

KIC 006752656

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})
006752656-01	OBS	No	503.756356	357.285570	224.9	19.054	7.7	7.3	1.83	5262	2.85	1.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006752656-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

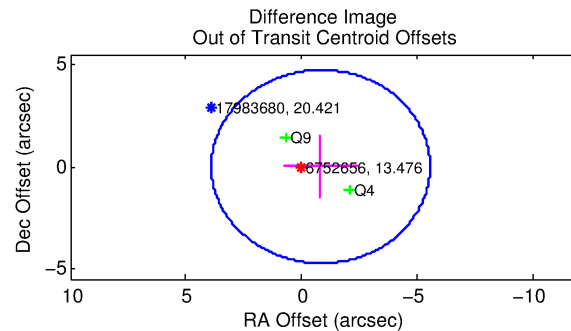
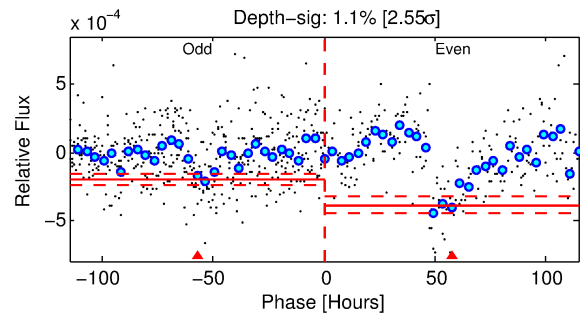
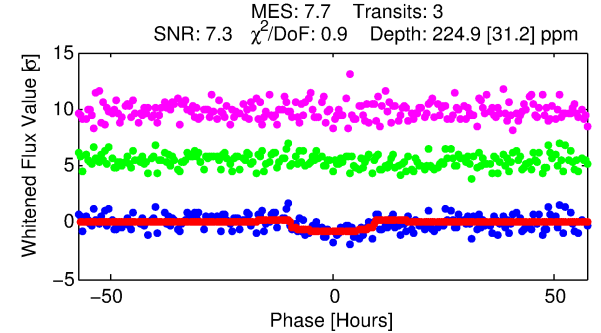
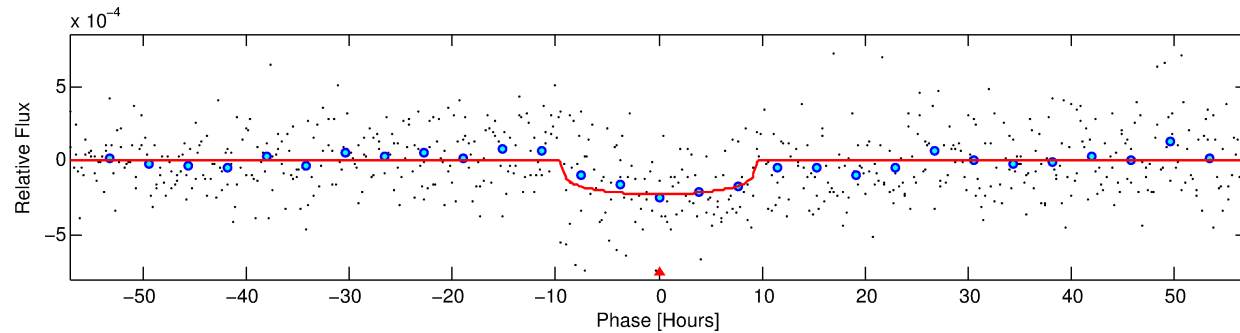
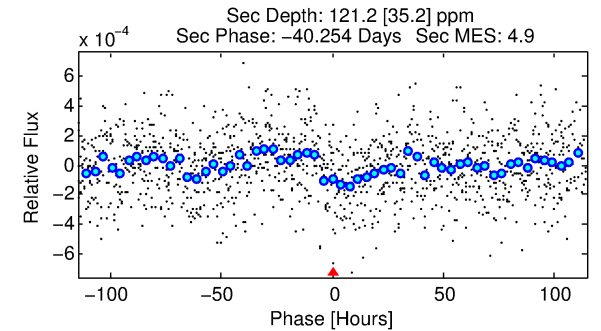
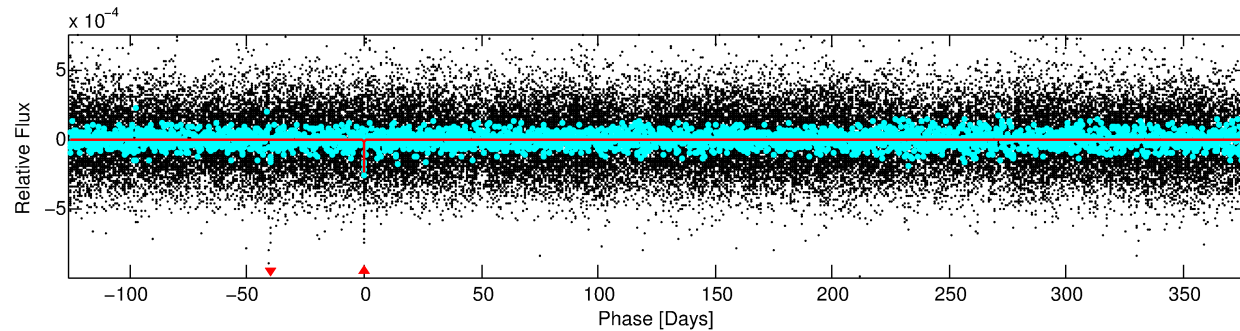
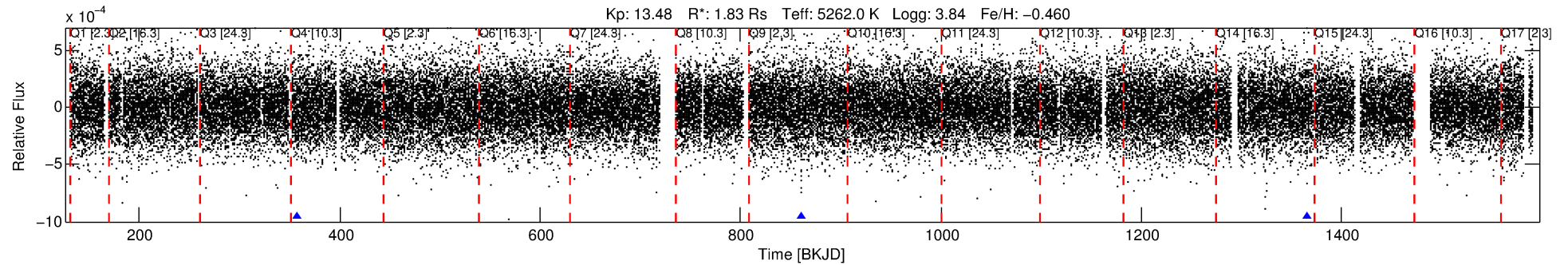
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006752656-01

No Significant Match Found

DV One-Page Summary

KIC: 6752656 Candidate: 1 of 1 Period: 503.756 d



DV Fit Results:

Period = 503.75636 [0.02049] d
Epoch = 357.2856 [0.0262] BKJD
Rp/R* = 0.0143 [0.0086]
a/R* = 162.33 [392.88]
b = 0.62 [2.43]
Seff = 1.68 [2.19]
Teq = 290 [95] K
Rp = 2.85 [2.67] Re
a = 1.1664 [0.8984] AU
Ag = 11152.03 [19953.90] [0.56σ]
Teffp = 4615 [1431] K [3.02σ]

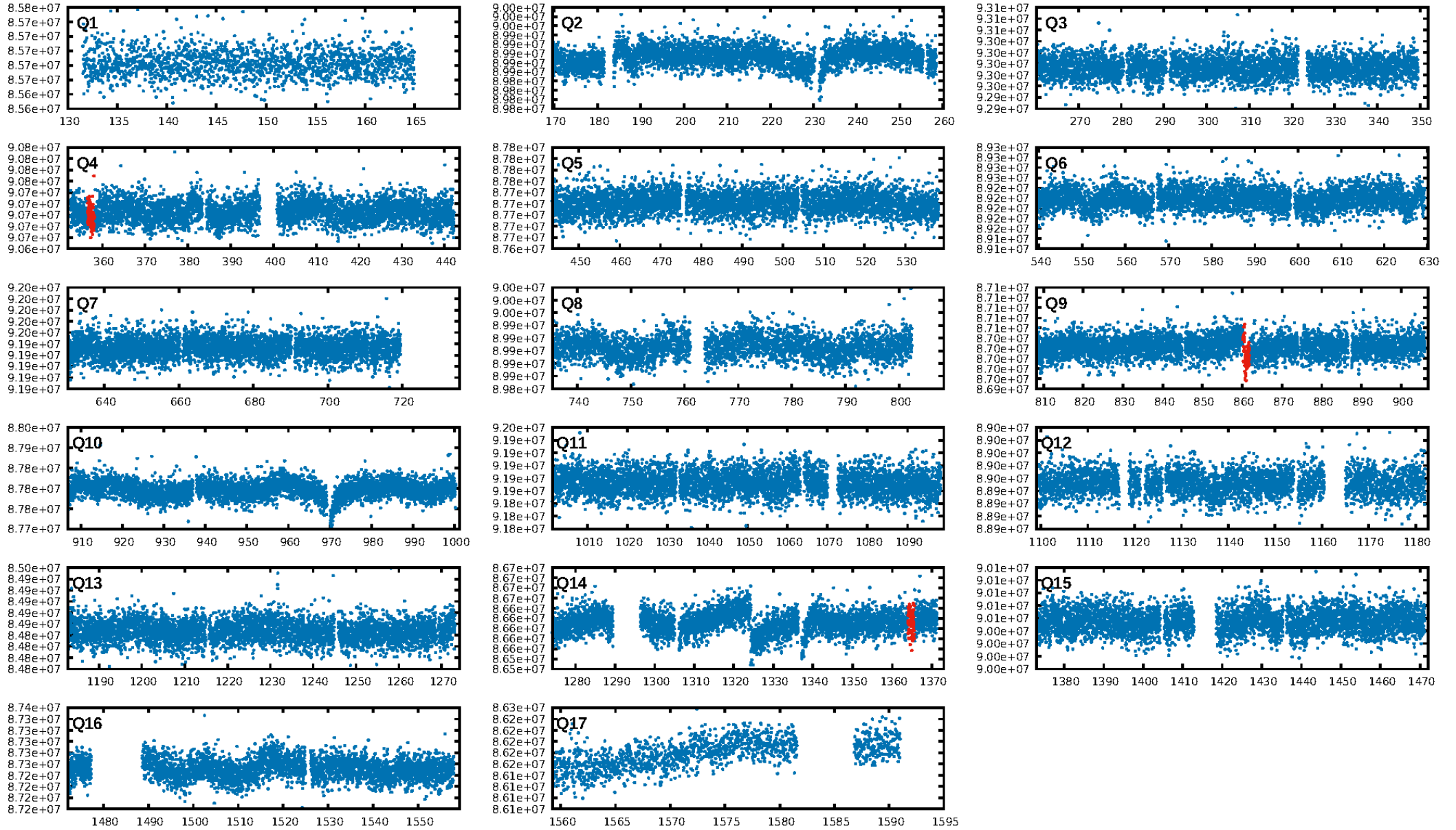
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.63e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.145
Centroid-sig: 4.1%
Centroid-so: 2.139 arcsec [1.30σ]
OotOffset-rm: 0.832 arcsec [0.53σ]
KicOffset-rm: 0.982 arcsec [0.63σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

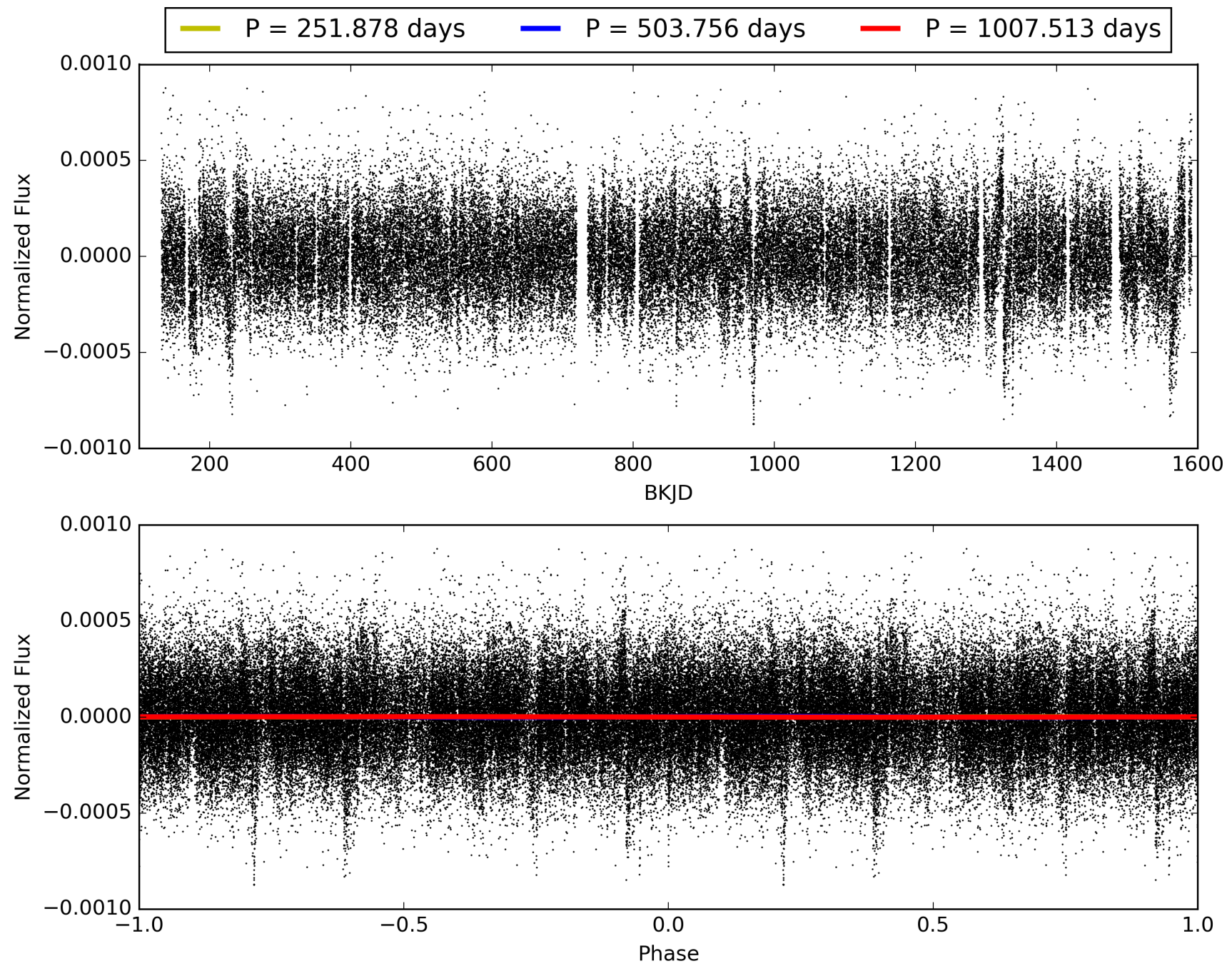
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:05:59 Z

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

TCE 006752656-01, PDC Light Curves

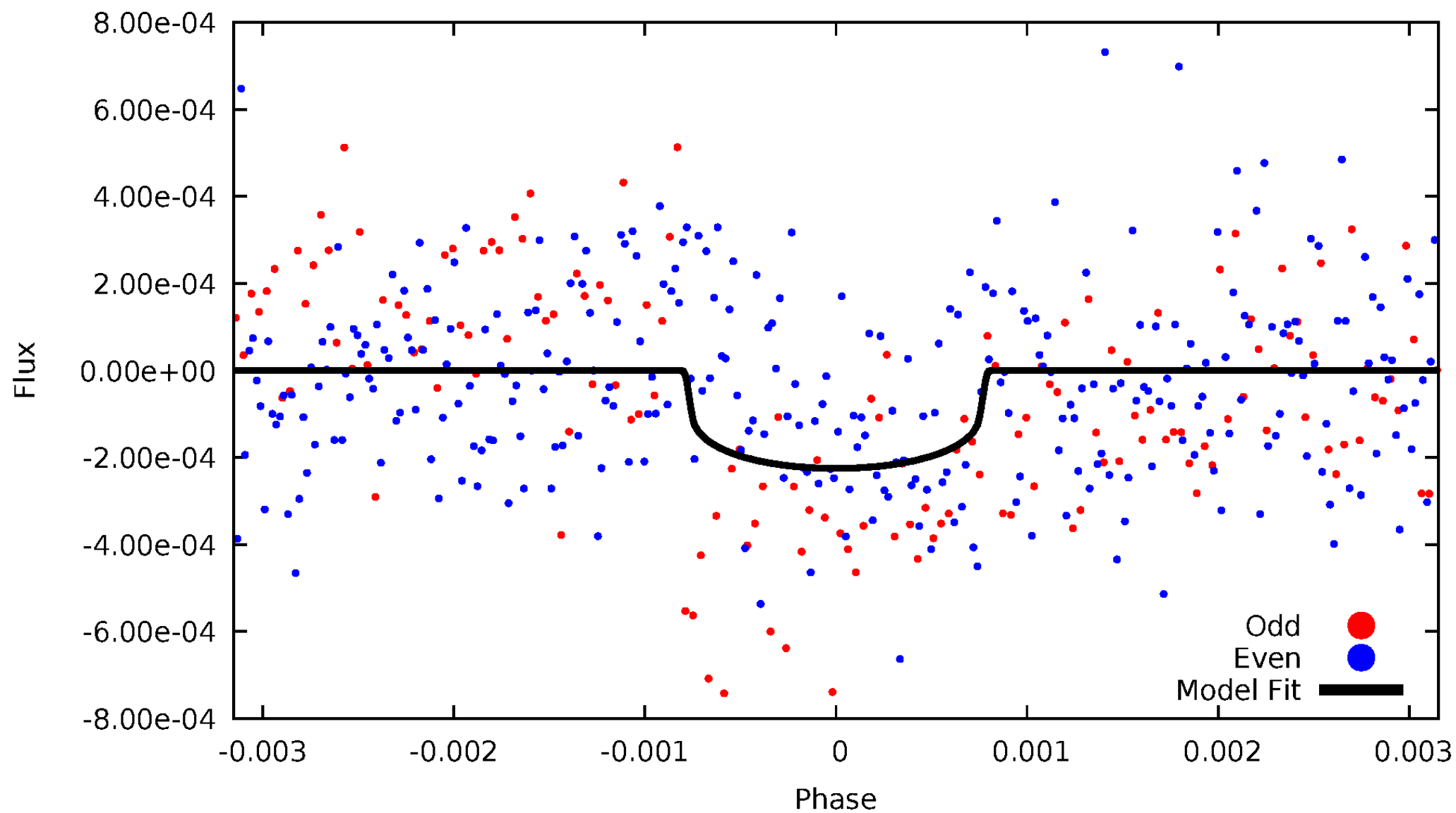


TCE 006752656-01



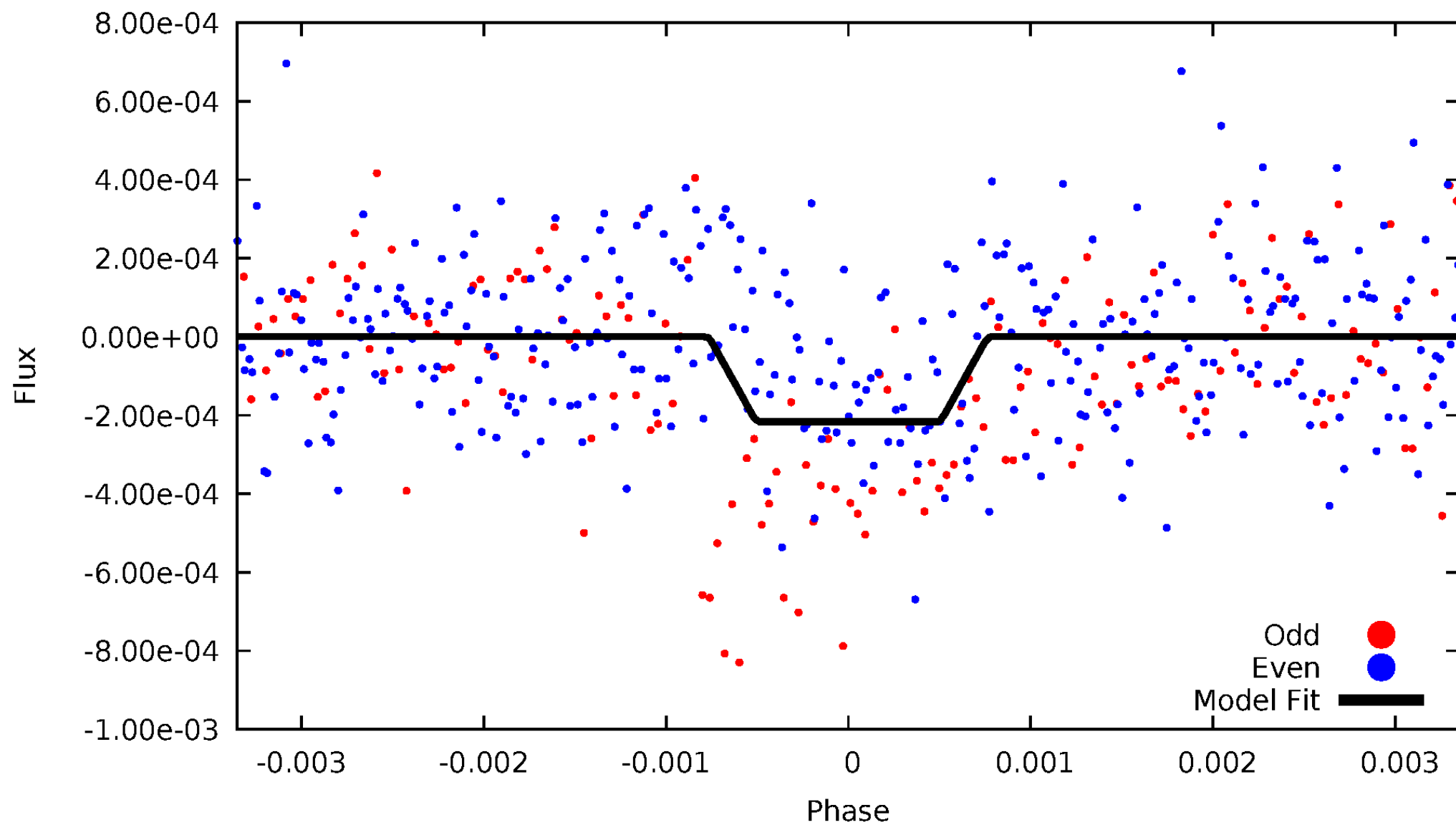
DV Odd/Even

TCE 006752656-01



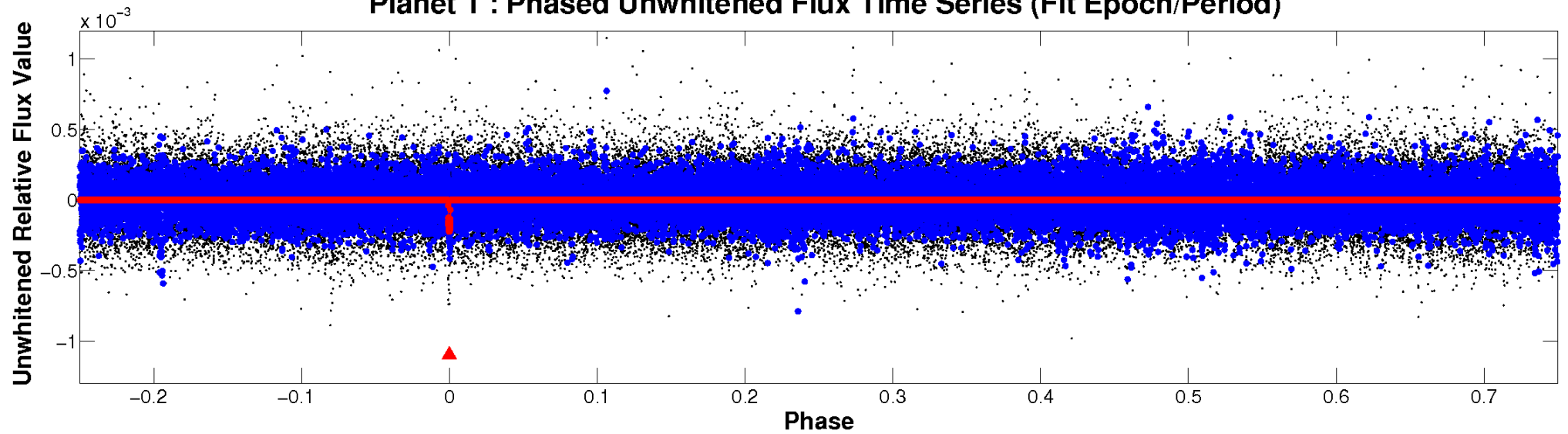
ALT Odd/Even

TCE 006752656-01

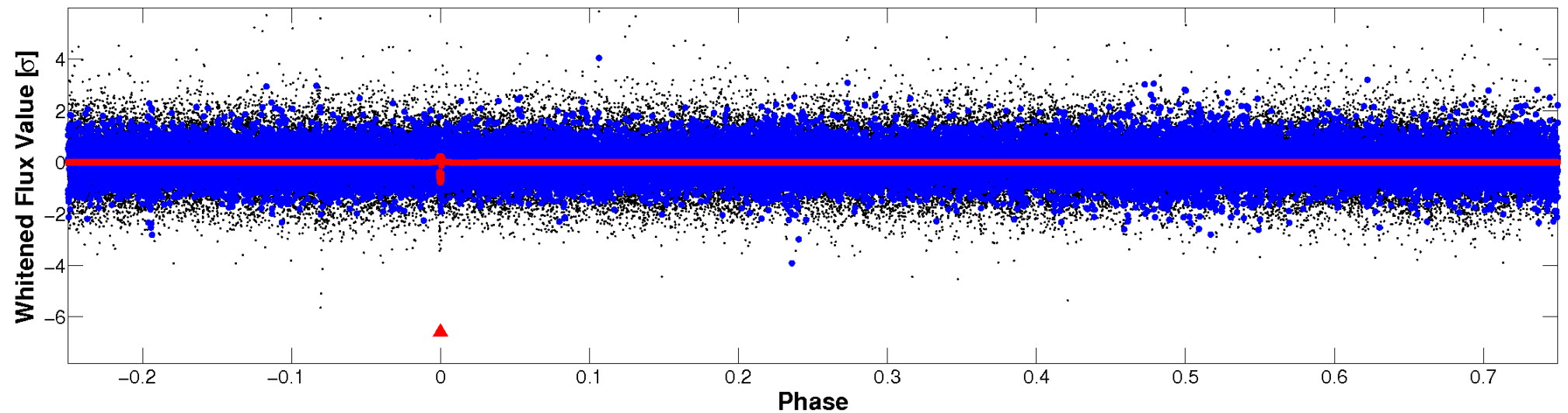


Non-Whitened Vs. Whitened Light Curve

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 006752656-01 P=503.756356 Days $T_0=357.285570$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006752656-01 P=503.756356 Days $T_0=357.285570$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

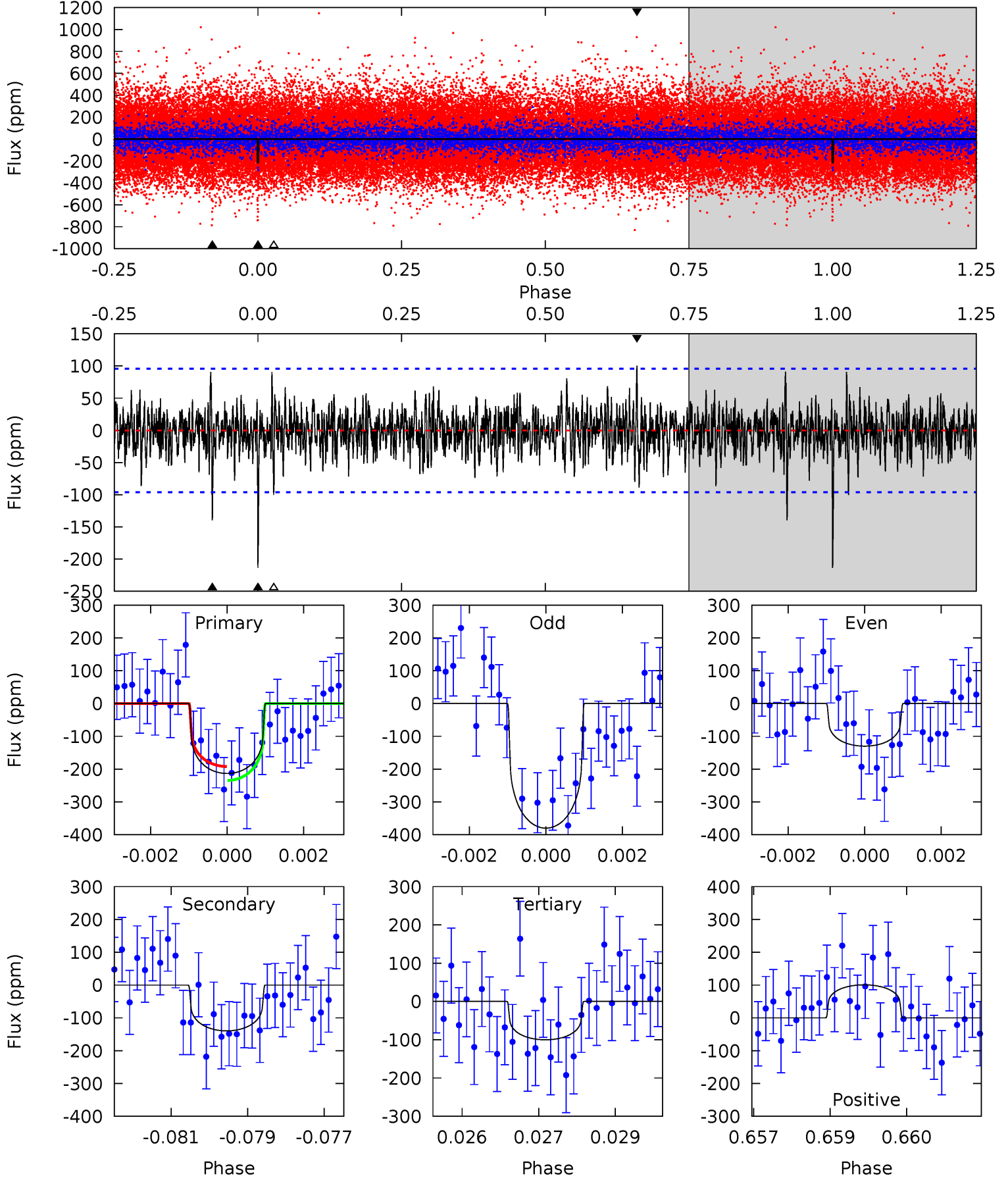
TCE 006752656-01 P=503.734932 Days $T_0=357.312706$ (BKJD)



DV Model-Shift Uniqueness Test

006752656-01, P = 503.756356 Days, E = 357.285570 Days

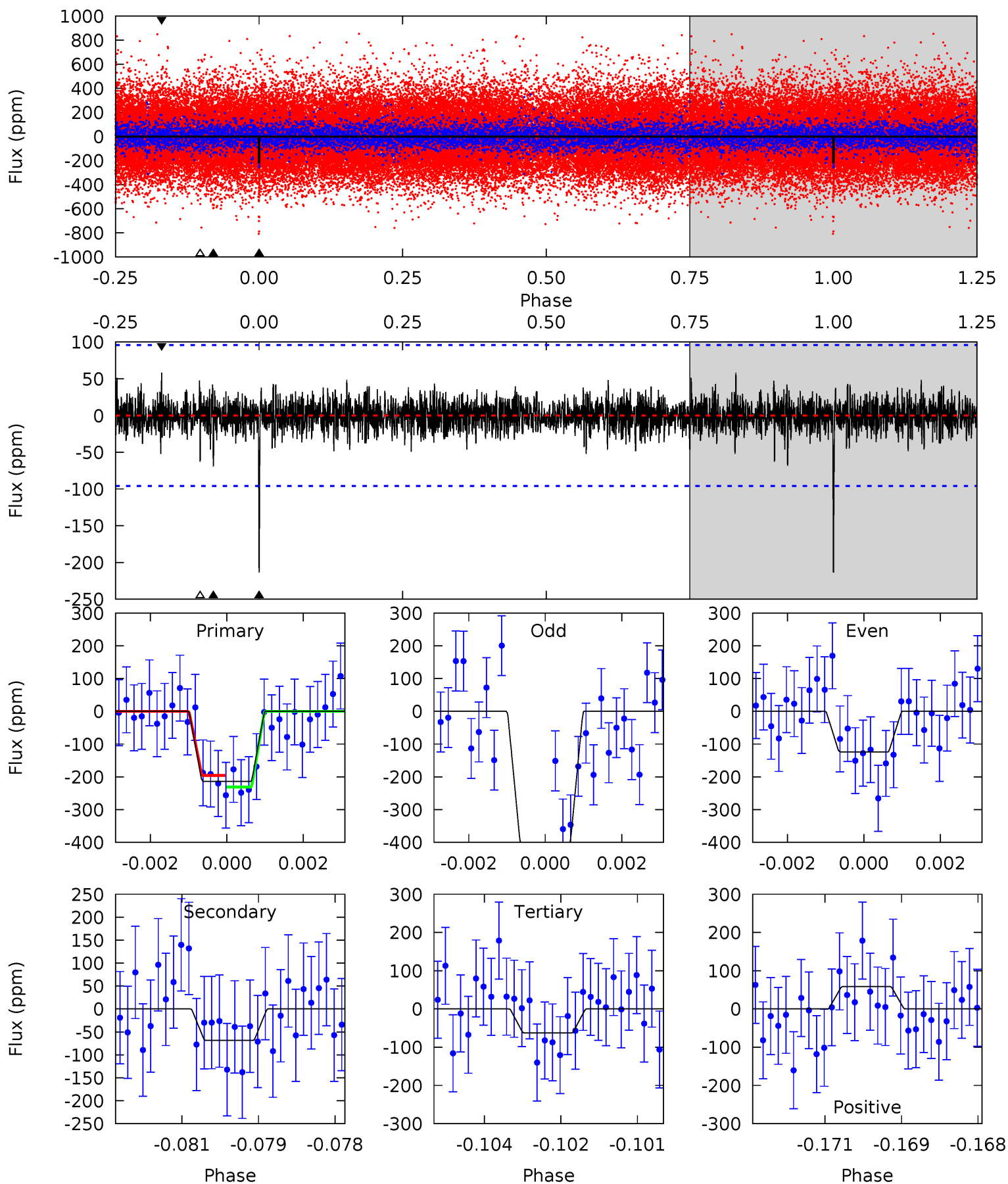
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	7.81	5.60	5.63	5.37	3.15	1.44	6.33	6.31	2.20	2.18	6.65	1.52	0.32	1.19



Alt Model-Shift Uniqueness Test

006752656-01, P = 503.734932 Days, E = 357.312706 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	3.83	3.51	3.27	5.37	3.16	0.86	8.46	8.70	0.32	0.56	7.59	1.61	0.21	1.00



Stellar Parameters For KIC 006752656

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5262^{+171}_{-144}	$3.836^{+0.784}_{-0.336}$	$-0.460^{+0.350}_{-0.250}$	$1.826^{+1.317}_{-1.078}$	$0.834^{+0.219}_{-0.118}$	$0.193^{+2.587}_{-0.154}$
	+3%/-3%	+20%/-9%	+76%/-54%	+72%/-59%	+26%/-14%	+1341%/-80%
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 006752656-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-140 ± 18	$2.60^{+2.44}_{-1.44}$	396^{+72}_{-67}	4786^{+1973}_{-804}	15115^{+68890}_{-10760}
Alt.	-68 ± 18	$2.88^{+2.03}_{-1.66}$	400^{+64}_{-75}	4100^{+1520}_{-611}	6144^{+34568}_{-4233}

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

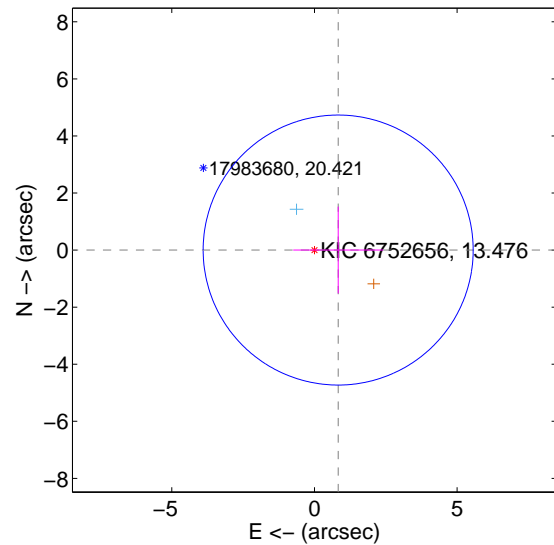
Supplemental centroid analysis for 006752656-01. Kepler magnitude: 13.48. Transit SNR 7.30

There are 1 quarters with good PRF difference image offsets

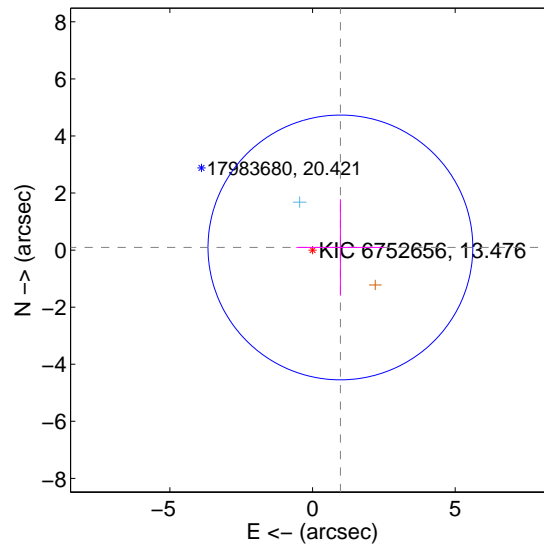
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.832 ± 1.577	0.53	-0.832 ± 1.577	0.001 ± 1.522
PRF-fit source offset from KIC position	0.982 ± 1.546	0.63	-0.977 ± 1.545	0.093 ± 1.690
photometric centroid source offset	2.14 ± 1.64	1.30	0.18 ± 2.07	2.13 ± 1.64

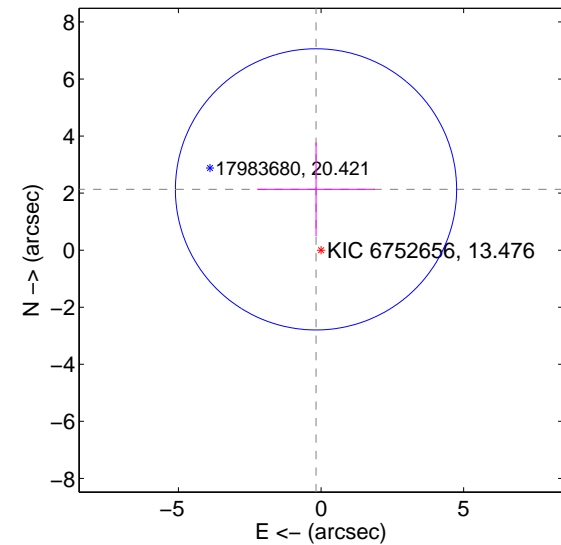
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

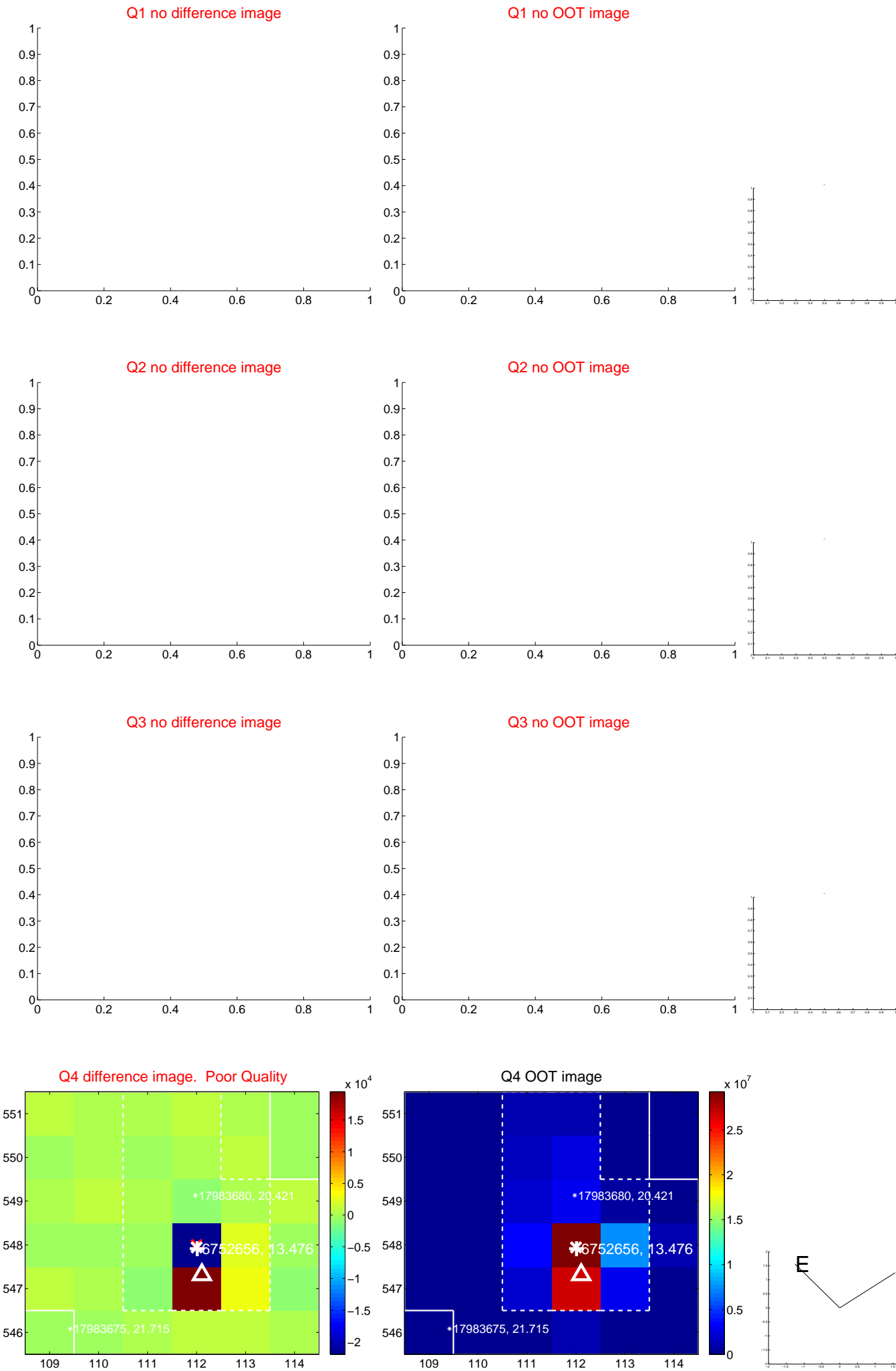


offset from photometric centroids



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.

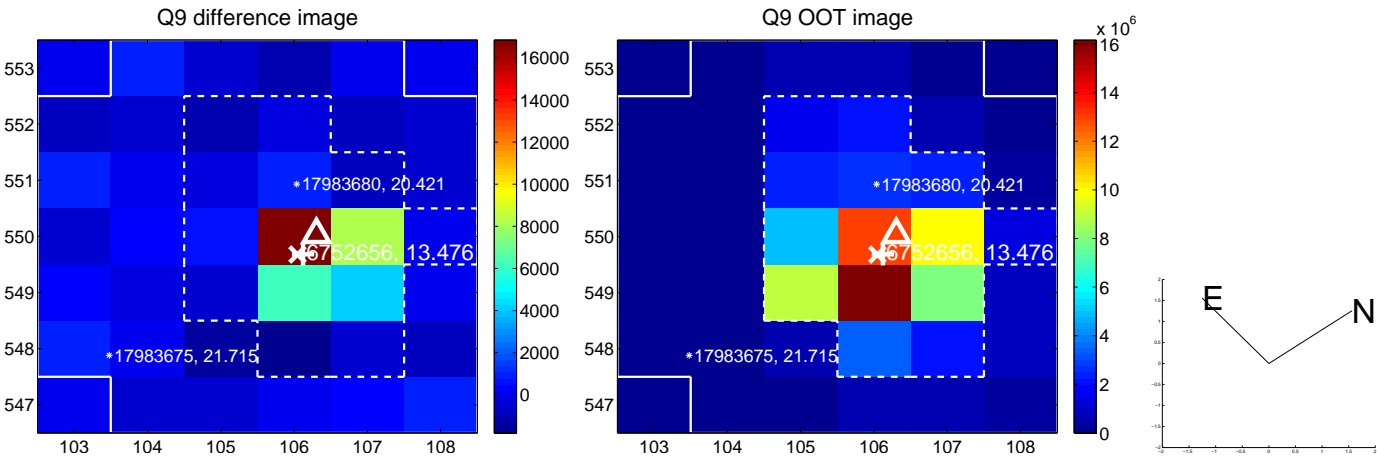
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



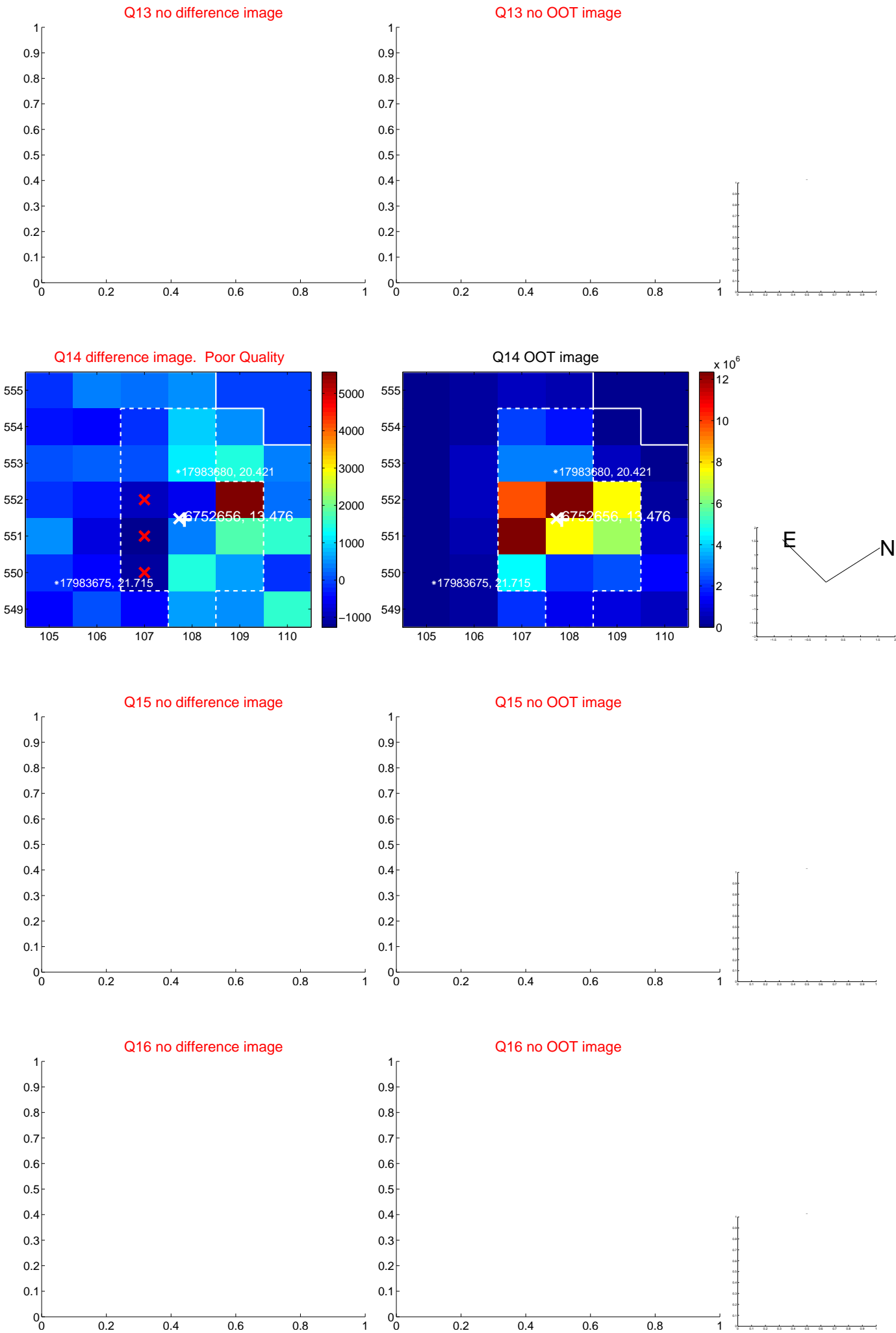
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



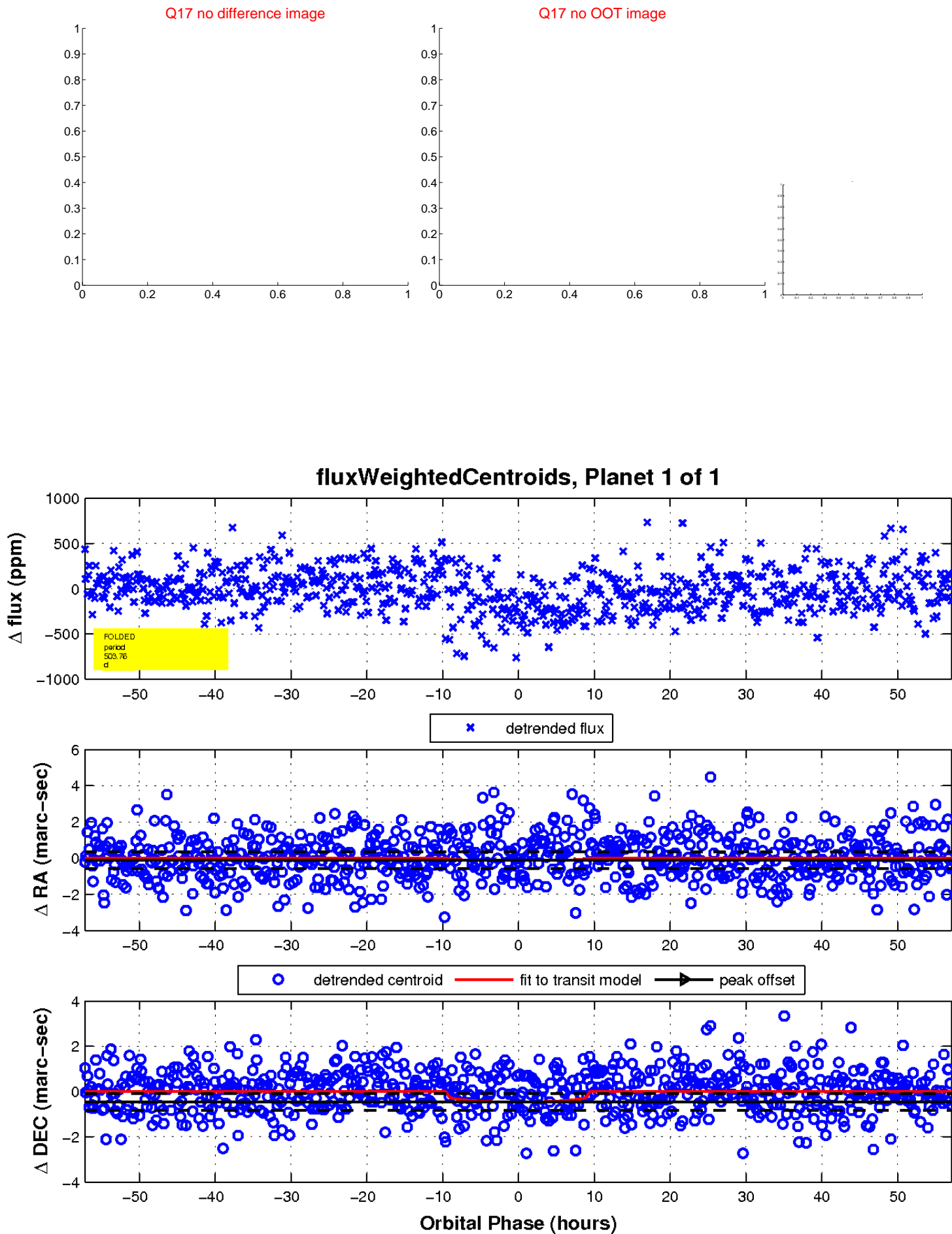
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

