

KIC 003219535

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})
003219535-01	OBS	No	471.714296	486.116871	279.4	14.551	7.4	7.3	1.11	6325	1.96	1.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003219535-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

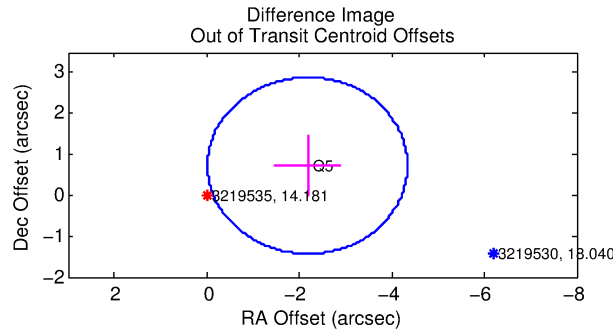
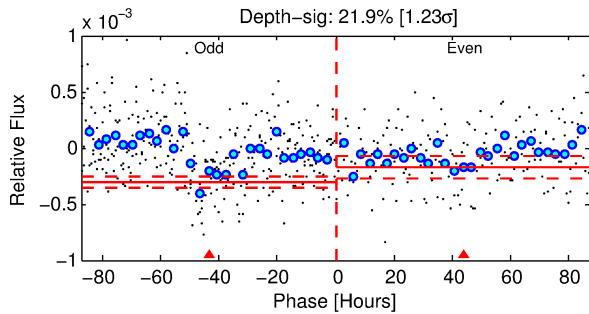
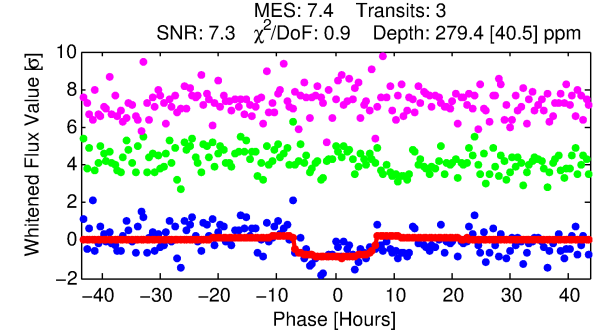
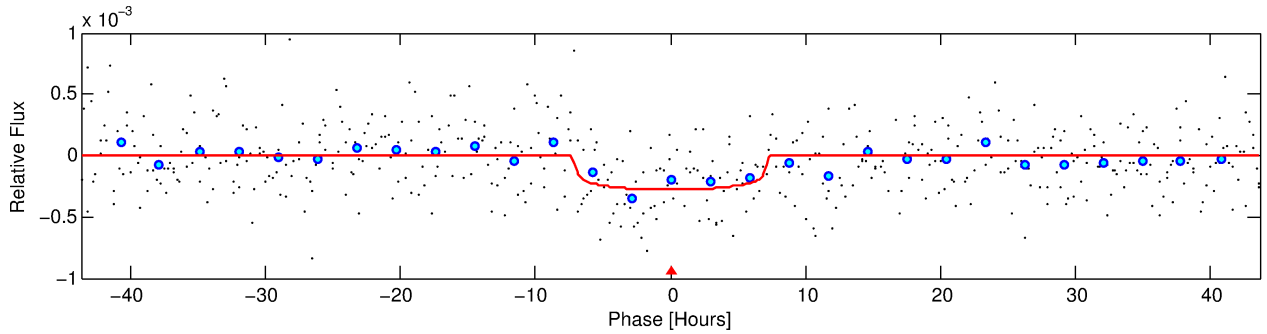
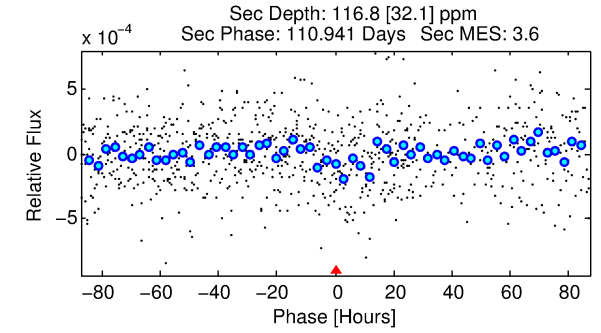
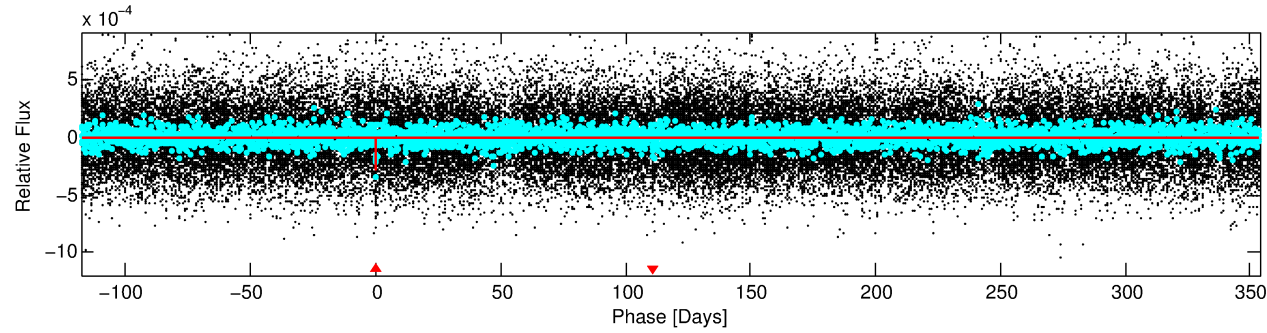
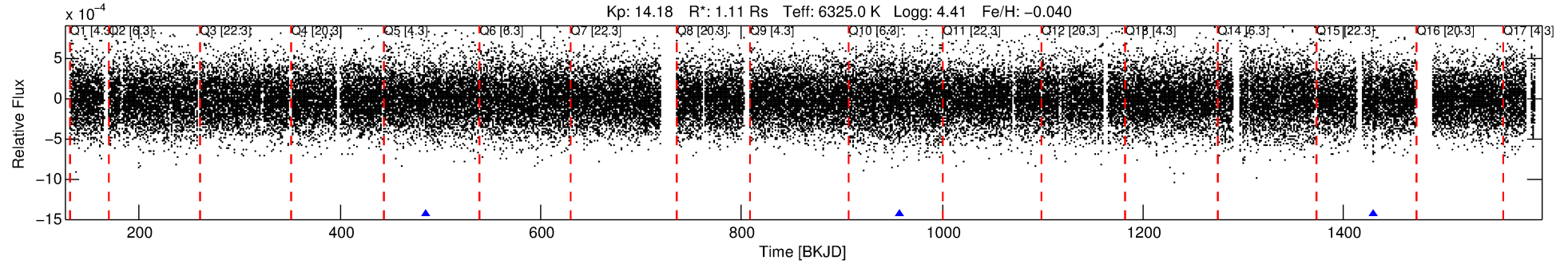
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003219535-01

No Significant Match Found

DV One-Page Summary

KIC: 3219535 Candidate: 1 of 1 Period: 471.714 d



DV Fit Results:

Period = 471.71430 [0.01636] d
Epoch = 486.1169 [0.0234] BKJD
Rp/R* = 0.0162 [0.0087]
a/R* = 193.11 [531.09]
b = 0.65 [2.44]
Seff = 1.14 [0.48]
Teff = 264 [28] K
Rp = 1.96 [1.25] Re
a = 1.2451 [0.3502] AU
Ag = 25807.34 [30393.14] [0.85 σ]
Teffp = 5167 [1439] K [3.41 σ]

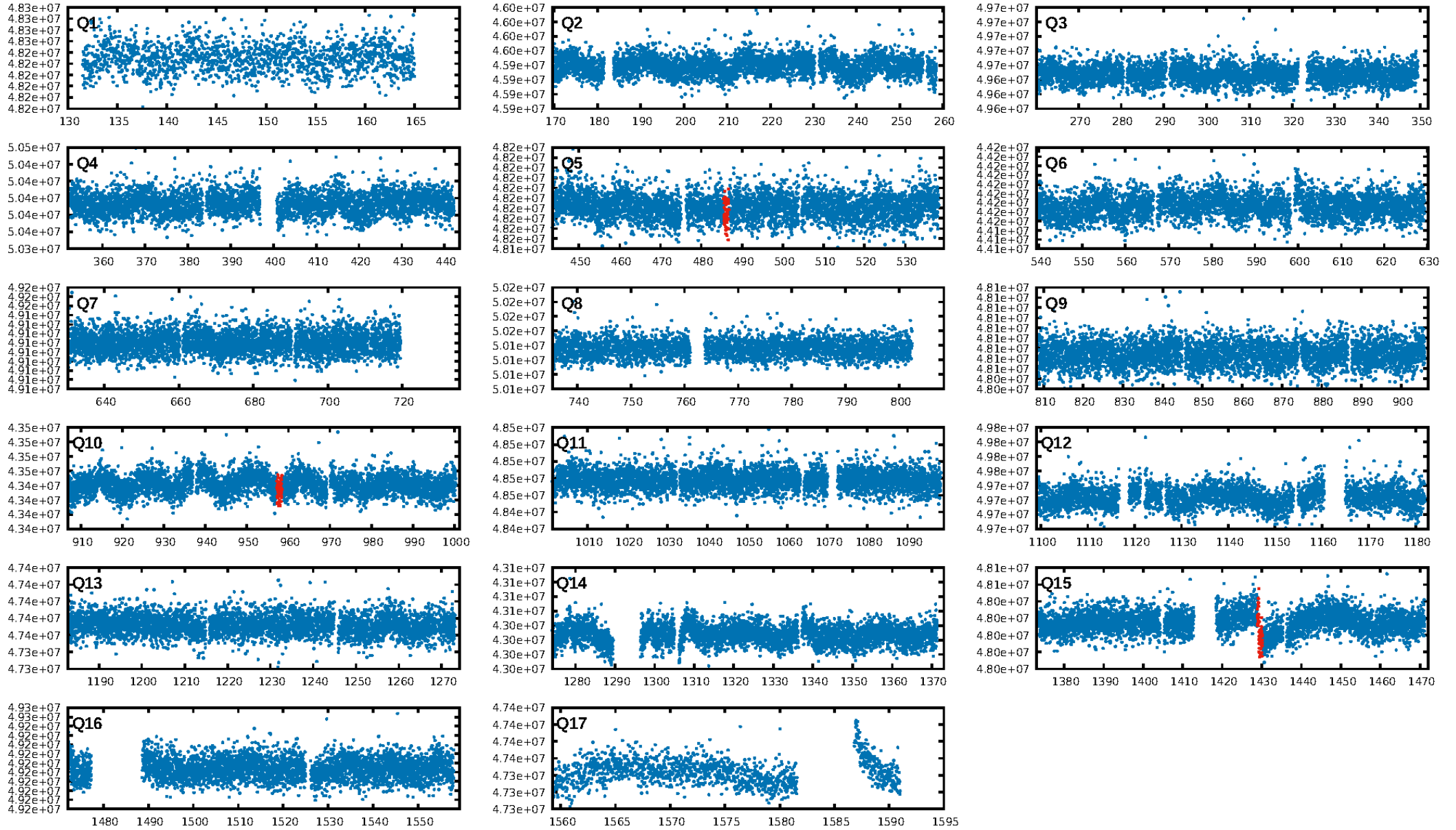
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 19.3%
ModelChiSquareGoF-sig: 99.8%
Bootstrap-pfa: 8.39e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.6908
Centroid-sig: 7.4%
Centroid-so: 2.570 arcsec [1.50 σ]
OotOffset-rm: 2.296 arcsec [3.19 σ]
KicOffset-rm: 2.195 arcsec [3.04 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

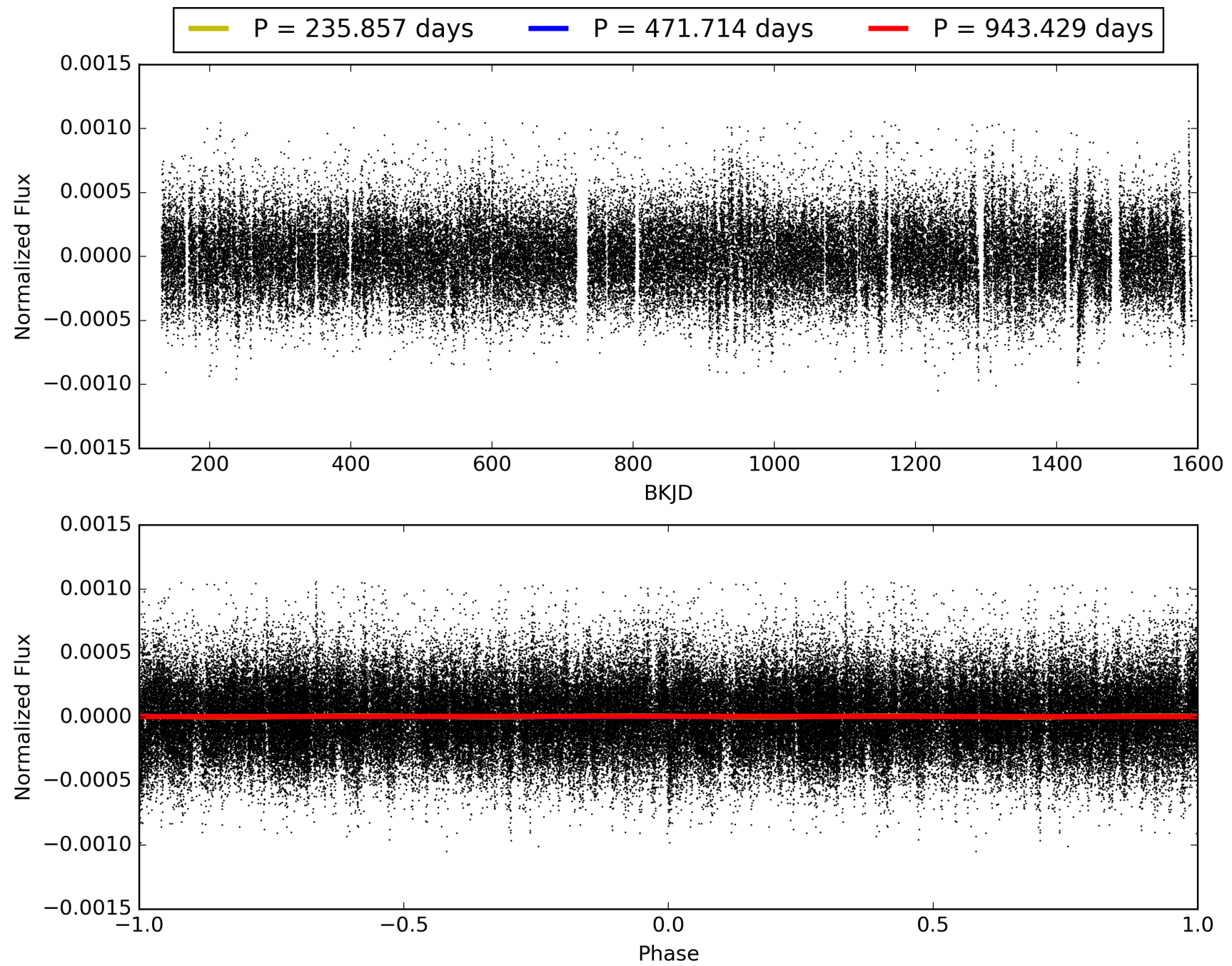
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:41:07 Z

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

TCE 003219535-01, PDC Light Curves

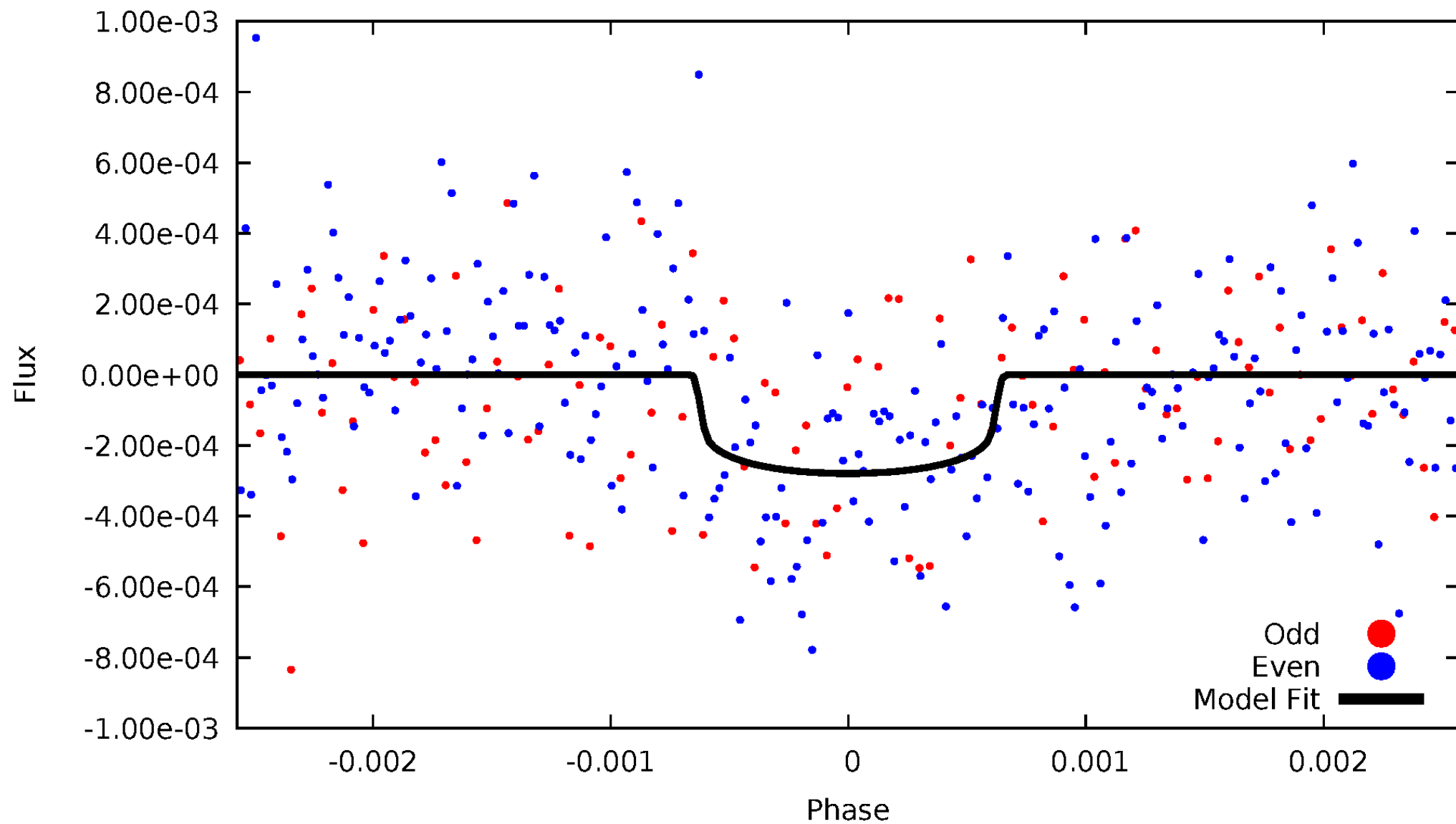


TCE 003219535-01



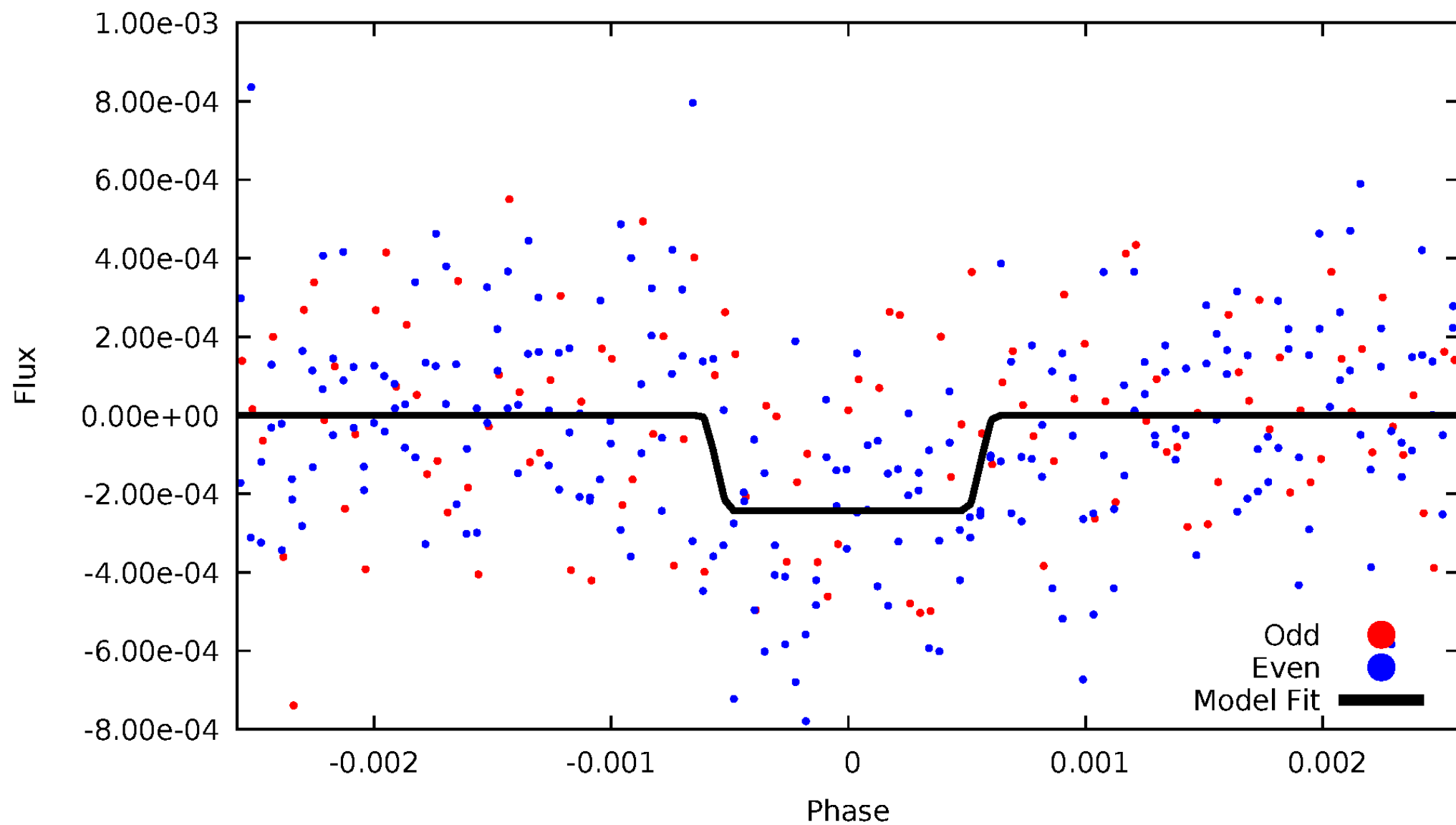
DV Odd/Even

TCE 003219535-01

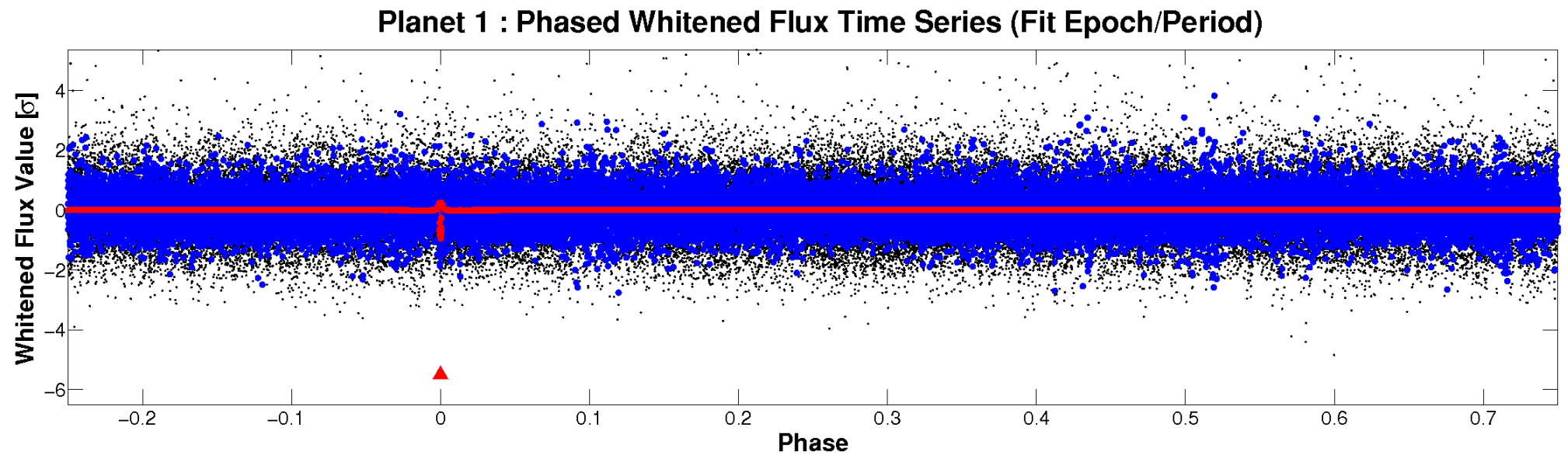
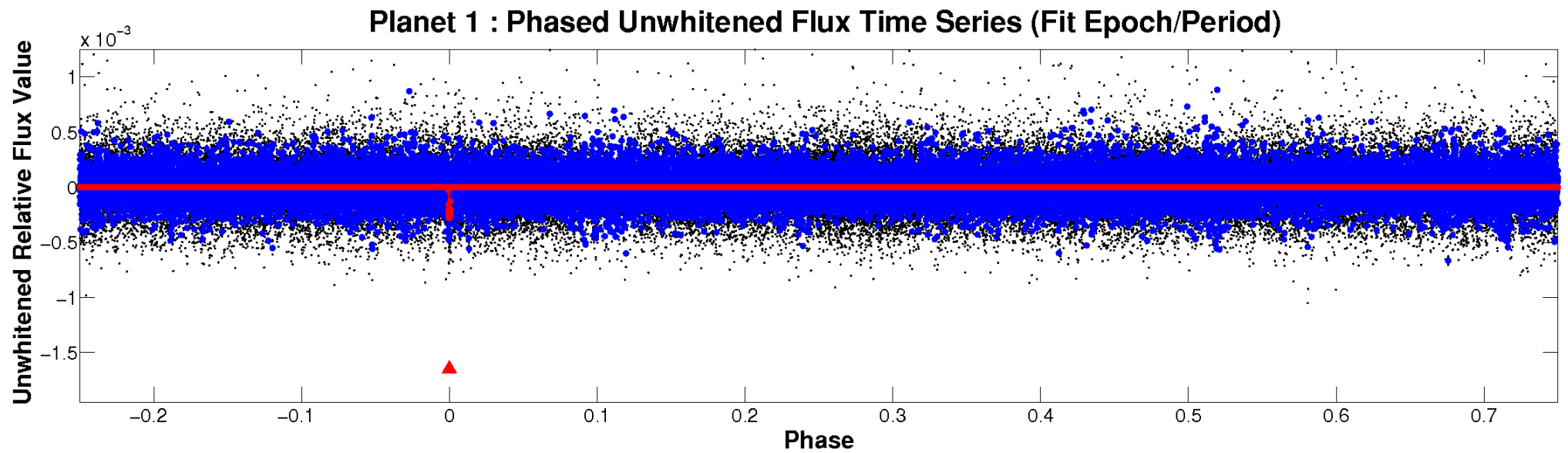


ALT Odd/Even

TCE 003219535-01



Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 003219535-01 P=471.714296 Days $T_0=486.116871$ (BKJD)



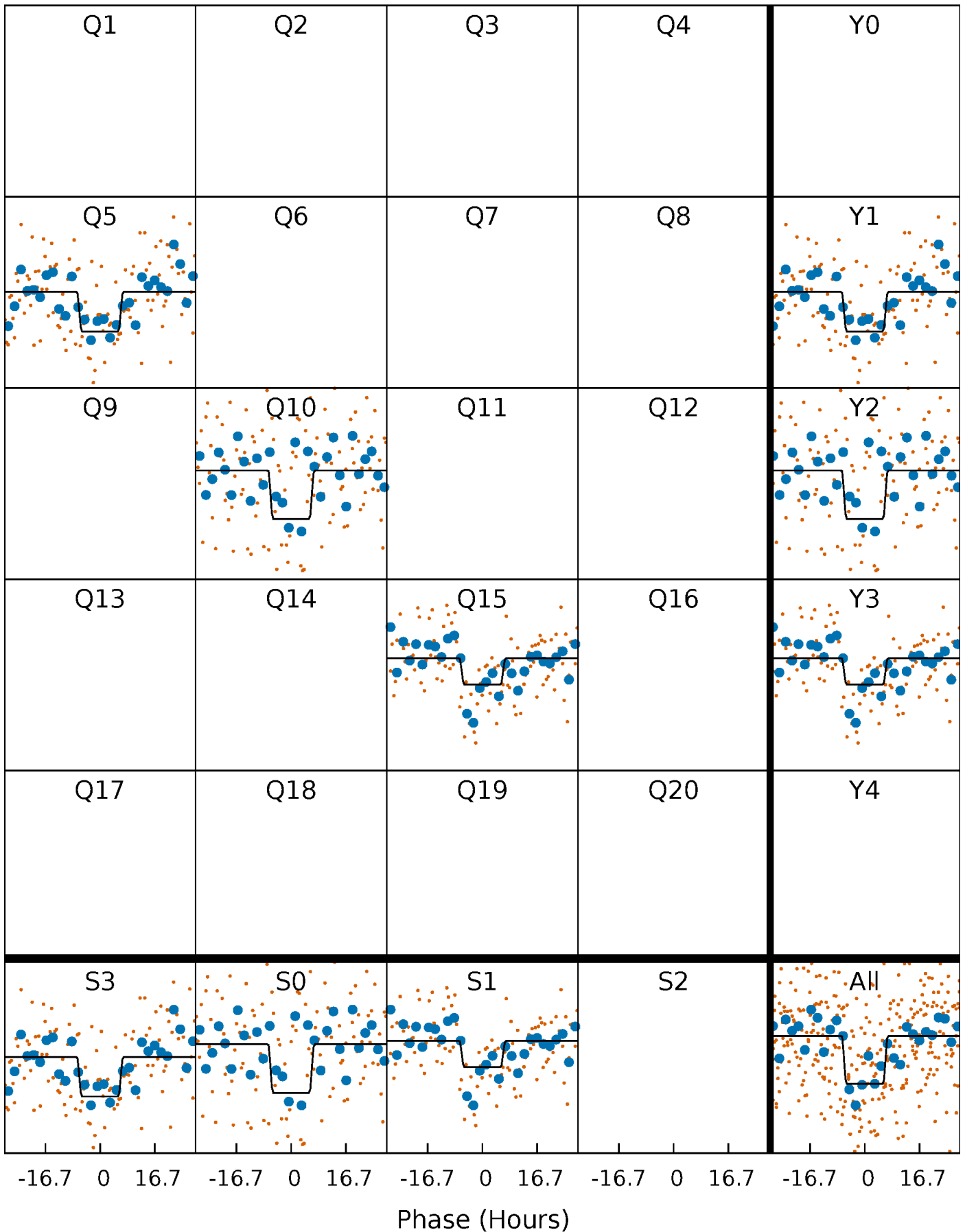
DV Quarter-Phased Transit Curves

TCE 003219535-01 P=471.714296 Days $T_0=486.116871$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

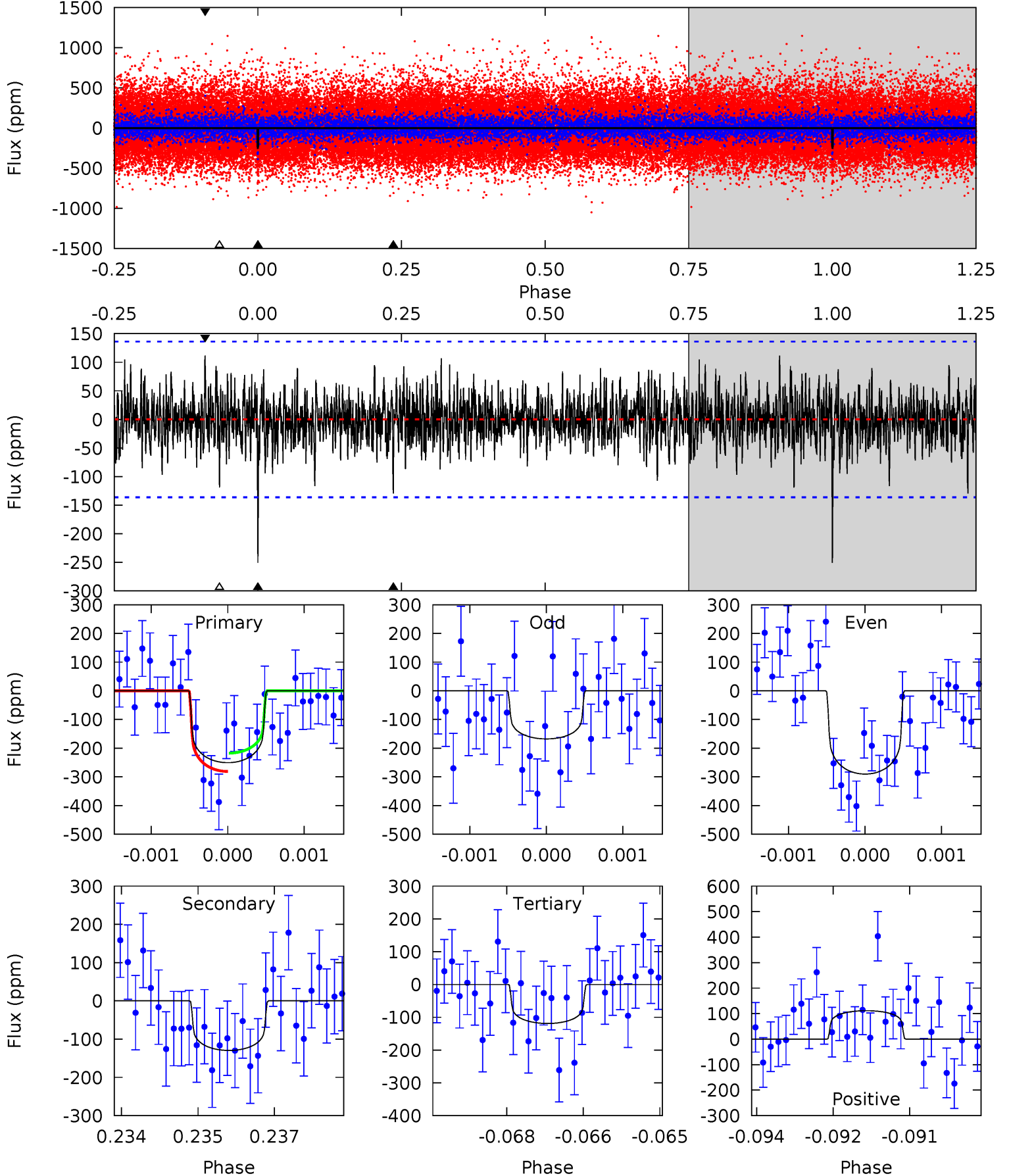
TCE 003219535-01 P=471.729166 Days $T_0=486.099729$ (BKJD)



DV Model-Shift Uniqueness Test

003219535-01, $P = 471.714296$ Days, $E = 14.402575$ Days

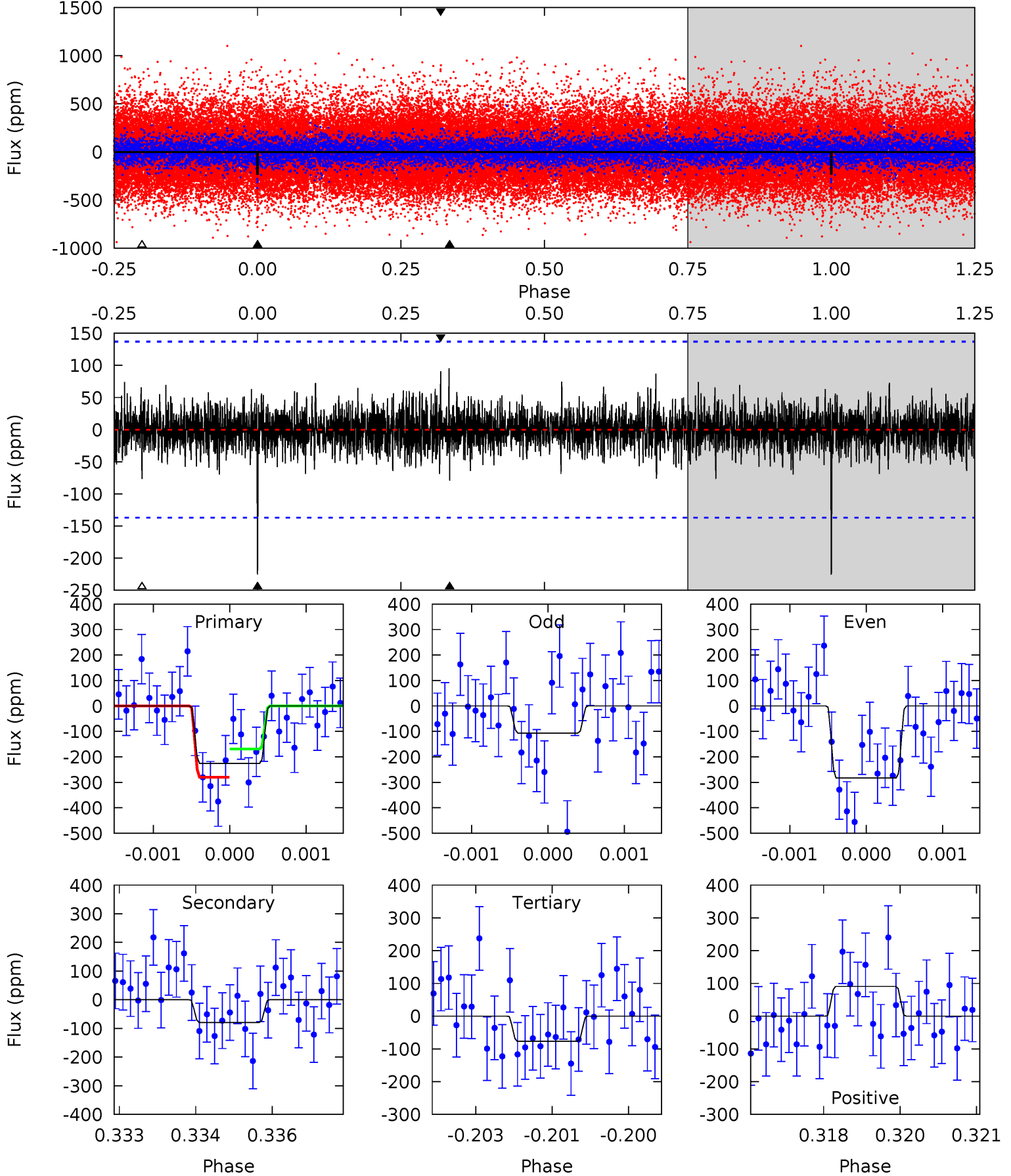
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.95	5.15	4.72	4.43	5.40	3.22	1.26	5.23	5.52	0.42	0.71	2.28	1.18	0.31	1.26



Alt Model-Shift Uniqueness Test

003219535-01, P = 471.729166 Days, E = 14.370563 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.92	3.13	3.04	3.59	5.42	3.23	0.84	5.88	5.33	0.09	-0.46	3.25	1.01	0.30	2.18



Stellar Parameters For KIC 003219535

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6325^{+158}_{-205}	$4.409^{+0.058}_{-0.217}$	$-0.040^{+0.250}_{-0.300}$	$1.112^{+0.378}_{-0.126}$	$1.157^{+0.164}_{-0.148}$	$1.184^{+0.352}_{-0.637}$
	+2%/-3%	+1%/-5%	+625%/-750%	+34%/-11%	+14%/-13%	+30%/-54%
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 003219535-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-130 ± 25	$2.07^{+1.26}_{-1.07}$	376^{+29}_{-19}	5334^{+2278}_{-956}	25986^{+79493}_{-16834}
Alt.	-79 ± 25	$2.04^{+1.22}_{-1.03}$	376^{+30}_{-18}	4804^{+2052}_{-795}	15945^{+53519}_{-10003}

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

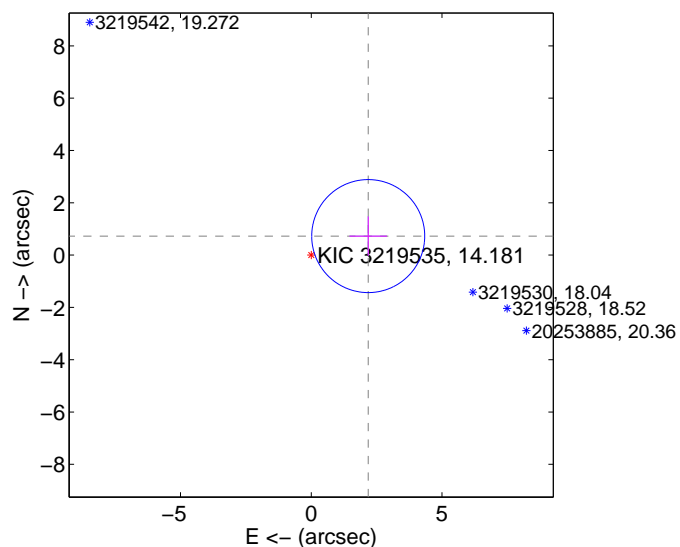
Supplemental centroid analysis for 003219535-01. Kepler magnitude: 14.18. Transit SNR 7.26

There are 1 quarters with good PRF difference image offsets

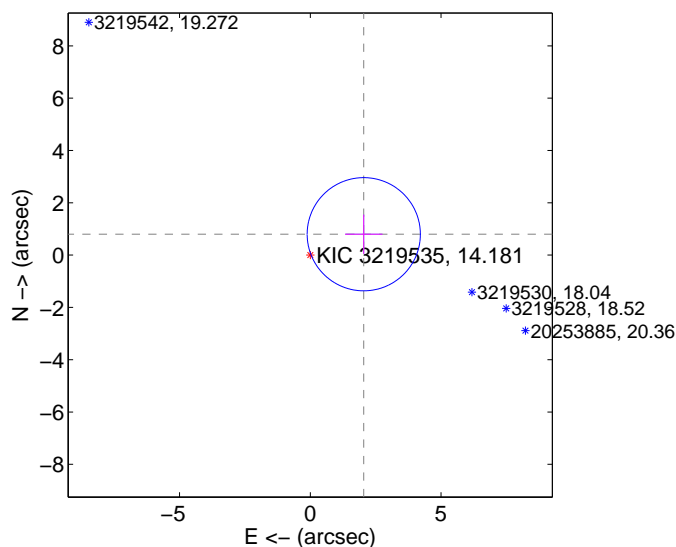
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.296 ± 0.720	3.19	-2.178 ± 0.716	0.727 ± 0.752
PRF-fit source offset from KIC position	2.195 ± 0.721	3.04	-2.045 ± 0.716	0.798 ± 0.752
photometric centroid source offset	2.57 ± 1.71	1.50	-1.30 ± 1.64	-2.21 ± 1.74

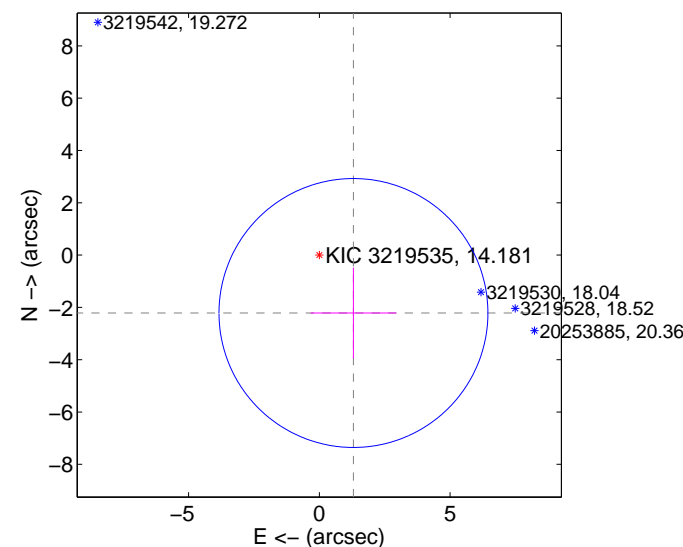
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

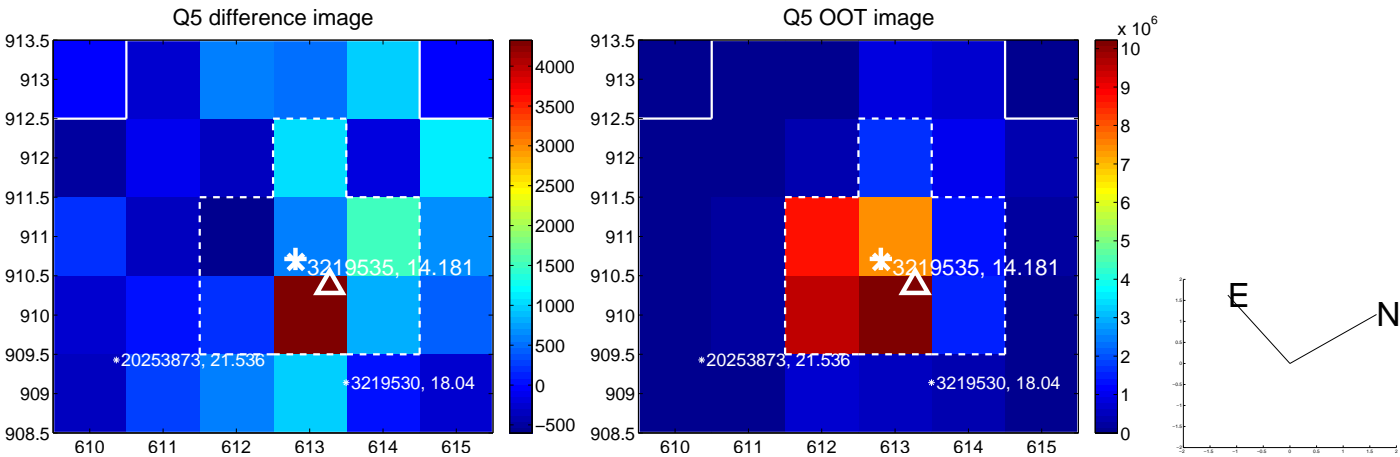


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

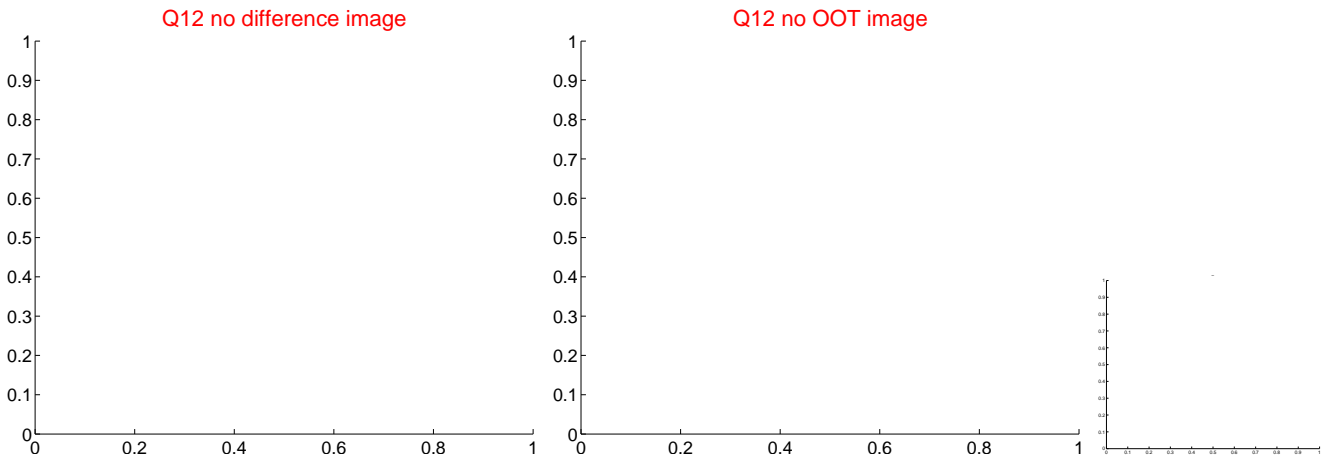
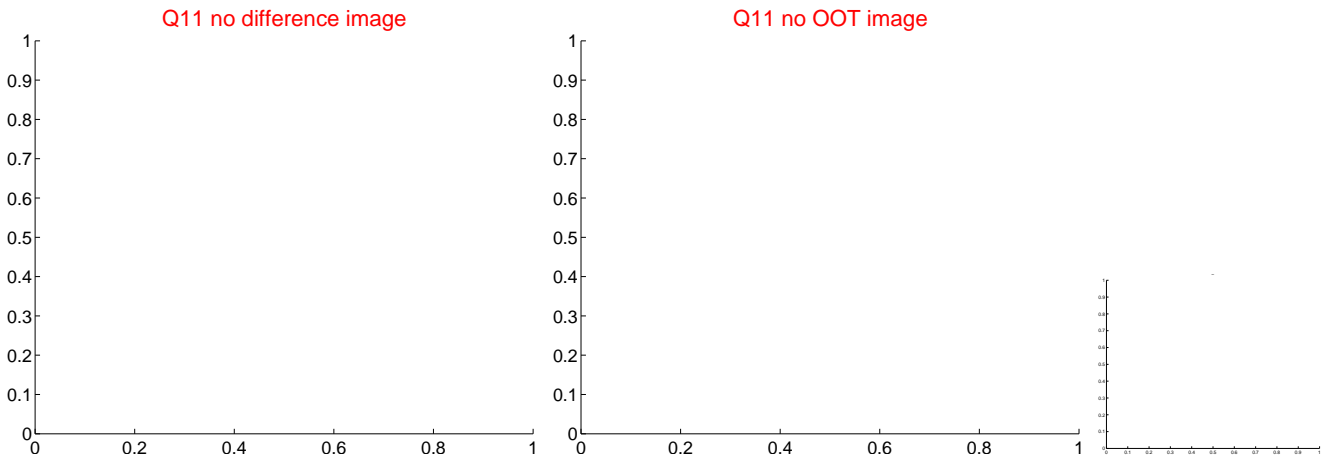
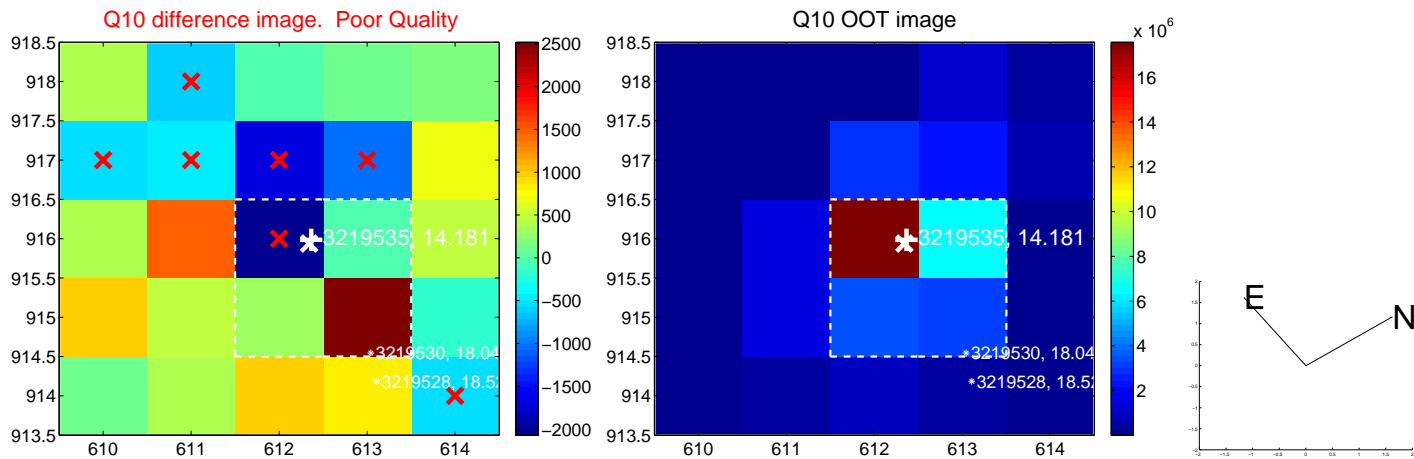
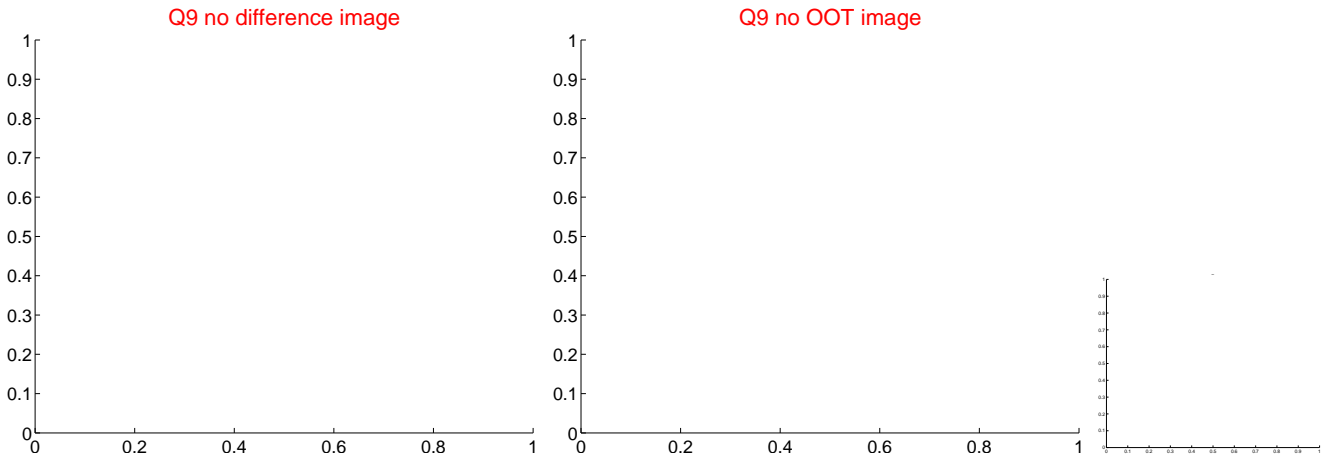
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



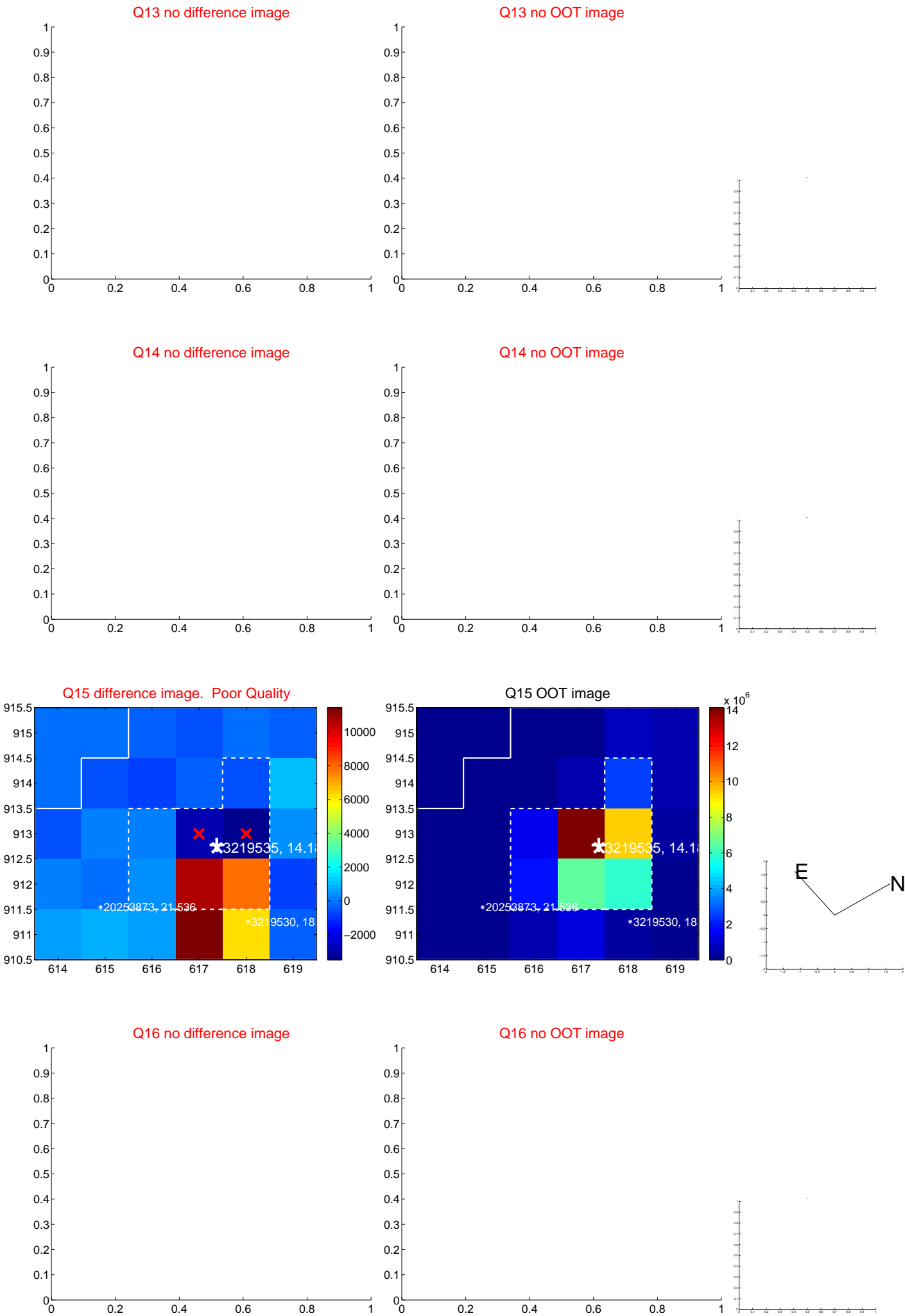
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



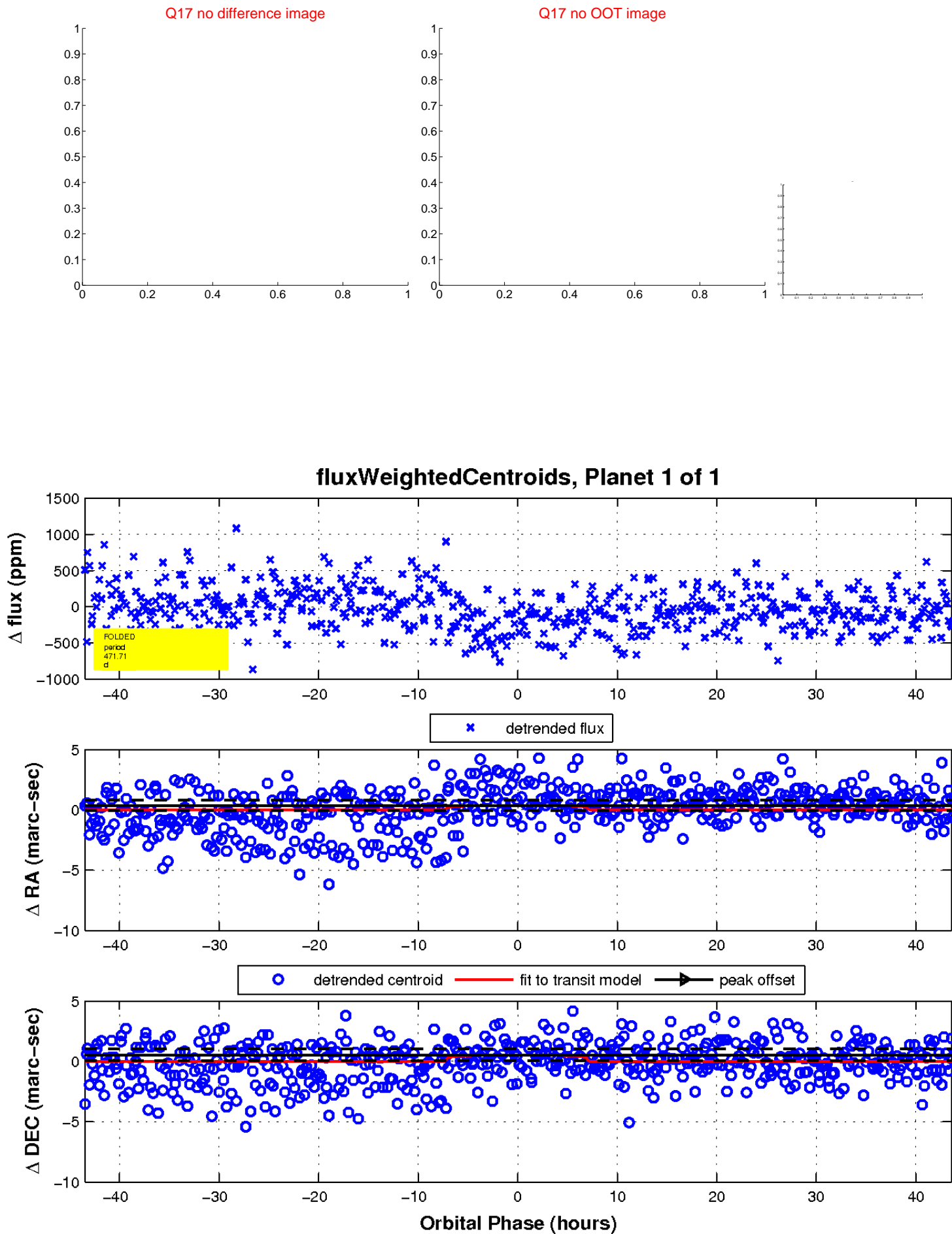
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

