

KIC 005284217

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 005284217-01 | OBS | No | 1.295566 | 132.364067 | 40.1 | 5.067 | 8.6 | 9.6 | 0.58 | 4056 | 0.42 | 219.18 |
| 005284217-02 | OBS | No | 311.735811 | 330.843797 | 317.8 | 34.486 | 15.8 | 4.7 | 0.58 | 4056 | 1.10 | 0.15 |
| 005284217-03 | OBS | No | 181.841206 | 160.991481 | 281.5 | 19.203 | 12.0 | 6.0 | 0.58 | 4056 | 1.26 | 0.30 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 005284217-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 005284217-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 005284217-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS |

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

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

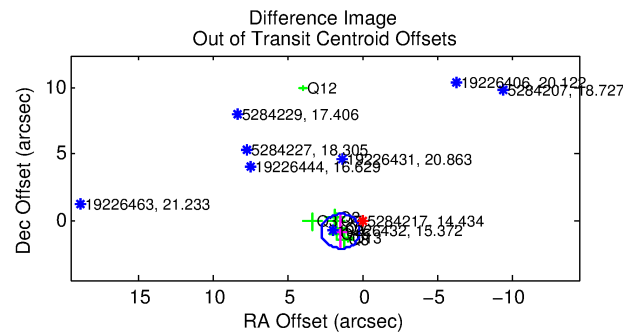
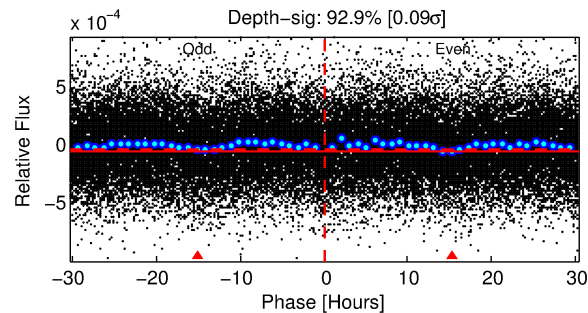
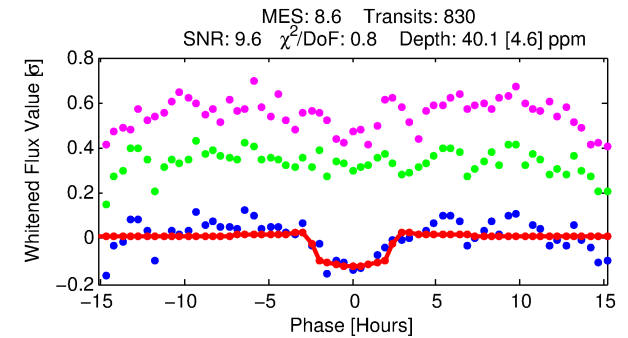
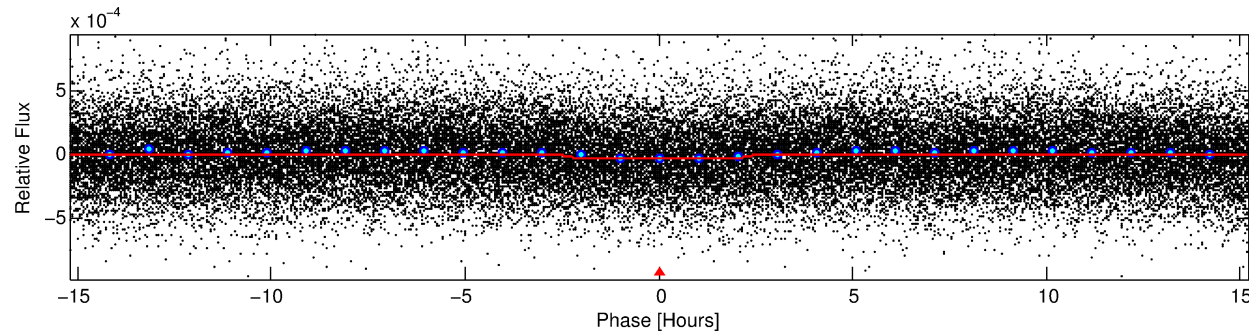
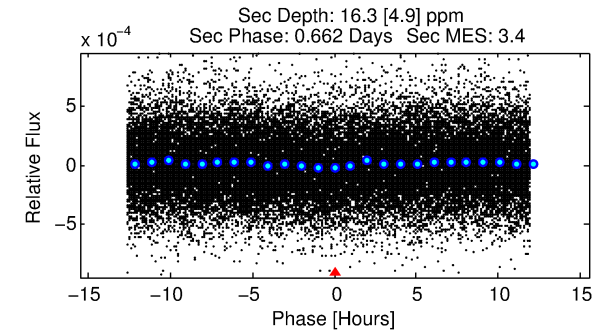
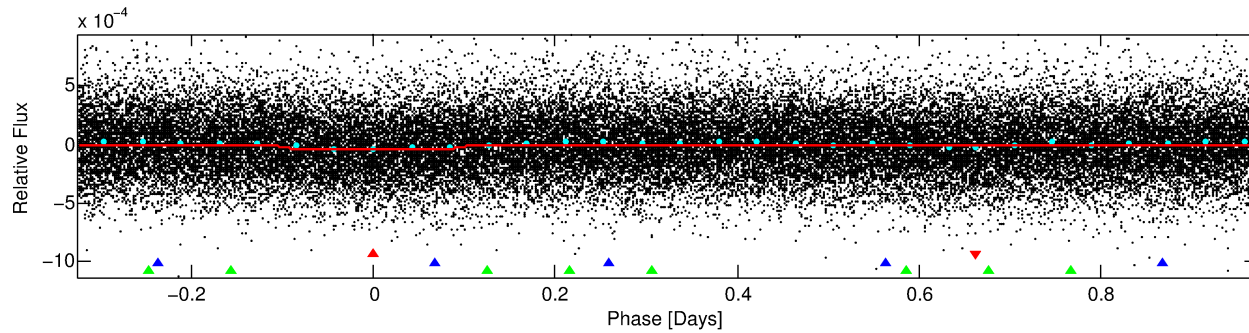
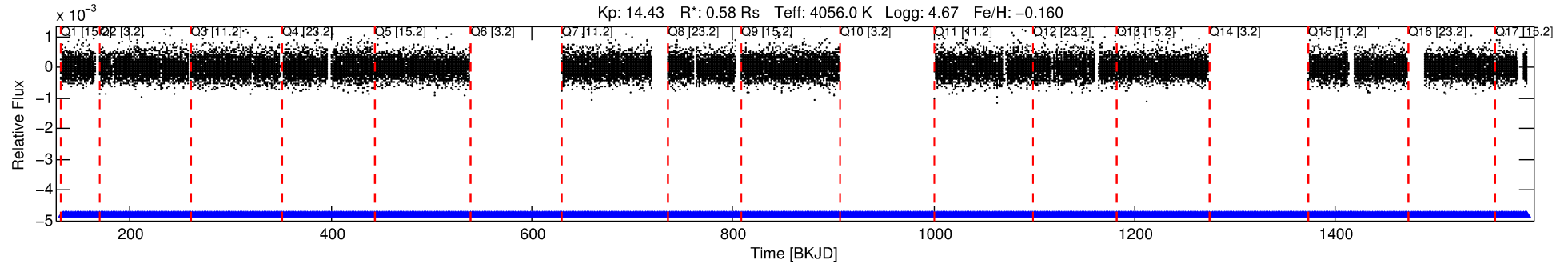
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005284217-01

No Significant Match Found

DV One-Page Summary

KIC: 5284217 Candidate: 1 of 3 Period: 1.296 d



DV Fit Results:

Period = 1.29557 [0.00002] d
Epoch = 132.3641 [0.0050] BKJD
Rp/R* = 0.0066 [0.0040]
a/R* = 1.41 [1.78]
b = 0.84 [0.90]
Seff = 219.17 [35.92]
Teq = 981 [40] K
Rp = 0.42 [0.26] Re
a = 0.0193 [0.0016] AU
Ag = 18.94 [23.75] [0.76σ]
Teffp = 3165 [992] K [2.20σ]

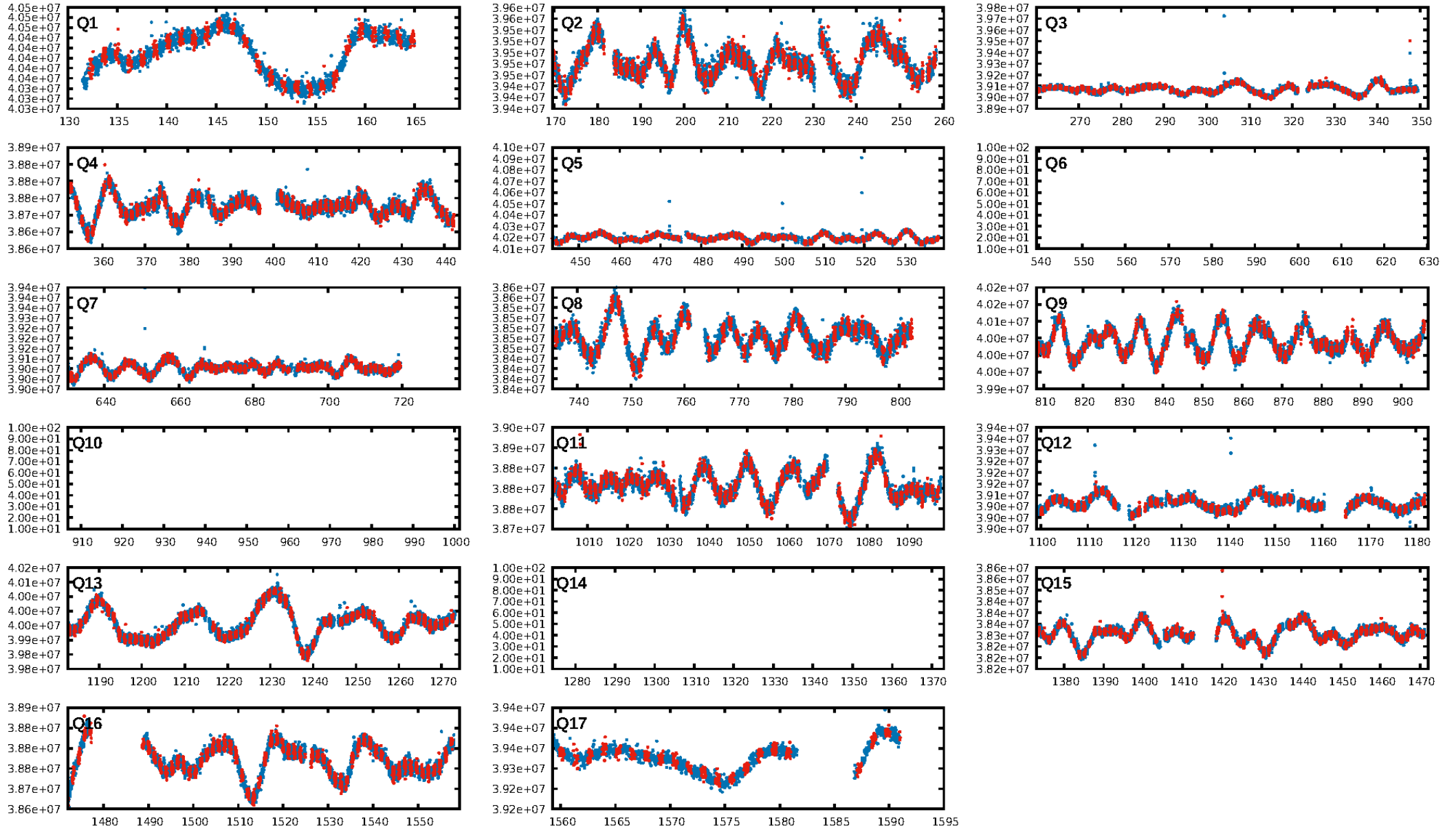
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [218.18σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.17e-15
RollingBand-fgt: 1.00 [784/784]
GhostDiagnostic-chr: 4.152
Centroid-sig: 1.1%
Centroid-so: 2.780 arcsec [2.55σ]
OotOffset-rm: 1.652 arcsec [3.83σ]
KicOffset-rm: 1.834 arcsec [4.23σ]
OotOffset-st: 1/3/3/1 [8]
KicOffset-st: 1/3/3/1 [8]
DiffImageQuality-fgm: 0.75 [6/8]
DiffImageOverlap-fno: 1.00 [14/14]

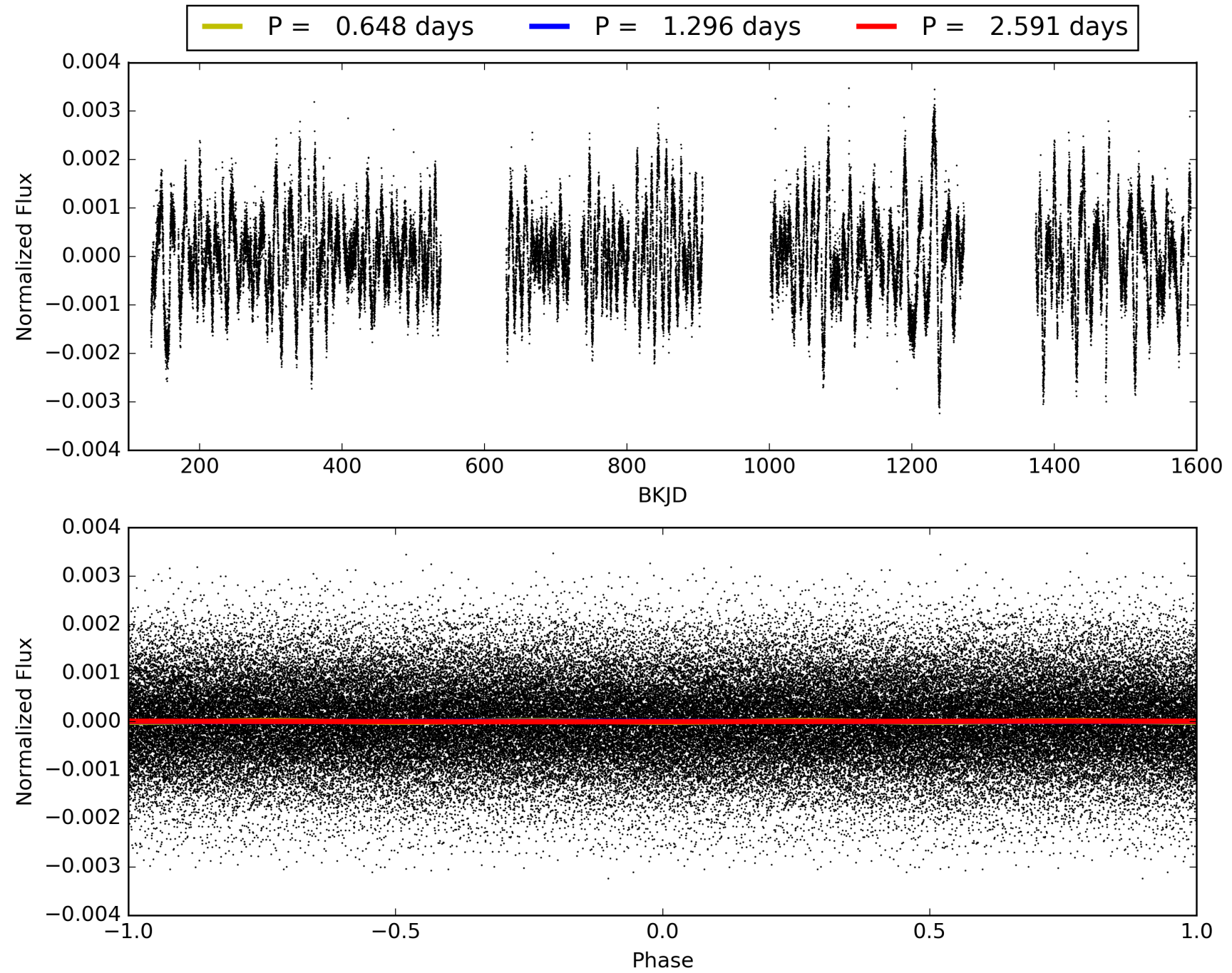
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:31:55 Z

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

TCE 005284217-01, PDC Light Curves

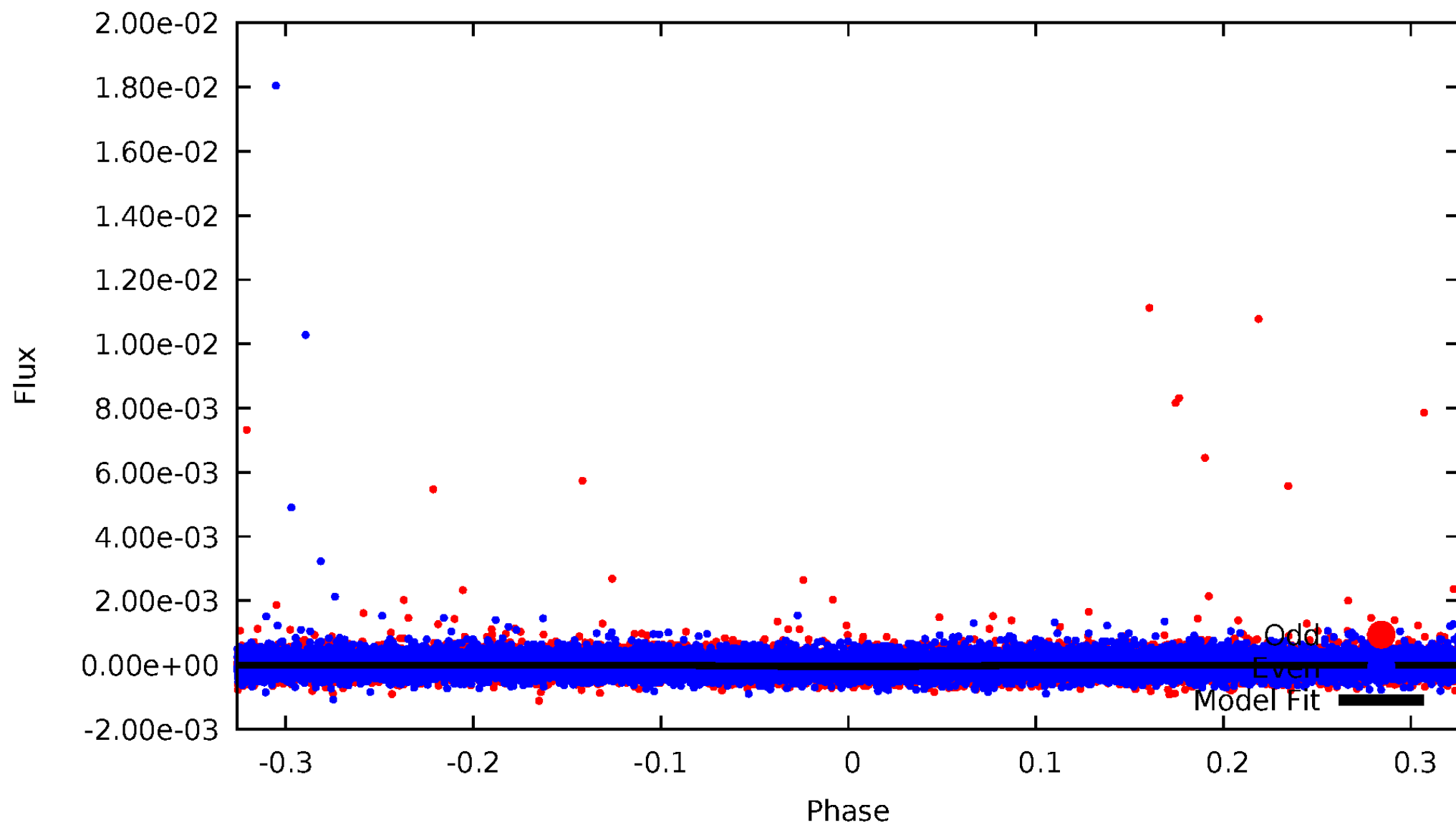


TCE 005284217-01



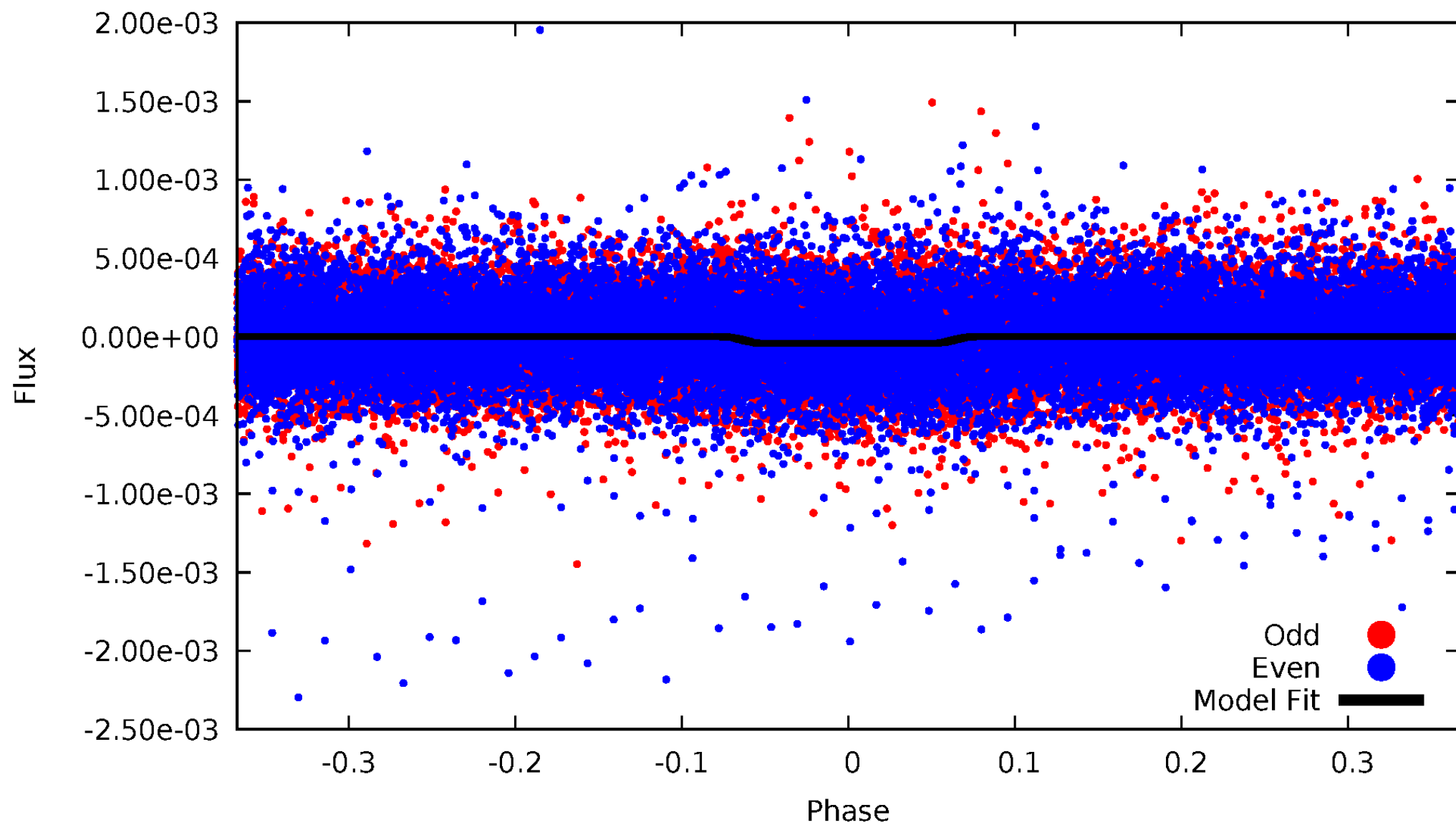
DV Odd/Even

TCE 005284217-01



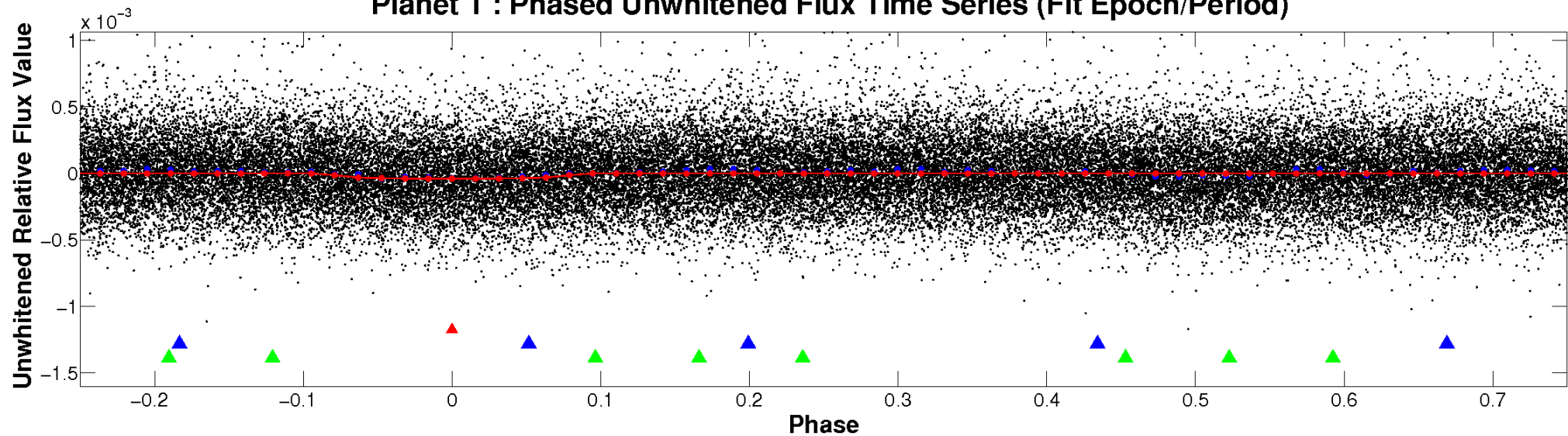
ALT Odd/Even

TCE 005284217-01

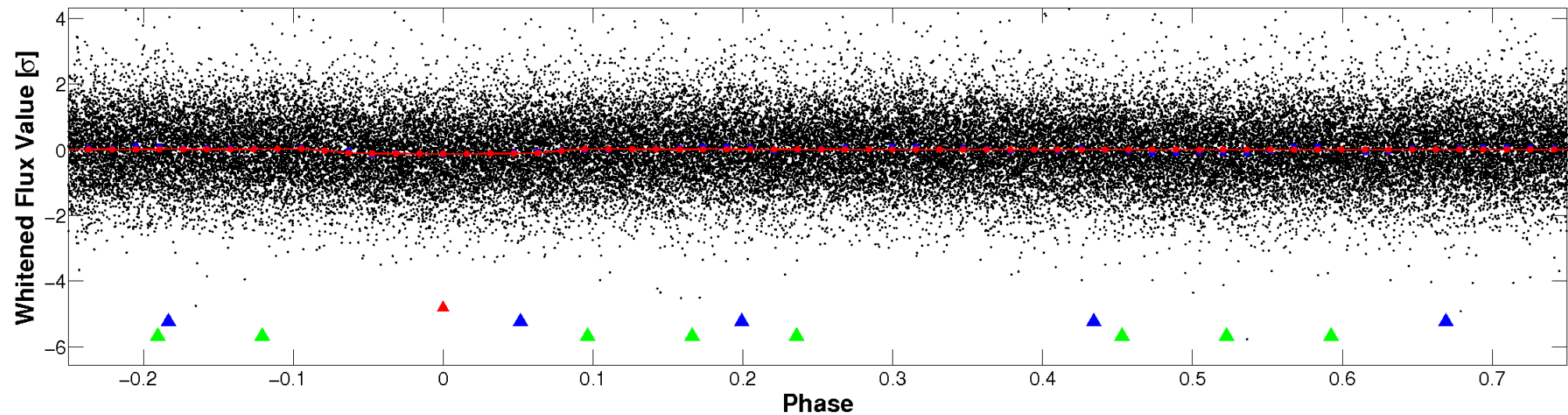


Non-Whitened Vs. Whitened Light Curve

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

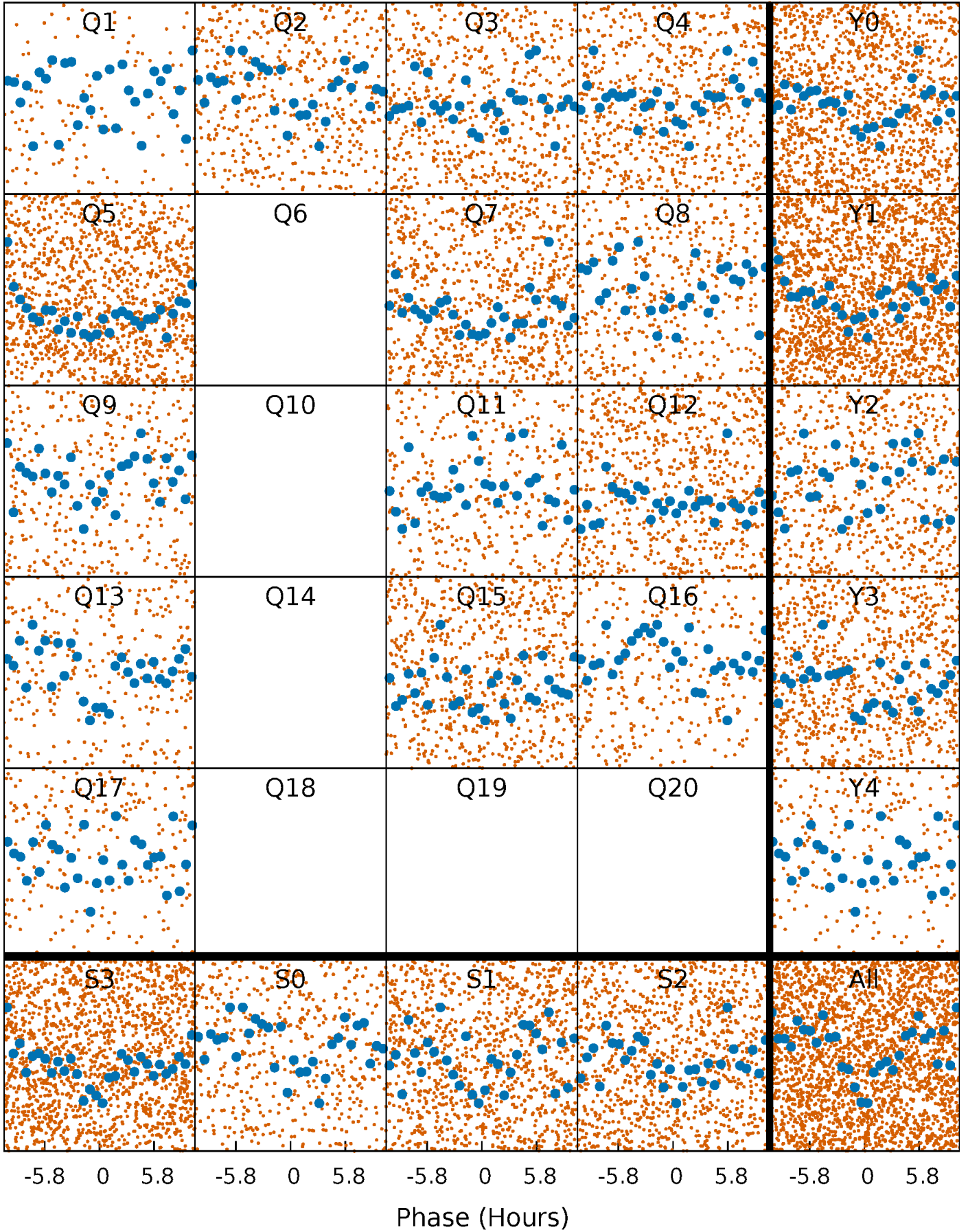


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



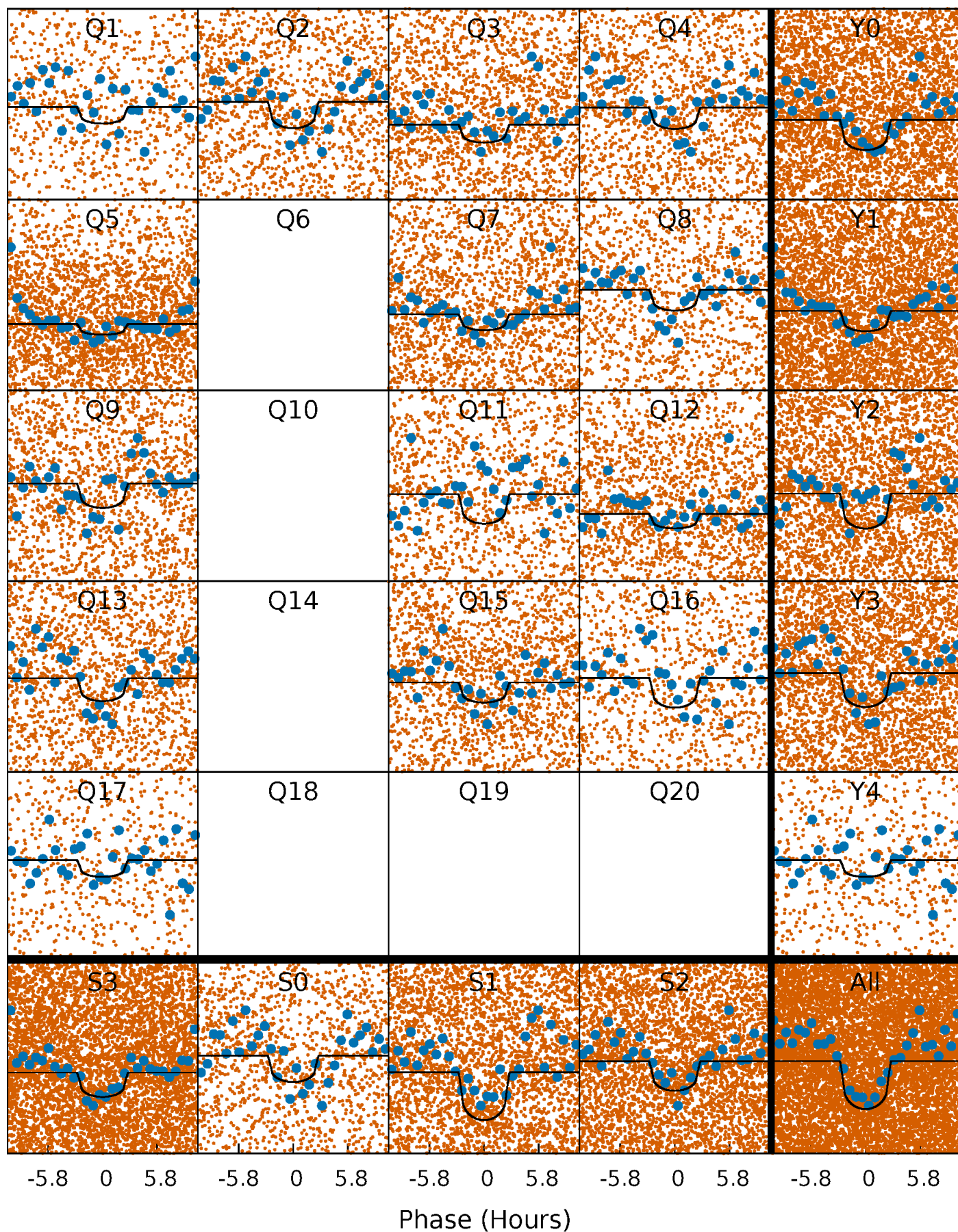
PDC Quarter-Phased Transit Curves

TCE 005284217-01 P= 1.295566 Days $T_0=132.364068$ (BKJD)



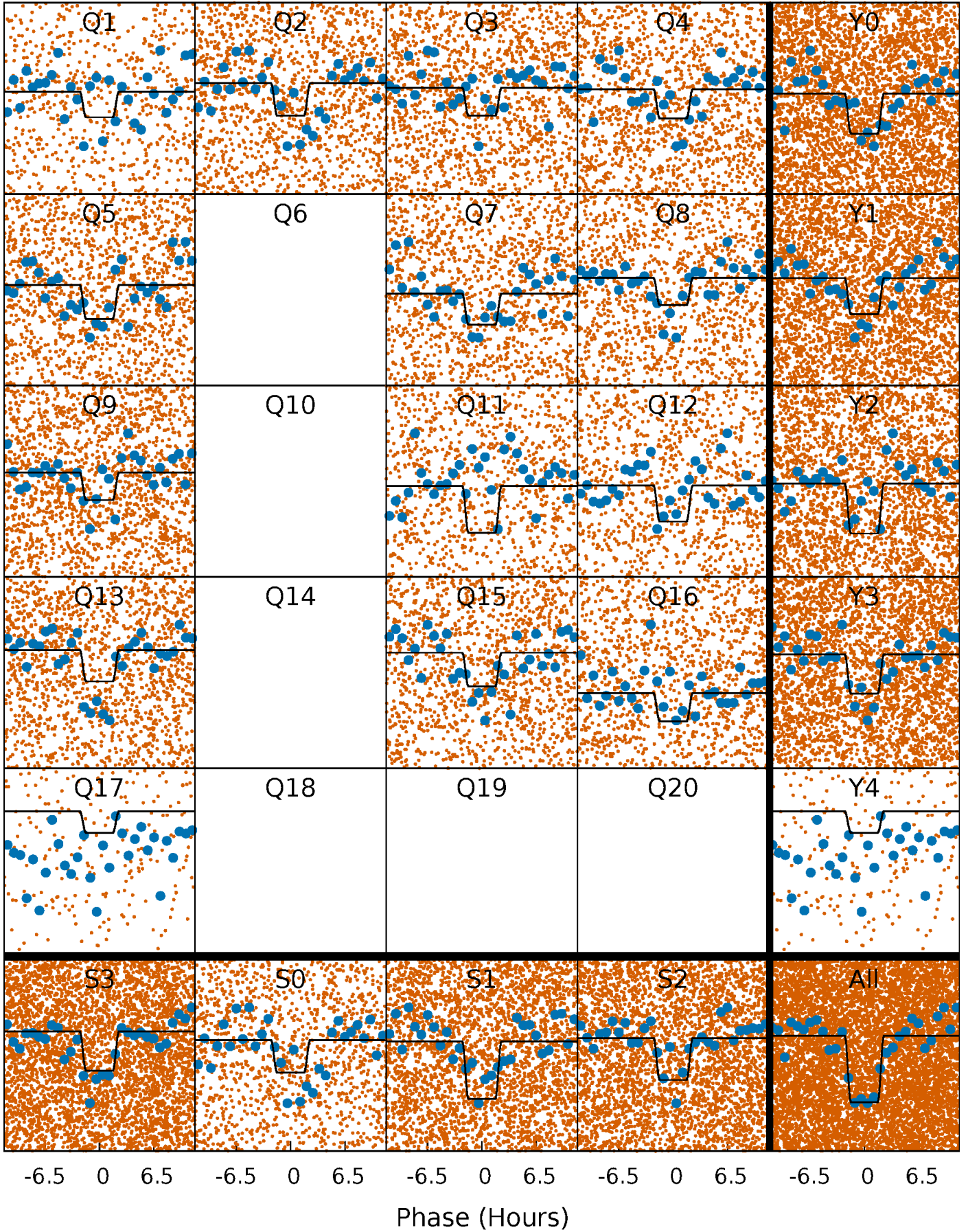
DV Quarter-Phased Transit Curves

TCE 005284217-01 P= 1.295566 Days $T_0=132.364068$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

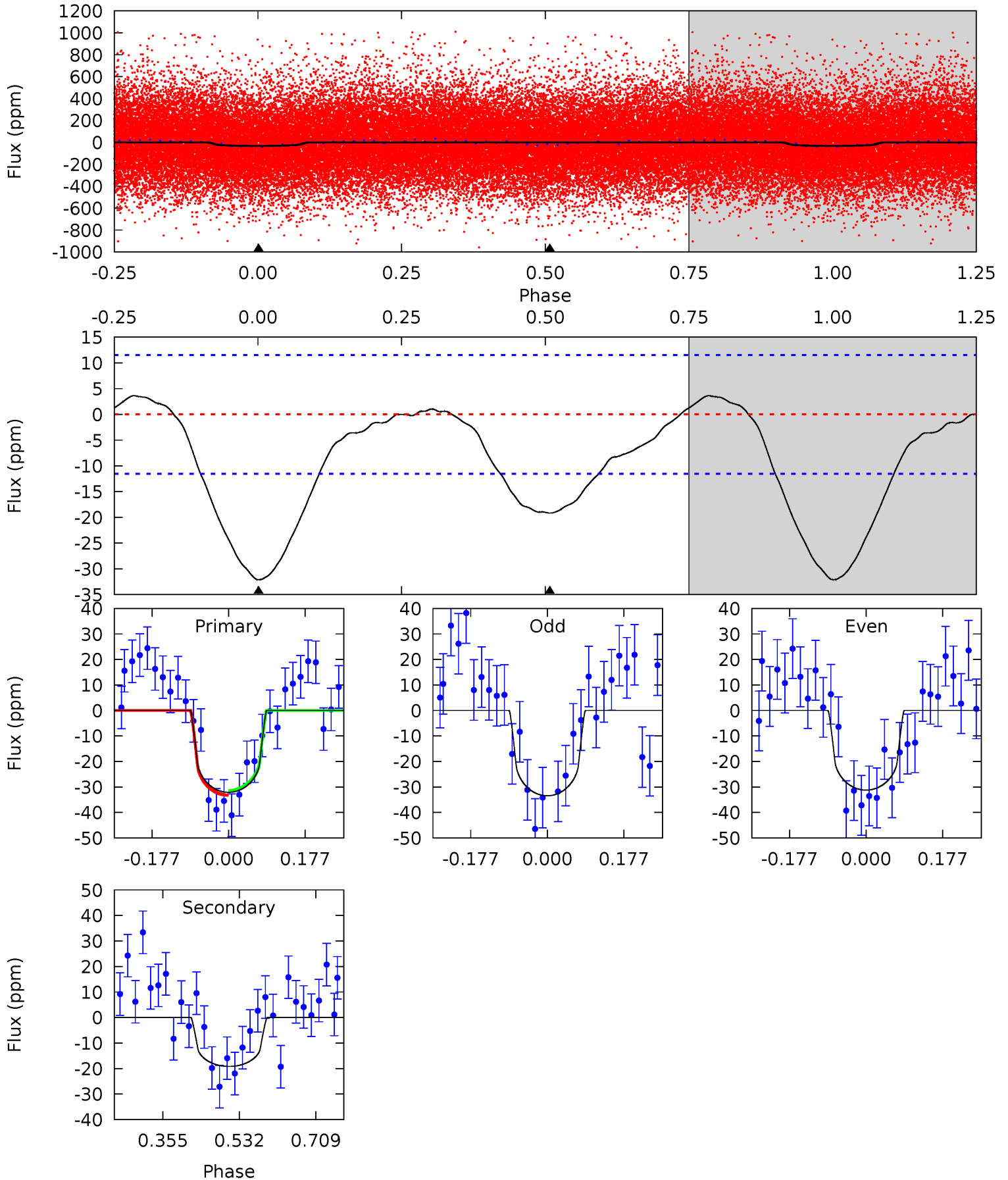
TCE 005284217-01 P= 1.295564 Days $T_0=132.362037$ (BKJD)



DV Model-Shift Uniqueness Test

005284217-01, P = 1.295566 Days, E = 131.068502 Days

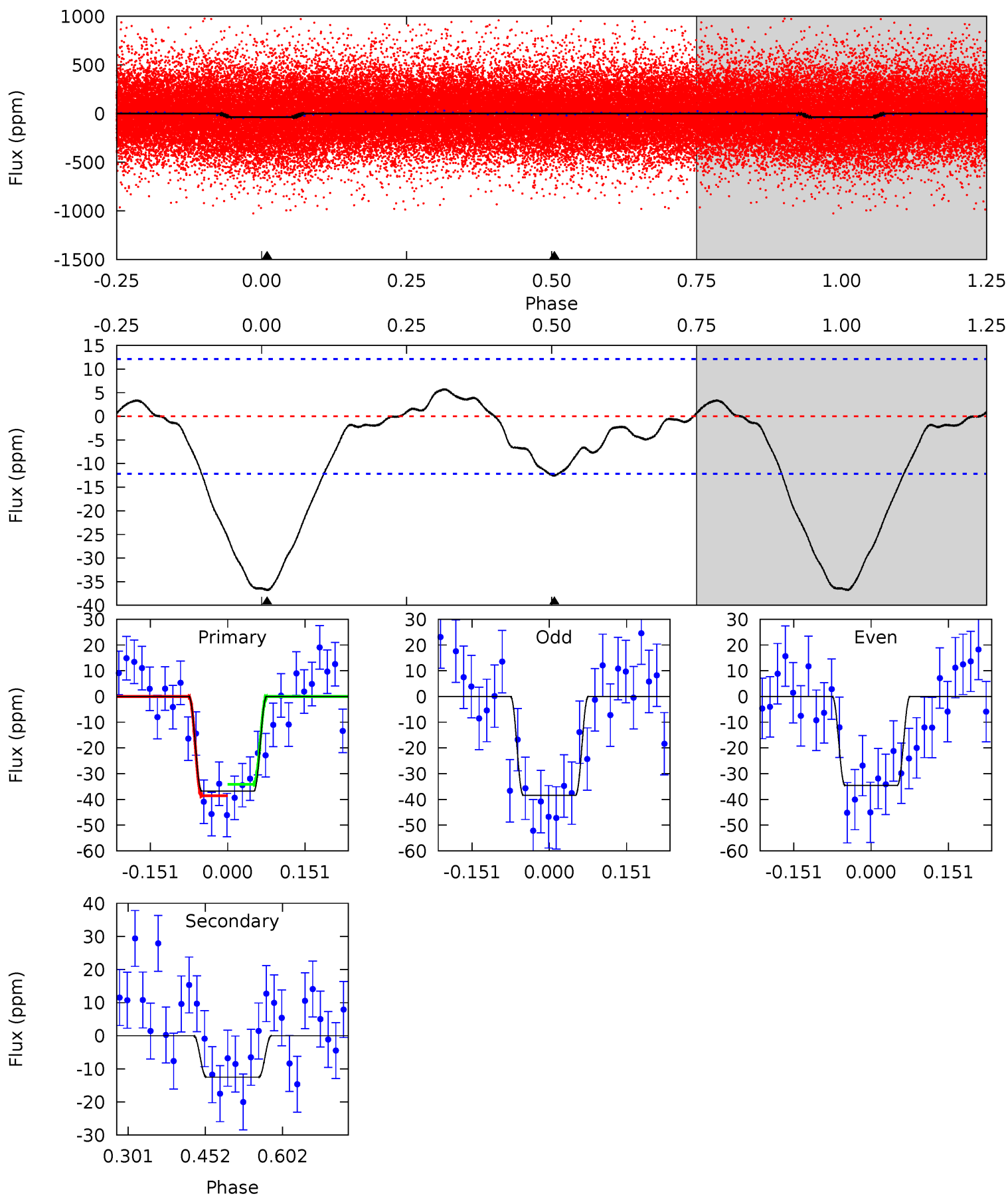
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 12.4 | 7.39 | 0 | 0 | 4.44 | 1.35 | 0.82 | 12.4 | 12.4 | 7.39 | 7.39 | 0.43 | 0.91 | 0.10 | 0.35 |



Alt Model-Shift Uniqueness Test

005284217-01, P = 1.295564 Days, E = 131.066473 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 13.6 | 4.62 | 0 | 0 | 4.48 | 1.44 | 0.96 | 13.6 | 13.6 | 4.62 | 4.62 | 0.71 | 1.12 | 0.13 | 0.81 |



Stellar Parameters For KIC 005284217

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 4056^{+109}_{-121} | $4.668^{+0.056}_{-0.024}$ | $-0.160^{+0.300}_{-0.300}$ | $0.581^{+0.042}_{-0.063}$ | $0.574^{+0.062}_{-0.055}$ | $4.116^{+1.118}_{-0.500}$ |
| | +3%/-3% | +1%/-1% | +188%/-188% | +7%/-11% | +11%/-10% | +27%/-12% |
| 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 005284217-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|--------------------|-----------------------|------------------|
| DV | -19 ± 3 | $0.44^{+0.23}_{-0.25}$ | 1361^{+42}_{-45} | 3438^{+1193}_{-415} | 21^{+88}_{-12} |
| Alt. | -13 ± 3 | $0.43^{+0.24}_{-0.24}$ | 1363^{+43}_{-49} | 3257^{+1059}_{-433} | 14^{+60}_{-8} |

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

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

DV Centroid Data

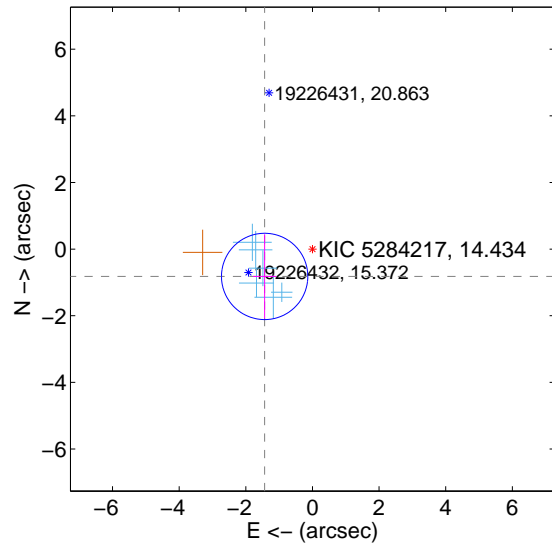
Supplemental centroid analysis for 005284217-01. Kepler magnitude: 14.43. Transit SNR 9.58

There are 6 quarters with good PRF difference image offsets

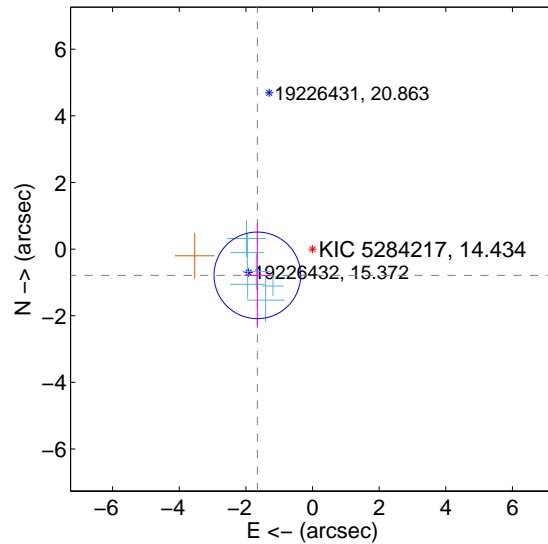
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 1.652 ± 0.432 | 3.83 | 1.434 ± 0.349 | -0.820 ± 1.264 |
| PRF-fit source offset from KIC position | 1.834 ± 0.433 | 4.23 | 1.656 ± 0.398 | -0.788 ± 1.571 |
| photometric centroid source offset | 2.78 ± 1.09 | 2.55 | 2.78 ± 1.09 | -0.05 ± 1.10 |

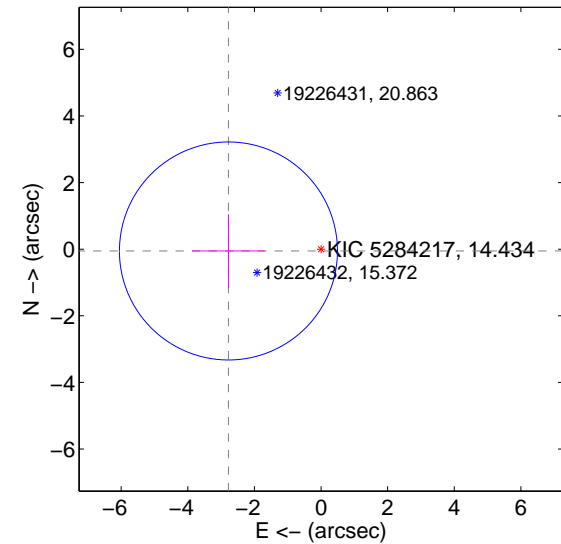
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

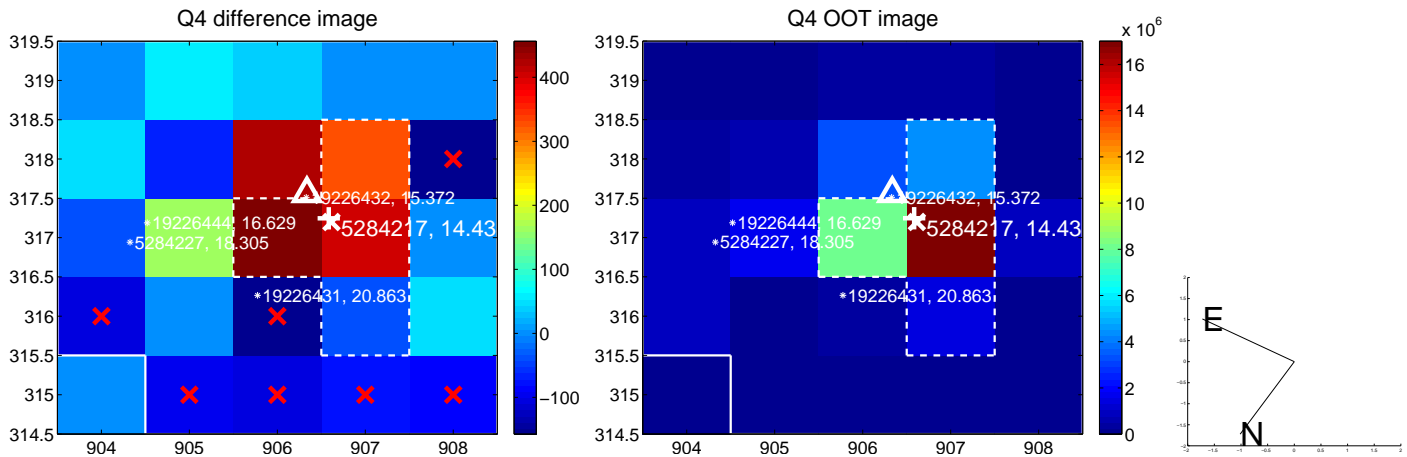
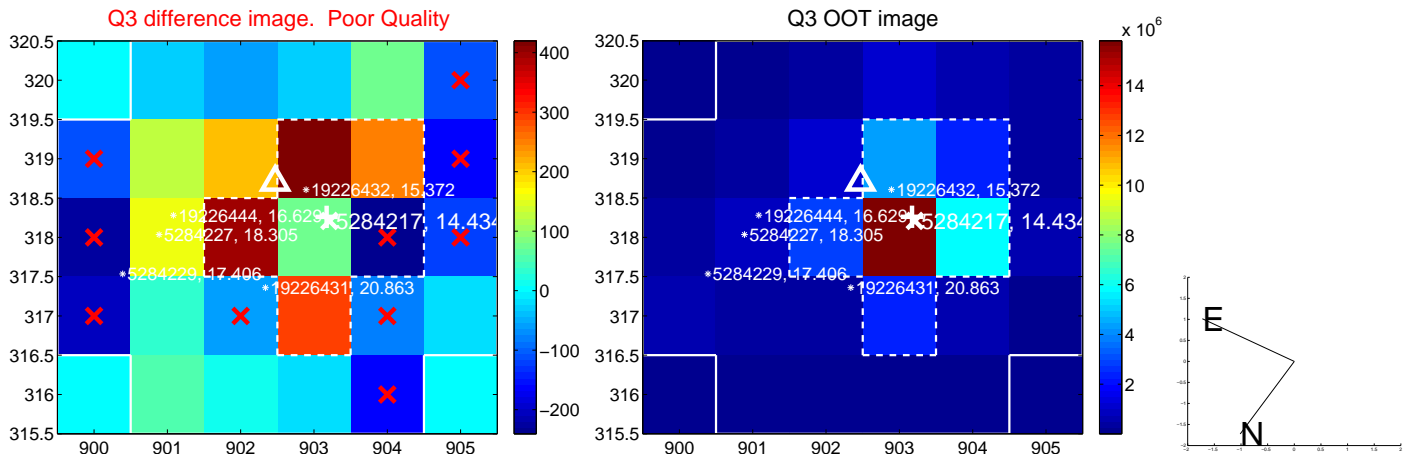
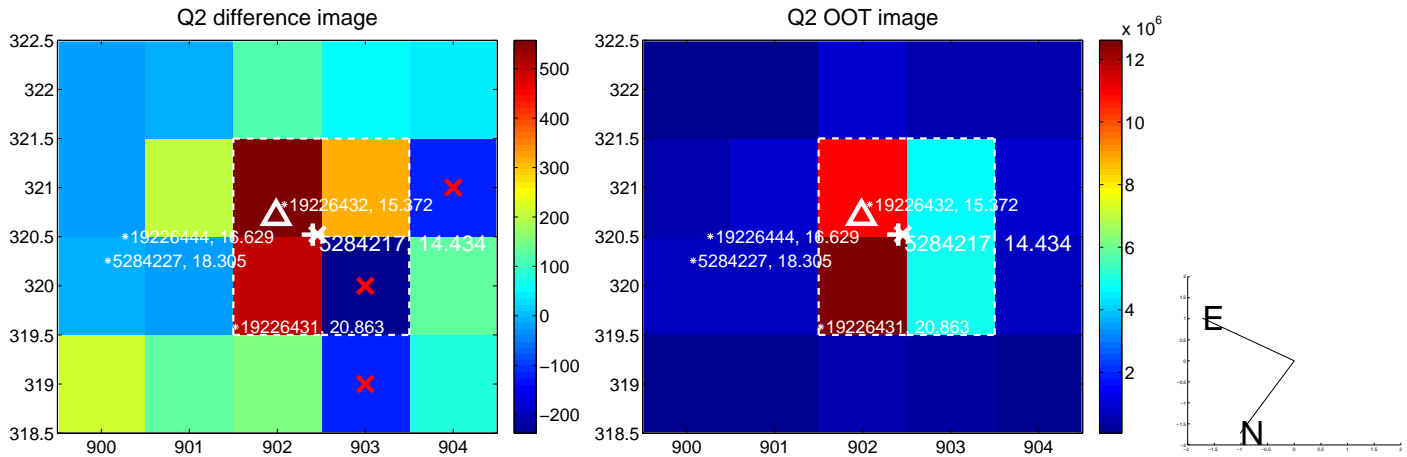
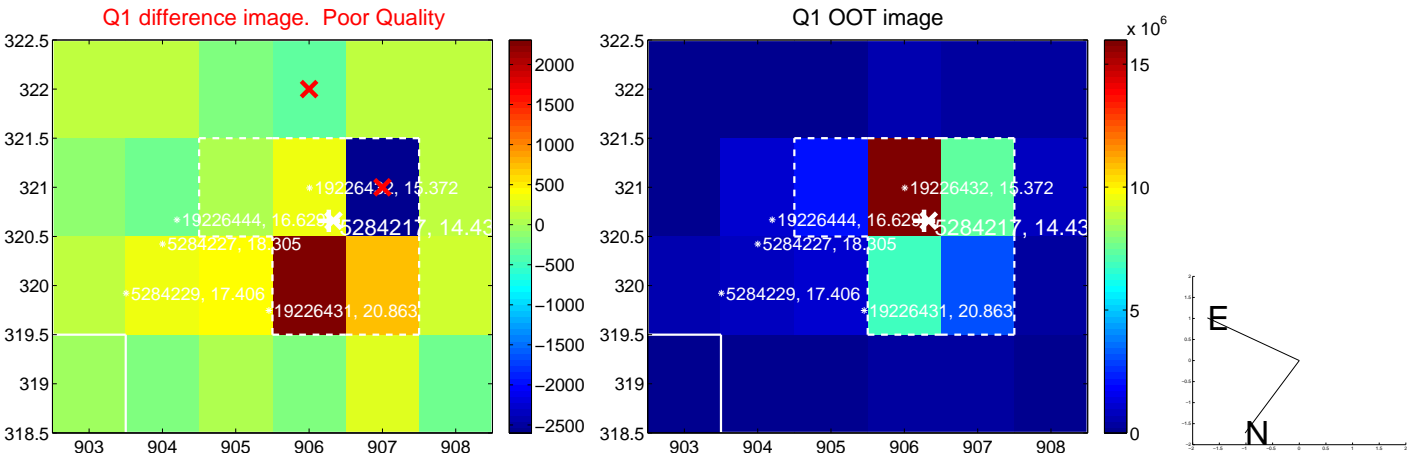


offset from photometric centroids

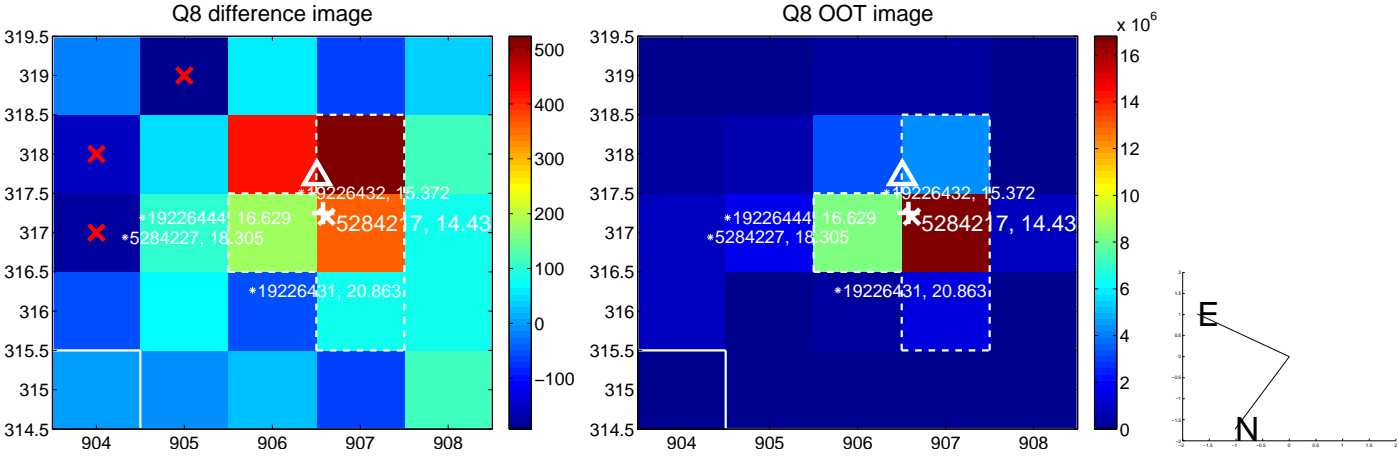
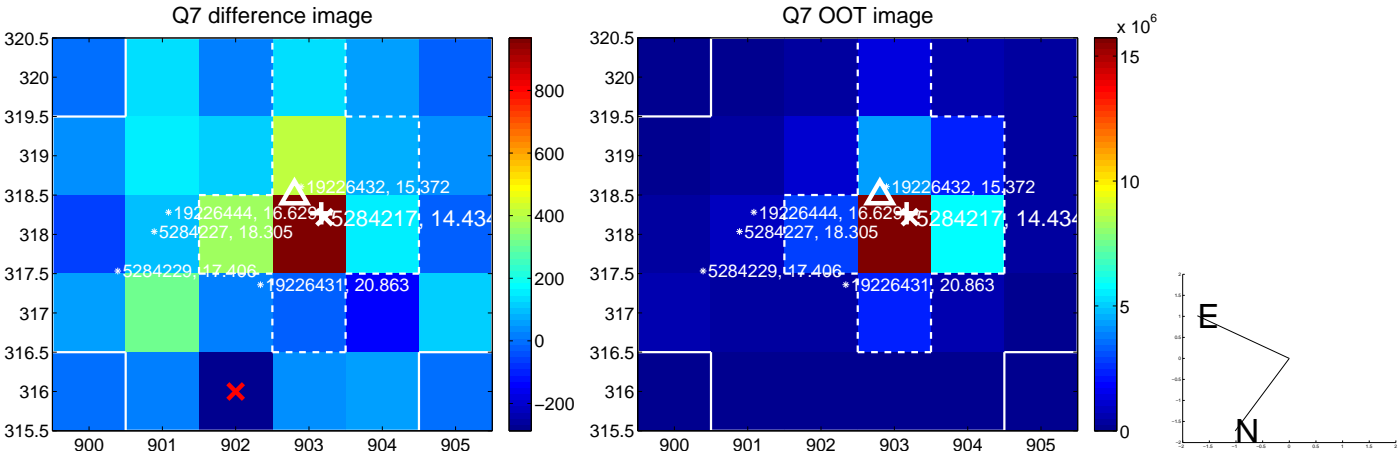
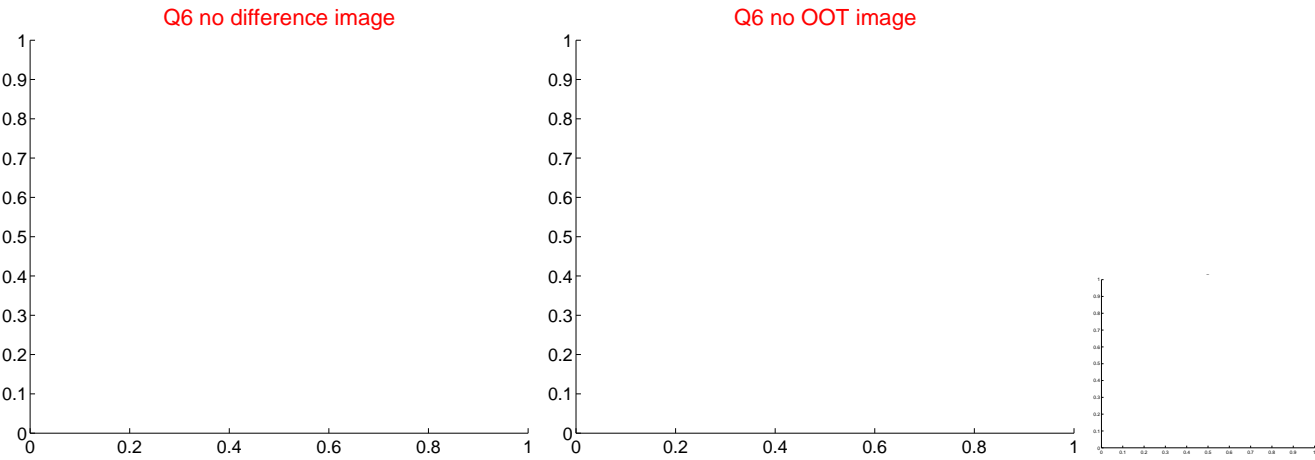
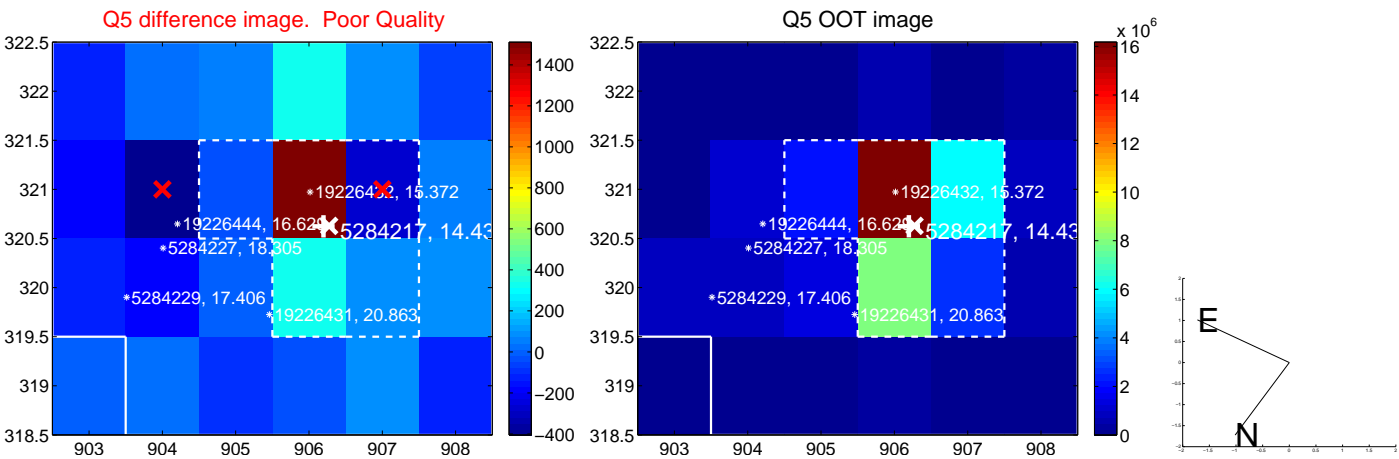


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

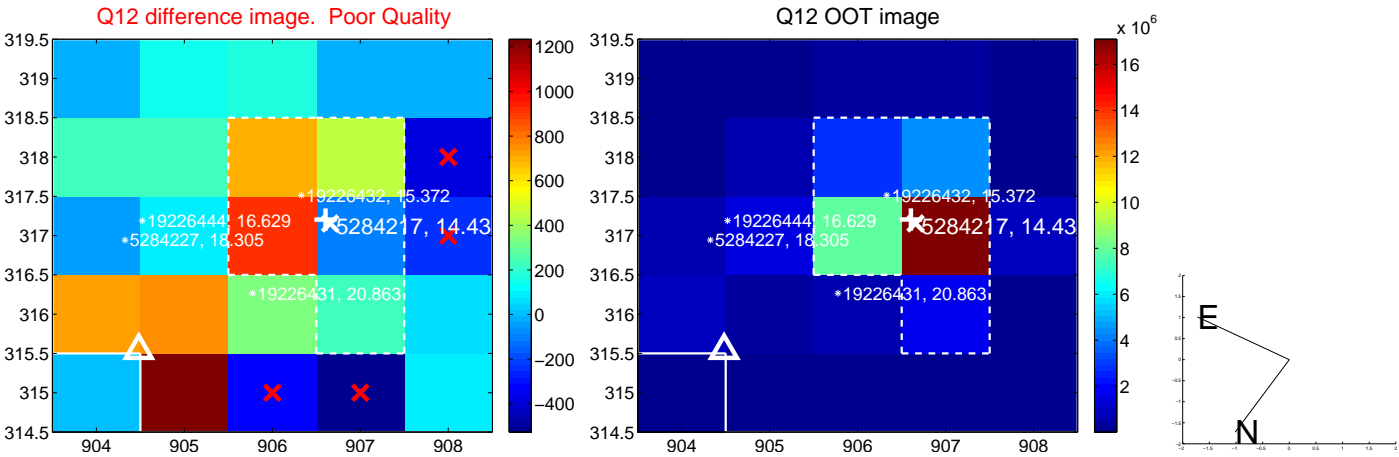
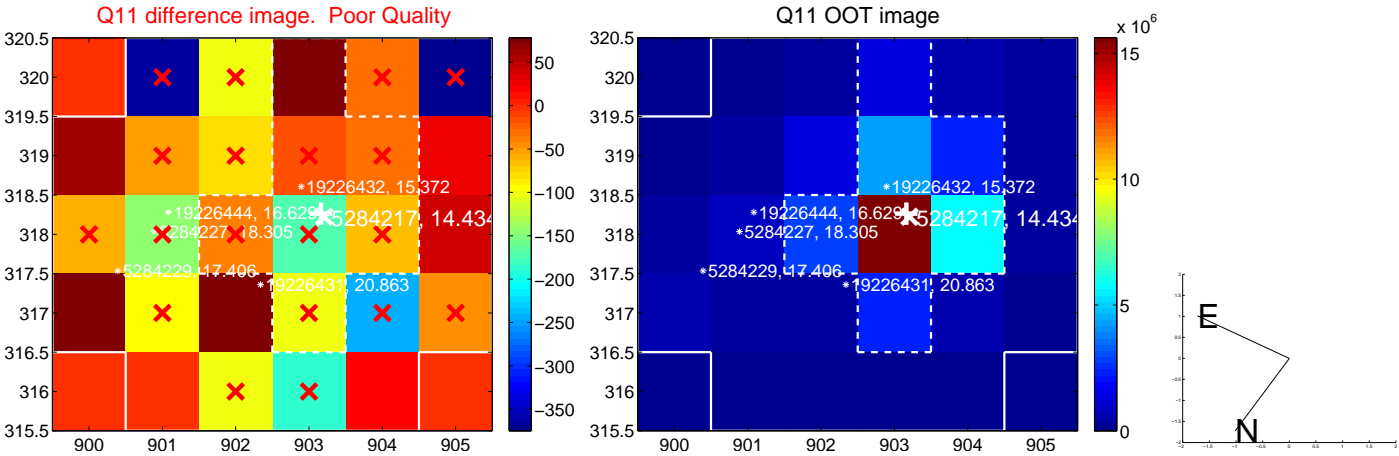
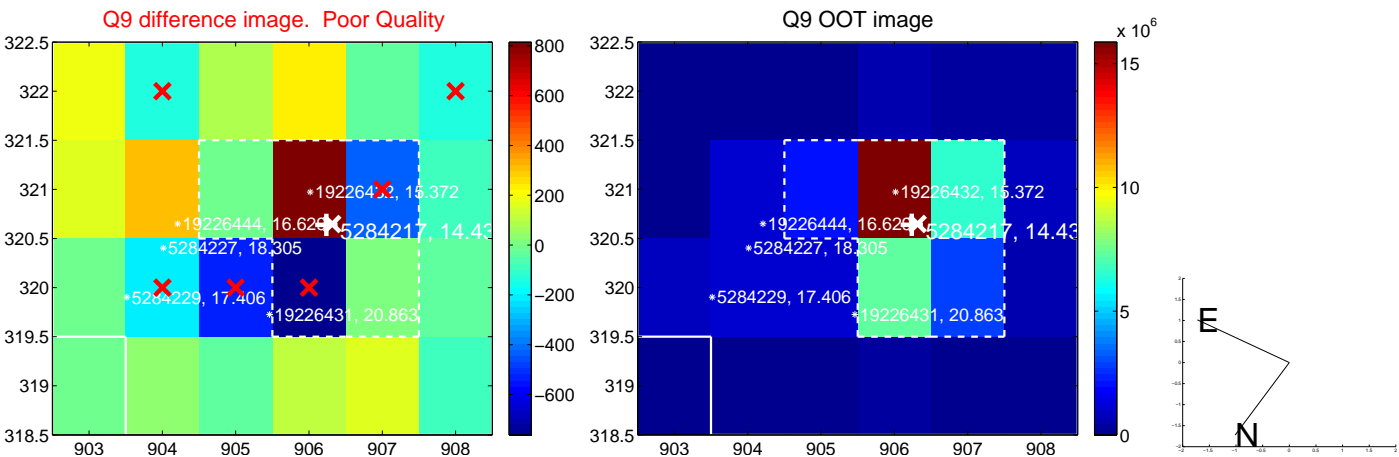
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



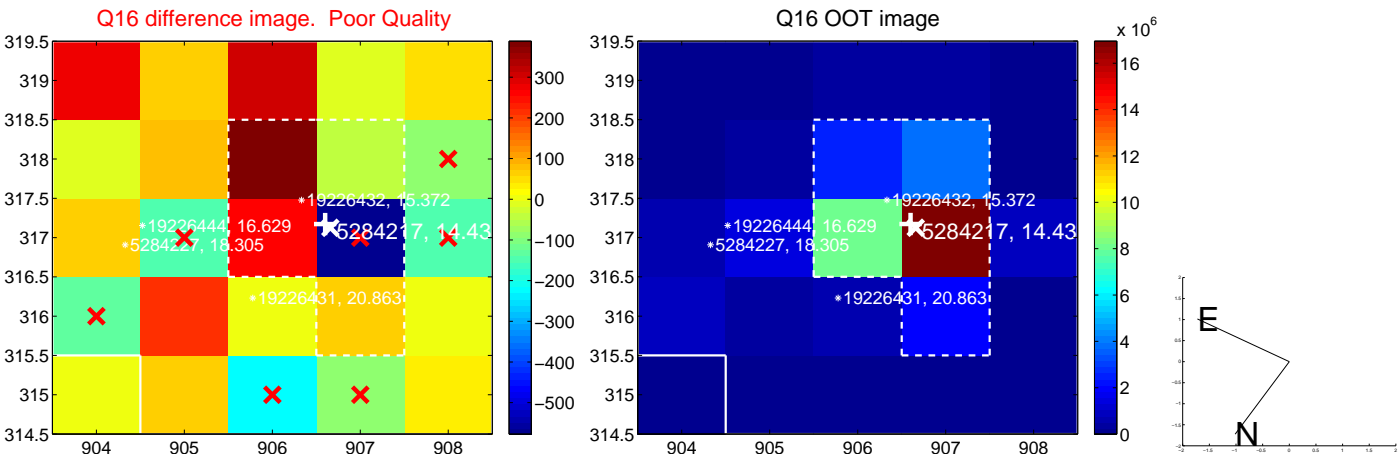
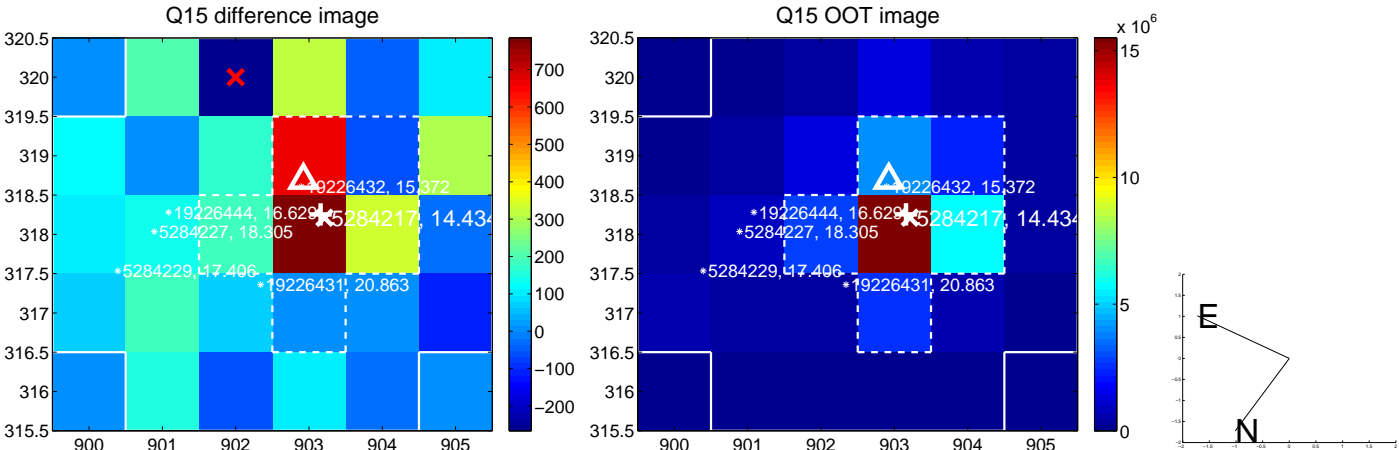
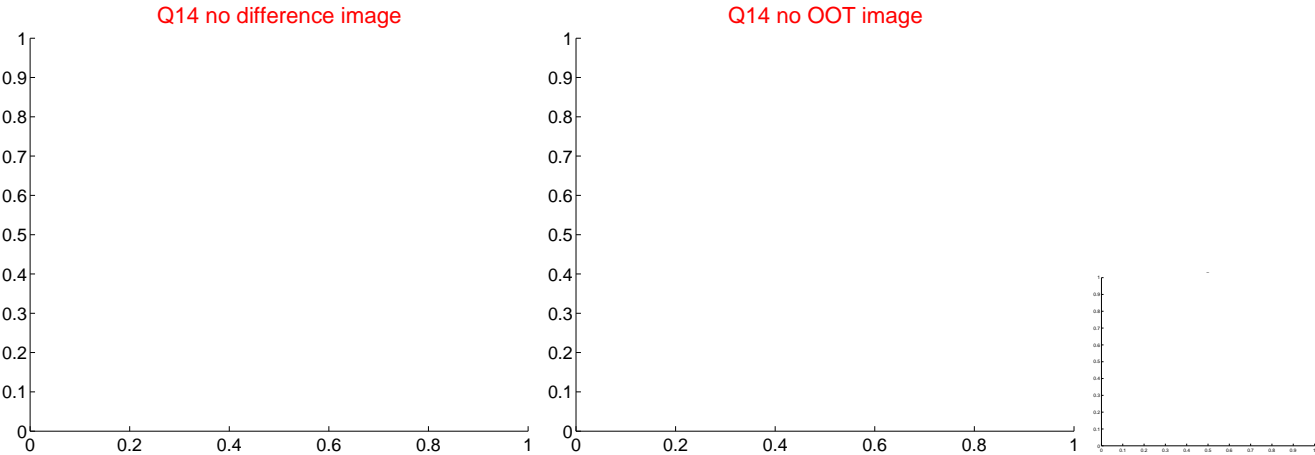
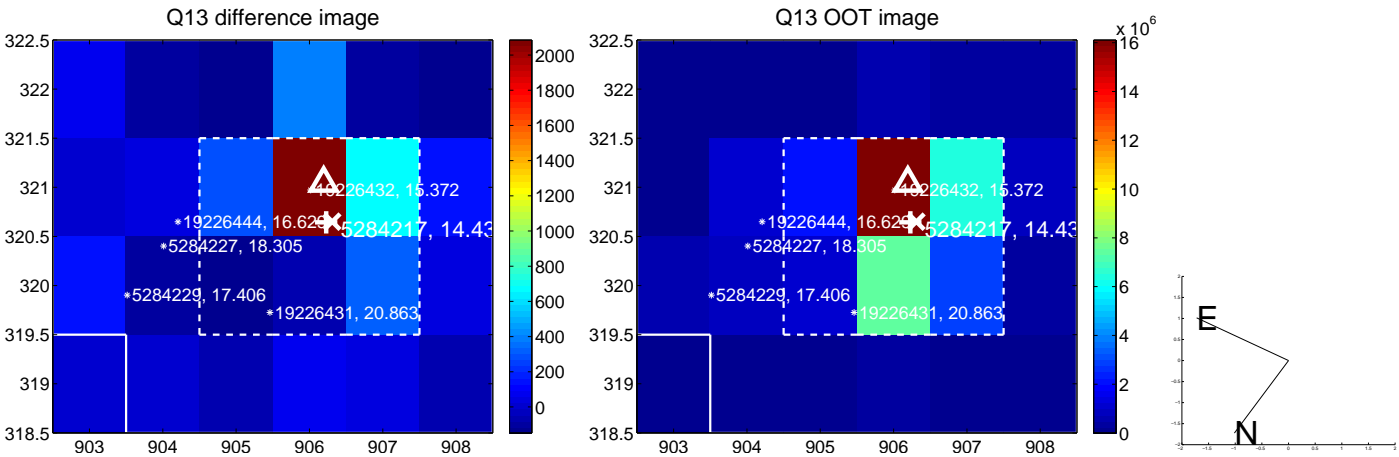
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



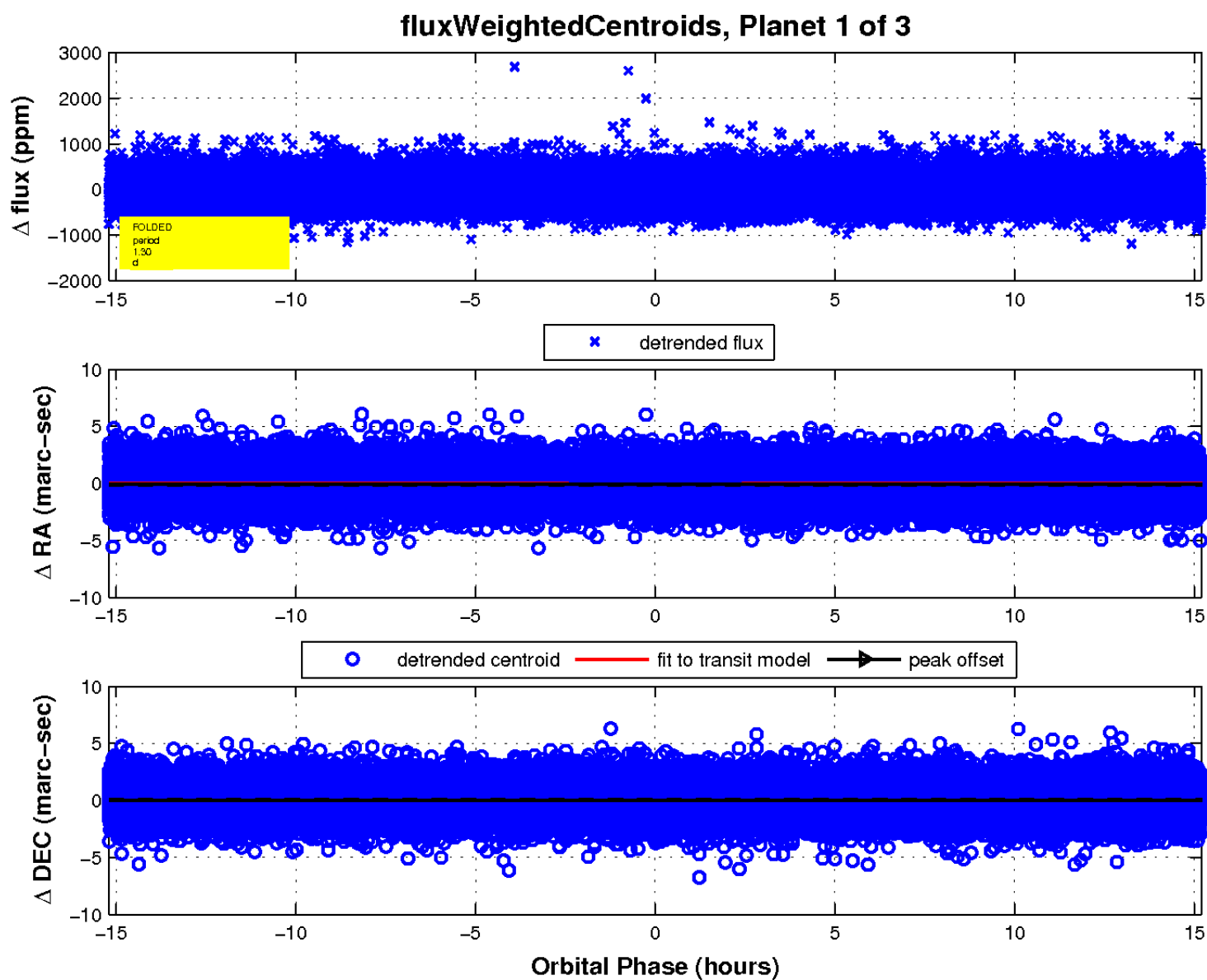
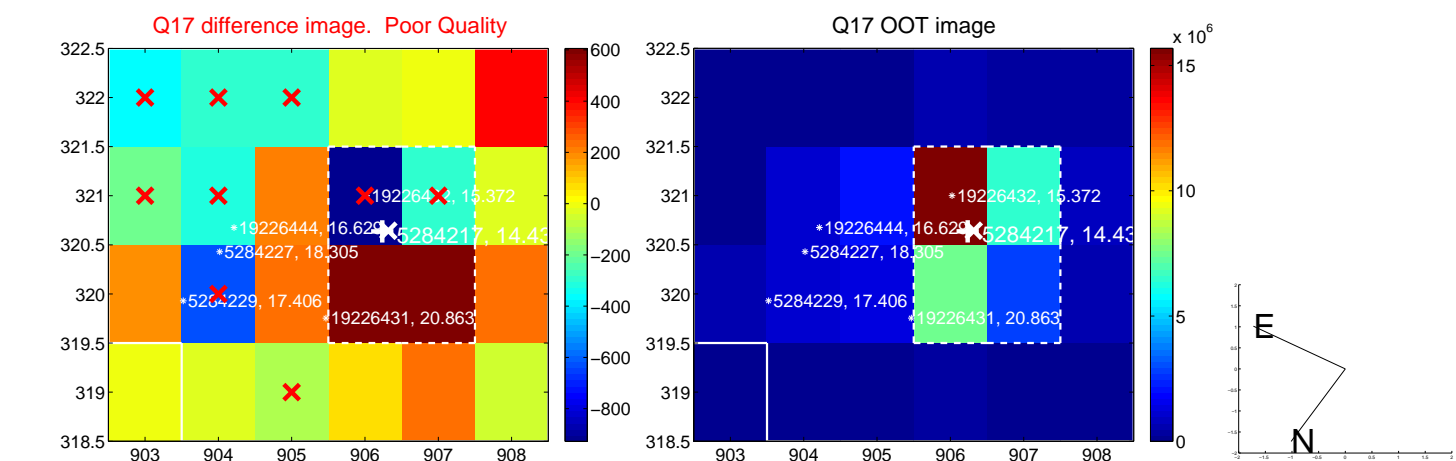
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



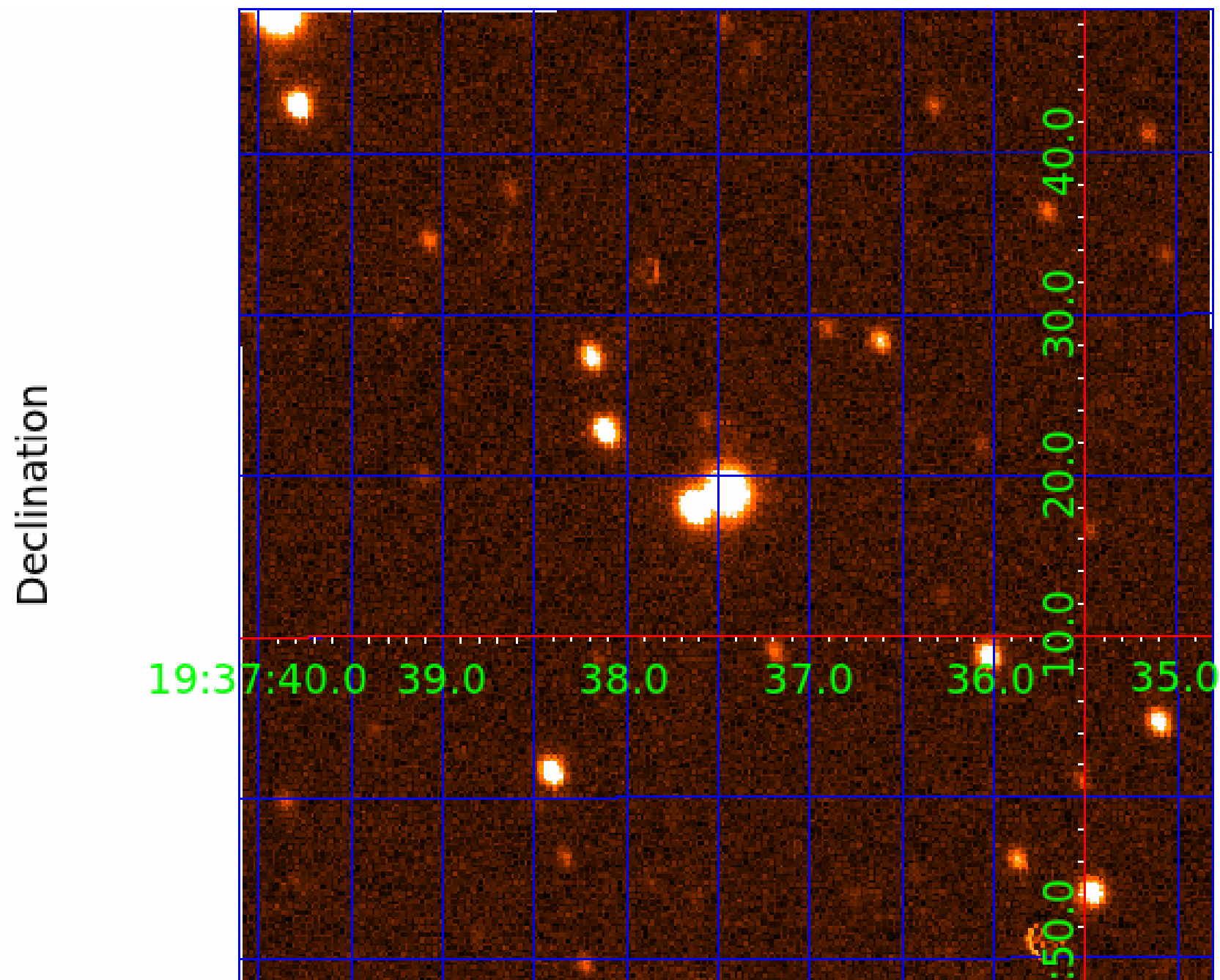
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image



KIC 005284217

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 005284217-01 | OBS | No | 1.295566 | 132.364067 | 40.1 | 5.067 | 8.6 | 9.6 | 0.58 | 4056 | 0.42 | 219.18 |
| 005284217-02 | OBS | No | 311.735811 | 330.843797 | 317.8 | 34.486 | 15.8 | 4.7 | 0.58 | 4056 | 1.10 | 0.15 |
| 005284217-03 | OBS | No | 181.841206 | 160.991481 | 281.5 | 19.203 | 12.0 | 6.0 | 0.58 | 4056 | 1.26 | 0.30 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 005284217-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 005284217-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 005284217-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS |

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

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

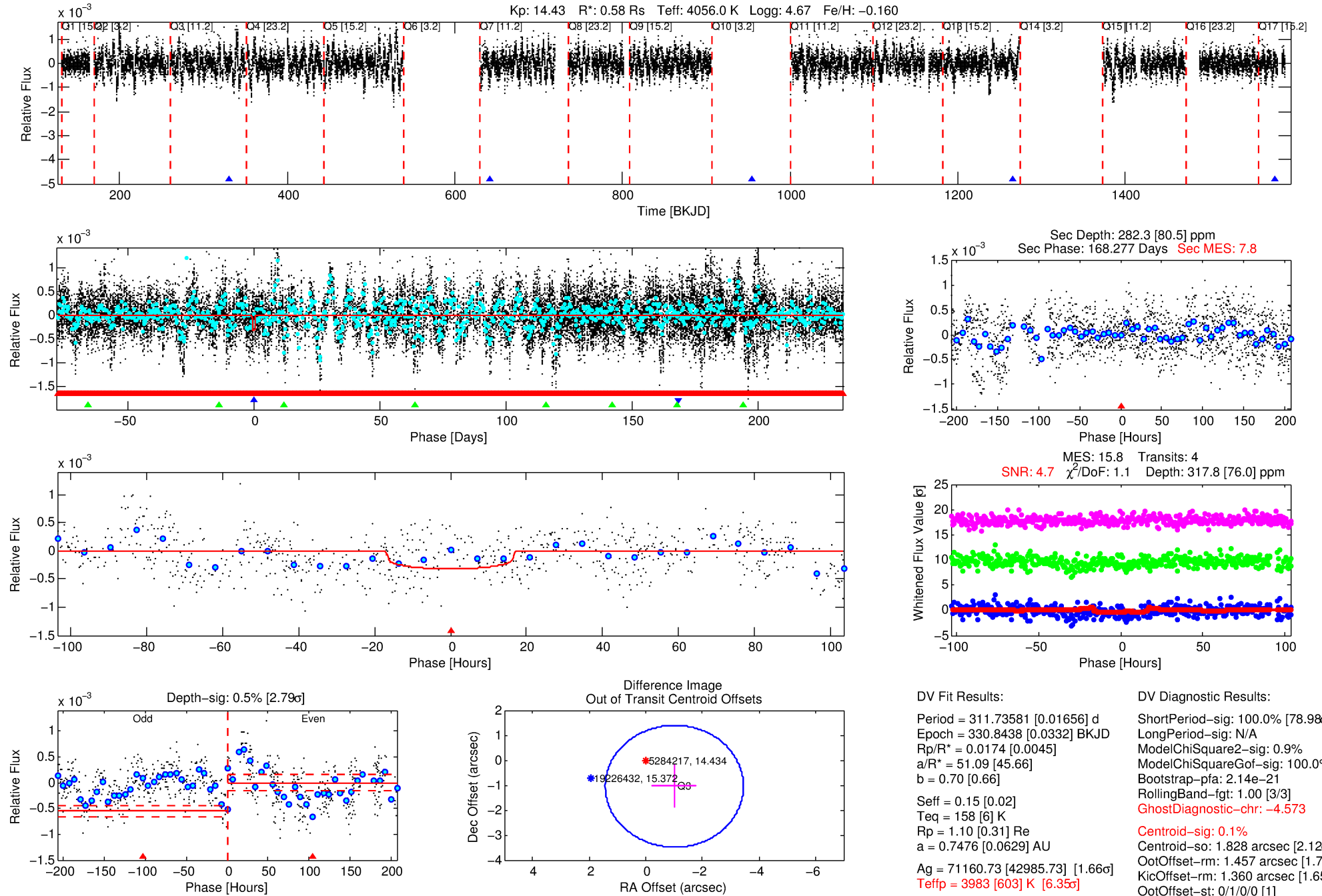
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005284217-02

No Significant Match Found

DV One-Page Summary

KIC: 5284217 Candidate: 2 of 3 Period: 311.736 d



DV Fit Results:

Period = 311.73581 [0.01656] d
Epoch = 330.8438 [0.0332] BKJD
Rp/R* = 0.0174 [0.0045]
a/R* = 51.09 [45.66]
b = 0.70 [0.66]
Seff = 0.15 [0.02]
Teq = 158 [6] K
Rp = 1.10 [0.31] Re
a = 0.7476 [0.0629] AU
Ag = 71160.73 [42985.73] [1.66 σ]
Teff = 3983 [603] K [6.35 σ]

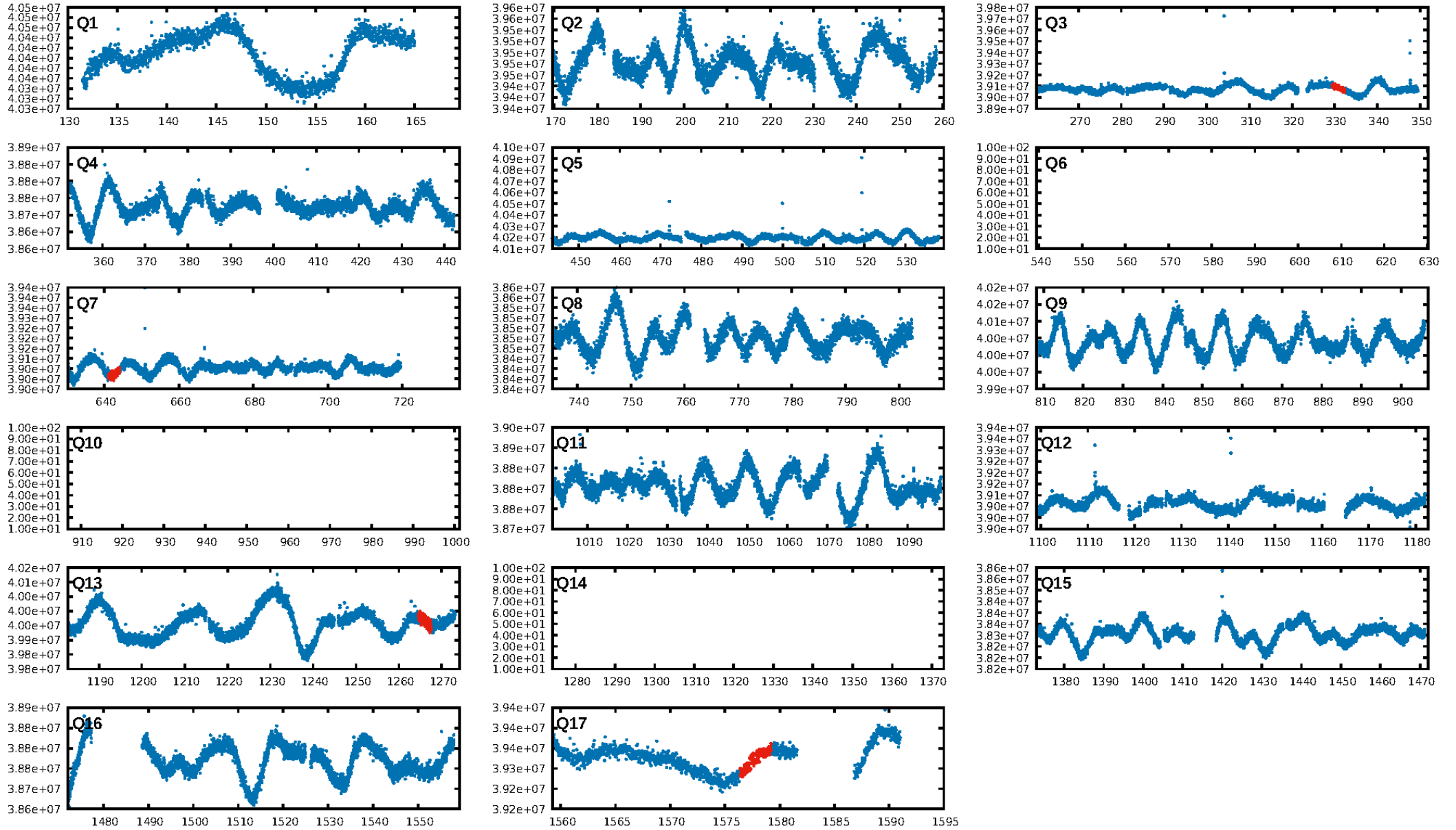
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [78.98 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.14e-21
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.573
Centroid-sig: 0.1%
Centroid-so: 1.828 arcsec [2.12 σ]
OotOffset-rm: 1.457 arcsec [1.79 σ]
KicOffset-rm: 1.360 arcsec [1.65 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 0.00 [0/2]

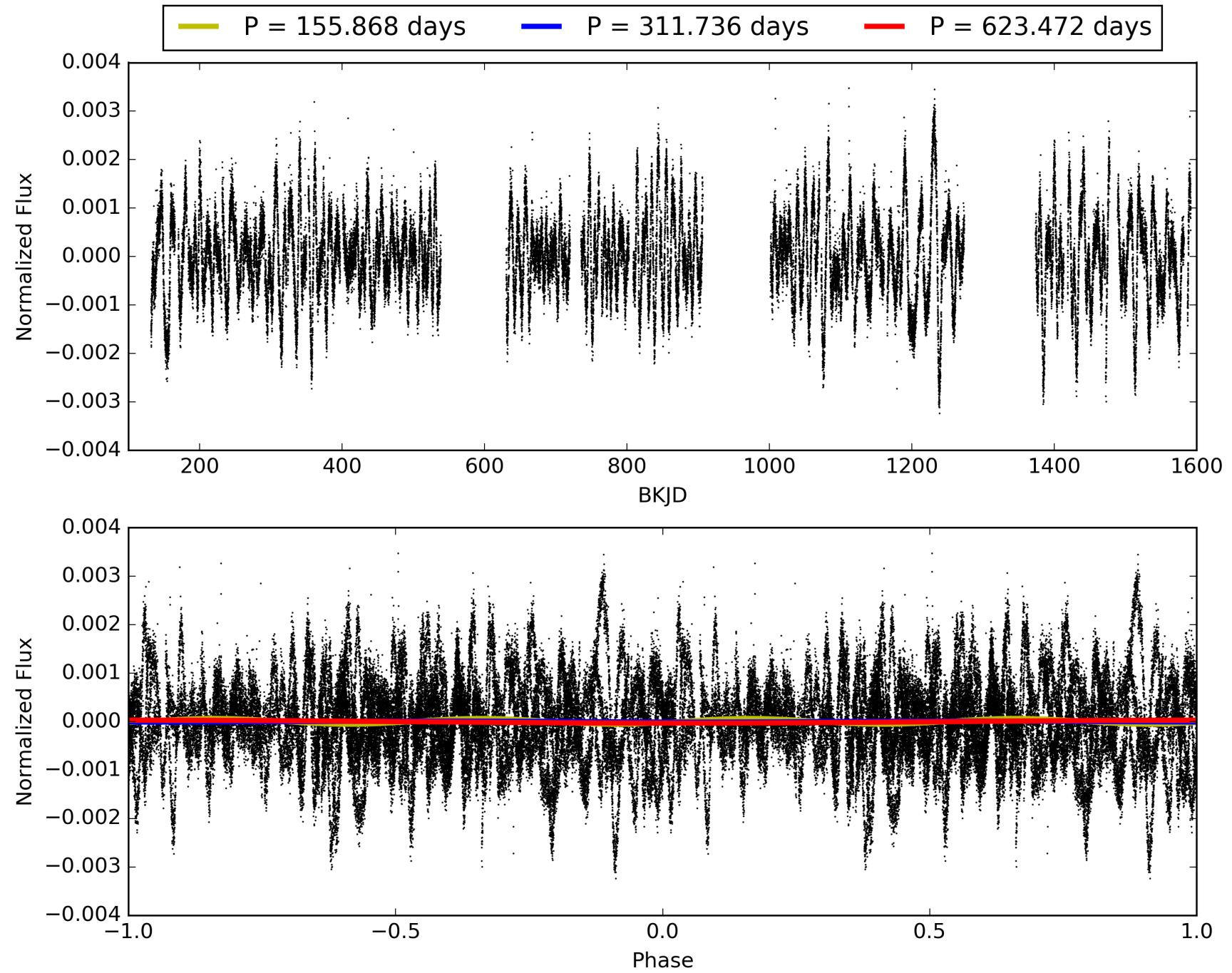
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:32:07 Z

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

TCE 005284217-02, PDC Light Curves

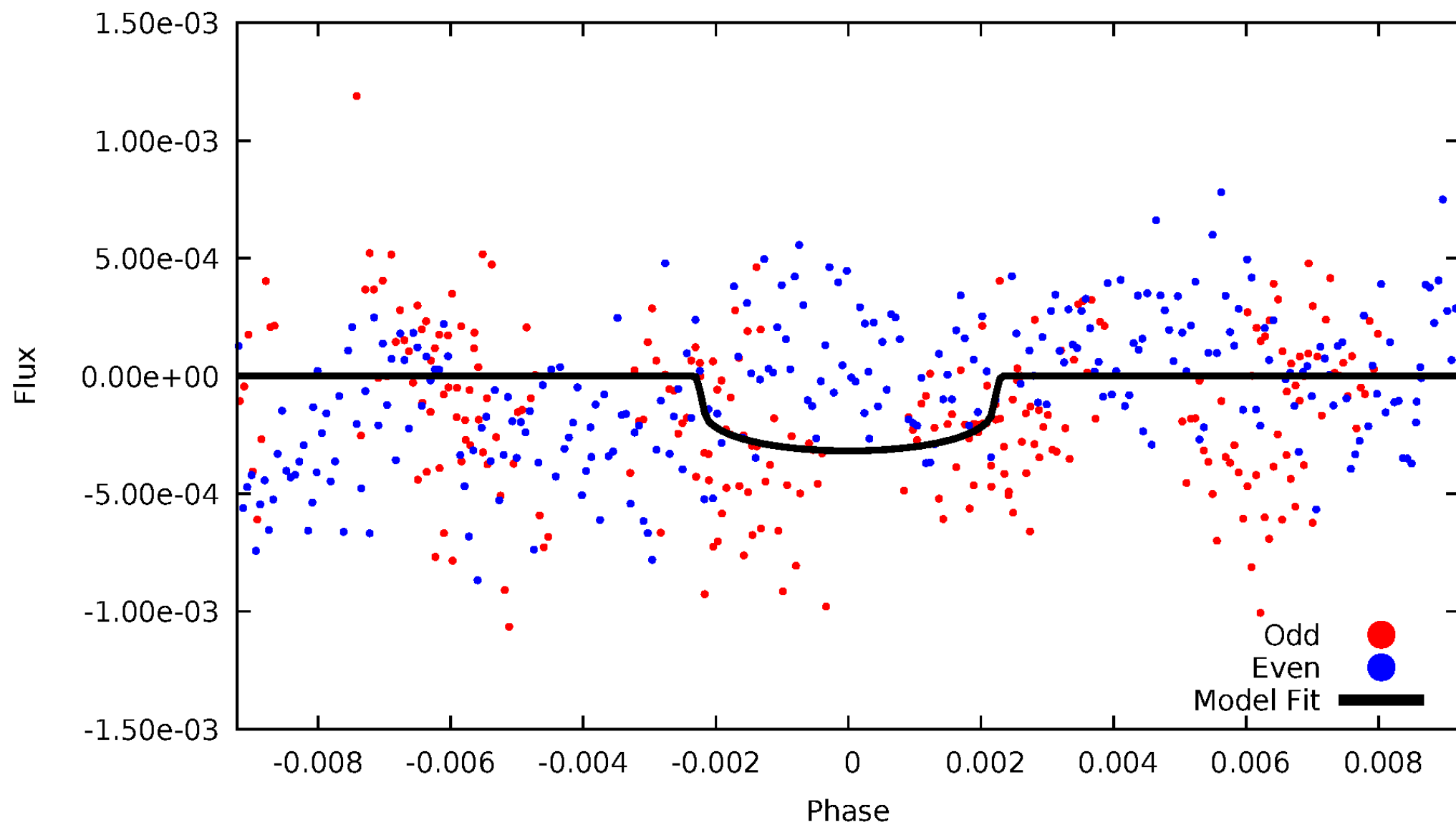


TCE 005284217-02



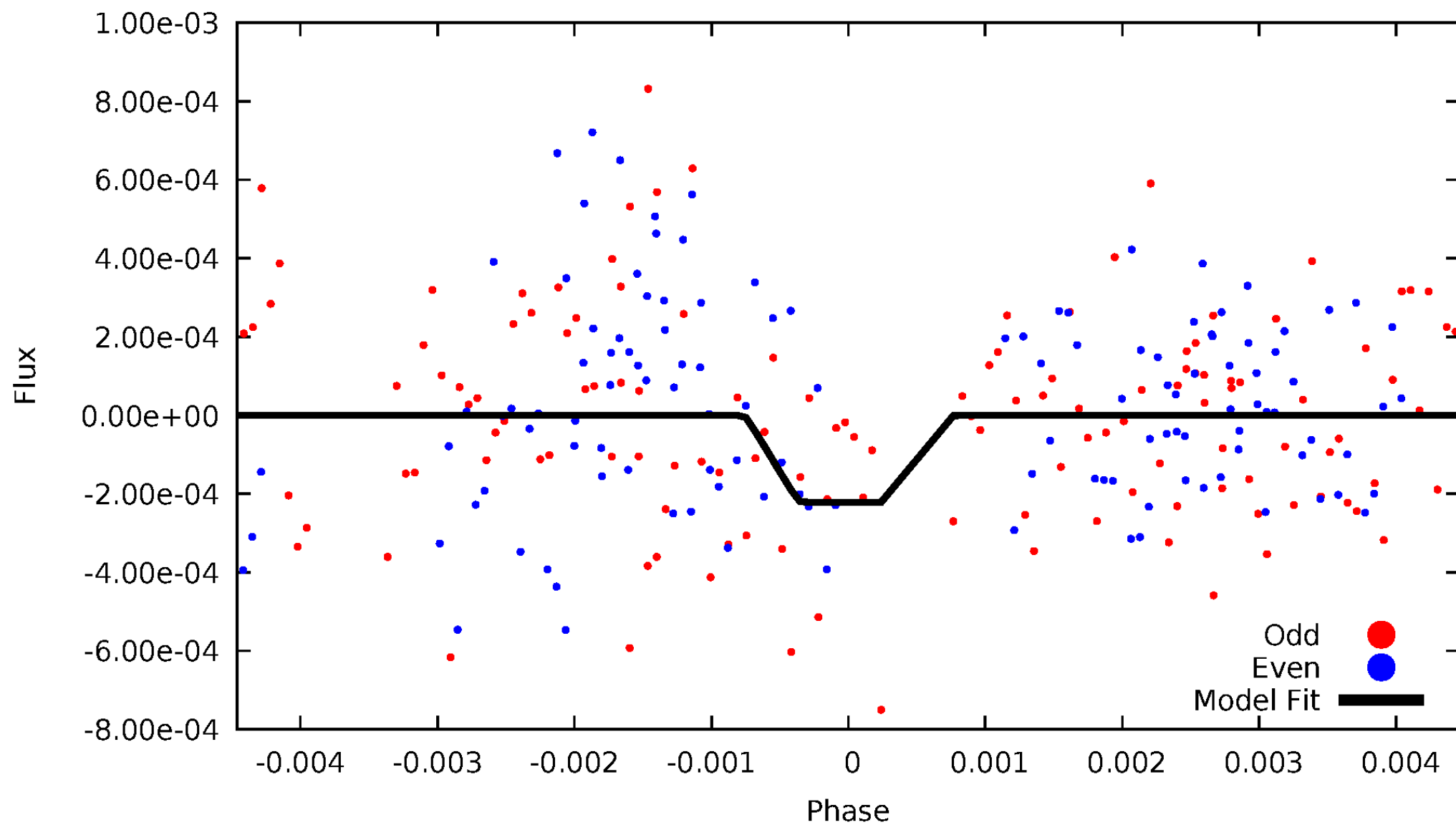
DV Odd/Even

TCE 005284217-02



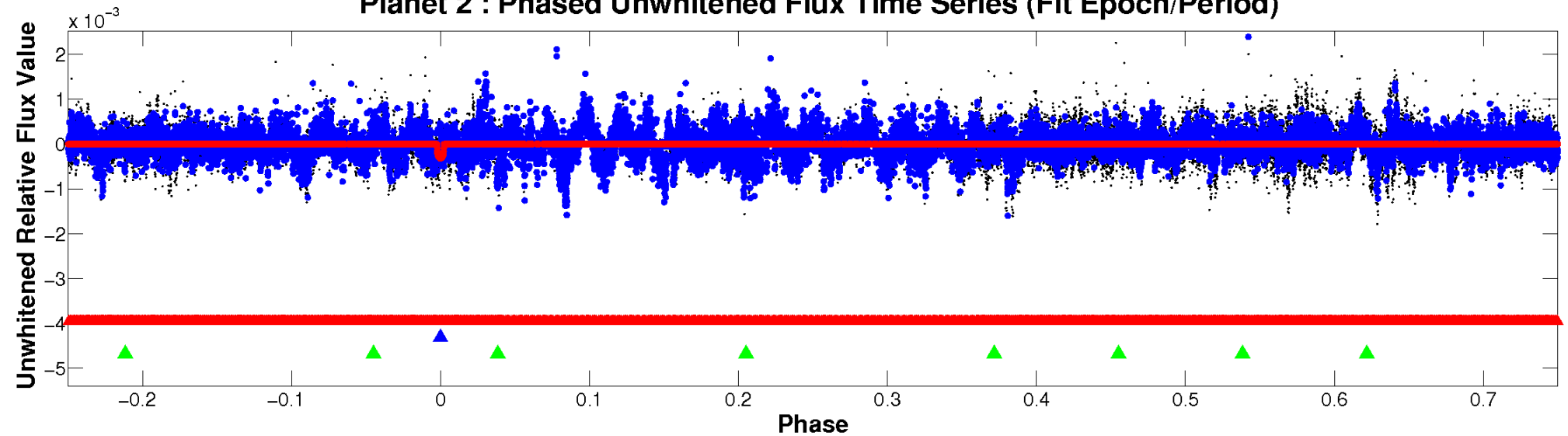
ALT Odd/Even

TCE 005284217-02

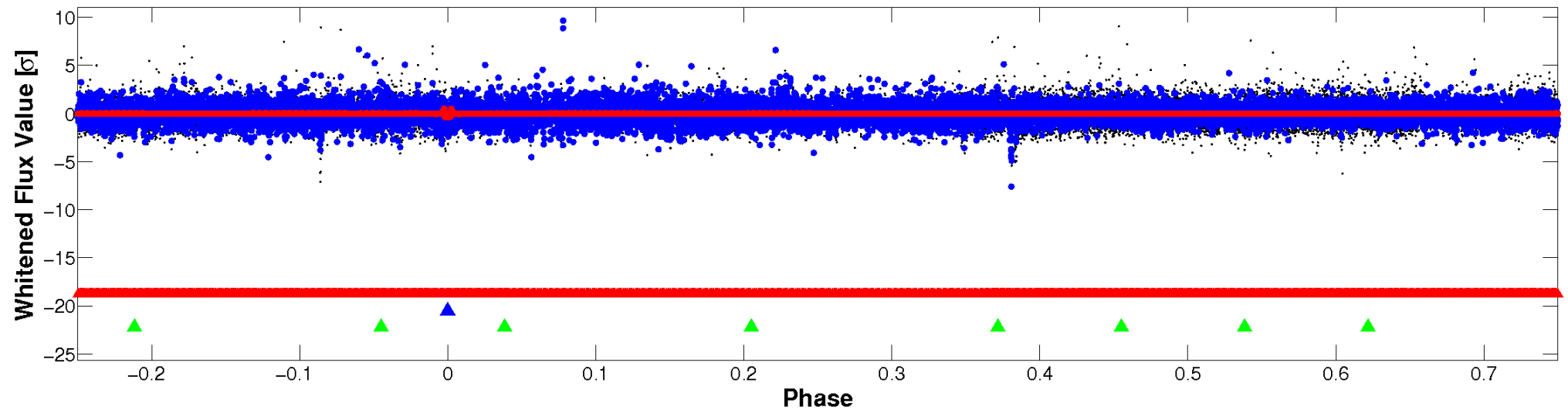


Non-Whitened Vs. Whitened Light Curve

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

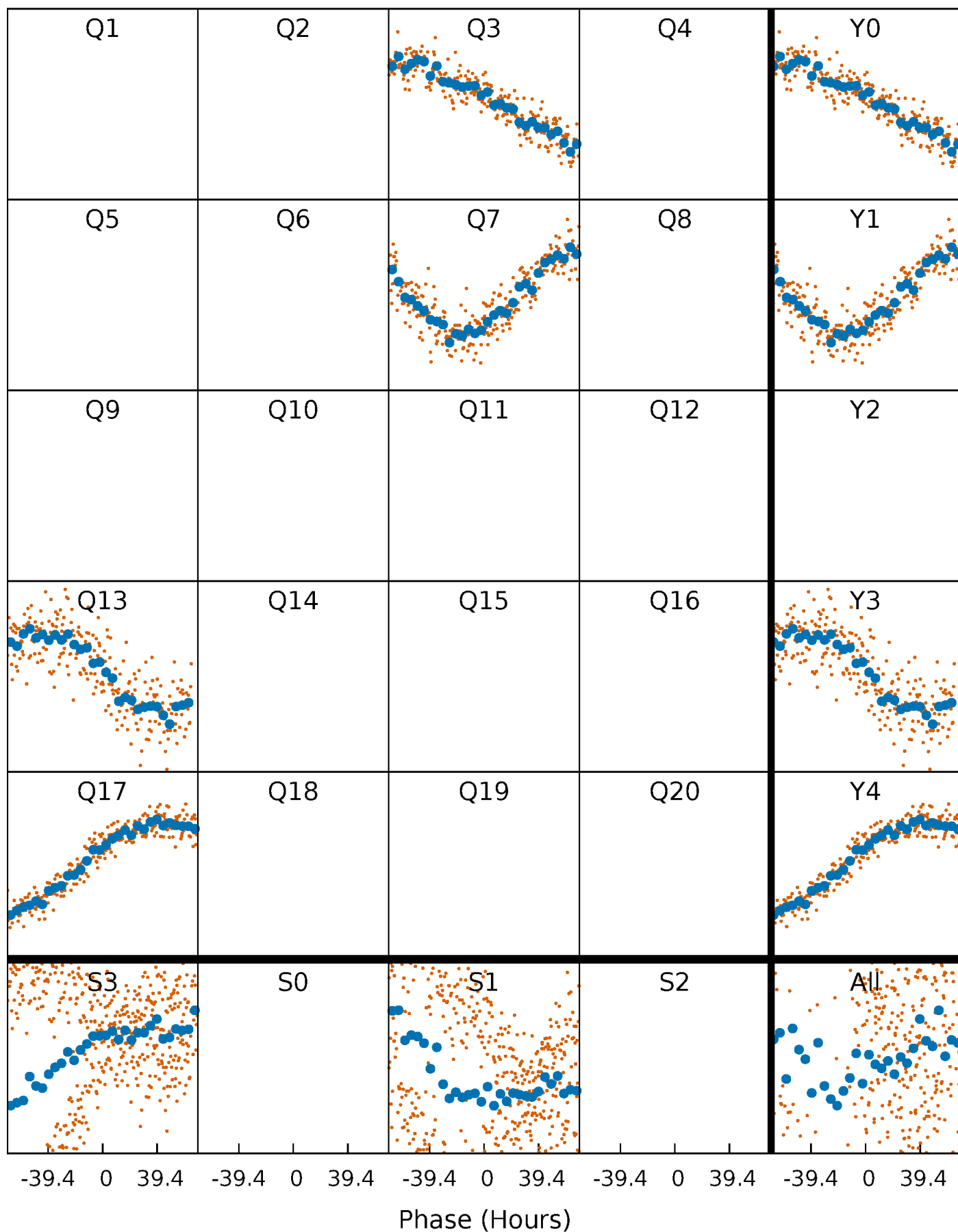


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 005284217-02 $P=311.735811$ Days $T_0=330.843797$ (BKJD)



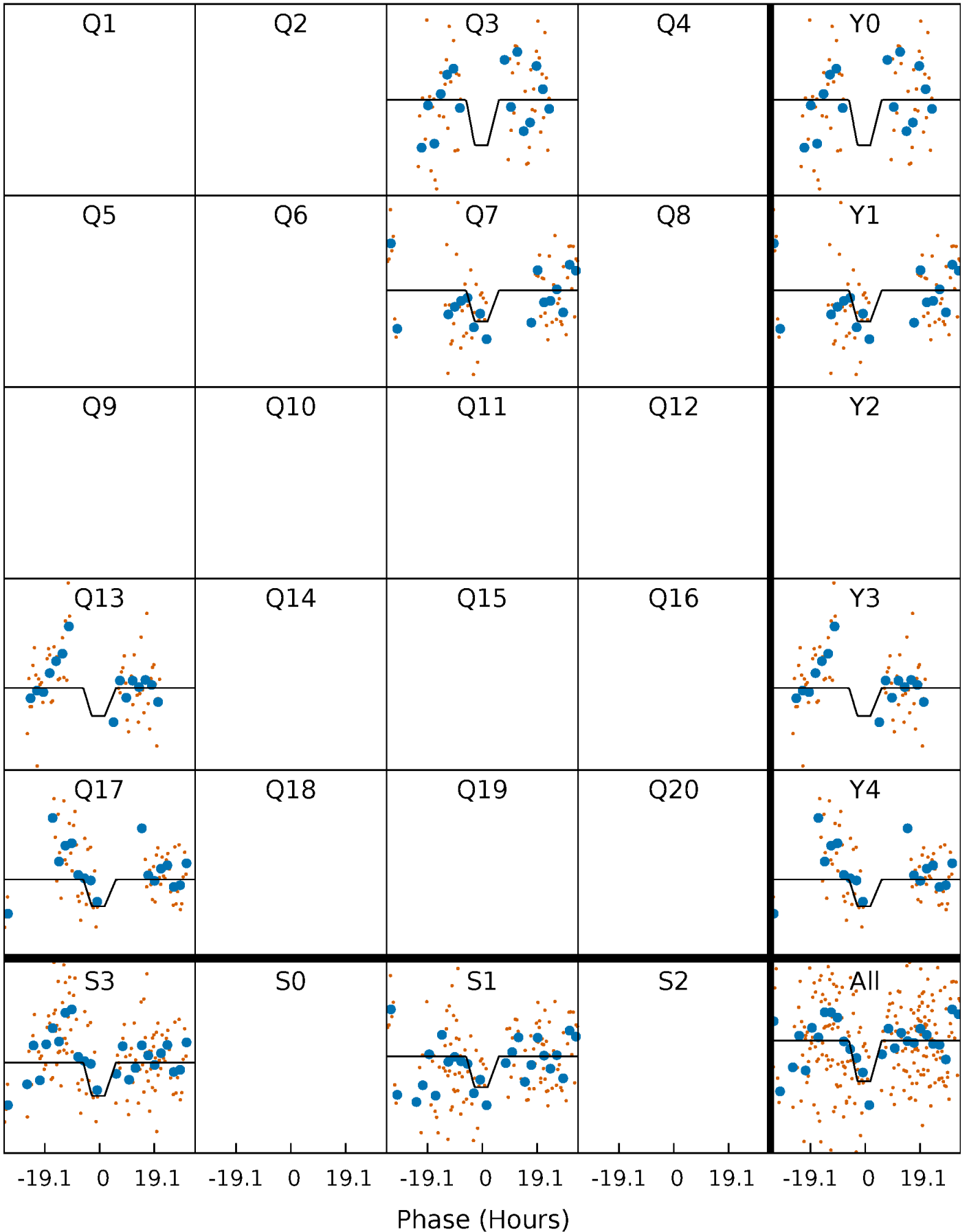
DV Quarter-Phased Transit Curves

TCE 005284217-02 P=311.735811 Days $T_0=330.843797$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

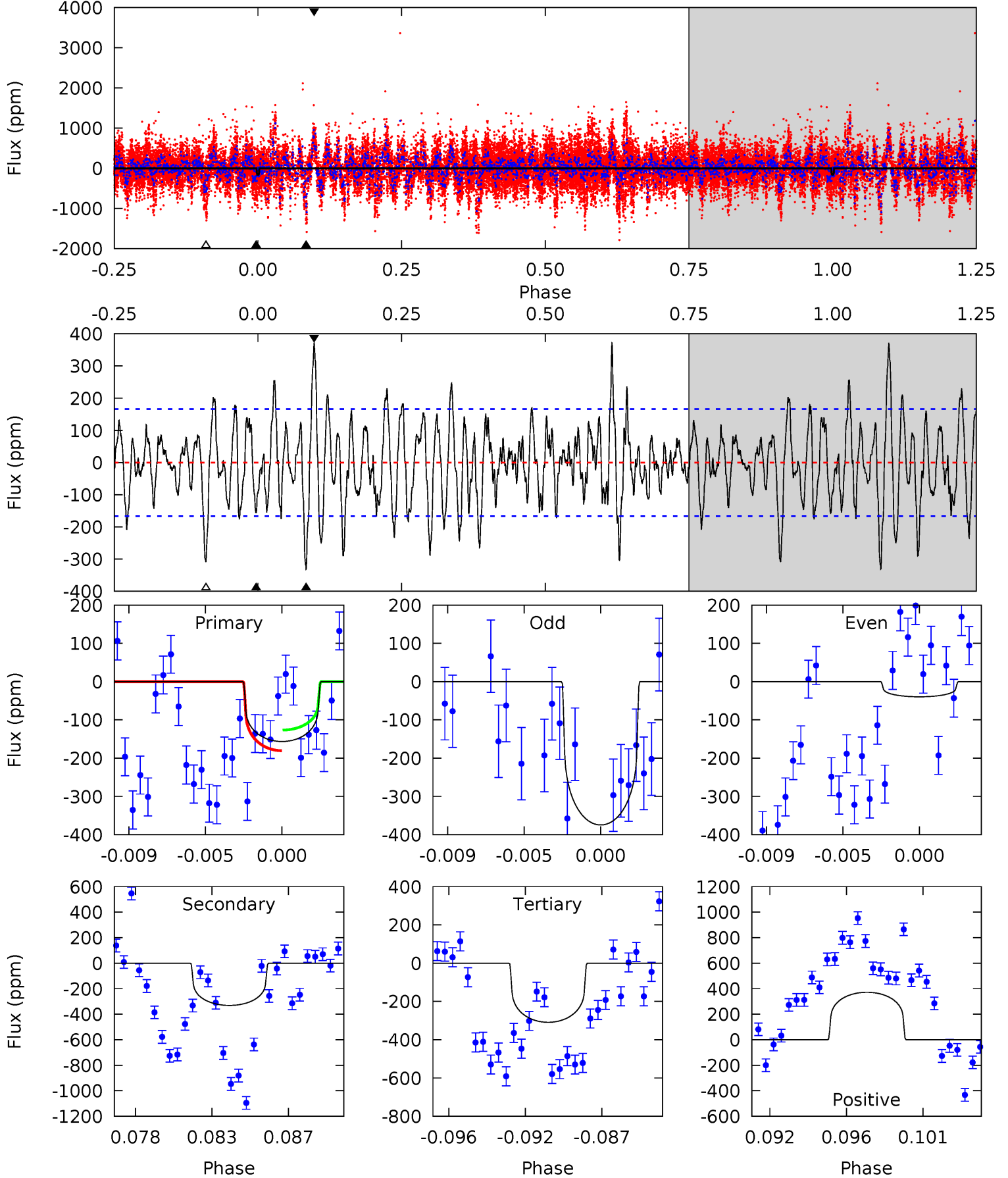
TCE 005284217-02 $P=311.836559$ Days $T_0=330.565017$ (BKJD)



DV Model-Shift Uniqueness Test

005284217-02, P = 311.735811 Days, E = 19.107986 Days

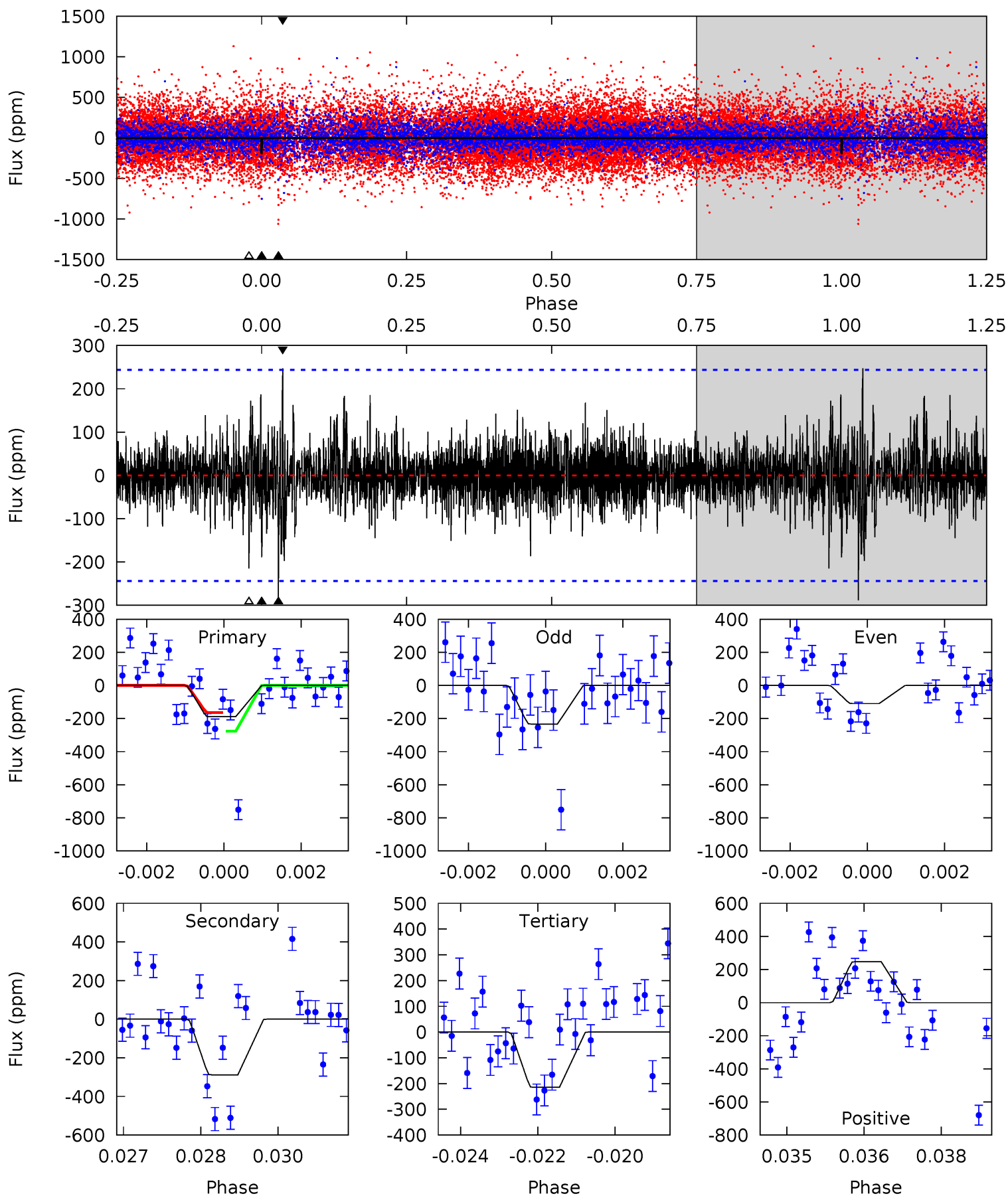
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 4.86 | 10.3 | 9.60 | 11.6 | 5.17 | 2.83 | 3.19 | -4.74 | -6.70 | 0.69 | -1.27 | 4.82 | 1.28 | 0.53 | 0.84 |



Alt Model-Shift Uniqueness Test

005284217-02, $P = 311.836559$ Days, $E = 18.728458$ Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 4.16 | 6.36 | 4.73 | 5.44 | 5.37 | 3.16 | 0.96 | -0.56 | -1.28 | 1.63 | 0.91 | 1.32 | 1.00 | 0.46 | 0.96 |



Stellar Parameters For KIC 005284217

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 4056^{+109}_{-121} | $4.668^{+0.056}_{-0.024}$ | $-0.160^{+0.300}_{-0.300}$ | $0.581^{+0.042}_{-0.063}$ | $0.574^{+0.062}_{-0.055}$ | $4.116^{+1.118}_{-0.500}$ |
| | +3%/-3% | +1%/-1% | +188%/-188% | +7%/-11% | +11%/-10% | +27%/-12% |
| 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 005284217-02 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|---------------|------------------------|-----------------|----------------------|----------------------------|
| DV | -331 ± 32 | $1.10^{+0.30}_{-0.30}$ | 219^{+7}_{-8} | 4105^{+582}_{-342} | 86880^{+78046}_{-34516} |
| Alt. | -289 ± 45 | $0.92^{+0.31}_{-0.28}$ | 219^{+7}_{-8} | 4277^{+641}_{-464} | 105398^{+99815}_{-47886} |

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

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

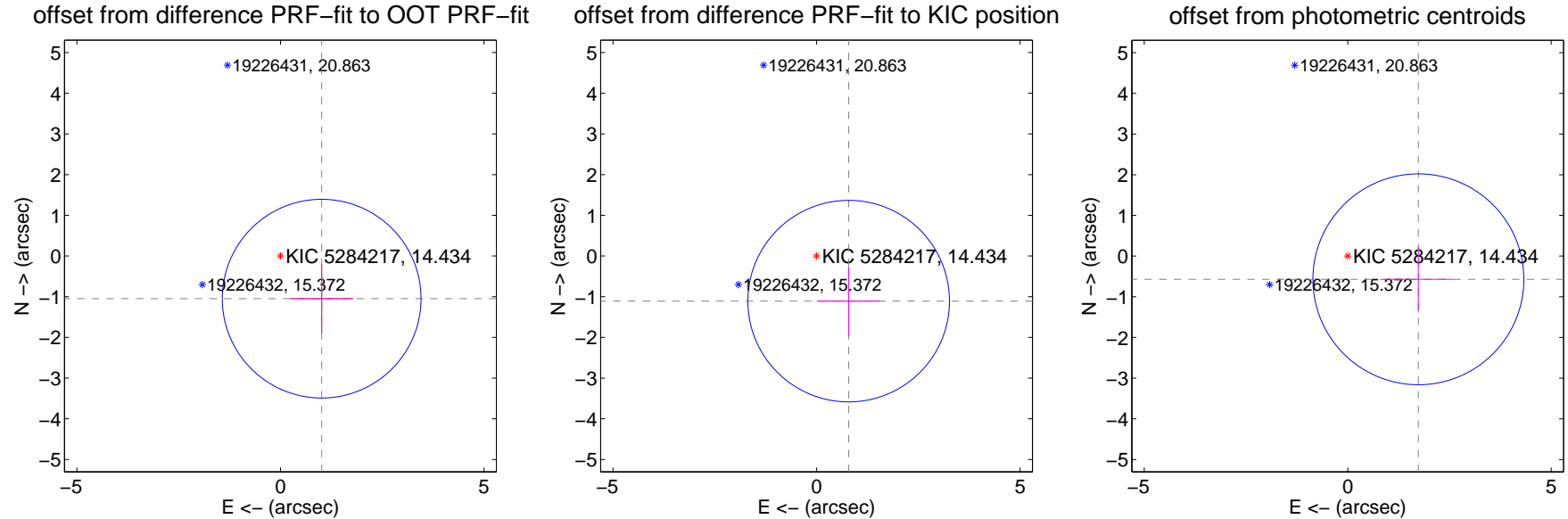
DV Centroid Data

Supplemental centroid analysis for 005284217-02. Kepler magnitude: 14.43. Transit SNR 4.71

There are 0 quarters with good PRF difference image offsets

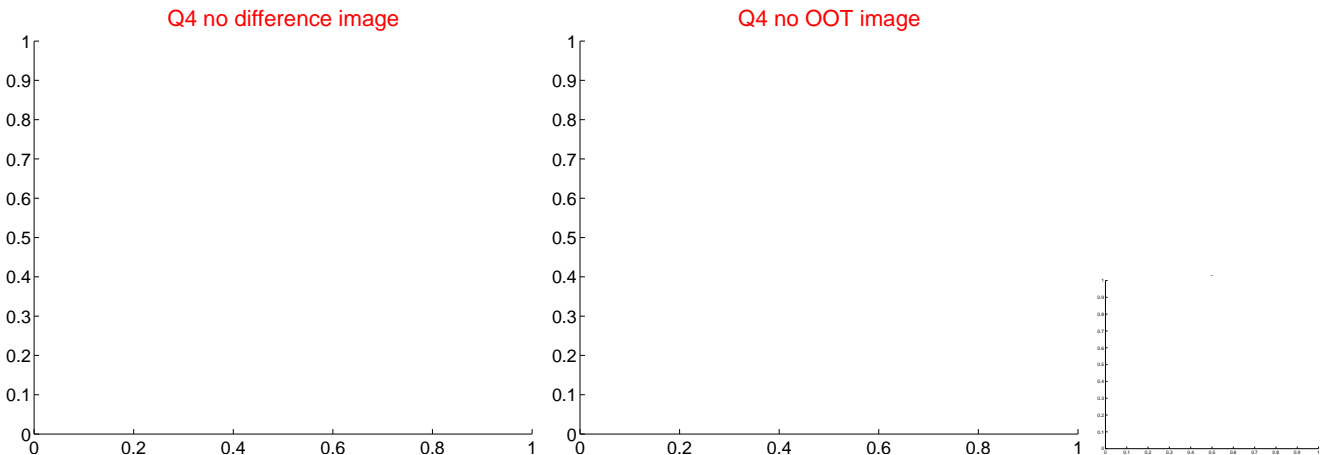
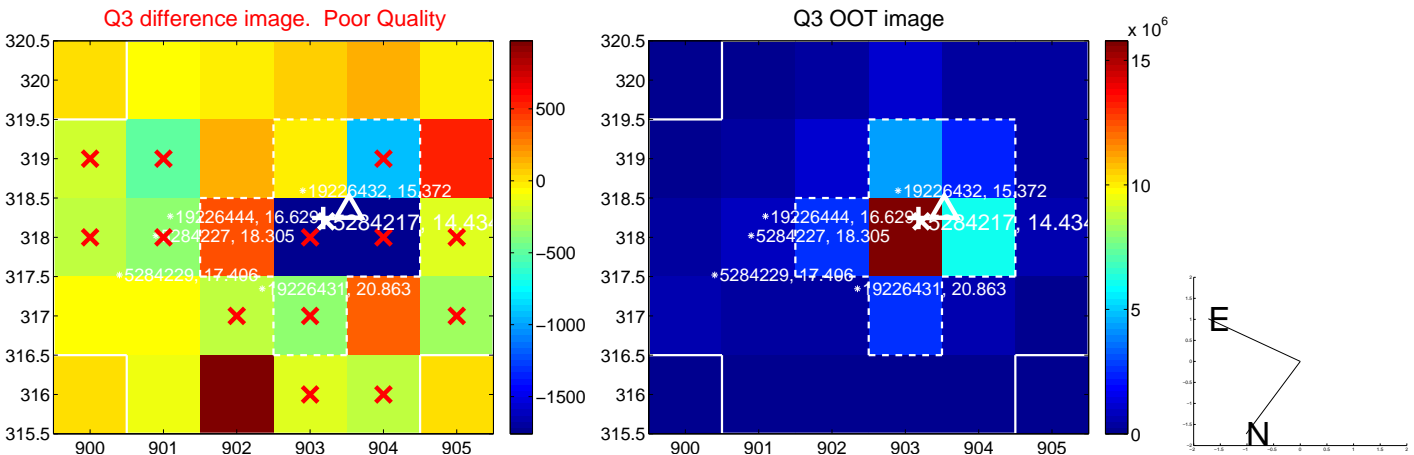
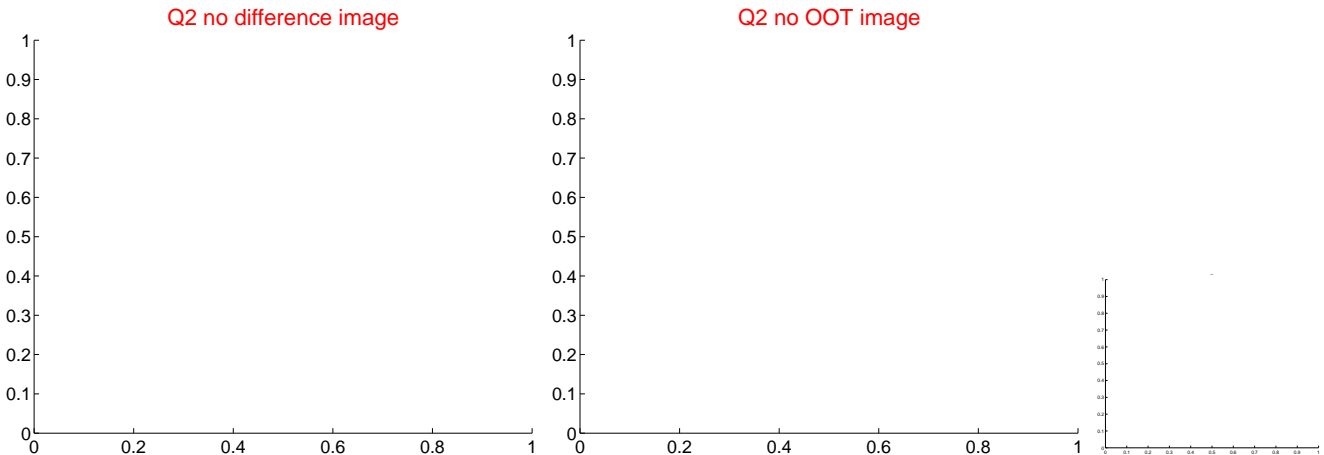
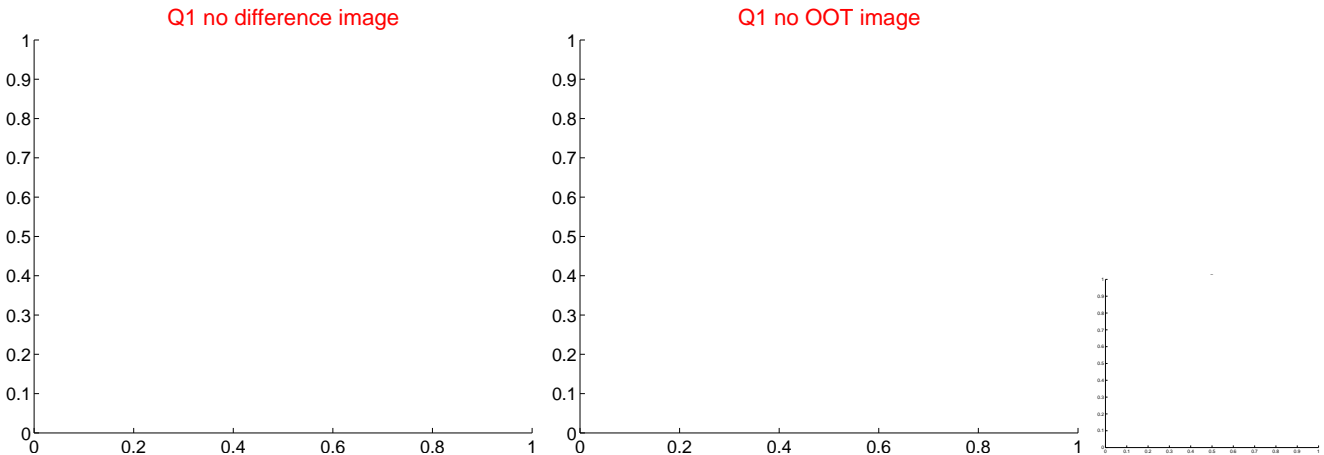
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 1.457 ± 0.814 | 1.79 | -1.012 ± 0.771 | -1.048 ± 0.852 |
| PRF-fit source offset from KIC position | 1.360 ± 0.825 | 1.65 | -0.789 ± 0.771 | -1.109 ± 0.852 |
| photometric centroid source offset | 1.83 ± 0.86 | 2.12 | -1.74 ± 0.87 | -0.57 ± 0.80 |

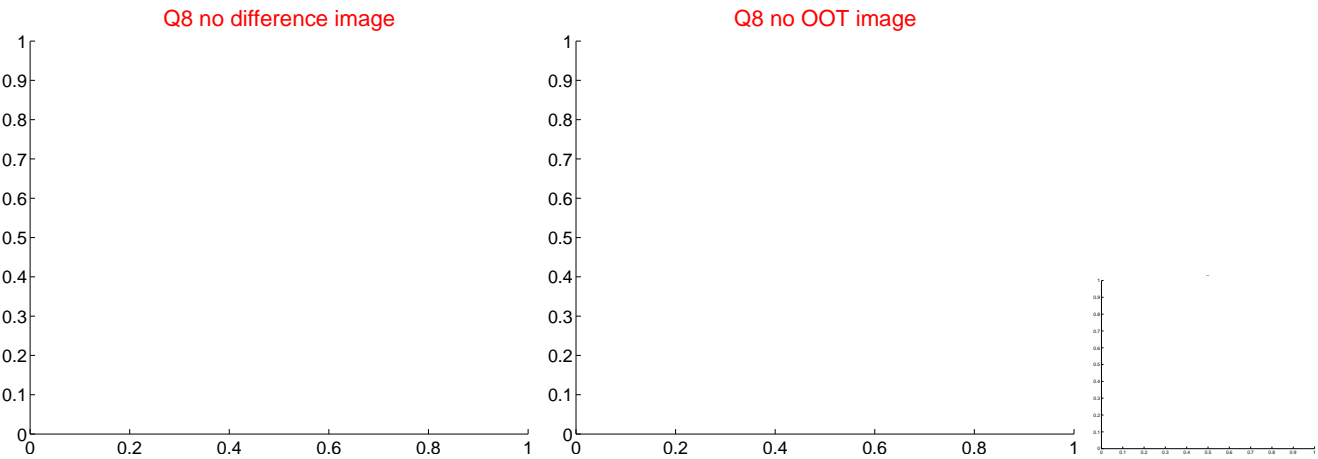
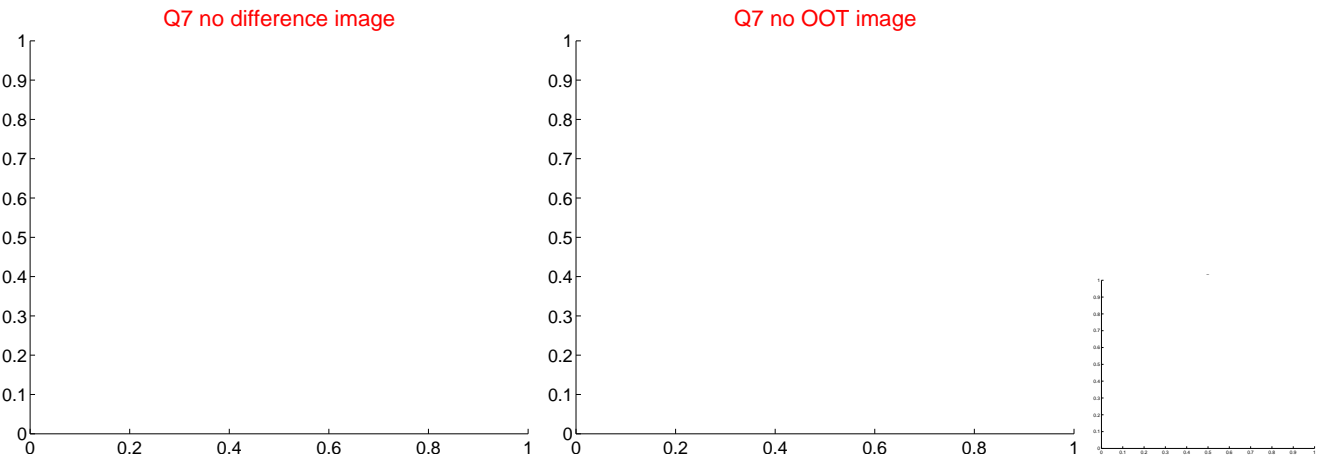
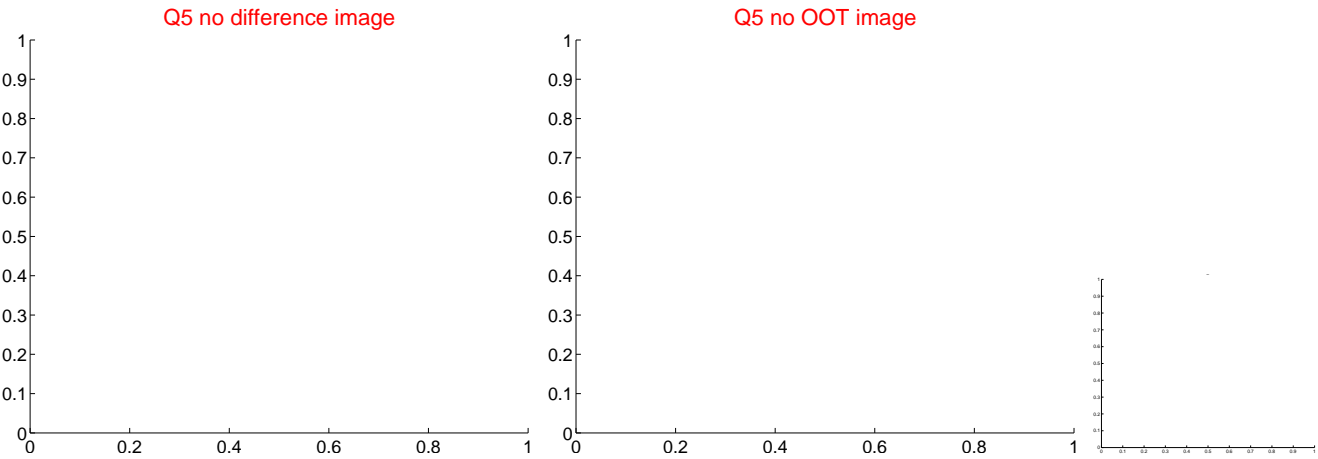


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



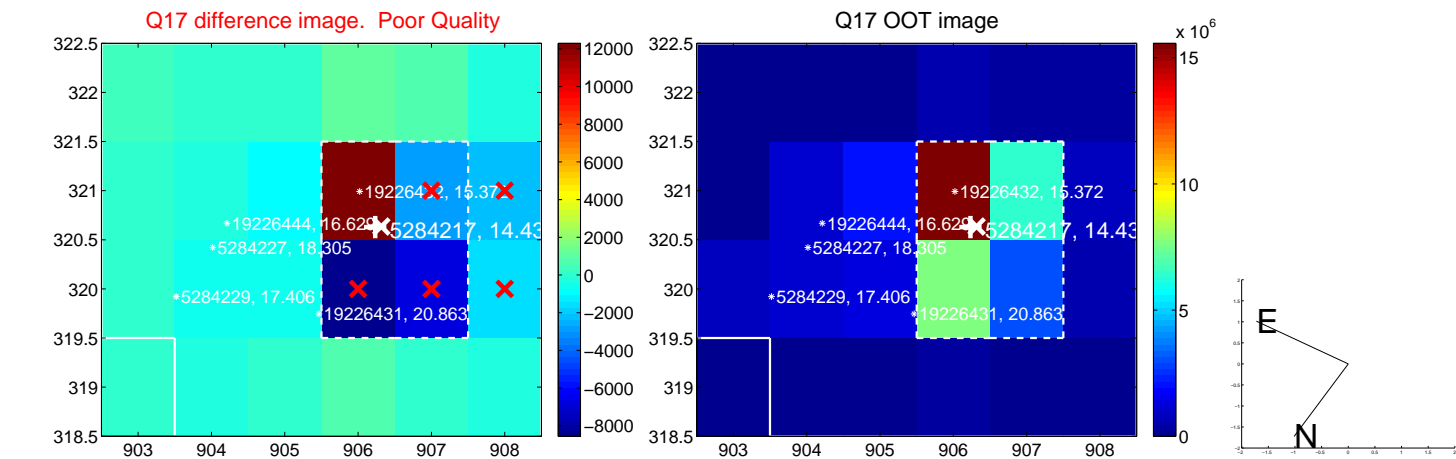
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



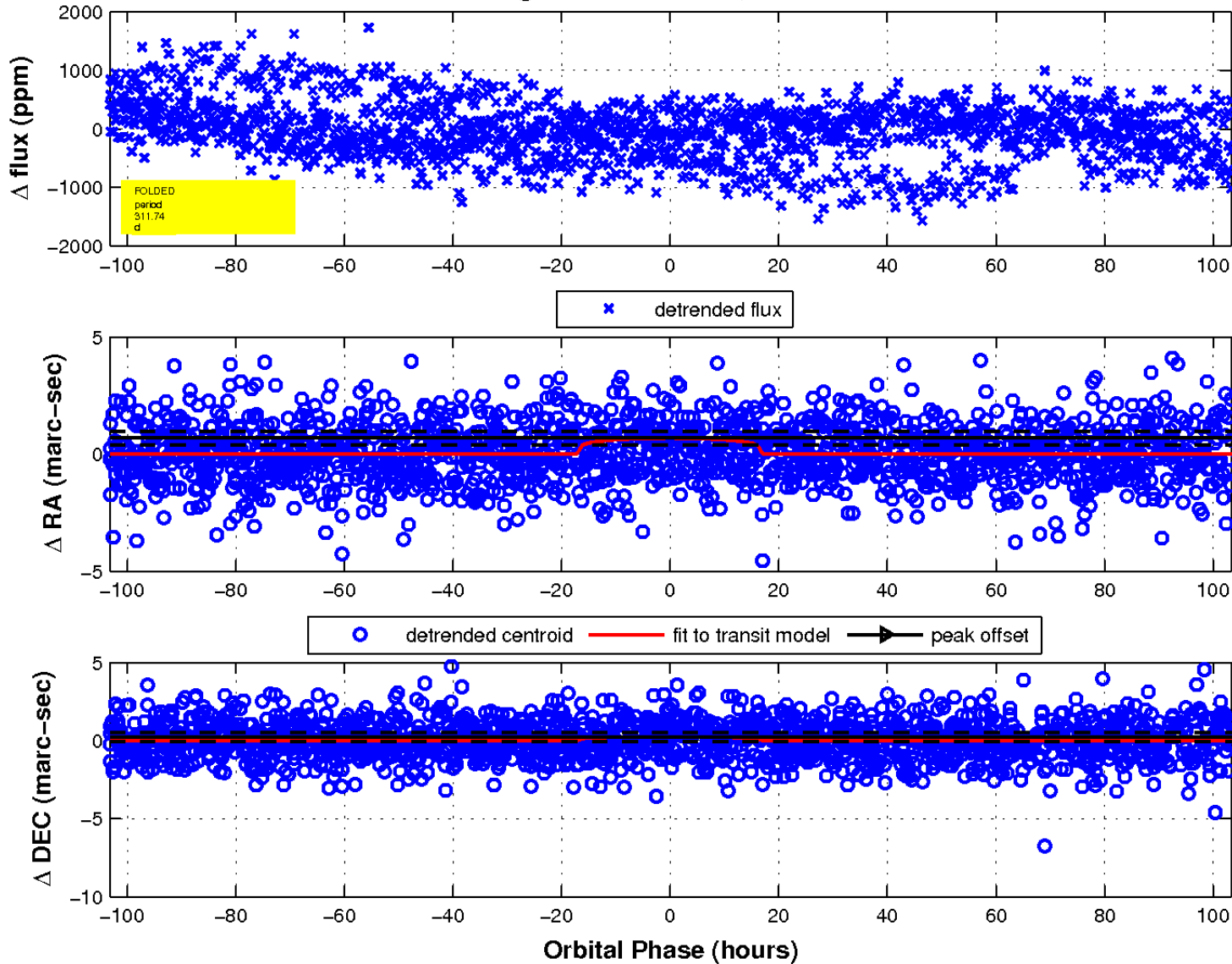
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



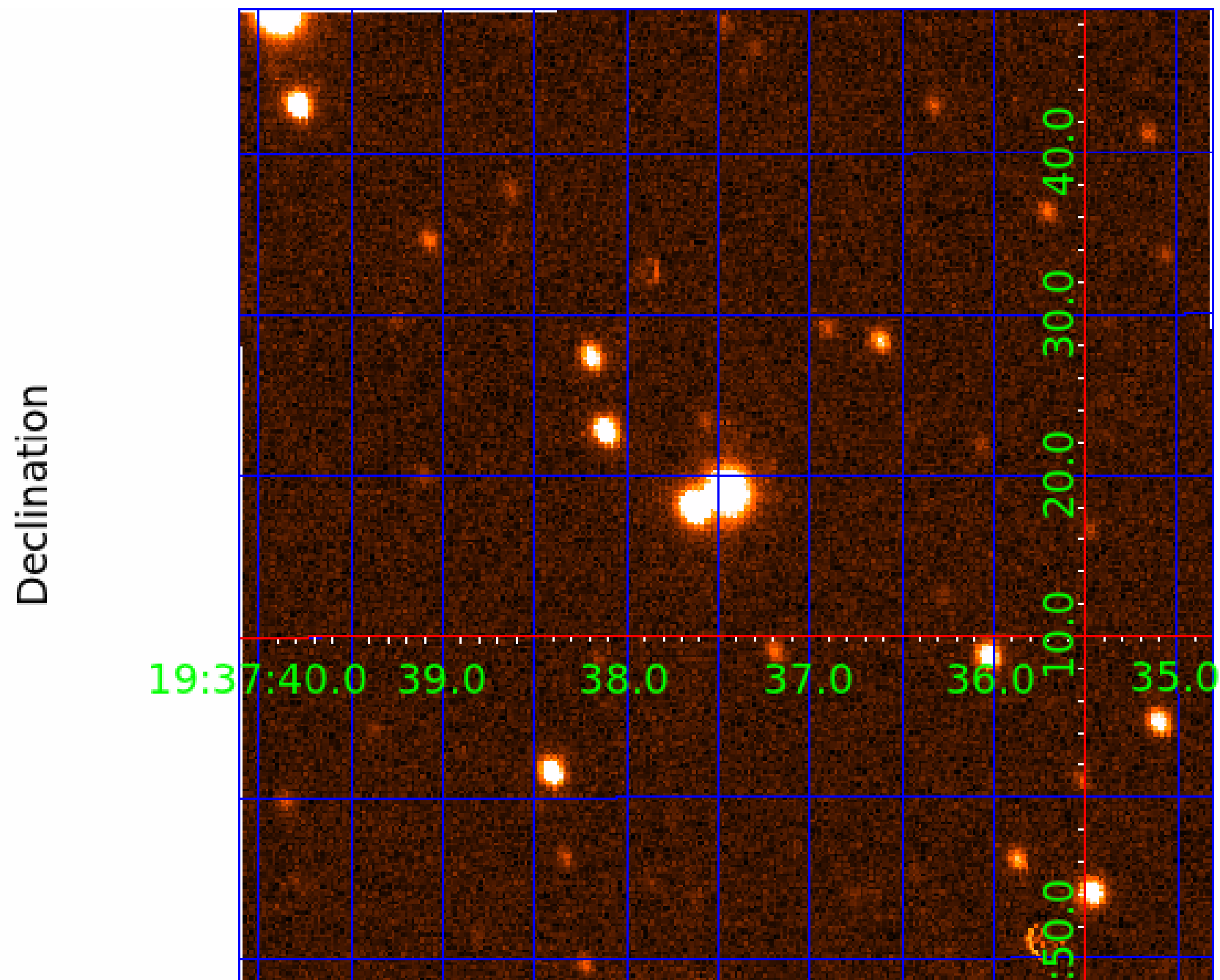
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 2 of 3



UKIRT Image



KIC 005284217

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 005284217-01 | OBS | No | 1.295566 | 132.364067 | 40.1 | 5.067 | 8.6 | 9.6 | 0.58 | 4056 | 0.42 | 219.18 |
| 005284217-02 | OBS | No | 311.735811 | 330.843797 | 317.8 | 34.486 | 15.8 | 4.7 | 0.58 | 4056 | 1.10 | 0.15 |
| 005284217-03 | OBS | No | 181.841206 | 160.991481 | 281.5 | 19.203 | 12.0 | 6.0 | 0.58 | 4056 | 1.26 | 0.30 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 005284217-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |
| 005284217-02 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS |
| 005284217-03 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS |

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

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

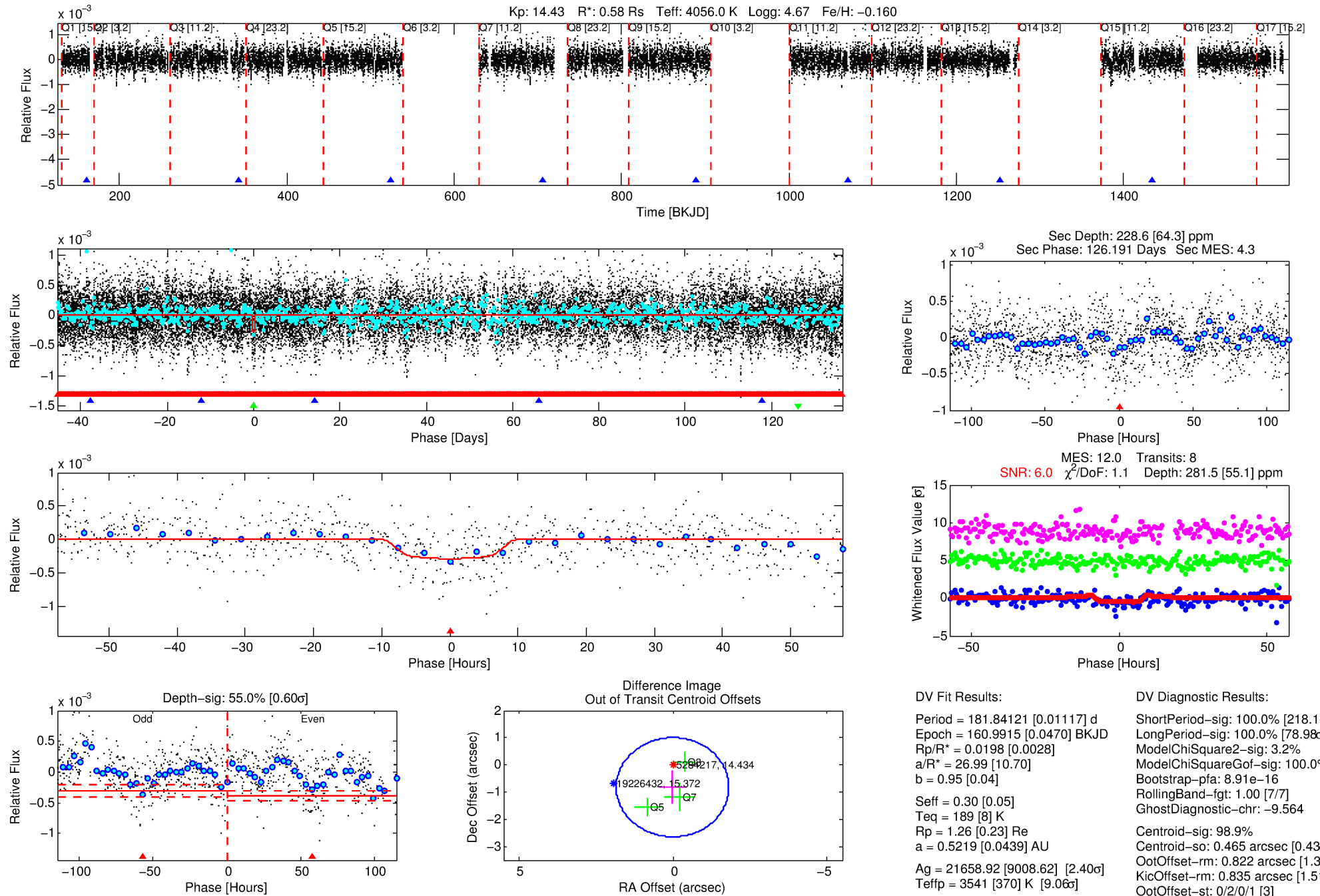
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005284217-03

No Significant Match Found

DV One-Page Summary

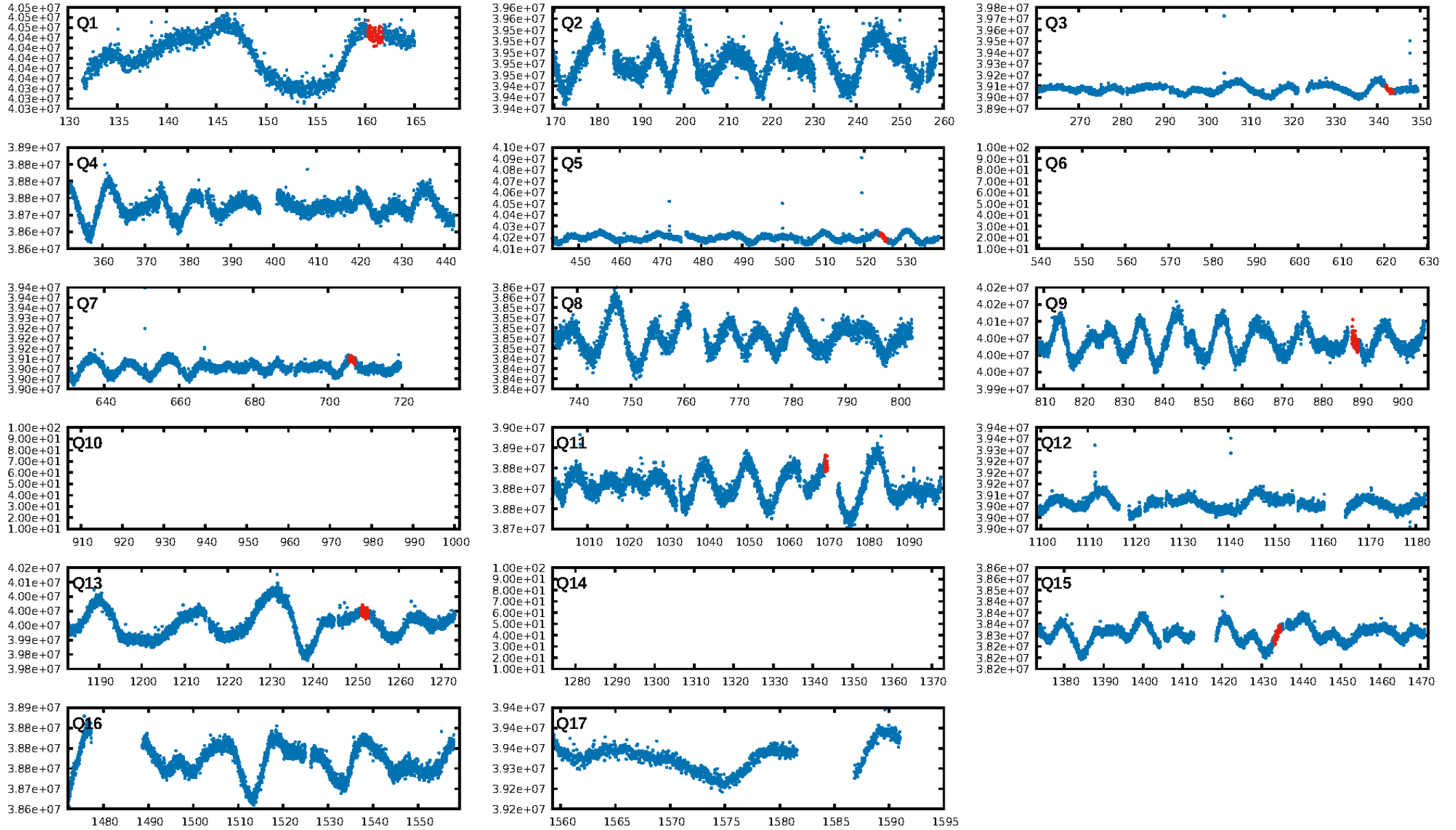
KIC: 5284217 Candidate: 3 of 3 Period: 181.841 d



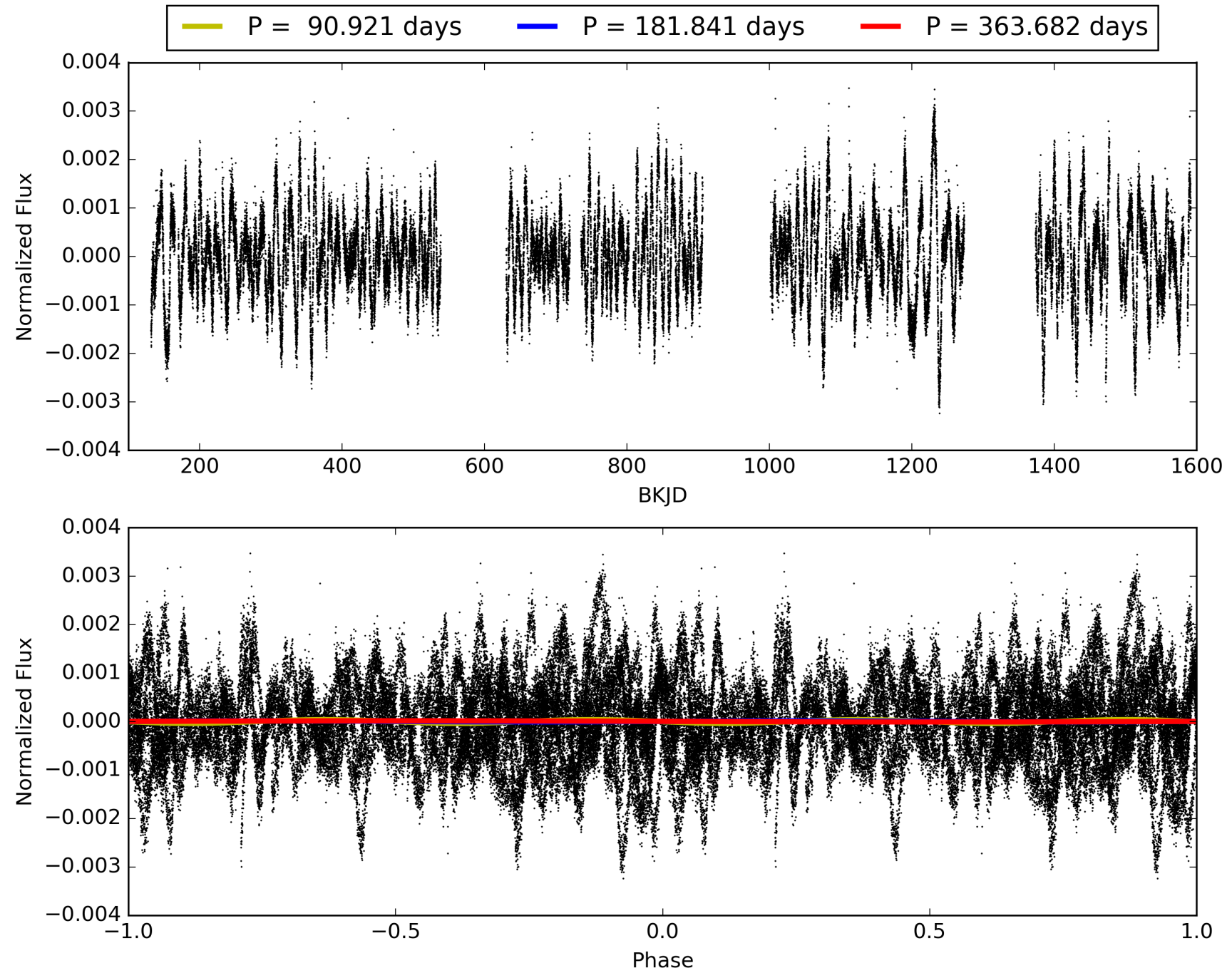
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:32:12 Z

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

TCE 005284217-03, PDC Light Curves

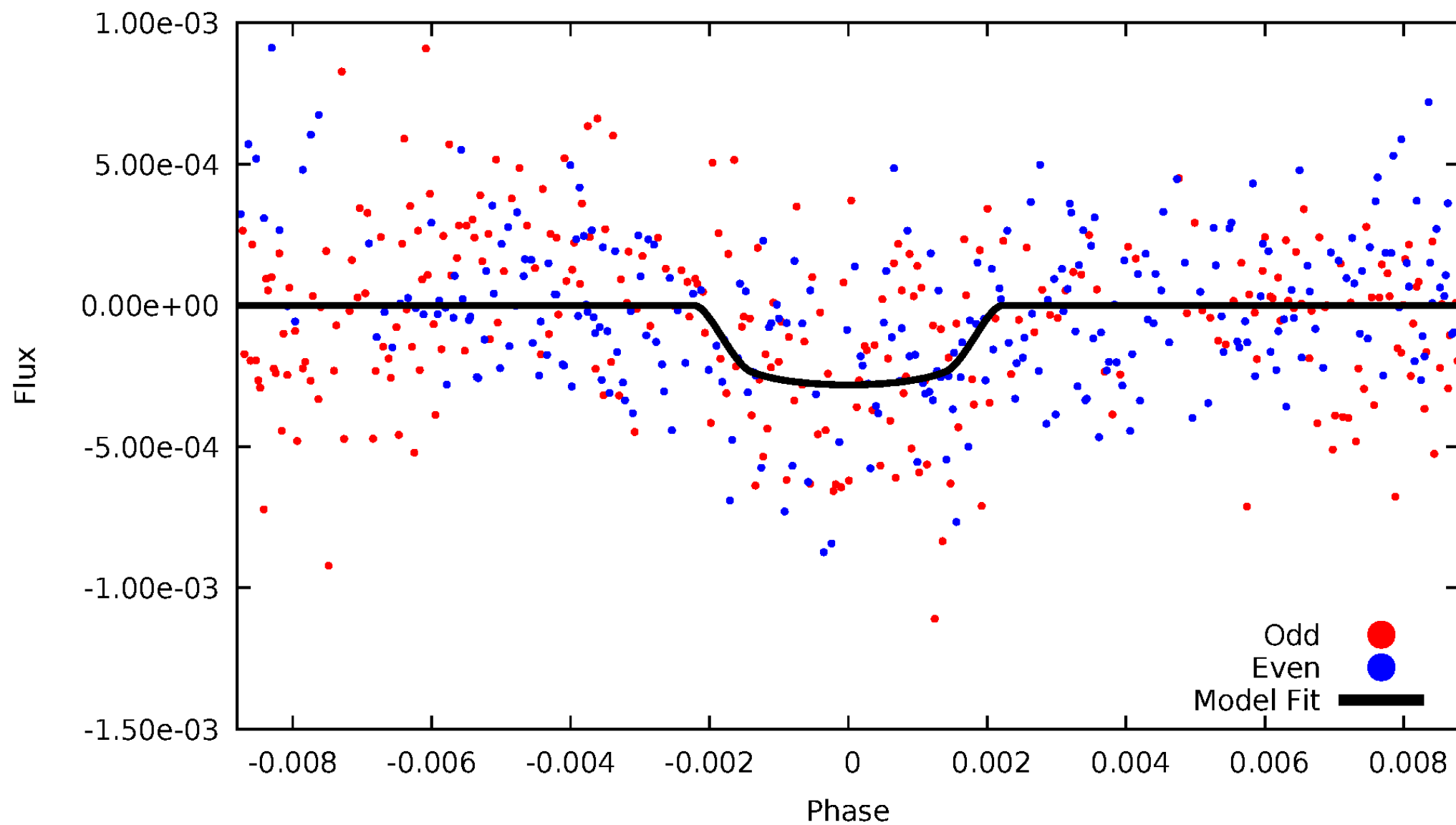


TCE 005284217-03



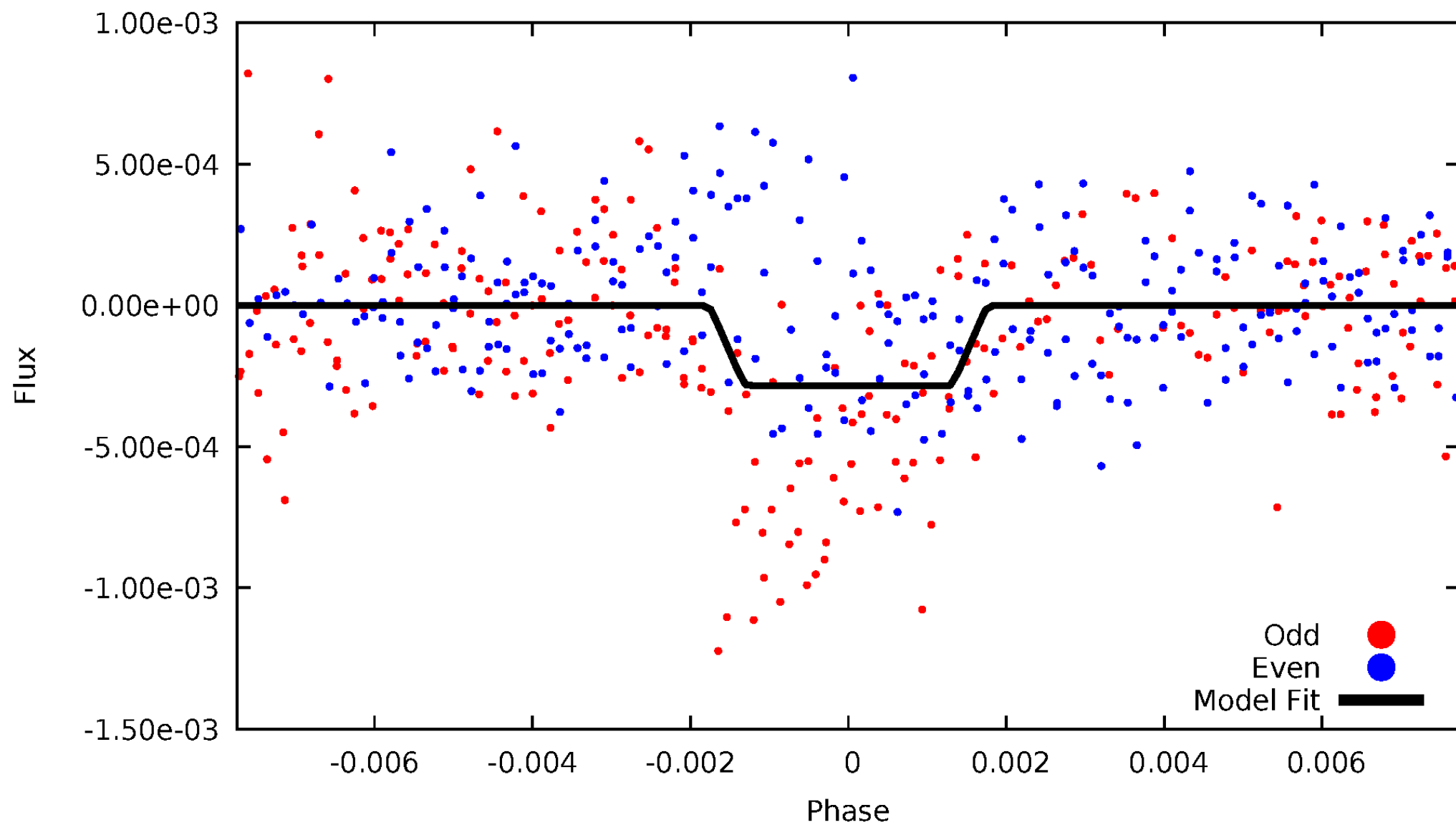
DV Odd/Even

TCE 005284217-03



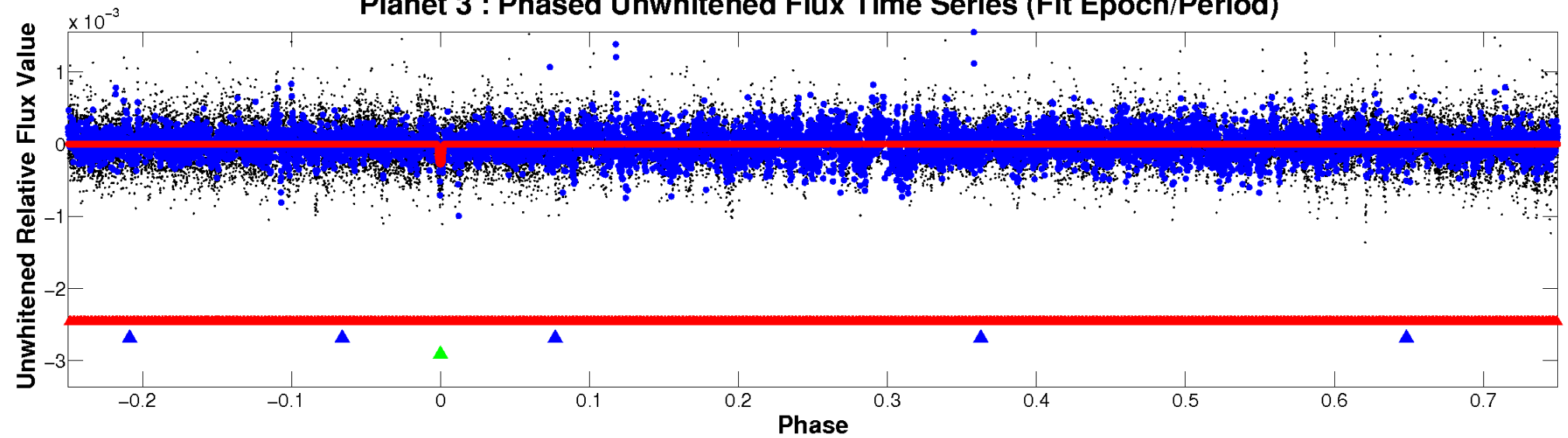
ALT Odd/Even

TCE 005284217-03

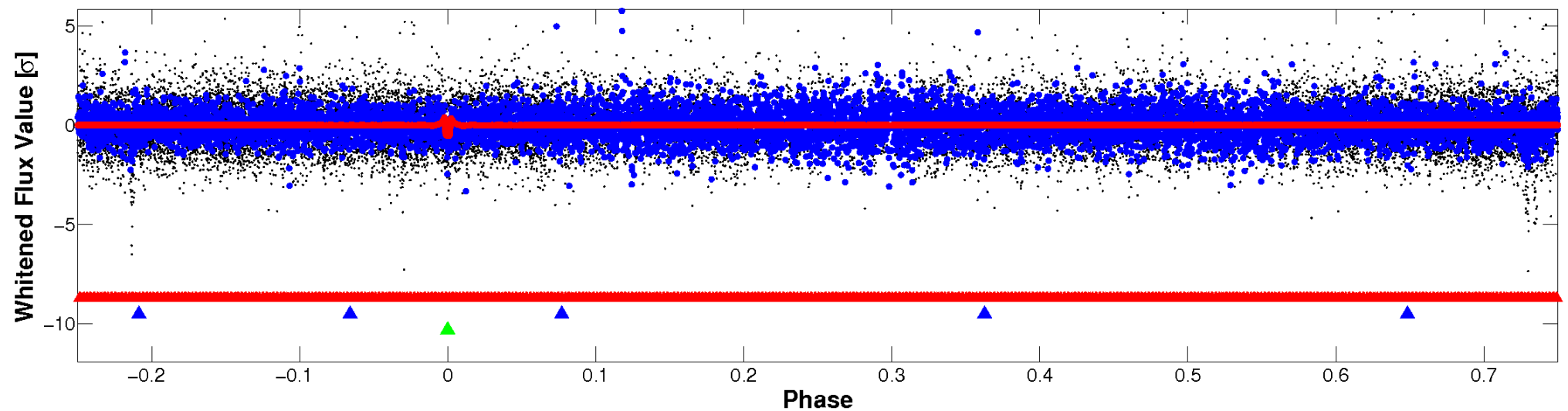


Non-Whitened Vs. Whitened Light Curve

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

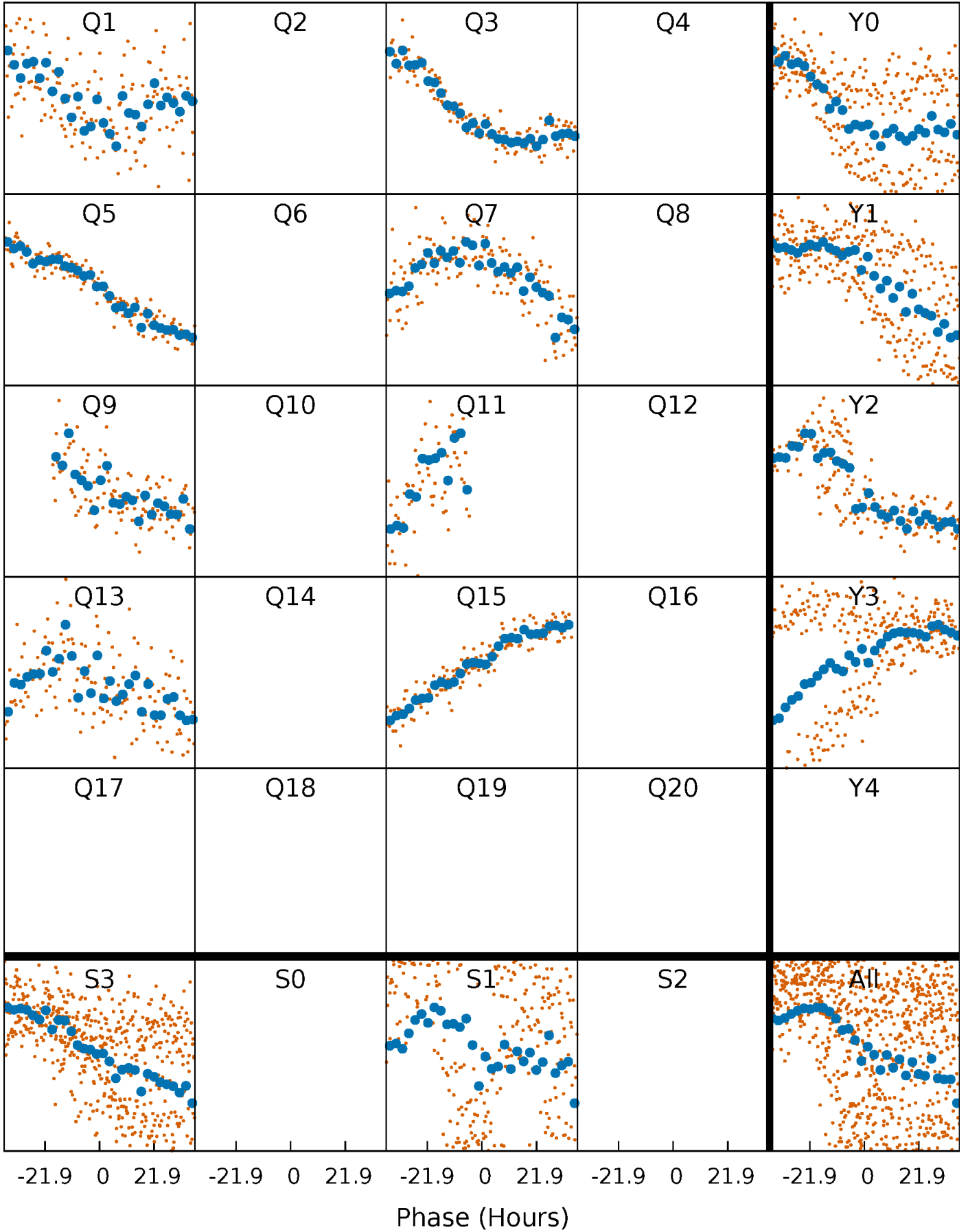


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



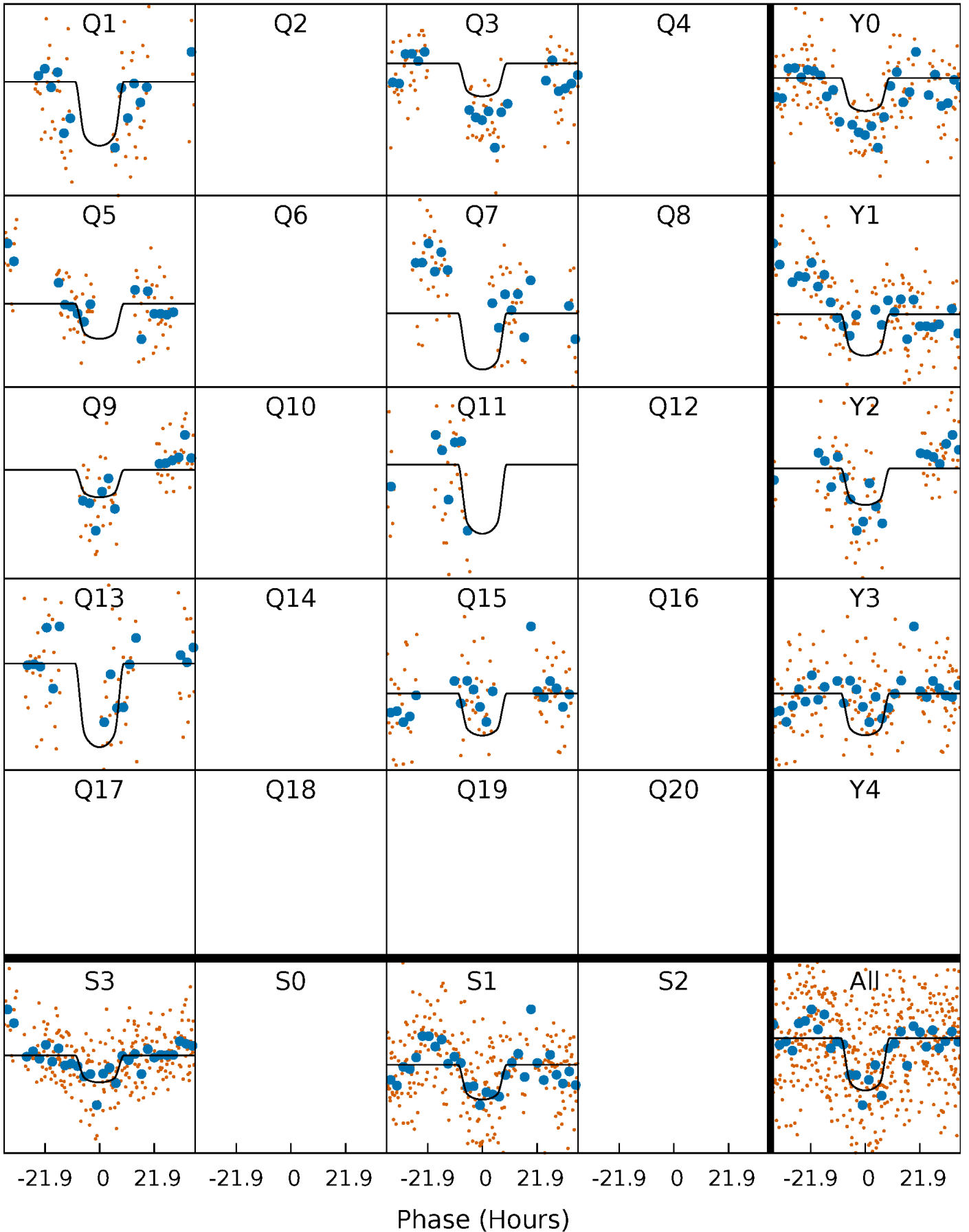
PDC Quarter-Phased Transit Curves

TCE 005284217-03 $P=181.841206$ Days $T_0=160.991480$ (BKJD)



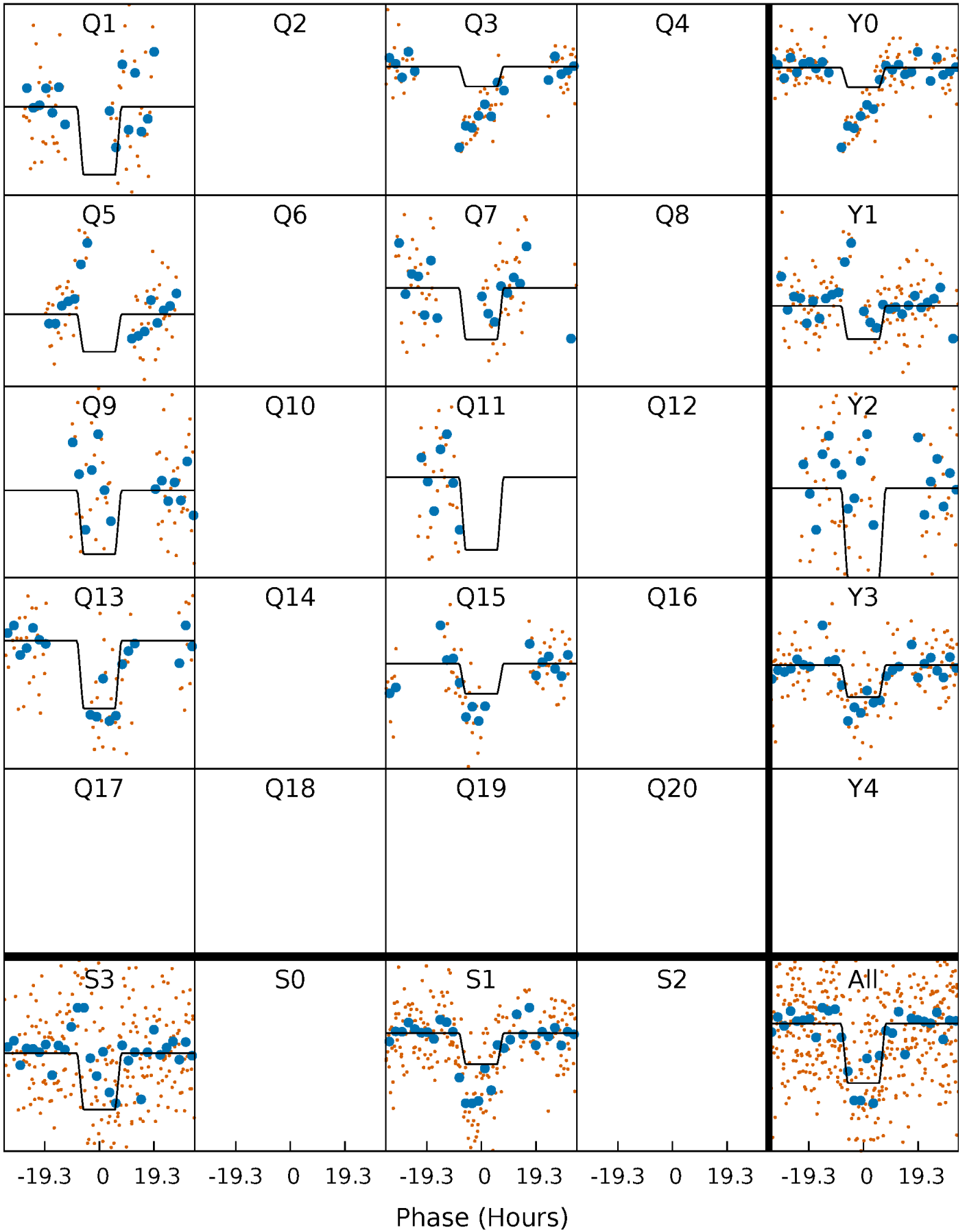
DV Quarter-Phased Transit Curves

TCE 005284217-03 $P=181.841206$ Days $T_0=160.991480$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

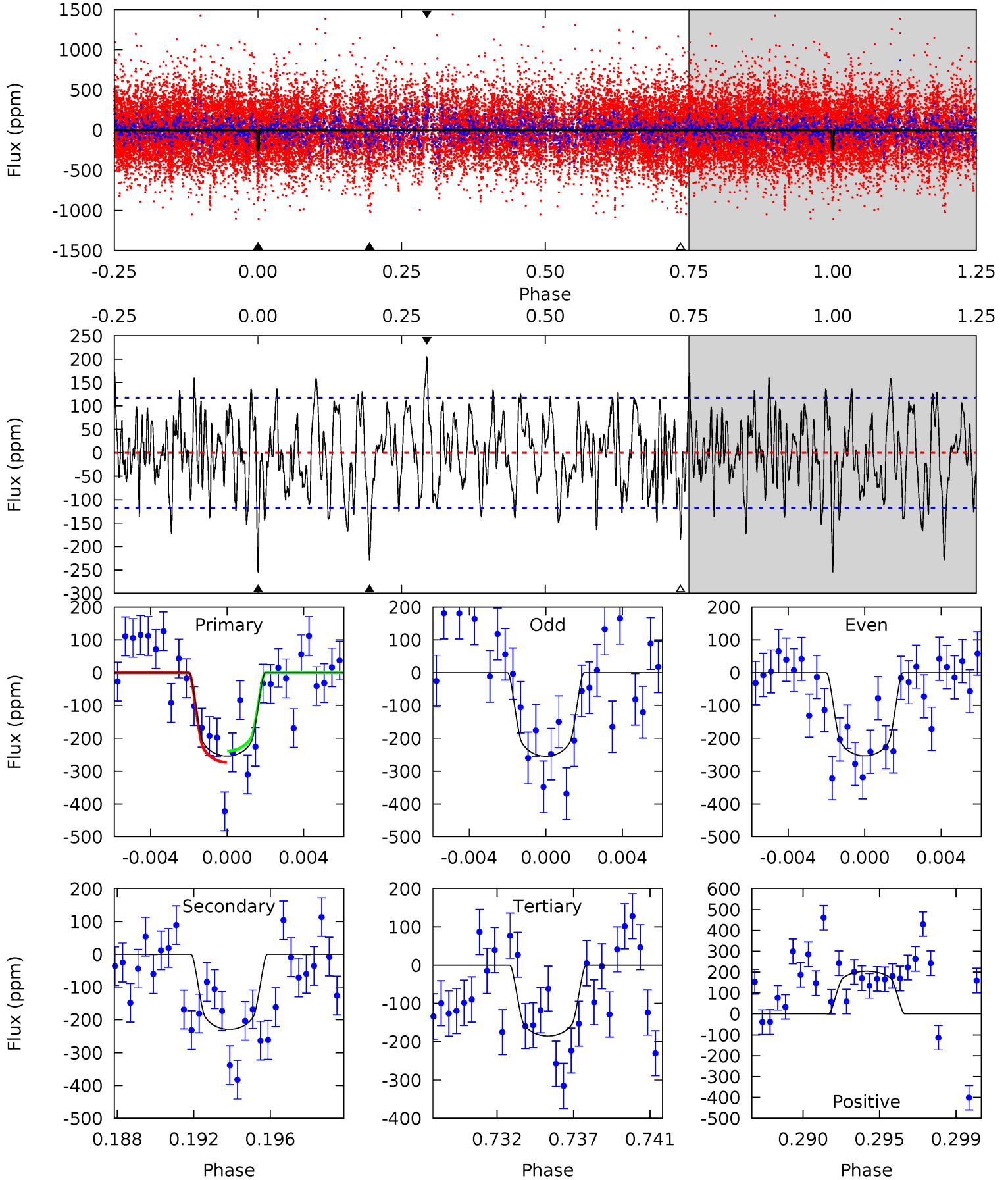
TCE 005284217-03 P=181.858684 Days $T_0=161.030293$ (BKJD)



DV Model-Shift Uniqueness Test

005284217-03, P = 181.841206 Days, E = 160.991480 Days

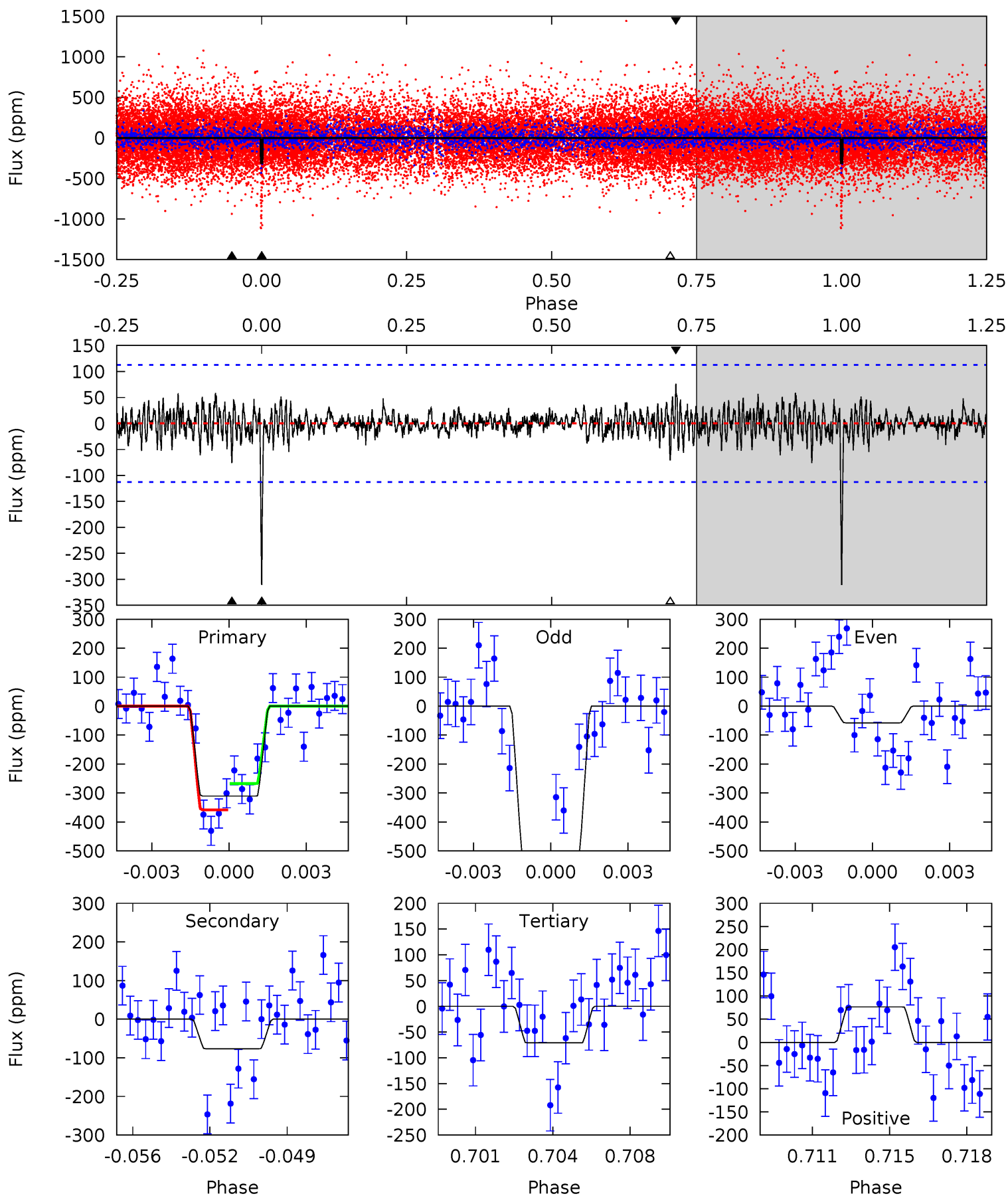
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 11.2 | 10.1 | 8.13 | 8.97 | 5.18 | 2.84 | 2.99 | 3.05 | 2.21 | 1.94 | 1.10 | 0.03 | 1.07 | 0.45 | 0.77 |



Alt Model-Shift Uniqueness Test

005284217-03, P = 181.858684 Days, E = 161.030293 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 14.4 | 3.54 | 3.29 | 3.54 | 5.22 | 2.92 | 0.88 | 11.1 | 10.9 | 0.25 | 0.00 | 10.7 | 1.40 | 0.20 | 2.10 |



Stellar Parameters For KIC 005284217

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | M (M_{\odot}) | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 4056^{+109}_{-121} | $4.668^{+0.056}_{-0.024}$ | $-0.160^{+0.300}_{-0.300}$ | $0.581^{+0.042}_{-0.063}$ | $0.574^{+0.062}_{-0.055}$ | $4.116^{+1.118}_{-0.500}$ |
| | +3%/-3% | +1%/-1% | +188%/-188% | +7%/-11% | +11%/-10% | +27%/-12% |
| 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 005284217-03 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|---------------|------------------------|-----------------|----------------------|-------------------------|
| DV | -229 ± 23 | $1.24^{+0.19}_{-0.20}$ | 261^{+9}_{-9} | 3694^{+238}_{-205} | 22281^{+9015}_{-5555} |
| Alt. | -76 ± 22 | $1.05^{+0.20}_{-0.17}$ | 262^{+8}_{-9} | 3252^{+252}_{-215} | 10090^{+5880}_{-3897} |

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

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

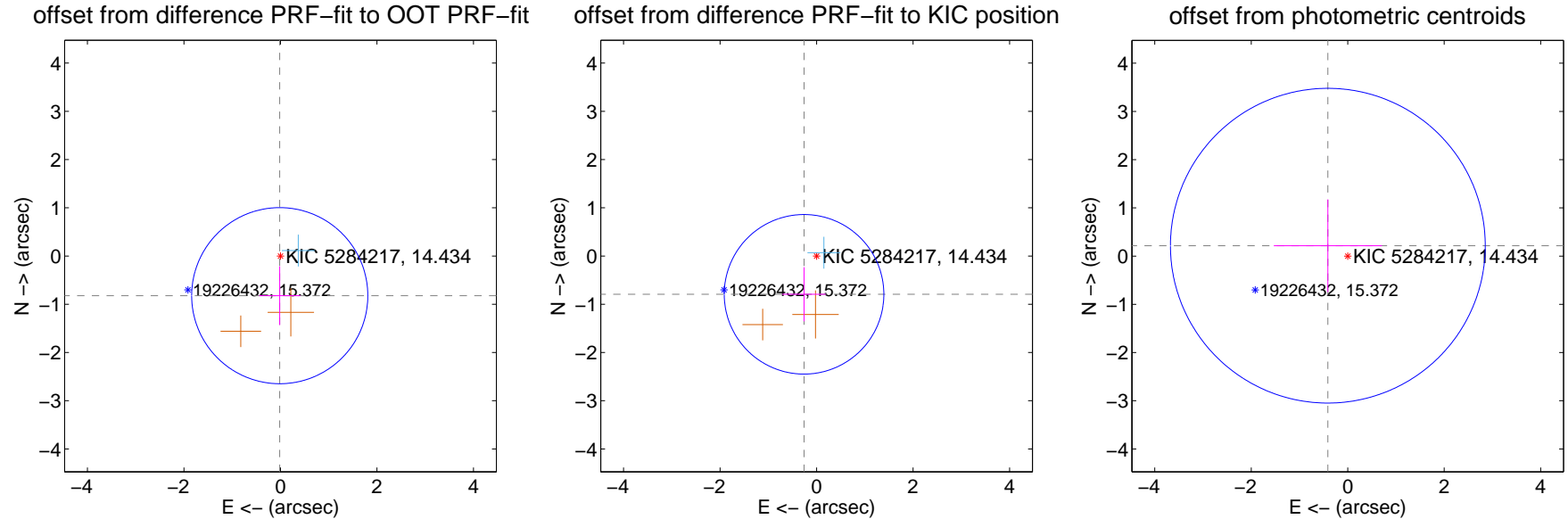
DV Centroid Data

Supplemental centroid analysis for 005284217-03. Kepler magnitude: 14.43. Transit SNR 6.04

There are 1 quarters with good PRF difference image offsets

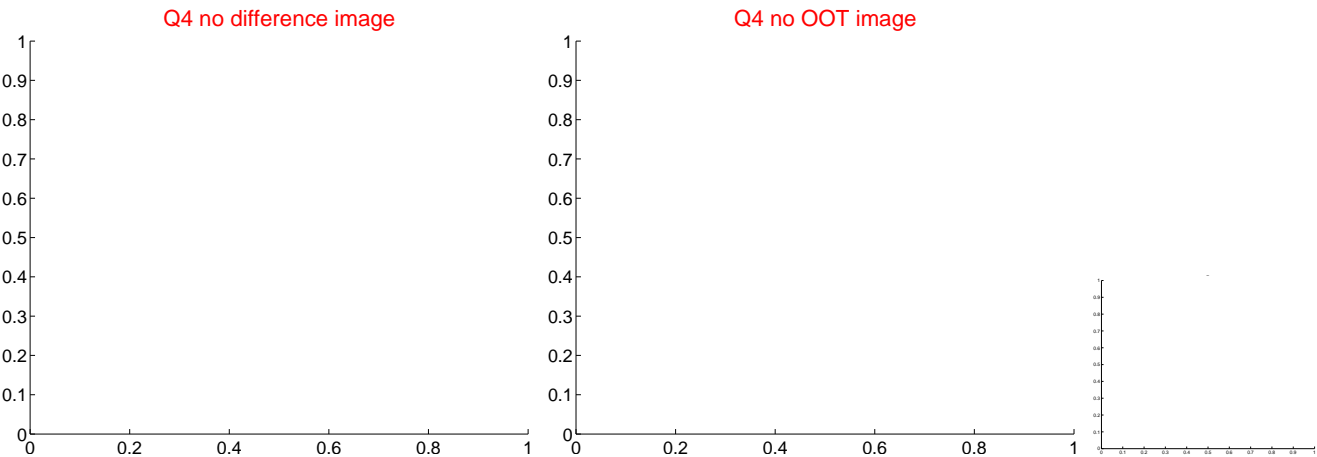
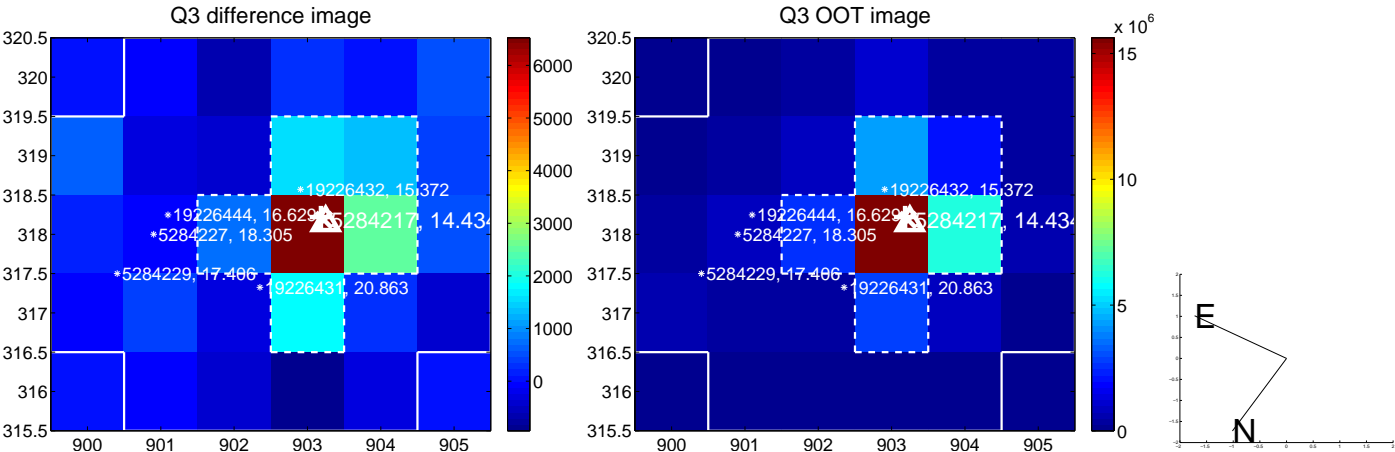
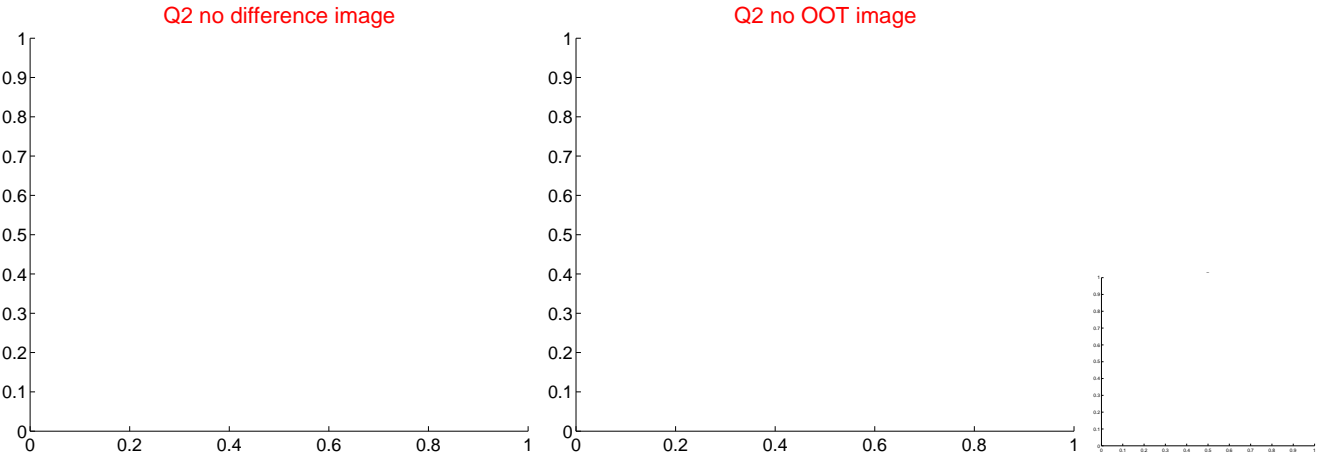
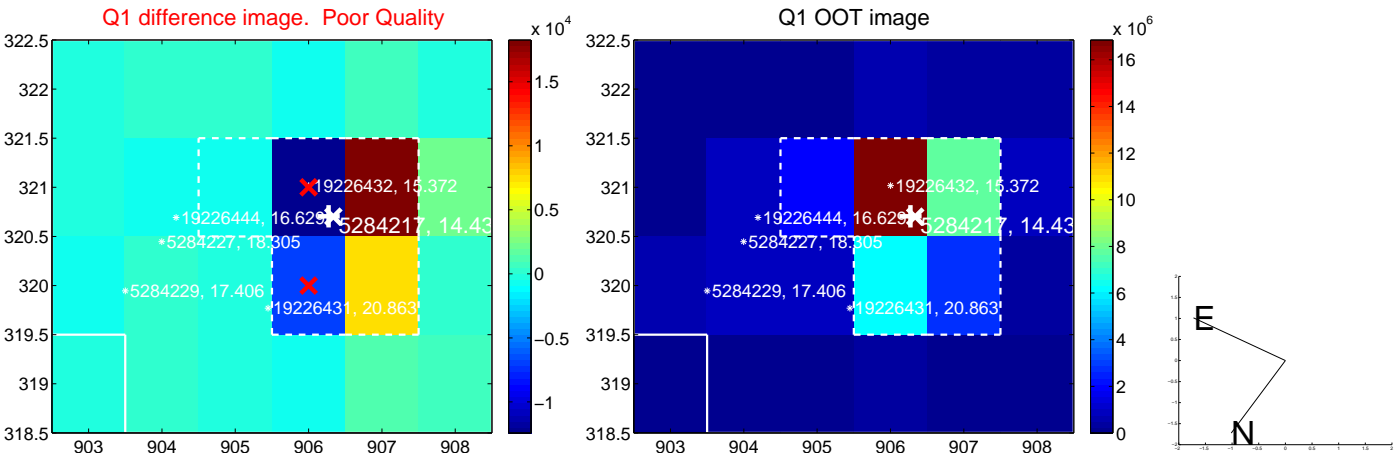
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 0.822 ± 0.608 | 1.35 | 0.015 ± 0.426 | -0.822 ± 0.609 |
| PRF-fit source offset from KIC position | 0.835 ± 0.551 | 1.51 | 0.260 ± 0.452 | -0.794 ± 0.561 |
| photometric centroid source offset | 0.46 ± 1.09 | 0.43 | 0.41 ± 1.12 | 0.22 ± 0.96 |

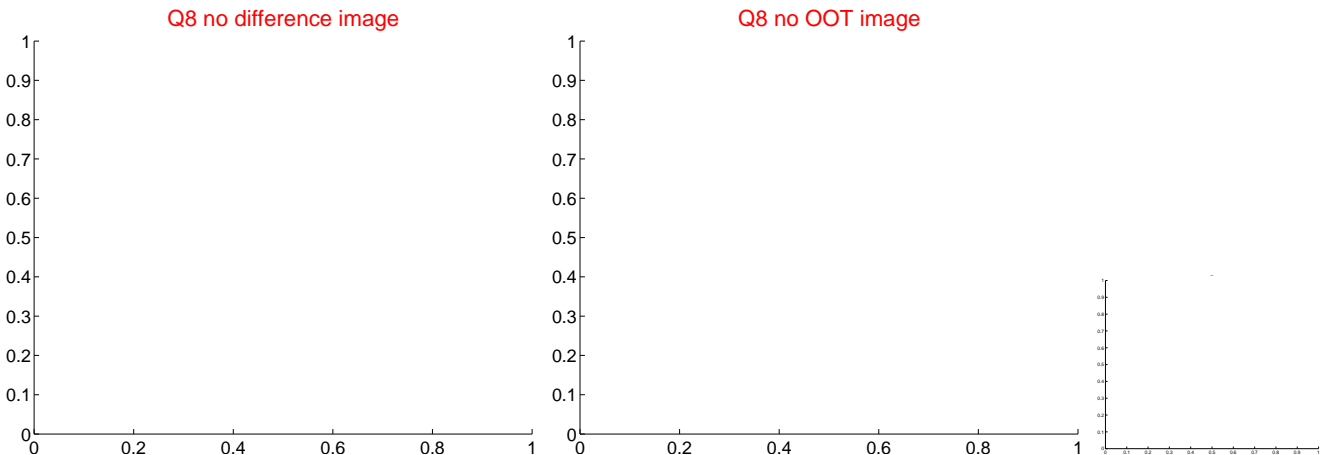
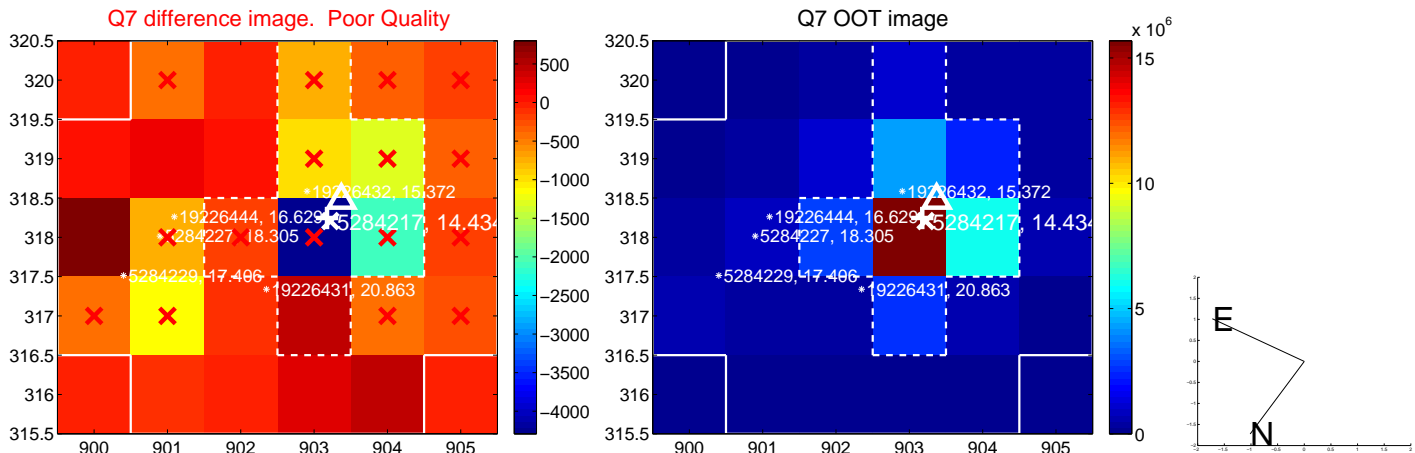
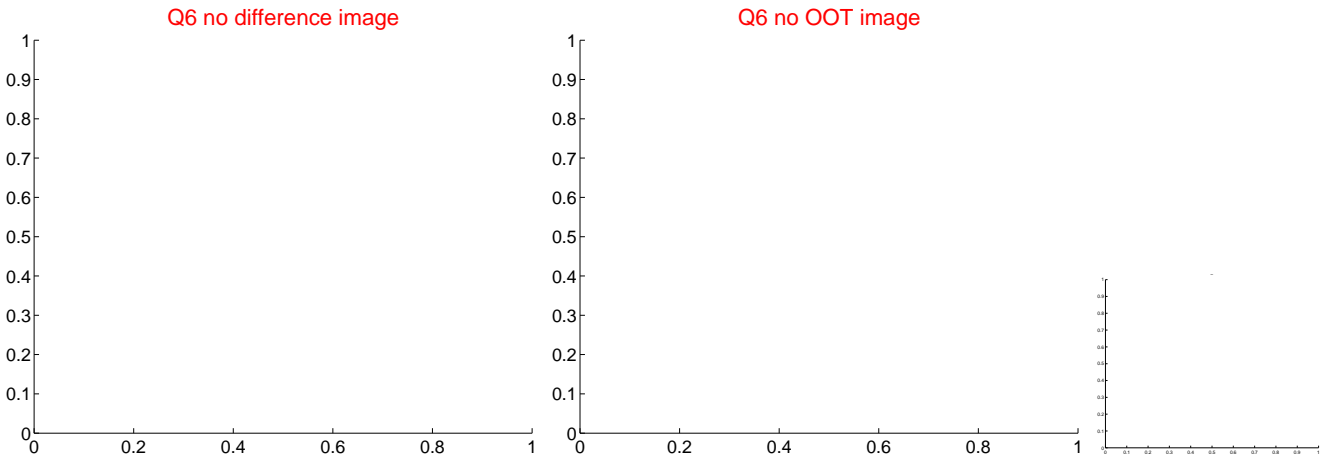
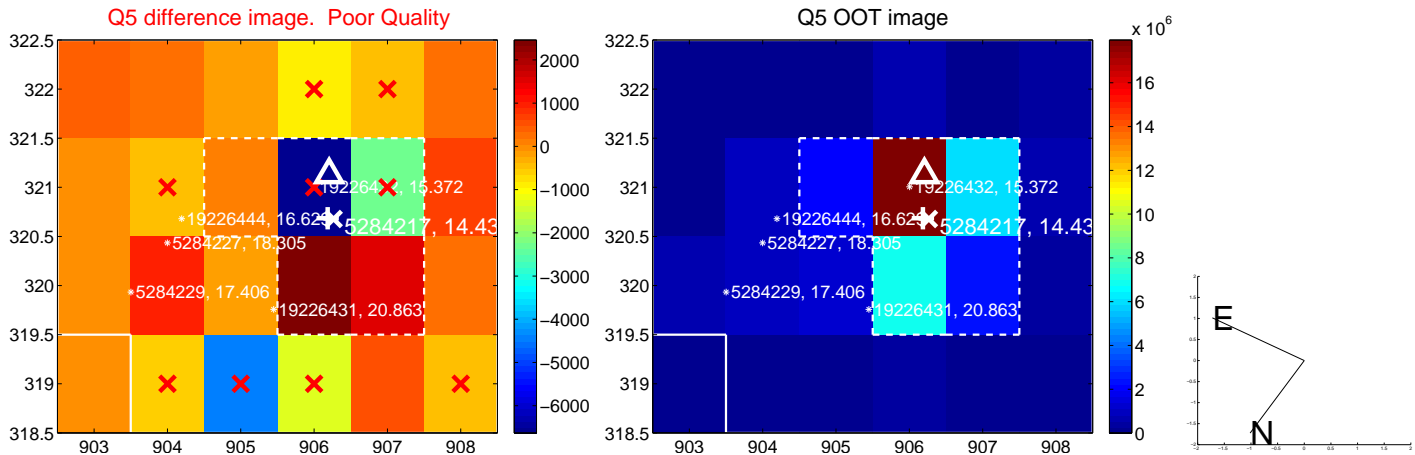


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



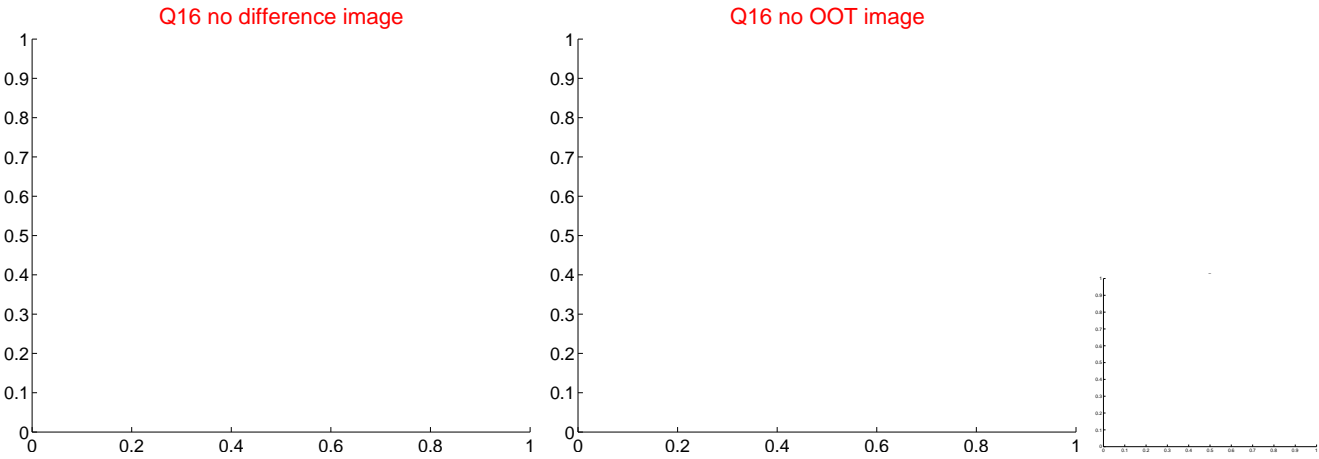
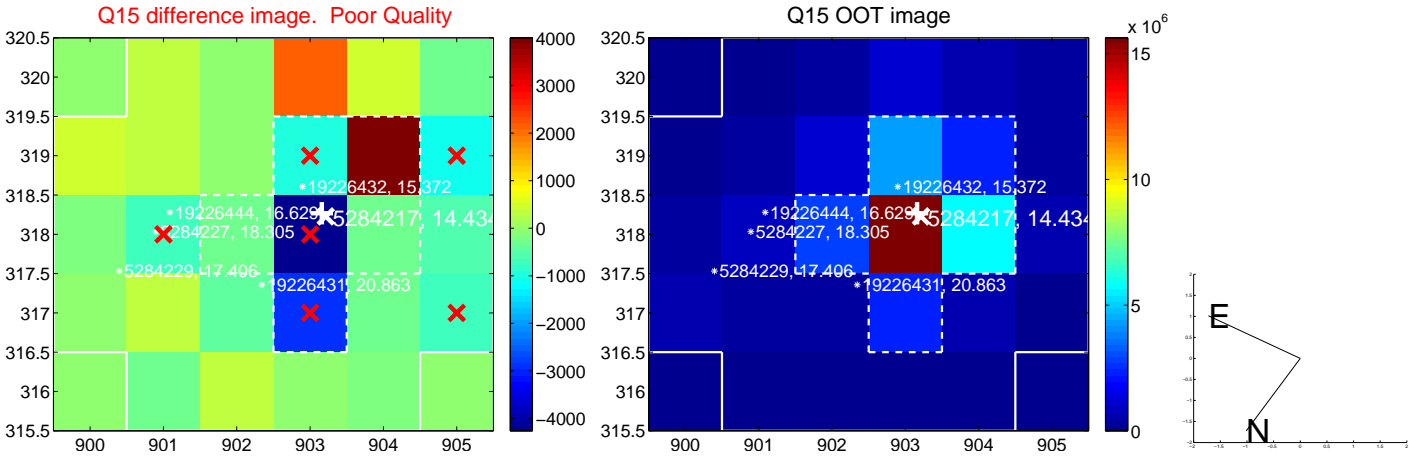
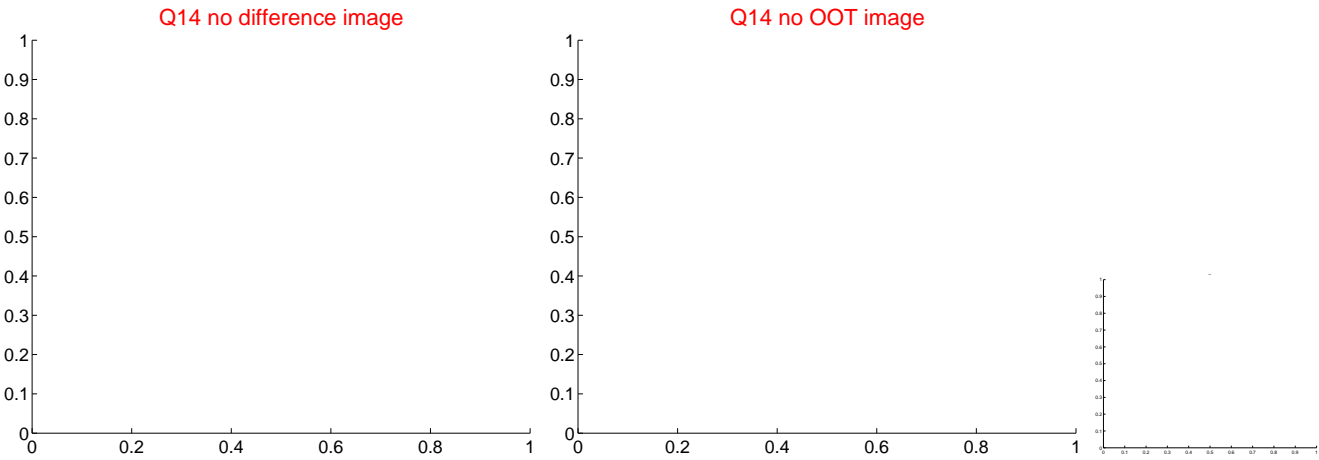
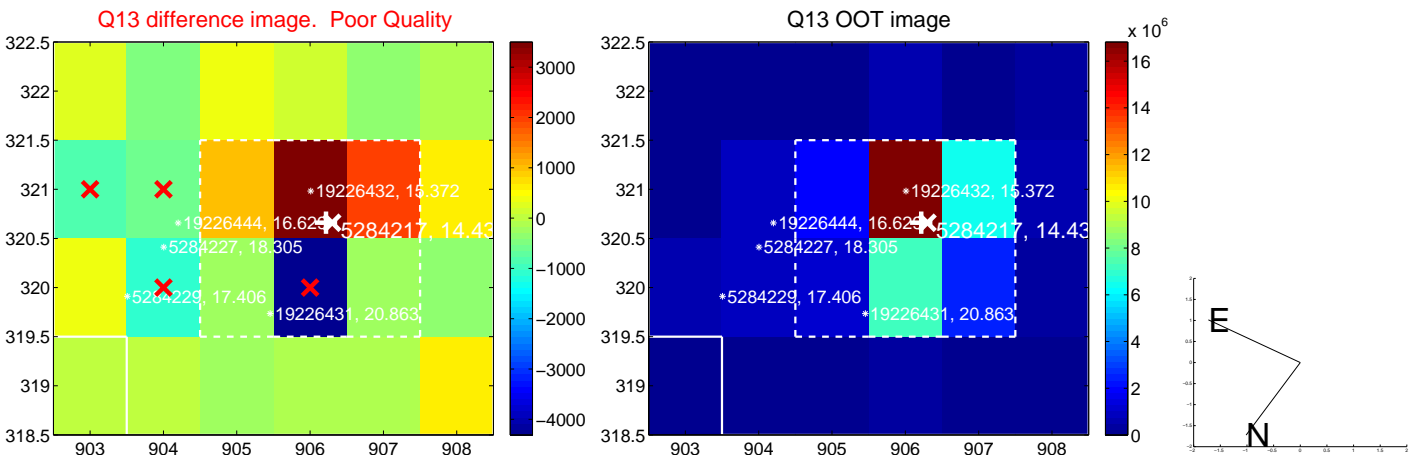
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



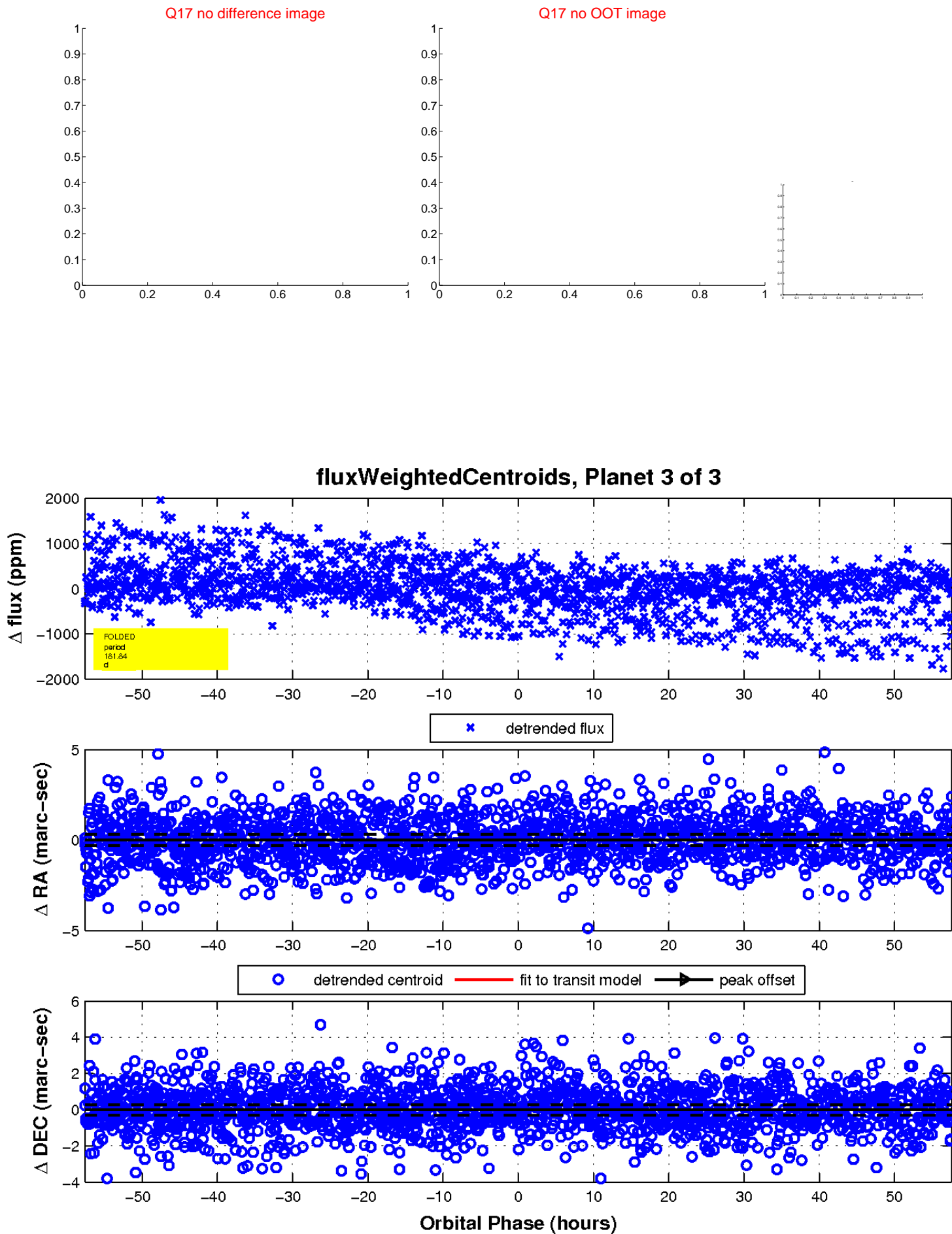
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

