

KIC 004912589

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})
004912589-01	OBS	6469.01	34.188303	132.142310	117504.1	3.026	8053.3	4942.6	1.34	5757	68.58	44.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004912589-01	OBS	FP	0.00	0	1	0	0	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 004912589-01

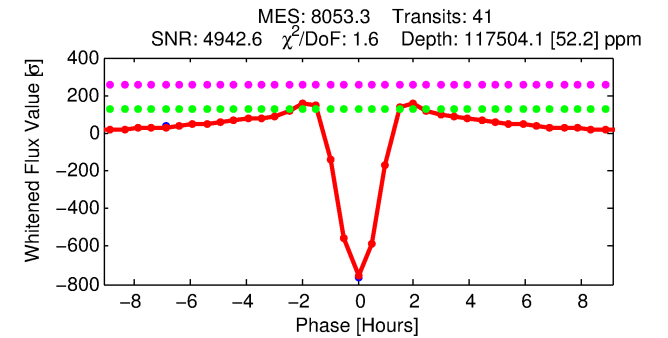
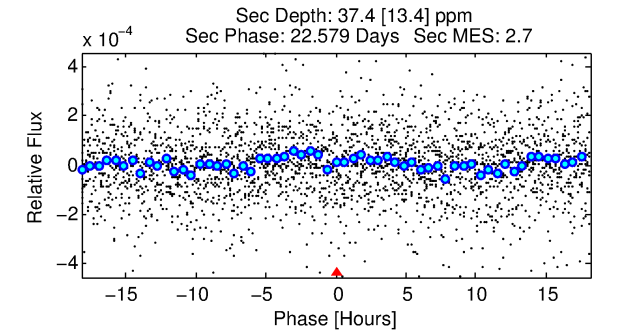
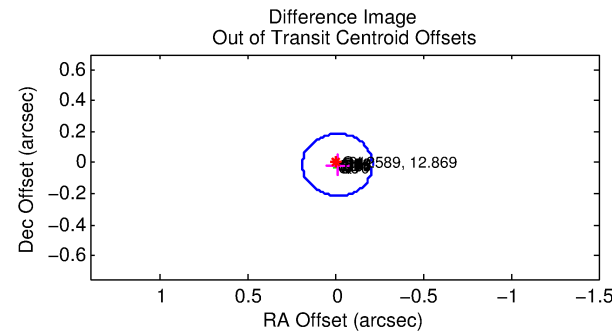
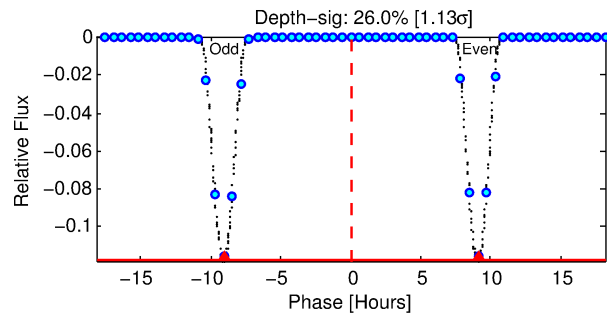
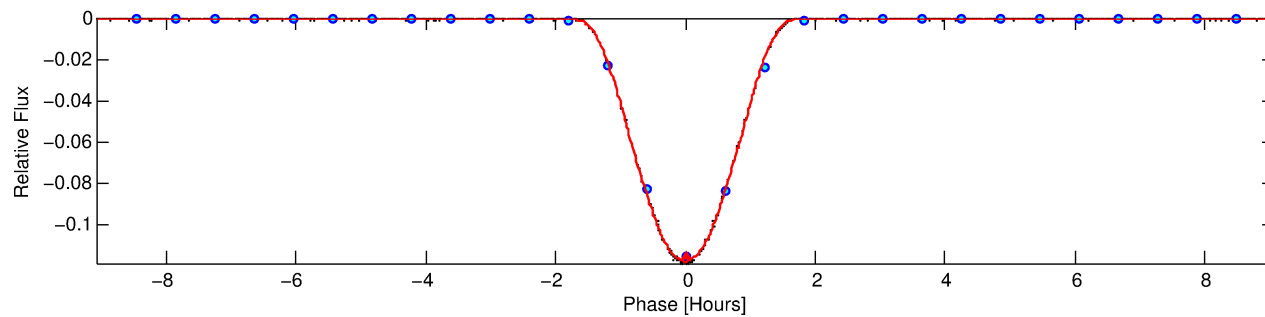
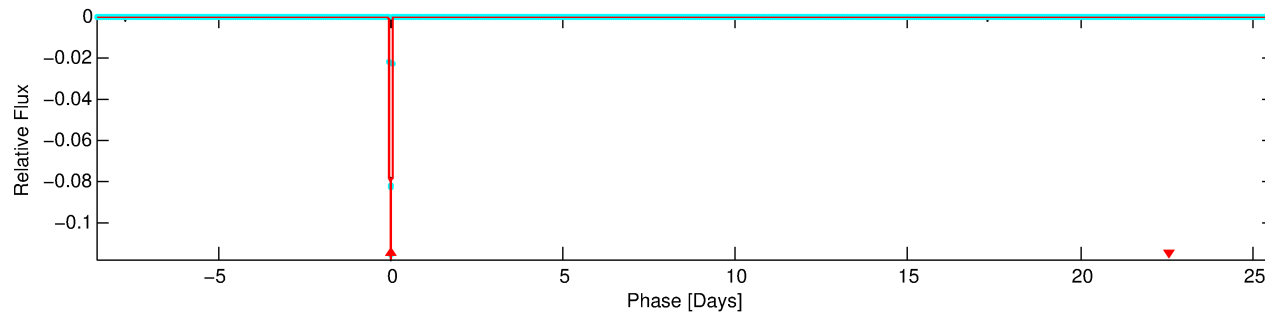
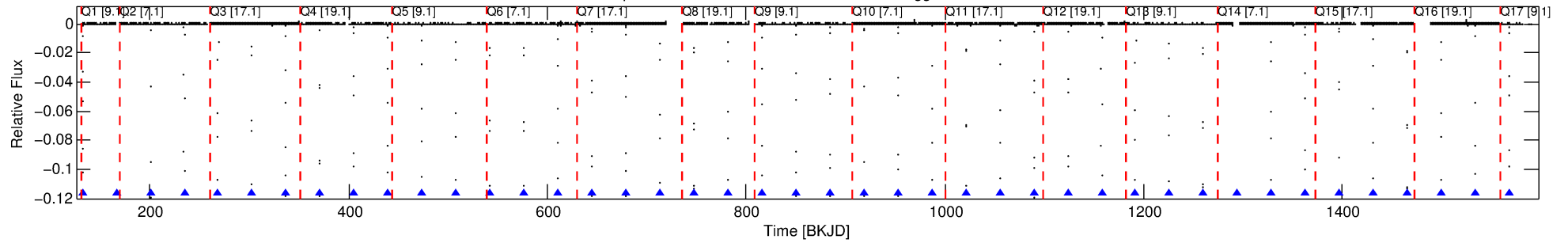
No Significant Match Found

DV One-Page Summary

KIC: 4912589 Candidate: 1 of 1 Period: 34.188 d

KOI: K06469.01 Corr: 0.997

Kp: 12.87 R*: 1.34 Rs Teff: 5757.0 K Logg: 4.13 Fe/H: -0.240



DV Fit Results:

Period = 34.18830 [0.00000] d
Epoch = 132.1423 [0.0000] BKJD
Rp/R* = 0.4673 [0.0194]
a/R* = 99.71 [0.23]
b = 0.90 [0.03]
Seff = 44.98 [27.82]
Teq = 660 [102] K
Rp = 68.58 [23.88] Re
a = 0.1990 [0.0721] AU
Ag = 0.17 [0.12] [-6.74σ]
Teffp = 659 [64] K [-0.01σ]

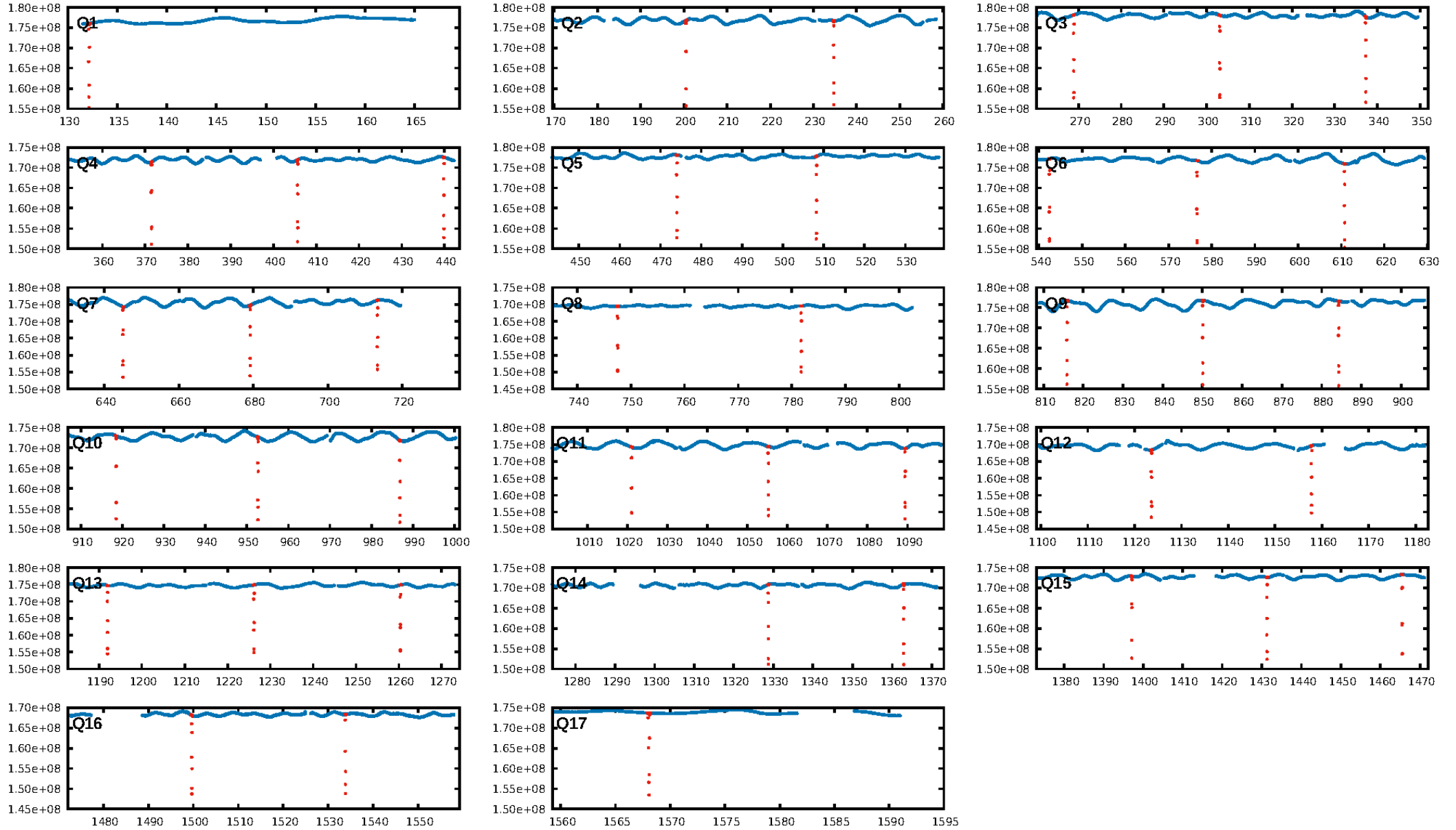
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 16.8%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [39/39]
GhostDiagnostic-chr: 3.241
Centroid-sig: 0.0%
Centroid-so: 0.118 arcsec [114.89σ]
OotOffset-rm: 0.017 arcsec [0.26σ]
KicOffset-rm: 0.096 arcsec [1.24σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

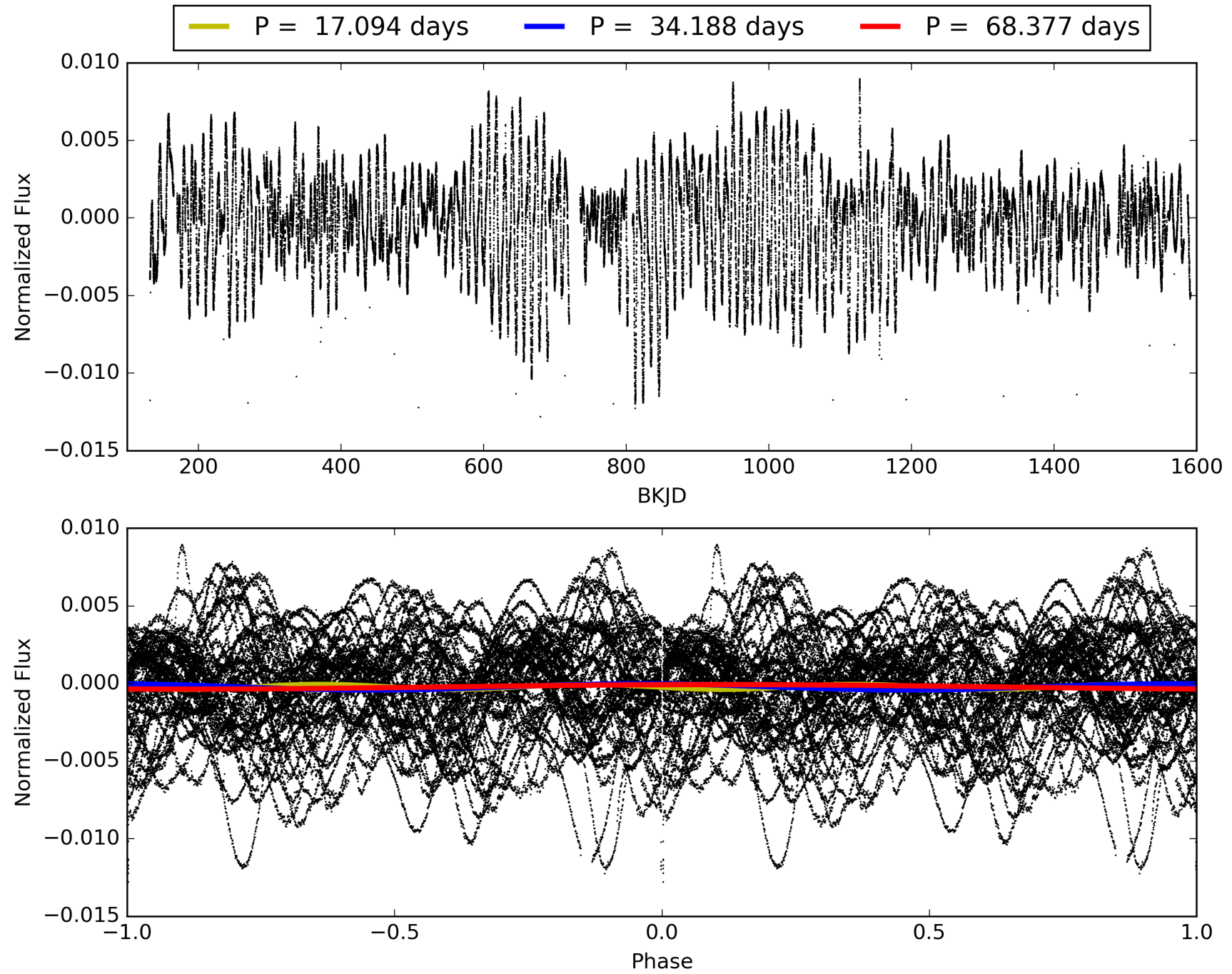
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 17:00:25 Z

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

TCE 004912589-01, PDC Light Curves

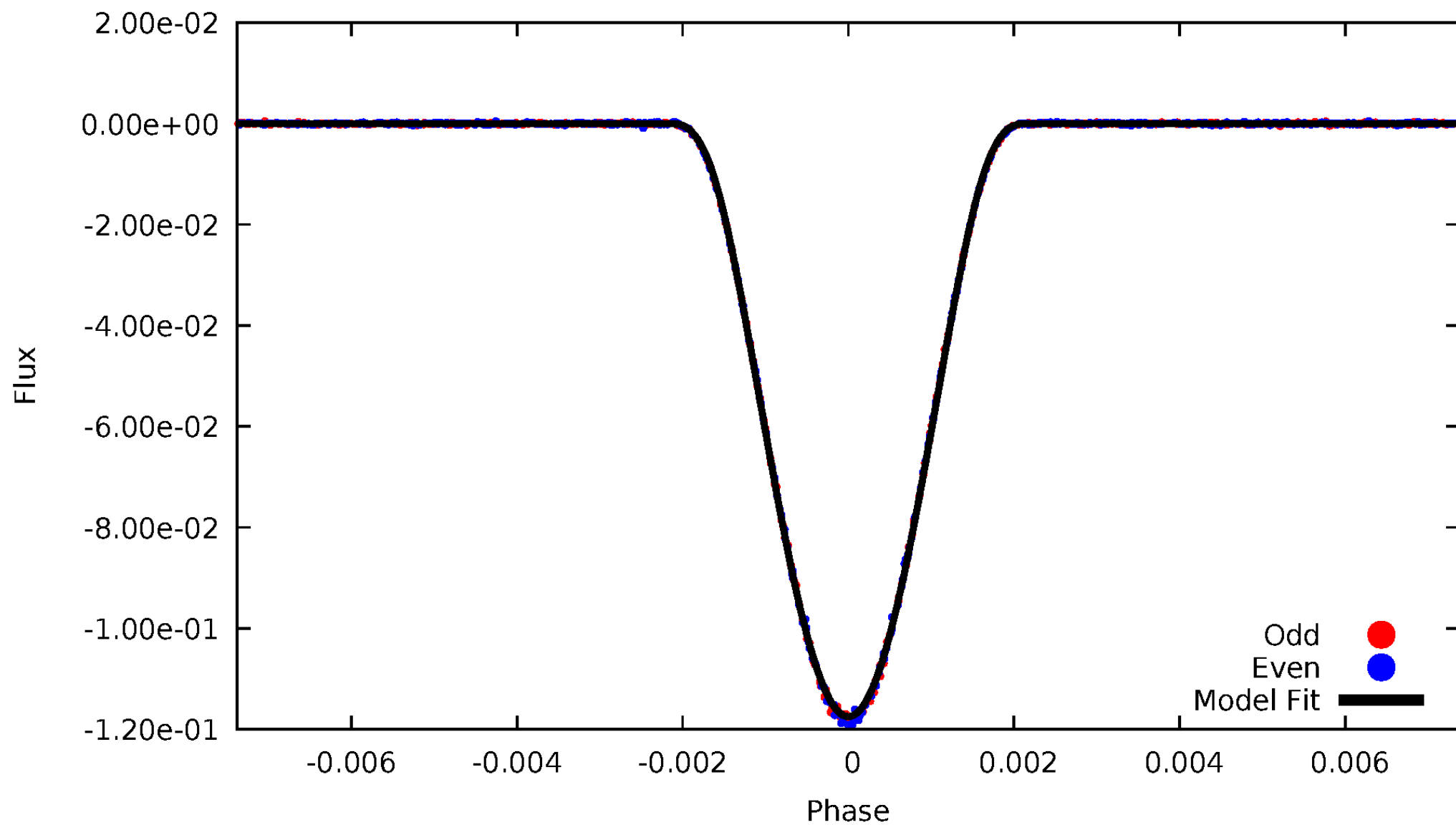


TCE 004912589-01



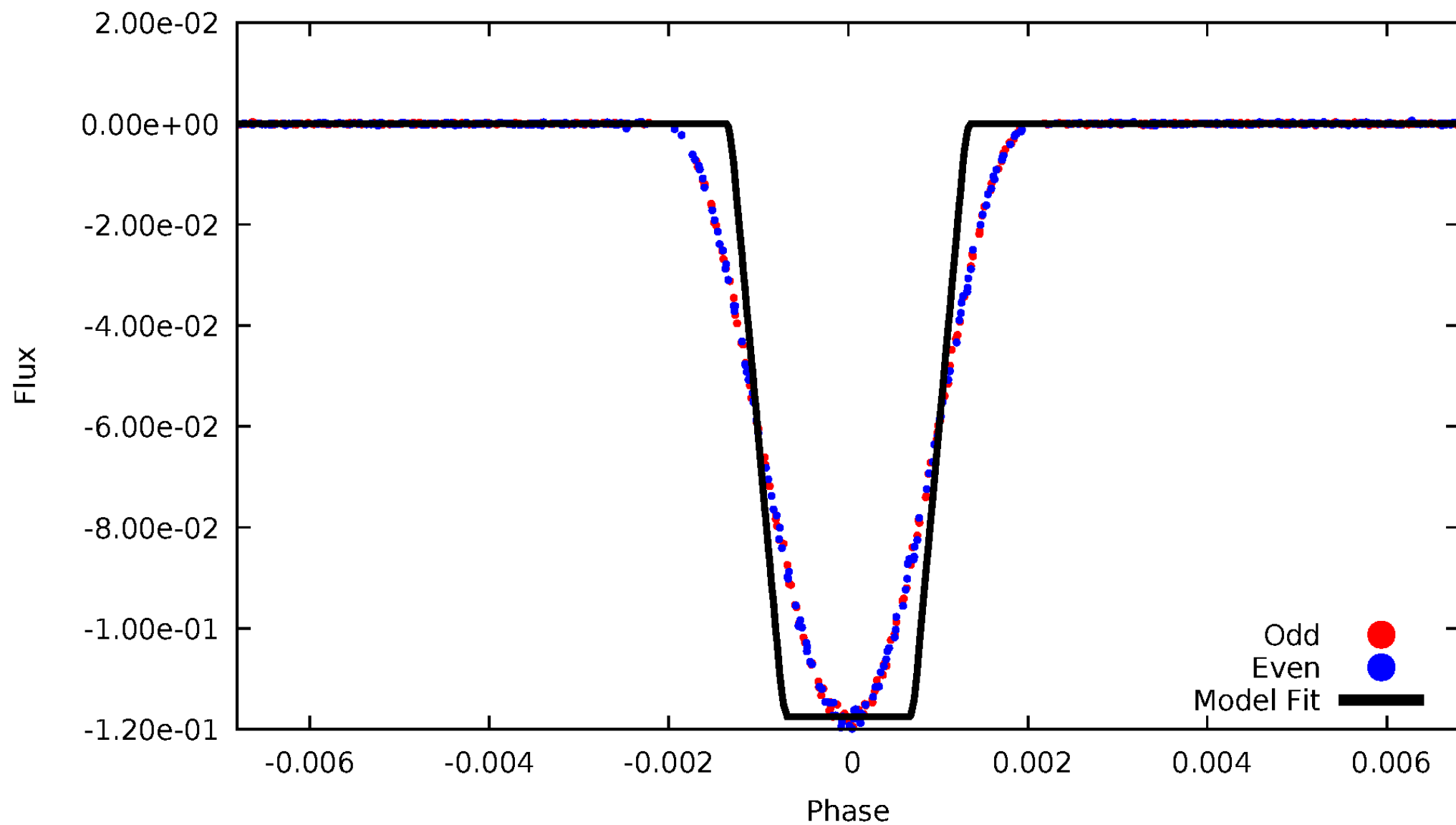
DV Odd/Even

TCE 004912589-01



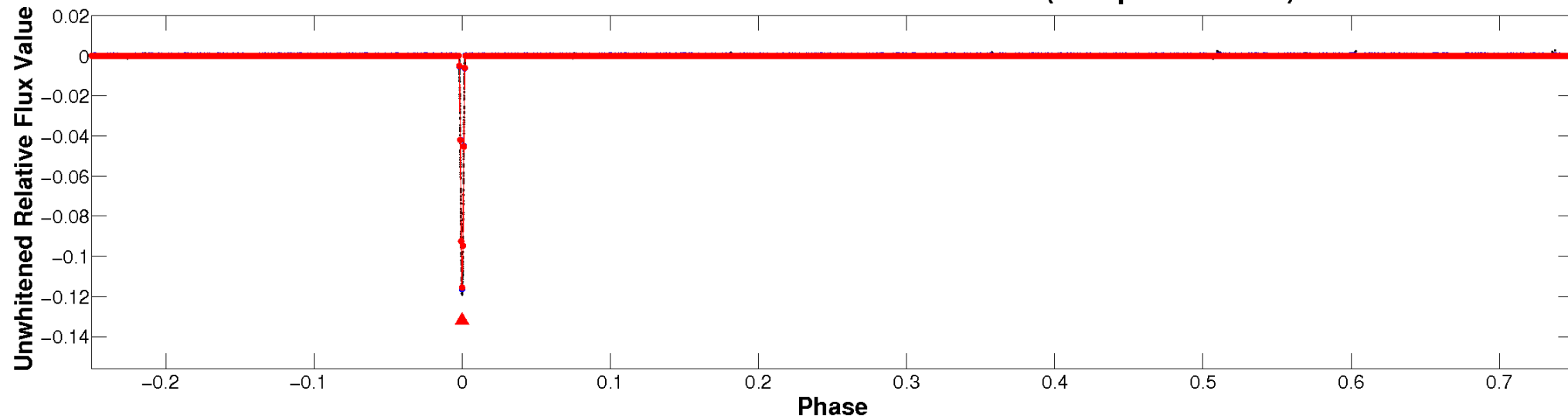
ALT Odd/Even

TCE 004912589-01

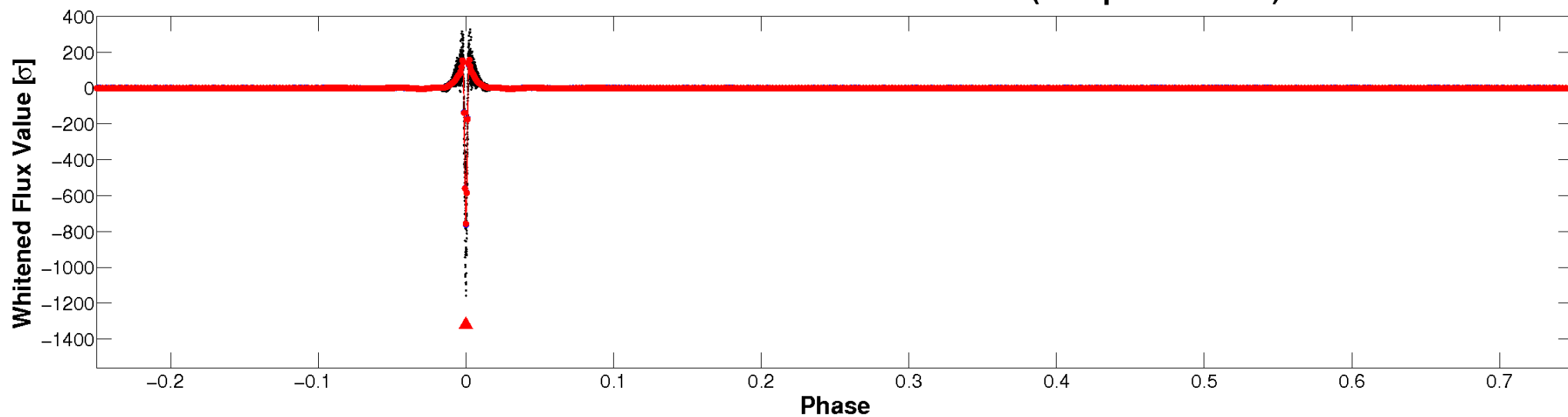


Non-Whitened Vs. Whitened Light Curve

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

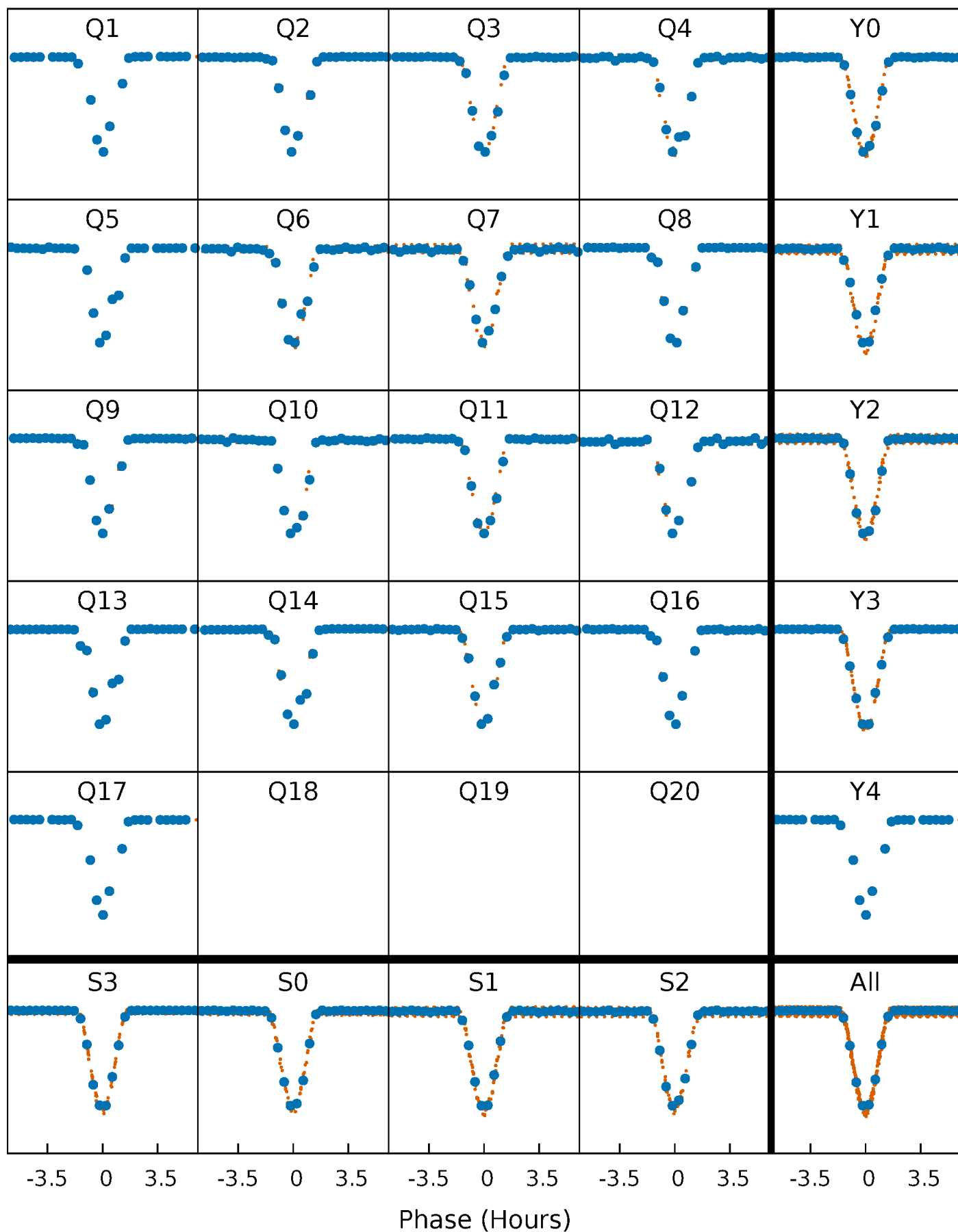


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



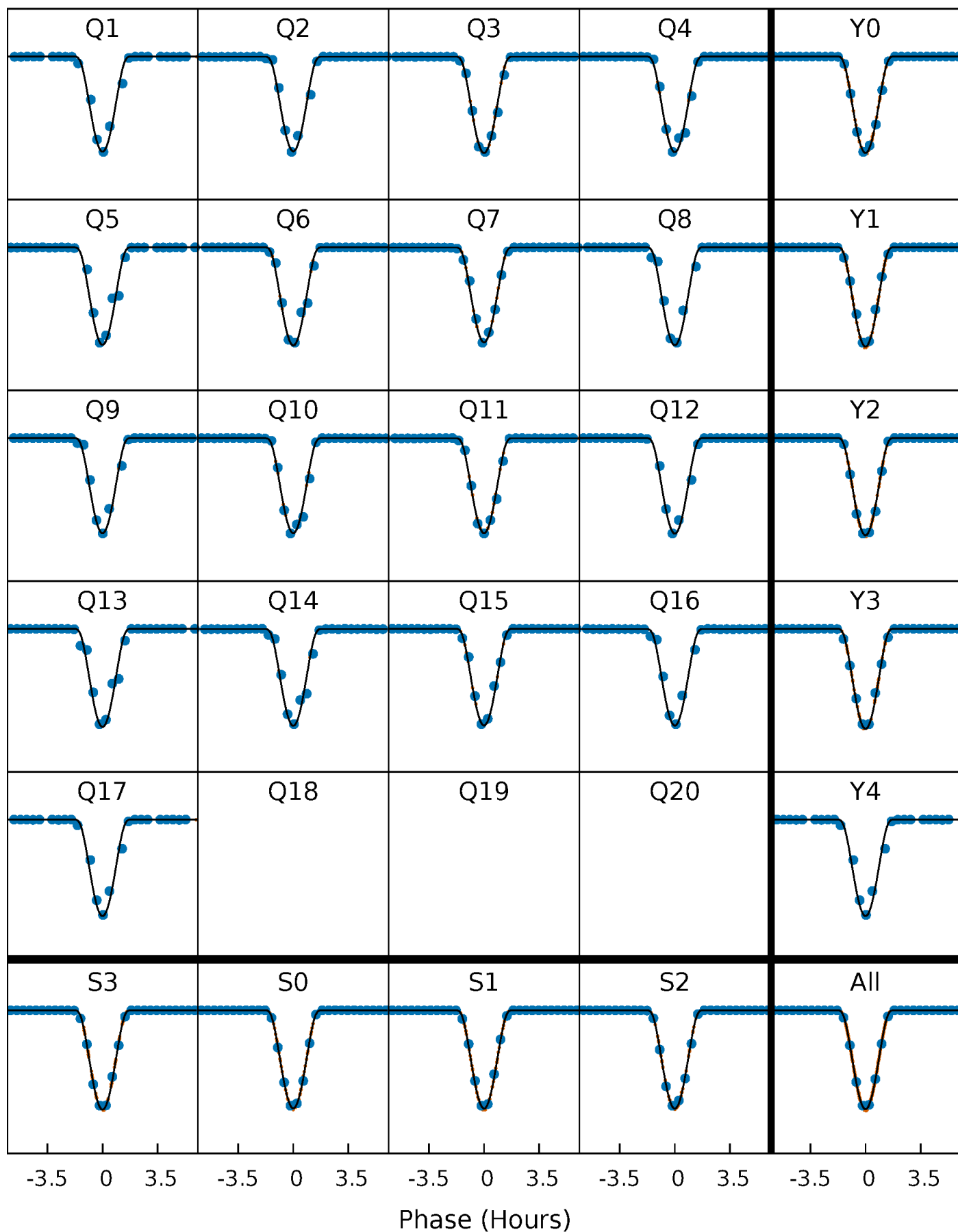
PDC Quarter-Phased Transit Curves

TCE 004912589-01 P= 34.188303 Days $T_0=132.142310$ (BKJD)



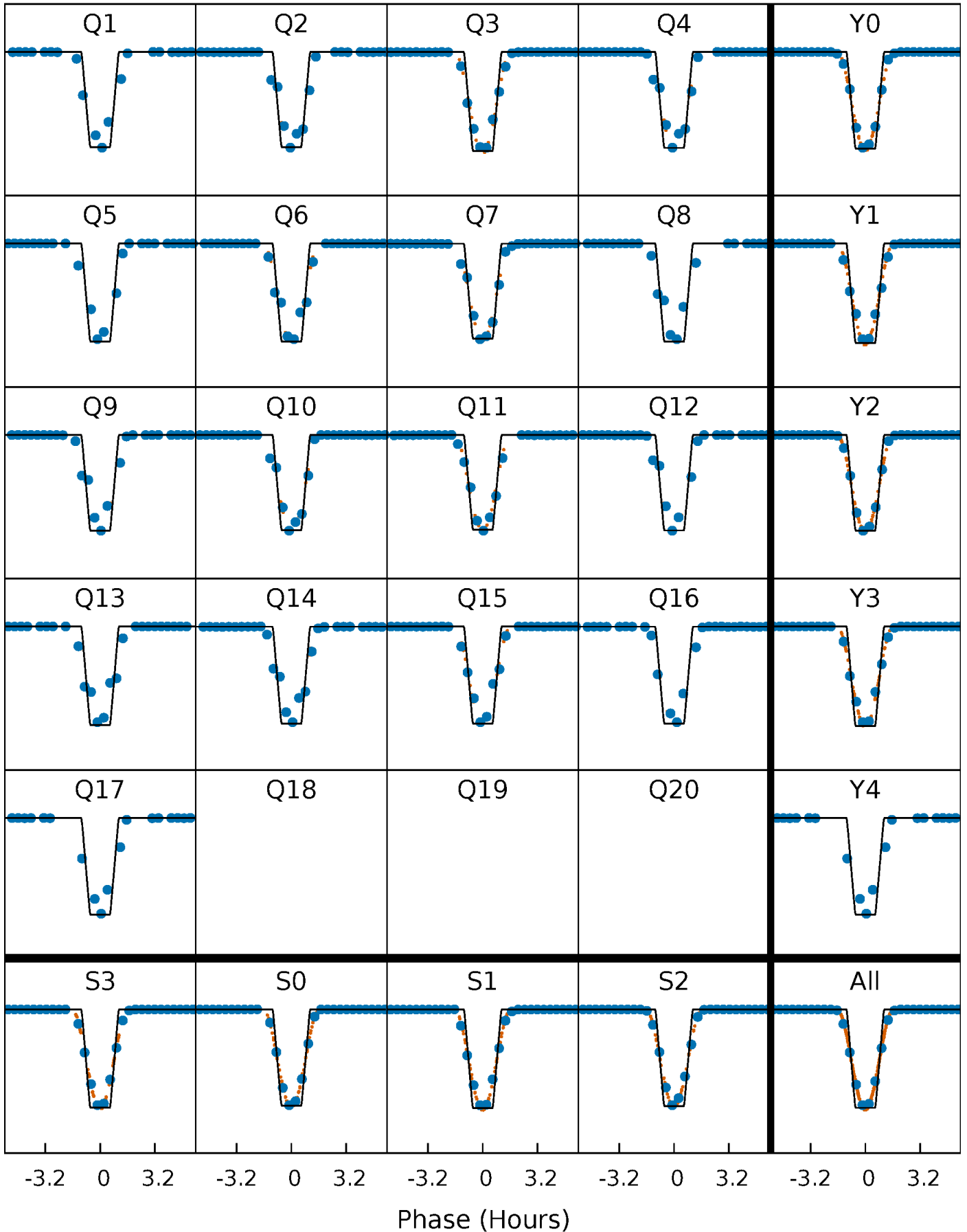
DV Quarter-Phased Transit Curves

TCE 004912589-01 P= 34.188303 Days $T_0=132.142310$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

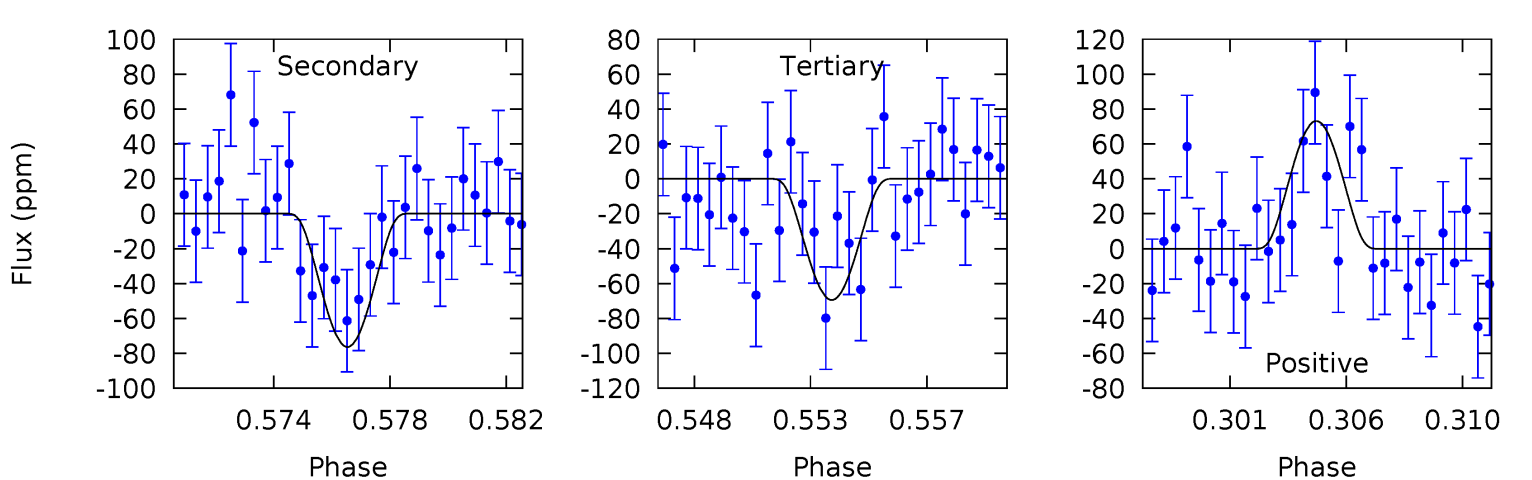
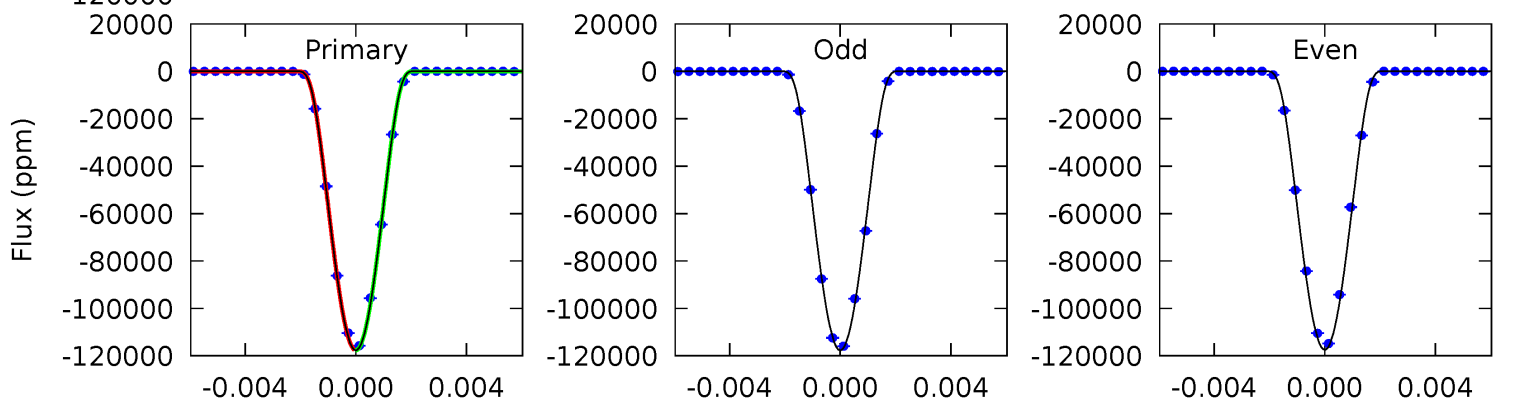
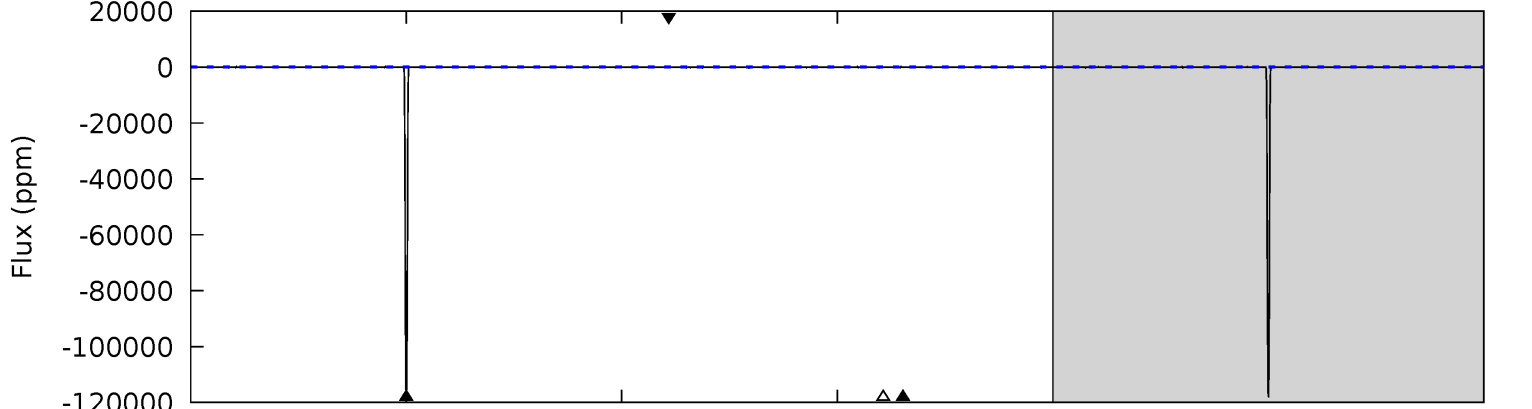
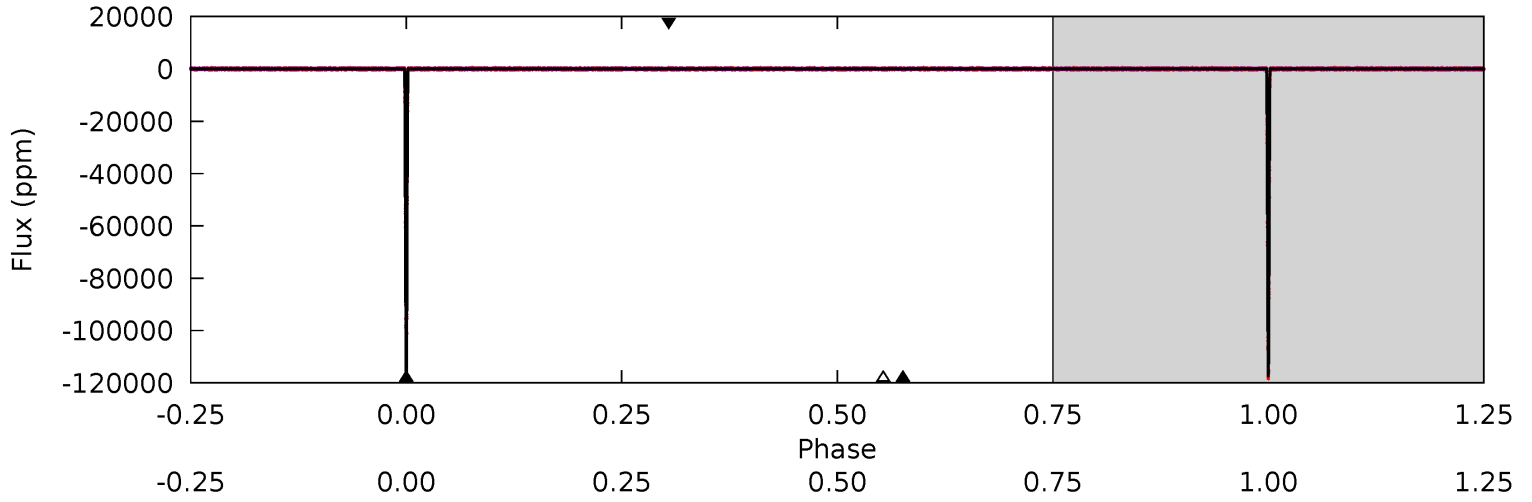
TCE 004912589-01 P= 34.188327 Days $T_0=132.141821$ (BKJD)



DV Model-Shift Uniqueness Test

004912589-01, P = 34.188303 Days, E = 97.954007 Days

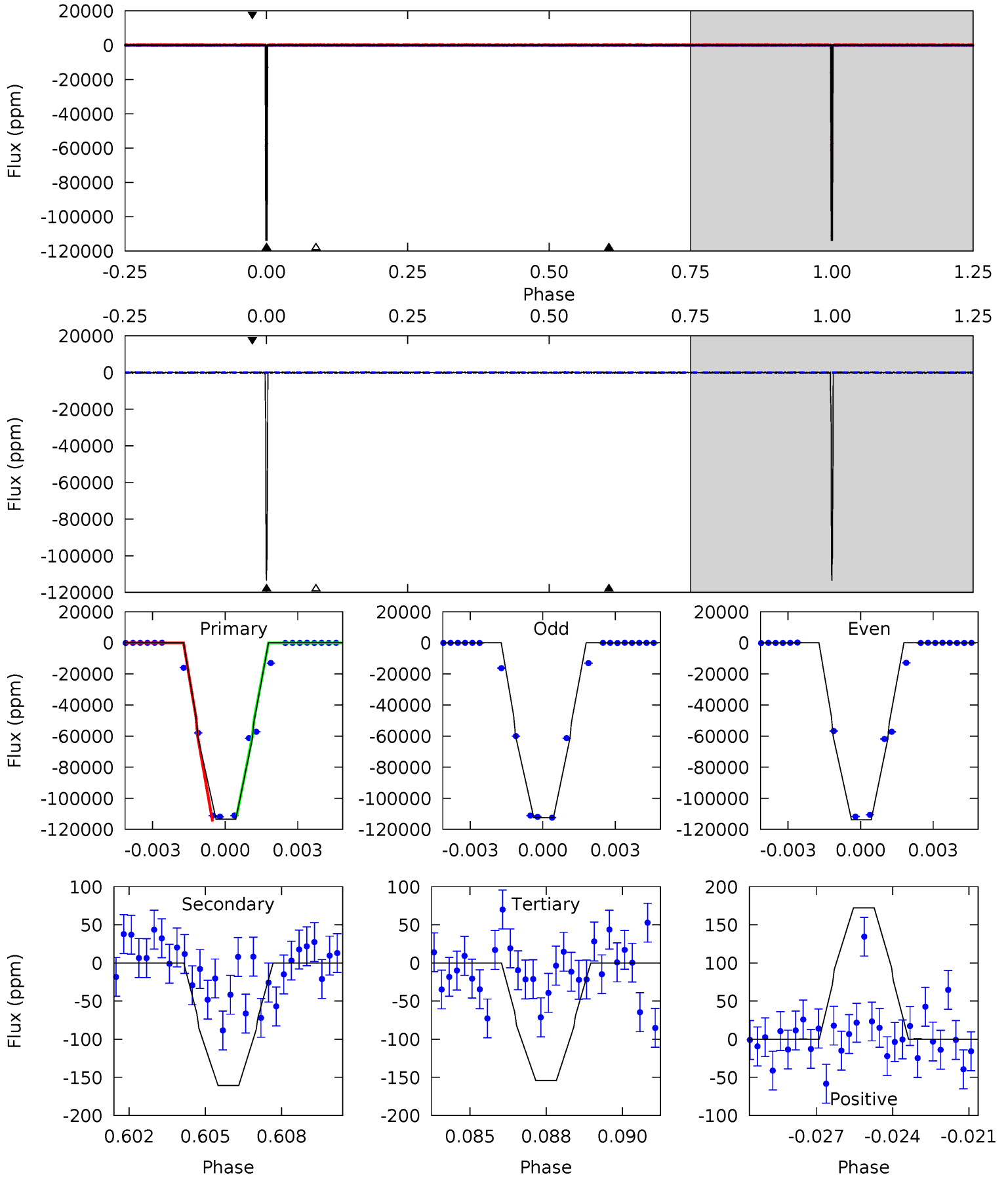
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12819	8.32	7.57	7.97	5.19	2.86	2.19	12811	12811	0.75	0.35	13.5	1.00	0.00	0



Alt Model-Shift Uniqueness Test

004912589-01, P = 34.188327 Days, E = 97.953494 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3921	5.55	5.32	5.95	5.28	3.01	1.38	3916	3915	0.23	-0.40	23.9	1.00	0.00	0



Stellar Parameters For KIC 004912589

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5757^{+172}_{-189}	$4.134^{+0.364}_{-0.182}$	$-0.240^{+0.300}_{-0.250}$	$1.345^{+0.381}_{-0.465}$	$0.898^{+0.131}_{-0.087}$	$0.520^{+1.249}_{-0.254}$
	+3%/-3%	+9%/-4%	+125%/-104%	+28%/-35%	+15%/-10%	+240%/-49%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 004912589-01 / KOI 6469.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-76 ± 9	$67.69^{+11.80}_{-13.19}$	911^{+80}_{-97}	1567^{+142}_{-3070}	$0.368^{+0.209}_{-0.102}$
Alt.	-161 ± 29	$49.98^{+8.81}_{-9.70}$	912^{+77}_{-93}	2033^{+63}_{-69}	$1.432^{+0.823}_{-0.446}$

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

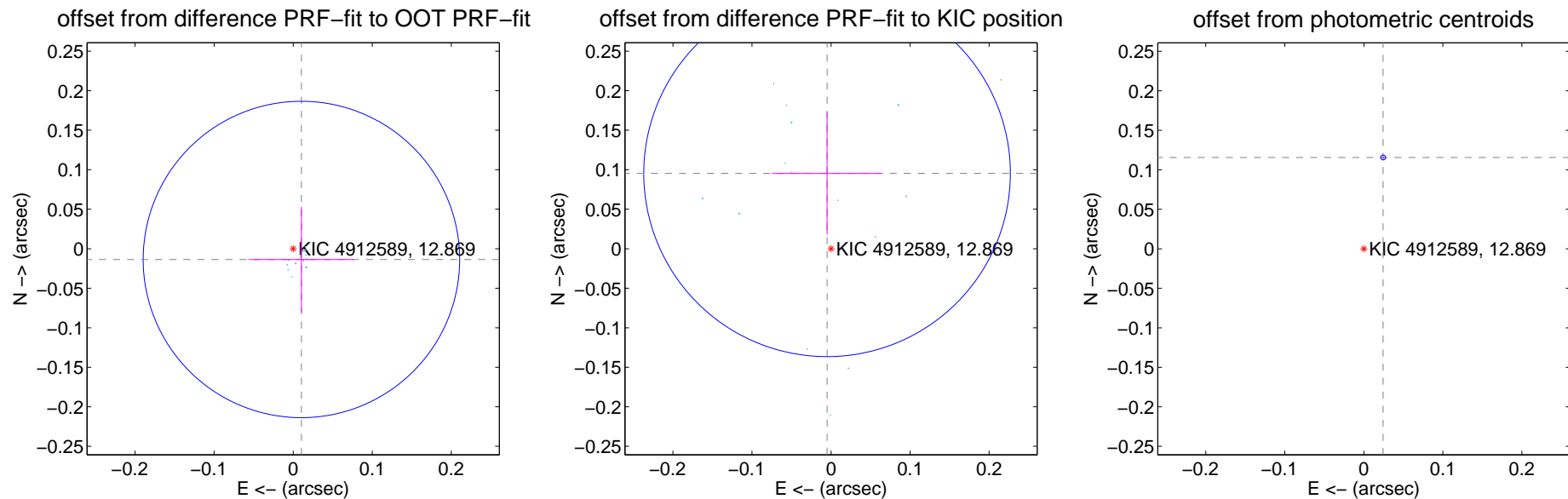
DV Centroid Data

Supplemental centroid analysis for 004912589-01. Kepler magnitude: 12.87. Transit SNR 4942.56

There are 17 quarters with good PRF difference image offsets

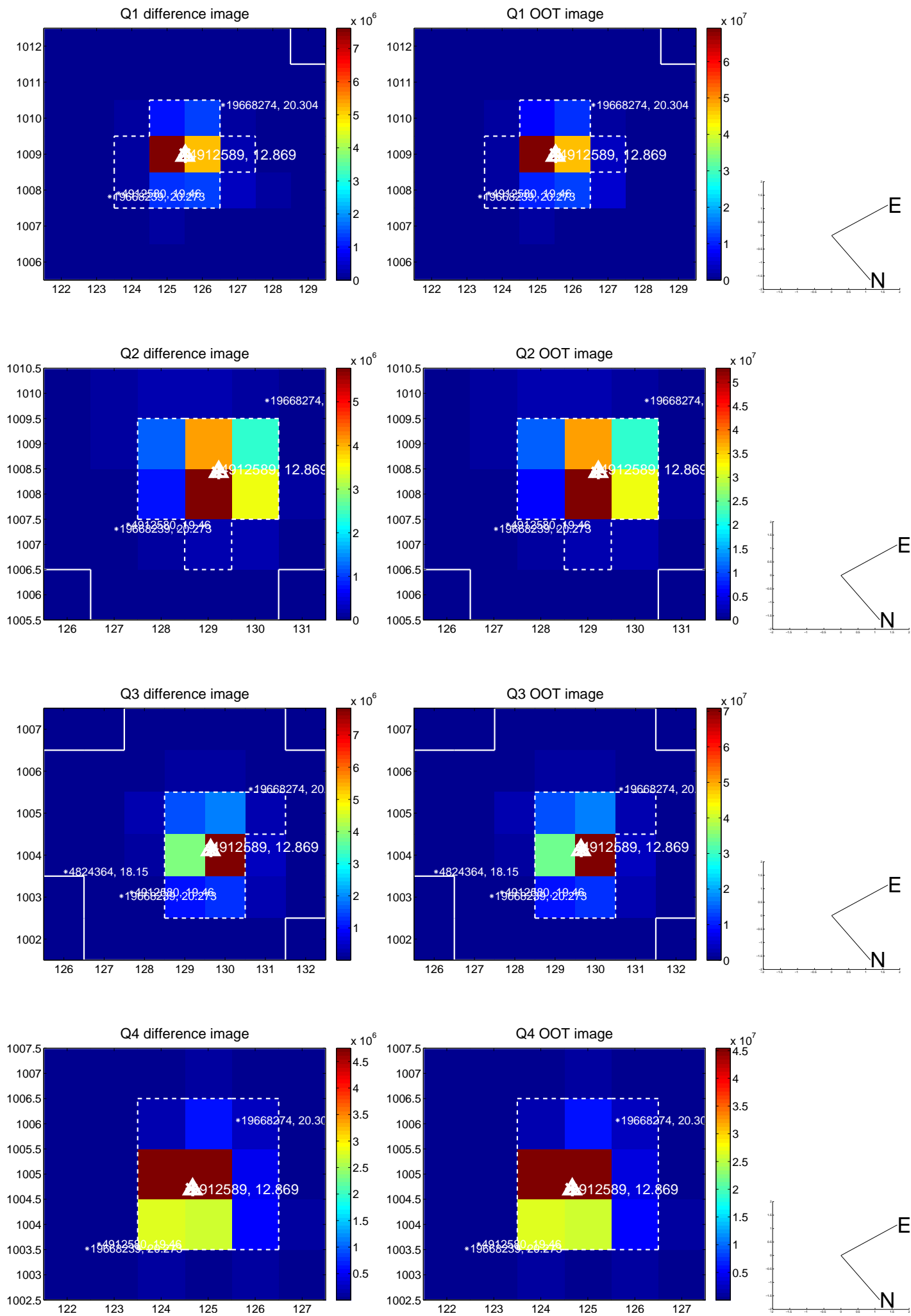
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.017 ± 0.067	0.26	-0.010 ± 0.067	-0.014 ± 0.067
PRF-fit source offset from KIC position	0.096 ± 0.077	1.24	0.005 ± 0.070	0.095 ± 0.077
photometric centroid source offset	0.12 ± 0.00	114.89	-0.02 ± 0.00	0.12 ± 0.00

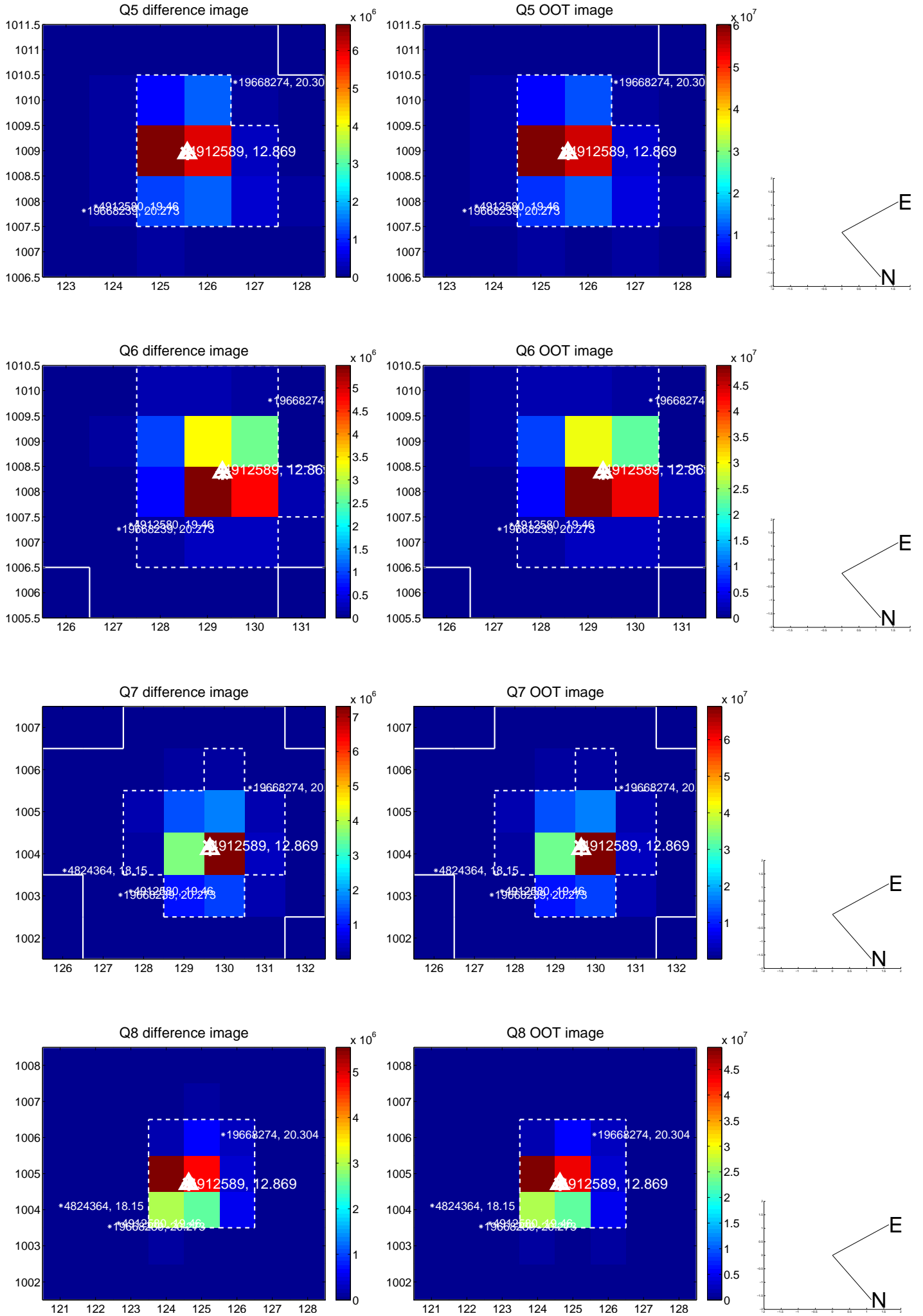


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

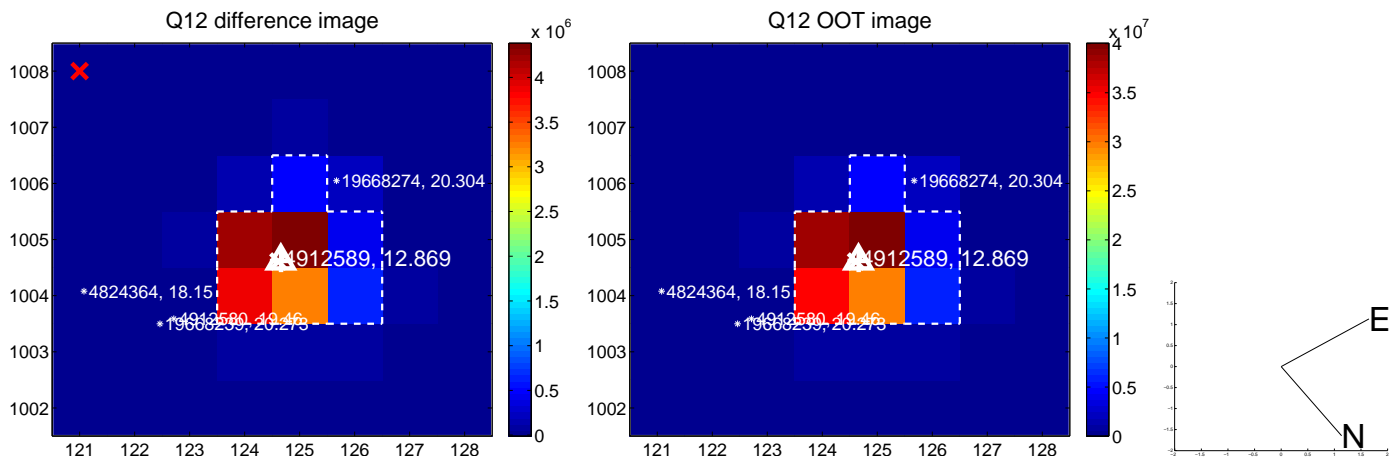
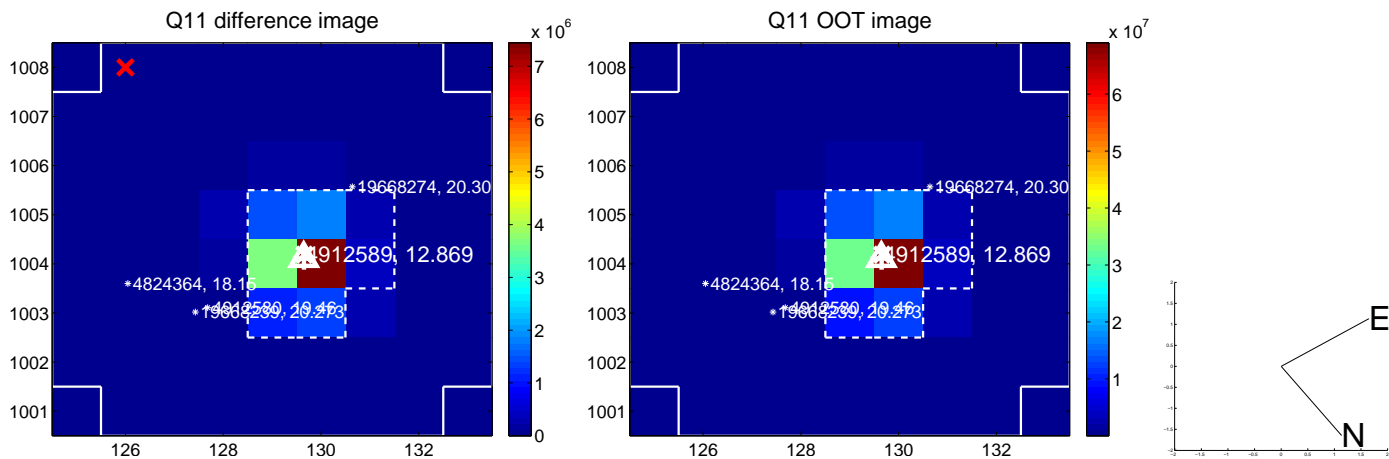
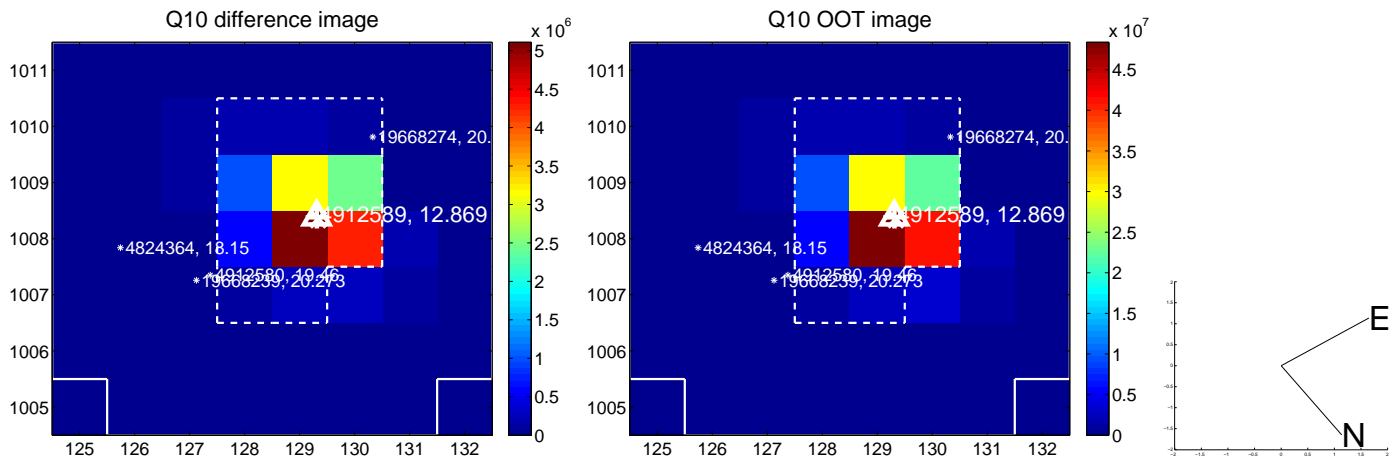
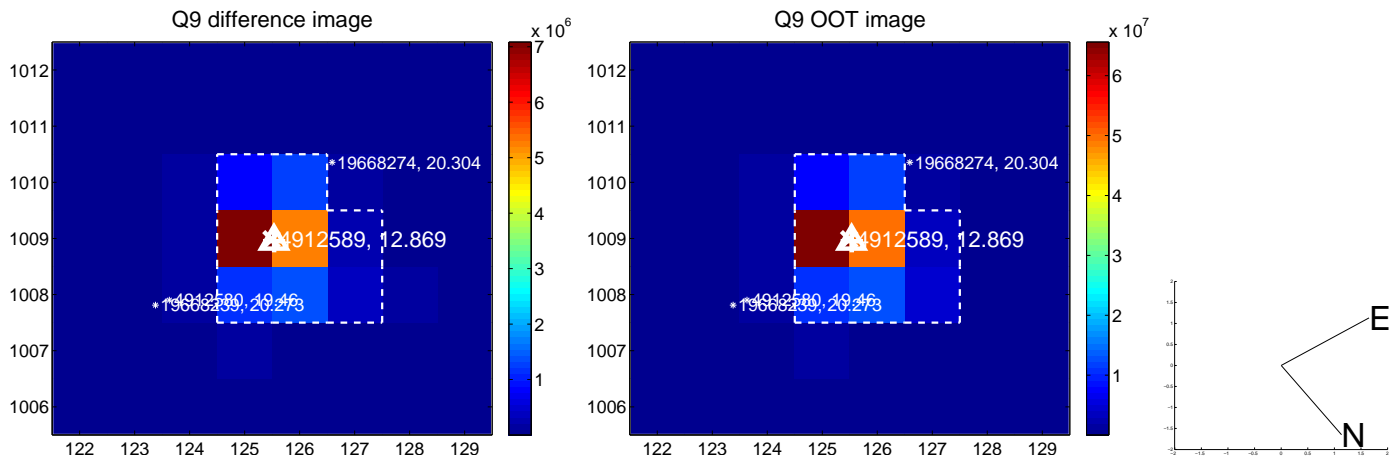
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



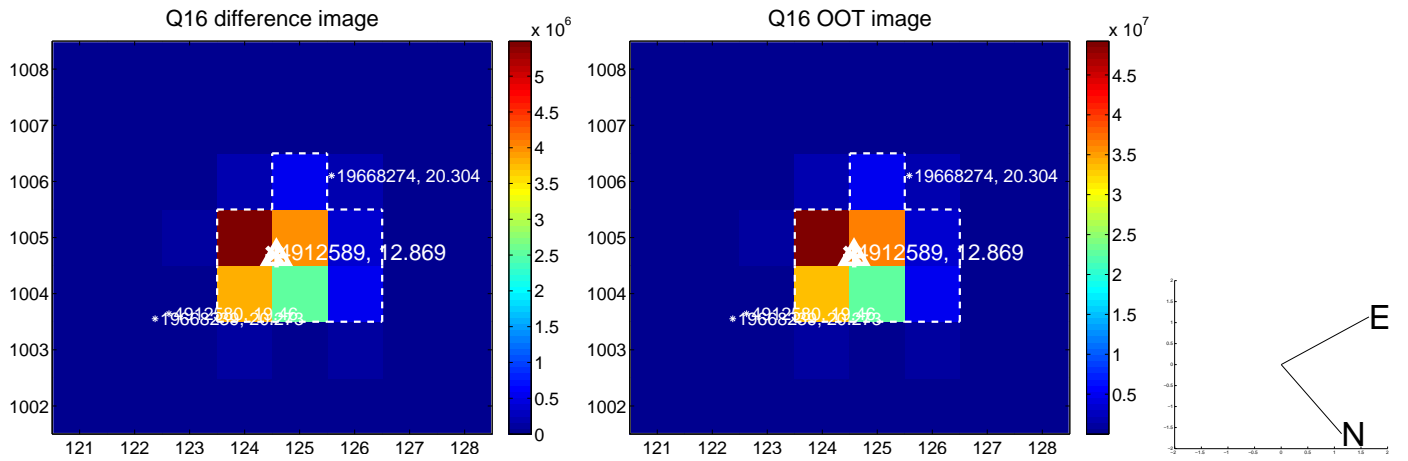
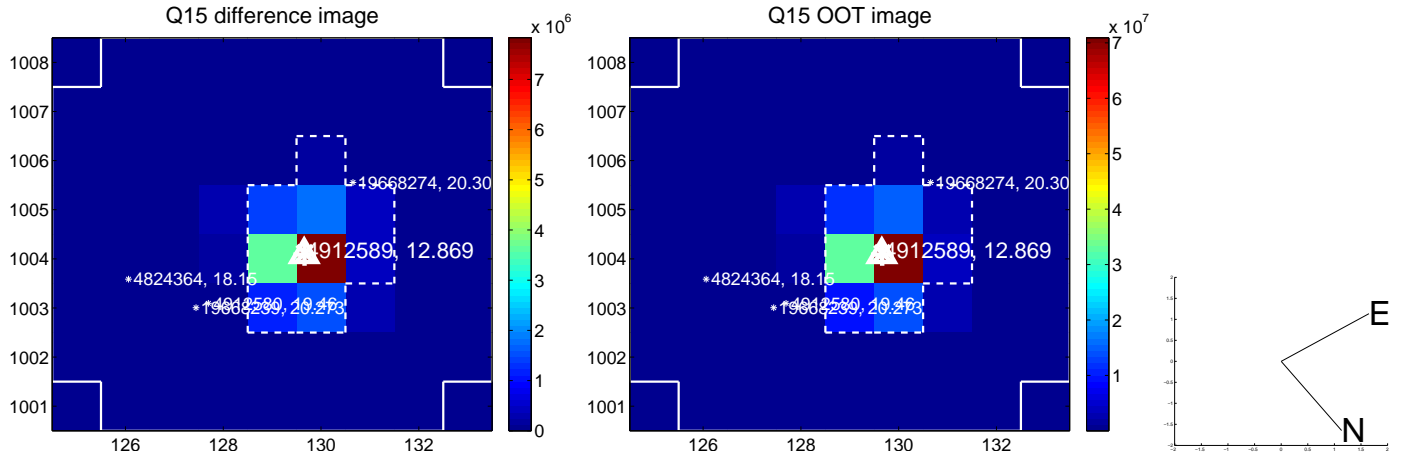
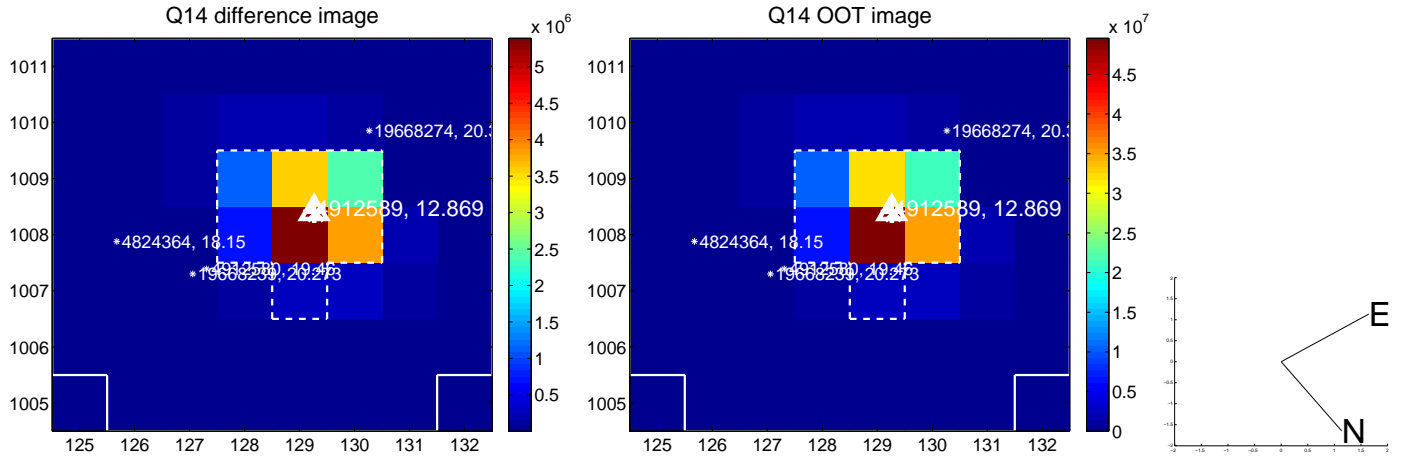
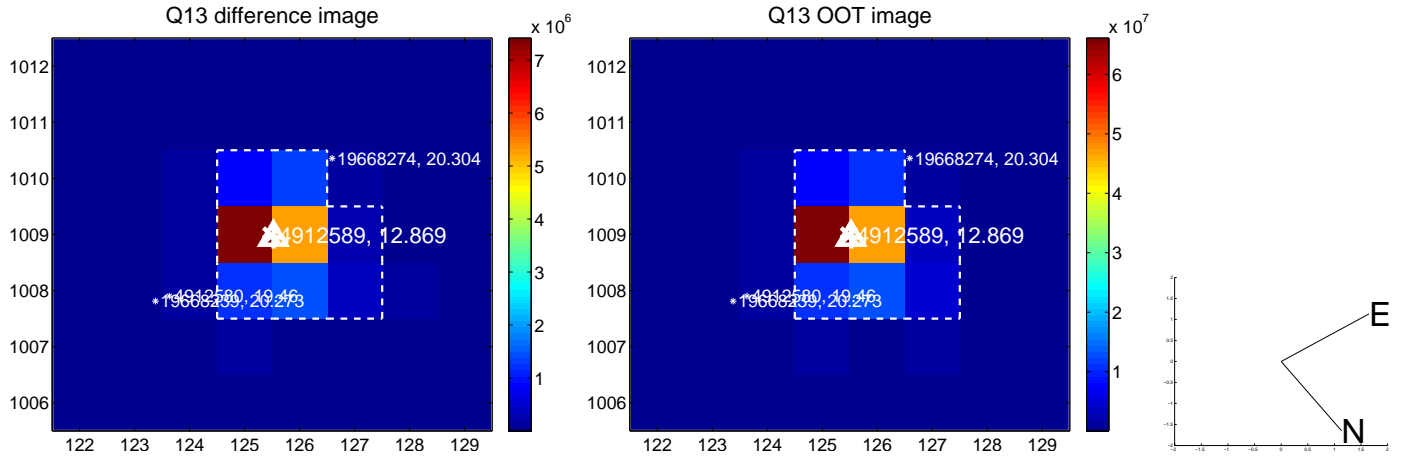
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



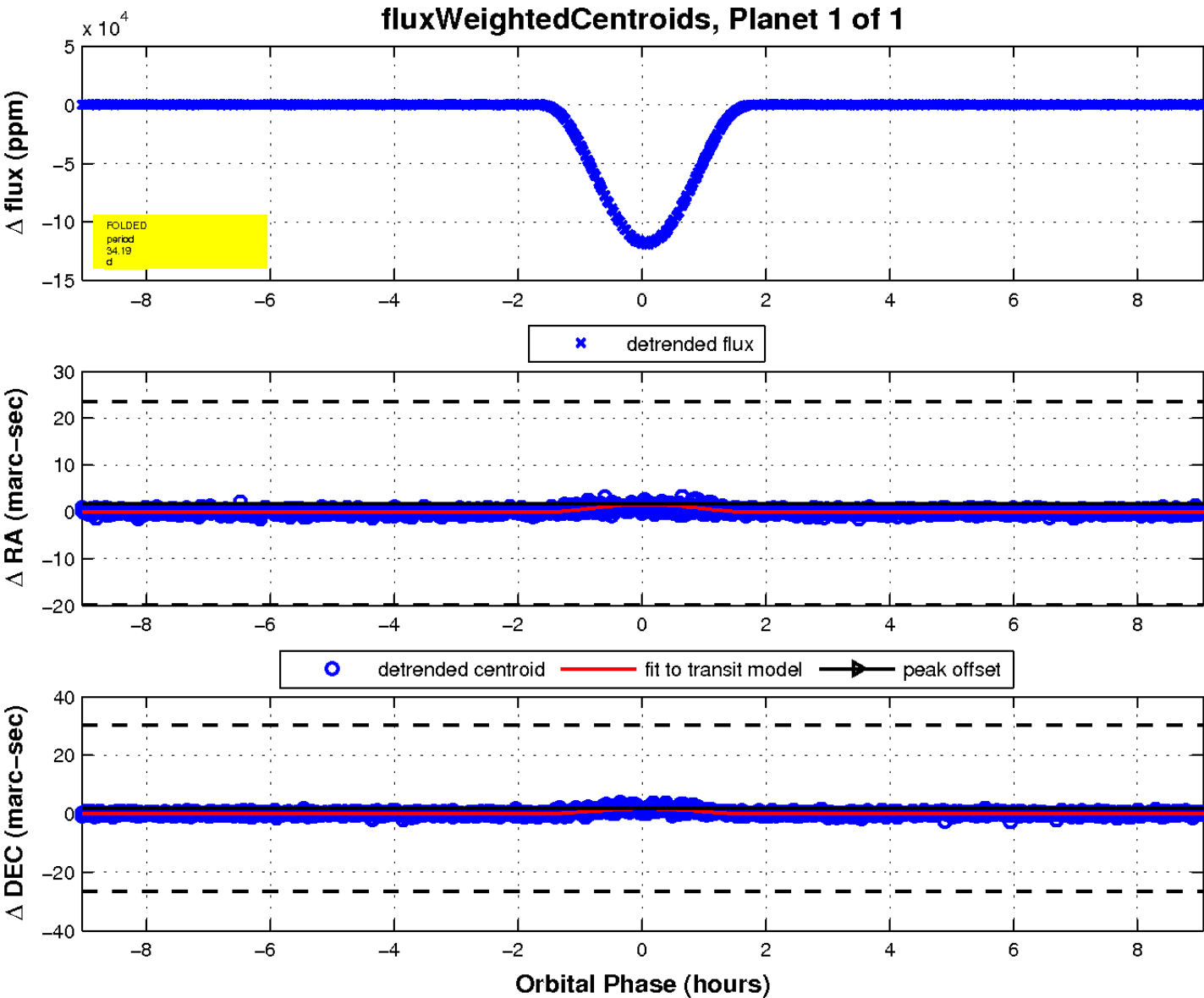
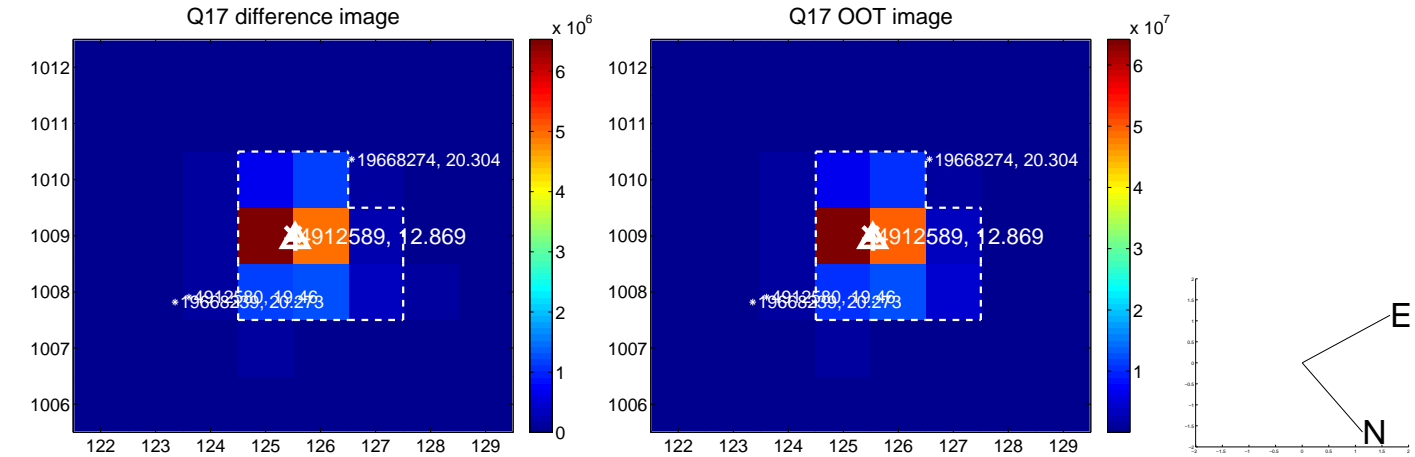
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

