

KIC 006806122

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006806122-01 | OBS | No | 0.981029 | 132.247557 | 111.6 | 3.919 | 10.0 | 9.6 | 1.06 | 6336 | 1.31 | 4099.99 |
| 006806122-02 | OBS | No | 0.980993 | 131.993266 | 151.2 | 6.676 | 12.2 | 10.8 | 1.06 | 6336 | 1.34 | 4100.19 |
| 006806122-04 | OBS | No | 3.631203 | 131.999210 | 607.5 | 3.961 | 9.2 | 7.0 | 1.06 | 6336 | 2.69 | 716.08 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006806122-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT |
| 006806122-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD |
| 006806122-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_NOFITS |

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

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

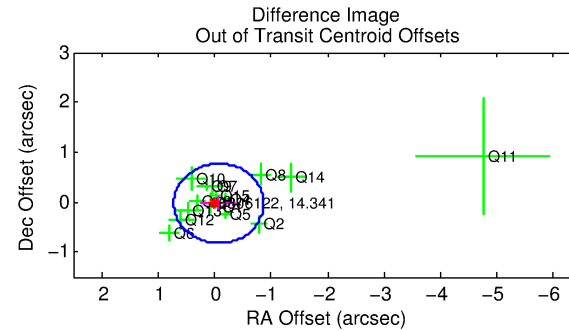
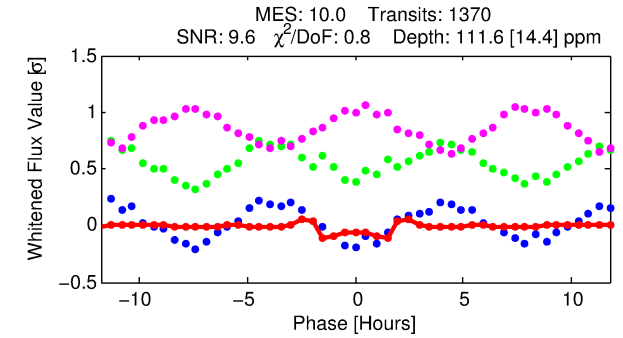
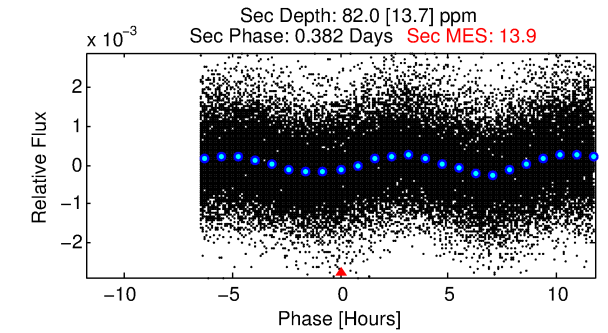
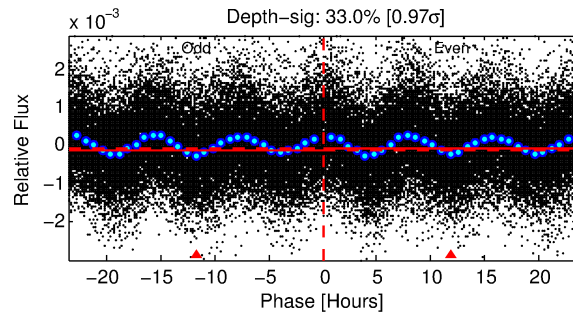
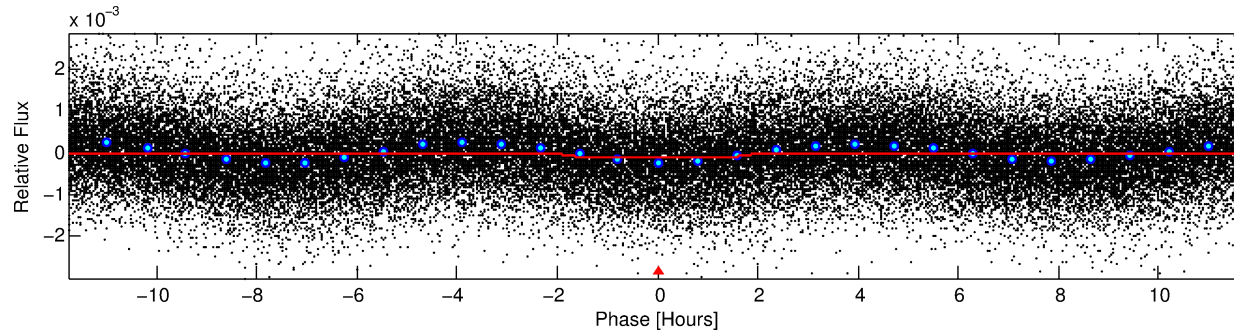
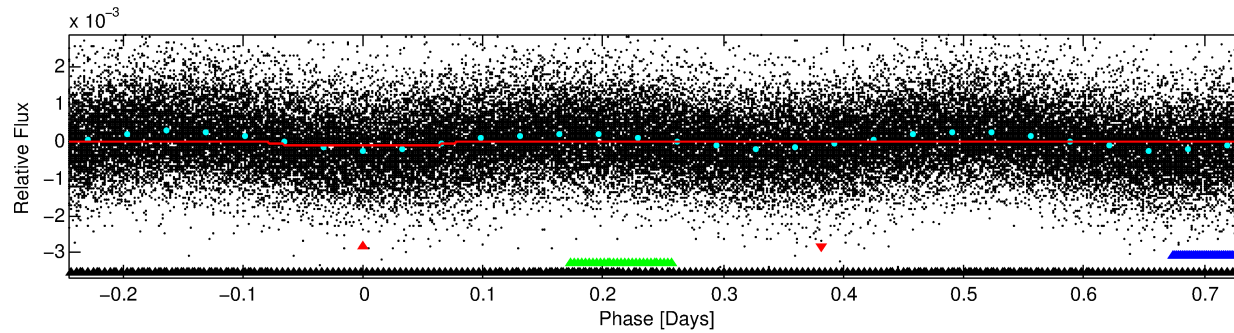
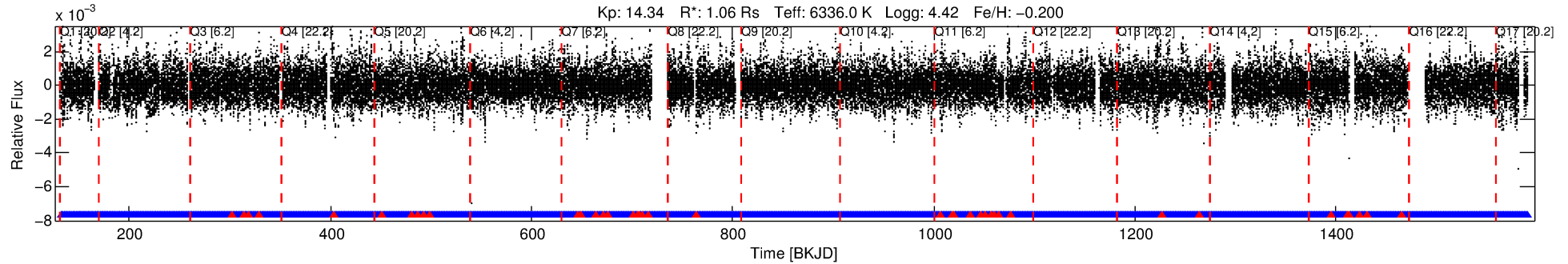
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006806122-01

No Significant Match Found

DV One-Page Summary

KIC: 6806122 Candidate: 1 of 4 Period: 0.981 d



DV Fit Results:

Period = 0.98103 [0.00001] d
Epoch = 132.2476 [0.0017] BKJD
Rp/R* = 0.0113 [0.0019]
a/R* = 1.29 [0.43]
b = 0.90 [0.18]
Seff = 4100.00 [1791.00]
Teq = 2040 [223] K
Rp = 1.31 [0.50] Re
a = 0.0199 [0.0057] AU
Ag = 10.36 [5.81] [1.61 σ]
Teffp = 5660 [574] K [5.88 σ]

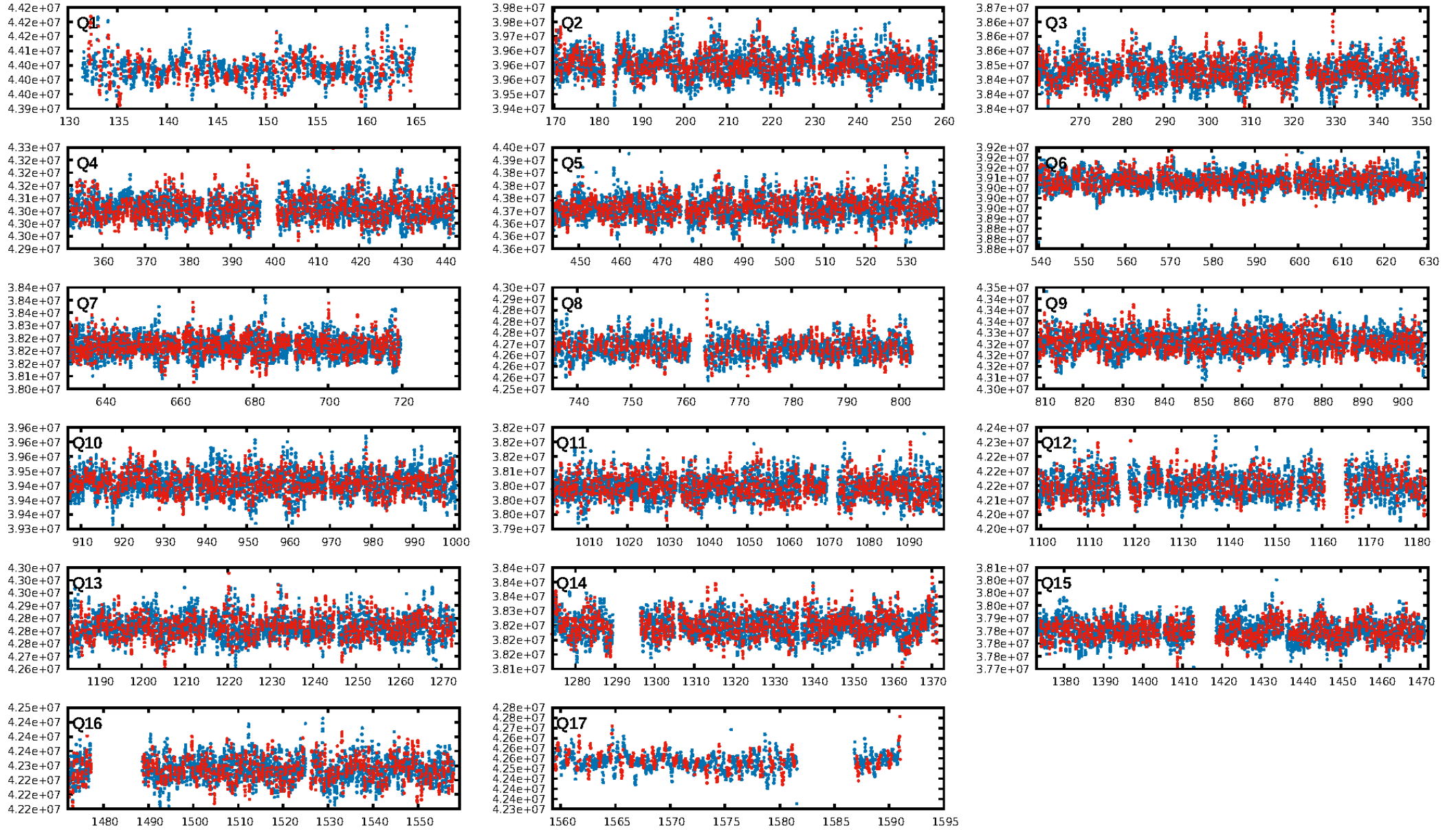
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 100.0% [11.42 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [1267/1308]
GhostDiagnostic-chr: 2.257
Centroid-sig: 91.8%
Centroid-so: 0.109 arcsec [0.25 σ]
OotOffset-rm: 0.079 arcsec [0.30 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-rm: 0.130 arcsec [0.40 σ]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 0.00 [0/17]

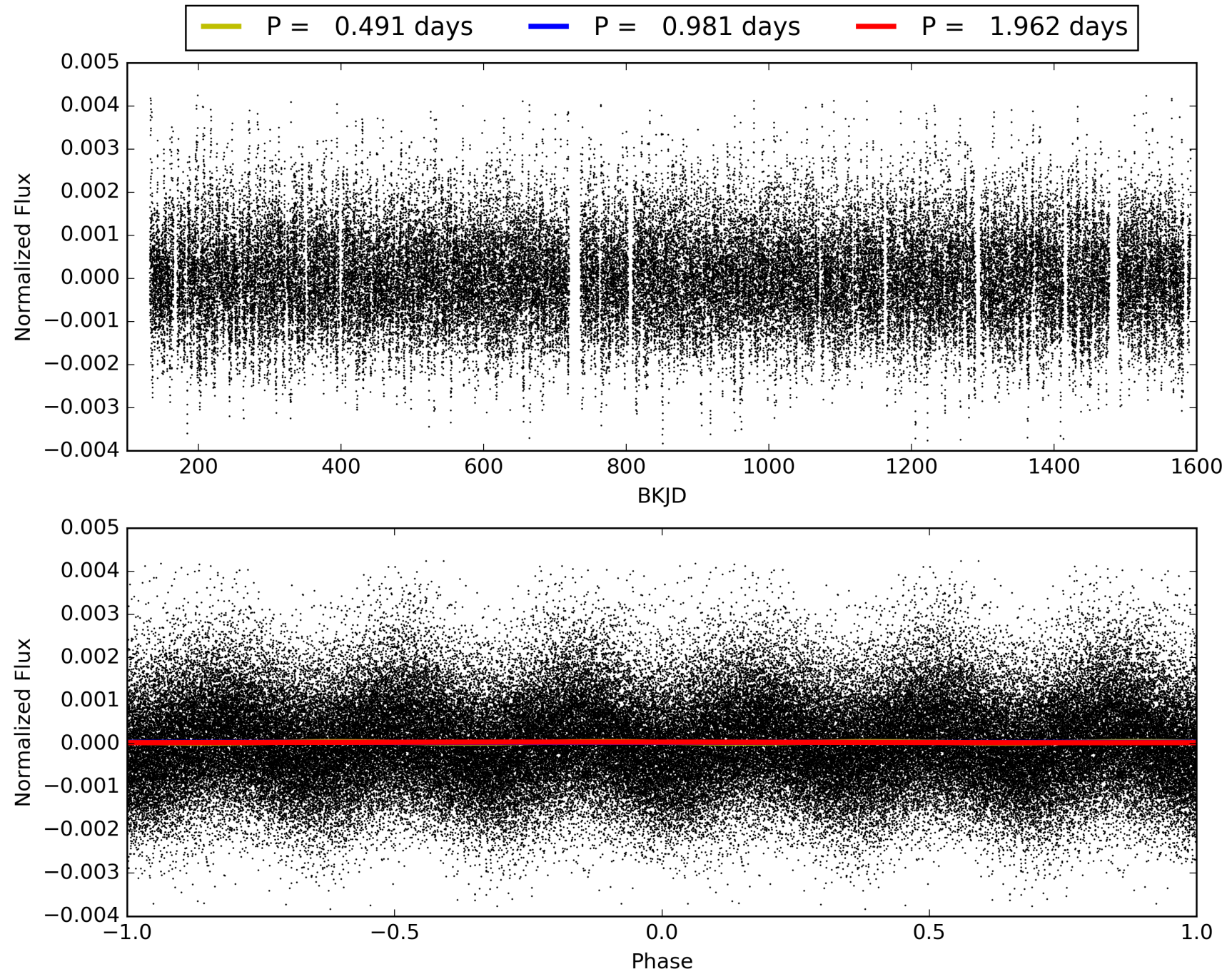
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:36:06 Z

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

TCE 006806122-01, PDC Light Curves

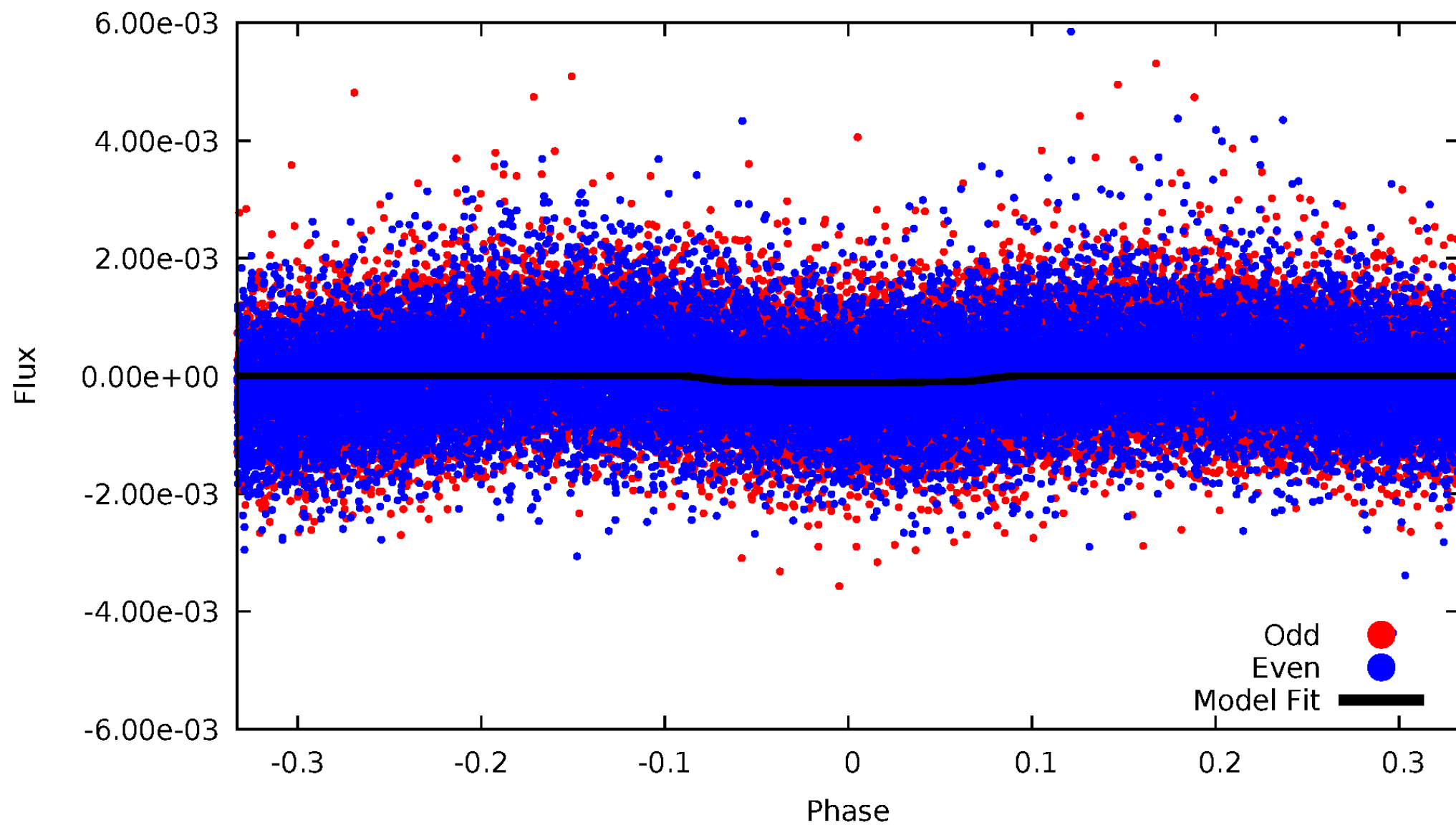


TCE 006806122-01



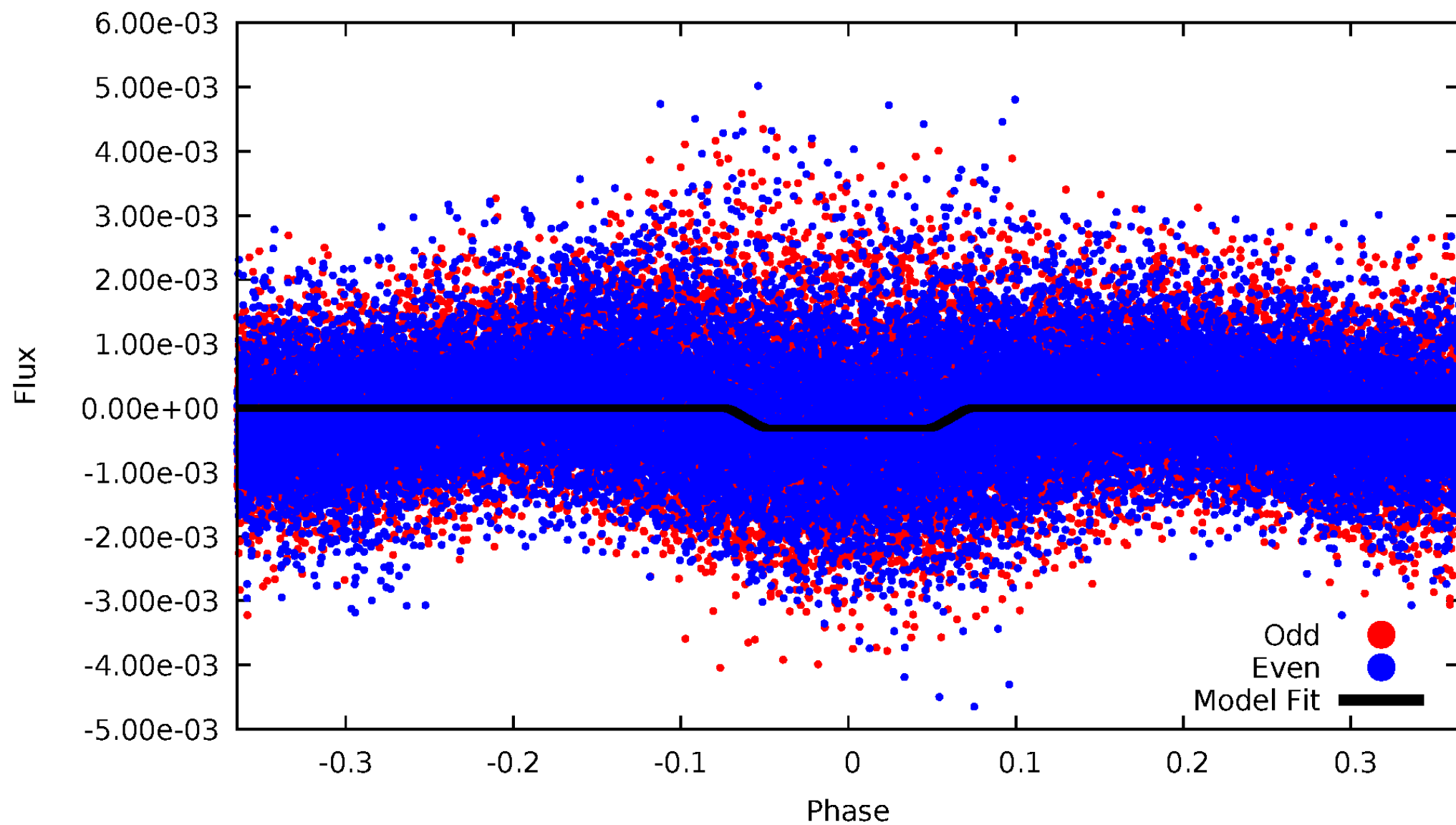
DV Odd/Even

TCE 006806122-01



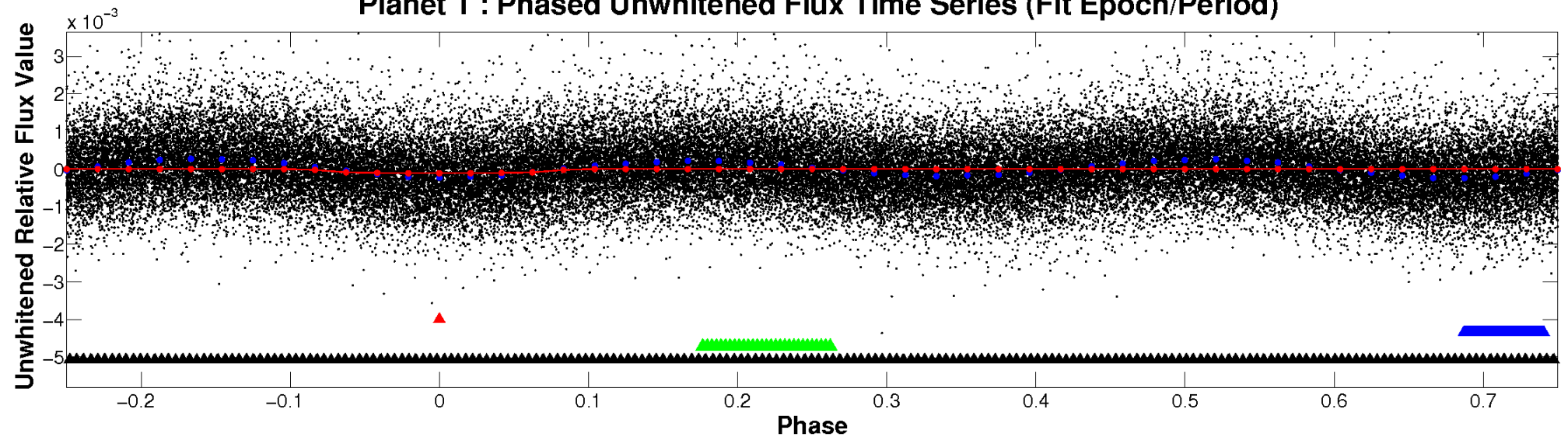
ALT Odd/Even

TCE 006806122-01

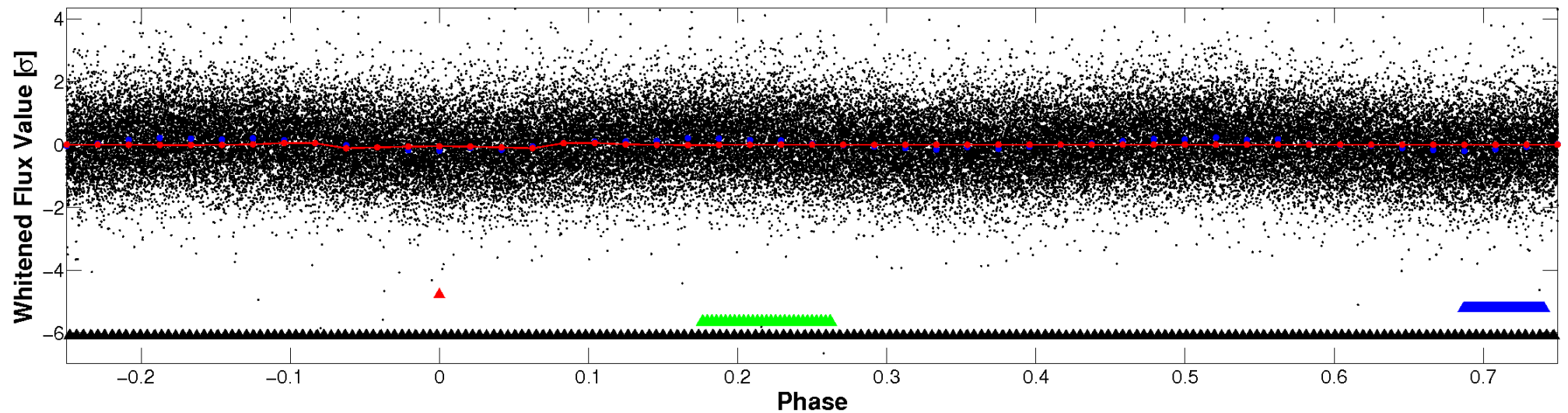


Non-Whitened Vs. Whitened Light Curve

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

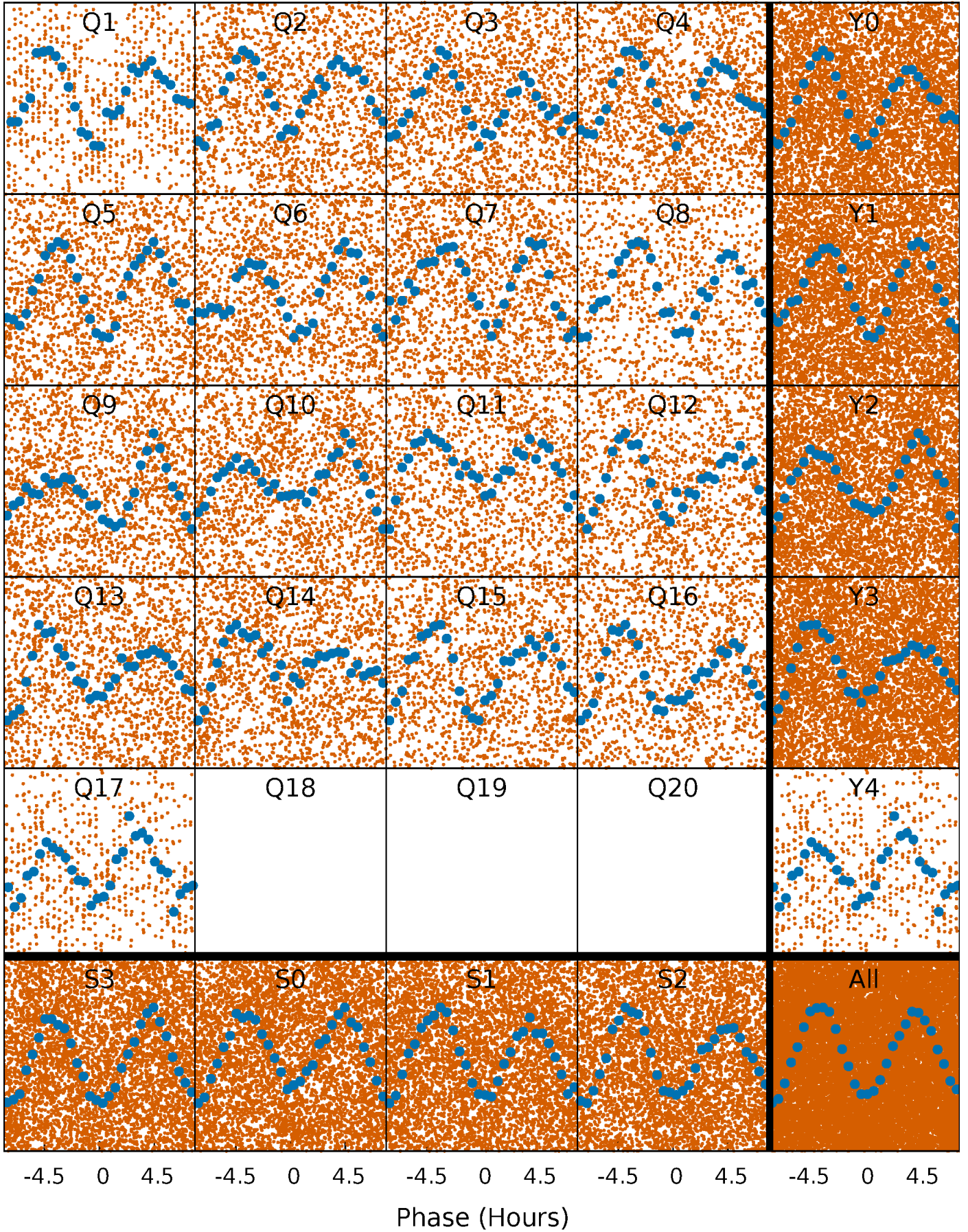


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



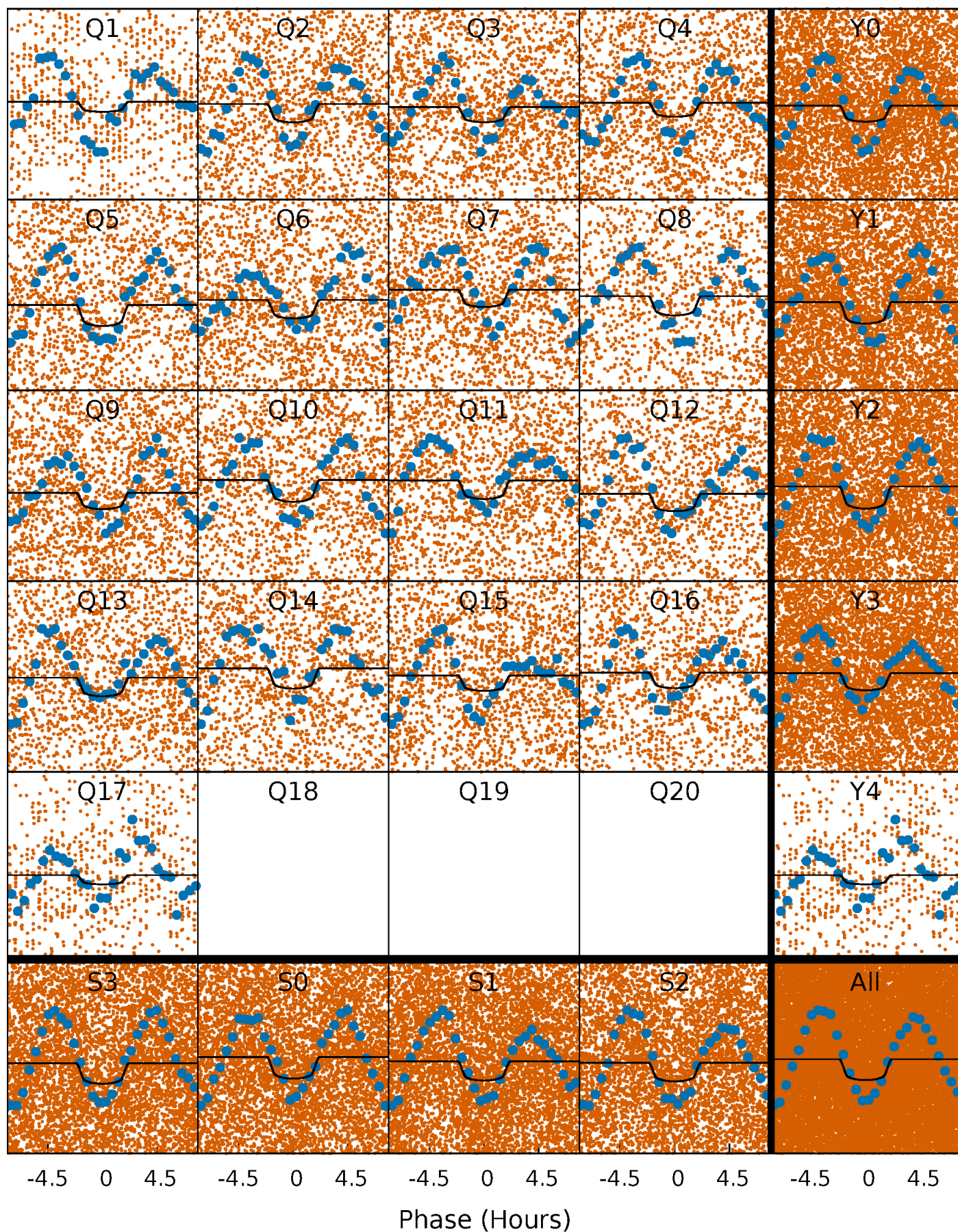
PDC Quarter-Phased Transit Curves

TCE 006806122-01 P= 0.981029 Days $T_0=132.247557$ (BKJD)



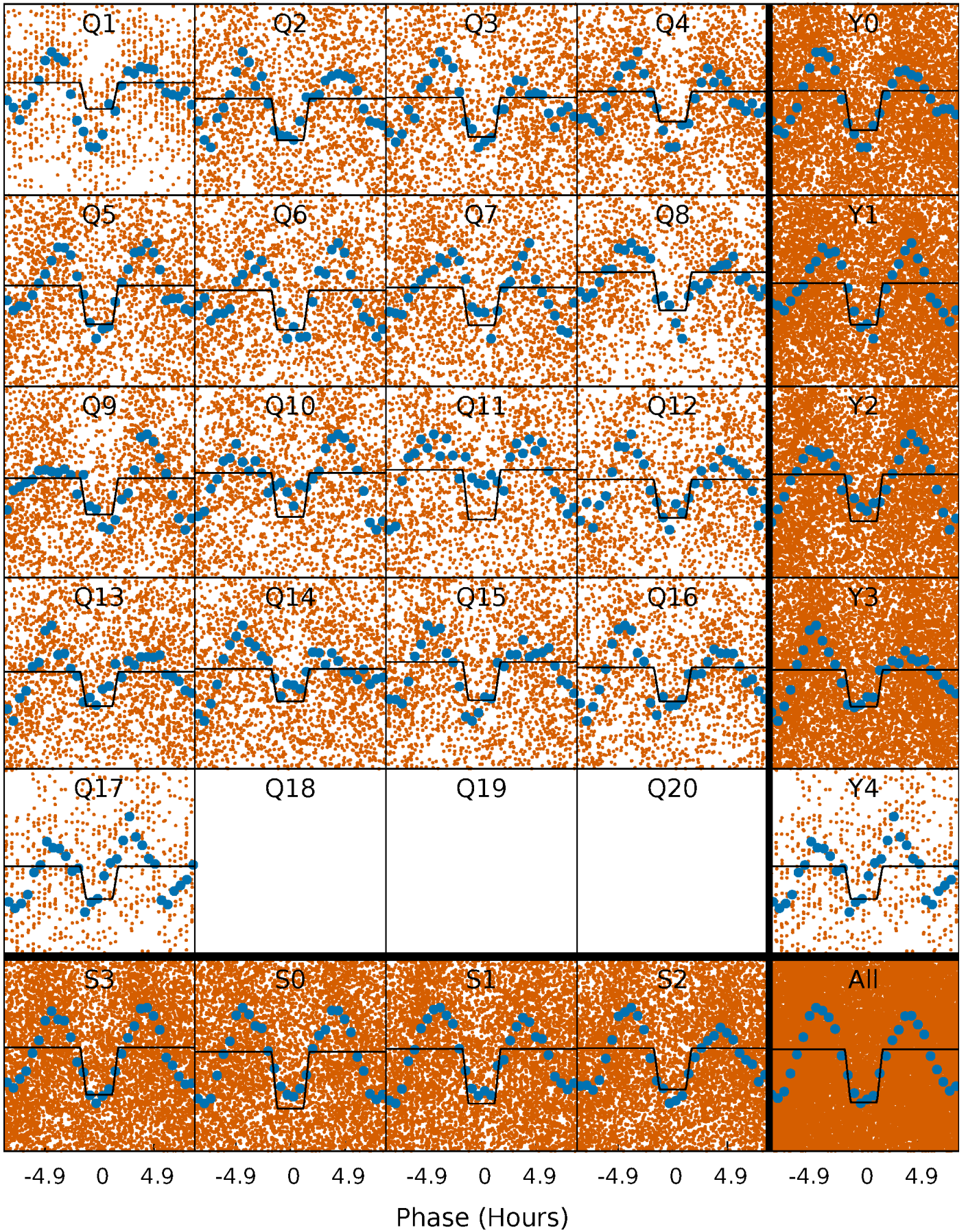
DV Quarter-Phased Transit Curves

TCE 006806122-01 P= 0.981029 Days $T_0=132.247557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

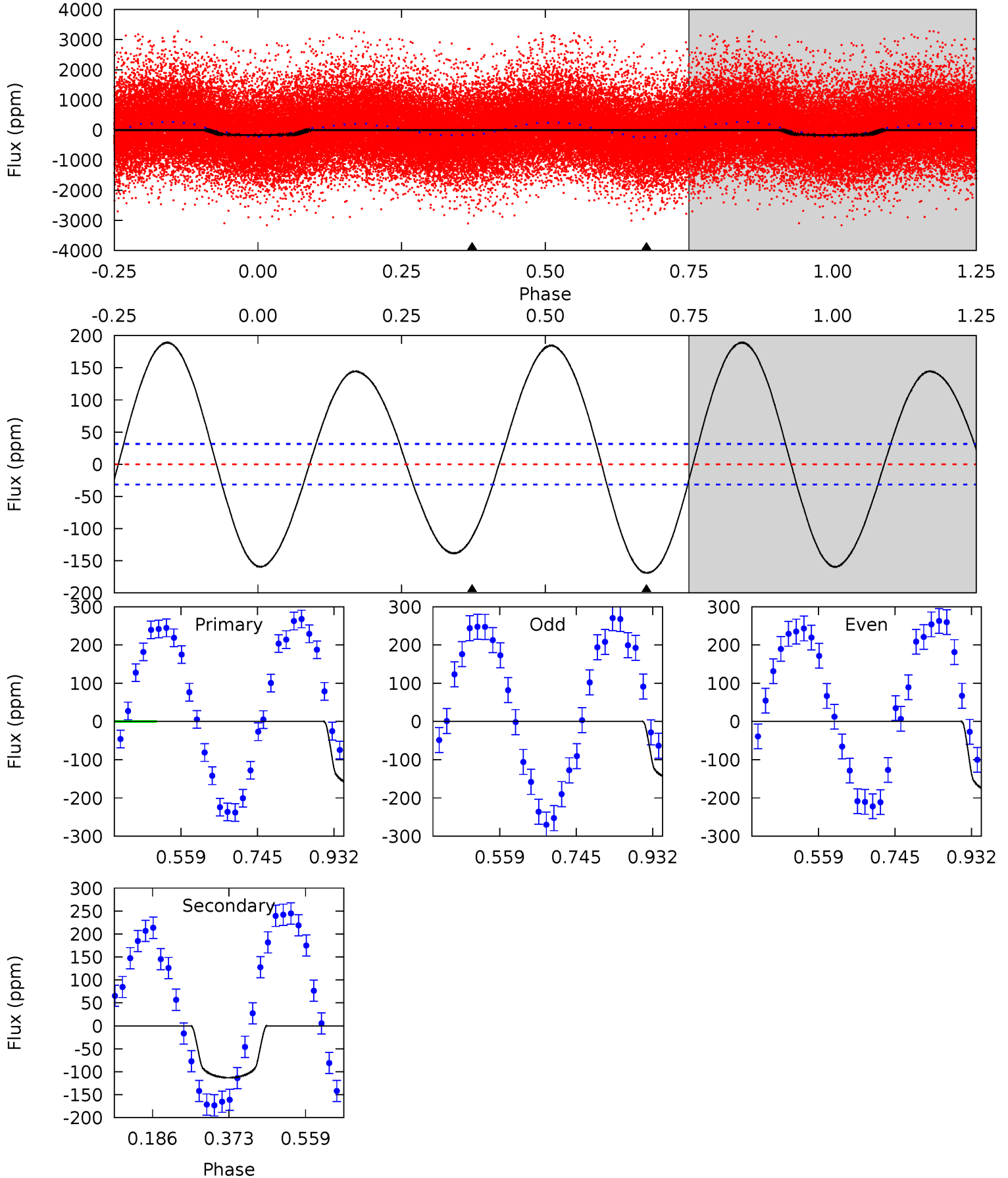
TCE 006806122-01 P= 0.981029 Days $T_0=132.256073$ (BKJD)



DV Model-Shift Uniqueness Test

006806122-01, P = 0.981029 Days, E = 131.266528 Days

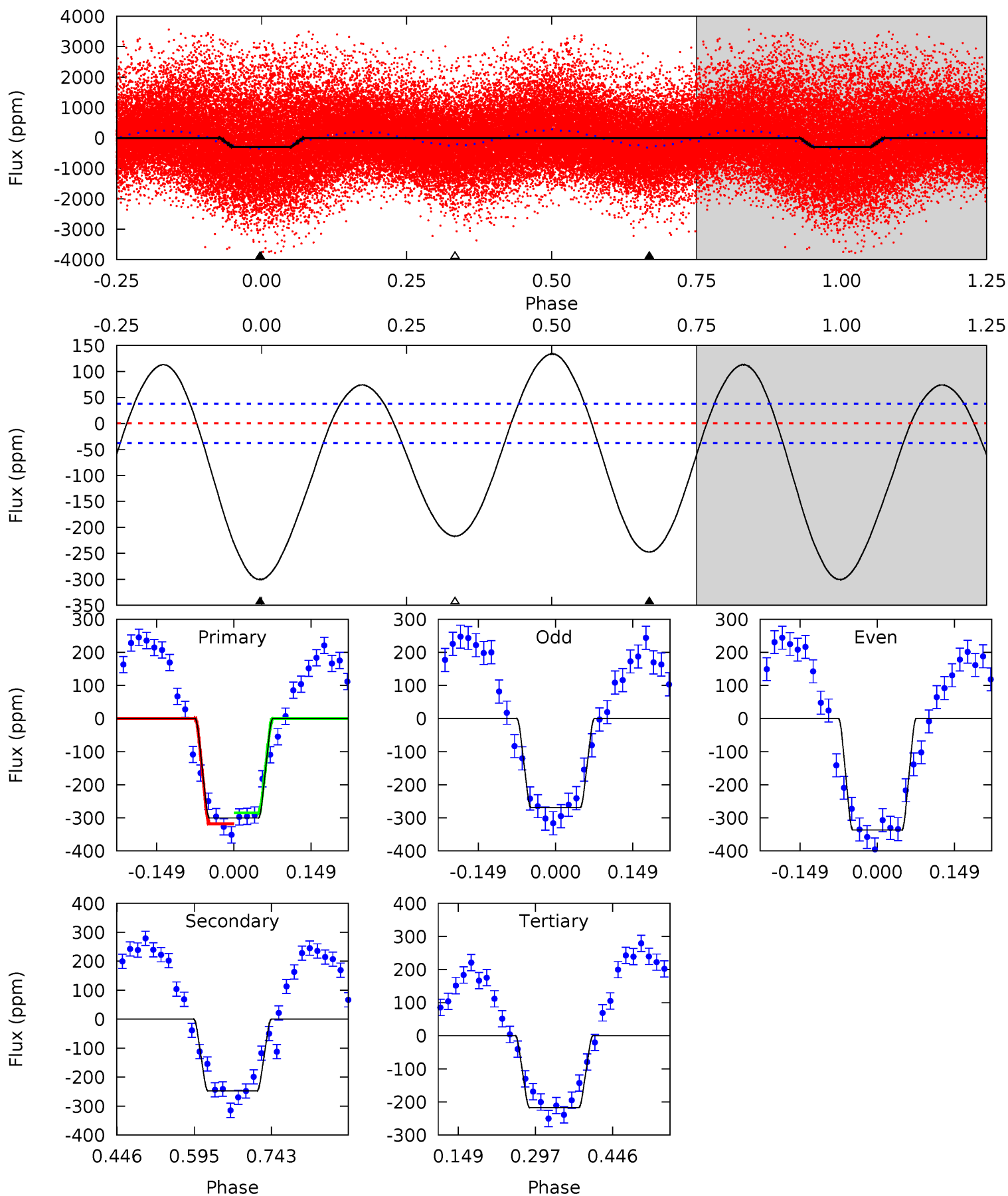
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 23.6 | 15.8 | 0 | 0 | 4.43 | 1.32 | 15.6 | 23.6 | 23.6 | 15.8 | 15.8 | 2.46 | 1.02 | 0.53 | 1.74 |



Alt Model-Shift Uniqueness Test

006806122-01, P = 0.981029 Days, E = 131.275044 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 35.6 | 29.3 | 25.7 | 0 | 4.48 | 1.44 | 14.3 | 9.86 | 35.6 | 3.59 | 29.3 | 4.01 | 0.80 | 0.31 | 2.04 |



Stellar Parameters For KIC 006806122

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6336^{+169}_{-225} | $4.425^{+0.070}_{-0.224}$ | $-0.200^{+0.250}_{-0.300}$ | $1.060^{+0.364}_{-0.121}$ | $1.089^{+0.169}_{-0.139}$ | $1.289^{+0.392}_{-0.708}$ |
| | +3%/-4% | +2%/-5% | +125%/-150% | +34%/-11% | +16%/-13% | +30%/-55% |
| 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 006806122-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|--------------|------------------------|----------------------|----------------------|------------------|
| DV | -113 ± 7 | $1.37^{+0.32}_{-0.27}$ | 2908^{+210}_{-167} | 6075^{+725}_{-499} | 13^{+7}_{-4} |
| Alt. | -247 ± 8 | $2.11^{+0.42}_{-0.31}$ | 2892^{+222}_{-154} | 5940^{+393}_{-361} | 12^{+4}_{-4} |

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

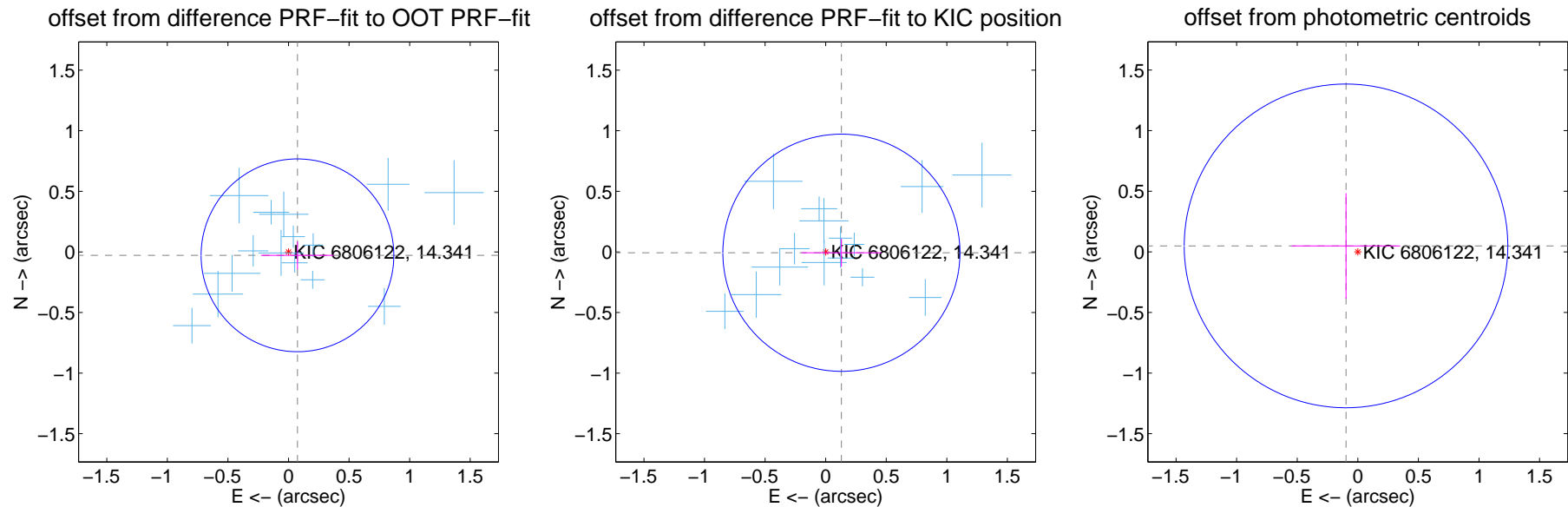
DV Centroid Data

Supplemental centroid analysis for 006806122-01. Kepler magnitude: 14.34. Transit SNR 9.62

There are 15 quarters with good PRF difference image offsets

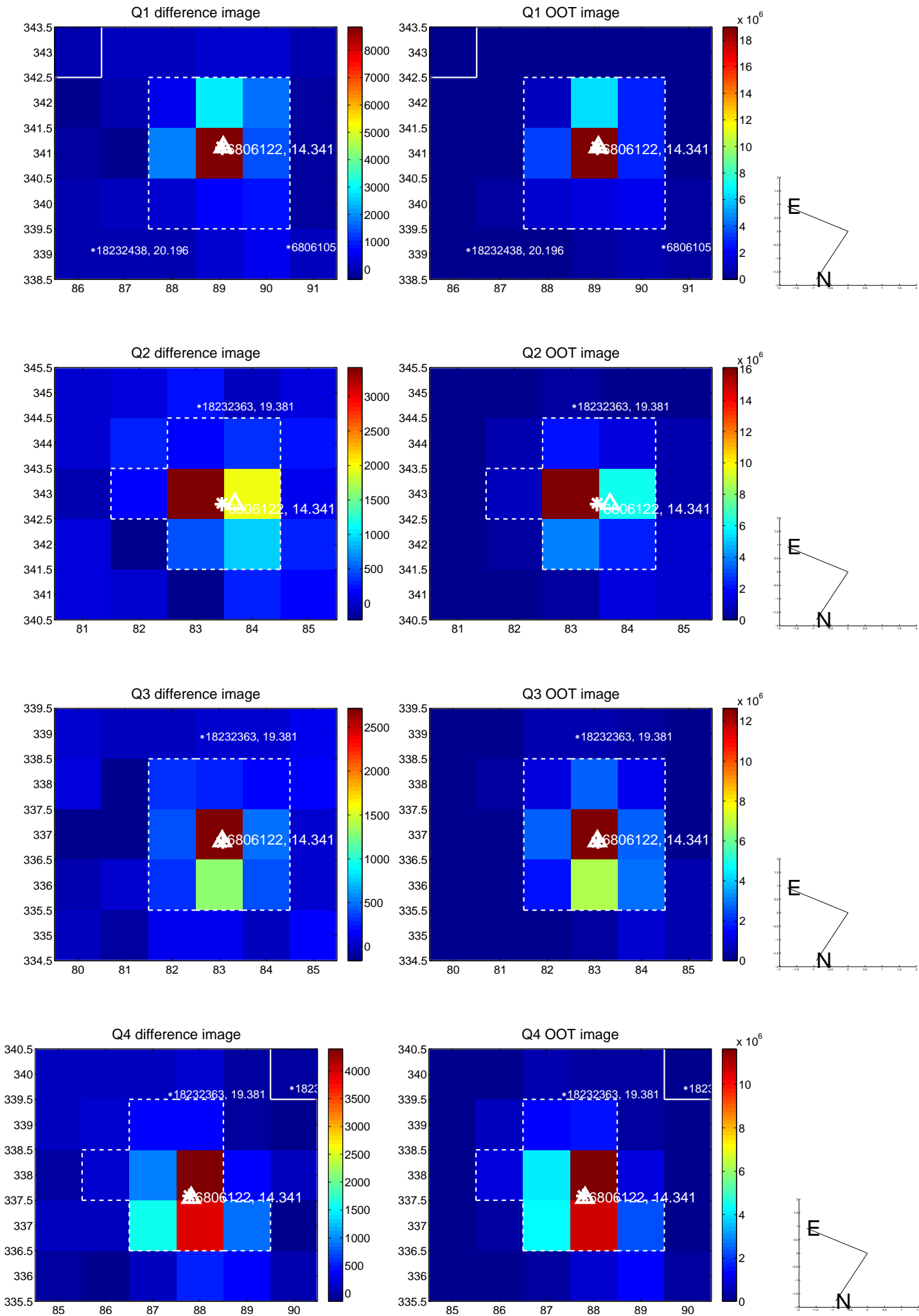
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.079 ± 0.265 | 0.30 | -0.074 ± 0.301 | -0.028 ± 0.114 |
| PRF-fit source offset from KIC position | 0.130 ± 0.326 | 0.40 | -0.130 ± 0.330 | -0.007 ± 0.116 |
| photometric centroid source offset | 0.11 ± 0.45 | 0.25 | 0.10 ± 0.45 | 0.05 ± 0.44 |

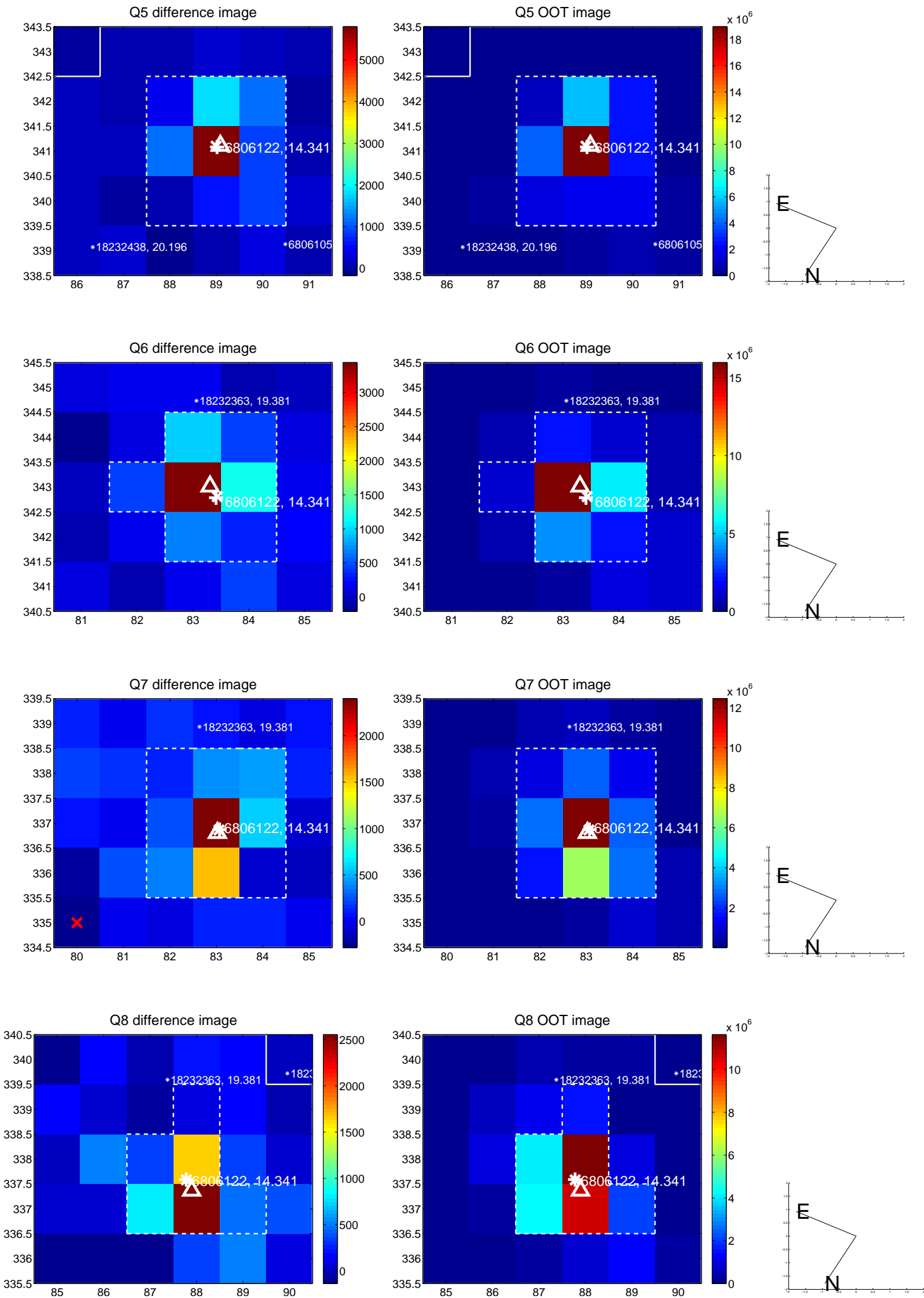


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

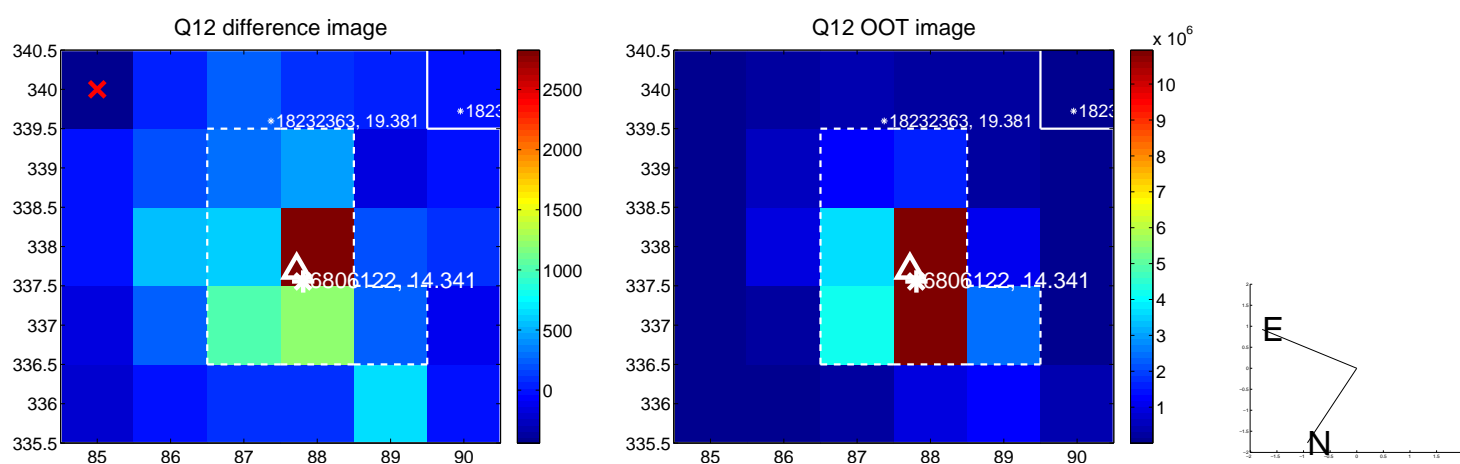
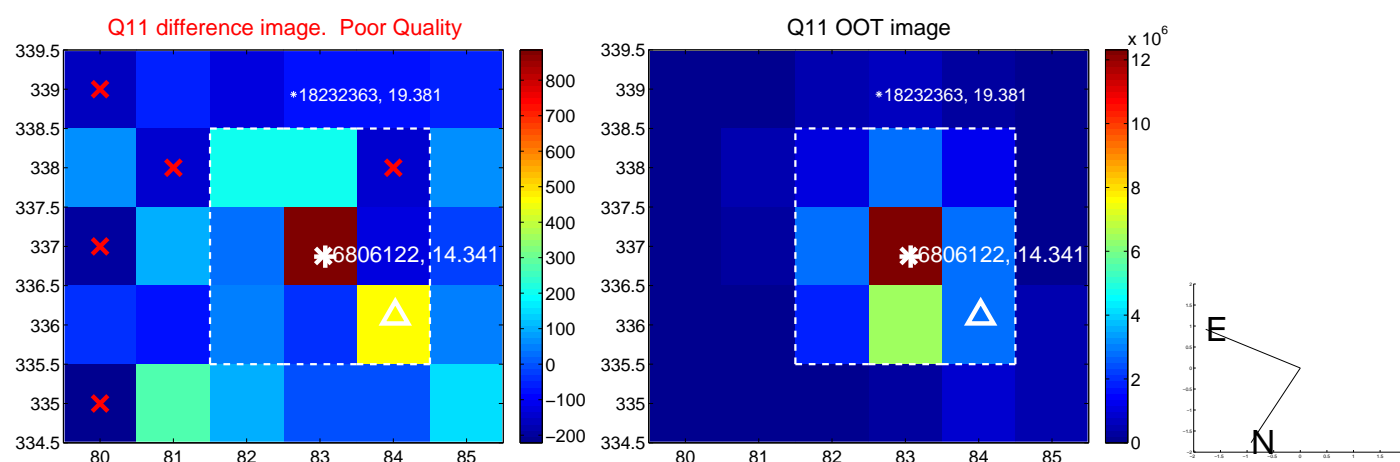
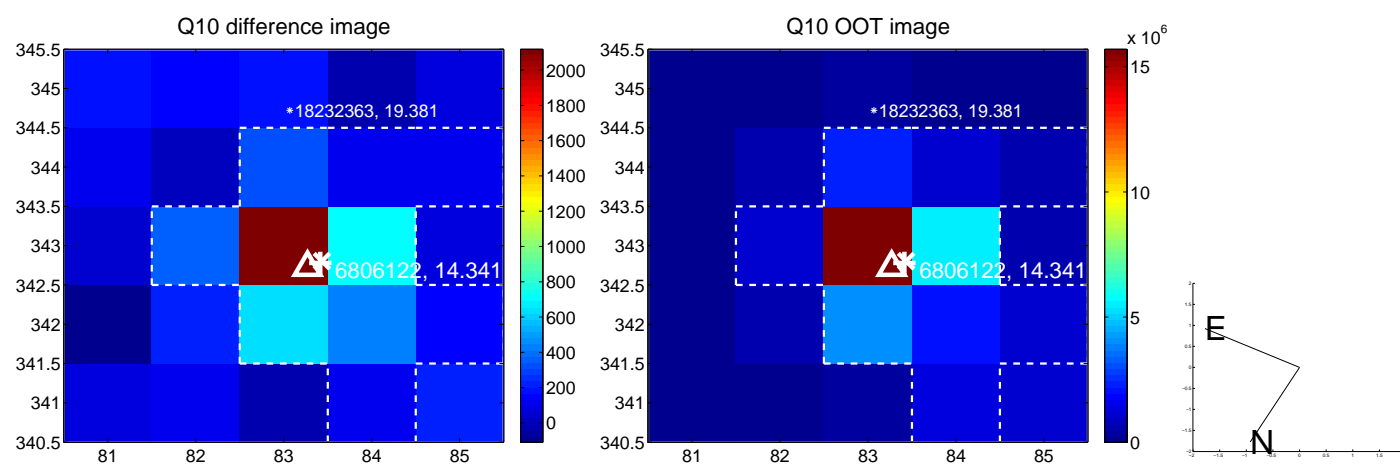
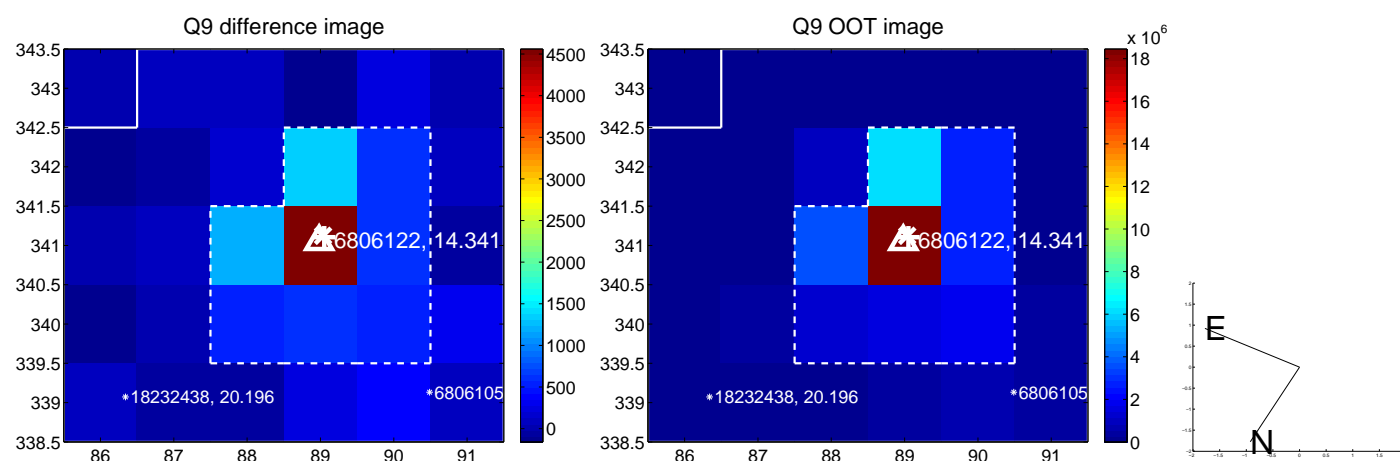
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



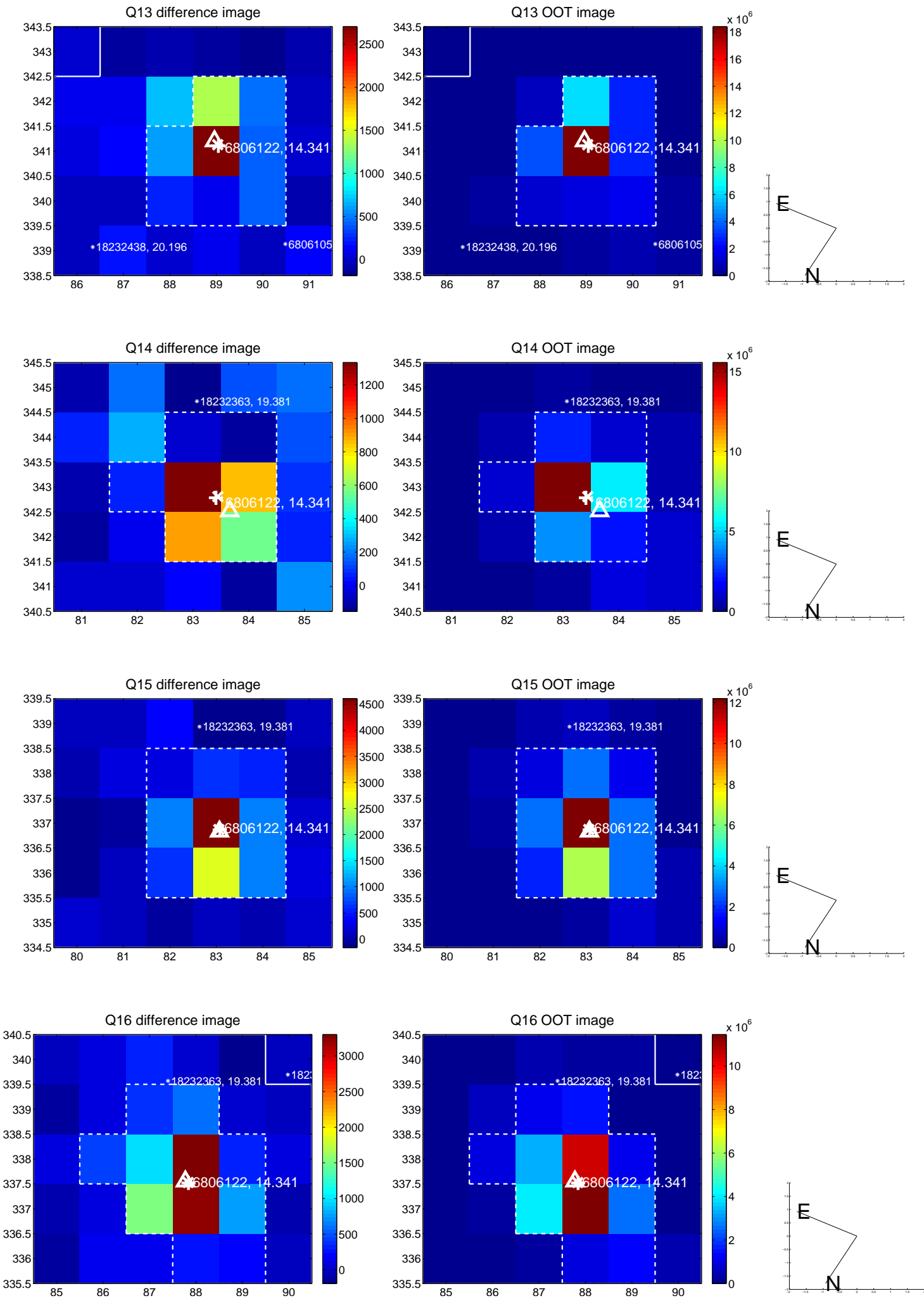
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



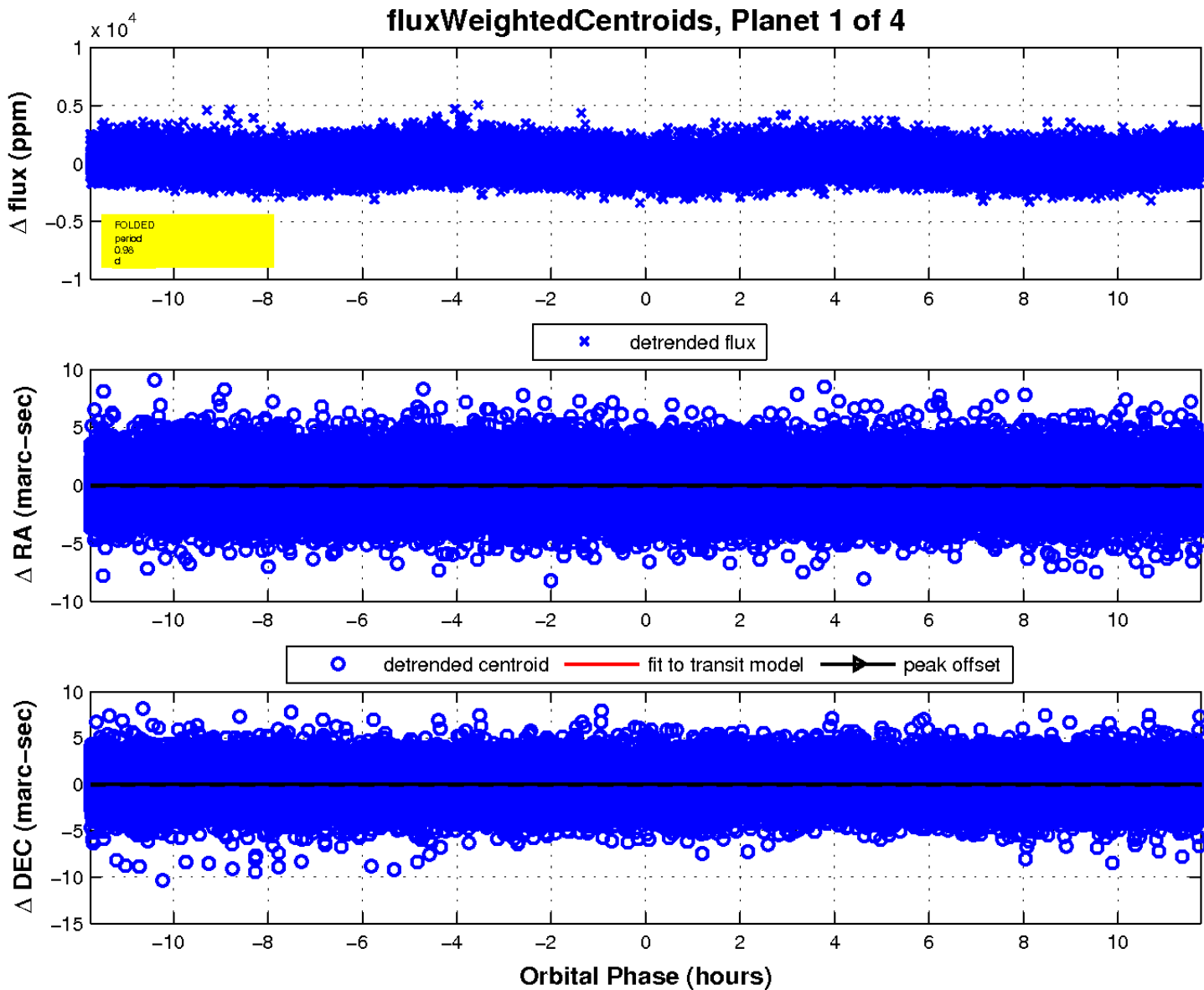
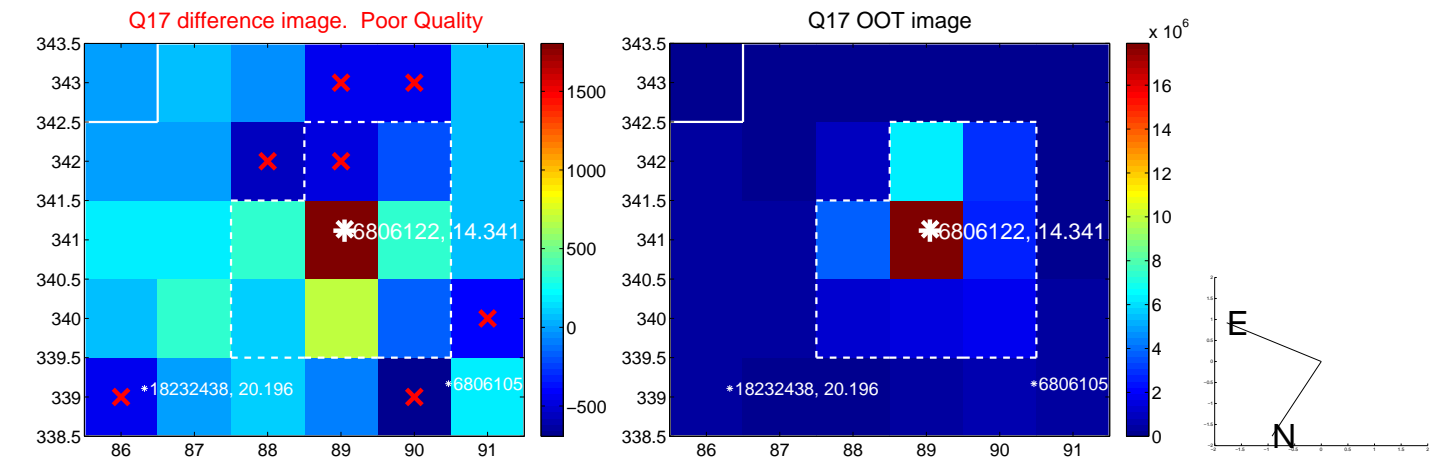
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

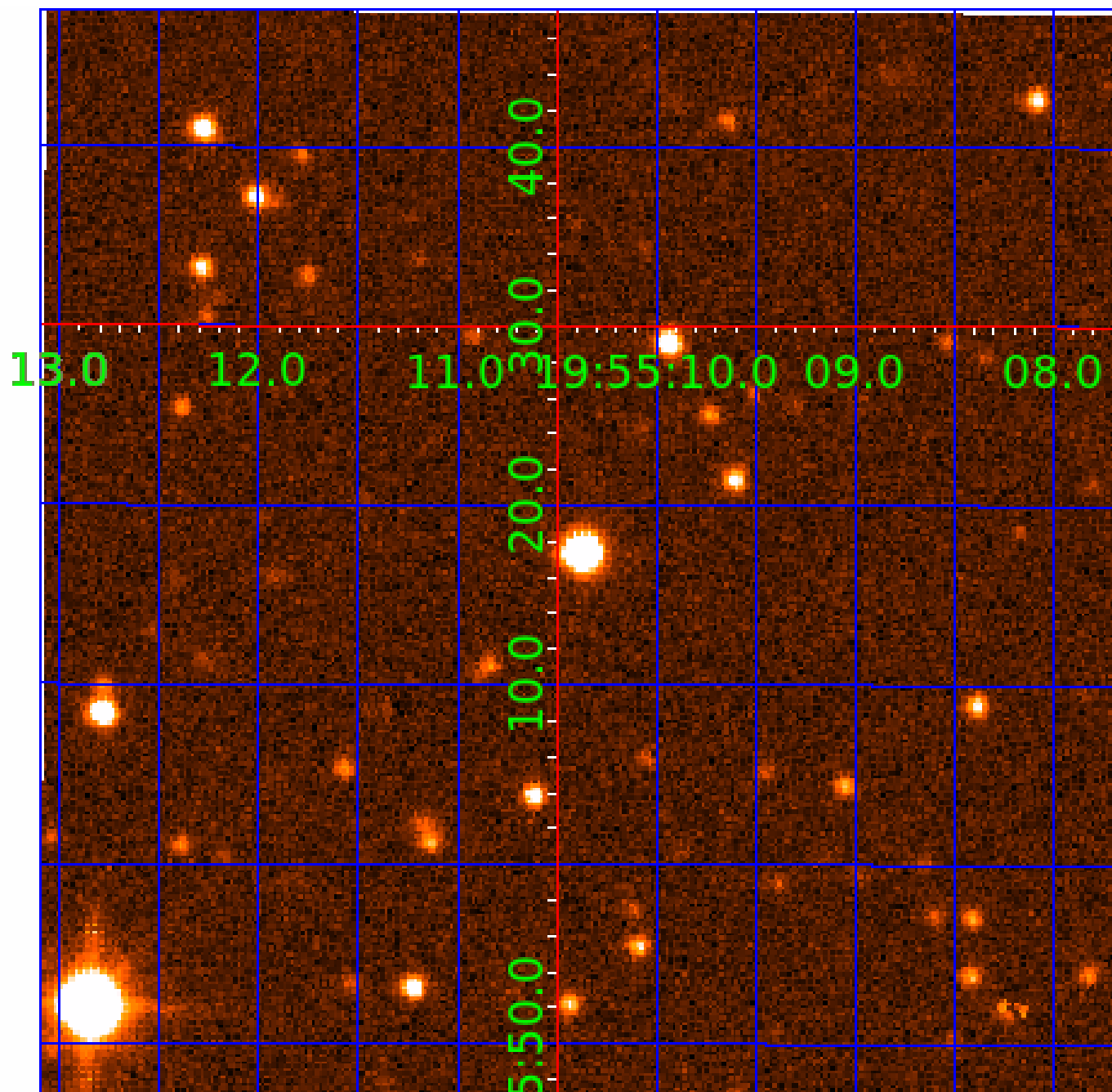


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



UKIRT Image

Declination



KIC 006806122

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006806122-01 | OBS | No | 0.981029 | 132.247557 | 111.6 | 3.919 | 10.0 | 9.6 | 1.06 | 6336 | 1.31 | 4099.99 |
| 006806122-02 | OBS | No | 0.980993 | 131.993266 | 151.2 | 6.676 | 12.2 | 10.8 | 1.06 | 6336 | 1.34 | 4100.19 |
| 006806122-04 | OBS | No | 3.631203 | 131.999210 | 607.5 | 3.961 | 9.2 | 7.0 | 1.06 | 6336 | 2.69 | 716.08 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006806122-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT |
| 006806122-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD |
| 006806122-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_NOFITS |

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

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

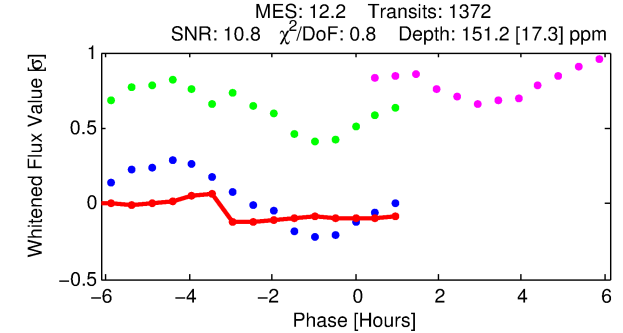
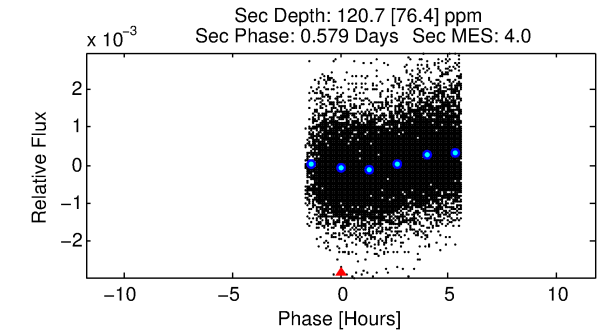
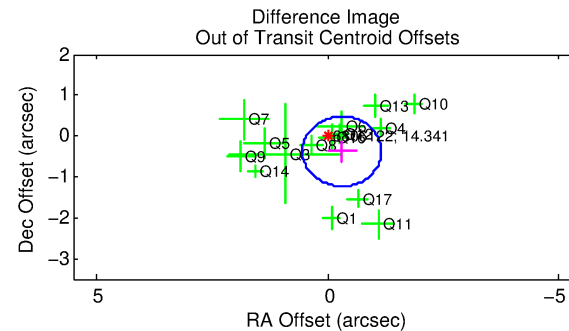
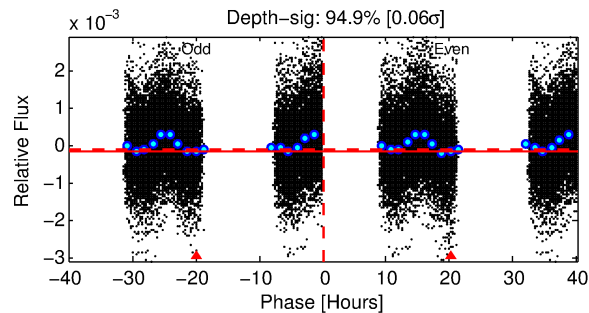
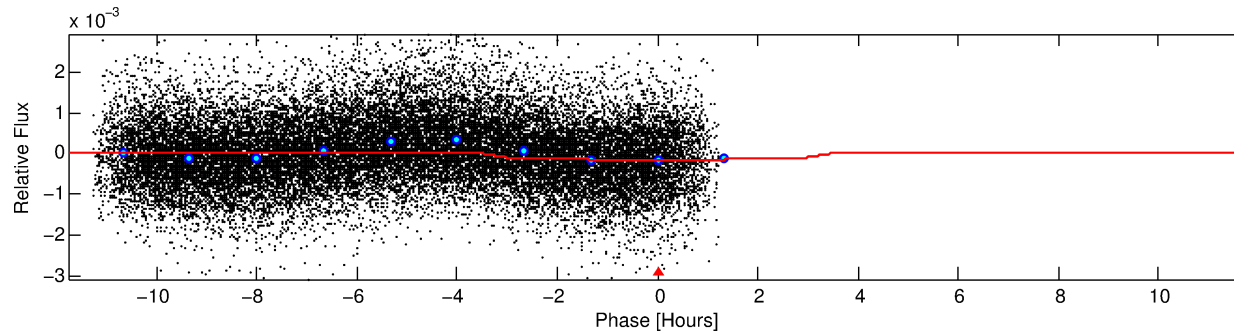
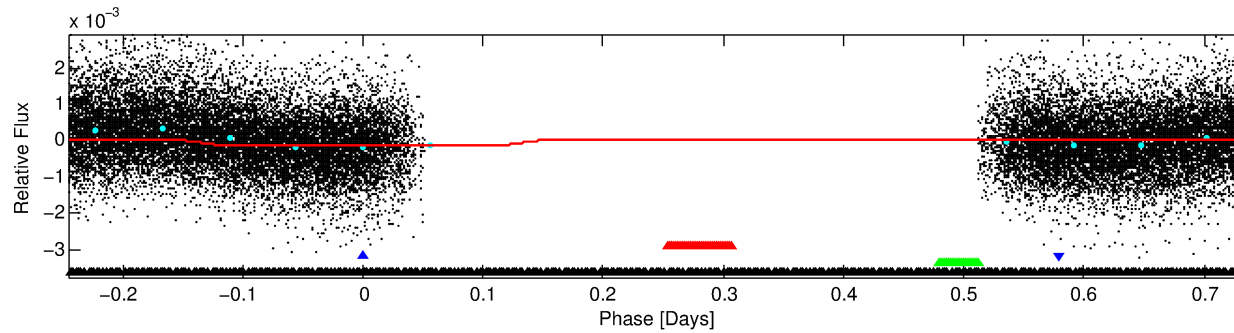
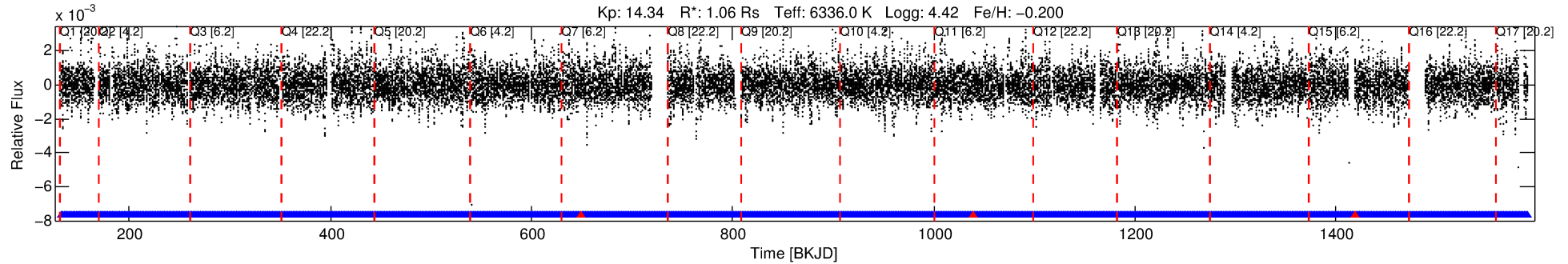
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006806122-02

No Significant Match Found

DV One-Page Summary

KIC: 6806122 Candidate: 2 of 4 Period: 0.981 d



DV Fit Results:

Period = 0.98099 [0.00001] d
Epoch = 131.9933 [0.0082] BKJD
Rp/R* = 0.0116 [0.0062]
a/R* = 1.25 [1.23]
b = 0.46 [4.82]
Seff = 4100.19 [1791.09]
Teq = 2040 [223] K
Rp = 1.34 [0.85] Re
a = 0.0199 [0.0057] AU
Ag = 14.69 [19.32] [0.71 σ]
Teffp = 6176 [1940] K [2.12 σ]

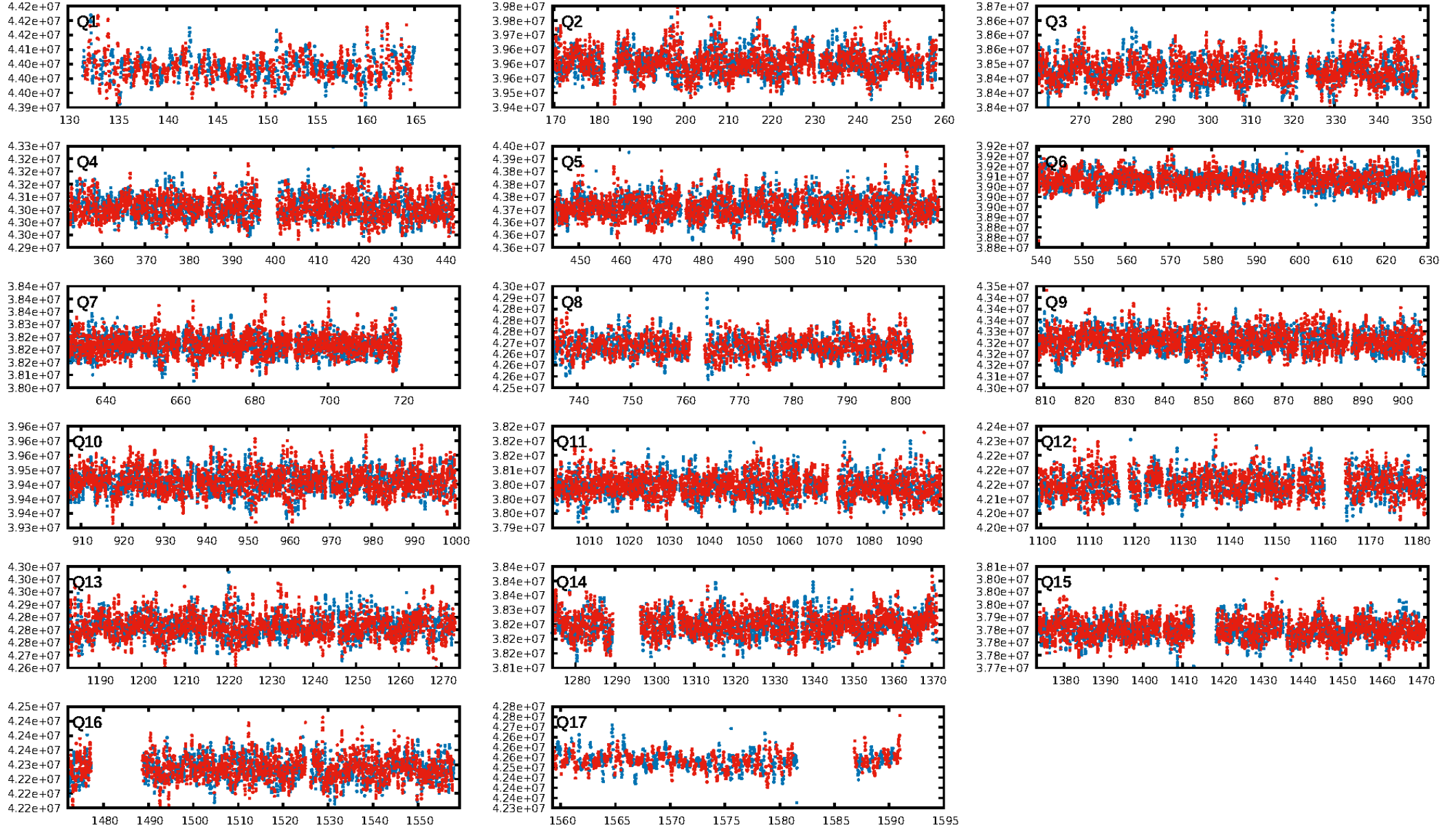
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1307/1310]
GhostDiagnostic-chr: 1.027
Centroid-sig: 99.6%
Centroid-so: 0.087 arcsec [0.35 σ]
OotOffset-rm: 0.488 arcsec [1.72 σ]
KicOffset-rm: 0.458 arcsec [1.58 σ]
OotOffset-st: 3/3/4/5 [15]
KicOffset-st: 3/3/4/5 [15]
DiffImageQuality-fgm: 0.87 [13/15]
DiffImageOverlap-fno: 0.00 [0/17]

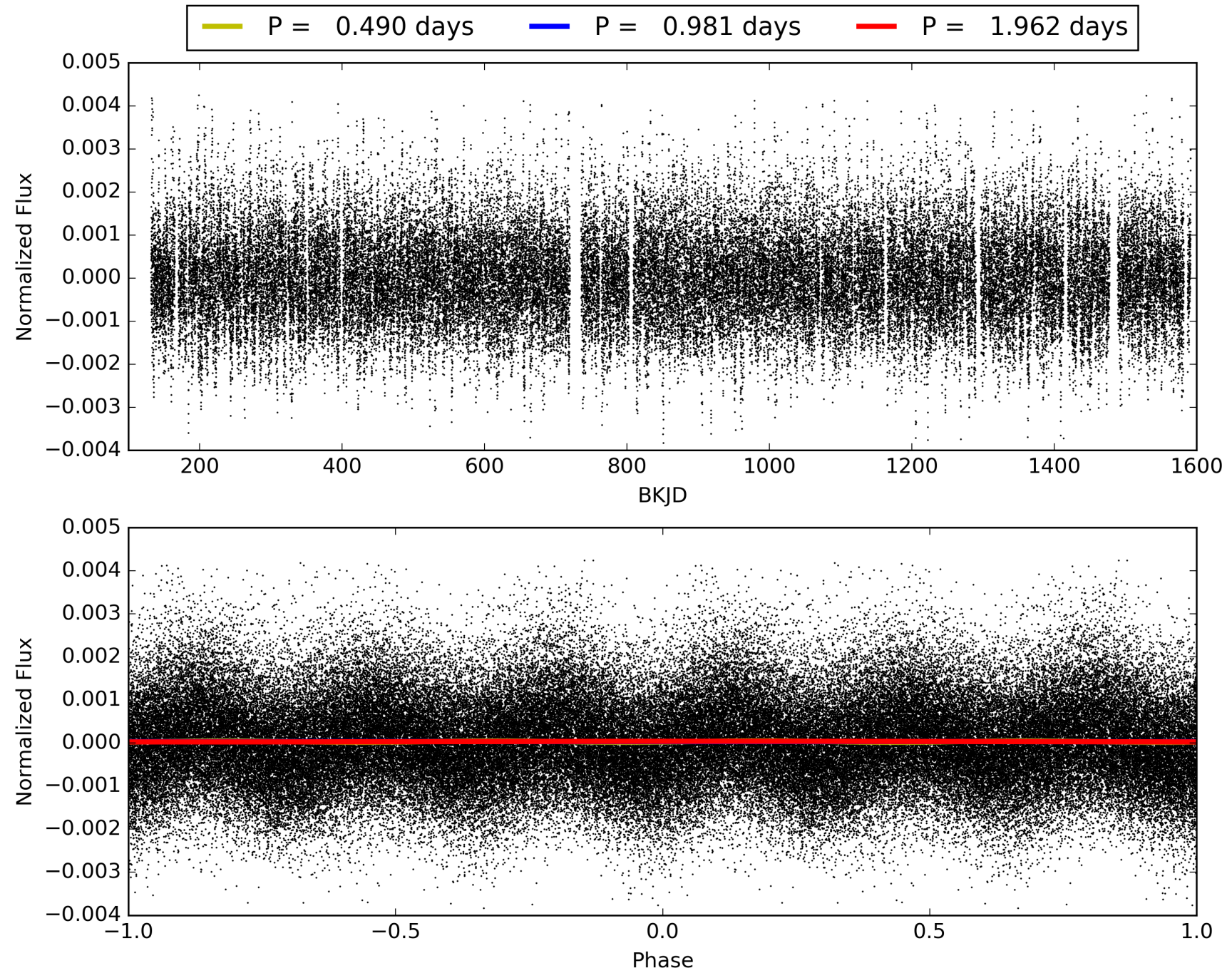
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:36:20 Z

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

TCE 006806122-02, PDC Light Curves

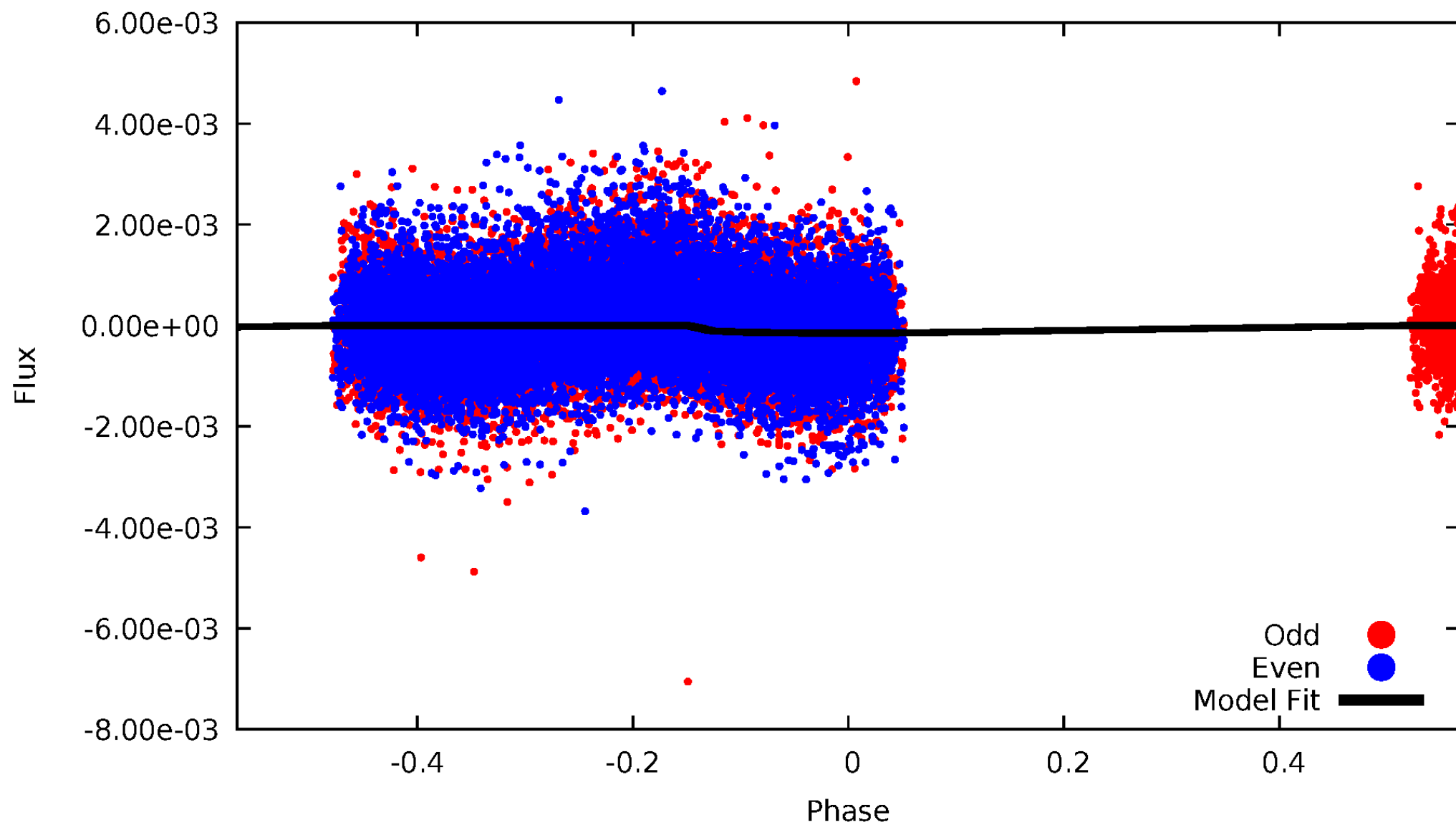


TCE 006806122-02



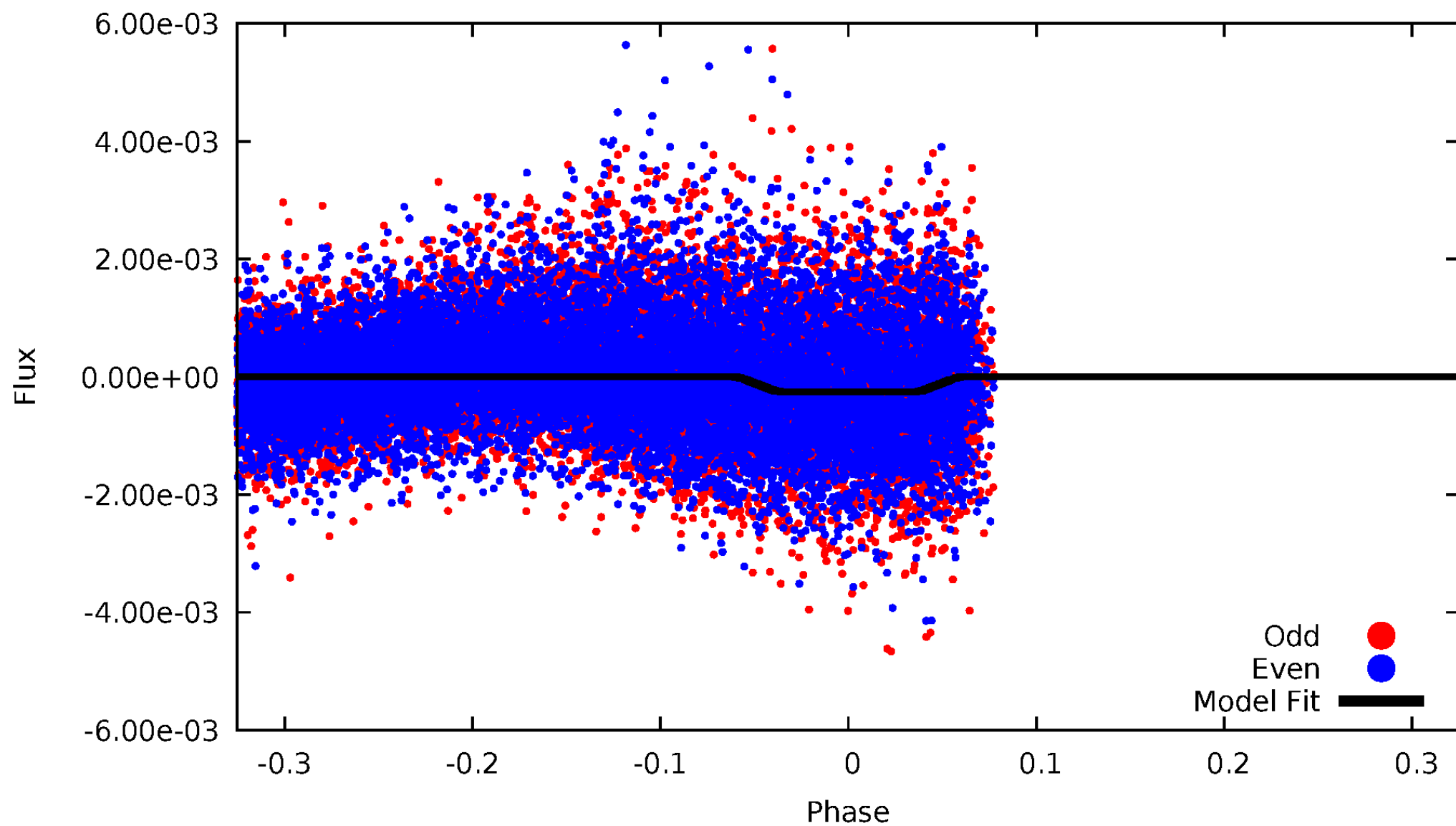
DV Odd/Even

TCE 006806122-02



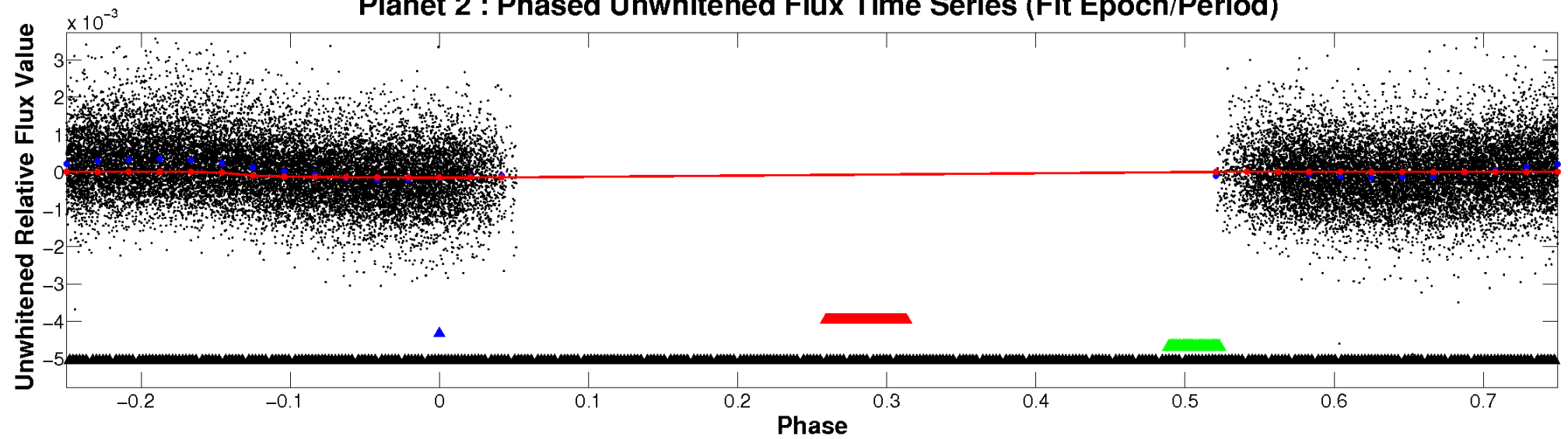
ALT Odd/Even

TCE 006806122-02

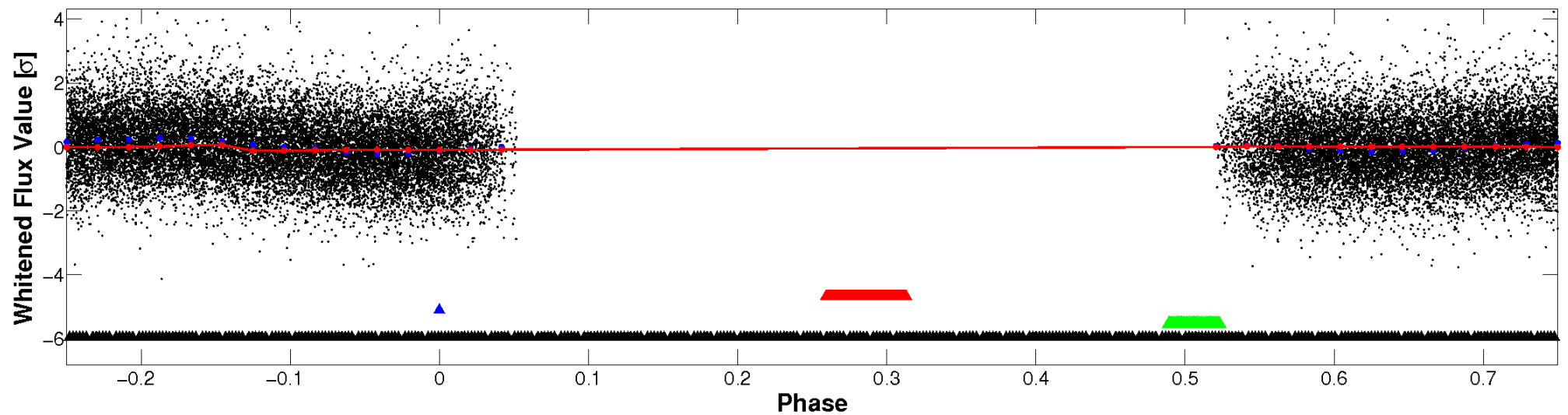


Non-Whitened Vs. Whitened Light Curve

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

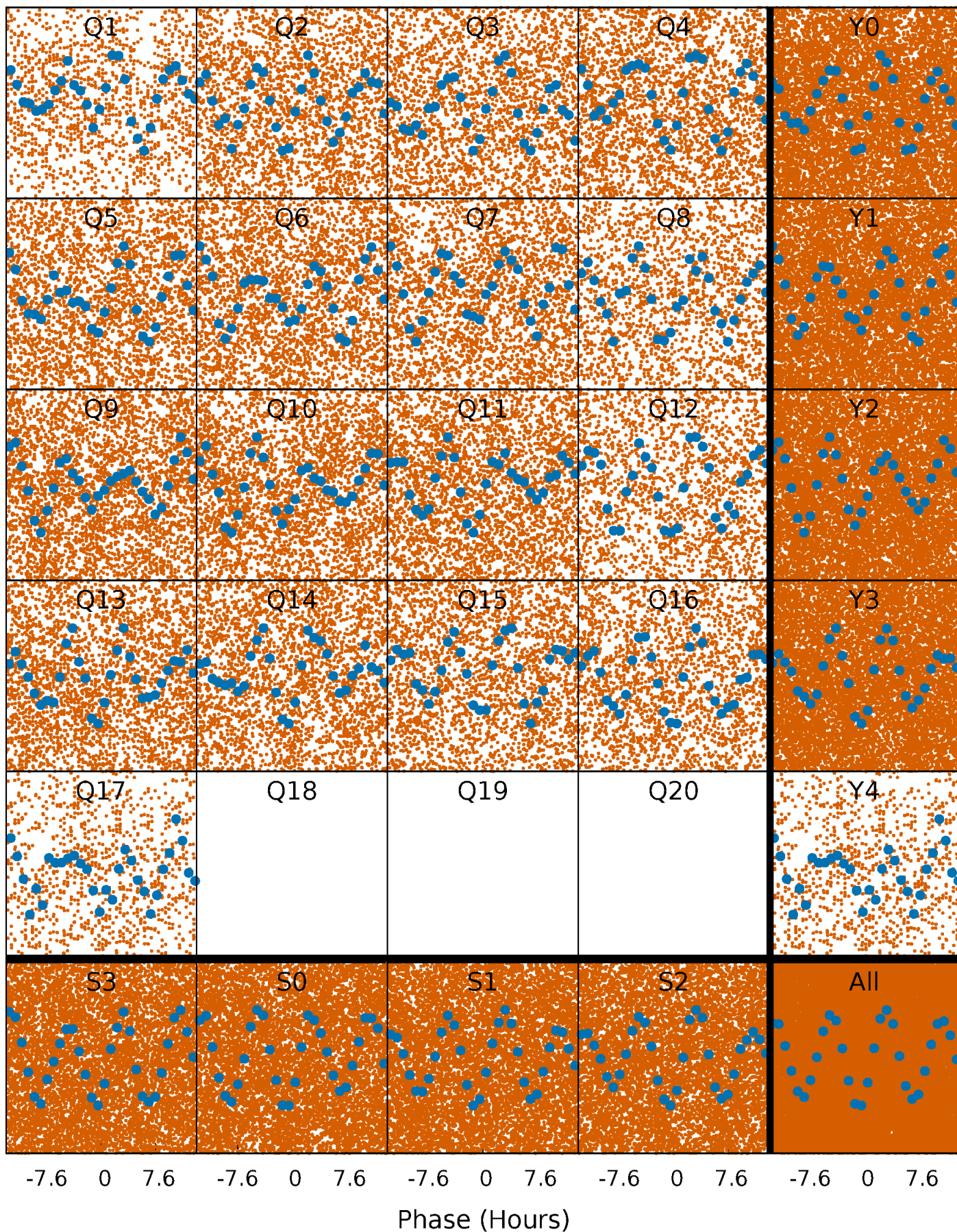


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



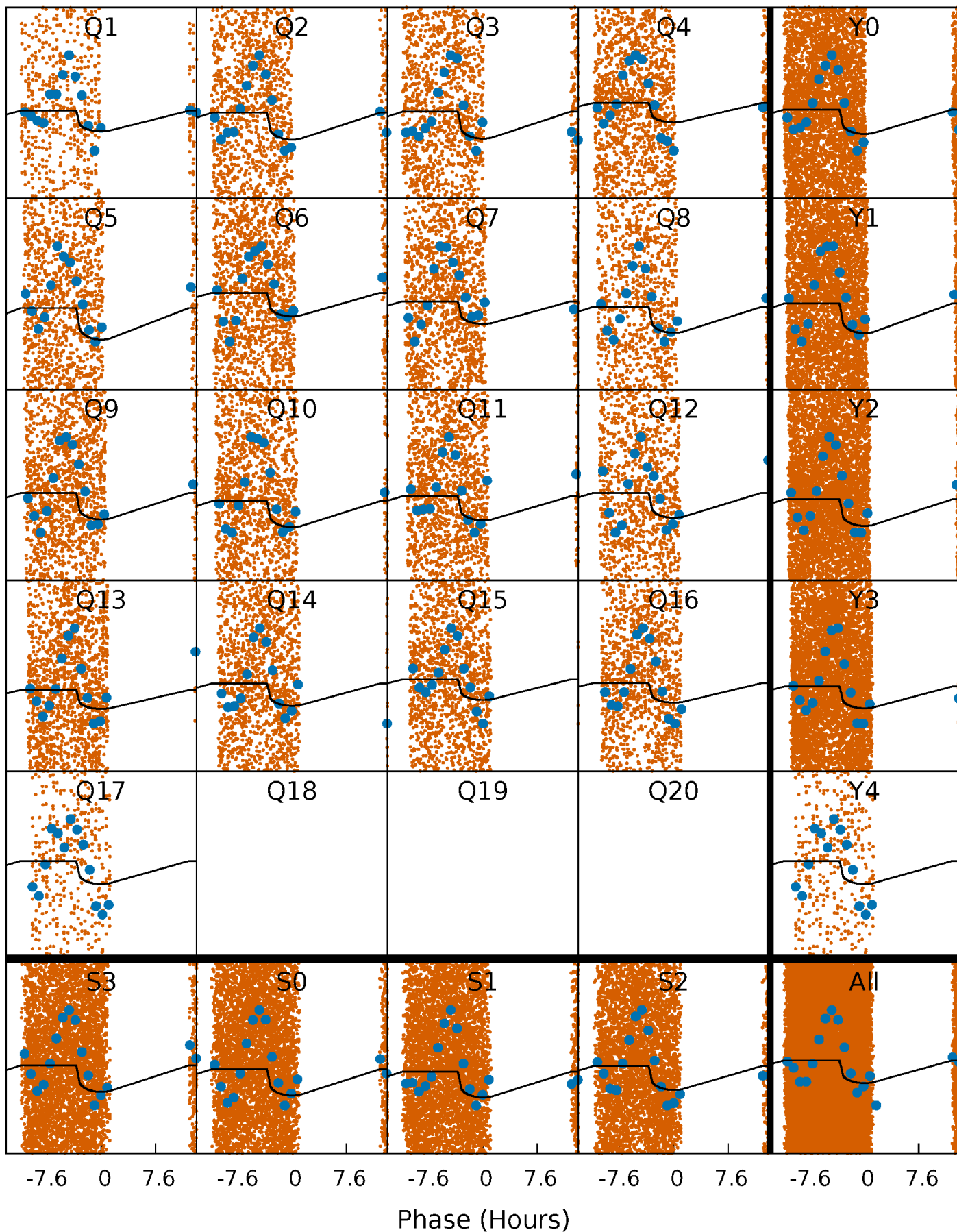
PDC Quarter-Phased Transit Curves

TCE 006806122-02 P= 0.980993 Days $T_0=131.993266$ (BKJD)



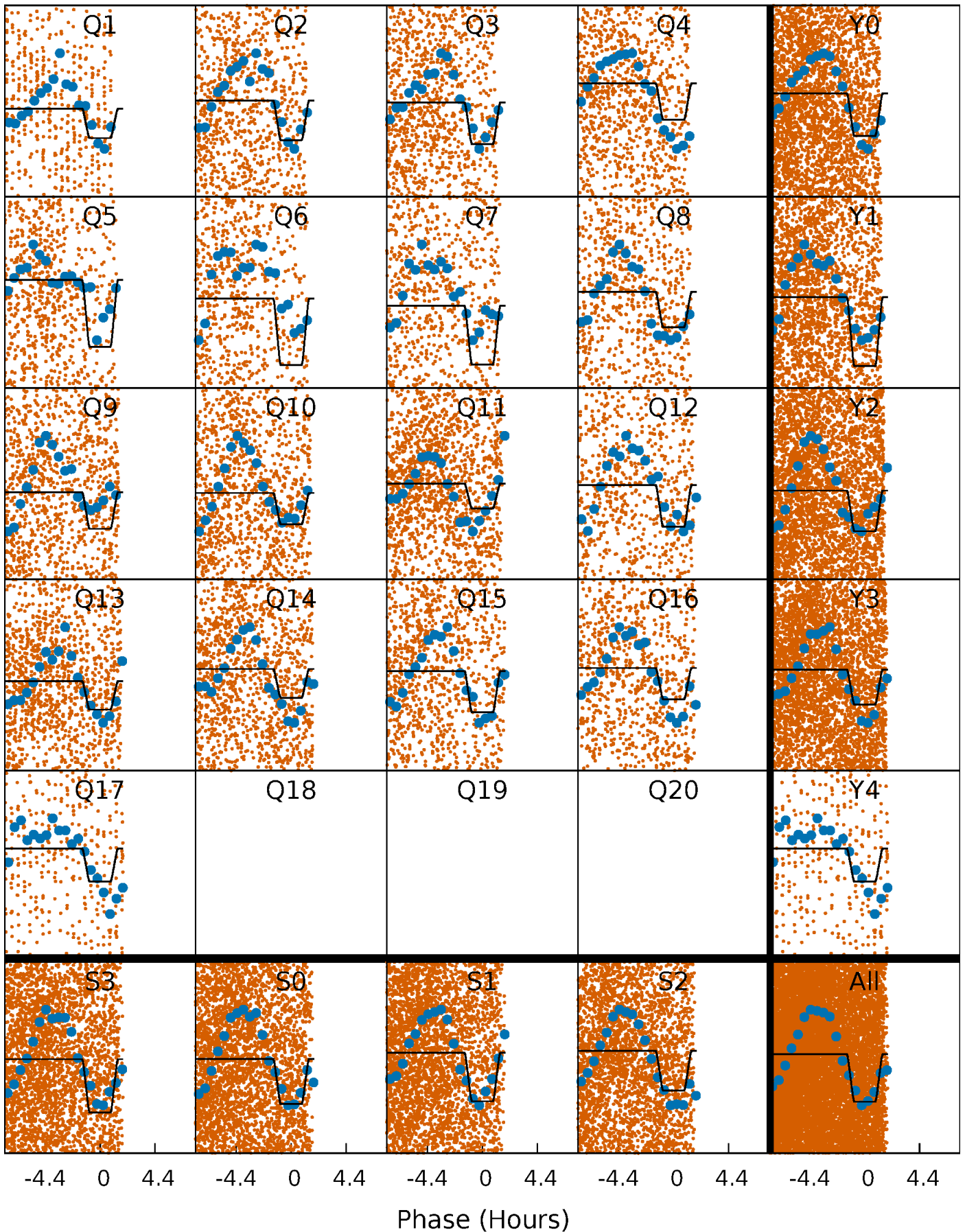
DV Quarter-Phased Transit Curves

TCE 006806122-02 P= 0.980993 Days $T_0=131.993266$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

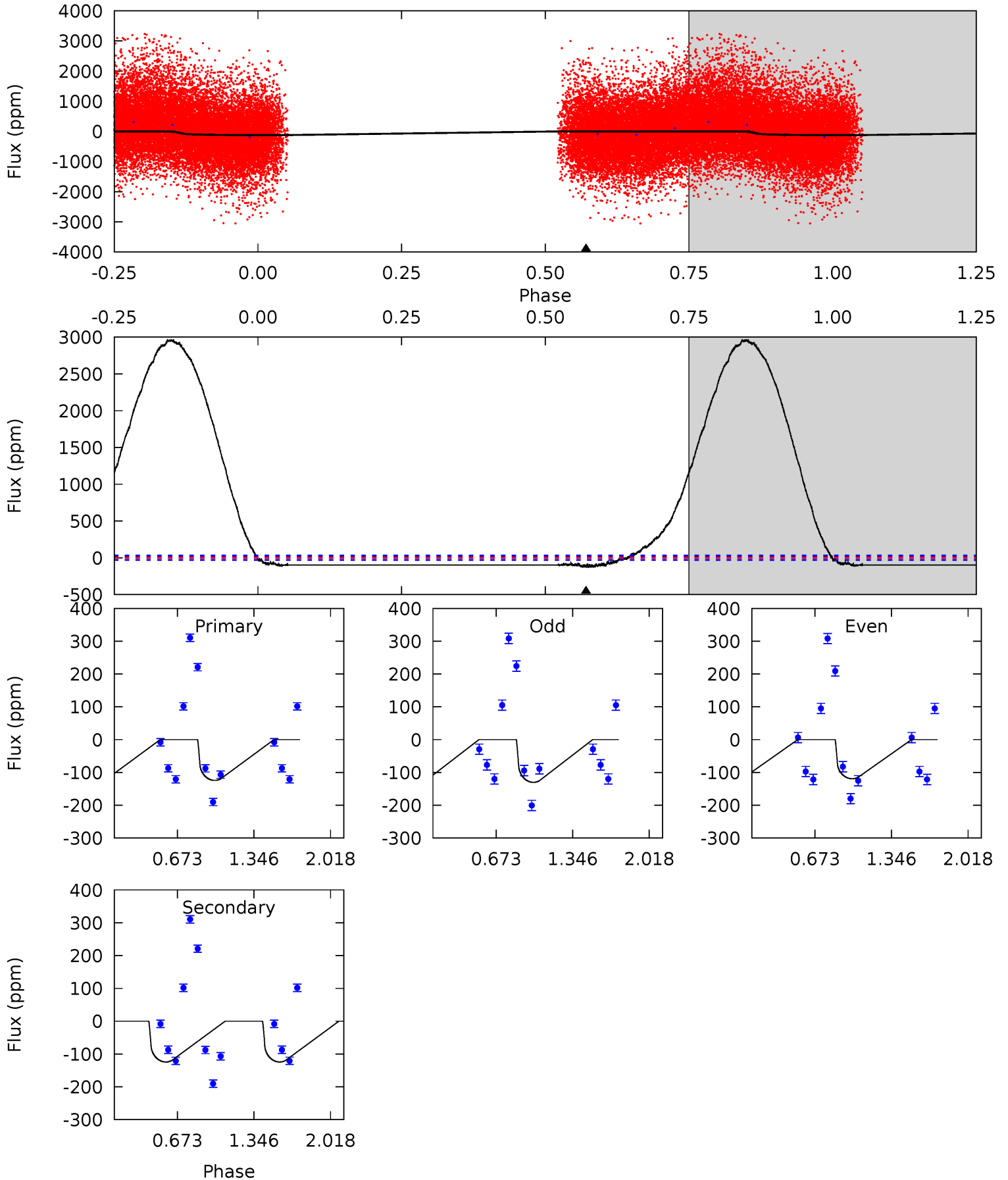
TCE 006806122-02 P= 0.981009 Days $T_0=131.944088$ (BKJD)



DV Model-Shift Uniqueness Test

006806122-02, P = 0.980993 Days, E = 131.012273 Days

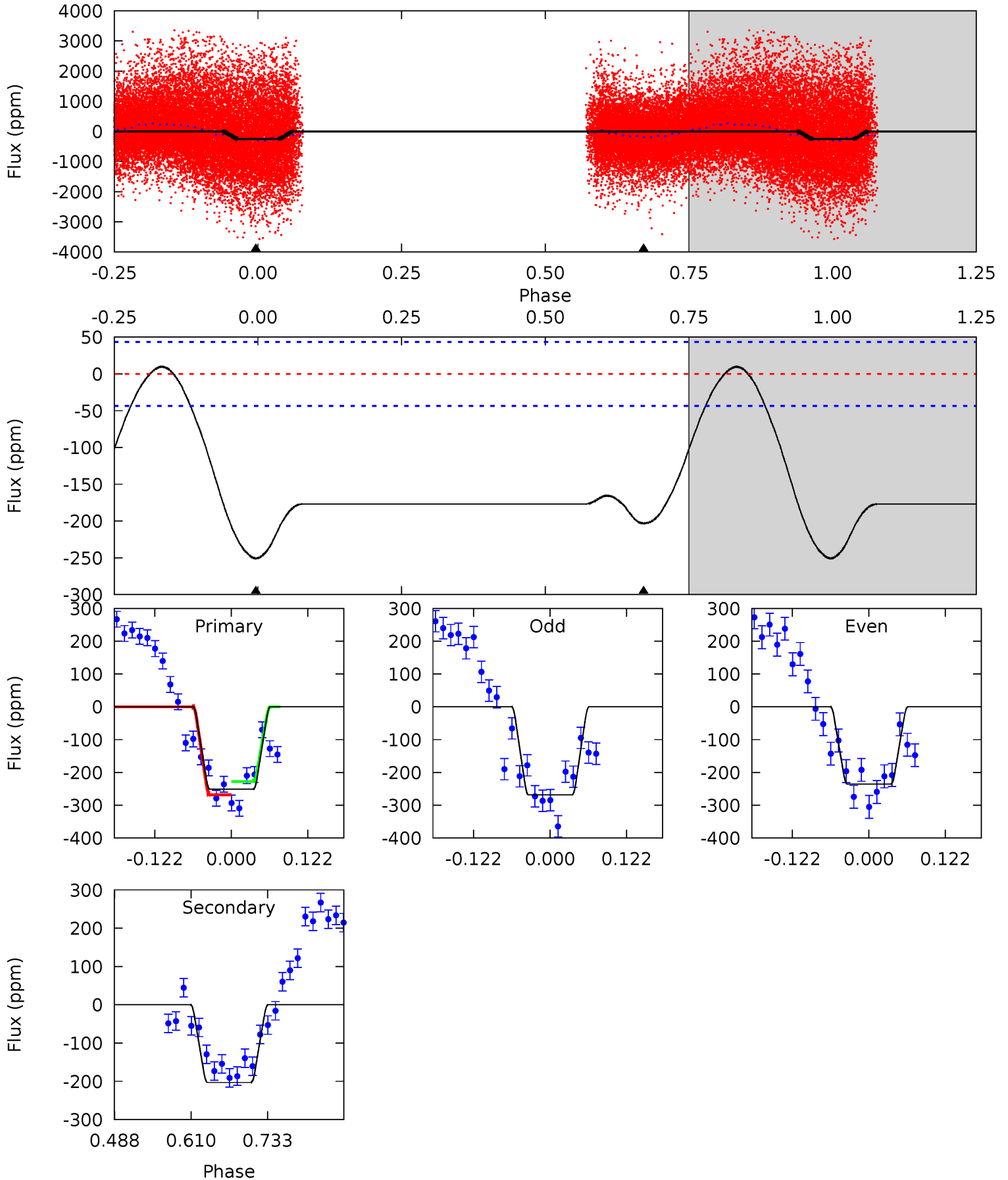
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 17.0 | 17.0 | 0 | 0 | 4.15 | 0.42 | 21.9 | 17.0 | 17.0 | 17.0 | 17.0 | 0.76 | 1.04 | 0.96 | 0.04 |



Alt Model-Shift Uniqueness Test

006806122-02, P = 0.981009 Days, E = 130.963079 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 26.1 | 21.1 | 0 | 0 | 4.52 | 1.55 | 1.09 | 26.1 | 26.1 | 21.1 | 21.1 | 1.70 | 0.76 | 0.04 | 1.83 |



Stellar Parameters For KIC 006806122

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6336^{+169}_{-225} | $4.425^{+0.070}_{-0.224}$ | $-0.200^{+0.250}_{-0.300}$ | $1.060^{+0.364}_{-0.121}$ | $1.089^{+0.169}_{-0.139}$ | $1.289^{+0.392}_{-0.708}$ |
| | +3%/-4% | +2%/-5% | +125%/-150% | +34%/-11% | +16%/-13% | +30%/-55% |
| 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 006806122-02 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|---------------|------------------------|----------------------|------------------------|------------------|
| DV | -124 ± 7 | $1.45^{+0.78}_{-0.70}$ | 2900^{+246}_{-147} | 6037^{+2847}_{-1030} | 13^{+34}_{-7} |
| Alt. | -203 ± 10 | $1.96^{+0.83}_{-0.74}$ | 2909^{+240}_{-161} | 5926^{+1736}_{-898} | 11^{+18}_{-6} |

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

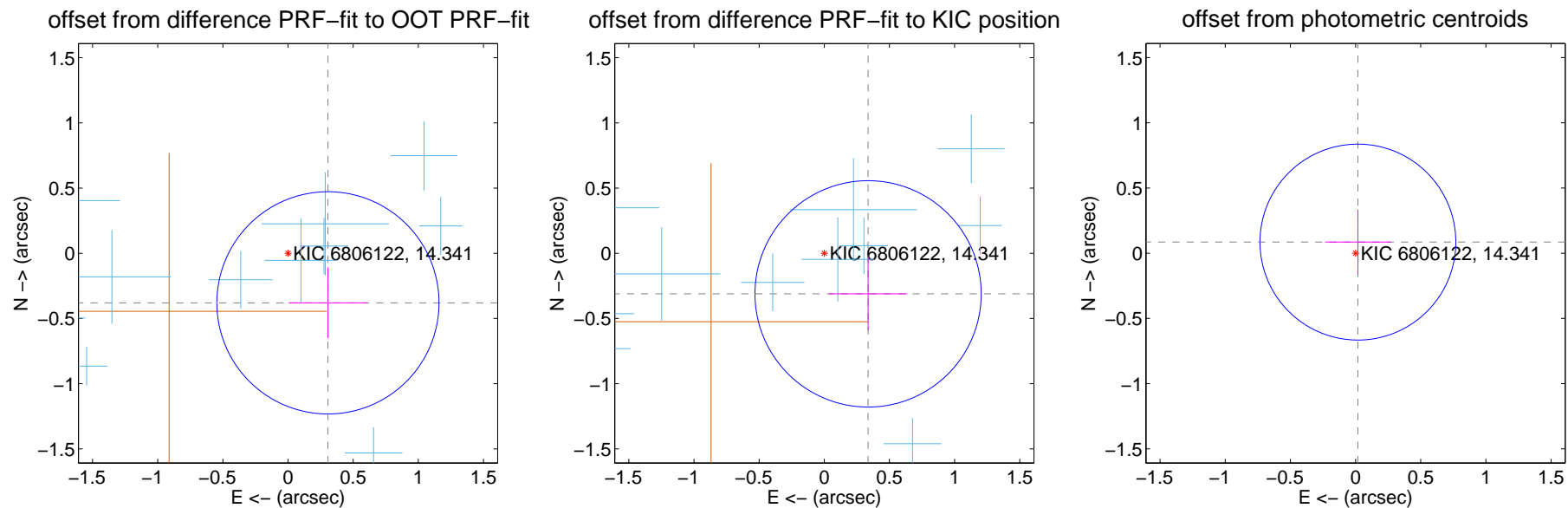
DV Centroid Data

Supplemental centroid analysis for 006806122-02. Kepler magnitude: 14.34. Transit SNR 10.76

There are 13 quarters with good PRF difference image offsets

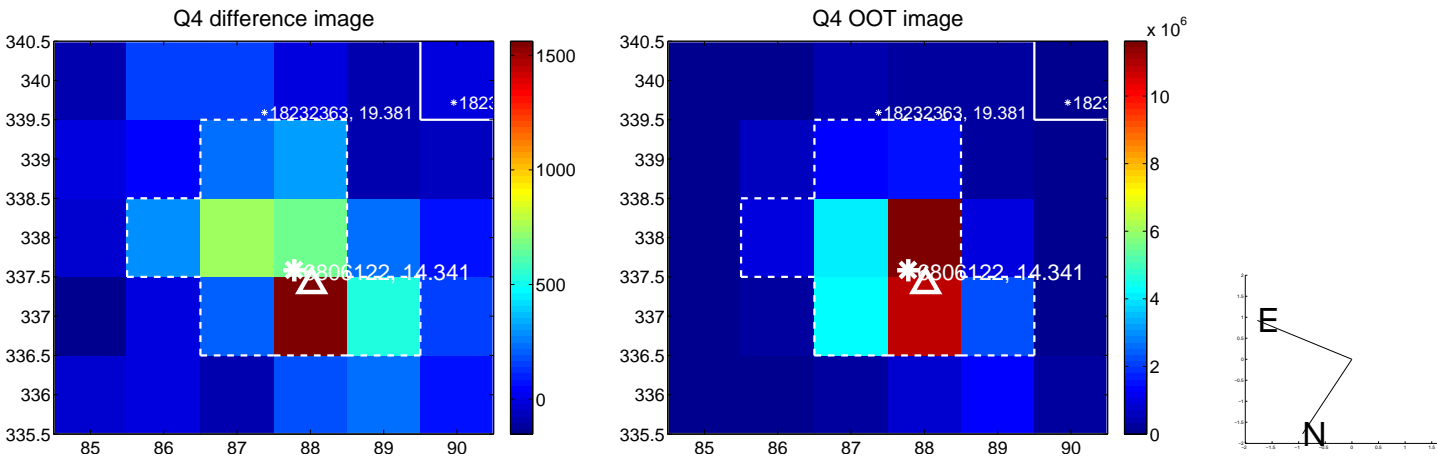
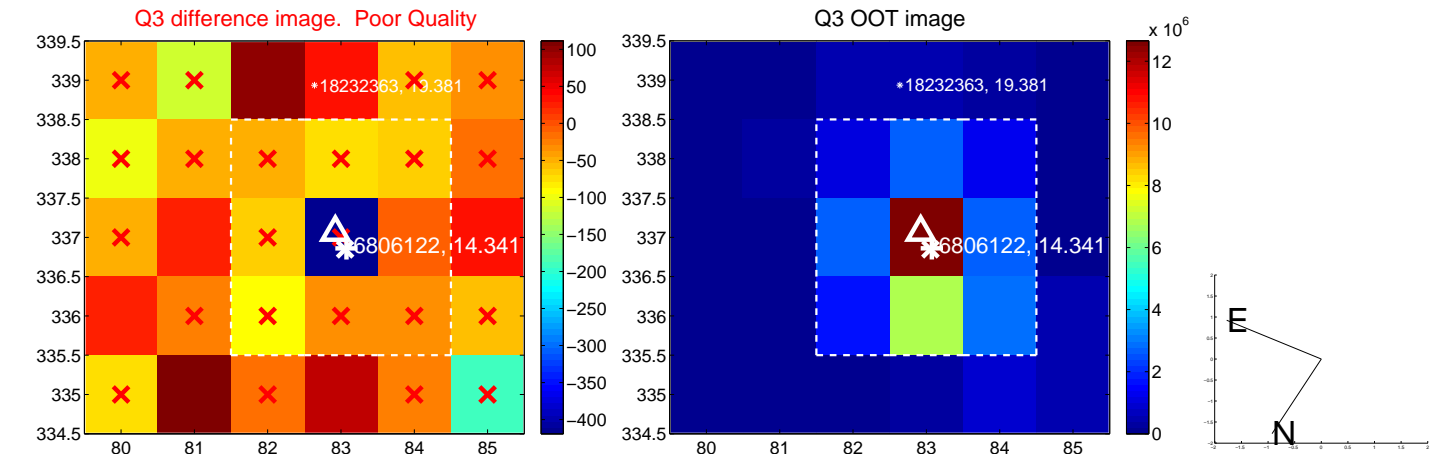
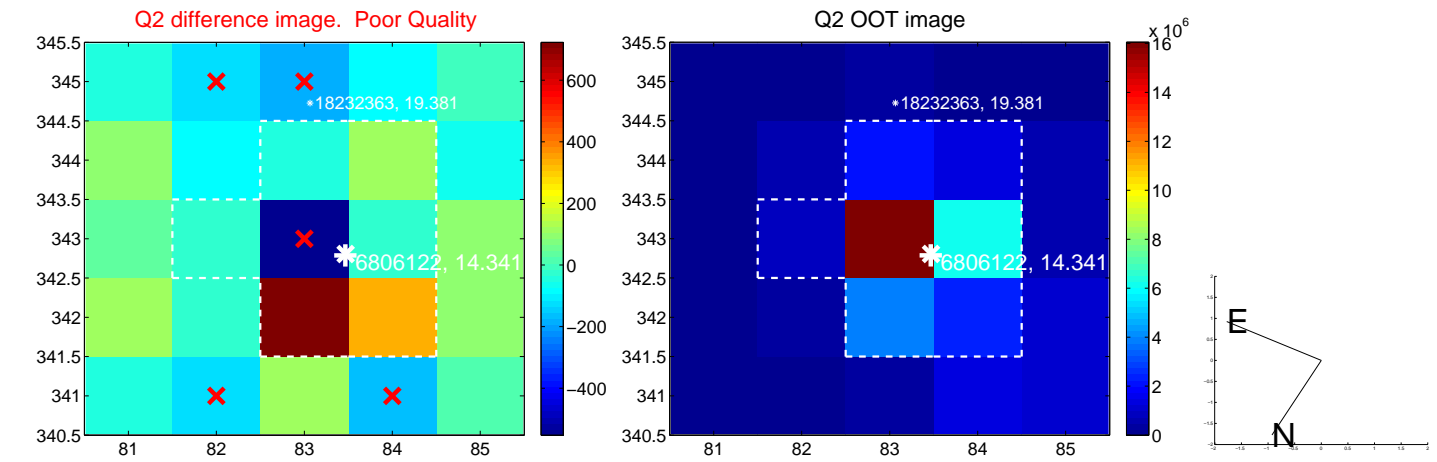
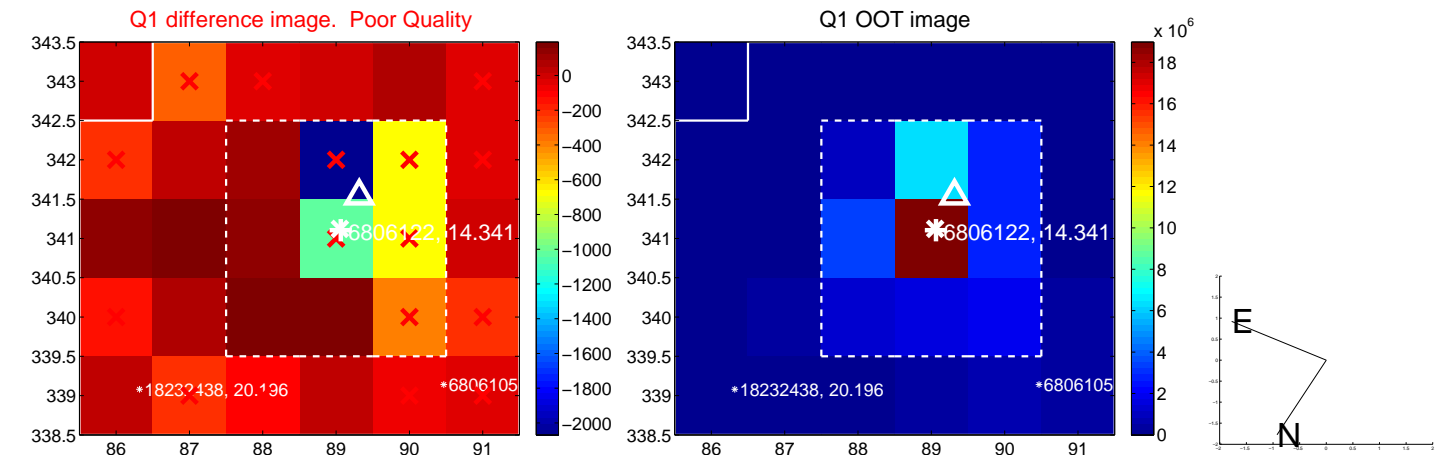
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.488 ± 0.284 | 1.72 | -0.306 ± 0.302 | -0.380 ± 0.271 |
| PRF-fit source offset from KIC position | 0.458 ± 0.289 | 1.58 | -0.336 ± 0.300 | -0.311 ± 0.276 |
| photometric centroid source offset | 0.09 ± 0.25 | 0.35 | -0.02 ± 0.25 | 0.09 ± 0.25 |

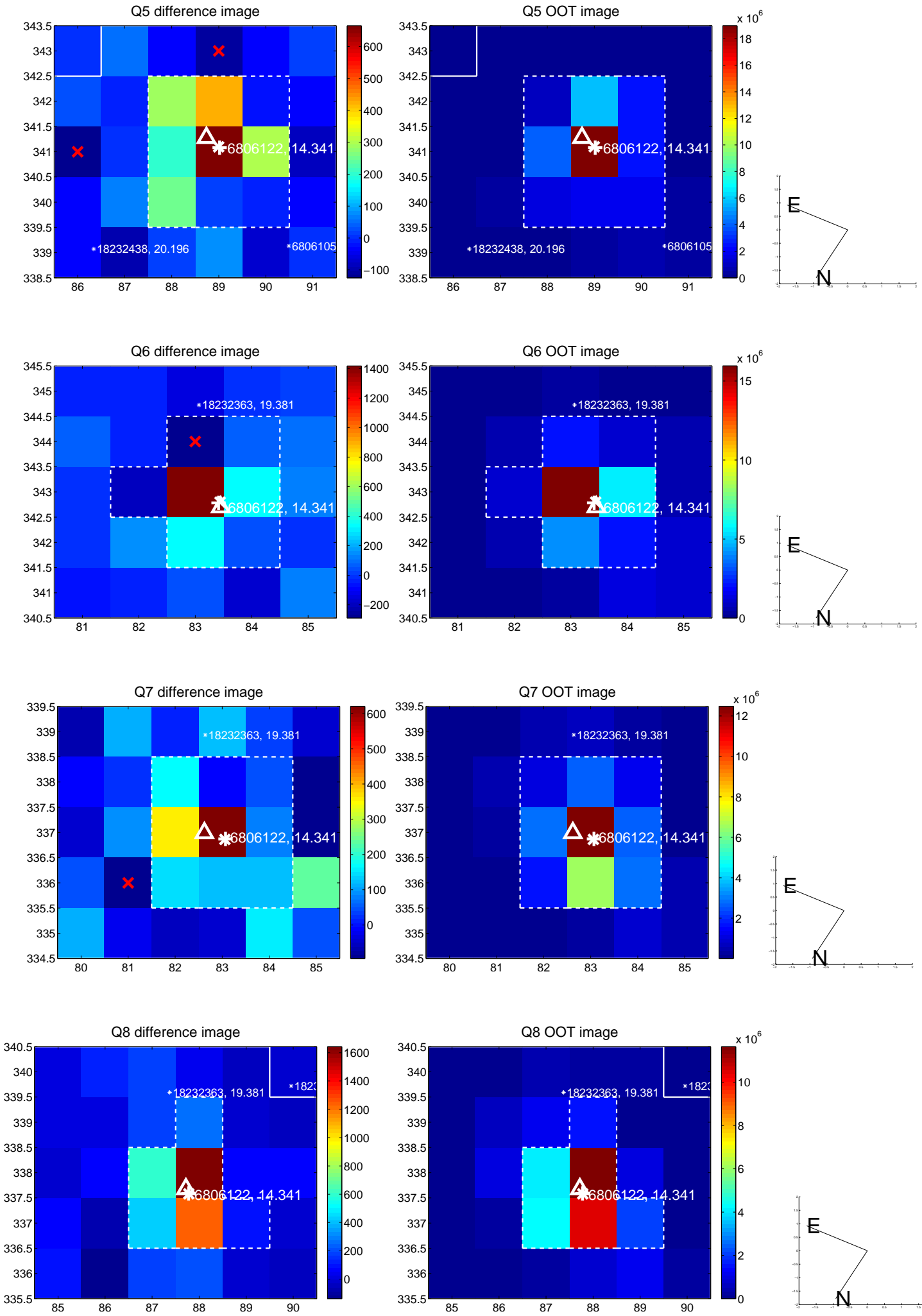


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

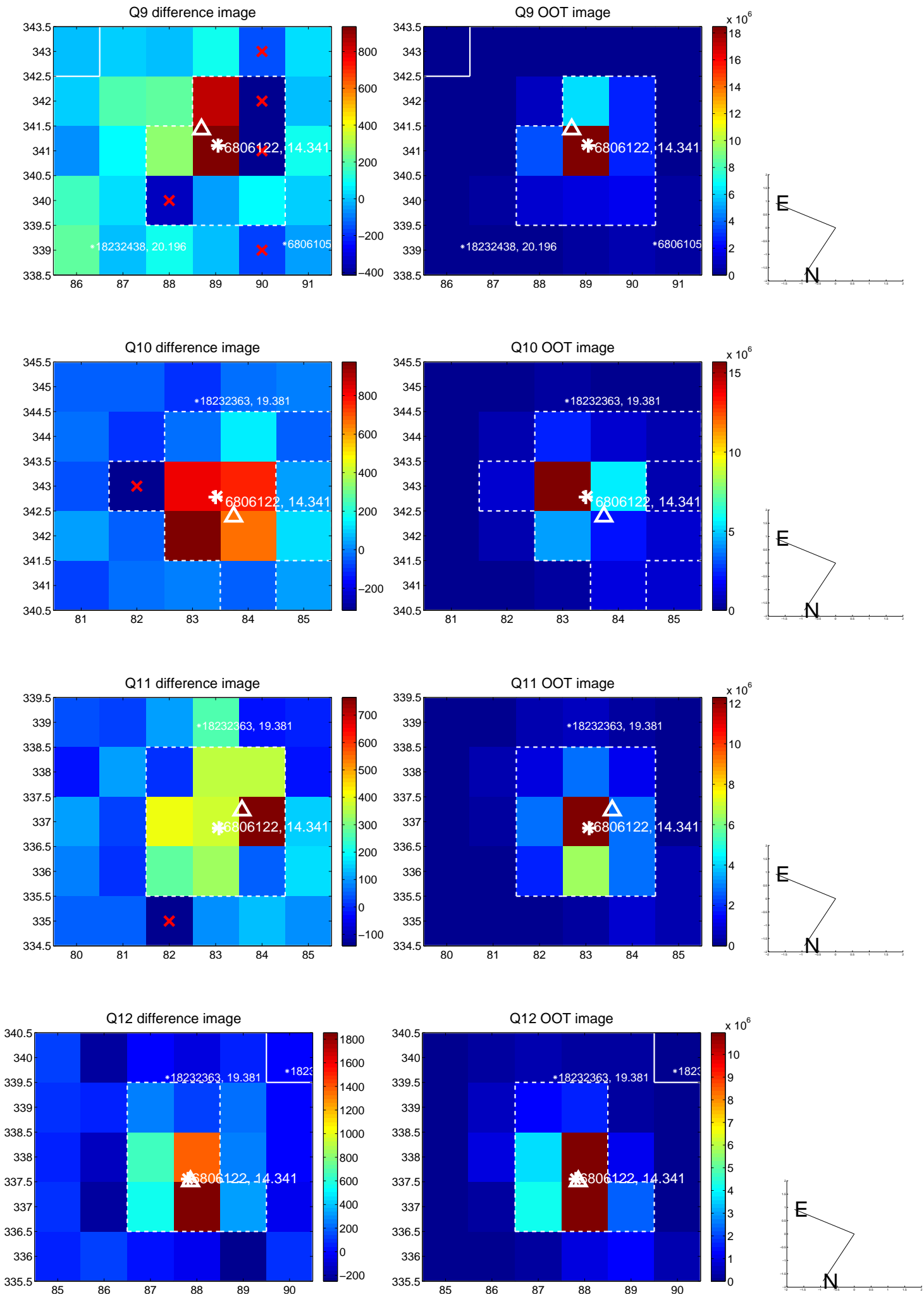
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



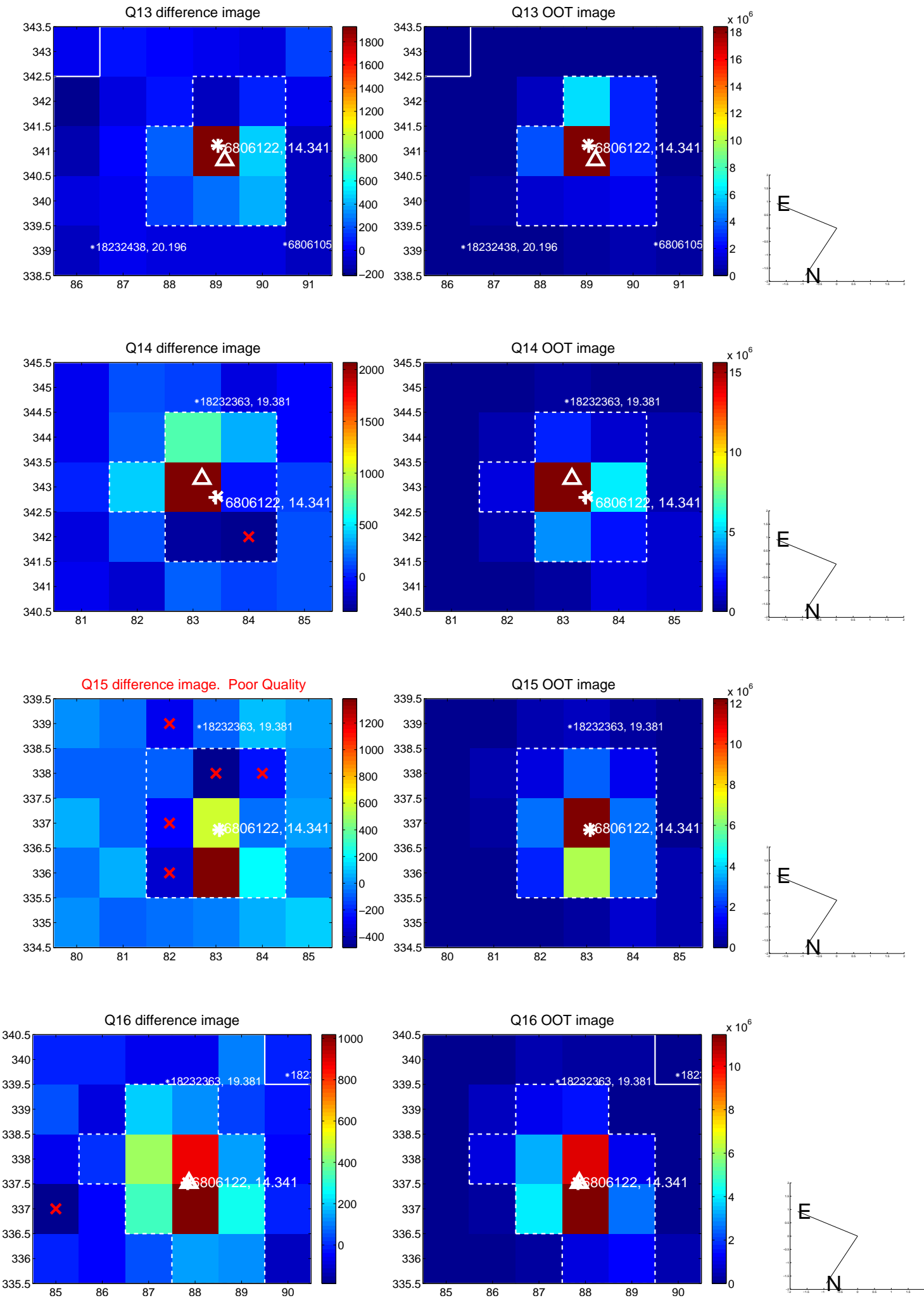
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



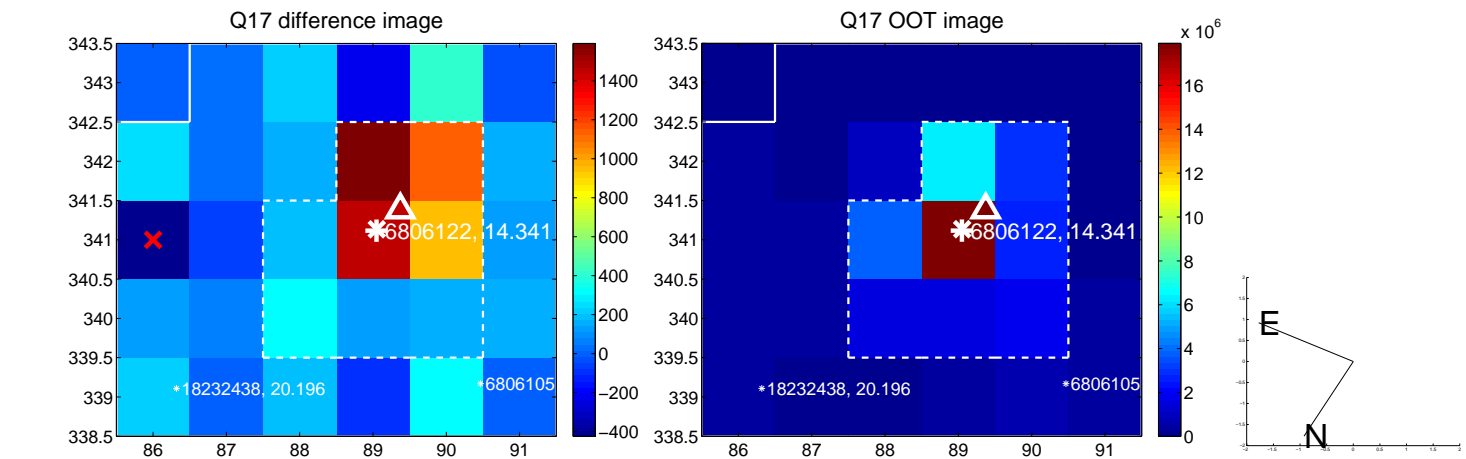
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



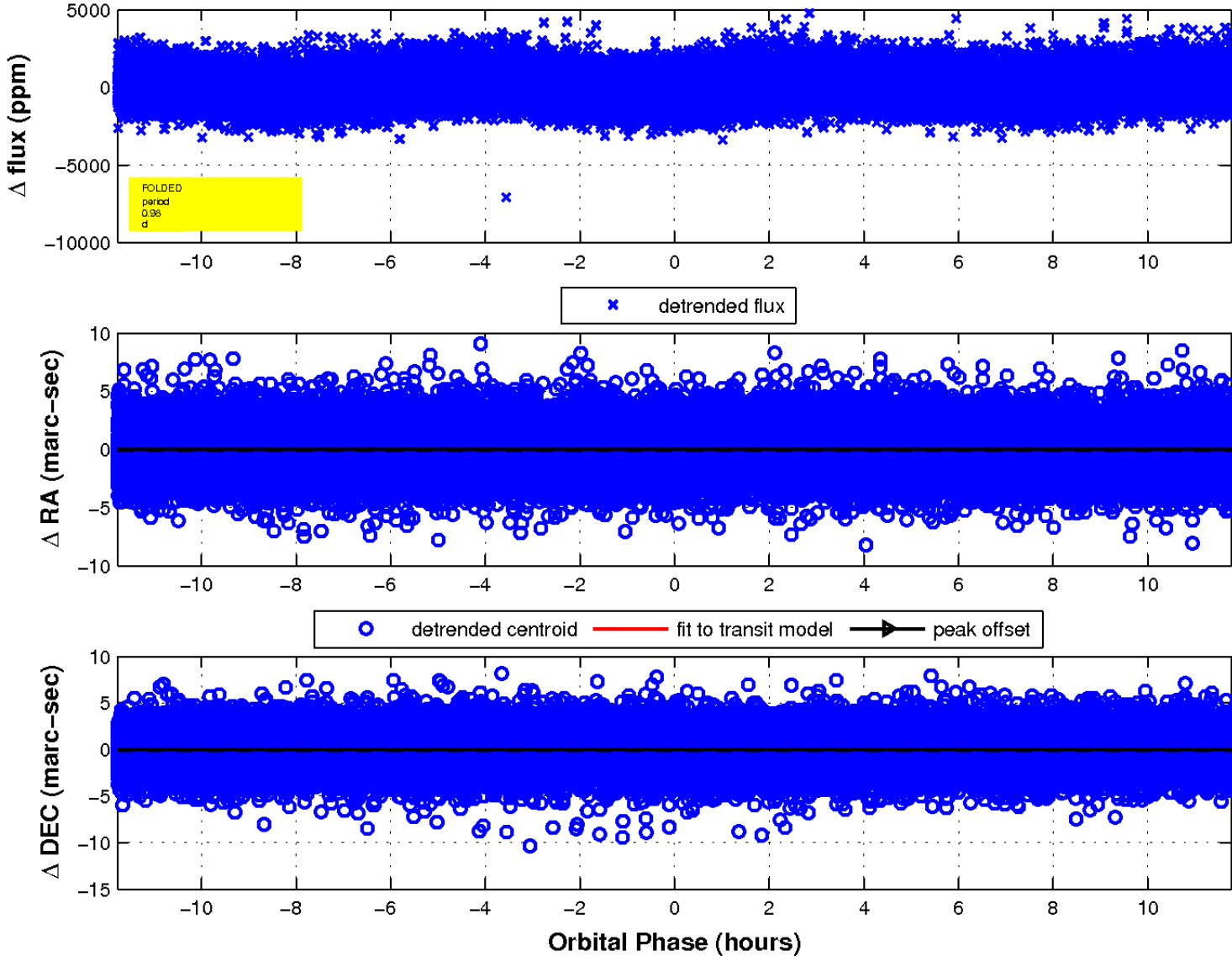
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

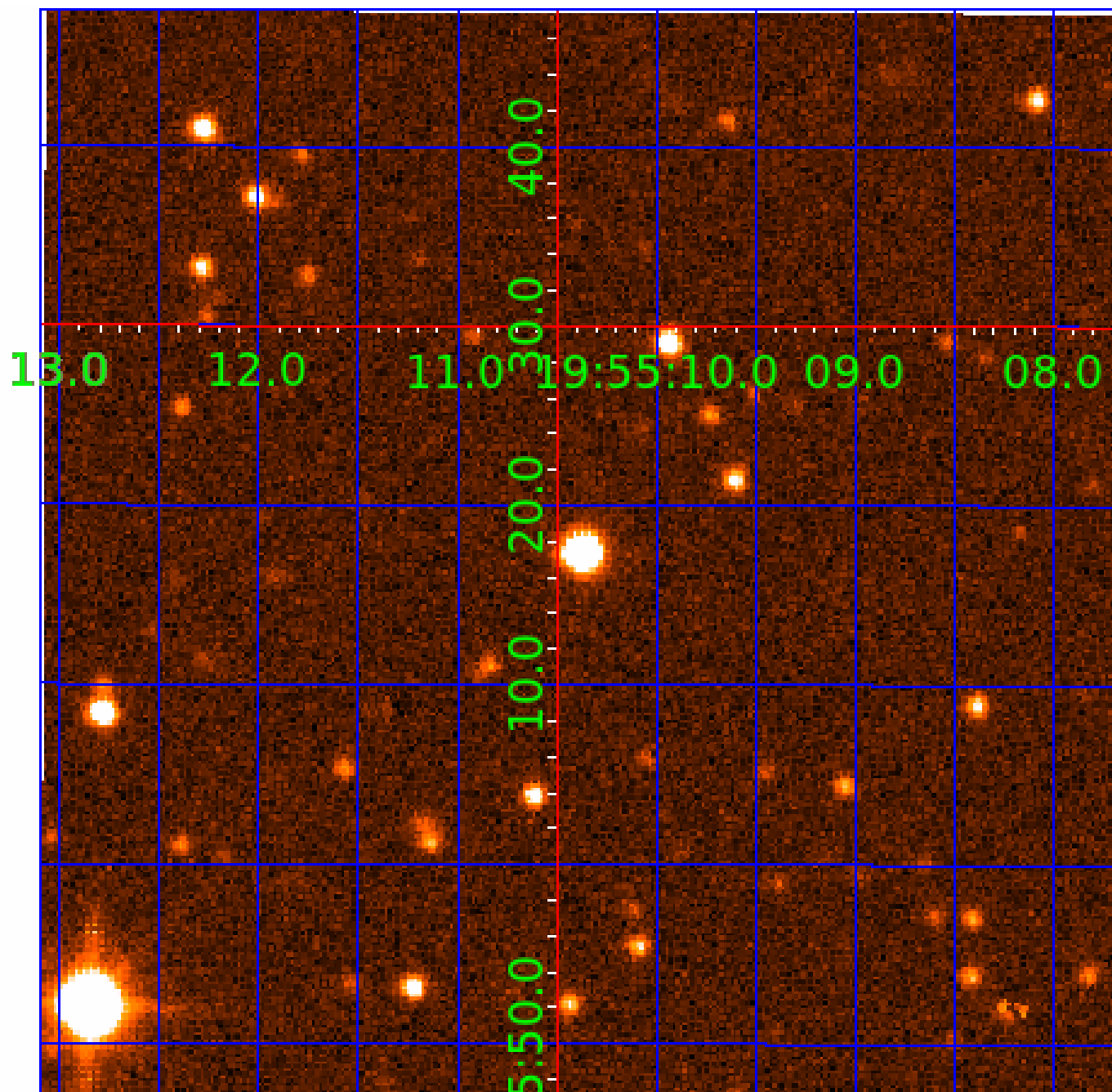


fluxWeightedCentroids, Planet 2 of 4



UKIRT Image

Declination



KIC 006806122

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006806122-01 | OBS | No | 0.981029 | 132.247557 | 111.6 | 3.919 | 10.0 | 9.6 | 1.06 | 6336 | 1.31 | 4099.99 |
| 006806122-02 | OBS | No | 0.980993 | 131.993266 | 151.2 | 6.676 | 12.2 | 10.8 | 1.06 | 6336 | 1.34 | 4100.19 |
| 006806122-04 | OBS | No | 3.631203 | 131.999210 | 607.5 | 3.961 | 9.2 | 7.0 | 1.06 | 6336 | 2.69 | 716.08 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 006806122-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT |
| 006806122-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD |
| 006806122-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_NOFITS |

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

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

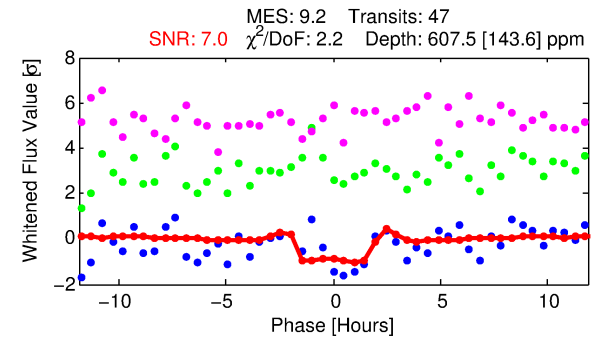
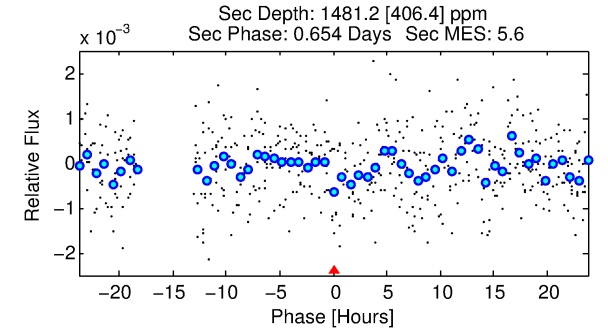
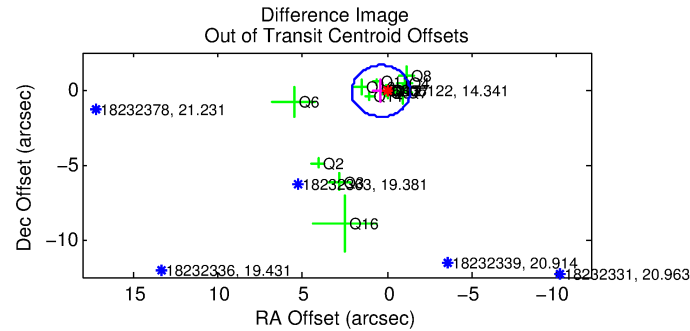
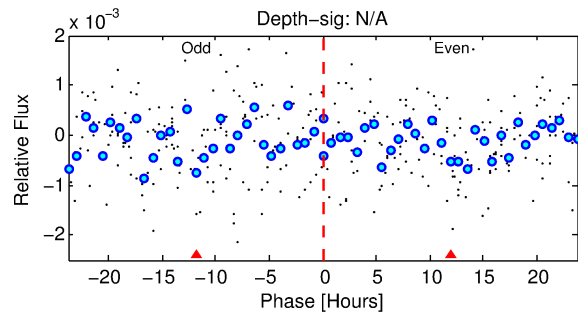
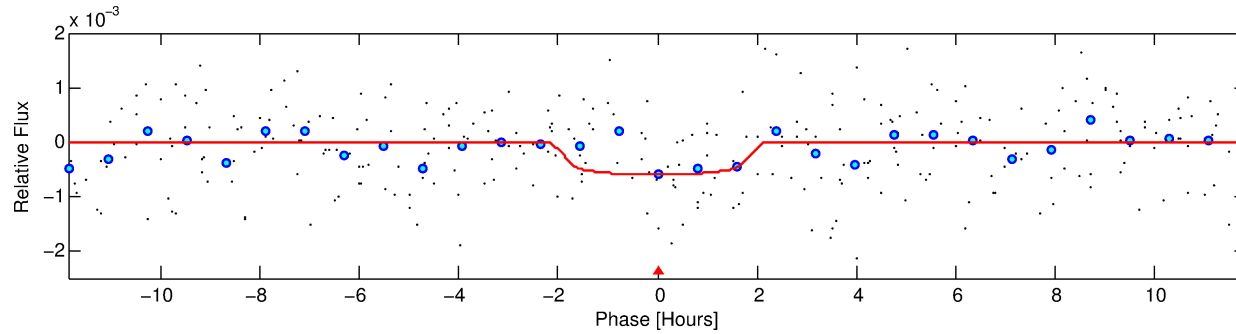
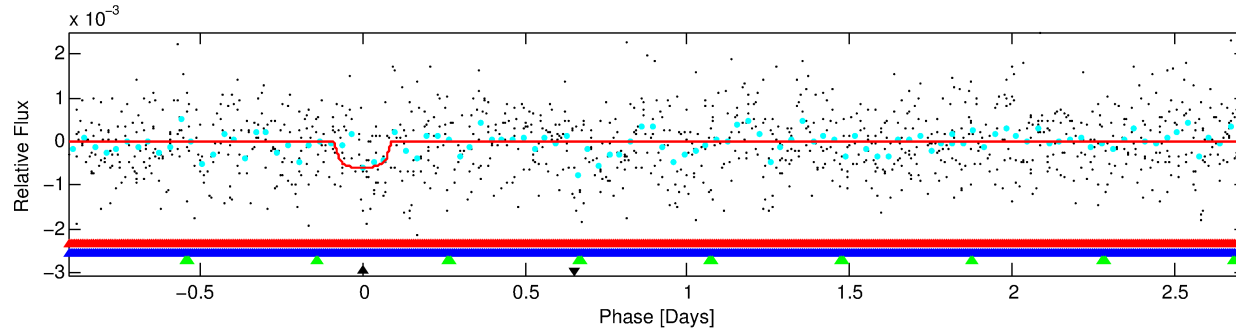
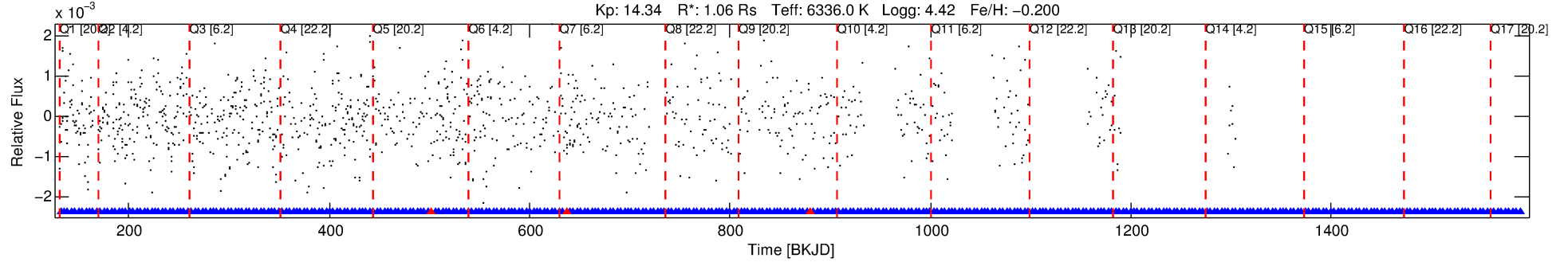
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006806122-04

No Significant Match Found

DV One-Page Summary

KIC: 6806122 Candidate: 4 of 4 Period: 3.631 d



DV Fit Results:

Period = 3.63120 [0.00006] d
Epoch = 131.9992 [0.0086] BKJD
Rp/R* = 0.0233 [0.0362]
a/R* = 6.31 [49.03]
b = 0.50 [12.16]
Seff = 716.07 [312.80]
Teq = 1319 [144] K
Rp = 2.69 [4.29] Re
a = 0.0476 [0.0136] AU
Ag = 254.53 [801.57] [0.32σ]
Teffp = 8146 [6365] K [1.07σ]

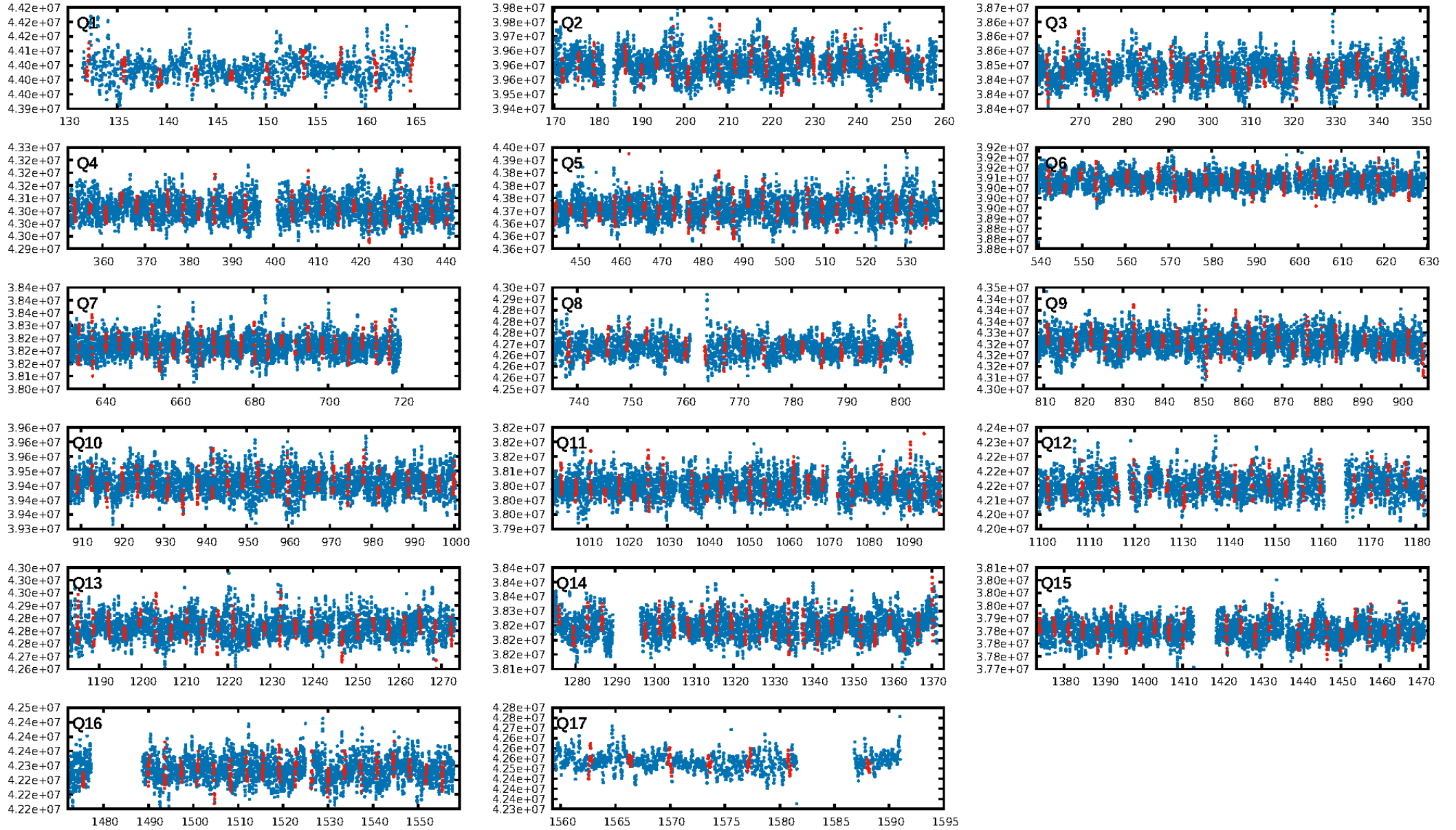
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [11.42σ]
LongPeriod-sig: 100.0% [247.88σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.93 [42/45]
GhostDiagnostic-chr: -0.5941
Centroid-sig: 0.5%
Centroid-so: 0.191 arcsec [1.24σ]
OotOffset-rm: 0.393 arcsec [0.69σ]
KicOffset-rm: 0.379 arcsec [0.73σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.33 [5/15]
DiffImageOverlap-fno: 0.00 [0/17]

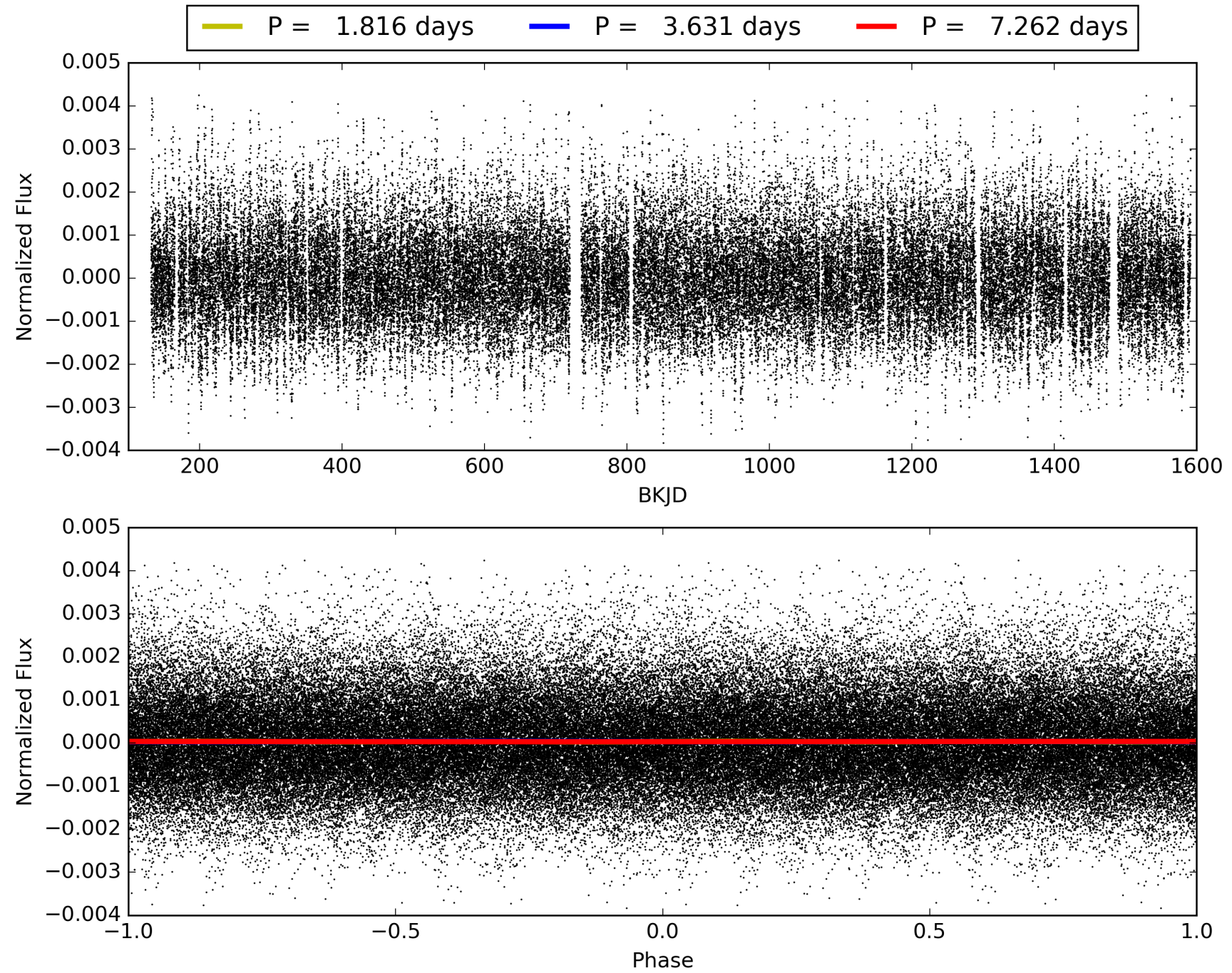
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:36:30 Z

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

TCE 006806122-04, PDC Light Curves

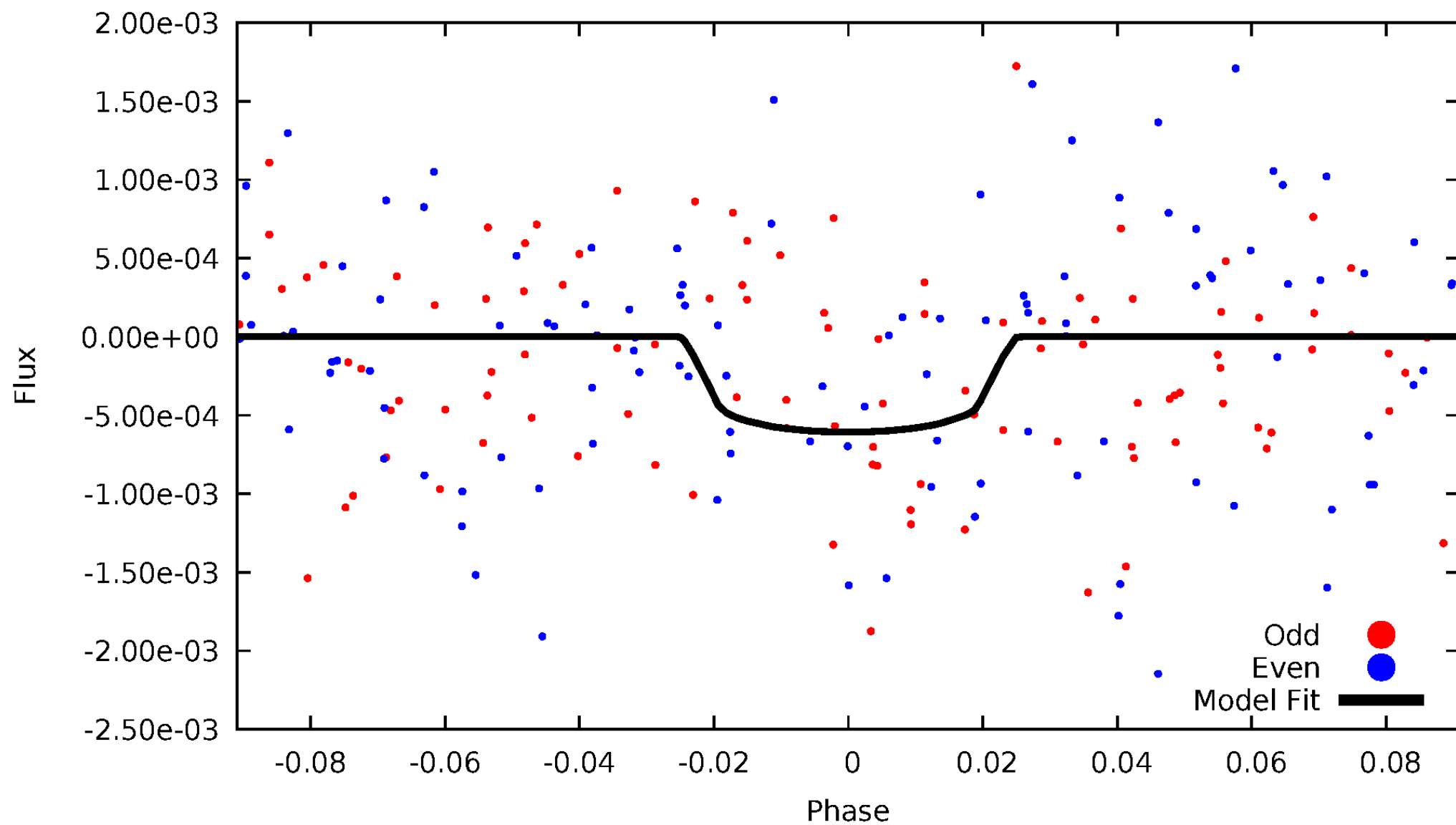


TCE 006806122-04



DV Odd/Even

TCE 006806122-04

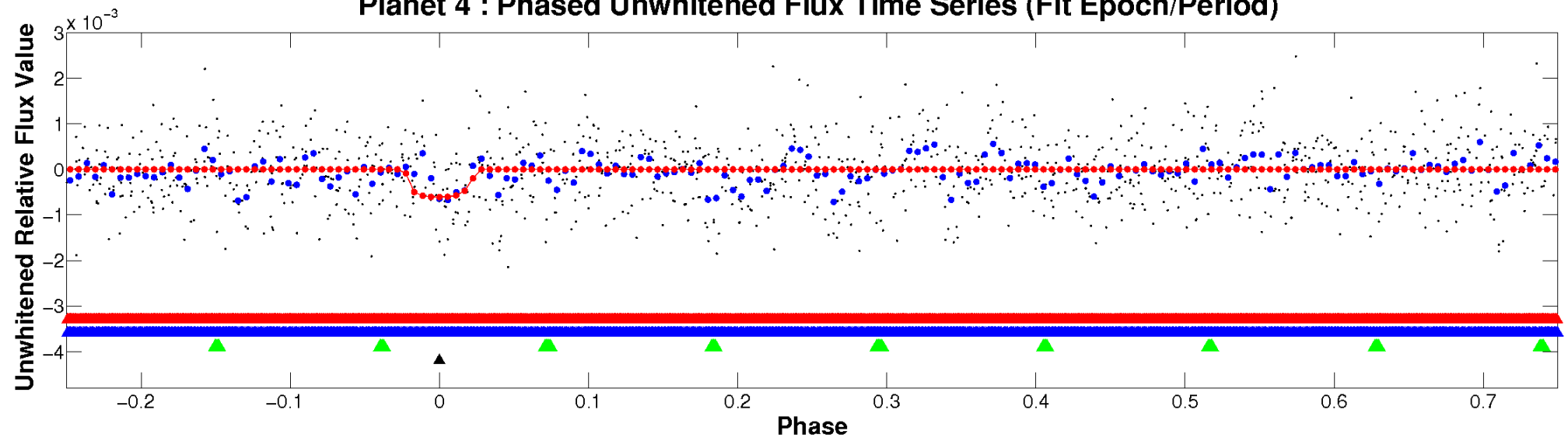


ALT Odd/Even

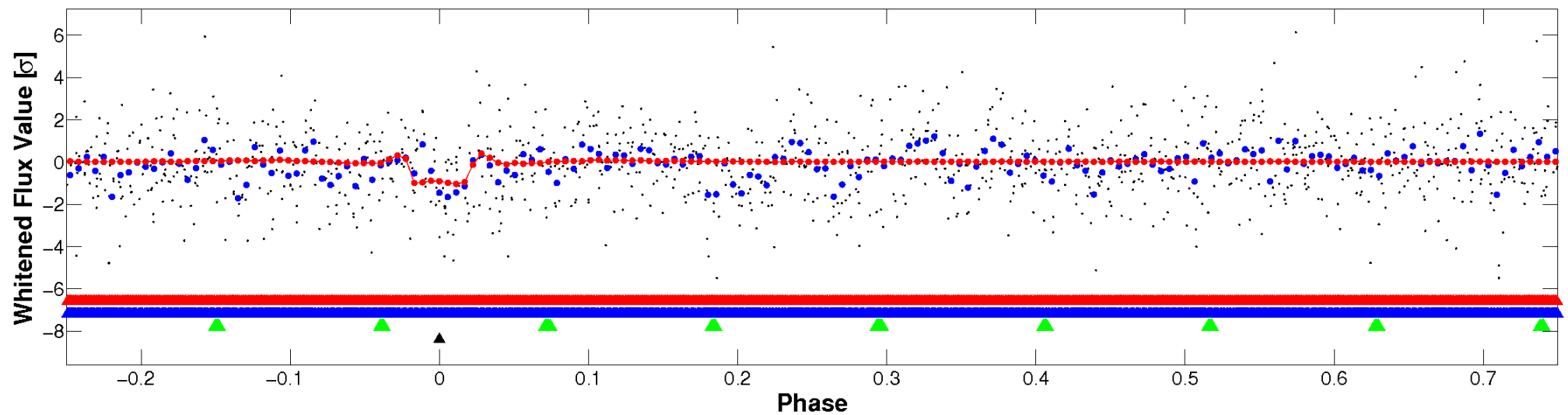
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

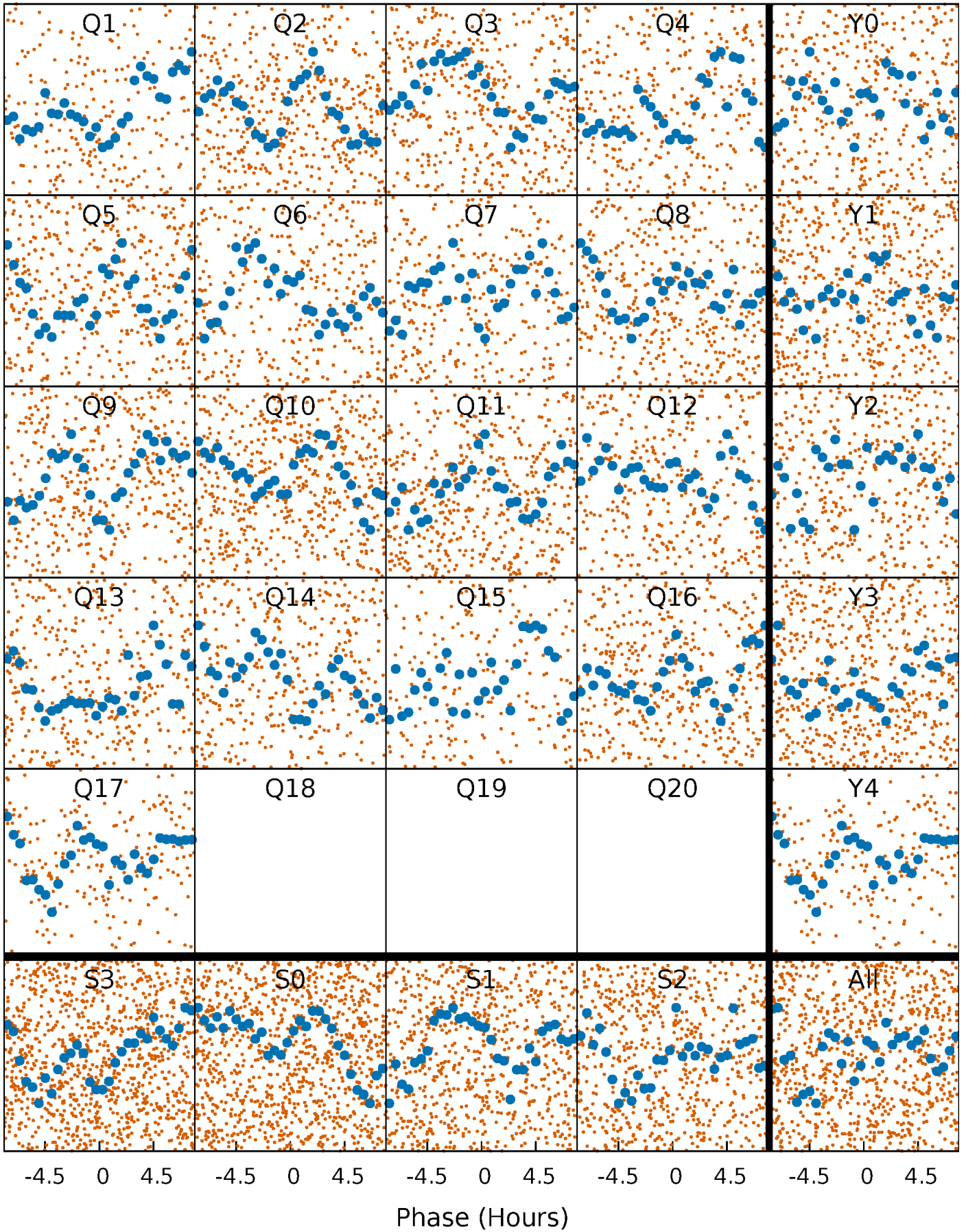


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



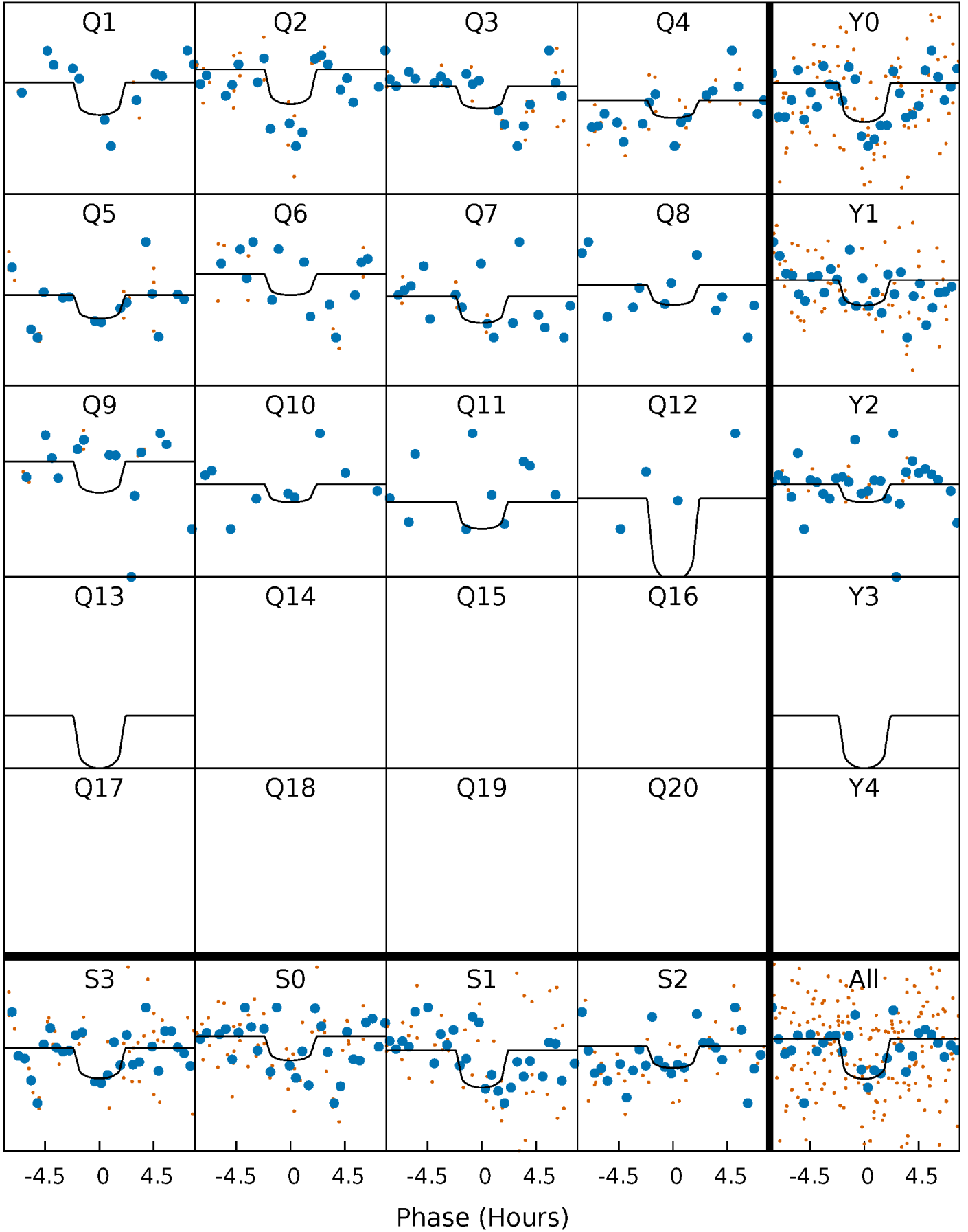
PDC Quarter-Phased Transit Curves

TCE 006806122-04 P= 3.631203 Days $T_0=131.999210$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006806122-04 P= 3.631203 Days $T_0=131.999210$ (BKJD)

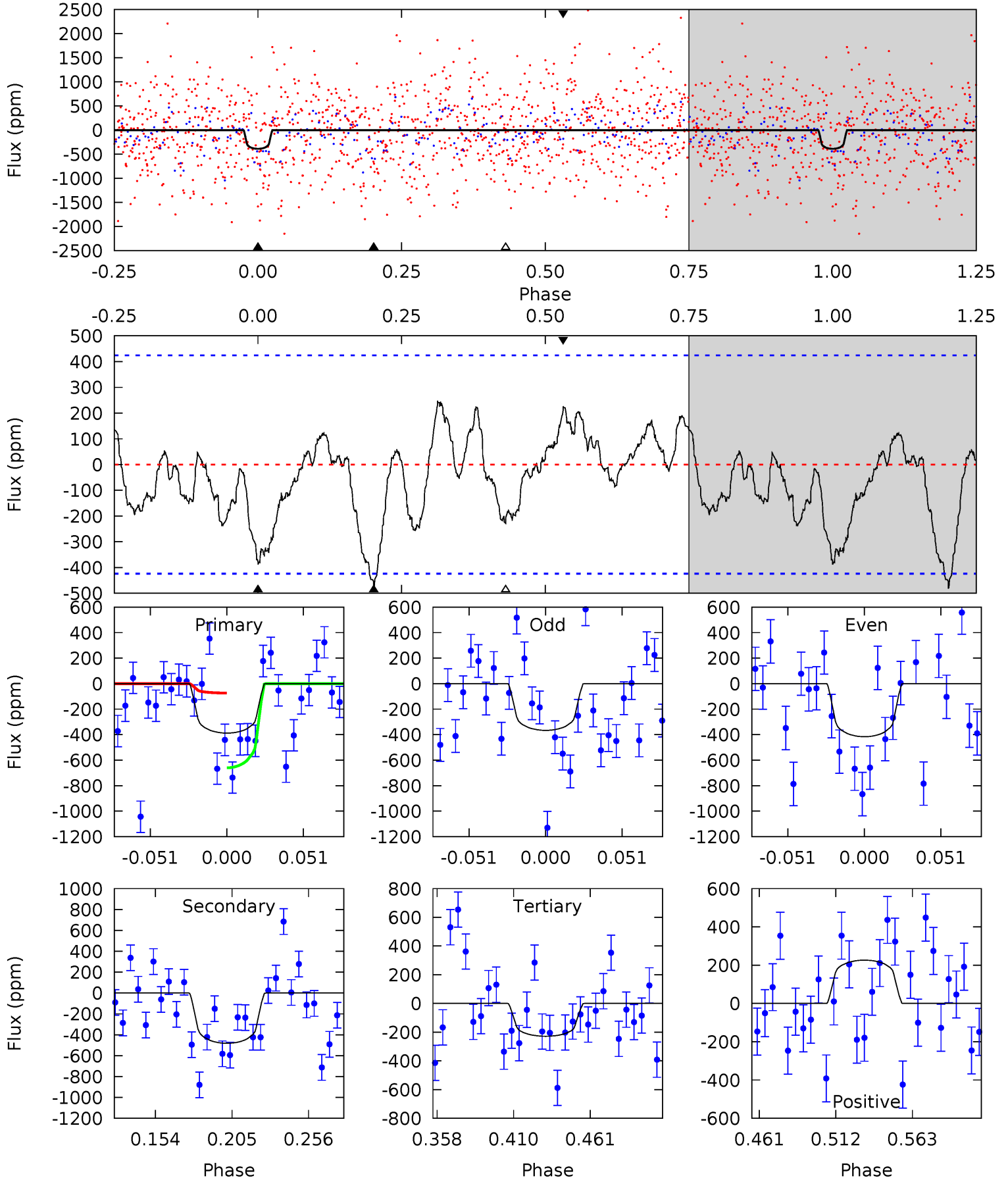


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

006806122-04, P = 3.631203 Days, E = 128.368007 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 4.30 | 5.34 | 2.53 | 2.51 | 4.70 | 1.95 | 1.32 | 1.77 | 1.79 | 2.81 | 2.83 | 0.28 | 0.87 | 0.34 | 3.31 |



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 006806122

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 6336^{+169}_{-225} | $4.425^{+0.070}_{-0.224}$ | $-0.200^{+0.250}_{-0.300}$ | $1.060^{+0.364}_{-0.121}$ | $1.089^{+0.169}_{-0.139}$ | $1.289^{+0.392}_{-0.708}$ |
| | +3%/-4% | +2%/-5% | +125%/-150% | +34%/-11% | +16%/-13% | +30%/-55% |
| 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 006806122-04 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|---------------|------------------------|----------------------|------------------------|-------------------|
| DV | -482 ± 90 | $4.52^{+3.77}_{-3.05}$ | 1877^{+157}_{-98} | 4920^{+4086}_{-1032} | 28^{+256}_{-20} |
| Alt. | N/A | N/A | N/A | N/A | N/A |

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

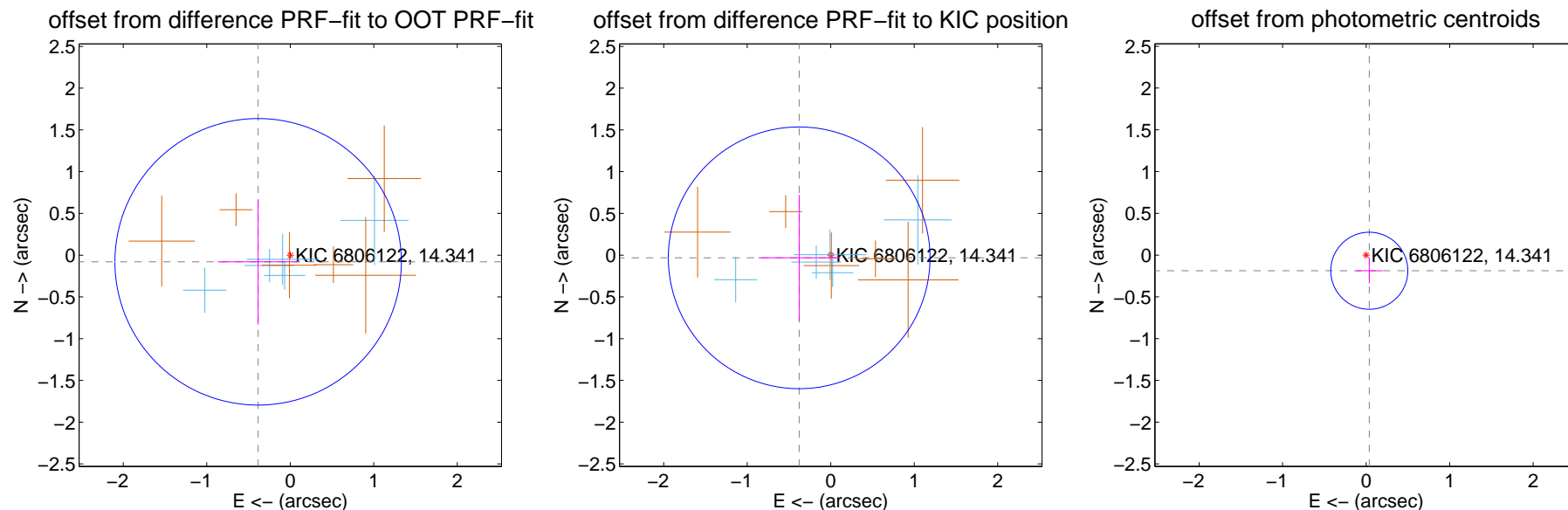
DV Centroid Data

Supplemental centroid analysis for 006806122-04. Kepler magnitude: 14.34. Transit SNR 6.95

There are 5 quarters with good PRF difference image offsets

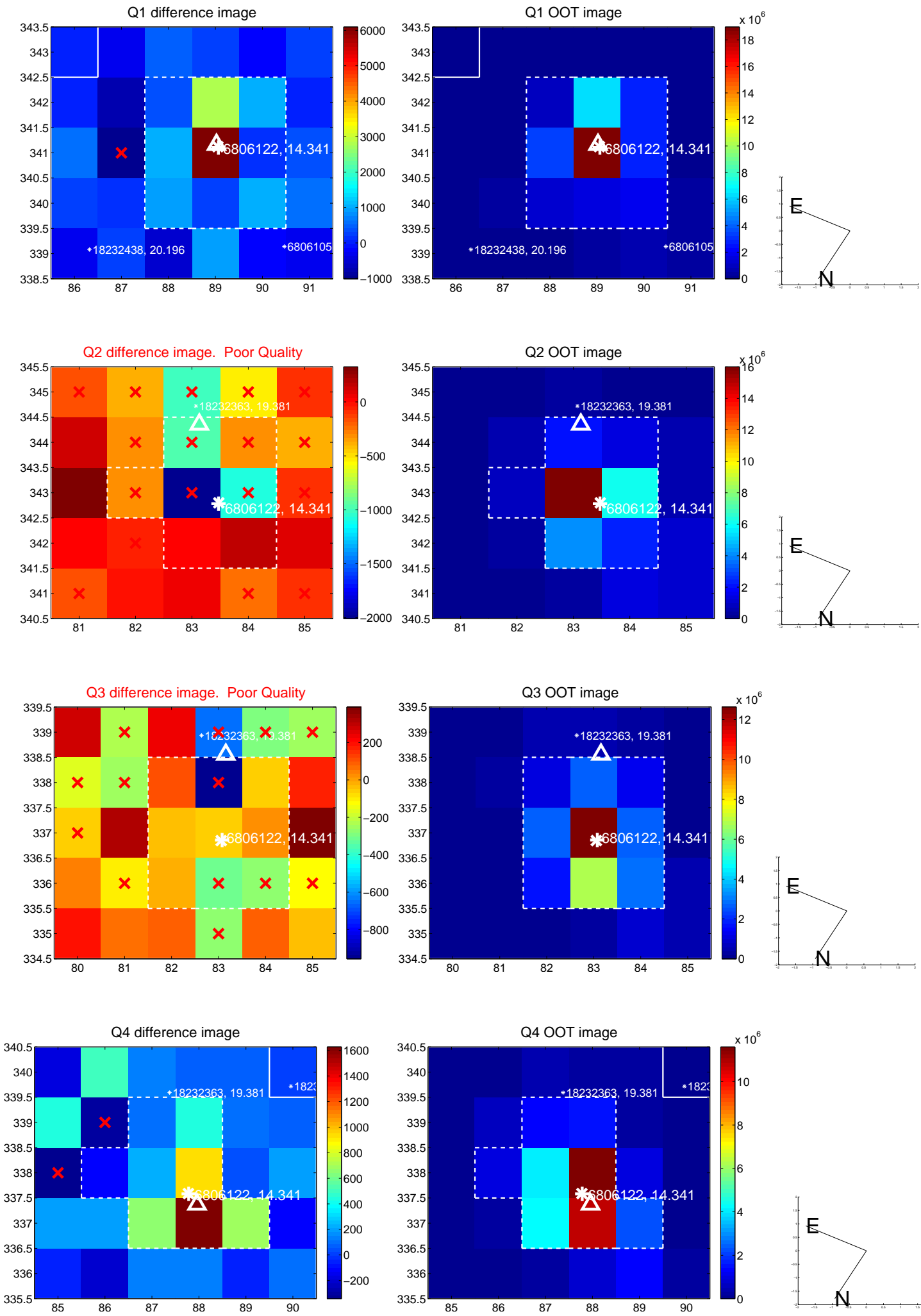
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 0.393 ± 0.572 | 0.69 | 0.385 ± 0.484 | -0.080 ± 0.752 |
| PRF-fit source offset from KIC position | 0.379 ± 0.522 | 0.73 | 0.378 ± 0.486 | -0.032 ± 0.754 |
| photometric centroid source offset | 0.19 ± 0.15 | 1.24 | -0.04 ± 0.16 | -0.19 ± 0.15 |

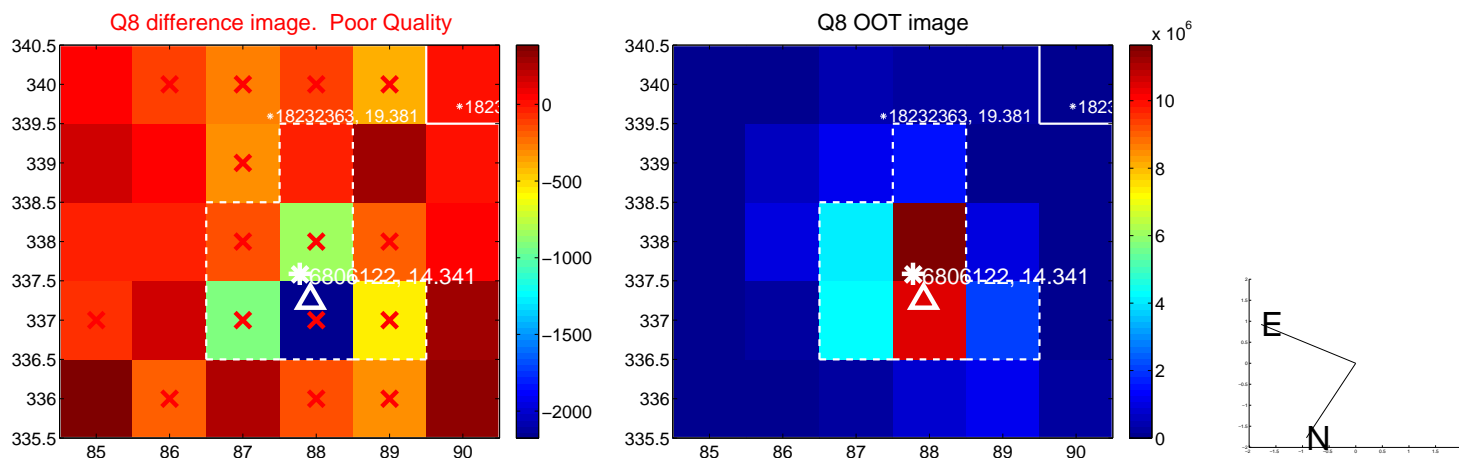
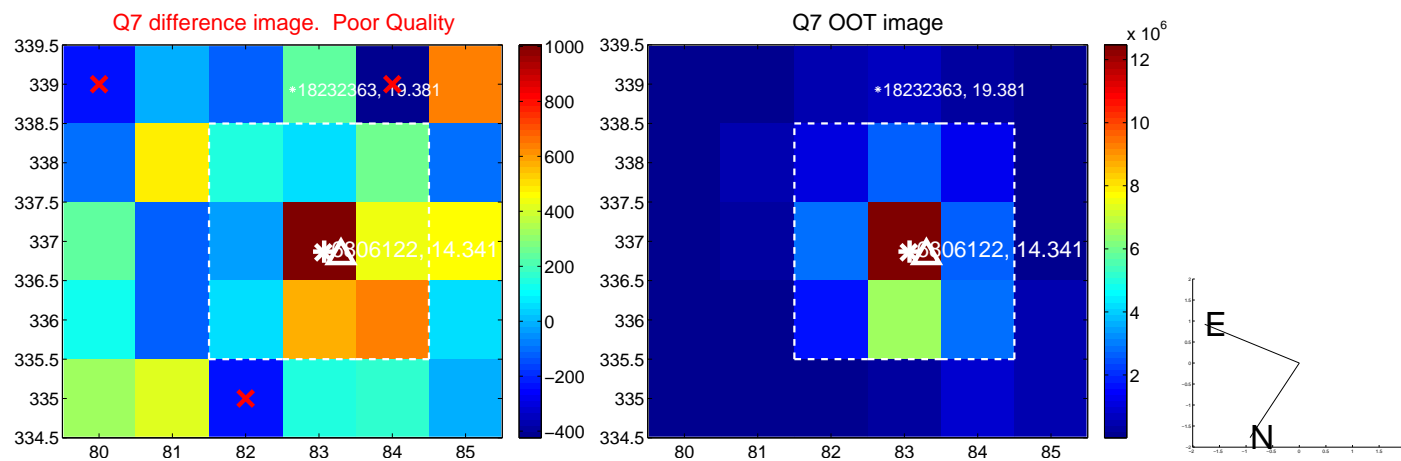
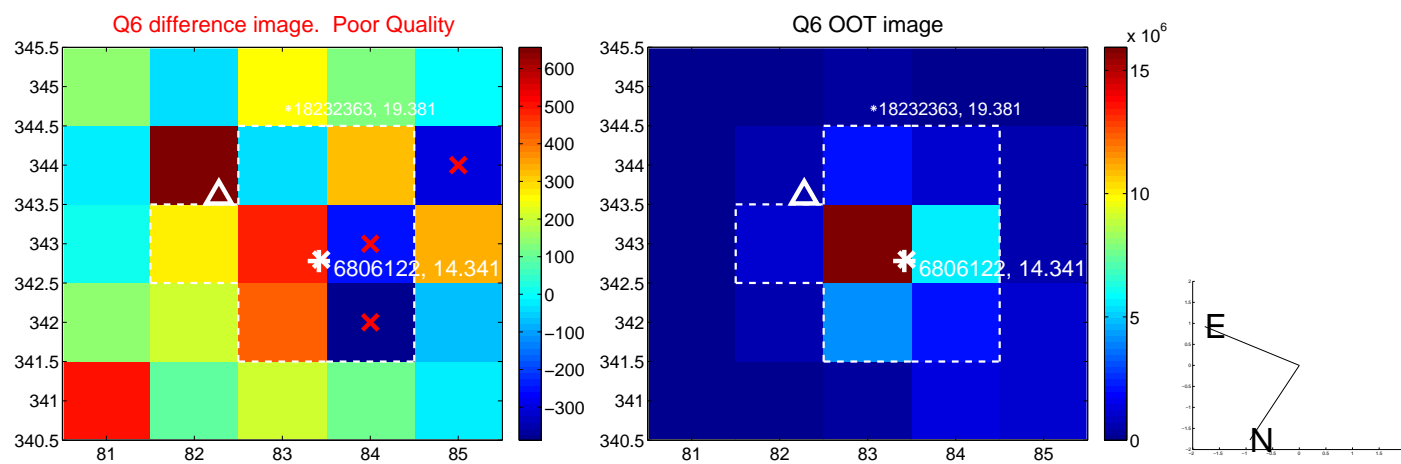
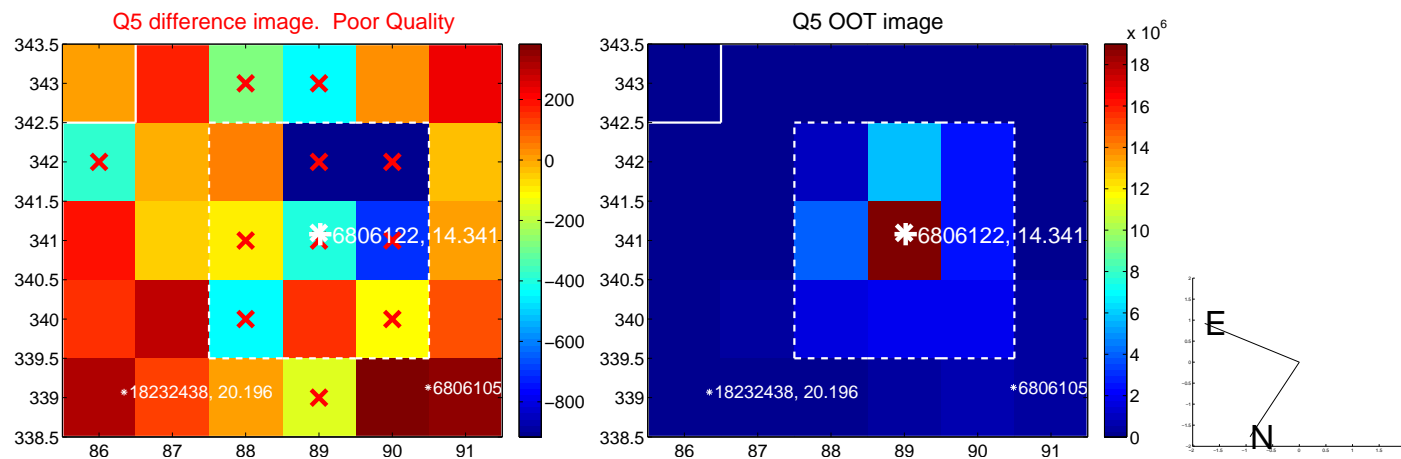


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

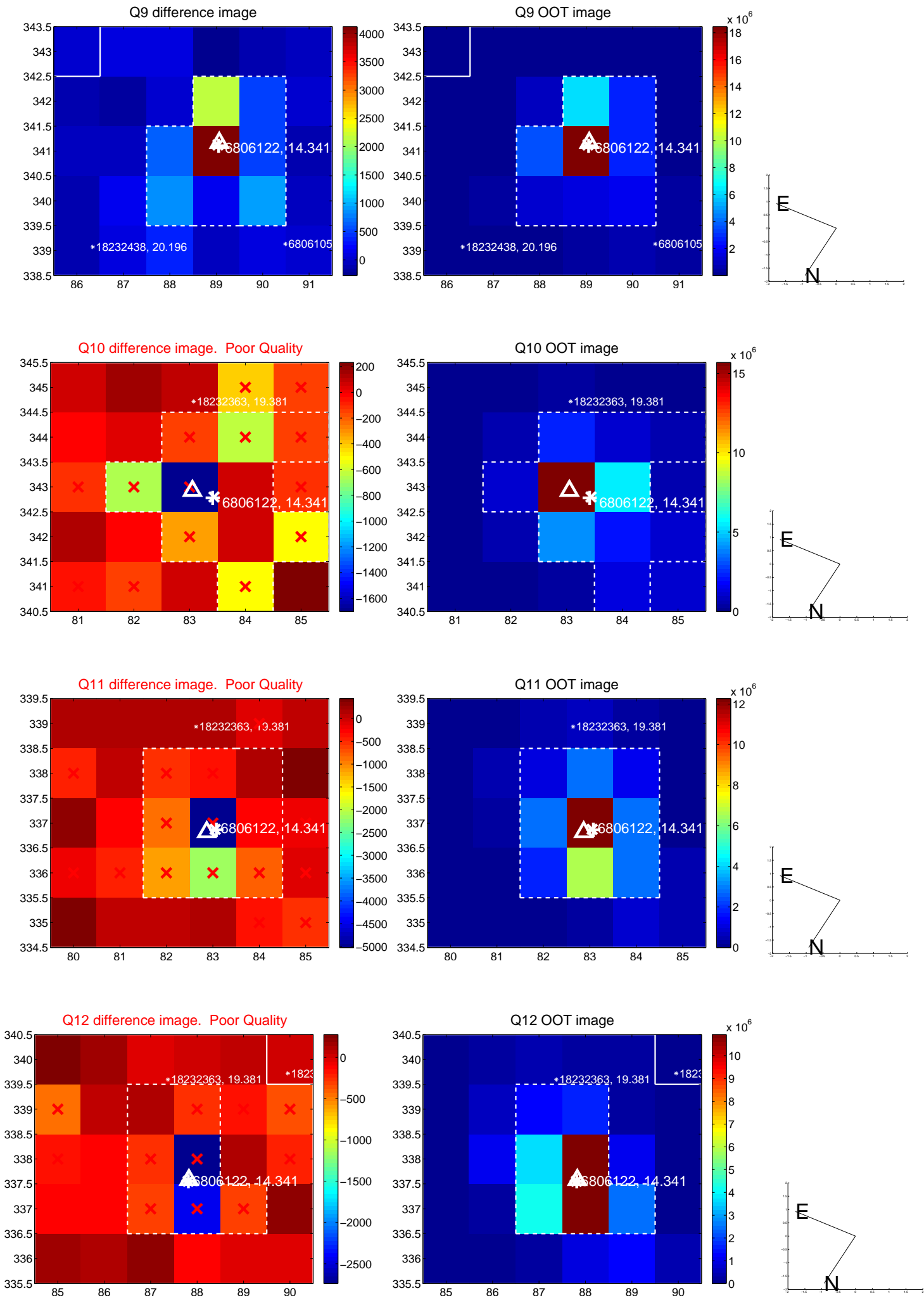
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



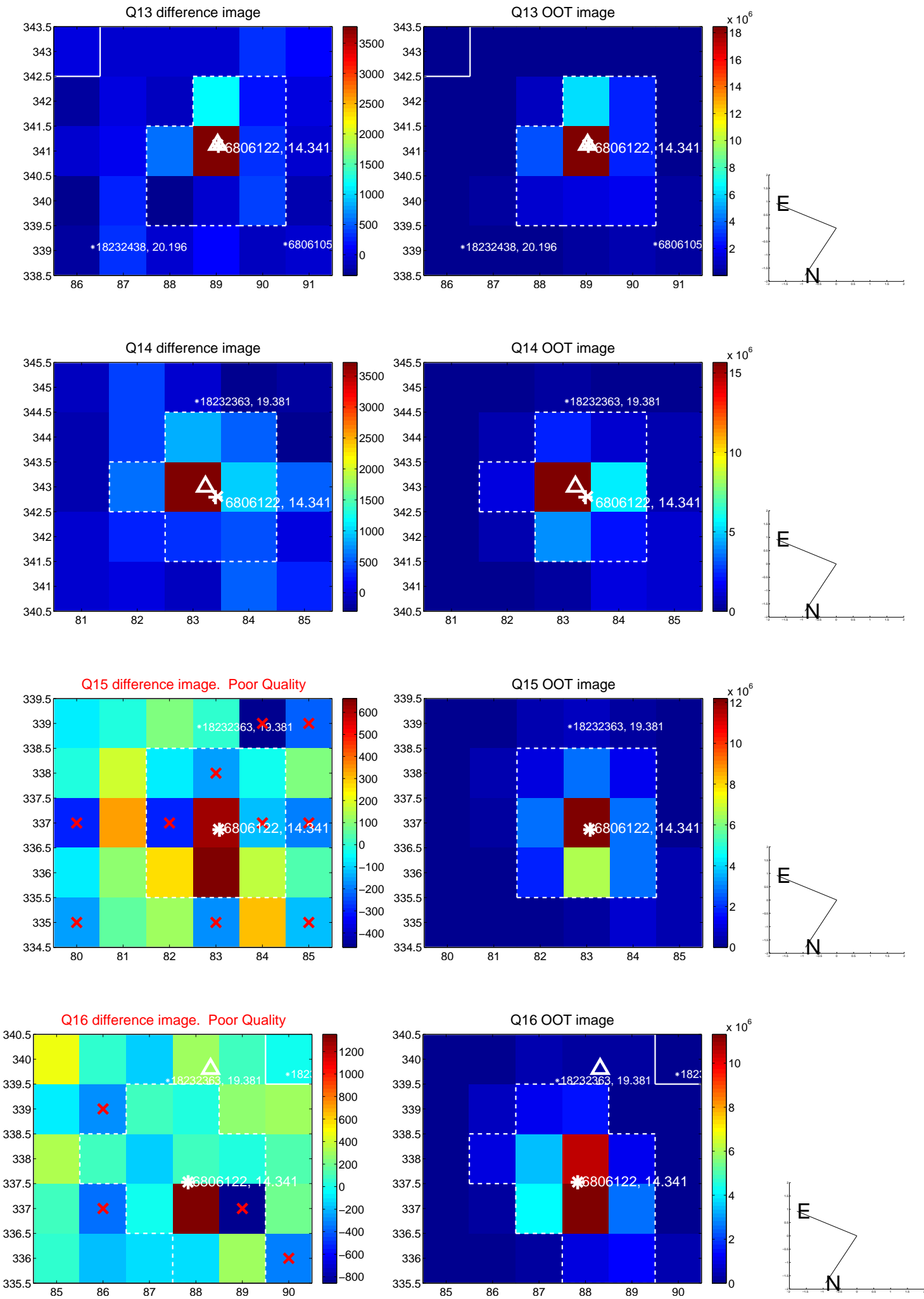
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



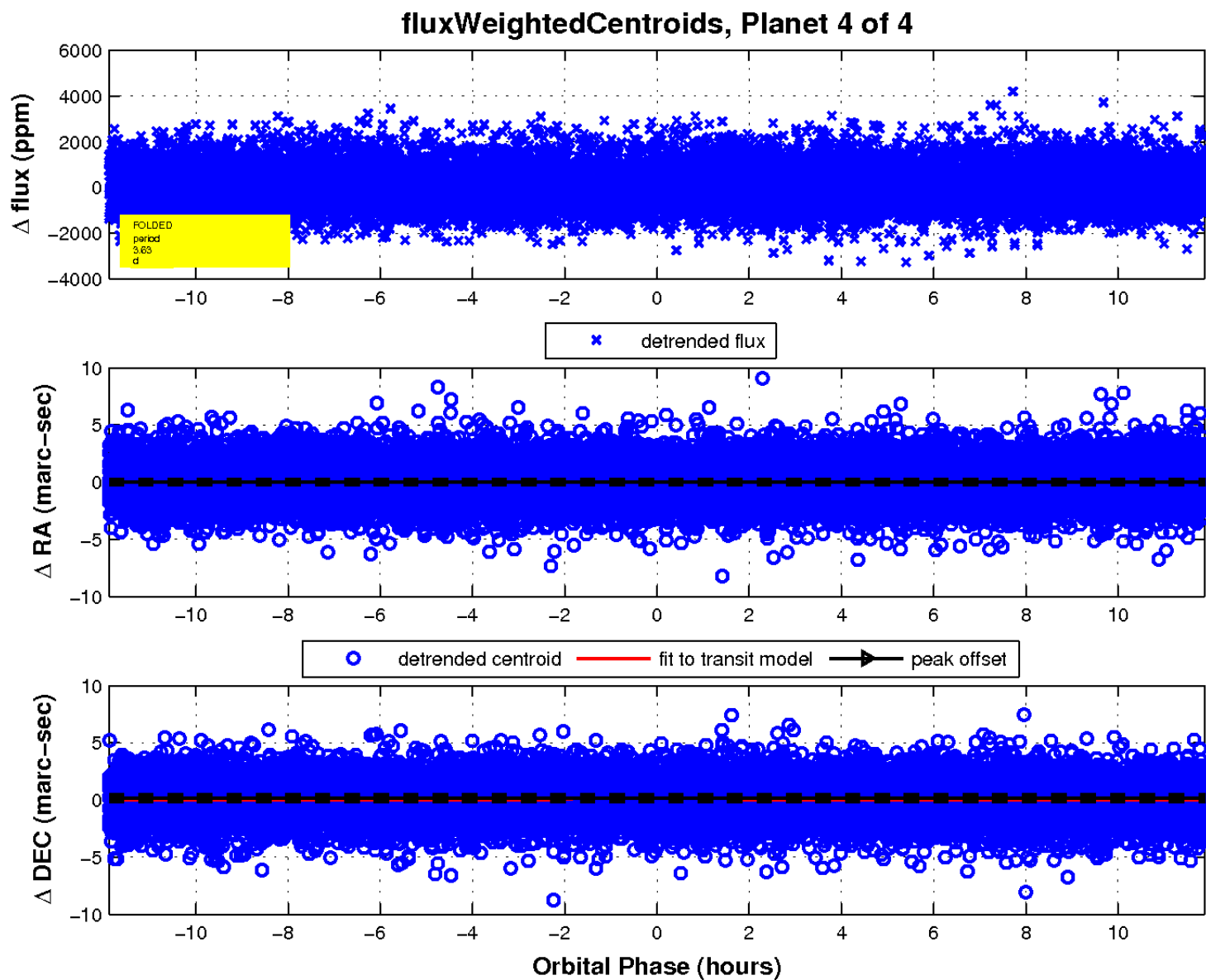
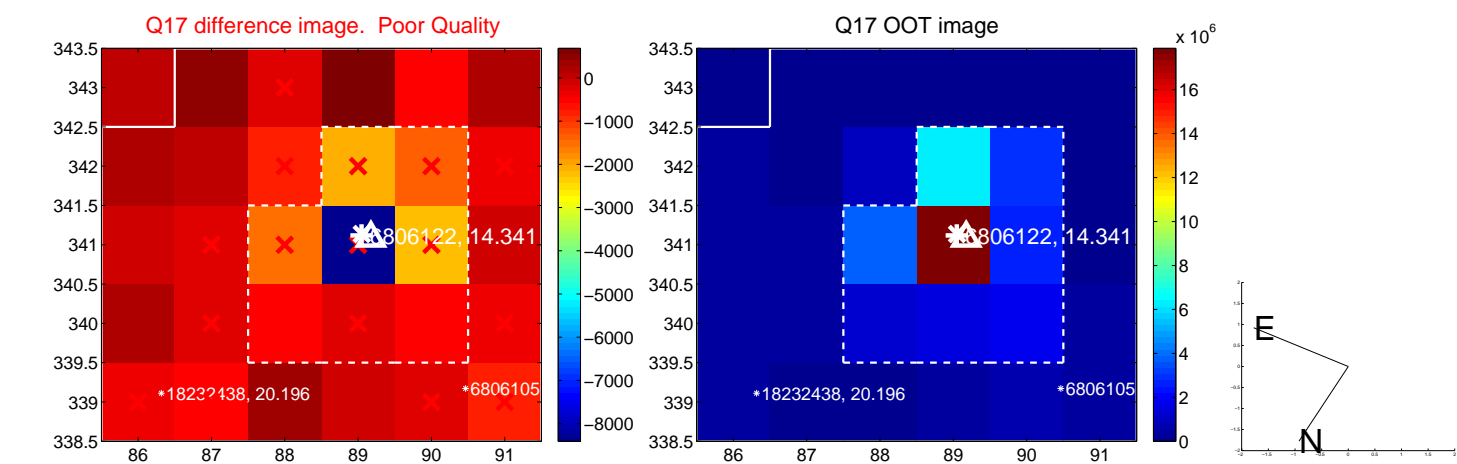
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

