

KIC 007202417

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})
007202417-01	OBS	No	207.323011	135.355549	245.2	11.766	7.2	6.1	5.64	5177	10.11	31.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007202417-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_ALT

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

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

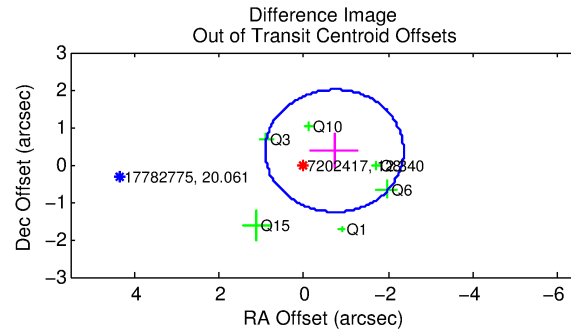
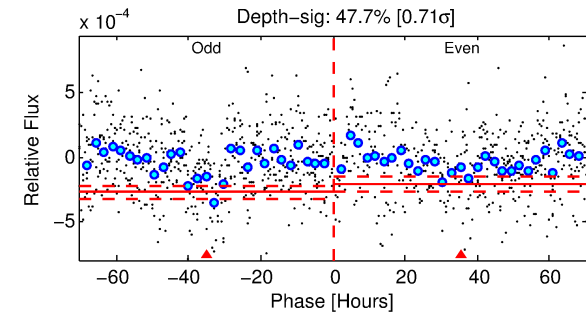
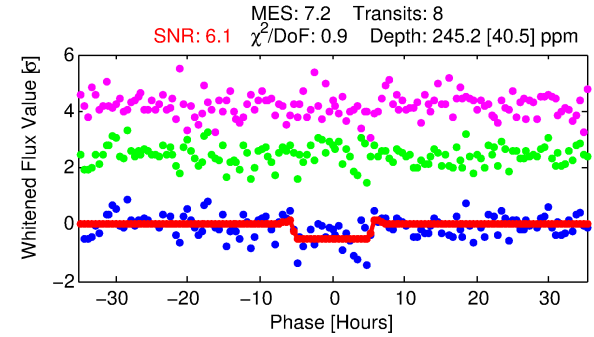
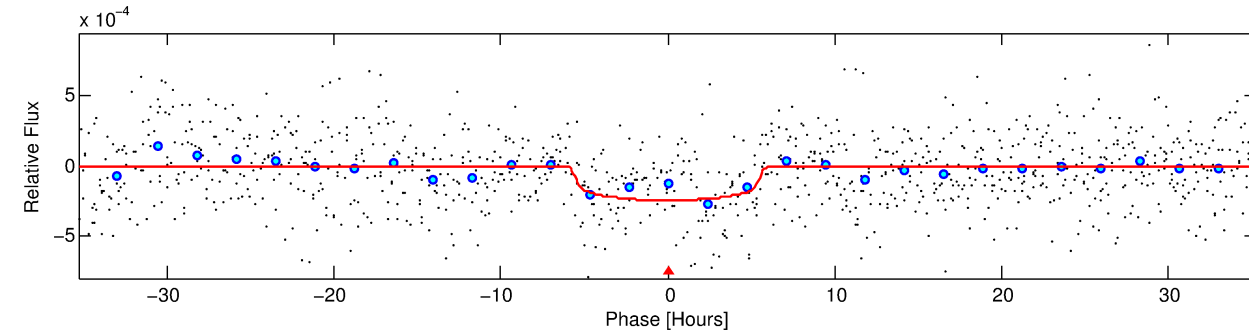
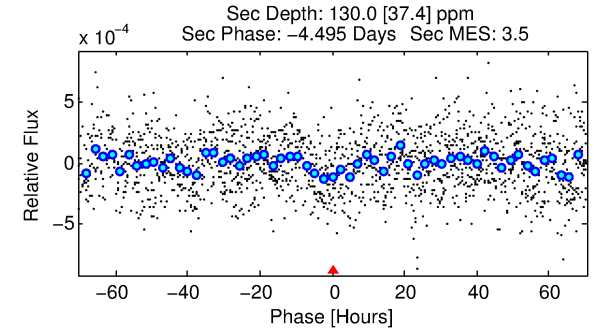
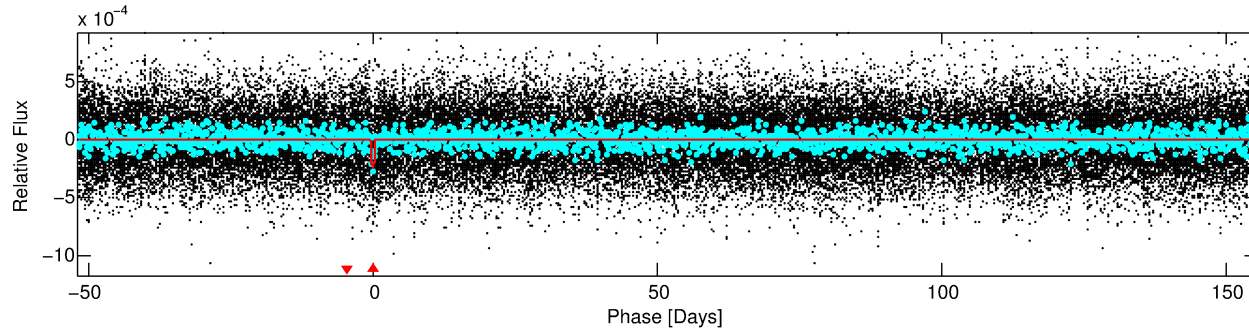
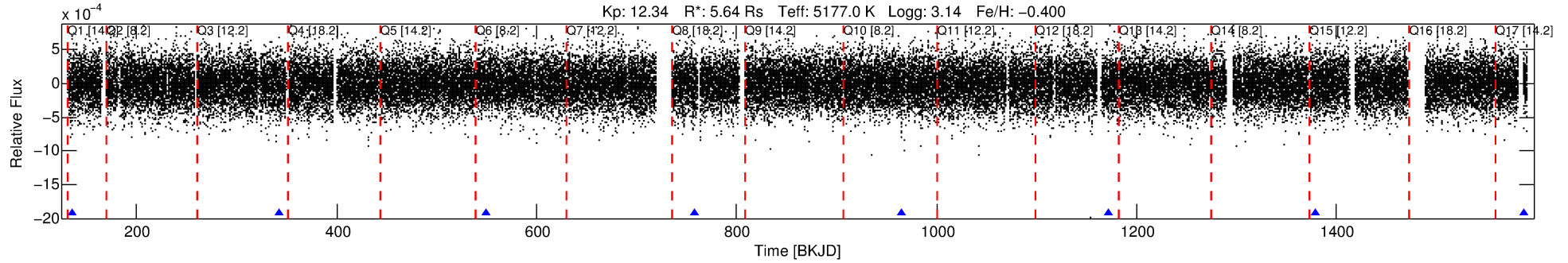
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007202417-01

No Significant Match Found

DV One-Page Summary

KIC: 7202417 Candidate: 1 of 1 Period: 207.323 d



DV Fit Results:

Period = 207.32301 [0.00451] d
Epoch = 135.3555 [0.0175] BKJD
Rp/R* = 0.0164 [0.0035]
a/R* = 76.26 [60.35]
b = 0.84 [0.27]
Seff = 31.82 [13.96]
Teq = 606 [66] K
Rp = 10.11 [4.23] Re
a = 0.8025 [0.2390] AU
Ag = 450.69 [299.10] [1.50σ]
Teffp = 4314 [562] K [6.55σ]

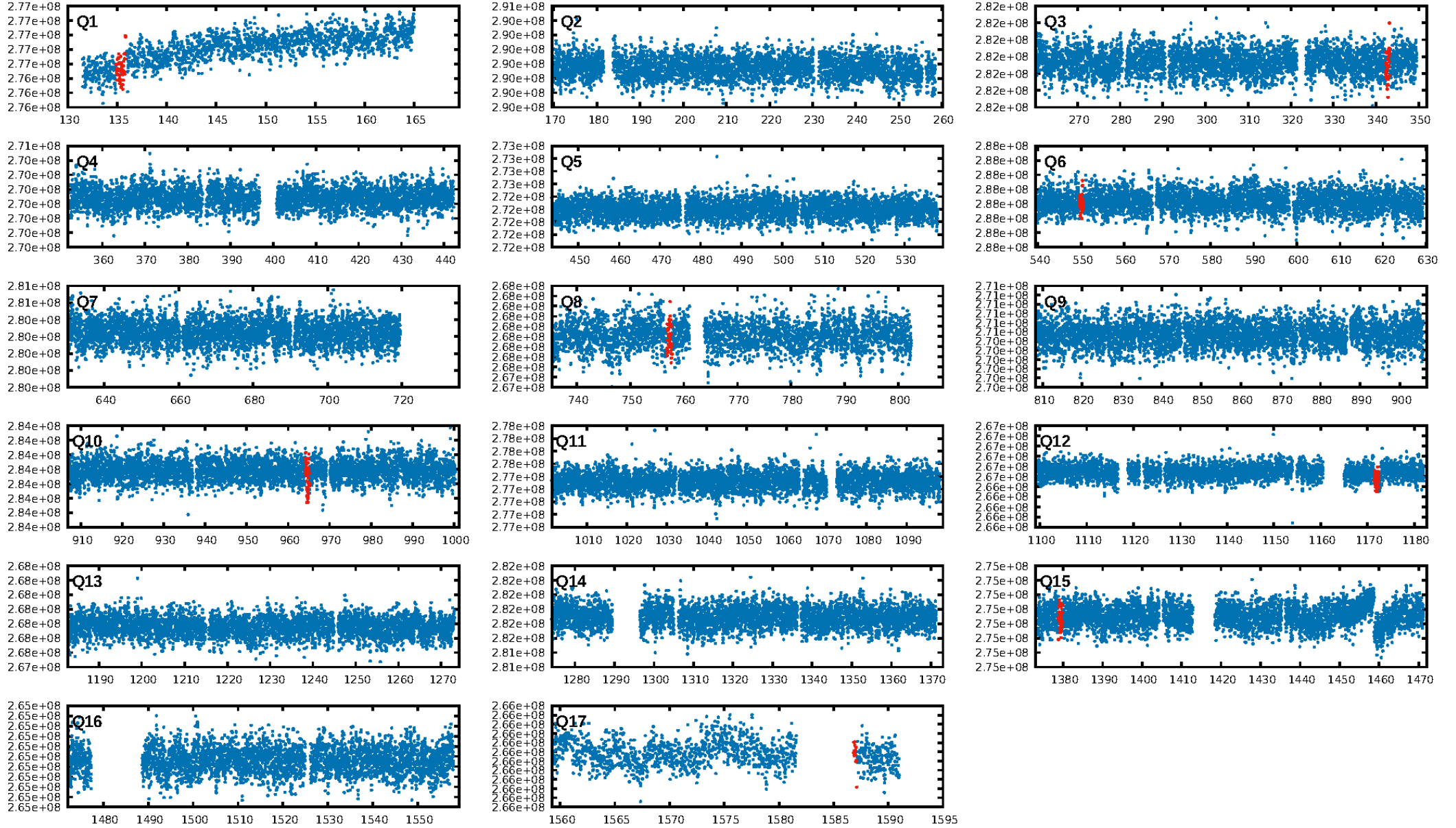
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.02e-12
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -2.248
Centroid-sig: 1.8%
Centroid-so: 0.781 arcsec [1.66σ]
OotOffset-rm: 0.819 arcsec [1.50σ]
OotOffset-st: 2/2/1/1 [6]
KicOffset-rm: 0.893 arcsec [2.29σ]
KicOffset-st: 2/2/1/1 [6]
DiffImageQuality-fgm: 0.83 [5/6]
DiffImageOverlap-fno: 1.00 [6/6]

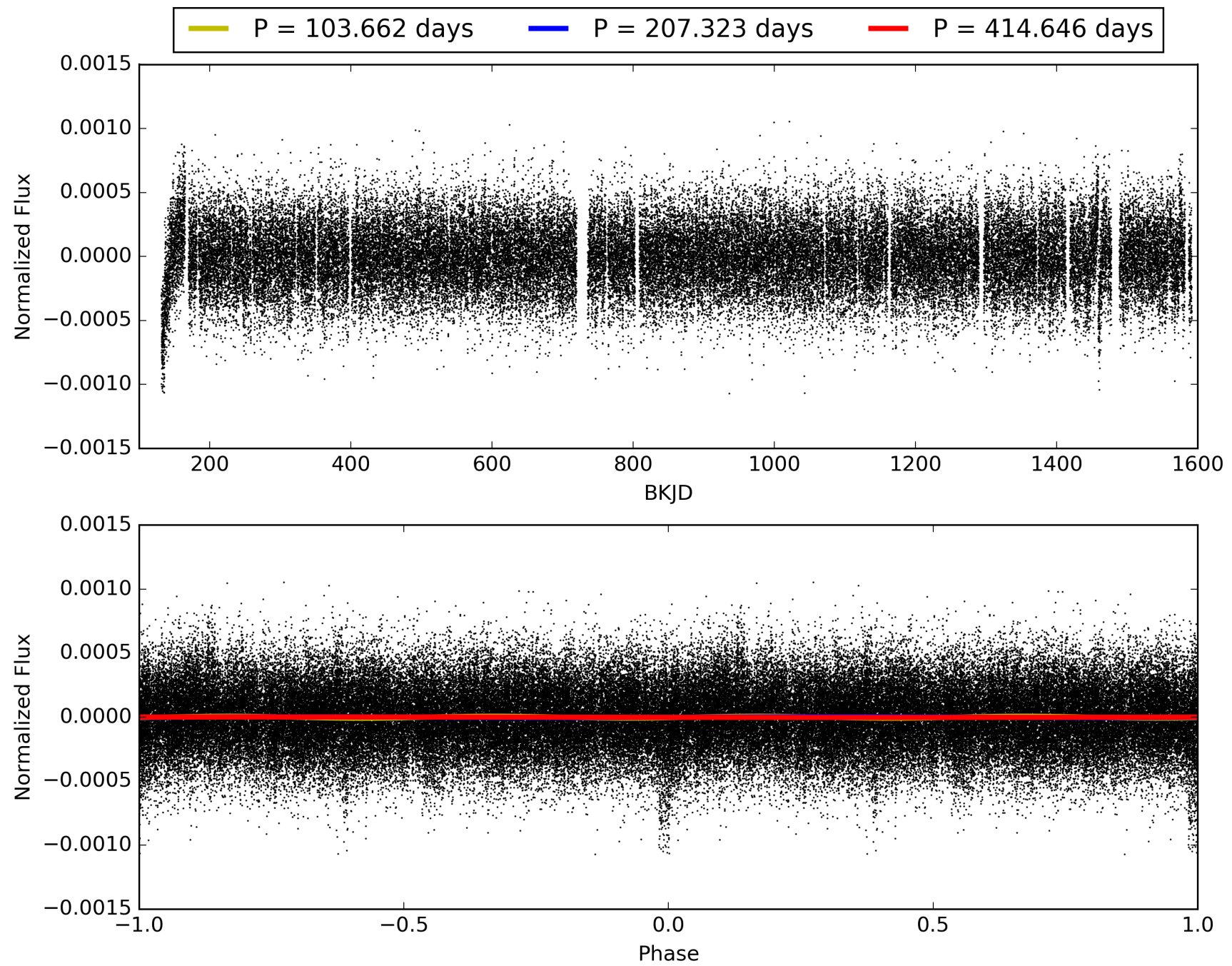
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 02:38:15 Z

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

TCE 007202417-01, PDC Light Curves

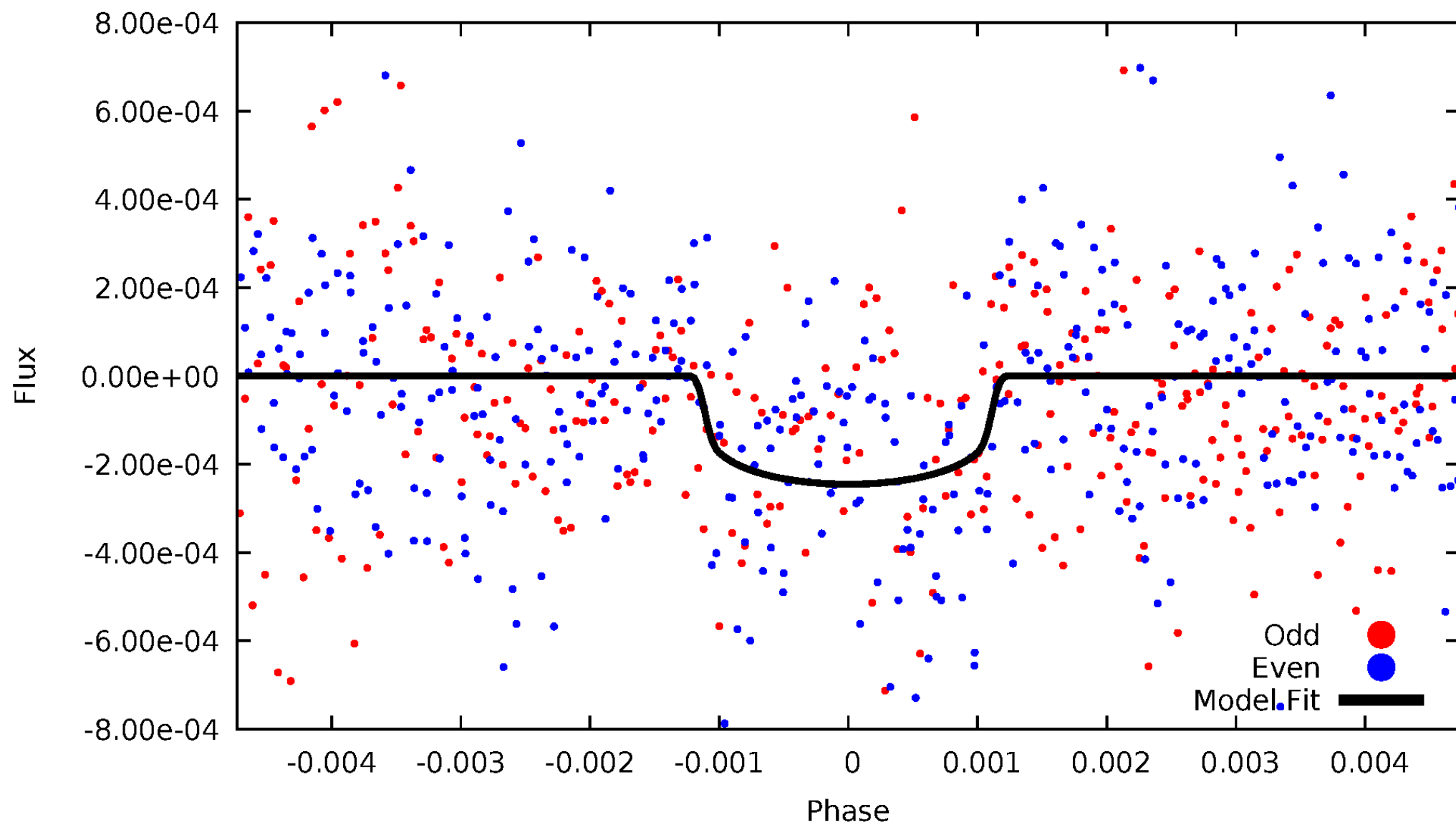


TCE 007202417-01



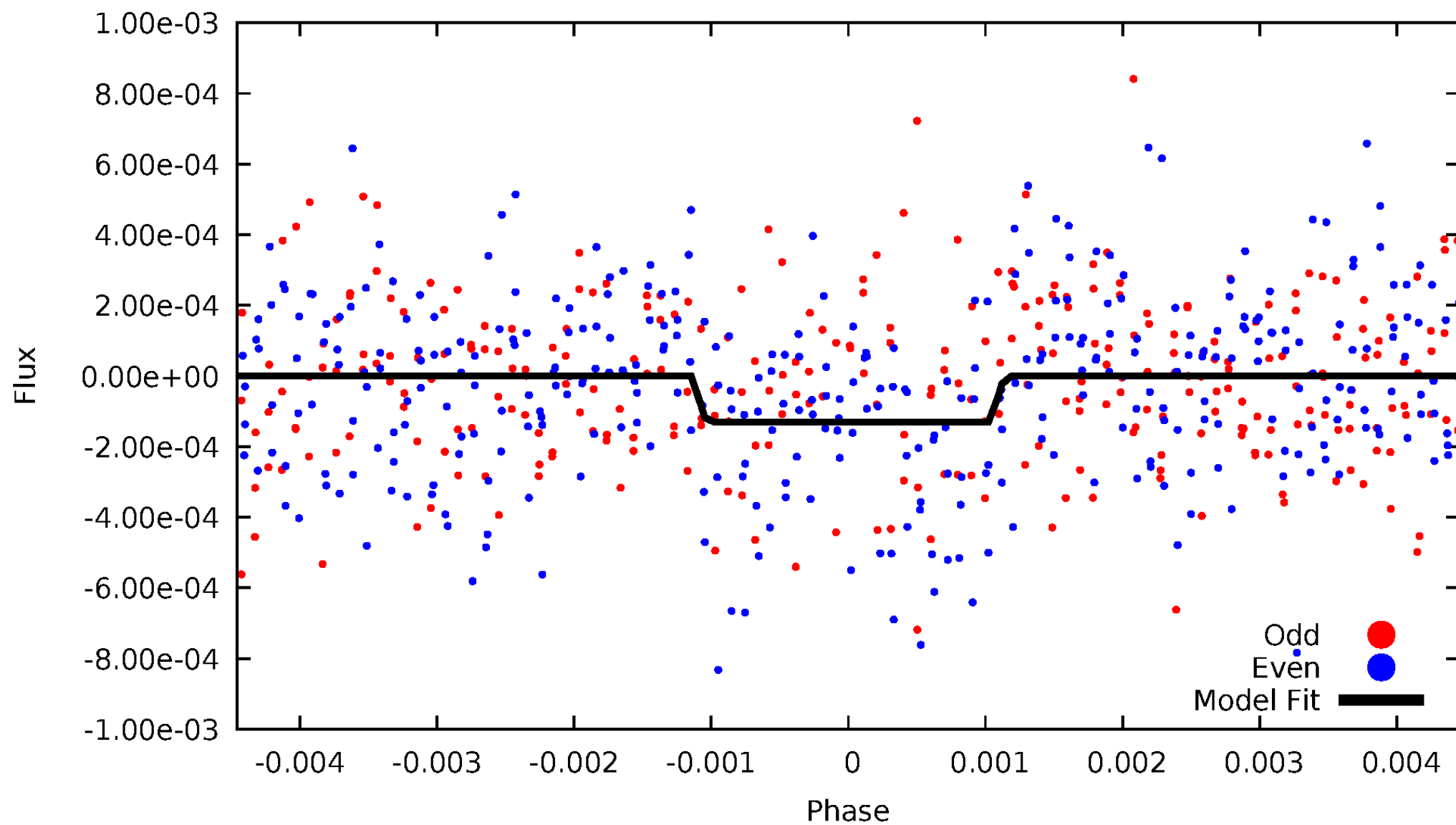
DV Odd/Even

TCE 007202417-01



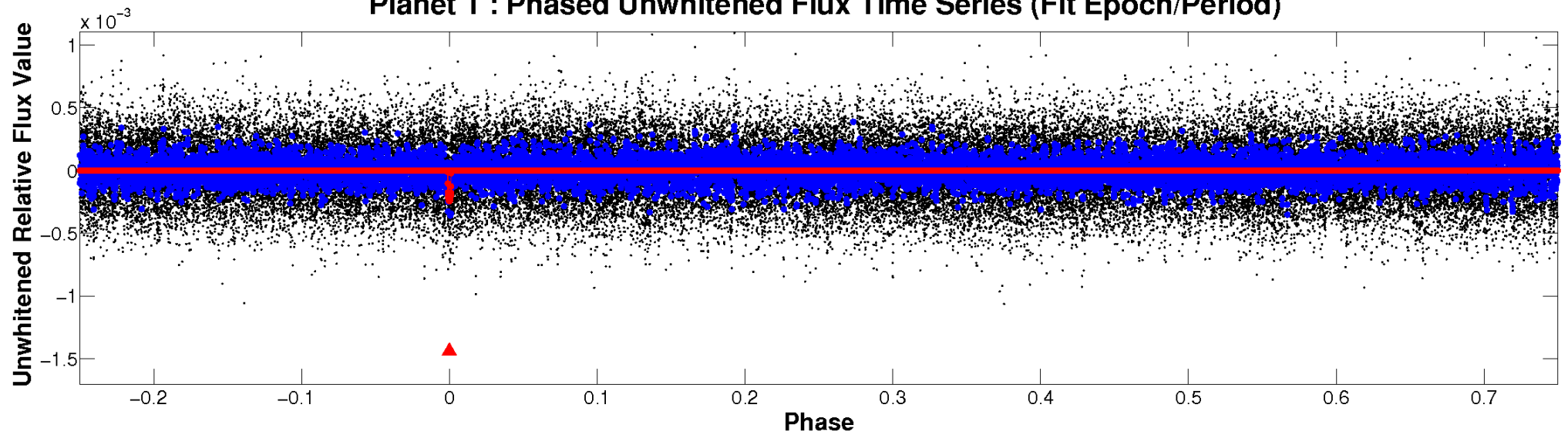
ALT Odd/Even

TCE 007202417-01

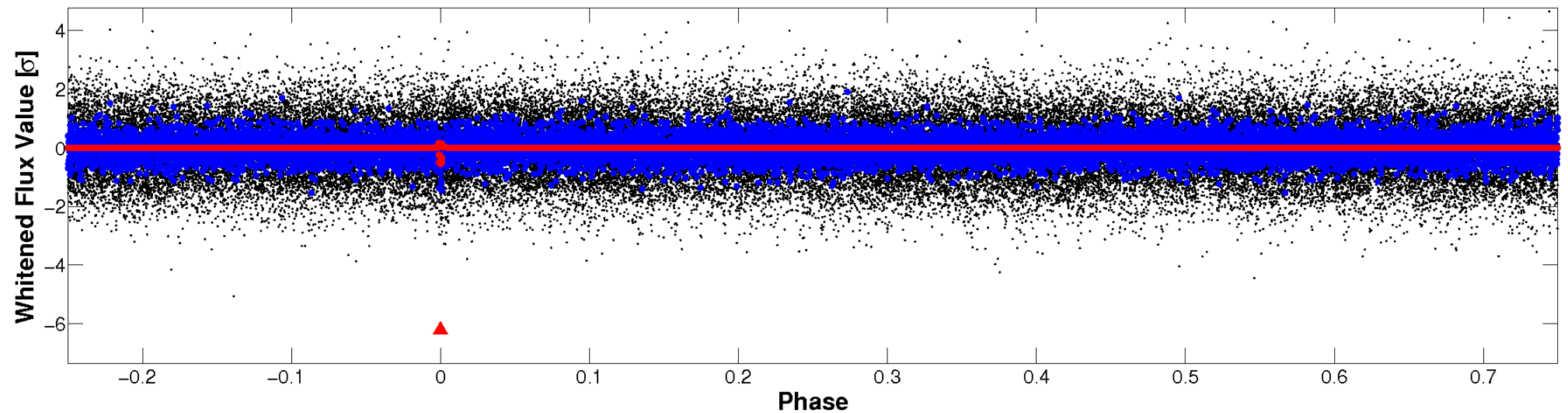


Non-Whitened Vs. Whitened Light Curve

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

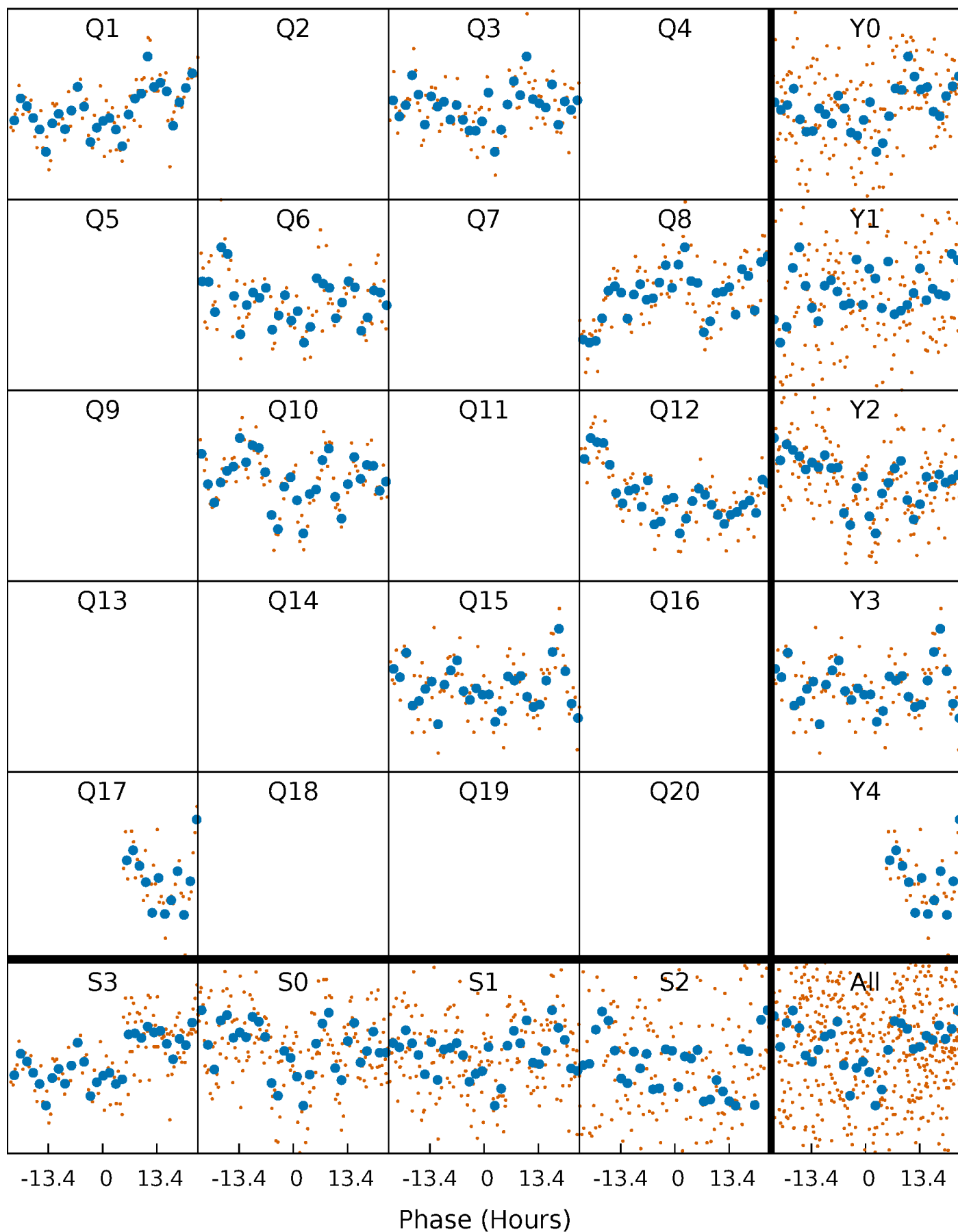


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



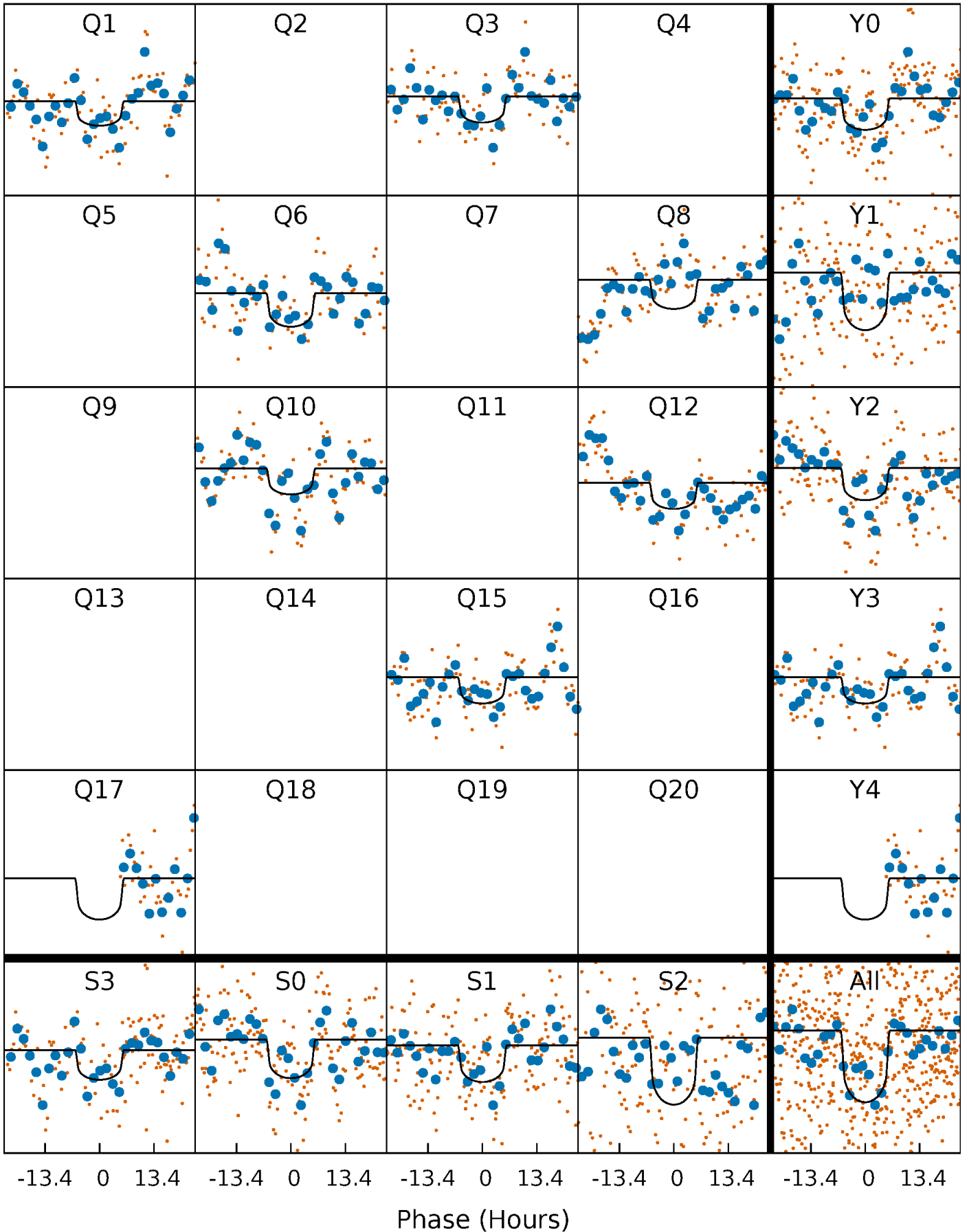
PDC Quarter-Phased Transit Curves

TCE 007202417-01 P=207.323011 Days $T_0=135.355549$ (BKJD)



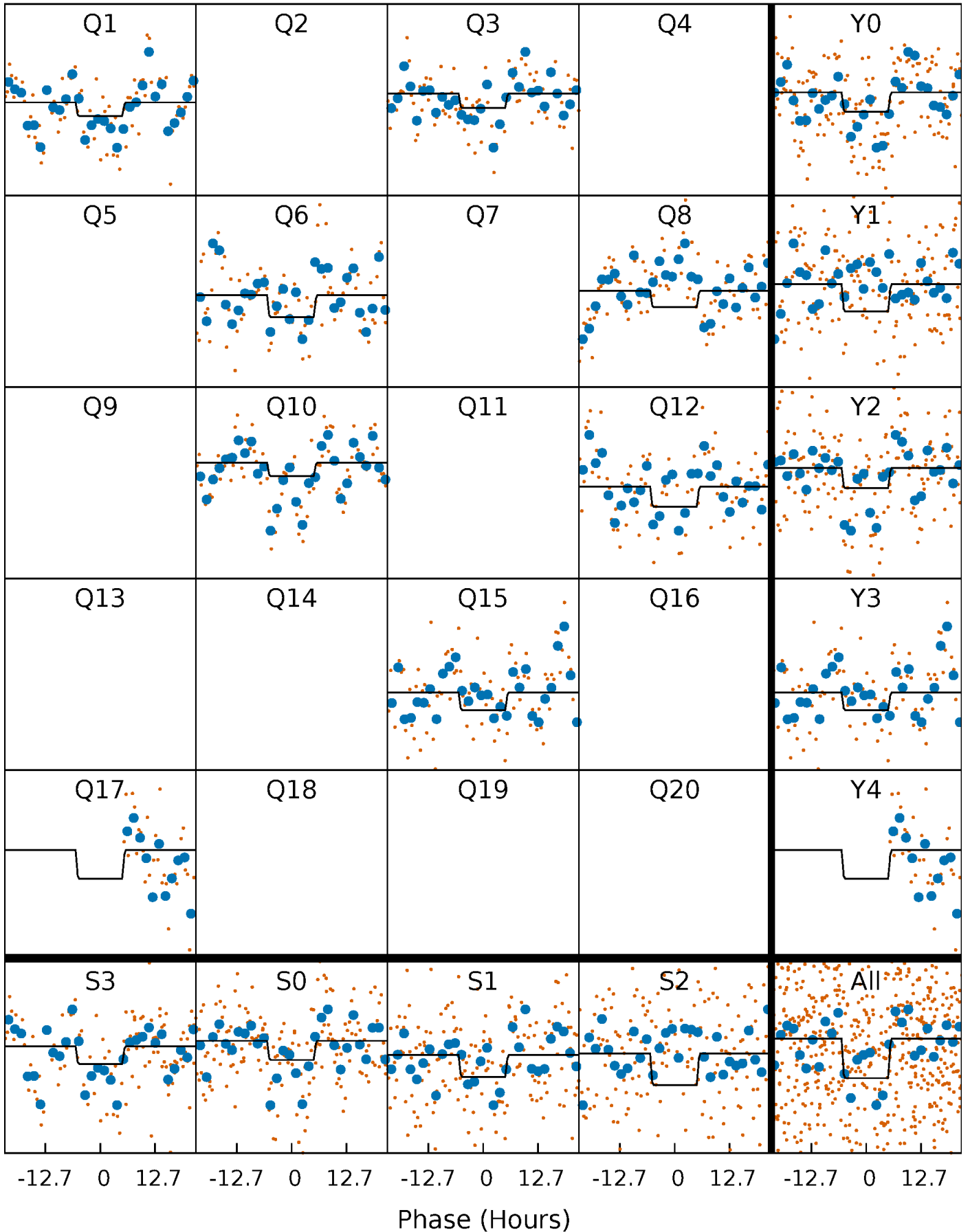
DV Quarter-Phased Transit Curves

TCE 007202417-01 P=207.323011 Days $T_0=135.355549$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

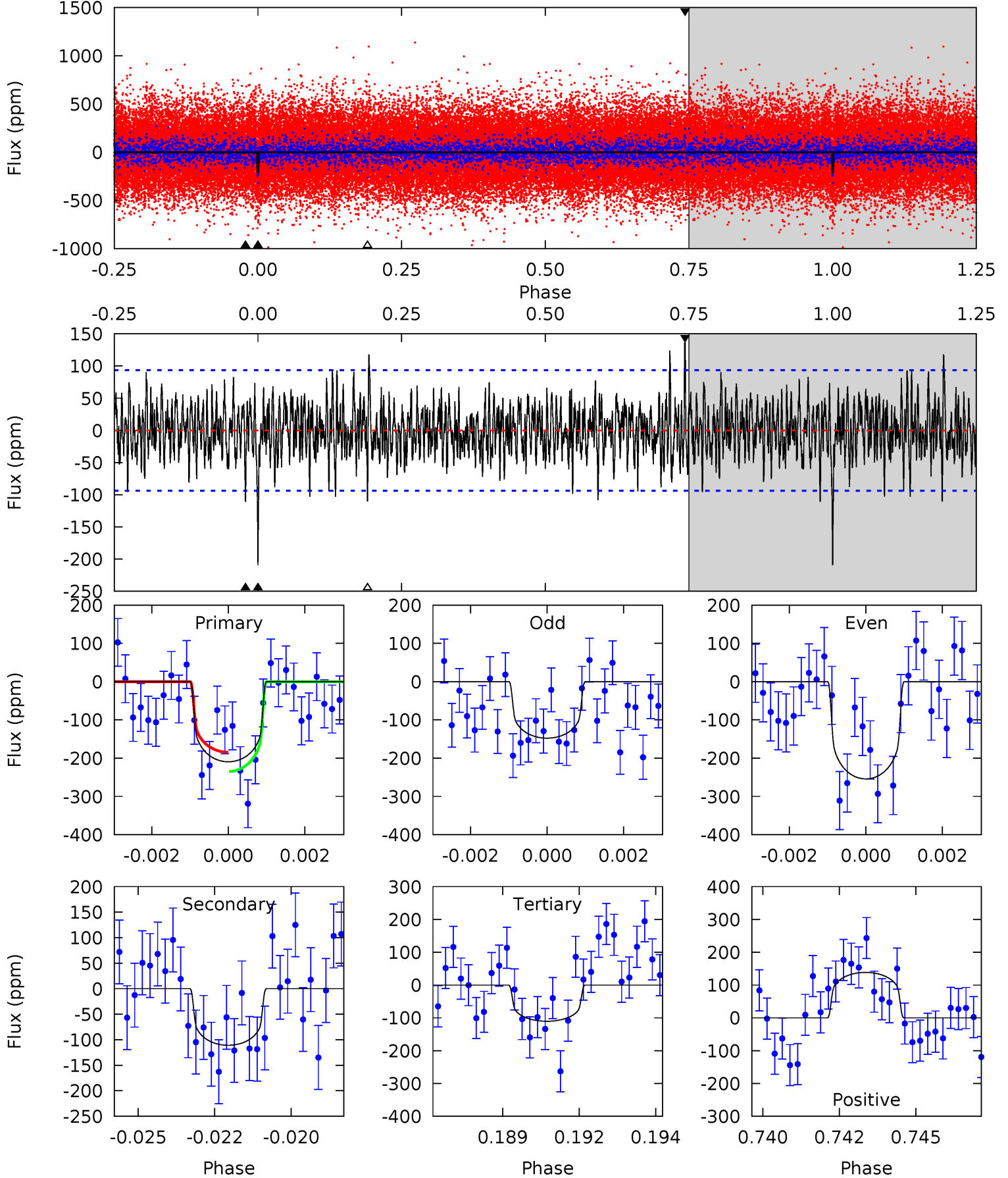
TCE 007202417-01 P=207.318900 Days $T_0=135.370460$ (BKJD)



DV Model-Shift Uniqueness Test

007202417-01, P = 207.323011 Days, E = 135.355549 Days

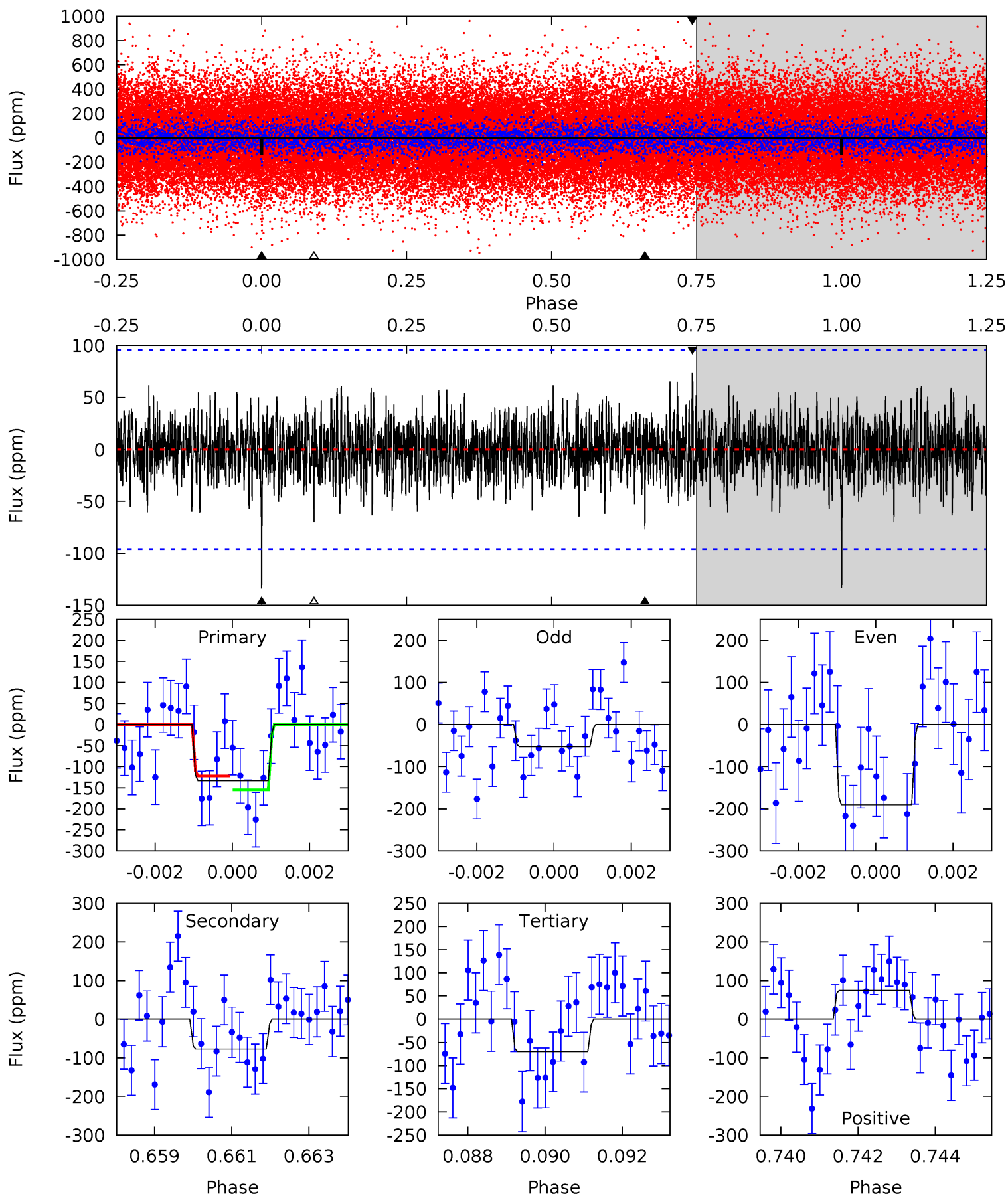
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	6.26	6.23	7.82	5.29	3.03	1.90	5.60	4.00	0.03	-1.56	2.97	0.75	0.40	1.42



Alt Model-Shift Uniqueness Test

007202417-01, P = 207.318900 Days, E = 135.370460 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.37	4.27	3.87	4.10	5.31	3.06	1.13	3.50	3.27	0.40	0.17	3.77	1.19	0.36	0.91



Stellar Parameters For KIC 007202417

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5177^{+90}_{-142}	$3.140^{+0.228}_{-0.152}$	$-0.400^{+0.200}_{-0.300}$	$5.643^{+1.020}_{-2.039}$	$1.604^{+0.198}_{-0.555}$	$0.013^{+0.019}_{-0.005}$
	+2%/-3%	+7%/-5%	+50%/-75%	+18%/-36%	+12%/-35%	+148%/-38%
Source	PHO1	FLK73	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 007202417-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-111 ± 18	$9.78^{+2.68}_{-2.43}$	845^{+50}_{-68}	4320^{+425}_{-304}	405^{+303}_{-154}
Alt.	-77 ± 18	$6.76^{+2.54}_{-2.33}$	844^{+52}_{-67}	4622^{+785}_{-497}	583^{+708}_{-274}

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 $A_{obs} \gg 1.0$

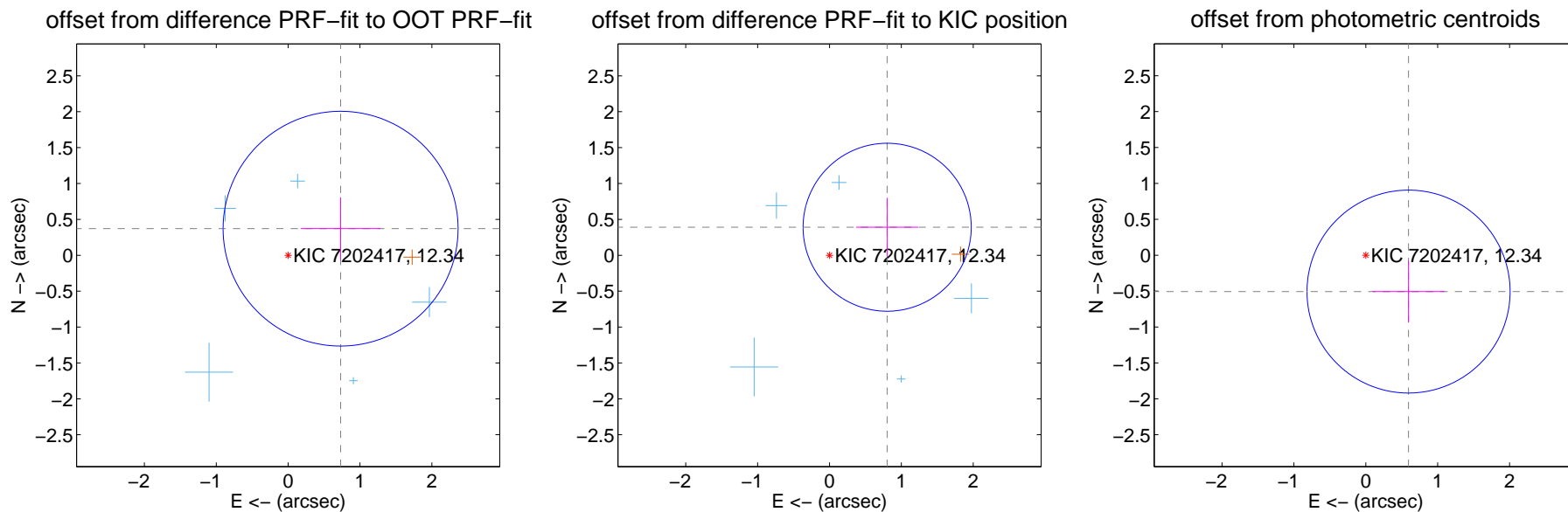
DV Centroid Data

Supplemental centroid analysis for 007202417-01. Kepler magnitude: 12.34. Transit SNR 6.10

There are 5 quarters with good PRF difference image offsets

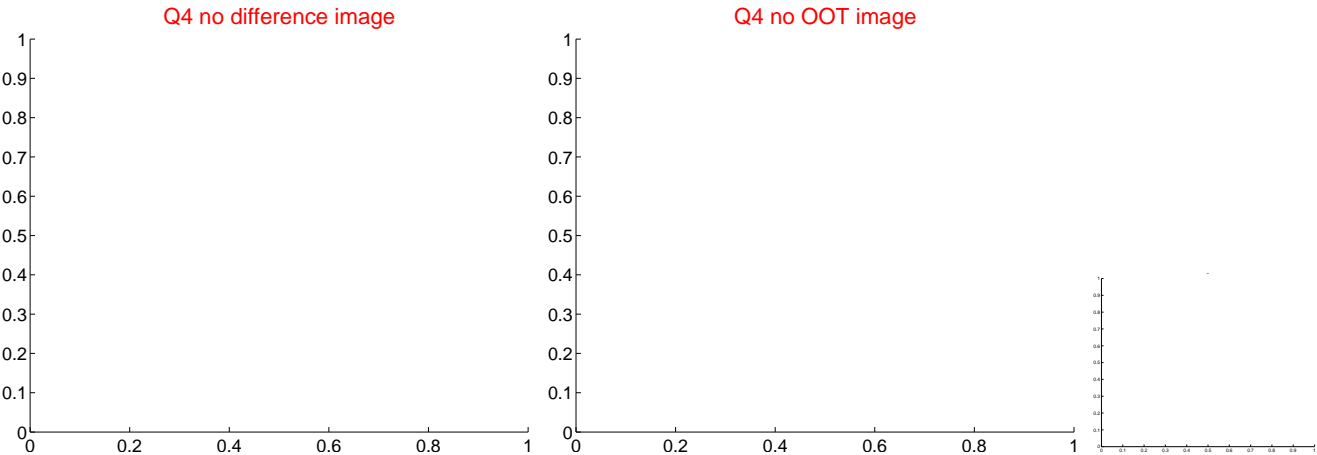
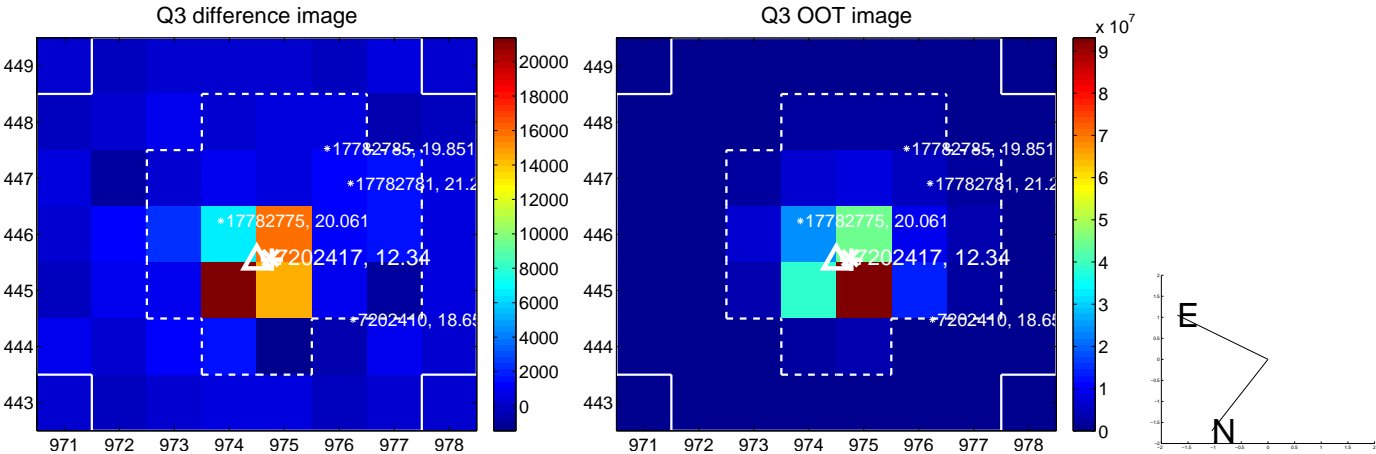
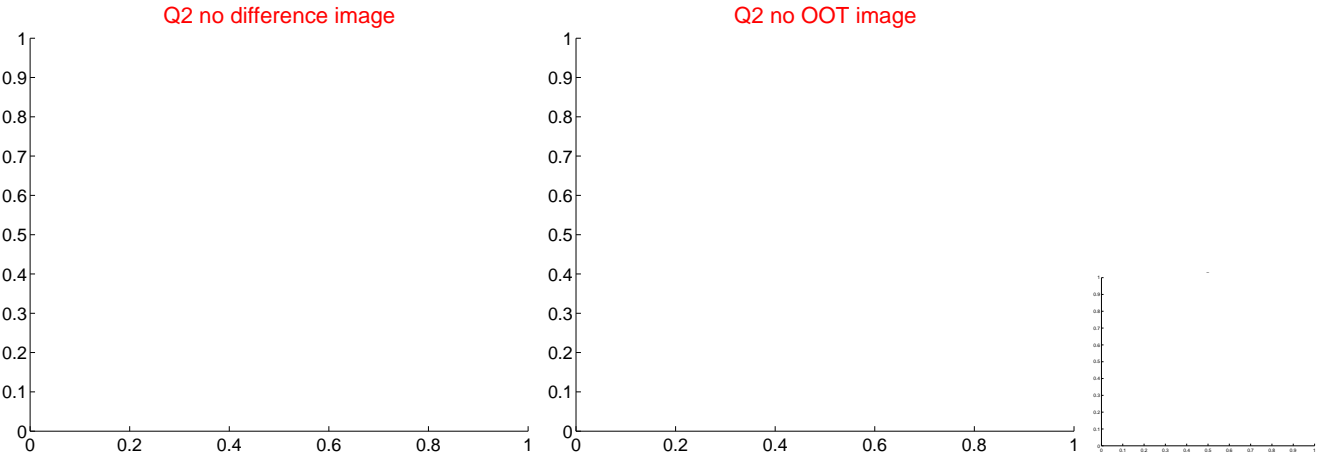
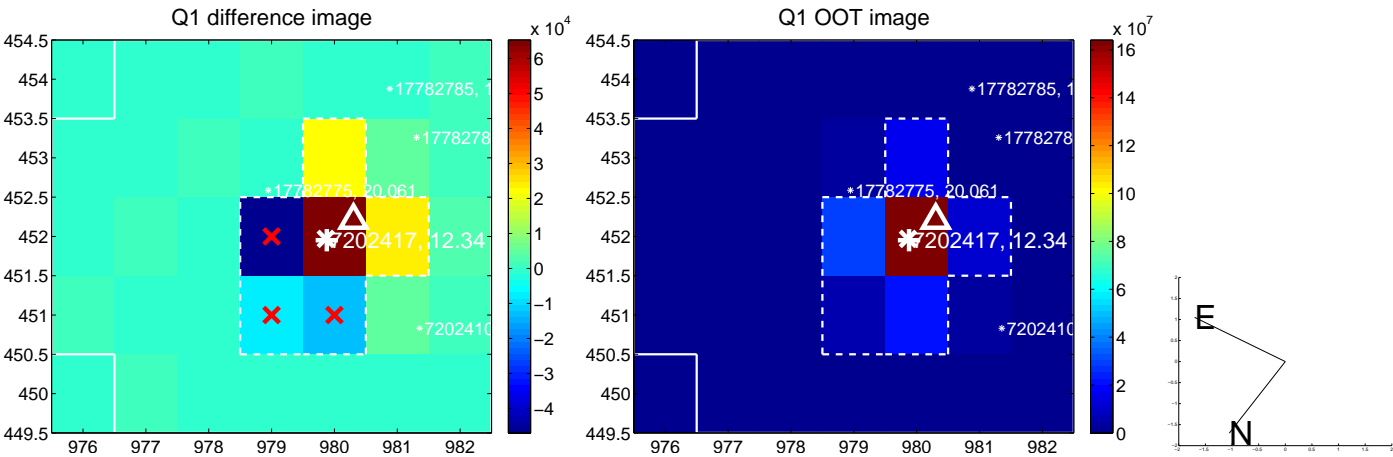
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.819 ± 0.545	1.50	-0.730 ± 0.554	0.371 ± 0.436
PRF-fit source offset from KIC position	0.893 ± 0.390	2.29	-0.803 ± 0.432	0.391 ± 0.411
photometric centroid source offset	0.78 ± 0.47	1.66	-0.59 ± 0.50	-0.51 ± 0.43

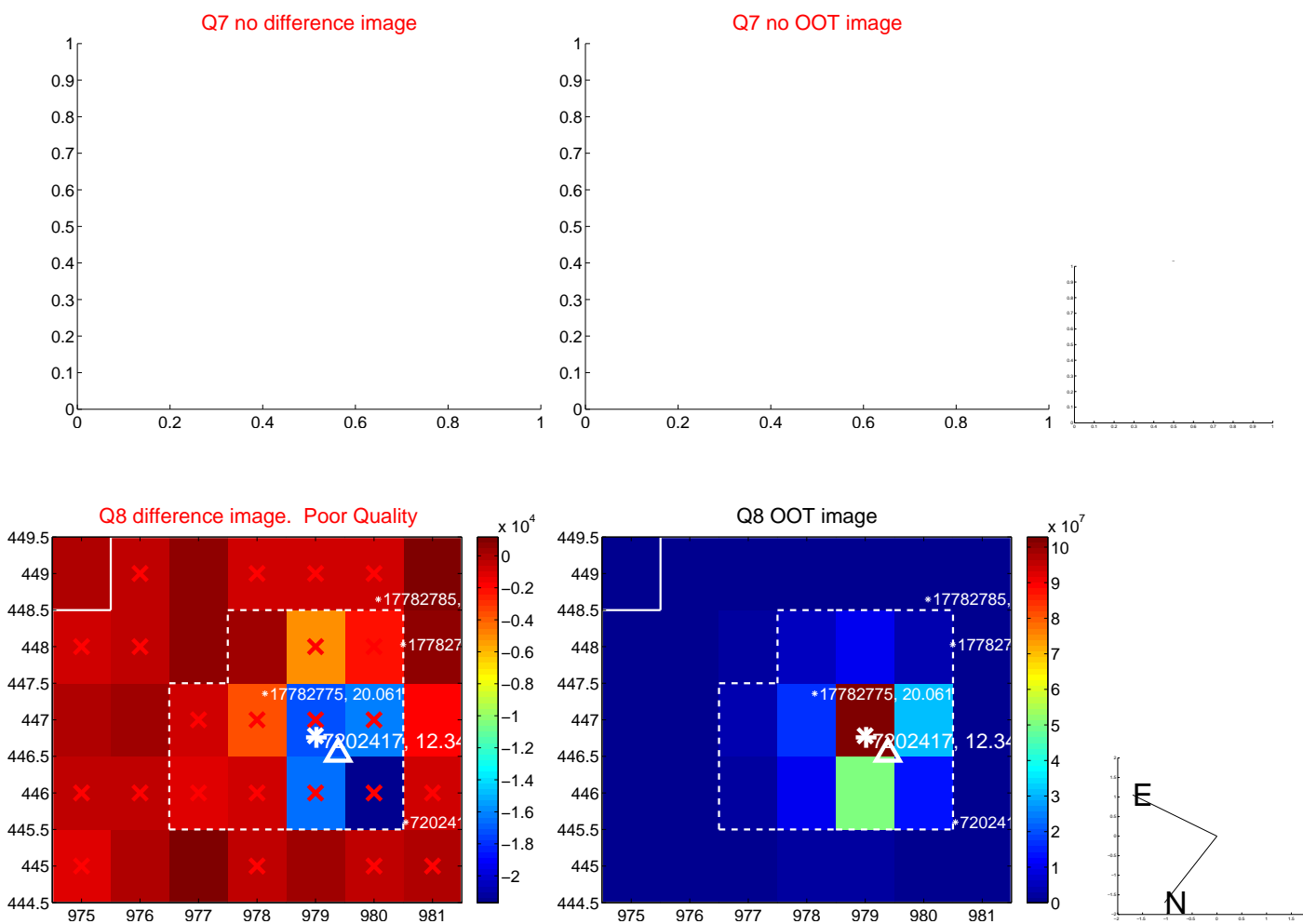
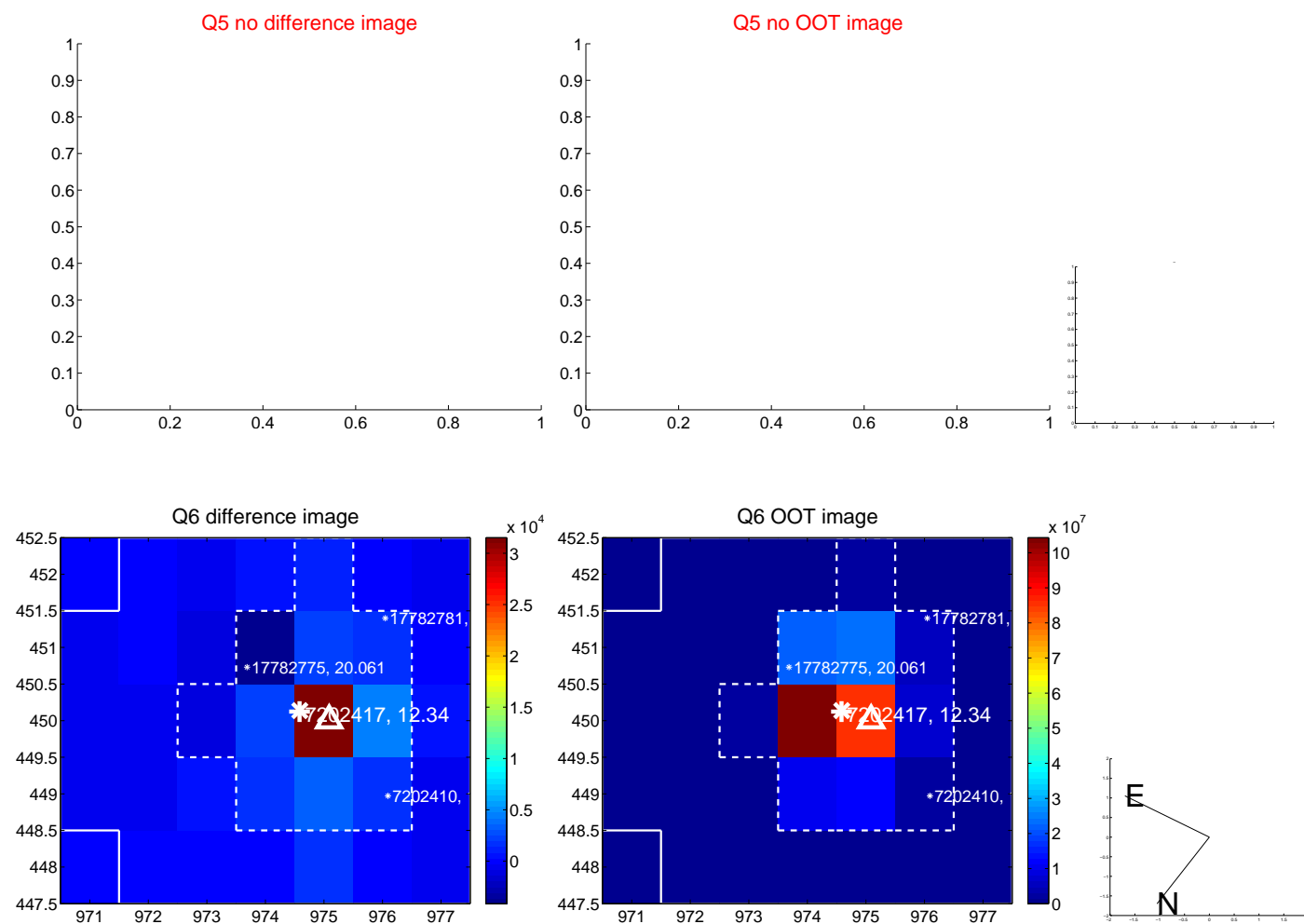


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

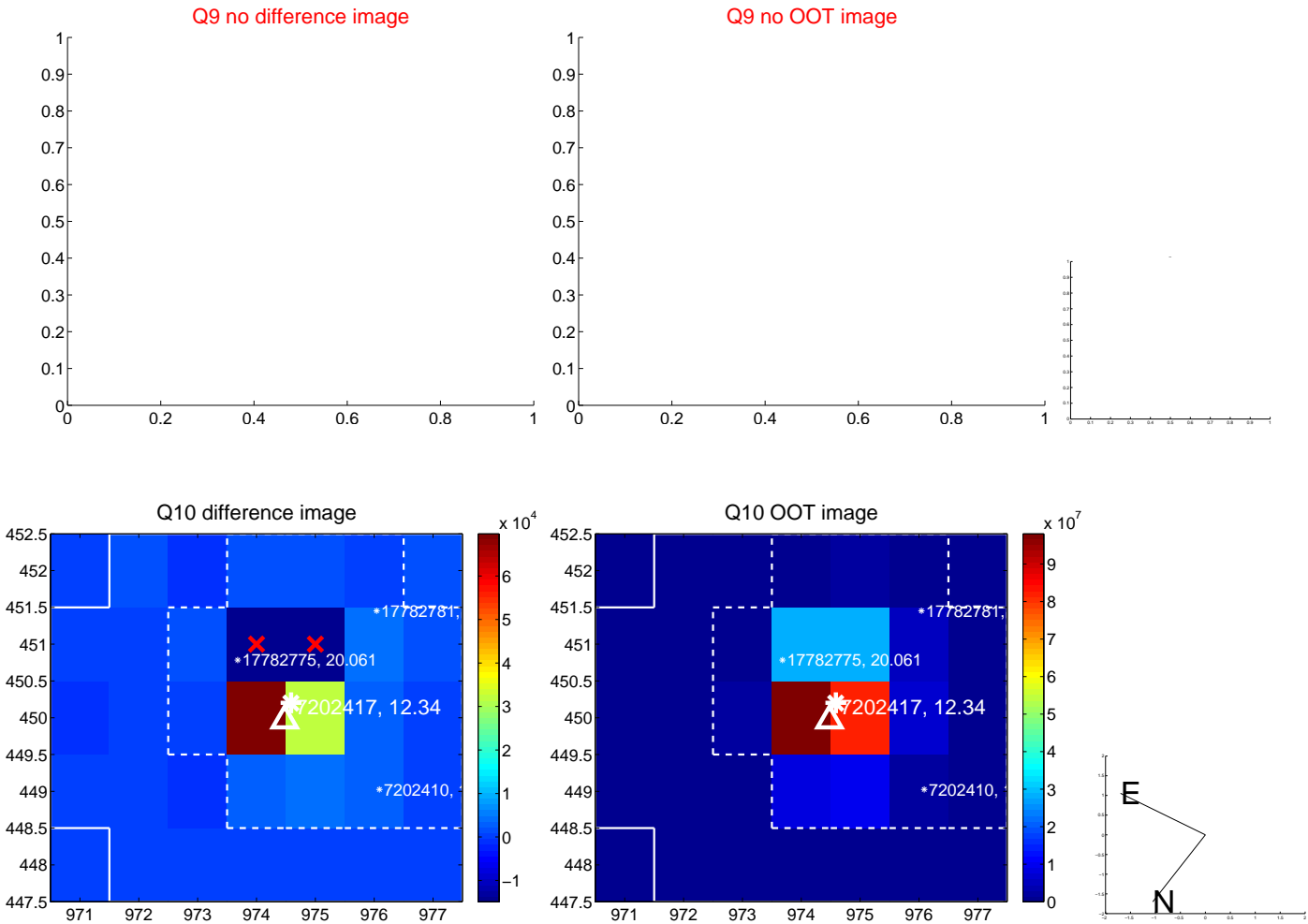
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



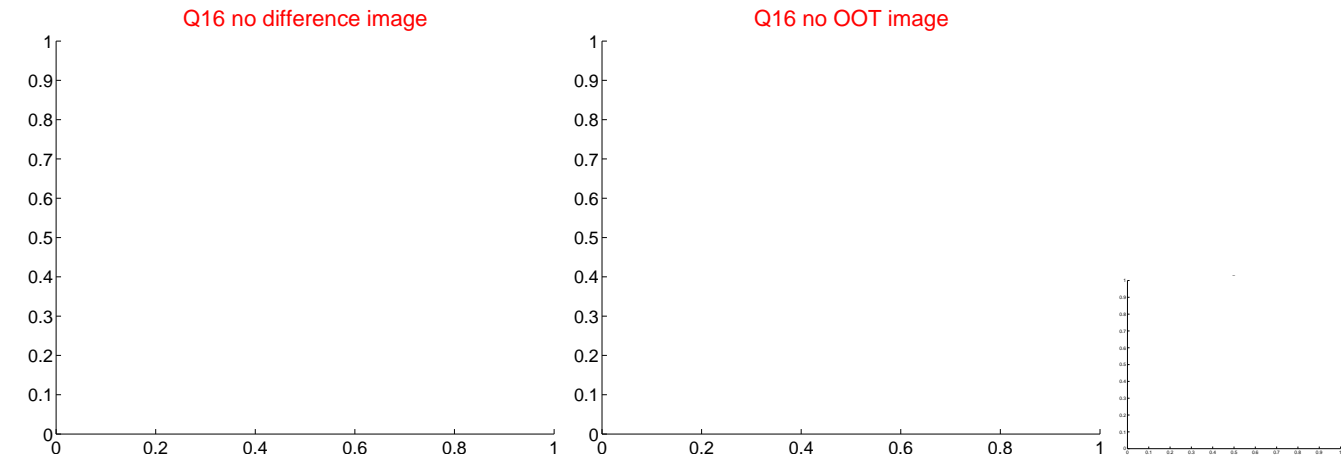
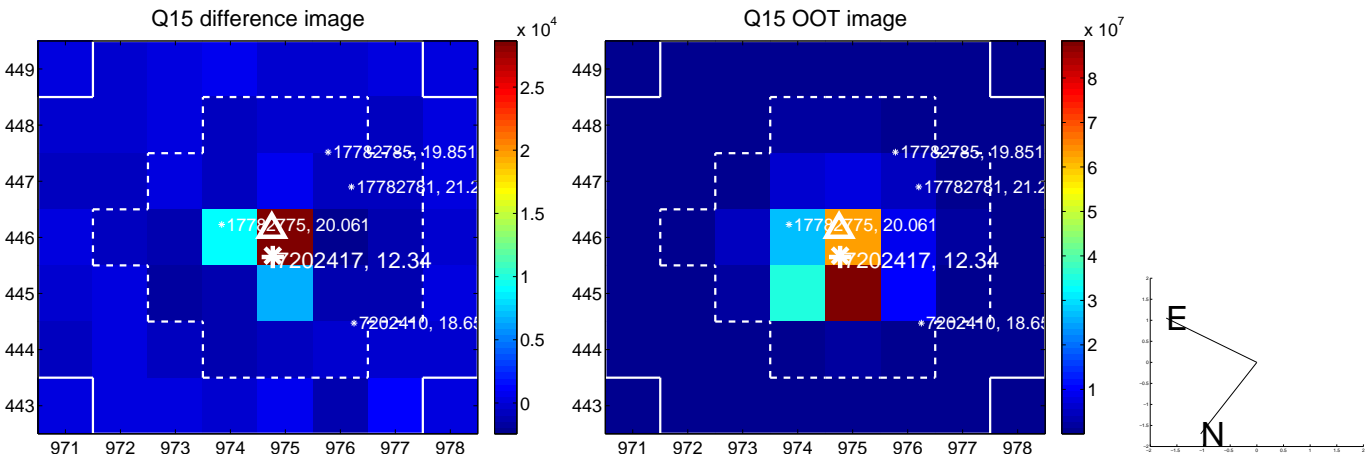
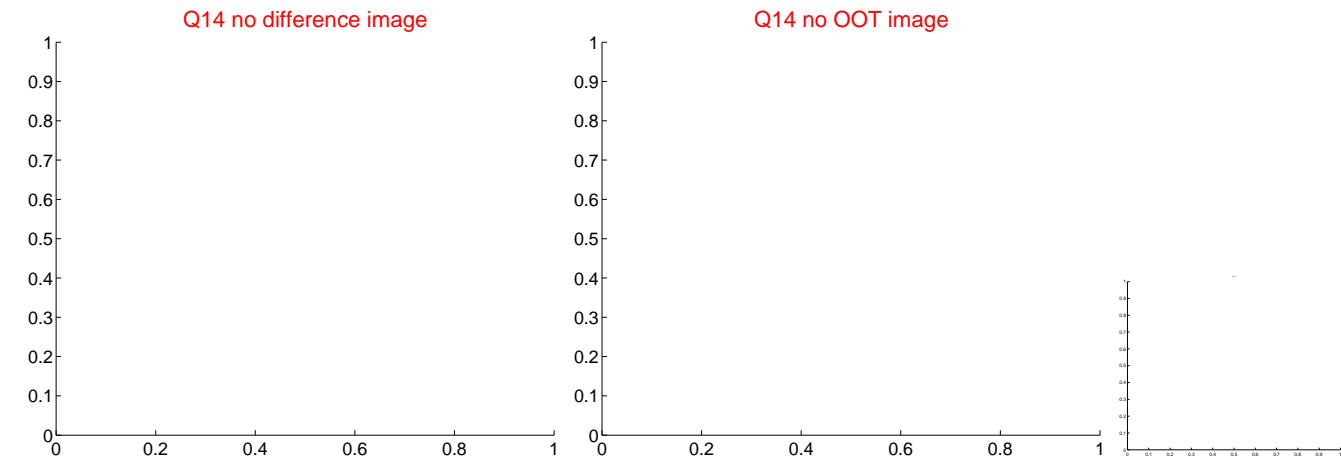
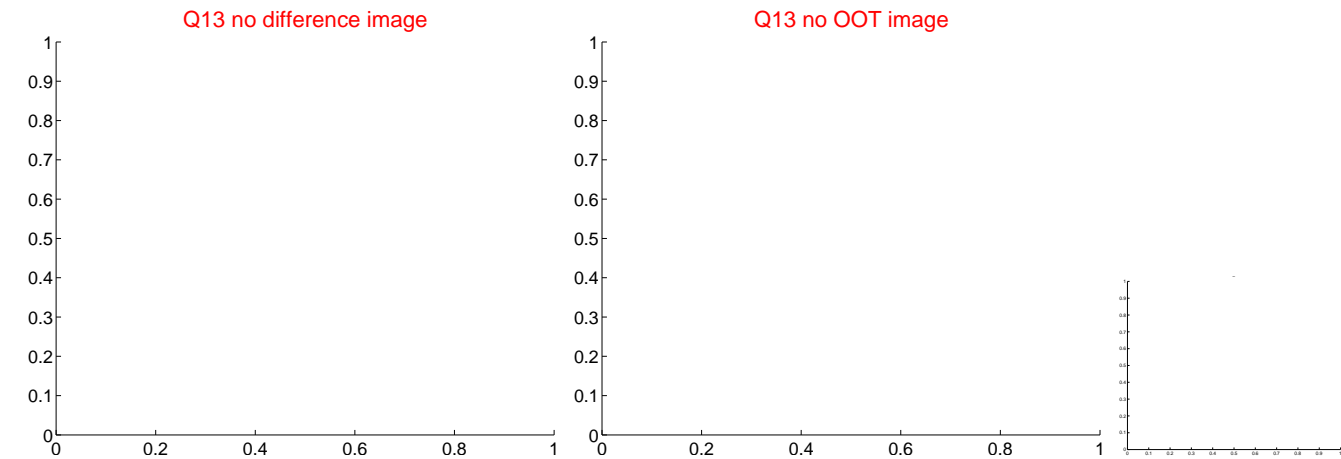
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



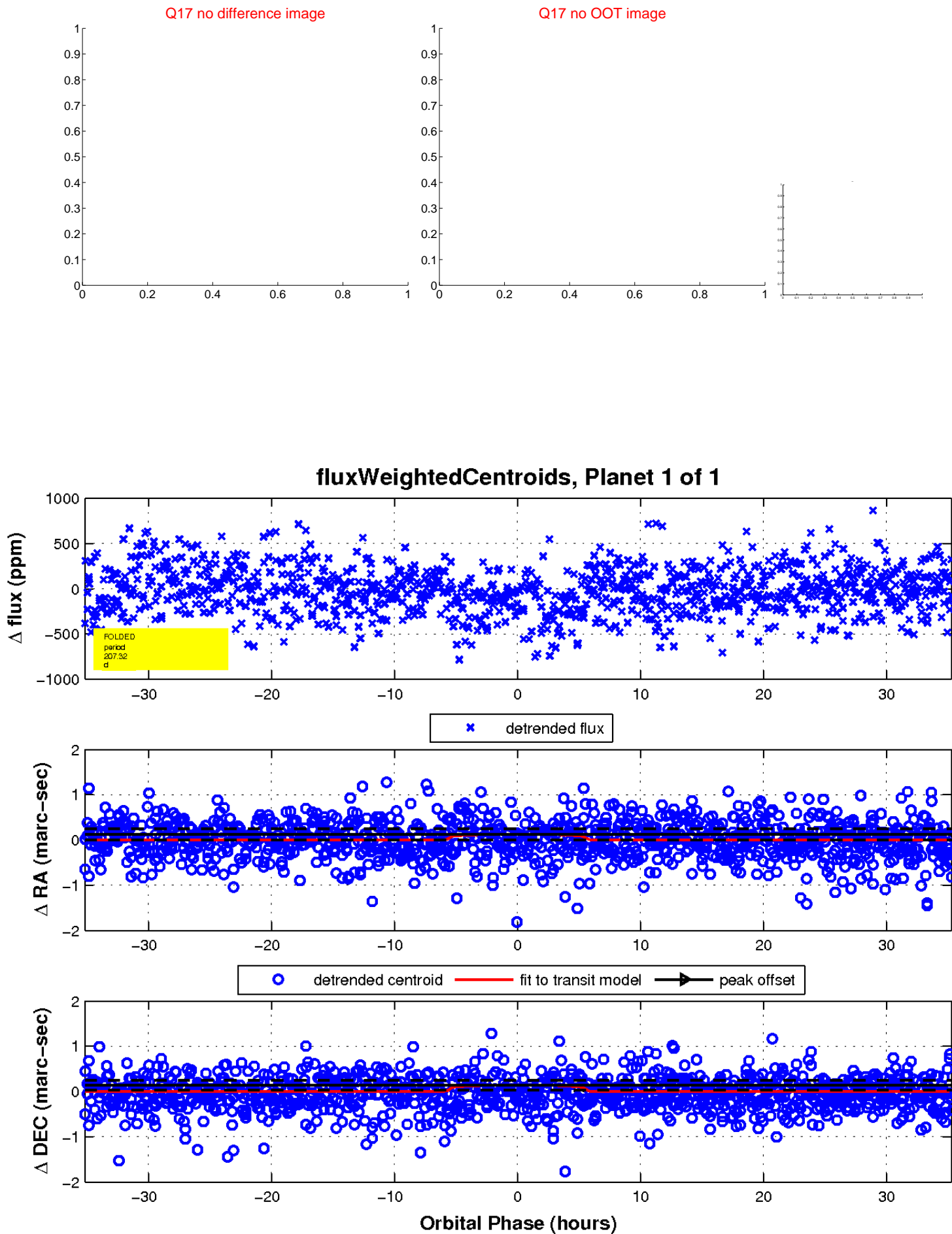
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

