

KIC 004548647

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})
004548647-01	OBS	No	370.232181	435.885487	363.1	14.562	15.2	9.9	0.62	4220	1.41	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004548647-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_SATURATED

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

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

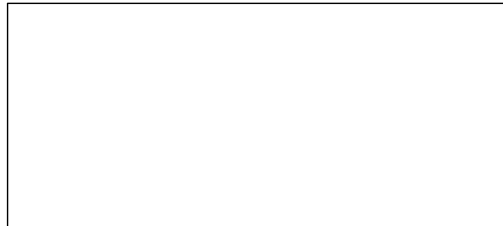
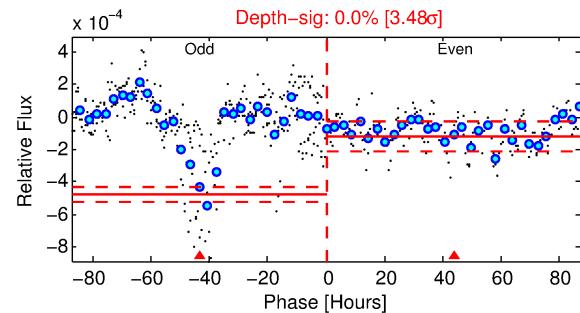
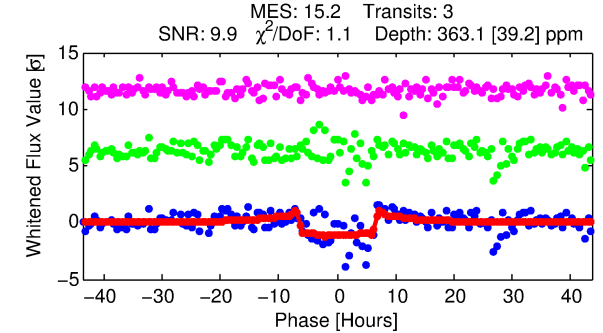
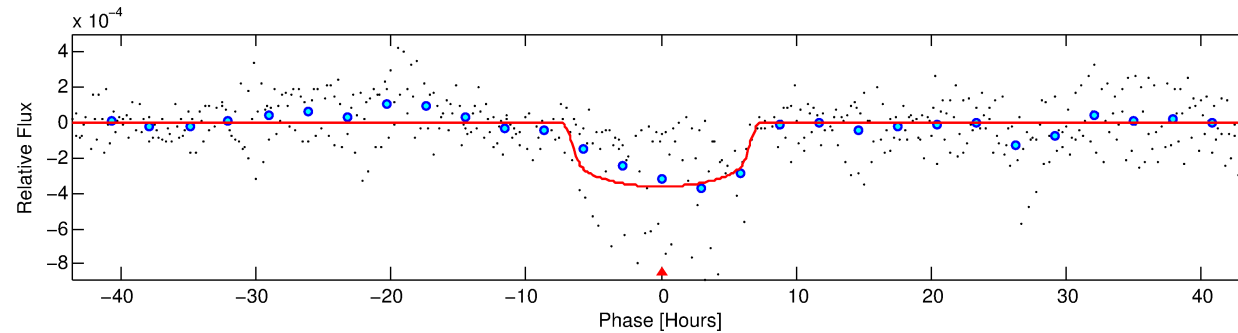
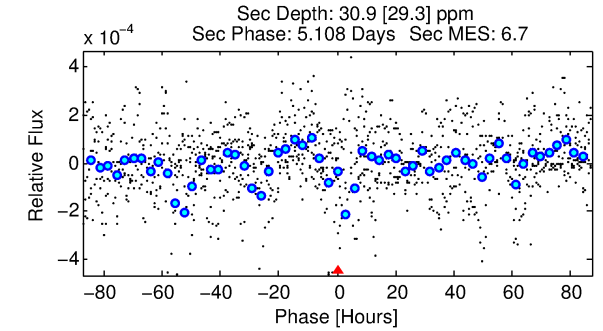
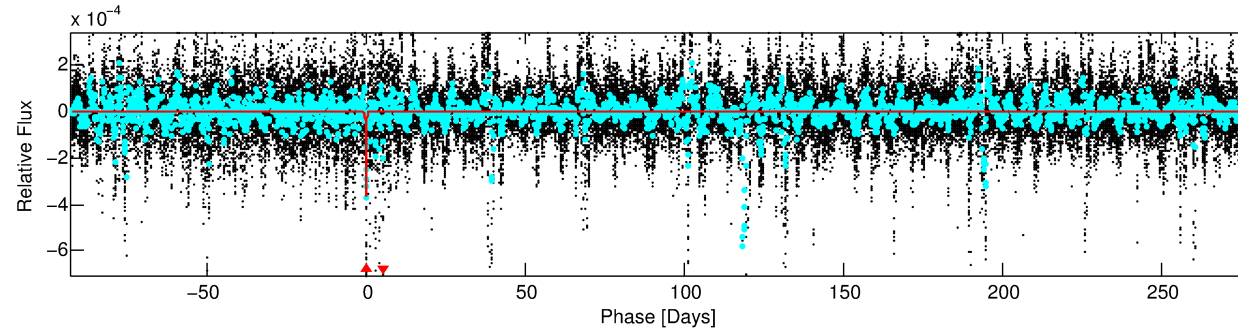
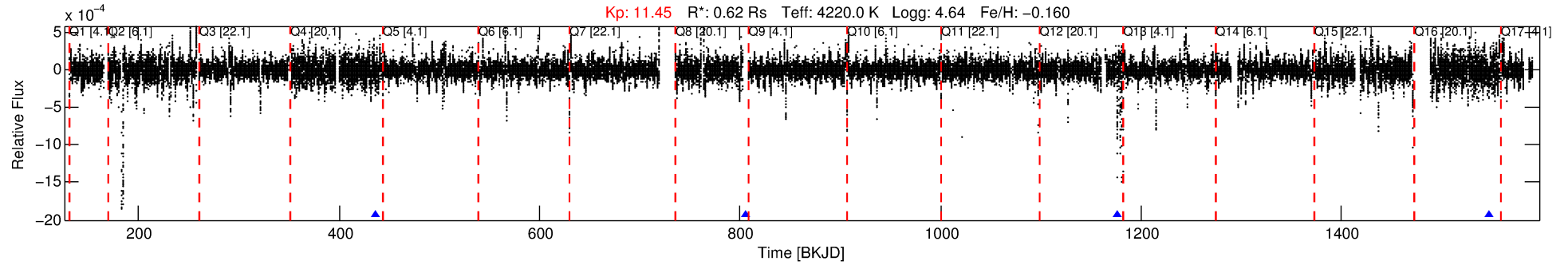
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004548647-01

No Significant Match Found

DV One-Page Summary

KIC: 4548647 Candidate: 1 of 1 Period: 370.232 d



DV Fit Results:

Period = 370.23218 [0.00527] d
Epoch = 435.8855 [0.0107] BKJD
Rp/R* = 0.0209 [0.0017]
a/R* = 99.03 [20.65]
b = 0.88 [0.05]
Seff = 0.15 [0.02]
Teq = 158 [6] K
Rp = 1.41 [0.17] Re
a = 0.8538 [0.0622] AU
Ag = 6221.21 [6014.47] [1.03σ]
Teffp = 2175 [527] K [3.83σ]

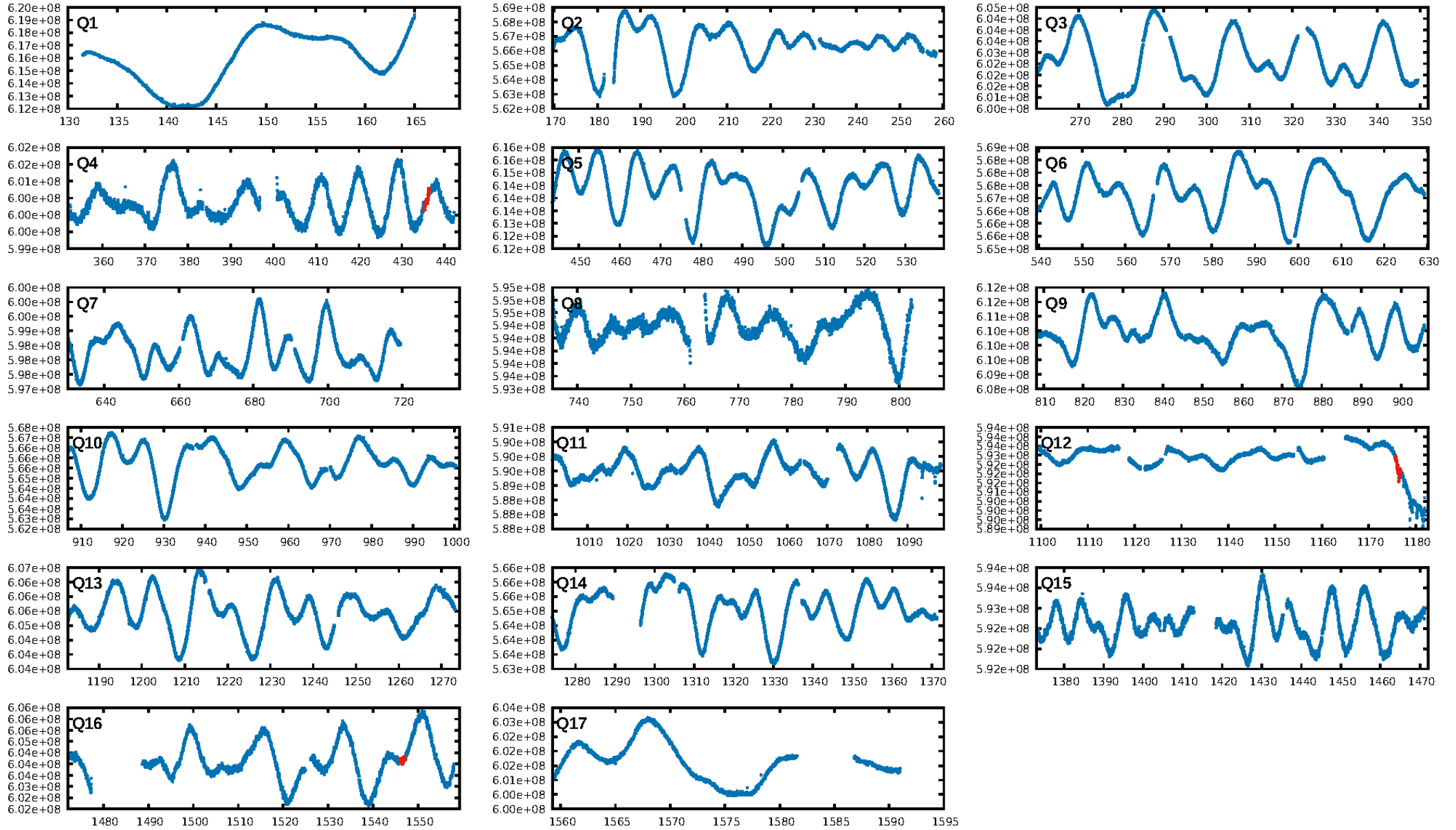
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 86.9%
Bootstrap-pfa: 1.24e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.077
Centroid-sig: 1.9%
Centroid-so: 1.838 arcsec [2.00σ]
OotOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-rm: N/A
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [1/1]

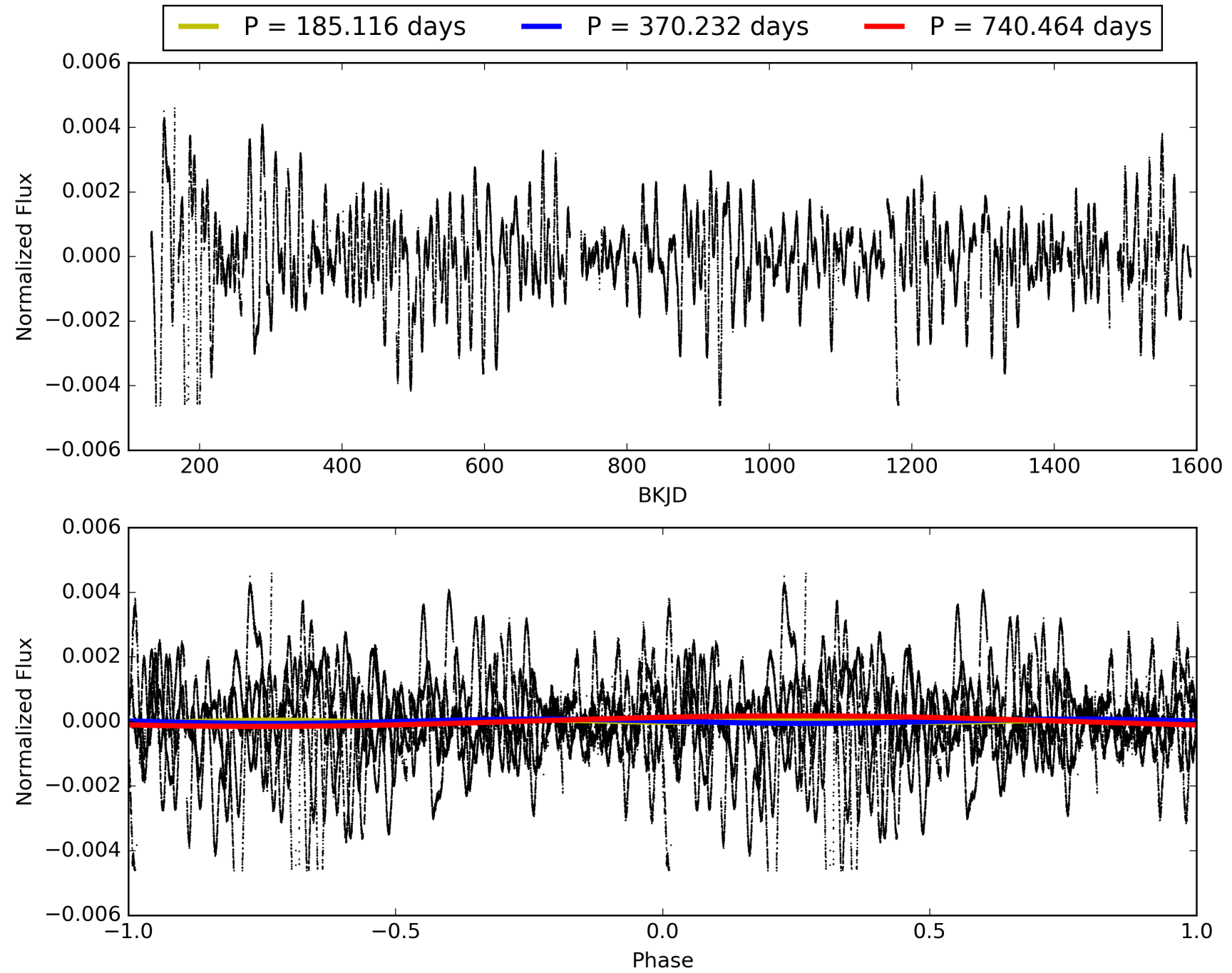
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:50:46 Z

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

TCE 004548647-01, PDC Light Curves

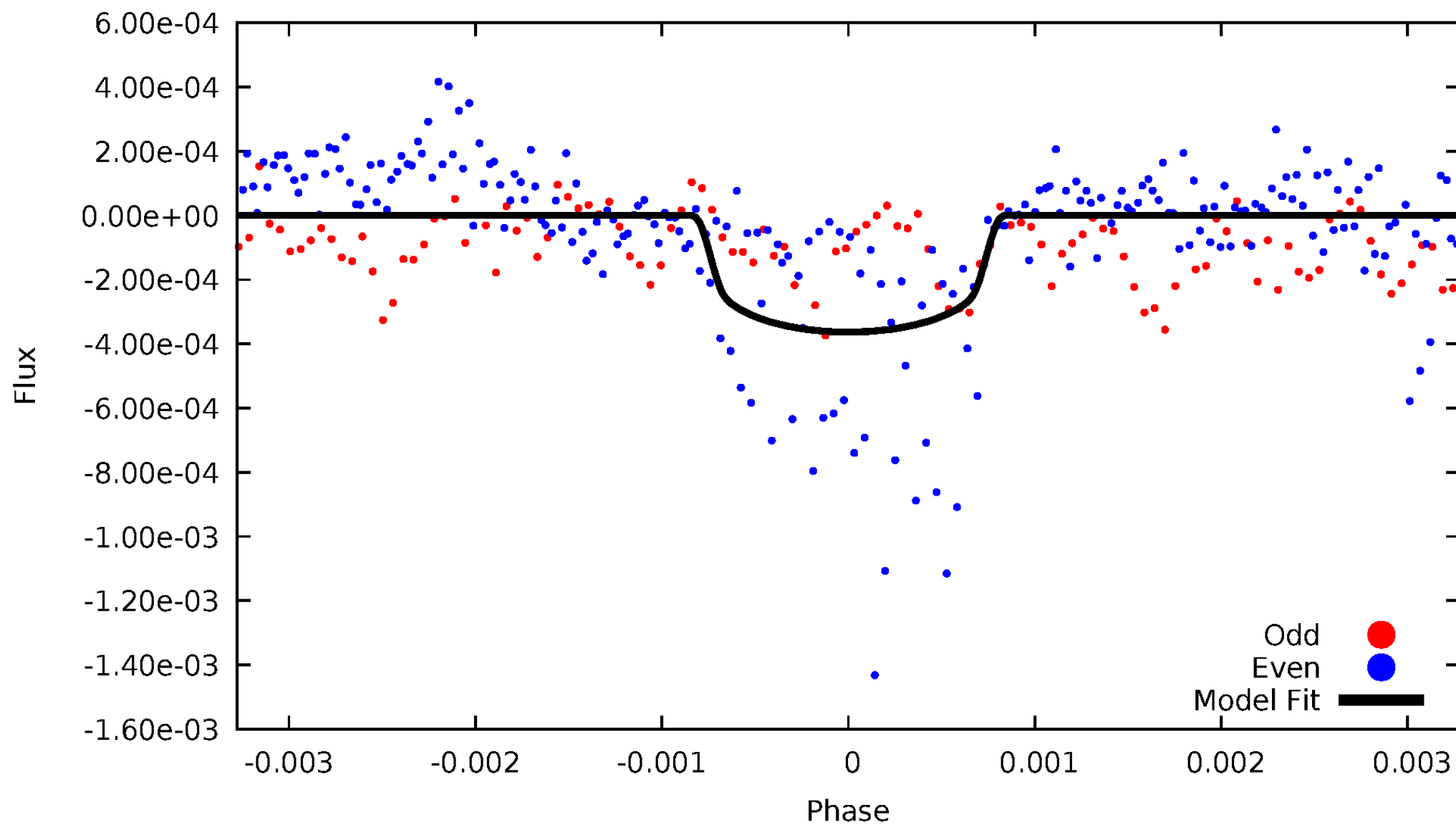


TCE 004548647-01



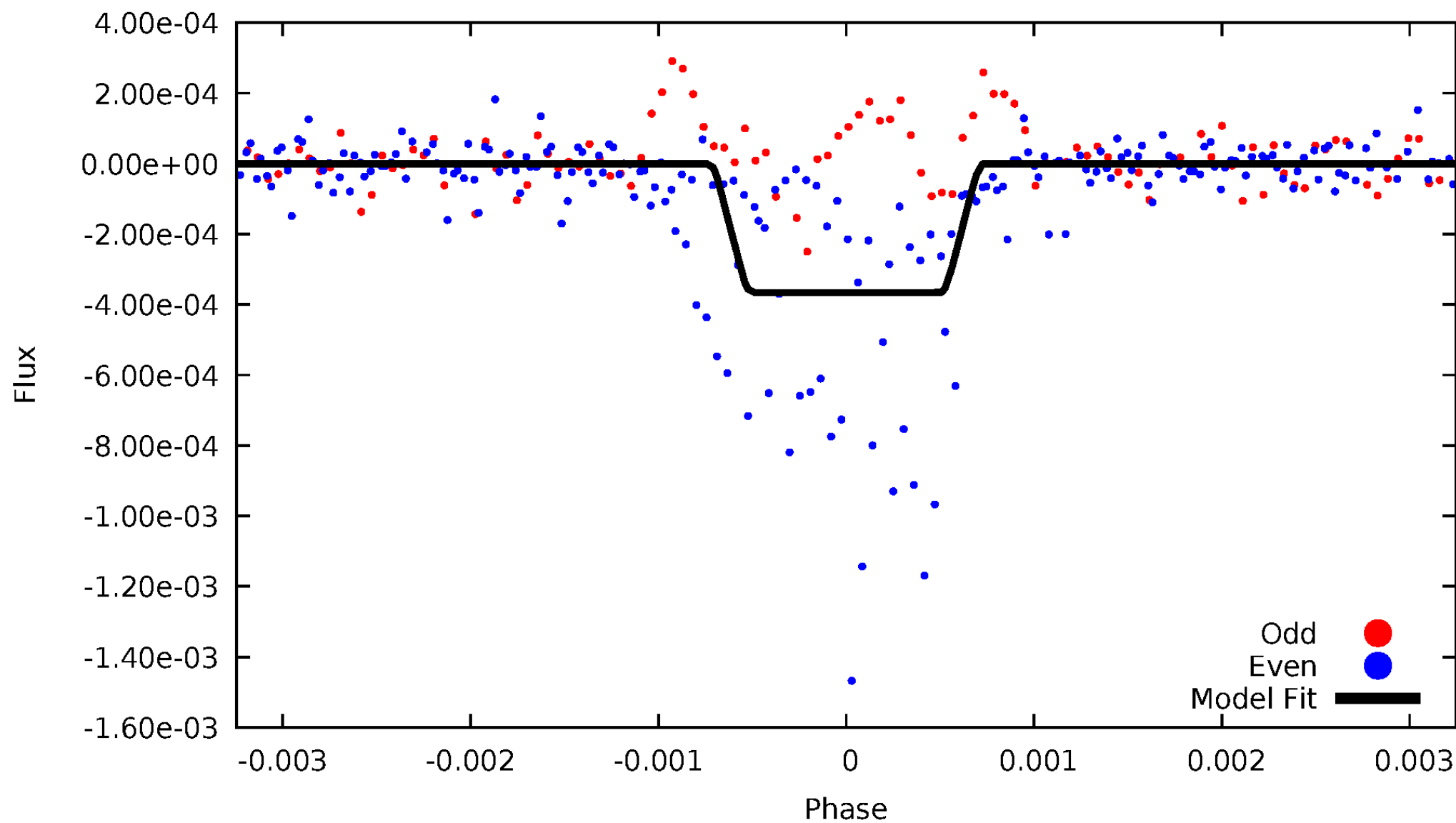
DV Odd/Even

TCE 004548647-01



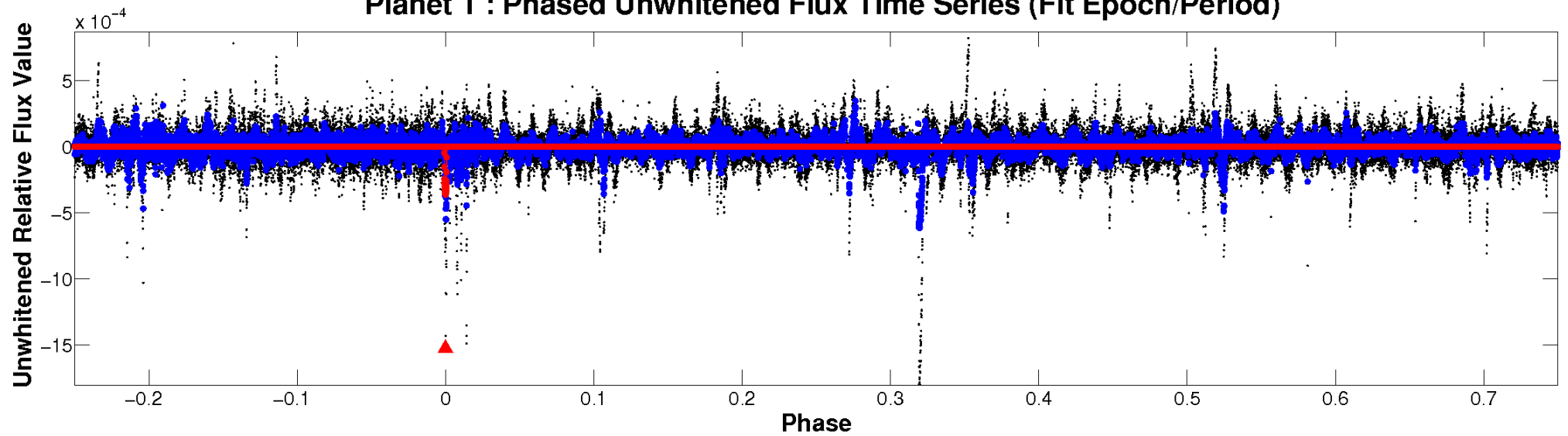
ALT Odd/Even

TCE 004548647-01

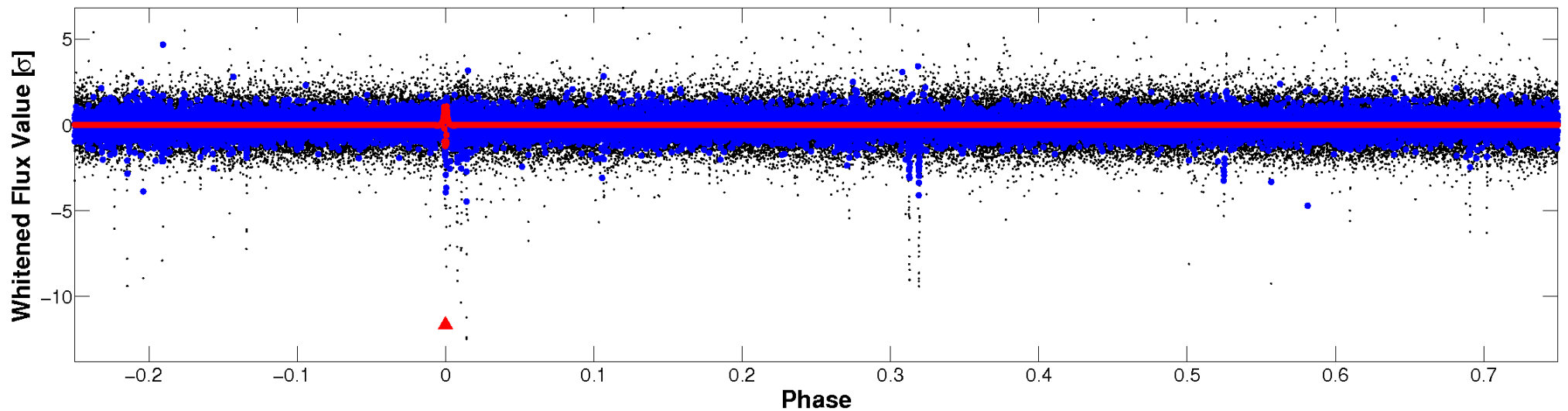


Non-Whitened Vs. Whitened Light Curve

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

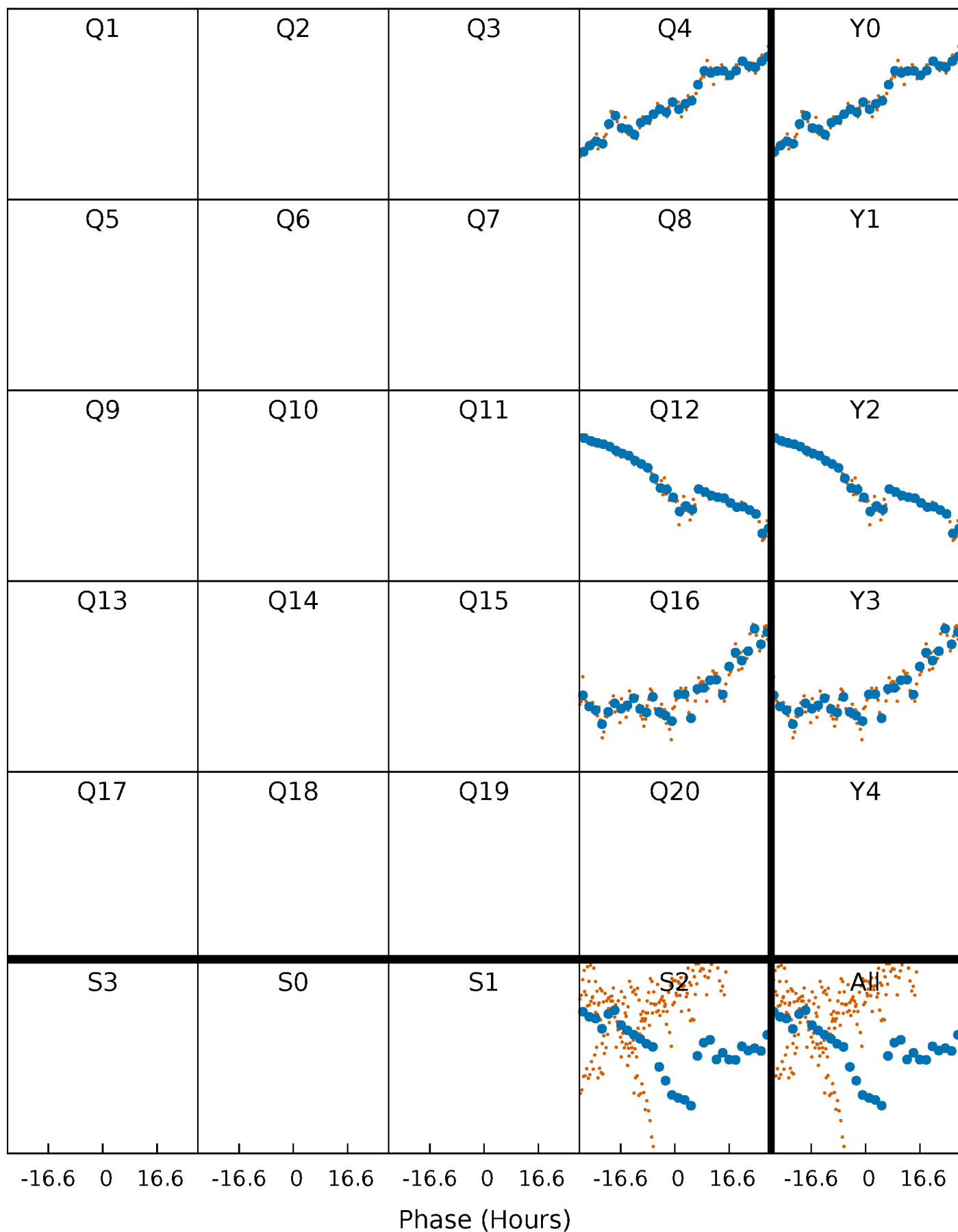


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



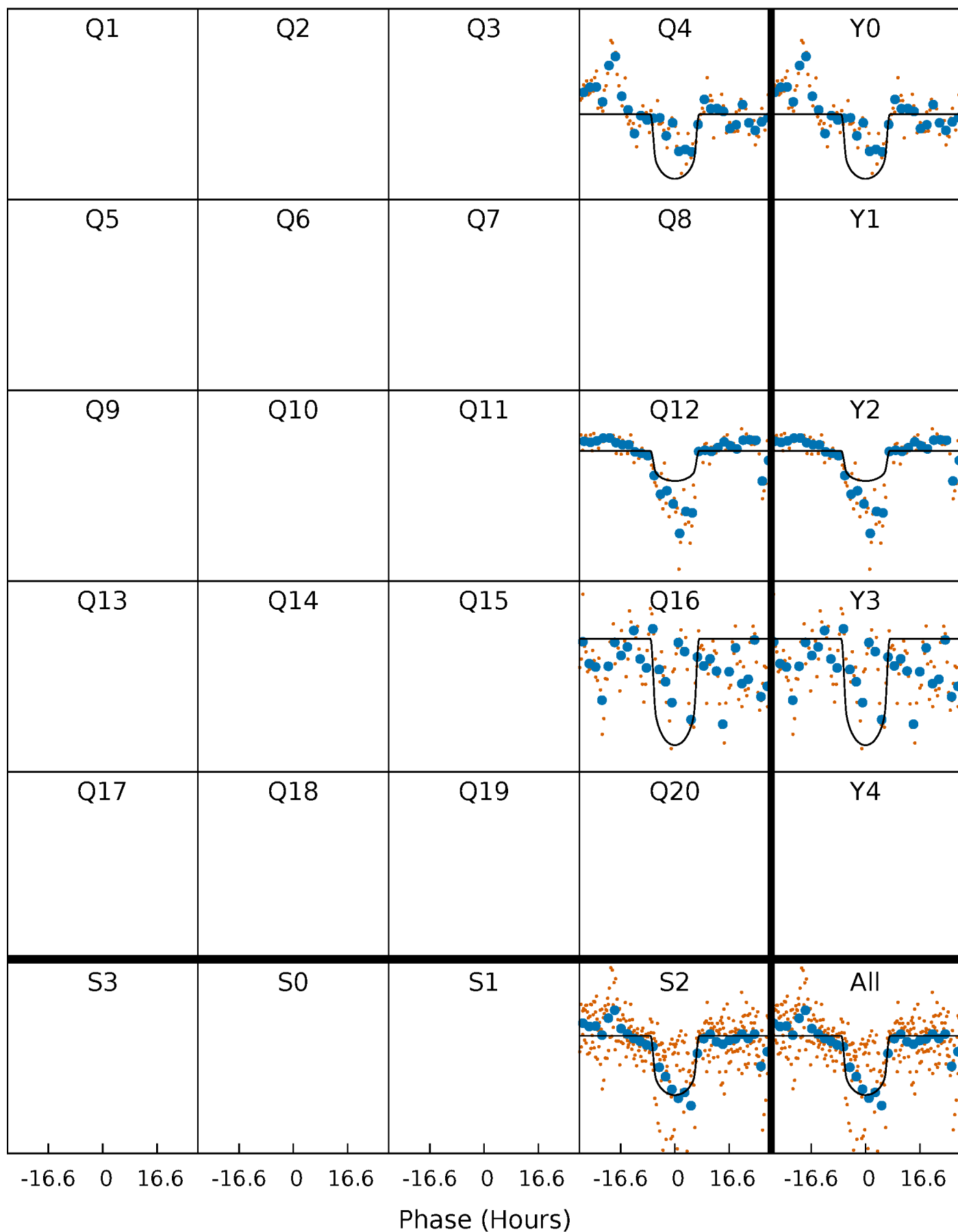
PDC Quarter-Phased Transit Curves

TCE 004548647-01 P=370.232181 Days $T_0=435.885487$ (BKJD)



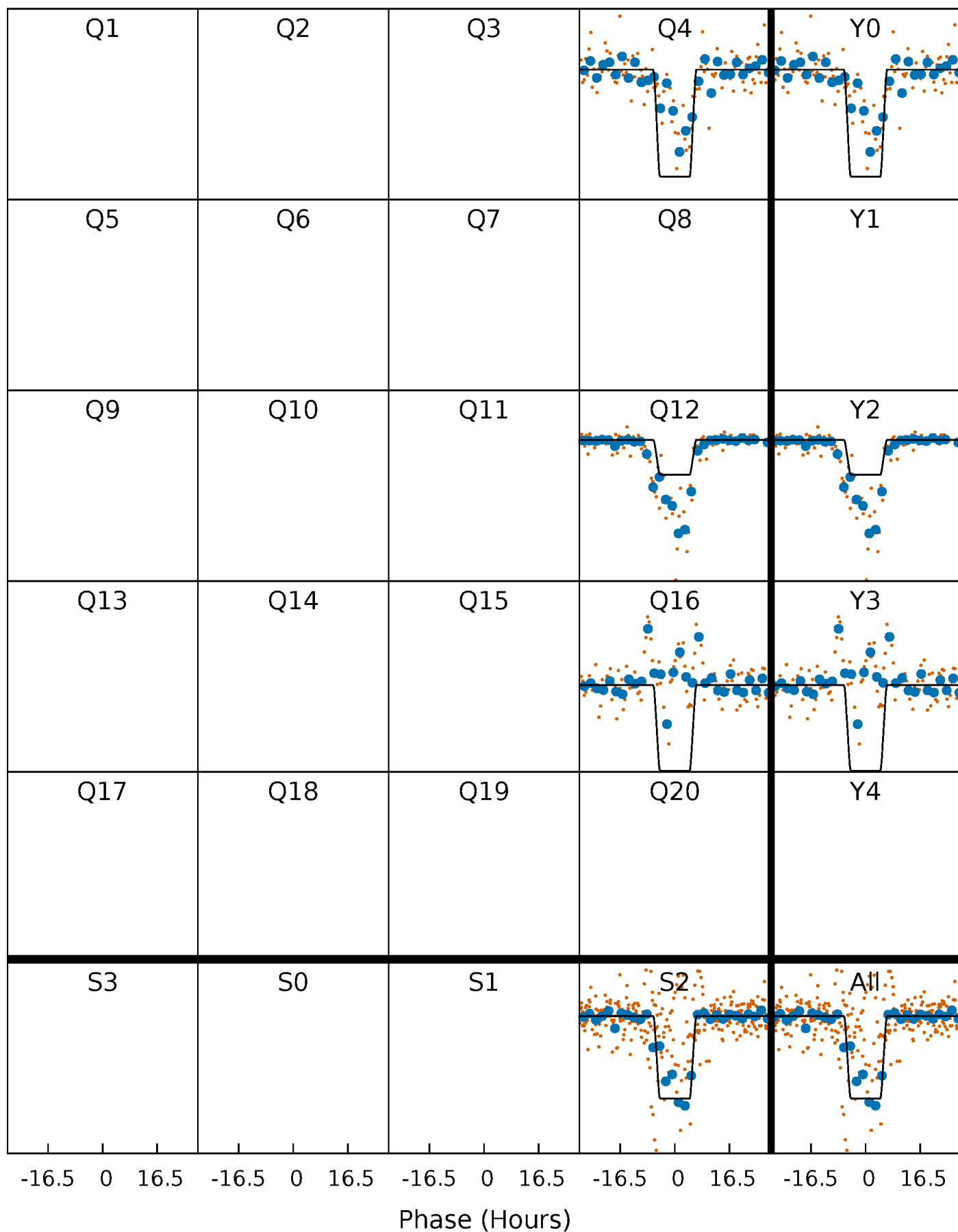
DV Quarter-Phased Transit Curves

TCE 004548647-01 P=370.232181 Days $T_0=435.885487$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

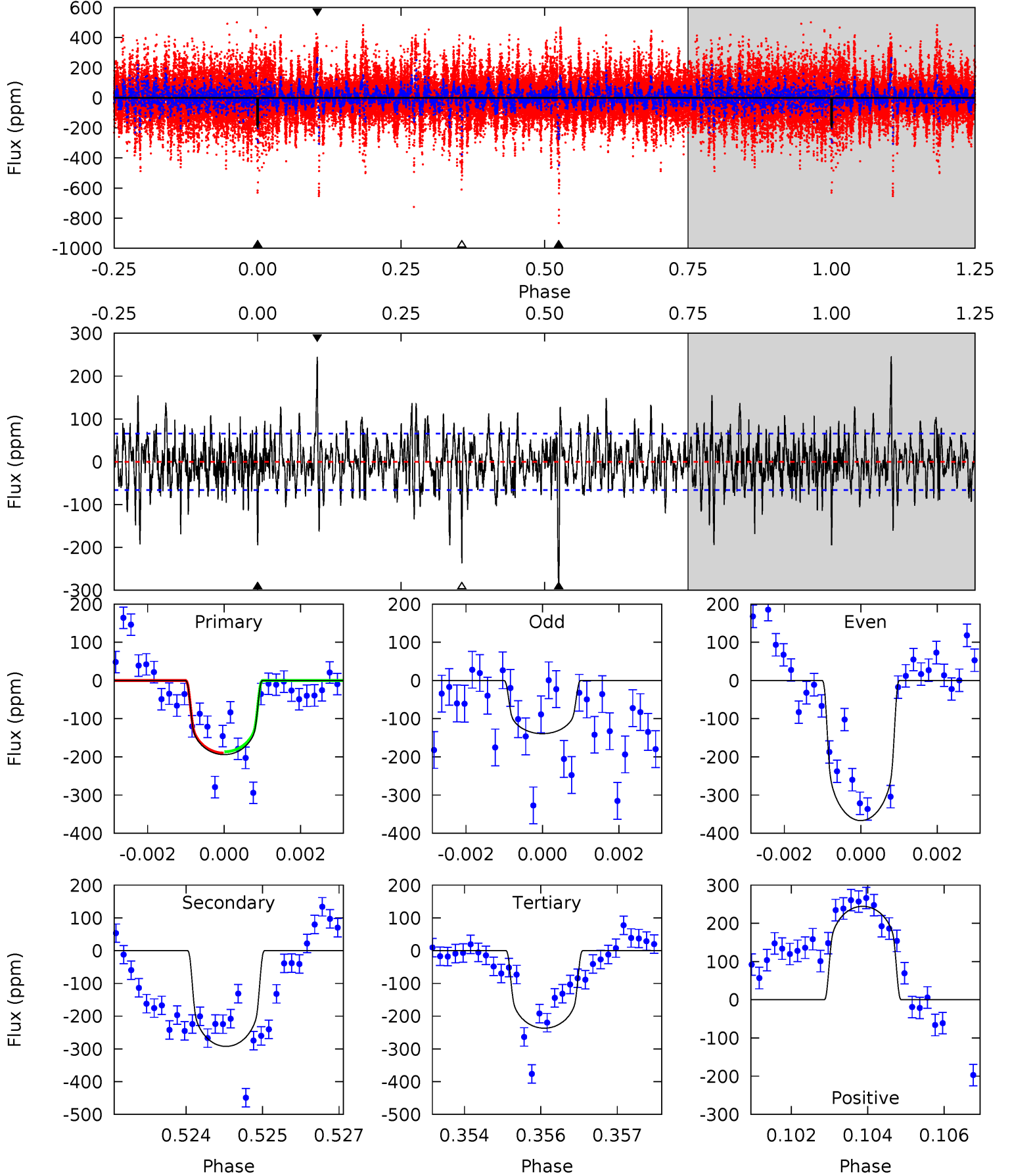
TCE 004548647-01 P=370.222051 Days $T_0=435.947250$ (BKJD)



DV Model-Shift Uniqueness Test

004548647-01, P = 370.232181 Days, E = 65.653306 Days

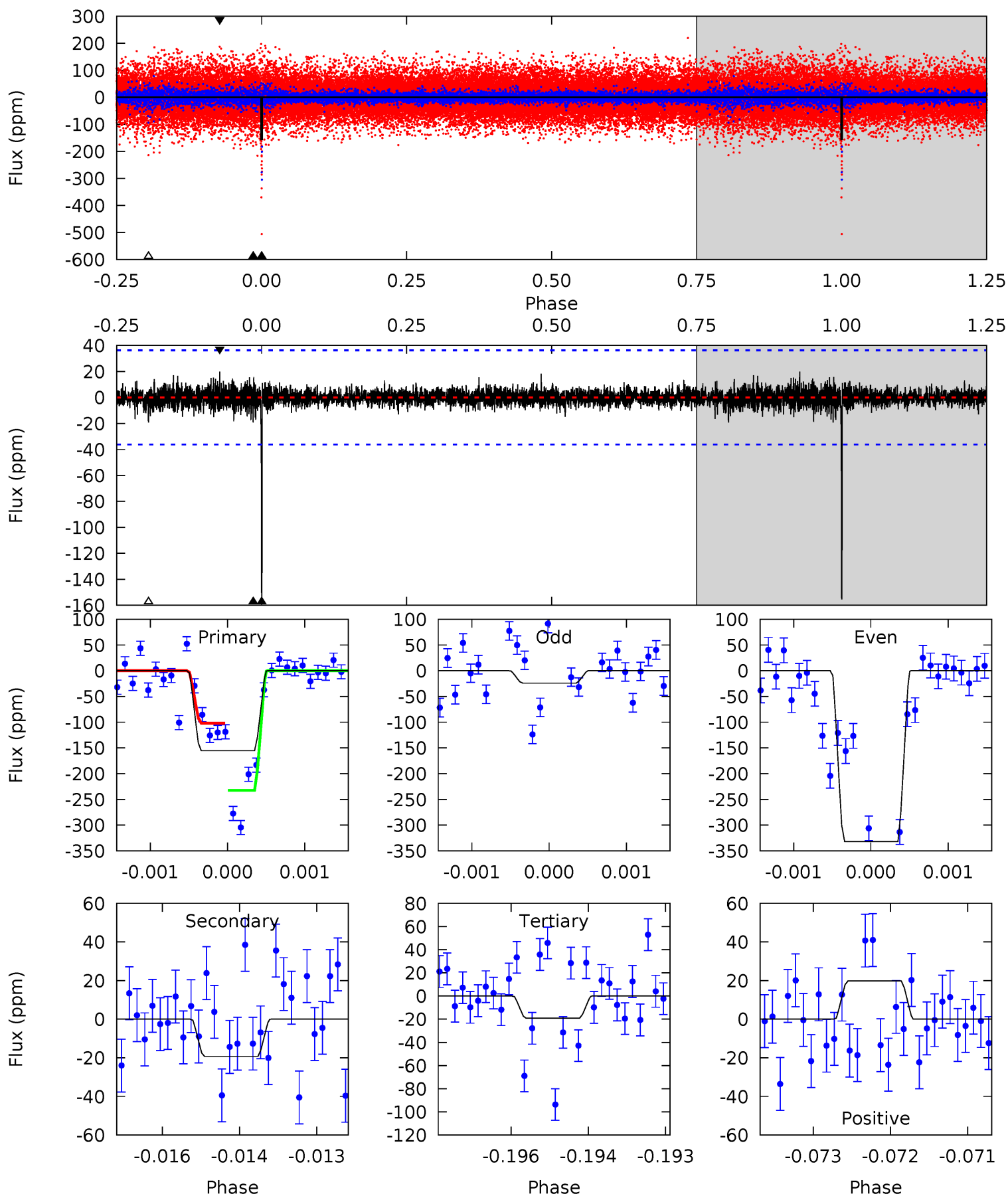
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.8	23.8	19.2	19.9	5.36	3.14	3.79	-3.47	-4.09	4.51	3.89	8.74	2.42	0.46	0.14



Alt Model-Shift Uniqueness Test

004548647-01, P = 370.222051 Days, E = 65.725199 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	2.87	2.86	2.94	5.39	3.19	0.56	20.2	20.2	0.01	-0.07	27.2	1.82	0.11	0



Stellar Parameters For KIC 004548647

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4220^{+126}_{-126}	$4.638^{+0.053}_{-0.021}$	$-0.160^{+0.300}_{-0.300}$	$0.618^{+0.045}_{-0.056}$	$0.607^{+0.066}_{-0.050}$	$3.616^{+0.843}_{-0.386}$
	+3%/-3%	+1%/-0%	+188%/-188%	+7%/-9%	+11%/-8%	+23%/-11%
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 004548647-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-292 ± 12	$1.40^{+0.12}_{-0.12}$	220^{+7}_{-8}	3925^{+176}_{-148}	60500^{+11941}_{-8874}
Alt.	-19 ± 7	$1.27^{+0.14}_{-0.13}$	220^{+8}_{-8}	2687^{+135}_{-169}	4809^{+2085}_{-1815}

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

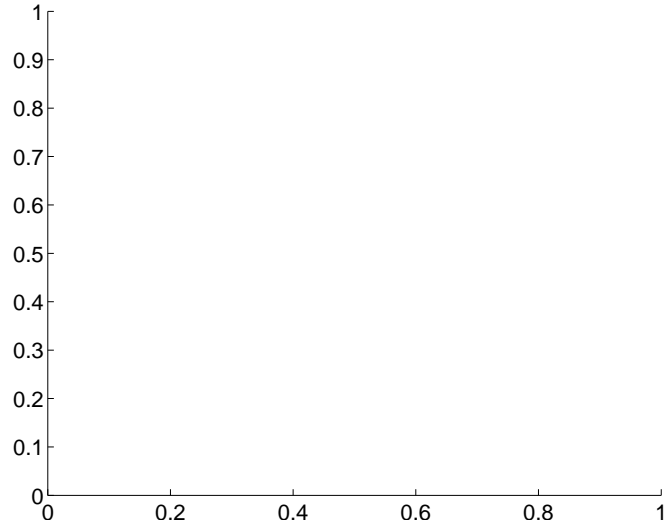
Supplemental centroid analysis for 004548647-01. **Kepler magnitude: 11.45.** Transit SNR 9.88

There are 0 quarters with good PRF difference image offsets

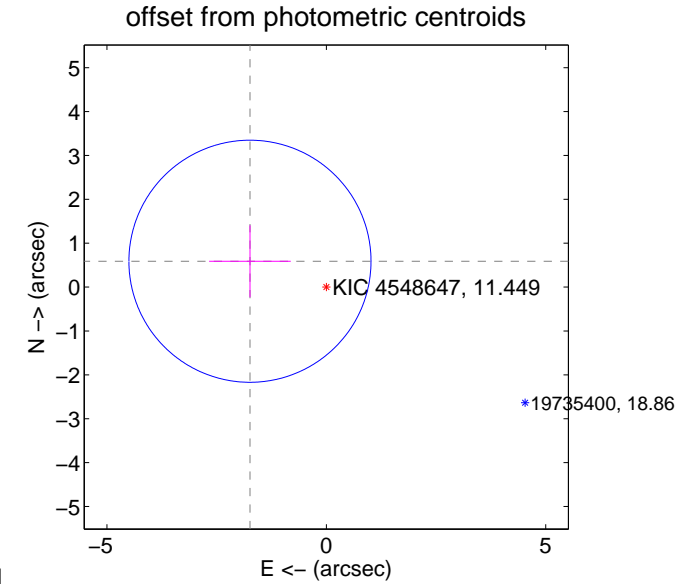
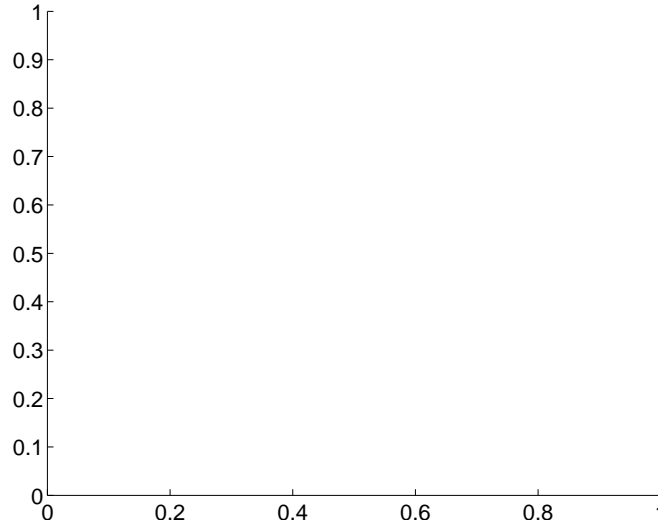
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	1.84 ± 0.92	2.00	1.74 ± 0.93	0.59 ± 0.82

There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC



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.

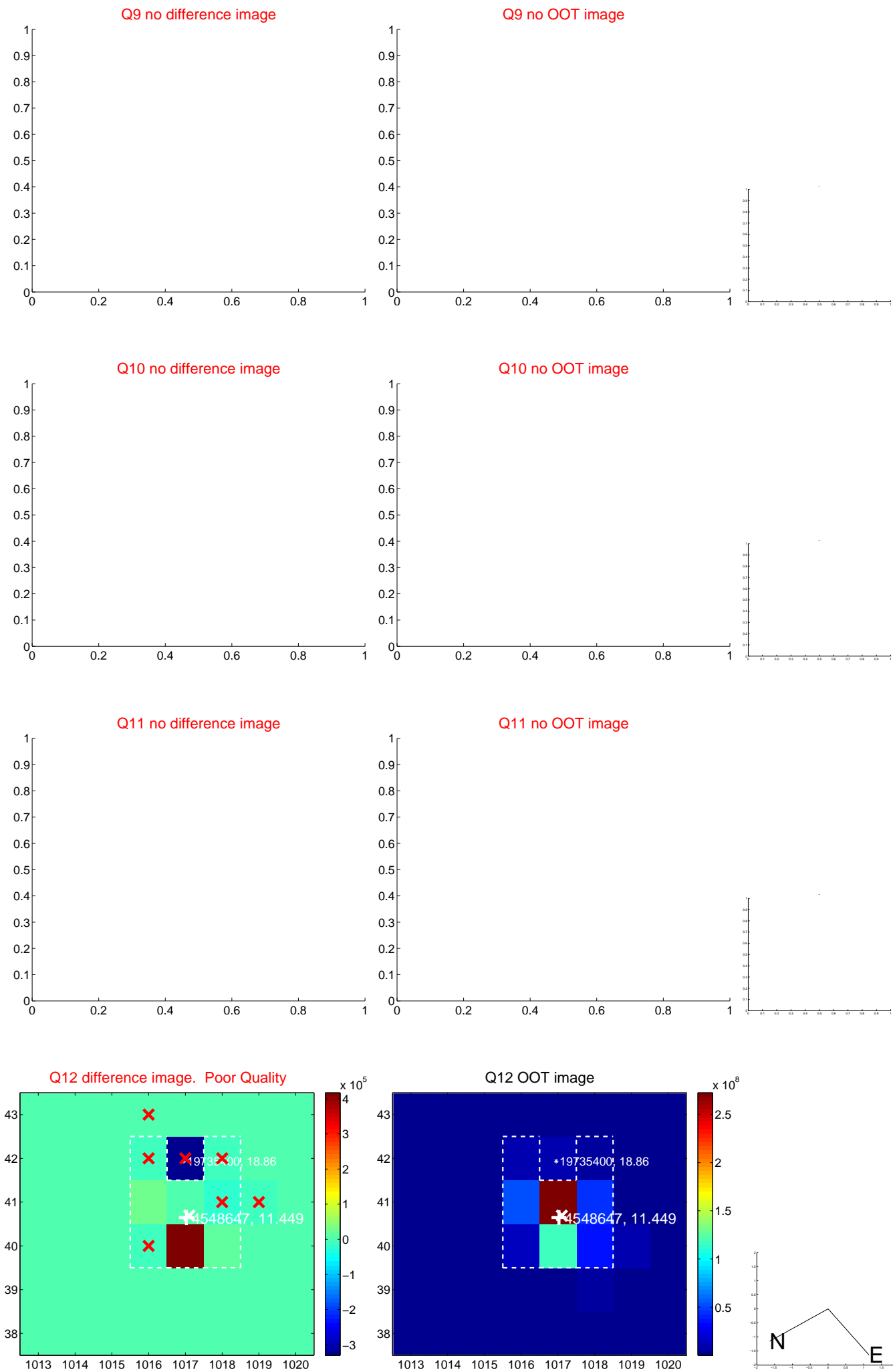
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



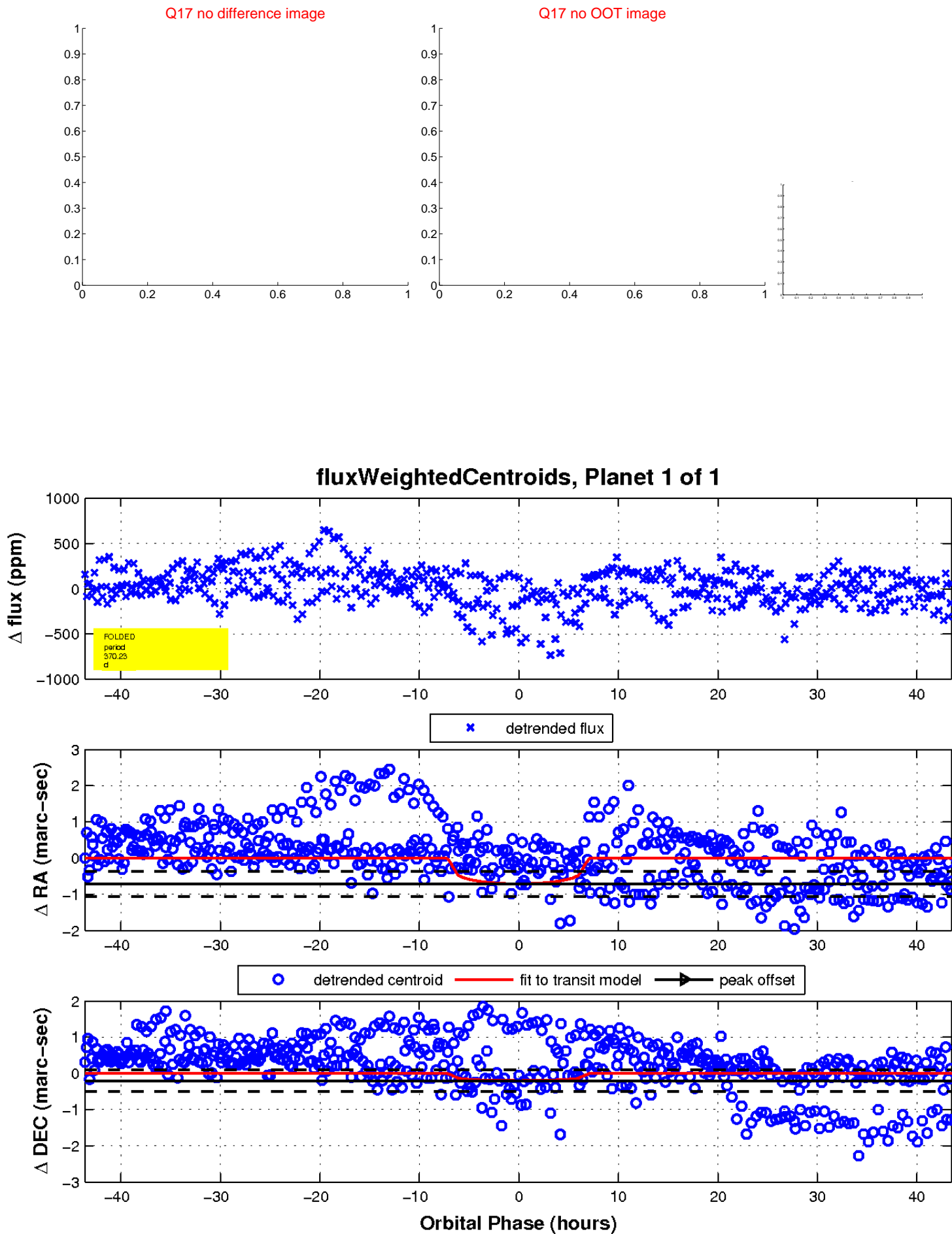
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

