

KIC 011812062

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})
011812062-01	OBS	0776.01	3.728732	134.506065	5227.8	2.775	360.2	360.4	0.81	5497	6.29	258.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011812062-01	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.

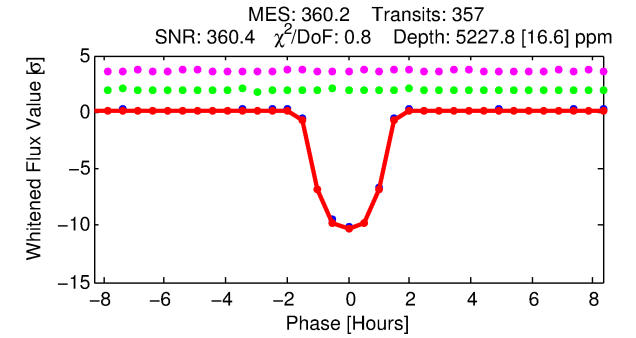
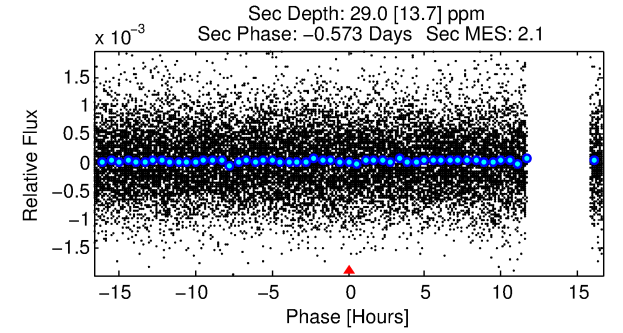
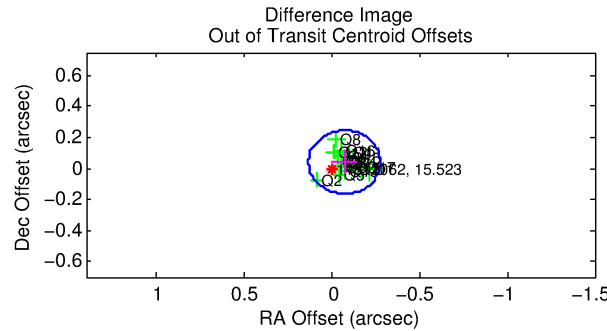
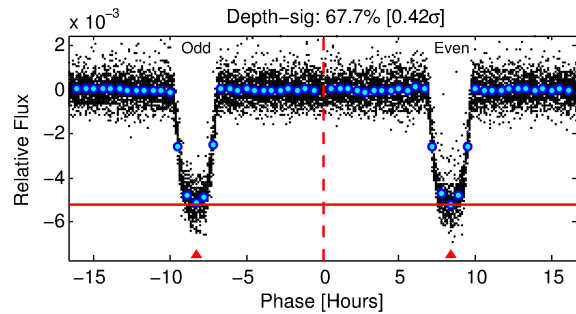
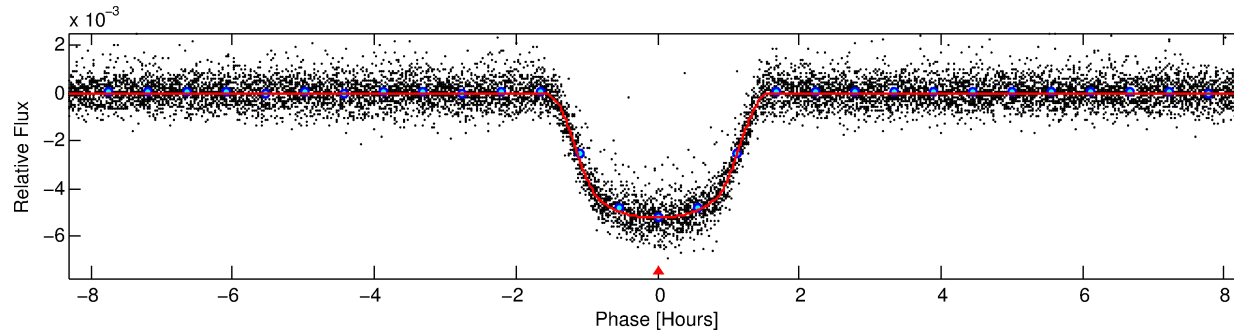
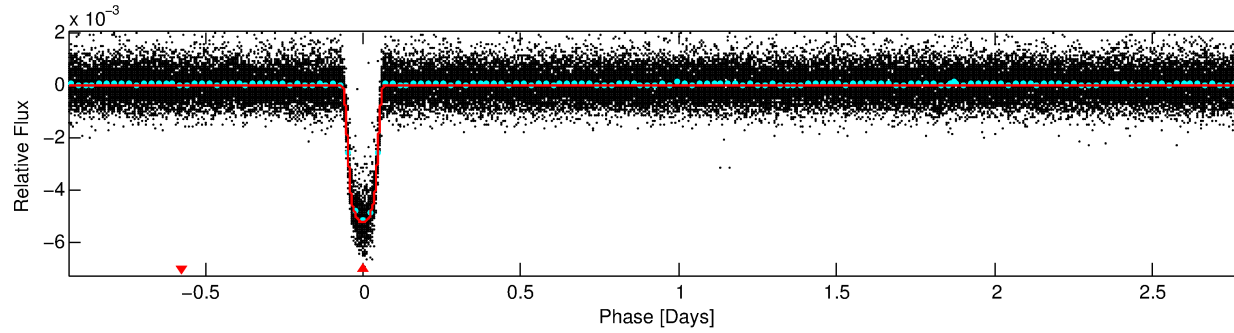
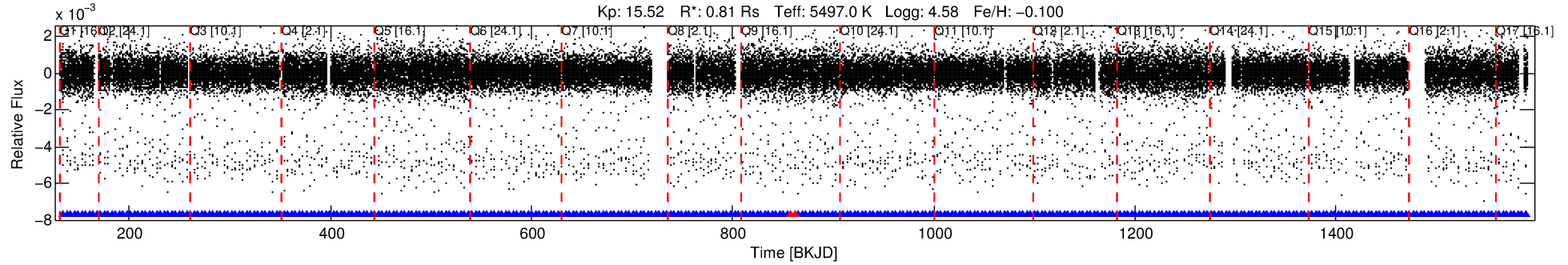
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011812062-01

No Significant Match Found

DV One-Page Summary

KIC: 11812062 Candidate: 1 of 1 Period: 3.729 d
KOI: K00776.01 Corr: 0.982



DV Fit Results:

Period = 3.72873 [0.00000] d
Epoch = 134.5061 [0.0001] BKJD
Rp/R* = 0.0712 [0.0008]
a/R* = 8.24 [0.36]
b = 0.71 [0.03]
Seff = 258.99 [71.60]
Teff = 1023 [71] K
Rp = 6.29 [1.28] Re
a = 0.0455 [0.0078] AU
Ag = 0.83 [0.44] [-0.37 σ]
Teffp = 1511 [184] K [2.48 σ]

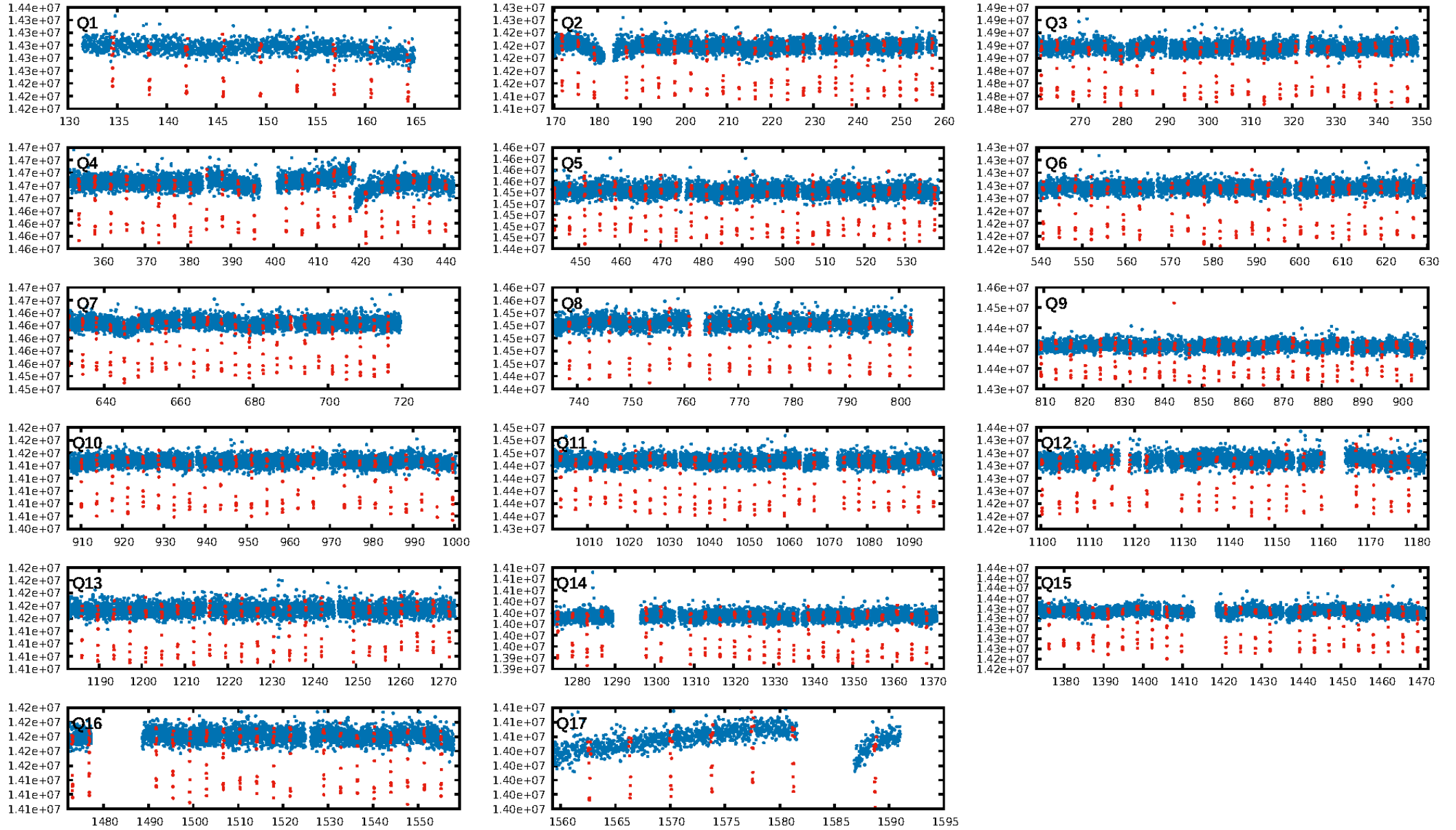
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [339/341]
GhostDiagnostic-chr: 5.497
Centroid-sig: 0.0%
Centroid-so: 0.233 arcsec [5.36 σ]
OotOffset-rm: 0.083 arcsec [1.21 σ]
KicOffset-rm: 0.122 arcsec [1.71 σ]
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]

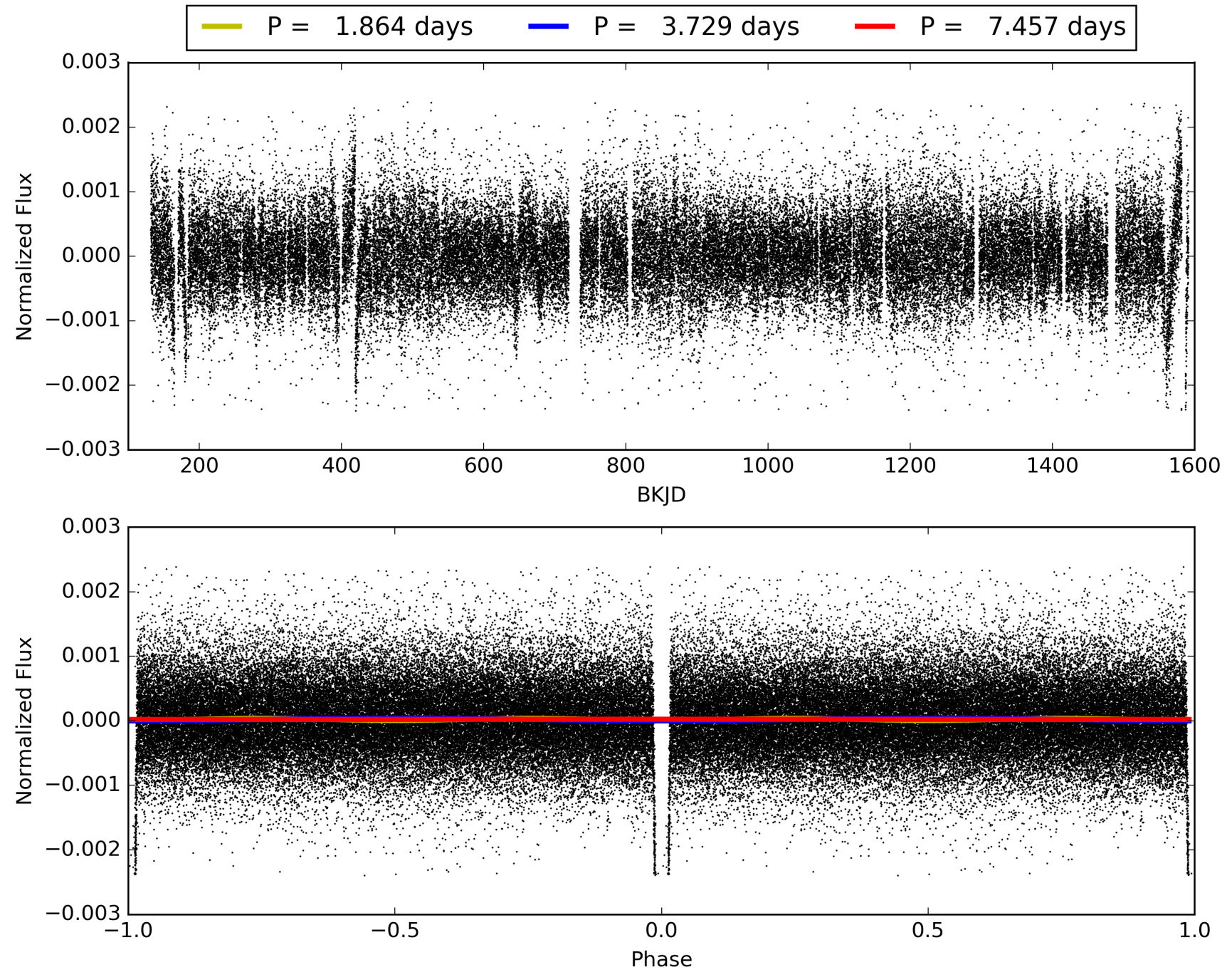
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:13:39 Z

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

TCE 011812062-01, PDC Light Curves

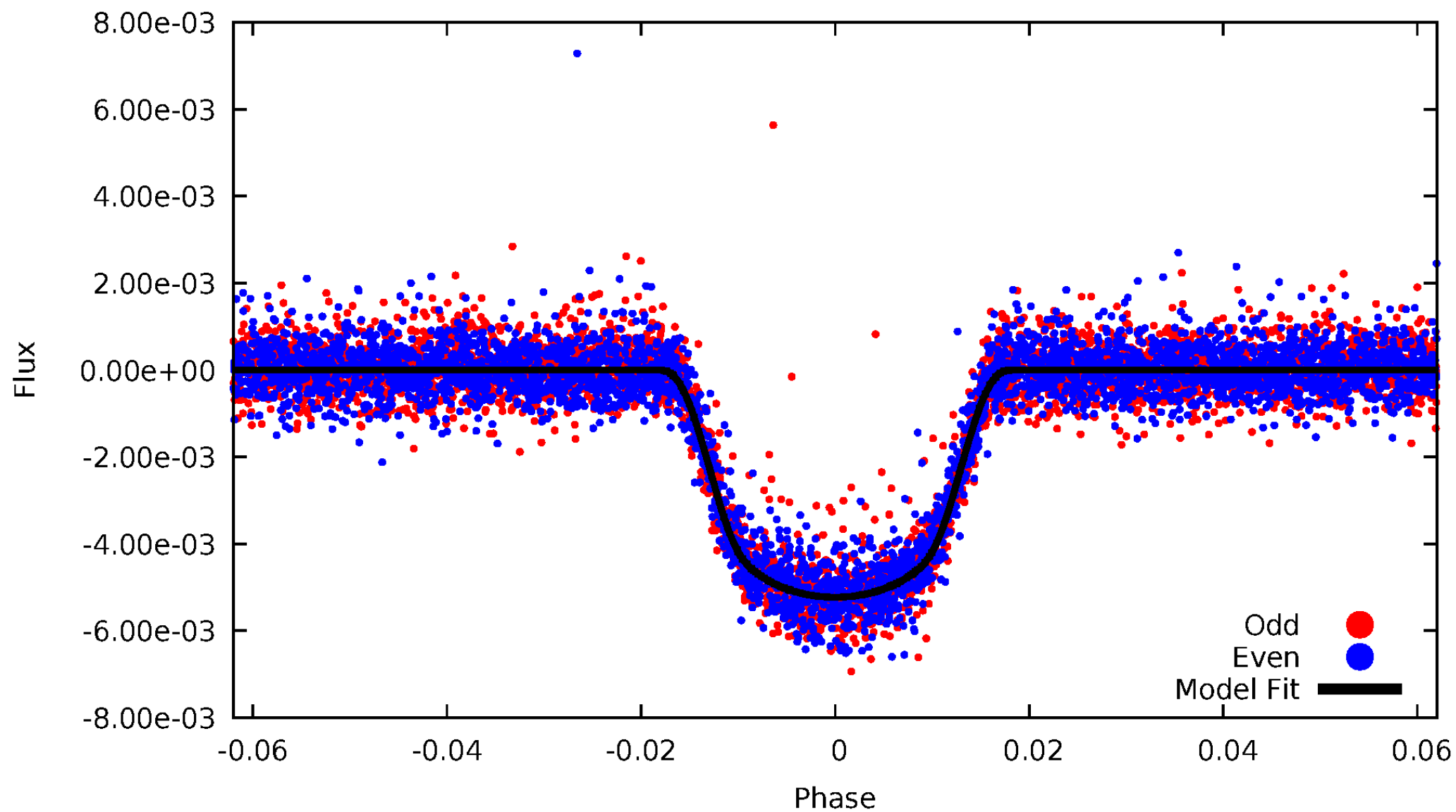


TCE 011812062-01



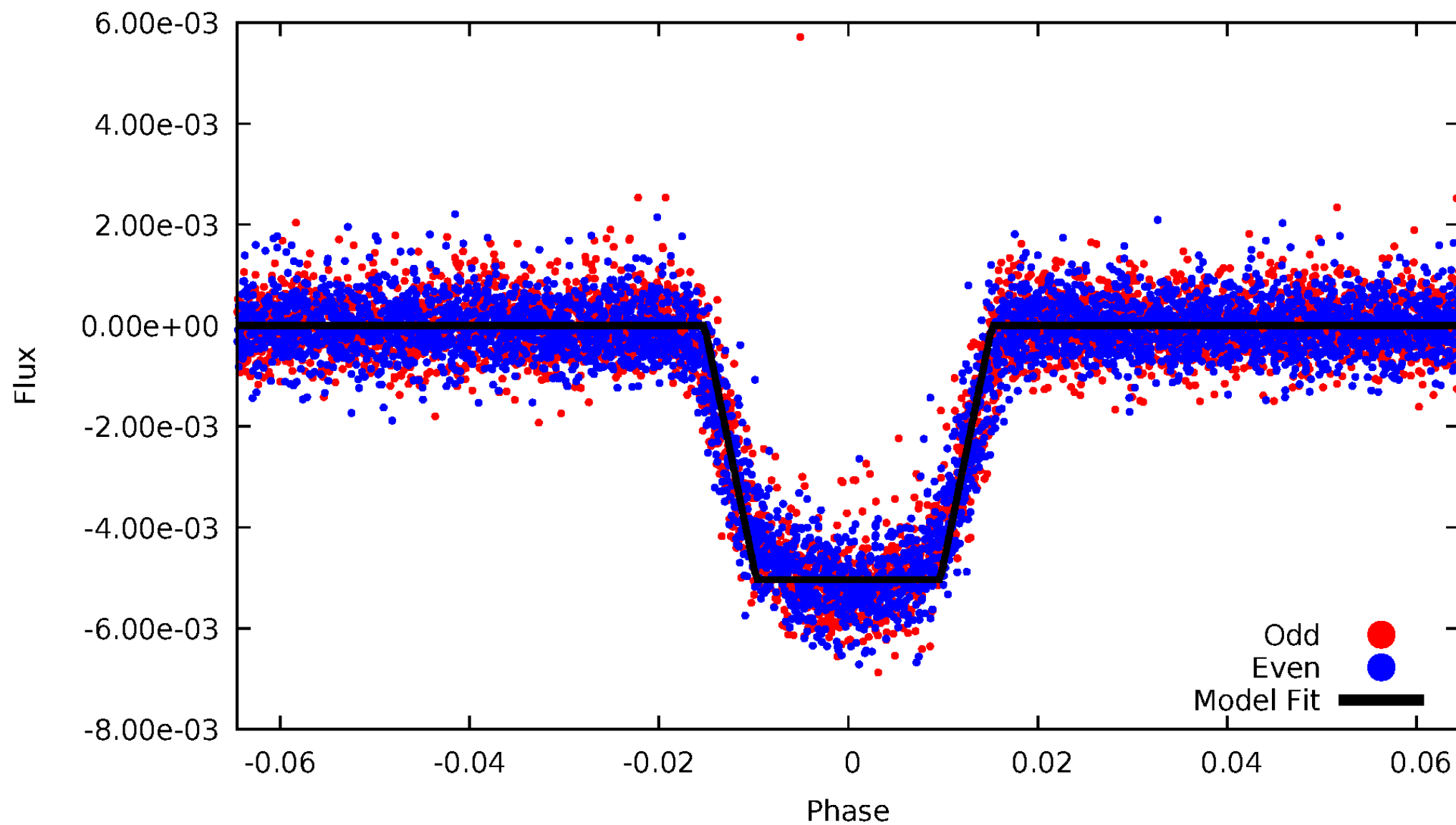
DV Odd/Even

TCE 011812062-01



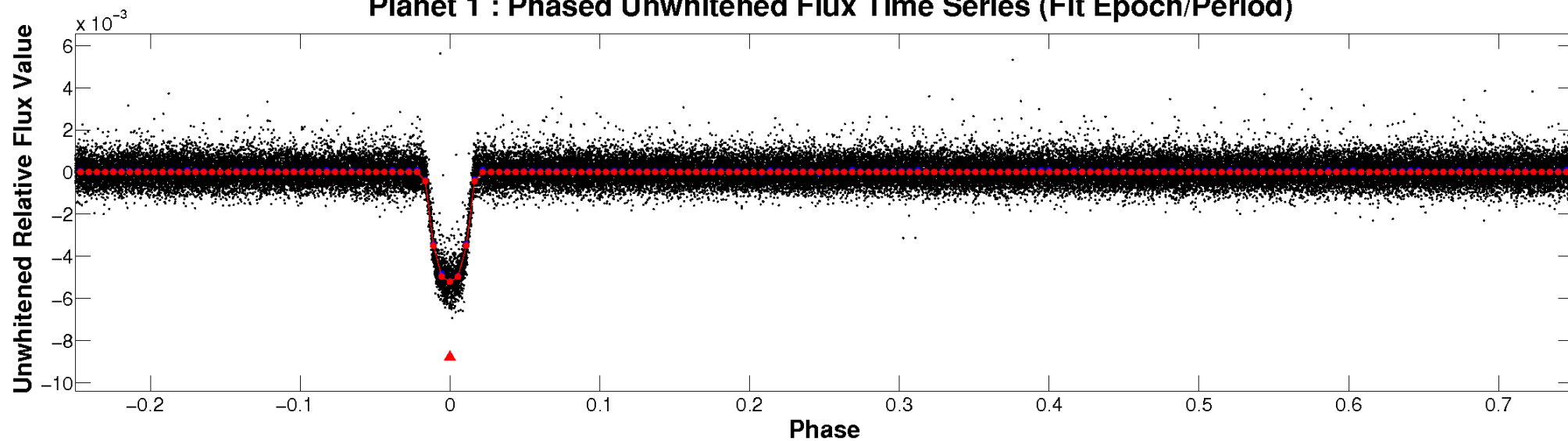
ALT Odd/Even

TCE 011812062-01

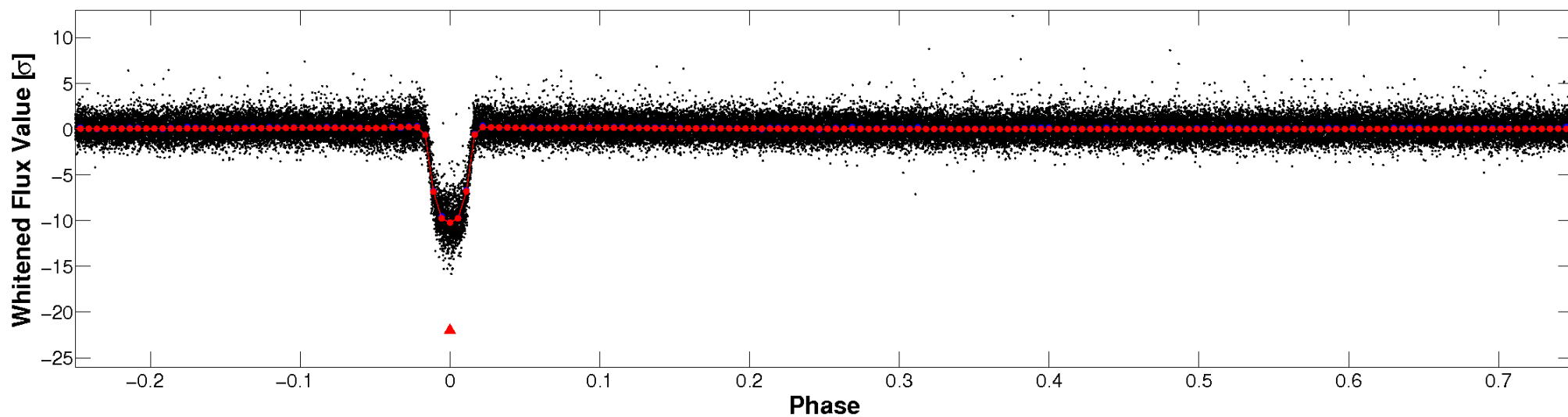


Non-Whitened Vs. Whitened Light Curve

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

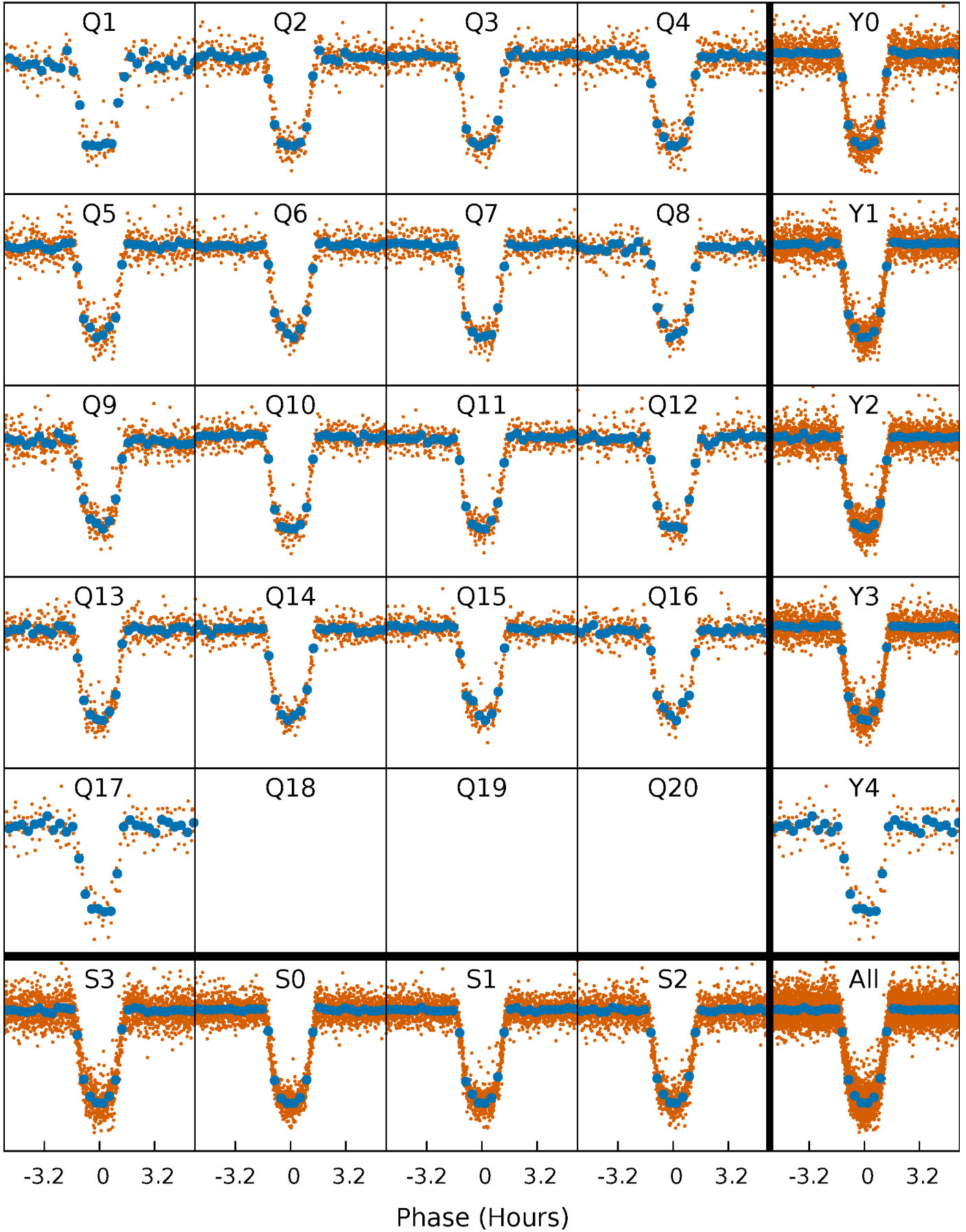


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



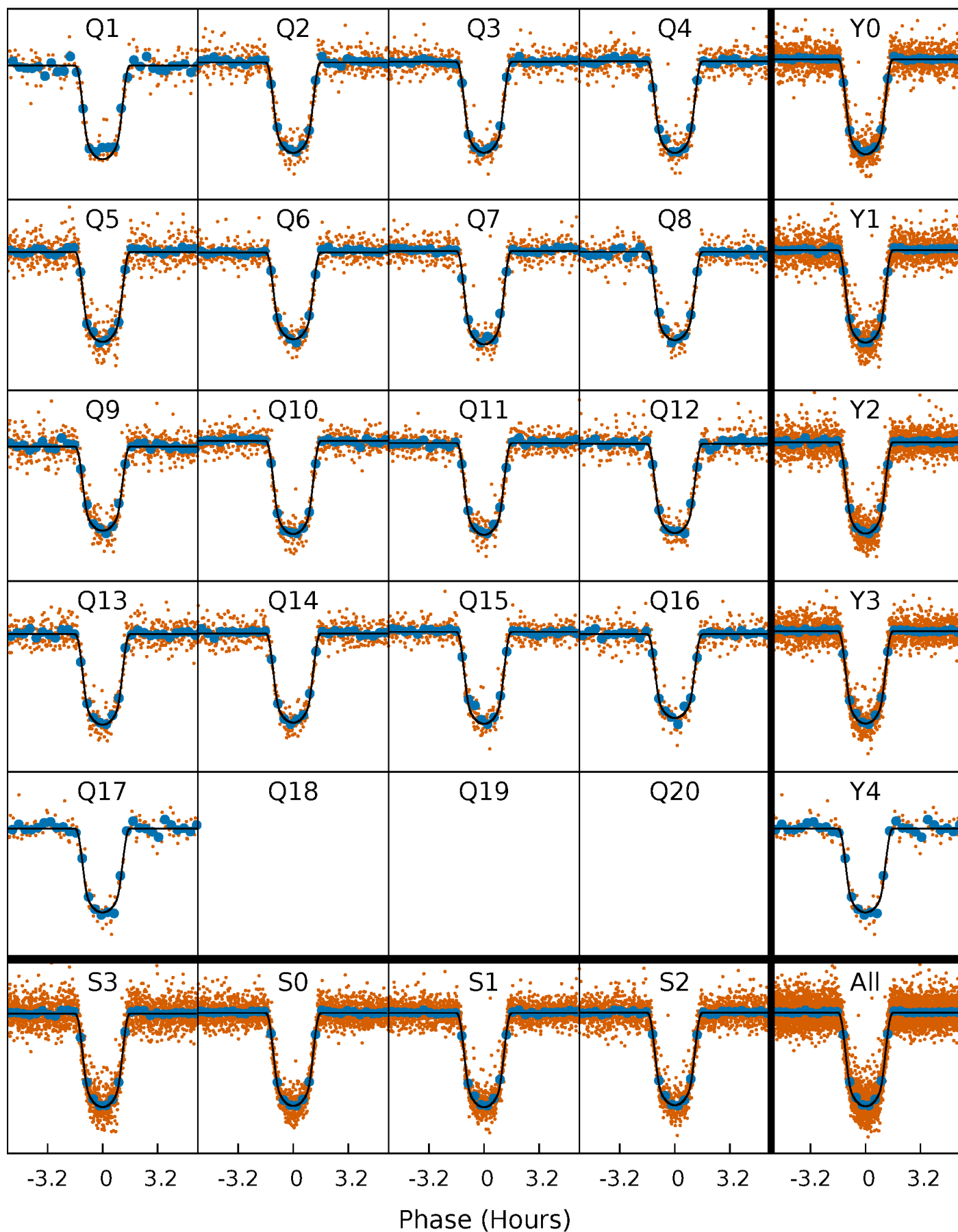
PDC Quarter-Phased Transit Curves

TCE 011812062-01 P= 3.728732 Days $T_0=134.506065$ (BKJD)



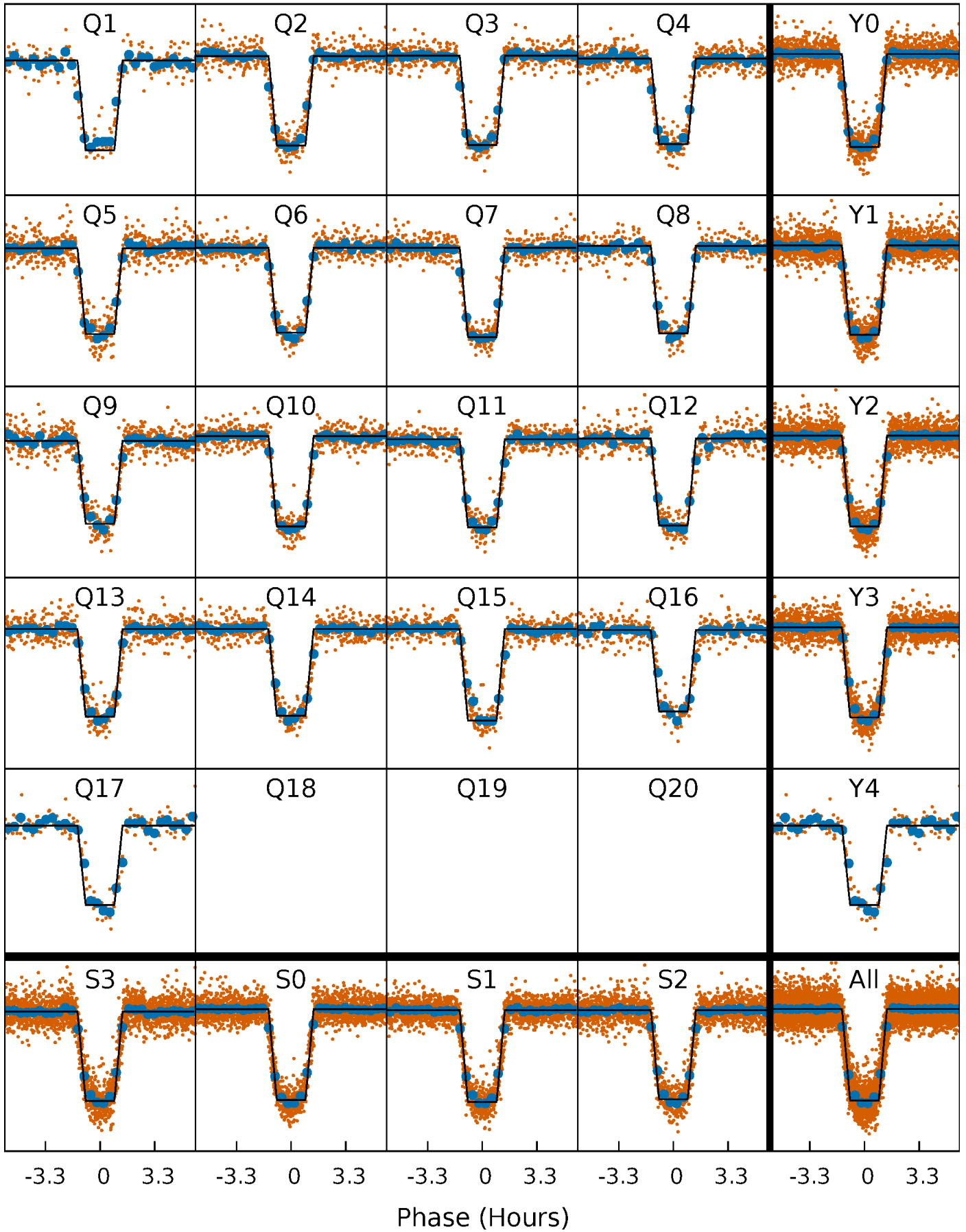
DV Quarter-Phased Transit Curves

TCE 011812062-01 P= 3.728732 Days $T_0=134.506065$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

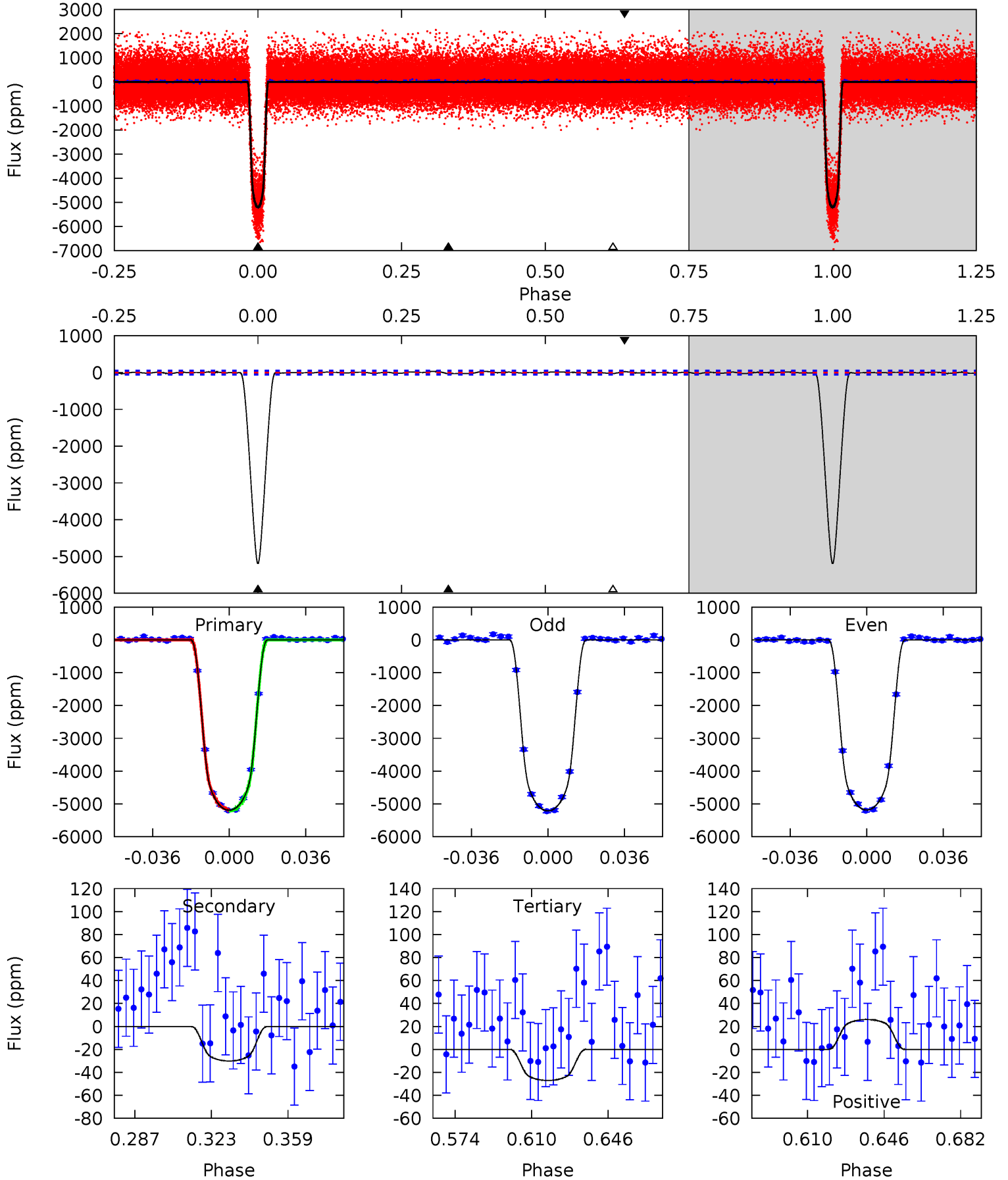
TCE 011812062-01 P= 3.728702 Days $T_0=134.511561$ (BKJD)



DV Model-Shift Uniqueness Test

011812062-01, P = 3.728732 Days, E = 130.777333 Days

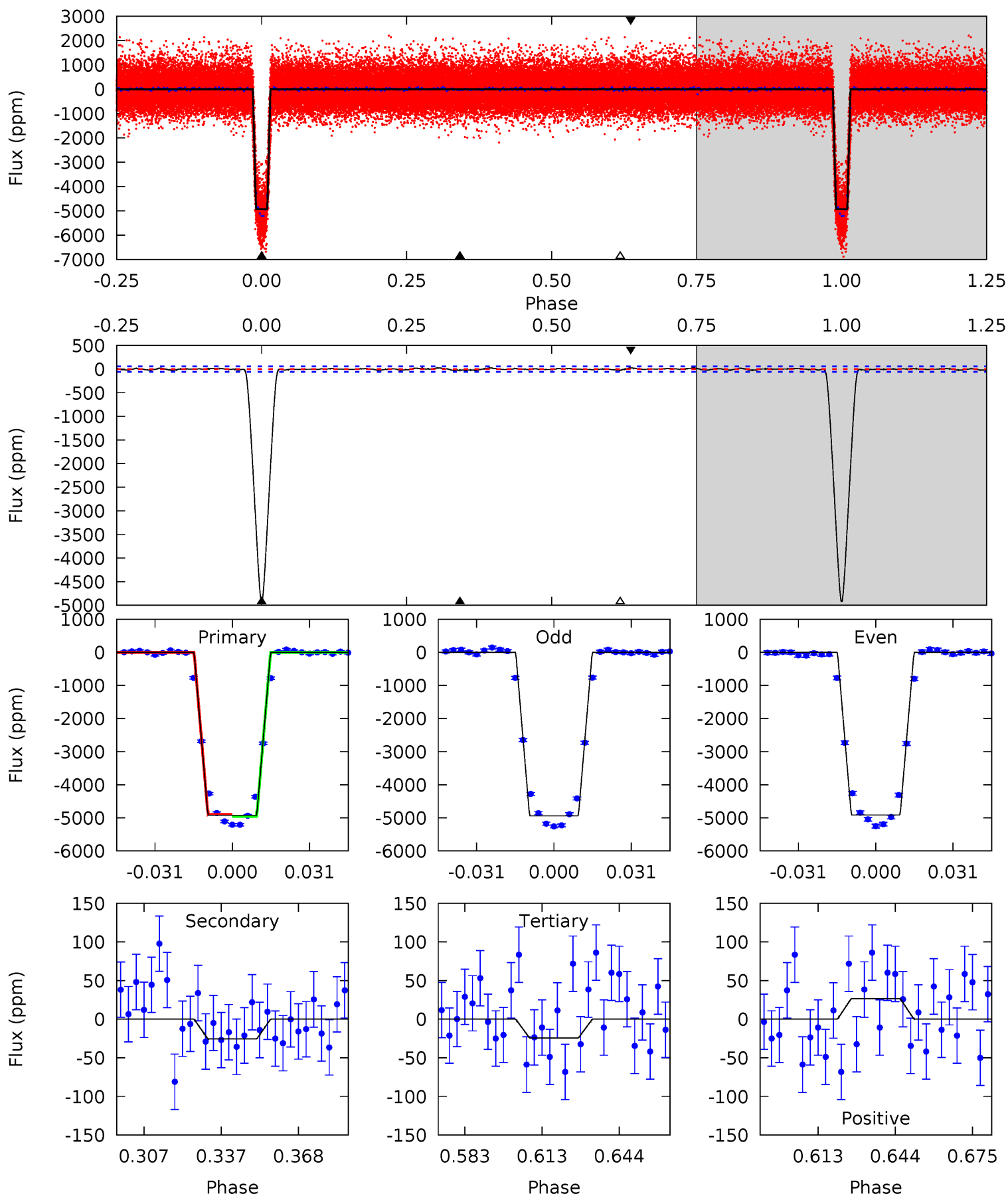
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
480.3	2.78	2.50	2.41	4.78	2.10	1.05	477.8	477.9	0.29	0.38	1.30	0.99	0.01	2.10



Alt Model-Shift Uniqueness Test

011812062-01, P = 3.728702 Days, E = 130.782859 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
422.6	2.20	2.09	2.29	4.81	2.16	0.91	420.5	420.3	0.11	-0.09	1.18	1.00	0.01	2.57



Stellar Parameters For KIC 011812062

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5497^{+166}_{-149}	$4.577^{+0.034}_{-0.136}$	$-0.100^{+0.300}_{-0.300}$	$0.809^{+0.164}_{-0.070}$	$0.907^{+0.074}_{-0.102}$	$2.412^{+0.422}_{-0.926}$
	+3%/-3%	+1%/-3%	+300%/-300%	+20%/-9%	+8%/-11%	+18%/-38%
Source	PHO1	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 011812062-01 / KOI 0776.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-30 ± 11	$6.46^{+0.61}_{-0.42}$	1455^{+79}_{-57}	2268^{+134}_{-195}	$0.787^{+0.302}_{-0.285}$
Alt.	-26 ± 12	$6.45^{+0.67}_{-0.45}$	1457^{+75}_{-59}	2218^{+151}_{-354}	$0.687^{+0.313}_{-0.314}$

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

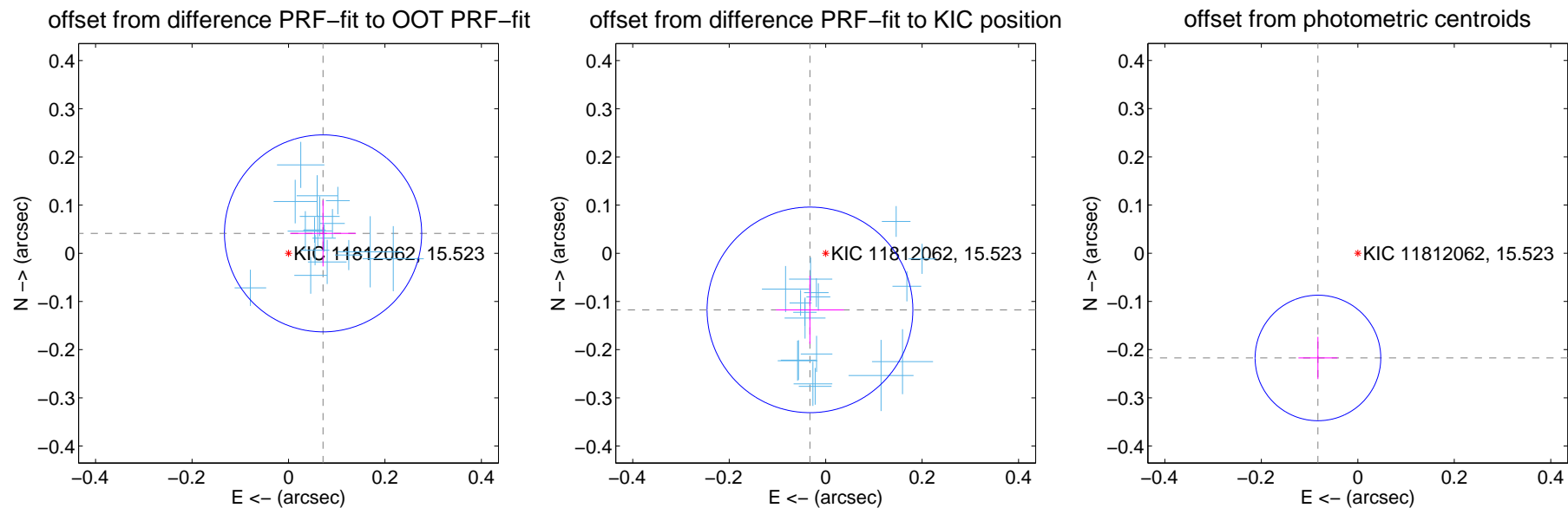
DV Centroid Data

Supplemental centroid analysis for 011812062-01. Kepler magnitude: 15.52. Transit SNR 360.41

There are 17 quarters with good PRF difference image offsets

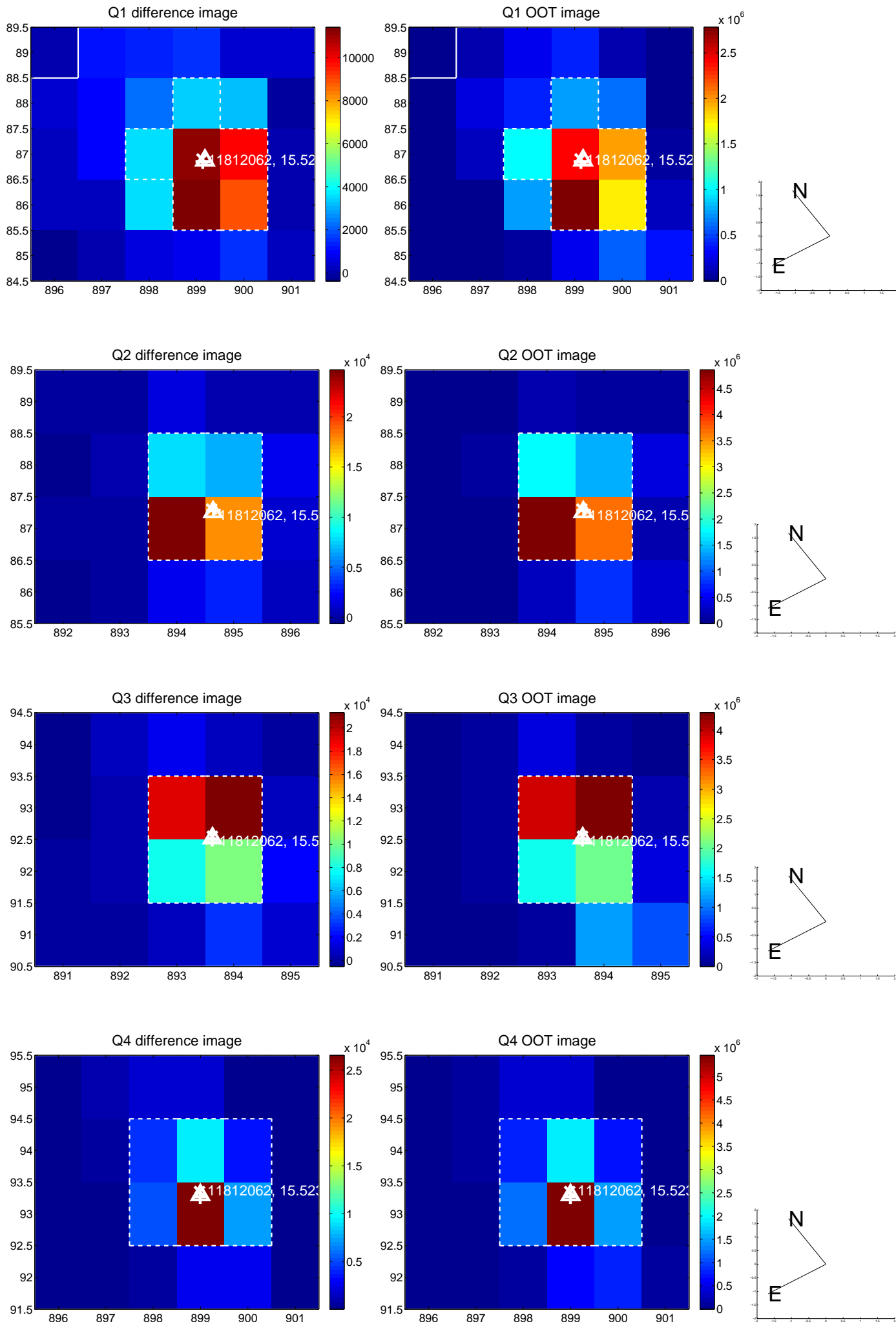
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.083 ± 0.068	1.21	-0.072 ± 0.068	0.041 ± 0.069
PRF-fit source offset from KIC position	0.122 ± 0.071	1.71	0.033 ± 0.070	-0.117 ± 0.071
photometric centroid source offset	0.23 ± 0.04	5.36	0.08 ± 0.04	-0.22 ± 0.04

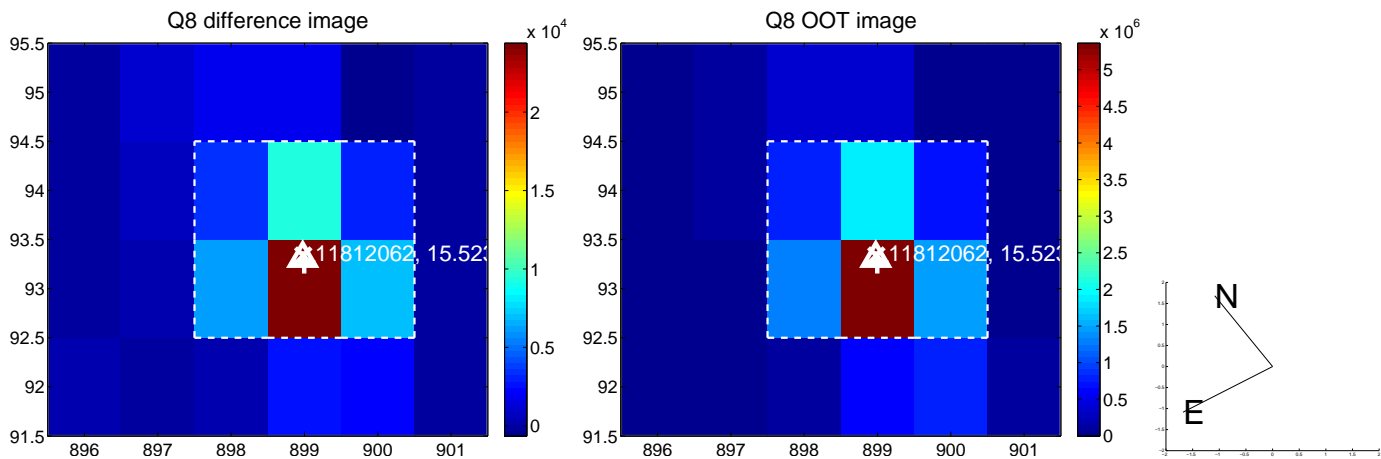
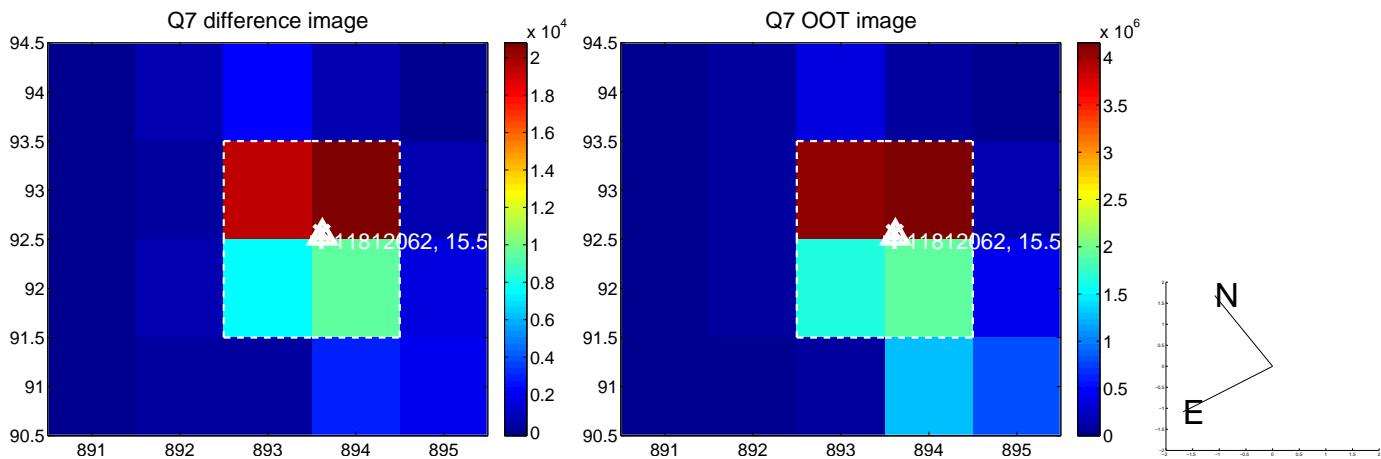
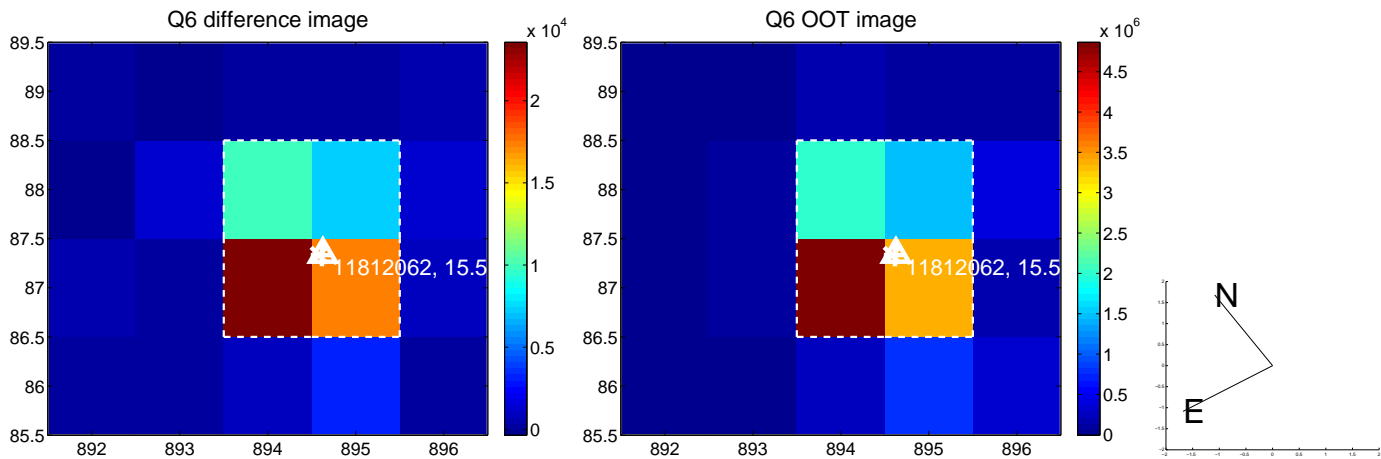
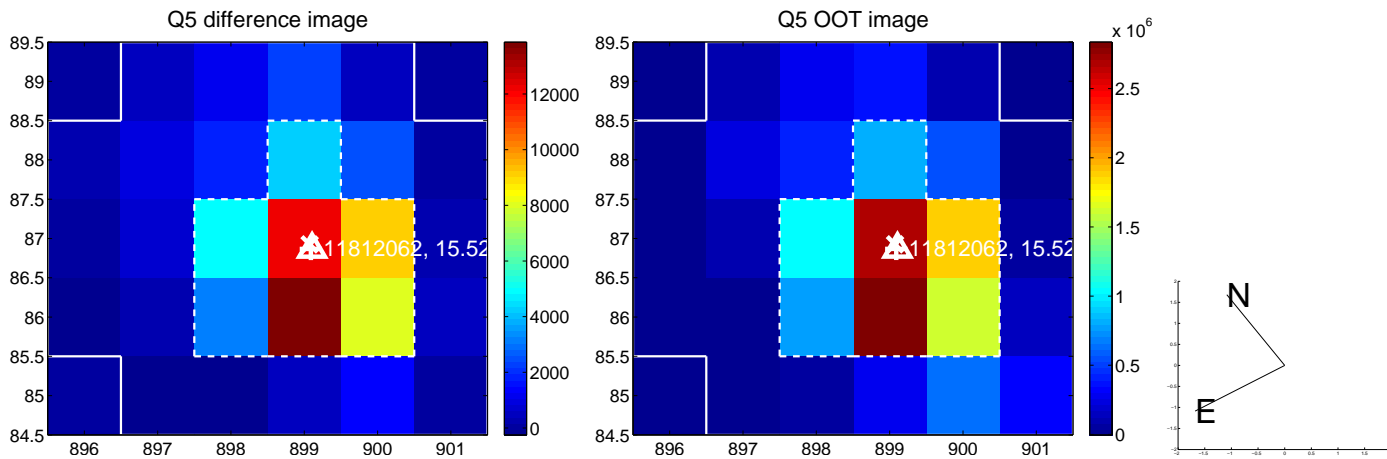


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

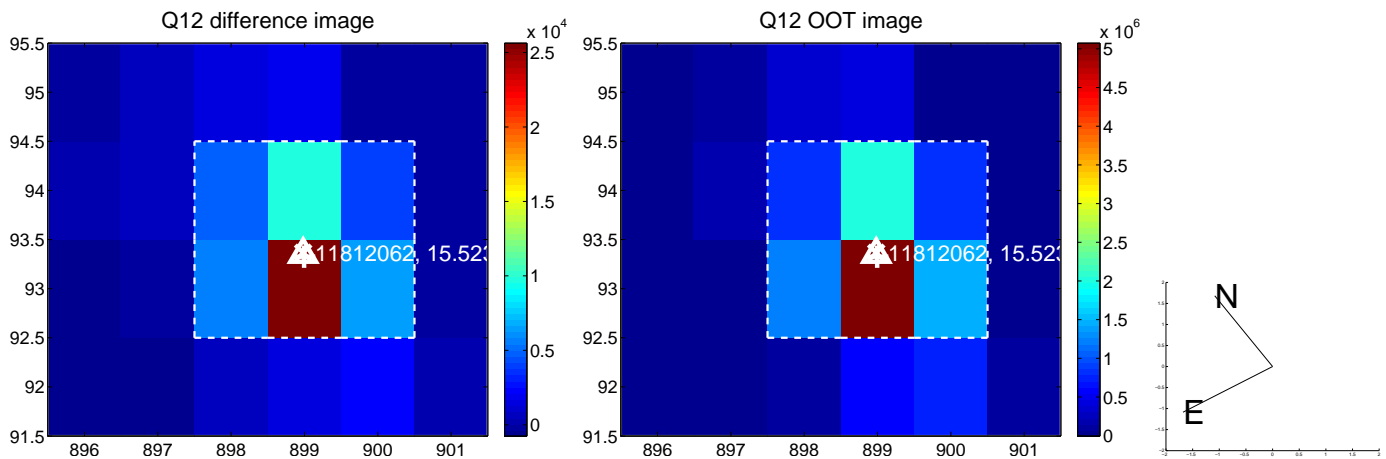
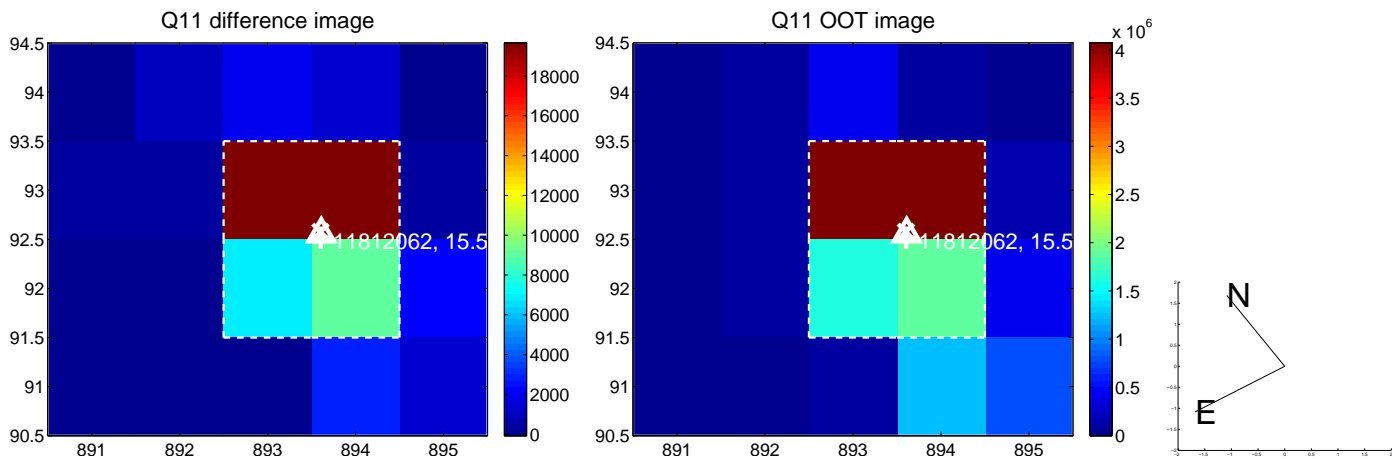
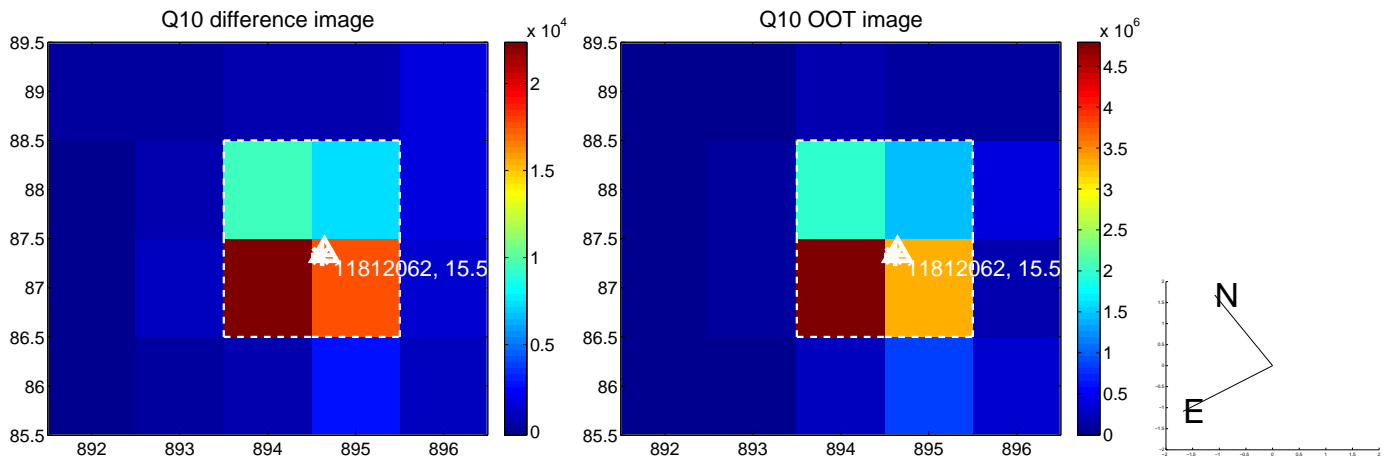
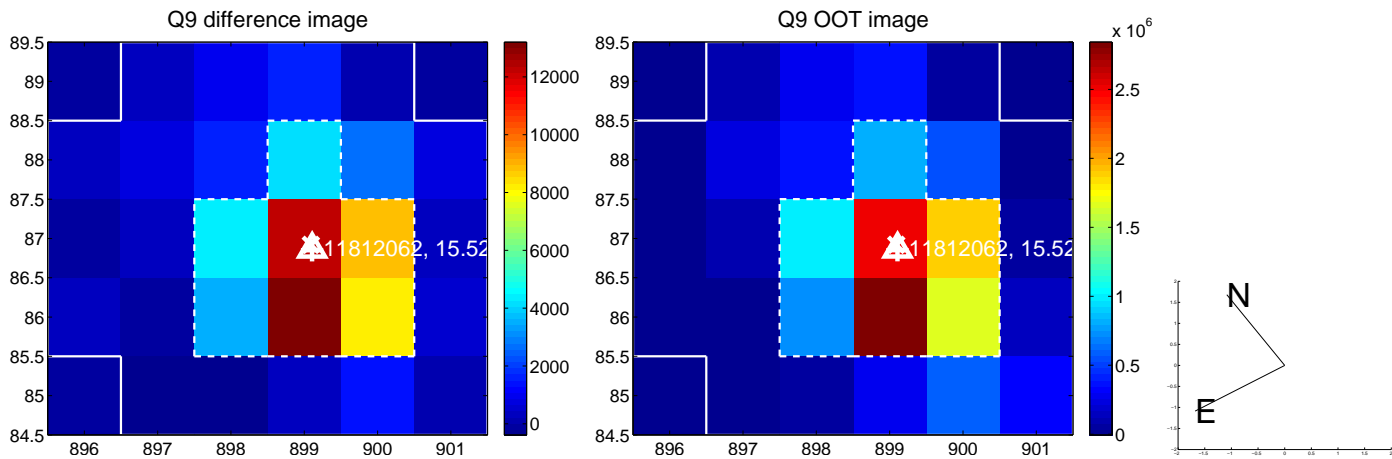
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



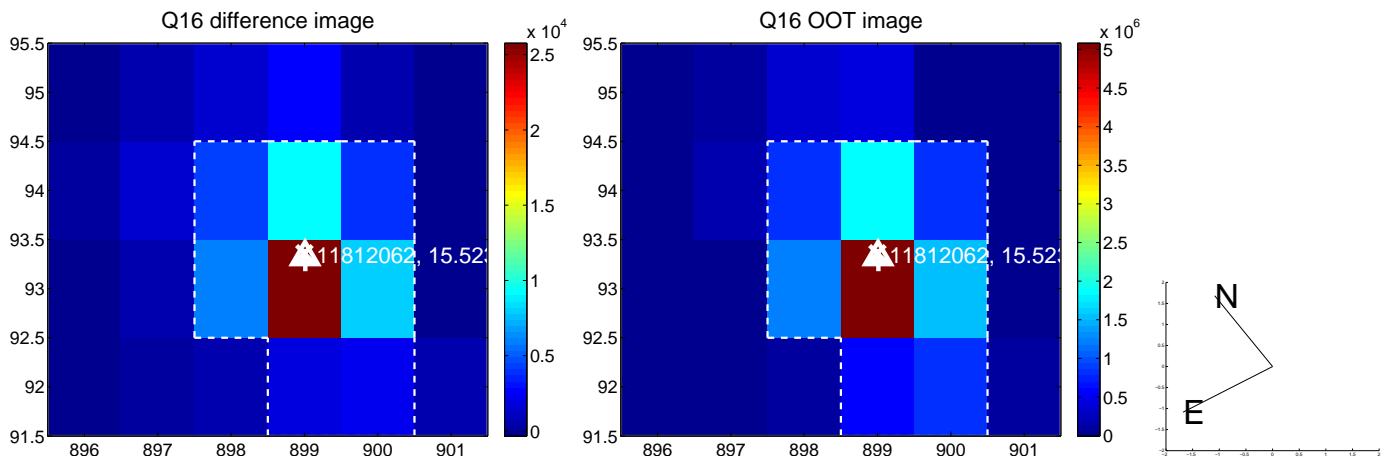
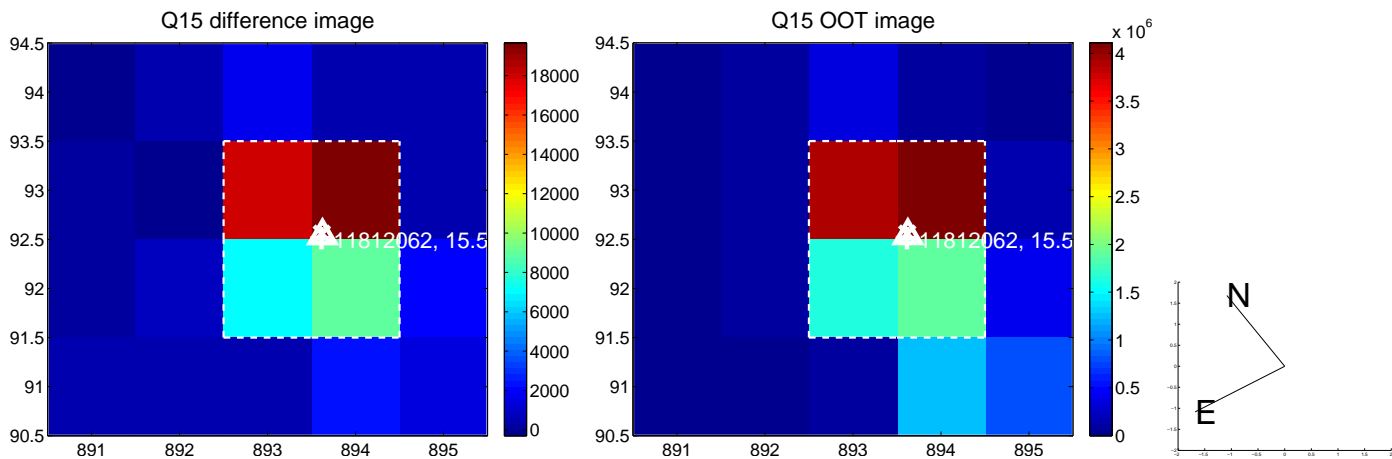
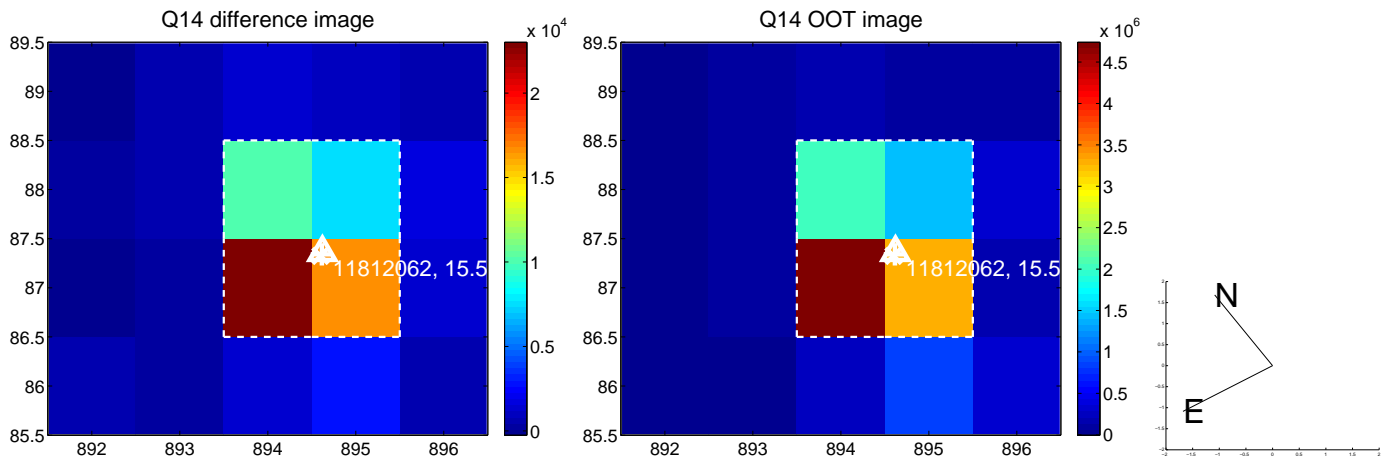
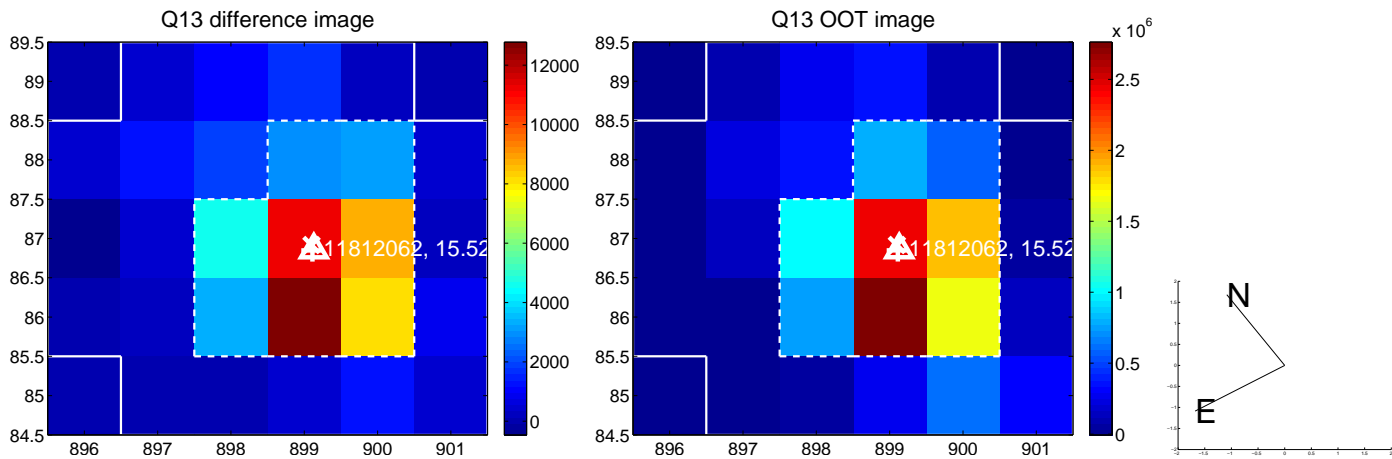
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



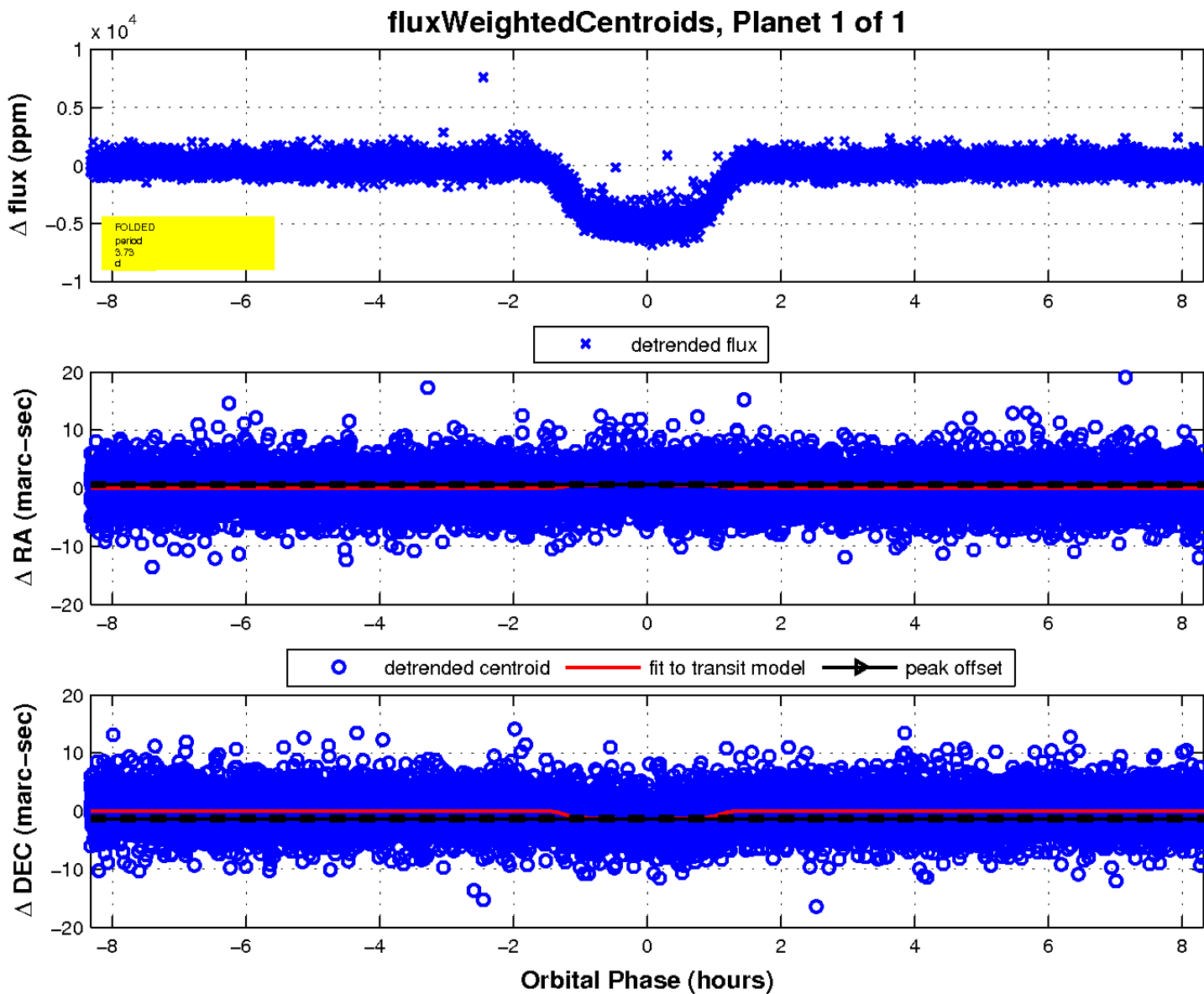
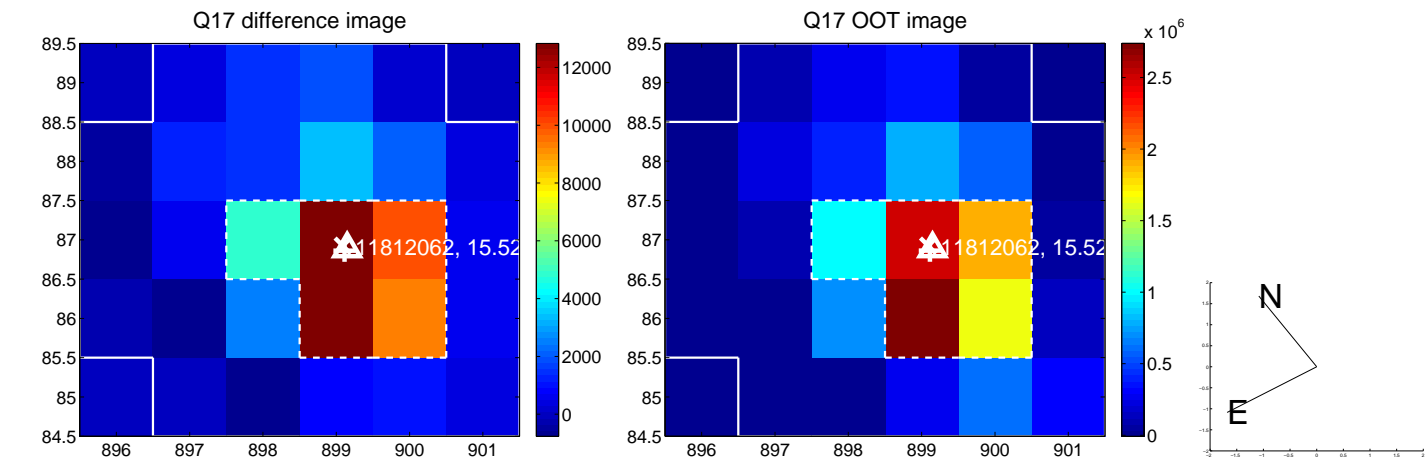
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

