

KIC 007284327

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})
007284327-01	OBS	No	645.190316	221.078617	673.0	22.979	7.3	7.5	0.63	4198	1.63	0.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007284327-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_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.

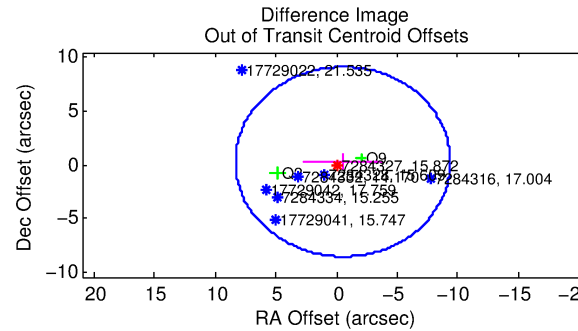
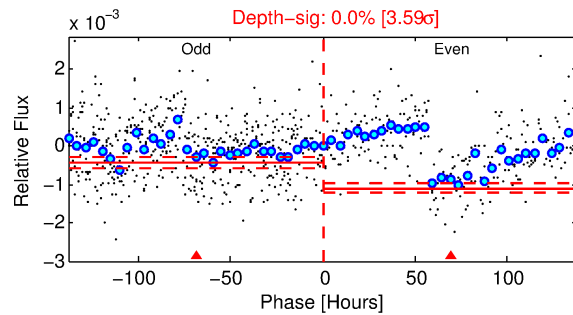
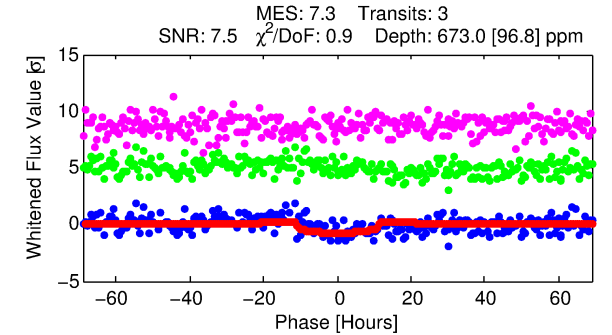
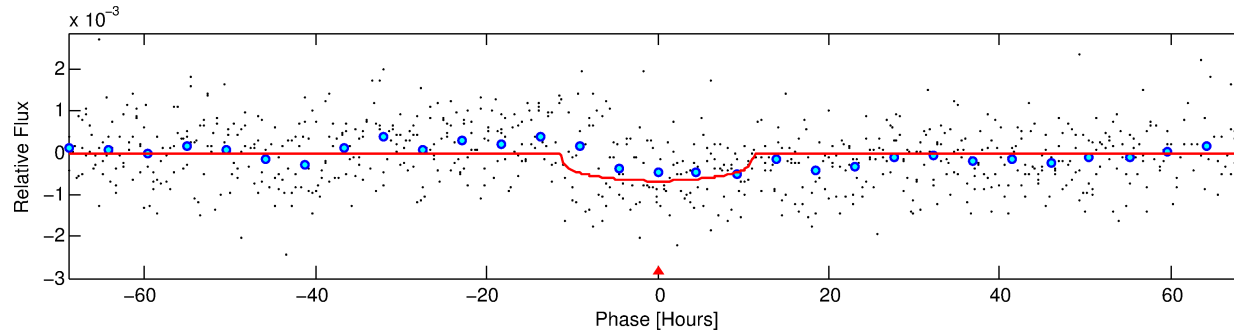
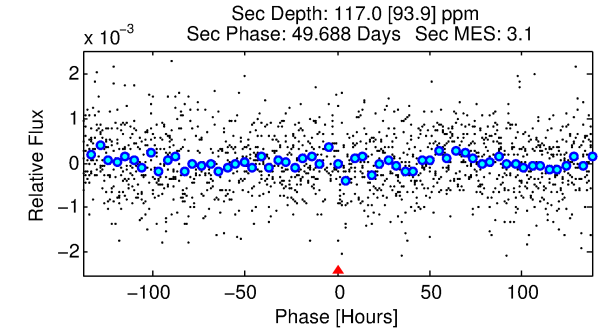
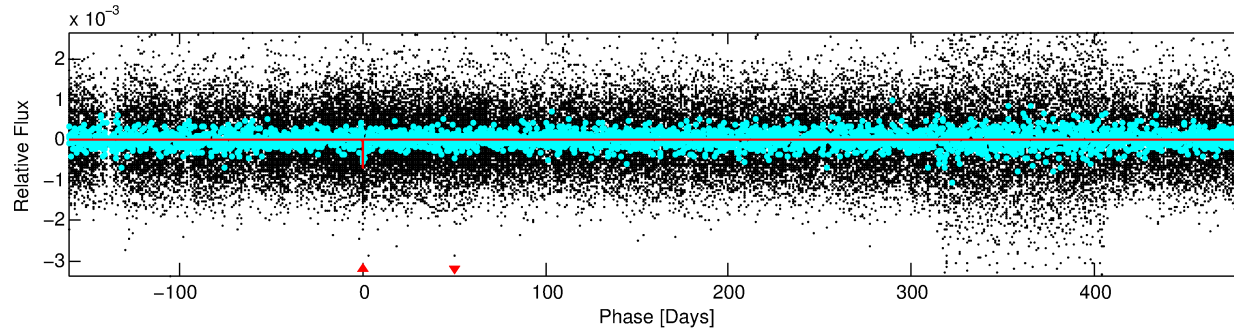
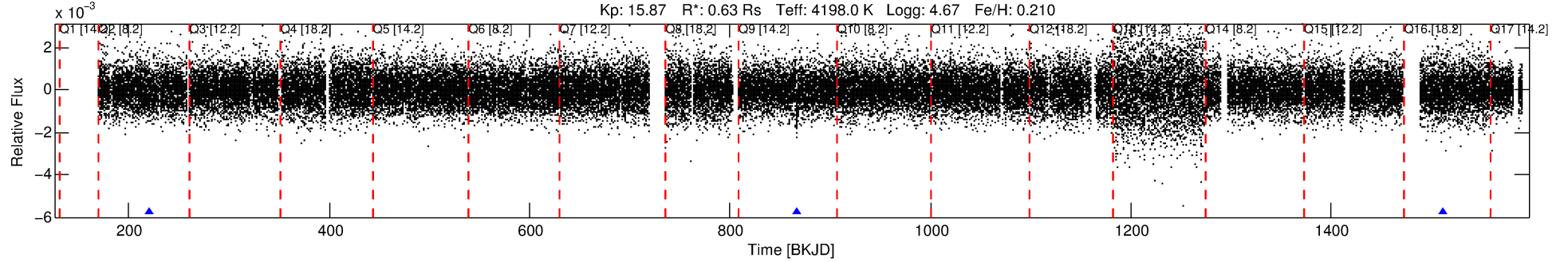
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007284327-01

No Significant Match Found

DV One-Page Summary

KIC: 7284327 Candidate: 1 of 1 Period: 645.190 d



DV Fit Results:

Period = 645.19032 [0.02855] d
Epoch = 221.0786 [0.0333] BKJD
Rp/R* = 0.0237 [0.0183]
a/R* = 193.76 [455.05]
b = 0.48 [3.80]
Seff = 0.07 [0.01]
Teq = 130 [6] K
Rp = 1.63 [1.26] Re
a = 1.2844 [0.0812] AU
Ag = 39922.70 [69473.51] [0.57σ]
Teffp = 2835 [1237] K [2.19σ]

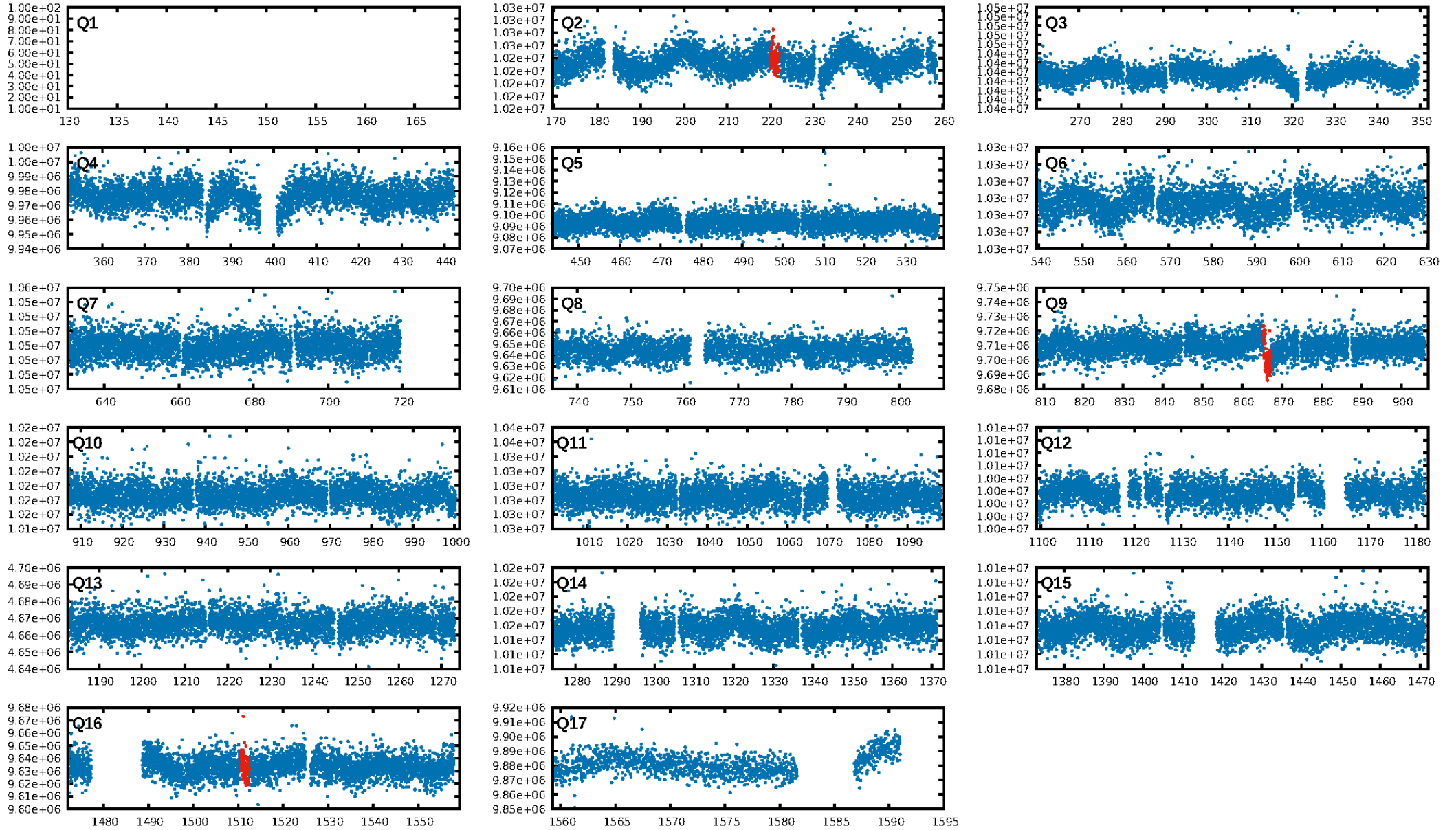
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.35e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.9385
Centroid-sig: 0.4%
Centroid-so: 2.281 arcsec [1.81σ]
OotOffset-rm: 0.600 arcsec [0.20σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 0.542 arcsec [0.17σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

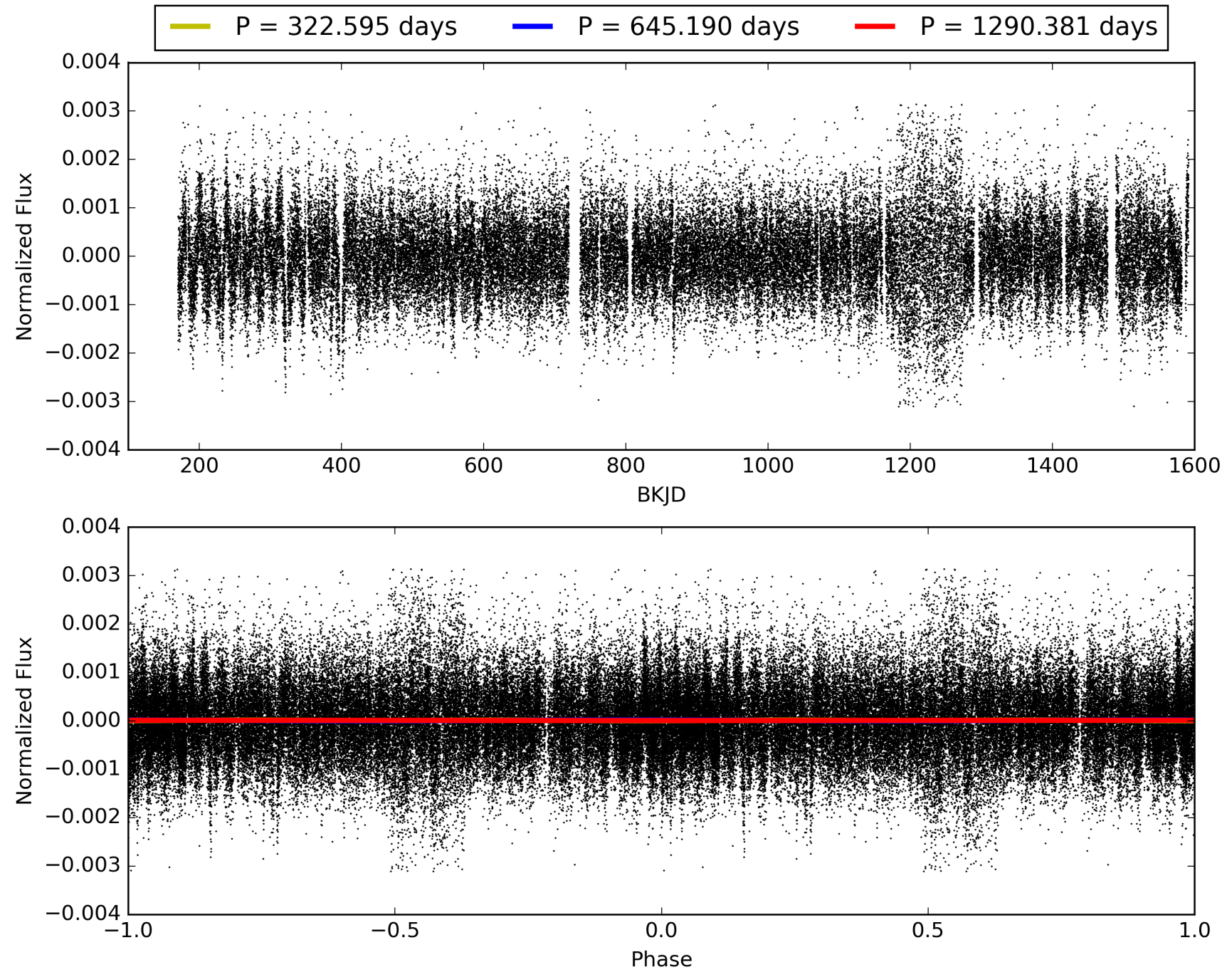
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:44:55 Z

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

TCE 007284327-01, PDC Light Curves

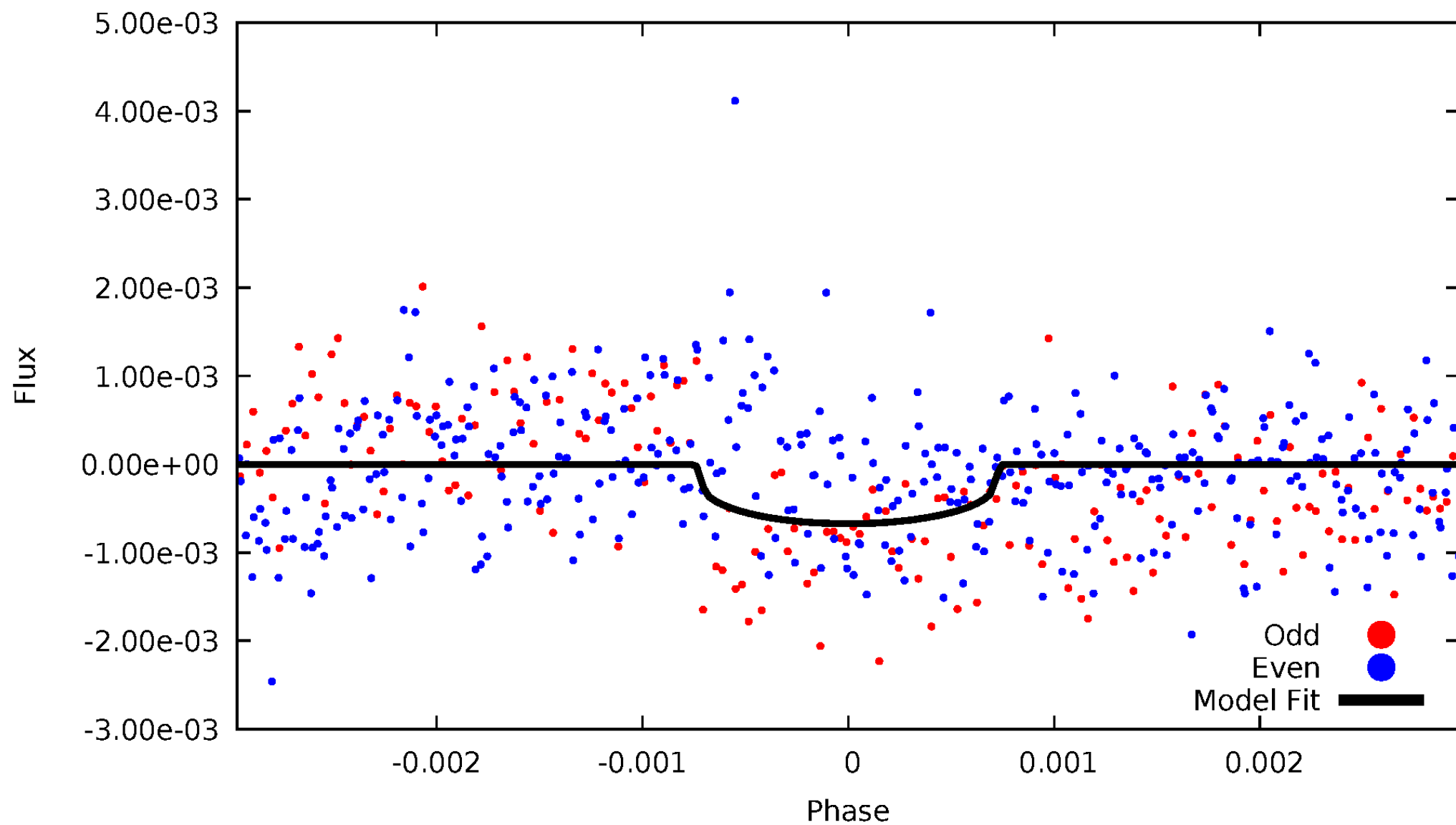


TCE 007284327-01



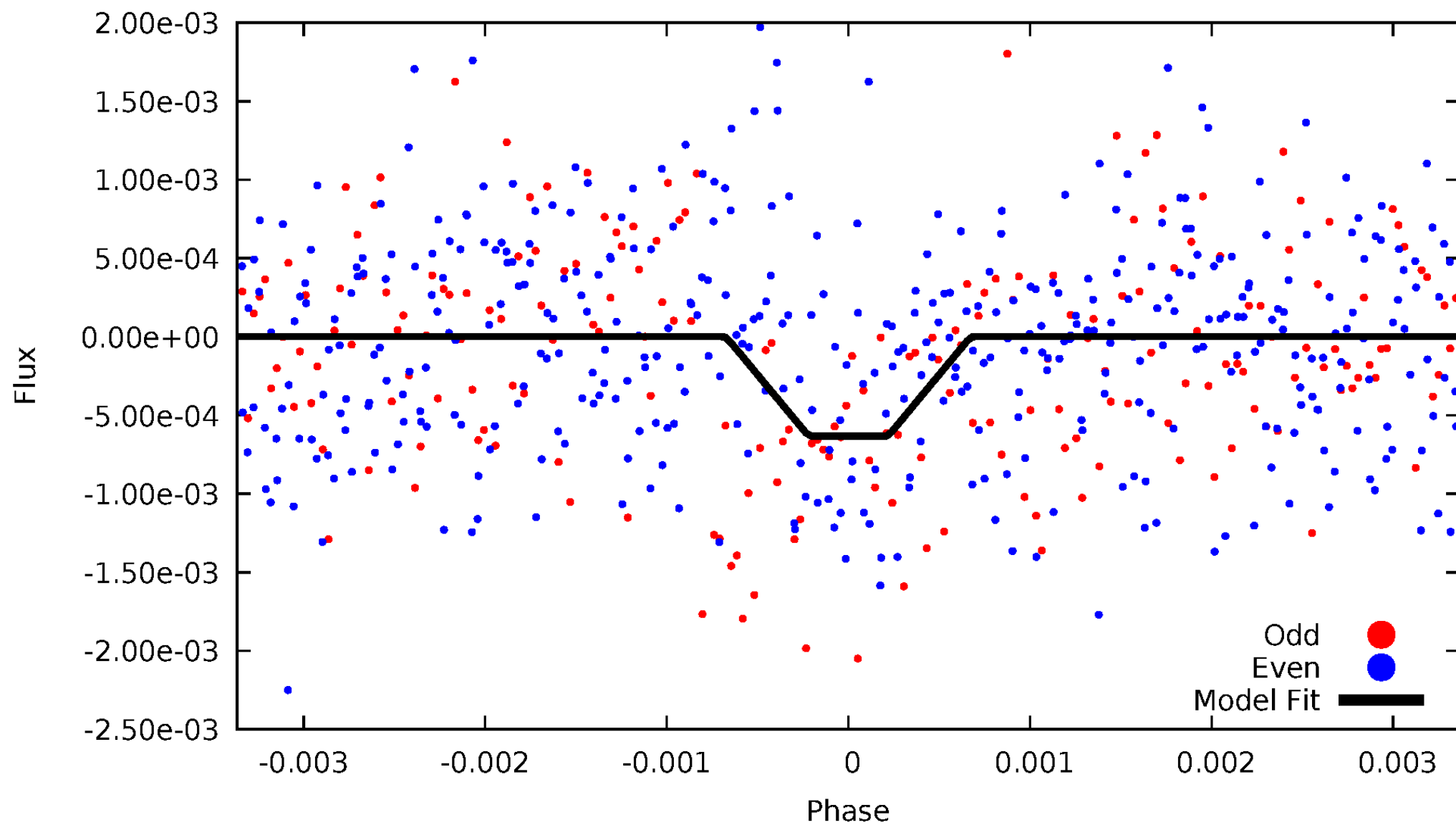
DV Odd/Even

TCE 007284327-01

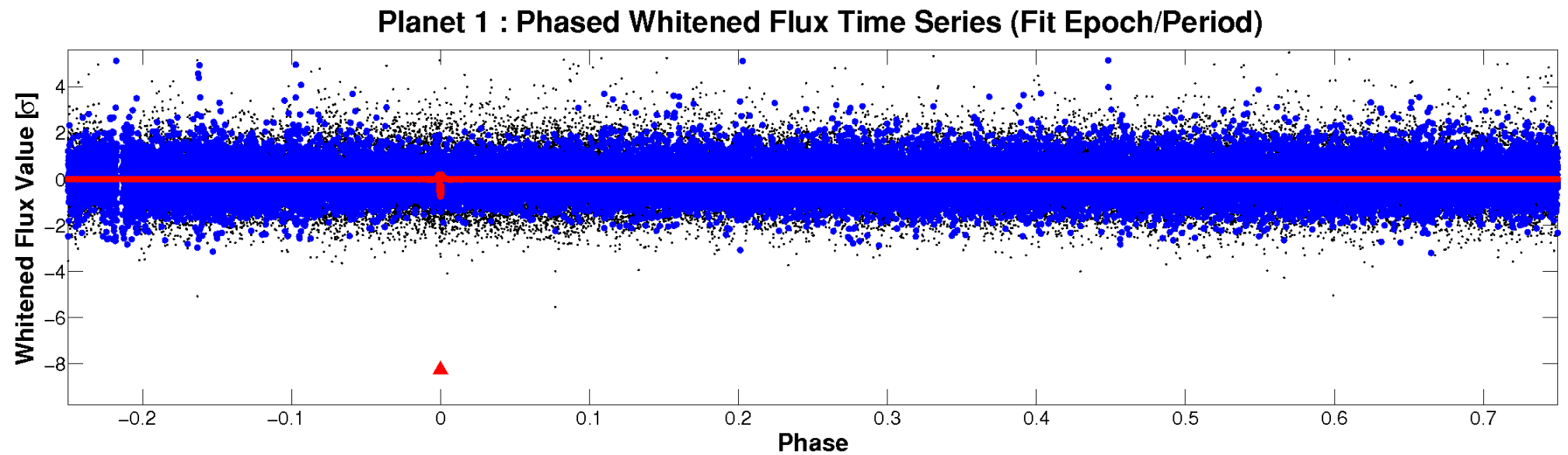
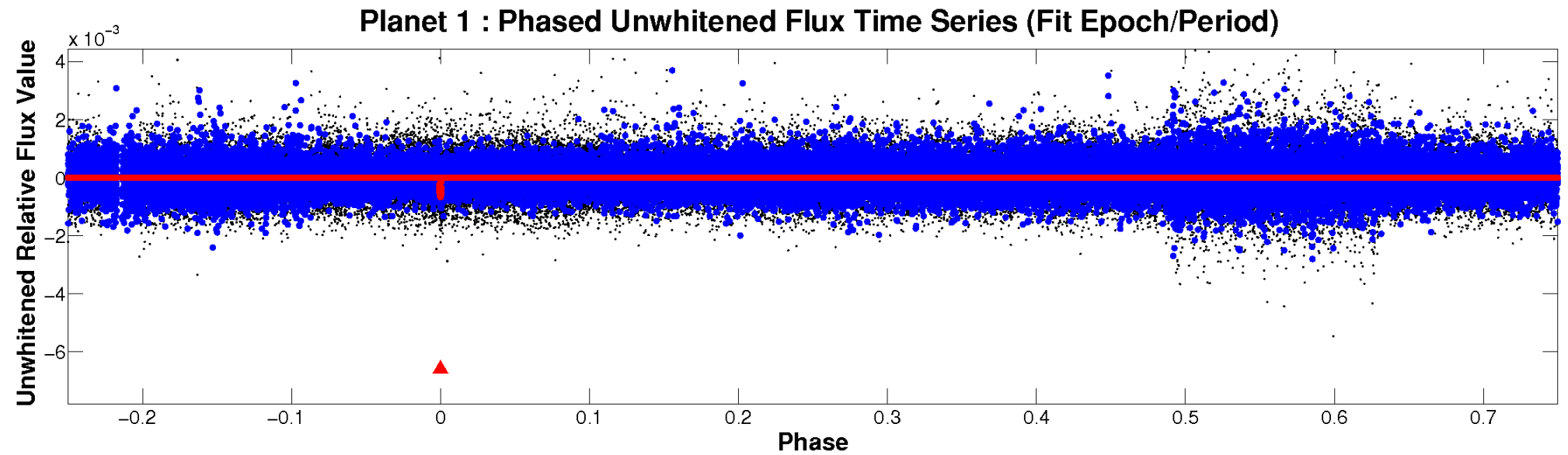


ALT Odd/Even

TCE 007284327-01



Non-Whitened Vs. Whitened Light Curve



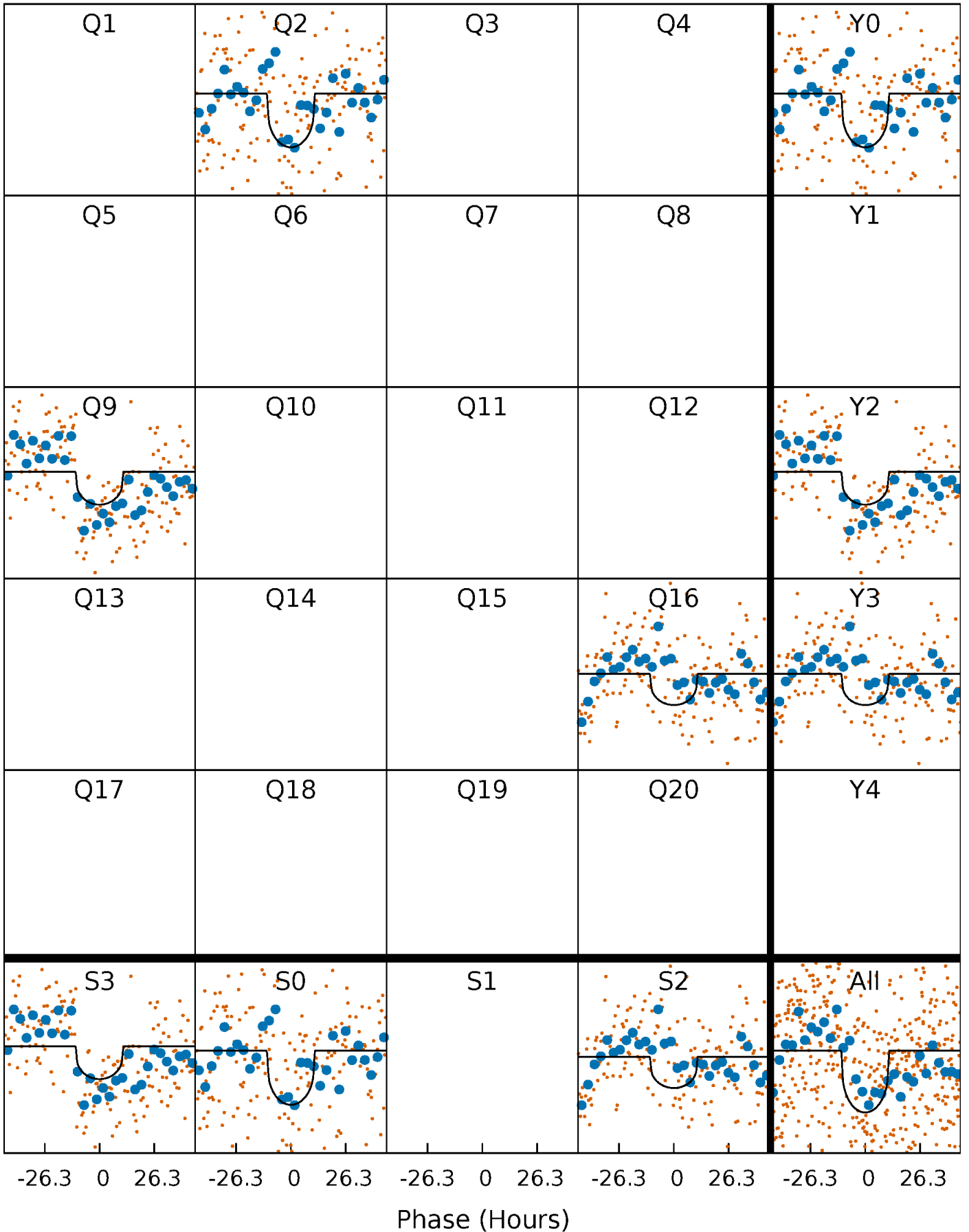
PDC Quarter-Phased Transit Curves

TCE 007284327-01 P=645.190316 Days $T_0=221.078617$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007284327-01 P=645.190316 Days $T_0=221.078617$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

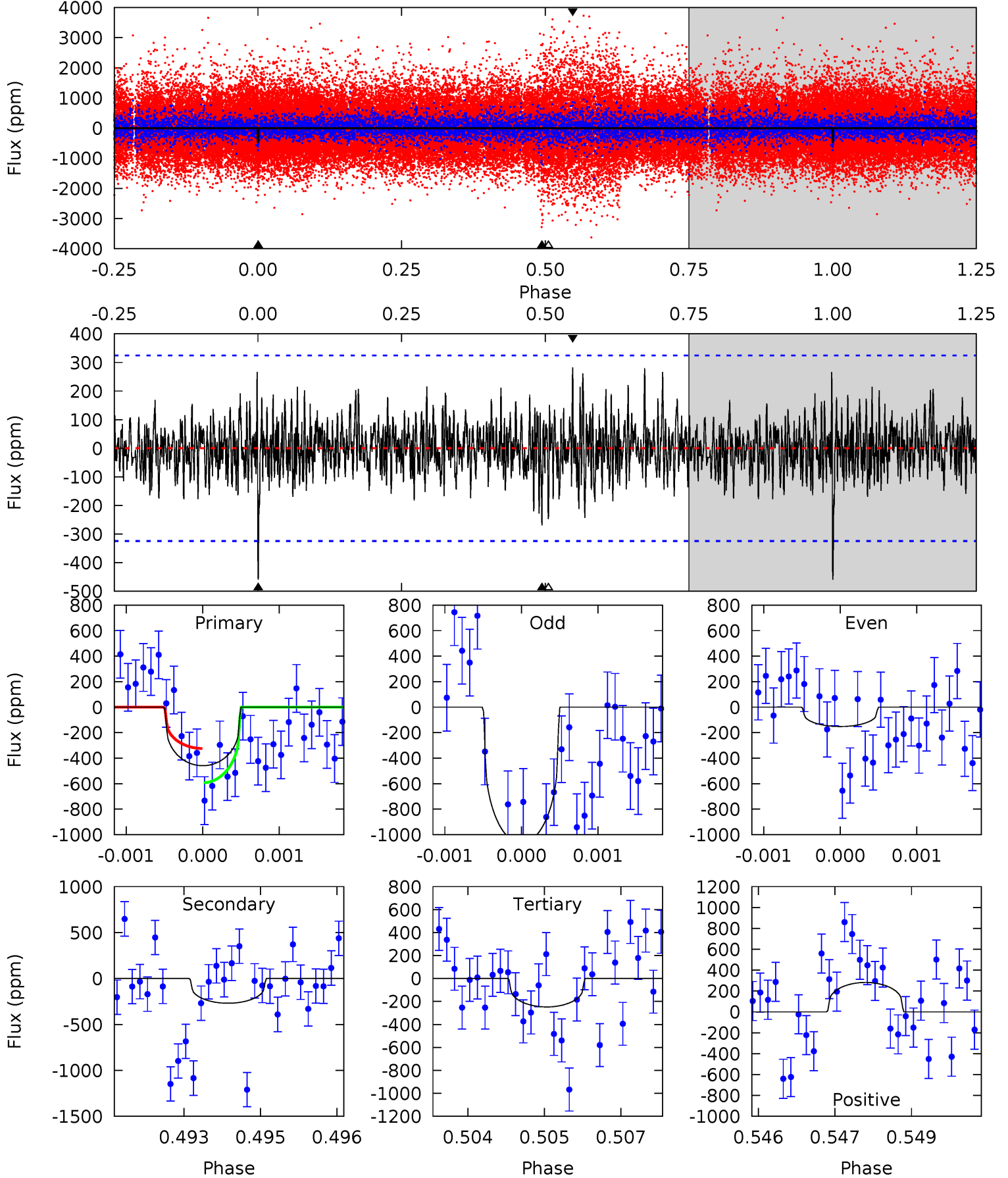
TCE 007284327-01 P=645.312258 Days $T_0=221.019726$ (BKJD)



DV Model-Shift Uniqueness Test

007284327-01, P = 645.190316 Days, E = 221.078617 Days

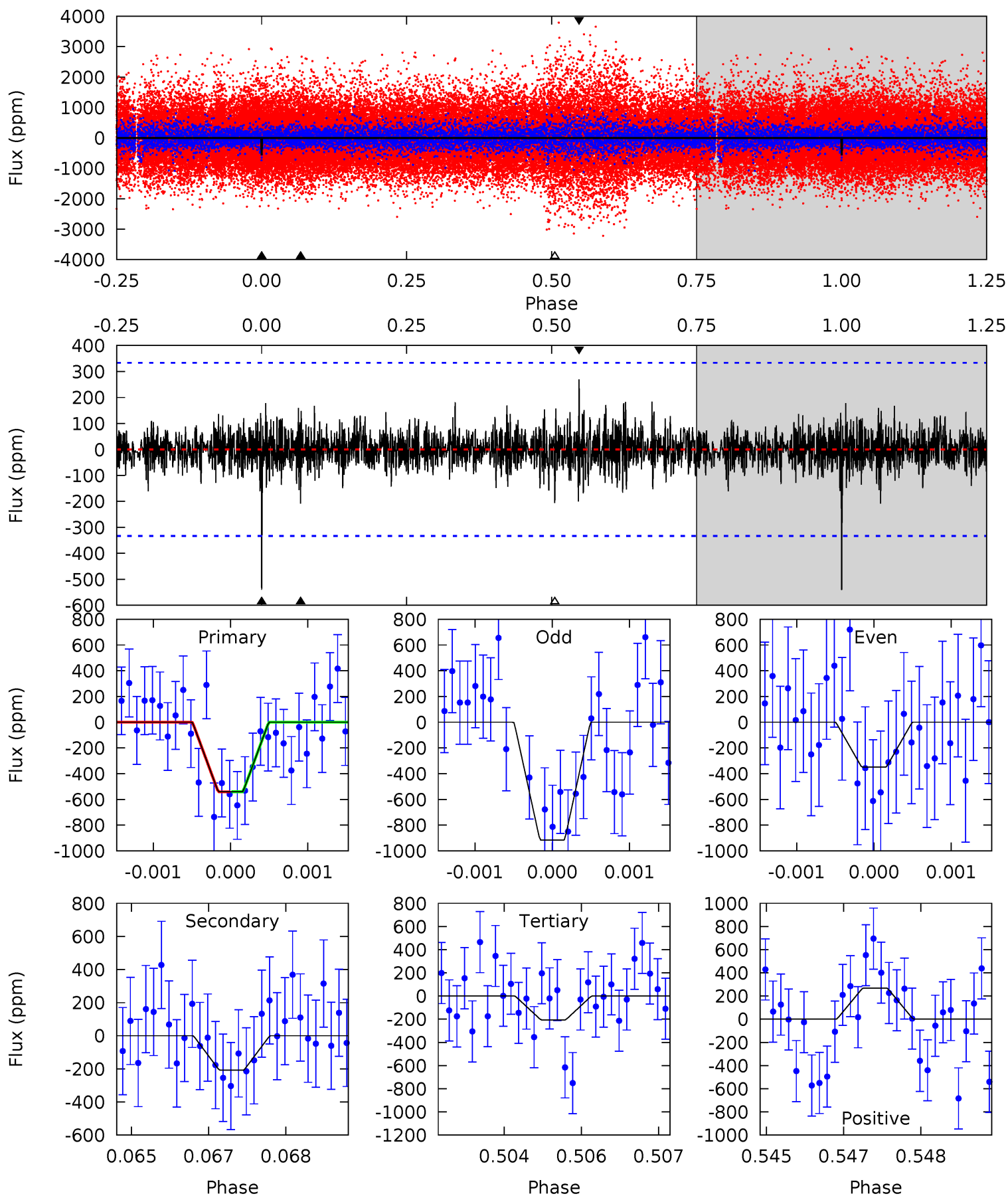
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.61	4.46	4.10	4.67	5.38	3.18	1.22	3.50	2.94	0.35	-0.21	7.29	1.47	0.38	2.22



Alt Model-Shift Uniqueness Test

007284327-01, P = 645.312258 Days, E = 221.019726 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.76	3.37	3.34	4.35	5.40	3.20	0.85	5.42	4.40	0.03	-0.99	4.43	1.51	0.33	0.01



Stellar Parameters For KIC 007284327

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4198^{+134}_{-167}	$4.671^{+0.024}_{-0.045}$	$0.210^{+0.200}_{-0.300}$	$0.630^{+0.050}_{-0.045}$	$0.684^{+0.034}_{-0.068}$	$3.857^{+0.527}_{-0.622}$
	+3%/-4%	+1%/-1%	+95%/-143%	+8%/-7%	+5%/-10%	+14%/-16%
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 007284327-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-269 ± 60	$1.85^{+1.21}_{-1.10}$	182^{+7}_{-8}	3528^{+1345}_{-514}	$68715^{+344024}_{-44462}$
Alt.	-208 ± 62	$1.88^{+1.22}_{-1.11}$	182^{+6}_{-8}	3365^{+1168}_{-483}	$51268^{+247003}_{-32761}$

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 $A_{obs} \gg 1.0$

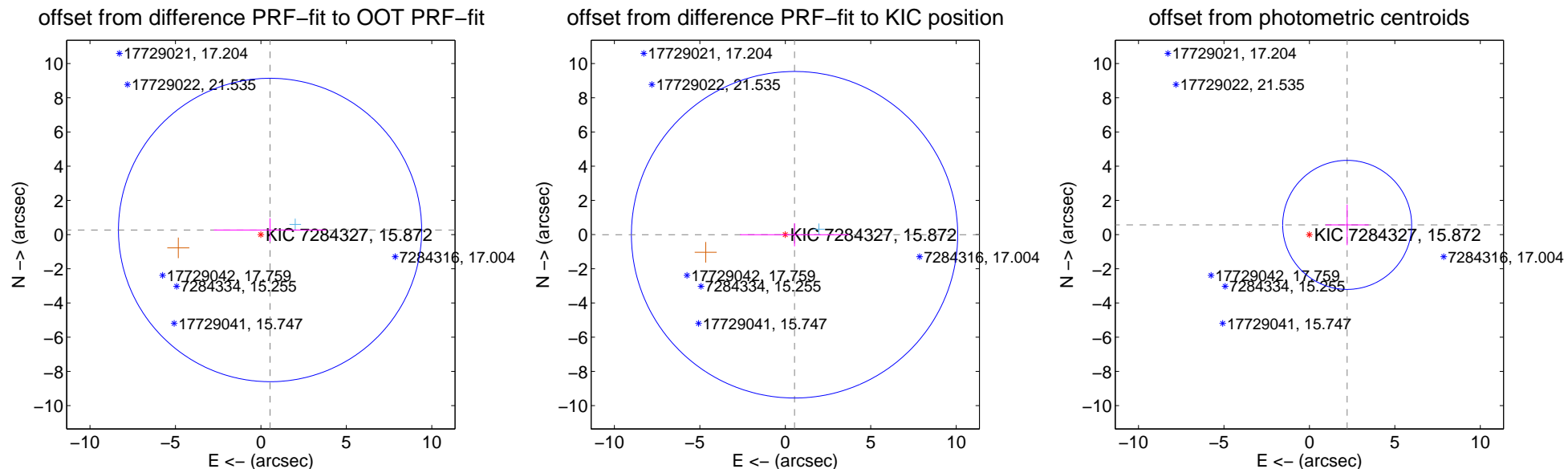
DV Centroid Data

Supplemental centroid analysis for 007284327-01. Kepler magnitude: 15.87. Transit SNR 7.55

There are 1 quarters with good PRF difference image offsets

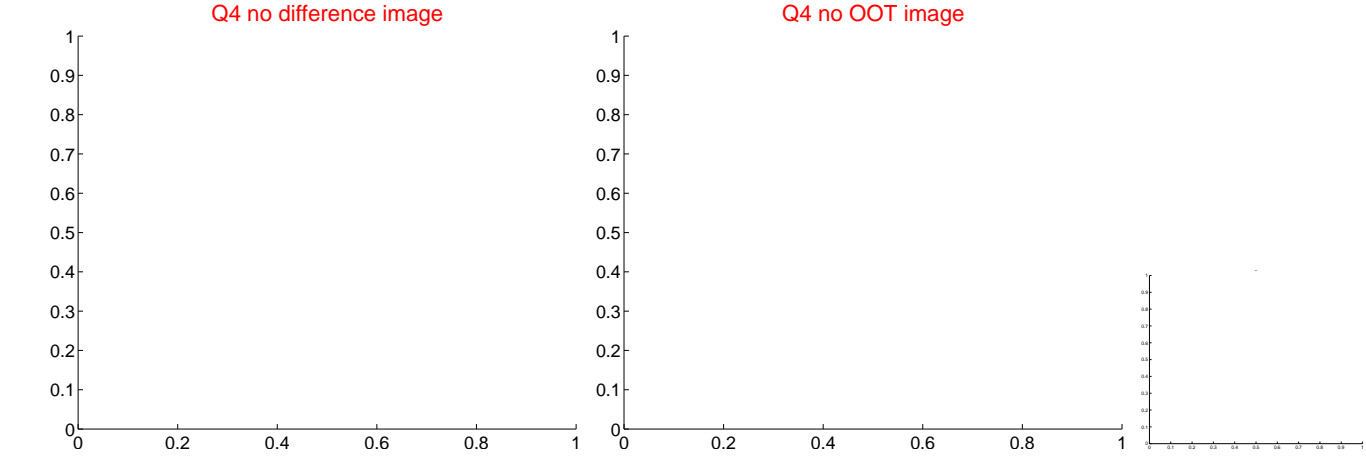
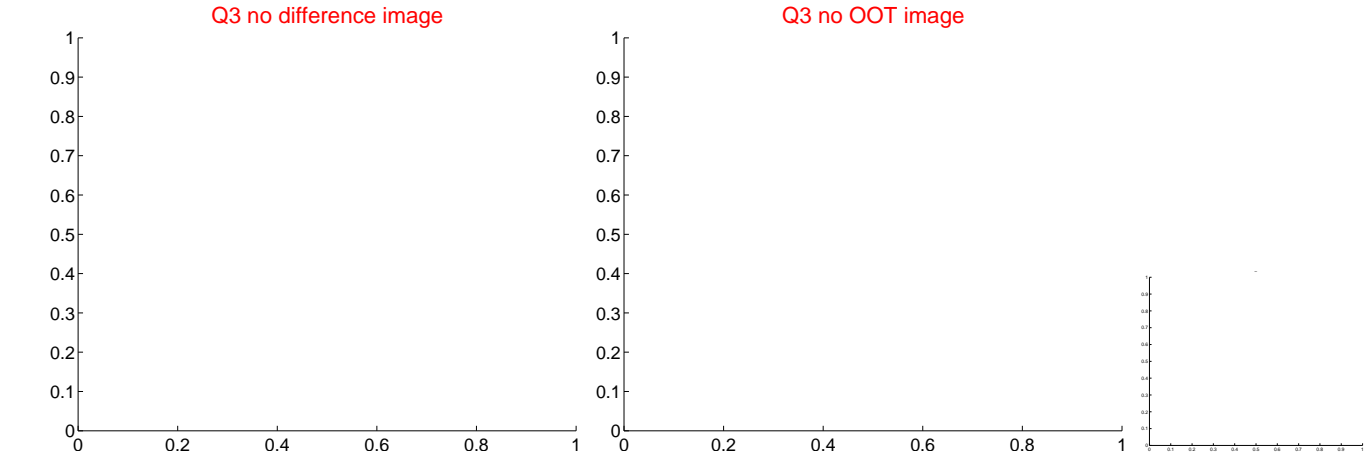
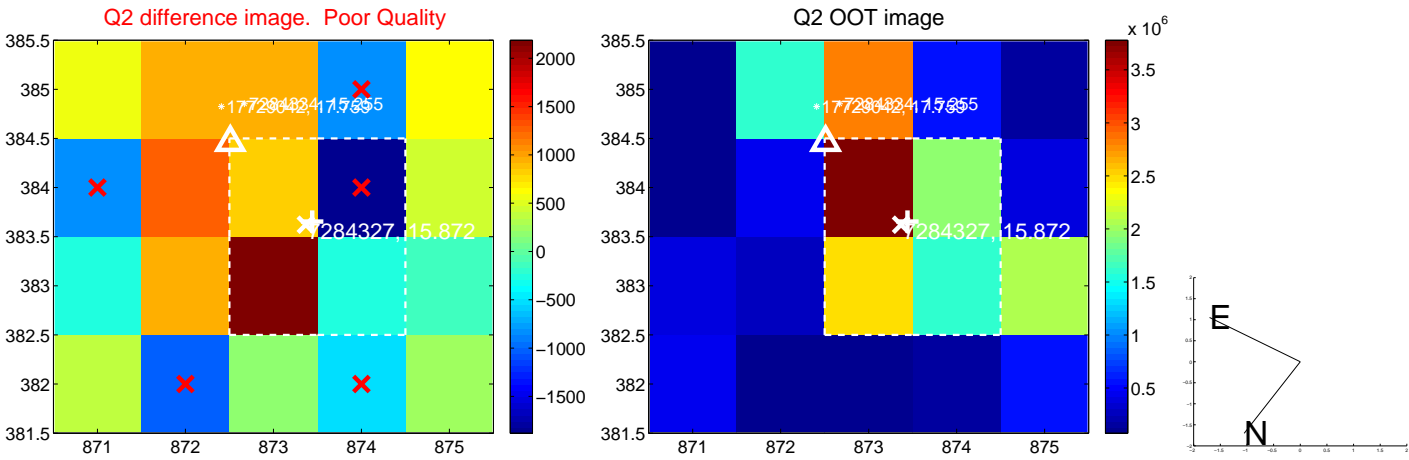
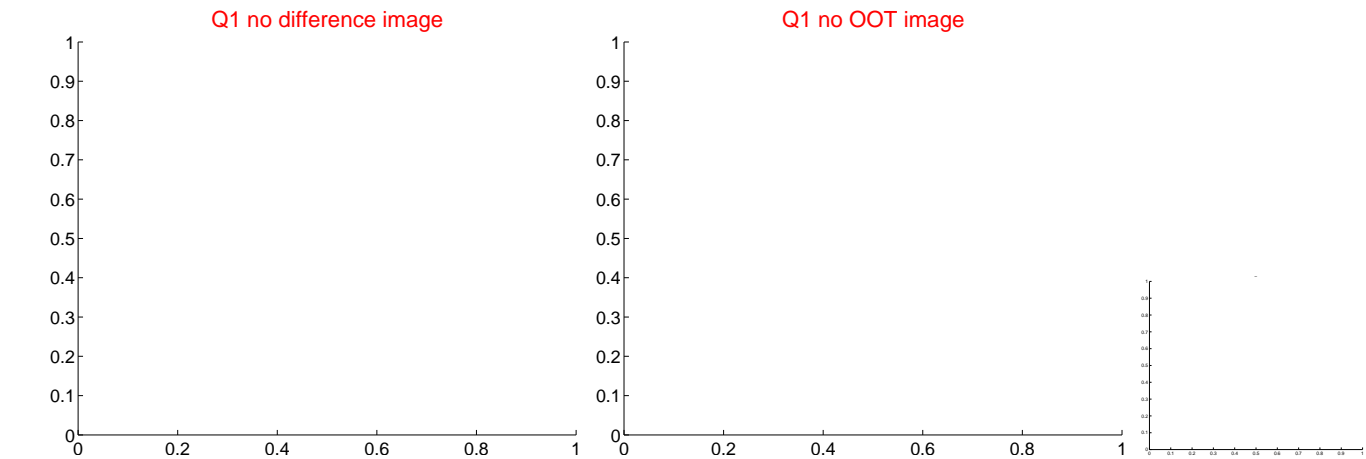
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.600 ± 2.957	0.20	-0.536 ± 3.288	0.268 ± 0.688
PRF-fit source offset from KIC position	0.542 ± 3.182	0.17	-0.542 ± 3.183	-0.010 ± 0.676
photometric centroid source offset	2.28 ± 1.26	1.81	-2.21 ± 1.26	0.57 ± 1.19



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.

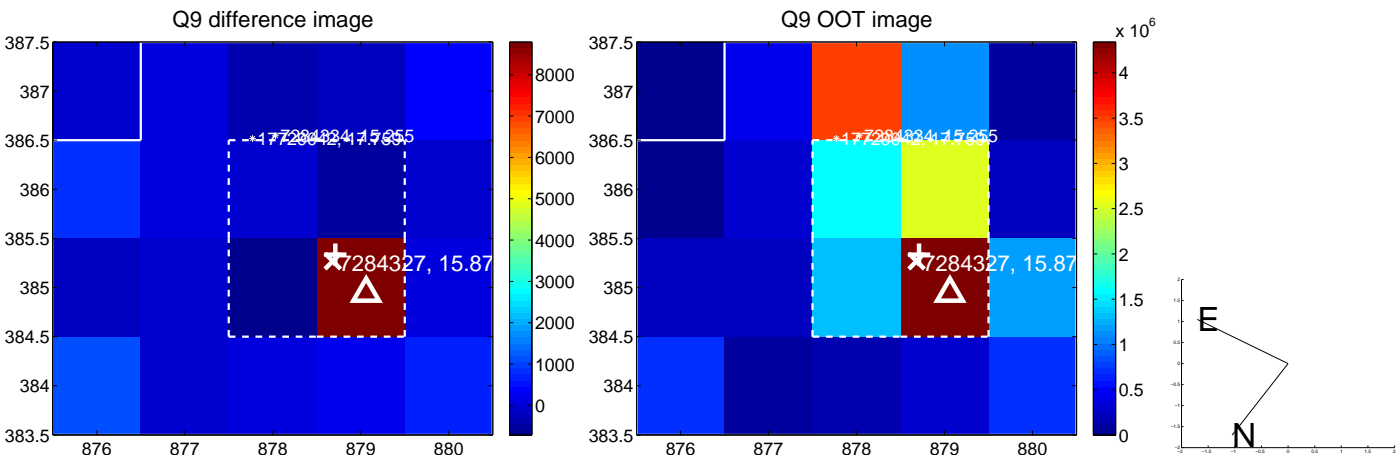
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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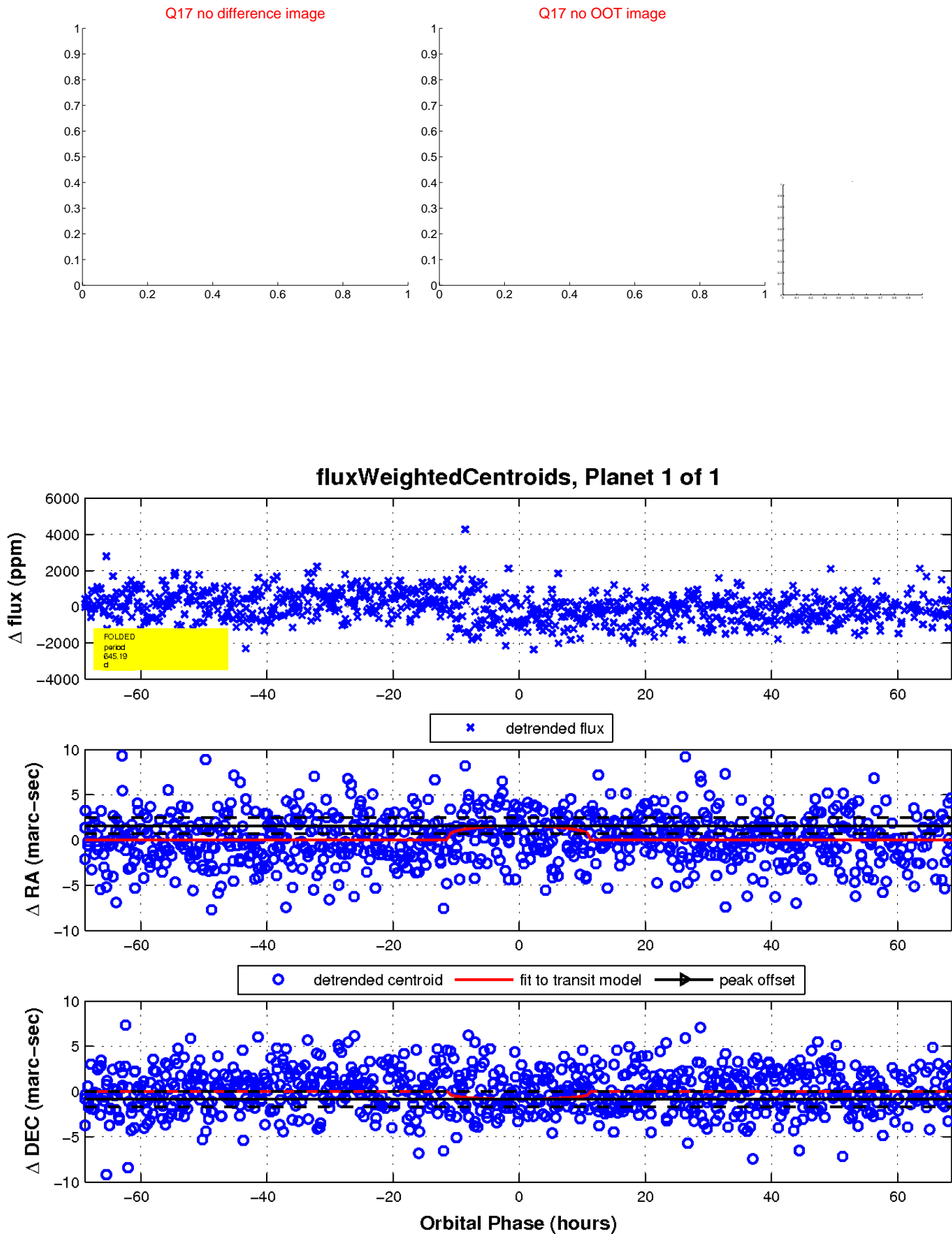
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

