

KIC 008492072

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})
008492072-01	OBS	No	374.696712	507.388634	1520.3	71.120	10.0	21.7	0.60	5272	4.54	0.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008492072-01	OBS	FP	0.00	1	0	0	1	INDIV_TRANS_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—EPHEM_MATCH

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.

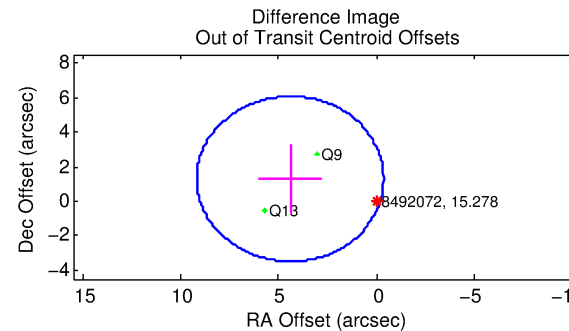
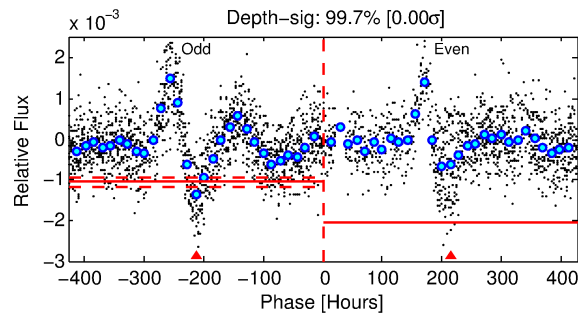
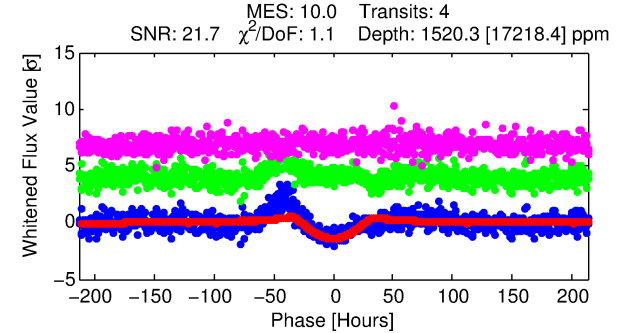
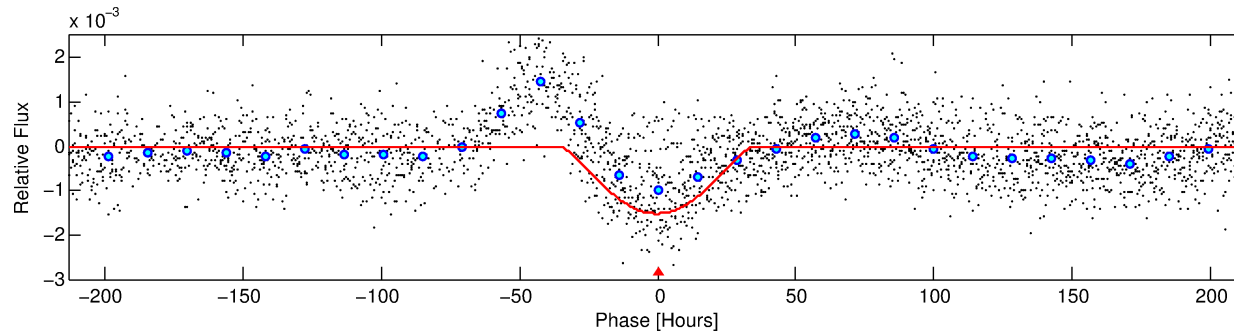
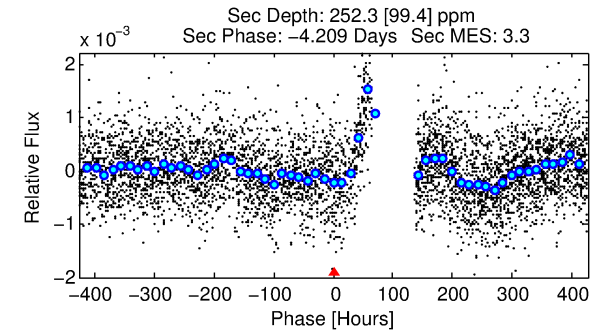
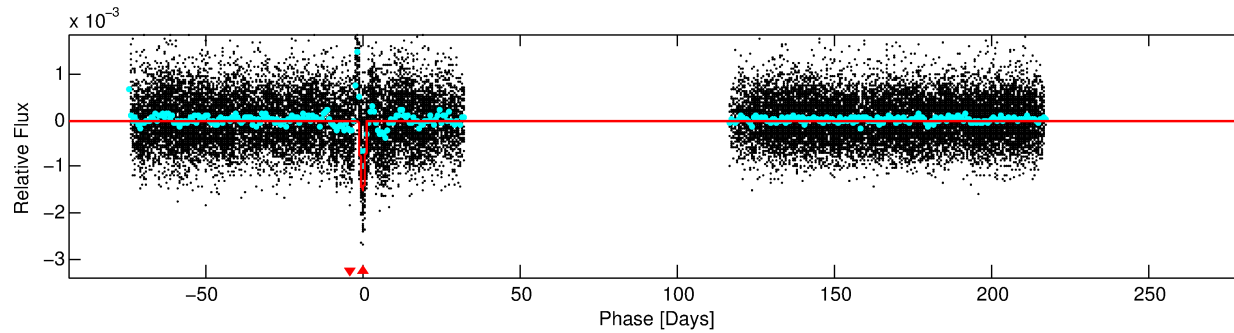
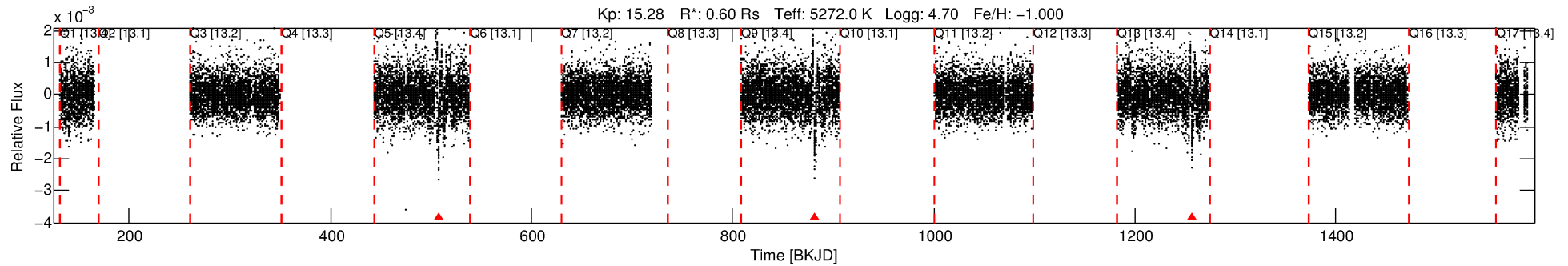
Ephemeris Match Information For 008492072-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008492072-01	8492072	008818524-01	8818524	1:1	3225.7	811	2	15.82	15.27	1.30	Col-Anomaly	1	1.69	0.55

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8492072 Candidate: 1 of 1 Period: 374.697 d



DV Fit Results:

Period = 374.69671 [0.03319] d
Epoch = 507.3886 [0.0401] BKJD
Rp/R* = 0.0689 [0.0922]
a/R* = 15.23 [4.50]
b = 1.00 [0.65]
Seff = 0.32 [0.06]
Teq = 192 [9] K
Rp = 4.54 [6.09] Re
a = 0.8875 [0.0795] AU
Ag = 5306.64 [14372.28] [0.37σ]
Teffp = 2532 [1715] K [1.36σ]

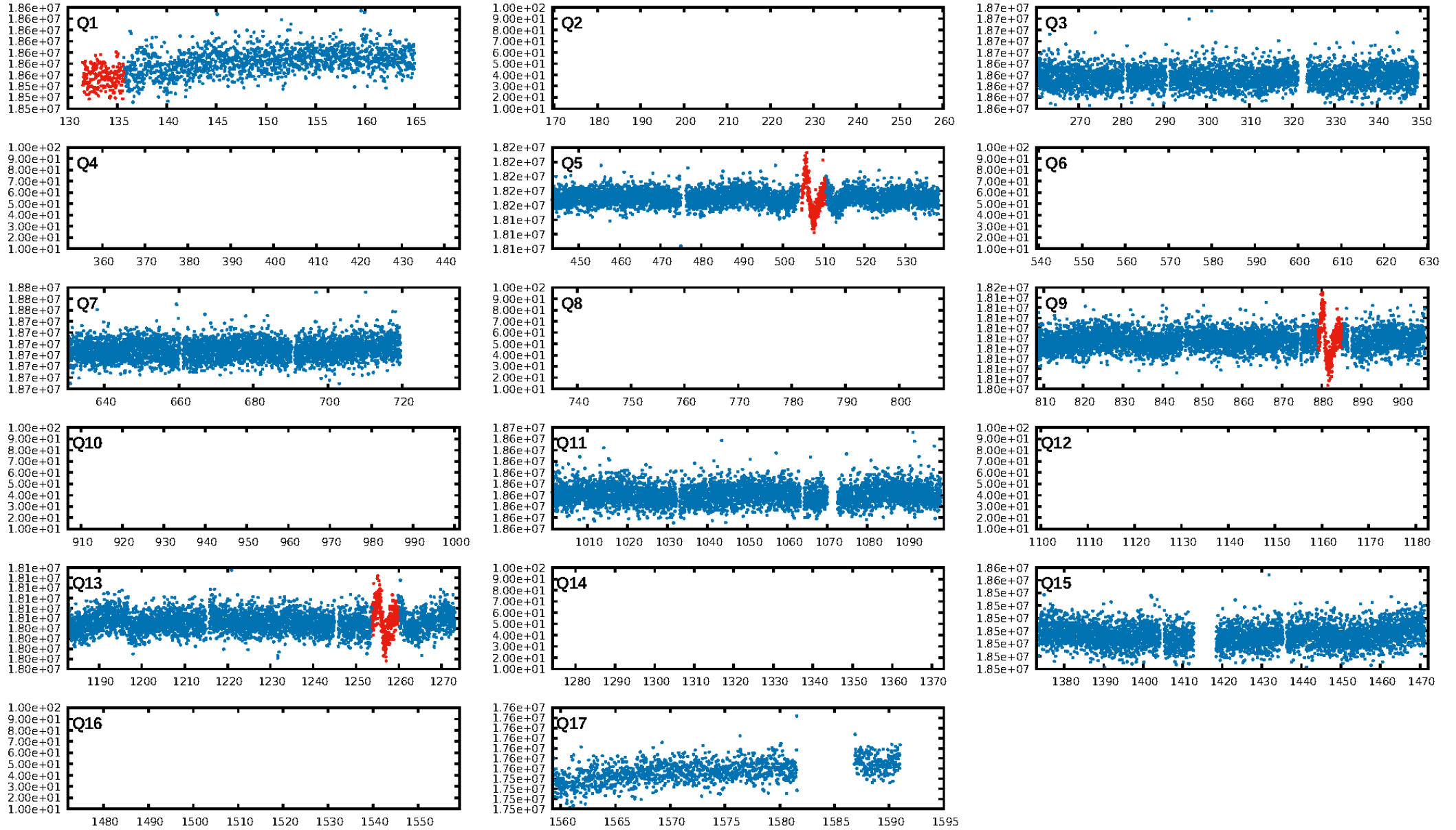
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 1.31e-25
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -0.4919
Centroid-sig: 41.1%
Centroid-so: 0.229 arcsec [0.42σ]
OotOffset-rm: 4.591 arcsec [2.88σ]
KicOffset-rm: 4.639 arcsec [2.99σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

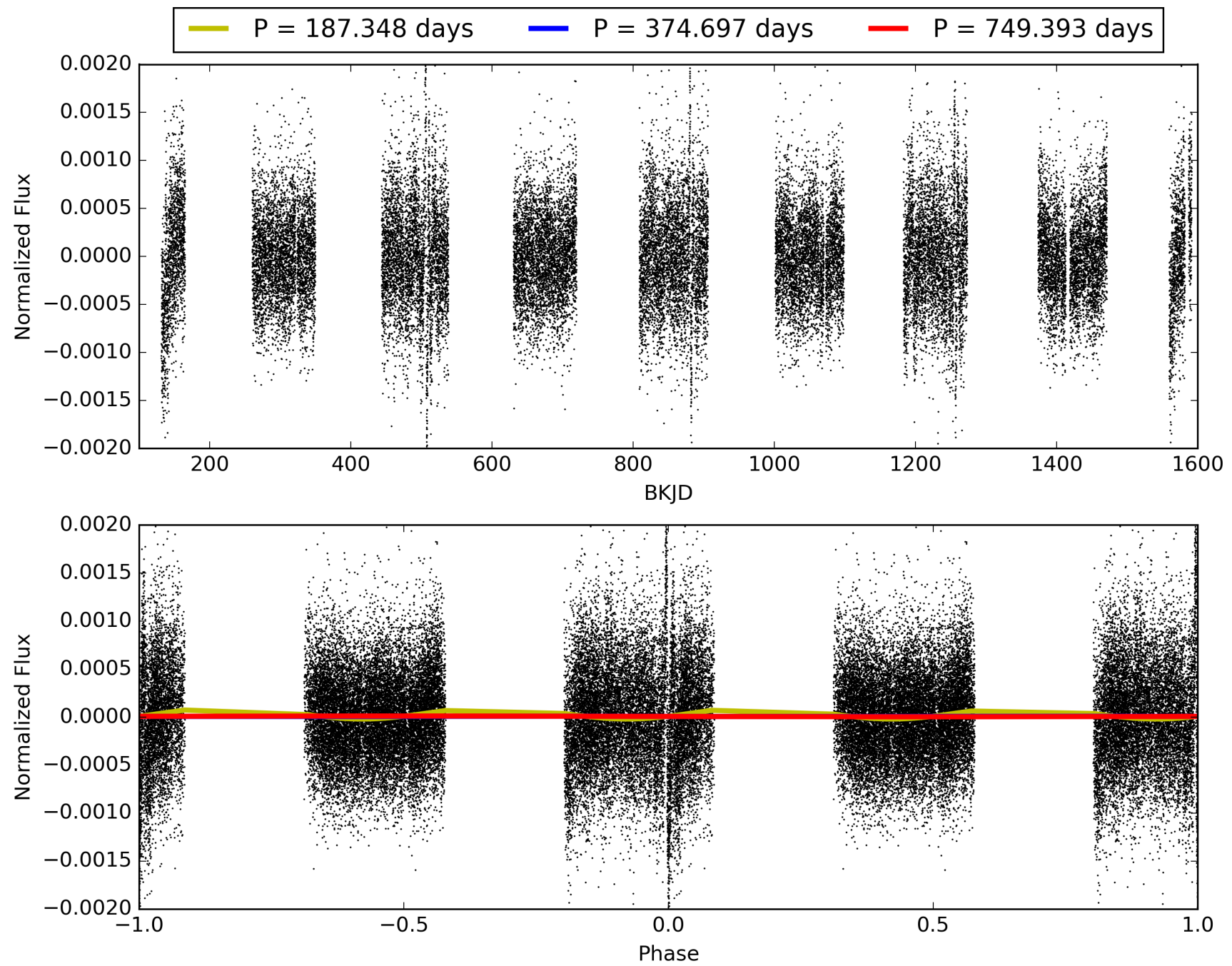
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:16:14 Z

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

TCE 008492072-01, PDC Light Curves

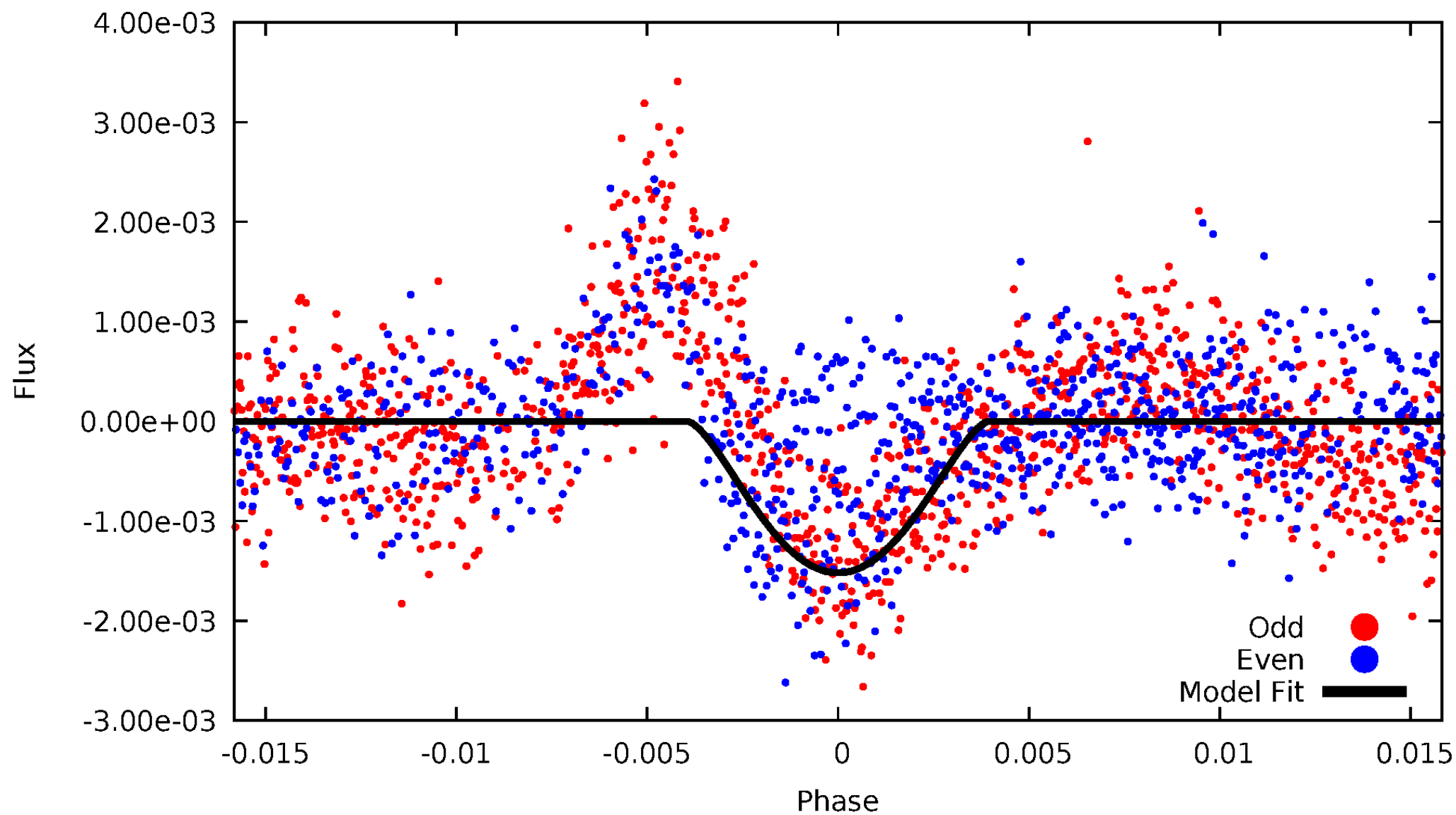


TCE 008492072-01



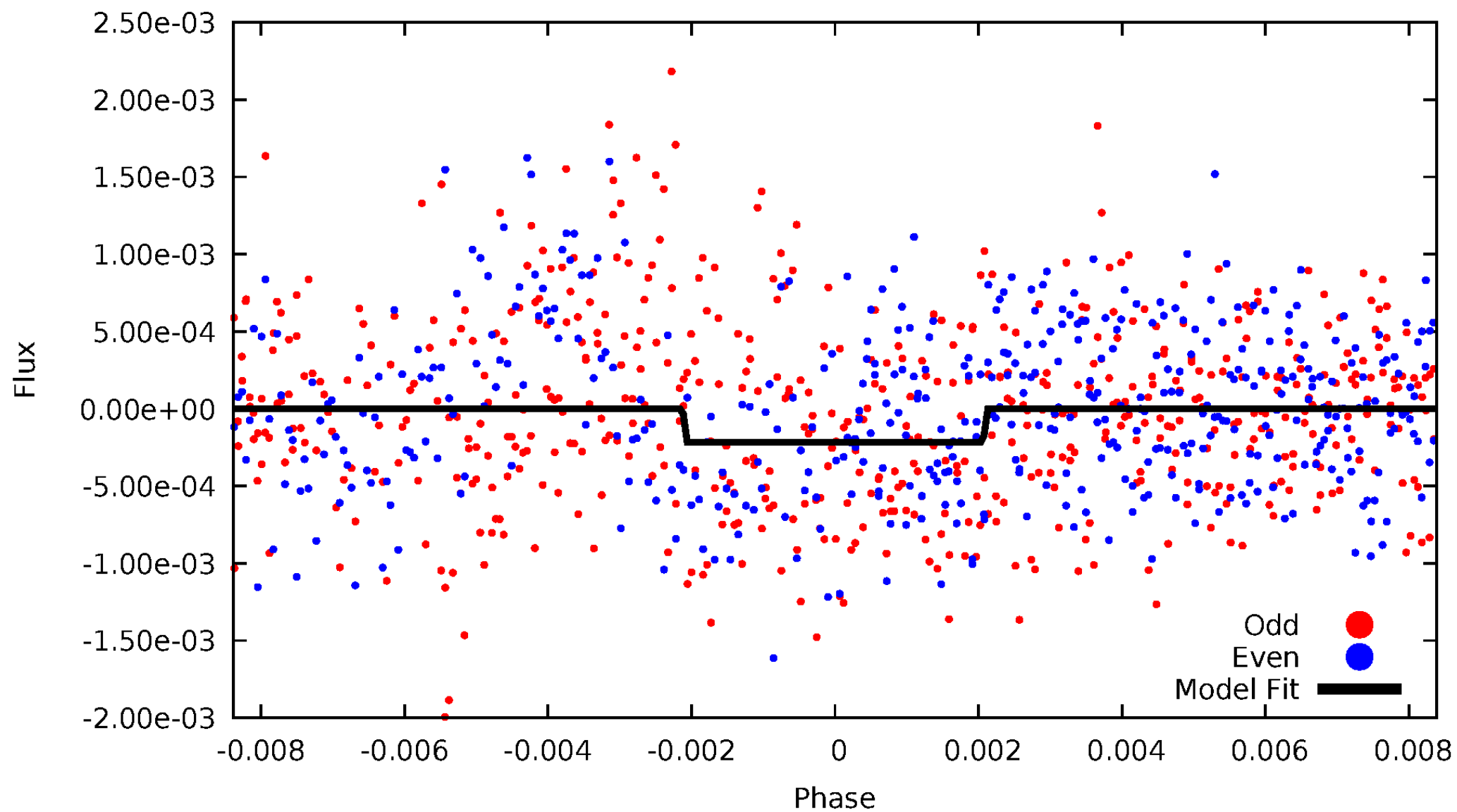
DV Odd/Even

TCE 008492072-01



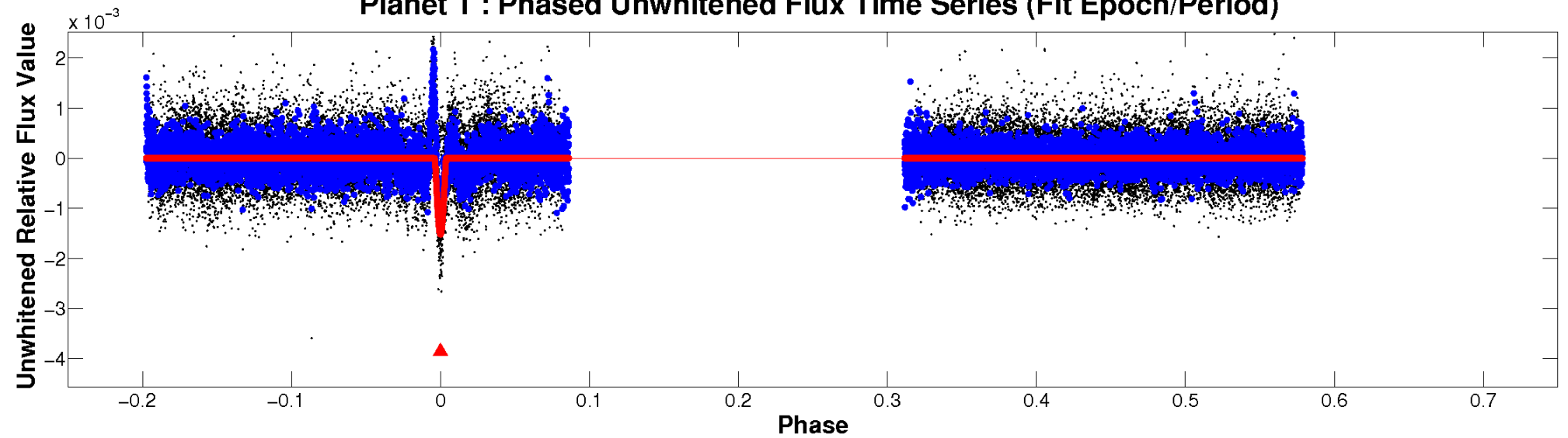
ALT Odd/Even

TCE 008492072-01

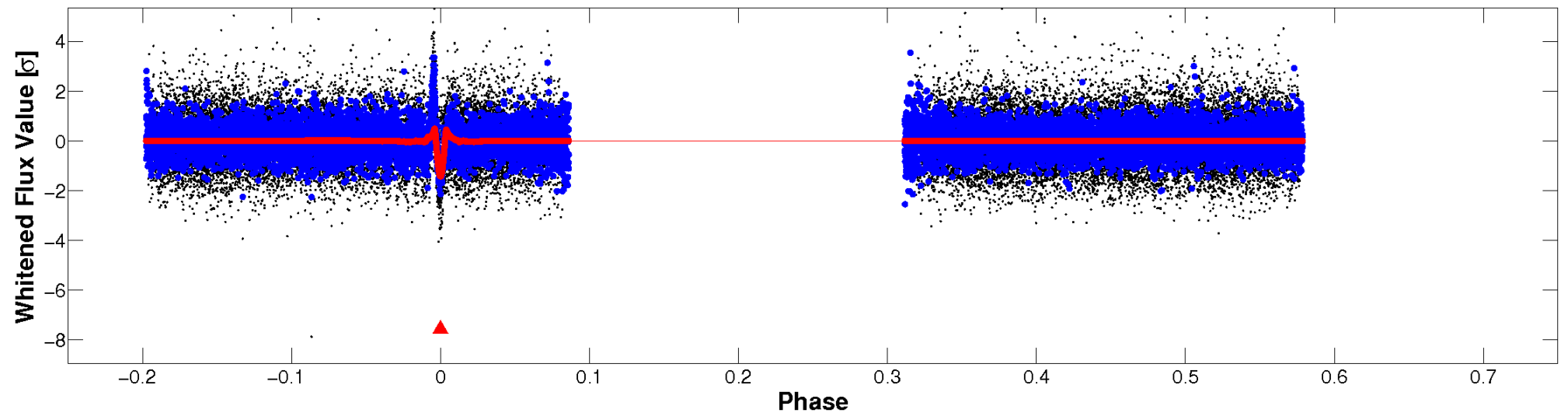


Non-Whitened Vs. Whitened Light Curve

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

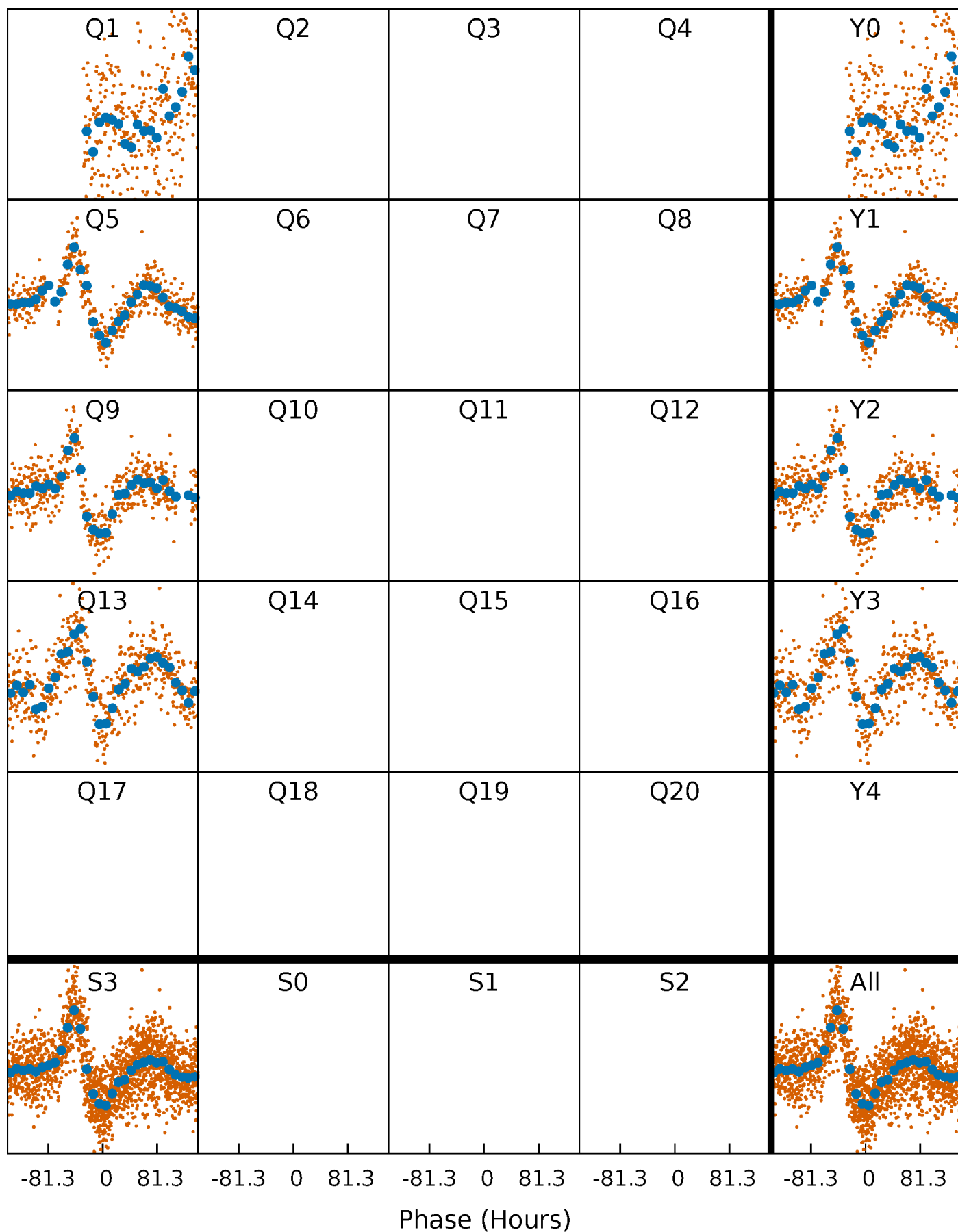


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008492072-01 P=374.696712 Days $T_0=507.388634$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008492072-01 $P=374.696712$ Days $T_0=507.388634$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

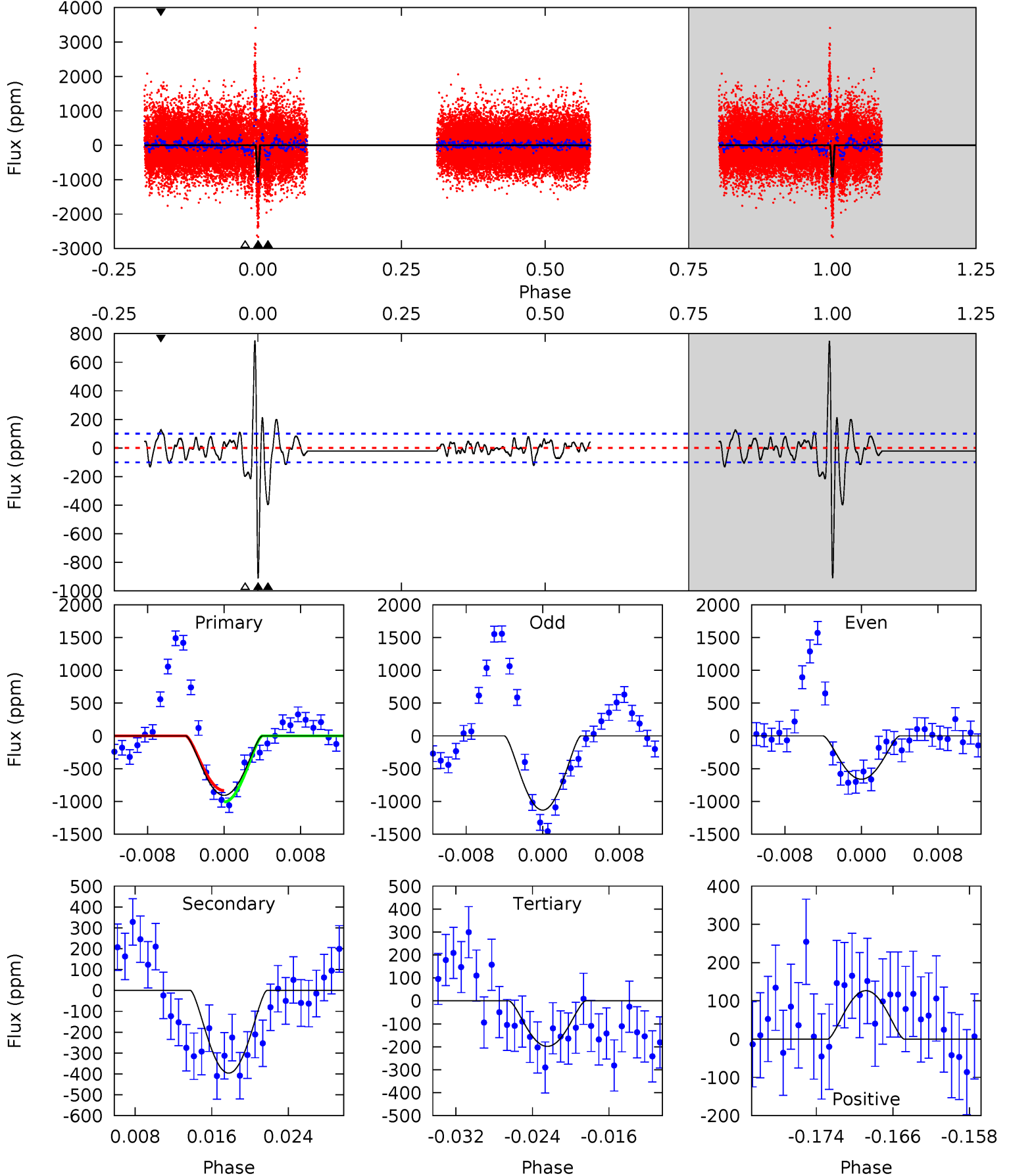
TCE 008492072-01 P=375.221462 Days $T_0=506.669293$ (BKJD)



DV Model-Shift Uniqueness Test

008492072-01, P = 374.696712 Days, E = 132.691922 Days

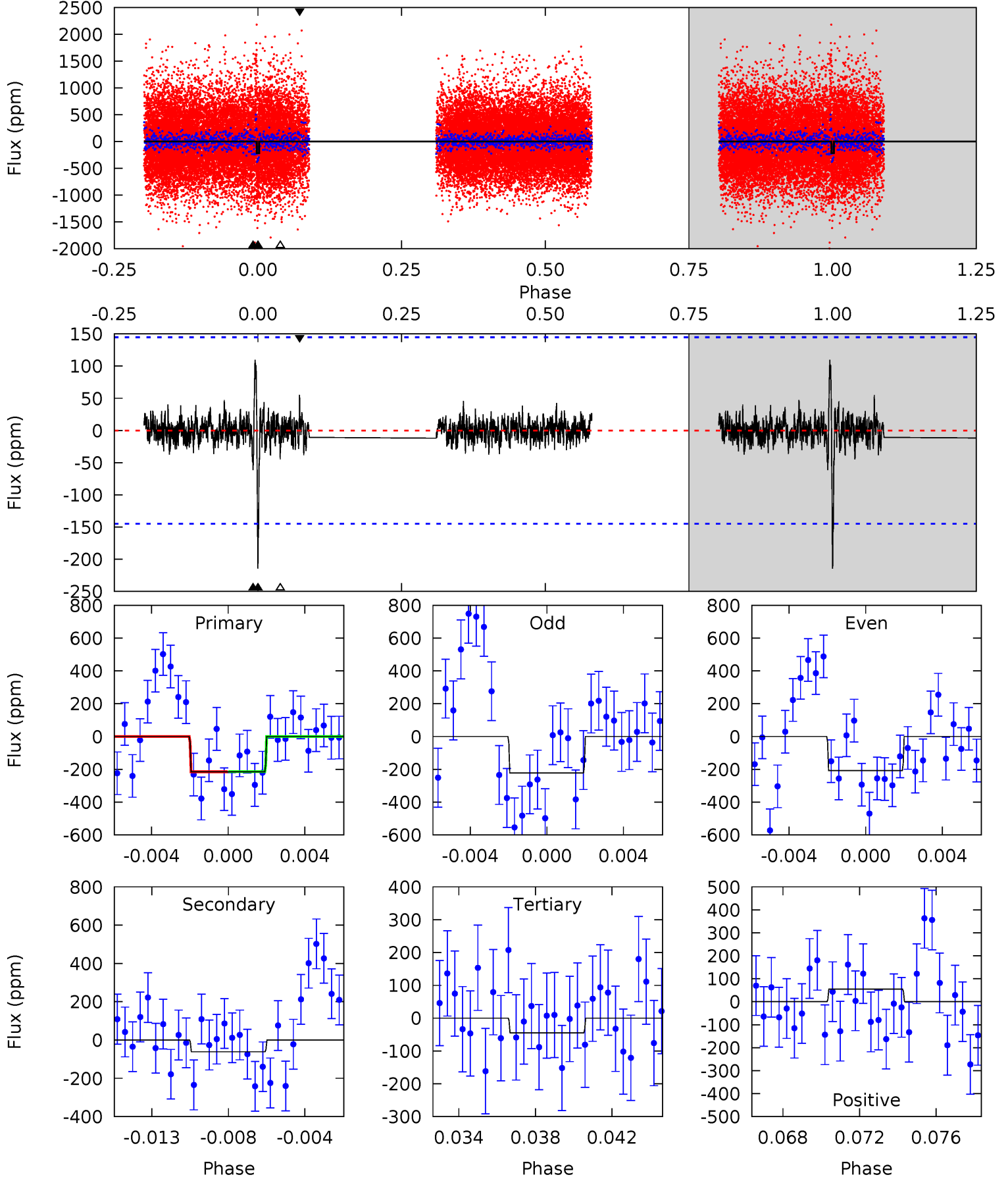
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.0	20.1	10.0	6.41	5.07	2.66	3.09	35.9	39.5	10.0	13.7	11.9	0.79	0.45	4.32



Alt Model-Shift Uniqueness Test

008492072-01, P = 375.221462 Days, E = 131.447831 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.68	2.20	1.60	1.97	5.19	2.86	0.46	6.08	5.70	0.60	0.23	0.25	0.89	0.34	0.02



Stellar Parameters For KIC 008492072

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5272^{+183}_{-183}	$4.698^{+0.025}_{-0.070}$	$-1.000^{+0.300}_{-0.300}$	$0.604^{+0.065}_{-0.030}$	$0.665^{+0.048}_{-0.042}$	$4.248^{+0.463}_{-0.967}$
	+3%/-3%	+1%/-1%	+30%/-30%	+11%/-5%	+7%/-6%	+11%/-23%
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 008492072-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-396 ± 20	$6.41^{+5.65}_{-4.37}$	270^{+12}_{-10}	3040^{+1360}_{-464}	4213^{+36248}_{-3017}
Alt.	-61 ± 28	$4.55^{+4.96}_{-2.97}$	269^{+11}_{-10}	2545^{+982}_{-431}	1134^{+9909}_{-905}

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

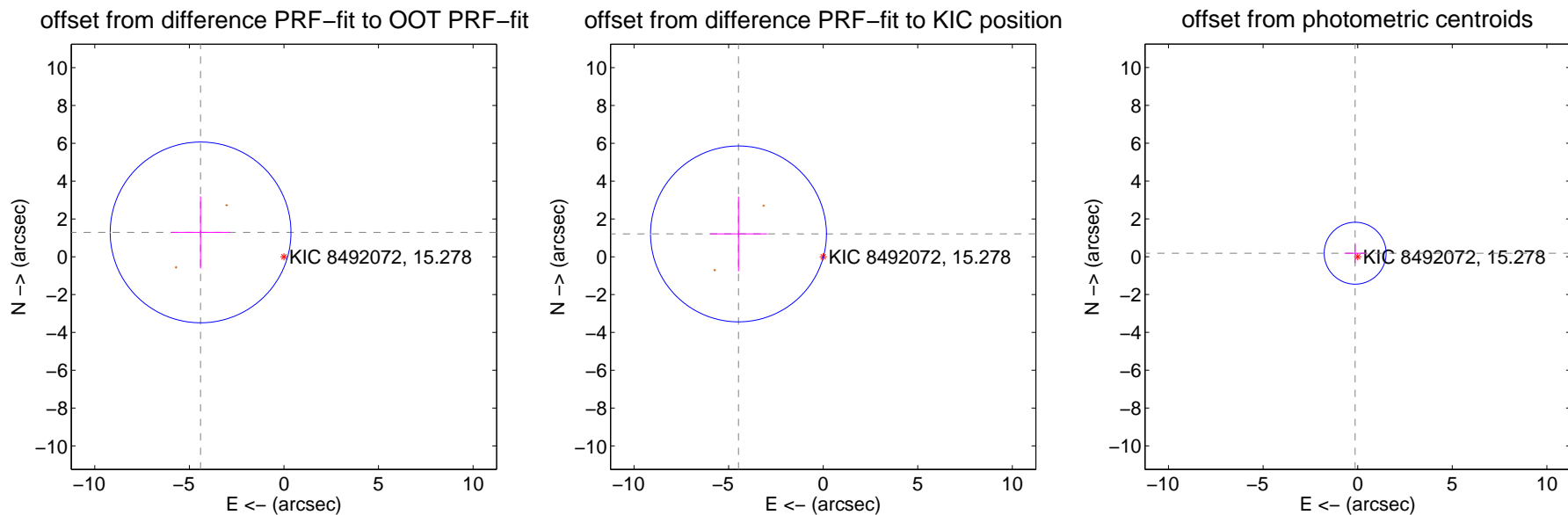
DV Centroid Data

Supplemental centroid analysis for 008492072-01. Kepler magnitude: 15.28. Transit SNR 21.73

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.591 ± 1.593	2.88	4.407 ± 1.563	1.289 ± 1.906
PRF-fit source offset from KIC position	4.639 ± 1.550	2.99	4.479 ± 1.514	1.209 ± 1.976
photometric centroid source offset	0.23 ± 0.55	0.42	0.13 ± 0.57	0.19 ± 0.53



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.

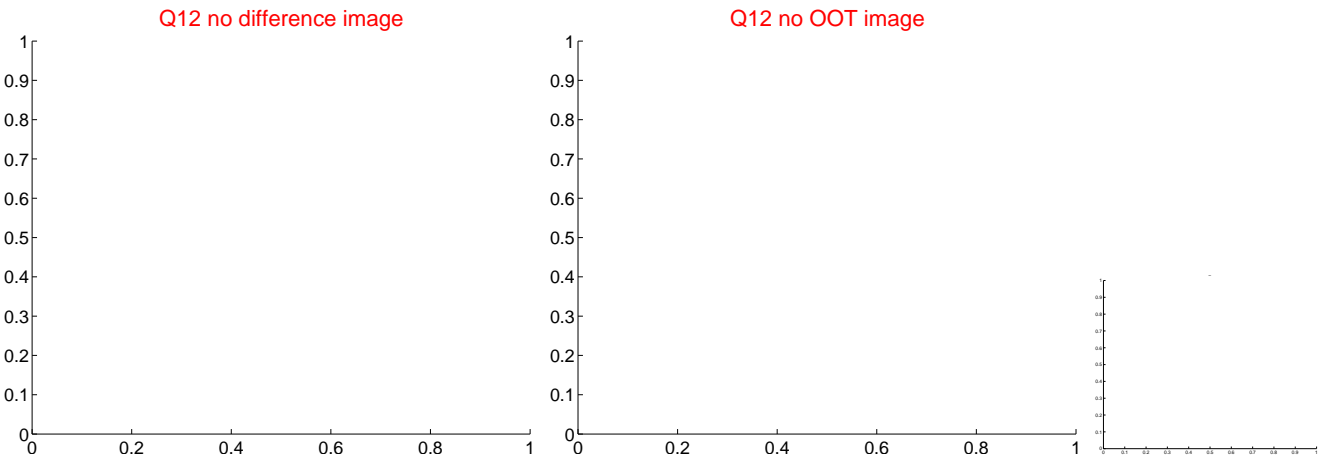
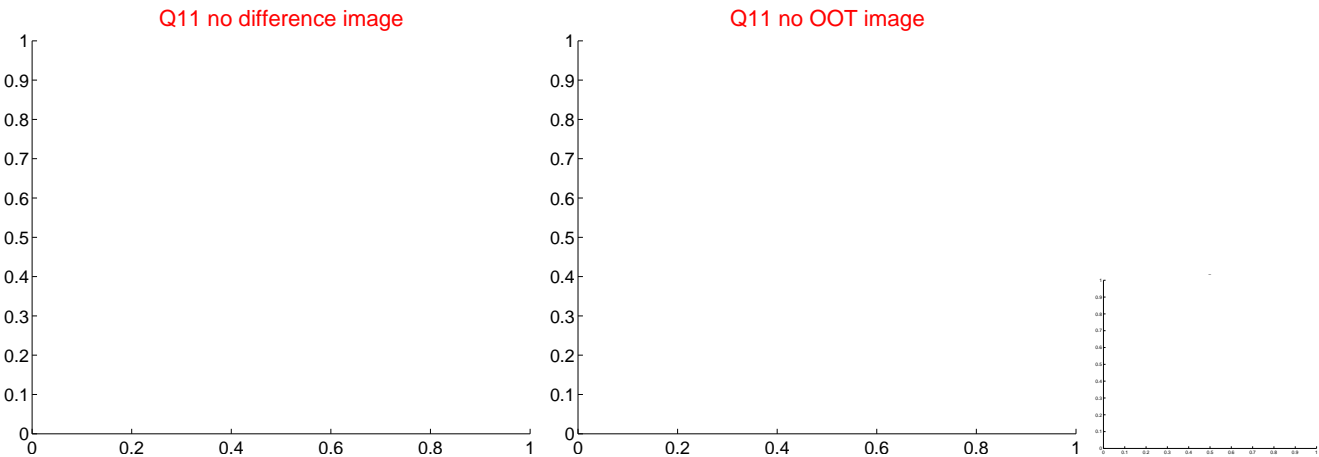
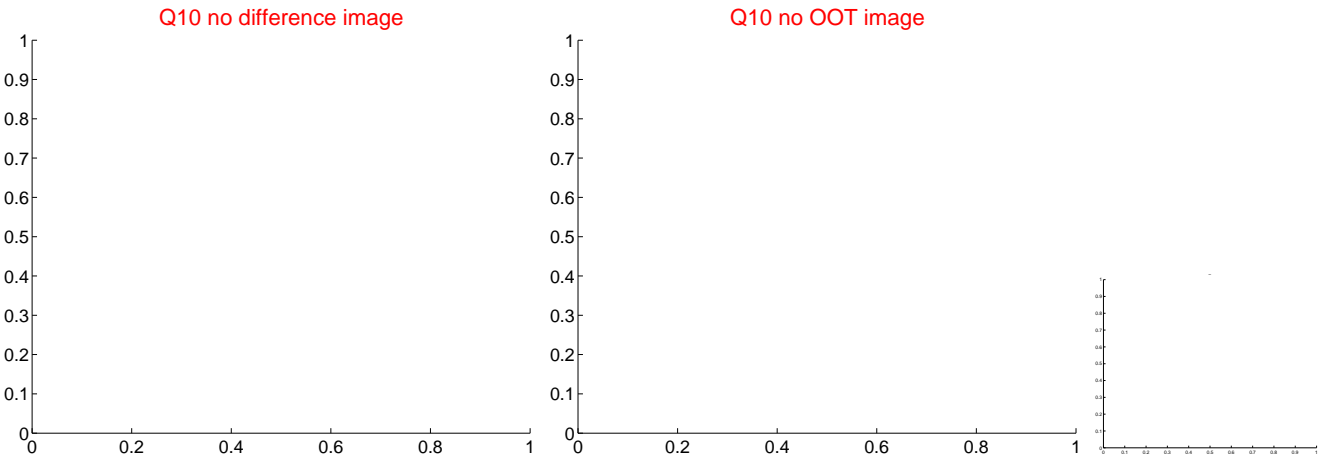
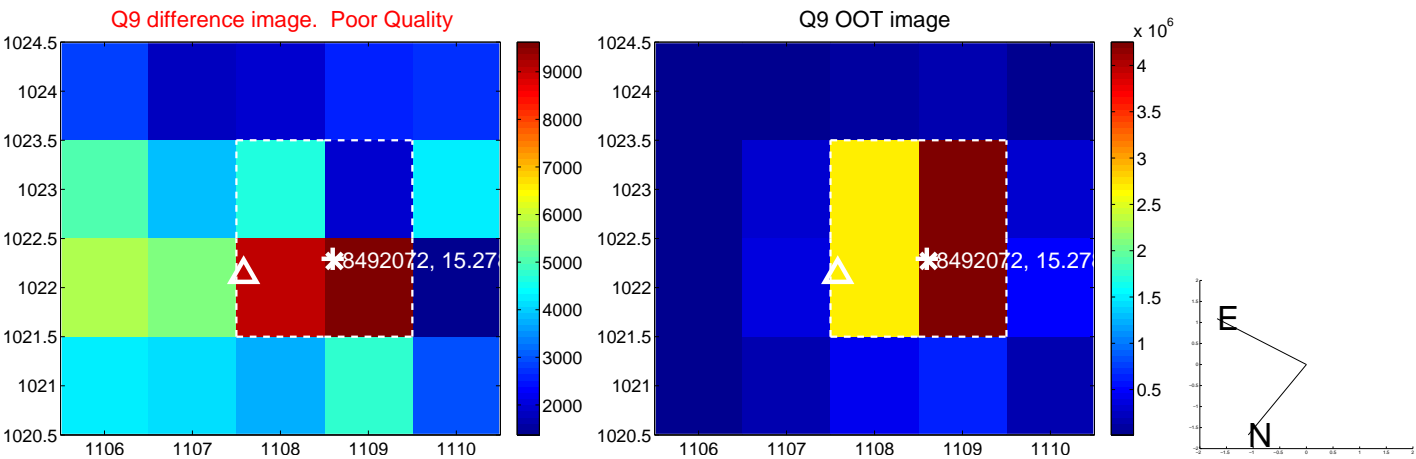
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



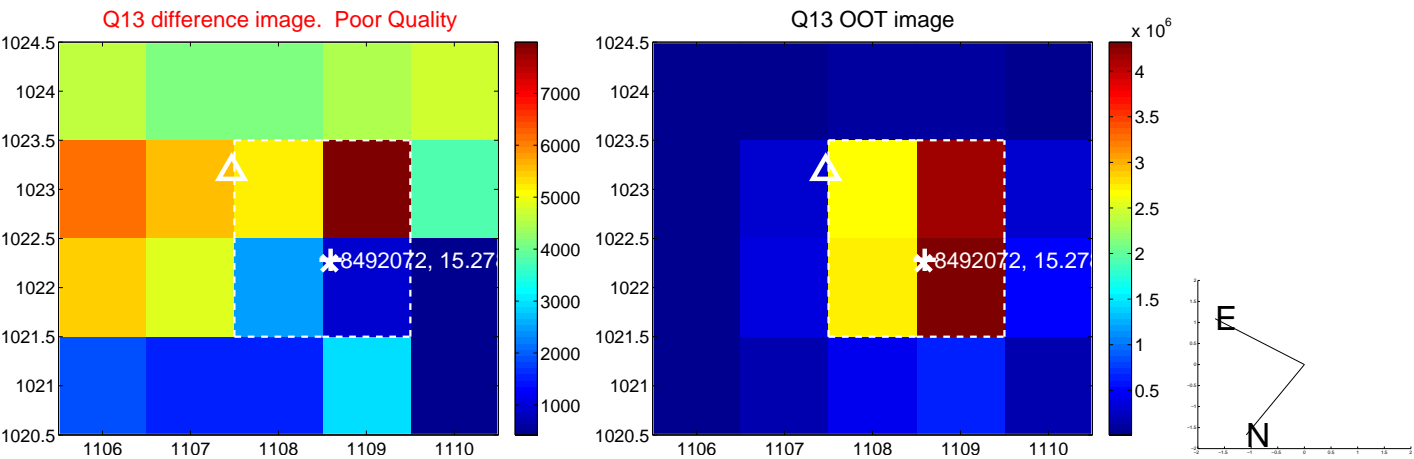
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



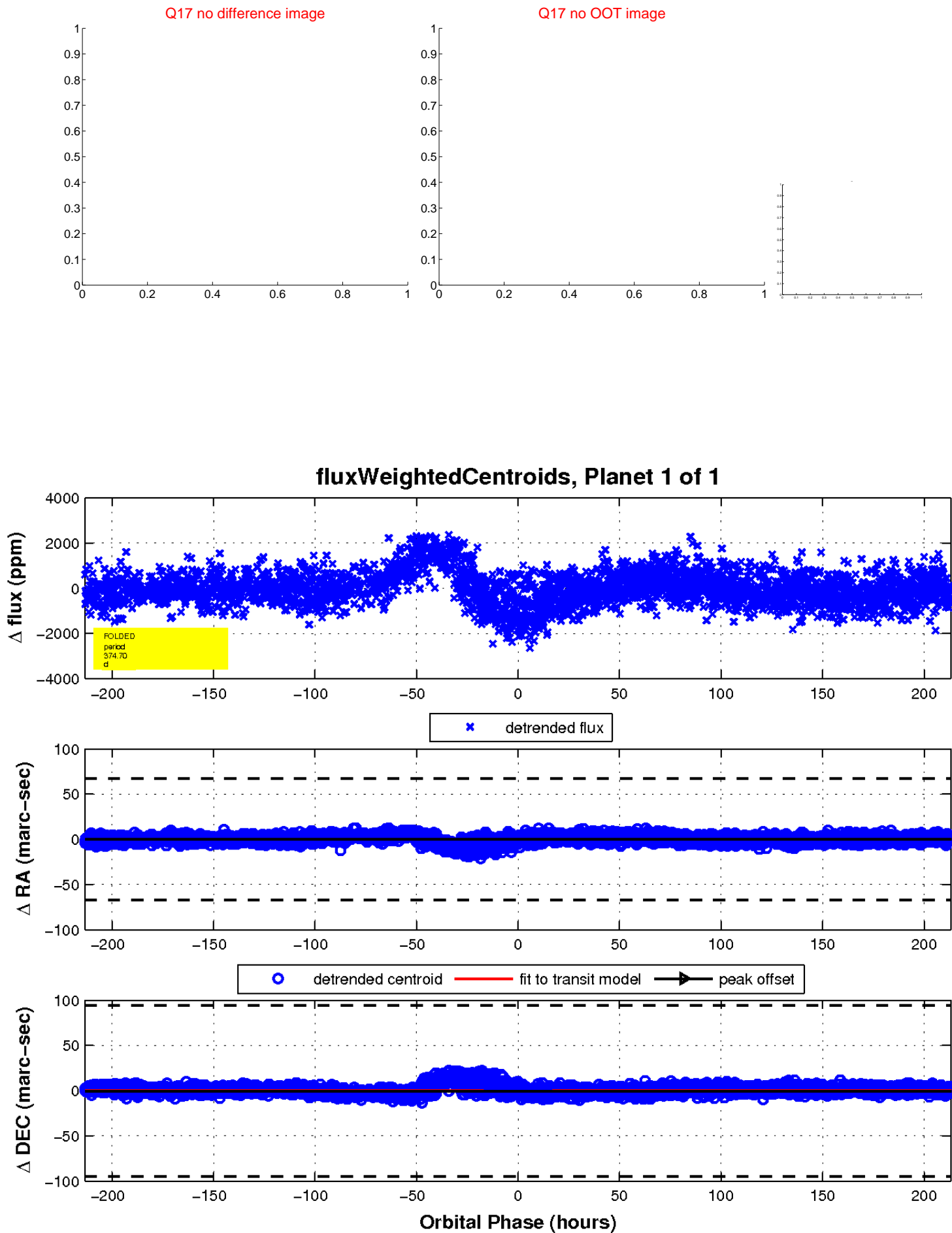
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UKIRT Image

Declination

