

KIC 011180402

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})
011180402-01	OBS	No	374.486193	258.250950	1508.7	26.329	25.0	13.0	1.03	5800	4.70	1.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011180402-01	OBS	FP	0.00	1	0	1	0	LPP_DV LPP_ALT ALL_TRANS_CHASES 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.

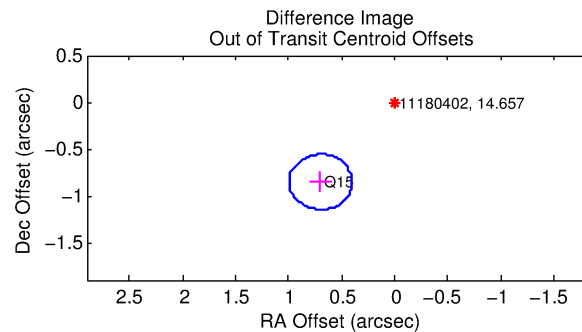
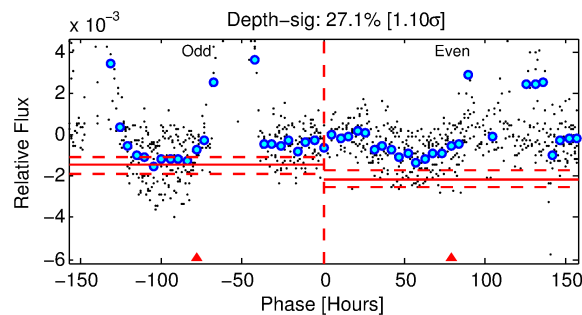
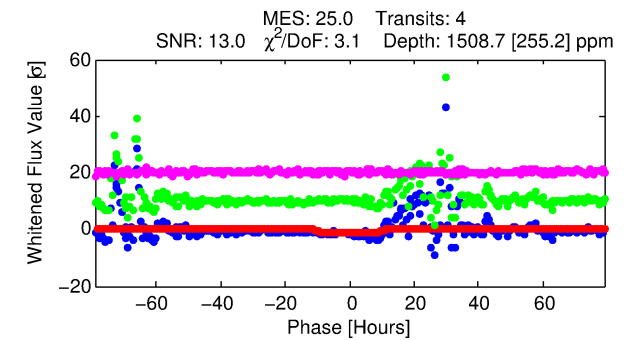
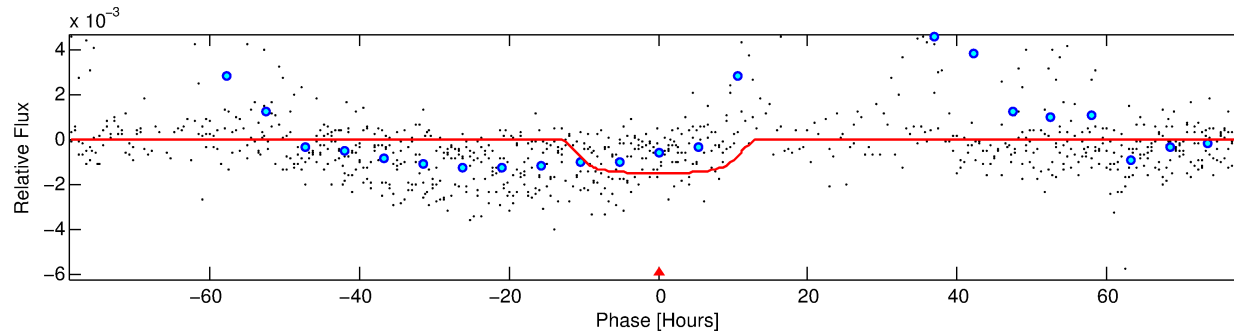
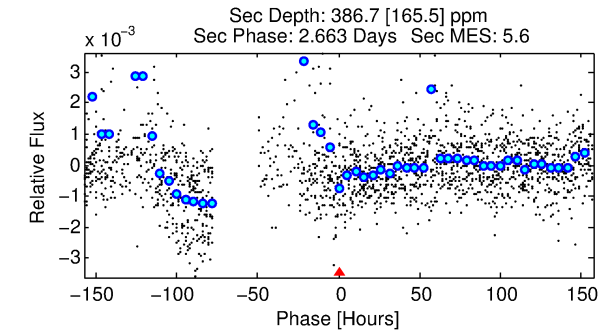
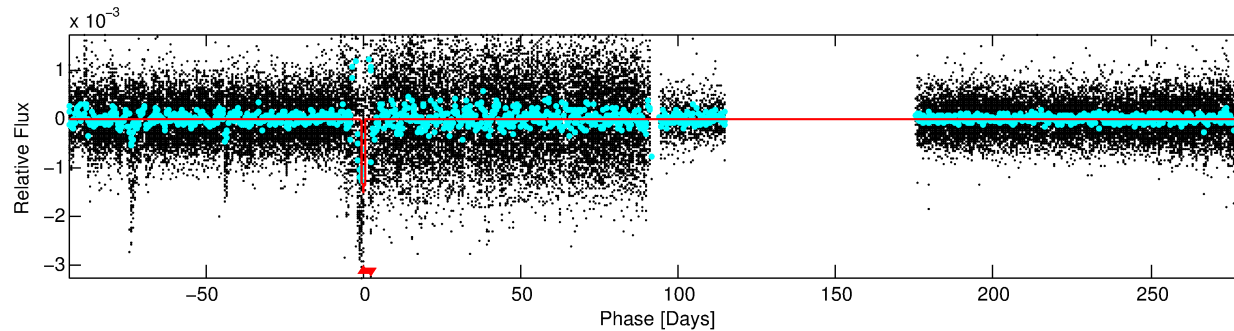
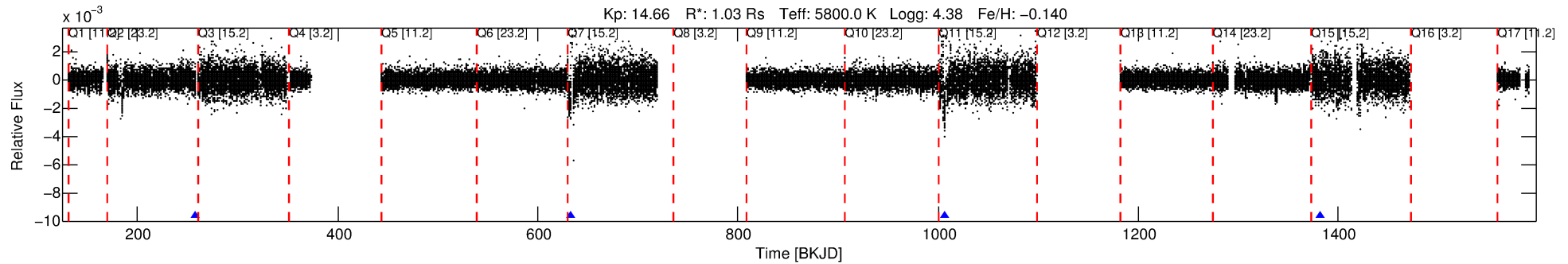
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011180402-01

No Significant Match Found

DV One-Page Summary

KIC: 11180402 Candidate: 1 of 1 Period: 374.486 d



DV Fit Results:

Period = 374.48619 [0.03383] d
Epoch = 258.2510 [0.0681] BKJD
Rp/R* = 0.0417 [0.0054]
a/R* = 59.40 [24.00]
b = 0.89 [0.10]
Seff = 1.10 [0.40]
Teq = 261 [24] K
Rp = 4.70 [1.40] Re
a = 0.9897 [0.2300] AU
Ag = 9450.66 [5745.60] [1.64σ]
Teffp = 3981 [510] K [7.29σ]

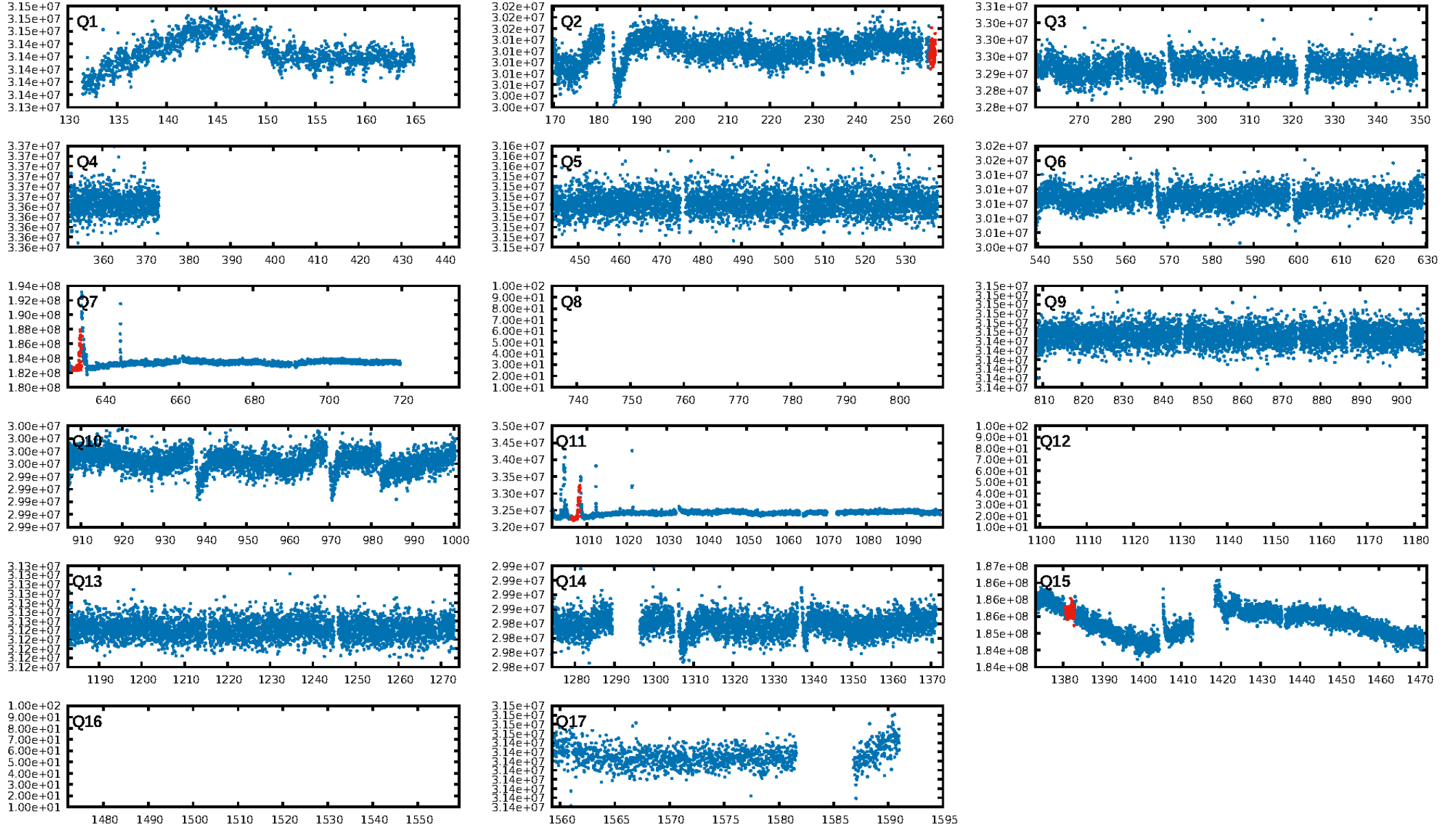
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 1.75e-54
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.07982
Centroid-sig: 60.6%
Centroid-so: 2.658 arcsec [5.98σ]
OotOffset-rm: 1.100 arcsec [11.15σ]
KicOffset-rm: 3.686 arcsec [37.55σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

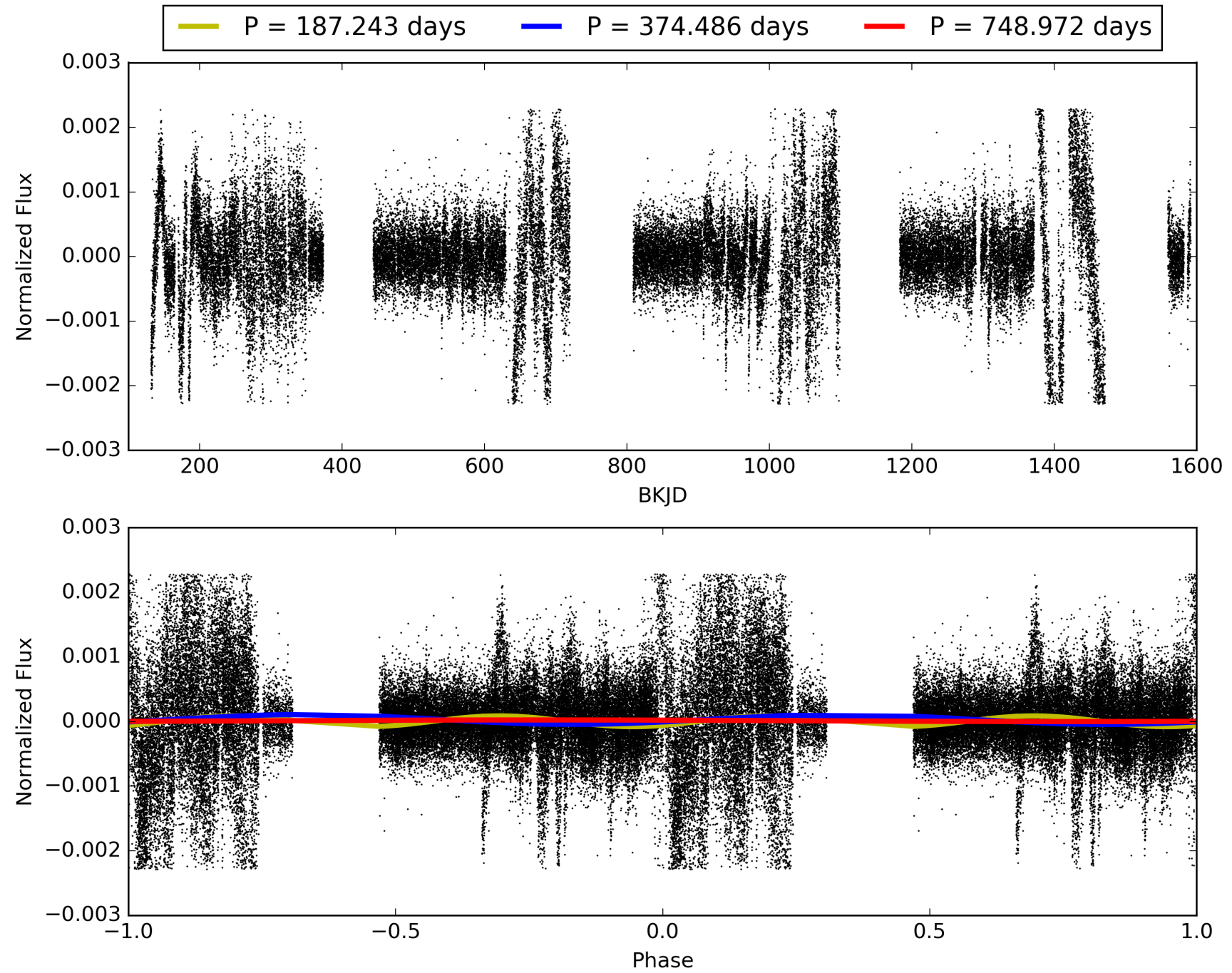
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:44:50 Z

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

TCE 011180402-01, PDC Light Curves

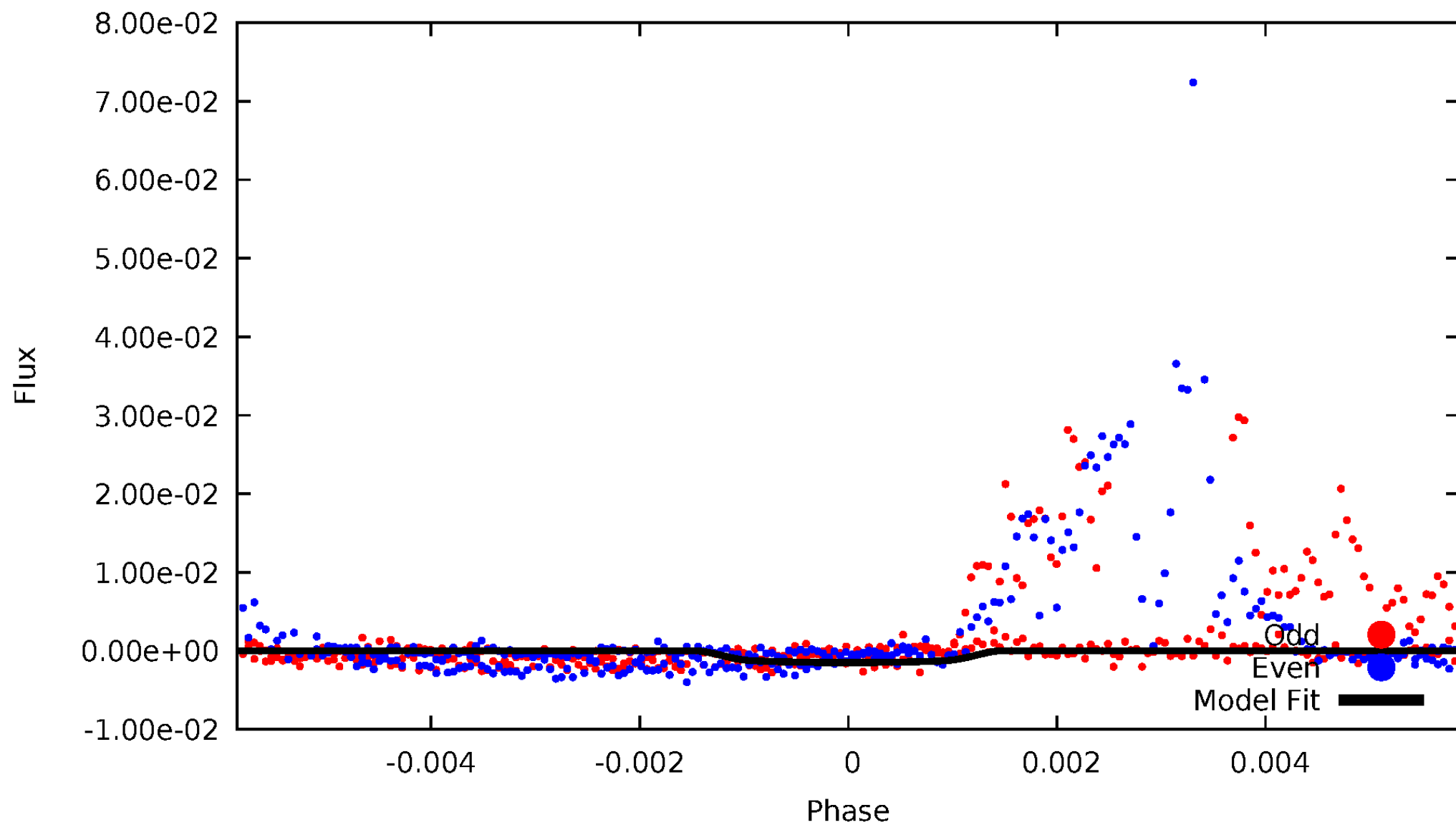


TCE 011180402-01



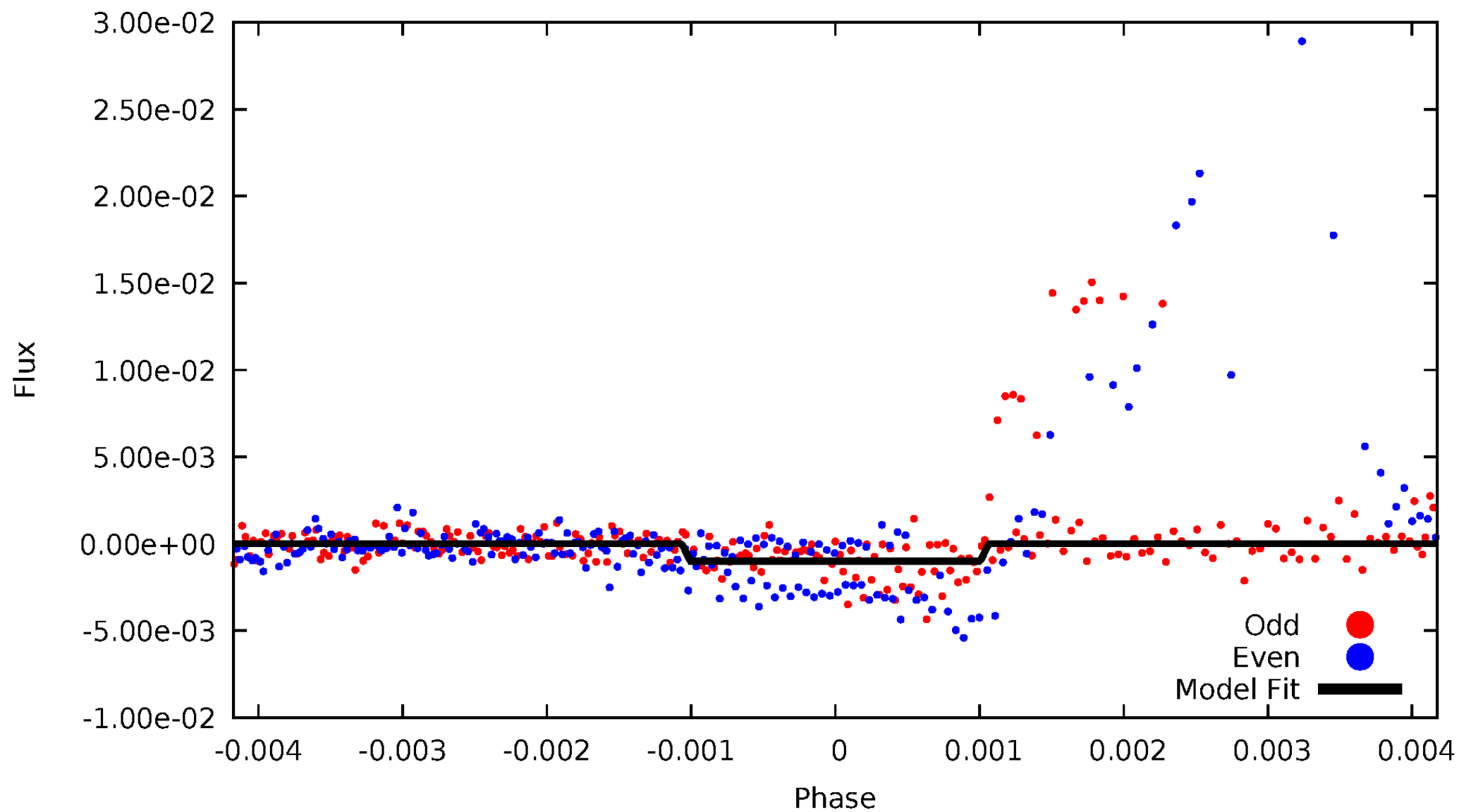
DV Odd/Even

TCE 011180402-01



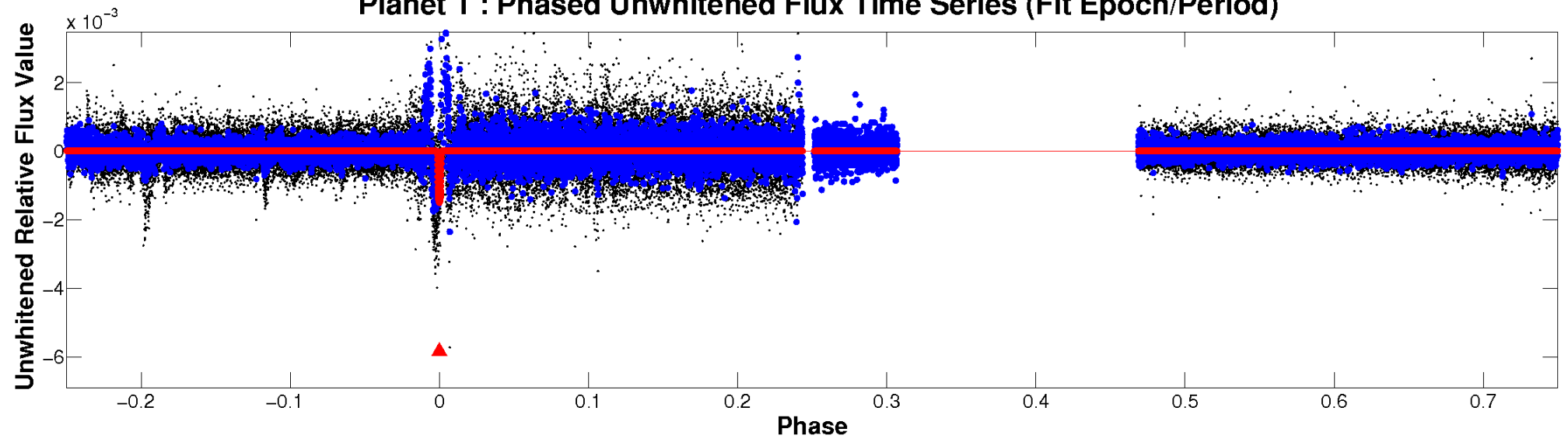
ALT Odd/Even

TCE 011180402-01

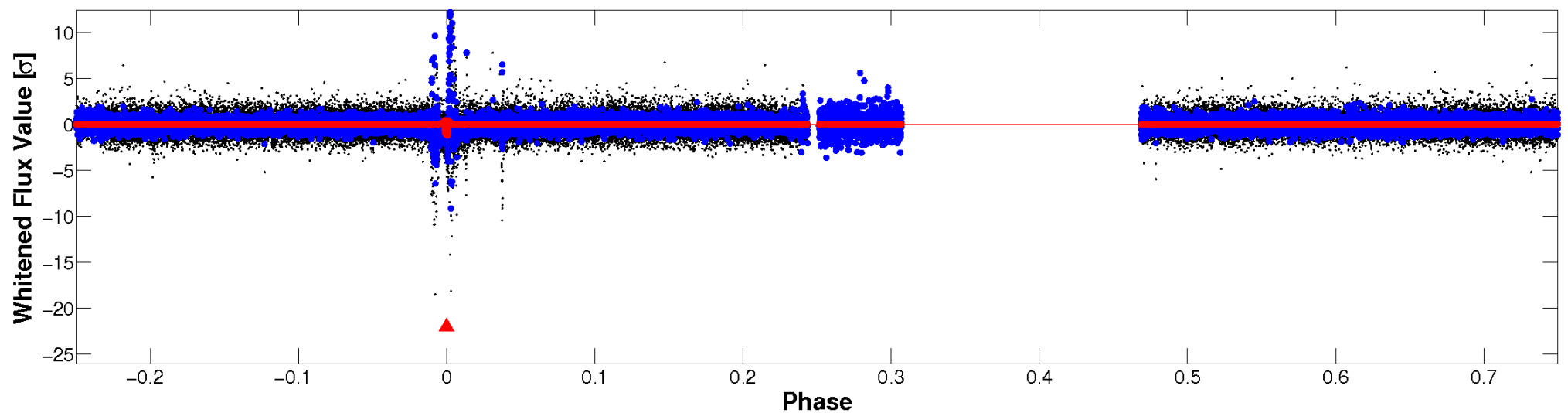


Non-Whitened Vs. Whitened Light Curve

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

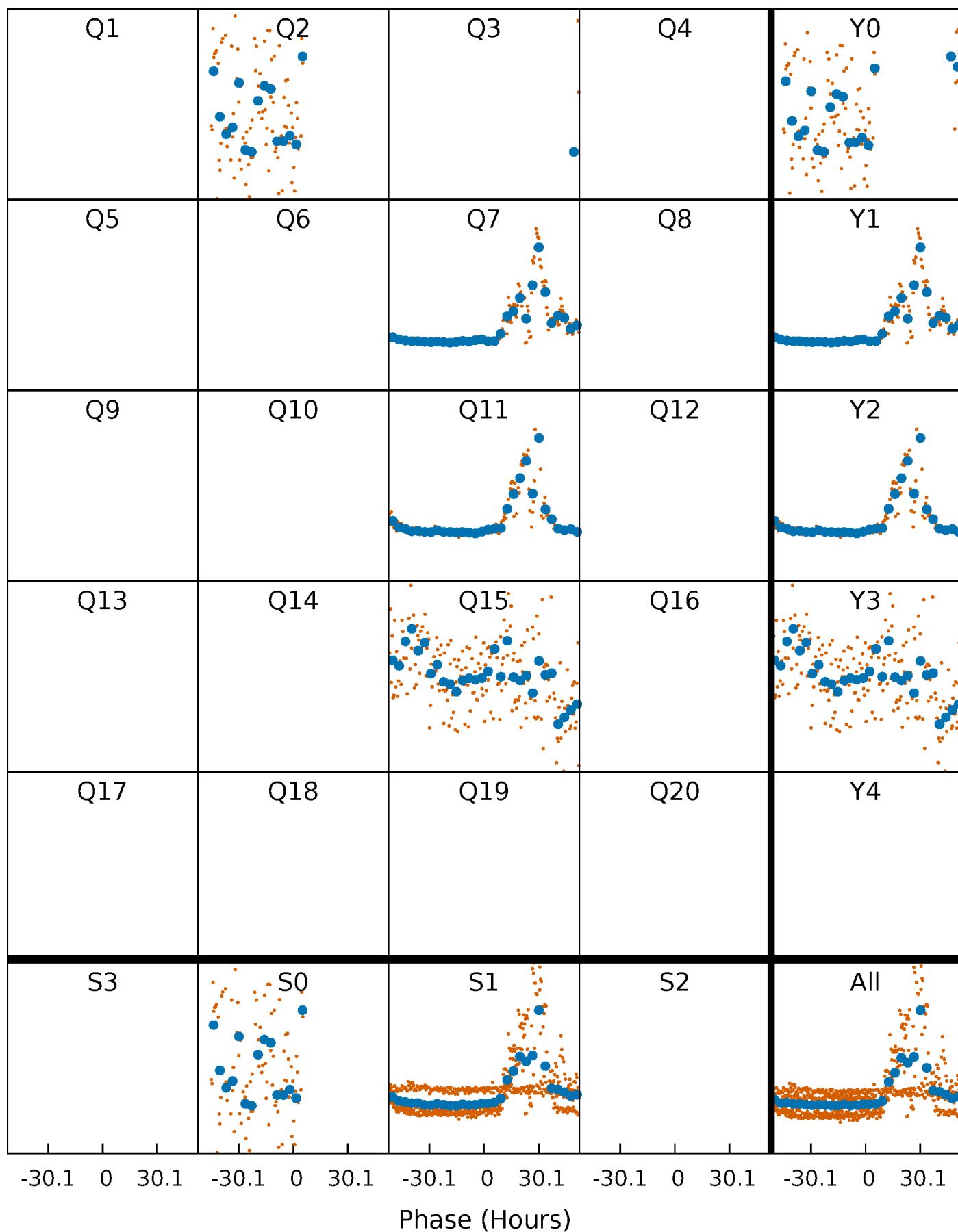


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



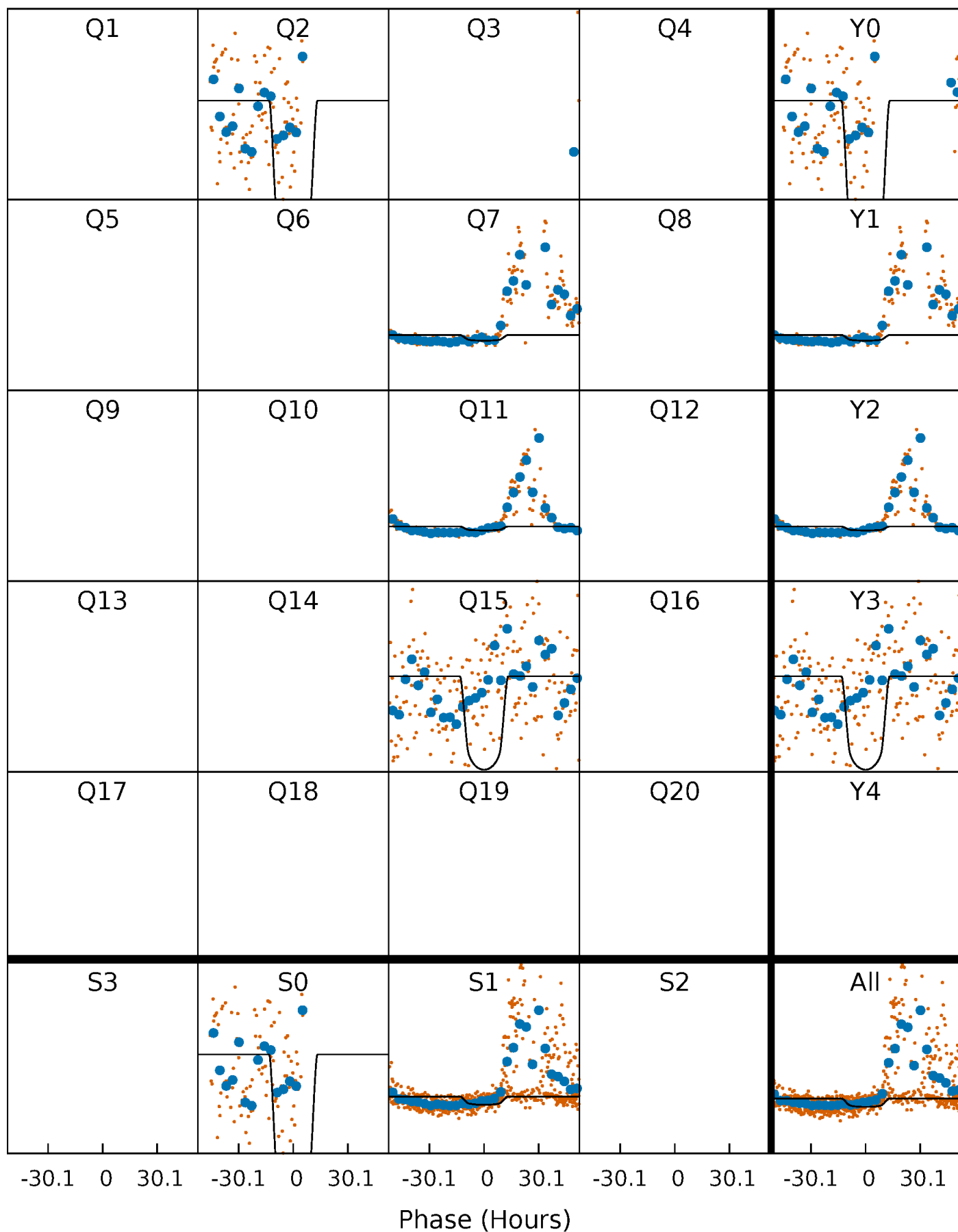
PDC Quarter-Phased Transit Curves

TCE 011180402-01 P=374.486193 Days $T_0=258.250950$ (BKJD)



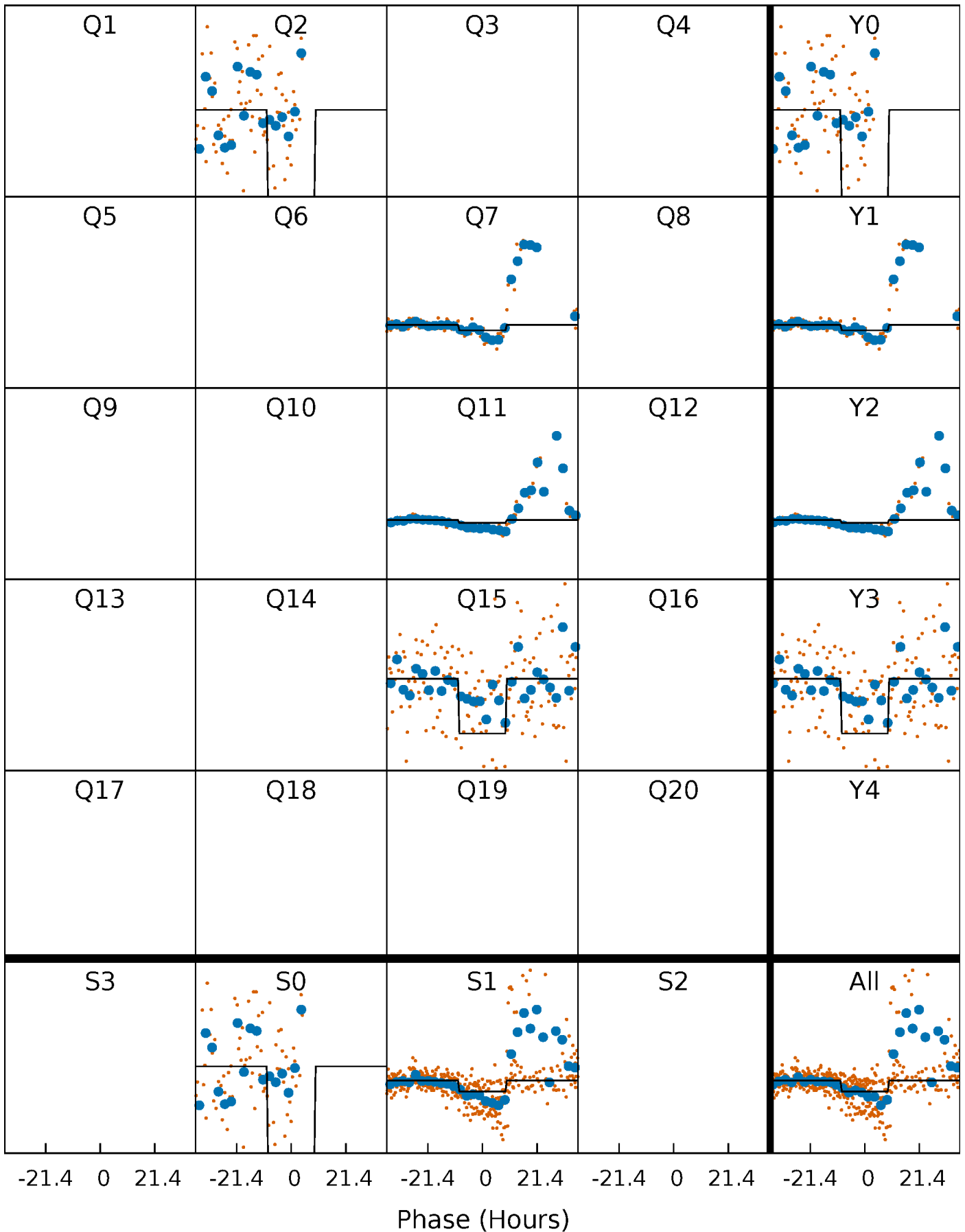
DV Quarter-Phased Transit Curves

TCE 011180402-01 P=374.486193 Days $T_0=258.250950$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

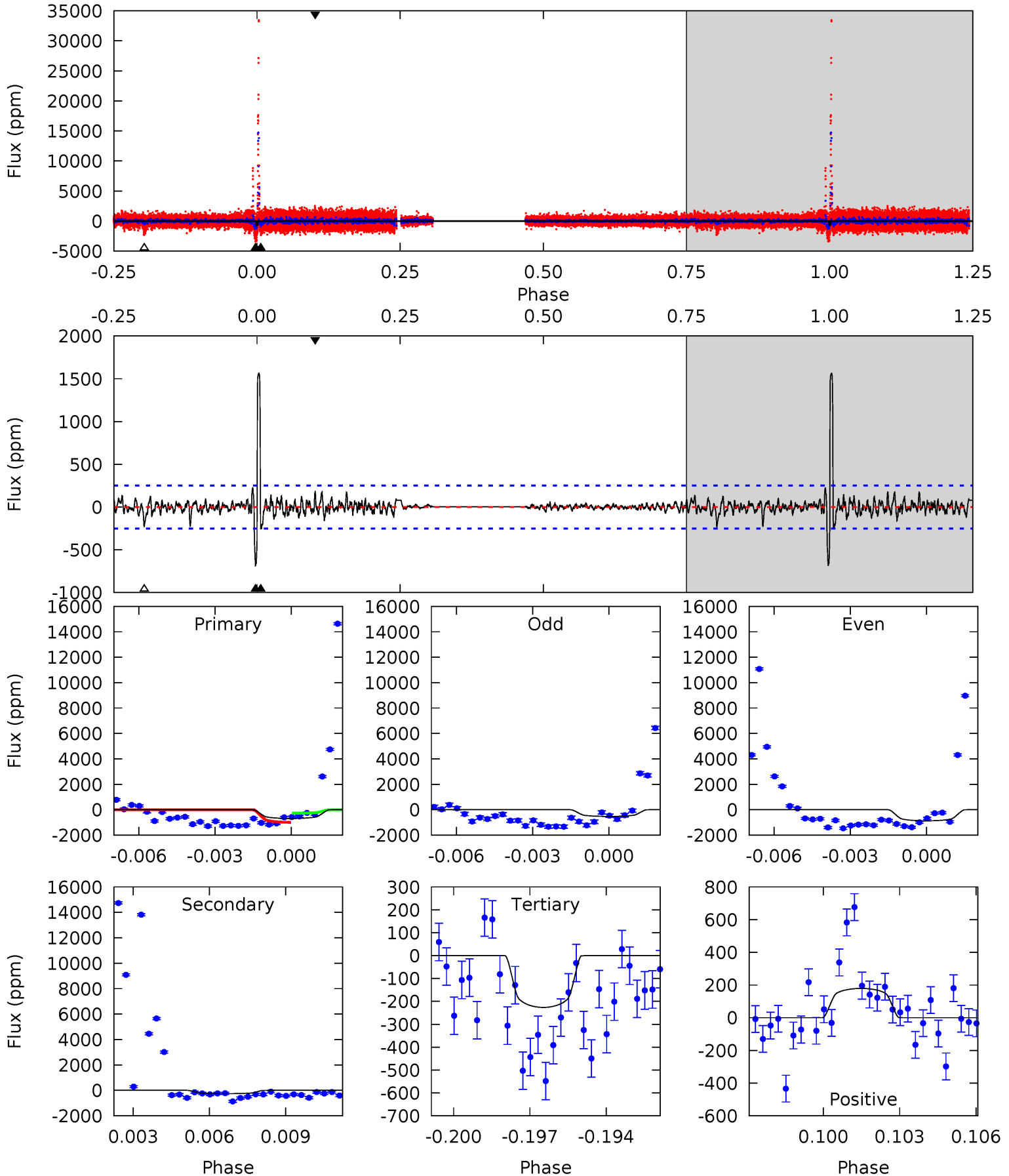
TCE 011180402-01 P=374.472232 Days $T_0=258.284835$ (BKJD)



DV Model-Shift Uniqueness Test

011180402-01, P = 374.486193 Days, E = 258.250950 Days

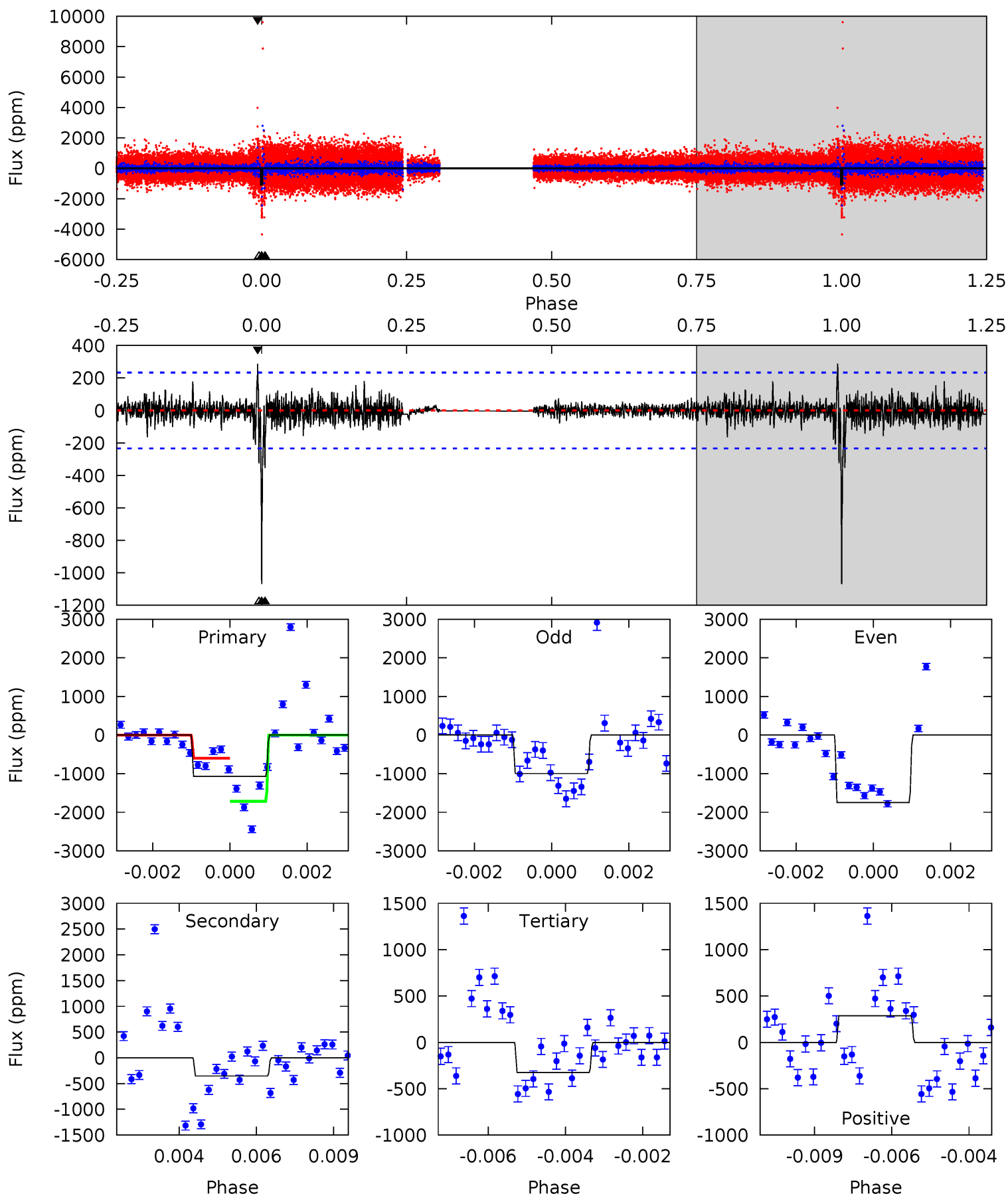
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	5.39	4.73	3.75	5.26	2.97	1.55	9.60	10.6	0.66	1.65	2.87	1.23	0.70	6.74



Alt Model-Shift Uniqueness Test

011180402-01, P = 374.472232 Days, E = 258.284835 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.3	8.03	7.40	6.54	5.32	3.07	0.93	16.9	17.8	0.63	1.50	8.06	1.21	0.21	11.5



Stellar Parameters For KIC 011180402

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5800^{+146}_{-160}	$4.376^{+0.128}_{-0.192}$	$-0.140^{+0.300}_{-0.300}$	$1.031^{+0.278}_{-0.185}$	$0.922^{+0.126}_{-0.095}$	$1.185^{+0.699}_{-0.596}$
	+3%/-3%	+3%/-4%	+214%/-214%	+27%/-18%	+14%/-10%	+59%/-50%
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 011180402-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-258 ± 48	$4.80^{+0.87}_{-0.81}$	367^{+26}_{-21}	3934^{+227}_{-226}	6026^{+2901}_{-1870}
Alt.	-353 ± 44	$3.62^{+0.84}_{-0.68}$	369^{+27}_{-21}	4656^{+383}_{-335}	14735^{+7219}_{-5290}

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

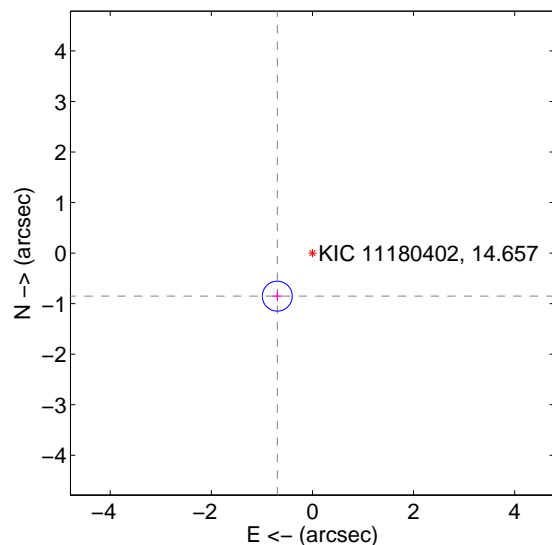
Supplemental centroid analysis for 011180402-01. Kepler magnitude: 14.66. Transit SNR 12.98

There are 0 quarters with good PRF difference image offsets

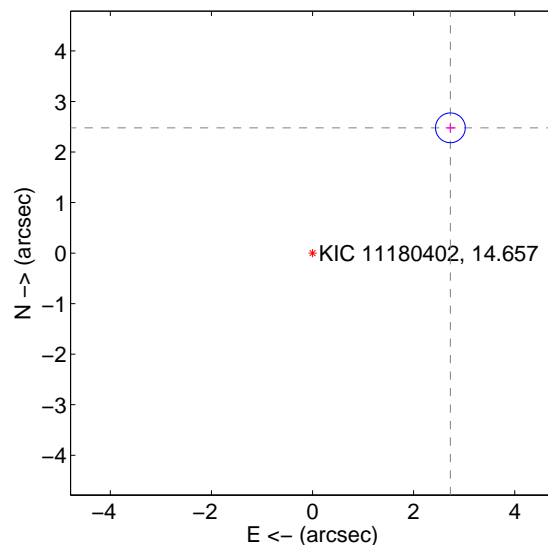
The OOT PRF centroid is offset from the target star catalog position by about 4.78 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.100 ± 0.099	11.15	0.696 ± 0.097	-0.852 ± 0.100
PRF-fit source offset from KIC position	3.686 ± 0.098	37.55	-2.728 ± 0.097	2.479 ± 0.100
photometric centroid source offset	2.66 ± 0.44	5.98	-2.62 ± 0.45	0.45 ± 0.08

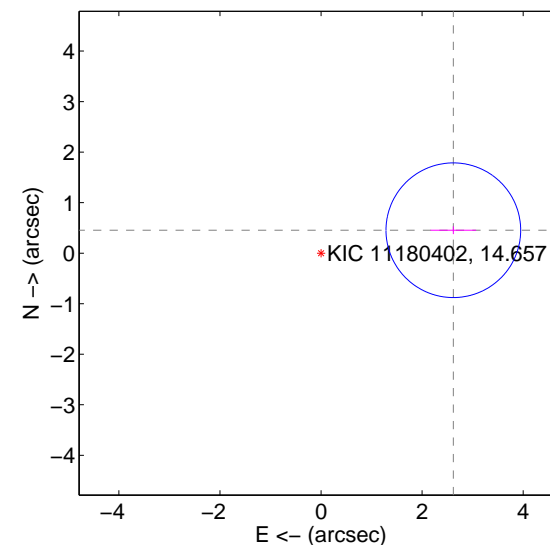
offset from difference PRF-fit to OOT PRF-fit



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.



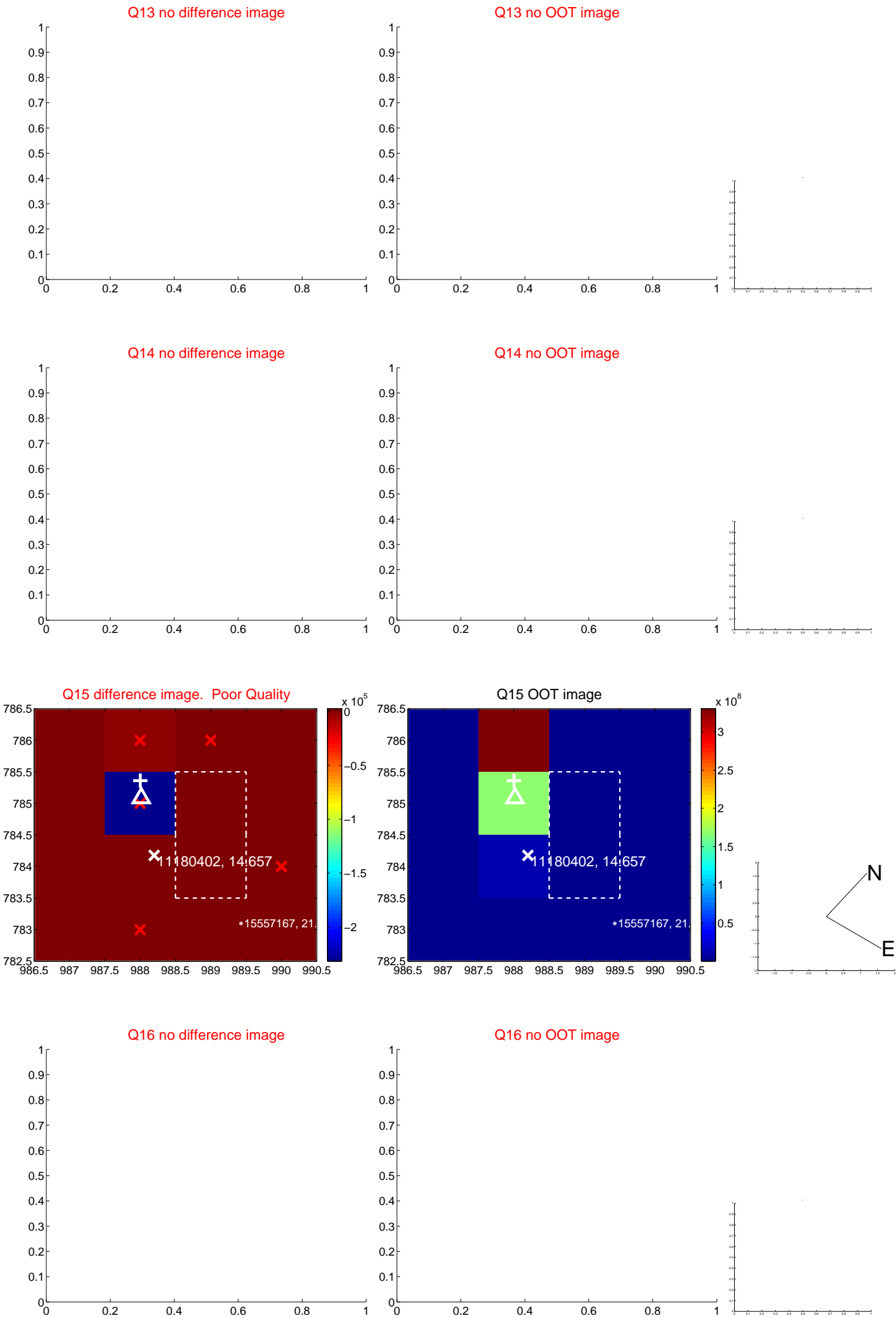
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



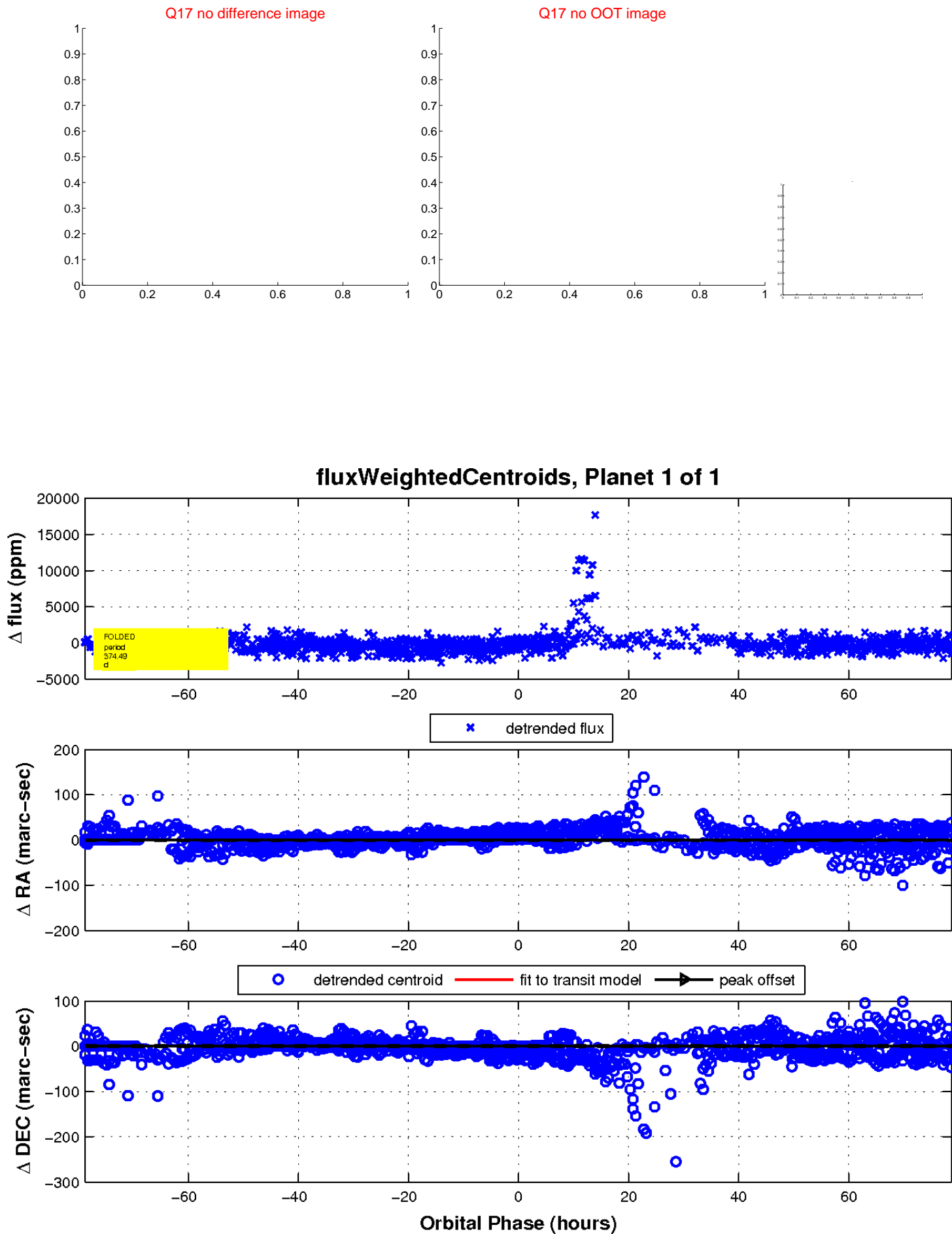
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

