

KIC 005179609

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})
005179609-01	OBS	5132.01	43.931152	134.214148	9300.3	12.930	634.3	649.4	5.13	4888	58.47	157.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179609-01	OBS	PC	0.95	0	0	0	0	NO_COMMENT

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

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

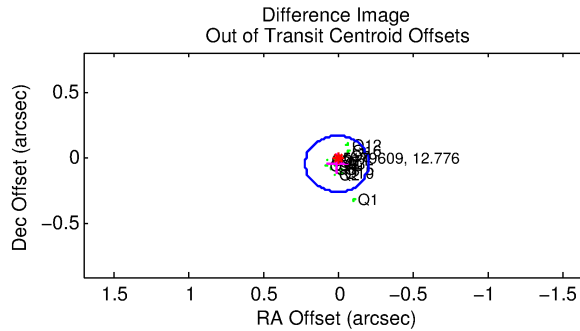
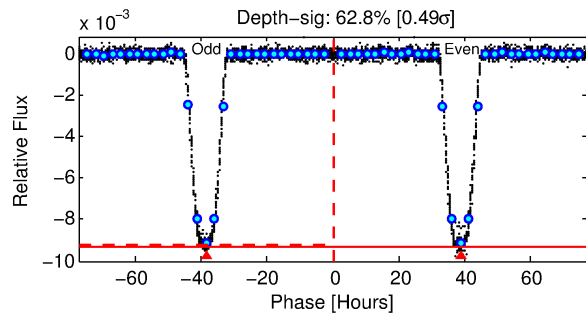
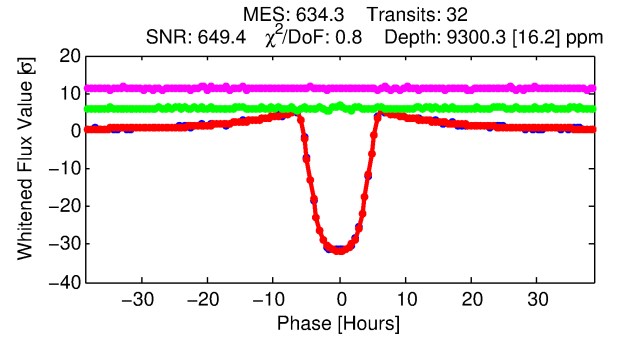
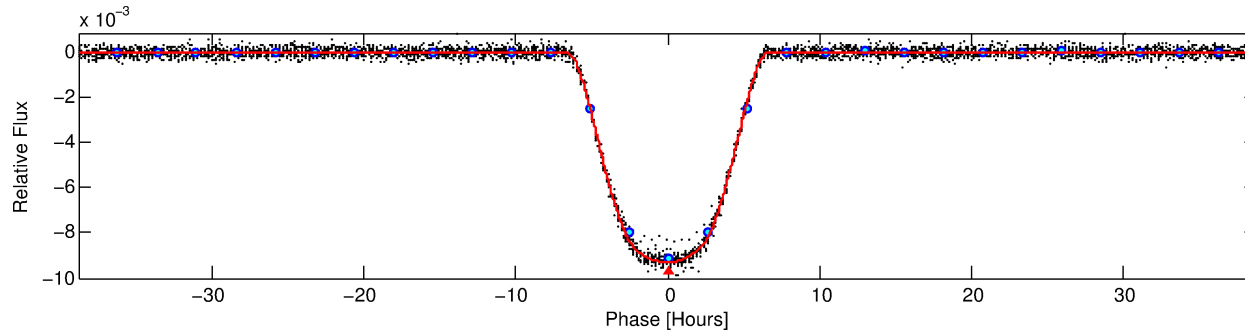
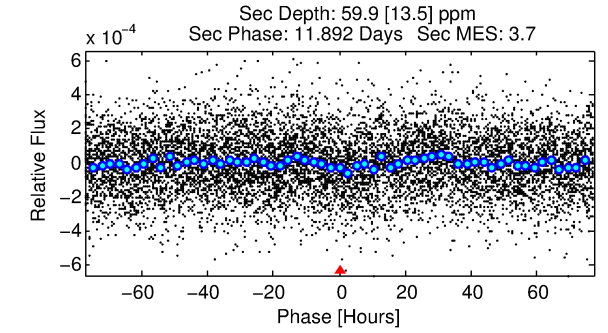
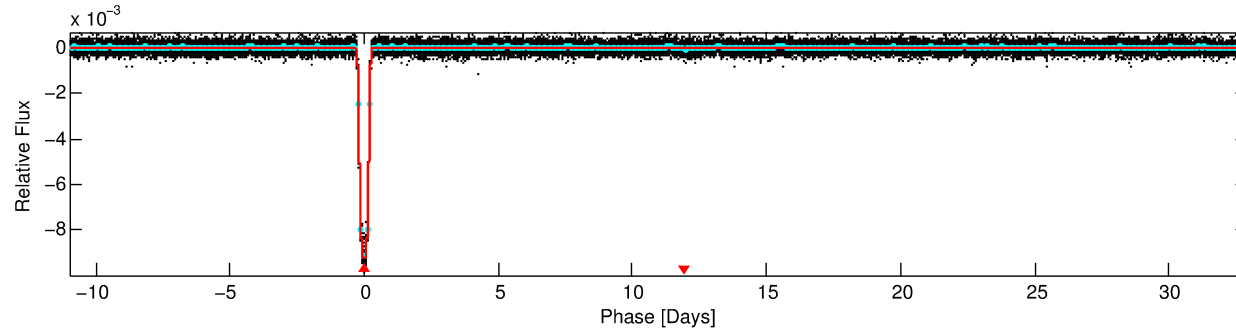
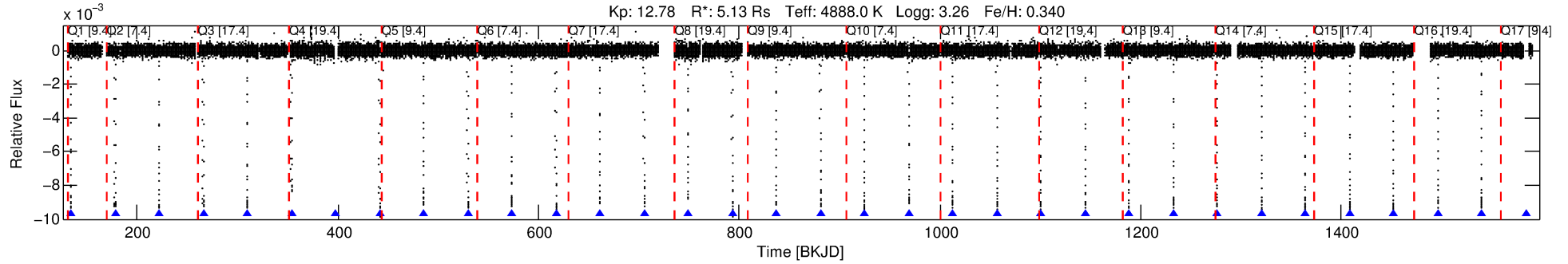
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005179609-01

No Significant Match Found

DV One-Page Summary

KIC: 5179609 Candidate: 1 of 1 Period: 43.931 d
KOI: K05132.01 Corr: 1.000



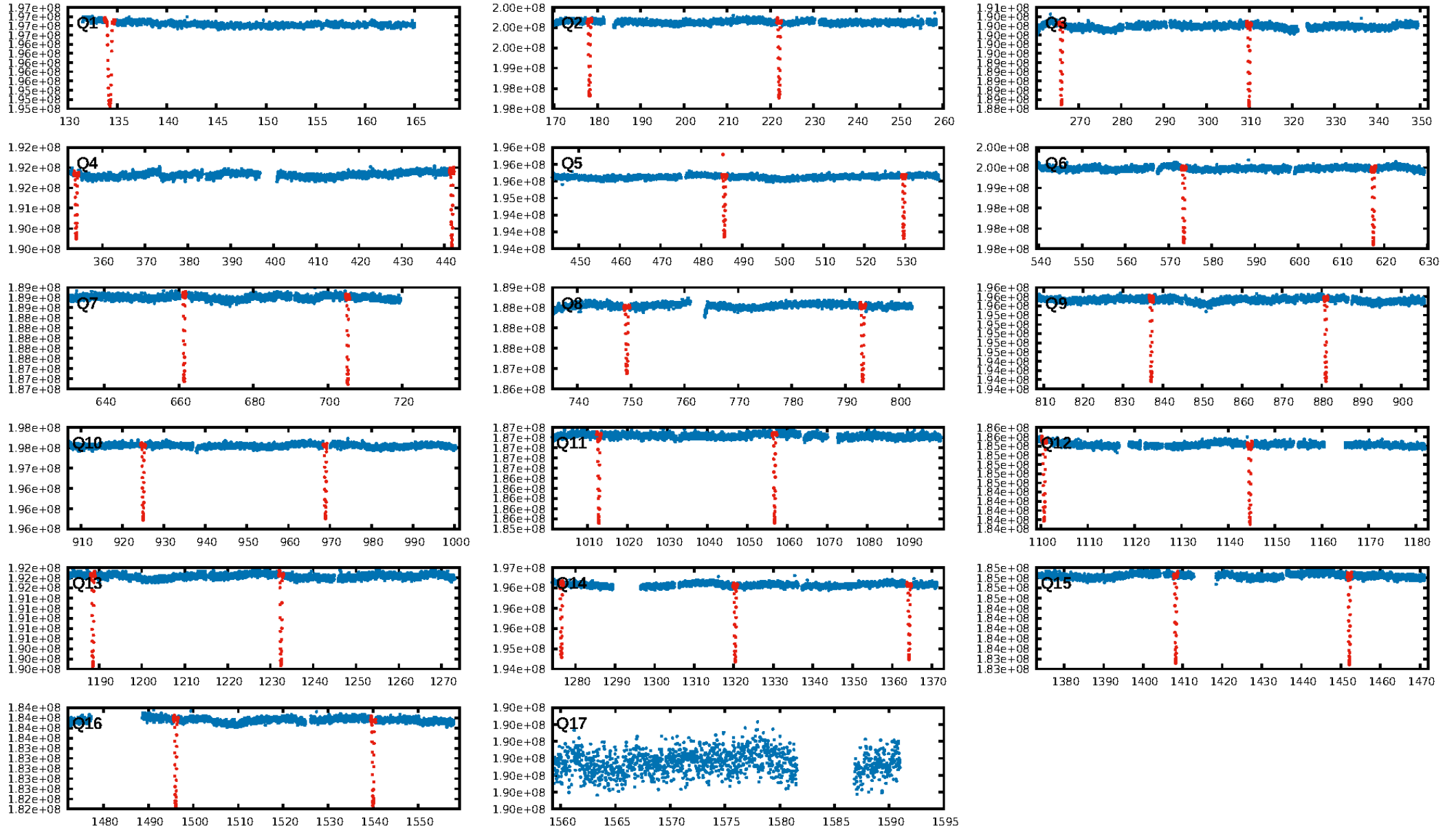
DV Fit Results:

Period = 43.93115 [0.00002] d
Epoch = 134.2141 [0.0004] BKJD
Rp/R* = 0.1044 [0.0002]
a/R* = 18.08 [0.05]
b = 0.86 [0.00]
Seff = 157.00 [56.45]
Teq = 903 [81] K
Rp = 58.47 [17.17] Re
a = 0.2929 [0.0712] AU
Ag = 0.83 [0.34] [-0.50 σ]
Teffp = 1331 [81] K [3.75 σ]

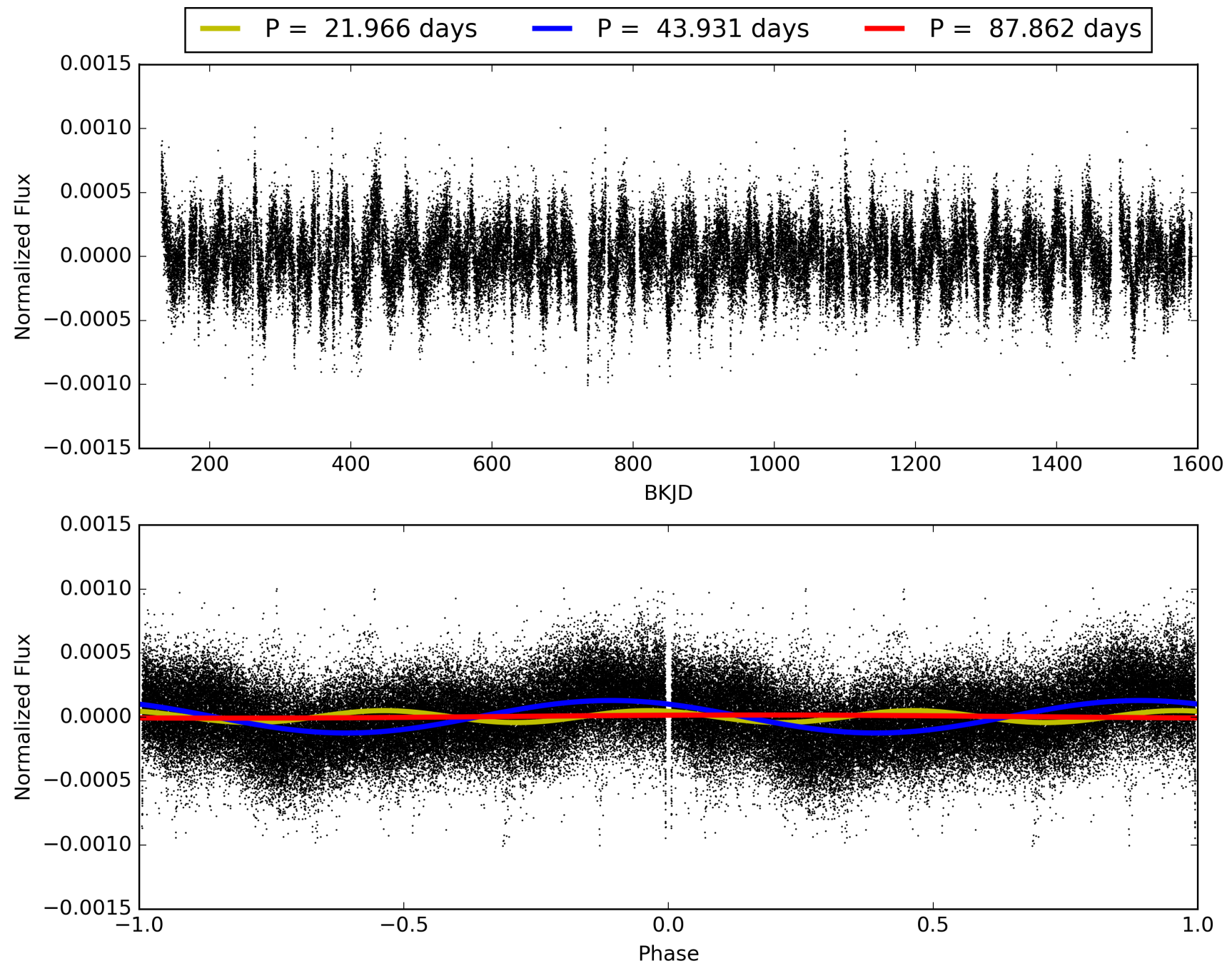
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [31/31]
GhostDiagnostic-chr: 5.511
Centroid-sig: 0.0%
Centroid-so: 0.290 arcsec [35.64 σ]
OotOffset-rm: 0.044 arcsec [0.63 σ]
KicOffset-rm: 0.122 arcsec [1.71 σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 005179609-01, PDC Light Curves

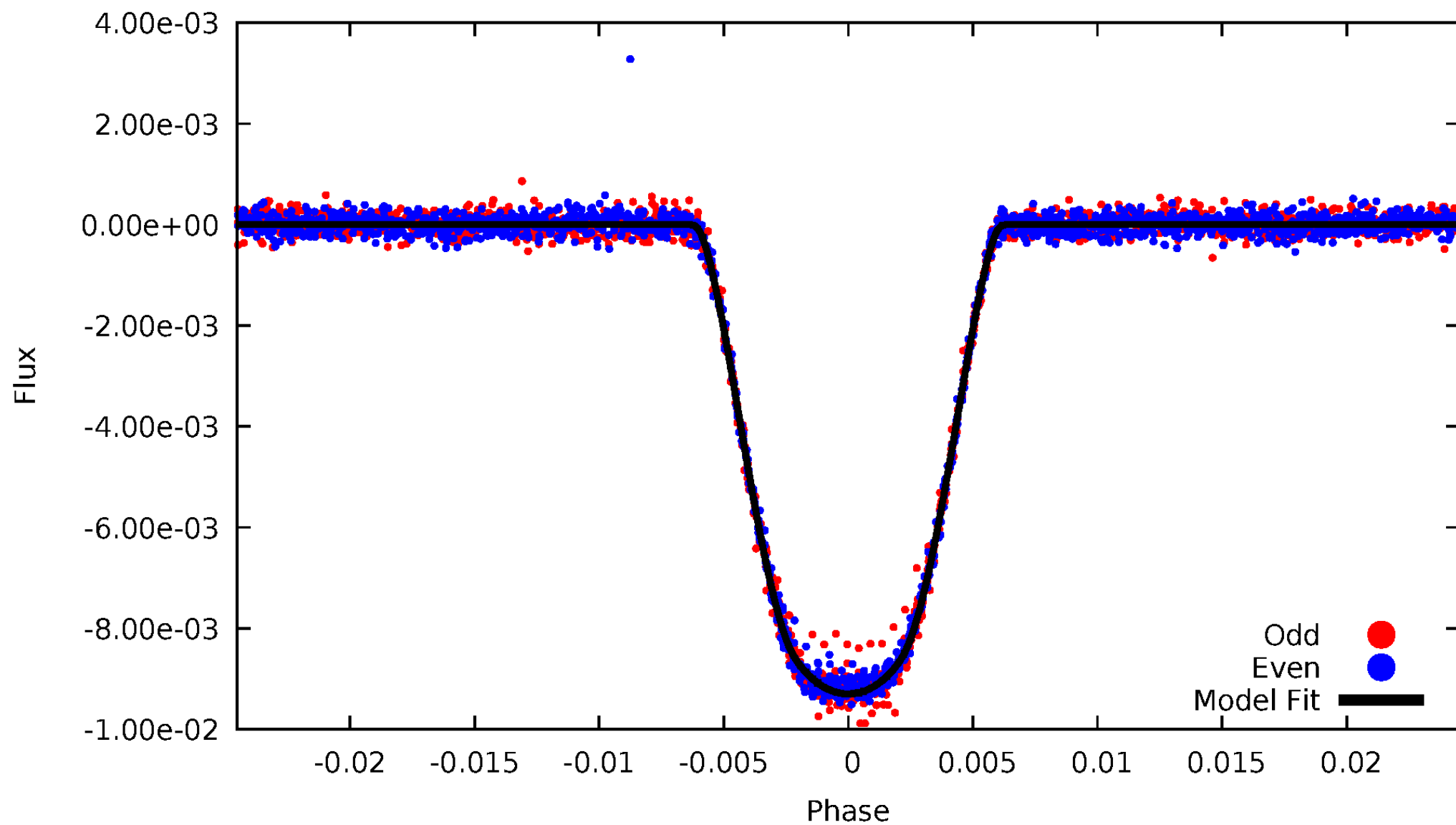


TCE 005179609-01



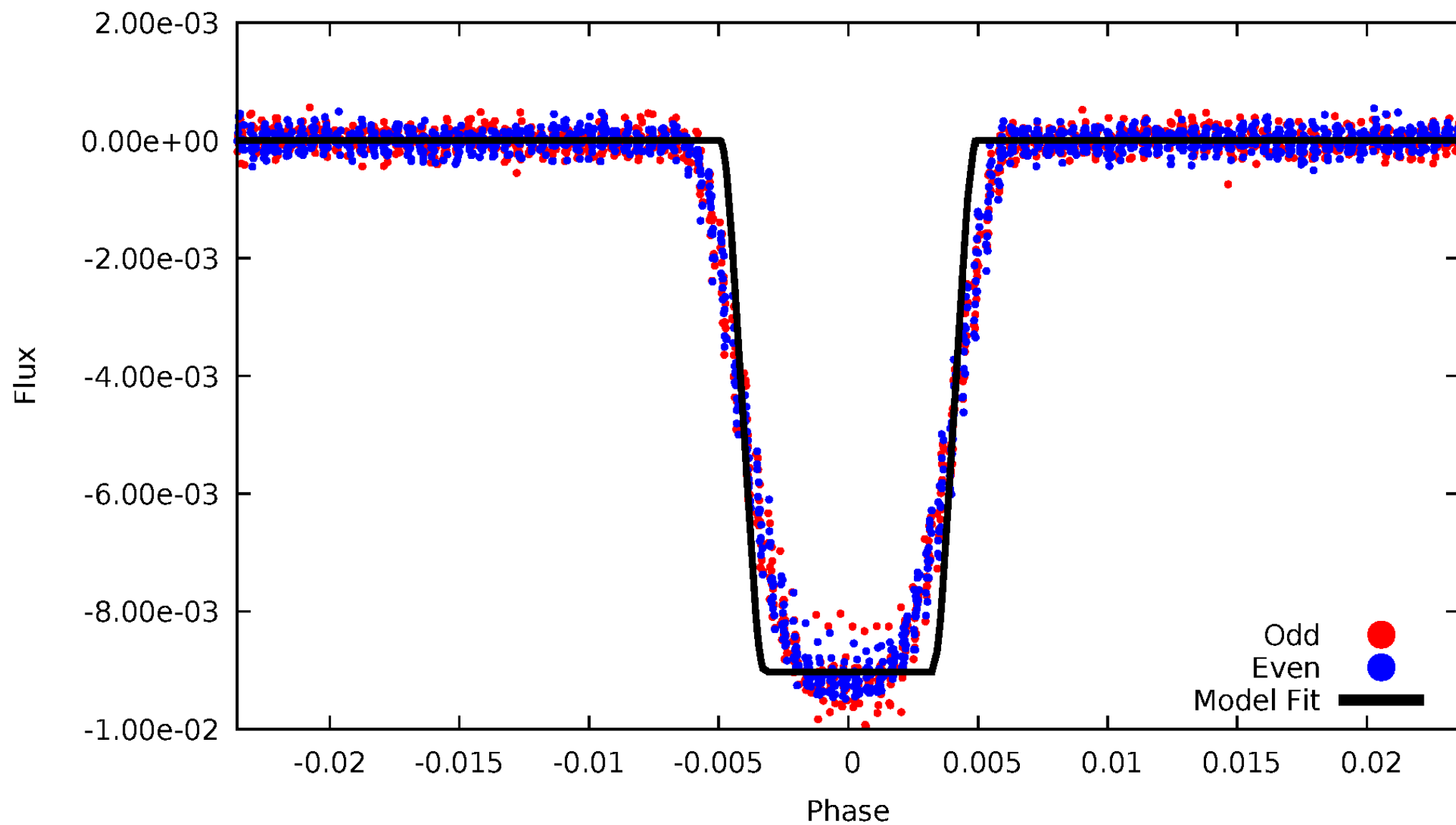
DV Odd/Even

TCE 005179609-01

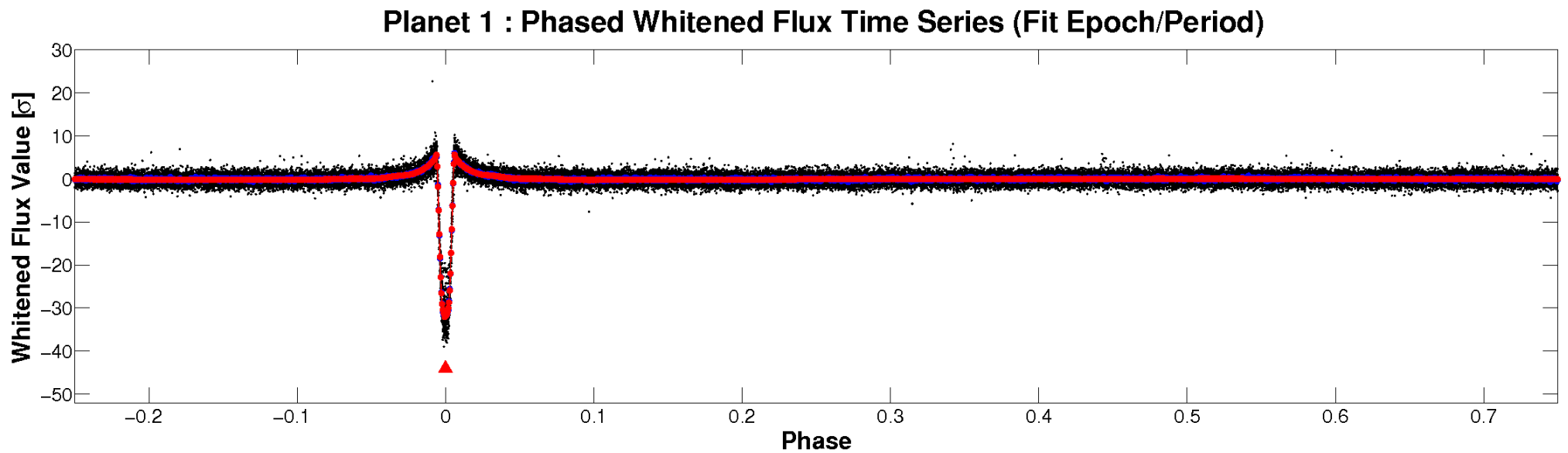
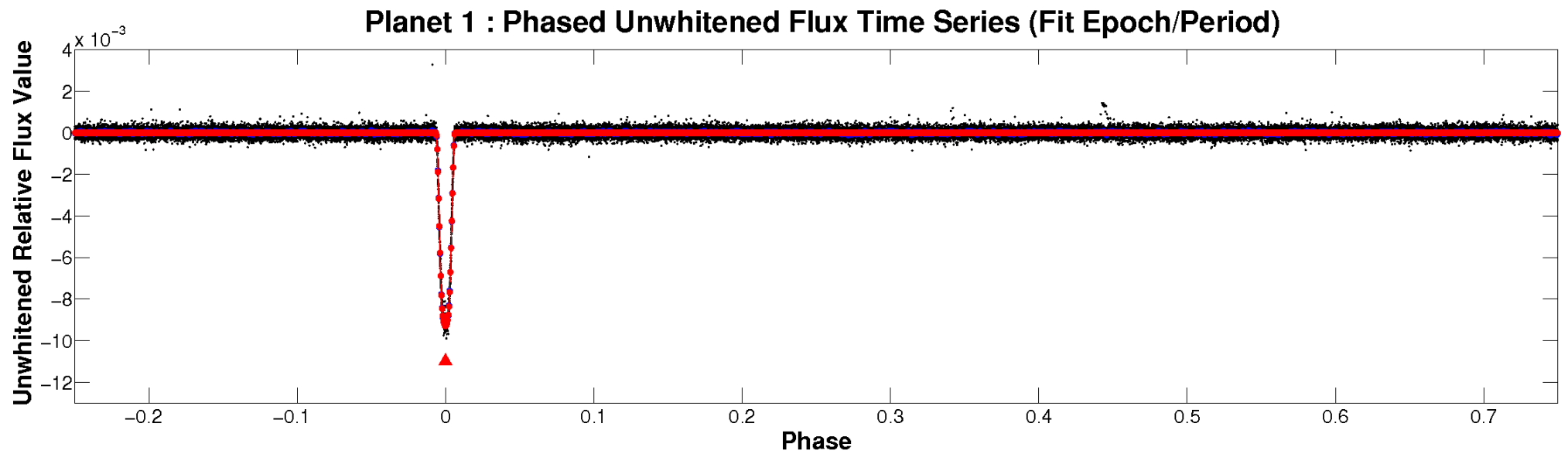


ALT Odd/Even

TCE 005179609-01

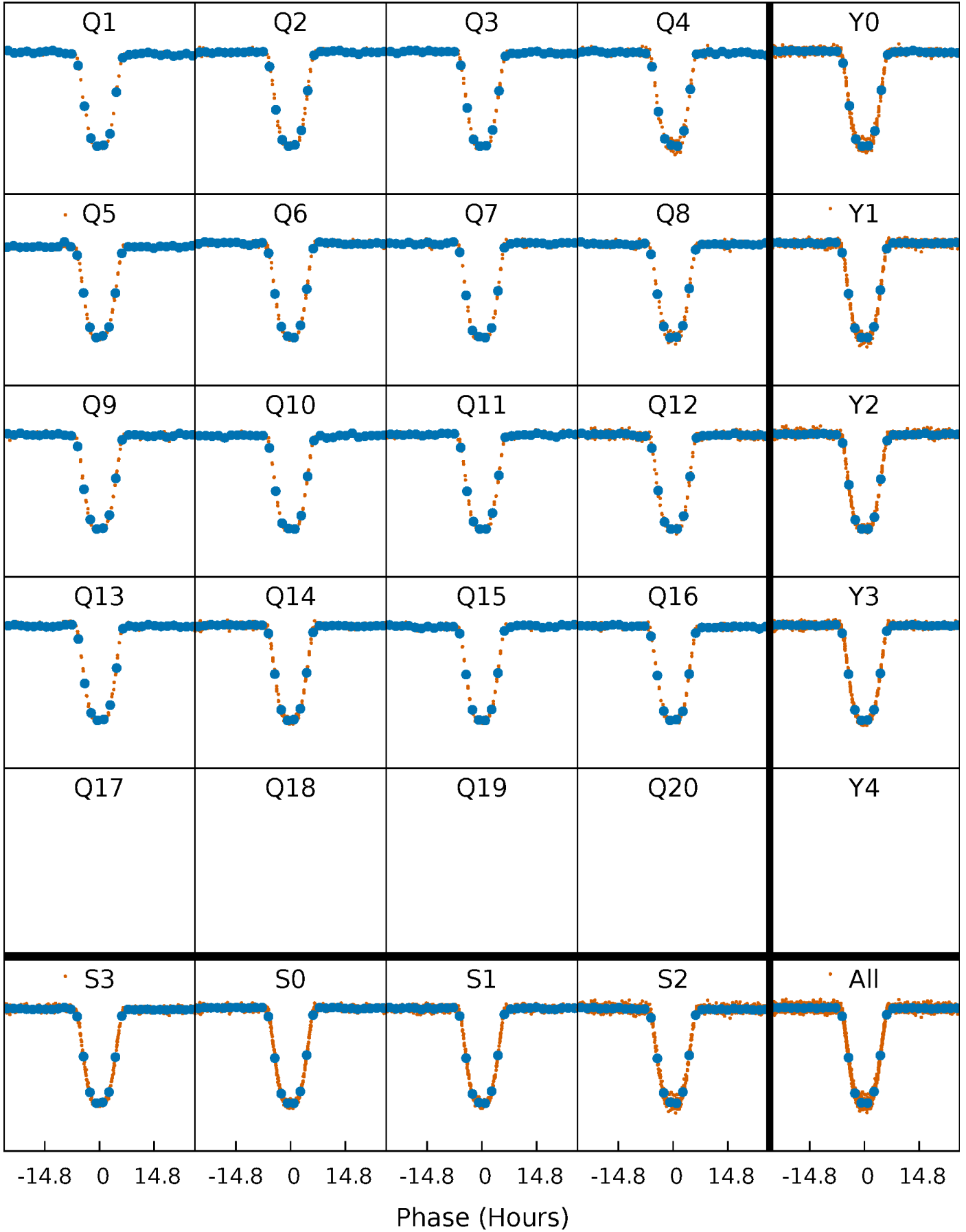


Non-Whitened Vs. Whitened Light Curve



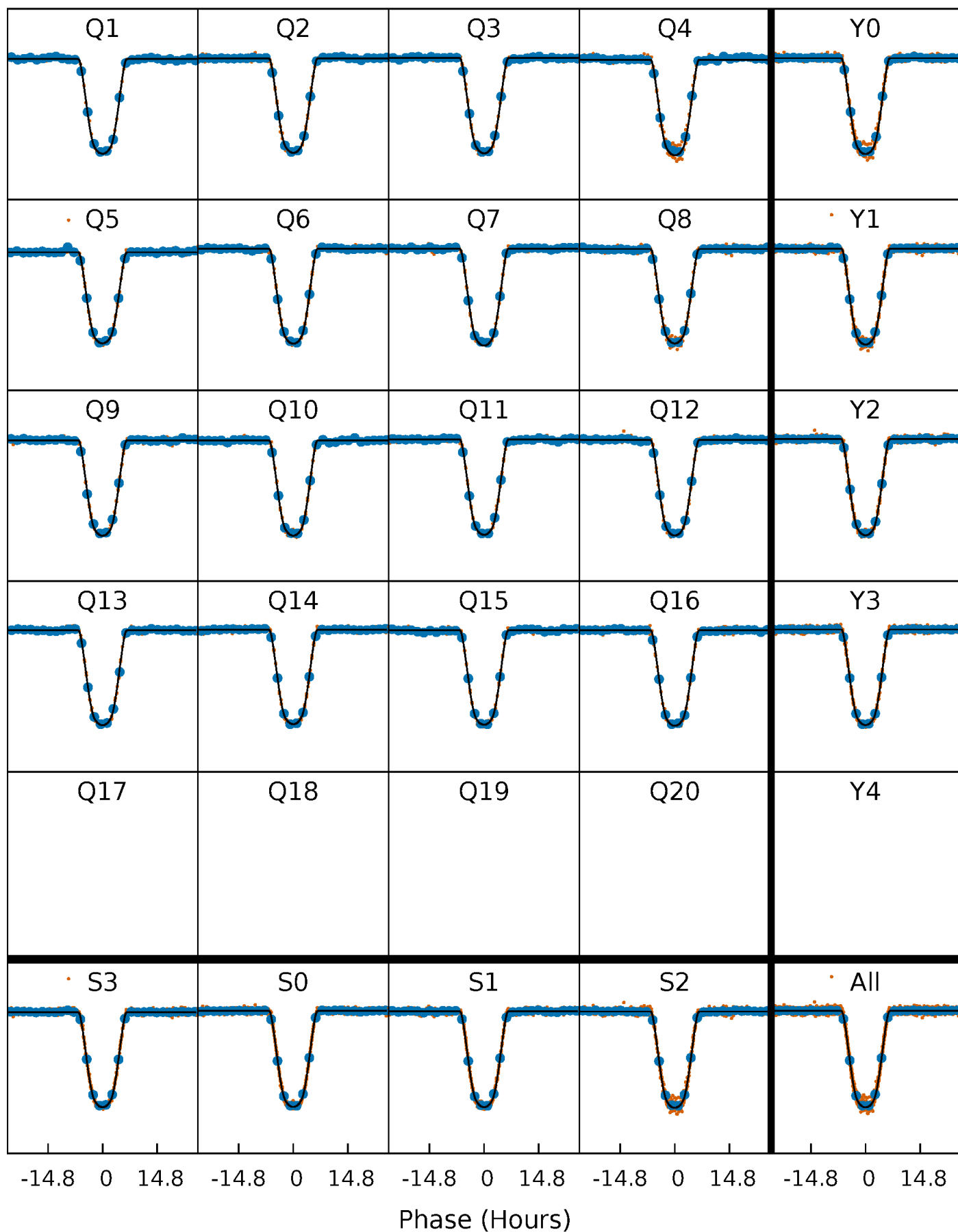
PDC Quarter-Phased Transit Curves

TCE 005179609-01 P= 43.931152 Days $T_0=134.214148$ (BKJD)



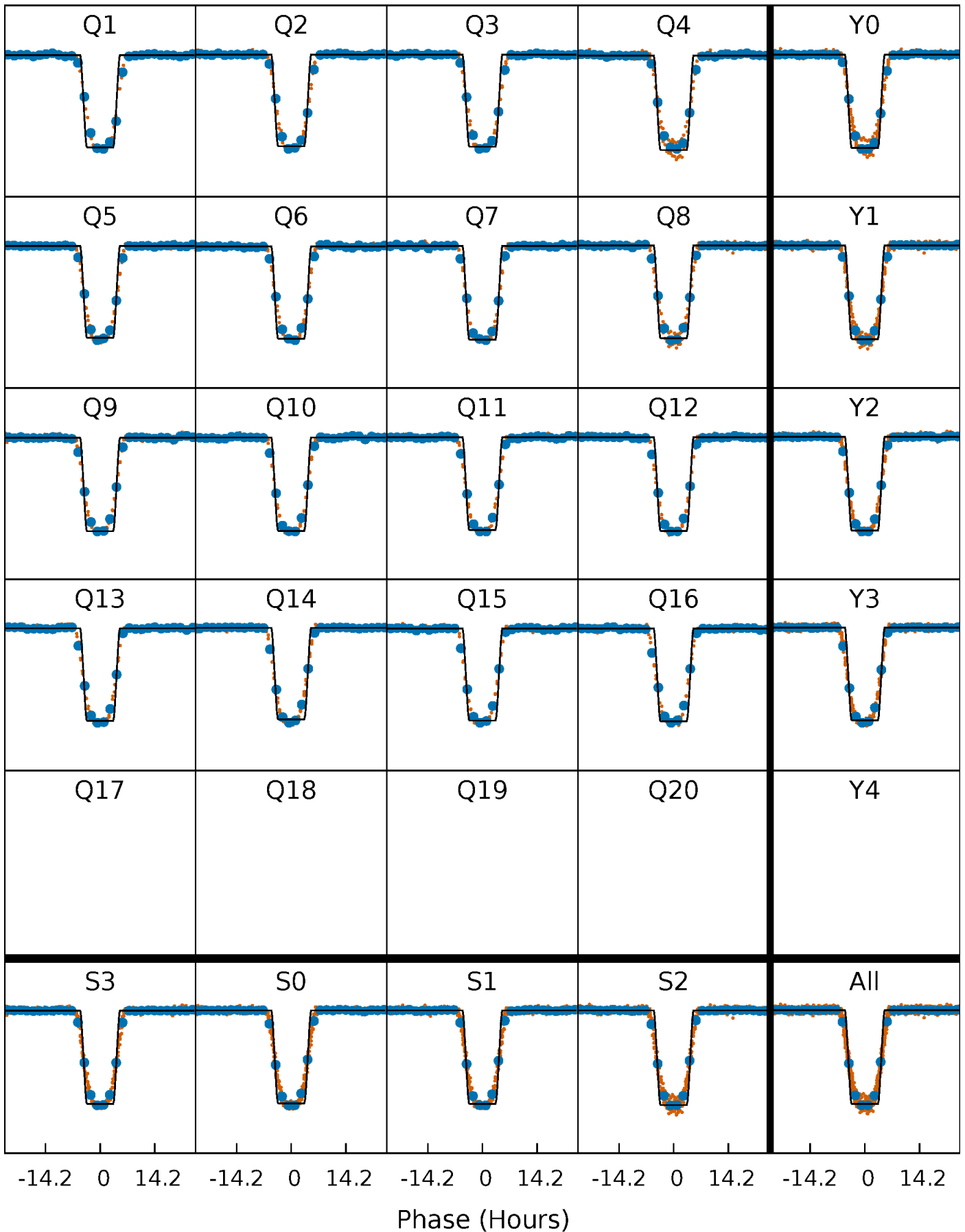
DV Quarter-Phased Transit Curves

TCE 005179609-01 P= 43.931152 Days $T_0=134.214148$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

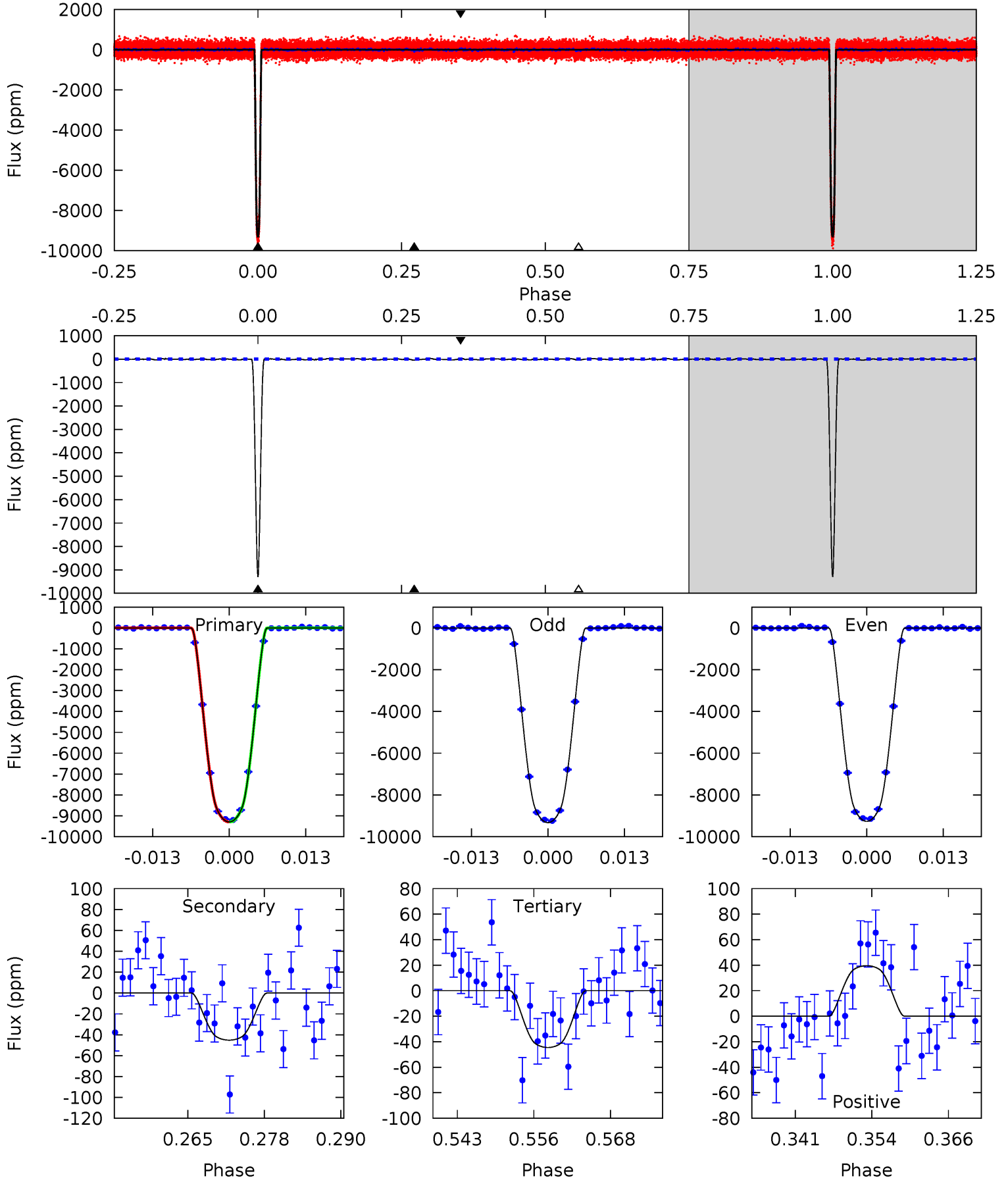
TCE 005179609-01 P= 43.931938 Days $T_0=134.201119$ (BKJD)



DV Model-Shift Uniqueness Test

005179609-01, P = 43.931152 Days, E = 90.282996 Days

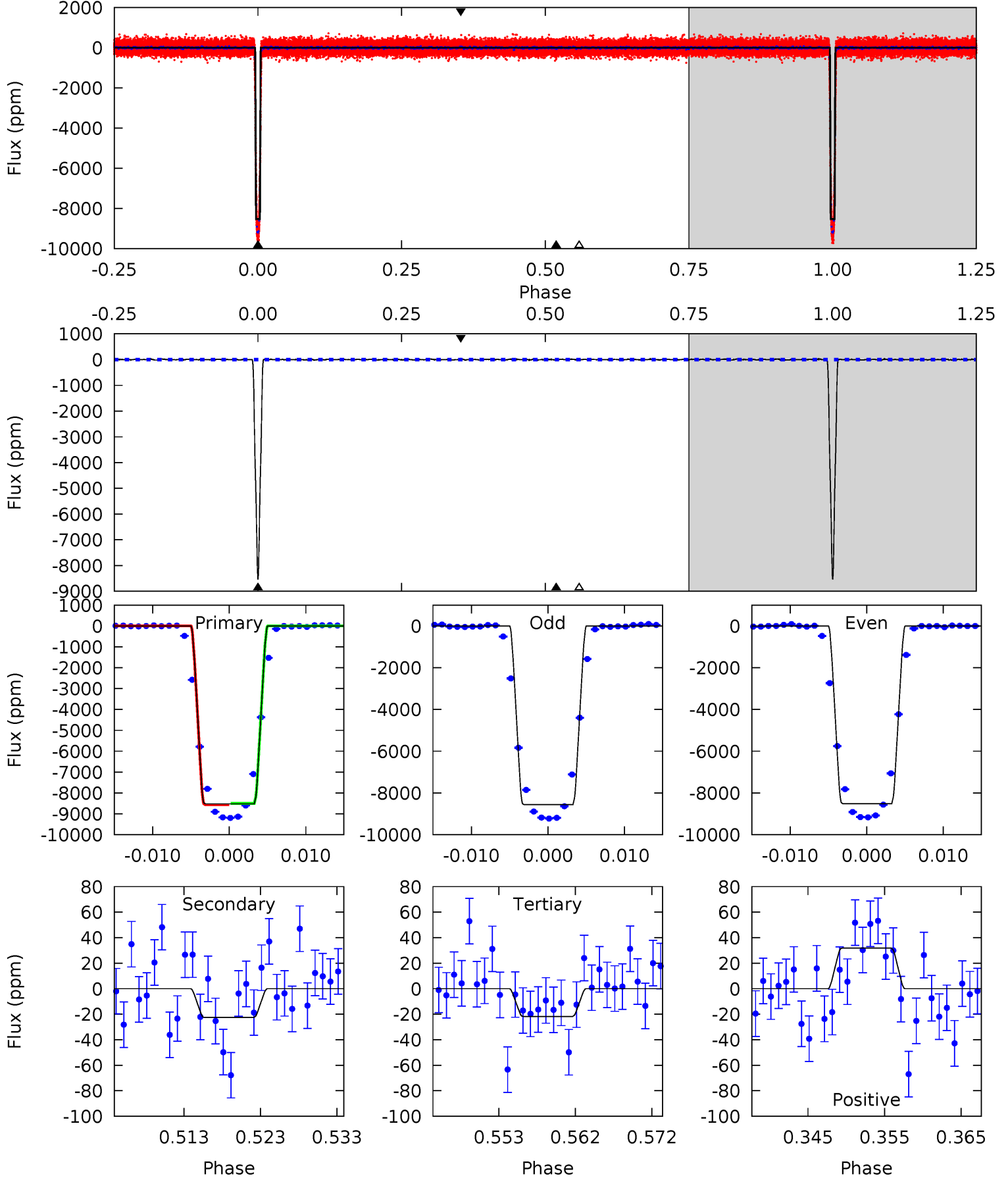
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1584	7.70	7.59	6.75	4.98	2.49	2.41	1577	1577	0.10	0.95	5.03	1.00	0.00	0.30



Alt Model-Shift Uniqueness Test

005179609-01, P = 43.931938 Days, E = 90.269181 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1267	3.35	3.23	4.73	5.03	2.58	1.28	1263	1262	0.12	-1.38	3.59	1.00	0.00	4.60



Stellar Parameters For KIC 005179609

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4888^{+49}_{-107}	$3.257^{+0.188}_{-0.101}$	$0.340^{+0.100}_{-0.200}$	$5.132^{+0.811}_{-1.507}$	$1.734^{+0.190}_{-0.571}$	$0.018^{+0.020}_{-0.006}$
	+1%/-2%	+6%/-3%	+29%/-59%	+16%/-29%	+11%/-33%	+113%/-34%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 005179609-01 / KOI 5132.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-45 ± 6	$57.92^{+5.55}_{-10.03}$	1244^{+61}_{-84}	2029^{+61}_{-71}	$0.645^{+0.208}_{-0.131}$
Alt.	-23 ± 7	$53.24^{+5.03}_{-8.67}$	1245^{+67}_{-74}	1783^{+152}_{-3455}	$0.392^{+0.154}_{-0.132}$

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 $A_{obs} \gg 1.0$

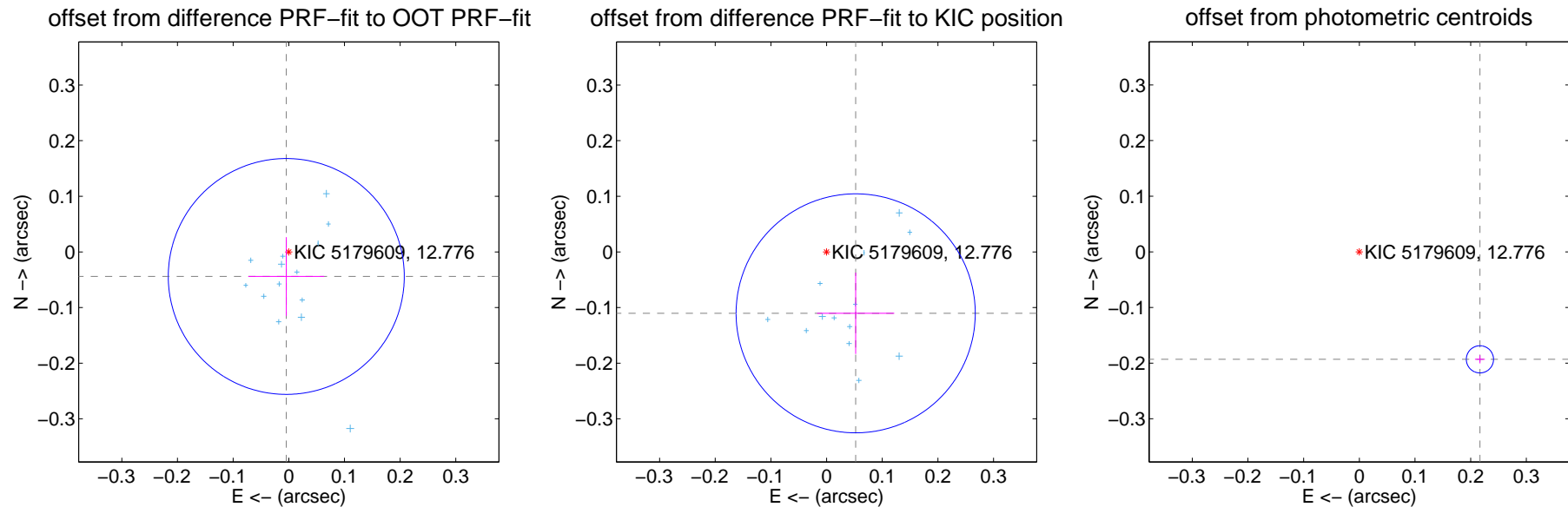
DV Centroid Data

Supplemental centroid analysis for 005179609-01. Kepler magnitude: 12.78. Transit SNR 649.40

There are 14 quarters with good PRF difference image offsets

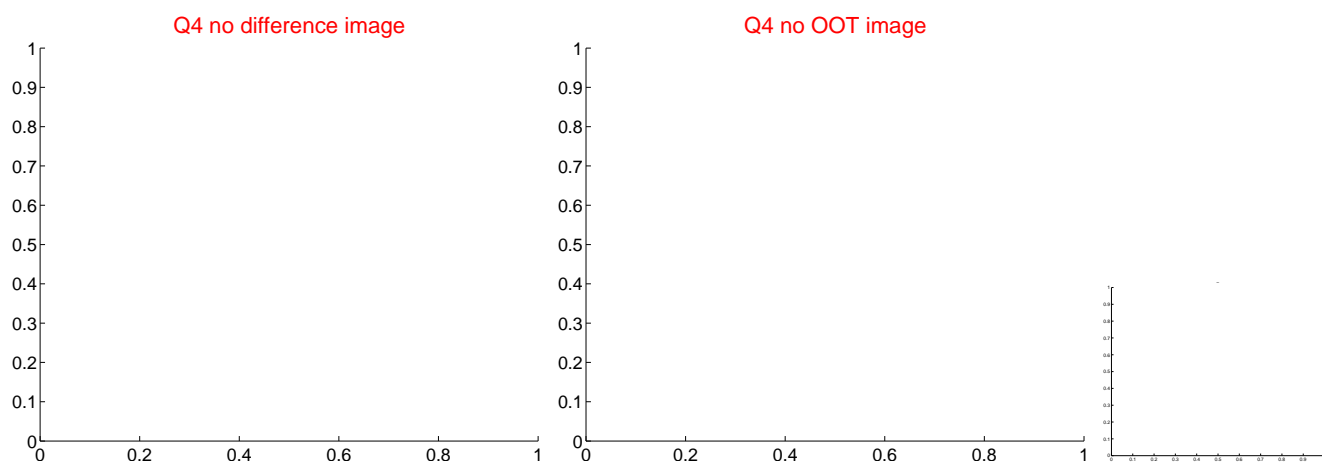
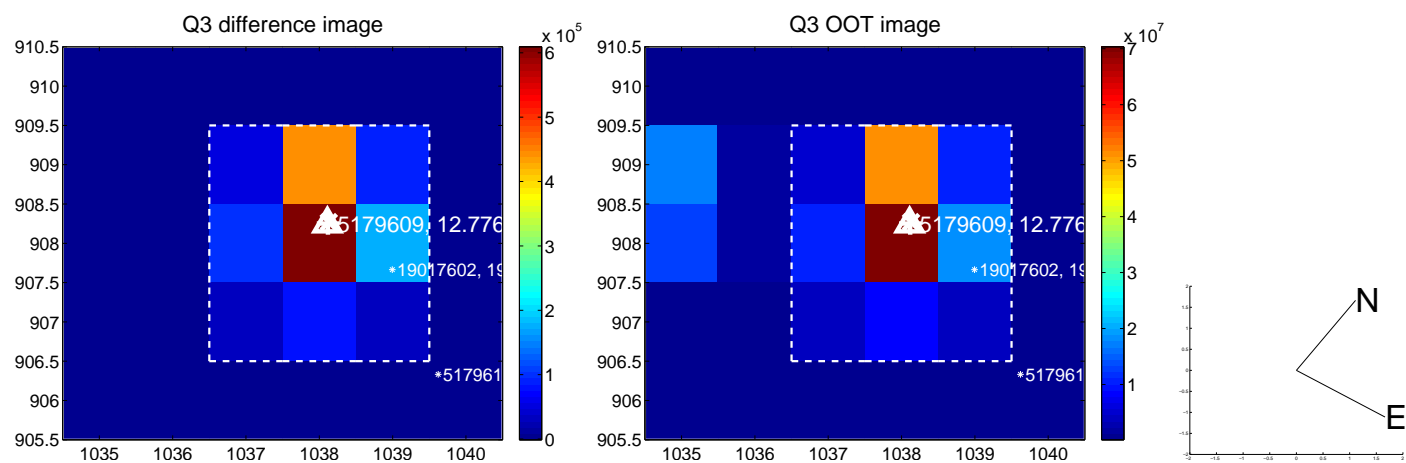
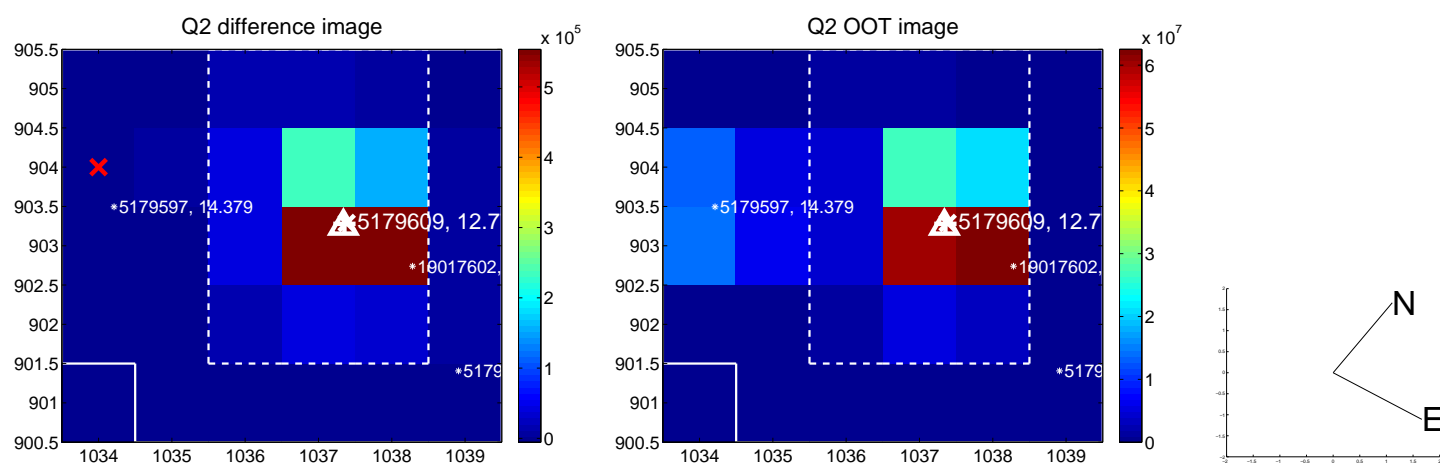
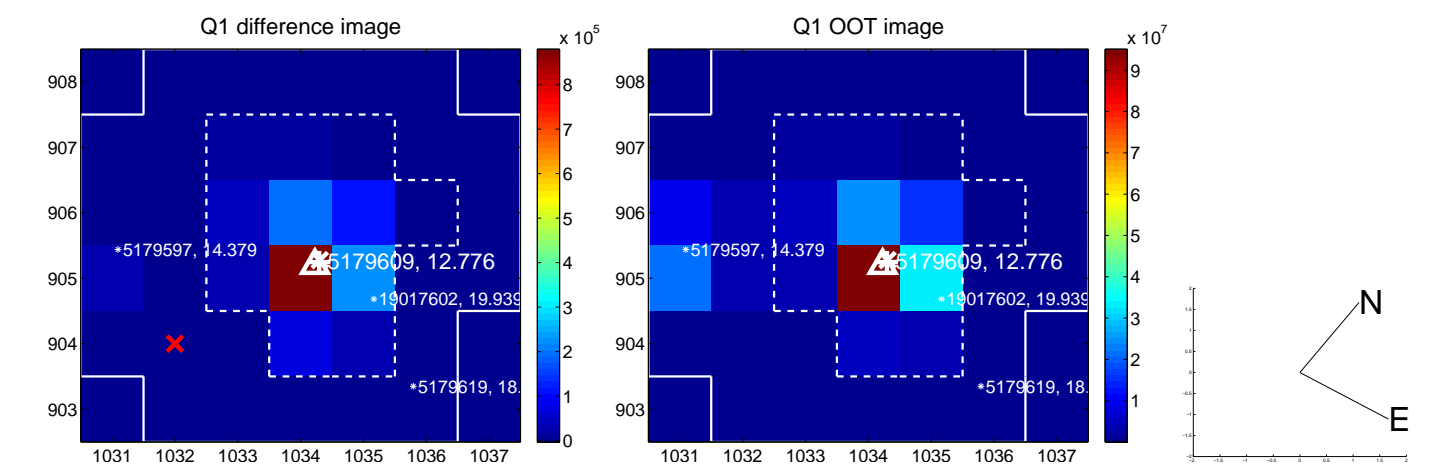
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.044 ± 0.071	0.63	0.005 ± 0.068	-0.044 ± 0.071
PRF-fit source offset from KIC position	0.122 ± 0.072	1.71	-0.052 ± 0.069	-0.110 ± 0.073
photometric centroid source offset	0.29 ± 0.01	35.64	-0.22 ± 0.01	-0.19 ± 0.01

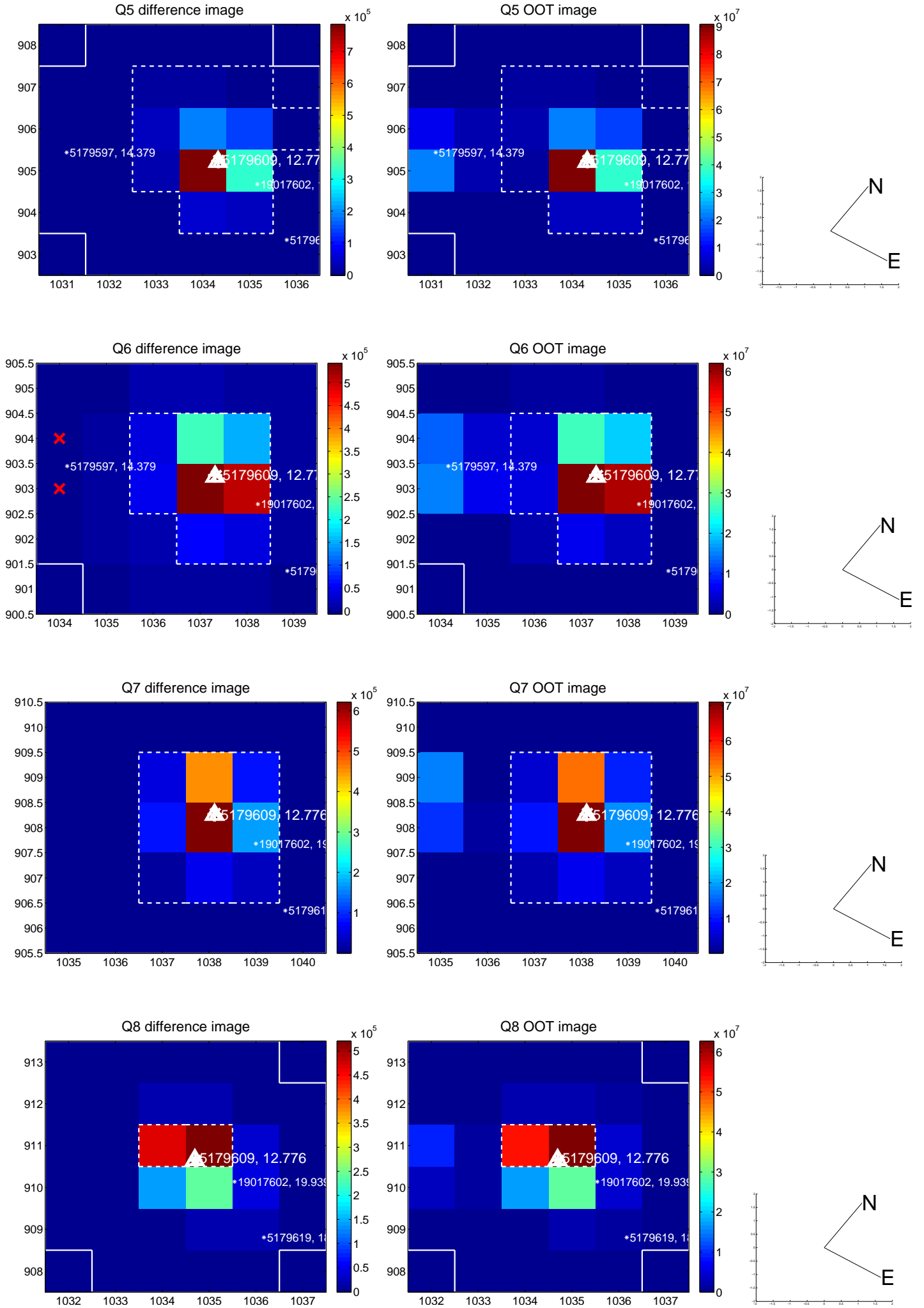


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

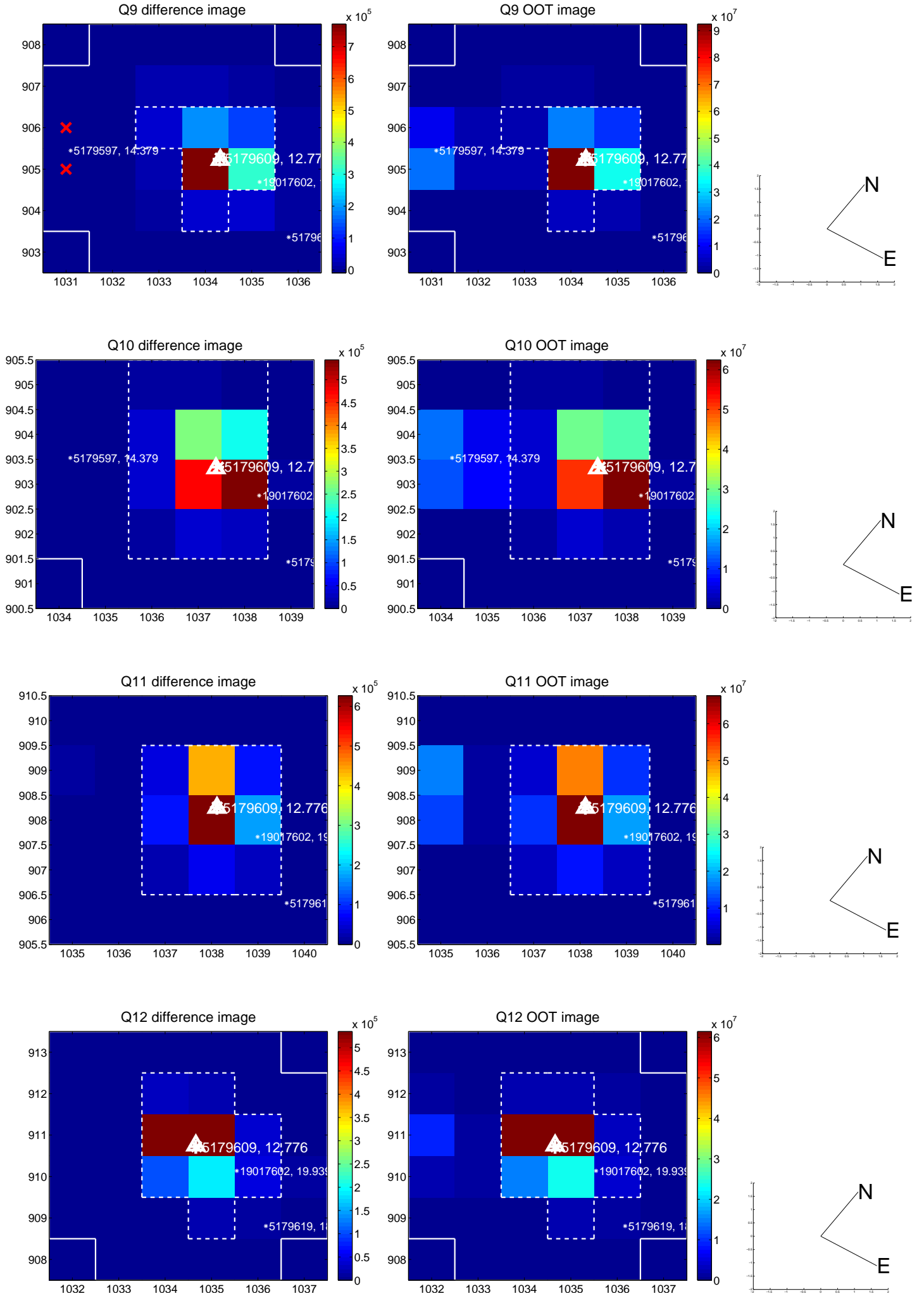
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



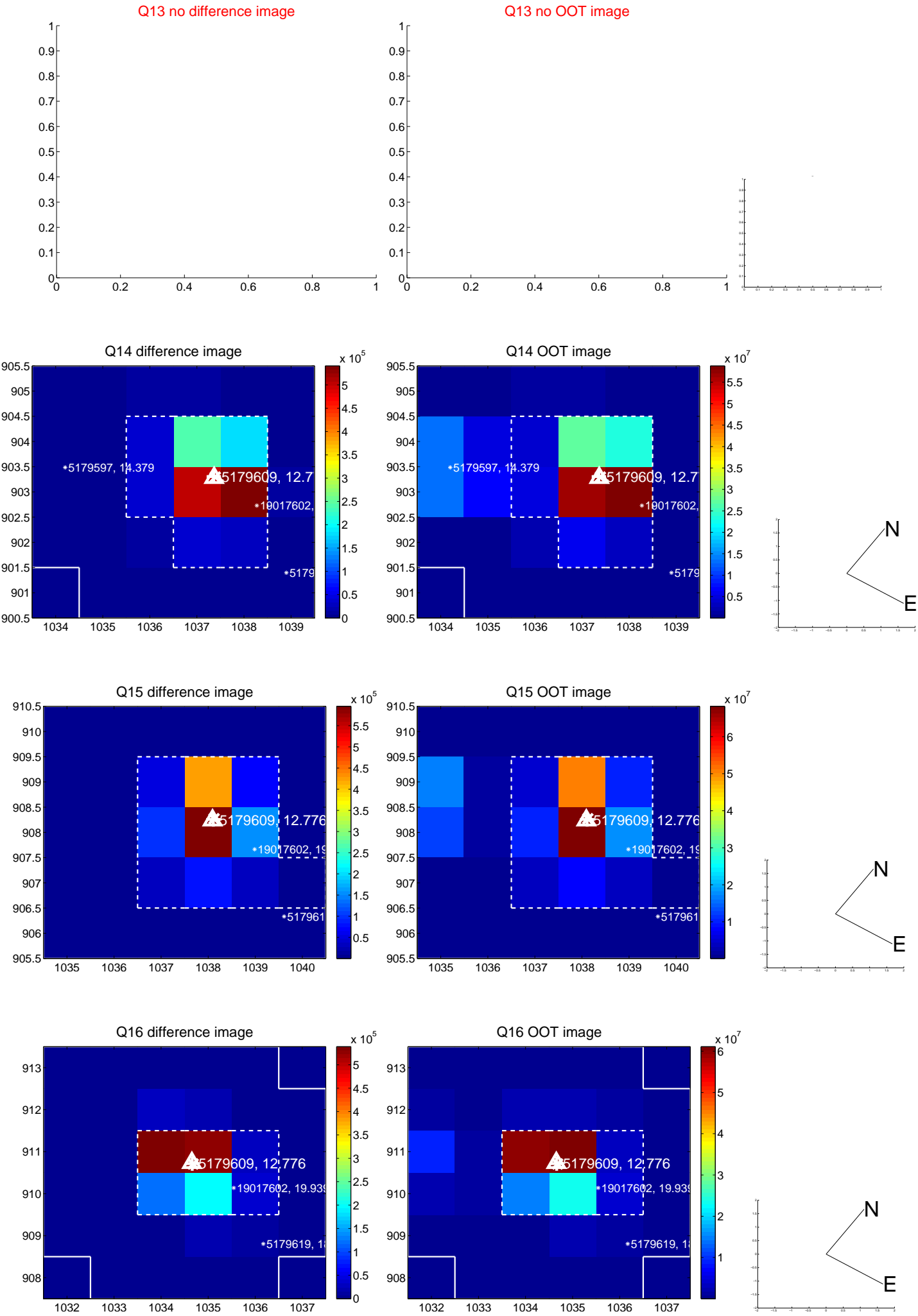
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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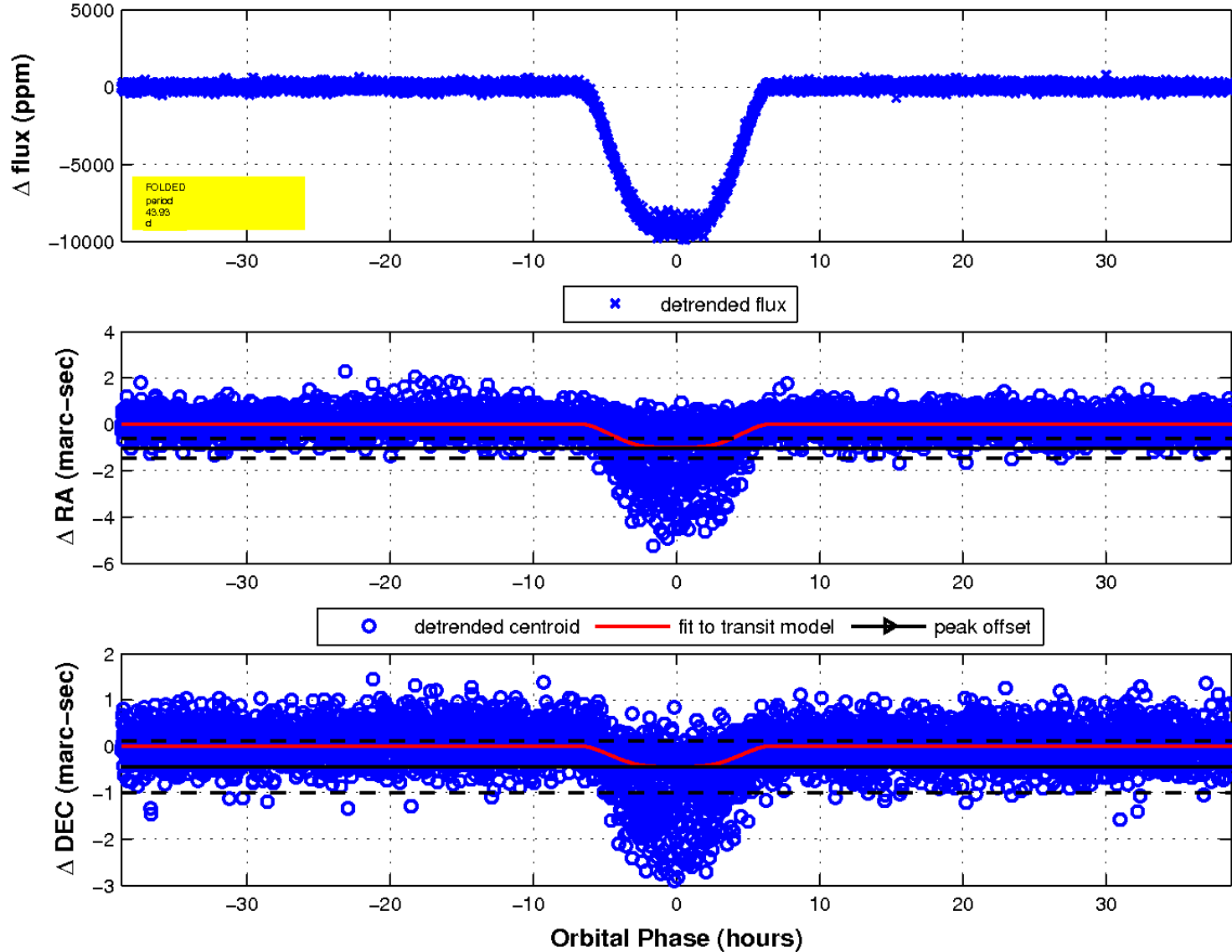
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

