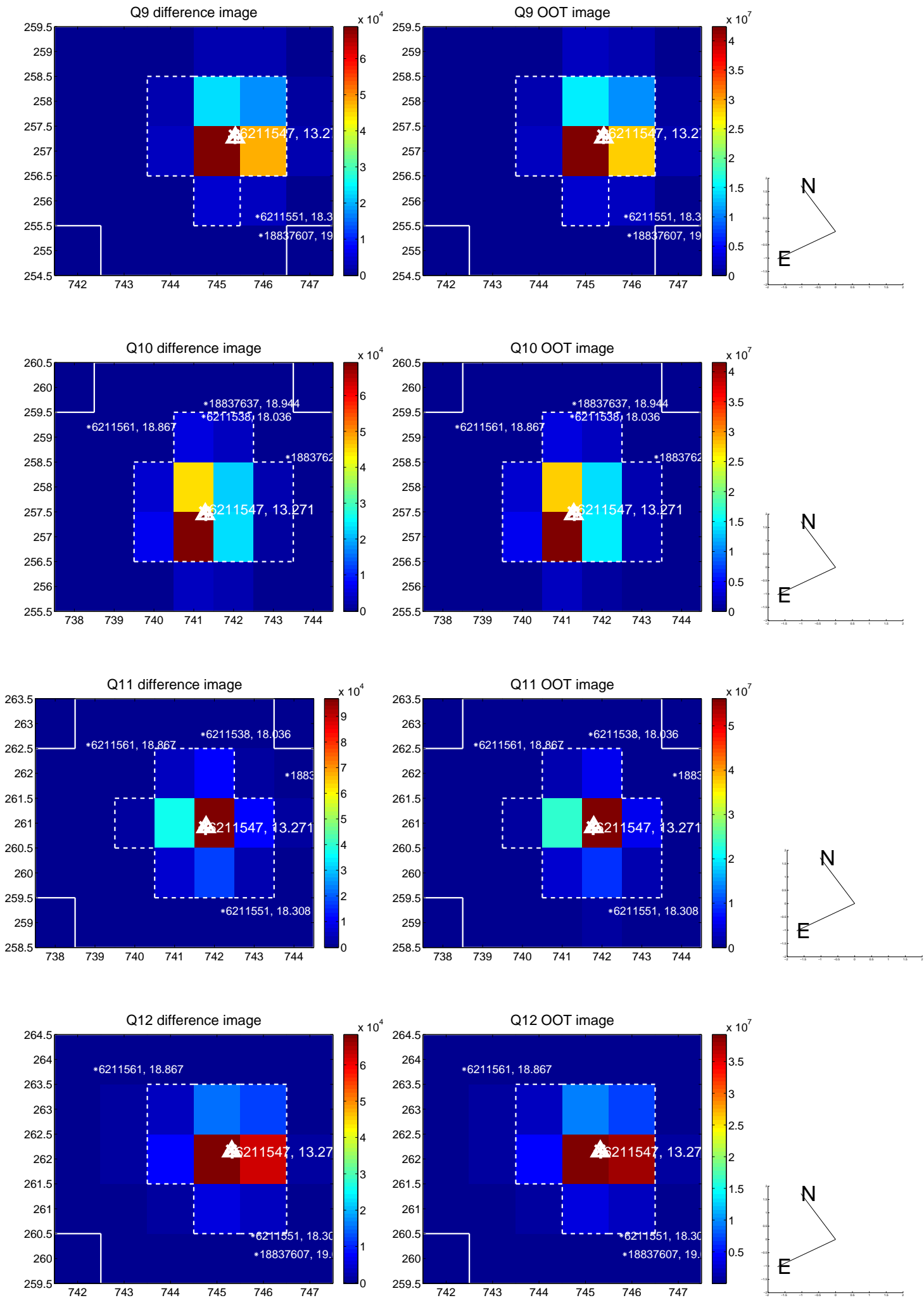
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



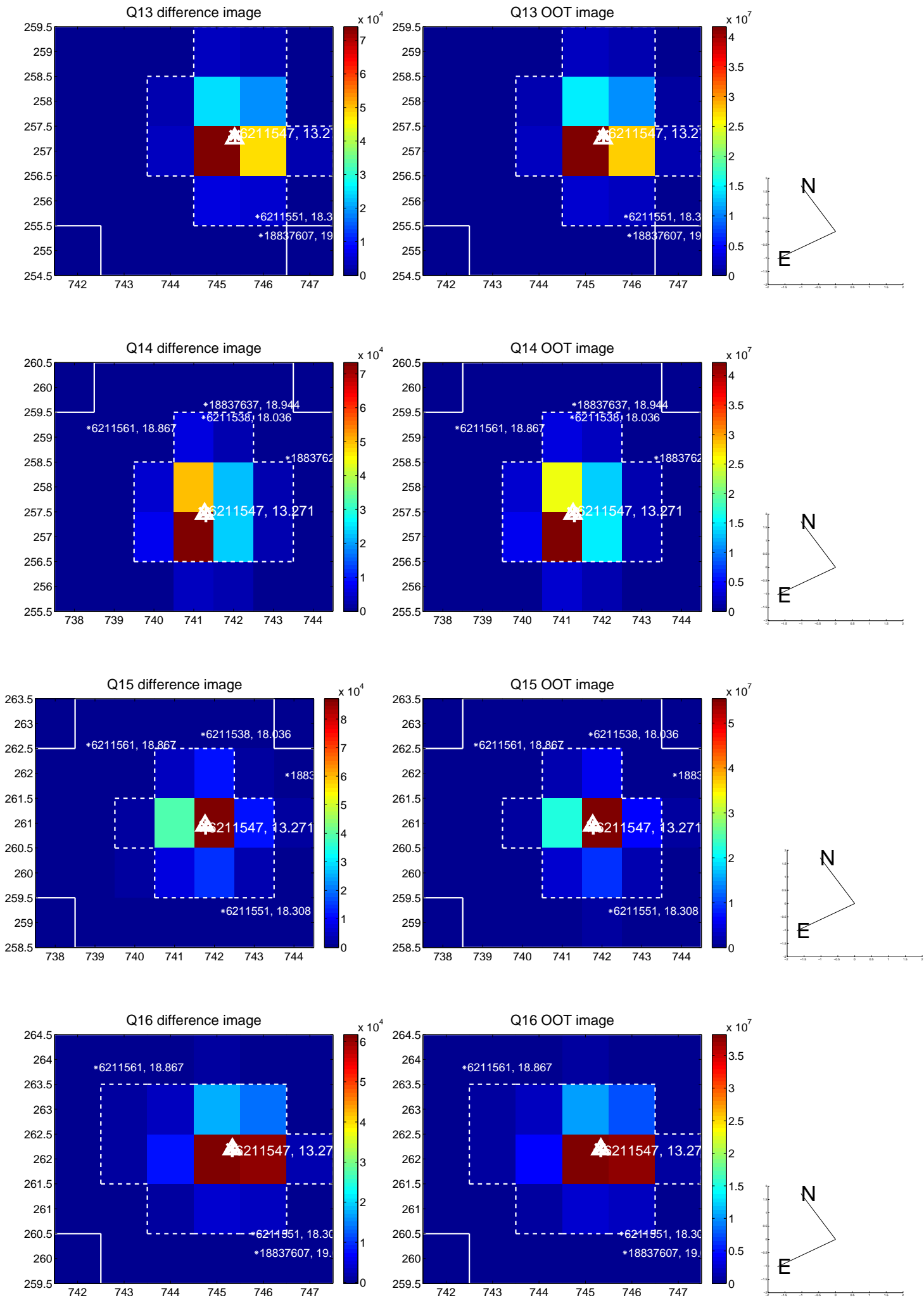
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



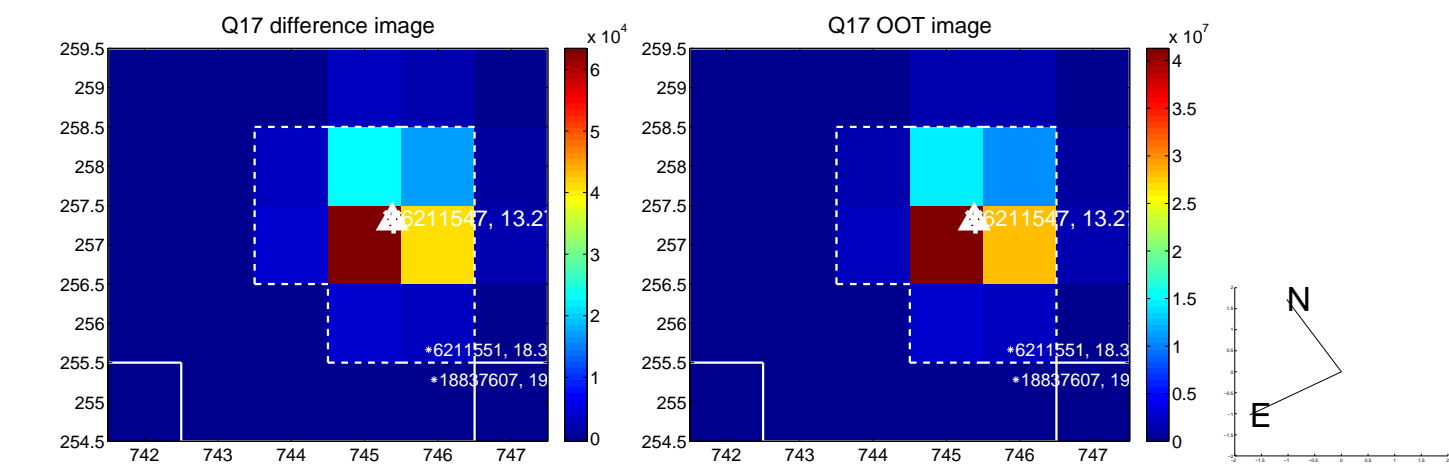
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



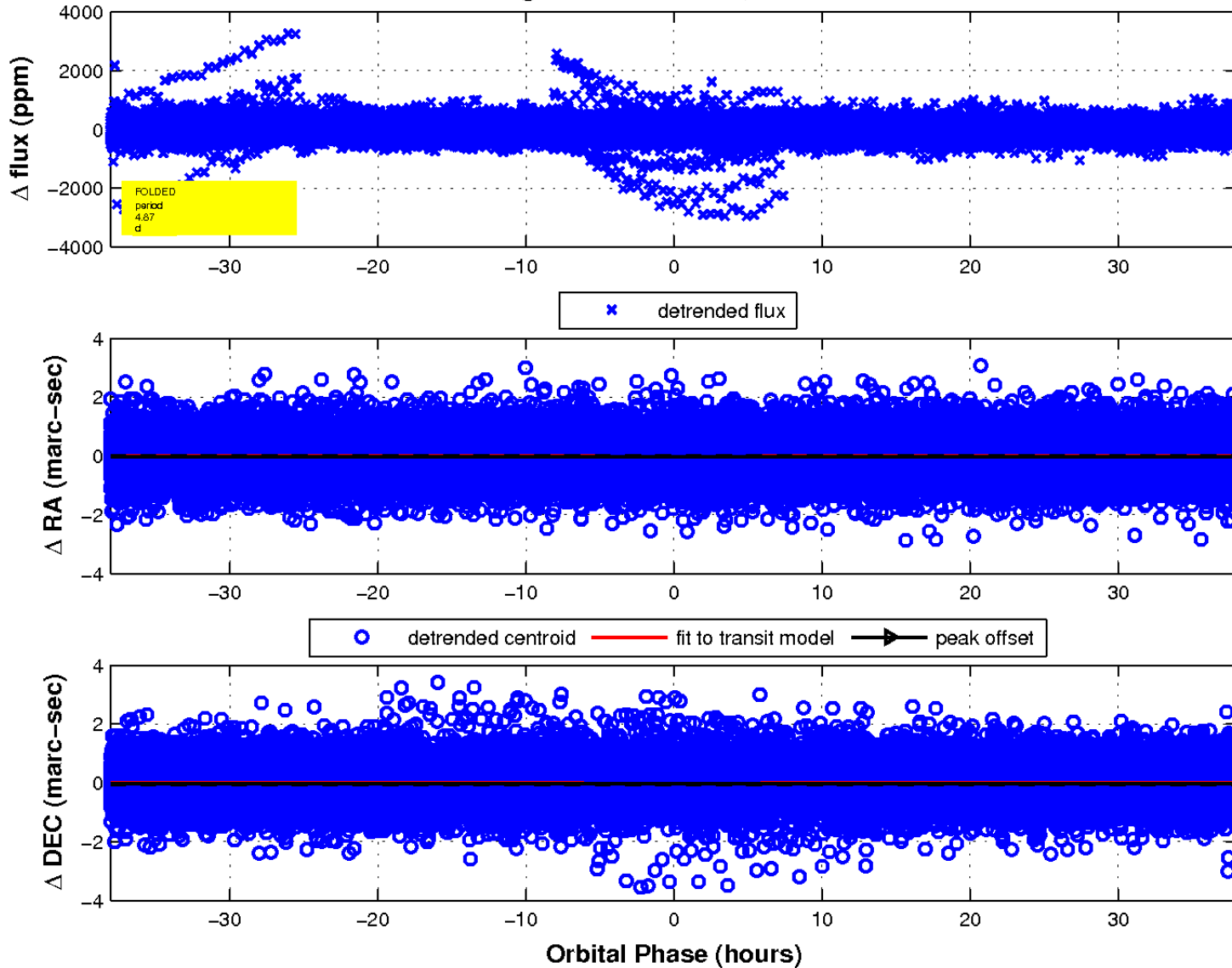
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

