

KIC 011205231

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})
011205231-01	OBS	No	425.533365	492.989239	175.6	11.001	8.2	9.2	1.10	6437	1.56	1.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011205231-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—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.

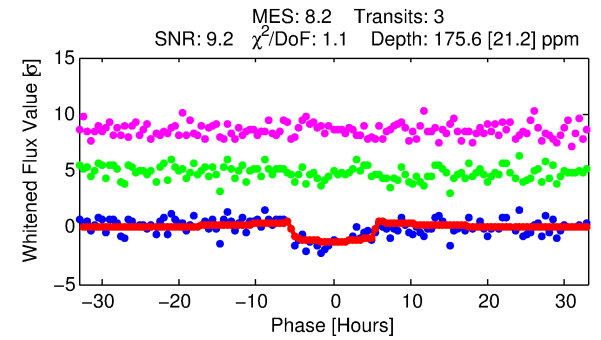
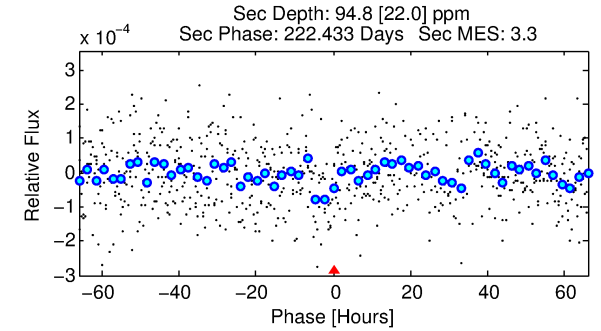
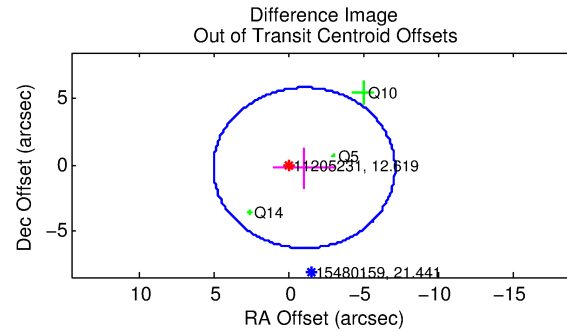
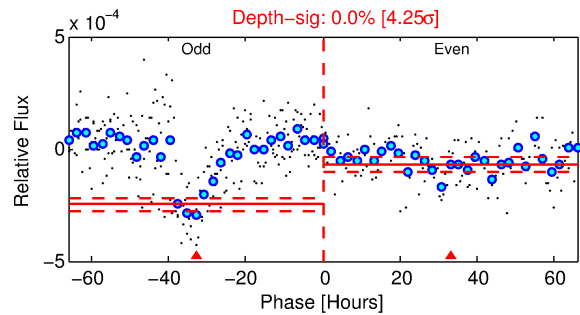
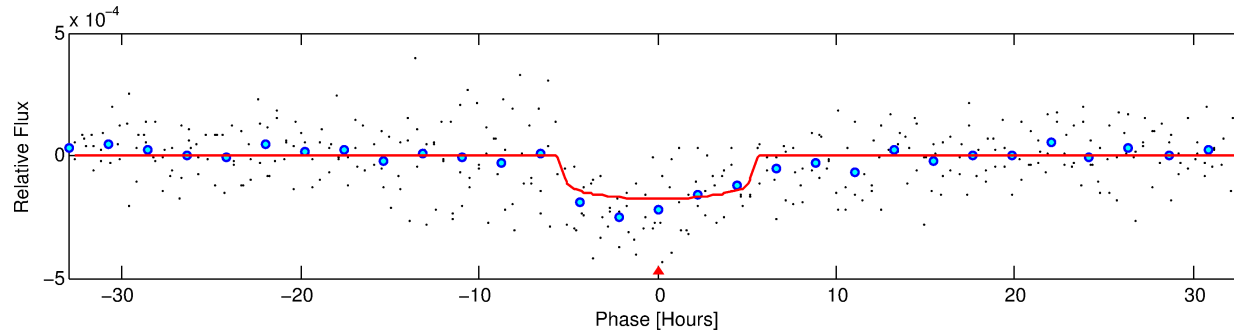
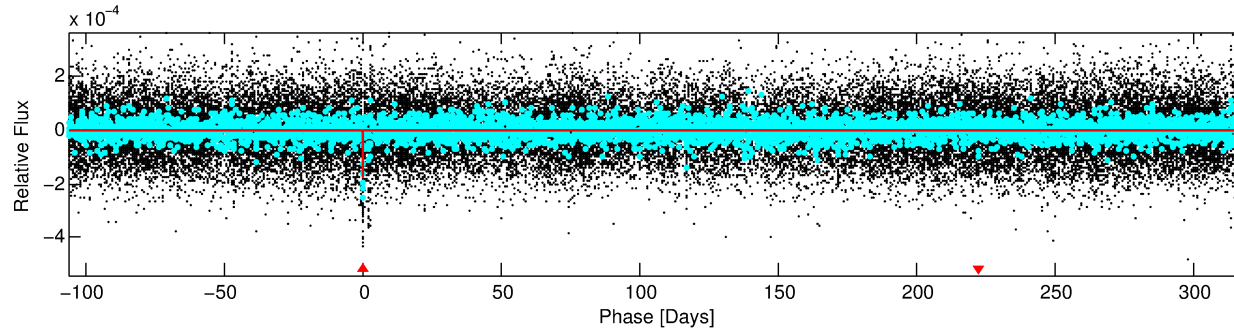
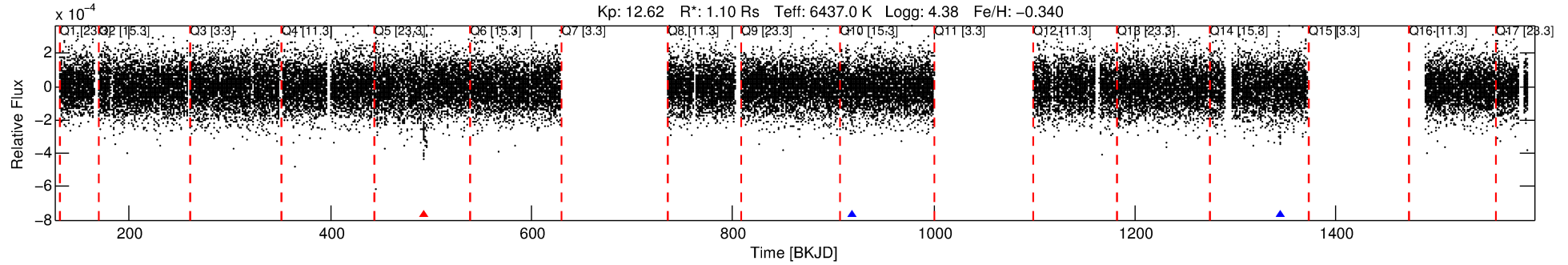
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011205231-01

No Significant Match Found

DV One-Page Summary

KIC: 11205231 Candidate: 1 of 1 Period: 425.533 d



DV Fit Results:

Period = 425.53337 [0.01174] d
Epoch = 492.9892 [0.0164] BKJD
Rp/R* = 0.0130 [0.0056]
a/R* = 218.24 [513.79]
b = 0.69 [1.76]
Seff = 1.47 [0.57]
Teq = 281 [27] K
Rp = 1.56 [0.84] Re
a = 1.1244 [0.2885] AU
Ag = 27180.99 [26221.88] [1.04 σ]
Teffp = 5576 [1266] K [4.18 σ]

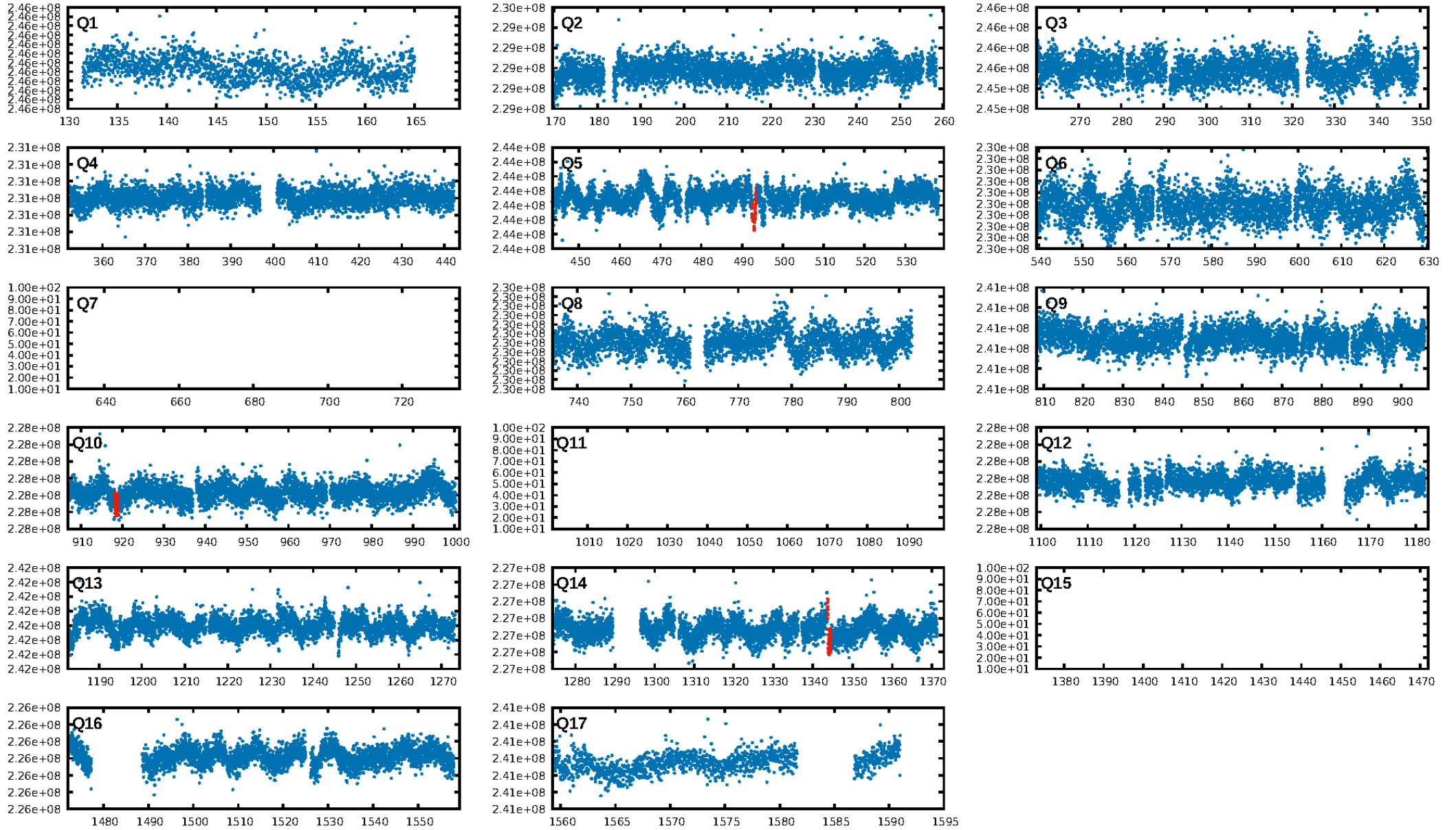
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 95.4%
Bootstrap-pfa: 1.25e-12
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -8.311
Centroid-sig: 46.5%
Centroid-so: 0.894 arcsec [0.63 σ]
OotOffset-rm: 1.103 arcsec [0.55 σ]
OotOffset-st: 2/0/0/1 [3]
KicOffset-rm: 0.862 arcsec [0.41 σ]
KicOffset-st: 2/0/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

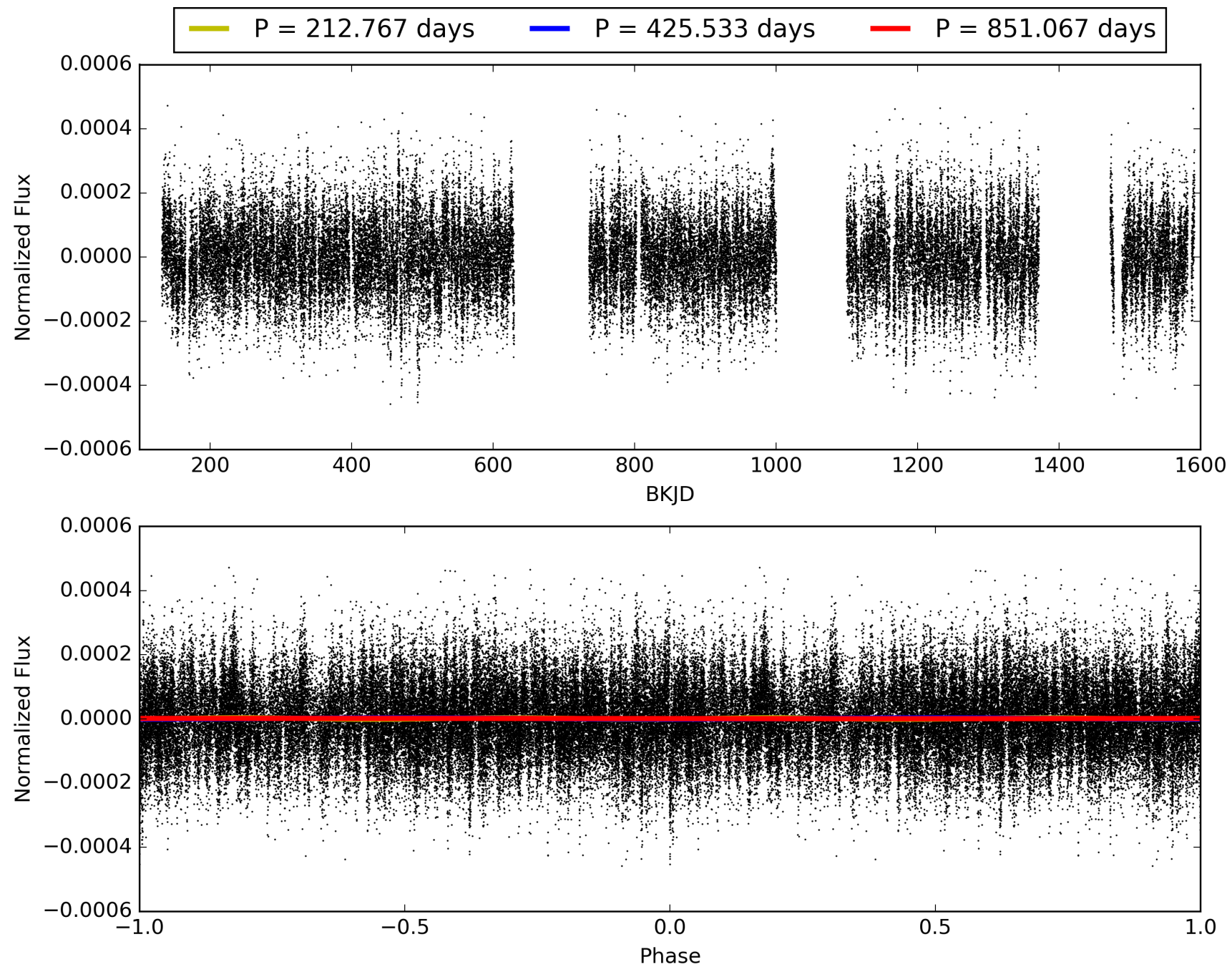
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 01:02:25 Z

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

TCE 011205231-01, PDC Light Curves

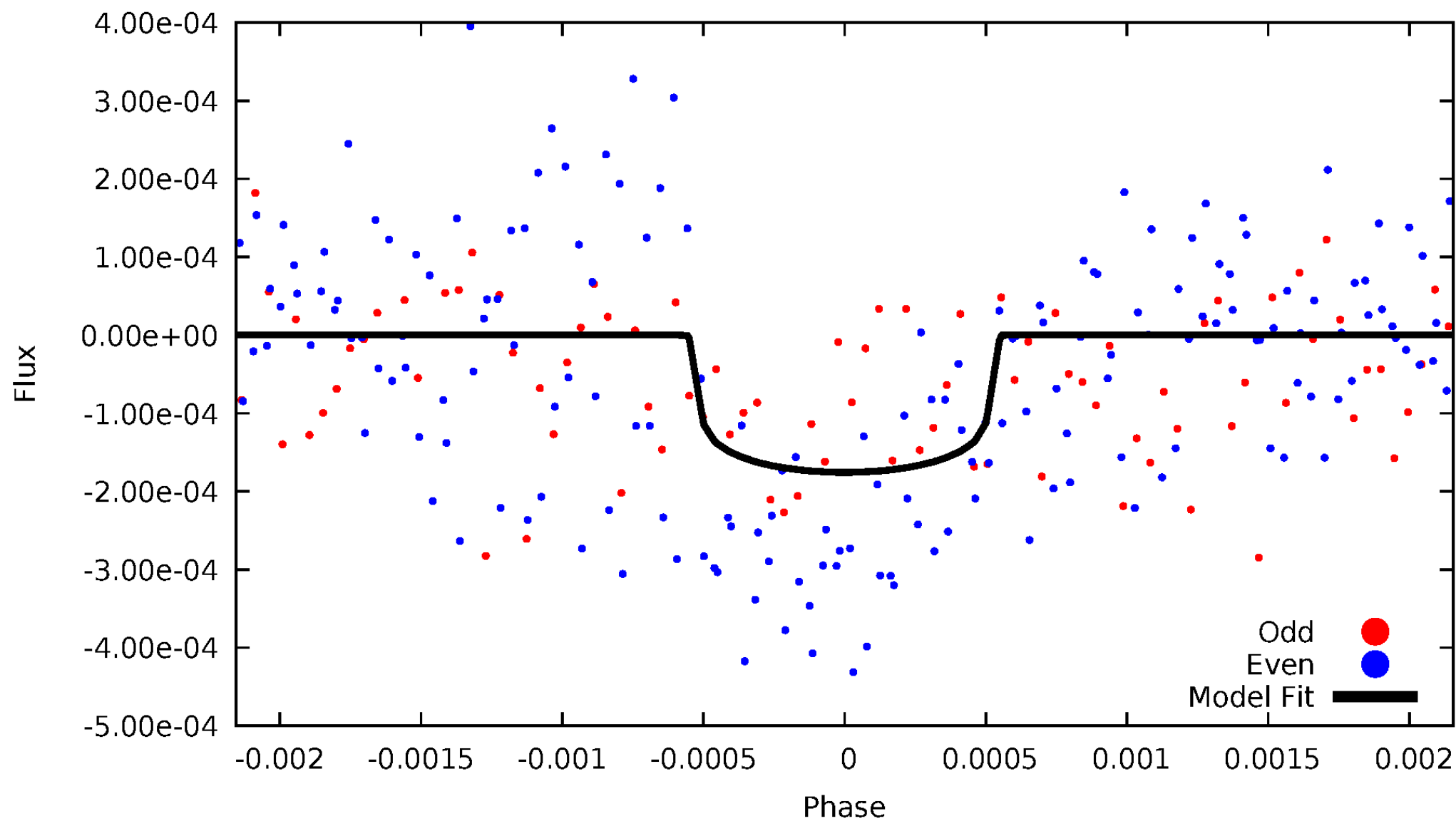


TCE 011205231-01



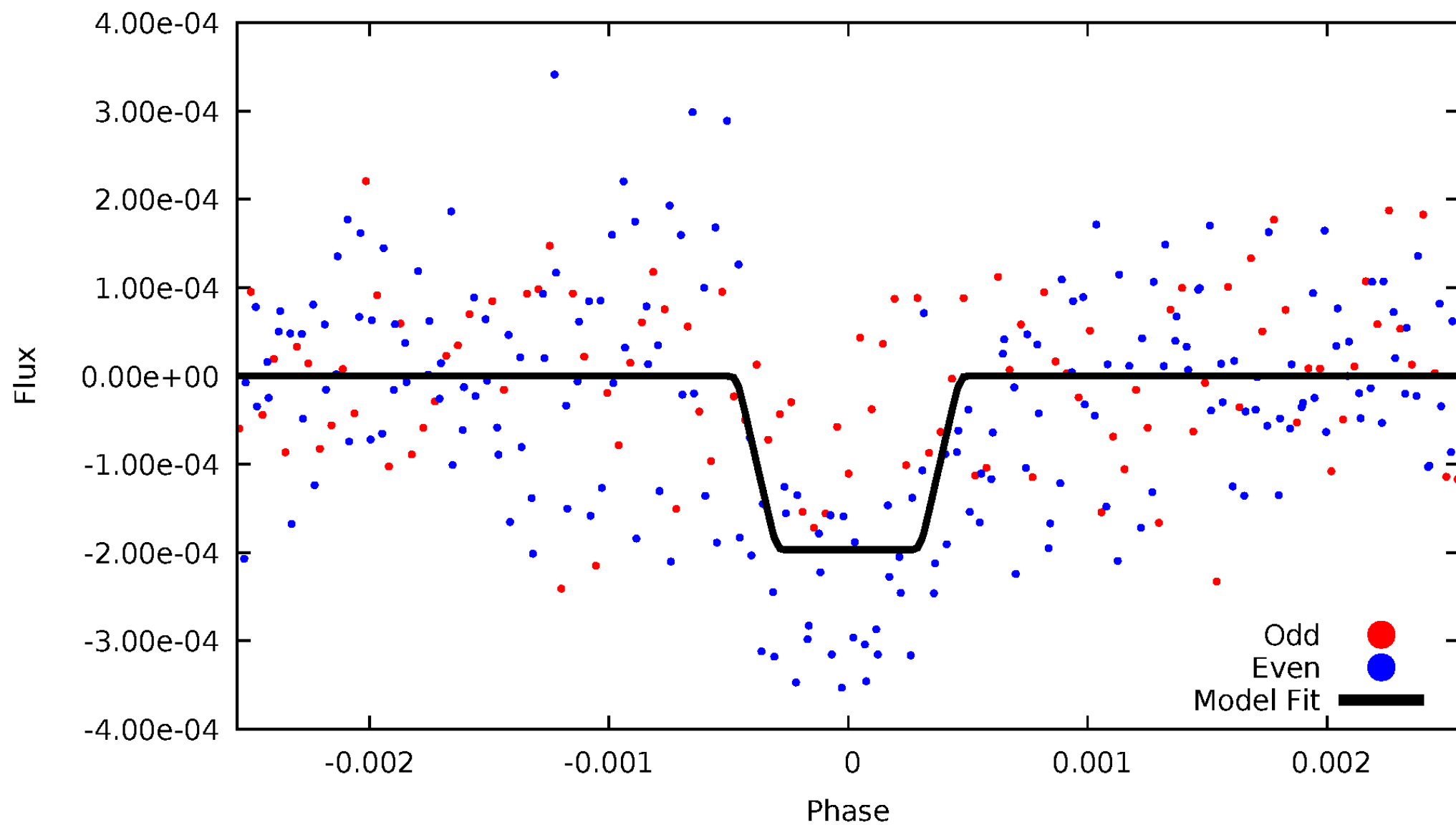
DV Odd/Even

TCE 011205231-01

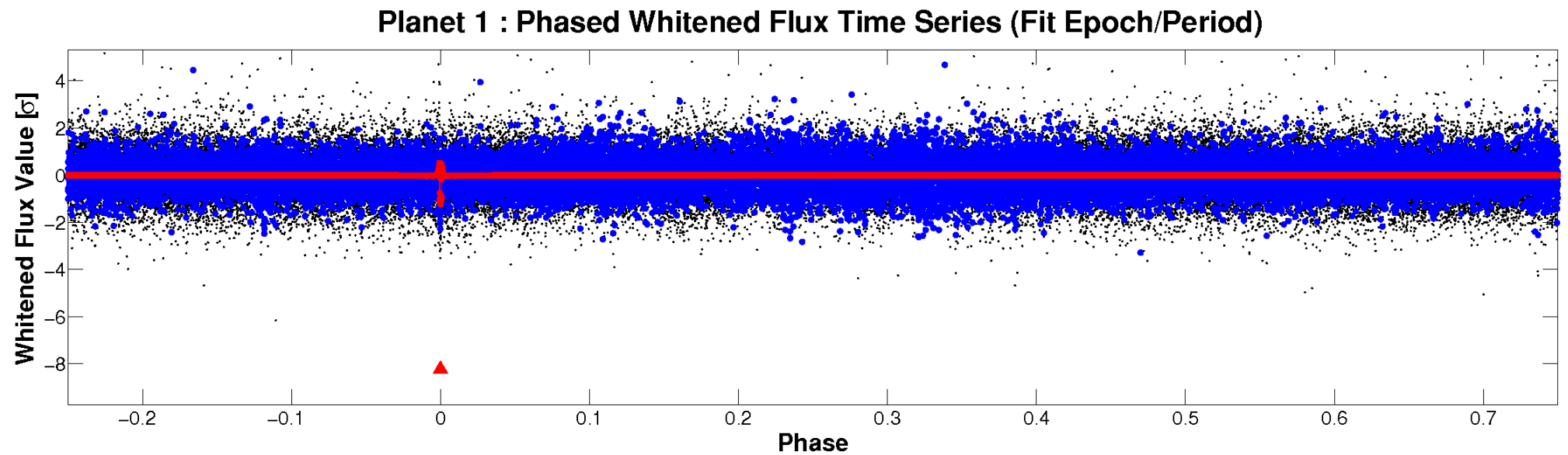
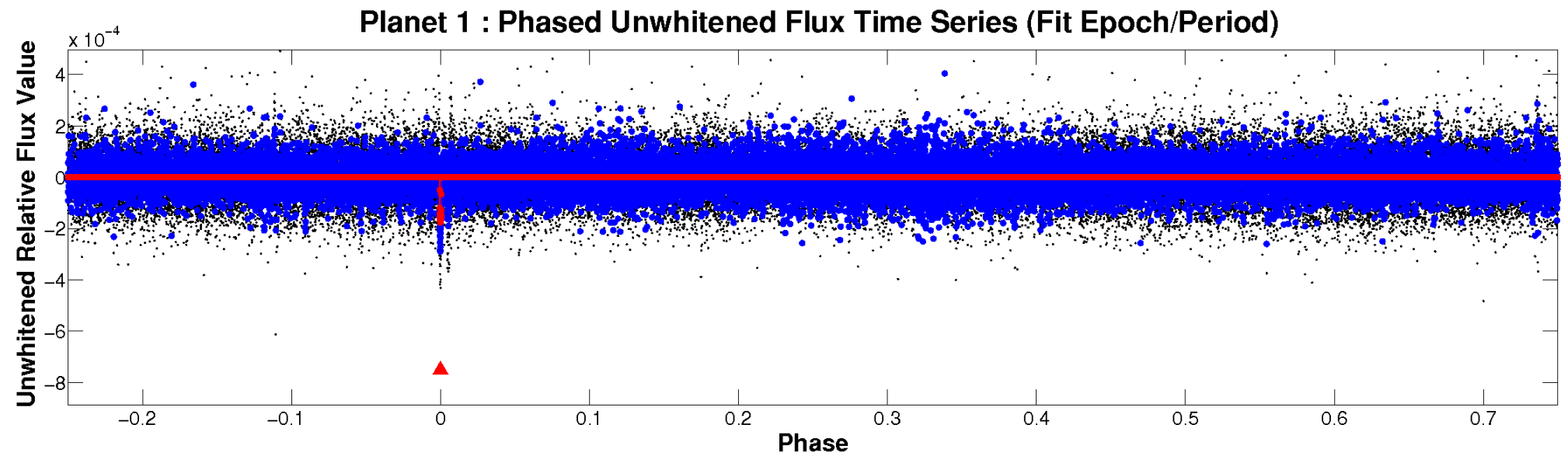


ALT Odd/Even

TCE 011205231-01

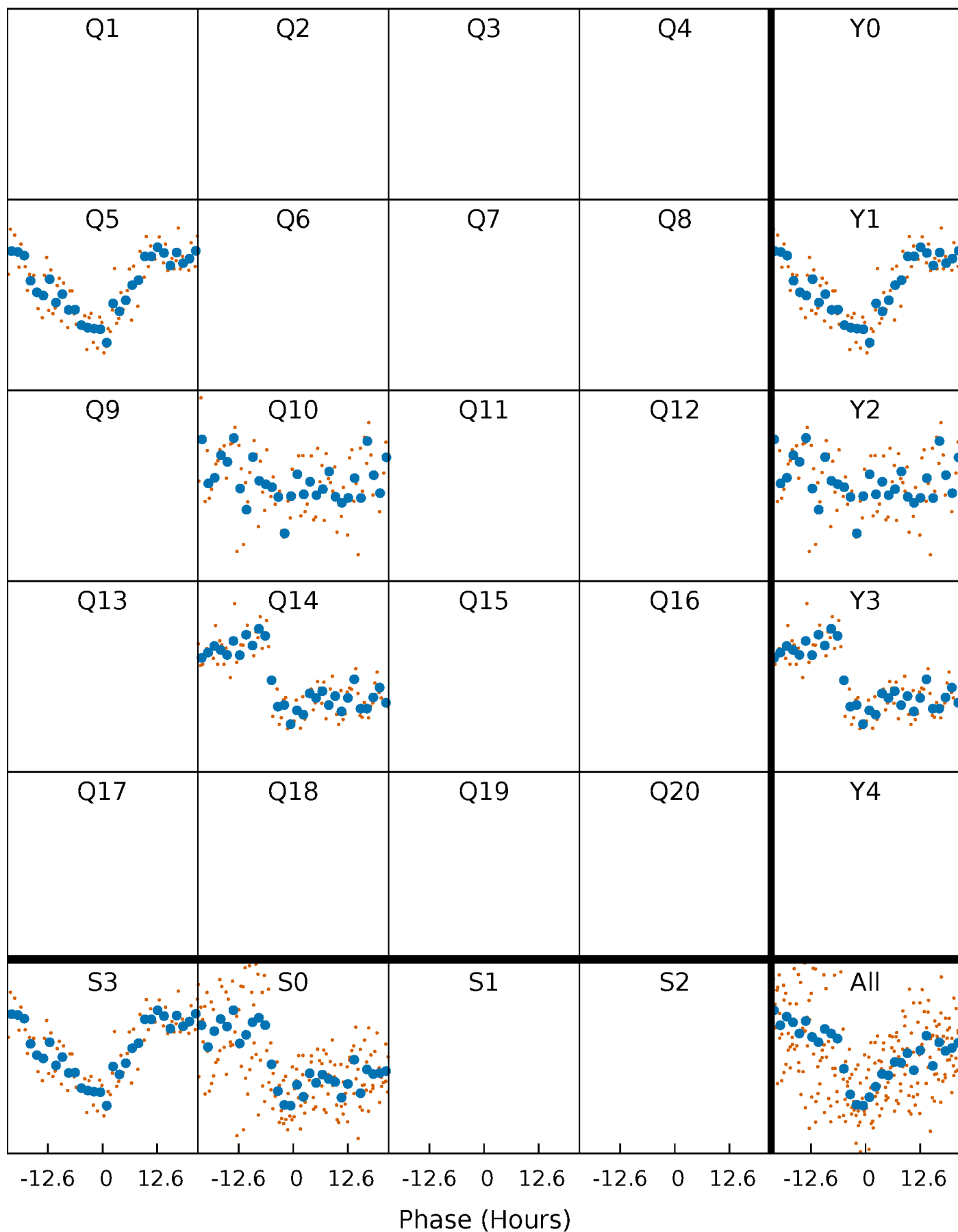


Non-Whitened Vs. Whitened Light Curve



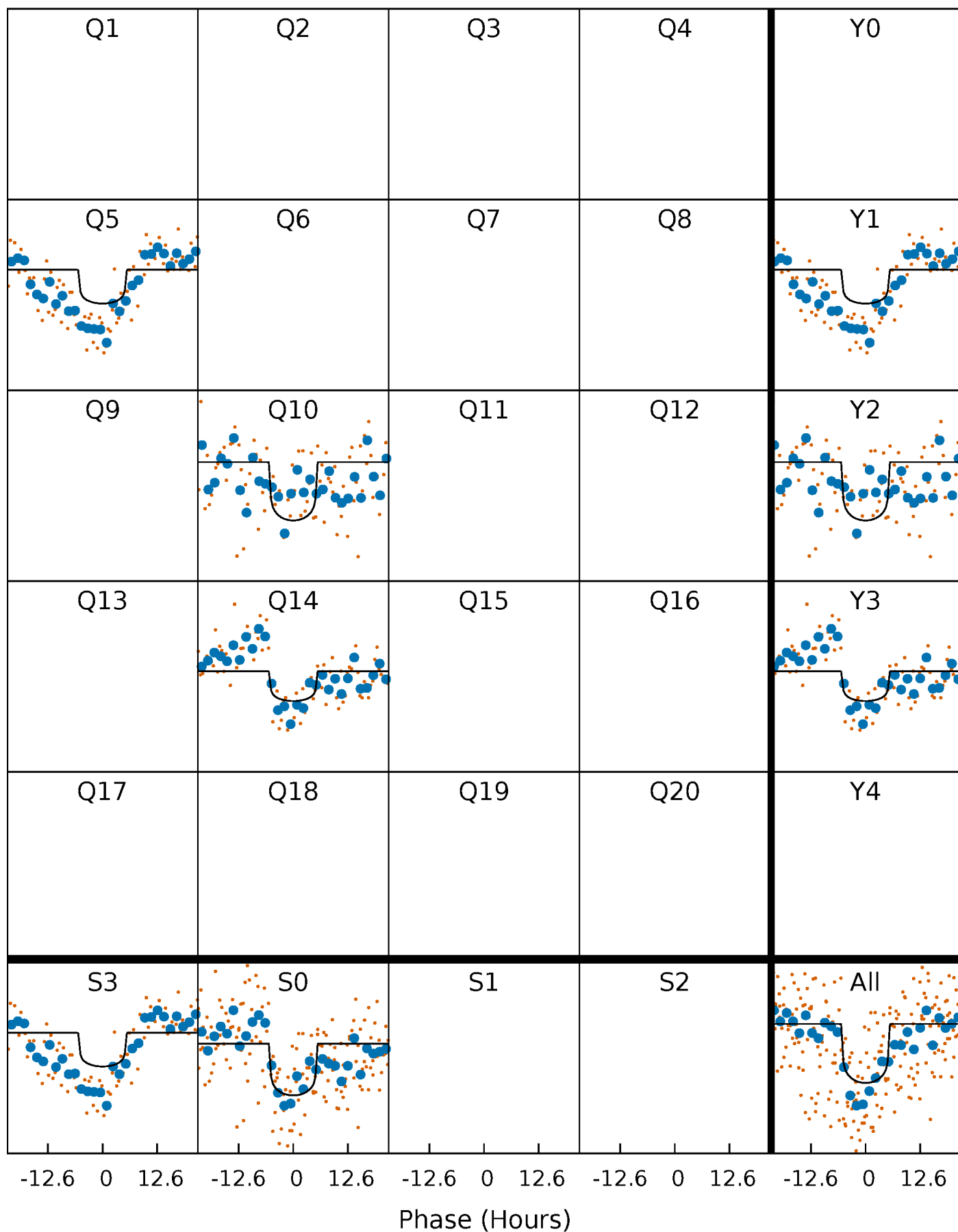
PDC Quarter-Phased Transit Curves

TCE 011205231-01 P=425.533365 Days $T_0=492.989239$ (BKJD)



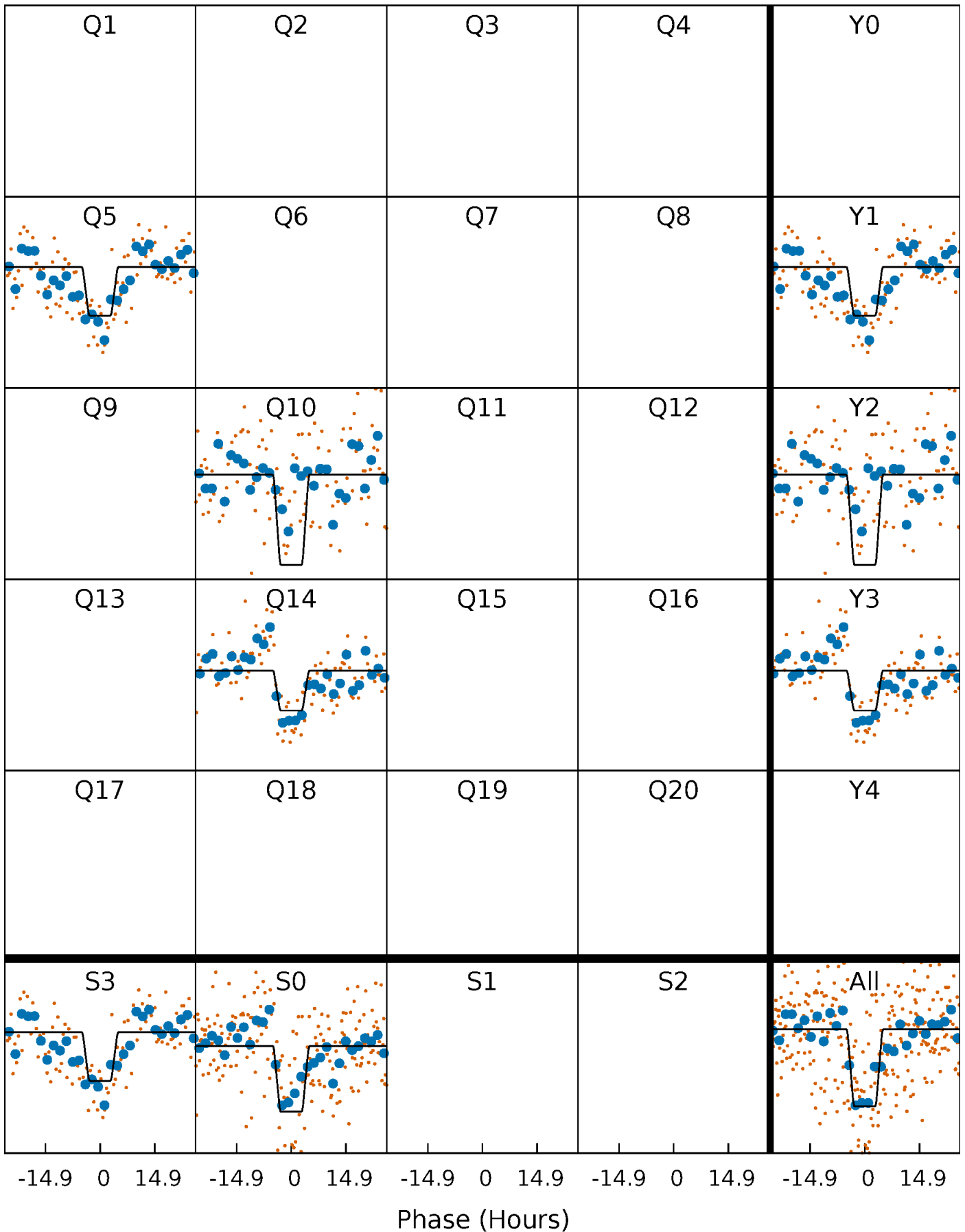
DV Quarter-Phased Transit Curves

TCE 011205231-01 P=425.533365 Days $T_0=492.989239$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

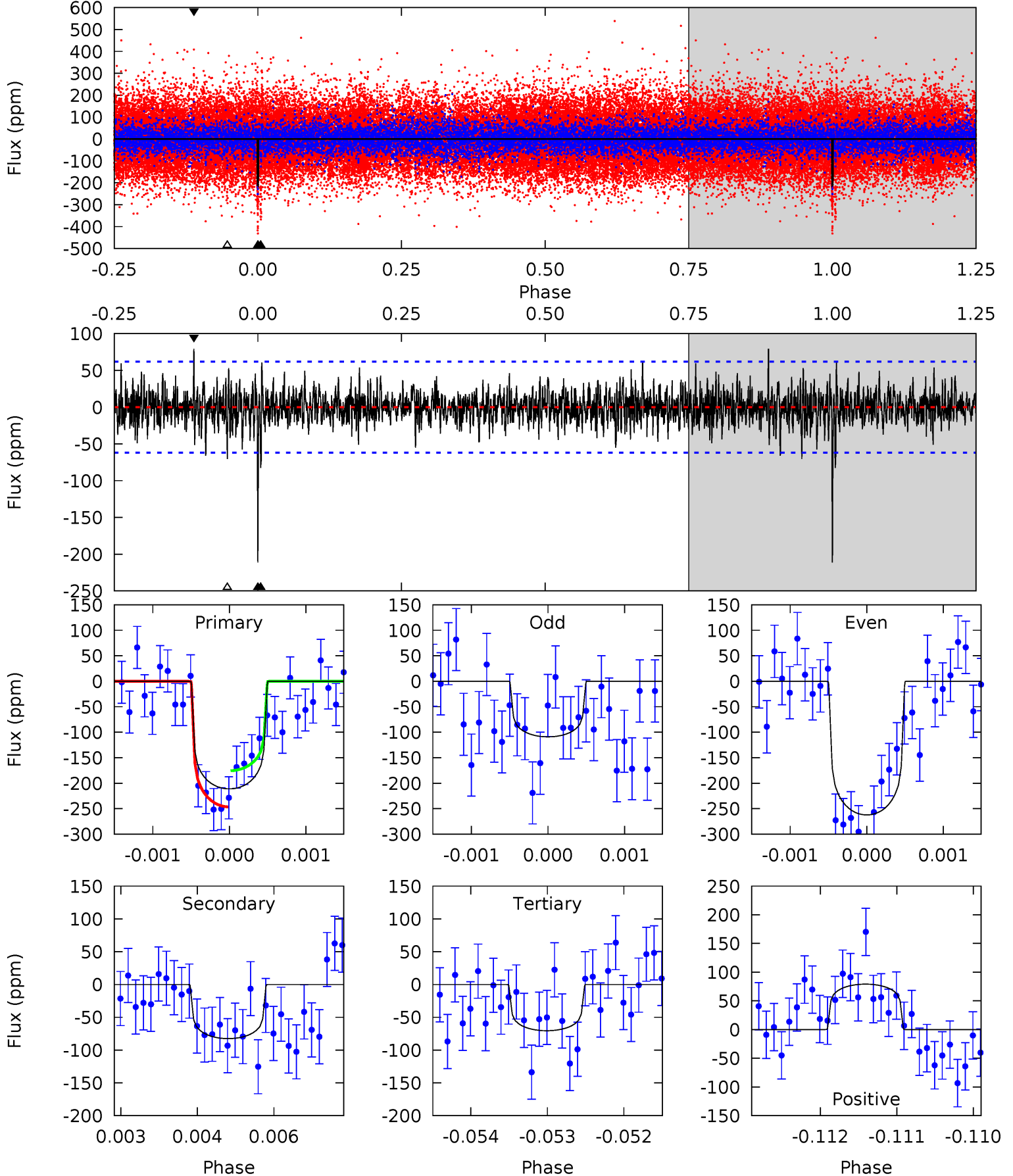
TCE 011205231-01 P=425.522076 Days $T_0=492.970167$ (BKJD)



DV Model-Shift Uniqueness Test

011205231-01, $P = 425.533365$ Days, $E = 67.455874$ Days

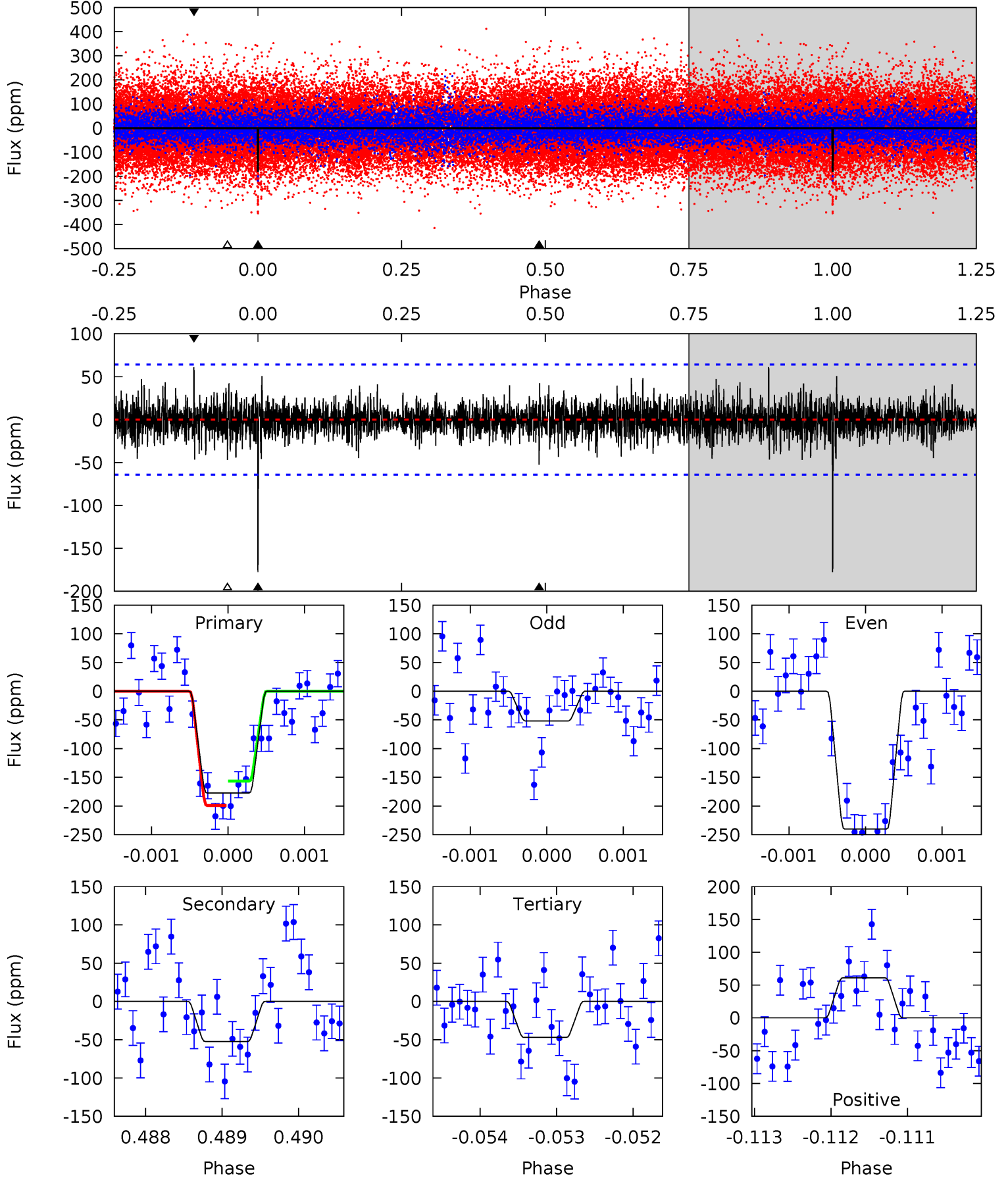
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.5	7.25	6.19	6.95	5.43	3.26	1.49	12.4	11.6	1.06	0.30	6.42	0.96	0.27	3.12



Alt Model-Shift Uniqueness Test

011205231-01, P = 425.522076 Days, E = 67.448091 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	4.45	3.99	5.18	5.45	3.30	1.13	11.1	9.90	0.45	-0.74	7.60	0.78	0.26	1.80



Stellar Parameters For KIC 011205231

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6437^{+177}_{-244}	$4.375^{+0.087}_{-0.188}$	$-0.340^{+0.250}_{-0.300}$	$1.100^{+0.350}_{-0.150}$	$1.041^{+0.171}_{-0.128}$	$1.102^{+0.513}_{-0.563}$
	+3%/-4%	+2%/-4%	+74%/-88%	+32%/-14%	+16%/-12%	+47%/-51%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011205231-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-83 ± 11	$1.59^{+0.79}_{-0.69}$	396^{+28}_{-20}	5397^{+1811}_{-823}	22139^{+47069}_{-12209}
Alt.	-52 ± 12	$1.74^{+0.72}_{-0.66}$	397^{+28}_{-22}	4729^{+1133}_{-625}	11708^{+18206}_{-6178}

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

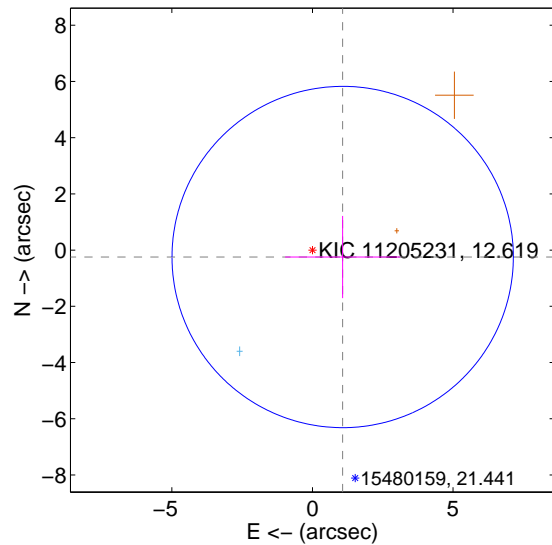
Supplemental centroid analysis for 011205231-01. Kepler magnitude: 12.62. Transit SNR 9.22

There are 1 quarters with good PRF difference image offsets

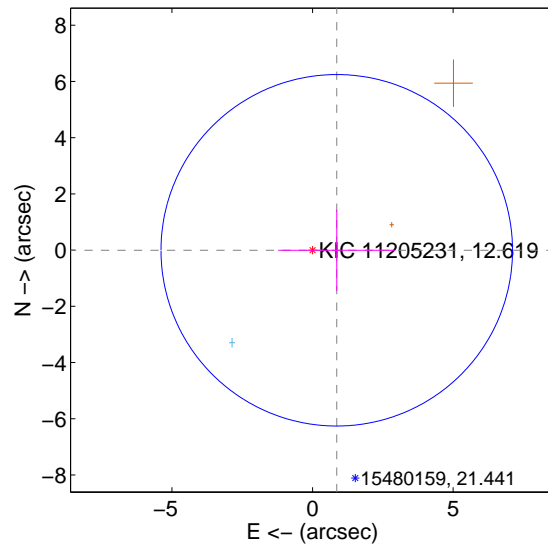
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.103 ± 2.024	0.55	-1.076 ± 2.049	-0.246 ± 1.462
PRF-fit source offset from KIC position	0.862 ± 2.084	0.41	-0.862 ± 2.084	-0.007 ± 1.442
photometric centroid source offset	0.89 ± 1.41	0.63	-0.40 ± 1.49	-0.80 ± 1.39

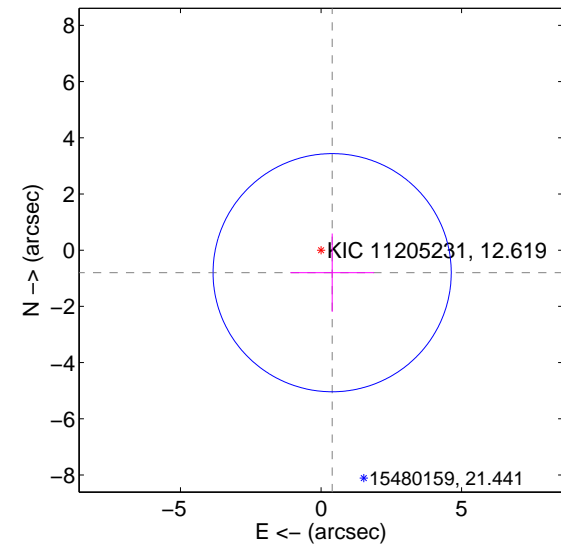
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

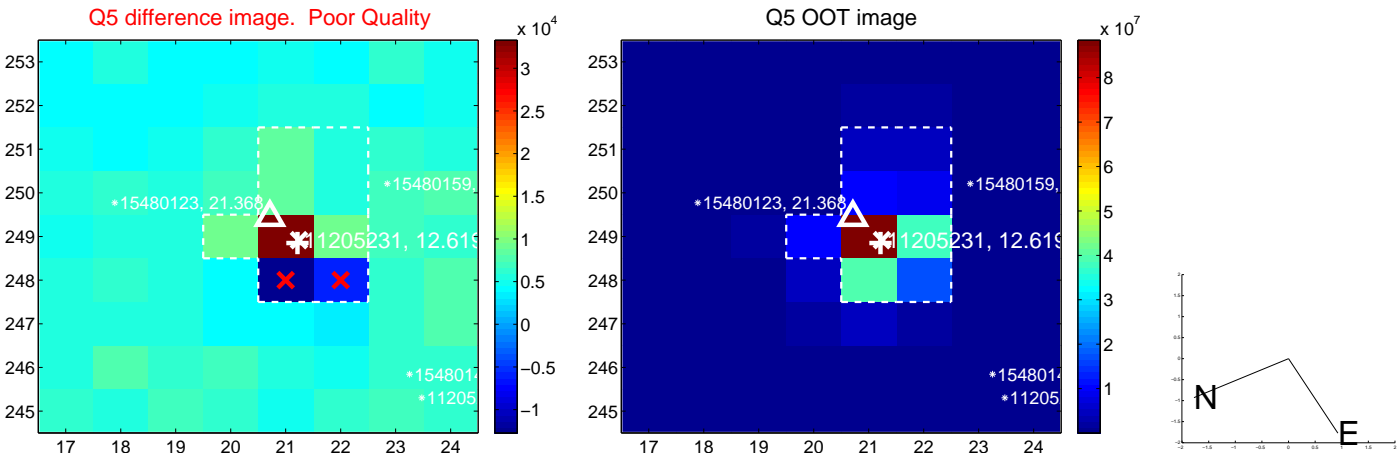


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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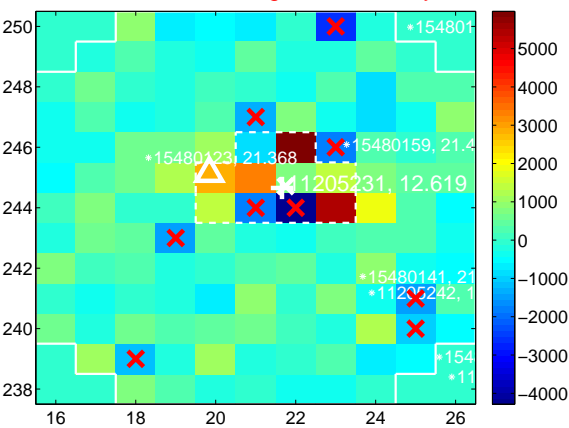
Q9 no difference image



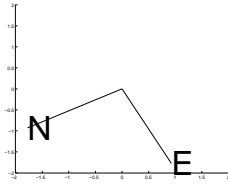
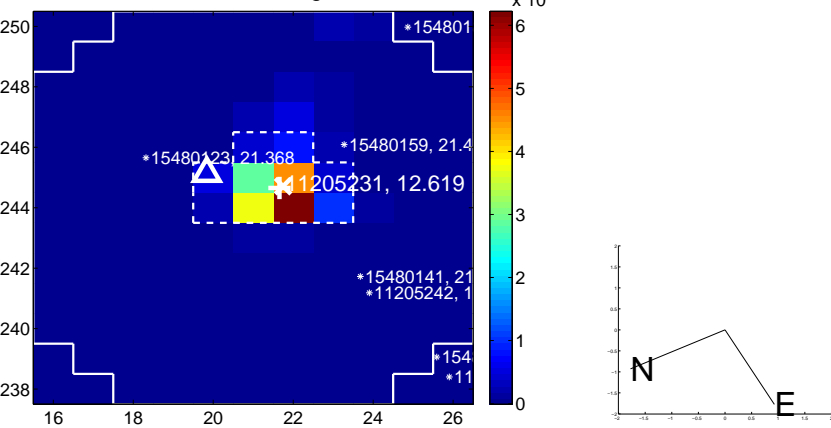
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



Q11 no OOT image



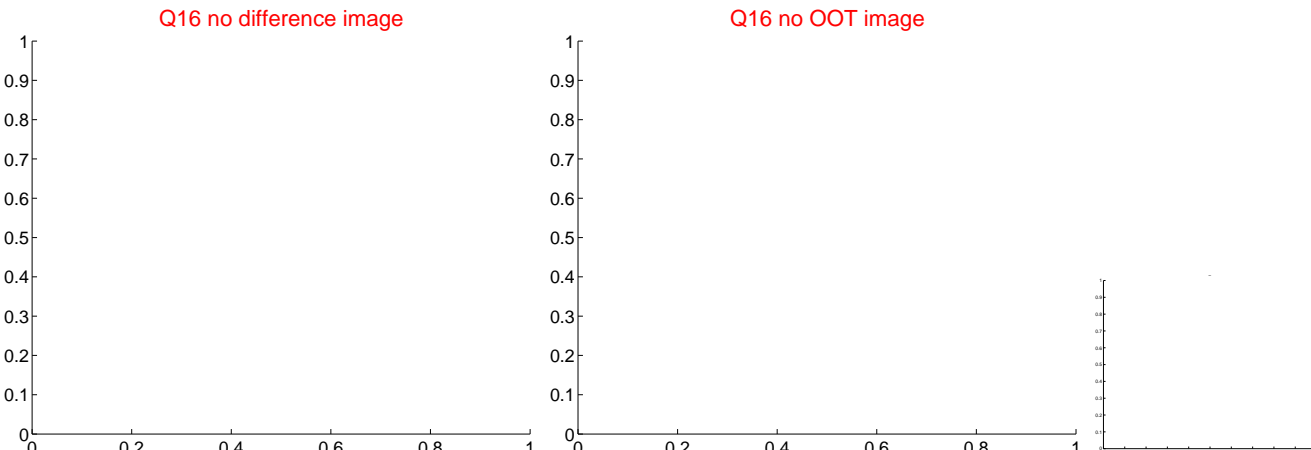
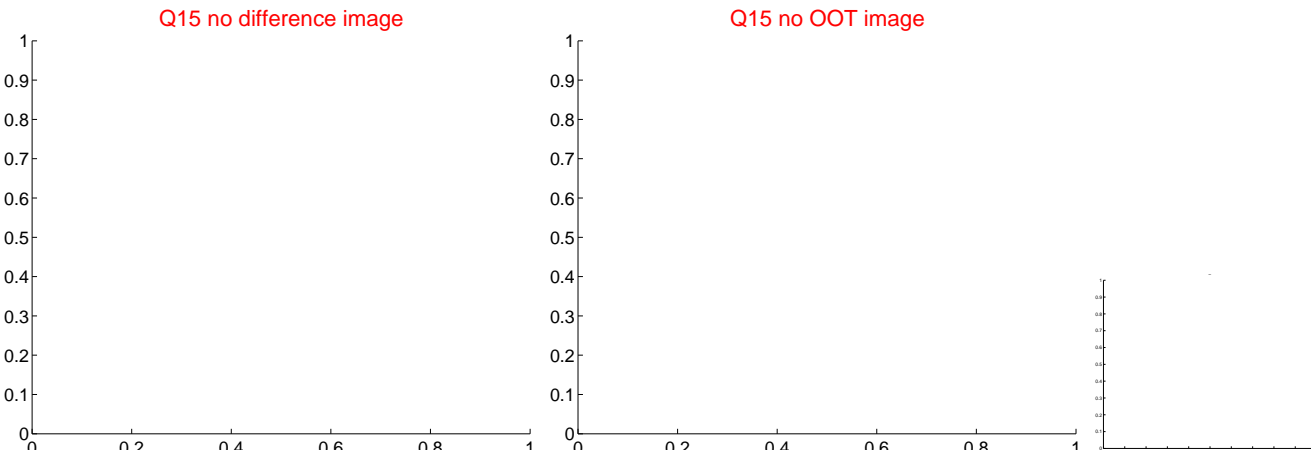
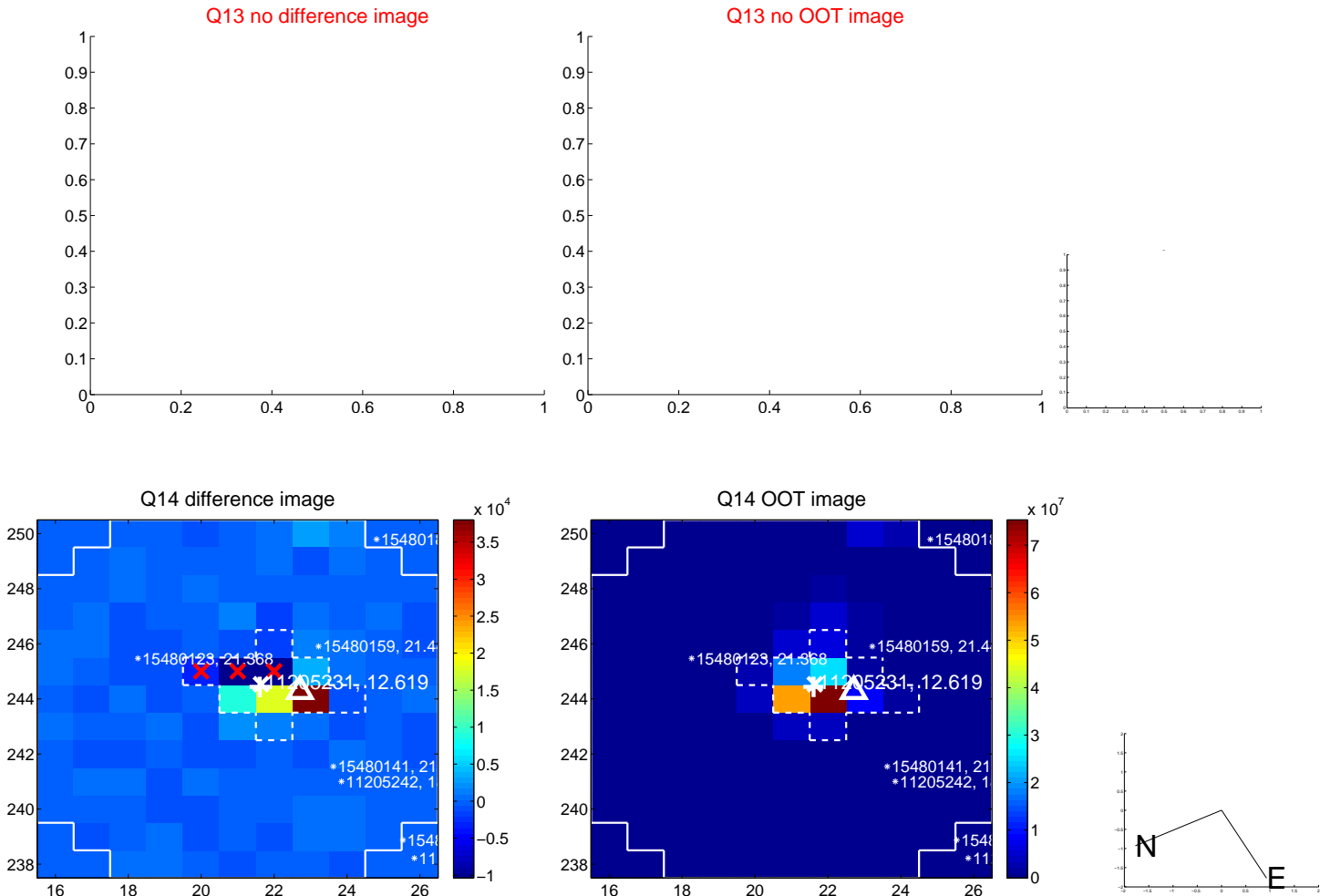
Q12 no difference image



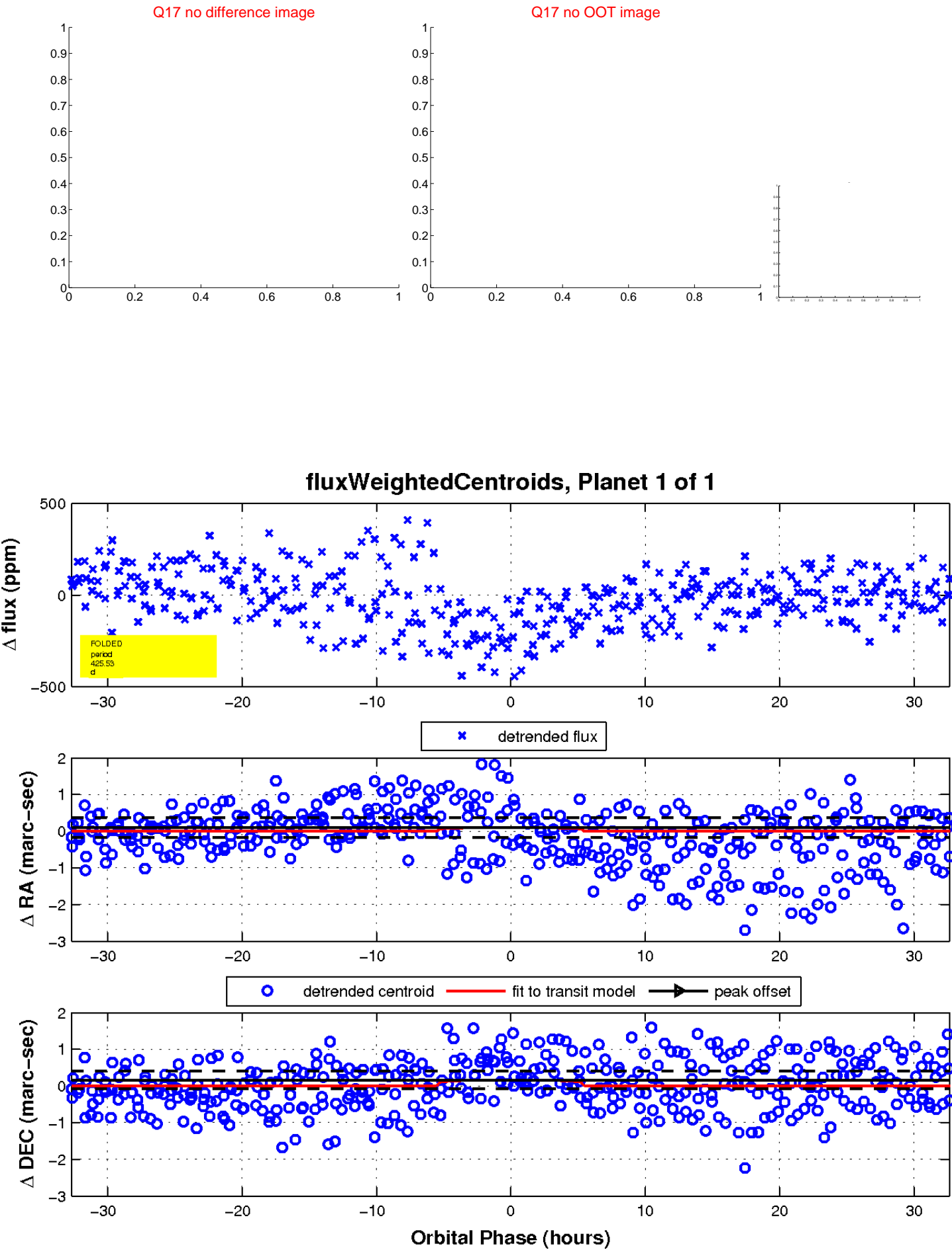
Q12 no OOT image



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

