

KIC 007626498

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})
007626498-01	OBS	No	112.394193	143.430463	1033.9	3.193	10.2	5.6	7.07	4984	26.58	100.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007626498-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT— INCONSISTENT_TRANS—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.

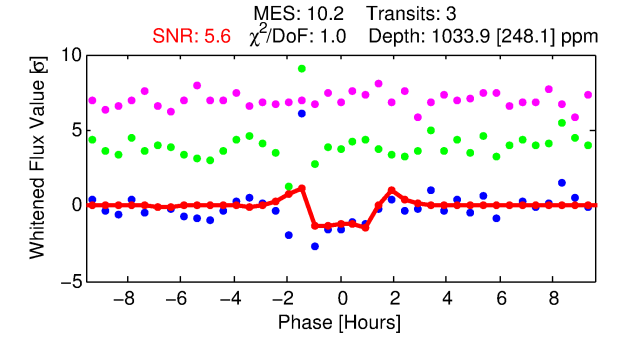
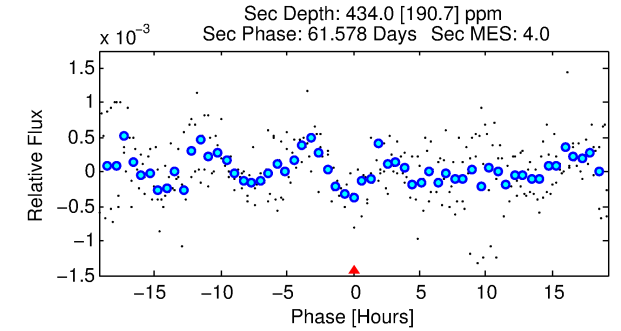
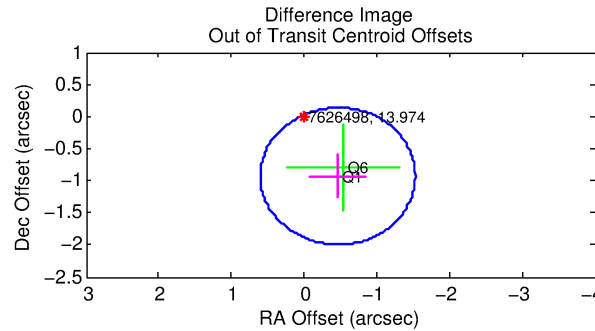
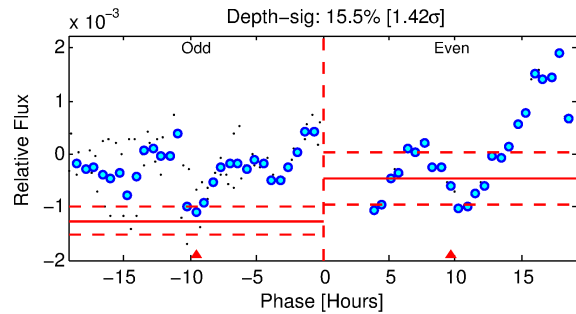
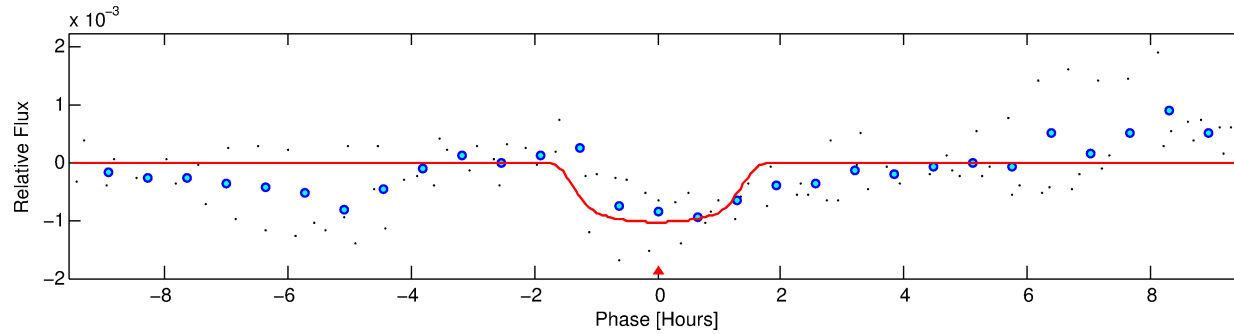
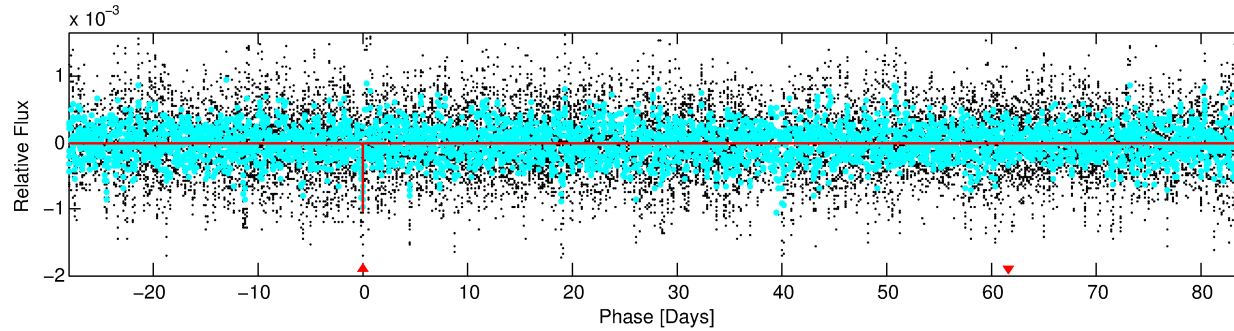
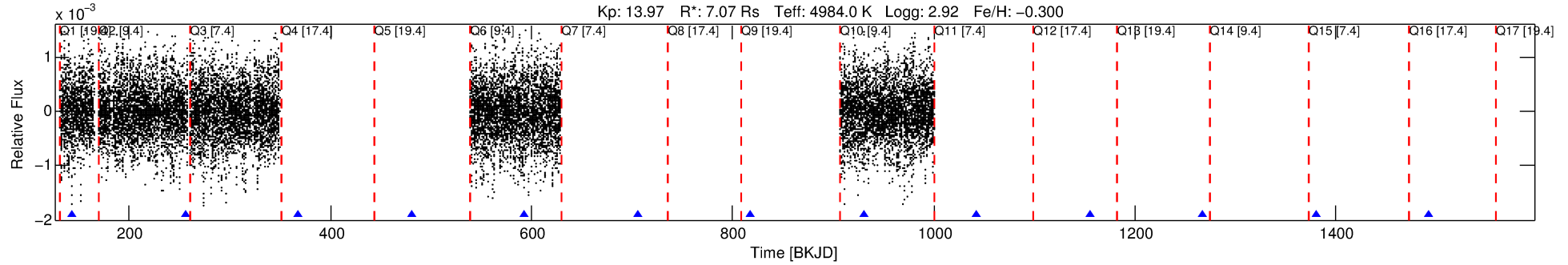
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007626498-01

No Significant Match Found

DV One-Page Summary

KIC: 7626498 Candidate: 1 of 1 Period: 112.394 d



DV Fit Results:

Period = 112.39419 [0.00145] d
Epoch = 143.4305 [0.0068] BKJD
Rp/R* = 0.0345 [0.0136]
a/R* = 153.42 [200.08]
b = 0.86 [0.39]
Seff = 100.87 [80.34]
Teq = 808 [161] K
Rp = 26.58 [17.32] Re
a = 0.5233 [0.2593] AU
Ag = 92.51 [110.81] [0.83 σ]
Teffp = 3875 [879] K [3.43 σ]

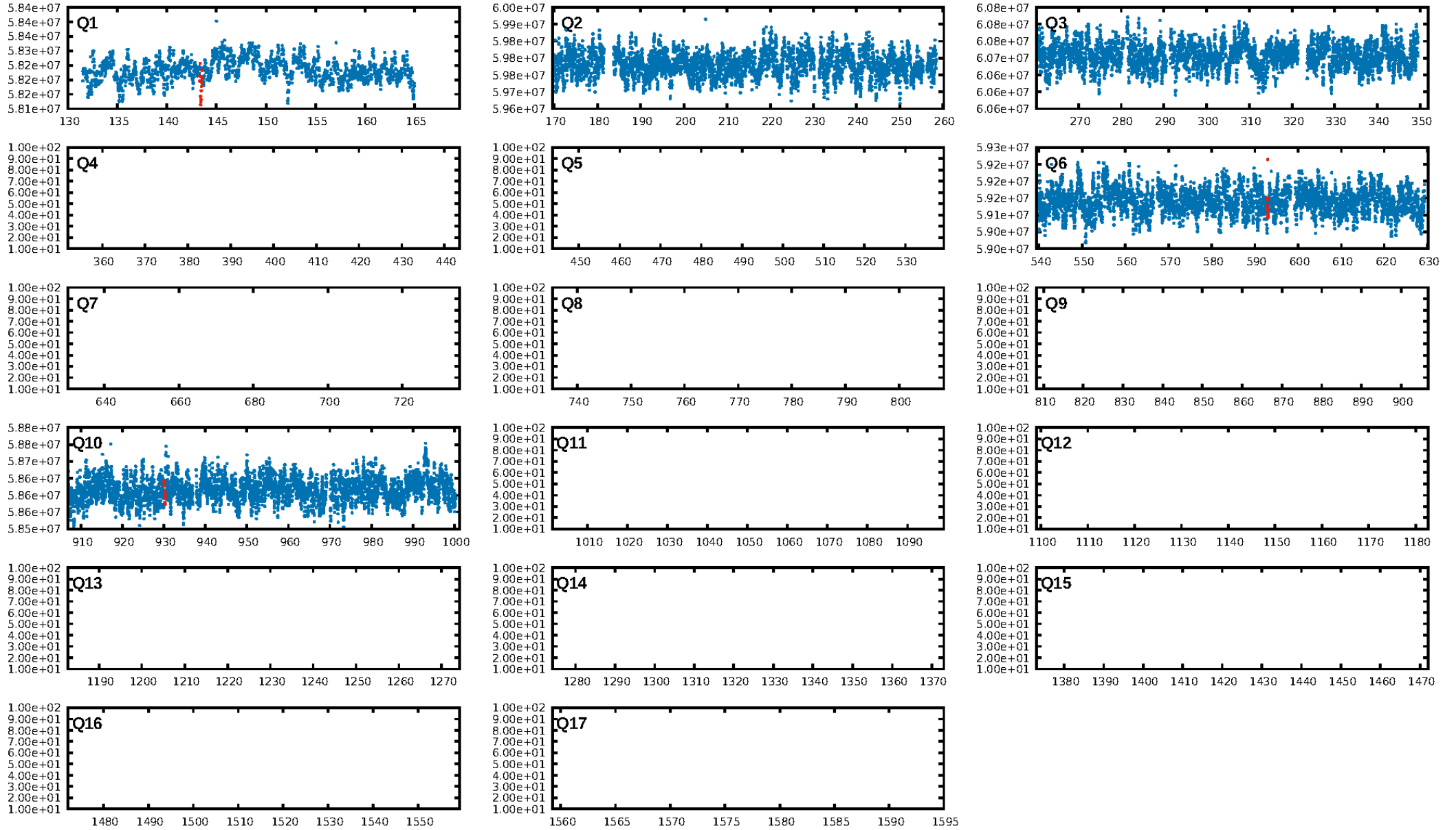
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.2%
ModelChiSquareGof-sig: 87.7%
Bootstrap-pfa: 8.10e-19
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -84.77
Centroid-sig: 90.6%
Centroid-so: 0.349 arcsec [0.48 σ]
OotOffset-rm: 1.039 arcsec [2.92 σ]
KicOffset-rm: 1.044 arcsec [2.93 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

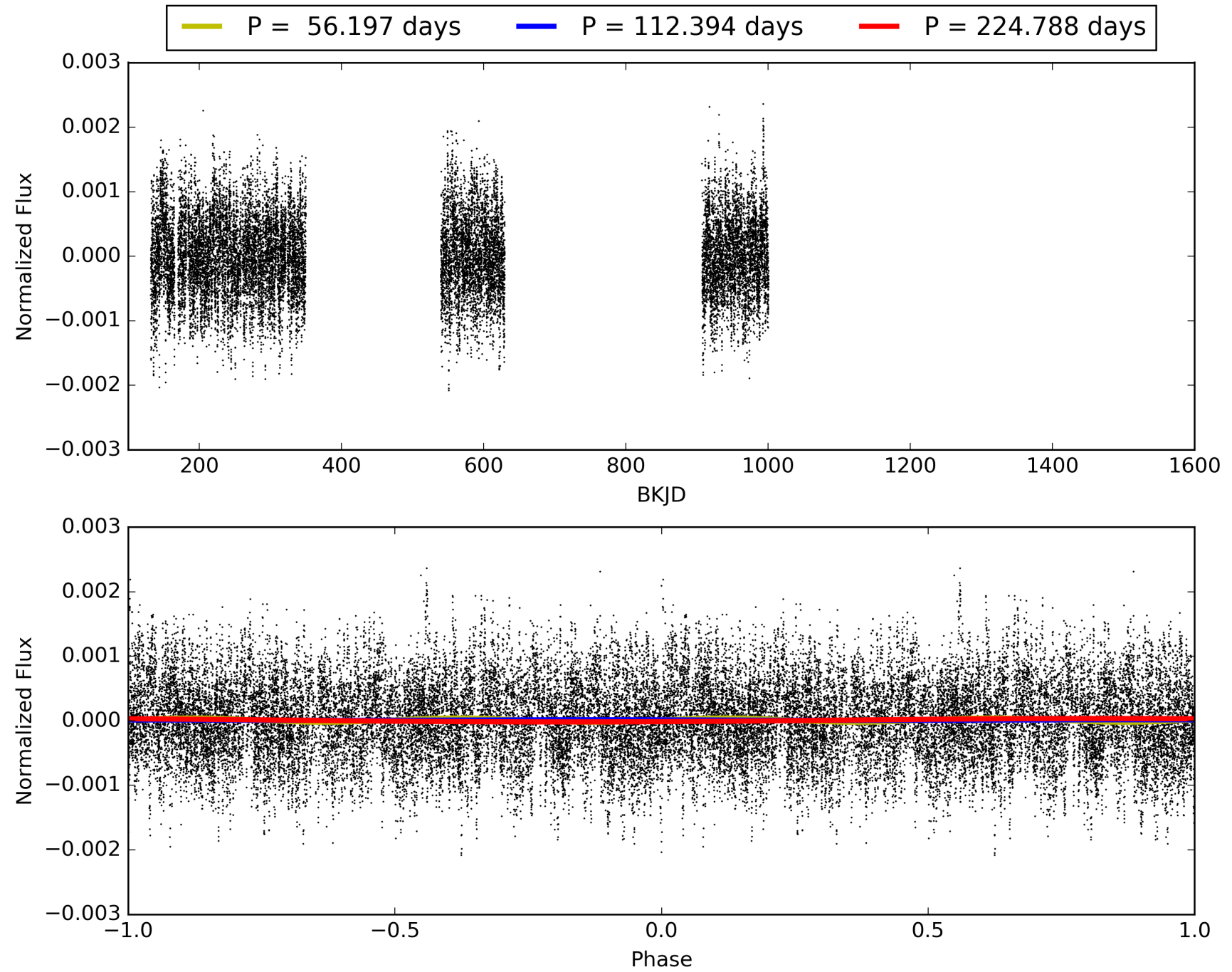
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:15:21 Z

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

TCE 007626498-01, PDC Light Curves

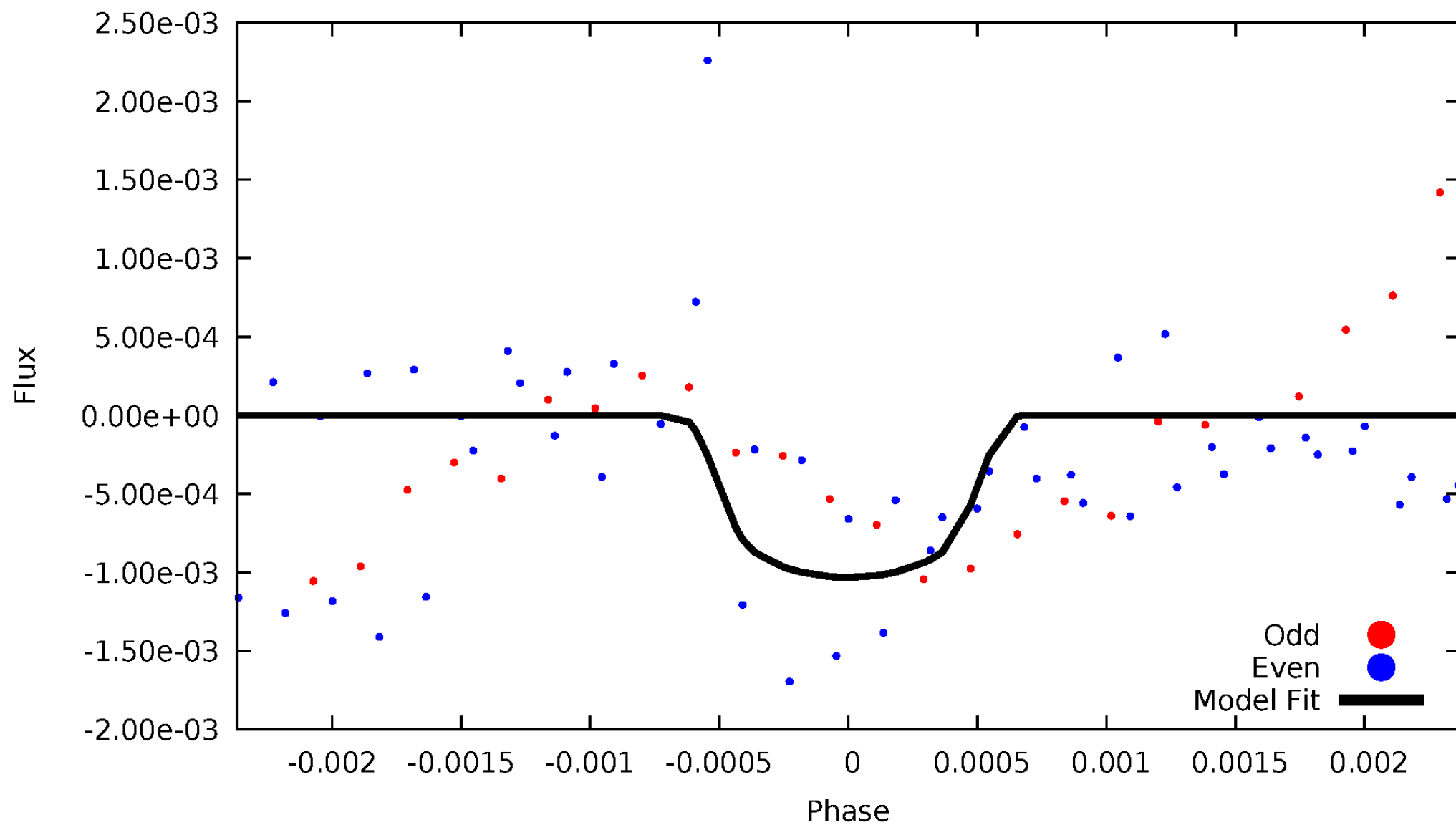


TCE 007626498-01



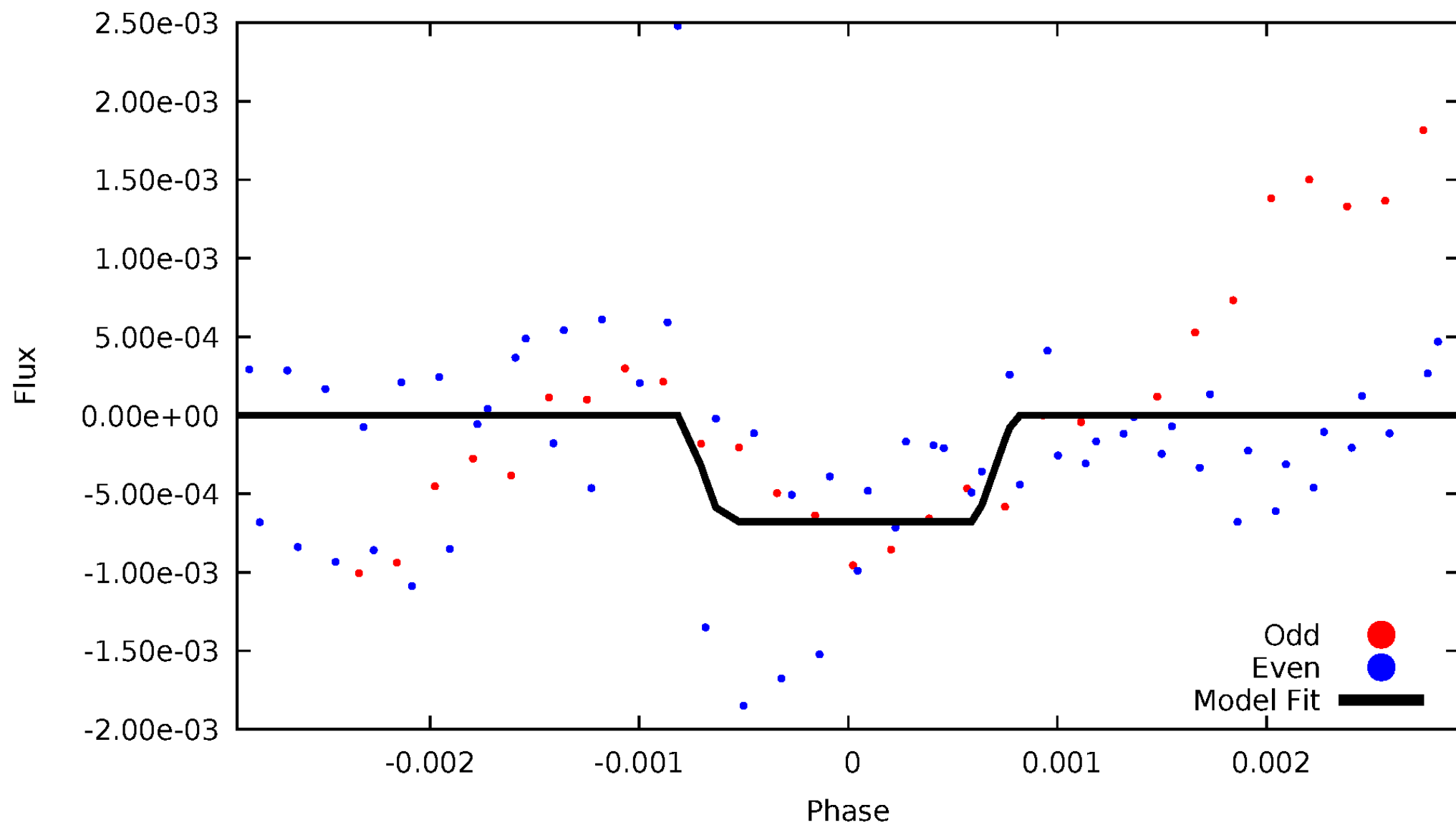
DV Odd/Even

TCE 007626498-01



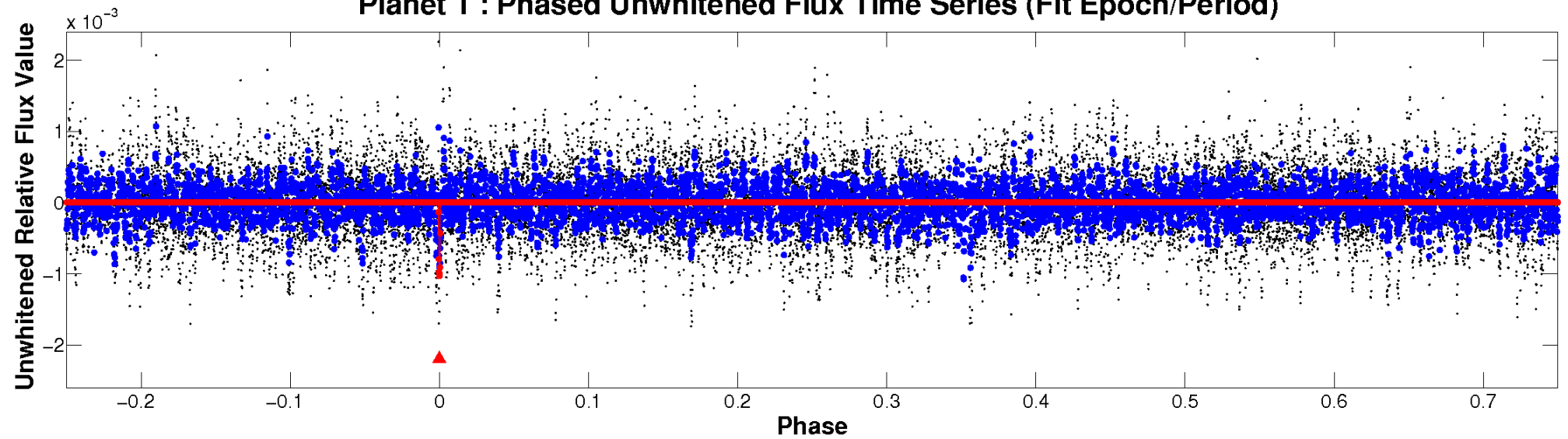
ALT Odd/Even

TCE 007626498-01

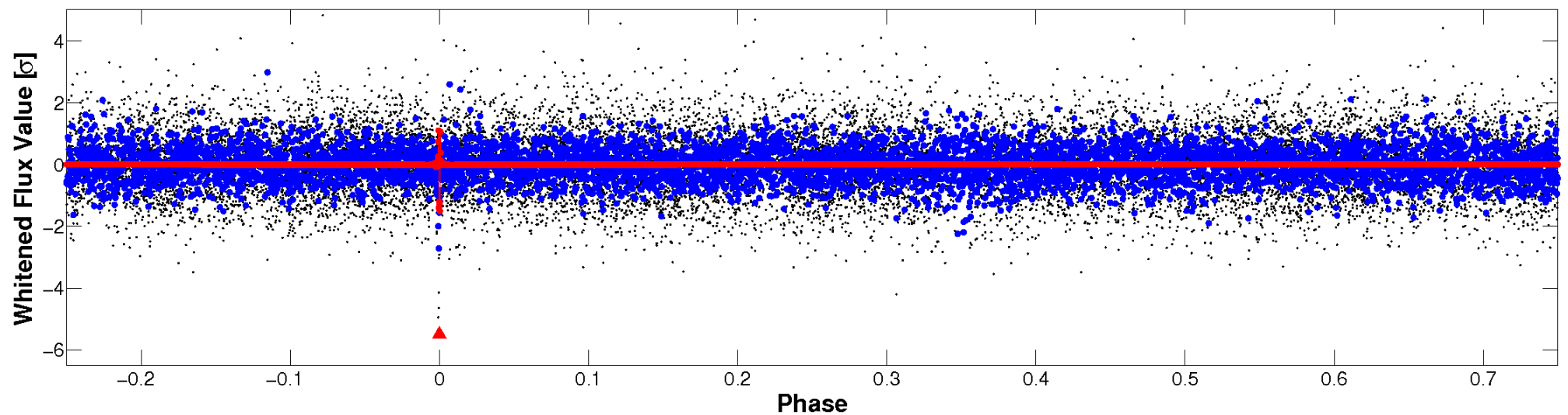


Non-Whitened Vs. Whitened Light Curve

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

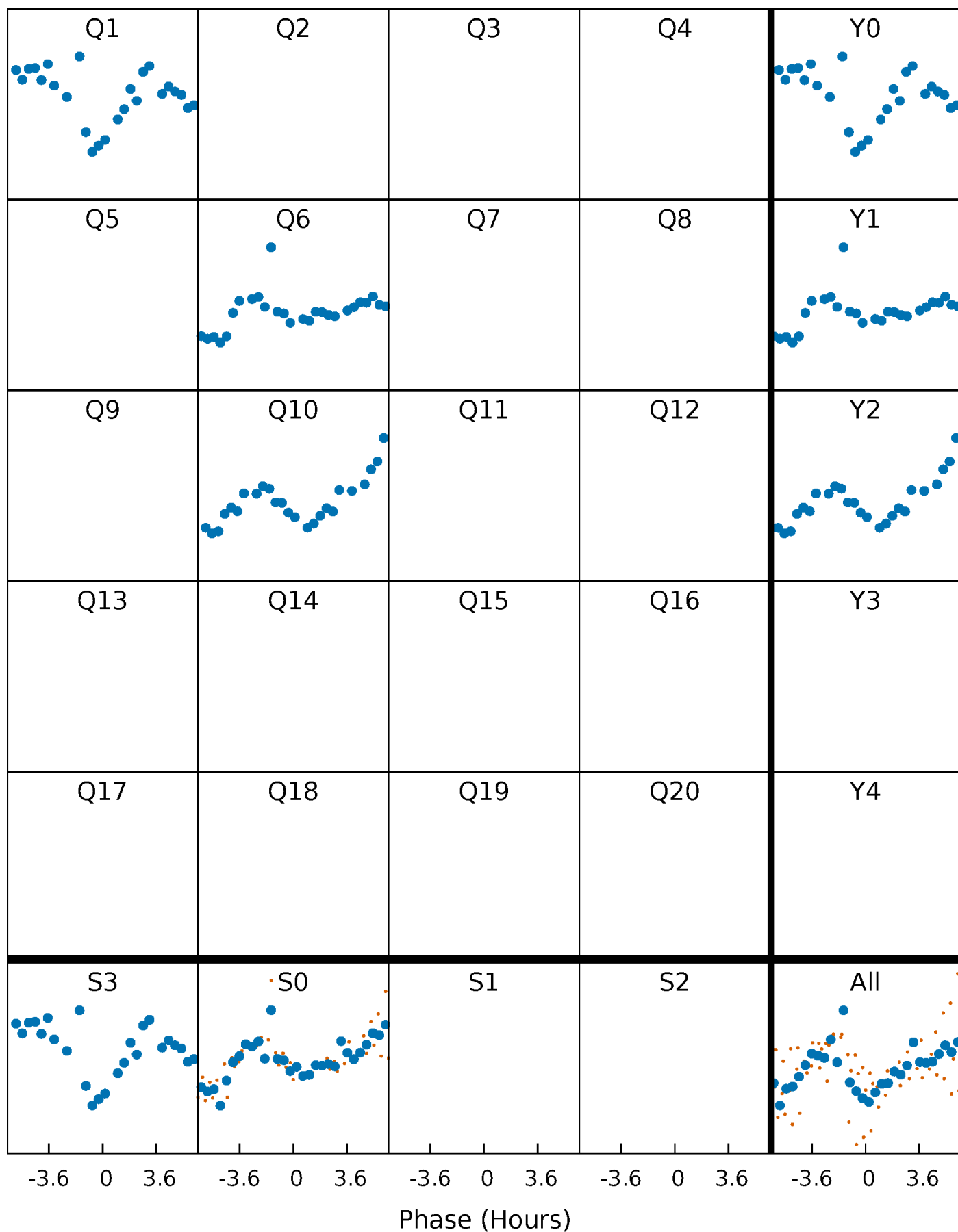


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



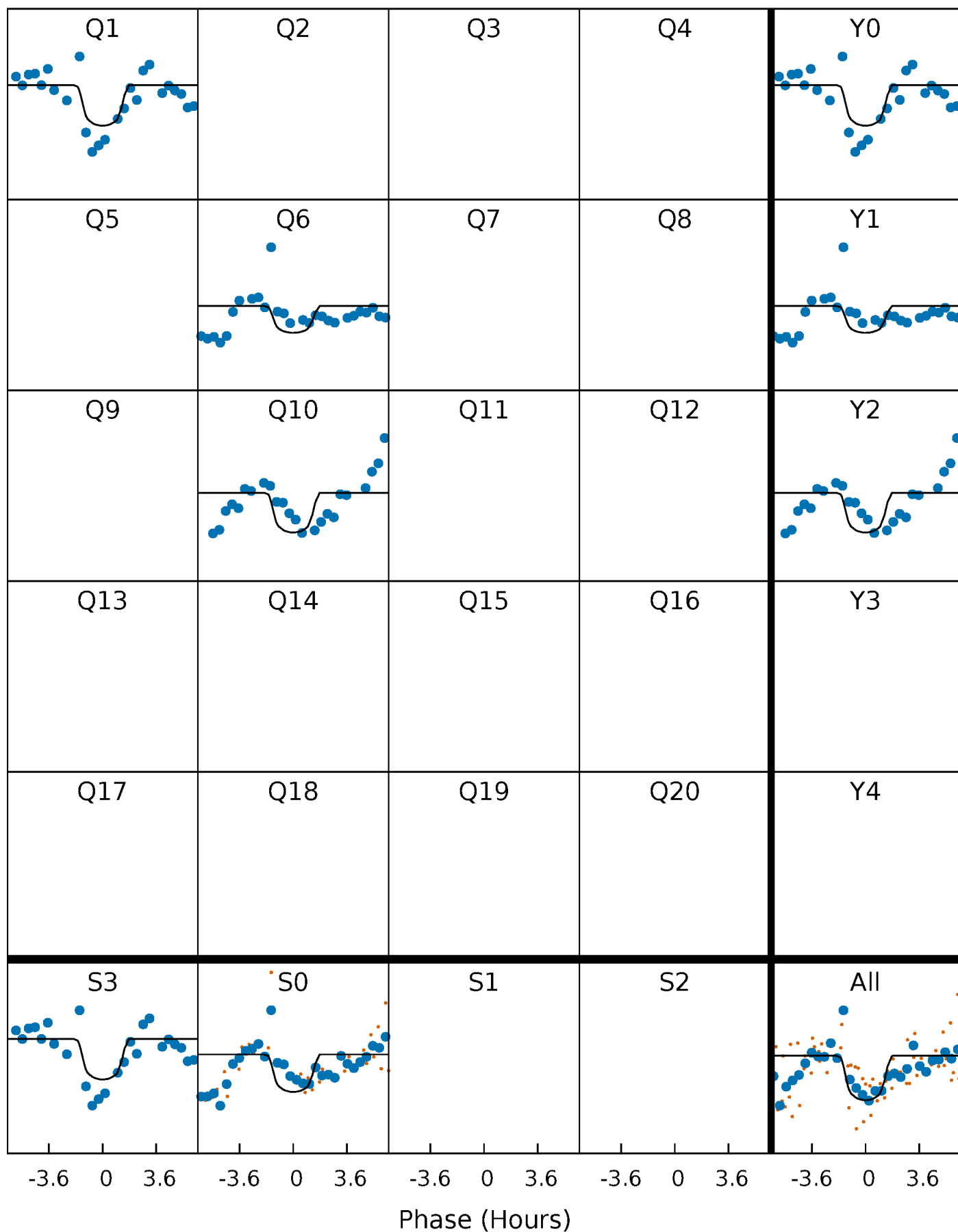
PDC Quarter-Phased Transit Curves

TCE 007626498-01 P=112.394193 Days $T_0=143.430463$ (BKJD)



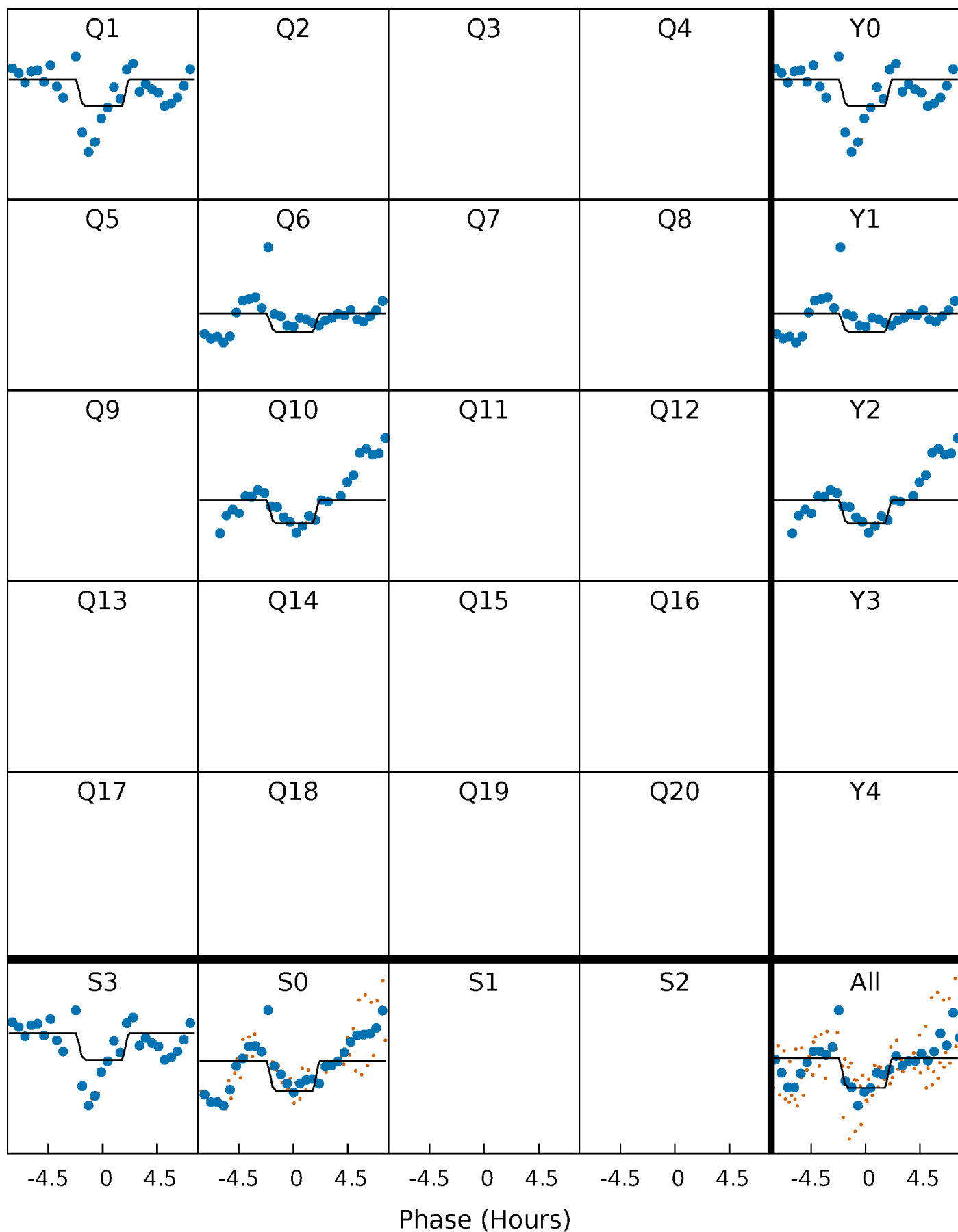
DV Quarter-Phased Transit Curves

TCE 007626498-01 P=112.394193 Days $T_0=143.430463$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

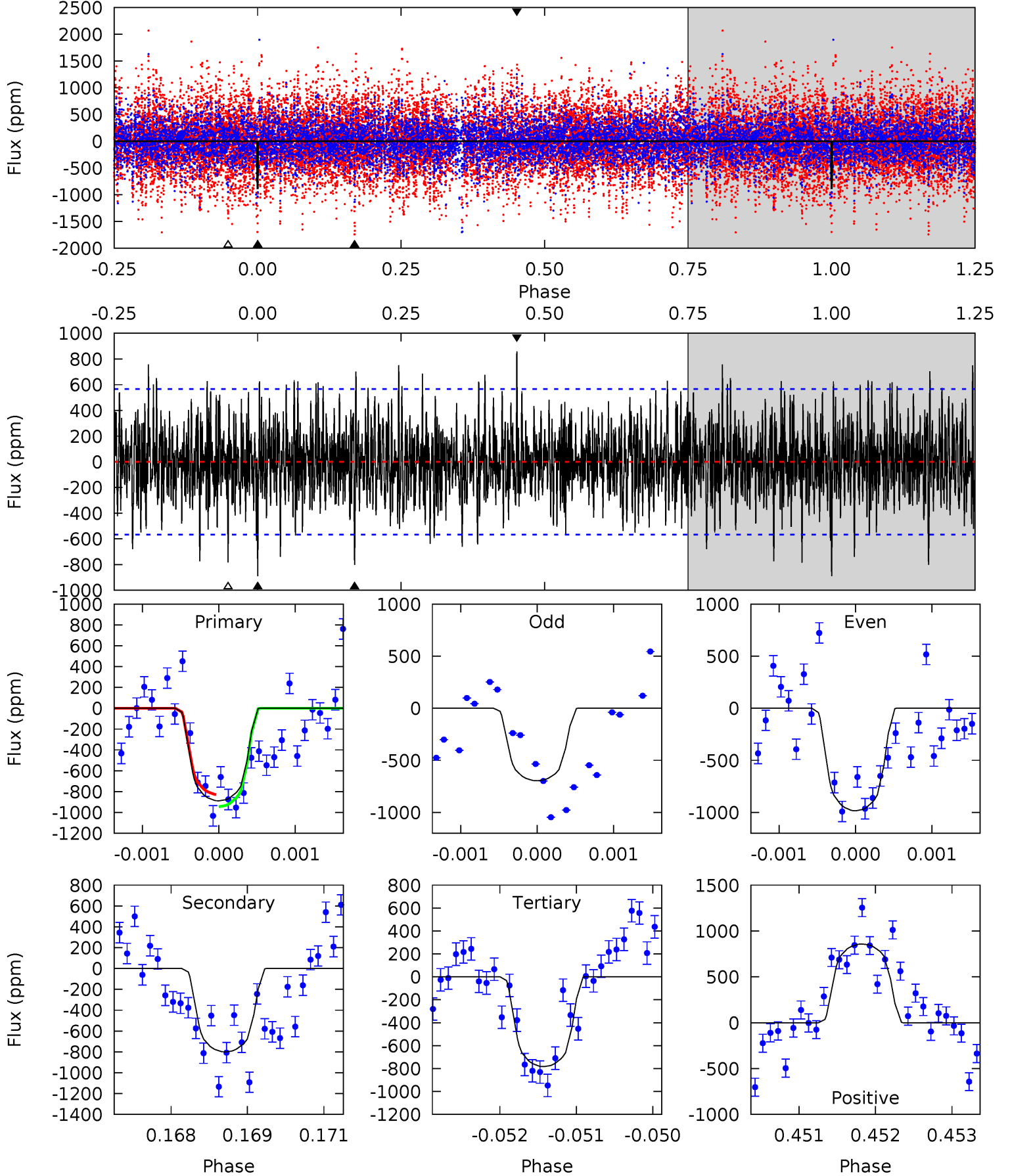
TCE 007626498-01 P=112.394116 Days $T_0=143.461219$ (BKJD)



DV Model-Shift Uniqueness Test

007626498-01, $P = 112.394193$ Days, $E = 31.036270$ Days

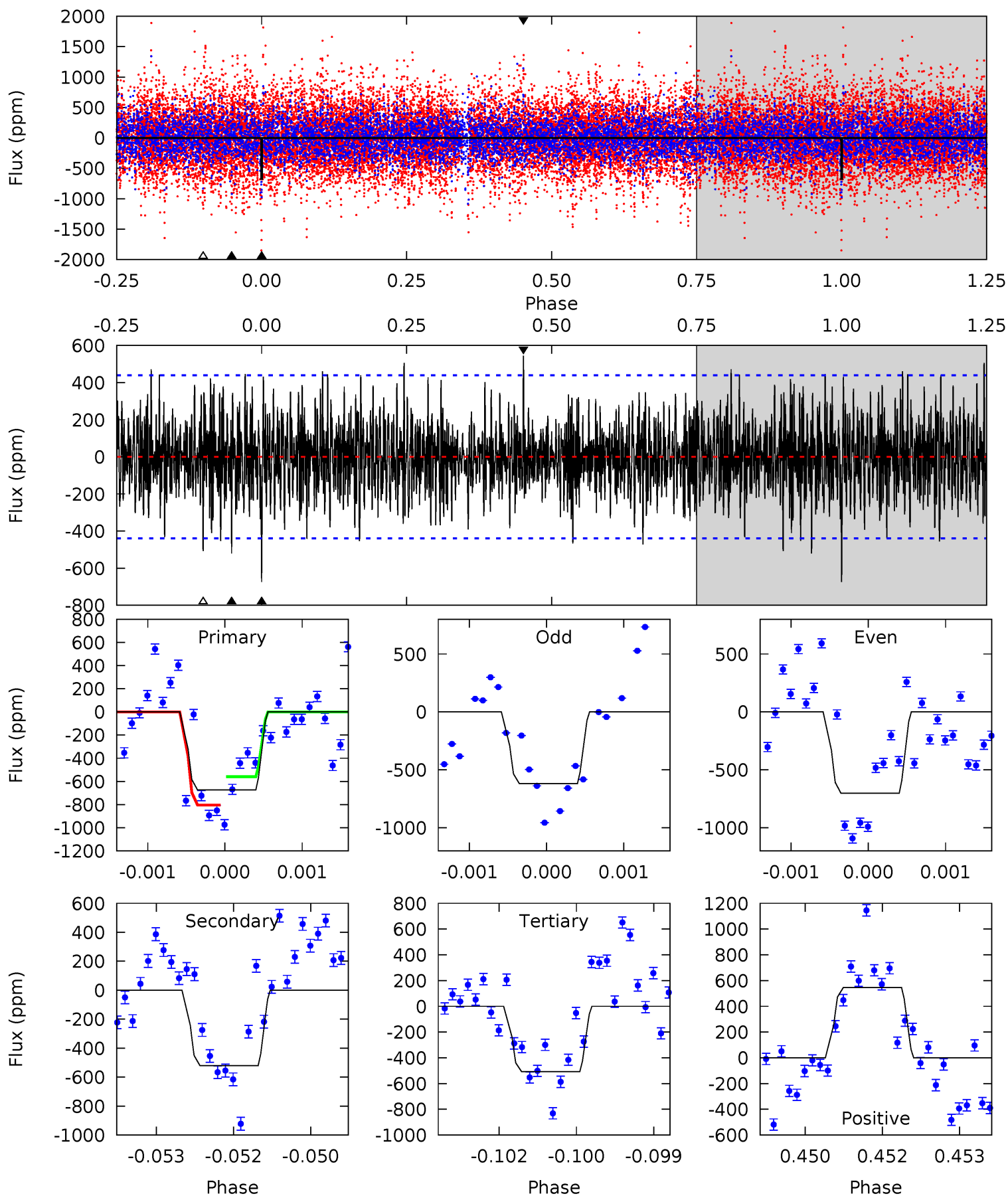
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.48	7.64	7.48	8.19	5.41	3.22	2.18	1.00	0.29	0.16	-0.55	1.28	1.20	0.49	0.56



Alt Model-Shift Uniqueness Test

007626498-01, P = 112.394116 Days, E = 31.067103 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.26	6.37	6.21	6.68	5.38	3.18	1.90	2.05	1.58	0.16	-0.31	0.50	1.09	0.45	1.49



Stellar Parameters For KIC 007626498

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4984^{+119}_{-134}	$2.919^{+0.462}_{-0.249}$	$-0.300^{+0.250}_{-0.250}$	$7.068^{+2.753}_{-3.671}$	$1.514^{+0.221}_{-0.516}$	$0.006^{+0.026}_{-0.003}$
	+2%/-3%	+16%/-9%	+83%/-83%	+39%/-52%	+15%/-34%	+426%/-58%
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 007626498-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-801 ± 105	$24.89^{+13.33}_{-10.95}$	1120^{+128}_{-144}	4581^{+1098}_{-571}	186^{+410}_{-107}
Alt.	-520 ± 82	$18.96^{+12.04}_{-9.79}$	1116^{+126}_{-149}	4636^{+1695}_{-665}	203^{+667}_{-123}

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

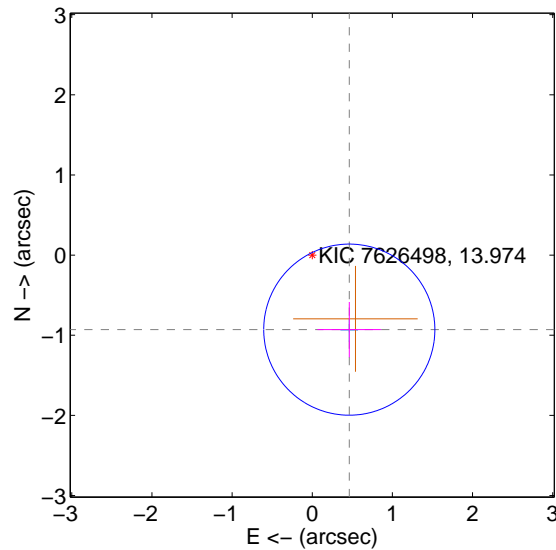
Supplemental centroid analysis for 007626498-01. Kepler magnitude: 13.97. Transit SNR 5.56

There are 1 quarters with good PRF difference image offsets

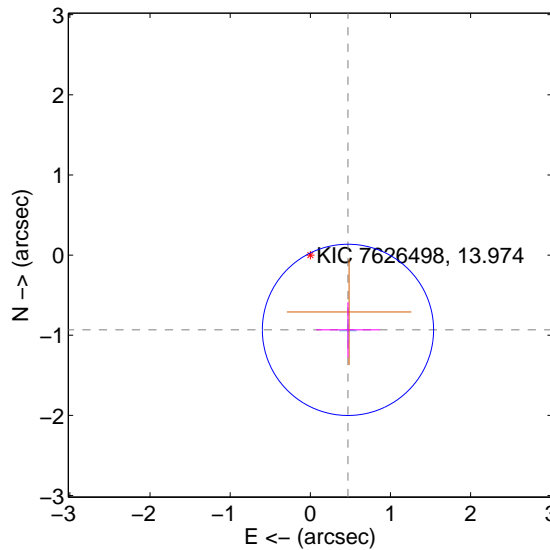
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.039 ± 0.356	2.92	-0.462 ± 0.398	-0.930 ± 0.345
PRF-fit source offset from KIC position	1.044 ± 0.356	2.93	-0.470 ± 0.398	-0.933 ± 0.345
photometric centroid source offset	0.35 ± 0.72	0.48	0.13 ± 0.59	0.32 ± 0.74

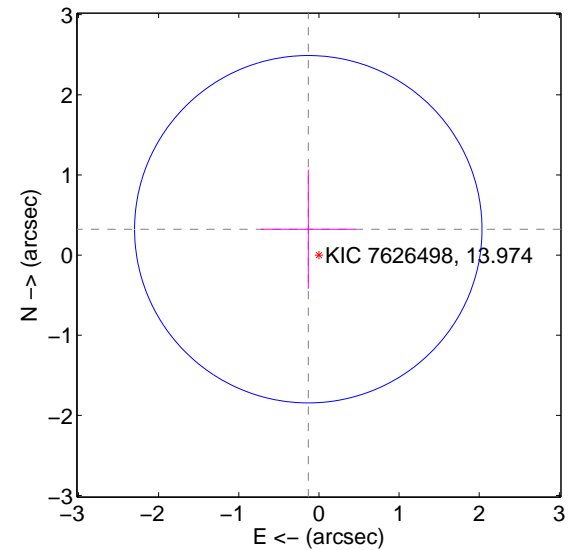
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

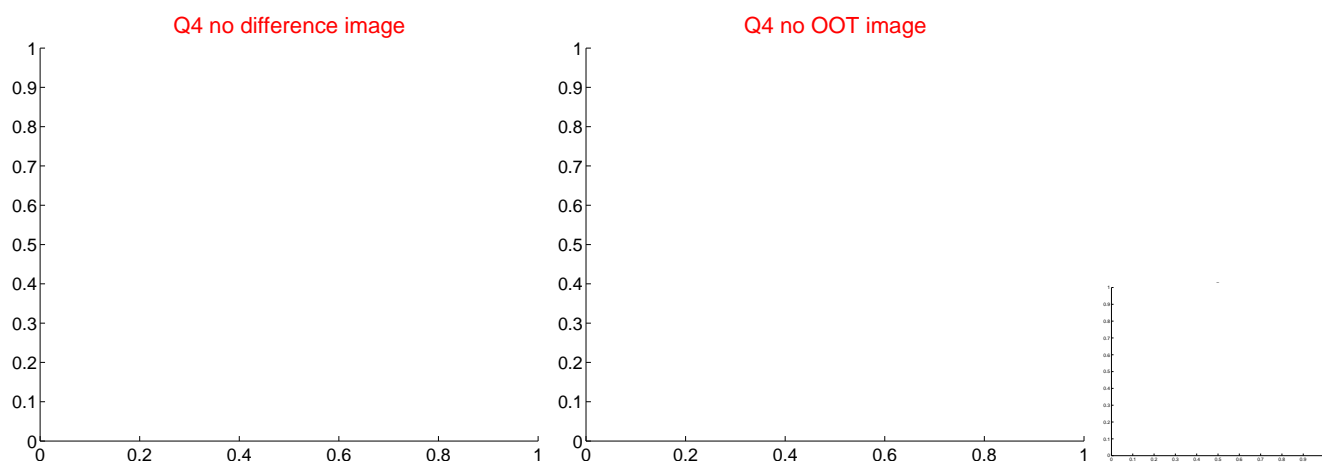
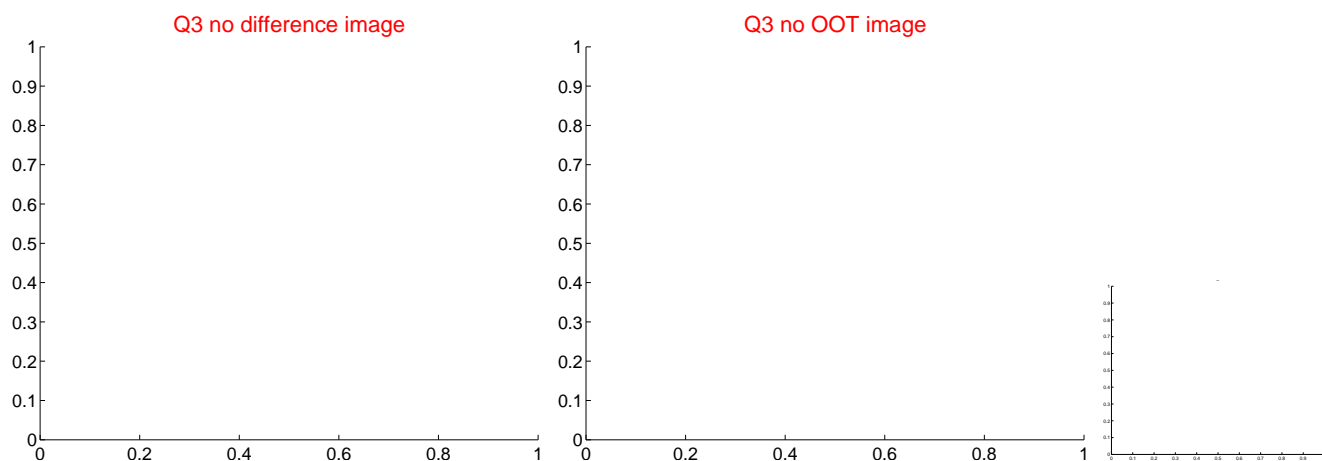
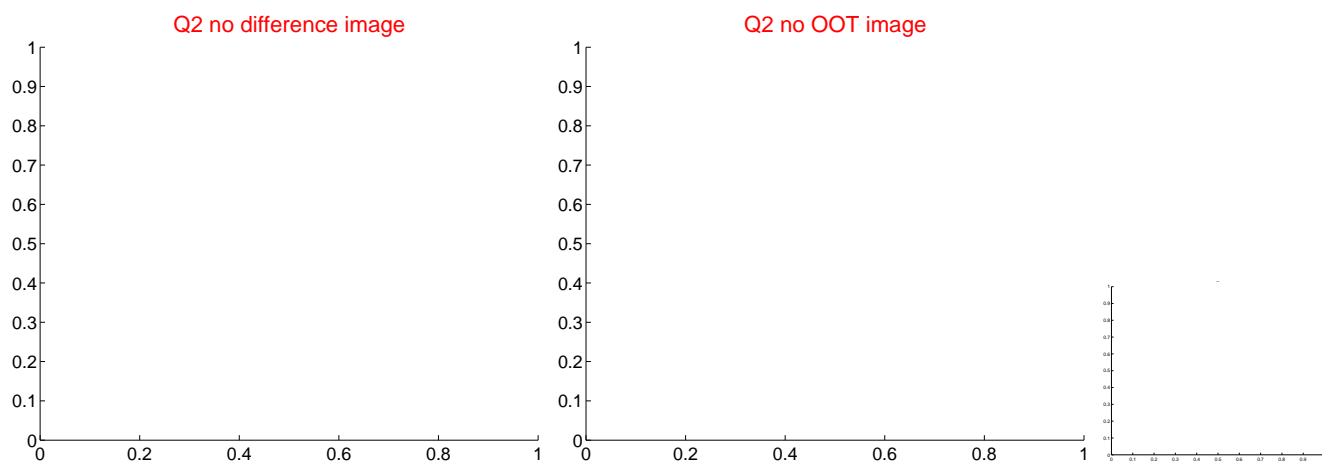
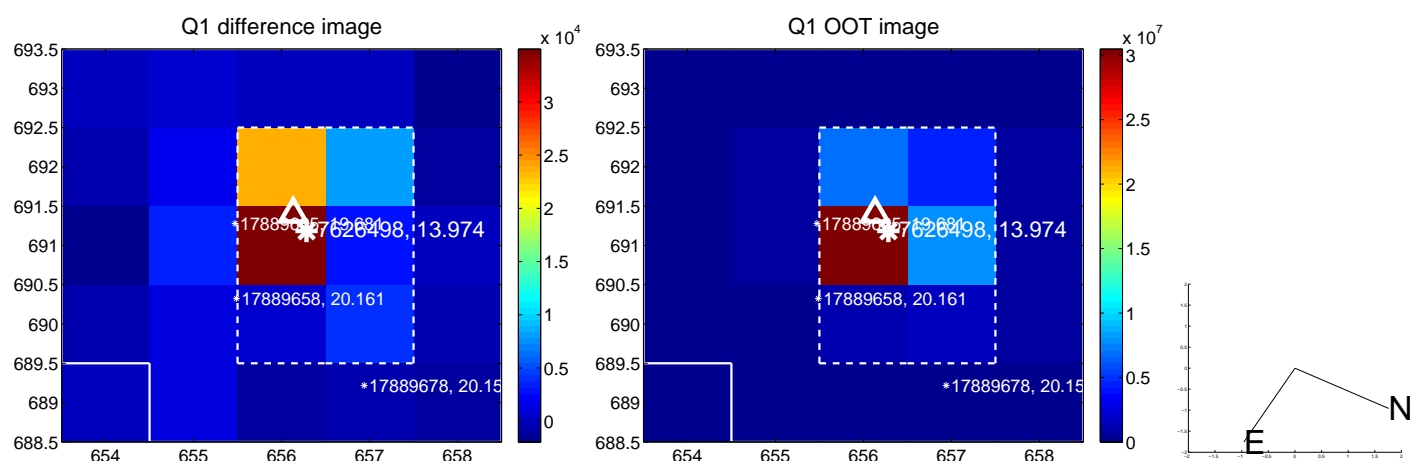


offset from photometric centroids



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

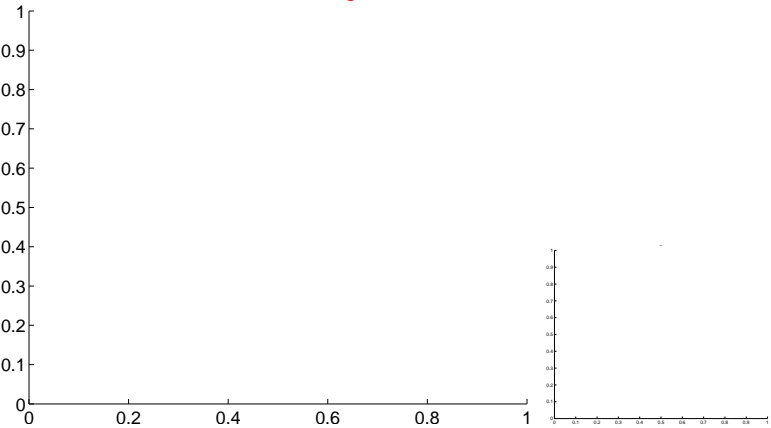


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

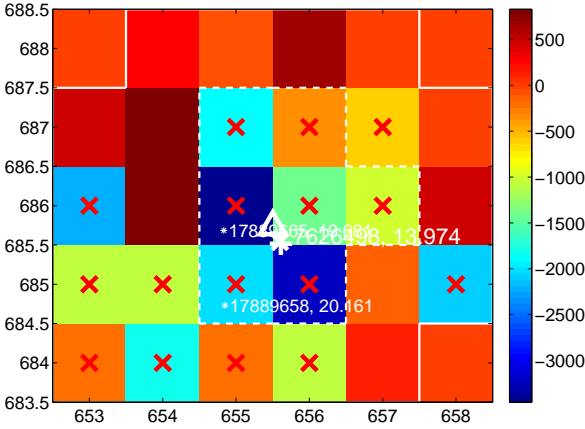
Q5 no difference image



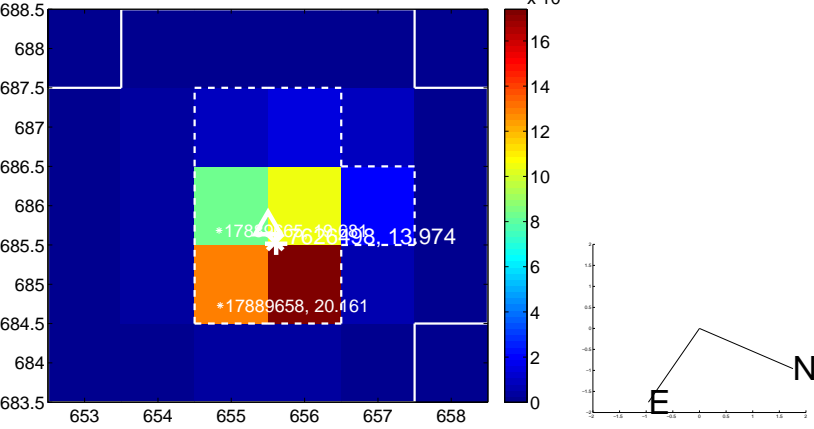
Q5 no OOT image



Q6 difference image. Poor Quality



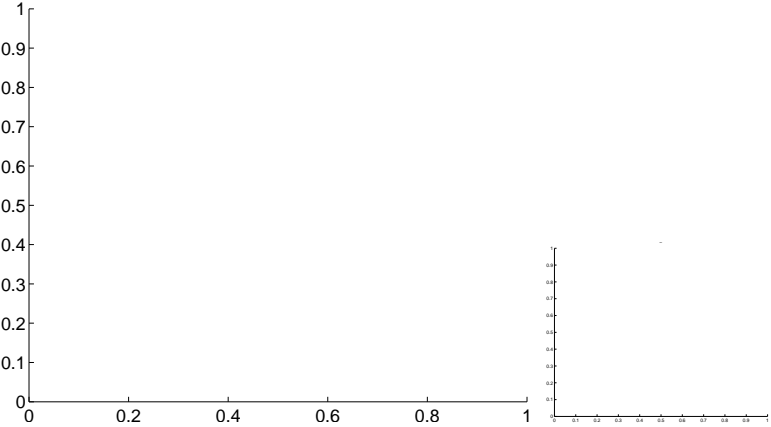
Q6 OOT image



Q7 no difference image



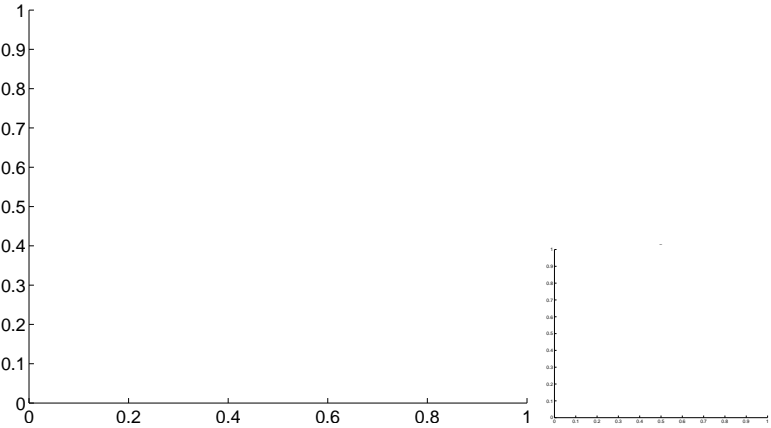
Q7 no OOT image



Q8 no difference image



Q8 no OOT image



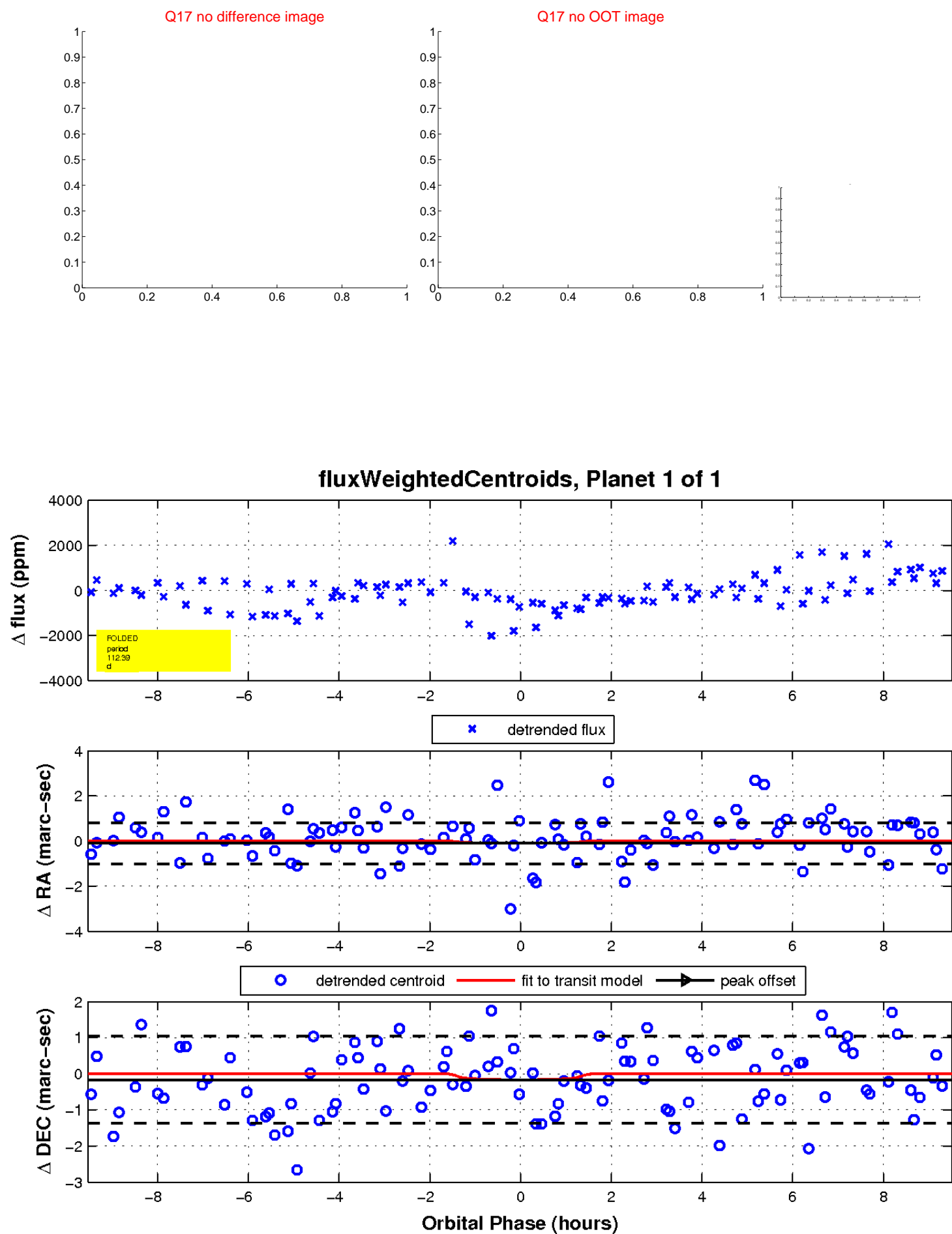
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

