

KIC 008105433

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})
008105433-01	OBS	No	369.082755	232.611812	1518.2	25.331	12.1	12.0	1.01	6063	7.18	1.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008105433-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

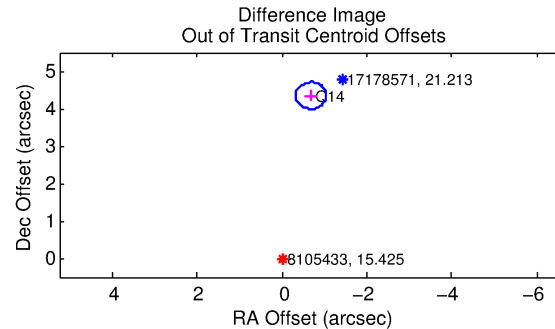
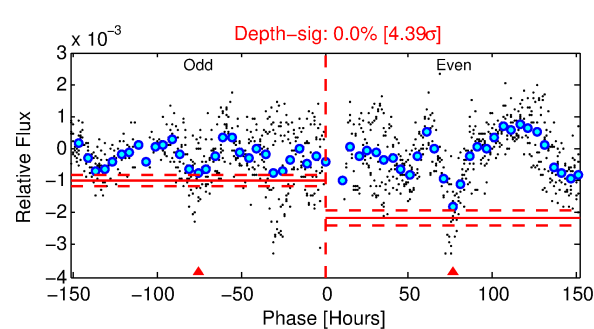
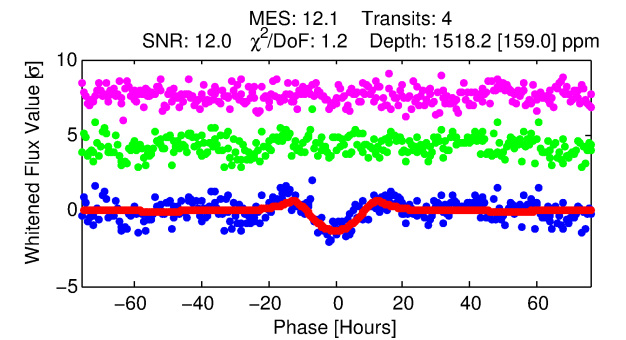
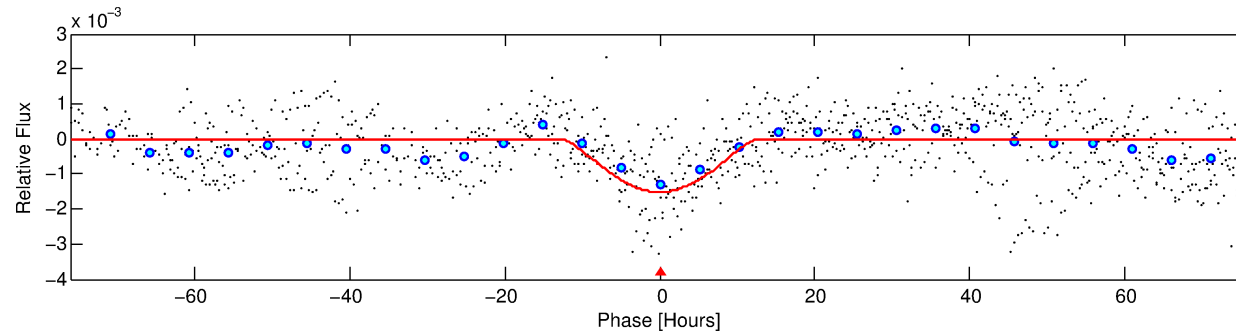
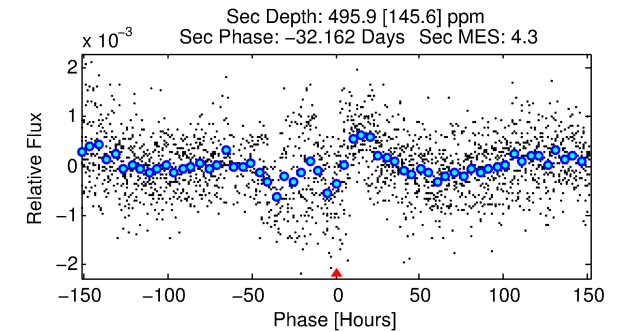
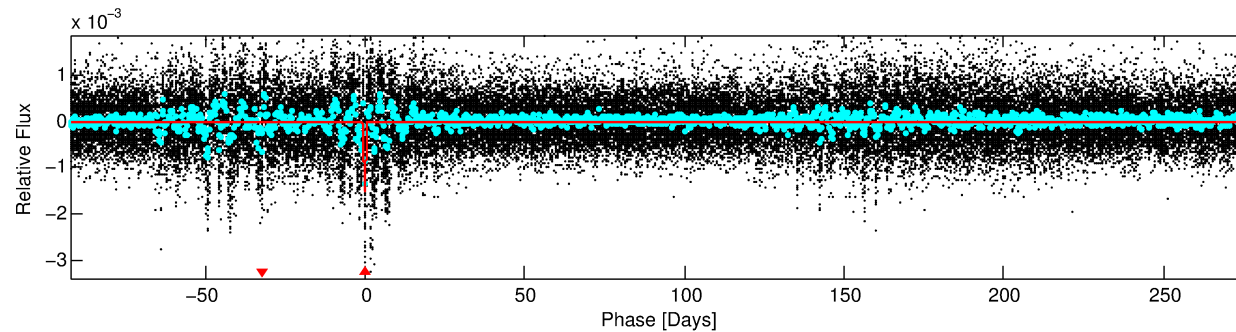
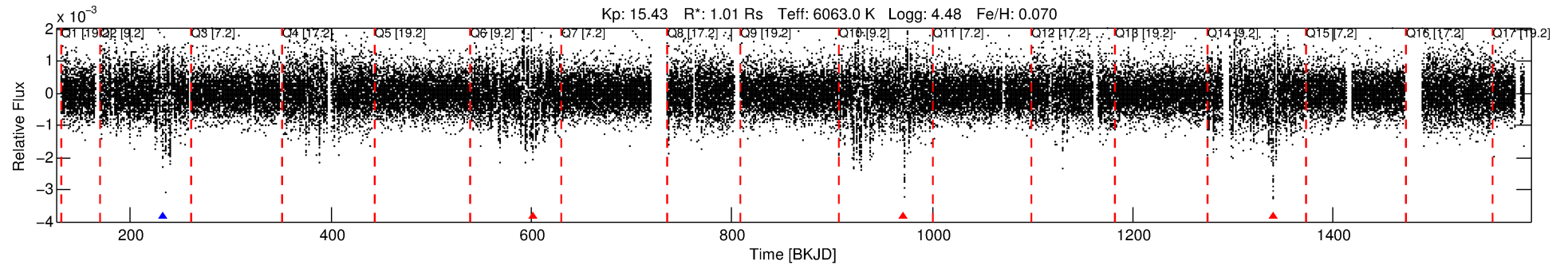
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008105433-01

No Significant Match Found

DV One-Page Summary

KIC: 8105433 Candidate: 1 of 1 Period: 369.083 d



DV Fit Results:

Period = 369.08275 [0.01706] d
Epoch = 232.6118 [0.0305] BKJD
Rp/R* = 0.0650 [0.1035]
a/R* = 42.10 [16.21]
b = 1.00 [0.16]
Seff = 1.13 [0.52]
Teq = 263 [30] K
Rp = 7.18 [11.70] Re
a = 1.0453 [0.3102] AU
Ag = 5787.60 [18683.17] [0.31σ]
Teff = 3549 [2842] K [1.16σ]

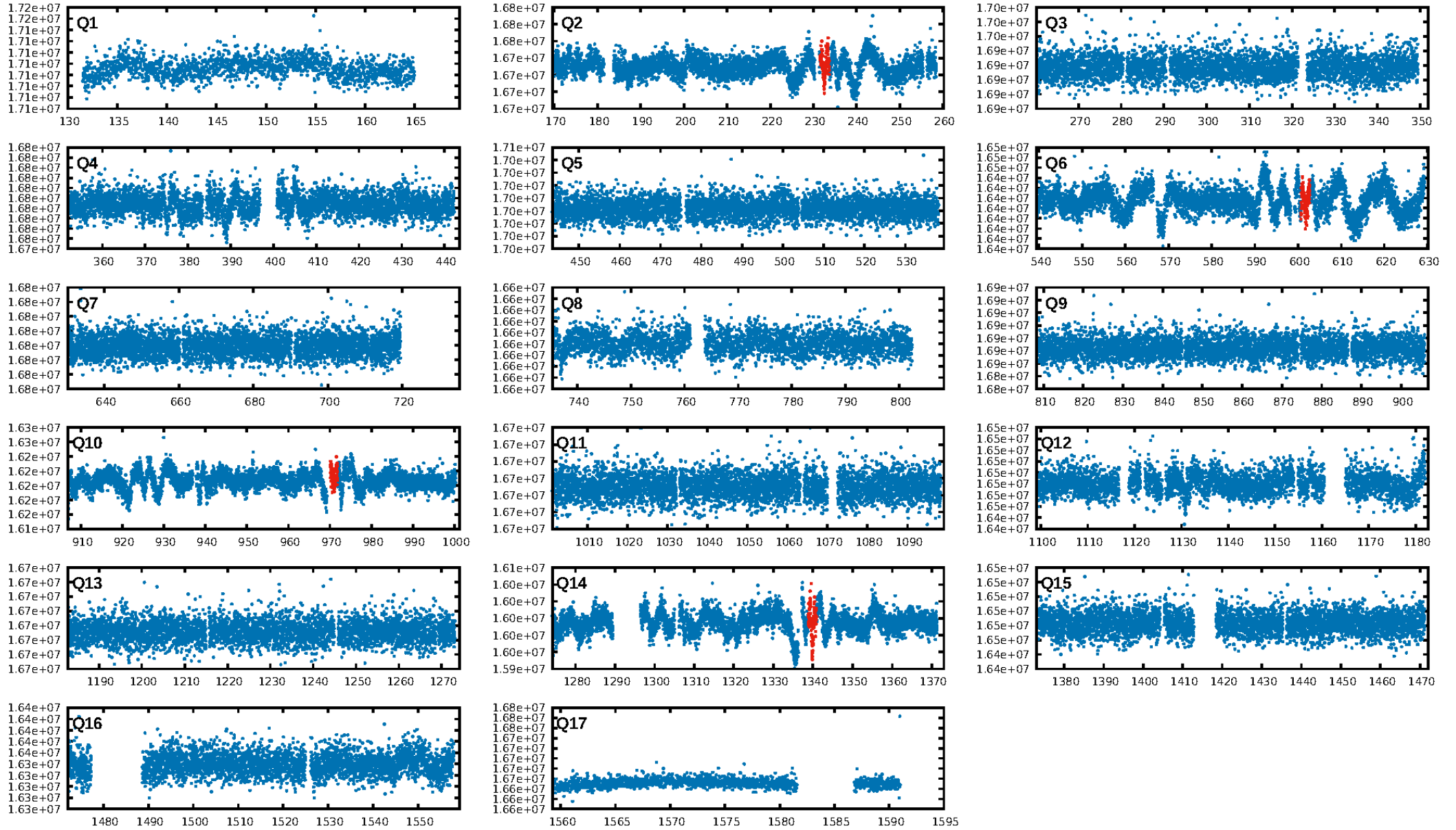
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 95.2%
Bootstrap-pfa: 1.49e-14
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 7.223
Centroid-sig: 0.8%
Centroid-so: 3.053 arcsec [1.95σ]
OotOffset-rm: 4.398 arcsec [36.93σ]
KicOffset-rm: 4.385 arcsec [36.73σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

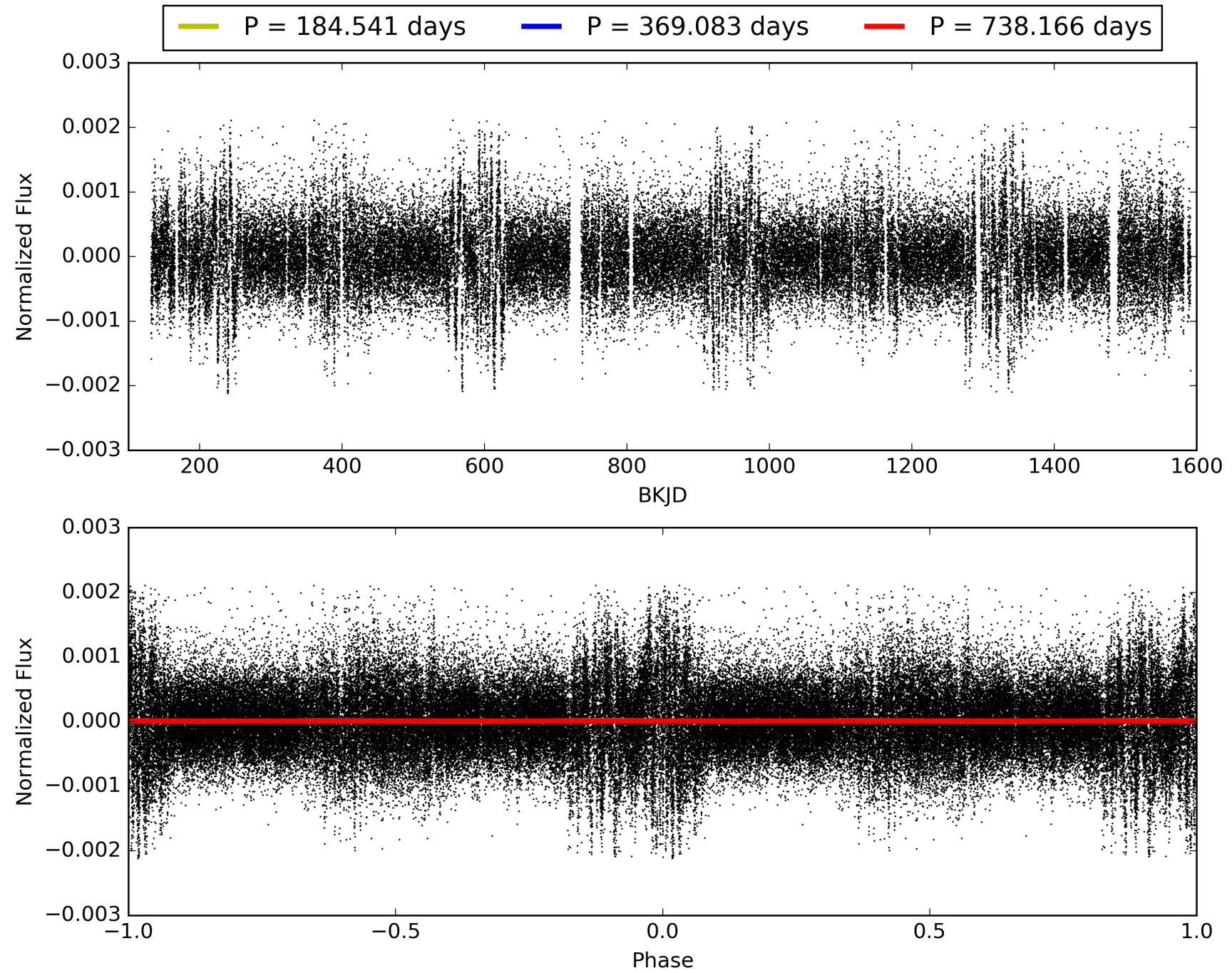
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:04:19 Z

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

TCE 008105433-01, PDC Light Curves

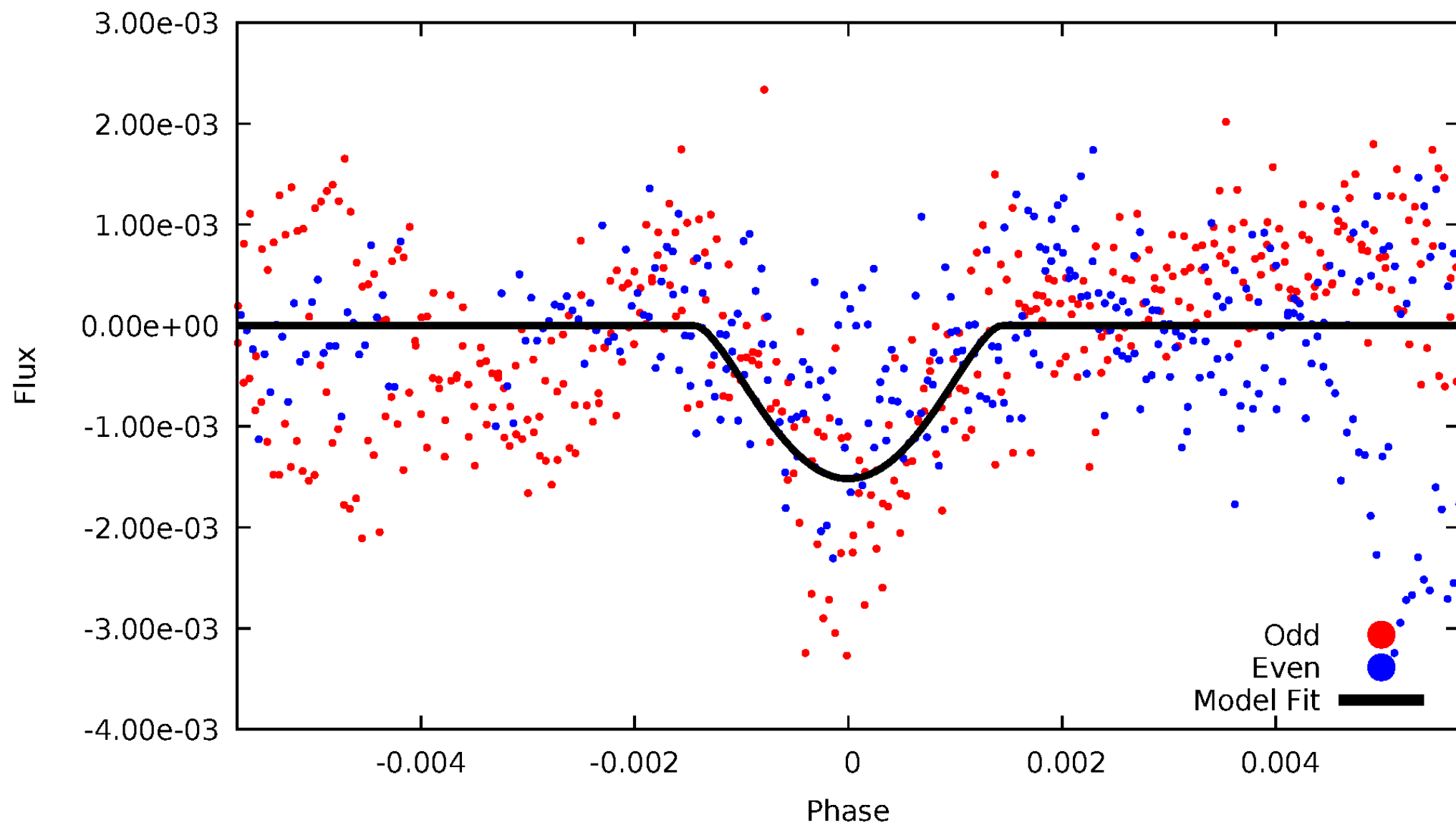


TCE 008105433-01



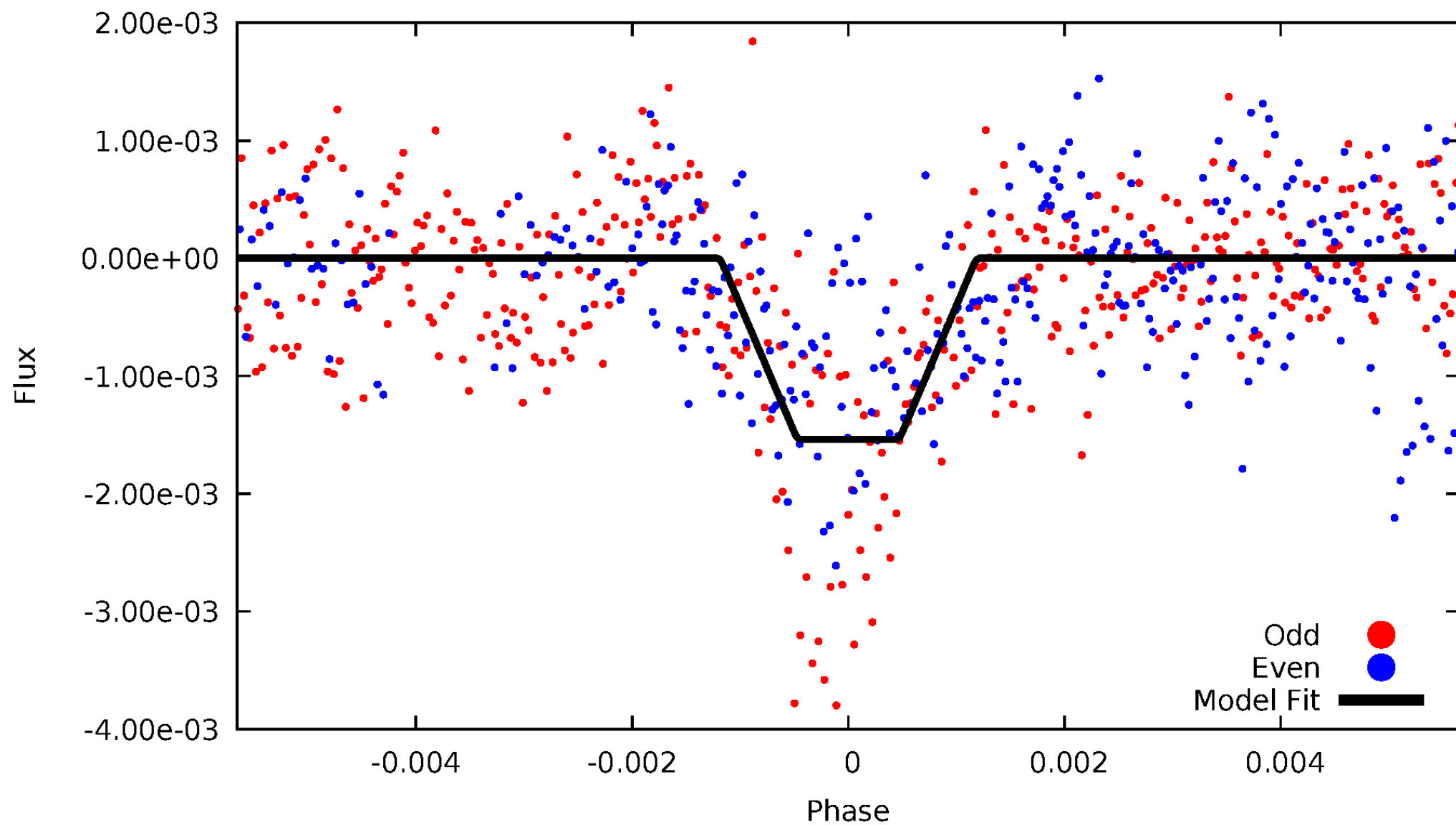
DV Odd/Even

TCE 008105433-01



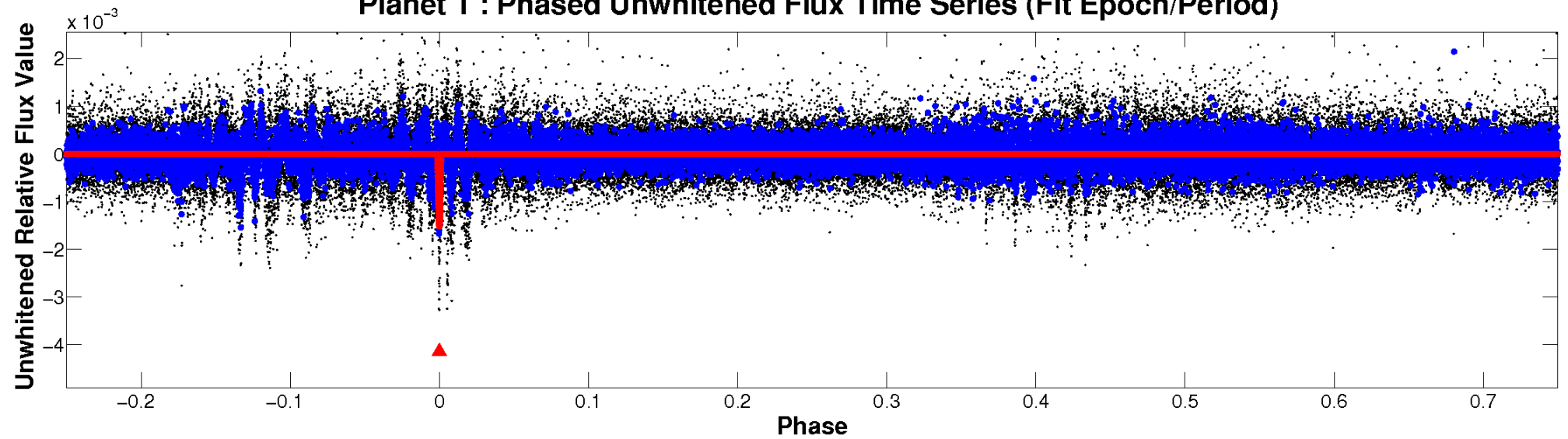
ALT Odd/Even

TCE 008105433-01

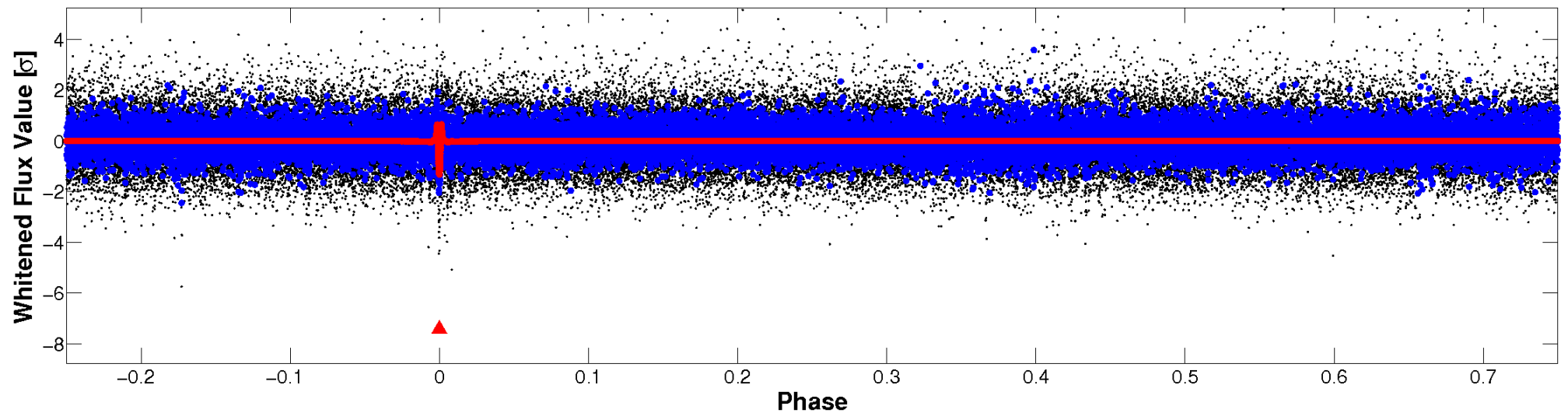


Non-Whitened Vs. Whitened Light Curve

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

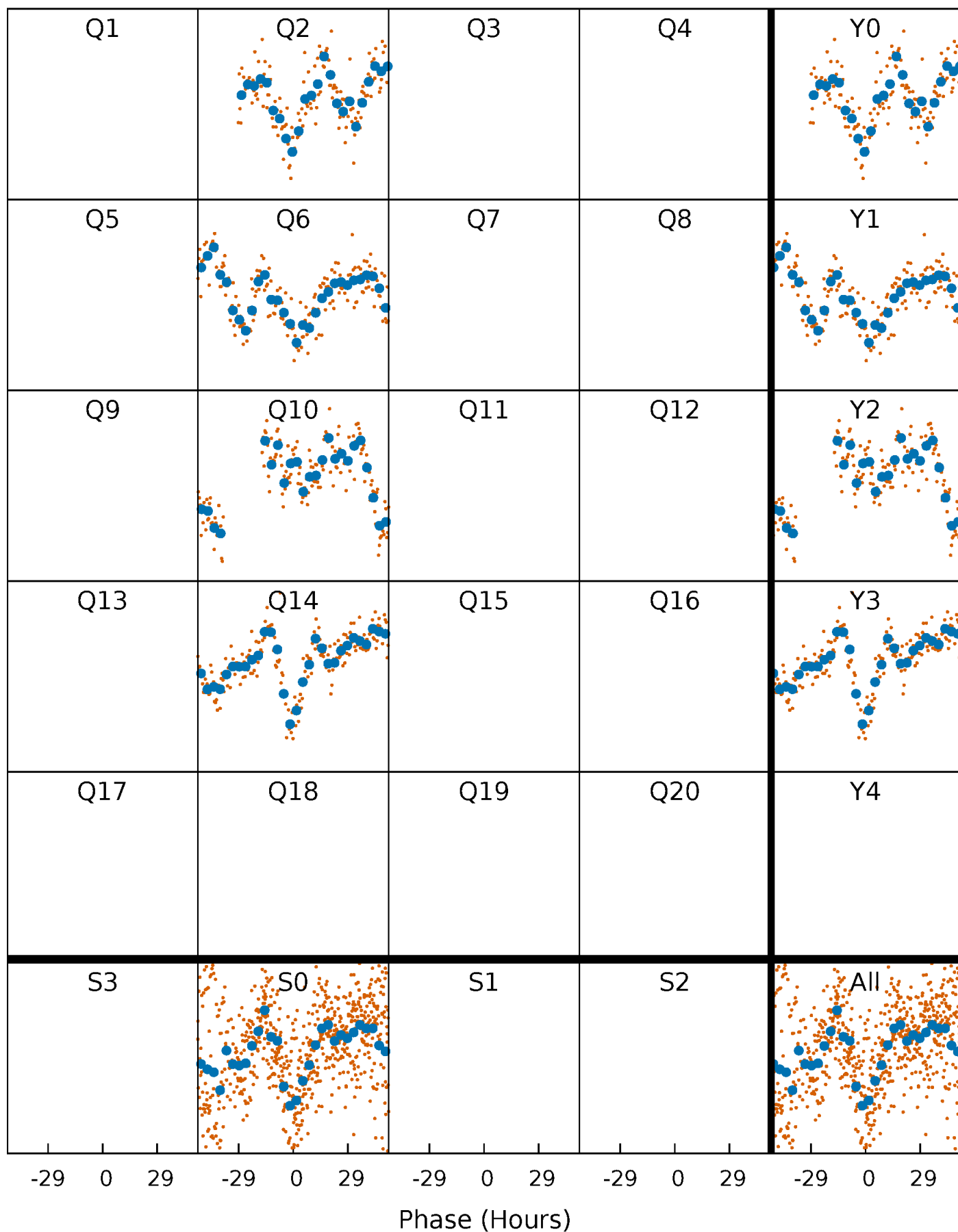


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



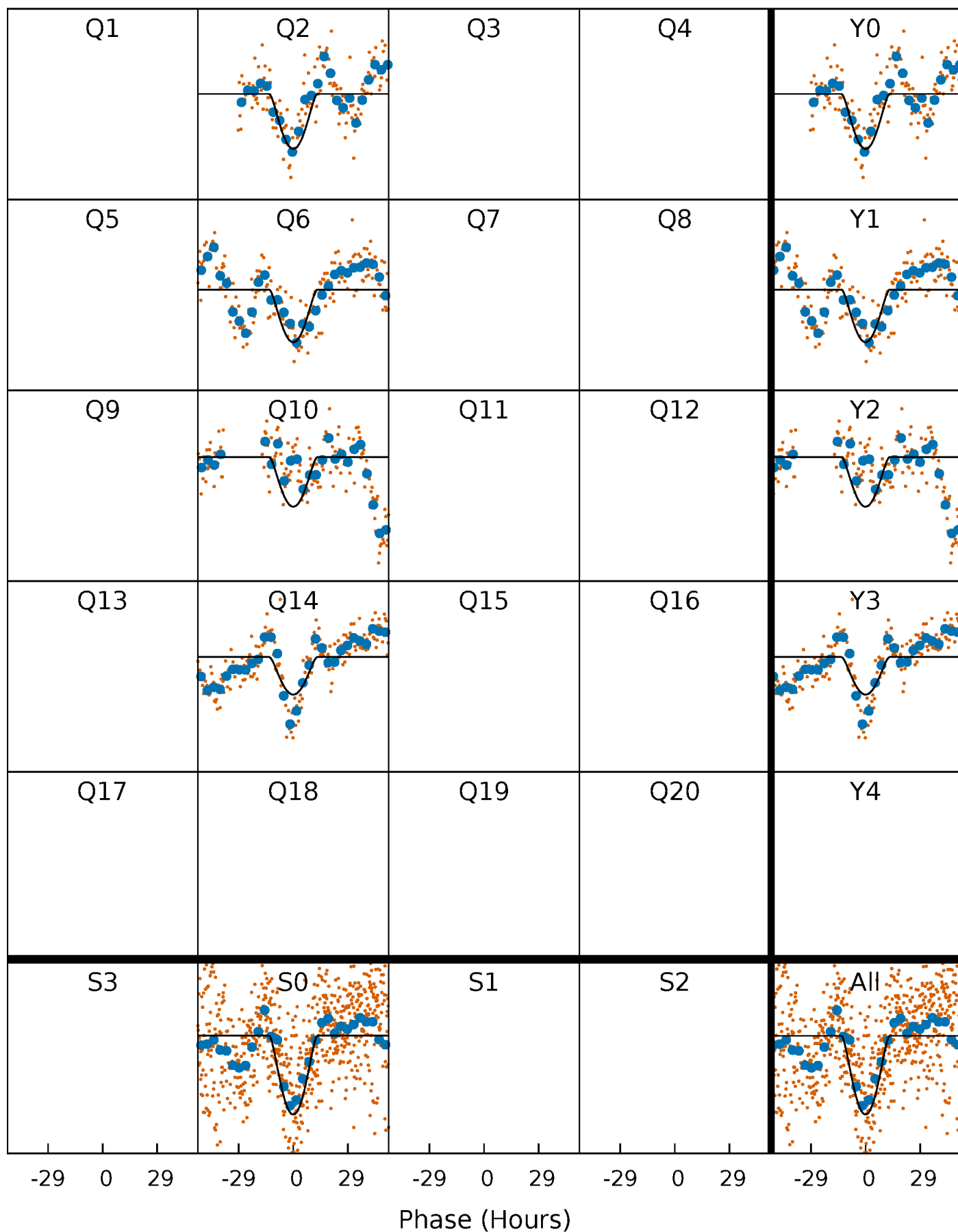
PDC Quarter-Phased Transit Curves

TCE 008105433-01 P=369.082755 Days $T_0=232.611812$ (BKJD)



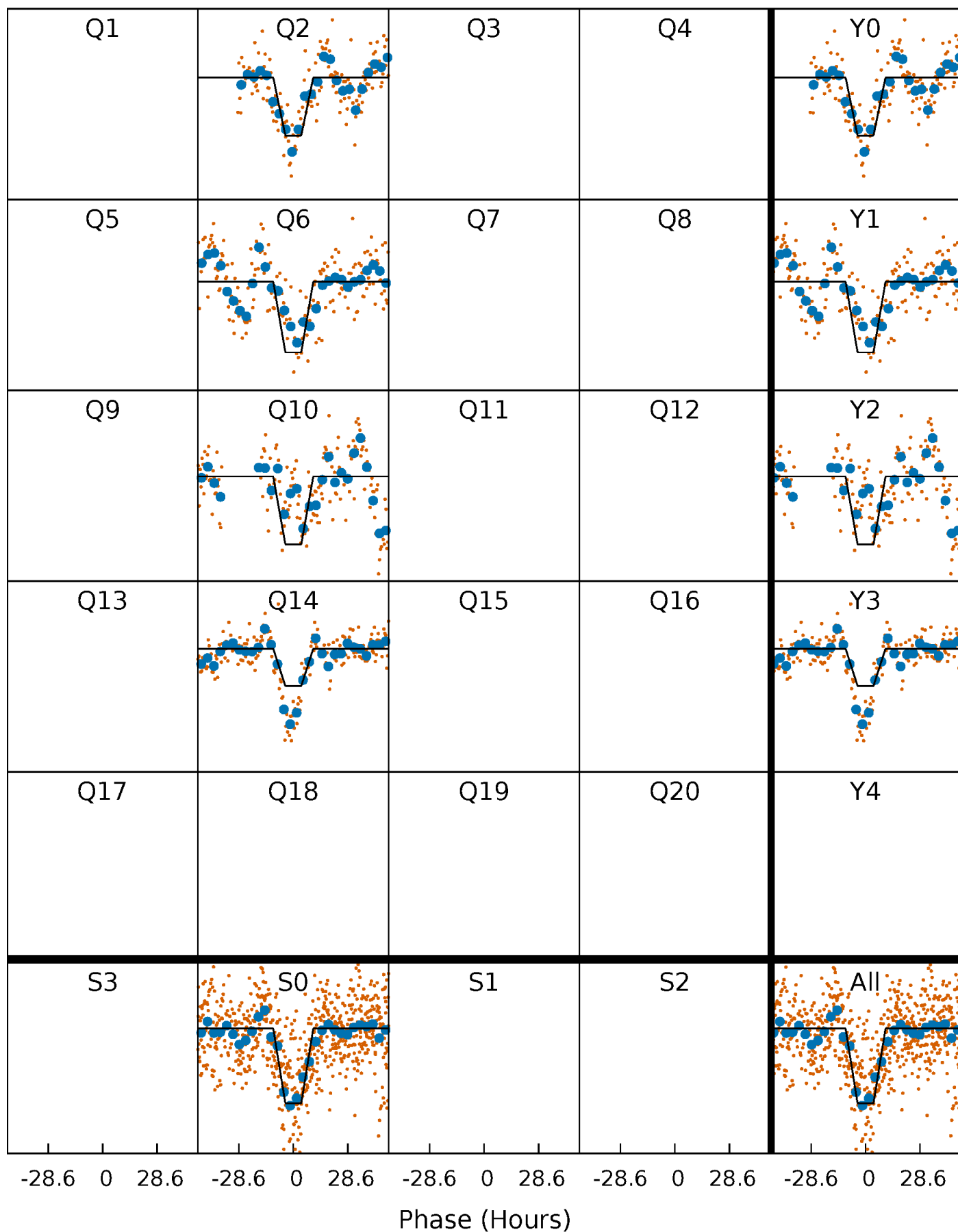
DV Quarter-Phased Transit Curves

TCE 008105433-01 P=369.082755 Days $T_0=232.611812$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

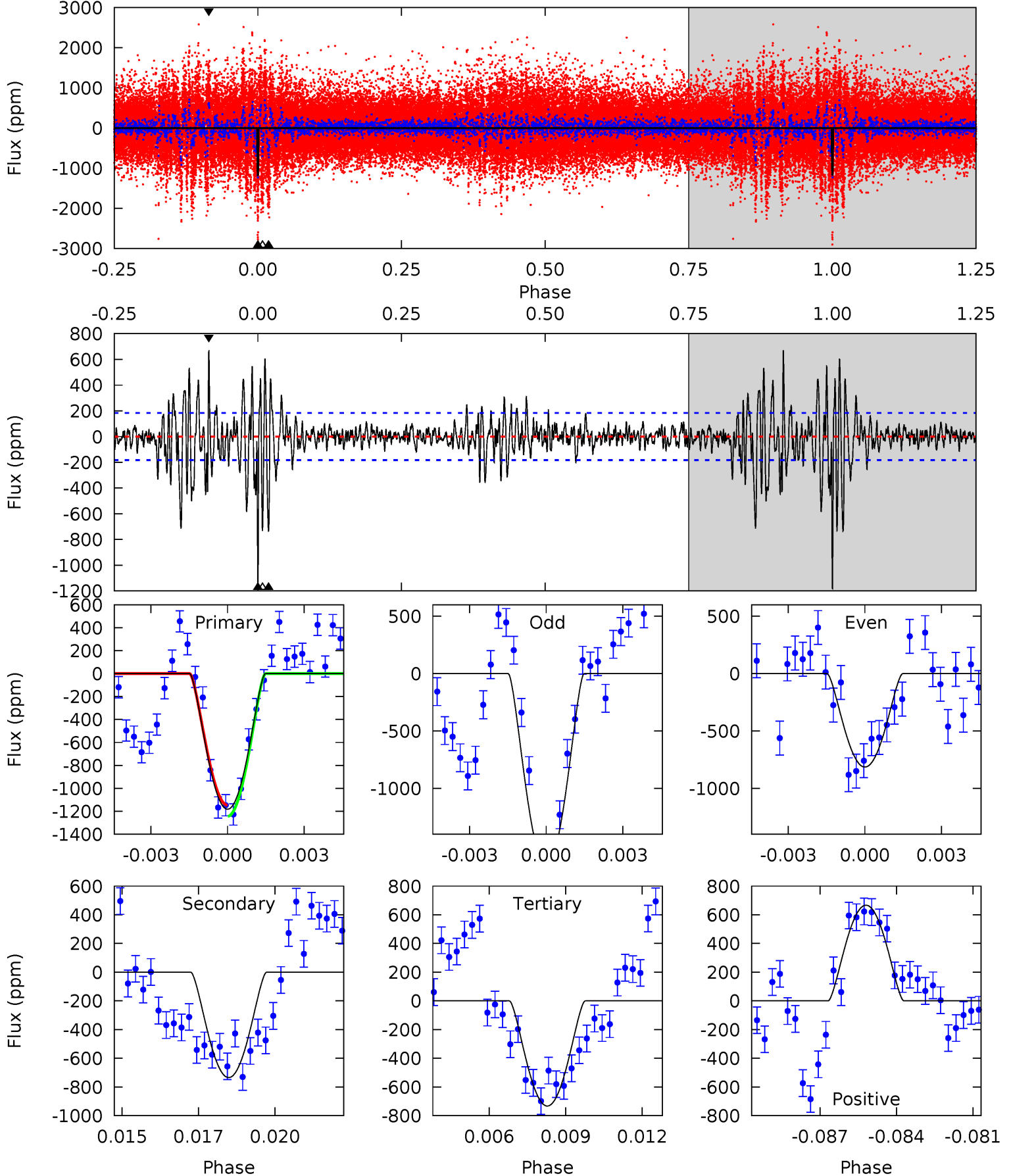
TCE 008105433-01 P=369.098206 Days $T_0=232.601556$ (BKJD)



DV Model-Shift Uniqueness Test

008105433-01, P = 369.082755 Days, E = 232.611812 Days

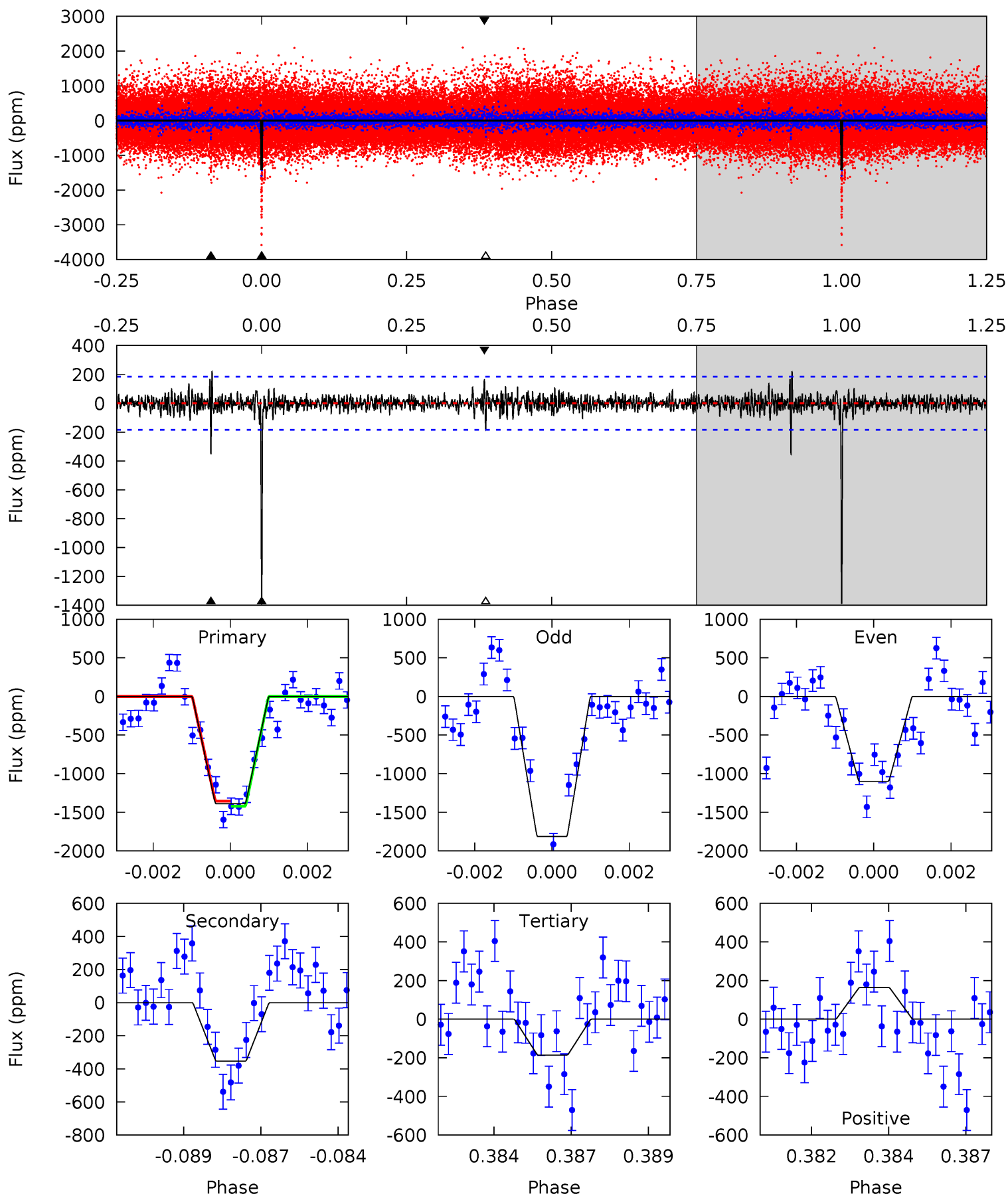
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.9	21.1	21.0	19.1	5.26	2.98	3.91	12.9	14.8	0.05	1.95	12.4	1.00	0.36	1.38



Alt Model-Shift Uniqueness Test

008105433-01, P = 369.098206 Days, E = 232.601556 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.0	10.2	5.34	4.72	5.29	3.04	1.01	34.6	35.3	4.83	5.45	10.5	1.13	0.14	0.95



Stellar Parameters For KIC 008105433

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6063^{+190}_{-232}	$4.476^{+0.042}_{-0.238}$	$0.070^{+0.250}_{-0.300}$	$1.012^{+0.355}_{-0.095}$	$1.117^{+0.136}_{-0.151}$	$1.519^{+0.347}_{-0.849}$
	+3%/-4%	+1%/-5%	+357%/-429%	+35%/-9%	+12%/-14%	+23%/-56%
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 008105433-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-735 ± 35	$12.36^{+10.25}_{-7.61}$	379^{+30}_{-21}	3562^{+1446}_{-593}	2806^{+15868}_{-1929}
Alt.	-354 ± 35	$9.38^{+10.40}_{-6.50}$	377^{+31}_{-19}	3418^{+1907}_{-643}	2320^{+22449}_{-1791}

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

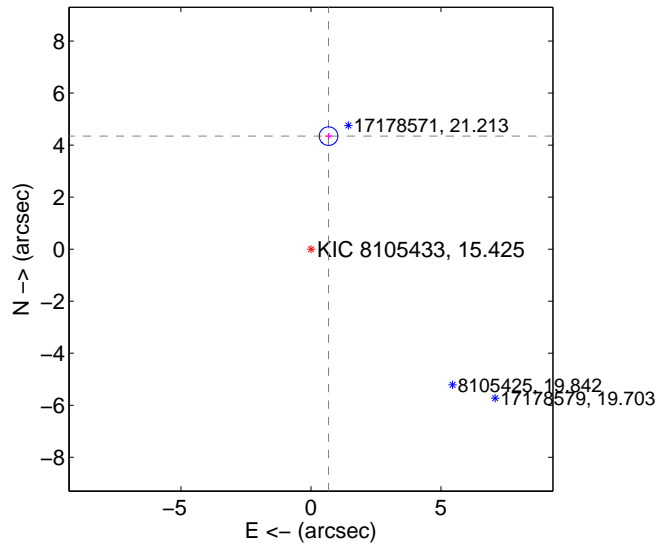
Supplemental centroid analysis for 008105433-01. Kepler magnitude: 15.43. Transit SNR 12.02

There are 0 quarters with good PRF difference image offsets

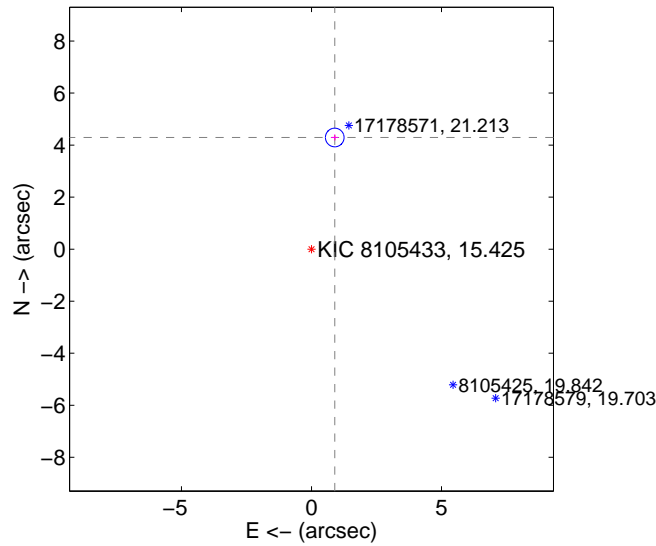
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.398 ± 0.119	36.93	-0.676 ± 0.133	4.346 ± 0.119
PRF-fit source offset from KIC position	4.385 ± 0.119	36.73	-0.895 ± 0.133	4.293 ± 0.119
photometric centroid source offset	3.05 ± 1.57	1.95	-0.82 ± 1.50	2.94 ± 1.57

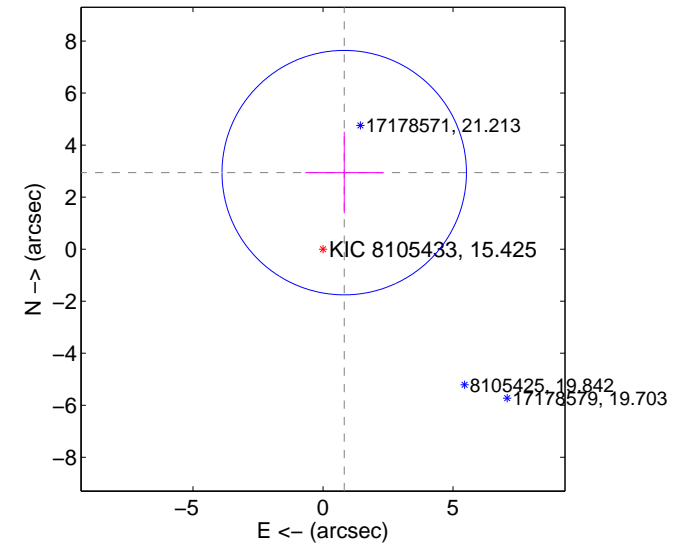
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

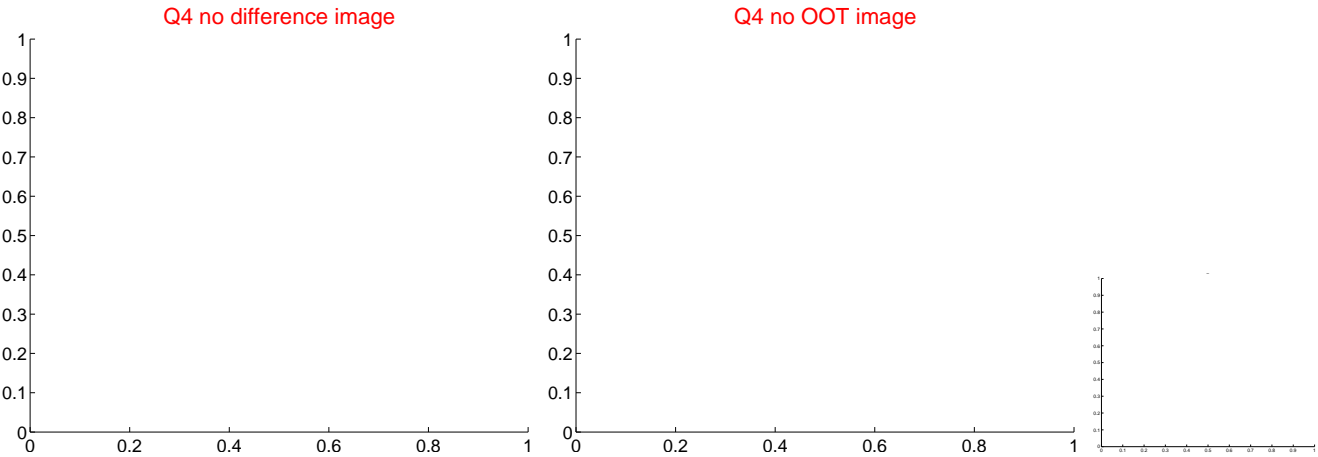
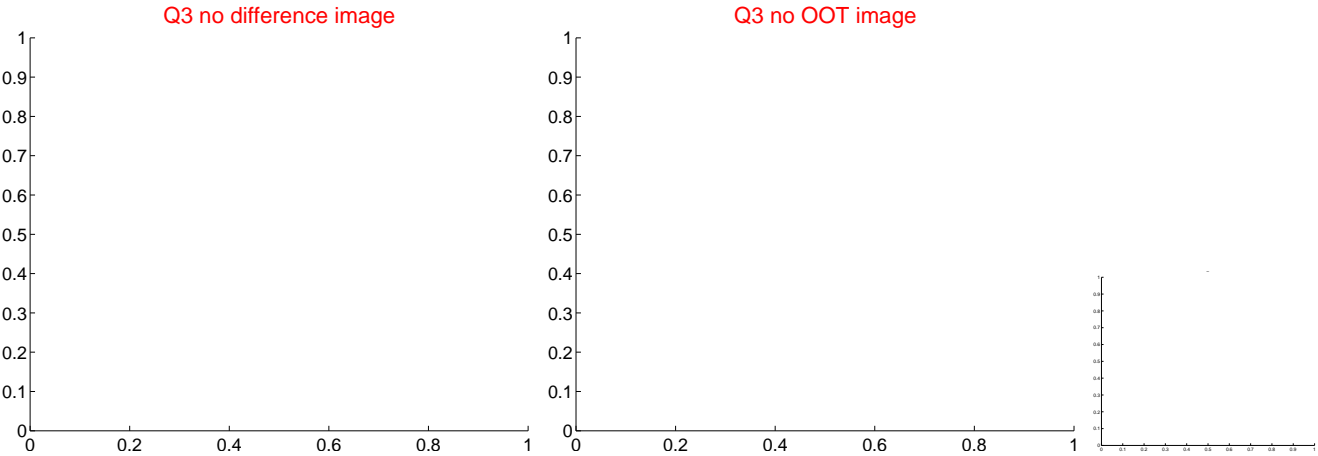
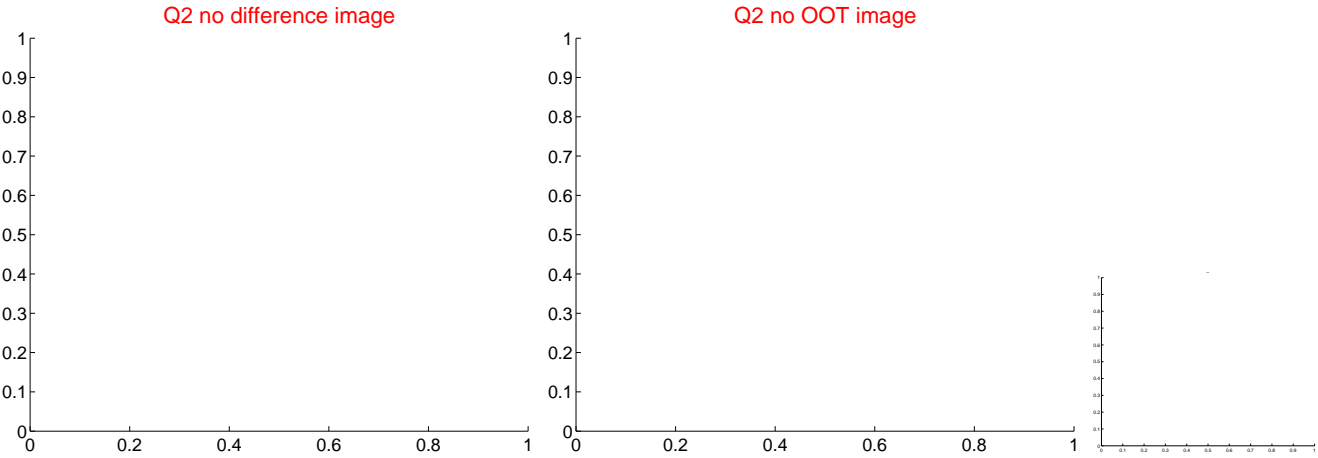
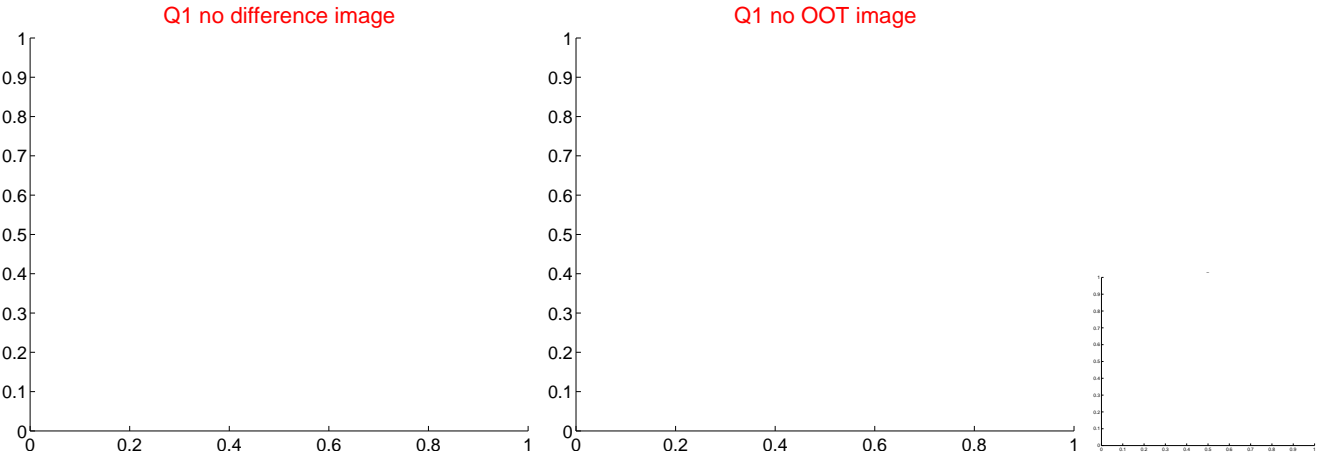


offset from photometric centroids

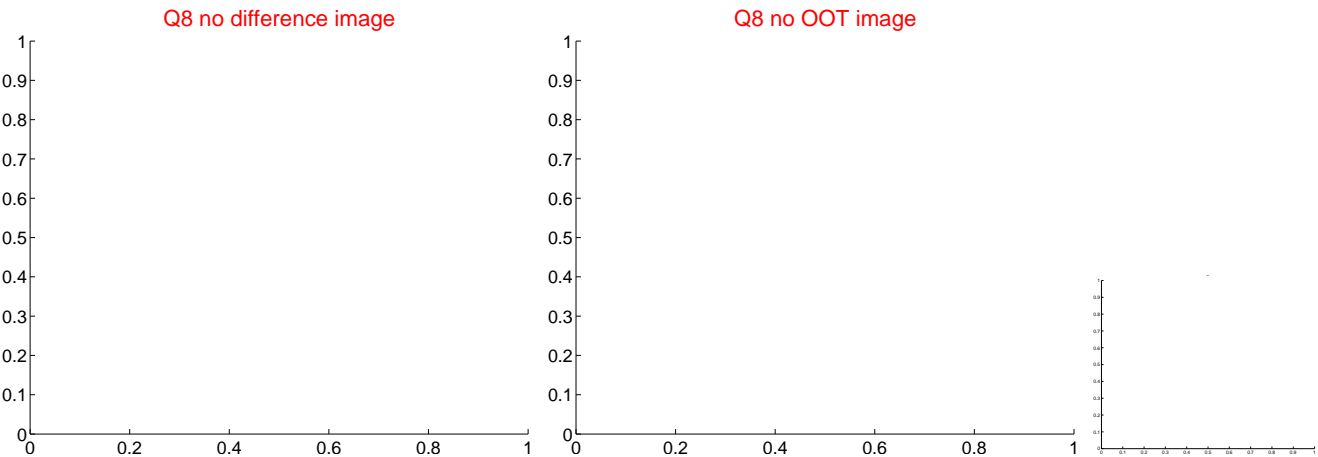
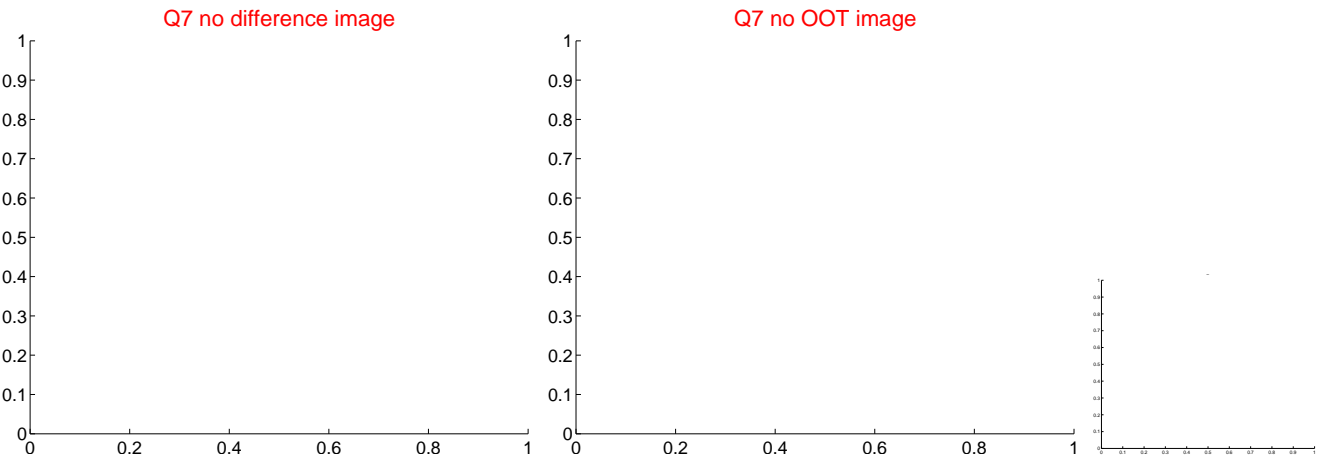
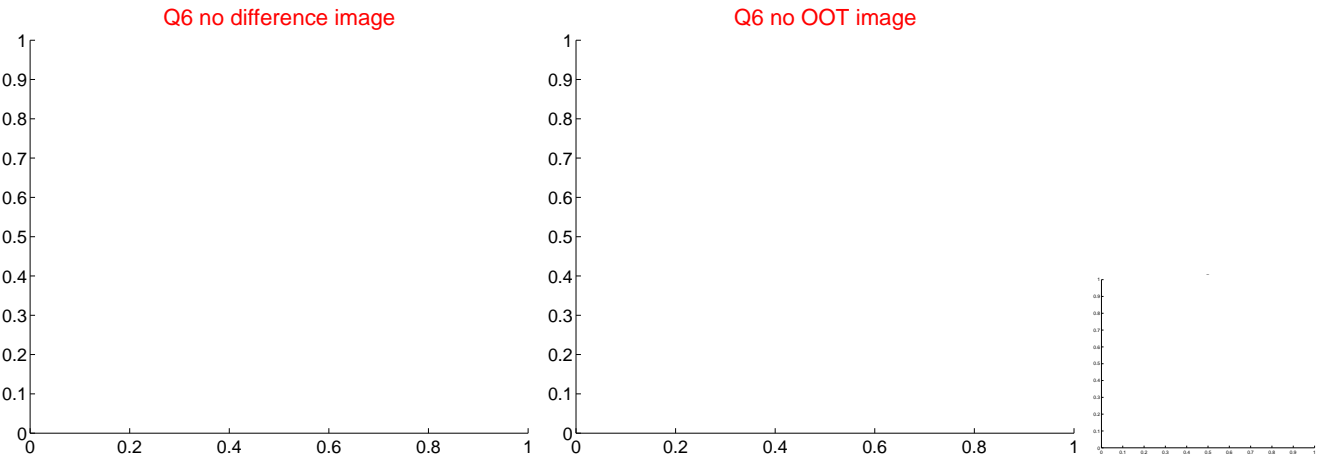
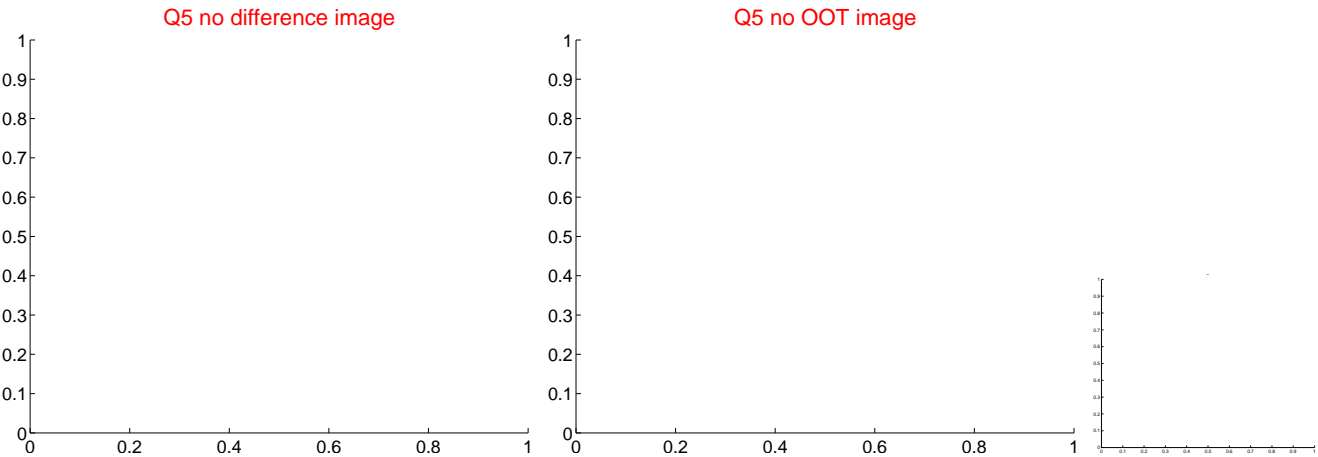


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



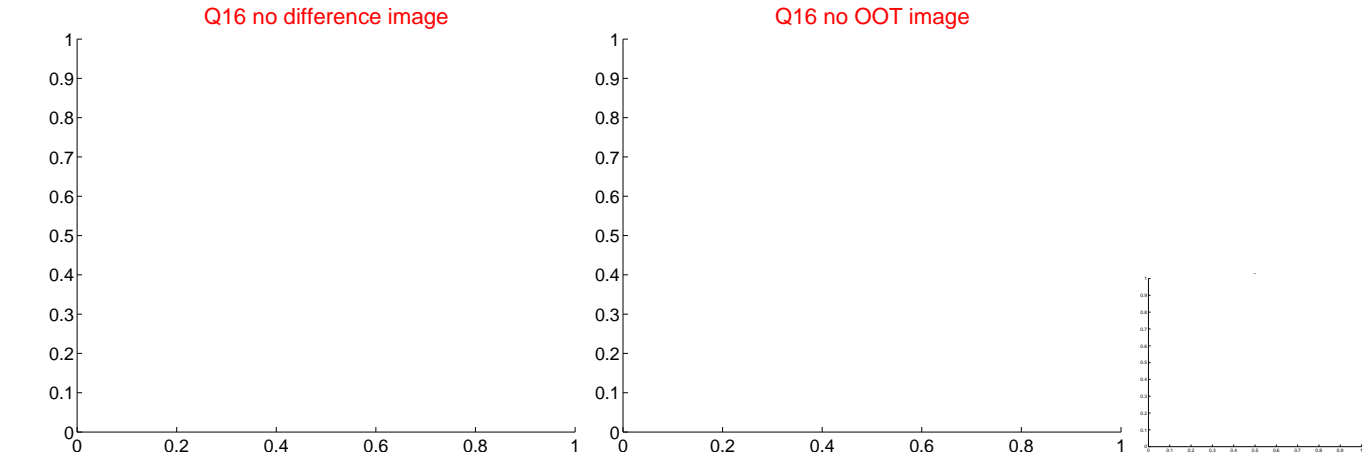
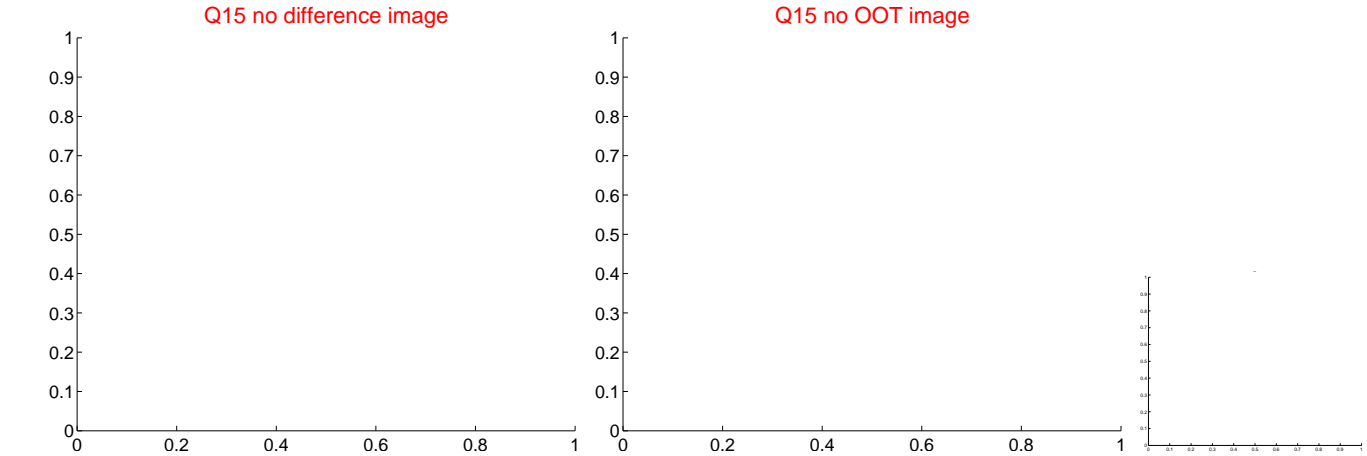
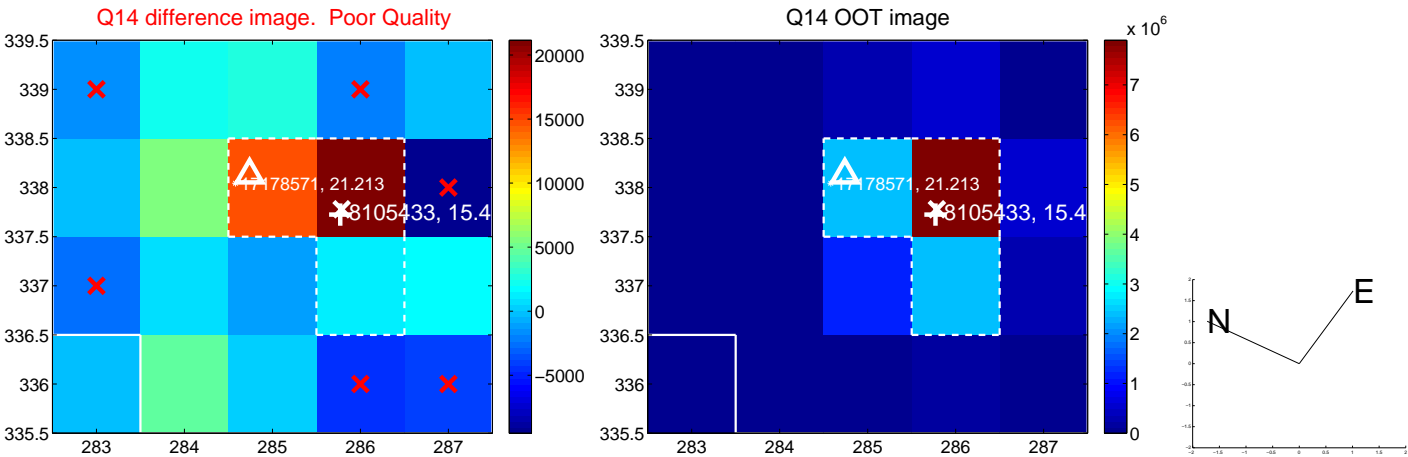
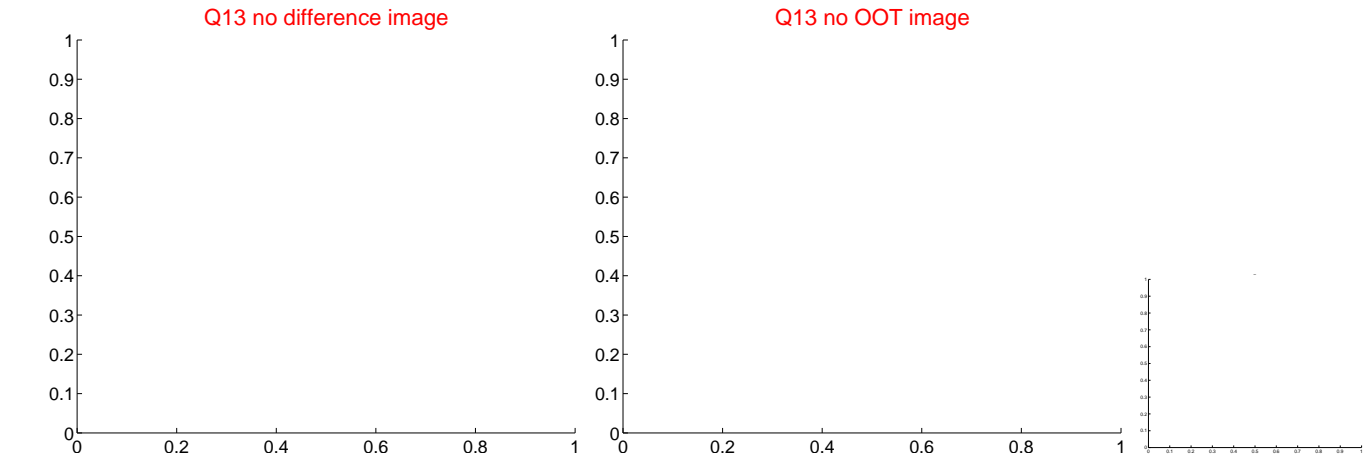
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



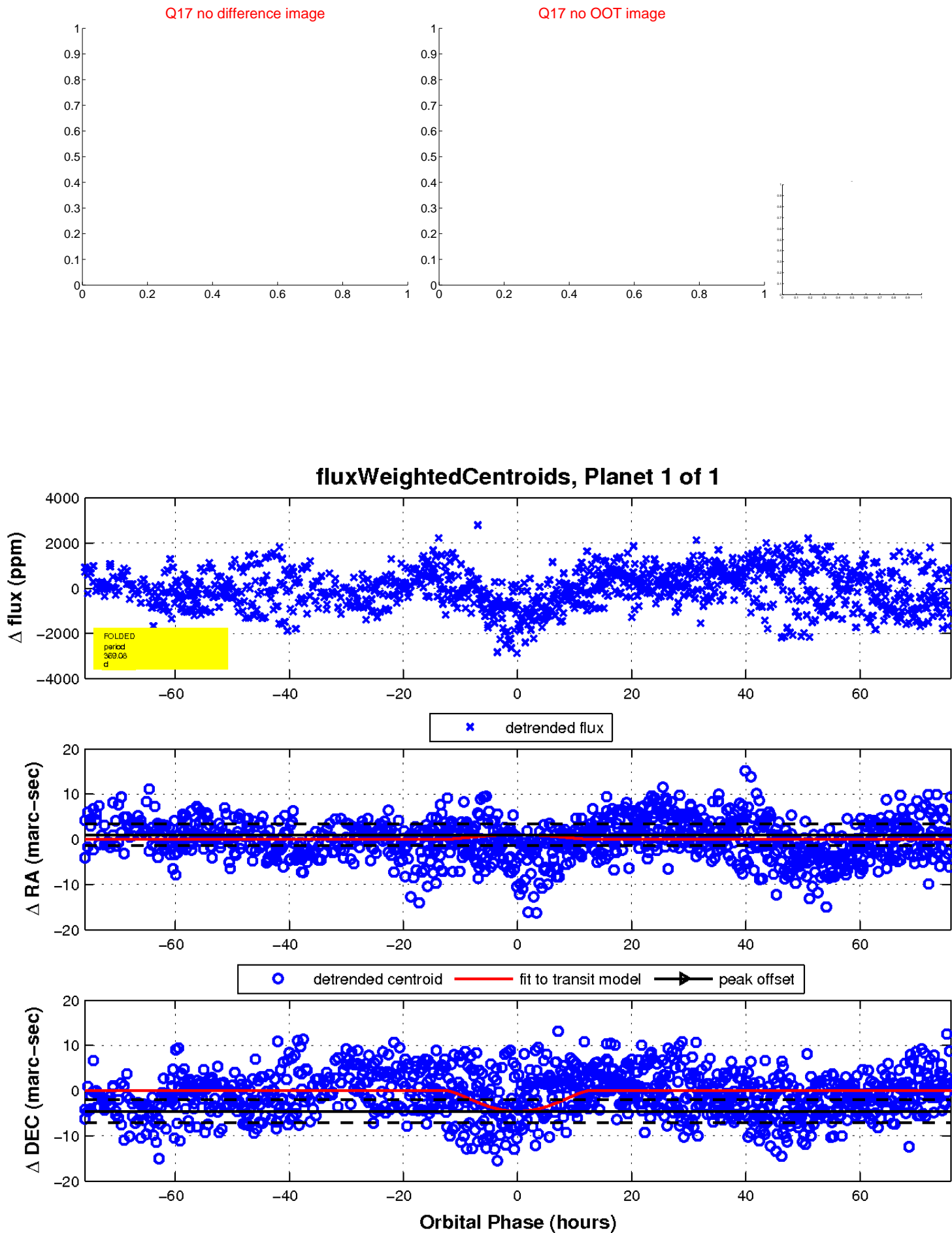
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

