

KIC 011704101

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})
011704101-01	OBS	No	113.642609	209.285249	9642.9	4.735	21.8	10.4	1.44	6884	24.34	15.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011704101-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

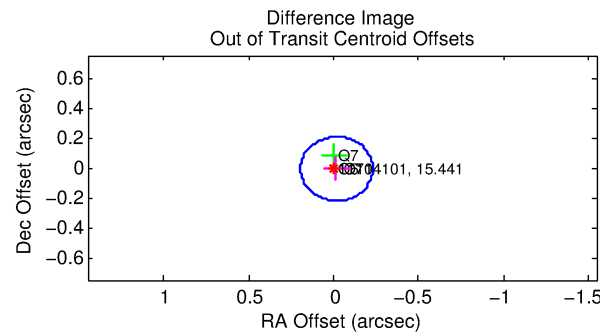
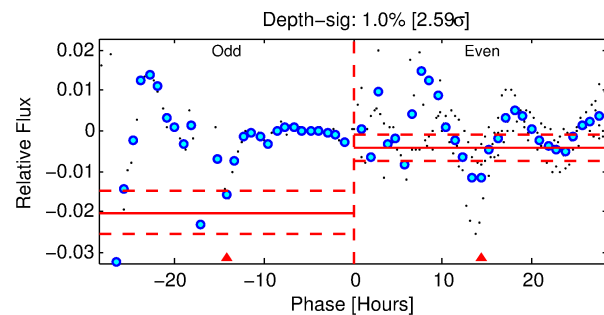
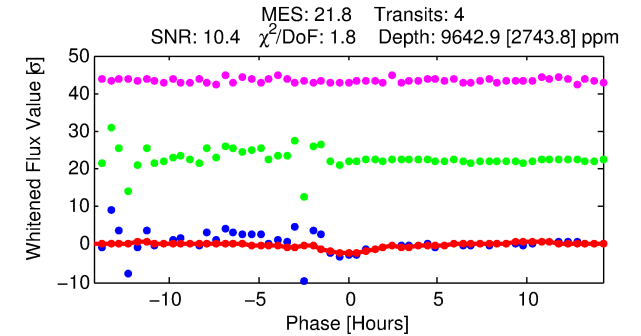
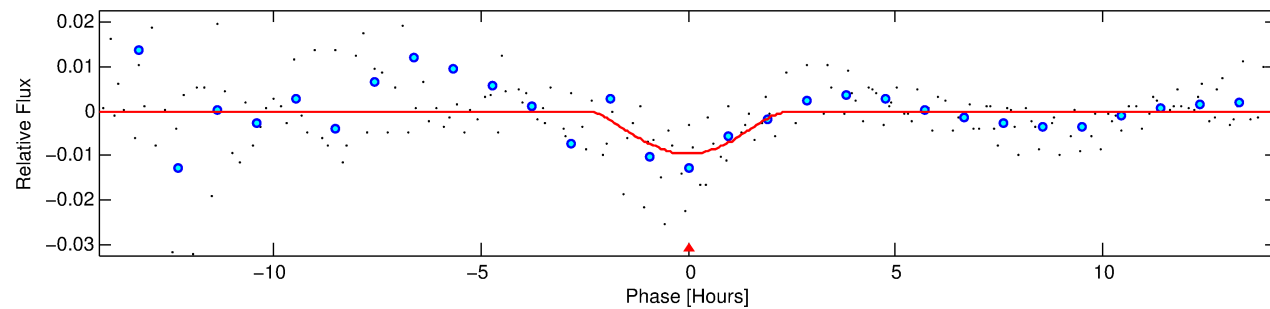
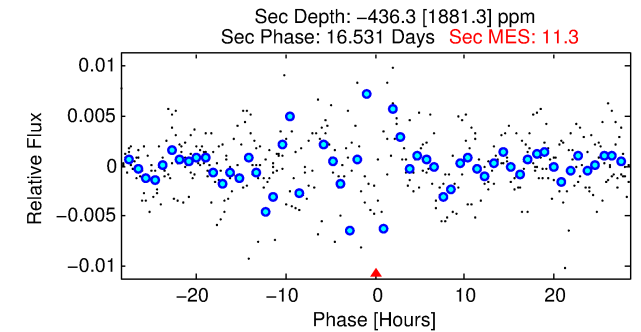
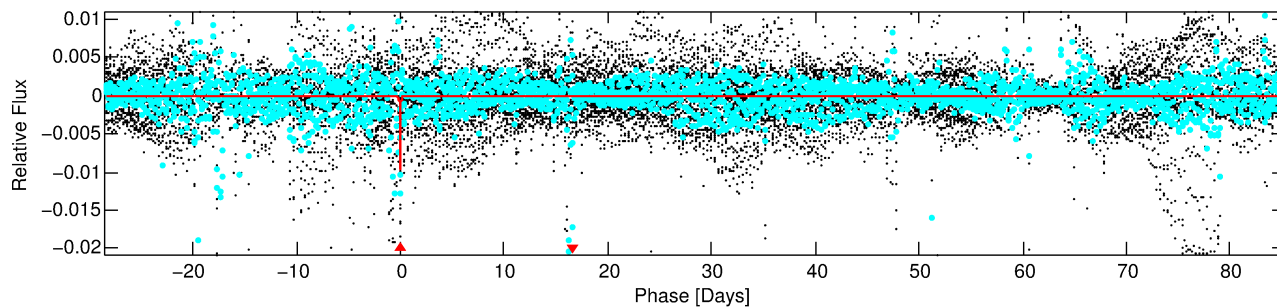
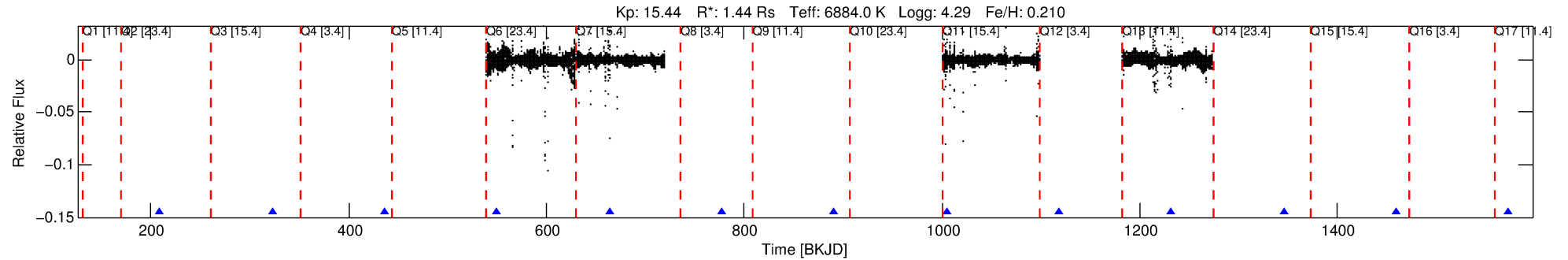
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011704101-01

No Significant Match Found

DV One-Page Summary

KIC: 11704101 Candidate: 1 of 1 Period: 113.643 d



DV Fit Results:

Period = 113.64261 [0.00602] d
Epoch = 209.2852 [0.0359] BKJD
Rp/R* = 0.1552 [0.9352]
a/R* = 107.66 [103.56]
b = 0.99 [1.36]
Seff = 15.25 [7.06]
Teq = 504 [58] K
Rp = 24.34 [146.90] Re
a = 0.5220 [0.1554] AU
Ag = N/A
Teffp = N/A

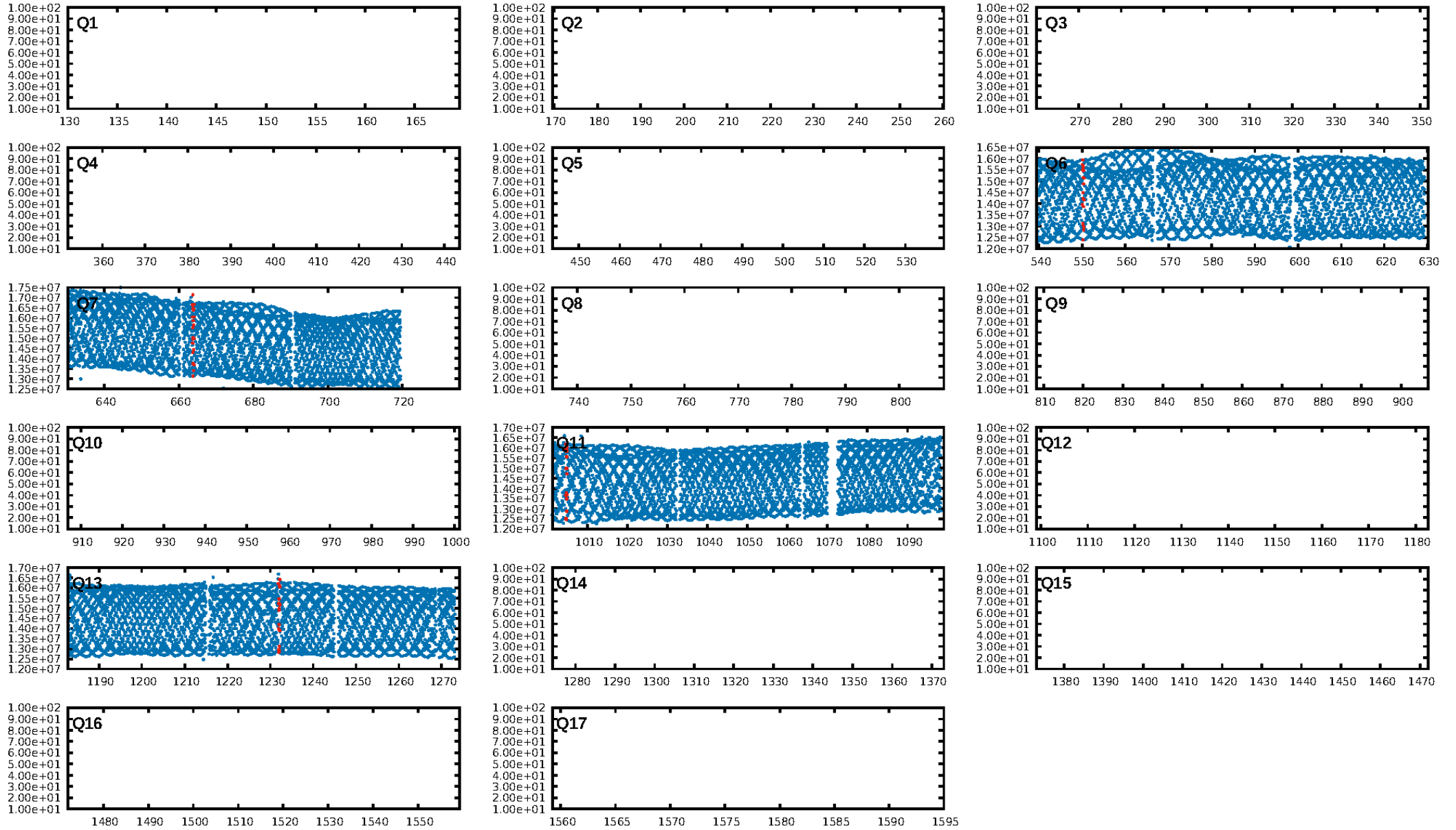
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 7.2%
Bootstrap-pfa: 3.69e-19
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -24.96
Centroid-sig: 91.3%
Centroid-so: 0.169 arcsec [0.75 σ]
OotOffset-rm: 0.019 arcsec [0.26 σ]
KicOffset-rm: 0.208 arcsec [2.14 σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

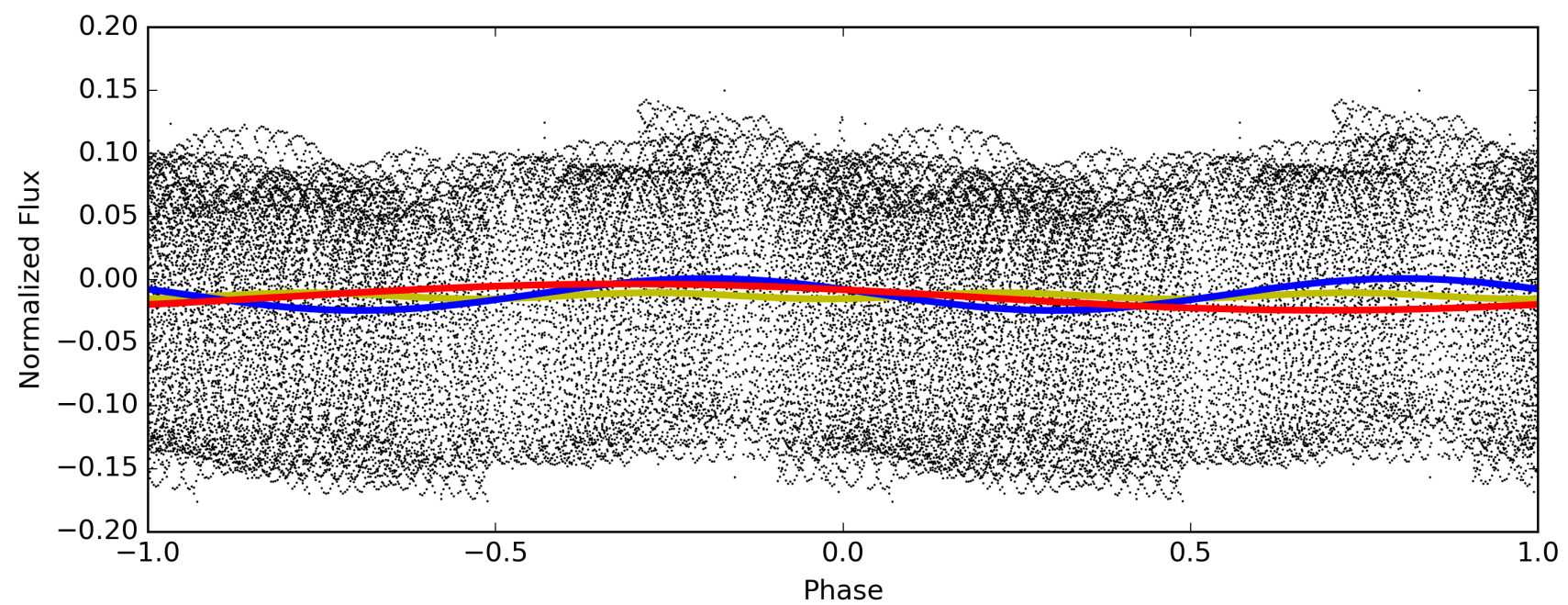
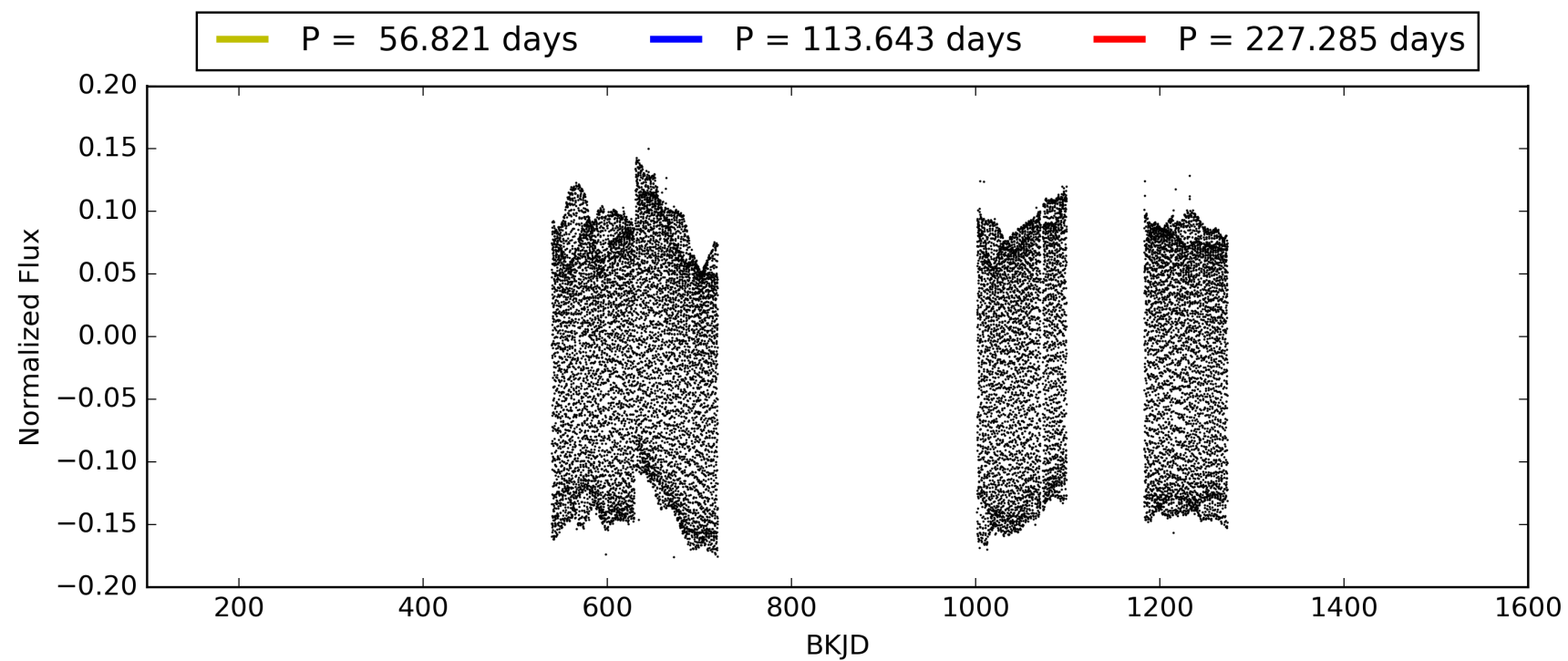
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:49:14 Z

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

TCE 011704101-01, PDC Light Curves

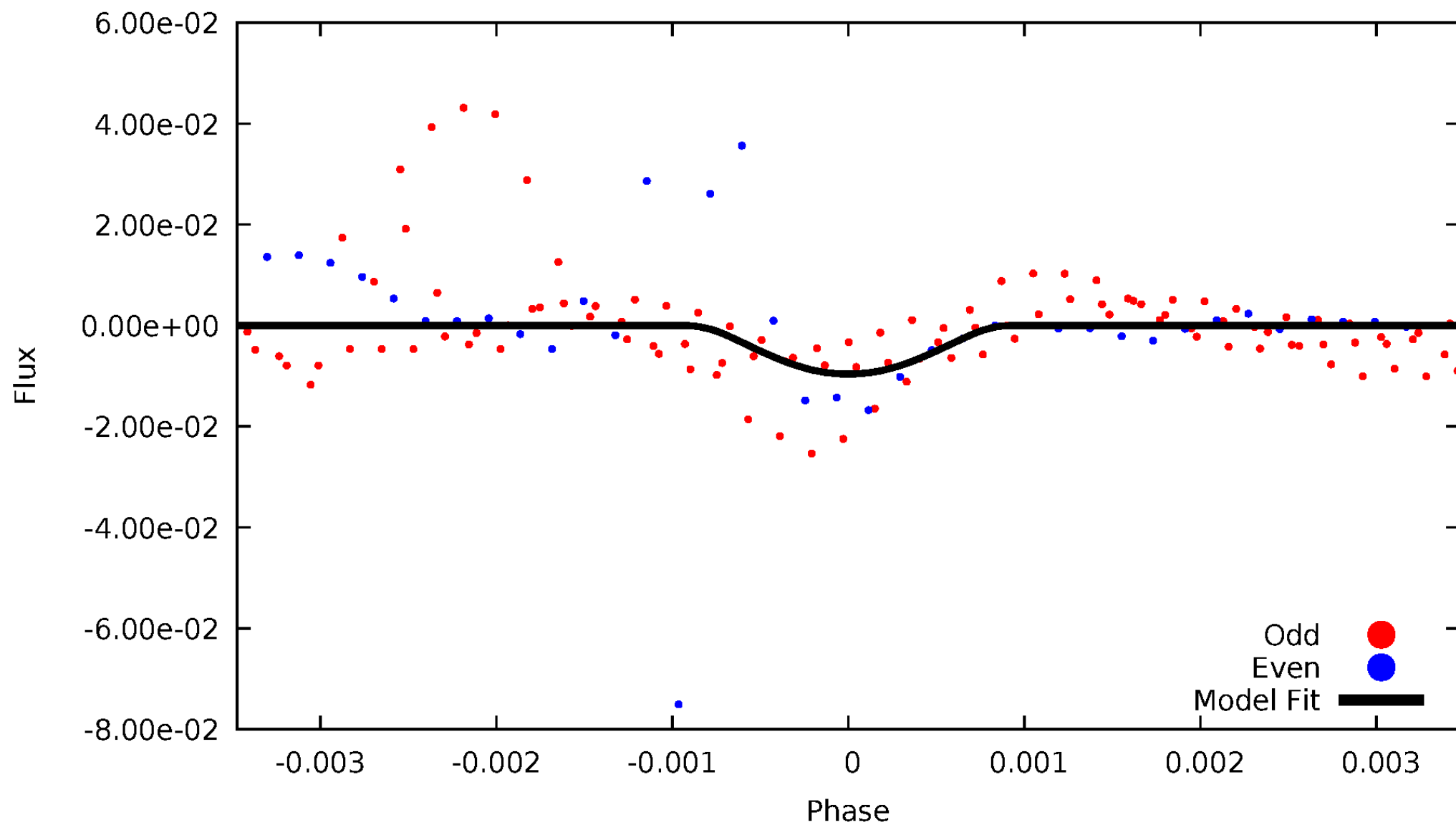


TCE 011704101-01



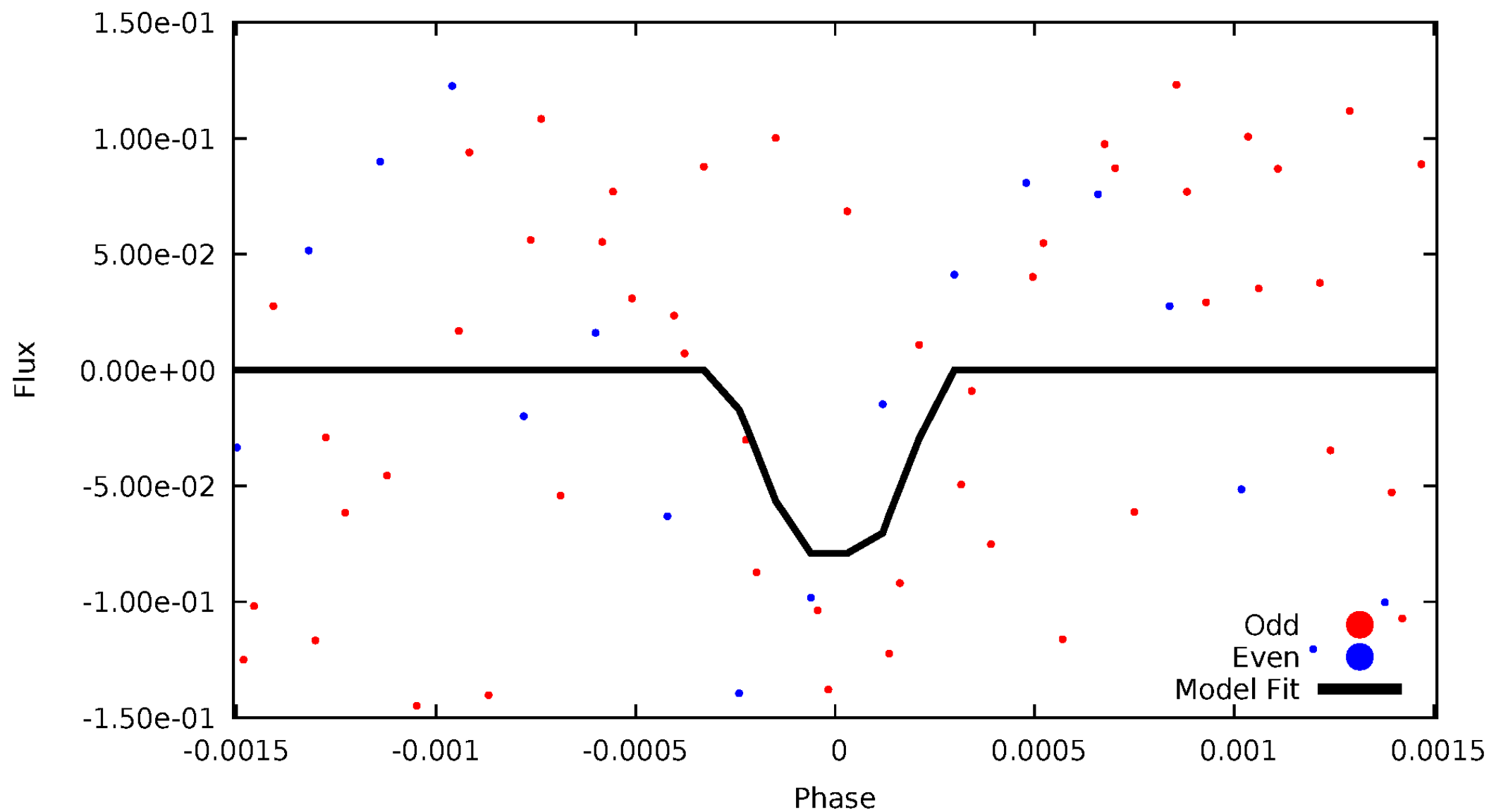
DV Odd/Even

TCE 011704101-01



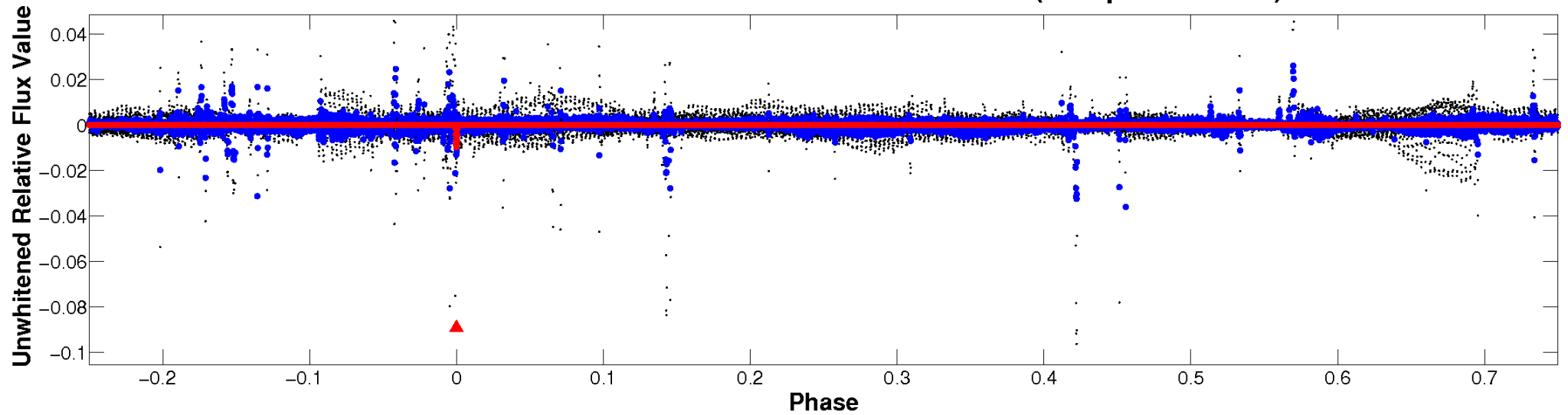
ALT Odd/Even

TCE 011704101-01

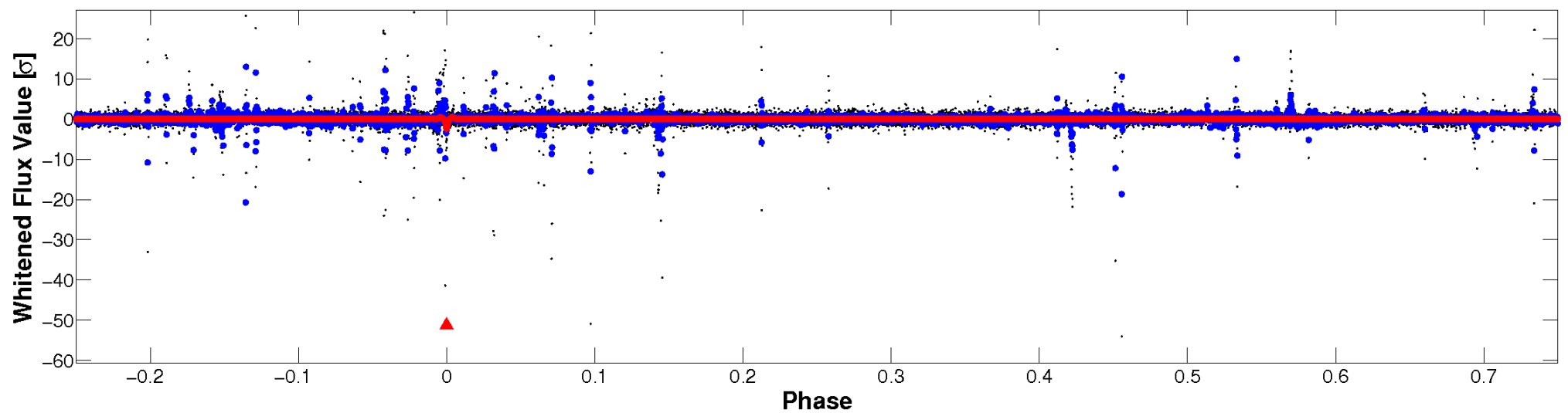


Non-Whitened Vs. Whitened Light Curve

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

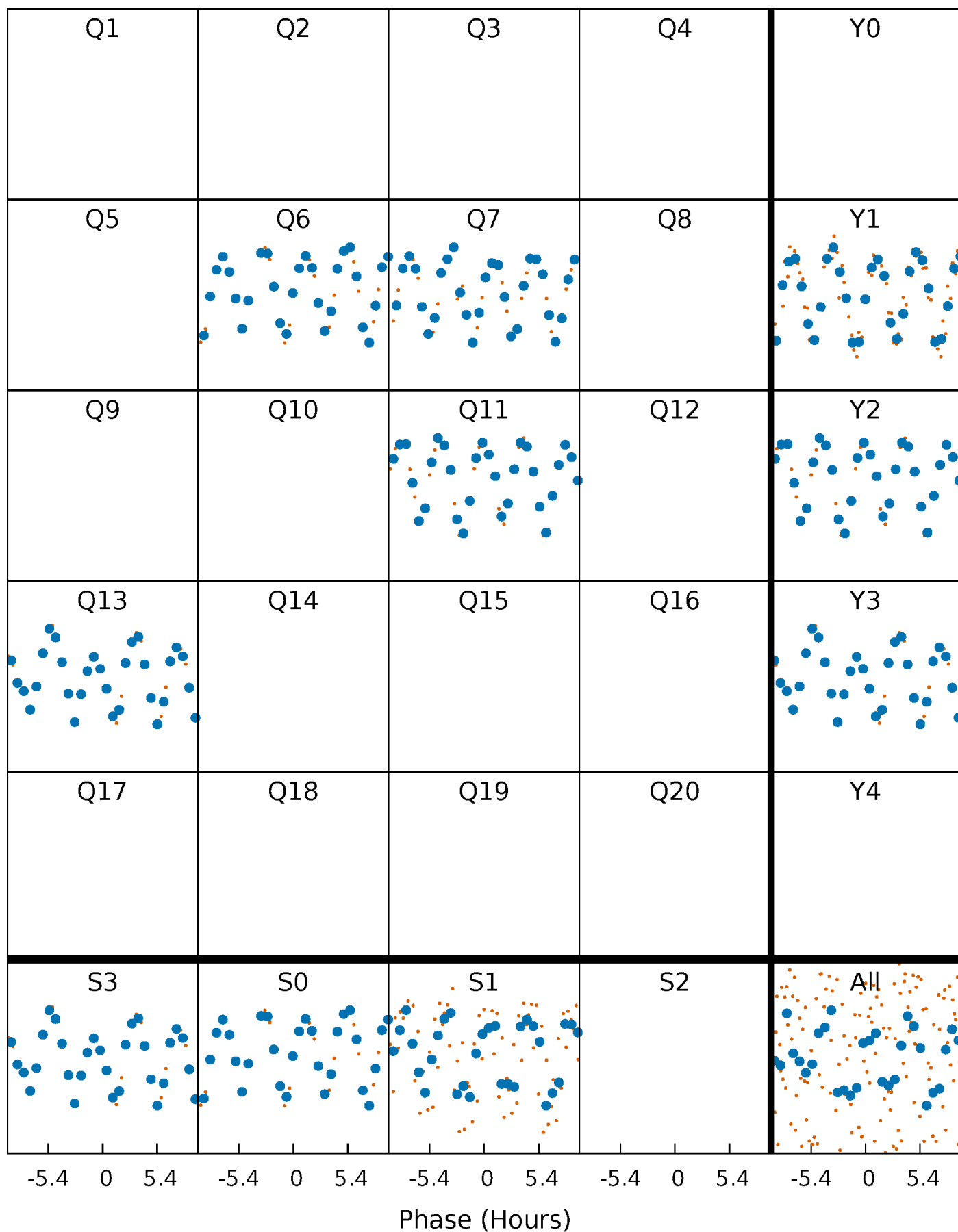


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



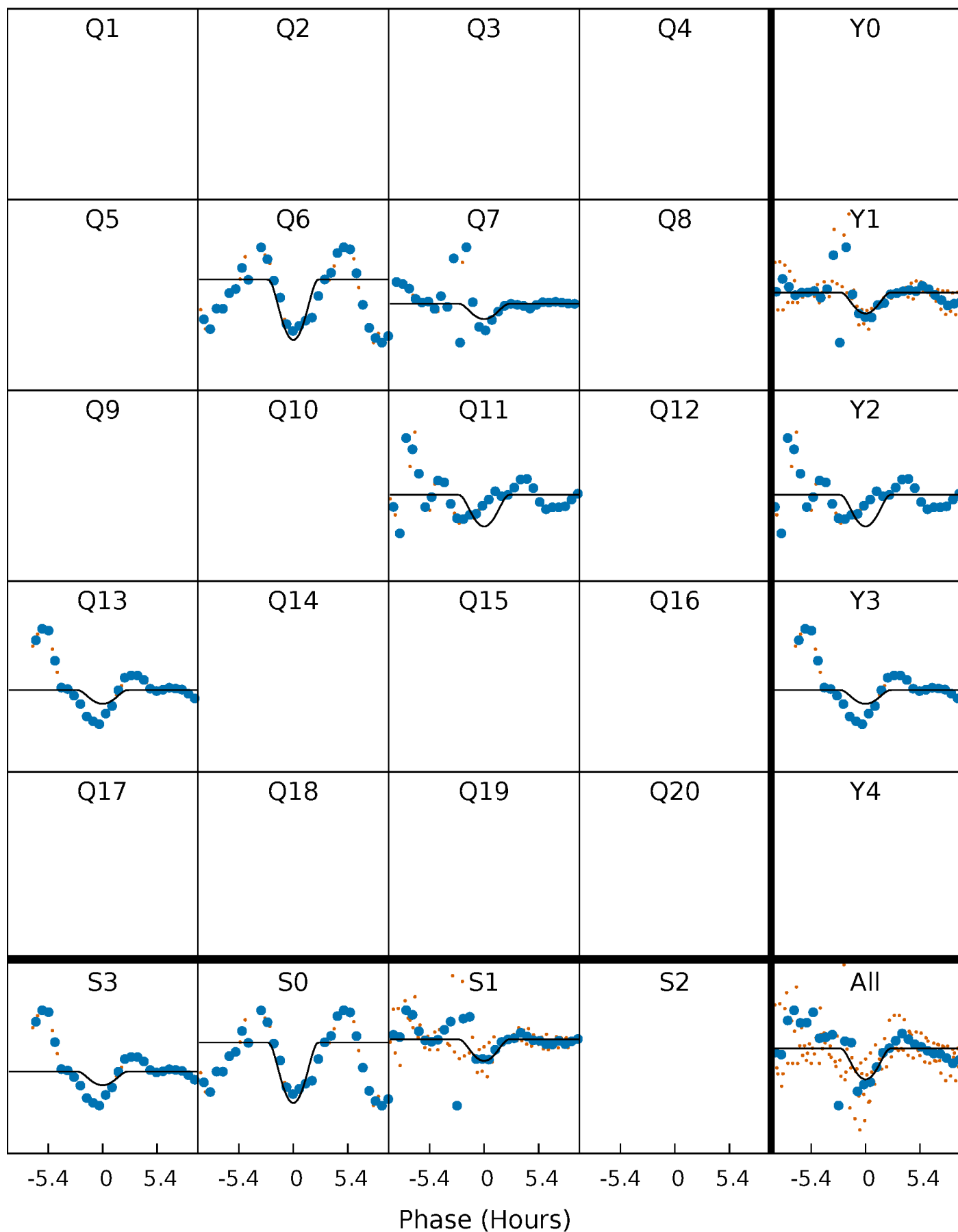
PDC Quarter-Phased Transit Curves

TCE 011704101-01 P=113.642609 Days $T_0=209.285249$ (BKJD)



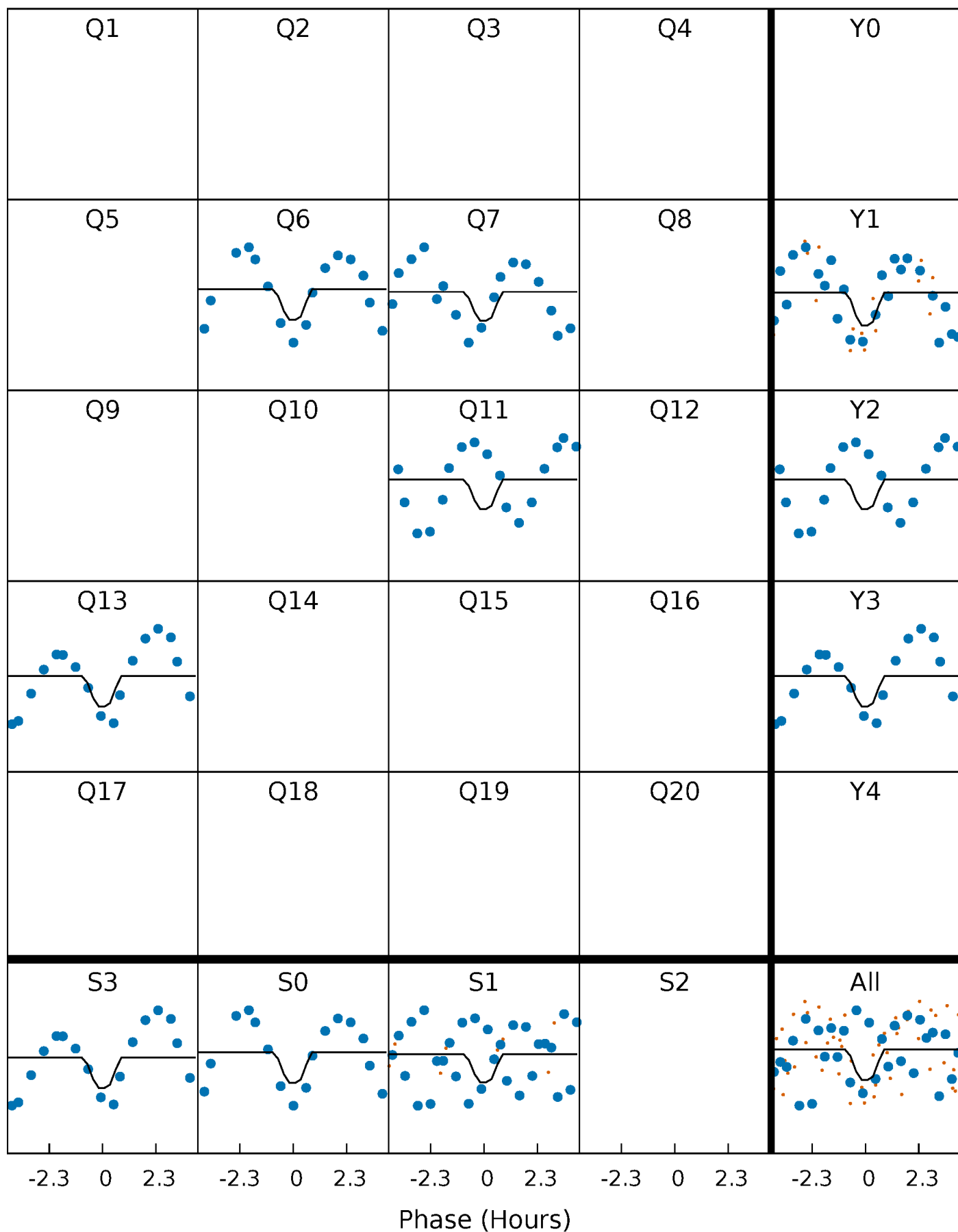
DV Quarter-Phased Transit Curves

TCE 011704101-01 P=113.642609 Days $T_0=209.285249$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

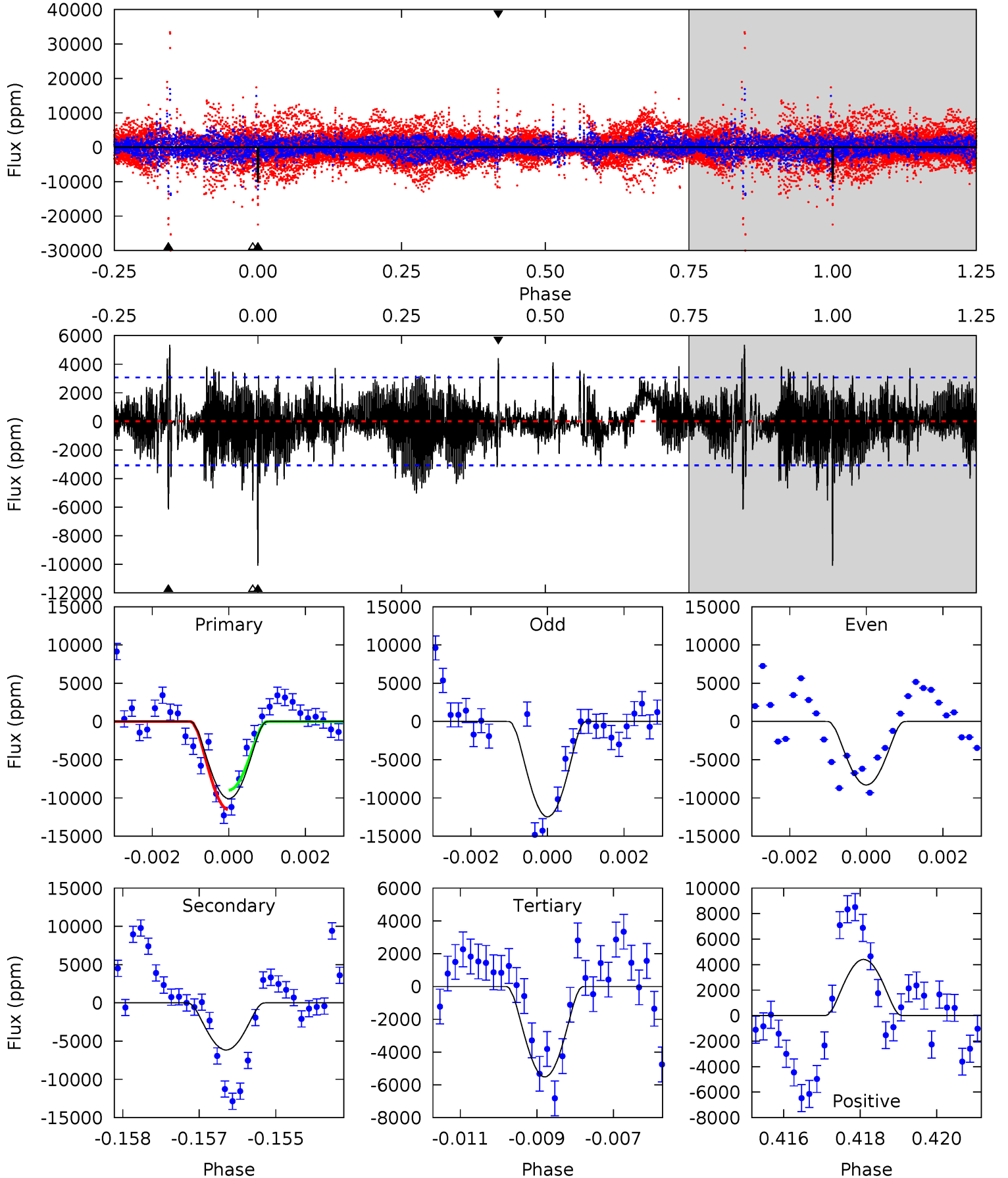
TCE 011704101-01 P=113.655319 Days $T_0=209.213446$ (BKJD)



DV Model-Shift Uniqueness Test

011704101-01, P = 113.642609 Days, E = 209.285249 Days

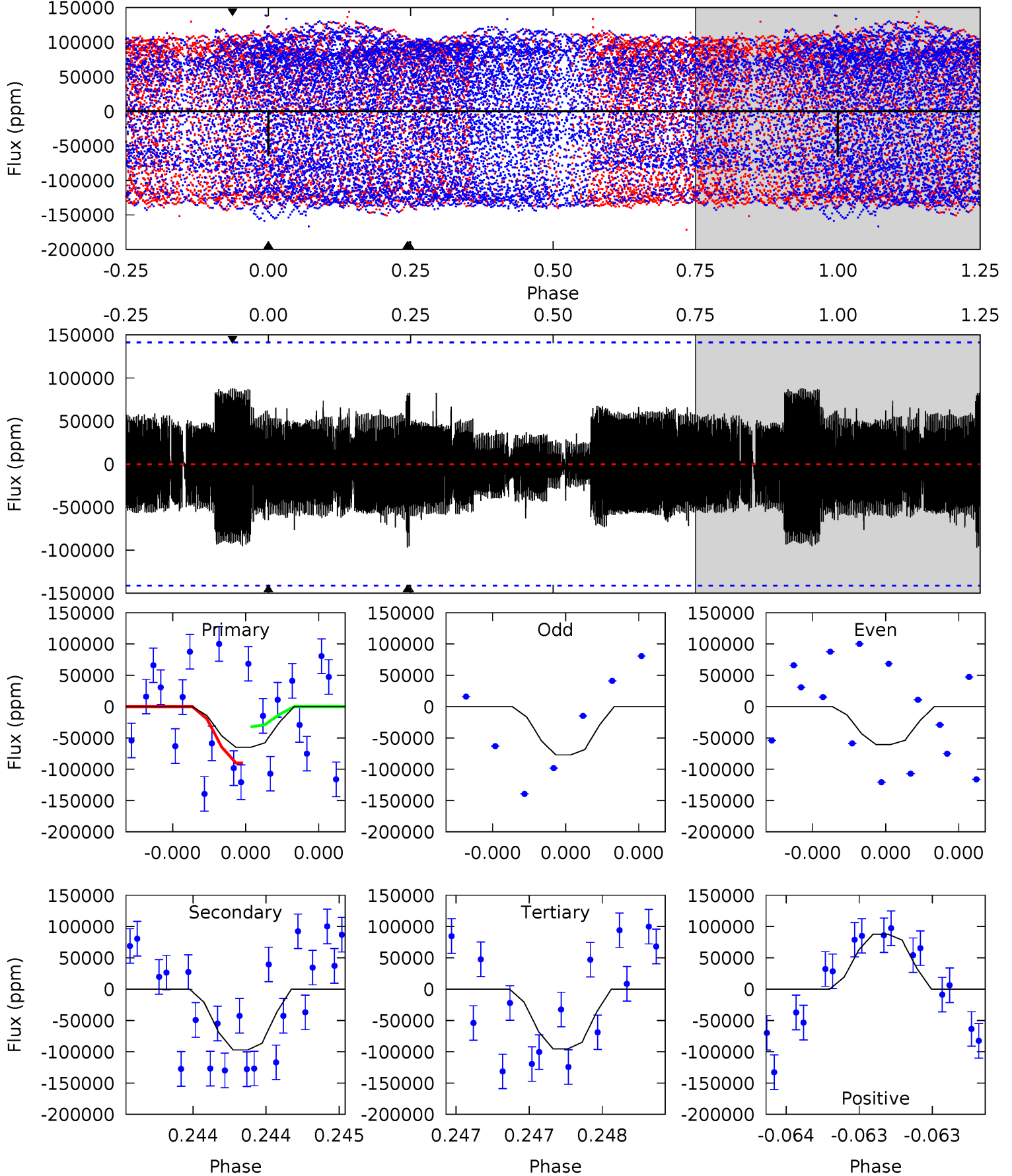
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.5	10.7	9.58	7.66	5.34	3.11	2.58	7.95	9.87	1.12	3.04	2.87	1.23	0.35	2.11



Alt Model-Shift Uniqueness Test

011704101-01, P = 113.655319 Days, E = 209.213446 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.57	3.84	3.77	3.48	5.59	3.51	1.36	-1.20	-0.91	0.07	0.36	0.26	0.65	0.48	1.12



Stellar Parameters For KIC 011704101

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6884^{+192}_{-301}	$4.290^{+0.058}_{-0.232}$	$0.210^{+0.150}_{-0.350}$	$1.437^{+0.514}_{-0.184}$	$1.468^{+0.194}_{-0.194}$	$0.697^{+0.217}_{-0.385}$
	+3%/-4%	+1%/-5%	+71%/-167%	+36%/-13%	+13%/-13%	+31%/-55%
Source	KIC0	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 011704101-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6161 \pm 576	$108.62^{+133.08}_{-76.93}$	718^{+57}_{-39}	3002^{+1525}_{-545}	74^{+828}_{-58}
Alt.	-97010 \pm 25261	$121.56^{+126.45}_{-83.56}$	721^{+60}_{-38}	4642^{+4079}_{-1017}	1005^{+10941}_{-761}

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 $A_{\text{obs}} \gg 1.0$

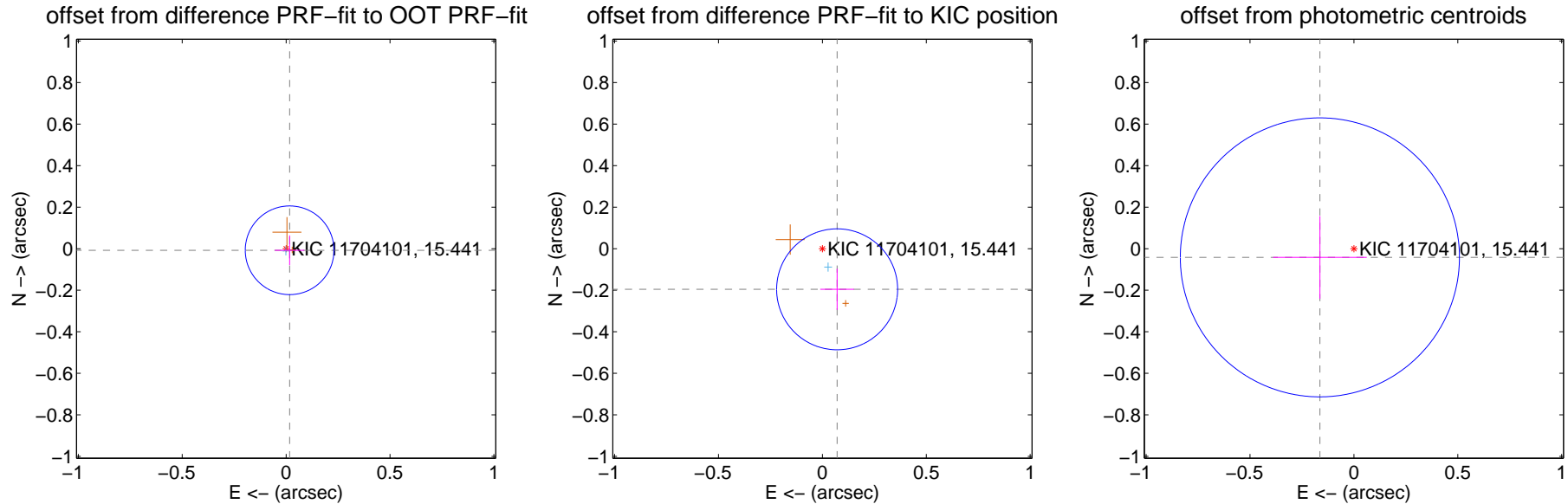
DV Centroid Data

Supplemental centroid analysis for 011704101-01. Kepler magnitude: 15.44. Transit SNR 10.35

There are 1 quarters with good PRF difference image offsets

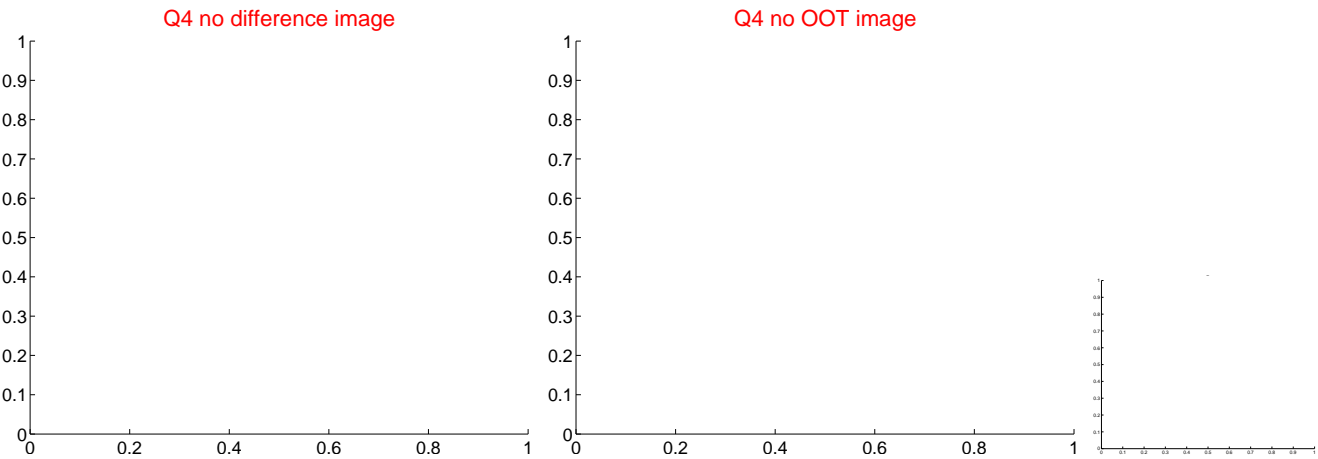
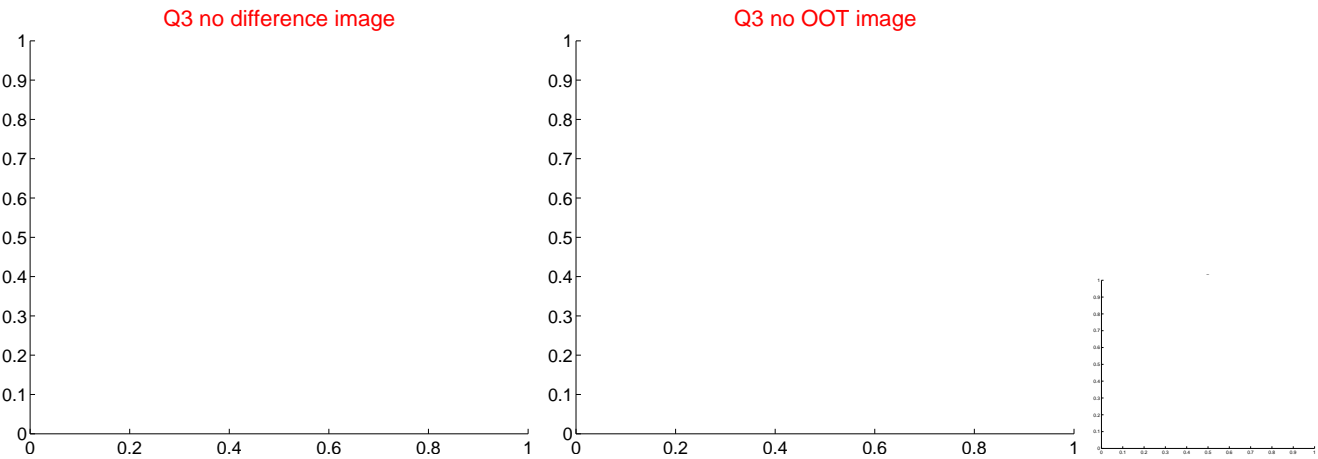
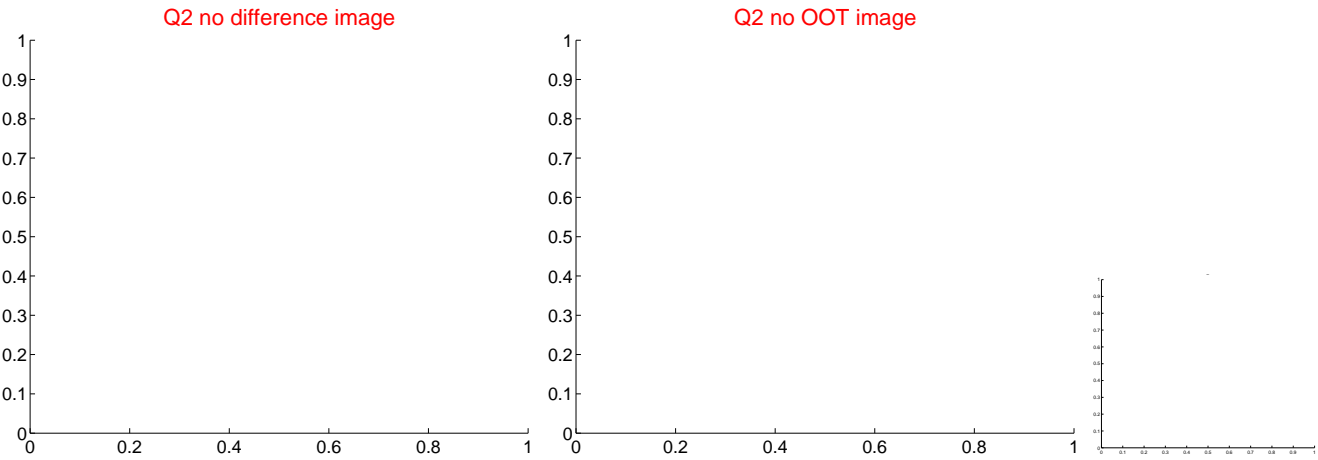
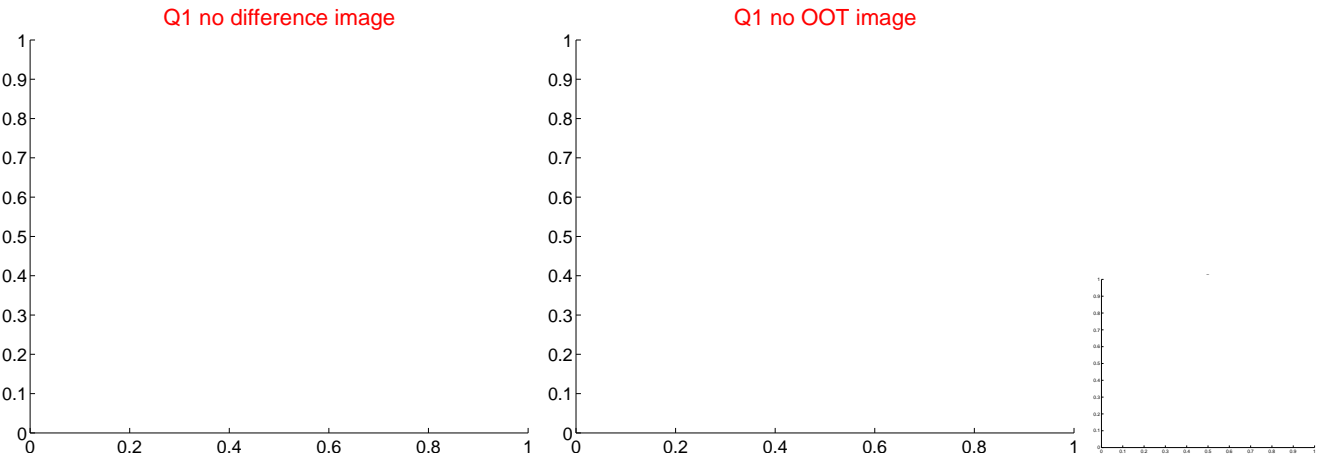
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.019 ± 0.071	0.26	-0.017 ± 0.071	-0.008 ± 0.072
PRF-fit source offset from KIC position	0.208 ± 0.097	2.14	-0.071 ± 0.081	-0.196 ± 0.099
photometric centroid source offset	0.17 ± 0.22	0.75	0.16 ± 0.23	-0.04 ± 0.20

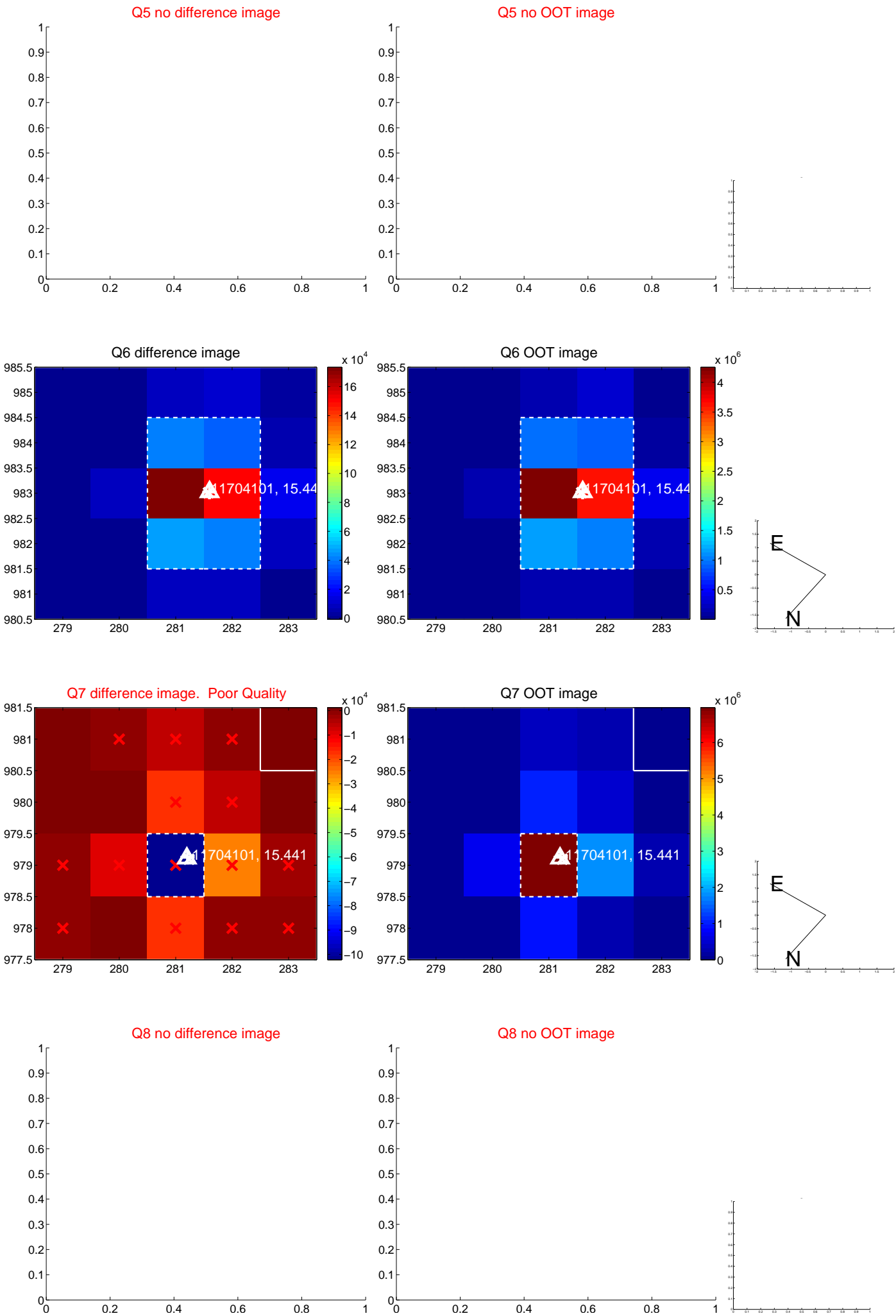


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

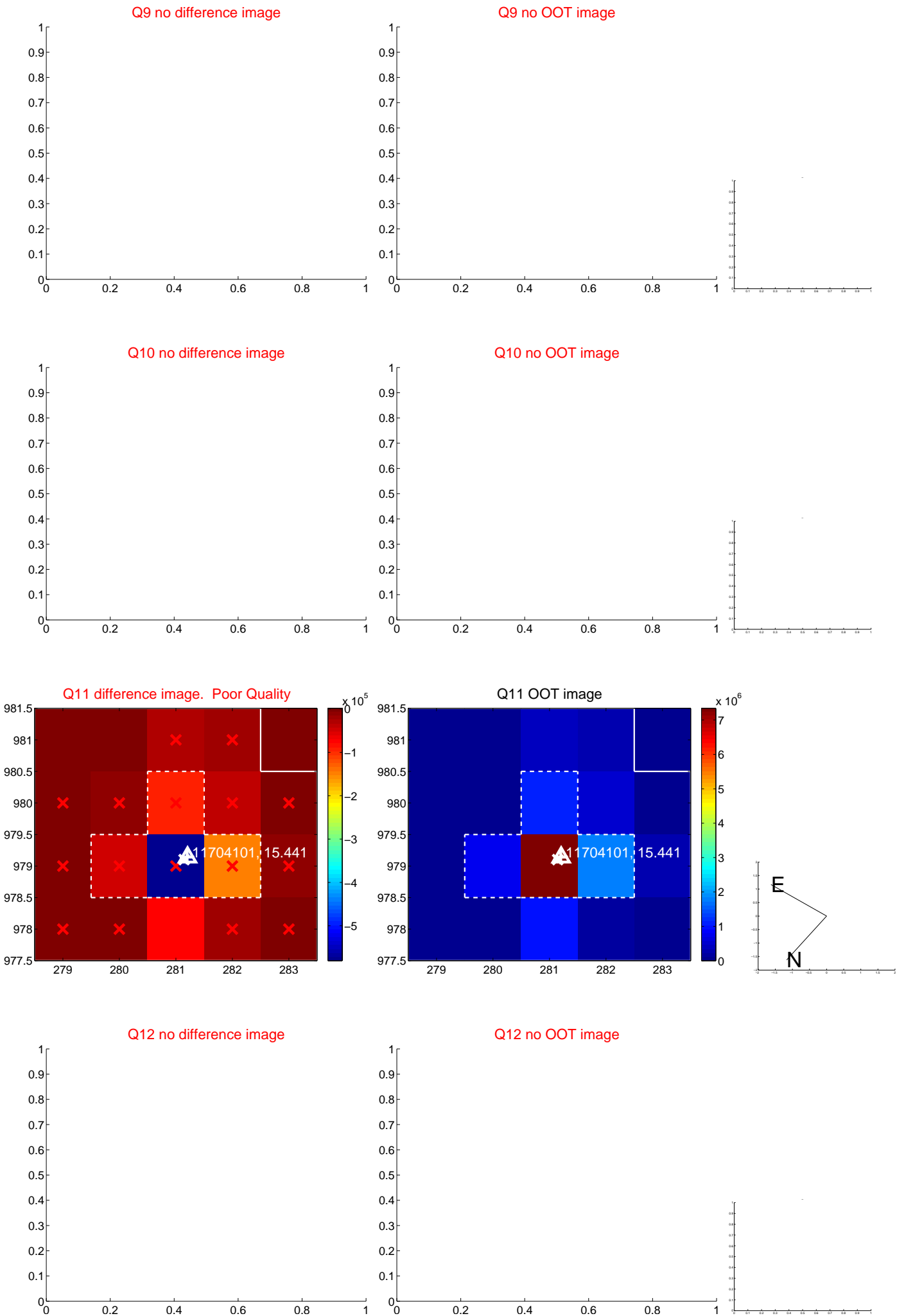
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



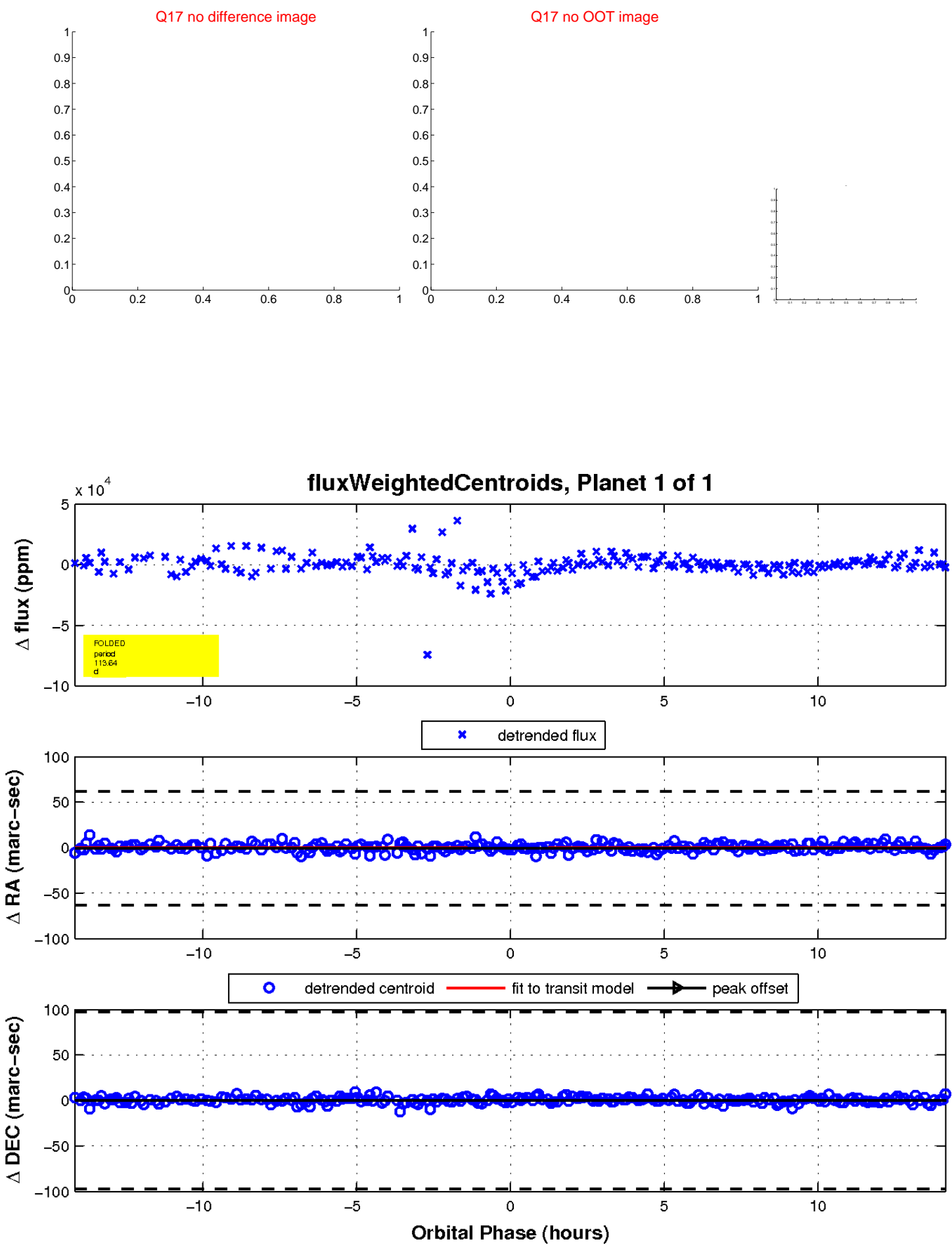
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

