

KIC 006765459

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})
006765459-01	OBS	No	280.603295	252.039348	636.3	7.713	13.2	4.4	0.86	5249	2.63	0.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006765459-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—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.

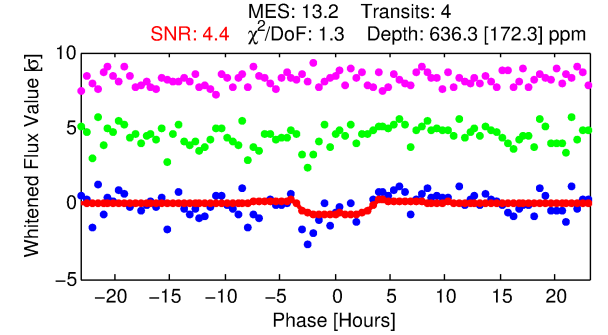
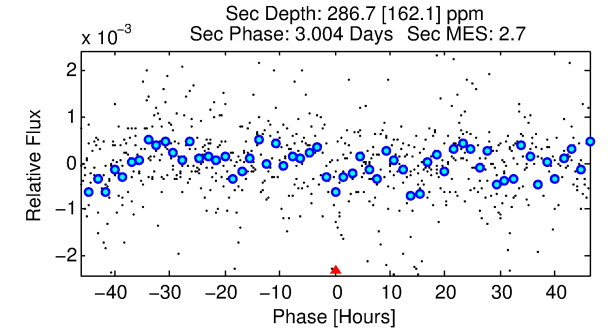
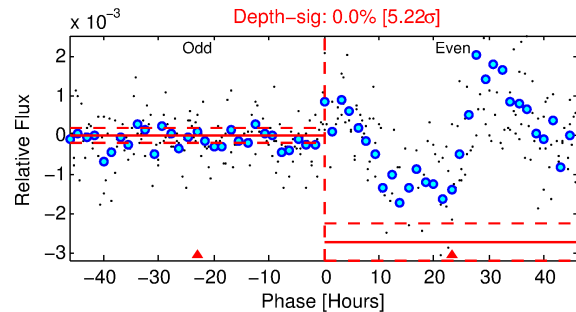
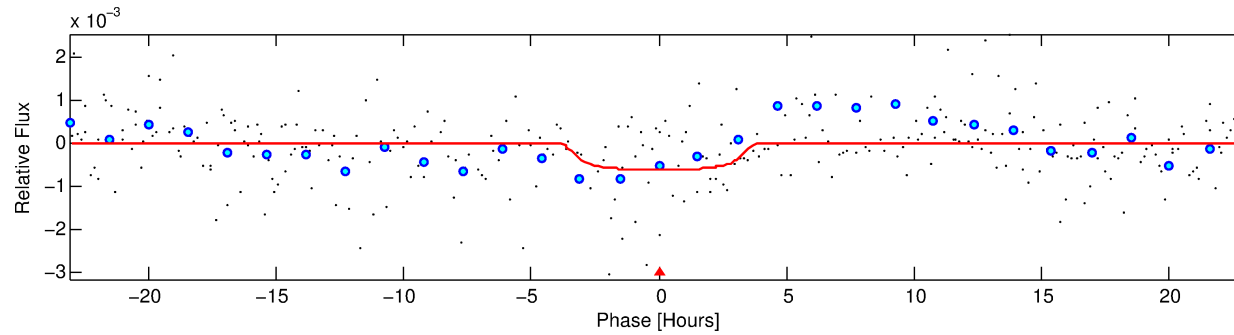
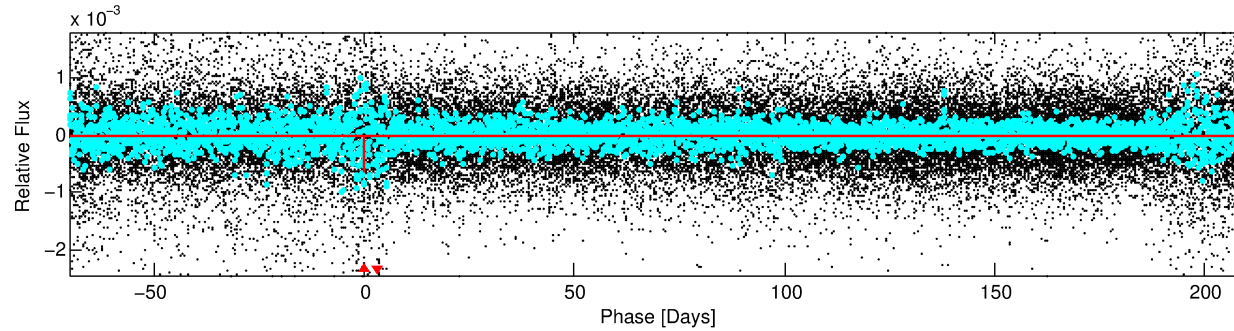
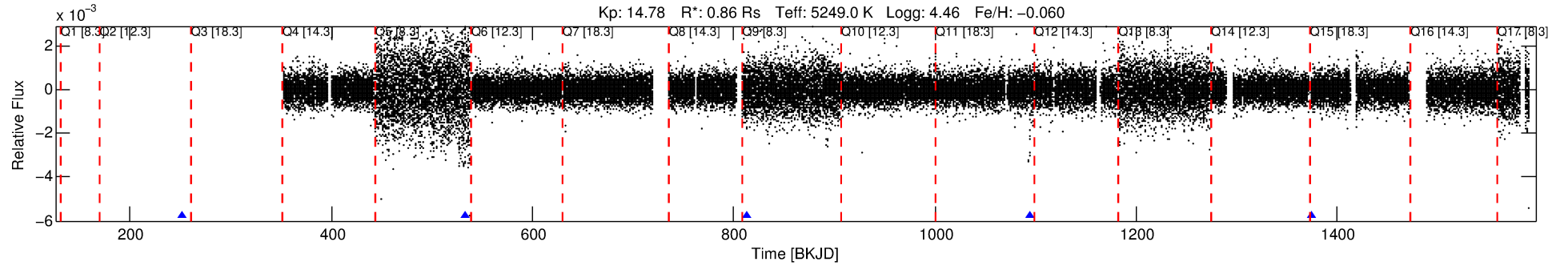
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006765459-01

No Significant Match Found

DV One-Page Summary

KIC: 6765459 Candidate: 1 of 1 Period: 280.603 d



DV Fit Results:

Period = 280.60329 [0.01589] d
Epoch = 252.0393 [0.0537] BKJD
Rp/R* = 0.0279 [0.0086]
a/R* = 137.61 [148.39]
b = 0.90 [0.23]
Seff = 0.84 [0.30]
Teq = 244 [22] K
Rp = 2.63 [0.96] Re
a = 0.7758 [0.1546] AU
Ag = 13749.08 [12327.68] [1.12σ]
Teffp = 4087 [867] K [4.43σ]

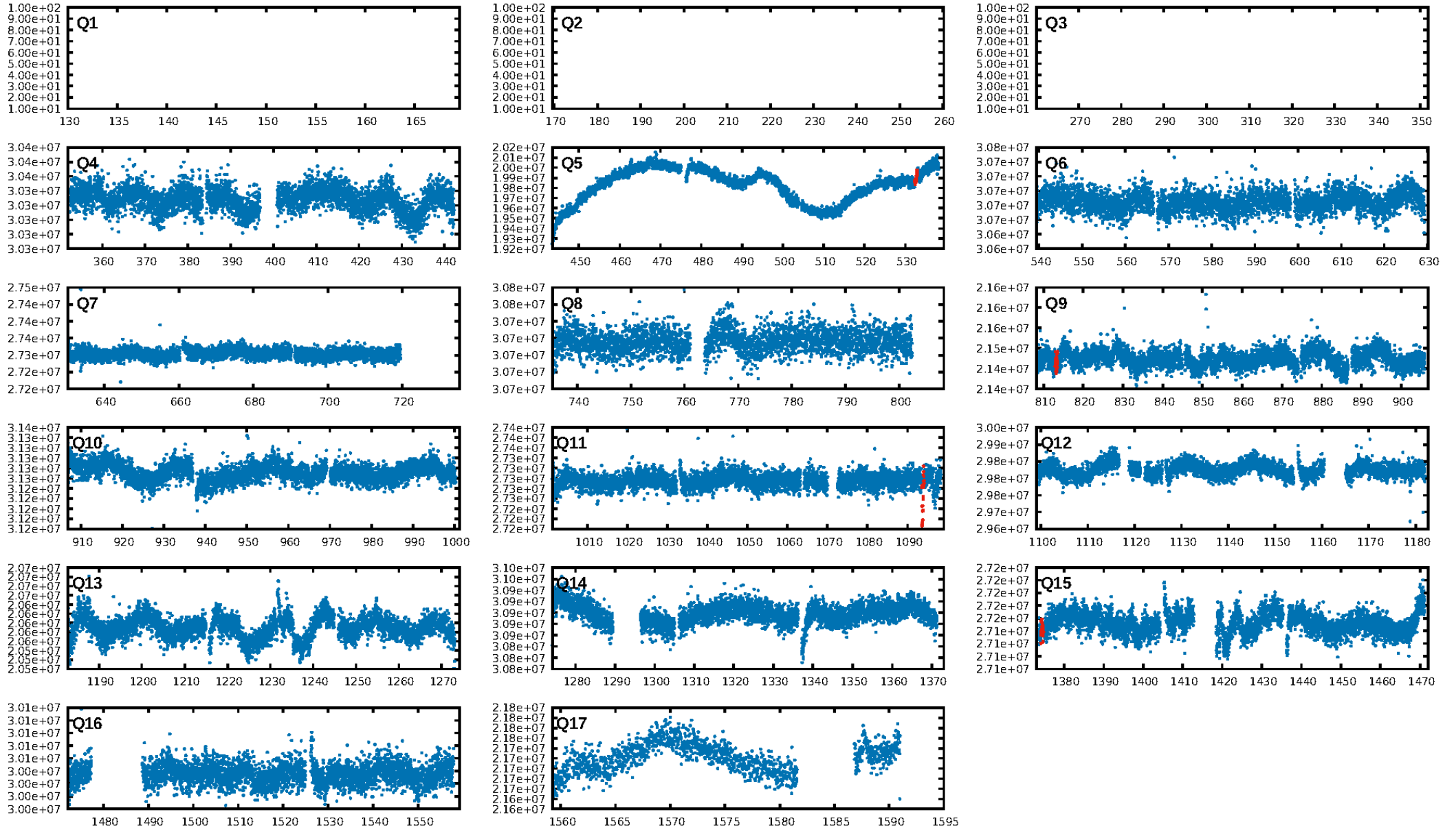
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 84.3%
Bootstrap-pfa: 3.50e-22
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -11.37
Centroid-sig: 7.2%
Centroid-so: 3.476 arcsec [10.84σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

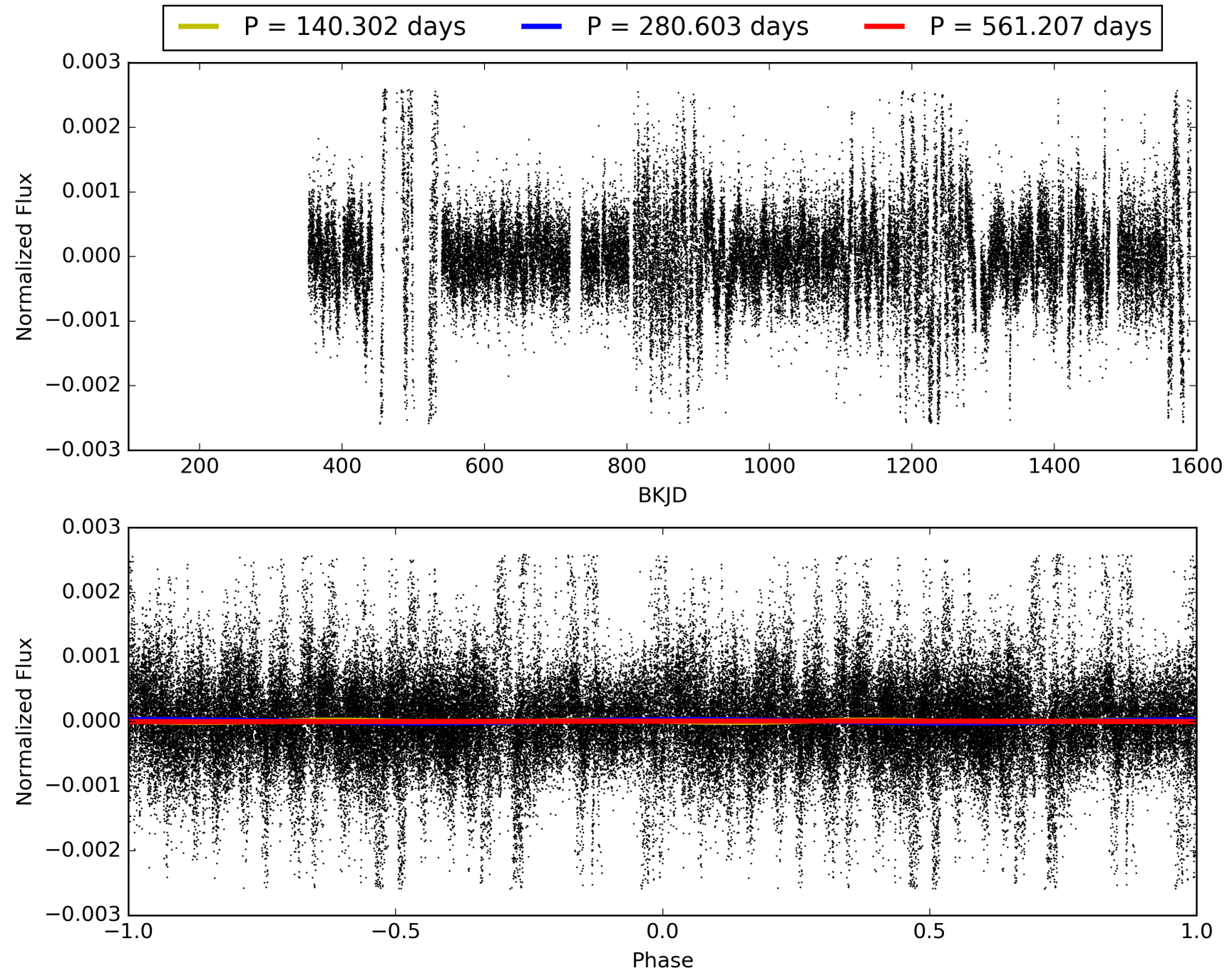
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:52:32 Z

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

TCE 006765459-01, PDC Light Curves

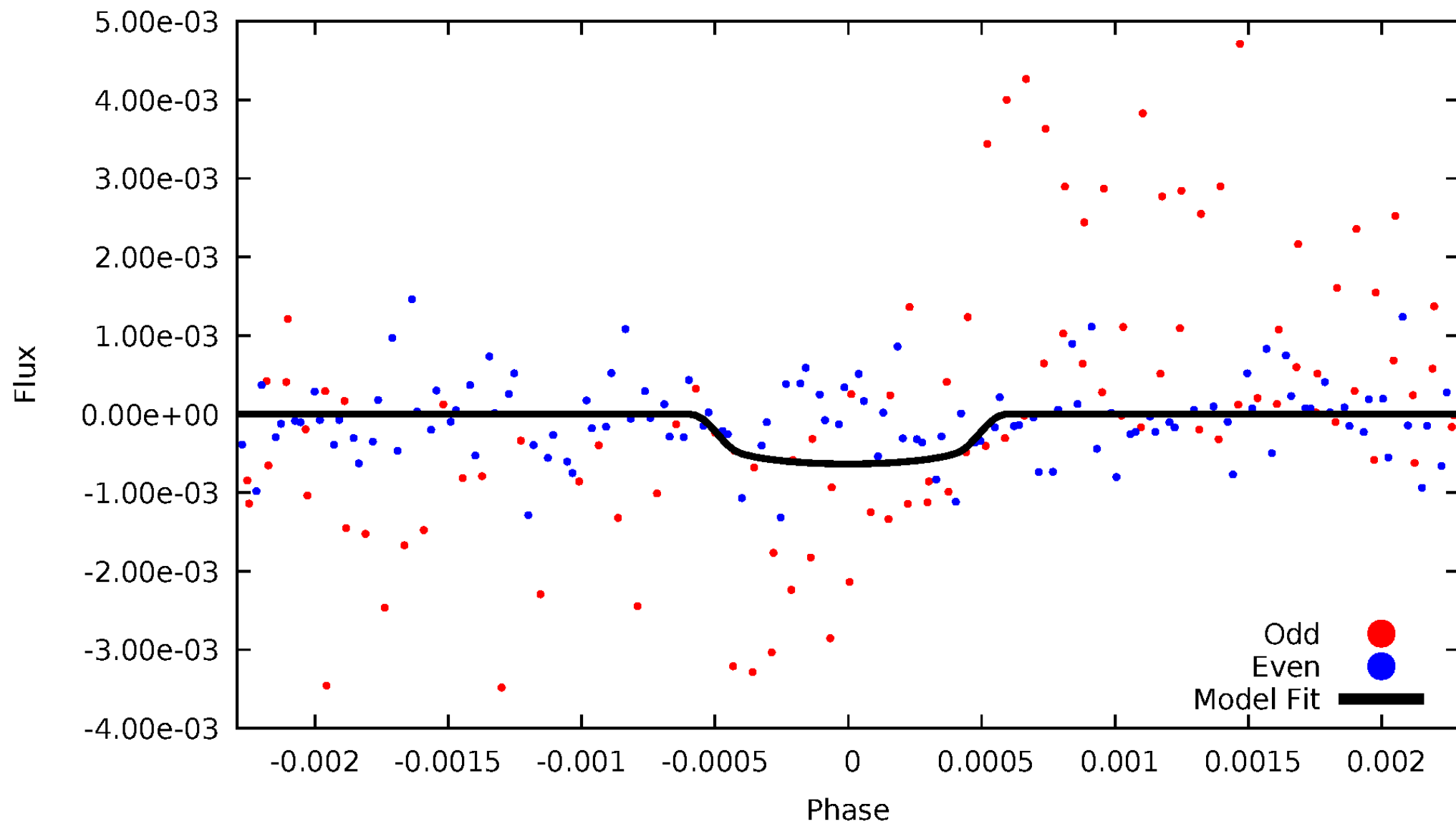


TCE 006765459-01



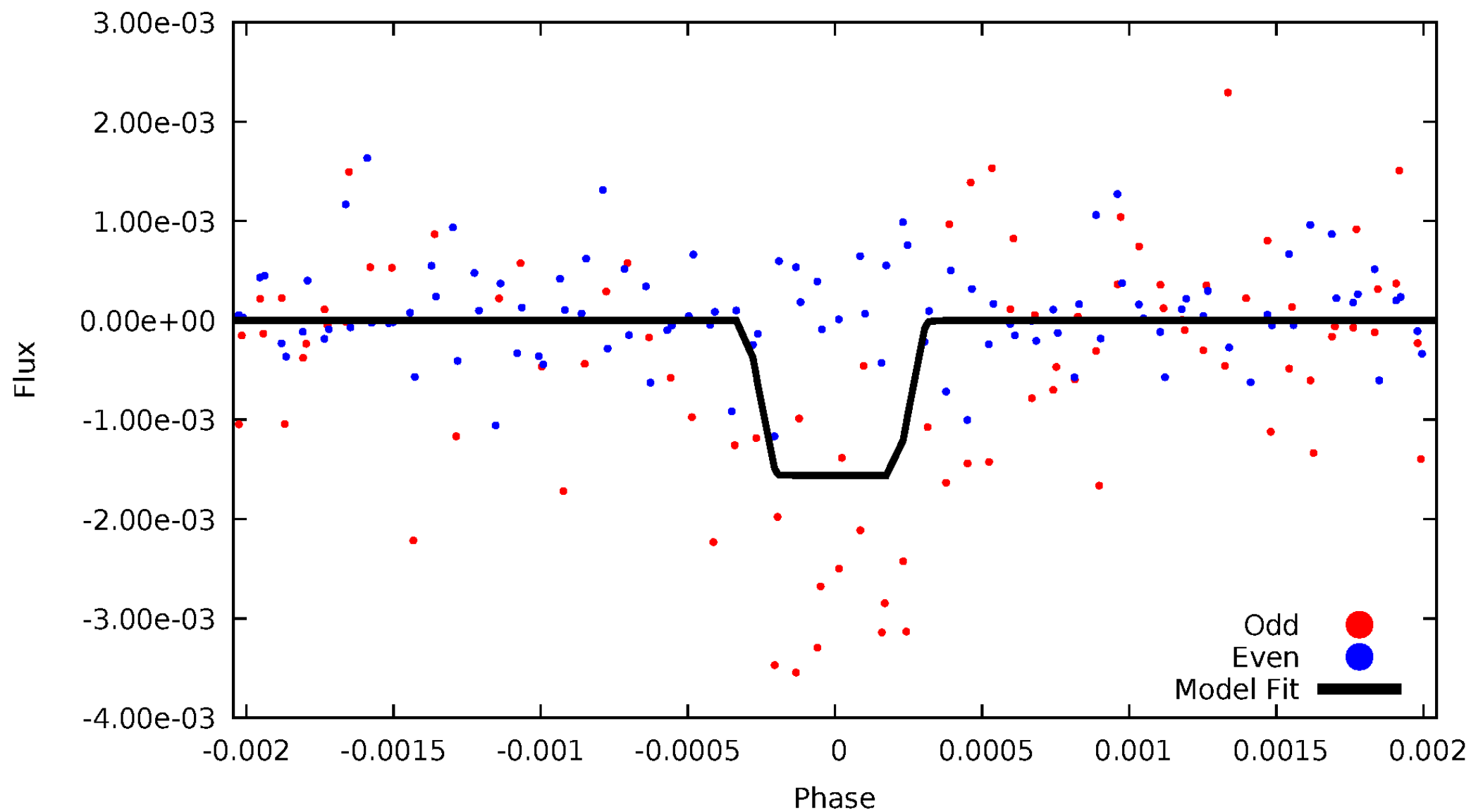
DV Odd/Even

TCE 006765459-01



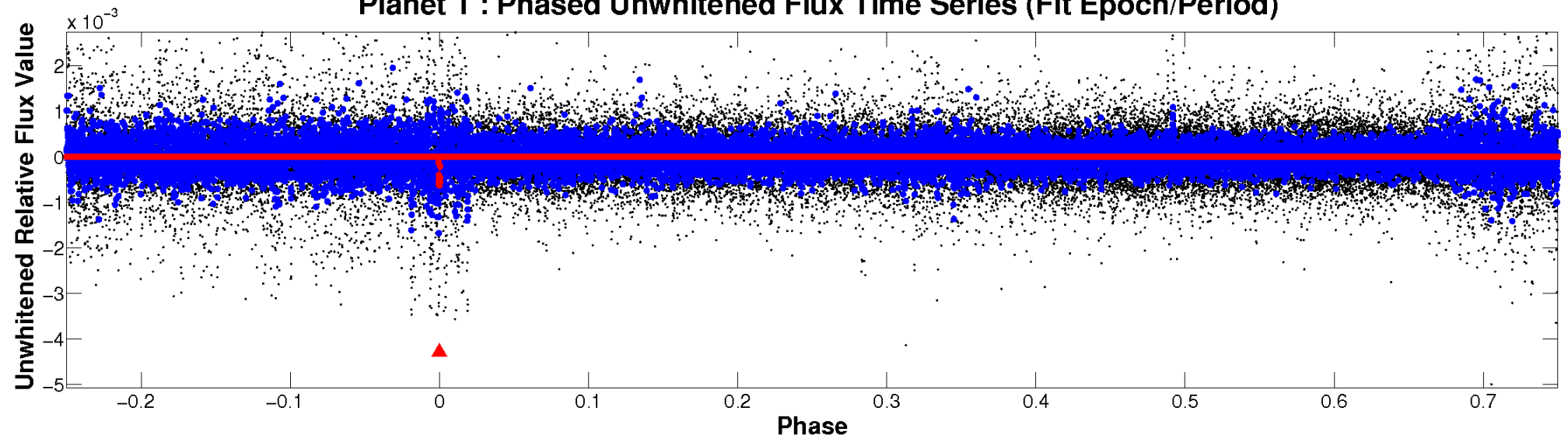
ALT Odd/Even

TCE 006765459-01

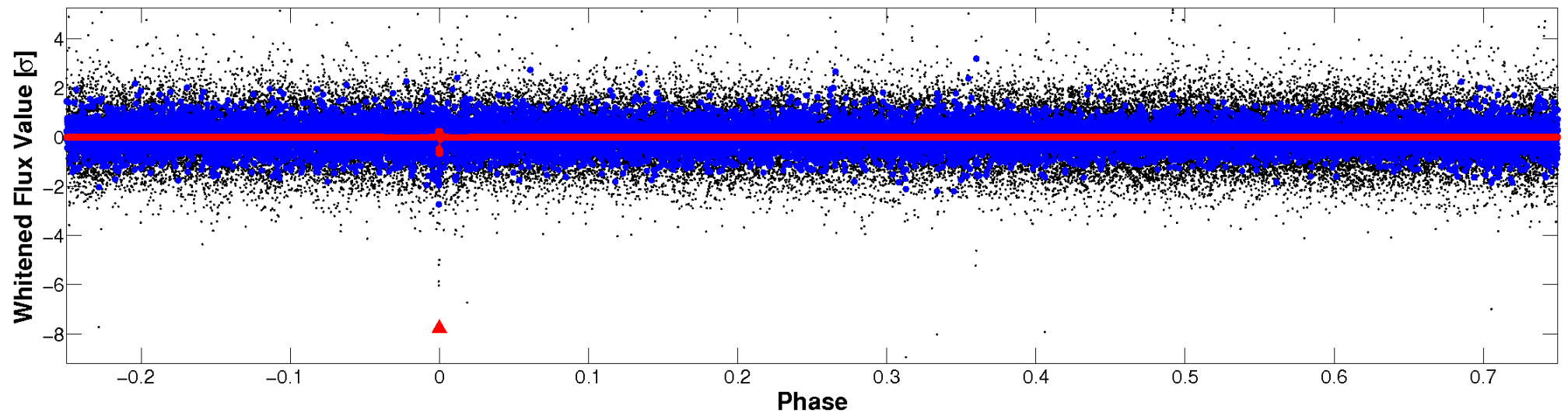


Non-Whitened Vs. Whitened Light Curve

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

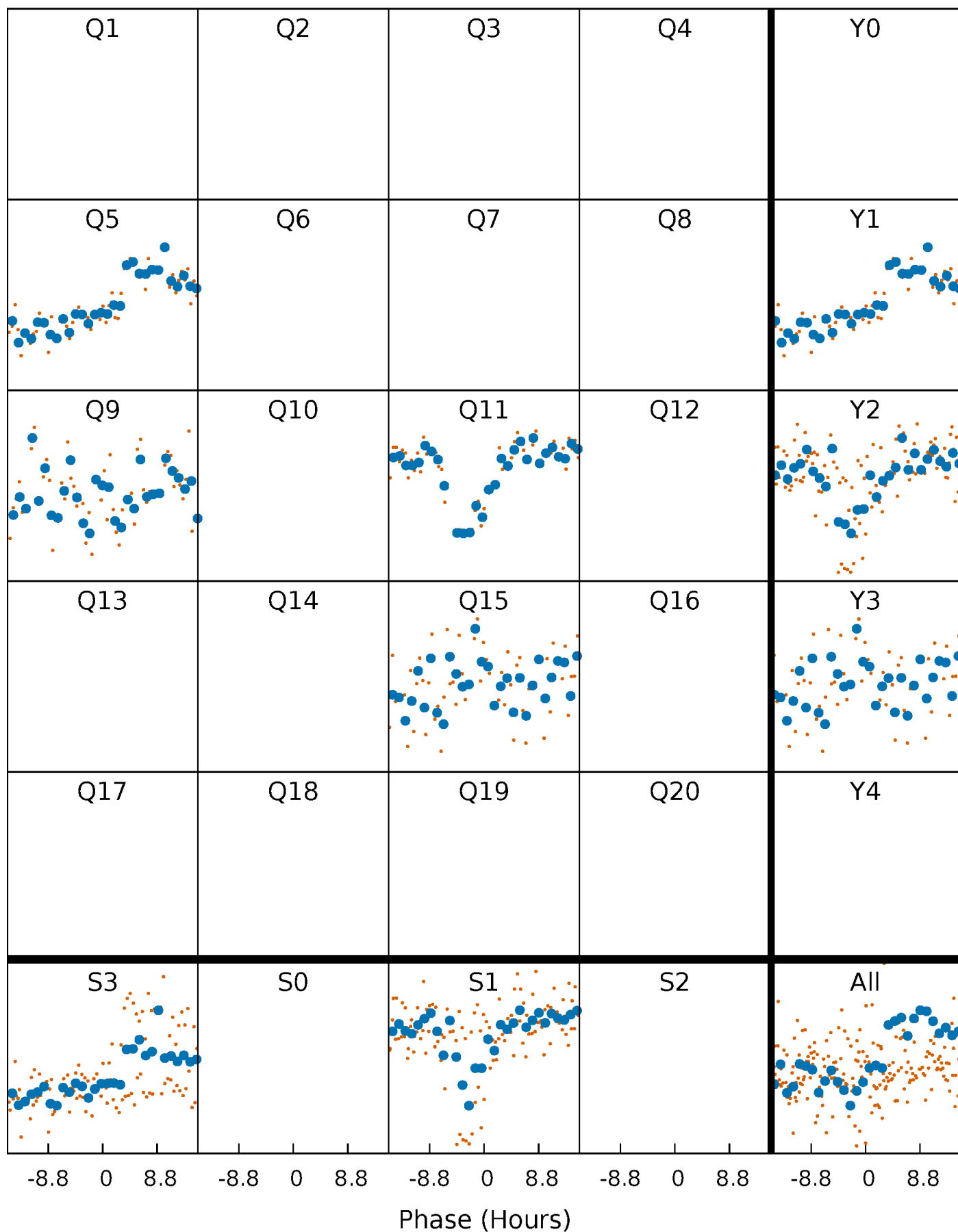


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



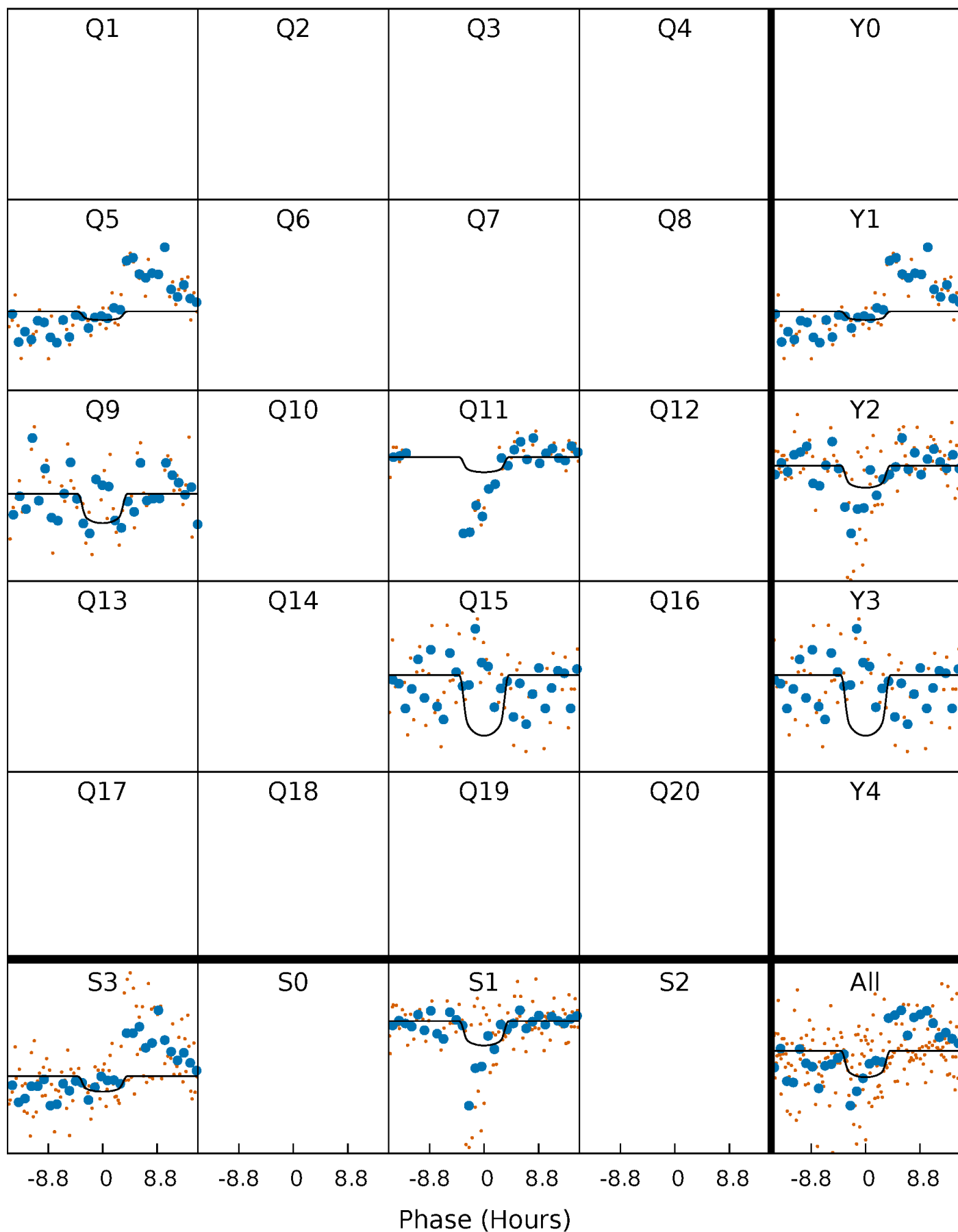
PDC Quarter-Phased Transit Curves

TCE 006765459-01 P=280.603295 Days $T_0=252.039348$ (BKJD)



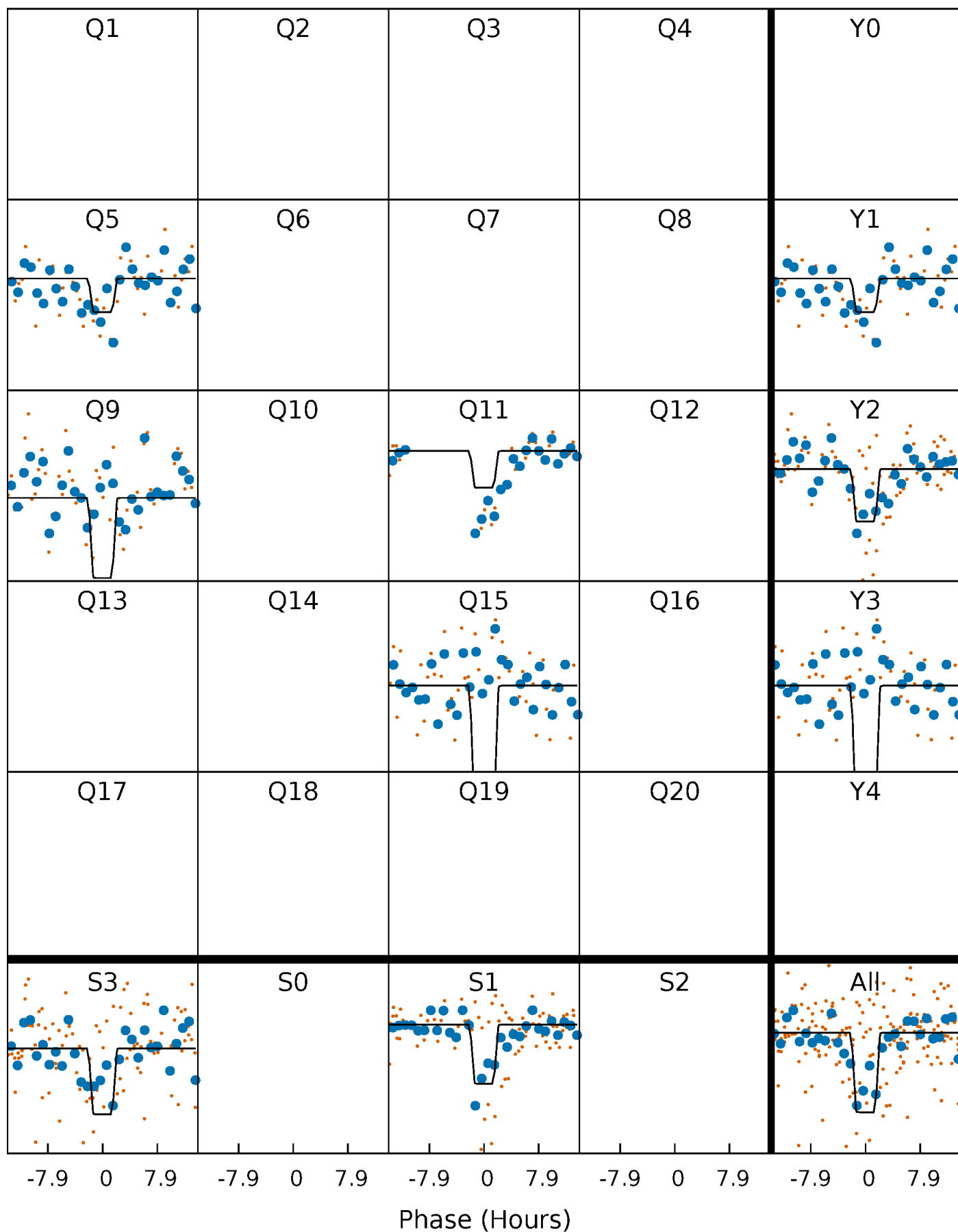
DV Quarter-Phased Transit Curves

TCE 006765459-01 P=280.603295 Days $T_0=252.039348$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

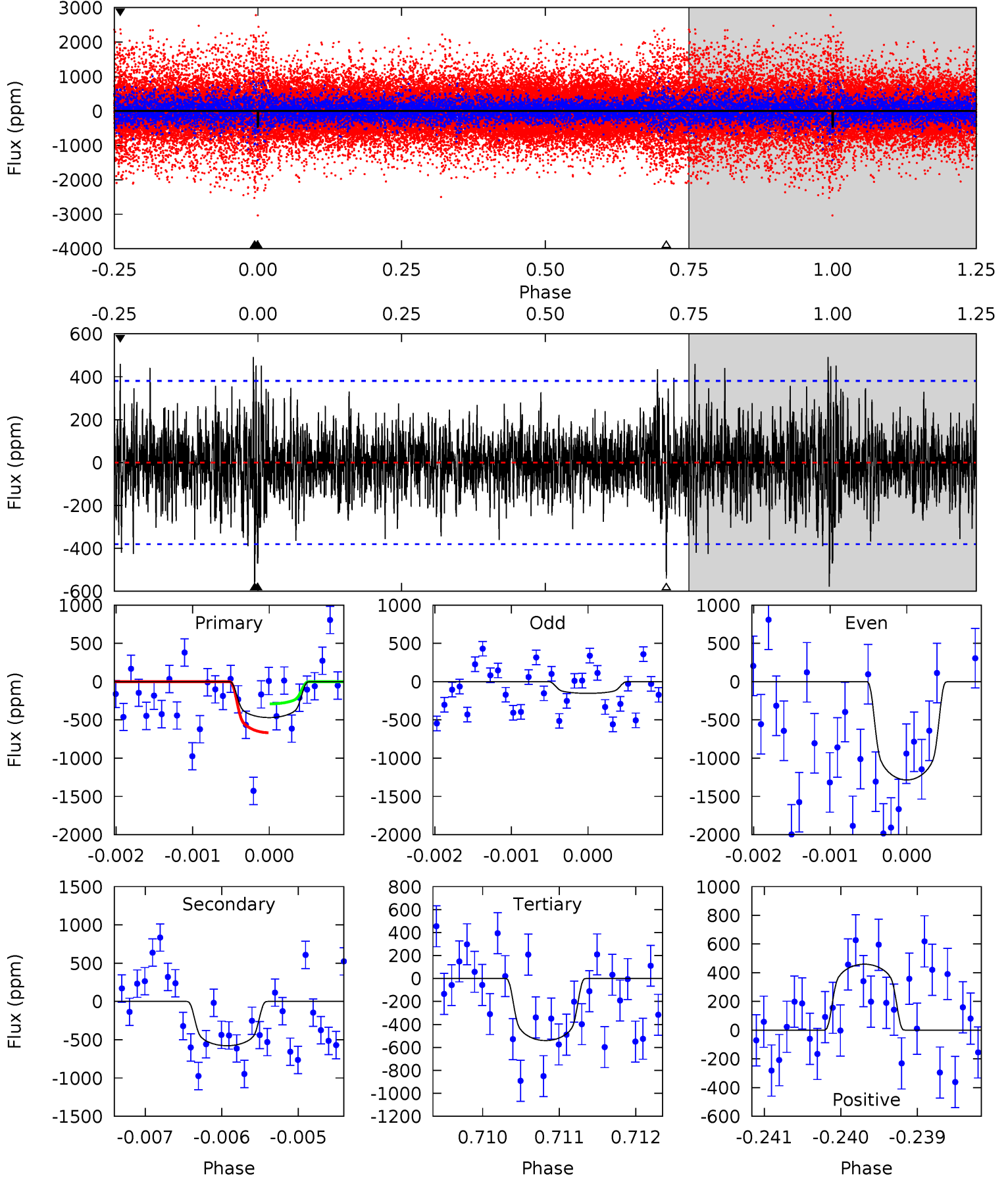
TCE 006765459-01 P=280.552779 Days $T_0=252.127047$ (BKJD)



DV Model-Shift Uniqueness Test

006765459-01, P = 280.603295 Days, E = 252.039348 Days

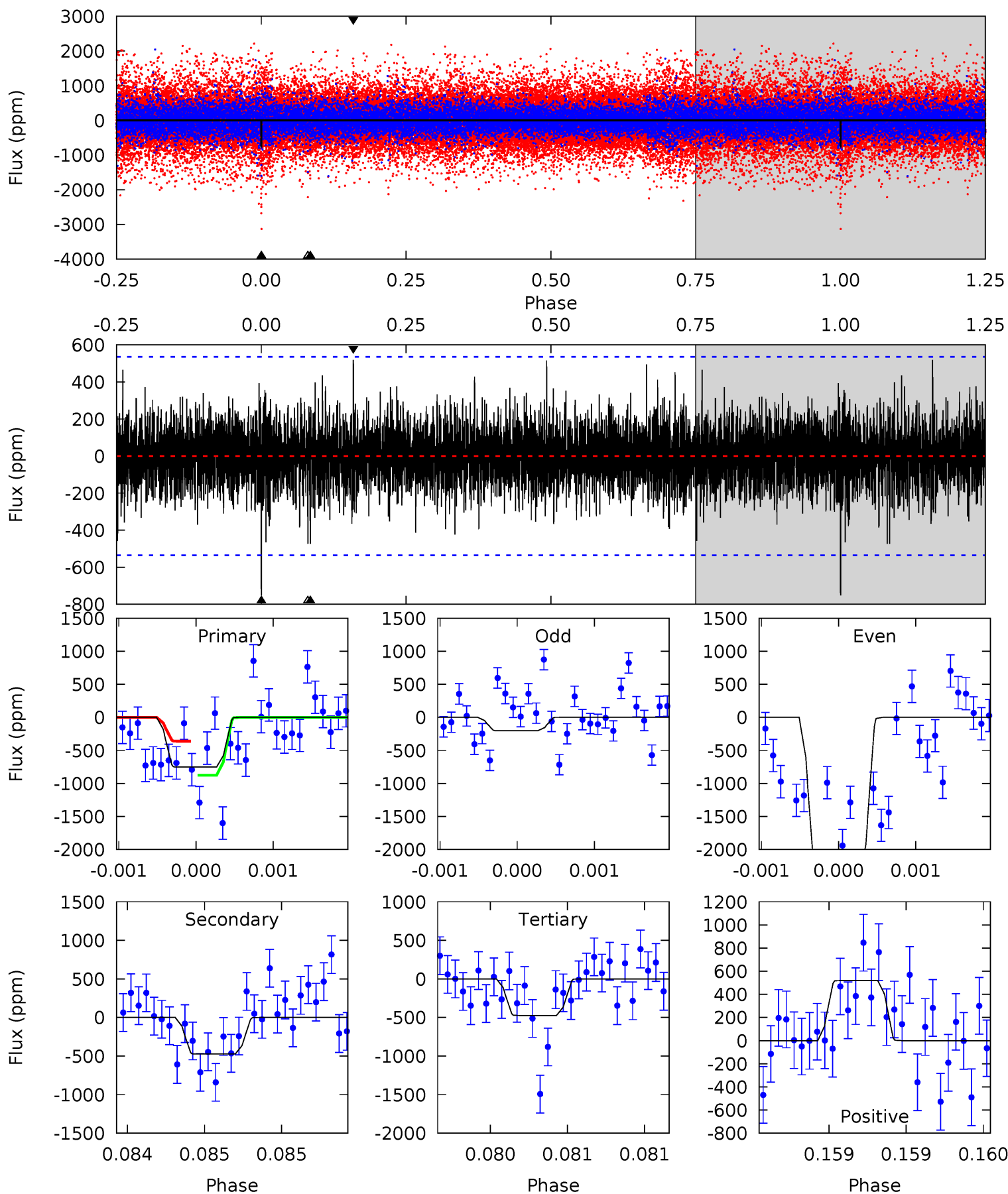
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.70	8.24	7.71	6.55	5.42	3.25	1.62	-1.01	0.15	0.53	1.69	8.25	2.03	0.46	2.68



Alt Model-Shift Uniqueness Test

006765459-01, P = 280.552779 Days, E = 252.127047 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.76	4.89	4.89	5.36	5.53	3.41	1.23	2.88	2.40	0.00	-0.47	13.1	1.24	0.41	2.55



Stellar Parameters For KIC 006765459

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5249^{+203}_{-184}	$4.465^{+0.112}_{-0.196}$	$-0.060^{+0.300}_{-0.300}$	$0.862^{+0.169}_{-0.112}$	$0.791^{+0.114}_{-0.066}$	$1.739^{+0.847}_{-0.781}$
	+4%/-4%	+3%/-4%	+500%/-500%	+20%/-13%	+14%/-8%	+49%/-45%
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 006765459-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-578 ± 70	$2.70^{+0.88}_{-0.86}$	344^{+24}_{-20}	4950^{+948}_{-558}	26767^{+31436}_{-11867}
Alt.	-474 ± 97	$3.78^{+0.98}_{-0.89}$	344^{+21}_{-20}	4135^{+463}_{-350}	11078^{+8455}_{-4823}

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

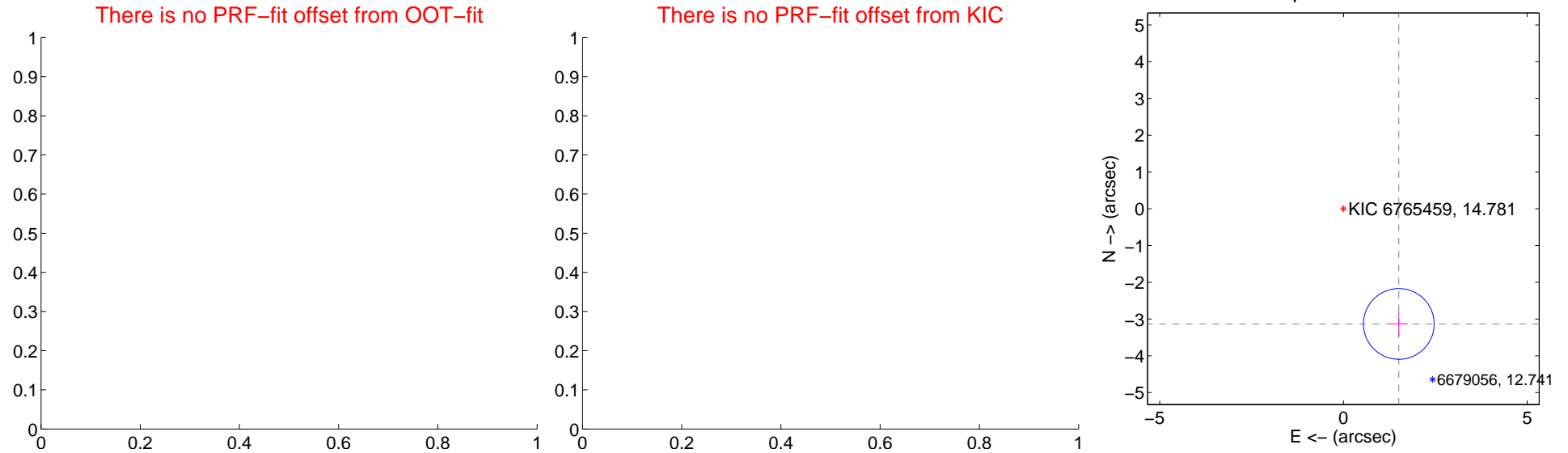
DV Centroid Data

Supplemental centroid analysis for 006765459-01. Kepler magnitude: 14.78. Transit SNR 4.44

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	3.48 ± 0.32	10.84	-1.51 ± 0.25	-3.13 ± 0.34

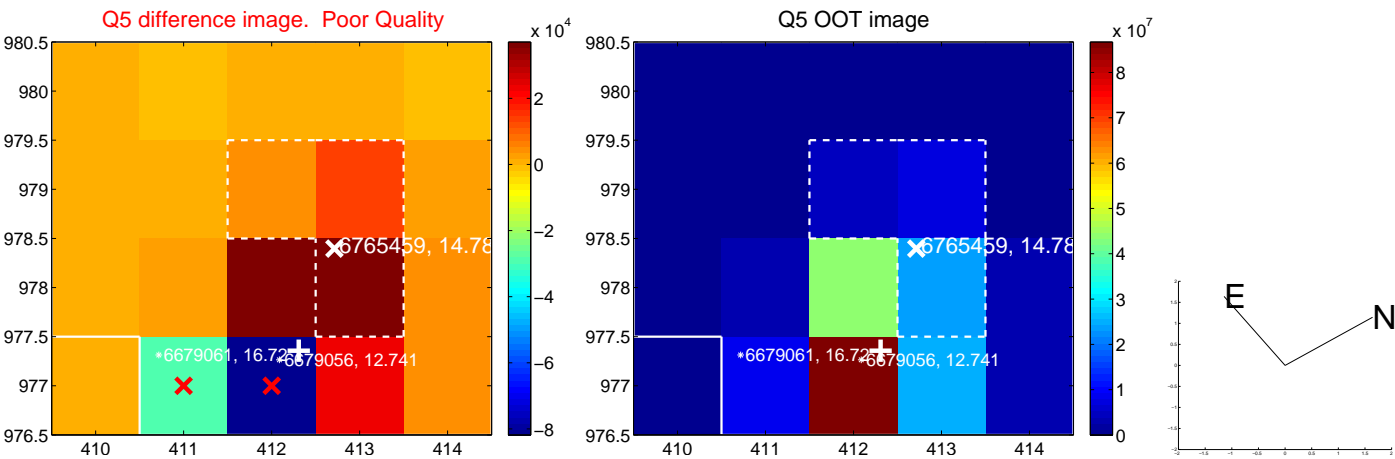


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

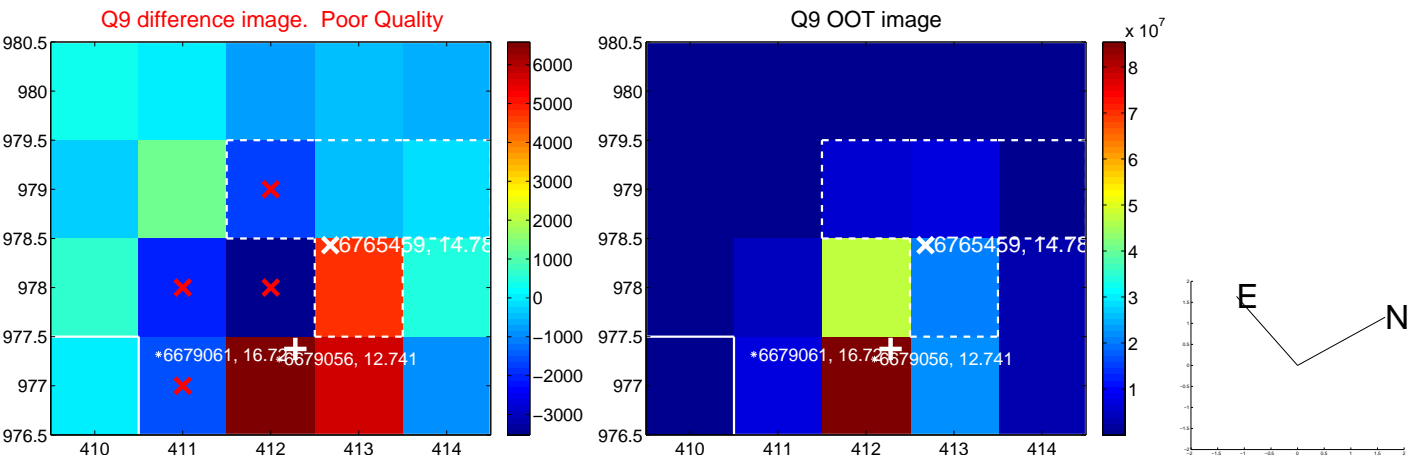
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



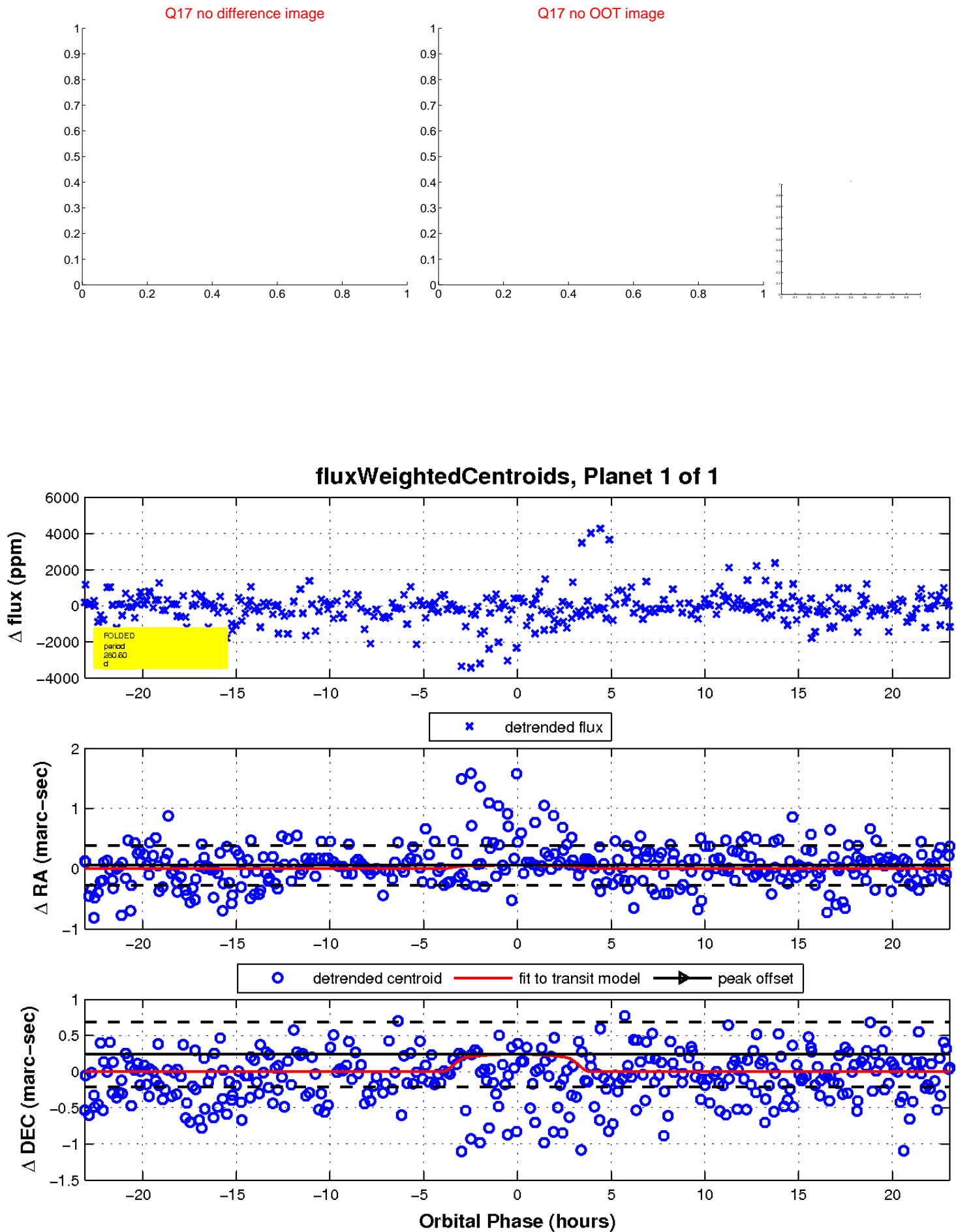
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

