

KIC 010265130

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})
010265130-01	OBS	No	224.477353	271.377318	178.6	19.583	25.7	7.1	14.73	5038	19.39	111.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010265130-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_SATURATED—HALO_GHOST

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

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

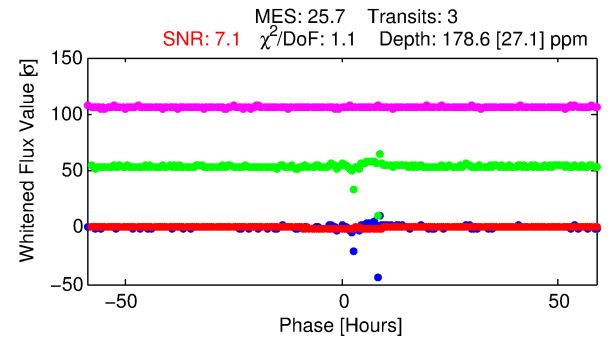
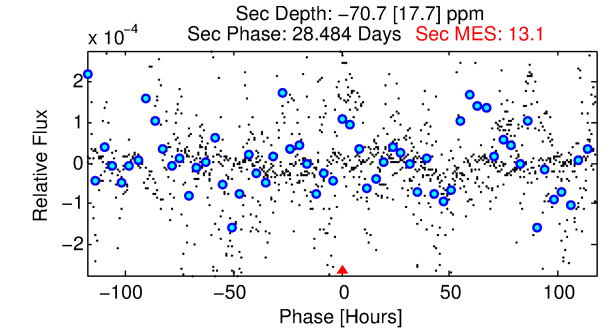
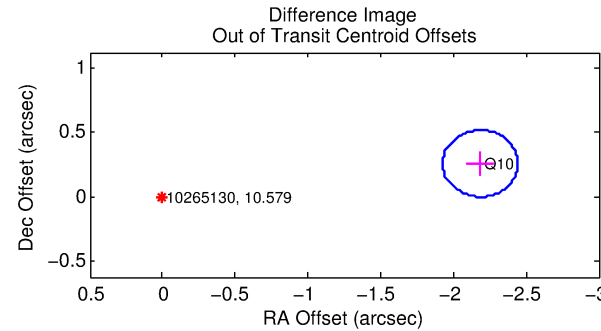
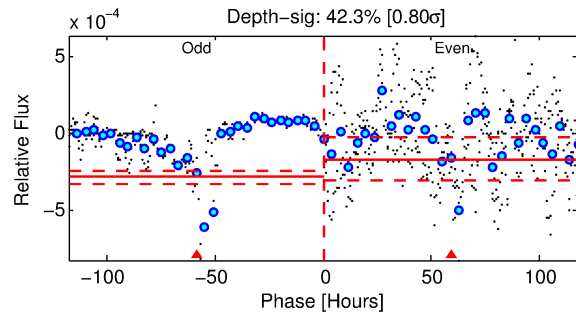
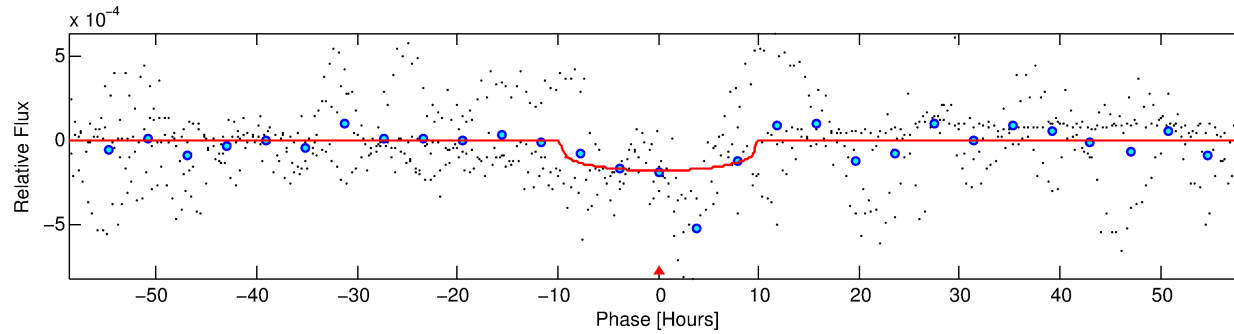
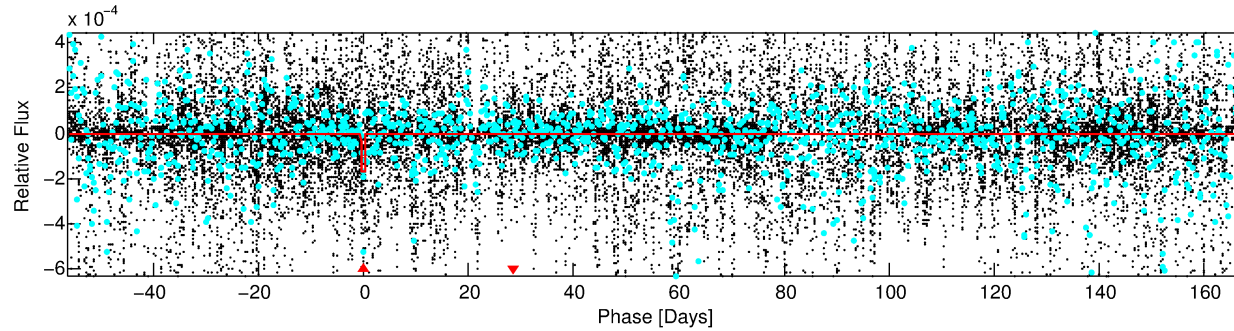
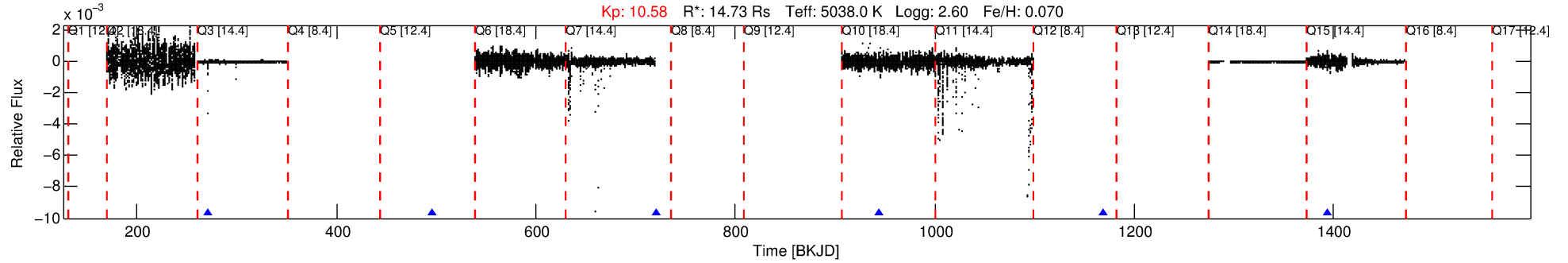
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010265130-01

No Significant Match Found

DV One-Page Summary

KIC: 10265130 Candidate: 1 of 1 Period: 224.477 d



DV Fit Results:

Period = 224.47735 [0.00578] d
Epoch = 271.3773 [0.0087] BKJD
Rp/R* = 0.0121 [0.0079]
a/R* = 83.83 [194.24]
b = 0.33 [6.32]
Seff = 111.65 [63.13]
Teff = 829 [117] K
Rp = 19.39 [16.12] Re
a = 1.0592 [0.4223] AU
Ag = N/A
Teffp = N/A

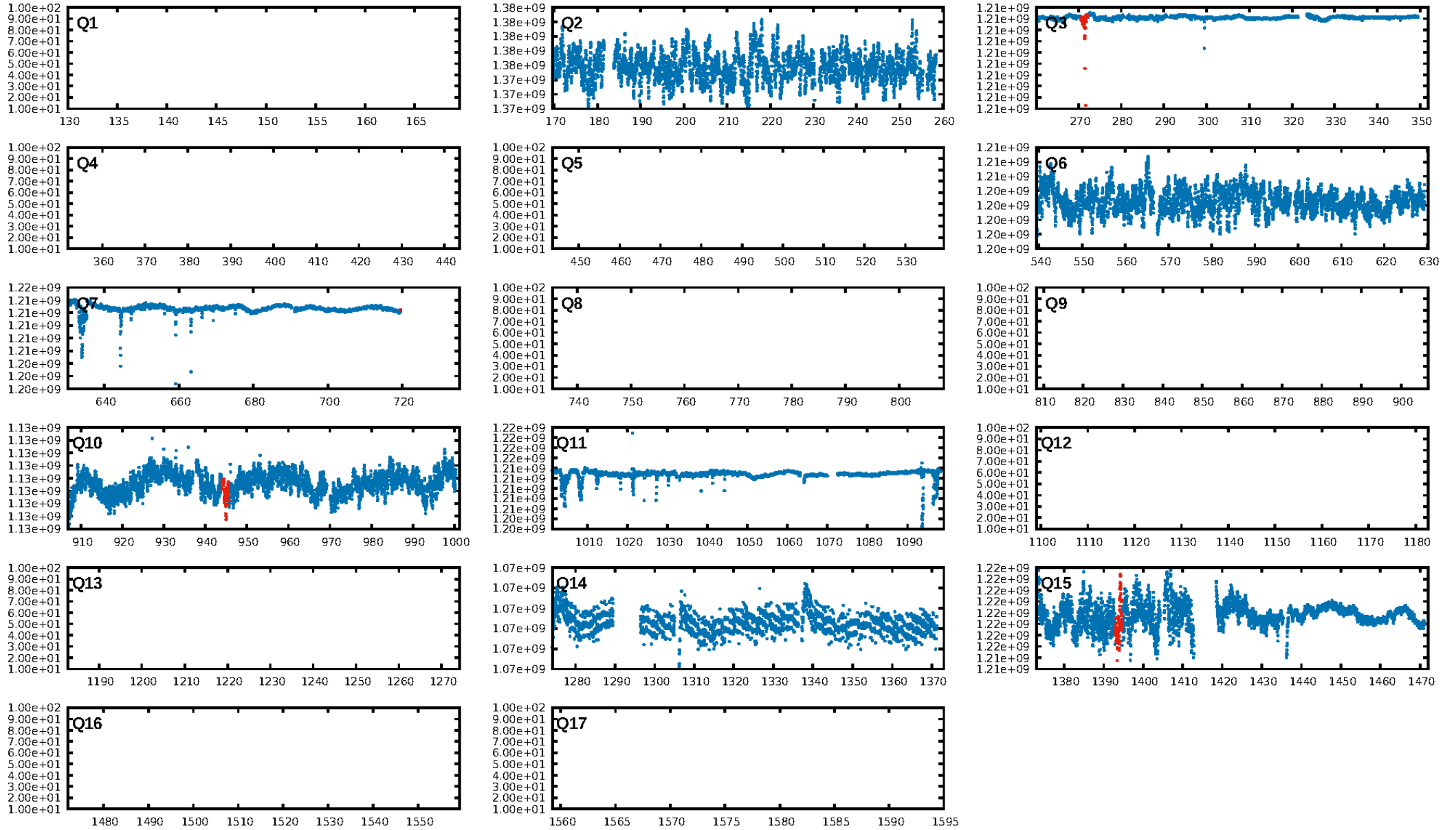
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 1.63e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.06844
Centroid-sig: 0.3%
Centroid-so: 5.664 arcsec [2.68 σ]
OotOffset-rm: 2.198 arcsec [25.51 σ]
KicOffset-rm: 2.854 arcsec [32.93 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

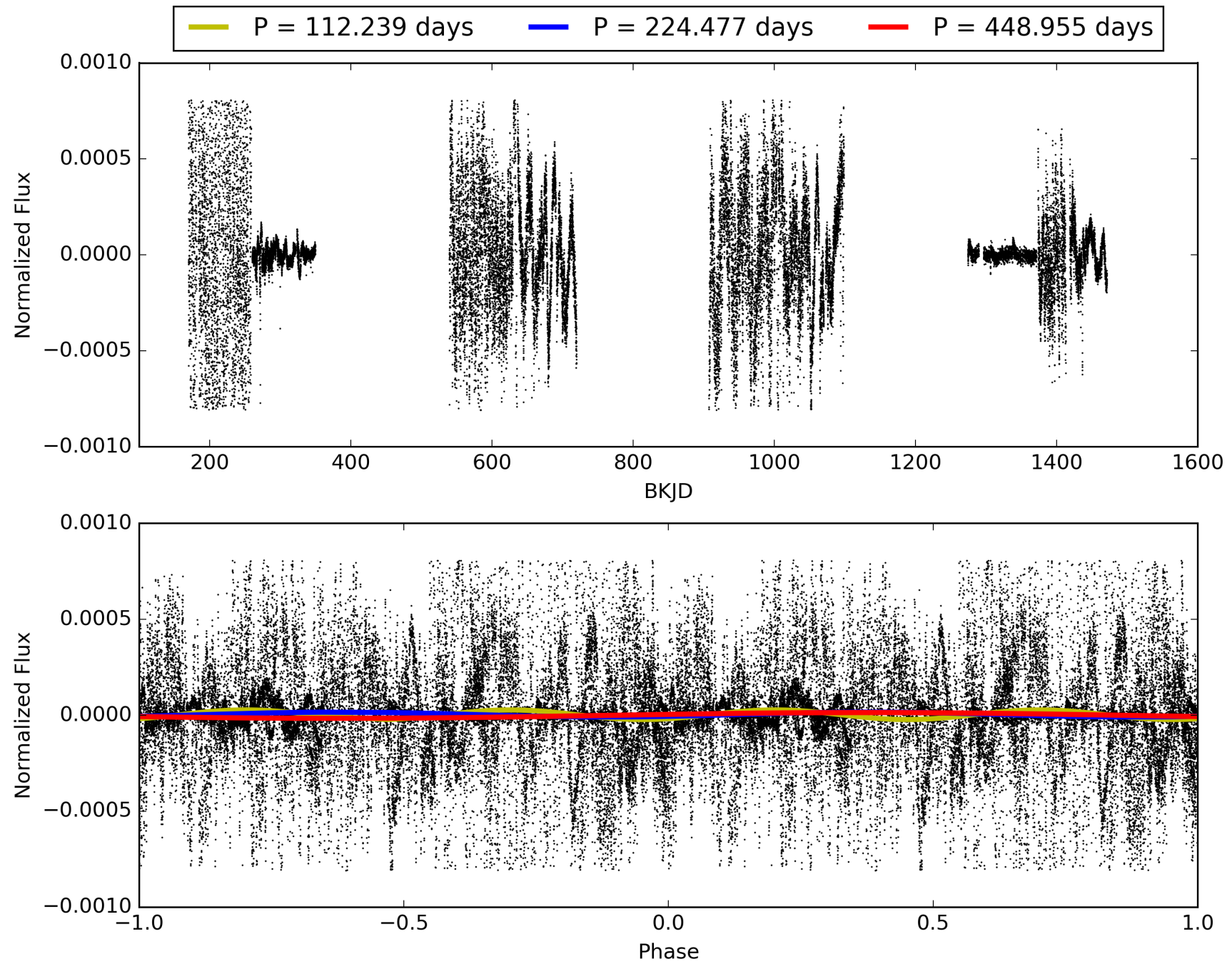
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:07:40 Z

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

TCE 010265130-01, PDC Light Curves

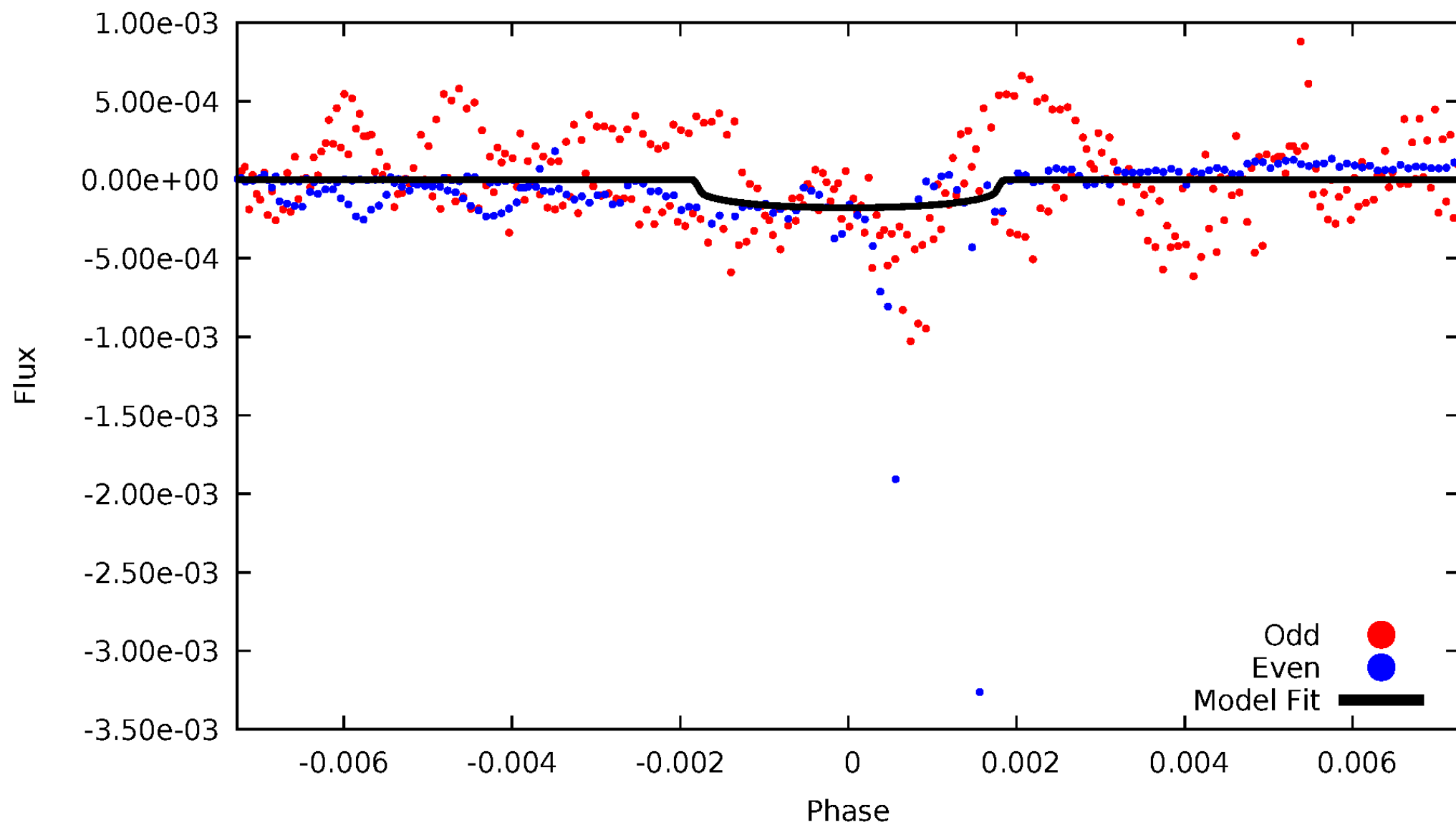


TCE 010265130-01



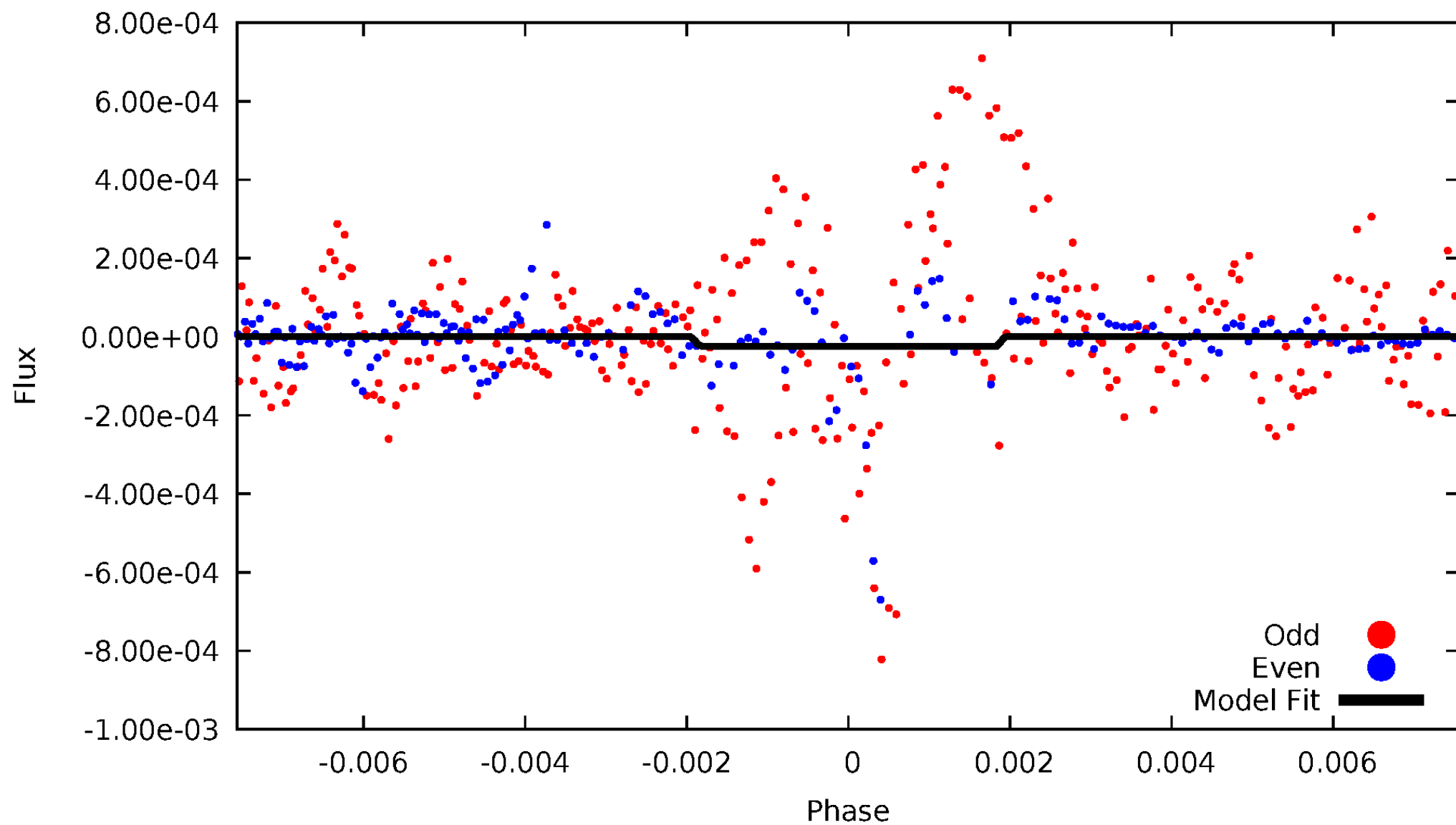
DV Odd/Even

TCE 010265130-01



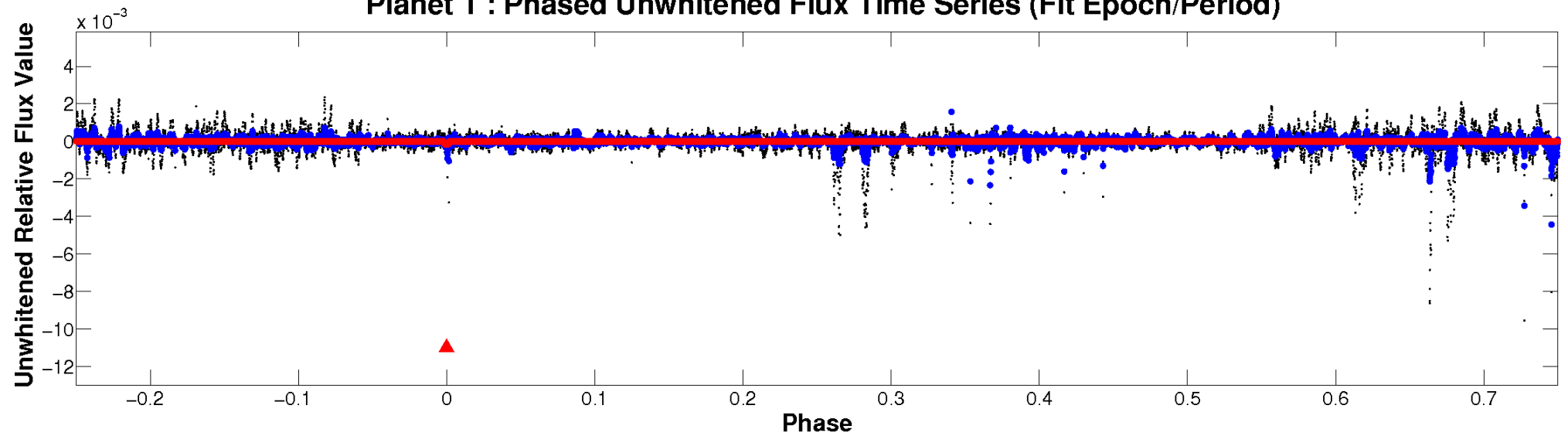
ALT Odd/Even

TCE 010265130-01

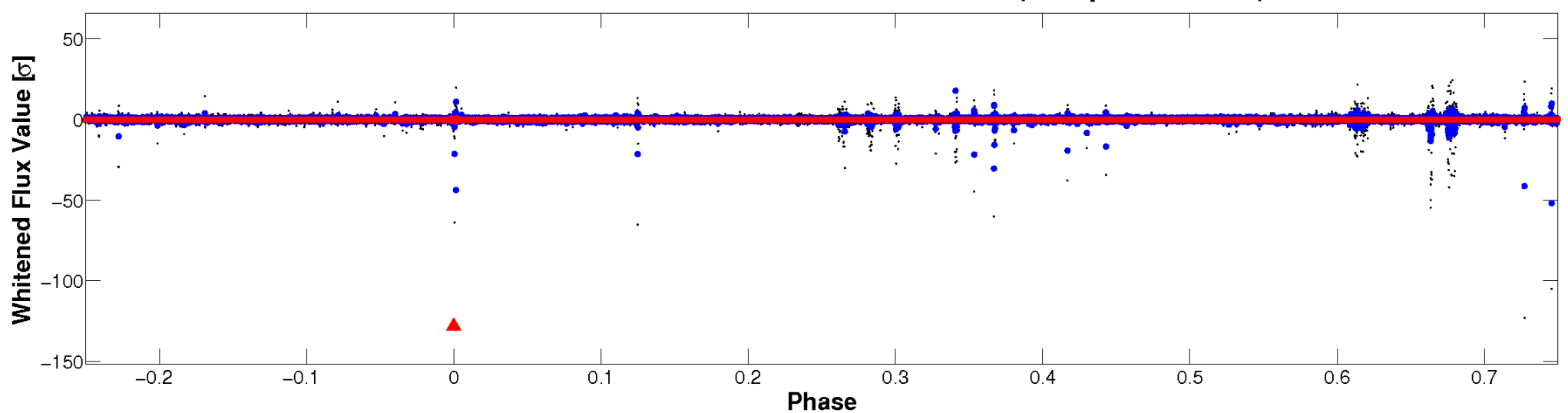


Non-Whitened Vs. Whitened Light Curve

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

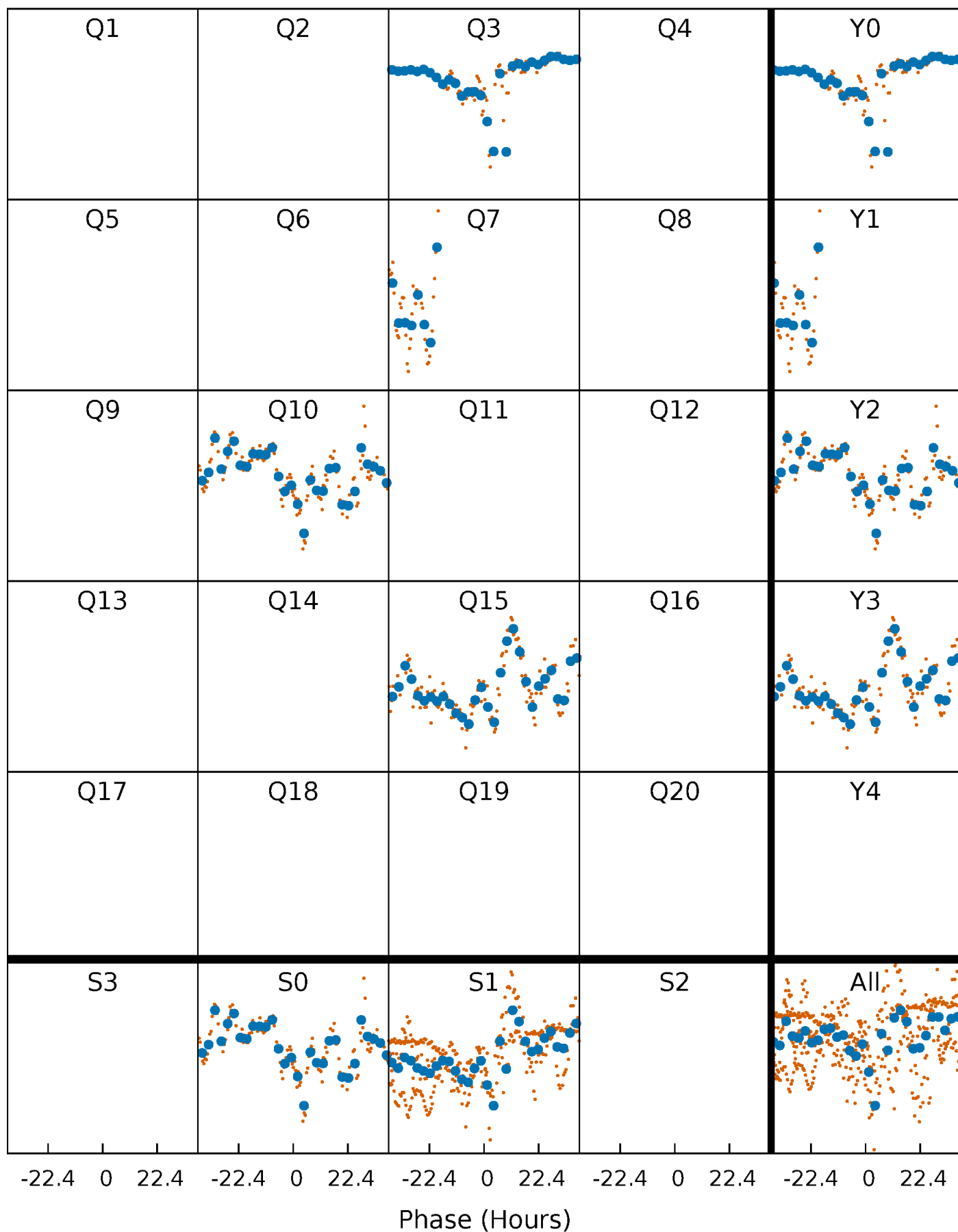


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



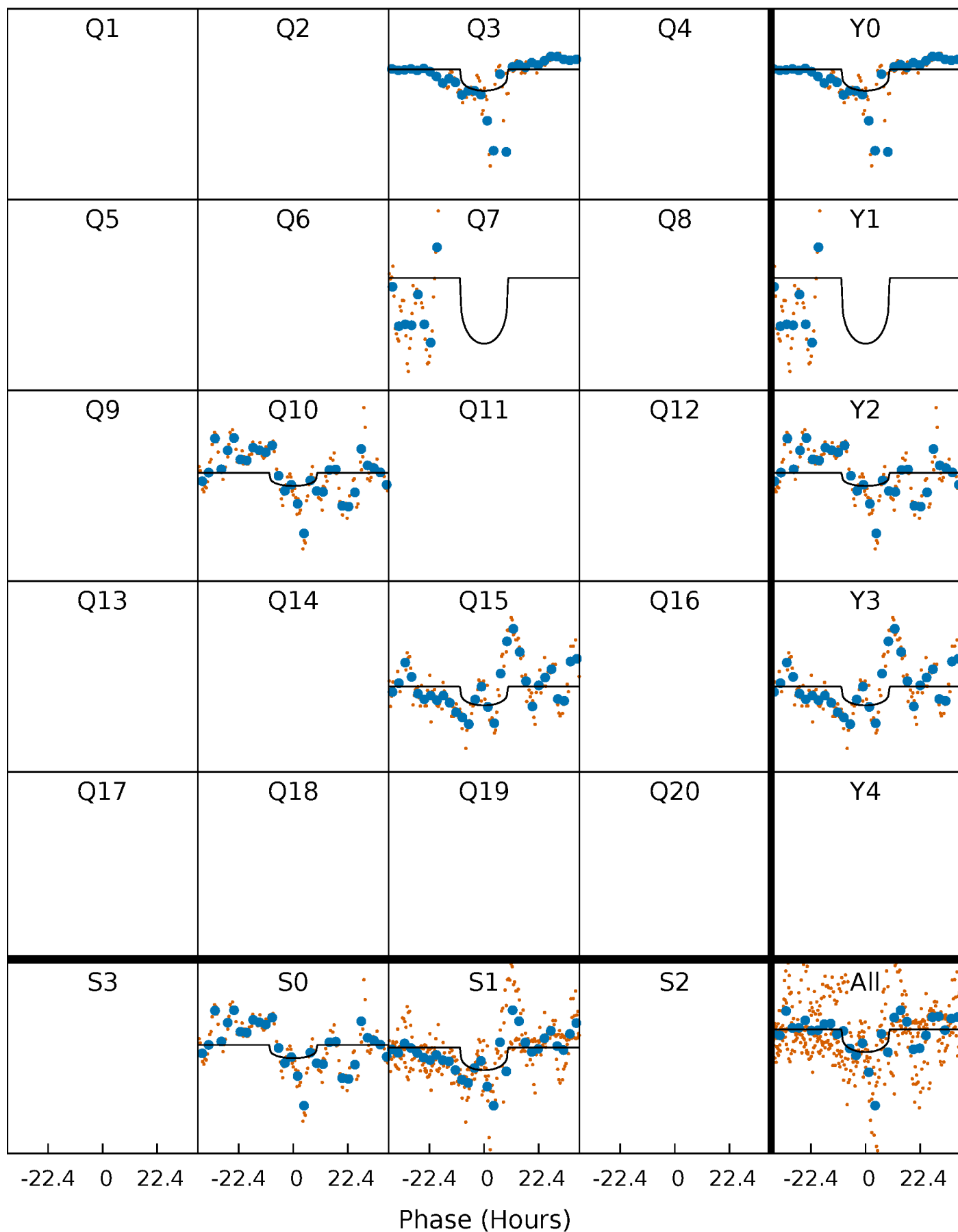
PDC Quarter-Phased Transit Curves

TCE 010265130-01 P=224.477353 Days $T_0=271.377318$ (BKJD)



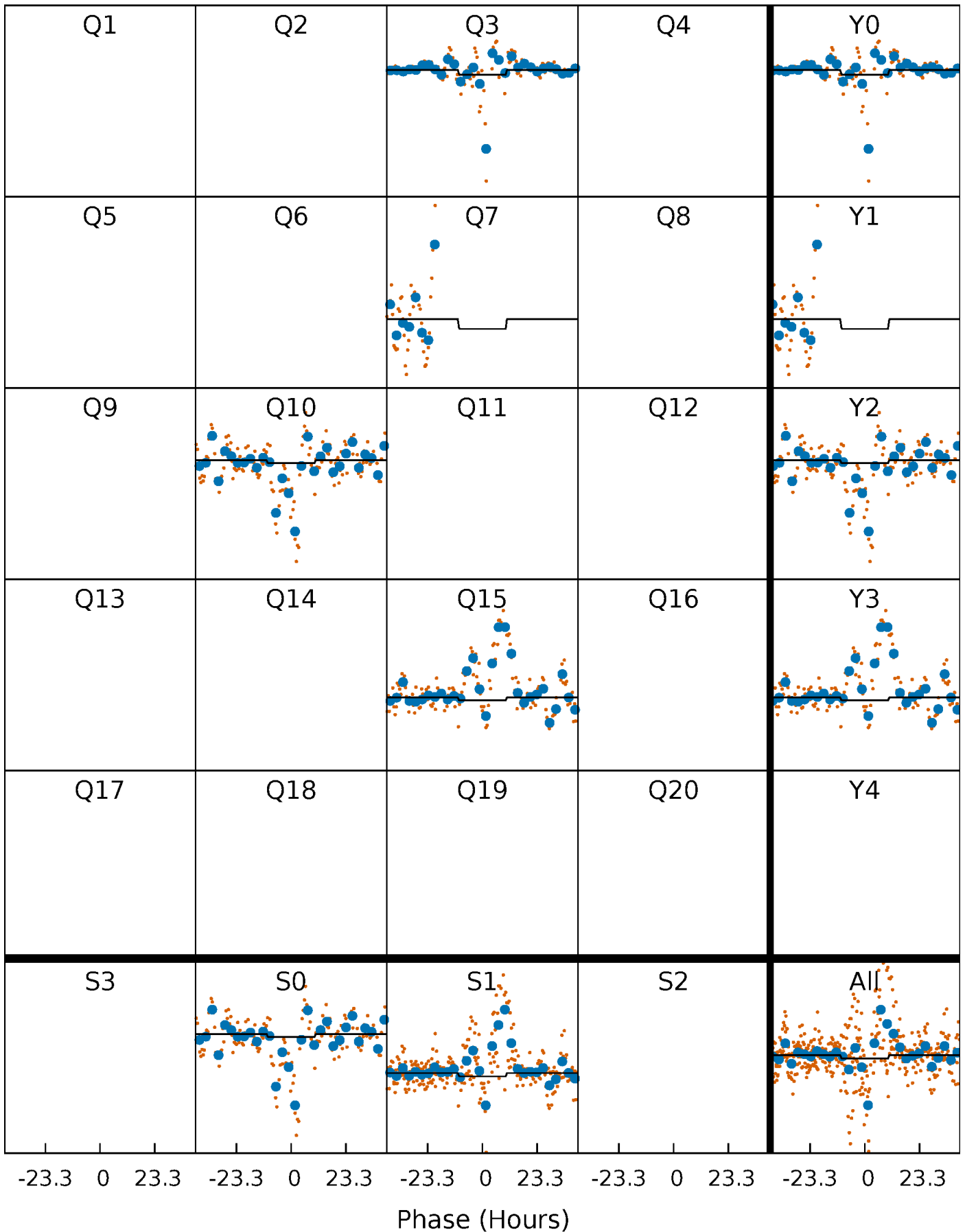
DV Quarter-Phased Transit Curves

TCE 010265130-01 P=224.477353 Days $T_0=271.377318$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

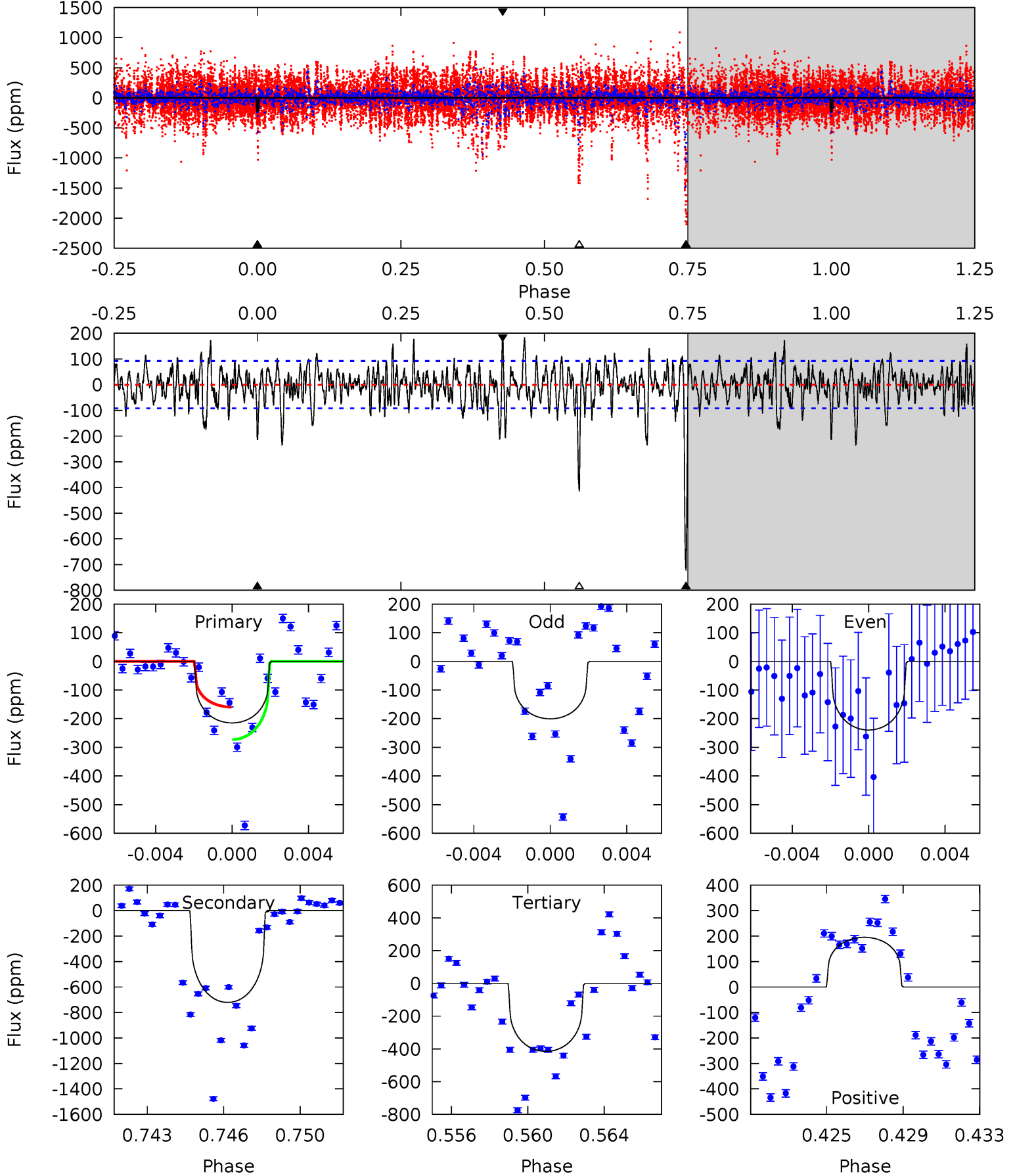
TCE 010265130-01 $P=224.496713$ Days $T_0=271.393255$ (BKJD)



DV Model-Shift Uniqueness Test

010265130-01, P = 224.477353 Days, E = 46.899965 Days

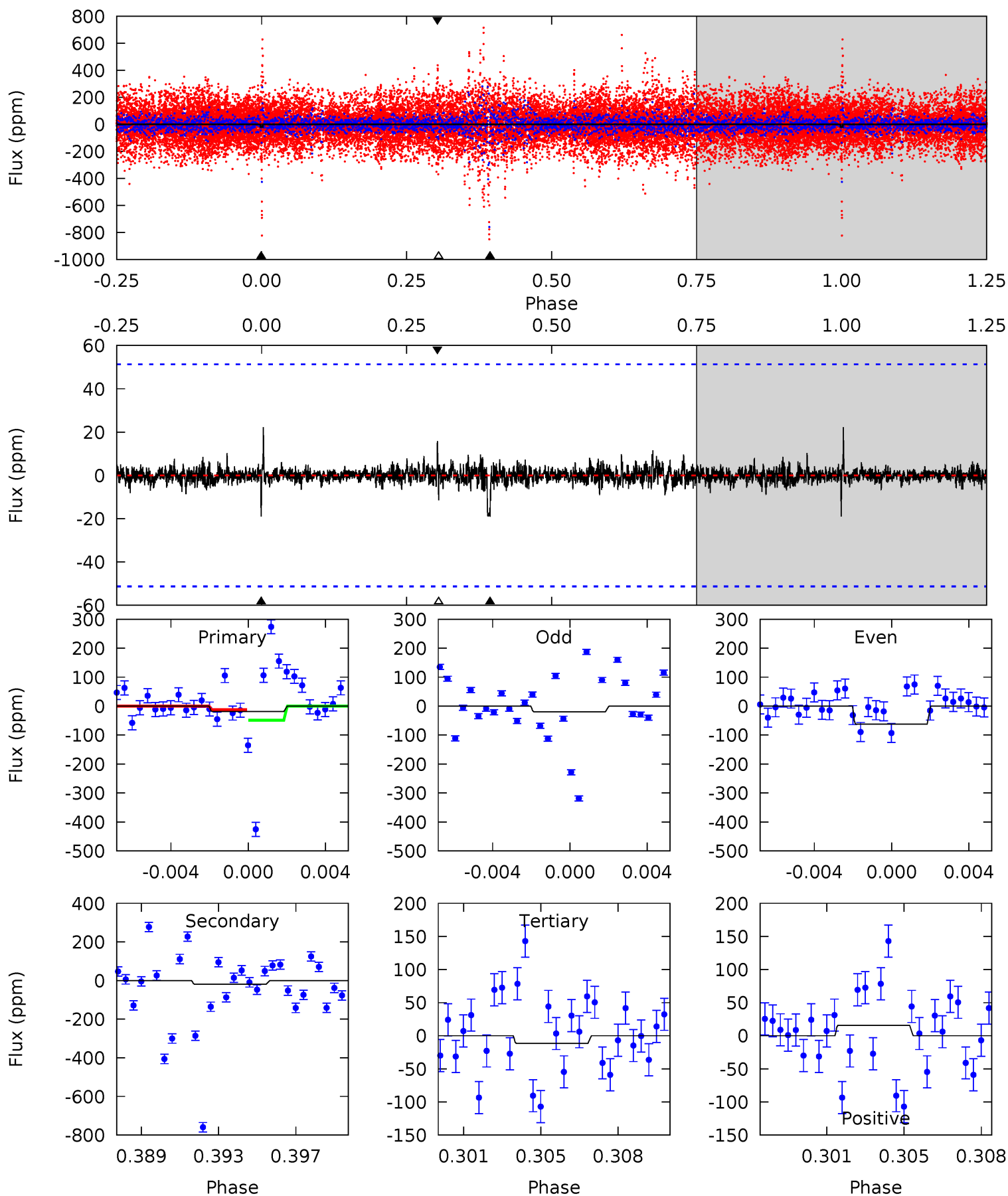
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	40.8	23.5	11.0	5.21	2.90	3.46	-11.3	1.12	17.3	29.8	0.65	0.97	0.21	3.23



Alt Model-Shift Uniqueness Test

010265130-01, P = 224.496713 Days, E = 46.896542 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.92	1.93	1.17	1.61	5.21	2.89	0.26	0.75	0.31	0.76	0.32	1.84	0.18	0.54	0



Stellar Parameters For KIC 010265130

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5038^{+68}_{-238}	$2.599^{+0.266}_{-0.143}$	$0.070^{+0.150}_{-0.550}$	$14.732^{+2.523}_{-7.568}$	$3.139^{+0.221}_{-1.989}$	$0.001^{+0.004}_{-0.000}$
	+1%/-5%	+10%/-6%	+214%/-786%	+17%/-51%	+7%/-63%	+262%/-36%
Source	KIC0	FLK73	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 010265130-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-721 ± 18	$19.45^{+12.32}_{-10.75}$	1136^{+79}_{-113}	7135^{+4834}_{-1515}	1138^{+4208}_{-712}
Alt.	-19 ± 10	$11.90^{+10.20}_{-7.87}$	1146^{+73}_{-104}	3929^{+2352}_{-828}	75^{+565}_{-59}

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 $A_{obs} \gg 1.0$

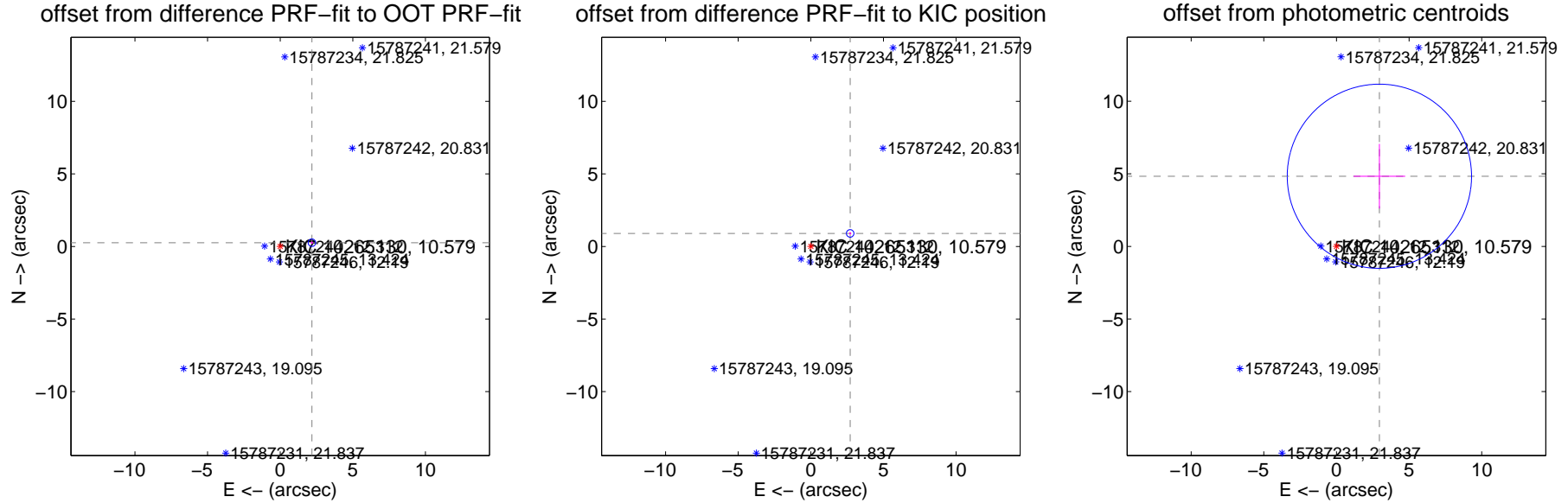
DV Centroid Data

Supplemental centroid analysis for 010265130-01. **Kepler magnitude: 10.58.** Transit SNR 7.07

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.83 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.198 ± 0.086	25.51	-2.183 ± 0.086	0.258 ± 0.092
PRF-fit source offset from KIC position	2.854 ± 0.087	32.93	-2.708 ± 0.086	0.899 ± 0.092
photometric centroid source offset	5.66 ± 2.11	2.68	-2.96 ± 1.78	4.83 ± 2.23



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.

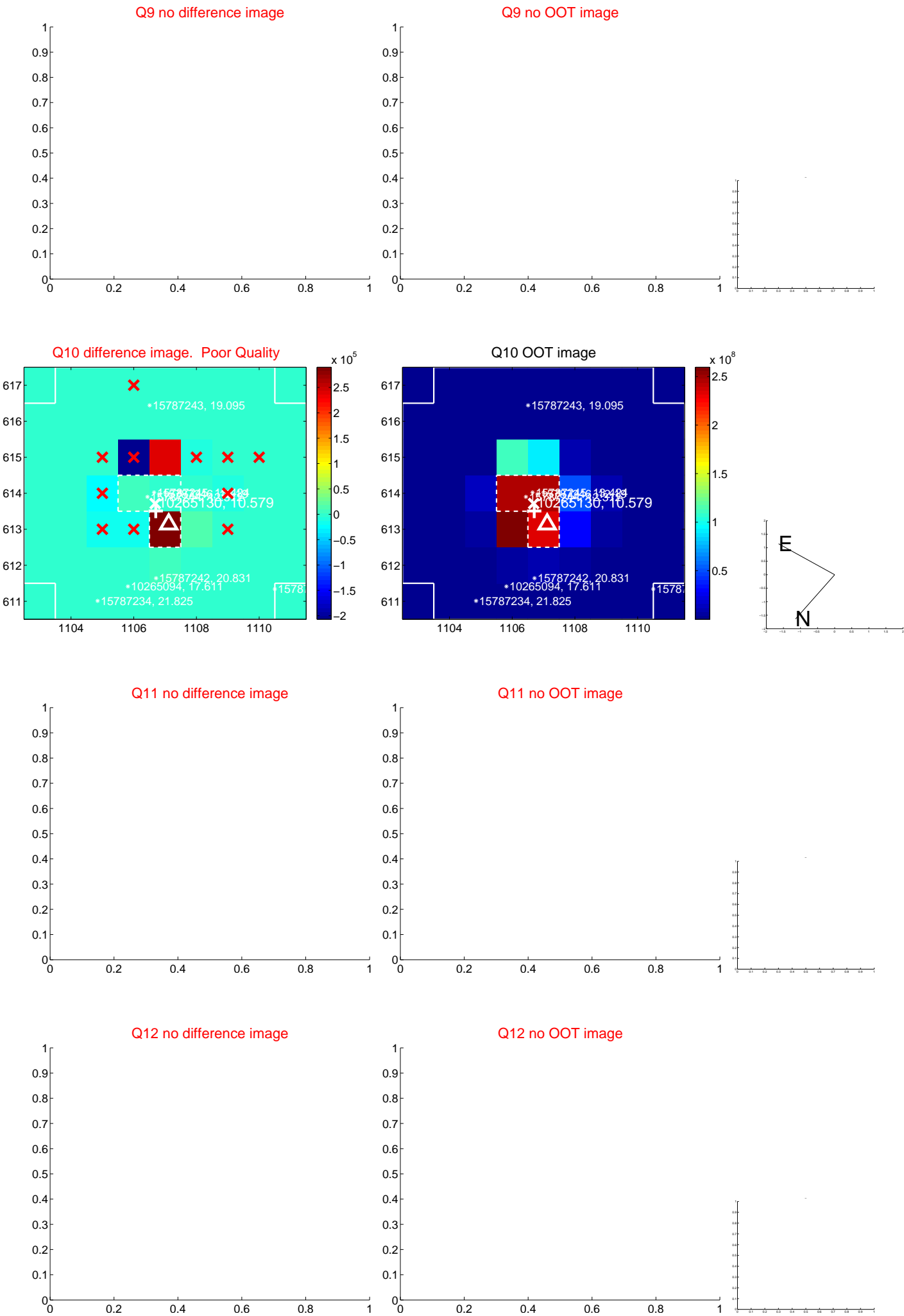
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



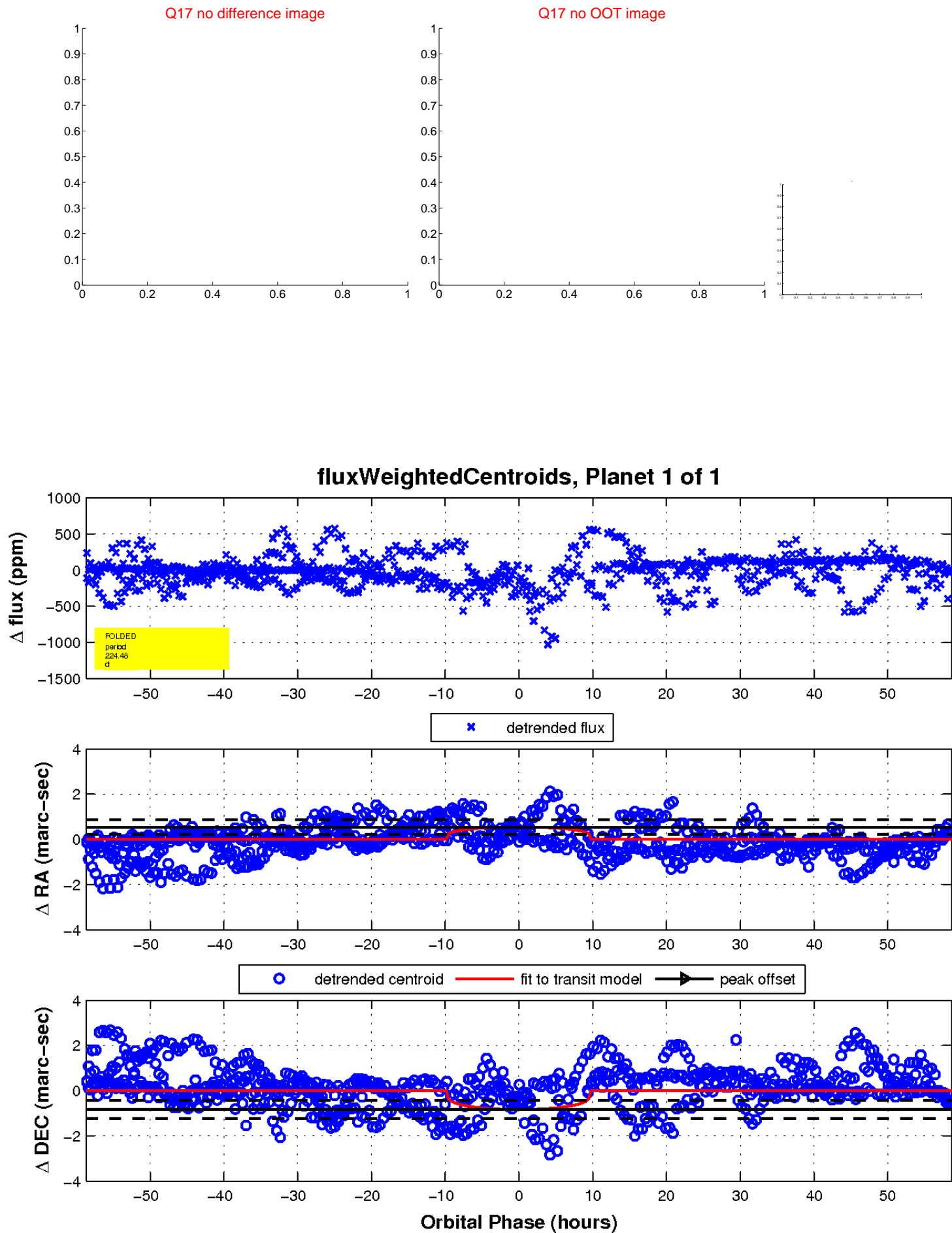
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

