

KIC 006757075

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|------|-----------------------------|-----------------|------------------------|------------------------|
| 006757075-01 | OBS | No | 7.559867 | 135.617837 | 57.3 | 26.102 | 10.0 | 11.7 | 0.60 | 5091 | 0.50 | 50.80 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|------------------------------------|
| 006757075-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—MOD_NONUNIQ_DV—CENT_KIC_POS |

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

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

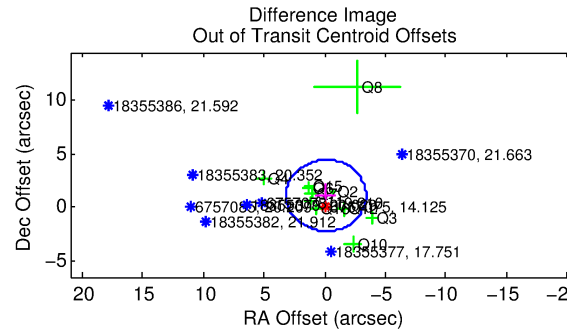
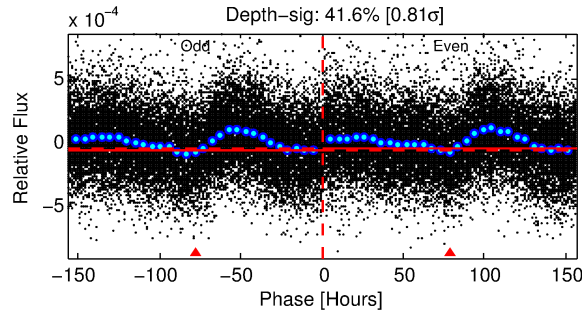
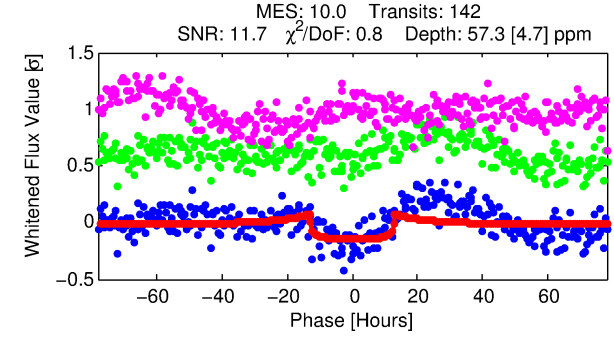
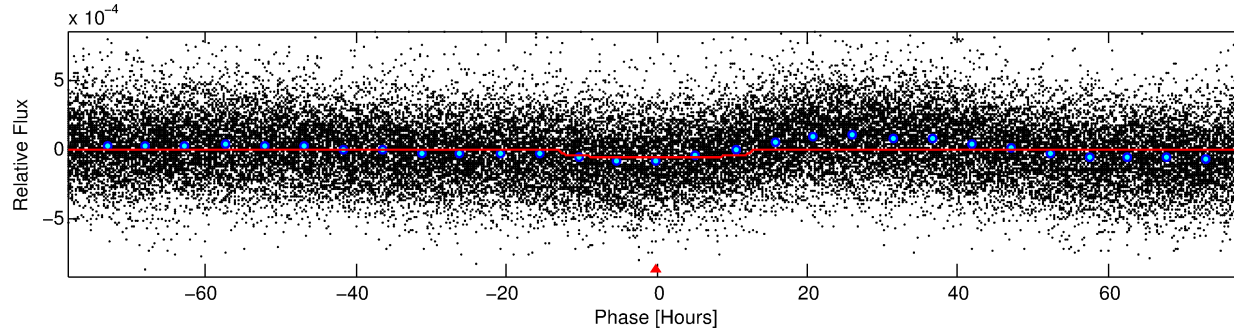
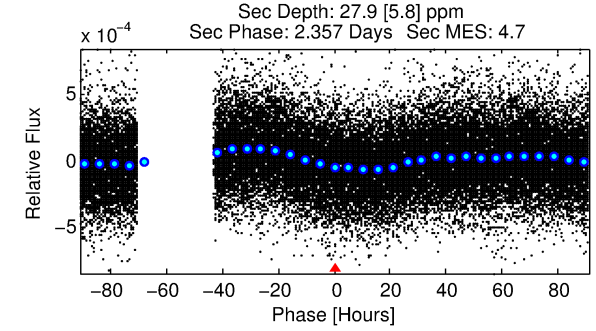
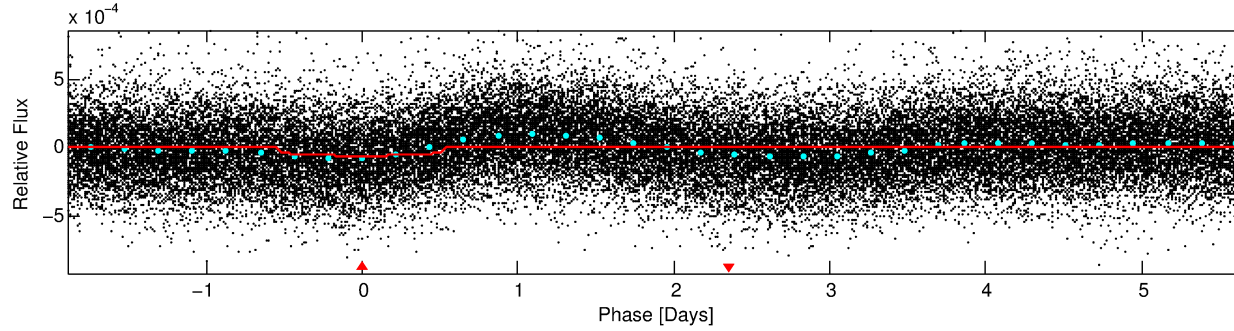
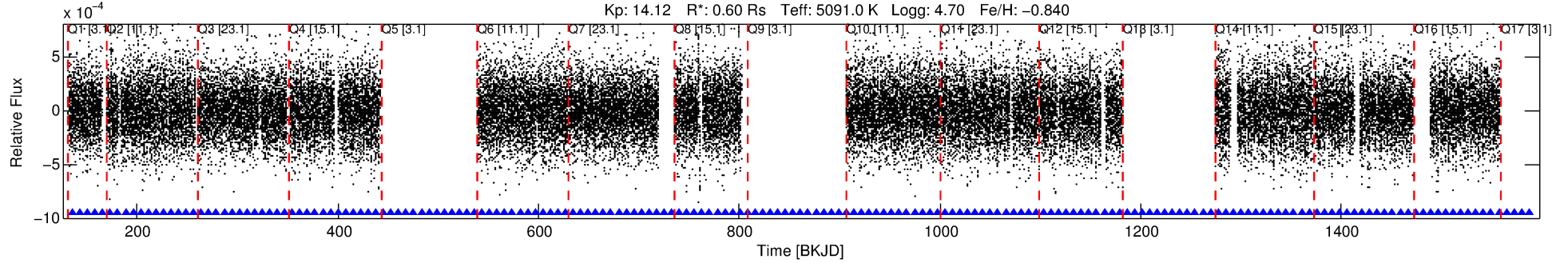
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006757075-01

No Significant Match Found

DV One-Page Summary

KIC: 6757075 Candidate: 1 of 1 Period: 7.560 d



DV Fit Results:

Period = 7.55987 [0.00017] d
Epoch = 135.6178 [0.0170] BKJD
Rp/R* = 0.0076 [0.0014]
a/R* = 1.65 [0.79]
b = 0.78 [0.38]
Seff = 50.79 [8.58]
Teq = 681 [29] K
Rp = 0.50 [0.11] Re
a = 0.0655 [0.0055] AU
Ag = 260.93 [115.34] [2.25σ]
Teffp = 4230 [468] K [7.57σ]

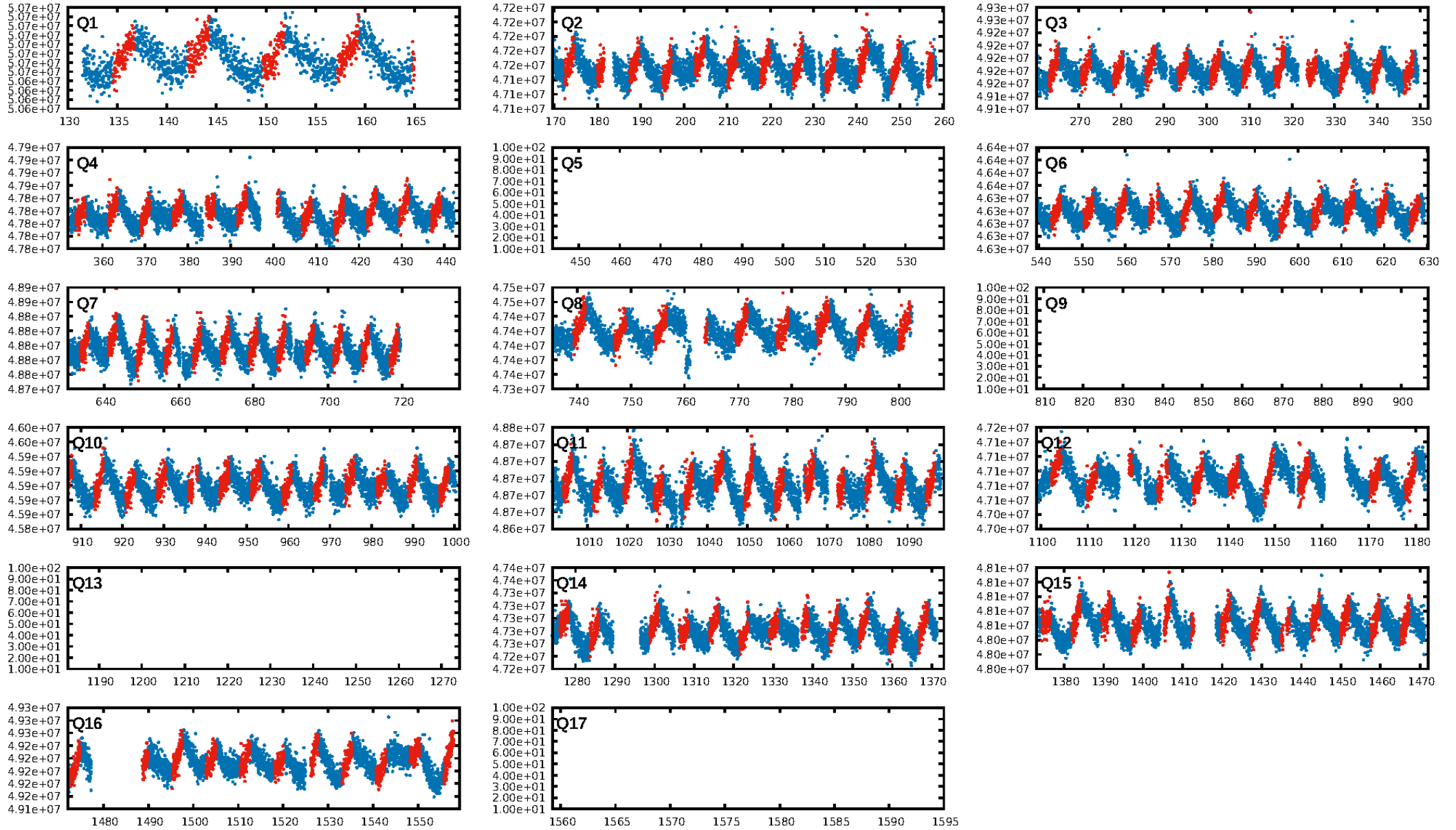
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.11e-25
RollingBand-fgt: 1.00 [138/138]
GhostDiagnostic-chr: -23.88
Centroid-sig: 0.0%
Centroid-so: 2.823 arcsec [3.33σ]
OotOffset-rm: 1.117 arcsec [1.01σ]
KicOffset-rm: 1.511 arcsec [1.45σ]
OotOffset-st: 3/4/4/0 [11]
KicOffset-st: 3/4/4/0 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [13/13]

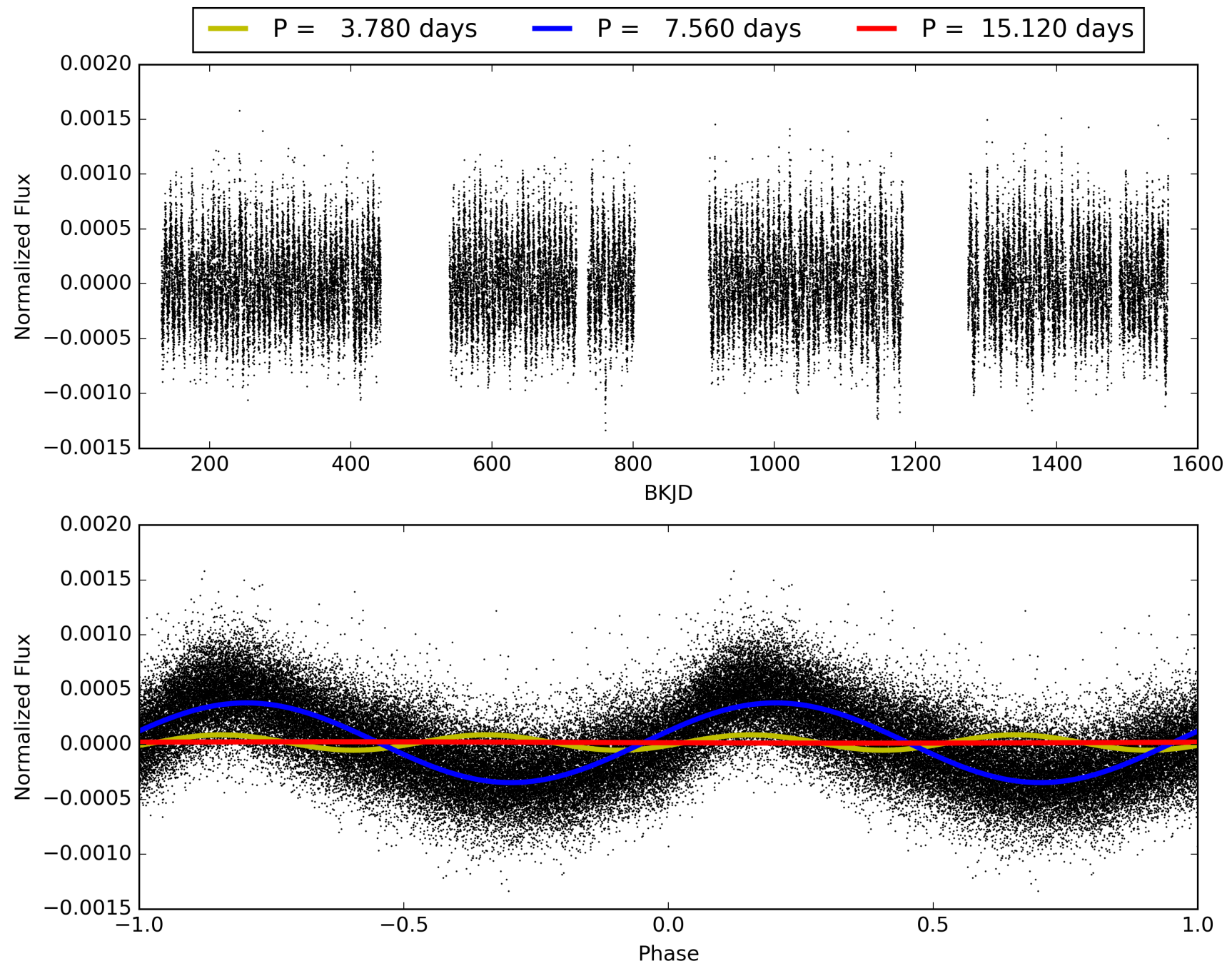
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:17:09 Z

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

TCE 006757075-01, PDC Light Curves

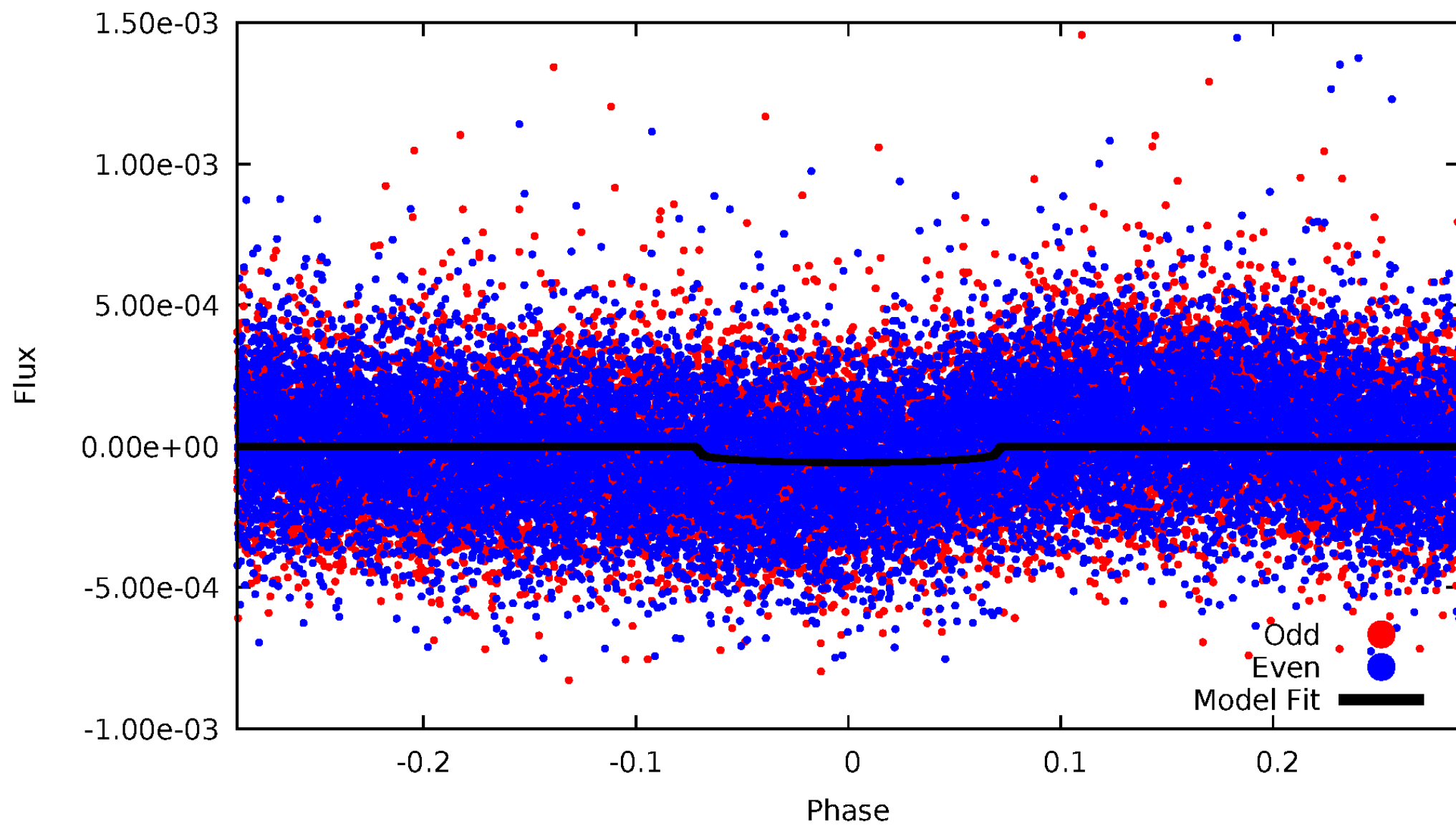


TCE 006757075-01



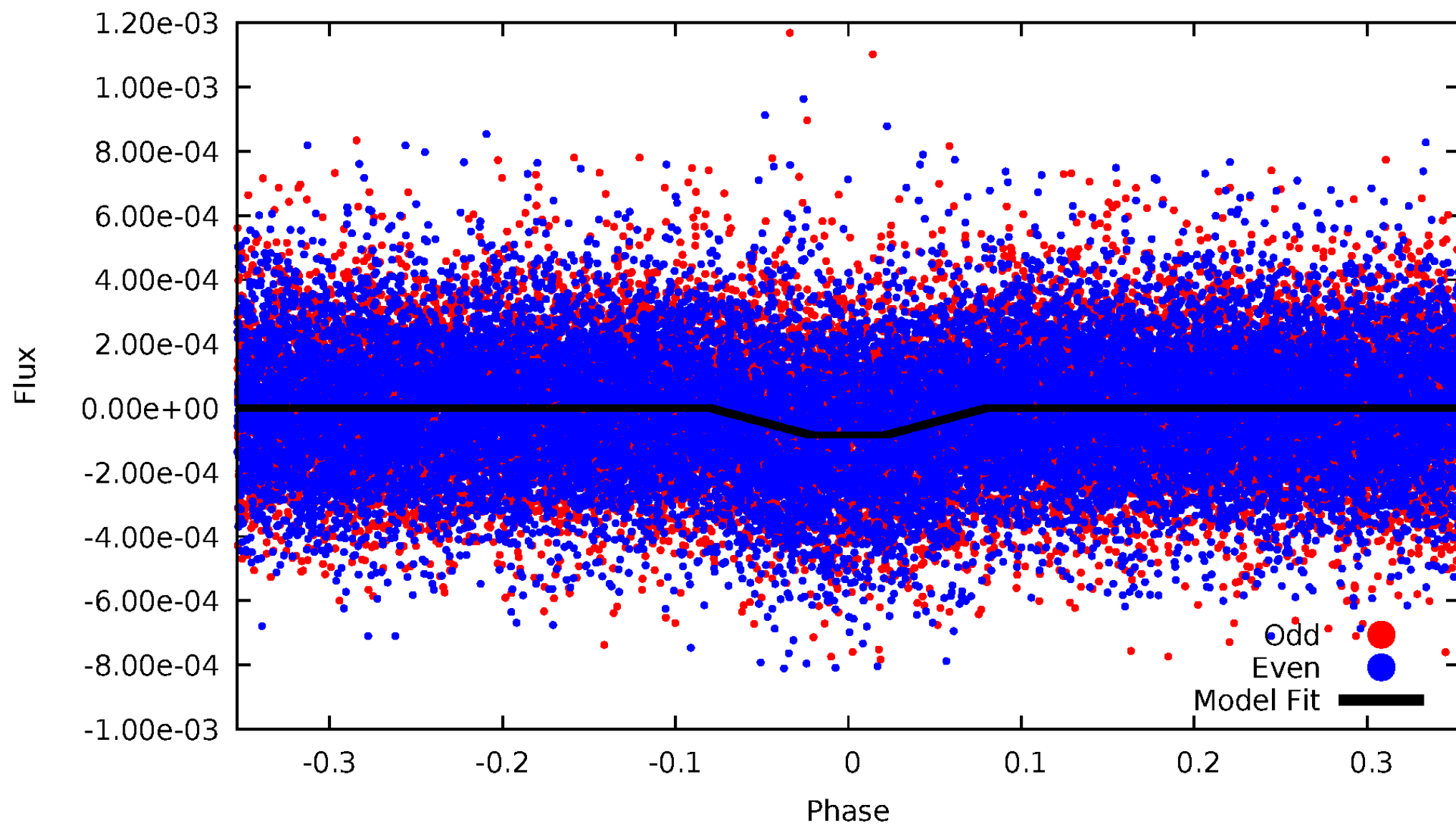
DV Odd/Even

TCE 006757075-01



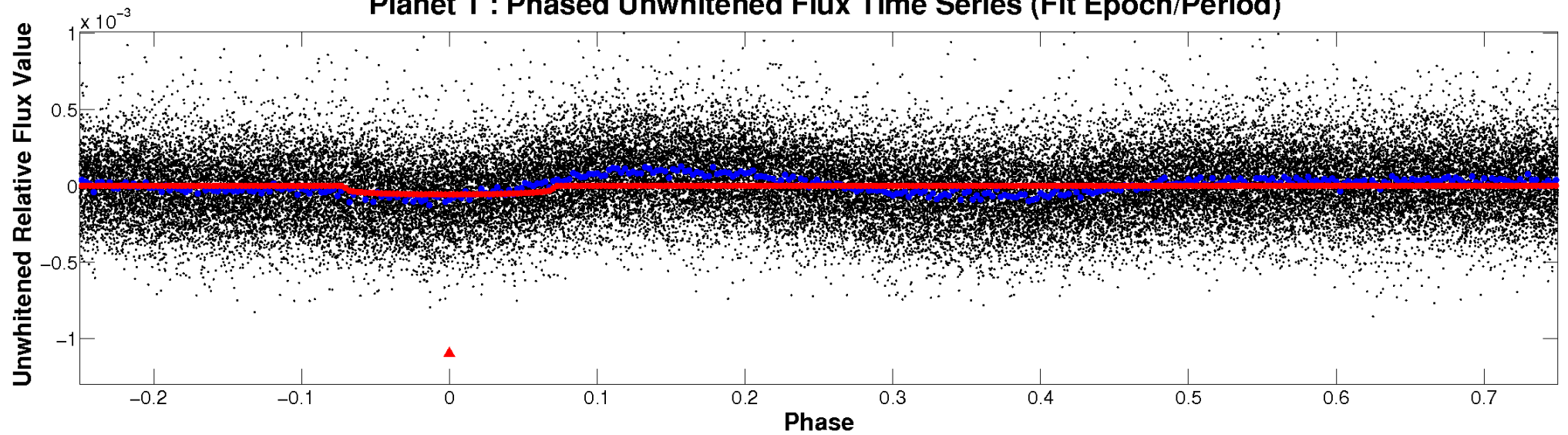
ALT Odd/Even

TCE 006757075-01

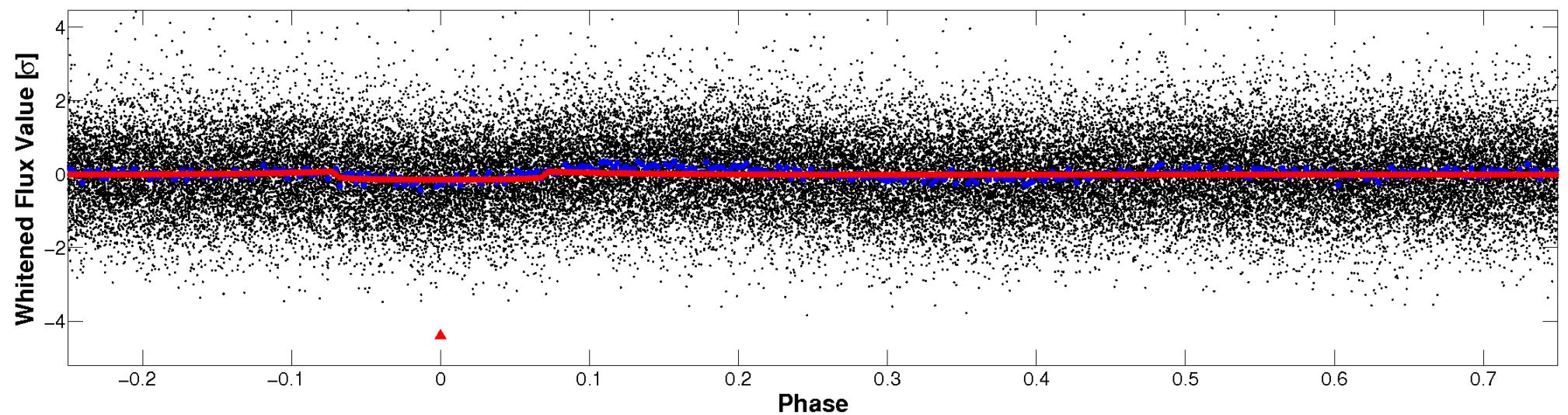


Non-Whitened Vs. Whitened Light Curve

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

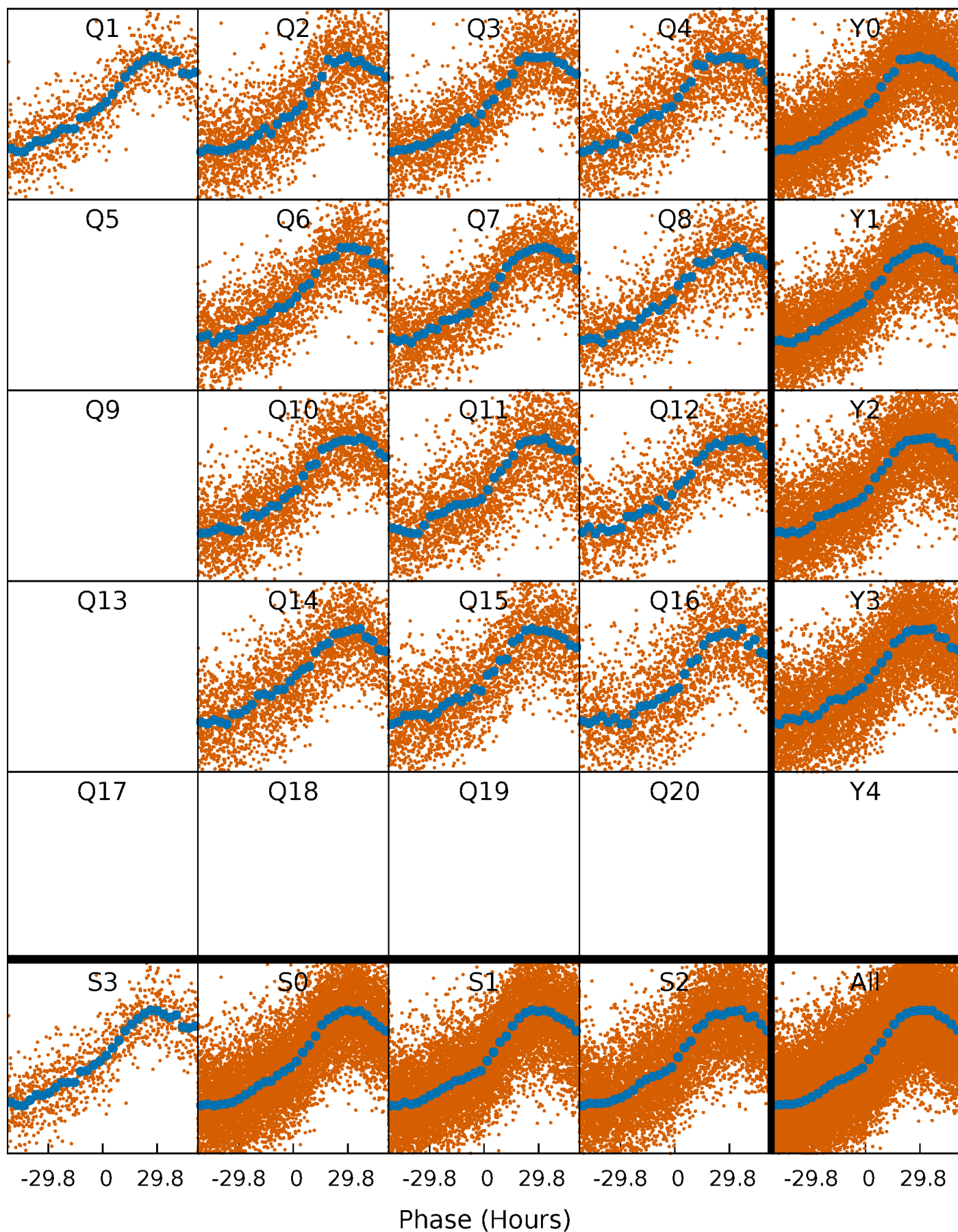


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



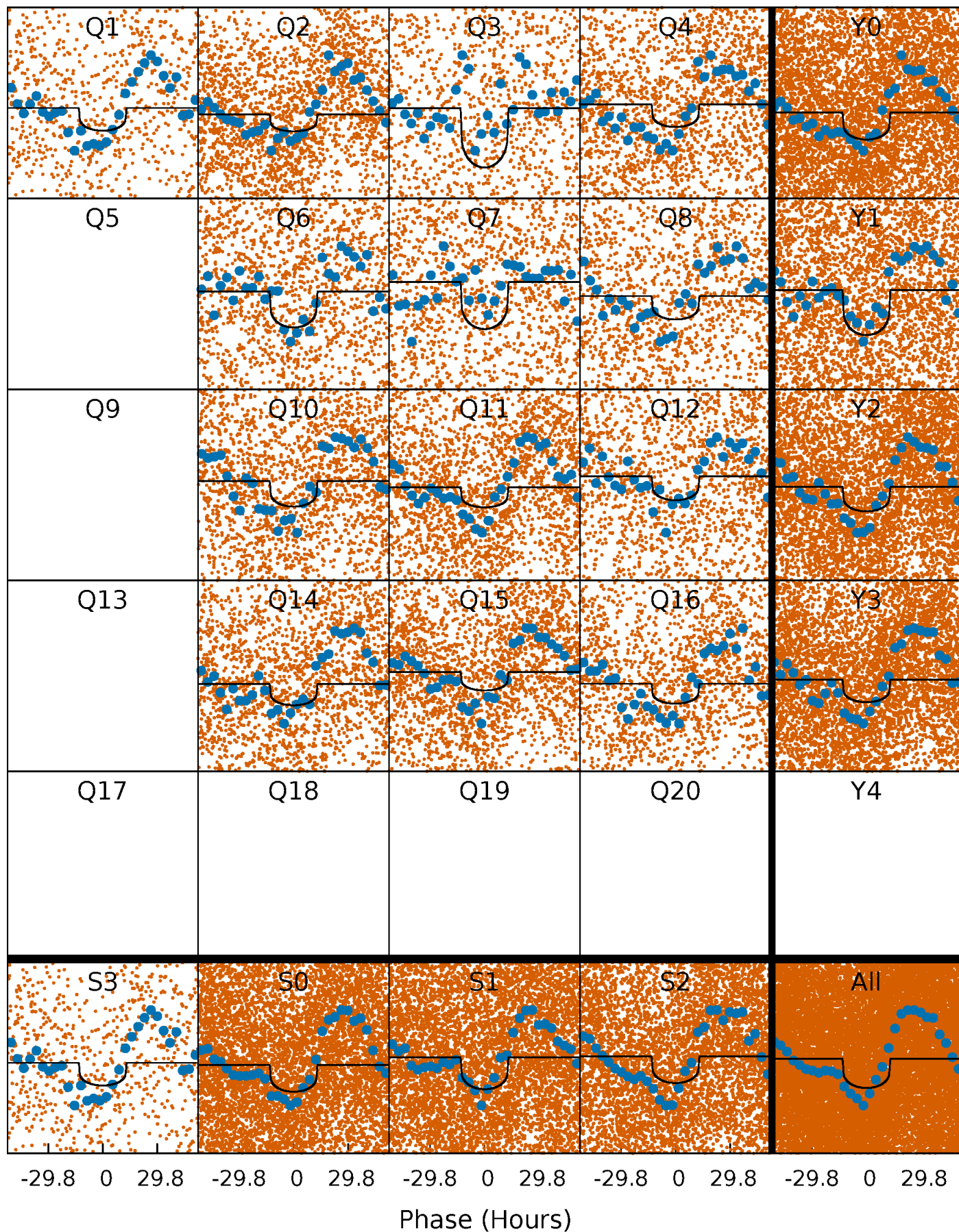
PDC Quarter-Phased Transit Curves

TCE 006757075-01 P= 7.559867 Days $T_0=135.617837$ (BKJD)



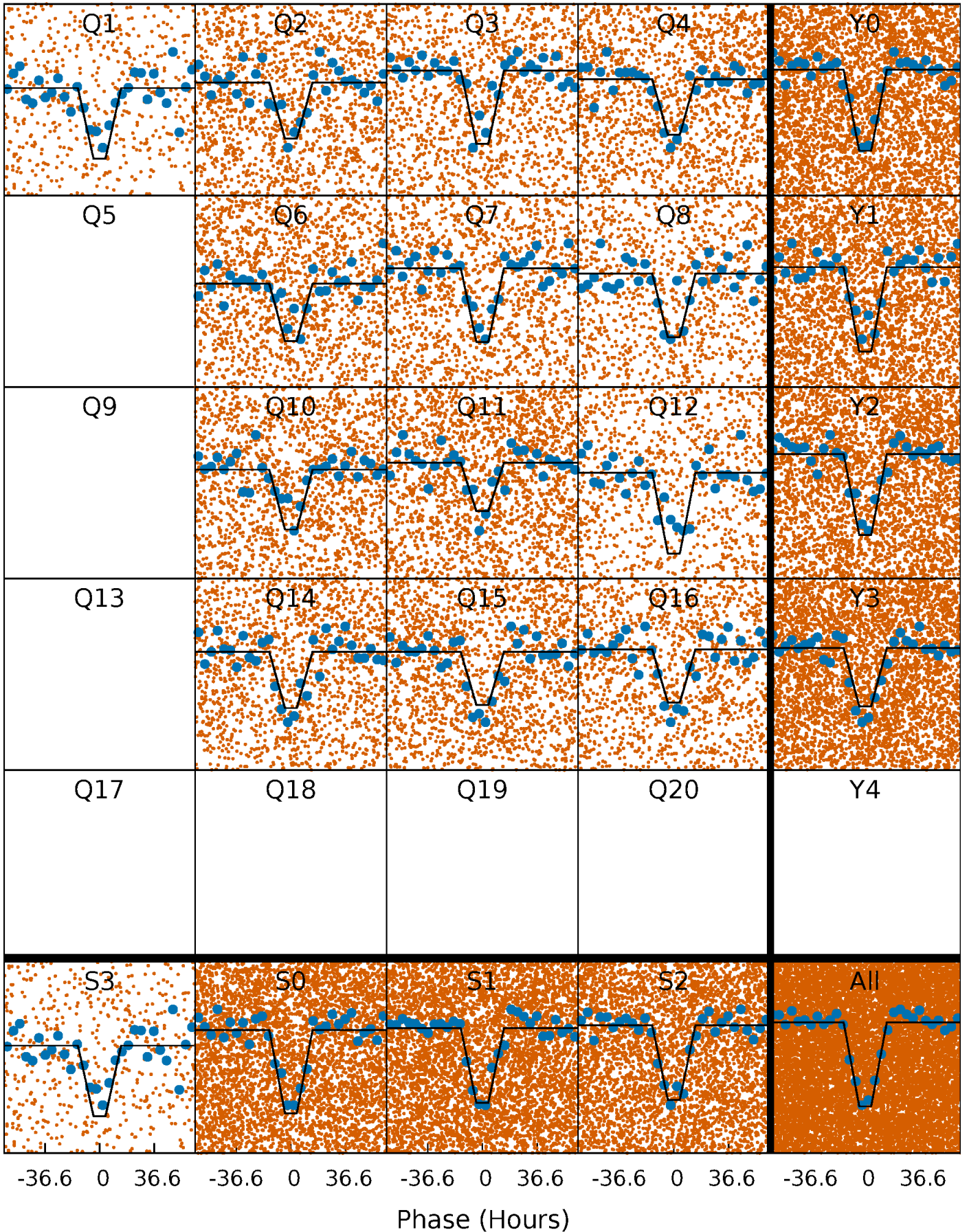
DV Quarter-Phased Transit Curves

TCE 006757075-01 P= 7.559867 Days $T_0=135.617837$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

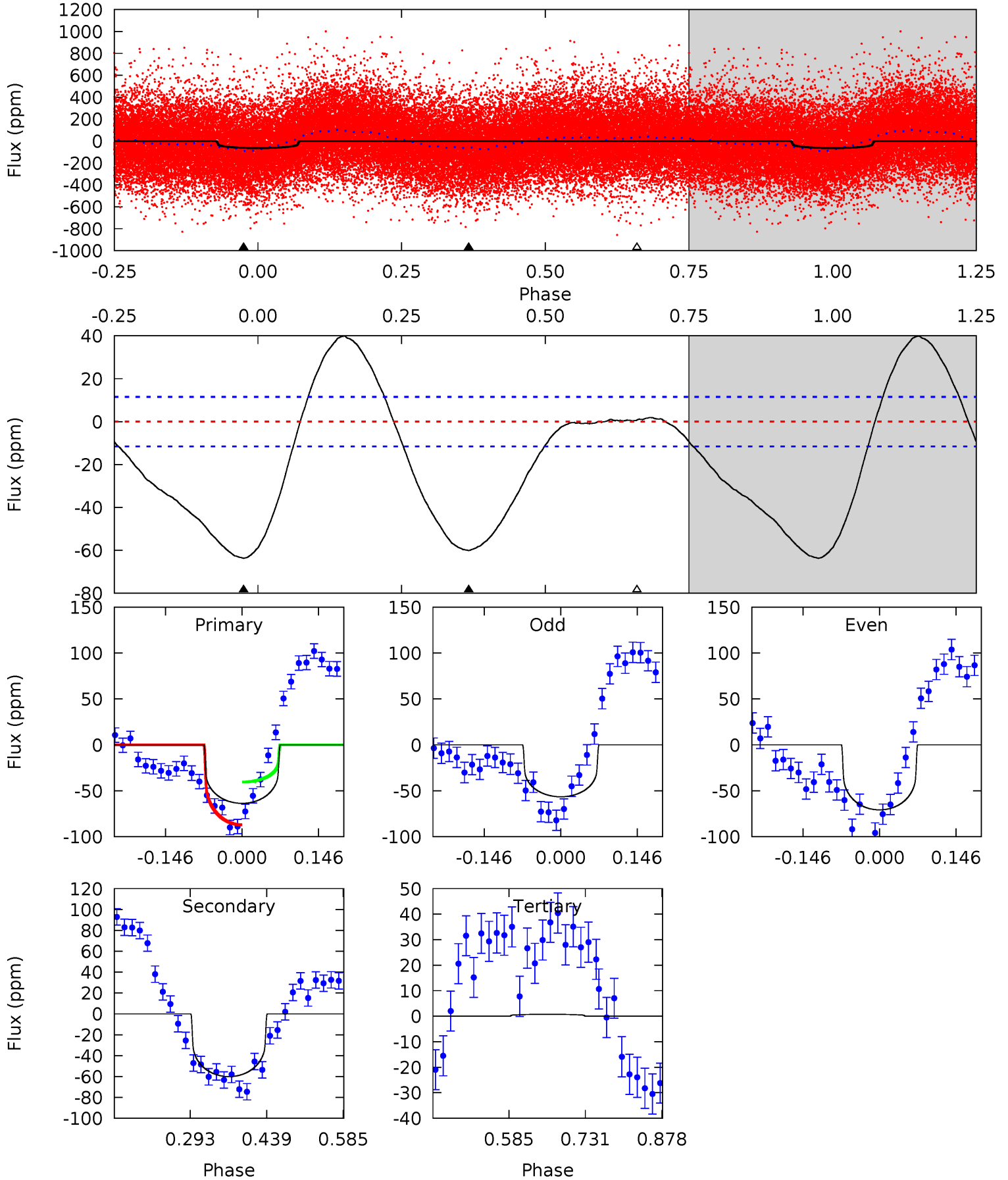
TCE 006757075-01 P= 7.558981 Days $T_0=135.694370$ (BKJD)



DV Model-Shift Uniqueness Test

006757075-01, P = 7.559867 Days, E = 128.057970 Days

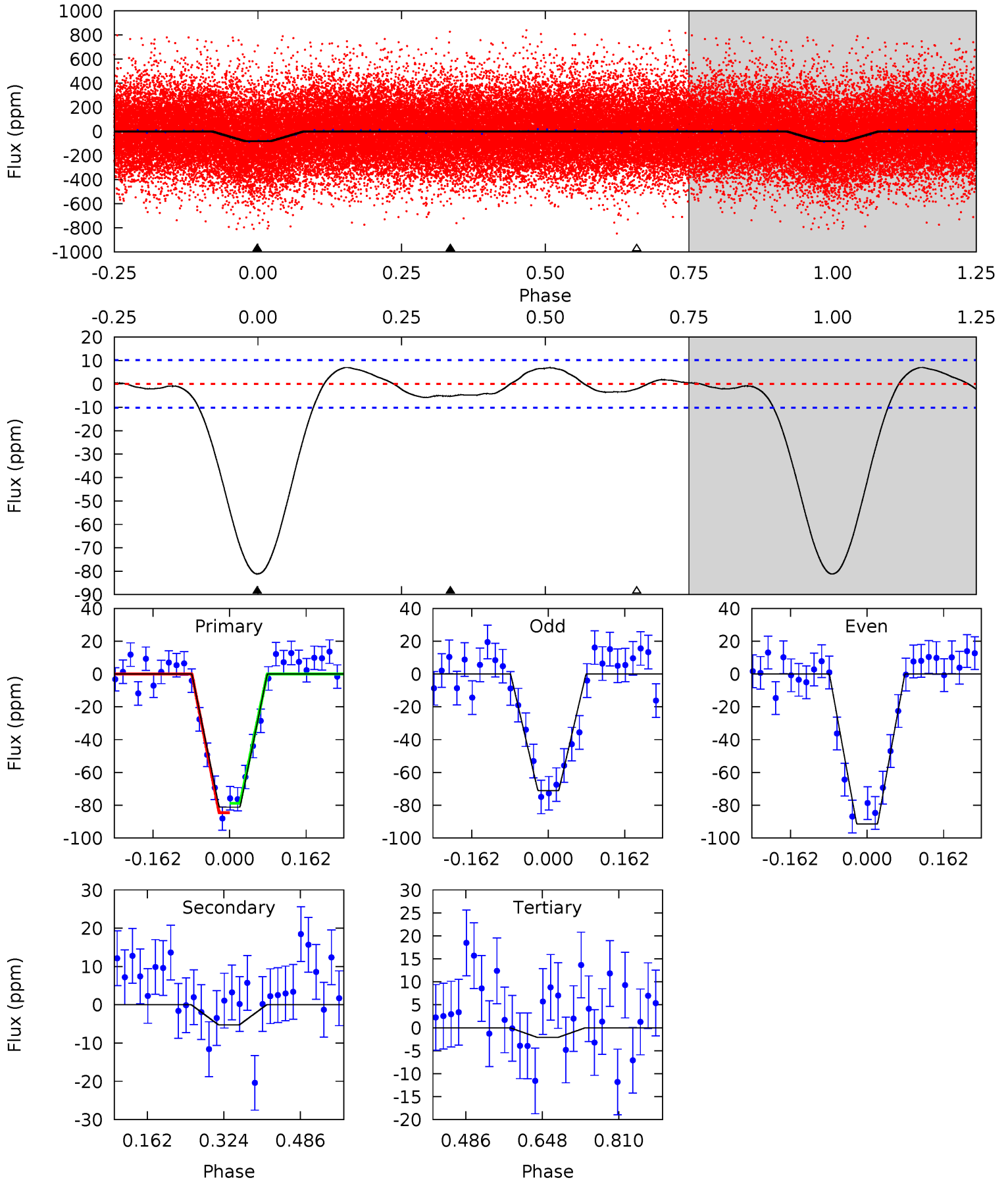
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 24.7 | 23.3 | -0.28 | 0 | 4.48 | 1.45 | 7.16 | 25.0 | 24.7 | 23.6 | 23.3 | 2.77 | 1.10 | 0.38 | 9.20 |



Alt Model-Shift Uniqueness Test

006757075-01, P = 7.558981 Days, E = 128.135389 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 35.6 | 2.30 | 0.92 | 0 | 4.46 | 1.40 | 1.39 | 34.7 | 35.6 | 1.38 | 2.30 | 4.50 | 1.35 | 0.08 | 1.26 |



Stellar Parameters For KIC 006757075

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 5091^{+138}_{-153} | $4.696^{+0.027}_{-0.063}$ | $-0.840^{+0.300}_{-0.300}$ | $0.602^{+0.062}_{-0.031}$ | $0.656^{+0.052}_{-0.042}$ | $4.232^{+0.542}_{-0.906}$ |
| | +3%/-3% | +1%/-1% | +36%/-36% | +10%/-5% | +8%/-6% | +13%/-21% |
| 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 006757075-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|-------------|------------------------|----------------------|----------------------|---------------------|
| DV | -60 ± 3 | $0.51^{+0.10}_{-0.09}$ | 958^{+31}_{-33} | 5104^{+512}_{-386} | 542^{+268}_{-165} |
| Alt. | -5 ± 2 | $0.61^{+0.11}_{-0.09}$ | 956^{+32}_{-32} | 3117^{+247}_{-270} | 33^{+20}_{-14} |

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

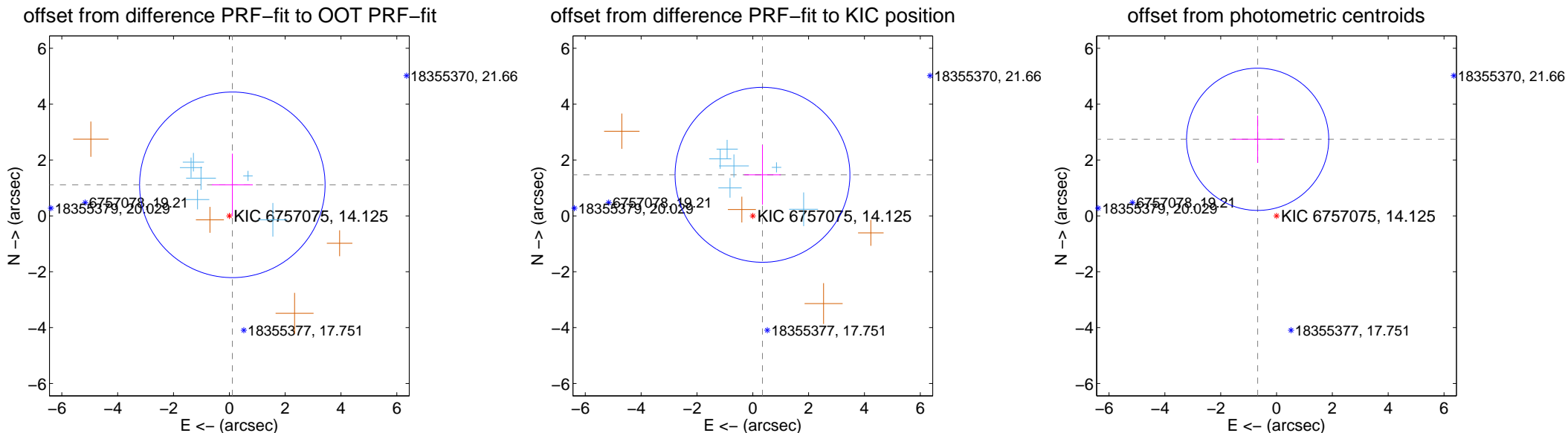
DV Centroid Data

Supplemental centroid analysis for 006757075-01. Kepler magnitude: 14.12. Transit SNR 11.66

There are 6 quarters with good PRF difference image offsets

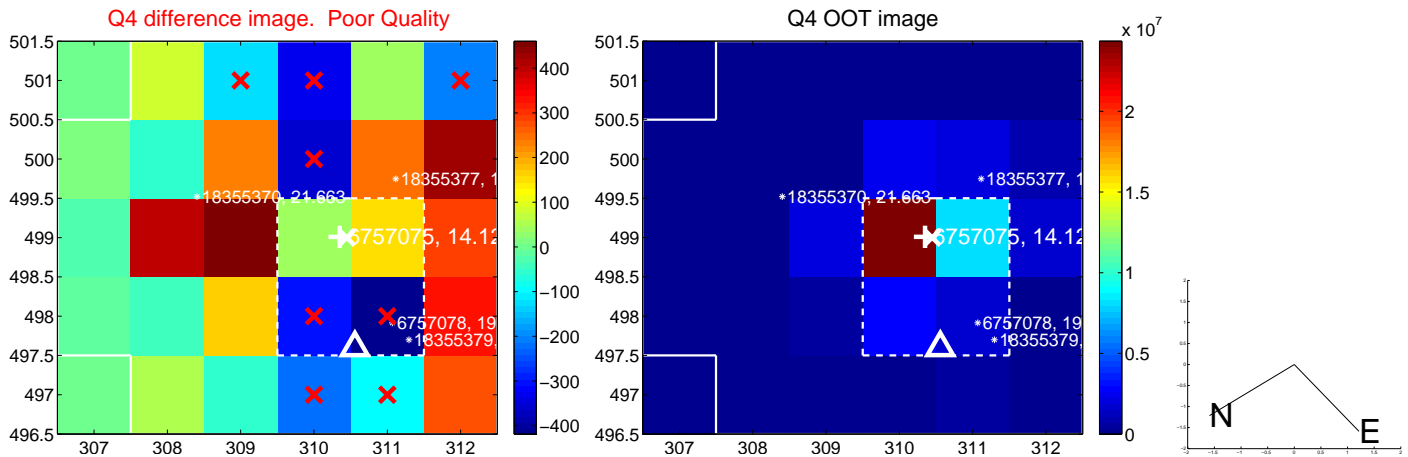
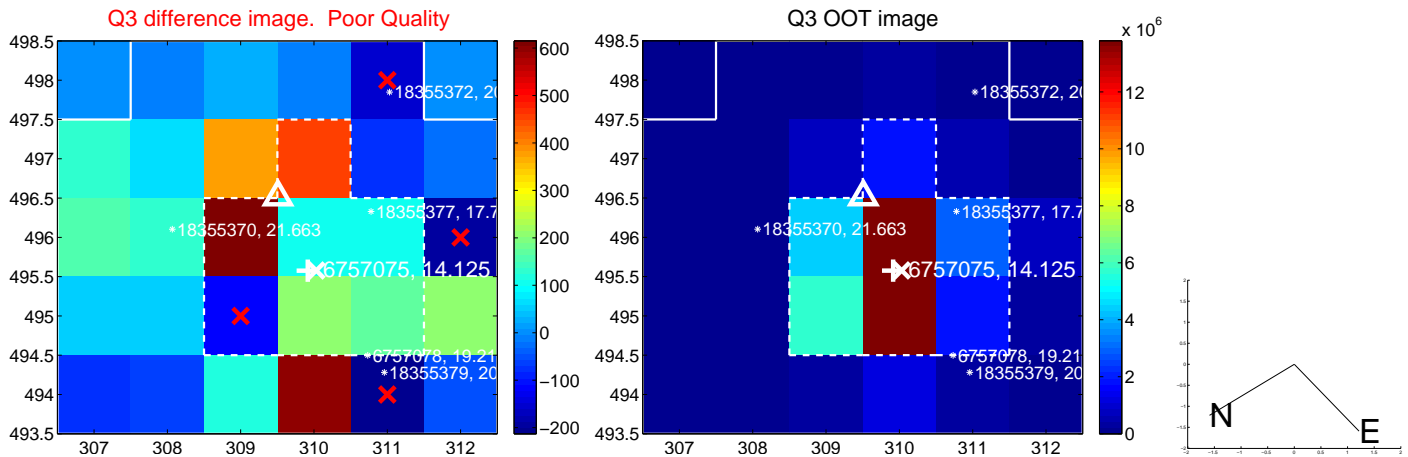
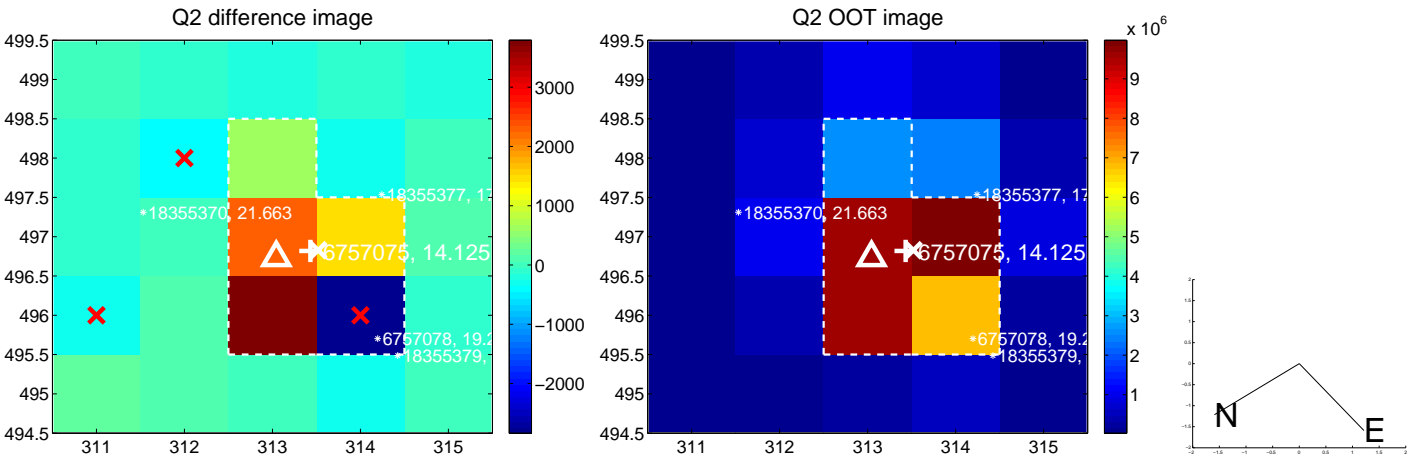
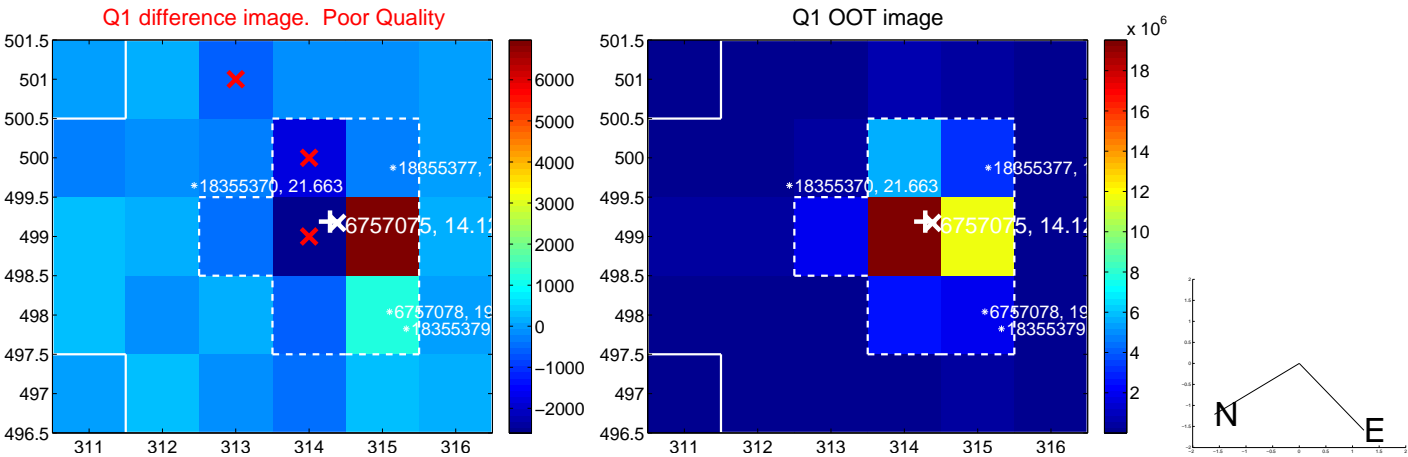
The direct PRF centroid is offset from the target star catalog position by about 0.48 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|-------------------|
| PRF-fit source offset from OOT | 1.117 ± 1.107 | 1.01 | -0.108 ± 0.733 | 1.112 ± 1.115 |
| PRF-fit source offset from KIC position | 1.511 ± 1.044 | 1.45 | -0.348 ± 0.656 | 1.470 ± 1.068 |
| photometric centroid source offset | 2.82 ± 0.85 | 3.33 | 0.68 ± 0.90 | 2.74 ± 0.85 |

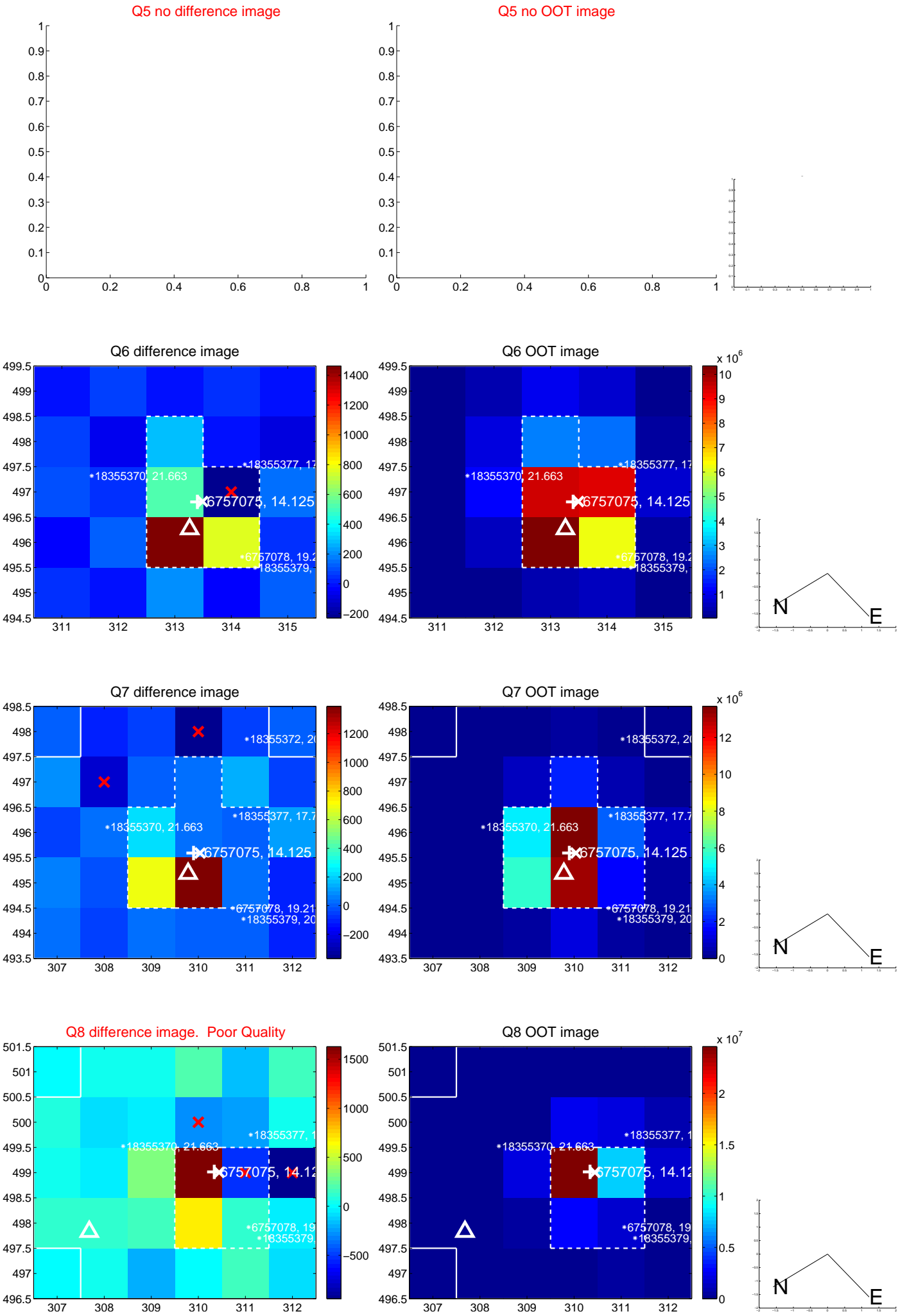


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

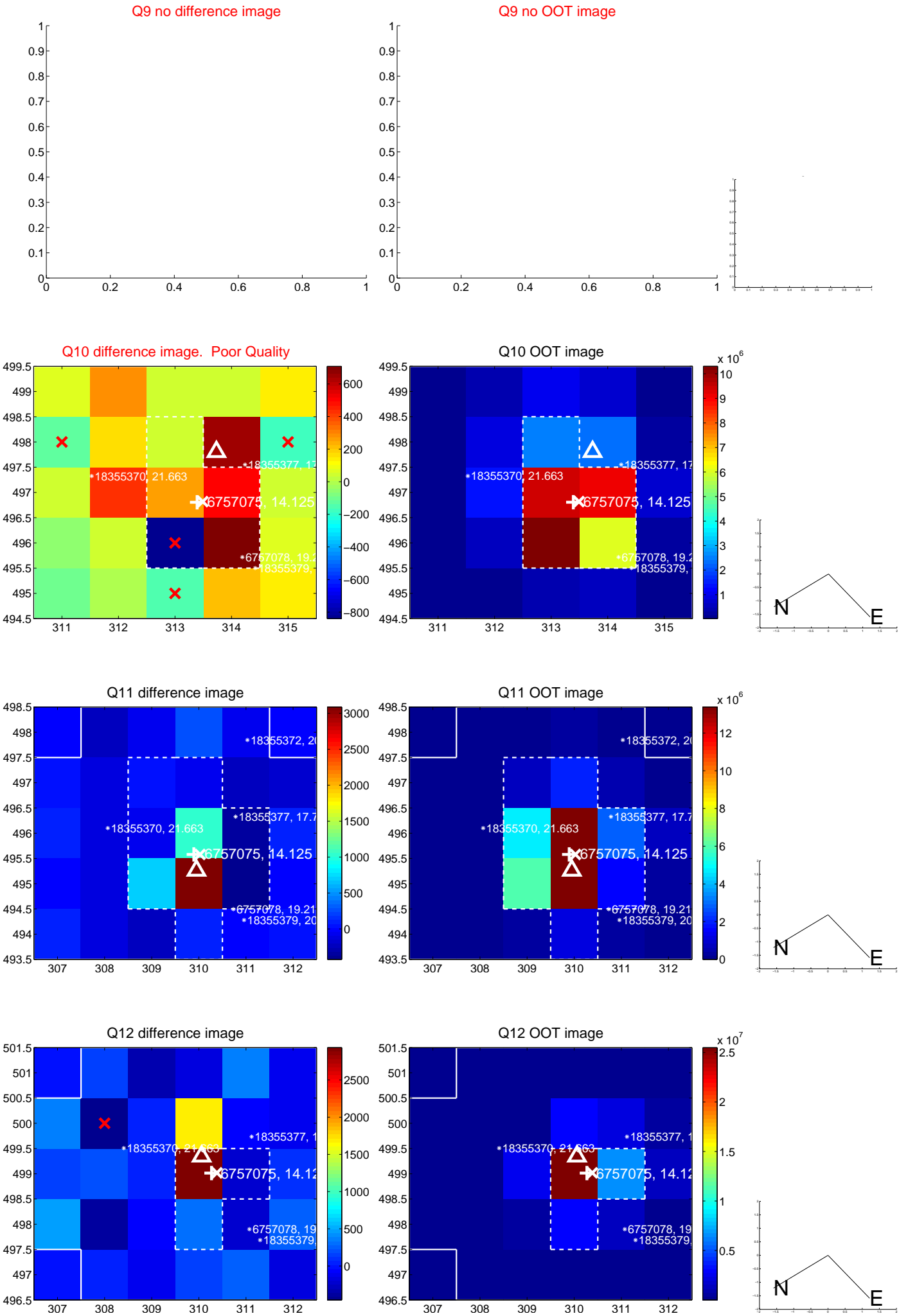
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



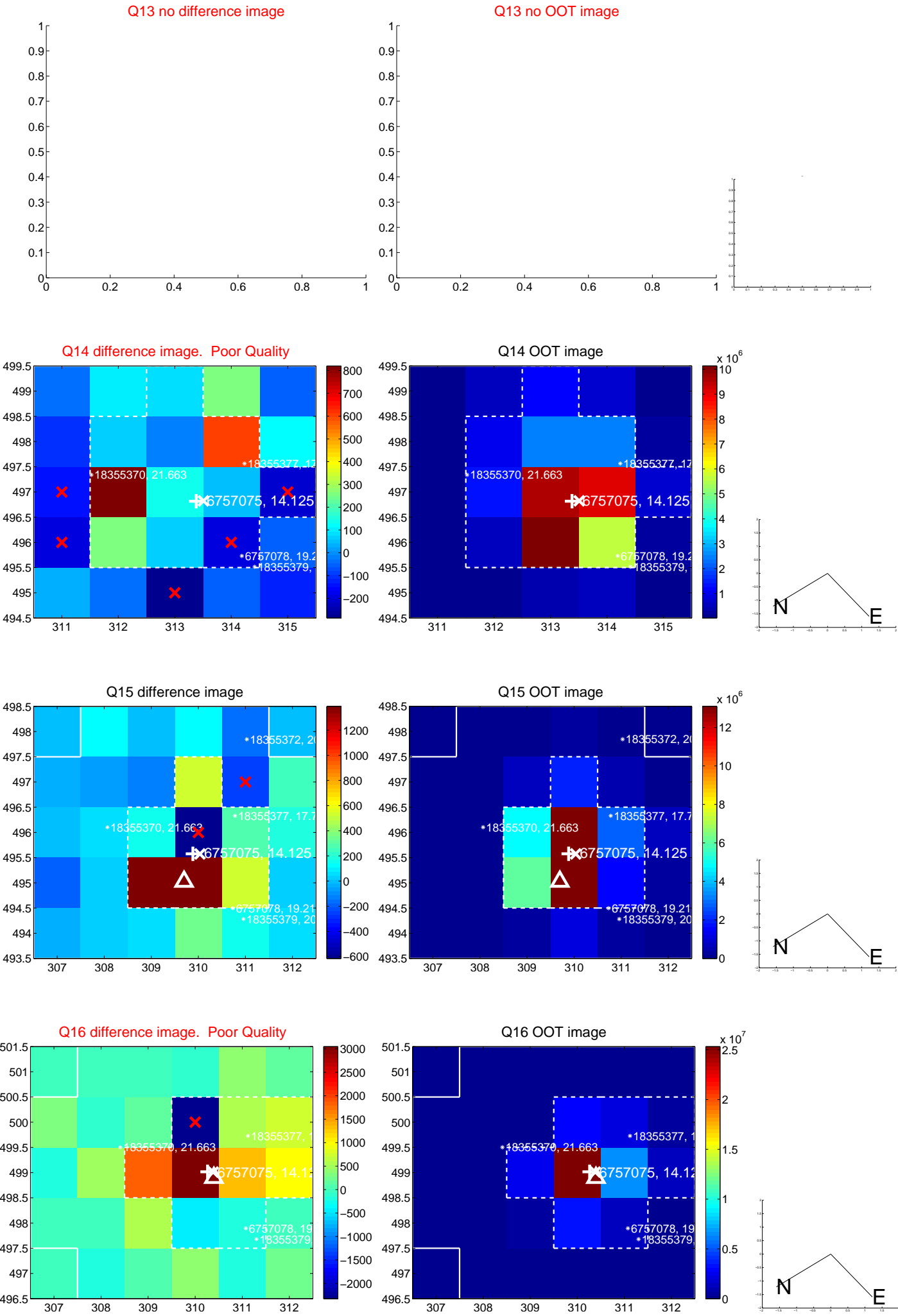
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



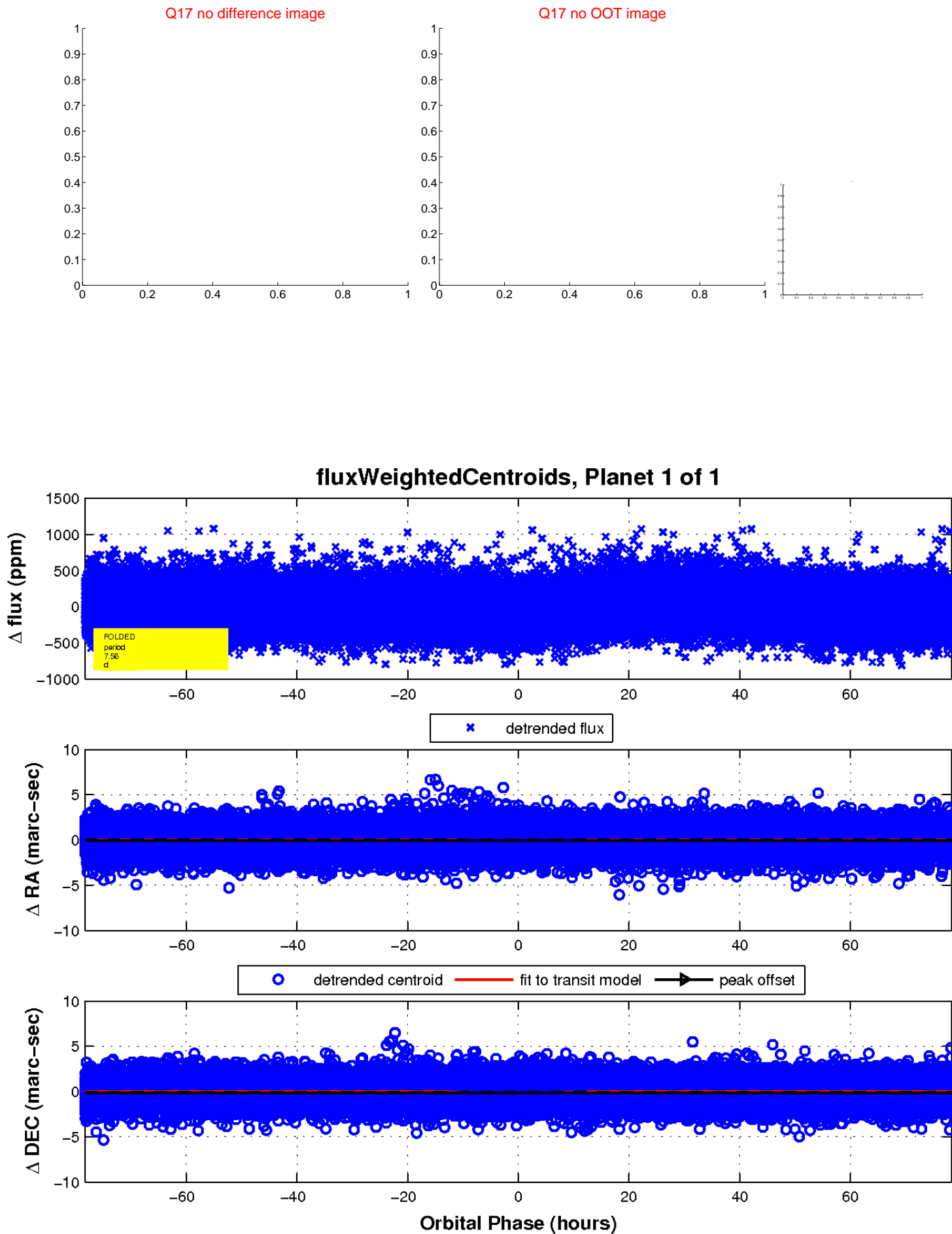
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

