

KIC 007011254

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})
007011254-01	OBS	No	504.052778	511.910144	272.2	14.453	7.8	7.4	0.74	5366	1.35	0.34

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007011254-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—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.

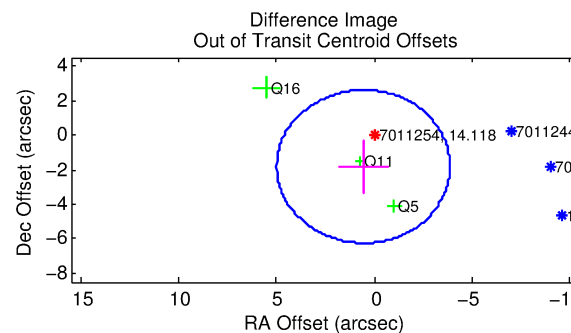
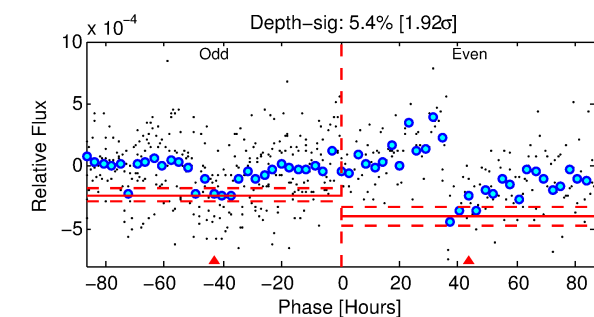
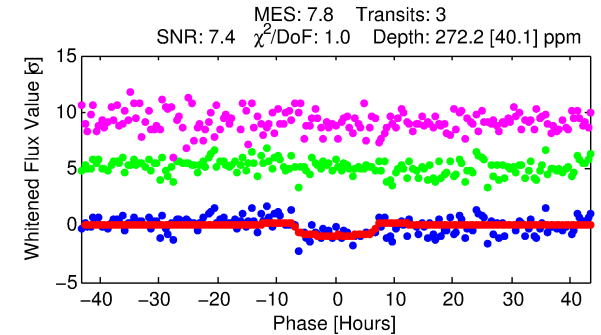
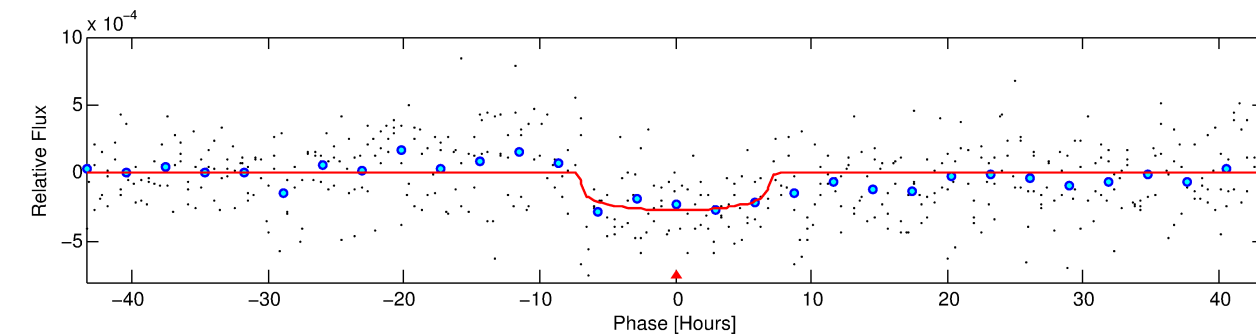
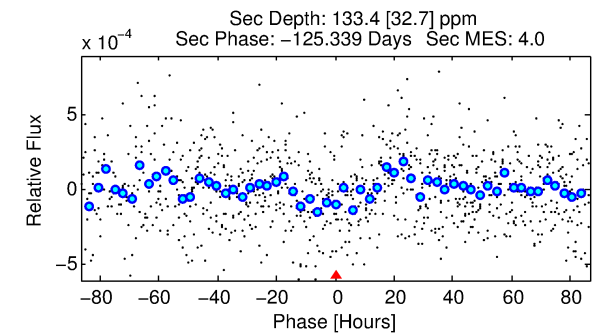
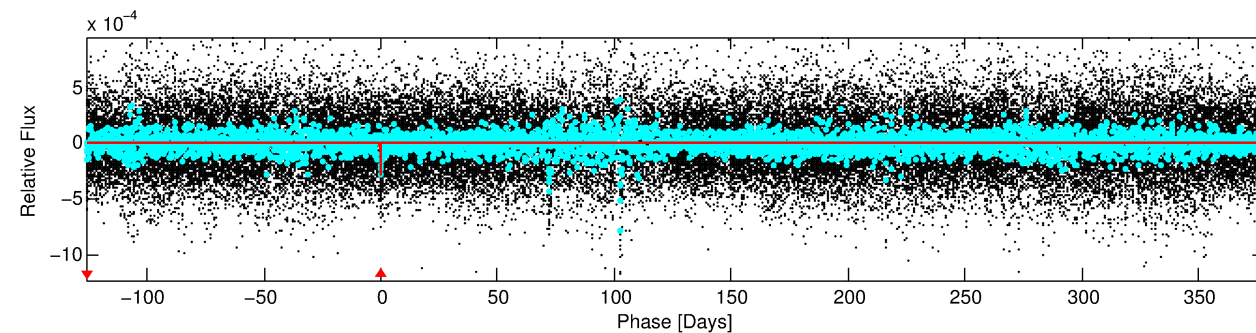
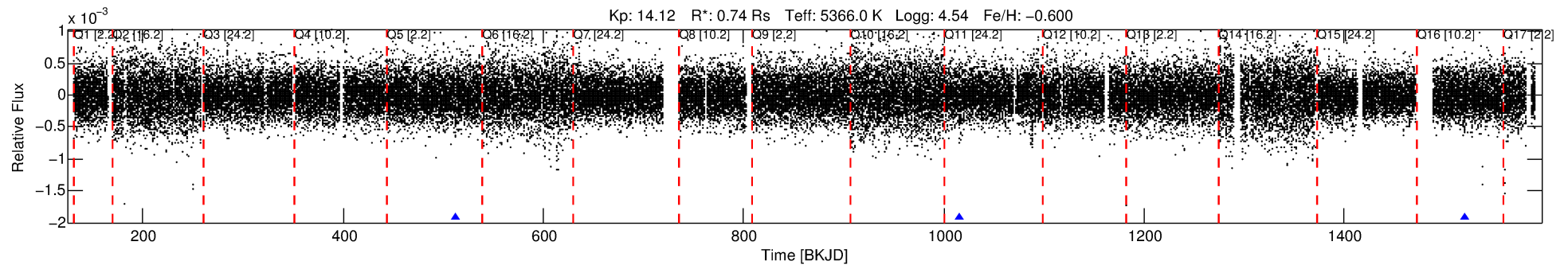
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007011254-01

No Significant Match Found

DV One-Page Summary

KIC: 7011254 Candidate: 1 of 1 Period: 504.053 d



DV Fit Results:

Period = 504.05278 [0.01836] d
Epoch = 511.9101 [0.0257] BKJD
Rp/R* = 0.0167 [0.0083]
a/R* = 169.36 [362.37]
b = 0.79 [1.01]
Seff = 0.34 [0.07]
Rp = 1.35 [0.69] Re
a = 1.0968 [0.1237] AU
Ag = 48496.16 [50083.69] [0.97 σ]
Teff = 4458 [1142] K [3.73 σ]

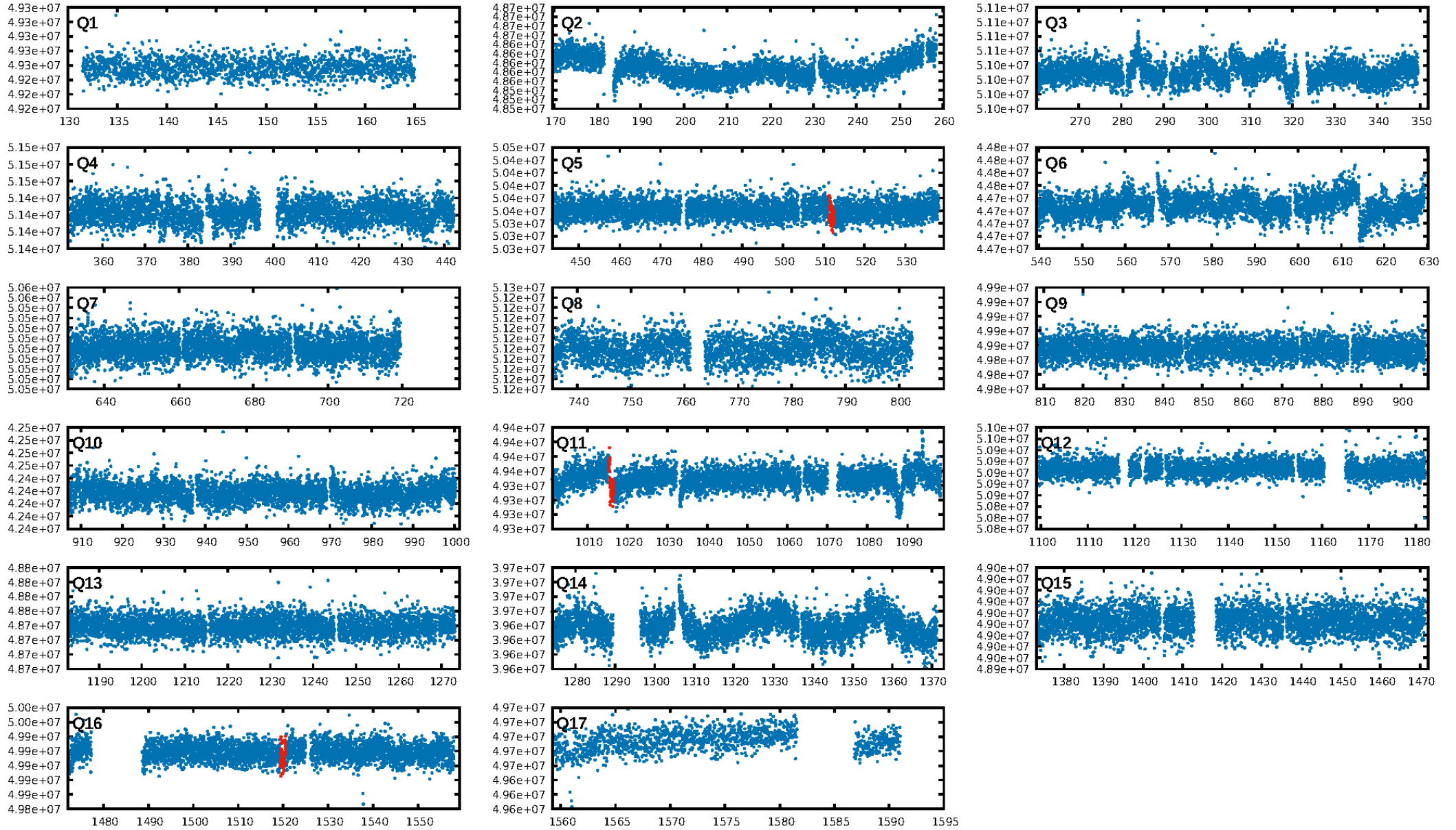
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 26.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.32e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.915
Centroid-sig: 58.1%
Centroid-so: 1.896 arcsec [1.01 σ]
OotOffset-rm: 1.907 arcsec [1.29 σ]
KicOffset-rm: 2.036 arcsec [1.22 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

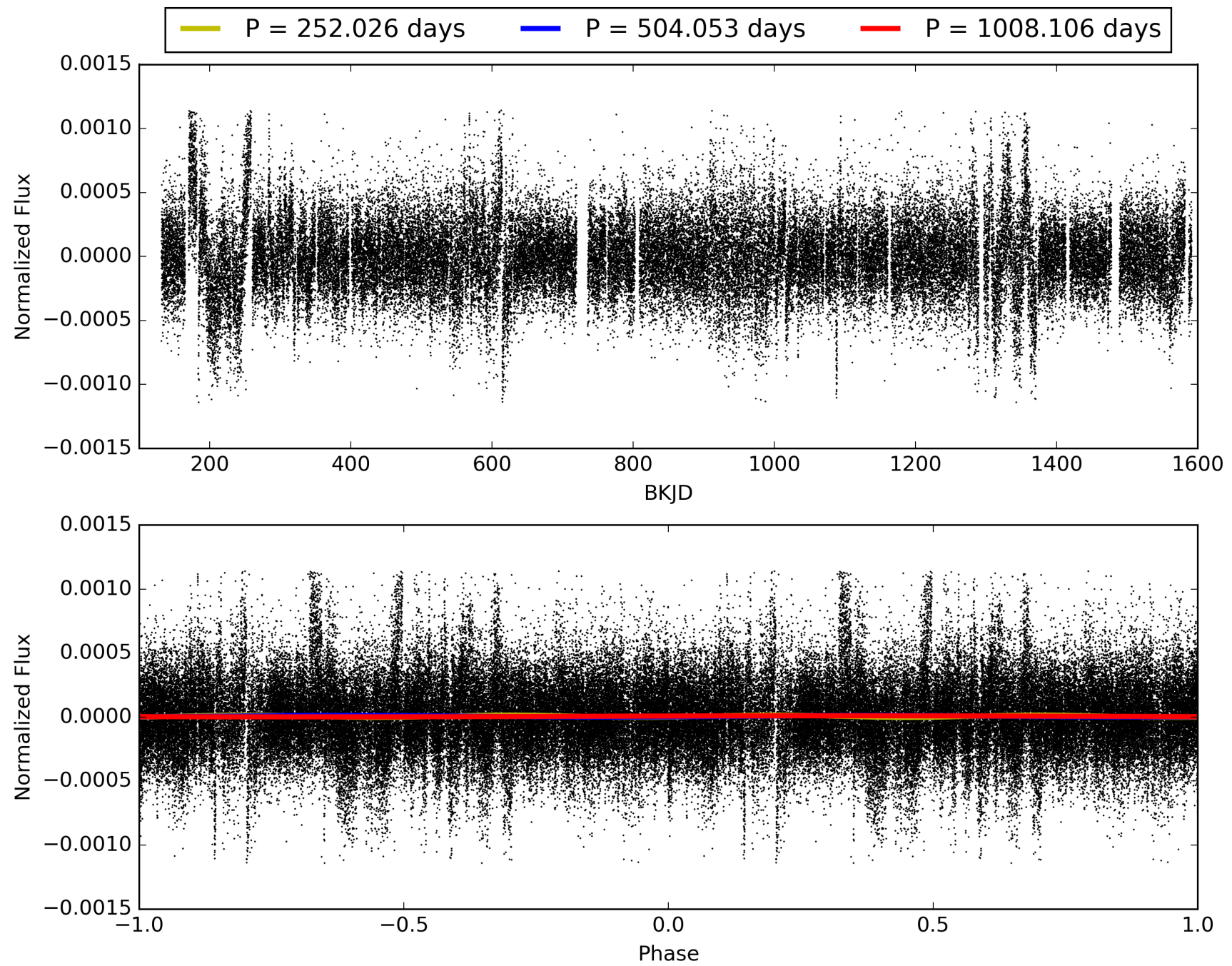
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:54:05 Z

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

TCE 007011254-01, PDC Light Curves

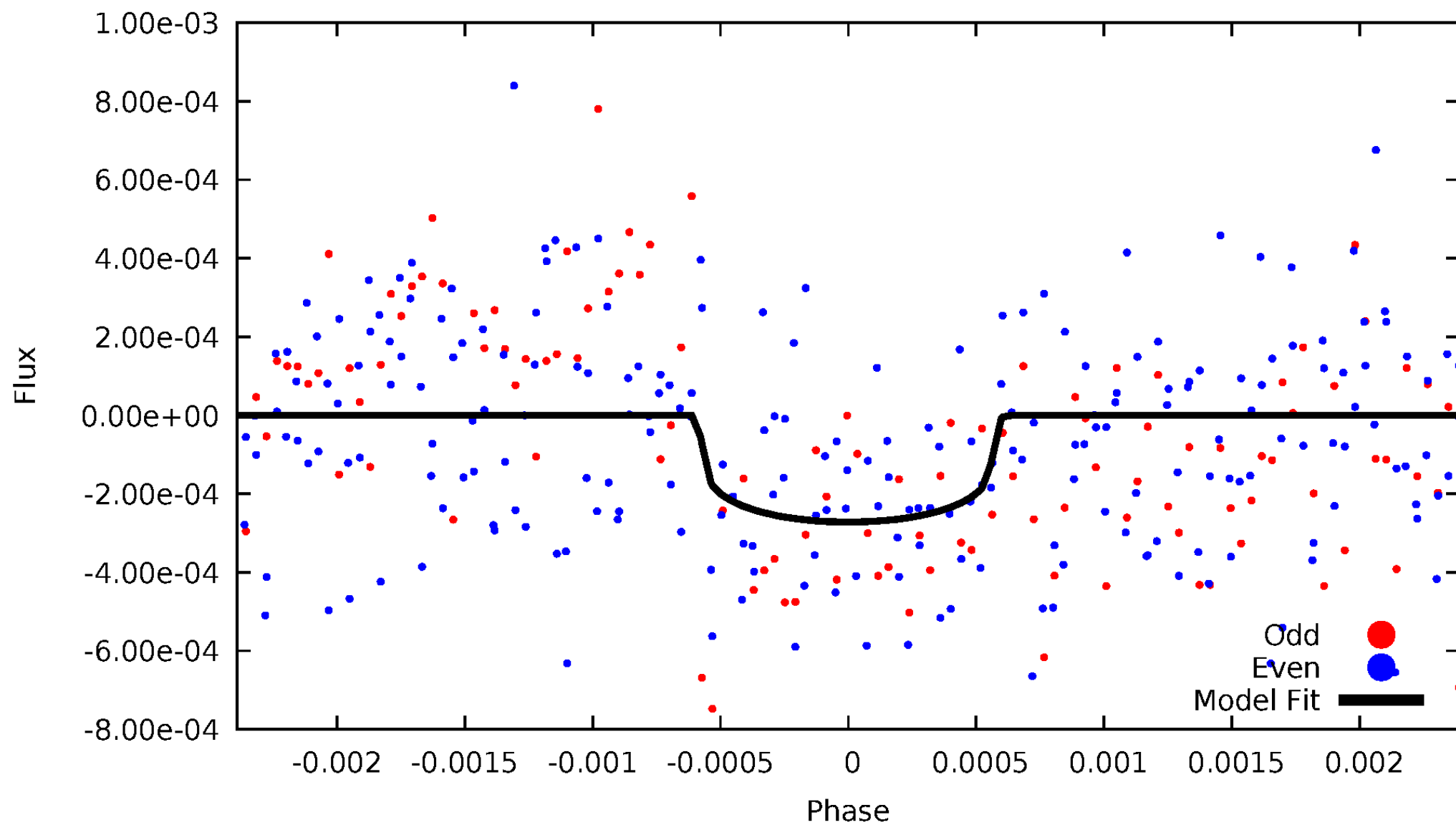


TCE 007011254-01



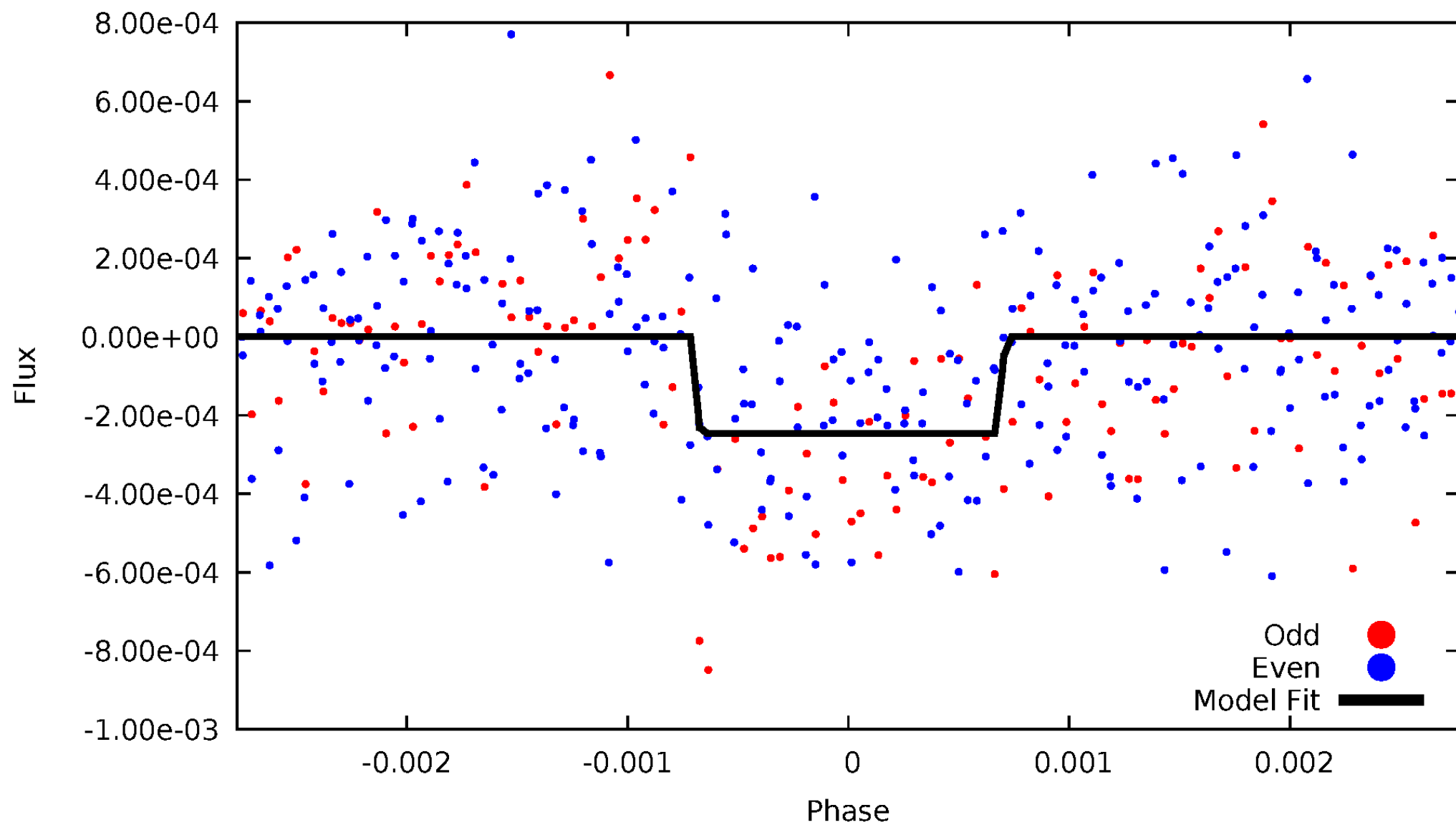
DV Odd/Even

TCE 007011254-01

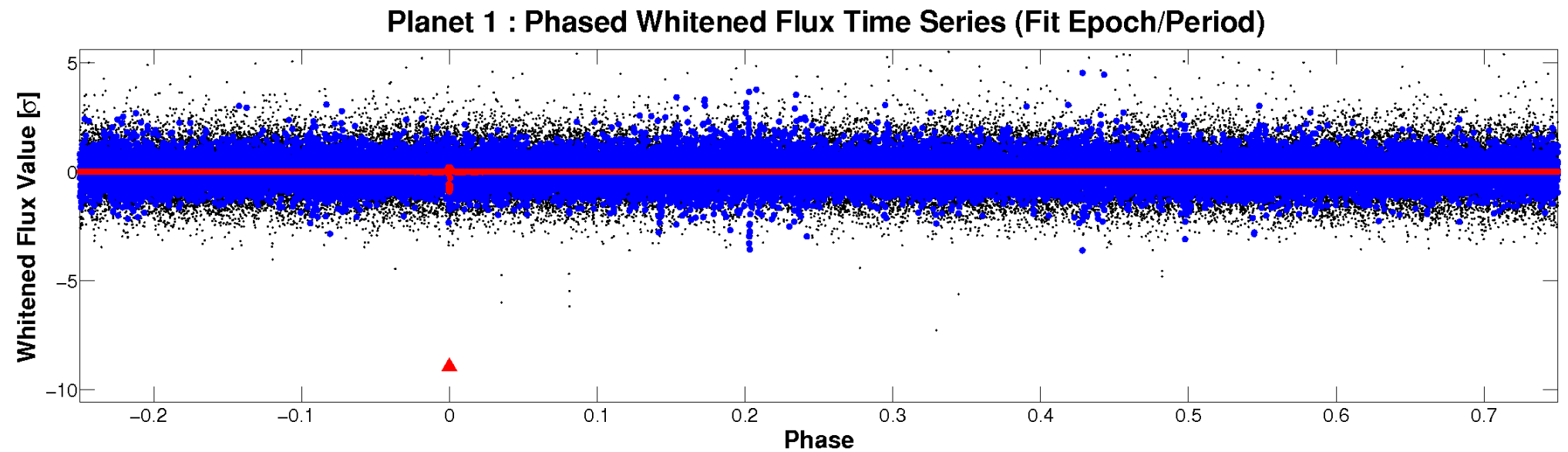
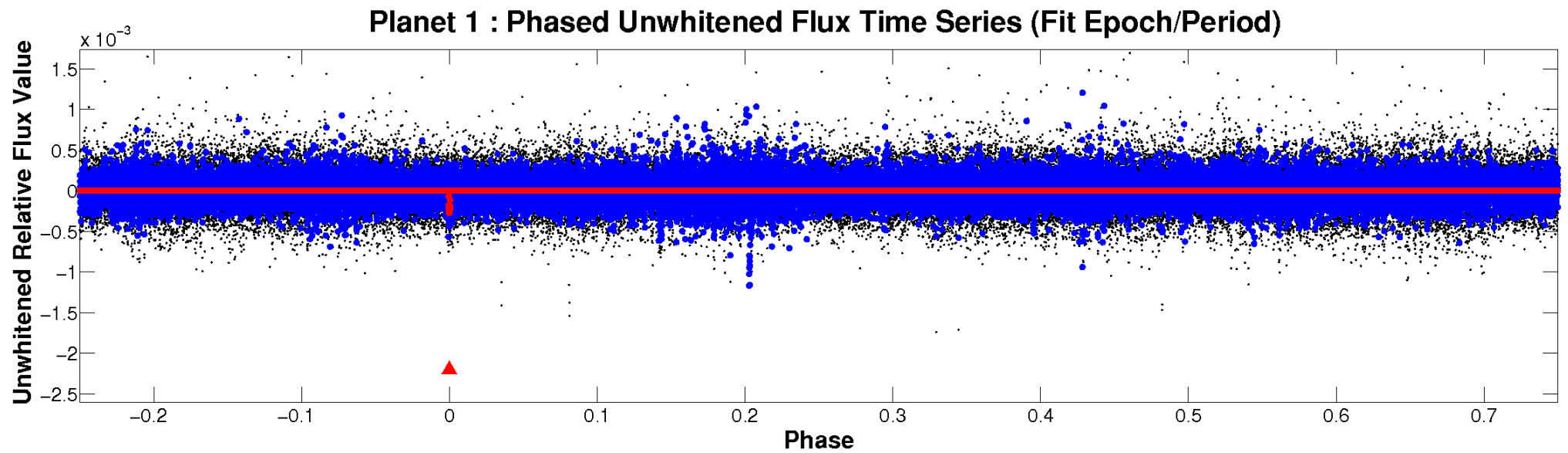


ALT Odd/Even

TCE 007011254-01



Non-Whitened Vs. Whitened Light Curve



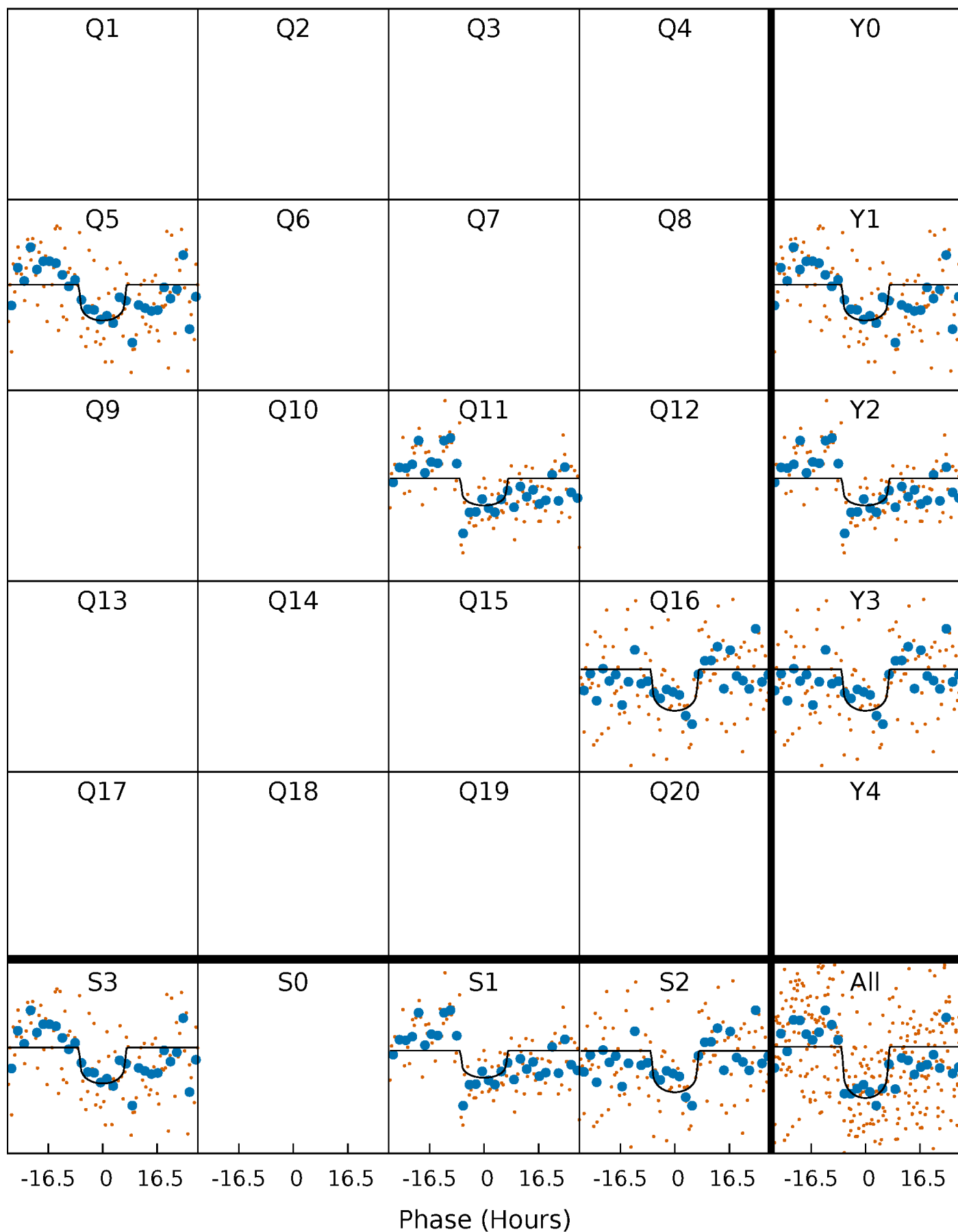
PDC Quarter-Phased Transit Curves

TCE 007011254-01 P=504.052778 Days $T_0=511.910144$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007011254-01 P=504.052778 Days $T_0=511.910144$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

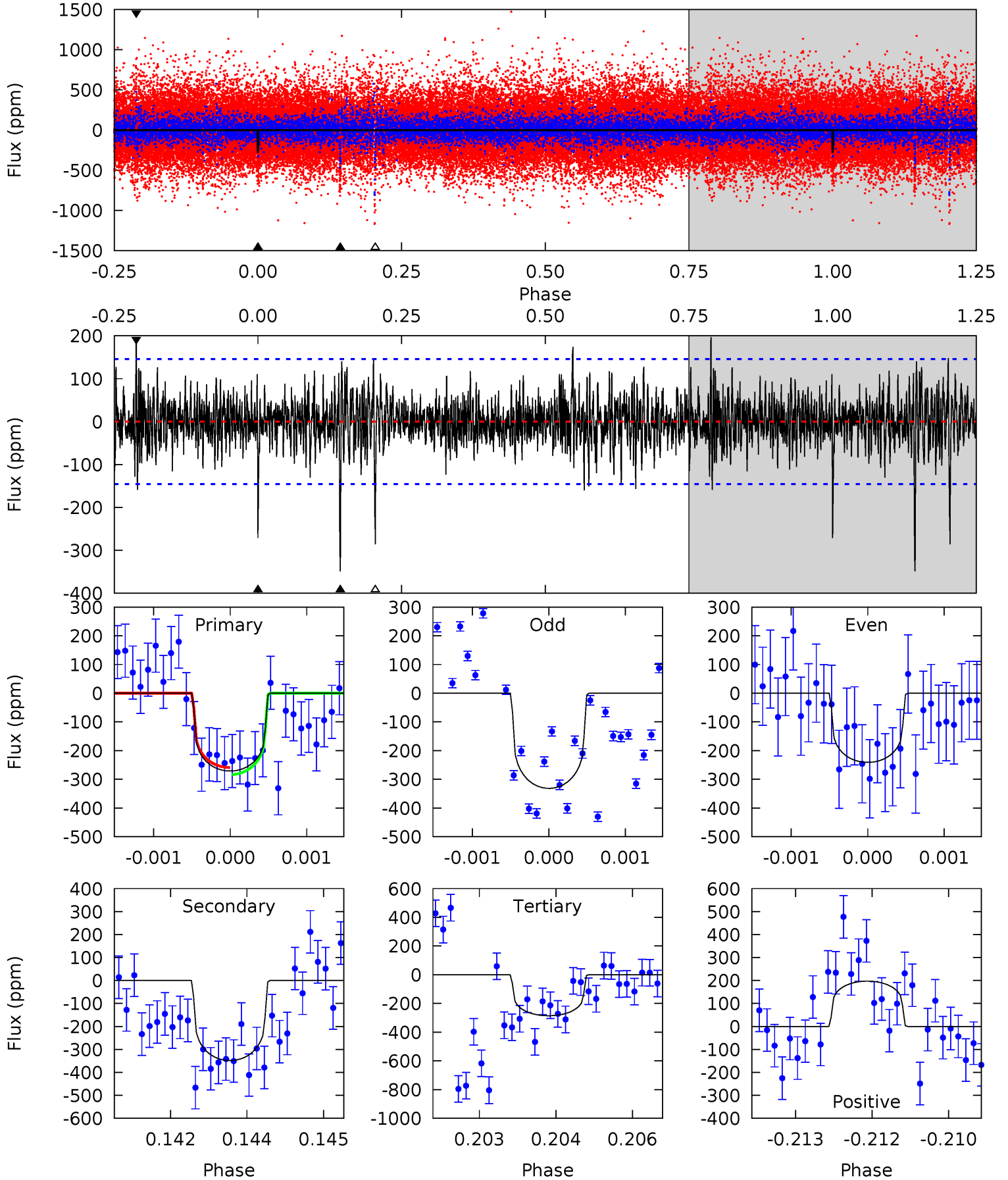
TCE 007011254-01 P=503.993757 Days $T_0=512.020737$ (BKJD)



DV Model-Shift Uniqueness Test

007011254-01, P = 504.052778 Days, E = 7.857366 Days

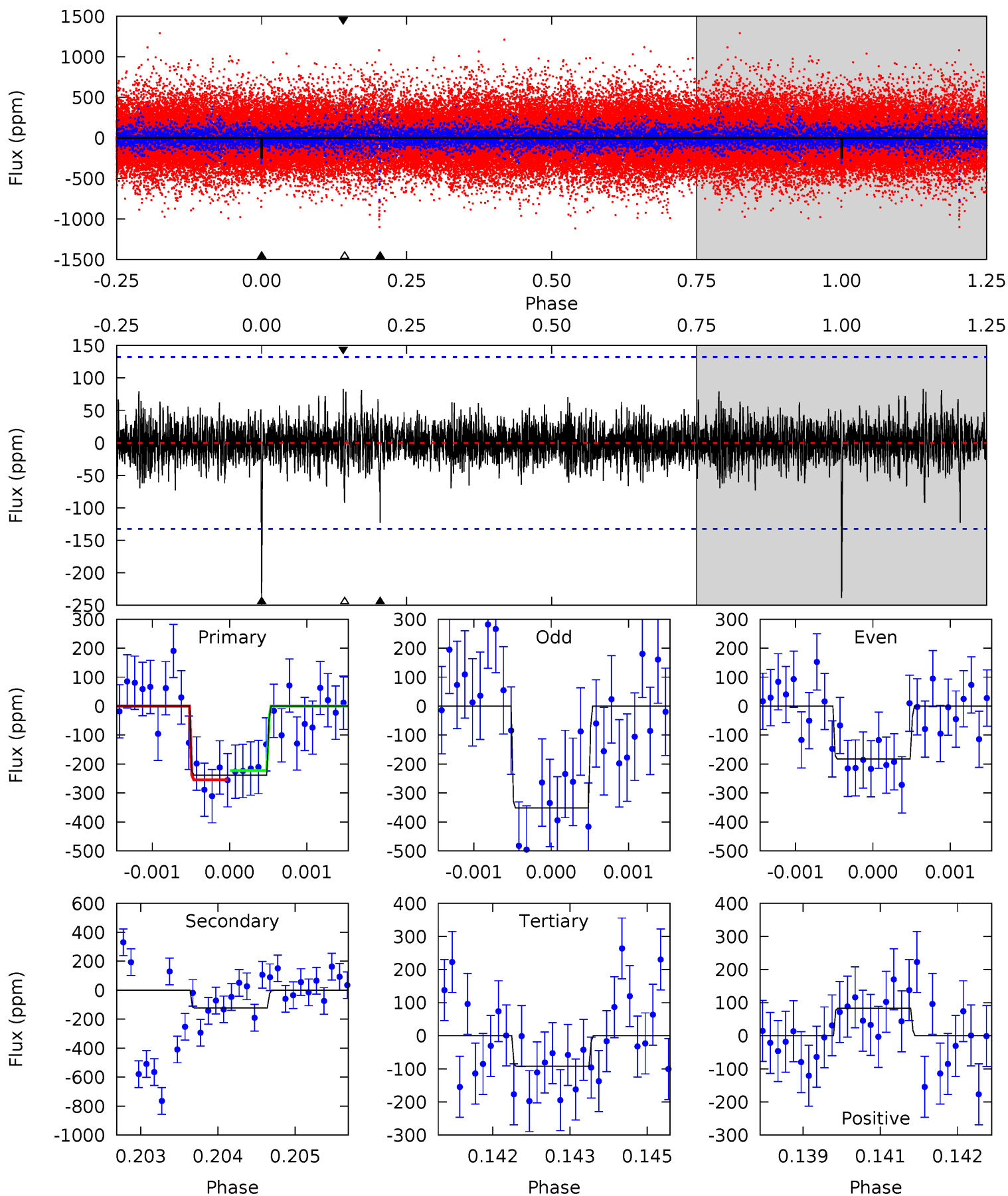
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	13.0	10.6	7.33	5.42	3.24	1.59	-0.54	2.75	2.33	5.63	1.57	1.12	0.36	0.45



Alt Model-Shift Uniqueness Test

007011254-01, P = 503.993757 Days, E = 8.026980 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.72	5.01	3.75	3.37	5.39	3.20	0.83	5.96	6.35	1.25	1.63	3.21	1.15	0.26	0.65



Stellar Parameters For KIC 007011254

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5366^{+160}_{-144}	$4.541^{+0.102}_{-0.068}$	$-0.600^{+0.350}_{-0.300}$	$0.739^{+0.090}_{-0.082}$	$0.692^{+0.090}_{-0.039}$	$2.417^{+0.936}_{-0.567}$
	+3%/-3%	+2%/-1%	+58%/-50%	+12%/-11%	+13%/-6%	+39%/-23%
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 007011254-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-349 ± 27	$1.39^{+0.65}_{-0.64}$	270^{+12}_{-11}	5590^{+1926}_{-869}	$121402^{+281637}_{-65407}$
Alt.	-123 ± 25	$1.23^{+0.72}_{-0.60}$	270^{+12}_{-10}	4684^{+1636}_{-752}	$53382^{+160834}_{-31717}$

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

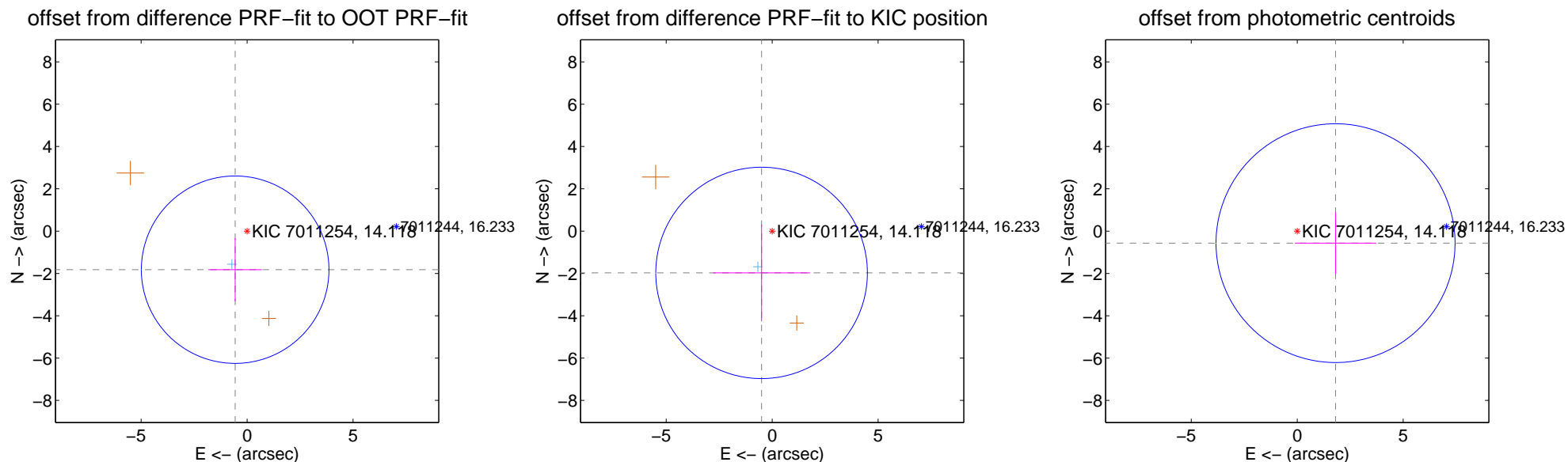
DV Centroid Data

Supplemental centroid analysis for 007011254-01. Kepler magnitude: 14.12. Transit SNR 7.42

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.907 ± 1.476	1.29	0.564 ± 1.265	-1.822 ± 1.495
PRF-fit source offset from KIC position	2.036 ± 1.665	1.22	0.499 ± 2.285	-1.973 ± 2.292
photometric centroid source offset	1.90 ± 1.88	1.01	-1.81 ± 1.92	-0.57 ± 1.45

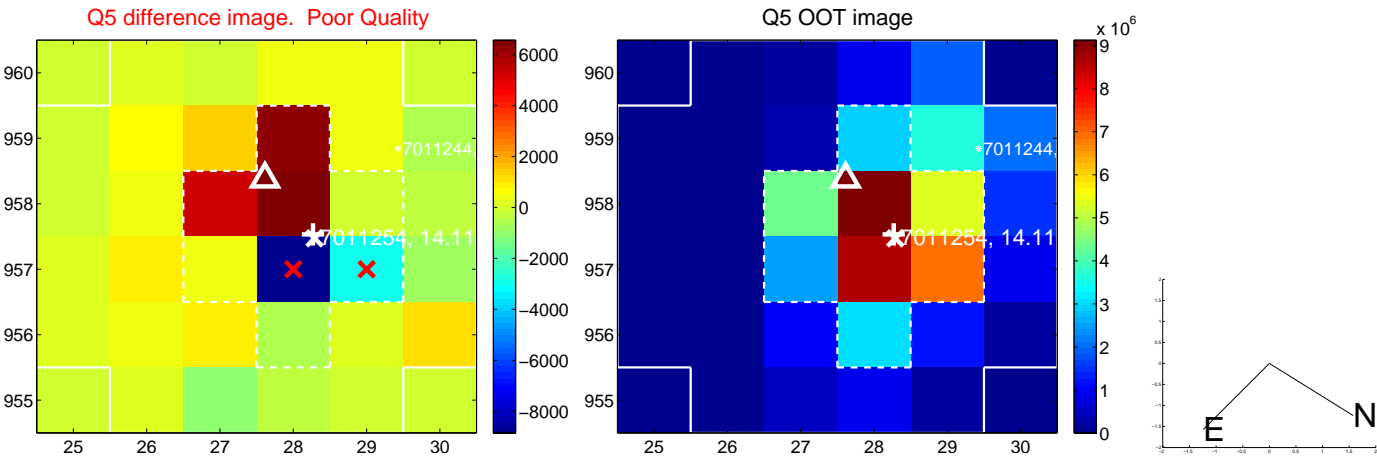


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

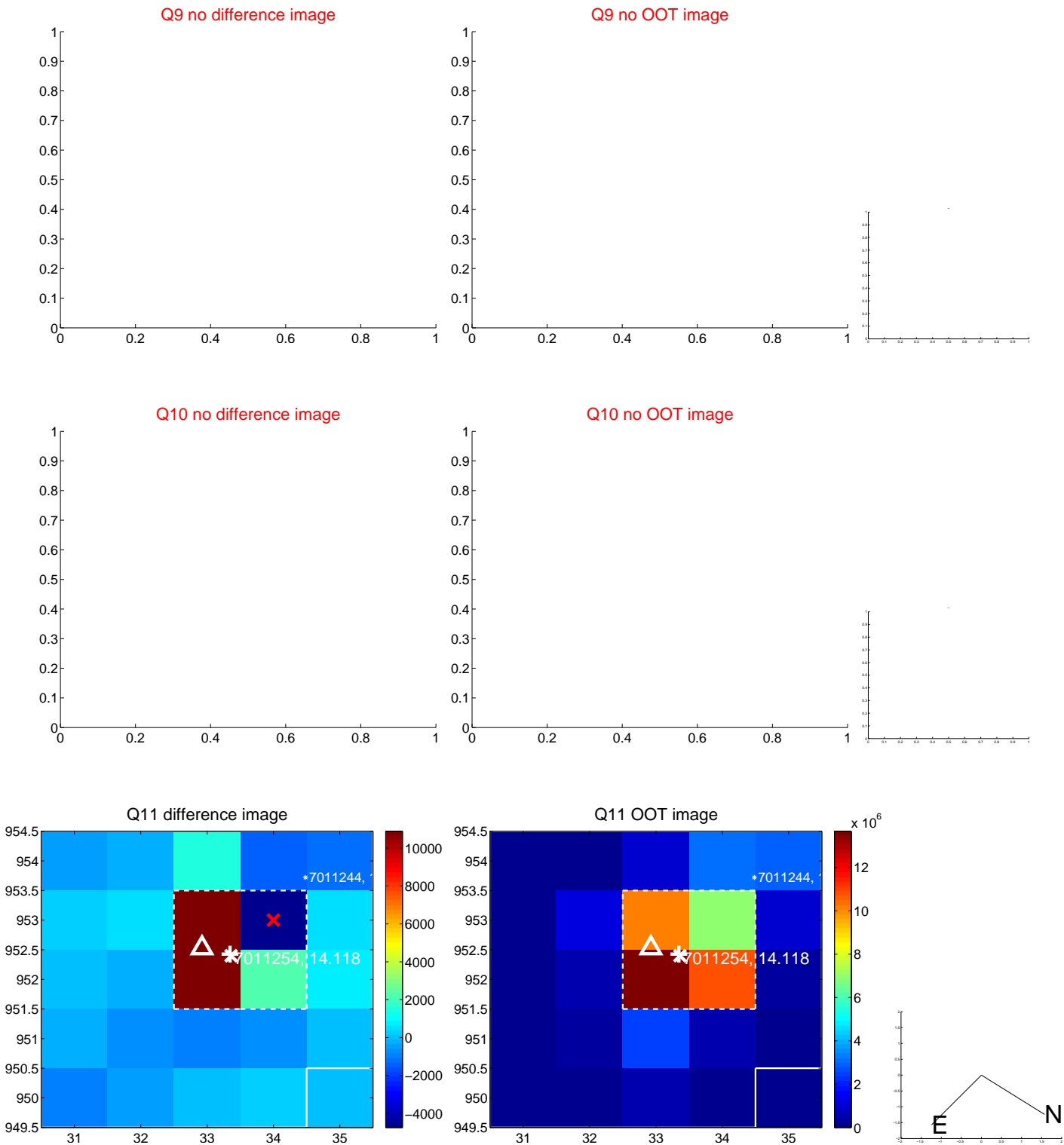
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



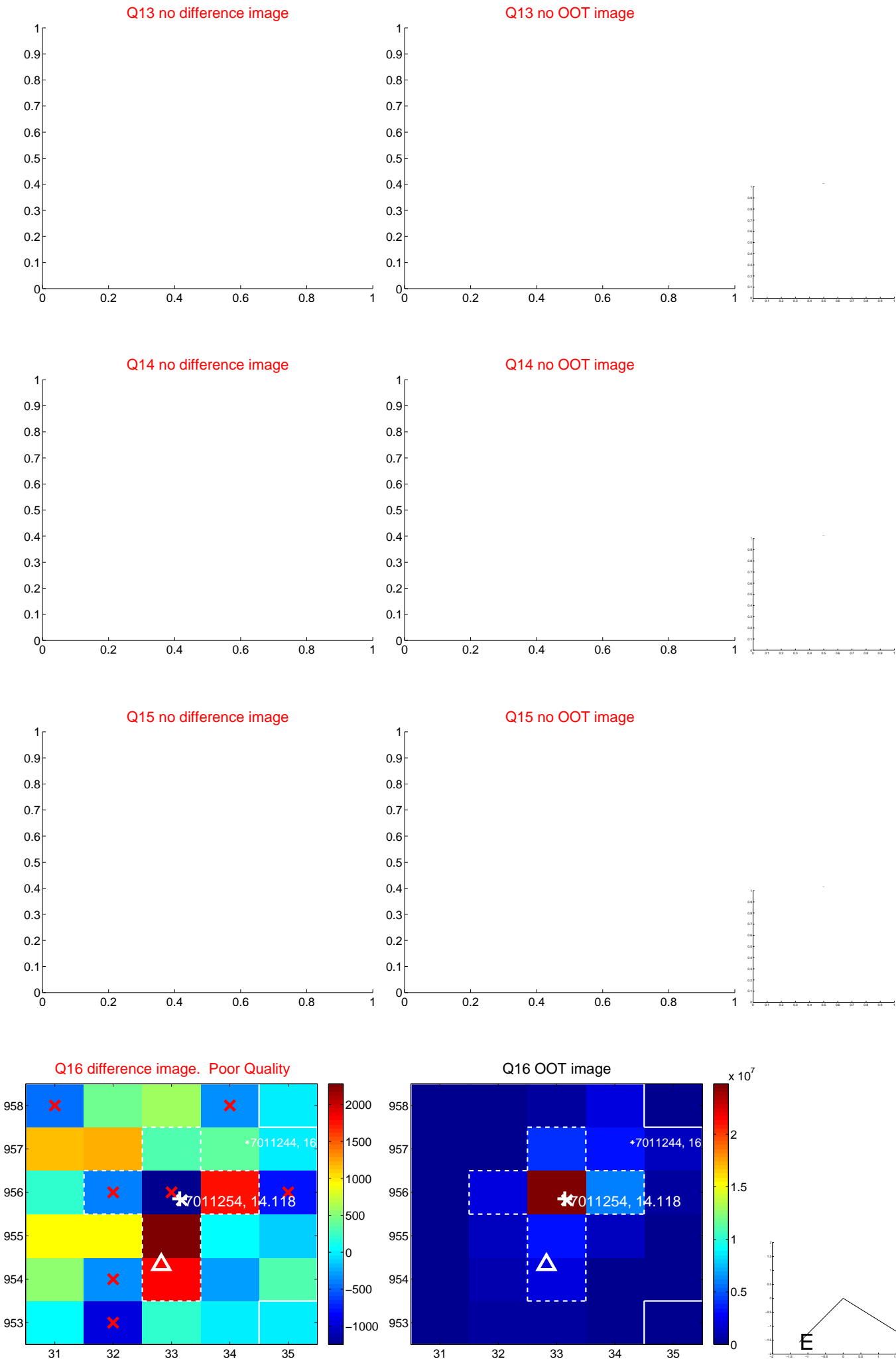
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



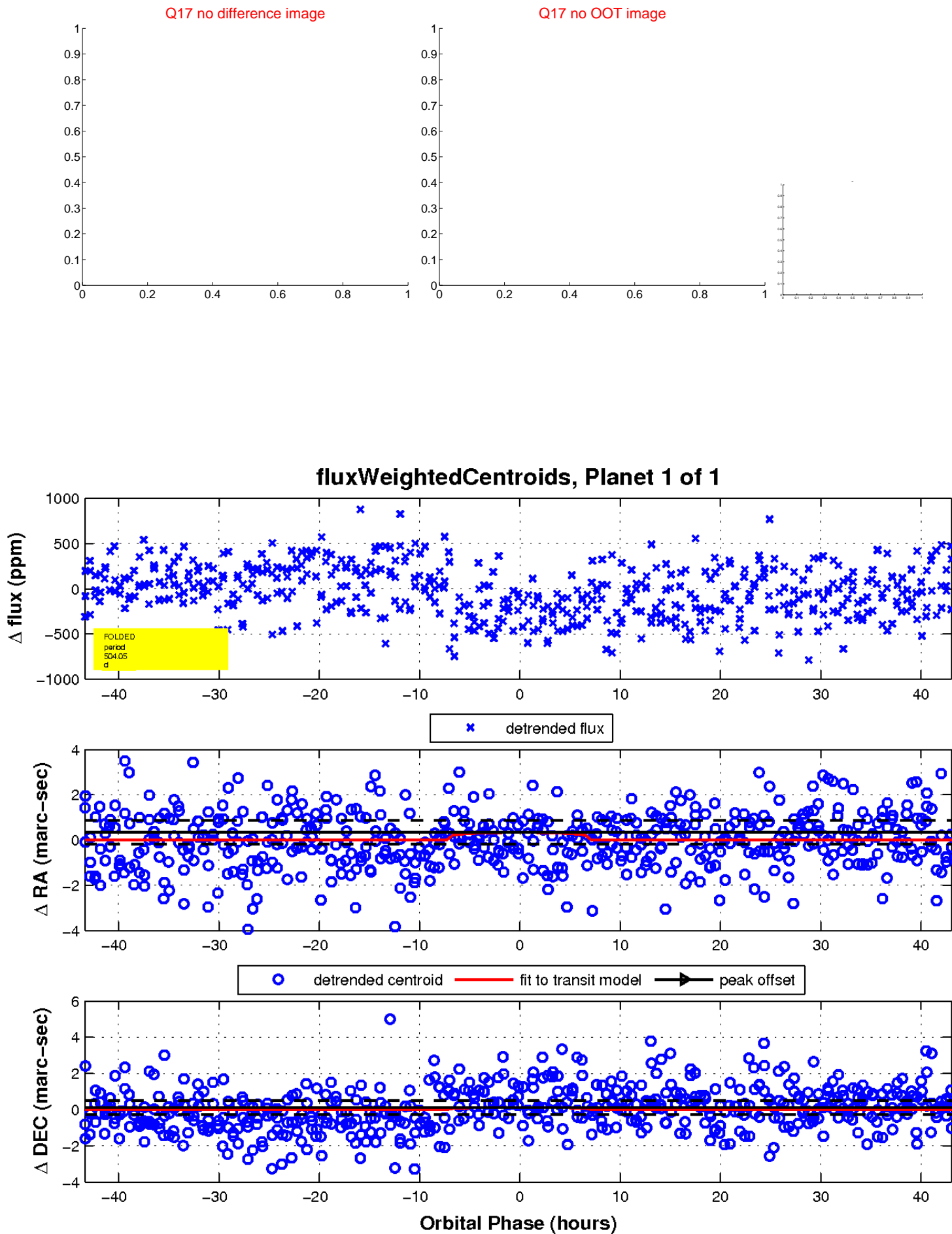
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

