

KIC 007767162

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})
007767162-01	OBS	2869.01	3.300395	133.568358	87.4	4.626	14.8	16.0	1.44	6333	1.58	1344.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007767162-01	OBS	PC	1.00	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.

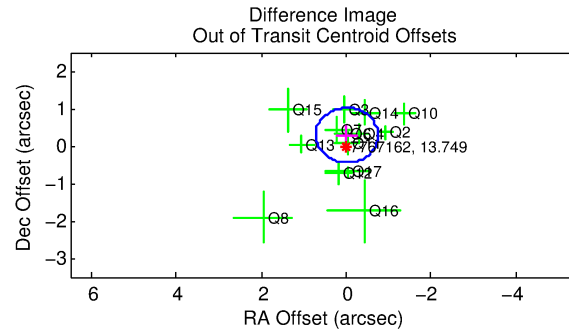
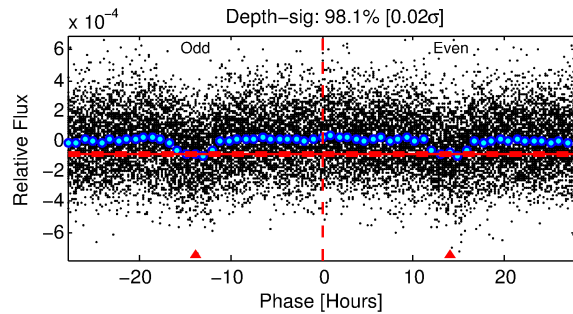
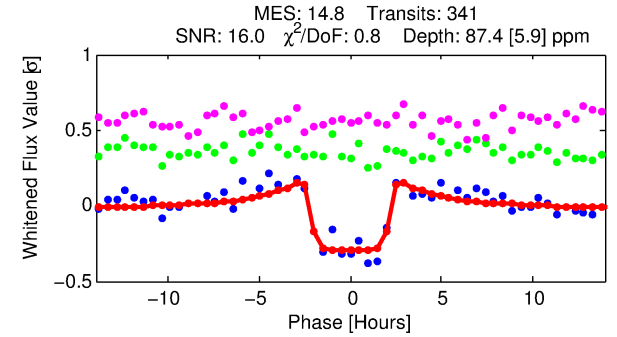
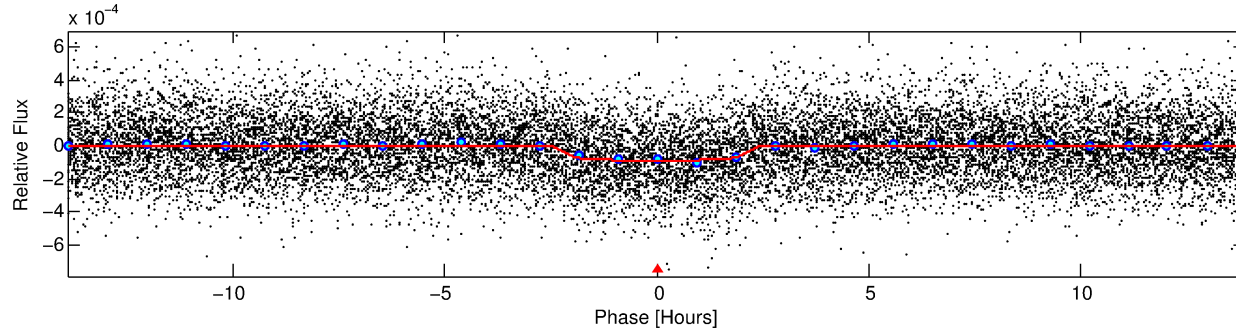
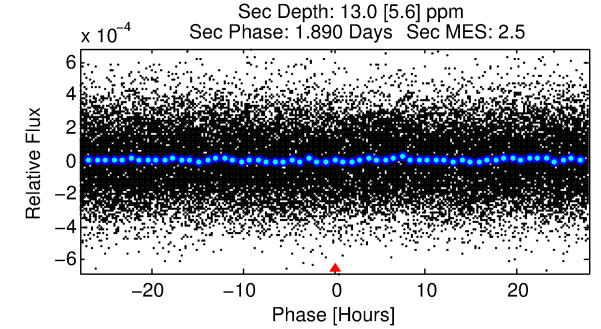
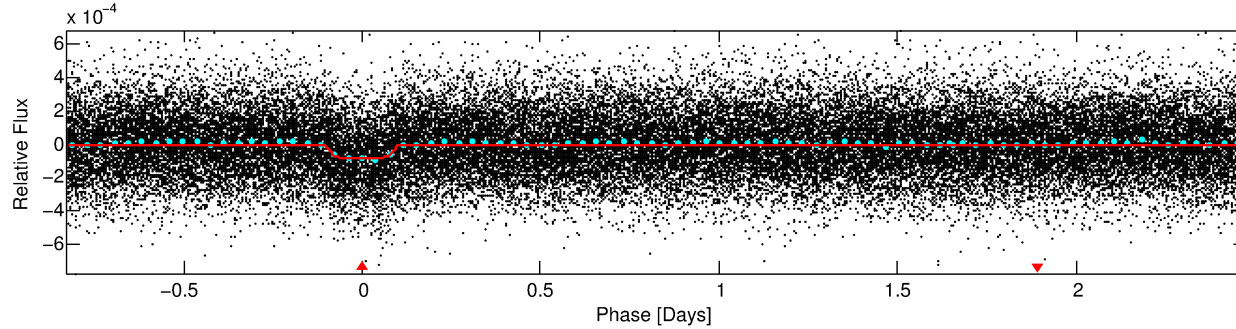
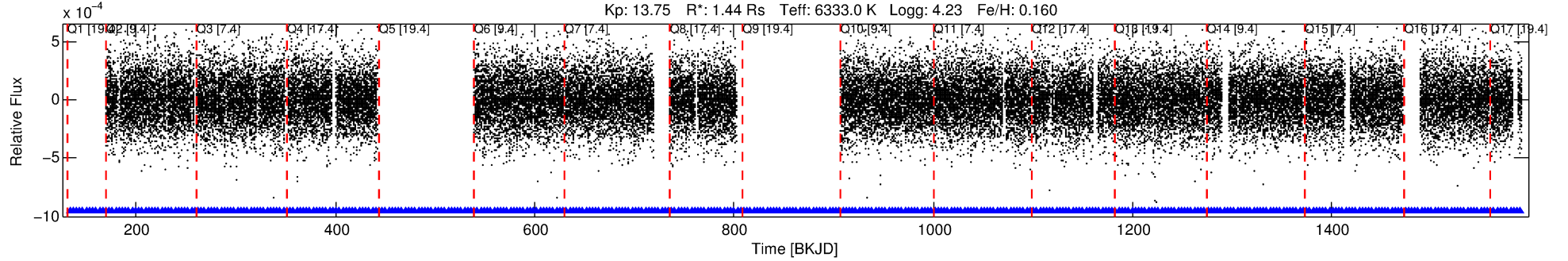
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007767162-01

No Significant Match Found

DV One-Page Summary

KIC: 7767162 Candidate: 1 of 1 Period: 3.300 d
KOI: K02869.01 Corr: 0.982



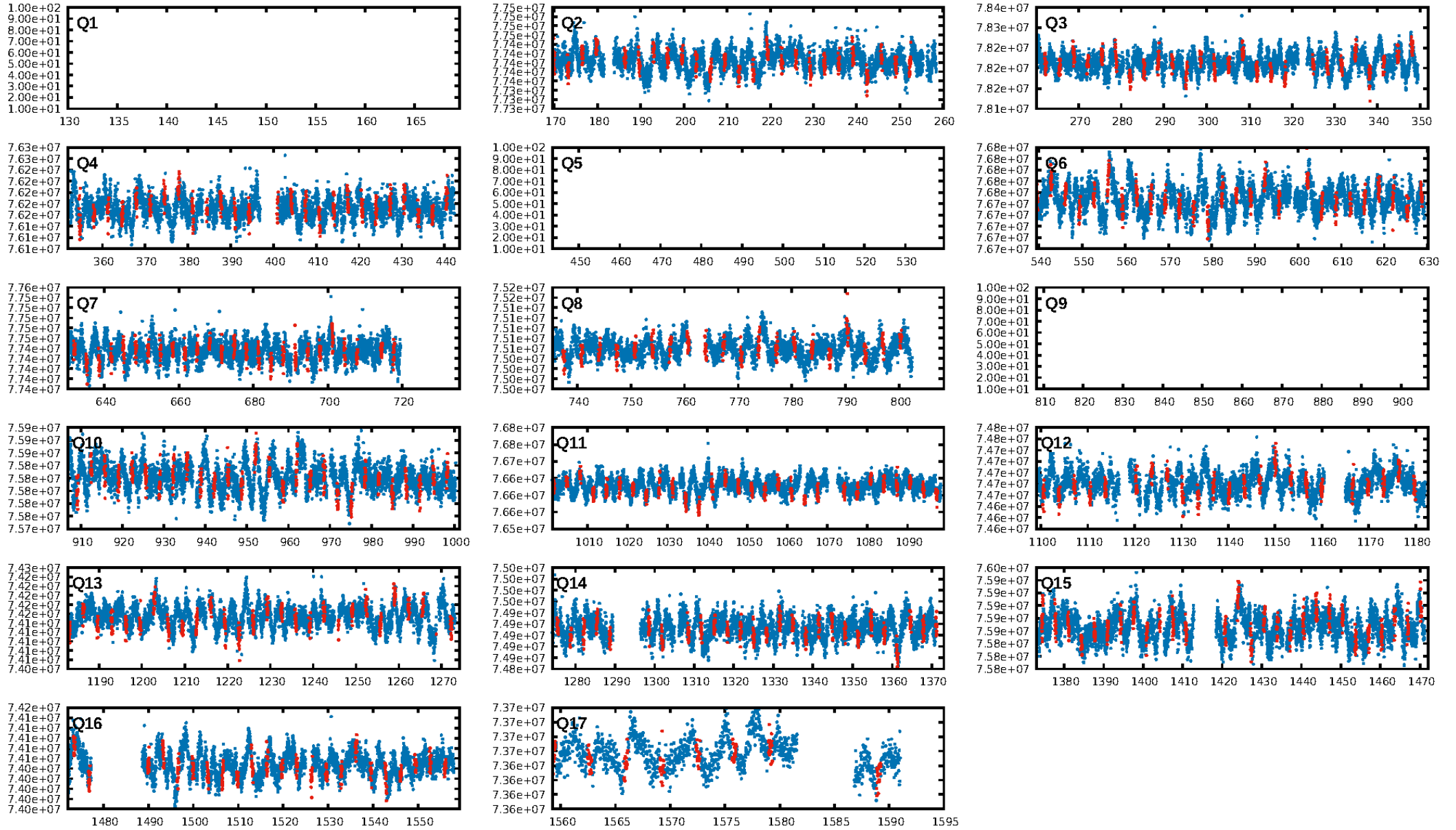
DV Fit Results:

Period = 3.30040 [0.00001] d
Epoch = 133.5684 [0.0025] BKJD
Rp/R* = 0.0101 [0.0018]
a/R* = 2.65 [2.17]
b = 0.90 [0.20]
Seff = 1344.05 [305.97]
Teq = 1544 [88] K
Rp = 1.58 [0.40] Re
a = 0.0471 [0.0072] AU
Ag = 6.35 [3.84] [1.39σ]
Teffp = 3789 [535] K [4.14σ]

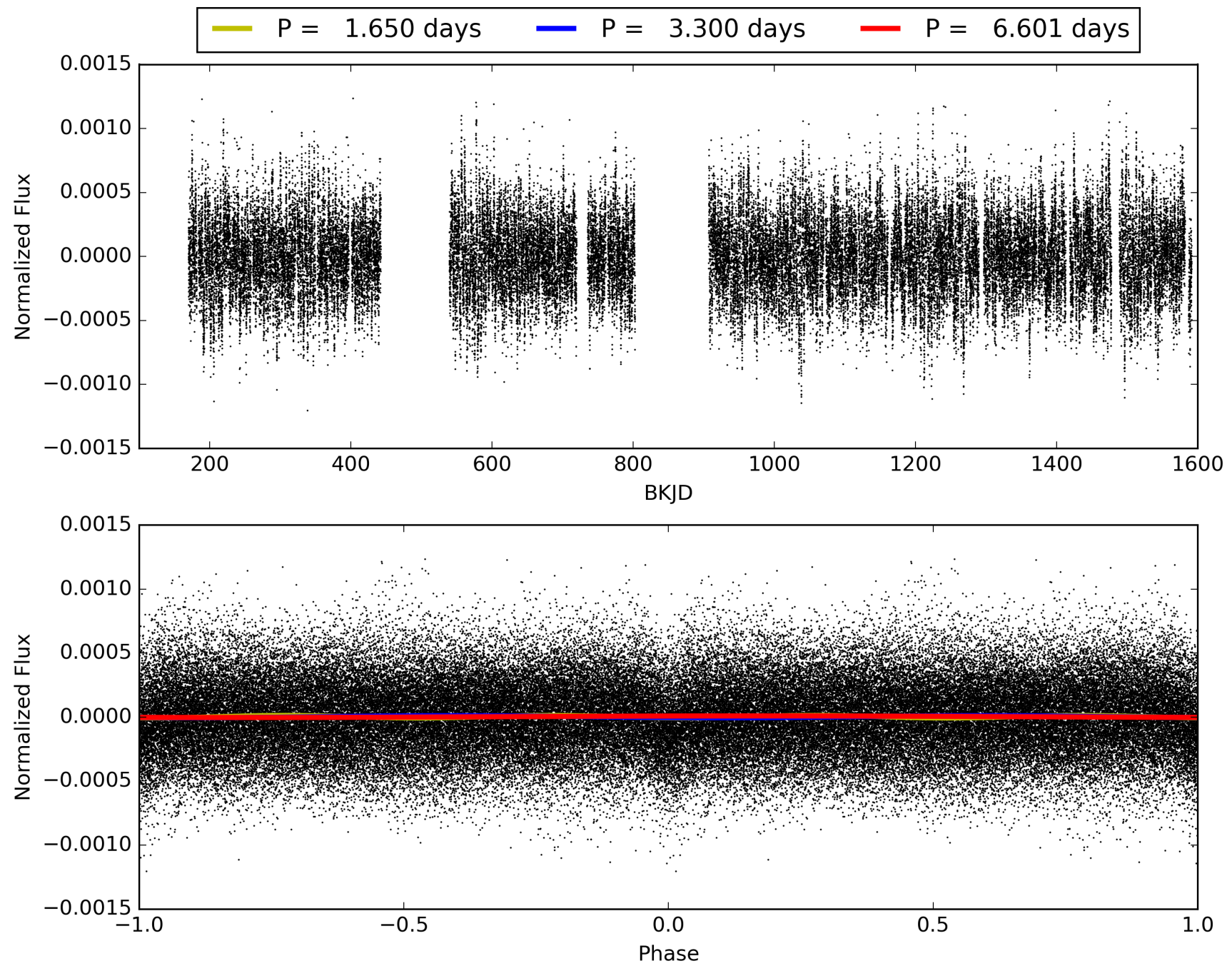
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.14e-46
RollingBand-fgt: 1.00 [333/333]
GhostDiagnostic-chr: 4.757
Centroid-sig: 0.0%
Centroid-so: 1.167 arcsec [2.80σ]
OotOffset-rm: 0.285 arcsec [1.17σ]
KicOffset-rm: 0.208 arcsec [0.99σ]
OotOffset-st: 4/4/4/2 [14]
KicOffset-st: 4/4/4/2 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 007767162-01, PDC Light Curves

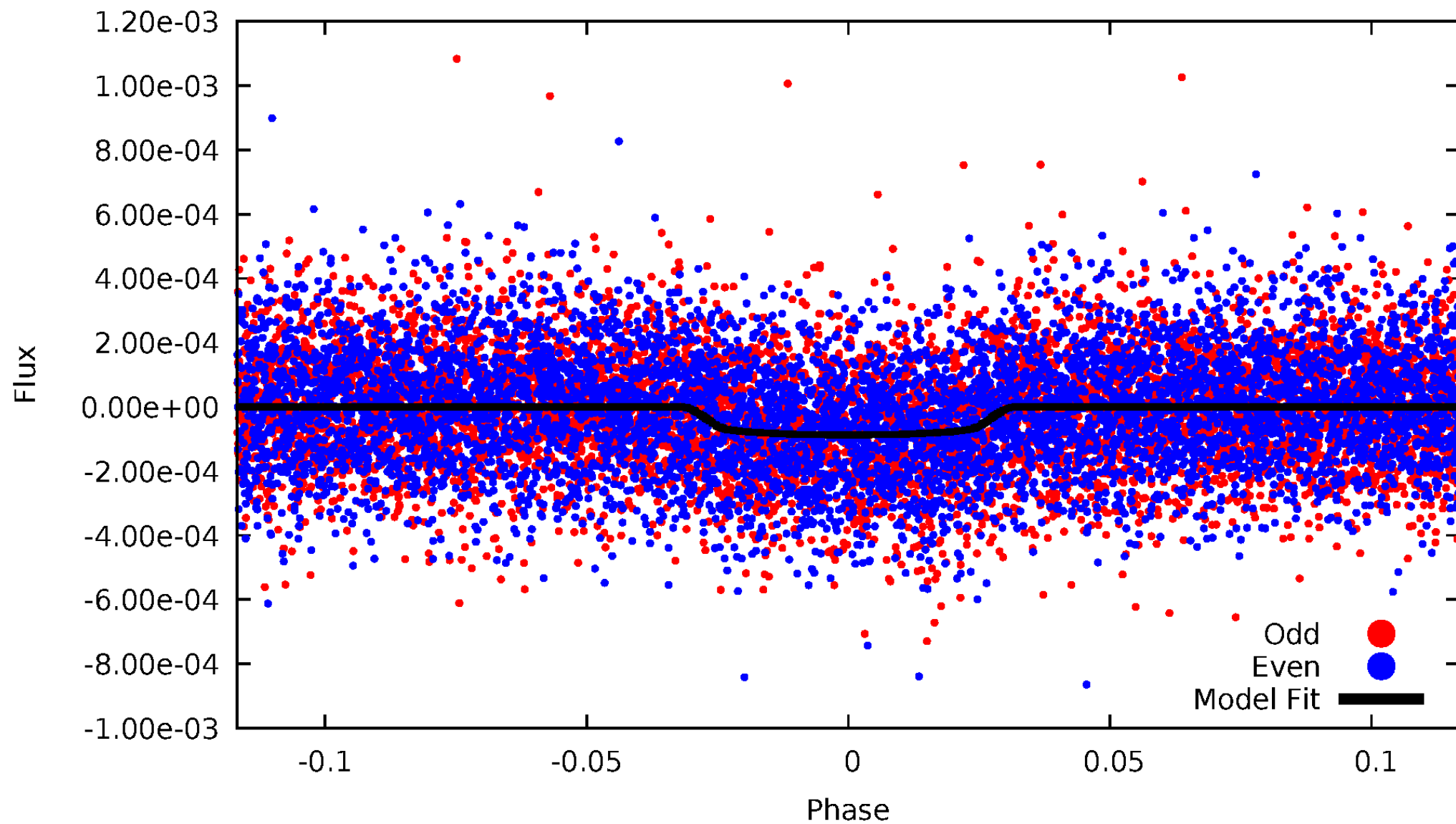


TCE 007767162-01



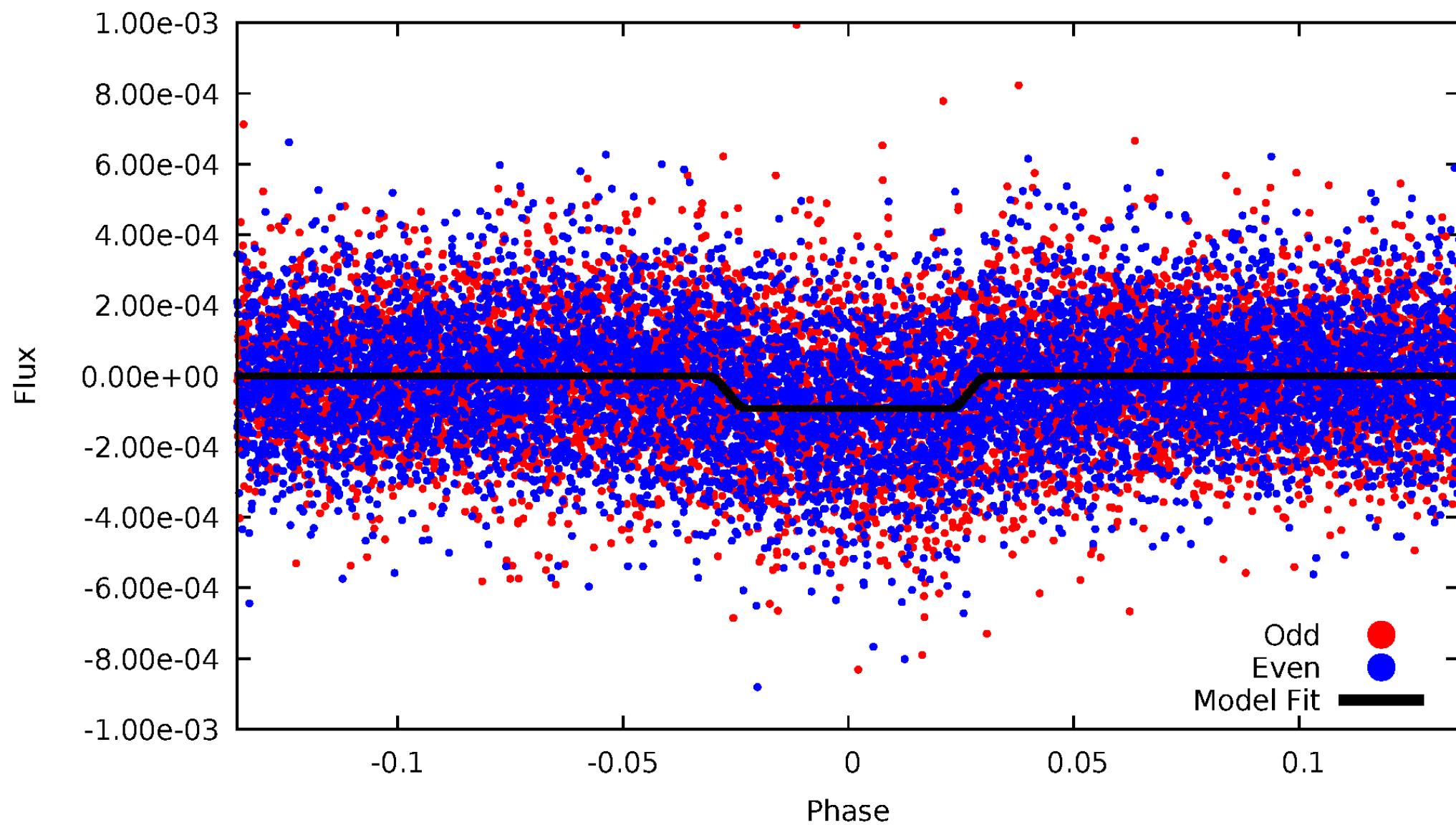
DV Odd/Even

TCE 007767162-01

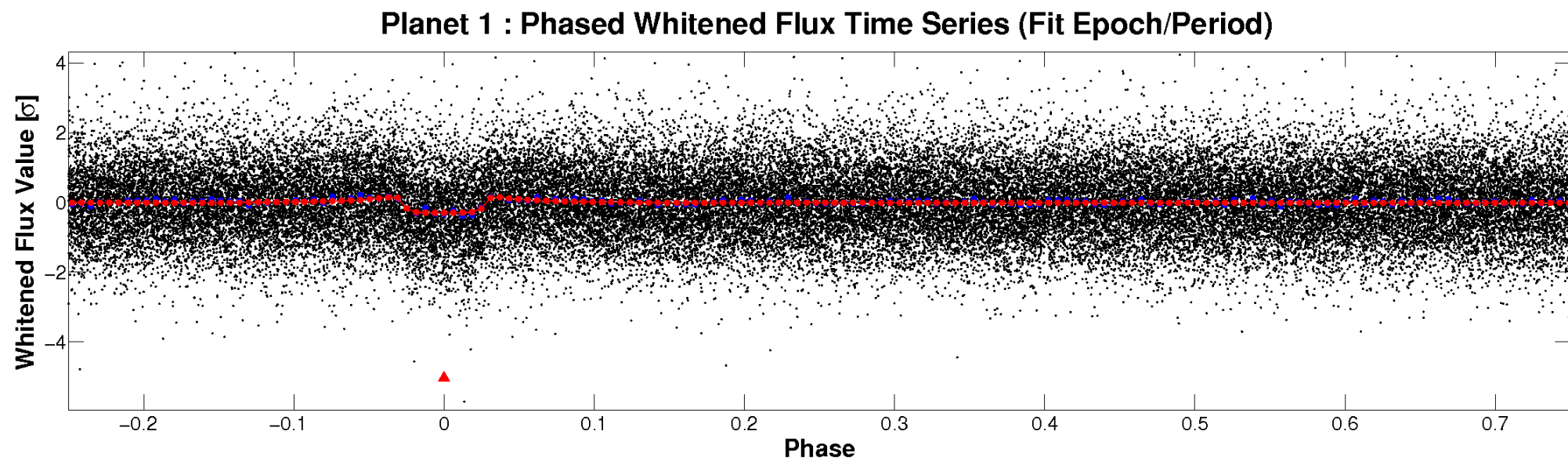
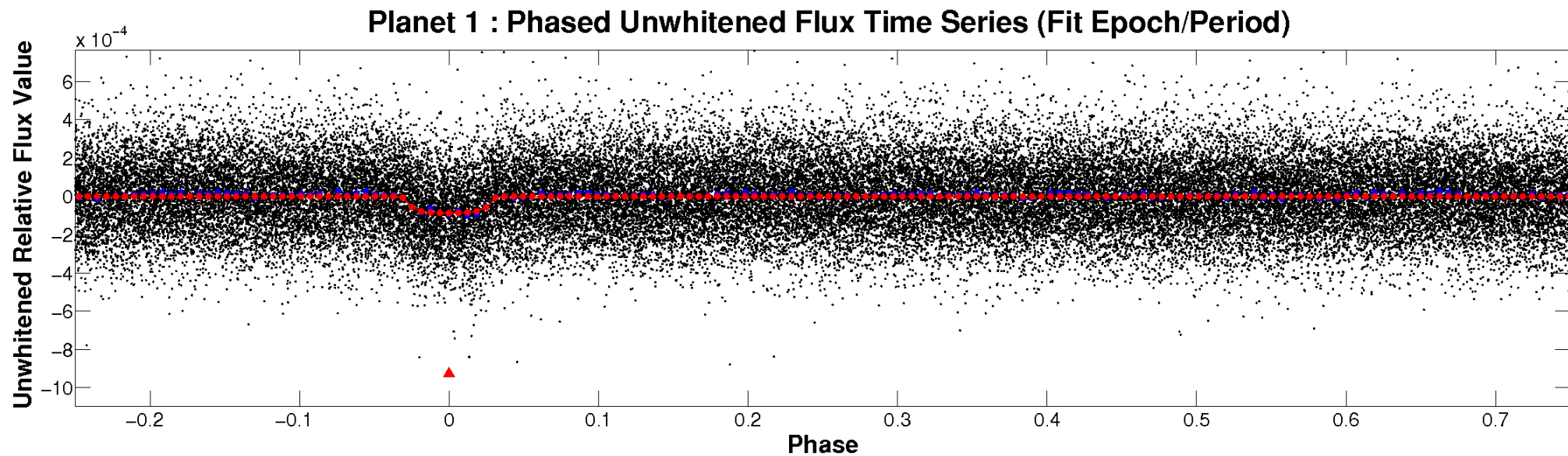


ALT Odd/Even

TCE 007767162-01

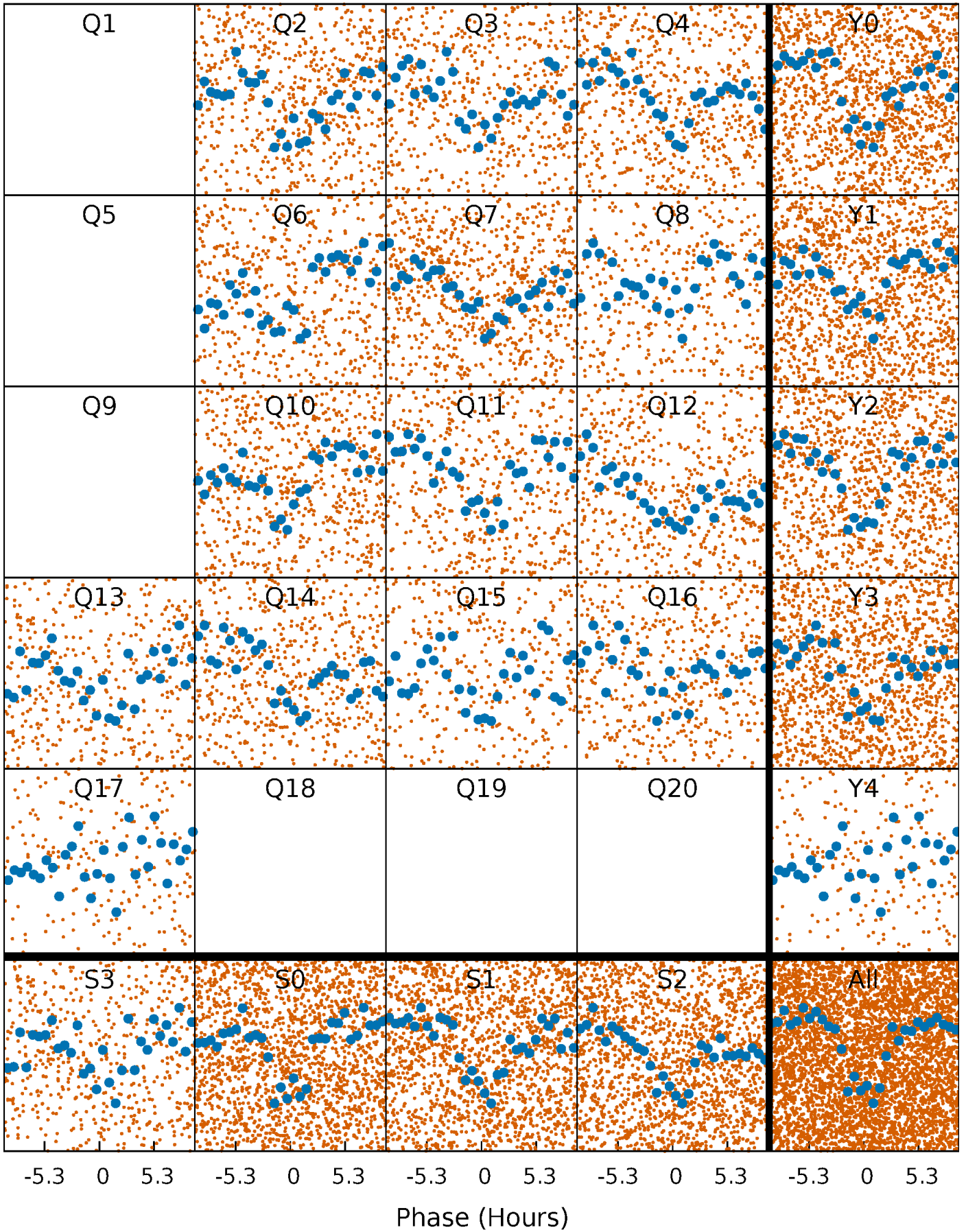


Non-Whitened Vs. Whitened Light Curve



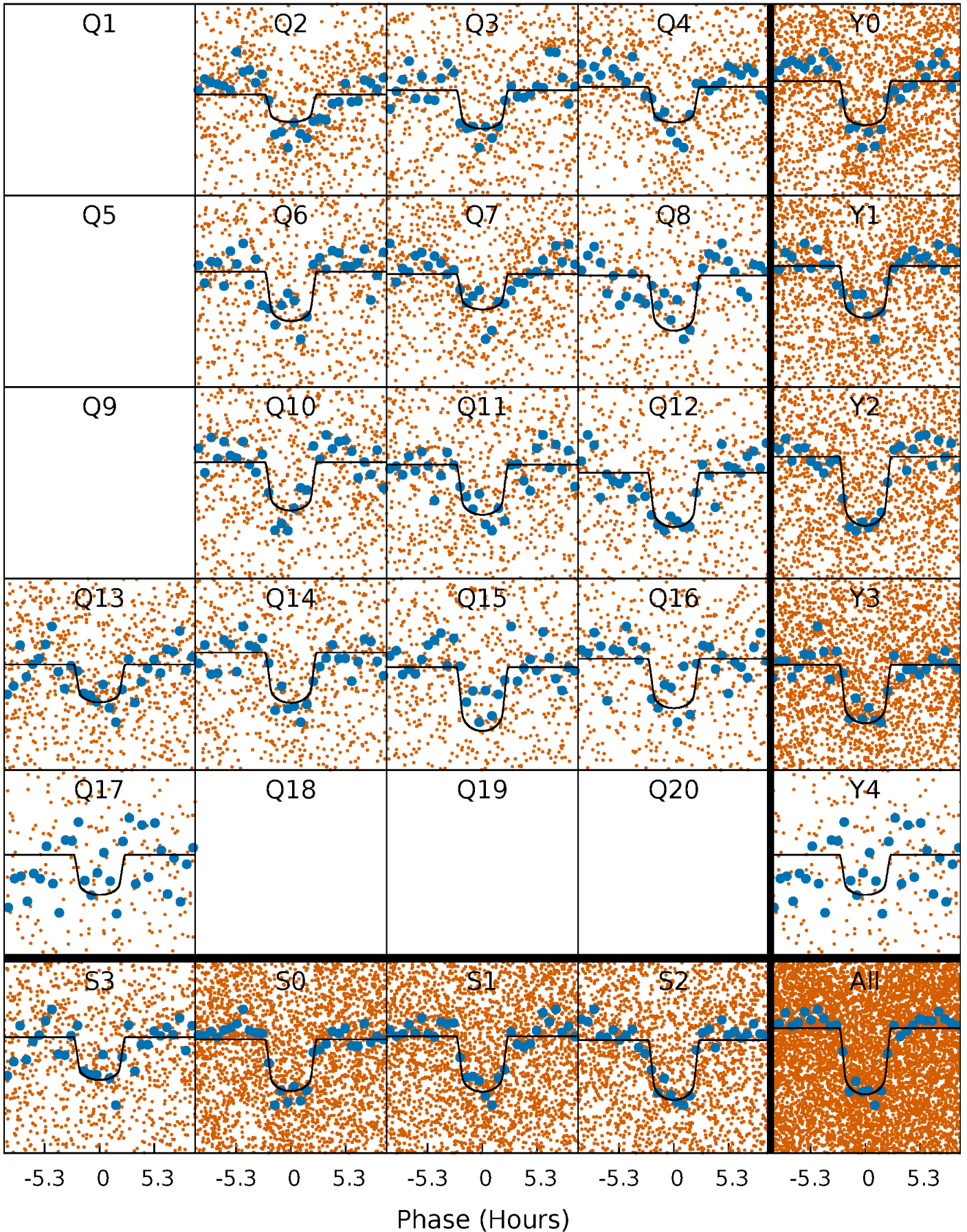
PDC Quarter-Phased Transit Curves

TCE 007767162-01 P= 3.300395 Days $T_0=133.568358$ (BKJD)



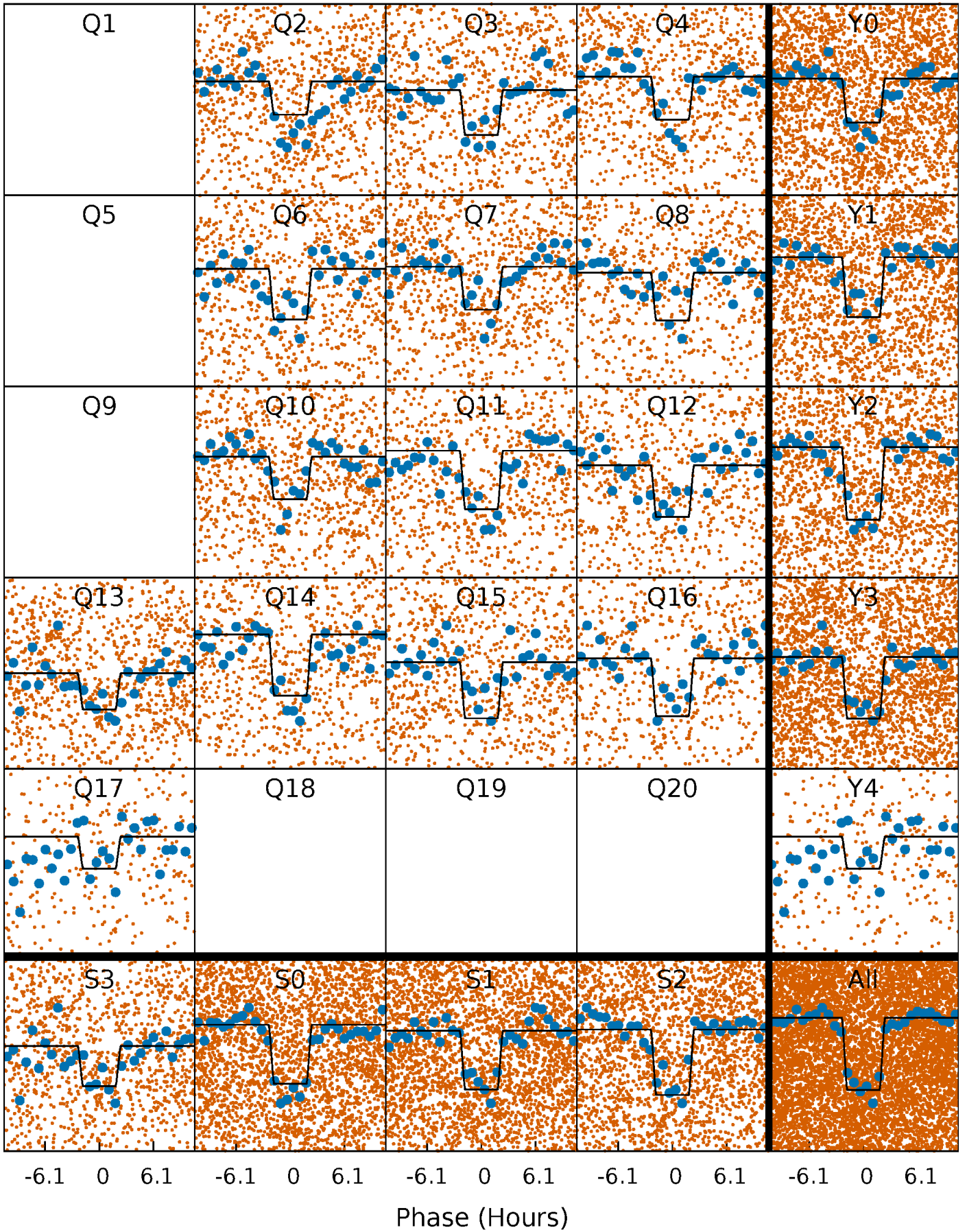
DV Quarter-Phased Transit Curves

TCE 007767162-01 P= 3.300395 Days $T_0=133.568358$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

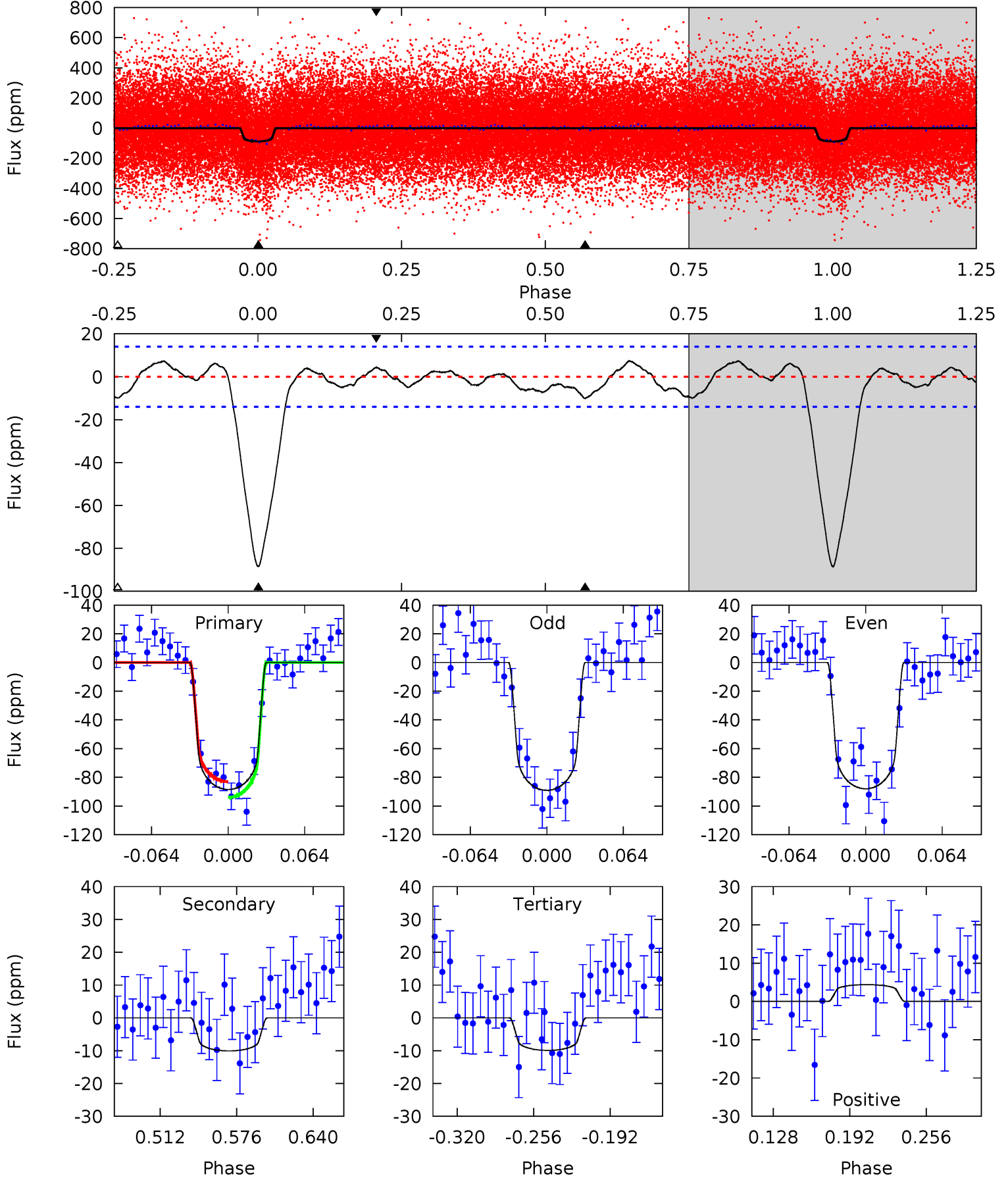
TCE 007767162-01 P= 3.300369 Days $T_0=133.573274$ (BKJD)



DV Model-Shift Uniqueness Test

007767162-01, P = 3.300395 Days, E = 133.568358 Days

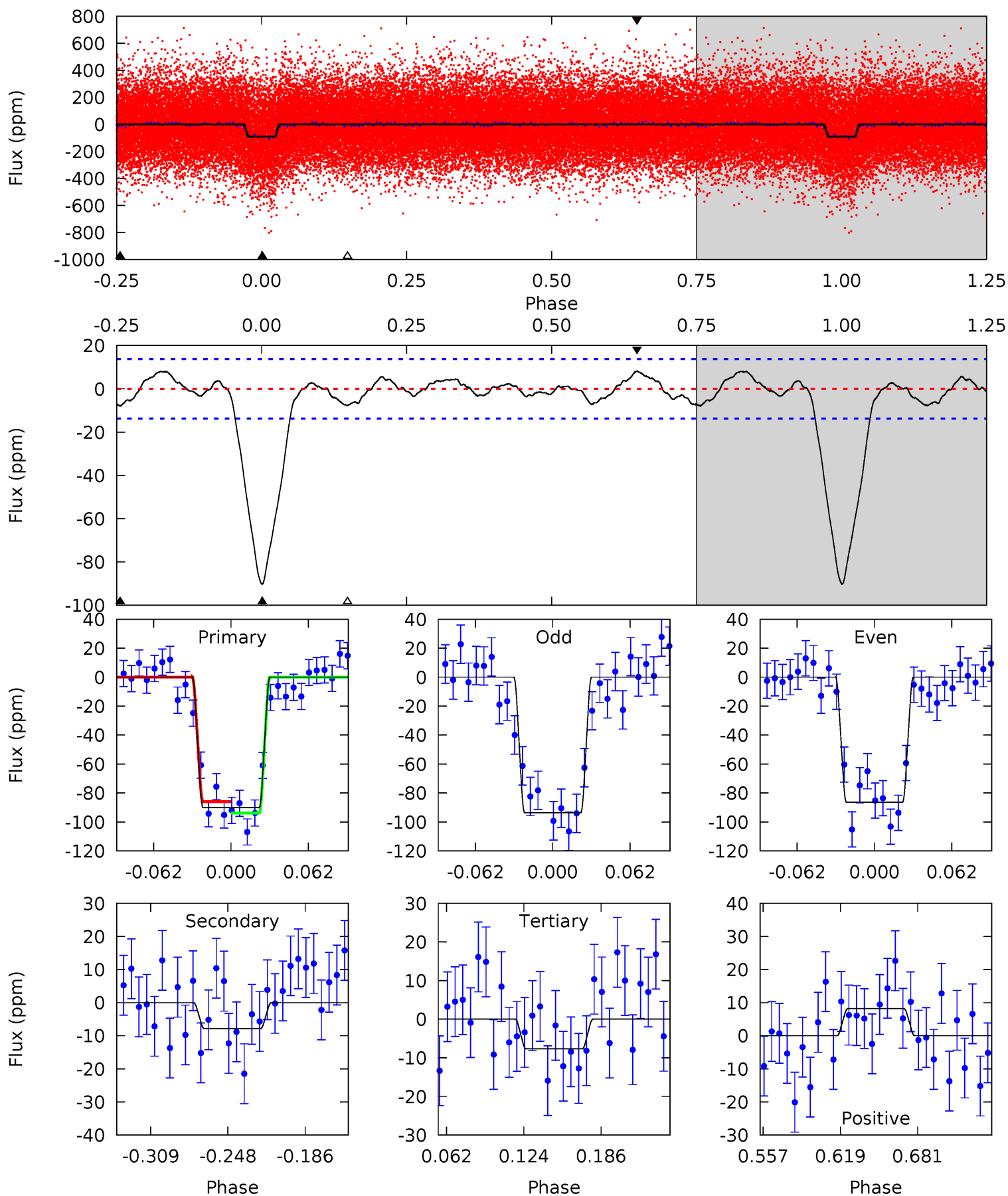
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.4	3.35	3.30	1.46	4.66	1.85	1.38	26.1	28.0	0.05	1.89	0.18	1.01	0.08	1.82



Alt Model-Shift Uniqueness Test

007767162-01, P = 3.300369 Days, E = 133.573274 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.6	2.67	2.60	2.77	4.66	1.87	1.25	28.0	27.8	0.06	-0.10	1.24	1.07	0.08	1.35



Stellar Parameters For KIC 007767162

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6333^{+75}_{-82}	$4.229^{+0.099}_{-0.121}$	$0.160^{+0.150}_{-0.200}$	$1.438^{+0.261}_{-0.190}$	$1.279^{+0.091}_{-0.114}$	$0.606^{+0.269}_{-0.218}$
	+1%/-1%	+2%/-3%	+94%/-125%	+18%/-13%	+7%/-9%	+44%/-36%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 007767162-01 / KOI 2869.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10 ± 3	$1.55^{+0.34}_{-0.28}$	2159^{+101}_{-75}	3874^{+336}_{-316}	$4.898^{+3.054}_{-1.911}$
Alt.	-8 ± 3	$1.51^{+0.31}_{-0.31}$	2165^{+102}_{-89}	3750^{+359}_{-364}	$4.091^{+2.651}_{-1.801}$

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

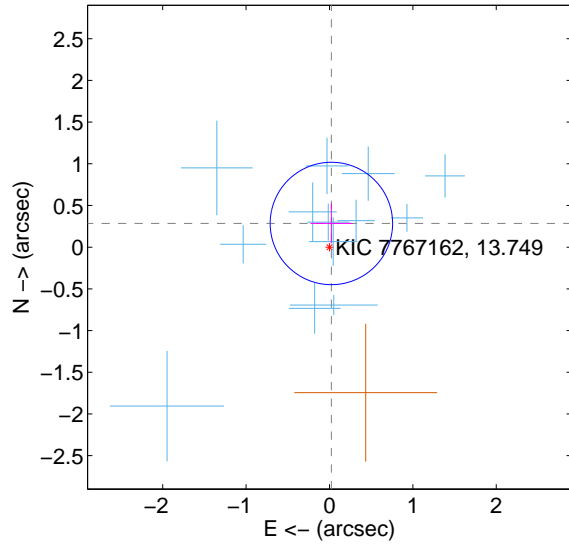
Supplemental centroid analysis for 007767162-01. Kepler magnitude: 13.75. Transit SNR 16.02

There are 13 quarters with good PRF difference image offsets

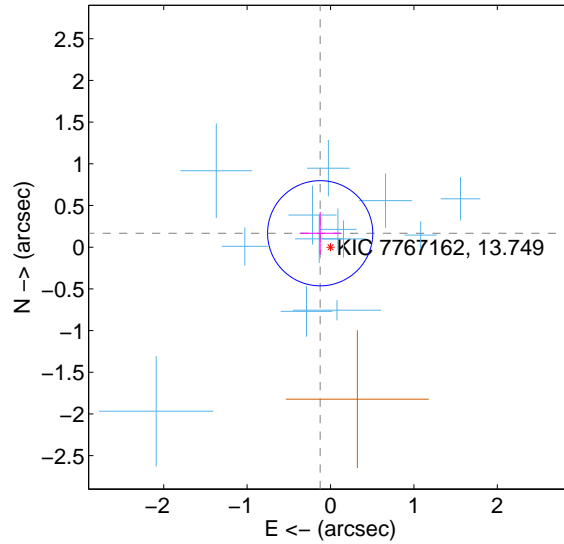
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.285 ± 0.245	1.17	-0.023 ± 0.250	0.284 ± 0.239
PRF-fit source offset from KIC position	0.208 ± 0.210	0.99	0.124 ± 0.246	0.167 ± 0.255
photometric centroid source offset	1.17 ± 0.42	2.80	-0.54 ± 0.47	1.04 ± 0.40

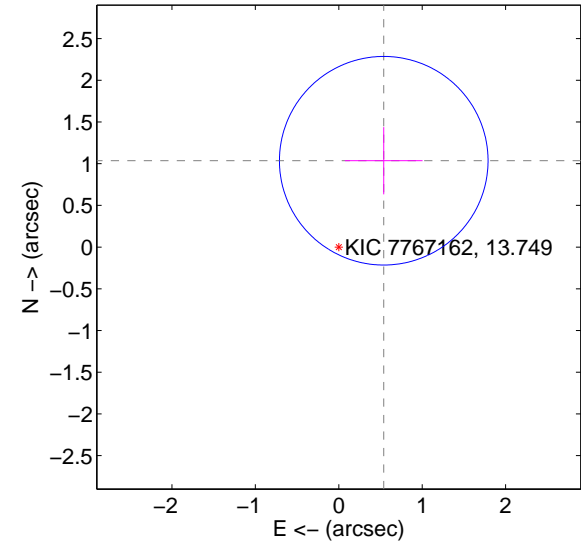
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

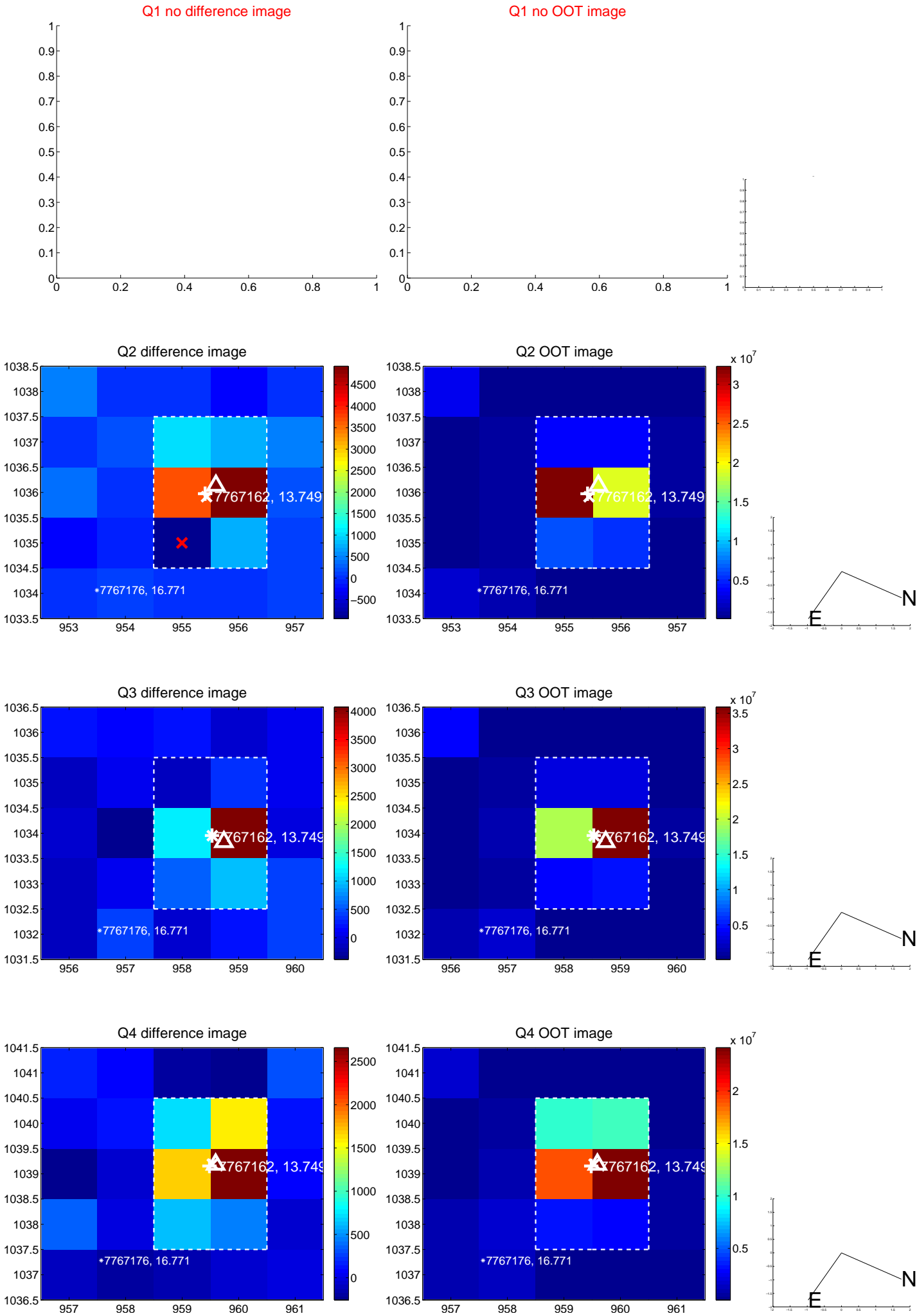


offset from photometric centroids

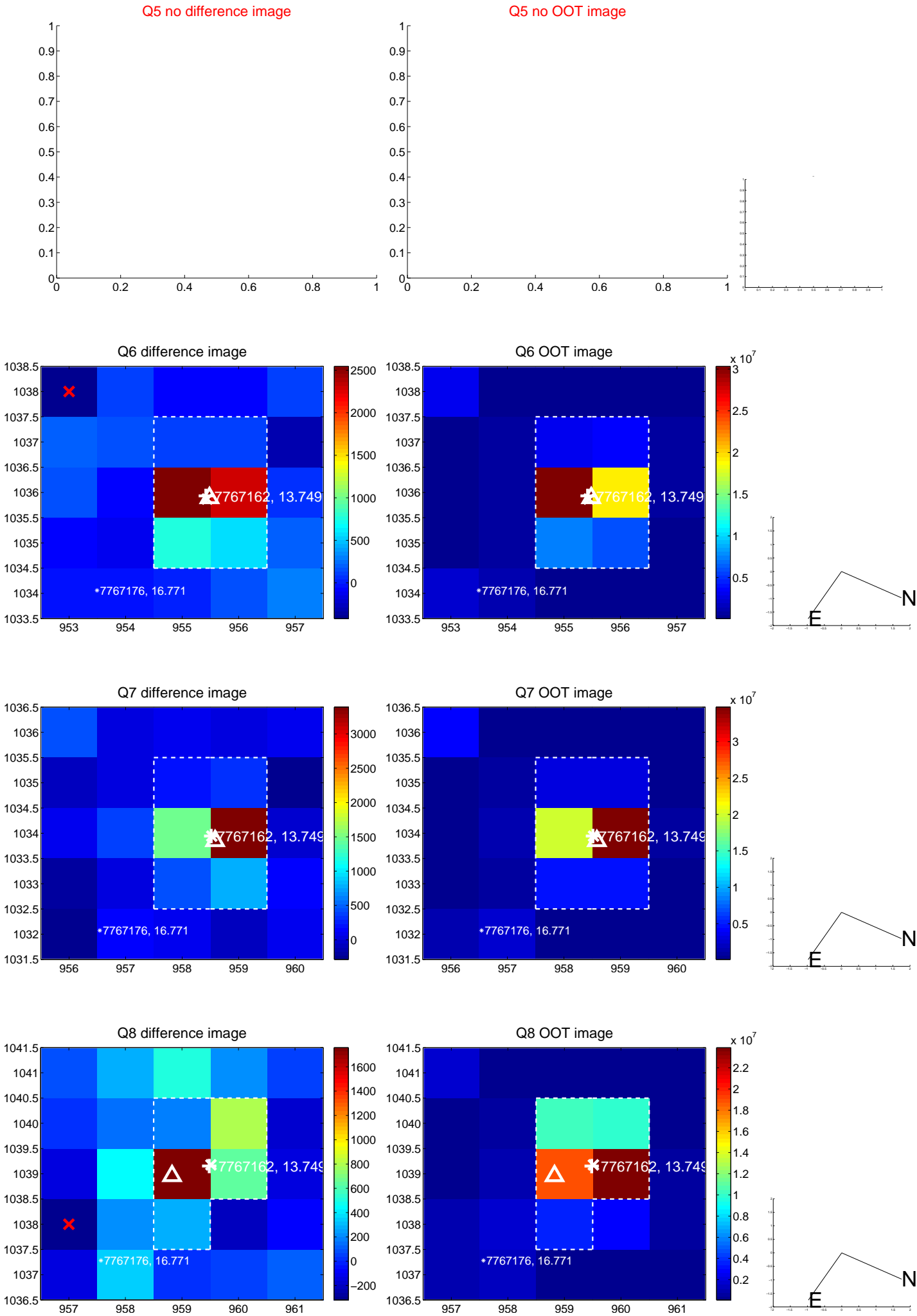


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

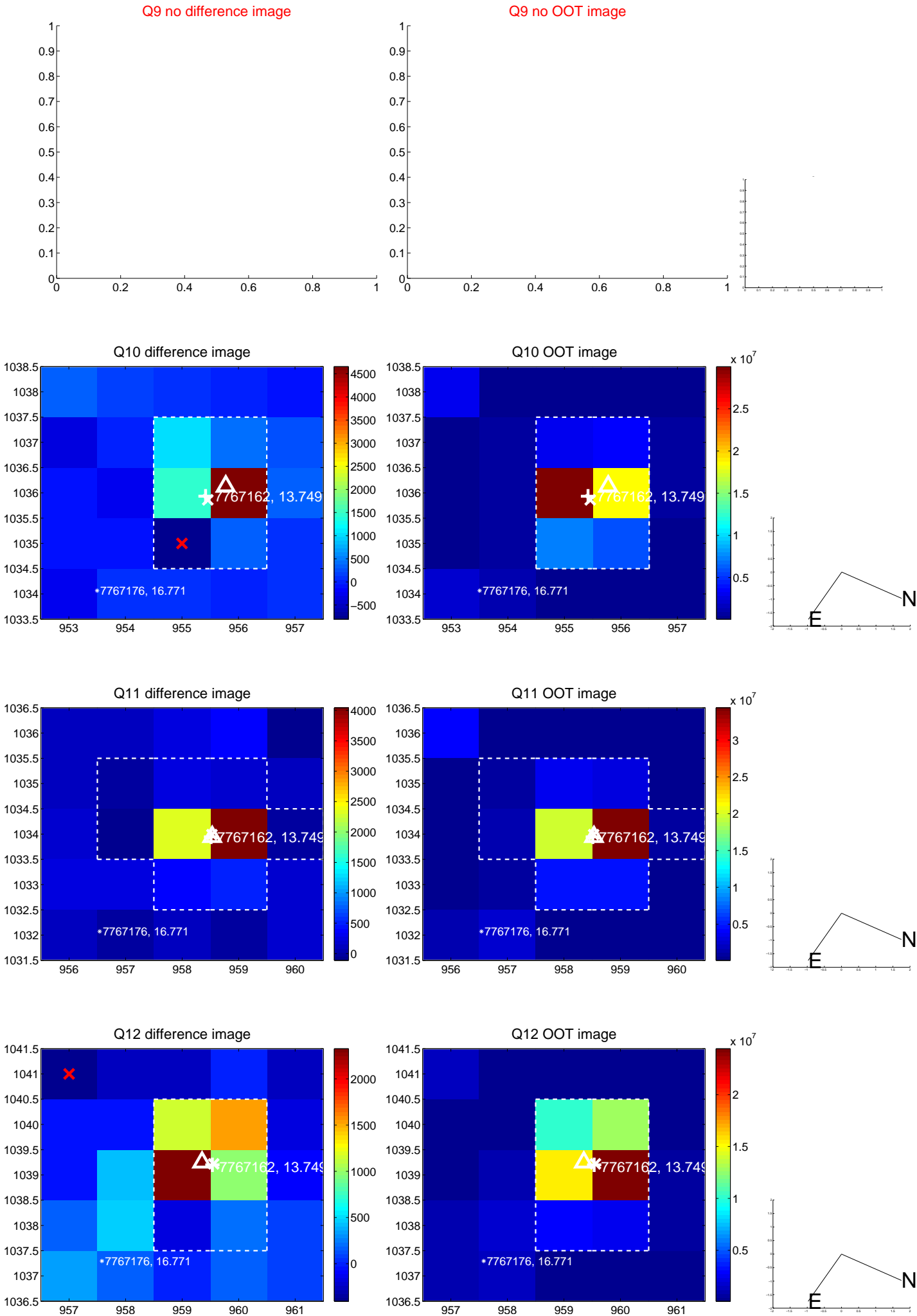
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



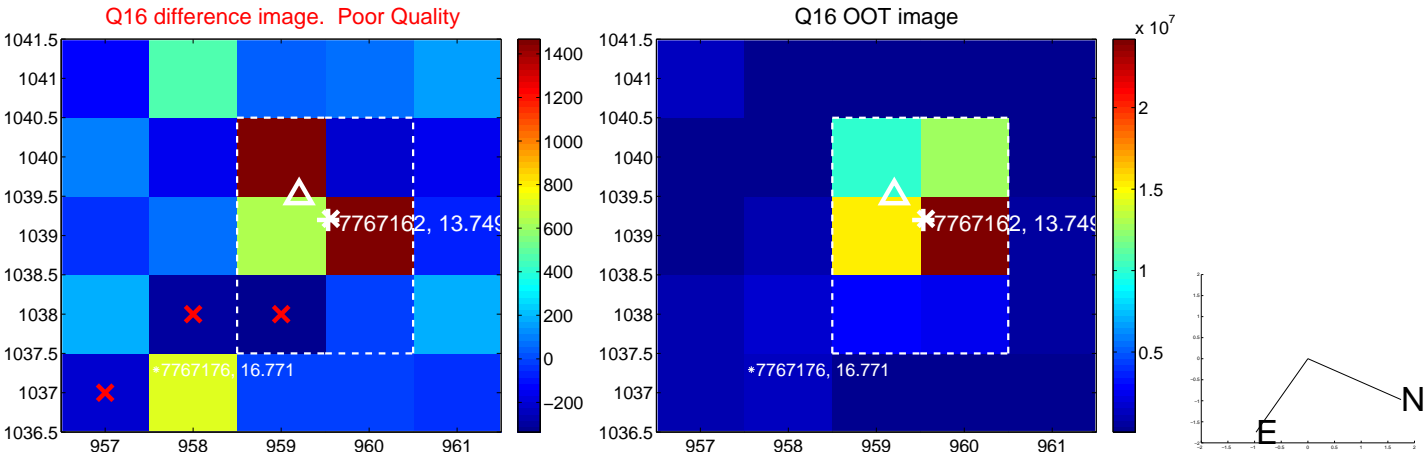
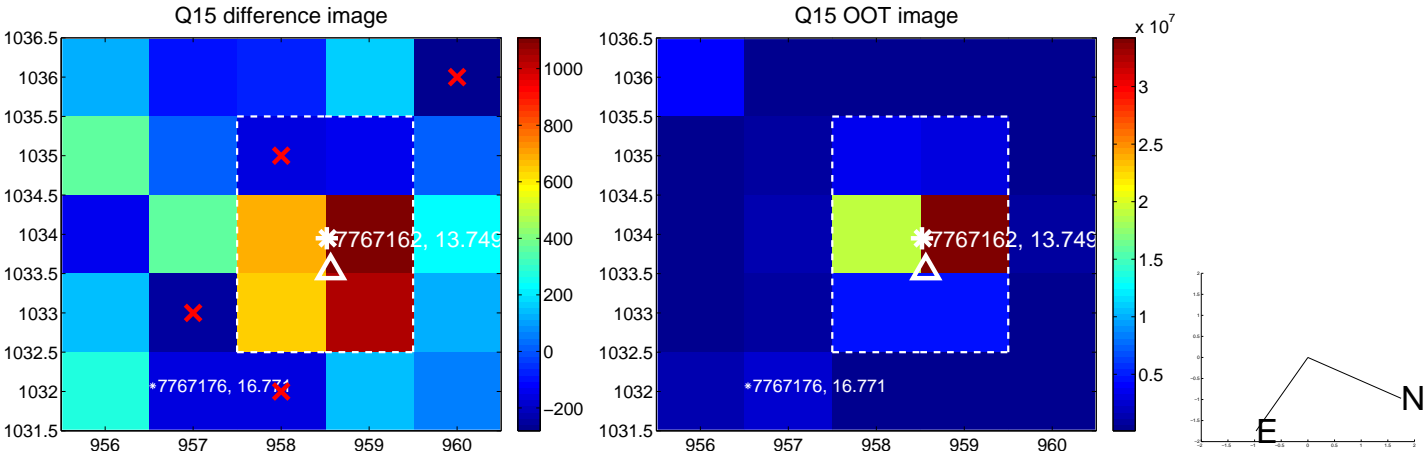
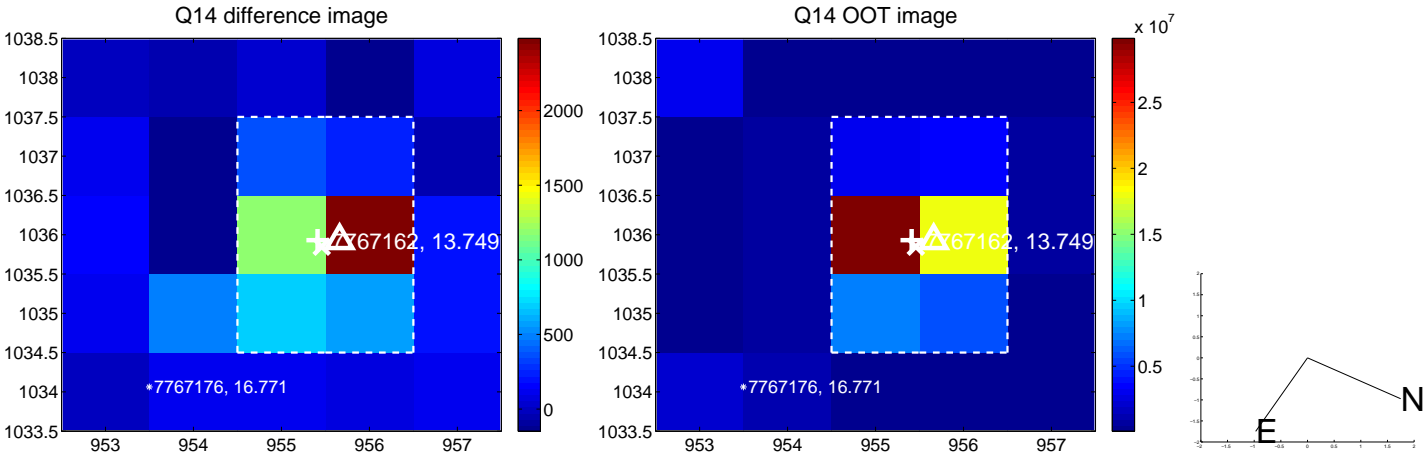
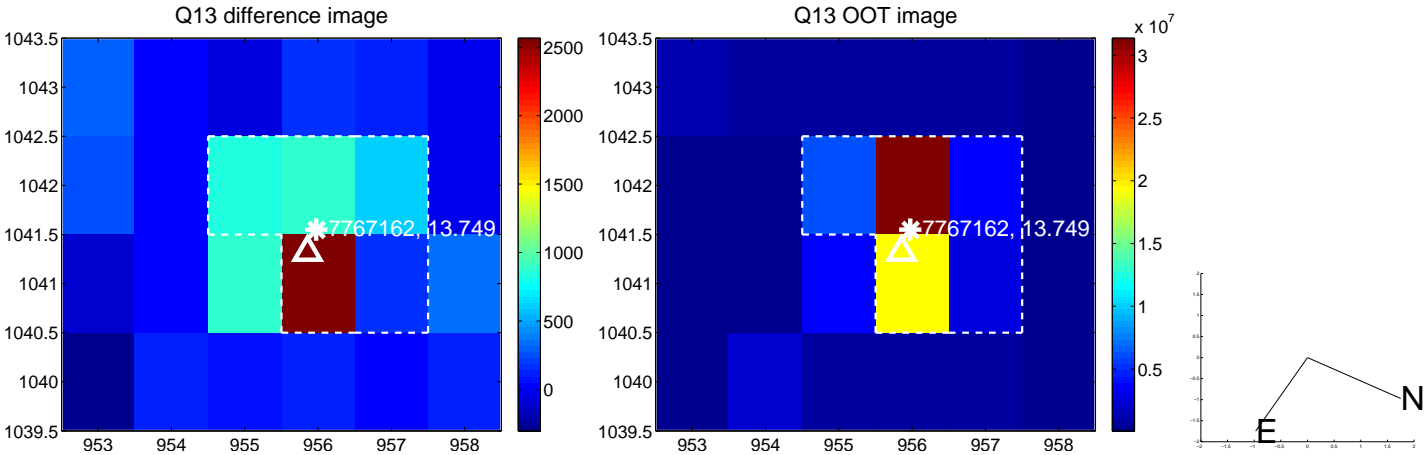
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



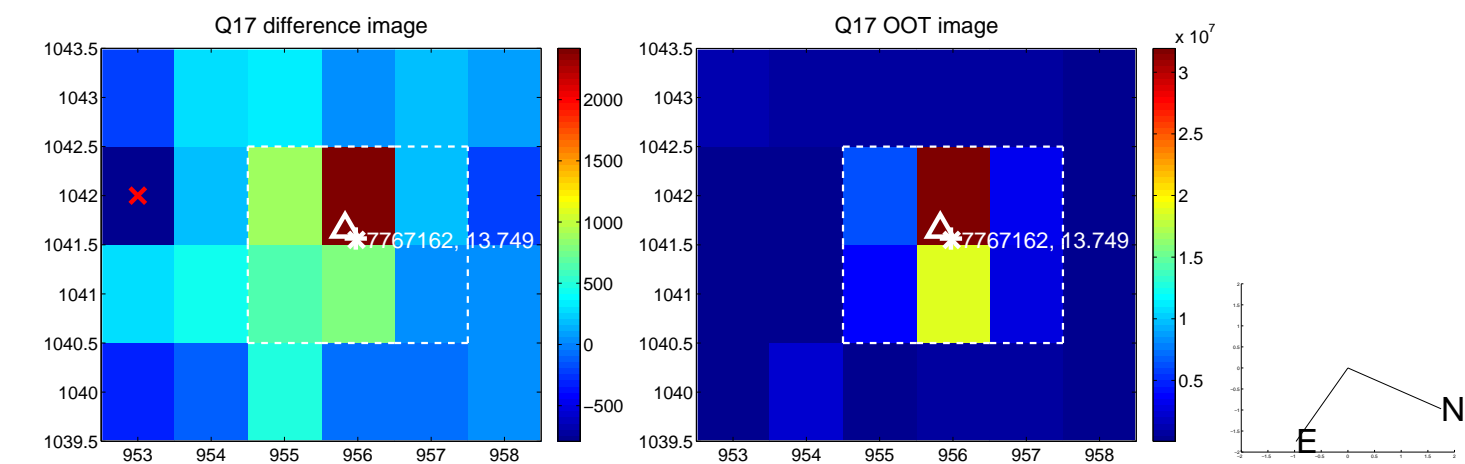
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



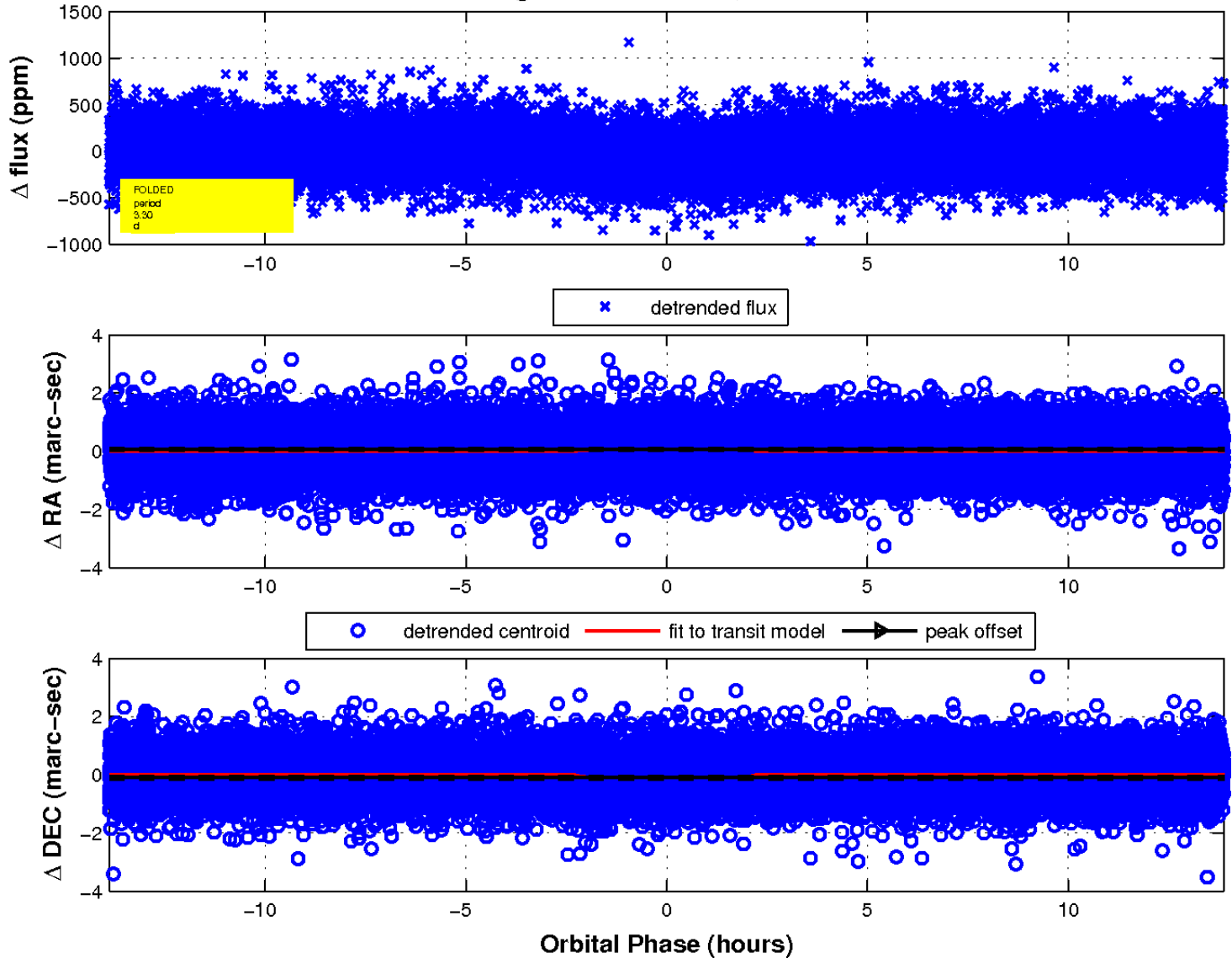
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

