

KIC 011086240

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|-----|-----------------------------|-----------------|------------------------|------------------------|
| 011086240-01 | OBS | No | 0.857935 | 132.555225 | 1.5 | 0.642 | 9.0 | 0.3 | 2.82 | 7037 | 0.35 | 37285.80 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|--|
| 011086240-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV |

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

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

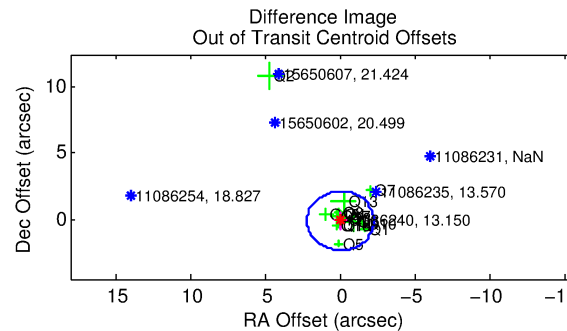
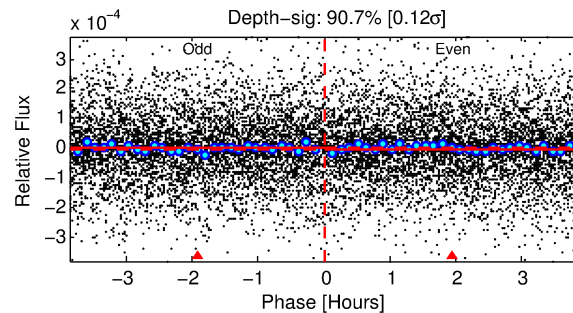
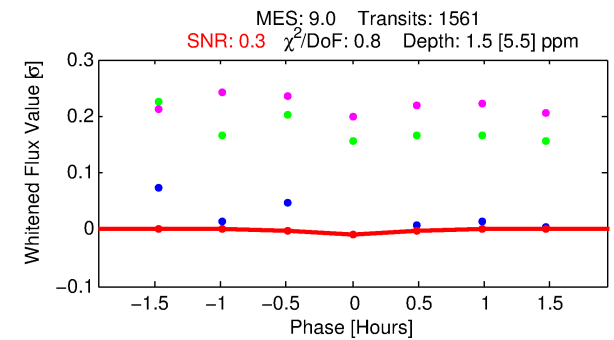
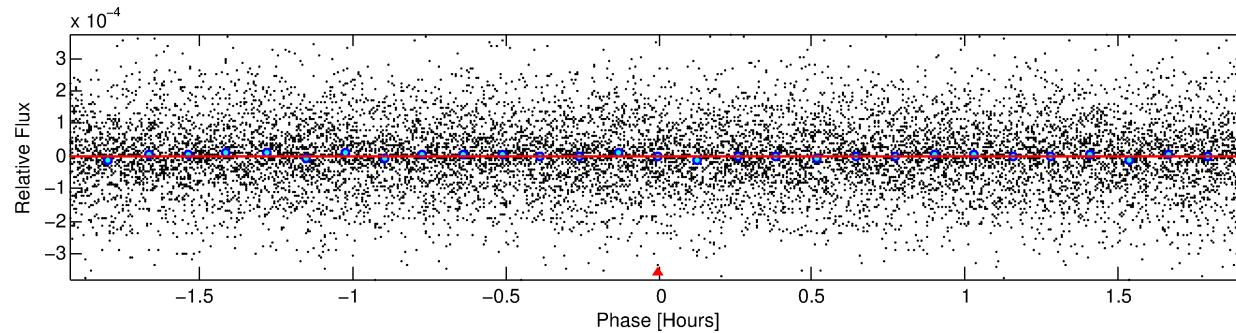
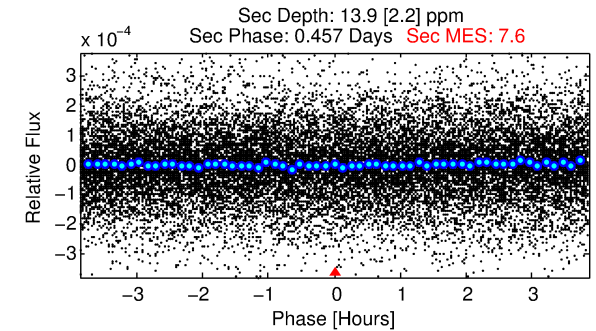
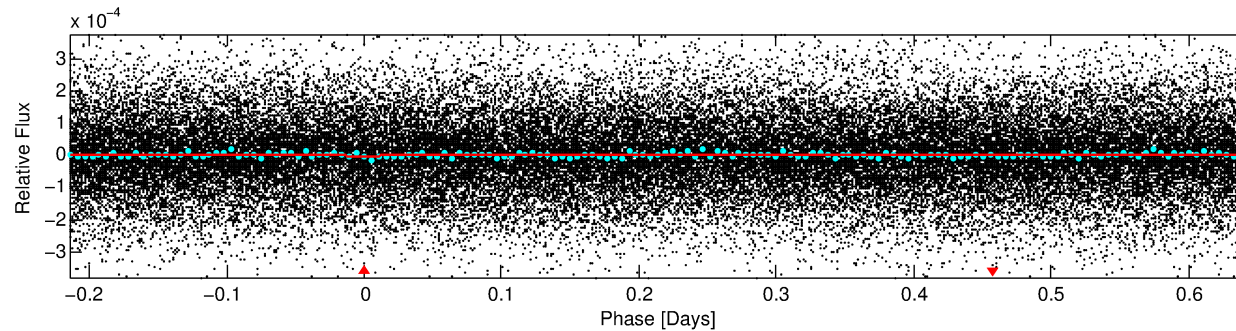
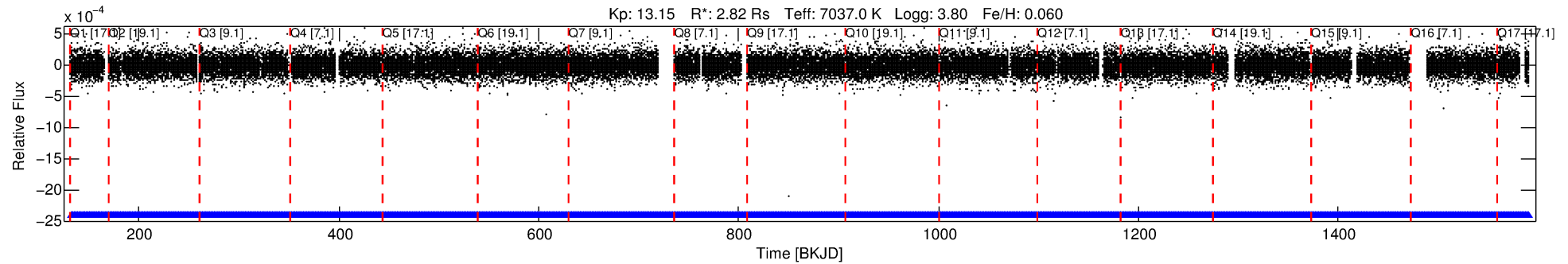
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011086240-01

No Significant Match Found

DV One-Page Summary

KIC: 11086240 Candidate: 1 of 1 Period: 0.858 d



DV Fit Results:

Period = 0.85793 [0.00028] d
Epoch = 132.5552 [0.0348] BKJD
Rp/R* = 0.0011 [0.0183]
a/R* = 10.13 [923.30]
b = 0.14 [636.58]
Seff = 37285.80 [17197.64]
Teff = 3543 [409] K
Rp = 0.35 [5.65] Re
a = 0.0217 [0.0062] AU
Ag = 29.16 [937.82] [0.03σ]
Teffp = 12731 [102341] K [0.09σ]

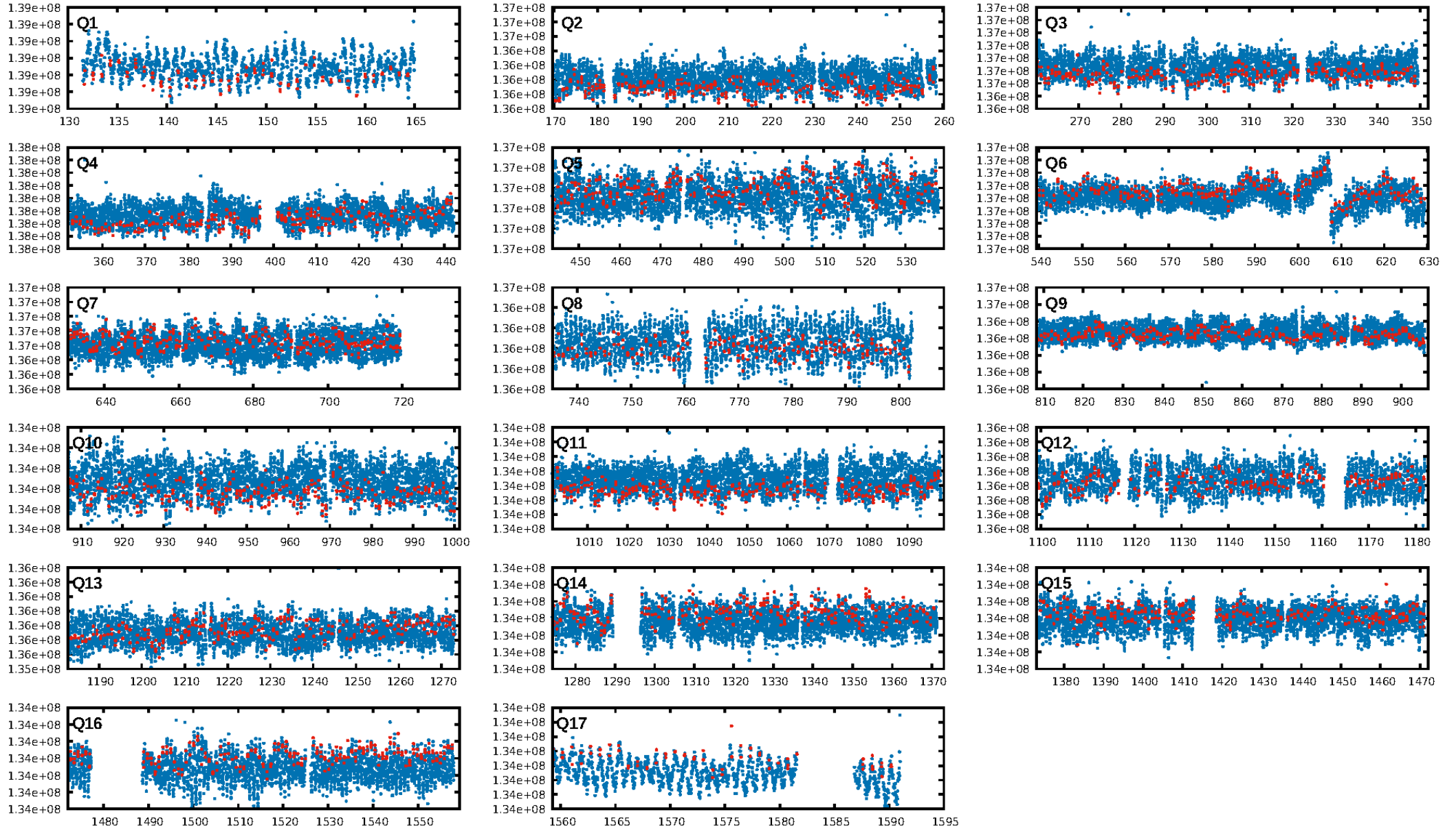
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.32e-17
RollingBand-fgt: 1.00 [1491/1491]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.111 arcsec [0.15σ]
KicOffset-rm: 0.244 arcsec [0.29σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.40 [6/15]
DiffImageOverlap-fno: 1.00 [17/17]

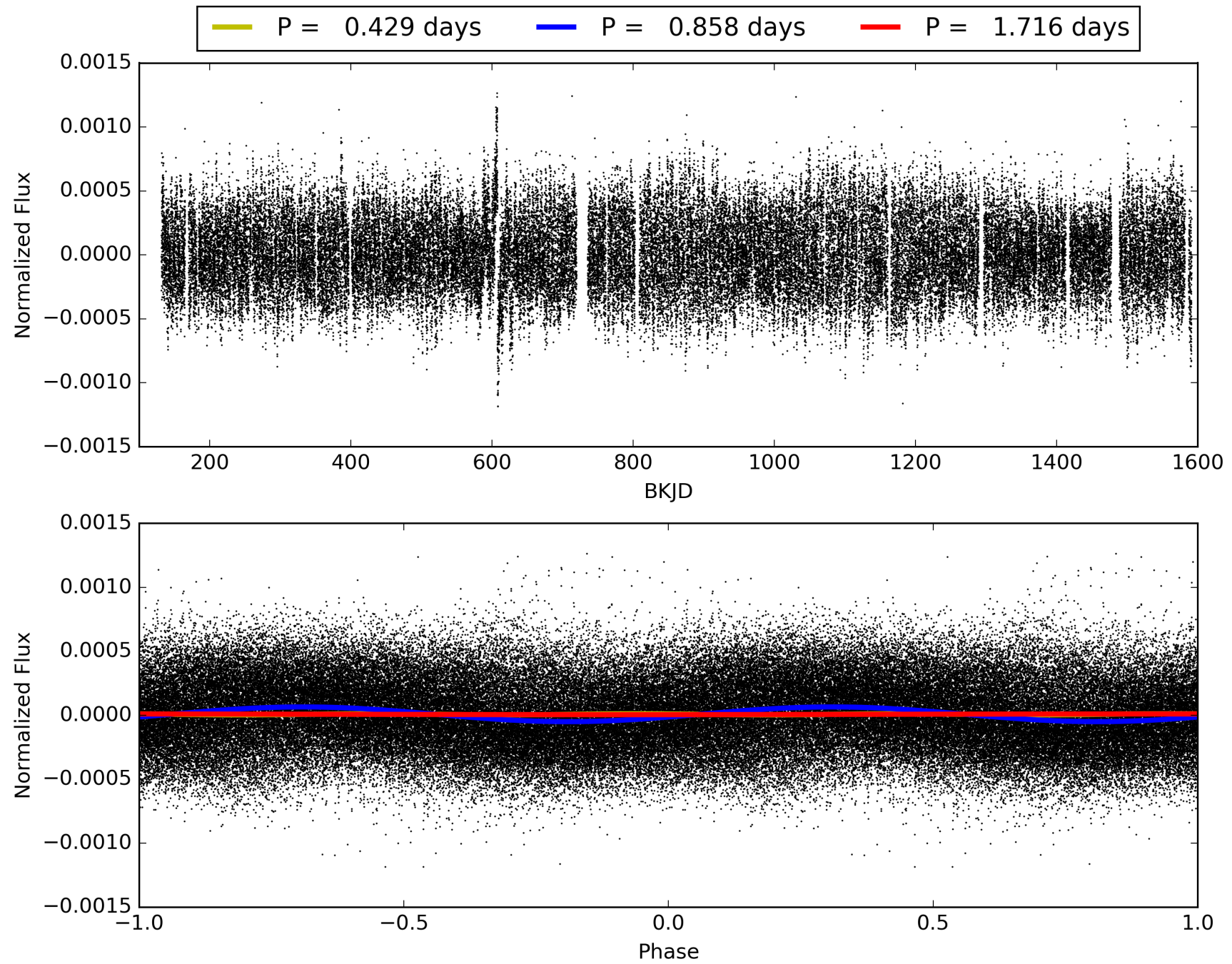
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:01:29 Z

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

TCE 011086240-01, PDC Light Curves

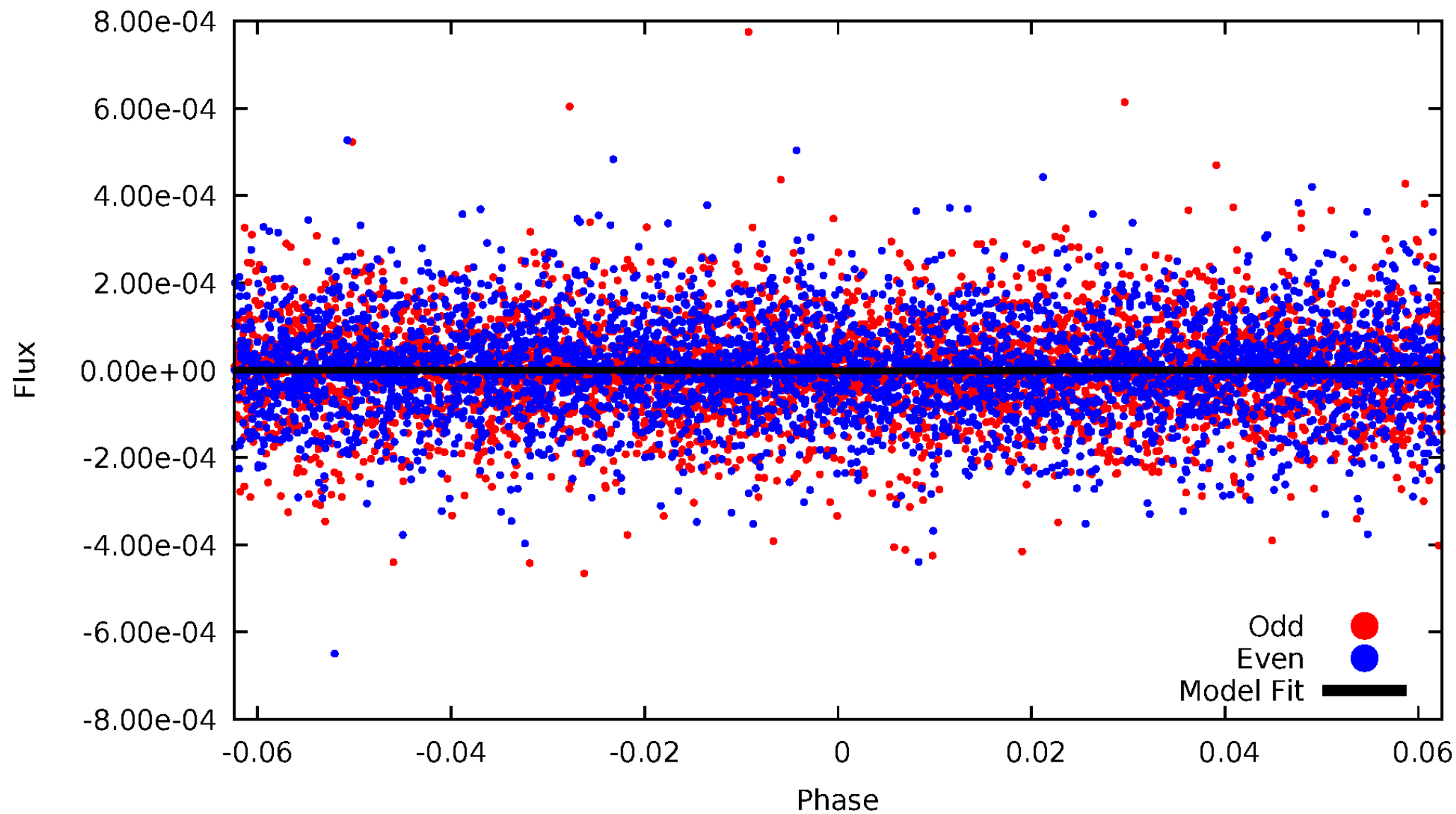


TCE 011086240-01



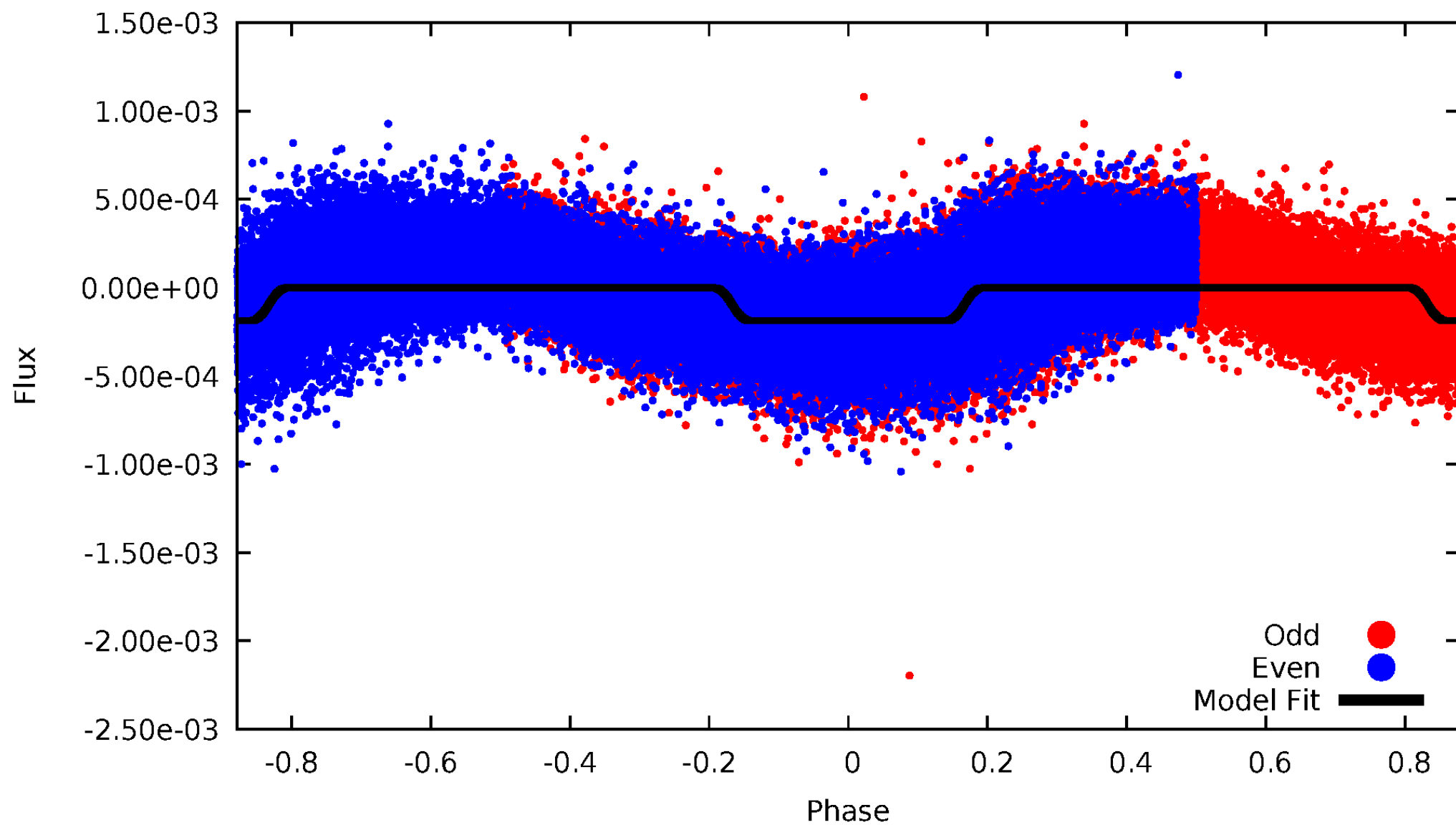
DV Odd/Even

TCE 011086240-01



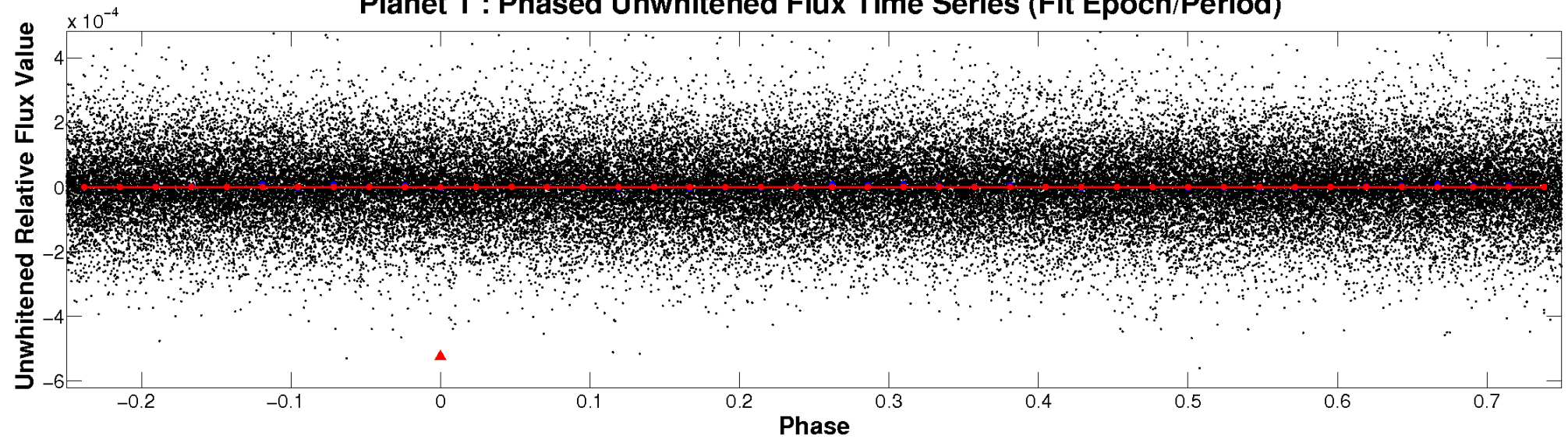
ALT Odd/Even

TCE 011086240-01

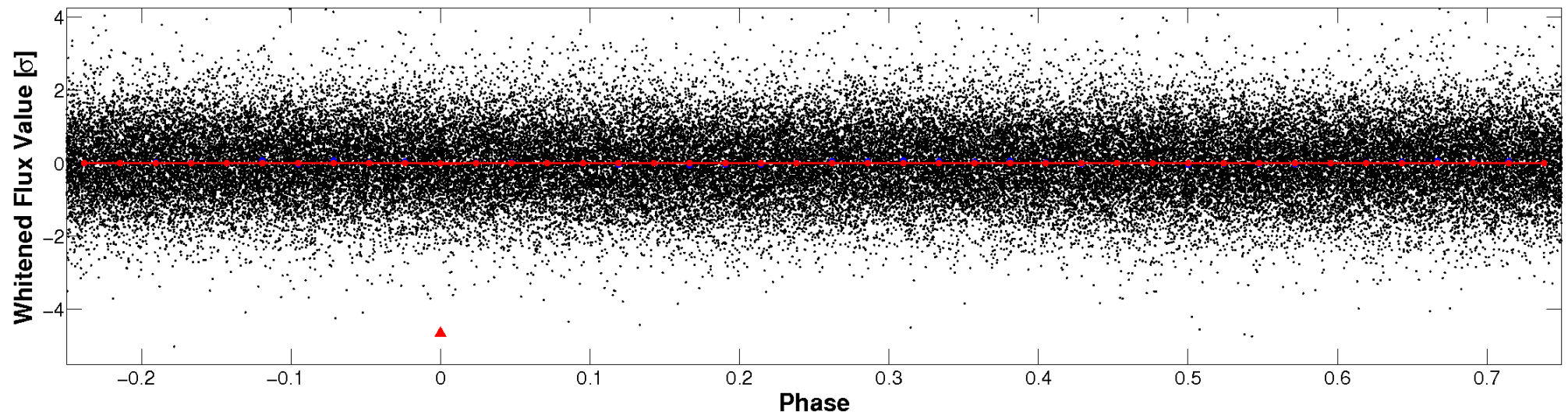


Non-Whitened Vs. Whitened Light Curve

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

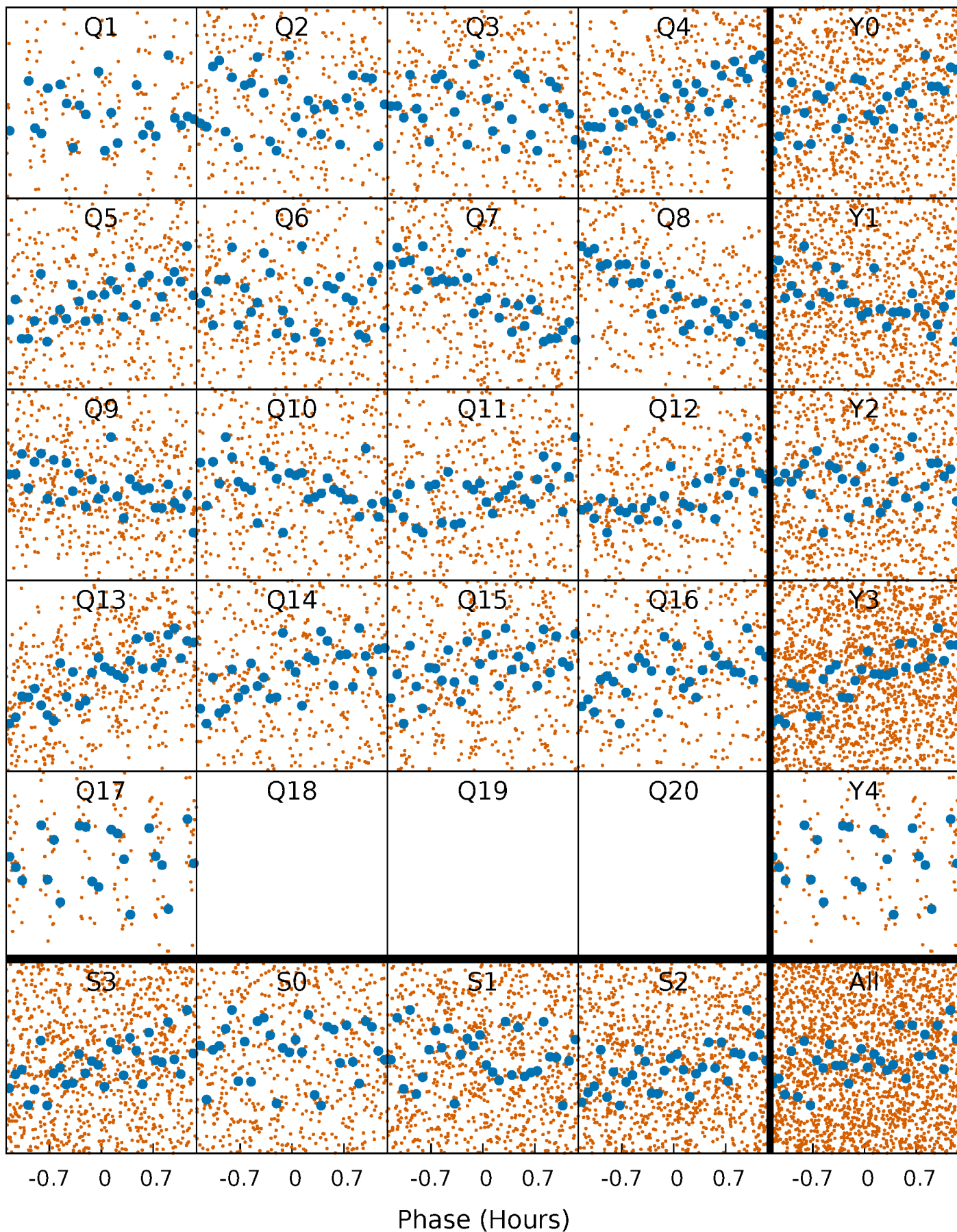


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



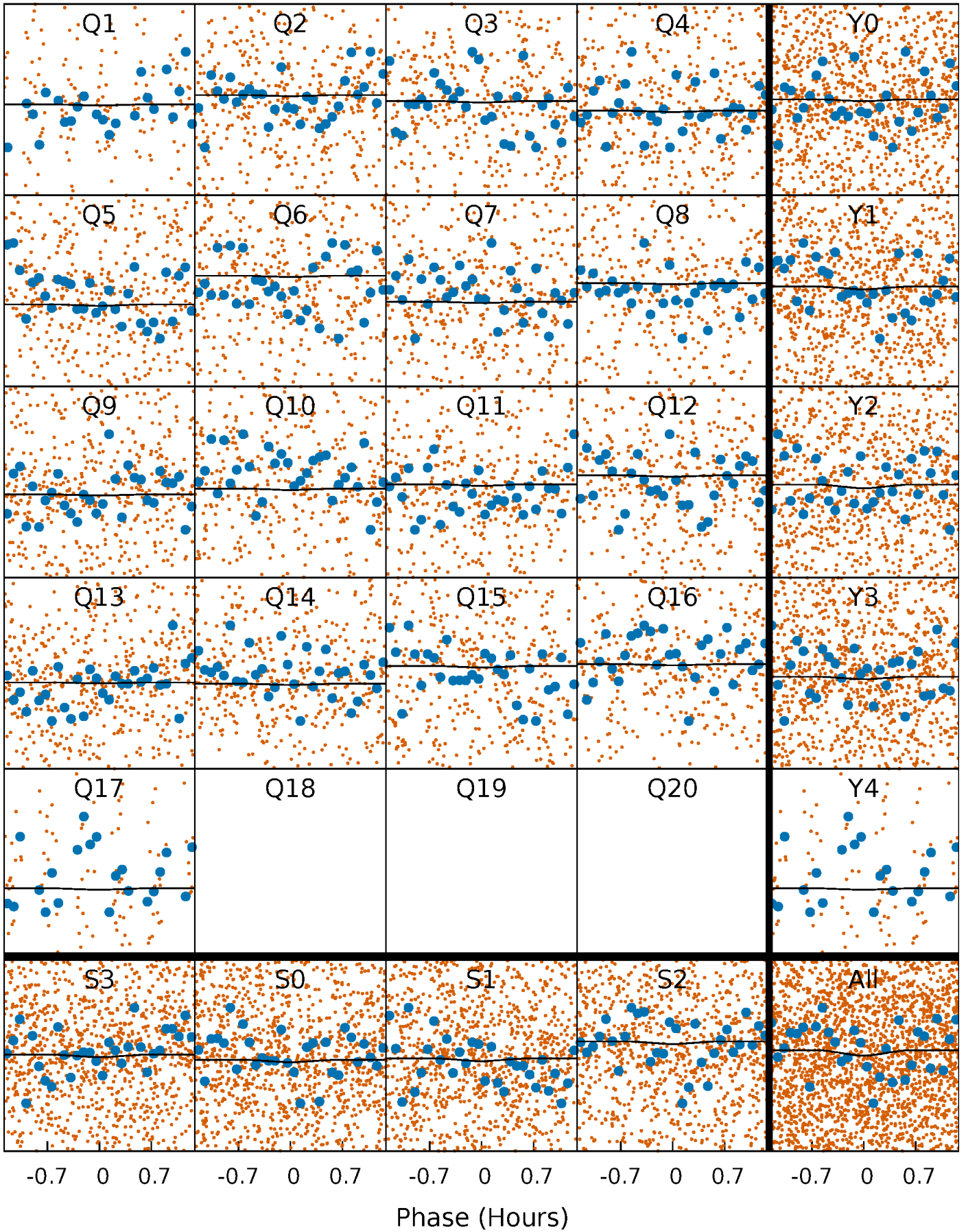
PDC Quarter-Phased Transit Curves

TCE 011086240-01 P= 0.857935 Days $T_0=132.555225$ (BKJD)



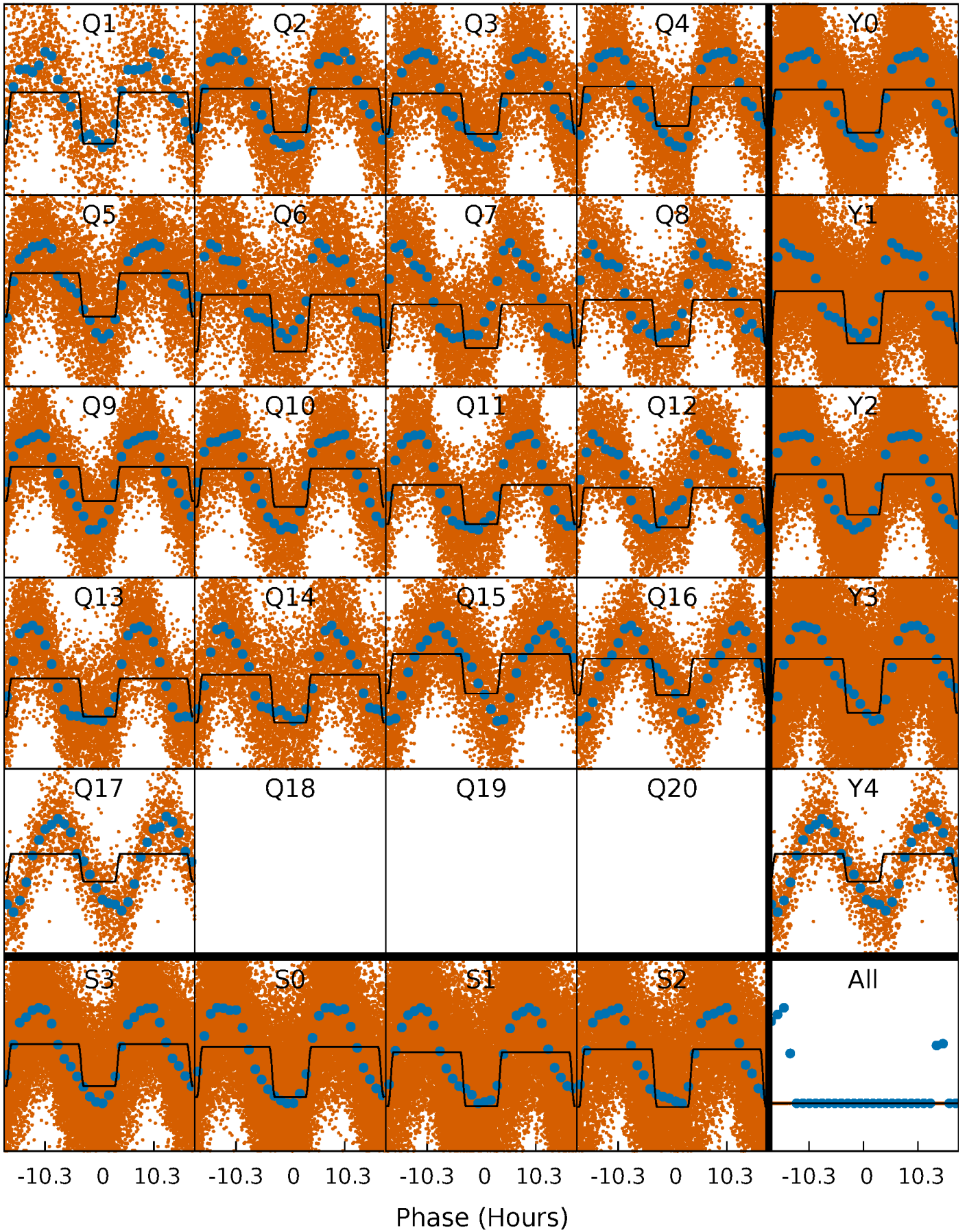
DV Quarter-Phased Transit Curves

TCE 011086240-01 P= 0.857935 Days $T_0=132.555225$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

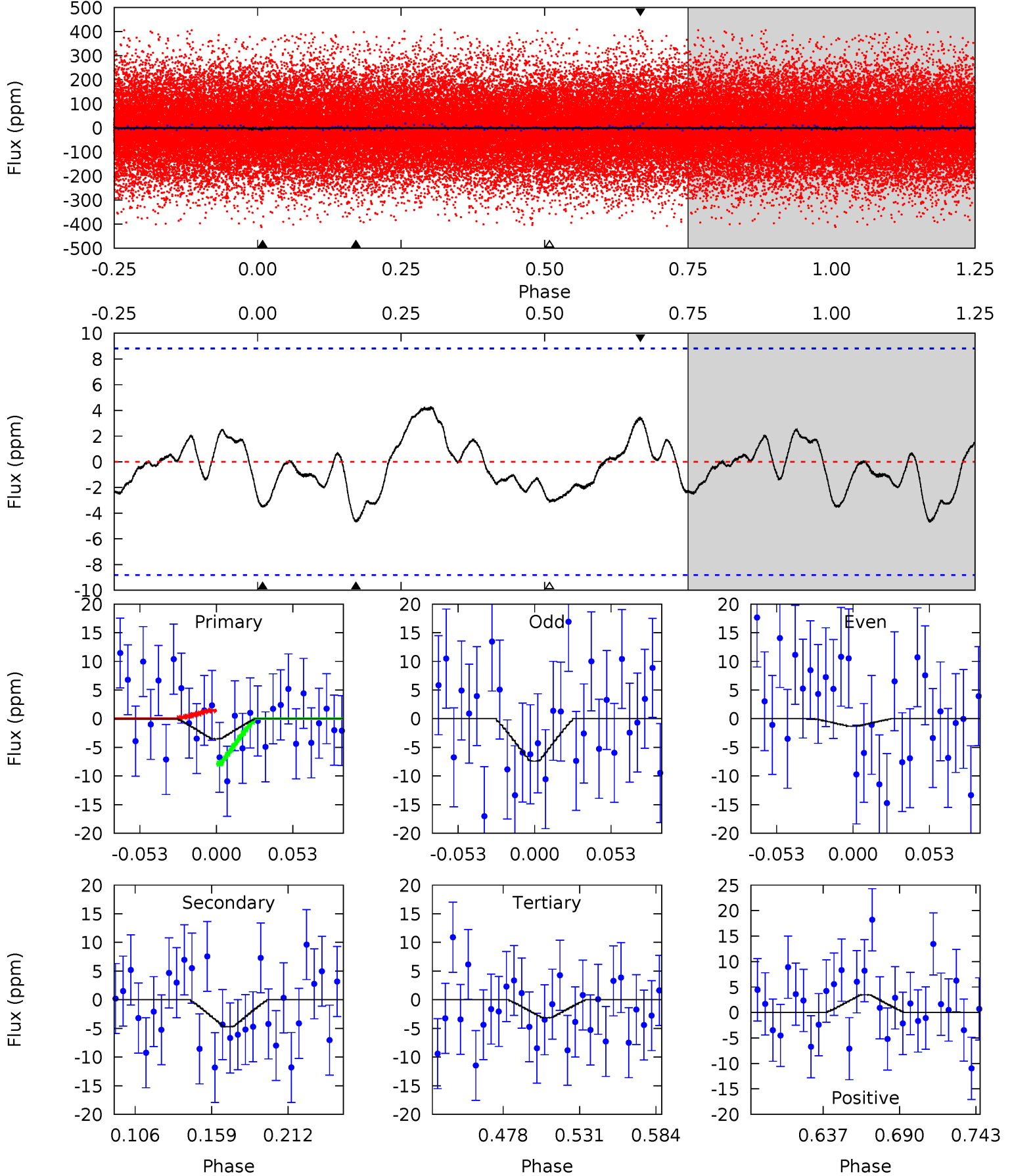
TCE 011086240-01 P= 0.857026 Days $T_0=131.837568$ (BKJD)



DV Model-Shift Uniqueness Test

011086240-01, P = 0.857935 Days, E = 130.839355 Days

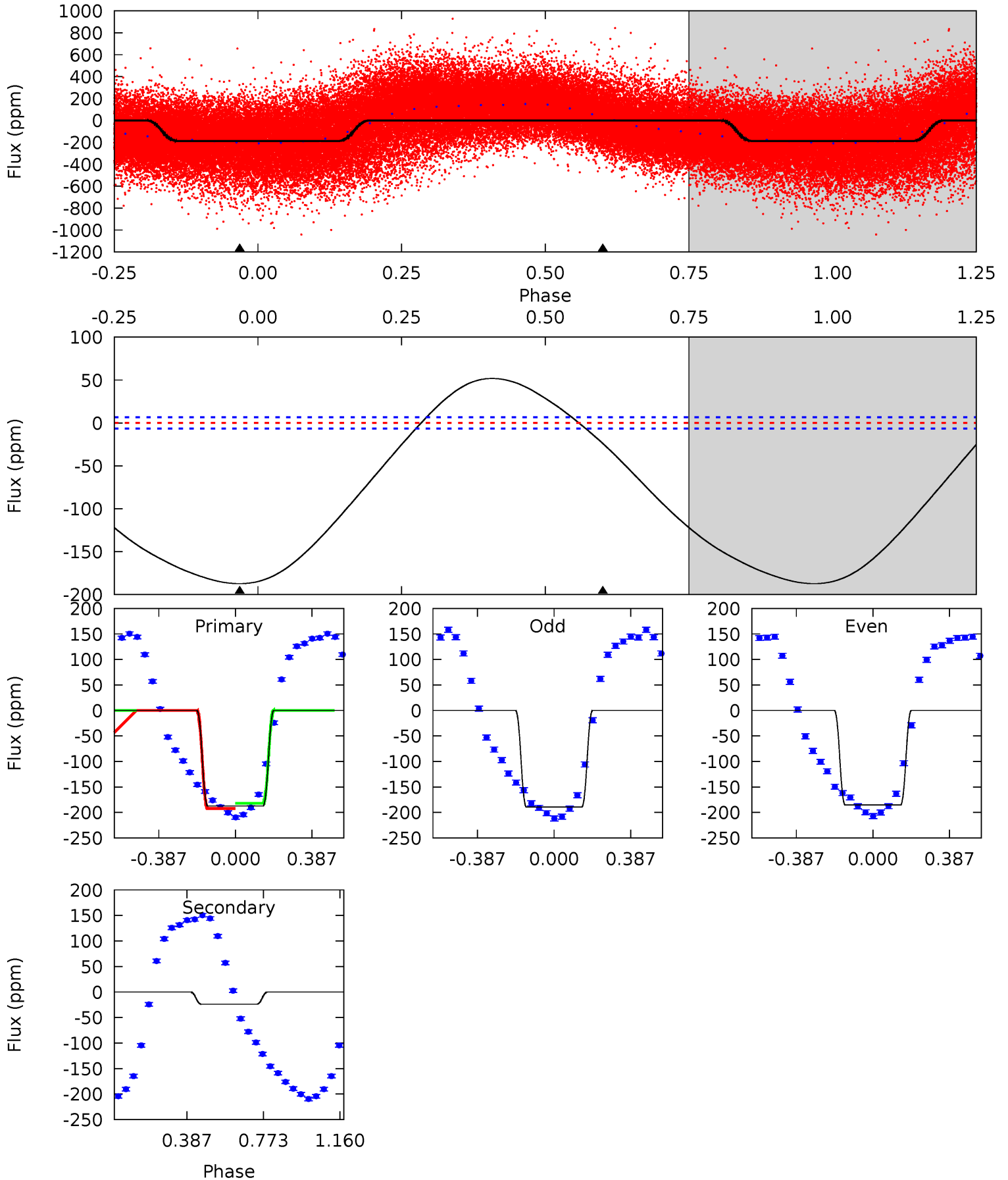
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 1.88 | 2.51 | 1.68 | 1.86 | 4.70 | 1.93 | 0.97 | 0.21 | 0.02 | 0.84 | 0.65 | 1.63 | 1.44 | 0.48 | 1.72 |



Alt Model-Shift Uniqueness Test

011086240-01, P = 0.857026 Days, E = 130.980542 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|-------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 122.9 | 15.7 | 0 | 0 | 4.27 | 0.87 | 13.7 | 122.9 | 122.9 | 15.7 | 15.7 | 1.23 | 1.06 | 0.22 | 3.55 |



Stellar Parameters For KIC 011086240

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 7037^{+169}_{-232} | $3.802^{+0.252}_{-0.108}$ | $0.060^{+0.200}_{-0.300}$ | $2.822^{+0.487}_{-0.905}$ | $1.842^{+0.191}_{-0.354}$ | $0.116^{+0.191}_{-0.040}$ |
| | +2%/-3% | +7%/-3% | +333%/-500% | +17%/-32% | +10%/-19% | +165%/-34% |
| Source | PHO1 | FLK73 | KIC0 | DSEP | | |

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

Secondary Eclipse Parameters for KIC 011086240-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|------------------------|---------------------------|
| DV | -5 ± 2 | $3.52^{+4.33}_{-2.49}$ | 4891^{+314}_{-387} | -3857^{+8971}_{-408} | $0.085^{+1.031}_{-0.067}$ |
| Alt. | -24 ± 2 | $5.49^{+4.72}_{-3.71}$ | 4867^{+314}_{-360} | -3403^{+9313}_{-710} | $0.204^{+1.741}_{-0.148}$ |

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 $A_{obs} \gg 1.0$

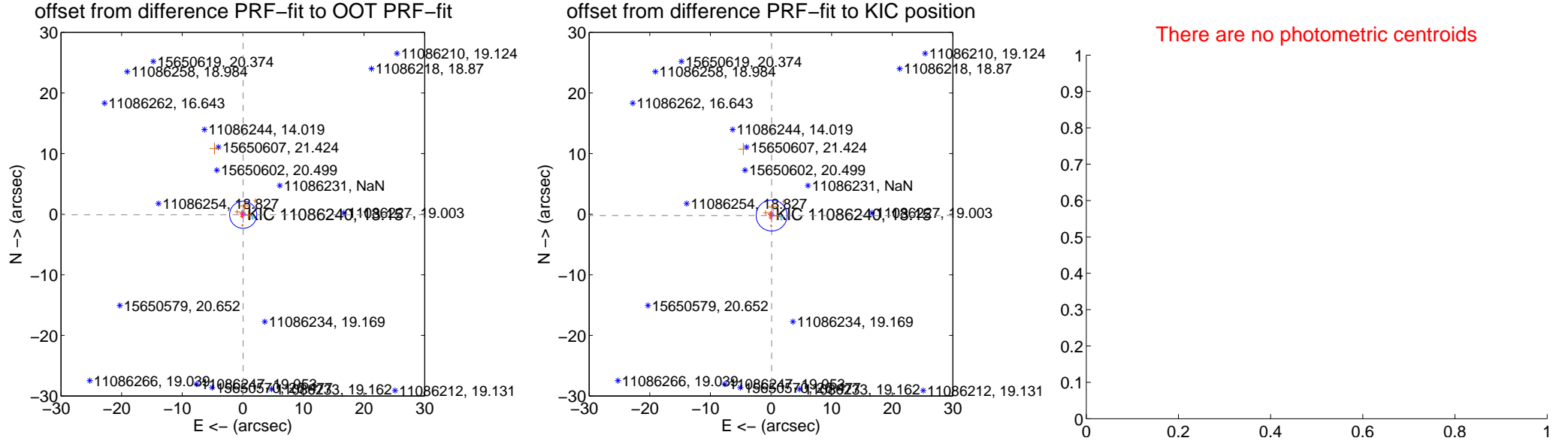
DV Centroid Data

Supplemental centroid analysis for 011086240-01. Kepler magnitude: 13.15. Transit SNR 0.35

There are 6 quarters with good PRF difference image offsets

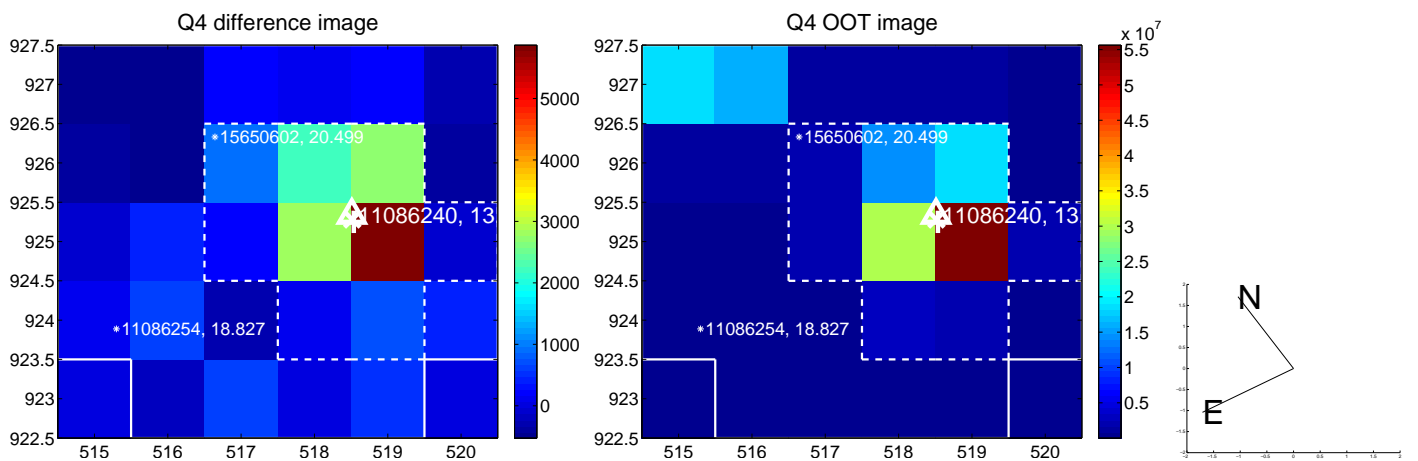
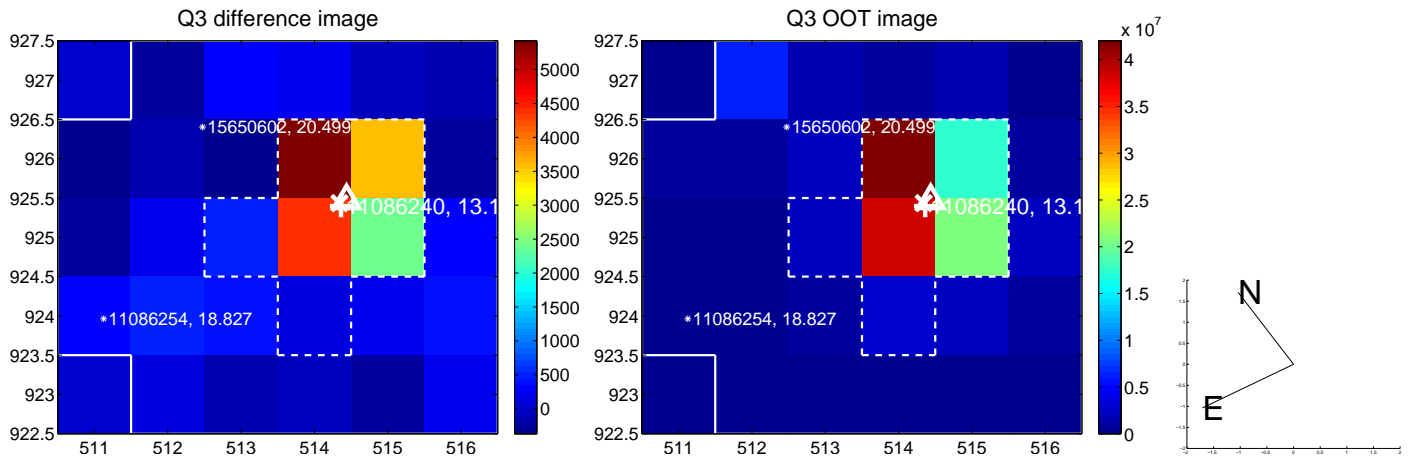
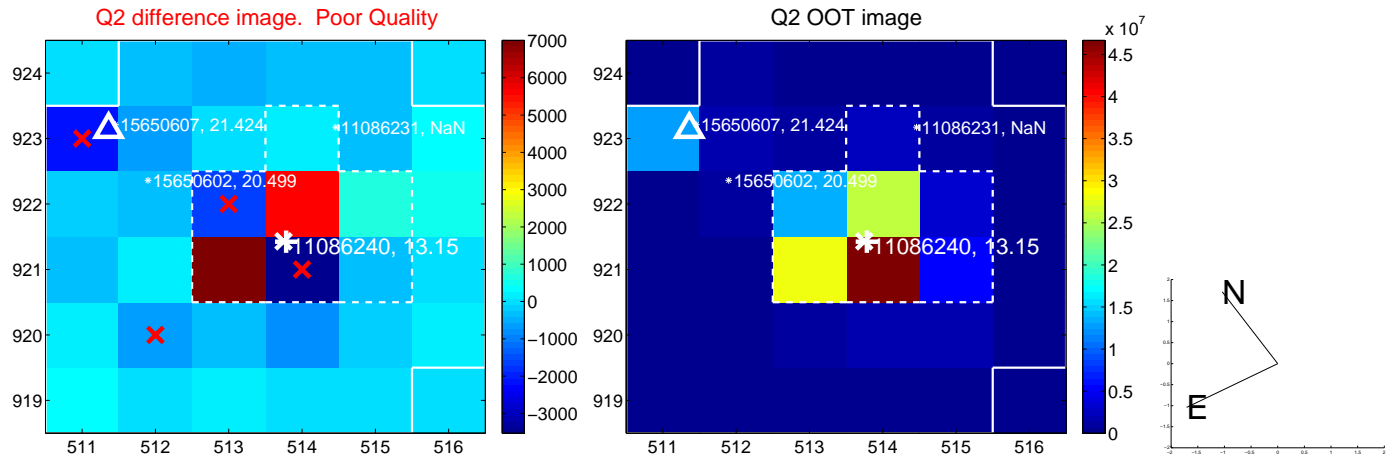
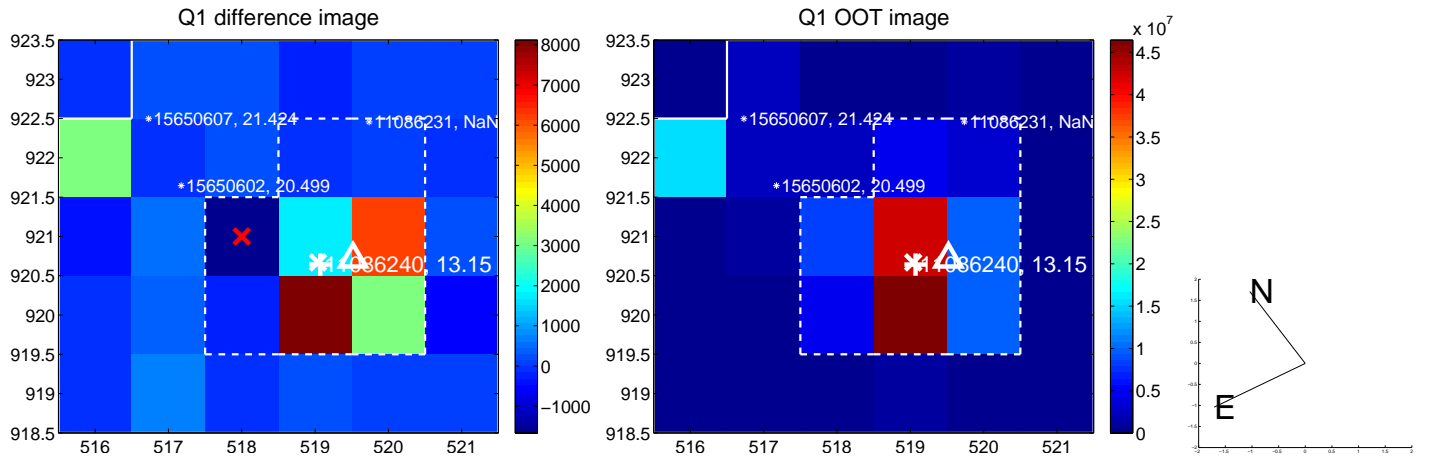
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.111 ± 0.745 | 0.15 | -0.055 ± 0.369 | -0.096 ± 0.687 |
| PRF-fit source offset from KIC position | 0.244 ± 0.852 | 0.29 | -0.108 ± 0.403 | -0.218 ± 0.789 |
| photometric centroid source offset | — | — | — | — |

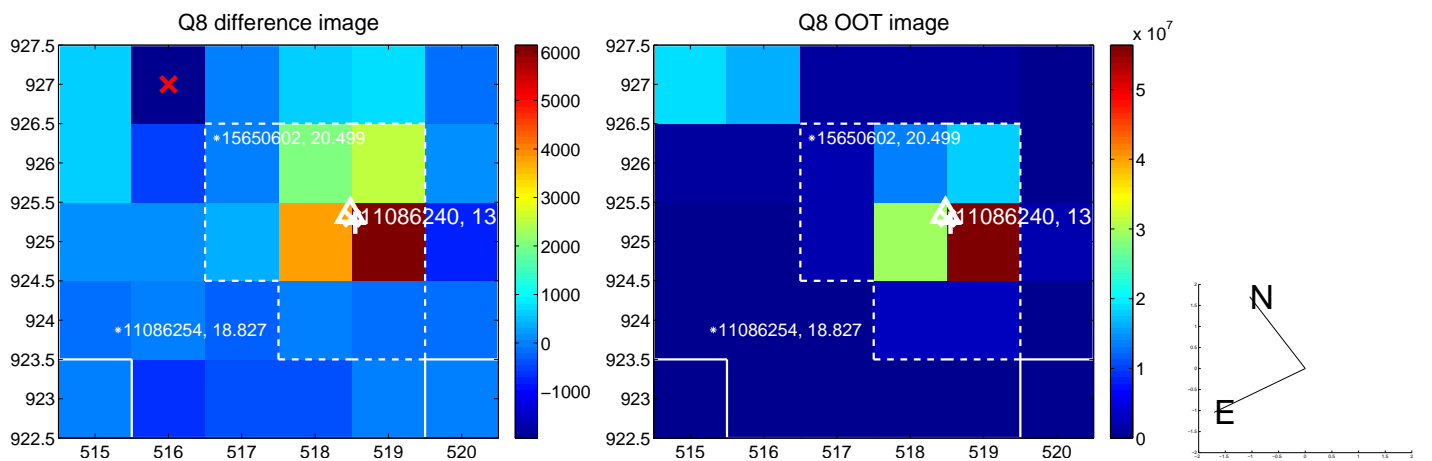
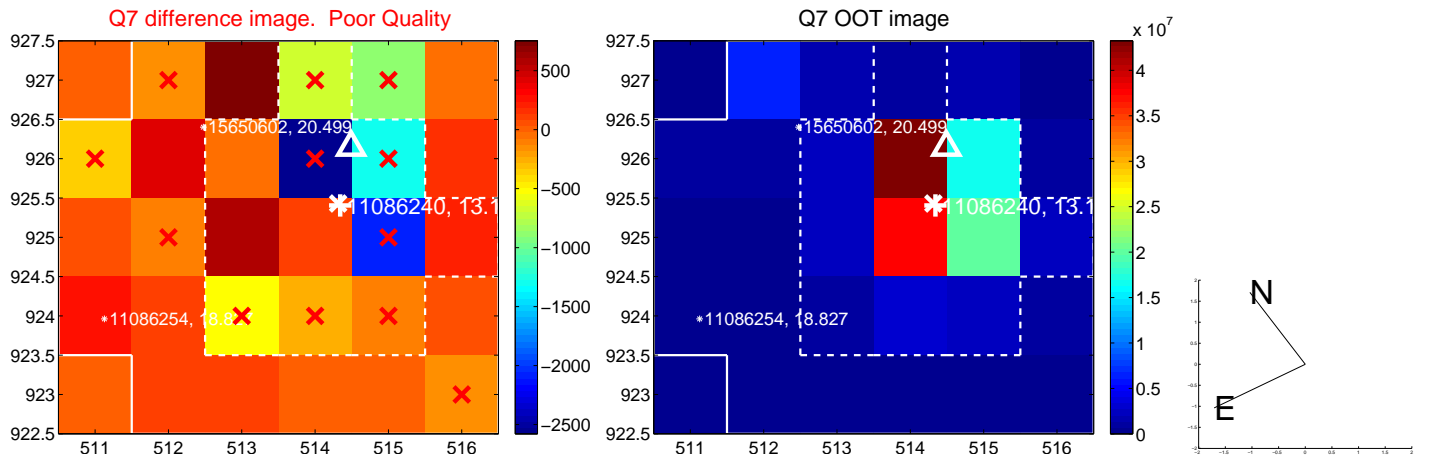
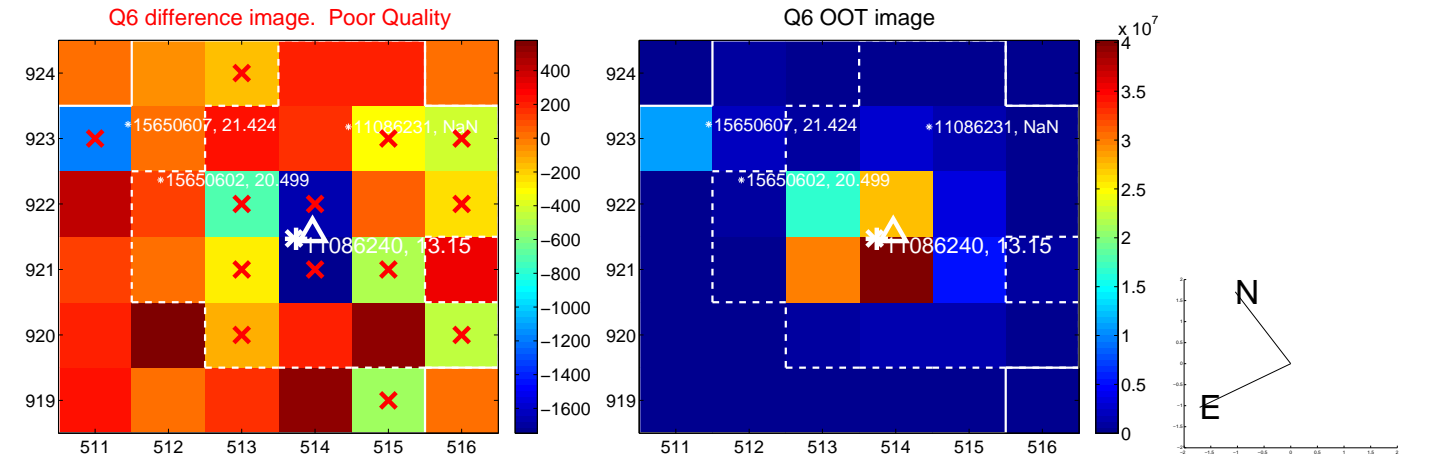
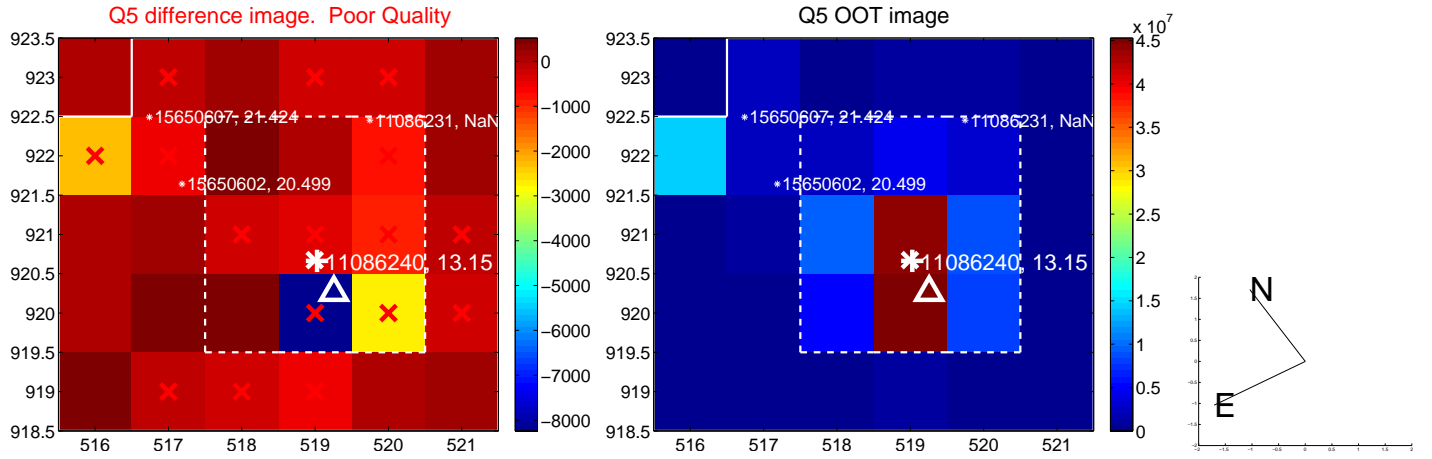


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

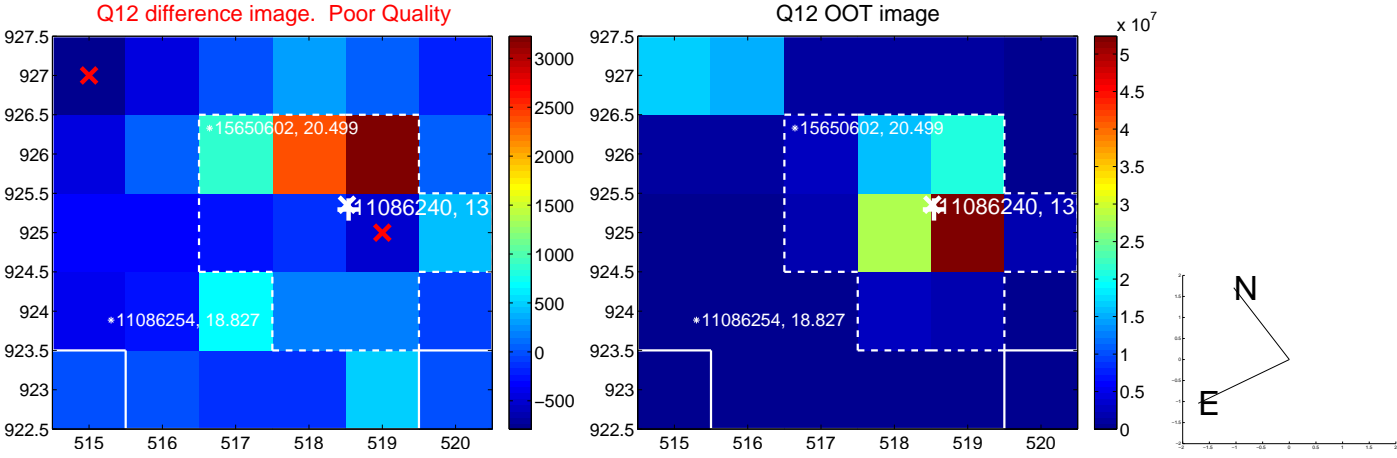
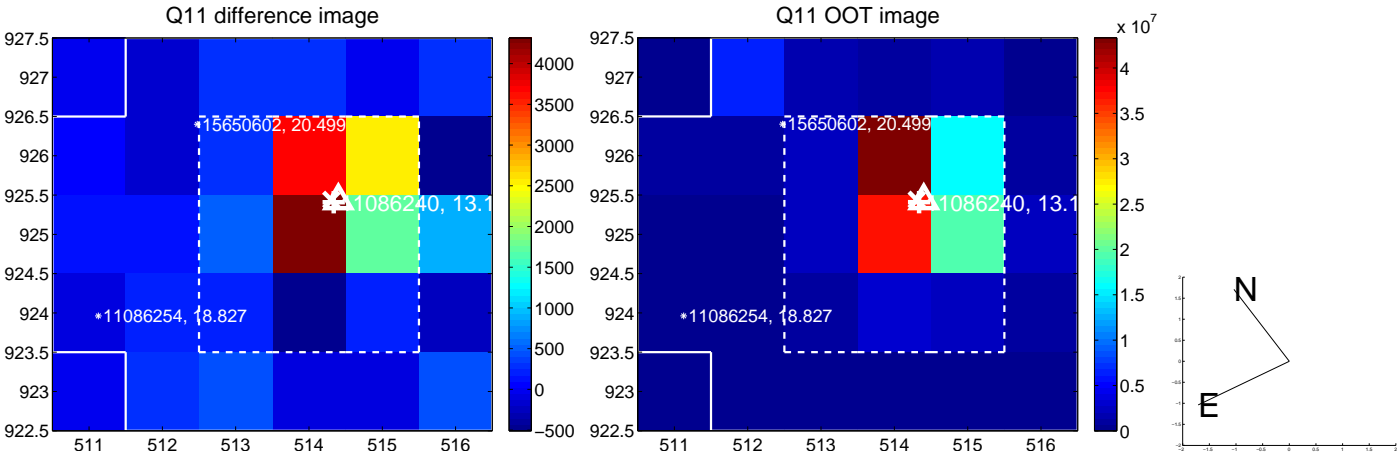
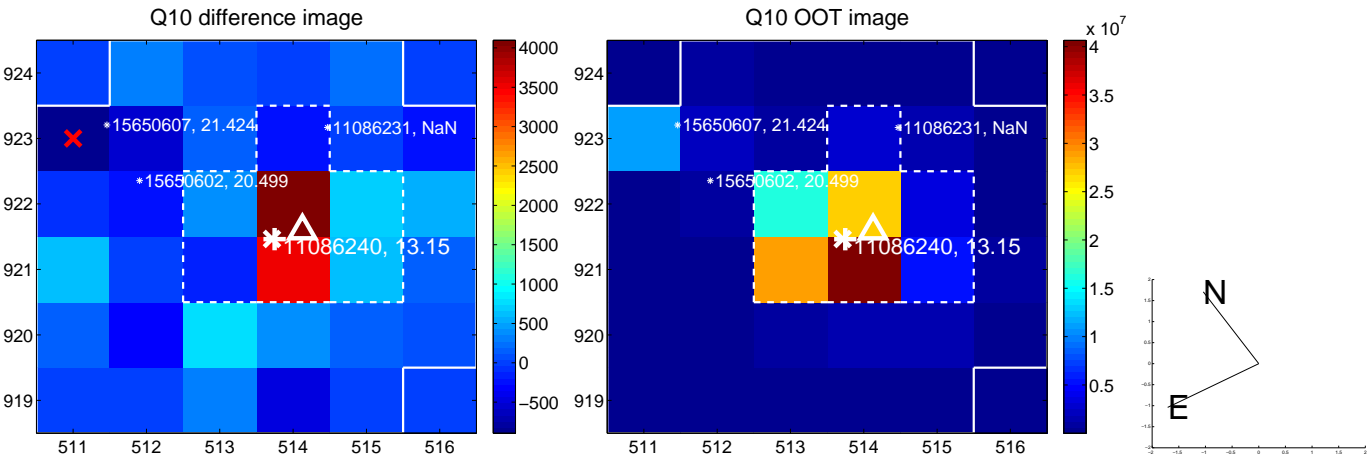
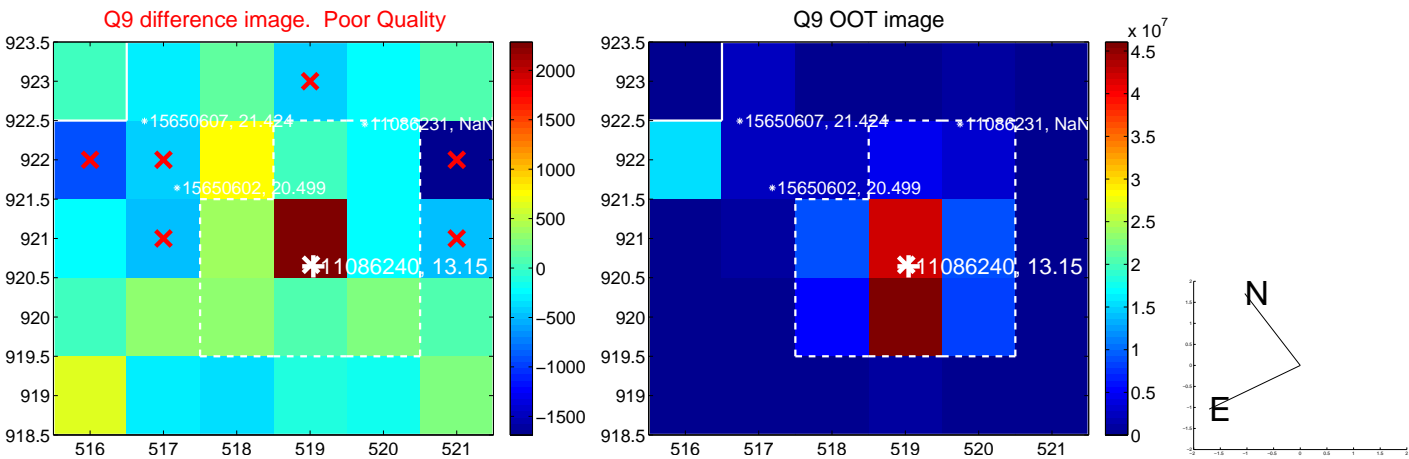
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



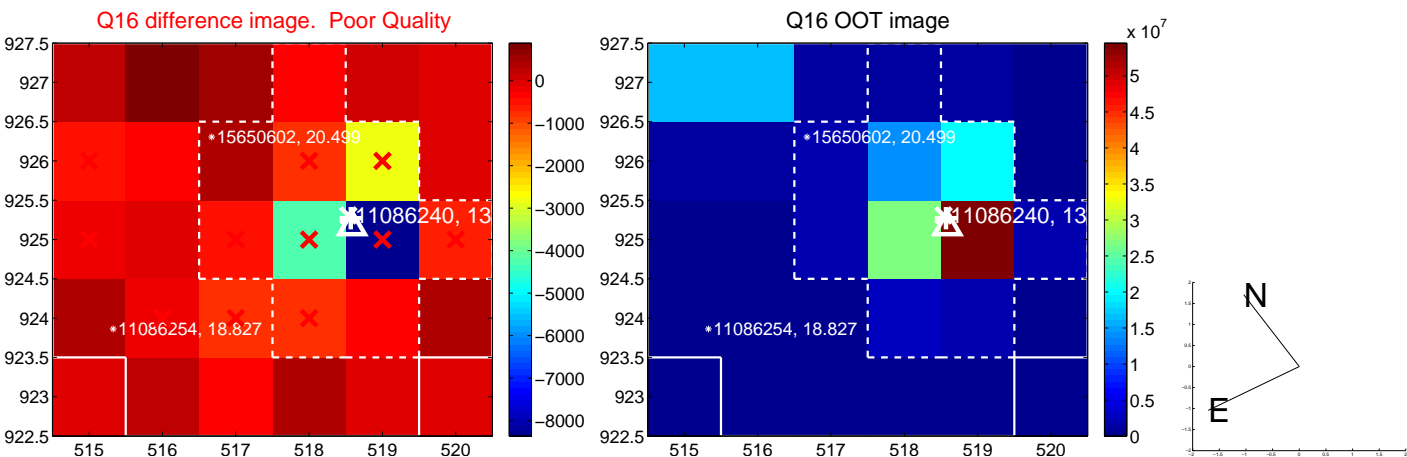
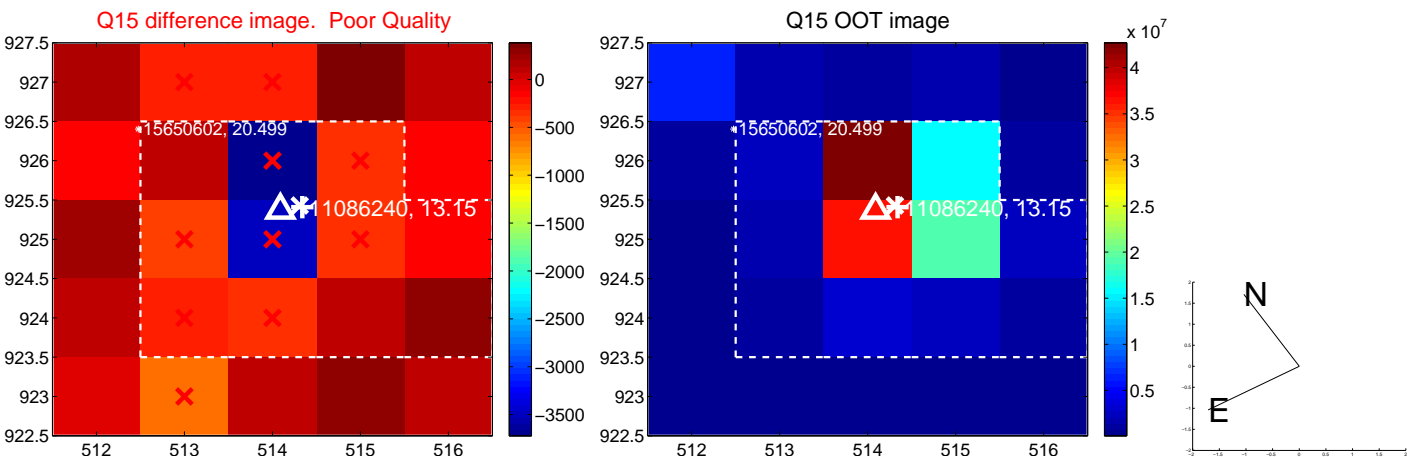
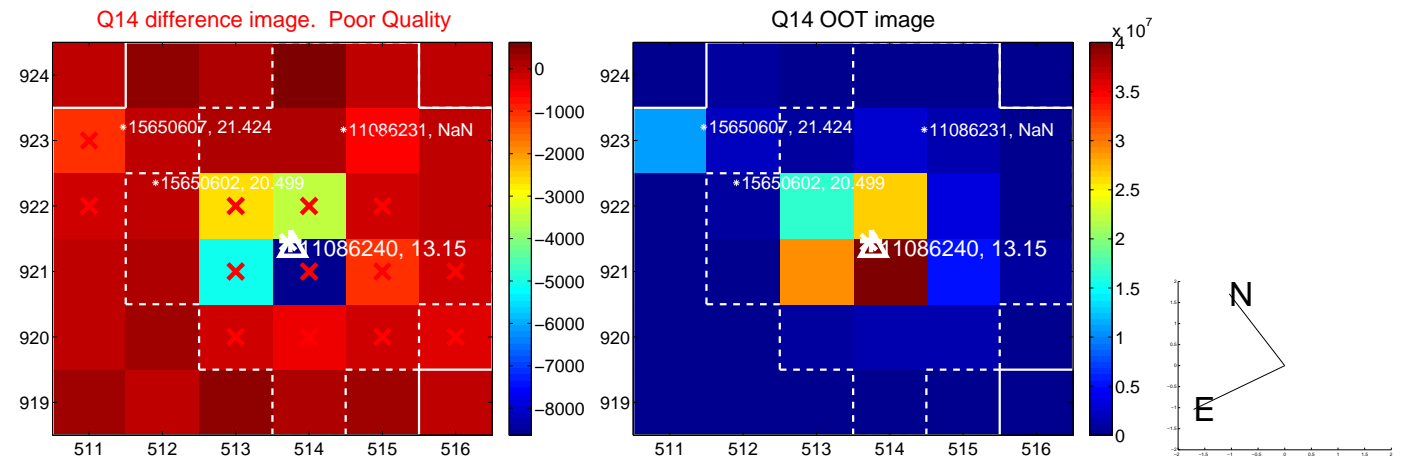
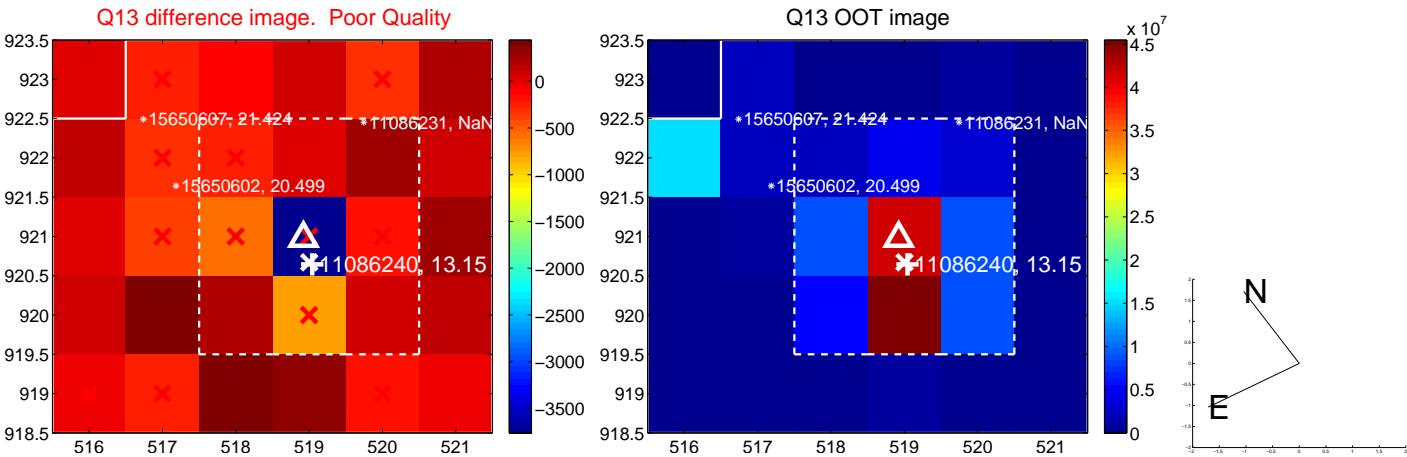
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



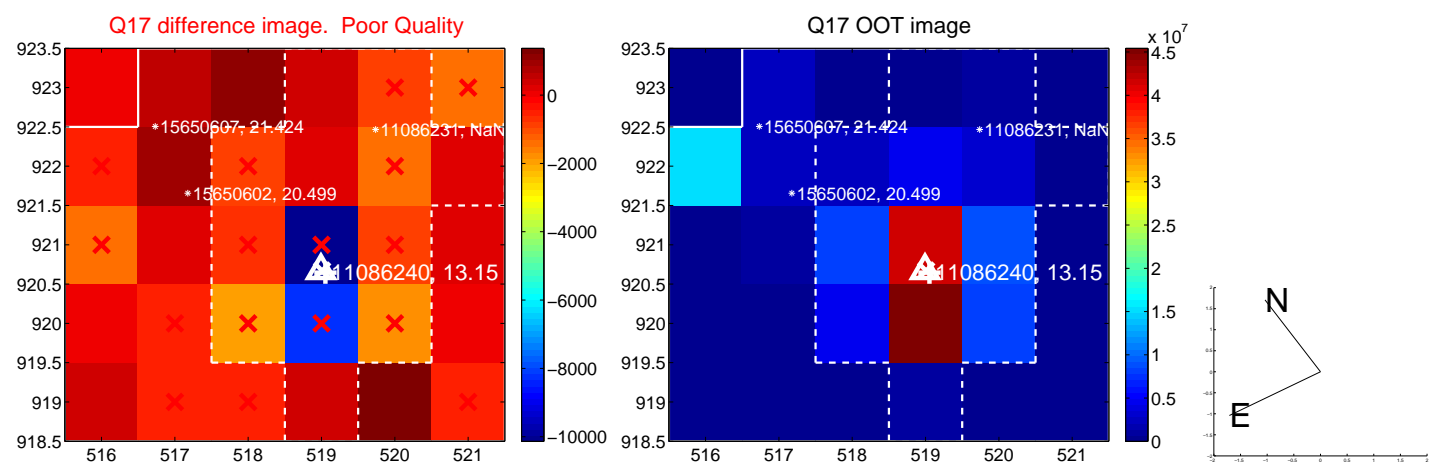
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

