

KIC 008589754

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})
008589754-01	OBS	3518.01	4.469737	133.012406	321027.4	6.256	15561.4	6557.9	2.23	6461	141.20	2340.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008589754-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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.

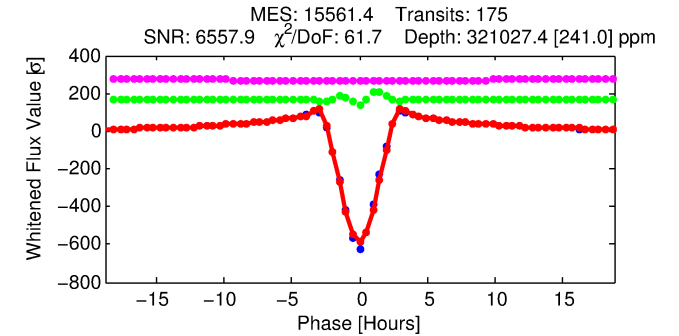
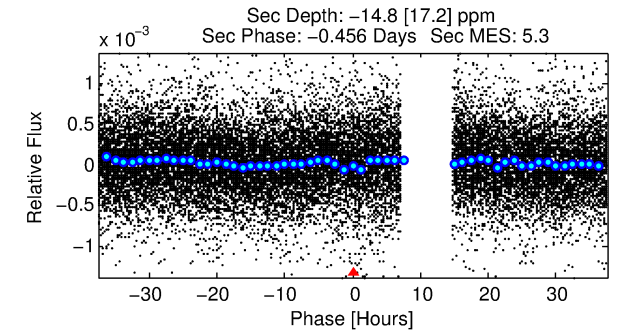
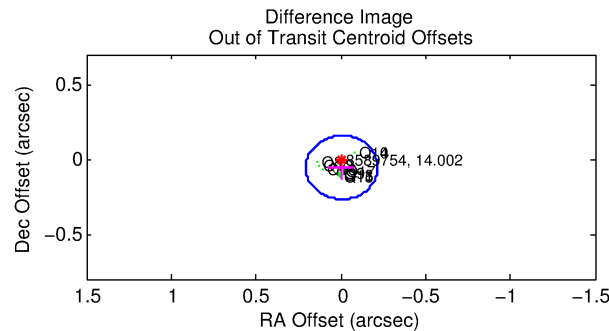
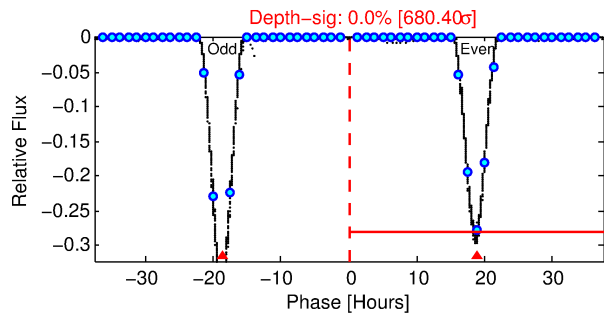
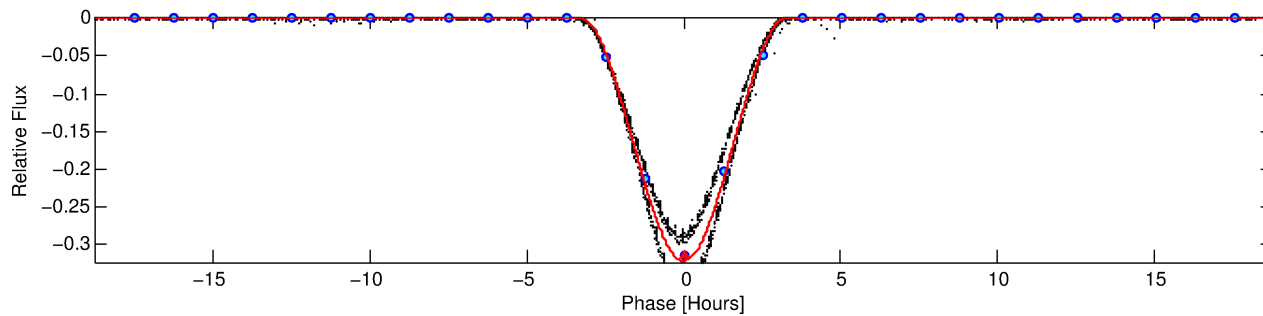
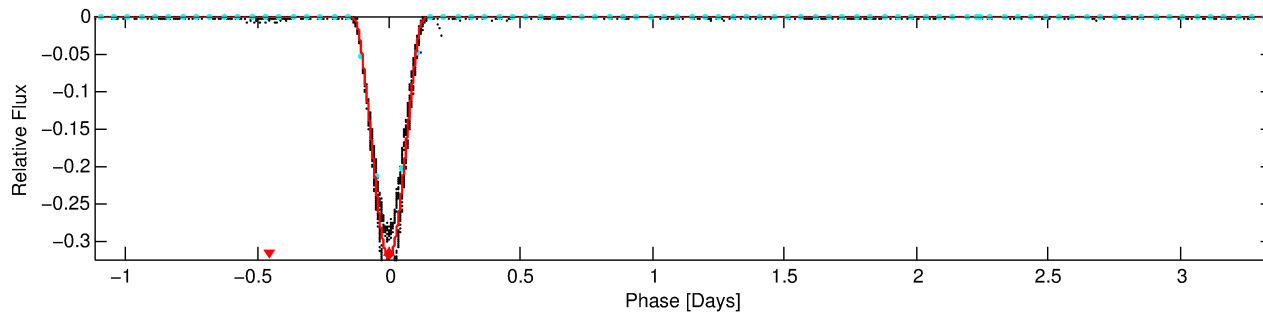
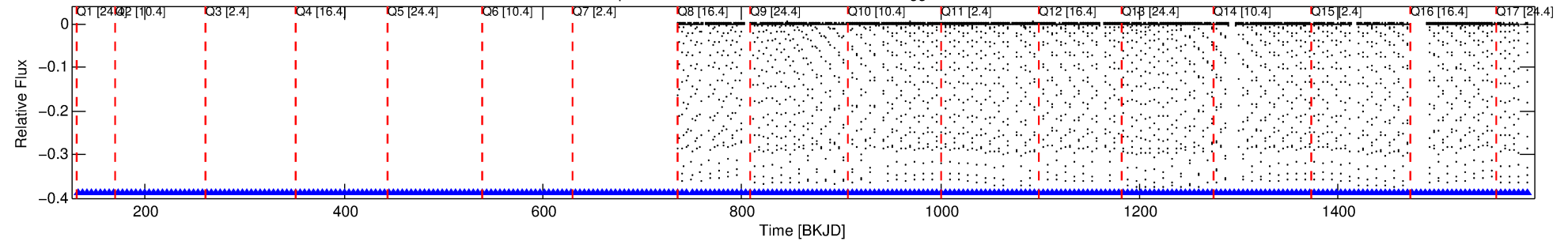
Ephemeris Match Information For 008589754-01

No Significant Match Found

DV One-Page Summary

KIC: 8589754 Candidate: 1 of 1 Period: 4.470 d
KOI: K03518 Corr: No Ephemeris Match

Kp: 14.00 R*: 2.23 Rs Teff: 6461.0 K Logg: 3.85 Fe/H: -0.340



DV Fit Results:

Period = 4.46974 [0.00000] d
Epoch = 133.0124 [0.0001] BKJD
Rp/R* = 0.5816 [0.0042]
a/R* = 8.16 [0.01]
b = 0.55 [0.01]
Seff = 2340.30 [1811.50]
Teff = 1774 [343] K
Rp = 141.20 [63.34] Re
a = 0.0575 [0.0265] AU
Ag = N/A
Teffp = N/A

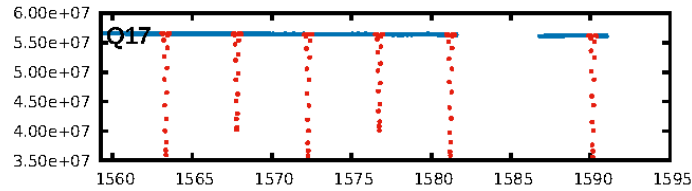
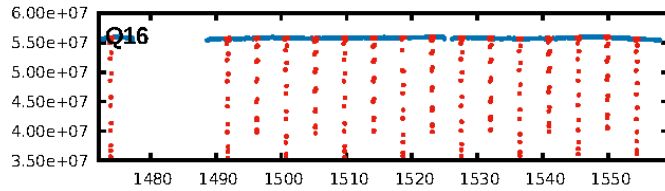
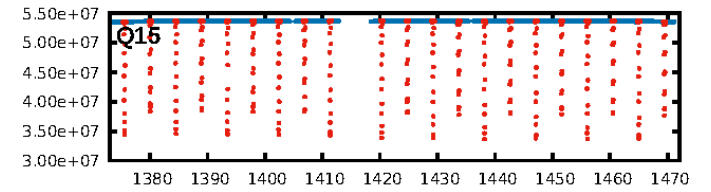
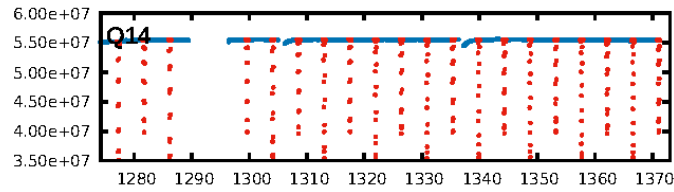
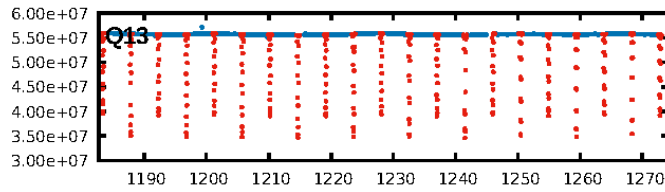
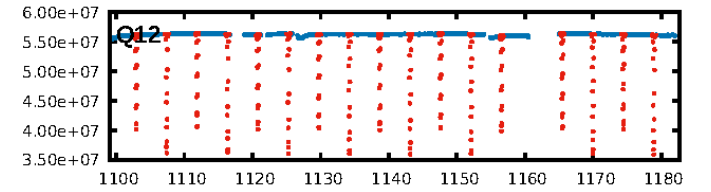
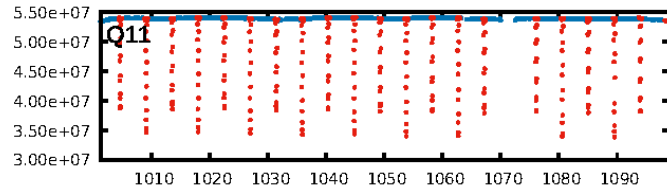
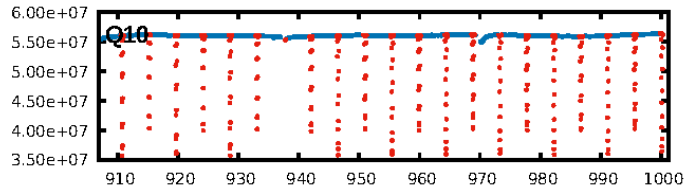
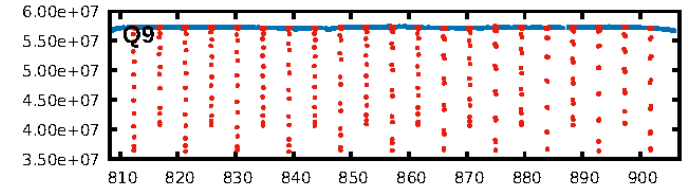
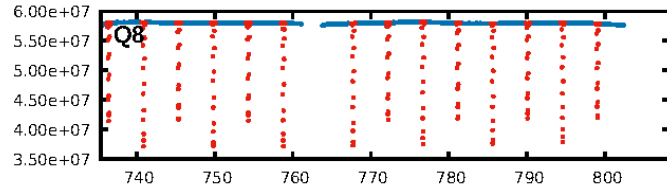
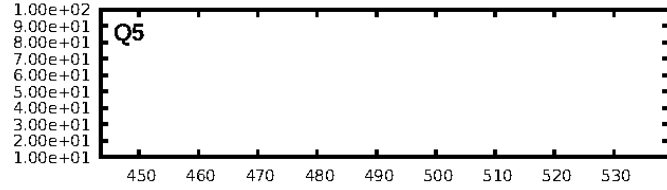
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [169/169]
GhostDiagnostic-chr: 1.236
Centroid-sig: 0.0%
Centroid-so: 0.920 arcsec [1548.05σ]
OotOffset-rm: 0.056 arcsec [0.79σ]
KicOffset-rm: 0.021 arcsec [0.31σ]
OotOffset-st: 2/2/3/3 [10]
KicOffset-st: 2/2/3/3 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [10/10]

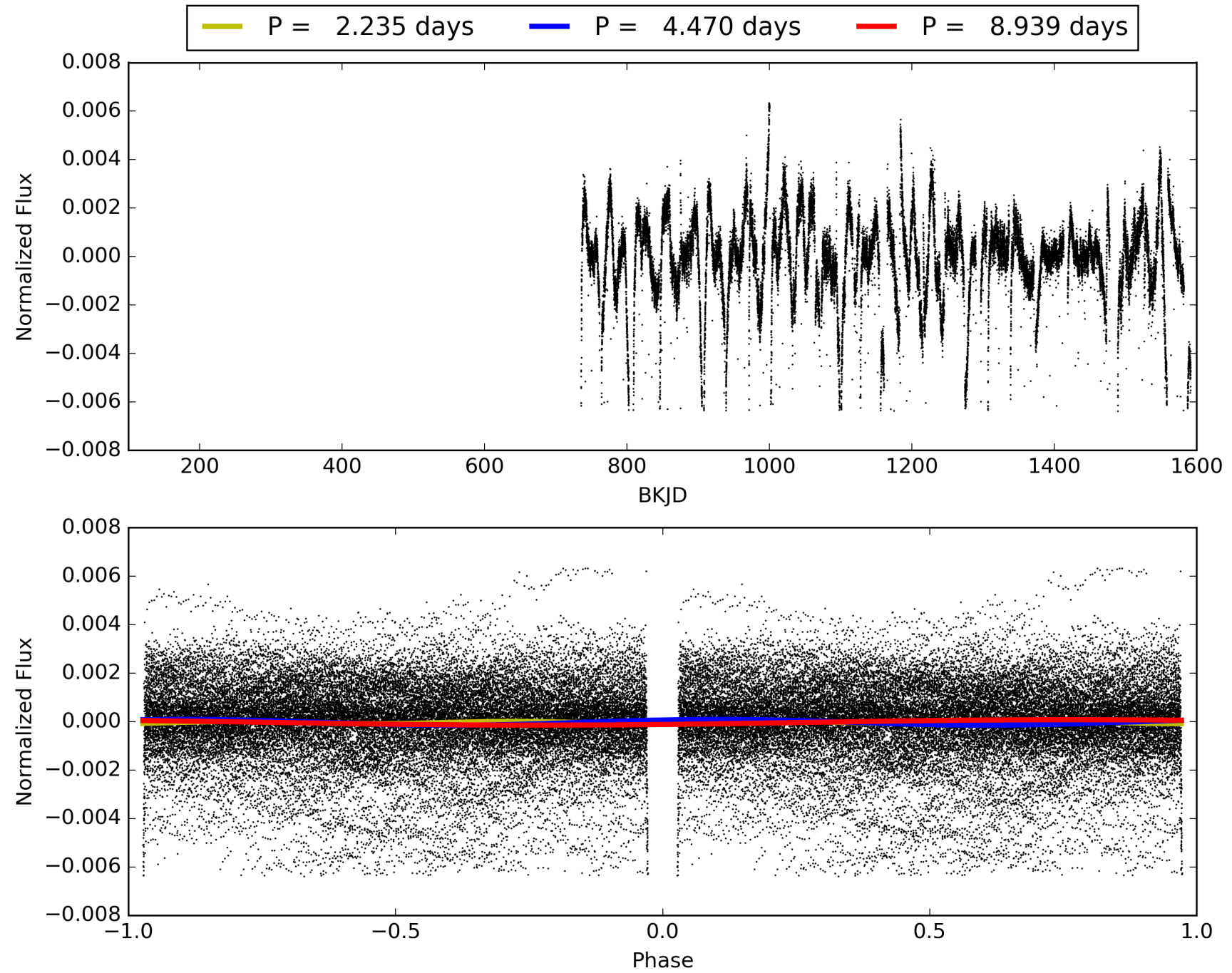
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:41:36 Z

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

TCE 008589754-01, PDC Light Curves

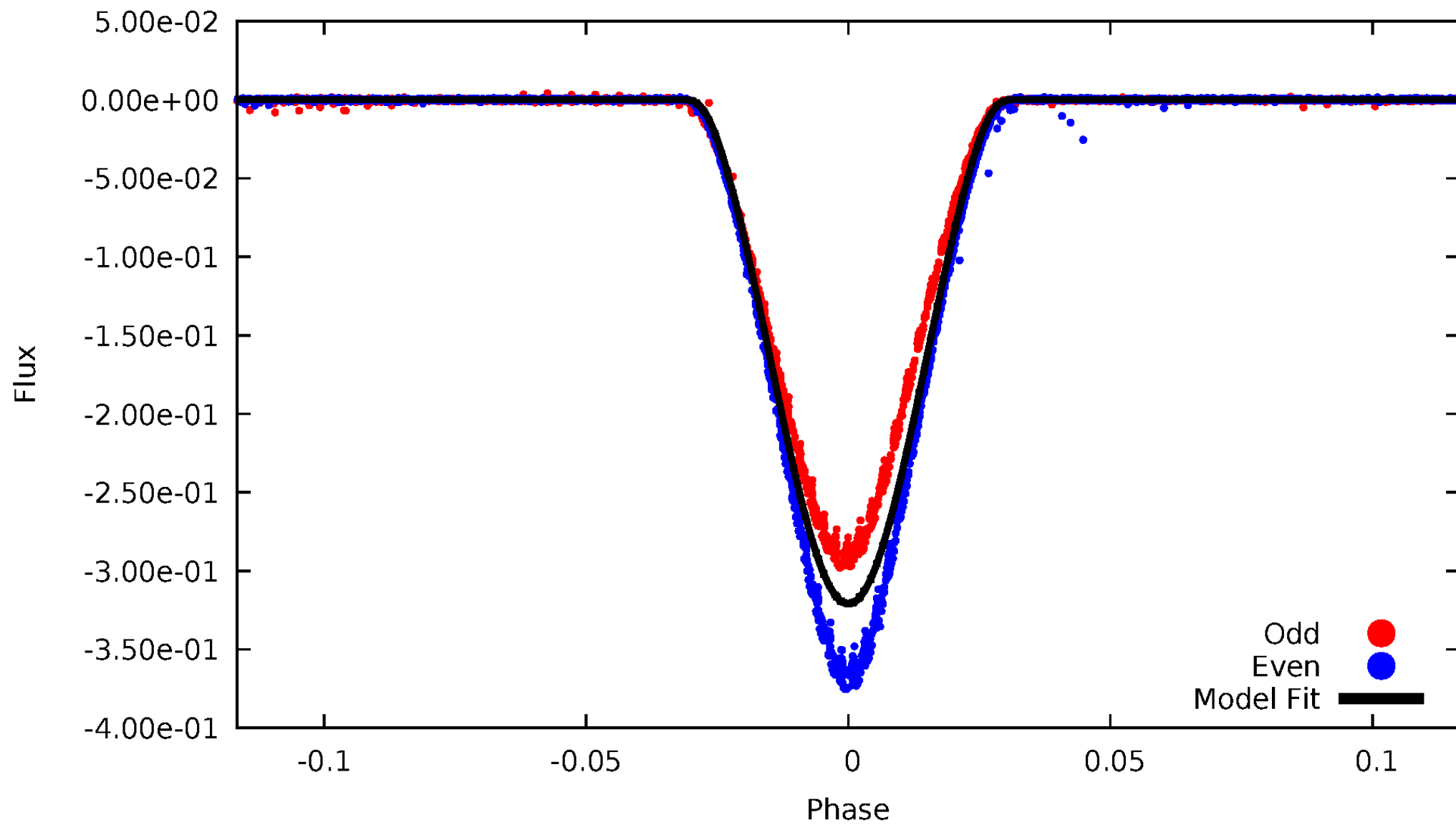


TCE 008589754-01



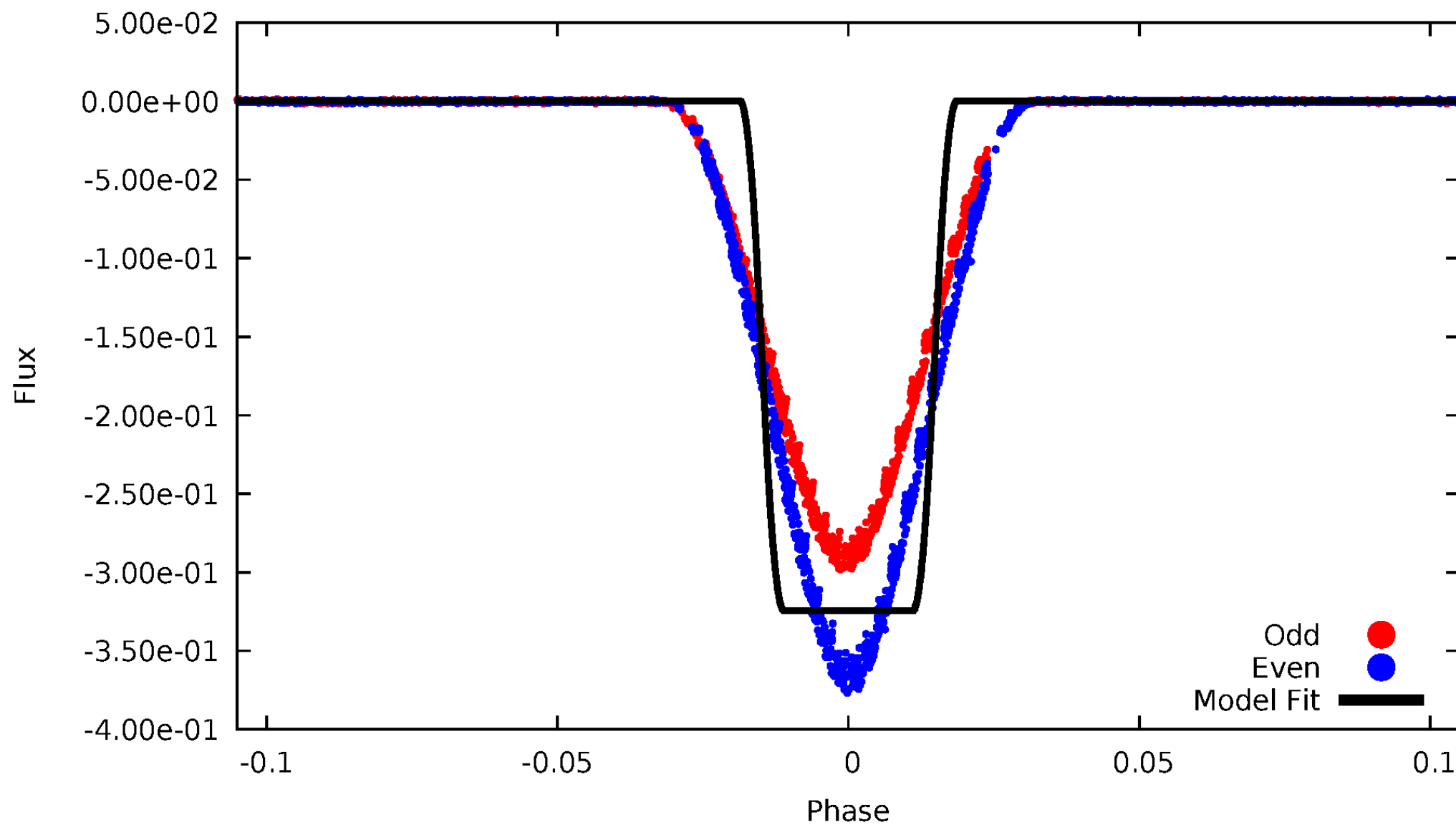
DV Odd/Even

TCE 008589754-01



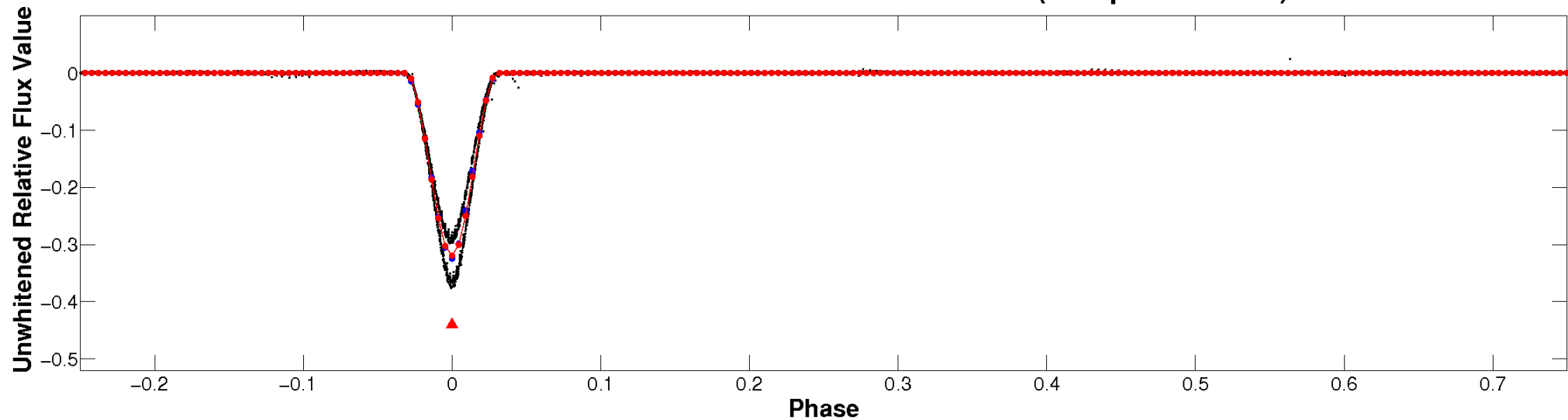
ALT Odd/Even

TCE 008589754-01

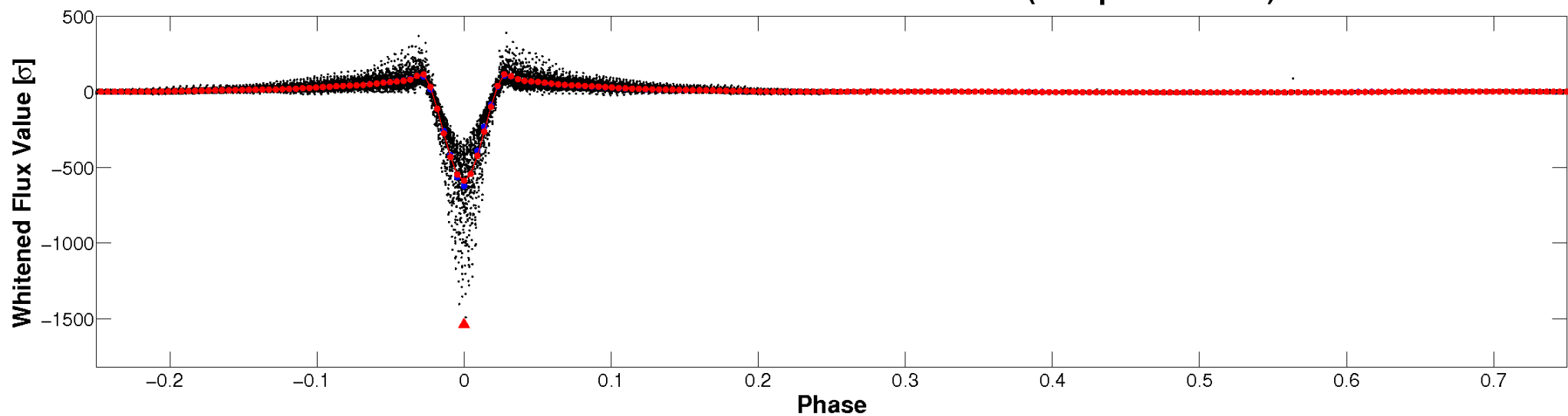


Non-Whitened Vs. Whitened Light Curve

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

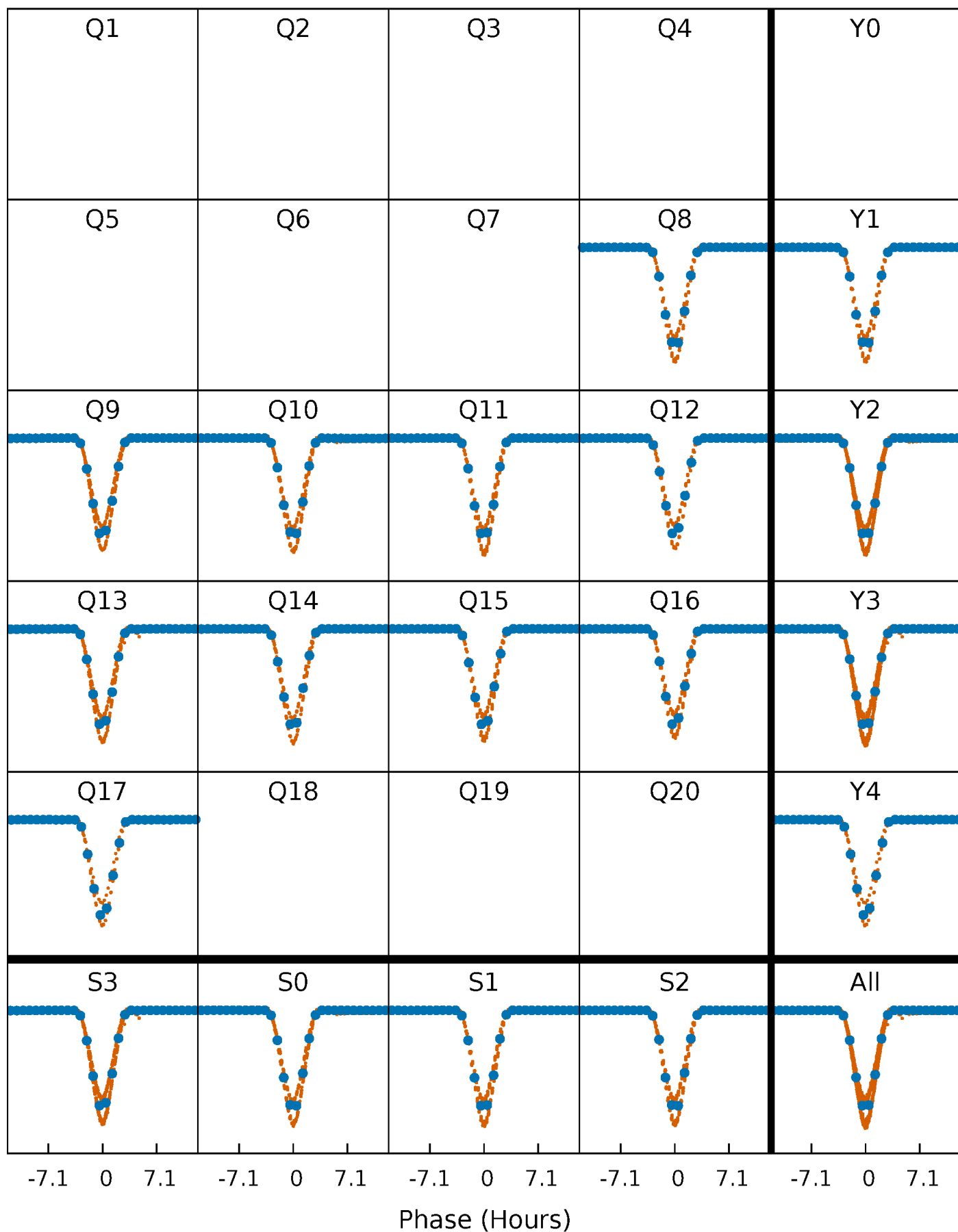


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



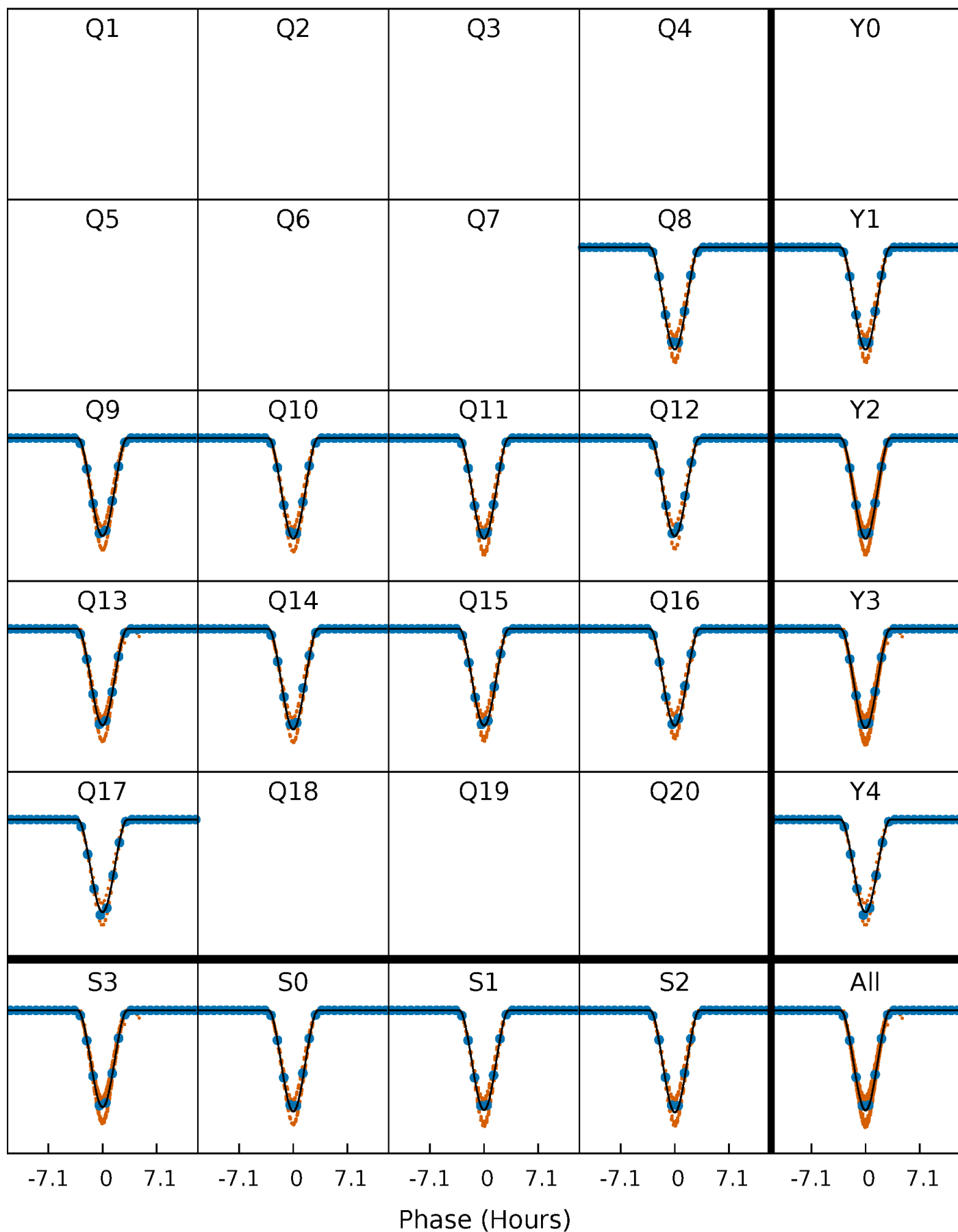
PDC Quarter-Phased Transit Curves

TCE 008589754-01 P= 4.469737 Days $T_0=133.012406$ (BKJD)



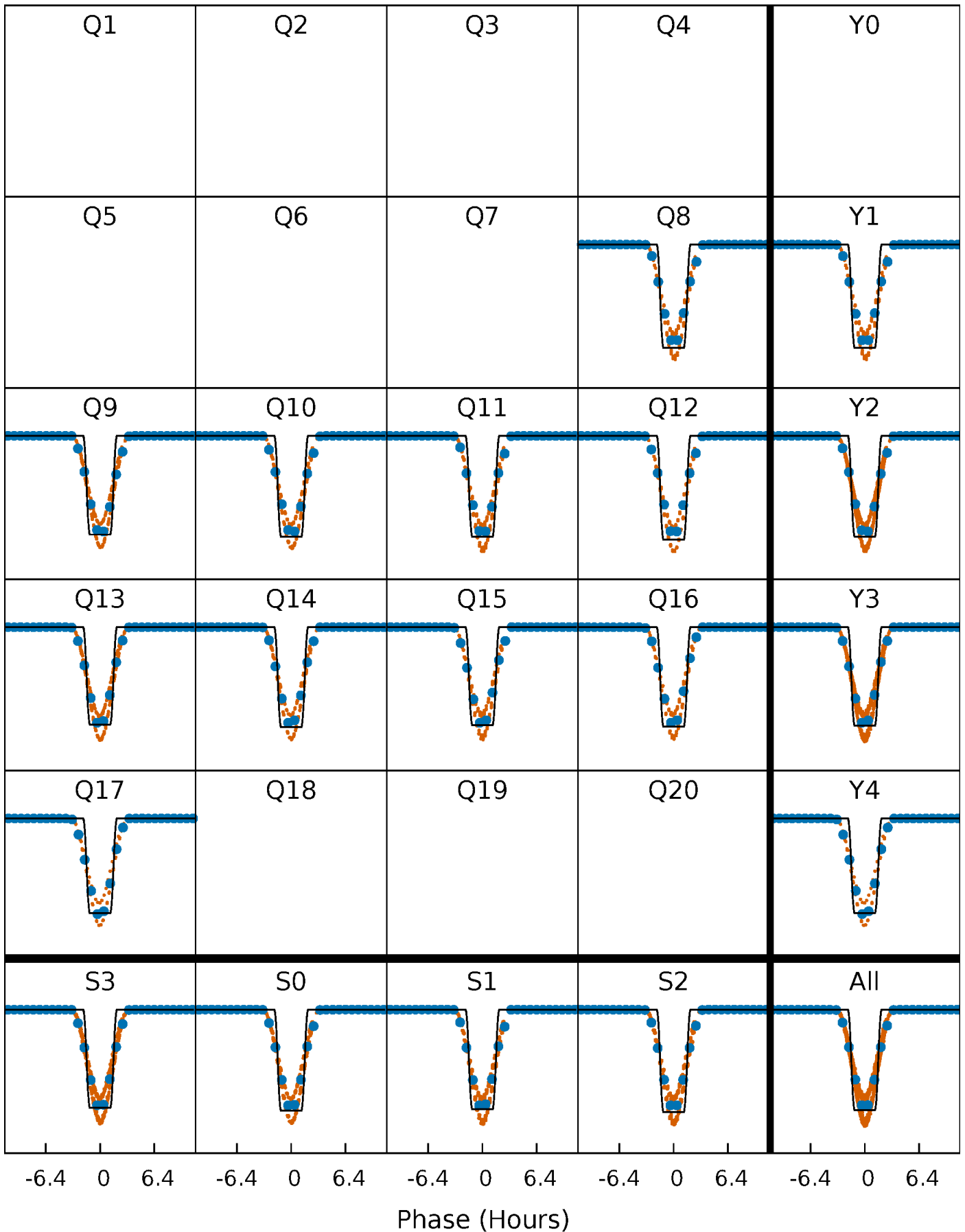
DV Quarter-Phased Transit Curves

TCE 008589754-01 P= 4.469737 Days $T_0=133.012406$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

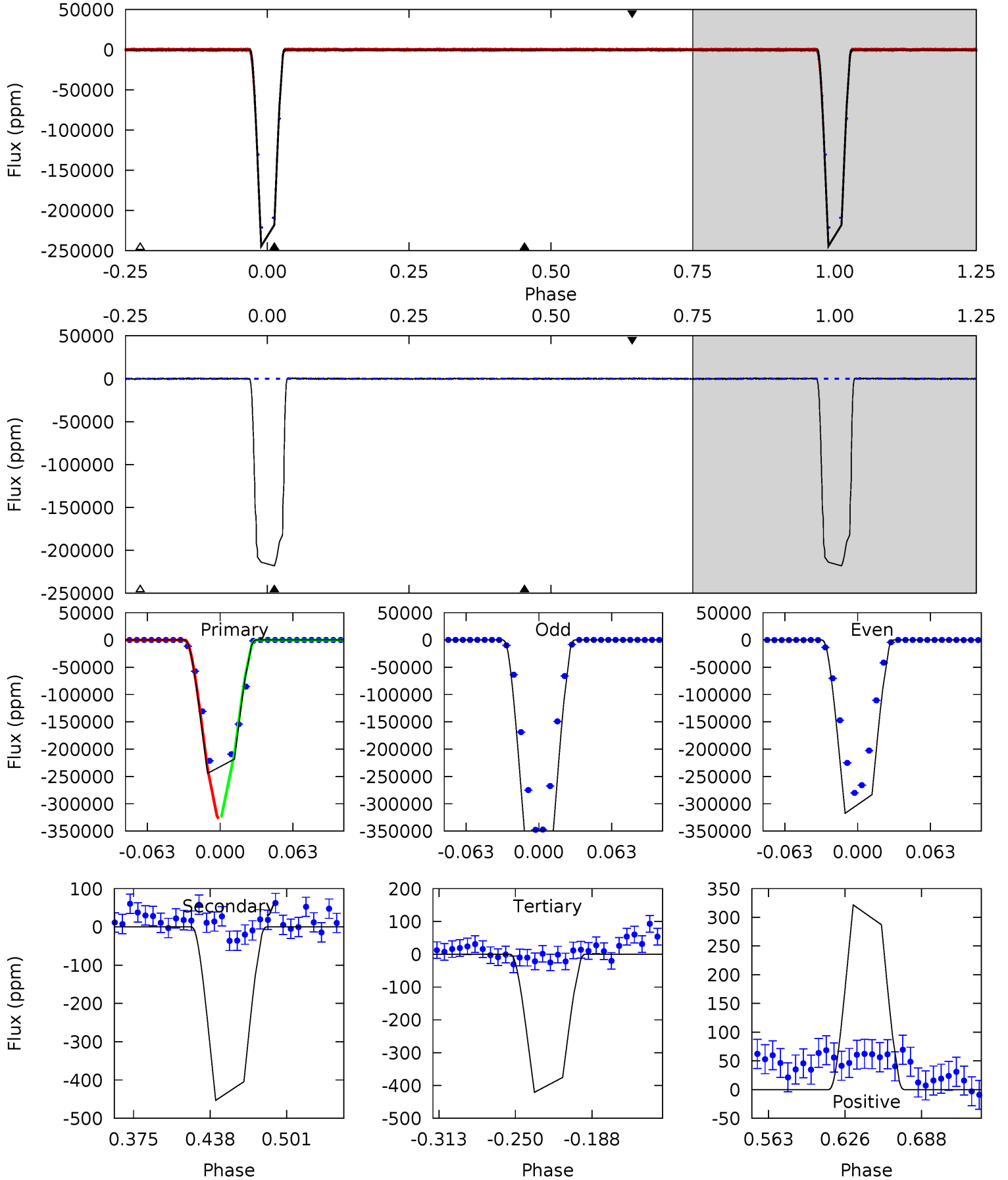
TCE 008589754-01 P= 4.469761 Days $T_0=133.005497$ (BKJD)



DV Model-Shift Uniqueness Test

008589754-01, P = 4.469737 Days, E = 133.012406 Days

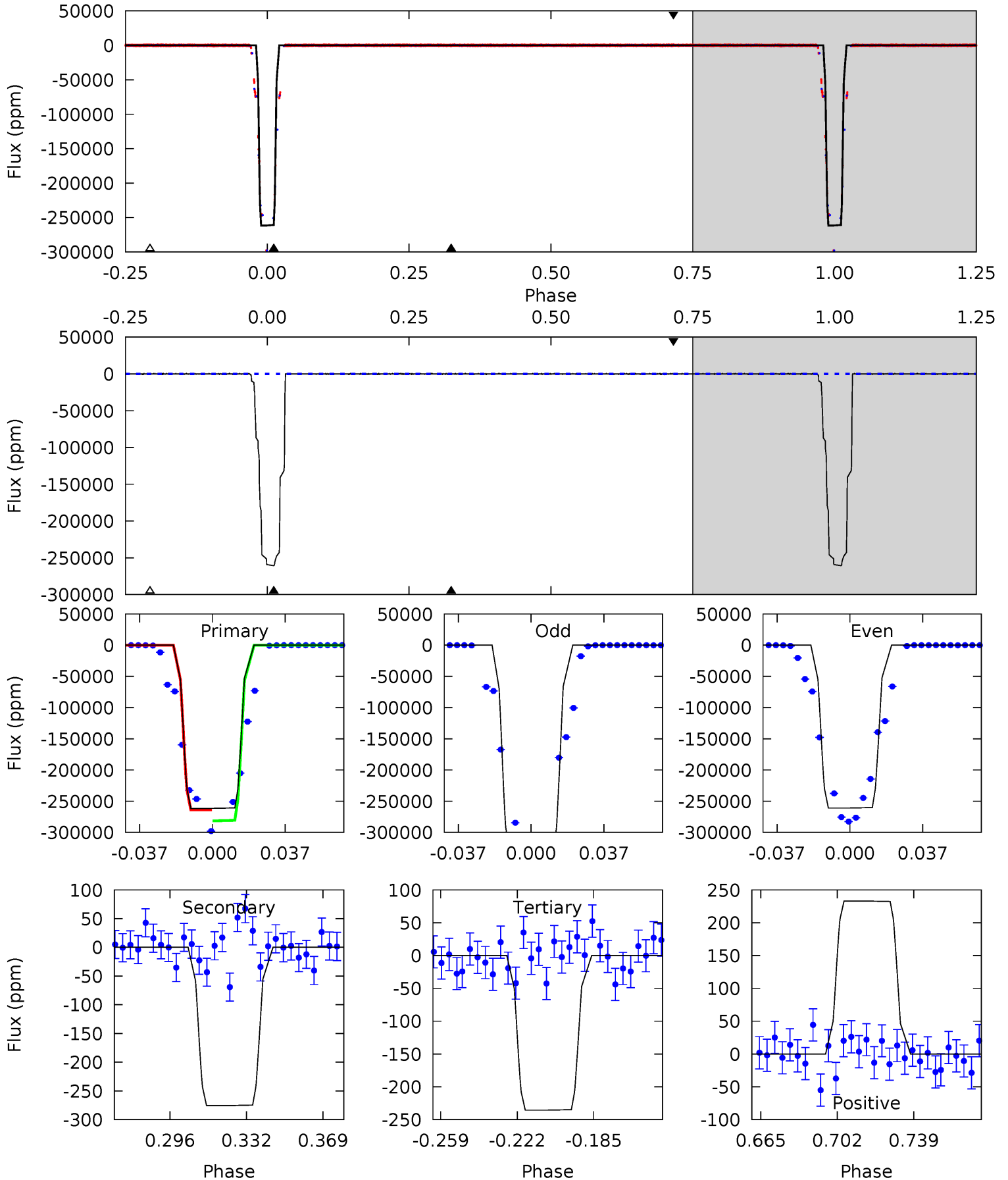
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11627	21.6	20.0	15.3	4.66	1.86	6.36	11607	11612	1.54	6.26	3201	0.94	0.00	0



Alt Model-Shift Uniqueness Test

008589754-01, P = 4.469761 Days, E = 133.005497 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4409	4.65	3.97	3.93	4.77	2.09	1.82	4405	4405	0.67	0.72	1615	1.00	0.00	0



Stellar Parameters For KIC 008589754

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6461^{+181}_{-227}	$3.846^{+0.456}_{-0.114}$	$-0.340^{+0.300}_{-0.300}$	$2.225^{+0.461}_{-0.998}$	$1.266^{+0.205}_{-0.273}$	$0.162^{+0.740}_{-0.056}$
	+3%/-4%	+12%/-3%	+88%/-88%	+21%/-45%	+16%/-22%	+457%/-35%
Source	KIC0	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 008589754-01 / KOI 3518.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-404 ± 19	$137.39^{+18.51}_{-30.80}$	2423^{+174}_{-275}	-2701^{+189}_{-108}	$0.039^{+0.024}_{-0.008}$
Alt.	-275 ± 59	$132.85^{+19.13}_{-33.95}$	2400^{+194}_{-308}	-2700^{+206}_{-120}	$0.029^{+0.023}_{-0.009}$

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 $A_{obs} \gg 1.0$

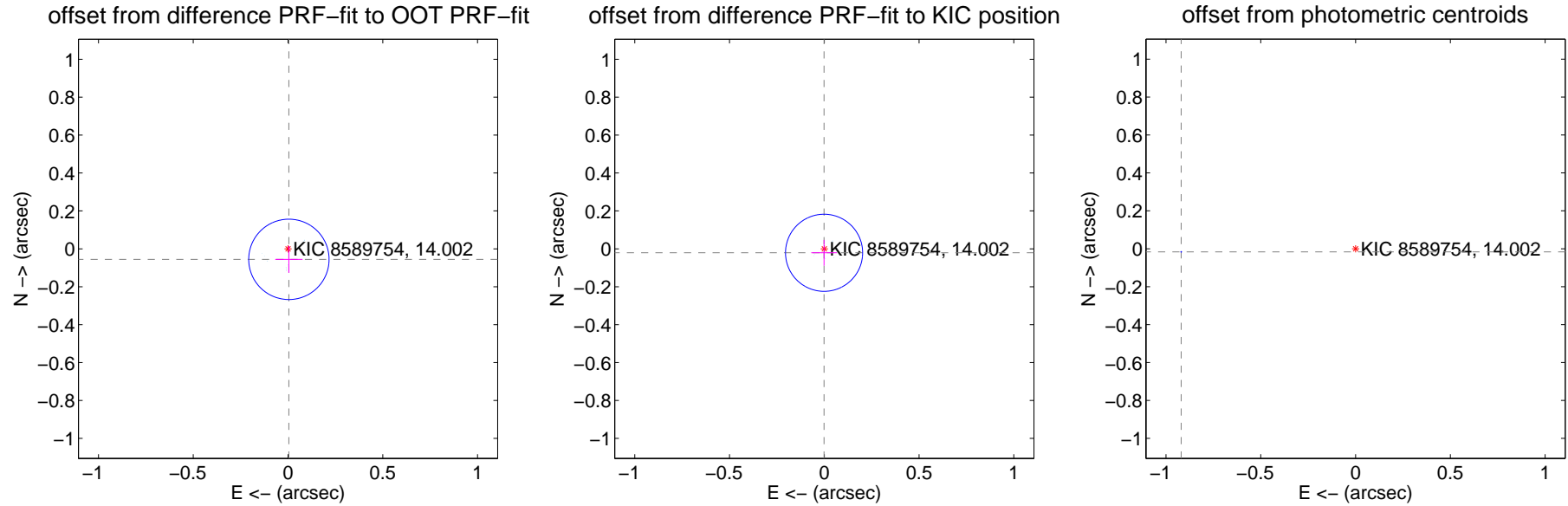
DV Centroid Data

Supplemental centroid analysis for 008589754-01. Kepler magnitude: 14.00. Transit SNR 6557.85

There are 10 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	0.056 ± 0.071	0.79	-0.005 ± 0.072	-0.056 ± 0.071
PRF-fit source offset from KIC position	0.021 ± 0.068	0.31	0.001 ± 0.068	-0.021 ± 0.068
photometric centroid source offset	0.92 ± 0.00	1548.05	0.92 ± 0.00	-0.02 ± 0.00

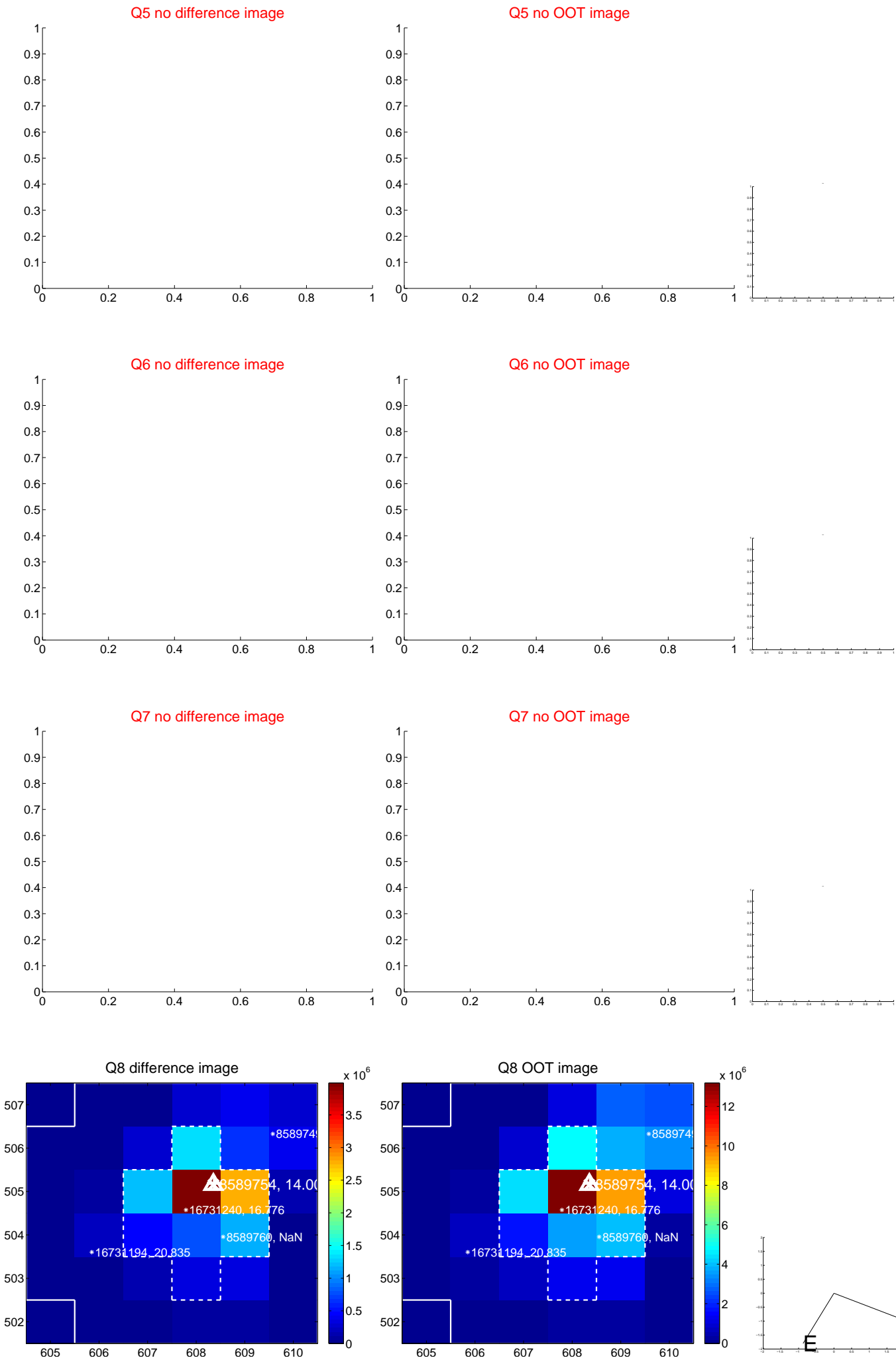


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

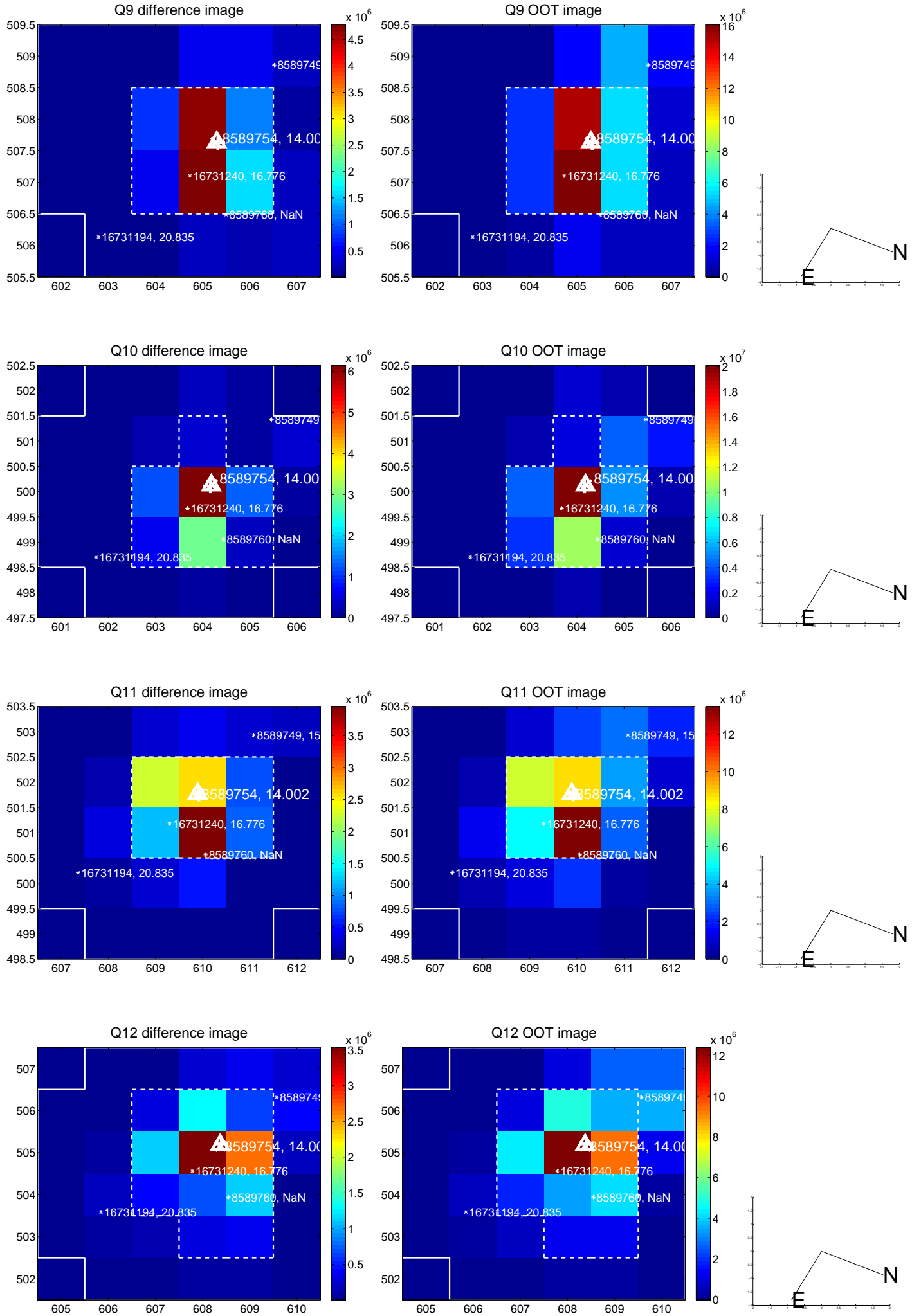
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



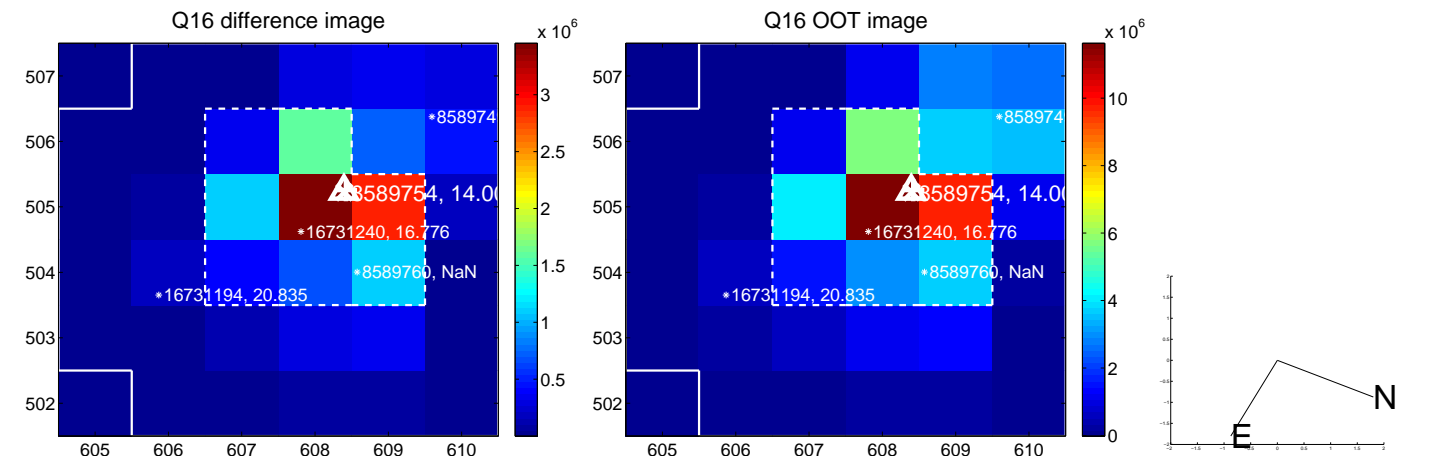
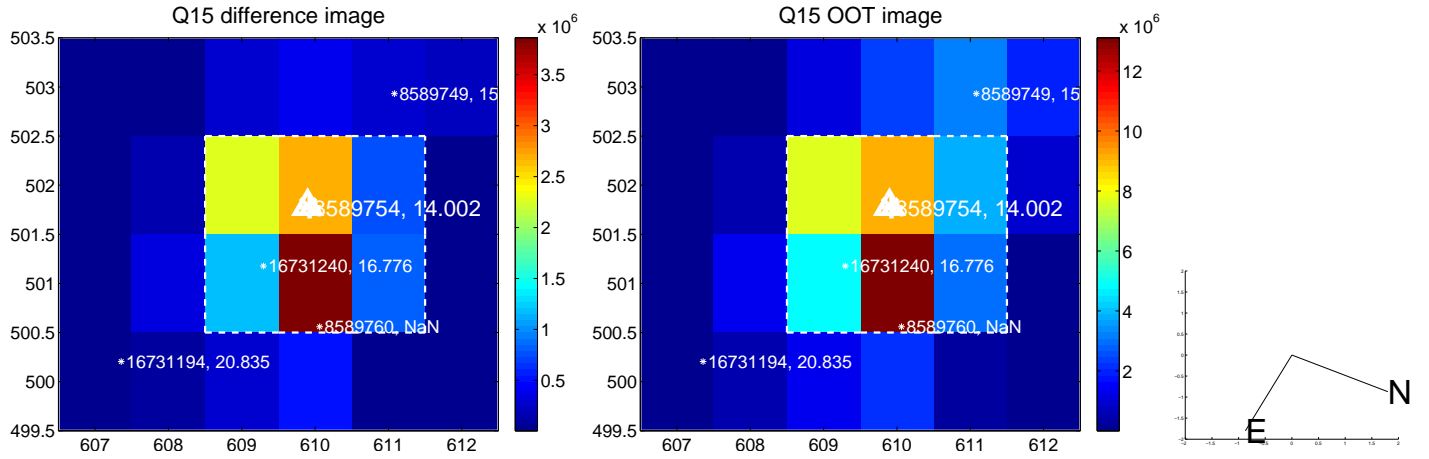
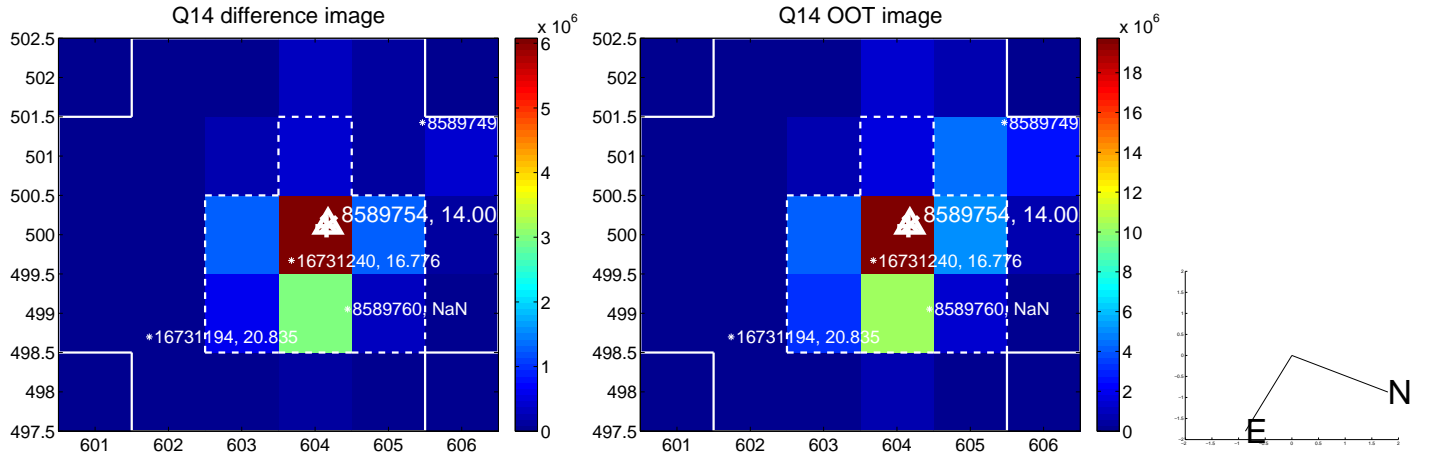
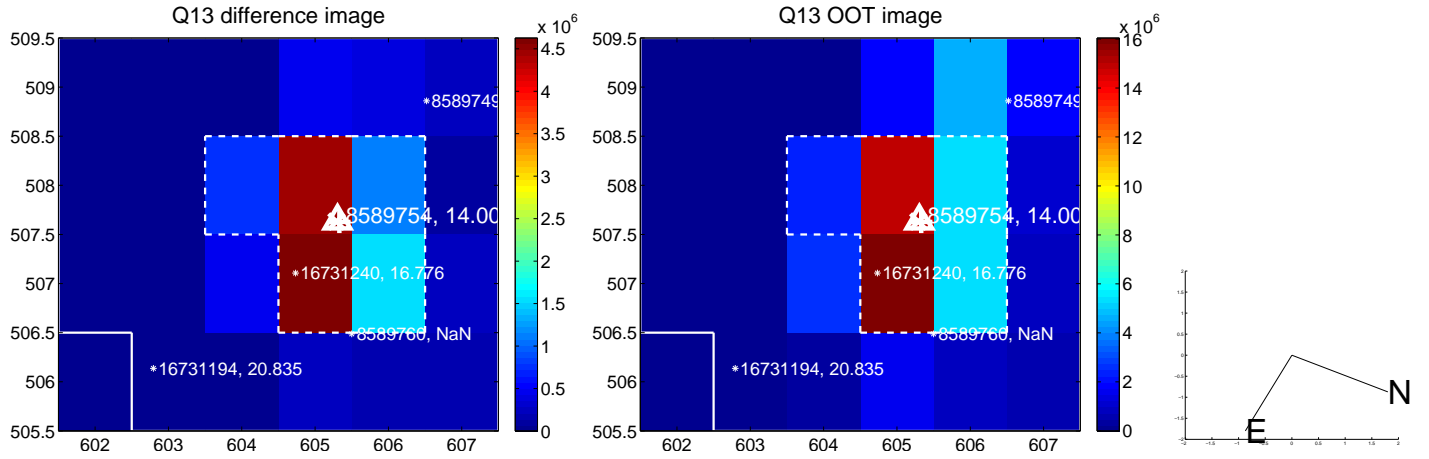
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



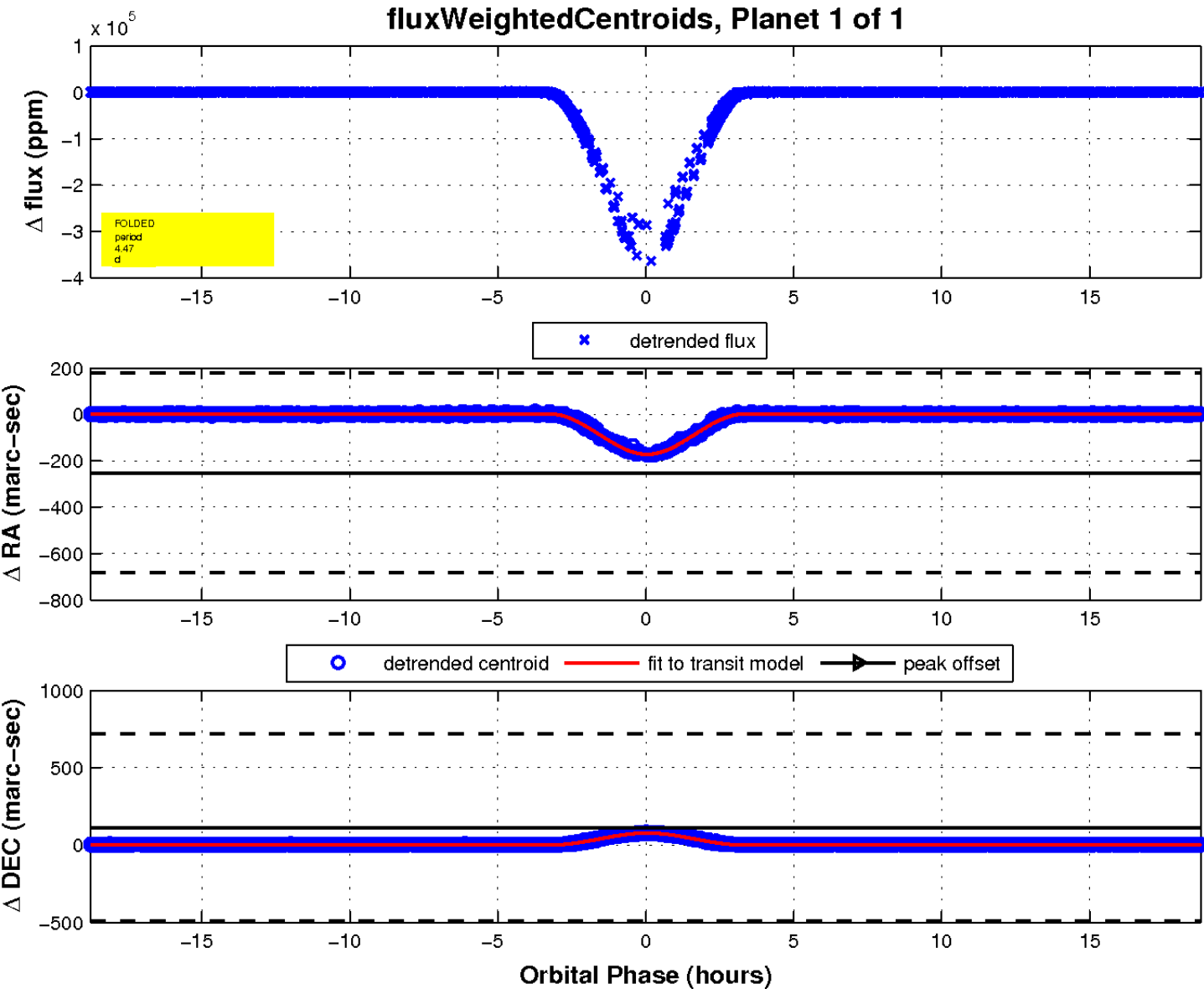
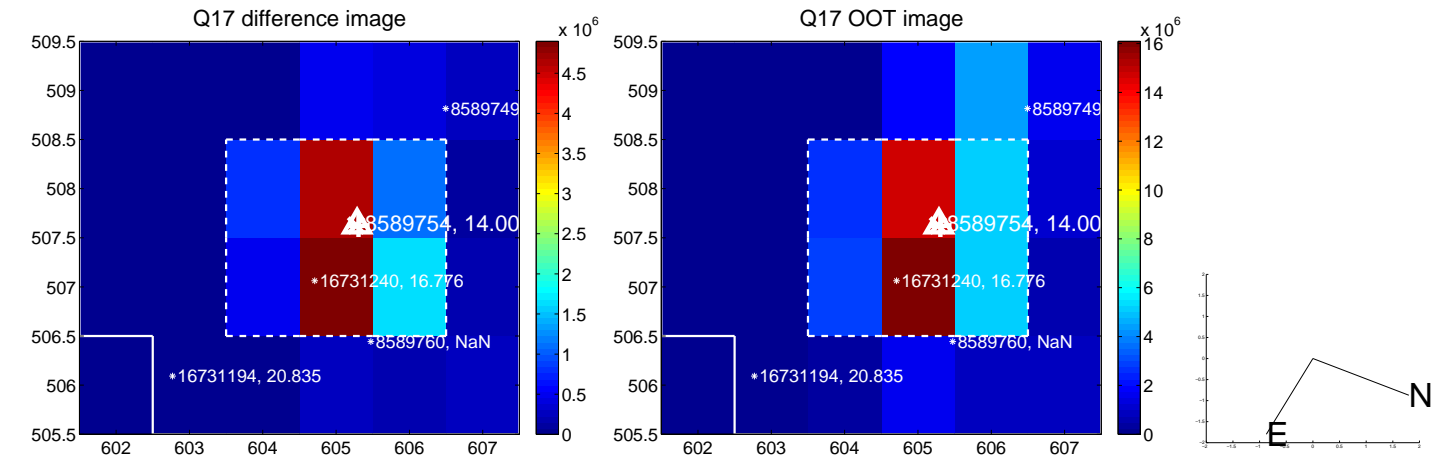
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UKIRT Image

