

KIC 009205855

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})
009205855-01	OBS	No	0.913911	131.550777	1312.5	3.000	11.8	-1.0	0.31	3388	1.10	73.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009205855-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

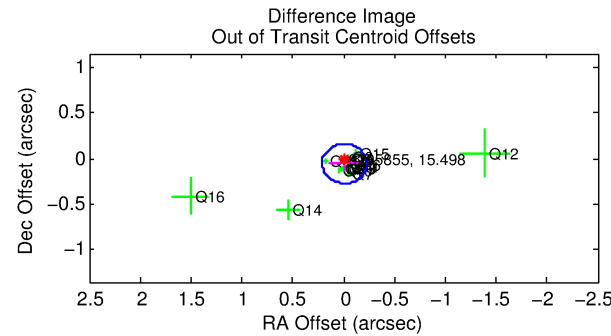
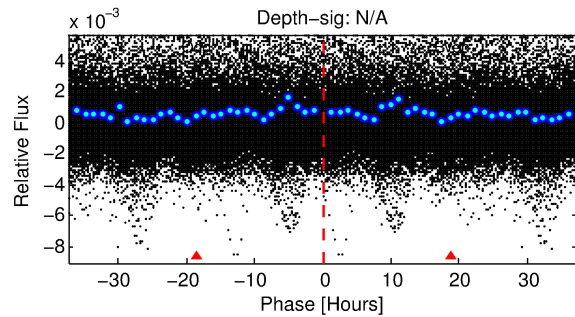
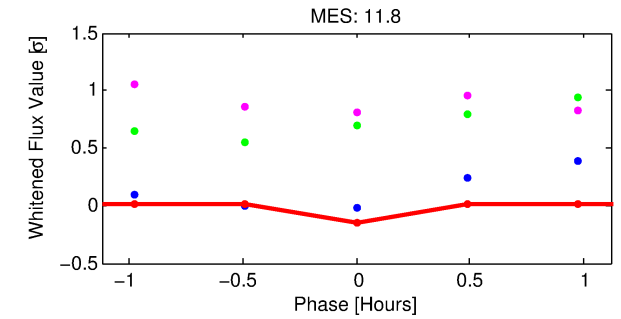
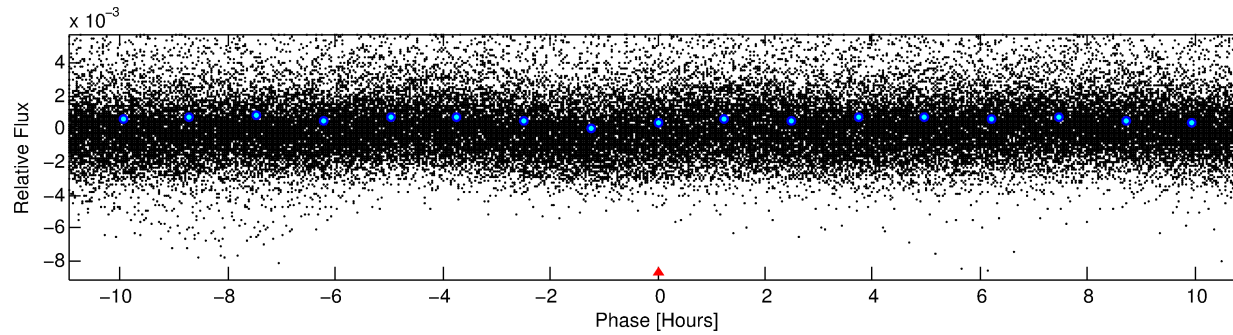
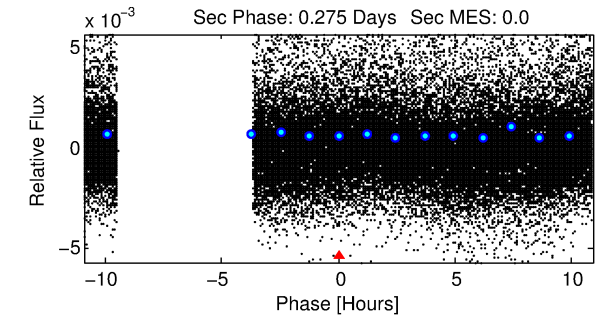
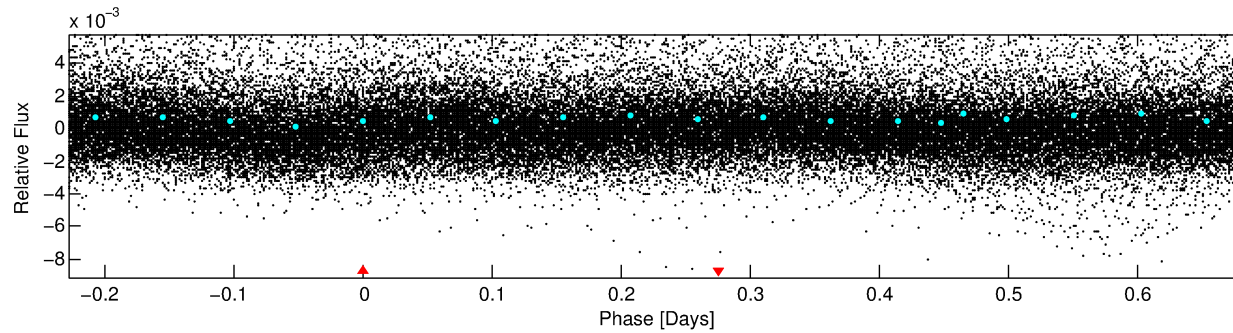
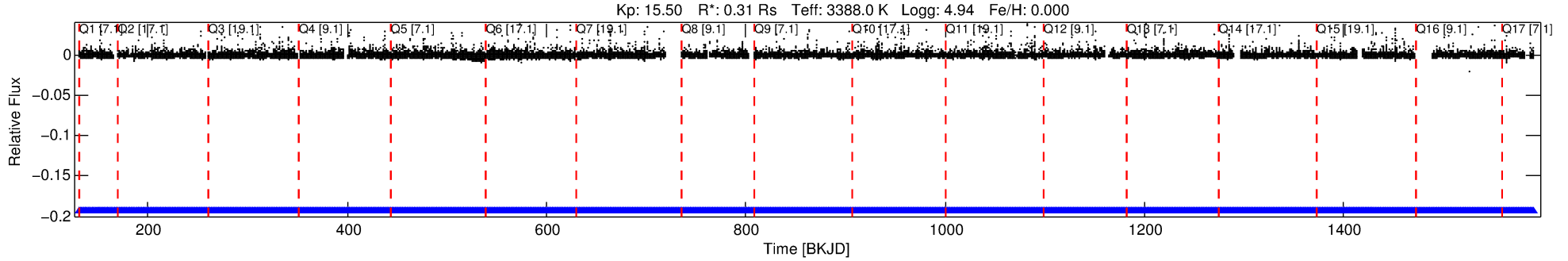
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009205855-01

No Significant Match Found

DV One-Page Summary

KIC: 9205855 Candidate: 1 of 1 Period: 0.914 d



TPS TCE Results:

Period = 0.91391 d
Epoch = 131.5508 BKJD

DV fit results are unavailable

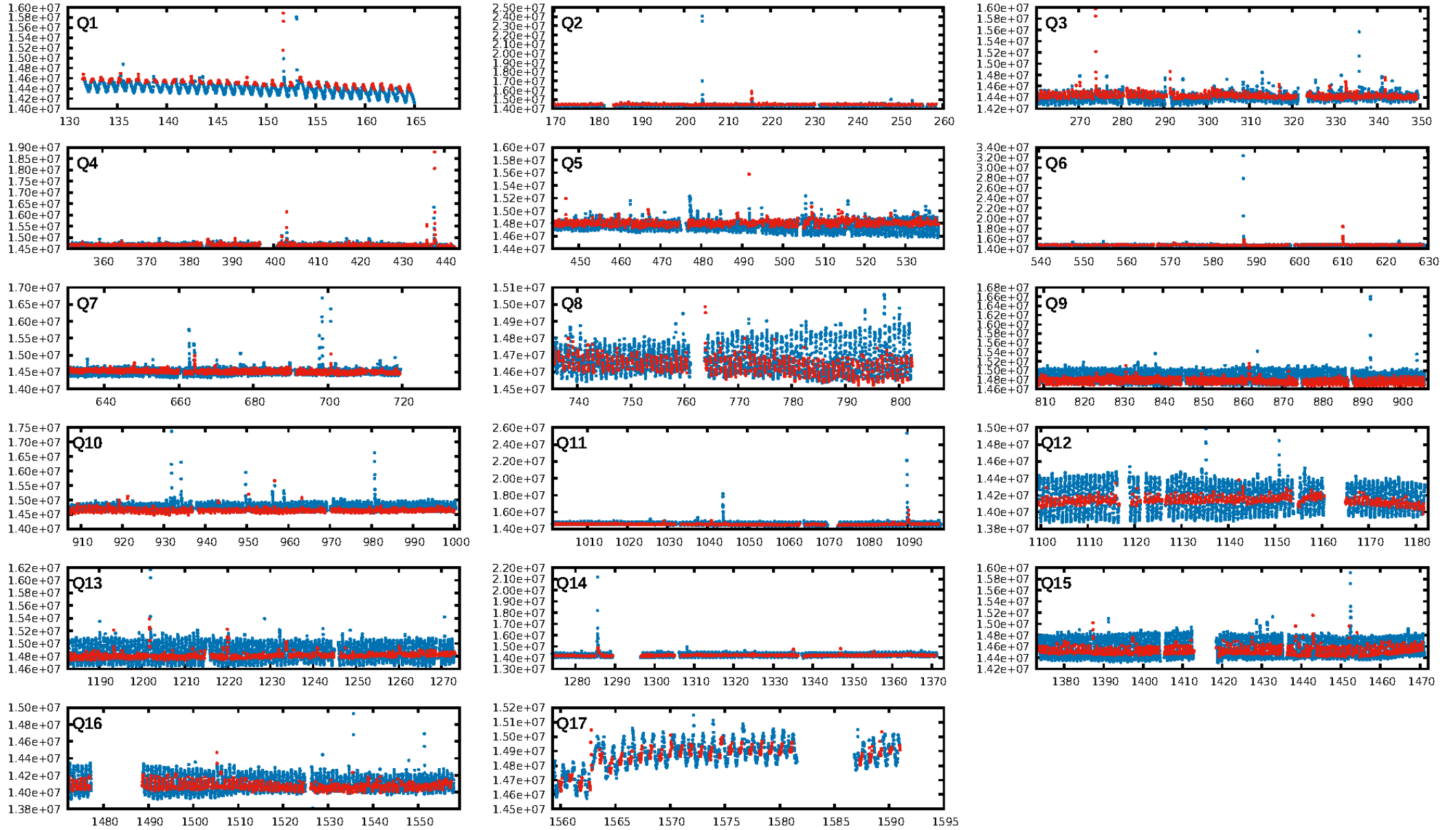
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.90e-22
RollingBand-fgt: 1.00 [1408/1408]
GhostDiagnostic-chr: -0.3338
Centroid-sig: 67.3%
Centroid-so: 0.294 arcsec [13.41σ]
OotOffset-rm: 0.056 arcsec [0.77σ]
KicOffset-rm: 0.249 arcsec [1.90σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

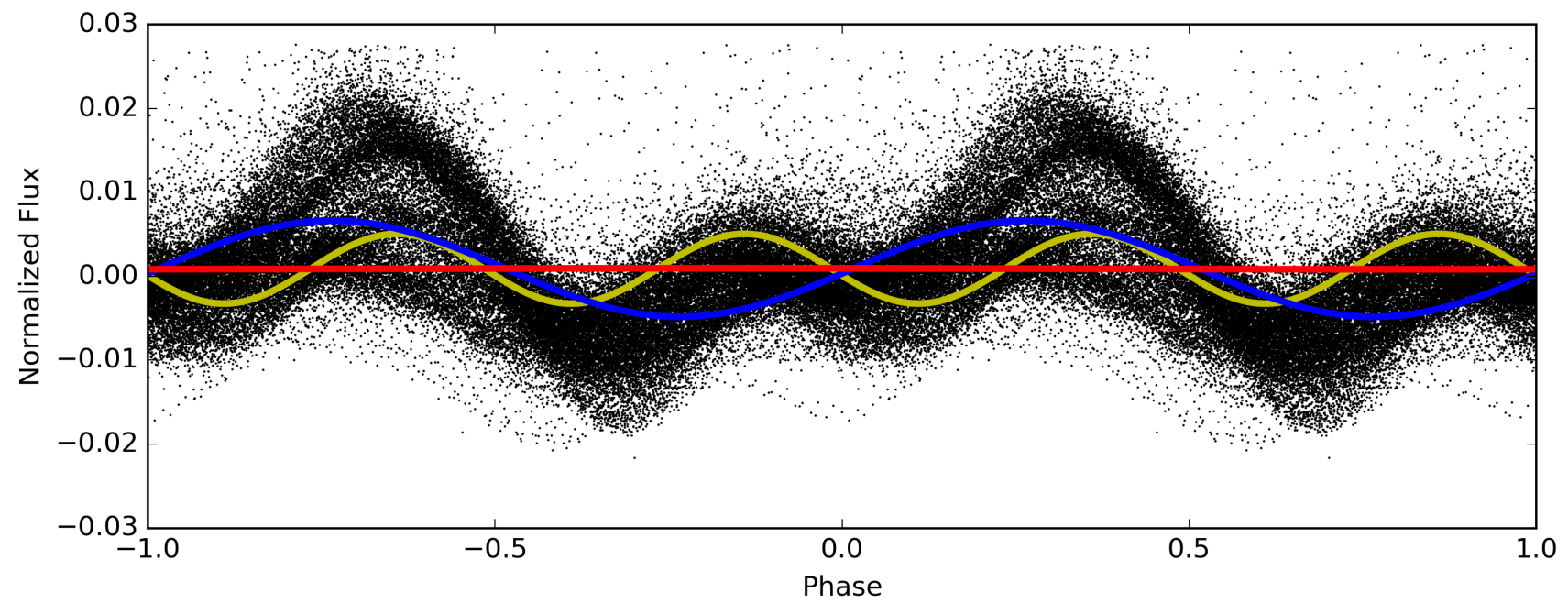
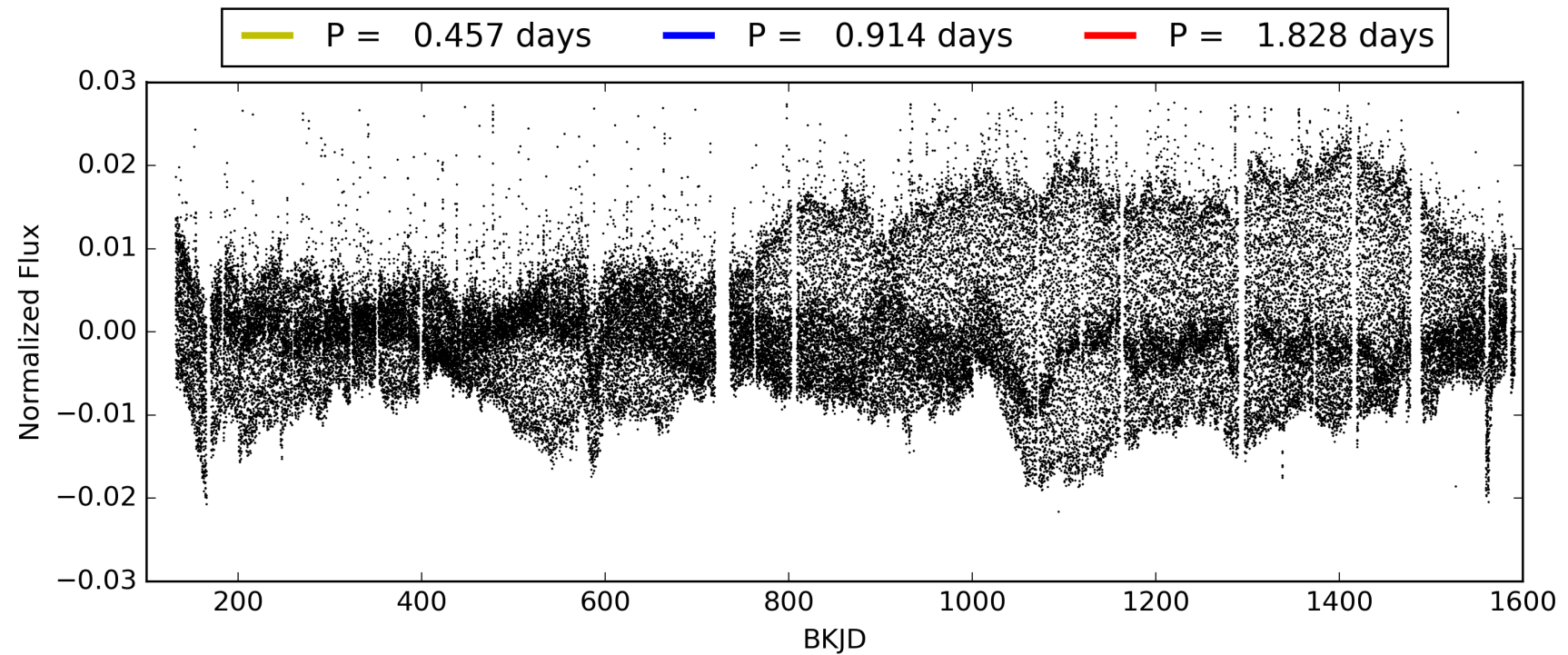
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:59:15 Z

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

TCE 009205855-01, PDC Light Curves

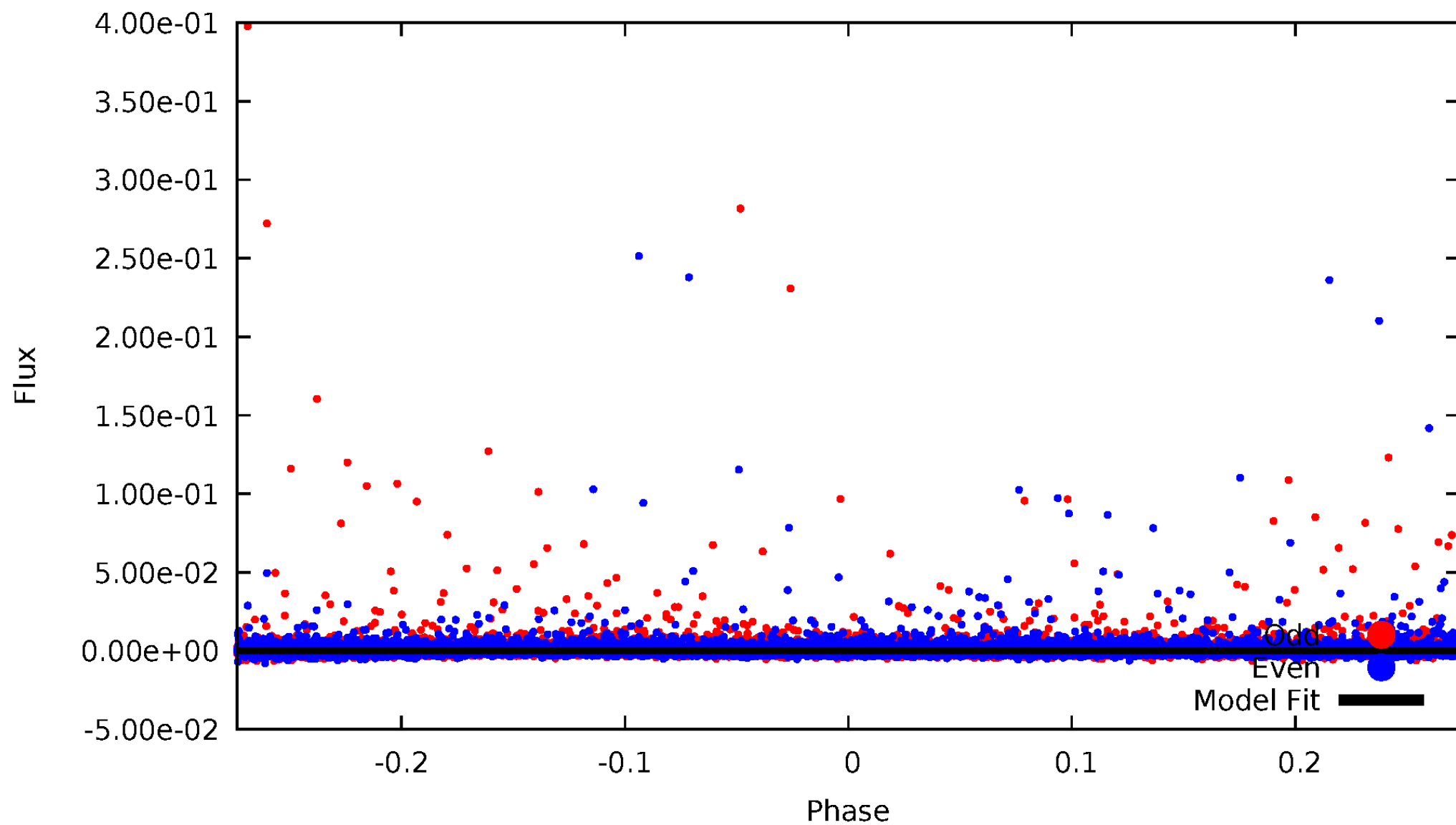


TCE 009205855-01



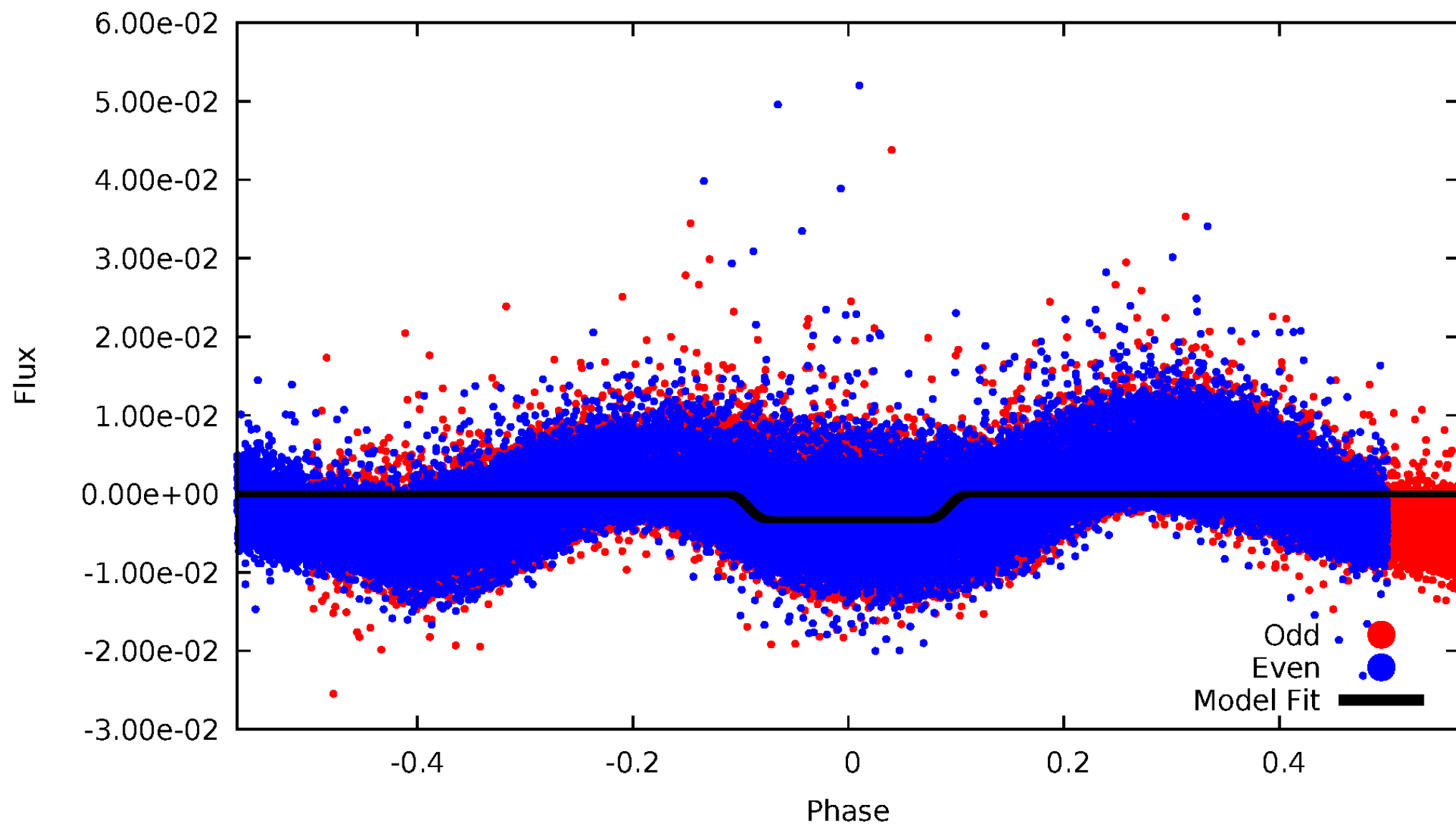
DV Odd/Even

TCE 009205855-01



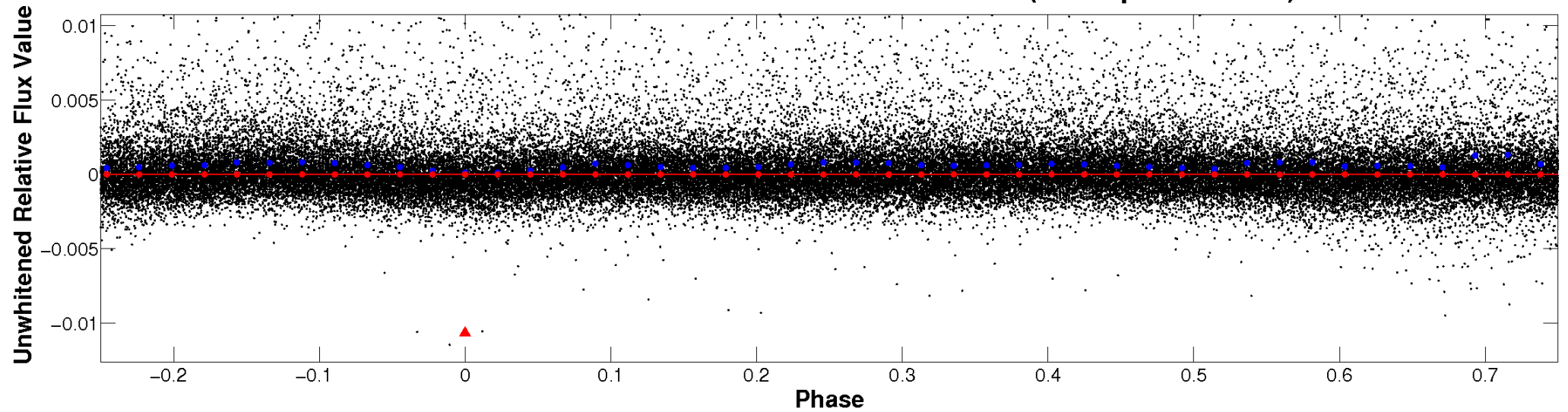
ALT Odd/Even

TCE 009205855-01

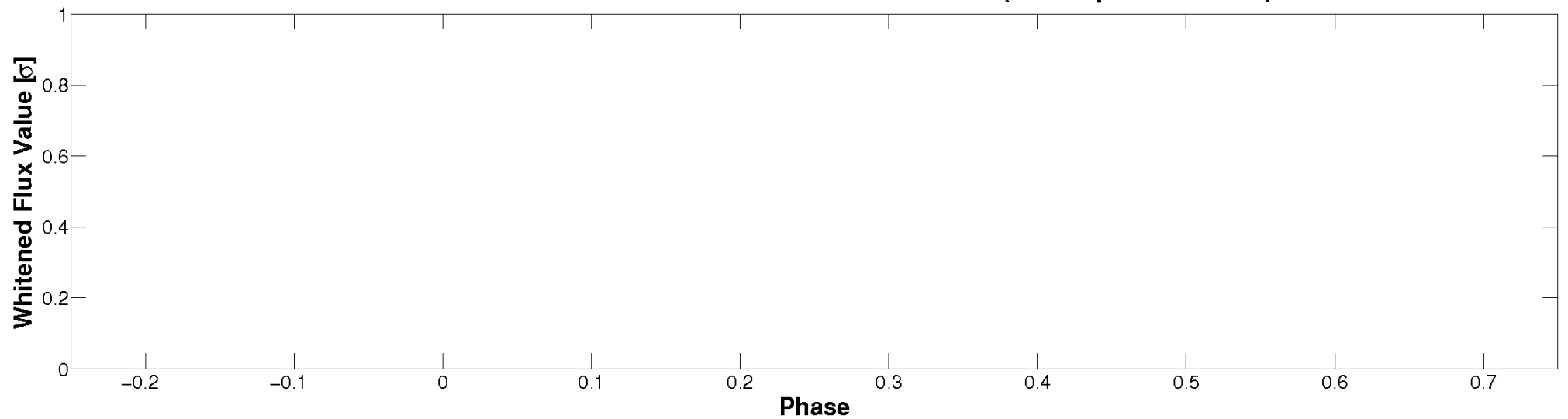


Non-Whitened Vs. Whitened Light Curve

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

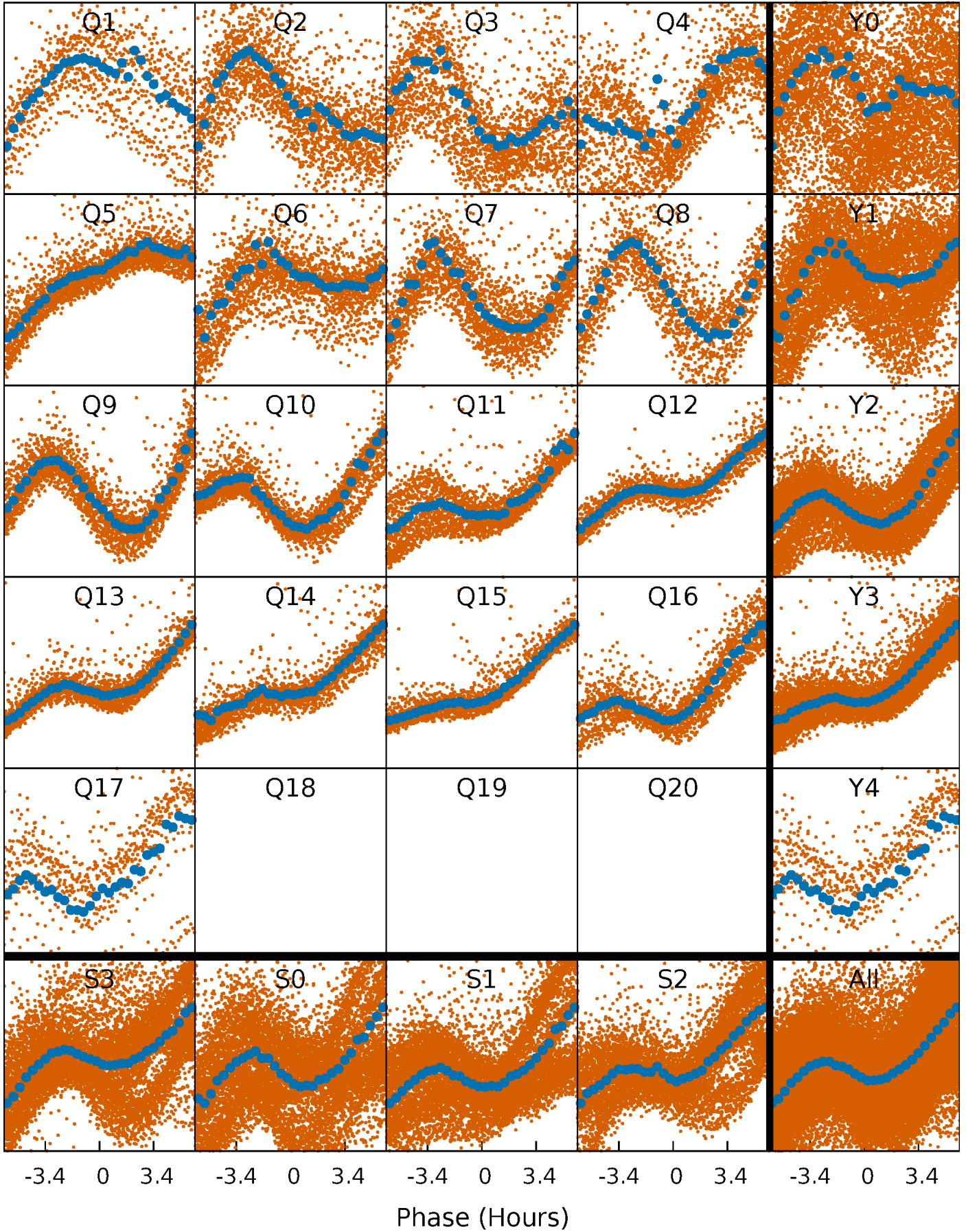


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



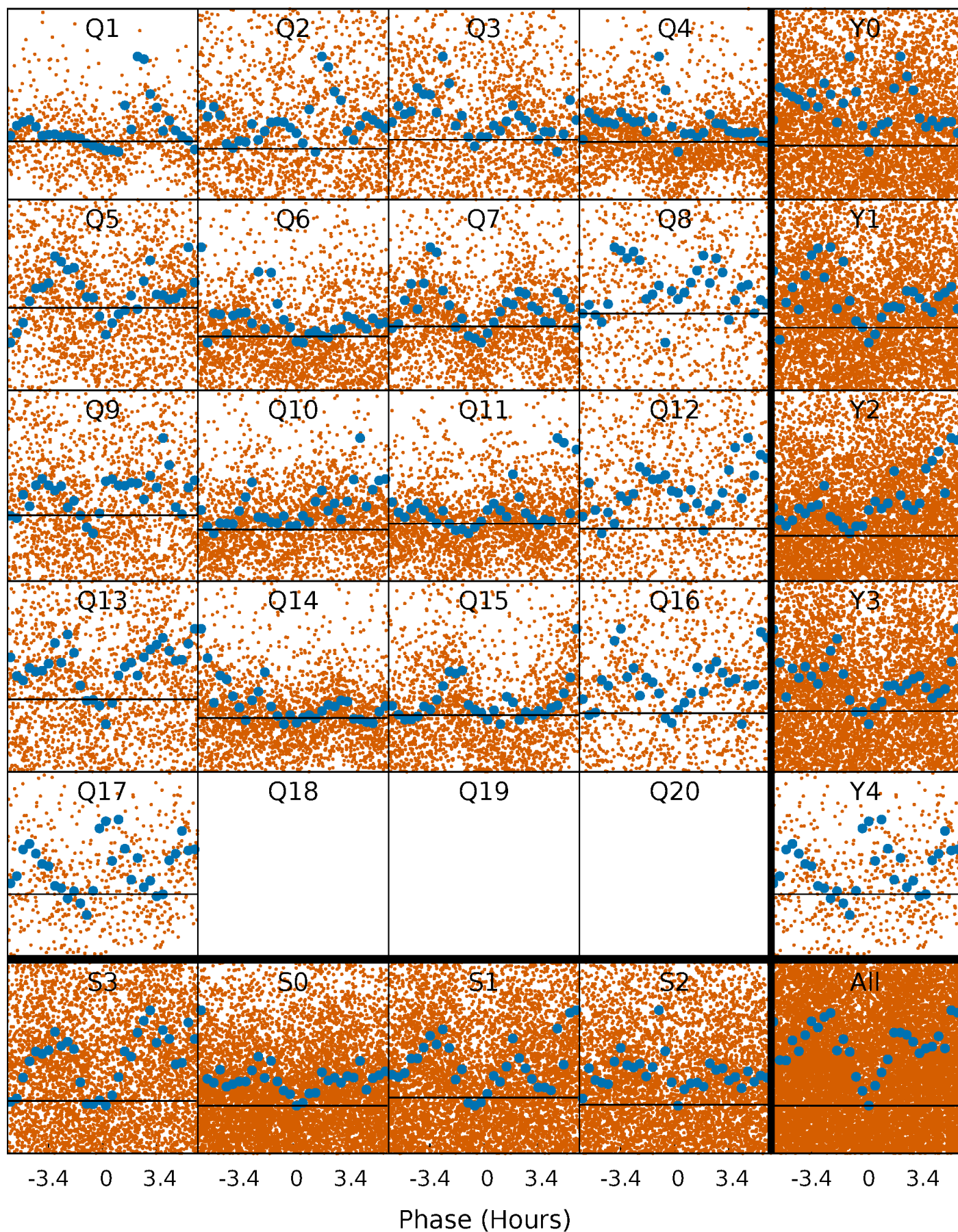
PDC Quarter-Phased Transit Curves

TCE 009205855-01 P= 0.913911 Days $T_0=131.550777$ (BKJD)



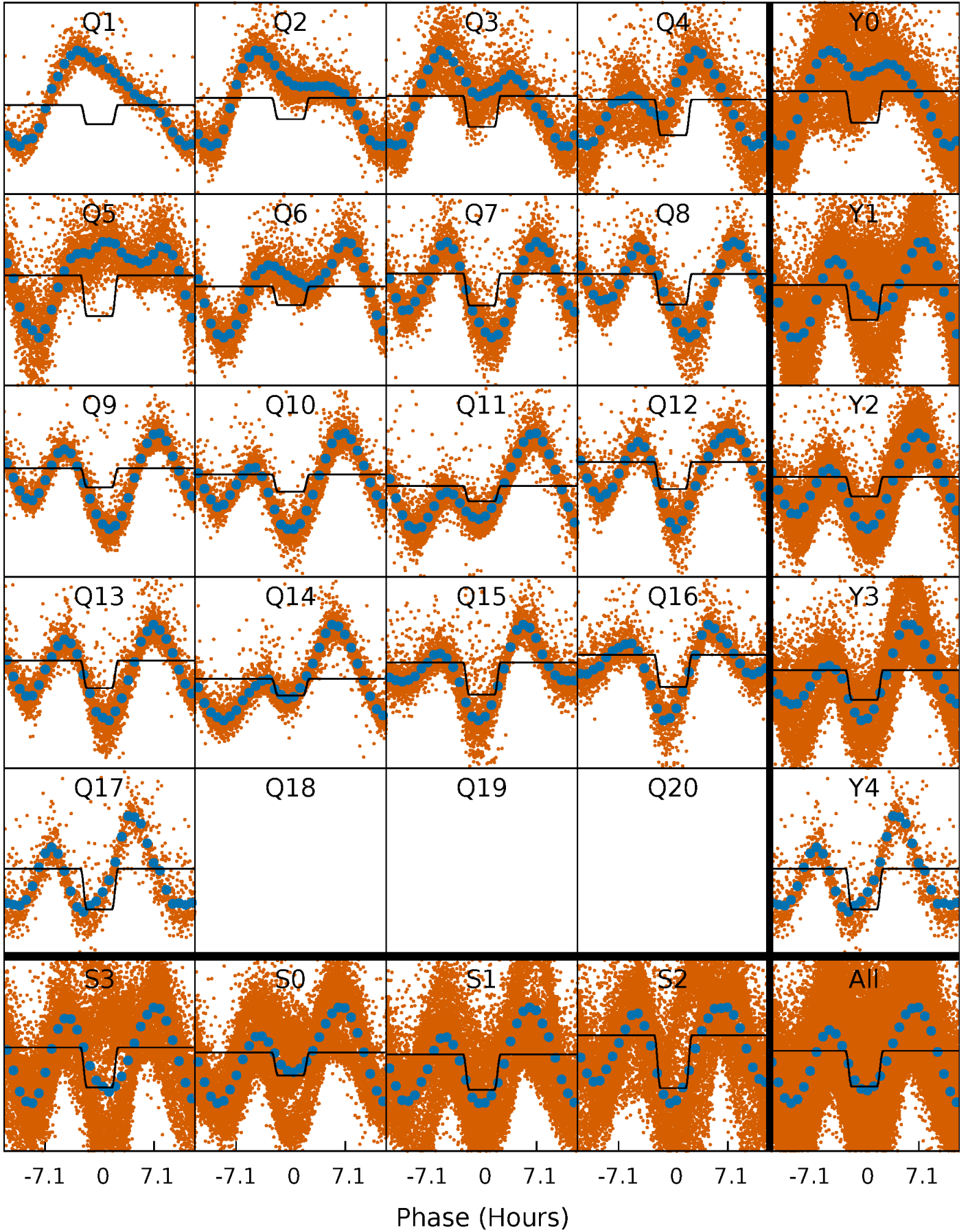
DV Quarter-Phased Transit Curves

TCE 009205855-01 P= 0.913911 Days $T_0=131.550777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

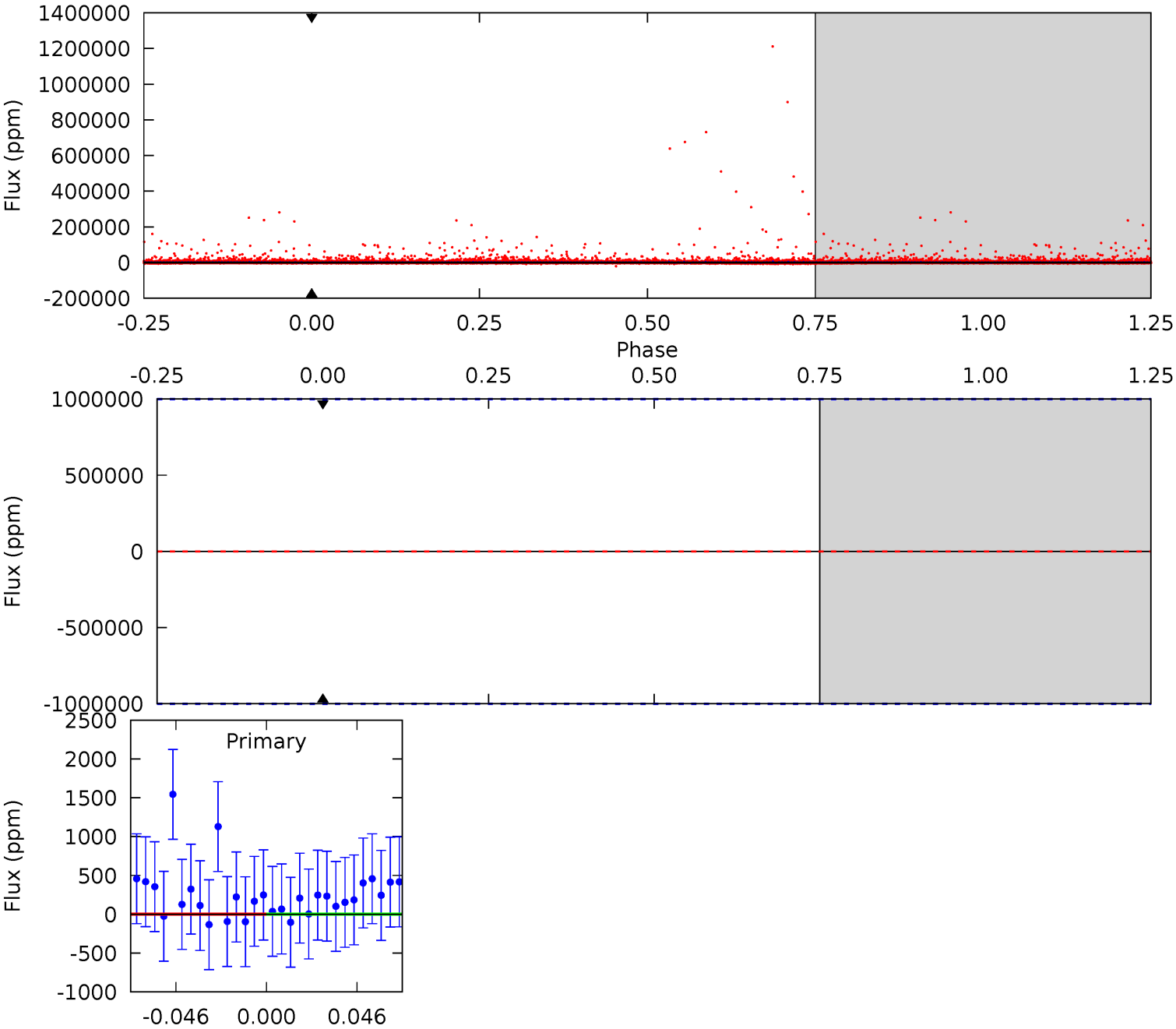
TCE 009205855-01 P= 0.913911 Days $T_0=131.606513$ (BKJD)



DV Model-Shift Uniqueness Test

009205855-01, P = 0.913911 Days, E = 130.636866 Days

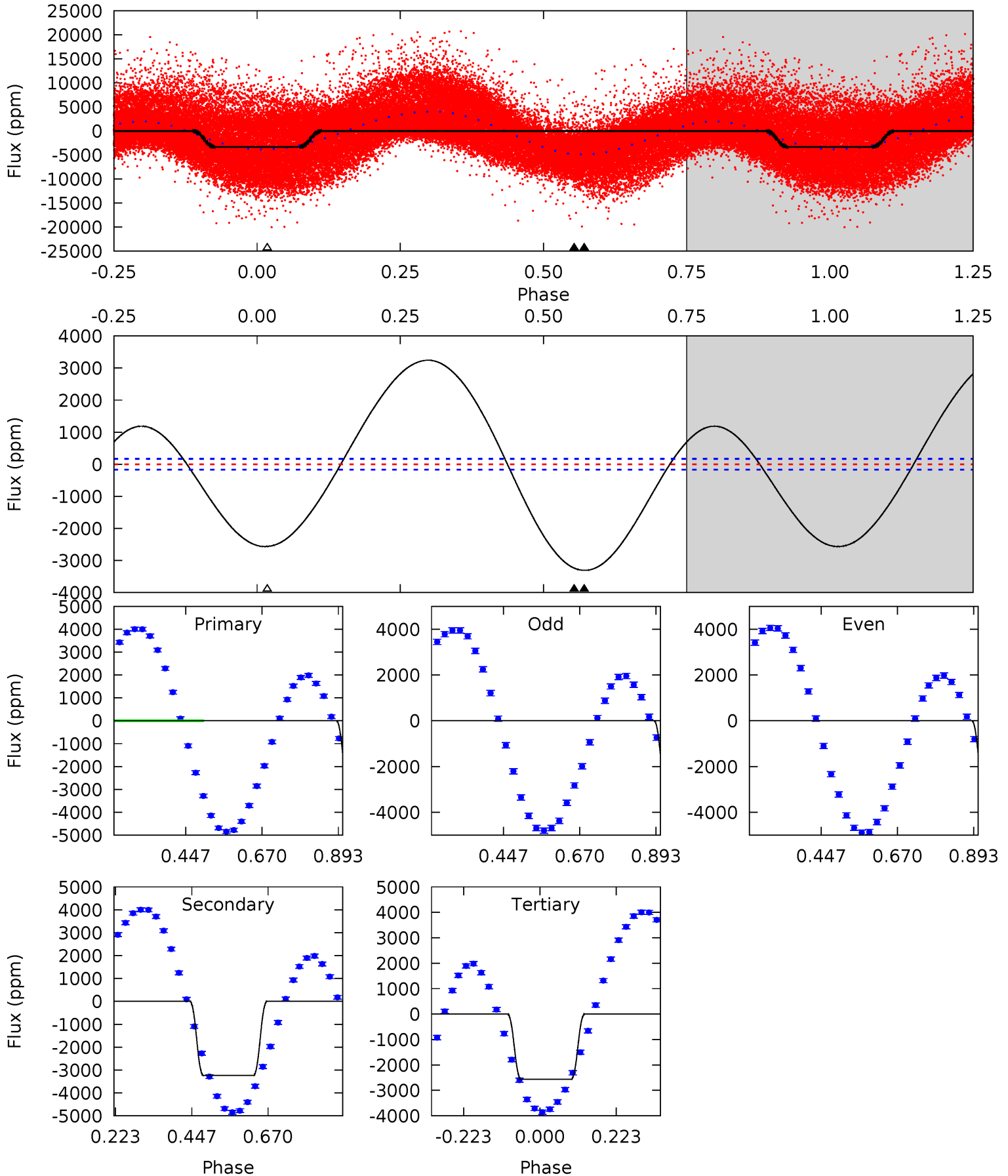
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

009205855-01, P = 0.913911 Days, E = 130.692602 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
85.4	83.6	66.2	0	4.39	1.22	50.4	19.2	85.4	17.4	83.6	1.09	0.77	0.50	6.33



Stellar Parameters For KIC 009205855

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3388^{+44}_{-40}	$4.939^{+0.045}_{-0.036}$	$0.000^{+0.100}_{-0.100}$	$0.308^{+0.038}_{-0.035}$	$0.301^{+0.048}_{-0.039}$	$14.500^{+3.746}_{-2.738}$
	+1%/-1%	+1%/-1%	+inf%/-inf%	+12%/-11%	+16%/-13%	+26%/-19%
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 009205855-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$2.75^{+2.43}_{-1.93}$	1040^{+26}_{-21}	-3036^{+9697}_{-3338}	$-35.295^{+2167.515}_{-1931.244}$
Alt.	-3237 ± 39	$3.05^{+2.71}_{-2.04}$	1041^{+24}_{-24}	2972^{+1220}_{-476}	30^{+238}_{-22}

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 $A_{obs} \gg 1.0$

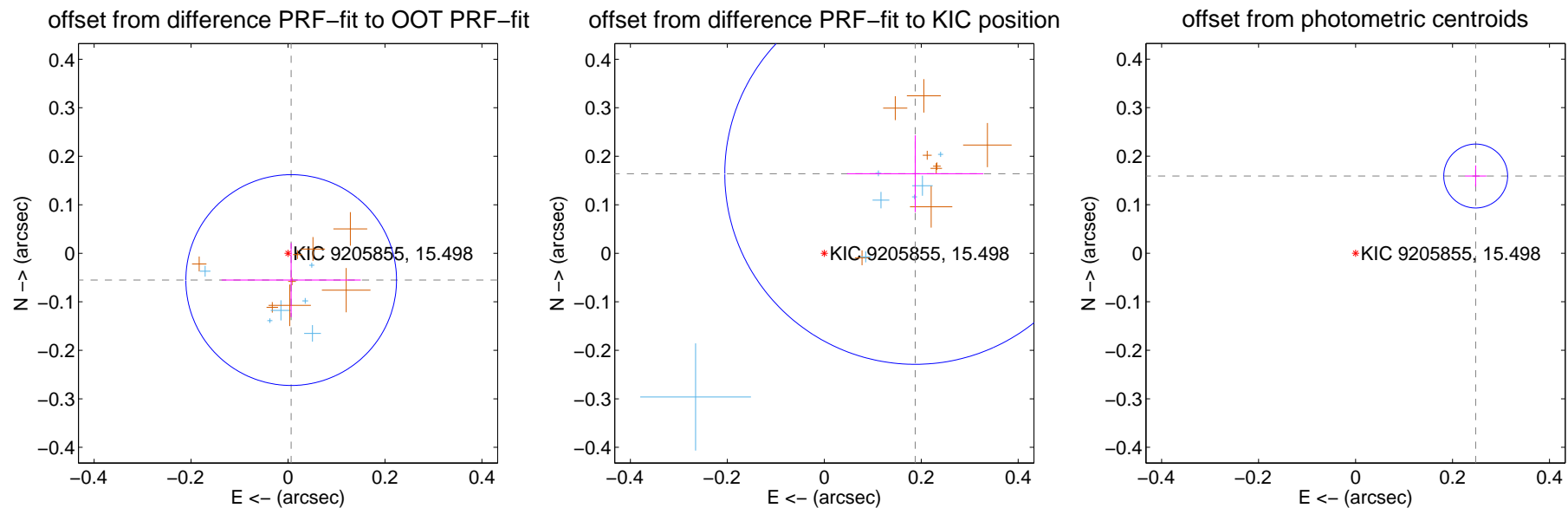
DV Centroid Data

Supplemental centroid analysis for 009205855-01. Kepler magnitude: 15.50. Transit SNR -1.00

There are 8 quarters with good PRF difference image offsets

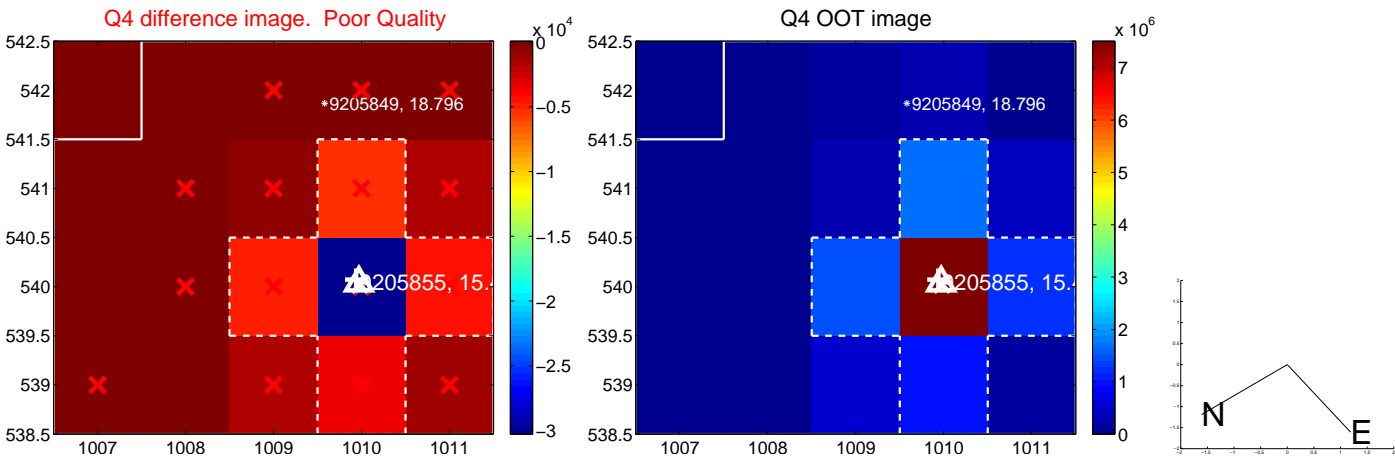
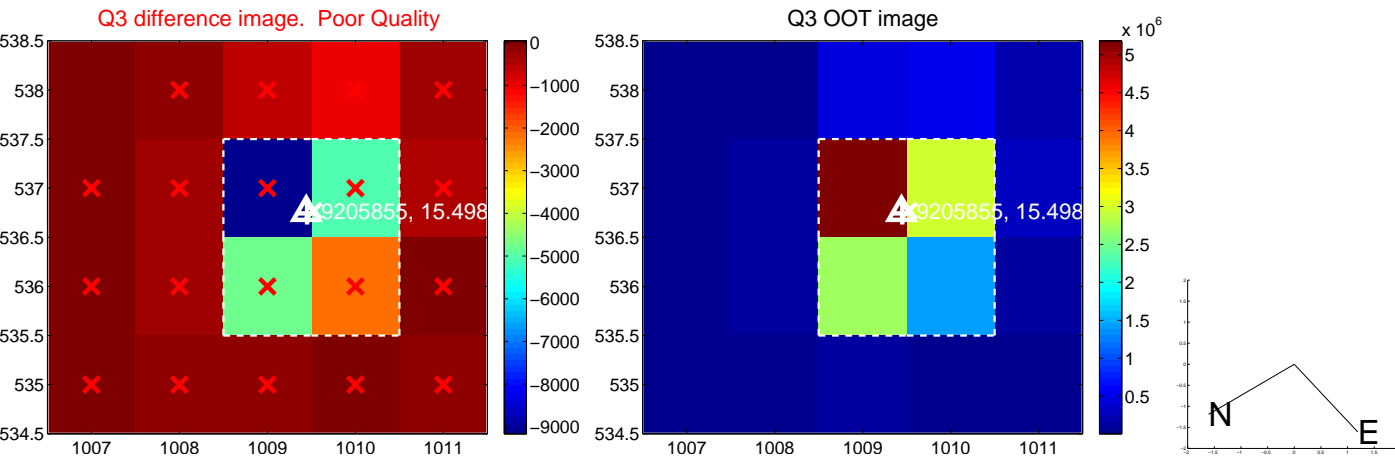
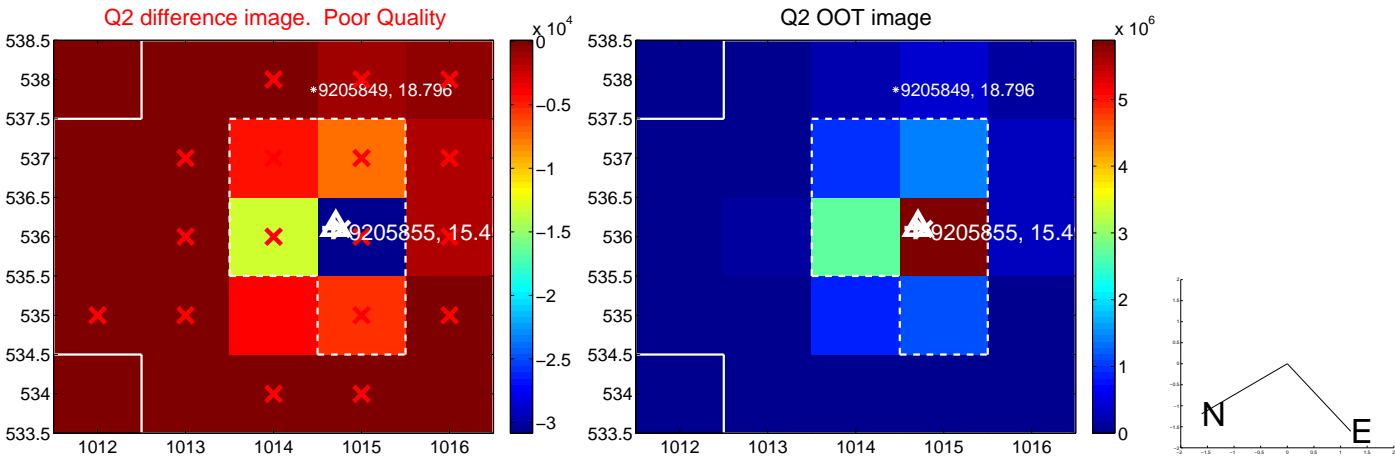
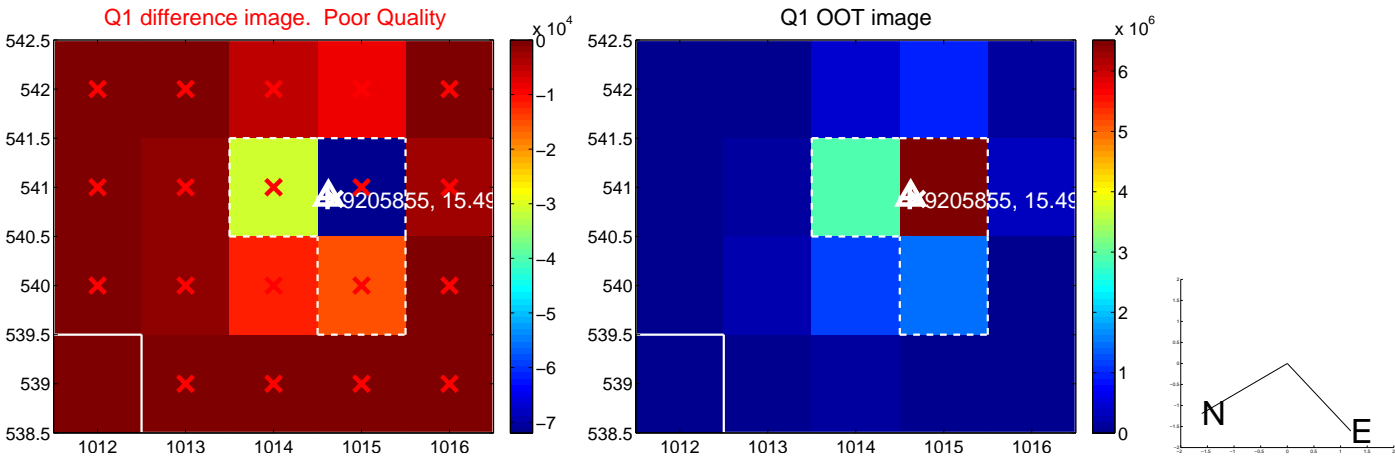
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.056 ± 0.072	0.77	-0.007 ± 0.144	-0.055 ± 0.076
PRF-fit source offset from KIC position	0.249 ± 0.131	1.90	-0.188 ± 0.141	0.164 ± 0.079
photometric centroid source offset	0.29 ± 0.02	13.41	-0.25 ± 0.02	0.16 ± 0.02

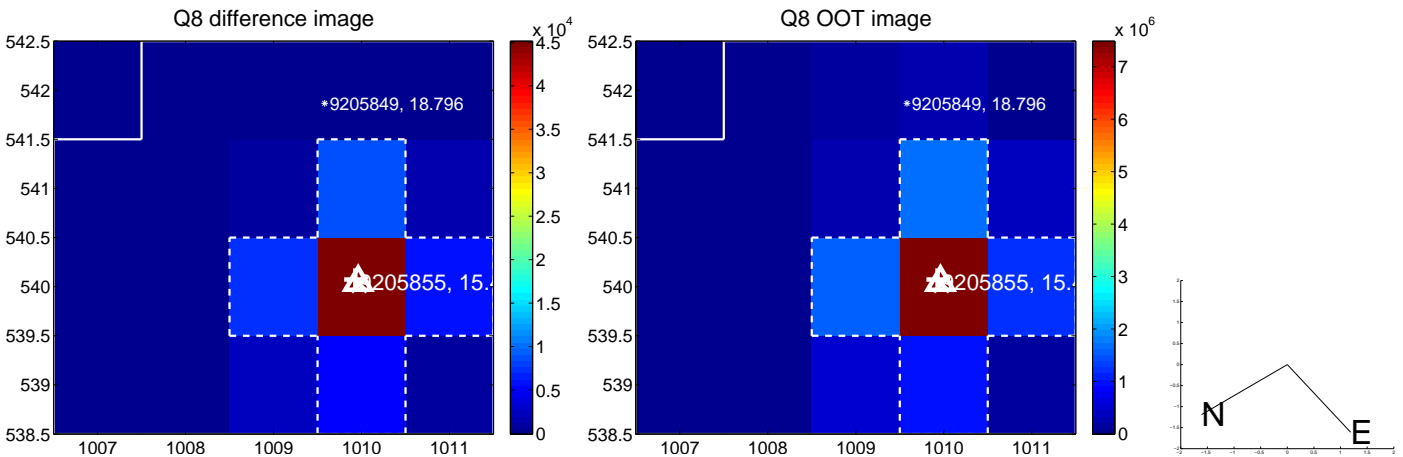
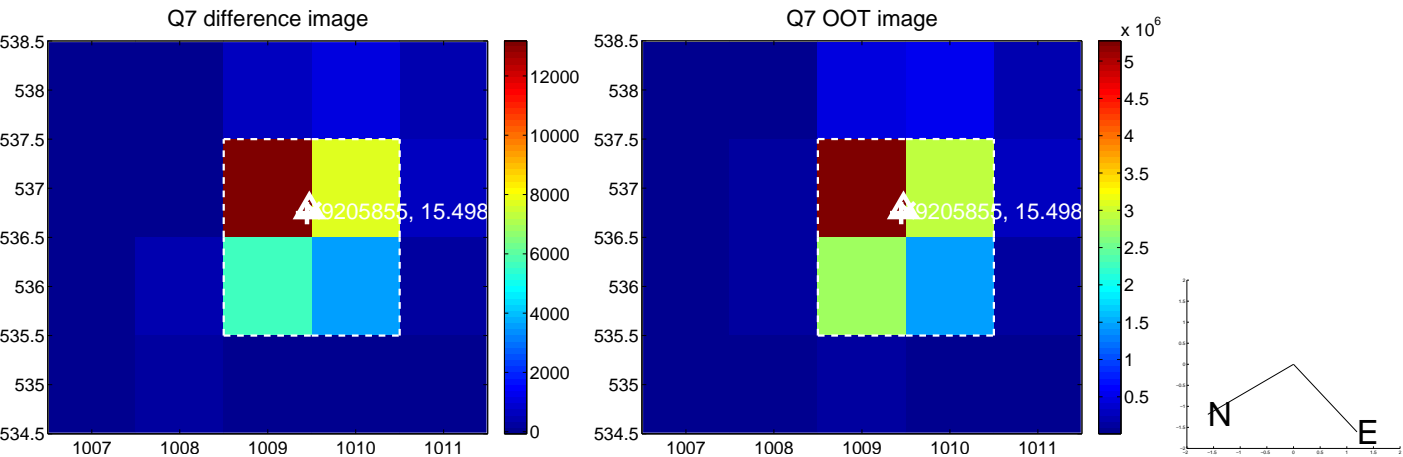
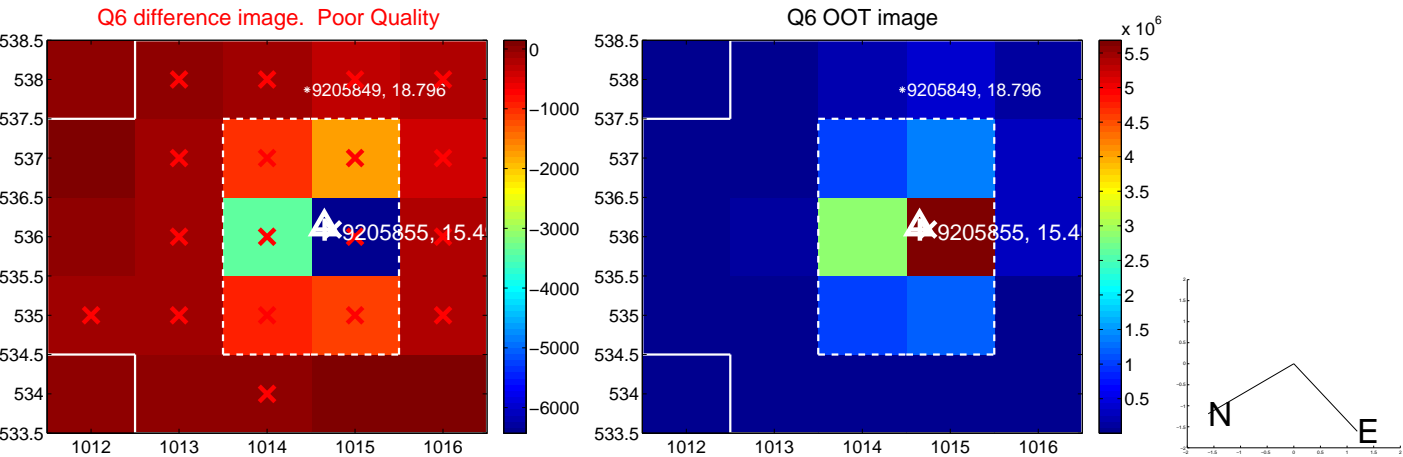
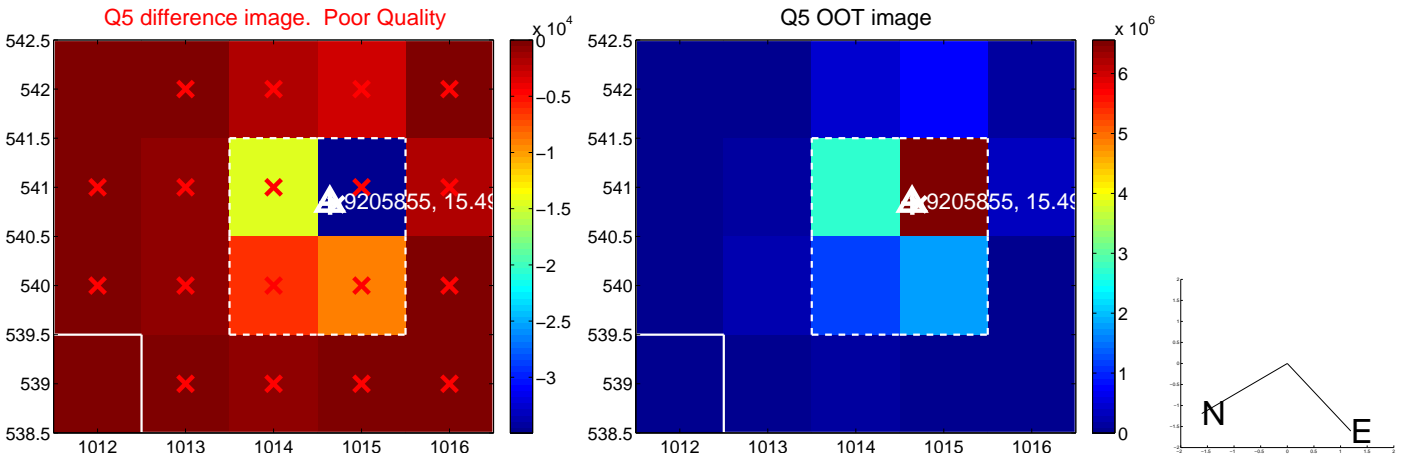


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

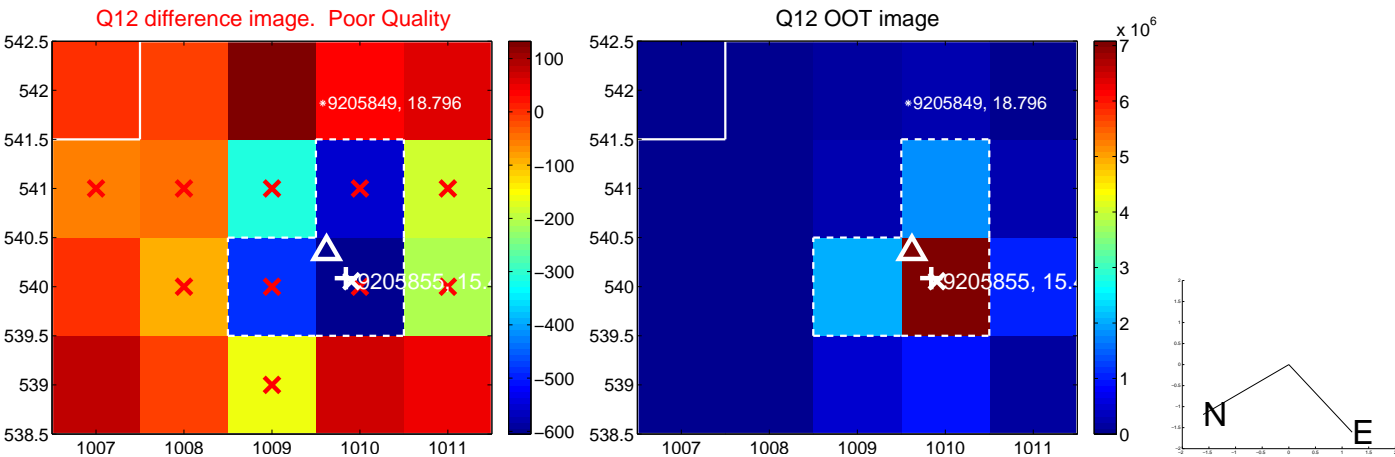
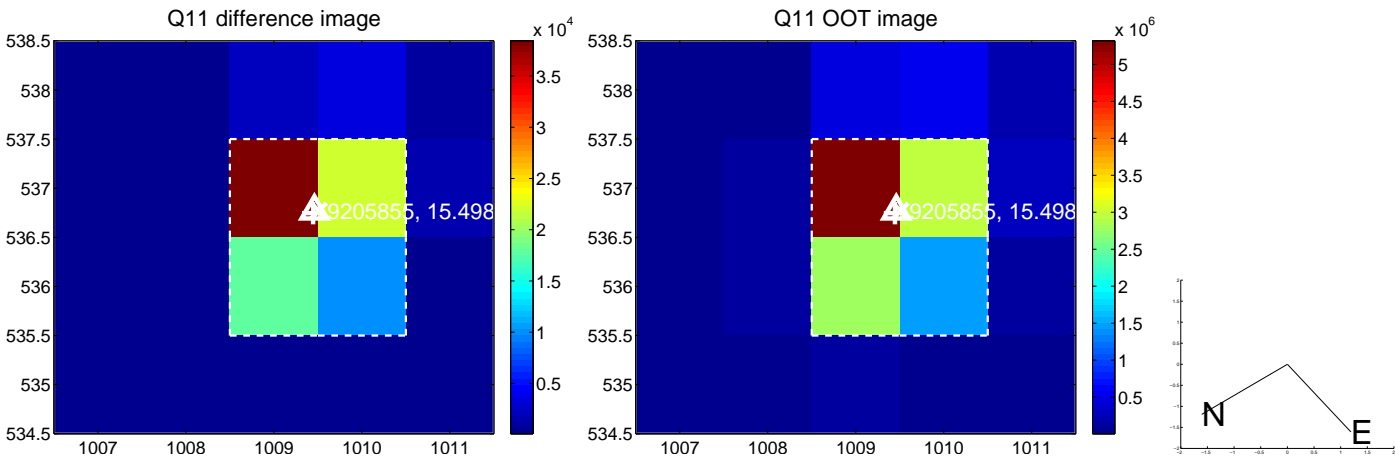
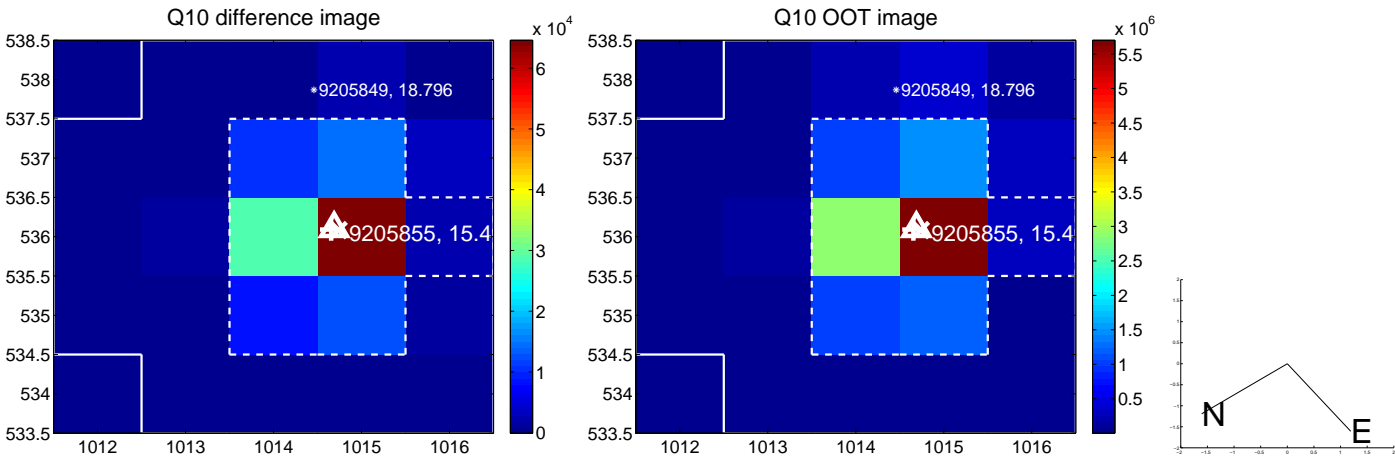
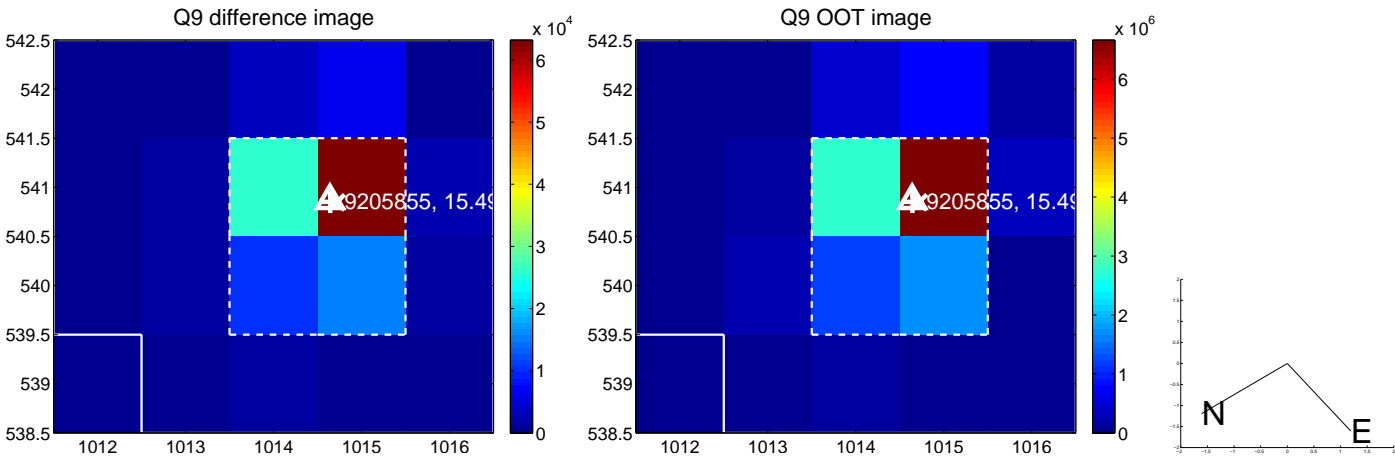
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



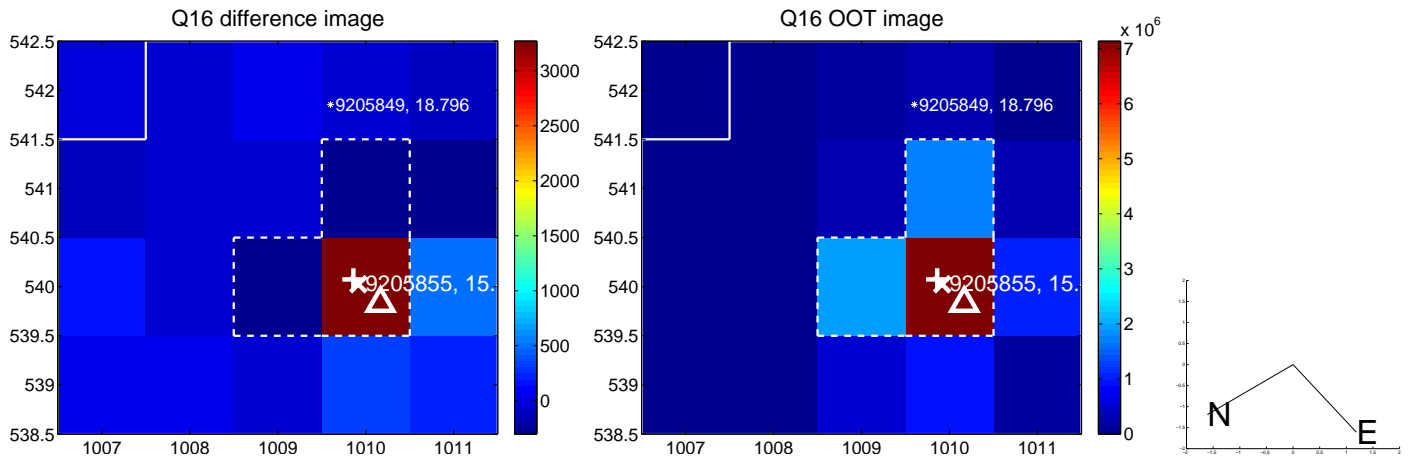
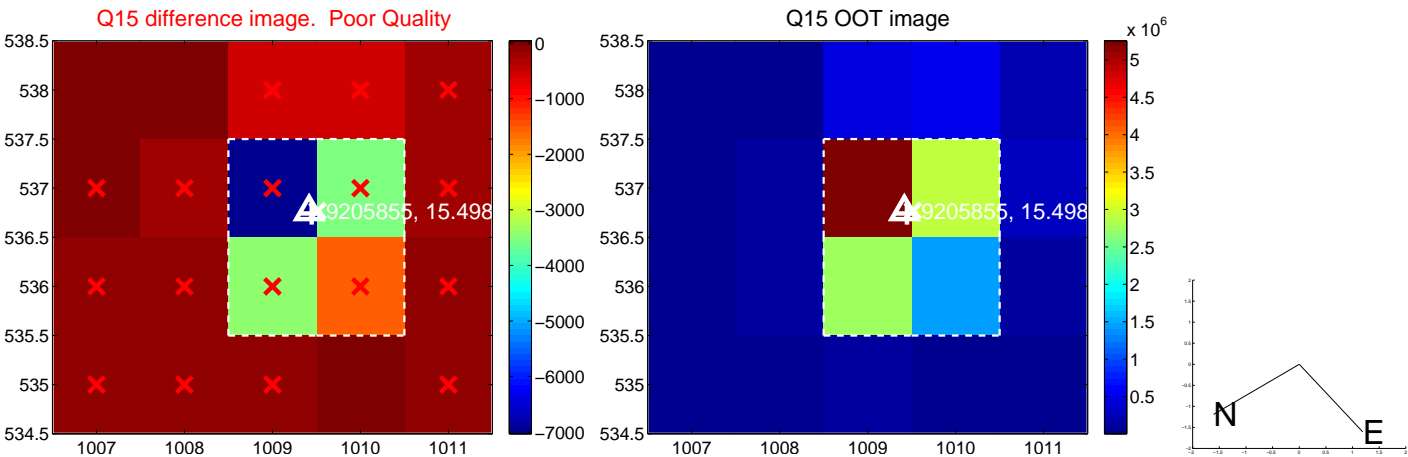
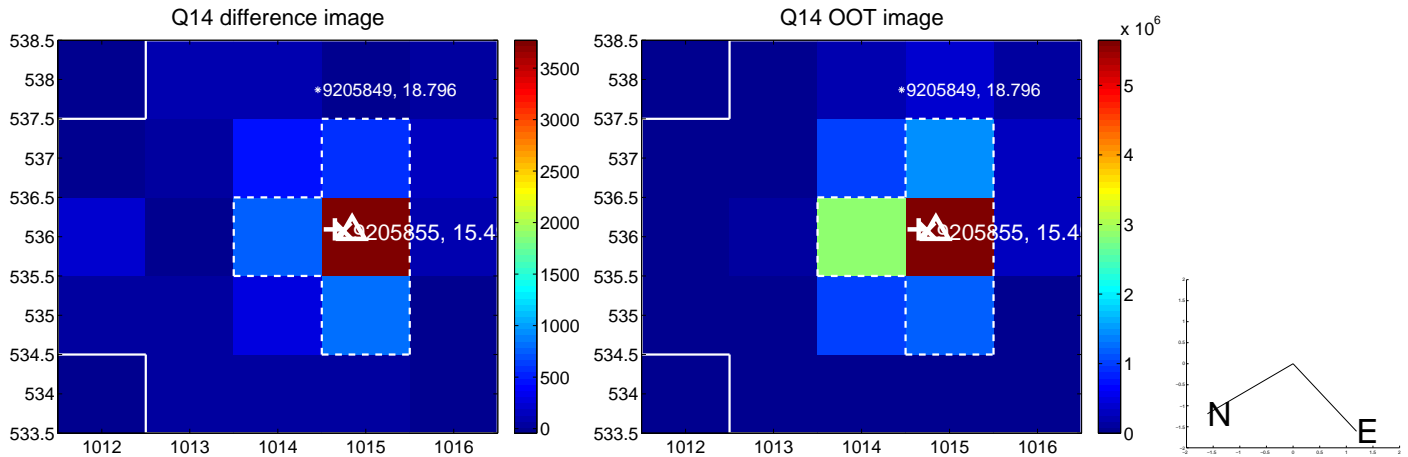
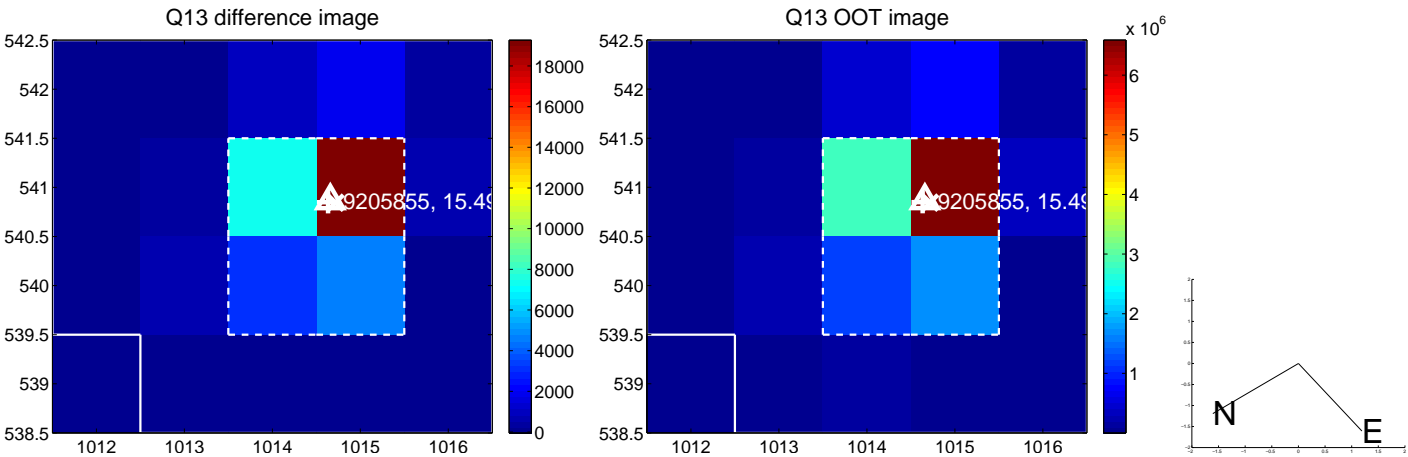
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



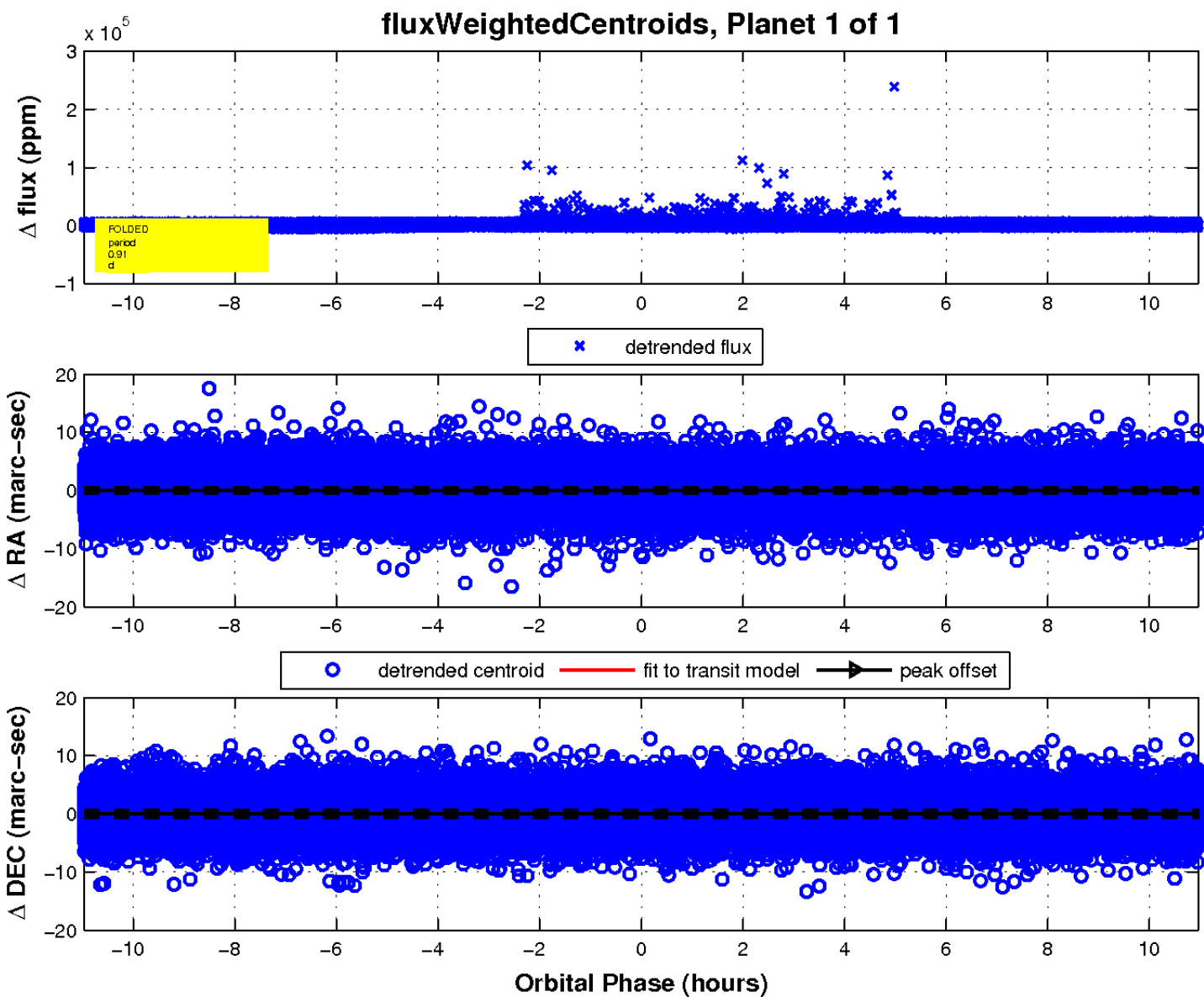
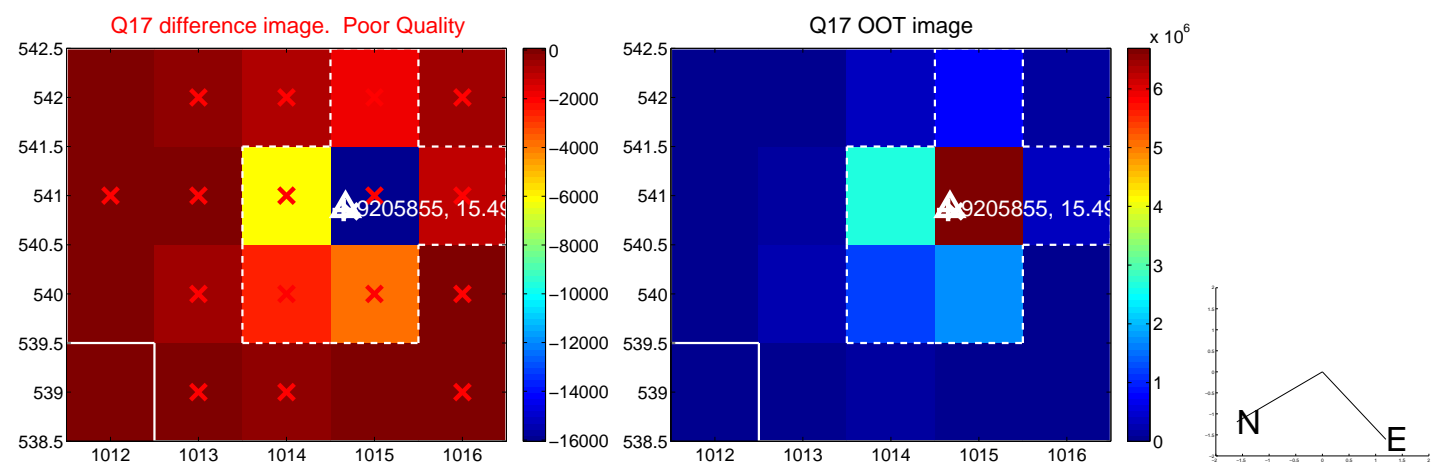
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

