

KIC 007017037

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})
007017037-01	OBS	No	474.647448	144.479363	462.9	9.851	9.8	5.1	1.19	6040	2.74	1.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007017037-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—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.

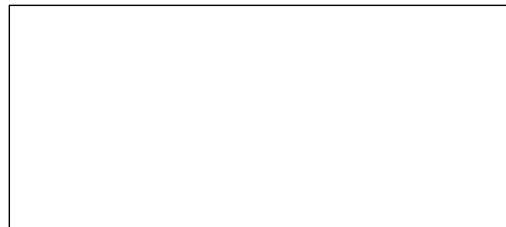
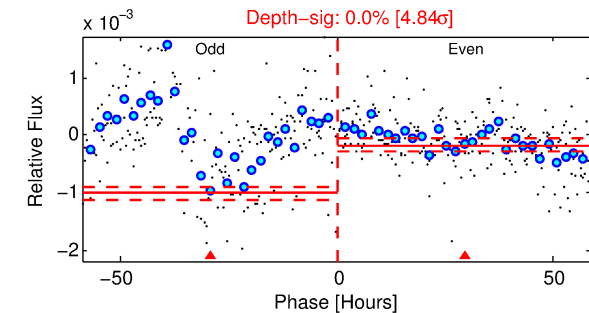
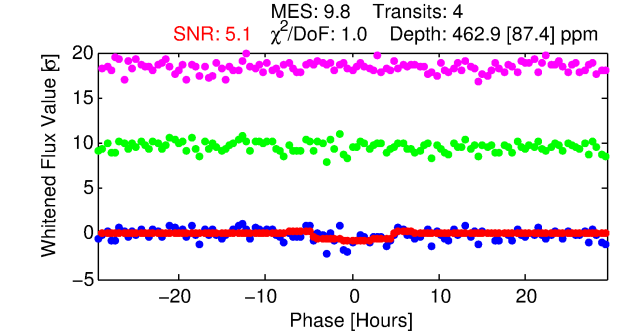
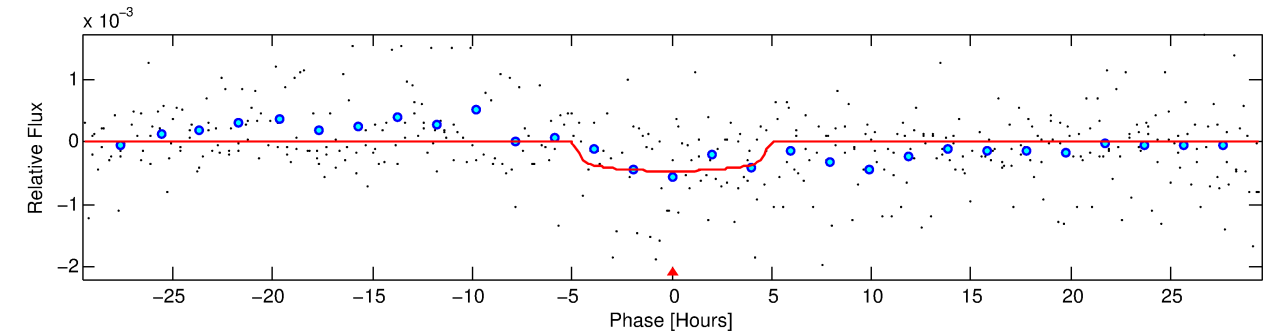
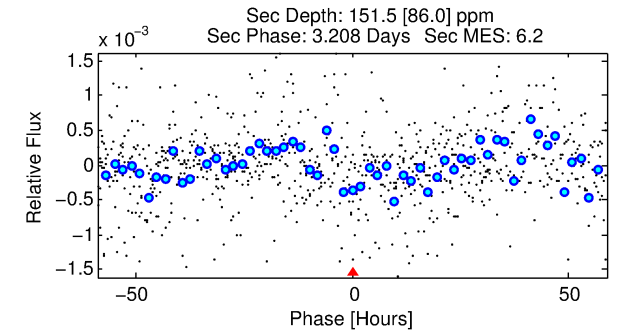
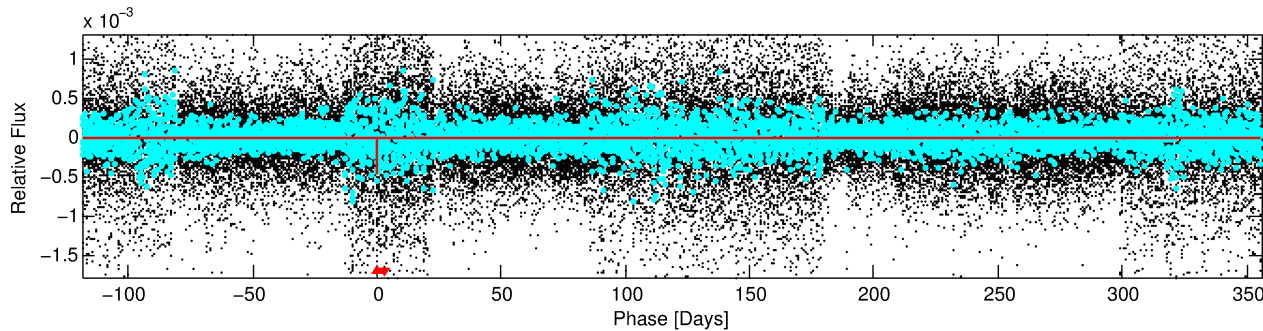
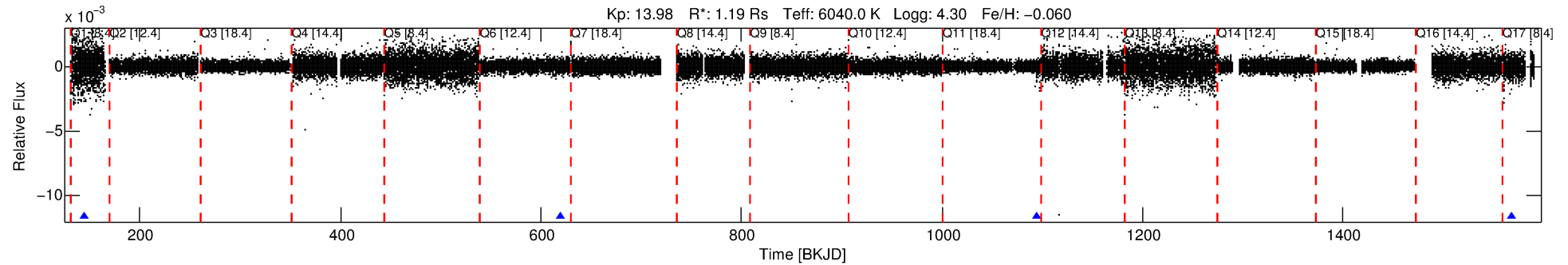
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007017037-01

No Significant Match Found

DV One-Page Summary

KIC: 7017037 Candidate: 1 of 1 Period: 474.647 d



DV Fit Results:

Period = 474.64745 [0.01242] d
Epoch = 144.4794 [0.0212] BKJD
Rp/R* = 0.0211 [0.0146]
a/R* = 271.21 [896.29]
b = 0.71 [2.35]
Seff = 1.16 [0.45]
Teff = 265 [25] K
Rp = 2.74 [2.07] Re
a = 1.2040 [0.2980] AU
Ag = 16076.08 [24663.47] [0.65σ]
Teffp = 4612 [1731] K [2.51σ]

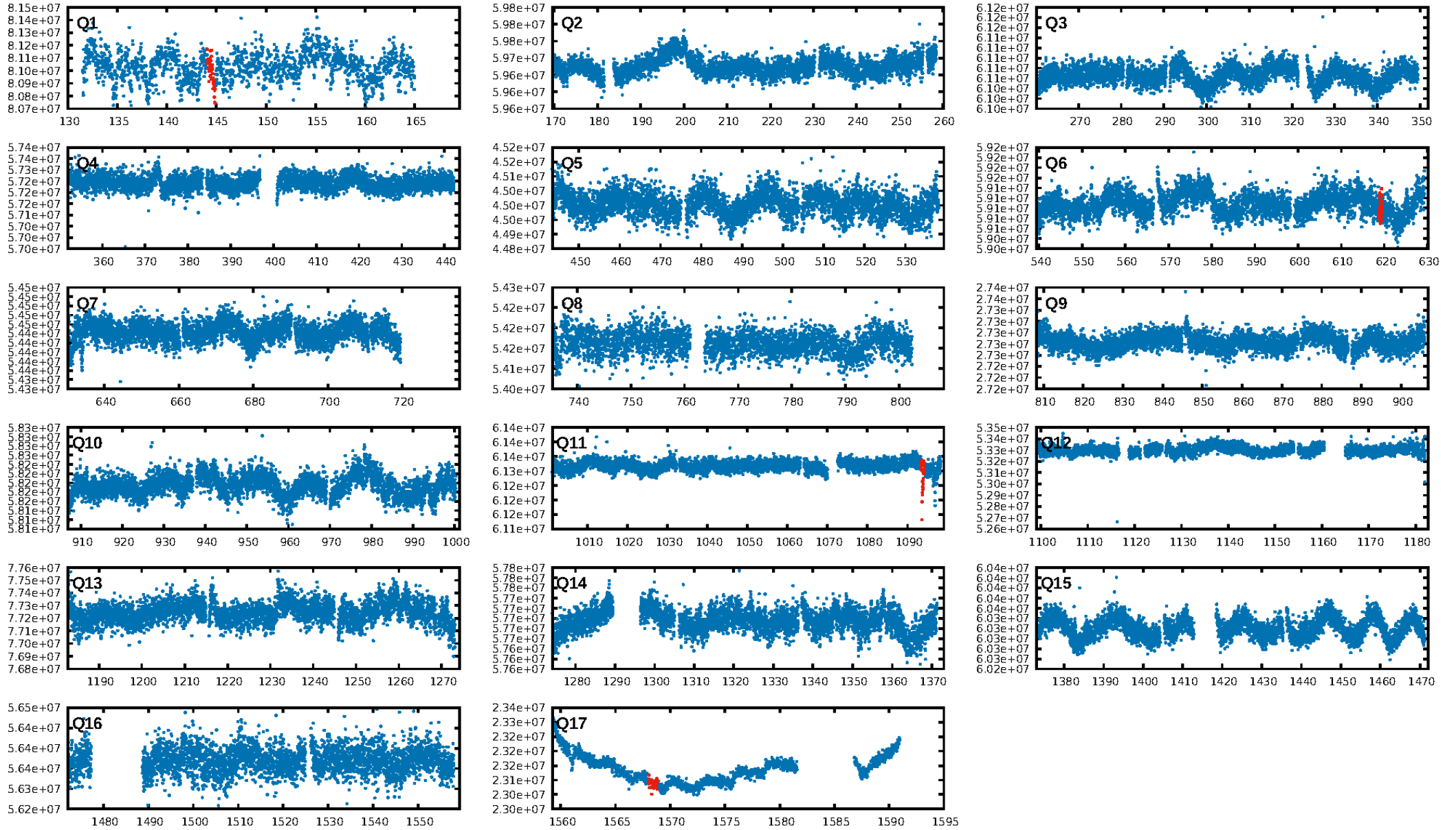
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 4.15e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.4266
Centroid-sig: 30.1%
Centroid-so: 4.811 arcsec [6.38σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [3/3]

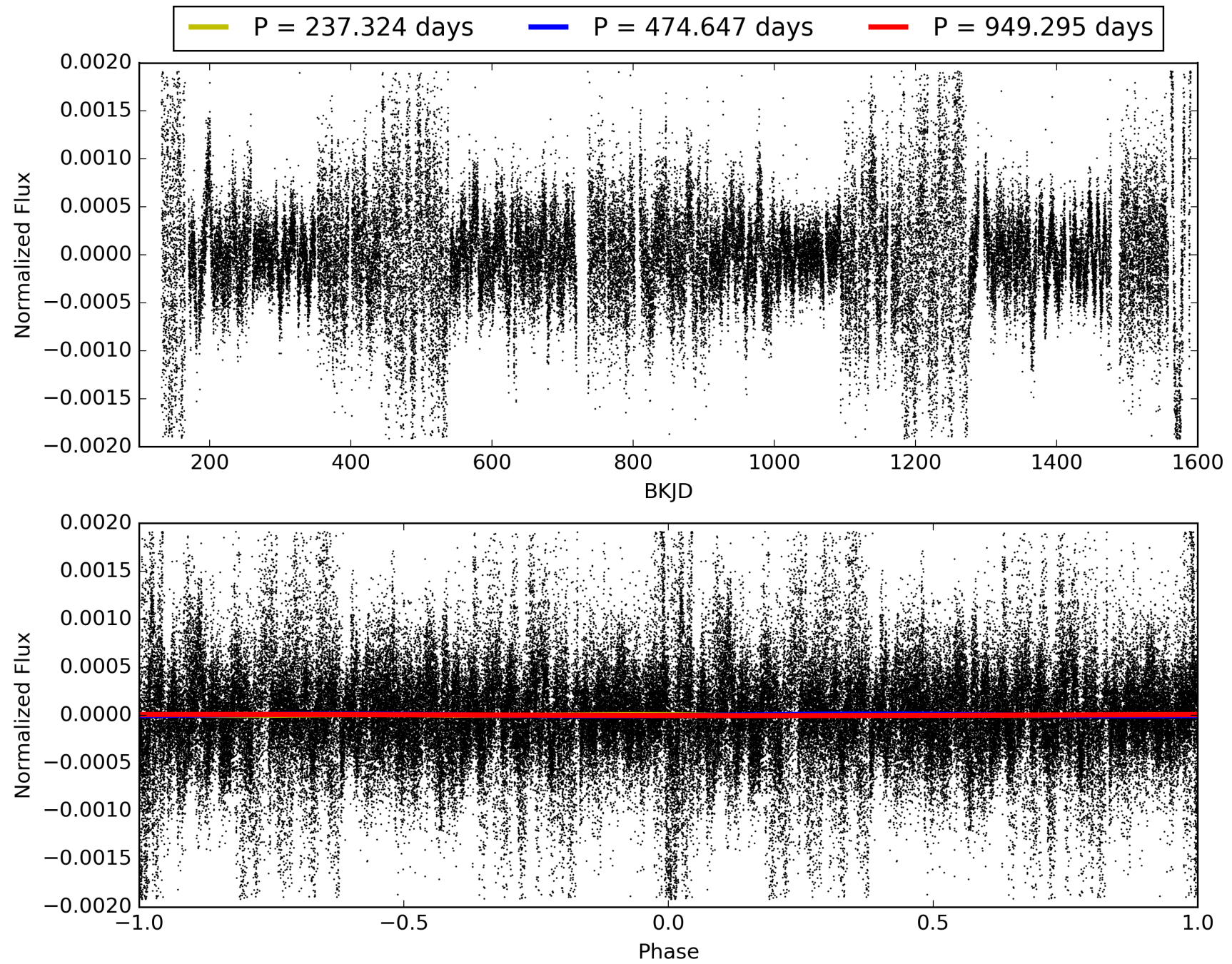
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:11:53 Z

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

TCE 007017037-01, PDC Light Curves

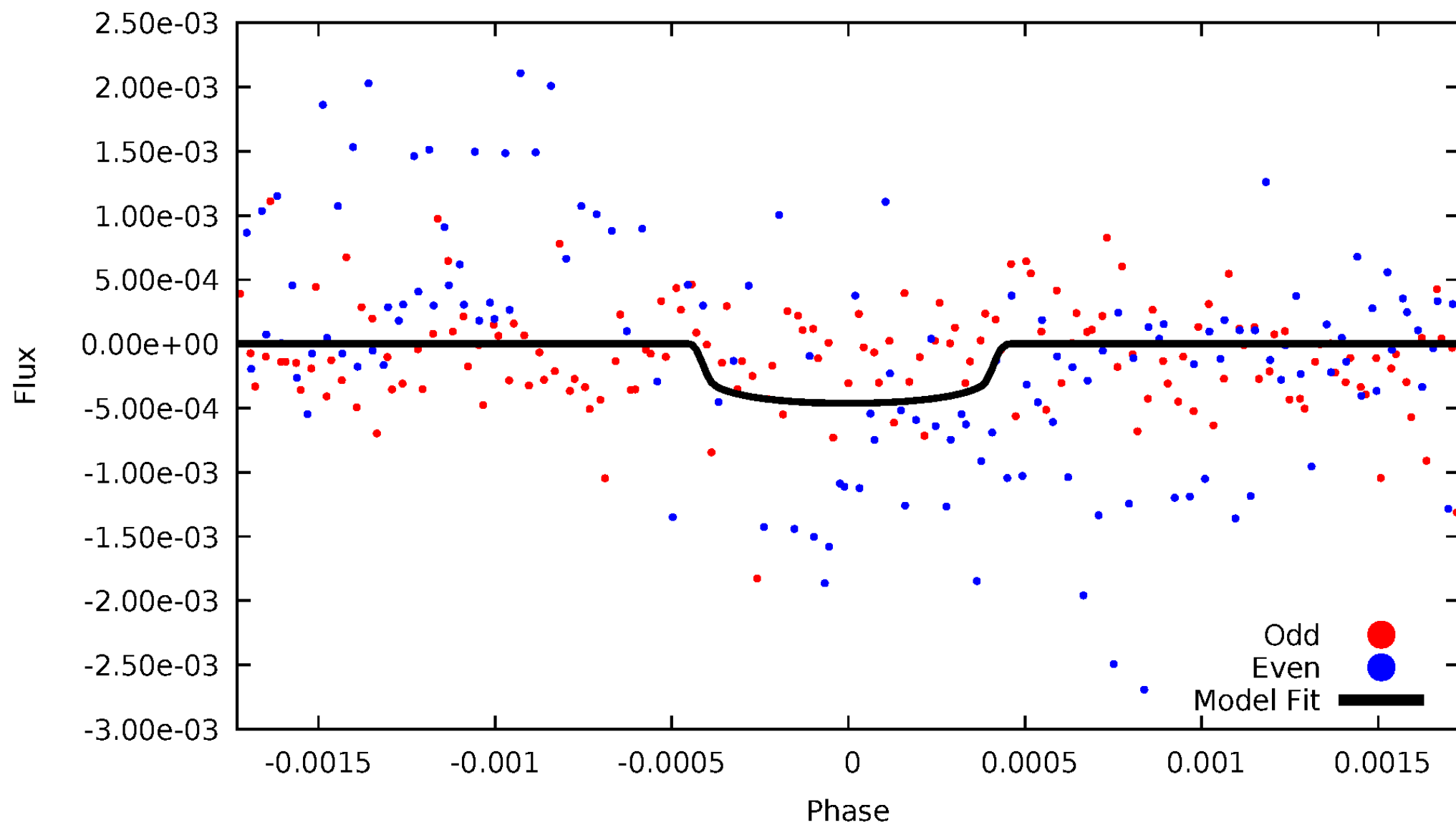


TCE 007017037-01



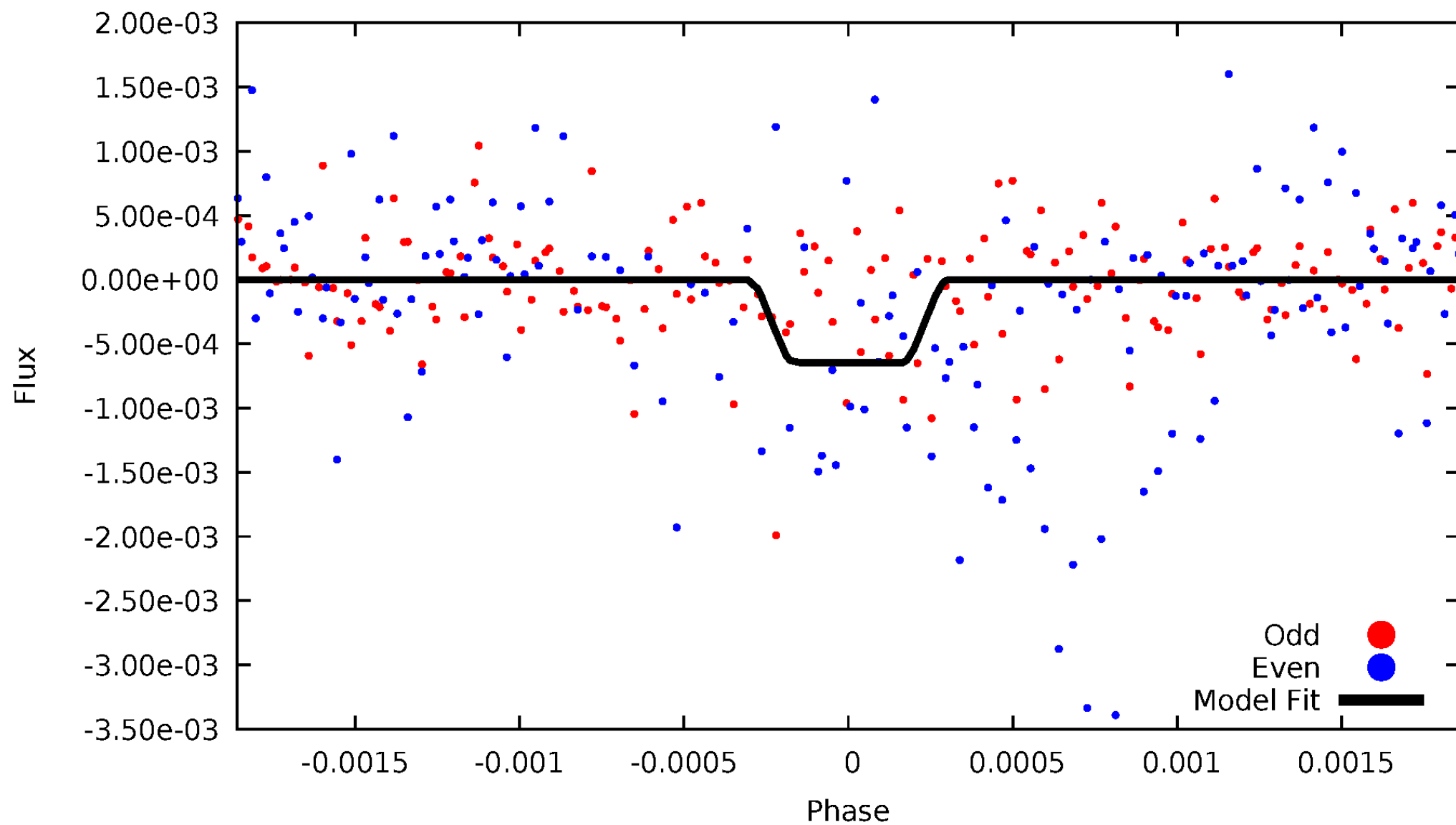
DV Odd/Even

TCE 007017037-01

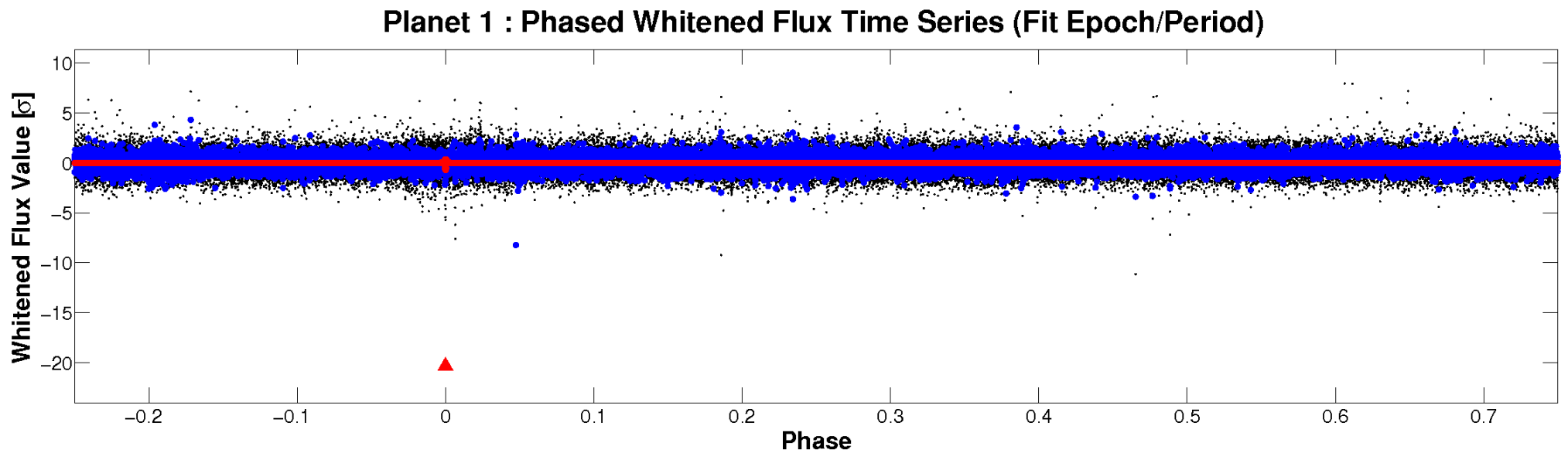
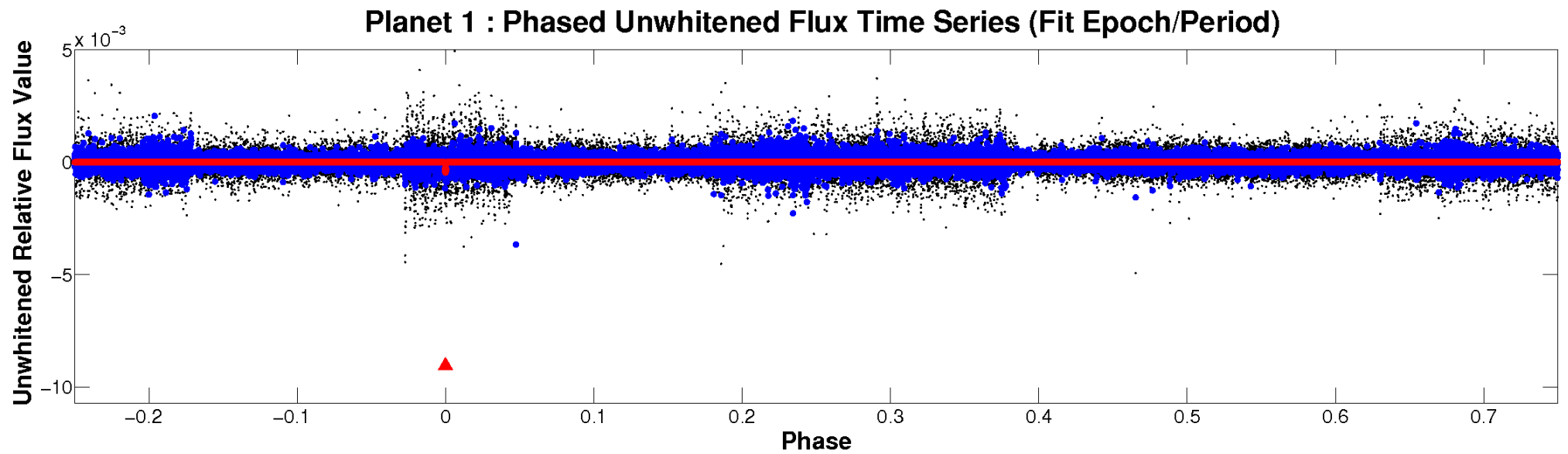


ALT Odd/Even

TCE 007017037-01

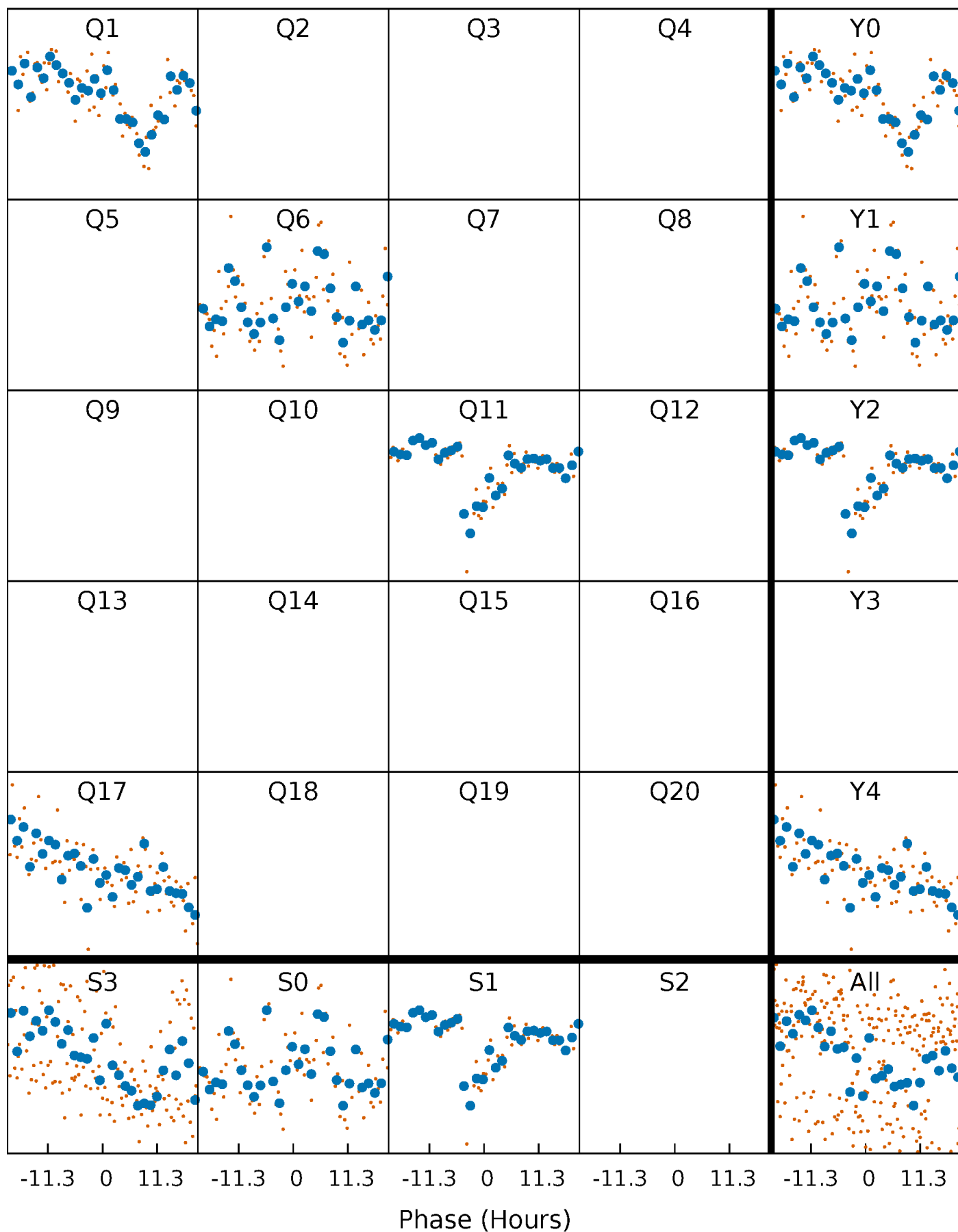


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 007017037-01 $P=474.647448$ Days $T_0=144.479364$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007017037-01 P=474.647448 Days $T_0=144.479364$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

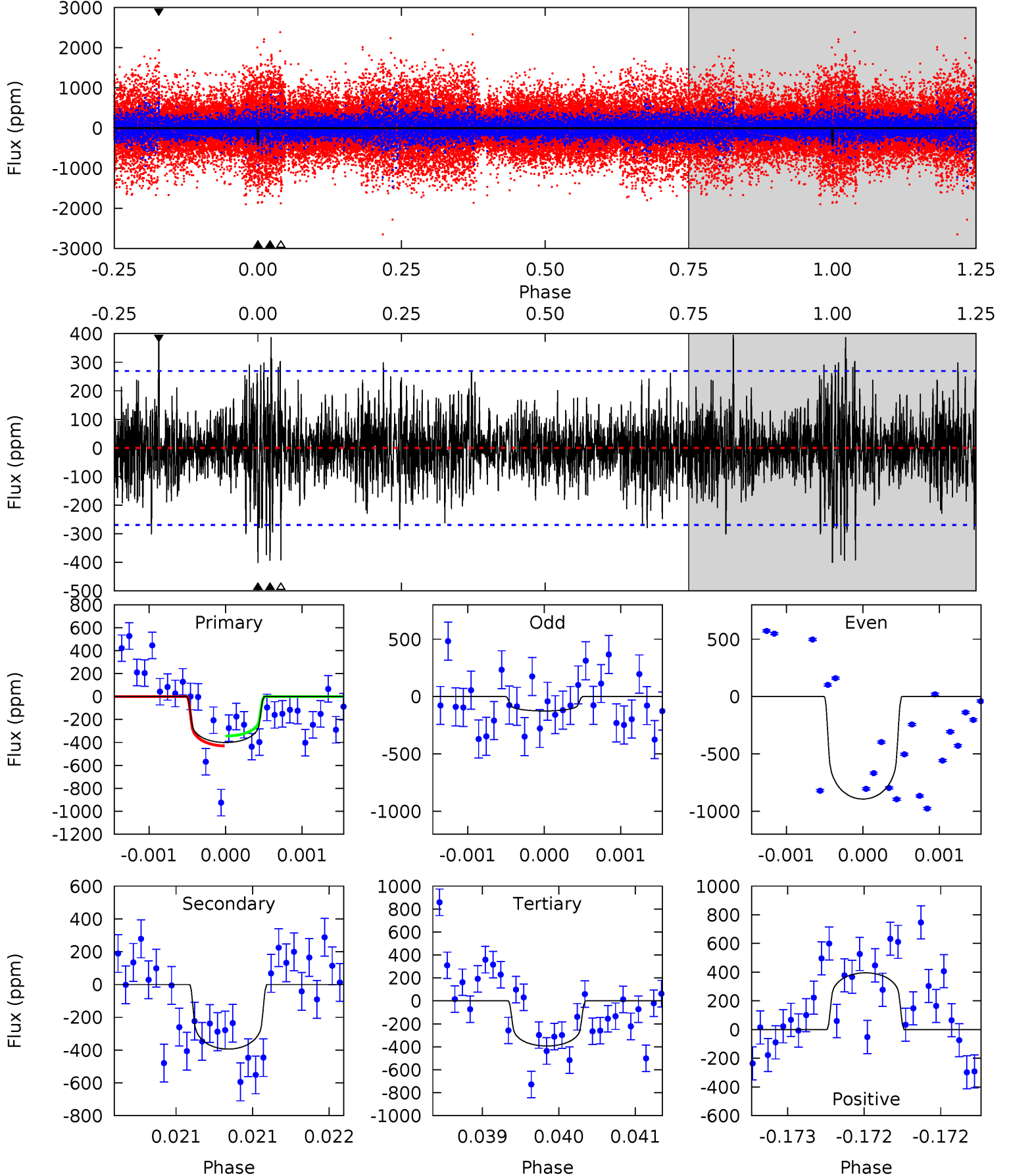
TCE 007017037-01 P=474.637543 Days $T_0=144.491108$ (BKJD)



DV Model-Shift Uniqueness Test

007017037-01, $P = 474.647448$ Days, $E = 144.479364$ Days

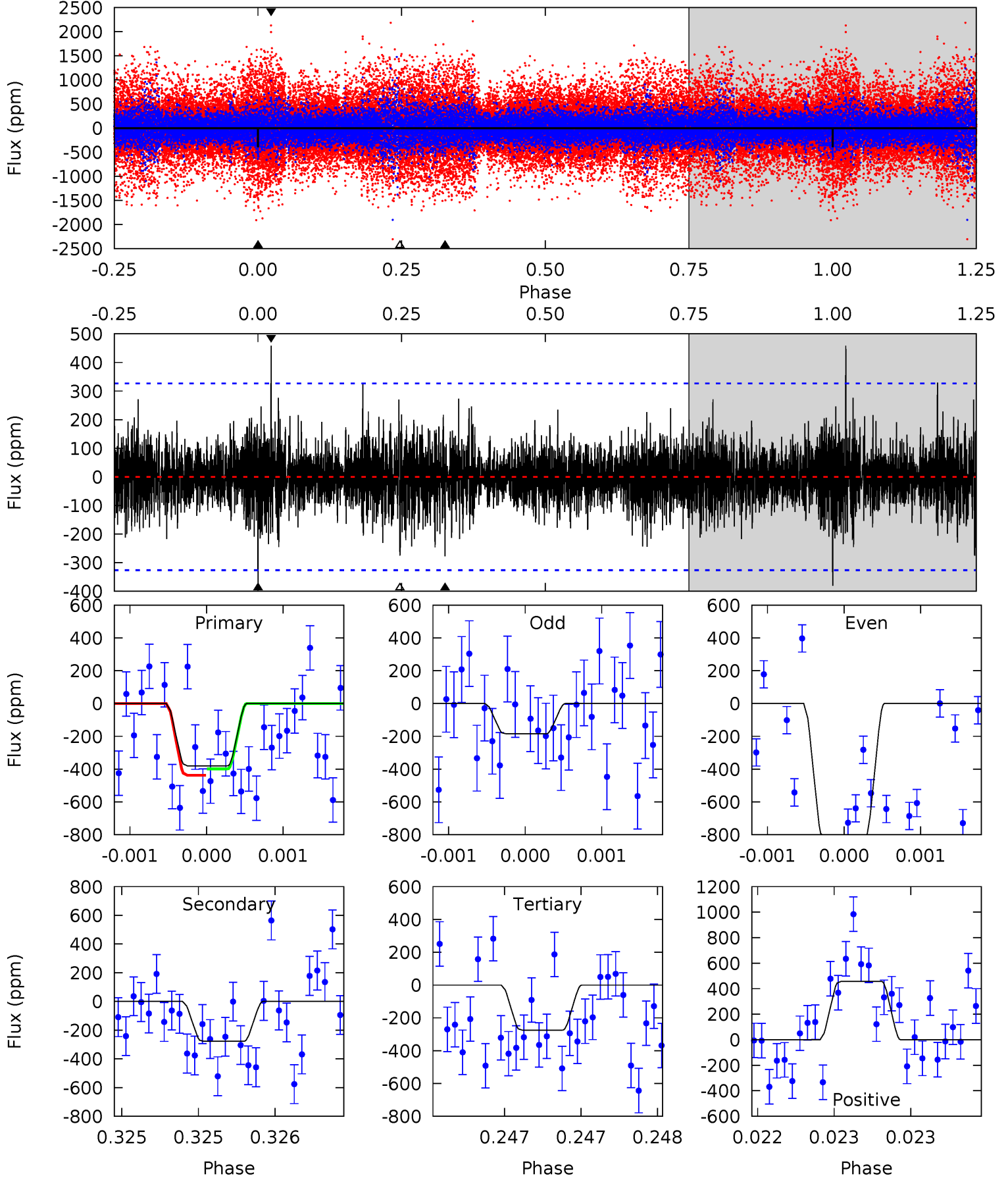
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.14	8.00	7.98	8.03	5.47	3.32	1.73	0.16	0.11	0.02	-0.03	7.34	1.18	0.50	0.87



Alt Model-Shift Uniqueness Test

007017037-01, P = 474.637543 Days, E = 144.491108 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.45	4.72	4.67	7.77	5.55	3.44	1.21	1.78	-1.32	0.05	-3.06	4.99	1.01	0.55	0.32



Stellar Parameters For KIC 007017037

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6040^{+211}_{-232}	$4.301^{+0.153}_{-0.187}$	$-0.060^{+0.250}_{-0.300}$	$1.190^{+0.360}_{-0.240}$	$1.032^{+0.172}_{-0.125}$	$0.864^{+0.646}_{-0.427}$
	+3%/-4%	+4%/-4%	+417%/-500%	+30%/-20%	+17%/-12%	+75%/-49%
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 007017037-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-394 ± 49	$3.07^{+1.81}_{-1.82}$	373^{+30}_{-26}	5630^{+3453}_{-999}	$35055^{+158469}_{-22393}$
Alt.	-278 ± 59	$3.47^{+1.99}_{-1.79}$	373^{+29}_{-23}	4891^{+1948}_{-762}	18575^{+52758}_{-11410}

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 $A_{obs} \gg 1.0$

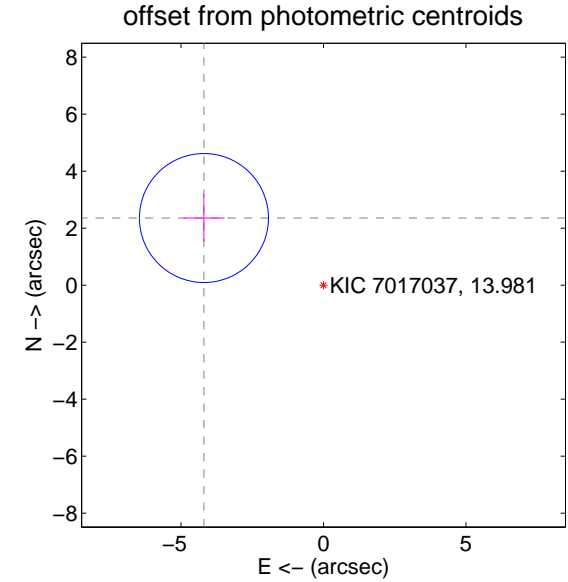
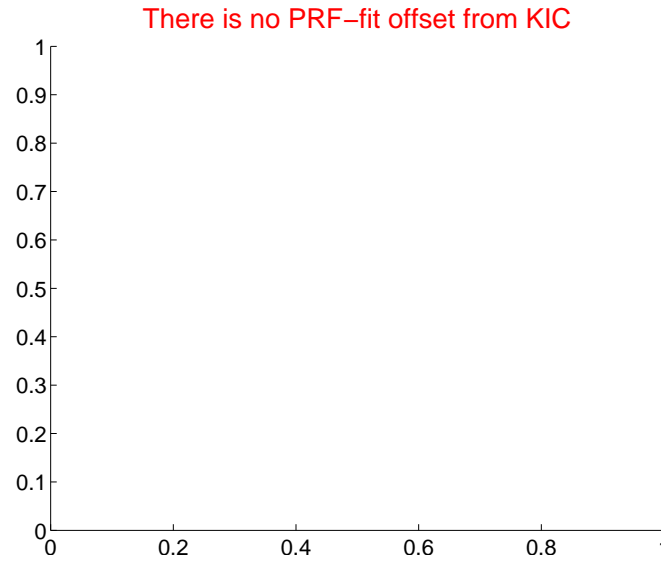
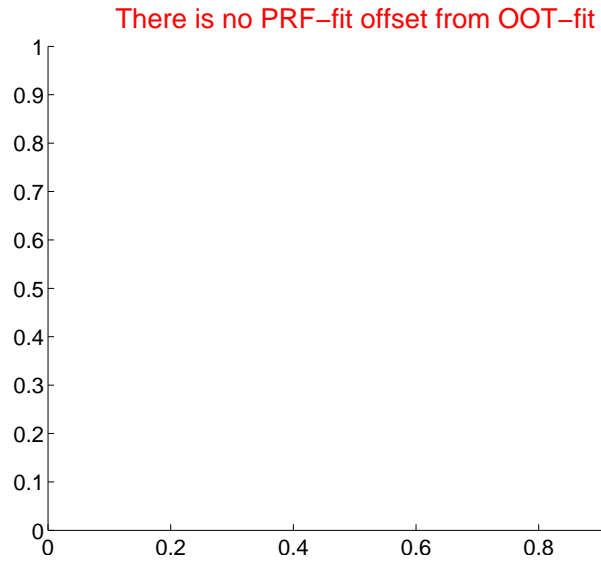
DV Centroid Data

Supplemental centroid analysis for 007017037-01. Kepler magnitude: 13.98. Transit SNR 5.14

There are 0 quarters with good PRF difference image offsets

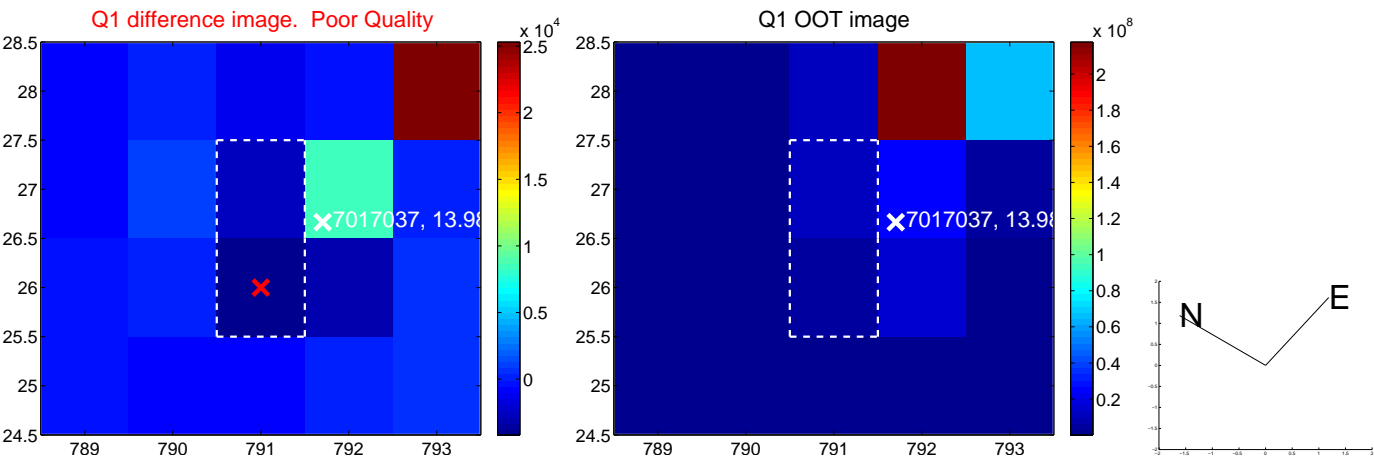
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	4.81 ± 0.75	6.38	4.19 ± 0.73	2.36 ± 0.84

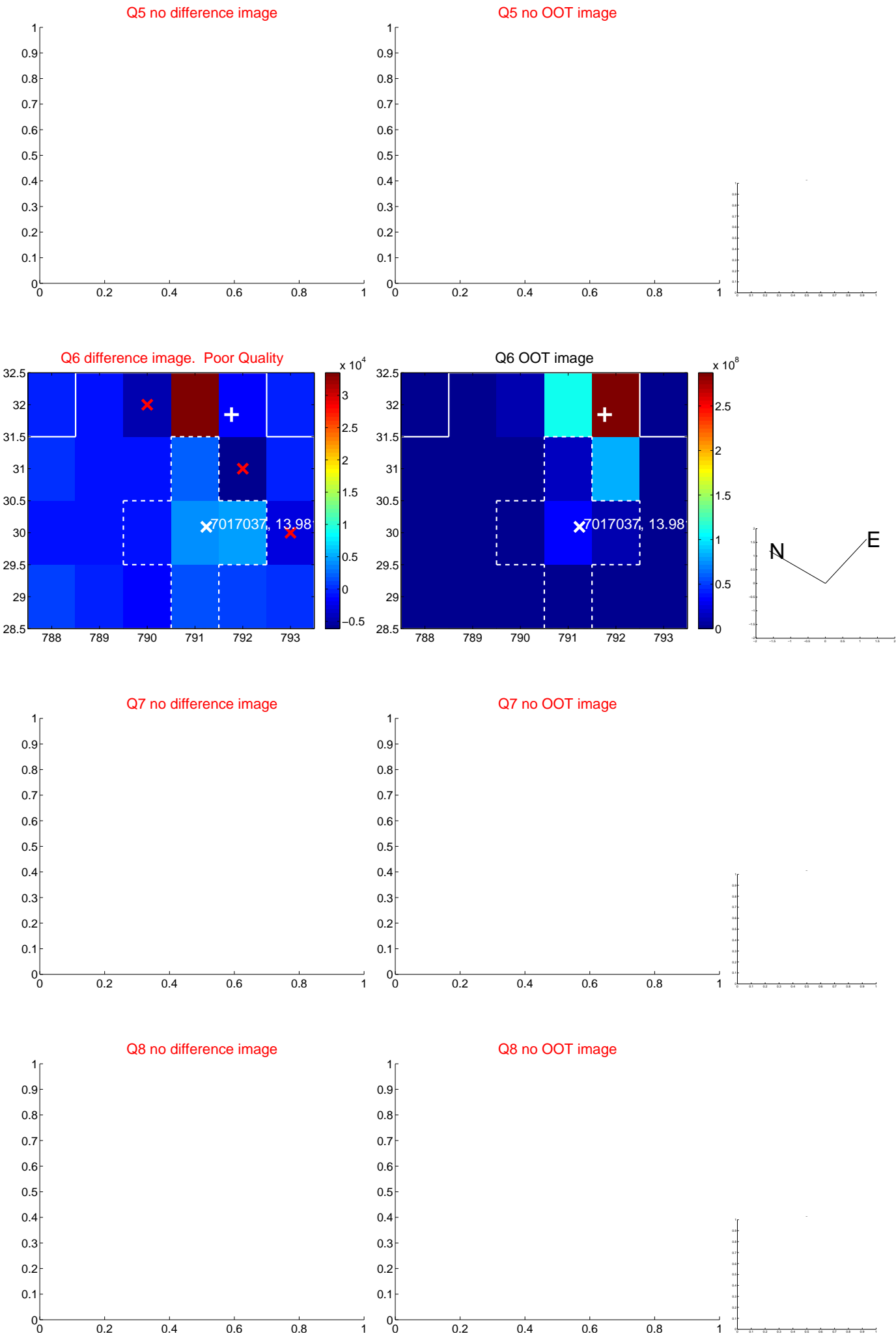


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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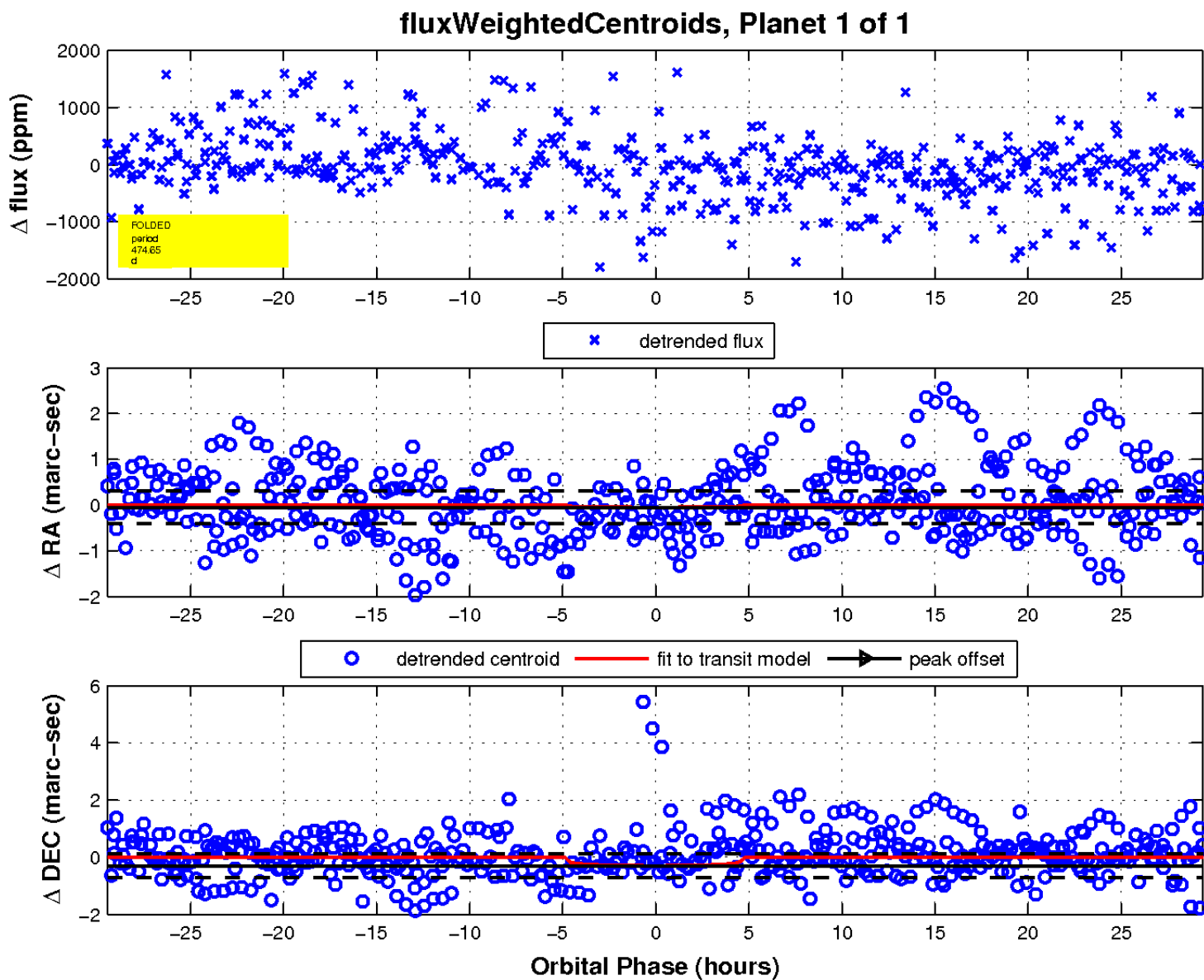
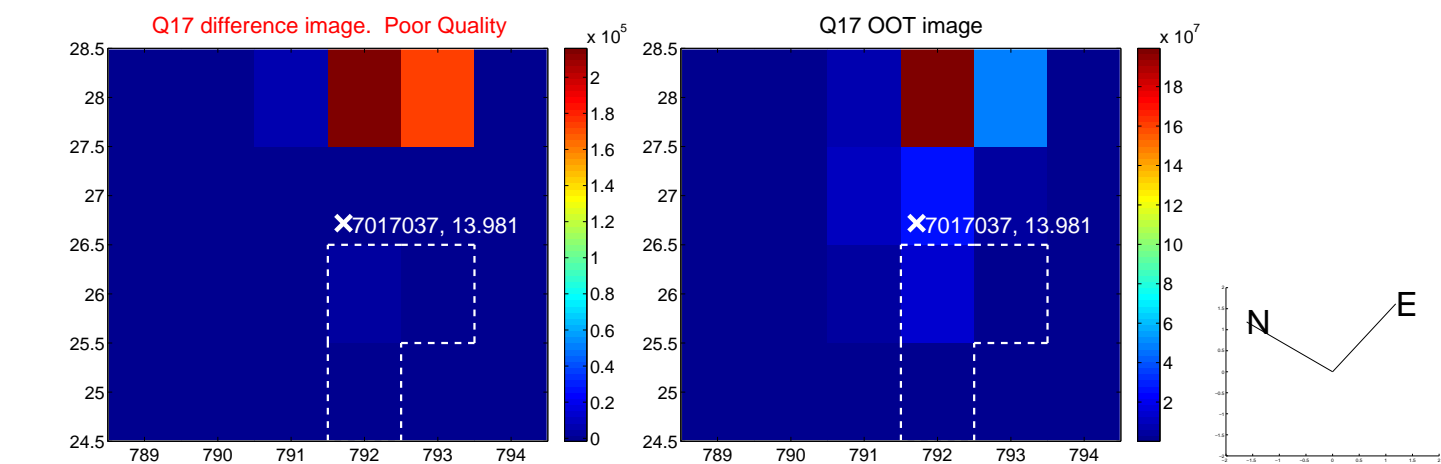
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UKIRT Image

