

KIC 002989706

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})
002989706-01	OBS	2692.01	1.257676	132.507734	770.1	1.057	38.5	48.5	0.79	5676	2.62	1242.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002989706-01	OBS	FP	0.00	0	1	0	0	MOD_ODDEVEN_DV

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 002989706-01

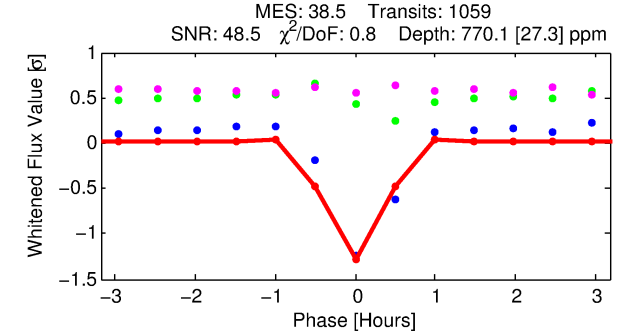
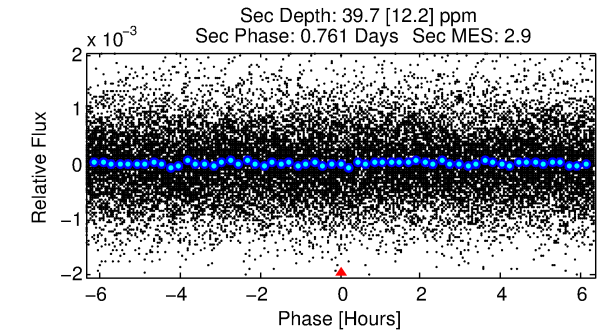
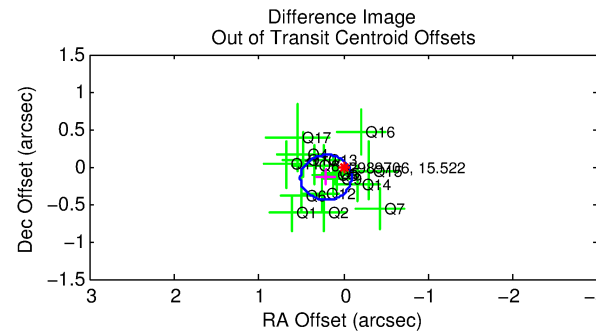
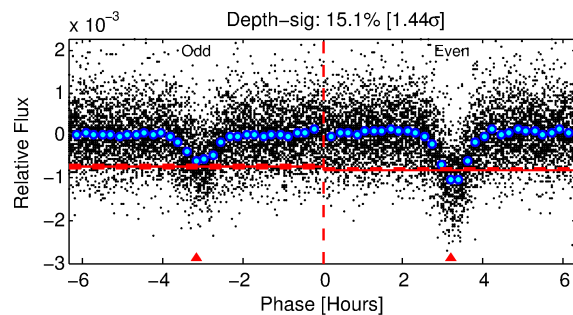
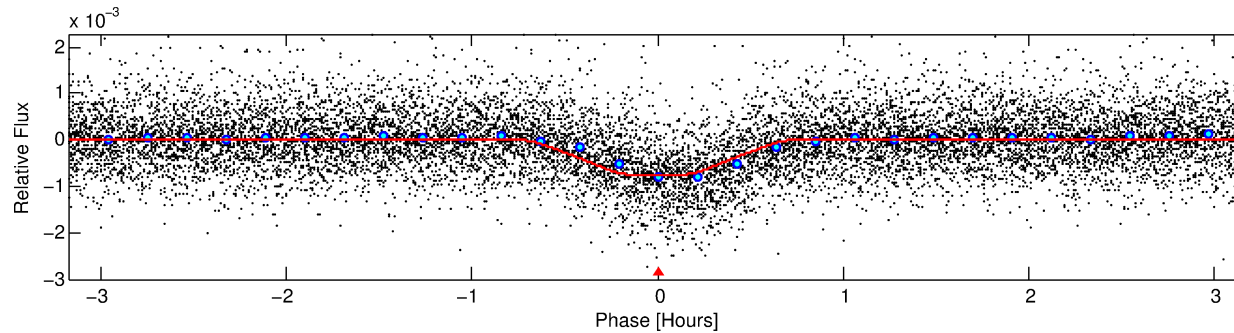
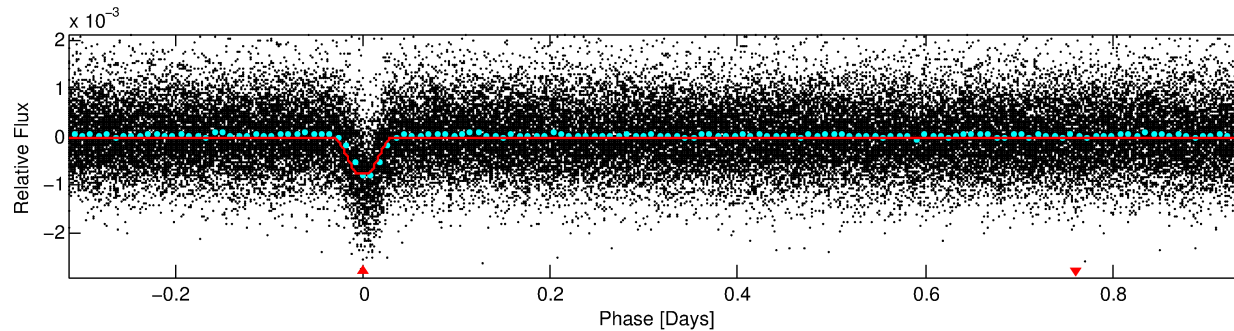
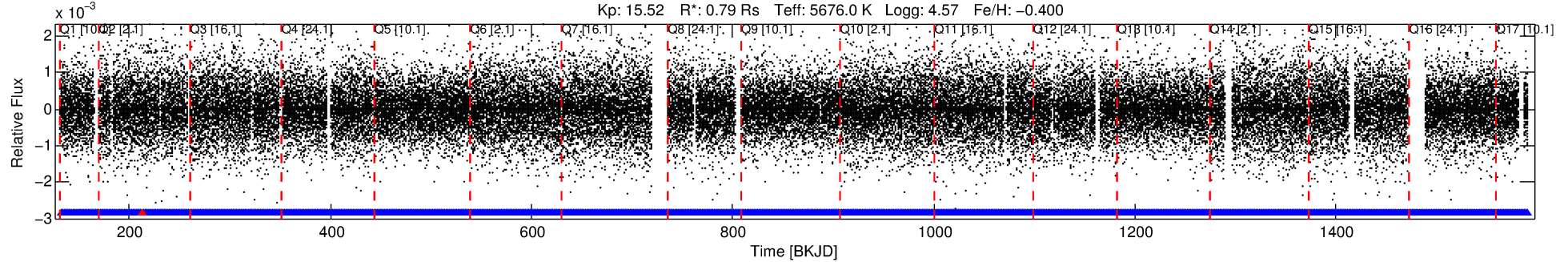
No Significant Match Found

DV One-Page Summary

KIC: 2989706 Candidate: 1 of 1 Period: 1.258 d

KOI: K02692.01 Corr: 0.854

Kp: 15.52 R*: 0.79 Rs Teff: 5676.0 K Logg: 4.57 Fe/H: -0.400



DV Fit Results:

Period = 1.25768 [0.00000] d
Epoch = 132.5077 [0.0004] BKJD
Rp/R* = 0.0305 [0.0039]
a/R* = 4.65 [2.54]
b = 0.90 [0.12]
Seff = 1242.48 [382.95]
Teq = 1514 [117] K
Rp = 2.62 [0.73] Re
a = 0.0215 [0.0043] AU
Ag = 1.48 [0.72] [0.66σ]
Teffp = 2582 [269] K [3.64σ]

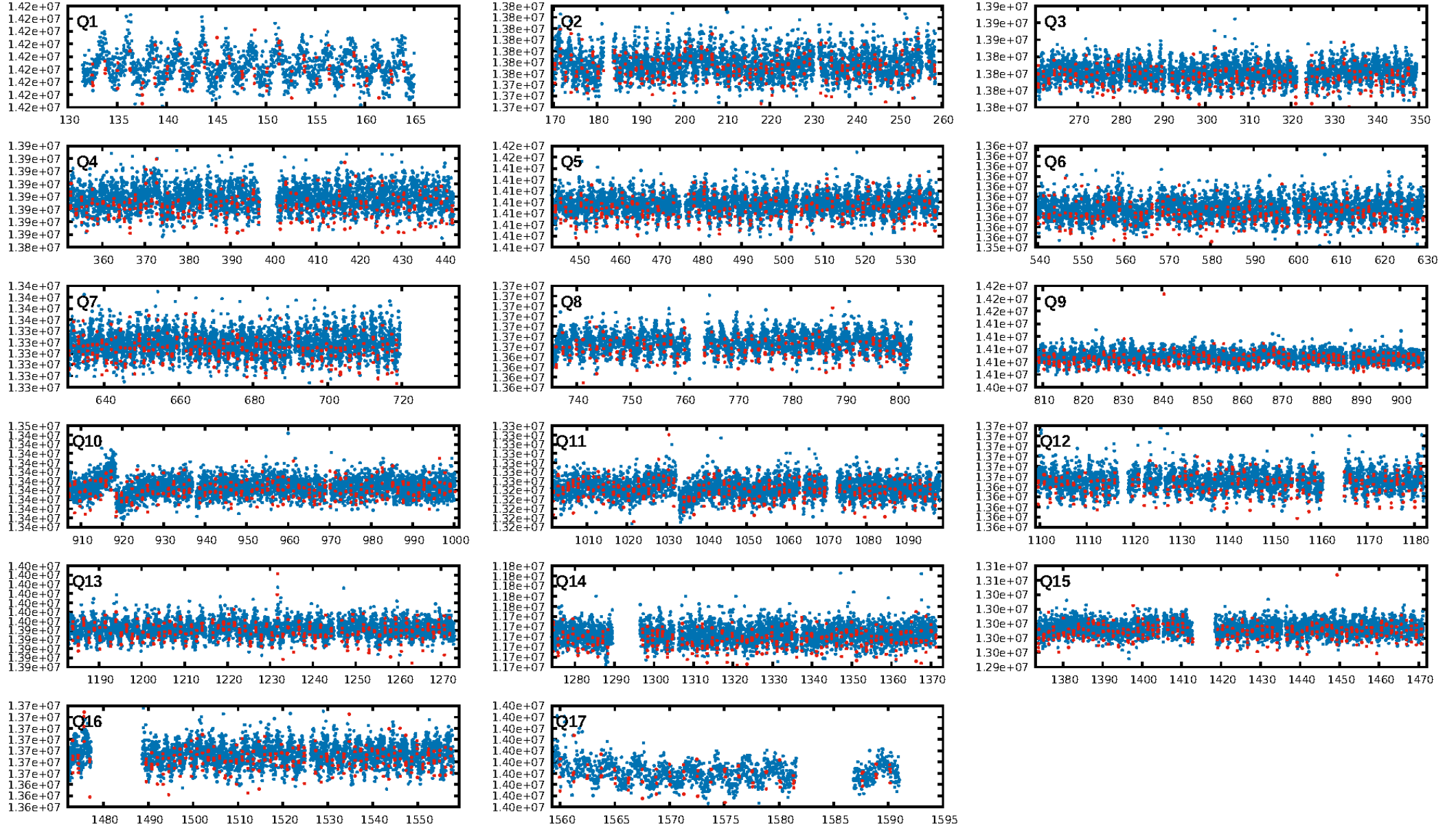
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.18e-307
RollingBand-fgt: 1.00 [1011/1012]
GhostDiagnostic-chr: 2.508
Centroid-sig: 0.0%
Centroid-so: 0.689 arcsec [2.46σ]
OotOffset-rm: 0.254 arcsec [2.53σ]
KicOffset-rm: 0.405 arcsec [3.72σ]
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]

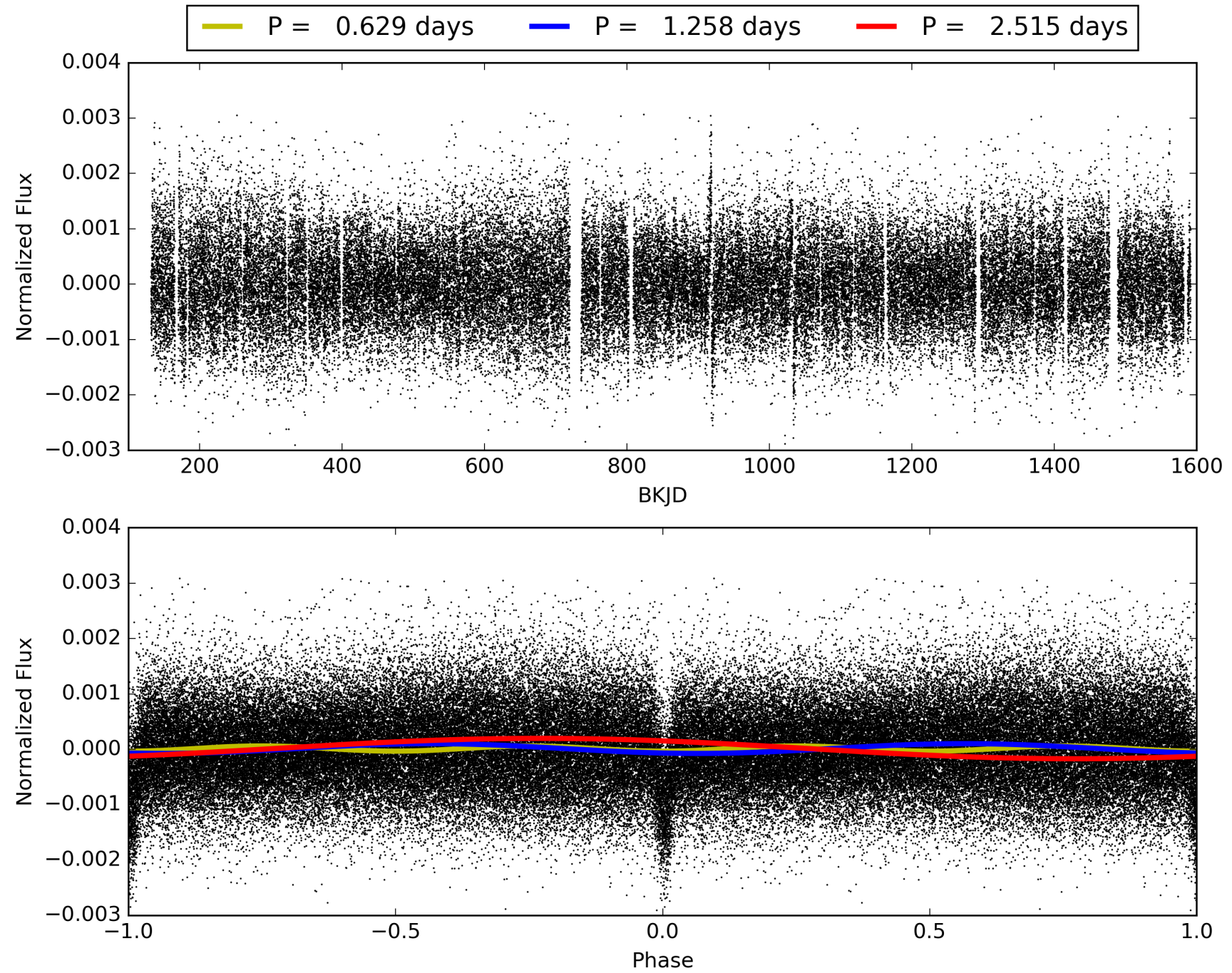
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:35:06 Z

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

TCE 002989706-01, PDC Light Curves

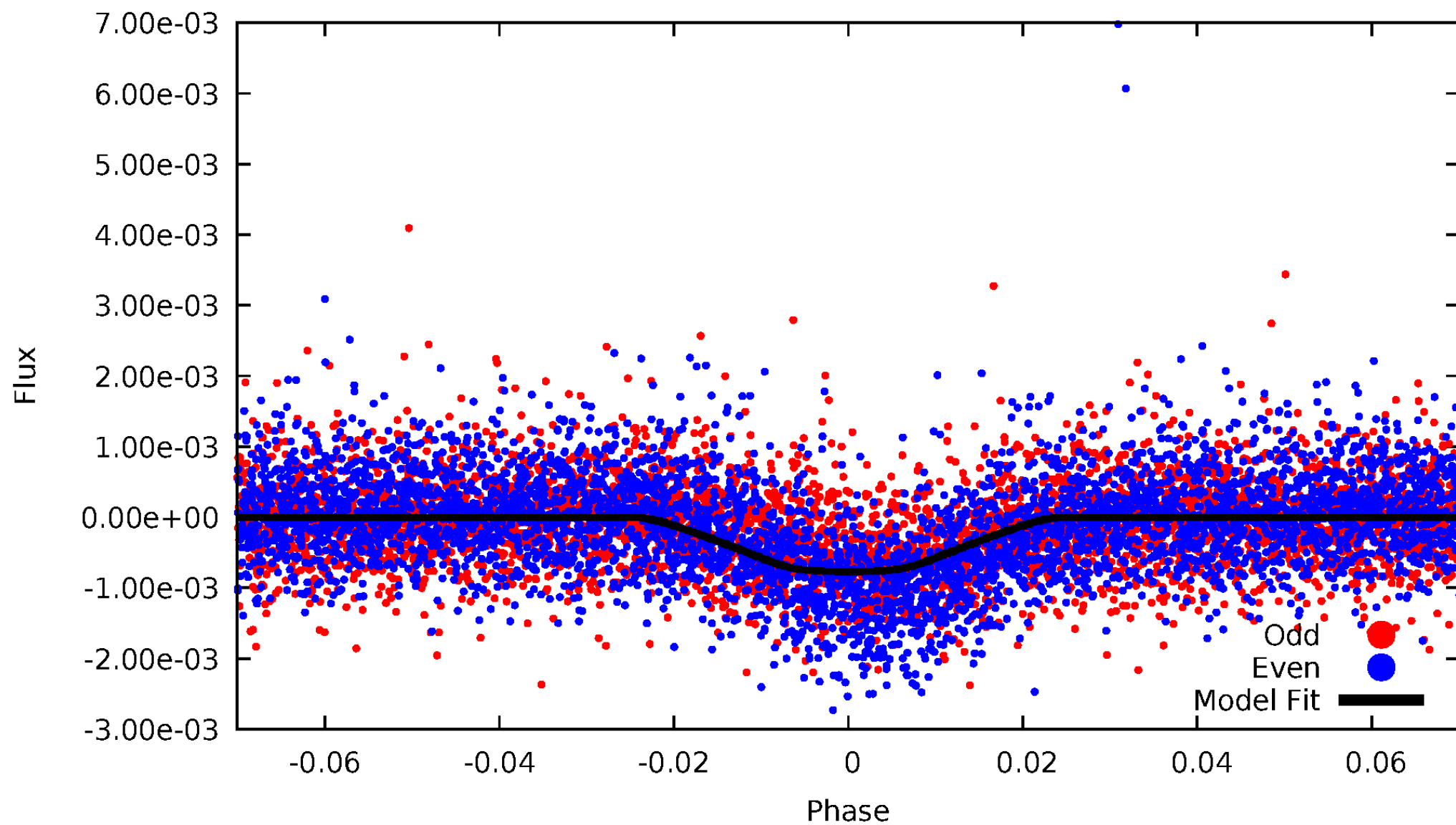


TCE 002989706-01



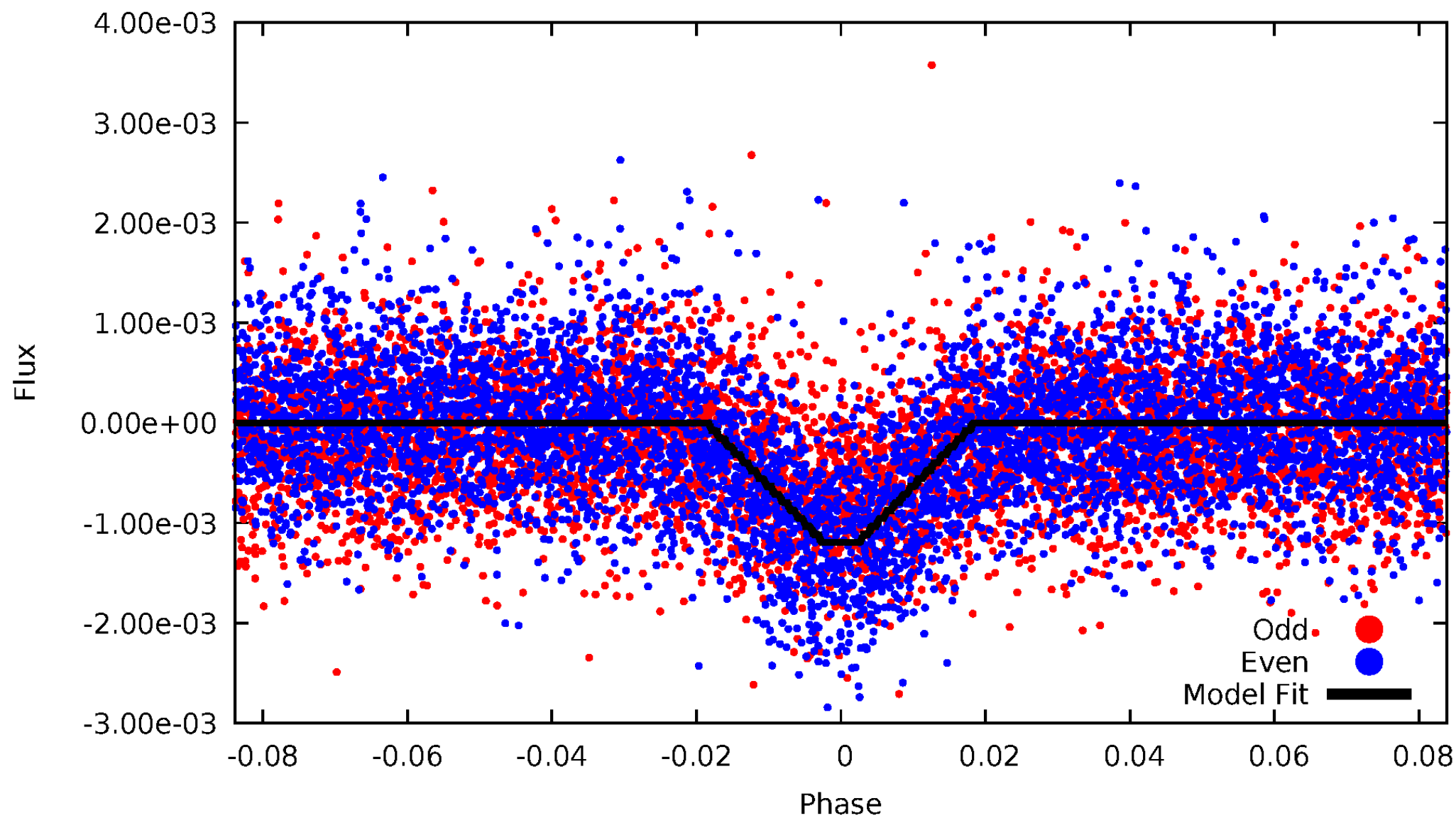
DV Odd/Even

TCE 002989706-01



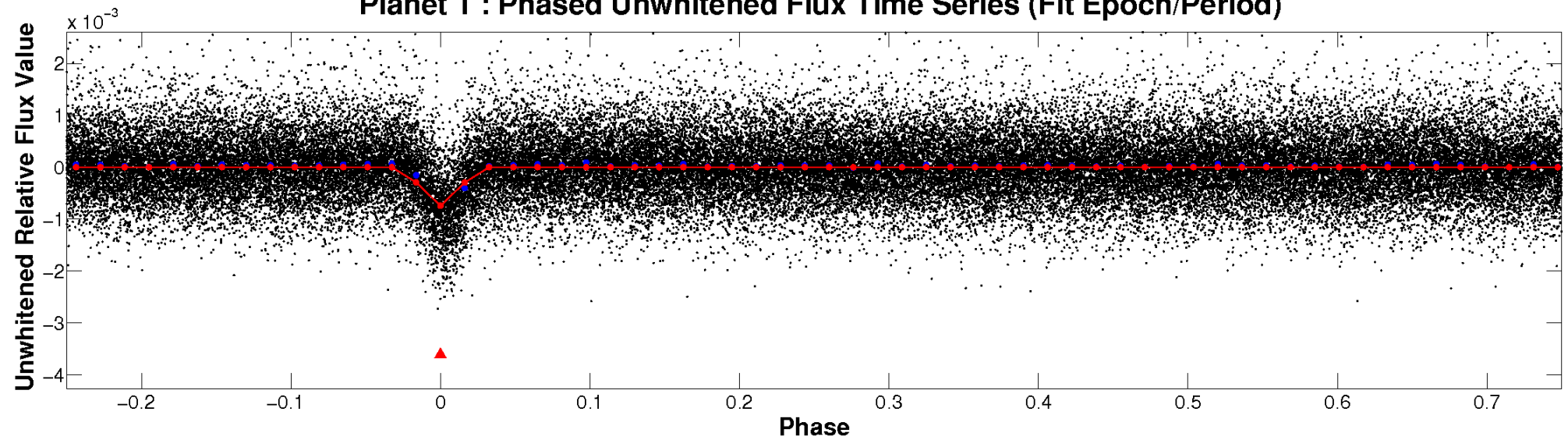
ALT Odd/Even

TCE 002989706-01

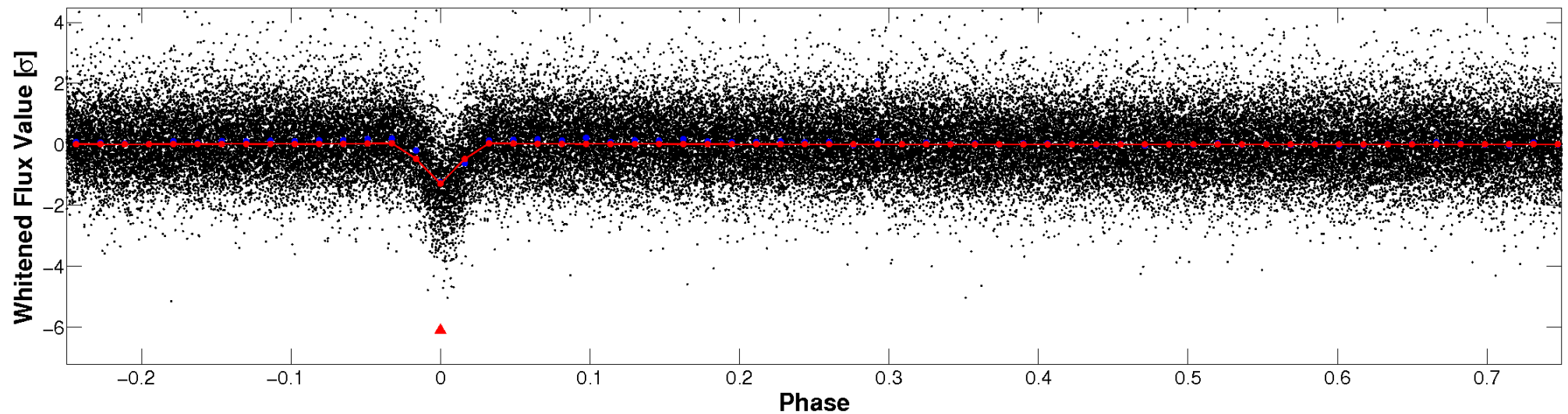


Non-Whitened Vs. Whitened Light Curve

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

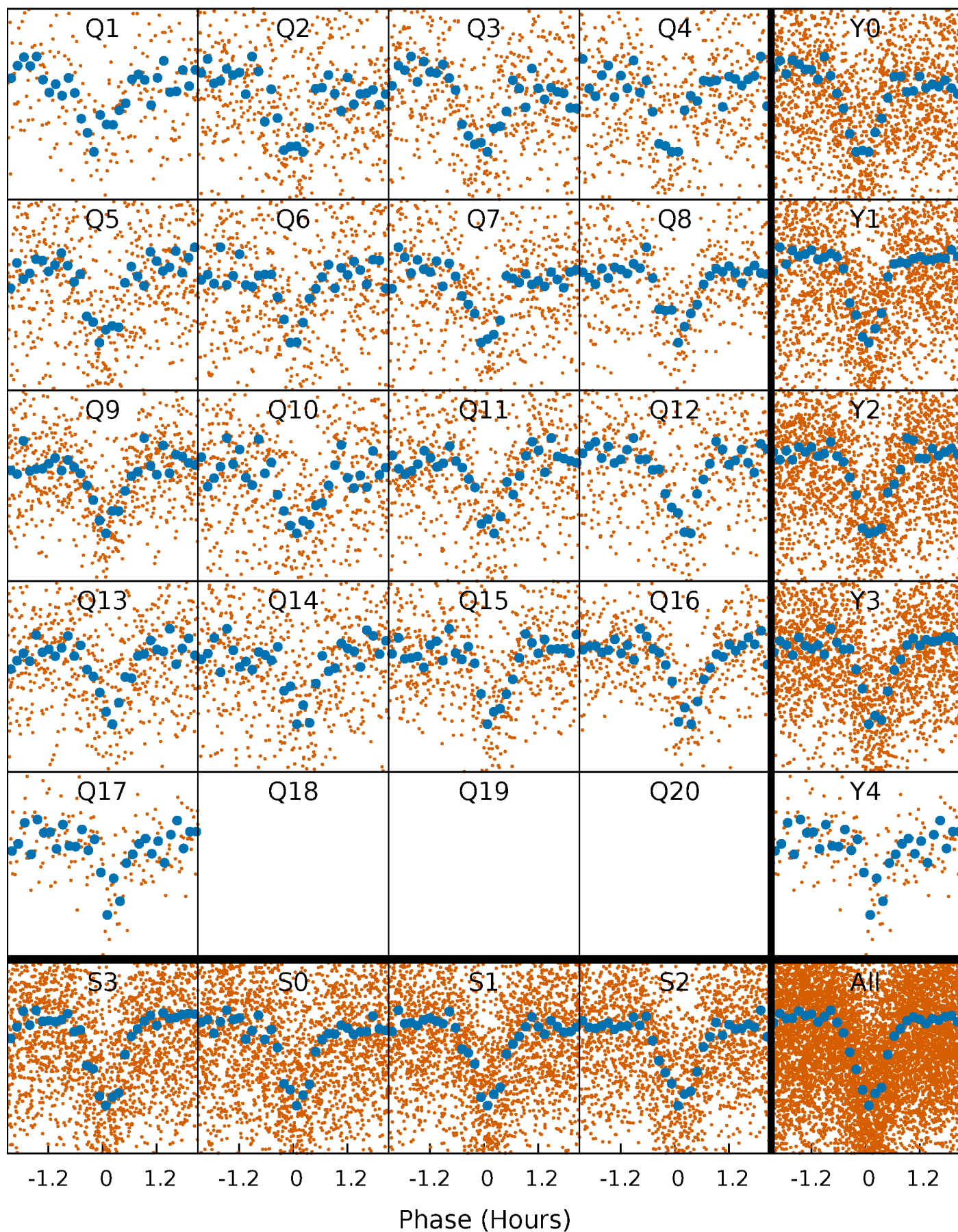


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



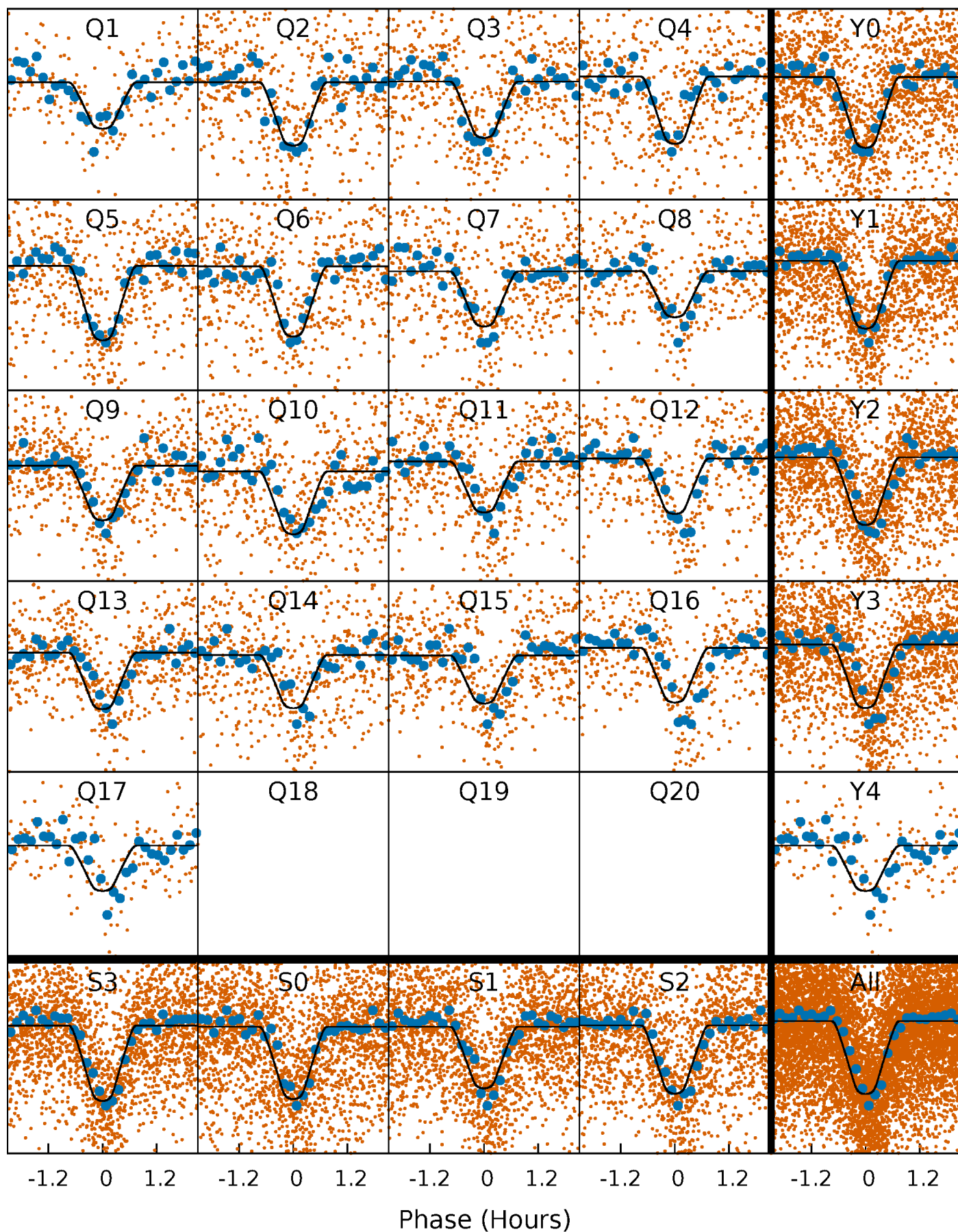
PDC Quarter-Phased Transit Curves

TCE 002989706-01 P= 1.257676 Days $T_0=132.507734$ (BKJD)



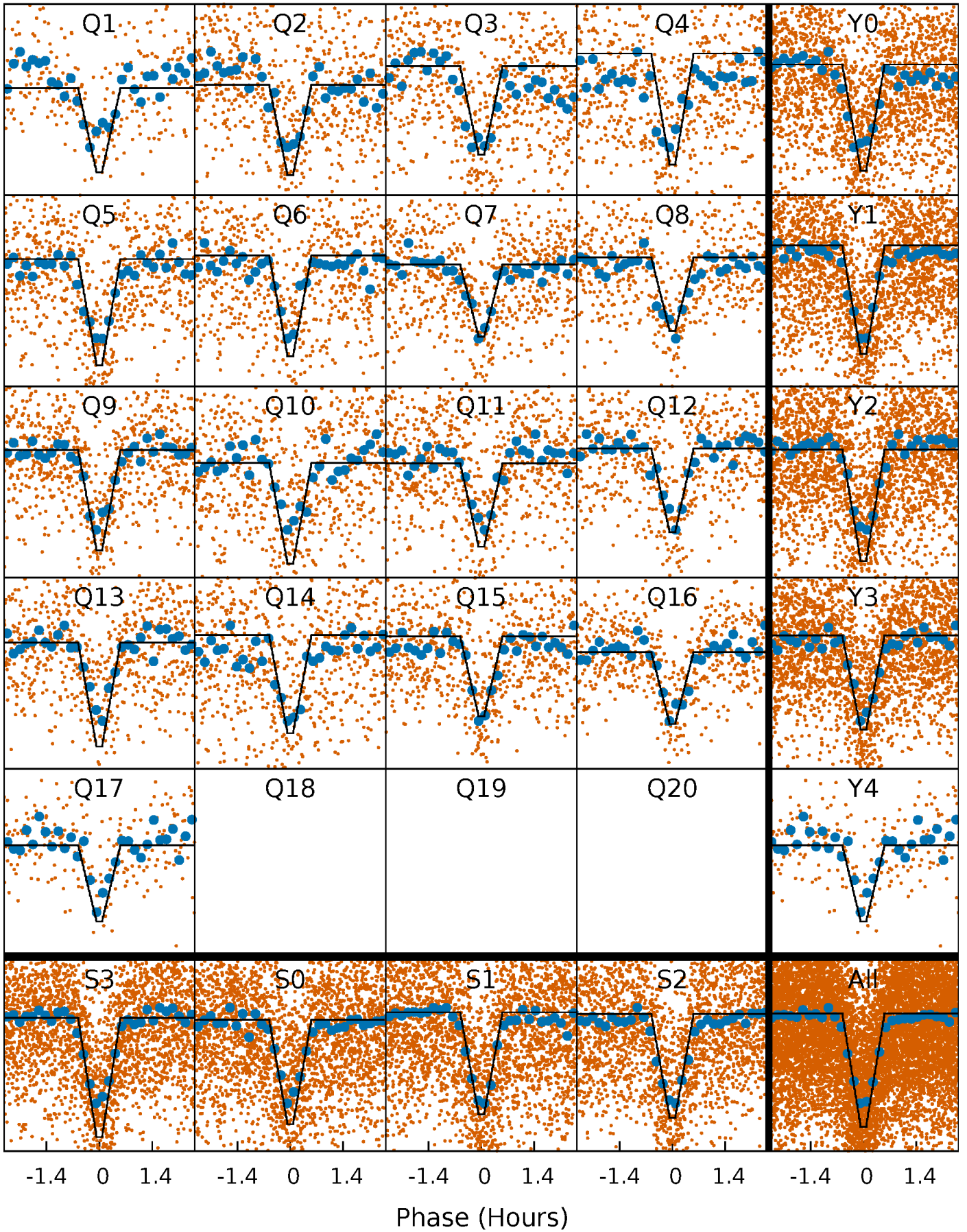
DV Quarter-Phased Transit Curves

TCE 002989706-01 P= 1.257676 Days $T_0=132.507734$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

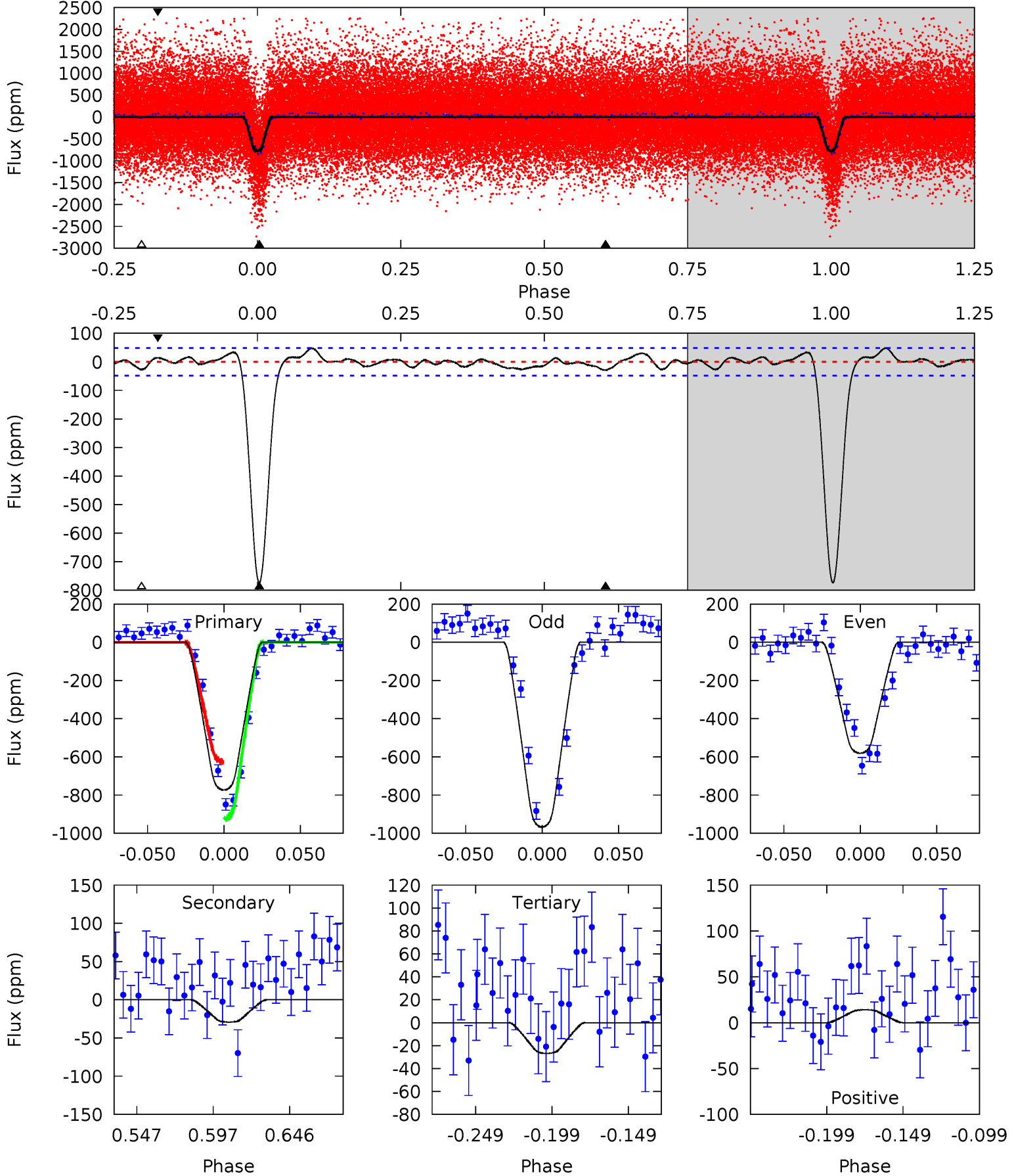
TCE 002989706-01 P= 1.257684 Days $T_0=132.506893$ (BKJD)



DV Model-Shift Uniqueness Test

002989706-01, P = 1.257676 Days, E = 131.250058 Days

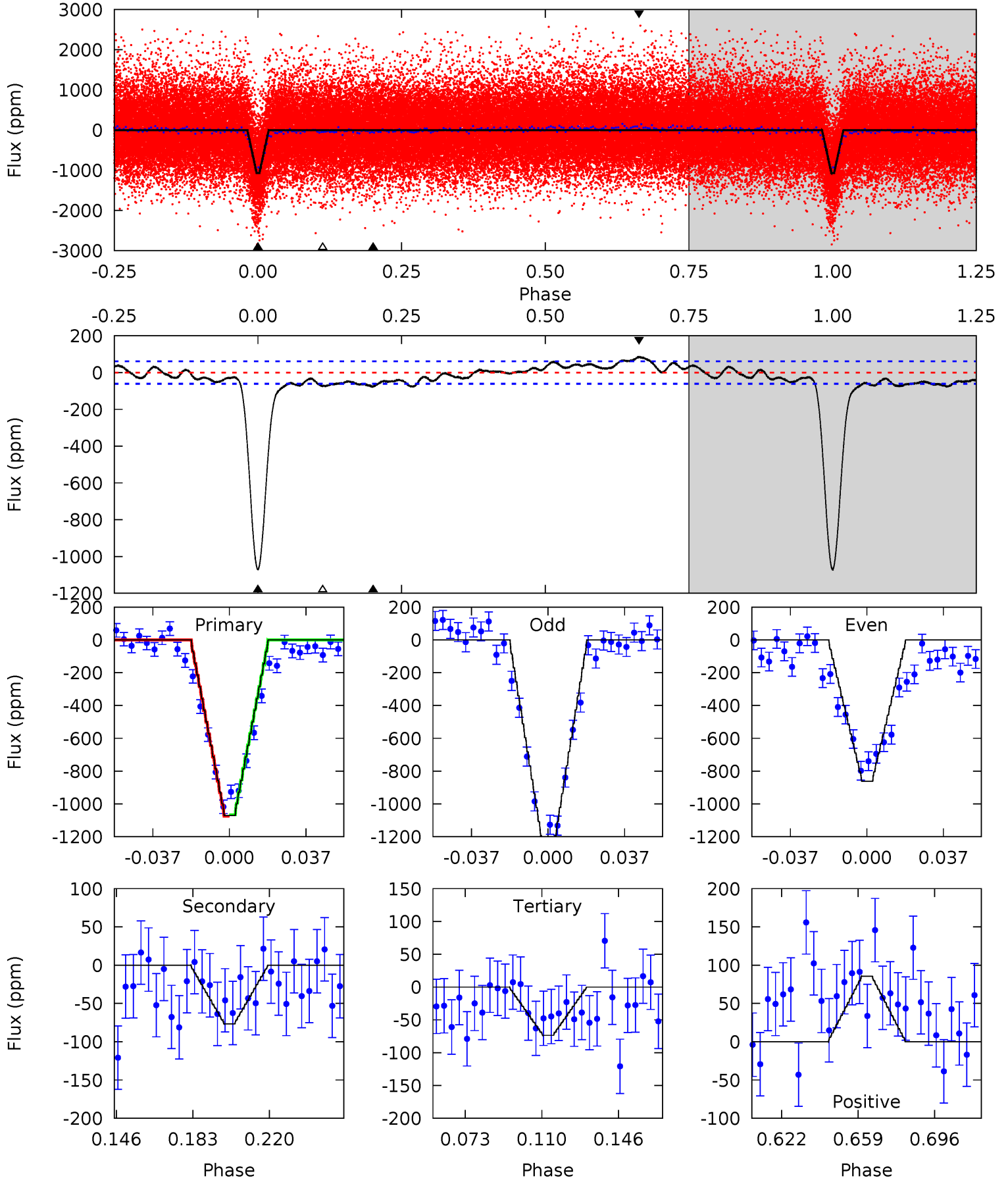
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
75.7	2.86	2.62	1.37	4.71	1.96	1.43	73.1	74.3	0.24	1.49	19.0	1.00	0.06	14.7



Alt Model-Shift Uniqueness Test

002989706-01, P = 1.257684 Days, E = 131.249209 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
83.6	5.98	5.75	6.67	4.77	2.09	3.17	77.9	76.9	0.23	-0.69	16.3	0.99	0.07	0.32



Stellar Parameters For KIC 002989706

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5676^{+172}_{-172}	$4.571^{+0.050}_{-0.150}$	$-0.400^{+0.300}_{-0.300}$	$0.787^{+0.195}_{-0.078}$	$0.840^{+0.089}_{-0.089}$	$2.430^{+0.509}_{-1.057}$
	+3%/-3%	+1%/-3%	+75%/-75%	+25%/-10%	+11%/-11%	+21%/-43%
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 002989706-01 / KOI 2692.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-29 ± 10	$2.68^{+0.46}_{-0.38}$	2152^{+126}_{-99}	2895^{+238}_{-296}	$0.996^{+0.536}_{-0.391}$
Alt.	-77 ± 13	$3.06^{+0.50}_{-0.39}$	2153^{+123}_{-97}	3297^{+178}_{-178}	$2.058^{+0.719}_{-0.627}$

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

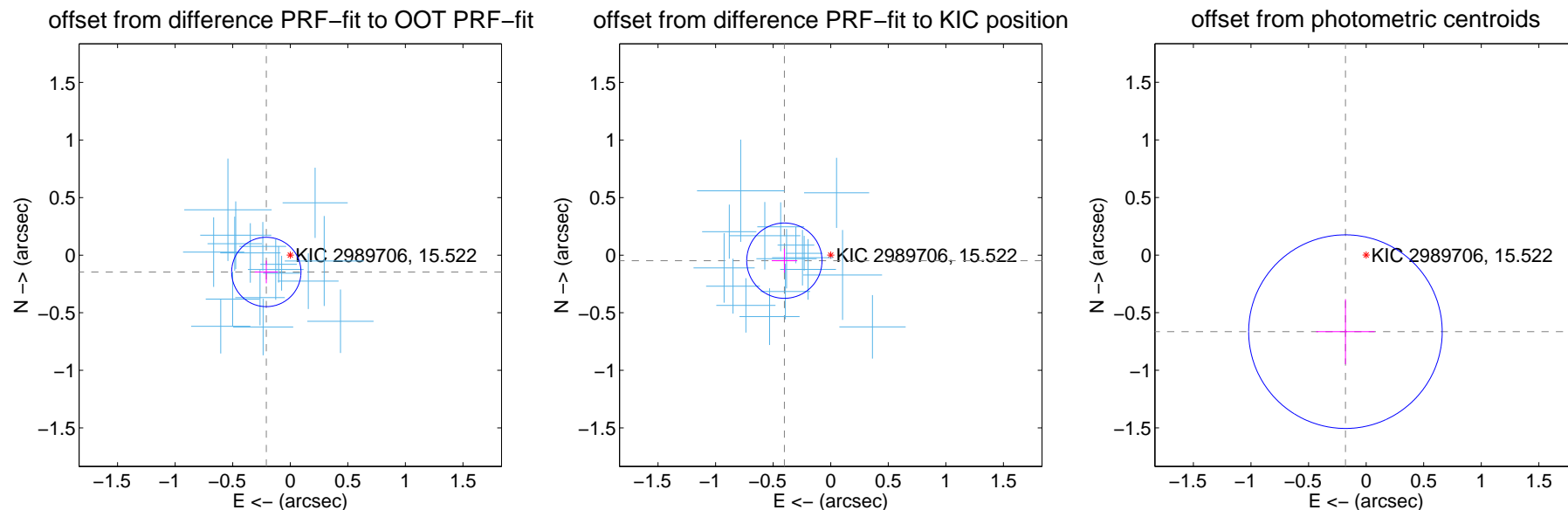
DV Centroid Data

Supplemental centroid analysis for 002989706-01. Kepler magnitude: 15.52. Transit SNR 48.47

There are 17 quarters with good PRF difference image offsets

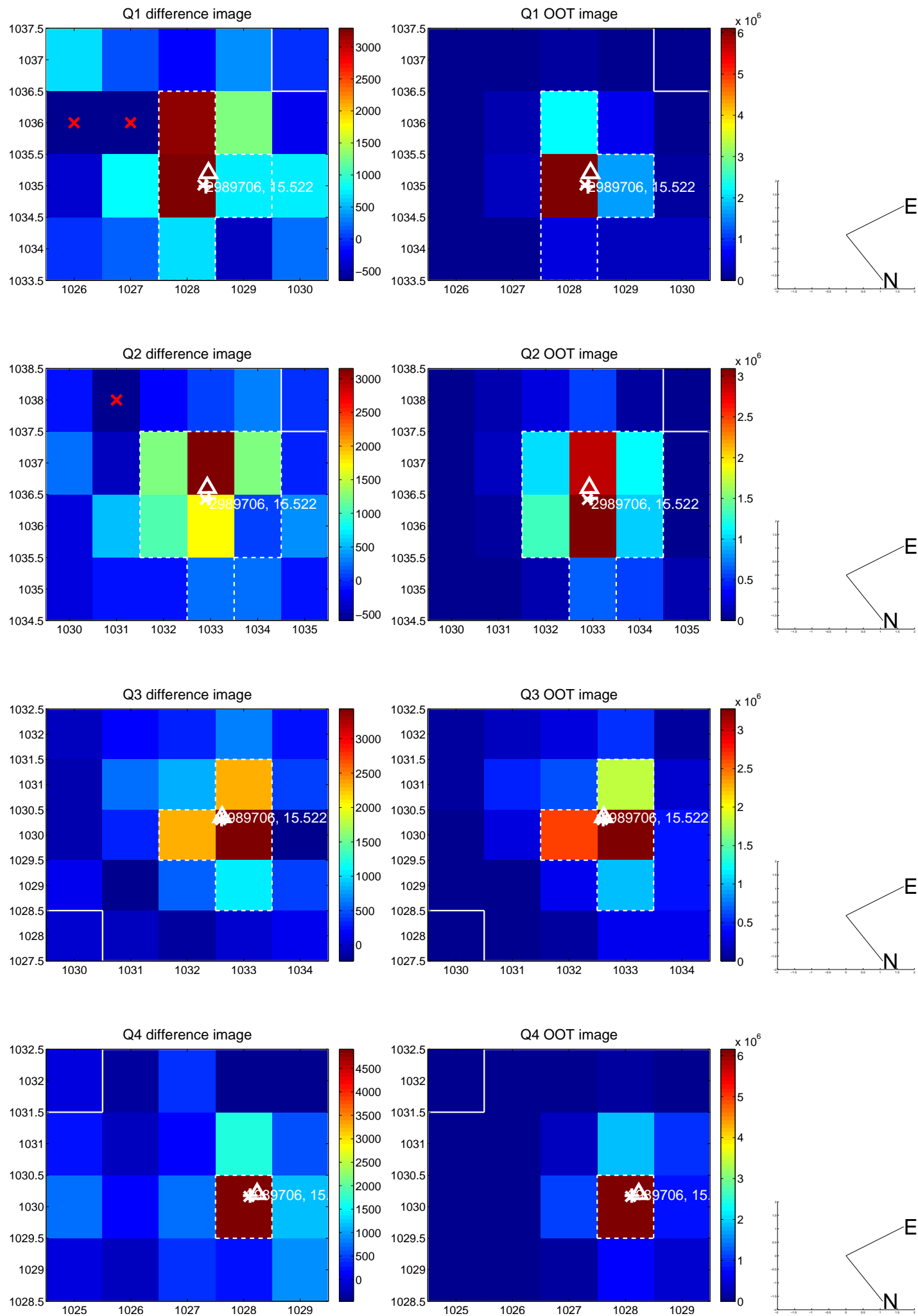
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.254 ± 0.100	2.53	0.208 ± 0.101	-0.146 ± 0.098
PRF-fit source offset from KIC position	0.405 ± 0.109	3.72	0.403 ± 0.110	-0.048 ± 0.103
photometric centroid source offset	0.69 ± 0.28	2.46	0.18 ± 0.25	-0.66 ± 0.28

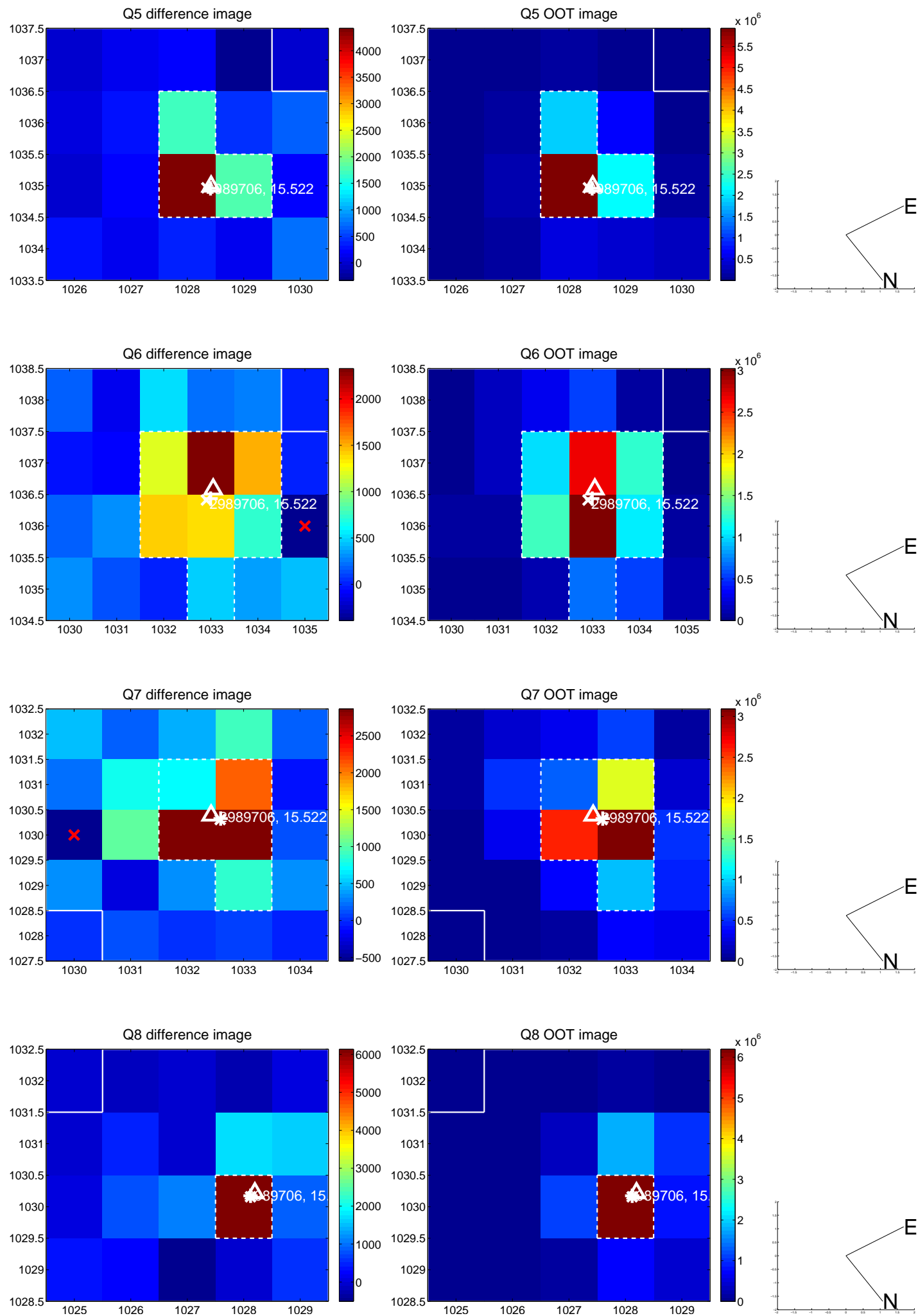


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

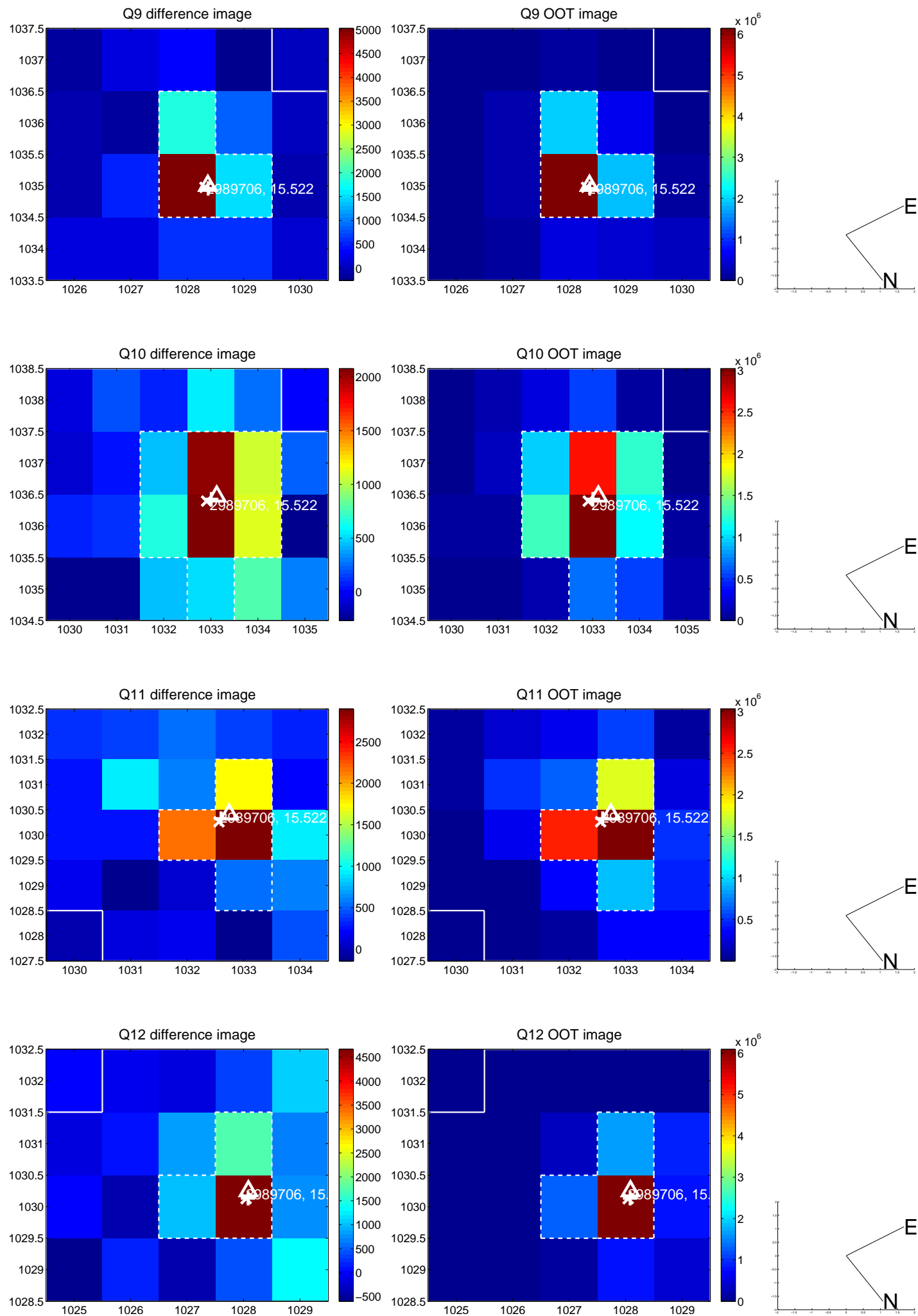
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



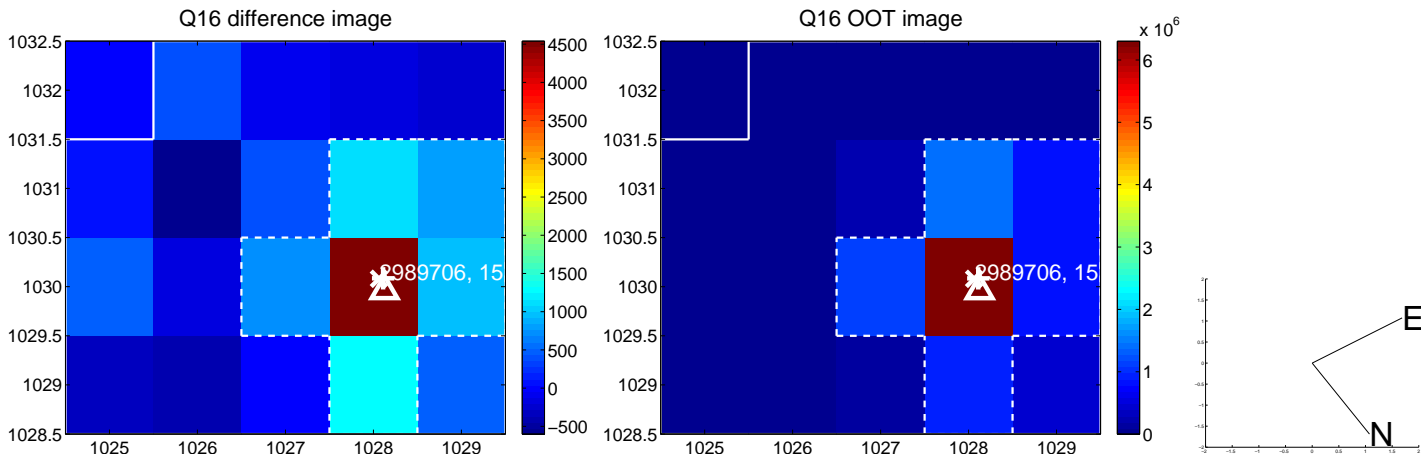
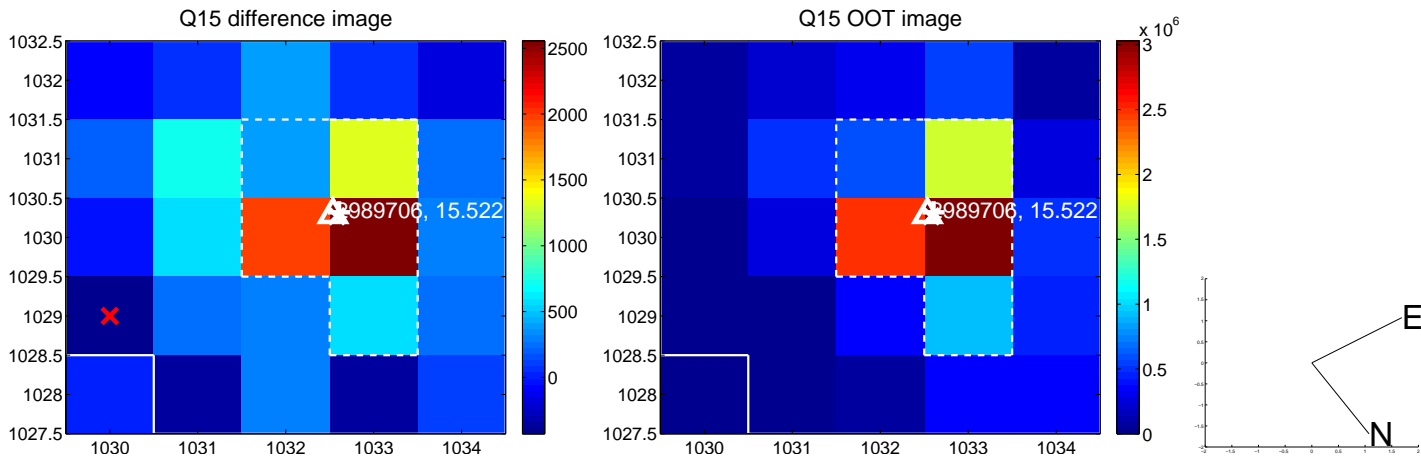
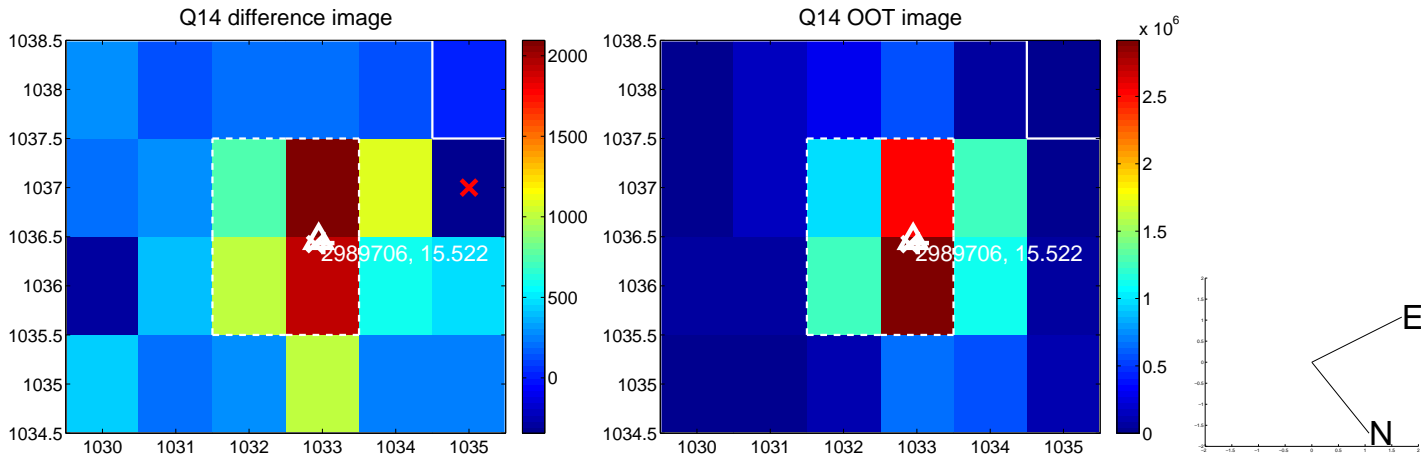
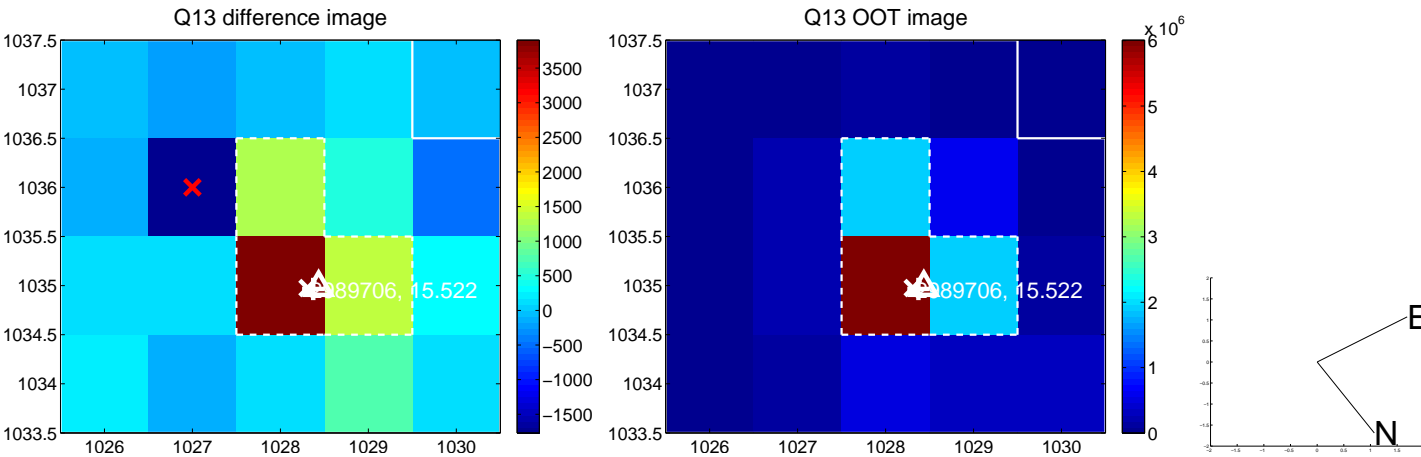
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



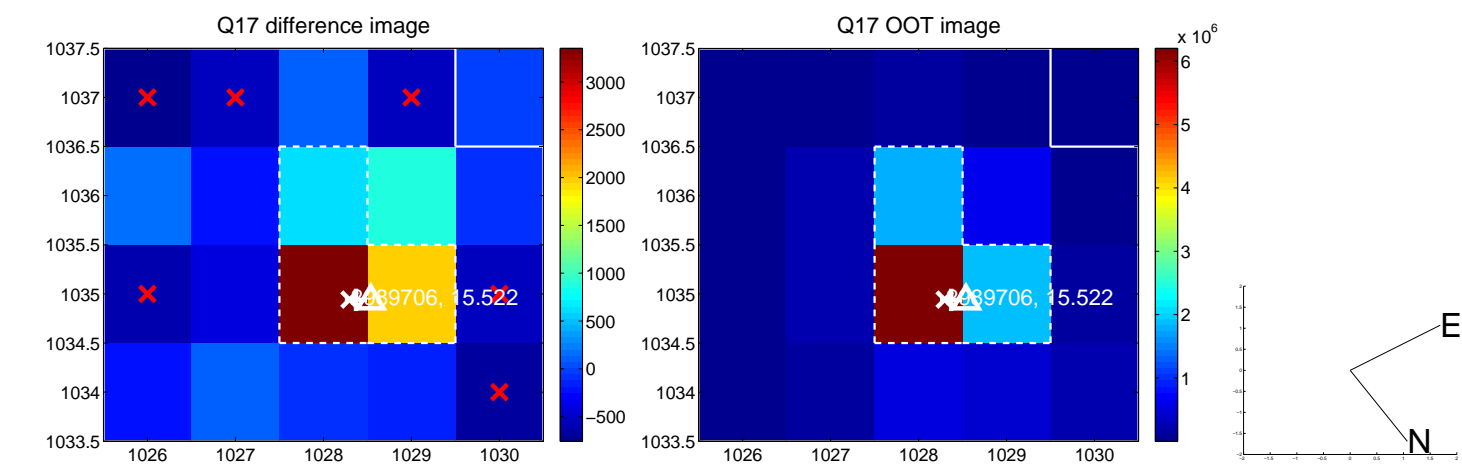
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



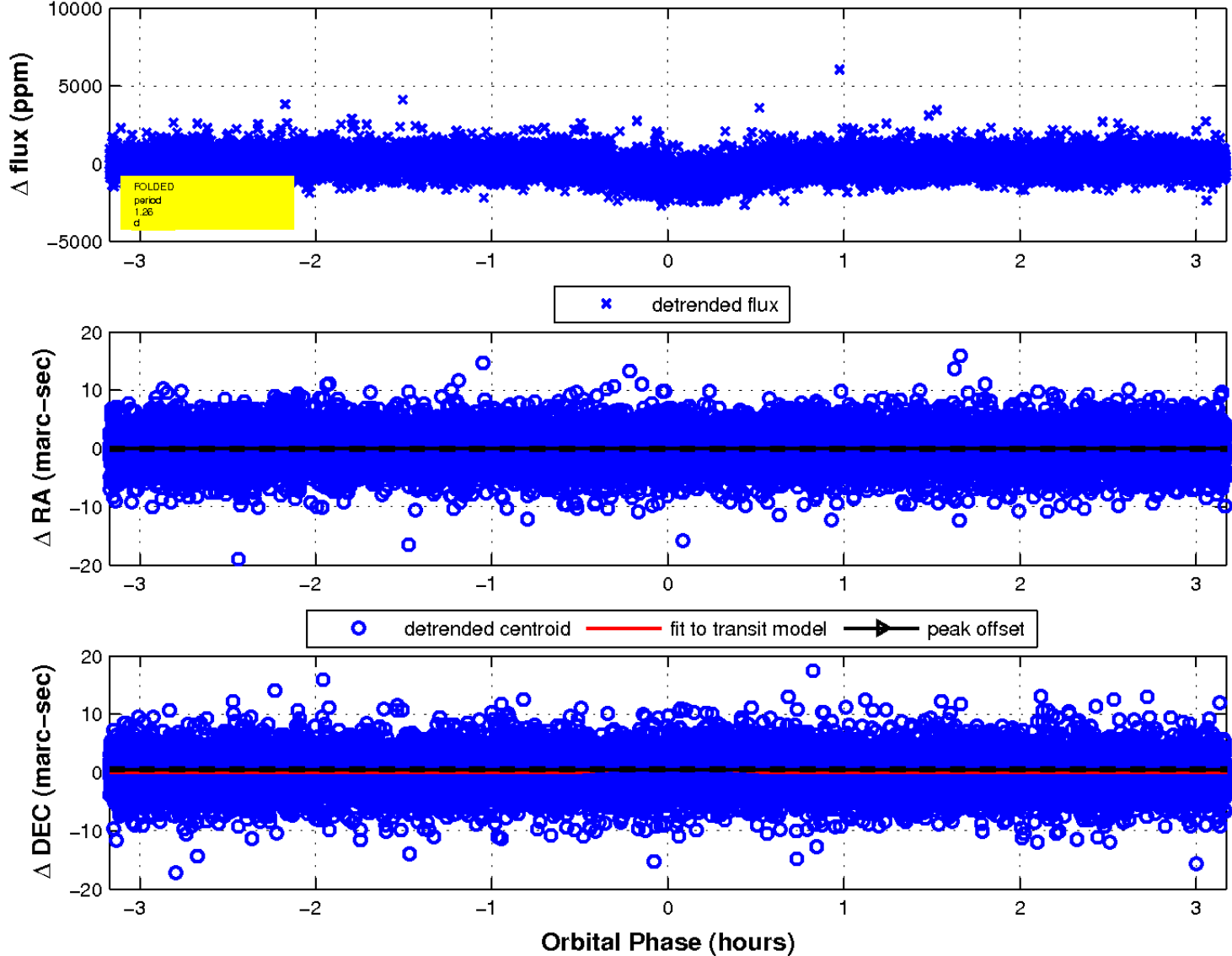
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

