

KIC 011465134

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011465134-01 | OBS | No | 1.487784 | 132.663804 | 42.1 | 2.545 | 19.0 | 18.4 | 2.10 | 9859 | 1.56 | 32341.99 |
| 011465134-02 | OBS | No | 0.743908 | 132.164119 | 238.4 | 1.500 | 9.7 | -1.0 | 2.10 | 9859 | 3.33 | 81494.41 |
| 011465134-03 | OBS | No | 1.486519 | 131.860466 | 22.4 | 9.532 | 8.3 | 9.5 | 2.10 | 9859 | 1.02 | 32378.69 |
| 011465134-04 | OBS | No | 43.612362 | 138.983570 | 121.7 | 2.786 | 8.6 | 7.2 | 2.10 | 9859 | 2.63 | 357.83 |
| 011465134-05 | OBS | No | 37.524630 | 155.256995 | 152.1 | 2.356 | 8.1 | 7.1 | 2.10 | 9859 | 2.79 | 437.25 |
| 011465134-06 | OBS | No | 38.532995 | 158.400057 | 155.3 | 2.189 | 7.9 | 7.1 | 2.10 | 9859 | 2.98 | 422.06 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 011465134-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 011465134-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS |
| 011465134-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT |
| 011465134-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-06 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |

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

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

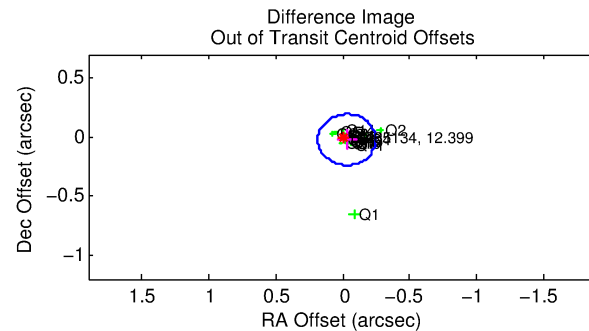
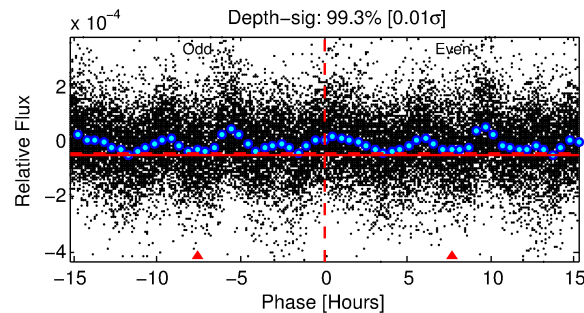
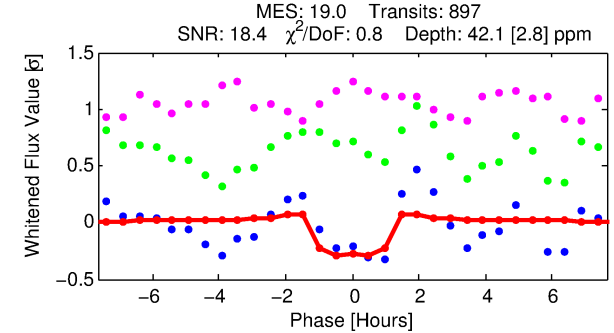
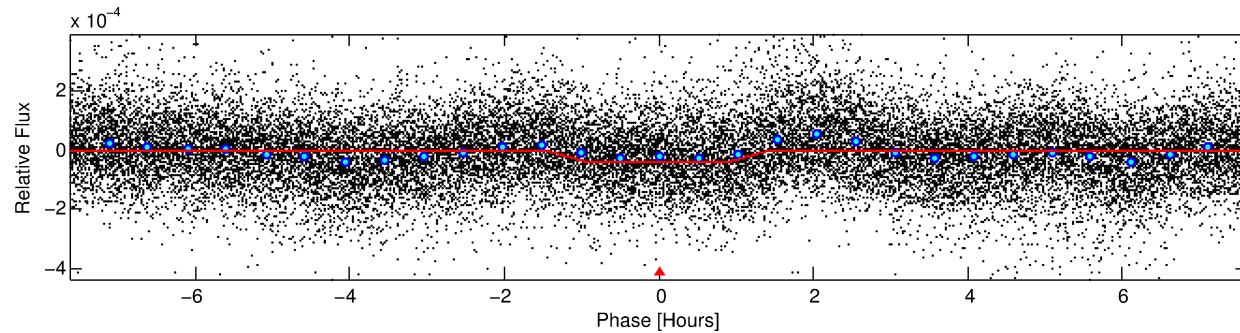
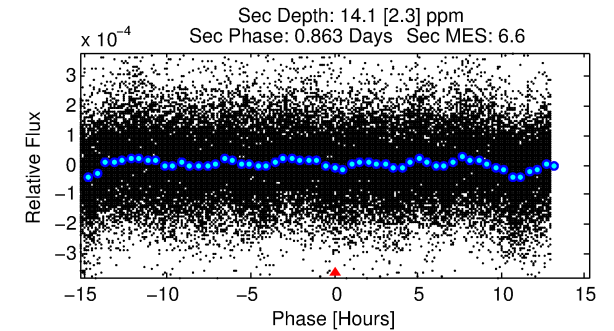
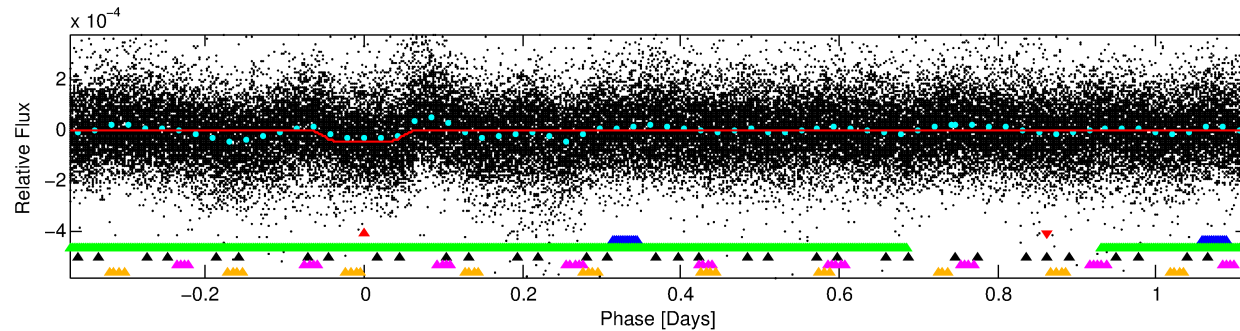
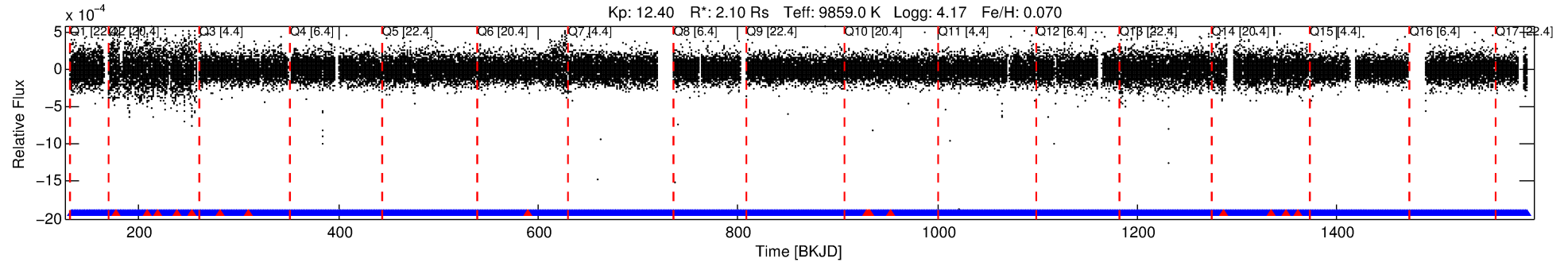
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465134-01

No Significant Match Found

DV One-Page Summary

KIC: 11465134 Candidate: 1 of 6 Period: 1.488 d



DV Fit Results:

Period = 1.48778 [0.00001] d
Epoch = 132.6638 [0.0014] BKJD
Rp/R* = 0.0068 [0.0008]
a/R* = 2.21 [1.49]
b = 0.90 [0.18]
Seff = 32341.99 [15964.98]
Teq = 3420 [422] K
Rp = 1.56 [0.67] Re
a = 0.0339 [0.0112] AU
Ag = 3.66 [1.96] [1.35σ]
Teffp = 7312 [605] K [5.28σ]

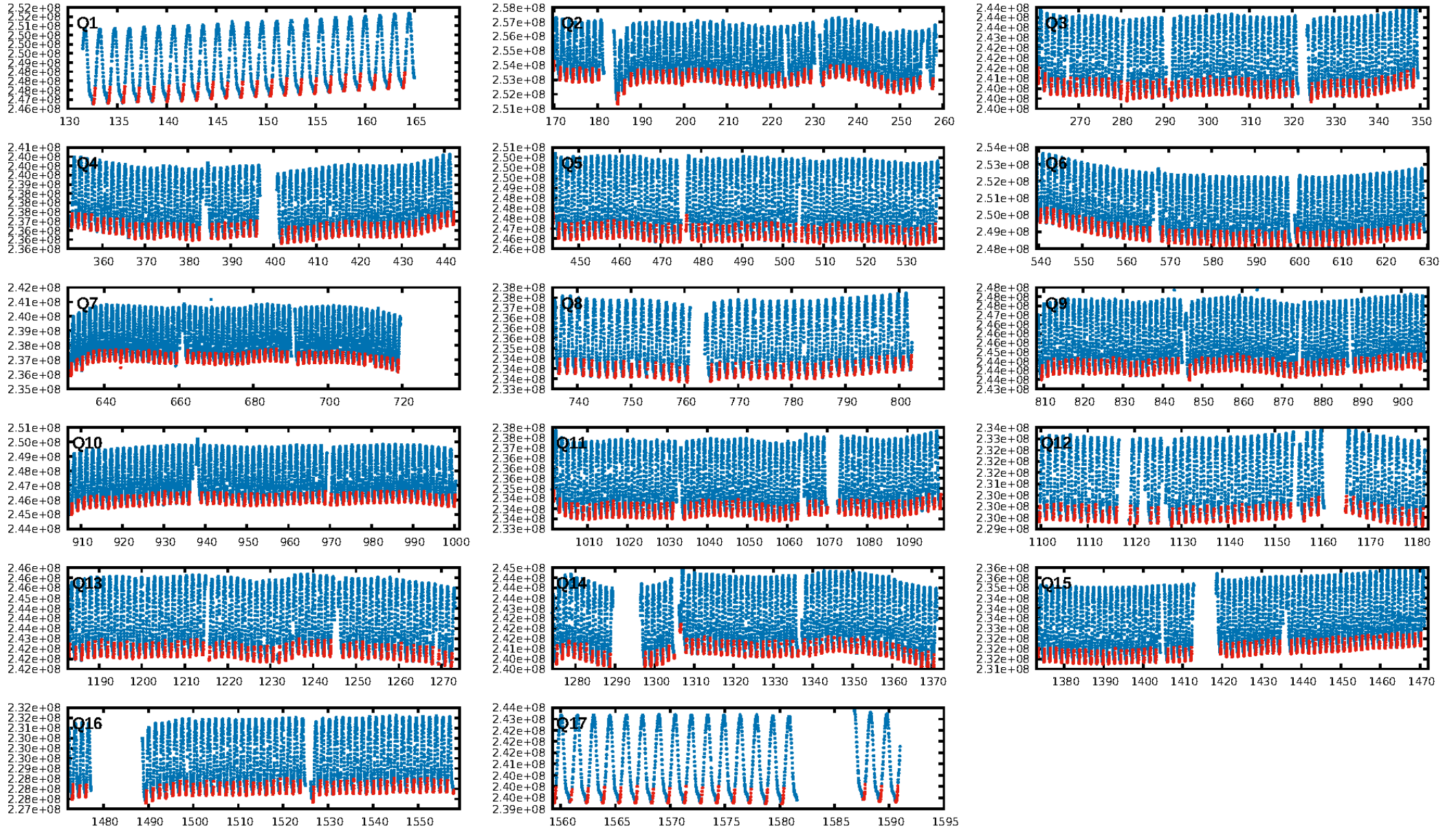
DV Diagnostic Results:

ShortPeriod-sig: 0.2% [0.00σ]
LongPeriod-sig: 100.0% [249.36σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGo-sig: N/A
Bootstrap-pfa: 6.75e-38
RollingBand-fgt: 0.98 [841/857]
GhostDiagnostic-chr: 0.6628
Centroid-sig: 20.4%
Centroid-so: 0.650 arcsec [1.22σ]
OotOffset-rm: 0.037 arcsec [0.51σ]
KicOffset-rm: 0.248 arcsec [3.32σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 0.35 [6/17]

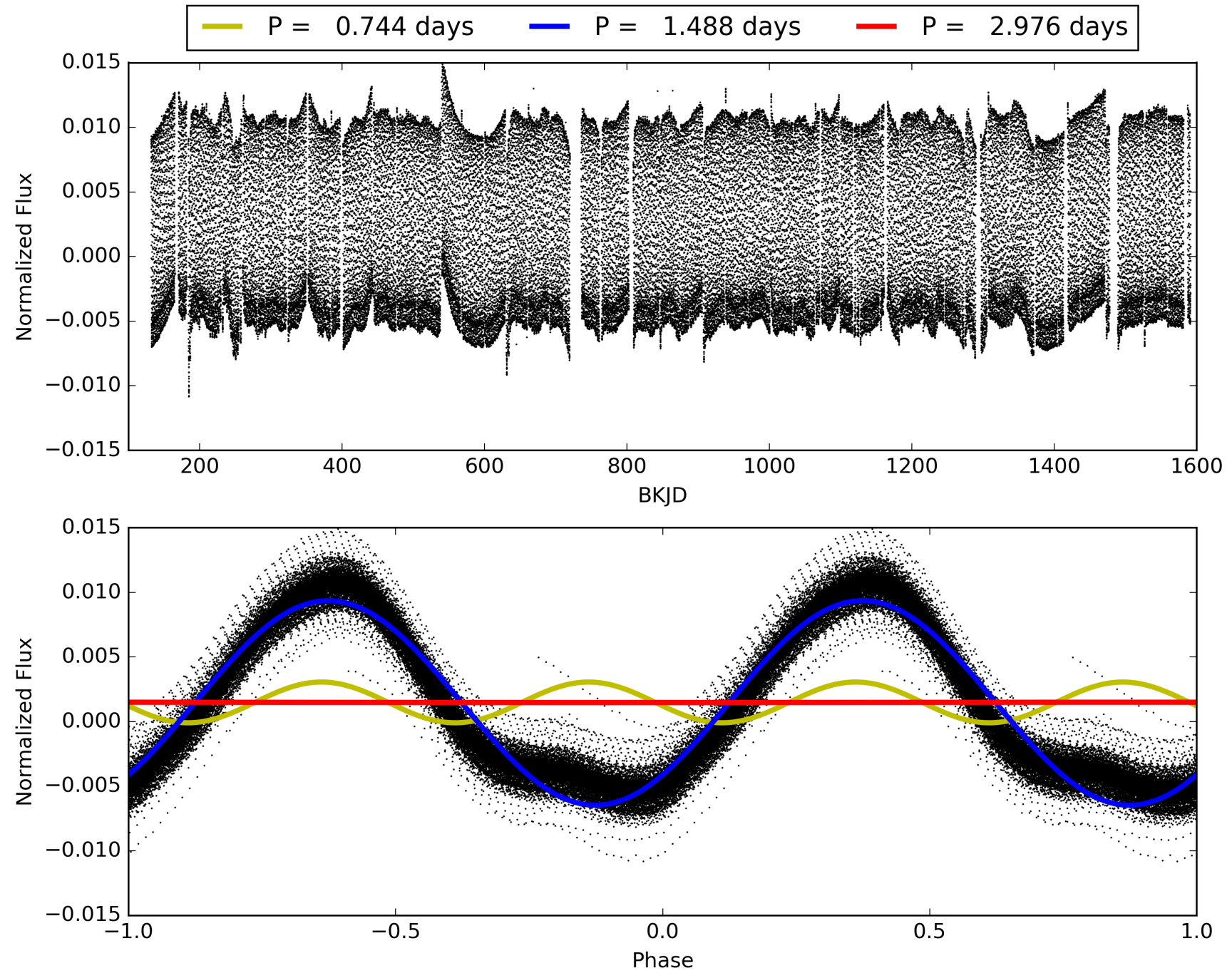
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:18:50 Z

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

TCE 011465134-01, PDC Light Curves

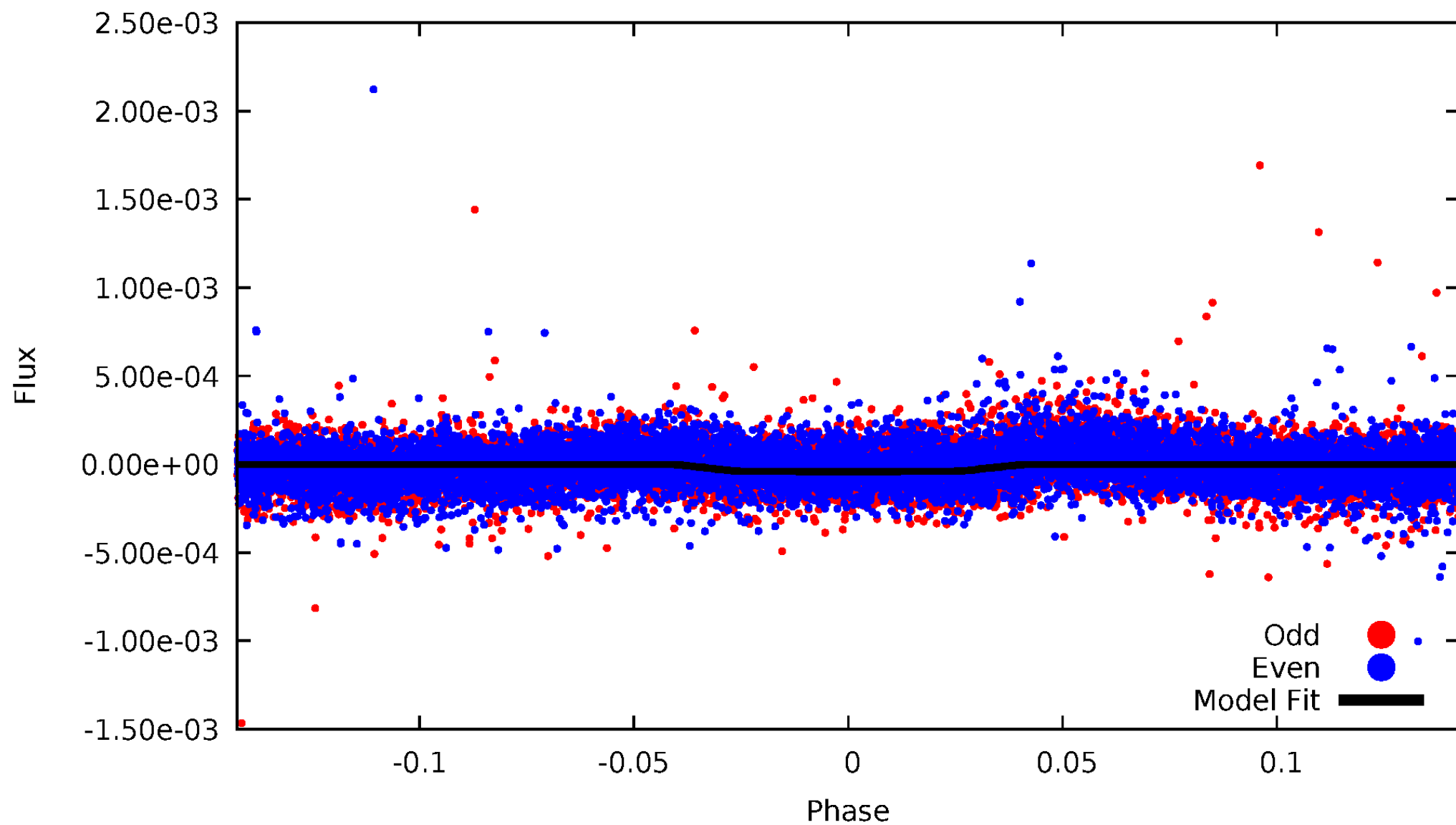


TCE 011465134-01



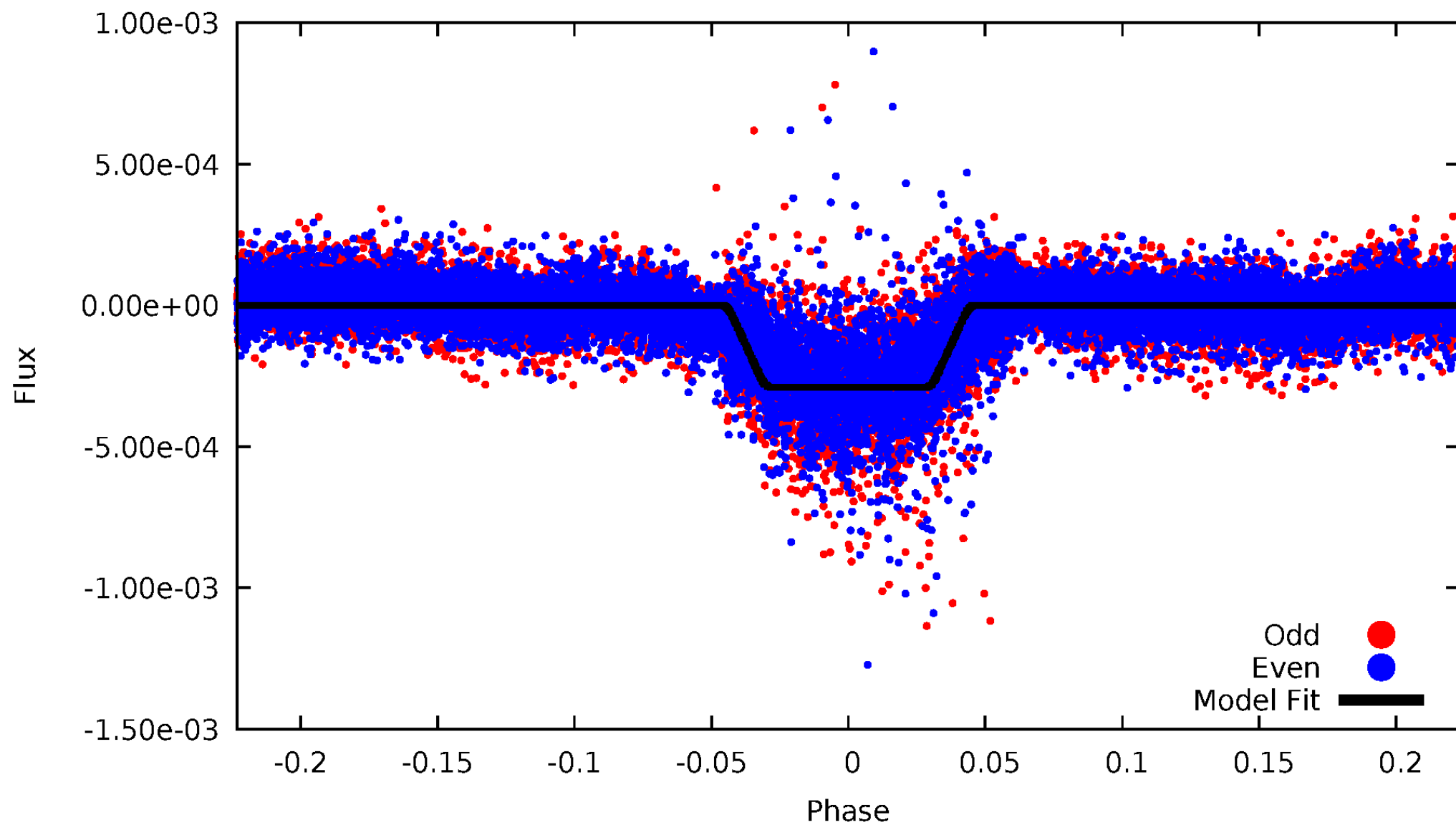
DV Odd/Even

TCE 011465134-01



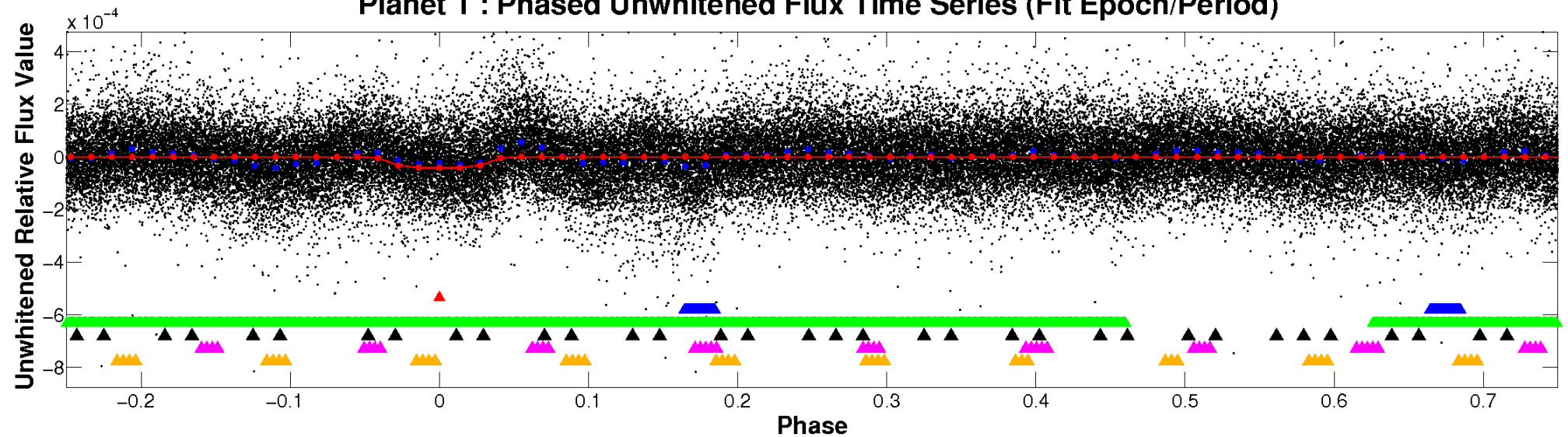
ALT Odd/Even

TCE 011465134-01

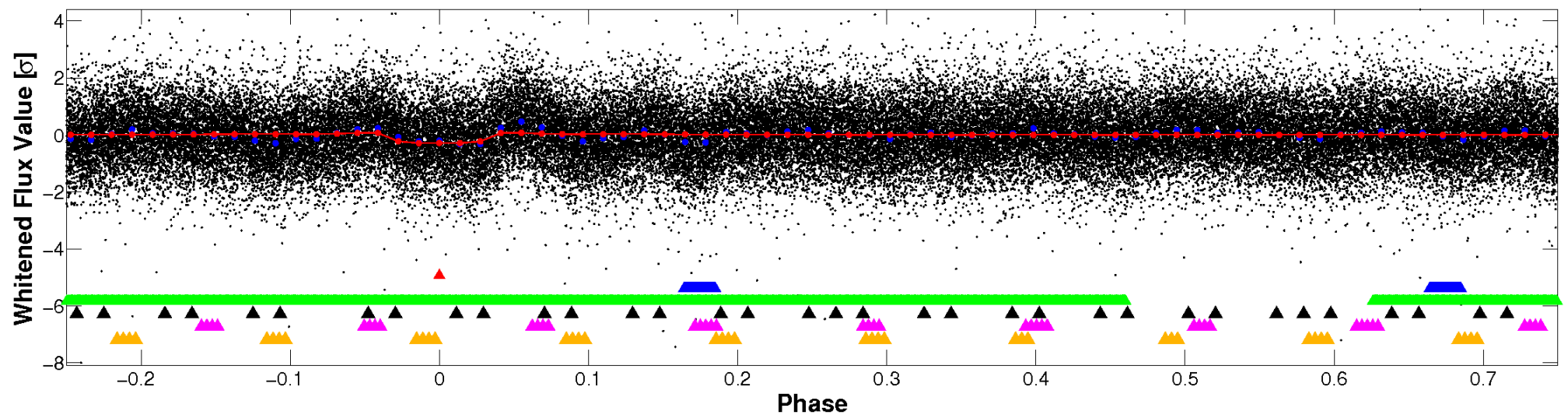


Non-Whitened Vs. Whitened Light Curve

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

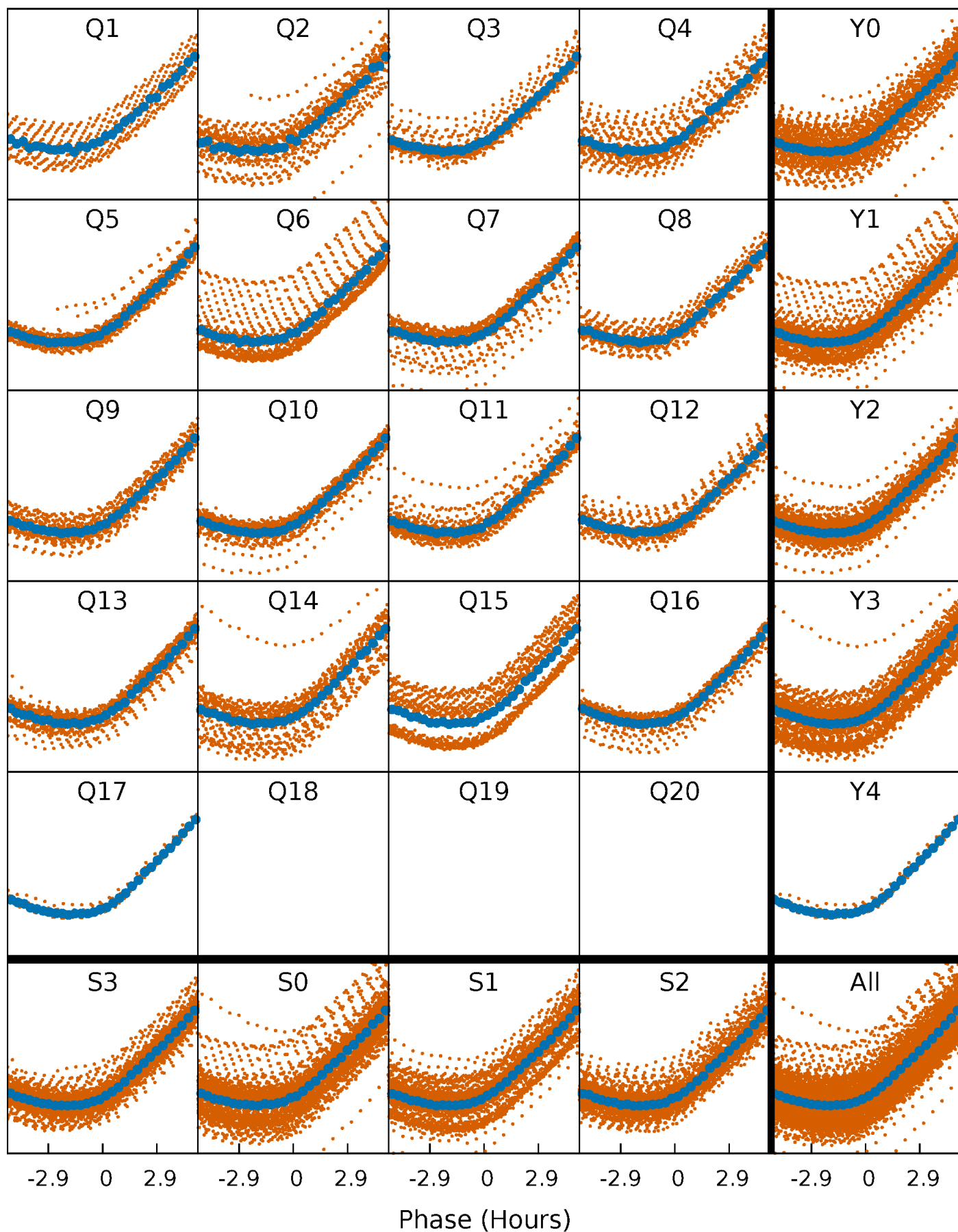


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



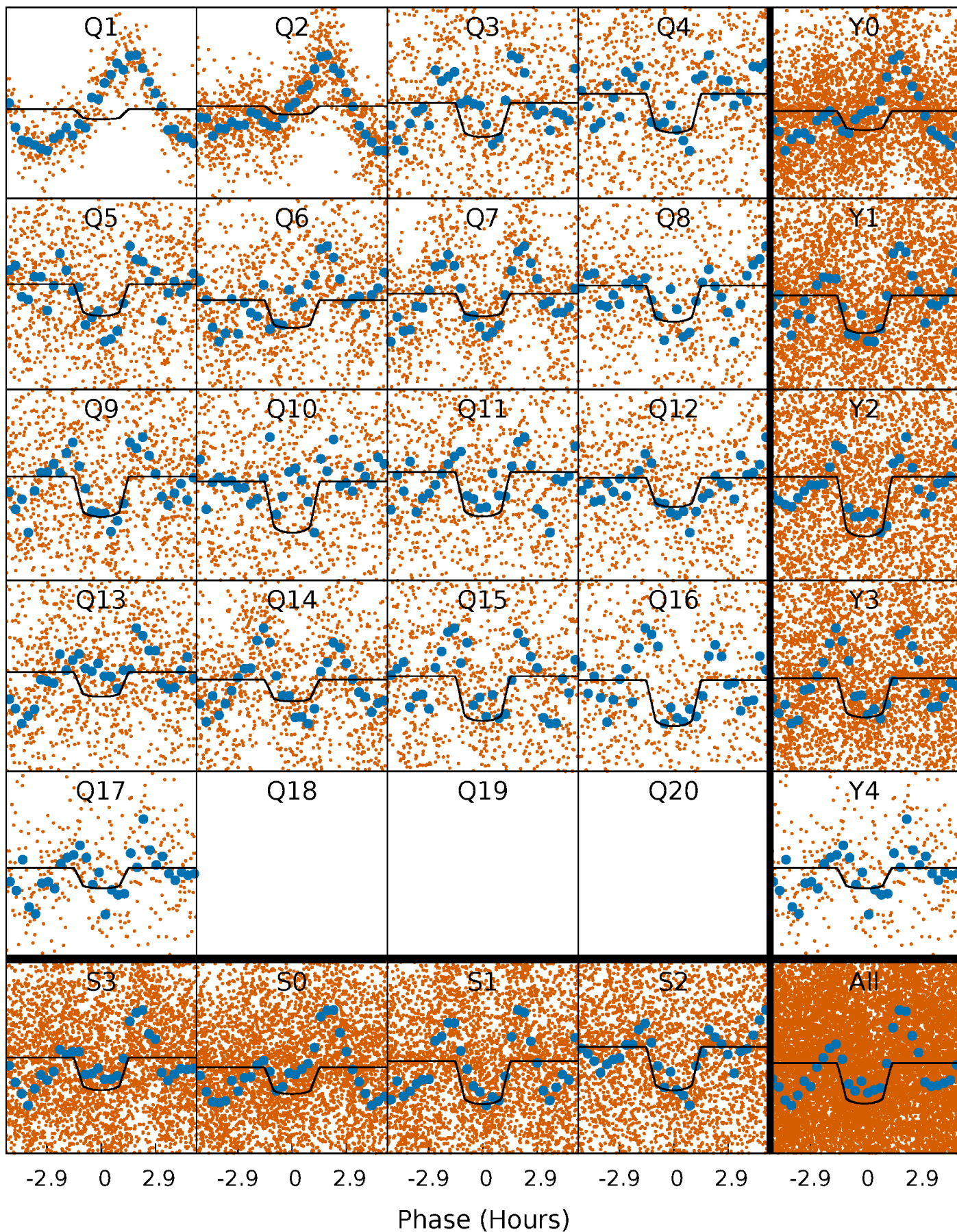
PDC Quarter-Phased Transit Curves

TCE 011465134-01 P= 1.487784 Days $T_0=132.663804$ (BKJD)



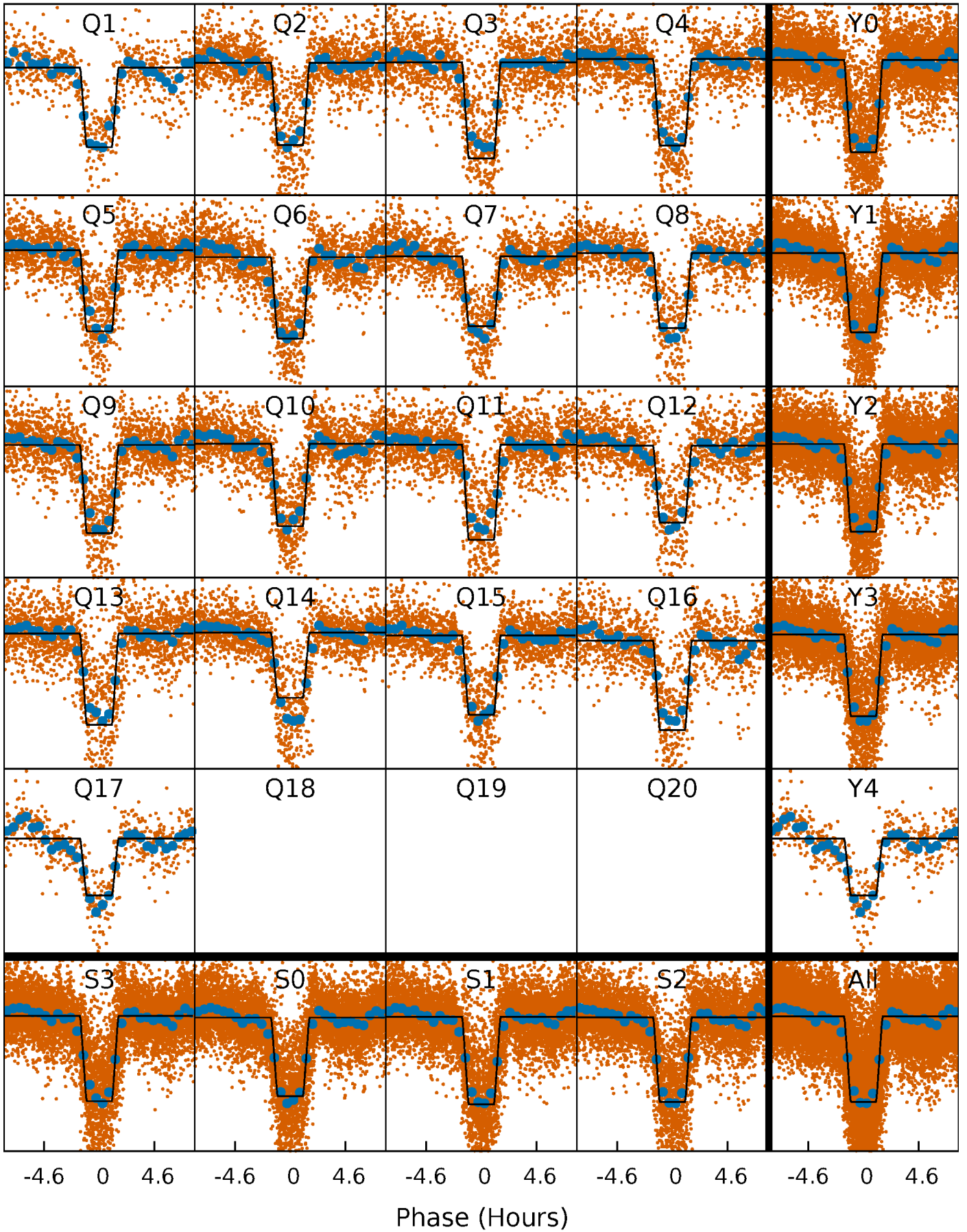
DV Quarter-Phased Transit Curves

TCE 011465134-01 P= 1.487784 Days $T_0=132.663804$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

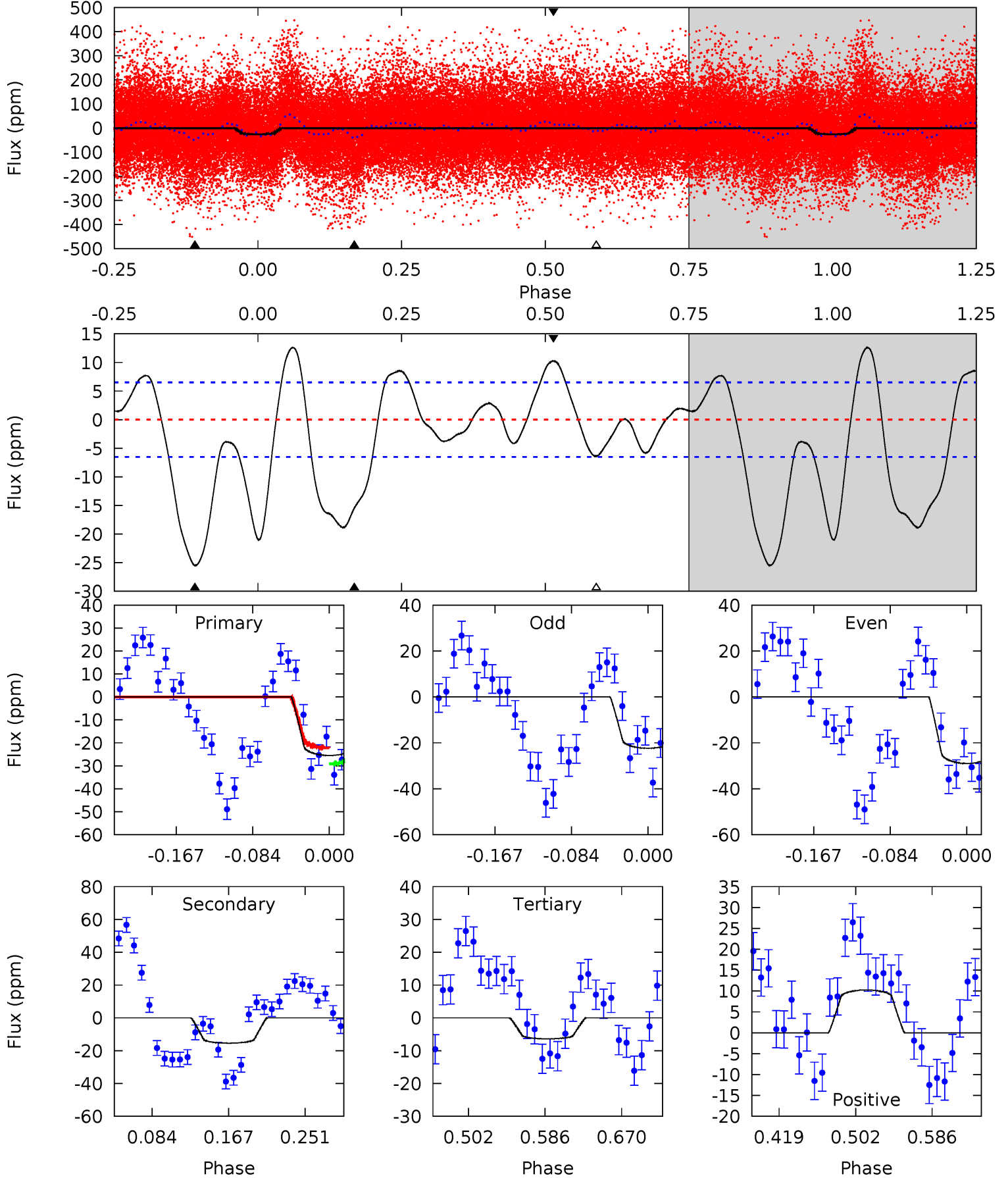
TCE 011465134-01 P= 1.487807 Days $T_0=132.654372$ (BKJD)



DV Model-Shift Uniqueness Test

011465134-01, P = 1.487784 Days, E = 131.176020 Days

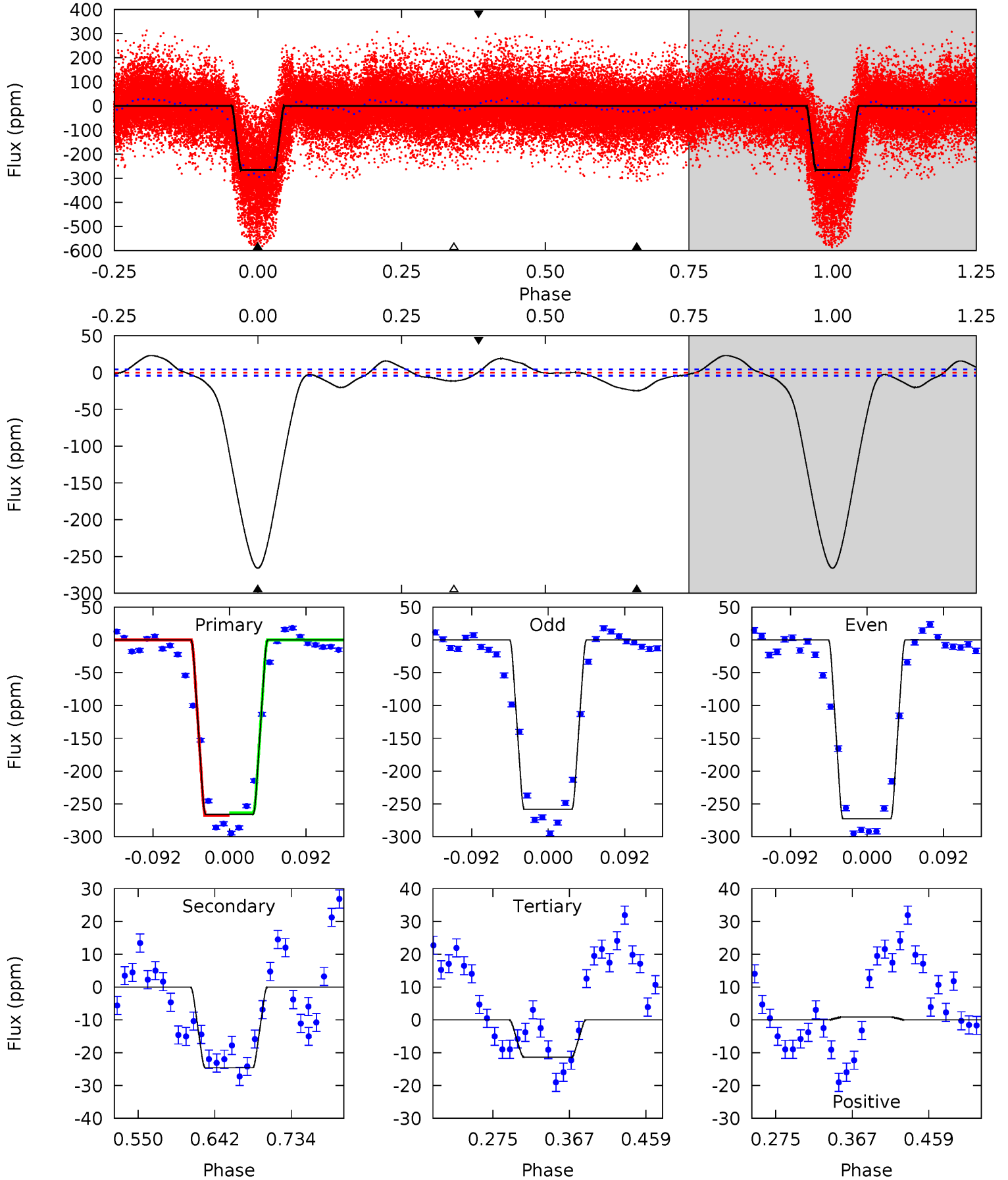
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 18.0 | 10.9 | 4.51 | 7.23 | 4.60 | 1.73 | 4.57 | 13.5 | 10.8 | 6.38 | 3.66 | 2.35 | 0.89 | 0.33 | 2.44 |



Alt Model-Shift Uniqueness Test

011465134-01, P = 1.487807 Days, E = 131.166565 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 277.7 | 25.7 | 11.9 | 0.92 | 4.58 | 1.69 | 11.4 | 265.8 | 276.8 | 13.8 | 24.8 | 7.54 | 1.01 | 0.08 | 2.03 |



Stellar Parameters For KIC 011465134

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| | 9859^{+274}_{-445} | $4.166^{+0.160}_{-0.240}$ | $0.070^{+0.150}_{-0.600}$ | $2.096^{+0.863}_{-0.575}$ | $2.348^{+0.451}_{-0.601}$ | $0.359^{+0.373}_{-0.208}$ |
| | +3%/-5% | +4%/-6% | +214%/-857% | +41%/-27% | +19%/-26% | +104%/-58% |
| Source | KIC0 | 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 011465134-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|---------------------------|
| DV | -15 ± 1 | $1.59^{+0.37}_{-0.30}$ | 4813^{+475}_{-389} | 6719^{+597}_{-474} | $3.733^{+1.970}_{-1.255}$ |
| Alt. | -25 ± 1 | $3.93^{+0.88}_{-0.60}$ | 4799^{+440}_{-356} | 4606^{+199}_{-252} | $0.980^{+0.327}_{-0.310}$ |

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

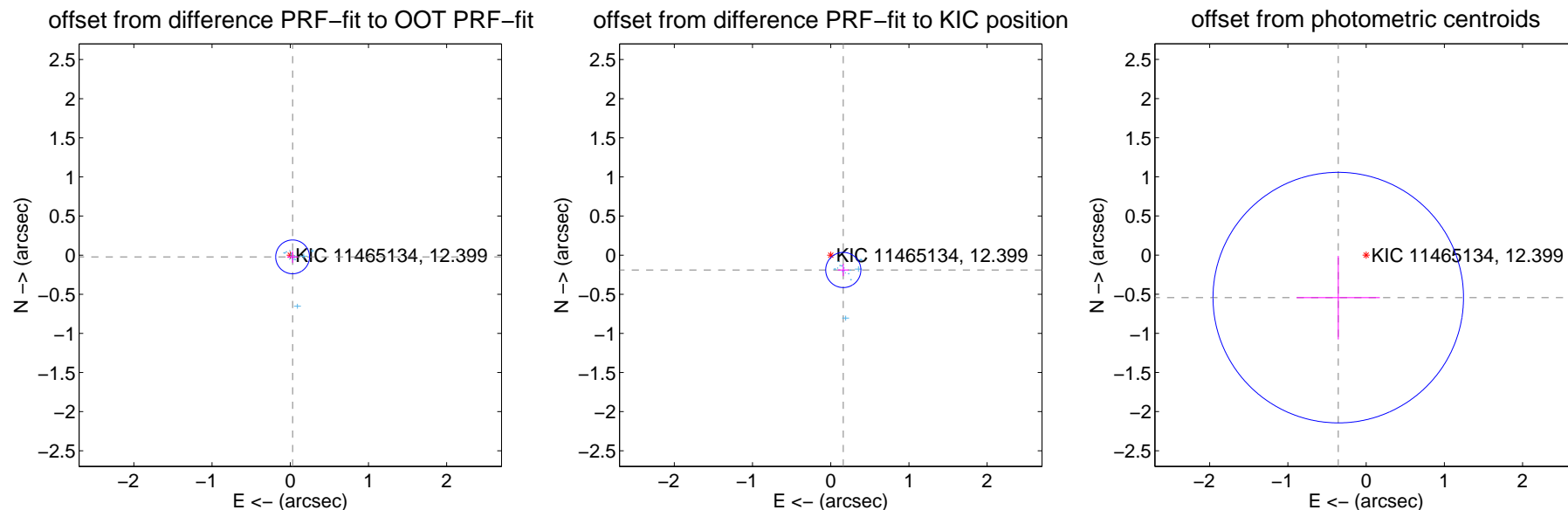
DV Centroid Data

Supplemental centroid analysis for 011465134-01. Kepler magnitude: 12.40. Transit SNR 18.42

There are 17 quarters with good PRF difference image offsets

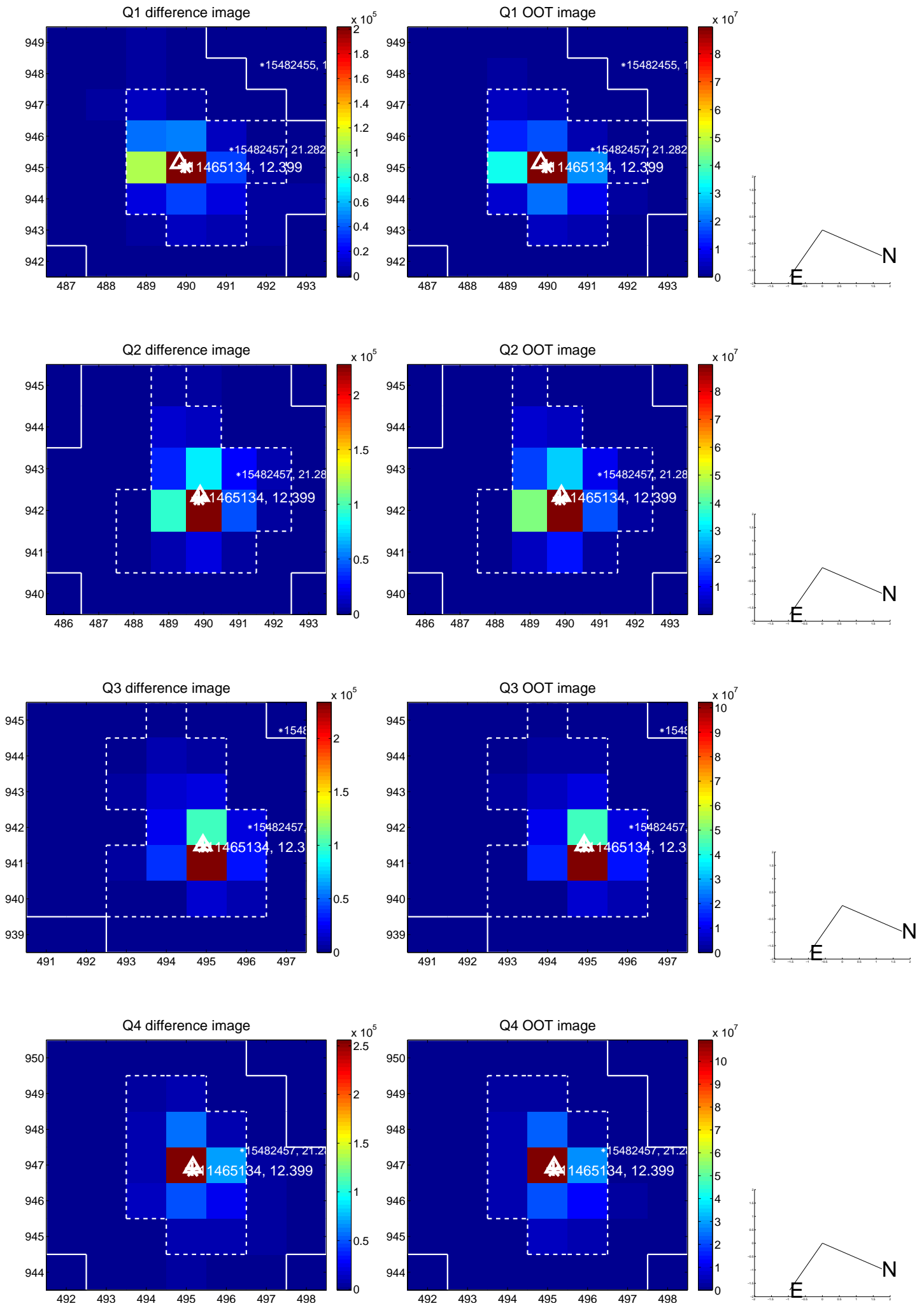
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|-------------------------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.037 ± 0.072 | 0.51 | -0.030 ± 0.070 | -0.022 ± 0.076 |
| PRF-fit source offset from KIC position | 0.248 ± 0.075 | 3.32 | -0.161 ± 0.070 | -0.189 ± 0.078 |
| photometric centroid source offset | 0.65 ± 0.53 | 1.22 | 0.36 ± 0.53 | -0.54 ± 0.53 |

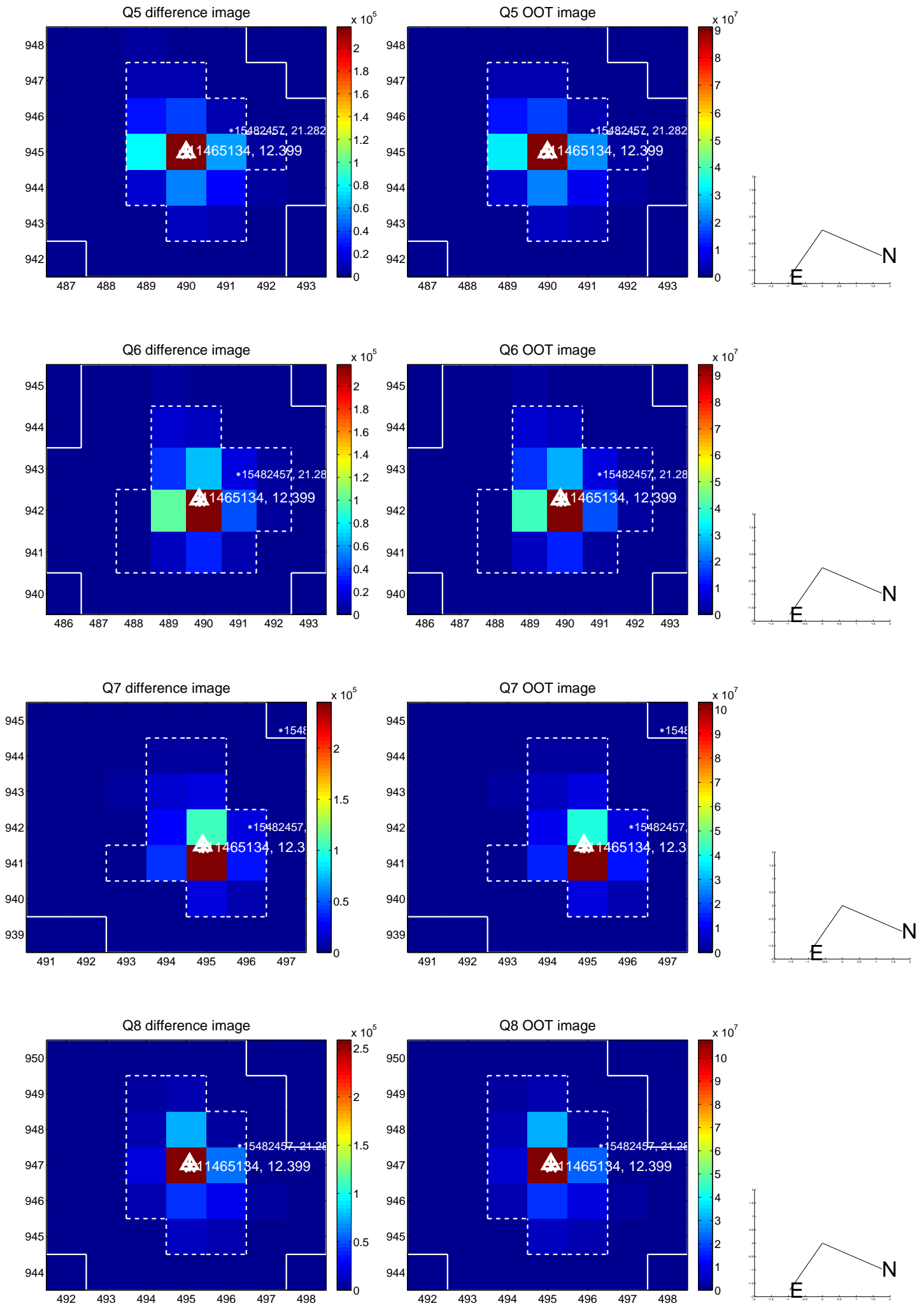


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

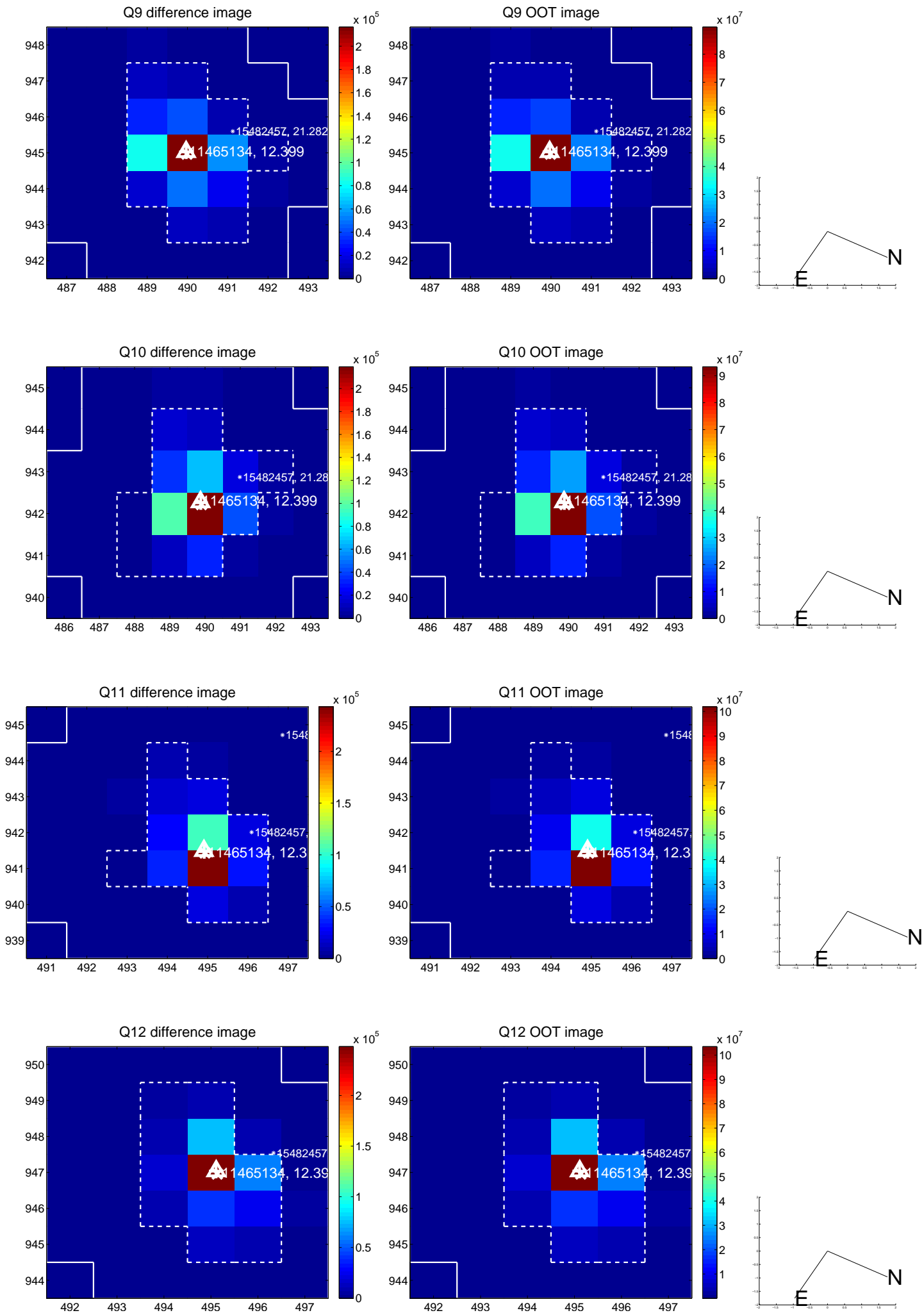
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



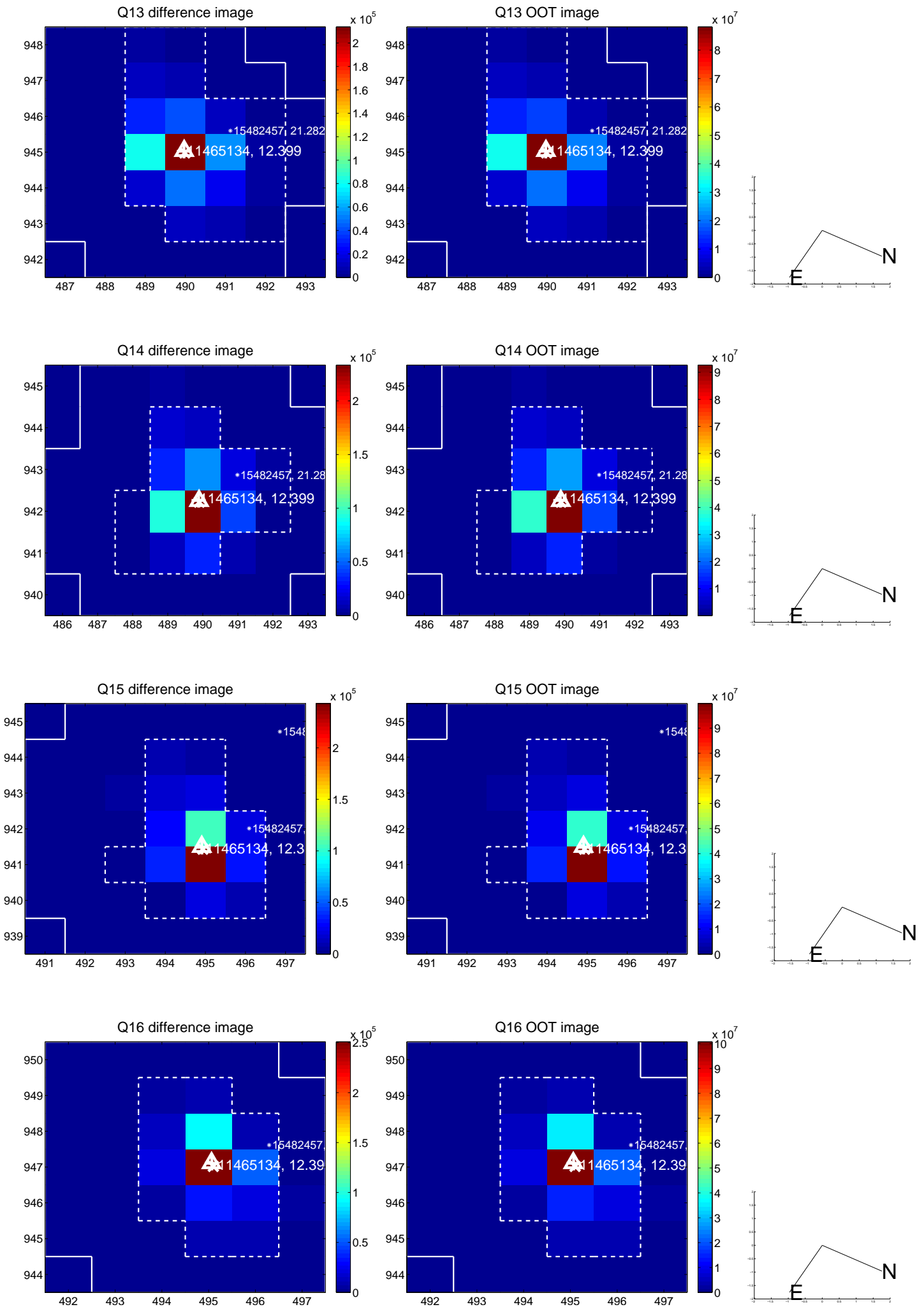
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



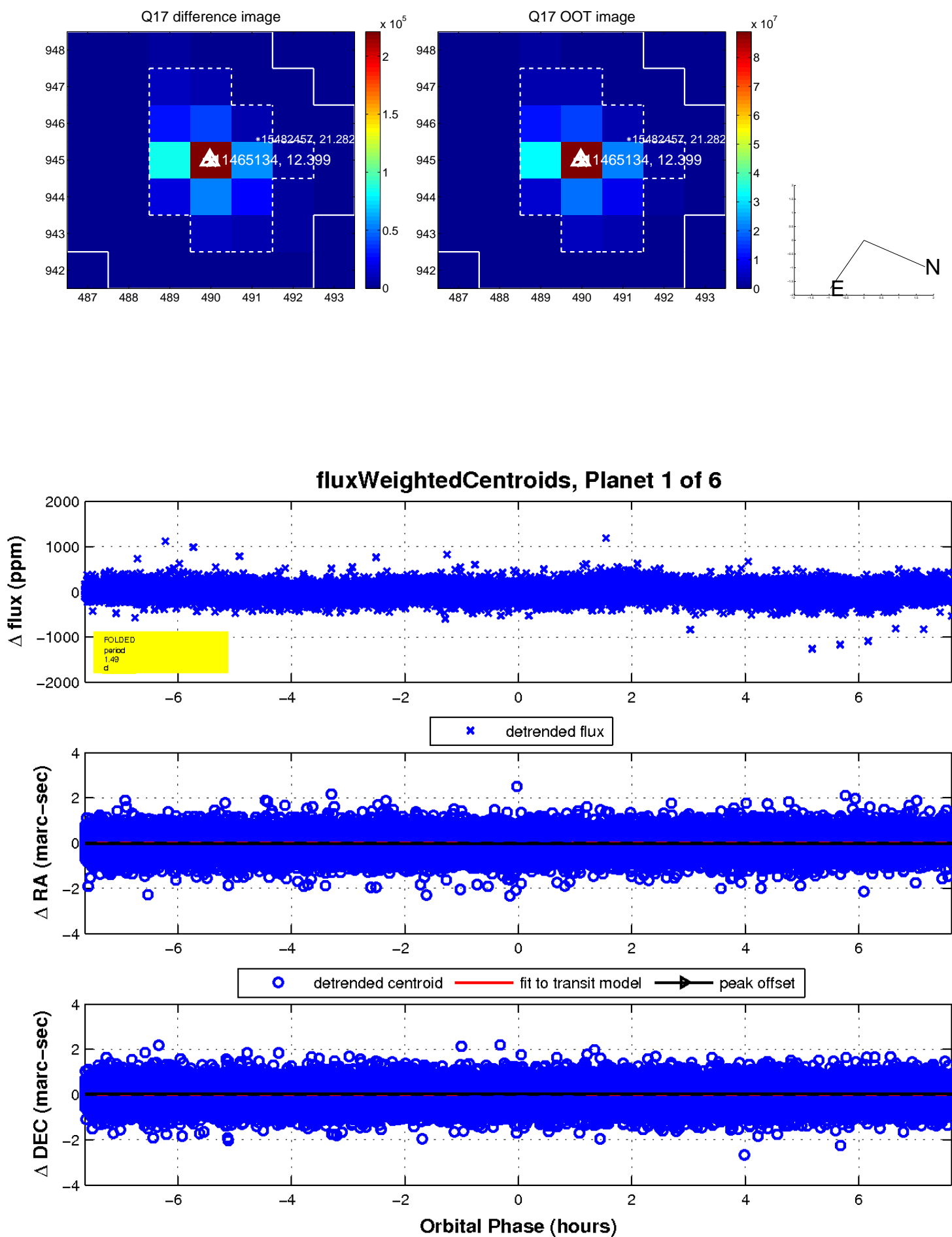
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

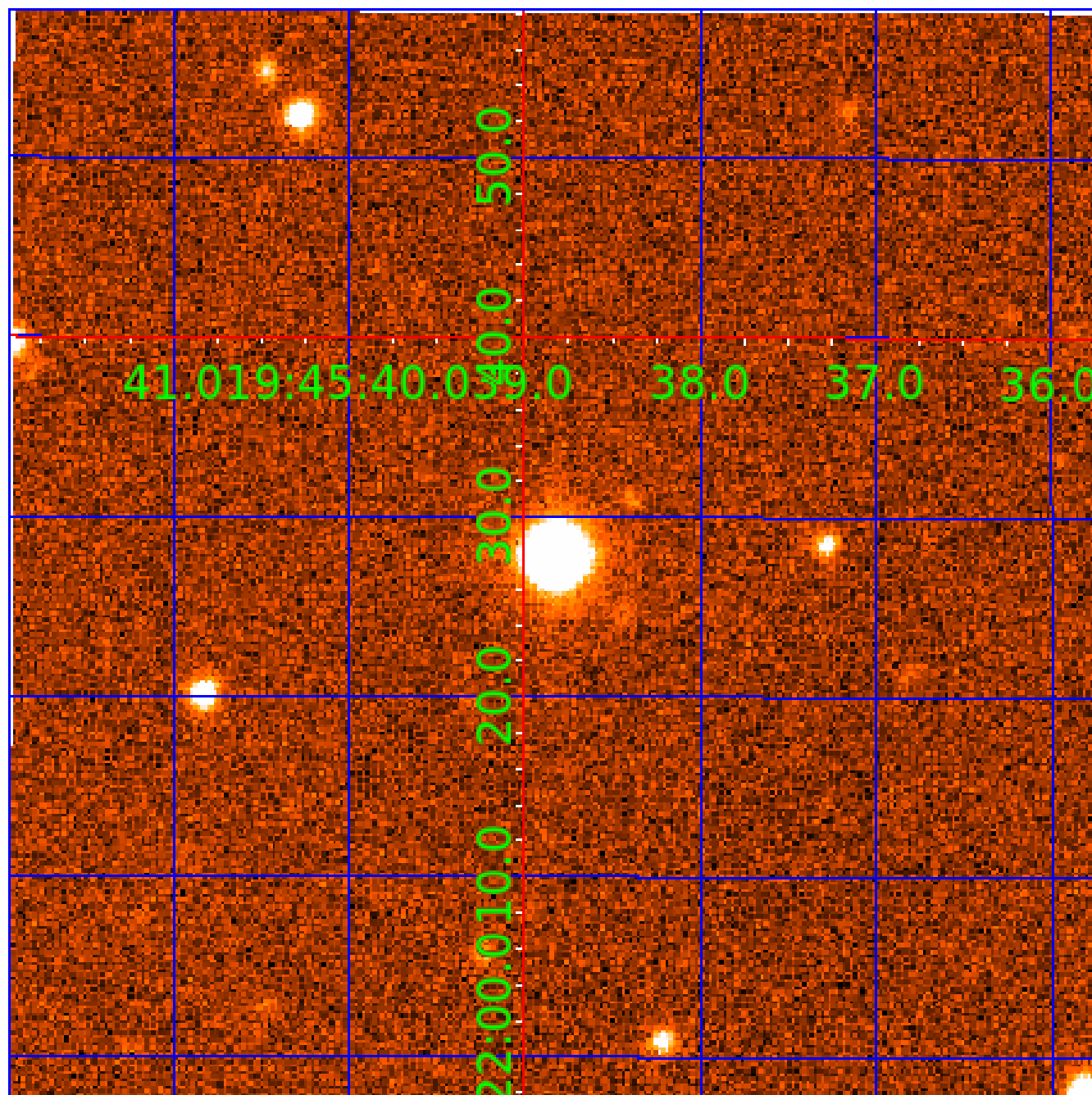


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011465134

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011465134-01 | OBS | No | 1.487784 | 132.663804 | 42.1 | 2.545 | 19.0 | 18.4 | 2.10 | 9859 | 1.56 | 32341.99 |
| 011465134-02 | OBS | No | 0.743908 | 132.164119 | 238.4 | 1.500 | 9.7 | -1.0 | 2.10 | 9859 | 3.33 | 81494.41 |
| 011465134-03 | OBS | No | 1.486519 | 131.860466 | 22.4 | 9.532 | 8.3 | 9.5 | 2.10 | 9859 | 1.02 | 32378.69 |
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| 011465134-05 | OBS | No | 37.524630 | 155.256995 | 152.1 | 2.356 | 8.1 | 7.1 | 2.10 | 9859 | 2.79 | 437.25 |
| 011465134-06 | OBS | No | 38.532995 | 158.400057 | 155.3 | 2.189 | 7.9 | 7.1 | 2.10 | 9859 | 2.98 | 422.06 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 011465134-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 011465134-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS |
| 011465134-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT |
| 011465134-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-06 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |

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

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

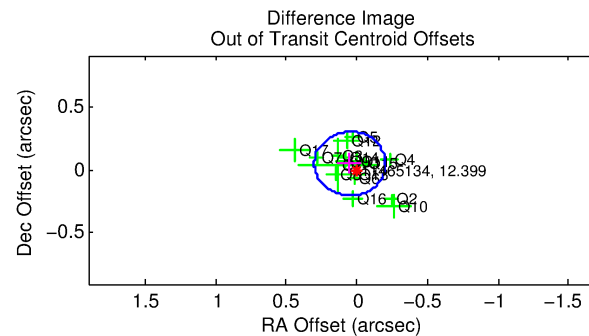
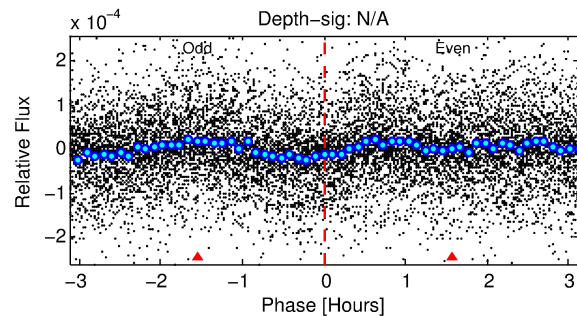
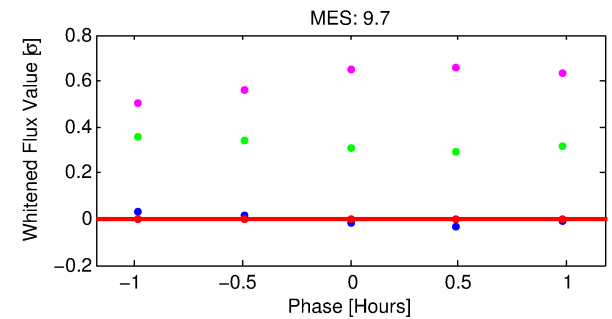
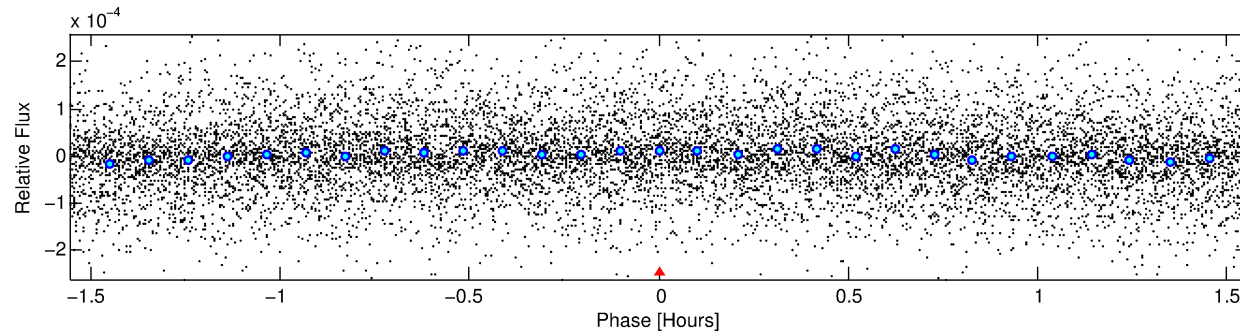
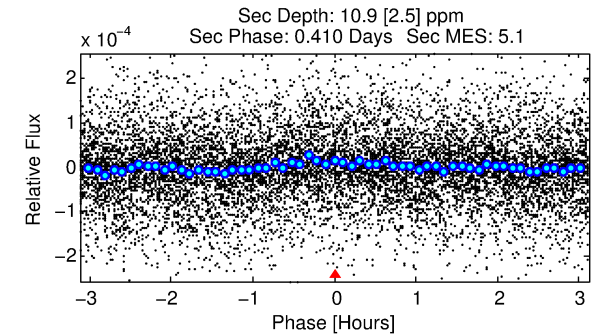
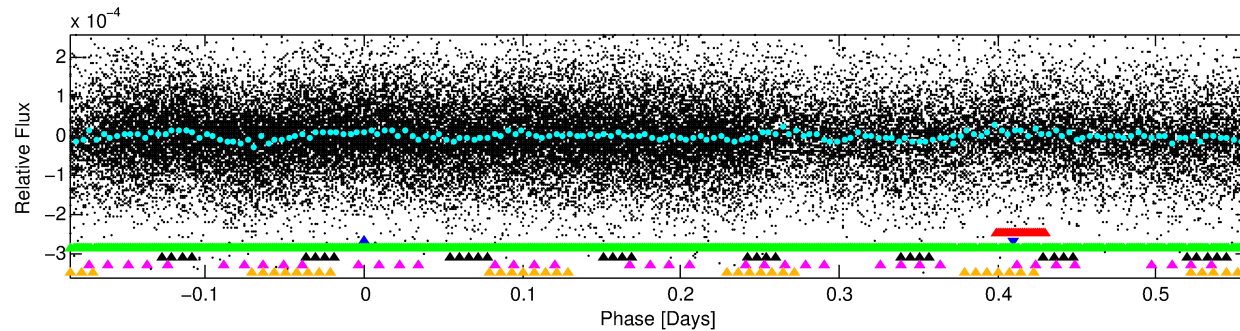
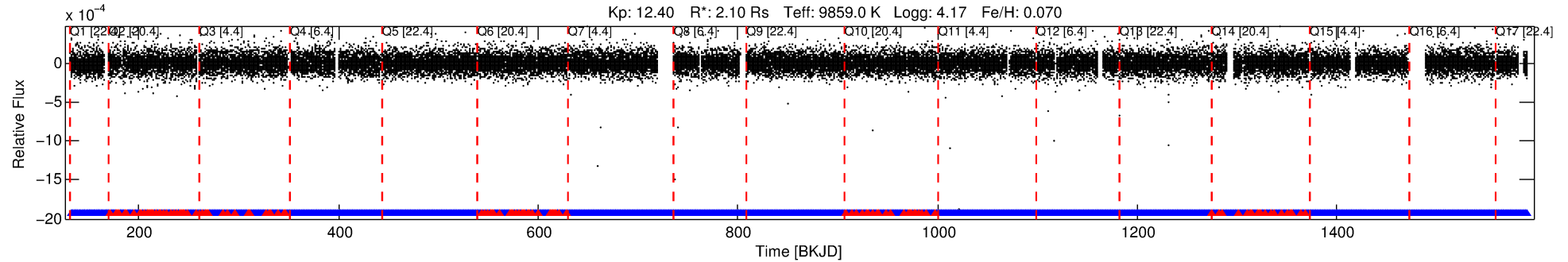
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465134-02

No Significant Match Found

DV One-Page Summary

KIC: 11465134 Candidate: 2 of 6 Period: 0.744 d



TPS TCE Results:

Period = 0.74391 d
Epoch = 132.1641 BKJD

DV fit results are unavailable

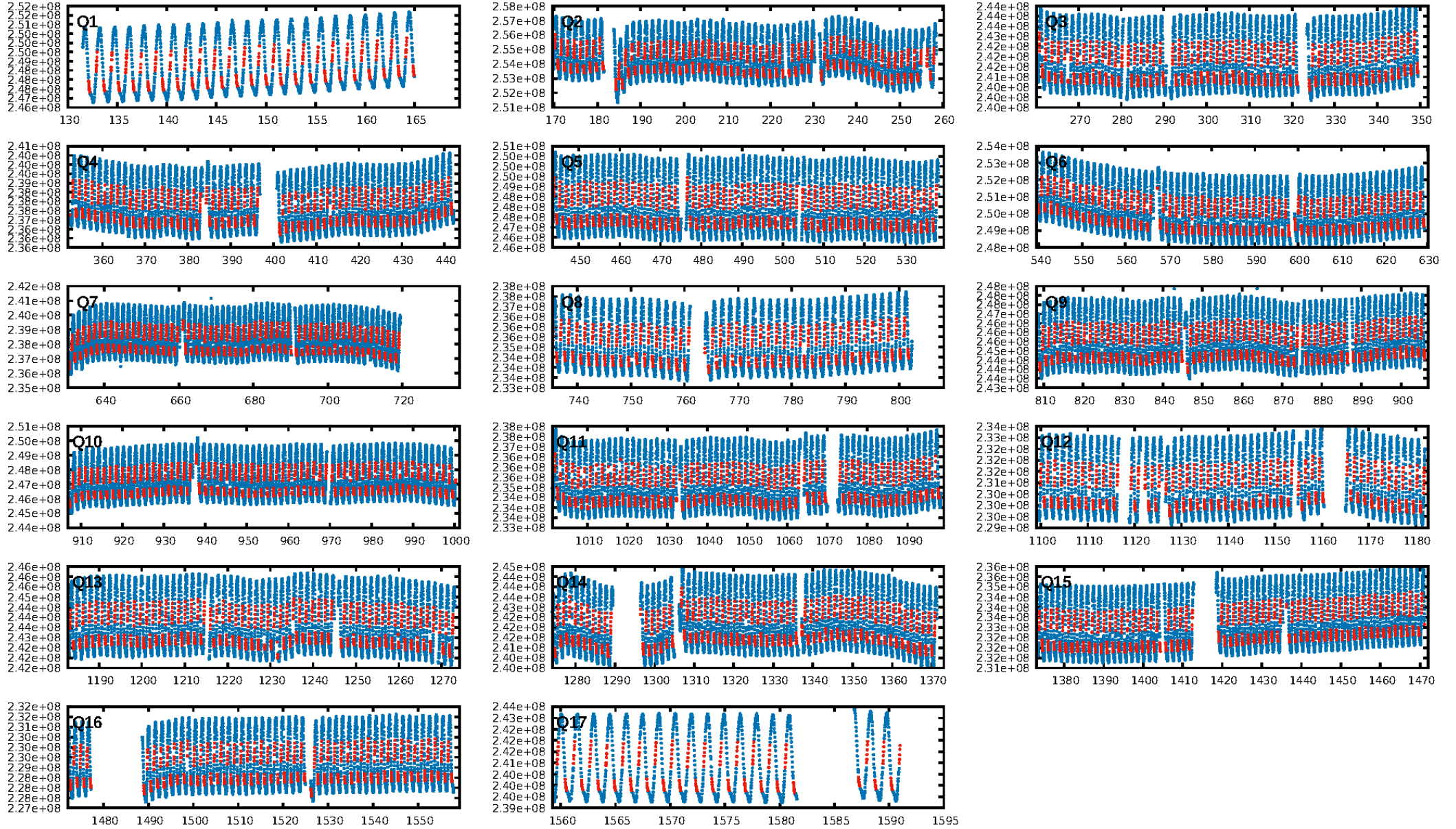
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 93.5% [1.85σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.12e-16
RollingBand-fgt: 0.92 [1581/1711]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.068 arcsec [0.82σ]
KicOffset-rm: 0.162 arcsec [1.97σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
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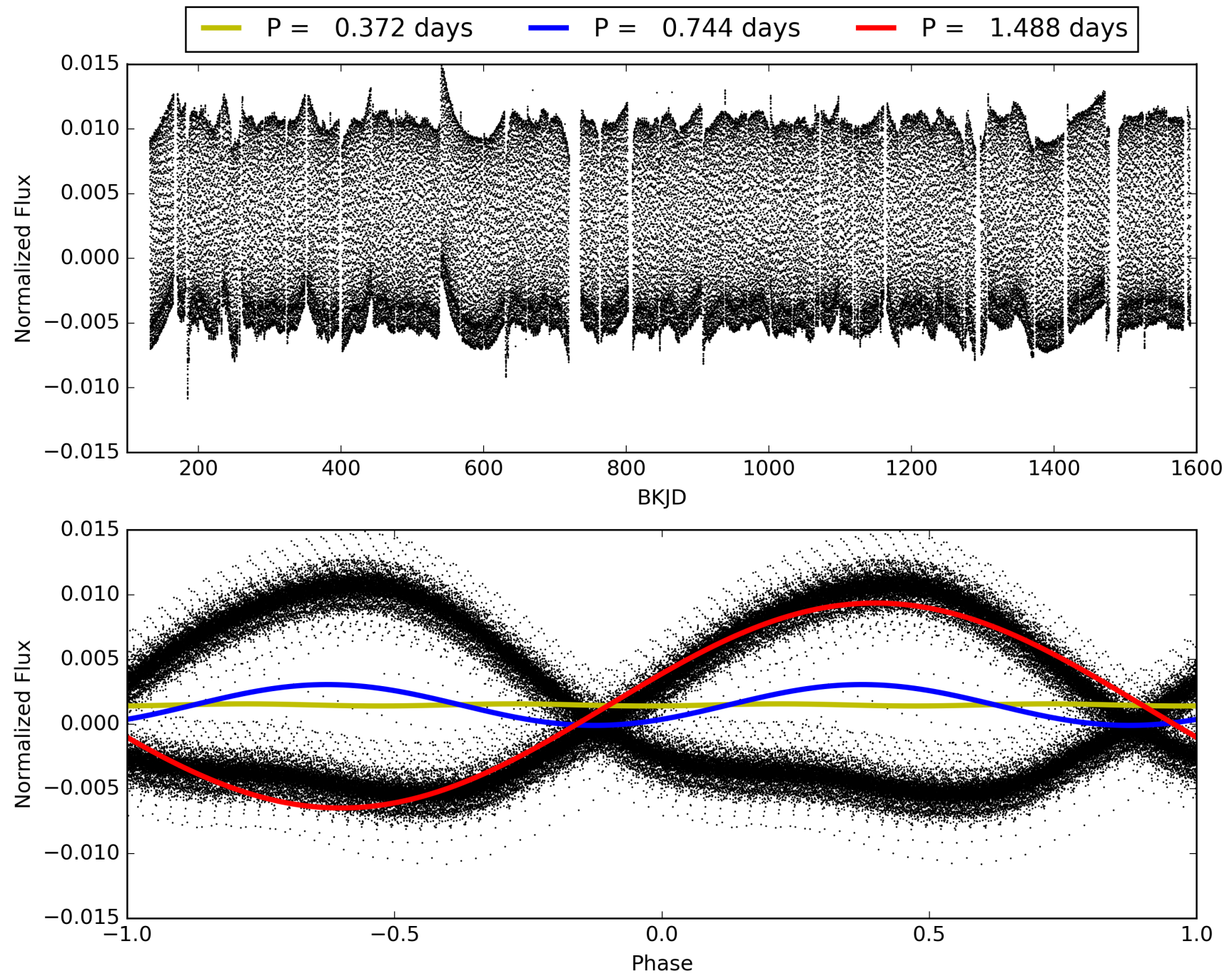
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:18:59 Z

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

TCE 011465134-02, PDC Light Curves

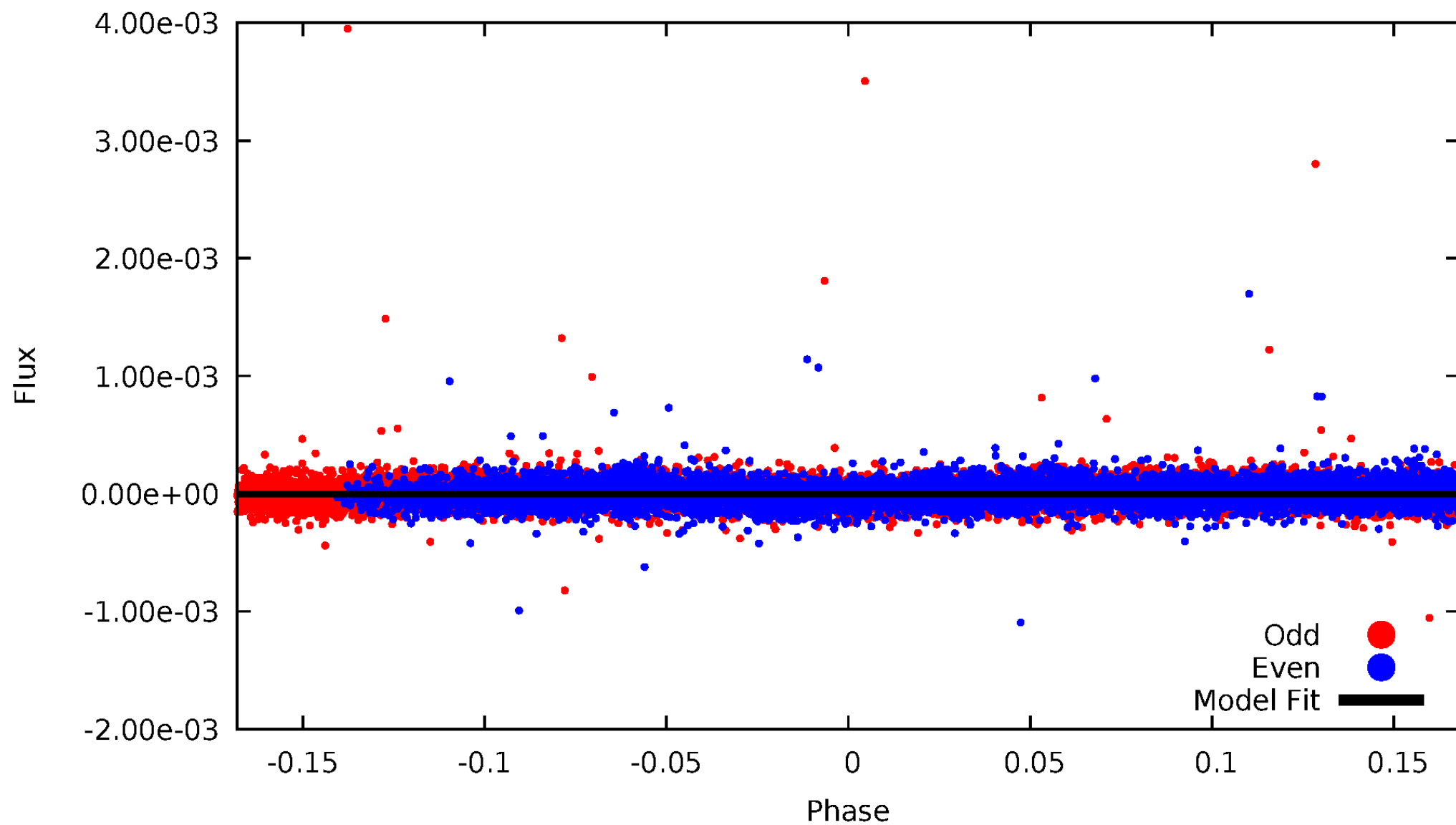


TCE 011465134-02



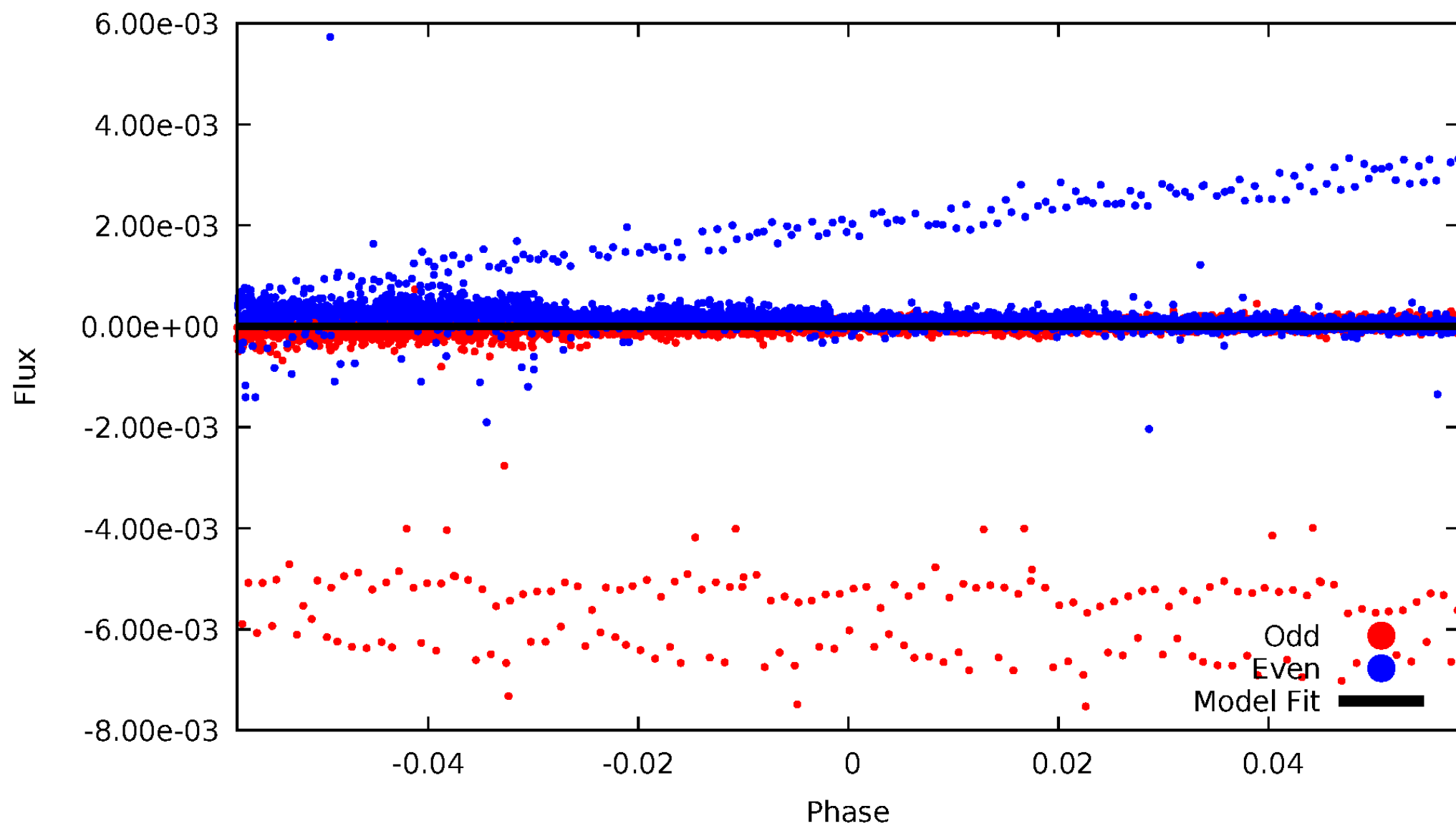
DV Odd/Even

TCE 011465134-02



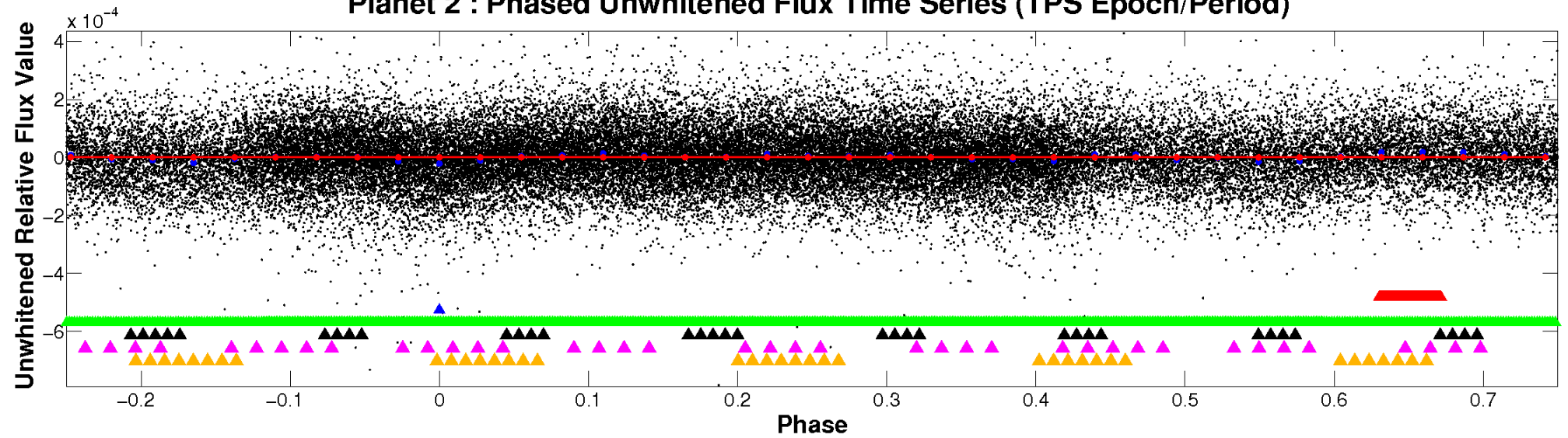
ALT Odd/Even

TCE 011465134-02

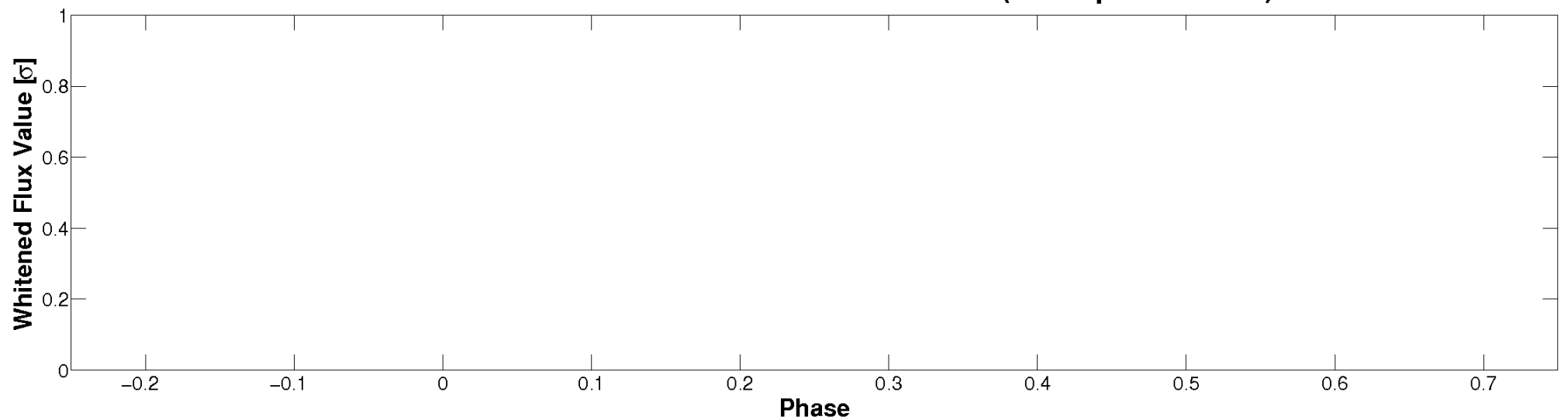


Non-Whitened Vs. Whitened Light Curve

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

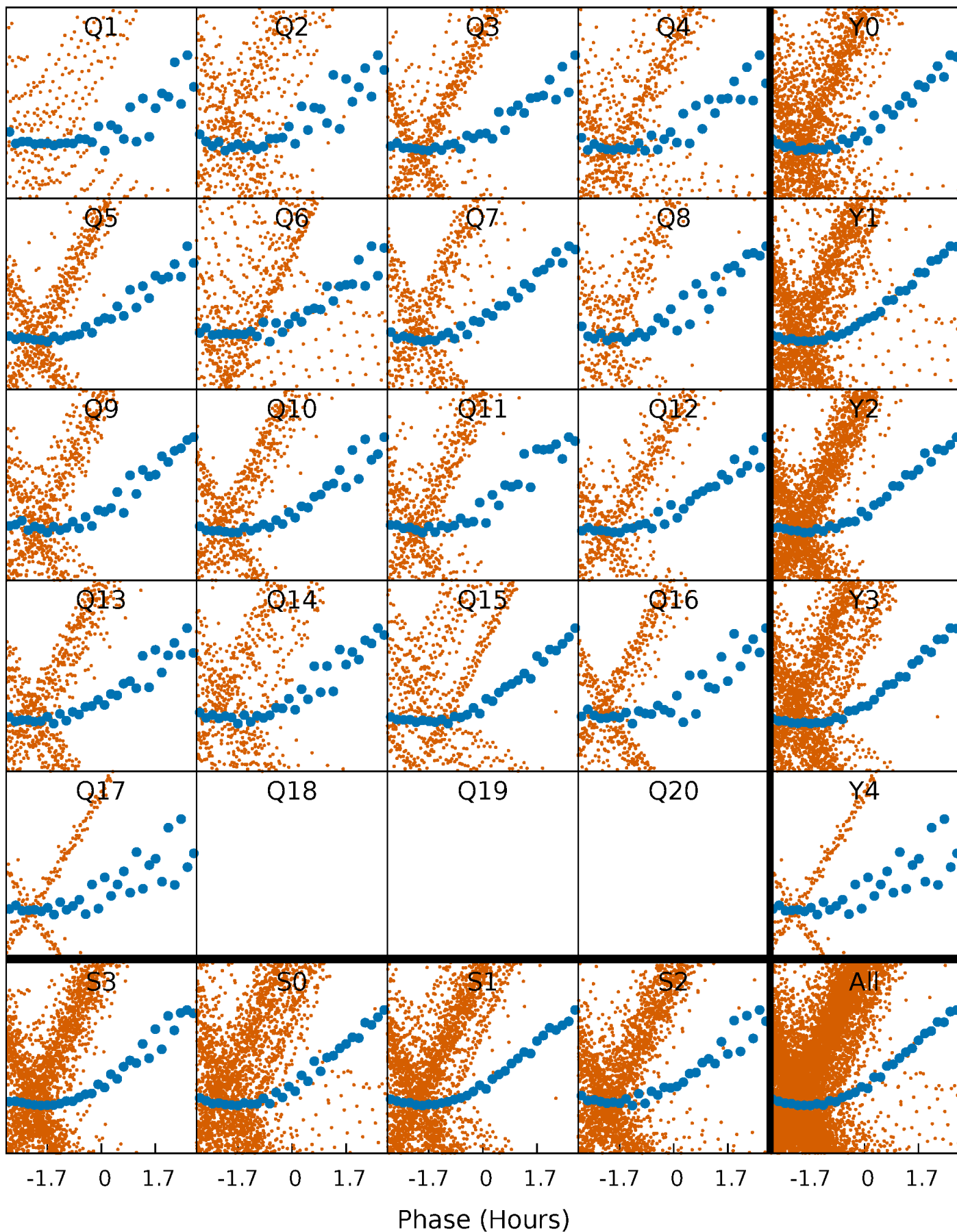


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



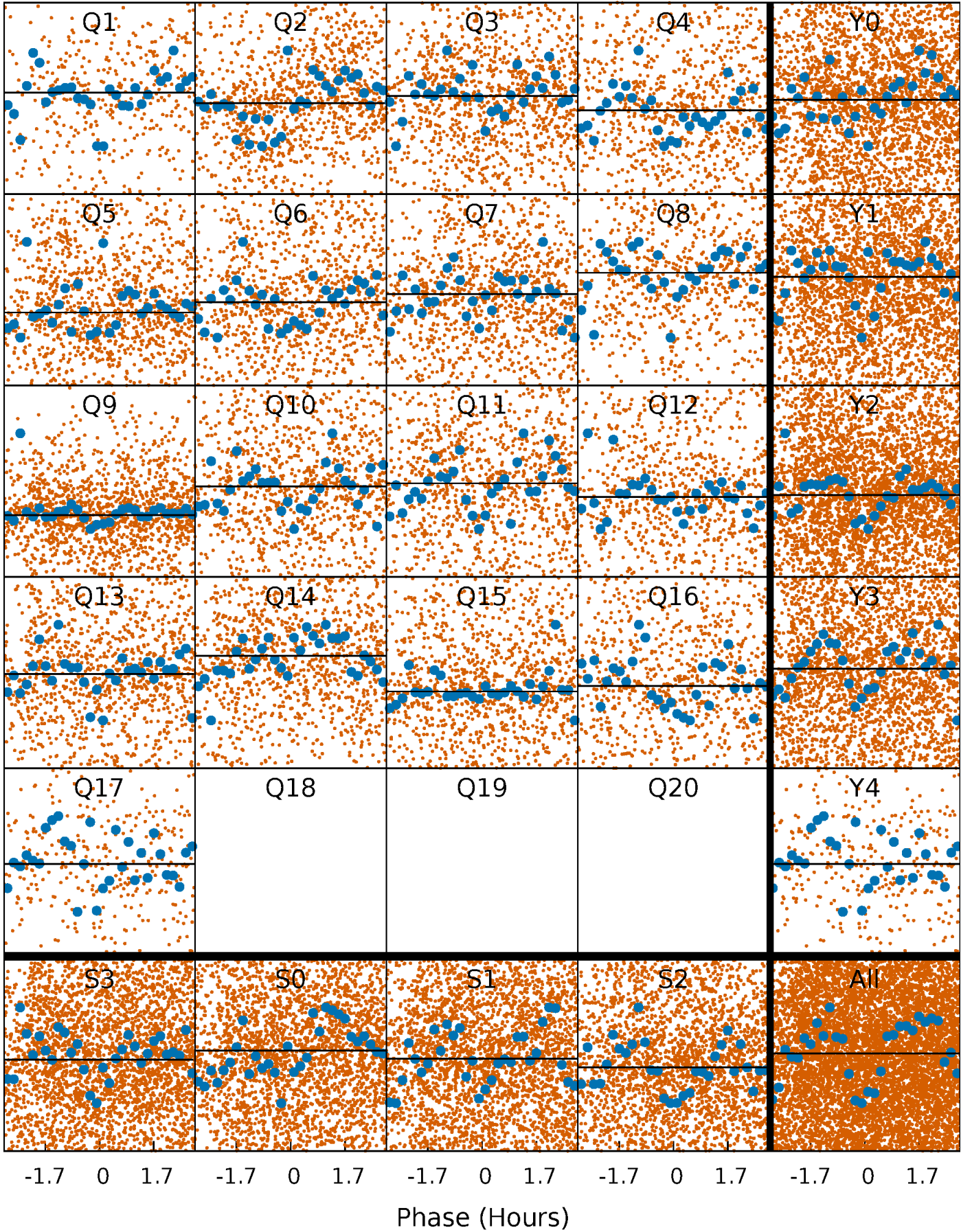
PDC Quarter-Phased Transit Curves

TCE 011465134-02 P= 0.743908 Days $T_0=132.164119$ (BKJD)



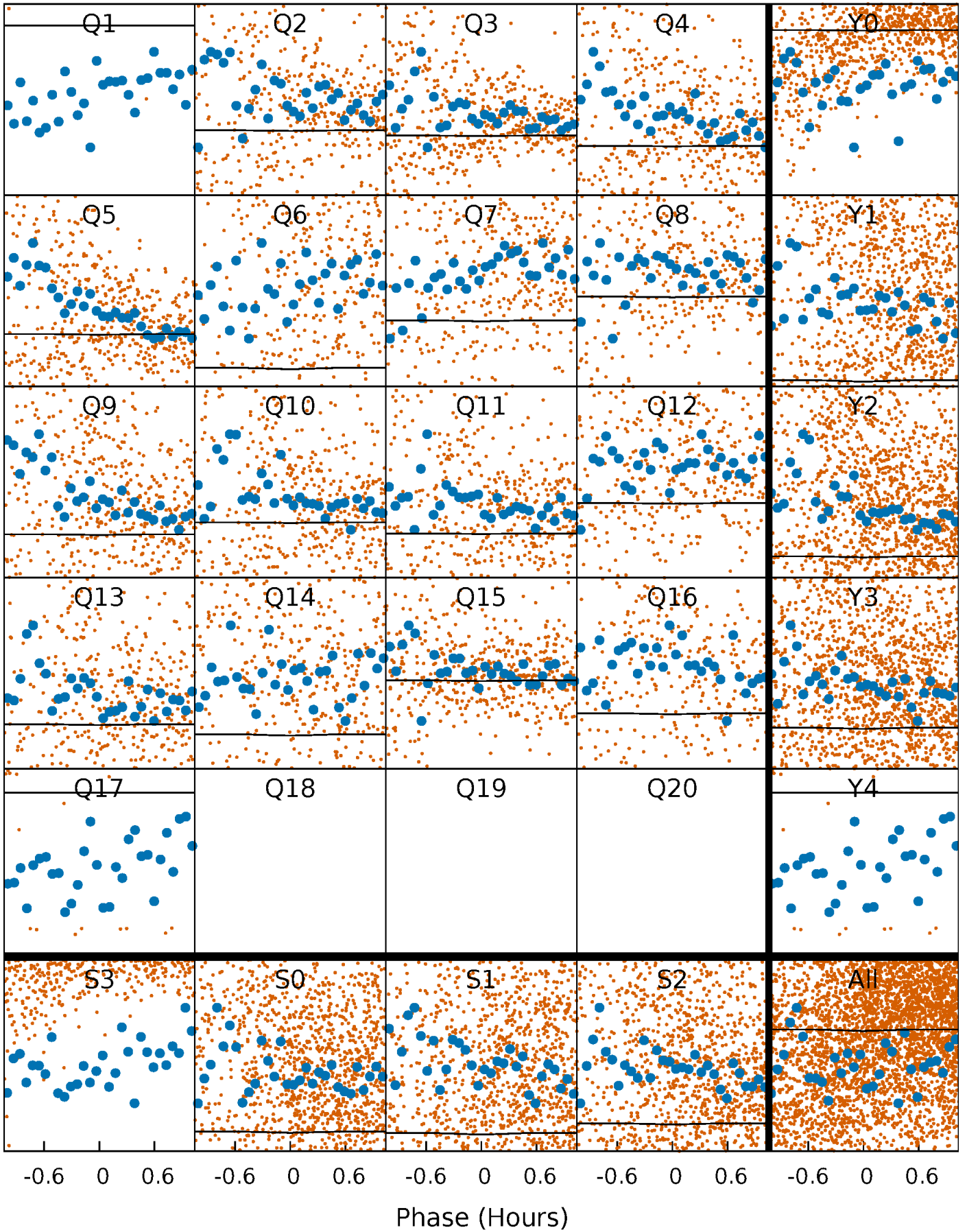
DV Quarter-Phased Transit Curves

TCE 011465134-02 P= 0.743908 Days $T_0=132.164119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

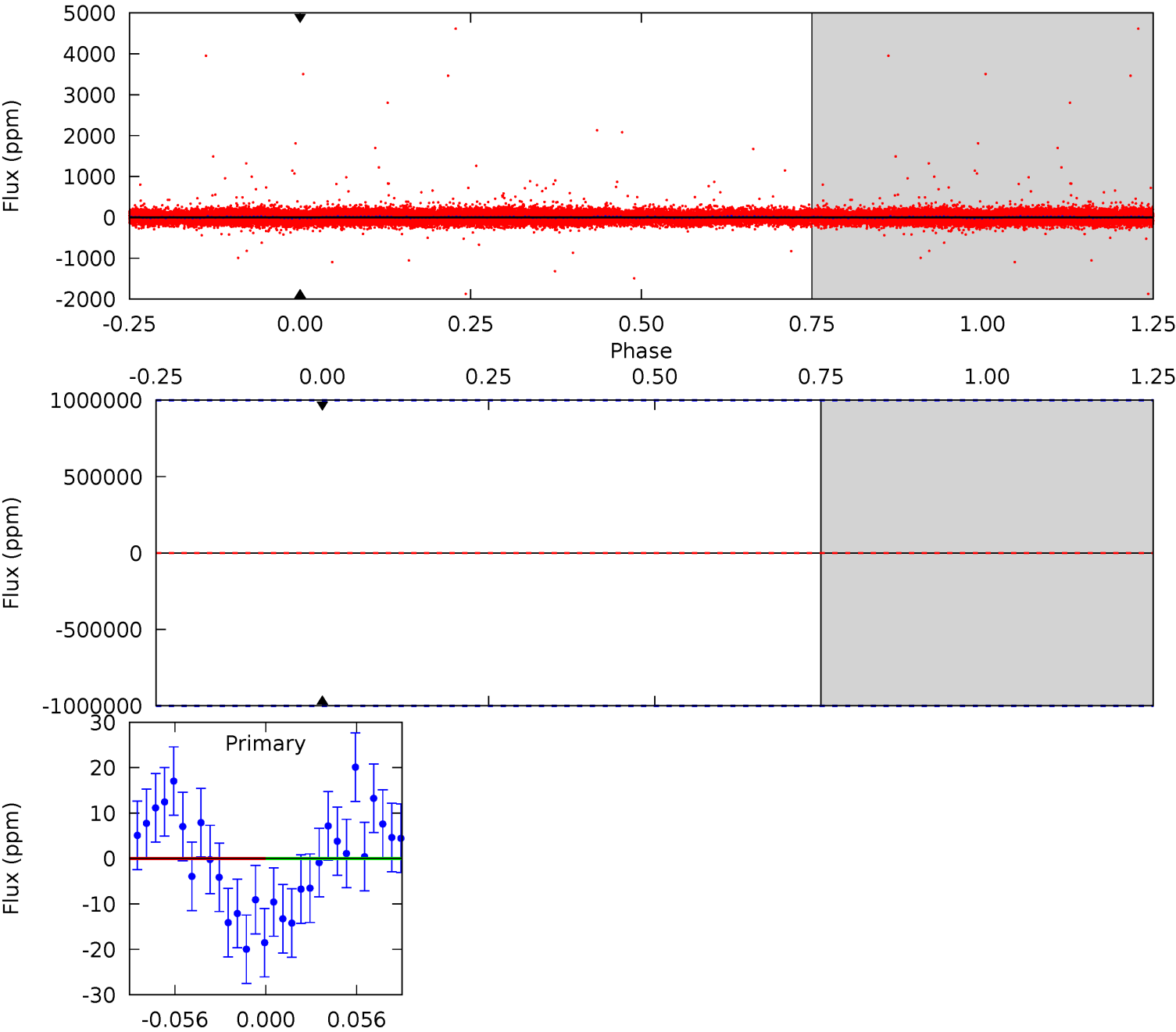
TCE 011465134-02 P= 0.743908 Days $T_0=132.234355$ (BKJD)



DV Model-Shift Uniqueness Test

011465134-02, P = 0.743908 Days, E = 131.420211 Days

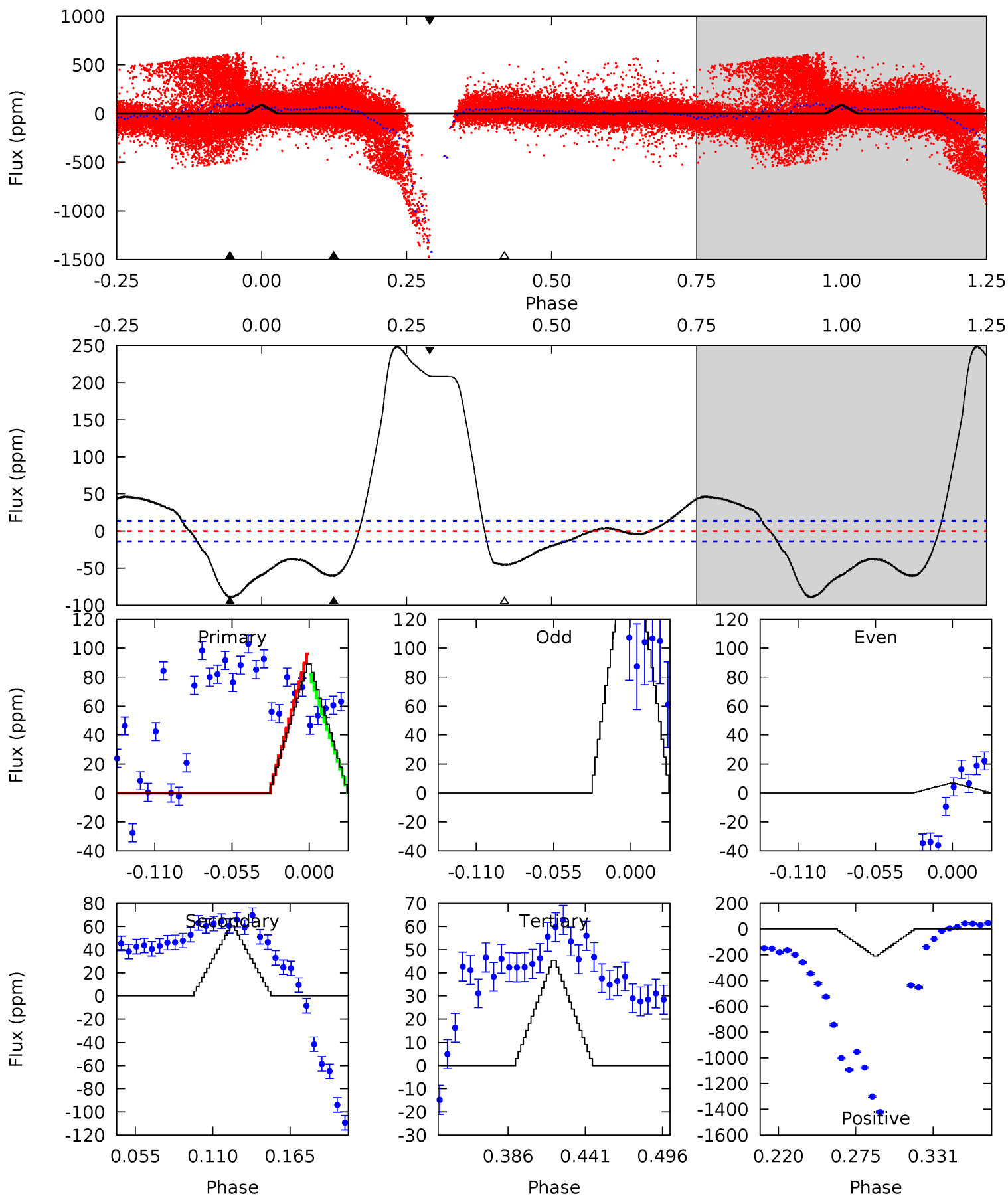
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-----|-----|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|-----|-------|-----|
| 0 | 0 | 0 | 0 | 1.00 | 1.00 | 1.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Alt Model-Shift Uniqueness Test

011465134-02, P = 0.743908 Days, E = 131.490447 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|-------|-------|------|
| 30.5 | 20.7 | 15.6 | 71.6 | 4.69 | 1.92 | 25.4 | 14.9 | -41.1 | 5.15 | -50.9 | 15.8 | -0.76 | 0.74 | 2.36 |



Stellar Parameters For KIC 011465134

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 9859^{+274}_{-445} | $4.166^{+0.160}_{-0.240}$ | $0.070^{+0.150}_{-0.600}$ | $2.096^{+0.863}_{-0.575}$ | $2.348^{+0.451}_{-0.601}$ | $0.359^{+0.373}_{-0.208}$ |
| | +3%/-5% | +4%/-6% | +214%/-857% | +41%/-27% | +19%/-26% | +104%/-58% |
| Source | KIC0 | 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 011465134-02 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|-----------------|---------------------------|----------------------|--------------------------|-------------------------------|
| DV | 0 ± 1000000 | $17.21^{+18.29}_{-11.72}$ | 6063^{+553}_{-470} | 4655^{+92308}_{-66191} | $0.610^{+167.533}_{-108.301}$ |
| Alt. | -61 ± 3 | $15.47^{+19.19}_{-10.74}$ | 6064^{+586}_{-468} | -4402^{+9369}_{-480} | $0.064^{+0.621}_{-0.051}$ |

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

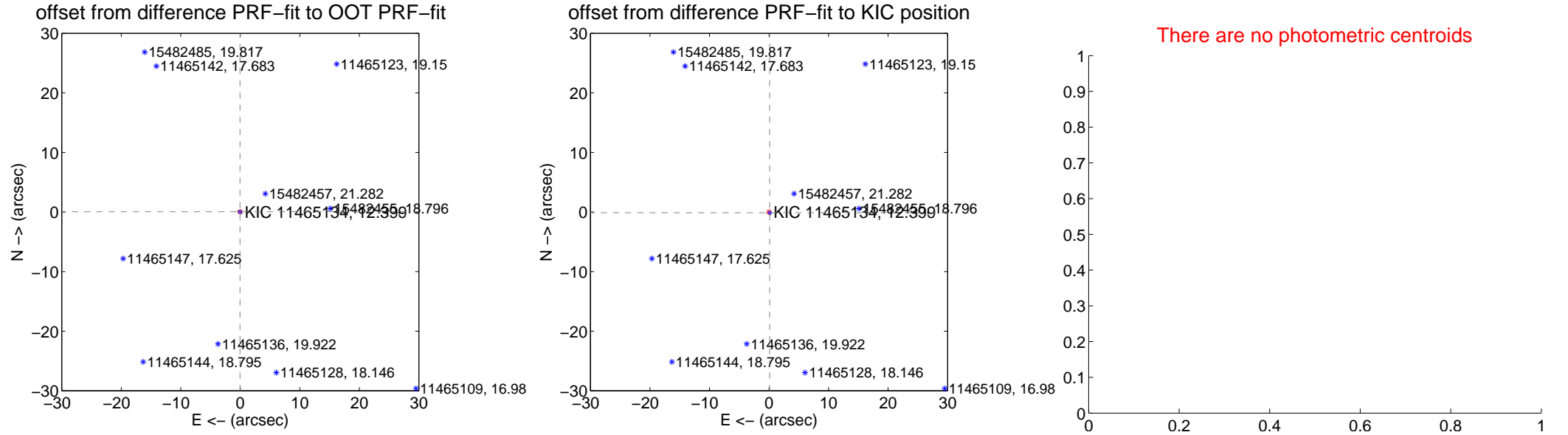
DV Centroid Data

Supplemental centroid analysis for 011465134-02. Kepler magnitude: 12.40. Transit SNR -1.00

There are 10 quarters with good PRF difference image offsets

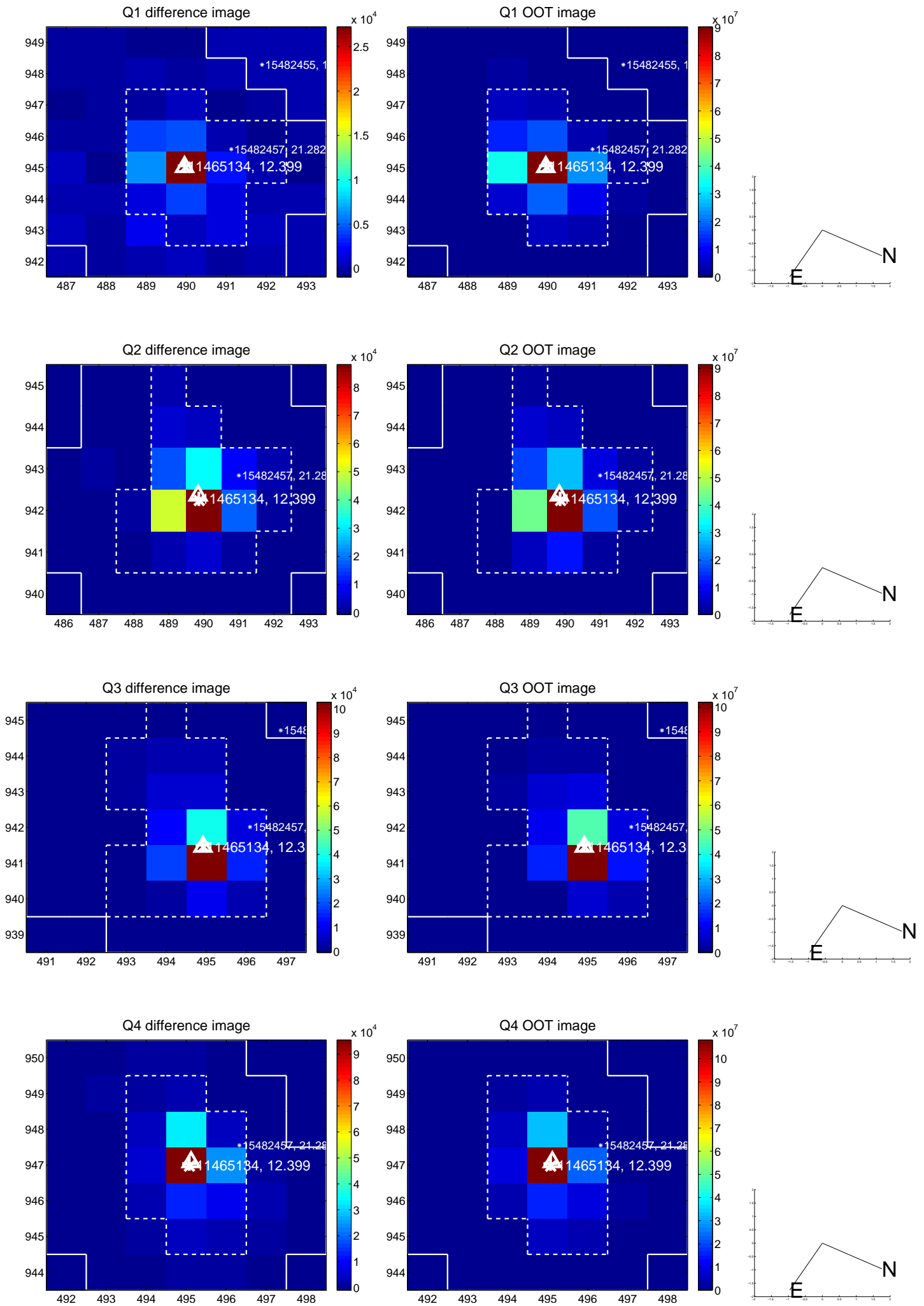
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.068 ± 0.084 | 0.82 | 0.049 ± 0.080 | 0.048 ± 0.077 |
| PRF-fit source offset from KIC position | 0.162 ± 0.082 | 1.97 | -0.105 ± 0.081 | -0.123 ± 0.076 |
| photometric centroid source offset | — | — | — | — |

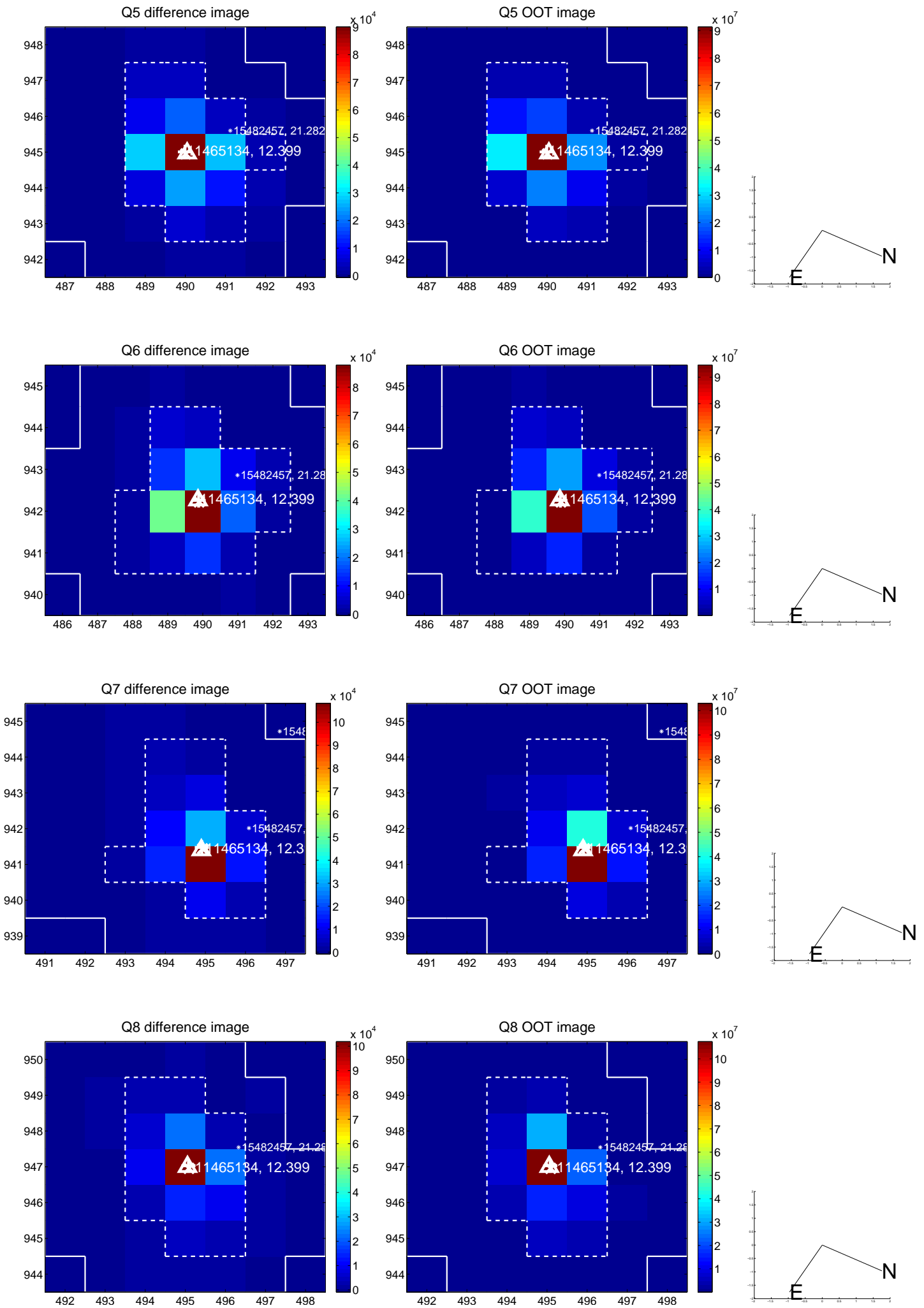


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

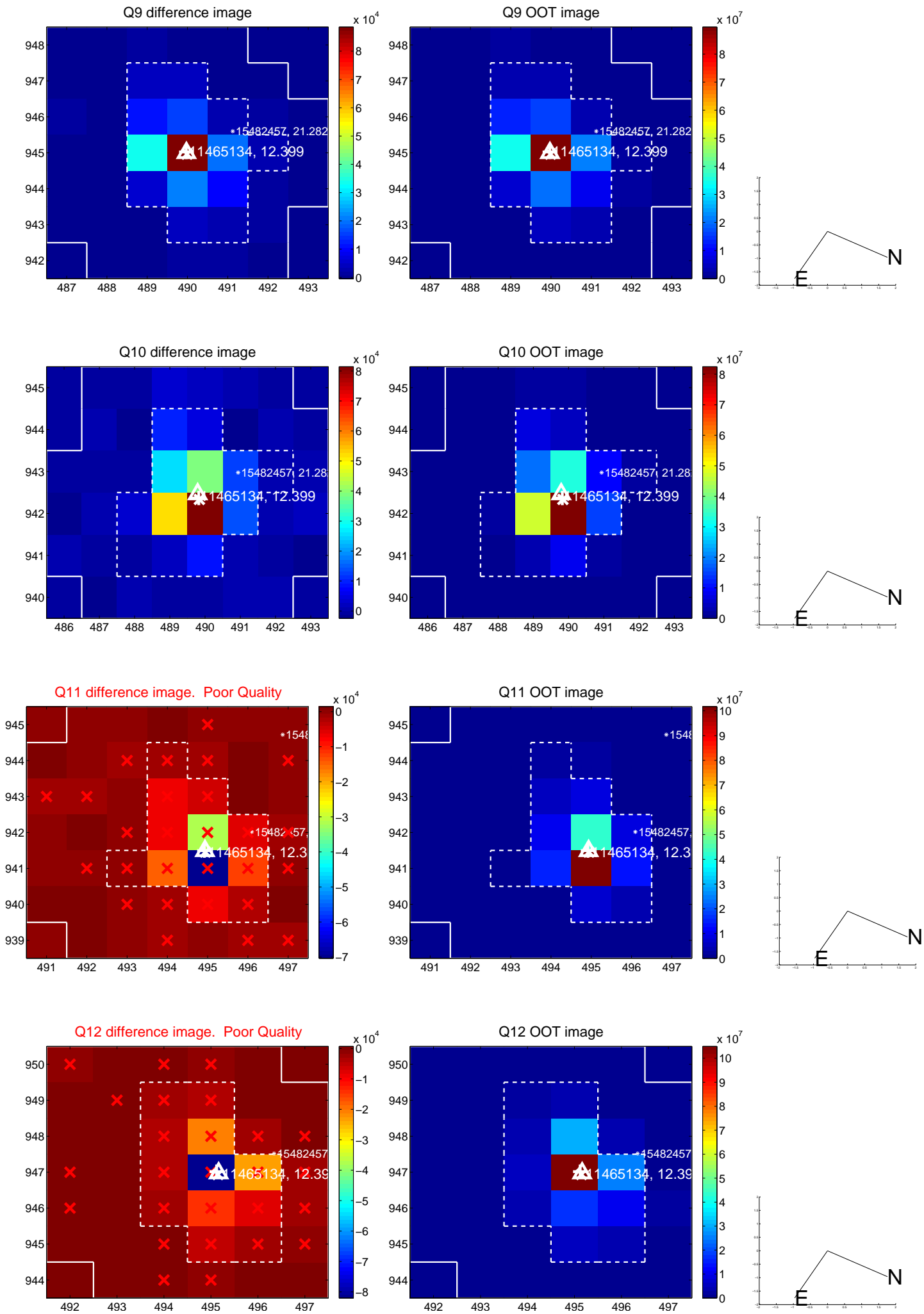
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



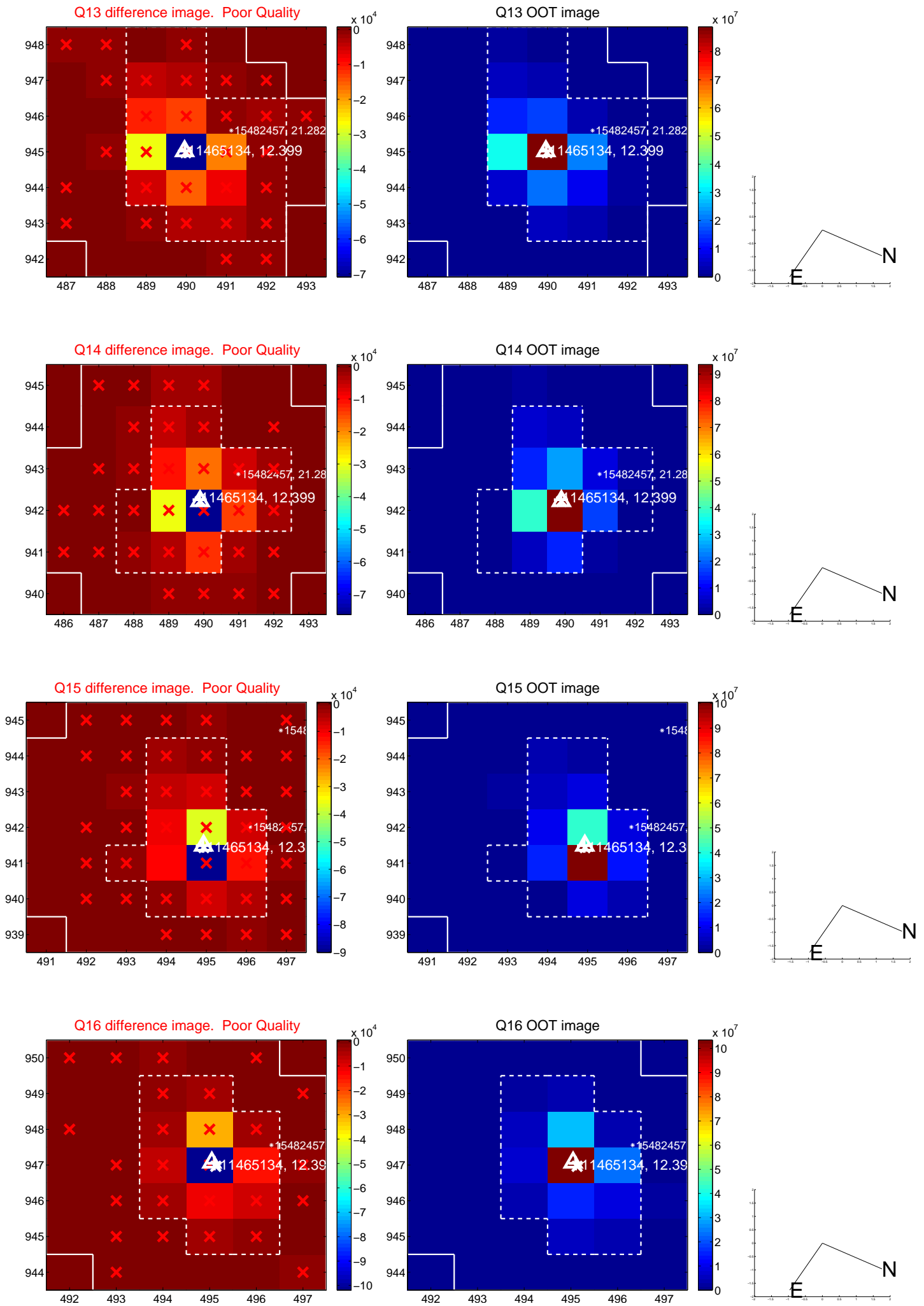
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



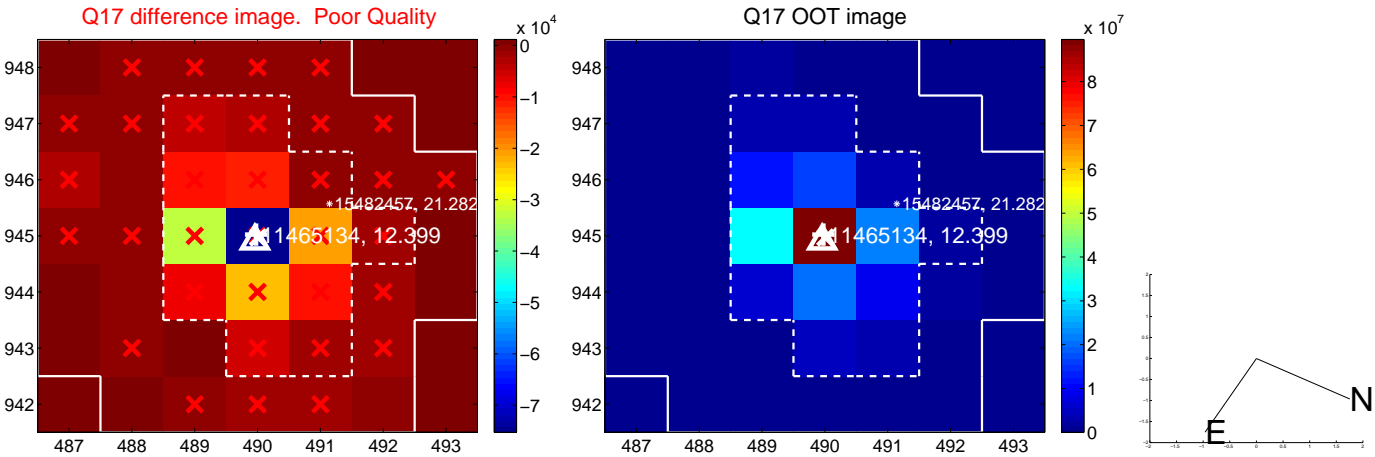
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



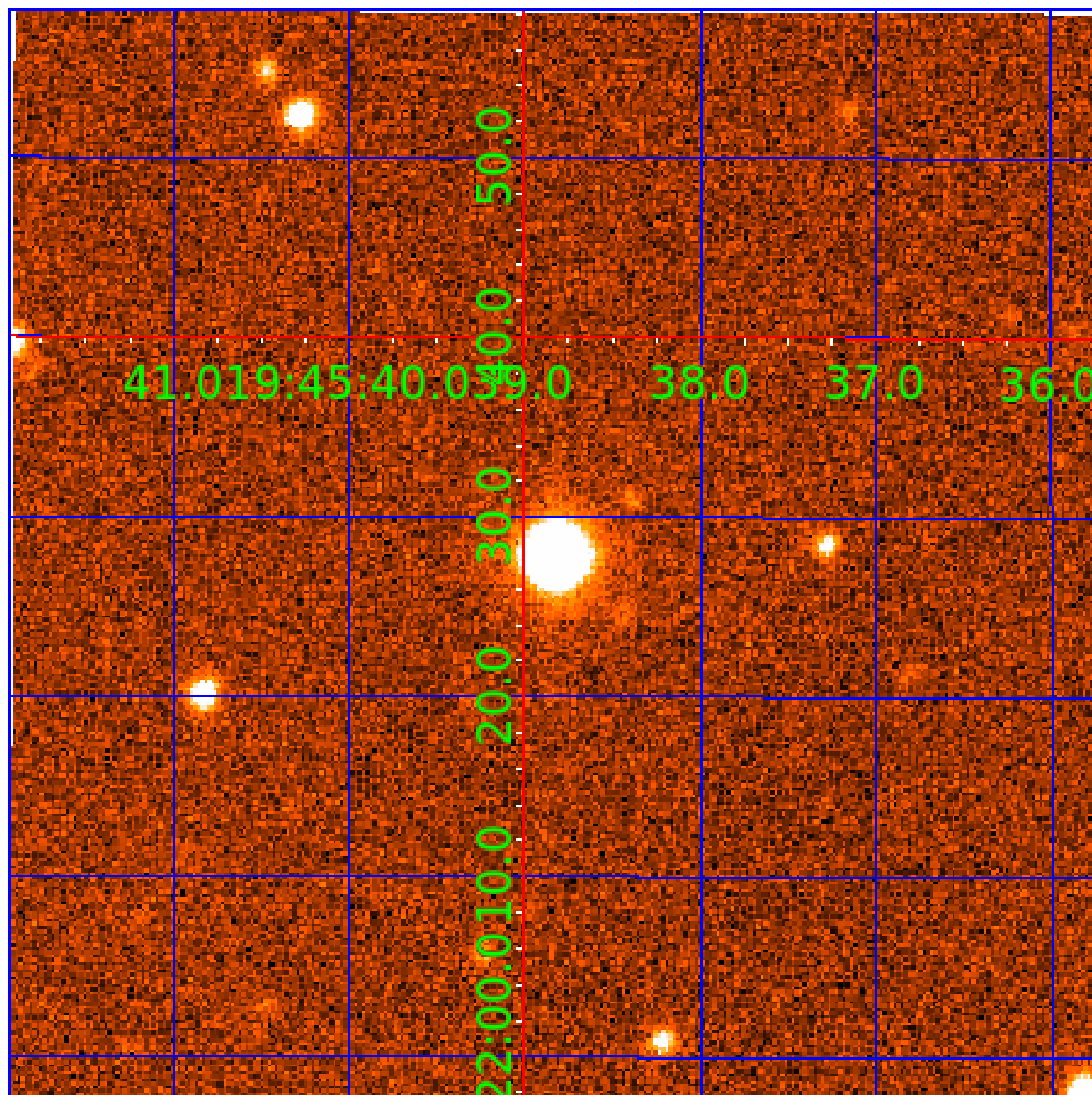
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 011465134

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011465134-01 | OBS | No | 1.487784 | 132.663804 | 42.1 | 2.545 | 19.0 | 18.4 | 2.10 | 9859 | 1.56 | 32341.99 |
| 011465134-02 | OBS | No | 0.743908 | 132.164119 | 238.4 | 1.500 | 9.7 | -1.0 | 2.10 | 9859 | 3.33 | 81494.41 |
| 011465134-03 | OBS | No | 1.486519 | 131.860466 | 22.4 | 9.532 | 8.3 | 9.5 | 2.10 | 9859 | 1.02 | 32378.69 |
| 011465134-04 | OBS | No | 43.612362 | 138.983570 | 121.7 | 2.786 | 8.6 | 7.2 | 2.10 | 9859 | 2.63 | 357.83 |
| 011465134-05 | OBS | No | 37.524630 | 155.256995 | 152.1 | 2.356 | 8.1 | 7.1 | 2.10 | 9859 | 2.79 | 437.25 |
| 011465134-06 | OBS | No | 38.532995 | 158.400057 | 155.3 | 2.189 | 7.9 | 7.1 | 2.10 | 9859 | 2.98 | 422.06 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 011465134-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 011465134-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS |
| 011465134-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT |
| 011465134-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-06 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |

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

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

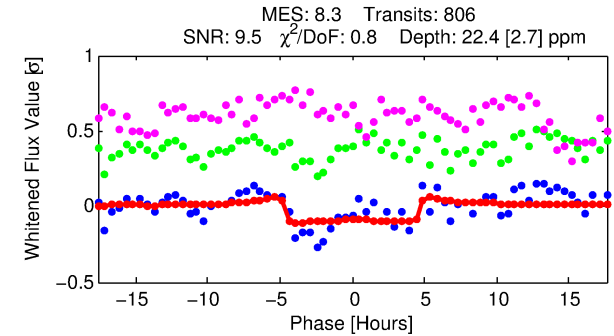
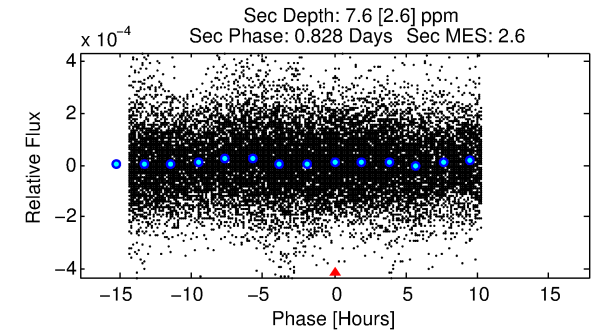
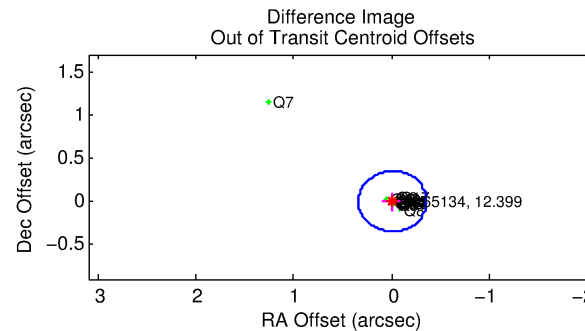
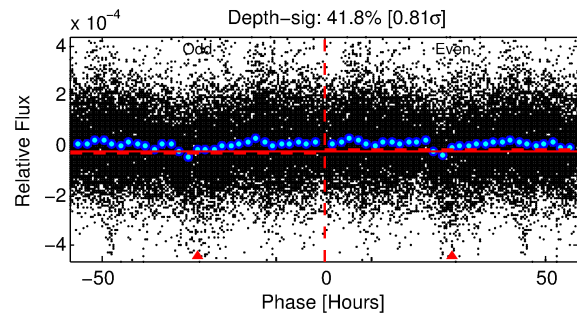
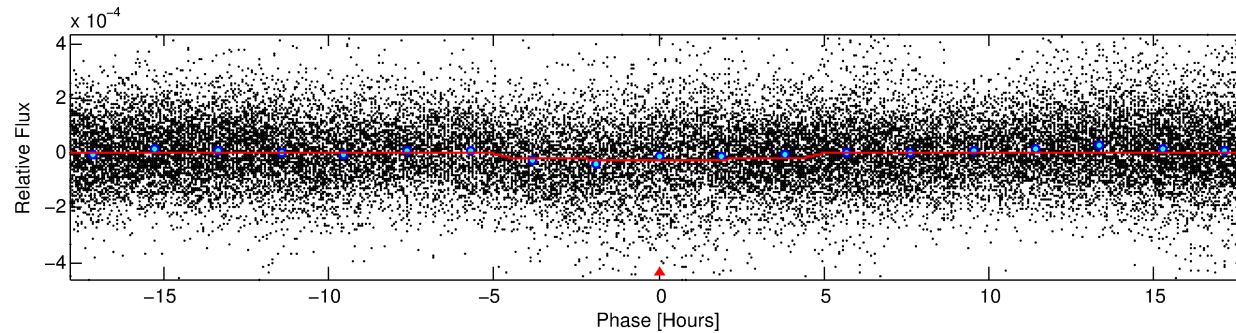
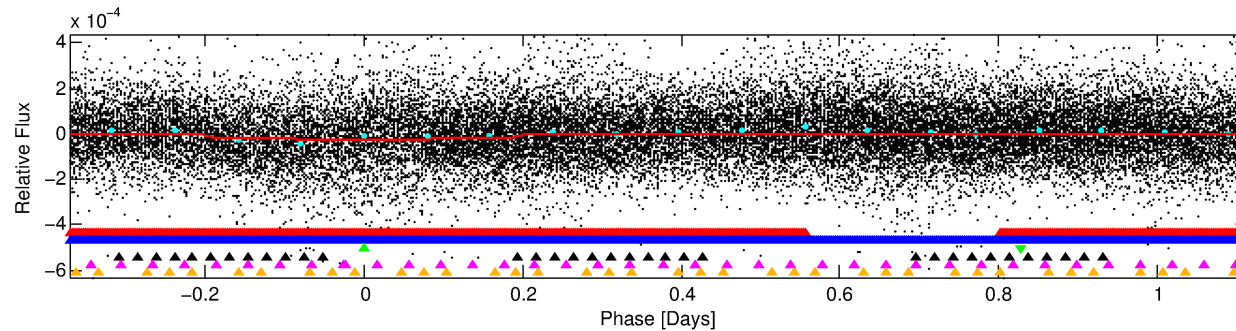
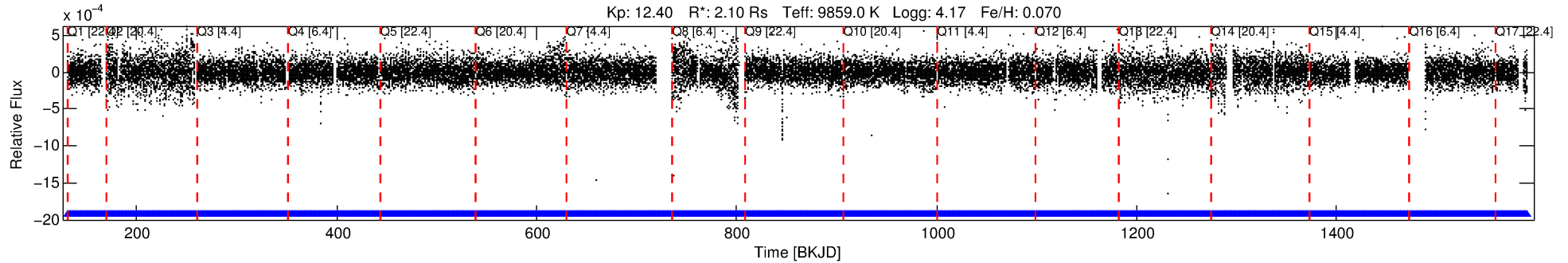
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465134-03

No Significant Match Found

DV One-Page Summary

KIC: 11465134 Candidate: 3 of 6 Period: 1.487 d



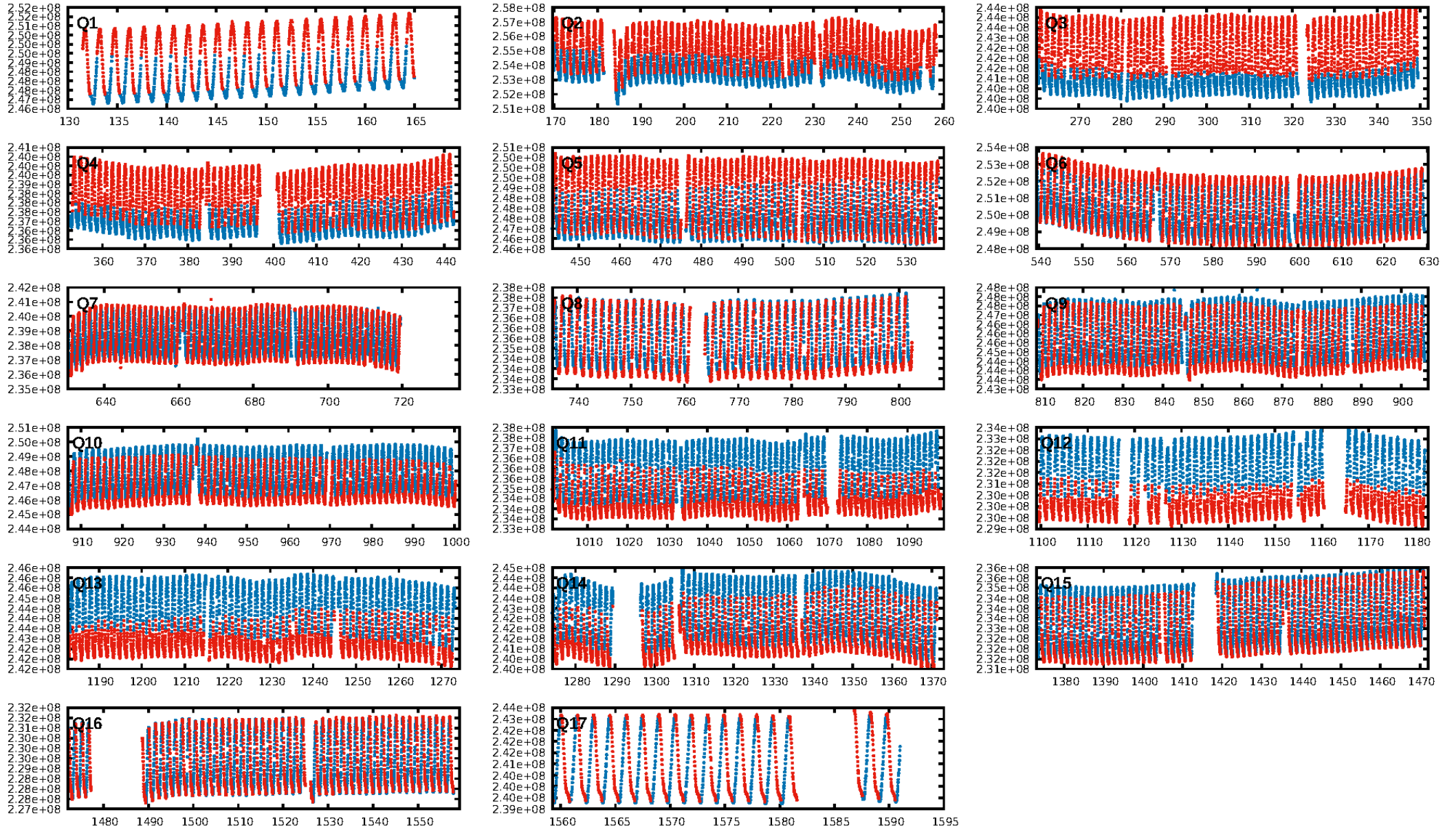
DV Fit Results:

Period = 1.48652 [0.00002] d
Epoch = 131.8605 [0.0046] BKJD
Rp/R* = 0.0045 [0.0024]
a/R* = 1.32 [2.12]
b = 0.32 [10.57]
Seff = 32378.69 [15983.10]
Teq = 3421 [422] K
Rp = 1.02 [0.68] Re
a = 0.0339 [0.0112] AU
Ag = 4.56 [5.46] [0.65 σ]
Teffp = 7729 [2163] K [1.95 σ]

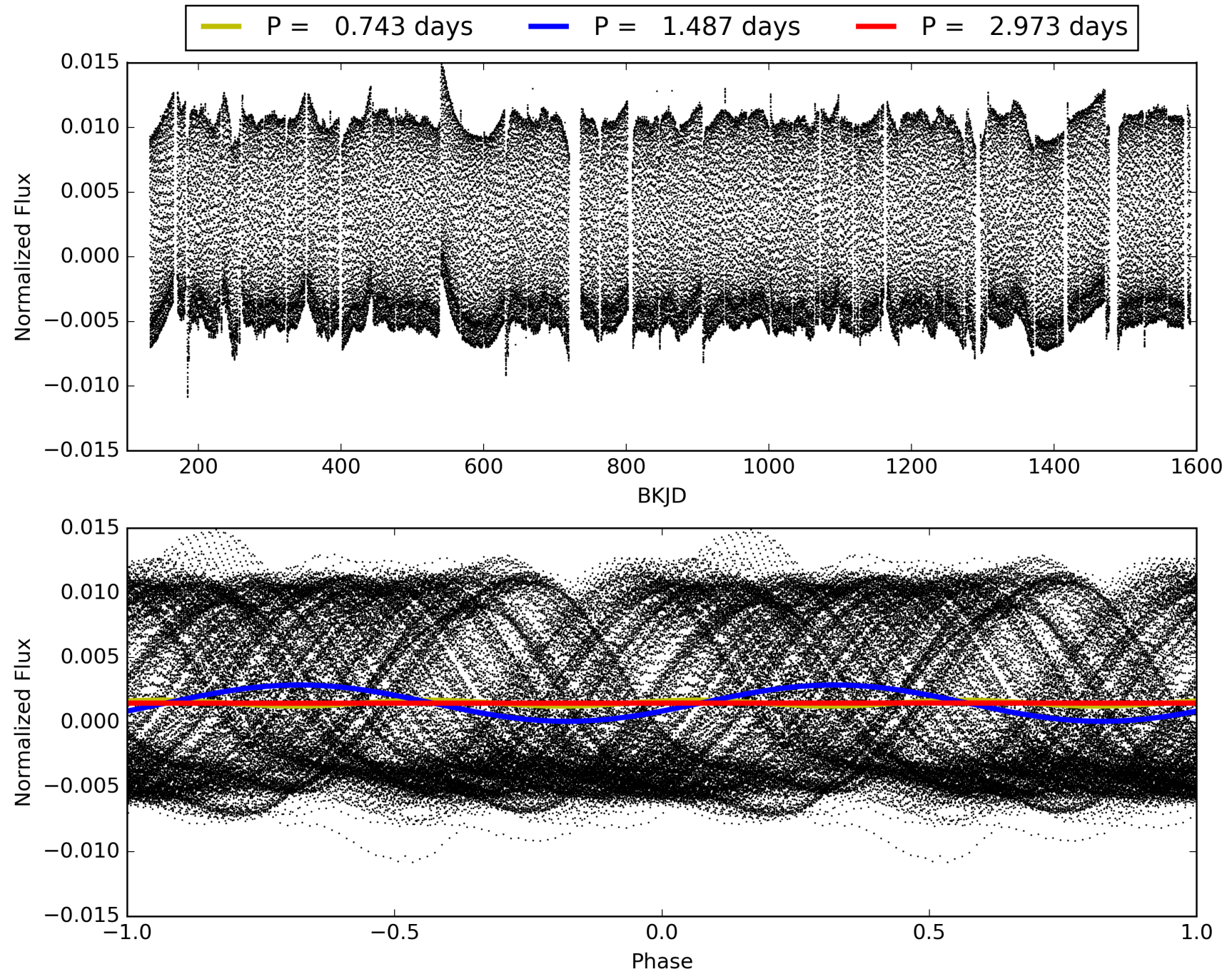
DV Diagnostic Results:

ShortPeriod-sig: 93.5% [1.85 σ]
LongPeriod-sig: 0.2% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.03e-09
RollingBand-fgt: 1.00 [765/765]
GhostDiagnostic-chr: -9.082
Centroid-sig: 0.0%
Centroid-so: 1.946 arcsec [3.38 σ]
OotOffset-rm: 0.009 arcsec [0.07 σ]
KicOffset-rm: 0.212 arcsec [1.92 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 0.00 [0/17]

TCE 011465134-03, PDC Light Curves

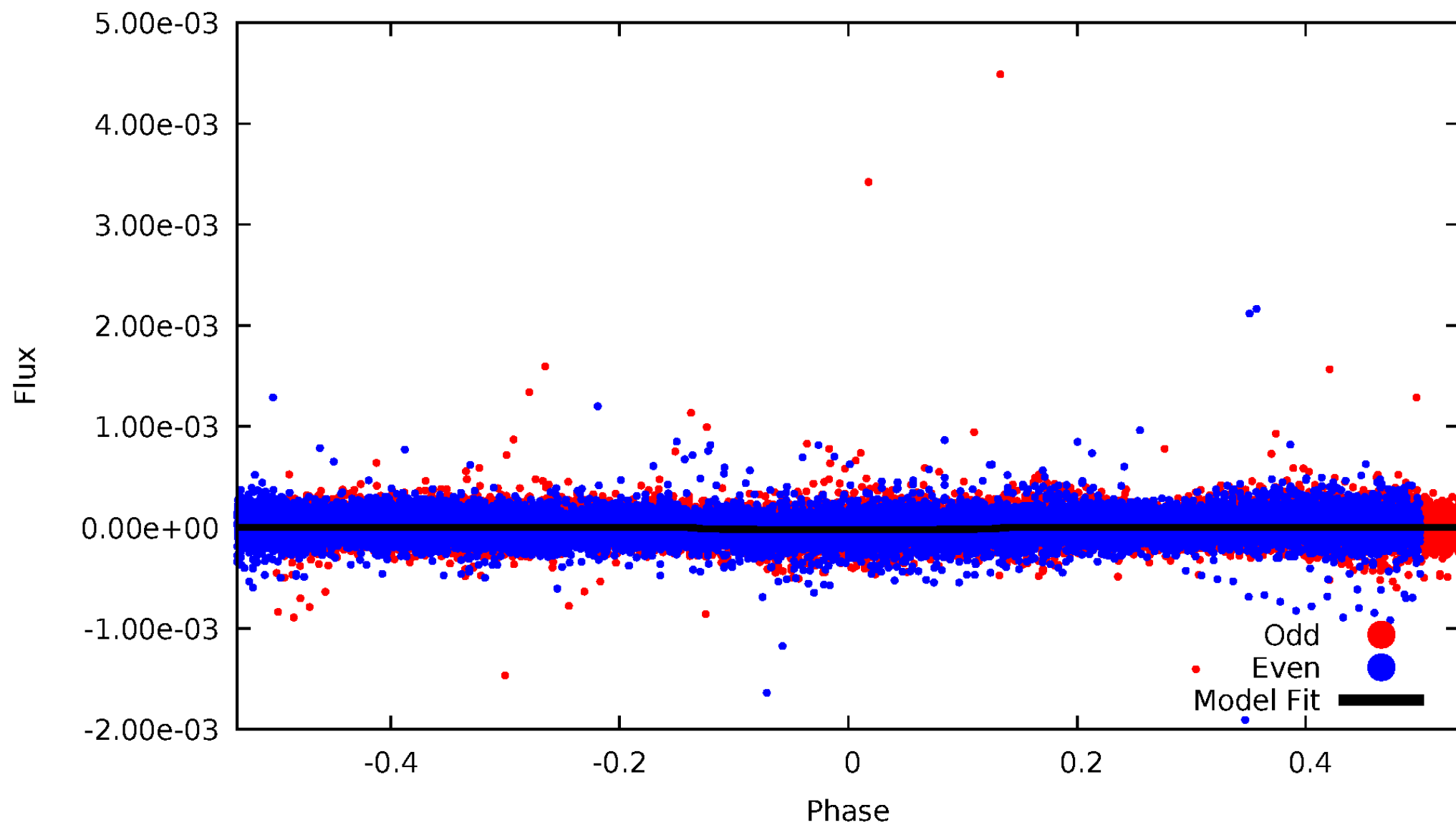


TCE 011465134-03



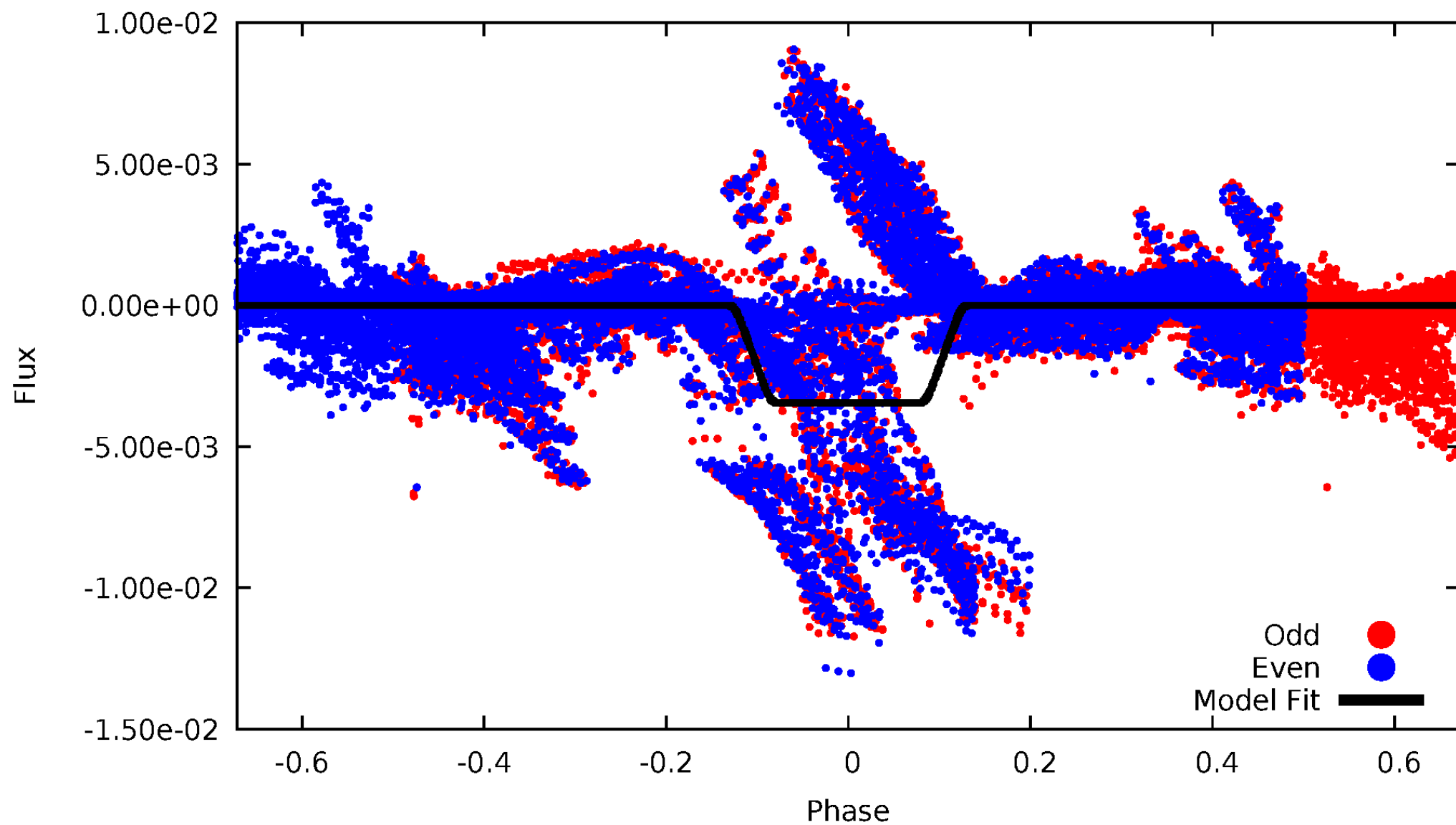
DV Odd/Even

TCE 011465134-03



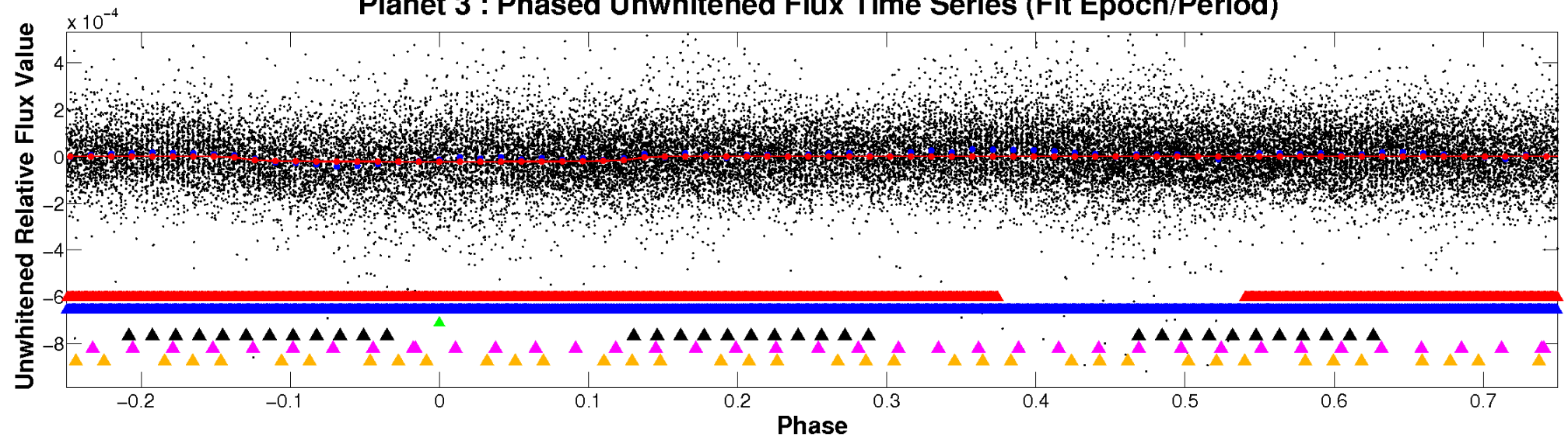
ALT Odd/Even

TCE 011465134-03

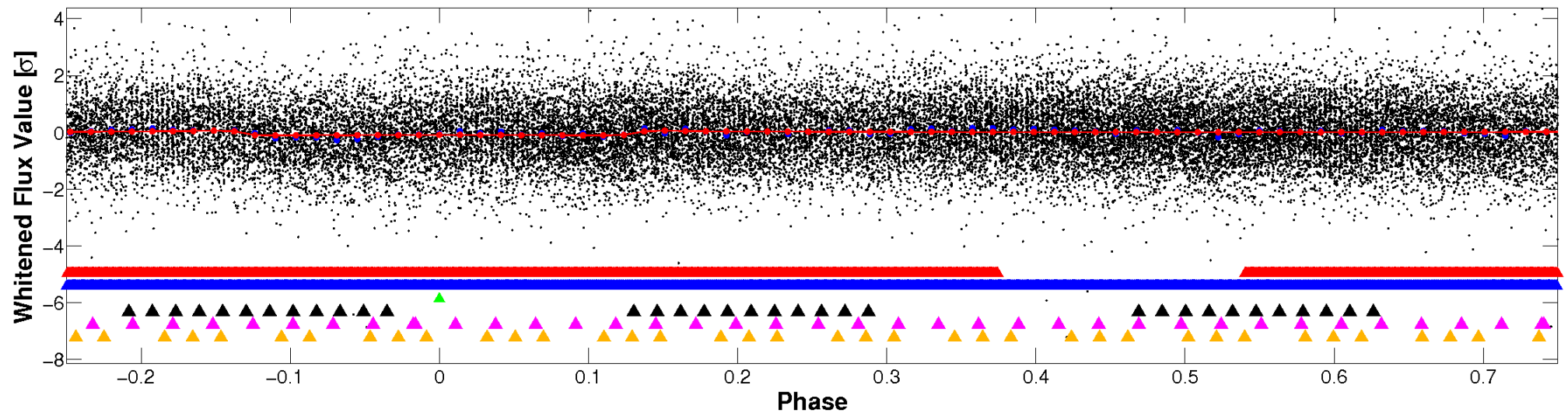


Non-Whitened Vs. Whitened Light Curve

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

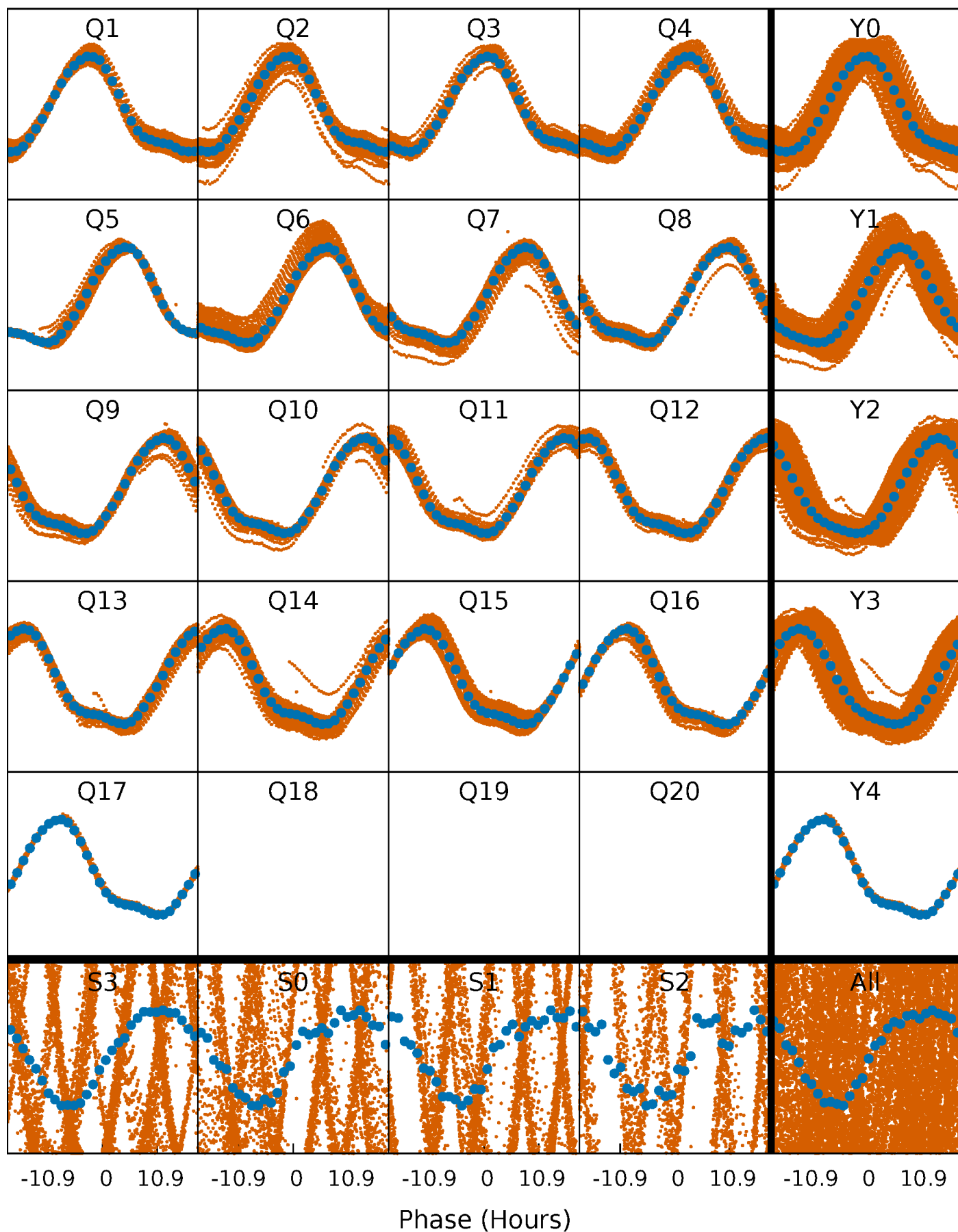


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



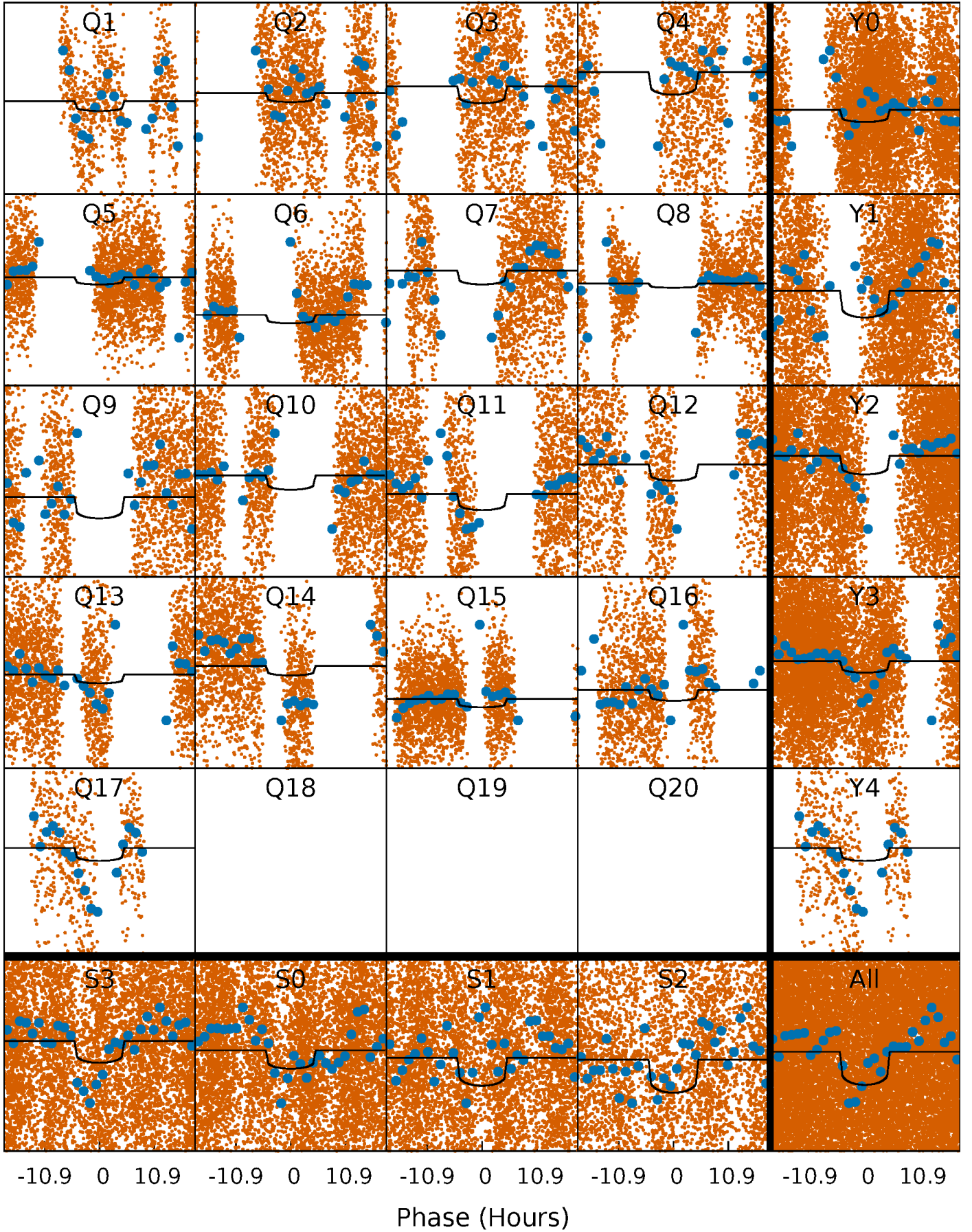
PDC Quarter-Phased Transit Curves

TCE 011465134-03 P= 1.486519 Days $T_0=131.860466$ (BKJD)



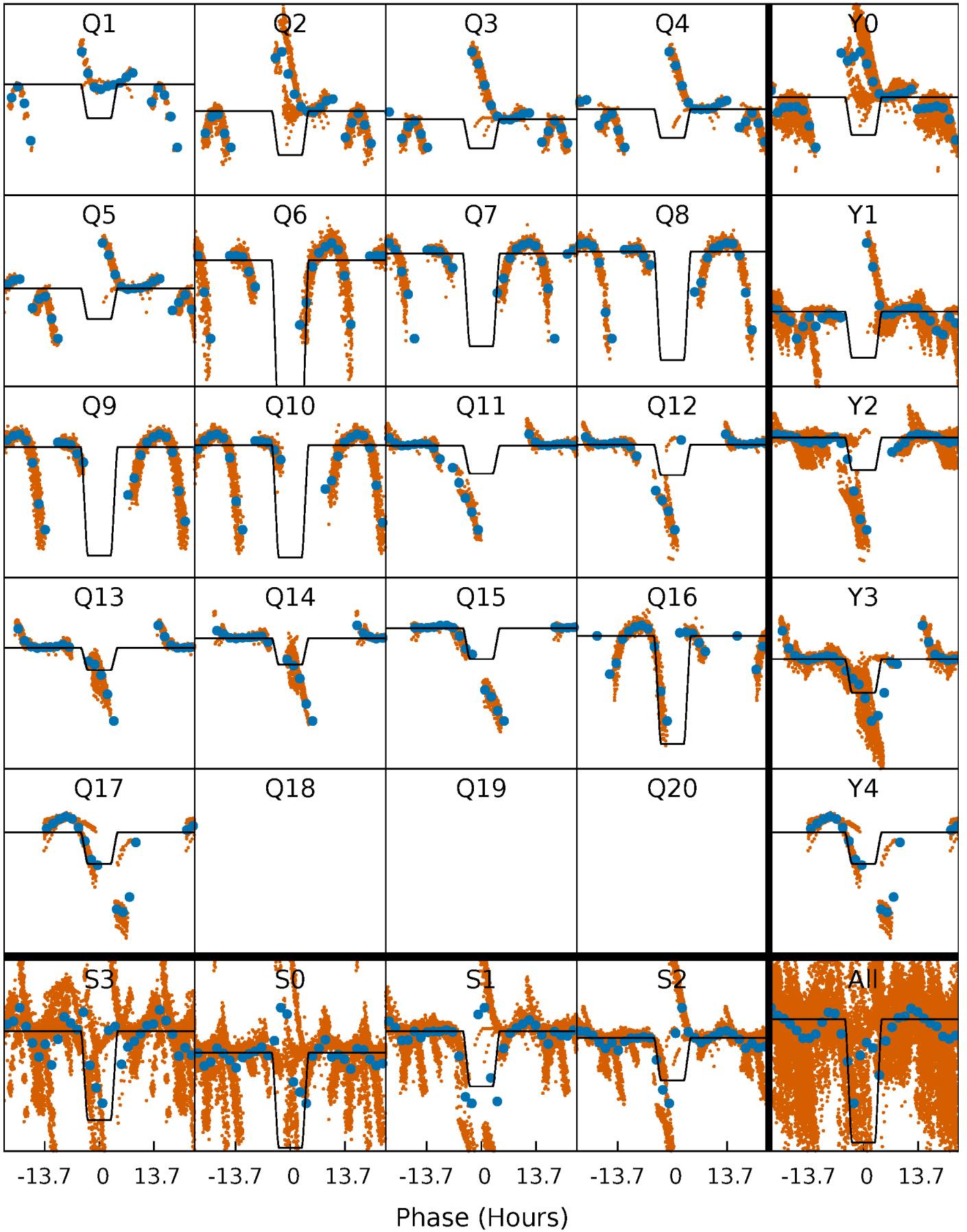
DV Quarter-Phased Transit Curves

TCE 011465134-03 P= 1.486519 Days $T_0=131.860466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

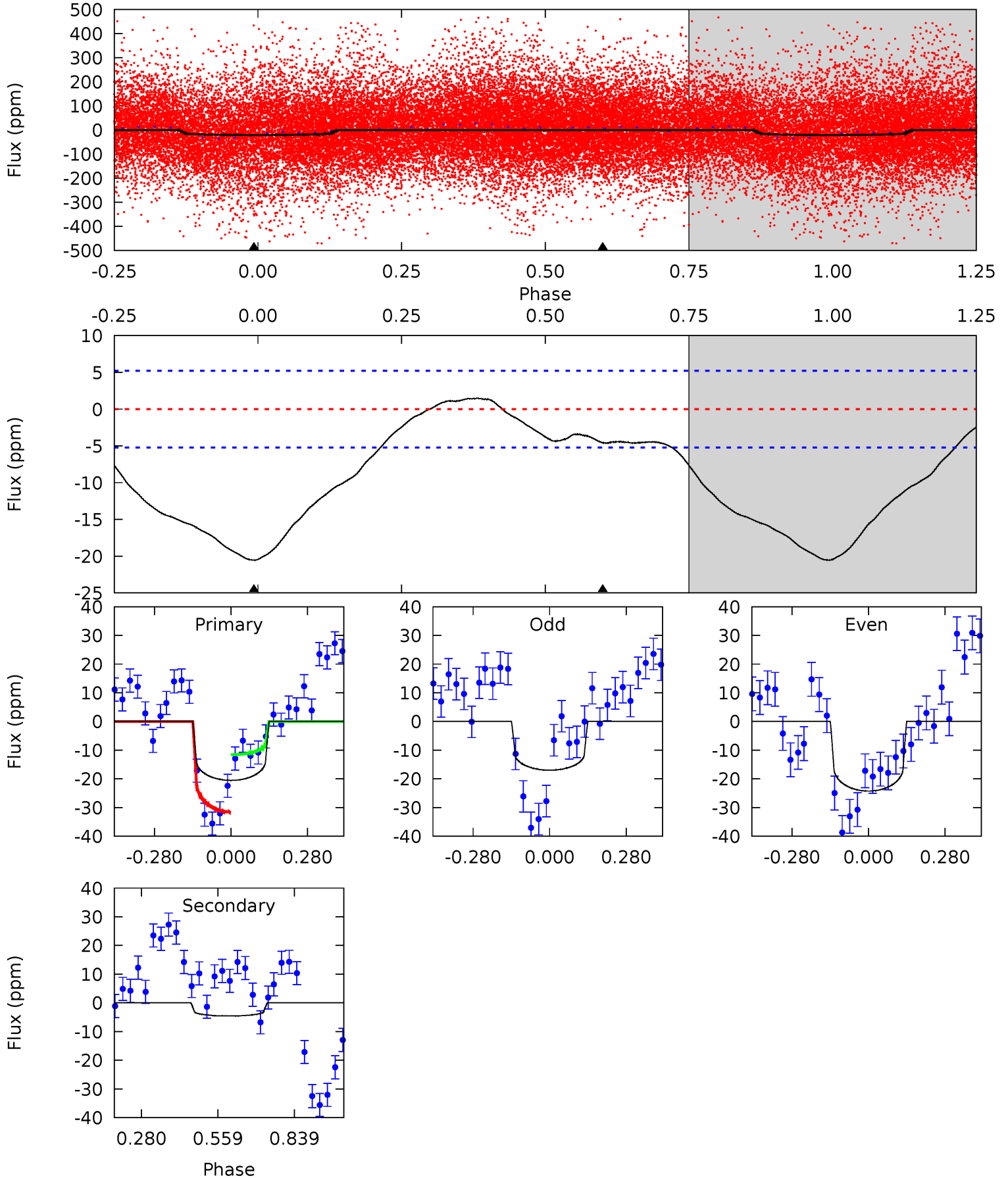
TCE 011465134-03 P= 1.486661 Days $T_0=131.734850$ (BKJD)



DV Model-Shift Uniqueness Test

011465134-03, P = 1.486519 Days, E = 130.373947 Days

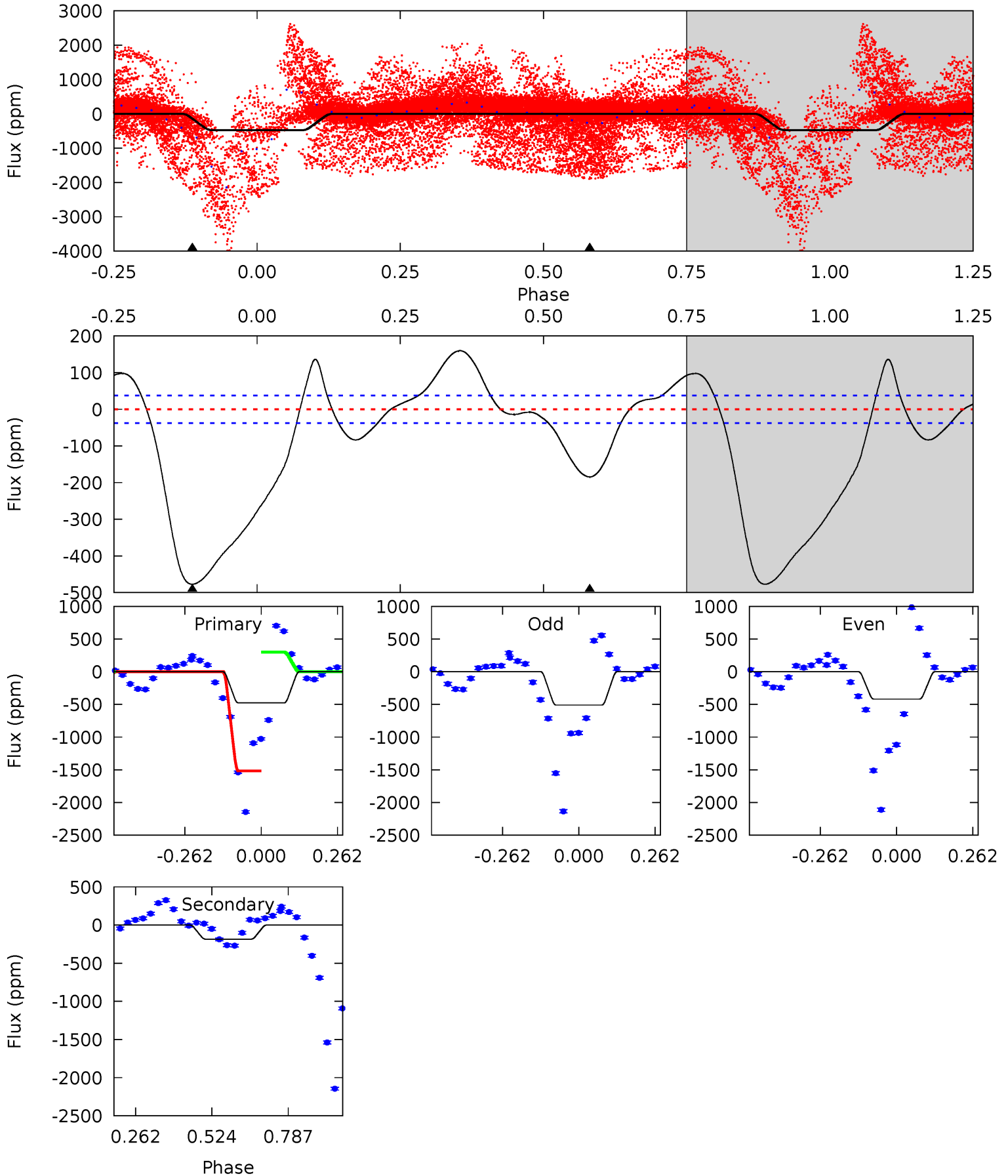
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 17.1 | 3.80 | 0 | 0 | 4.34 | 1.08 | 1.04 | 17.1 | 17.1 | 3.80 | 3.80 | 3.08 | 1.13 | 0.07 | 7.75 |



Alt Model-Shift Uniqueness Test

011465134-03, P = 1.486661 Days, E = 130.248189 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|-----|
| 55.3 | 21.4 | 0 | 0 | 4.36 | 1.12 | 6.31 | 55.3 | 55.3 | 21.4 | 21.4 | 5.35 | 1.29 | 0.25 | 0 |



Stellar Parameters For KIC 011465134

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| | 9859^{+274}_{-445} | $4.166^{+0.160}_{-0.240}$ | $0.070^{+0.150}_{-0.600}$ | $2.096^{+0.863}_{-0.575}$ | $2.348^{+0.451}_{-0.601}$ | $0.359^{+0.373}_{-0.208}$ |
| | +3%/-5% | +4%/-6% | +214%/-857% | +41%/-27% | +19%/-26% | +104%/-58% |
| Source | KIC0 | 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 011465134-03 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|--------------|-------------------------|----------------------|------------------------|---------------------------|
| DV | -5 ± 1 | $1.08^{+0.56}_{-0.52}$ | 4829^{+466}_{-382} | 5897^{+2704}_{-1246} | $2.336^{+6.348}_{-1.336}$ |
| Alt. | -185 ± 9 | $13.74^{+2.84}_{-2.20}$ | 4828^{+424}_{-402} | 3992^{+198}_{-330} | $0.607^{+0.215}_{-0.169}$ |

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

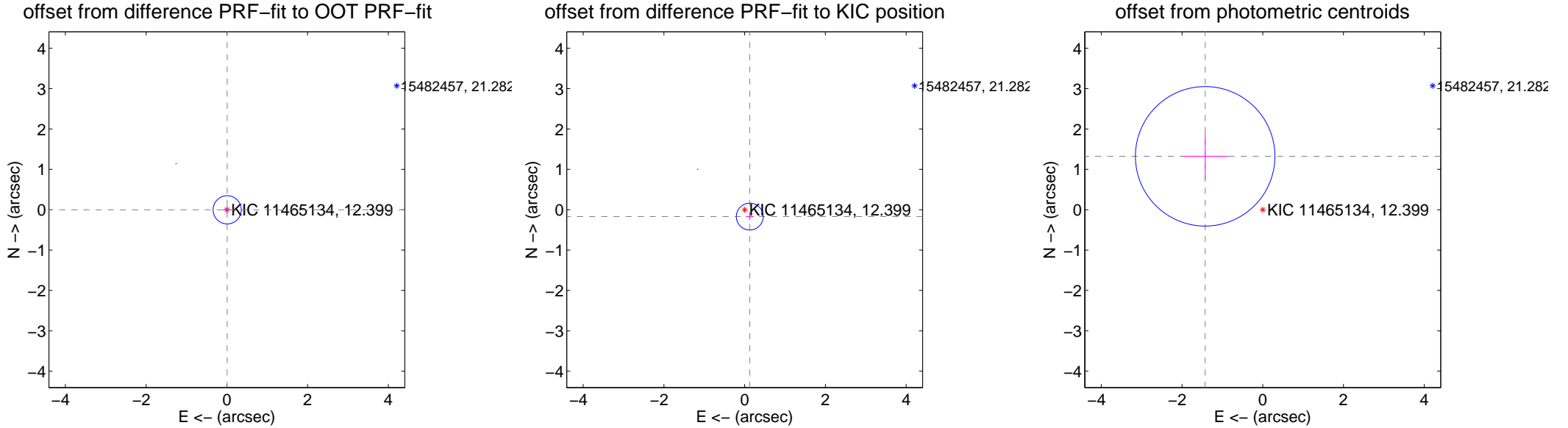
DV Centroid Data

Supplemental centroid analysis for 011465134-03. Kepler magnitude: 12.40. Transit SNR 9.48

There are 10 quarters with good PRF difference image offsets

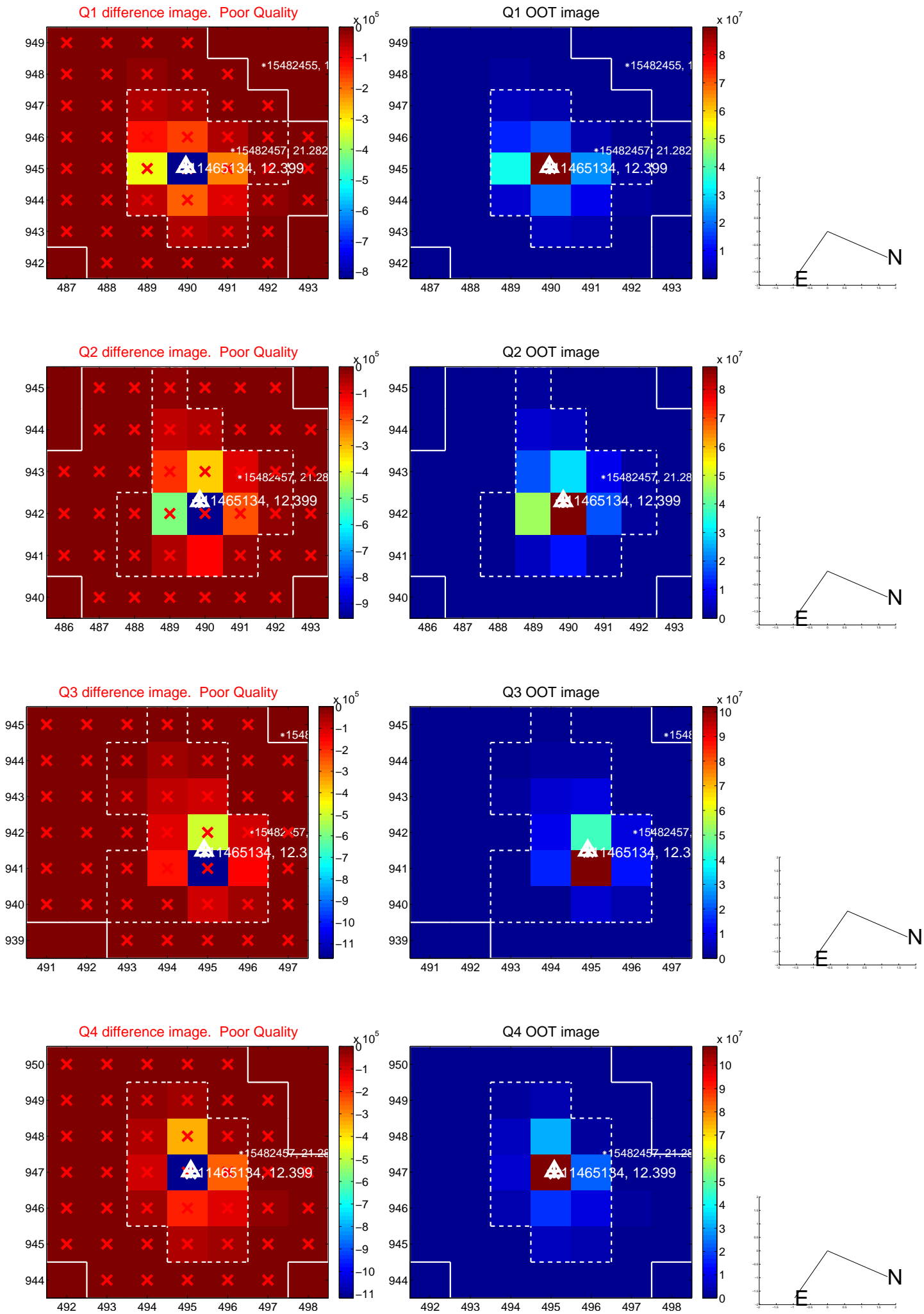
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.009 ± 0.116 | 0.07 | -0.008 ± 0.103 | -0.002 ± 0.098 |
| PRF-fit source offset from KIC position | 0.212 ± 0.111 | 1.92 | -0.127 ± 0.095 | -0.170 ± 0.090 |
| photometric centroid source offset | 1.95 ± 0.58 | 3.38 | 1.43 ± 0.57 | 1.32 ± 0.58 |

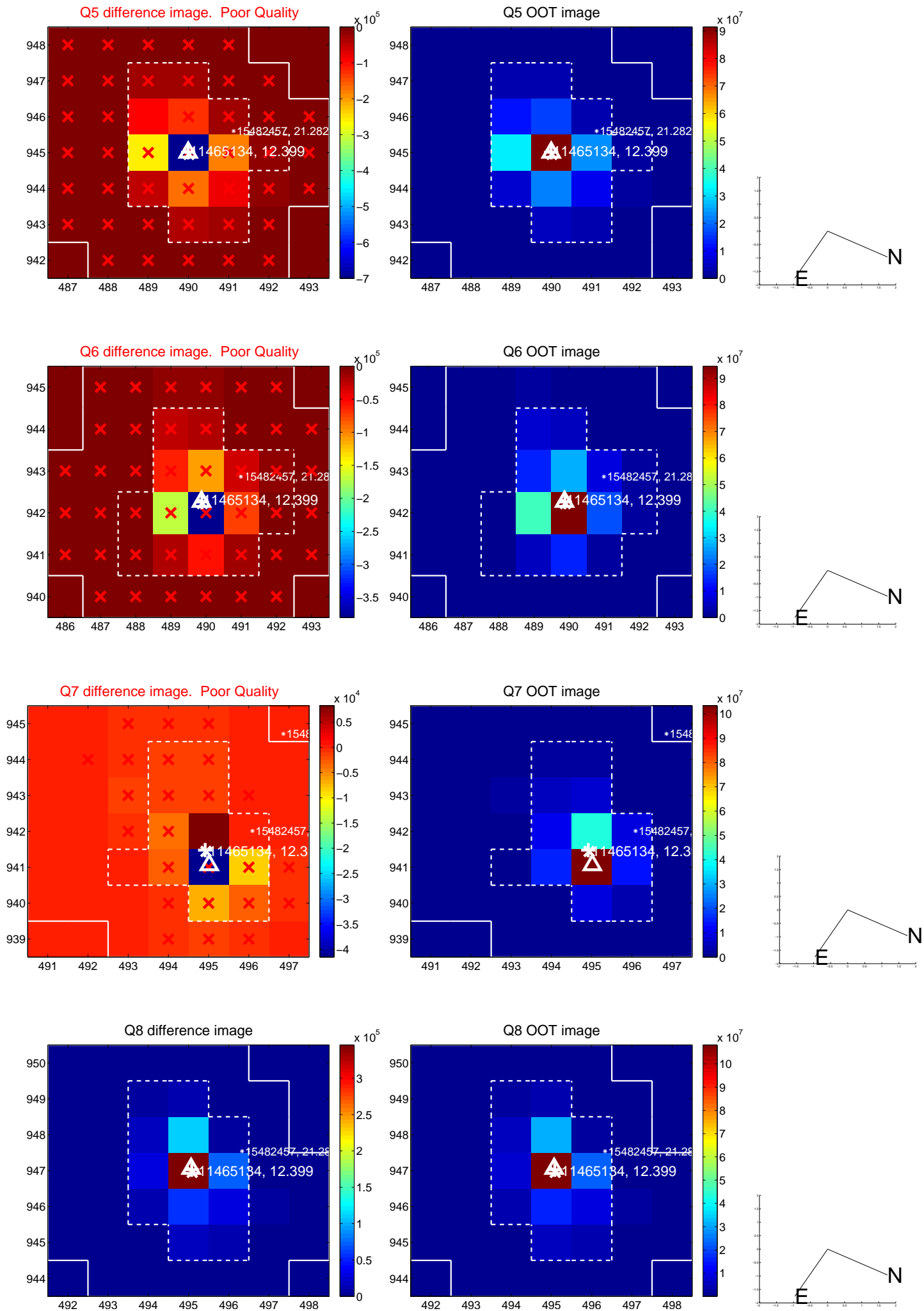


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

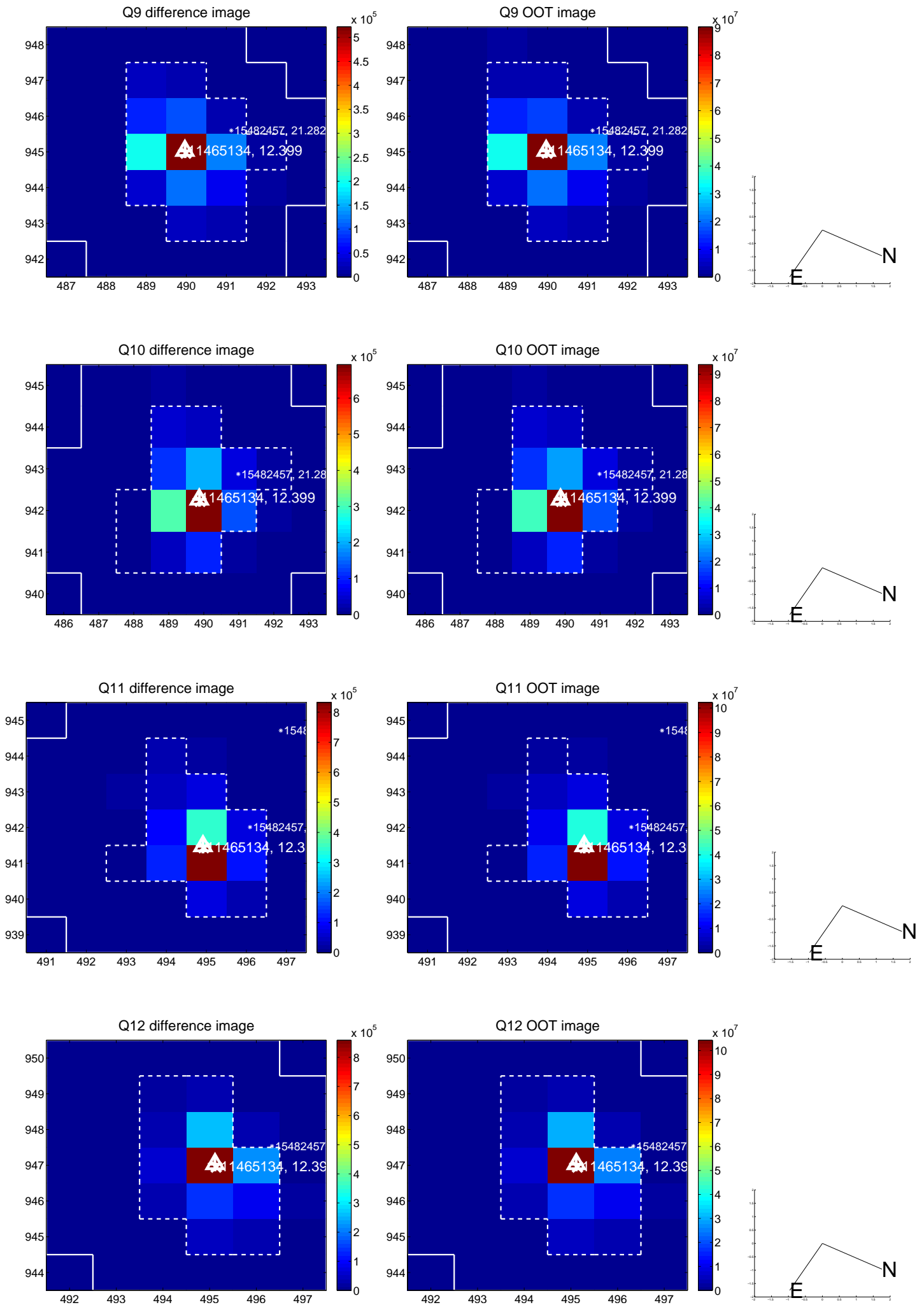
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



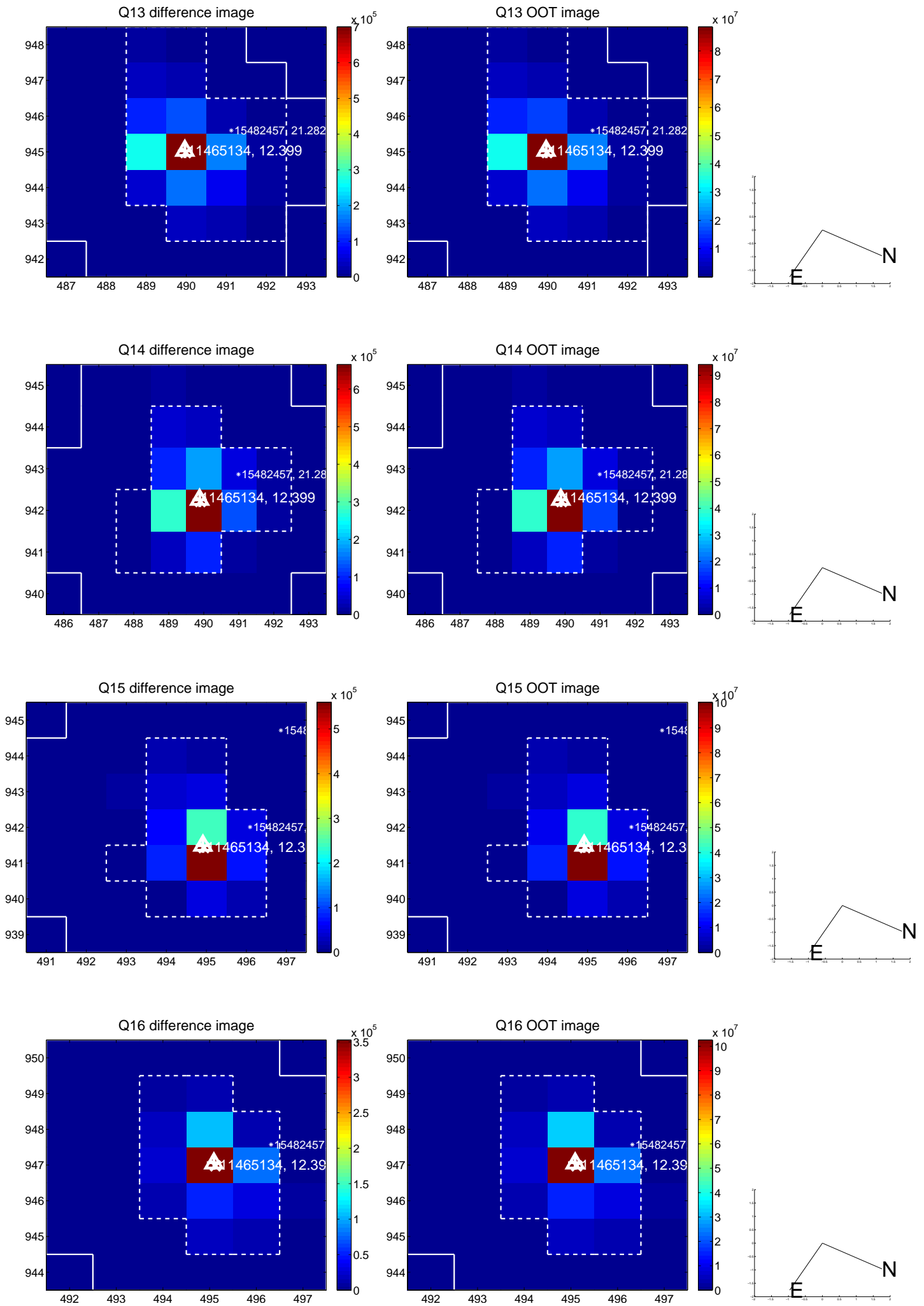
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



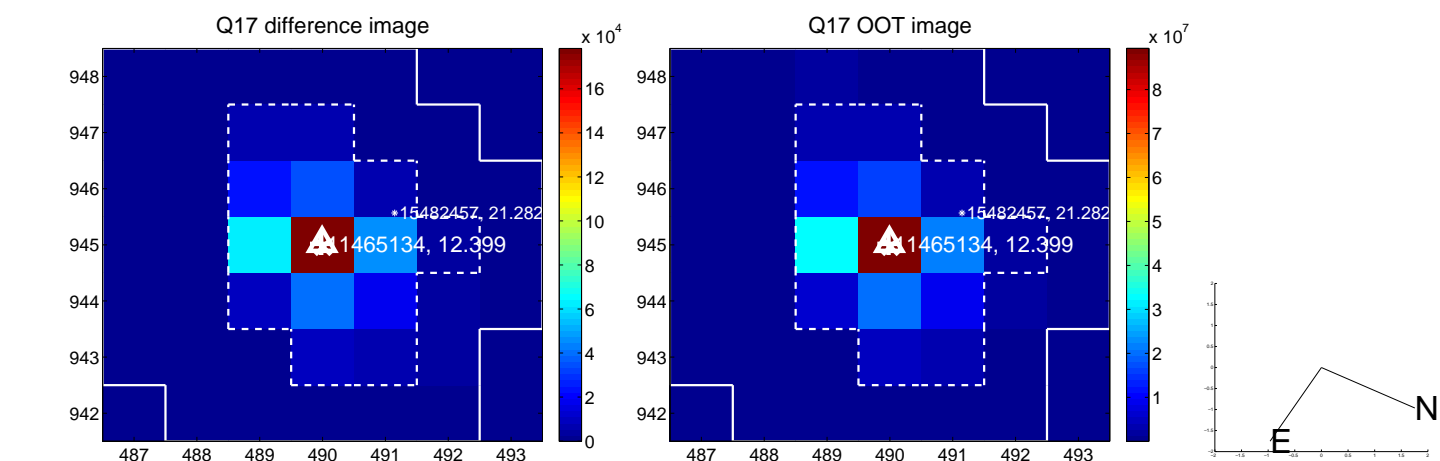
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



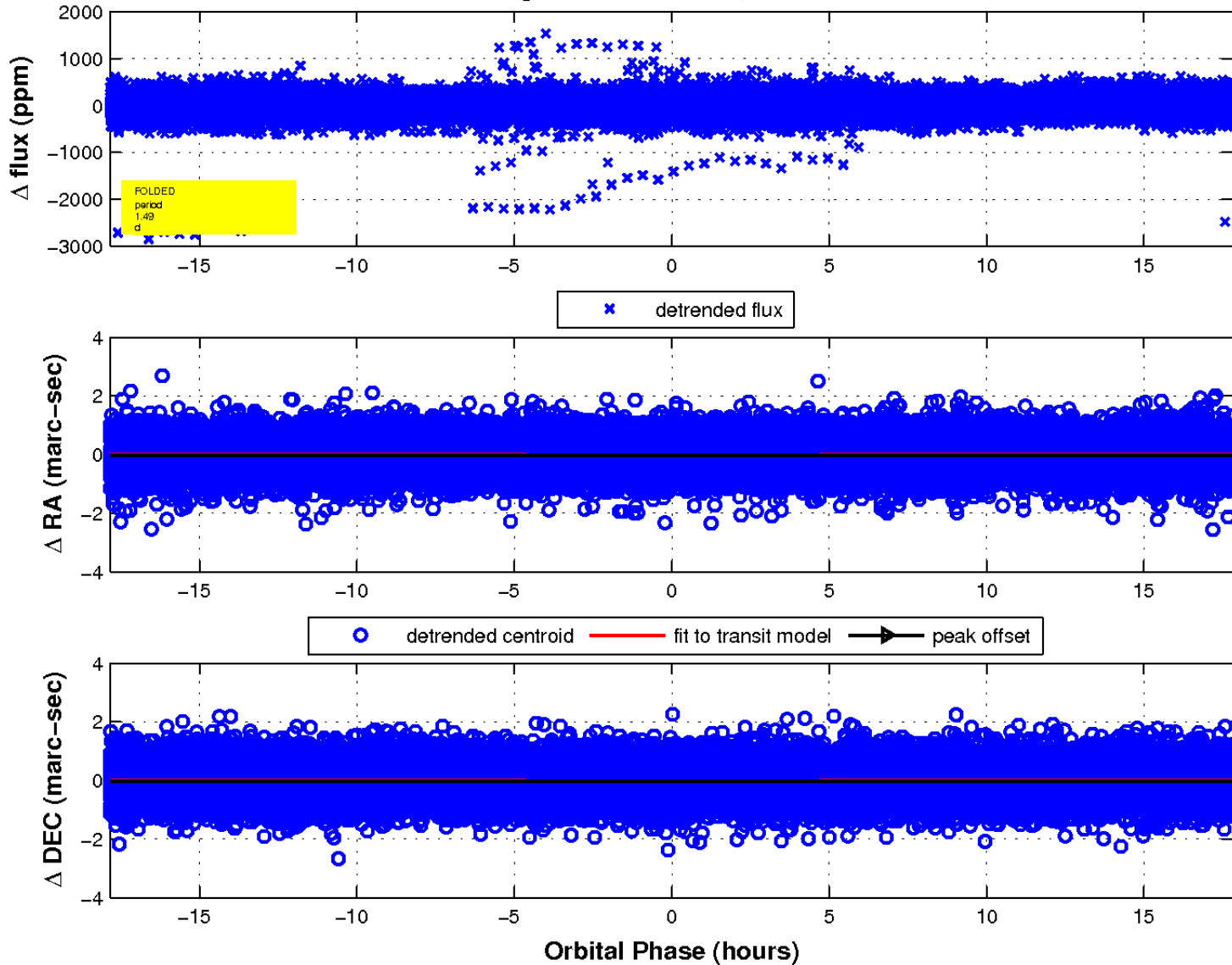
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

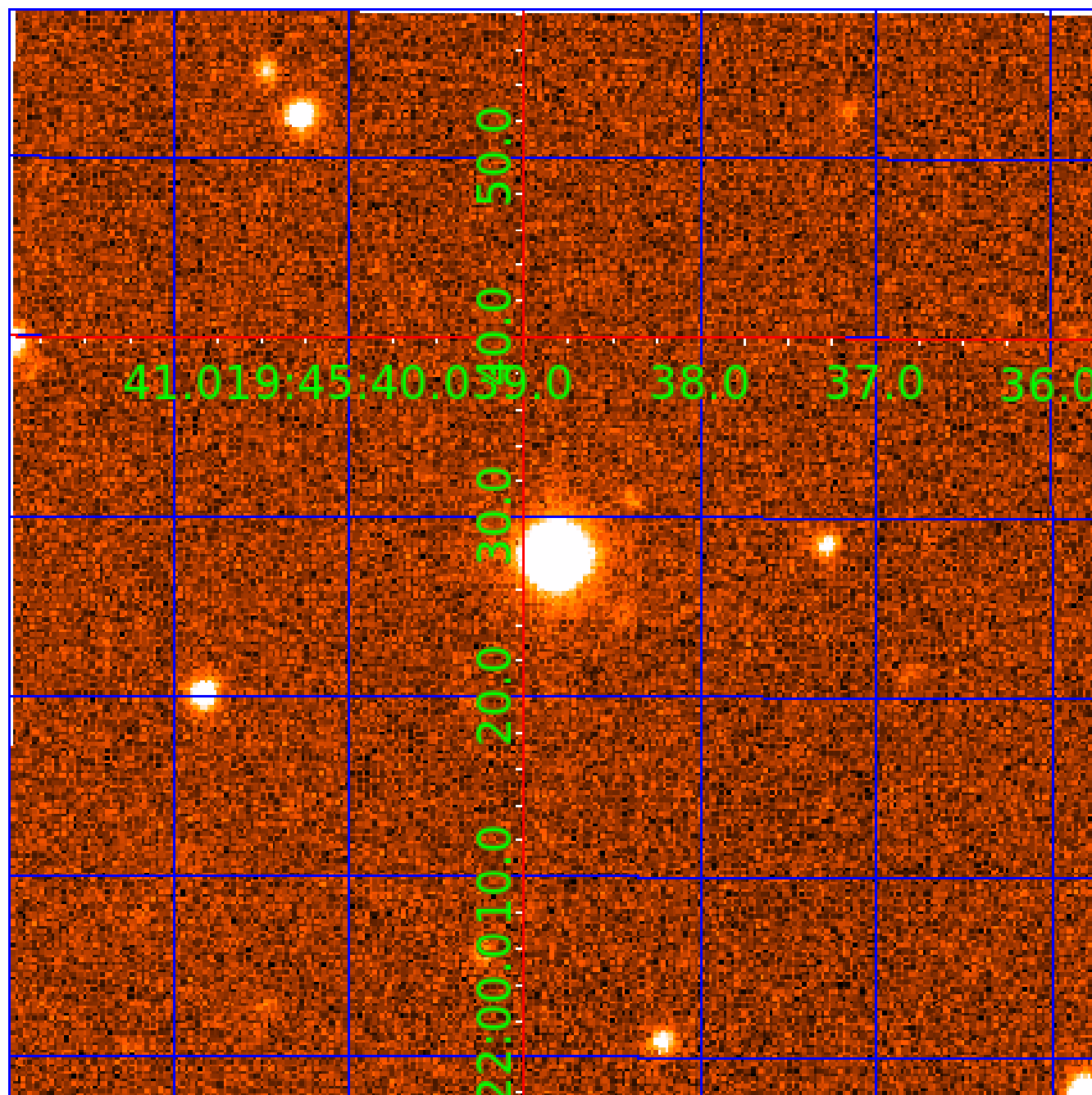


fluxWeightedCentroids, Planet 3 of 6



UKIRT Image

Declination



KIC 011465134

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011465134-01 | OBS | No | 1.487784 | 132.663804 | 42.1 | 2.545 | 19.0 | 18.4 | 2.10 | 9859 | 1.56 | 32341.99 |
| 011465134-02 | OBS | No | 0.743908 | 132.164119 | 238.4 | 1.500 | 9.7 | -1.0 | 2.10 | 9859 | 3.33 | 81494.41 |
| 011465134-03 | OBS | No | 1.486519 | 131.860466 | 22.4 | 9.532 | 8.3 | 9.5 | 2.10 | 9859 | 1.02 | 32378.69 |
| 011465134-04 | OBS | No | 43.612362 | 138.983570 | 121.7 | 2.786 | 8.6 | 7.2 | 2.10 | 9859 | 2.63 | 357.83 |
| 011465134-05 | OBS | No | 37.524630 | 155.256995 | 152.1 | 2.356 | 8.1 | 7.1 | 2.10 | 9859 | 2.79 | 437.25 |
| 011465134-06 | OBS | No | 38.532995 | 158.400057 | 155.3 | 2.189 | 7.9 | 7.1 | 2.10 | 9859 | 2.98 | 422.06 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 011465134-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 011465134-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS |
| 011465134-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT |
| 011465134-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-06 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |

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

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

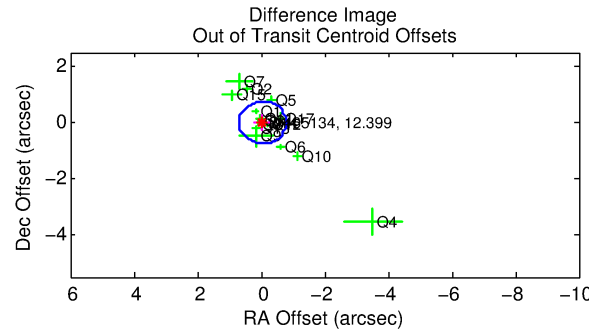
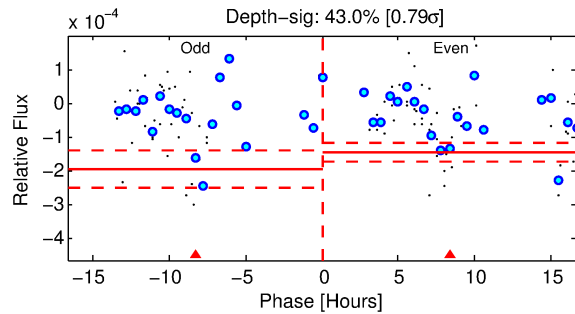
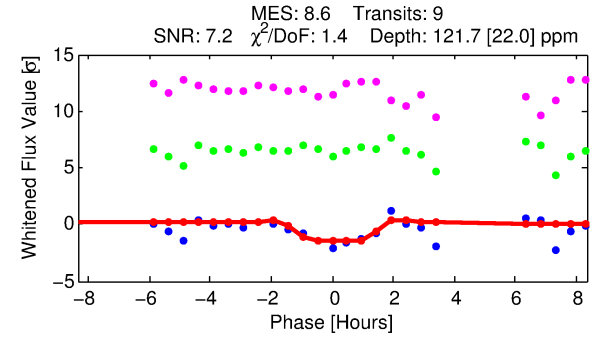
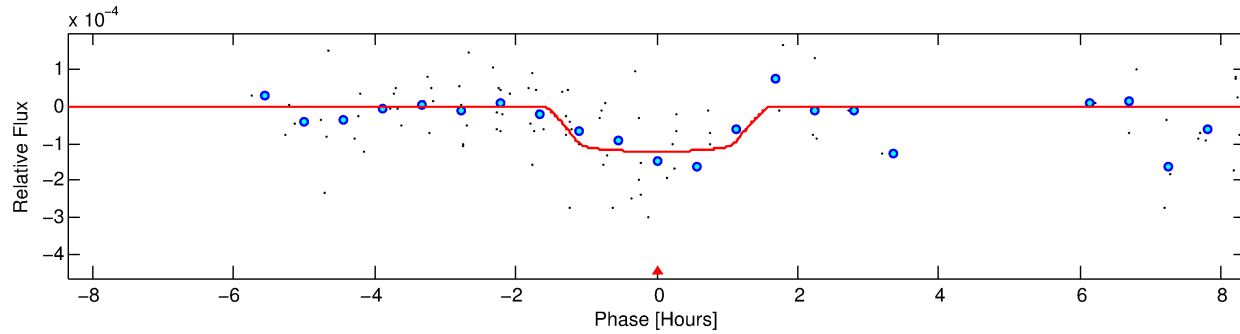
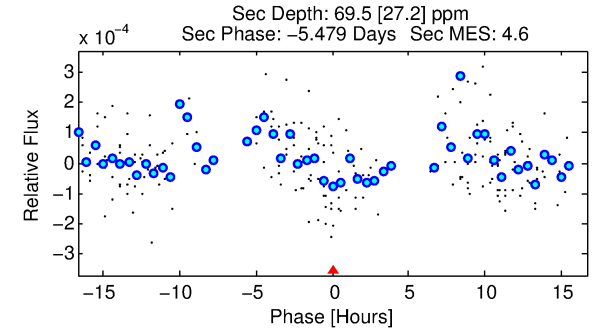
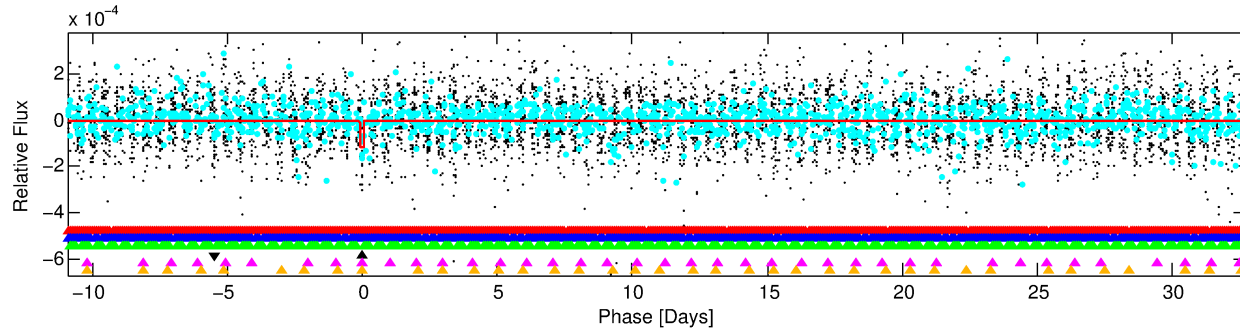
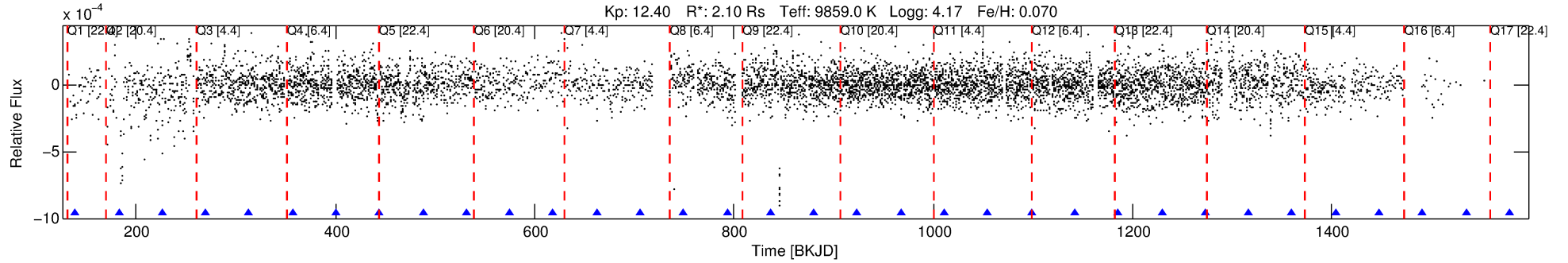
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465134-04

No Significant Match Found

DV One-Page Summary

KIC: 11465134 Candidate: 4 of 6 Period: 43.612 d



DV Fit Results:

Period = 43.61236 [0.00103] d
Epoch = 138.9836 [0.0124] BKJD
Rp/R* = 0.0115 [0.0145]
a/R* = 58.01 [582.17]
b = 0.89 [2.39]
Seff = 357.83 [176.63]
Teq = 1109 [137] K
Rp = 2.64 [3.49] Re
a = 0.3224 [0.1066] AU
Ag = 572.48 [1481.53] [0.39σ]
Teffp = 8387 [5354] K [1.36σ]

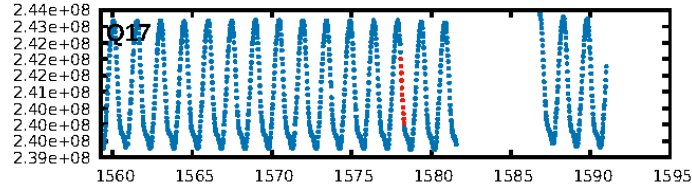
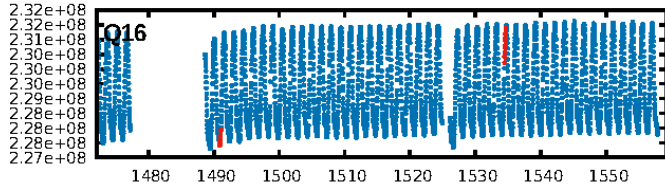
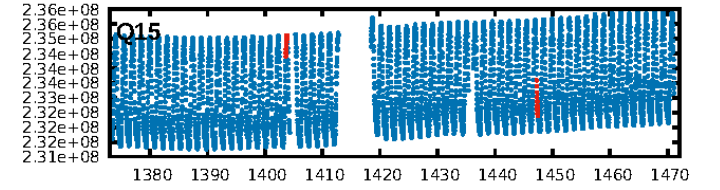
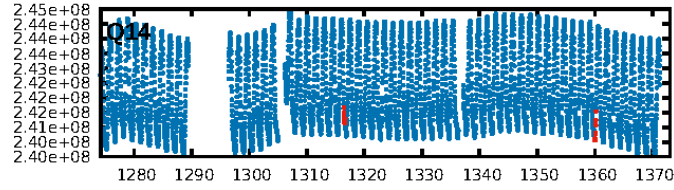
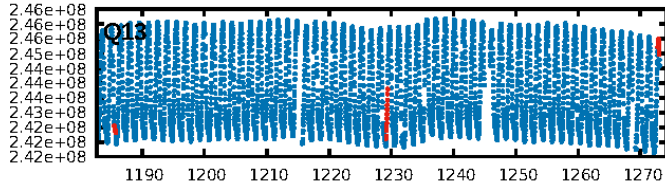
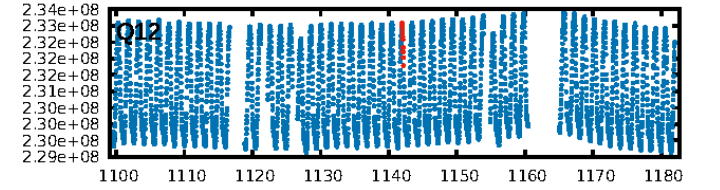
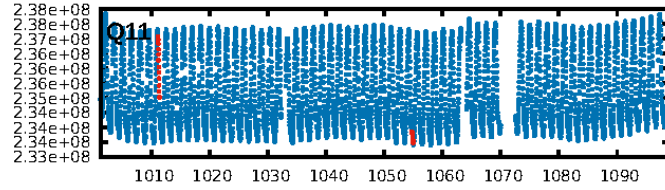
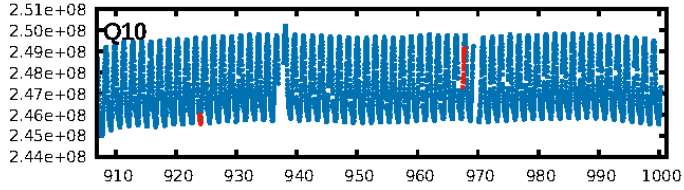
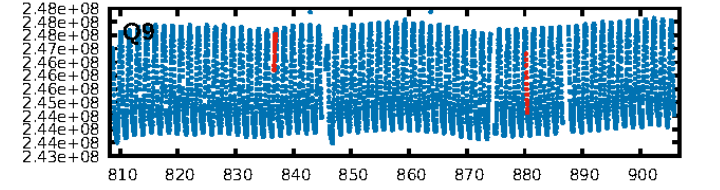
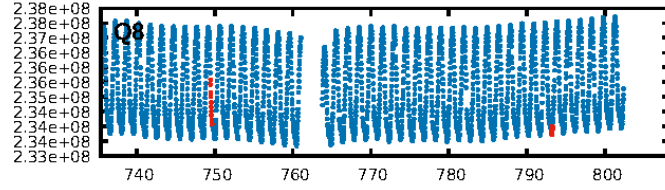
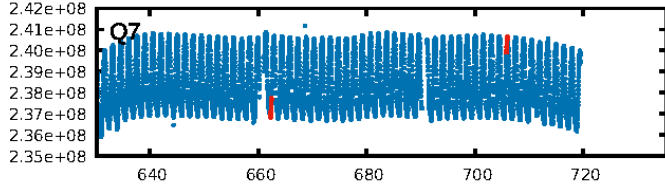
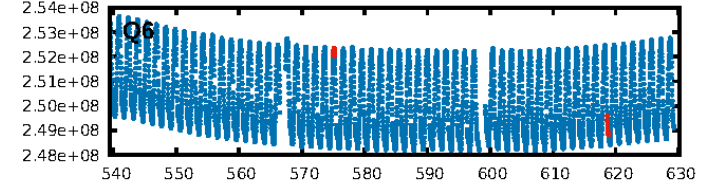
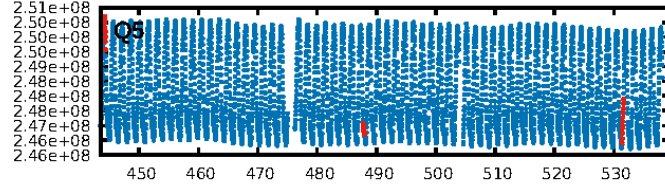
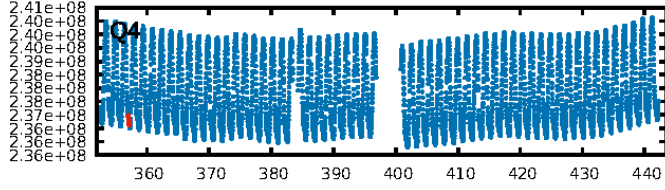
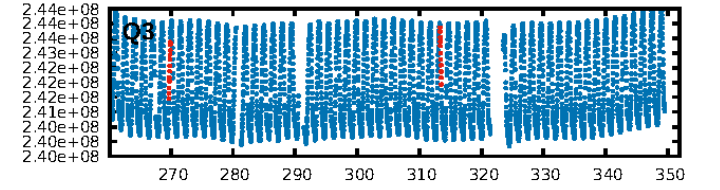
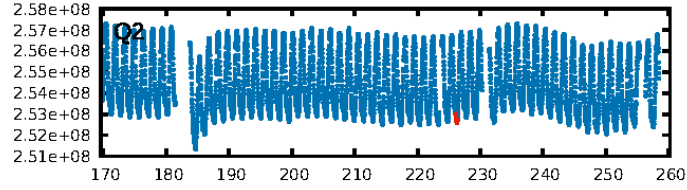
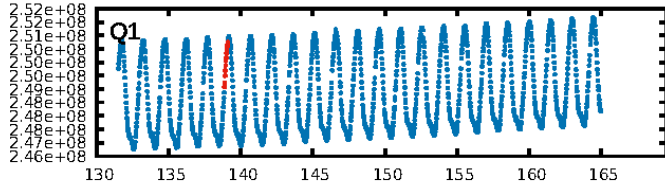
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [34.40σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.8%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: 1.03e-08
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -1.121
Centroid-sig: 1.3%
Centroid-so: 1.605 arcsec [1.67σ]
OotOffset-rm: 0.049 arcsec [0.20σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-rm: 0.258 arcsec [0.69σ]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.44 [7/16]
DiffImageOverlap-fno: 0.06 [1/17]

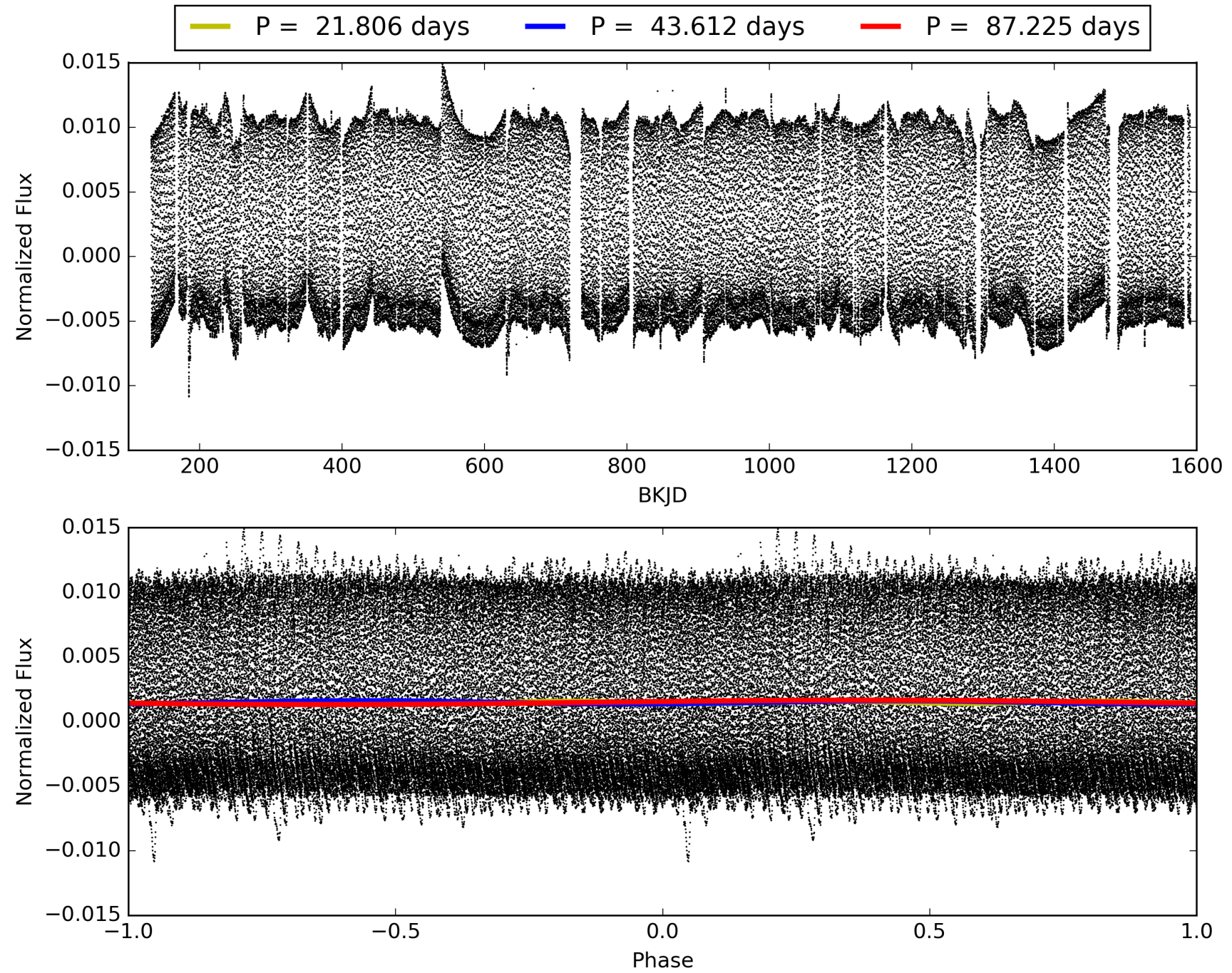
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:19:17 Z

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

TCE 011465134-04, PDC Light Curves

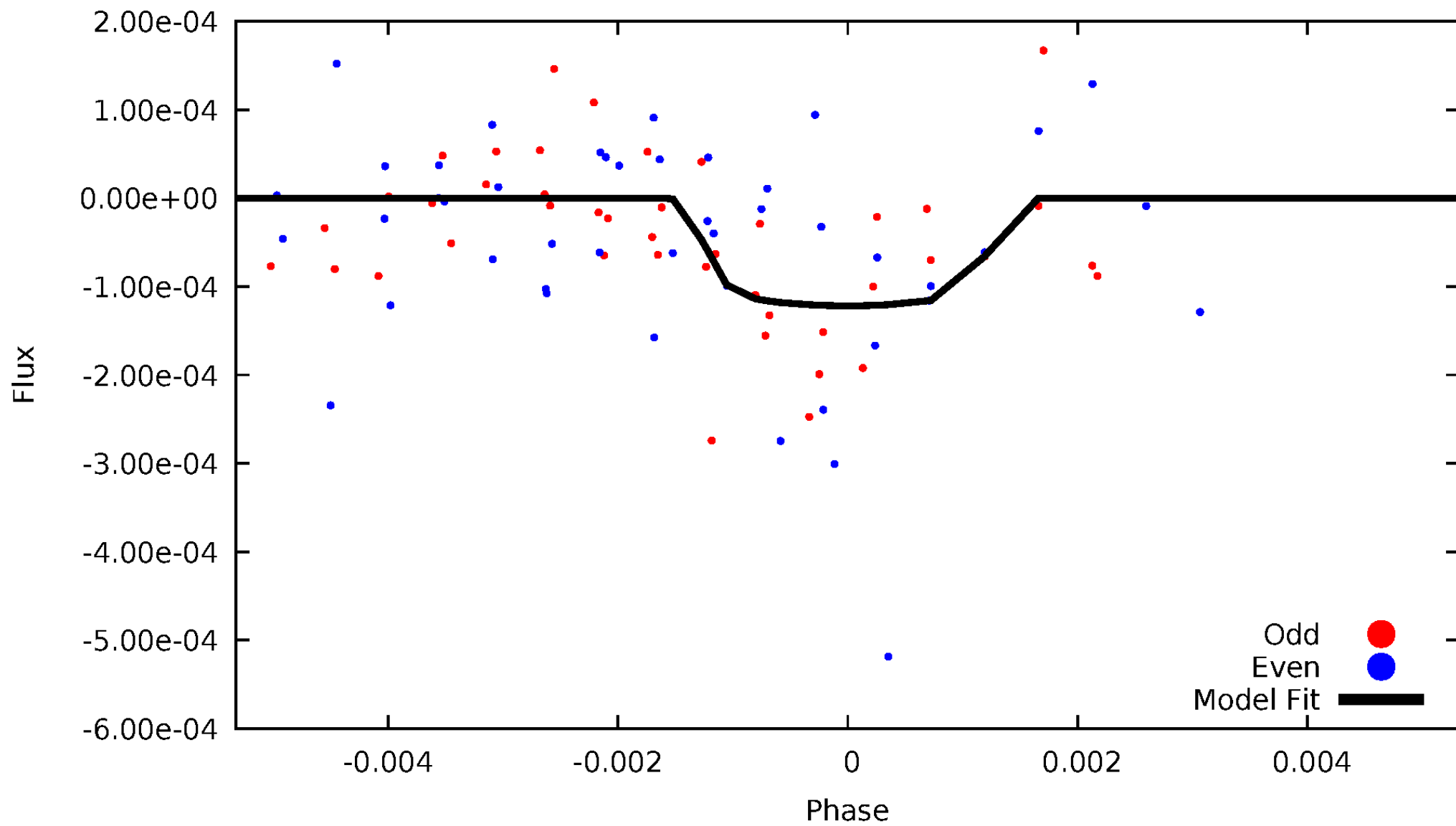


TCE 011465134-04



DV Odd/Even

TCE 011465134-04

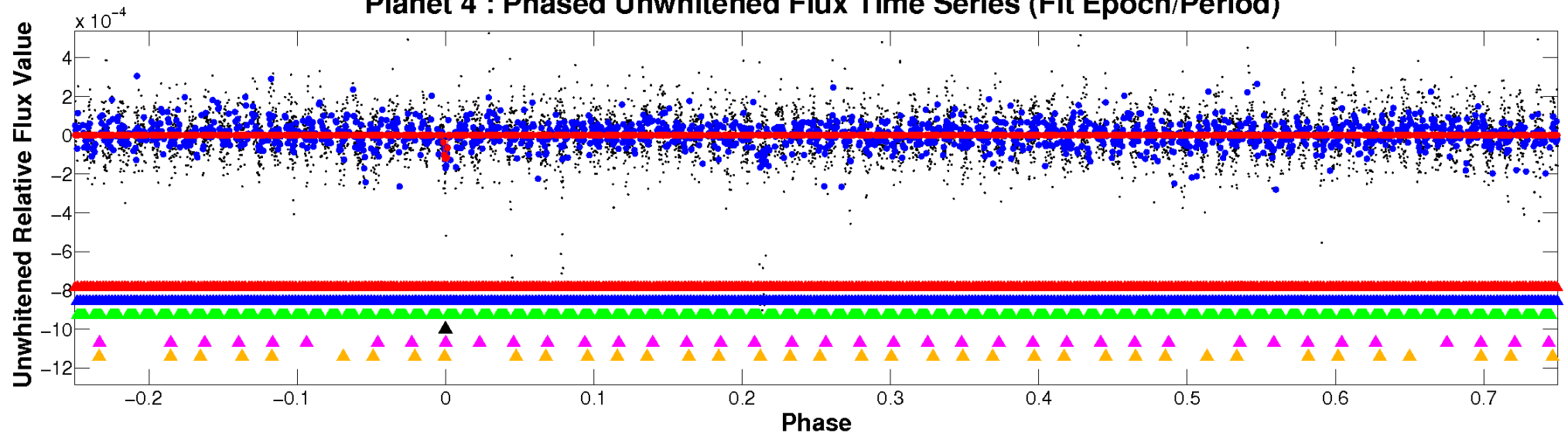


ALT Odd/Even

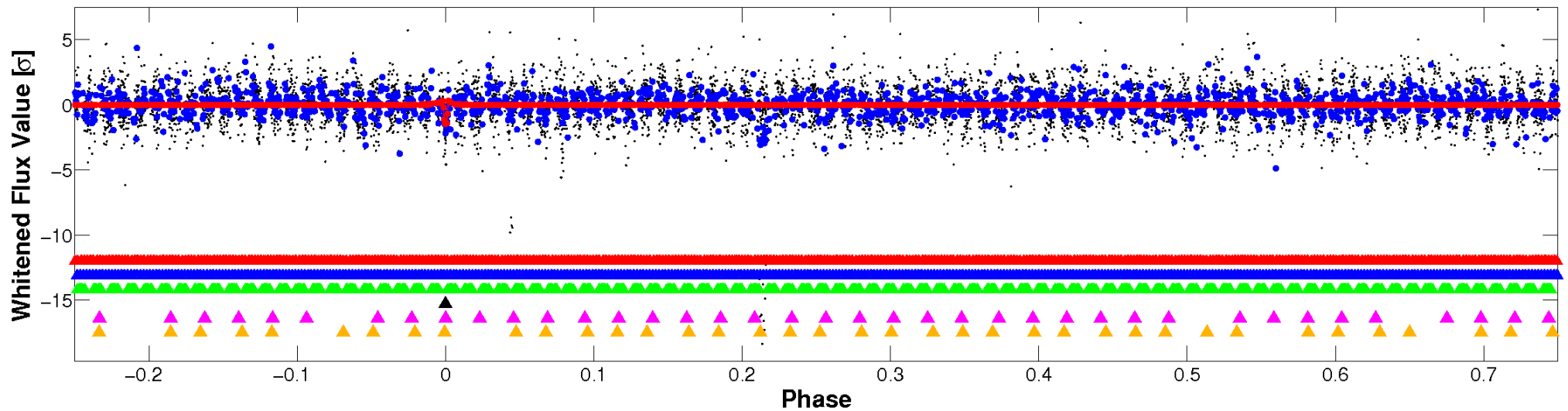
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

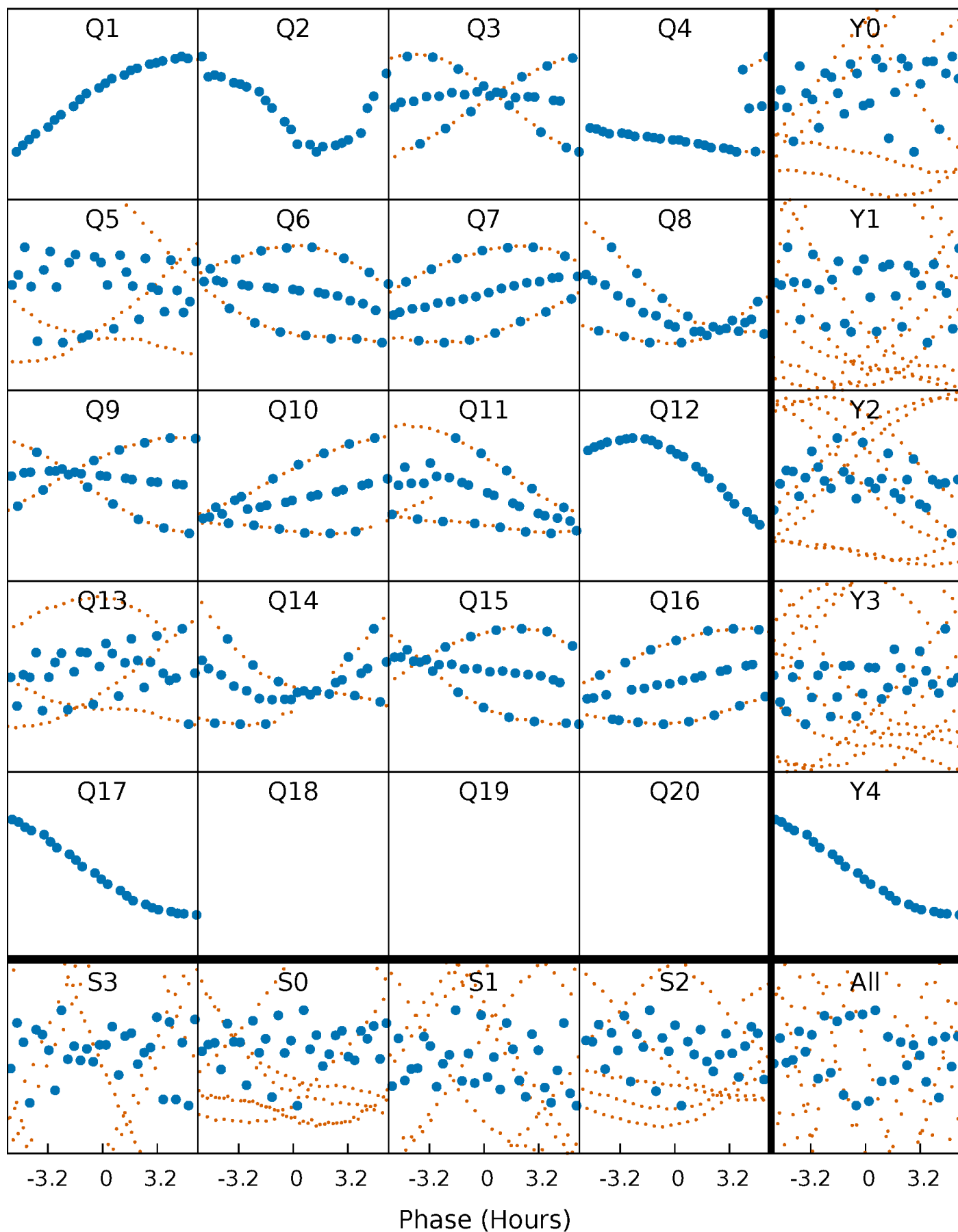


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



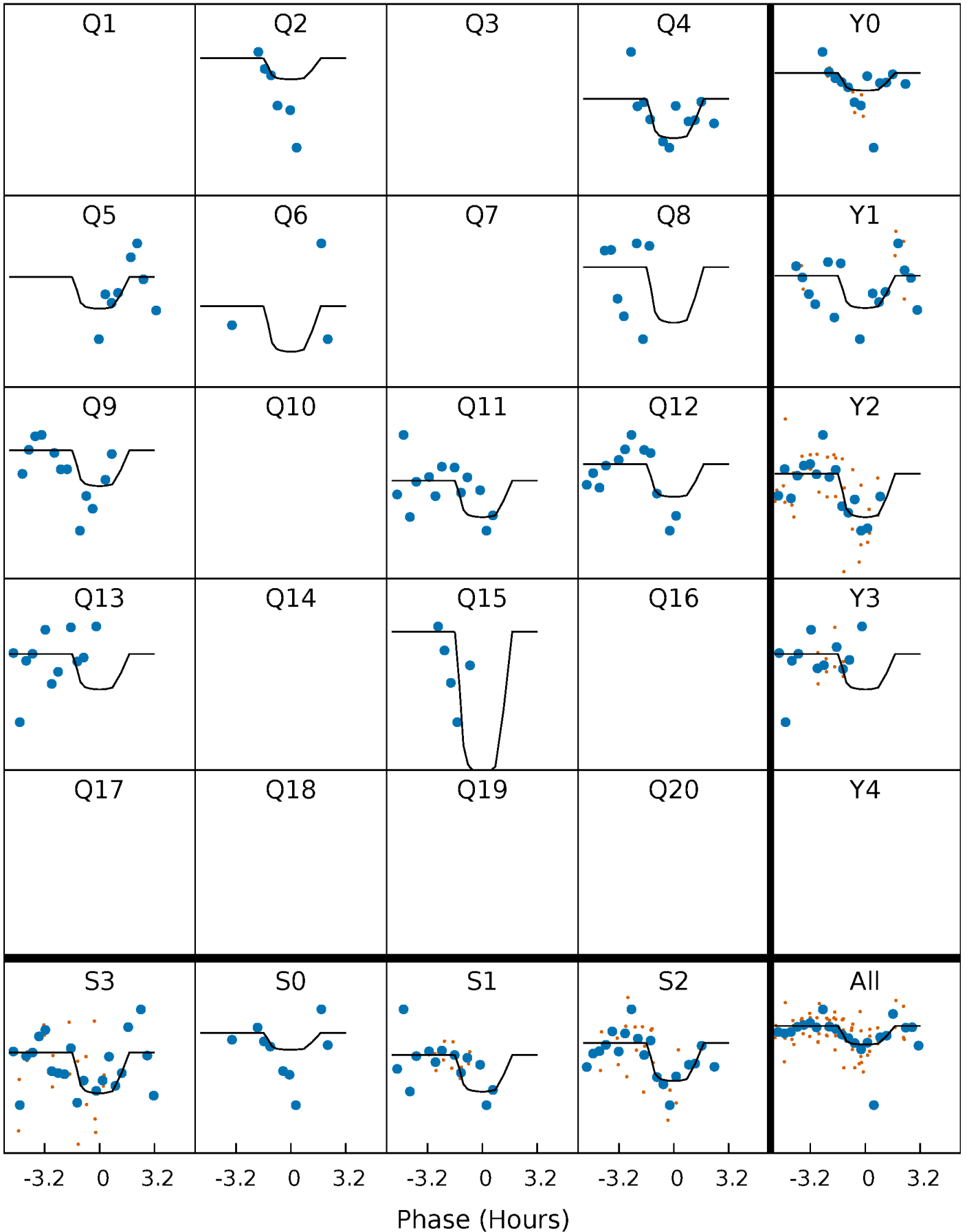
PDC Quarter-Phased Transit Curves

TCE 011465134-04 P= 43.612362 Days $T_0=138.983570$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011465134-04 P= 43.612362 Days $T_0=138.983570$ (BKJD)

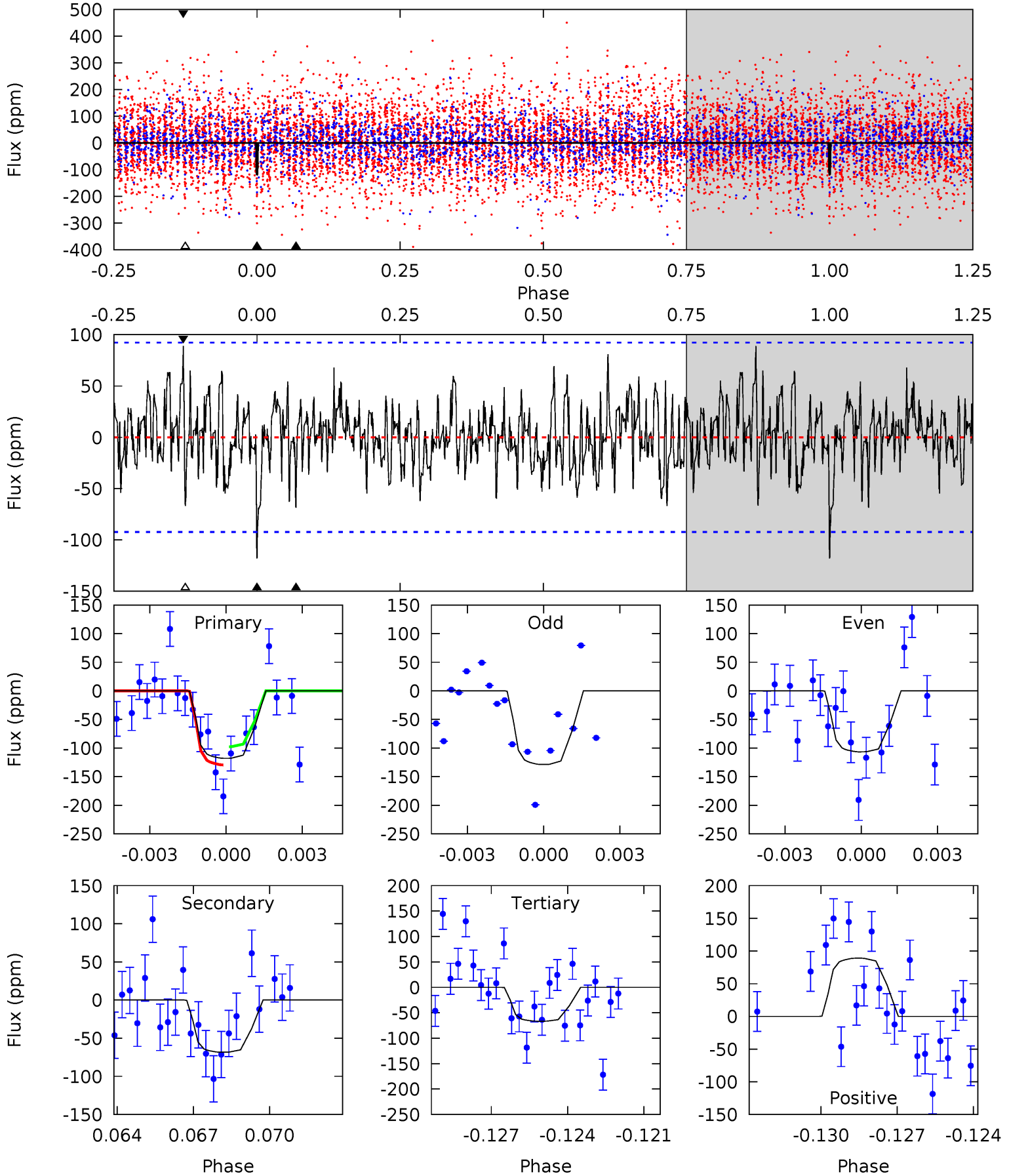


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011465134-04, P = 43.612362 Days, E = 95.371208 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 6.70 | 3.89 | 3.79 | 5.06 | 5.24 | 2.95 | 1.43 | 2.91 | 1.64 | 0.10 | -1.17 | 0.63 | 1.05 | 0.43 | 0.86 |



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011465134

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| | 9859^{+274}_{-445} | $4.166^{+0.160}_{-0.240}$ | $0.070^{+0.150}_{-0.600}$ | $2.096^{+0.863}_{-0.575}$ | $2.348^{+0.451}_{-0.601}$ | $0.359^{+0.373}_{-0.208}$ |
| | +3%/-5% | +4%/-6% | +214%/-857% | +41%/-27% | +19%/-26% | +104%/-58% |
| Source | KIC0 | 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 011465134-04 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|--------------|------------------------|----------------------|------------------------|----------------------|
| DV | -68 ± 18 | $3.54^{+3.08}_{-2.23}$ | 1566^{+149}_{-114} | 6687^{+7192}_{-1710} | 313^{+1741}_{-229} |
| 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 $A_{\text{obs}} \gg 1.0$

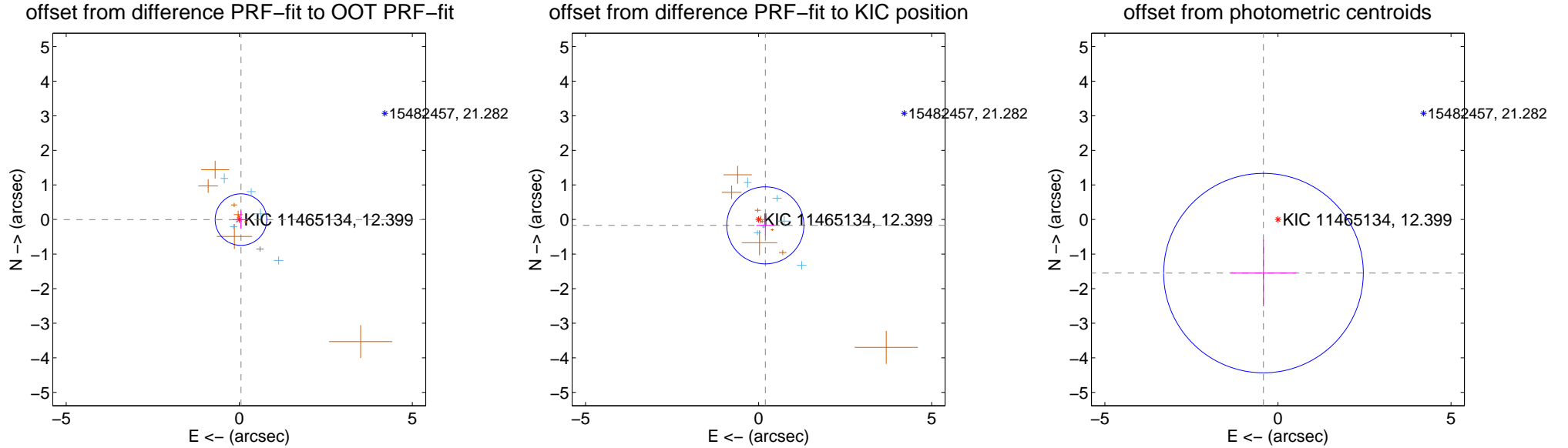
DV Centroid Data

Supplemental centroid analysis for 011465134-04. Kepler magnitude: 12.40. Transit SNR 7.25

There are 7 quarters with good PRF difference image offsets

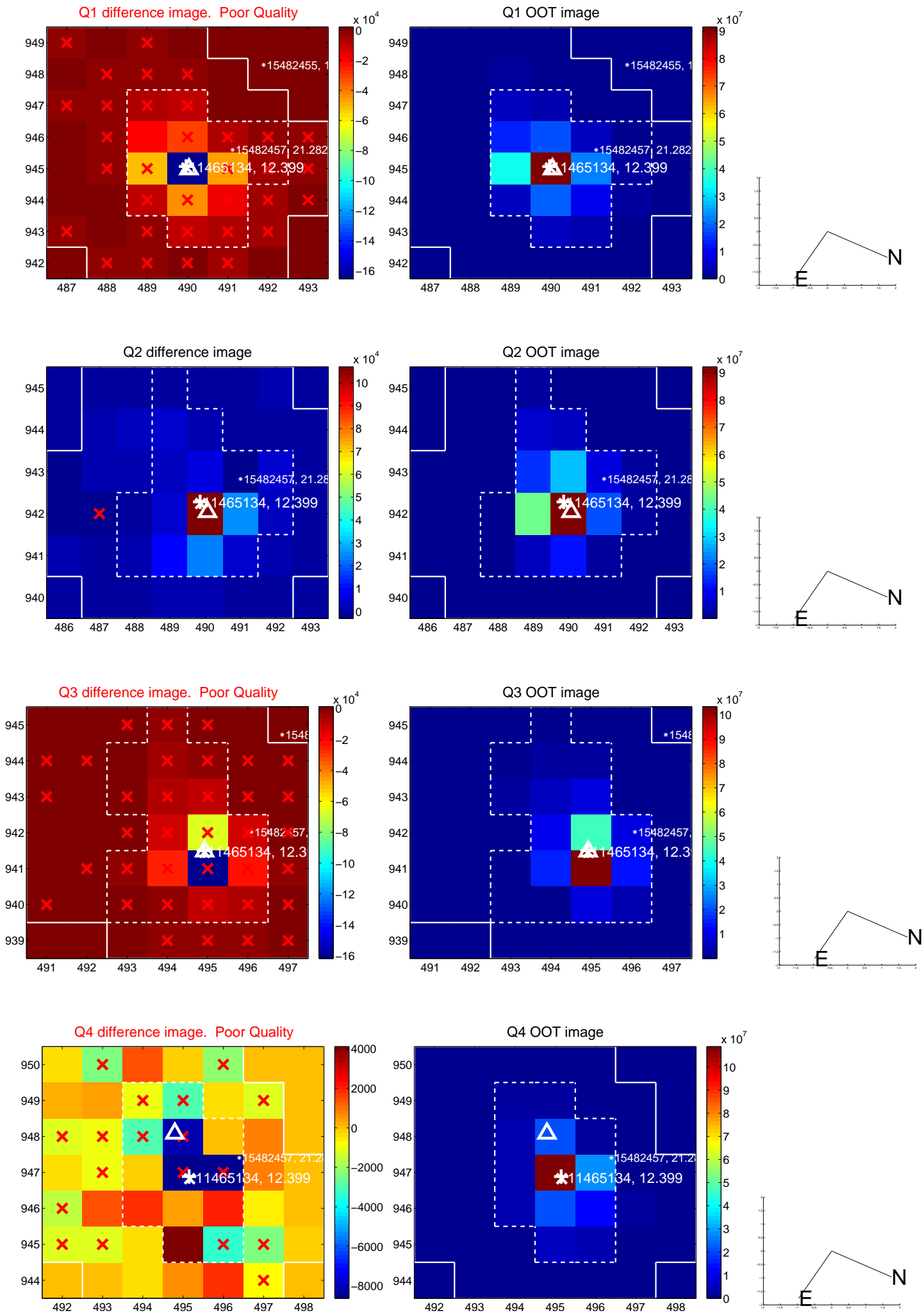
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.049 ± 0.249 | 0.20 | -0.049 ± 0.237 | -0.003 ± 0.265 |
| PRF-fit source offset from KIC position | 0.258 ± 0.371 | 0.69 | -0.194 ± 0.259 | -0.169 ± 0.289 |
| photometric centroid source offset | 1.60 ± 0.96 | 1.67 | 0.42 ± 0.95 | -1.55 ± 0.96 |

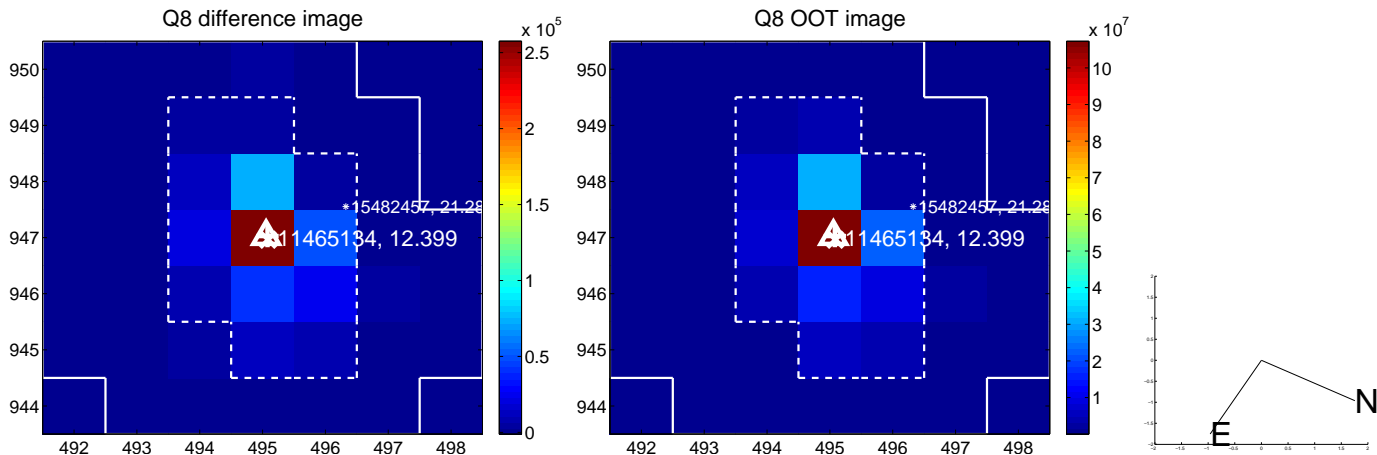
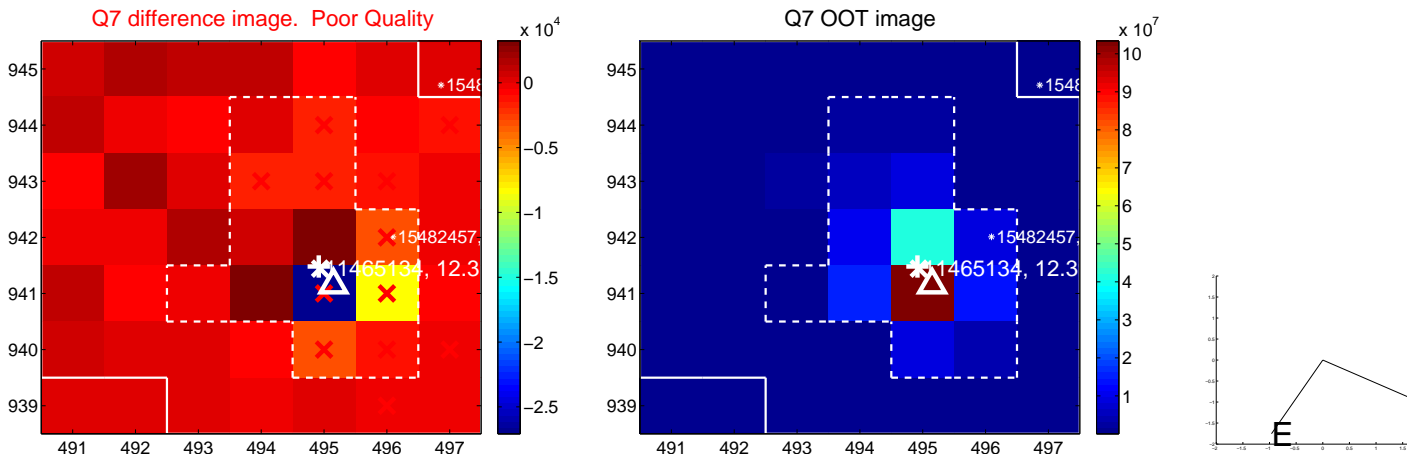
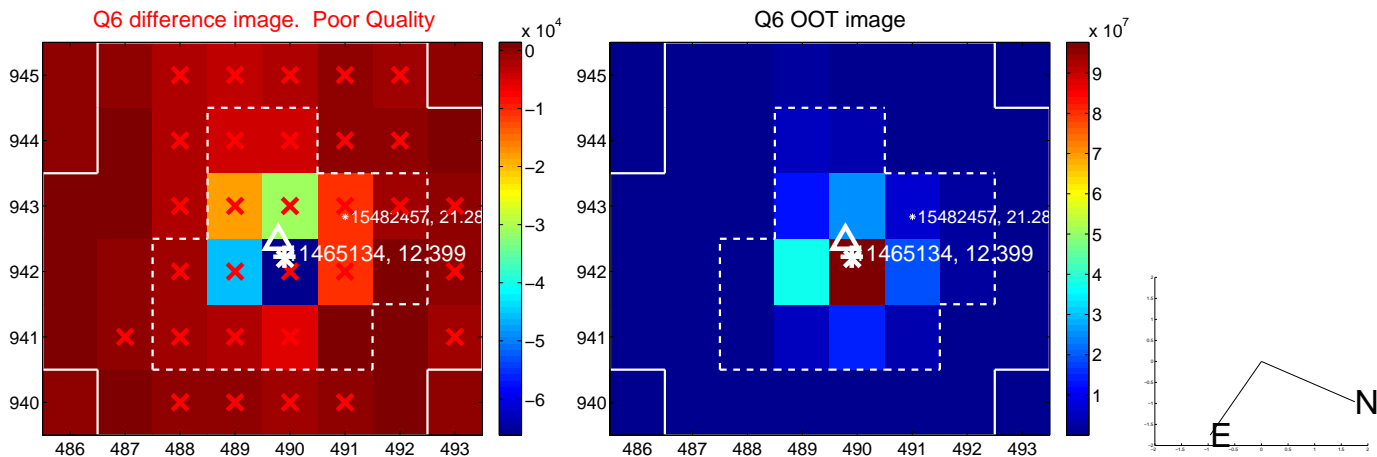
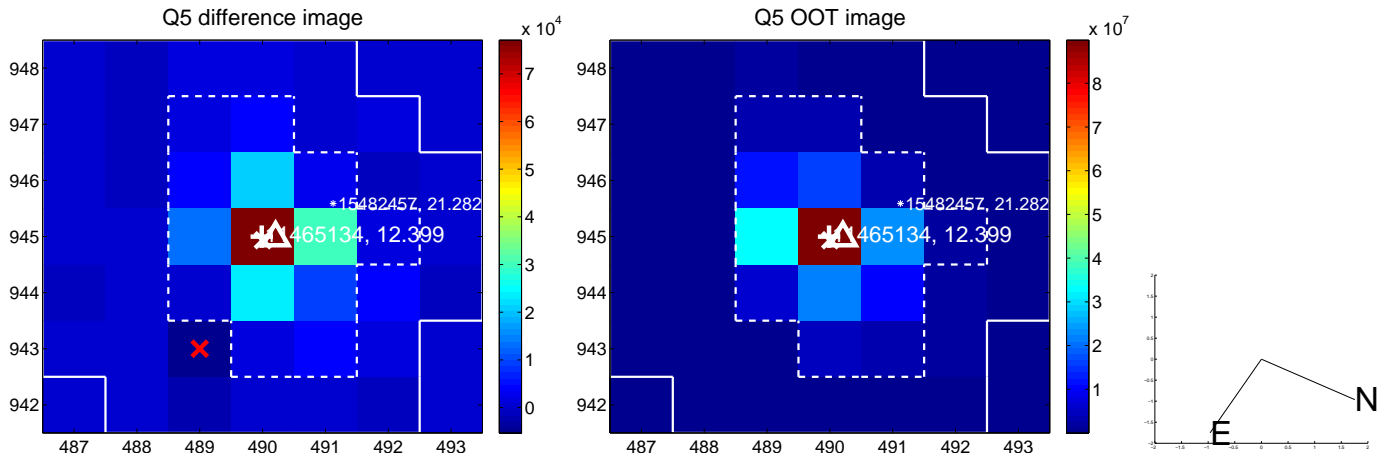


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

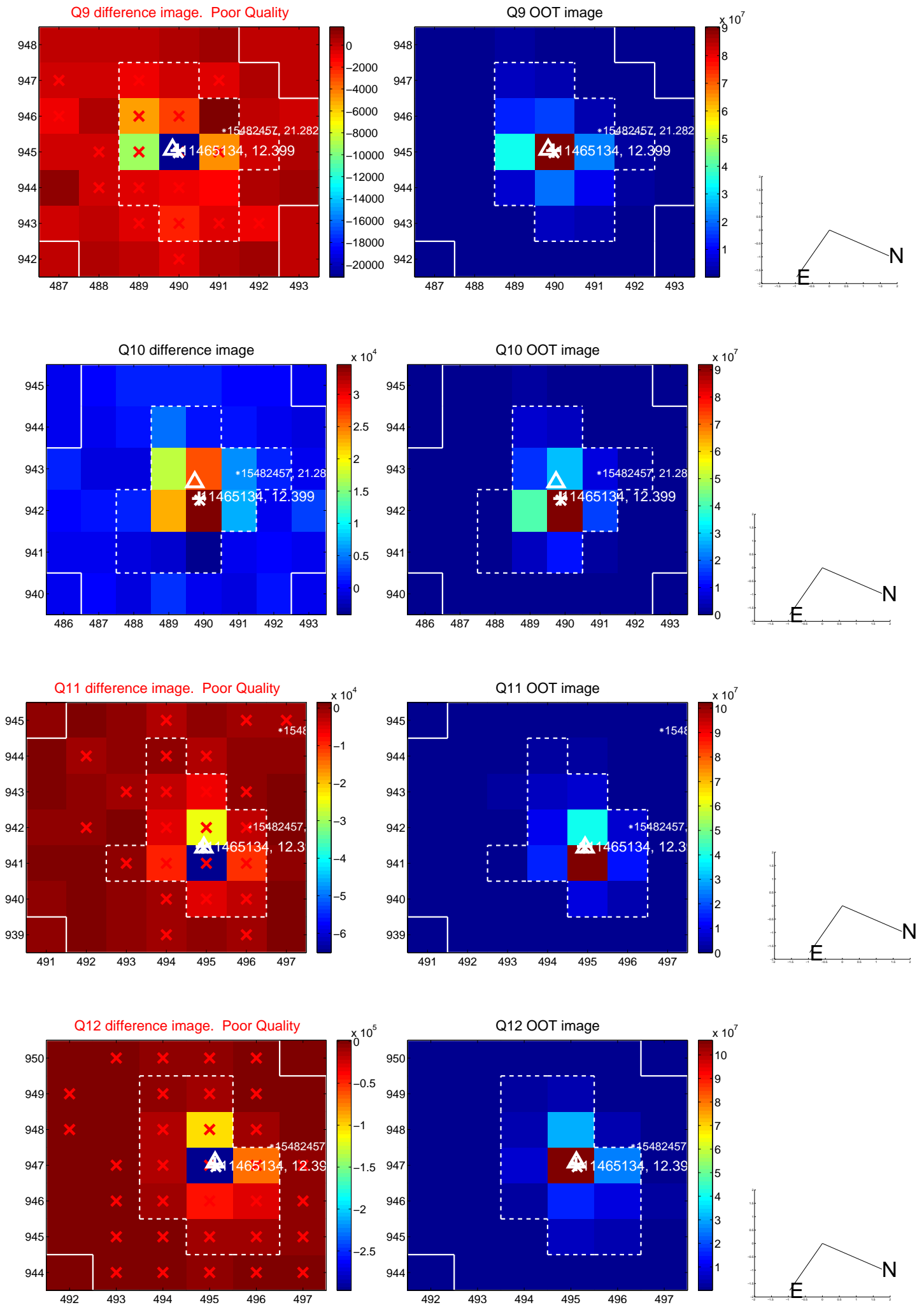
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



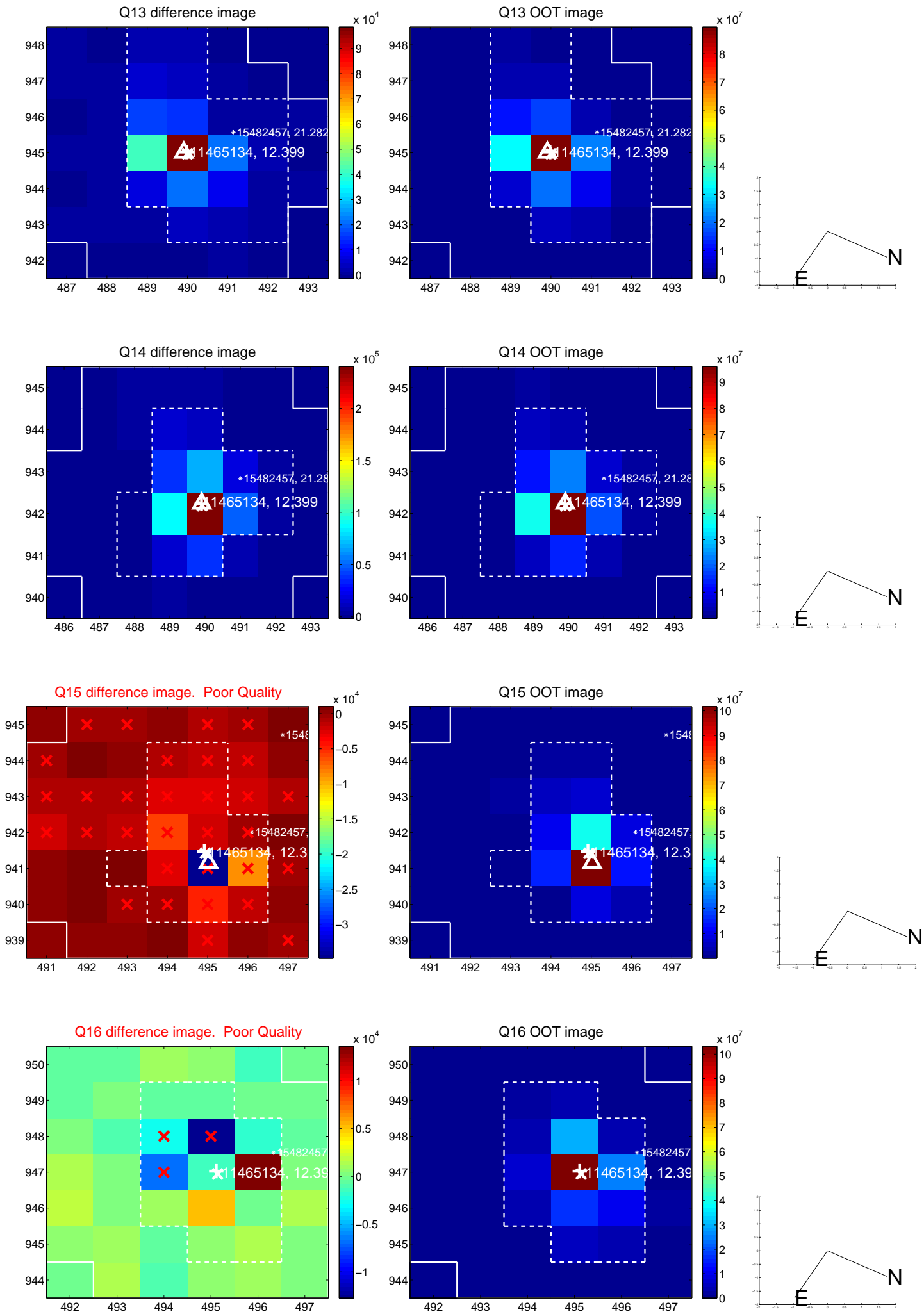
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



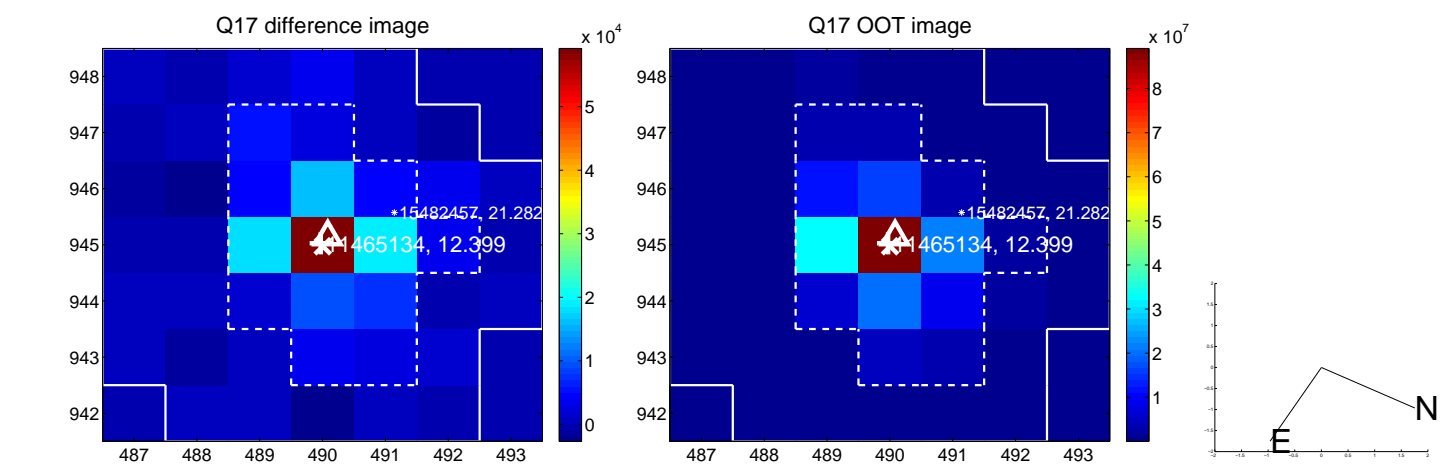
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



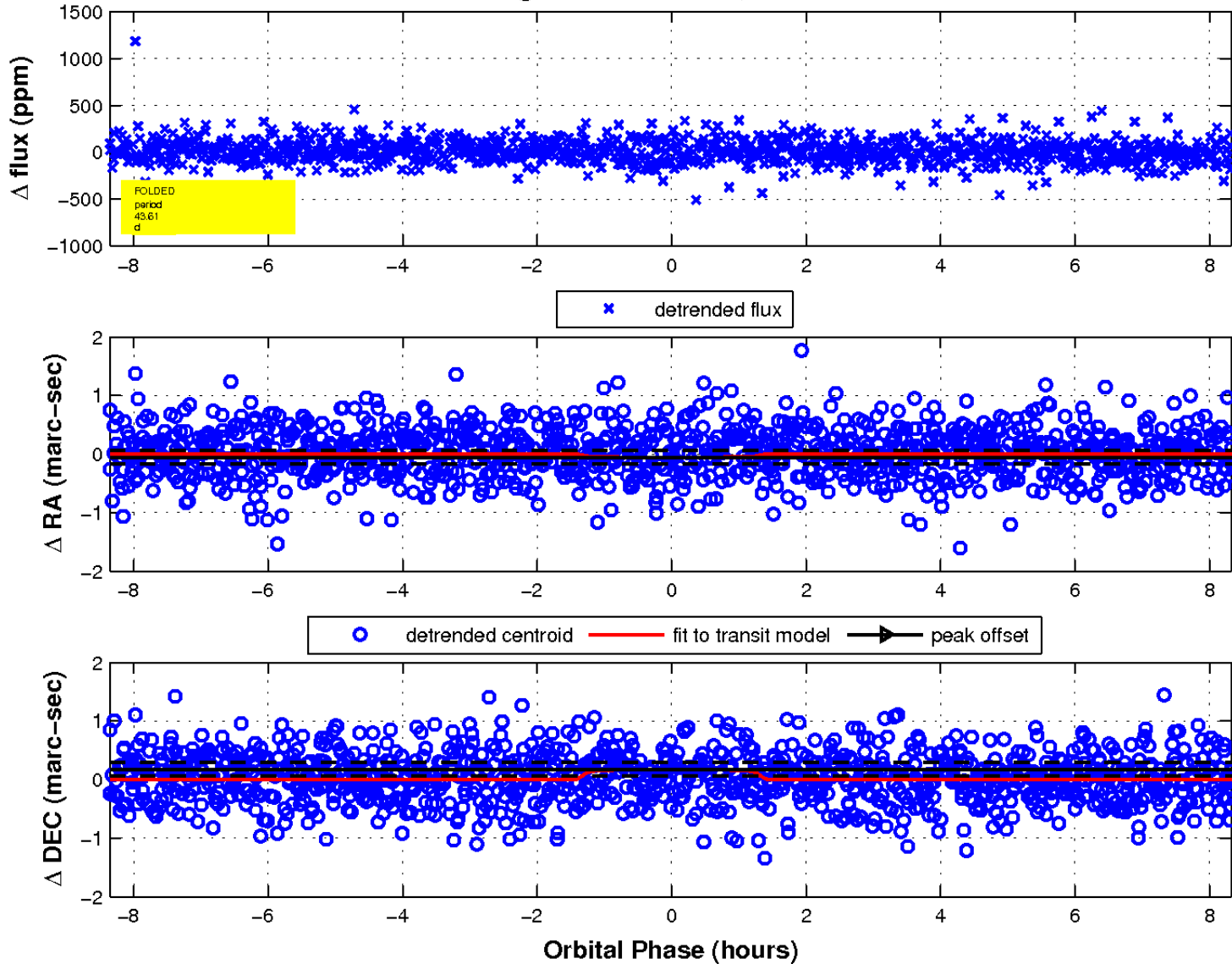
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

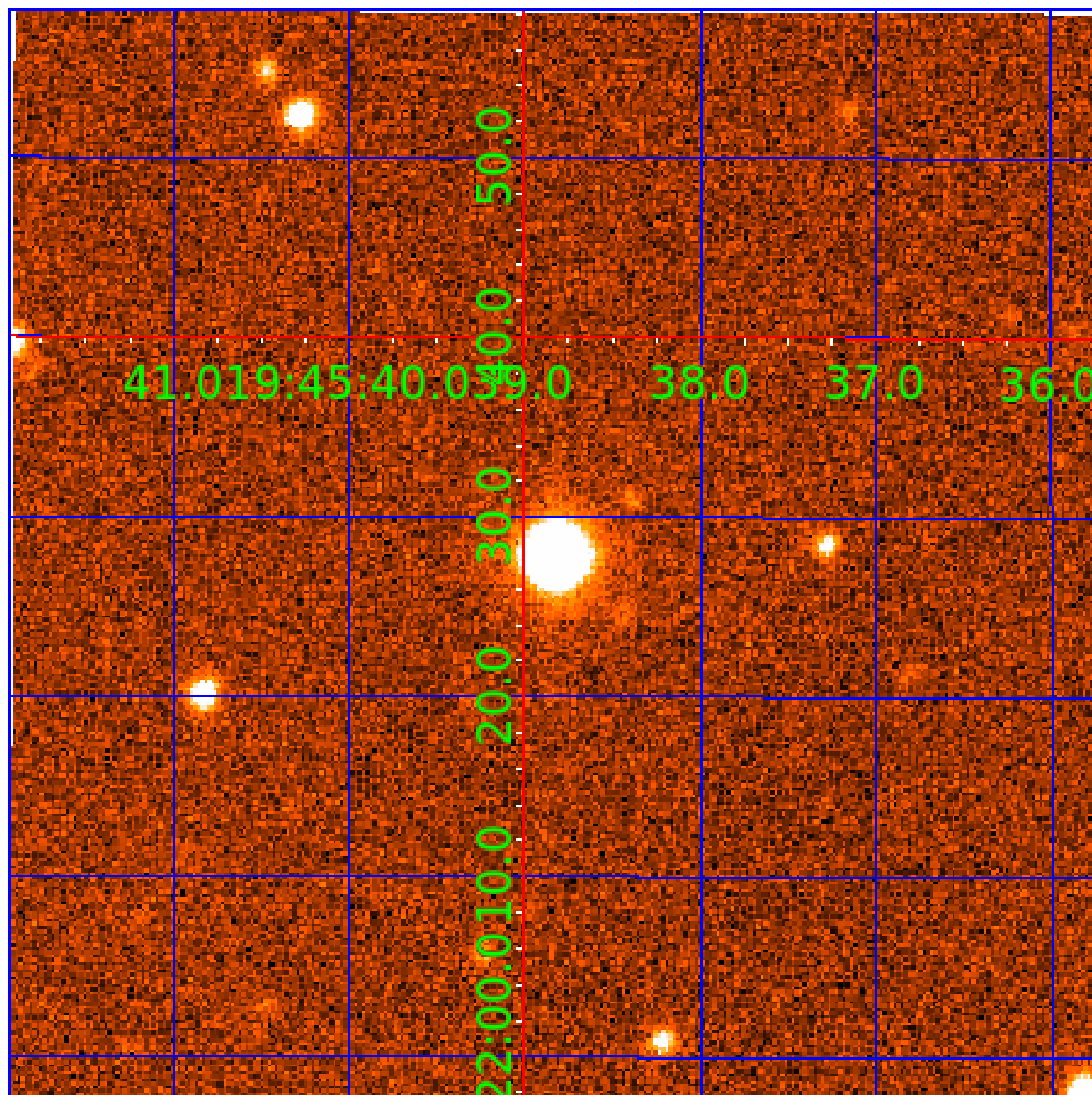


fluxWeightedCentroids, Planet 4 of 6



UKIRT Image

Declination



KIC 011465134

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011465134-01 | OBS | No | 1.487784 | 132.663804 | 42.1 | 2.545 | 19.0 | 18.4 | 2.10 | 9859 | 1.56 | 32341.99 |
| 011465134-02 | OBS | No | 0.743908 | 132.164119 | 238.4 | 1.500 | 9.7 | -1.0 | 2.10 | 9859 | 3.33 | 81494.41 |
| 011465134-03 | OBS | No | 1.486519 | 131.860466 | 22.4 | 9.532 | 8.3 | 9.5 | 2.10 | 9859 | 1.02 | 32378.69 |
| 011465134-04 | OBS | No | 43.612362 | 138.983570 | 121.7 | 2.786 | 8.6 | 7.2 | 2.10 | 9859 | 2.63 | 357.83 |
| 011465134-05 | OBS | No | 37.524630 | 155.256995 | 152.1 | 2.356 | 8.1 | 7.1 | 2.10 | 9859 | 2.79 | 437.25 |
| 011465134-06 | OBS | No | 38.532995 | 158.400057 | 155.3 | 2.189 | 7.9 | 7.1 | 2.10 | 9859 | 2.98 | 422.06 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 011465134-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 011465134-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS |
| 011465134-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT |
| 011465134-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-06 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |

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

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

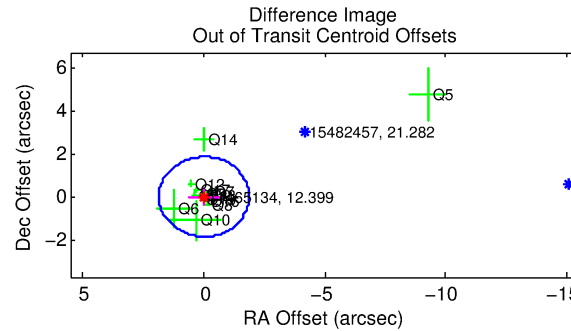
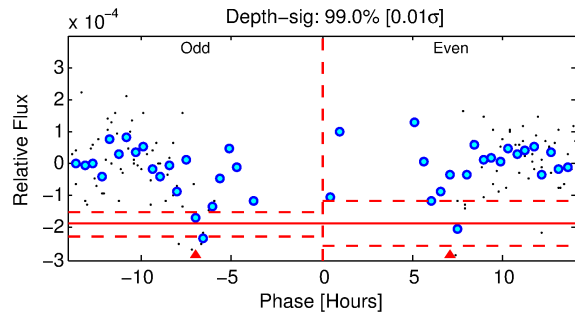
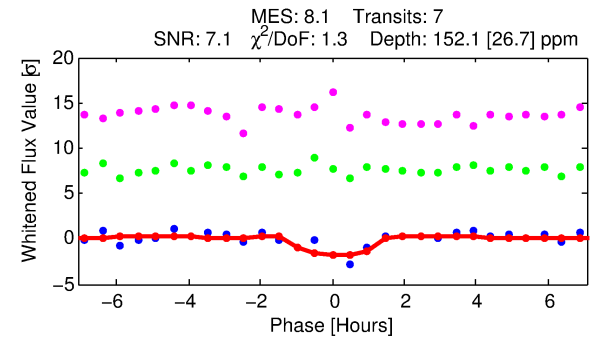
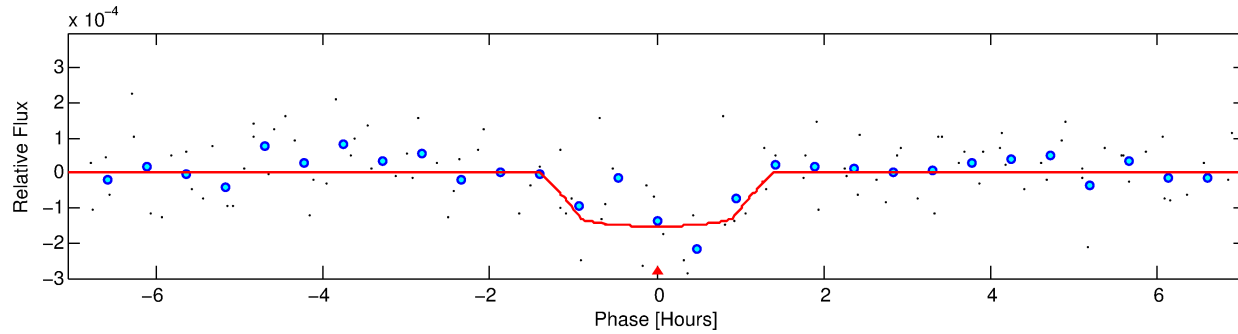
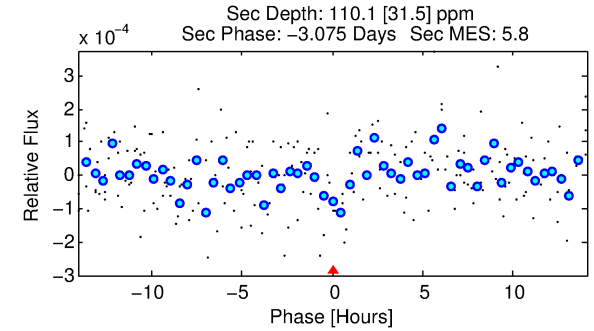
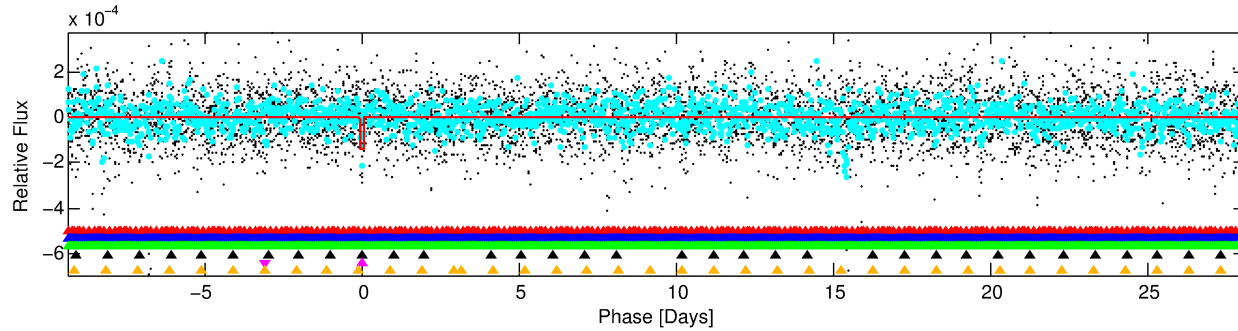
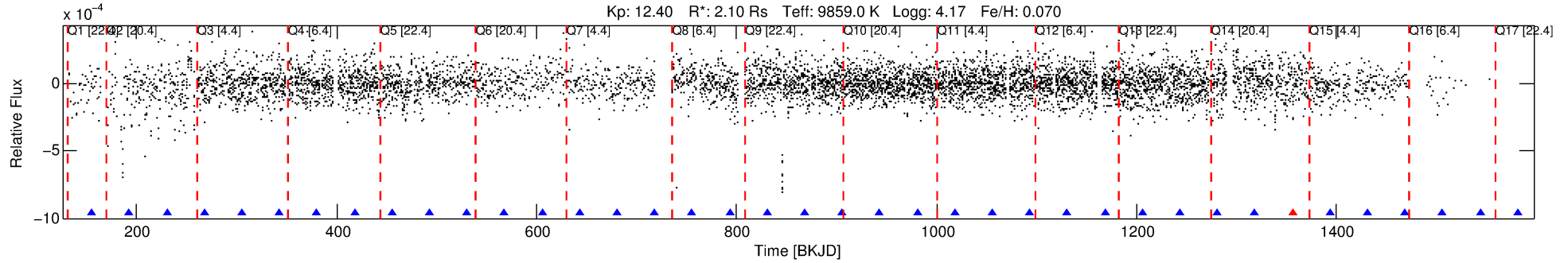
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465134-05

No Significant Match Found

DV One-Page Summary

KIC: 11465134 Candidate: 5 of 6 Period: 37.525 d



DV Fit Results:

Period = 37.52463 [0.00050] d
Epoch = 155.2570 [0.0121] BKJD
Rp/R* = 0.0122 [0.0099]
a/R* = 86.42 [508.33]
b = 0.72 [3.96]
Self = 437.25 [215.84]
Teff = 1166 [144] K
Rp = 2.79 [2.54] Re
a = 0.2916 [0.0964] AU
Ag = 661.18 [1130.05] [0.58σ]
Teffp = 9142 [3785] K [2.11σ]

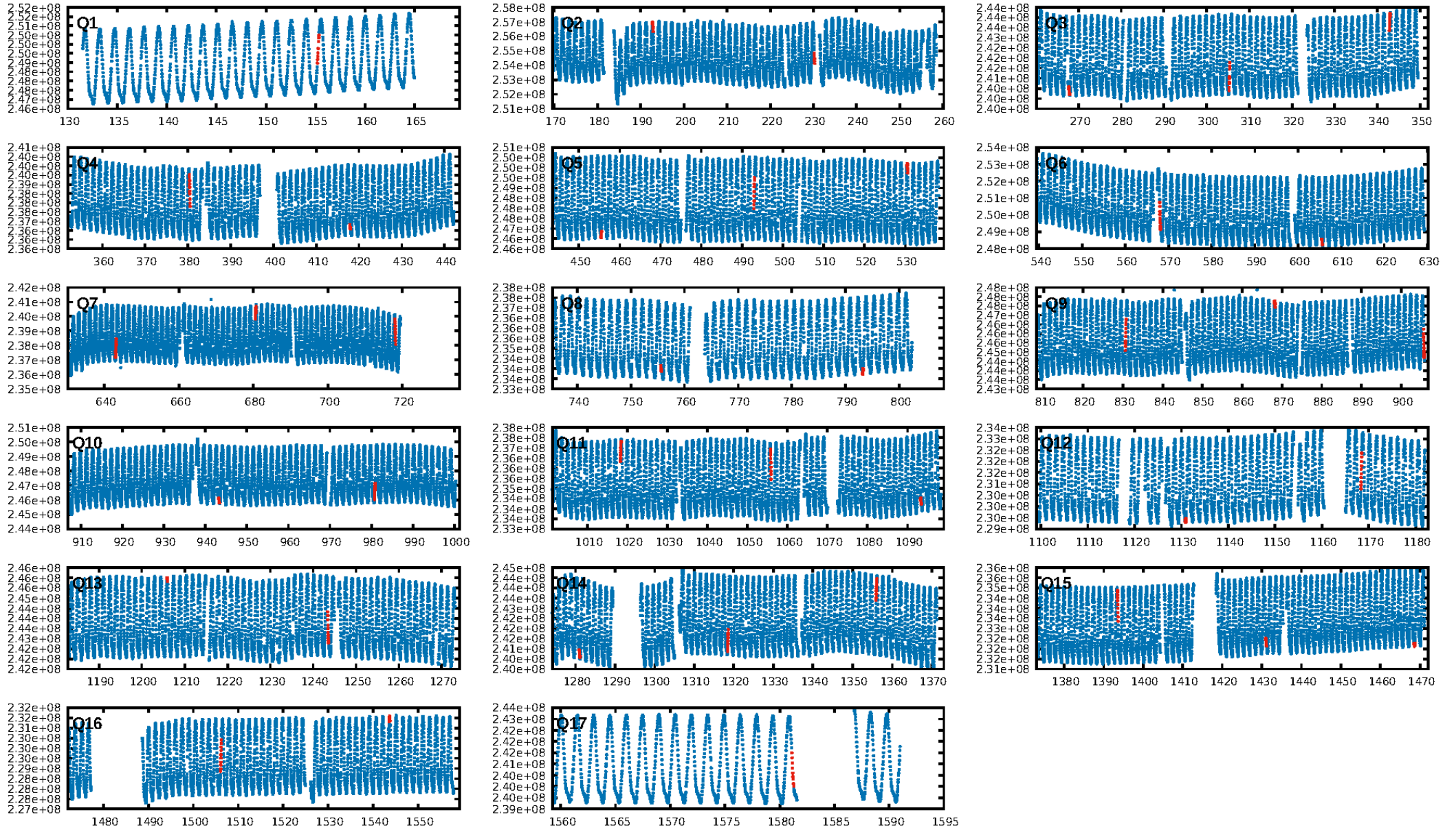
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [249.36σ]
LongPeriod-sig: 100.0% [7.52σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: 5.76e-08
RollingBand-fgt: 0.86 [6/7]
GhostDiagnostic-chr: 1.837
Centroid-sig: 5.4%
Centroid-so: 1.080 arcsec [1.43σ]
OotOffset-rm: 0.015 arcsec [0.02σ]
KicOffset-rm: 0.226 arcsec [0.82σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
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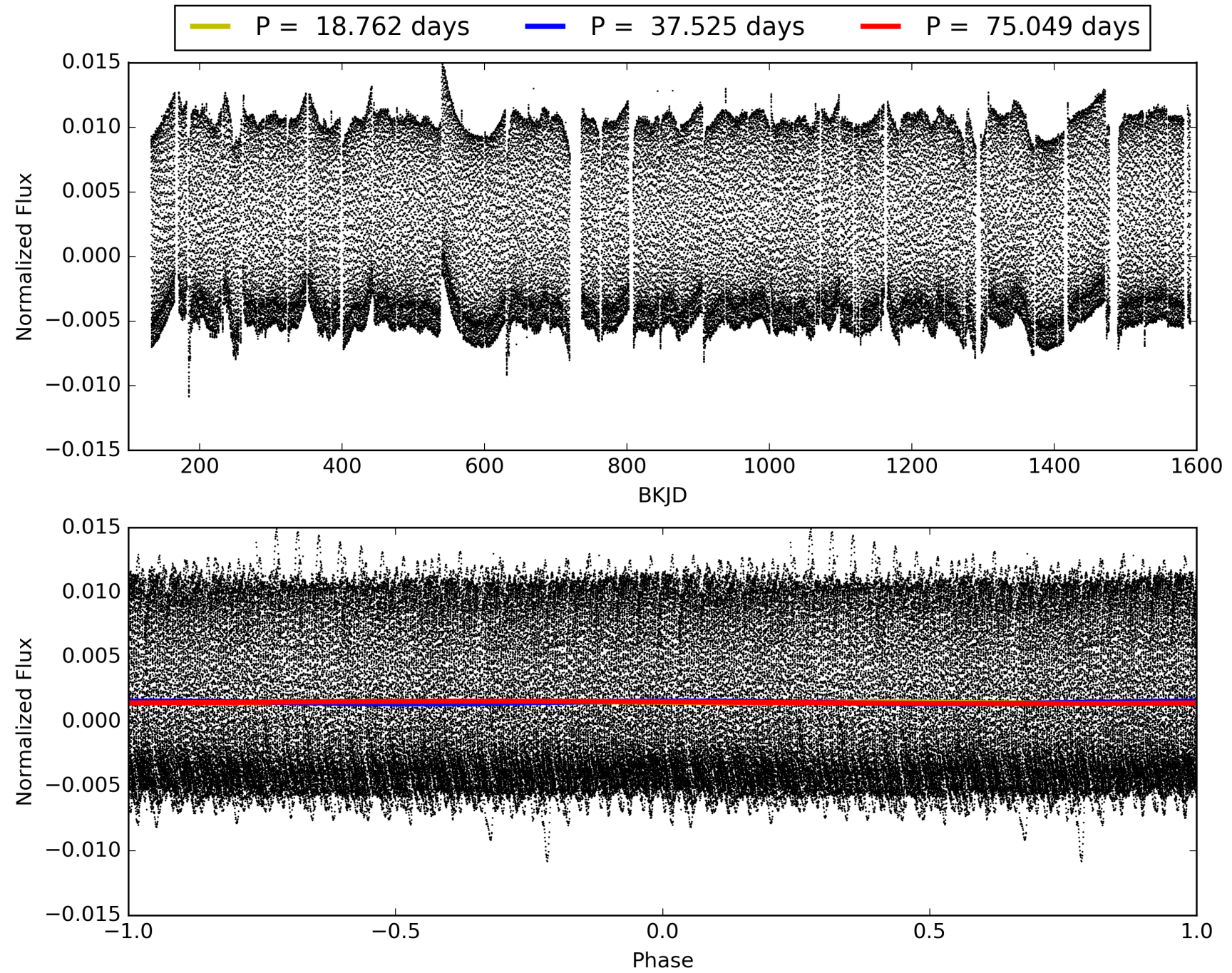
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:19:20 Z

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

TCE 011465134-05, PDC Light Curves

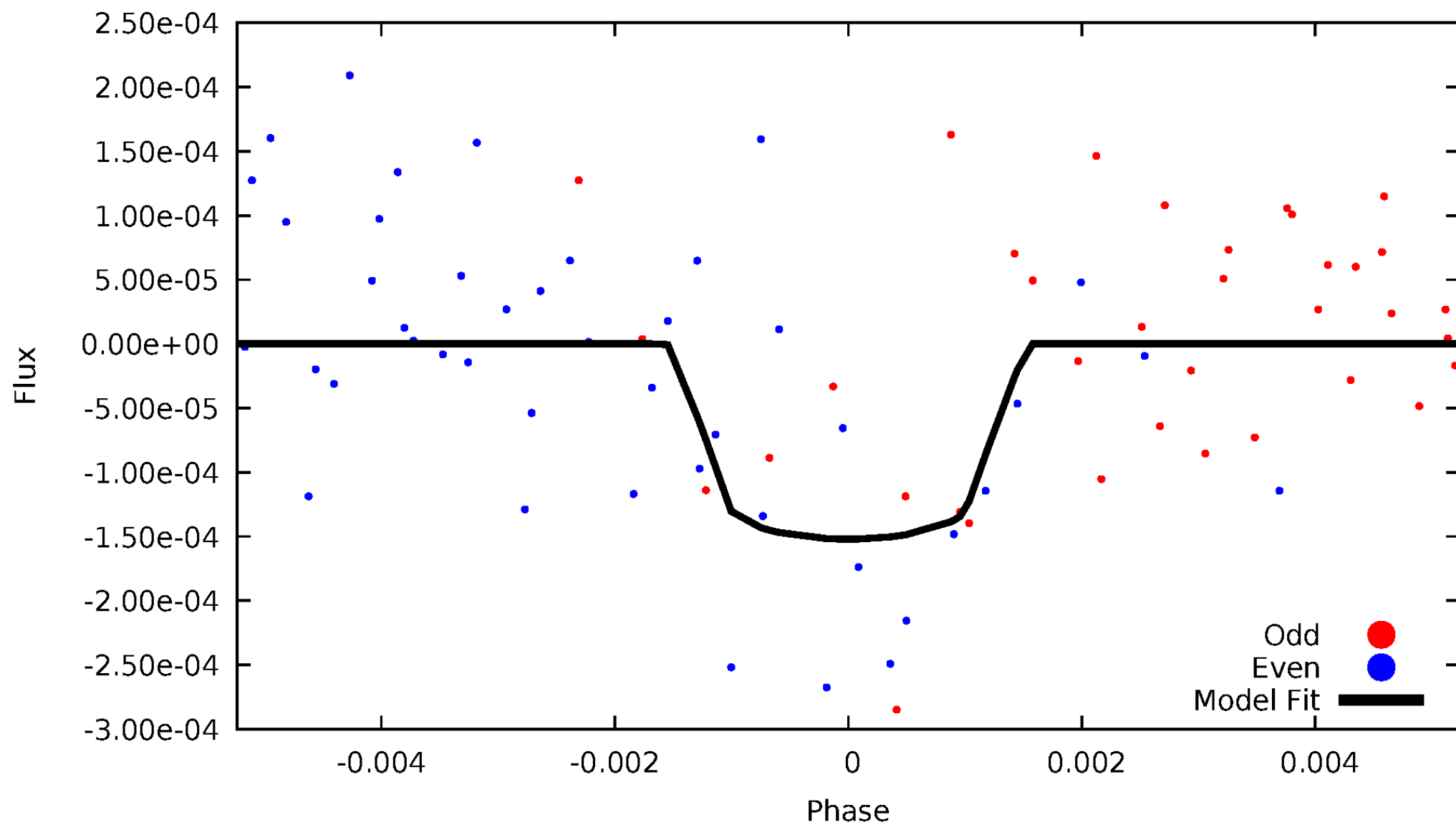


TCE 011465134-05



DV Odd/Even

TCE 011465134-05

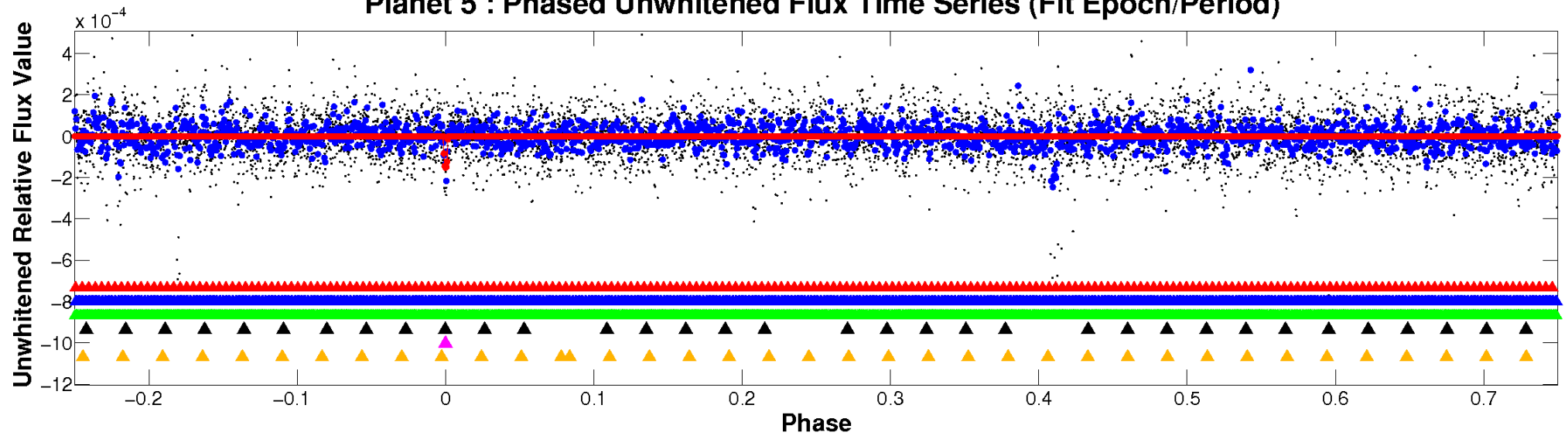


ALT Odd/Even

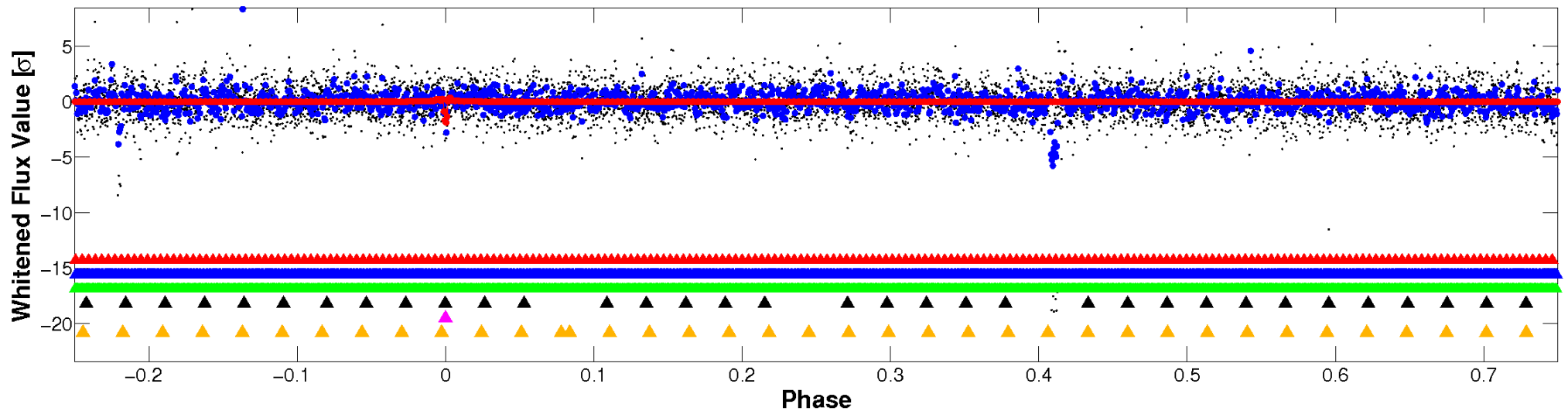
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

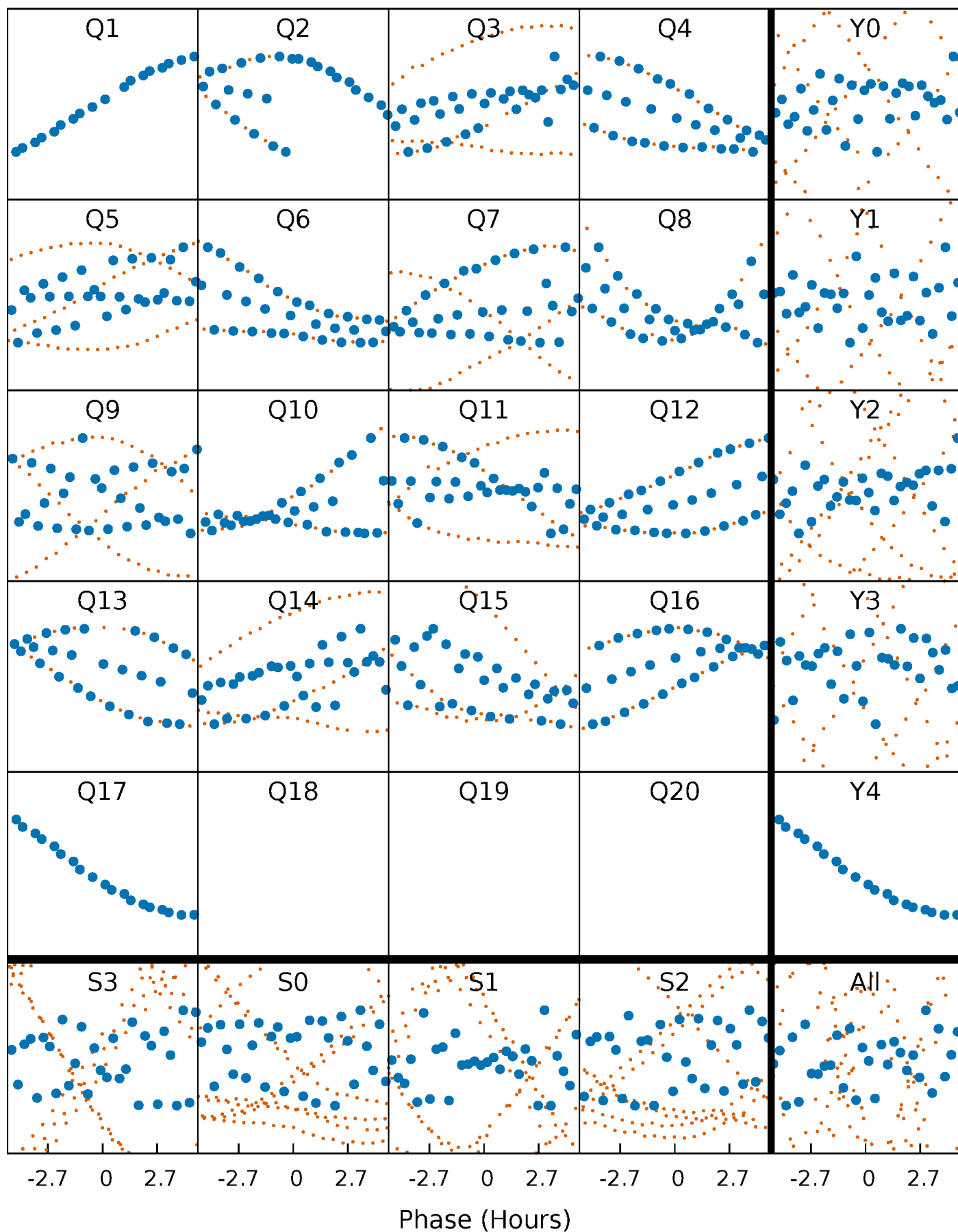


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



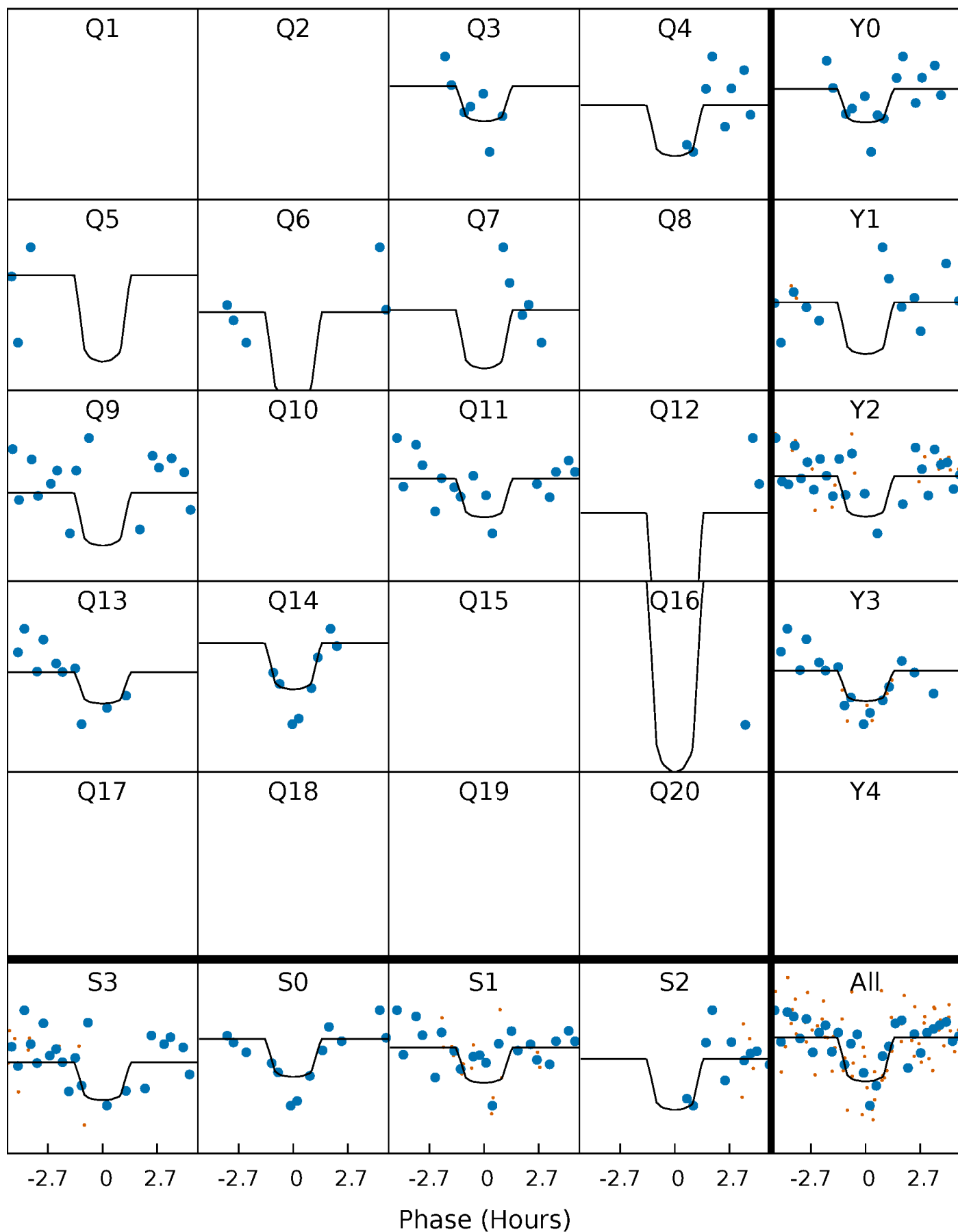
PDC Quarter-Phased Transit Curves

TCE 011465134-05 P= 37.524630 Days $T_0=155.256994$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011465134-05 P= 37.524630 Days $T_0=155.256994$ (BKJD)

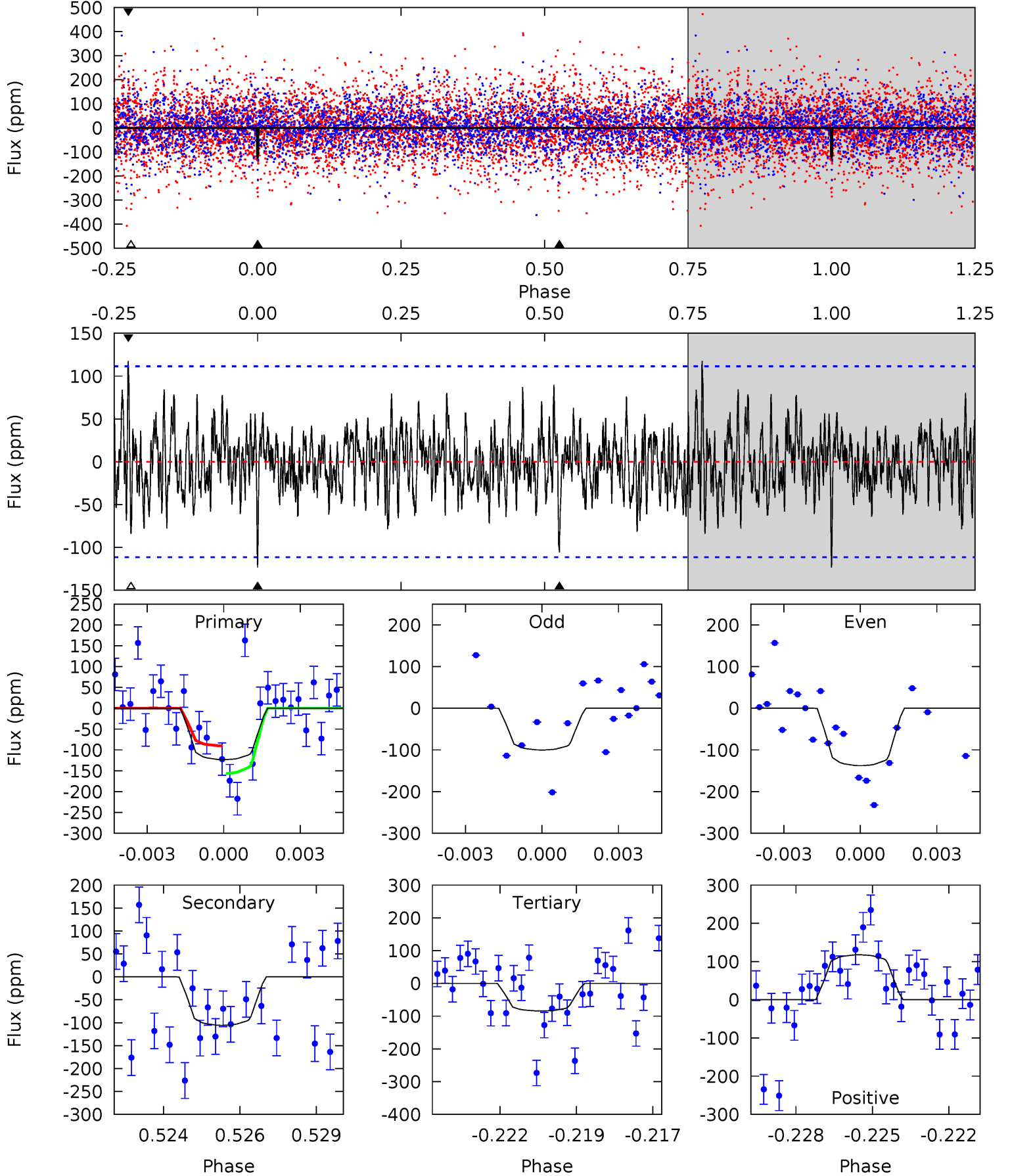


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011465134-05, $P = 37.524630$ Days, $E = 117.732364$ Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 5.84 | 5.00 | 3.98 | 5.56 | 5.27 | 3.00 | 1.42 | 1.85 | 0.28 | 1.02 | -0.56 | 0.87 | 0.46 | 0.49 | 1.58 |



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011465134

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| | 9859^{+274}_{-445} | $4.166^{+0.160}_{-0.240}$ | $0.070^{+0.150}_{-0.600}$ | $2.096^{+0.863}_{-0.575}$ | $2.348^{+0.451}_{-0.601}$ | $0.359^{+0.373}_{-0.208}$ |
| | +3%/-5% | +4%/-6% | +214%/-857% | +41%/-27% | +19%/-26% | +104%/-58% |
| Source | KIC0 | 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 011465134-05 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|---------------|------------------------|----------------------|------------------------|----------------------|
| DV | -106 ± 21 | $3.04^{+2.31}_{-1.86}$ | 1637^{+170}_{-135} | 8122^{+8898}_{-2041} | 492^{+2605}_{-332} |
| 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 $A_{\text{obs}} \gg 1.0$

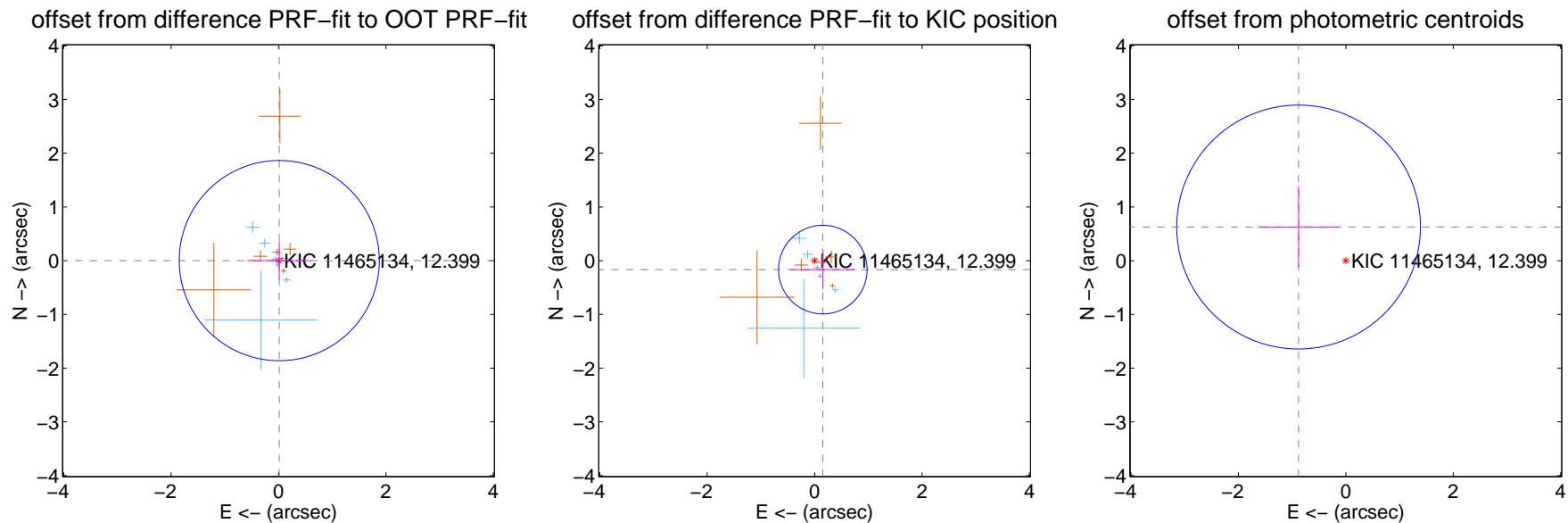
DV Centroid Data

Supplemental centroid analysis for 011465134-05. Kepler magnitude: 12.40. Transit SNR 7.12

There are 6 quarters with good PRF difference image offsets

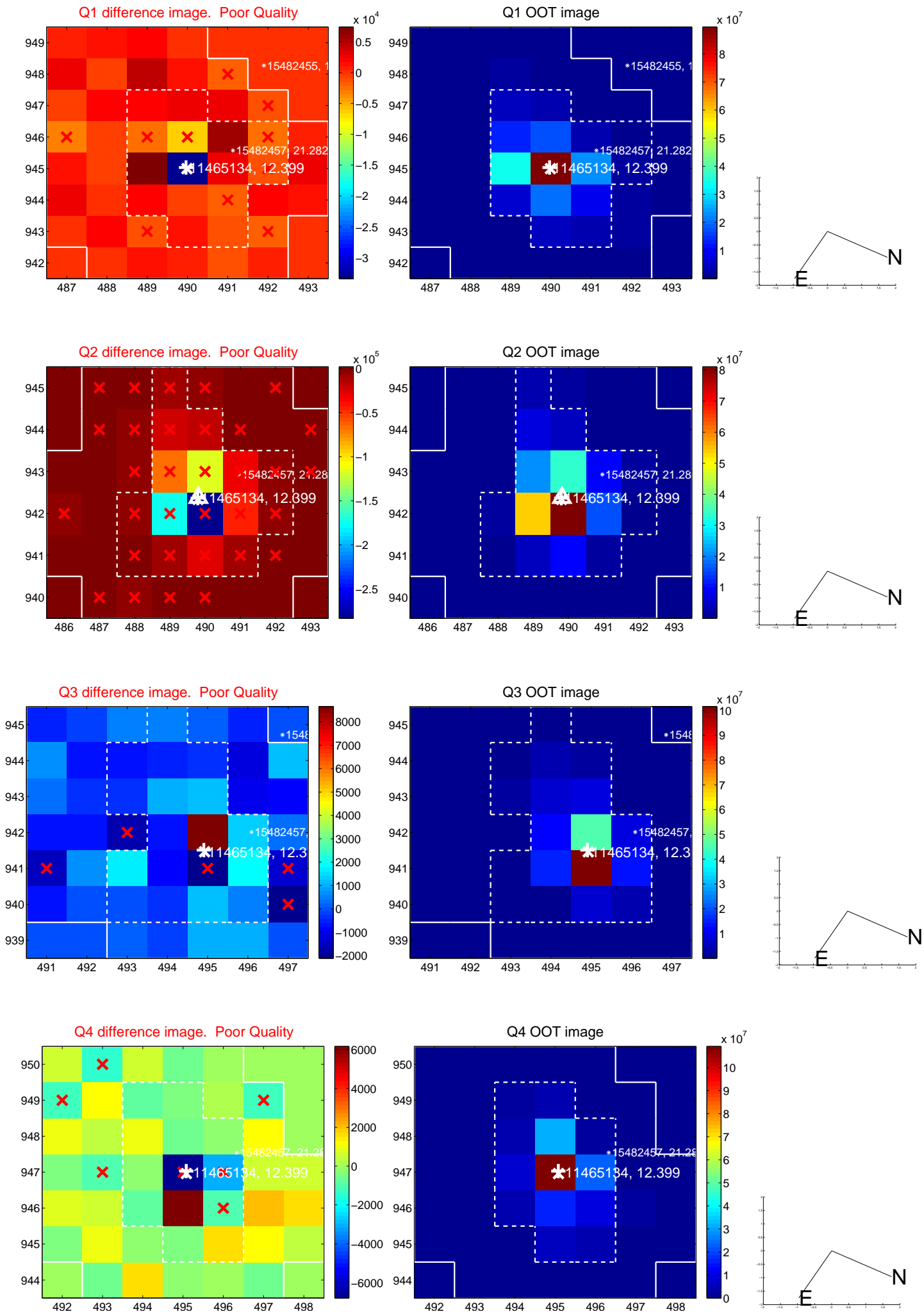
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.015 ± 0.621 | 0.02 | -0.014 ± 0.595 | 0.002 ± 0.352 |
| PRF-fit source offset from KIC position | 0.226 ± 0.275 | 0.82 | -0.153 ± 0.608 | -0.166 ± 0.365 |
| photometric centroid source offset | 1.08 ± 0.76 | 1.43 | 0.88 ± 0.76 | 0.63 ± 0.76 |

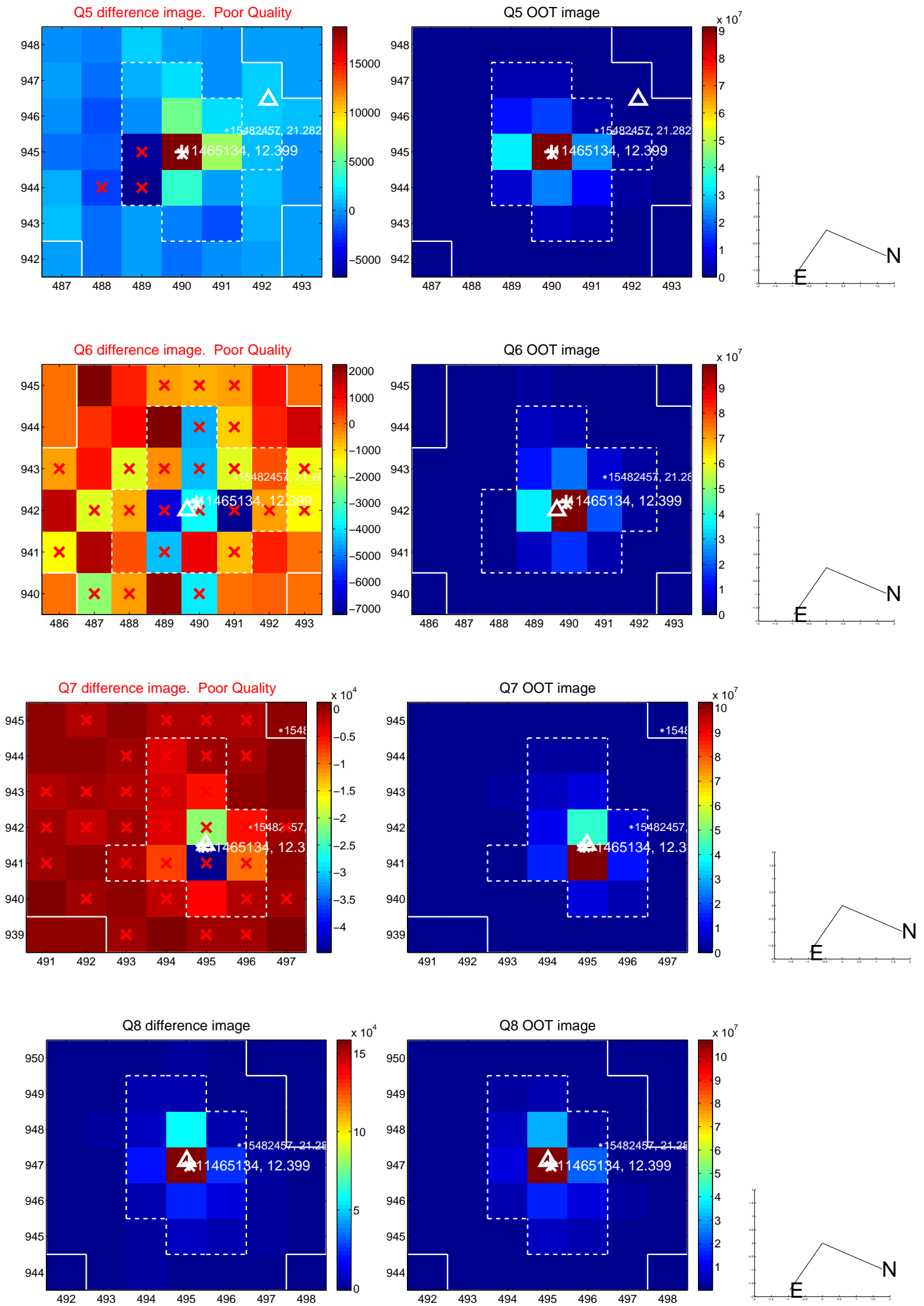


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

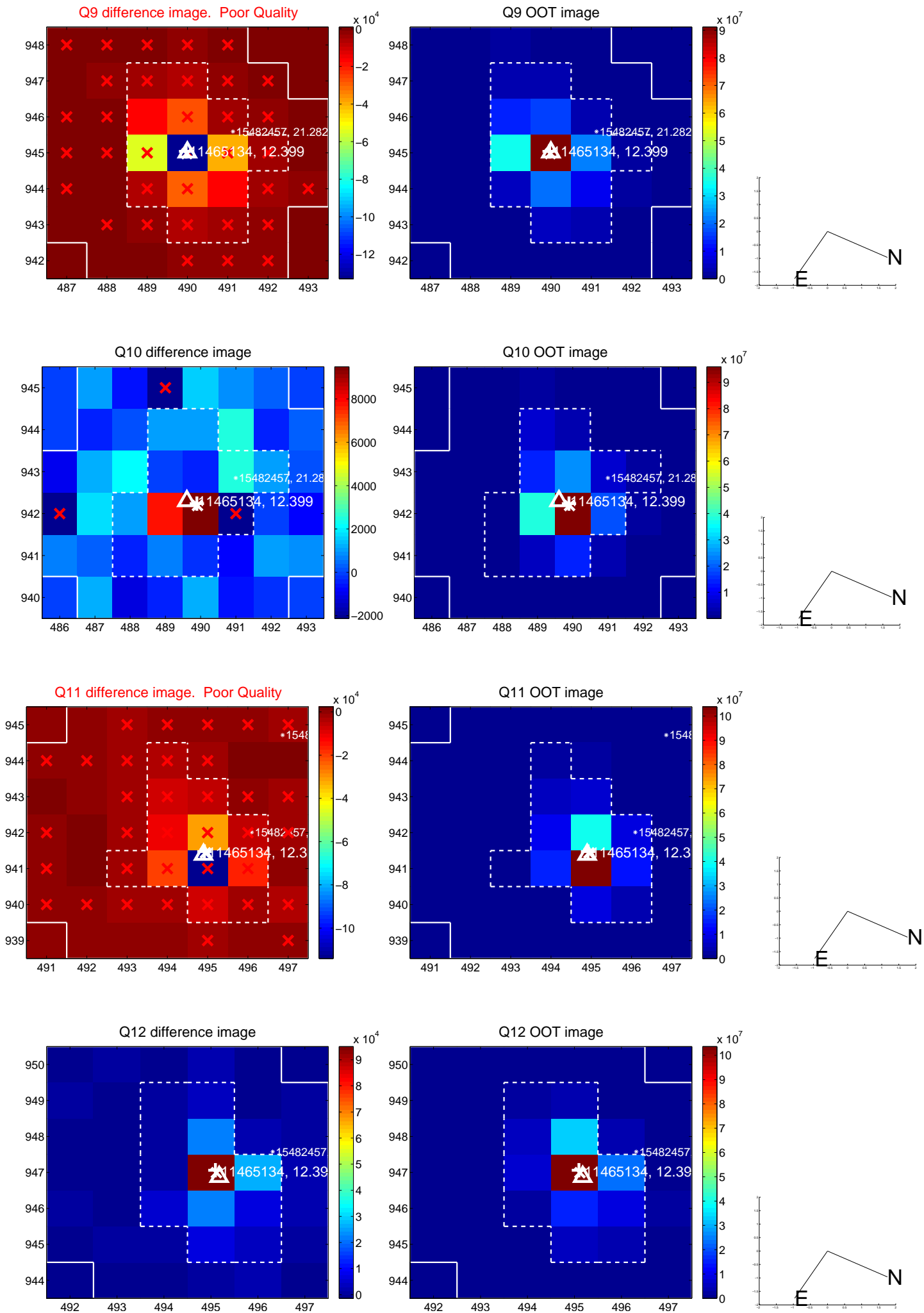
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



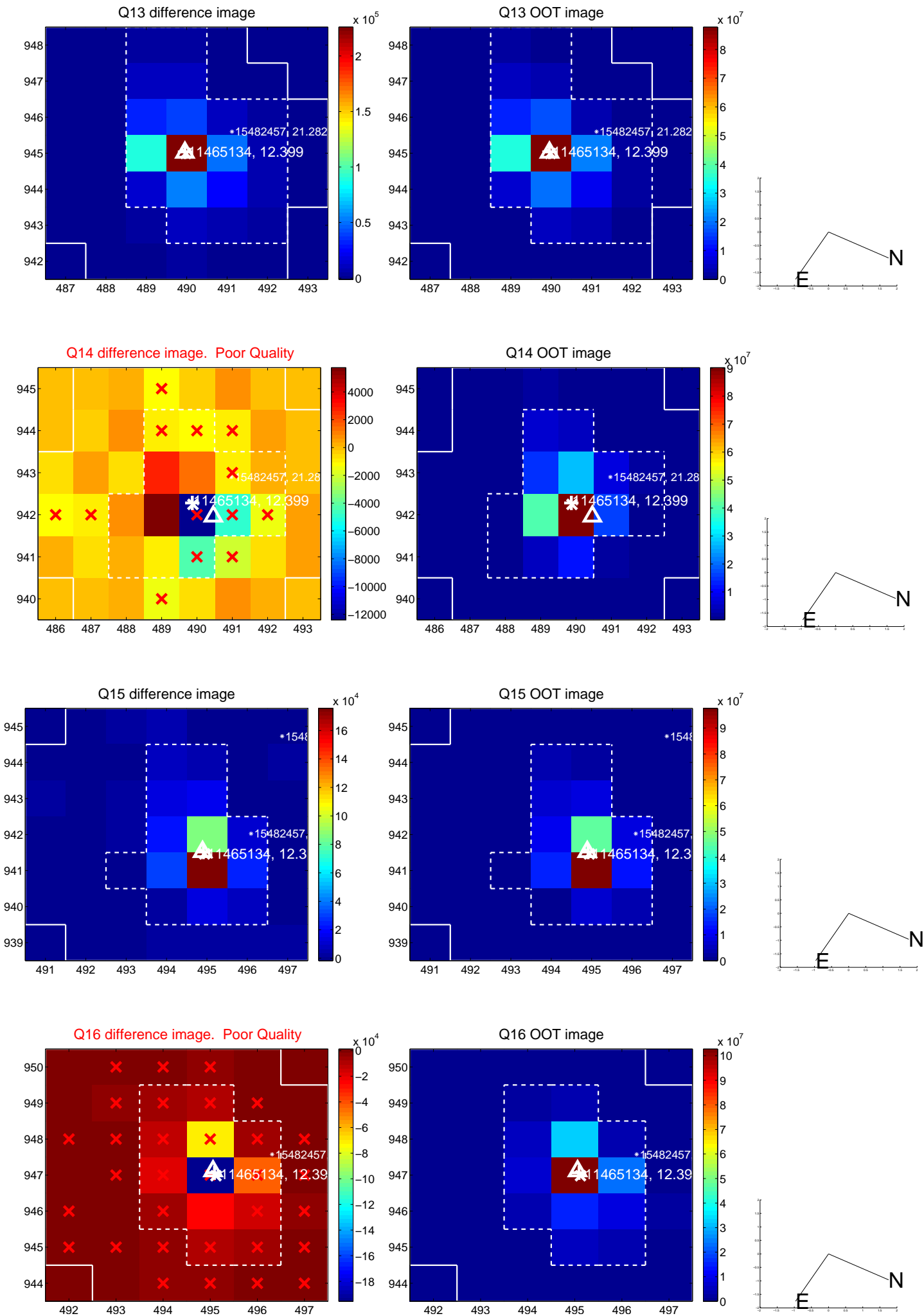
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



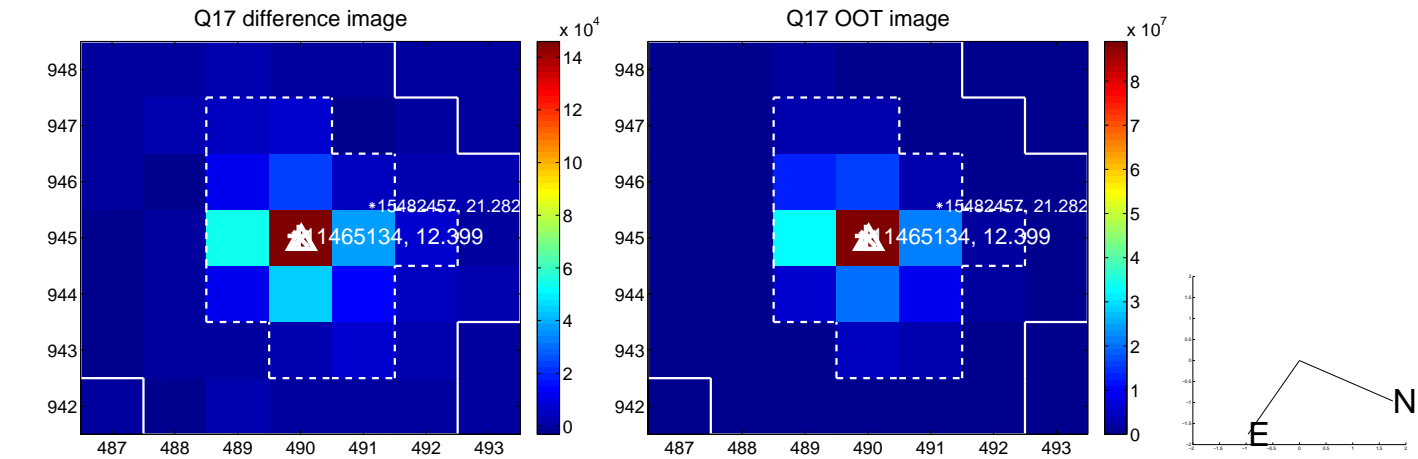
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



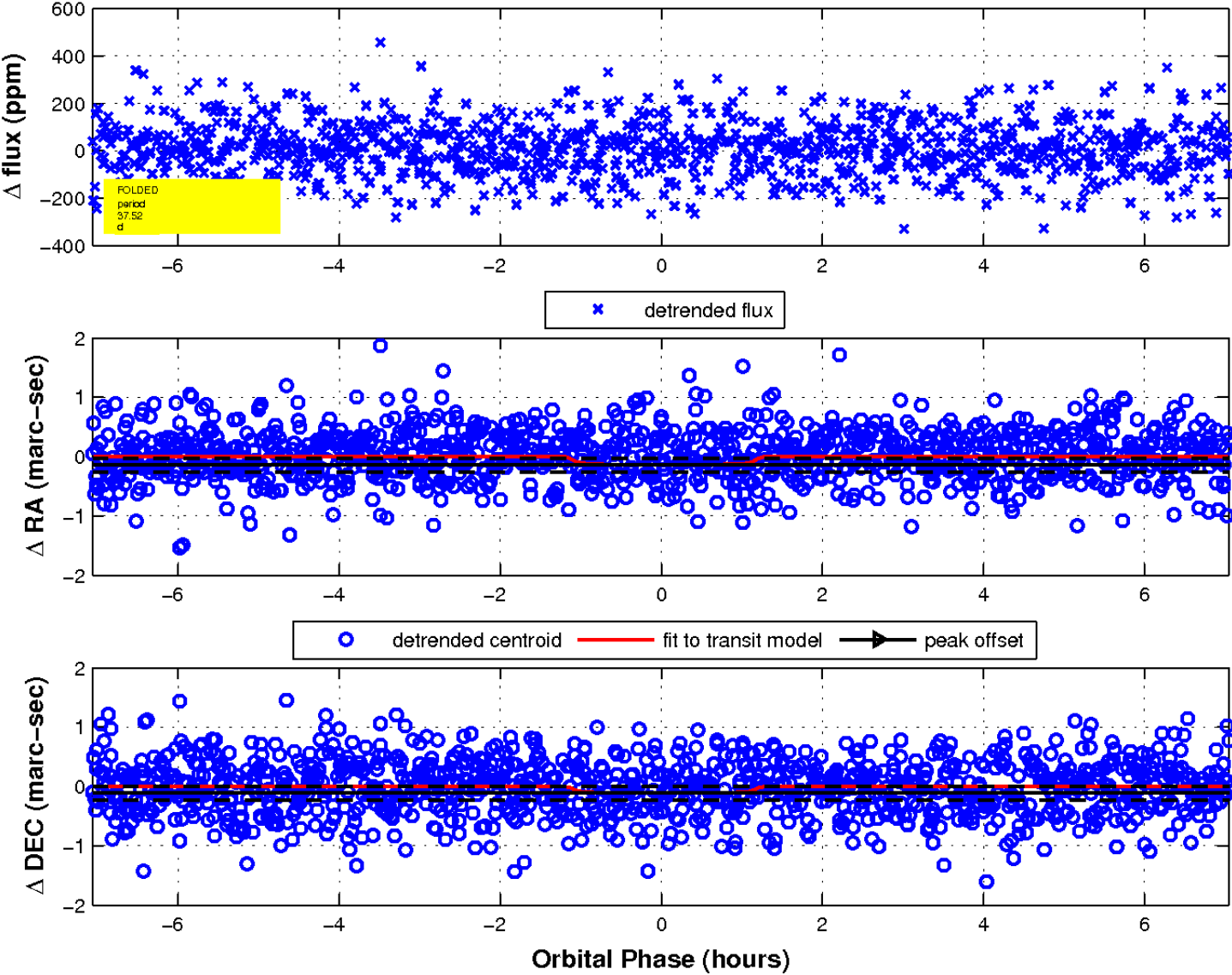
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

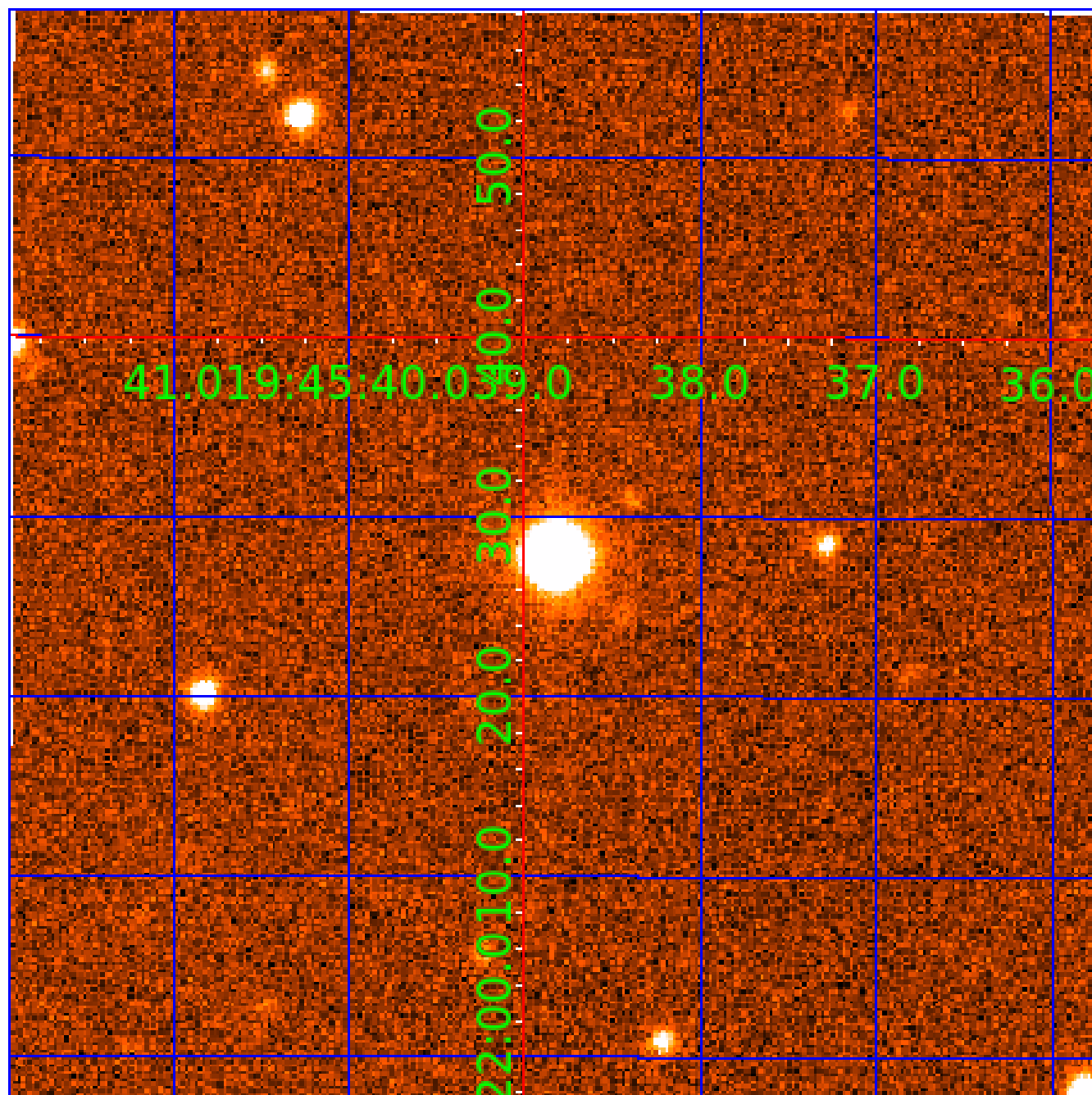


fluxWeightedCentroids, Planet 5 of 6



UKIRT Image

Declination



KIC 011465134

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 011465134-01 | OBS | No | 1.487784 | 132.663804 | 42.1 | 2.545 | 19.0 | 18.4 | 2.10 | 9859 | 1.56 | 32341.99 |
| 011465134-02 | OBS | No | 0.743908 | 132.164119 | 238.4 | 1.500 | 9.7 | -1.0 | 2.10 | 9859 | 3.33 | 81494.41 |
| 011465134-03 | OBS | No | 1.486519 | 131.860466 | 22.4 | 9.532 | 8.3 | 9.5 | 2.10 | 9859 | 1.02 | 32378.69 |
| 011465134-04 | OBS | No | 43.612362 | 138.983570 | 121.7 | 2.786 | 8.6 | 7.2 | 2.10 | 9859 | 2.63 | 357.83 |
| 011465134-05 | OBS | No | 37.524630 | 155.256995 | 152.1 | 2.356 | 8.1 | 7.1 | 2.10 | 9859 | 2.79 | 437.25 |
| 011465134-06 | OBS | No | 38.532995 | 158.400057 | 155.3 | 2.189 | 7.9 | 7.1 | 2.10 | 9859 | 2.98 | 422.06 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 011465134-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV |
| 011465134-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS |
| 011465134-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT |
| 011465134-04 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-05 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV |
| 011465134-06 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT |

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

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

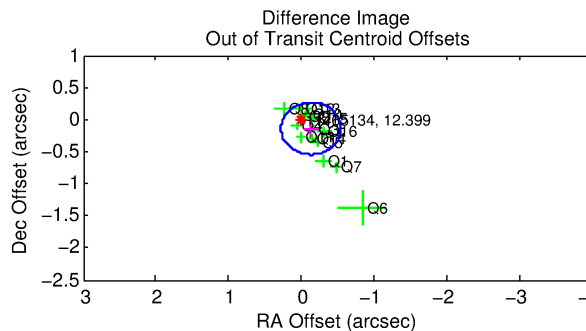
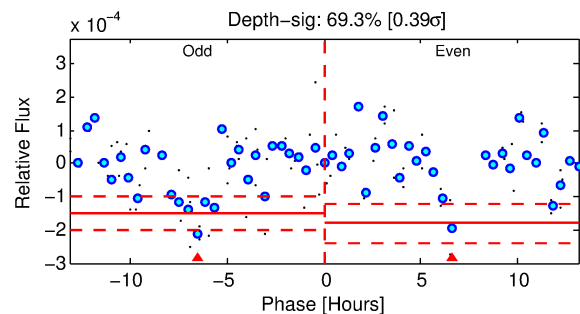
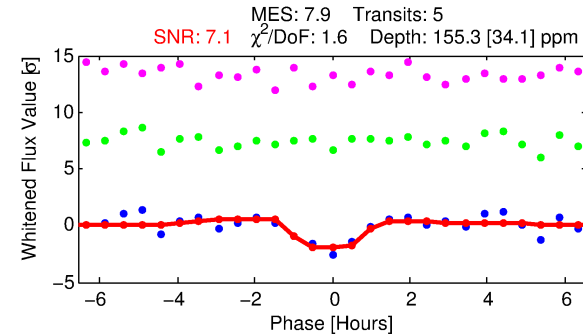
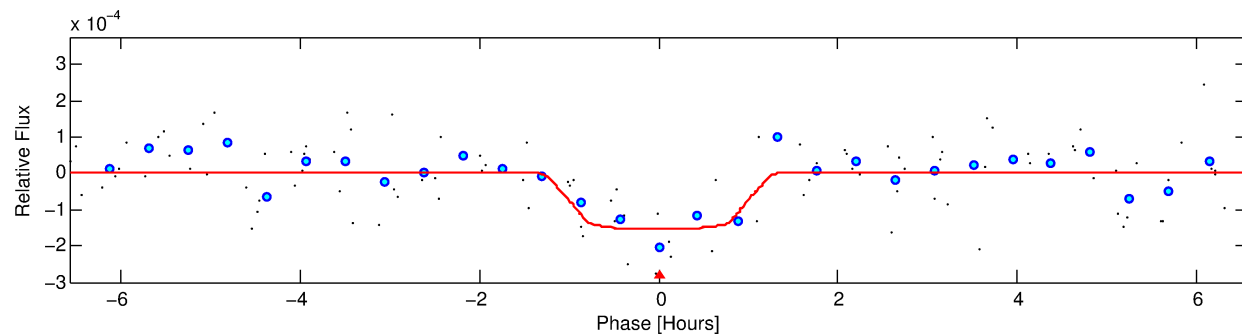
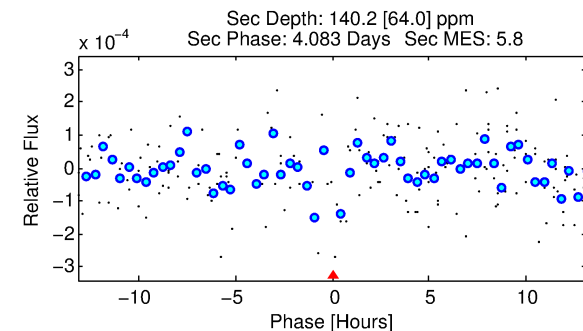
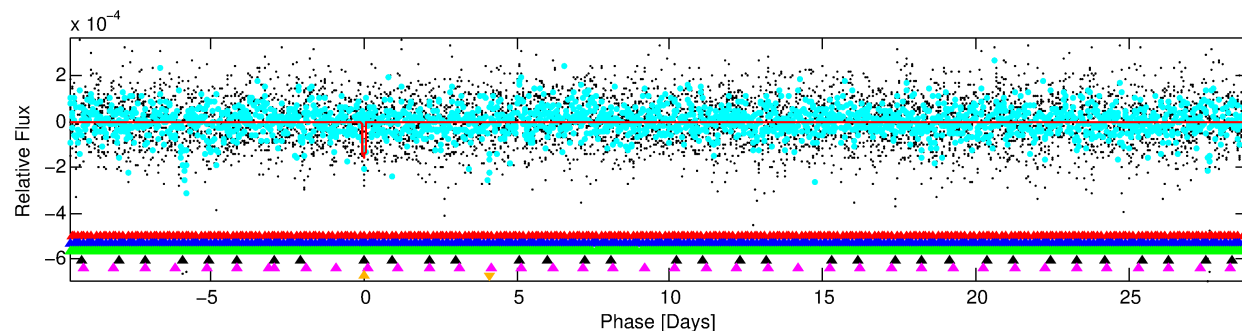
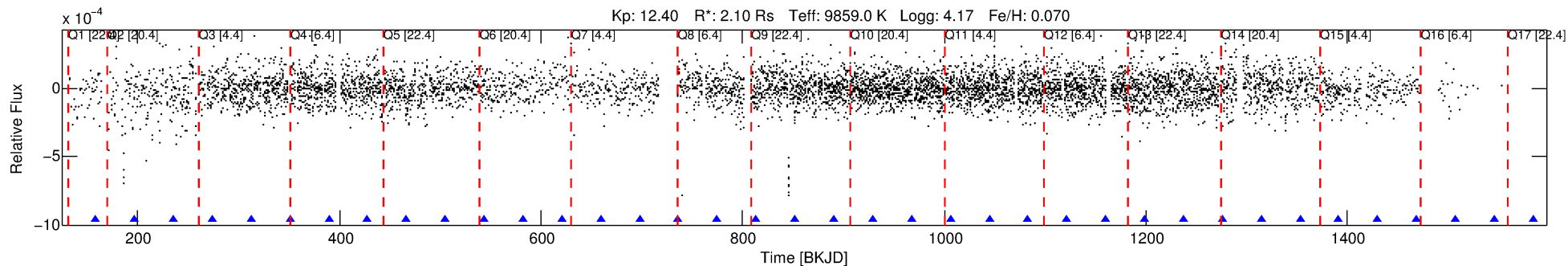
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011465134-06

No Significant Match Found

DV One-Page Summary

KIC: 11465134 Candidate: 6 of 6 Period: 38.533 d



DV Fit Results:

Period = 38.53300 [0.00077] d
Epoch = 158.4001 [0.0167] BKJD
Rp/R* = 0.0130 [0.0360]
a/R* = 66.17 [1443.94]
b = 0.89 [5.38]
Seff = 422.06 [208.34]
Teq = 1156 [143] K
Rp = 2.97 [8.31] Re
a = 0.2968 [0.0981] AU
Ag = 768.07 [4275.76] [0.18σ]
Teffp = 9407 [13054] K [0.63σ]

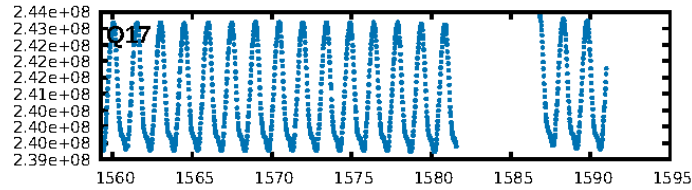
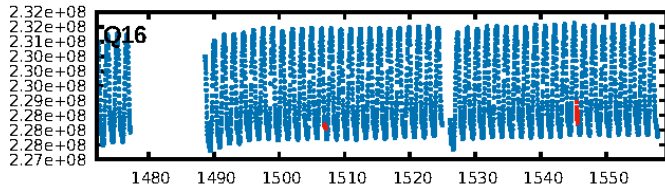
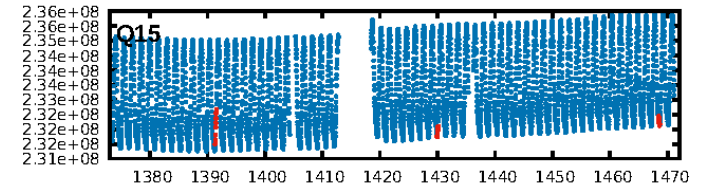
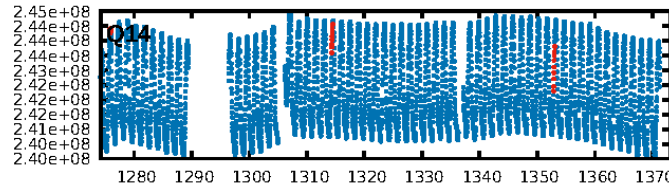
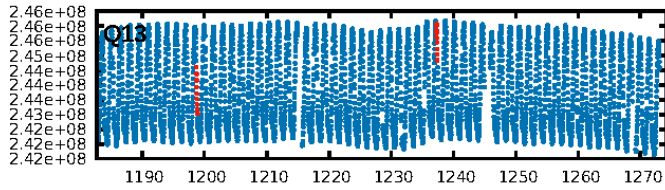
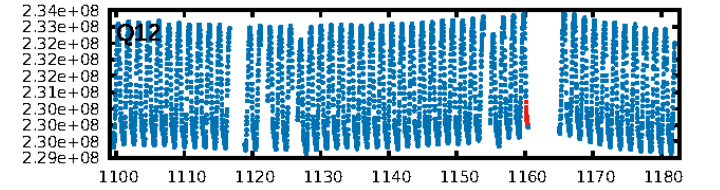
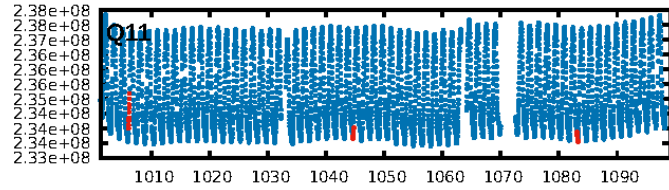
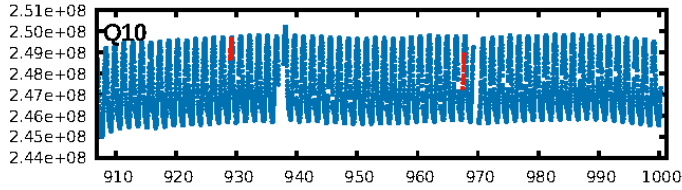
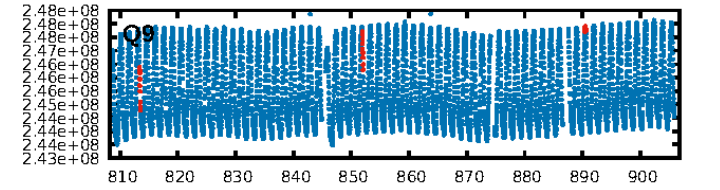
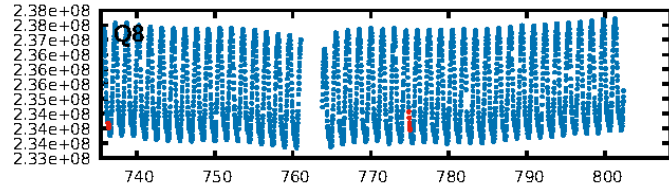
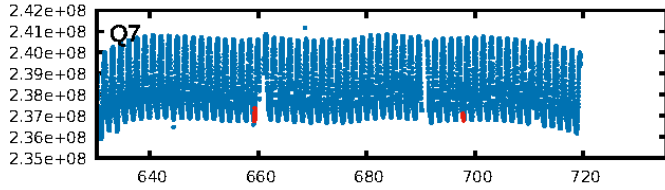
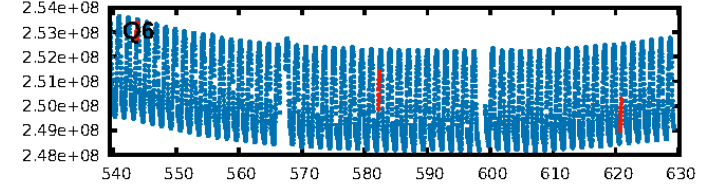
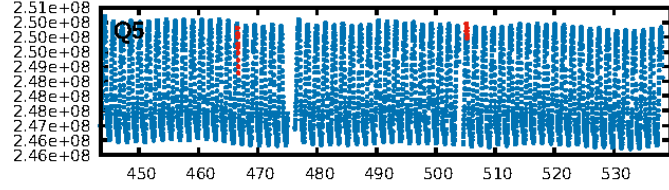
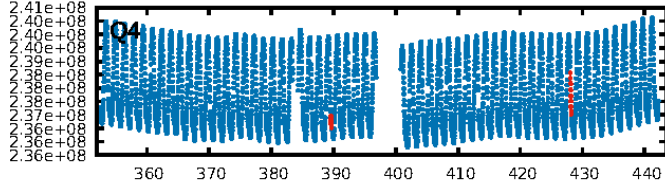
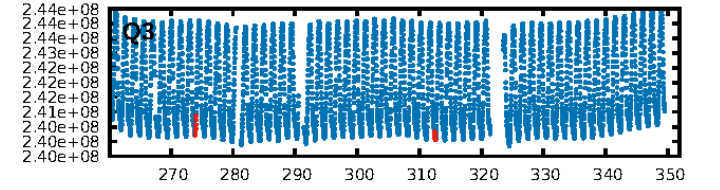
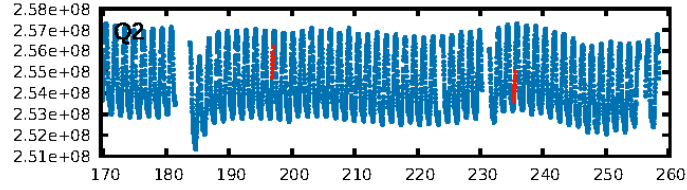
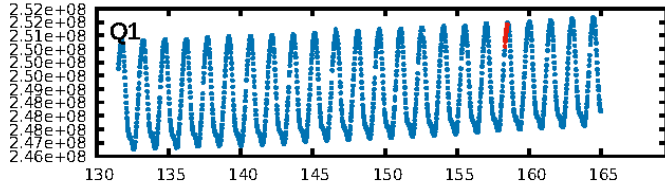
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [7.52σ]
LongPeriod-sig: 100.0% [34.40σ]
ModelChiSquare2-sig: 24.7%
ModelChiSquareGof-sig: 89.9%
Bootstrap-pfa: 1.21e-07
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 0.783
Centroid-sig: 2.6%
Centroid-so: 1.271 arcsec [1.59σ]
OotOffset-rm: 0.192 arcsec [1.41σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-rm: **0.413 arcsec [3.35σ]**
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 0.12 [2/16]

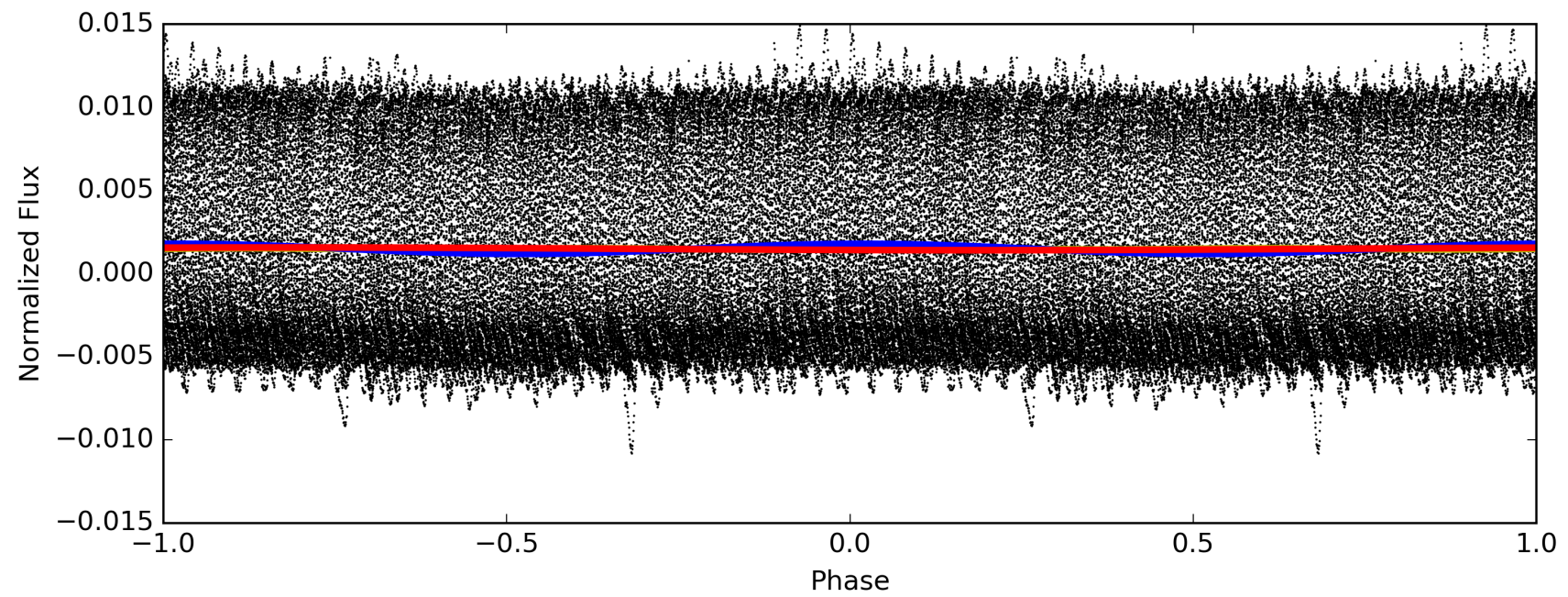
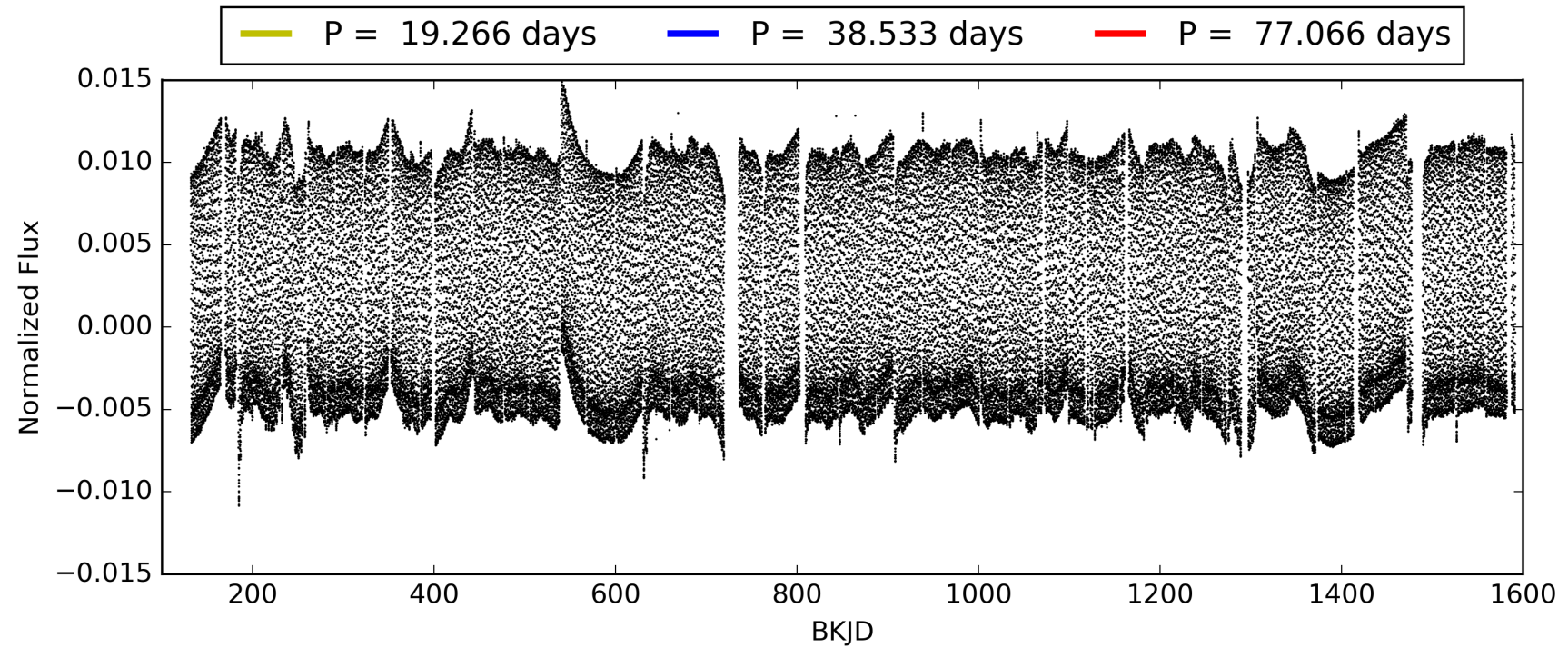
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:19:24 Z

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

TCE 011465134-06, PDC Light Curves

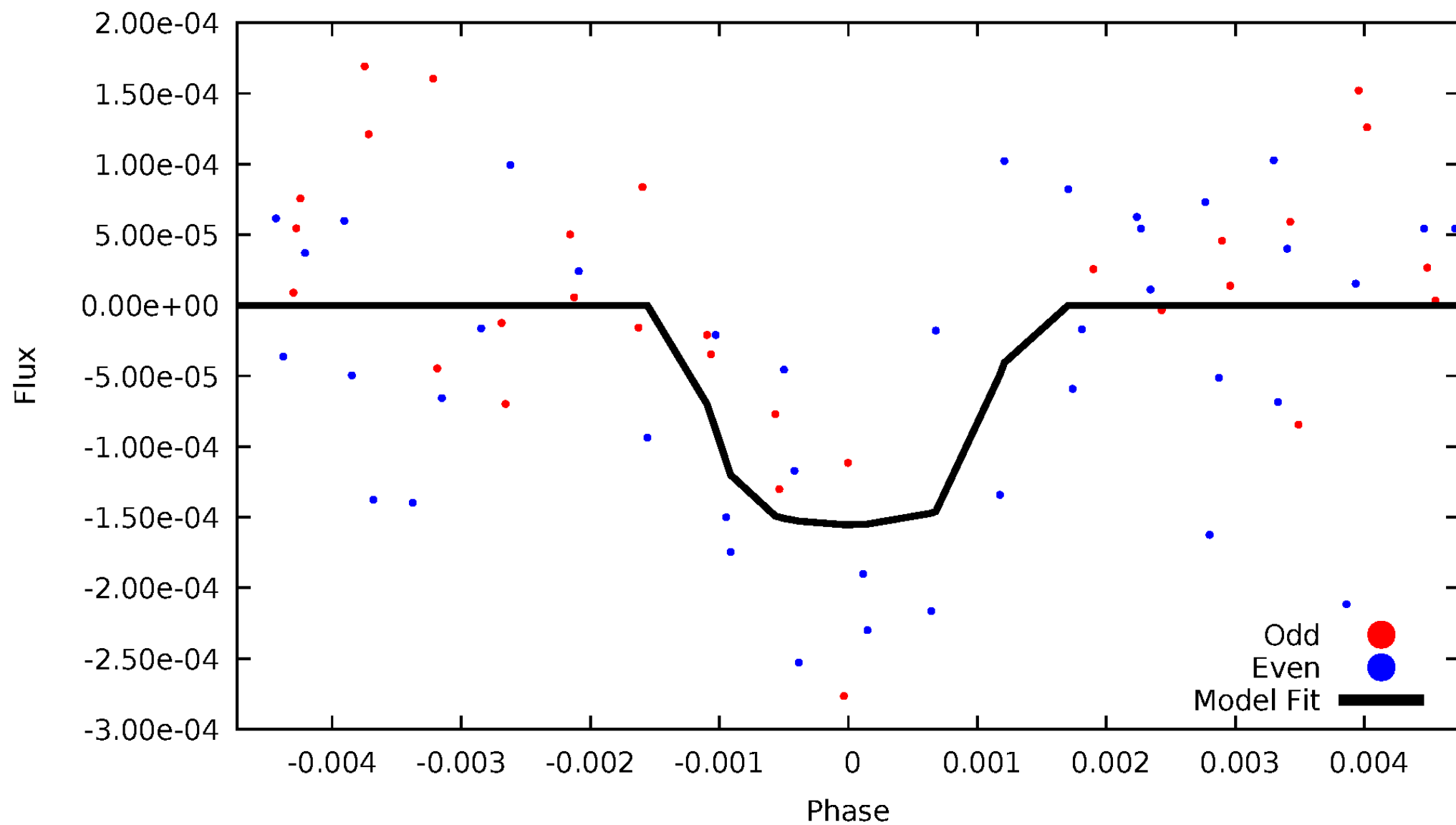


TCE 011465134-06



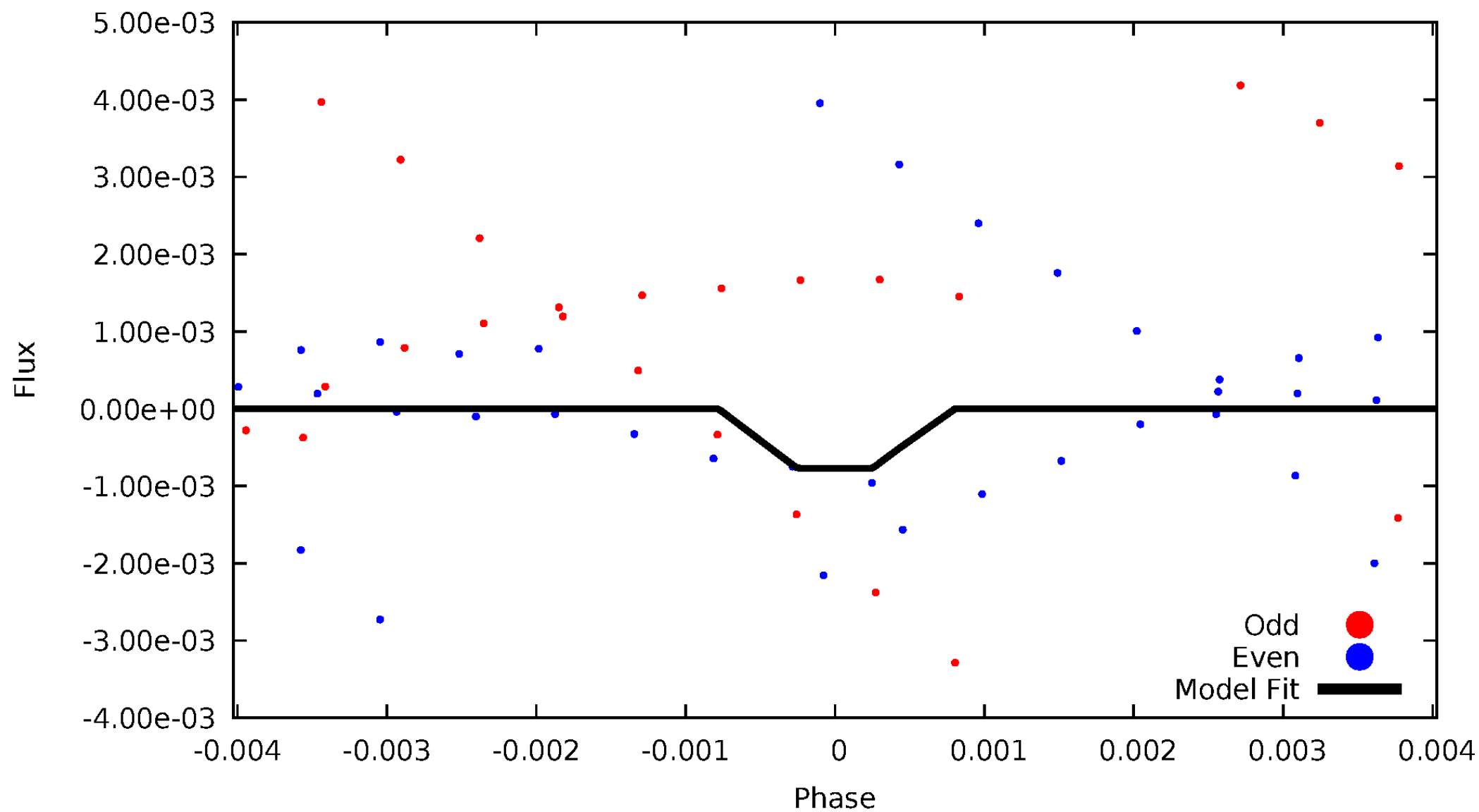
DV Odd/Even

TCE 011465134-06



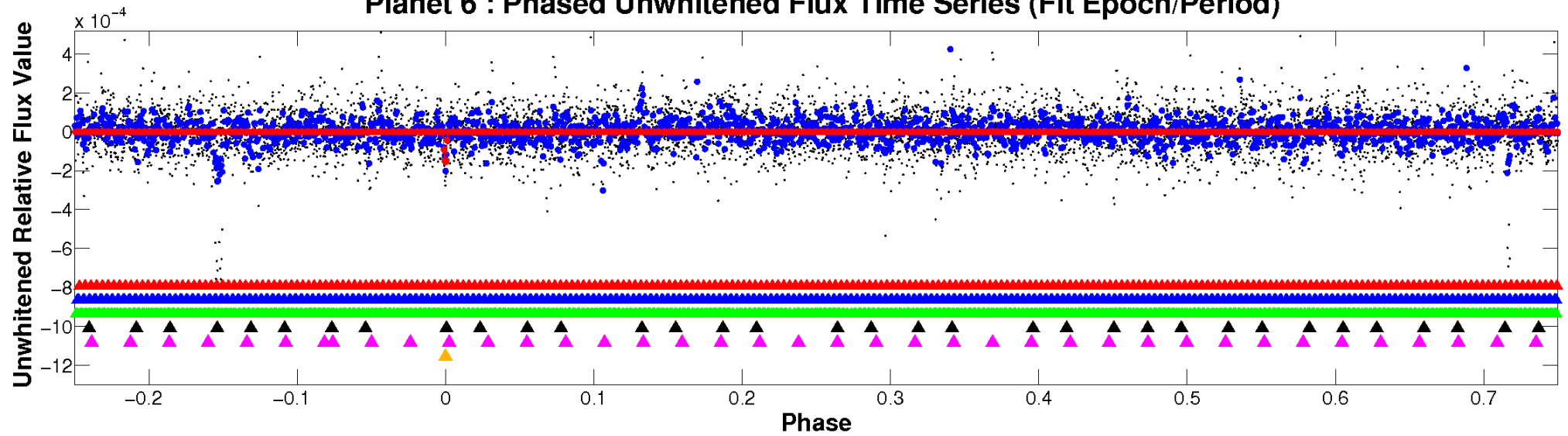
ALT Odd/Even

TCE 011465134-06

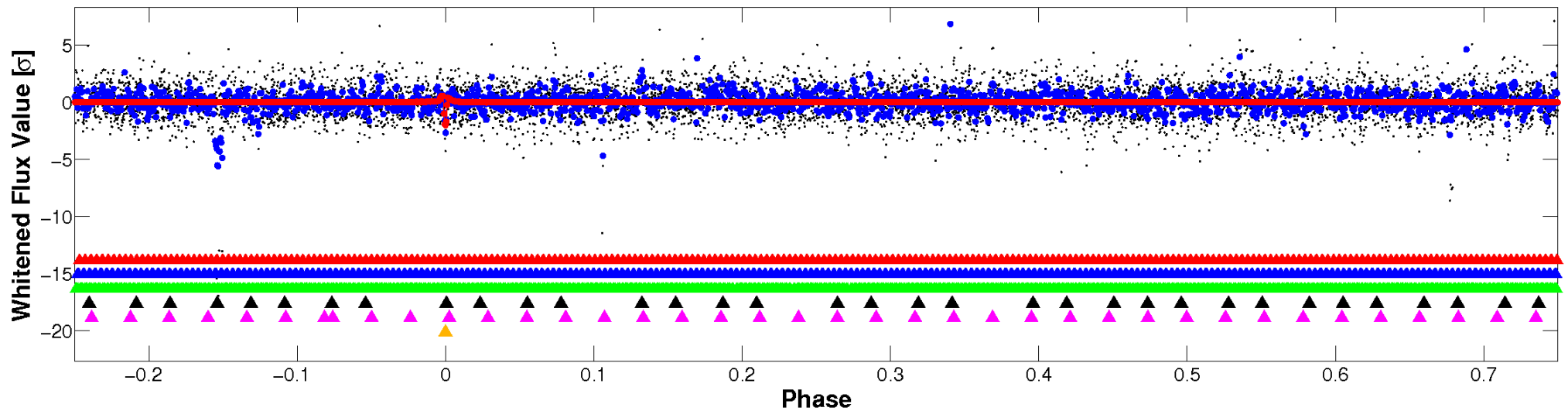


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

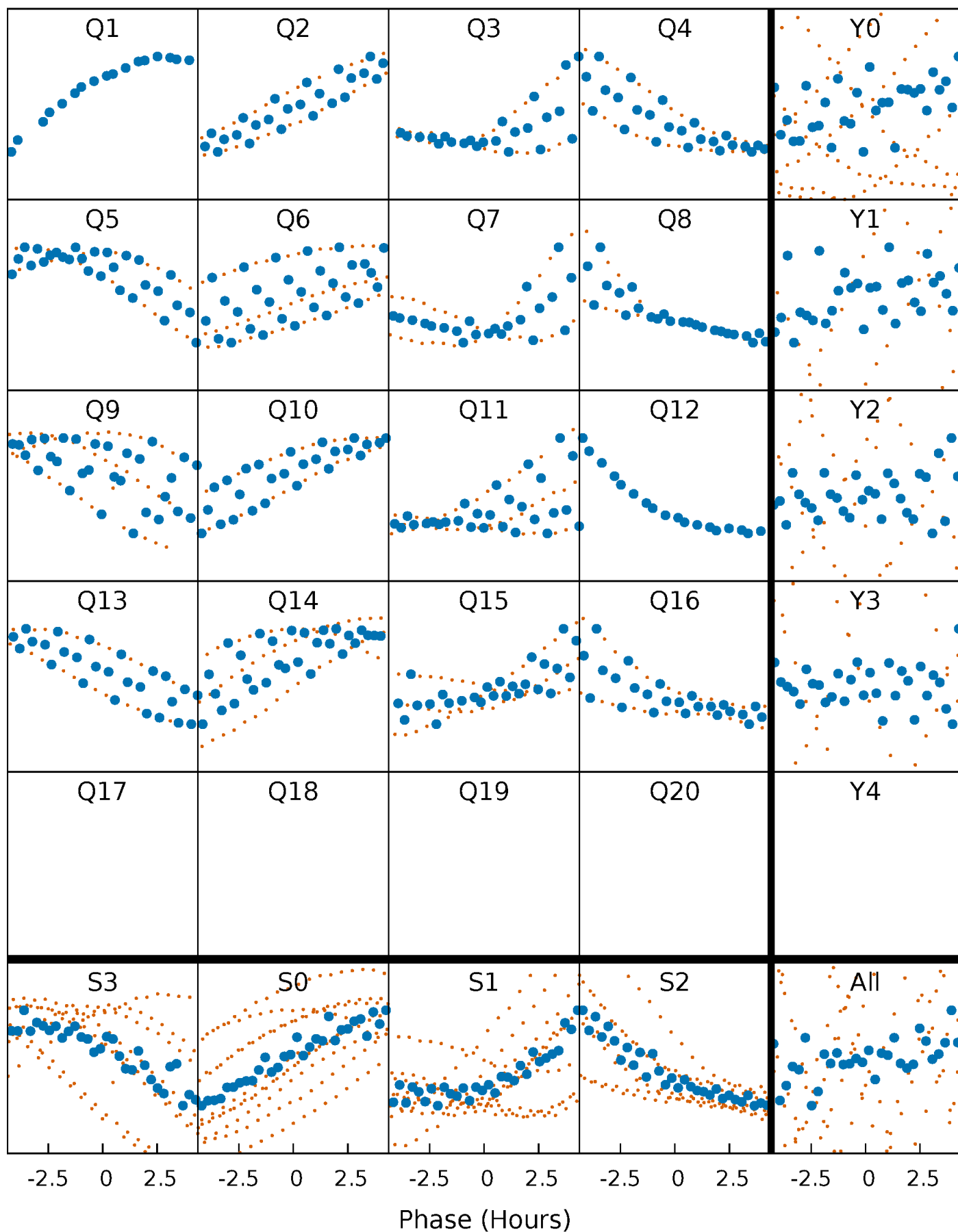


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



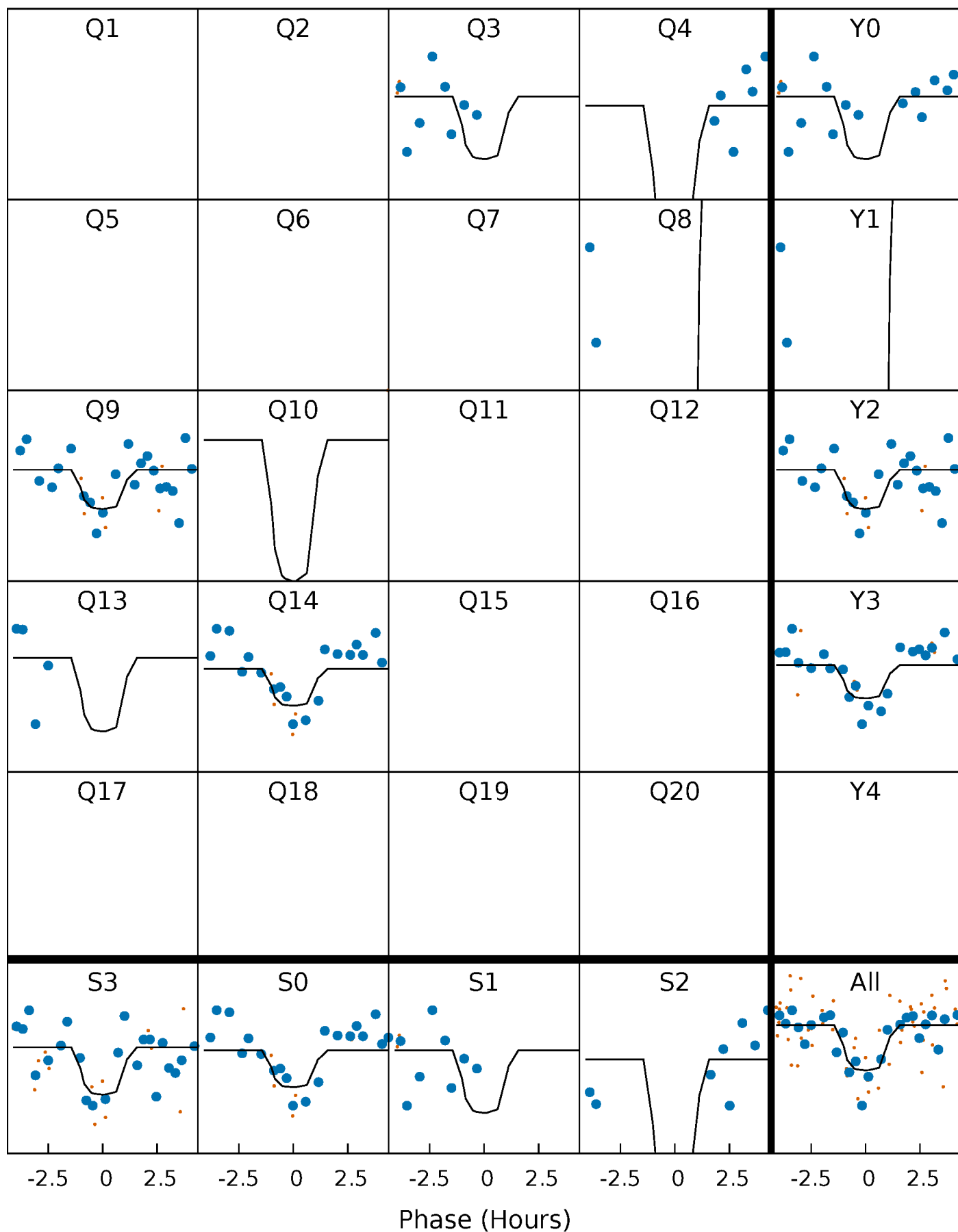
PDC Quarter-Phased Transit Curves

TCE 011465134-06 P= 38.532995 Days $T_0=158.400057$ (BKJD)



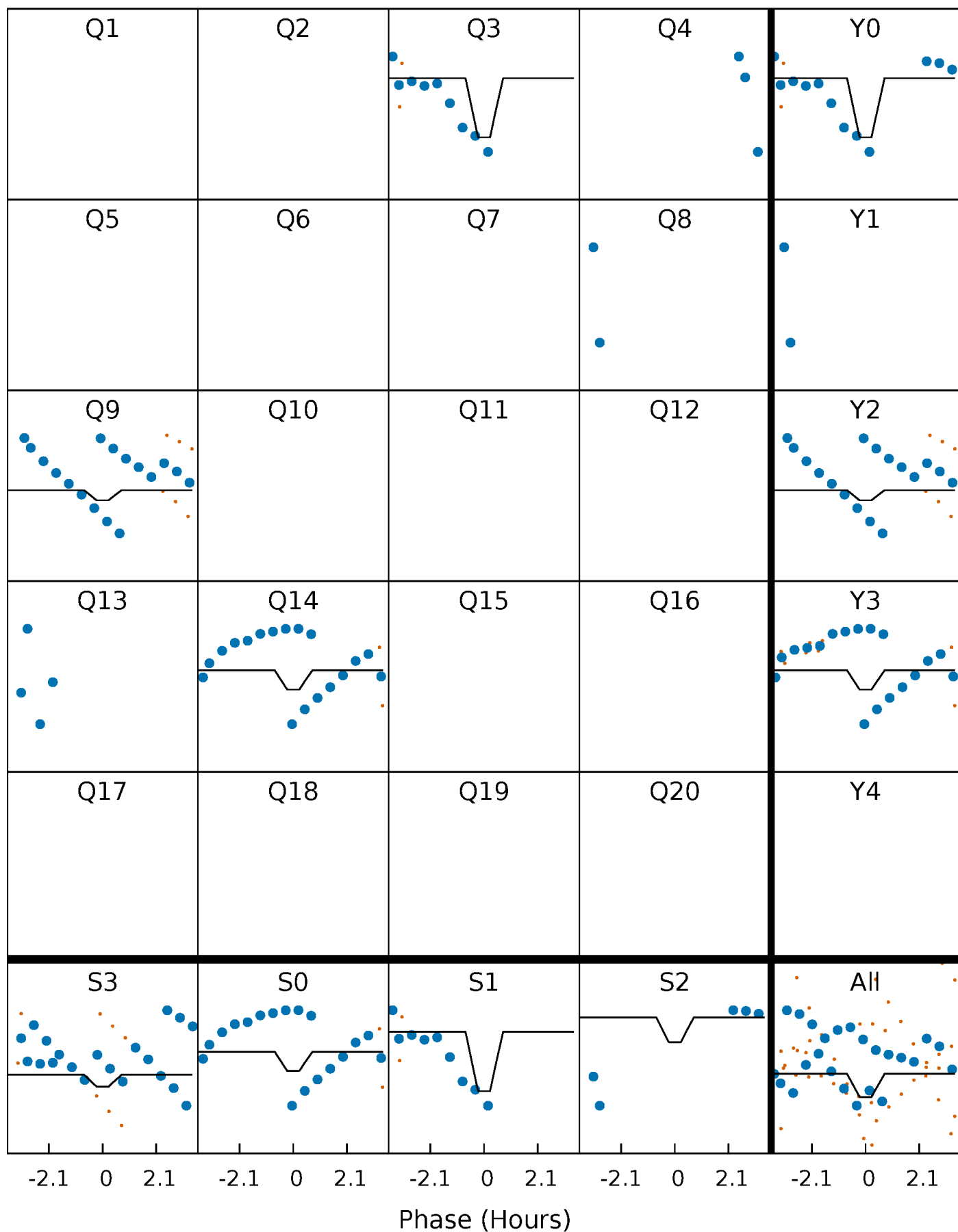
DV Quarter-Phased Transit Curves

TCE 011465134-06 P= 38.532995 Days $T_0=158.400057$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

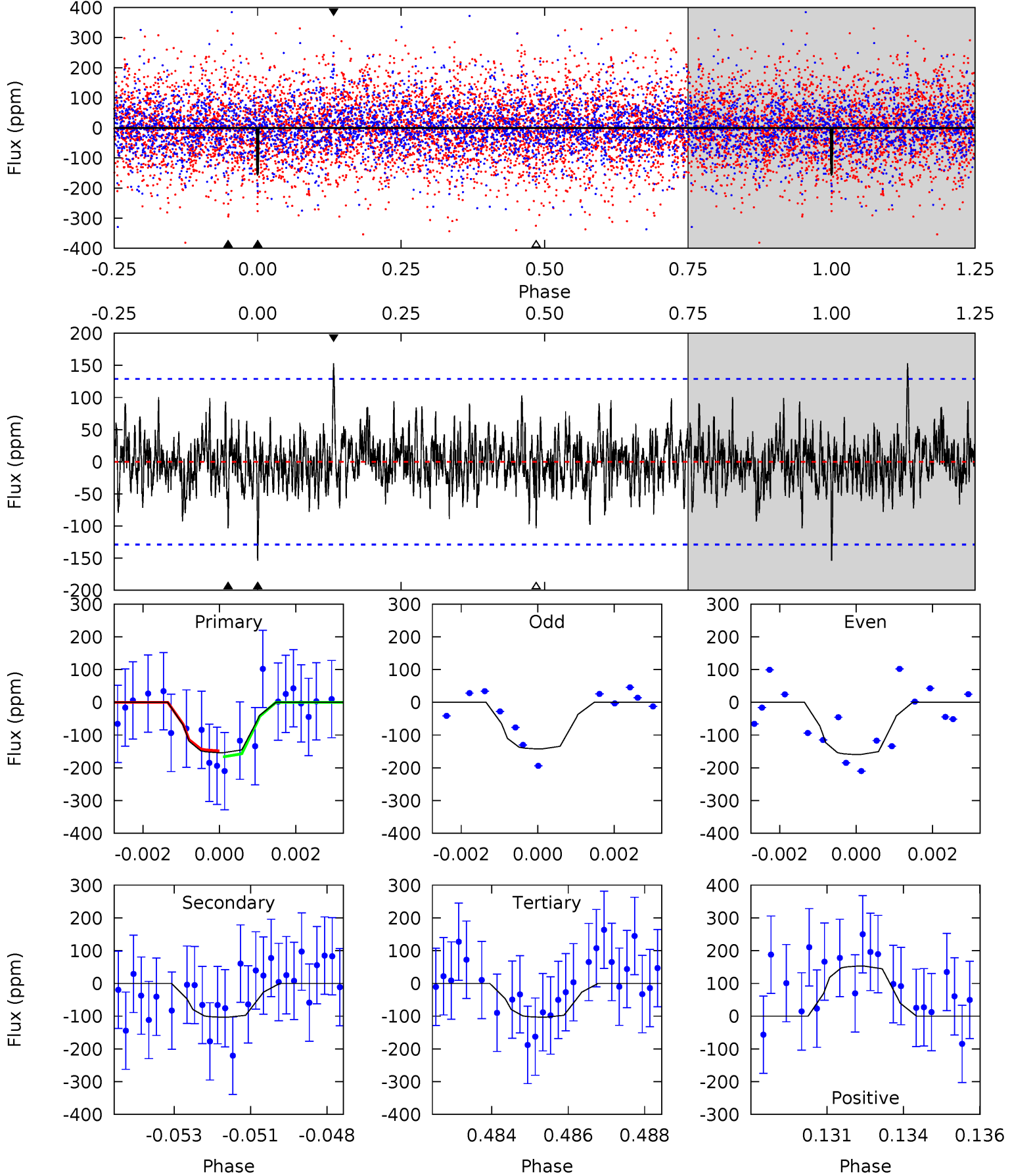
TCE 011465134-06 P= 38.532810 Days $T_0=158.372098$ (BKJD)



DV Model-Shift Uniqueness Test

011465134-06, P = 38.532995 Days, E = 119.867062 Days

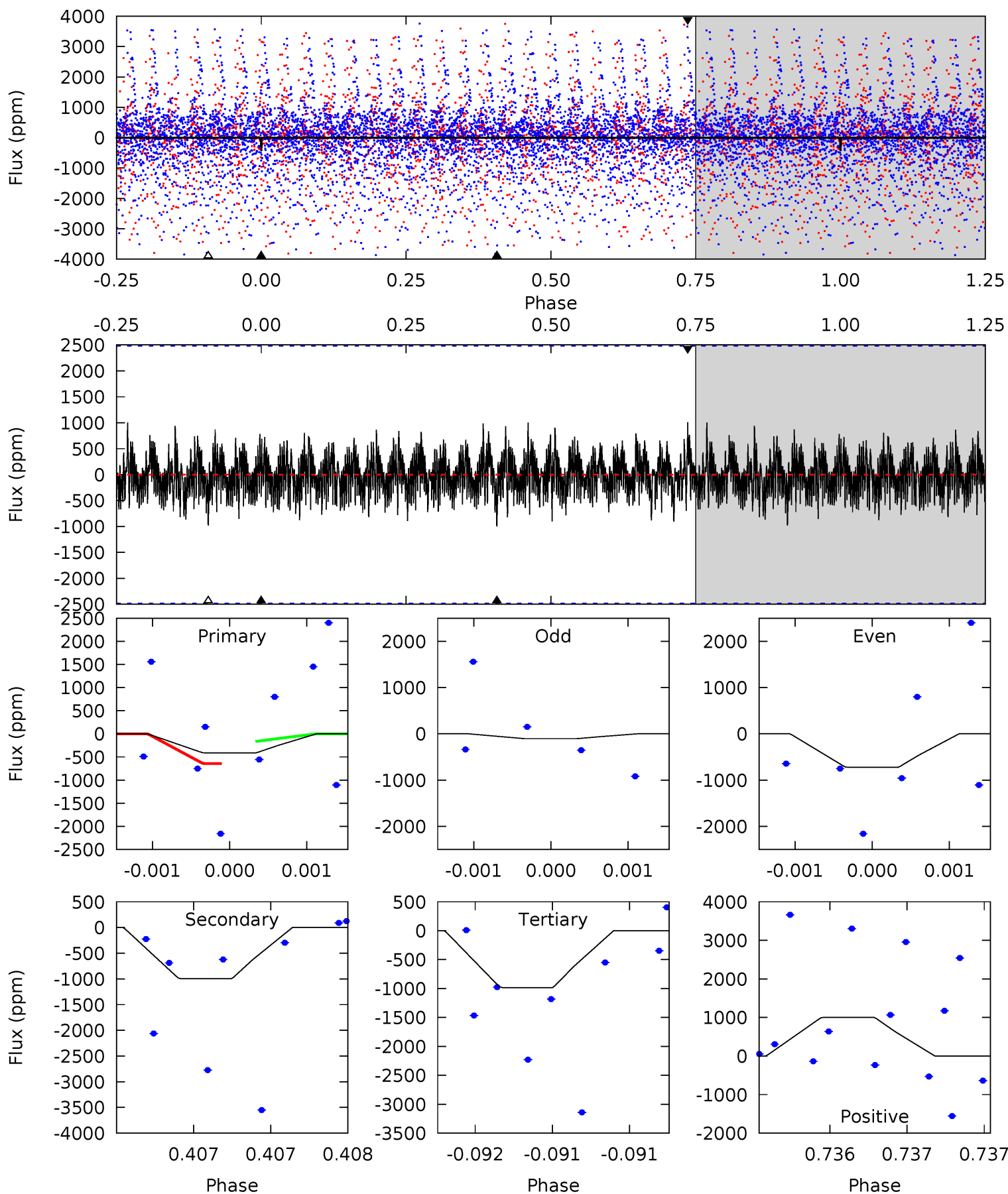
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 6.33 | 4.25 | 4.24 | 6.29 | 5.30 | 3.05 | 1.28 | 2.08 | 0.04 | 0.00 | -2.04 | 0.33 | 0.82 | 0.50 | 0.35 |



Alt Model-Shift Uniqueness Test

011465134-06, P = 38.532810 Days, E = 119.839288 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|-------|-------|------|
| 0.92 | 2.21 | 2.18 | 2.23 | 5.51 | 3.38 | 0.70 | -1.26 | -1.31 | 0.03 | -0.02 | 0.68 | -0.21 | 0.50 | 0.54 |



Stellar Parameters For KIC 011465134

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 9859^{+274}_{-445} | $4.166^{+0.160}_{-0.240}$ | $0.070^{+0.150}_{-0.600}$ | $2.096^{+0.863}_{-0.575}$ | $2.348^{+0.451}_{-0.601}$ | $0.359^{+0.373}_{-0.208}$ |
| | +3%/-5% | +4%/-6% | +214%/-857% | +41%/-27% | +19%/-26% | +104%/-58% |
| Source | KIC0 | 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 011465134-06 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|----------------|------------------------|----------------------|-------------------------|----------------------|
| DV | -103 ± 24 | $7.29^{+6.78}_{-4.96}$ | 1632^{+161}_{-129} | 5256^{+4669}_{-1246} | 90^{+773}_{-66} |
| Alt. | -997 ± 451 | $8.56^{+7.89}_{-5.73}$ | 1634^{+149}_{-137} | 8503^{+14102}_{-2691} | 594^{+4624}_{-455} |

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

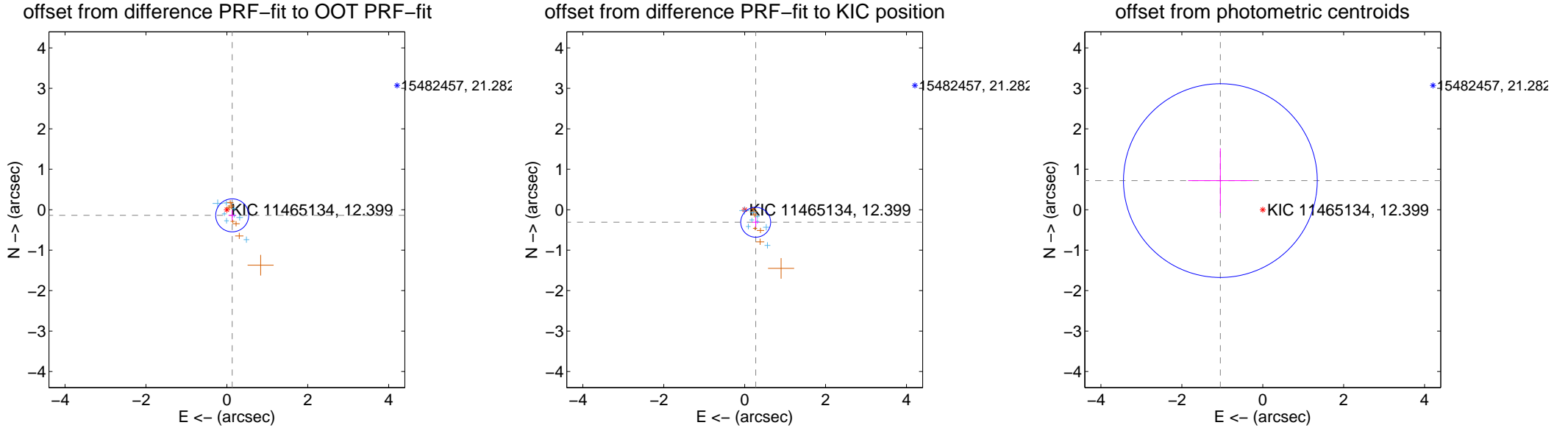
DV Centroid Data

Supplemental centroid analysis for 011465134-06. Kepler magnitude: 12.40. Transit SNR 7.05

There are 8 quarters with good PRF difference image offsets

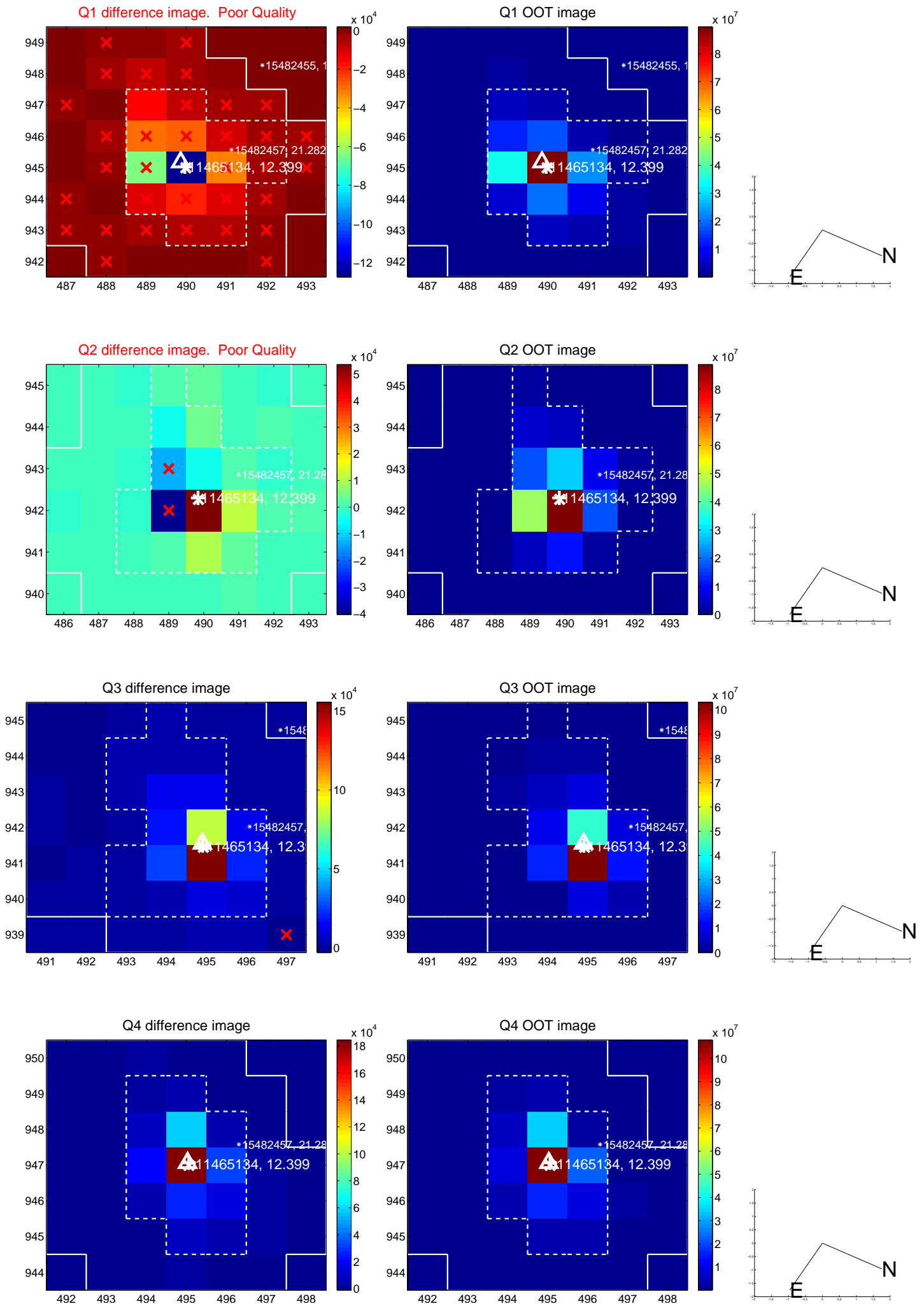
The direct PRF centroid is offset from the target star catalog position by about 0.32 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.192 ± 0.136 | 1.41 | -0.132 ± 0.092 | -0.139 ± 0.126 |
| PRF-fit source offset from KIC position | 0.413 ± 0.123 | 3.35 | -0.273 ± 0.084 | -0.310 ± 0.118 |
| photometric centroid source offset | 1.27 ± 0.80 | 1.59 | 1.05 ± 0.80 | 0.72 ± 0.80 |

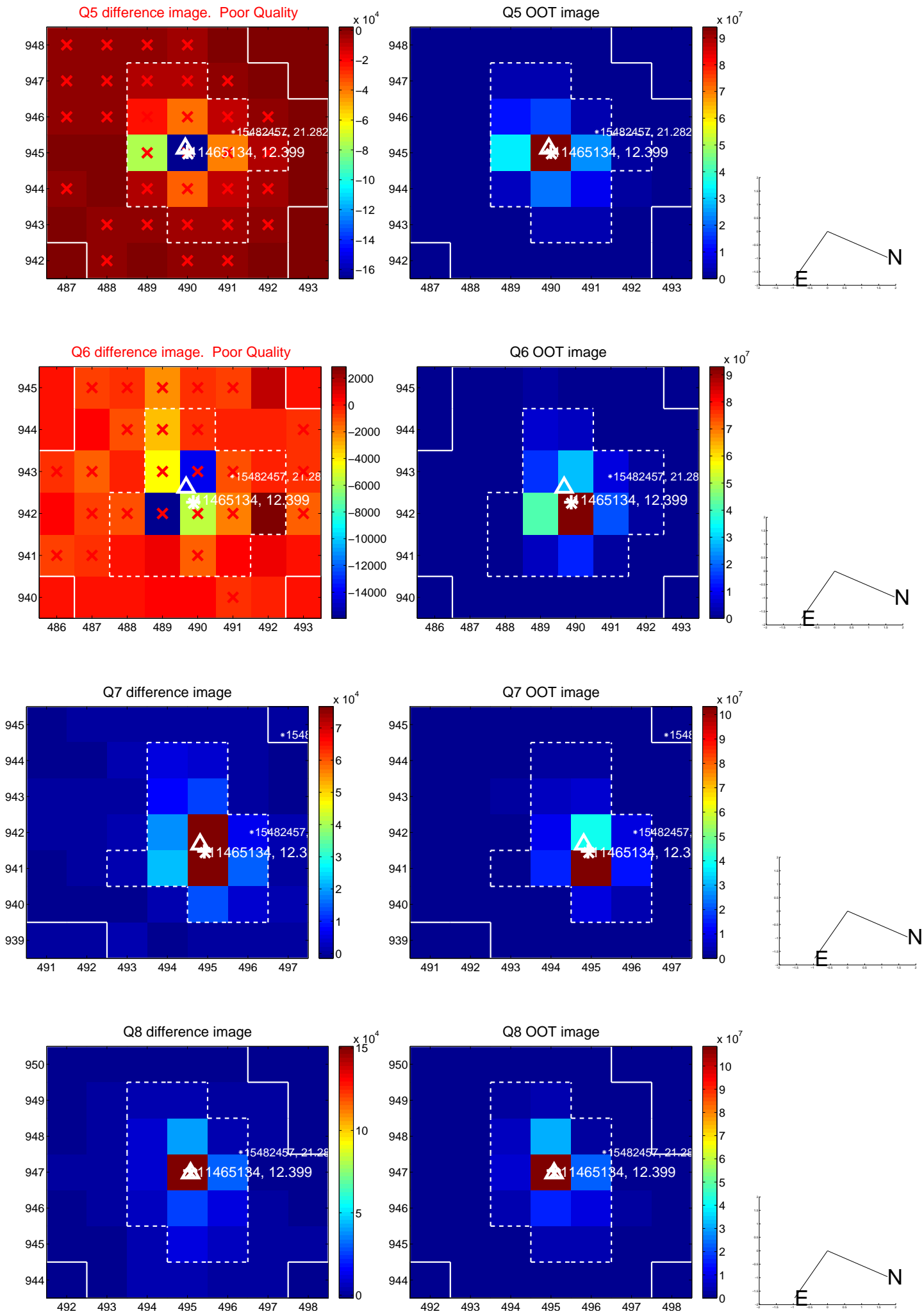


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

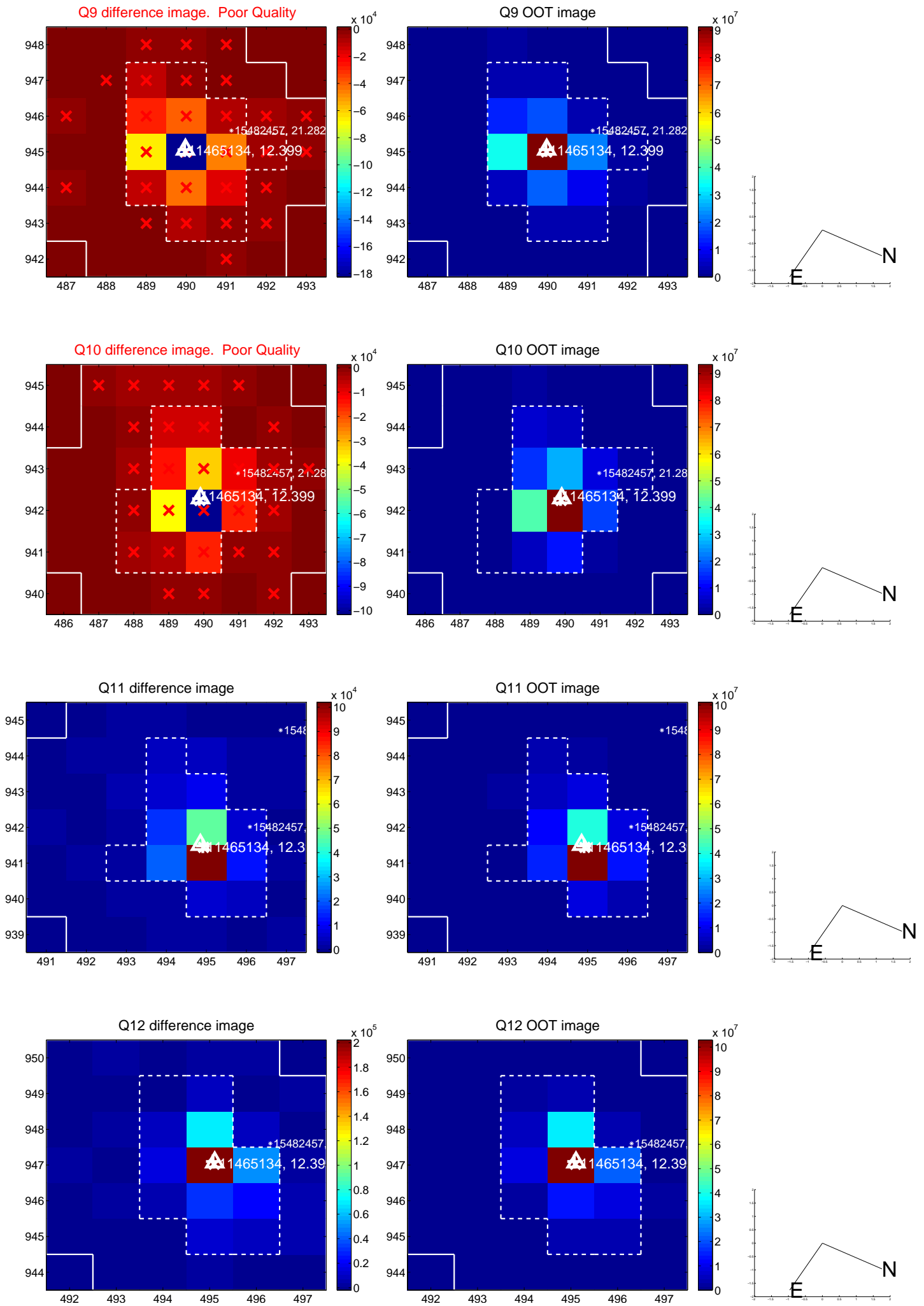
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



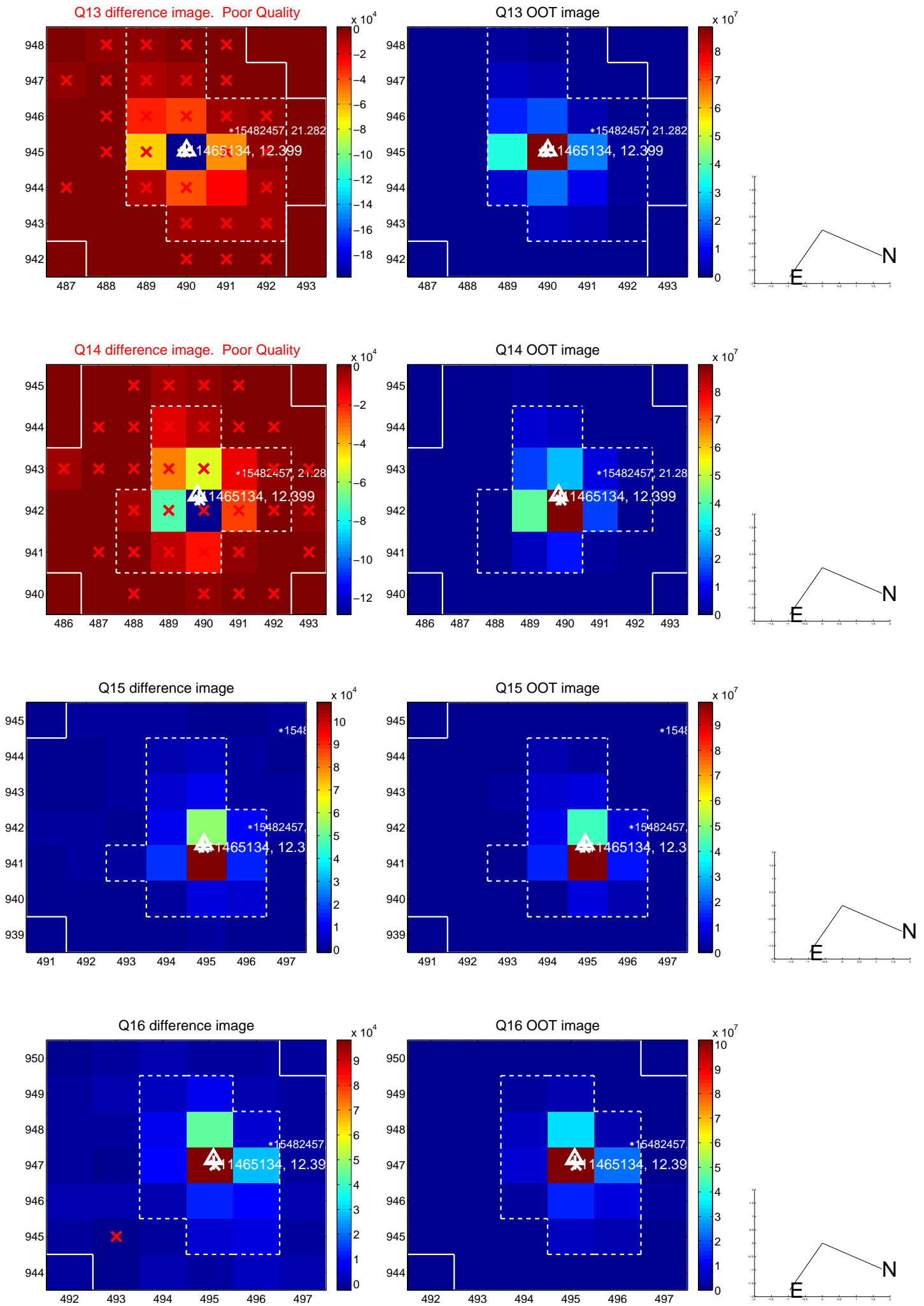
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



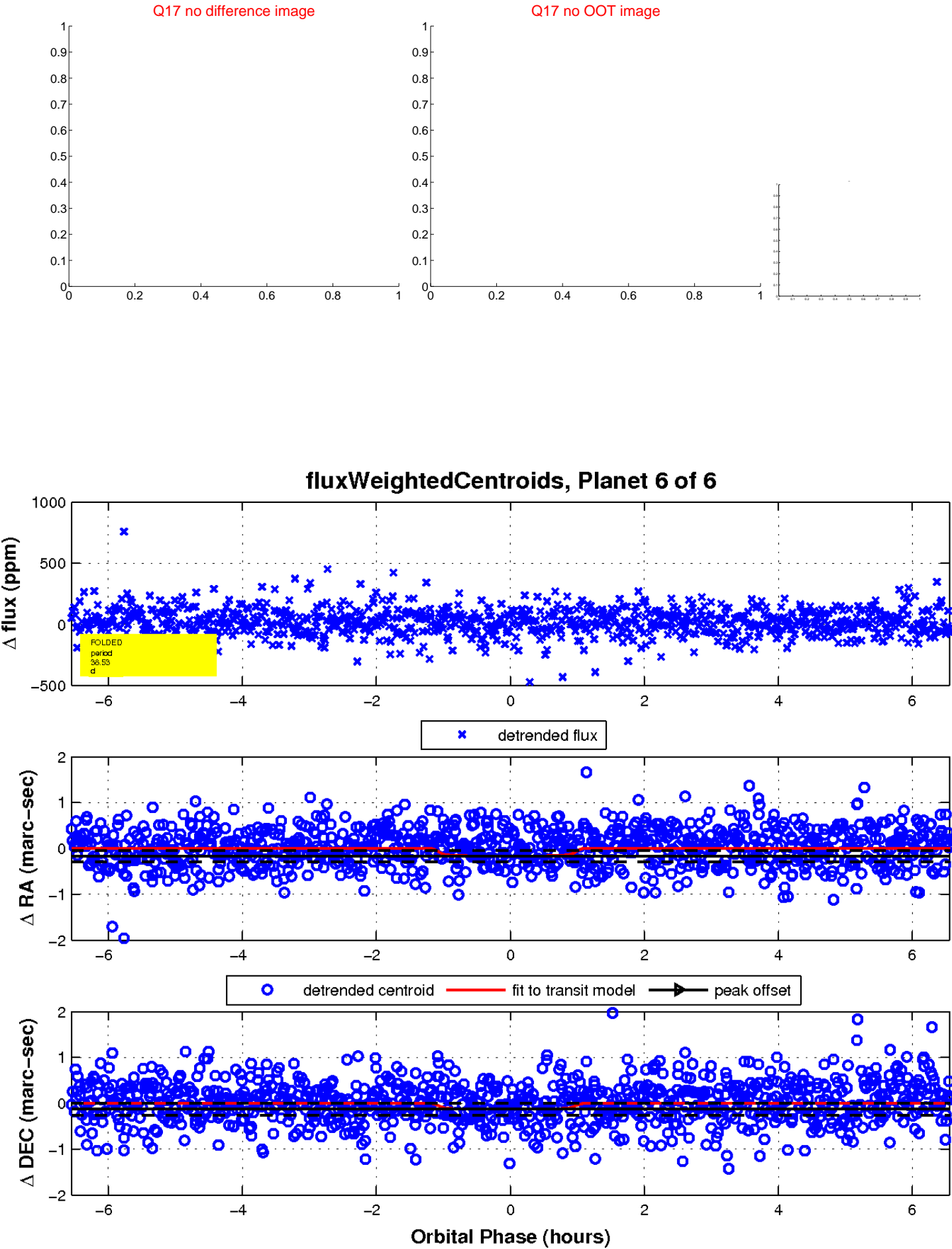
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

