

KIC 011259997

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})
011259997-01	OBS	No	276.585701	216.022069	1170.3	20.379	11.5	11.3	1.06	6469	4.13	2.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011259997-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_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.

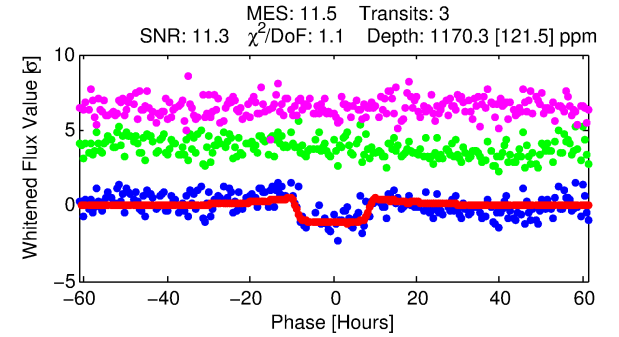
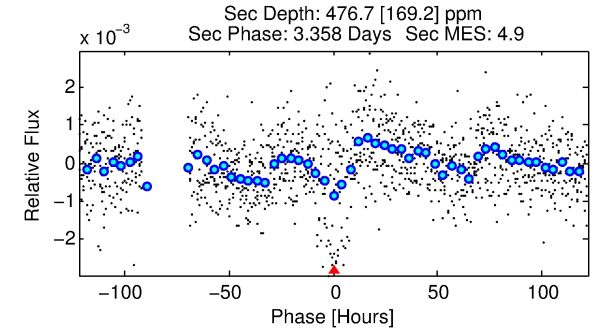
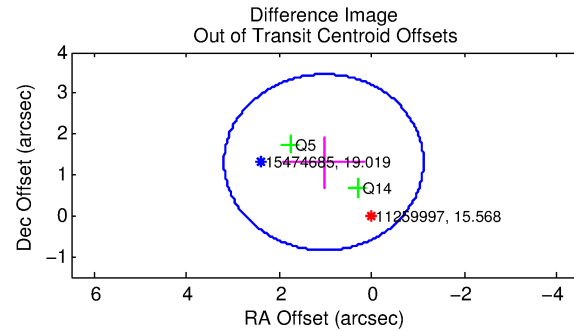
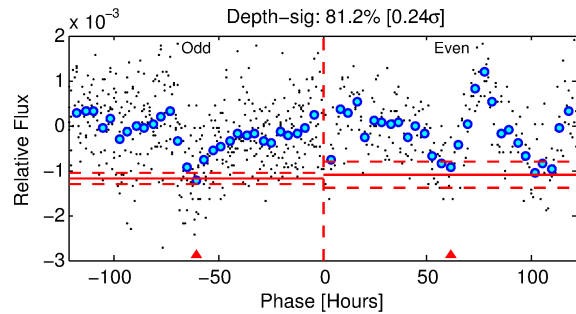
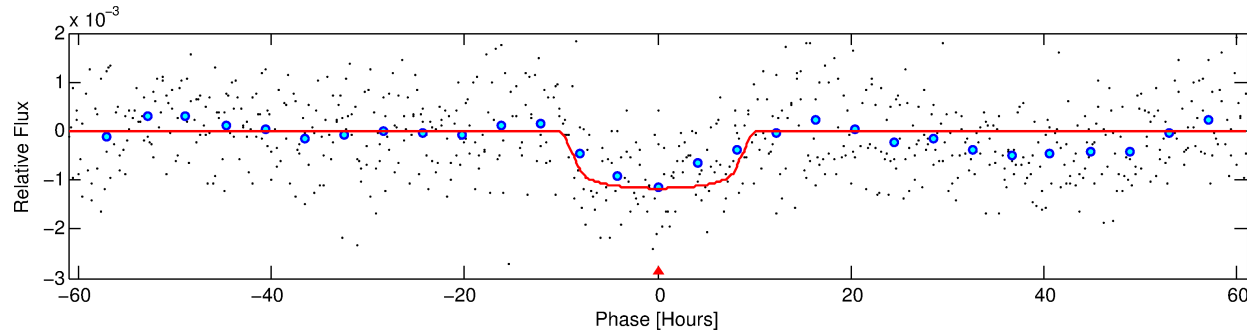
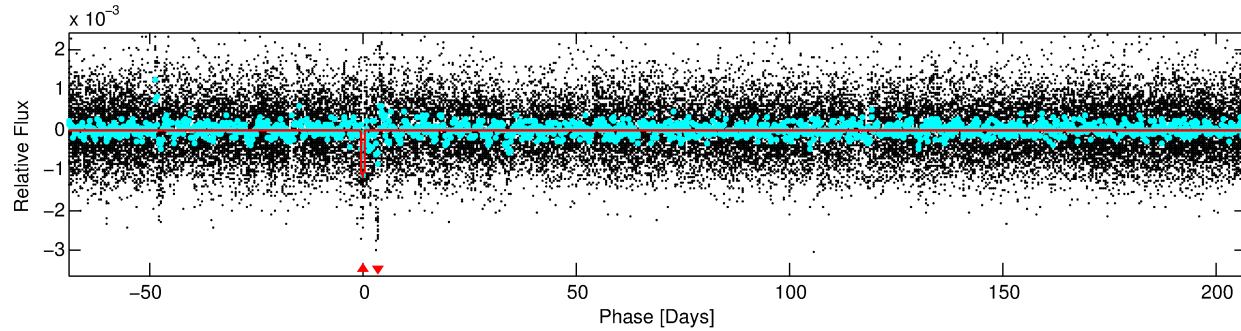
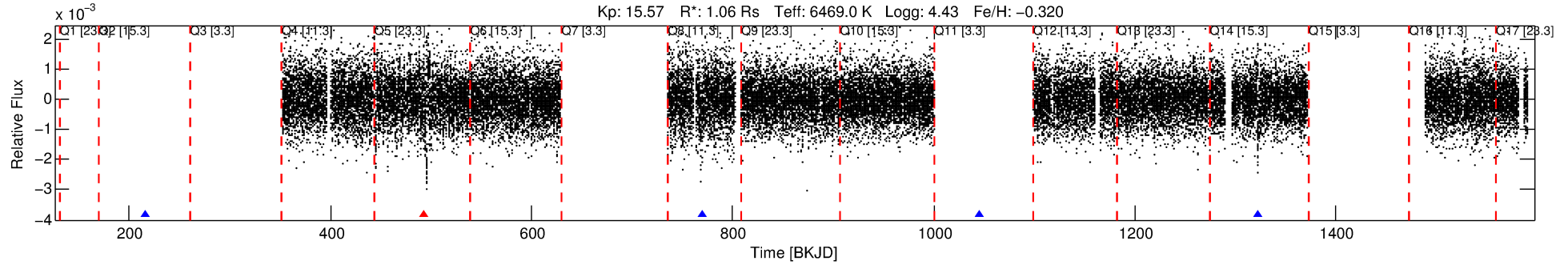
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011259997-01

No Significant Match Found

DV One-Page Summary

KIC: 11259997 Candidate: 1 of 1 Period: 276.586 d



DV Fit Results:

Period = 276.58570 [0.01208] d
Epoch = 216.0221 [0.0348] BKJD
Rp/R* = 0.0358 [0.0031]
a/R* = 58.44 [20.18]
b = 0.87 [0.10]
Seff = 2.38 [0.92]
Teq = 317 [30] K
Rp = 4.13 [1.26] Re
a = 0.8571 [0.2112] AU
Ag = 11304.16 [6021.15] [1.88 σ]
Teffp = 5050 [529] K [8.93 σ]

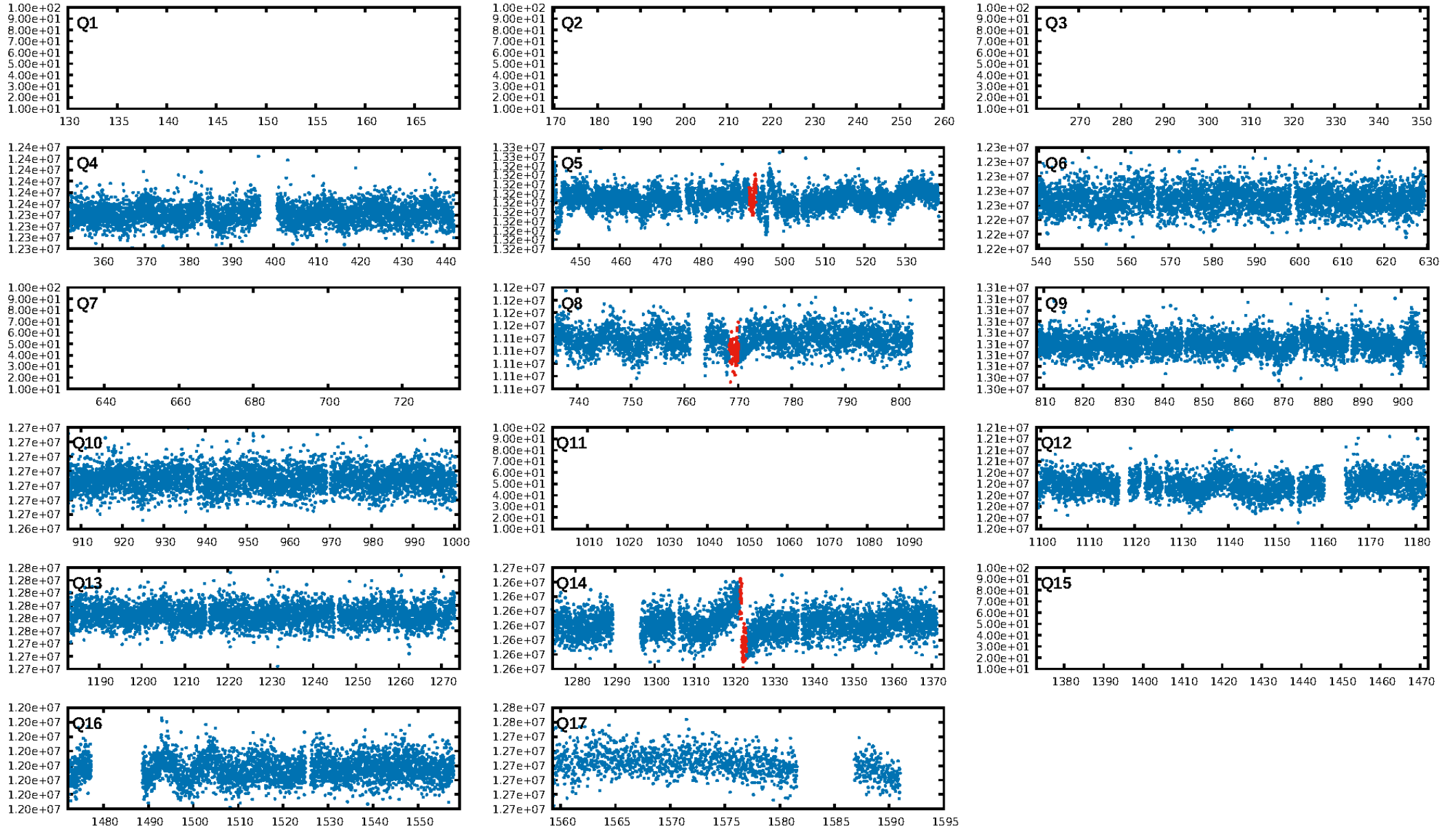
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 8.24e-24
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: -27.37
Centroid-sig: 10.1%
Centroid-so: 1.758 arcsec [1.61 σ]
OotOffset-rm: 1.670 arcsec [2.33 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 1.959 arcsec [2.94 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

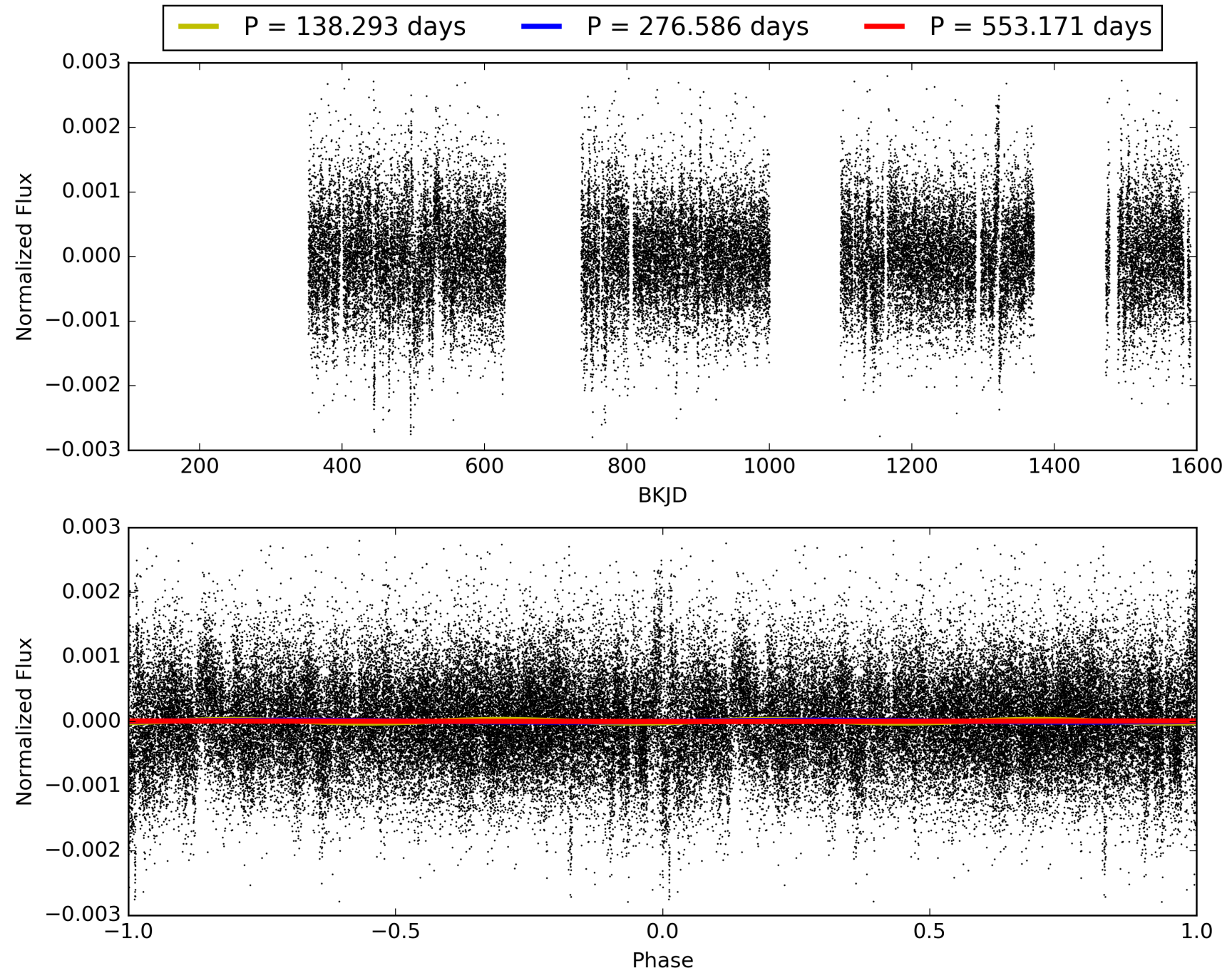
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:20:37 Z

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

TCE 011259997-01, PDC Light Curves

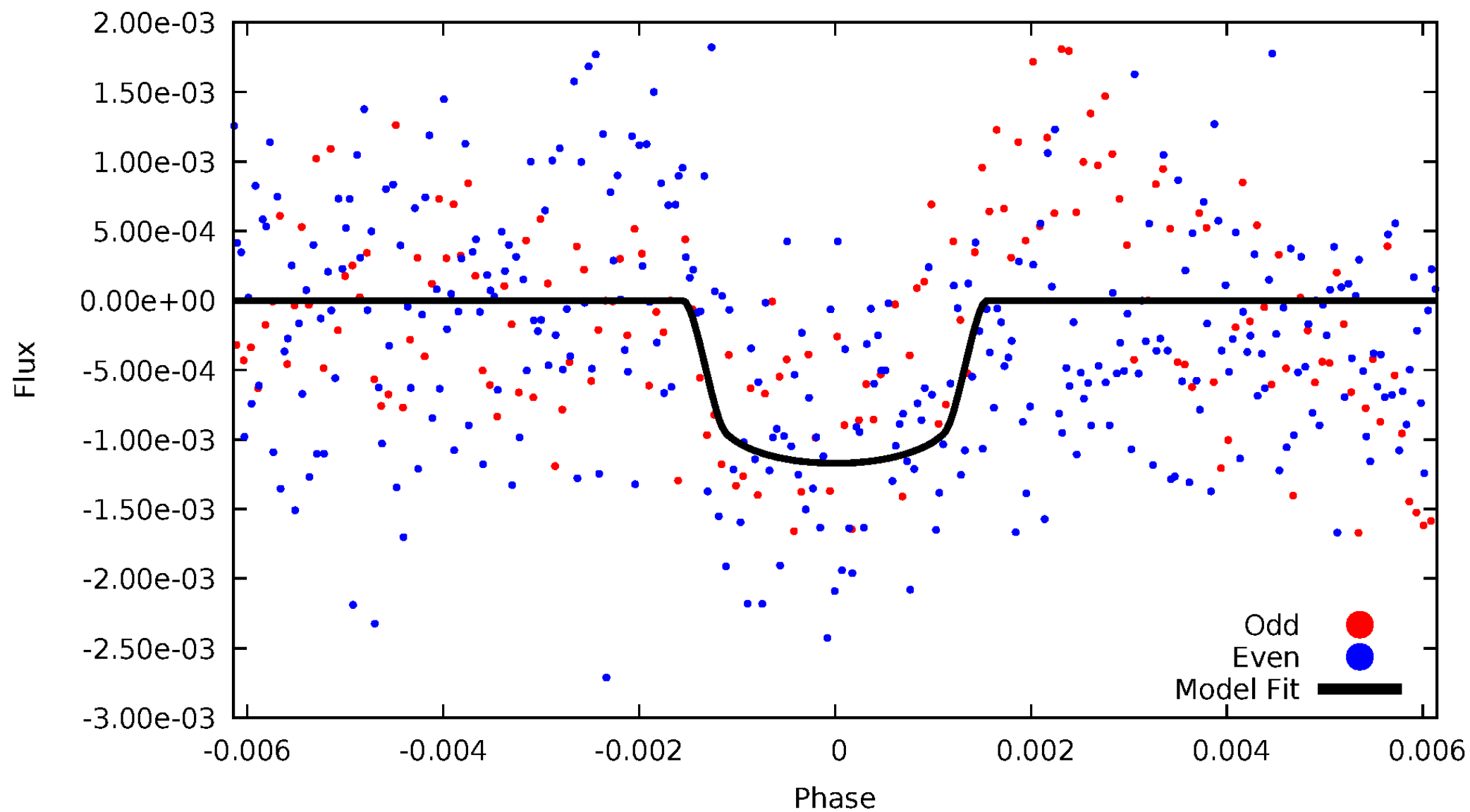


TCE 011259997-01



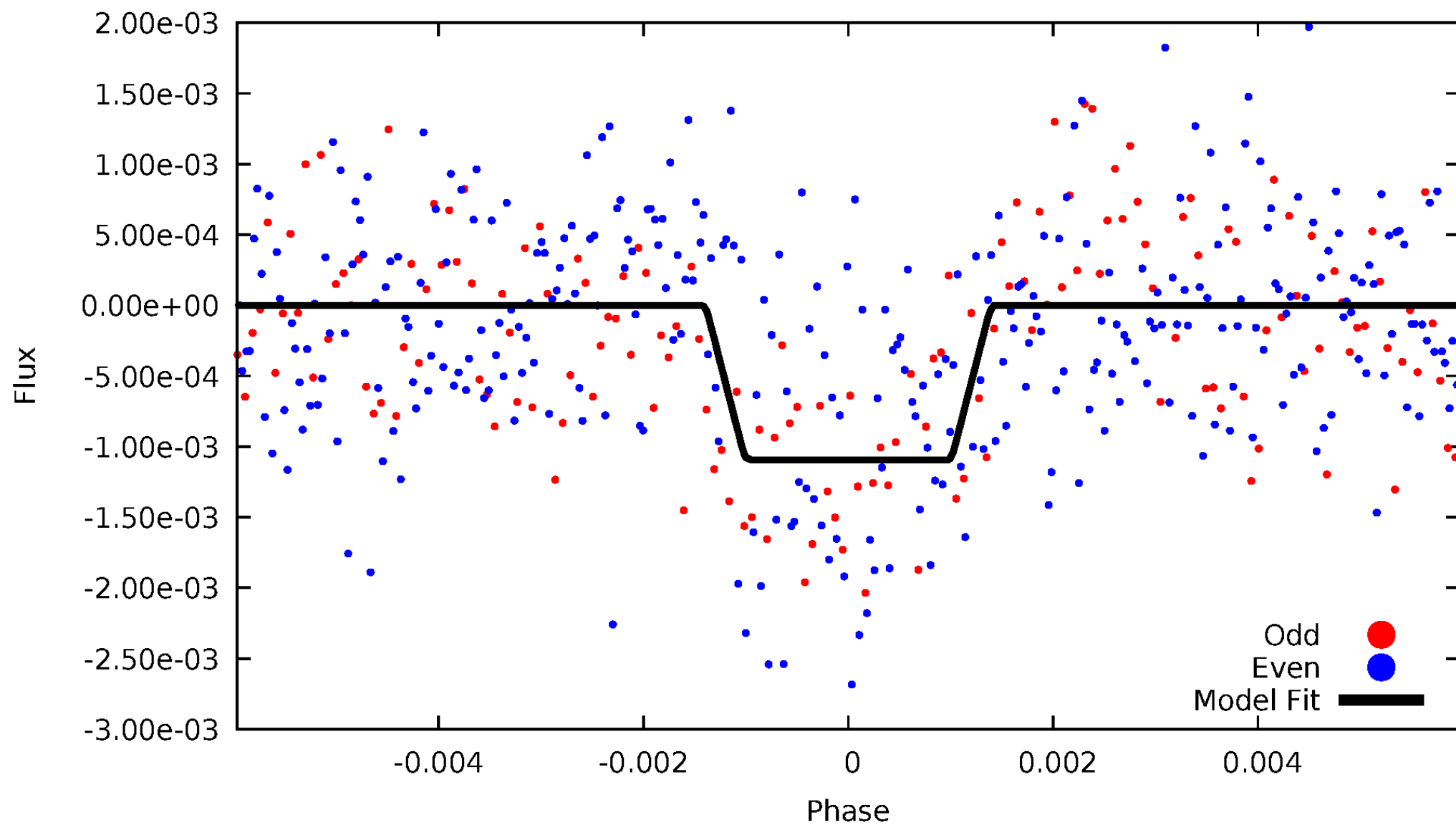
DV Odd/Even

TCE 011259997-01



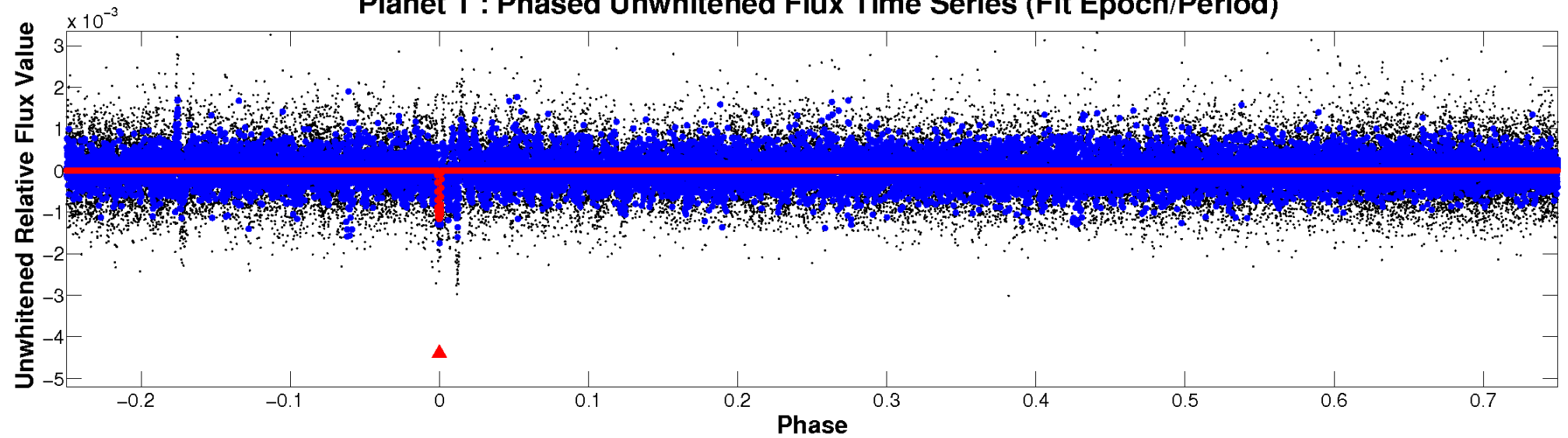
ALT Odd/Even

TCE 01125997-01

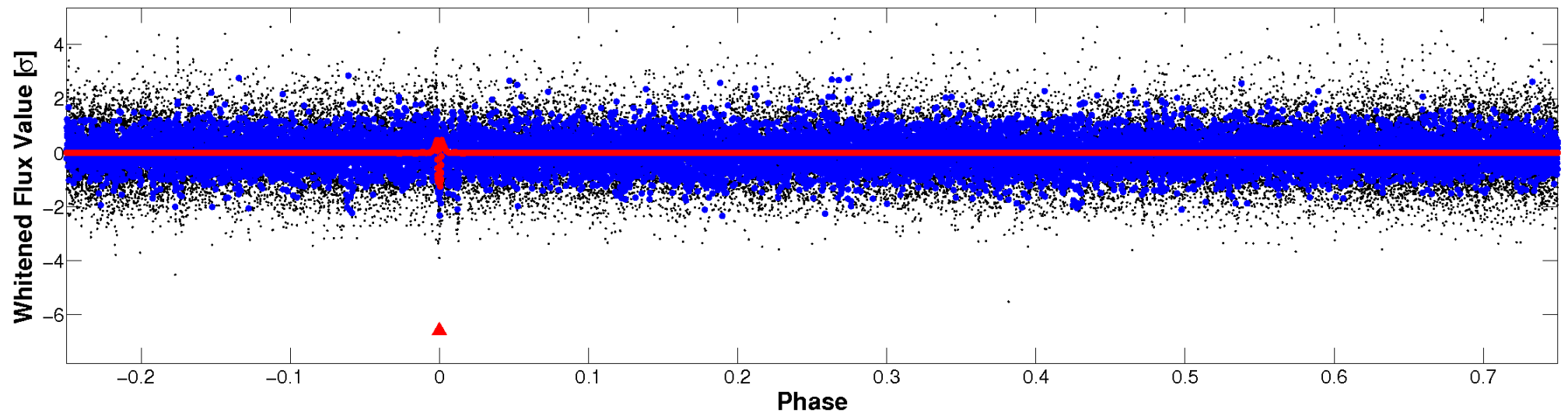


Non-Whitened Vs. Whitened Light Curve

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 011259997-01 $P=276.585701$ Days $T_0=216.022069$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011259997-01 P=276.585701 Days $T_0=216.022069$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

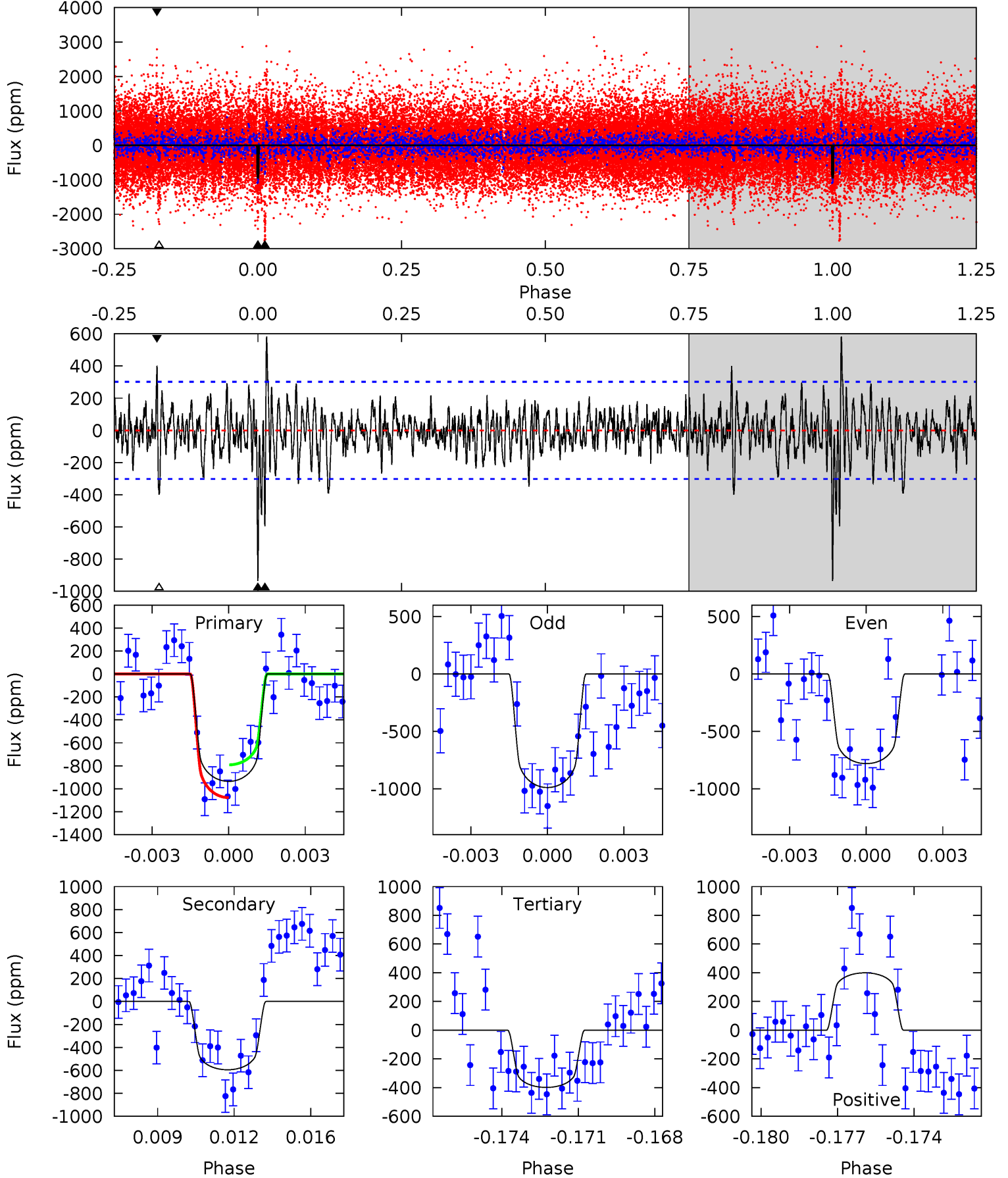
TCE 011259997-01 P=276.575046 Days $T_0=216.033631$ (BKJD)



DV Model-Shift Uniqueness Test

011259997-01, P = 276.585701 Days, E = 216.022069 Days

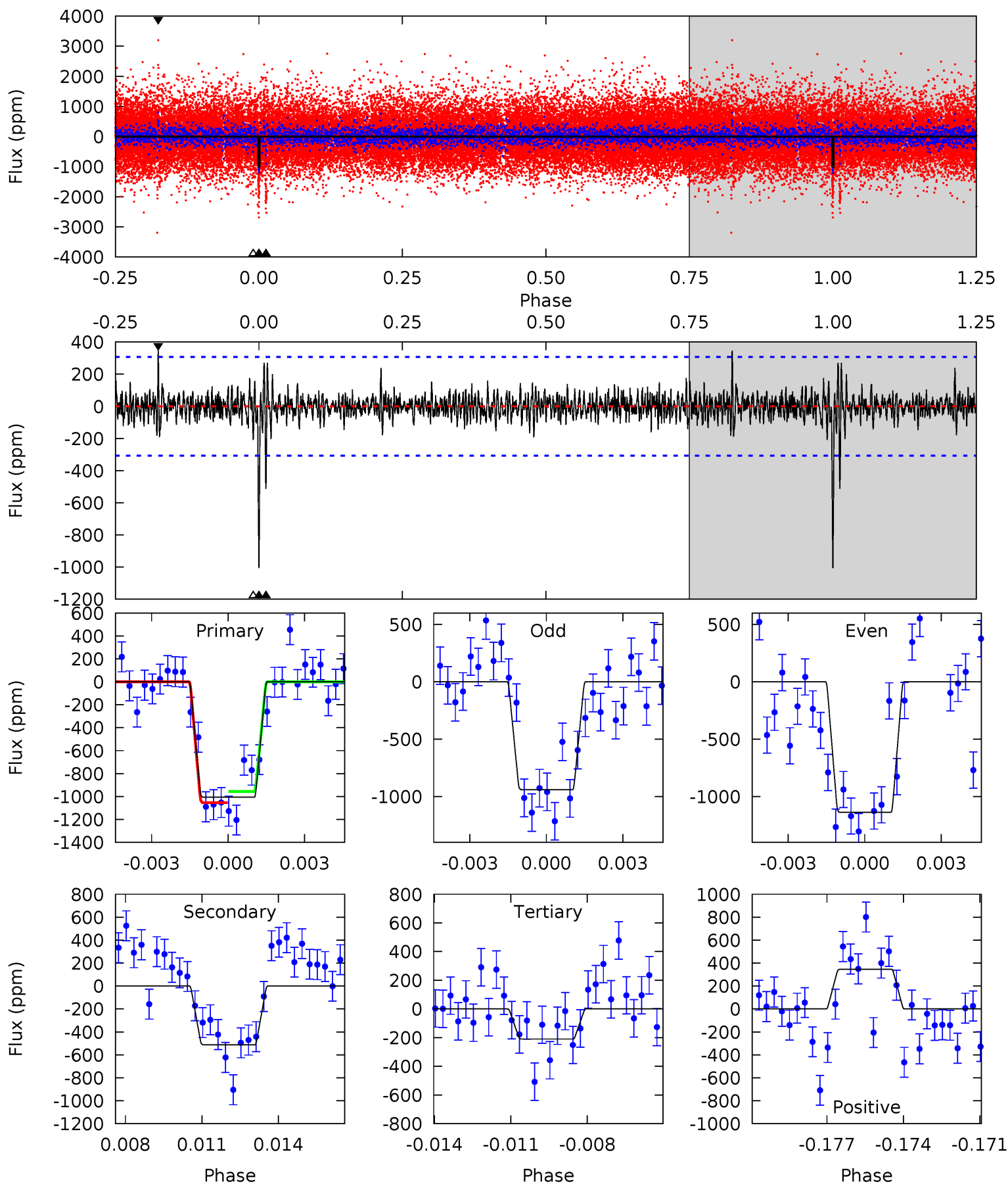
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	10.4	6.94	6.95	5.25	2.96	1.88	9.33	9.33	3.41	3.41	1.71	1.17	0.38	2.48



Alt Model-Shift Uniqueness Test

011259997-01, P = 276.575046 Days, E = 216.033631 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	8.79	3.59	5.94	5.26	2.99	0.99	13.7	11.3	5.19	2.85	1.59	0.88	0.26	0.84



Stellar Parameters For KIC 011259997

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6469^{+181}_{-227}	$4.431^{+0.065}_{-0.195}$	$-0.320^{+0.250}_{-0.350}$	$1.056^{+0.310}_{-0.133}$	$1.095^{+0.146}_{-0.146}$	$1.311^{+0.369}_{-0.657}$
	+3%/-4%	+1%/-4%	+78%/-109%	+29%/-13%	+13%/-13%	+28%/-50%
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 011259997-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-595 ± 57	$4.29^{+0.69}_{-0.54}$	452^{+32}_{-23}	5366^{+294}_{-288}	12700^{+3878}_{-3151}
Alt.	-512 ± 58	$3.96^{+0.70}_{-0.55}$	450^{+31}_{-23}	5356^{+330}_{-293}	12792^{+4667}_{-3405}

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

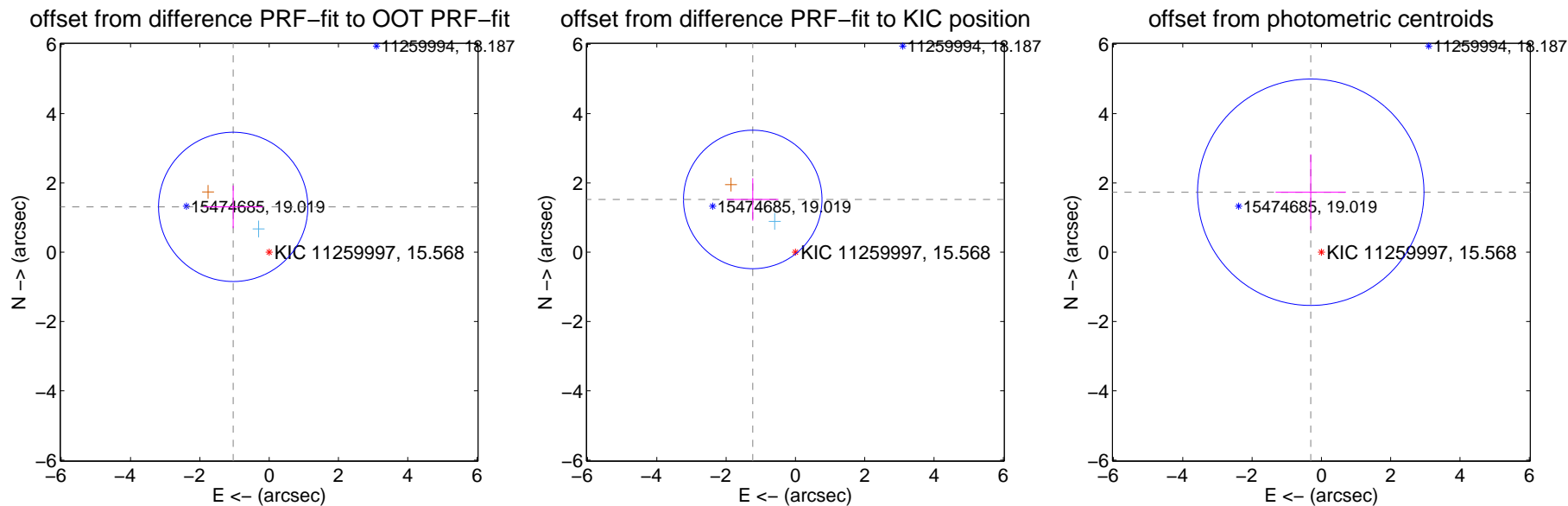
DV Centroid Data

Supplemental centroid analysis for 011259997-01. Kepler magnitude: 15.57. Transit SNR 11.33

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.670 ± 0.718	2.33	1.037 ± 0.855	1.309 ± 0.616
PRF-fit source offset from KIC position	1.959 ± 0.666	2.94	1.232 ± 0.741	1.523 ± 0.612
photometric centroid source offset	1.76 ± 1.09	1.61	0.31 ± 1.01	1.73 ± 1.09

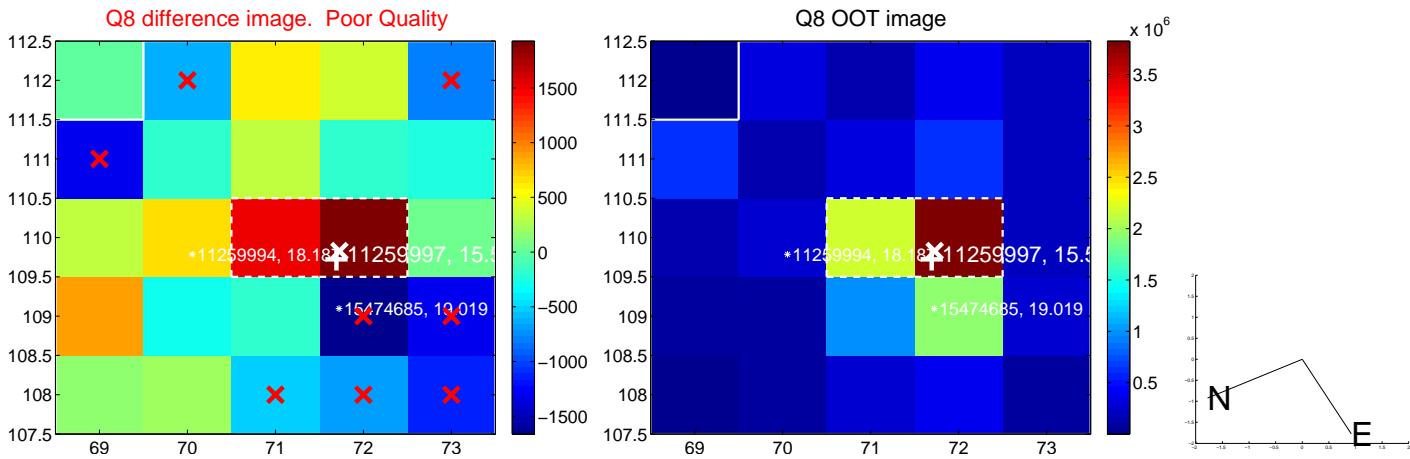
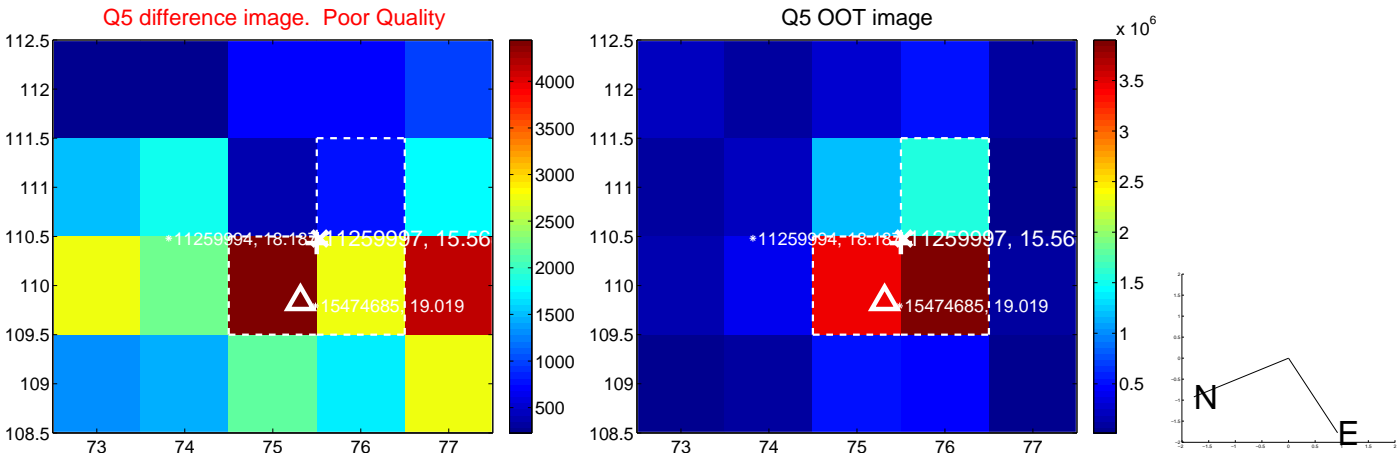


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



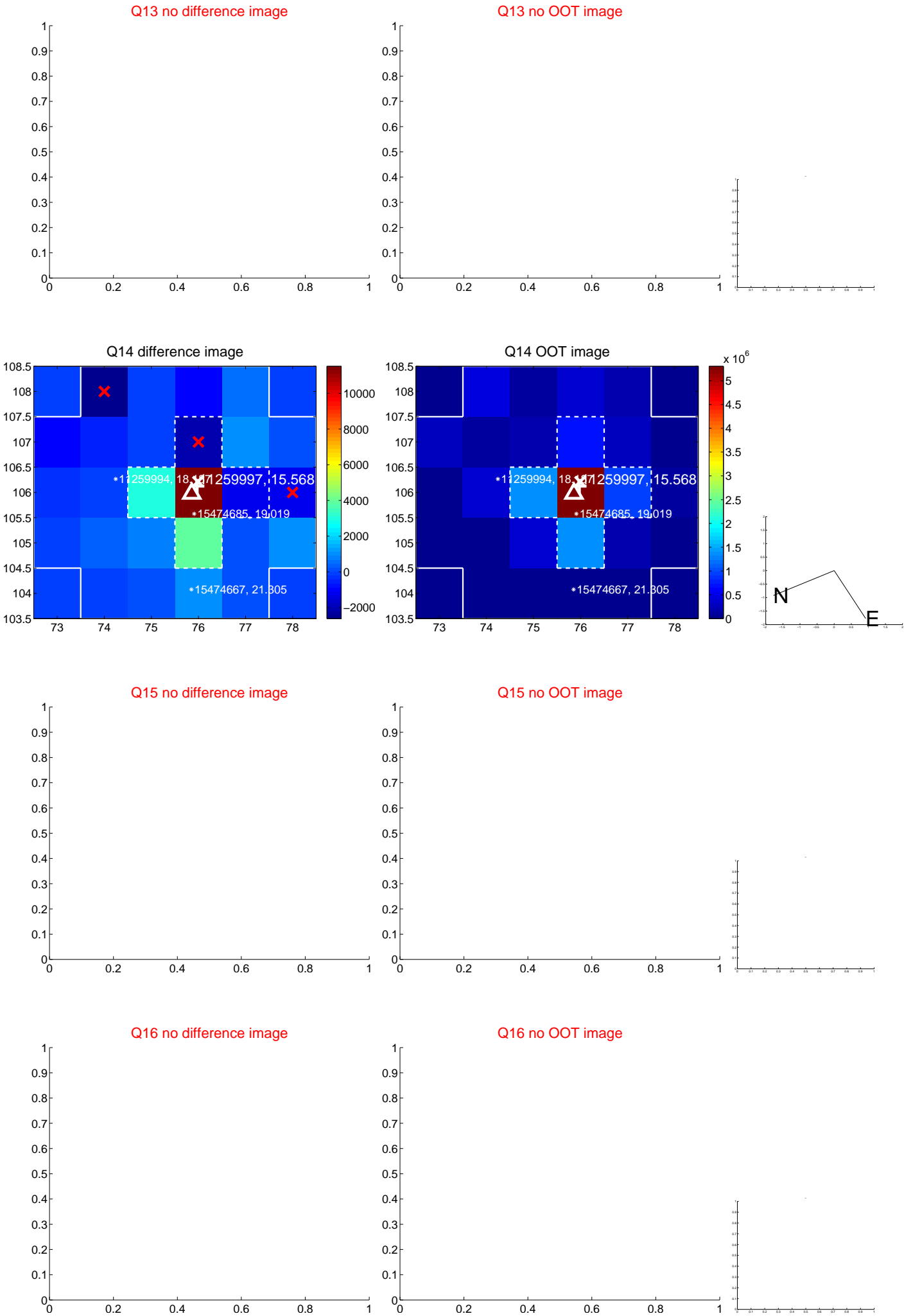
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



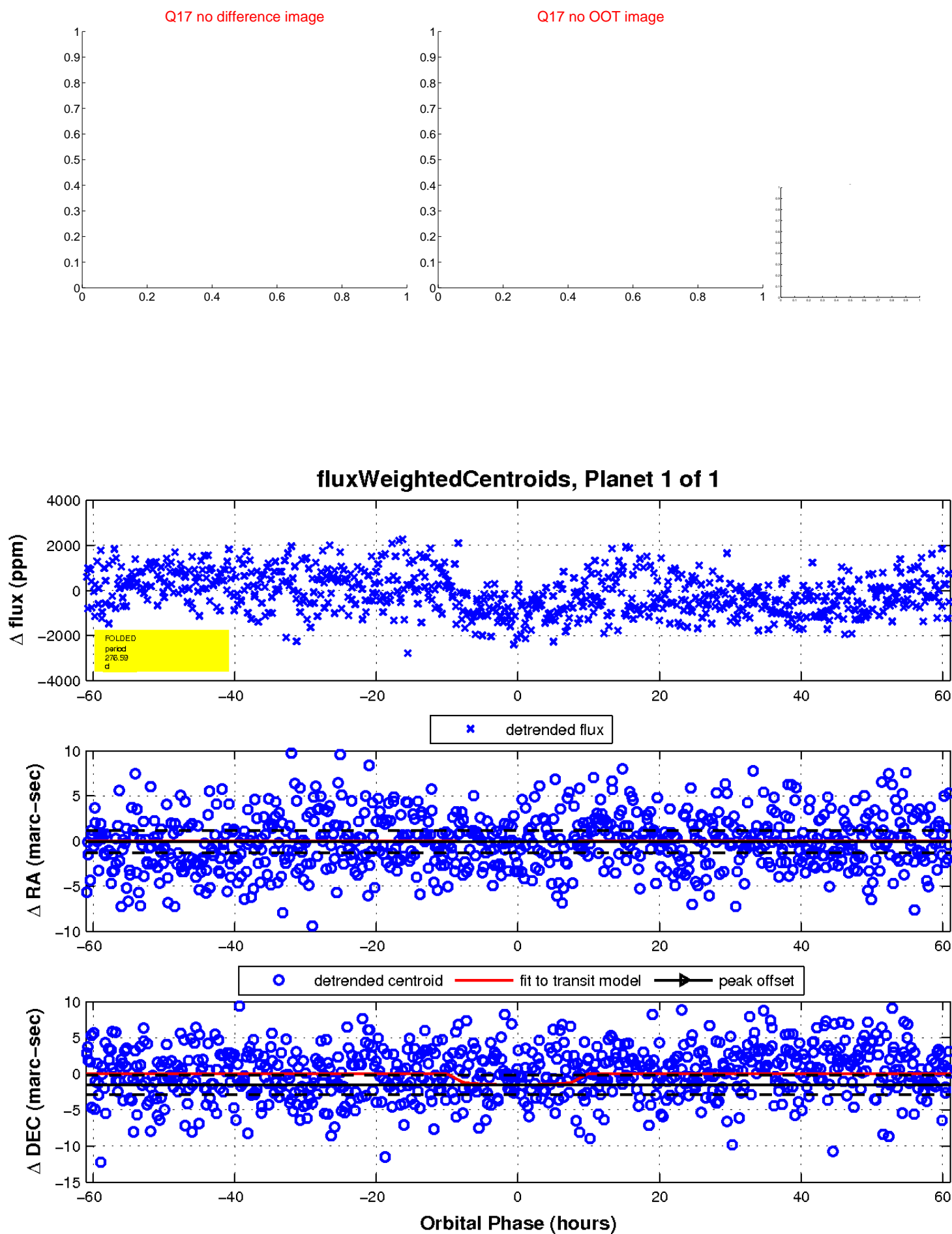
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UKIRT Image

Declination

