

KIC 007969842

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})
007969842-01	OBS	No	371.263935	230.559992	2191.4	27.162	12.7	12.4	1.08	6240	9.41	1.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007969842-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

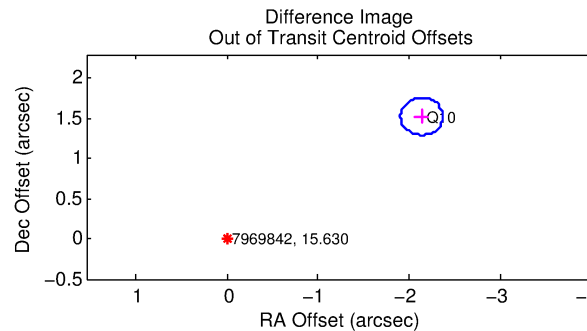
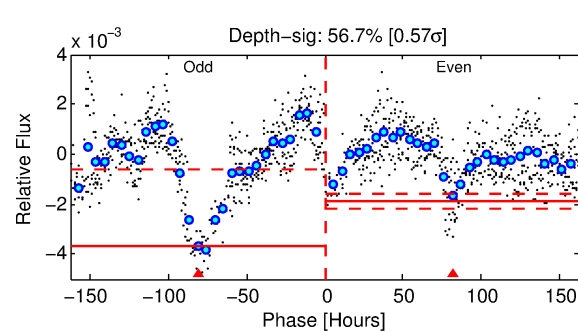
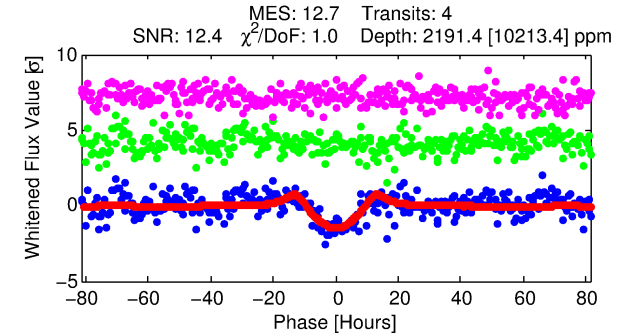
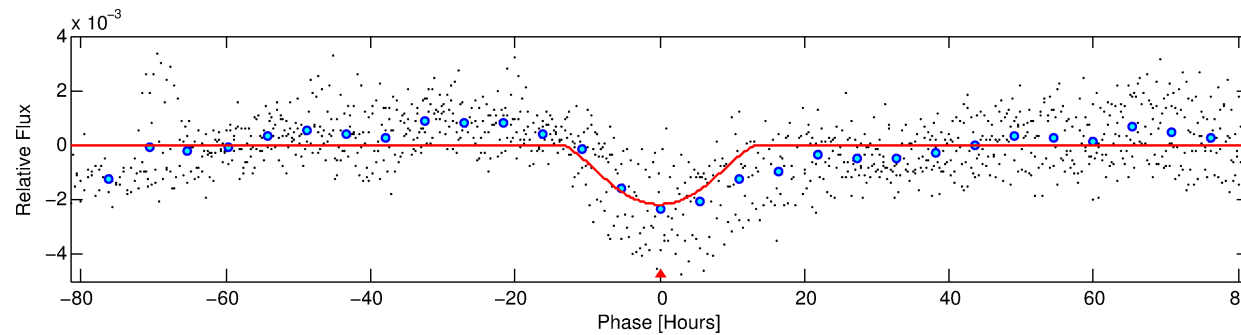
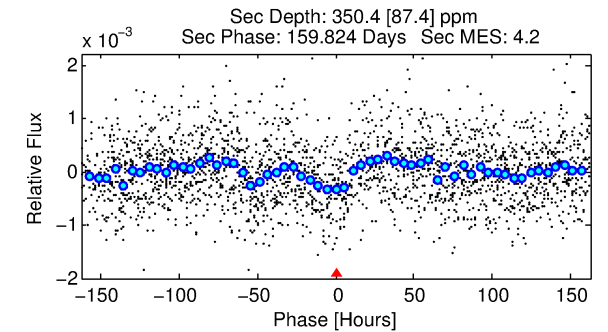
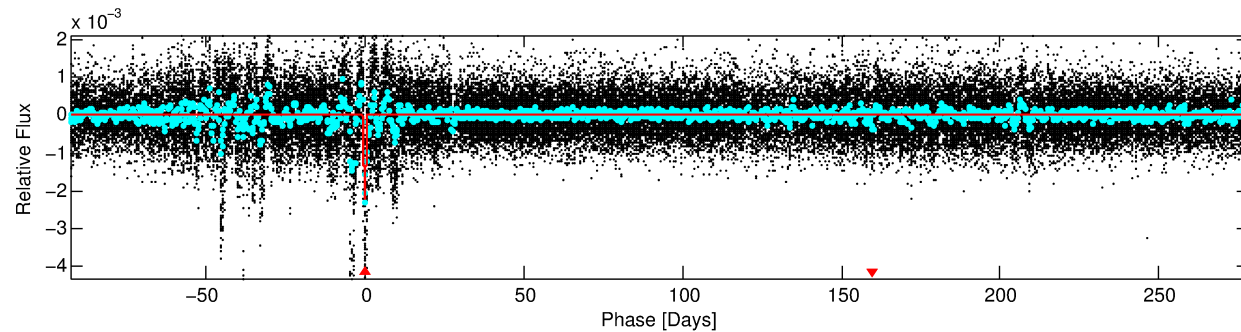
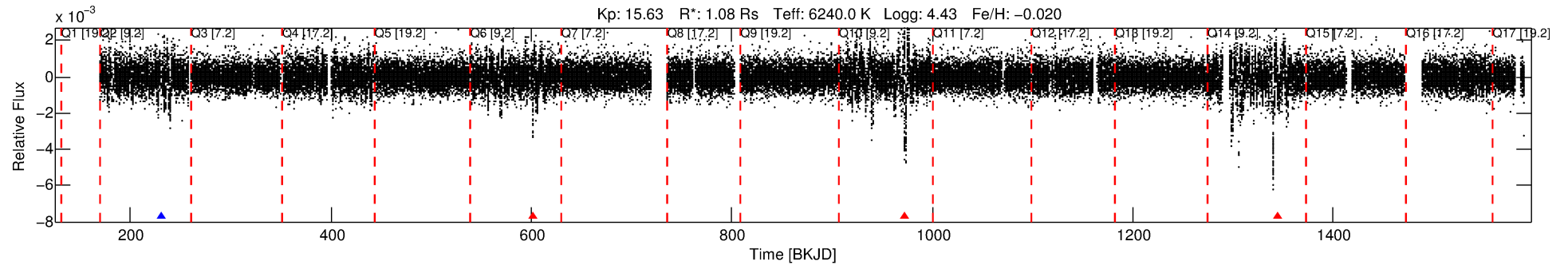
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007969842-01

No Significant Match Found

DV One-Page Summary

KIC: 7969842 Candidate: 1 of 1 Period: 371.264 d



DV Fit Results:

Period = 371.26394 [0.01866] d
Epoch = 230.5600 [0.0349] BKJD
Rp/R* = 0.0799 [0.1287]
a/R* = 42.59 [14.74]
b = 1.00 [0.07]
Seff = 1.42 [0.59]
Teq = 279 [29] K
Rp = 9.41 [15.45] Re
a = 1.0540 [0.2822] AU
Ag = 2417.50 [7864.65] [0.31σ]
Teff = 3020 [2441] K [1.12σ]

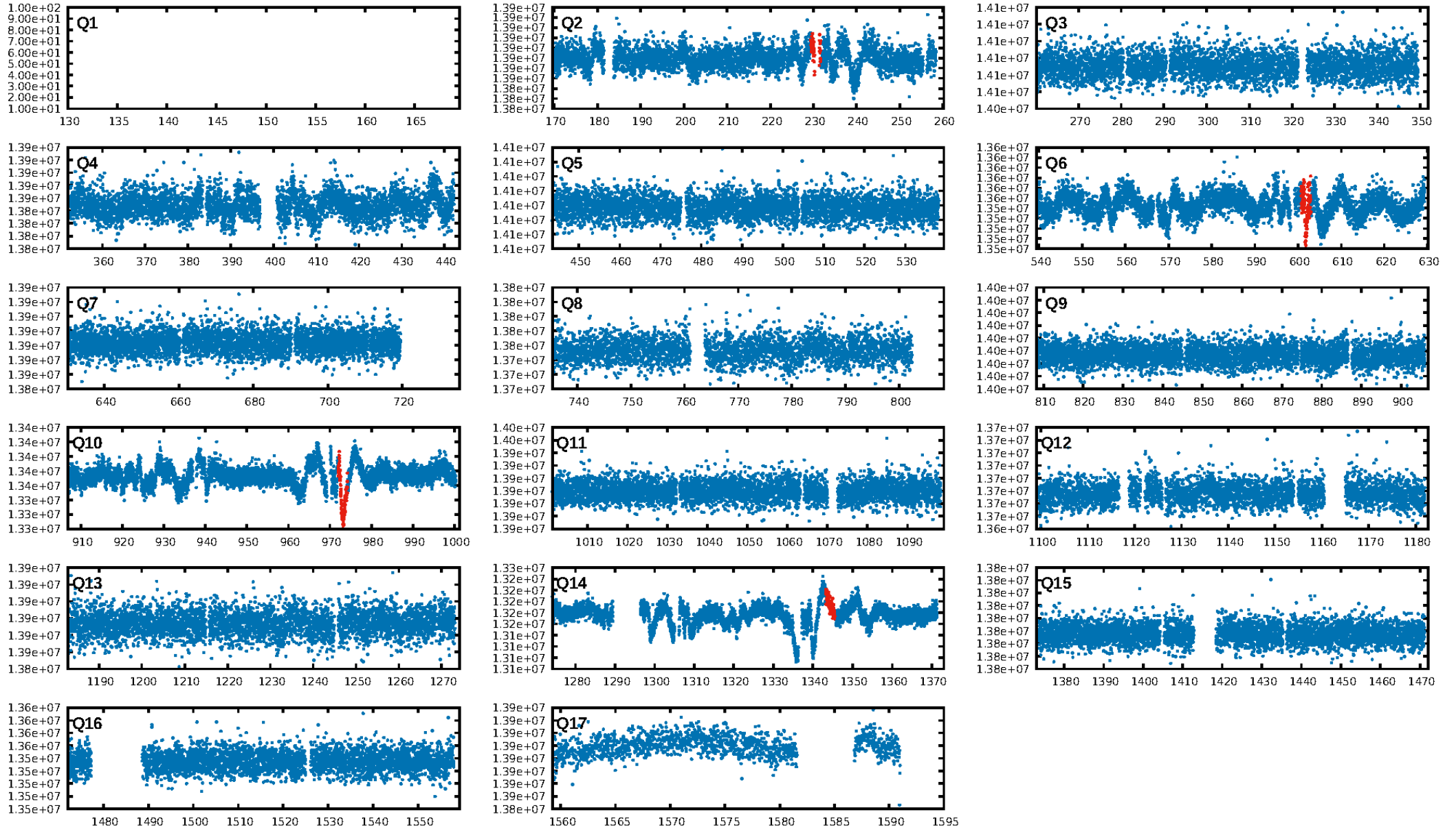
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 4.69e-18
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: -0.2099
Centroid-sig: 0.6%
Centroid-so: 3.668 arcsec [1.72σ]
OotOffset-rm: 2.628 arcsec [33.77σ]
KicOffset-rm: 2.506 arcsec [32.14σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

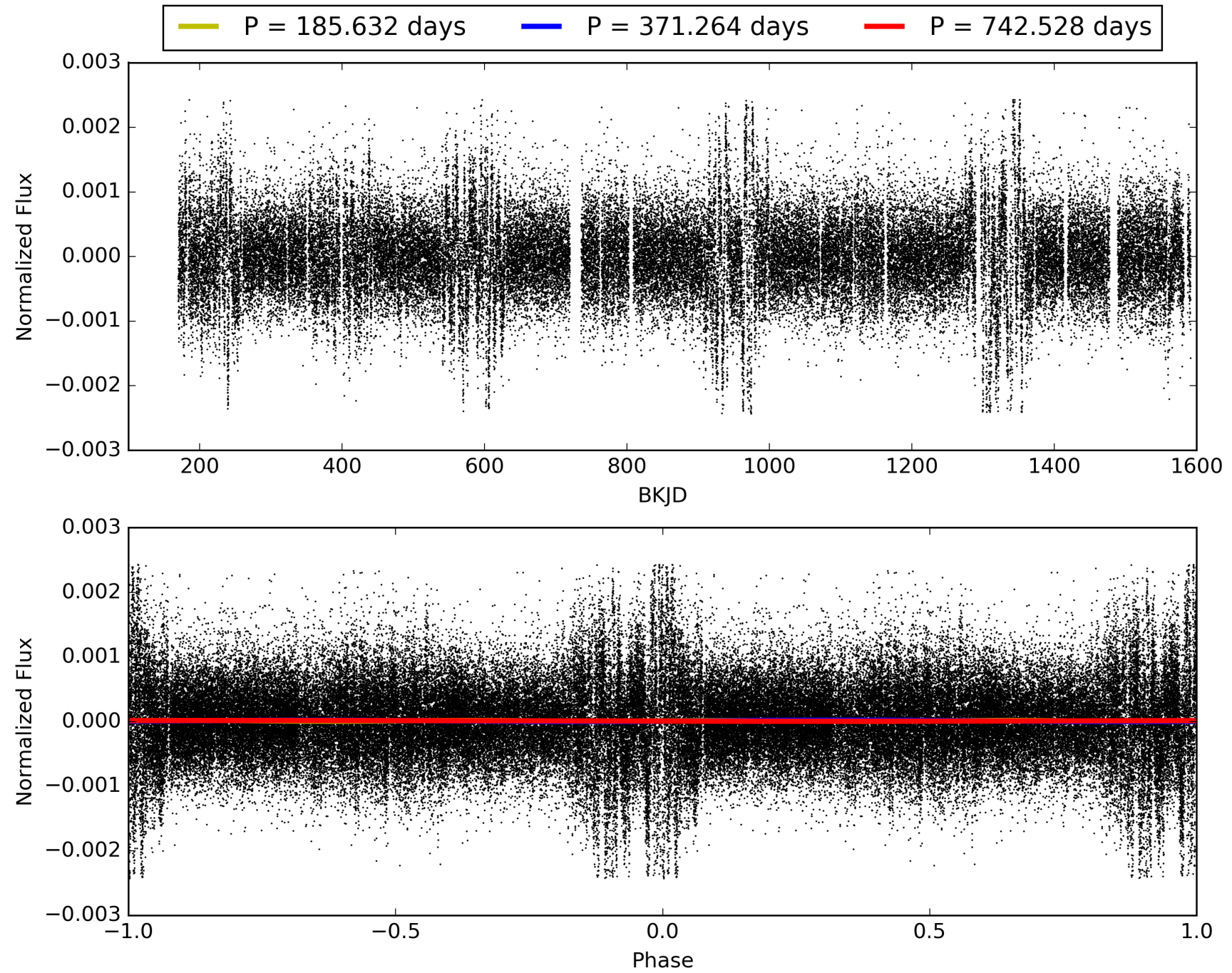
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:03:18 Z

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

TCE 007969842-01, PDC Light Curves

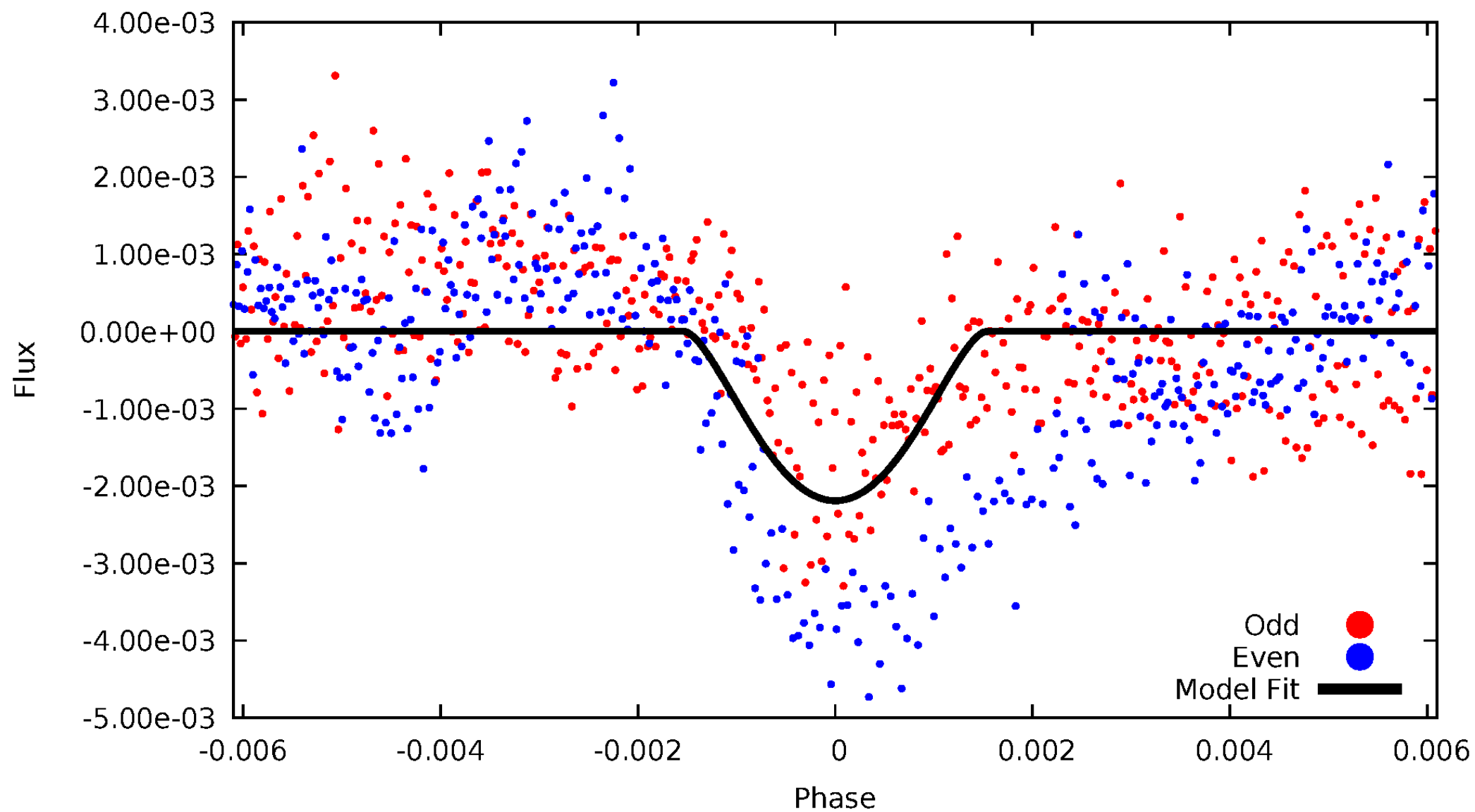


TCE 007969842-01



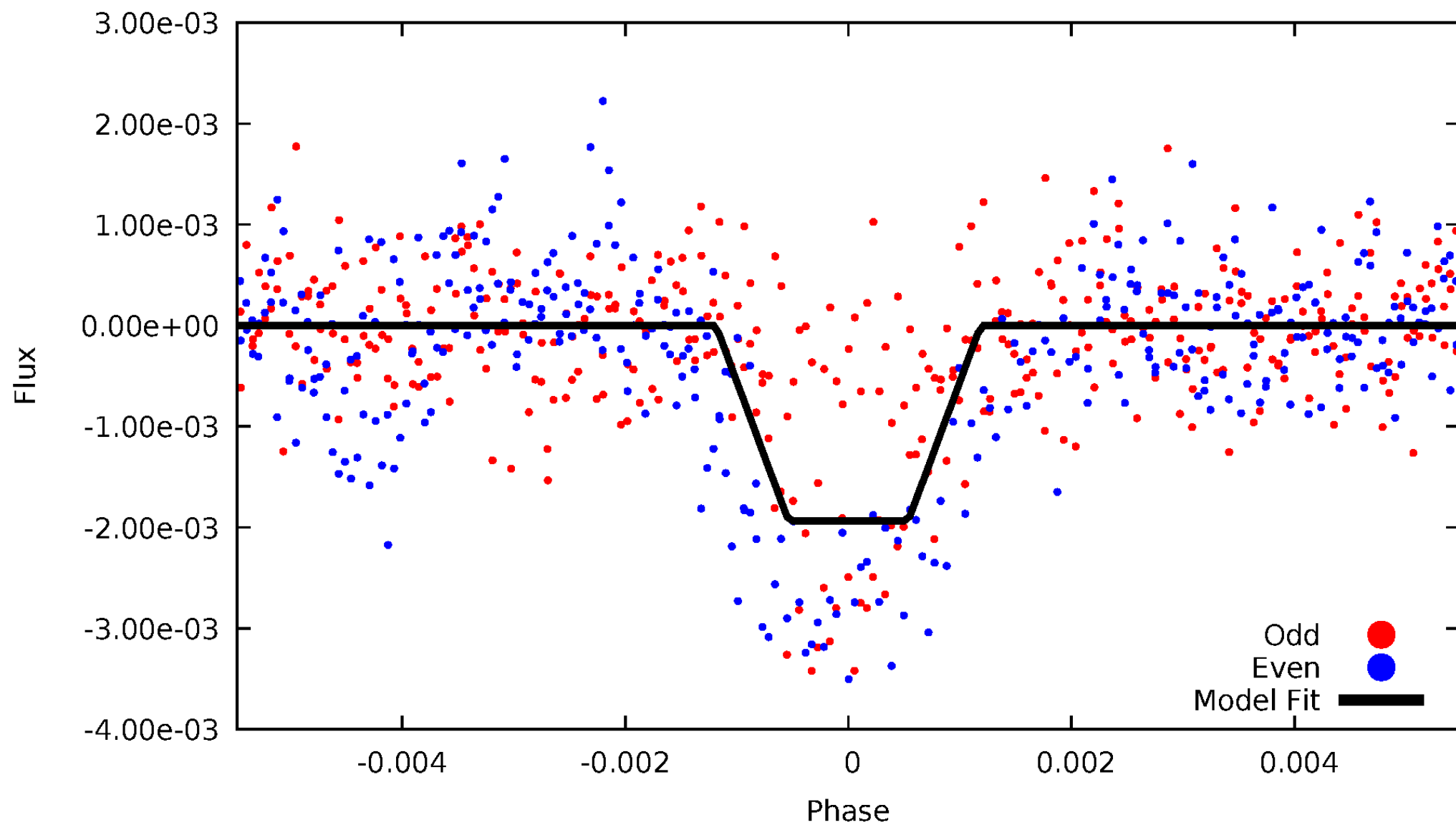
DV Odd/Even

TCE 007969842-01



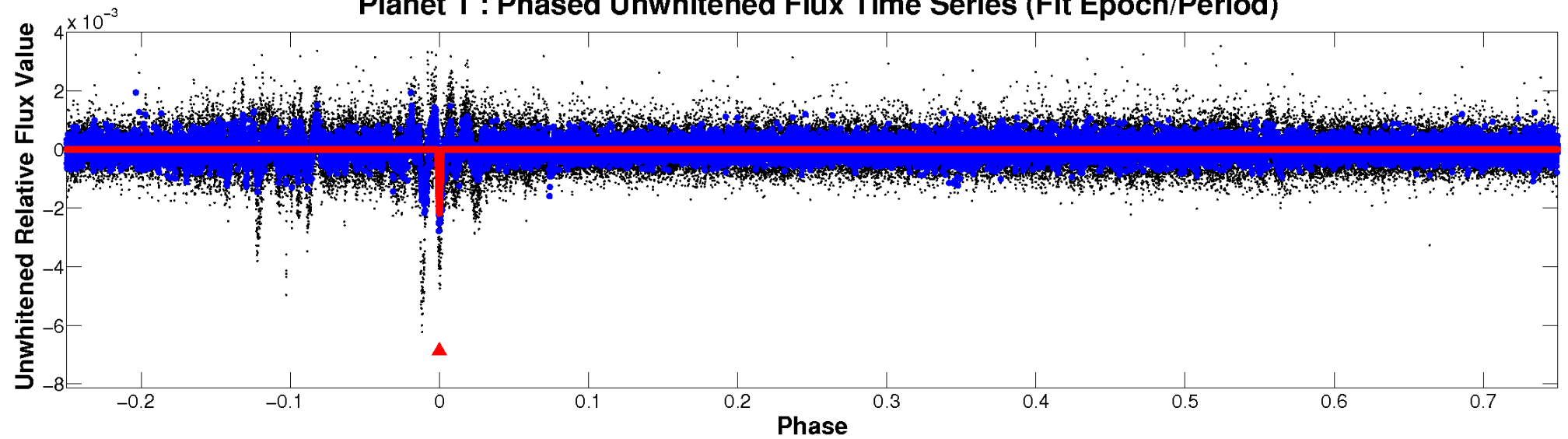
ALT Odd/Even

TCE 007969842-01

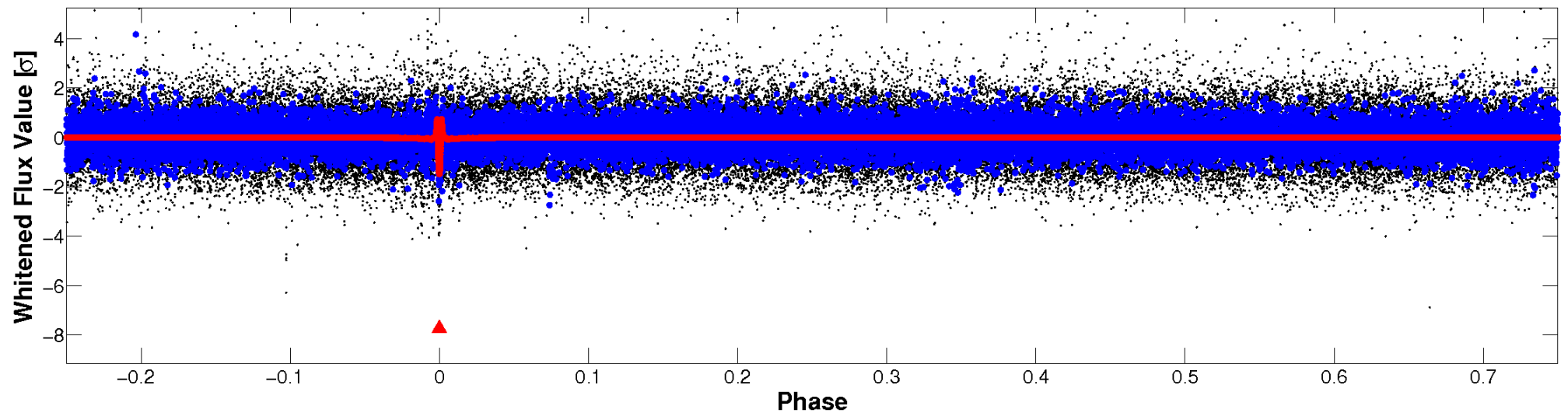


Non-Whitened Vs. Whitened Light Curve

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

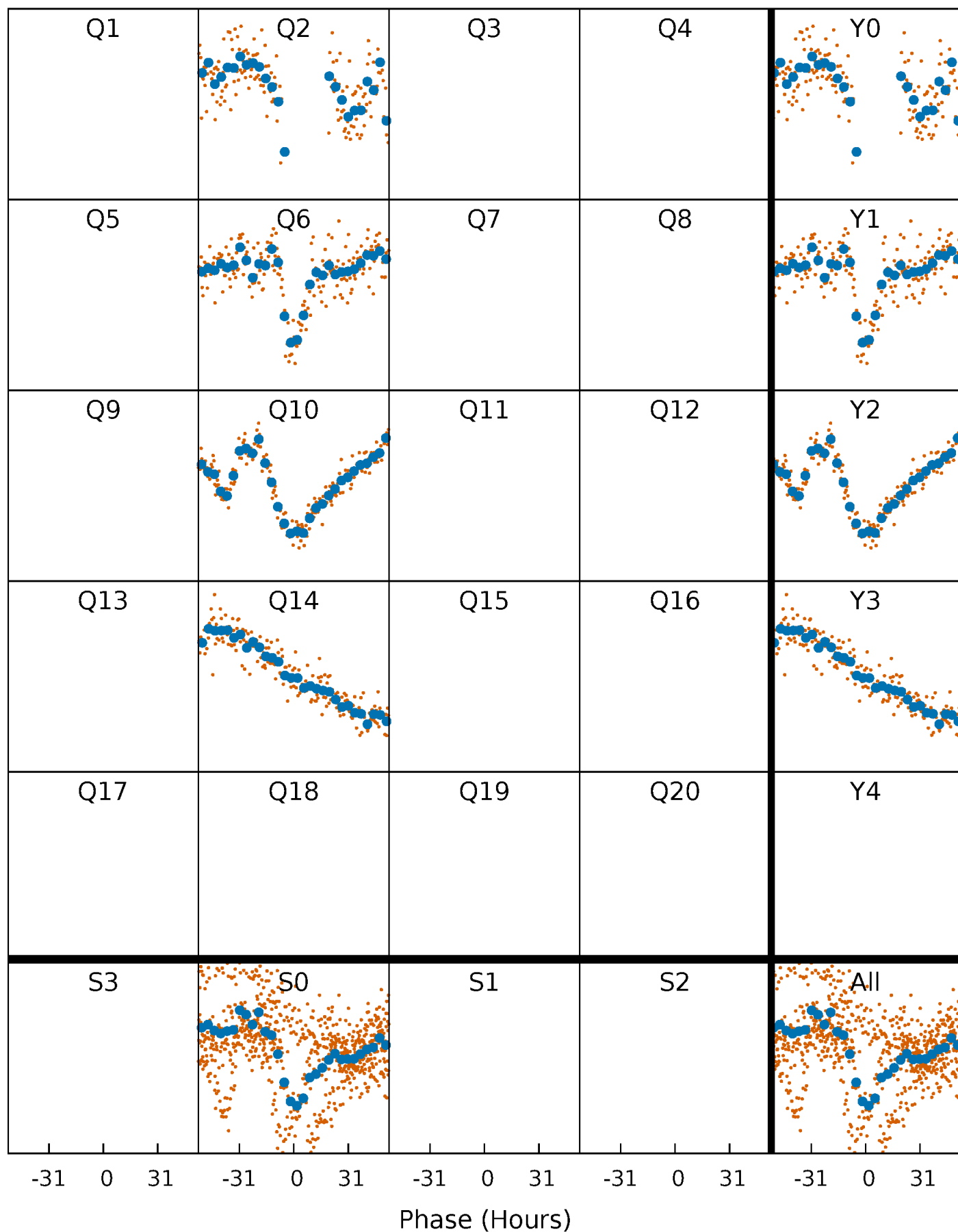


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



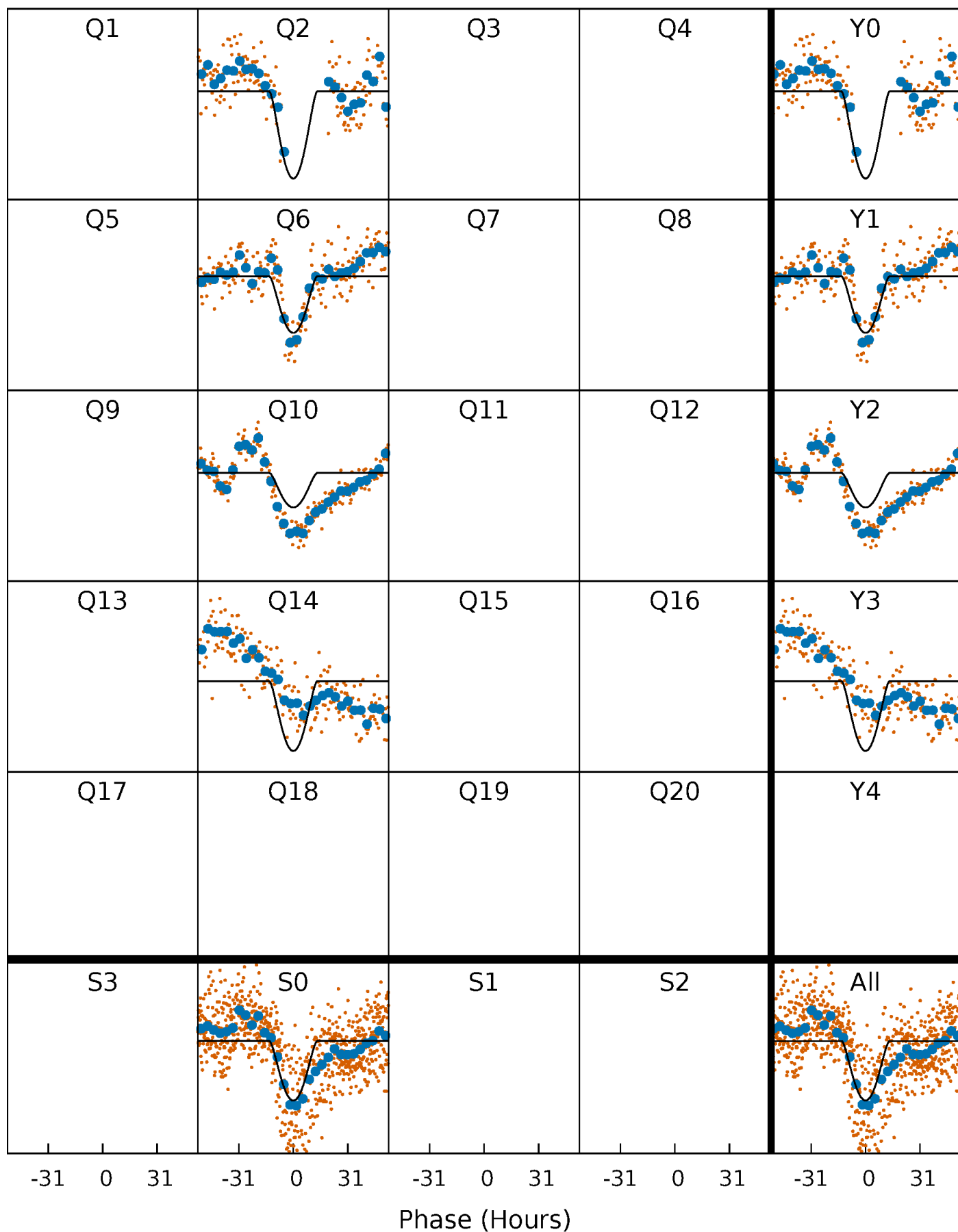
PDC Quarter-Phased Transit Curves

TCE 007969842-01 P=371.263936 Days $T_0=230.559992$ (BKJD)



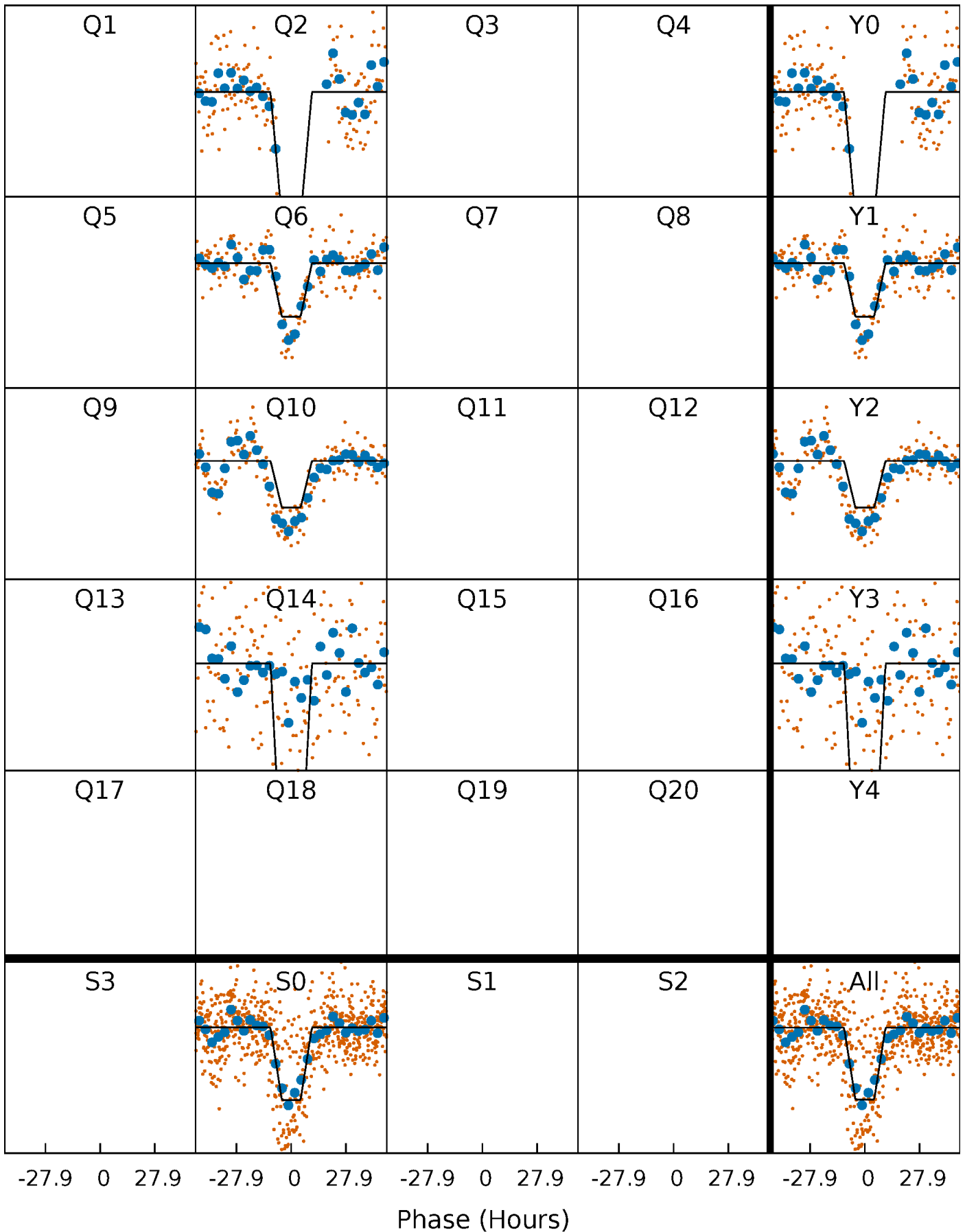
DV Quarter-Phased Transit Curves

TCE 007969842-01 P=371.263936 Days $T_0=230.559992$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

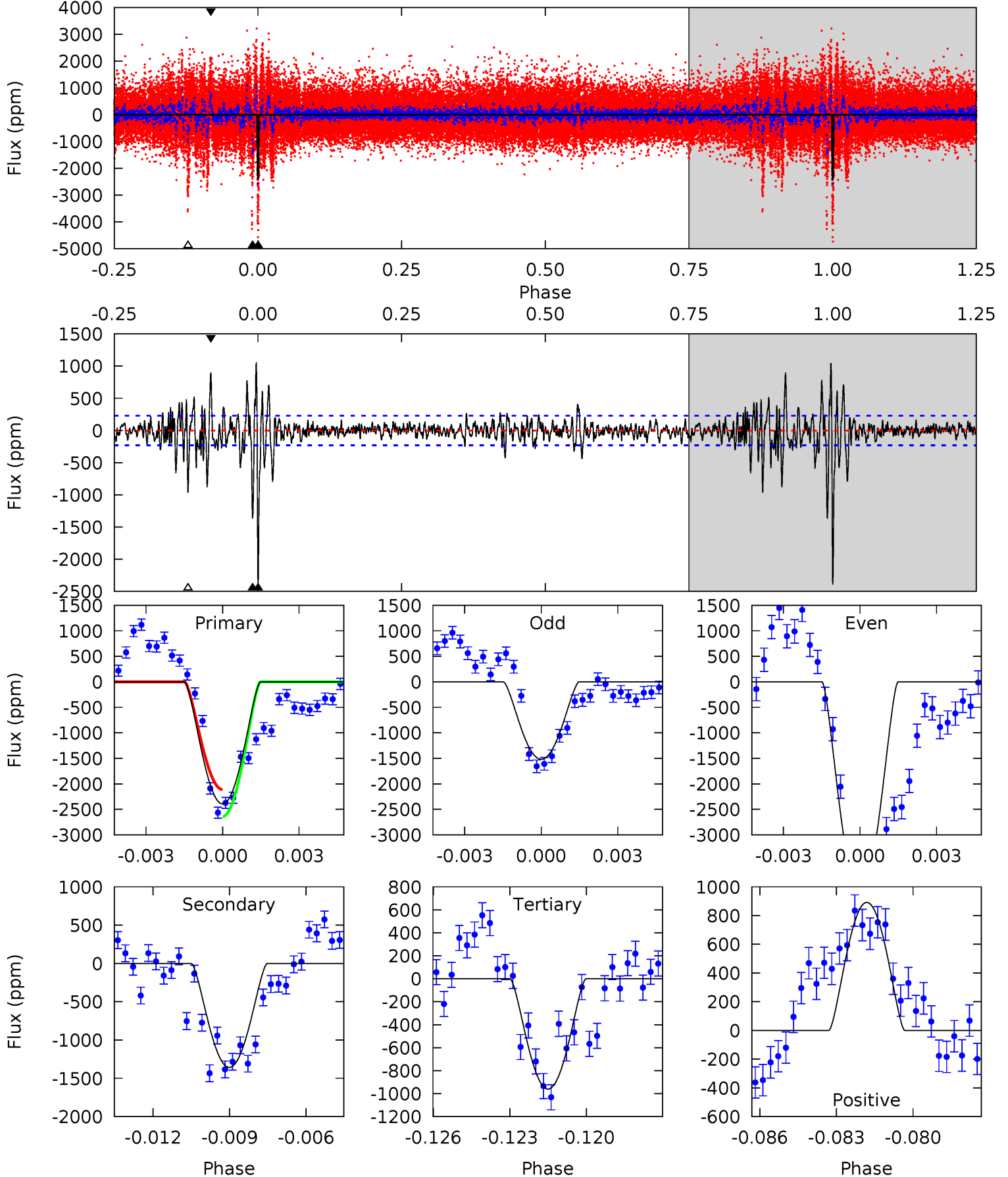
TCE 007969842-01 P=371.236918 Days $T_0=230.597560$ (BKJD)



DV Model-Shift Uniqueness Test

007969842-01, $P = 371.263936$ Days, $E = 230.559992$ Days

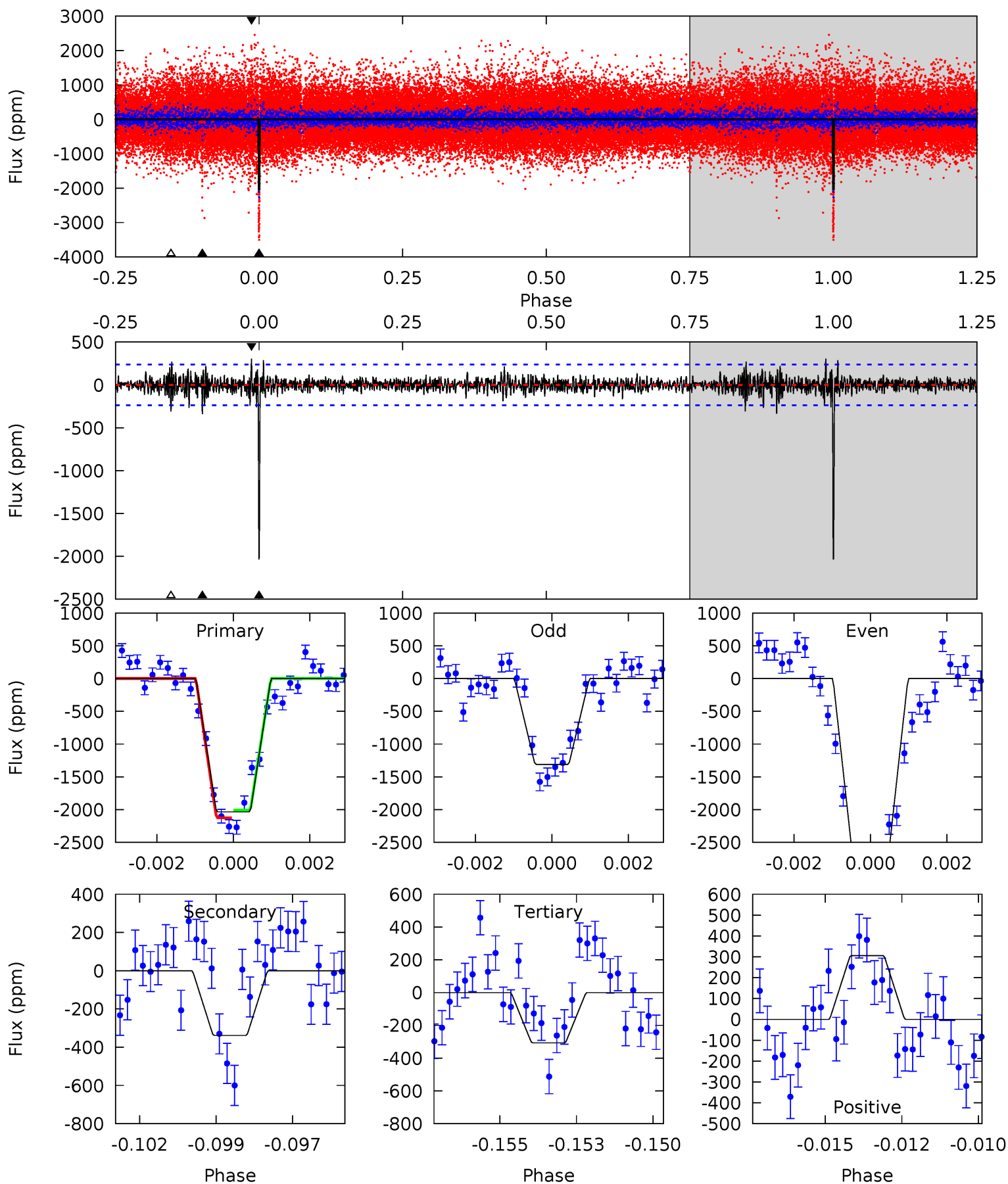
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
54.6	31.0	21.9	20.4	5.25	2.96	3.88	32.7	34.3	9.07	10.6	30.1	1.26	0.30	5.95



Alt Model-Shift Uniqueness Test

007969842-01, P = 371.236918 Days, E = 230.597560 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.3	7.54	6.84	6.81	5.29	3.03	1.27	38.5	38.5	0.69	0.72	16.9	0.83	0.13	1.28



Stellar Parameters For KIC 007969842

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6240^{+196}_{-239}	$4.426^{+0.056}_{-0.210}$	$-0.020^{+0.250}_{-0.300}$	$1.079^{+0.346}_{-0.123}$	$1.135^{+0.152}_{-0.152}$	$1.271^{+0.381}_{-0.695}$
	+3%/-4%	+1%/-5%	+1250%/-1500%	+32%/-11%	+13%/-13%	+30%/-55%
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 007969842-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1358 ± 44	$14.99^{+14.61}_{-9.33}$	398^{+29}_{-20}	3832^{+1825}_{-717}	3707^{+21806}_{-2768}
Alt.	-339 ± 45	$12.81^{+13.17}_{-9.01}$	397^{+31}_{-22}	3190^{+1699}_{-543}	1194^{+13618}_{-893}

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 $A_{obs} \gg 1.0$

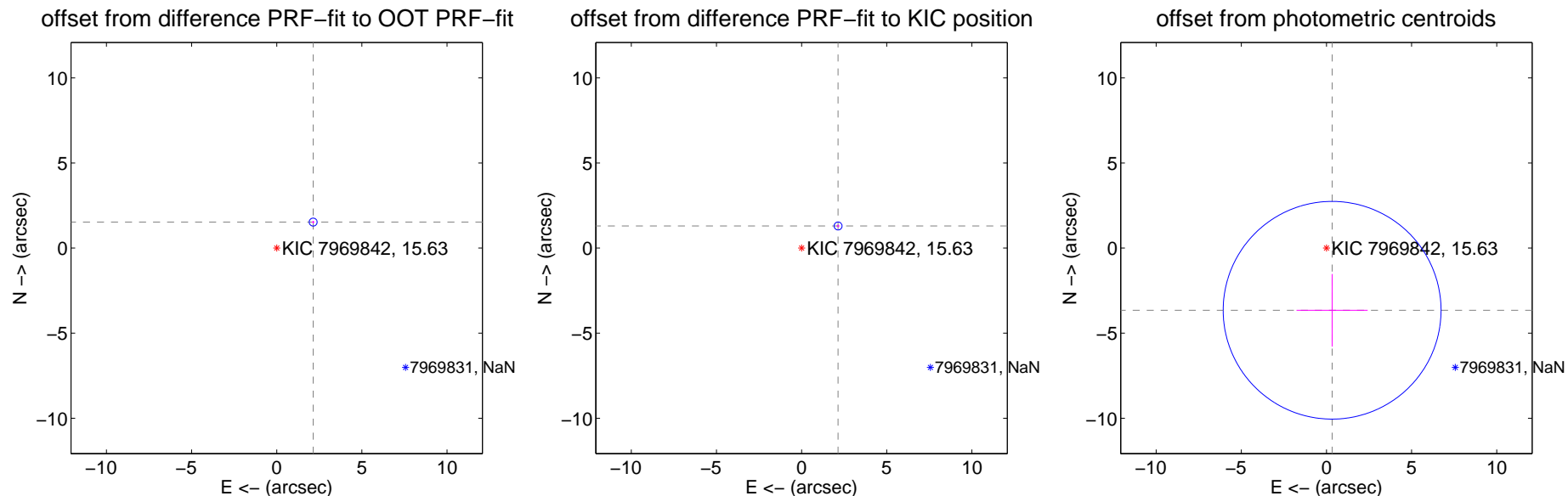
DV Centroid Data

Supplemental centroid analysis for 007969842-01. Kepler magnitude: 15.63. Transit SNR 12.42

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.628 ± 0.078	33.77	-2.139 ± 0.078	1.527 ± 0.077
PRF-fit source offset from KIC position	2.506 ± 0.078	32.14	-2.143 ± 0.078	1.298 ± 0.077
photometric centroid source offset	3.67 ± 2.13	1.72	-0.33 ± 2.09	-3.65 ± 2.13



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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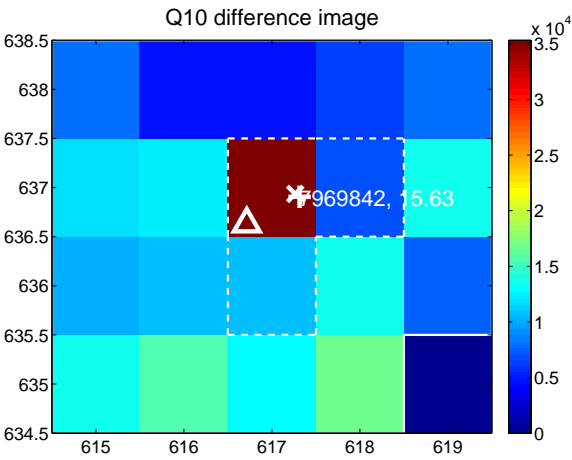
Q9 no difference image



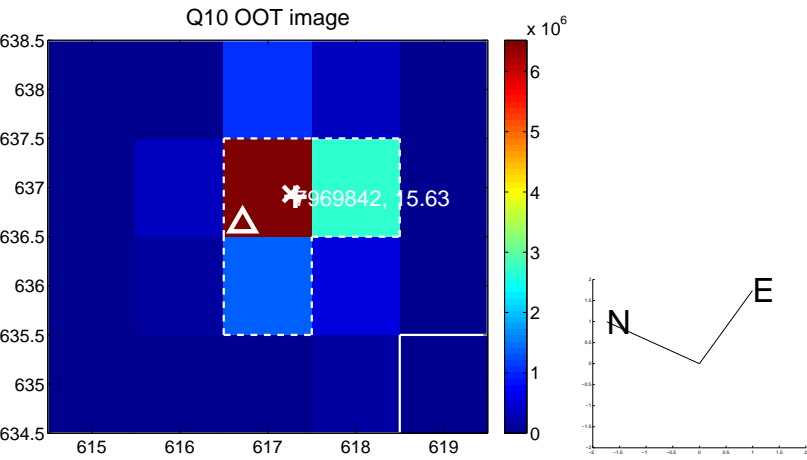
Q9 no OOT image



Q10 difference image



Q10 OOT image



Q11 no difference image



Q11 no OOT image



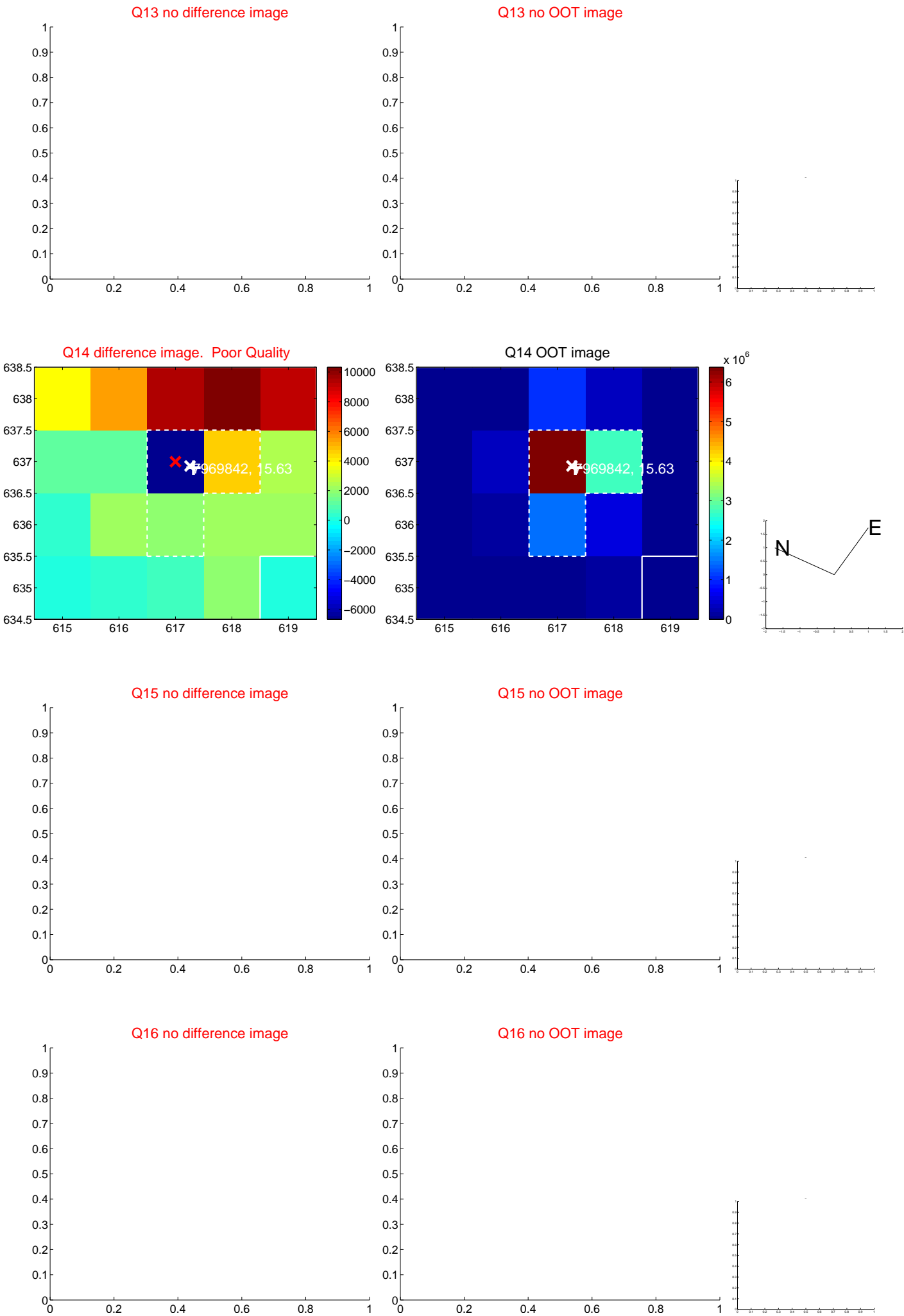
Q12 no difference image



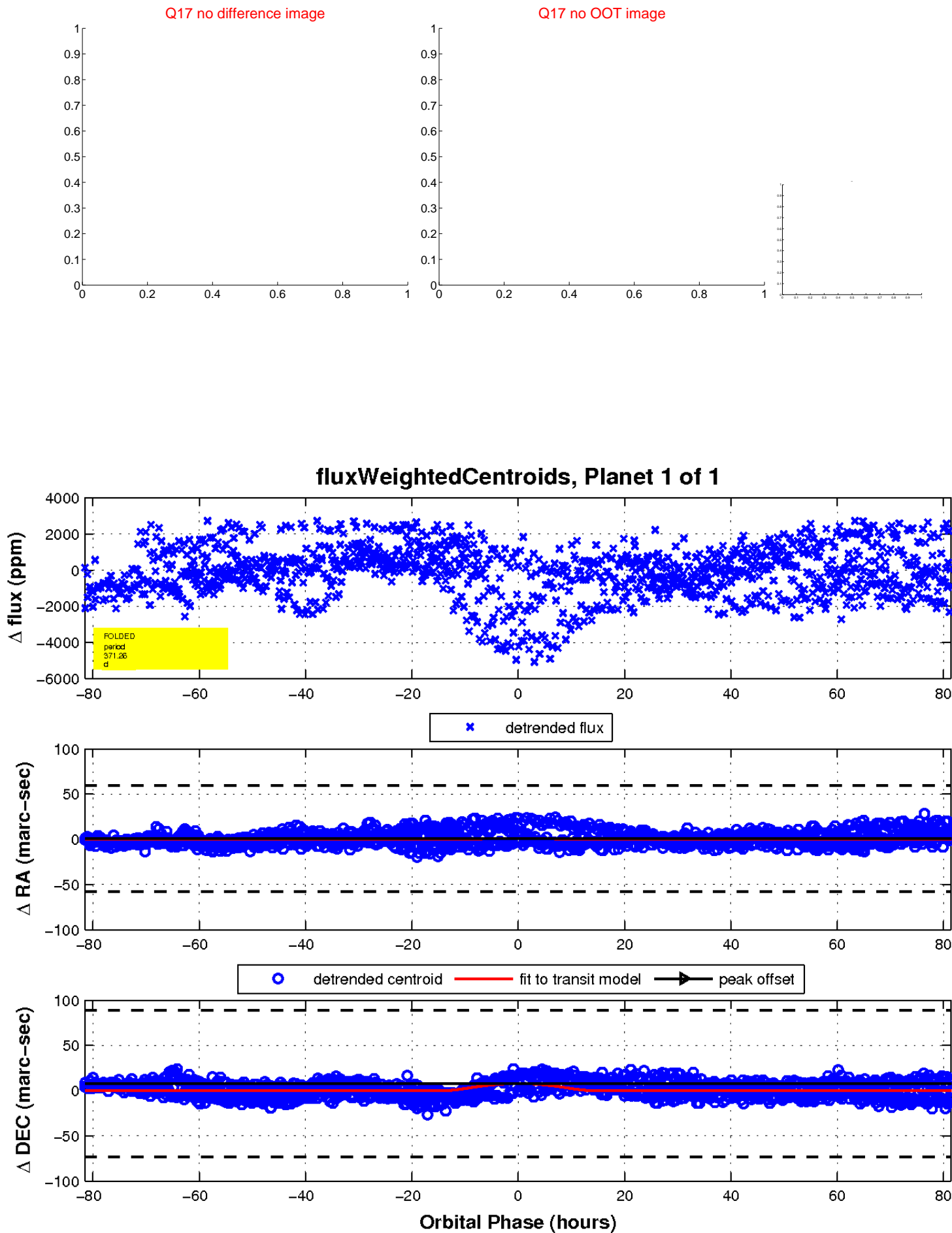
Q12 no OOT image



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.



UKIRT Image

Declination

