

KIC 011253627

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})
011253627-01	OBS	No	474.019833	136.363459	539.8	7.026	7.2	7.5	2.55	5188	6.16	2.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011253627-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—MOD_NONUNIQ_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.

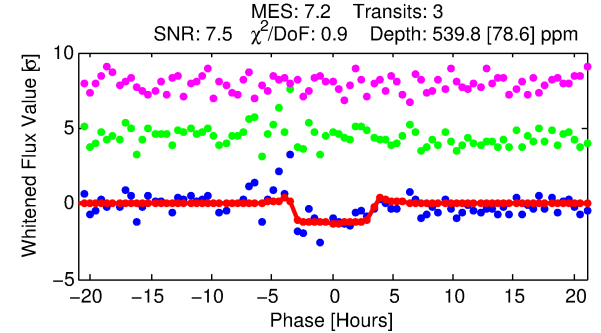
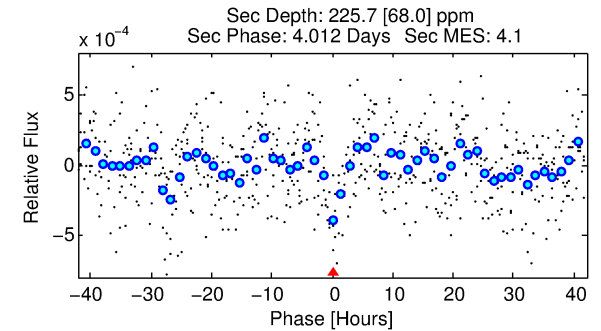
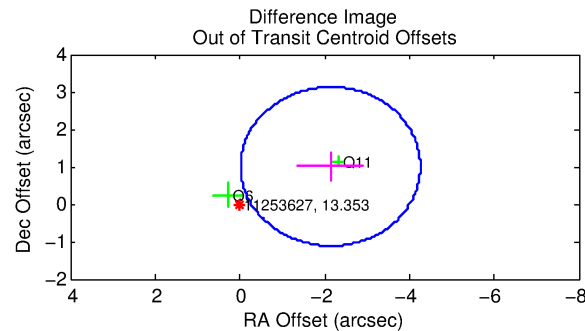
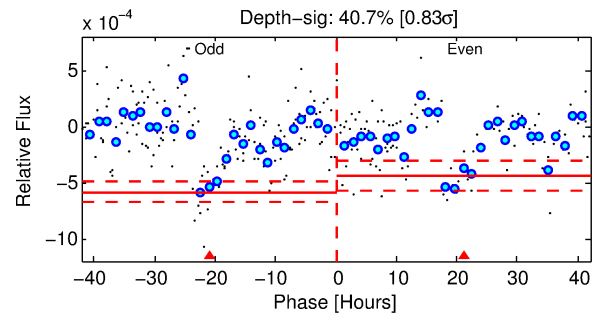
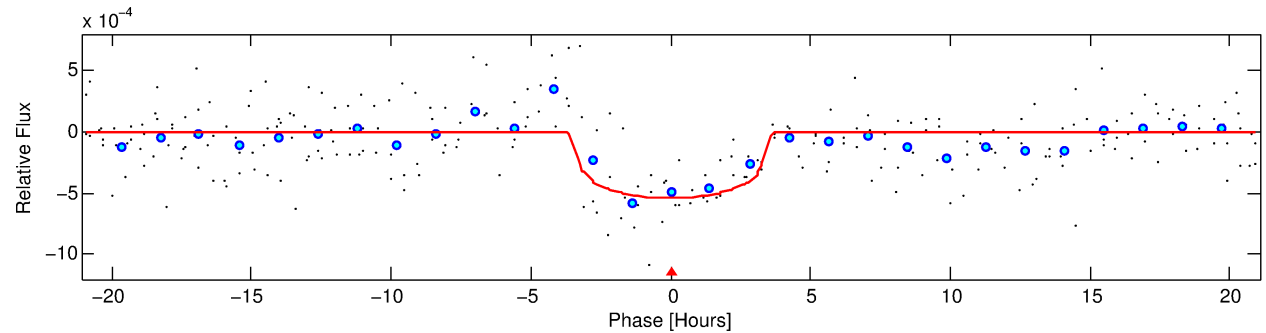
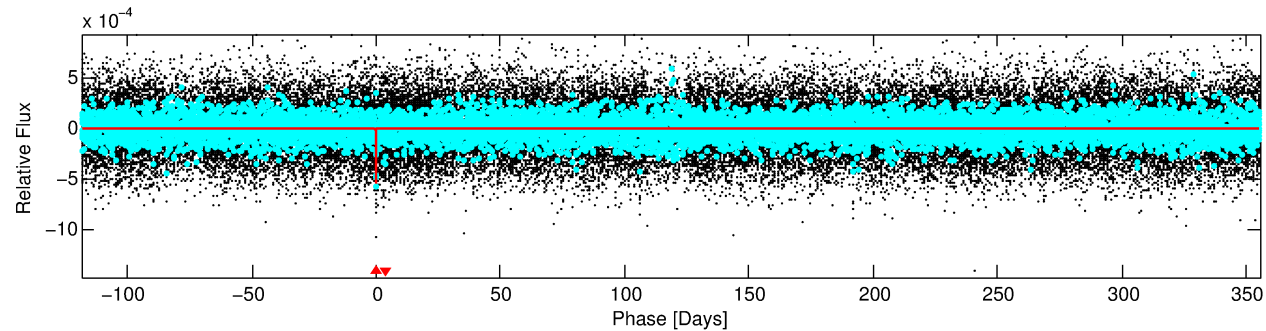
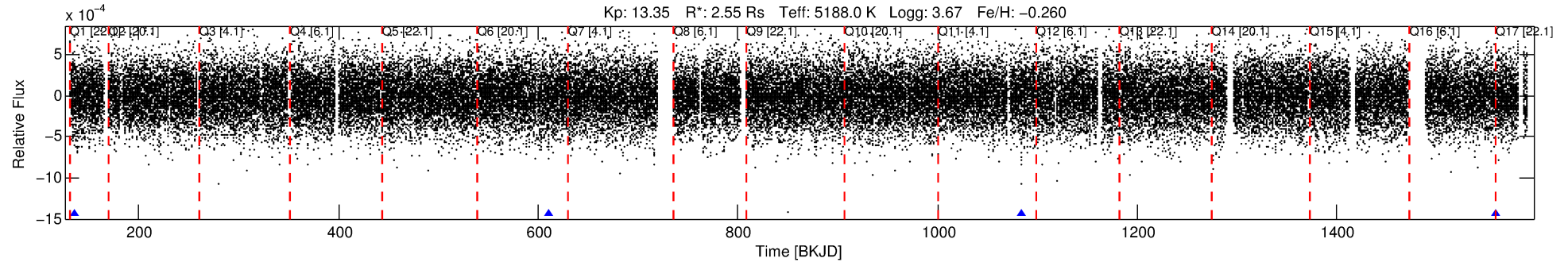
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011253627-01

No Significant Match Found

DV One-Page Summary

KIC: 11253627 Candidate: 1 of 1 Period: 474.020 d



DV Fit Results:

Period = 474.01983 [0.00747] d
Epoch = 136.3635 [0.0101] BKJD
Rp/R* = 0.0221 [0.0143]
a/R* = 420.49 [1023.69]
b = 0.62 [2.47]
Seff = 2.80 [3.99]
Teq = 330 [118] K
Rp = 6.15 [5.73] Re
a = 1.2266 [0.9922] AU
Ag = 4931.81 [9572.41] [0.52 σ]
Teffp = 4274 [1420] K [2.77 σ]

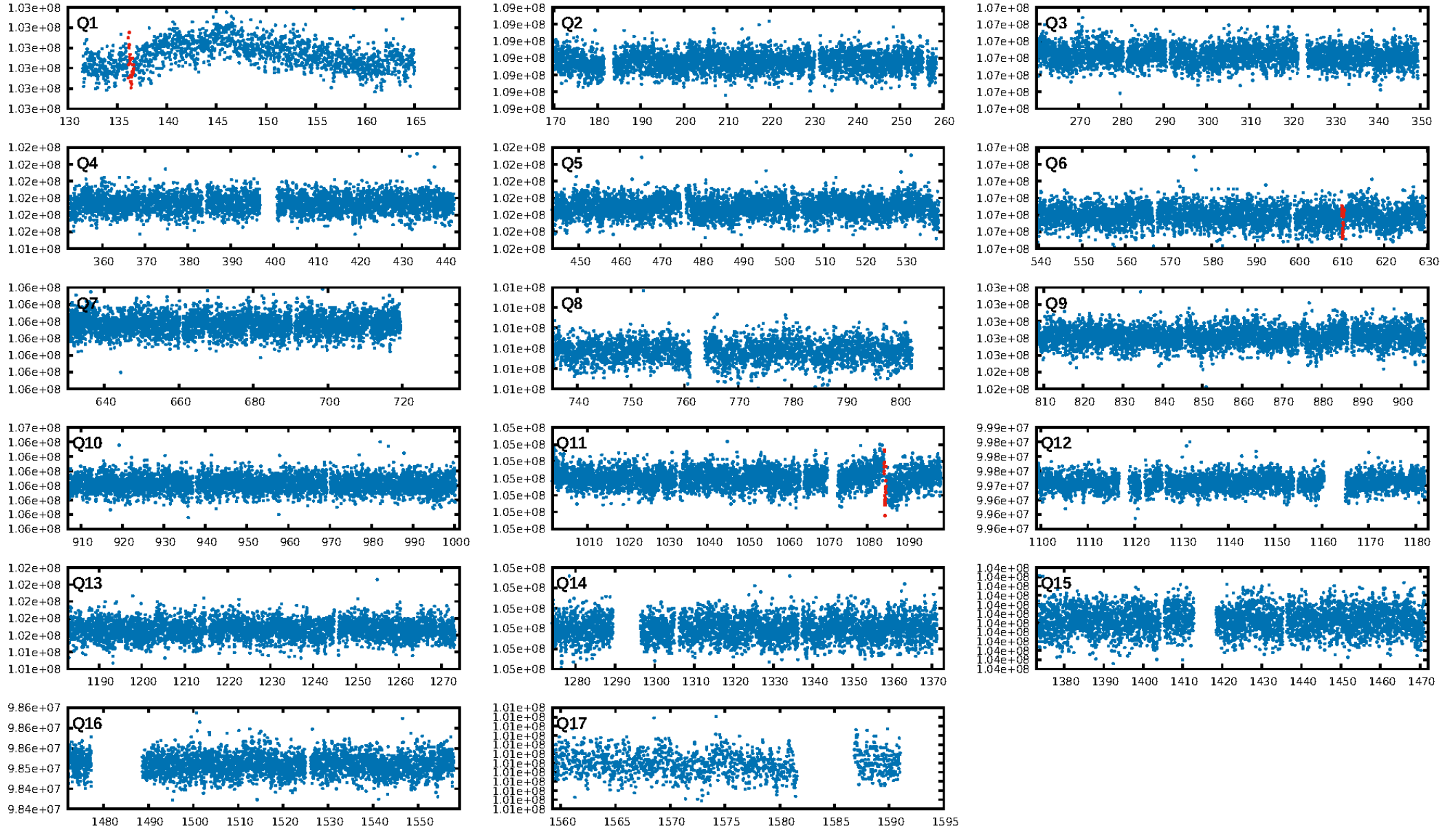
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 8.01e-14
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -38.86
Centroid-sig: 65.7%
Centroid-so: 0.656 arcsec [0.75 σ]
OotOffset-rm: 2.361 arcsec [3.34 σ]
KicOffset-rm: 2.400 arcsec [3.03 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

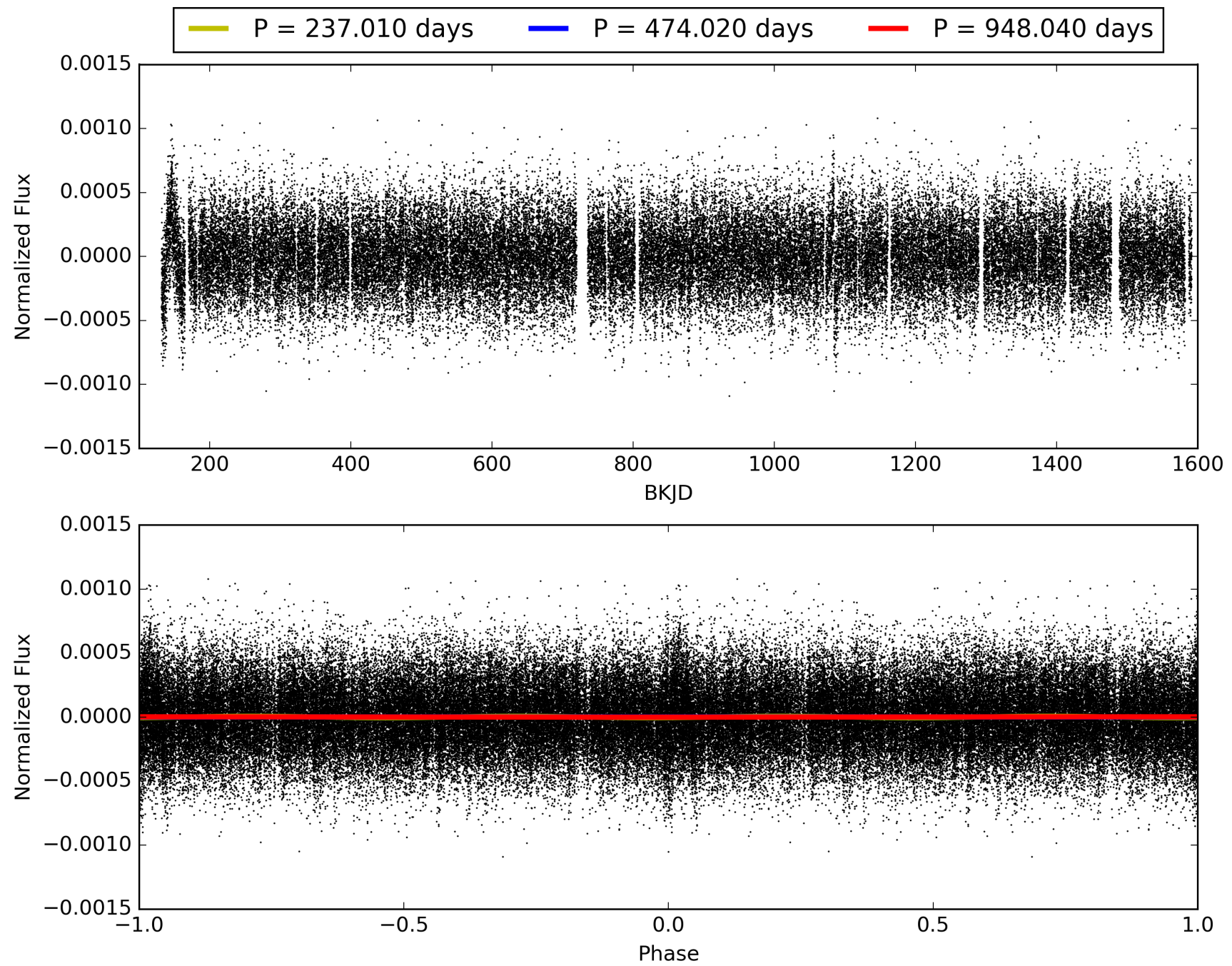
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:06:53 Z

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

TCE 011253627-01, PDC Light Curves

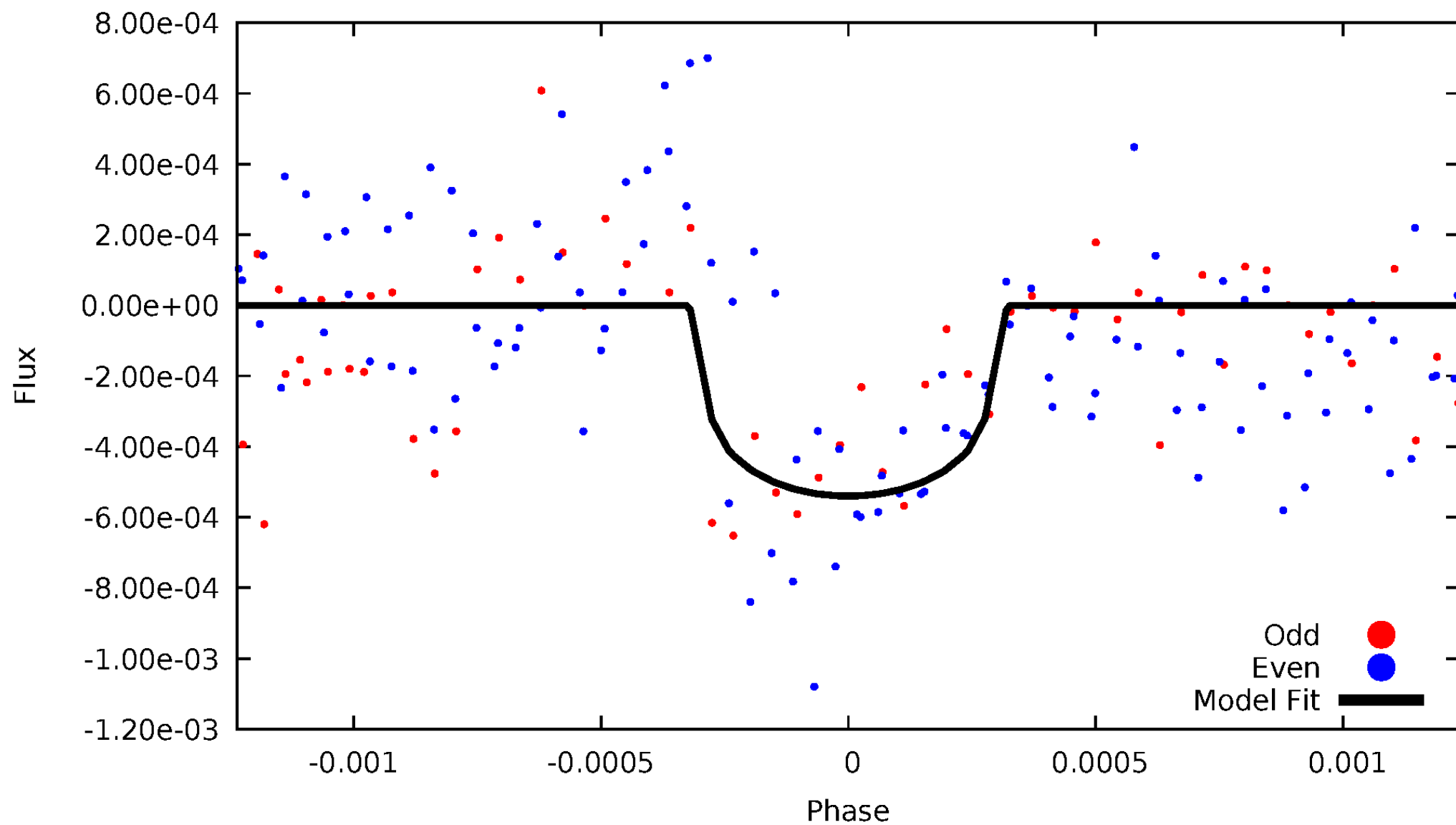


TCE 011253627-01



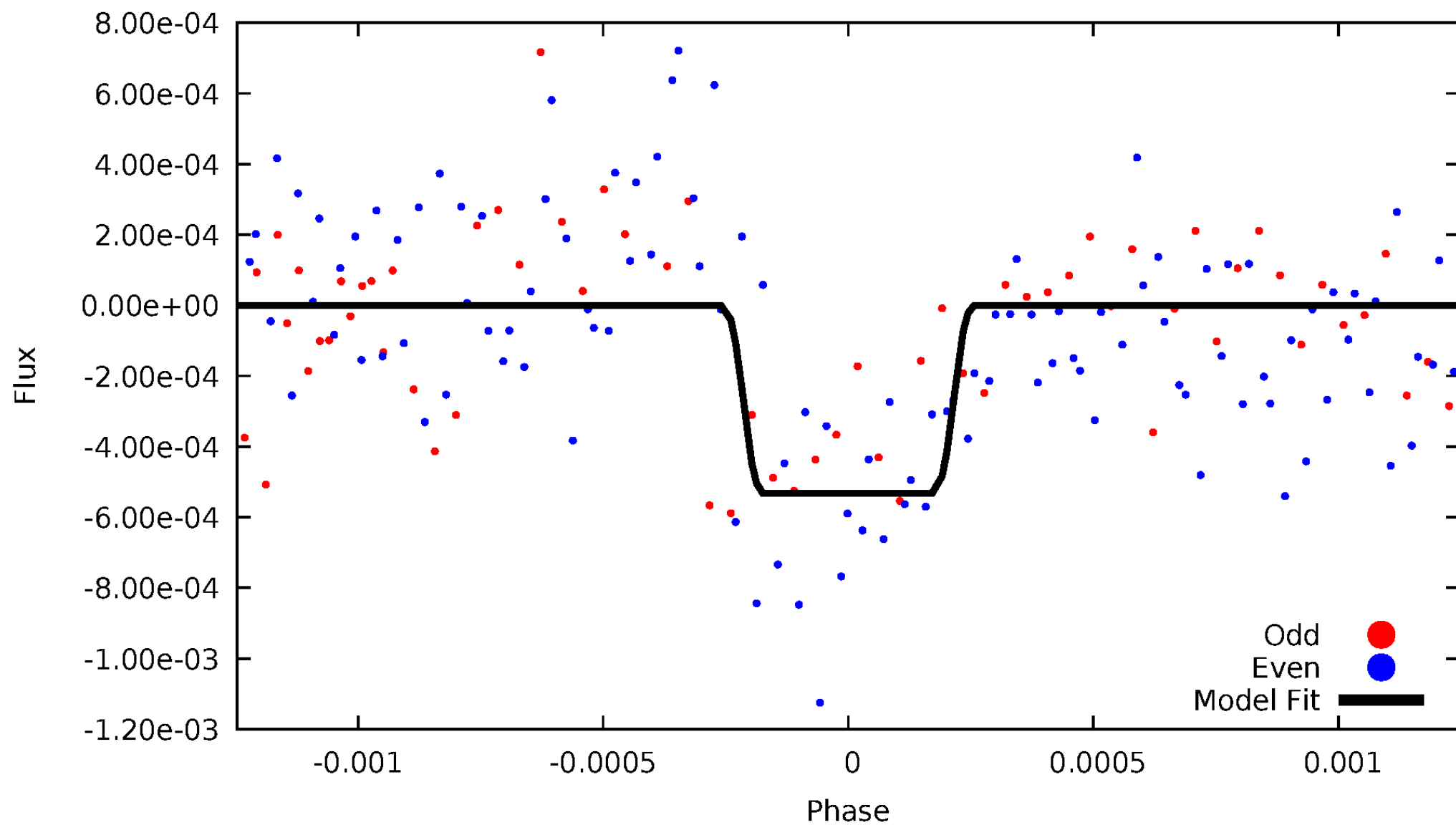
DV Odd/Even

TCE 011253627-01



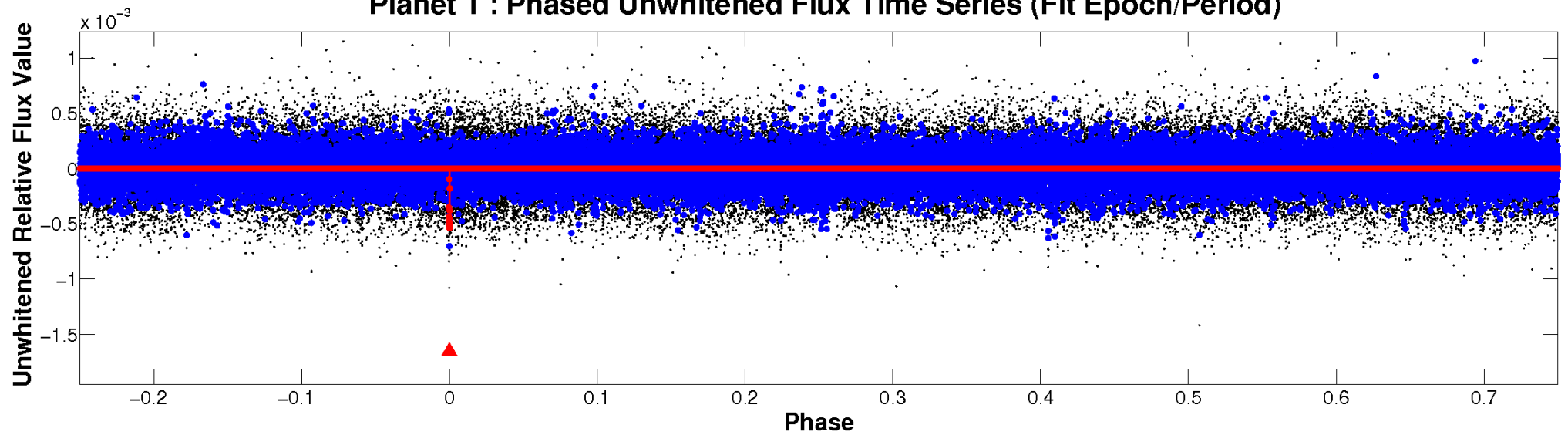
ALT Odd/Even

TCE 011253627-01

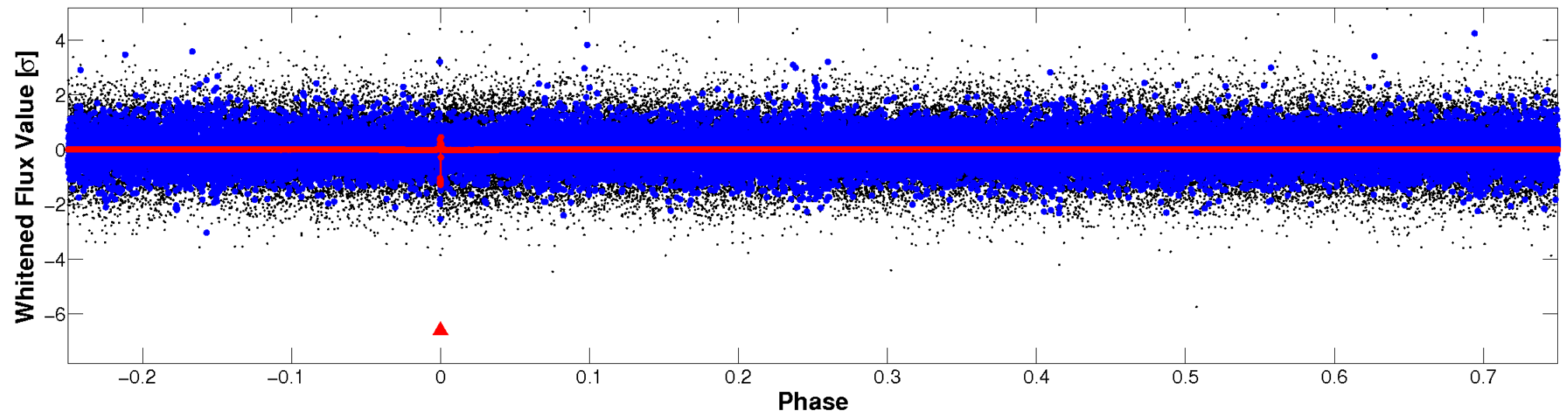


Non-Whitened Vs. Whitened Light Curve

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

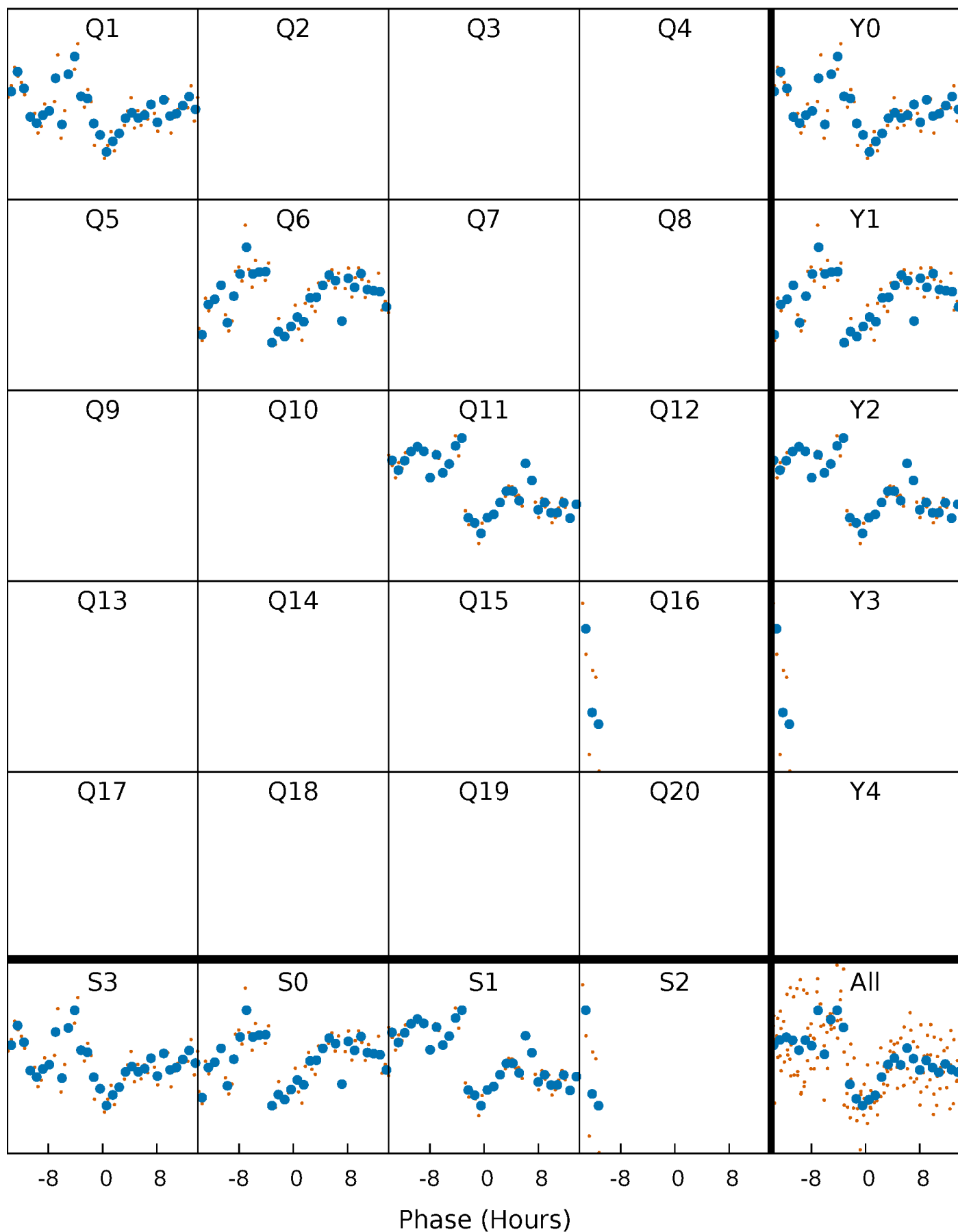


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



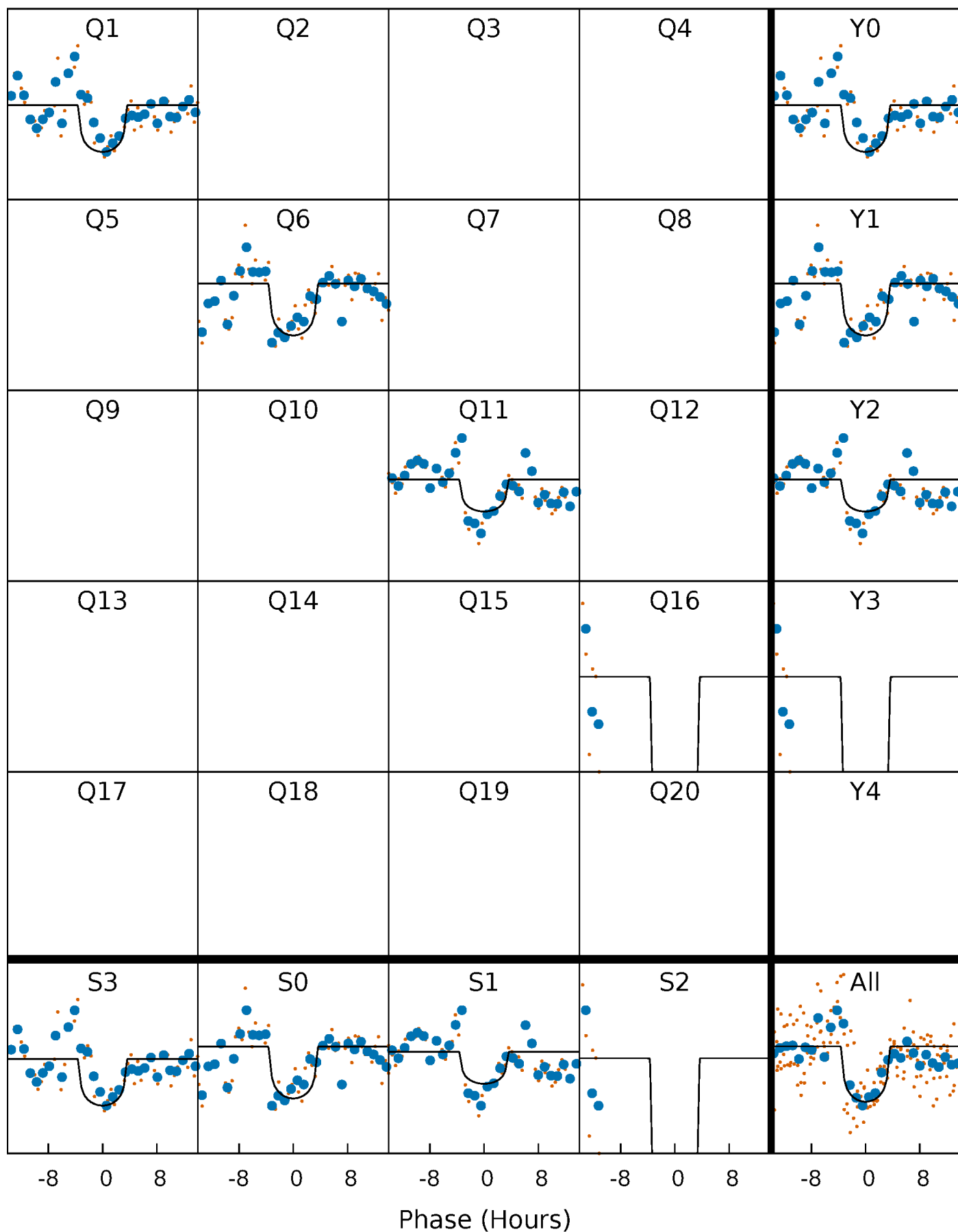
PDC Quarter-Phased Transit Curves

TCE 011253627-01 $P=474.019833$ Days $T_0=136.363459$ (BKJD)



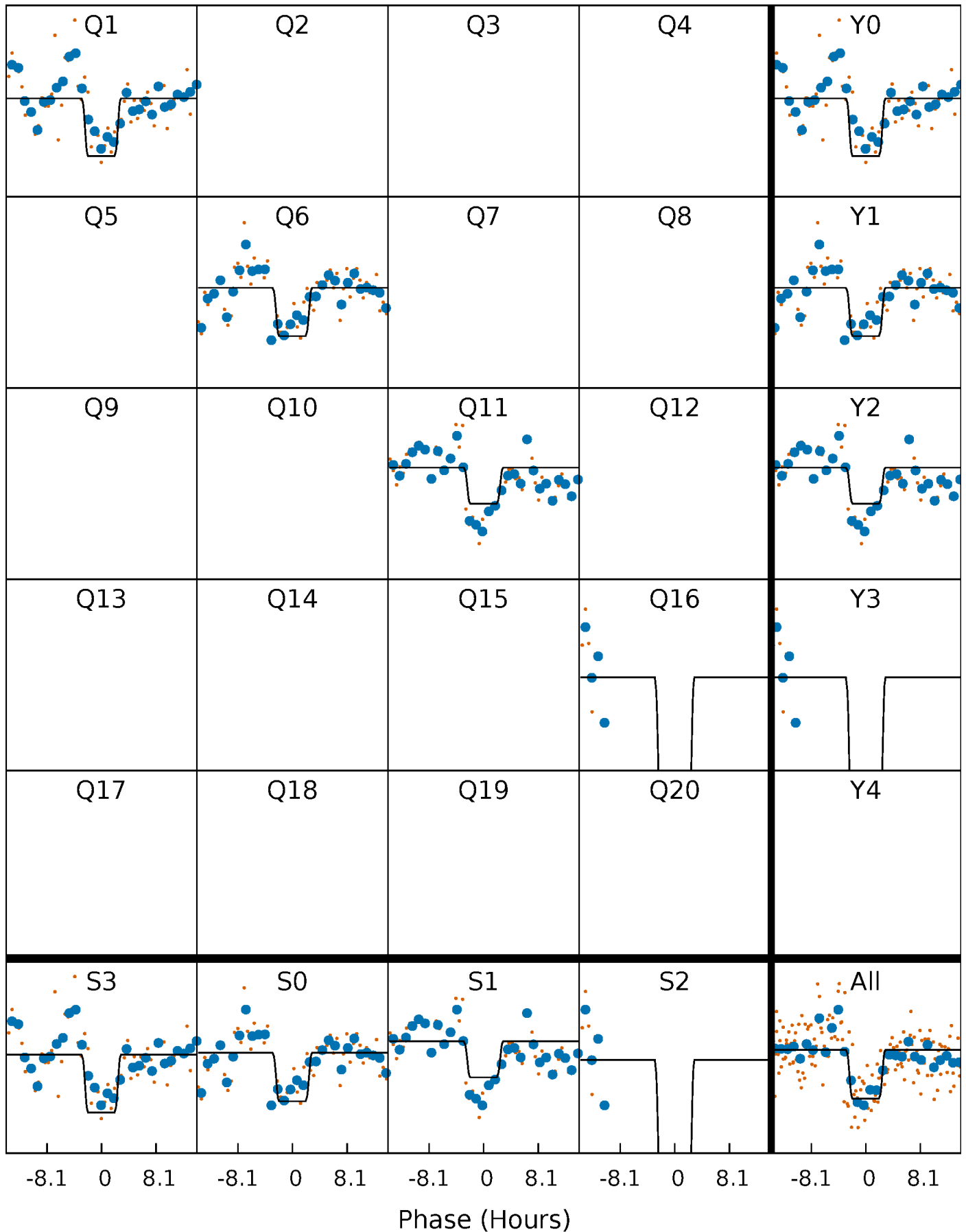
DV Quarter-Phased Transit Curves

TCE 011253627-01 P=474.019833 Days $T_0=136.363459$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

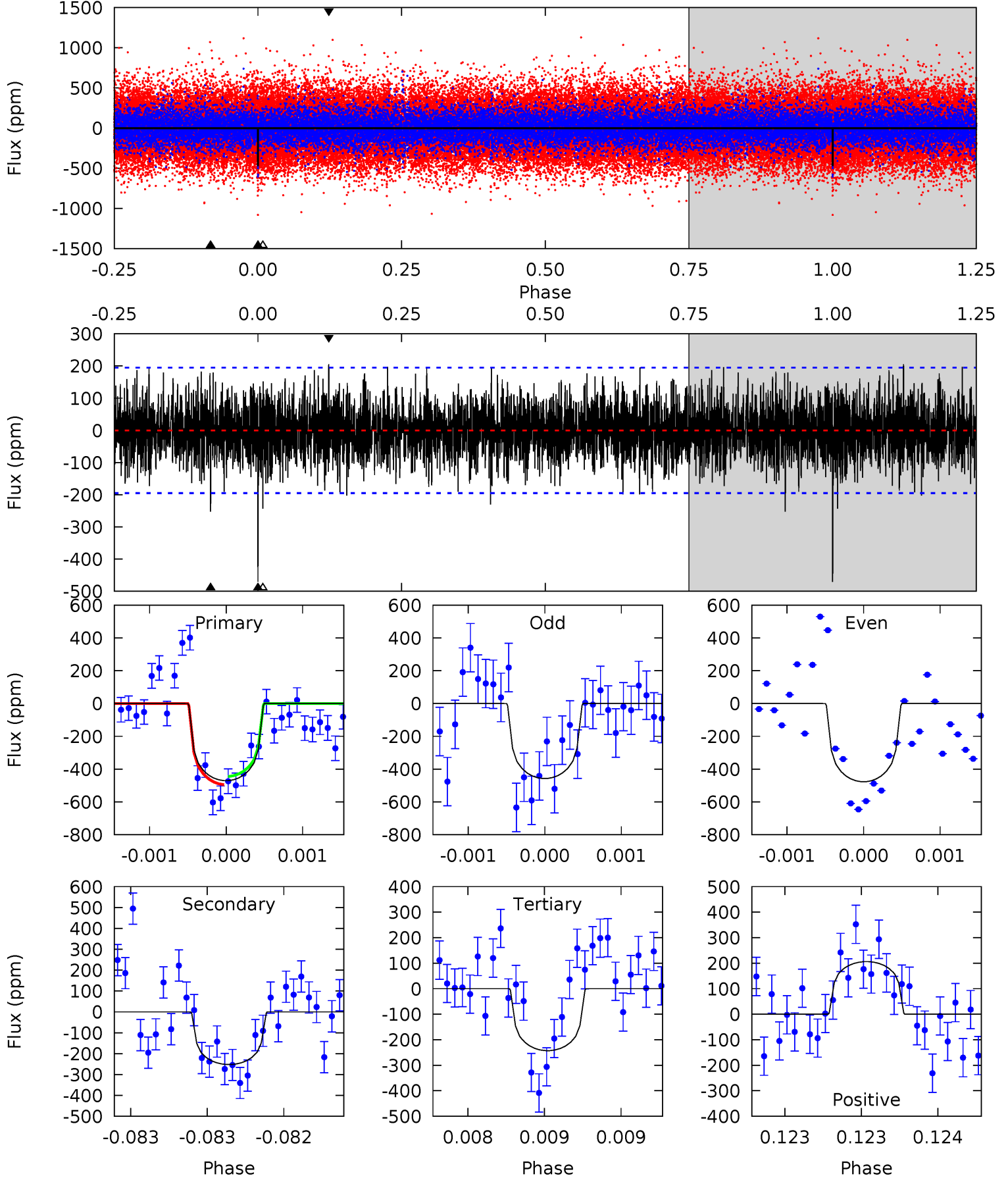
TCE 011253627-01 P=474.010914 Days $T_0=136.375943$ (BKJD)



DV Model-Shift Uniqueness Test

011253627-01, P = 474.019833 Days, E = 136.363459 Days

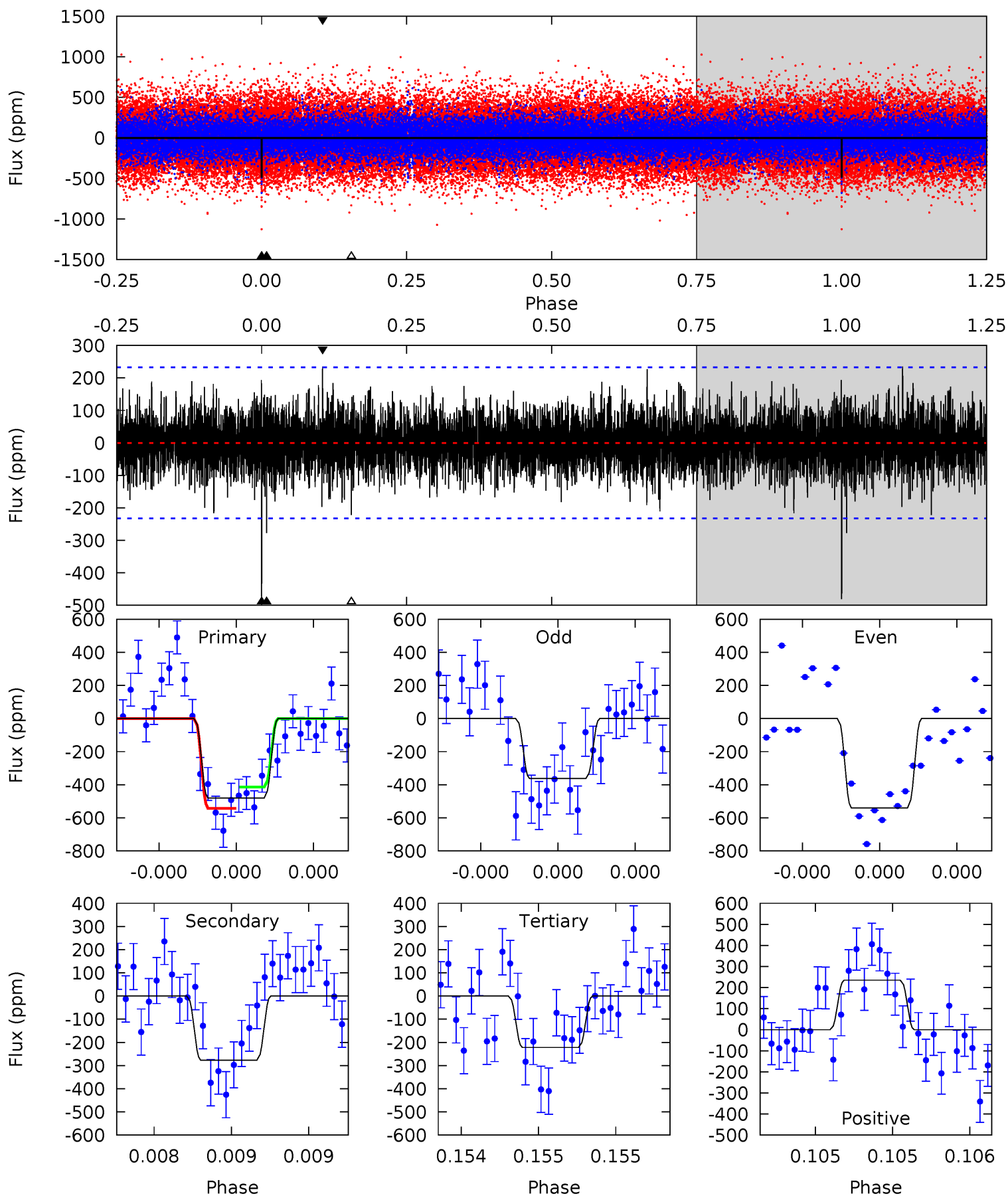
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	7.14	6.88	5.84	5.53	3.41	1.76	6.45	7.48	0.27	1.30	0.26	1.03	0.30	0.71



Alt Model-Shift Uniqueness Test

011253627-01, P = 474.010914 Days, E = 136.375943 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	6.65	5.33	5.65	5.58	3.49	1.42	6.21	5.89	1.32	1.00	2.02	1.32	0.33	1.54



Stellar Parameters For KIC 011253627

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5188^{+156}_{-140}	$3.665^{+0.878}_{-0.293}$	$-0.260^{+0.300}_{-0.250}$	$2.548^{+1.140}_{-1.710}$	$1.096^{+0.216}_{-0.288}$	$0.093^{+2.288}_{-0.065}$
	+3%/-3%	+24%/-8%	+115%/-96%	+45%/-67%	+20%/-26%	+2453%/-70%
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 011253627-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-252 ± 35	$5.67^{+4.73}_{-3.23}$	455^{+60}_{-94}	4396^{+1591}_{-638}	6450^{+26991}_{-4527}
Alt.	-277 ± 42	$5.78^{+5.06}_{-3.51}$	455^{+63}_{-92}	4484^{+1992}_{-721}	7060^{+36376}_{-5104}

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

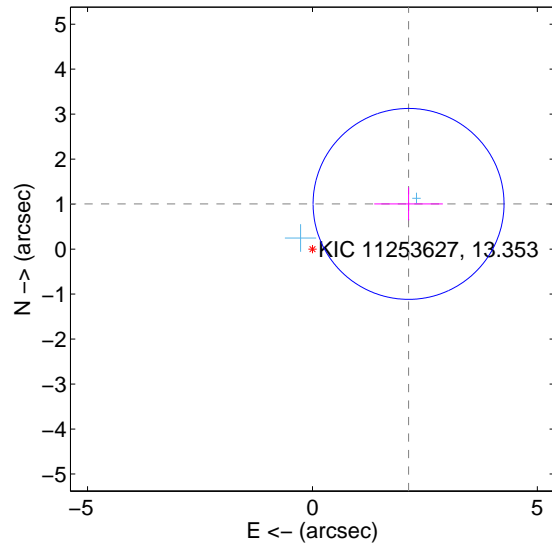
Supplemental centroid analysis for 011253627-01. Kepler magnitude: 13.35. Transit SNR 7.49

There are 2 quarters with good PRF difference image offsets

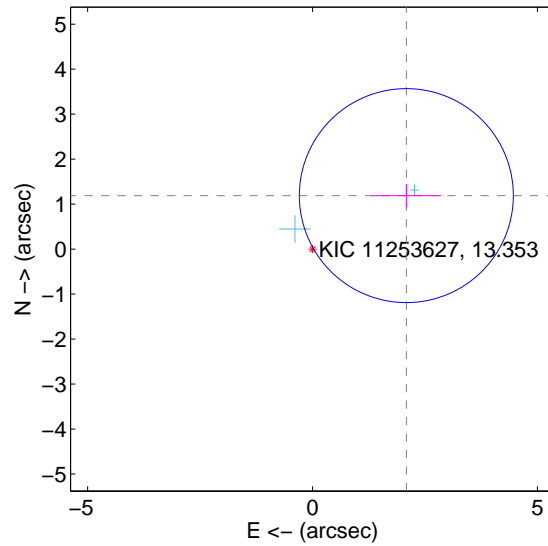
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.361 ± 0.707	3.34	-2.137 ± 0.762	1.005 ± 0.367
PRF-fit source offset from KIC position	2.400 ± 0.793	3.03	-2.085 ± 0.770	1.189 ± 0.258
photometric centroid source offset	0.66 ± 0.88	0.75	-0.09 ± 0.71	0.65 ± 0.88

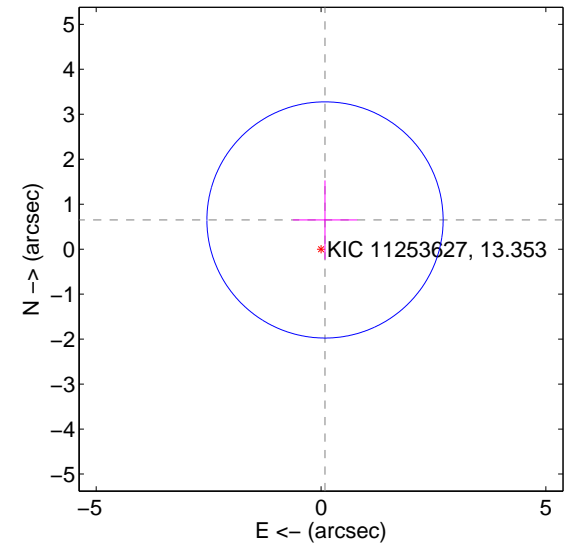
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

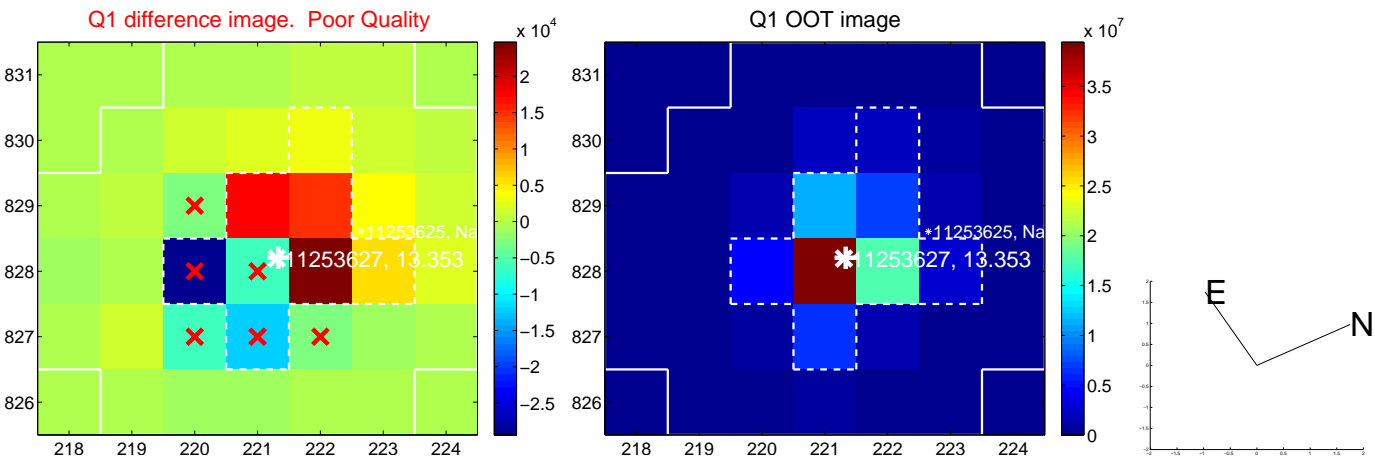


offset from photometric centroids

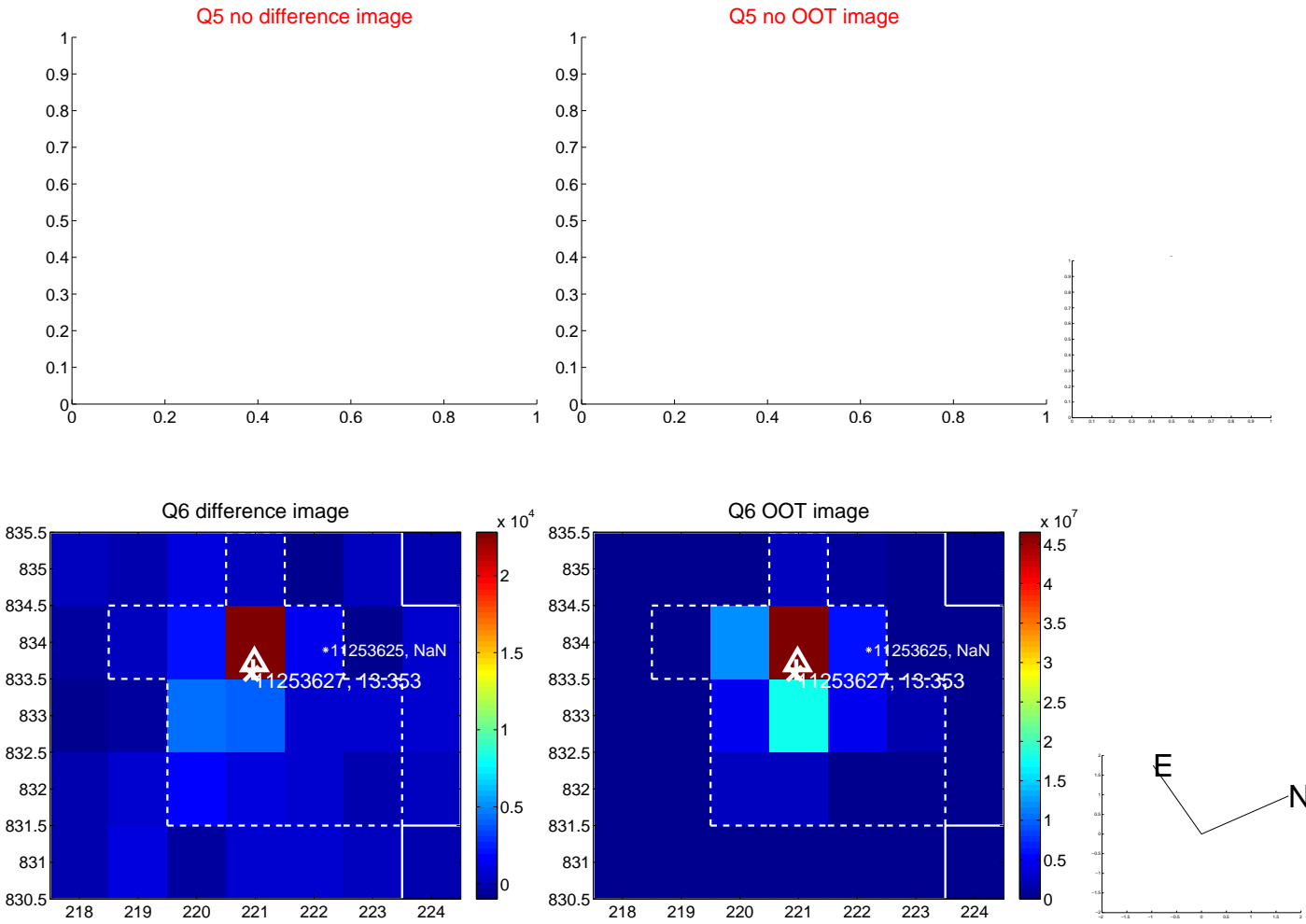


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

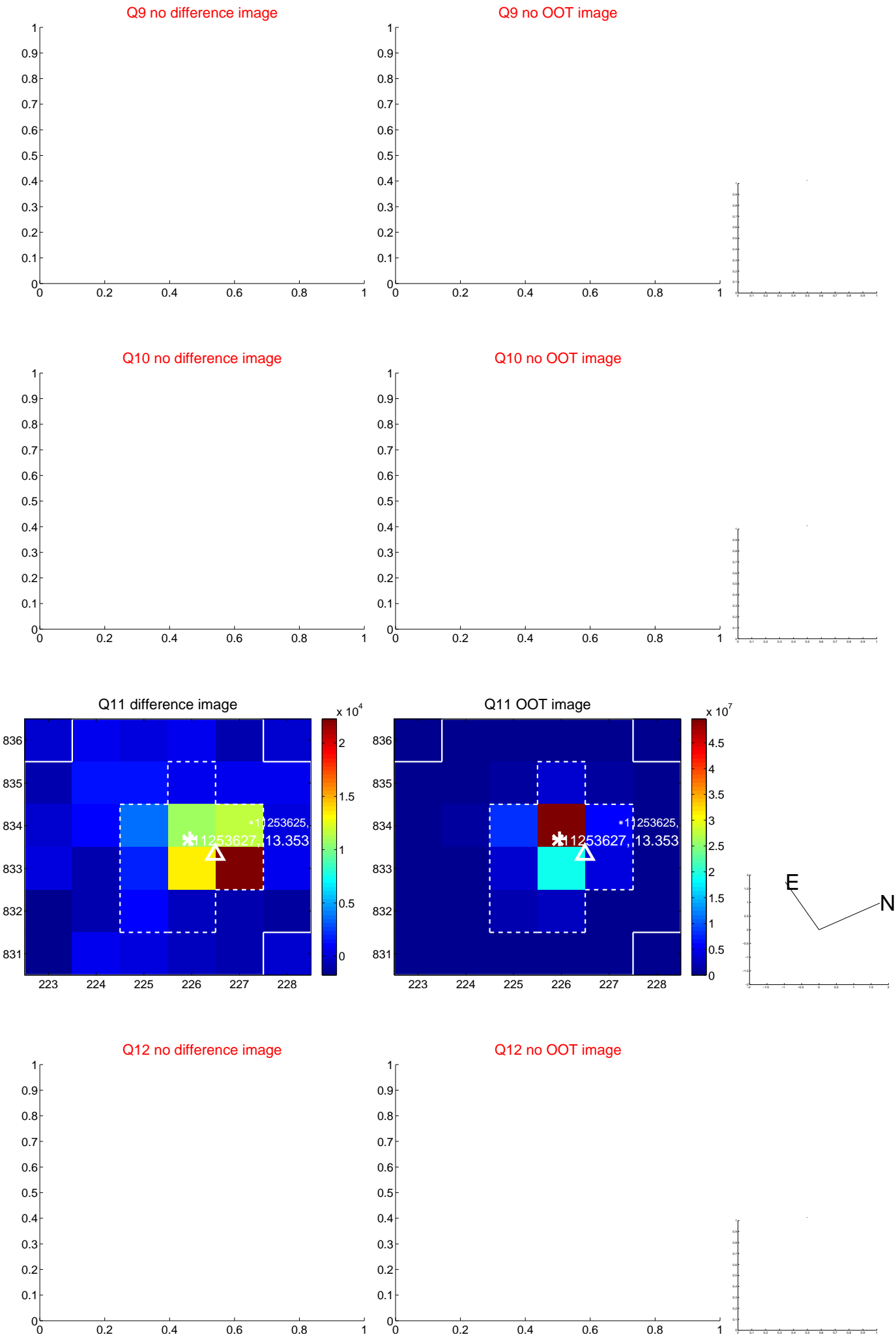
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



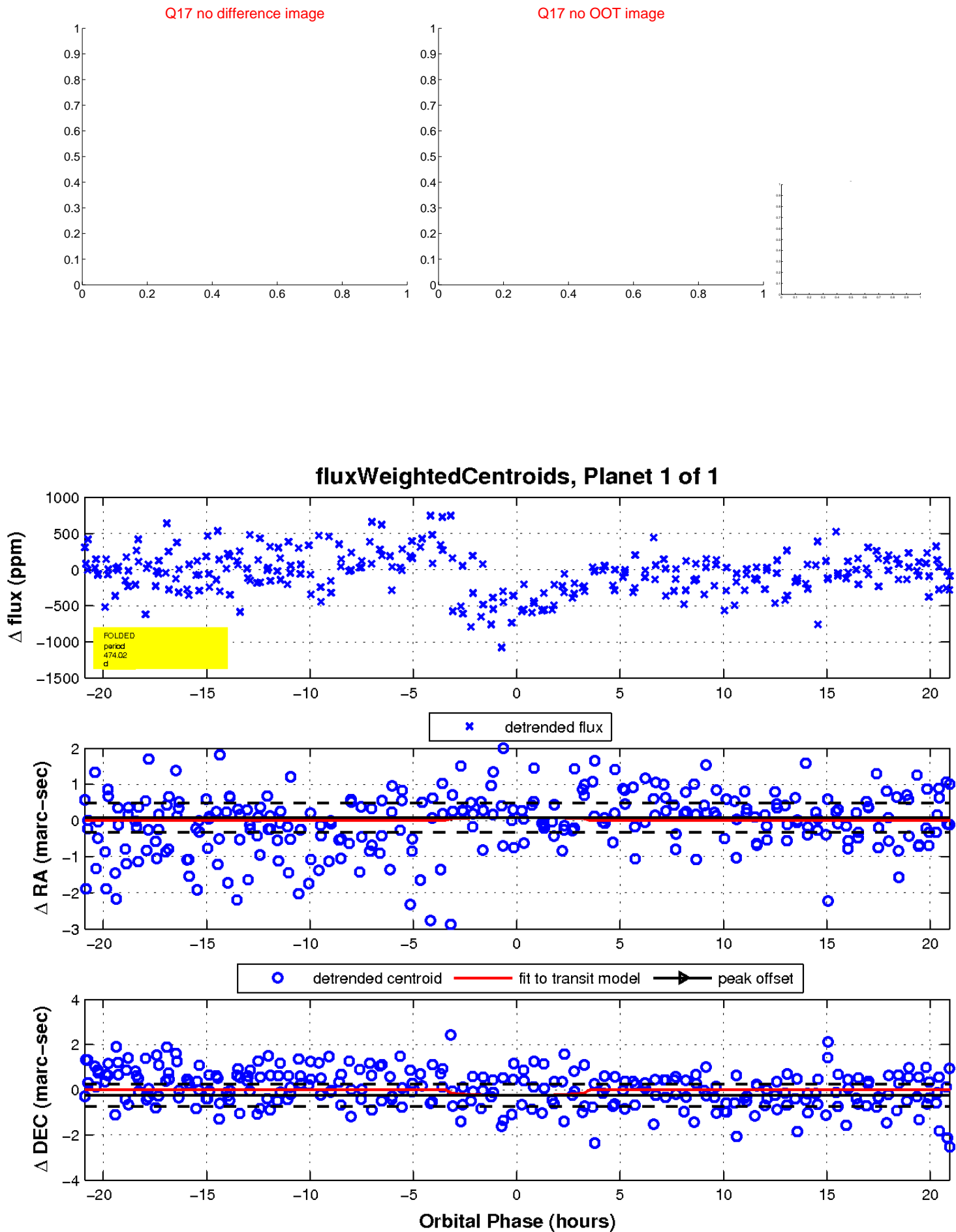
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

