

KIC 006516132

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})
006516132-01	OBS	No	371.923068	308.396057	231.9	16.753	7.6	6.6	0.87	5443	1.48	0.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006516132-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

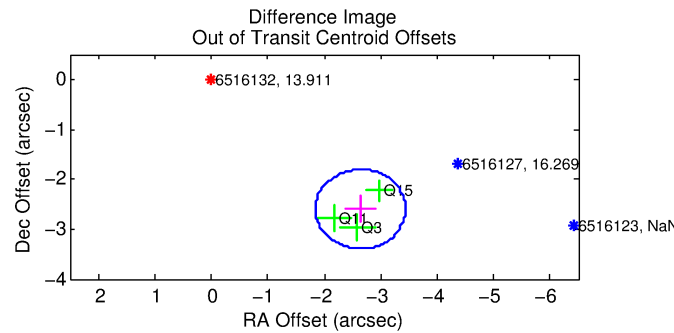
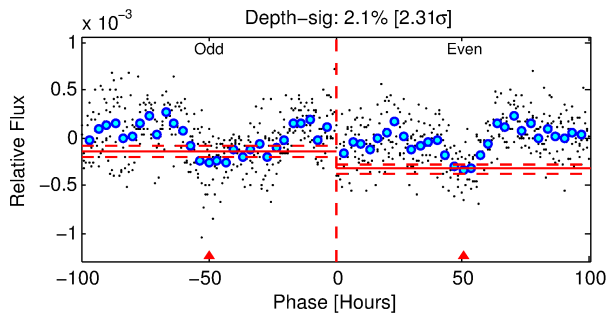
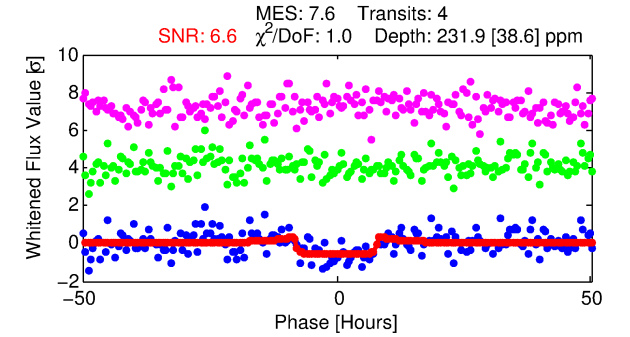
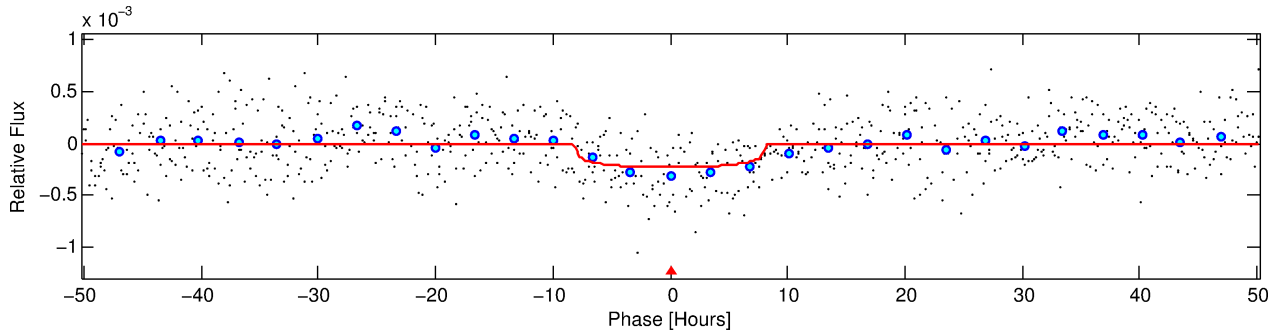
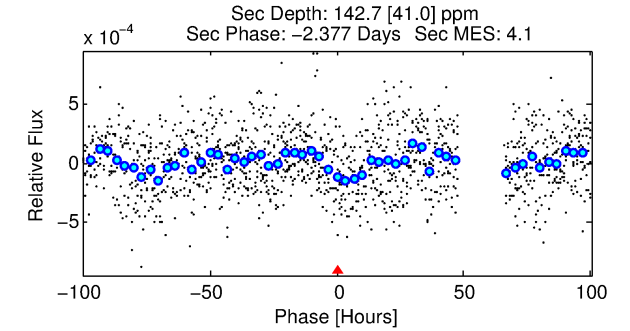
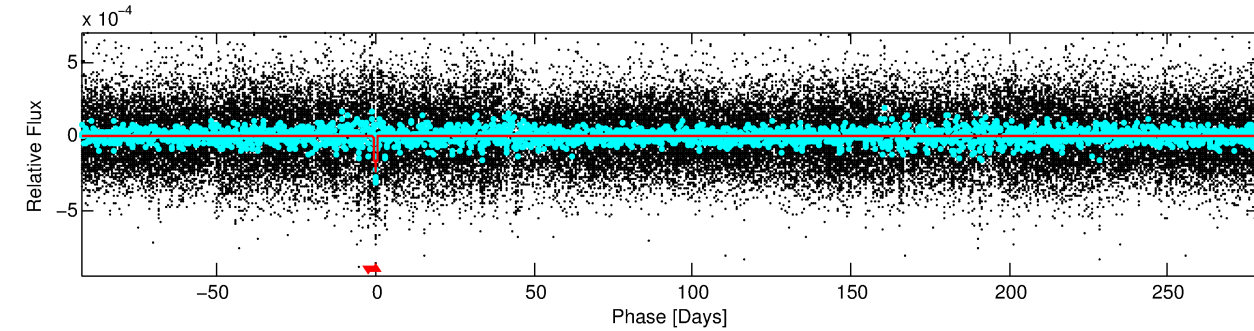
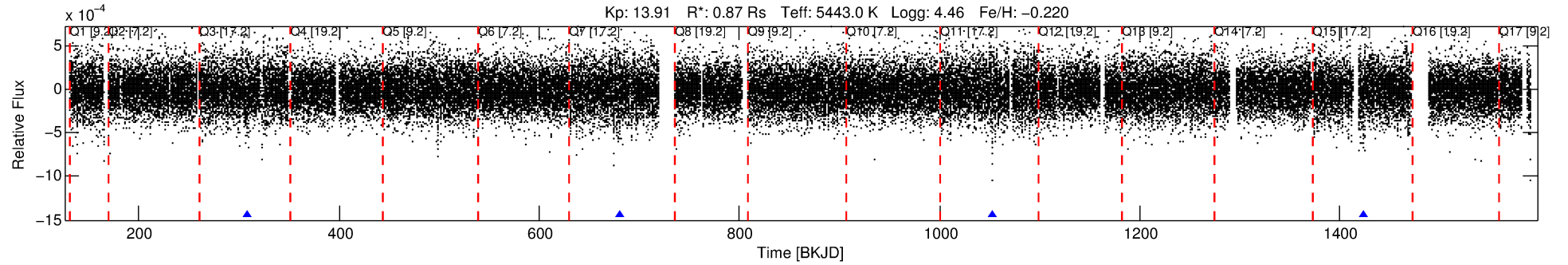
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006516132-01

No Significant Match Found

DV One-Page Summary

KIC: 6516132 Candidate: 1 of 1 Period: 371.923 d



DV Fit Results:

Period = 371.92307 [0.01234] d
Epoch = 308.3961 [0.0226] BKJD
Rp/R* = 0.0156 [0.0046]
a/R* = 104.78 [123.74]
b = 0.81 [0.52]
Seff = 0.68 [0.20]
Teq = 232 [17] K
Rp = 1.48 [0.53] Re
a = 0.9369 [0.1638] AU
Ag = 31322.01 [22078.71] [1.42σ]
Teffp = 4768 [792] K [5.72σ]

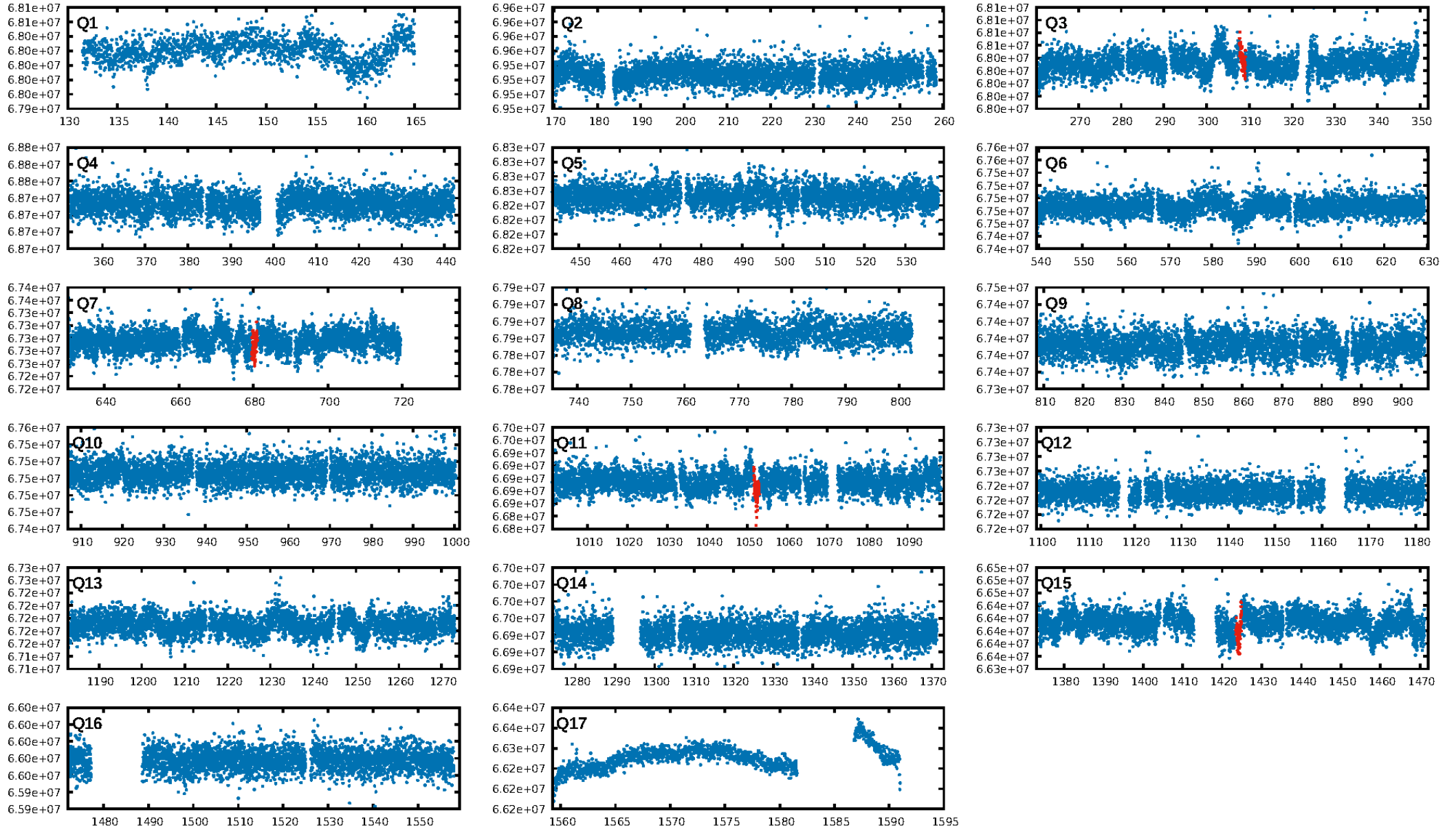
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.69e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.419
Centroid-sig: 93.2%
Centroid-so: 0.624 arcsec [0.32σ]
OotOffset-rm: 3.707 arcsec [13.96σ]
KicOffset-rm: 3.767 arcsec [13.89σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [4/4]

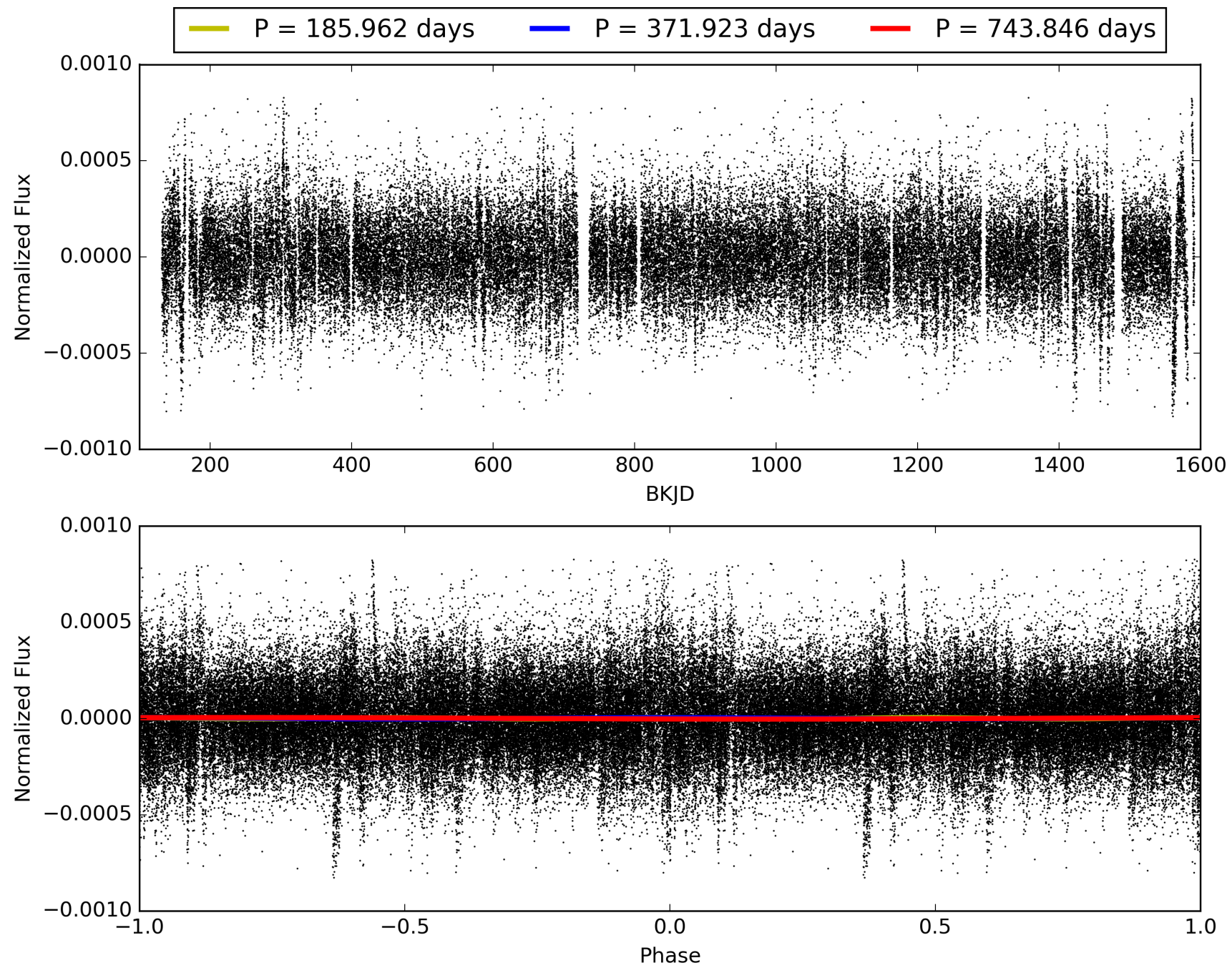
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:47:11 Z

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

TCE 006516132-01, PDC Light Curves

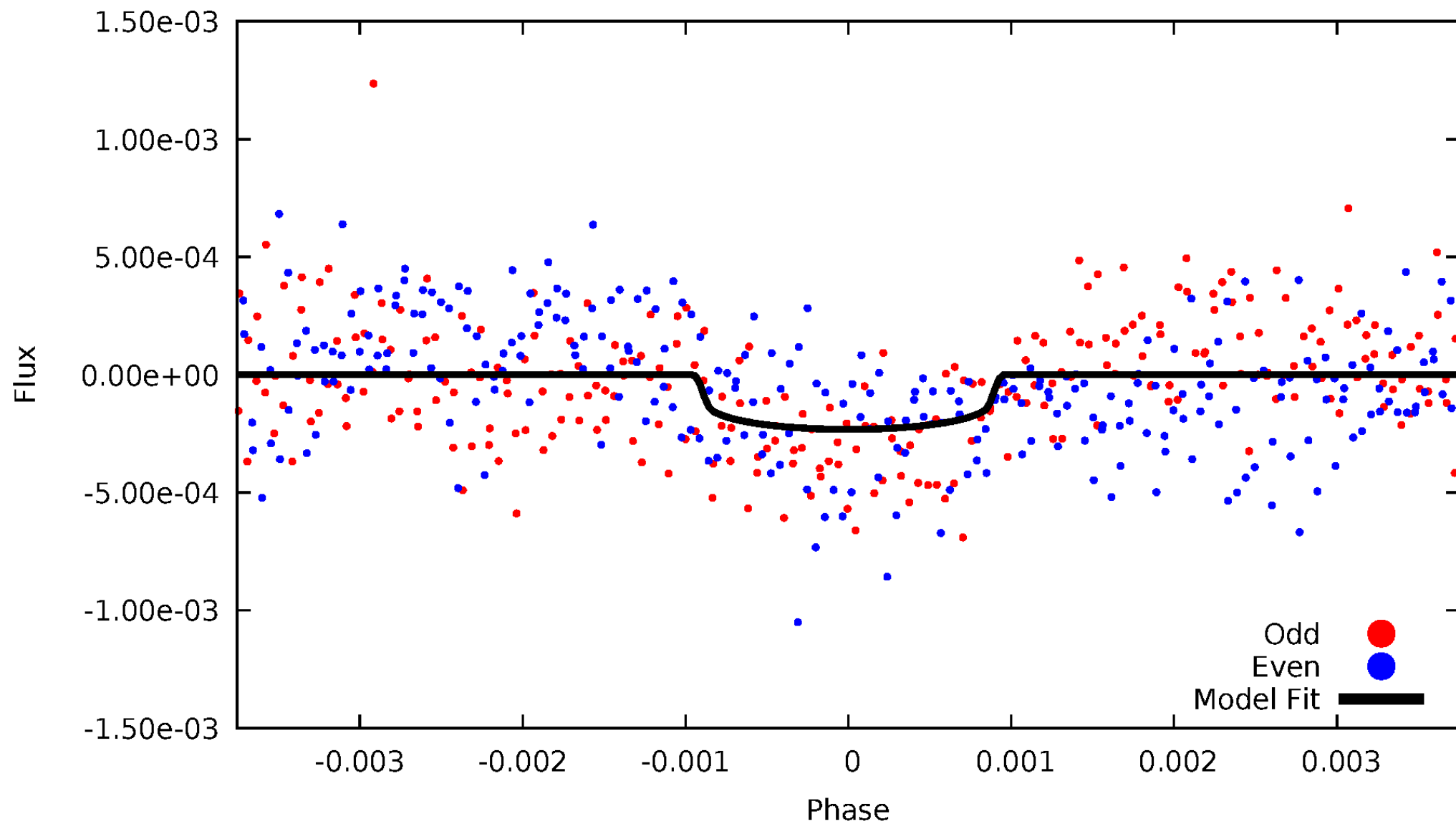


TCE 006516132-01



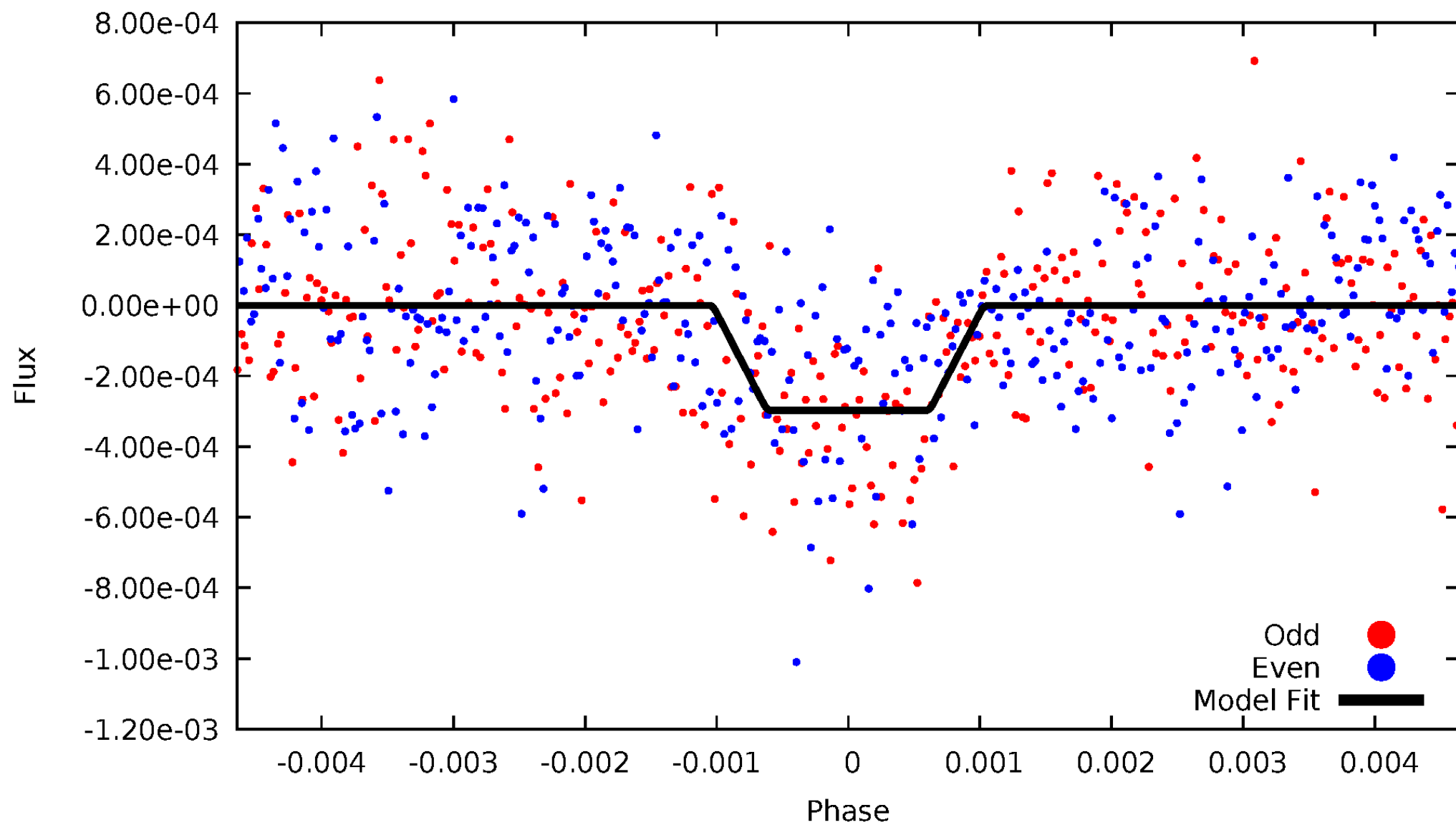
DV Odd/Even

TCE 006516132-01

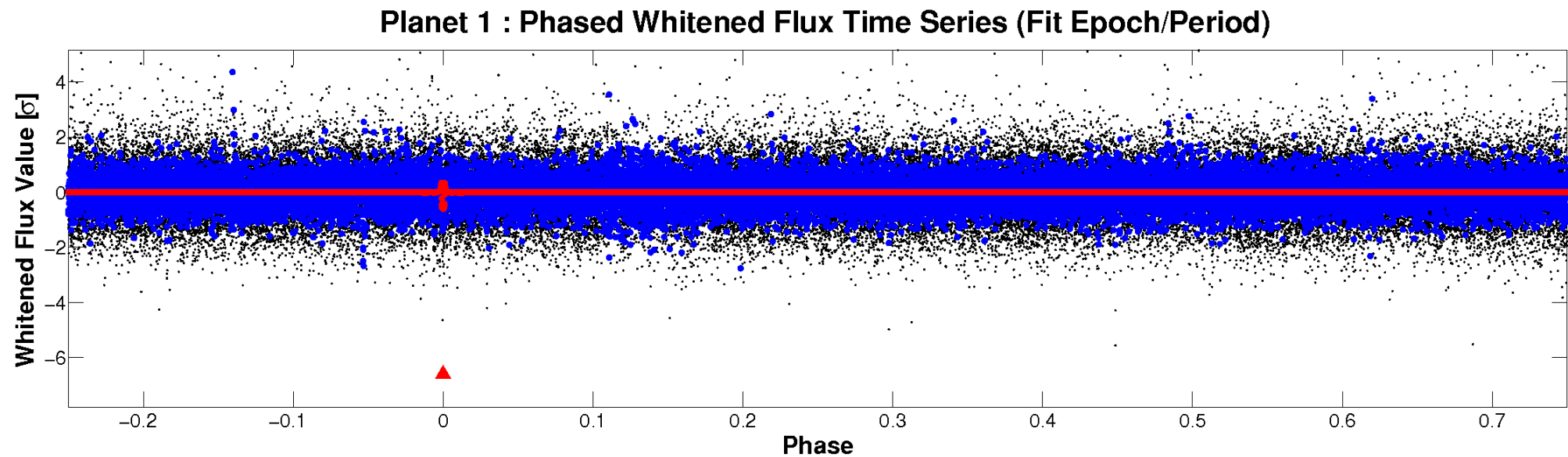
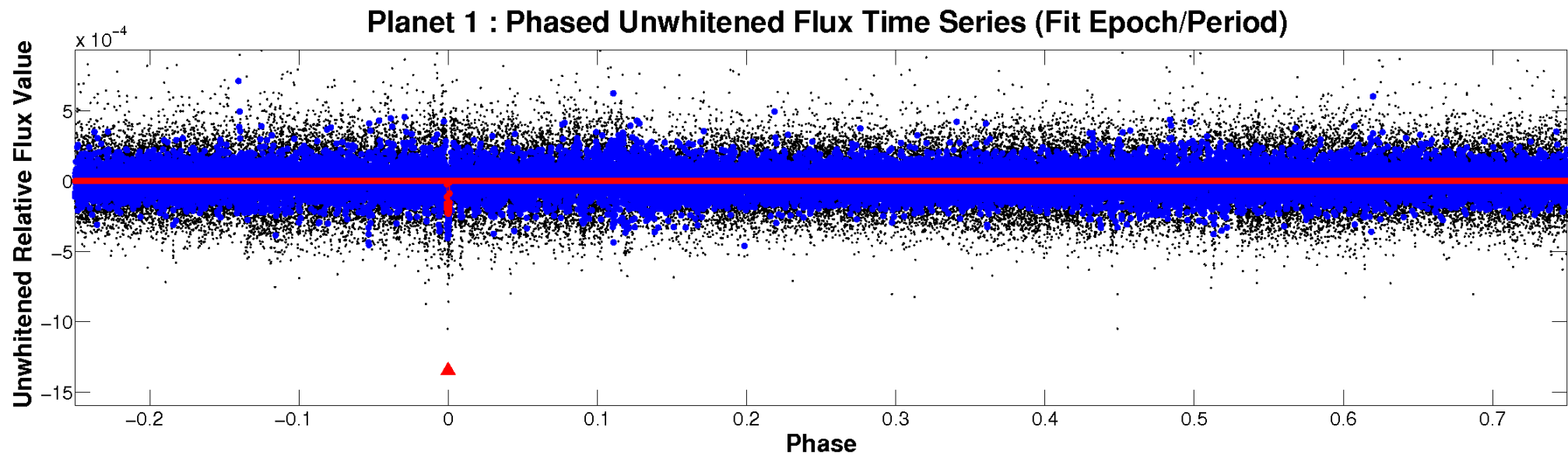


ALT Odd/Even

TCE 006516132-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 006516132-01 P=371.923068 Days $T_0=308.396057$ (BKJD)



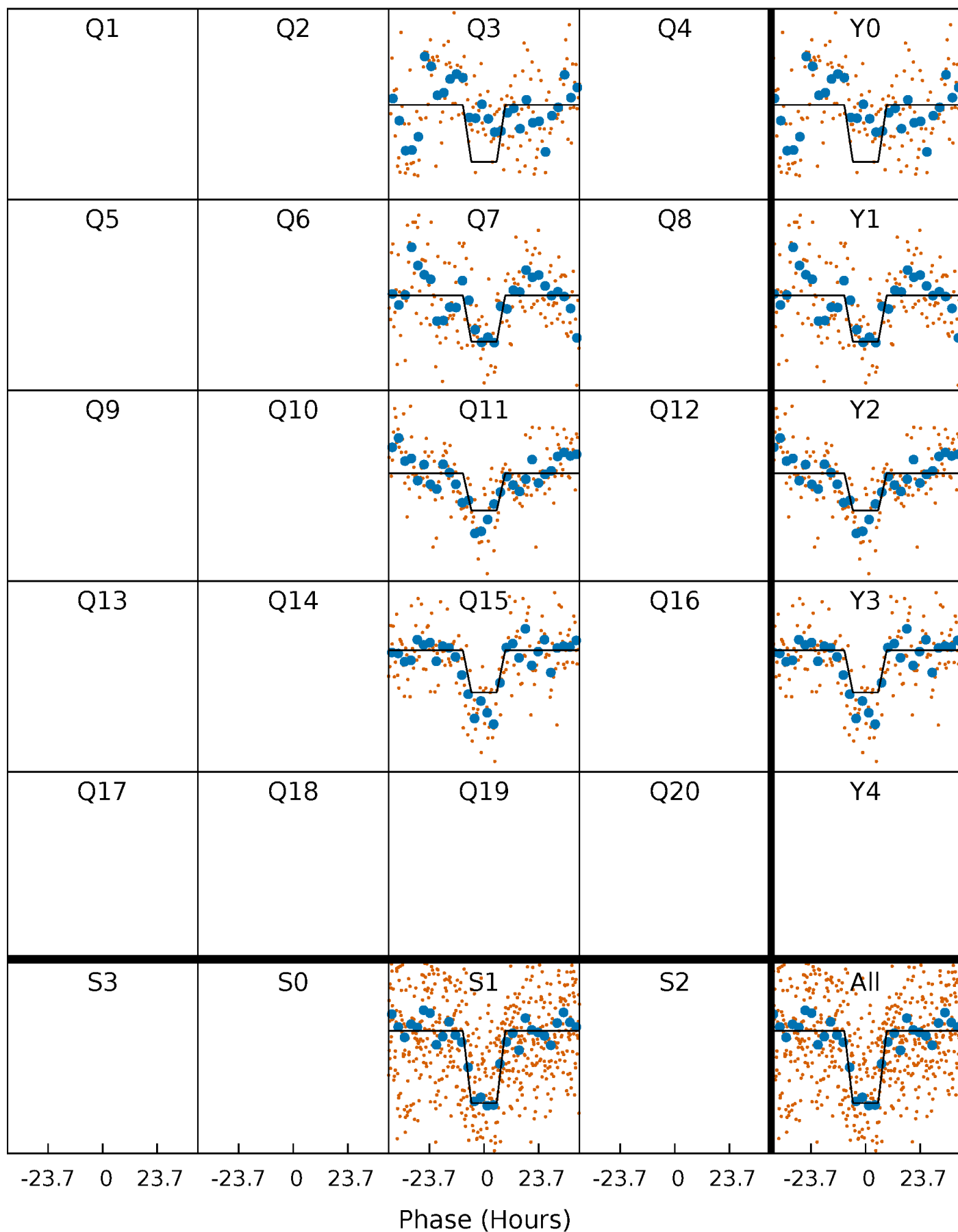
DV Quarter-Phased Transit Curves

TCE 006516132-01 P=371.923068 Days $T_0=308.396057$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

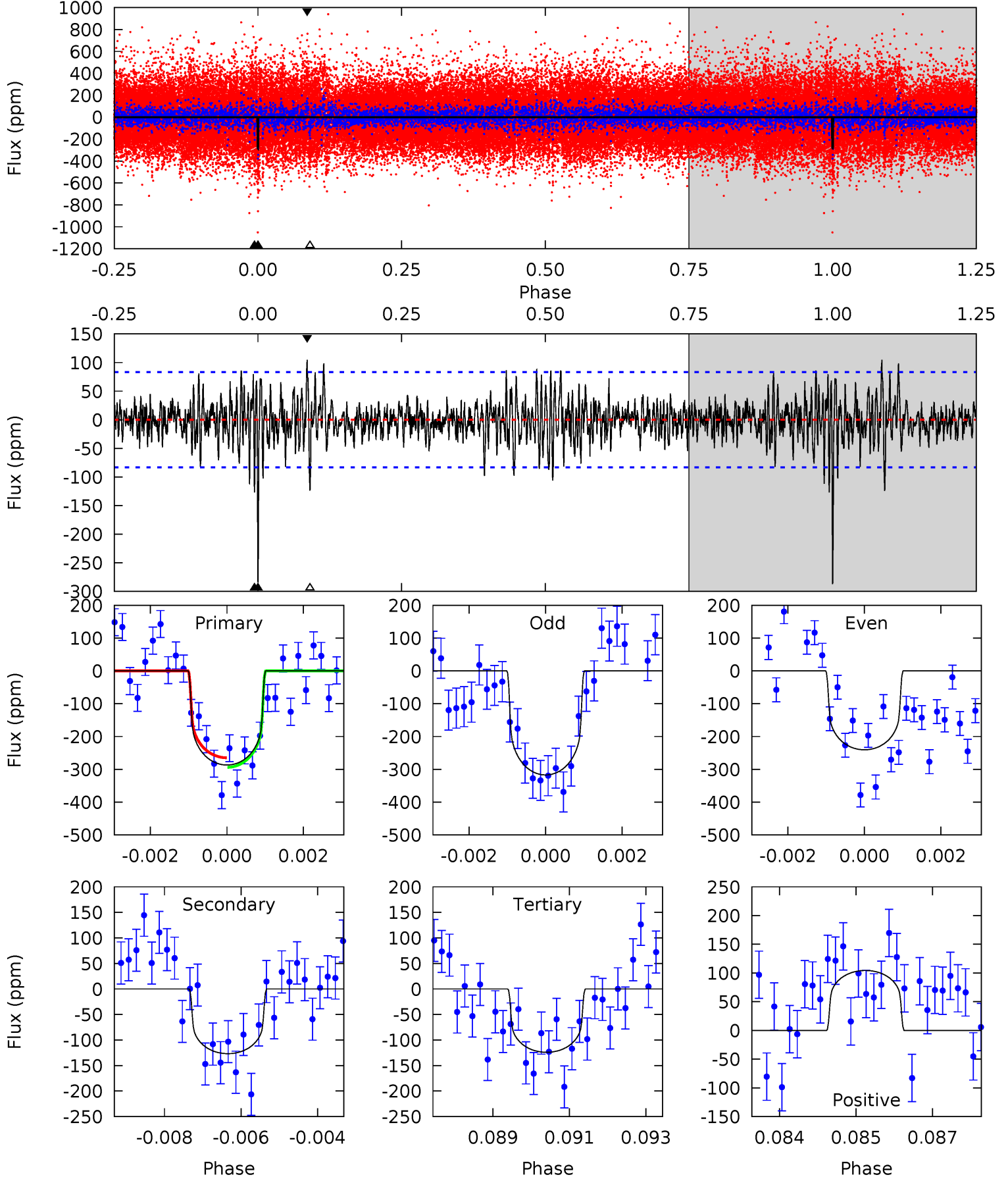
TCE 006516132-01 P=371.958904 Days $T_0=308.355515$ (BKJD)



DV Model-Shift Uniqueness Test

006516132-01, P = 371.923068 Days, E = 308.396057 Days

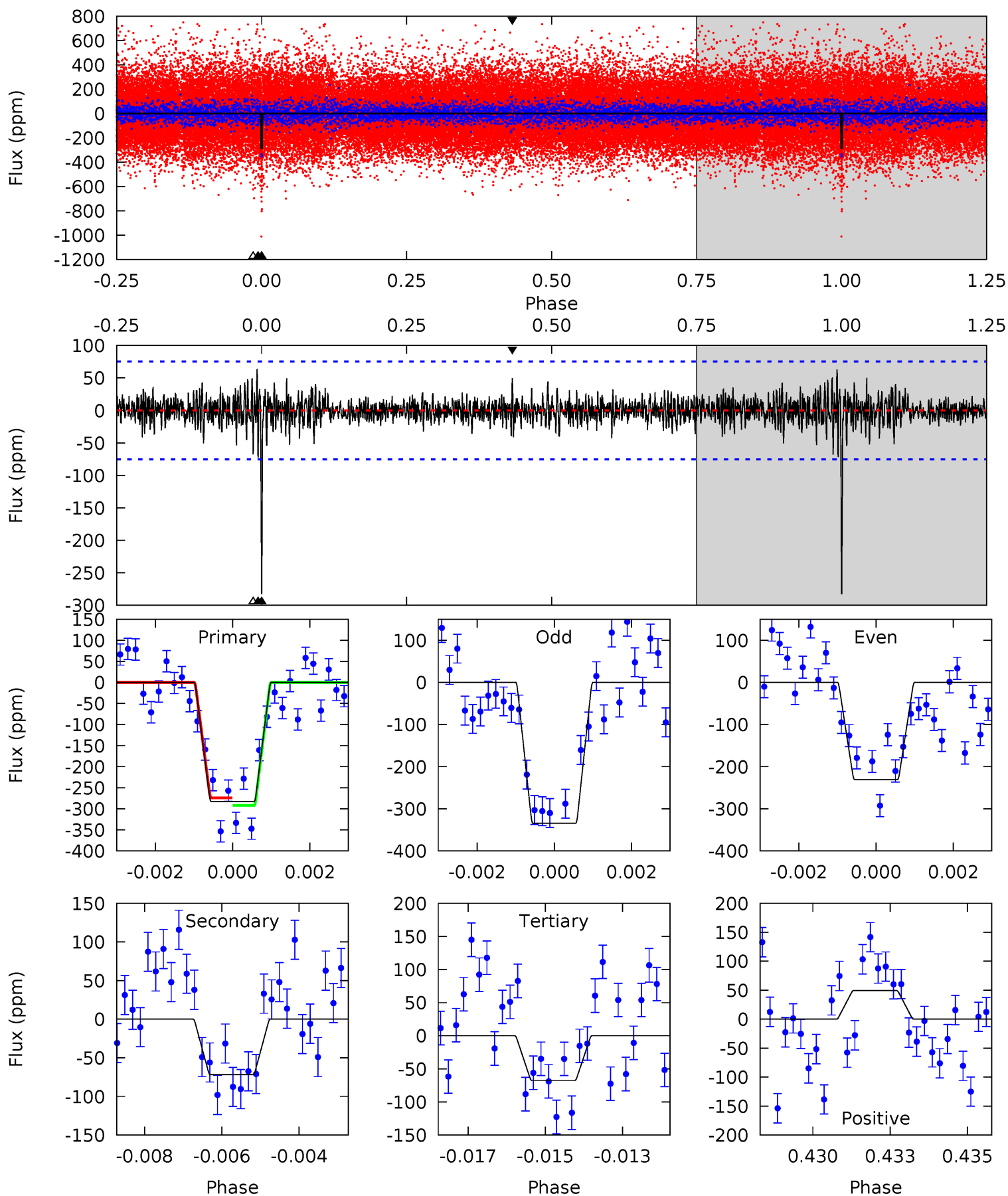
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	8.12	7.95	6.69	5.34	3.11	1.82	10.4	11.7	0.17	1.43	2.45	0.90	0.27	0.93



Alt Model-Shift Uniqueness Test

006516132-01, P = 371.958904 Days, E = 308.355515 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	5.07	4.78	3.49	5.32	3.07	0.99	15.2	16.5	0.29	1.57	3.66	0.93	0.18	0.64



Stellar Parameters For KIC 006516132

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5443^{+162}_{-146}	$4.455^{+0.108}_{-0.148}$	$-0.220^{+0.300}_{-0.300}$	$0.873^{+0.174}_{-0.116}$	$0.794^{+0.112}_{-0.064}$	$1.679^{+0.858}_{-0.664}$
	+3%/-3%	+2%/-3%	+136%/-136%	+20%/-13%	+14%/-8%	+51%/-40%
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 006516132-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-127 ± 16	$1.50^{+0.47}_{-0.43}$	327^{+19}_{-16}	4764^{+737}_{-482}	27183^{+26809}_{-11301}
Alt.	-72 ± 14	$1.69^{+0.47}_{-0.46}$	326^{+18}_{-16}	4076^{+520}_{-354}	11939^{+12172}_{-4806}

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 $A_{obs} \gg 1.0$

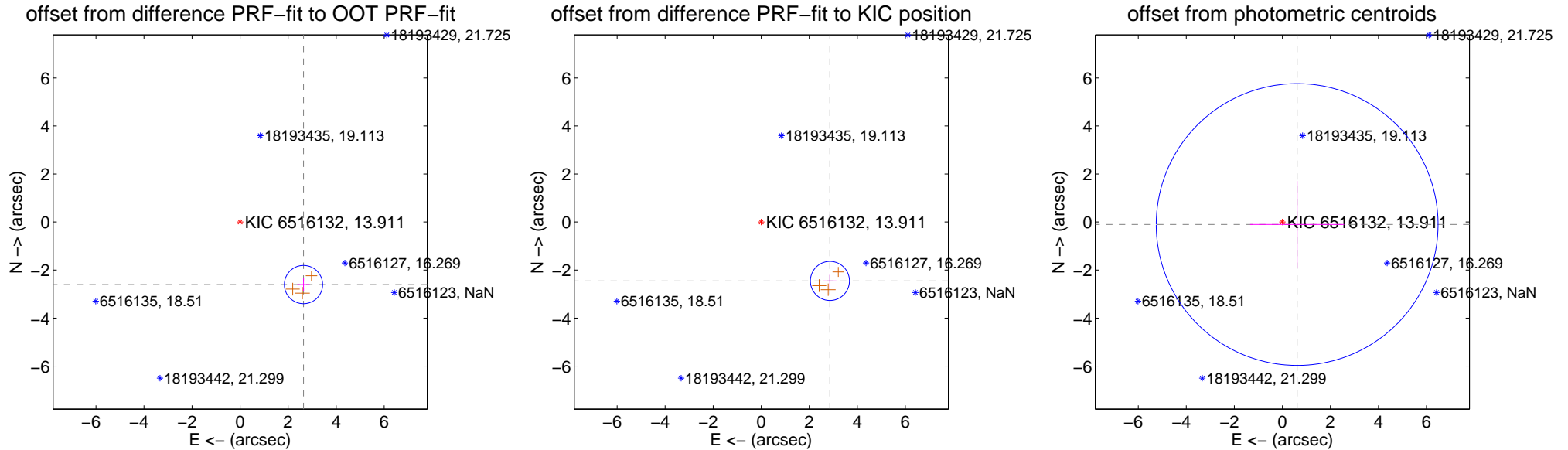
DV Centroid Data

Supplemental centroid analysis for 006516132-01. Kepler magnitude: 13.91. Transit SNR 6.56

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.707 ± 0.266	13.96	-2.640 ± 0.260	-2.602 ± 0.271
PRF-fit source offset from KIC position	3.767 ± 0.271	13.89	-2.860 ± 0.267	-2.452 ± 0.277
photometric centroid source offset	0.62 ± 1.96	0.32	-0.62 ± 1.96	-0.10 ± 1.81



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.

Q1 no difference image



Q1 no OOT image



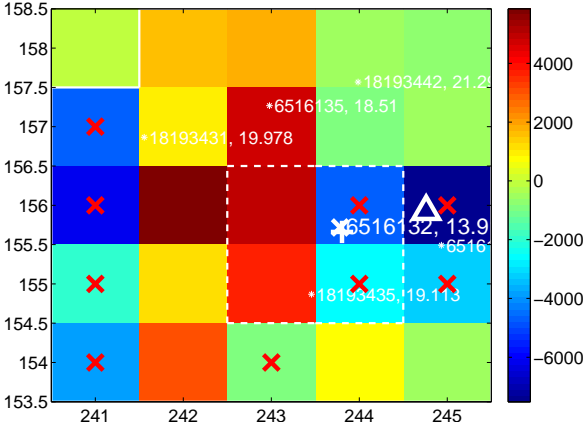
Q2 no difference image



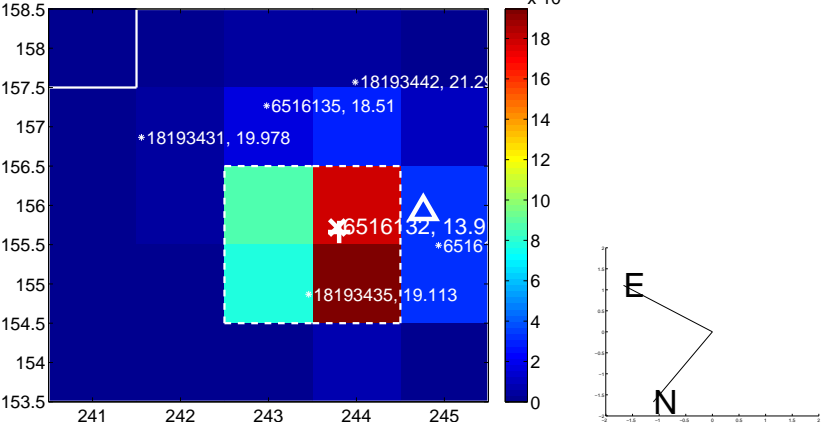
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



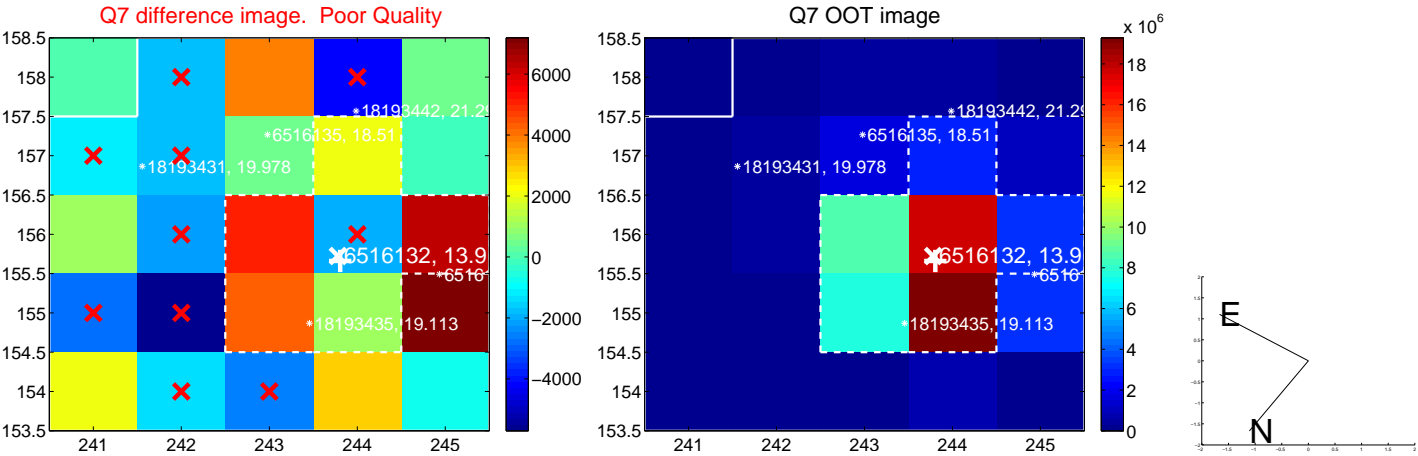
Q4 no difference image



Q4 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.

Q9 no difference image



Q9 no OOT image



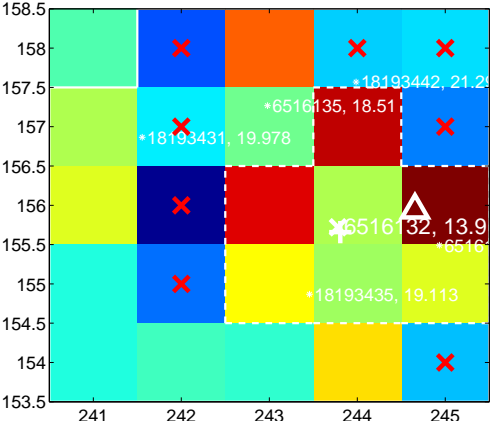
Q10 no difference image



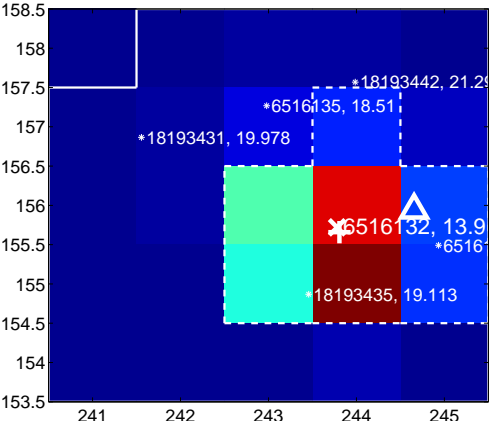
Q10 no OOT image



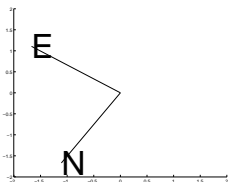
Q11 difference image. Poor Quality



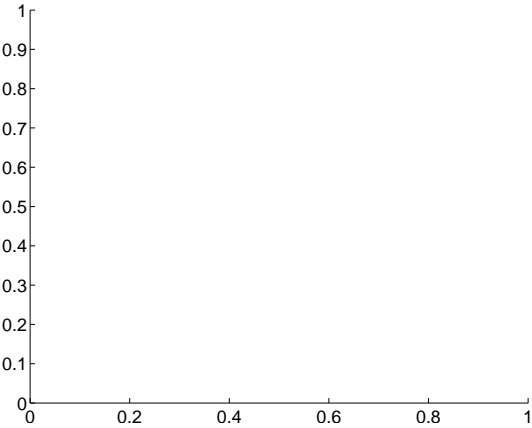
Q11 OOT image



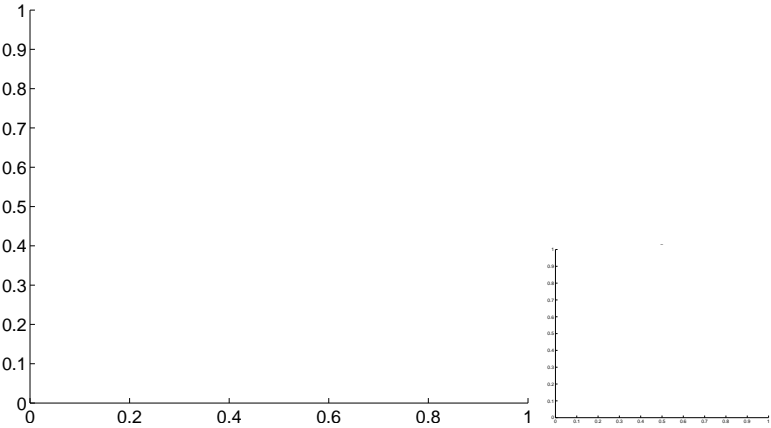
$\times 10^6$



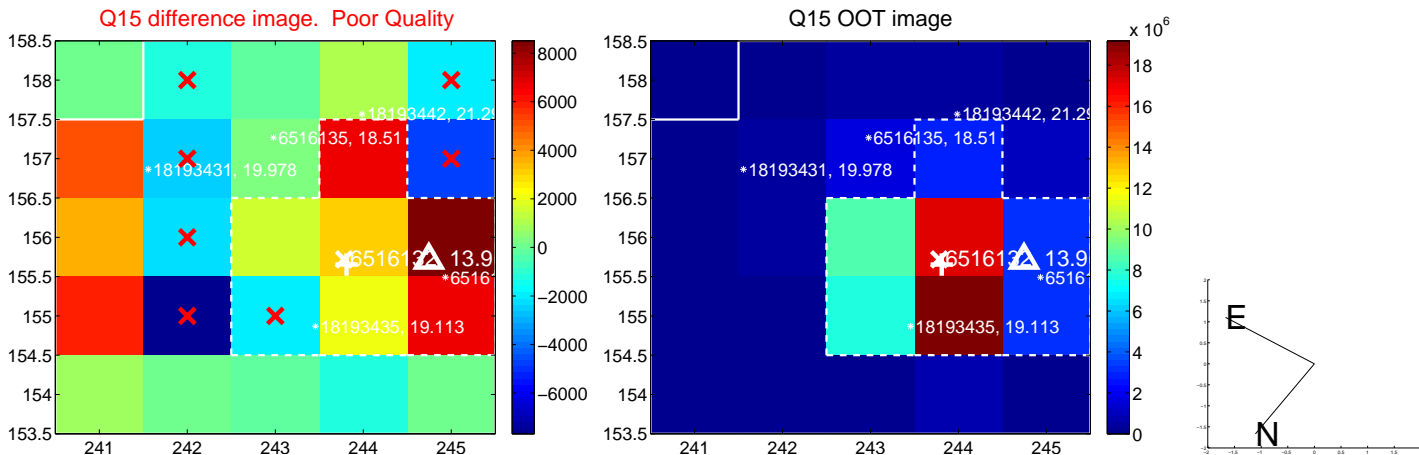
Q12 no difference image



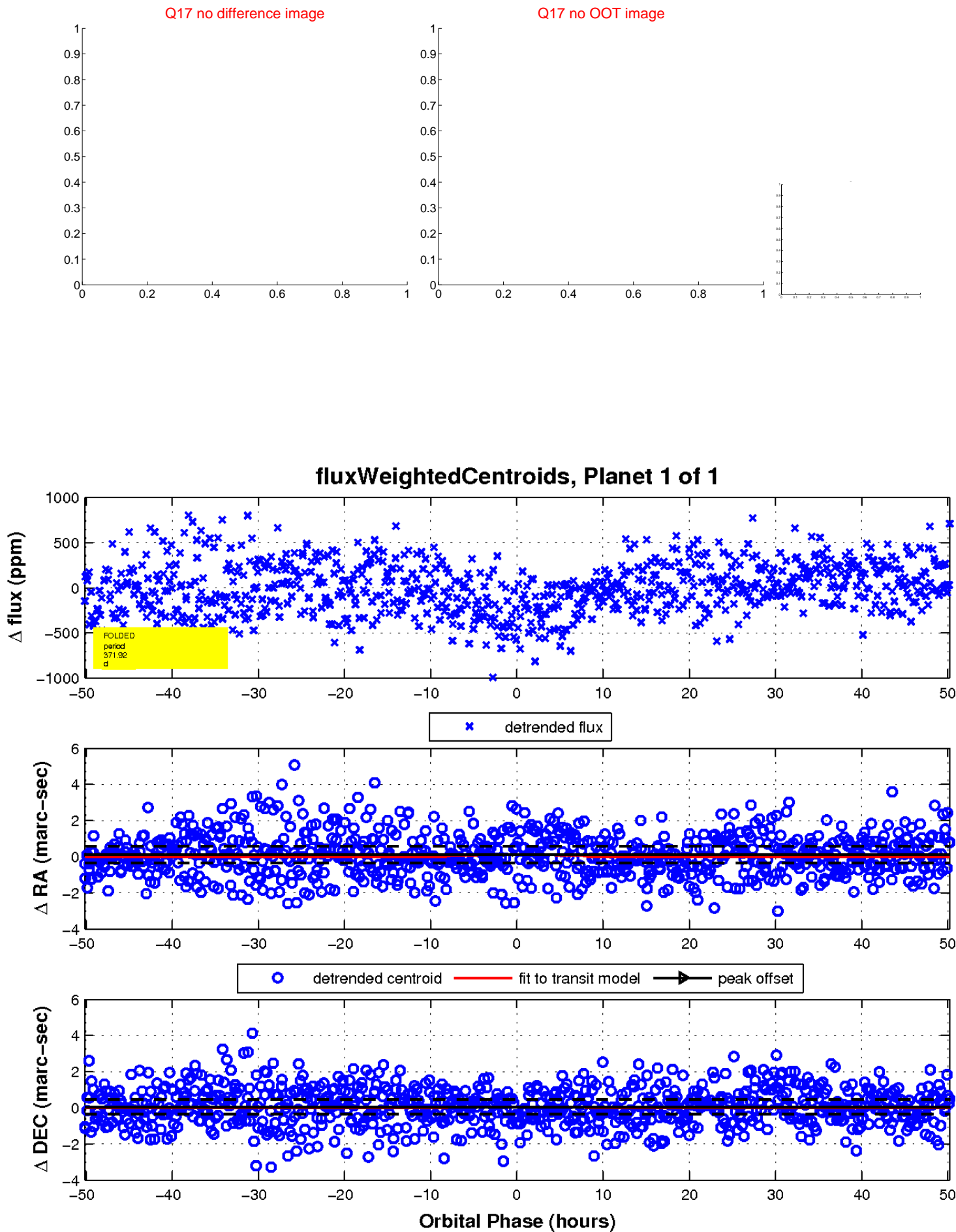
Q12 no OOT image



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

