

KIC 007539263

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})
007539263-01	OBS	No	429.524616	534.155408	493.2	12.043	7.8	7.6	0.94	5926	2.21	0.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007539263-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—MOD_NONUNIQ_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.

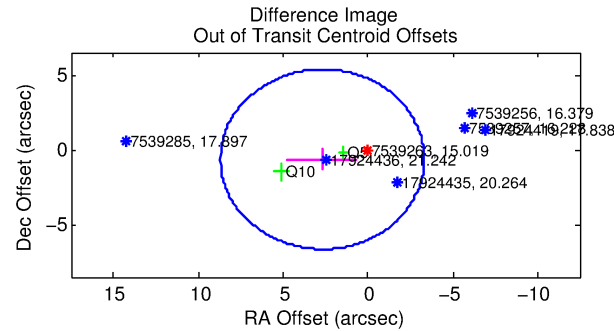
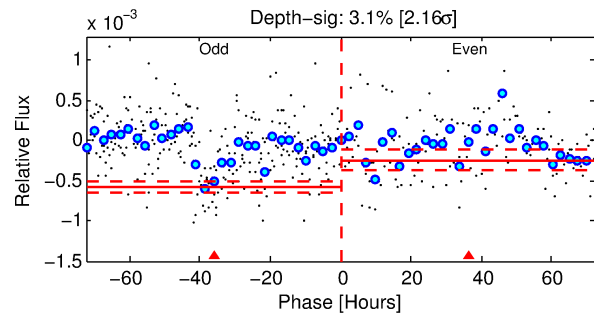
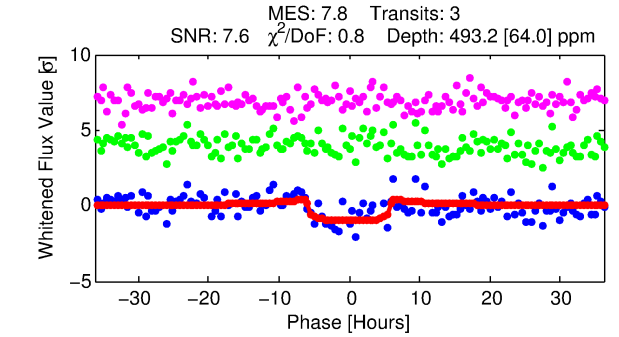
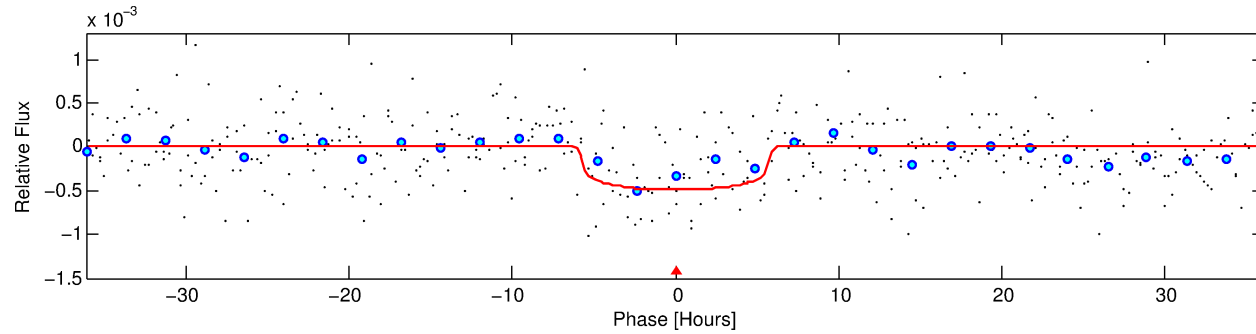
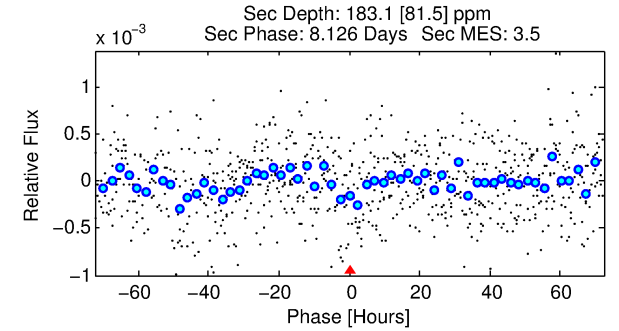
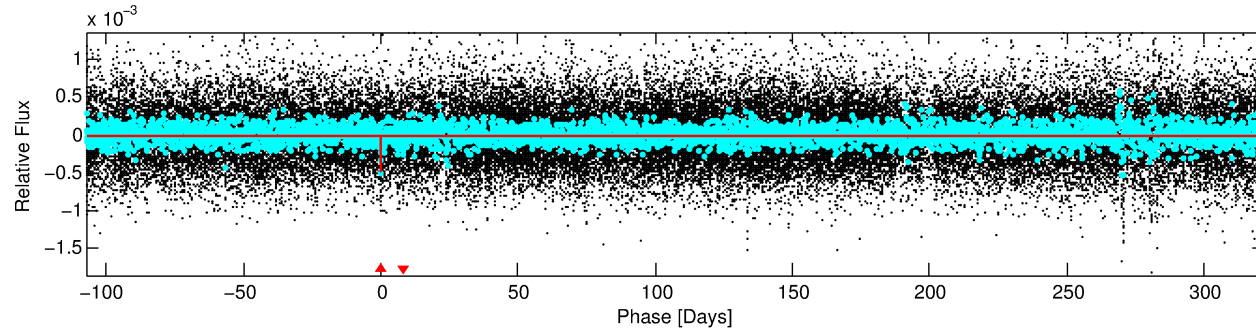
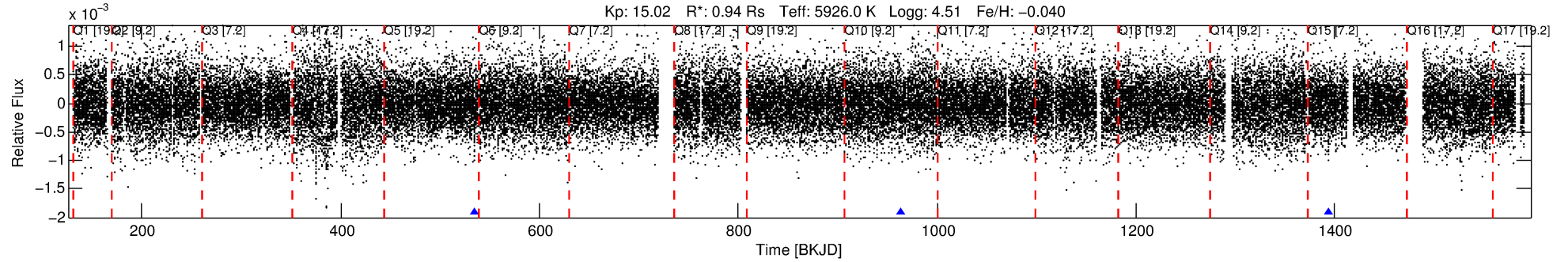
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007539263-01

No Significant Match Found

DV One-Page Summary

KIC: 7539263 Candidate: 1 of 1 Period: 429.525 d



DV Fit Results:

Period = 429.52462 [0.01179] d
Epoch = 534.1554 [0.0153] BKJD
Rp/R* = 0.0216 [0.0107]
a/R* = 207.97 [465.55]
b = 0.68 [1.80]
Seff = 0.77 [0.31]
Teq = 239 [24] K
Rp = 2.21 [1.30] Re
a = 1.1258 [0.2978] AU
Ag = 26050.14 [29942.68] [0.87 σ]
Teff = 4690 [1280] K [3.48 σ]

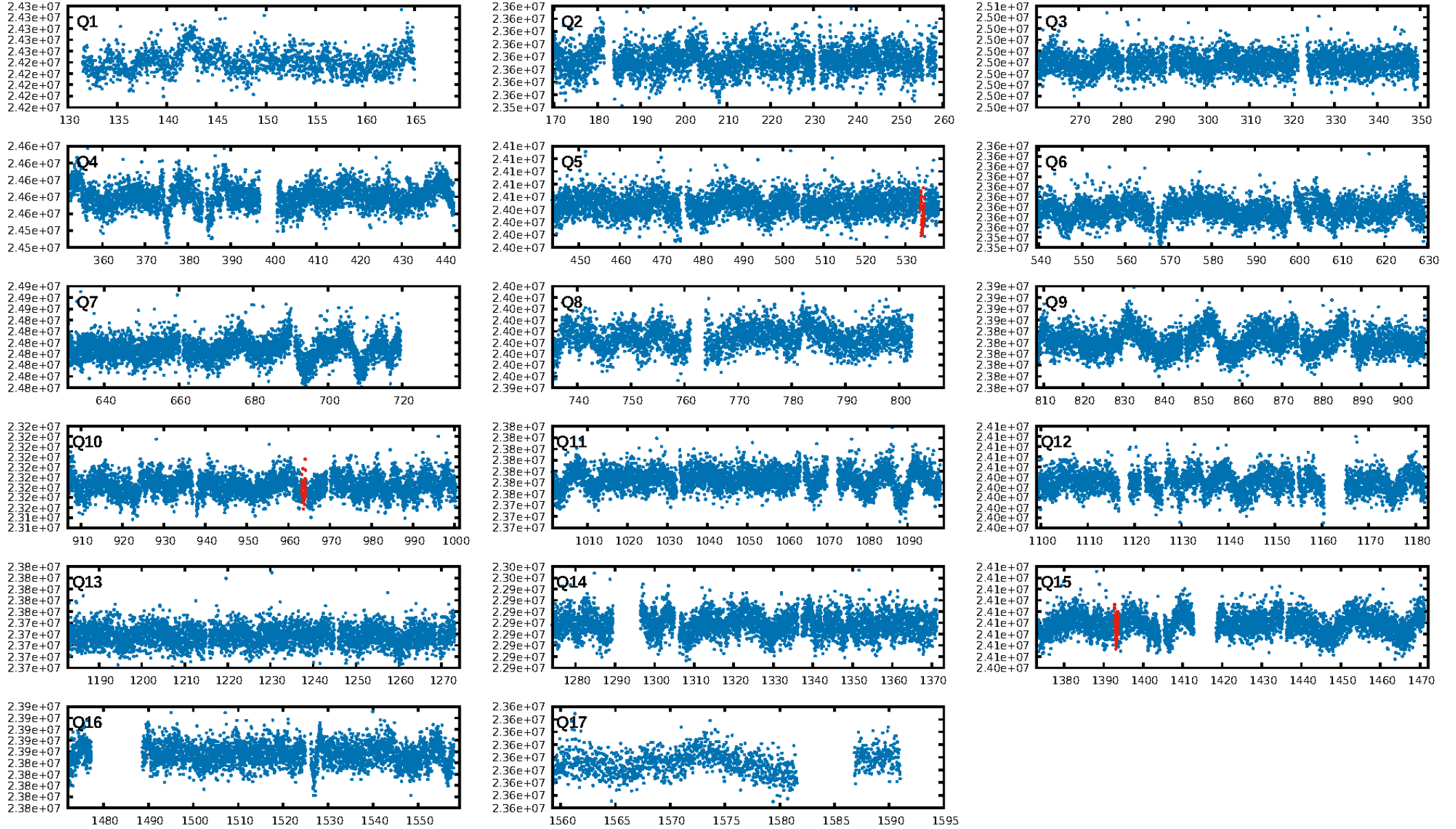
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 8.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.29e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.873
Centroid-sig: 13.8%
Centroid-so: 1.770 arcsec [1.06 σ]
OotOffset-rm: 2.755 arcsec [1.38 σ]
KicOffset-rm: 2.628 arcsec [1.32 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

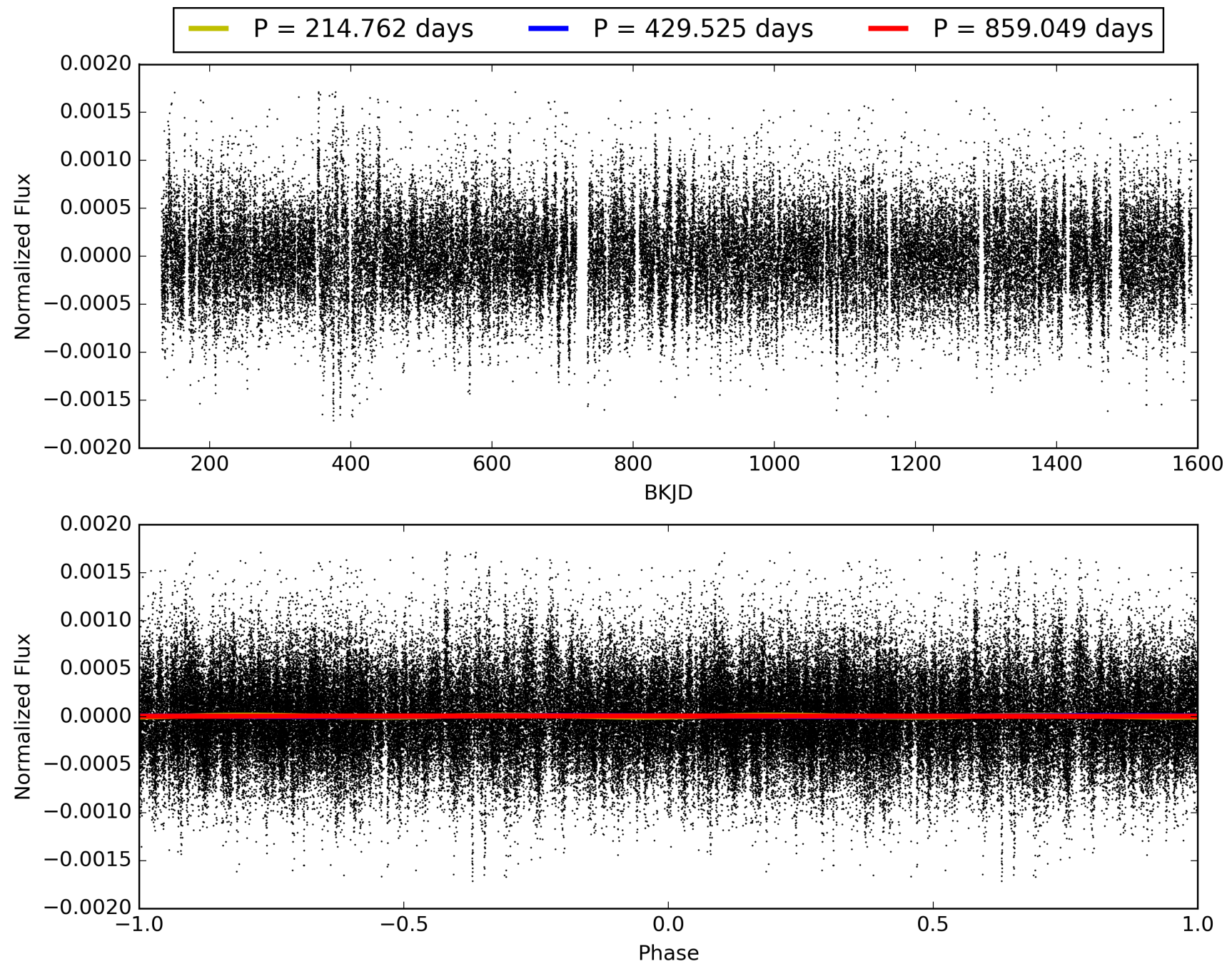
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:37:25 Z

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

TCE 007539263-01, PDC Light Curves

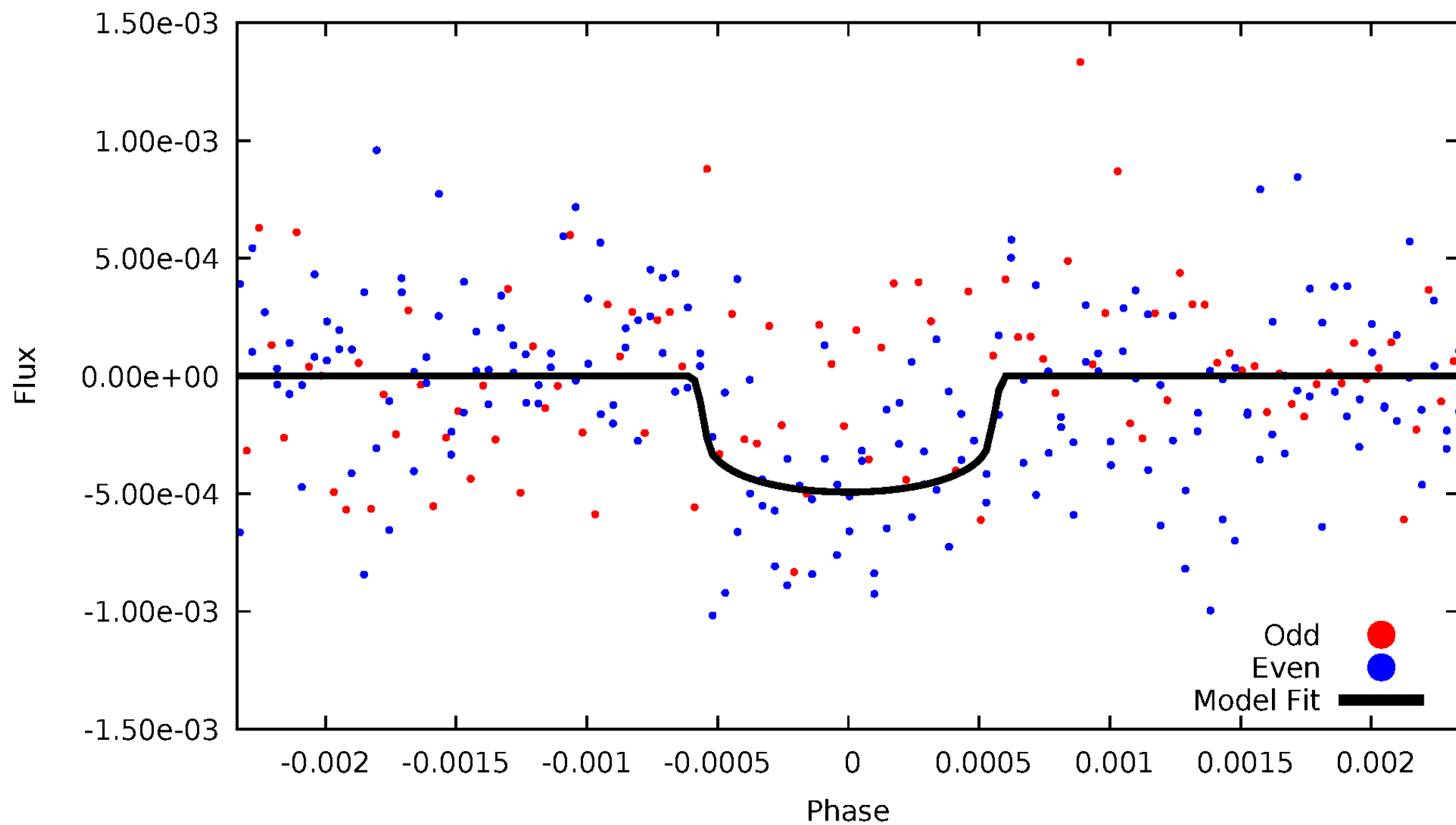


TCE 007539263-01



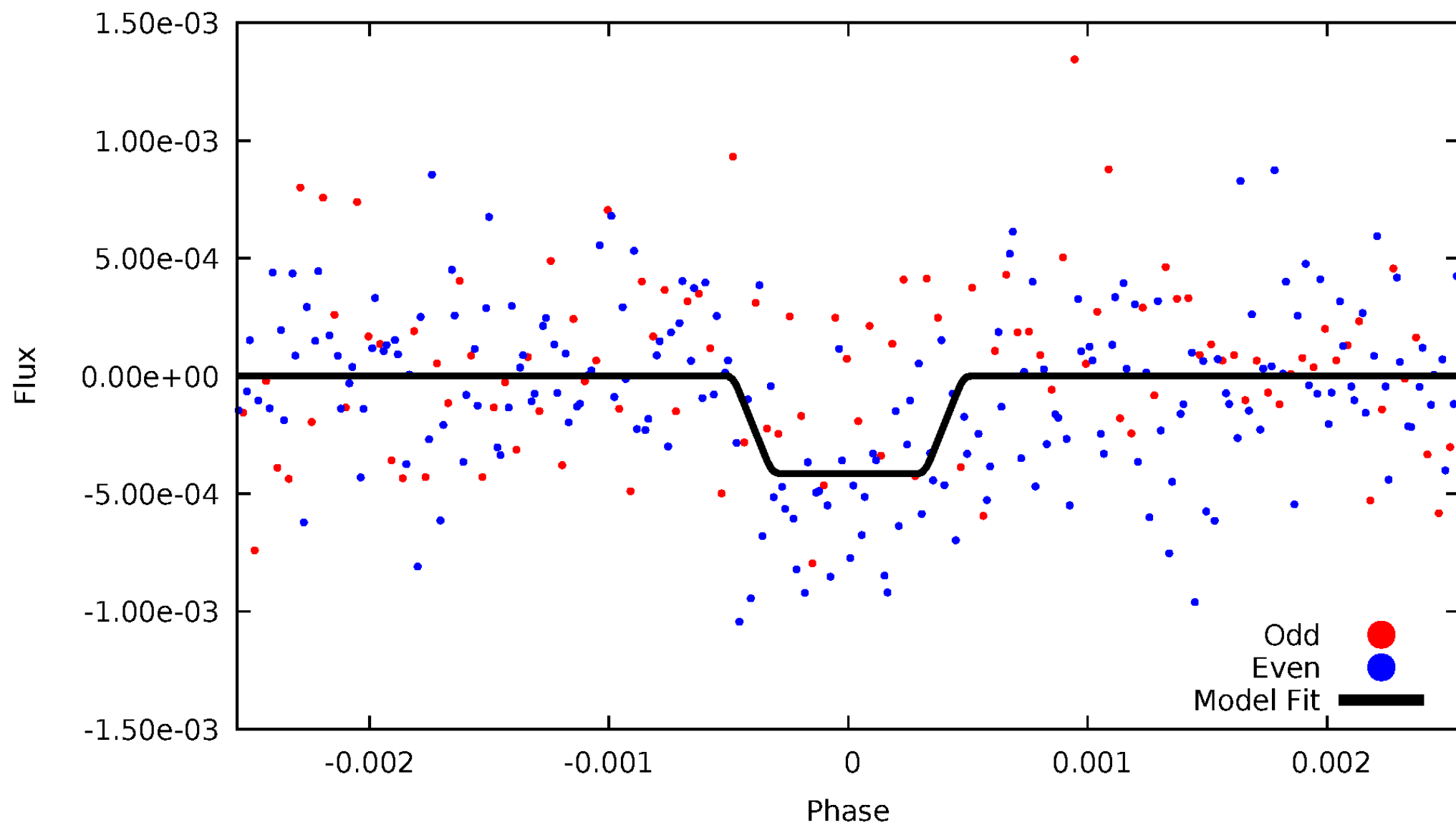
DV Odd/Even

TCE 007539263-01

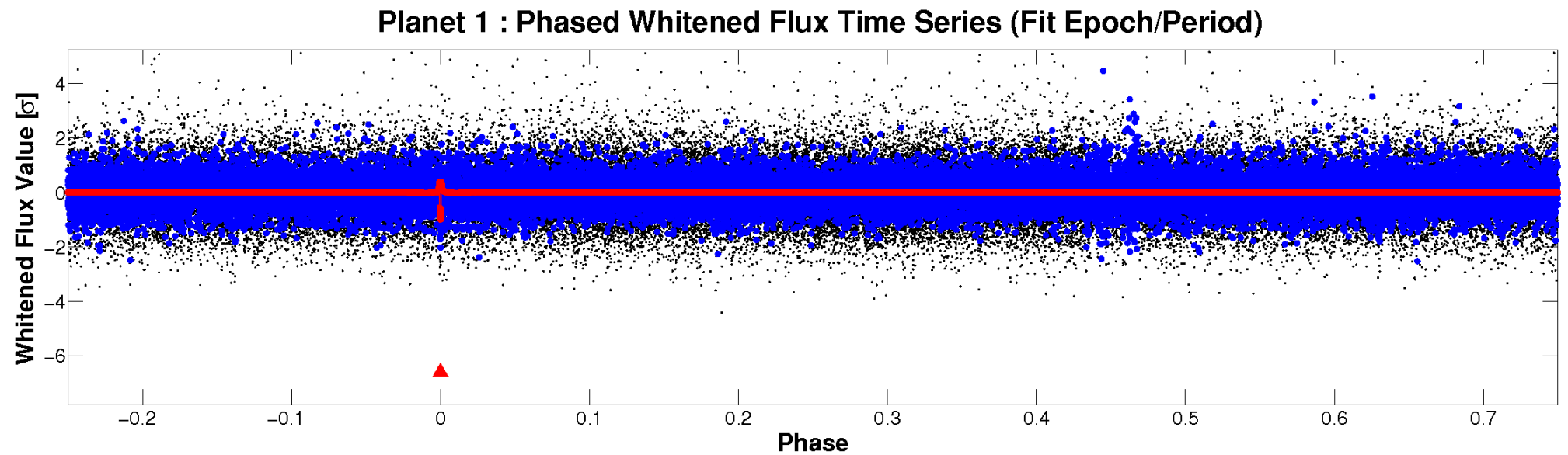
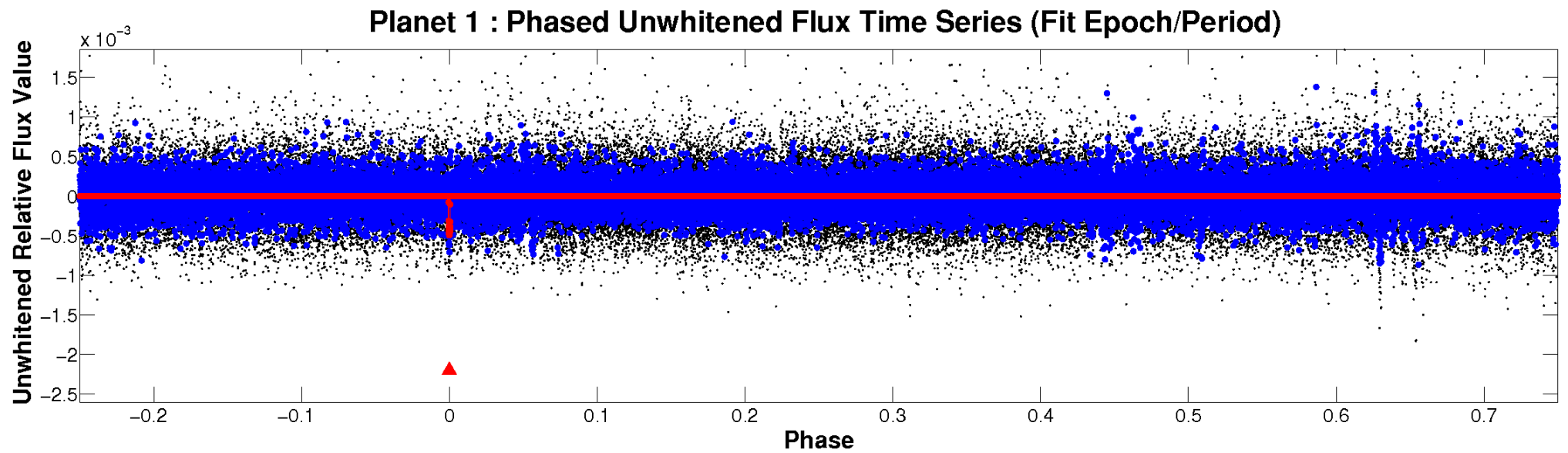


ALT Odd/Even

TCE 007539263-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 007539263-01 P=429.524616 Days $T_0=534.155408$ (BKJD)



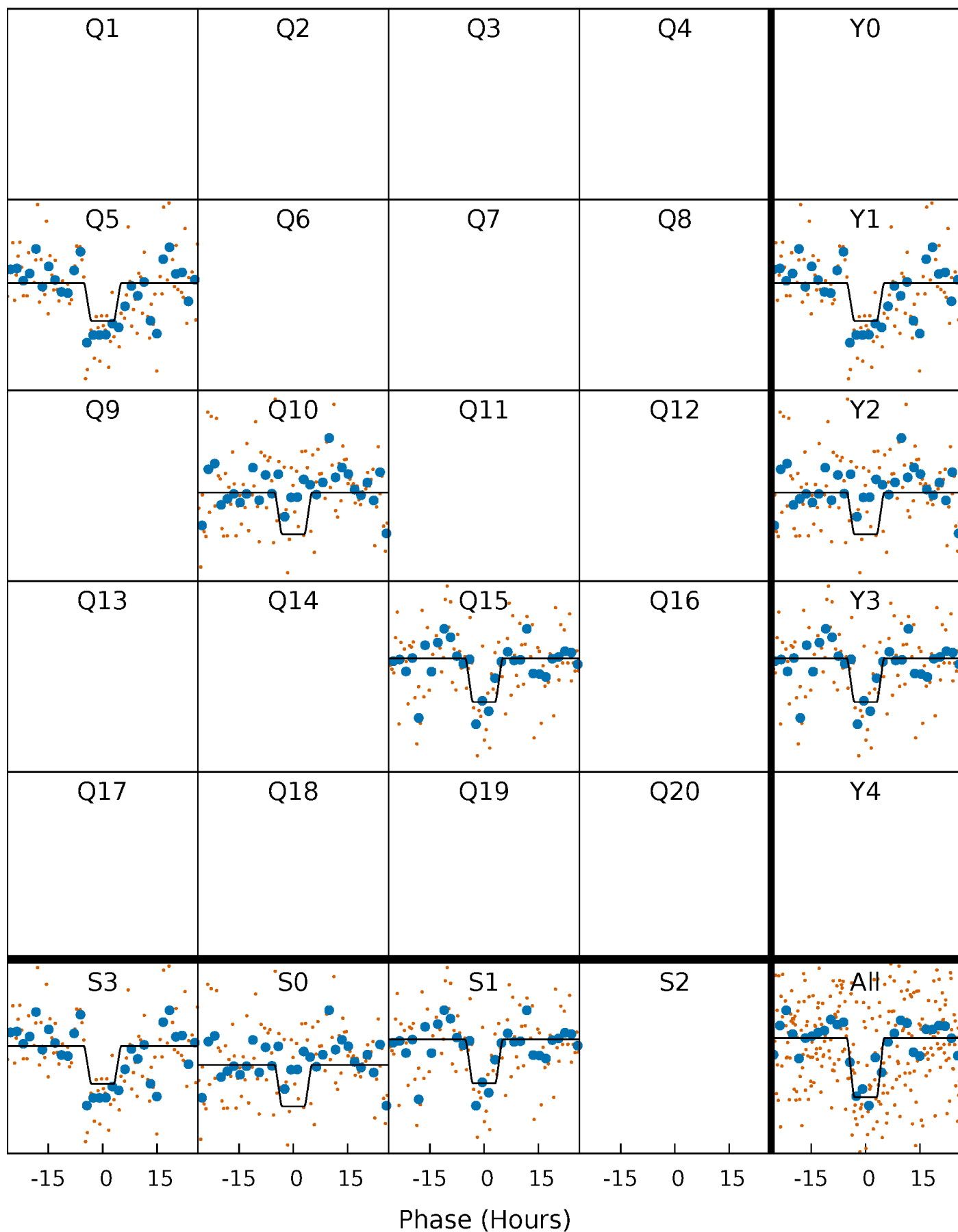
DV Quarter-Phased Transit Curves

TCE 007539263-01 P=429.524616 Days $T_0=534.155408$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

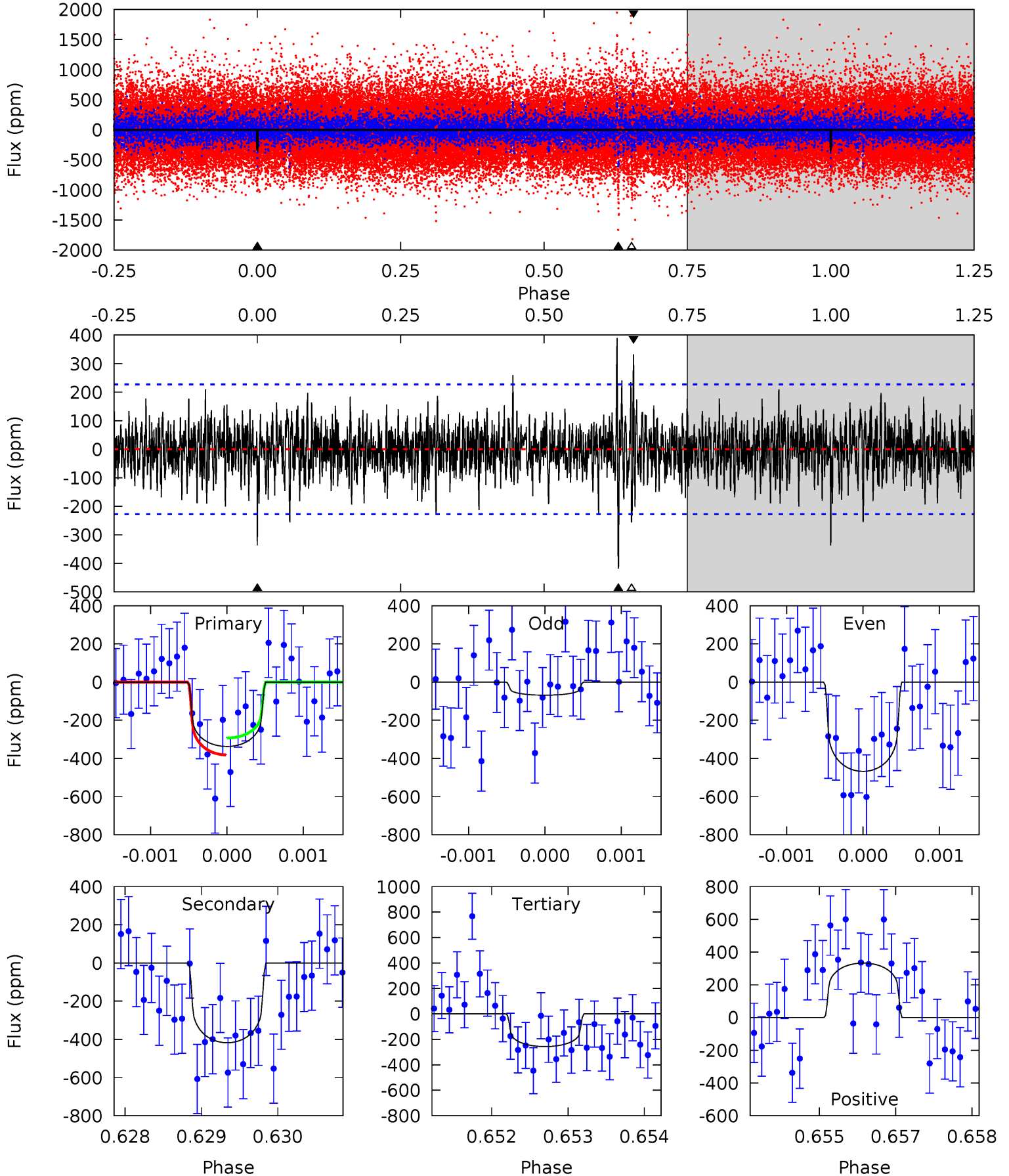
TCE 007539263-01 $P=429.527054$ Days $T_0=534.128072$ (BKJD)



DV Model-Shift Uniqueness Test

007539263-01, P = 429.524616 Days, E = 104.630792 Days

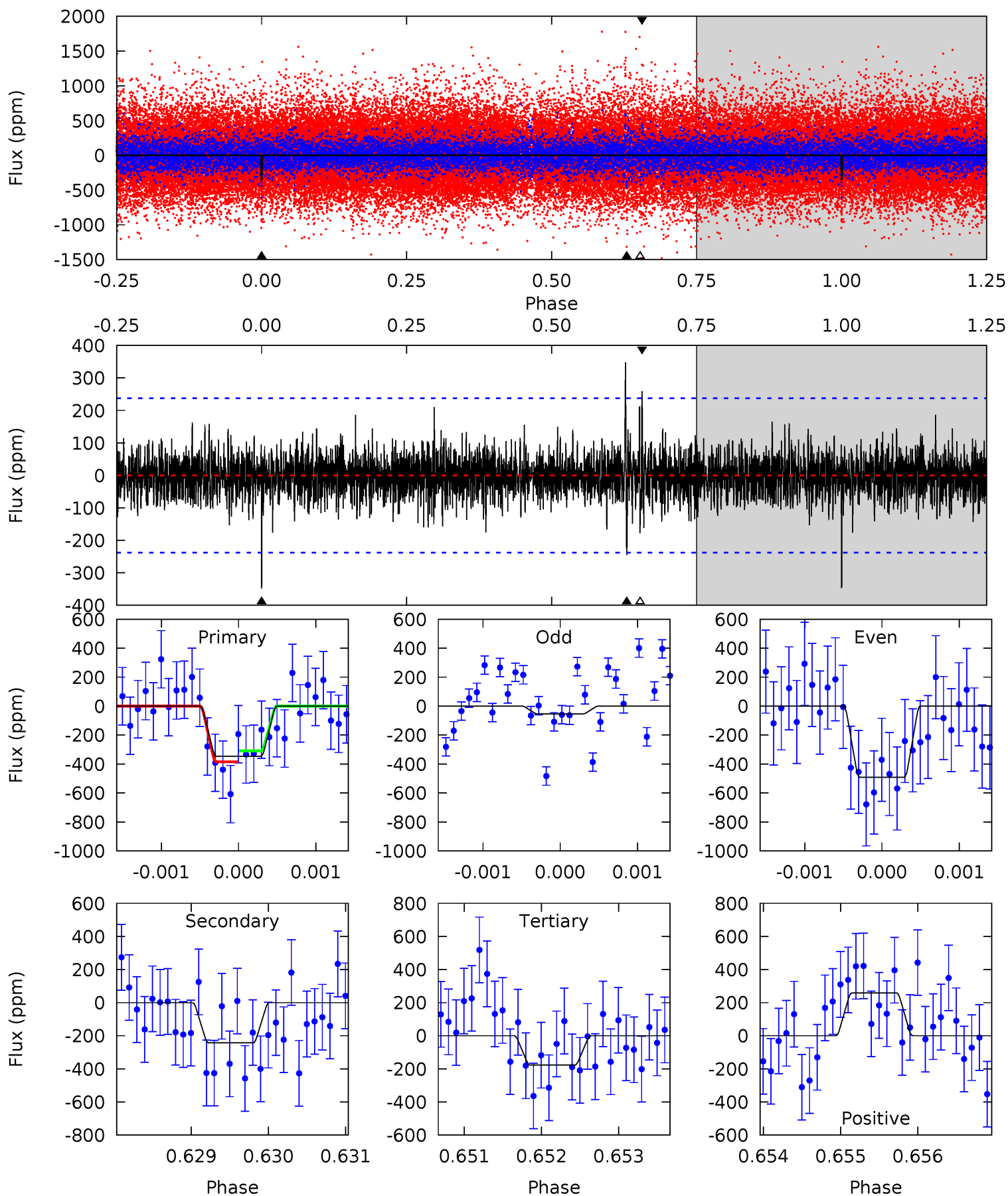
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.04	9.96	6.12	7.93	5.42	3.24	1.57	1.92	0.11	3.84	2.02	4.45	1.01	0.48	1.06



Alt Model-Shift Uniqueness Test

007539263-01, P = 429.527054 Days, E = 104.601018 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.95	5.57	4.06	5.94	5.45	3.29	1.15	3.89	2.01	1.51	-0.37	4.69	0.90	0.50	0.86



Stellar Parameters For KIC 007539263

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5926^{+158}_{-193}	$4.506^{+0.052}_{-0.208}$	$-0.040^{+0.250}_{-0.300}$	$0.939^{+0.297}_{-0.099}$	$1.030^{+0.127}_{-0.140}$	$1.752^{+0.367}_{-0.887}$
	+3%/-3%	+1%/-5%	+625%/-750%	+32%/-11%	+12%/-14%	+21%/-51%
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 007539263-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-418 ± 42	$2.30^{+1.21}_{-1.11}$	339^{+26}_{-15}	5741^{+2602}_{-932}	$53148^{+146991}_{-29665}$
Alt.	-243 ± 44	$2.25^{+1.29}_{-1.07}$	340^{+26}_{-15}	5148^{+1759}_{-842}	31684^{+83638}_{-18613}

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 $A_{obs} \gg 1.0$

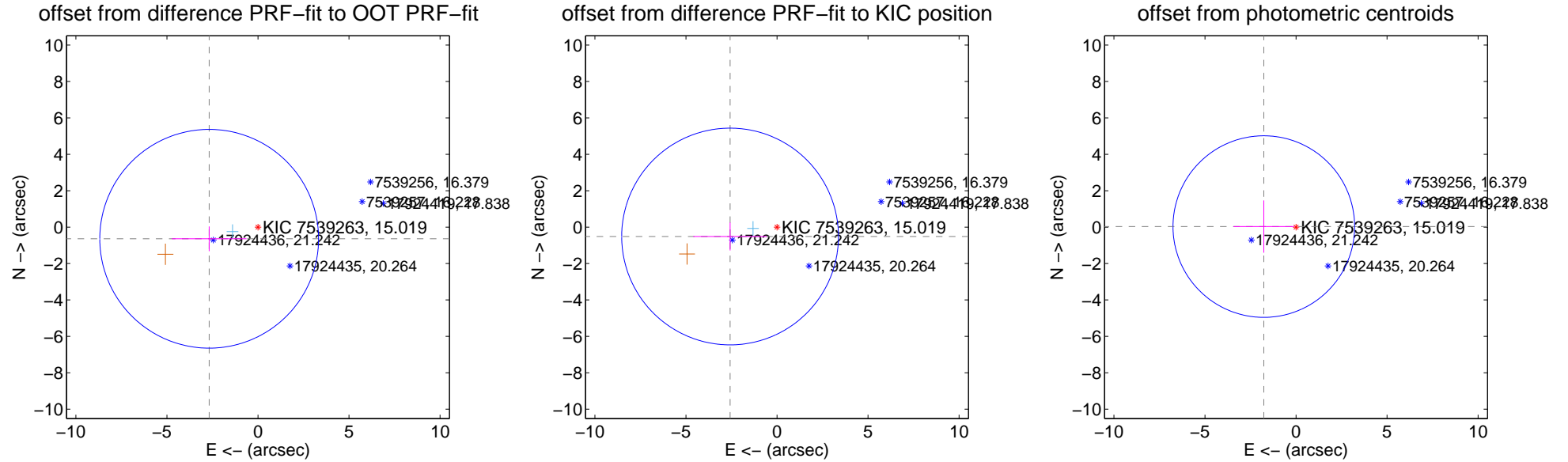
DV Centroid Data

Supplemental centroid analysis for 007539263-01. Kepler magnitude: 15.02. Transit SNR 7.64

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.755 ± 2.002	1.38	2.680 ± 2.052	-0.640 ± 0.680
PRF-fit source offset from KIC position	2.628 ± 1.984	1.32	2.577 ± 2.017	-0.516 ± 0.765
photometric centroid source offset	1.77 ± 1.66	1.06	1.77 ± 1.66	0.03 ± 1.44

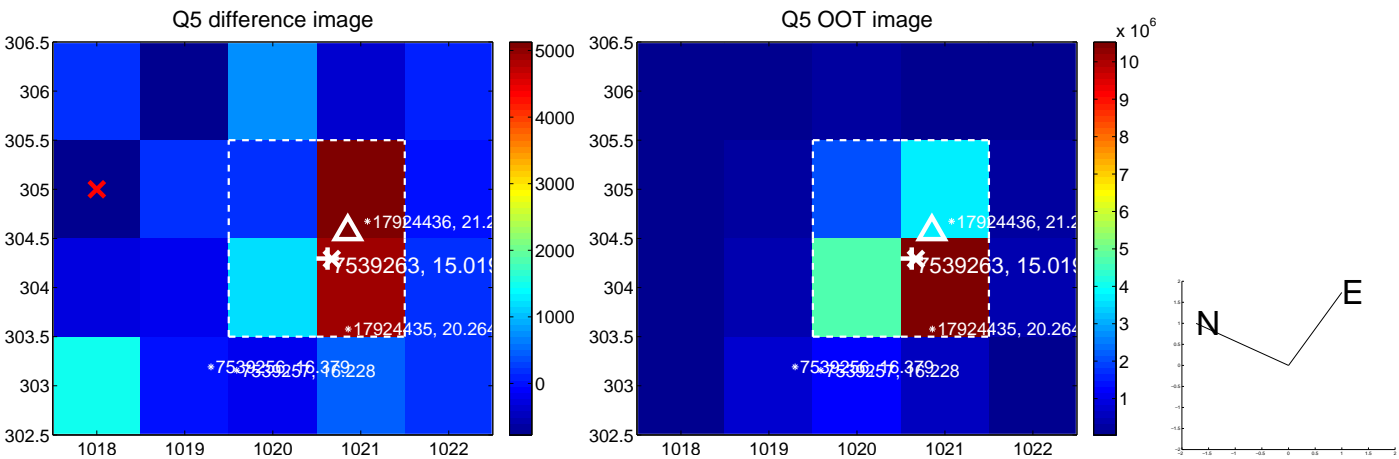


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

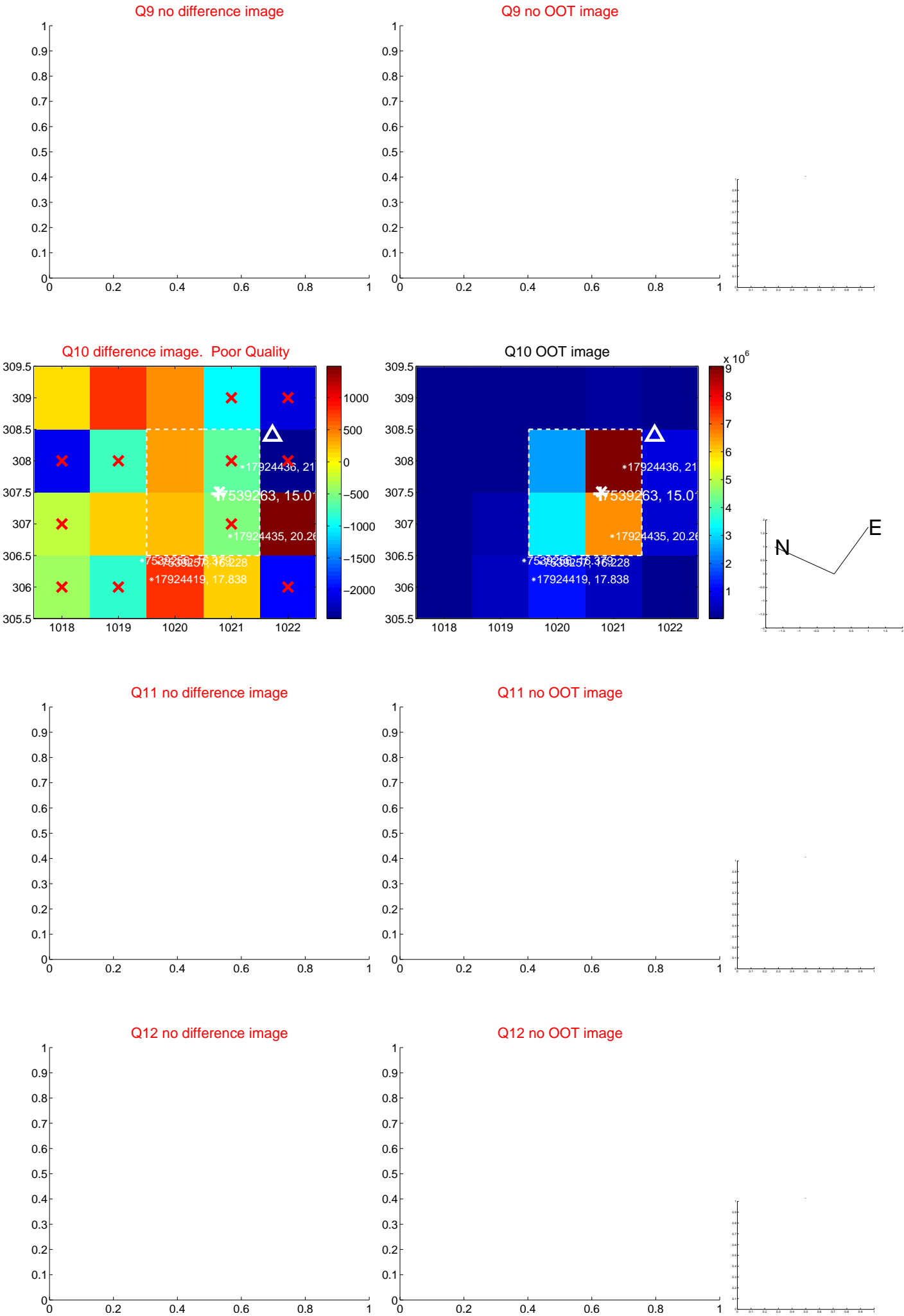
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



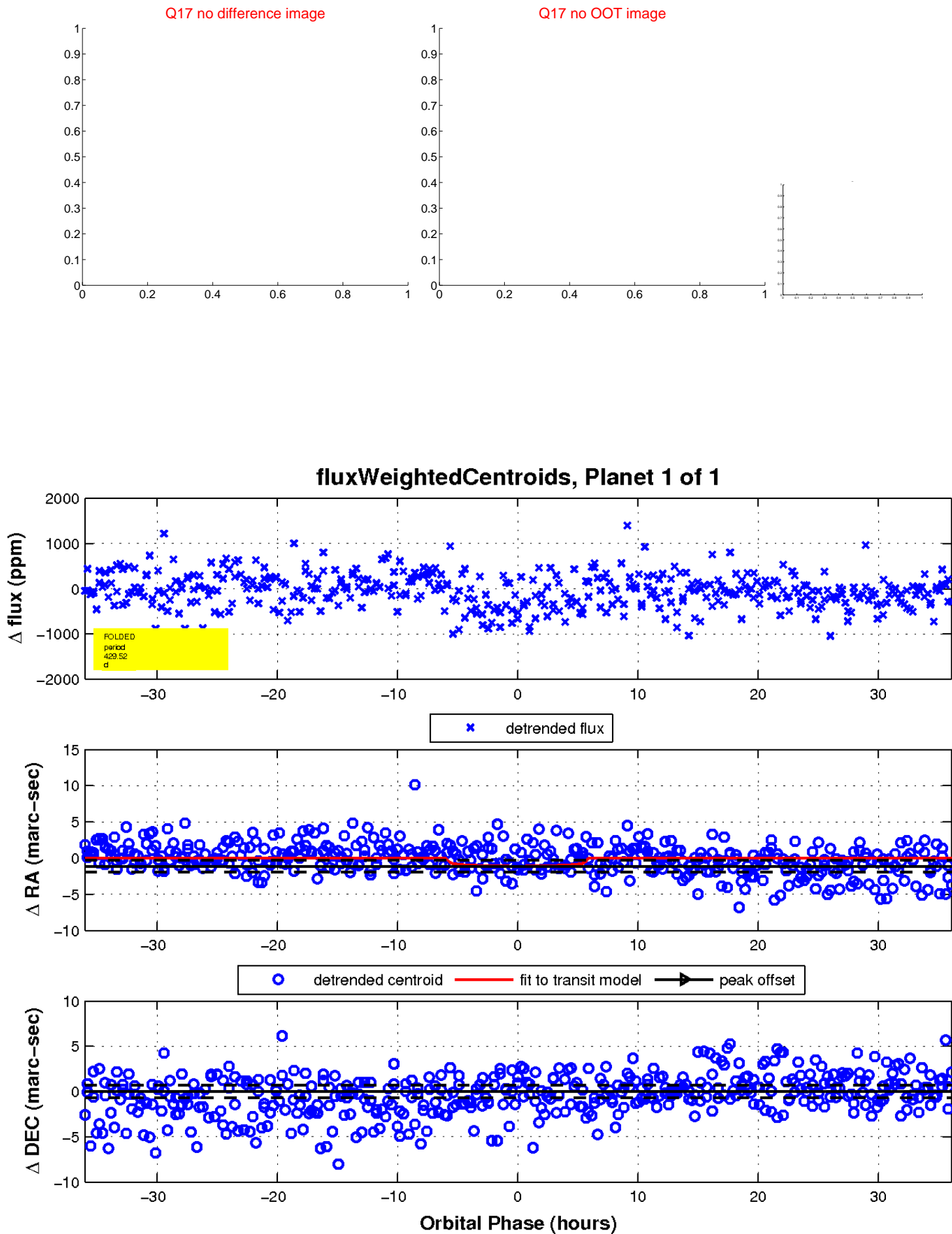
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

