

KIC 007770569

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})
007770569-01	OBS	No	451.795429	346.773373	19163.4	8.451	294.9	298.2	1.96	5616	40.09	2.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007770569-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

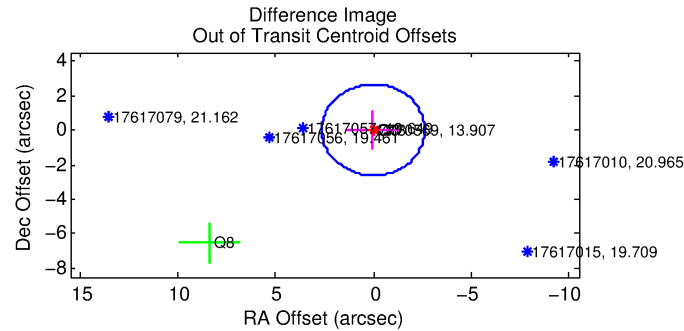
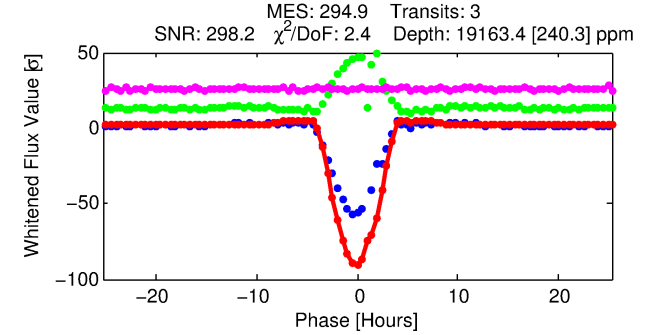
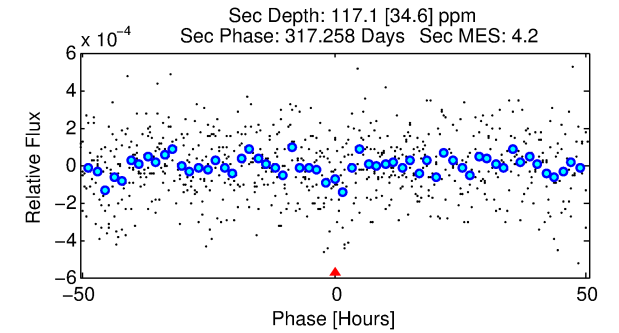
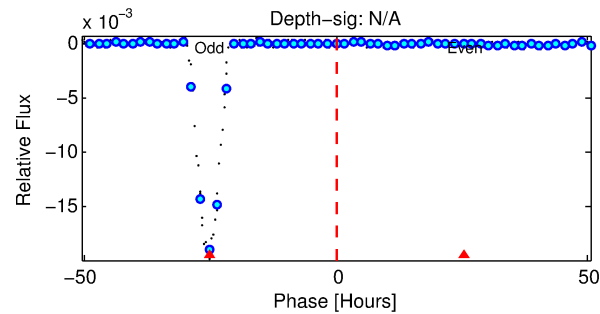
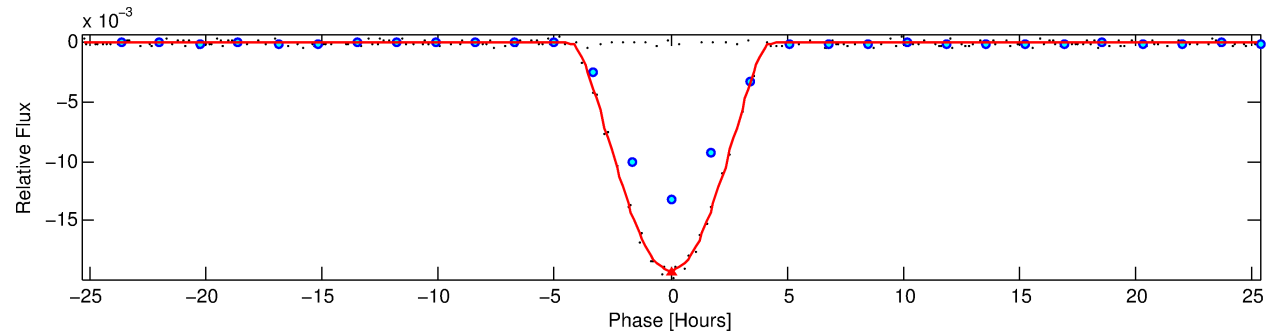
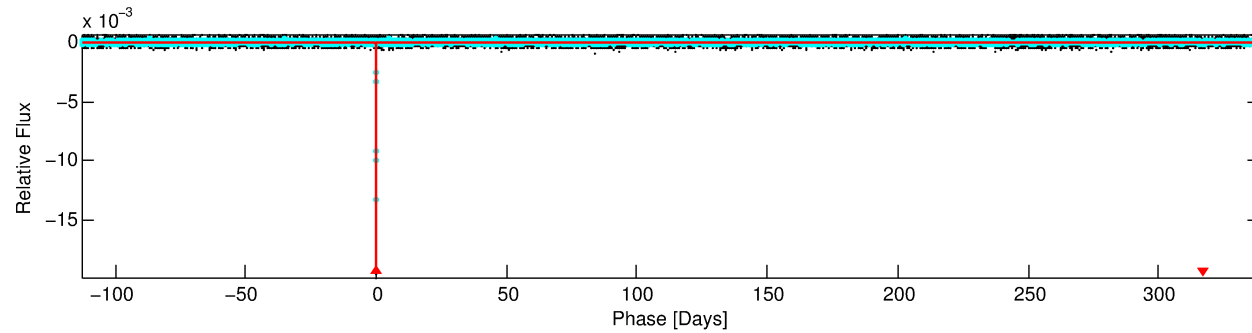
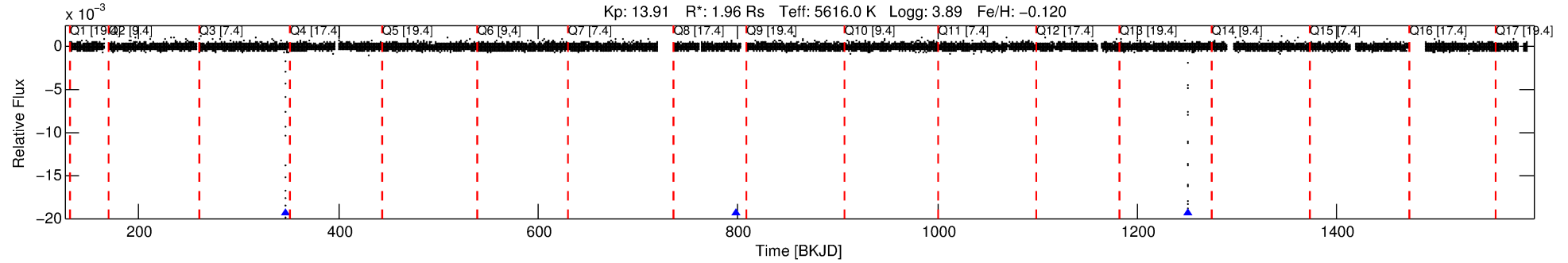
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007770569-01

No Significant Match Found

DV One-Page Summary

KIC: 7770569 Candidate: 1 of 1 Period: 451.795 d



DV Fit Results:

Period = 451.79543 [0.00136] d
Epoch = 346.7734 [0.0018] BKJD
Rp/R* = 0.1879 [0.0540]
a/R* = 294.35 [15.52]
b = 0.94 [0.09]
Seff = 2.44 [2.32]
Teq = 319 [76] K
Rp = 40.09 [24.44] Re
a = 1.1806 [0.6663] AU
Ag = 55.86 [63.84] [0.86σ]
Teffp = 1348 [221] K [4.40σ]

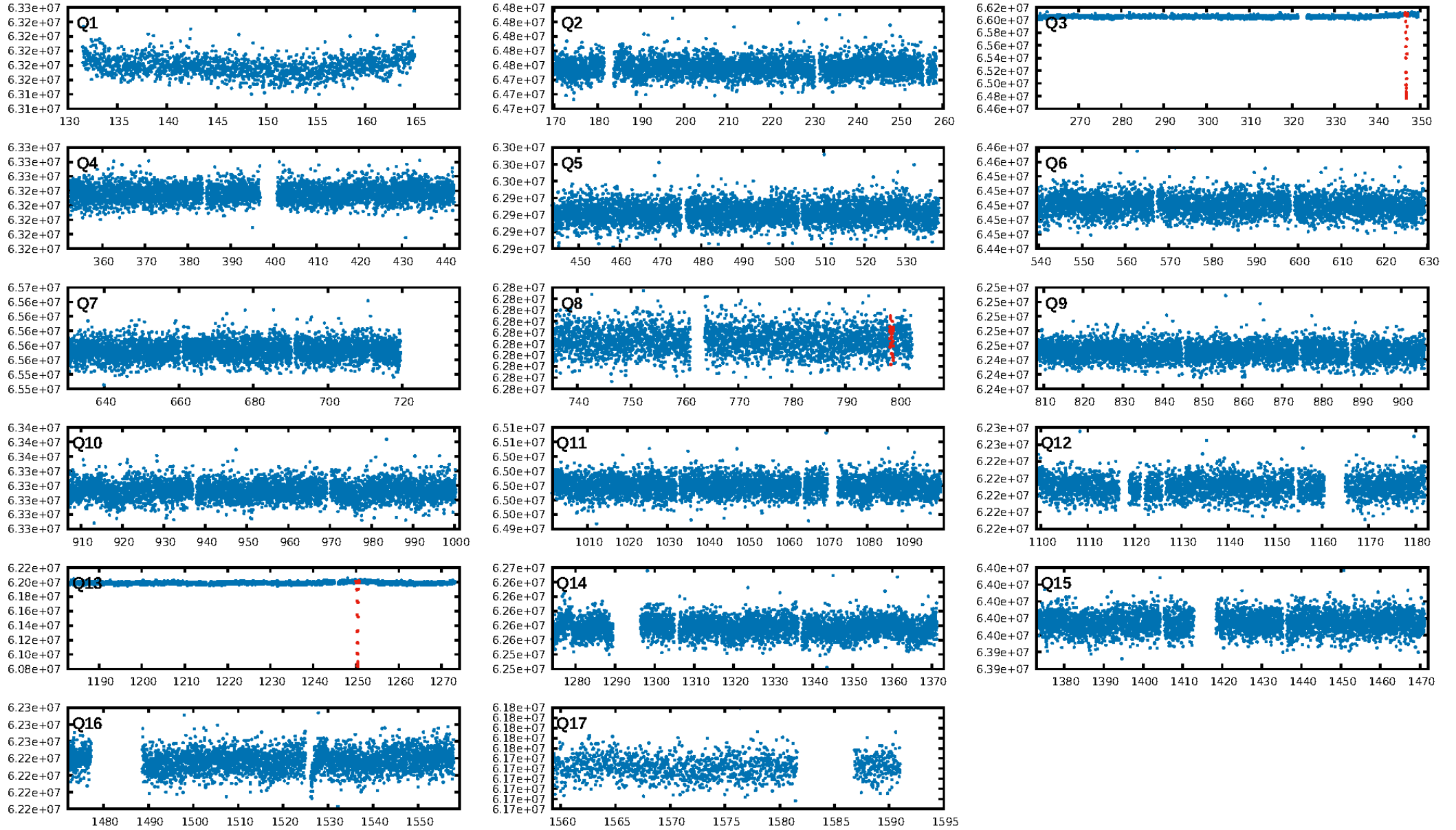
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.4%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 12.06
Centroid-sig: 0.0%
Centroid-so: 0.054 arcsec [2.00σ]
OotOffset-rm: 0.023 arcsec [0.03σ]
KicOffset-rm: 0.180 arcsec [0.14σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

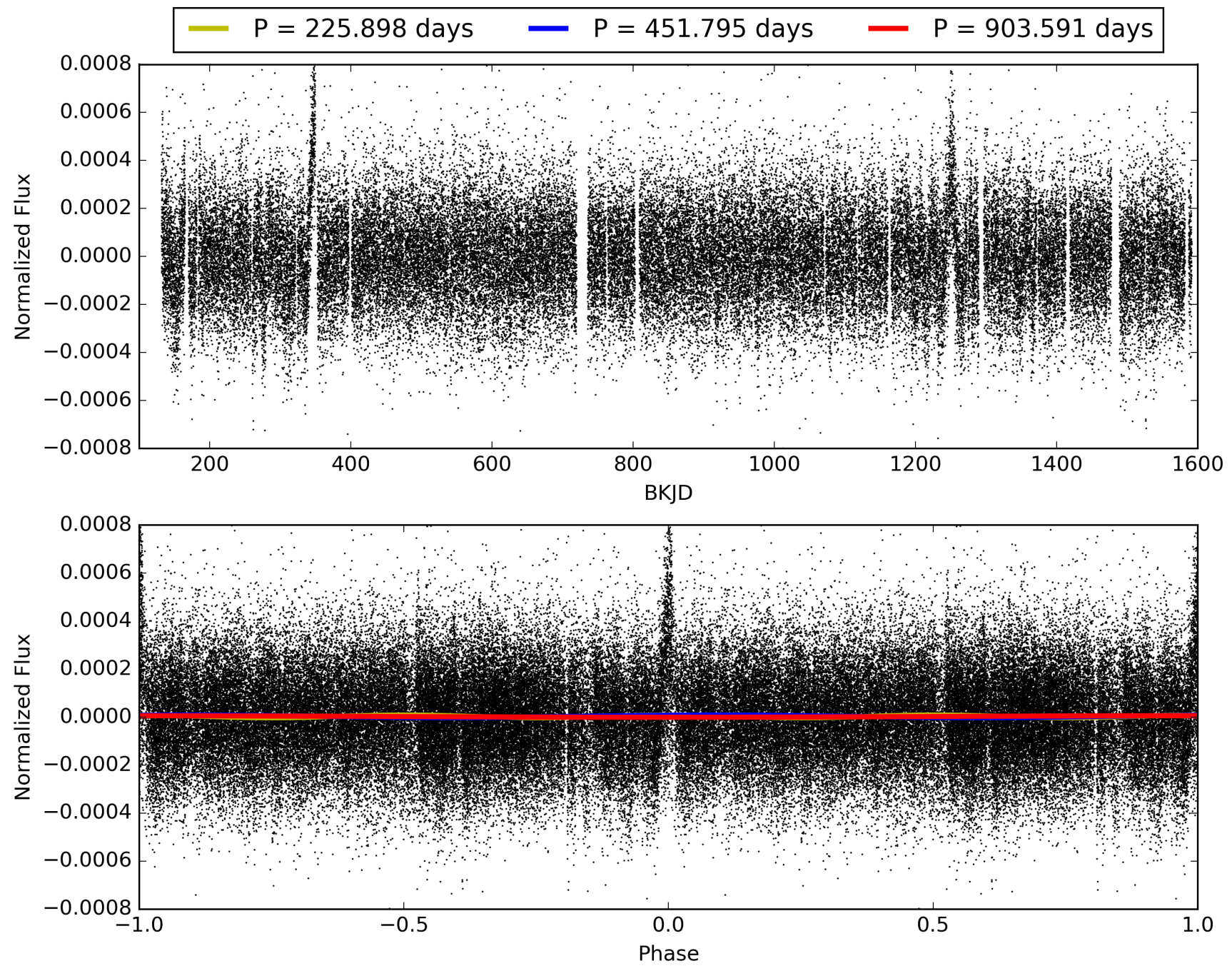
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:50:22 Z

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

TCE 007770569-01, PDC Light Curves

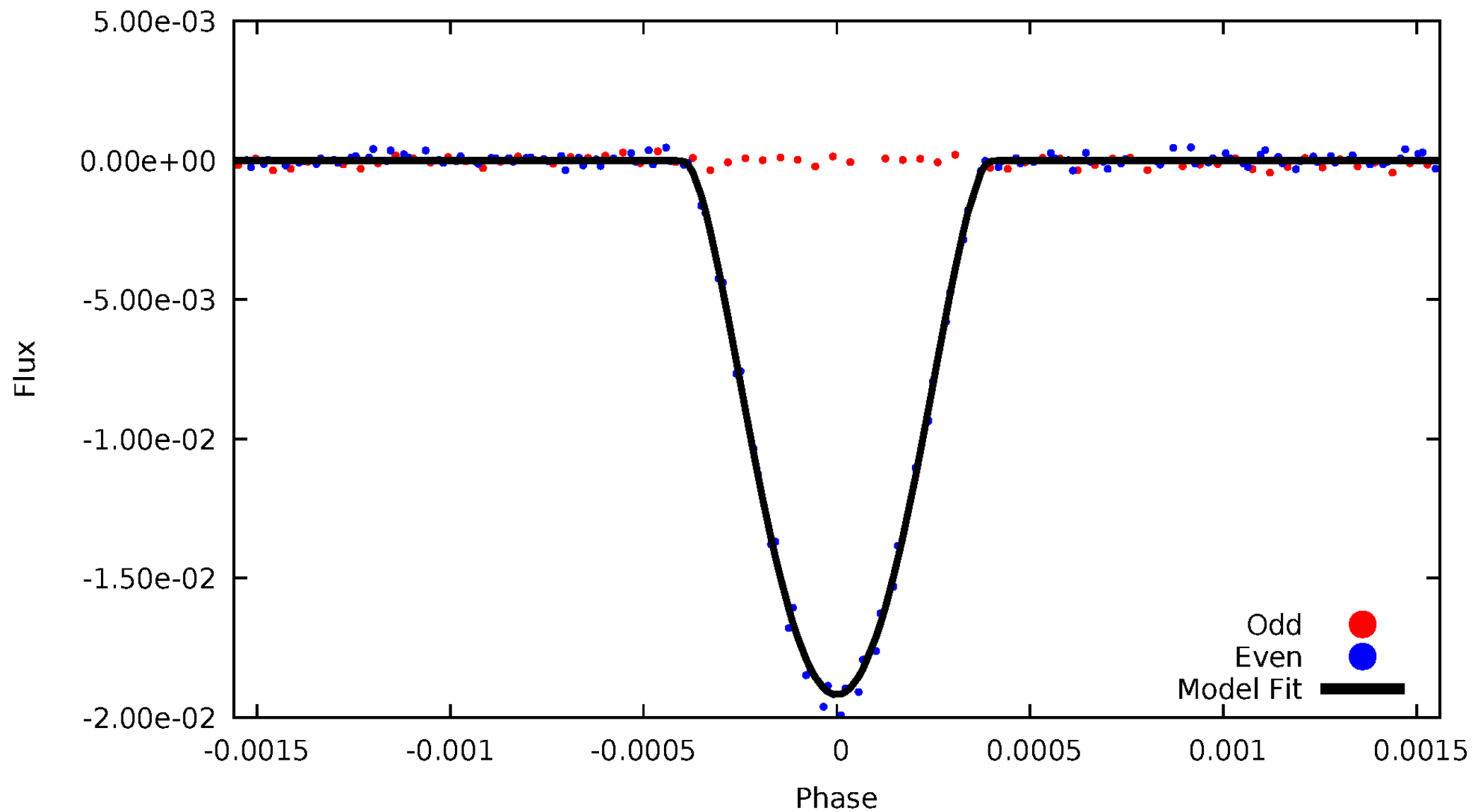


TCE 007770569-01



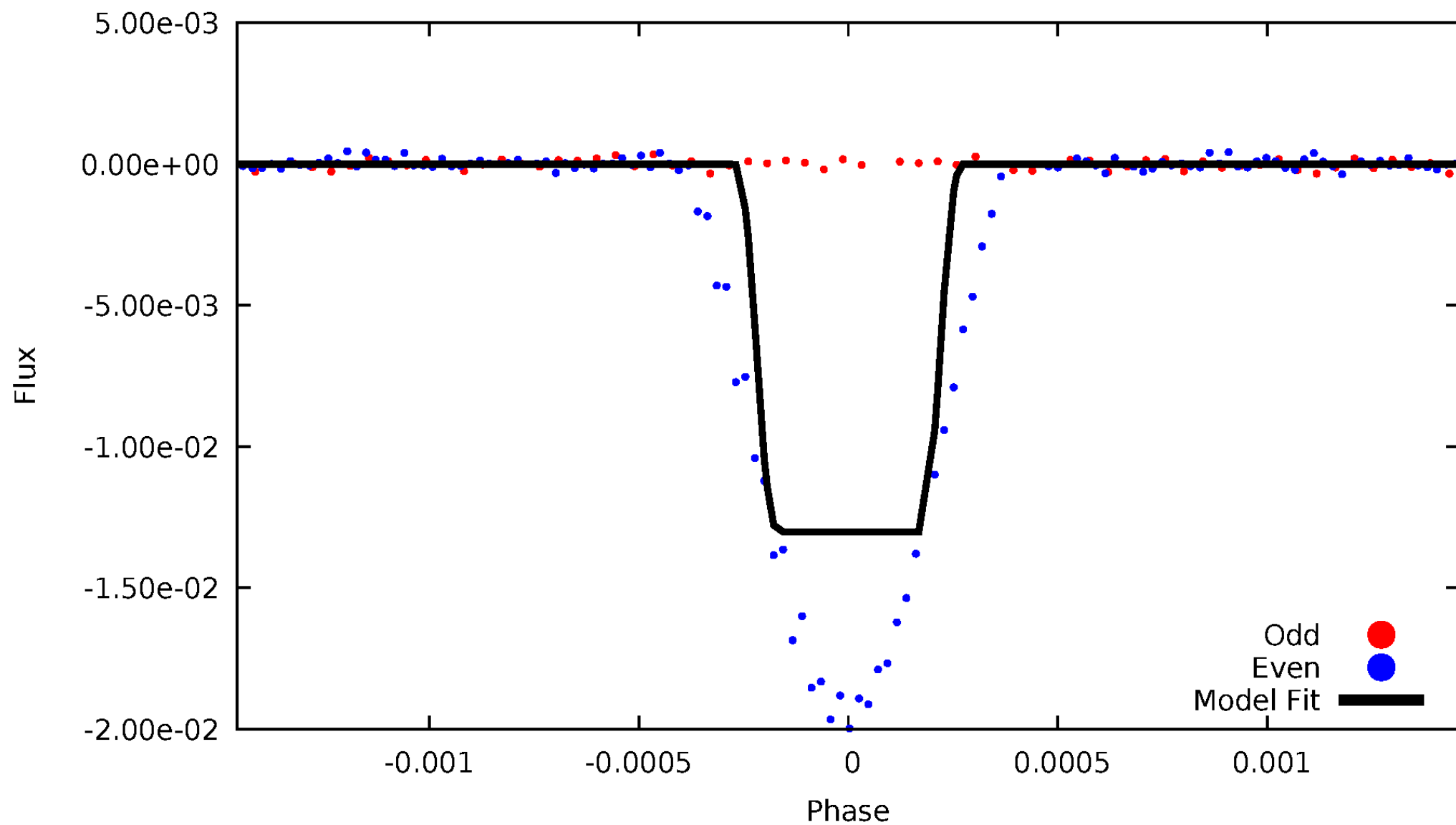
DV Odd/Even

TCE 007770569-01



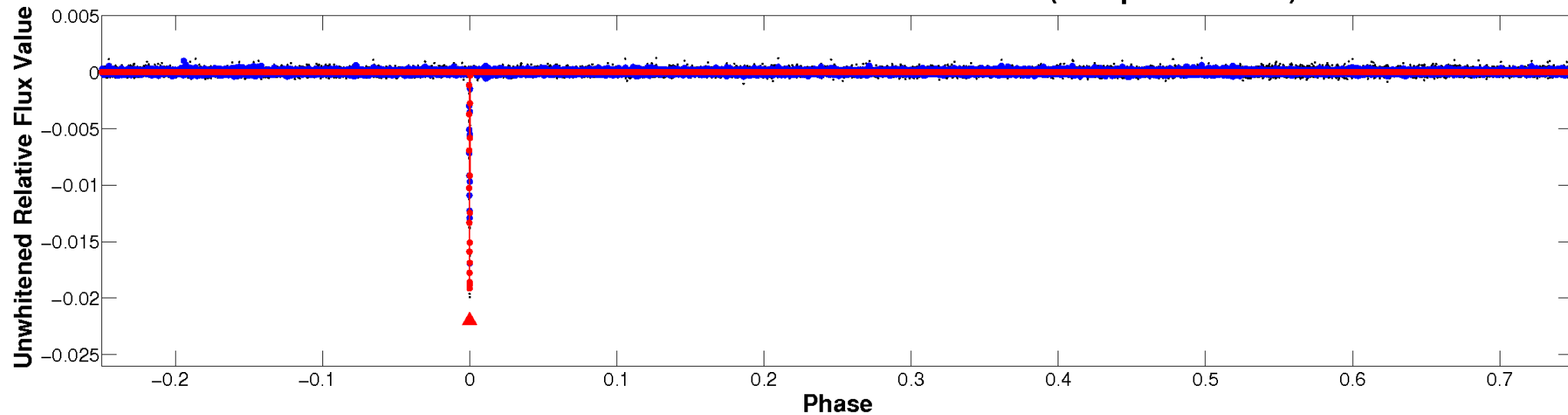
ALT Odd/Even

TCE 007770569-01

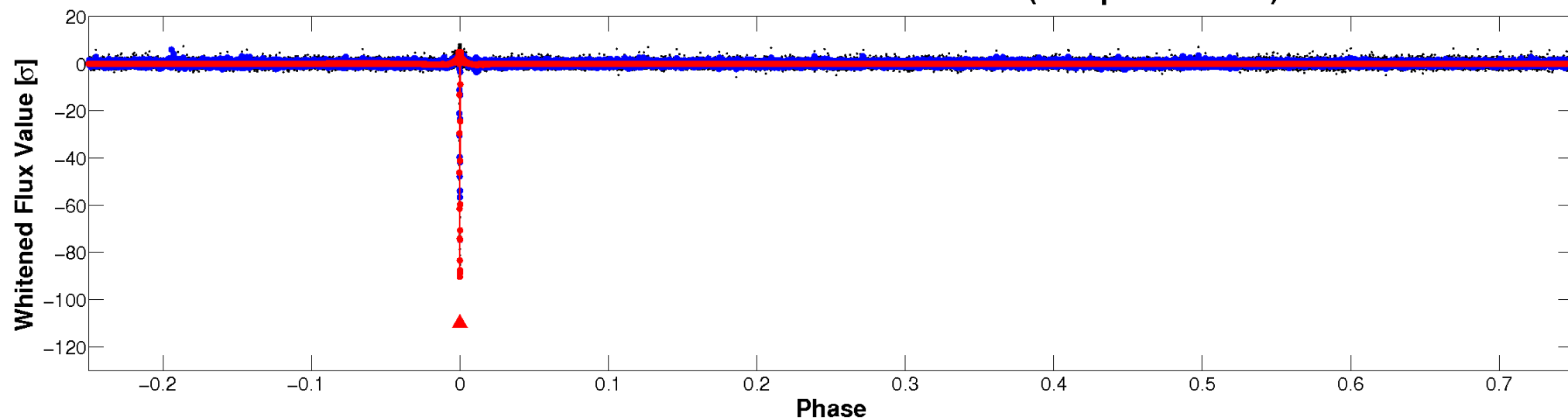


Non-Whitened Vs. Whitened Light Curve

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

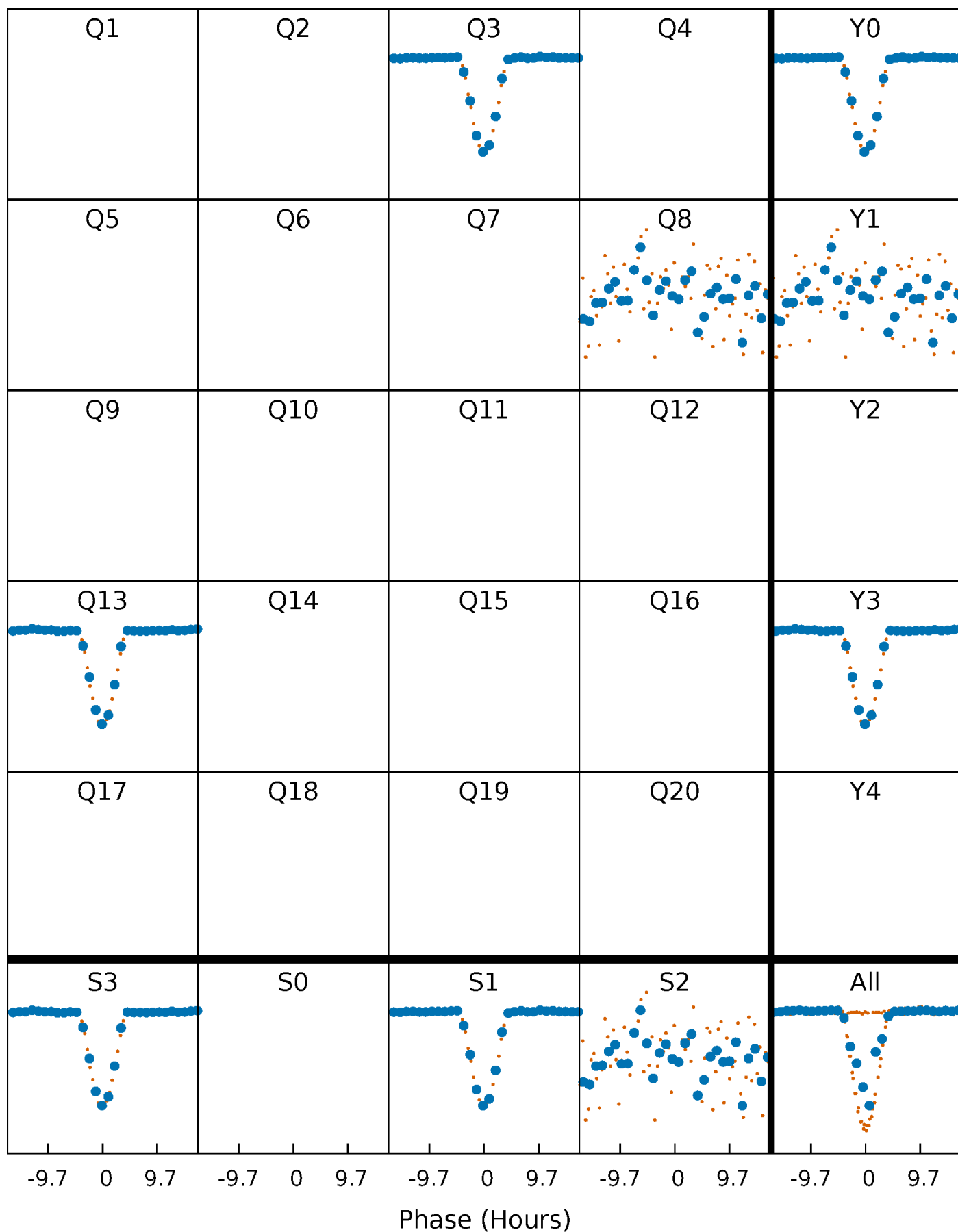


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



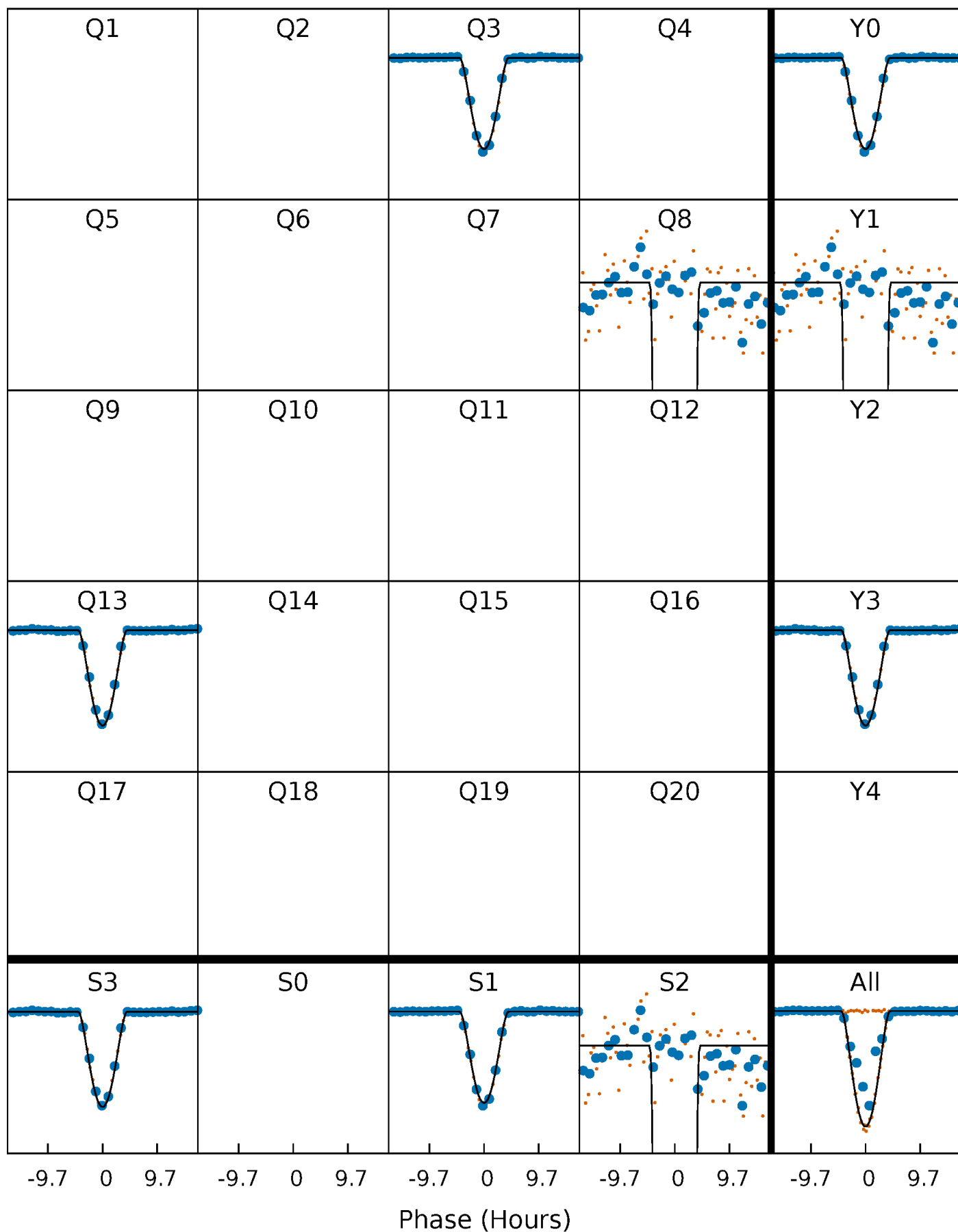
PDC Quarter-Phased Transit Curves

TCE 007770569-01 P=451.795429 Days $T_0=346.773373$ (BKJD)



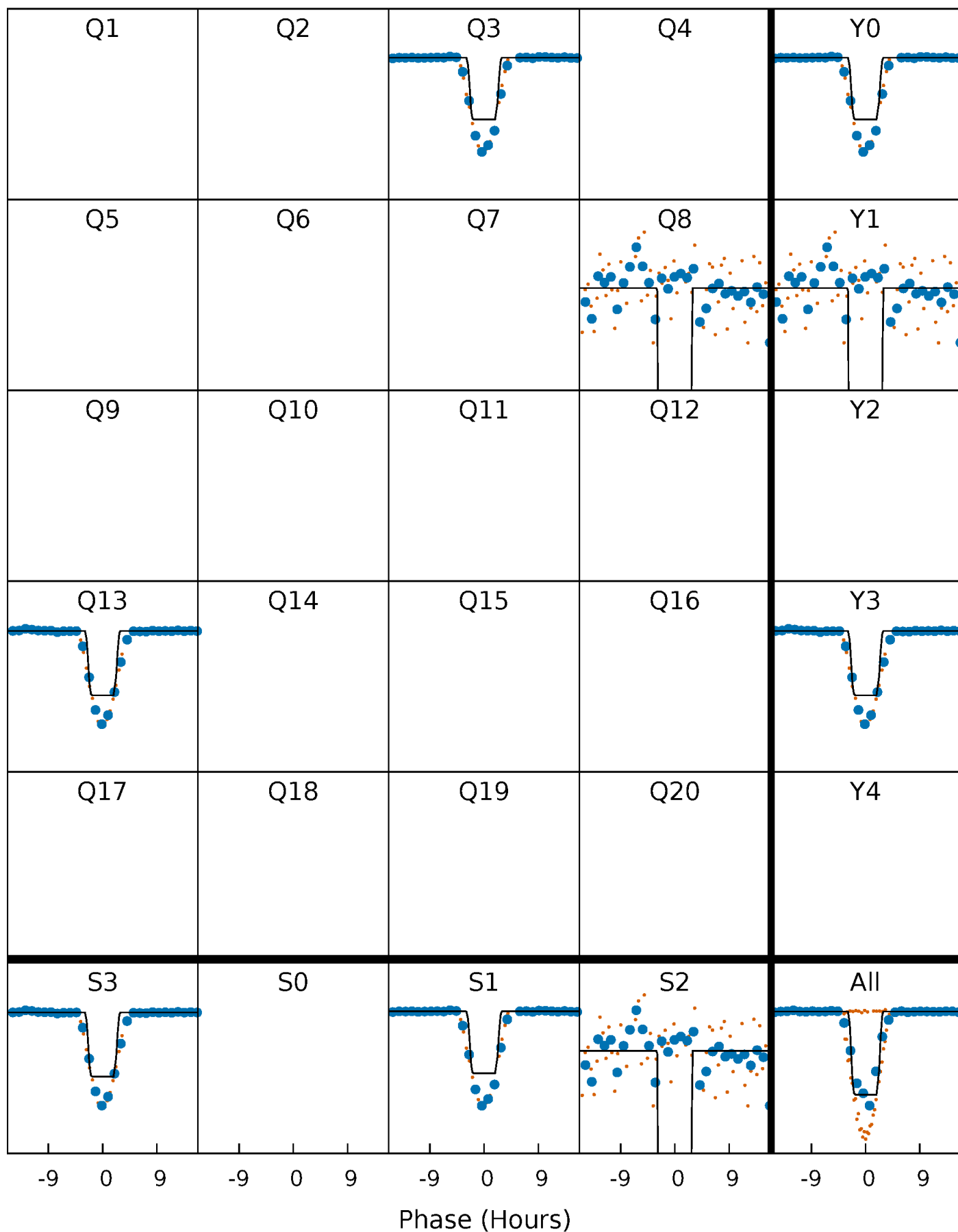
DV Quarter-Phased Transit Curves

TCE 007770569-01 P=451.795429 Days $T_0=346.773373$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

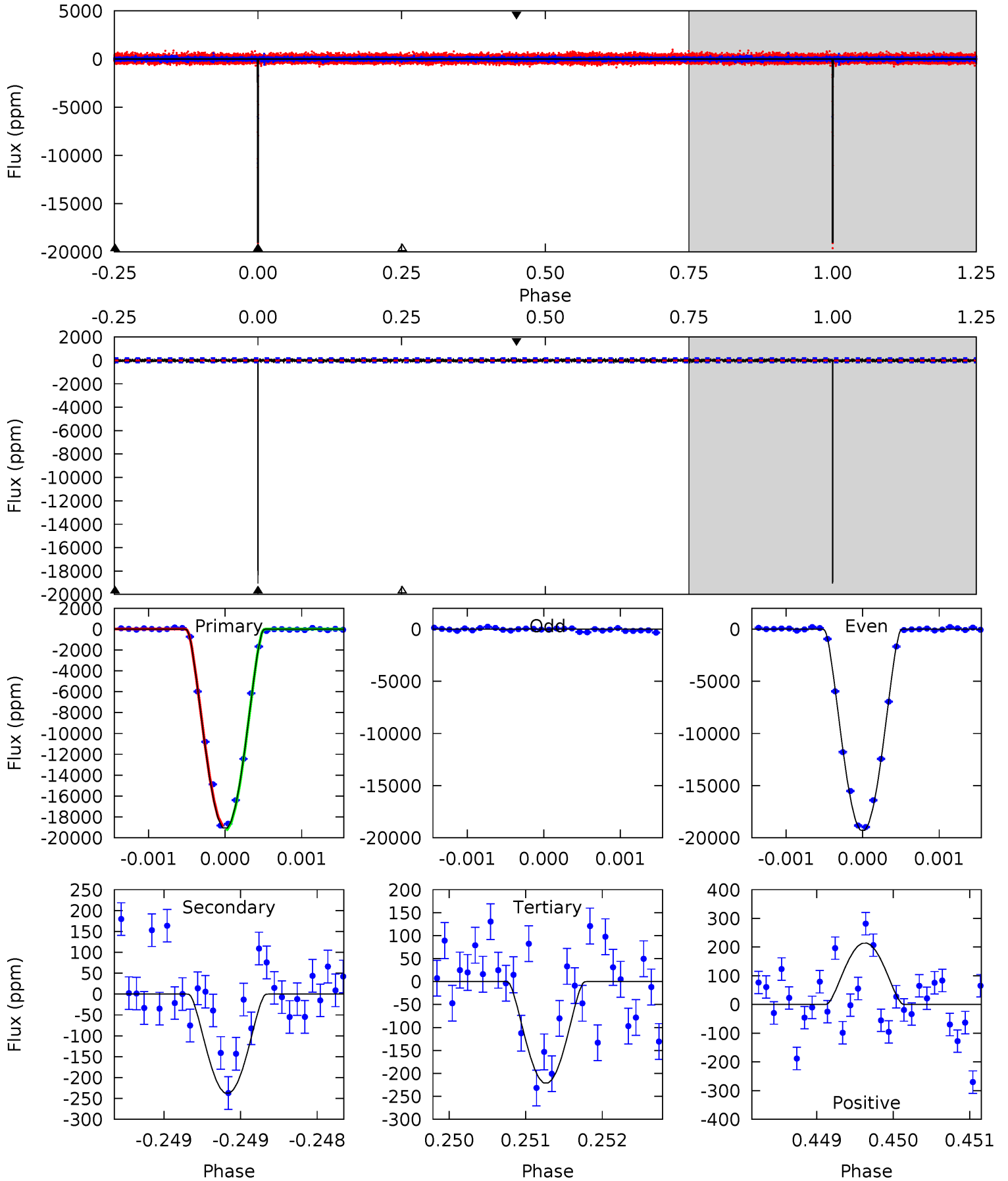
TCE 007770569-01 P=451.792823 Days $T_0=346.777132$ (BKJD)



DV Model-Shift Uniqueness Test

007770569-01, P = 451.795429 Days, E = 346.773373 Days

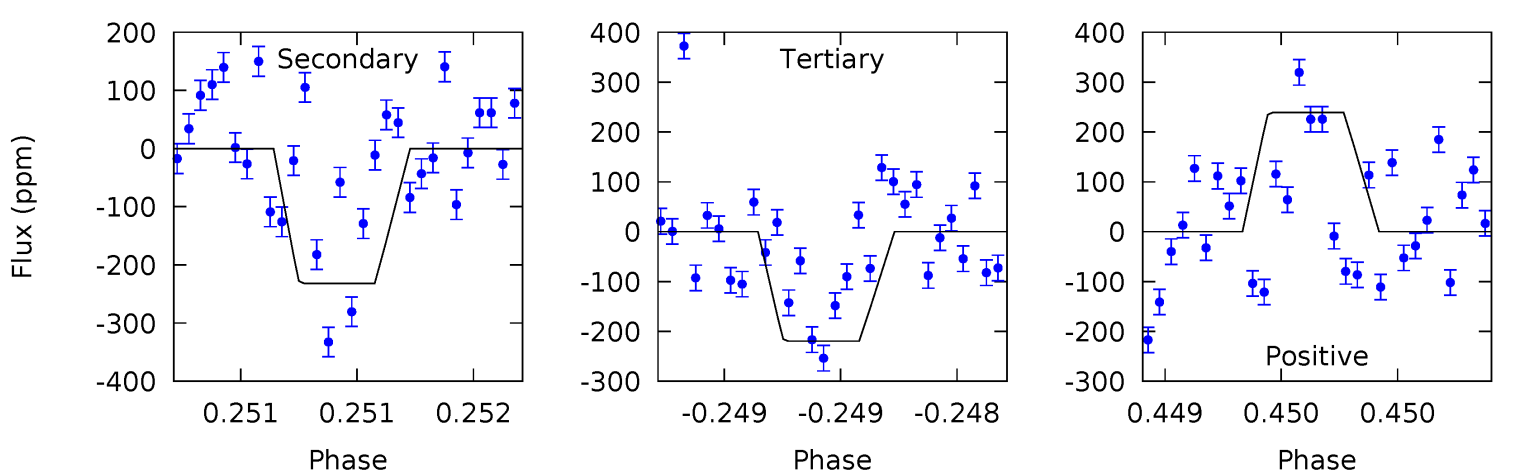
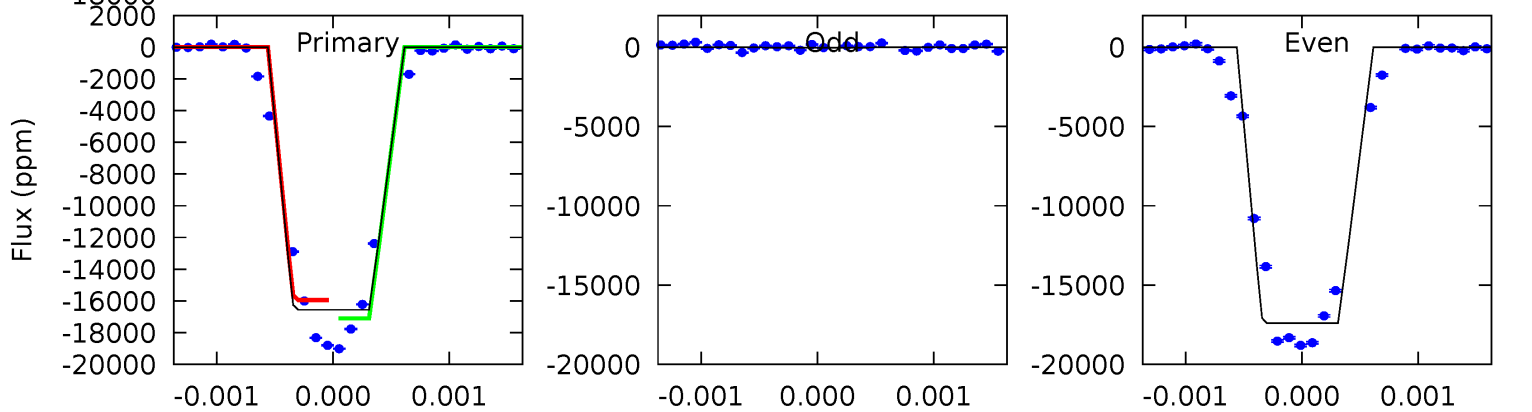
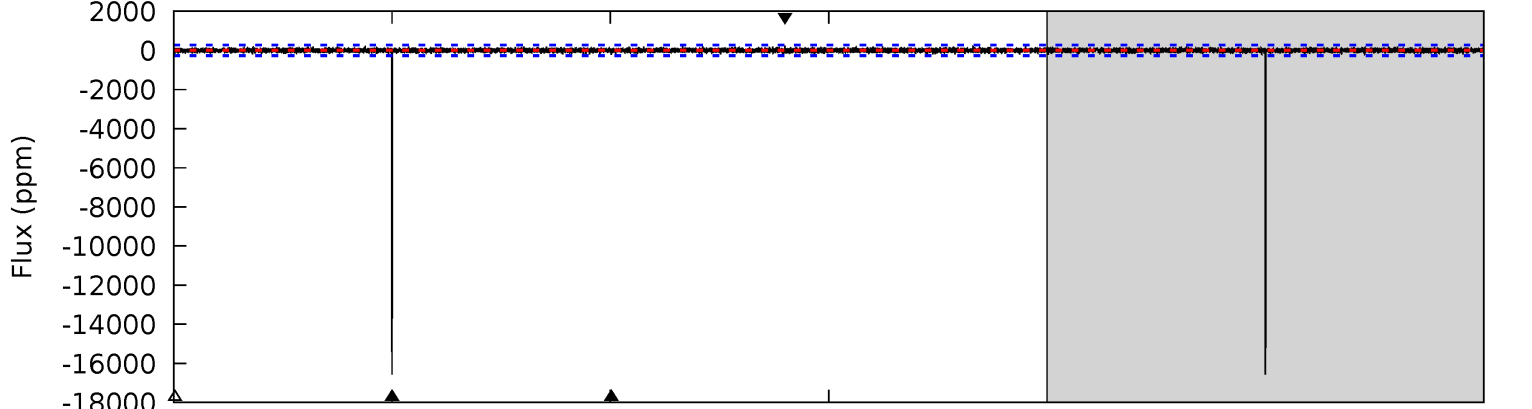
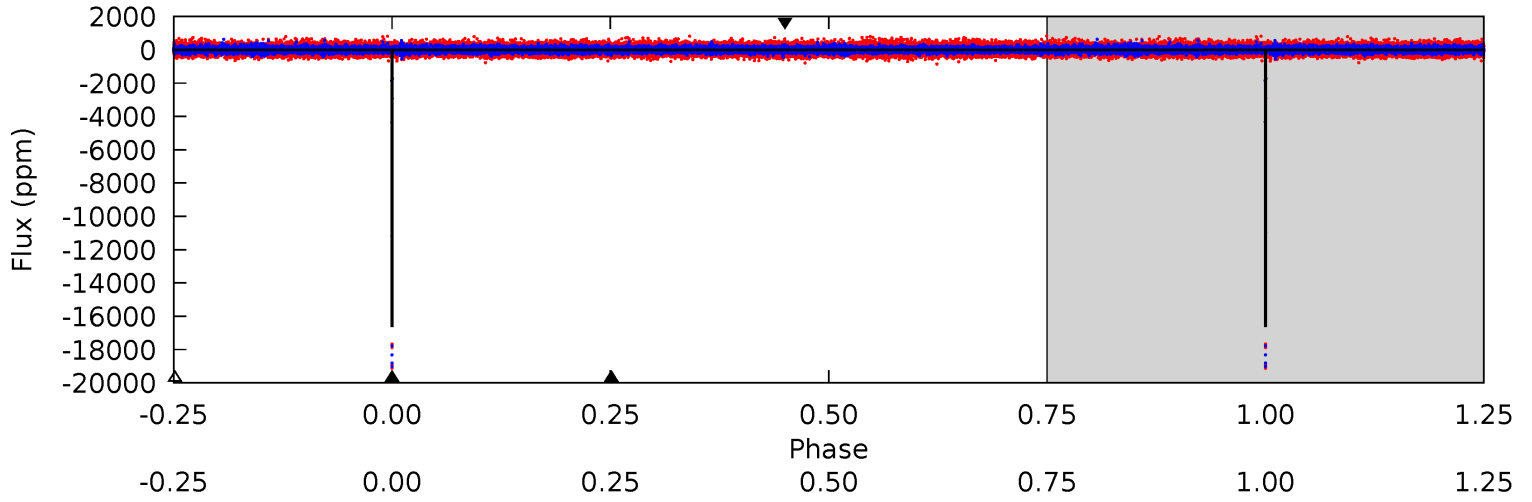
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
562.8	7.00	6.52	6.30	5.49	3.36	1.56	556.2	556.5	0.49	0.70	345.0	0.68	0.01	0



Alt Model-Shift Uniqueness Test

007770569-01, P = 451.792823 Days, E = 346.777132 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
336.5	4.71	4.46	4.85	5.57	3.47	1.03	332.0	331.6	0.25	-0.15	234.6	0.69	0.01	0



Stellar Parameters For KIC 007770569

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5616^{+169}_{-152}	$3.887^{+0.568}_{-0.142}$	$-0.120^{+0.300}_{-0.250}$	$1.955^{+0.525}_{-1.051}$	$1.075^{+0.137}_{-0.205}$	$0.203^{+1.408}_{-0.097}$
	+3%/-3%	+15%/-4%	+250%/-208%	+27%/-54%	+13%/-19%	+695%/-48%
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 007770569-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-237 ± 34	$35.57^{+15.82}_{-12.57}$	437^{+37}_{-60}	2477^{+224}_{-156}	138^{+193}_{-70}
Alt.	-232 ± 49	$21.76^{+12.21}_{-10.83}$	437^{+34}_{-64}	2801^{+548}_{-290}	374^{+1048}_{-228}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

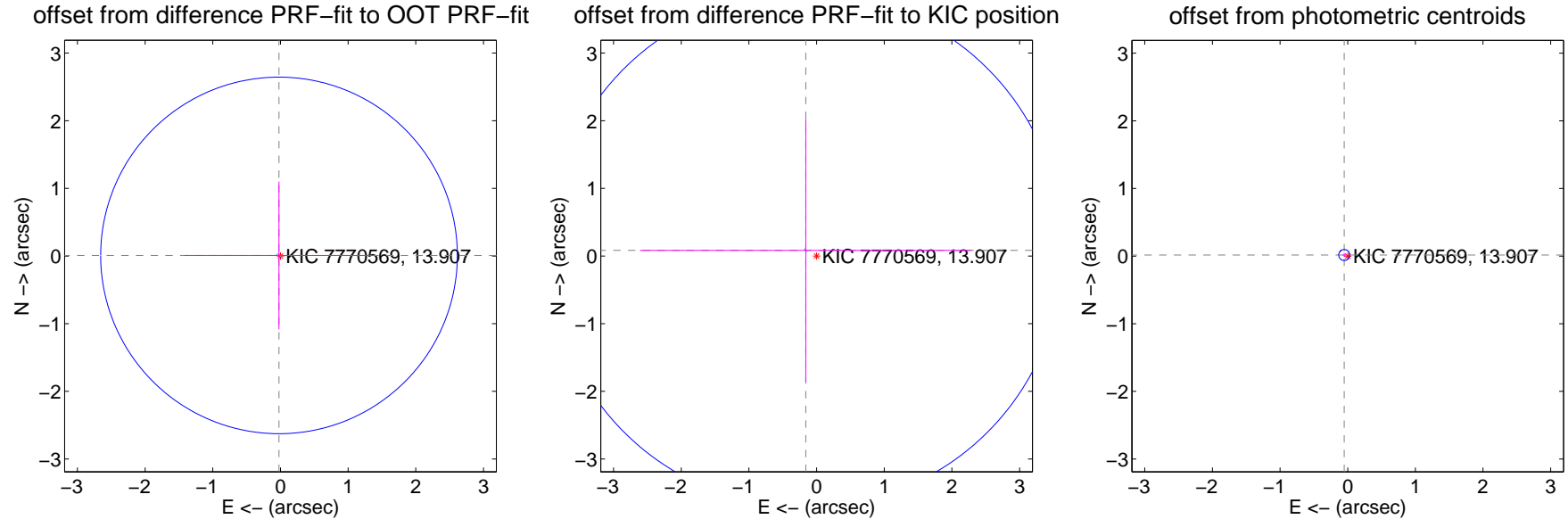
DV Centroid Data

Supplemental centroid analysis for 007770569-01. Kepler magnitude: 13.91. Transit SNR 298.18

There are 2 quarters with good PRF difference image offsets

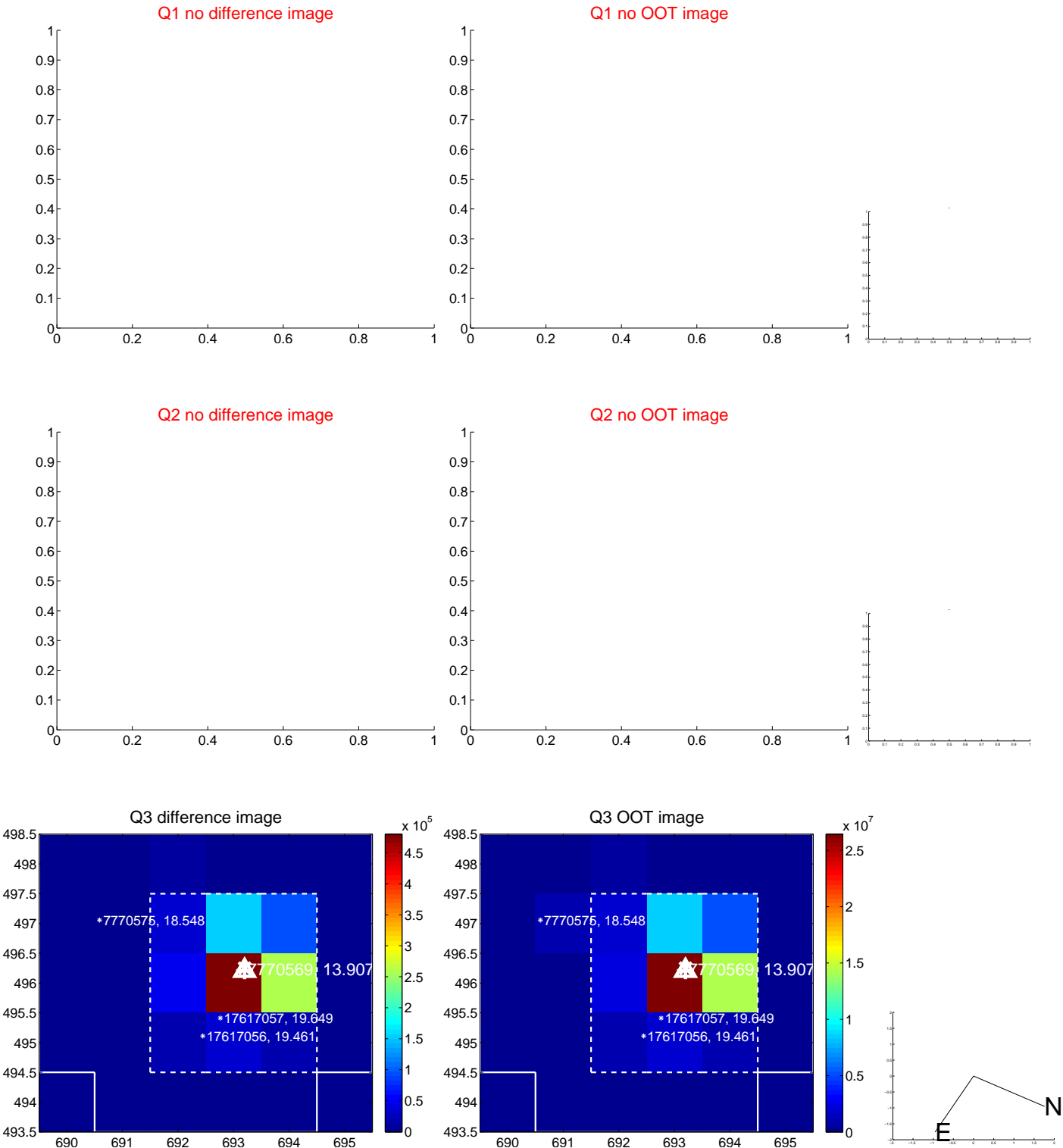
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.023 ± 0.878	0.03	0.021 ± 1.395	0.009 ± 1.092
PRF-fit source offset from KIC position	0.180 ± 1.266	0.14	0.159 ± 2.450	0.084 ± 1.944
photometric centroid source offset	0.05 ± 0.03	2.00	0.05 ± 0.03	0.02 ± 0.03

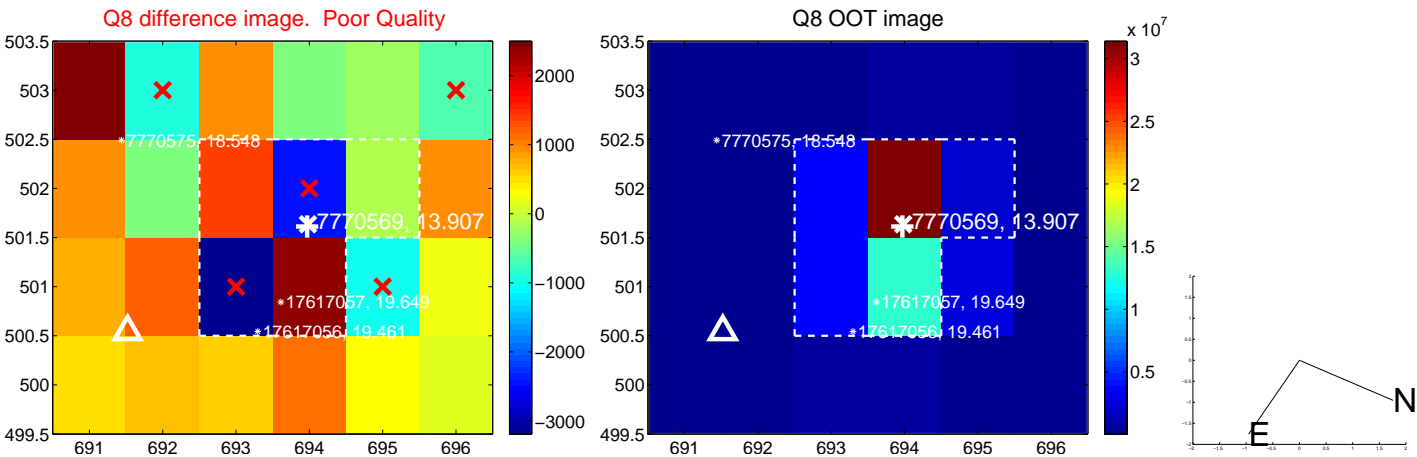


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



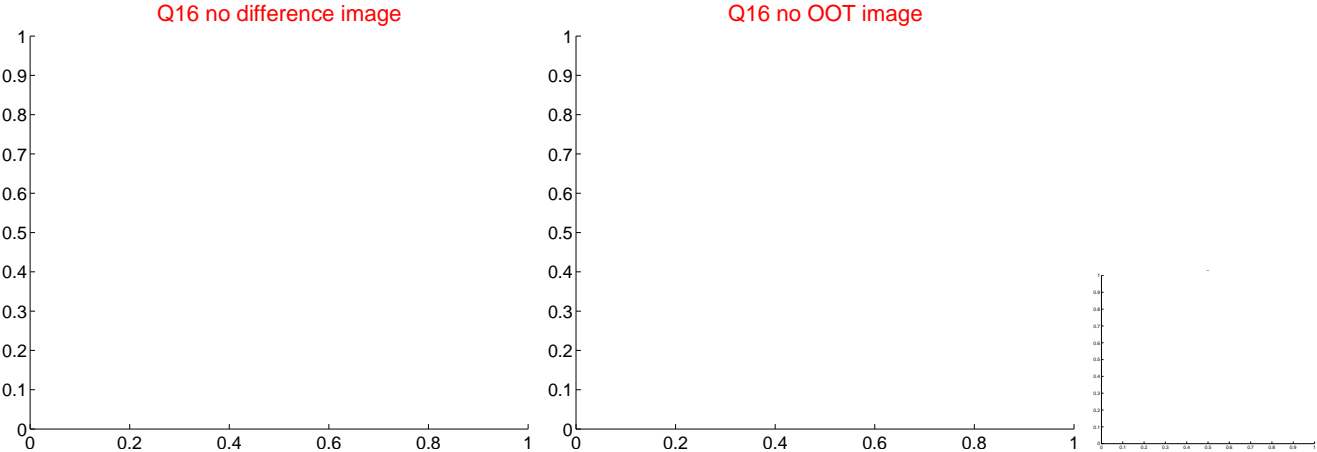
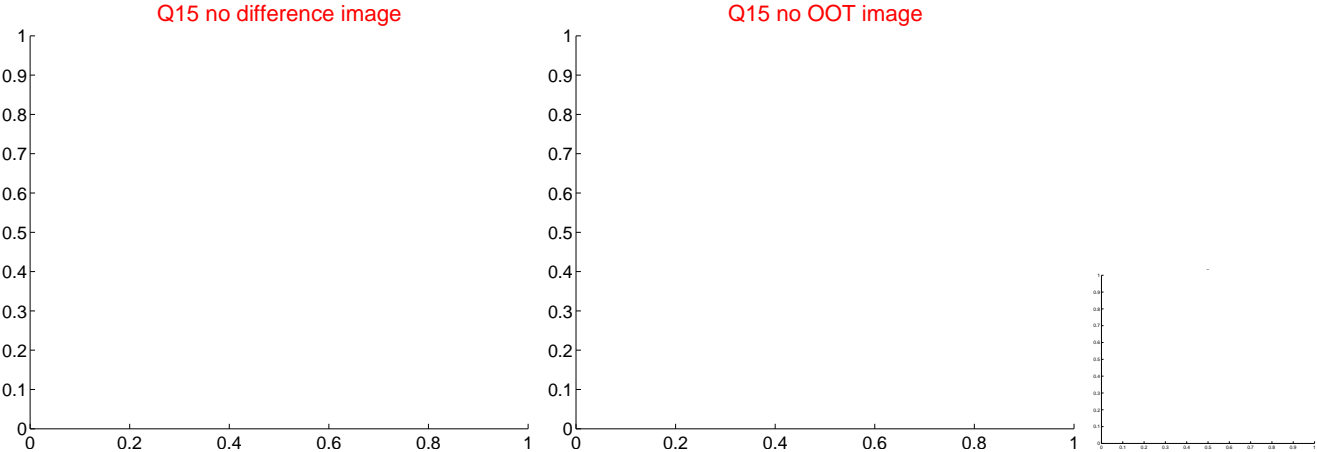
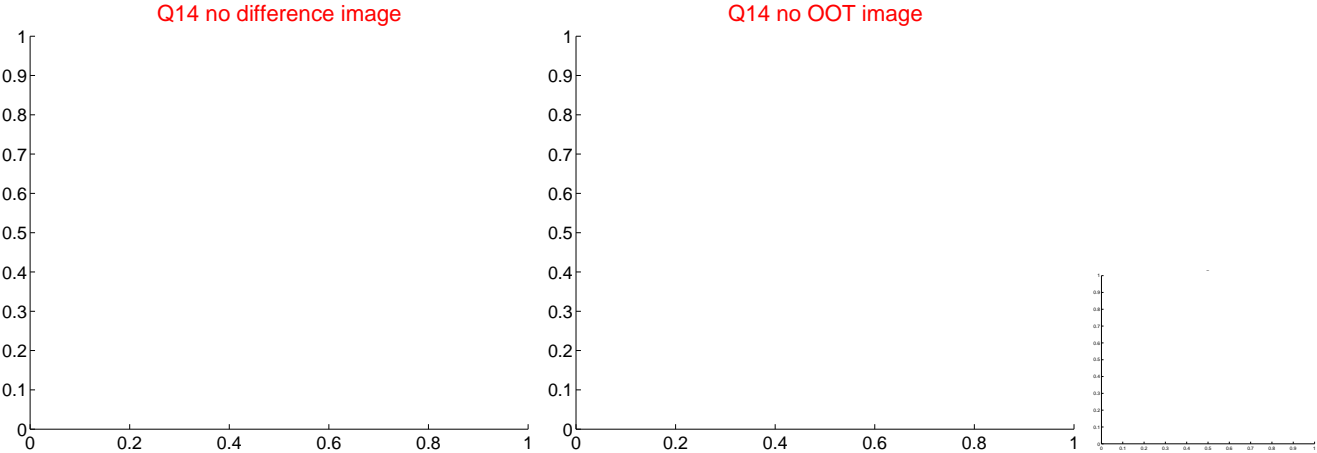
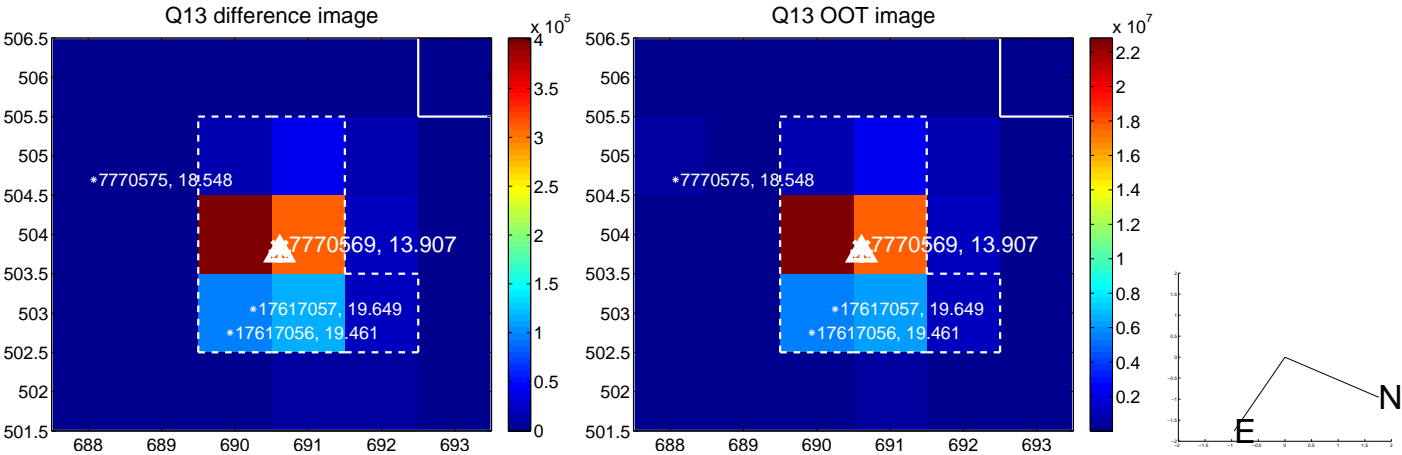
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

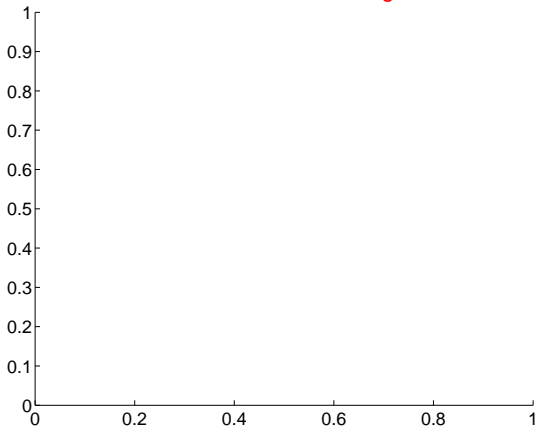


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

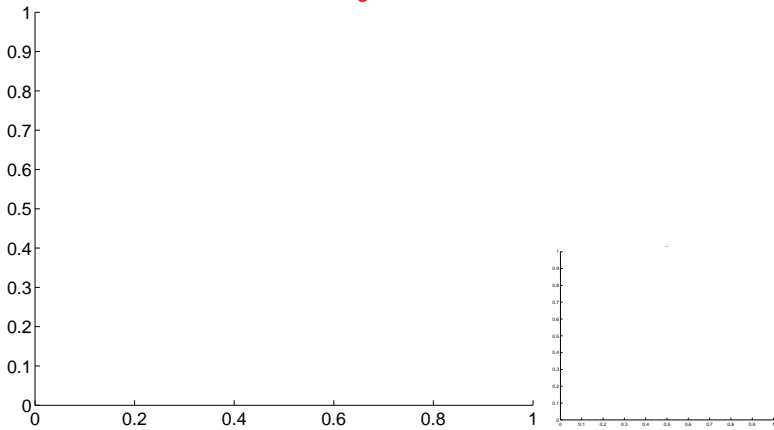


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

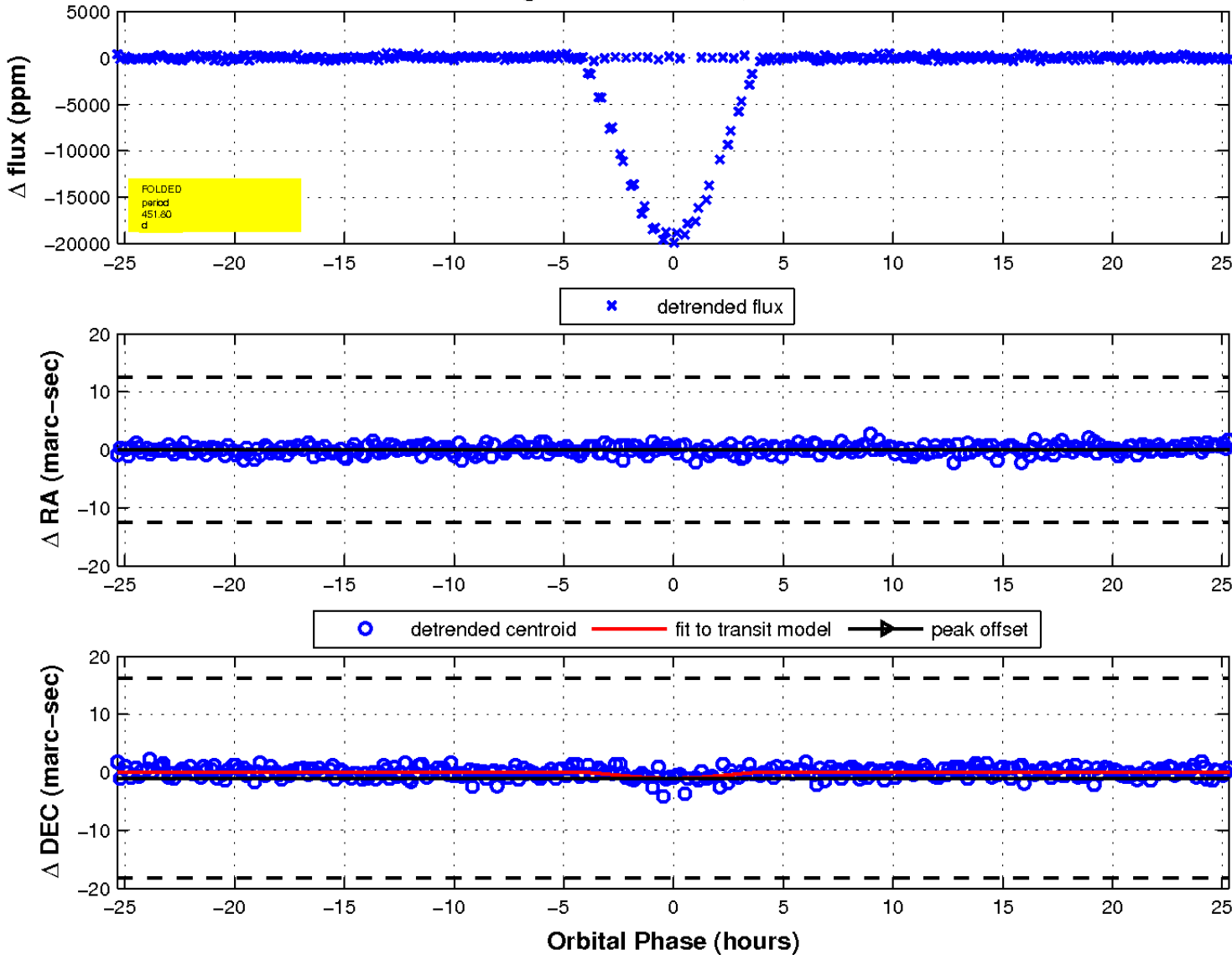
Q17 no difference image



Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

