

KIC 005771589

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})
005771589-01	OBS	6625.01	10.738326	139.901540	1874.7	2.312	358.1	200.4	1.69	6180	8.19	395.22
005771589-02	OBS	No	10.737786	134.529494	867.3	2.414	152.8	104.1	1.69	6180	8.41	395.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005771589-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
005771589-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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

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

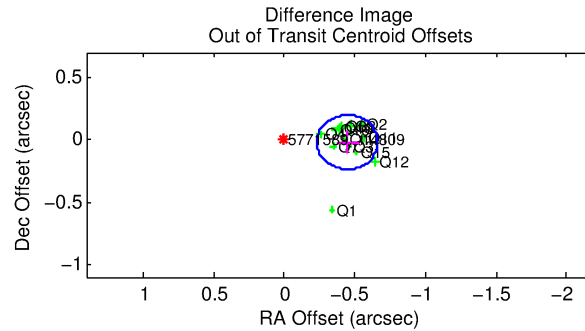
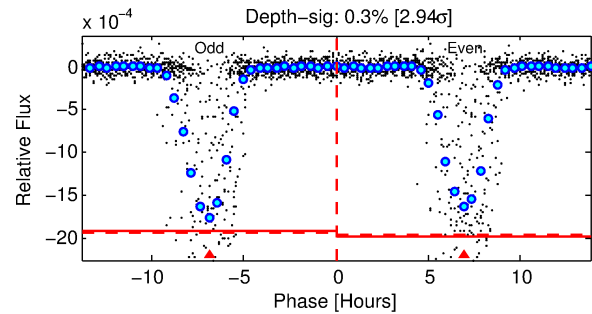
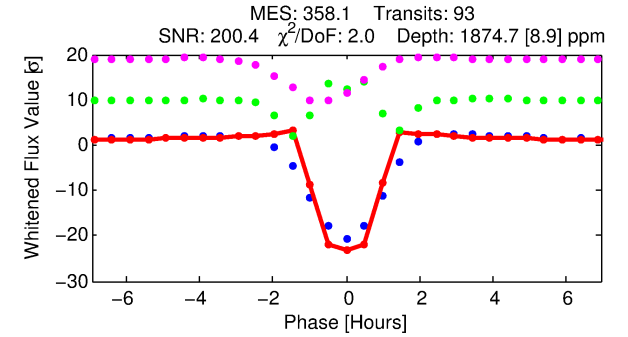
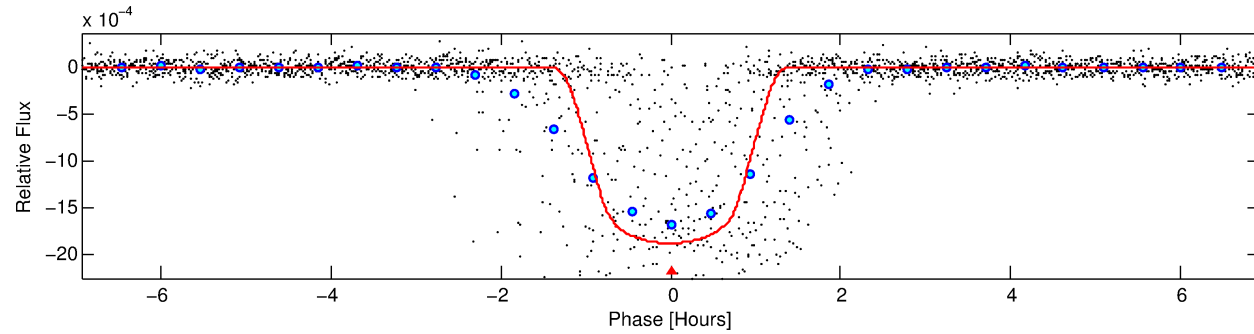
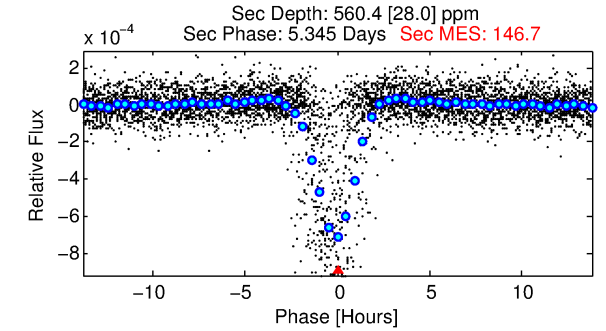
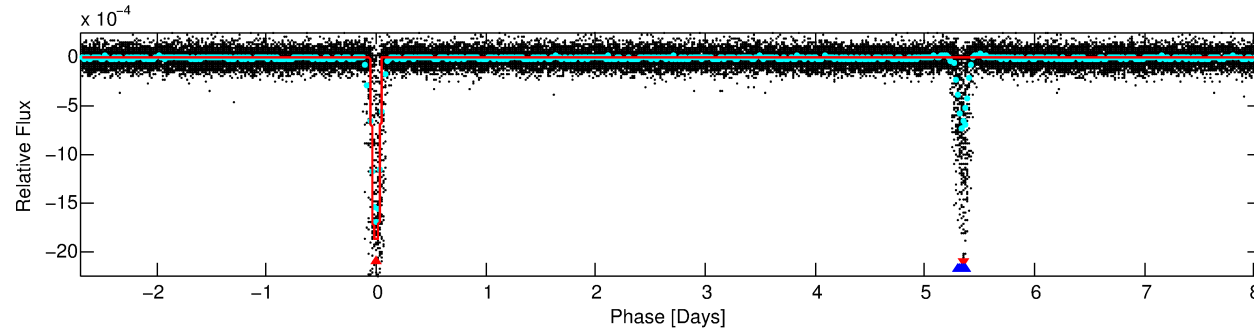
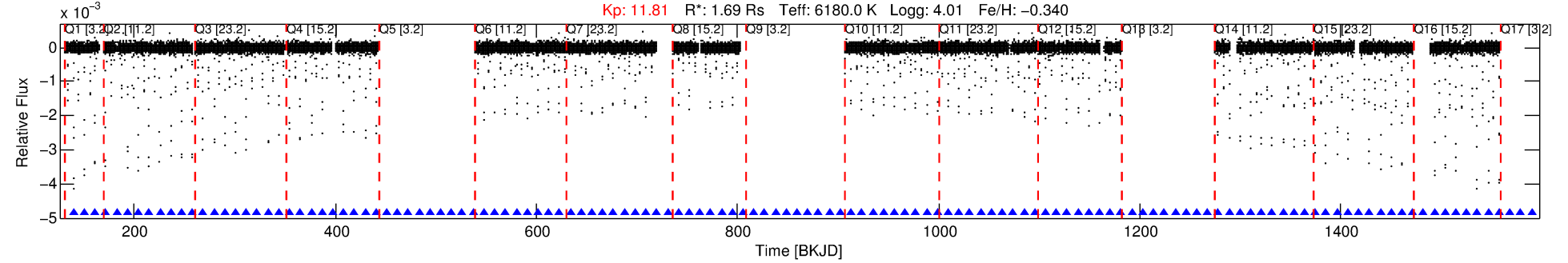
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005771589-01

No Significant Match Found

DV One-Page Summary

KIC: 5771589 Candidate: 1 of 2 Period: 10.738 d
KOI: K06625.01 Corr: 0.881



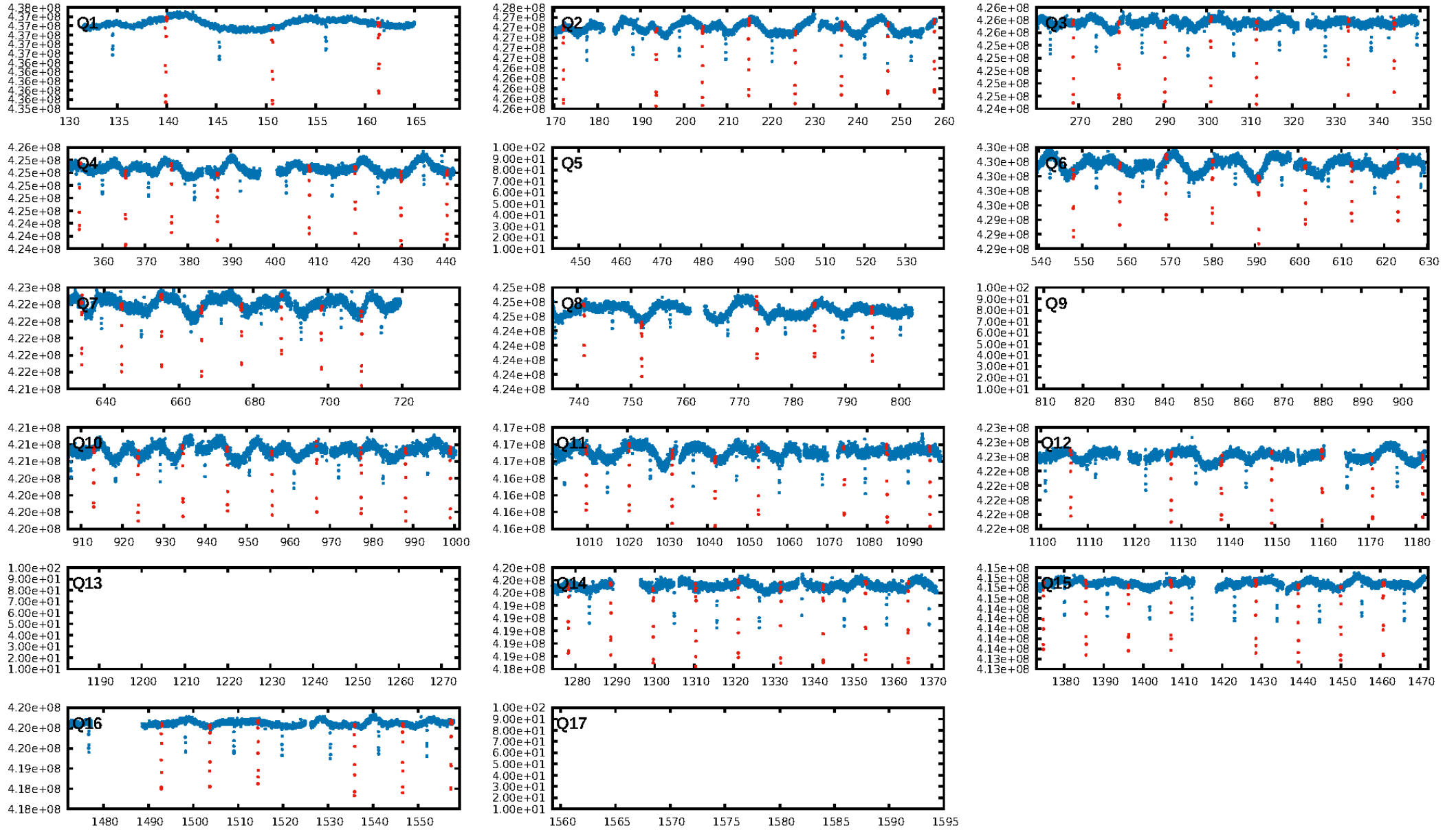
DV Fit Results:

Period = 10.73833 [0.00000] d
Epoch = 139.9015 [0.0002] BKJD
 R_p/R^* = 0.0445 [0.0006]
 a/R^* = 22.58 [1.58]
 b = 0.83 [0.03]
 S_{eff} = 395.22 [198.80]
 T_{eq} = 1137 [143] K
 R_p = 8.19 [2.45] R_e
 a = 0.0970 [0.0291] AU
 A_g = 43.16 [21.31] [1.98 σ]
 T_{eff} = 4506 [142] K [16.73 σ]

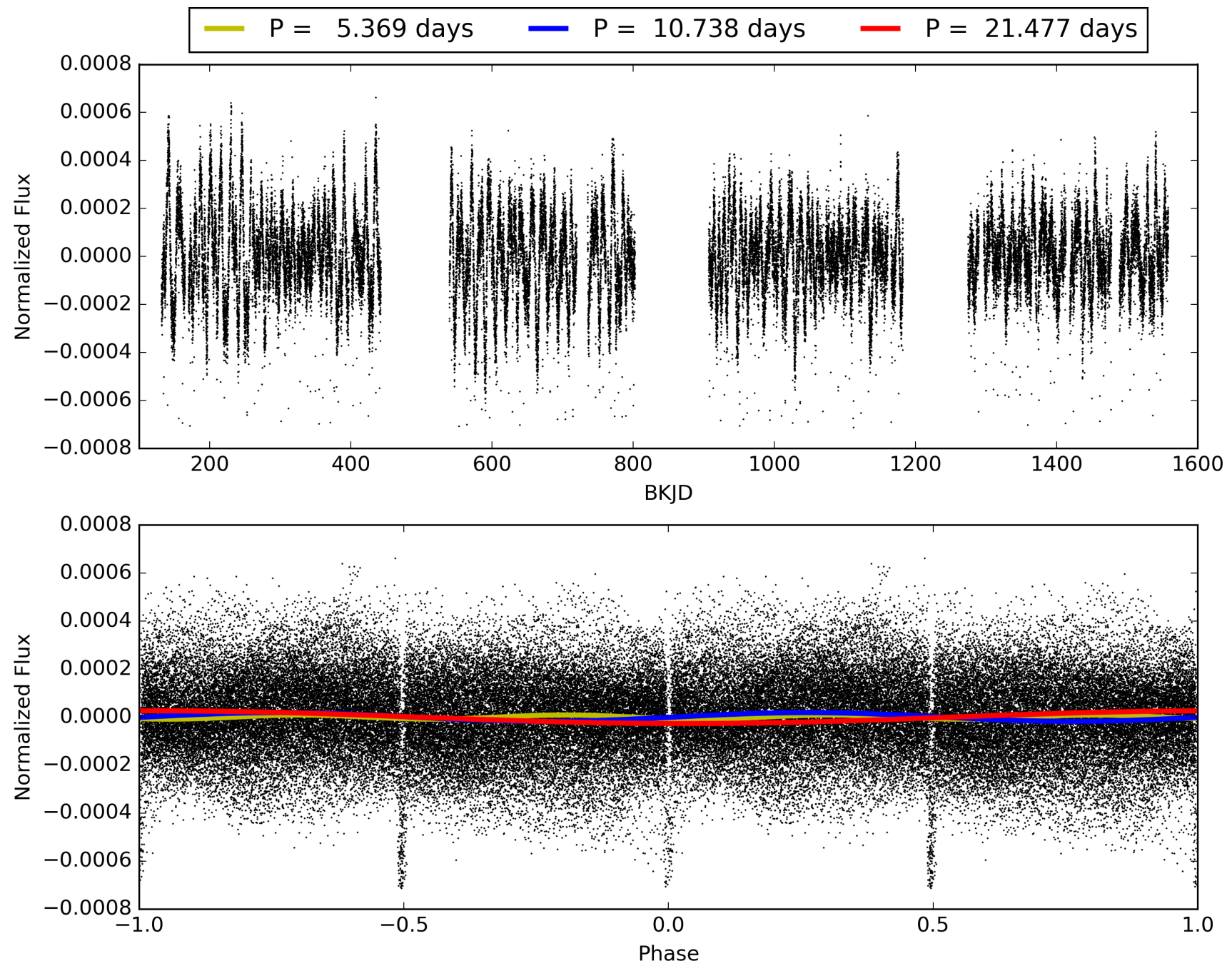
DV Diagnostic Results:

ShortPeriod-sig: 0.3% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 33.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [90/90]
GhostDiagnostic-chr: 5.761
Centroid-sig: 0.0%
Centroid-so: 0.380 arcsec [12.54 σ]
OotOffset-rm: 0.448 arcsec [6.21 σ]
KicOffset-rm: 0.415 arcsec [5.41 σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 005771589-01, PDC Light Curves

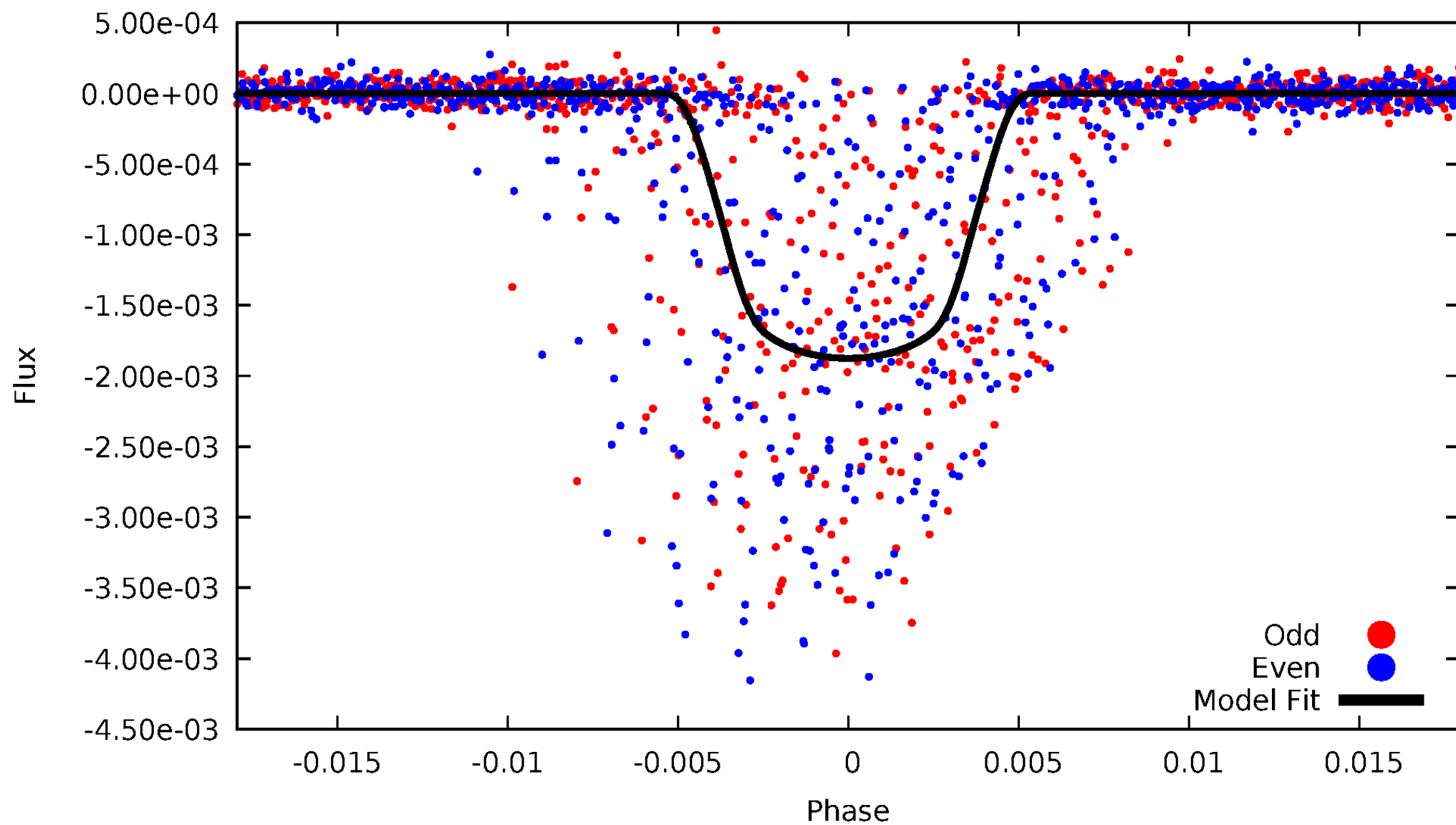


TCE 005771589-01



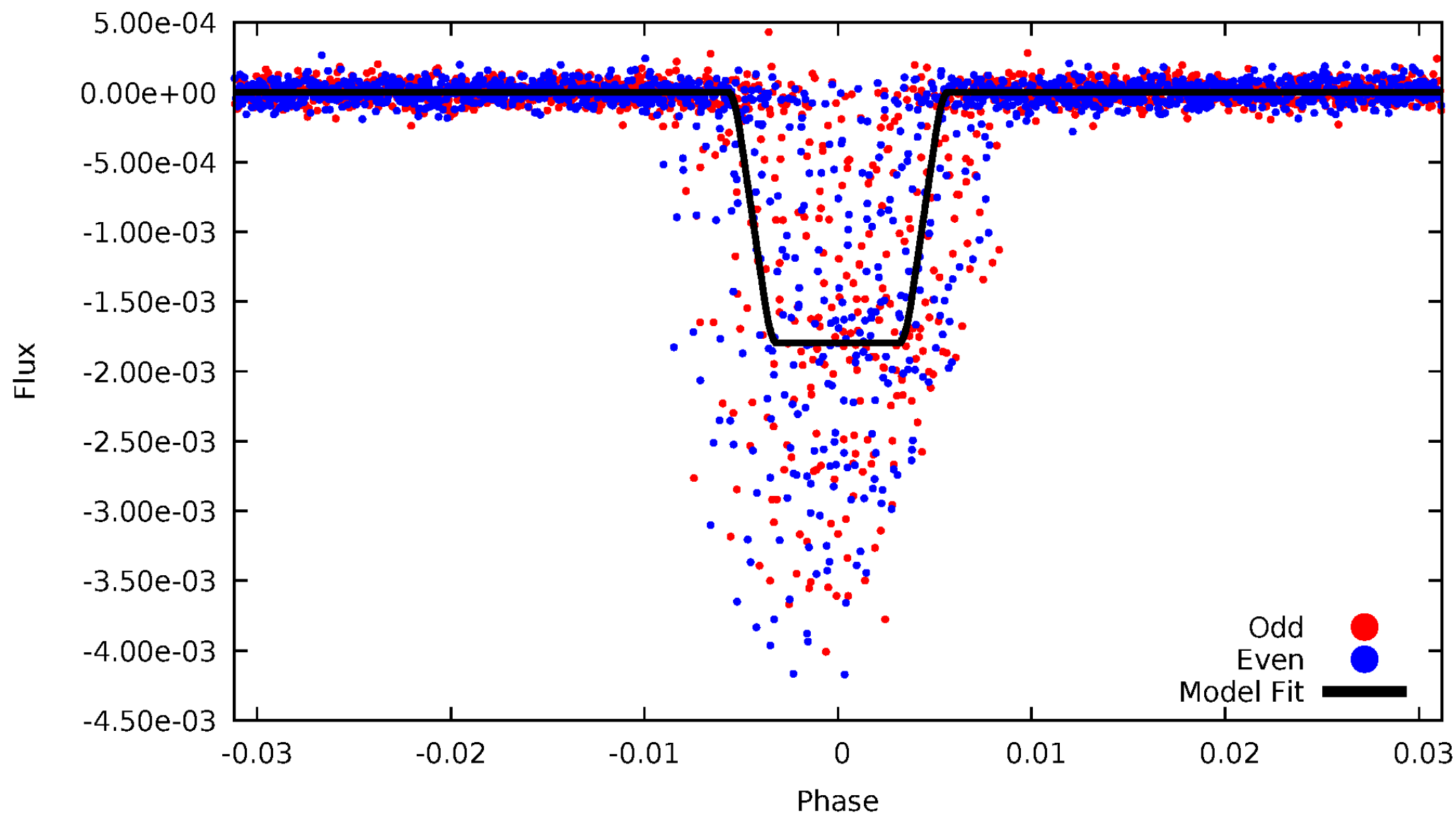
DV Odd/Even

TCE 005771589-01



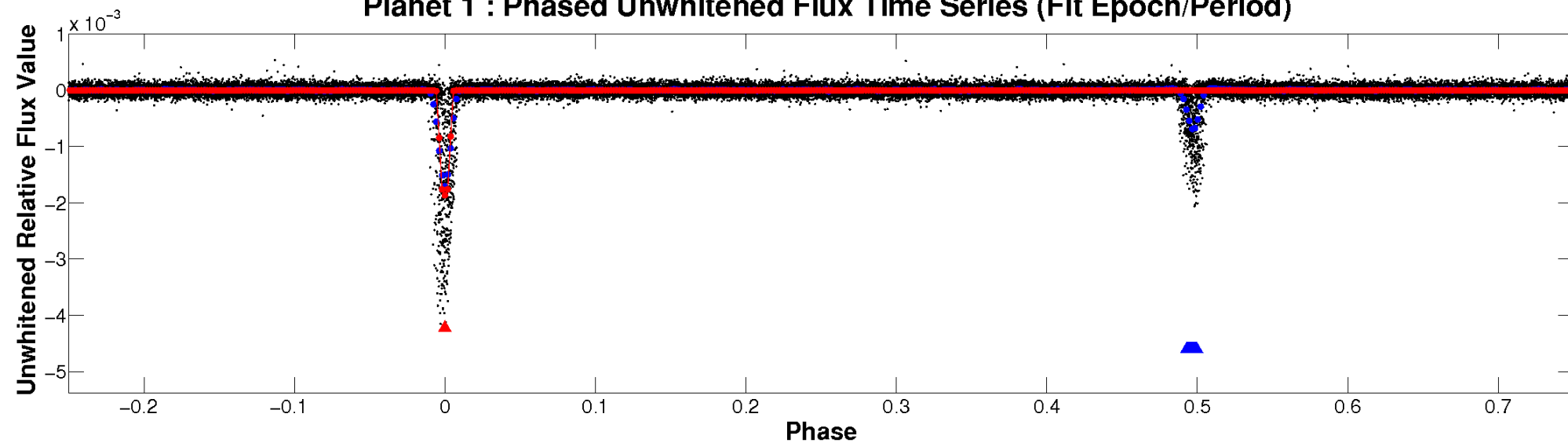
ALT Odd/Even

TCE 005771589-01

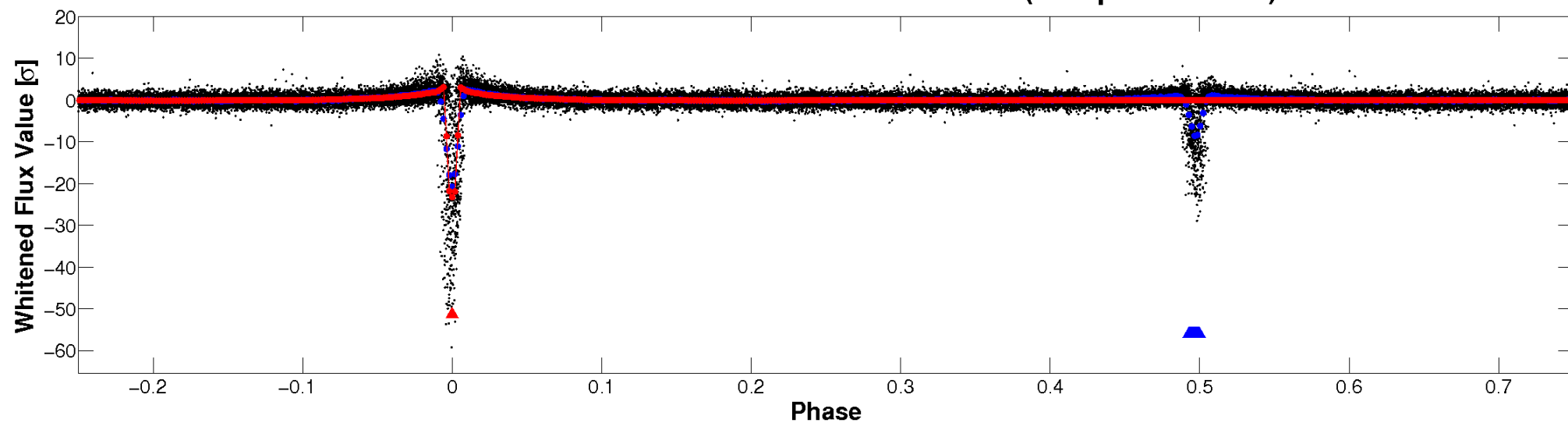


Non-Whitened Vs. Whitened Light Curve

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

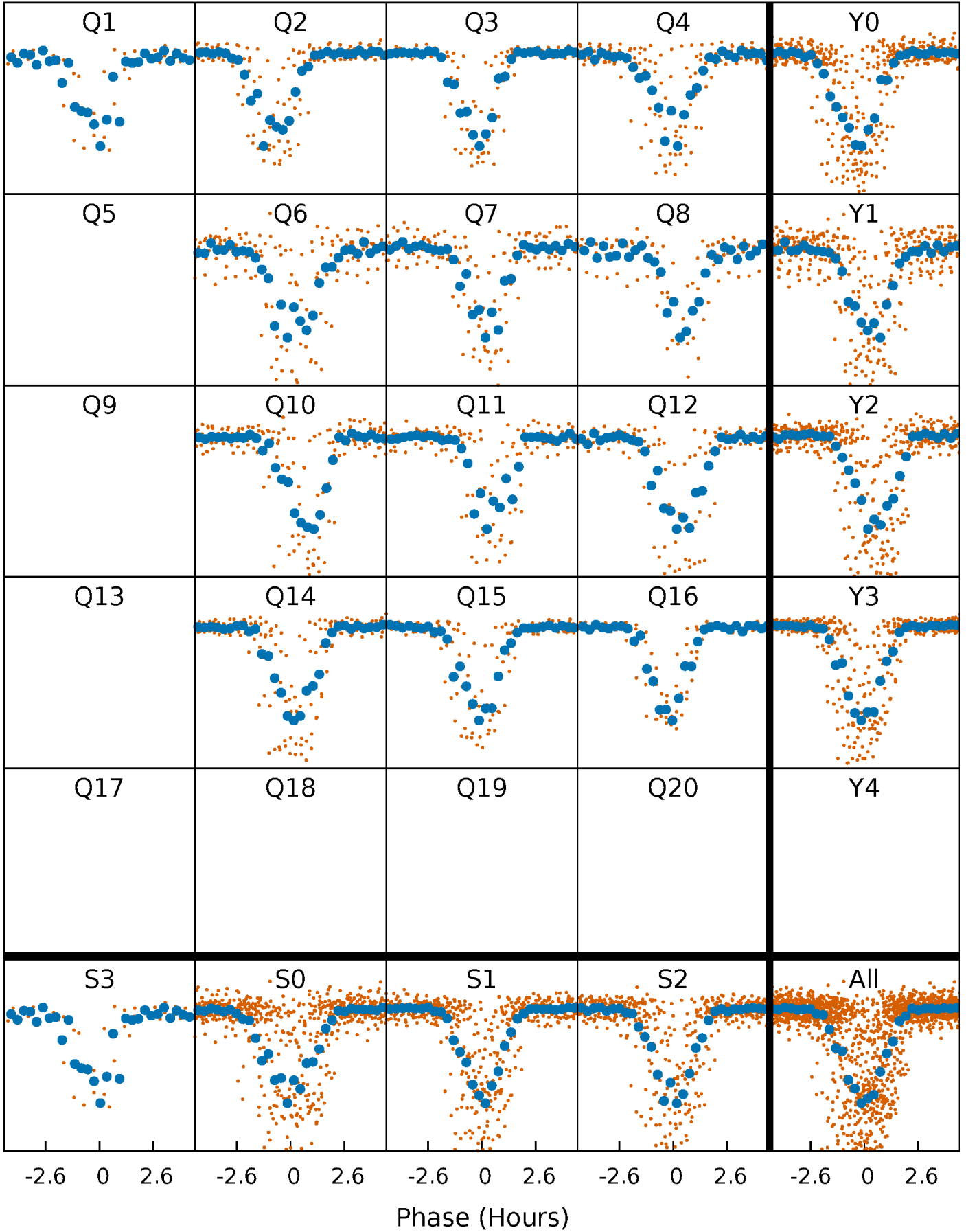


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



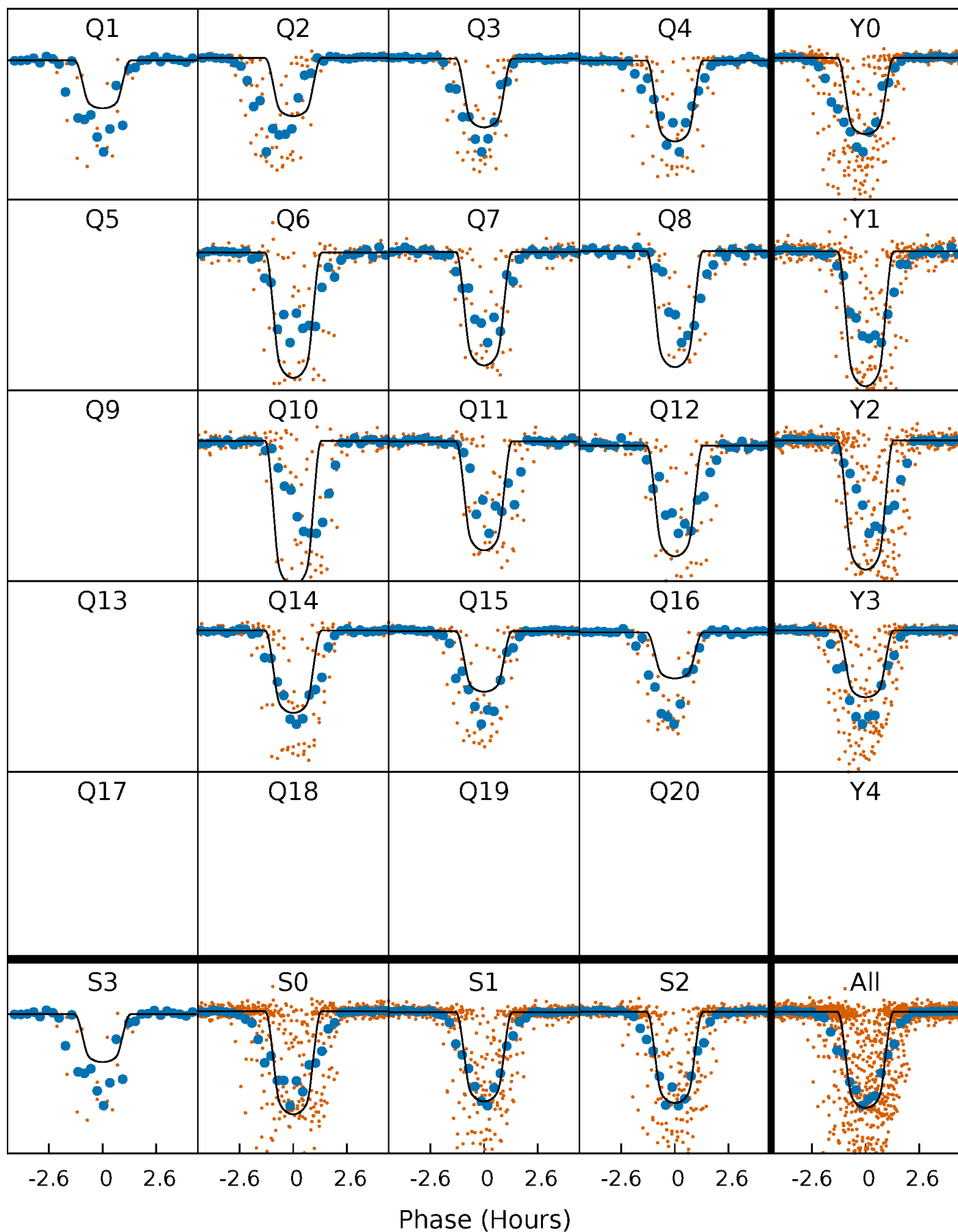
PDC Quarter-Phased Transit Curves

TCE 005771589-01 P= 10.738326 Days $T_0=139.901541$ (BKJD)



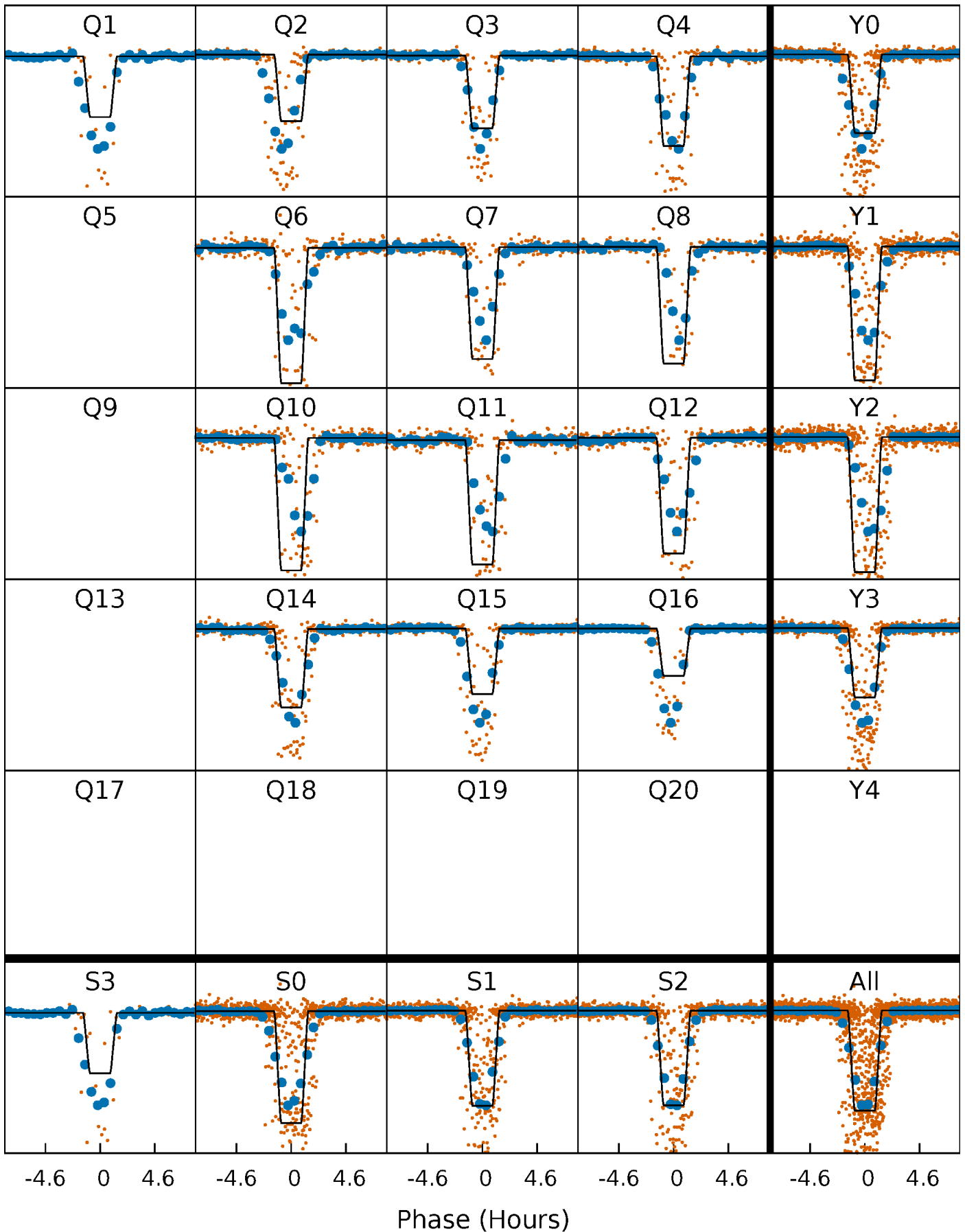
DV Quarter-Phased Transit Curves

TCE 005771589-01 P= 10.738326 Days $T_0=139.901541$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

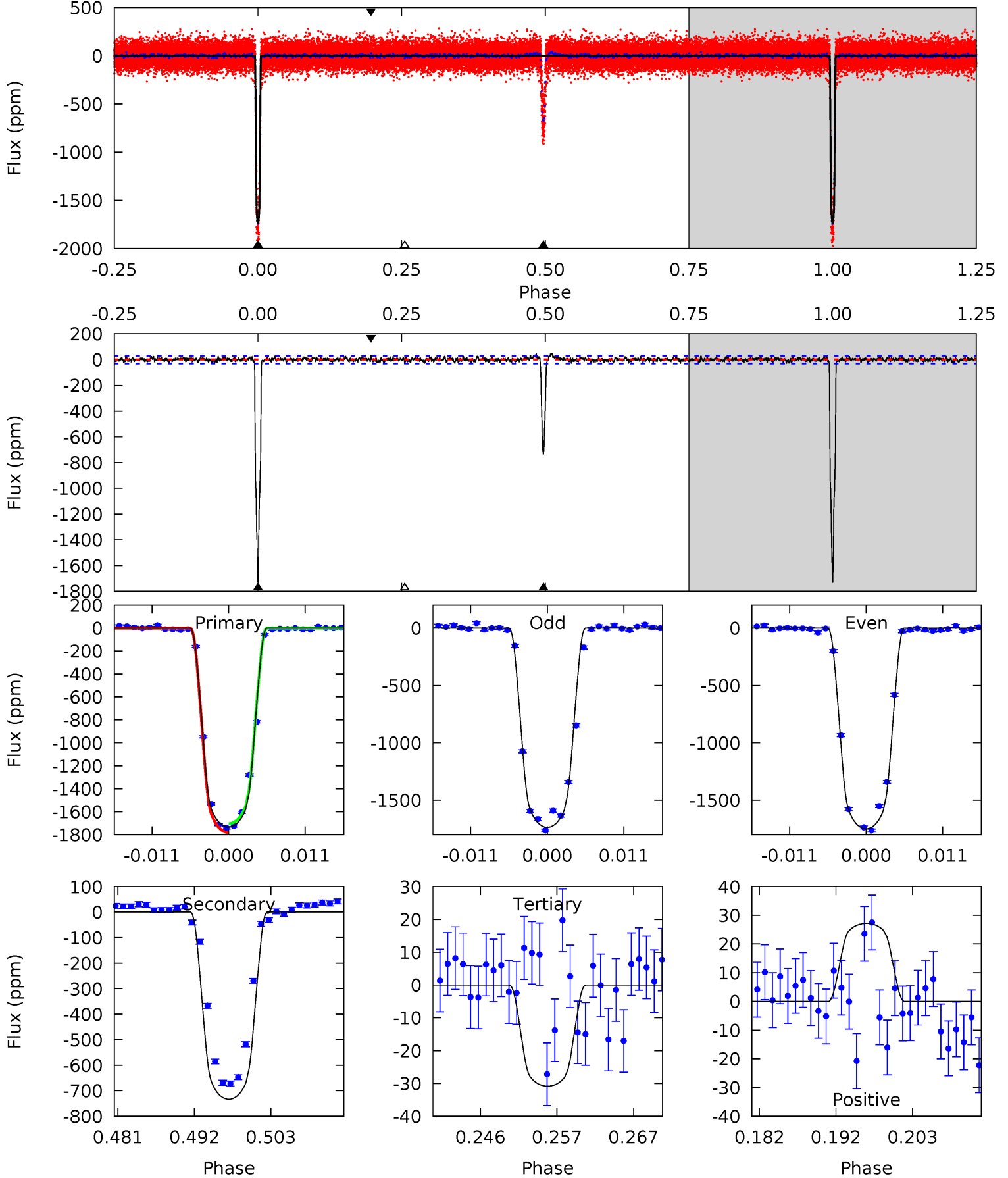
TCE 005771589-01 P= 10.738395 Days $T_0=139.895353$ (BKJD)



DV Model-Shift Uniqueness Test

005771589-01, P = 10.738326 Days, E = 129.163215 Days

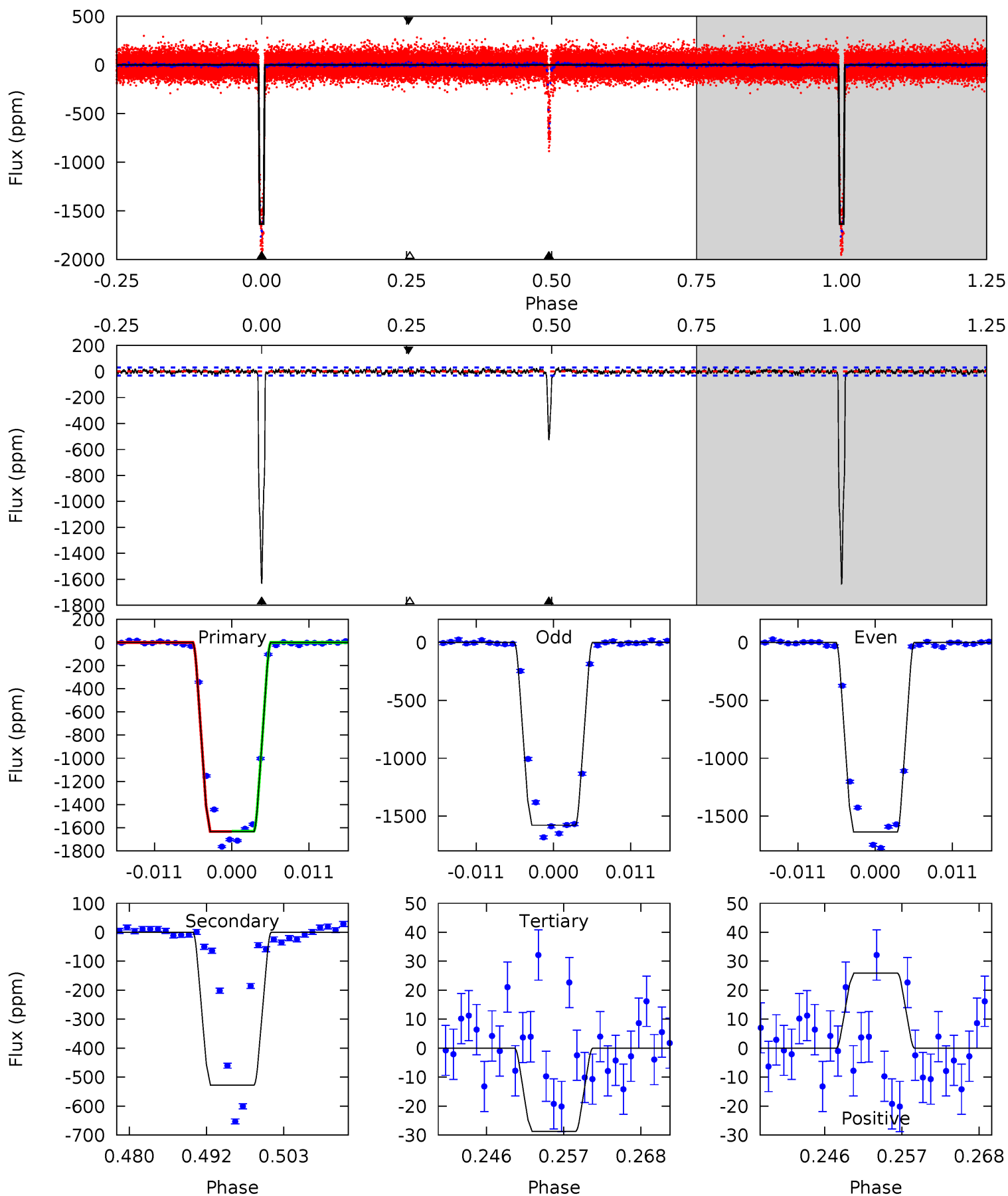
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
288.4	122.1	5.13	4.52	5.01	2.55	1.58	283.3	283.9	117.0	117.6	1.00	1.08	0.03	6.26



Alt Model-Shift Uniqueness Test

005771589-01, P = 10.738395 Days, E = 129.156958 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
264.3	85.4	4.65	4.19	5.01	2.54	1.35	259.7	260.2	80.7	81.2	4.55	1.09	0.02	0.24



Stellar Parameters For KIC 005771589

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6180^{+173}_{-173}	$4.007^{+0.292}_{-0.117}$	$-0.340^{+0.350}_{-0.250}$	$1.686^{+0.335}_{-0.503}$	$1.053^{+0.179}_{-0.146}$	$0.310^{+0.514}_{-0.104}$
	+3%/-3%	+7%/-3%	+103%/-74%	+20%/-30%	+17%/-14%	+166%/-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 005771589-01 / KOI 6625.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-733 ± 6	$8.04^{+1.06}_{-1.35}$	1563^{+100}_{-121}	4917^{+120}_{-116}	59^{+22}_{-12}
Alt.	-527 ± 6	$7.74^{+0.92}_{-1.37}$	1568^{+105}_{-134}	4688^{+107}_{-106}	46^{+20}_{-9}

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 $A_{obs} \gg 1.0$

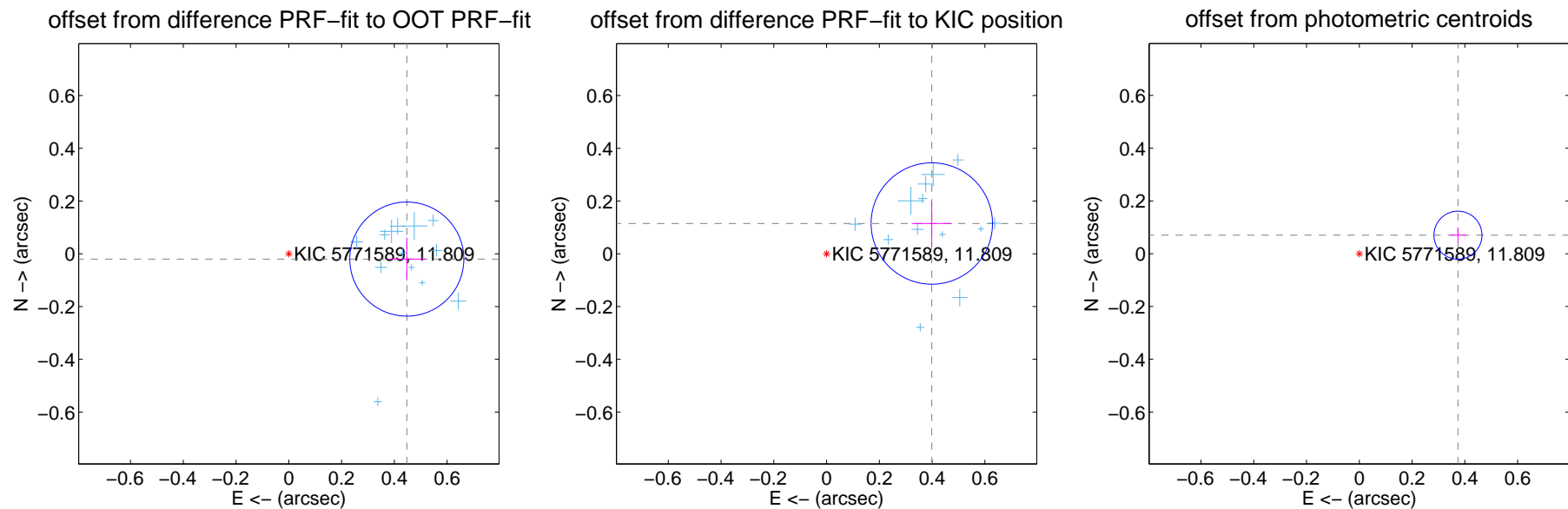
DV Centroid Data

Supplemental centroid analysis for 005771589-01. **Kepler magnitude: 11.81.** Transit SNR 200.40

There are 13 quarters with good PRF difference image offsets

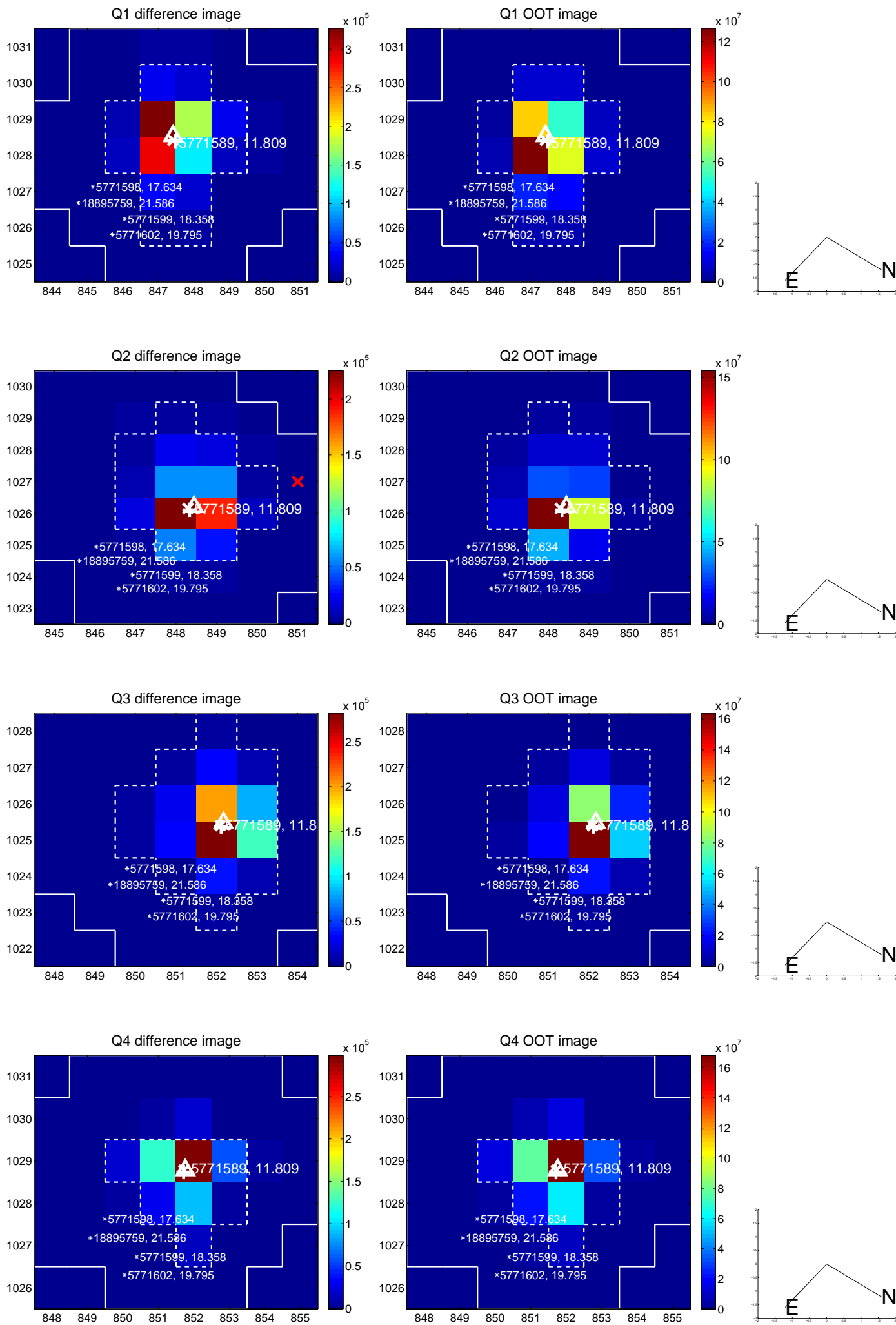
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.448 ± 0.072	6.21	-0.447 ± 0.072	-0.020 ± 0.081
PRF-fit source offset from KIC position	0.415 ± 0.077	5.41	-0.399 ± 0.076	0.115 ± 0.083
photometric centroid source offset	0.38 ± 0.03	12.54	-0.37 ± 0.03	0.07 ± 0.03

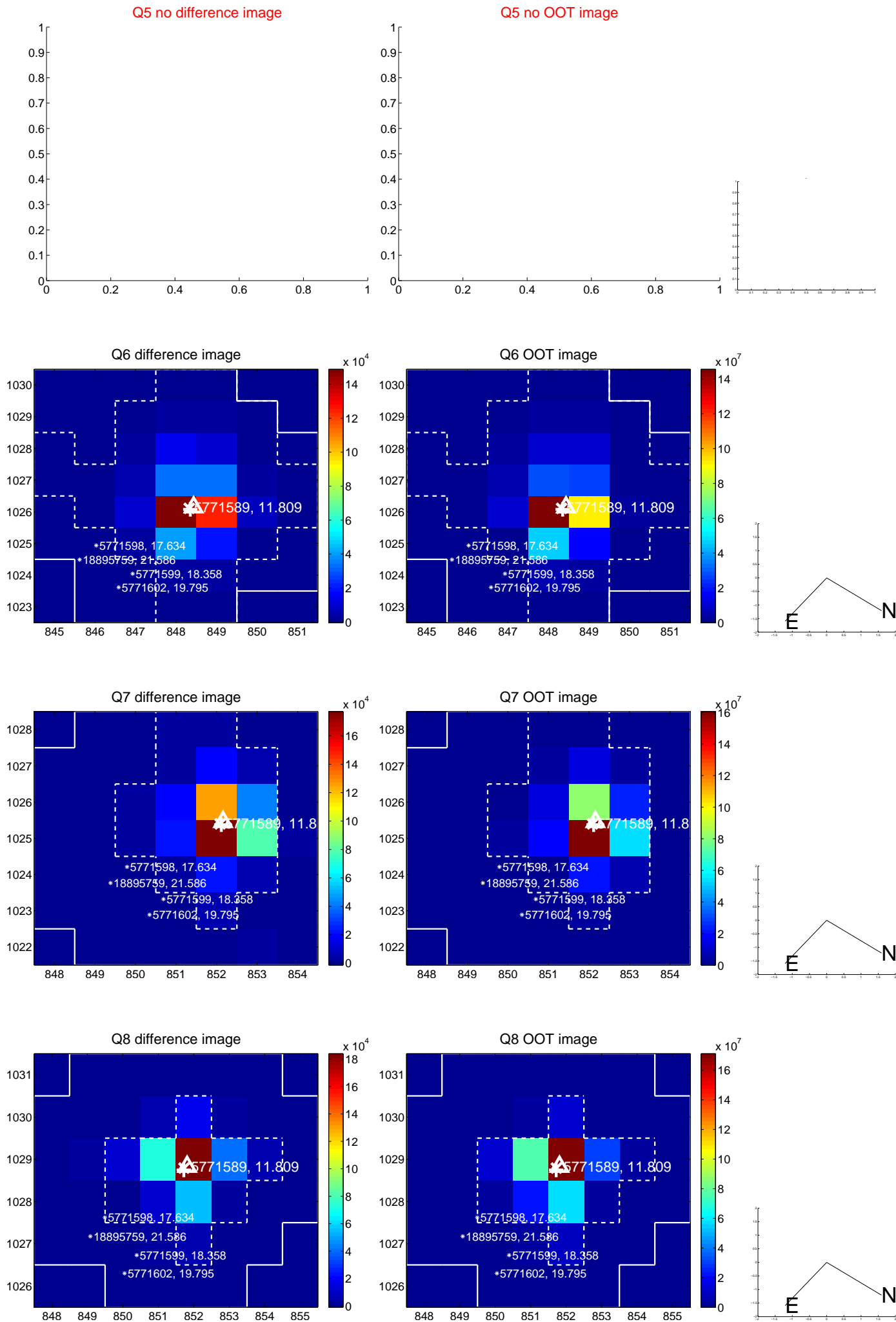


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

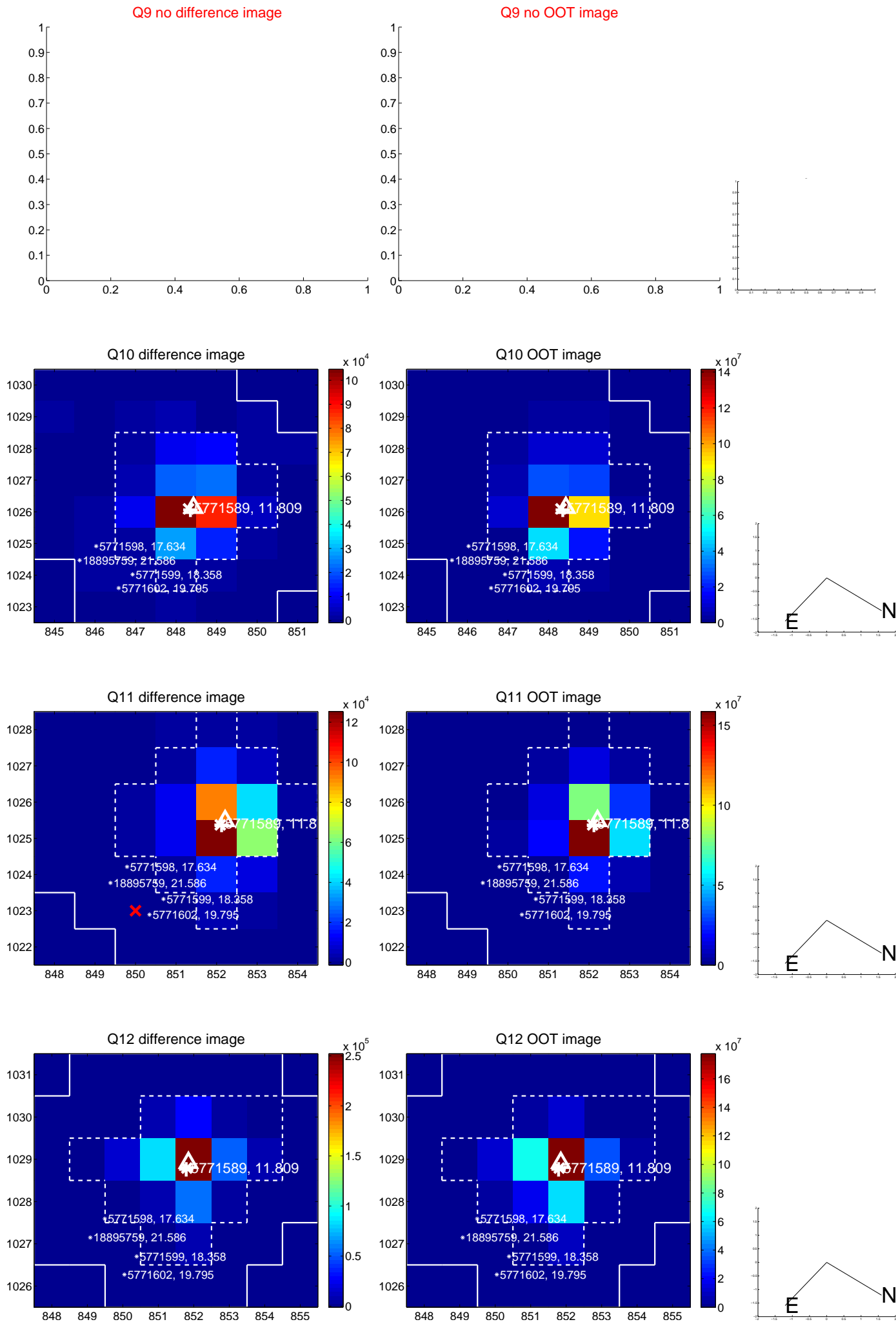
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



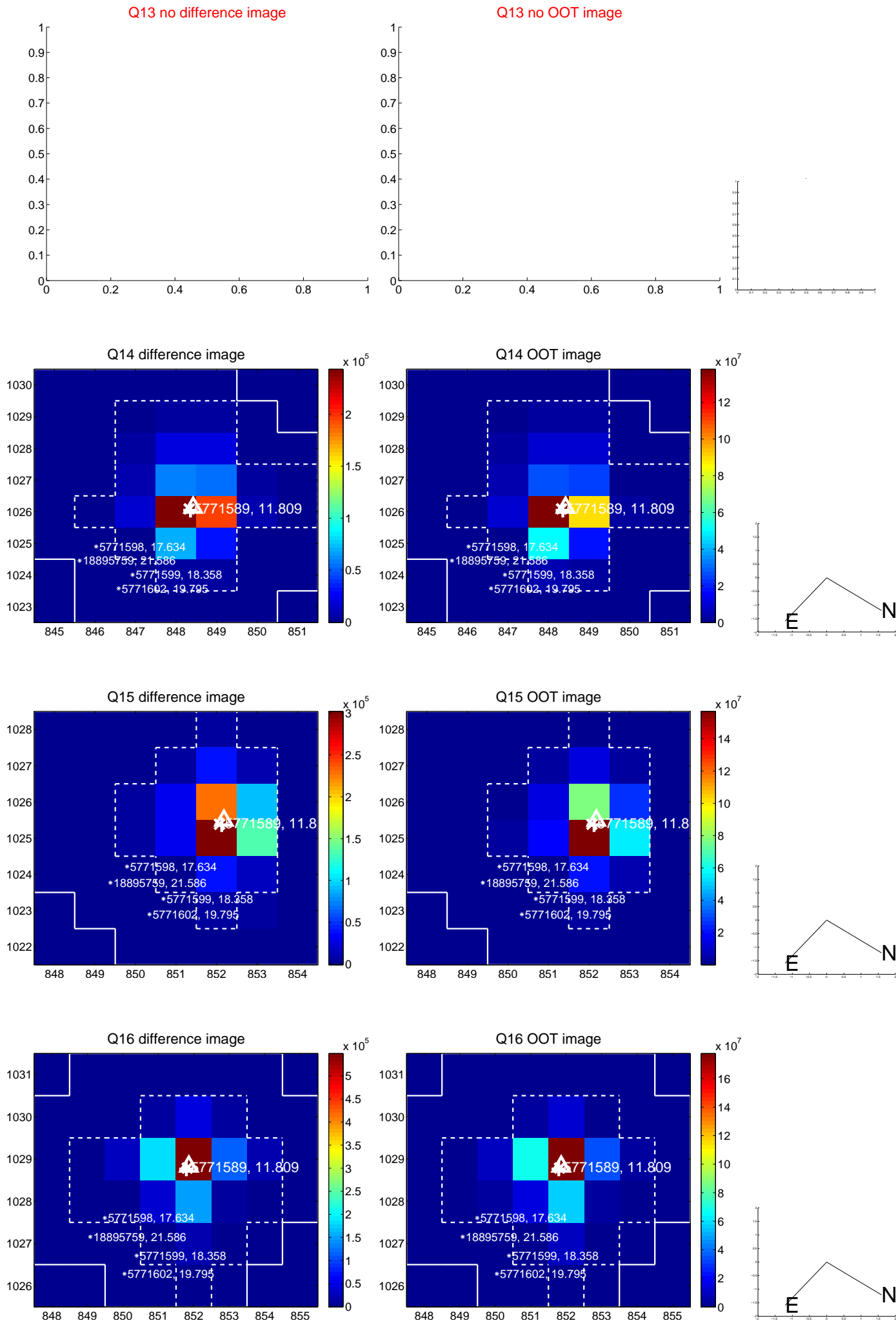
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



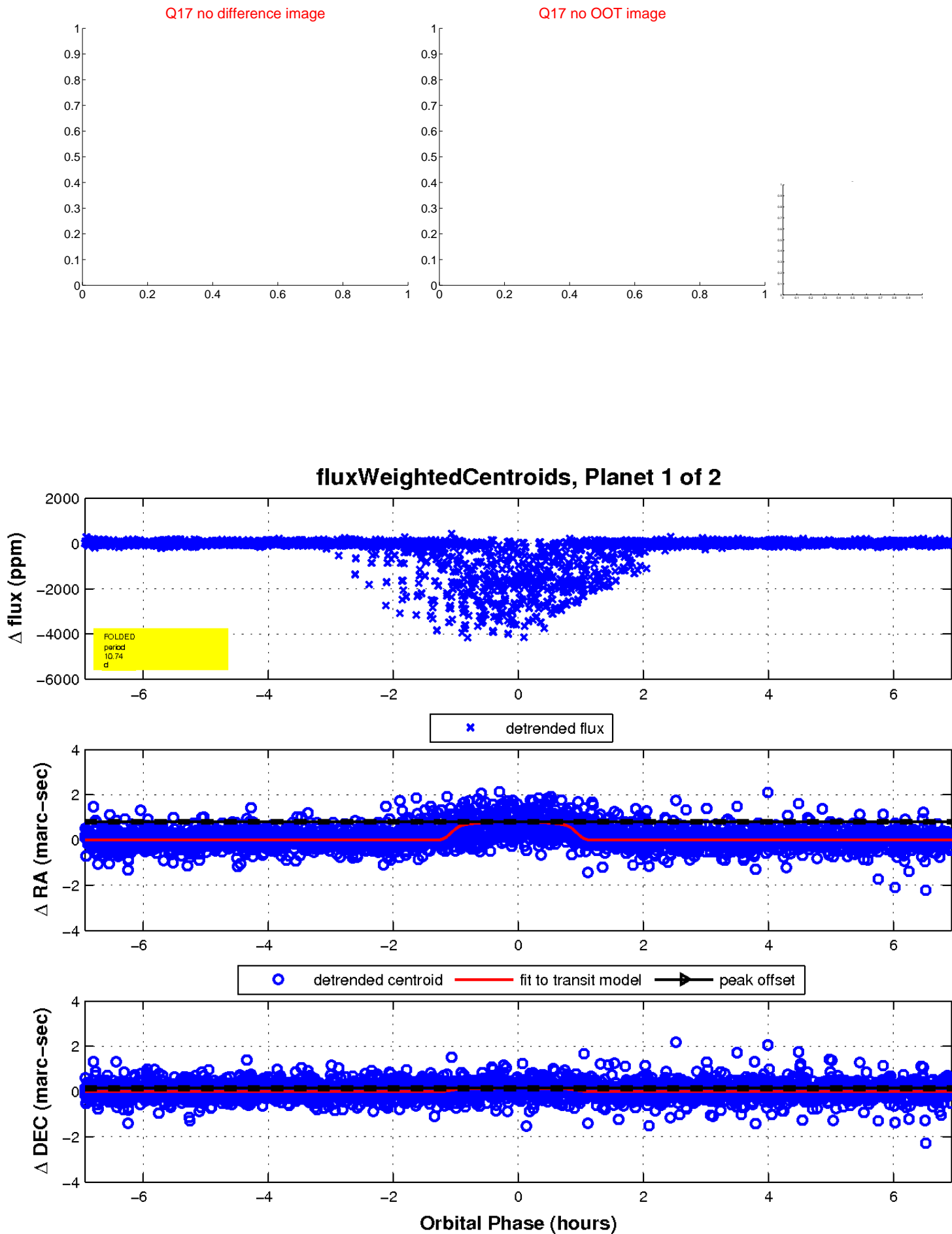
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

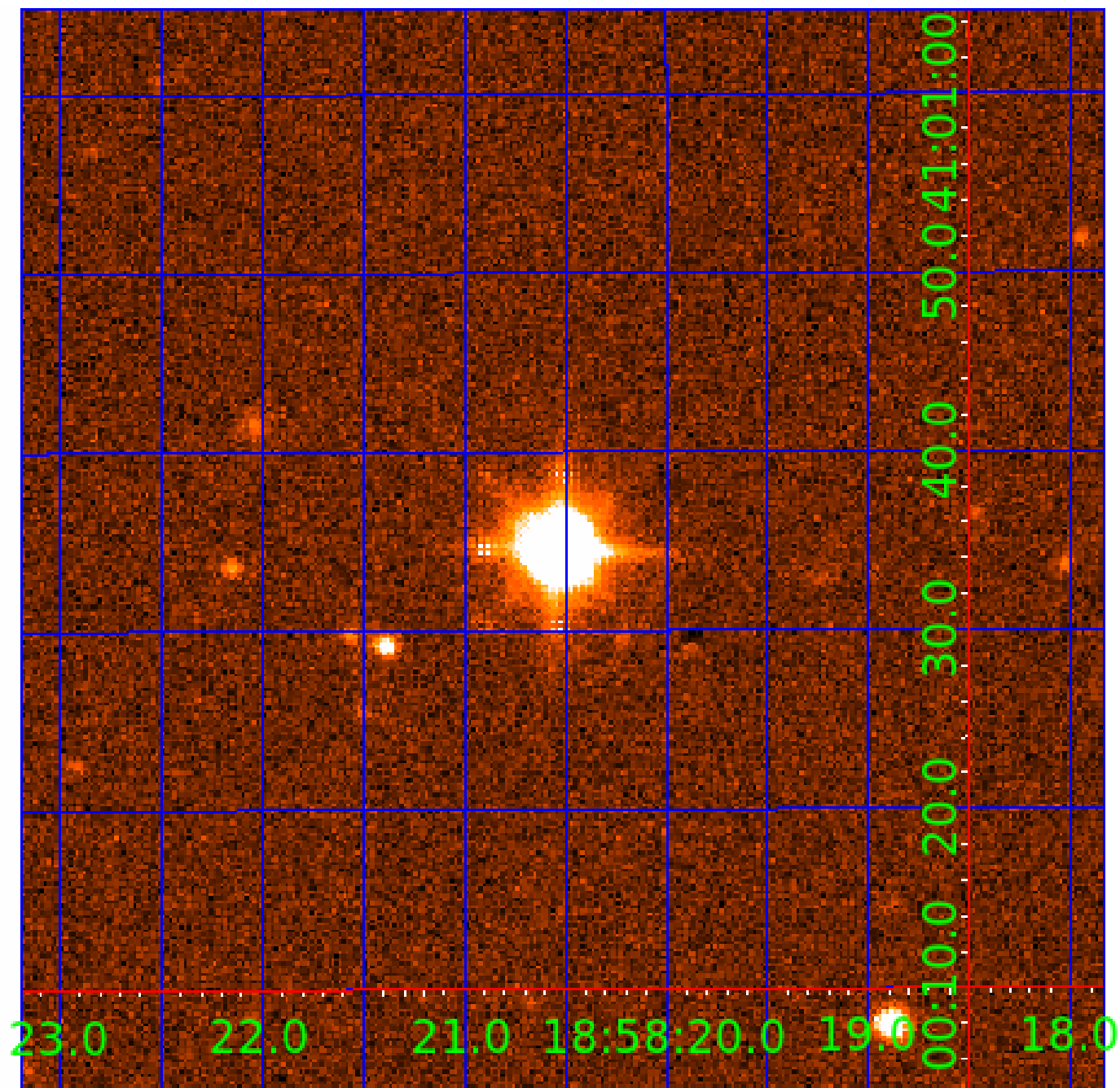


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005771589

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})
005771589-01	OBS	6625.01	10.738326	139.901540	1874.7	2.312	358.1	200.4	1.69	6180	8.19	395.22
005771589-02	OBS	No	10.737786	134.529494	867.3	2.414	152.8	104.1	1.69	6180	8.41	395.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005771589-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT—HAS_SEC_TCE
005771589-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE

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.

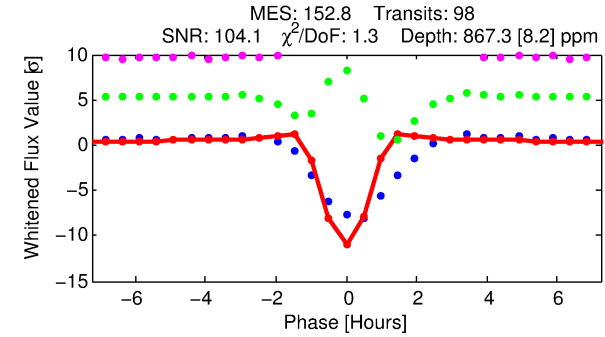
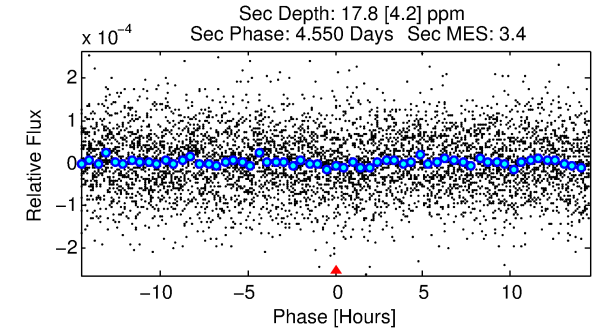
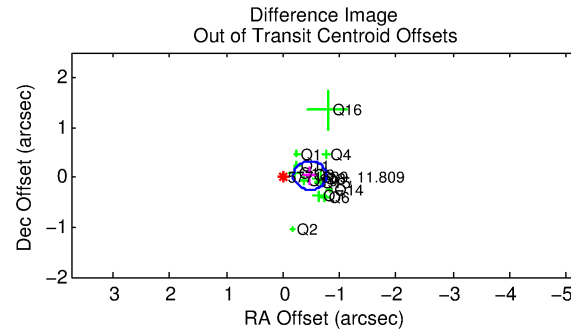
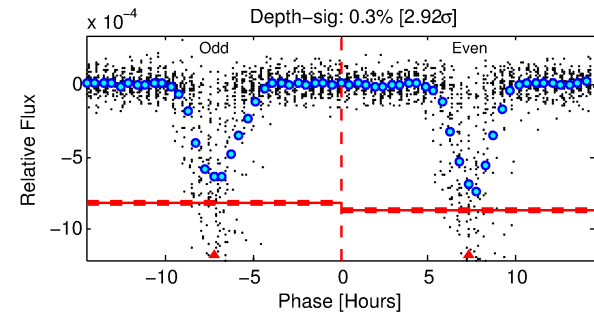
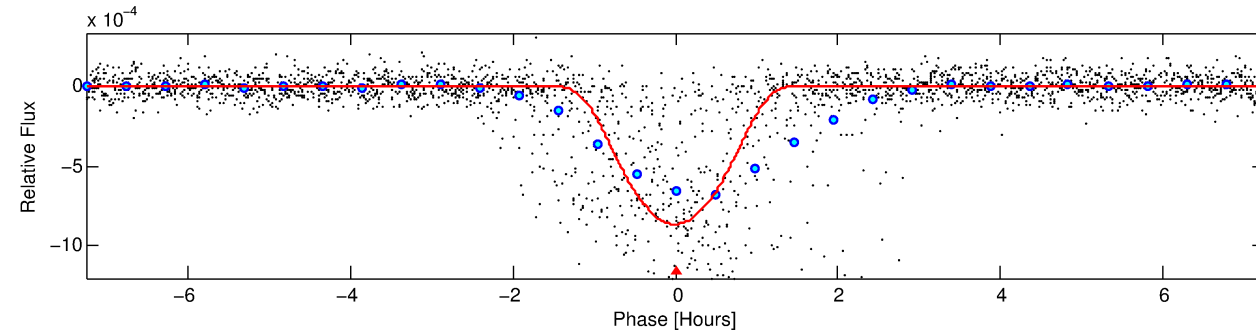
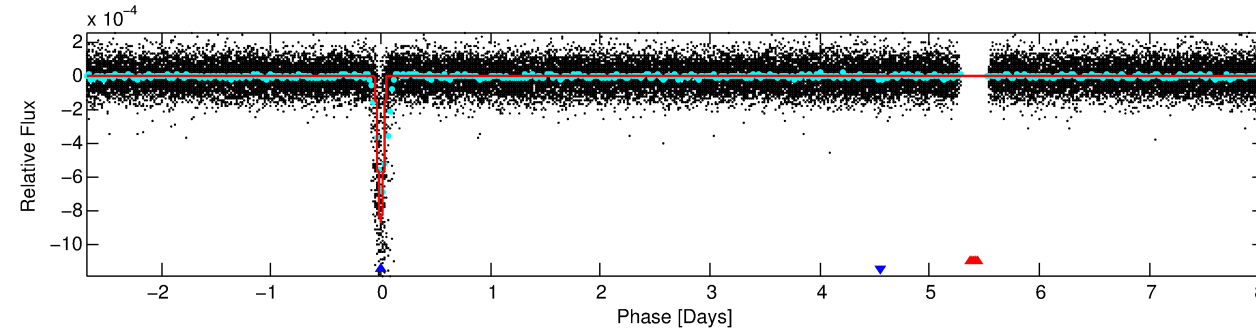
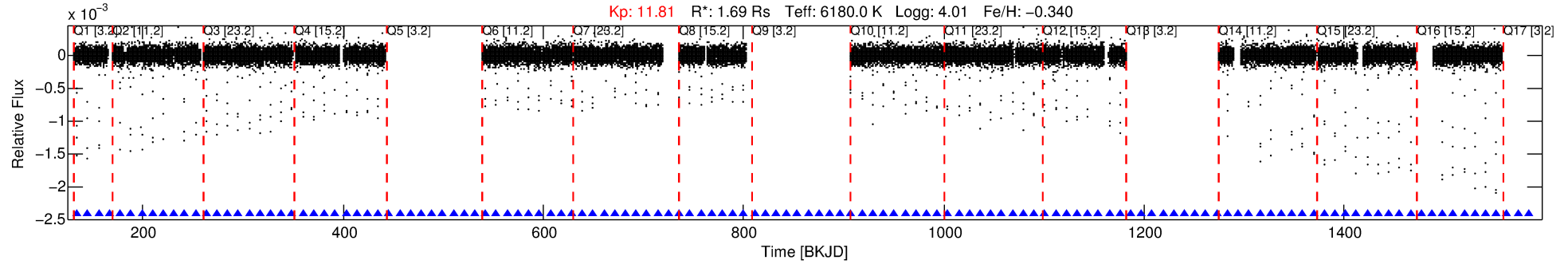
Ephemeris Match Information For 005771589-02

No Significant Match Found

DV One-Page Summary

KIC: 5771589 Candidate: 2 of 2 Period: 10.738 d

KOI: K06625 Corr: No Ephemeris Match



DV Fit Results:

Period = 10.73779 [0.00001] d
Epoch = 134.5295 [0.0004] BKJD
Rp/R* = 0.0457 [0.0115]
a/R* = 11.47 [0.88]
b = 0.99 [0.02]
Seff = 395.25 [198.81]
Teq = 1137 [143] K
Rp = 8.41 [3.28] Re
a = 0.0969 [0.0291] AU
Ag = 1.30 [0.96] [0.31 σ]
Teffp = 1877 [266] K [2.45 σ]

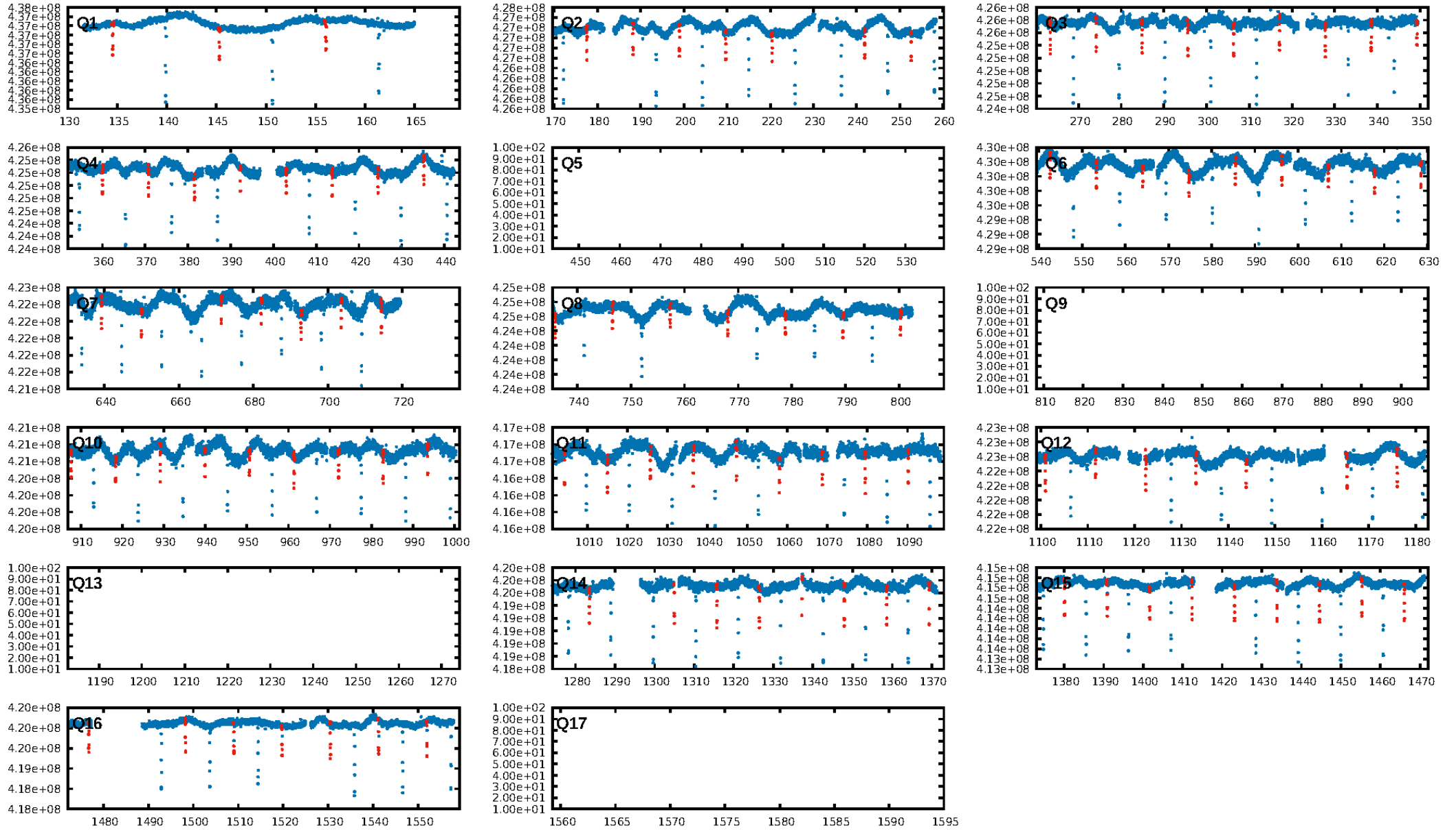
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.3% [0.00 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [95/95]
GhostDiagnostic-chr: 8.606
Centroid-sig: 0.0%
Centroid-so: 0.284 arcsec [3.95 σ]
OotOffset-rm: 0.475 arcsec [4.88 σ]
KicOffset-rm: 0.491 arcsec [4.51 σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

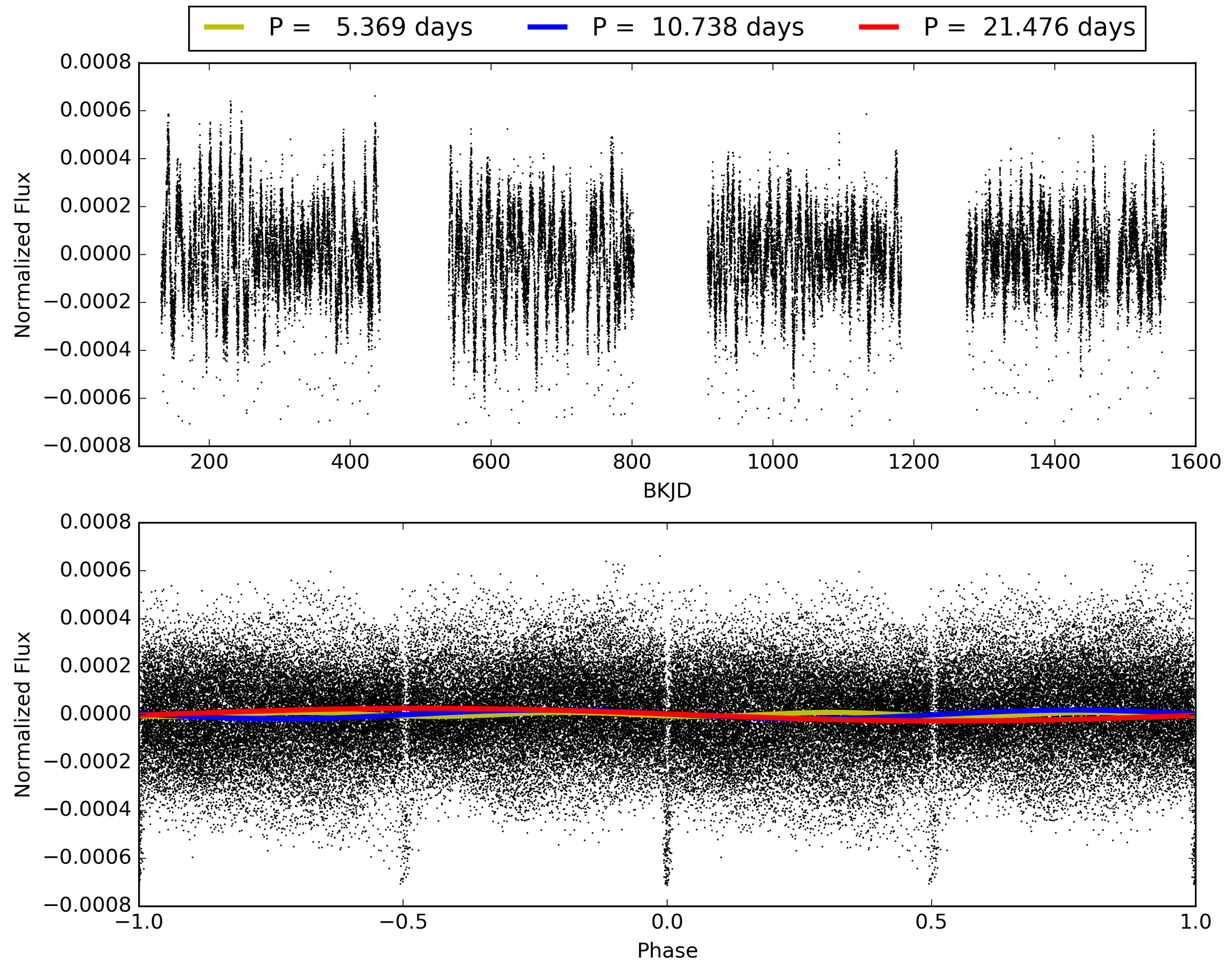
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 05:22:28 Z

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

TCE 005771589-02, PDC Light Curves

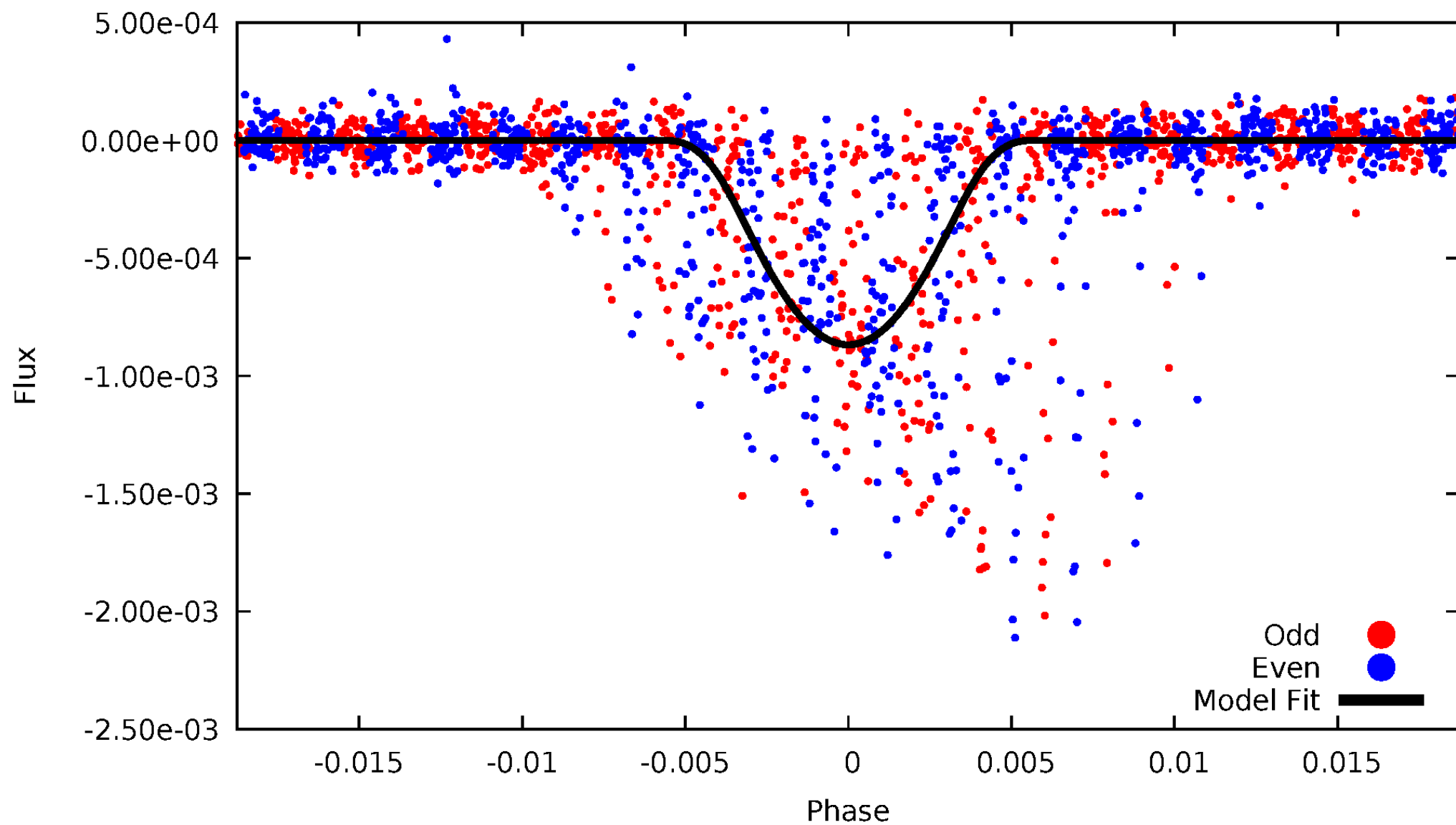


TCE 005771589-02



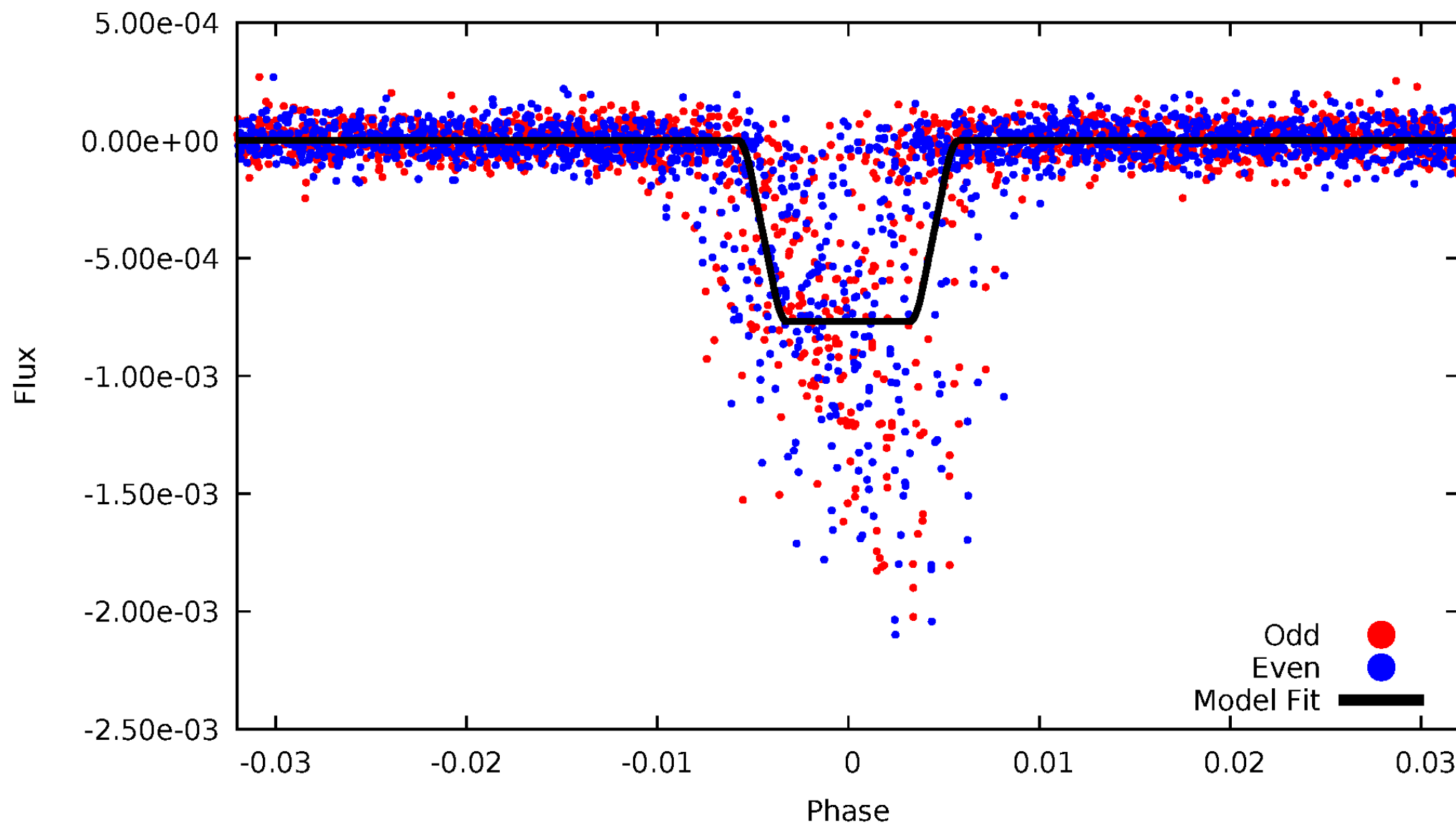
DV Odd/Even

TCE 005771589-02



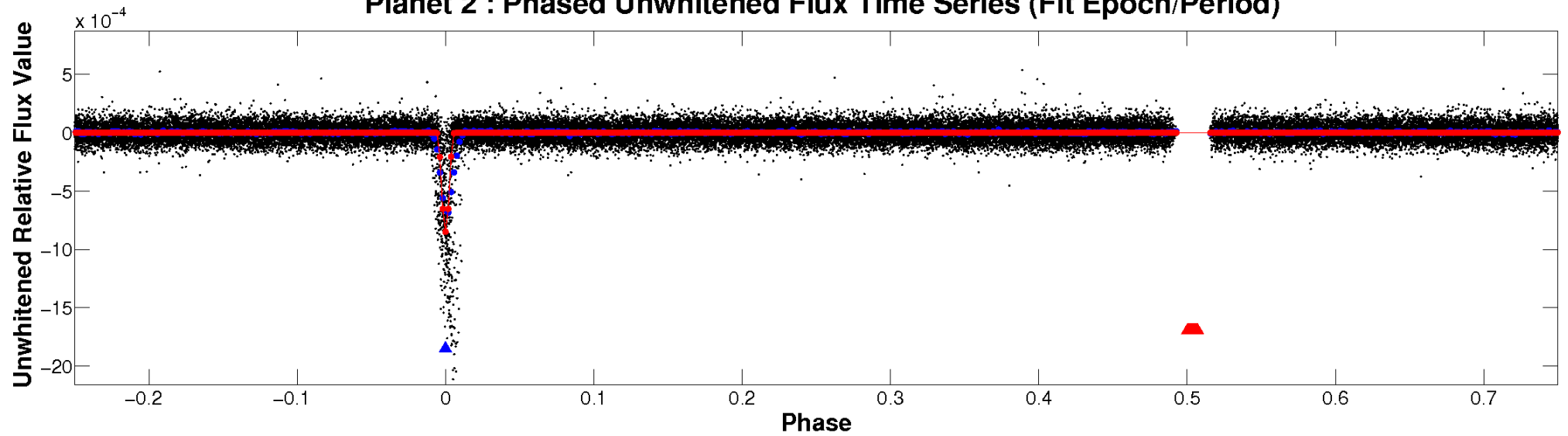
ALT Odd/Even

TCE 005771589-02

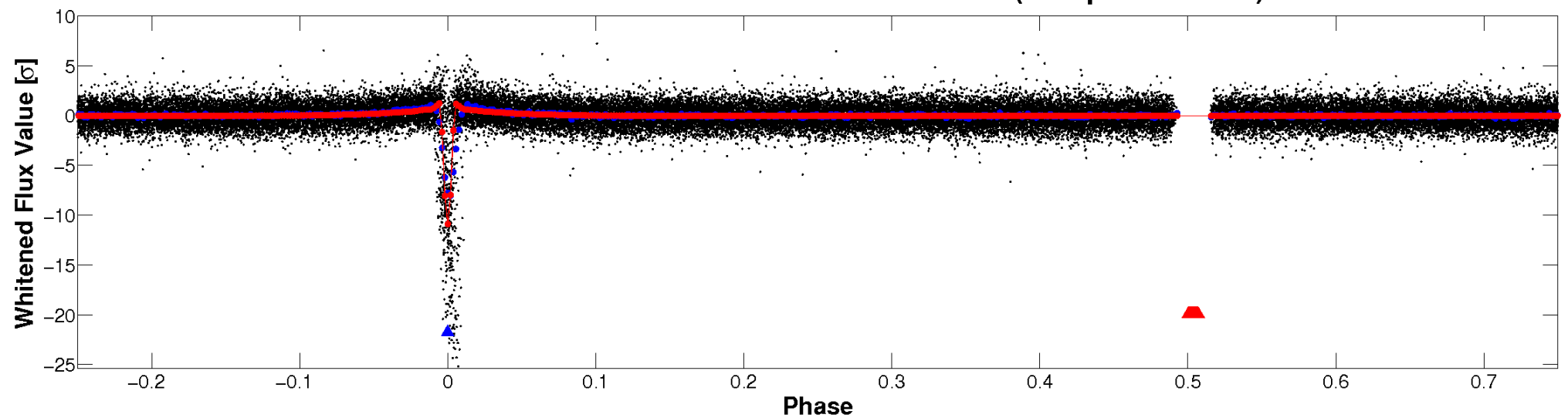


Non-Whitened Vs. Whitened Light Curve

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

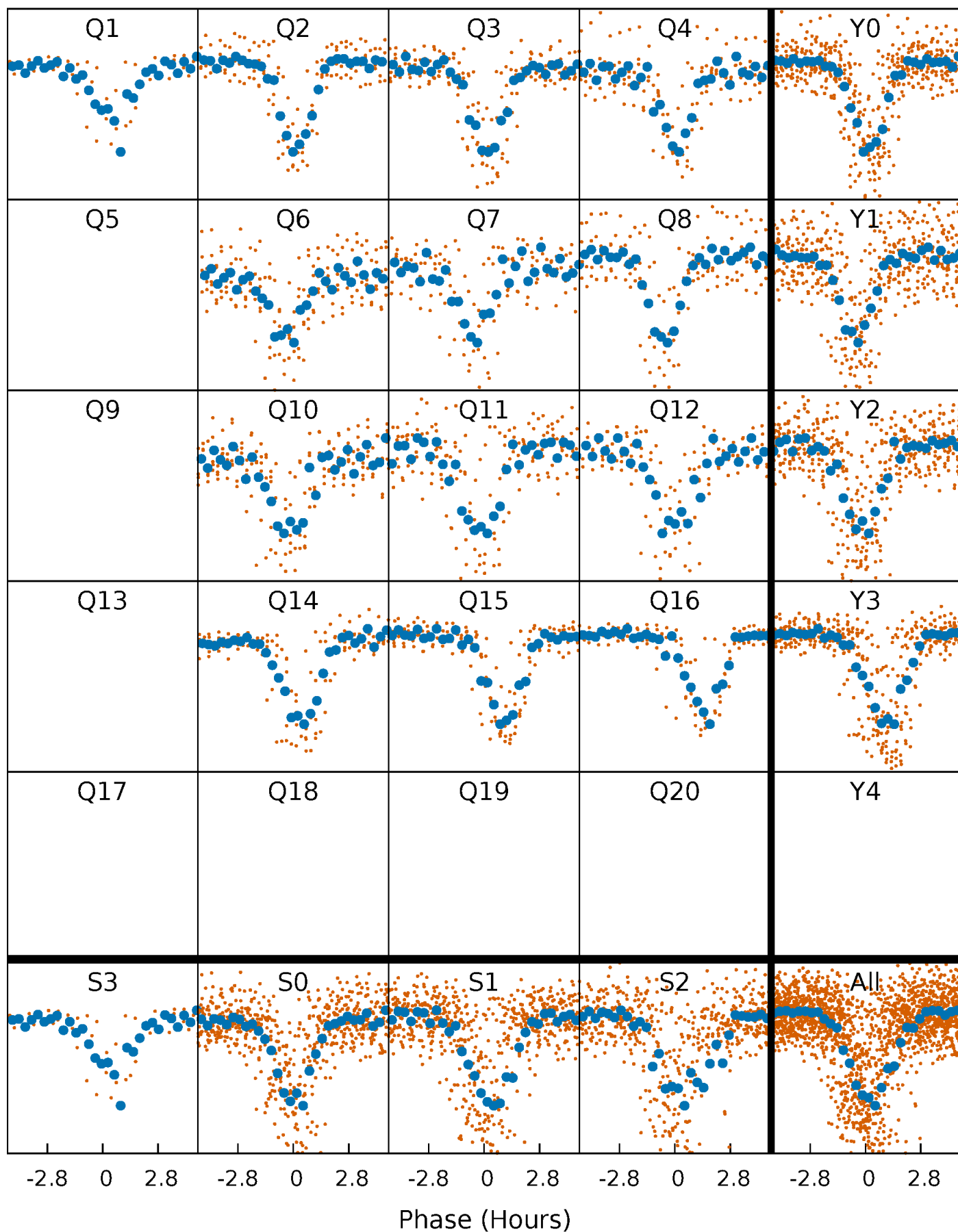


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



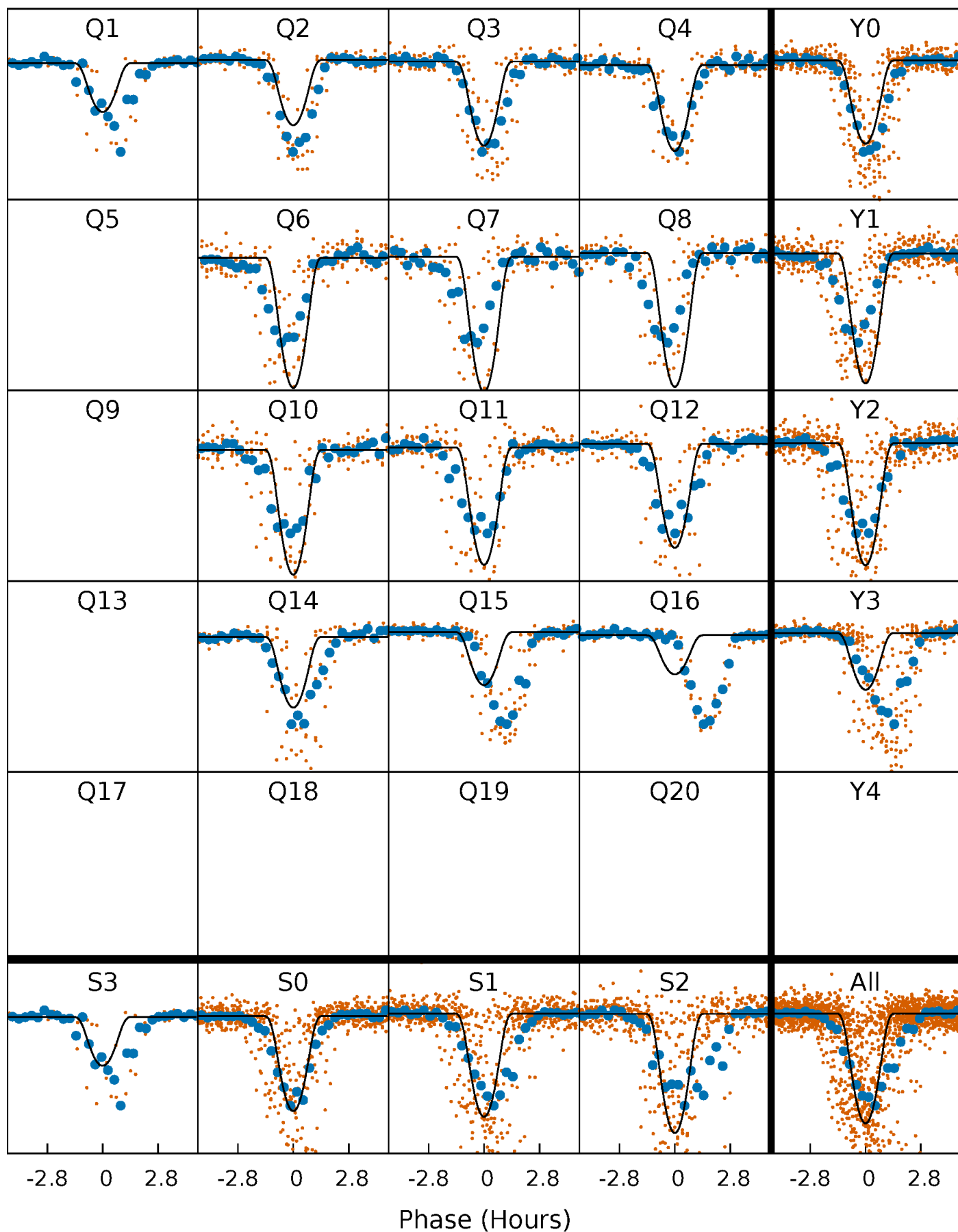
PDC Quarter-Phased Transit Curves

TCE 005771589-02 P= 10.737786 Days $T_0=134.529494$ (BKJD)



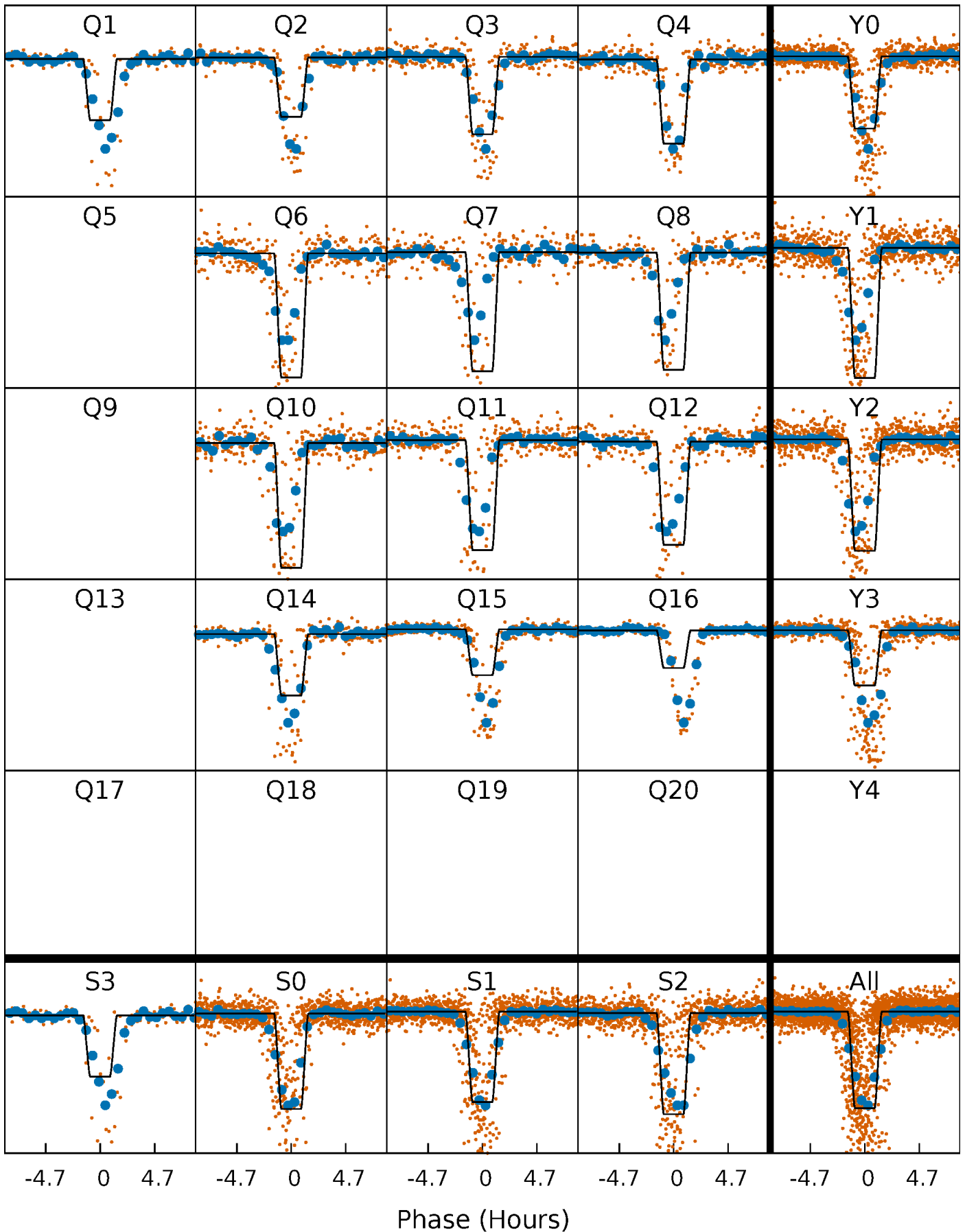
DV Quarter-Phased Transit Curves

TCE 005771589-02 $P = 10.737786$ Days $T_0 = 134.529494$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

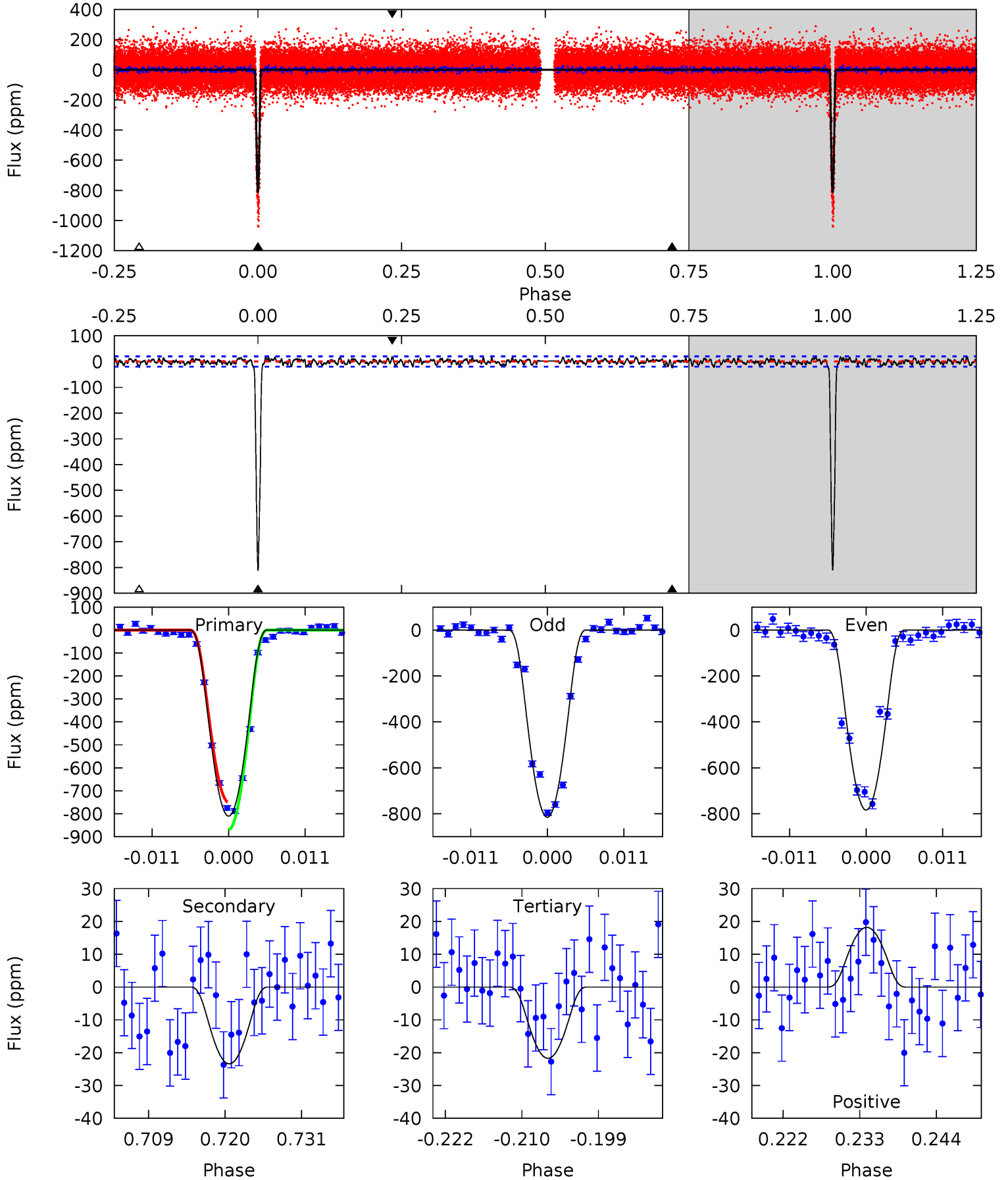
TCE 005771589-02 P= 10.738028 Days $T_0=134.526059$ (BKJD)



DV Model-Shift Uniqueness Test

005771589-02, $P = 10.737786$ Days, $E = 123.791708$ Days

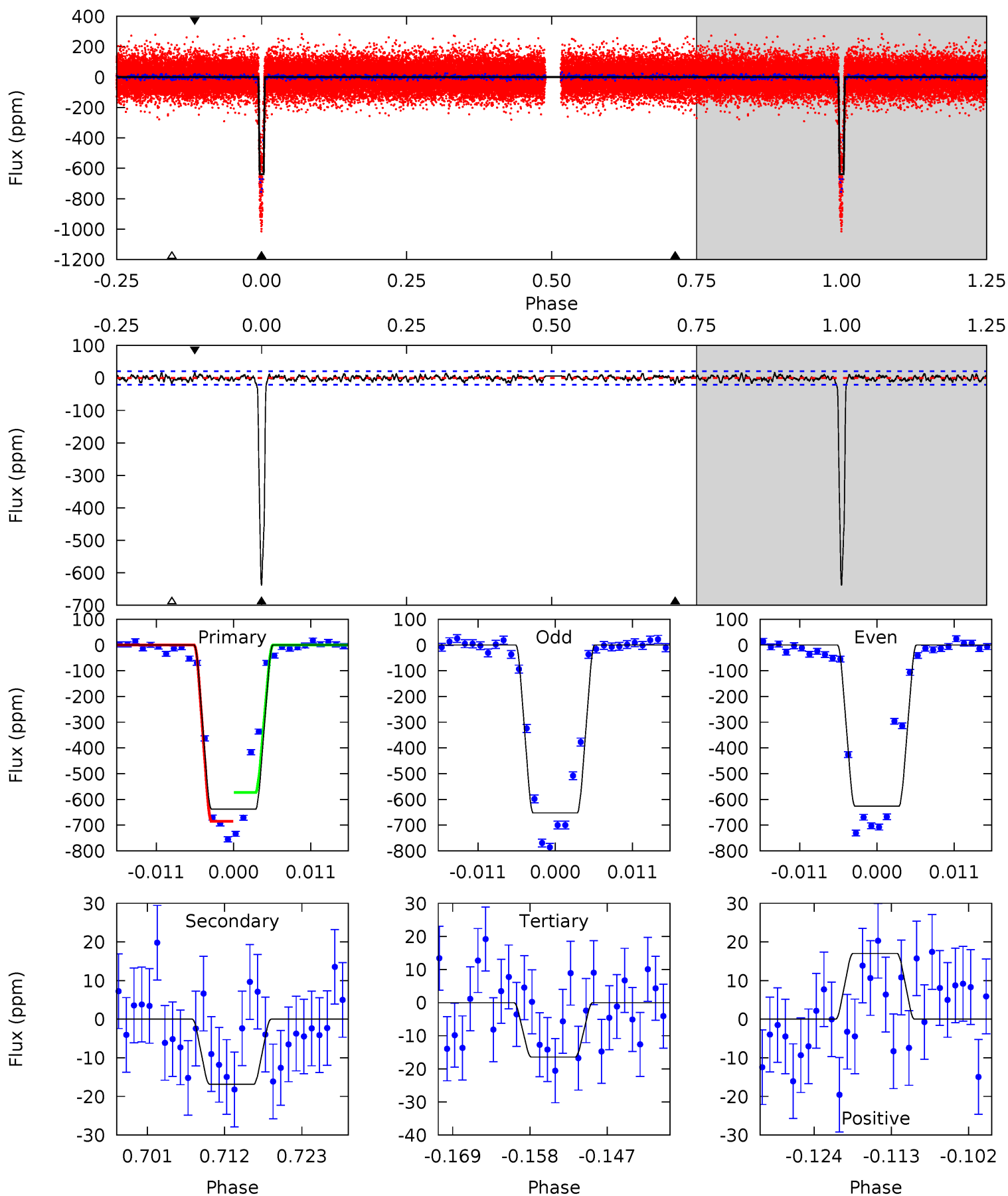
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
204.6	5.91	5.48	4.59	5.01	2.54	1.79	199.1	200.0	0.42	1.32	3.99	1.00	0.02	0



Alt Model-Shift Uniqueness Test

005771589-02, P = 10.738028 Days, E = 123.788031 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
153.9	4.07	3.96	4.10	5.00	2.53	1.31	149.9	149.8	0.10	-0.04	3.13	1.03	0.03	0



Stellar Parameters For KIC 005771589

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6180^{+173}_{-173}	$4.007^{+0.292}_{-0.117}$	$-0.340^{+0.350}_{-0.250}$	$1.686^{+0.335}_{-0.503}$	$1.053^{+0.179}_{-0.146}$	$0.310^{+0.514}_{-0.104}$
	+3%/-3%	+7%/-3%	+103%/-74%	+20%/-30%	+17%/-14%	+166%/-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 005771589-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-23 ± 4	$7.96^{+2.63}_{-2.27}$	1560^{+103}_{-115}	2708^{+276}_{-224}	$1.928^{+1.854}_{-0.860}$
Alt.	-17 ± 4	$4.78^{+2.47}_{-2.03}$	1562^{+103}_{-128}	3003^{+562}_{-350}	$3.806^{+7.353}_{-2.217}$

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

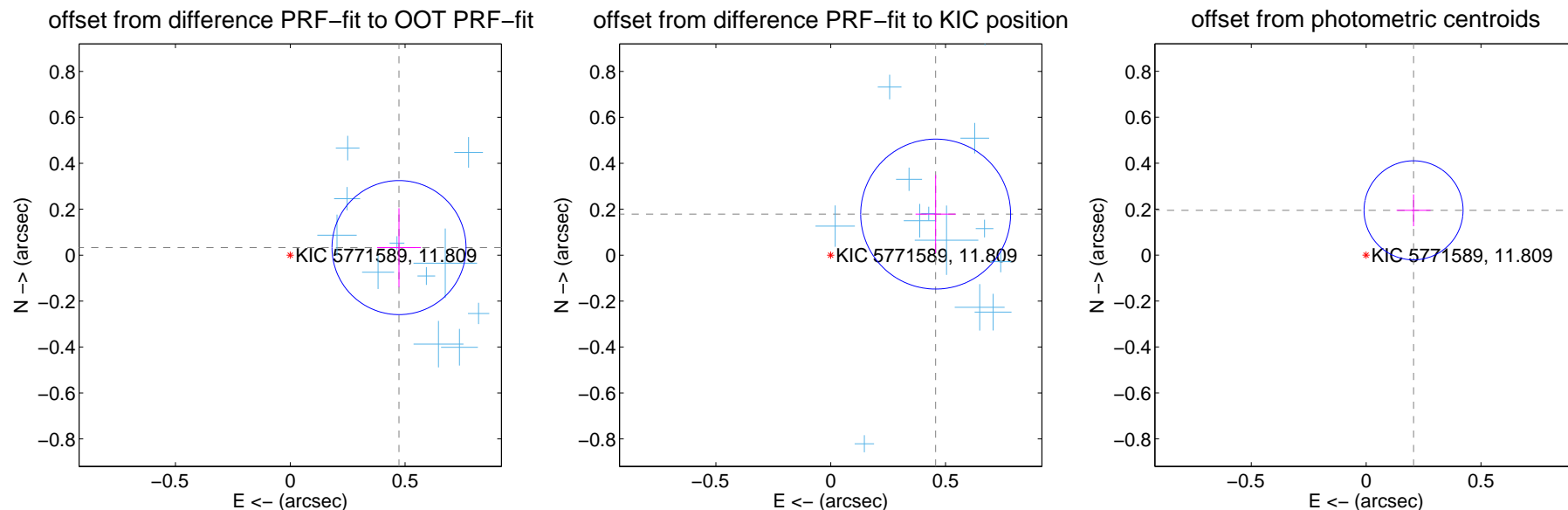
DV Centroid Data

Supplemental centroid analysis for 005771589-02. **Kepler magnitude: 11.81.** Transit SNR 104.07

There are 13 quarters with good PRF difference image offsets

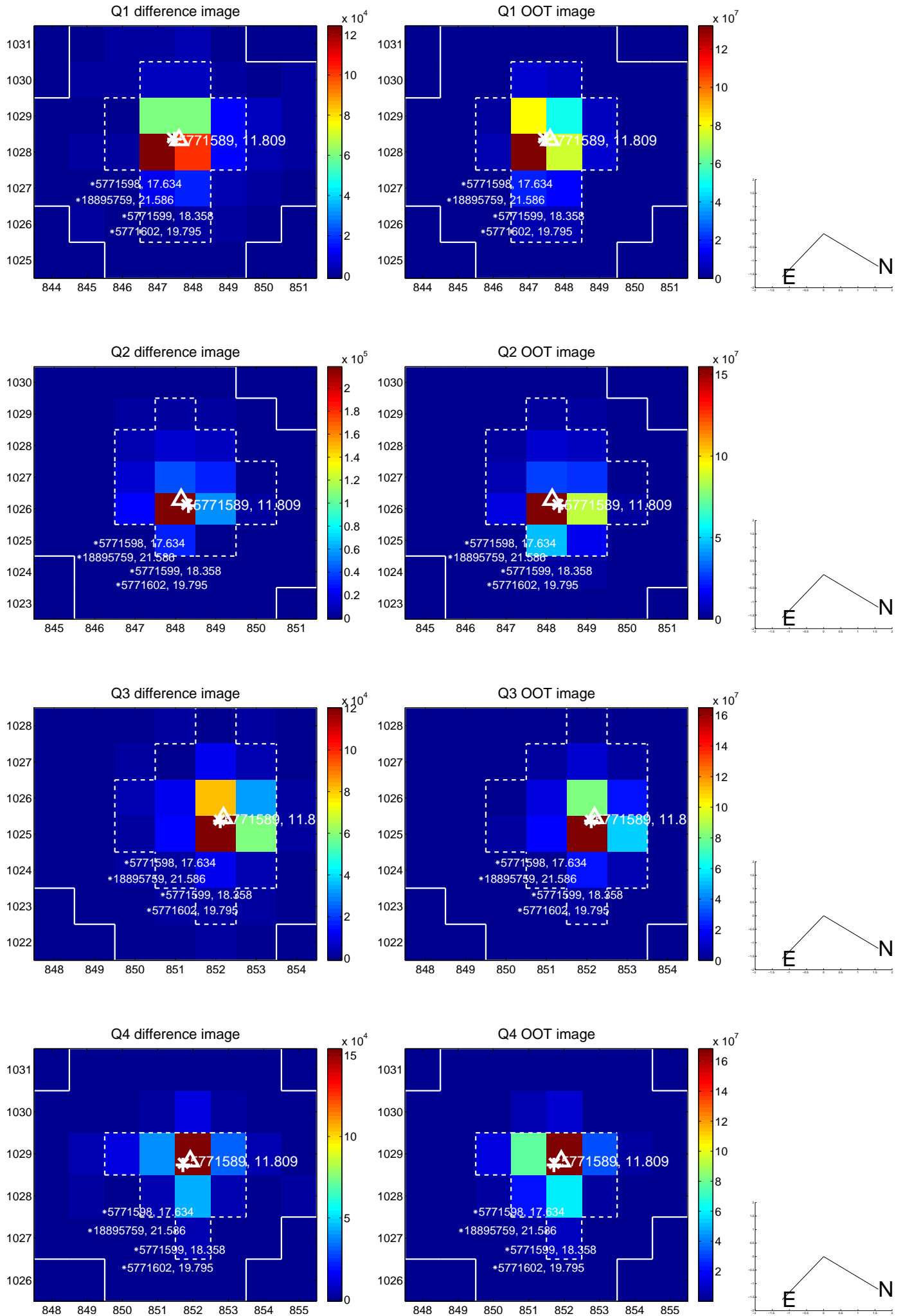
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.475 ± 0.097	4.88	-0.474 ± 0.095	0.033 ± 0.172
PRF-fit source offset from KIC position	0.491 ± 0.109	4.51	-0.457 ± 0.087	0.179 ± 0.170
photometric centroid source offset	0.28 ± 0.07	3.95	-0.21 ± 0.07	0.19 ± 0.07

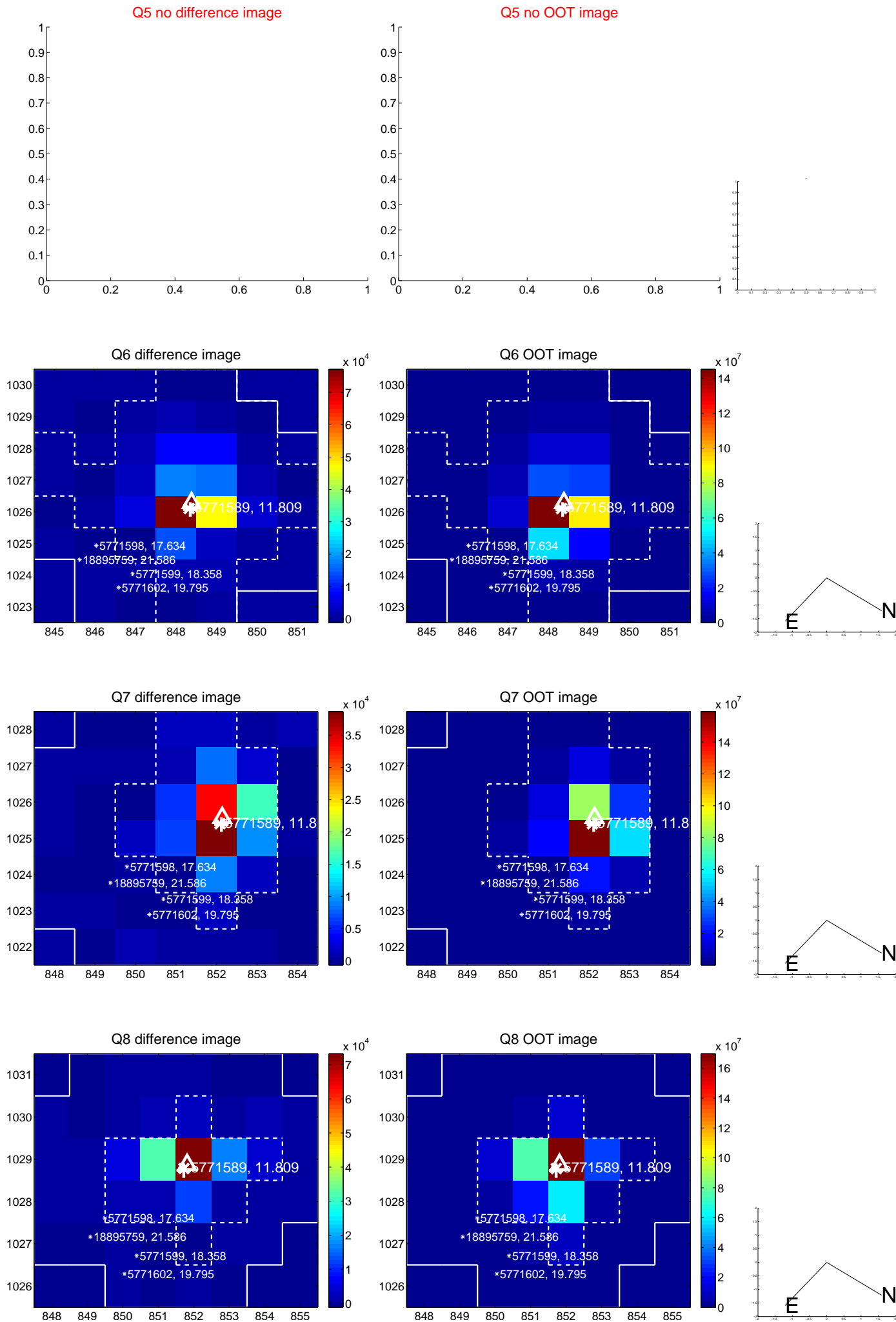


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

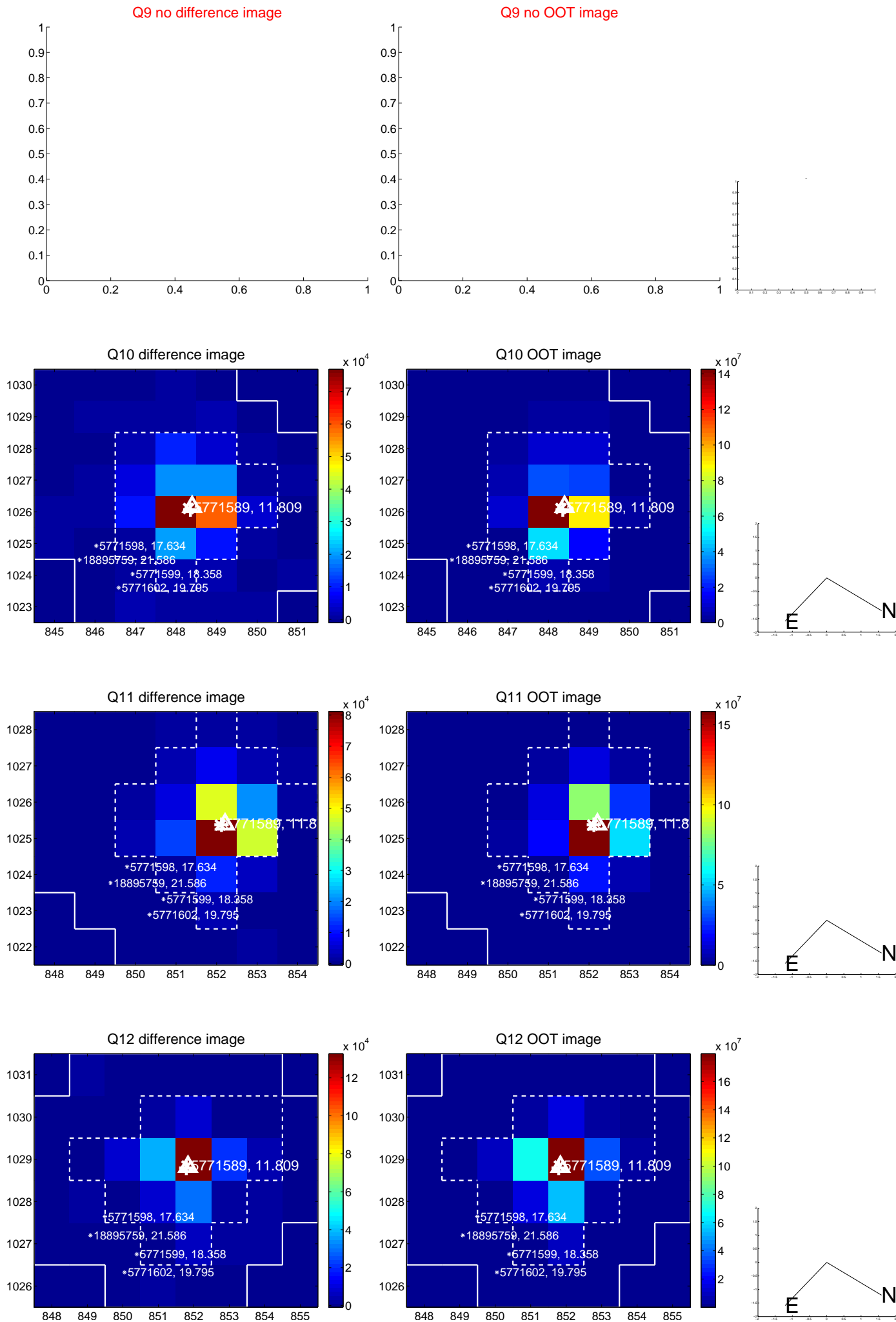
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



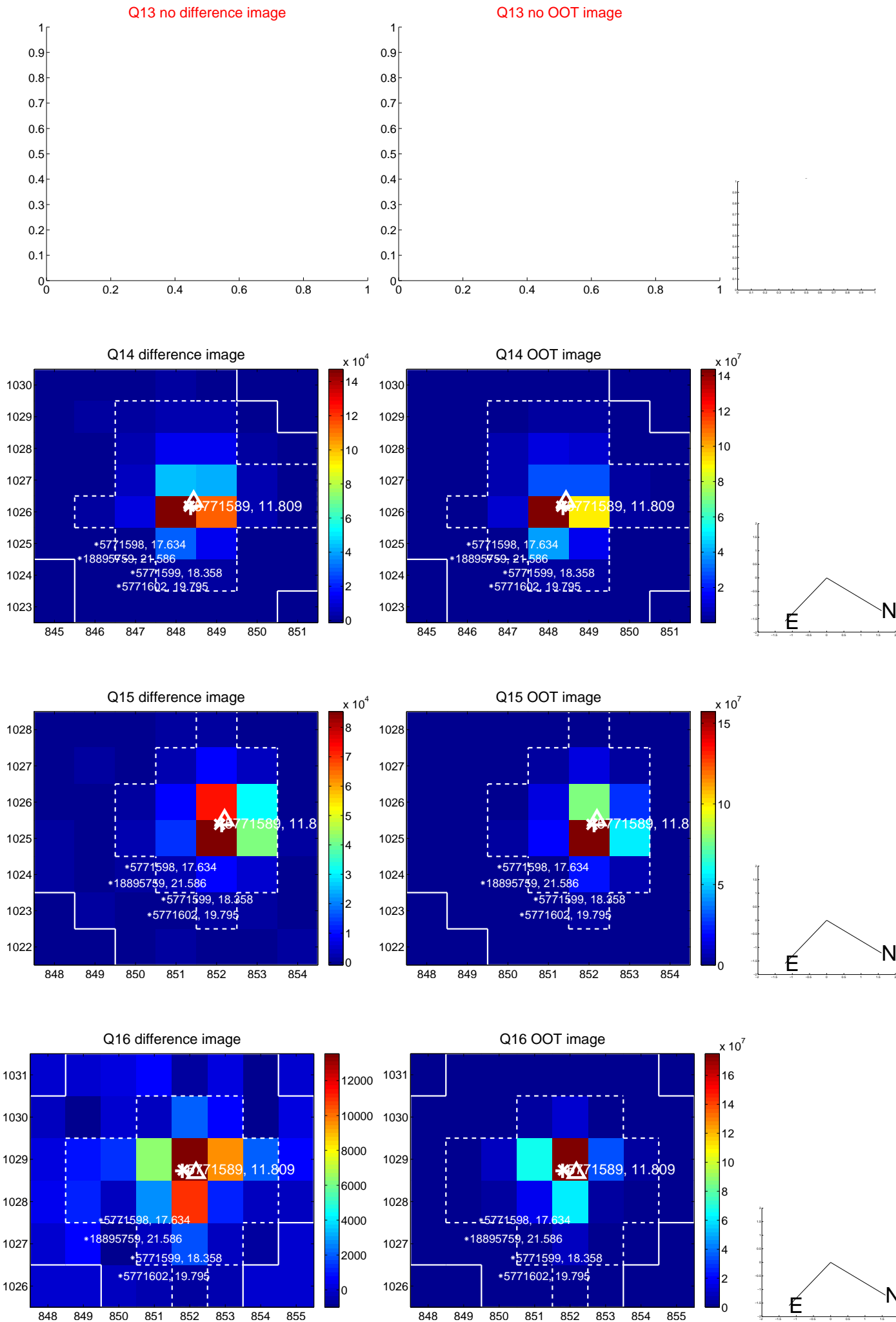
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



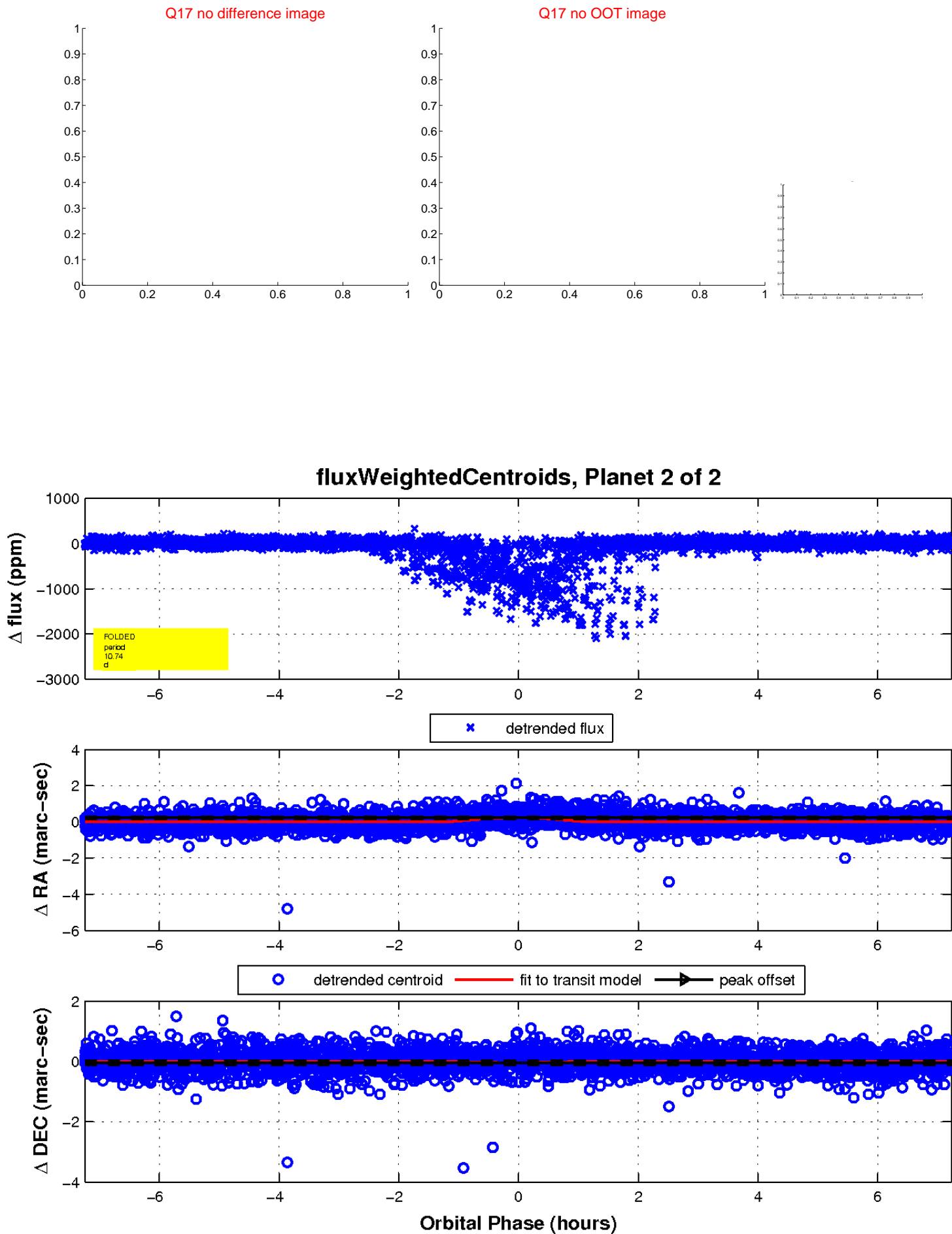
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

