

KIC 006262679

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|-----|-----------------------------|-----------------|------------------------|------------------------|
| 006262679-01 | OBS | No | 339.684084 | 236.432083 | 1651.7 | 4.861 | 7.6 | 6.3 | 0.56 | 4739 | 2.25 | 0.23 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|---|
| 006262679-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | INDIV_TRANS_CHASES_MARSHALL—MOD_NONUNIQ_ALT—MOD_POS_ALT—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.

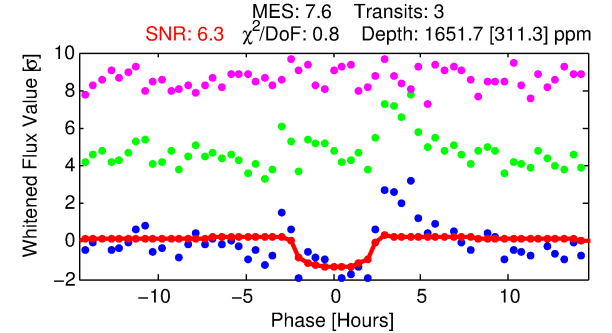
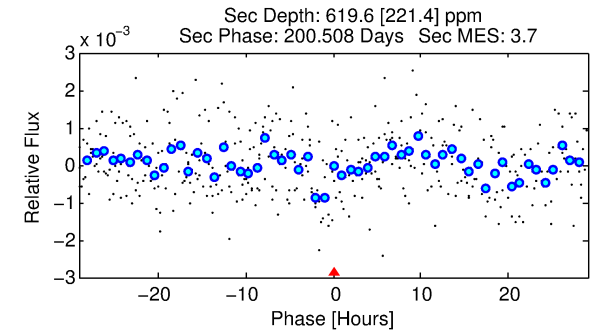
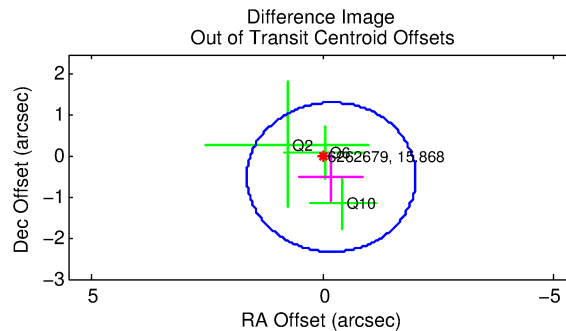
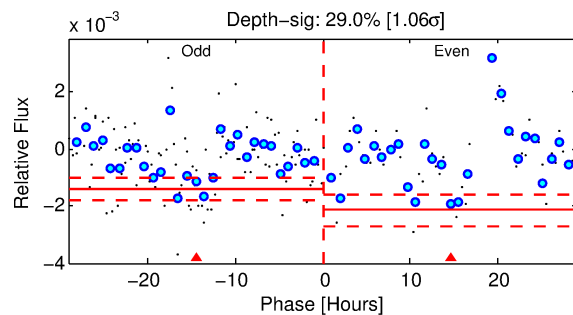
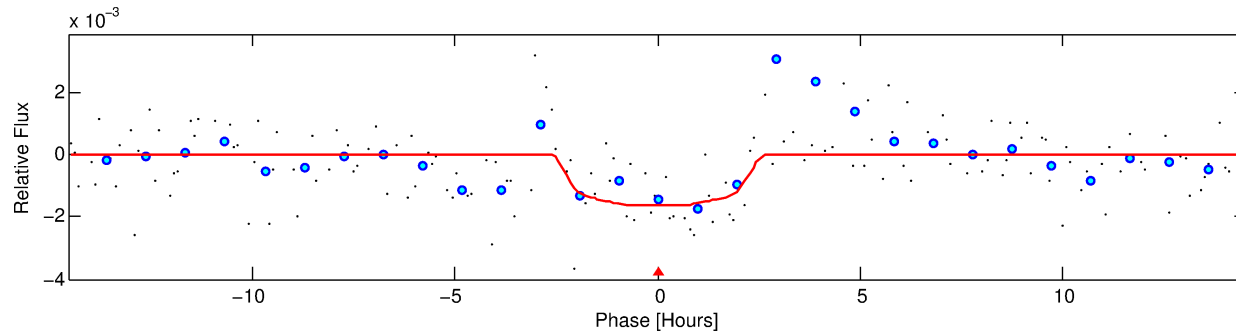
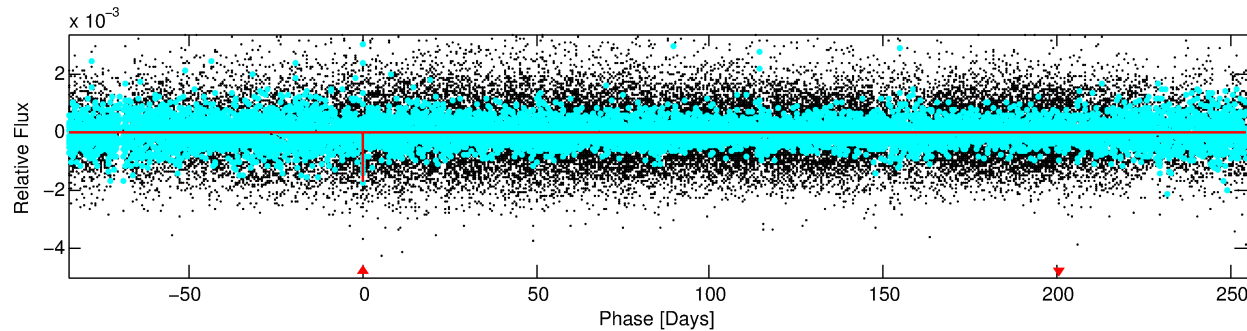
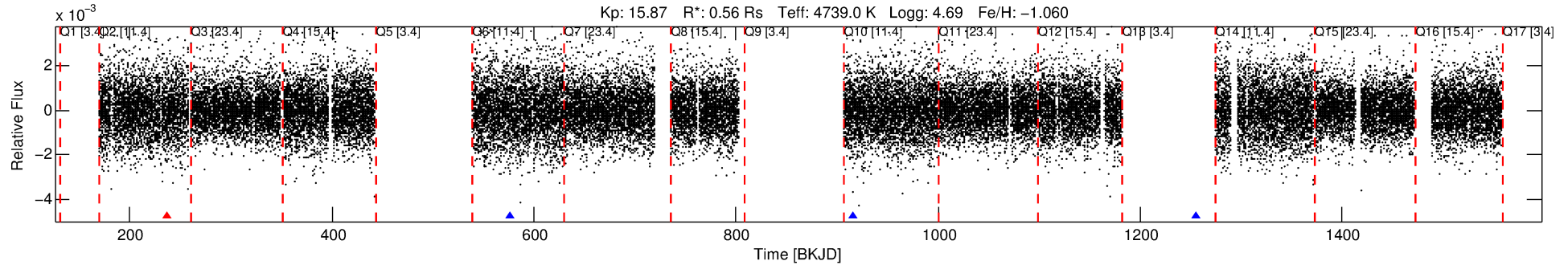
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006262679-01

No Significant Match Found

DV One-Page Summary

KIC: 6262679 Candidate: 1 of 1 Period: 339.684 d



DV Fit Results:

Period = 339.68408 [0.01022] d
Epoch = 236.4321 [0.0136] BKJD
Rp/R* = 0.0369 [0.1103]
a/R* = 521.11 [5786.15]
b = 0.35 [28.16]
Seff = 0.23 [0.04]
Teq = 176 [7] K
Rp = 2.25 [6.72] Re
a = 0.7843 [0.0467] AU
Ag = 41447.89 [248058.65] [0.17 σ]
Teffp = 3890 [5821] K [0.64 σ]

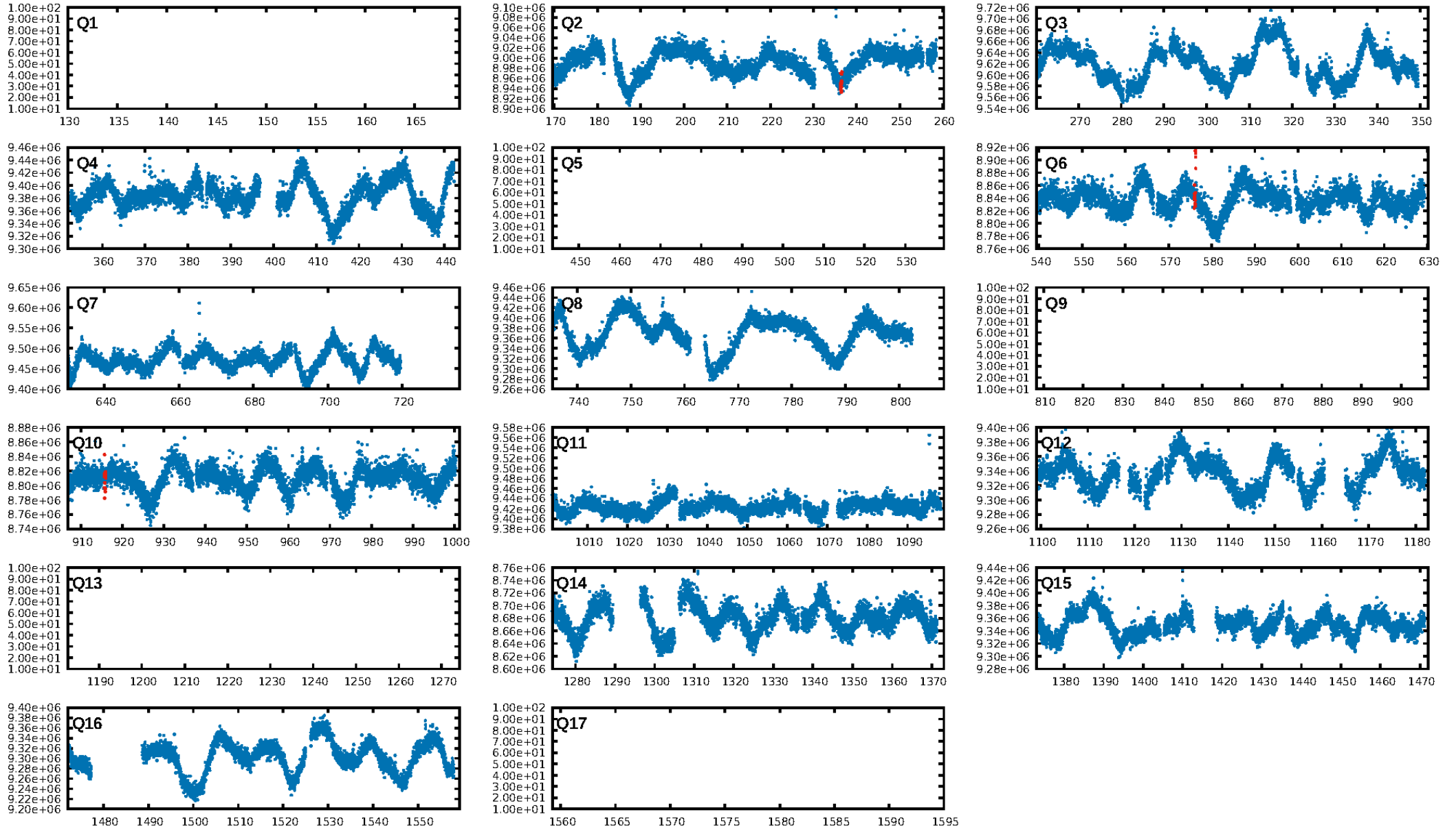
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 49.0%
ModelChiSquareGof-sig: 98.1%
Bootstrap-pfa: 1.67e-12
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 2.229
Centroid-sig: 29.6%
Centroid-so: 1.496 arcsec [0.89 σ]
OotOffset-rm: 0.542 arcsec [0.89 σ]
KicOffset-rm: 0.939 arcsec [1.57 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

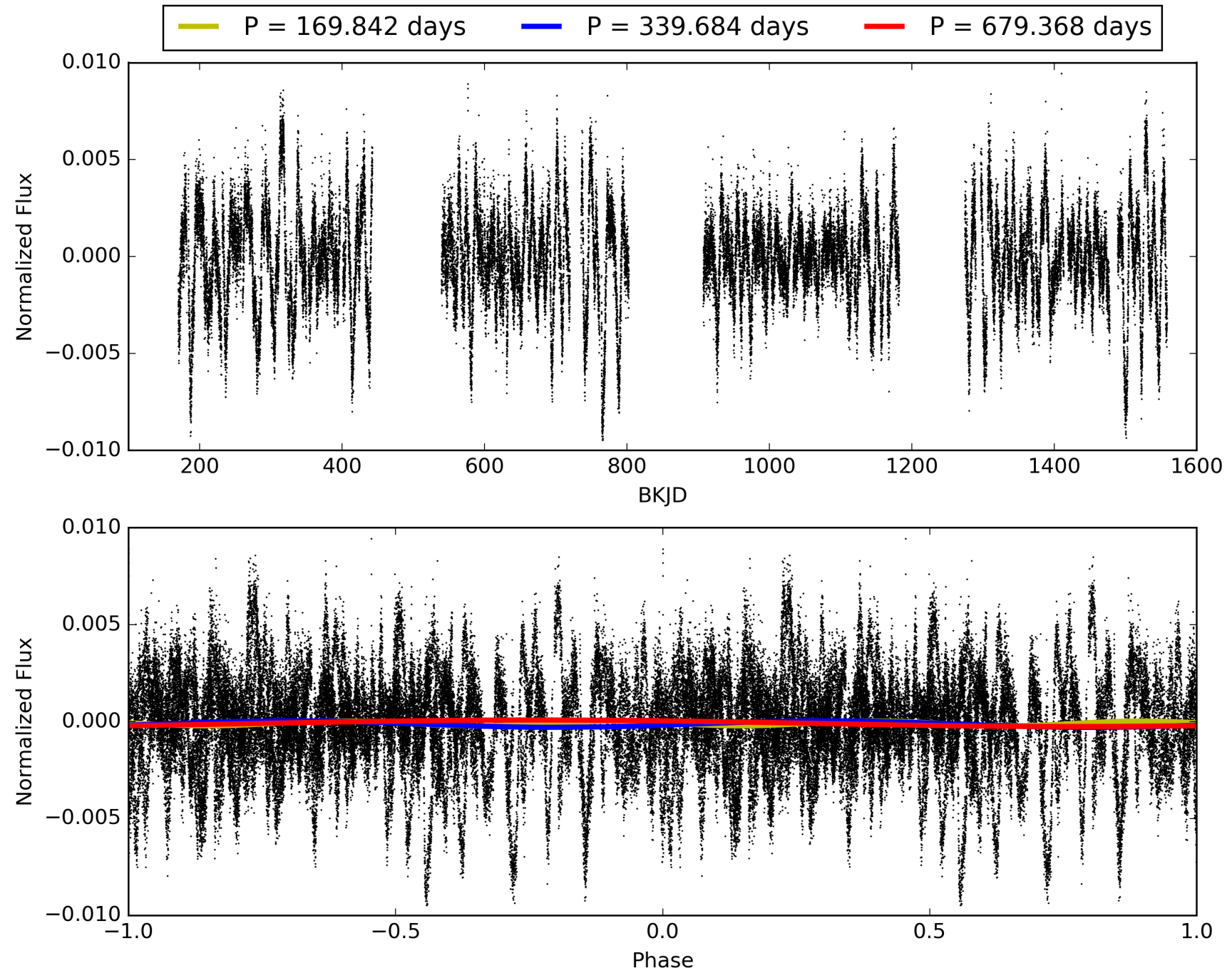
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:31:09 Z

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

TCE 006262679-01, PDC Light Curves

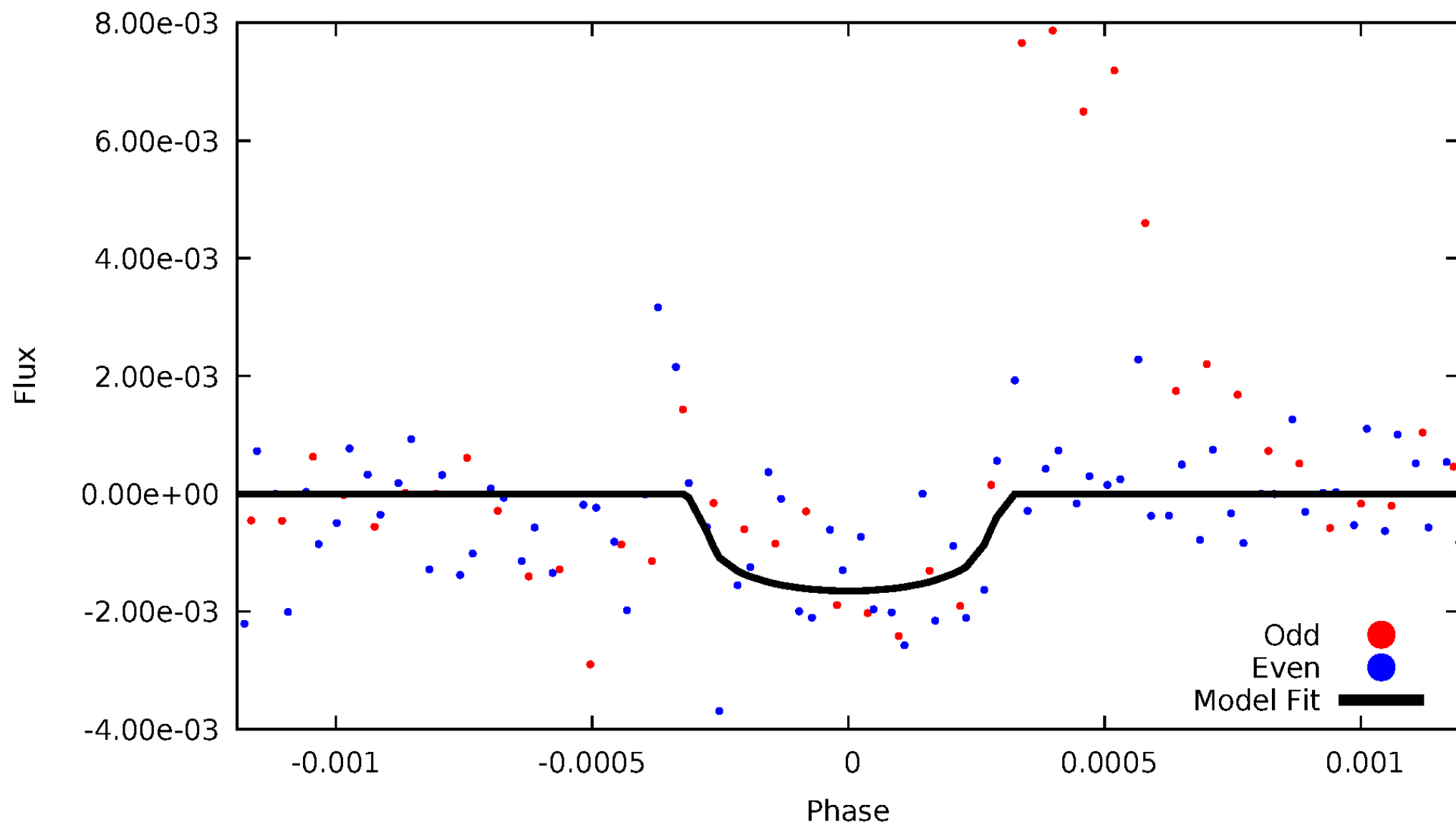


TCE 006262679-01



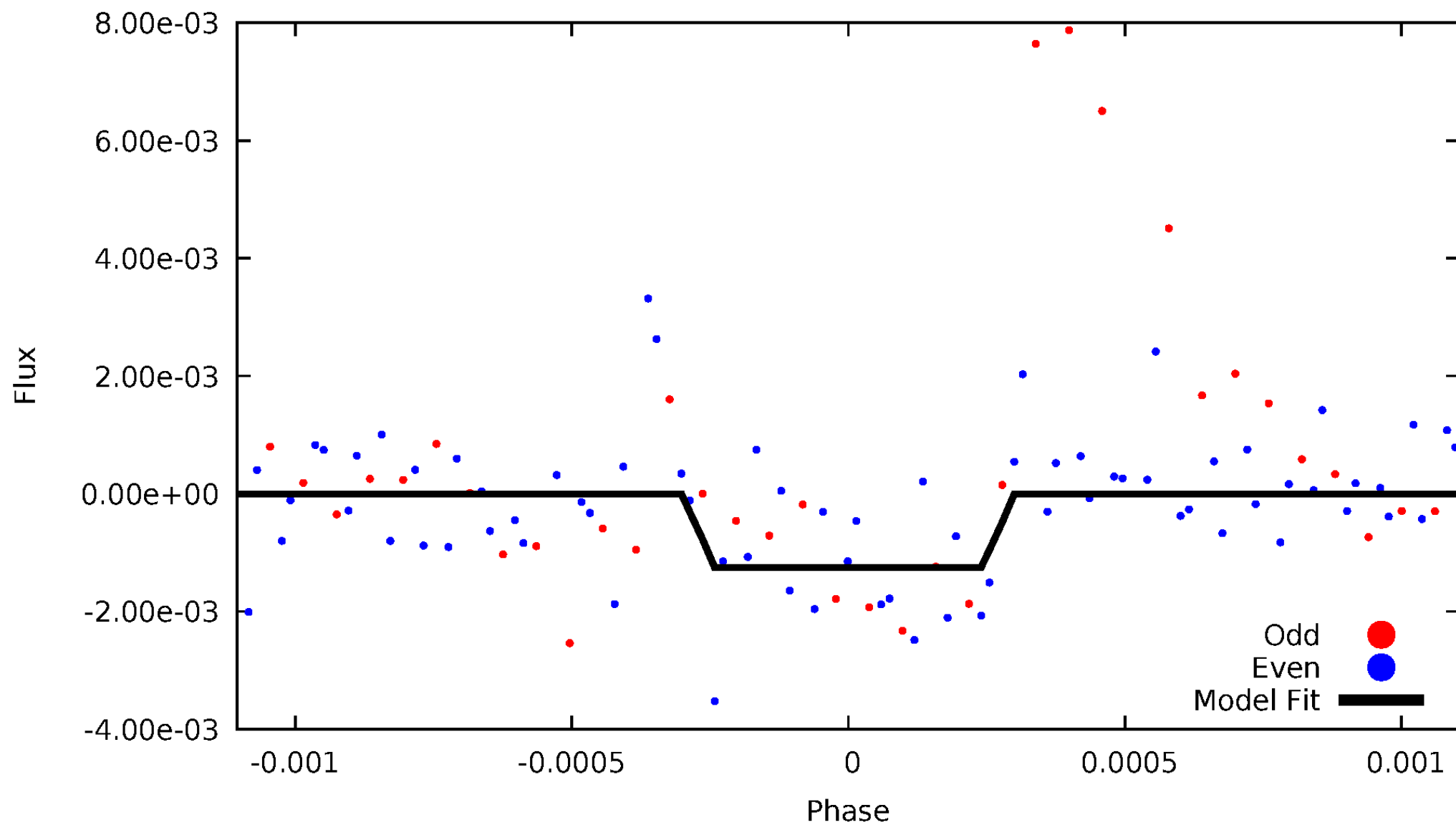
DV Odd/Even

TCE 006262679-01

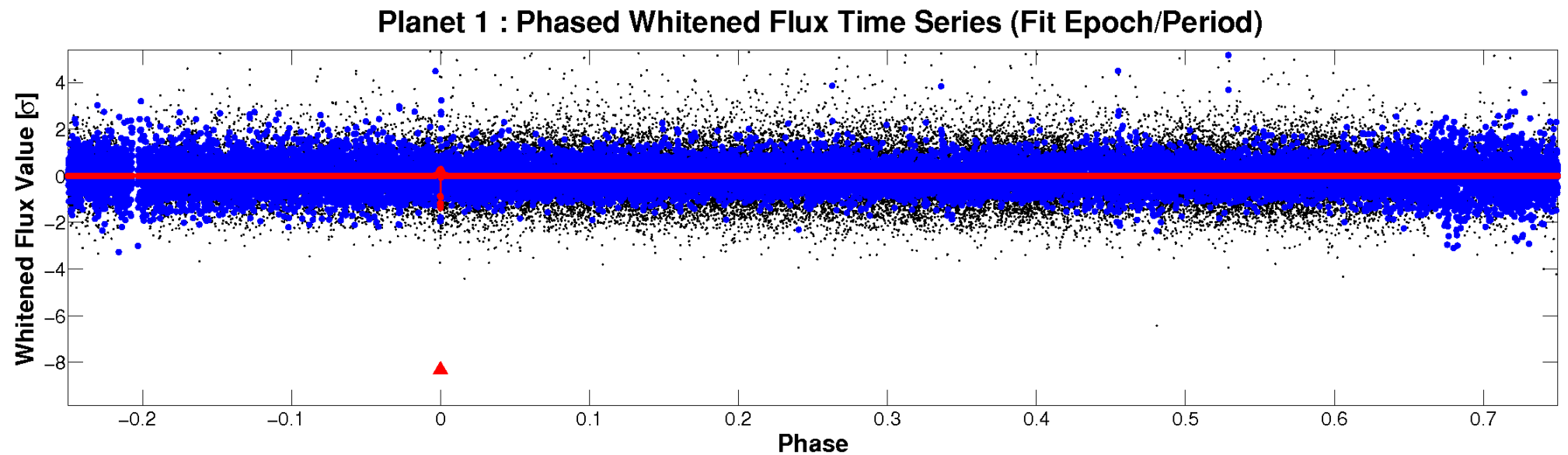
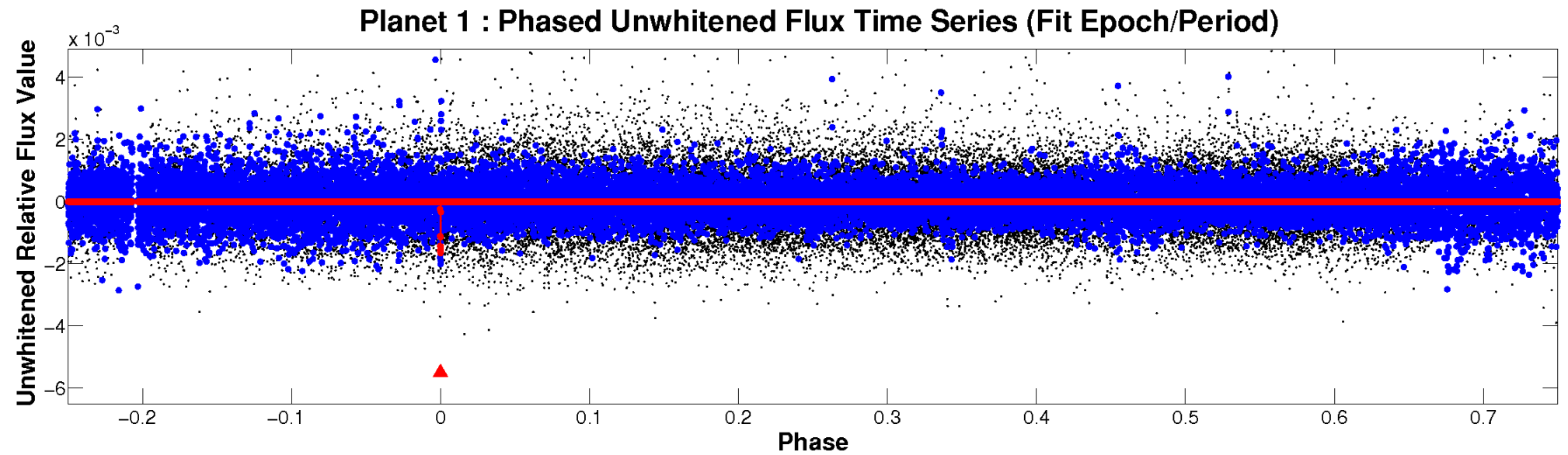


ALT Odd/Even

TCE 006262679-01



Non-Whitened Vs. Whitened Light Curve



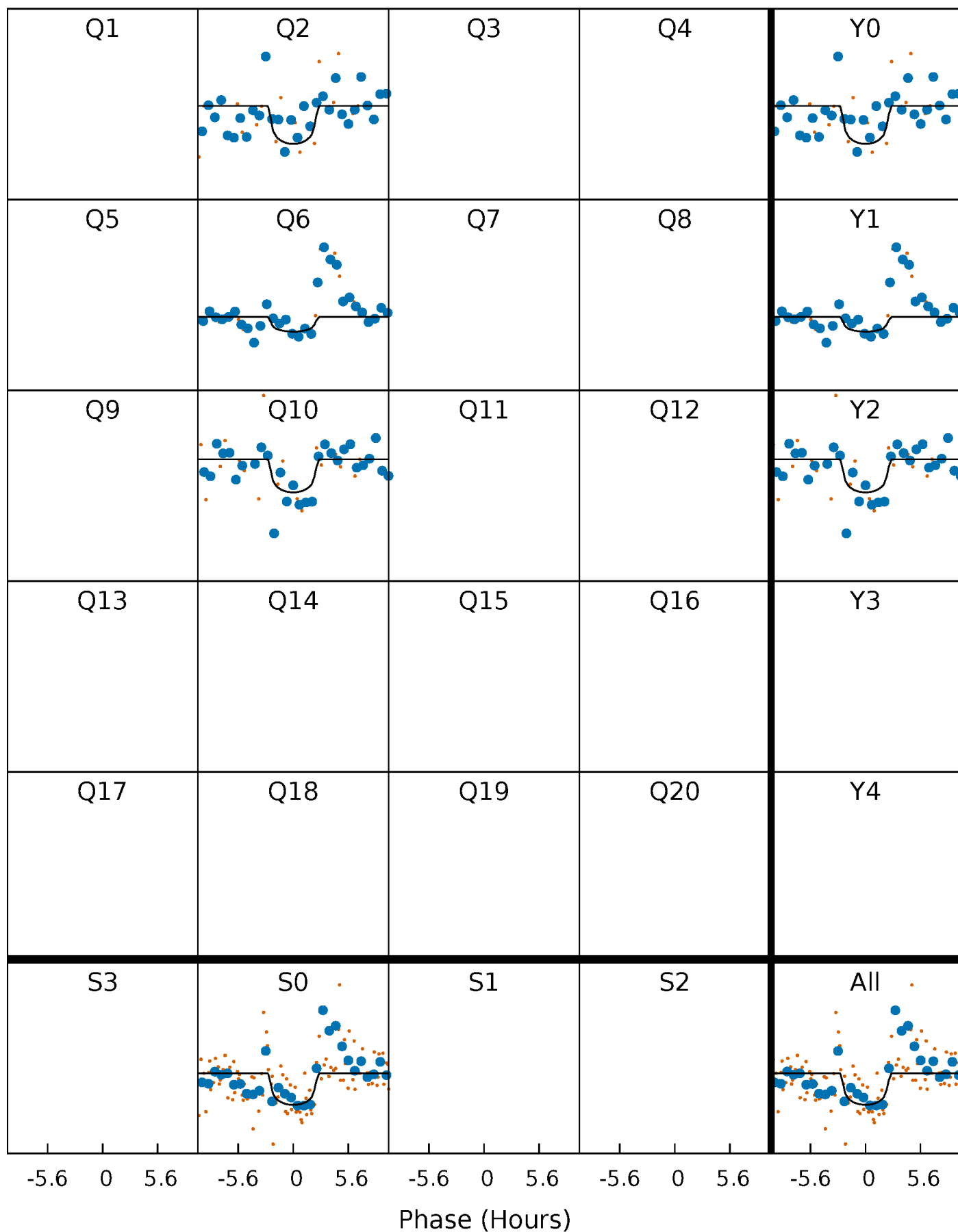
PDC Quarter-Phased Transit Curves

TCE 006262679-01 P=339.684084 Days $T_0=236.432083$ (BKJD)



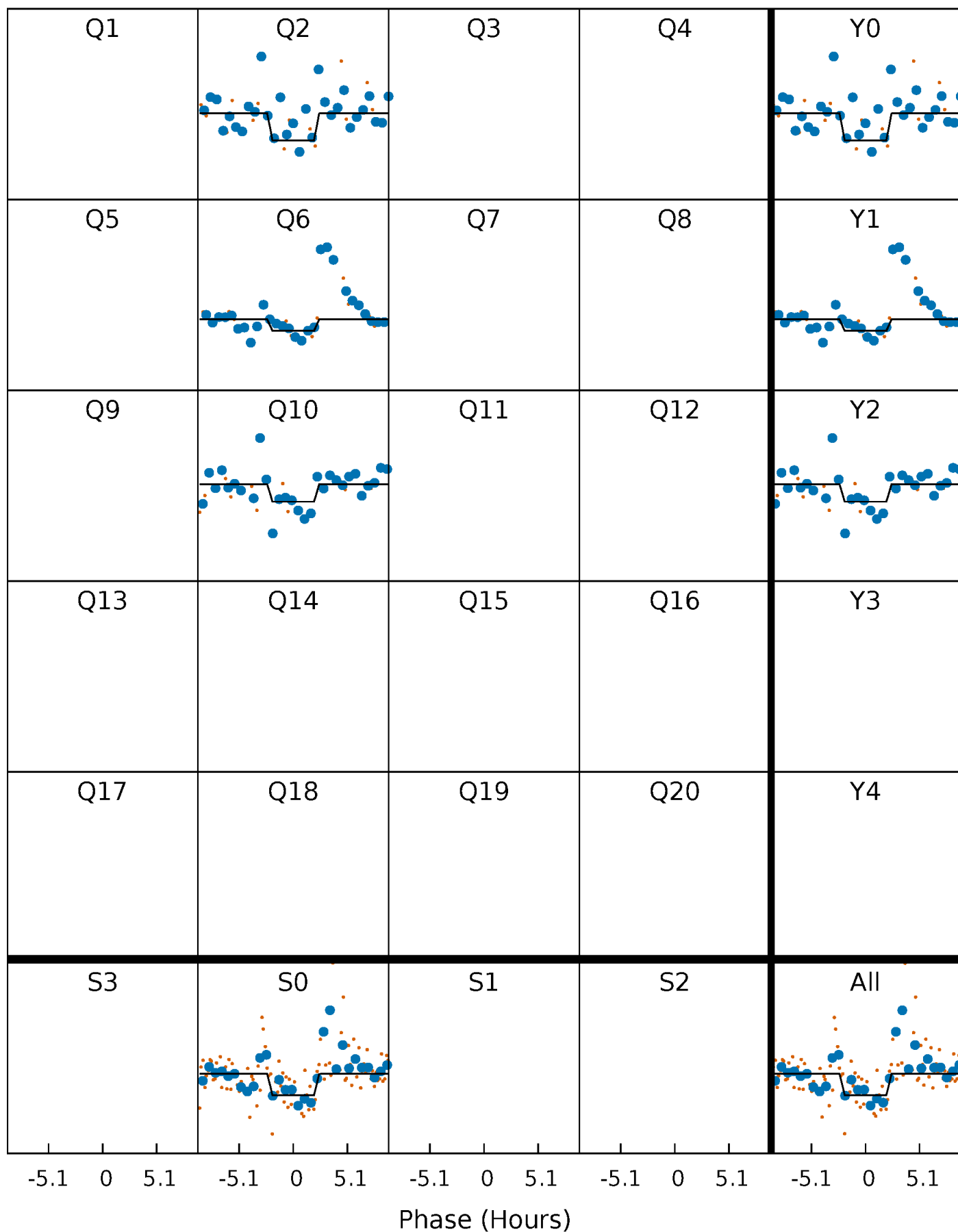
DV Quarter-Phased Transit Curves

TCE 006262679-01 P=339.684084 Days $T_0=236.432083$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

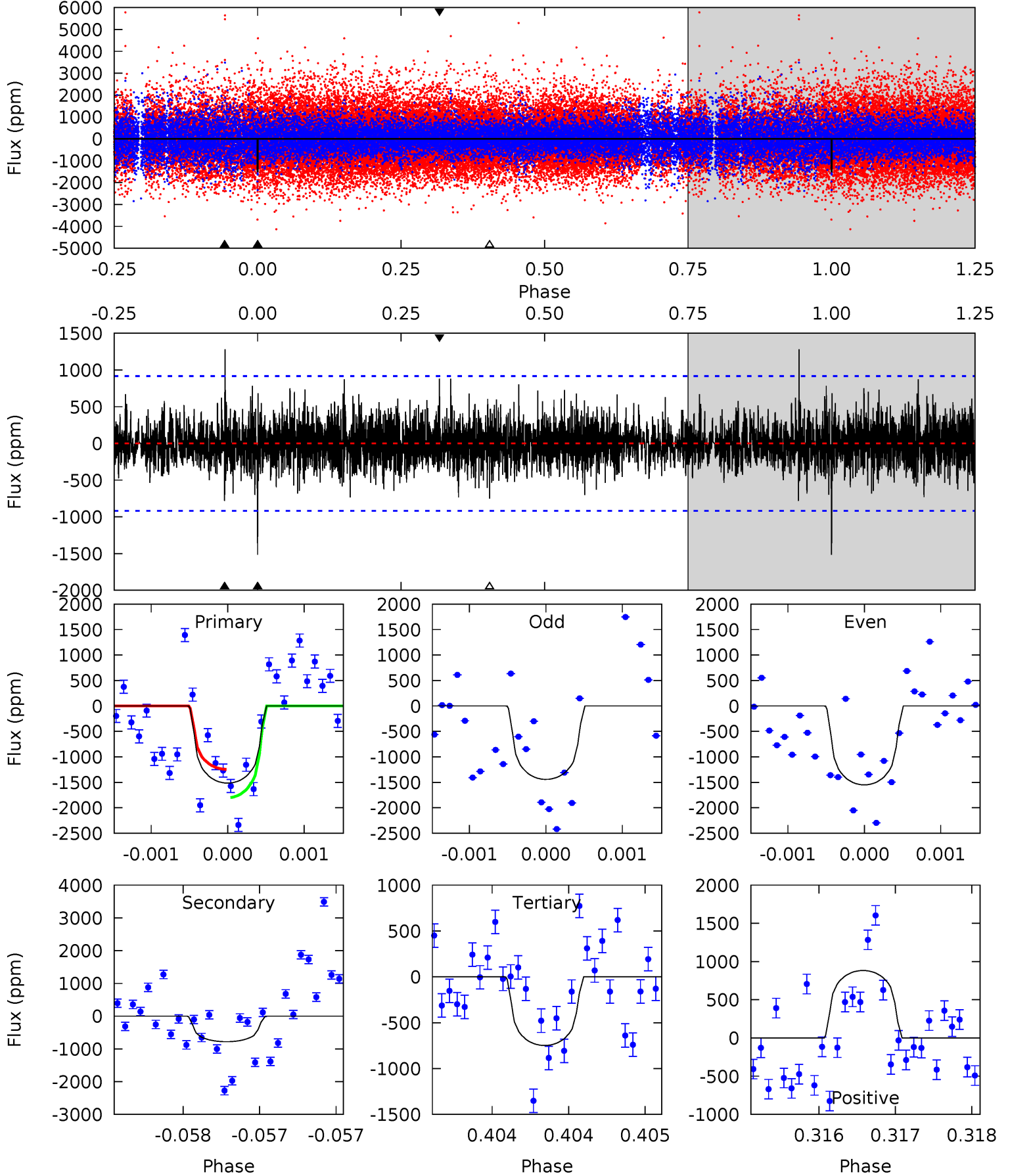
TCE 006262679-01 P=339.680690 Days $T_0=236.435528$ (BKJD)



DV Model-Shift Uniqueness Test

006262679-01, P = 339.684084 Days, E = 236.432083 Days

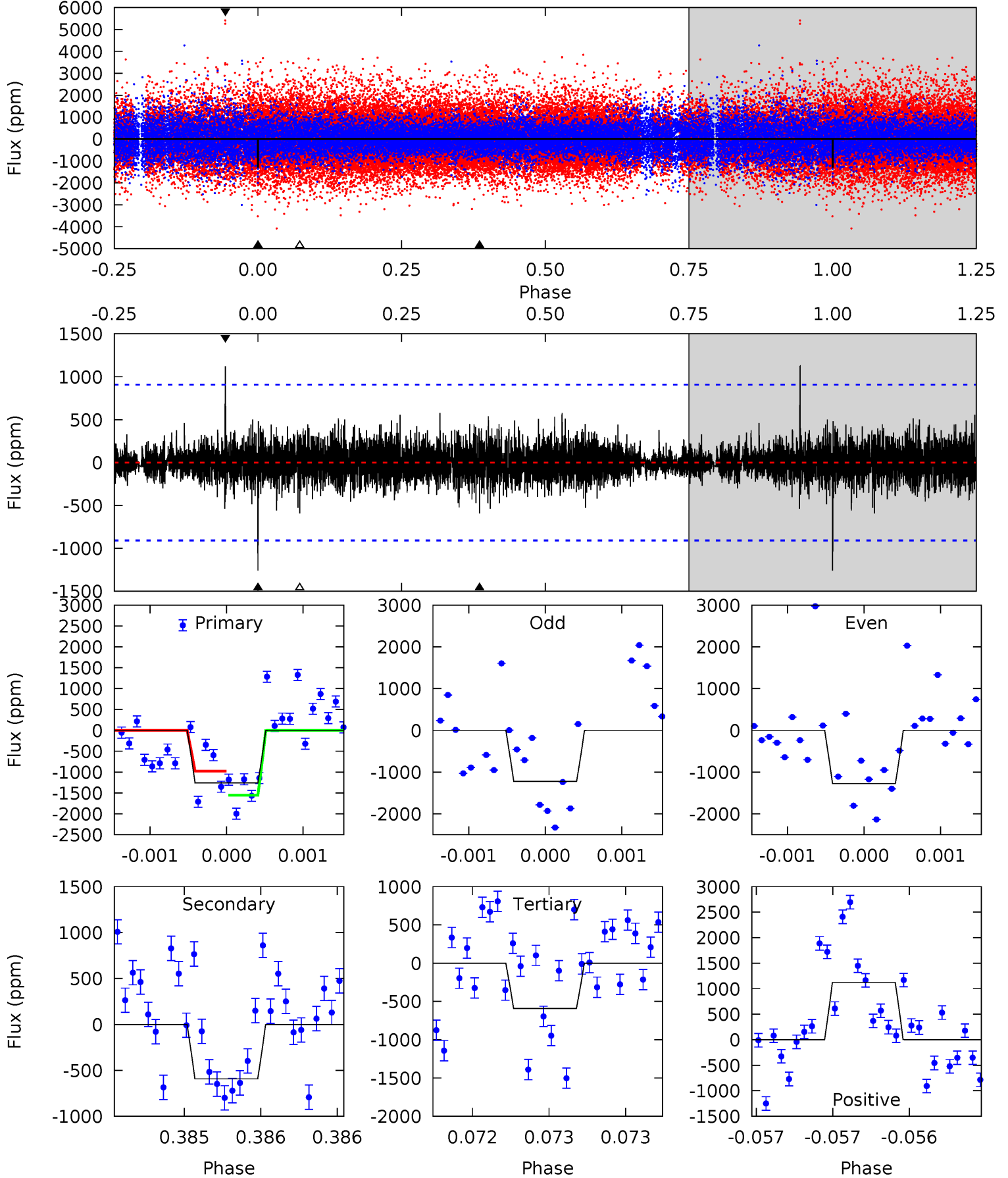
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 9.12 | 4.70 | 4.51 | 5.31 | 5.53 | 3.42 | 1.29 | 4.61 | 3.81 | 0.19 | -0.61 | 0.30 | 1.05 | 0.46 | 1.67 |



Alt Model-Shift Uniqueness Test

006262679-01, P = 339.680690 Days, E = 236.435528 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|------|------|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 7.68 | 3.62 | 3.61 | 6.85 | 5.55 | 3.44 | 0.88 | 4.07 | 0.83 | 0.01 | -3.23 | 0.15 | 1.02 | 0.47 | 1.76 |



Stellar Parameters For KIC 006262679

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | R (R_{\odot}) | $M(M_{\odot})$ | p_{\star} ($\text{g}\cdot\text{cm}^{-3}$) |
|--------|----------------------|---------------------------|----------------------------|---------------------------|---------------------------|---|
| | 4739^{+153}_{-153} | $4.691^{+0.052}_{-0.032}$ | $-1.060^{+0.300}_{-0.300}$ | $0.558^{+0.037}_{-0.037}$ | $0.558^{+0.044}_{-0.024}$ | $4.521^{+0.878}_{-0.548}$ |
| | +3%/-3% | +1%/-1% | +28%/-28% | +7%/-7% | +8%/-4% | +19%/-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 006262679-01 / KOI

| Detrend | Depth (ppm) | R_p (R_{\oplus}) | T_{max} (K) | T_{obs} (K) | A_{obs} |
|---------|----------------|------------------------|-----------------|-----------------------|--------------------------|
| DV | -781 ± 166 | $5.04^{+5.17}_{-3.38}$ | 246^{+9}_{-9} | 3256^{+1548}_{-596} | 10660^{+86587}_{-8214} |
| Alt. | -593 ± 164 | $5.41^{+5.36}_{-3.65}$ | 245^{+9}_{-8} | 3035^{+1343}_{-506} | 6624^{+54222}_{-4960} |

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

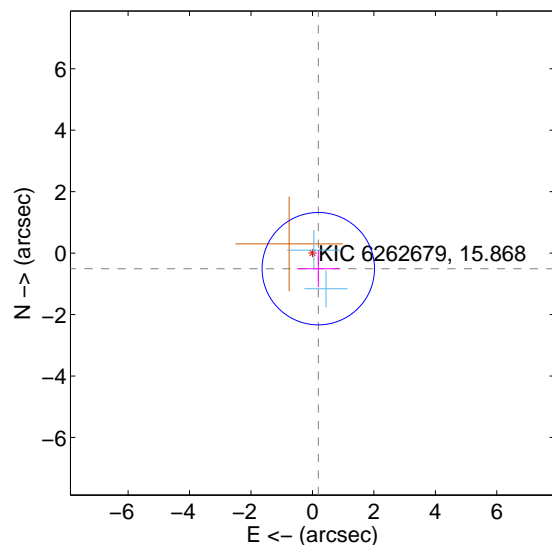
Supplemental centroid analysis for 006262679-01. Kepler magnitude: 15.87. Transit SNR 6.34

There are 2 quarters with good PRF difference image offsets

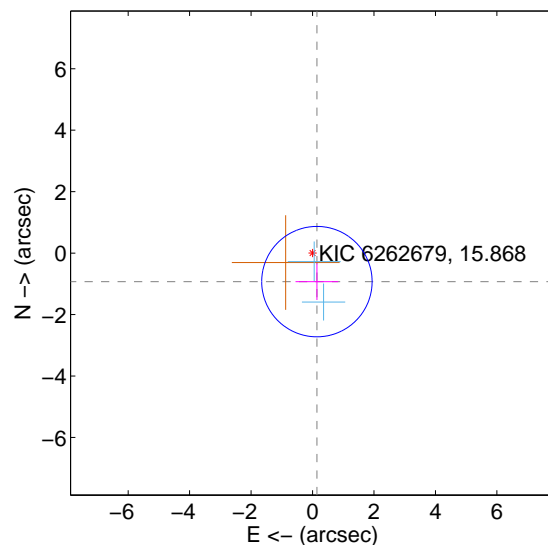
The direct PRF centroid is offset from the target star catalog position by about 0.44 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 0.542 ± 0.609 | 0.89 | -0.190 ± 0.696 | -0.507 ± 0.596 |
| PRF-fit source offset from KIC position | 0.939 ± 0.599 | 1.57 | -0.142 ± 0.696 | -0.928 ± 0.596 |
| photometric centroid source offset | 1.50 ± 1.69 | 0.89 | -1.24 ± 1.62 | 0.84 ± 1.83 |

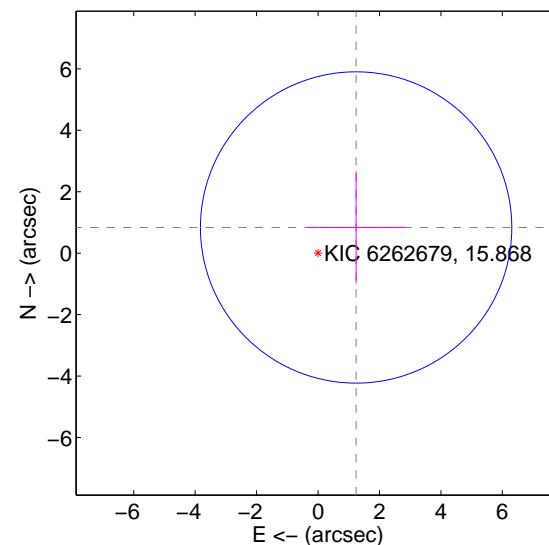
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

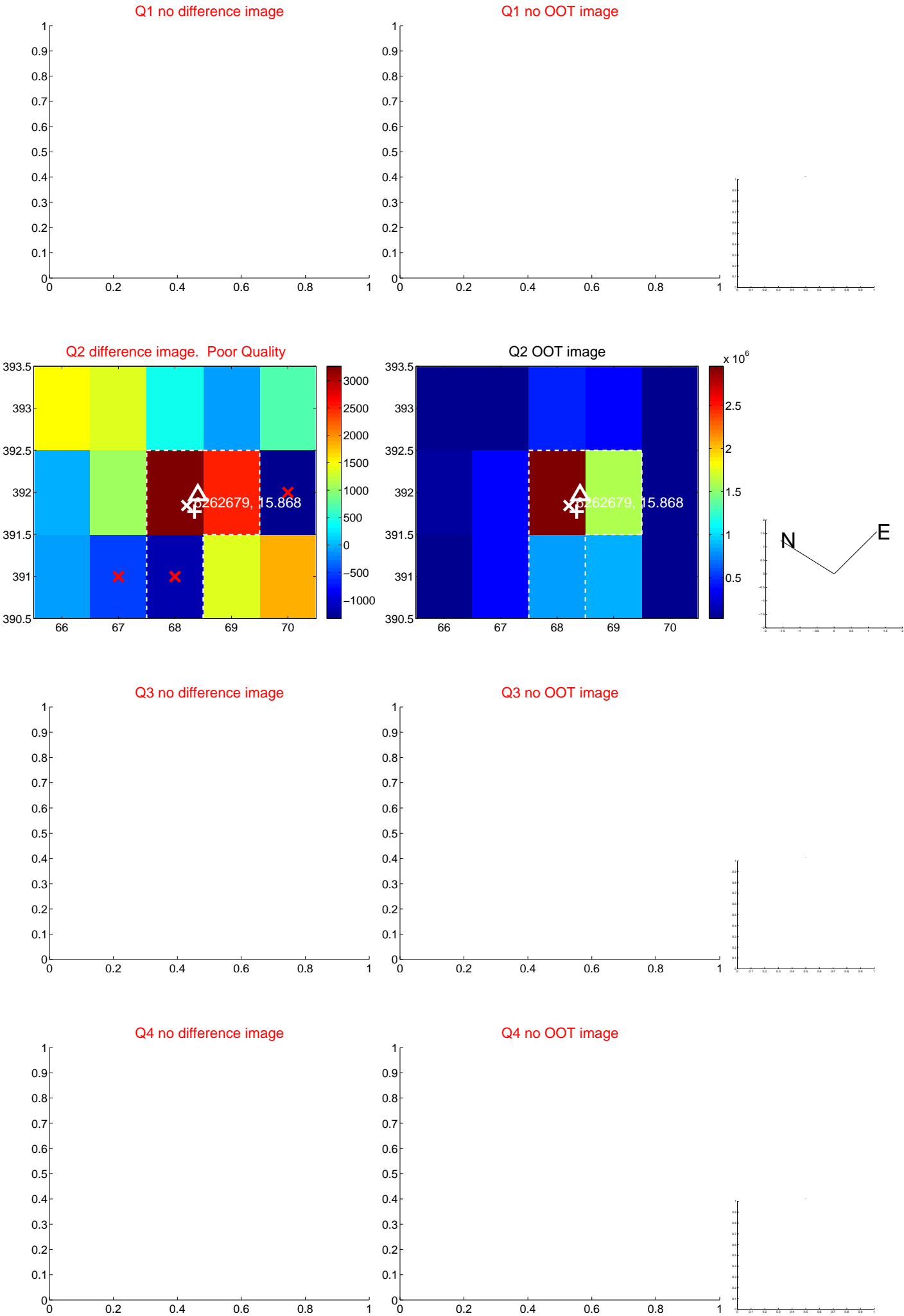


offset from photometric centroids

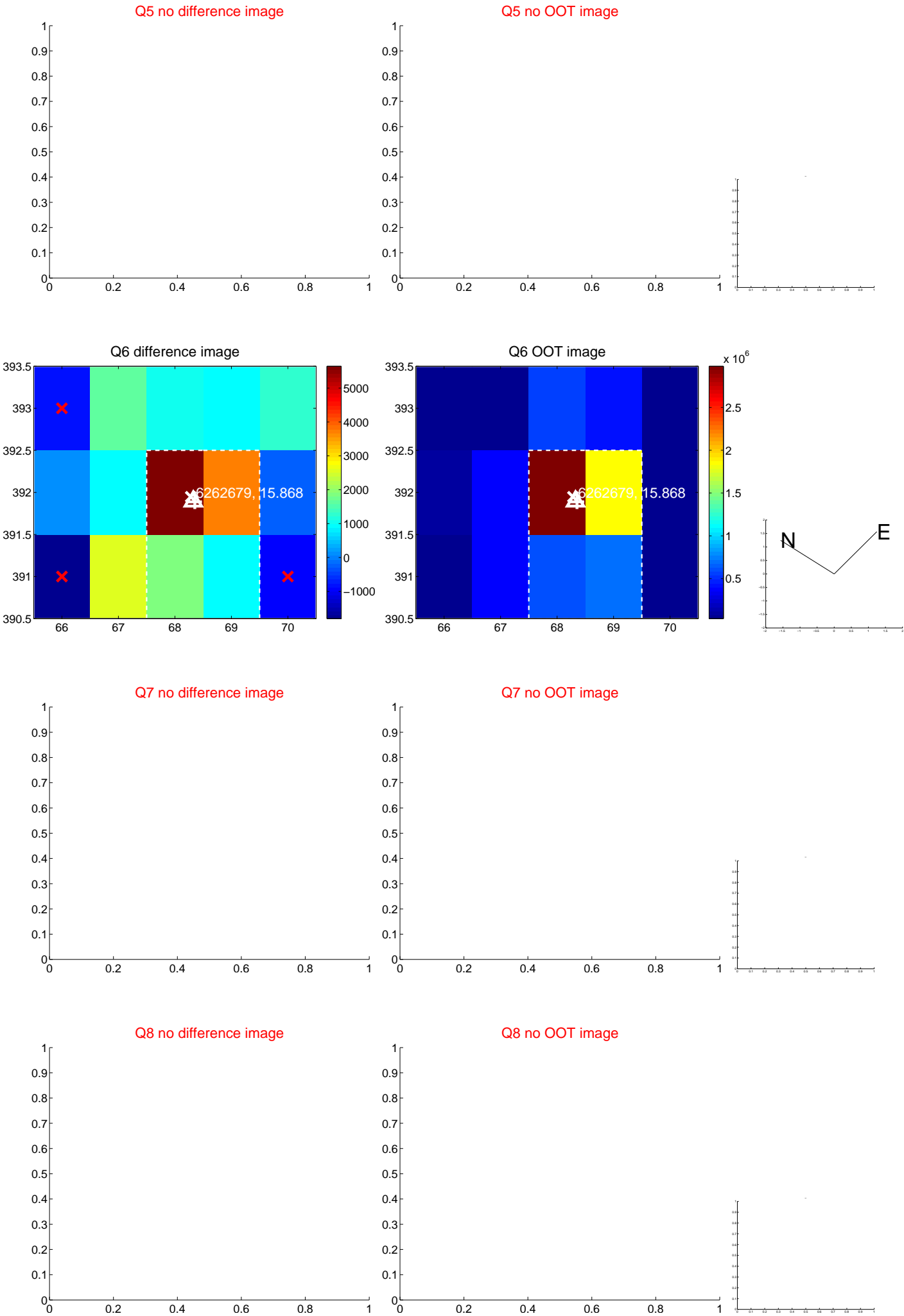


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

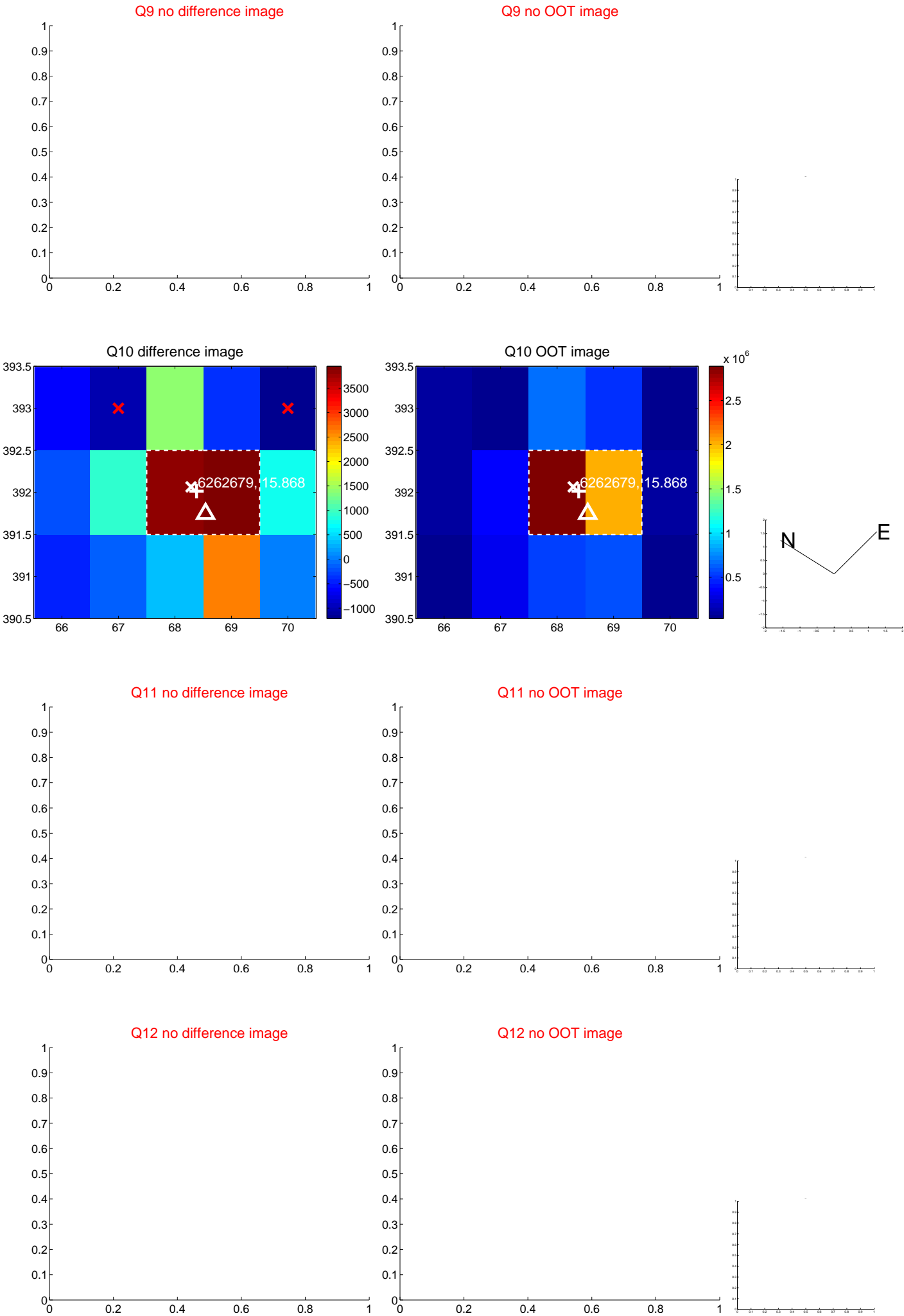
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



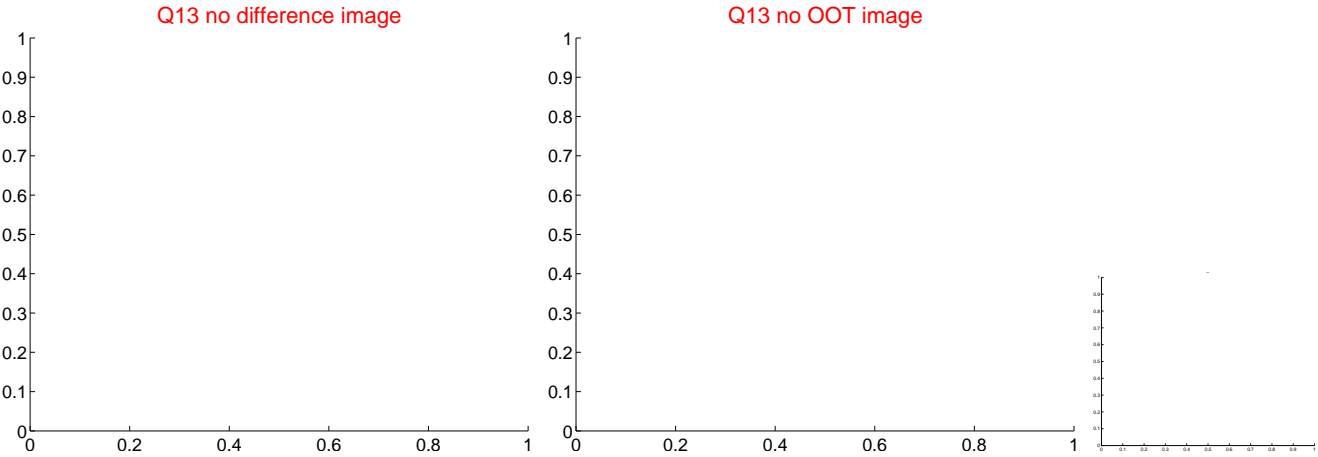
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



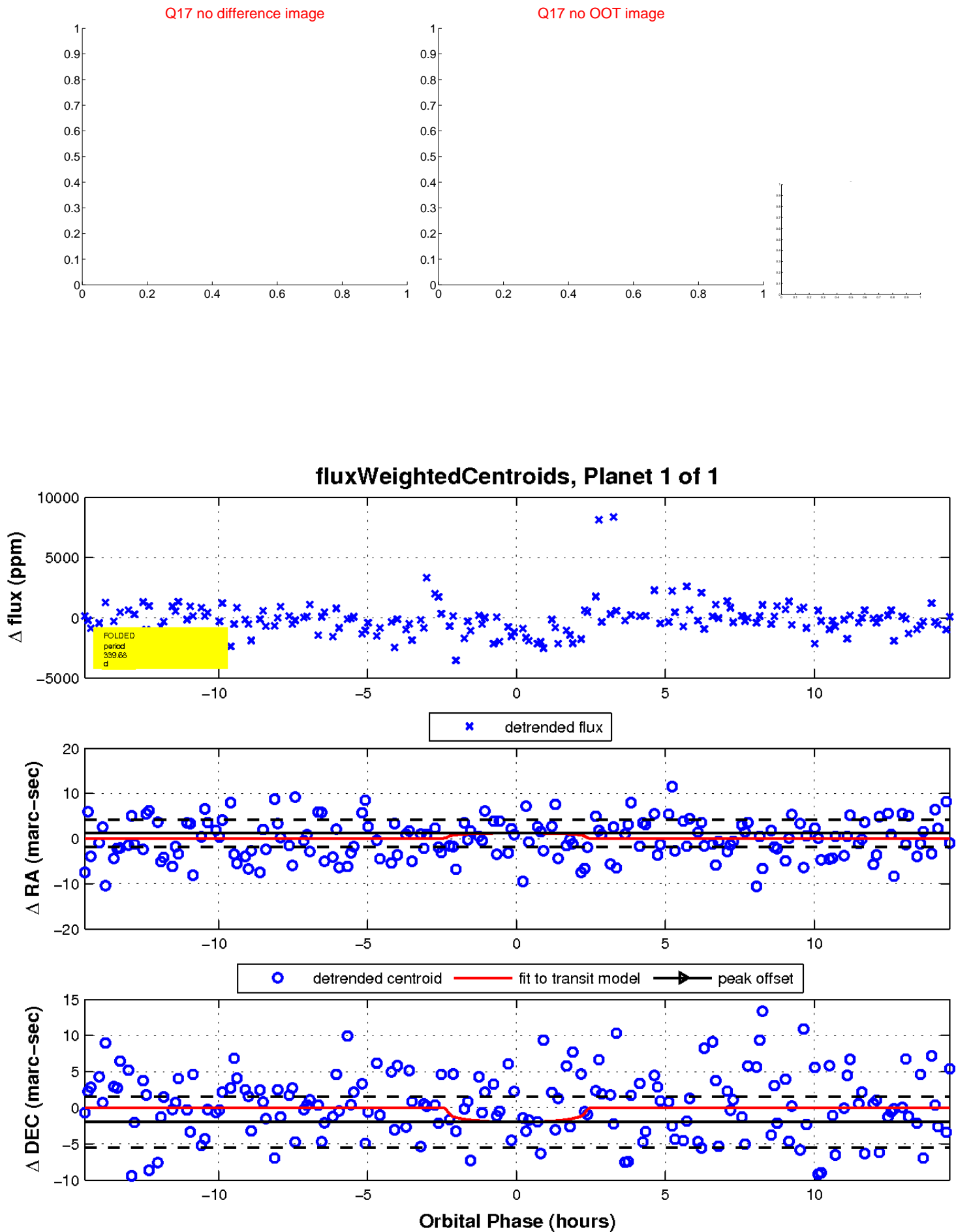
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

