

KIC 010119471

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})
010119471-01	OBS	No	539.654349	299.805384	1764.2	3.410	12.9	8.3	0.93	6060	3.88	0.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010119471-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—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.

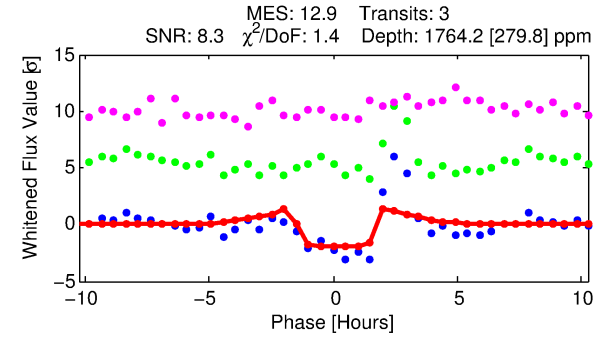
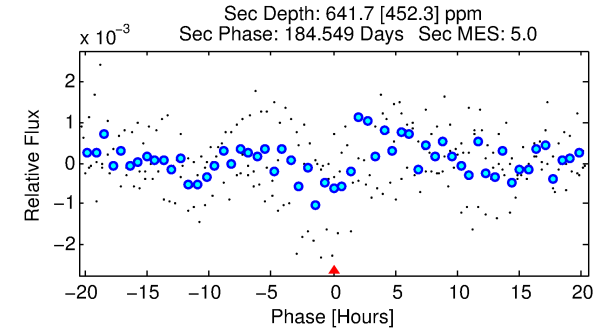
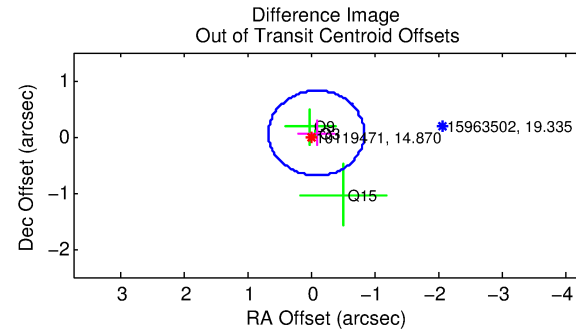
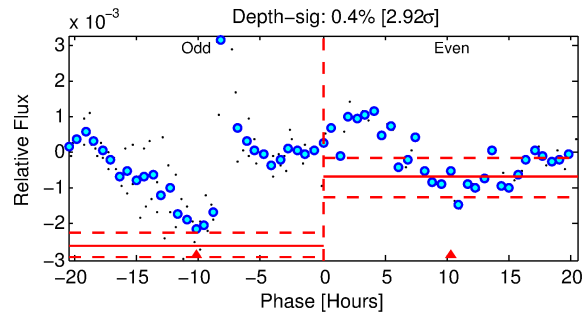
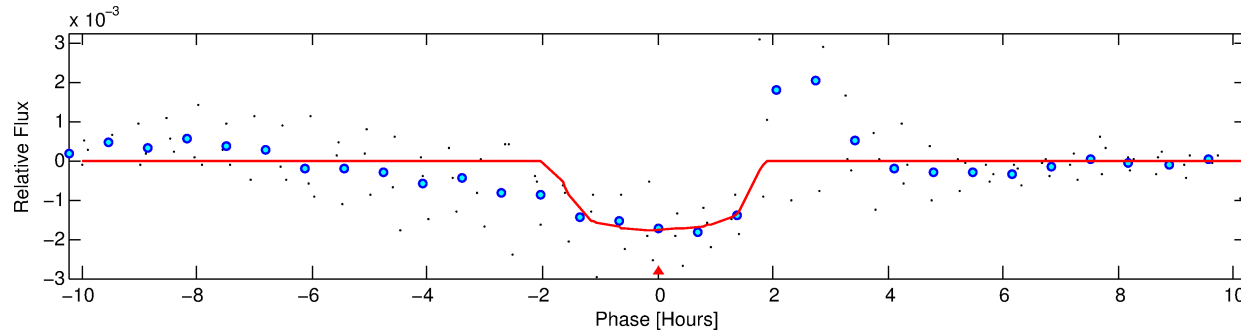
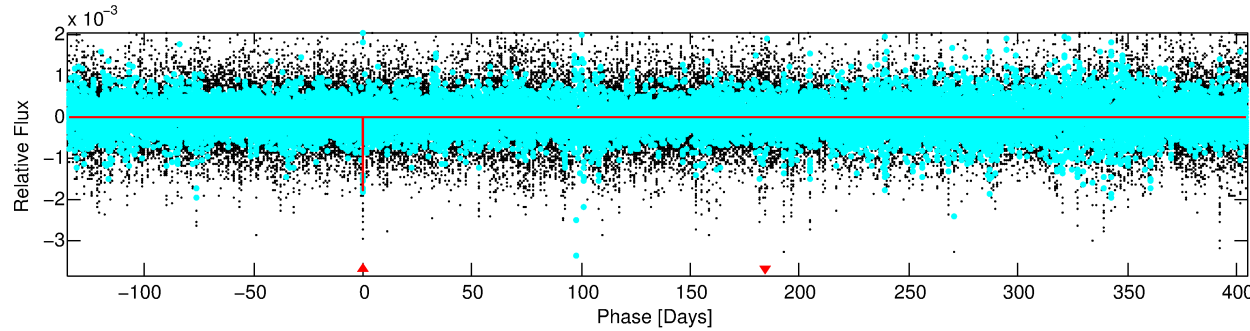
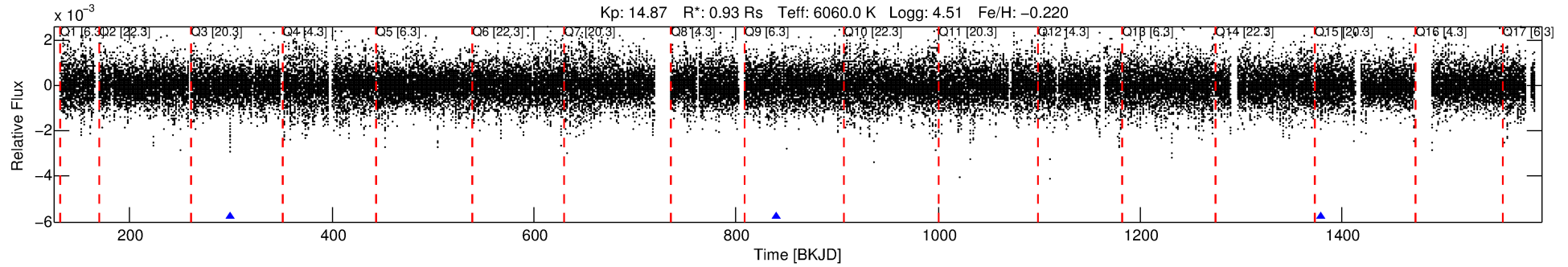
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010119471-01

No Significant Match Found

DV One-Page Summary

KIC: 10119471 Candidate: 1 of 1 Period: 539.654 d



DV Fit Results:

Period = 539.65435 [0.00453] d
Epoch = 299.8054 [0.0063] BKJD
Rp/R* = 0.0384 [0.0511]
a/R* = 1255.56 [7985.49]
b = 0.00 [8220.35]
Seff = 0.61 [0.25]
Teq = 225 [23] K
Rp = 3.88 [5.30] Re
a = 1.3008 [0.3470] AU
Ag = 39664.14 [110157.03] [0.36σ]
Teffp = 4919 [3384] K [1.39σ]

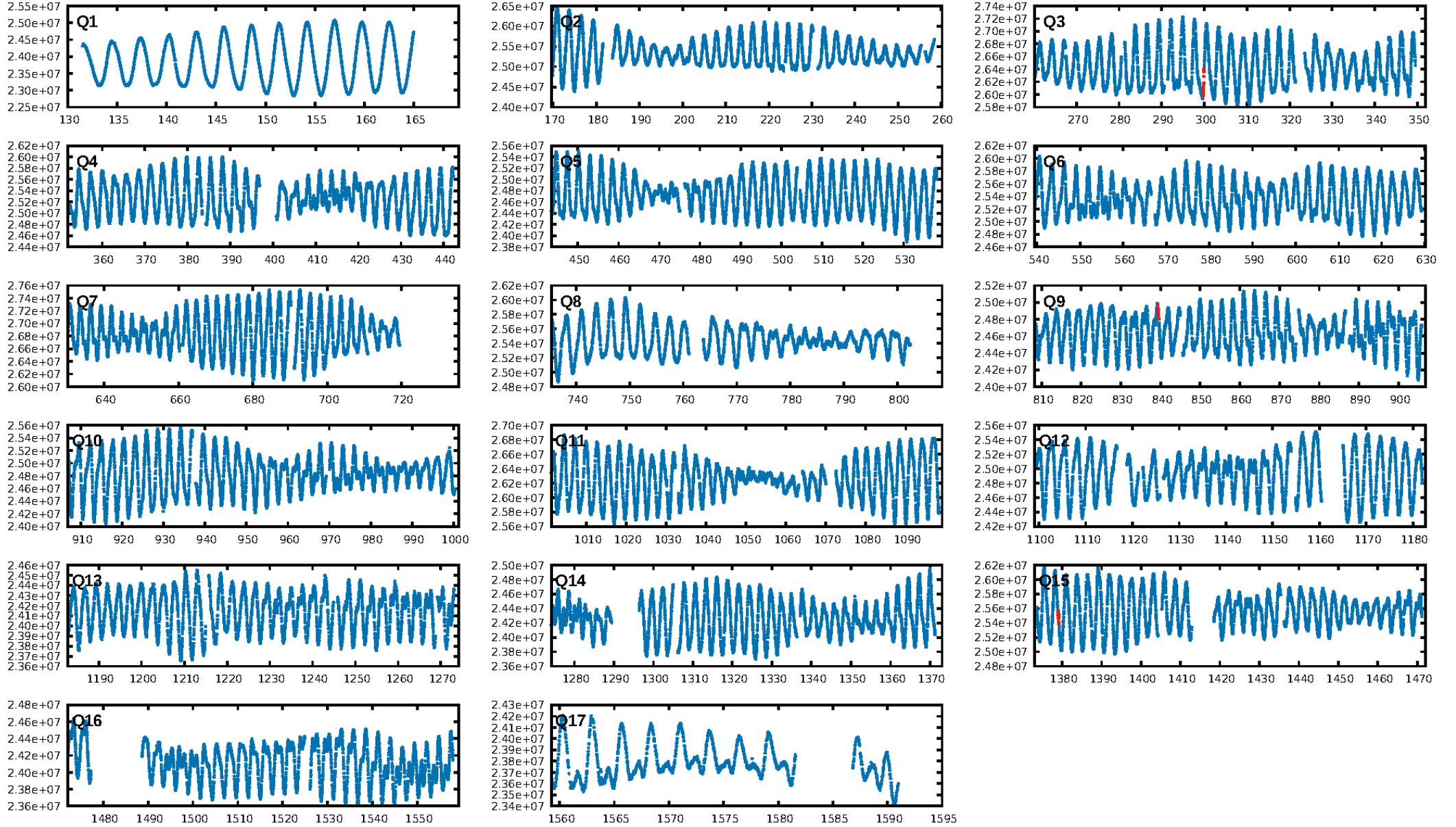
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 21.9%
Bootstrap-pfa: 1.70e-18
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4219
Centroid-sig: 7.9%
Centroid-so: 1.490 arcsec [1.69σ]
OotOffset-rm: 0.096 arcsec [0.38σ]
KicOffset-rm: 0.020 arcsec [0.06σ]
OotOffset-st: 0/2/0/1 [3]
KicOffset-st: 0/2/0/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

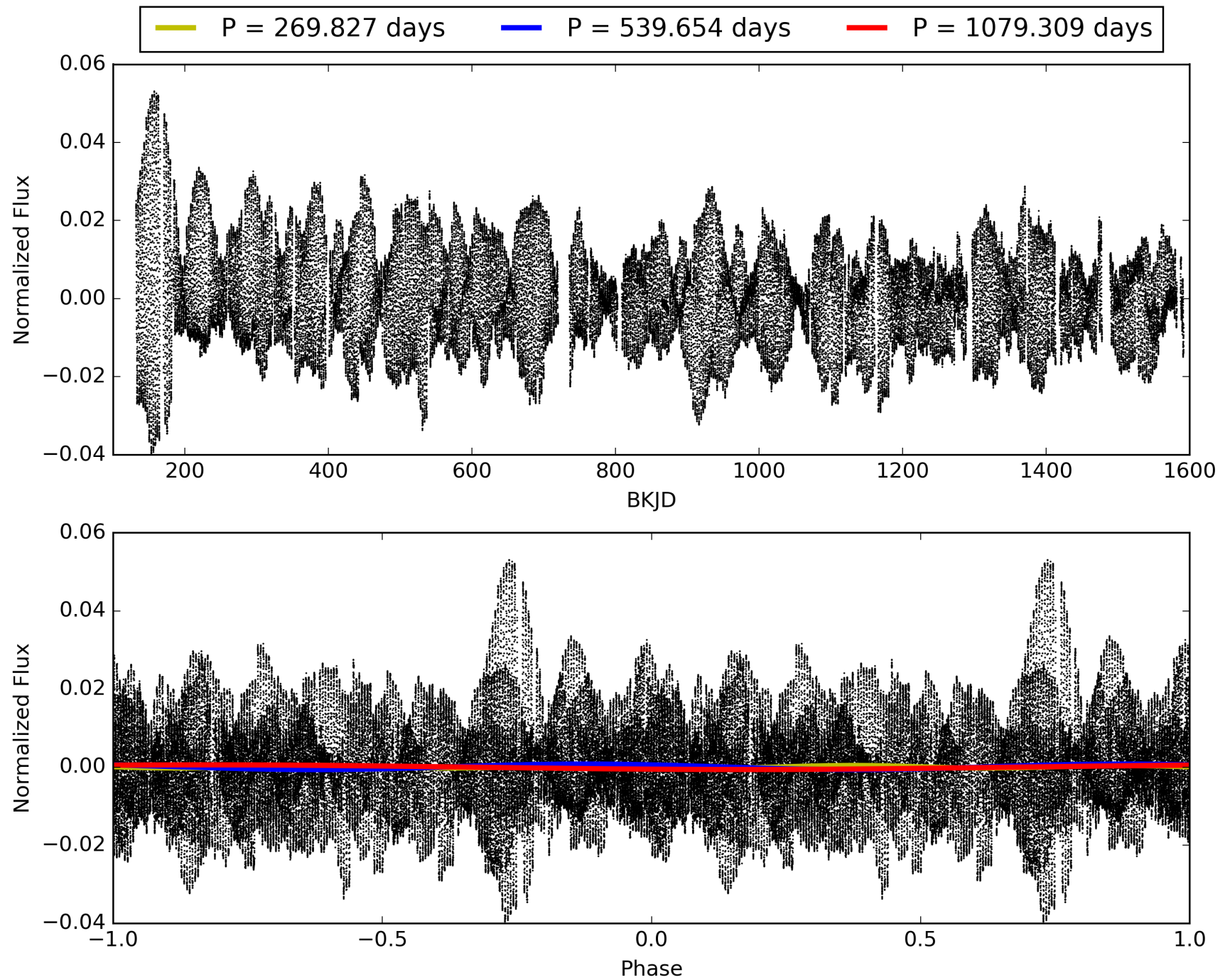
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:47:15 Z

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

TCE 010119471-01, PDC Light Curves

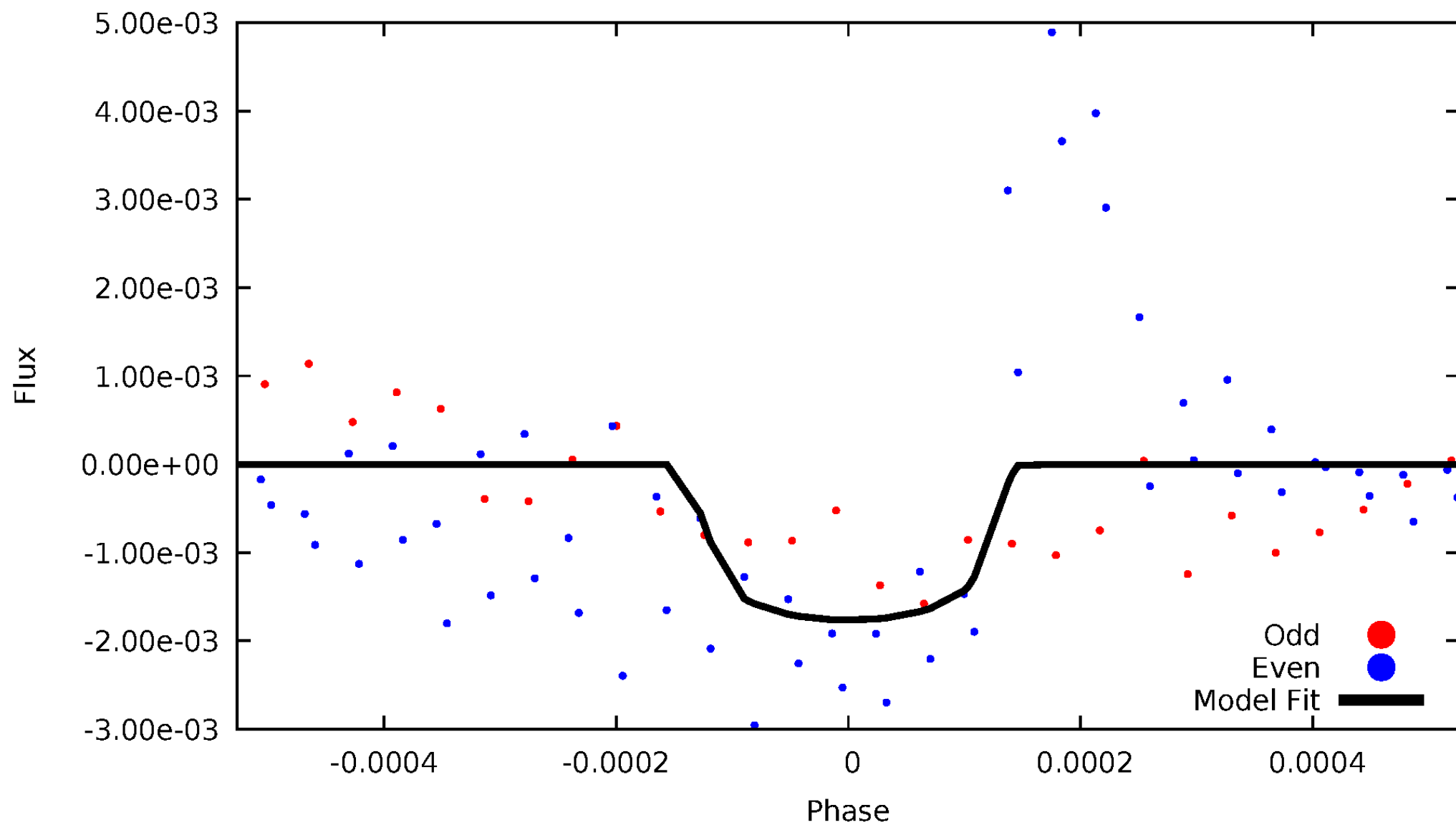


TCE 010119471-01



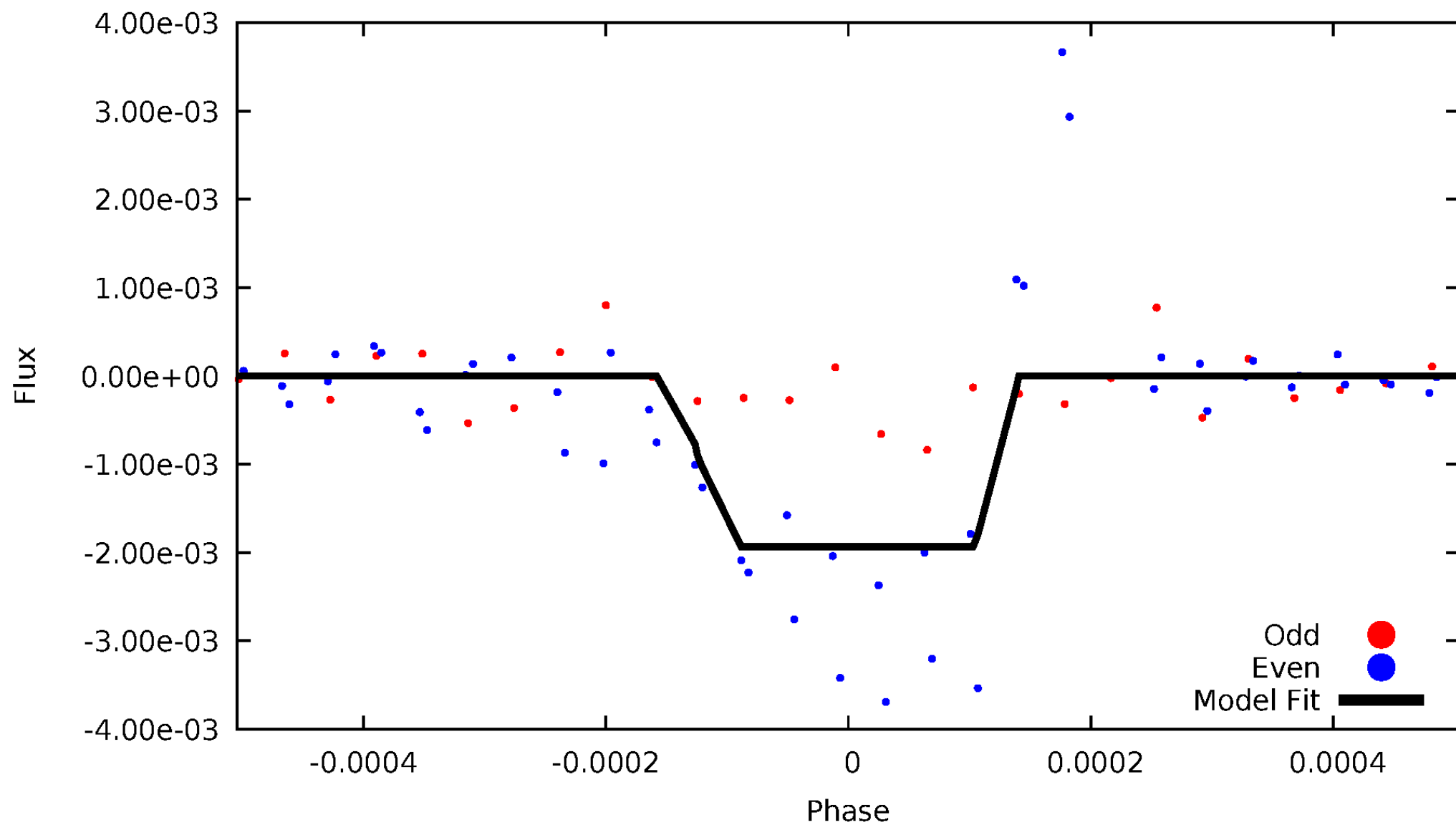
DV Odd/Even

TCE 010119471-01



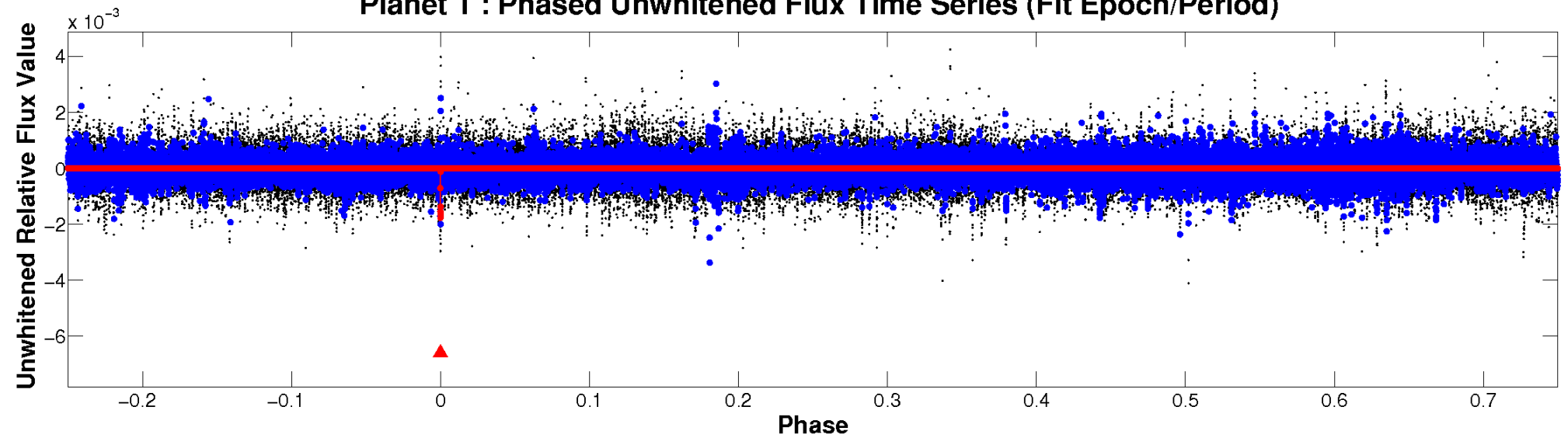
ALT Odd/Even

TCE 010119471-01

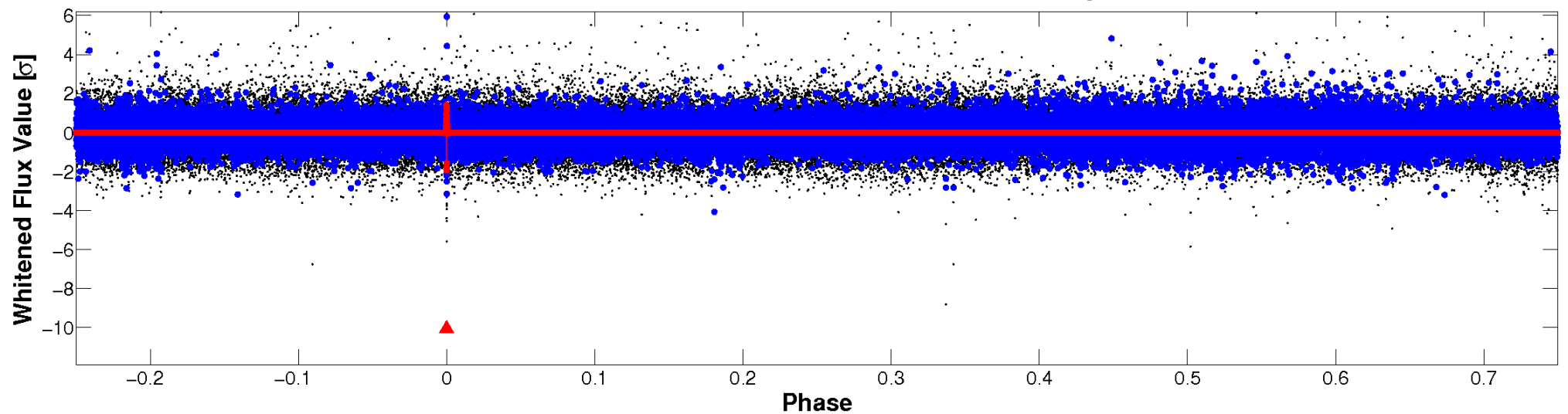


Non-Whitened Vs. Whitened Light Curve

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

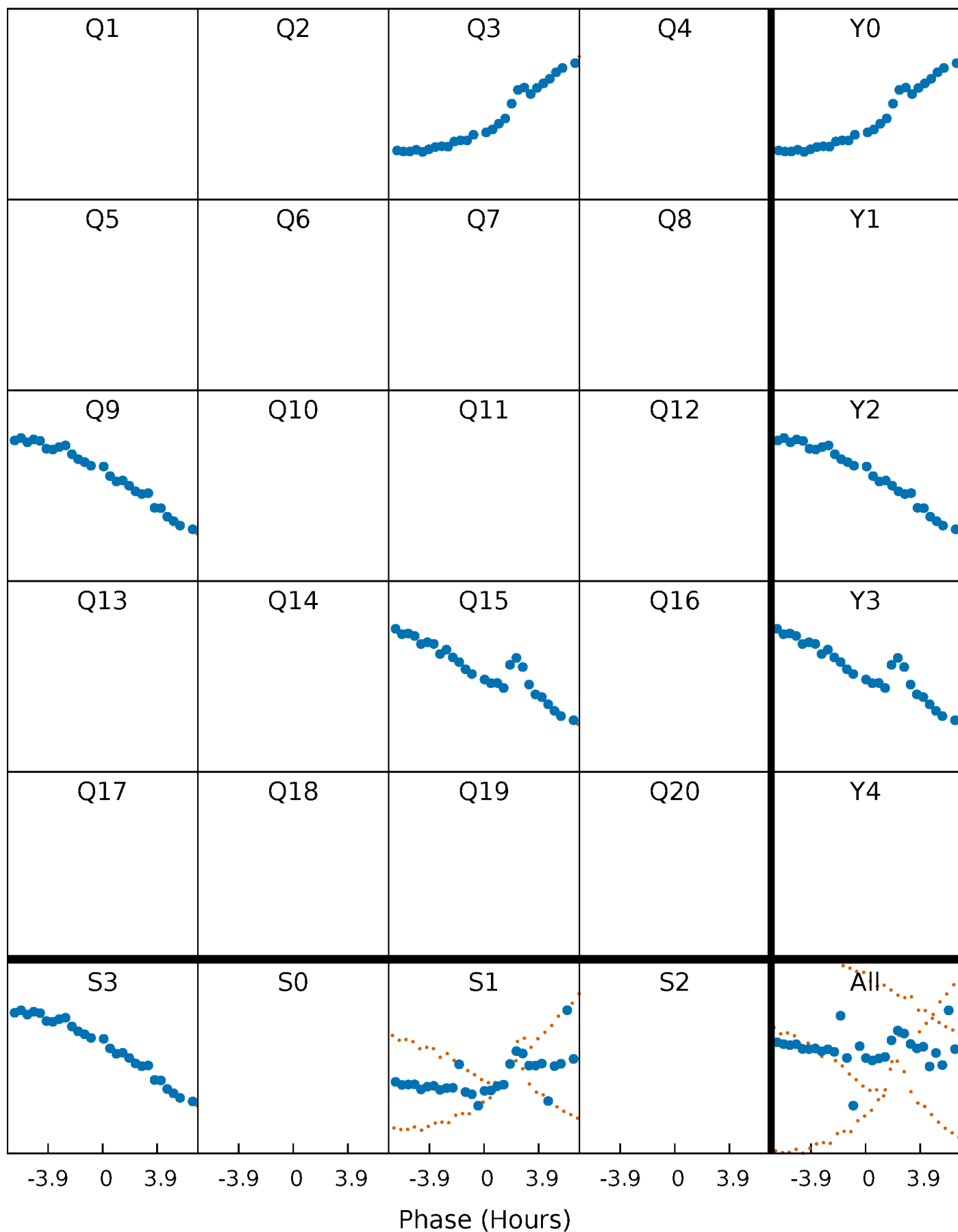


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



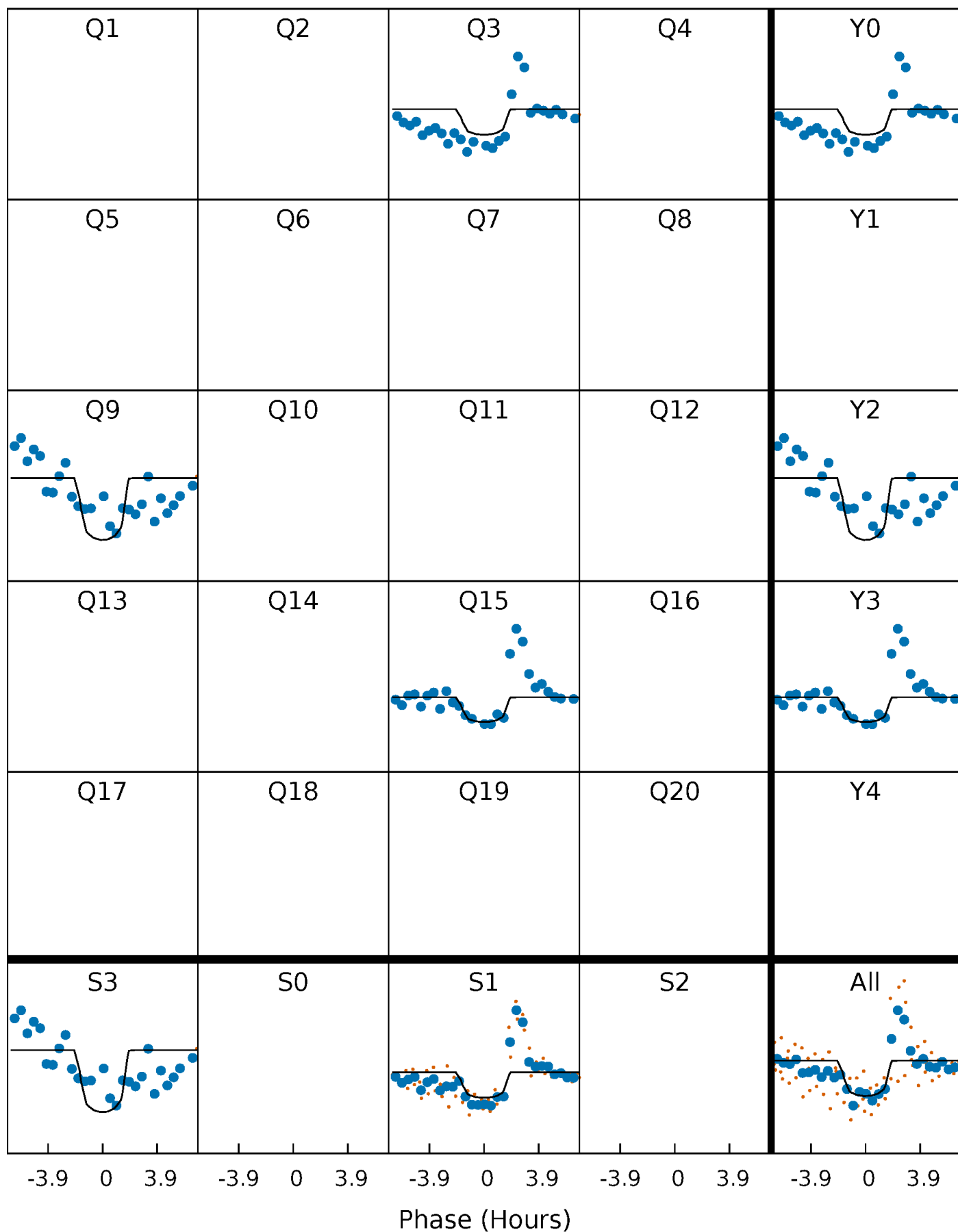
PDC Quarter-Phased Transit Curves

TCE 010119471-01 P=539.654349 Days $T_0=299.805384$ (BKJD)



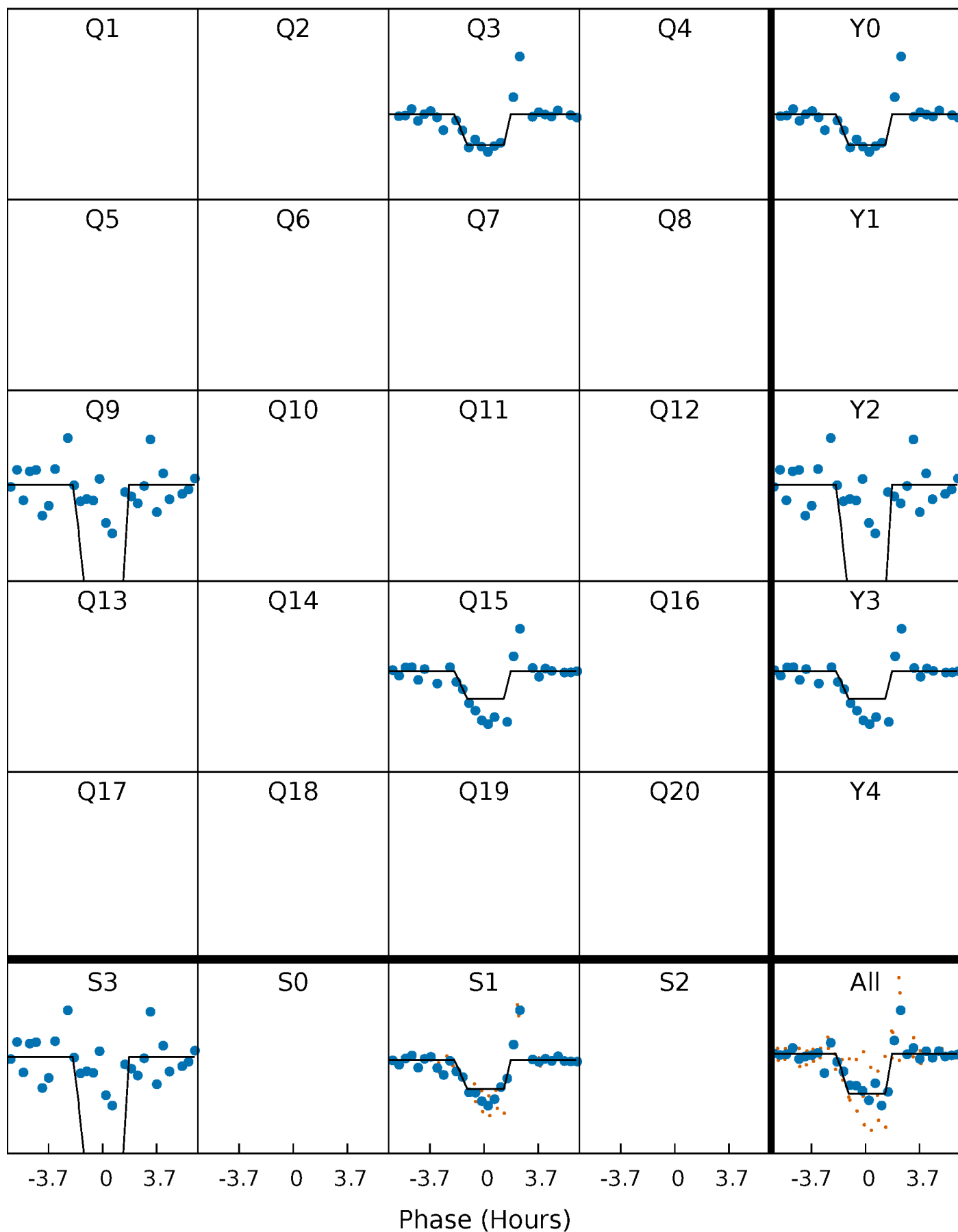
DV Quarter-Phased Transit Curves

TCE 010119471-01 P=539.654349 Days $T_0=299.805384$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

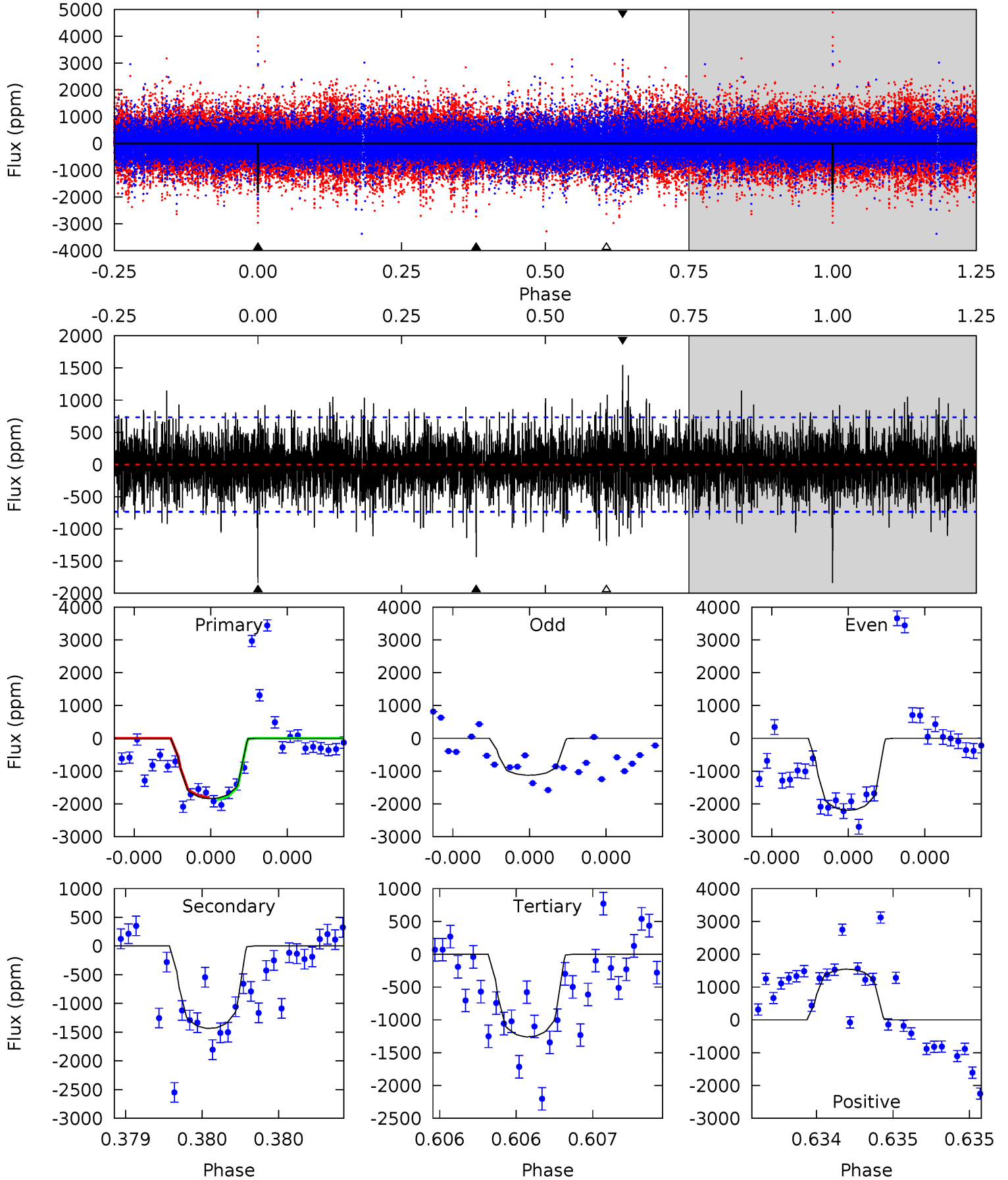
TCE 010119471-01 P=539.650320 Days $T_0=299.809527$ (BKJD)



DV Model-Shift Uniqueness Test

010119471-01, P = 539.654349 Days, E = 299.805384 Days

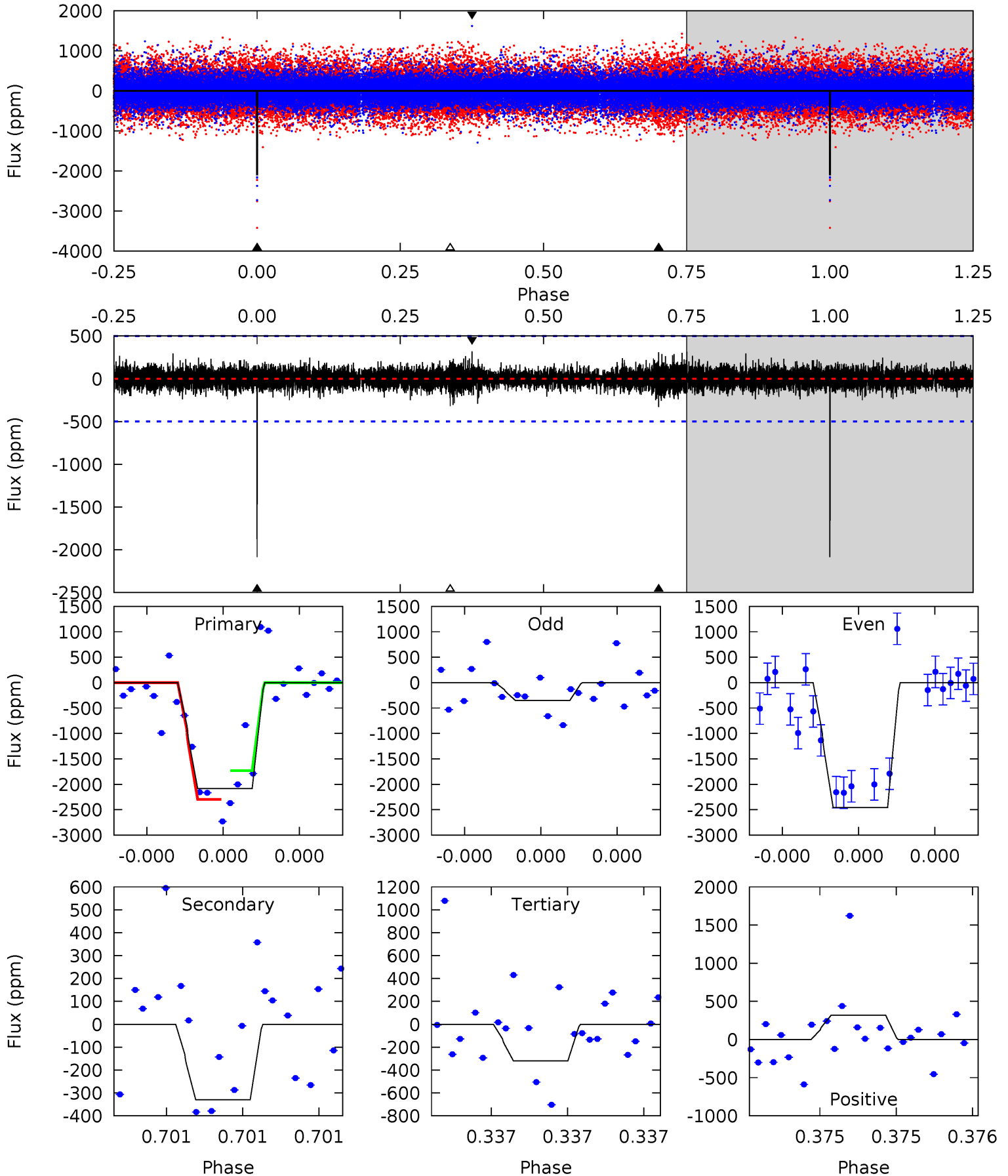
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	11.1	9.72	11.9	5.66	3.62	2.29	4.47	2.27	1.35	-0.85	3.78	1.13	0.46	0.25



Alt Model-Shift Uniqueness Test

010119471-01, P = 539.650320 Days, E = 299.809527 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.7	3.75	3.64	3.63	5.68	3.65	0.69	20.1	20.1	0.12	0.13	14.3	0.92	0.13	3.21



Stellar Parameters For KIC 010119471

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6060^{+163}_{-181}	$4.509^{+0.040}_{-0.216}$	$-0.220^{+0.250}_{-0.350}$	$0.925^{+0.290}_{-0.097}$	$1.008^{+0.130}_{-0.130}$	$1.795^{+0.385}_{-0.972}$
	+3%/-3%	+1%/-5%	+114%/-159%	+31%/-10%	+13%/-13%	+21%/-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 010119471-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1435 ± 130	$5.55^{+4.56}_{-3.75}$	324^{+26}_{-15}	5255^{+4621}_{-1118}	$43605^{+363402}_{-30583}$
Alt.	-330 ± 88	$6.04^{+5.25}_{-3.74}$	324^{+25}_{-14}	3806^{+1815}_{-707}	7845^{+52977}_{-5647}

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 $A_{obs} \gg 1.0$

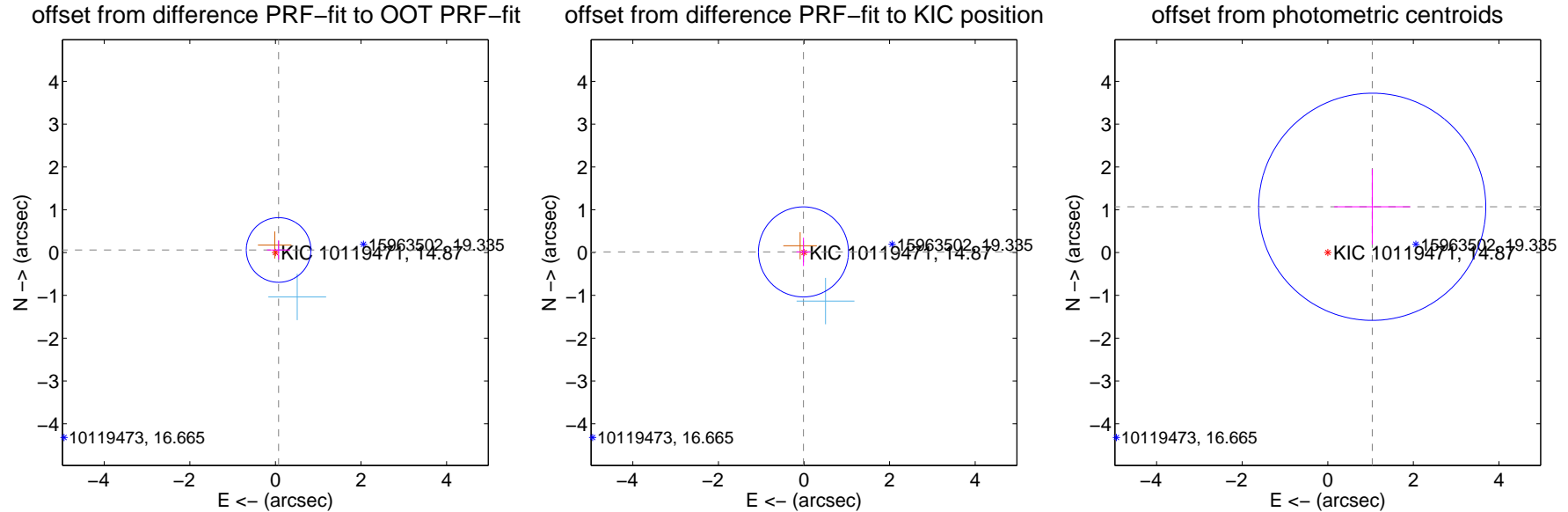
DV Centroid Data

Supplemental centroid analysis for 010119471-01. Kepler magnitude: 14.87. Transit SNR 8.34

There are 2 quarters with good PRF difference image offsets

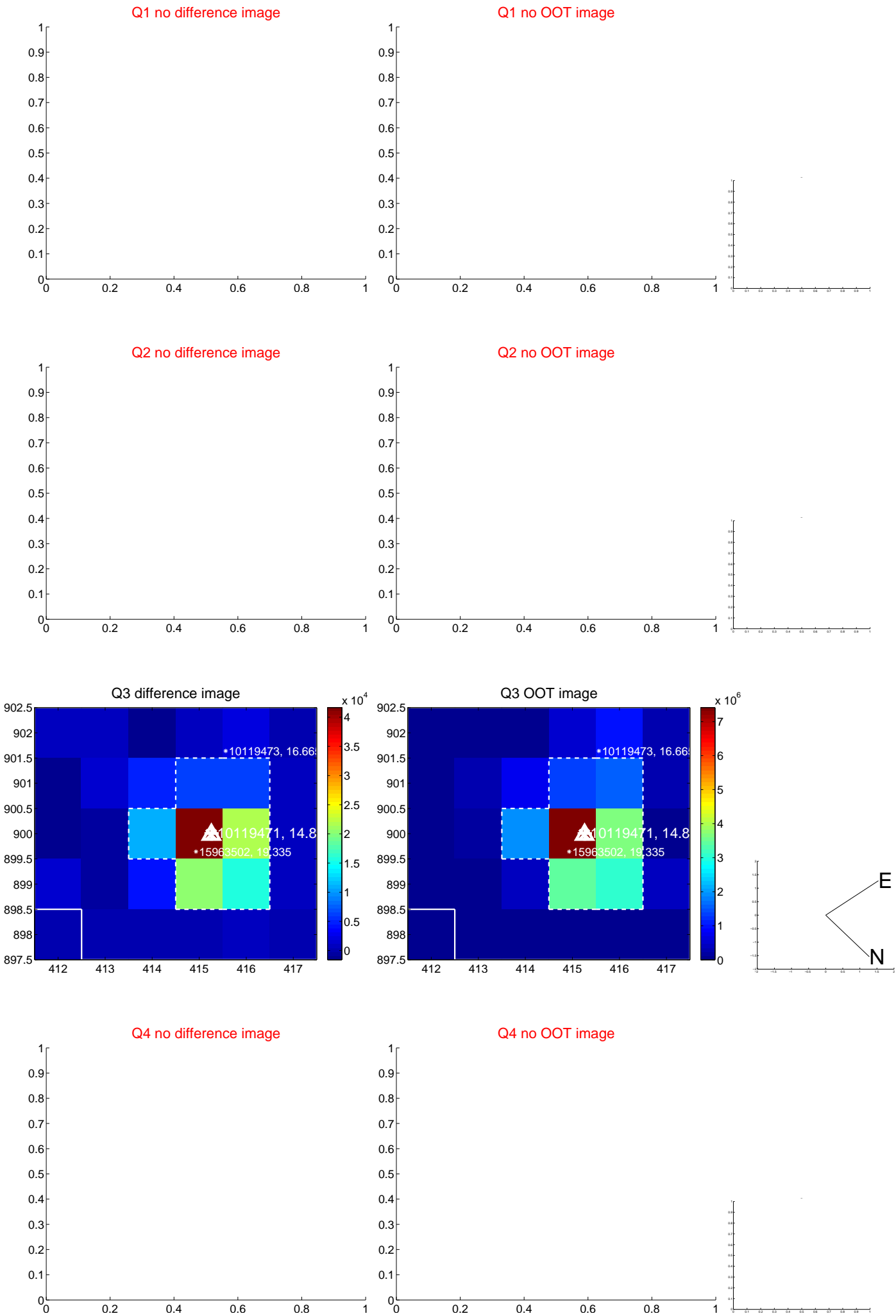
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.252	0.38	-0.074 ± 0.270	0.060 ± 0.221
PRF-fit source offset from KIC position	0.020 ± 0.351	0.06	0.013 ± 0.164	0.016 ± 0.331
photometric centroid source offset	1.49 ± 0.88	1.69	-1.04 ± 0.89	1.07 ± 0.88



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.

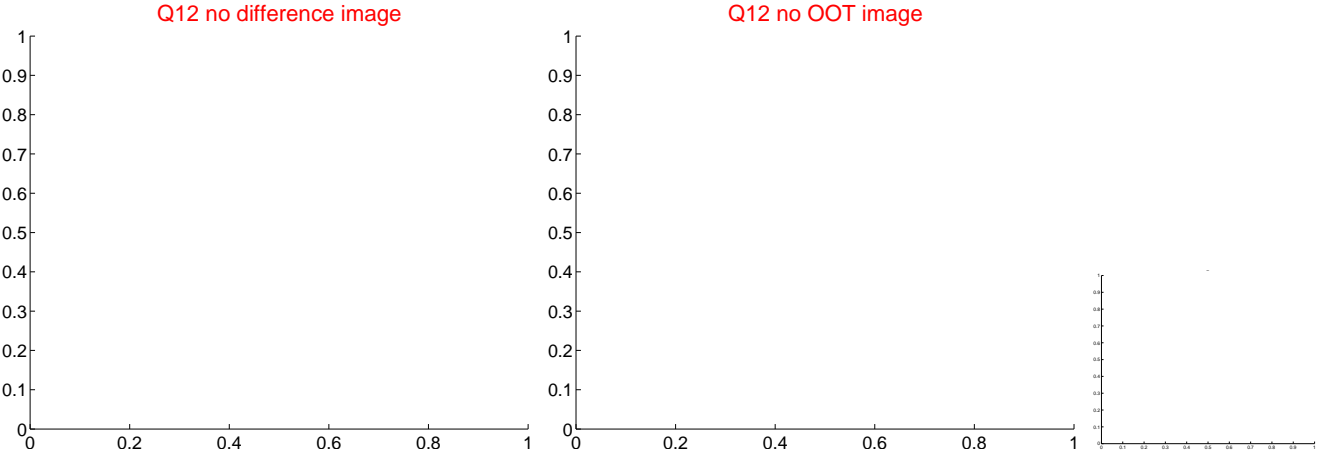
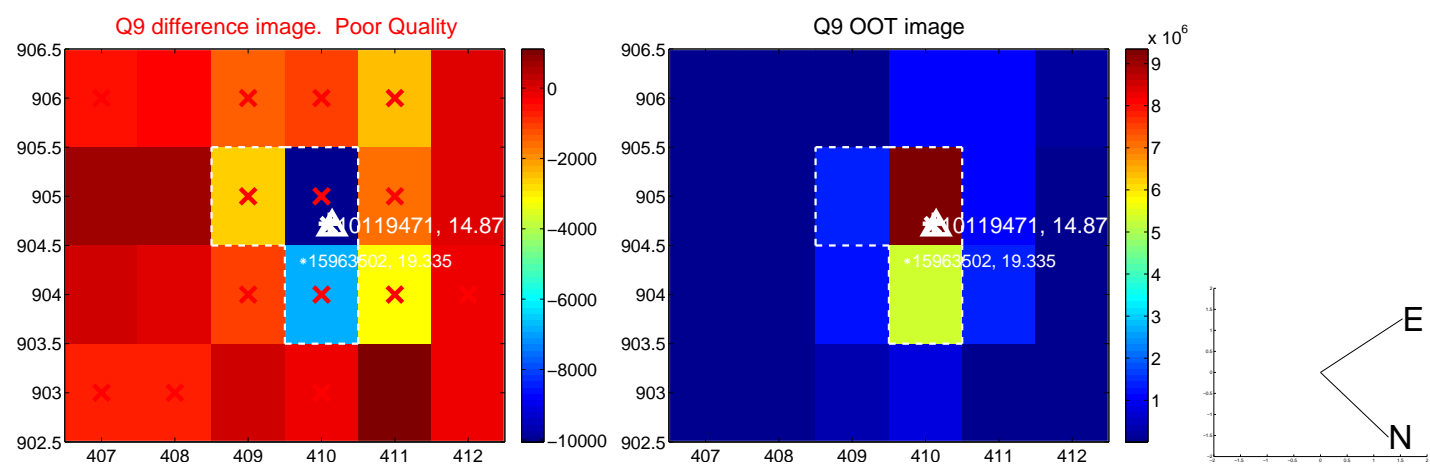
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



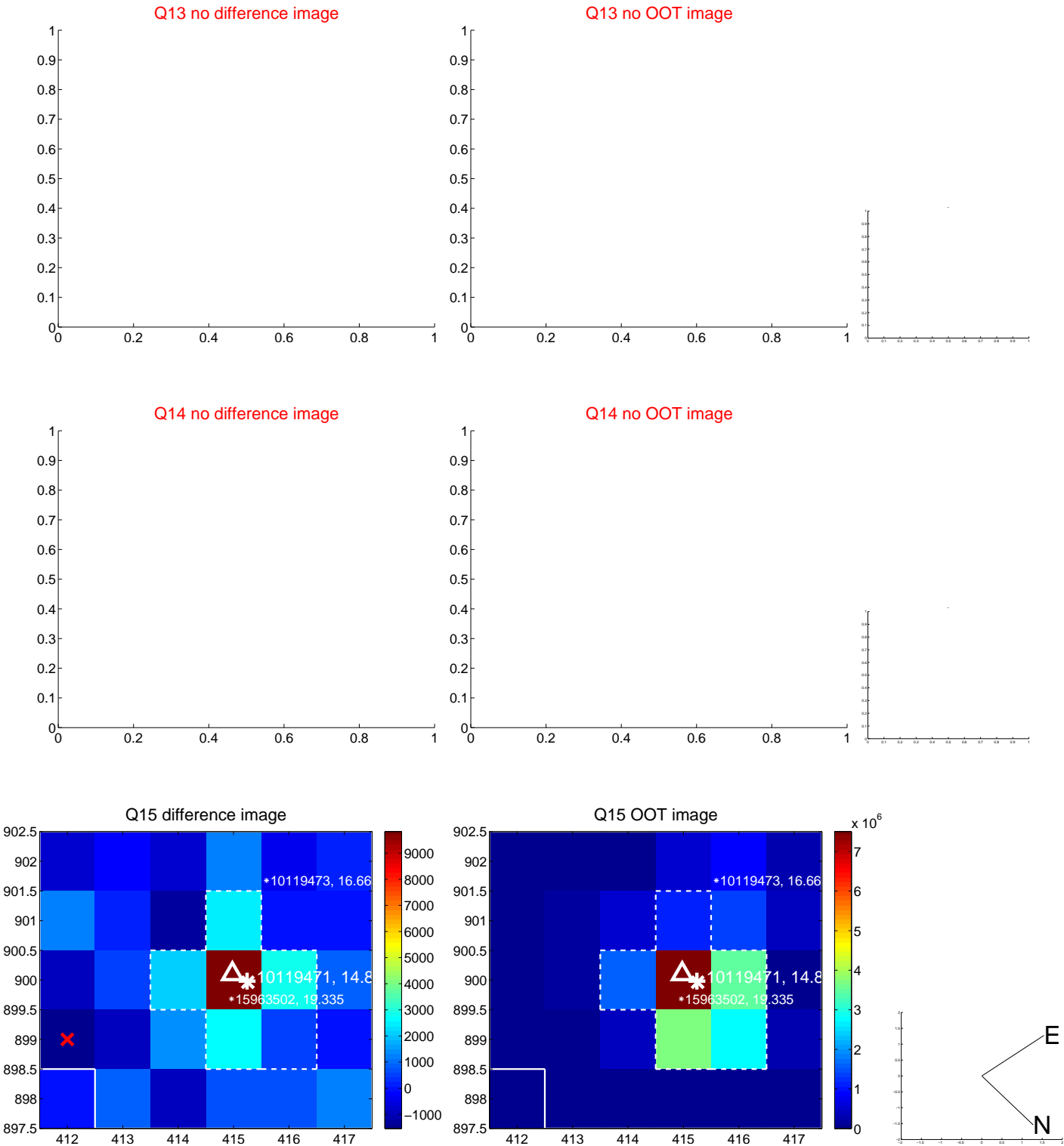
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



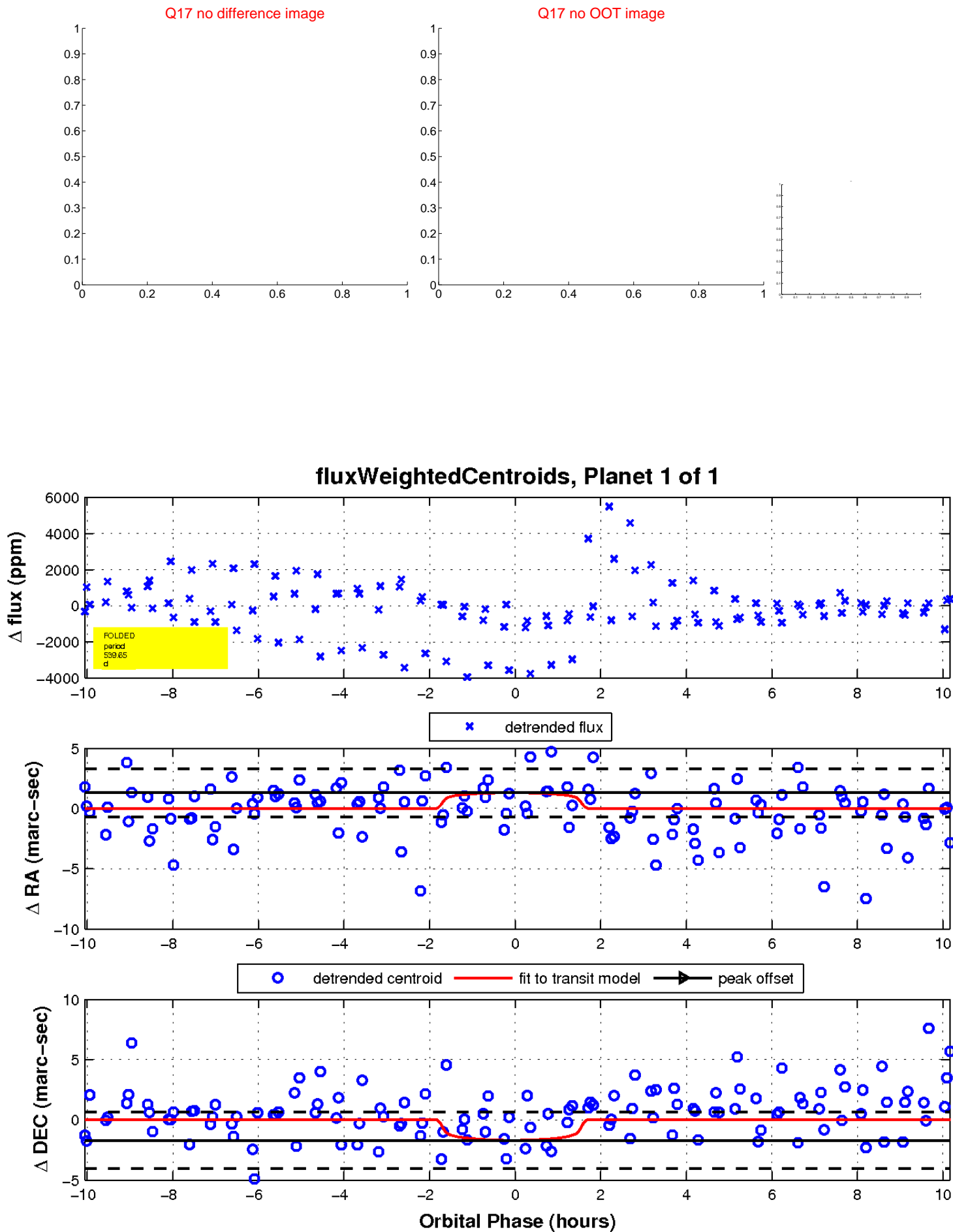
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

