

KIC 005689996

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})
005689996-01	OBS	No	231.194963	159.591290	1686.6	2.305	12.5	6.8	0.49	4647	2.06	0.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005689996-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_ZUMA—LPP_DV—INCONSISTENT_TRANS

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

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

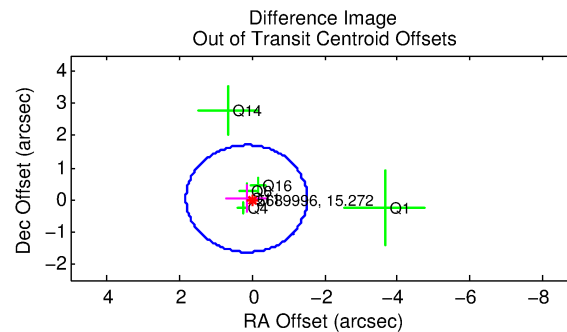
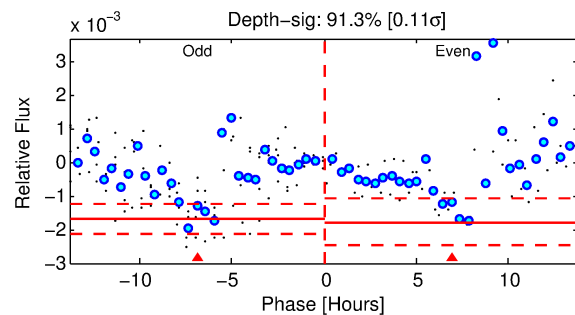
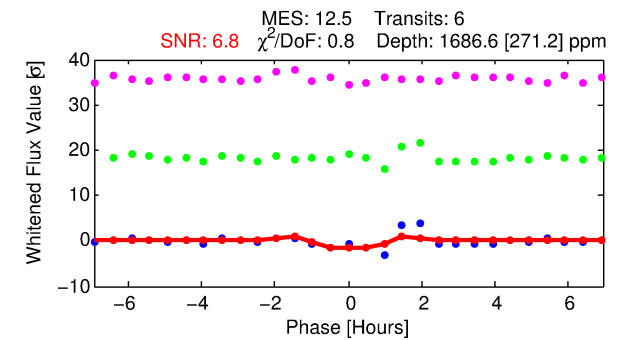
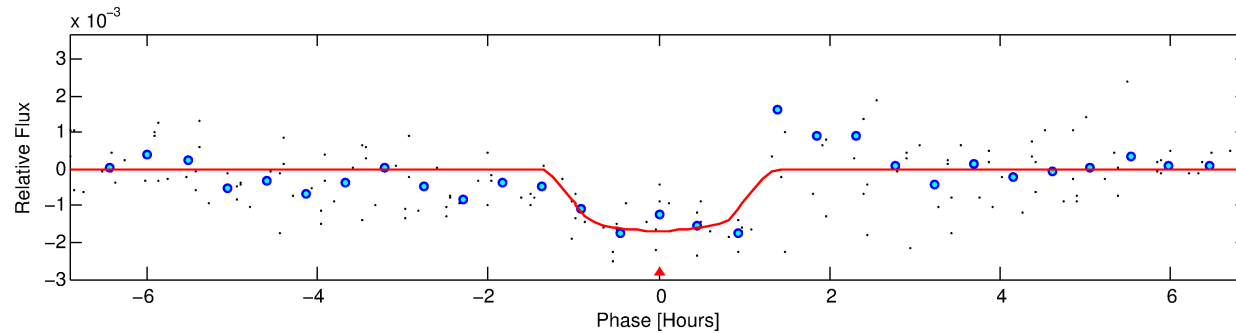
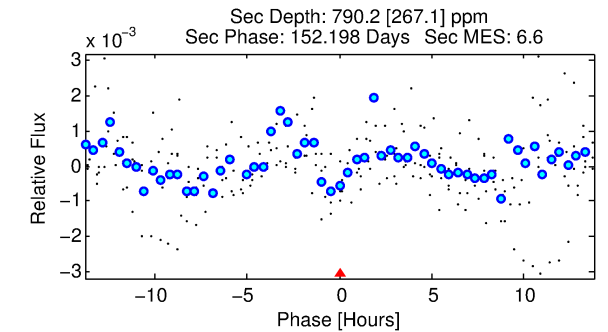
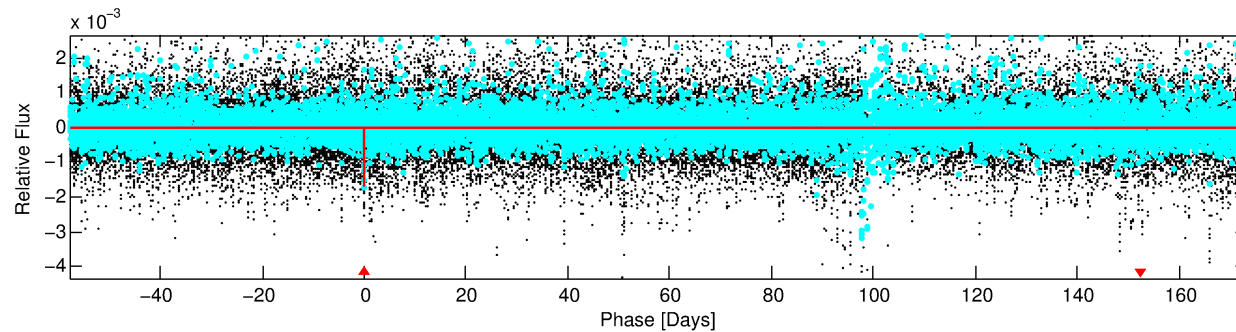
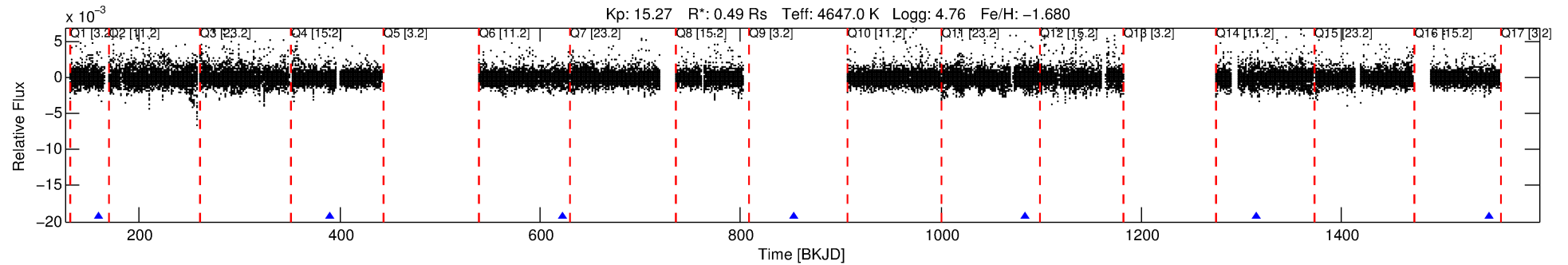
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005689996-01

No Significant Match Found

DV One-Page Summary

KIC: 5689996 Candidate: 1 of 1 Period: 231.195 d



DV Fit Results:

Period = 231.19496 [0.00124] d
Epoch = 159.5913 [0.0049] BKJD
Rp/R* = 0.0382 [0.0460]
a/R* = 728.20 [4049.55]
b = 0.42 [11.02]
Seff = 0.29 [0.05]
Teq = 188 [8] K
Rp = 2.06 [2.48] Re
a = 0.5900 [0.0329] AU
Ag = 35621.66 [86547.70] [0.41 σ]
Teffp = 3985 [2423] K [1.57 σ]

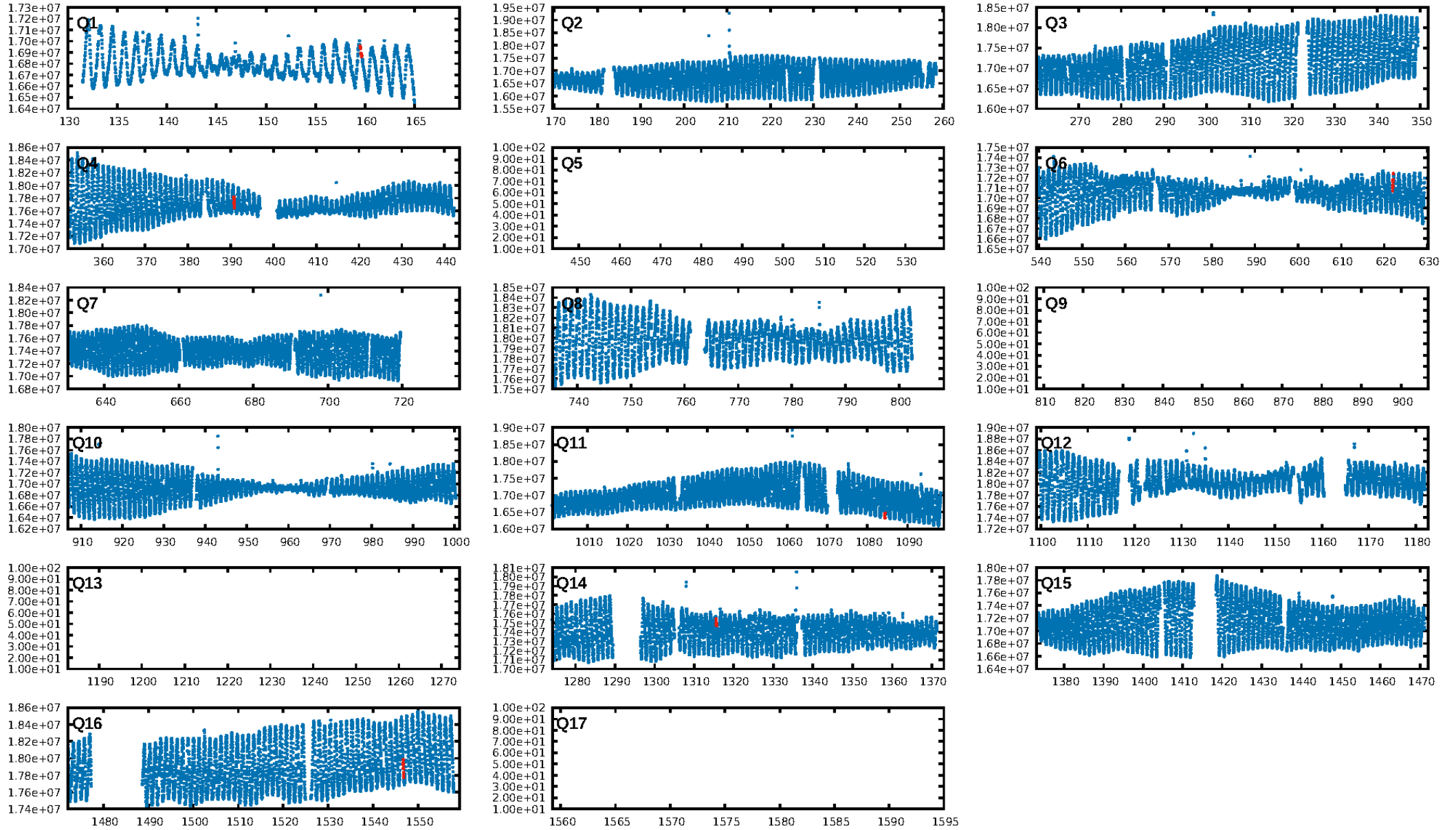
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 22.2%
ModelChiSquareGof-sig: 93.8%
Bootstrap-pfa: 2.22e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 7.863
Centroid-sig: 3.9%
Centroid-so: 1.067 arcsec [1.04 σ]
OotOffset-rm: 0.151 arcsec [0.27 σ]
OotOffset-st: 2/1/2/1 [6]
KicOffset-rm: 0.484 arcsec [0.93 σ]
KicOffset-st: 2/1/2/1 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 1.00 [6/6]

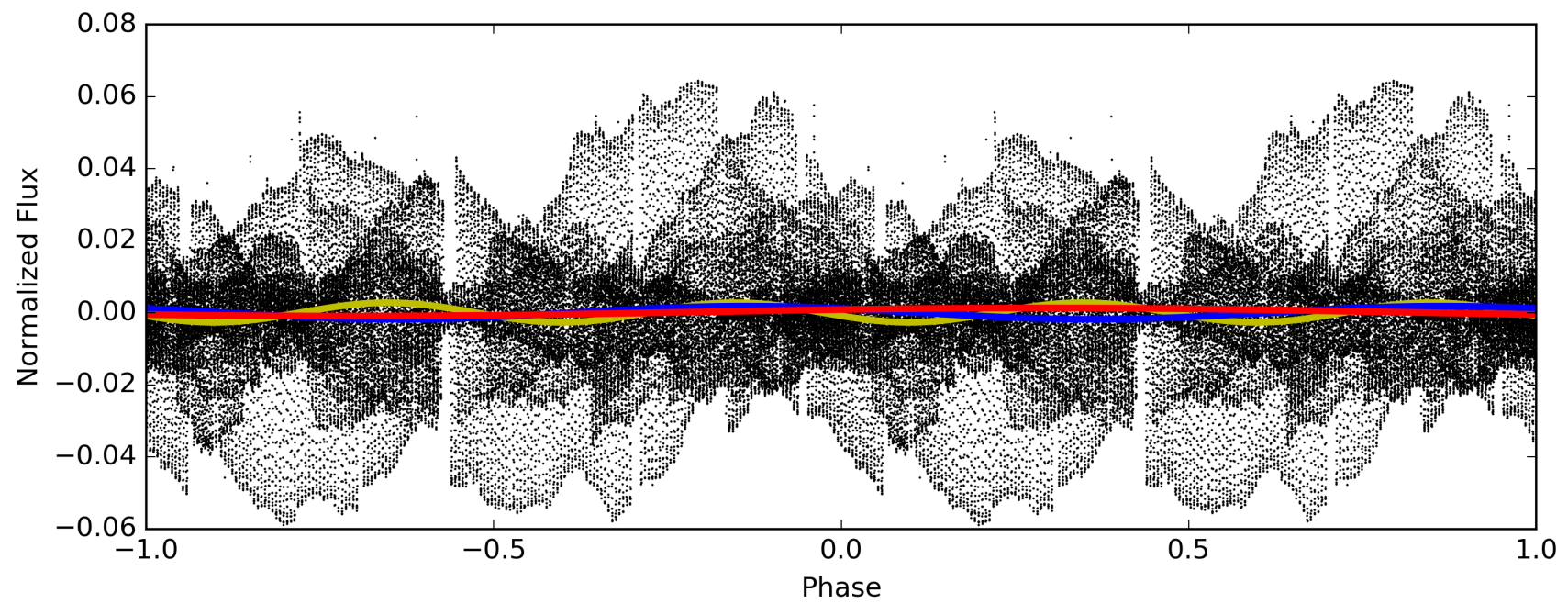
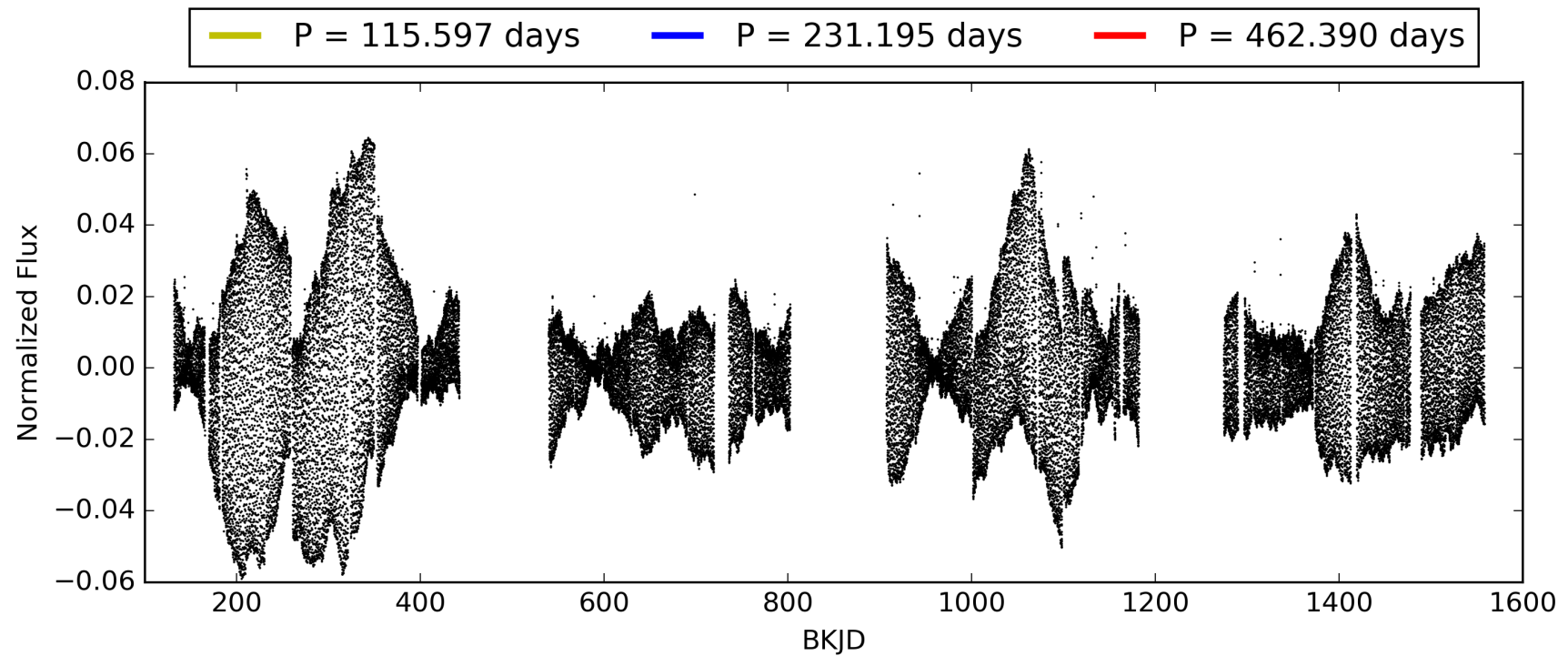
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:55:51 Z

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

TCE 005689996-01, PDC Light Curves

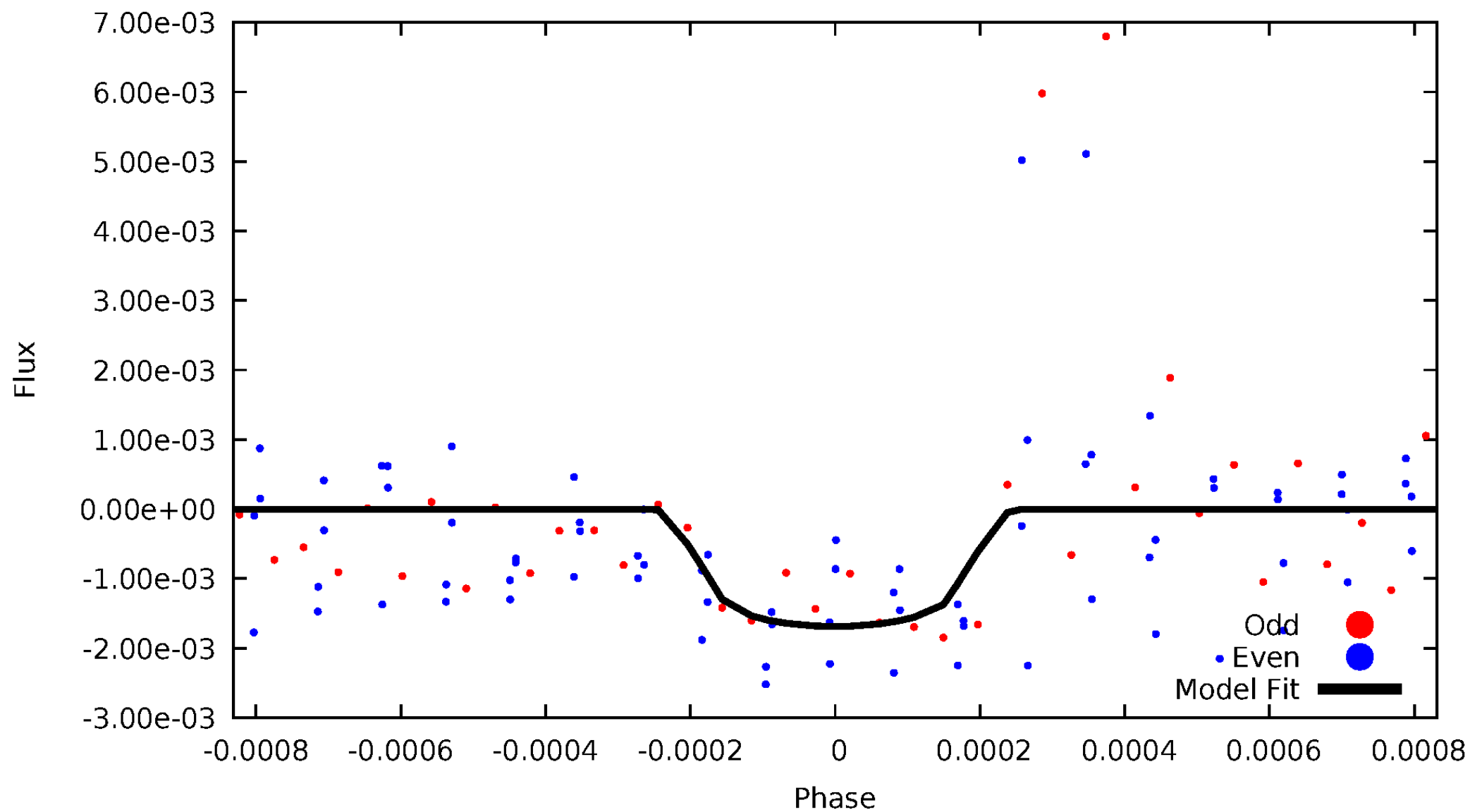


TCE 005689996-01



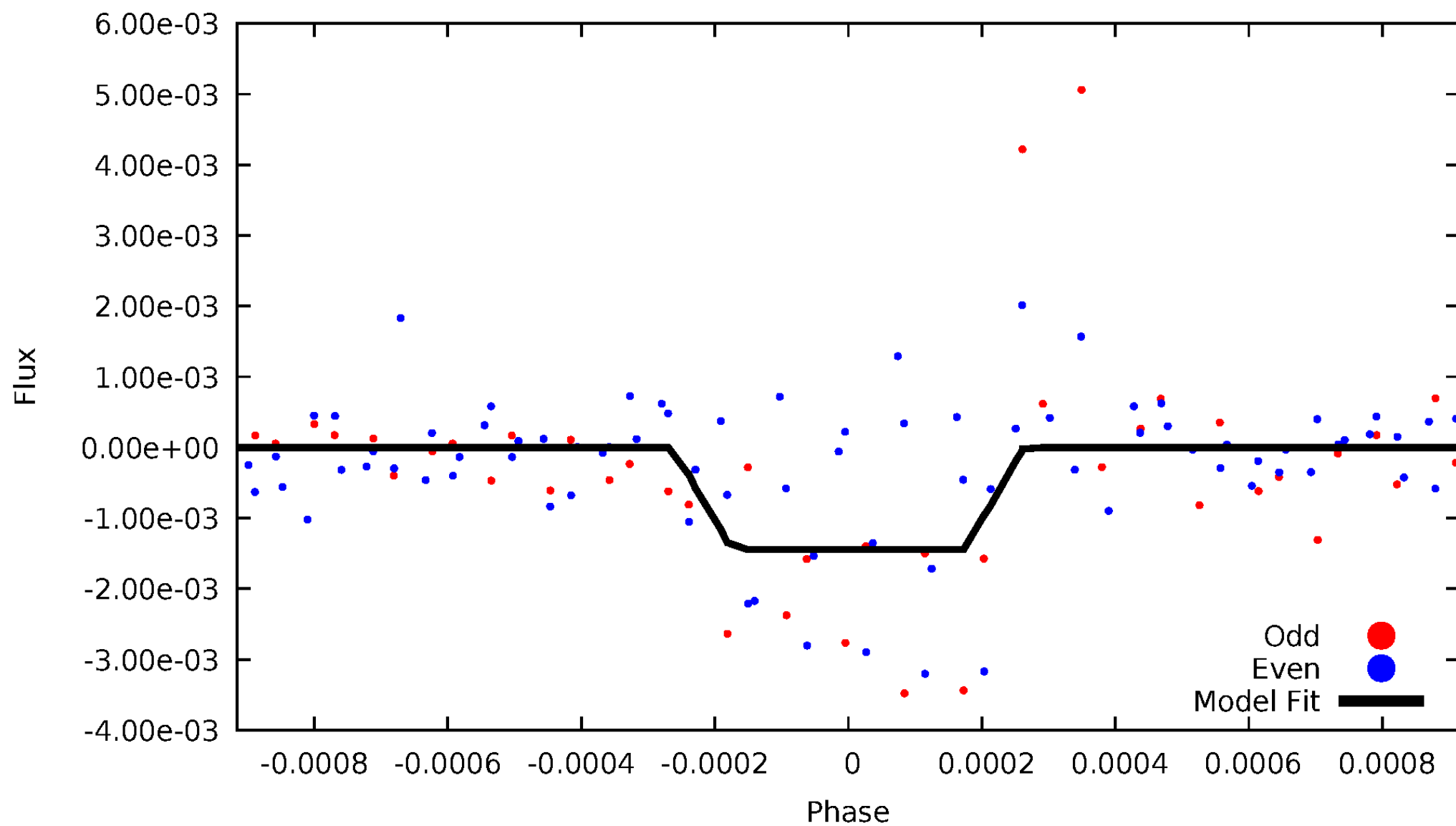
DV Odd/Even

TCE 005689996-01



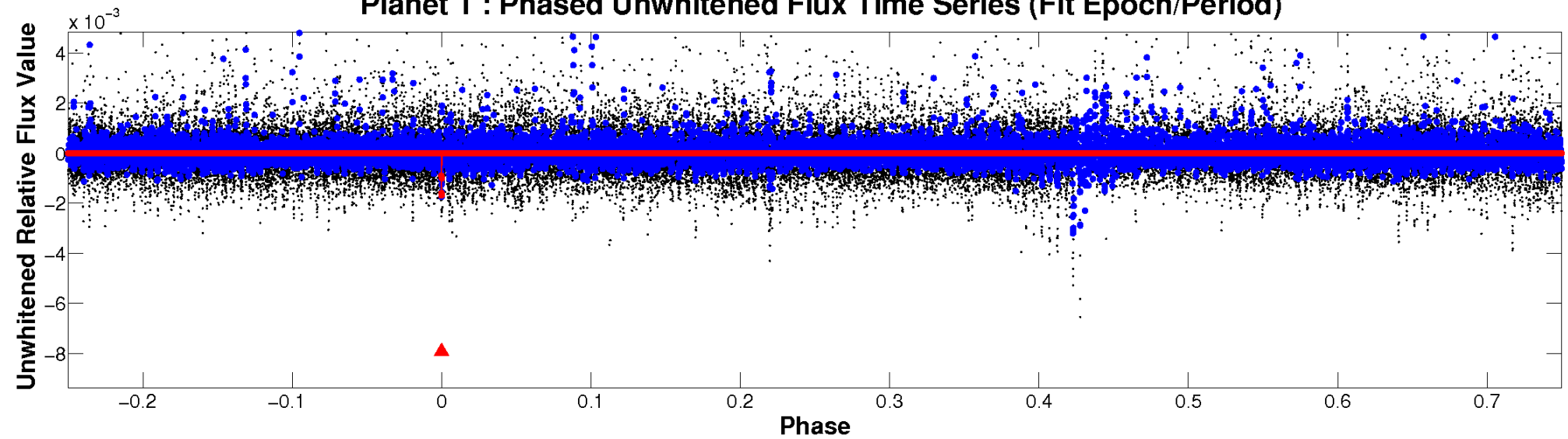
ALT Odd/Even

TCE 005689996-01

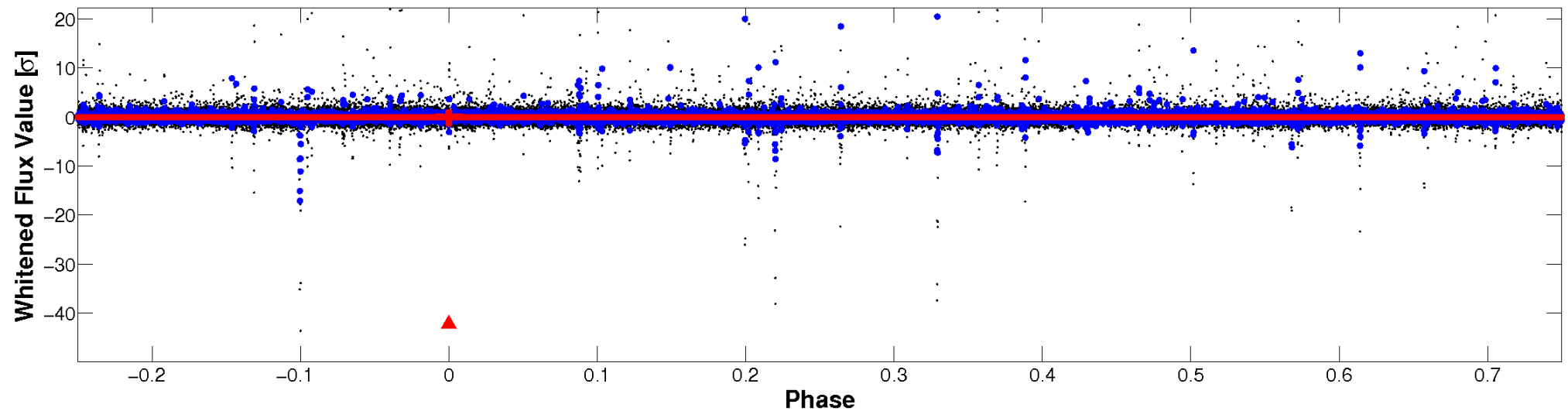


Non-Whitened Vs. Whitened Light Curve

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

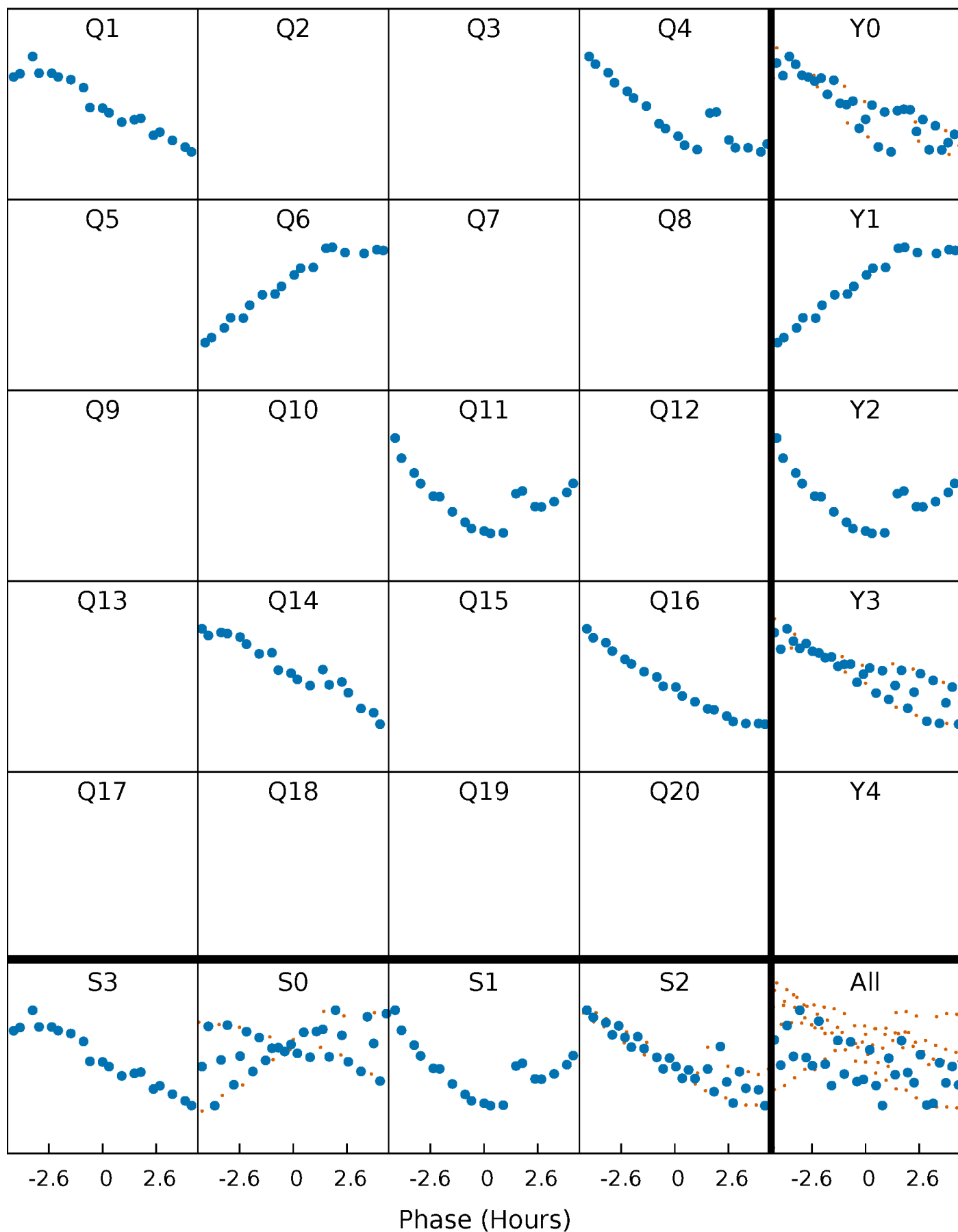


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



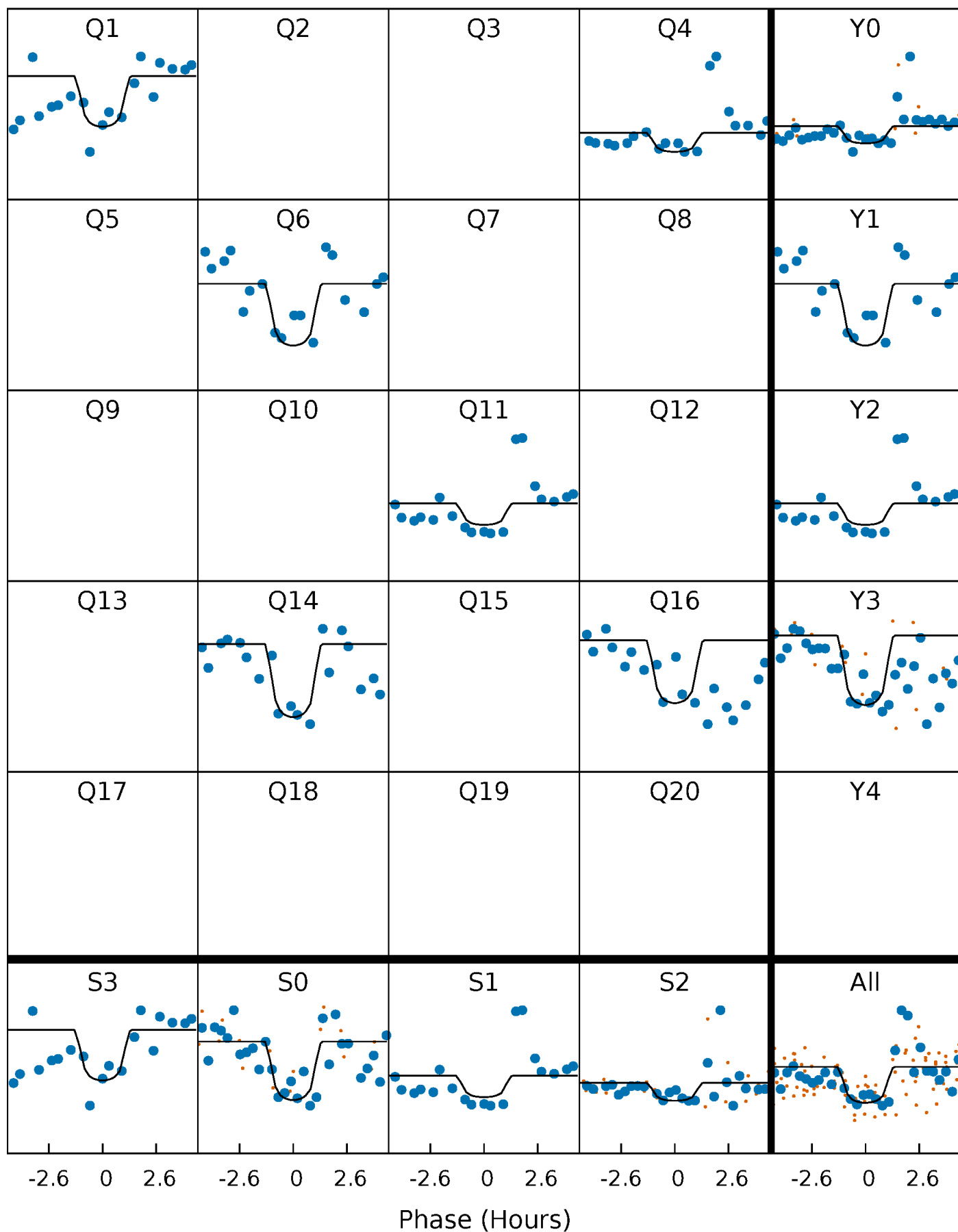
PDC Quarter-Phased Transit Curves

TCE 005689996-01 P=231.194963 Days $T_0=159.591290$ (BKJD)



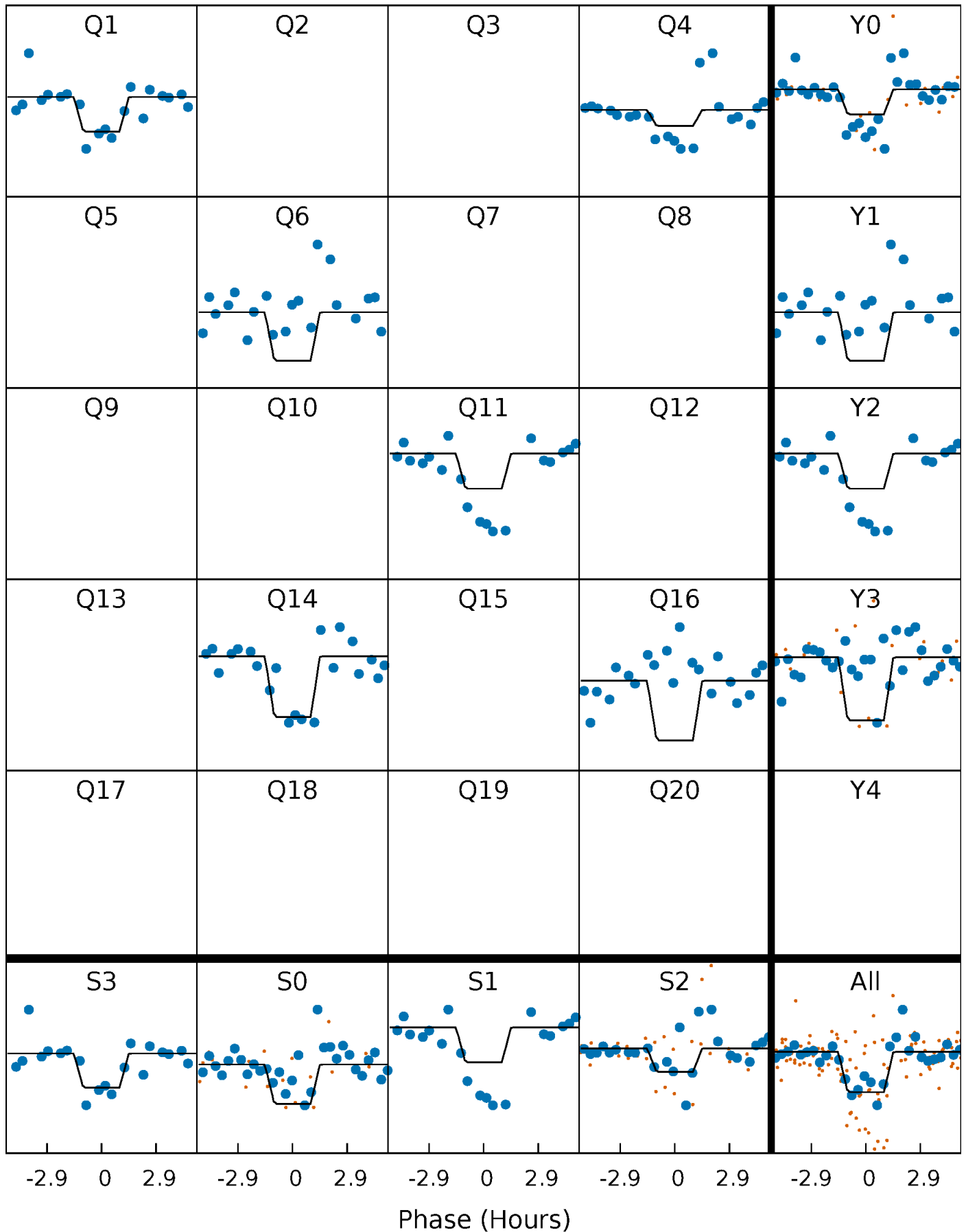
DV Quarter-Phased Transit Curves

TCE 005689996-01 P=231.194963 Days $T_0=159.591290$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

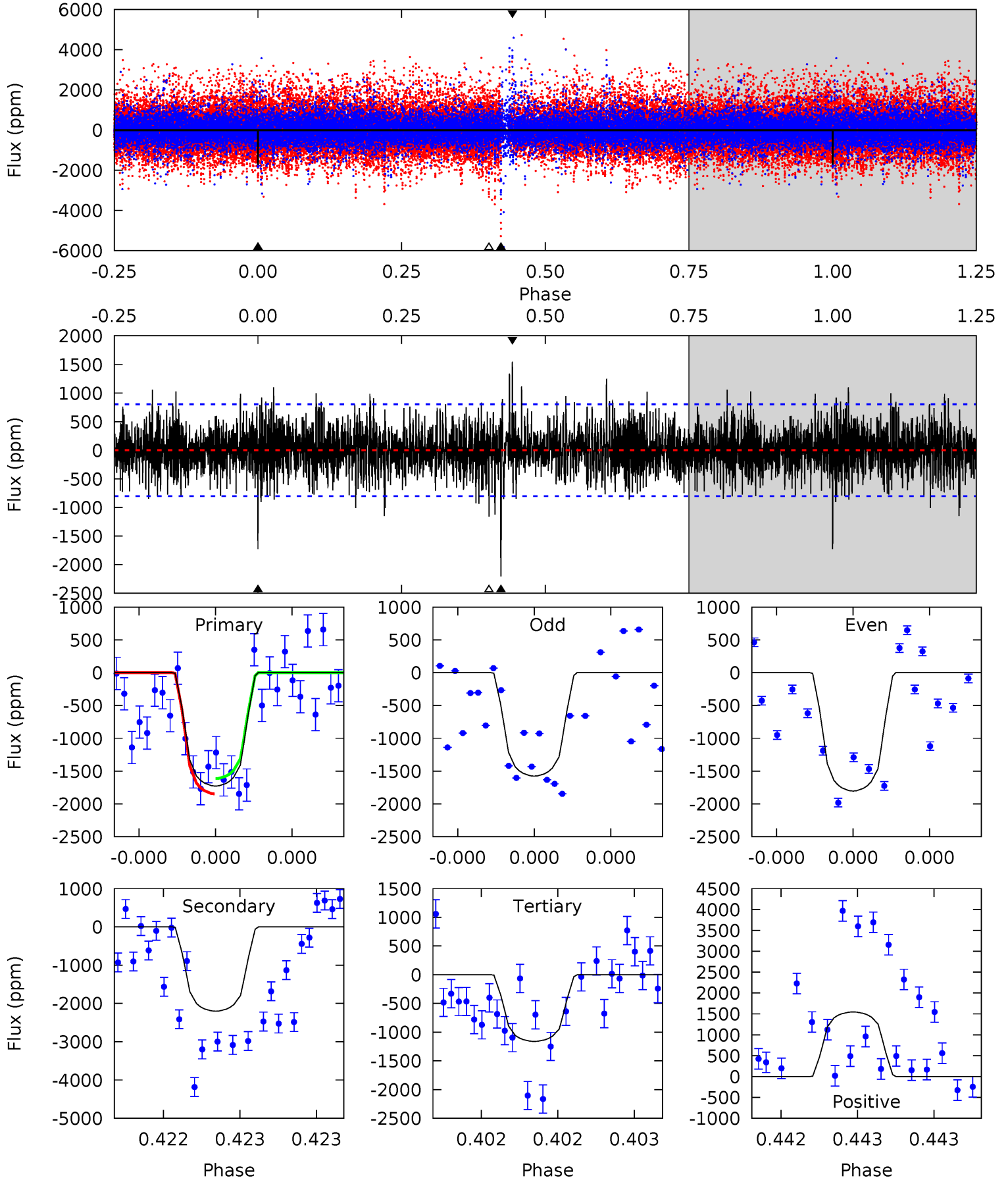
TCE 005689996-01 P=231.190436 Days $T_0=159.601594$ (BKJD)



DV Model-Shift Uniqueness Test

005689996-01, P = 231.194963 Days, E = 159.591290 Days

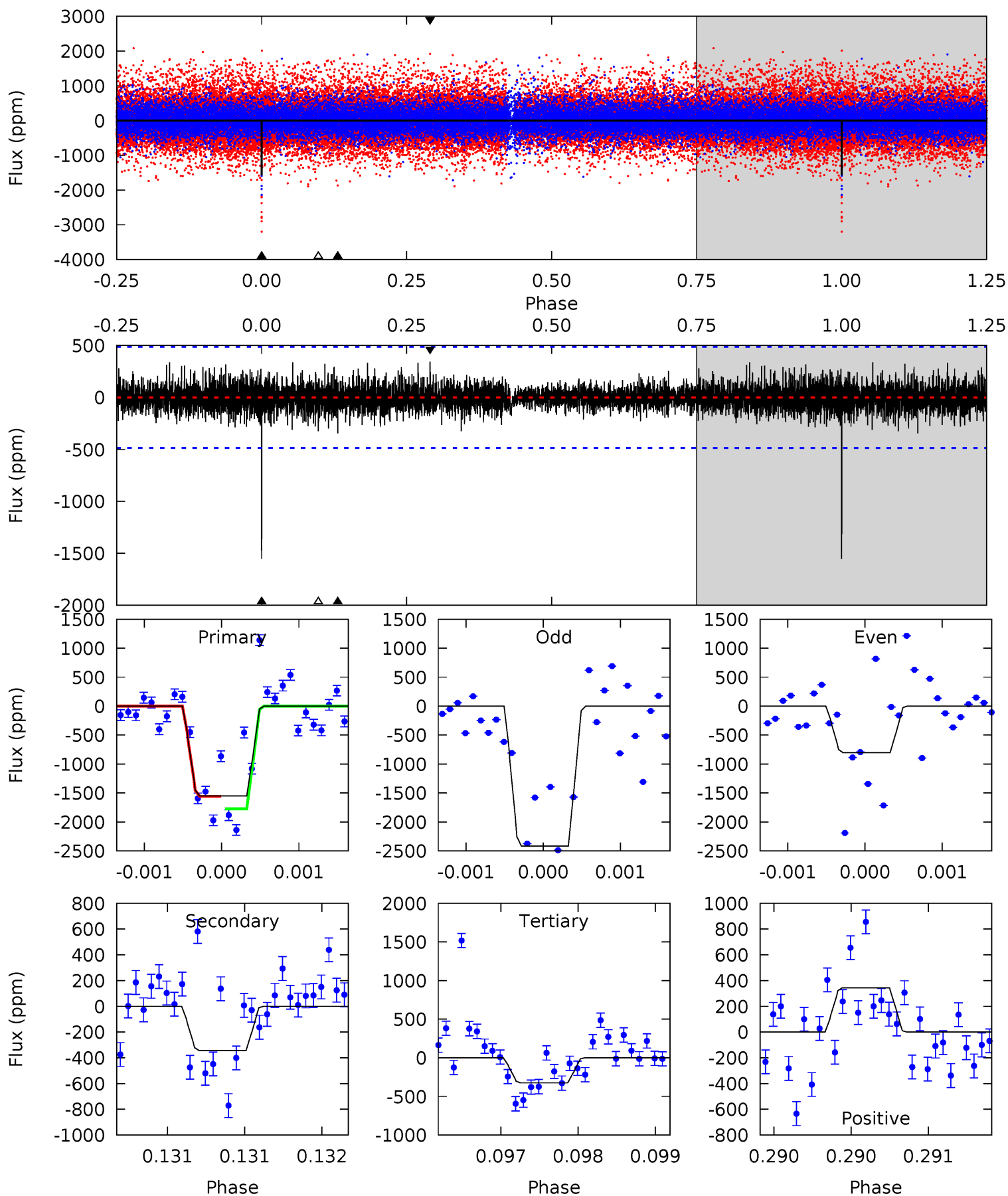
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	15.3	8.07	10.7	5.59	3.50	2.14	3.94	1.26	7.24	4.56	0.73	1.09	0.41	0.82



Alt Model-Shift Uniqueness Test

005689996-01, P = 231.190436 Days, E = 159.601594 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	3.93	3.71	3.94	5.56	3.47	0.97	14.0	13.8	0.21	-0.01	9.04	0.97	0.18	1.20



Stellar Parameters For KIC 005689996

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4647^{+145}_{-162}	$4.760^{+0.046}_{-0.025}$	$-1.680^{+0.300}_{-0.200}$	$0.494^{+0.027}_{-0.032}$	$0.512^{+0.032}_{-0.025}$	$5.985^{+1.080}_{-0.626}$
	+3%/-3%	+1%/-1%	+18%/-12%	+5%/-6%	+6%/-5%	+18%/-10%
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 005689996-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2202 ± 144	$2.82^{+2.21}_{-1.88}$	261^{+10}_{-10}	4446^{+3132}_{-844}	$52784^{+429564}_{-36359}$
Alt.	-344 ± 88	$2.76^{+2.21}_{-1.76}$	261^{+9}_{-9}	3286^{+1402}_{-521}	8837^{+60273}_{-6196}

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

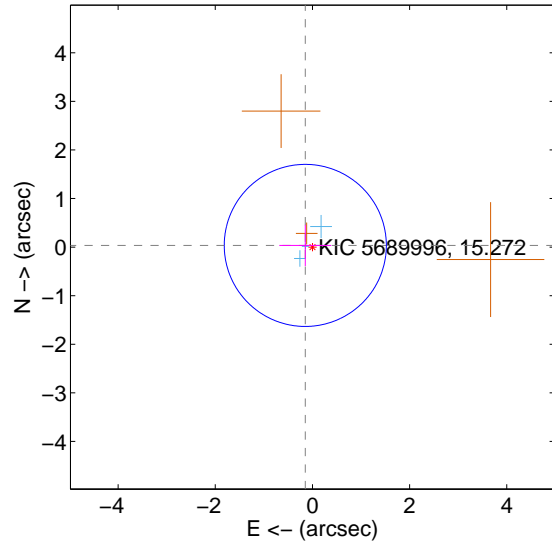
Supplemental centroid analysis for 005689996-01. Kepler magnitude: 15.27. Transit SNR 6.84

There are 3 quarters with good PRF difference image offsets

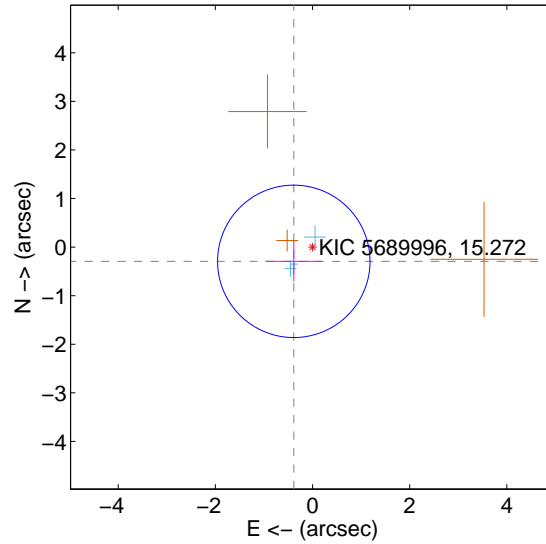
The direct PRF centroid is offset from the target star catalog position by about 0.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.151 ± 0.556	0.27	0.147 ± 0.535	0.035 ± 0.424
PRF-fit source offset from KIC position	0.484 ± 0.523	0.93	0.386 ± 0.583	-0.293 ± 0.421
photometric centroid source offset	1.07 ± 1.03	1.04	0.58 ± 1.12	0.89 ± 0.98

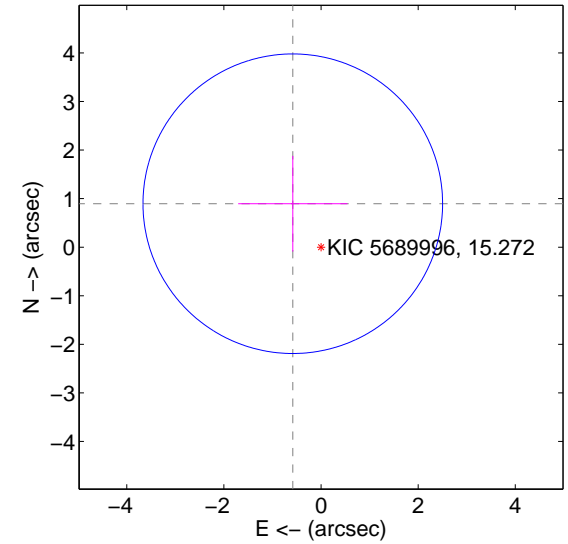
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

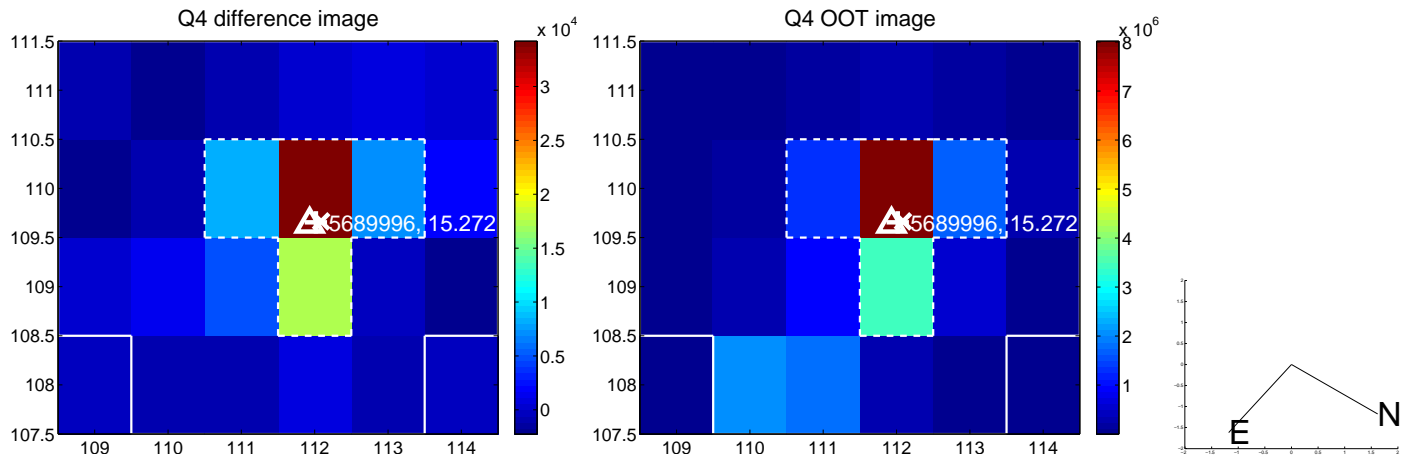
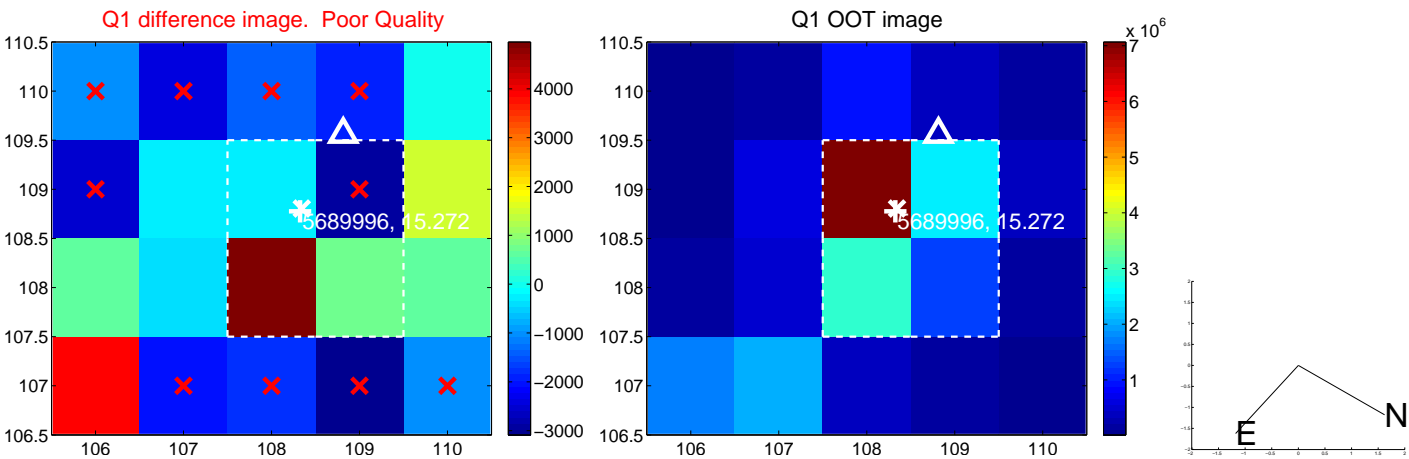


offset from photometric centroids

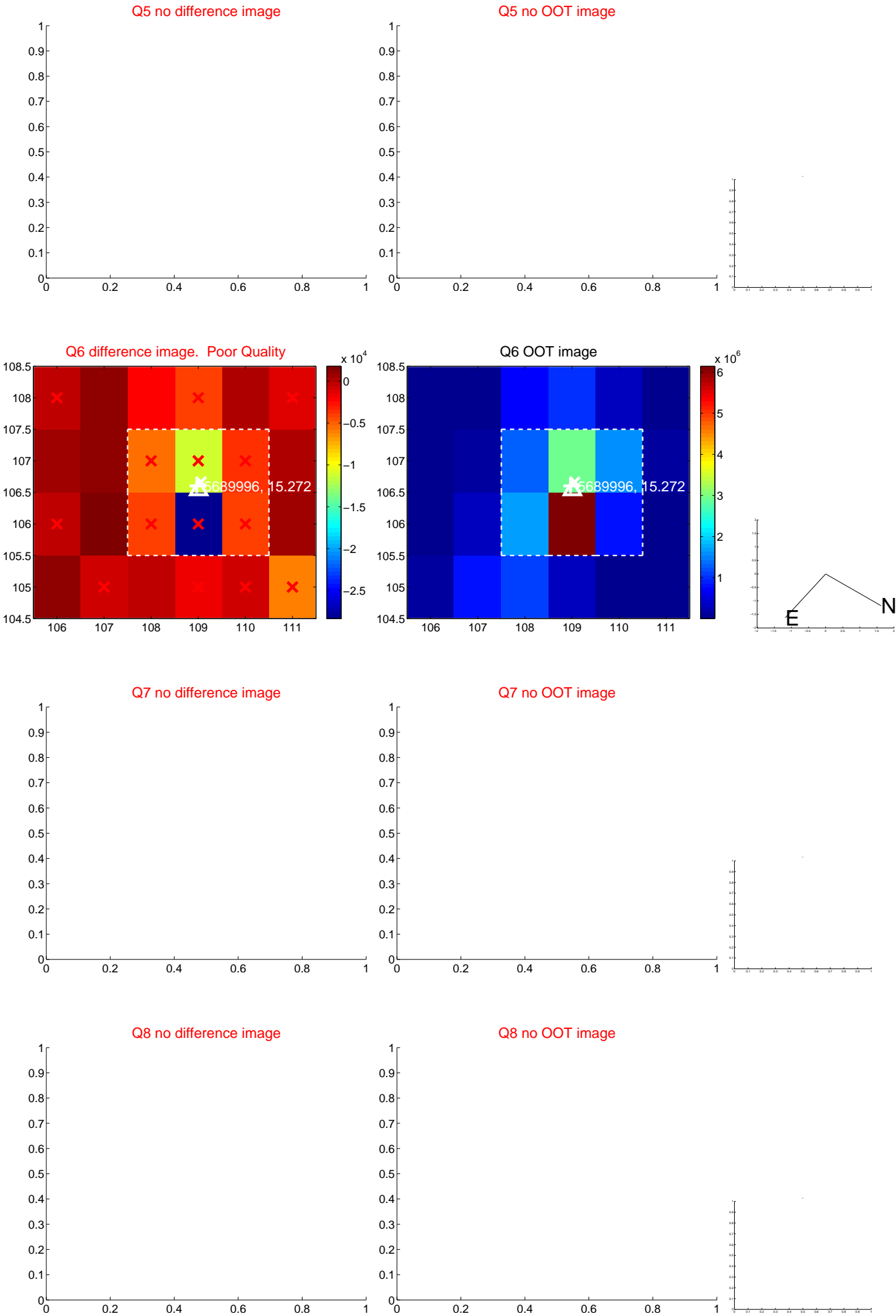


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

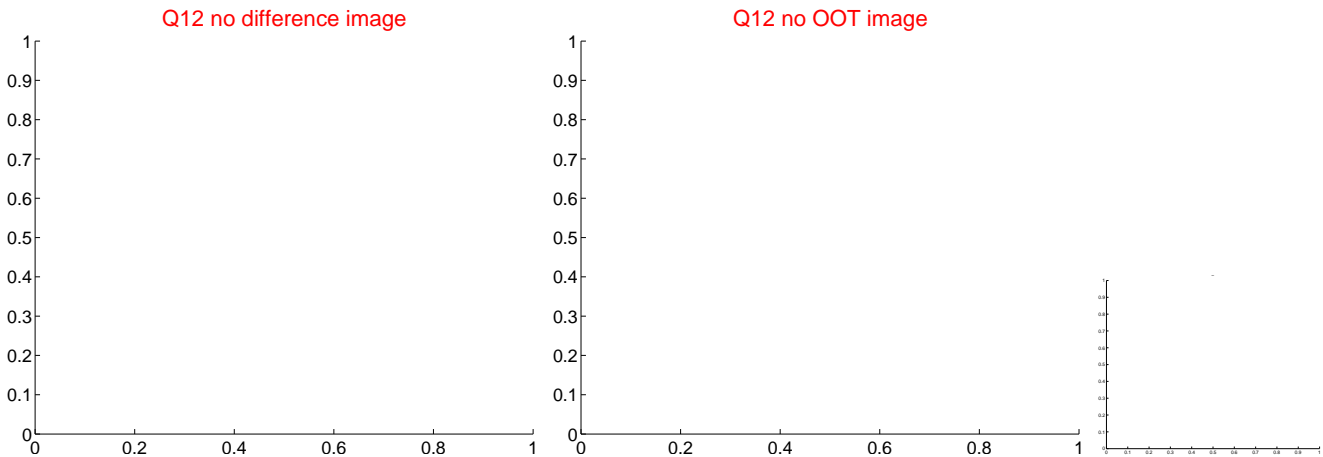
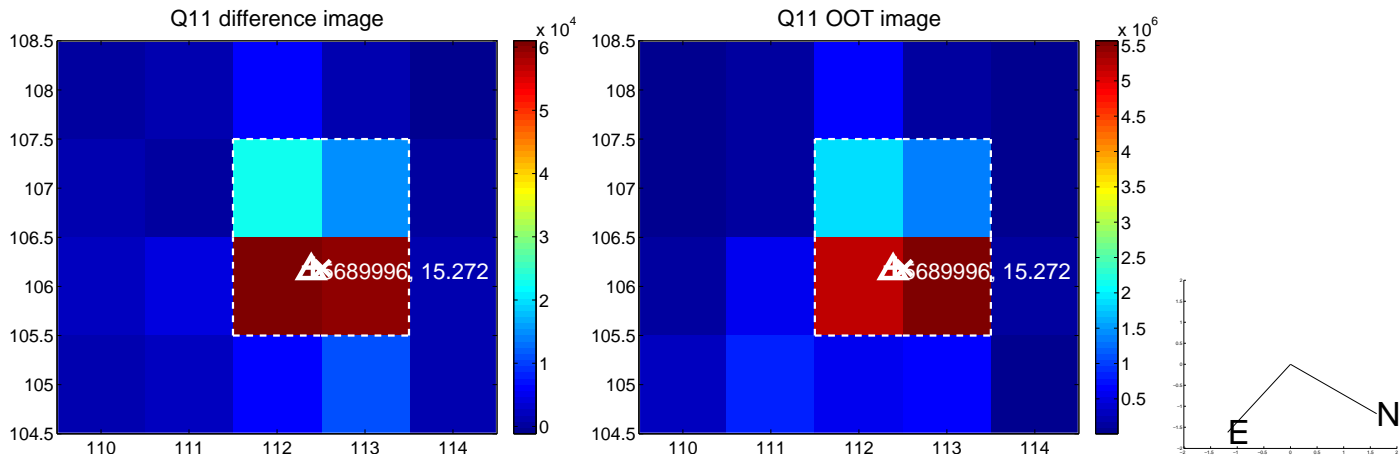
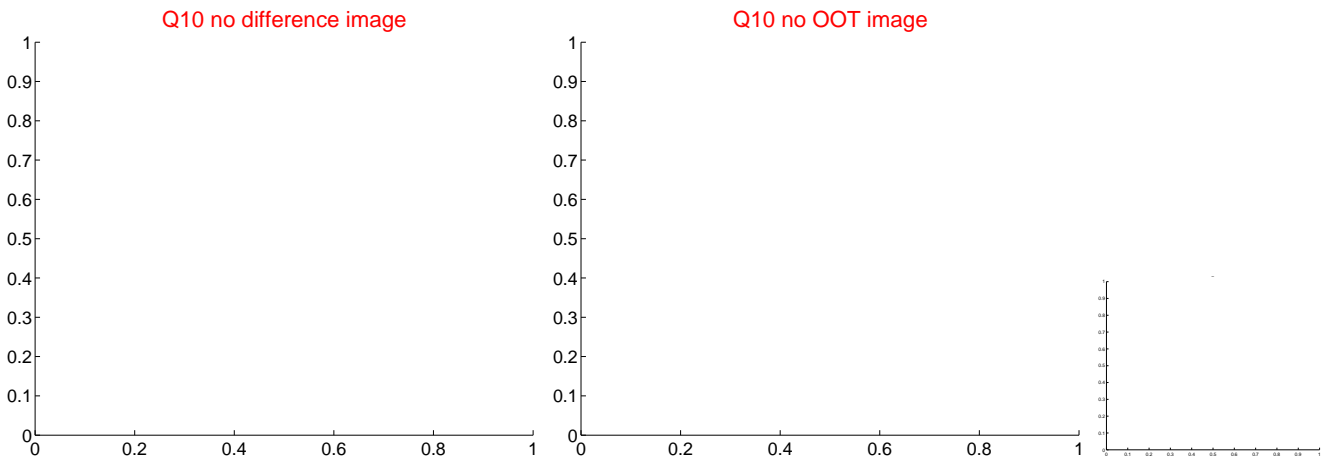
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



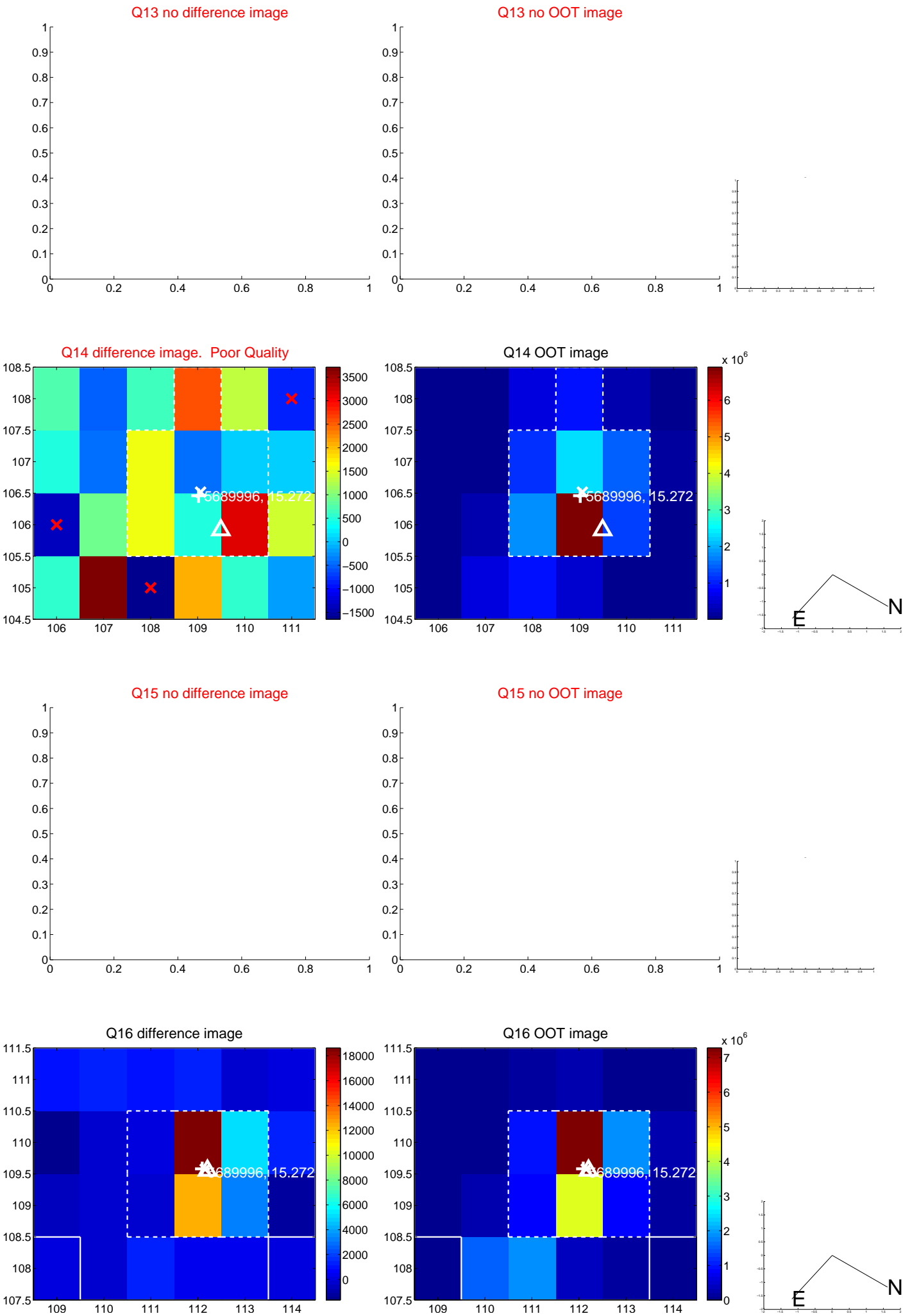
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



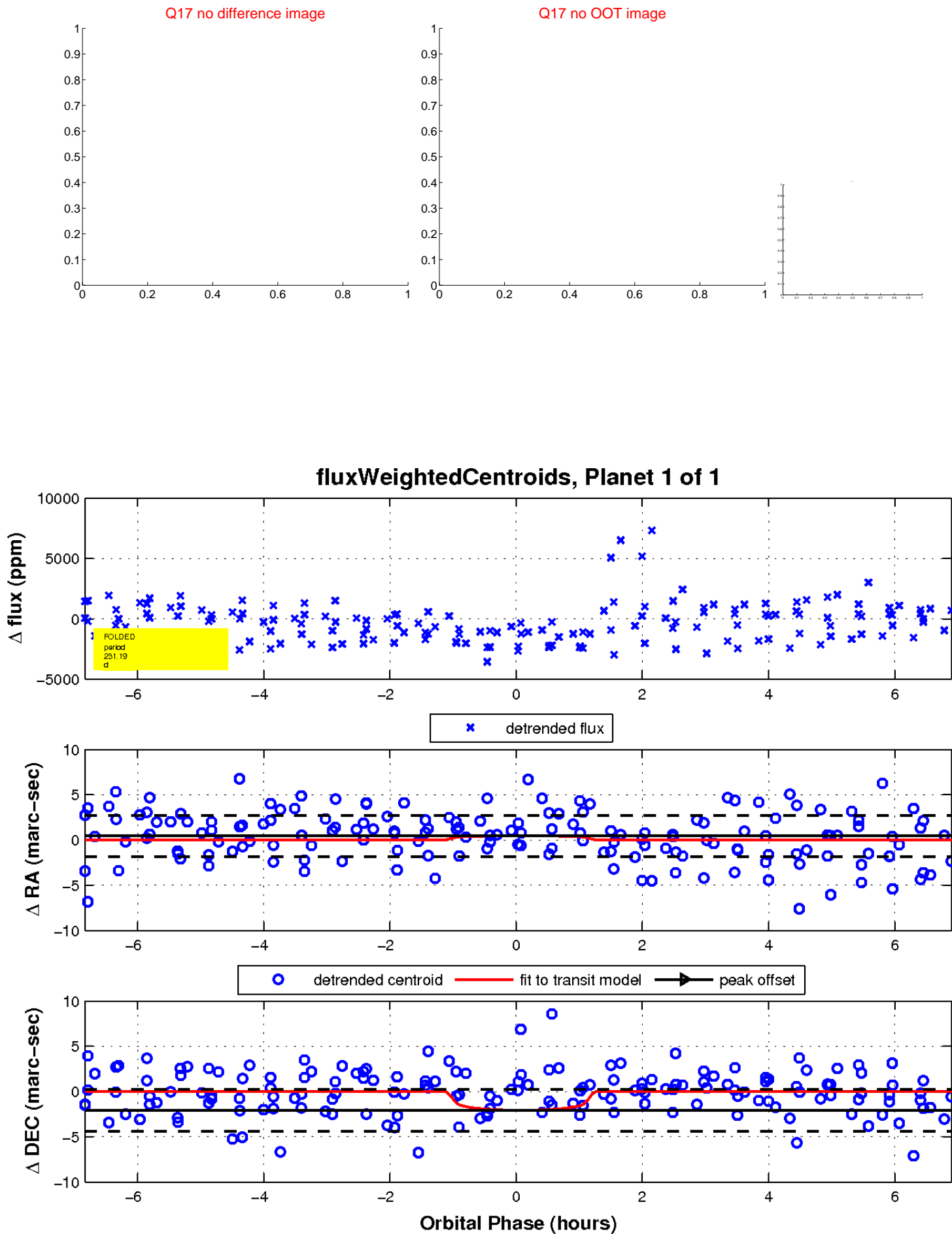
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

