

KIC 006676125

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})
006676125-01	OBS	No	556.820429	394.744269	1005.4	61.315	10.7	18.0	4.89	5112	19.53	7.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006676125-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

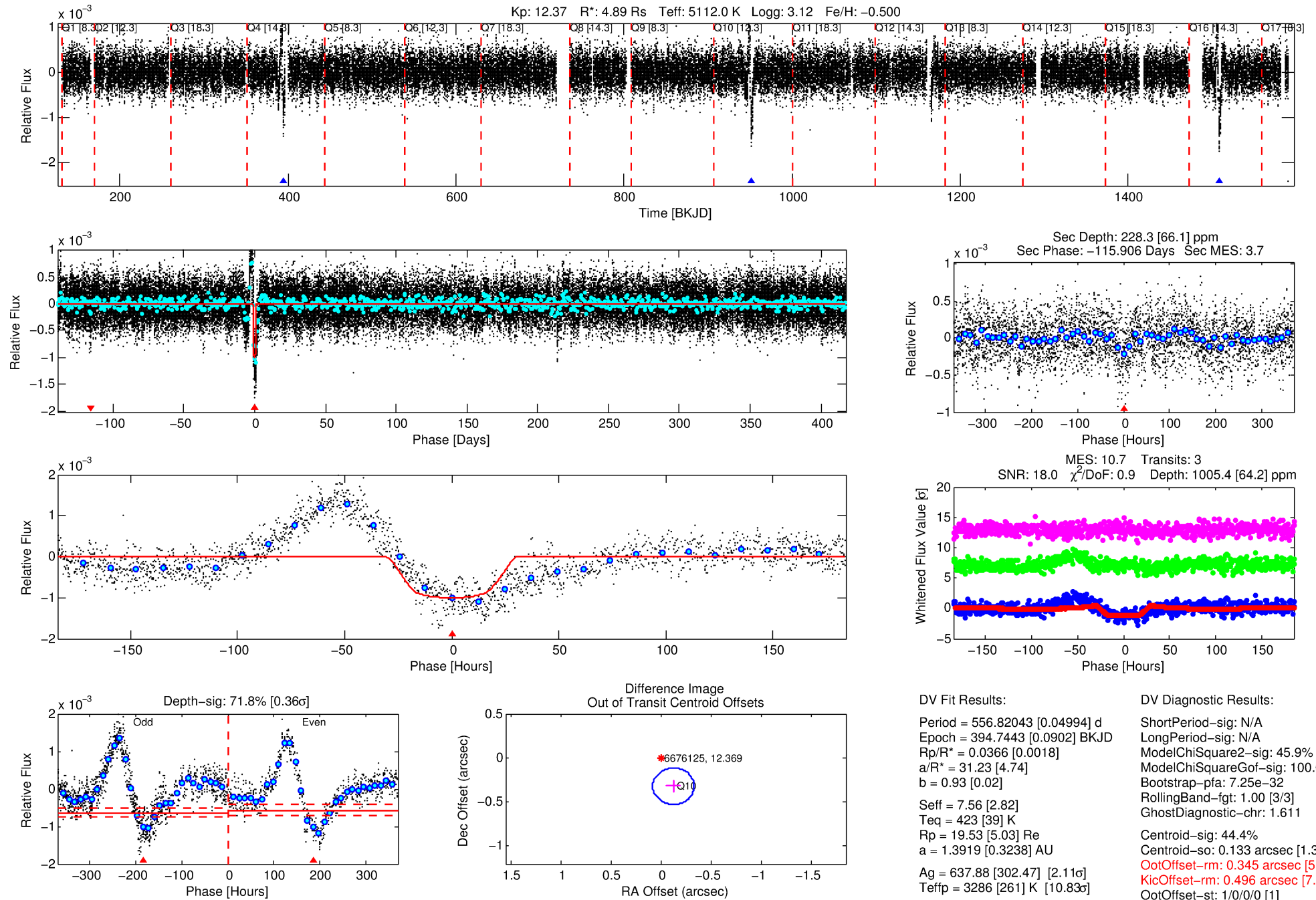
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006676125-01

No Significant Match Found

DV One-Page Summary

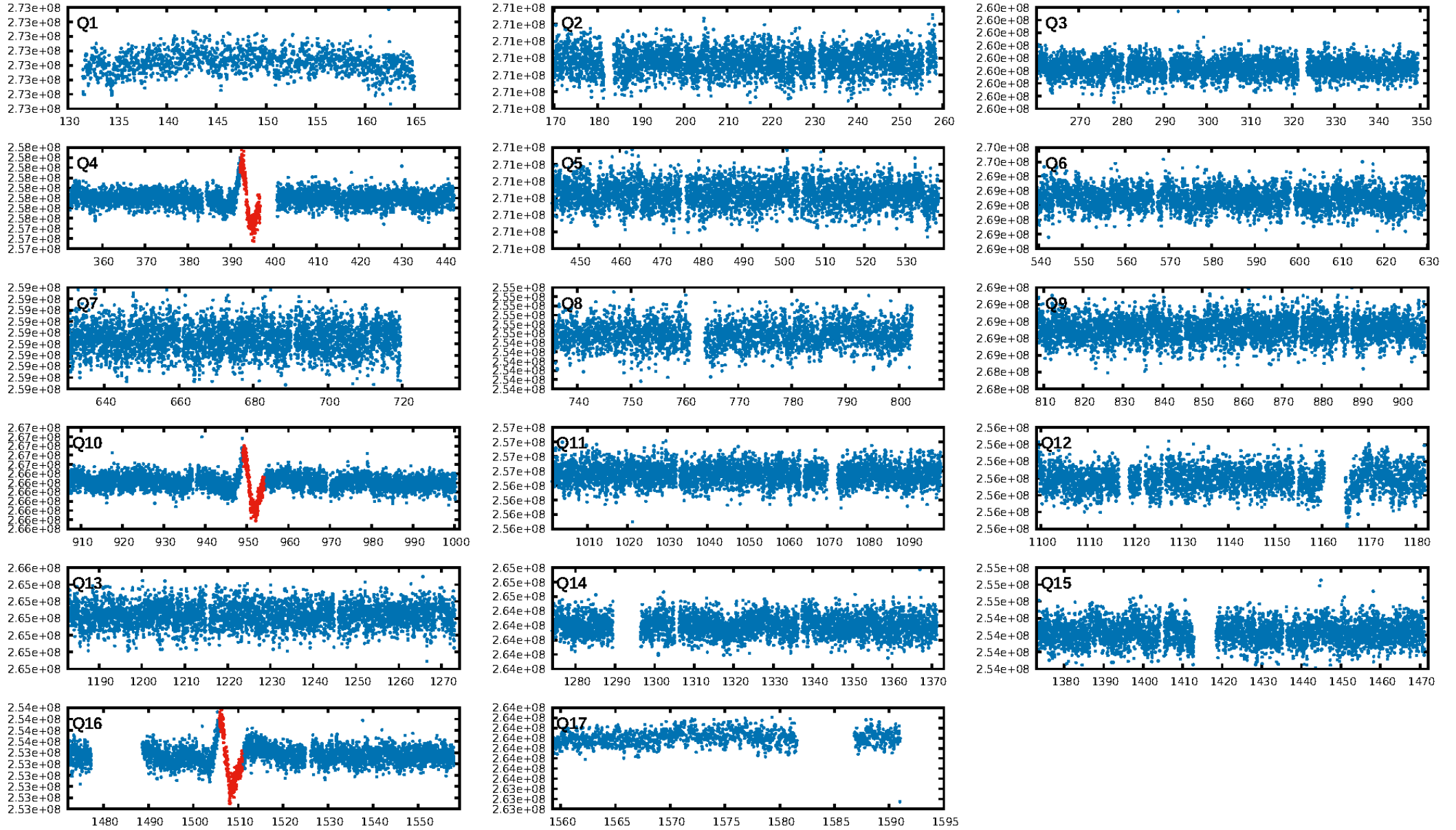
KIC: 6676125 Candidate: 1 of 1 Period: 556.820 d



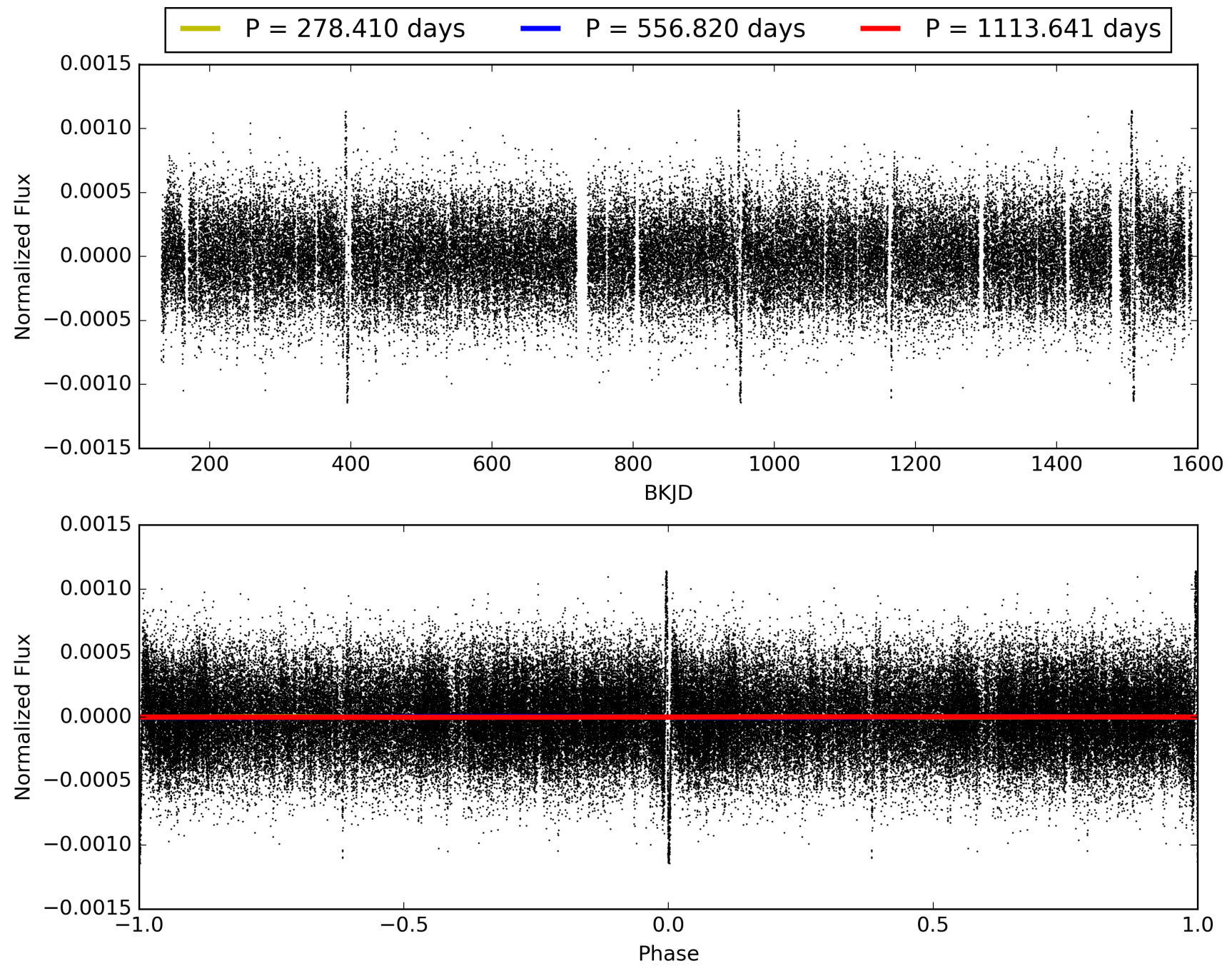
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:54:34 Z

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

TCE 006676125-01, PDC Light Curves

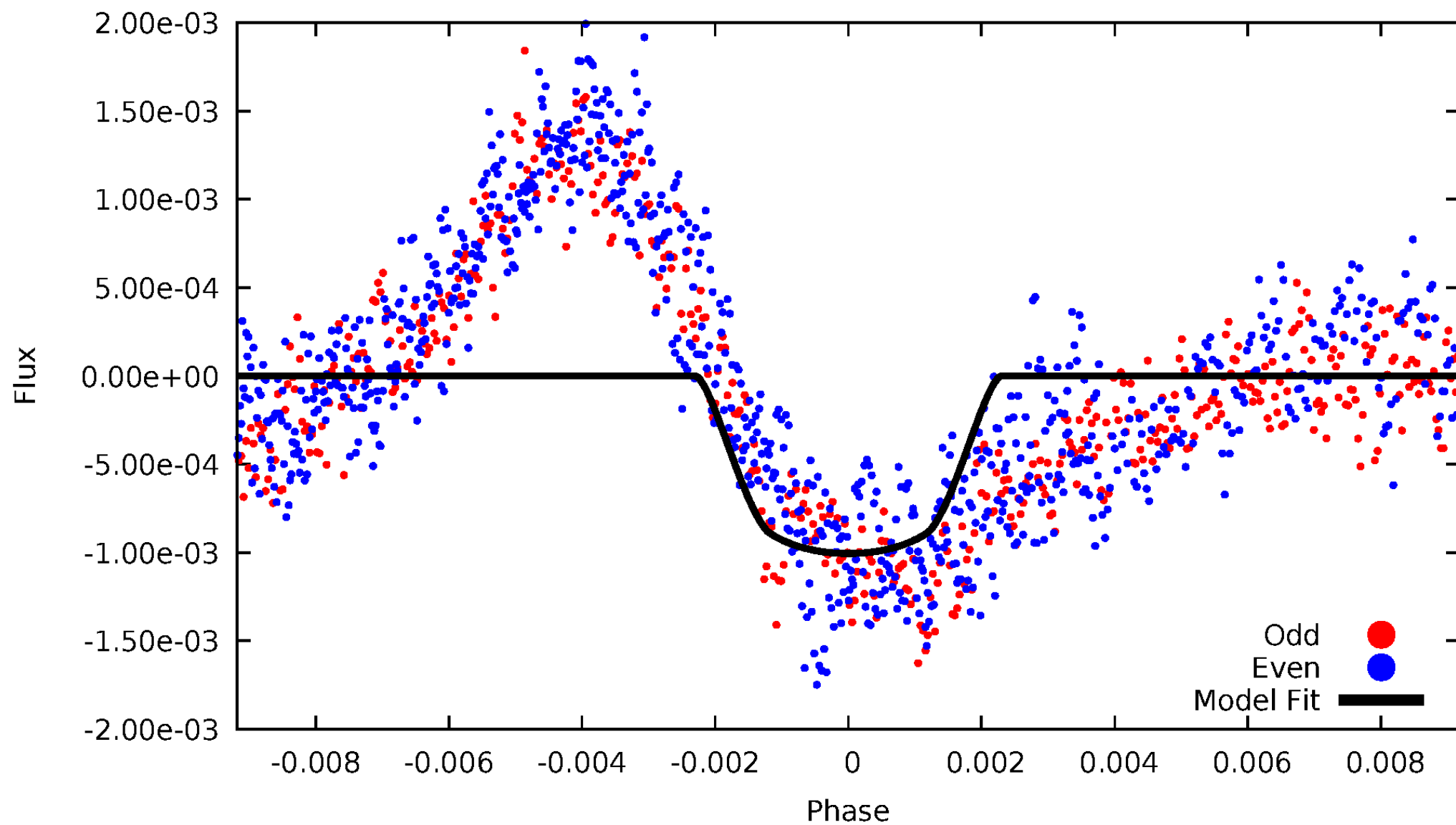


TCE 006676125-01



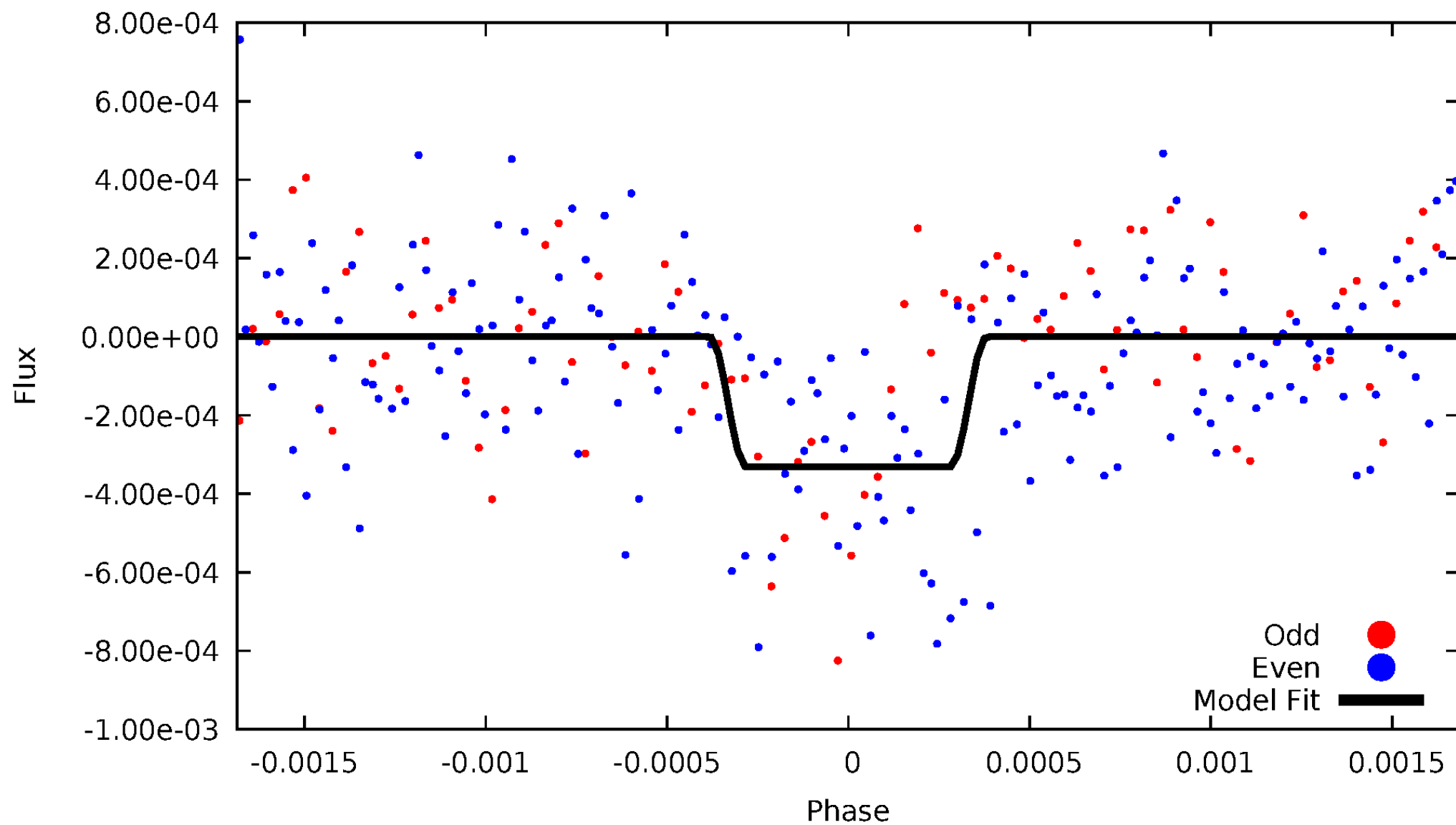
DV Odd/Even

TCE 006676125-01



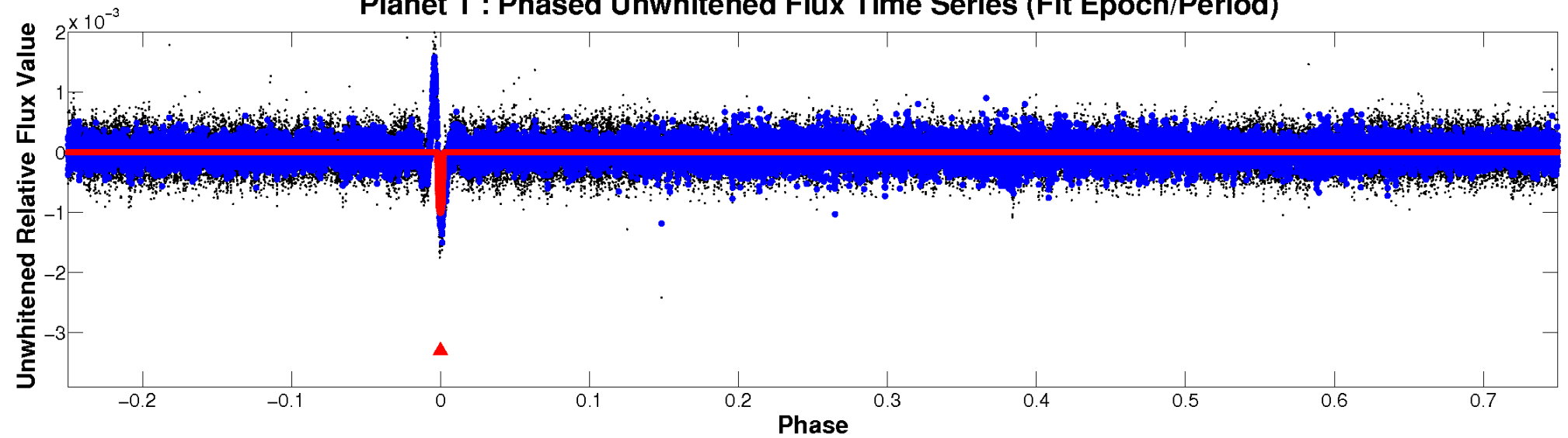
ALT Odd/Even

TCE 006676125-01

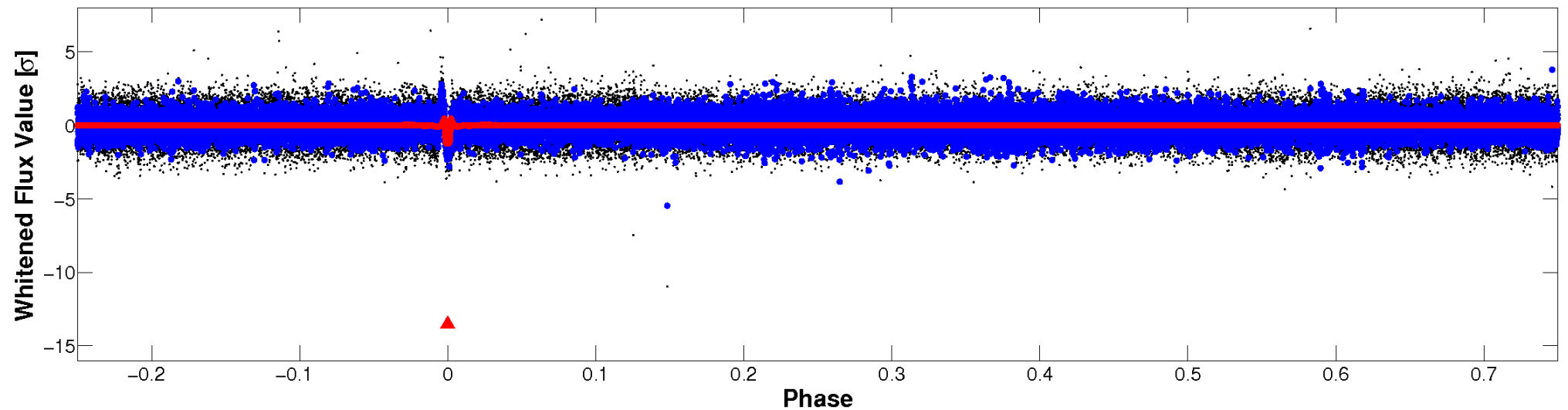


Non-Whitened Vs. Whitened Light Curve

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

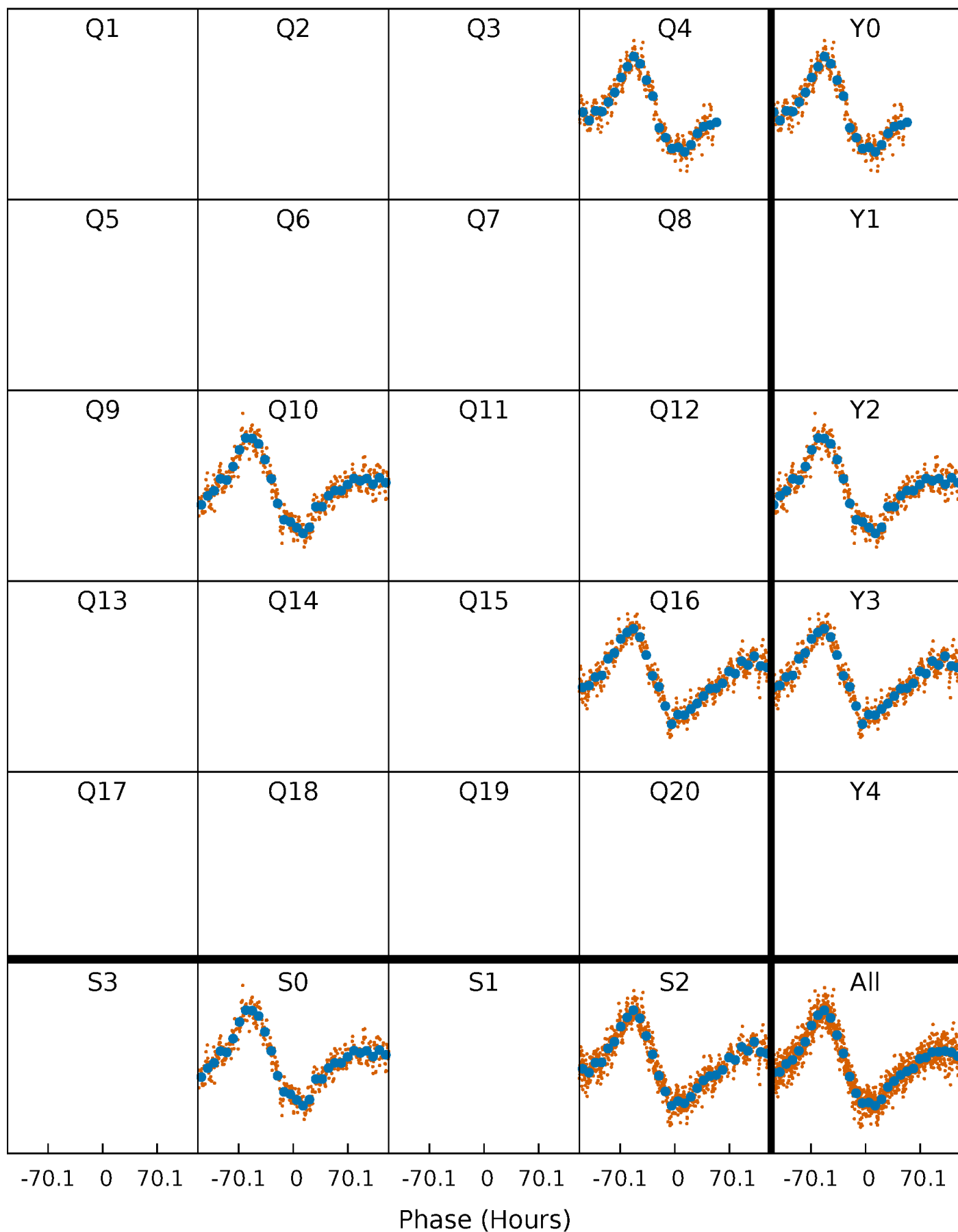


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



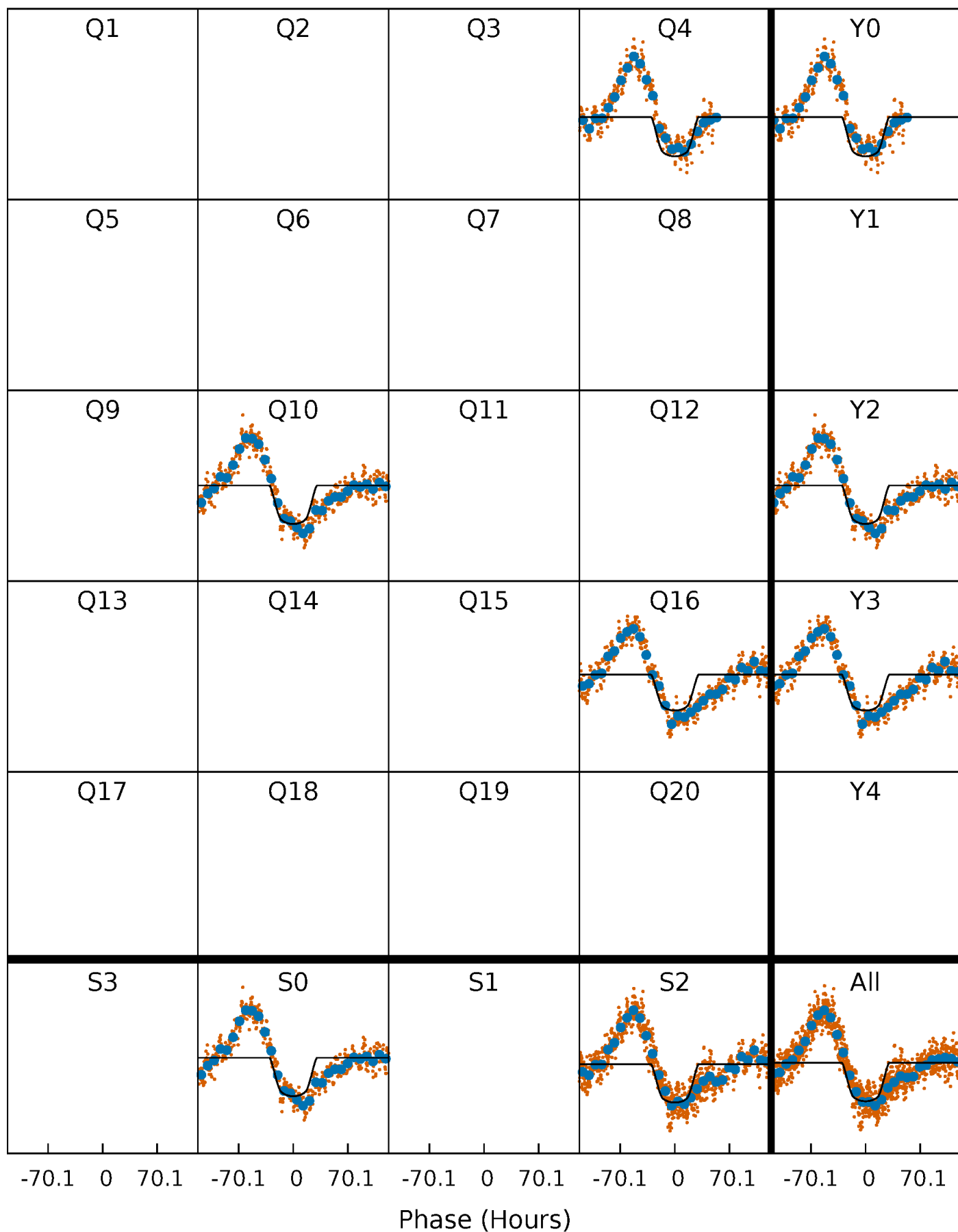
PDC Quarter-Phased Transit Curves

TCE 006676125-01 P=556.820429 Days $T_0=394.744268$ (BKJD)



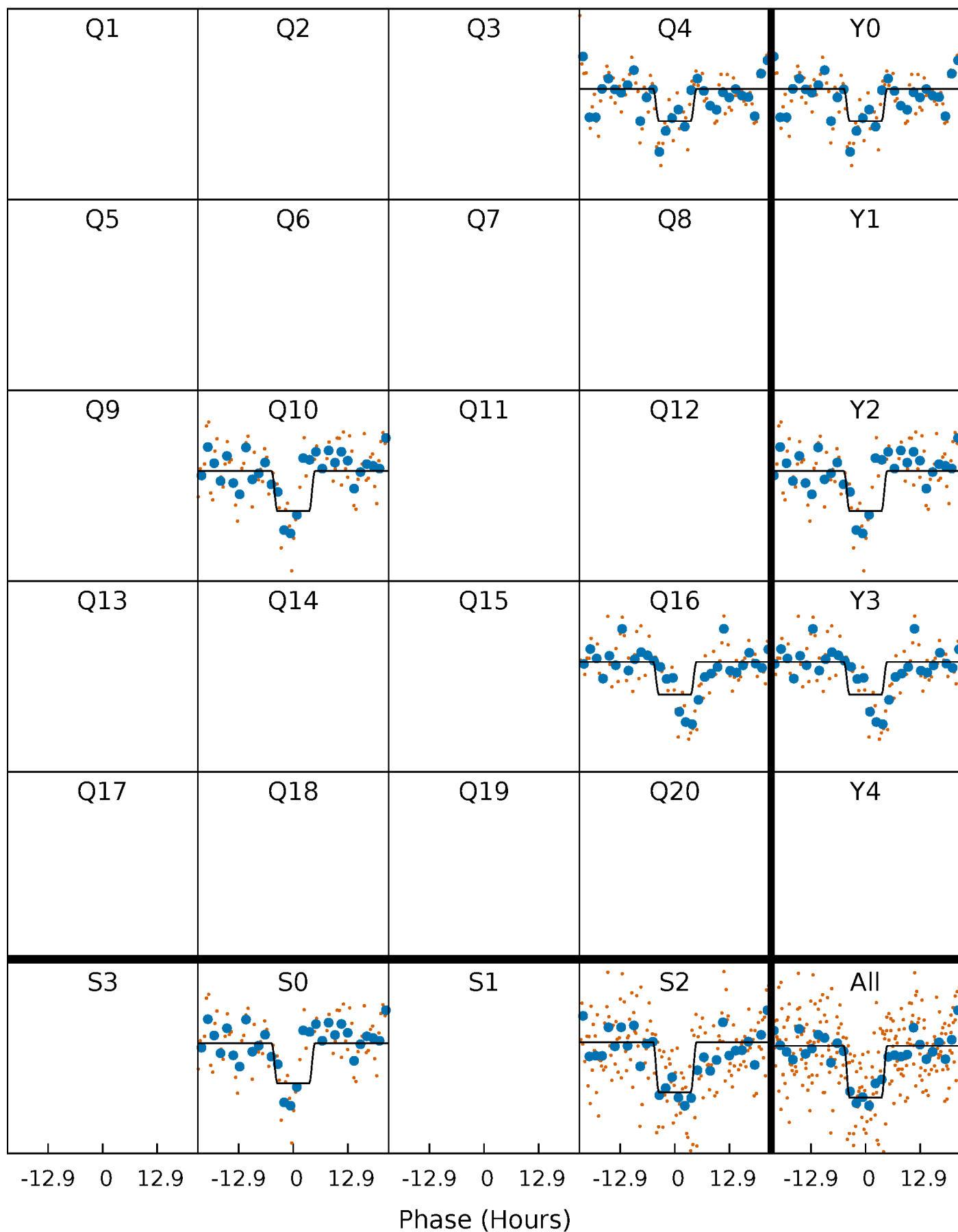
DV Quarter-Phased Transit Curves

TCE 006676125-01 P=556.820429 Days $T_0=394.744268$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

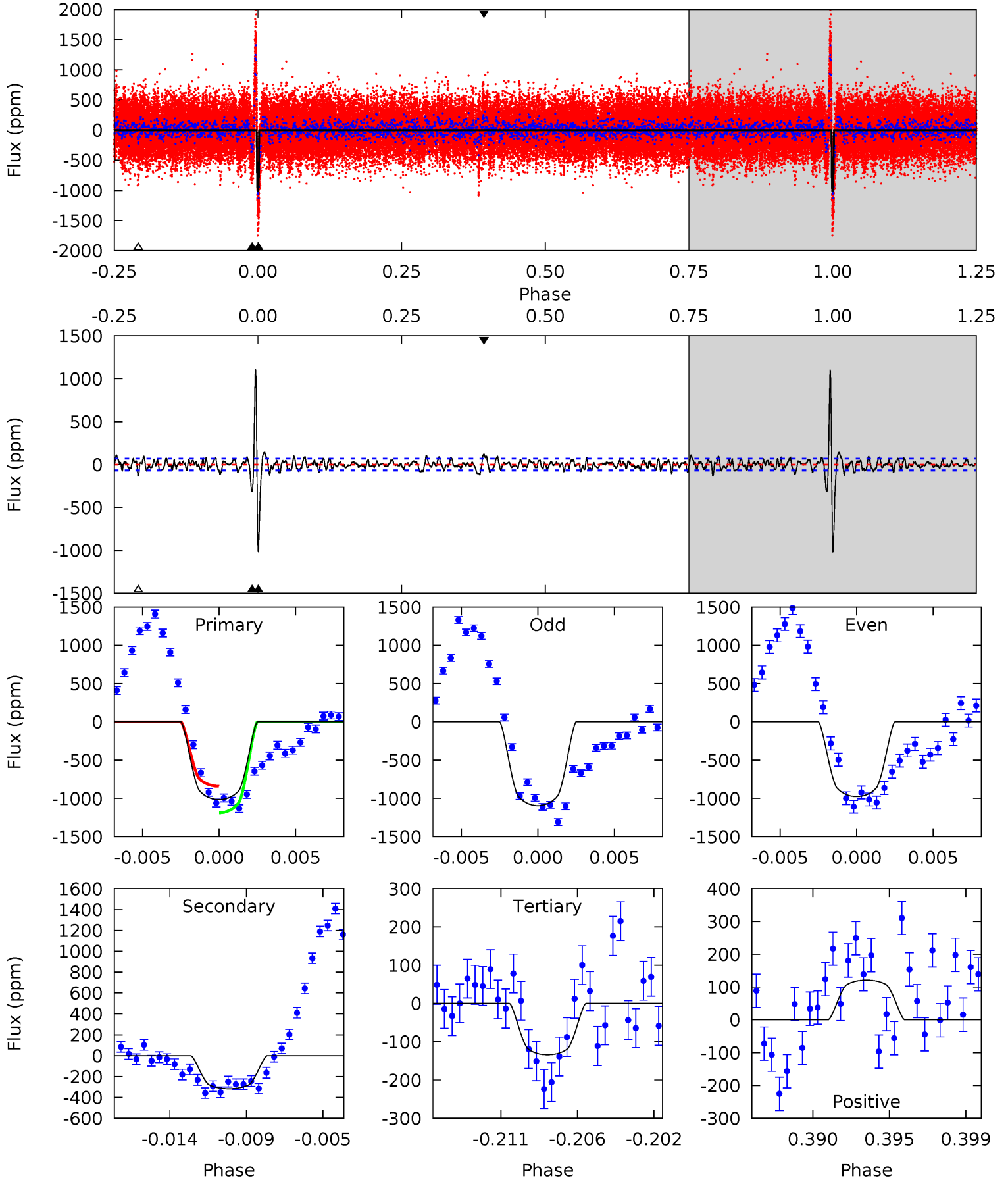
TCE 006676125-01 P=557.005223 Days $T_0=393.973817$ (BKJD)



DV Model-Shift Uniqueness Test

006676125-01, P = 556.820429 Days, E = 394.744268 Days

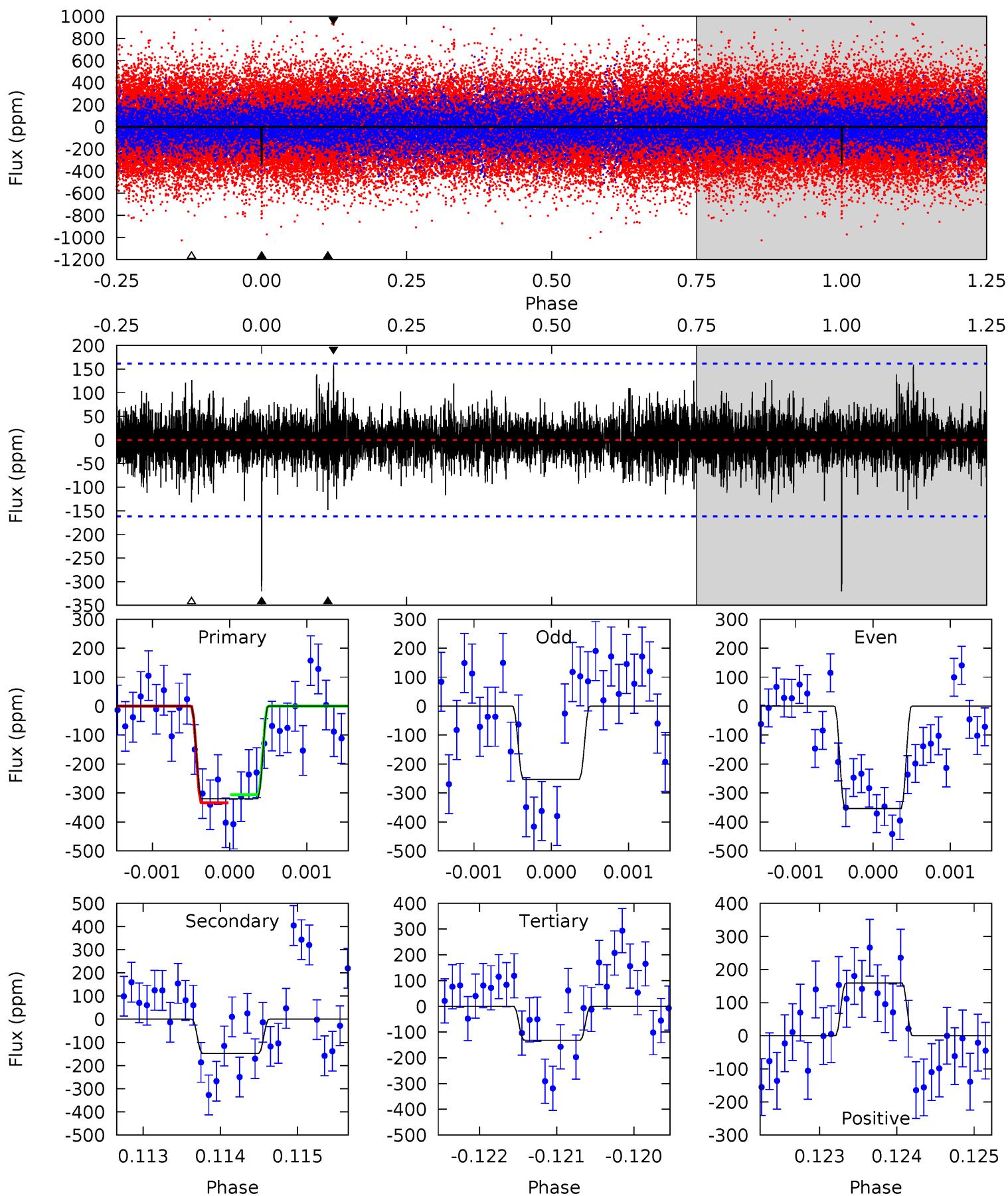
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
76.6	23.9	10.1	9.14	5.17	2.83	4.63	66.5	67.4	13.8	14.7	4.20	0.93	0.52	13.2



Alt Model-Shift Uniqueness Test

006676125-01, P = 557.005223 Days, E = 393.973817 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	5.03	4.47	5.41	5.50	3.36	1.14	6.40	5.46	0.56	-0.38	1.63	0.92	0.33	0.48



Stellar Parameters For KIC 006676125

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5112^{+112}_{-112}	$3.123^{+0.209}_{-0.171}$	$-0.500^{+0.250}_{-0.250}$	$4.894^{+1.237}_{-1.237}$	$1.161^{+0.233}_{-0.257}$	$0.014^{+0.016}_{-0.007}$
	+2%/-2%	+7%/-5%	+50%/-50%	+25%/-25%	+20%/-22%	+117%/-47%
Source	PHO1	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 006676125-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-316 ± 13	$19.49^{+3.07}_{-2.92}$	592^{+40}_{-40}	3882^{+108}_{-98}	888^{+300}_{-206}
Alt.	-148 ± 29	$9.67^{+1.97}_{-1.62}$	591^{+42}_{-42}	4341^{+250}_{-233}	1670^{+831}_{-547}

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 $A_{obs} \gg 1.0$

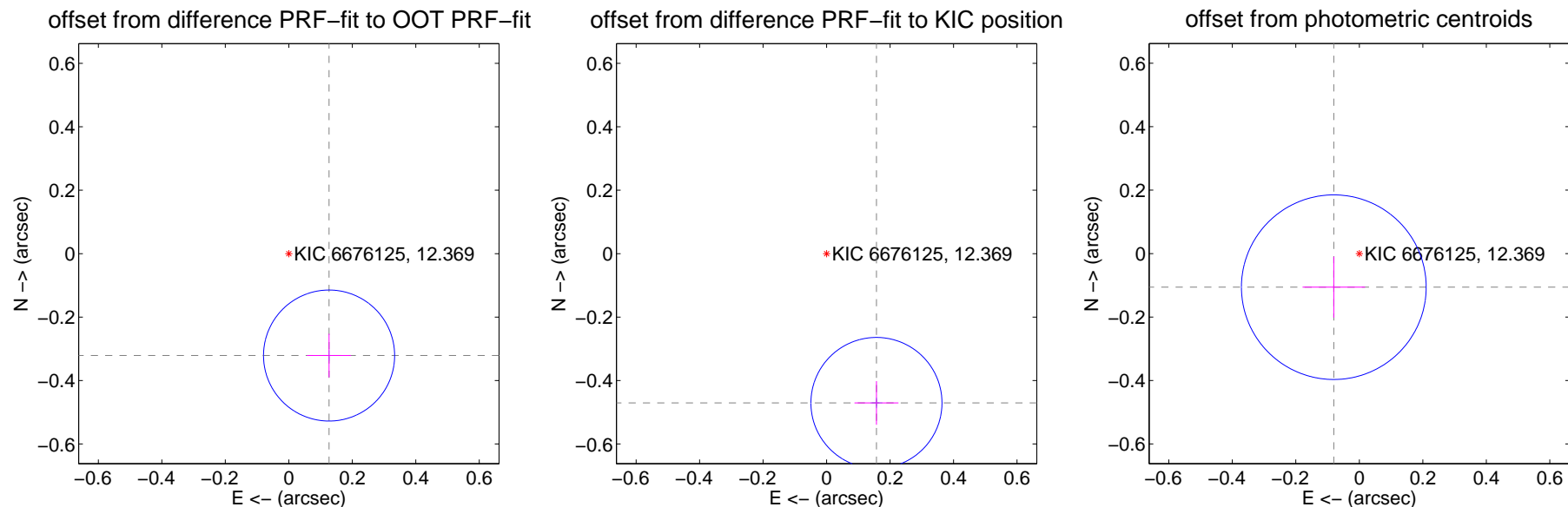
DV Centroid Data

Supplemental centroid analysis for 006676125-01. Kepler magnitude: 12.37. Transit SNR 17.97

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.345 ± 0.069	5.02	-0.127 ± 0.069	-0.321 ± 0.069
PRF-fit source offset from KIC position	0.496 ± 0.069	7.21	-0.157 ± 0.069	-0.470 ± 0.069
photometric centroid source offset	0.13 ± 0.10	1.37	0.08 ± 0.10	-0.11 ± 0.10



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.

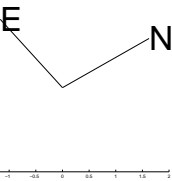
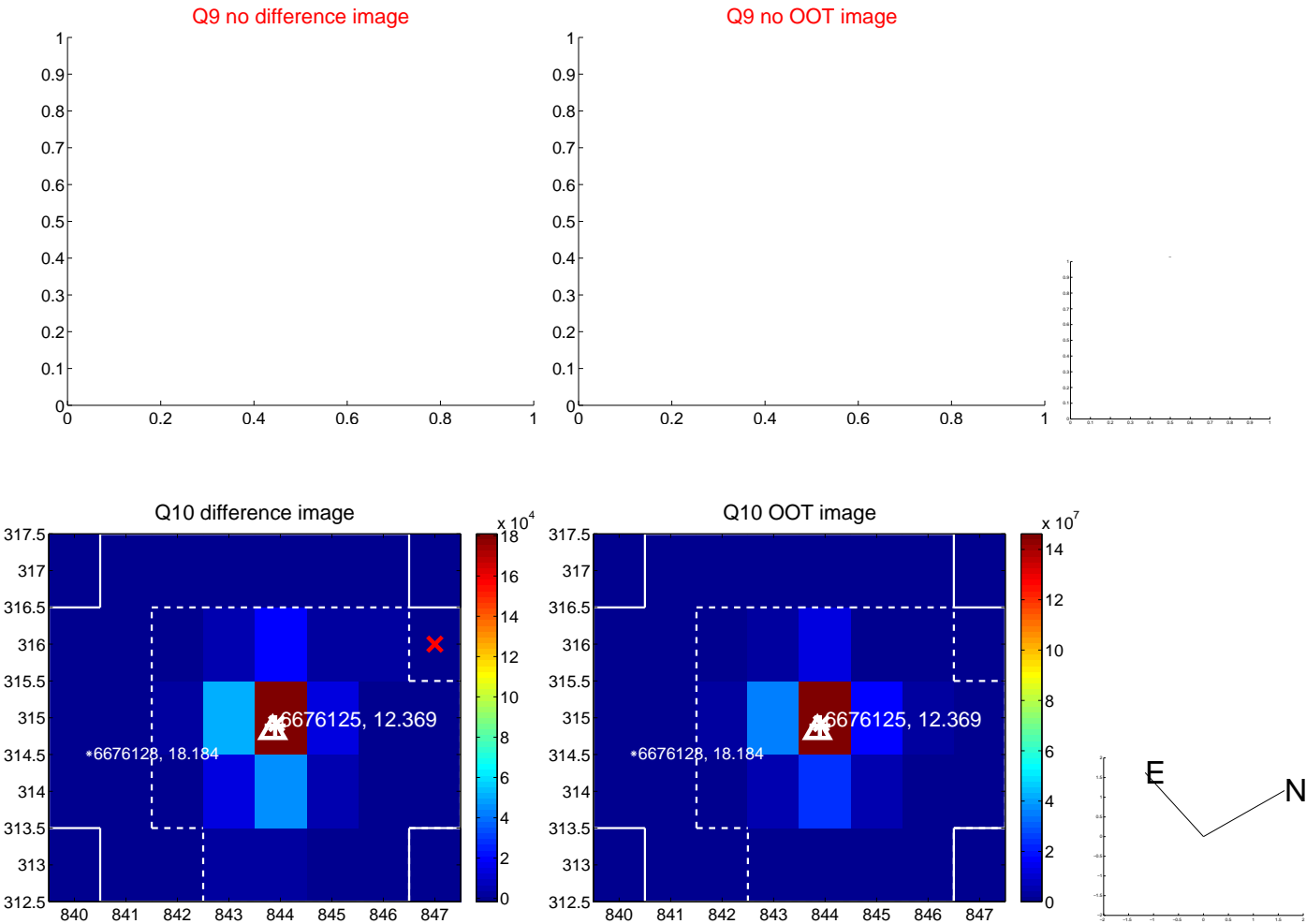
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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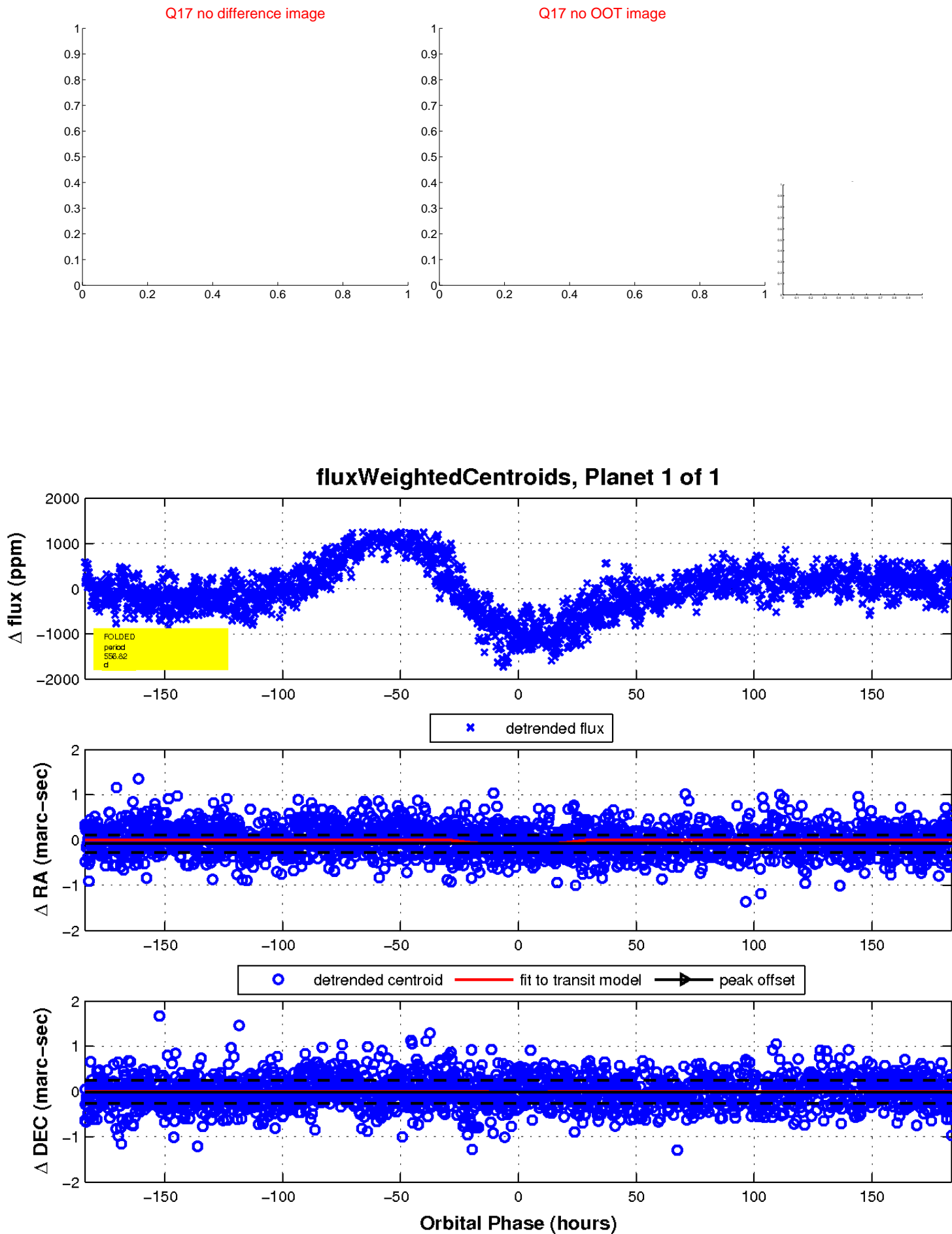
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

