

KIC 010007983

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})
010007983-01	OBS	No	195.850692	252.855333	374.0	3.156	7.2	6.9	0.86	5610	1.86	1.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010007983-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

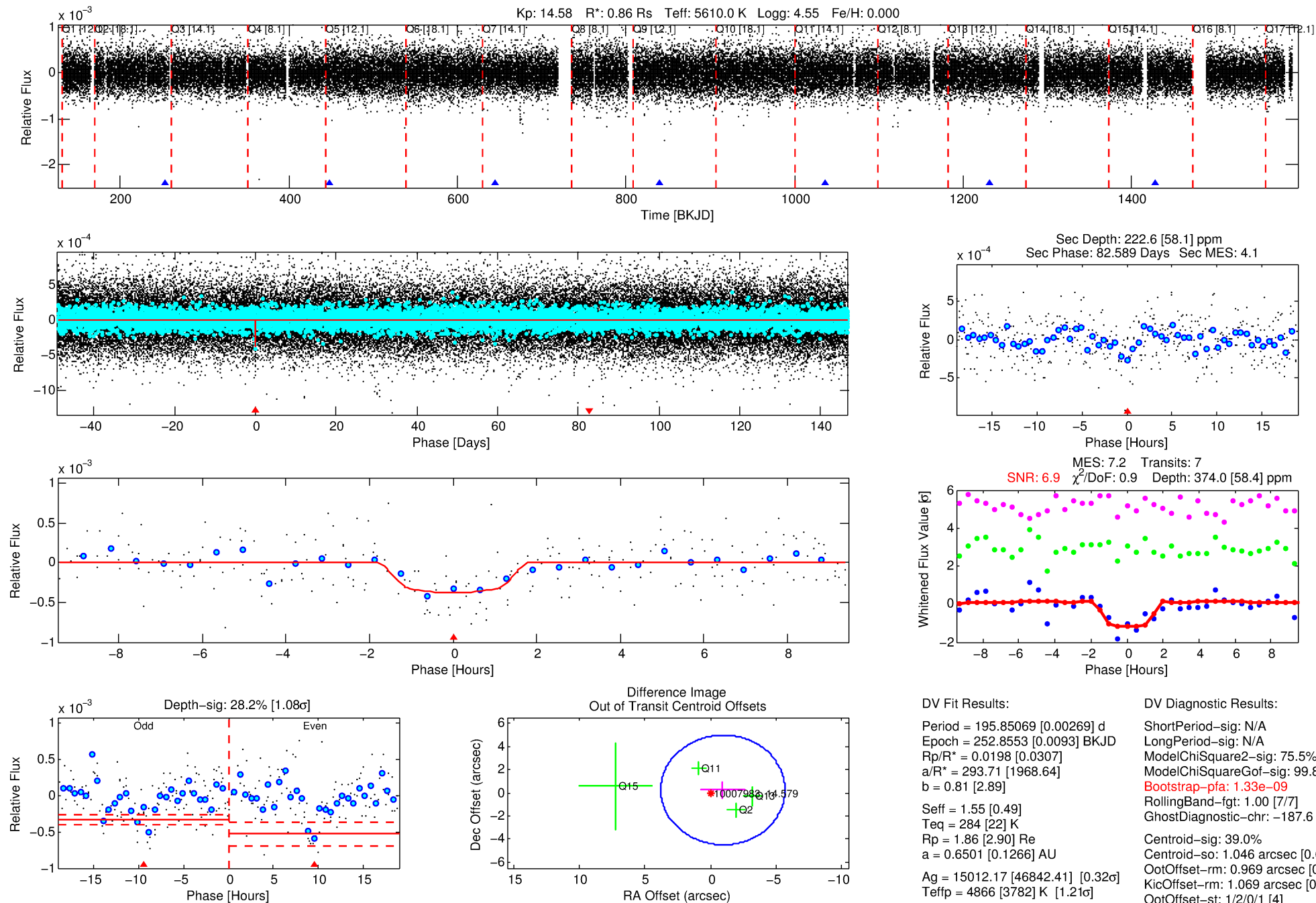
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010007983-01

No Significant Match Found

DV One-Page Summary

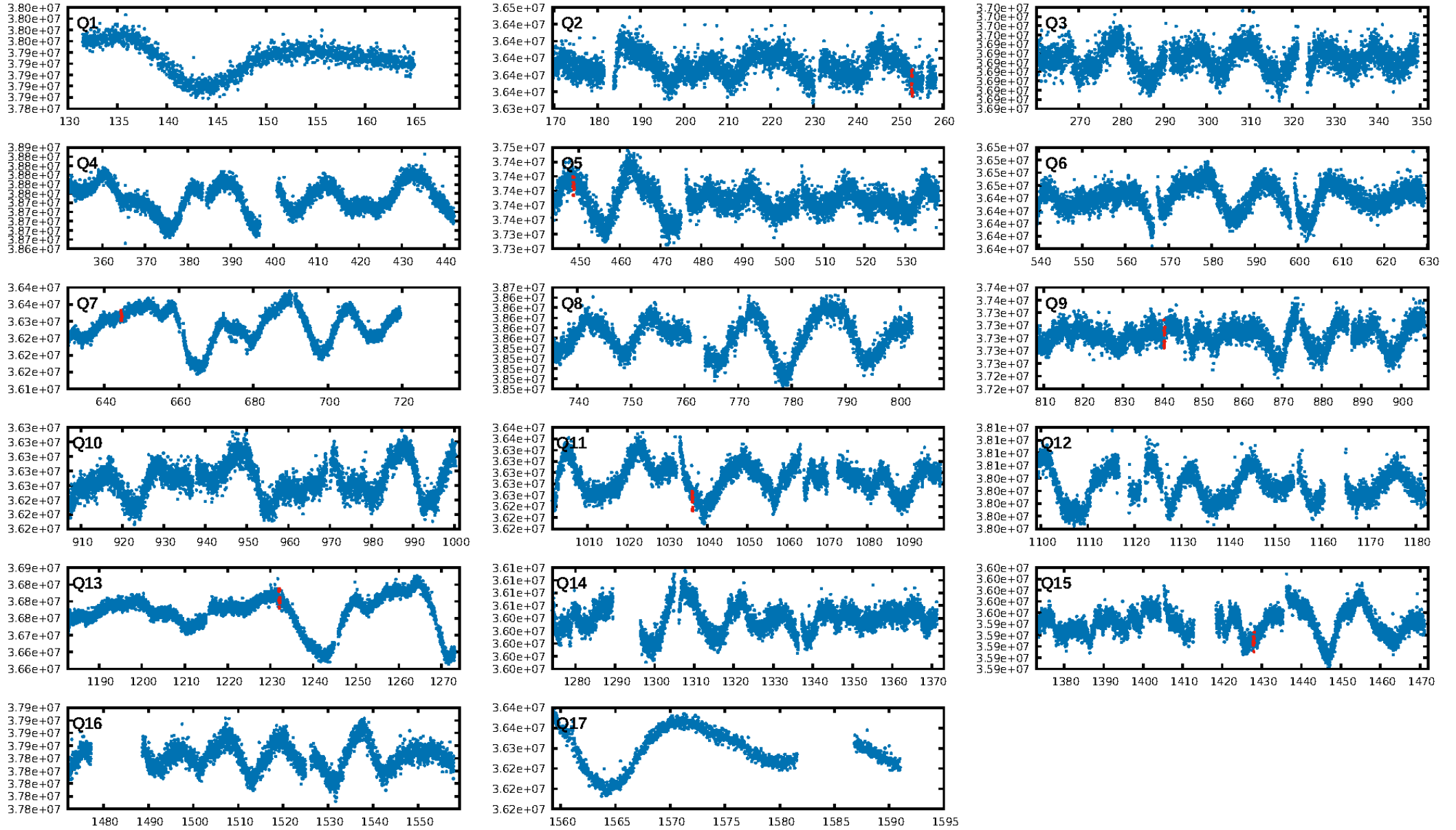
KIC: 10007983 Candidate: 1 of 1 Period: 195.851 d



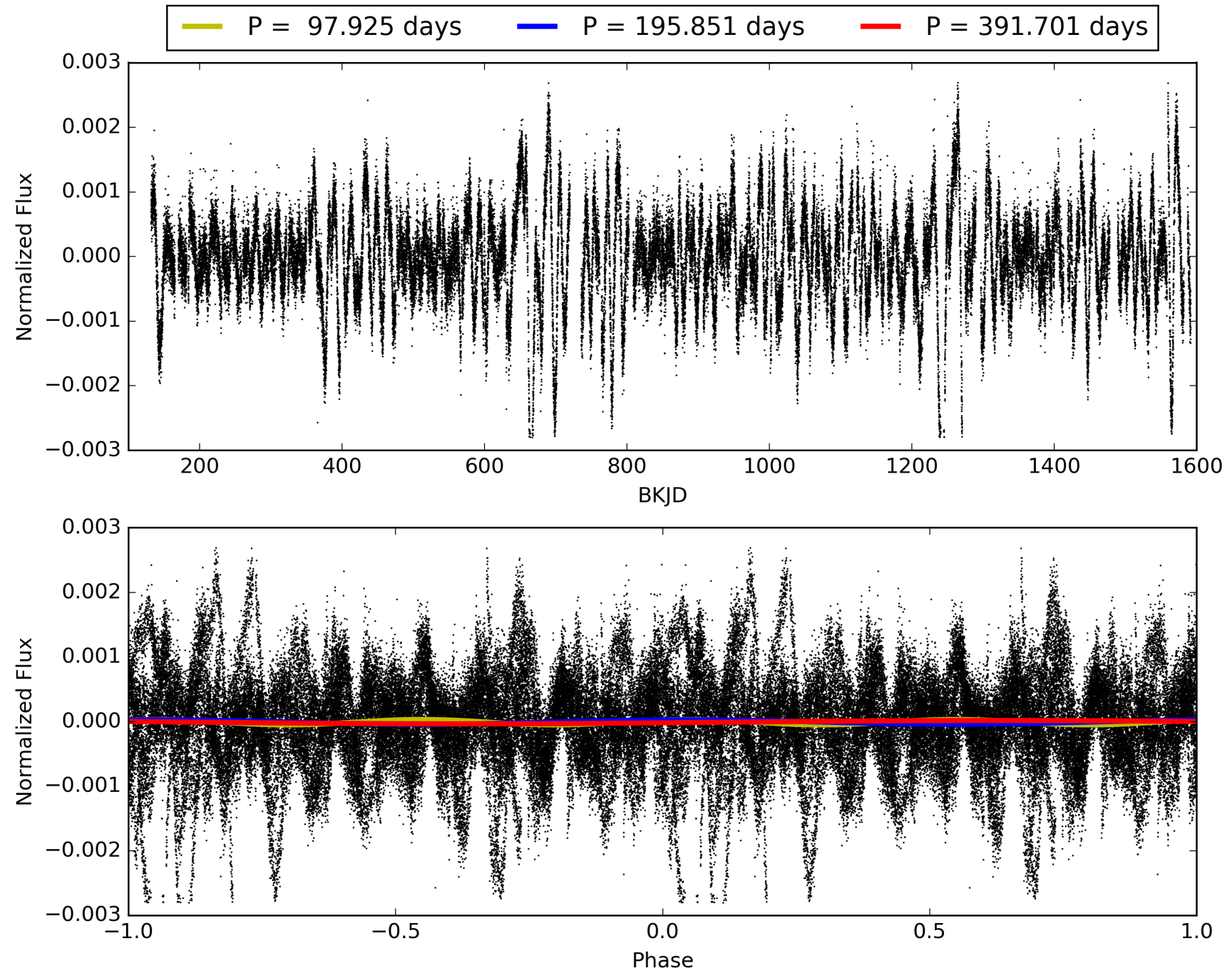
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:23:05 Z

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

TCE 010007983-01, PDC Light Curves

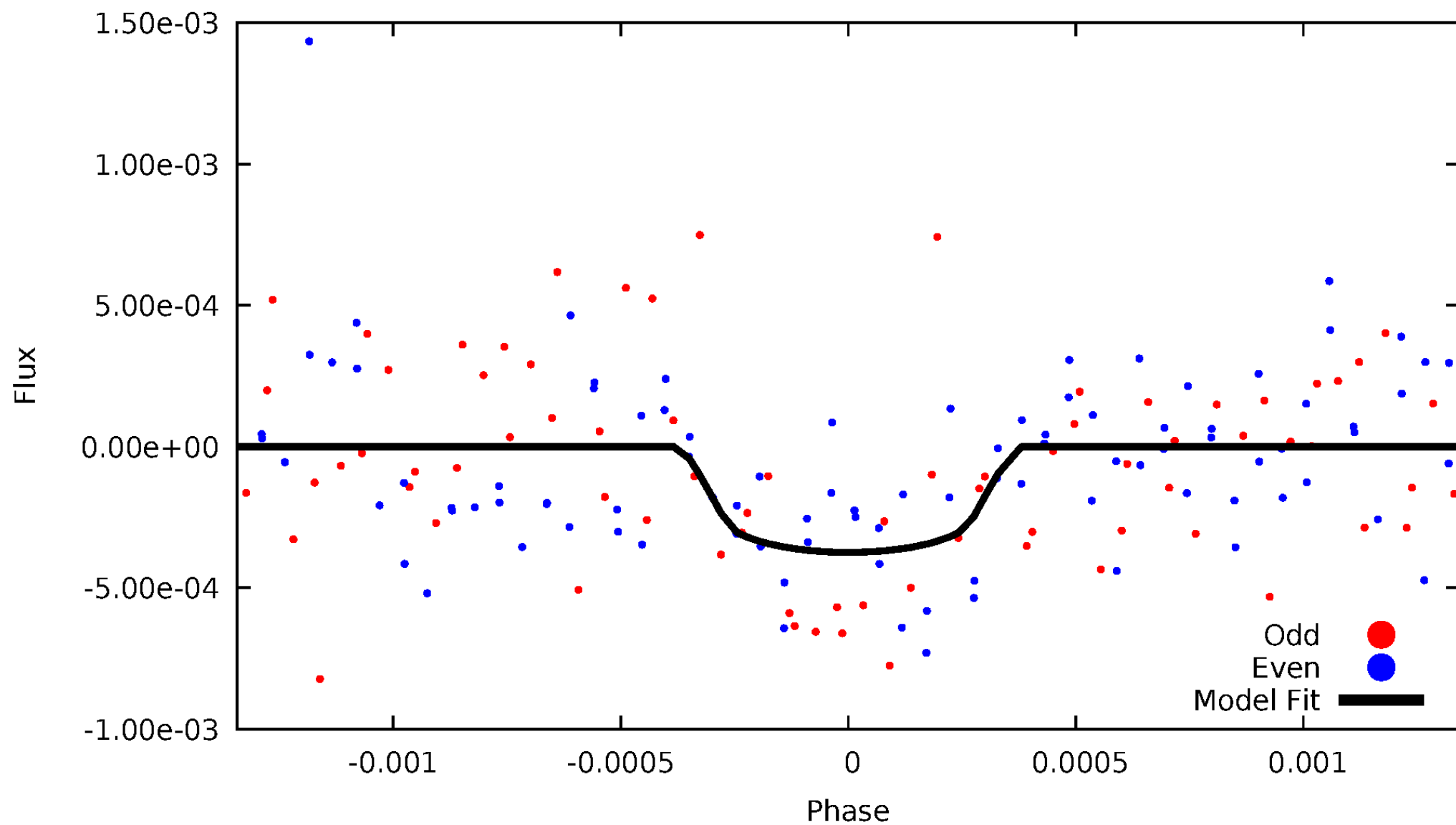


TCE 010007983-01



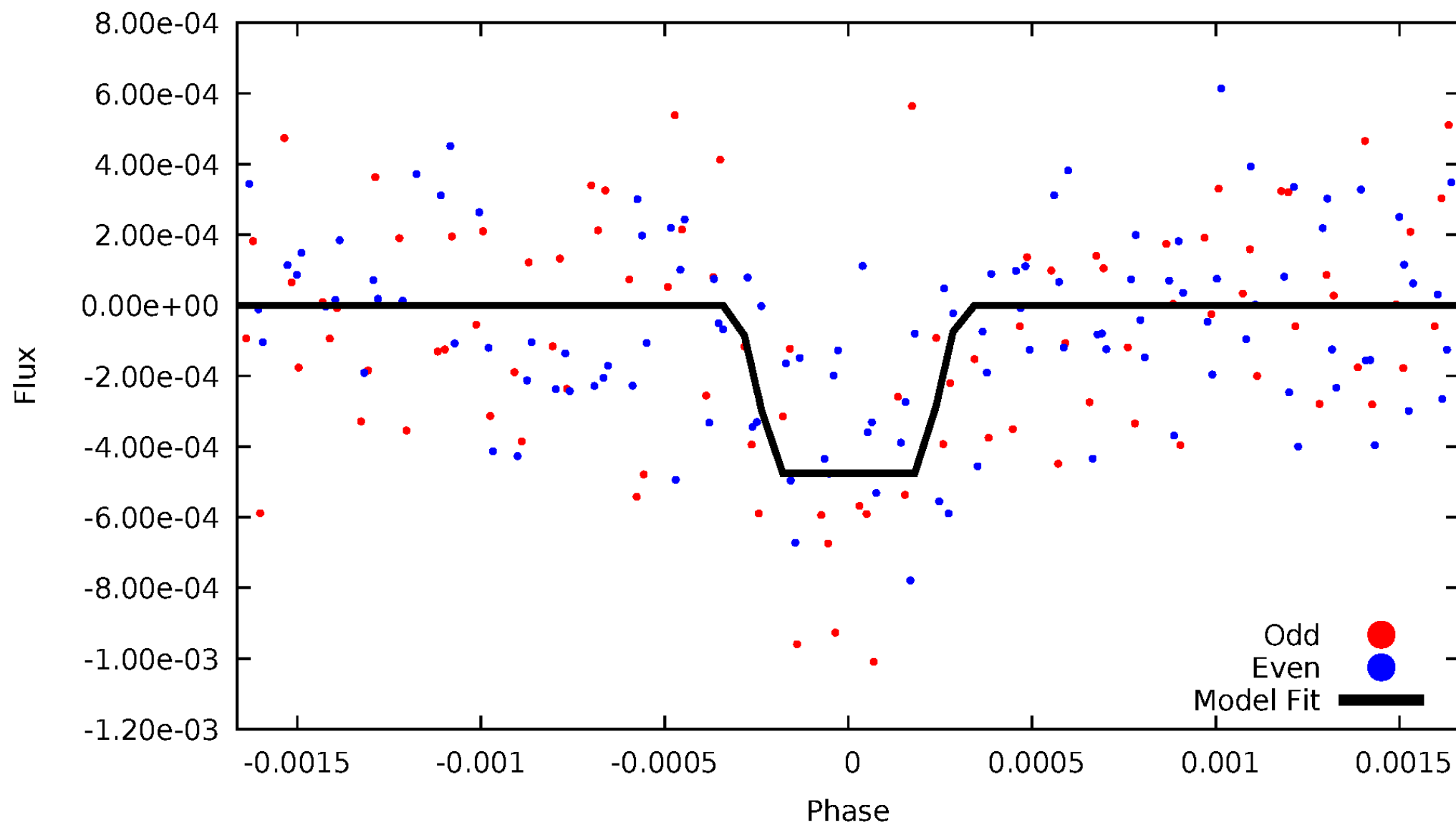
DV Odd/Even

TCE 010007983-01

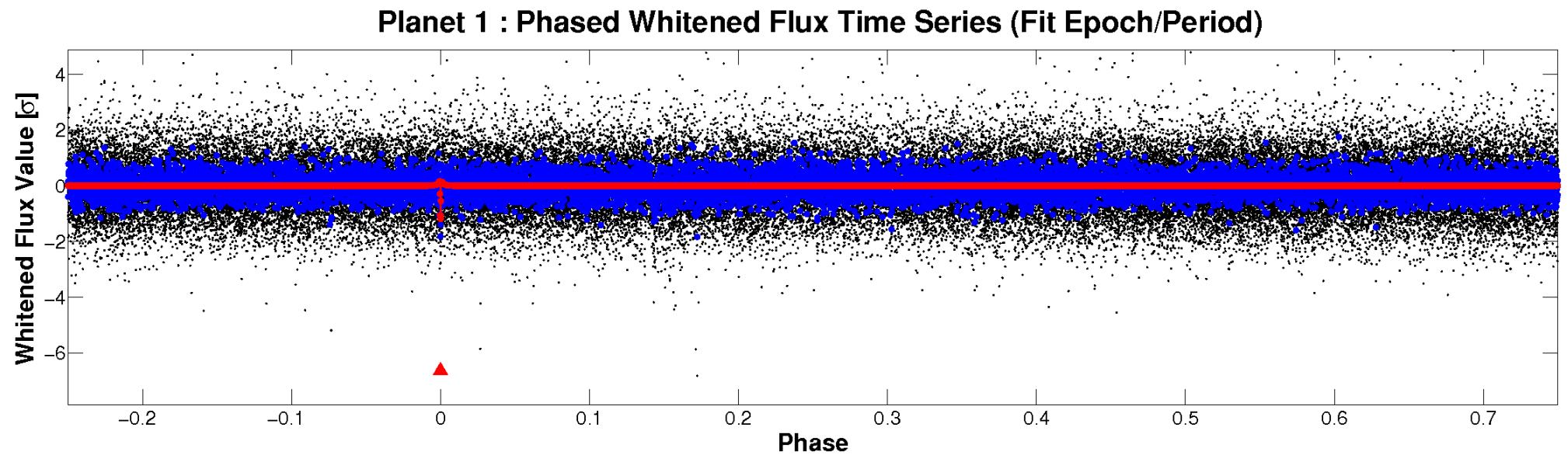
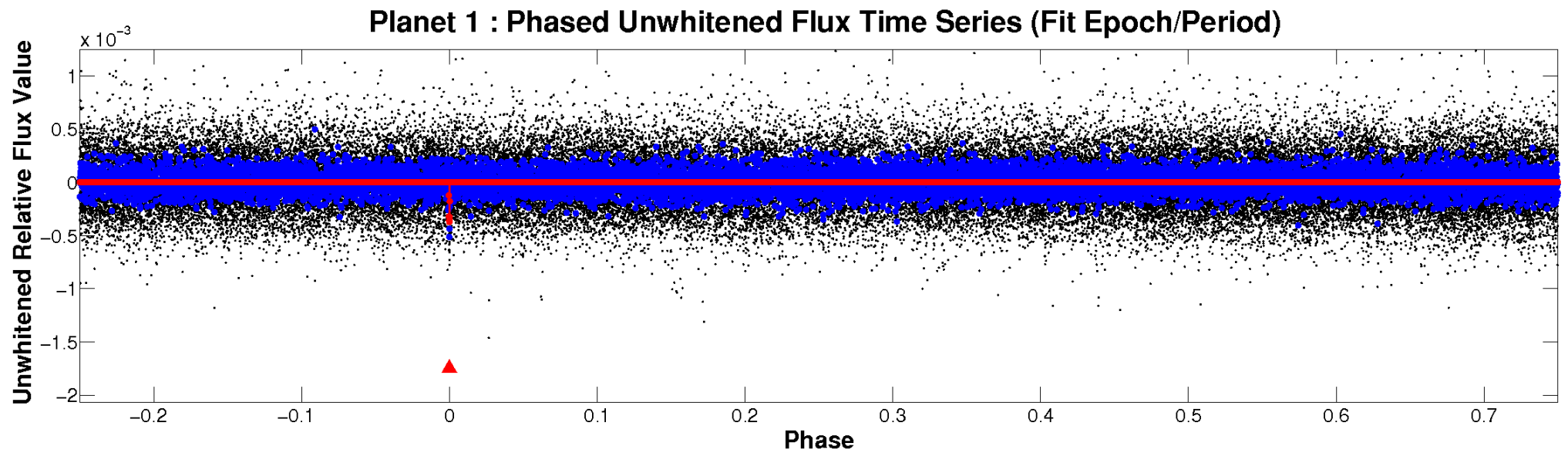


ALT Odd/Even

TCE 010007983-01

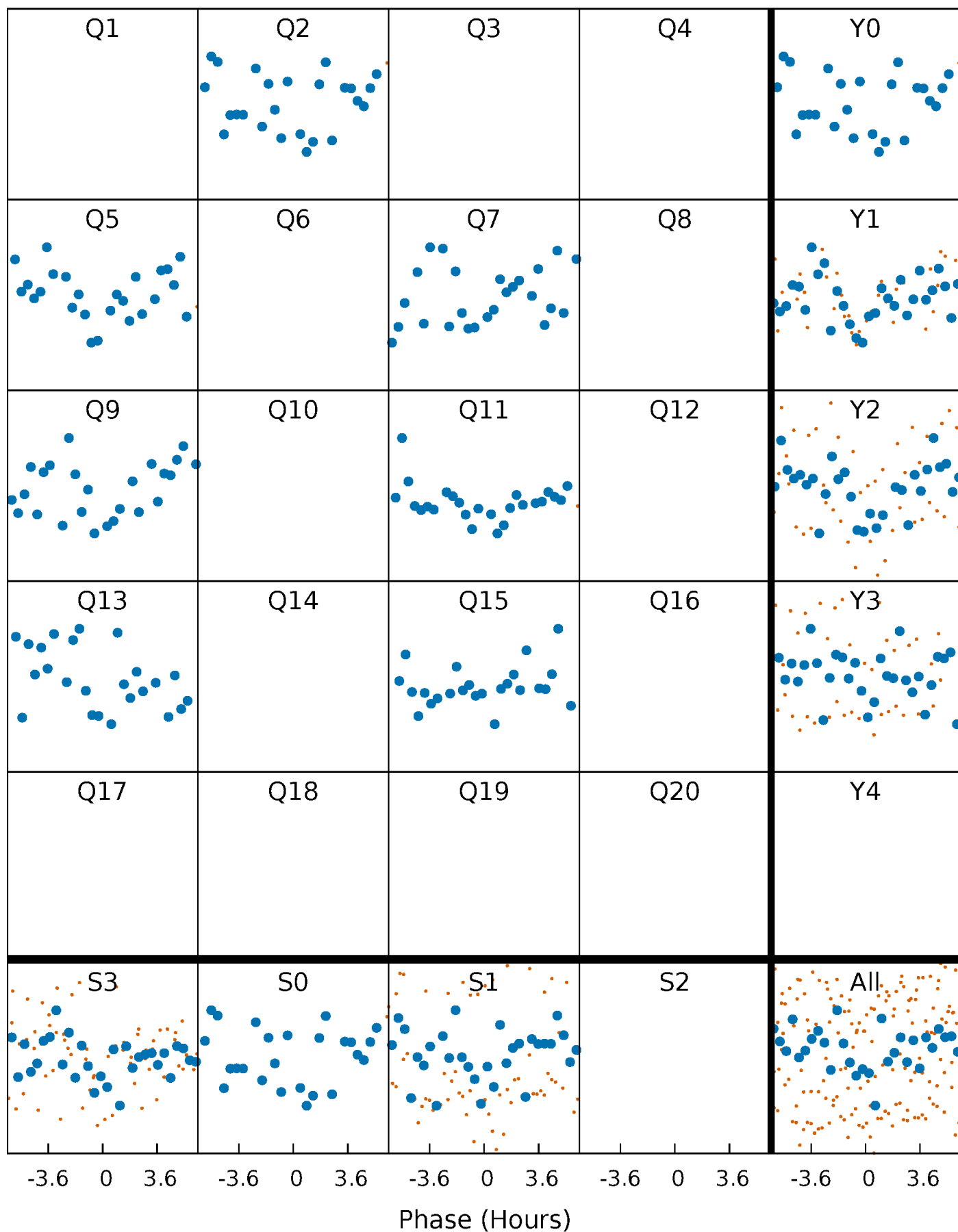


Non-Whitened Vs. Whitened Light Curve



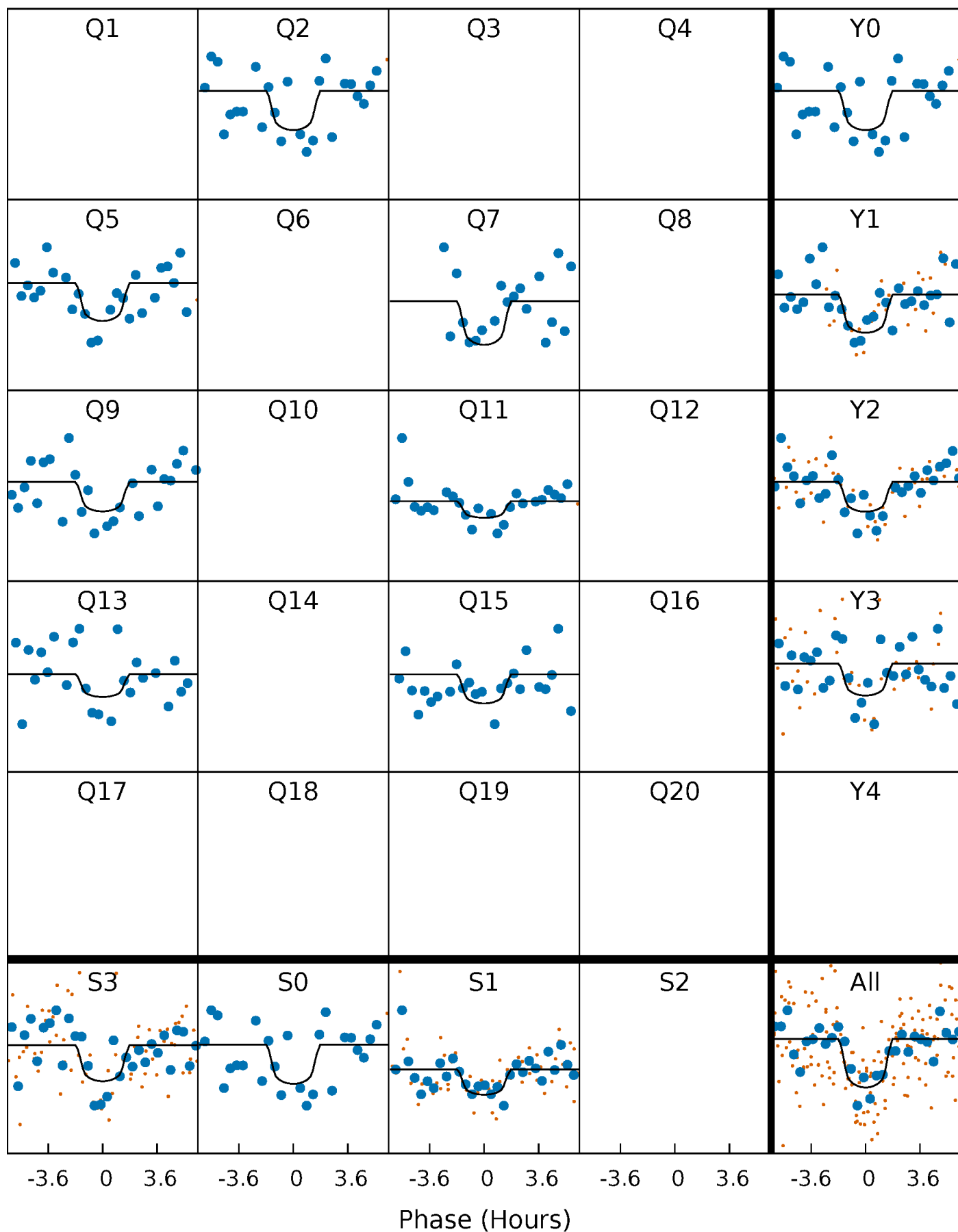
PDC Quarter-Phased Transit Curves

TCE 010007983-01 P=195.850692 Days $T_0=252.855333$ (BKJD)



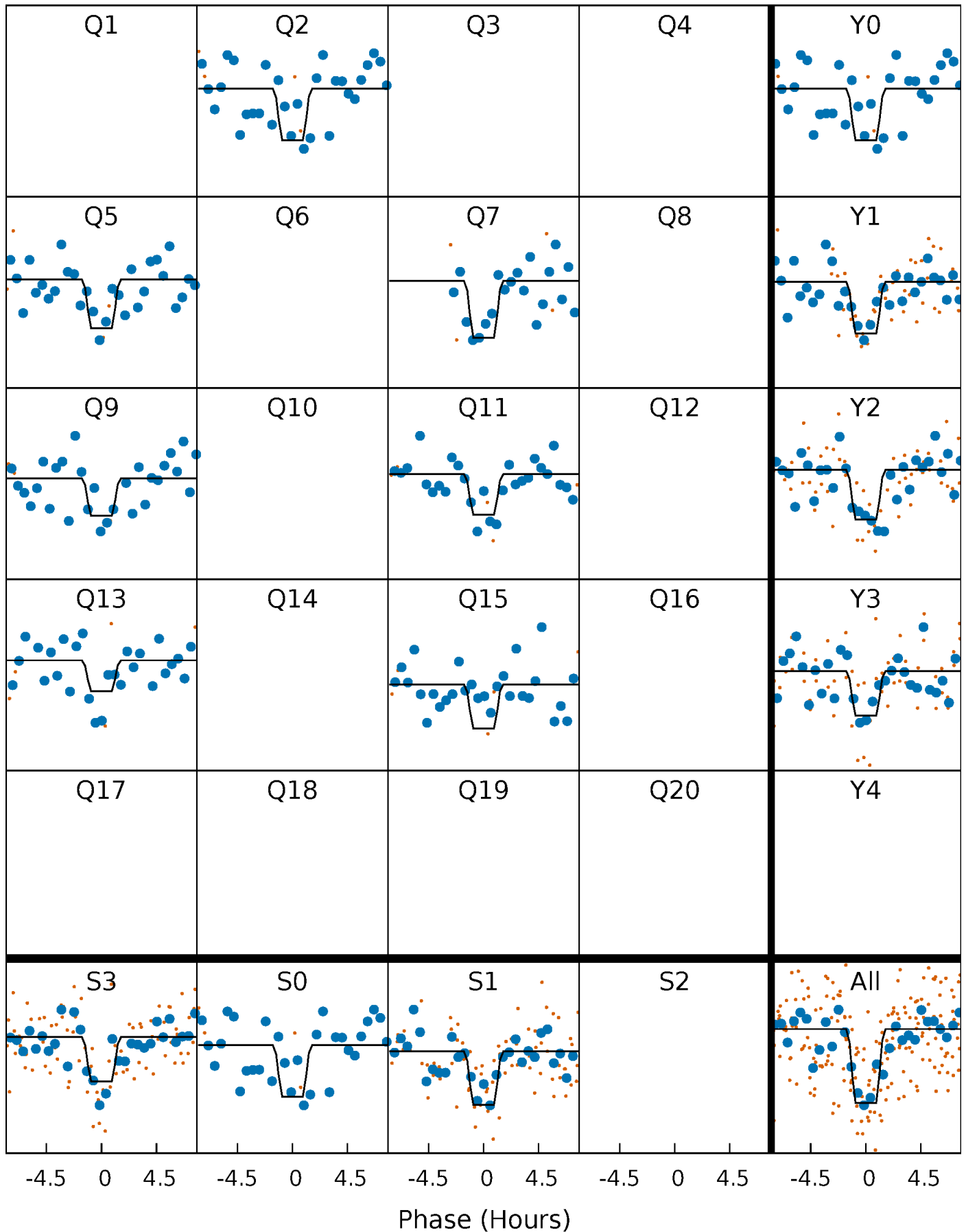
DV Quarter-Phased Transit Curves

TCE 010007983-01 P=195.850692 Days $T_0=252.855333$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

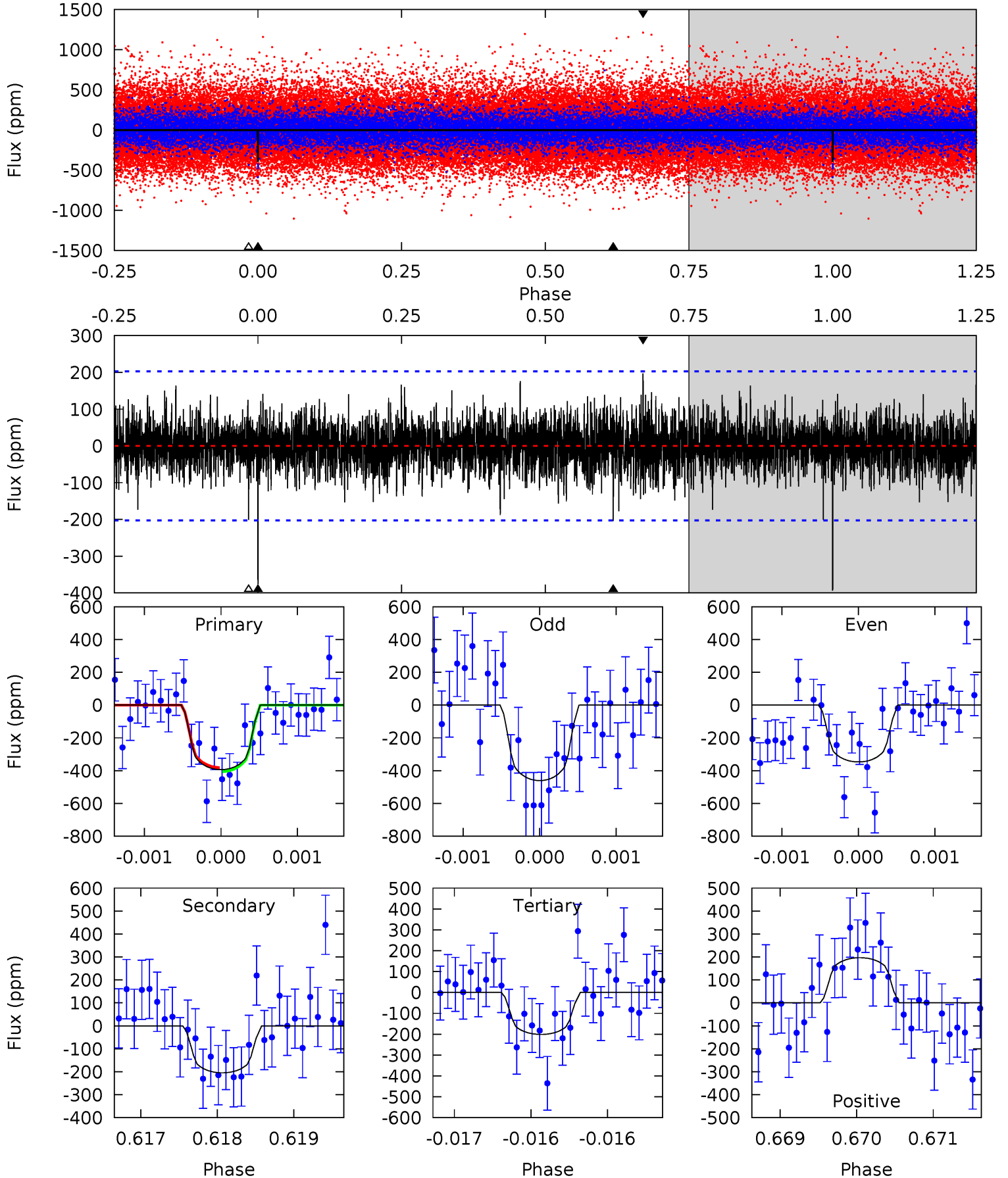
TCE 010007983-01 P=195.854490 Days $T_0=252.840673$ (BKJD)



DV Model-Shift Uniqueness Test

010007983-01, P = 195.850692 Days, E = 57.004641 Days

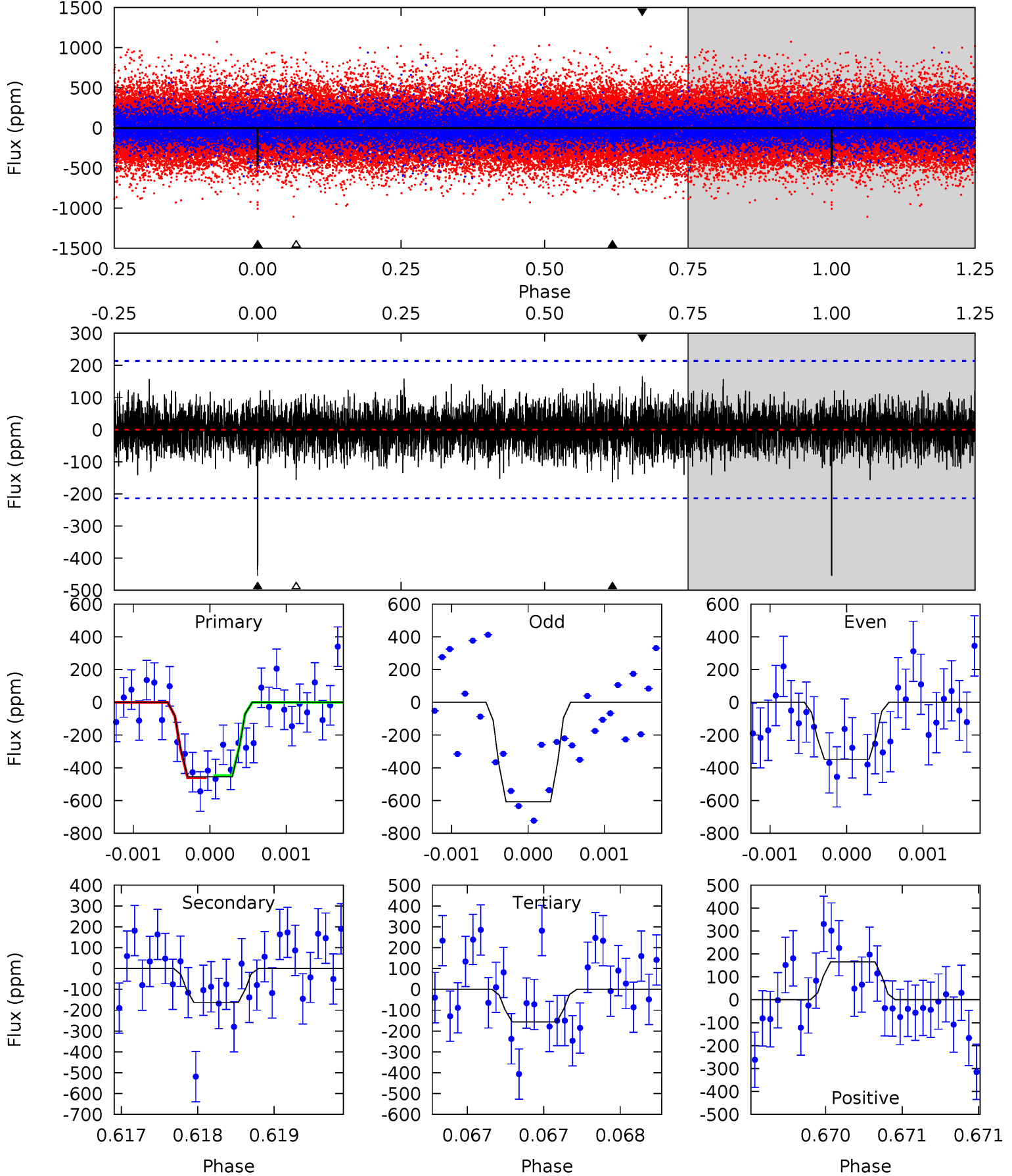
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	5.56	5.46	5.34	5.50	3.37	1.33	5.23	5.35	0.09	0.22	1.52	0.98	0.33	0.33



Alt Model-Shift Uniqueness Test

010007983-01, P = 195.854490 Days, E = 56.986183 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	4.22	4.05	4.28	5.54	3.42	1.13	7.71	7.48	0.17	-0.06	3.31	1.02	0.27	0.20



Stellar Parameters For KIC 010007983

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5610^{+152}_{-169}	$4.551^{+0.038}_{-0.162}$	$0.000^{+0.250}_{-0.300}$	$0.858^{+0.193}_{-0.083}$	$0.953^{+0.085}_{-0.114}$	$2.130^{+0.424}_{-0.891}$
	+3%/-3%	+1%/-4%	+inf%/-inf%	+22%/-10%	+9%/-12%	+20%/-42%
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 010007983-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-205 ± 37	$2.79^{+2.51}_{-1.87}$	404^{+25}_{-17}	4203^{+2705}_{-833}	6108^{+47335}_{-4472}
Alt.	-163 ± 39	$2.90^{+2.68}_{-2.00}$	405^{+25}_{-17}	3973^{+2554}_{-792}	4420^{+39325}_{-3298}

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

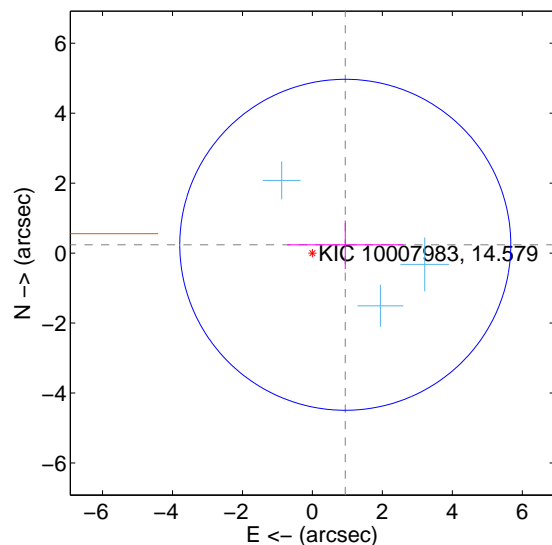
Supplemental centroid analysis for 010007983-01. Kepler magnitude: 14.58. Transit SNR 6.94

There are 3 quarters with good PRF difference image offsets

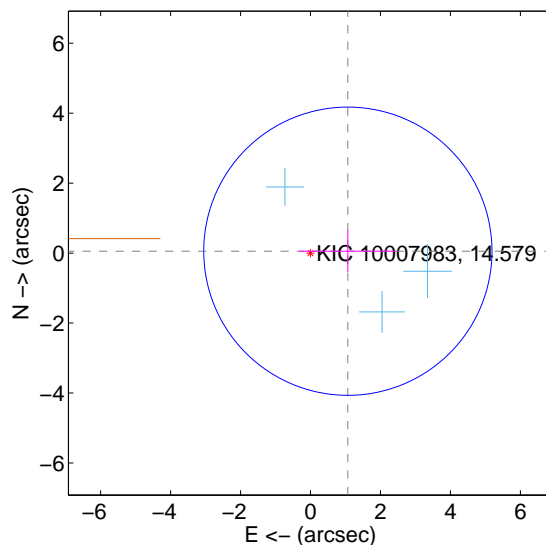
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.969 ± 1.577	0.61	-0.939 ± 1.659	0.238 ± 0.695
PRF-fit source offset from KIC position	1.069 ± 1.374	0.78	-1.067 ± 1.385	0.054 ± 0.592
photometric centroid source offset	1.05 ± 1.57	0.66	0.31 ± 1.76	-1.00 ± 1.55

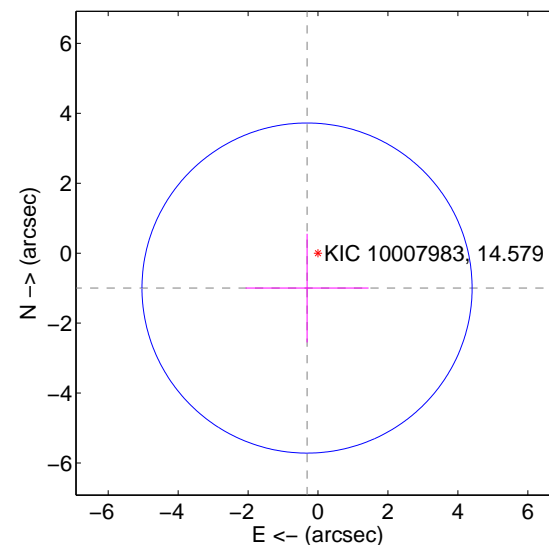
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

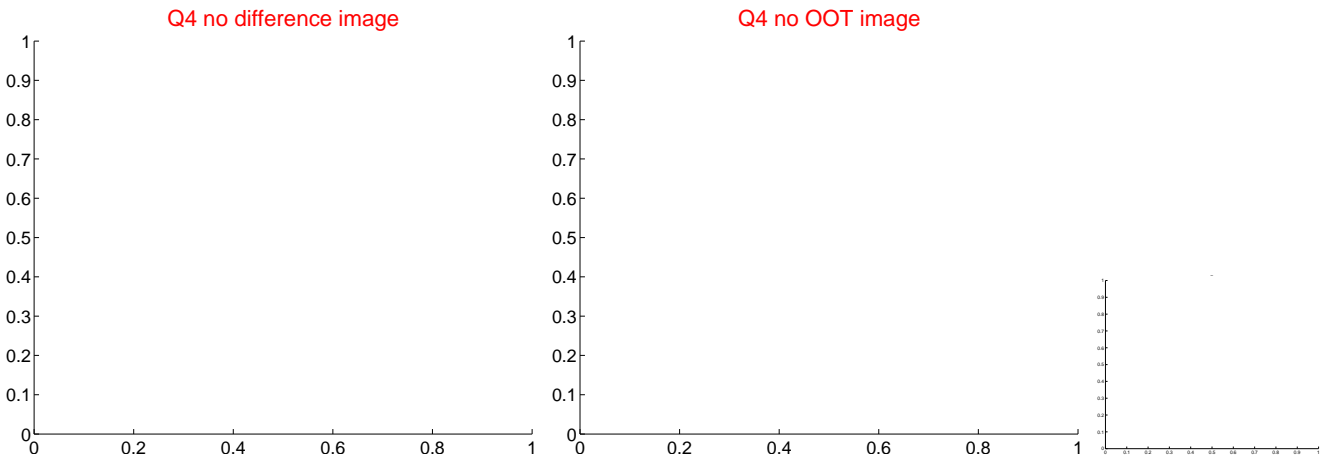
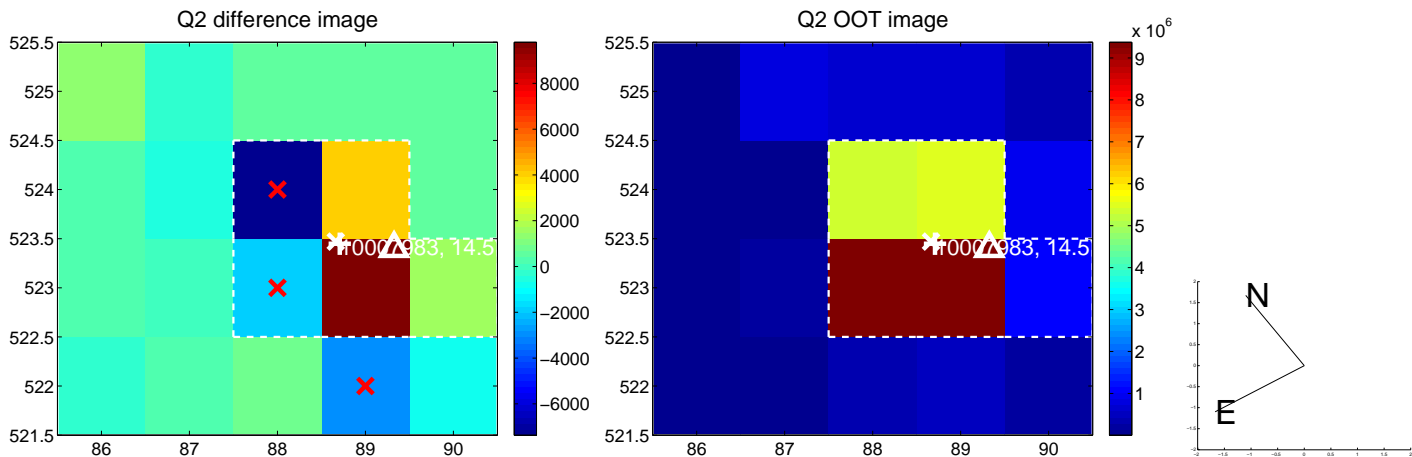


offset from photometric centroids

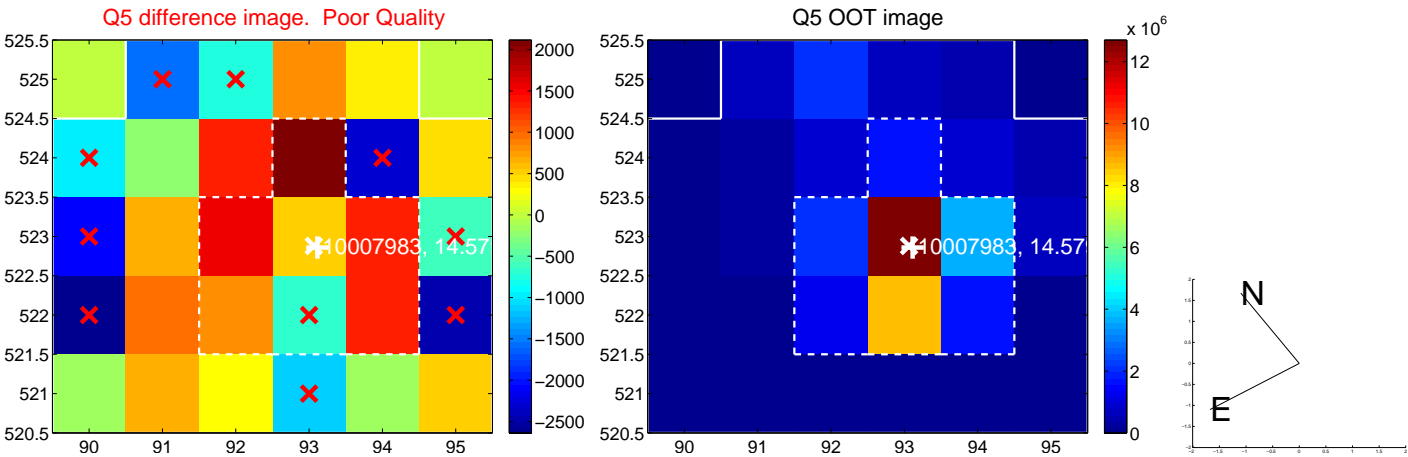


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

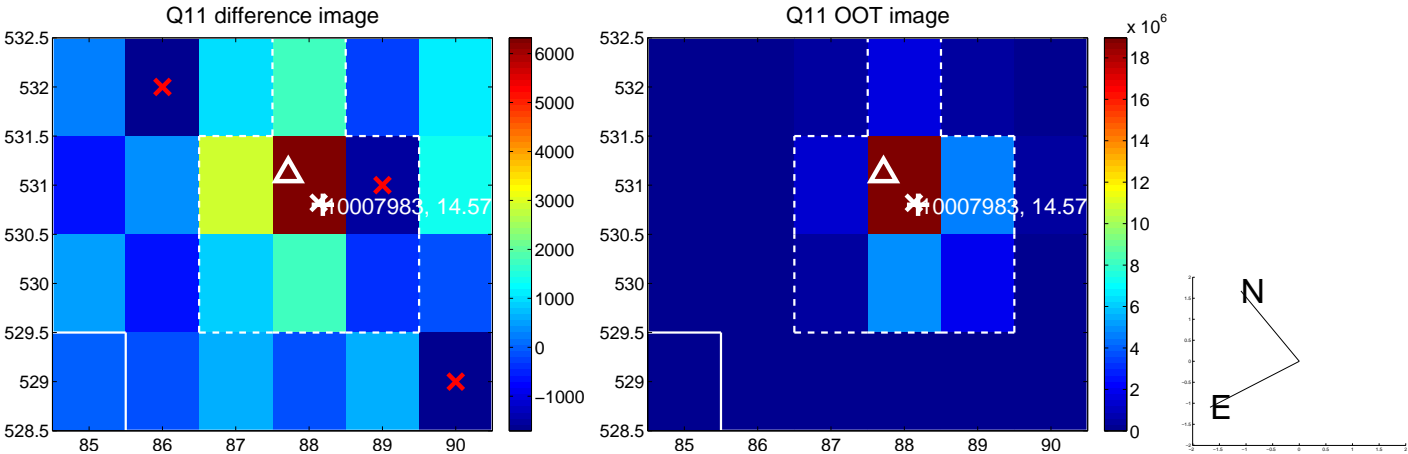
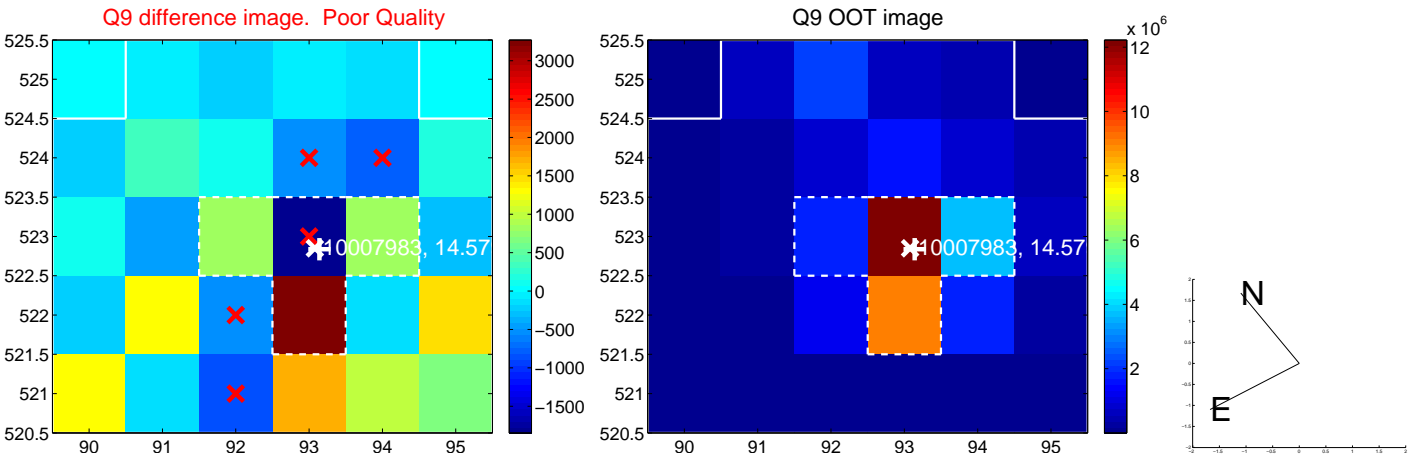
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



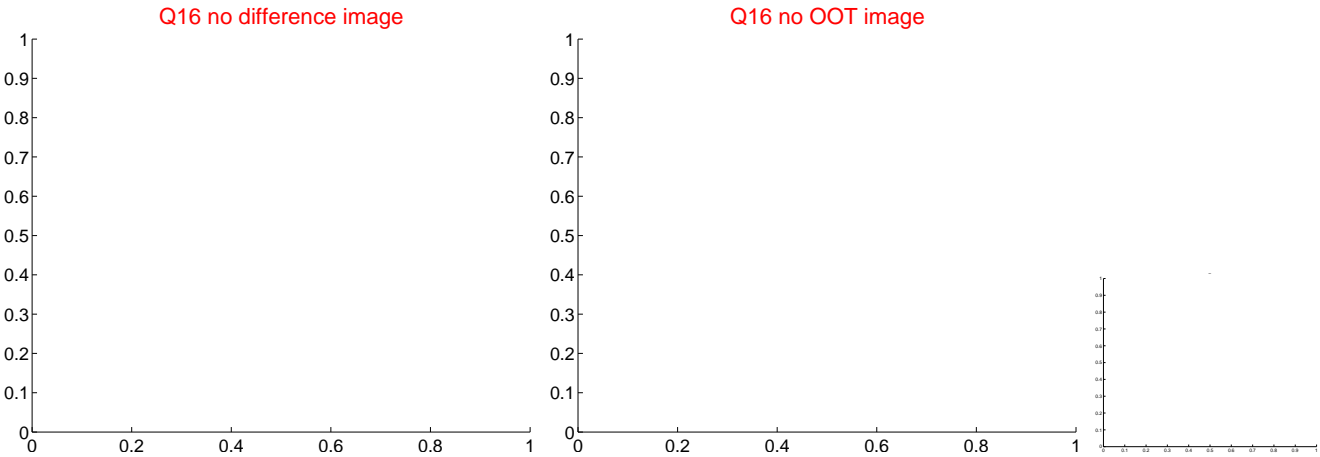
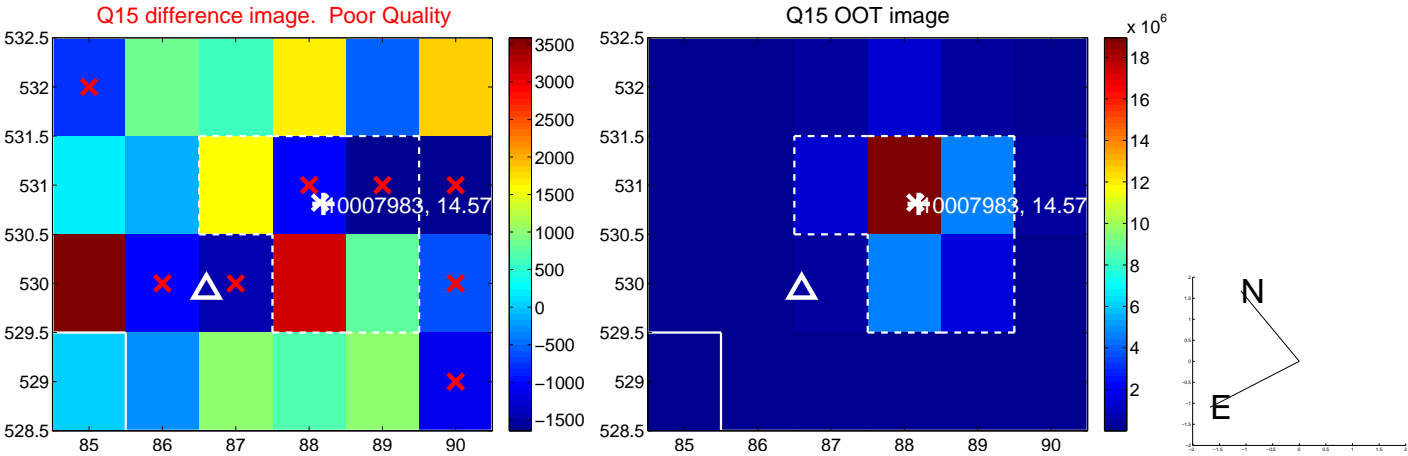
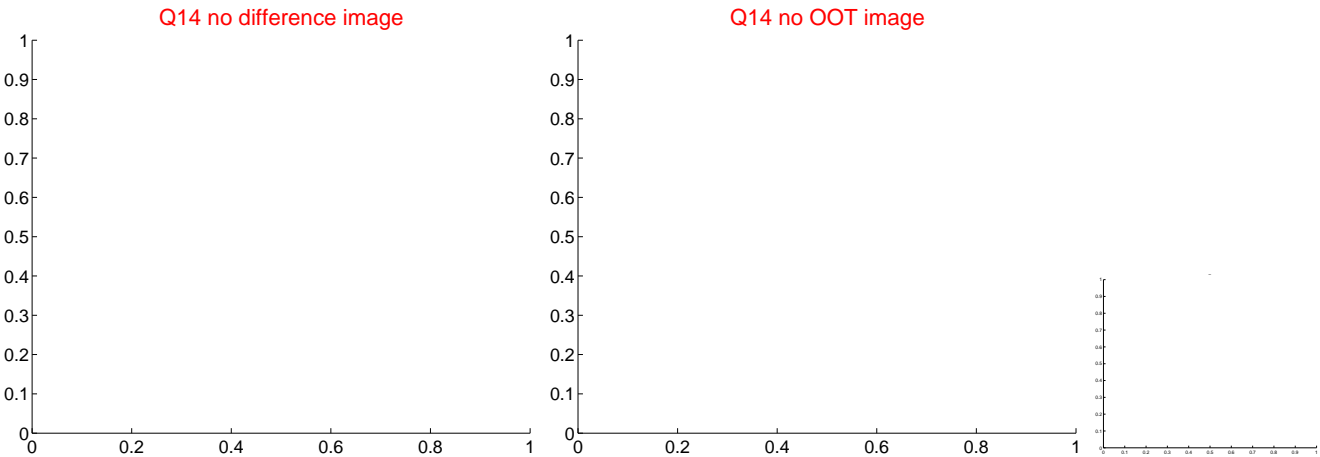
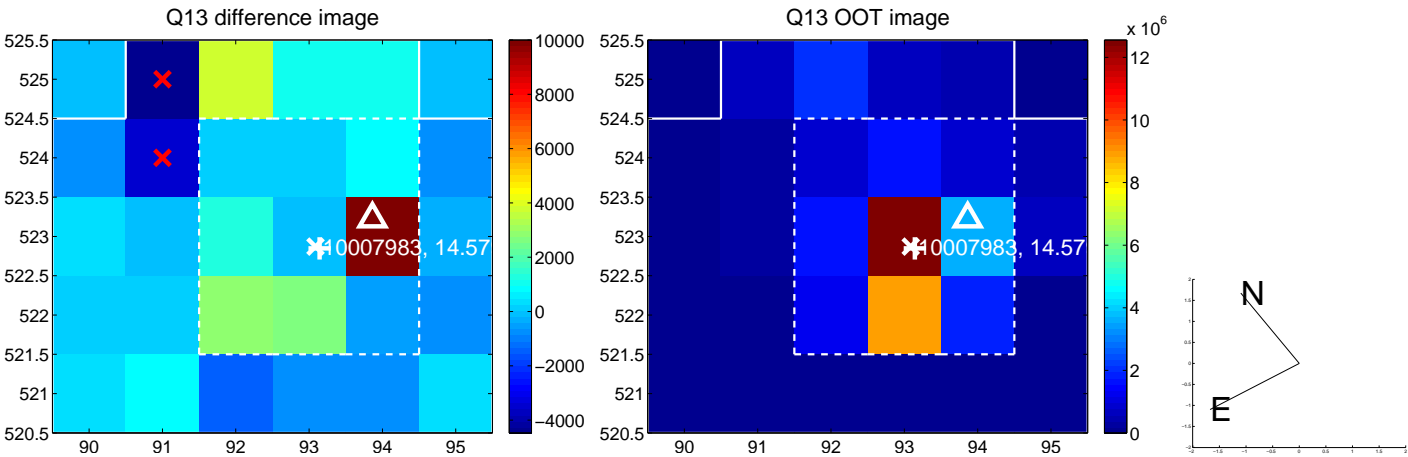
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



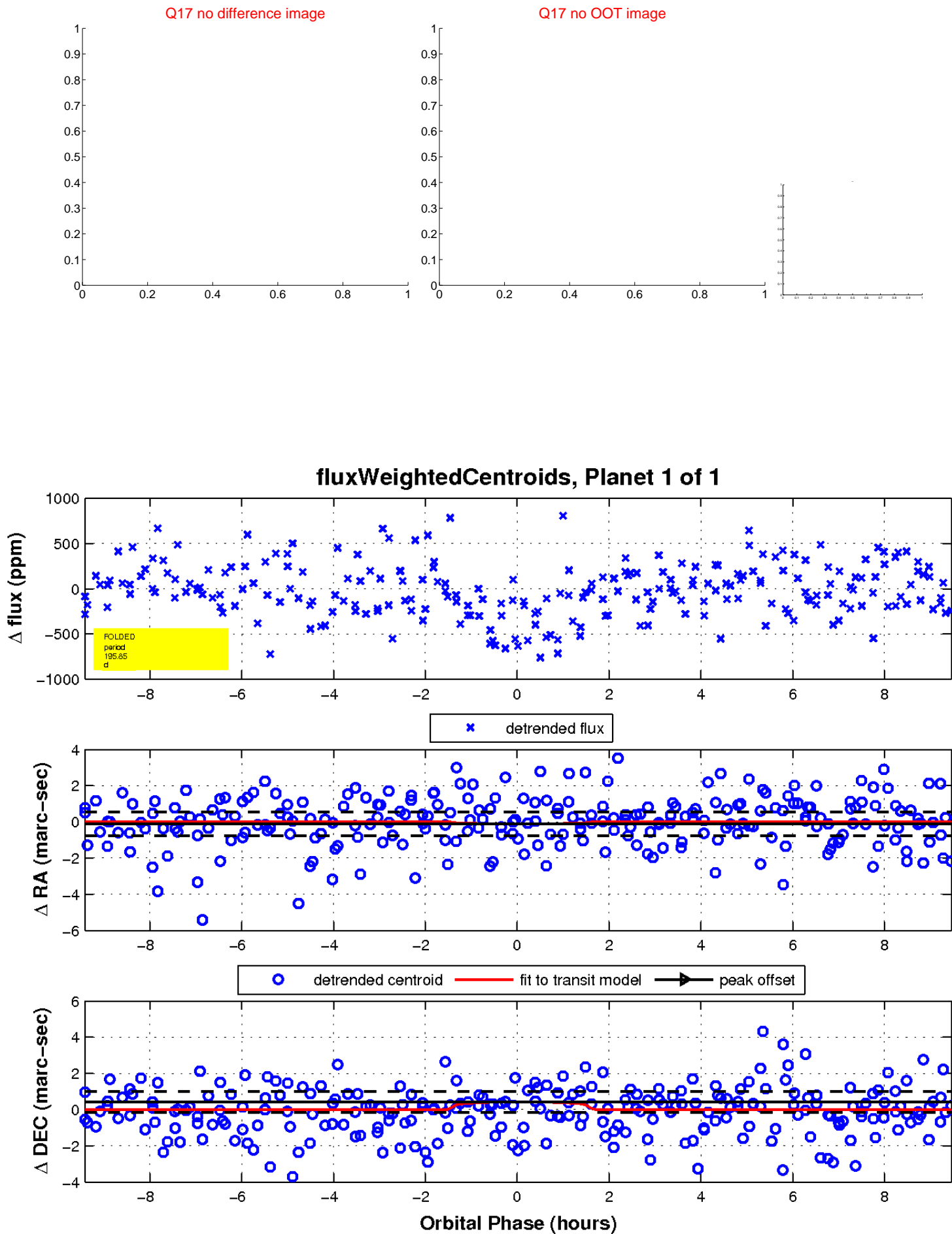
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

