

KIC 009941718

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})
009941718-01	OBS	No	450.457830	196.666805	3877.8	3.500	15.1	-1.0	0.34	3521	2.10	0.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009941718-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

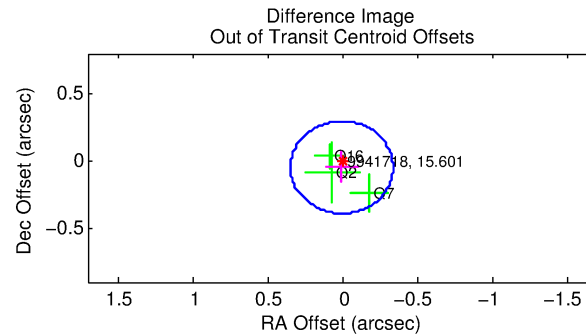
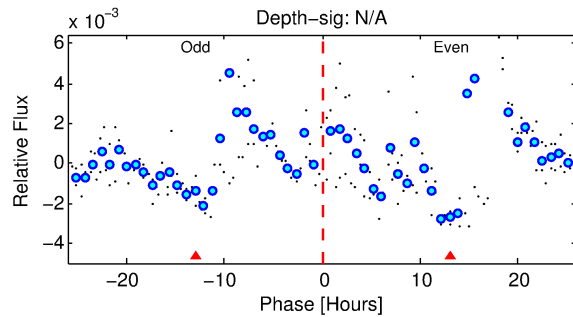
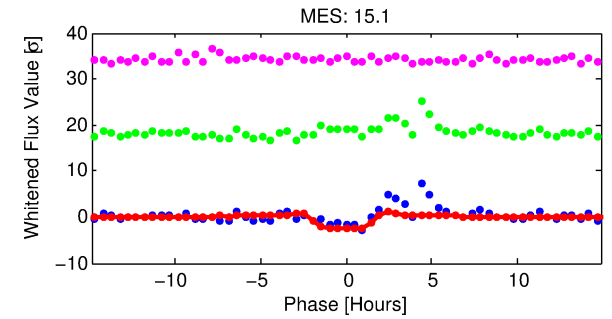
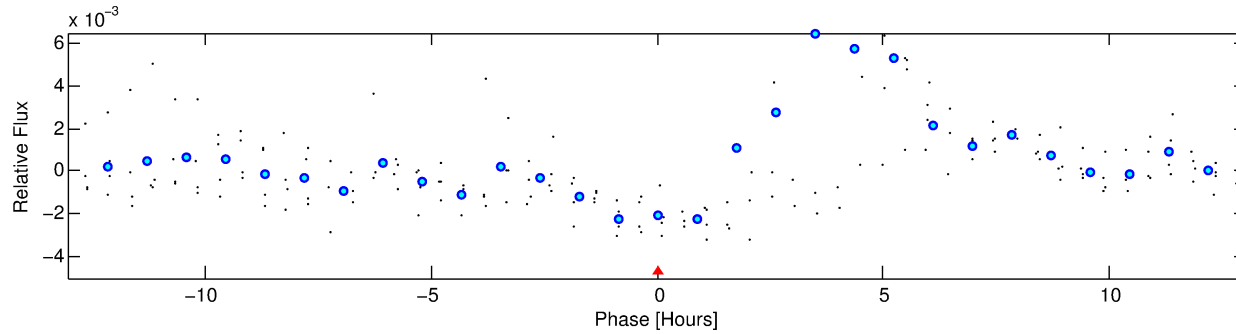
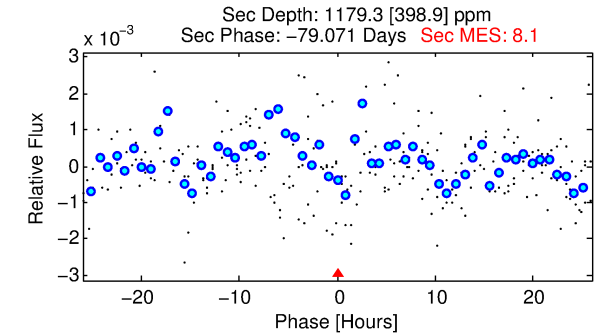
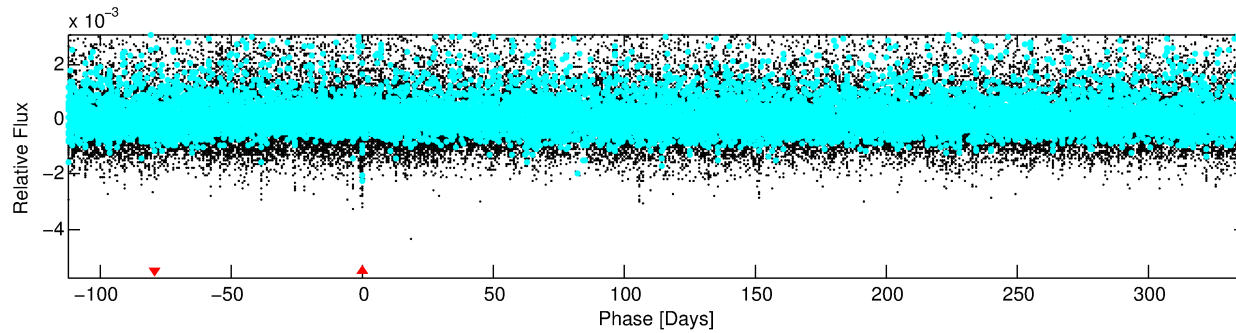
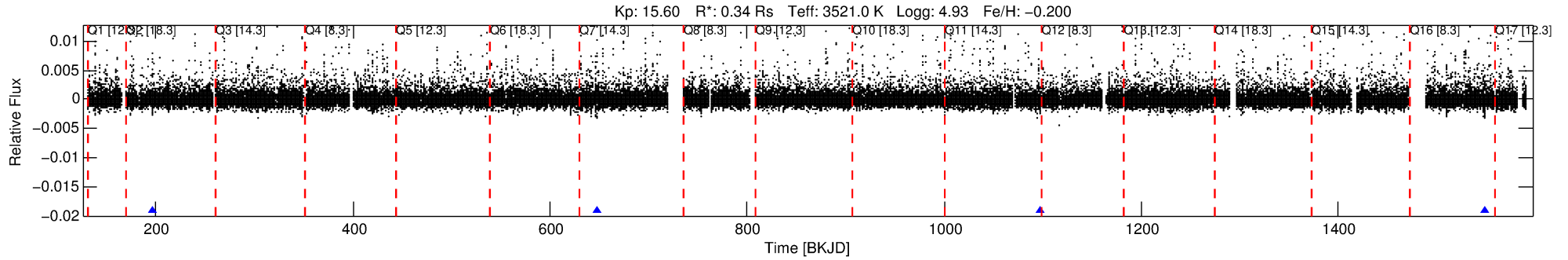
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009941718-01

No Significant Match Found

DV One-Page Summary

KIC: 9941718 Candidate: 1 of 1 Period: 450.458 d



TPS TCE Results:

Period = 450.45783 d
Epoch = 196.6668 BKJD

DV fit results are unavailable

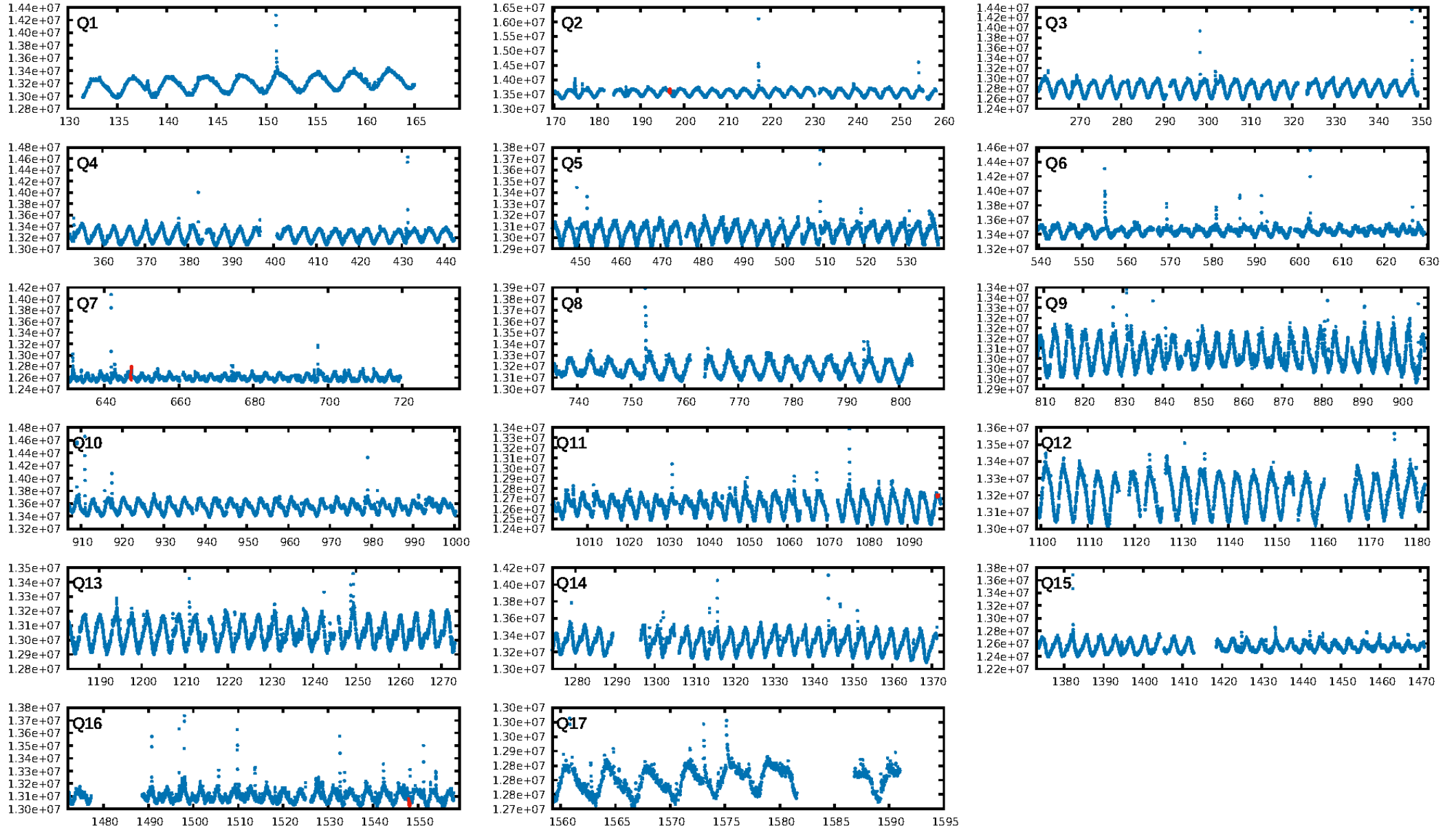
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 3.40e-14
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.536
Centroid-sig: 16.9%
Centroid-so: 0.808 arcsec [1.41σ]
OotOffset-rm: 0.047 arcsec [0.41σ]
KicOffset-rm: 0.318 arcsec [2.82σ]
OotOffset-st: 1/1/1/0 [3]
KicOffset-st: 1/1/1/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

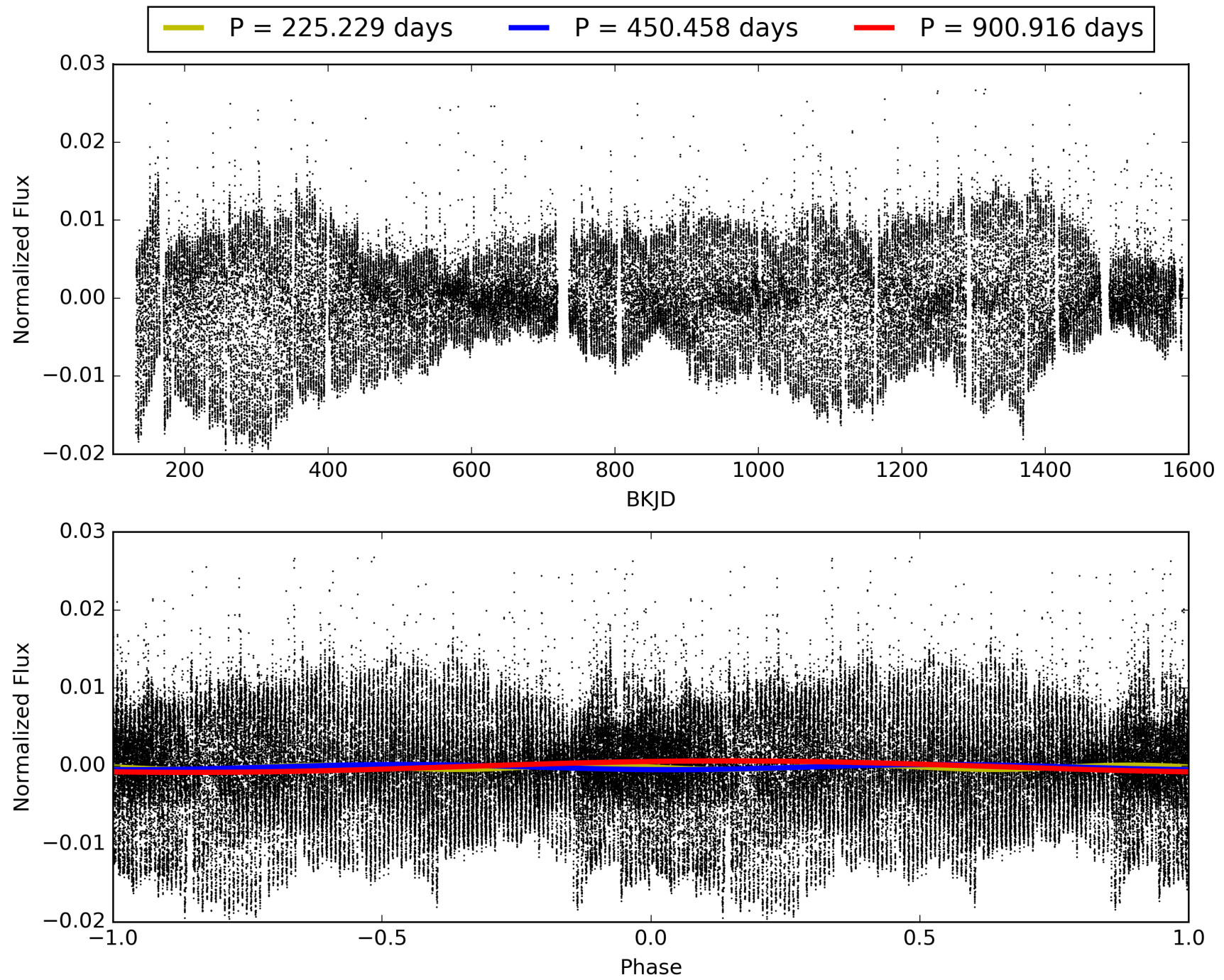
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 11:28:16 Z

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

TCE 009941718-01, PDC Light Curves

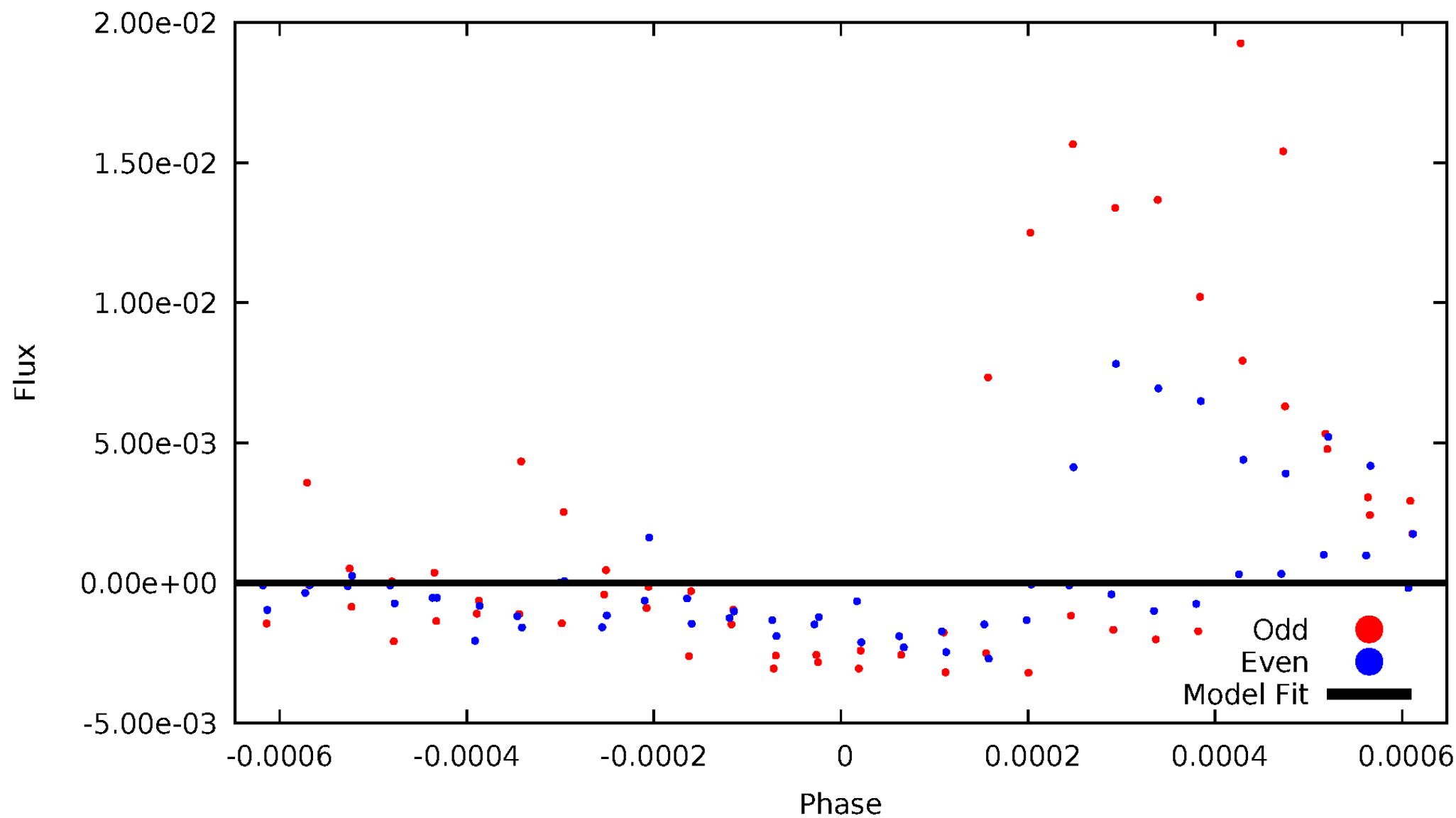


TCE 009941718-01



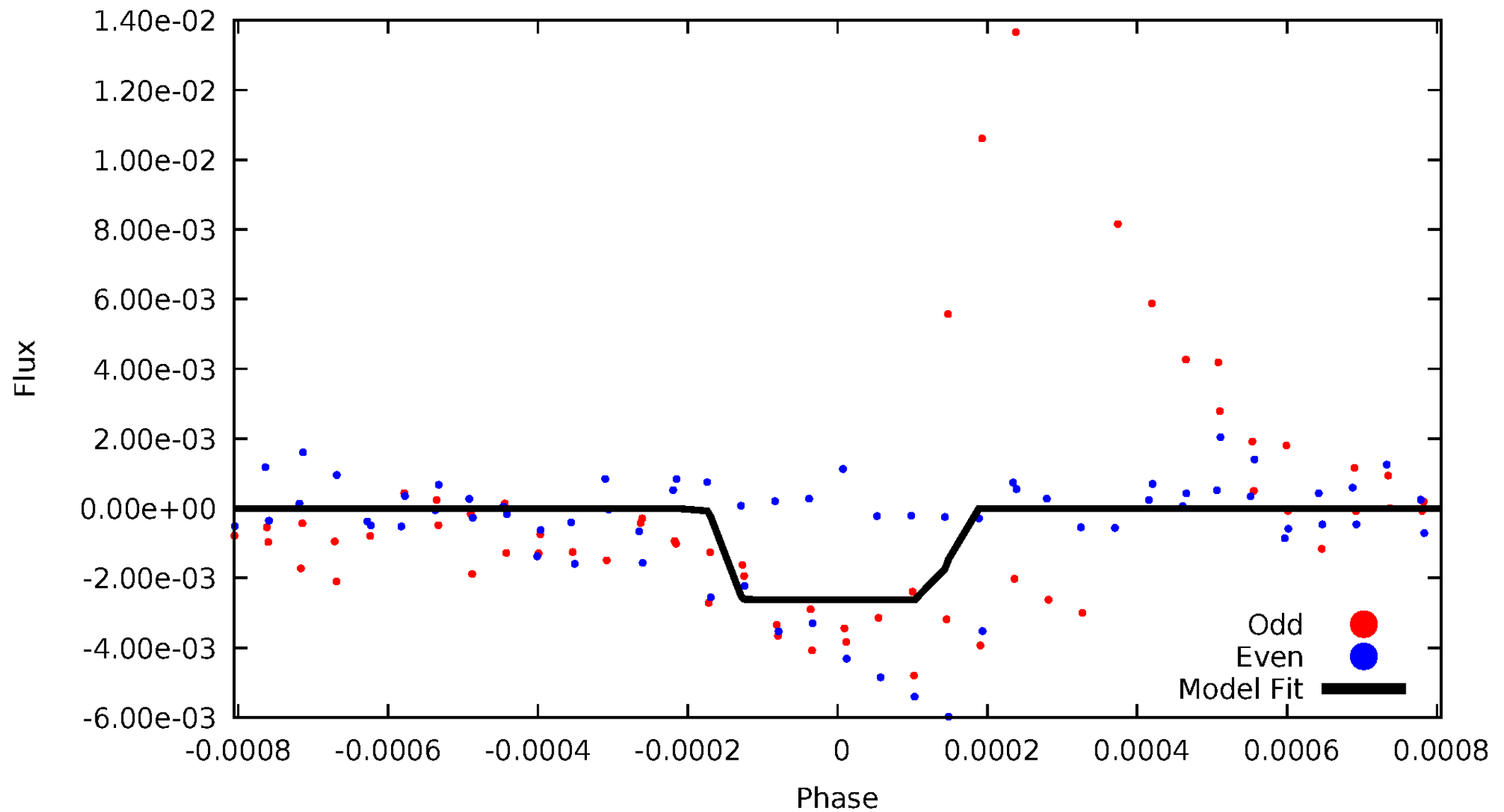
DV Odd/Even

TCE 009941718-01

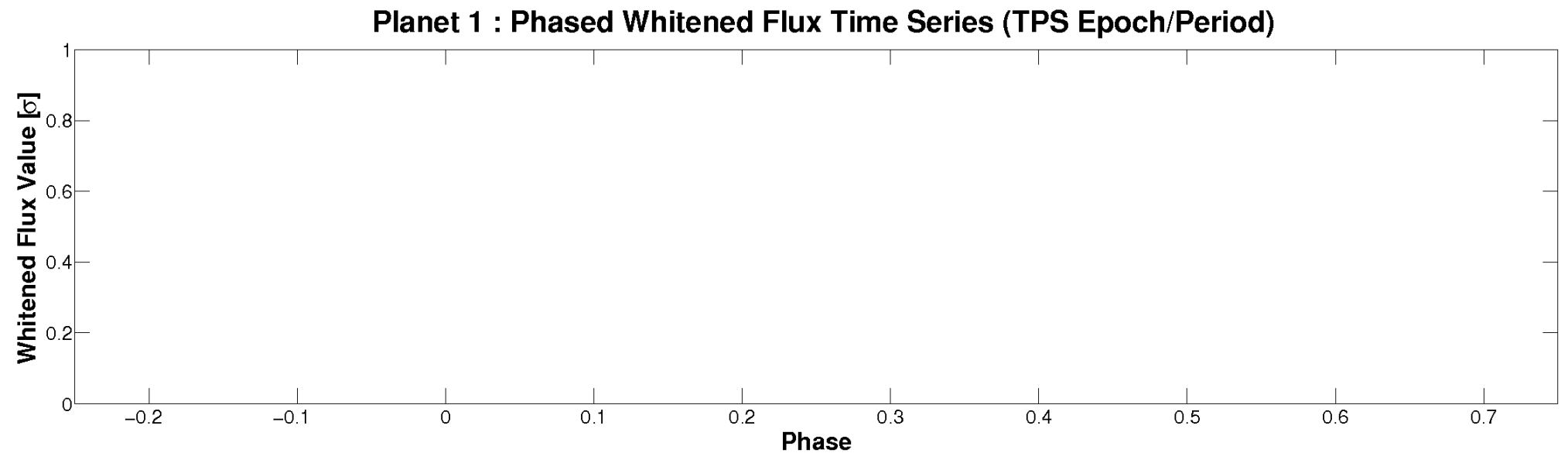
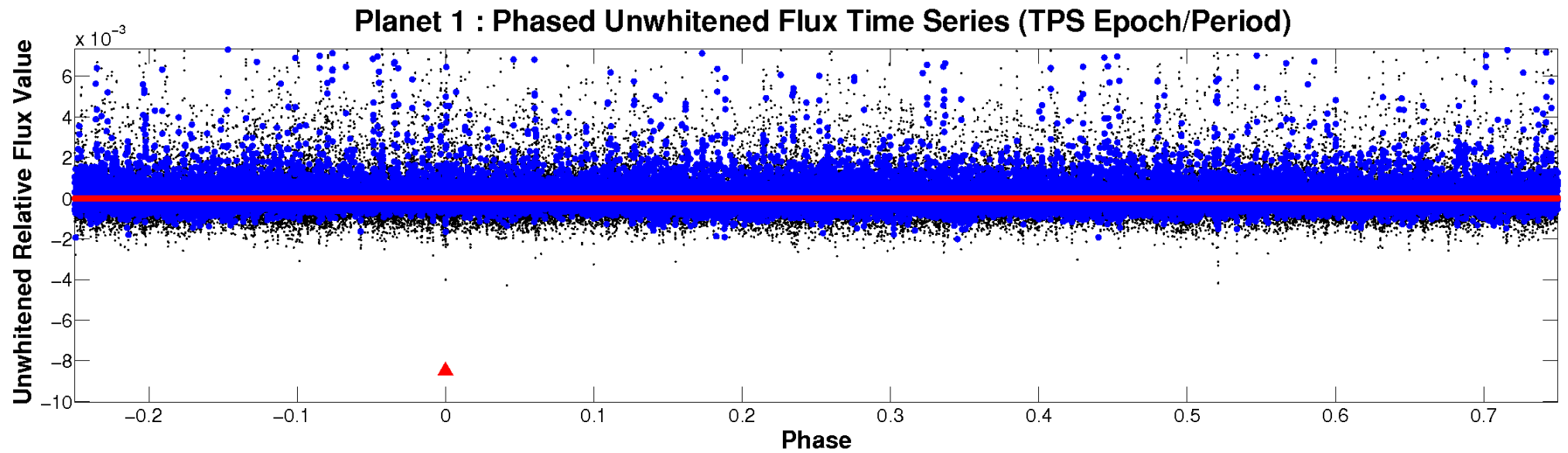


ALT Odd/Even

TCE 009941718-01

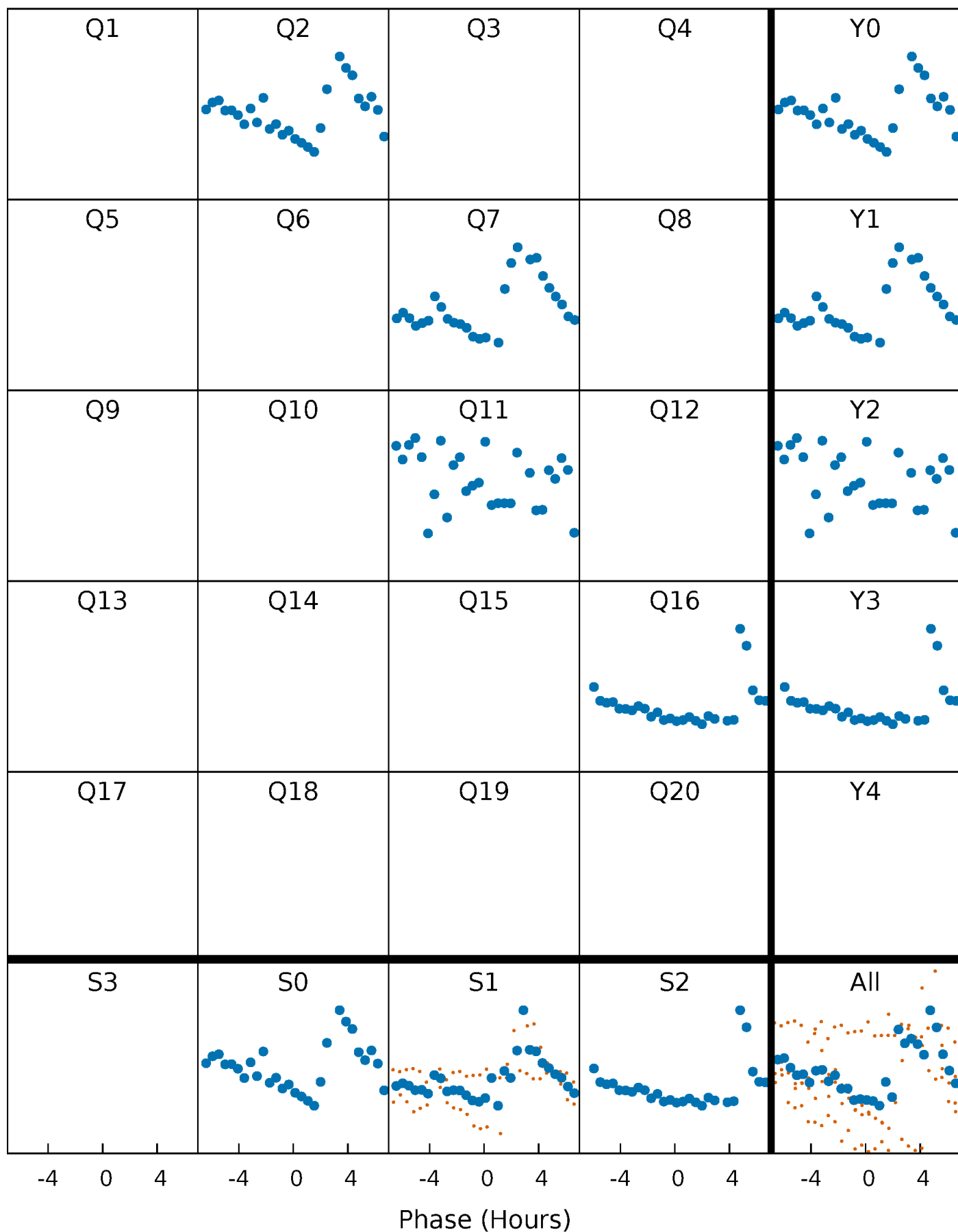


Non-Whitened Vs. Whitened Light Curve



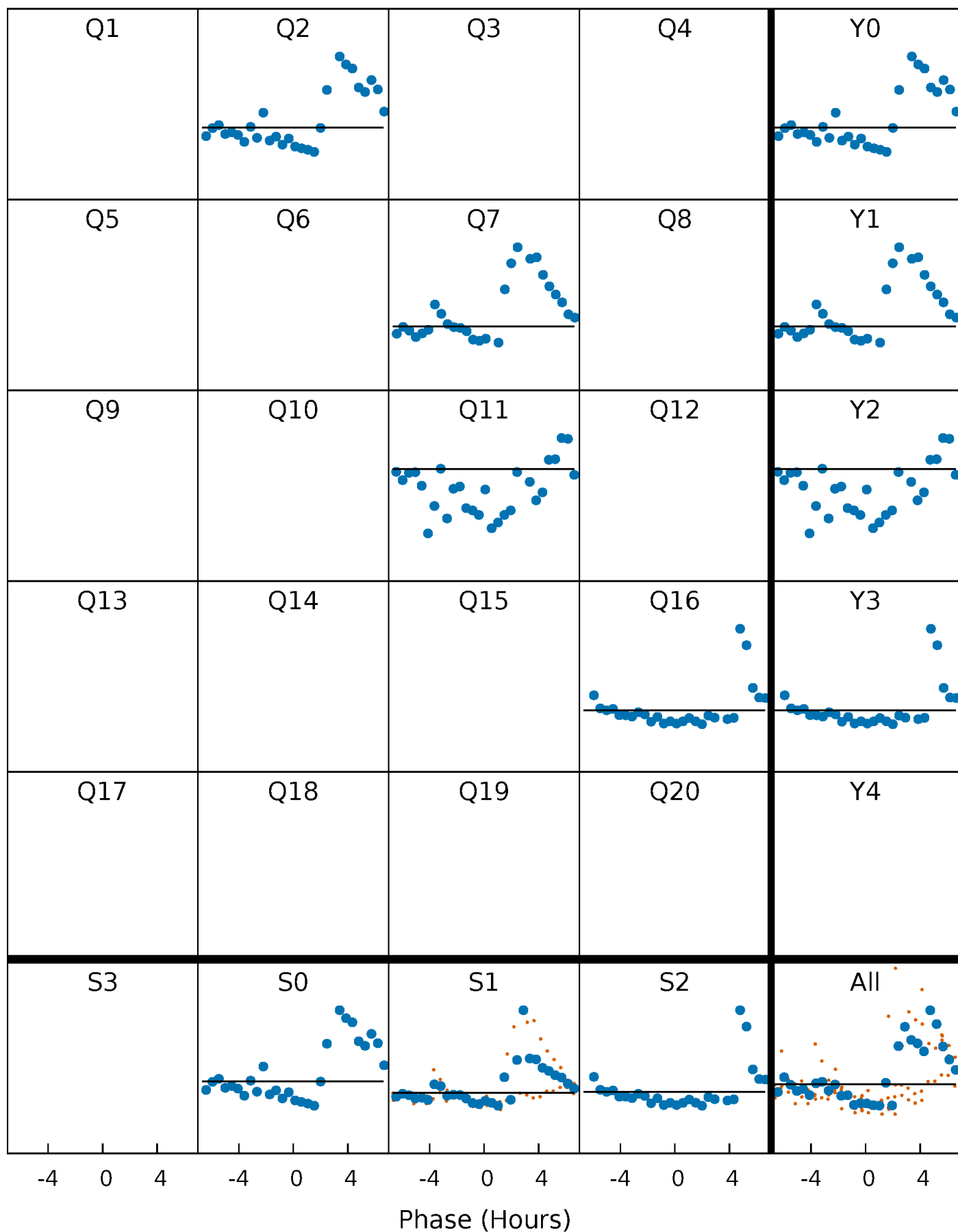
PDC Quarter-Phased Transit Curves

TCE 009941718-01 P=450.457830 Days $T_0=196.666806$ (BKJD)



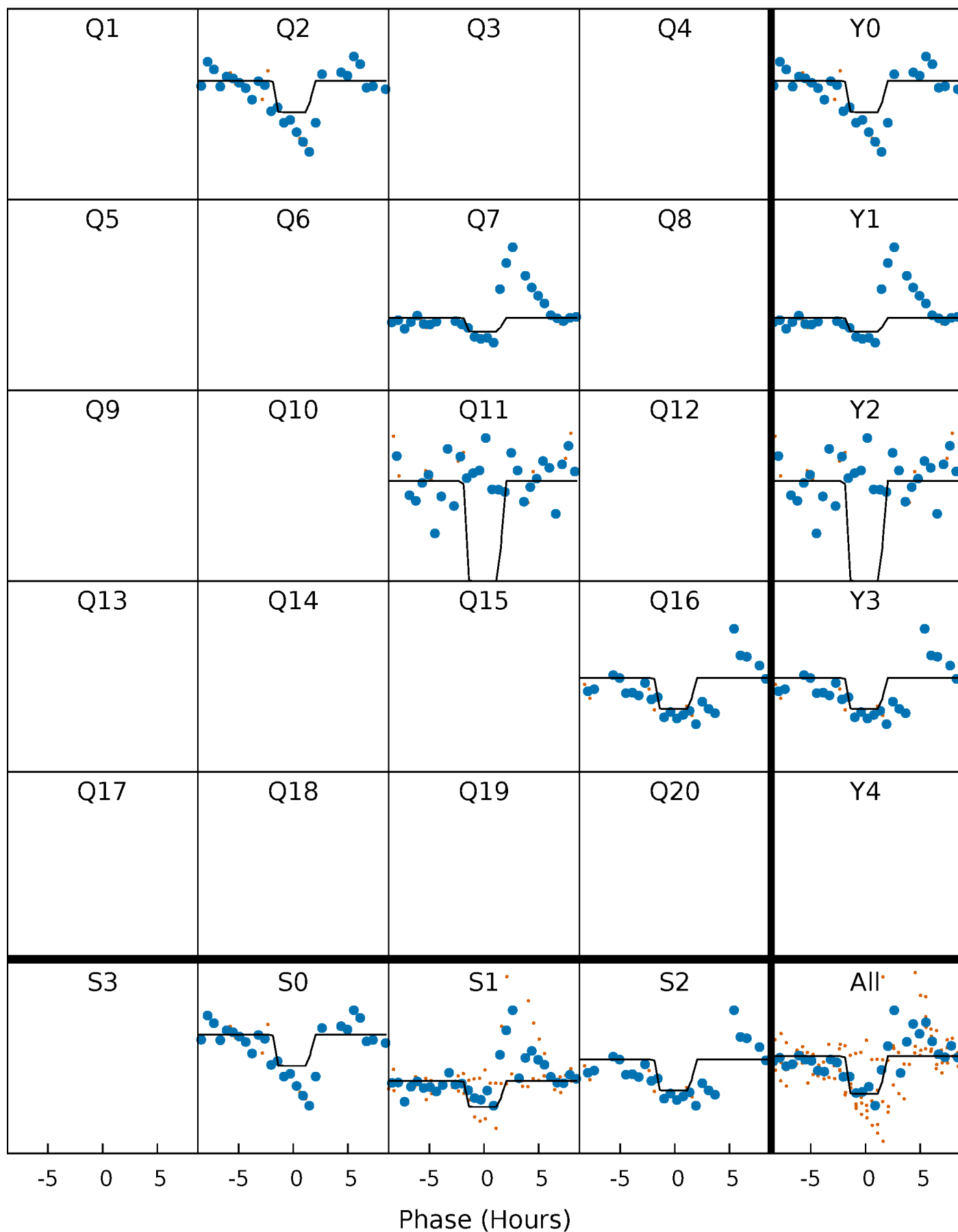
DV Quarter-Phased Transit Curves

TCE 009941718-01 P=450.457830 Days $T_0=196.666806$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

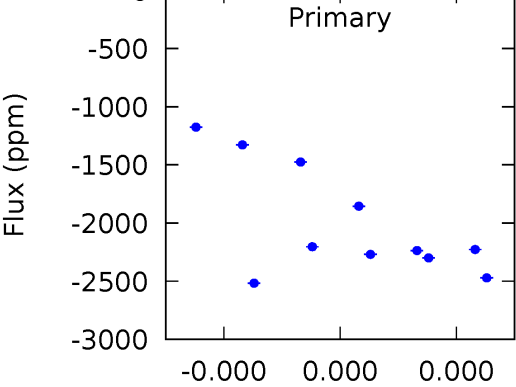
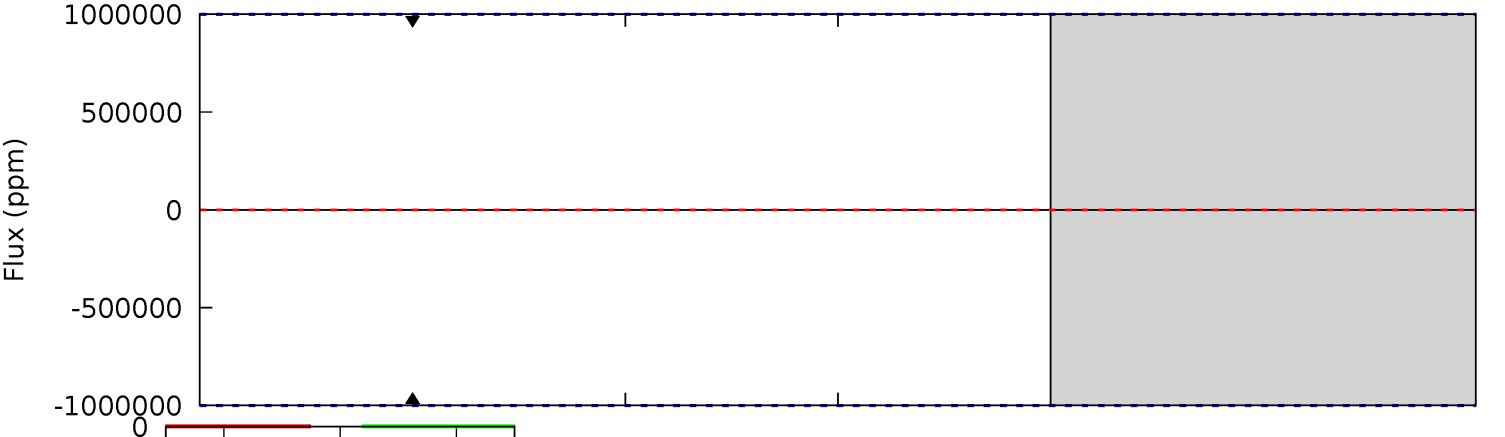
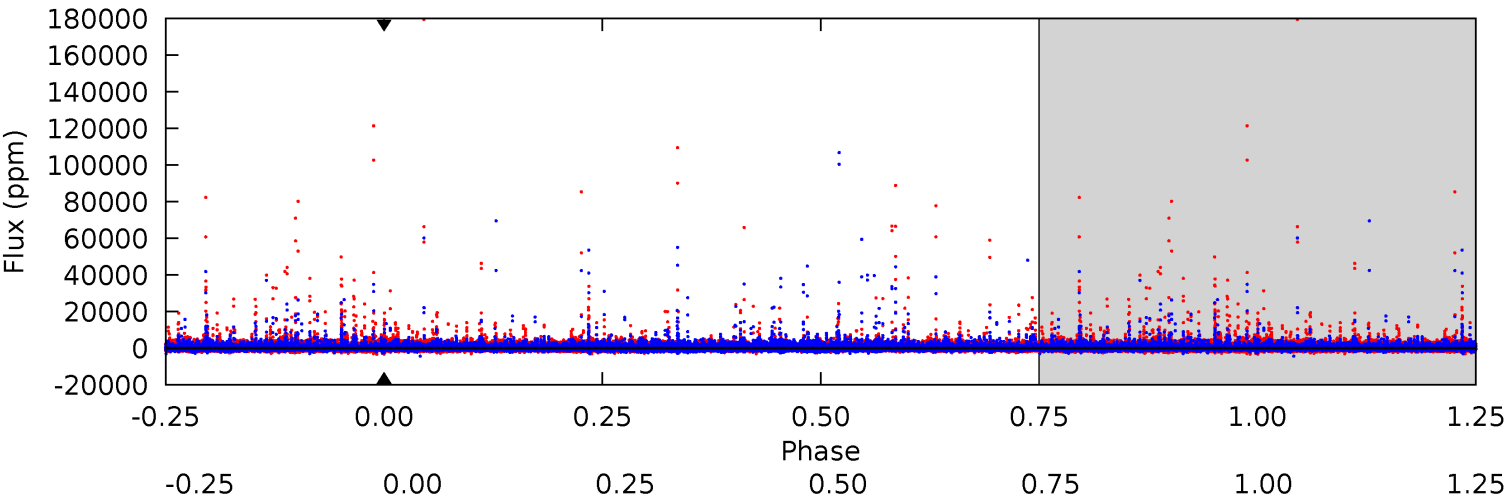
TCE 009941718-01 P=450.457830 Days $T_0=196.671228$ (BKJD)



DV Model-Shift Uniqueness Test

009941718-01, P = 450.457830 Days, E = 196.666806 Days

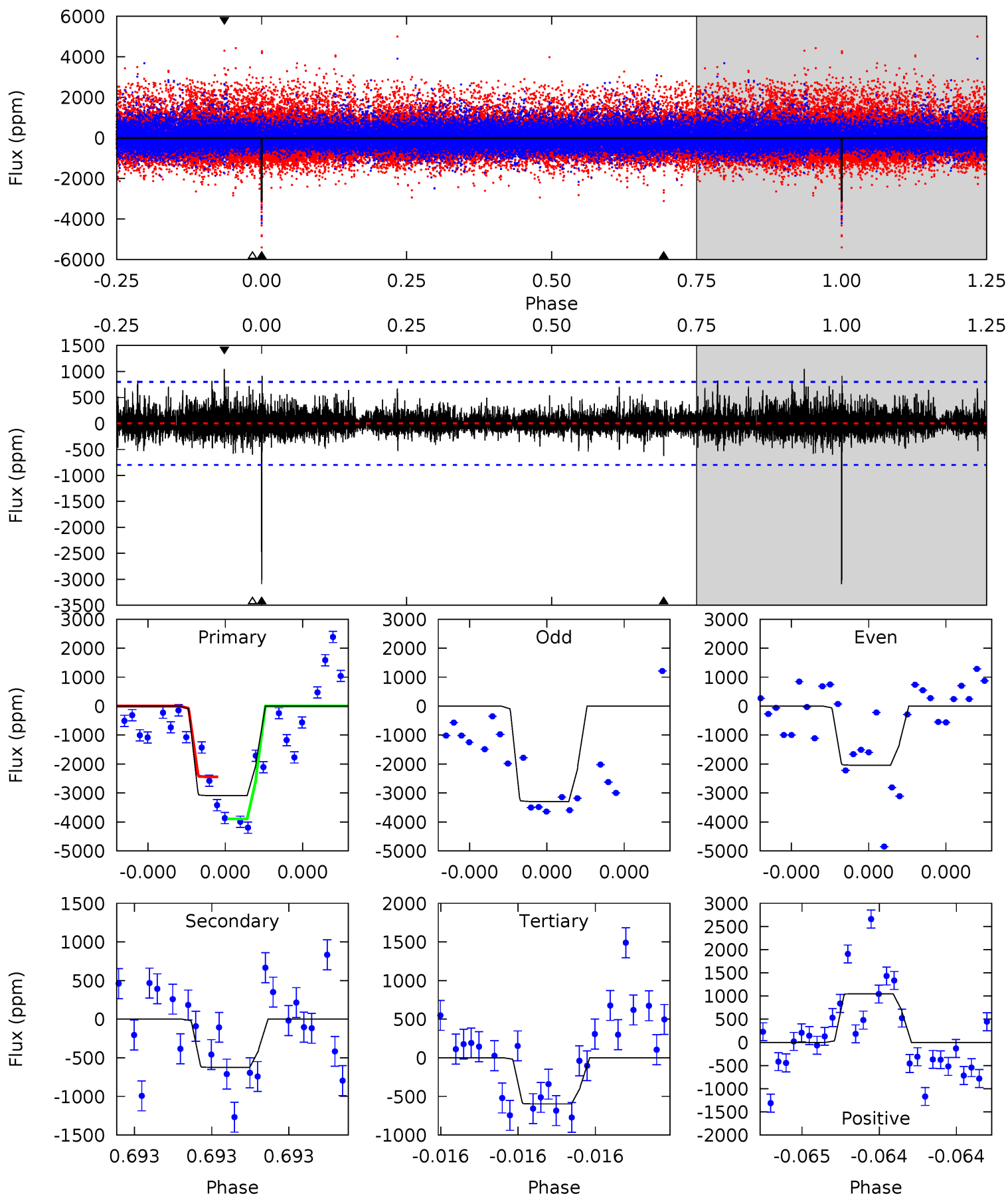
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009941718-01, P = 450.457830 Days, E = 196.671228 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	4.39	4.20	7.38	5.63	3.57	1.04	17.6	14.4	0.19	-2.99	4.59	0.85	0.25	5.12



Stellar Parameters For KIC 009941718

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	3521^{+42}_{-47}	$4.928^{+0.036}_{-0.040}$	$-0.200^{+0.100}_{-0.100}$	$0.340^{+0.030}_{-0.034}$	$0.358^{+0.033}_{-0.045}$	$12.860^{+2.709}_{-2.053}$
	+1%/-1%	+1%/-1%	+50%/-50%	+9%/-10%	+9%/-13%	+21%/-16%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 009941718-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$3.18^{+3.32}_{-2.17}$	140^{+3}_{-3}	-2789^{+9544}_{-3598}	$-55662.228^{+6874943.781}_{-5359551.715}$
Alt.	-624 ± 142	$3.41^{+2.86}_{-2.25}$	140^{+3}_{-3}	2458^{+801}_{-330}	$19591^{+143888}_{-14080}$

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 $A_{obs} \gg 1.0$

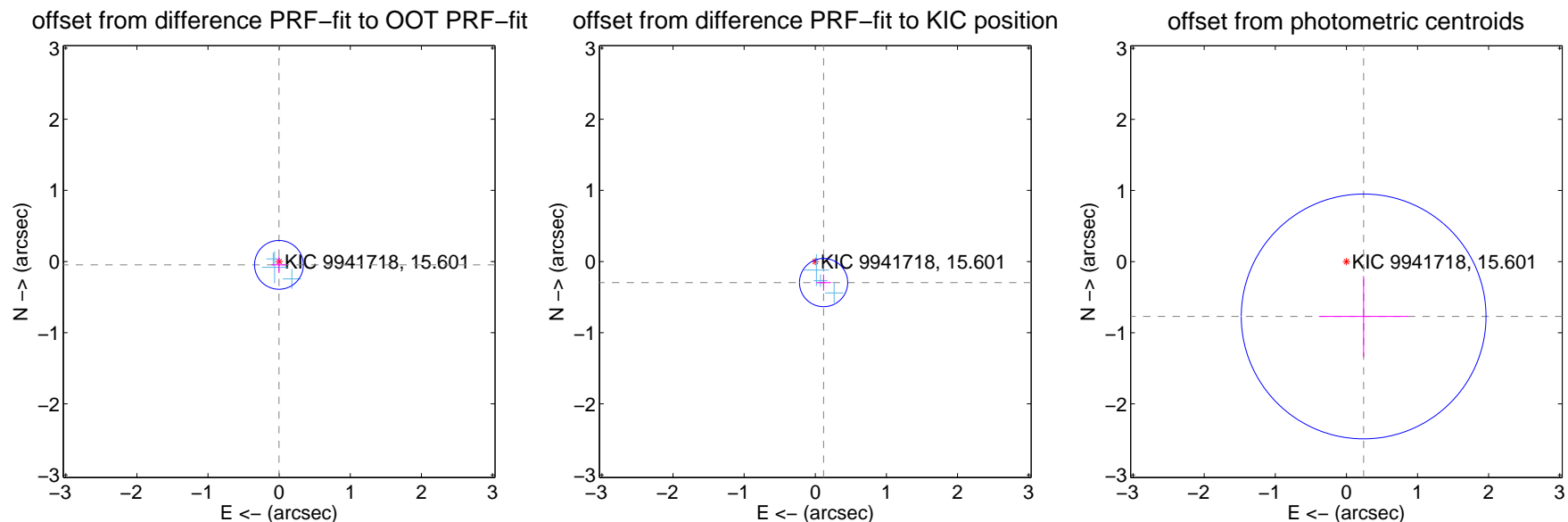
DV Centroid Data

Supplemental centroid analysis for 009941718-01. Kepler magnitude: 15.60. Transit SNR -1.00

There are 3 quarters with good PRF difference image offsets

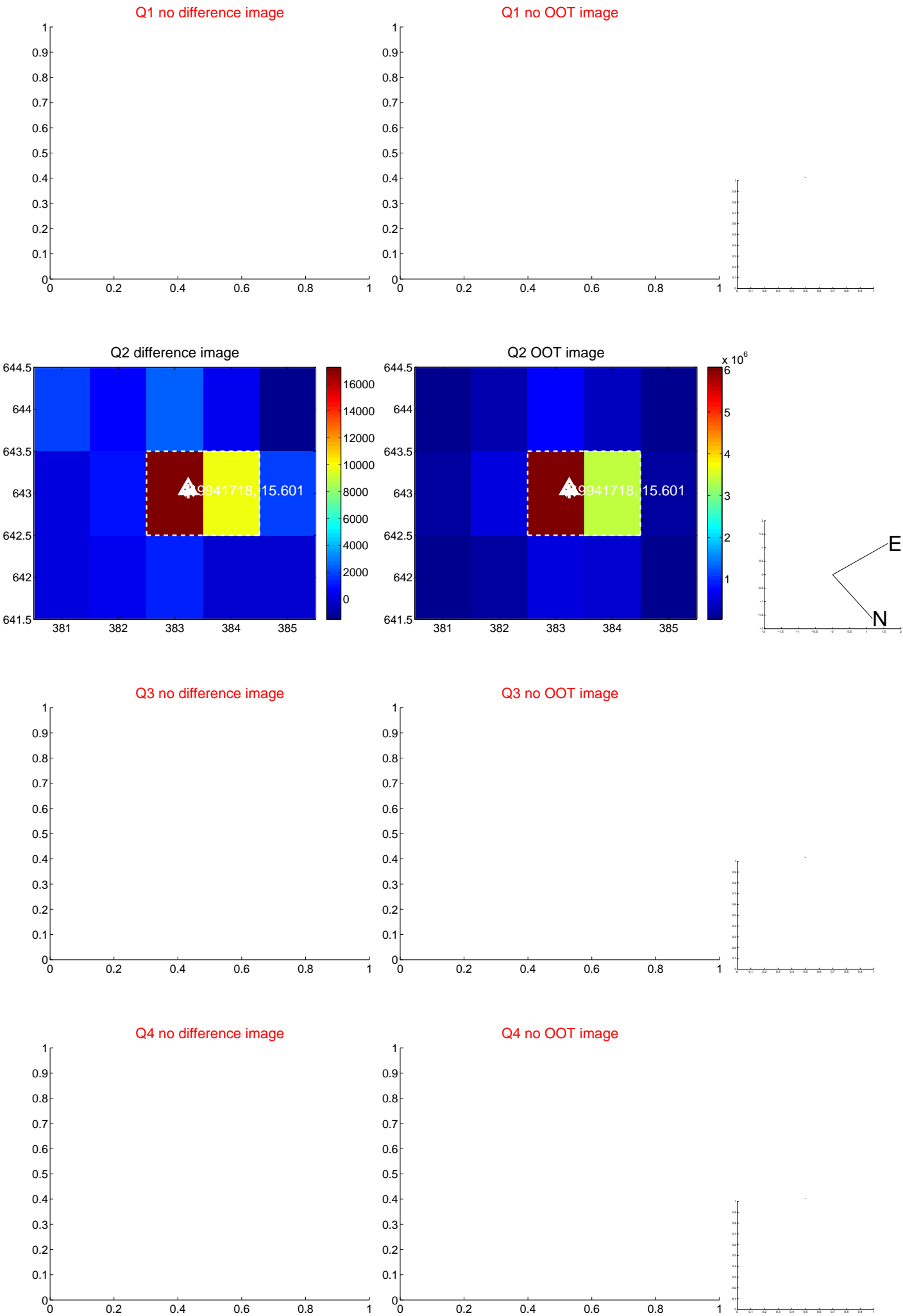
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.047 ± 0.114	0.41	0.003 ± 0.104	-0.047 ± 0.114
PRF-fit source offset from KIC position	0.318 ± 0.113	2.82	-0.117 ± 0.104	-0.296 ± 0.114
photometric centroid source offset	0.81 ± 0.57	1.41	-0.24 ± 0.63	-0.77 ± 0.57

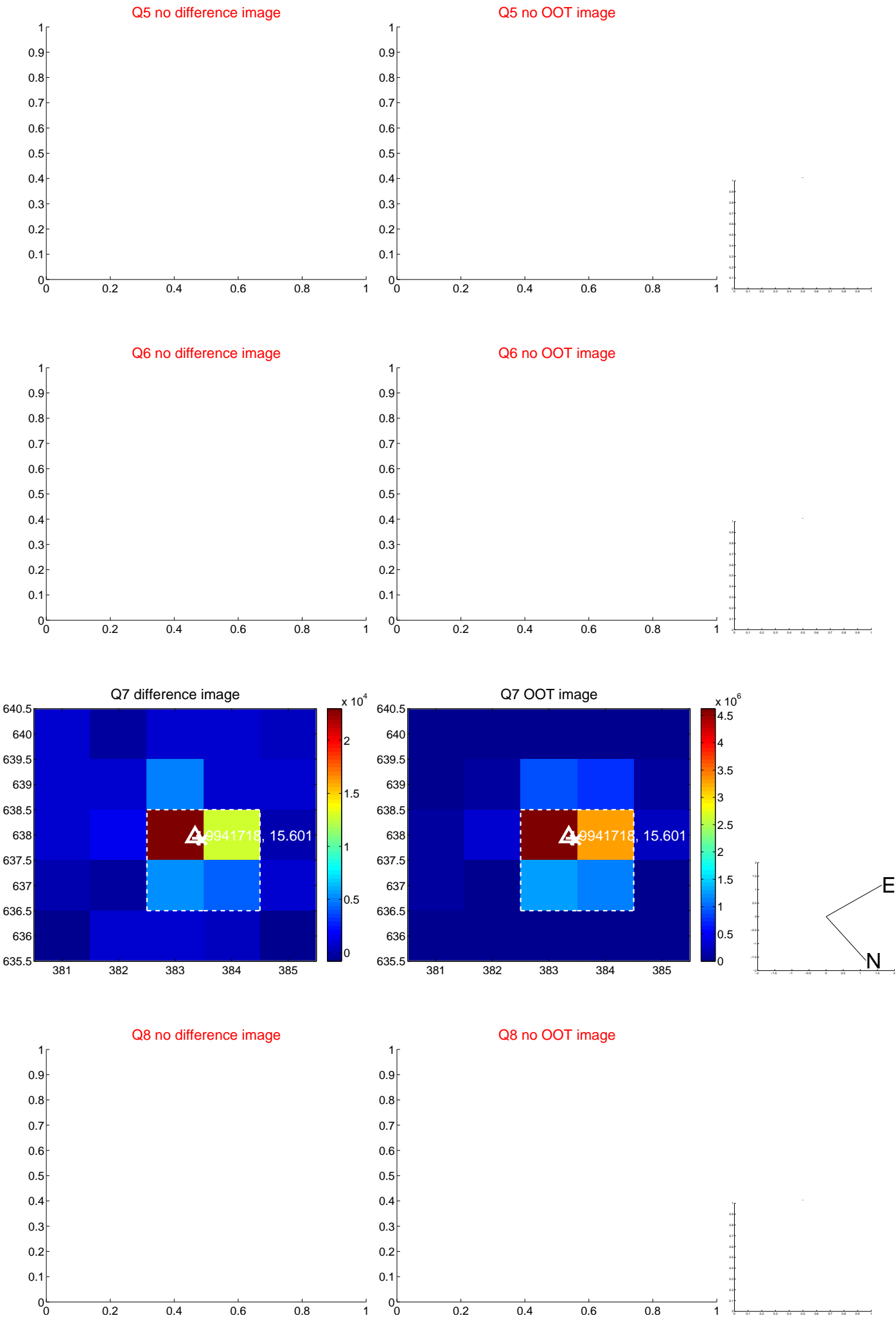


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



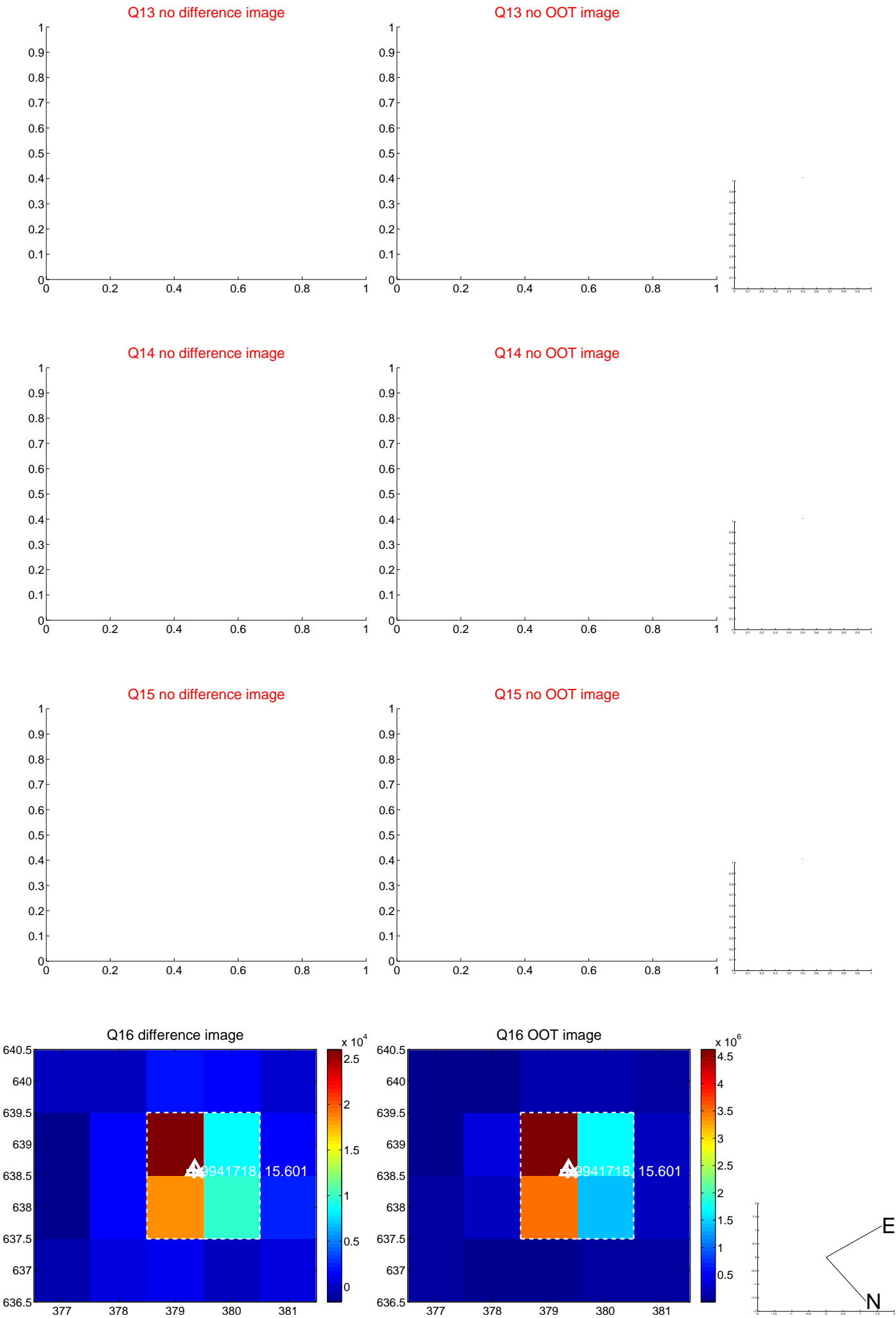
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



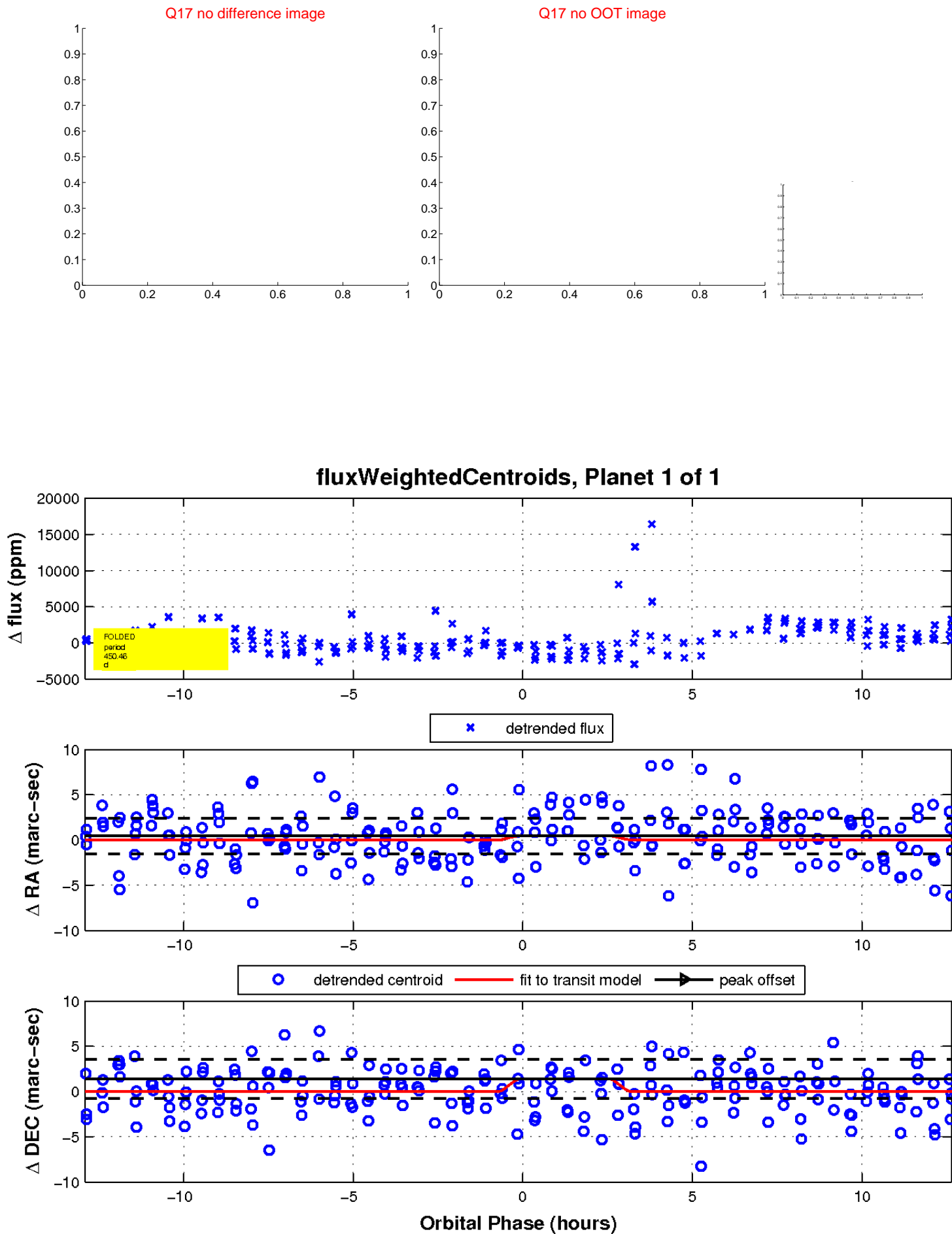
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

