

KIC 003869445

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})
003869445-01	OBS	No	289.628241	139.806033	163.1	12.948	14.8	7.2	152.28	3293	227.55	3019.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003869445-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_TRACKER—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

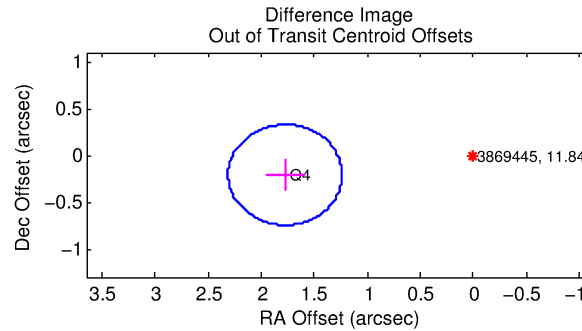
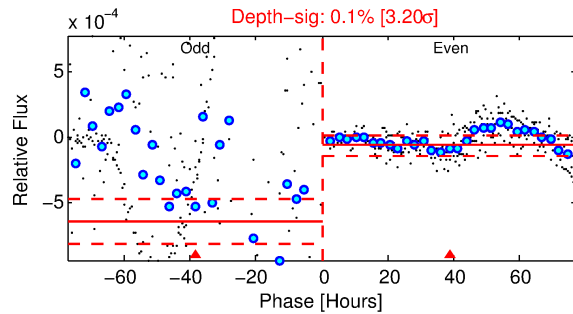
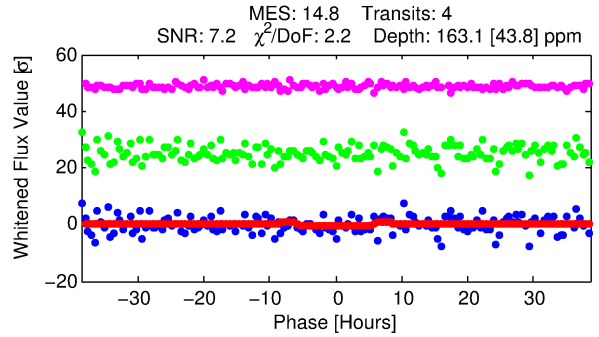
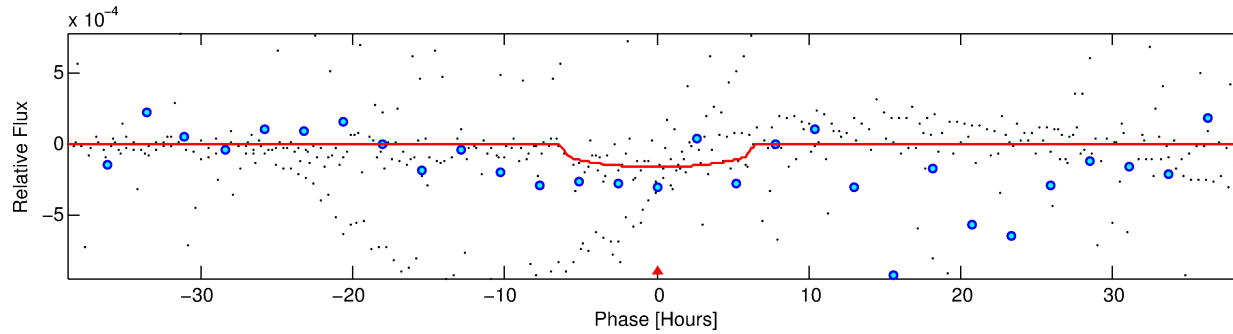
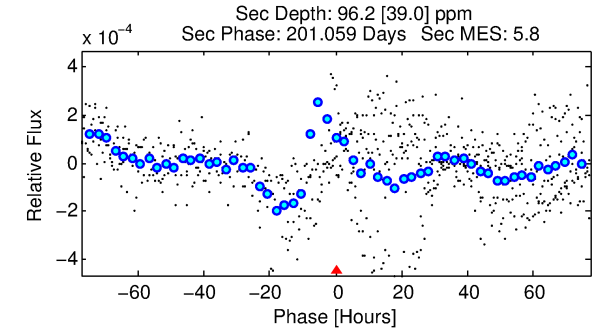
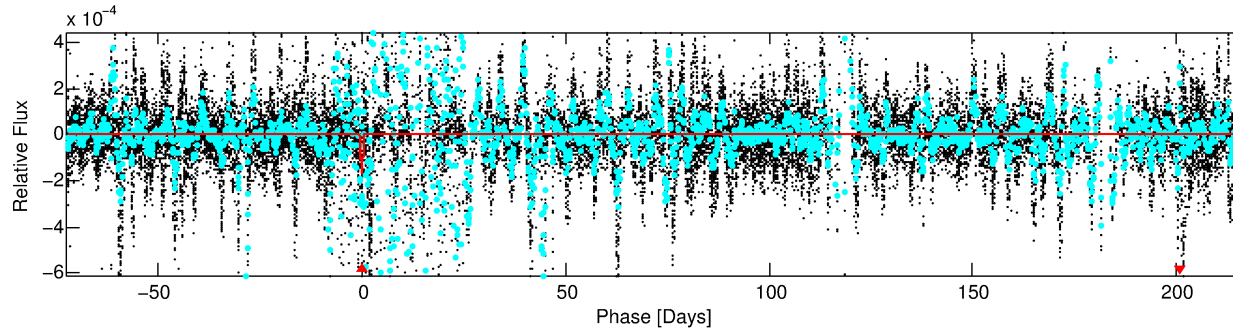
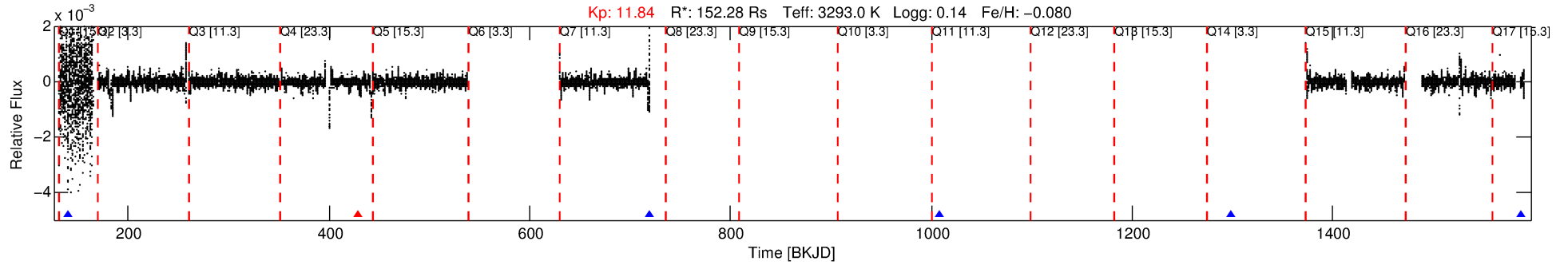
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003869445-01

No Significant Match Found

DV One-Page Summary

KIC: 3869445 Candidate: 1 of 1 Period: 289.628 d



DV Fit Results:

Period = 289.62824 [0.00810] d
Epoch = 139.8060 [0.0232] BKJD
Rp/R* = 0.0137 [0.0072]
a/R* = 101.40 [142.36]
b = 0.82 [0.57]
Seff = 3019.32 [1095.05]
Teq = 1890 [171] K
Rp = 227.55 [127.03] Re
a = 0.8996 [0.1824] AU
Ag = 0.83 [0.97] [-0.18σ]
Teff = 2787 [788] K [1.1σ]

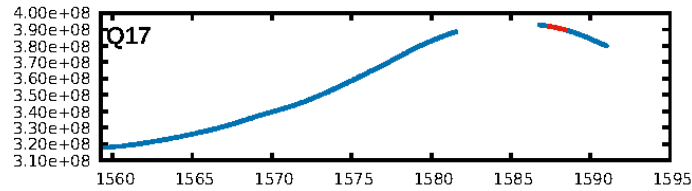
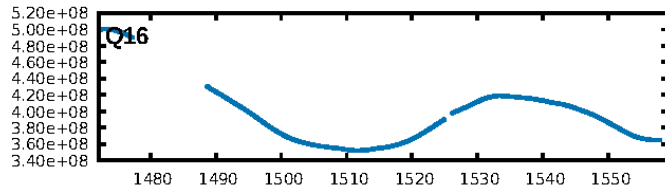
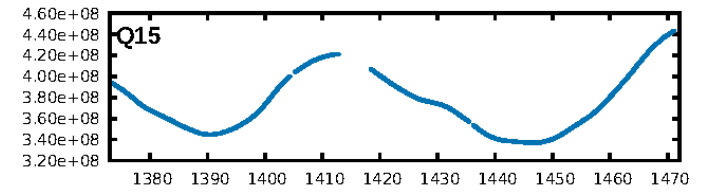
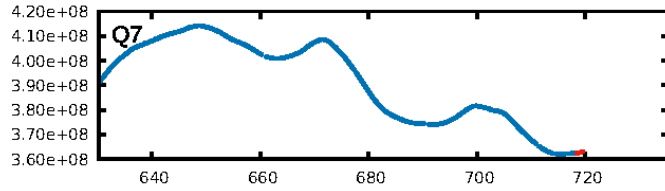
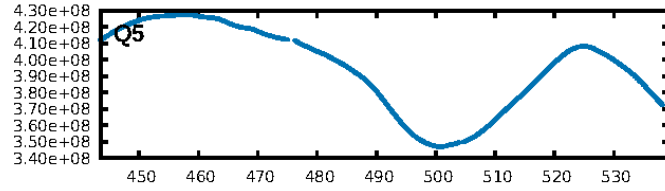
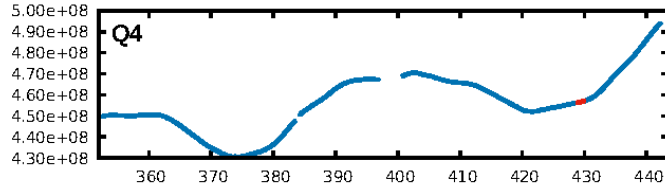
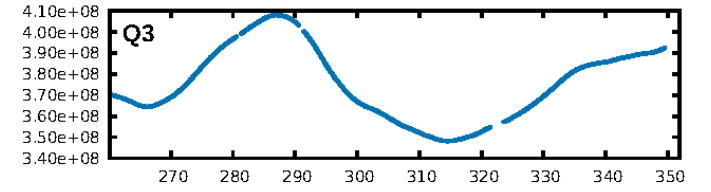
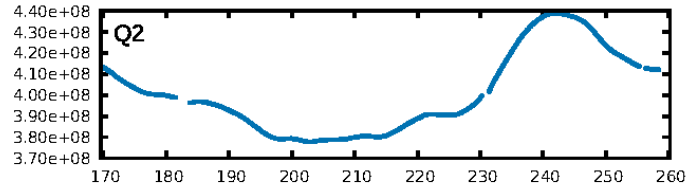
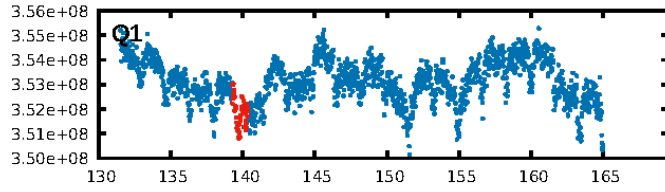
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 0.6%
Bootstrap-pfa: 1.00e-10
RollingBand-fgt: 0.50 [1/2]
GhostDiagnostic-chr: -1.107
Centroid-sig: 0.8%
Centroid-so: 2.468 arcsec [1.99σ]
OotOffset-rm: 1.788 arcsec [10.00σ]
KicOffset-rm: 1.749 arcsec [9.86σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

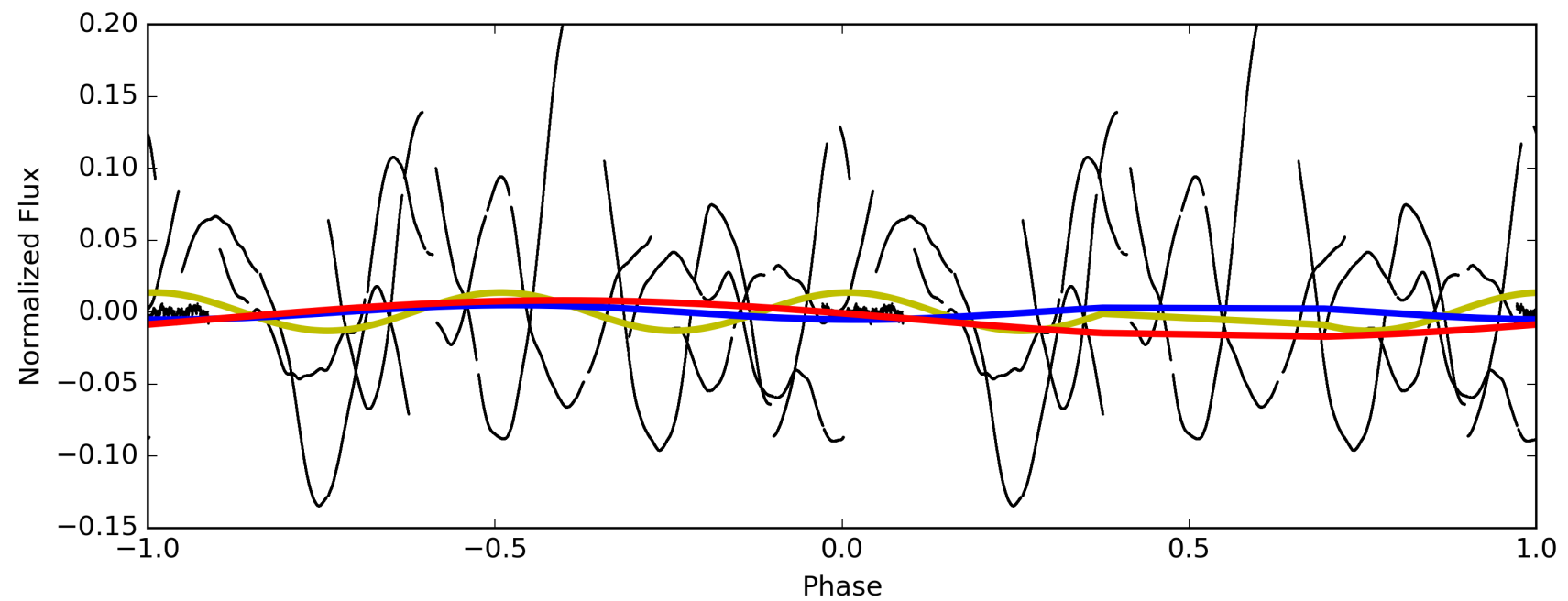
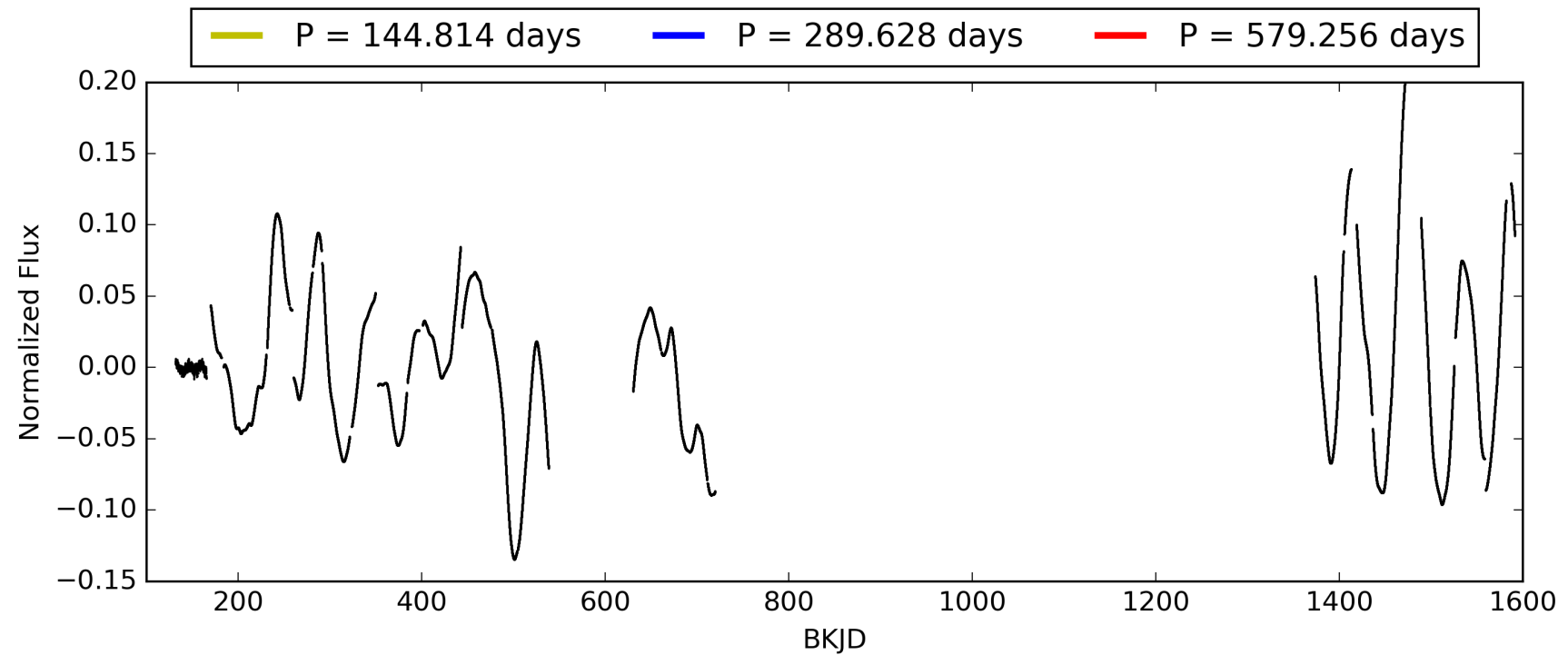
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:15:14 Z

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

TCE 003869445-01, PDC Light Curves

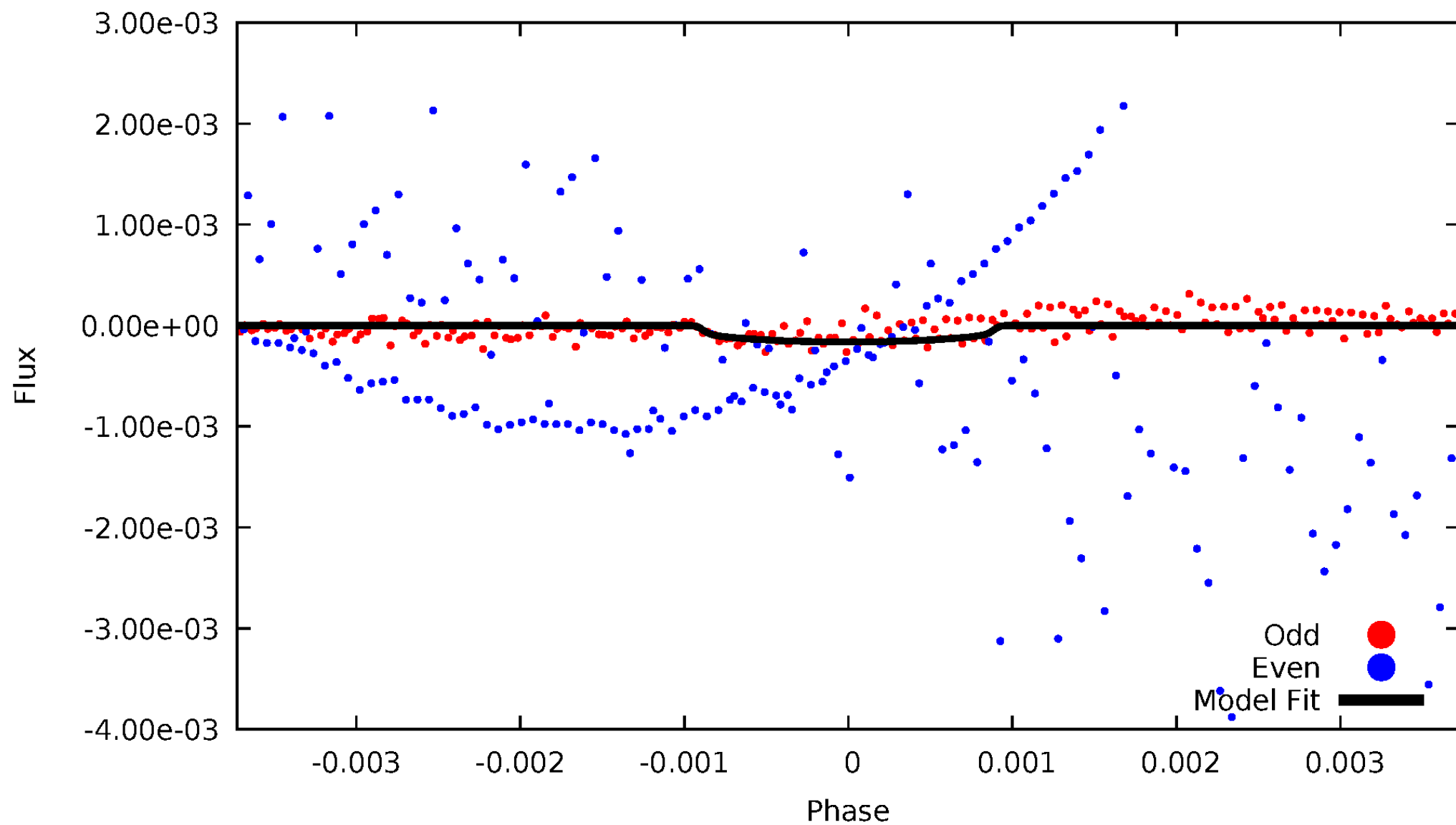


TCE 003869445-01



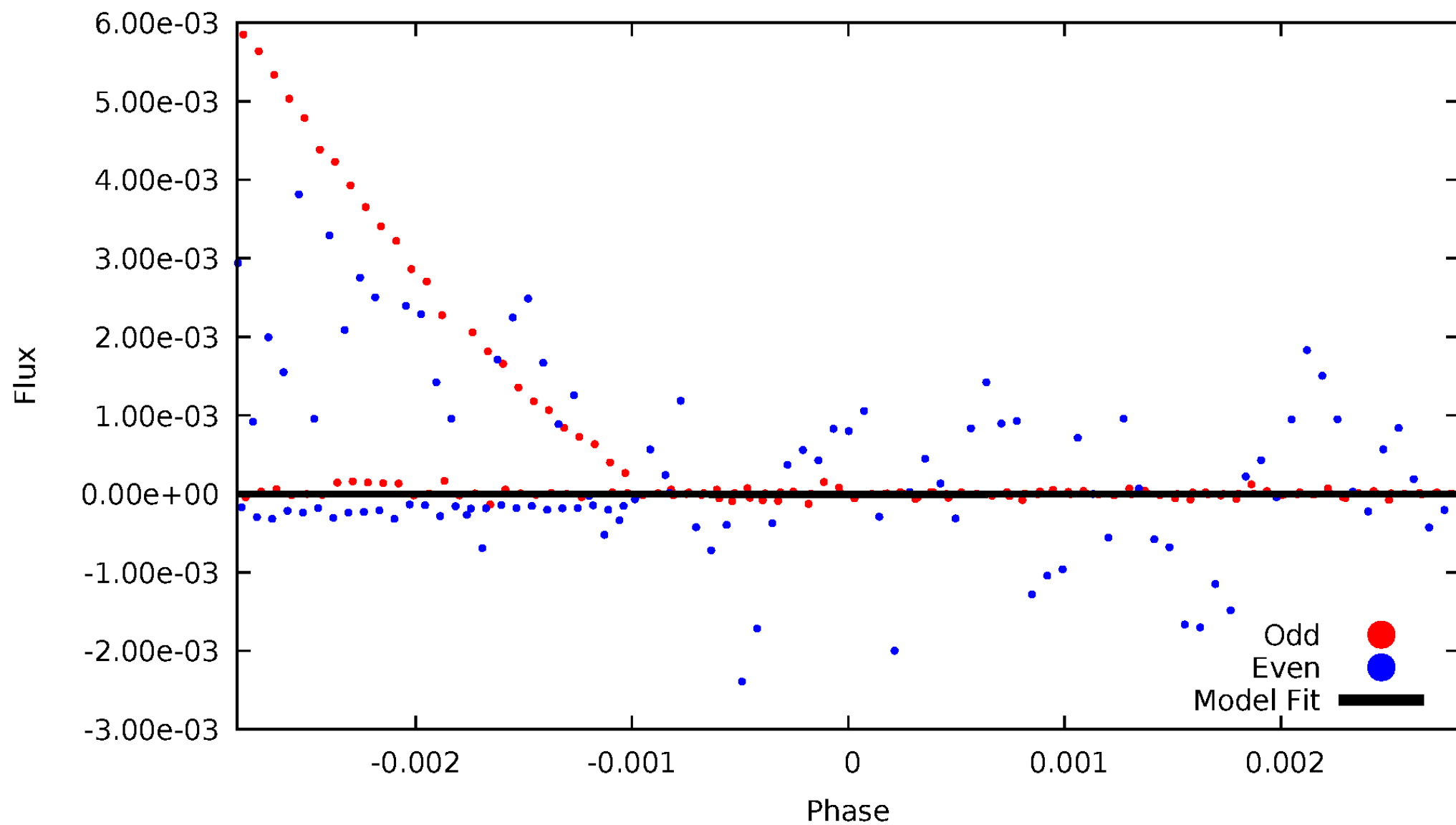
DV Odd/Even

TCE 003869445-01



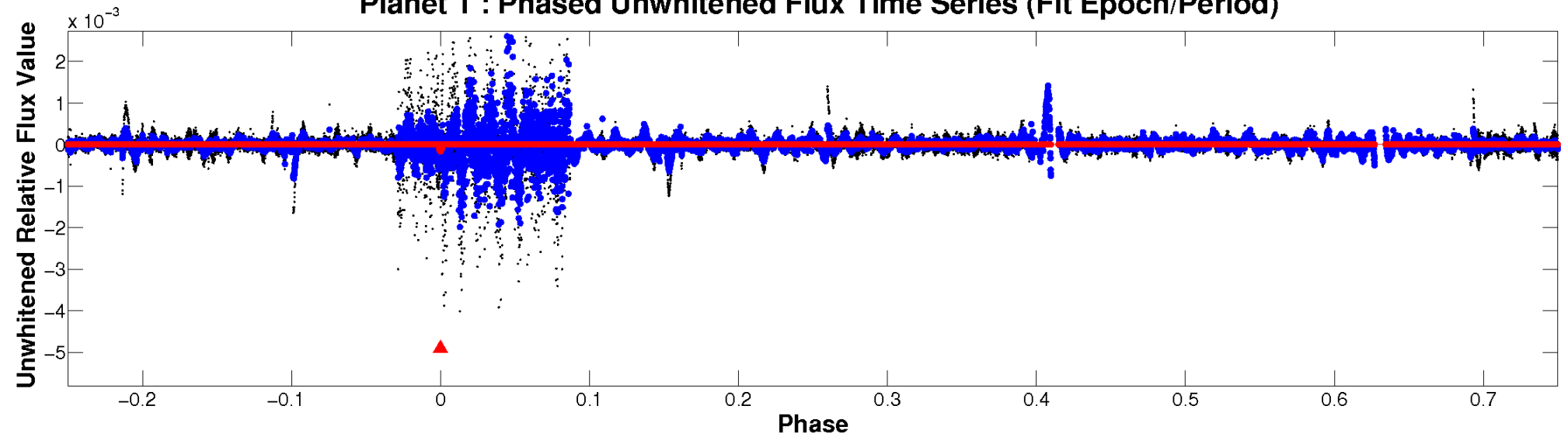
ALT Odd/Even

TCE 003869445-01

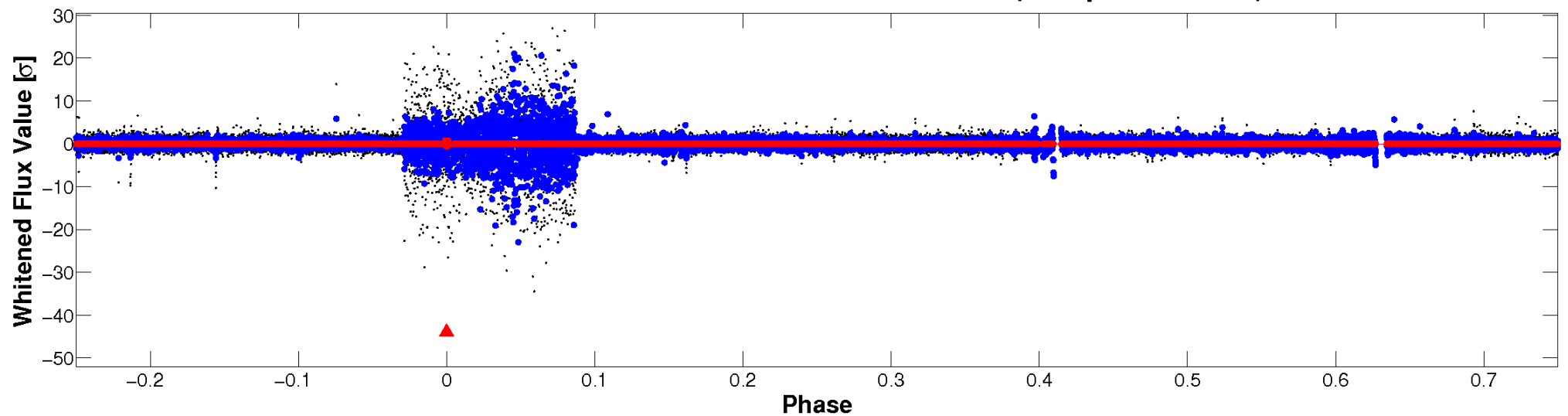


Non-Whitened Vs. Whitened Light Curve

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

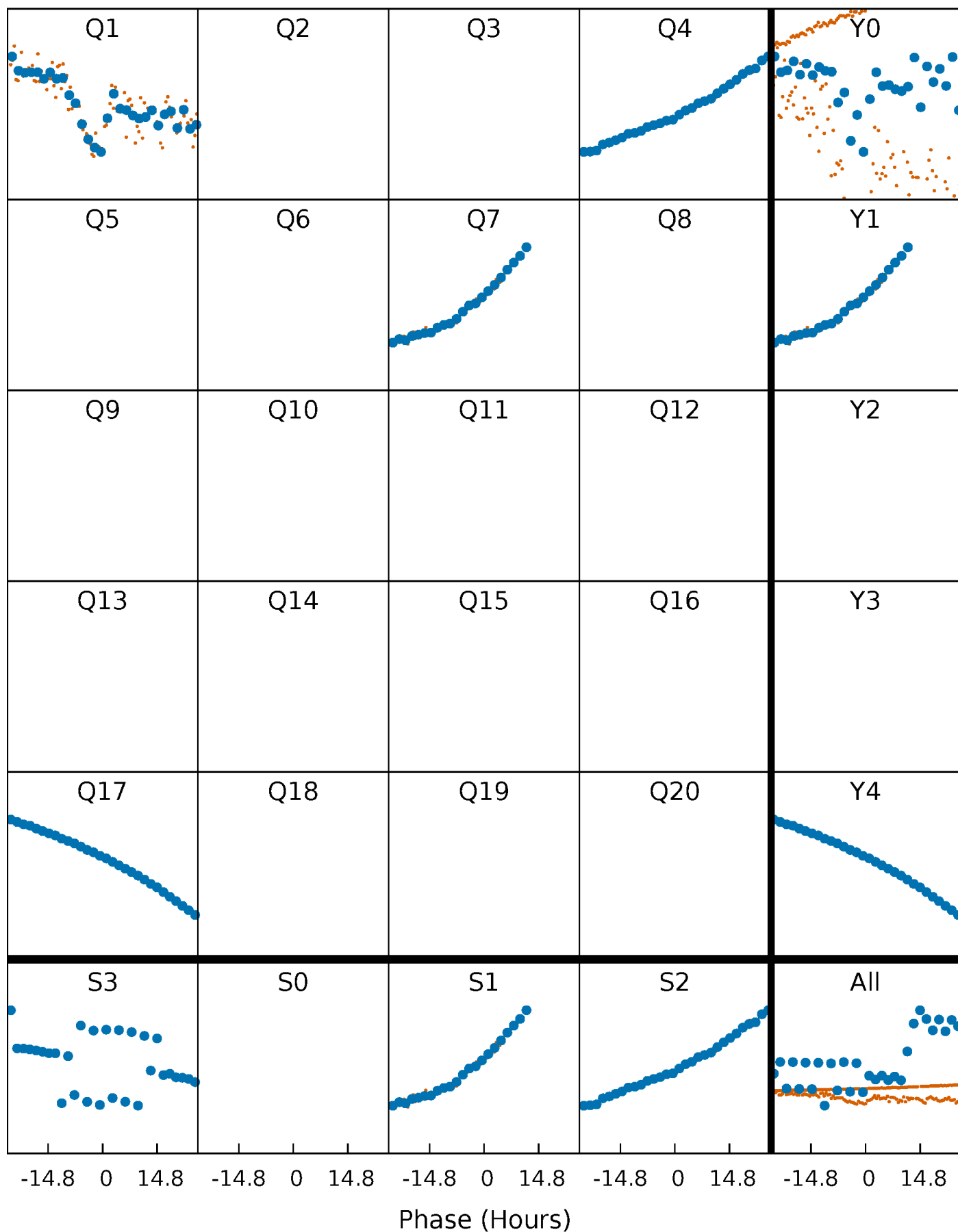


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



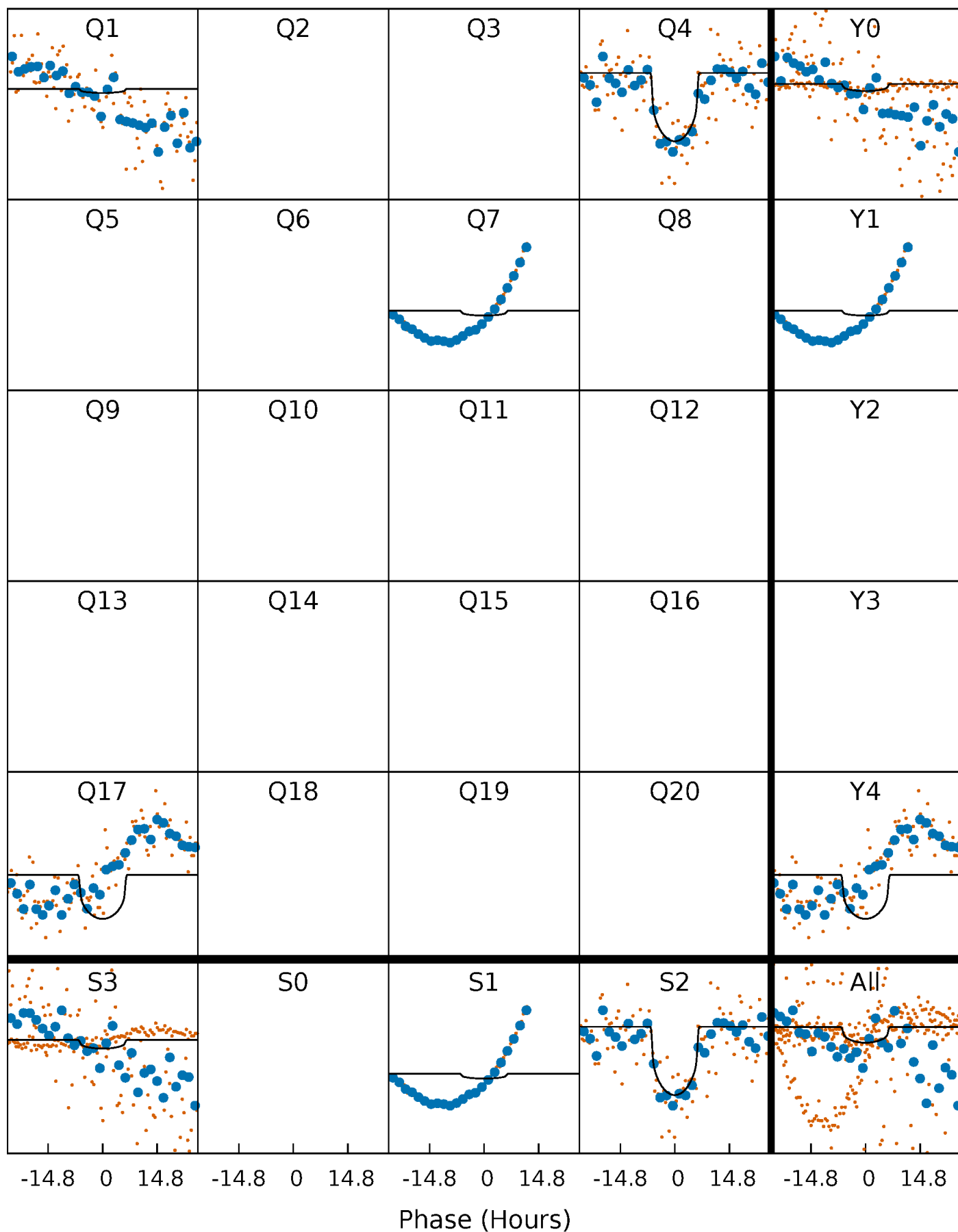
PDC Quarter-Phased Transit Curves

TCE 003869445-01 P=289.628241 Days $T_0=139.806033$ (BKJD)



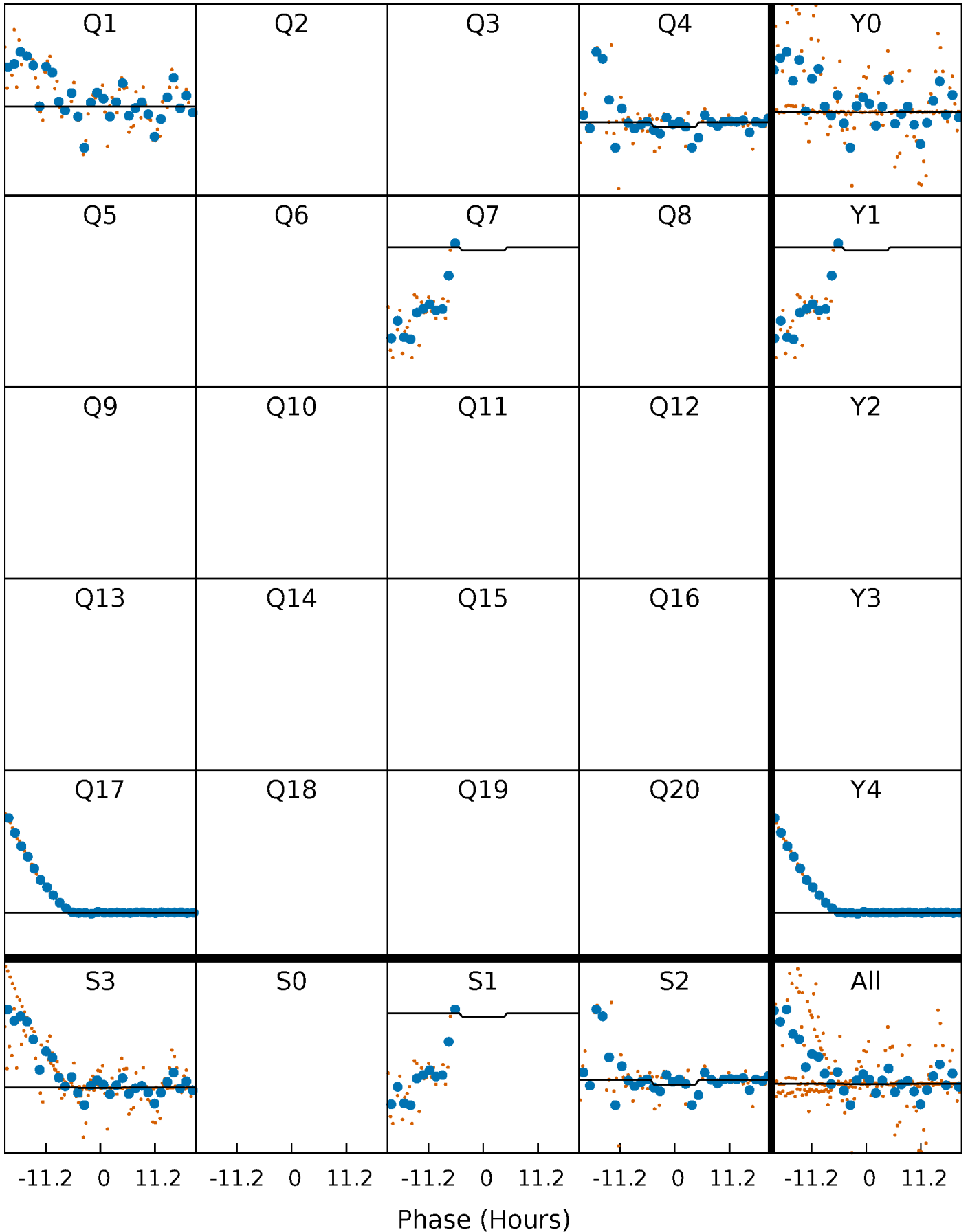
DV Quarter-Phased Transit Curves

TCE 003869445-01 P=289.628241 Days $T_0=139.806033$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

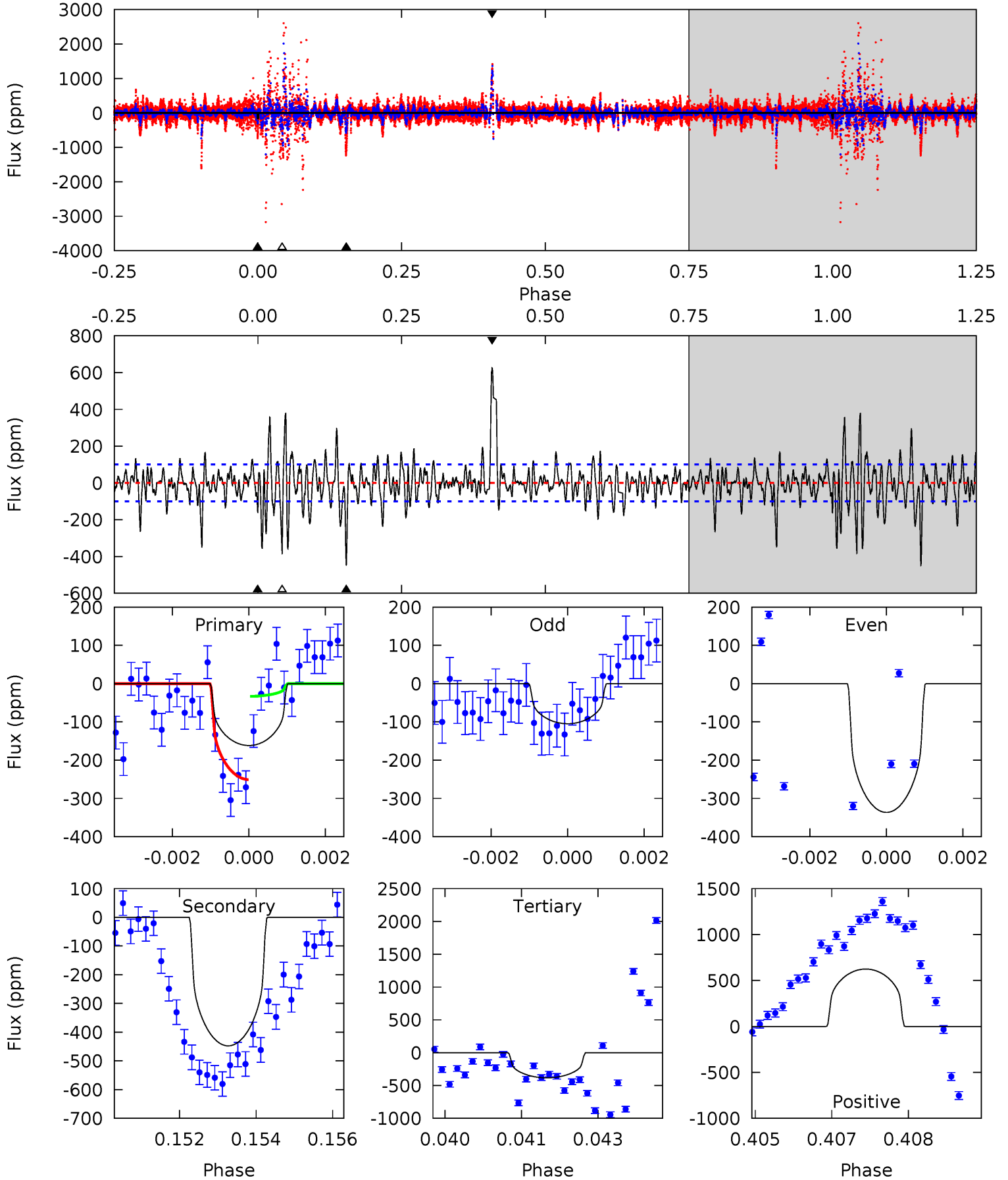
TCE 003869445-01 $P=289.407322$ Days $T_0=140.972916$ (BKJD)



DV Model-Shift Uniqueness Test

003869445-01, P = 289.628241 Days, E = 139.806033 Days

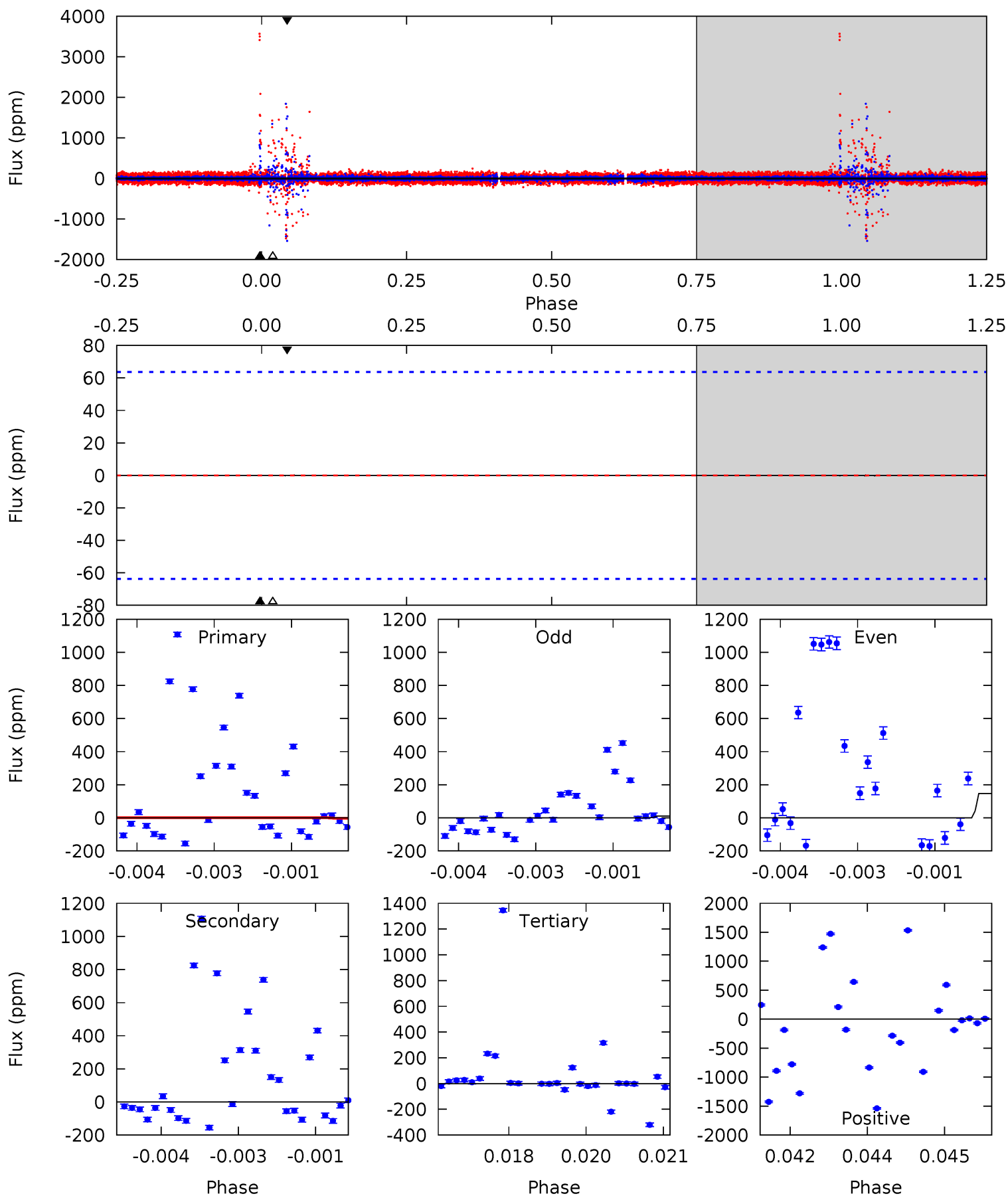
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.60	23.8	20.4	33.2	5.34	3.11	4.28	-11.8	-24.6	3.41	-9.39	4.53	0.96	0.58	5.62



Alt Model-Shift Uniqueness Test

003869445-01, P = 289.407322 Days, E = 140.972916 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0.01	0	0	5.39	3.19	0.00	0	0	0.01	0.01	2.34	2.84	0.26	1.92



Stellar Parameters For KIC 003869445

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3293^{+107}_{-88}	$0.136^{+0.204}_{-0.048}$	$-0.080^{+0.250}_{-0.150}$	$152.284^{+9.192}_{-29.414}$	$1.156^{+0.189}_{-0.155}$	$0.000^{+0.000}_{-0.000}$
	+3%/-3%	+150%/-35%	+312%/-188%	+6%/-19%	+16%/-13%	+90%/-11%
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 003869445-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-447 ± 19	$221.69^{+123.49}_{-107.17}$	2586^{+123}_{-130}	3740^{+1016}_{-542}	$4.134^{+11.411}_{-2.398}$
Alt.	-0 ± 12	$102.08^{+93.56}_{-71.22}$	2595^{+114}_{-142}	-2561^{+5374}_{-507}	$0.014^{+0.914}_{-0.837}$

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 $A_{obs} \gg 1.0$

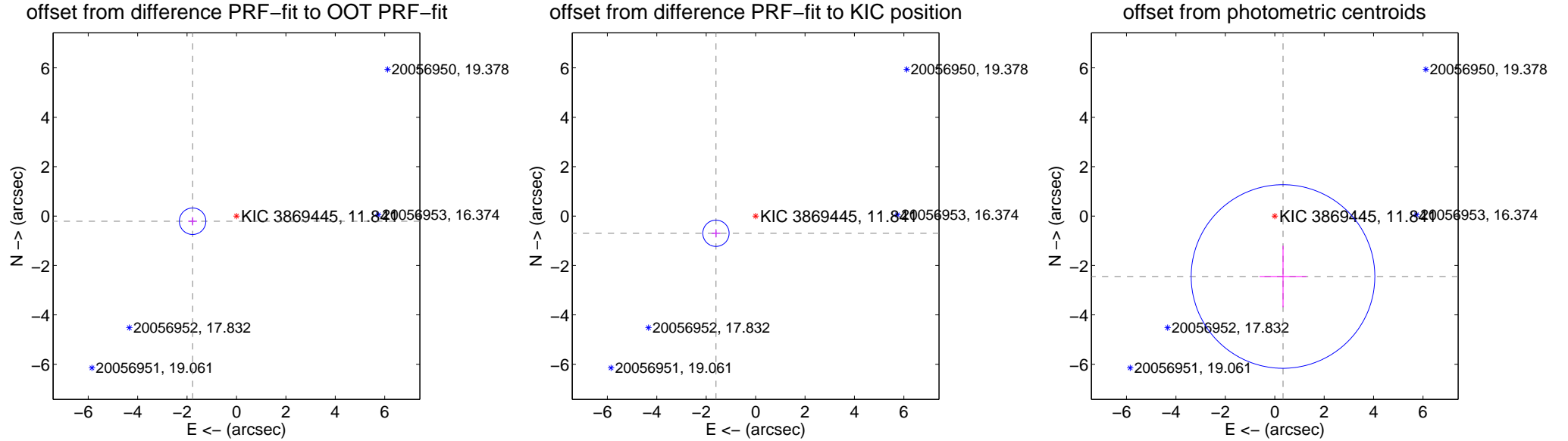
DV Centroid Data

Supplemental centroid analysis for 003869445-01. **Kepler magnitude: 11.84.** Transit SNR 7.20

There are 1 quarters with good PRF difference image offsets

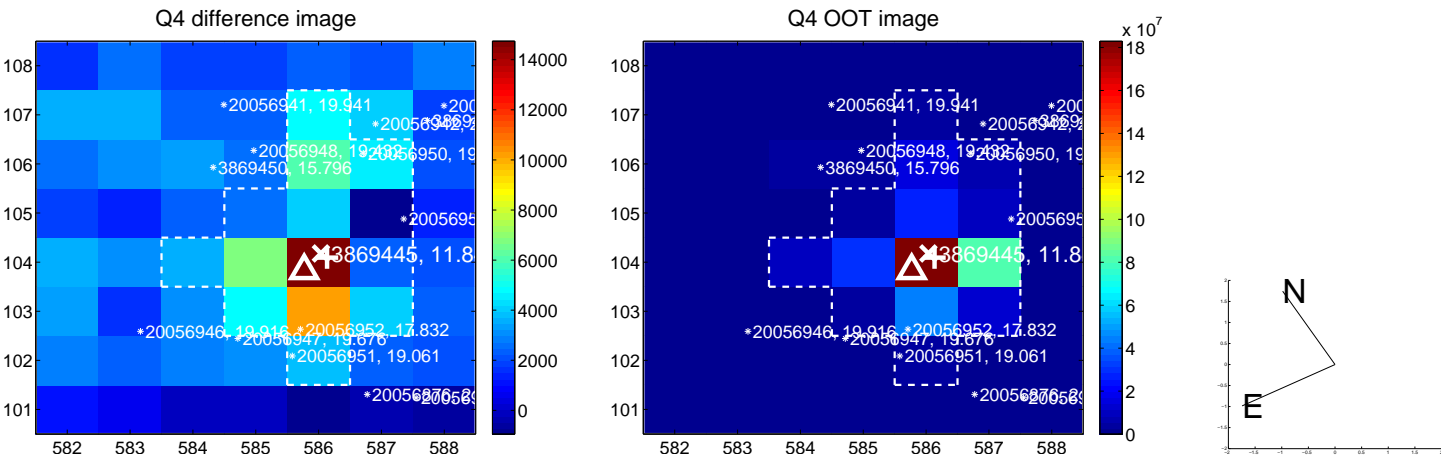
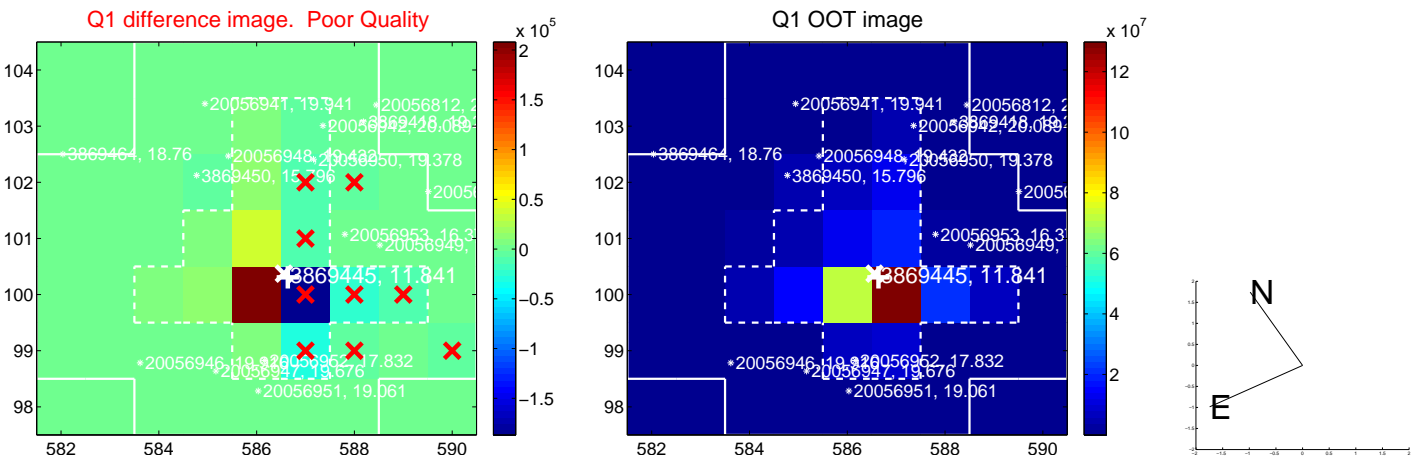
The direct PRF centroid is offset from the target star catalog position by about 0.52 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.788 ± 0.179	10.00	1.776 ± 0.179	-0.209 ± 0.168
PRF-fit source offset from KIC position	1.749 ± 0.177	9.86	1.605 ± 0.179	-0.696 ± 0.168
photometric centroid source offset	2.47 ± 1.24	1.99	-0.33 ± 0.95	-2.45 ± 1.24



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.



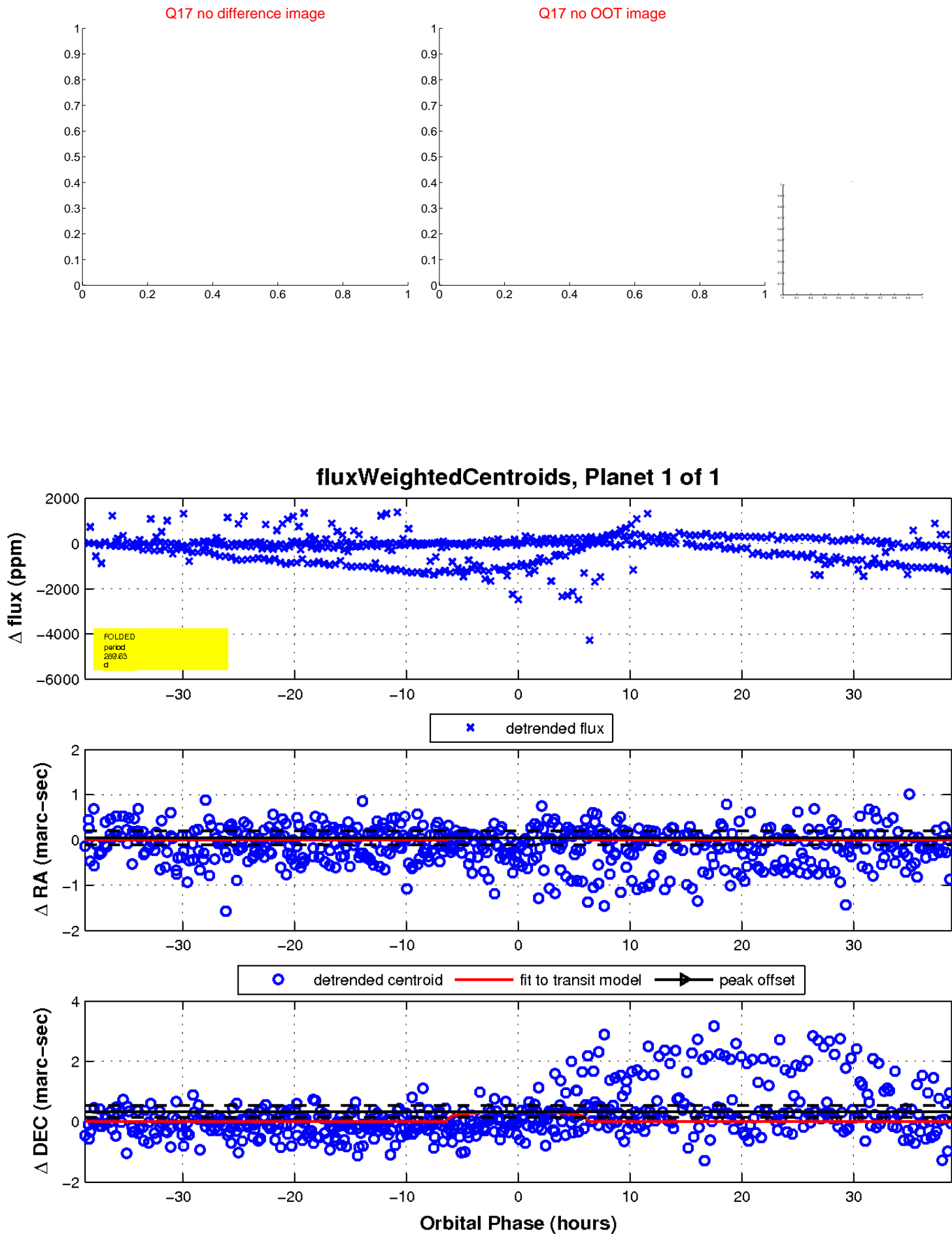
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

