

KIC 010005499

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})
010005499-01	OBS	No	319.701939	135.243020	63.4	19.013	9.0	5.8	0.86	5557	0.94	0.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010005499-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_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.

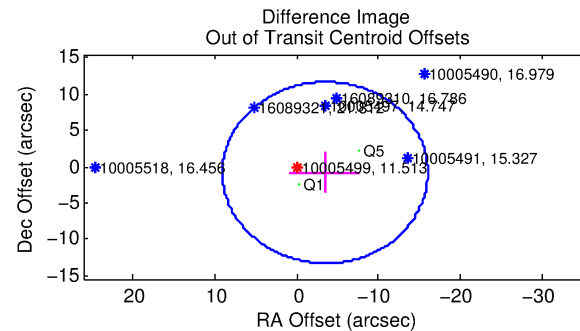
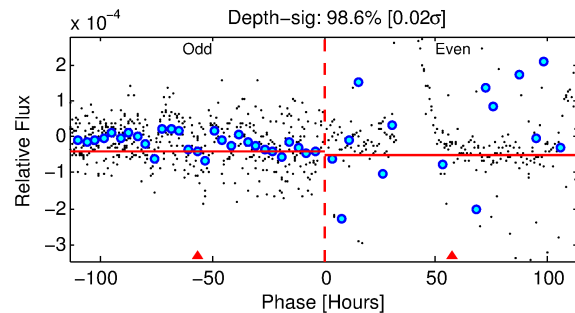
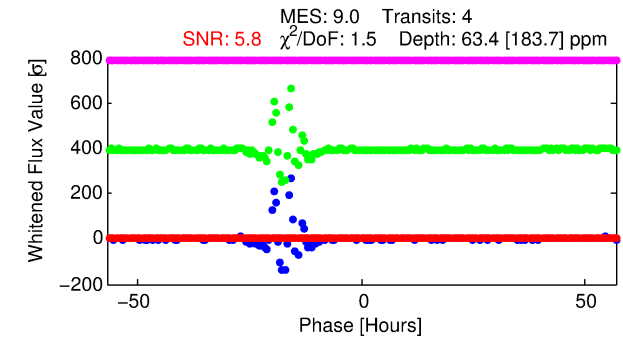
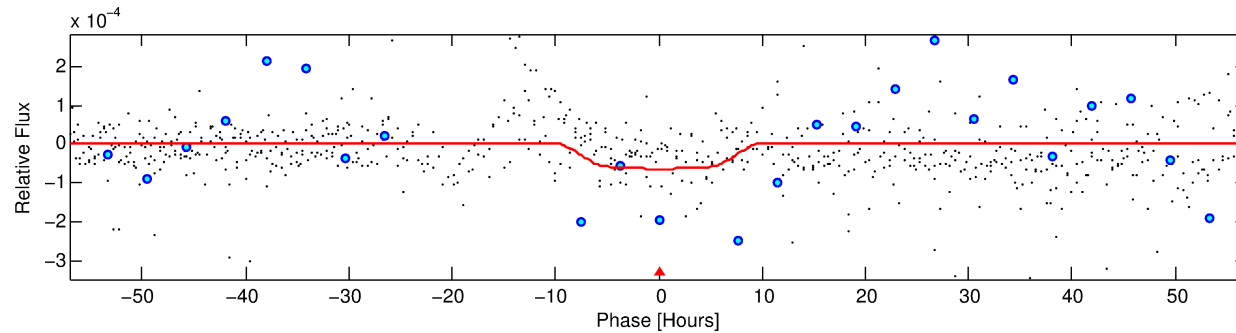
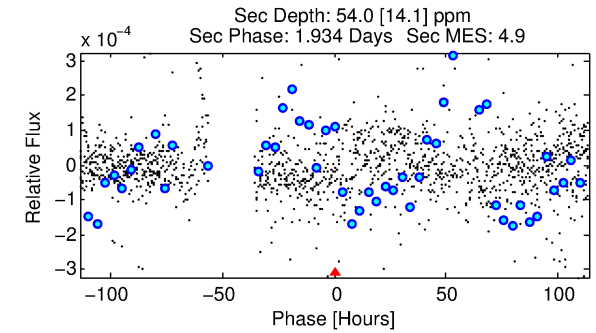
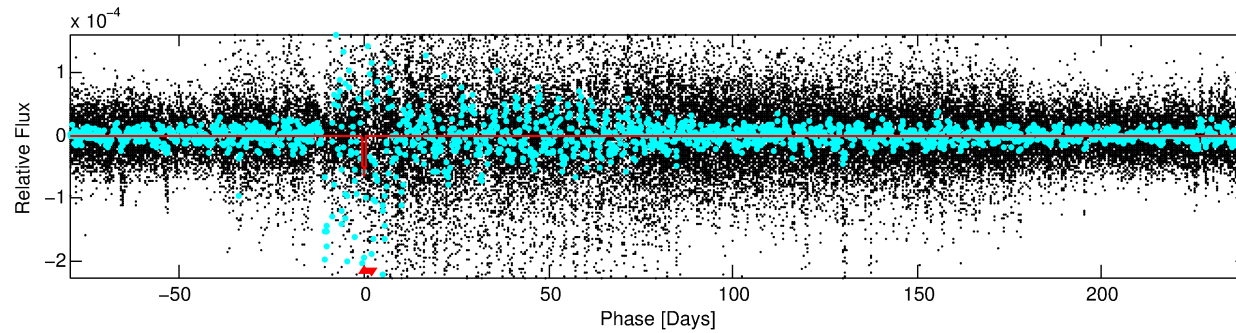
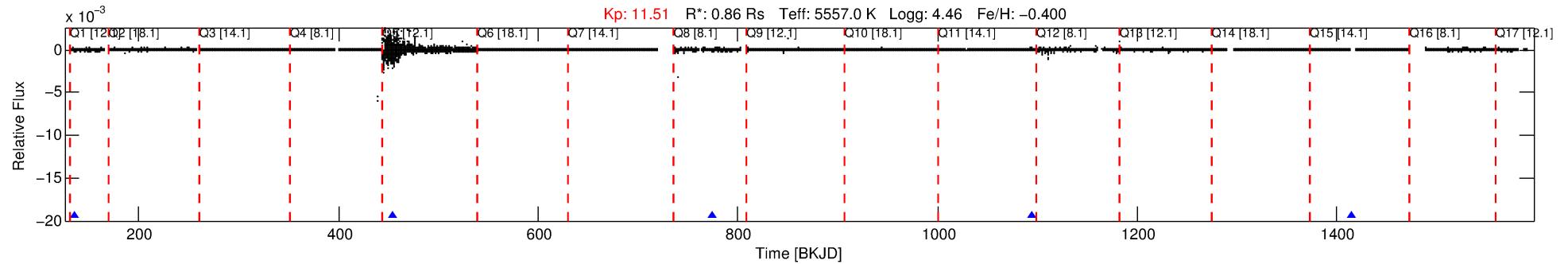
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010005499-01

No Significant Match Found

DV One-Page Summary

KIC: 10005499 Candidate: 1 of 1 Period: 319.702 d



DV Fit Results:

Period = 319.70194 [0.27504] d
Epoch = 135.2430 [0.6676] BKJD
Rp/R* = 0.0101 [0.0158]
a/R* = 30.89 [108.66]
b = 0.98 [0.14]
Seff = 0.89 [0.21]
Teq = 248 [15] K
Rp = 0.94 [1.48] Re
a = 0.8385 [0.1132] AU
Ag = 23468.25 [73834.77] [0.32 σ]
Teffp = 4746 [3726] K [1.21 σ]

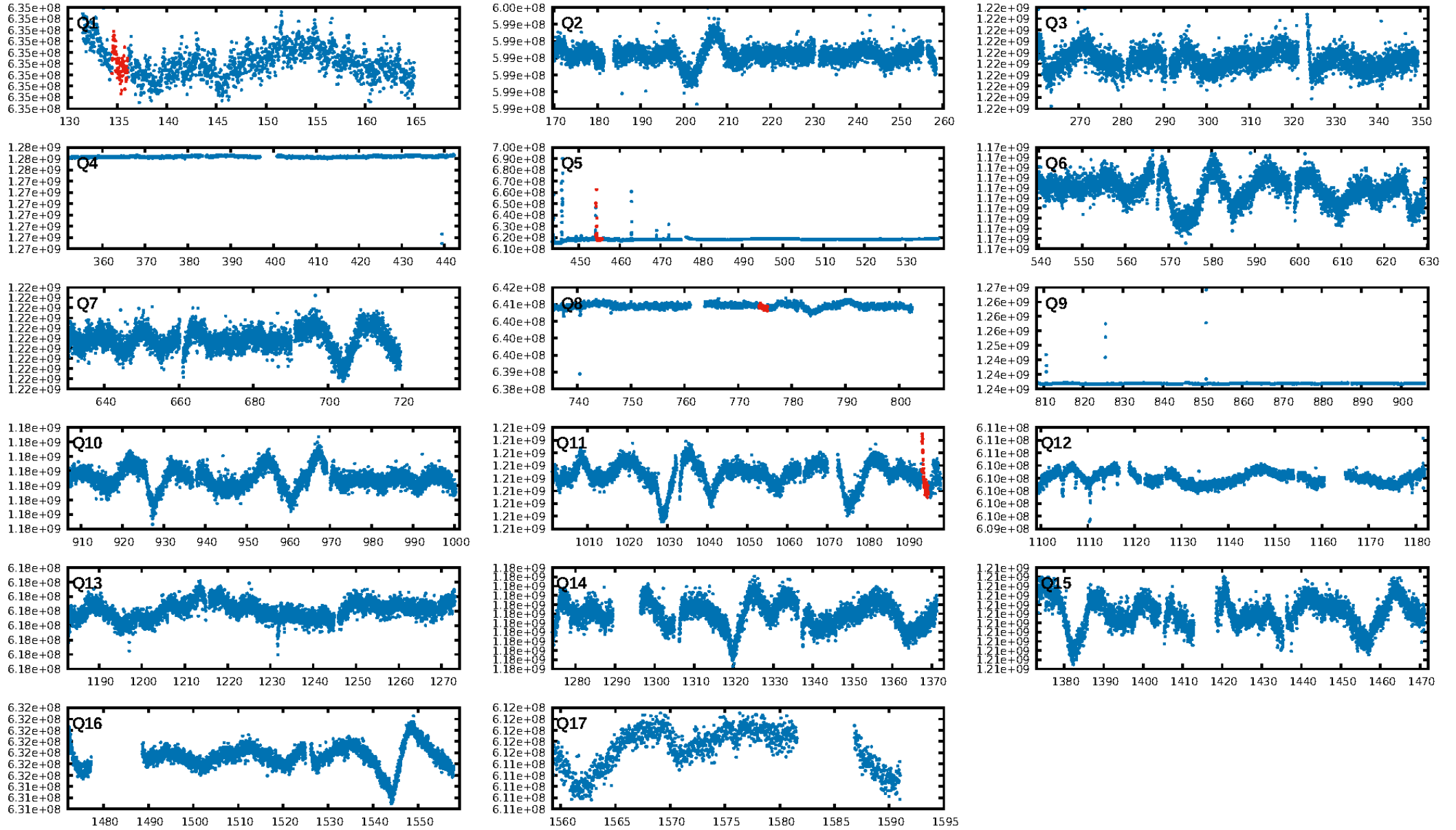
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.0%
ModelChiSquareGof-sig: 91.3%
Bootstrap-pfa: 7.56e-04
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.773
Centroid-sig: 6.7%
Centroid-so: 5.601 arcsec [2.99 σ]
OotOffset-rm: 3.577 arcsec [0.86 σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-rm: 7.324 arcsec [2.00 σ]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

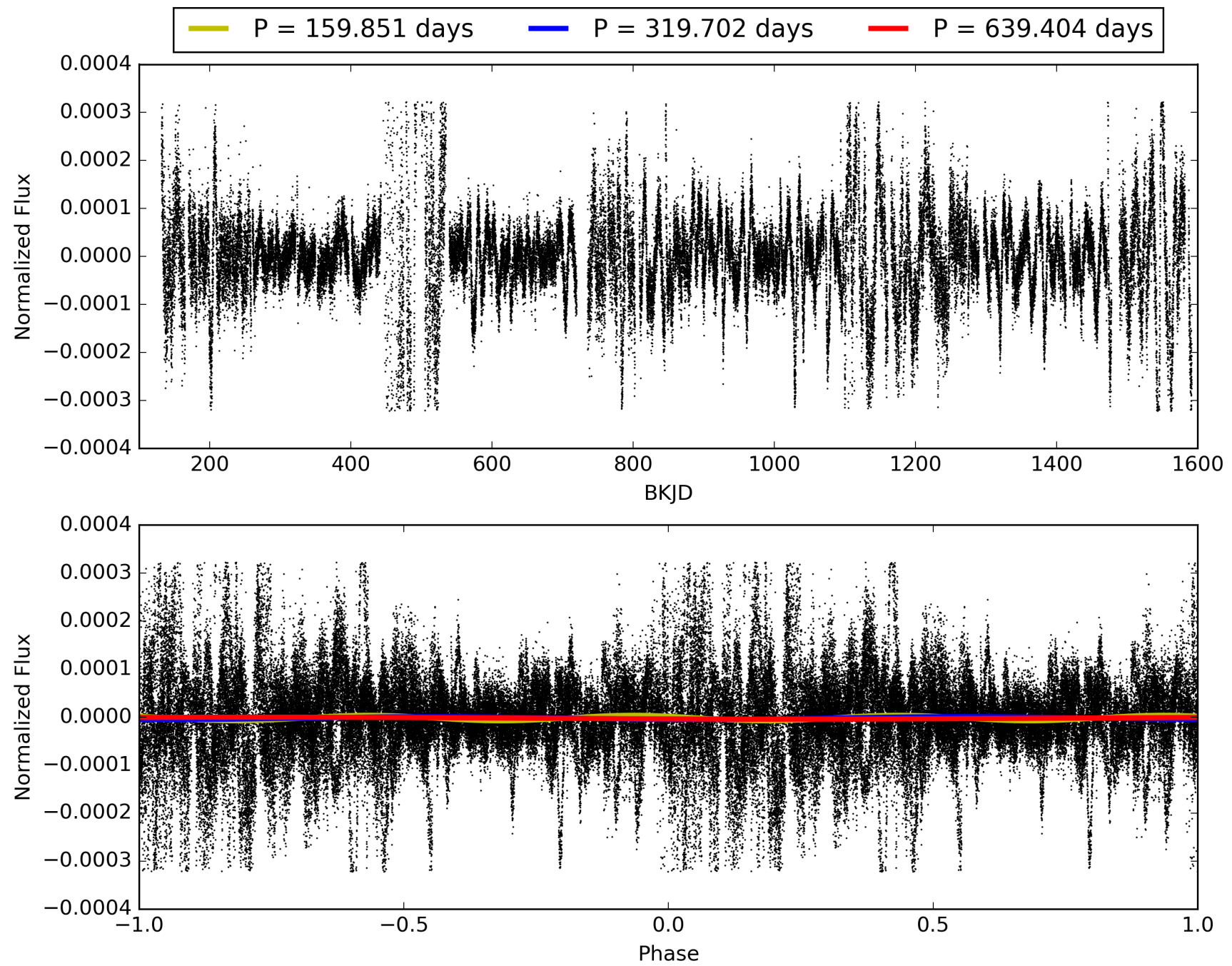
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:51:36 Z

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

TCE 010005499-01, PDC Light Curves

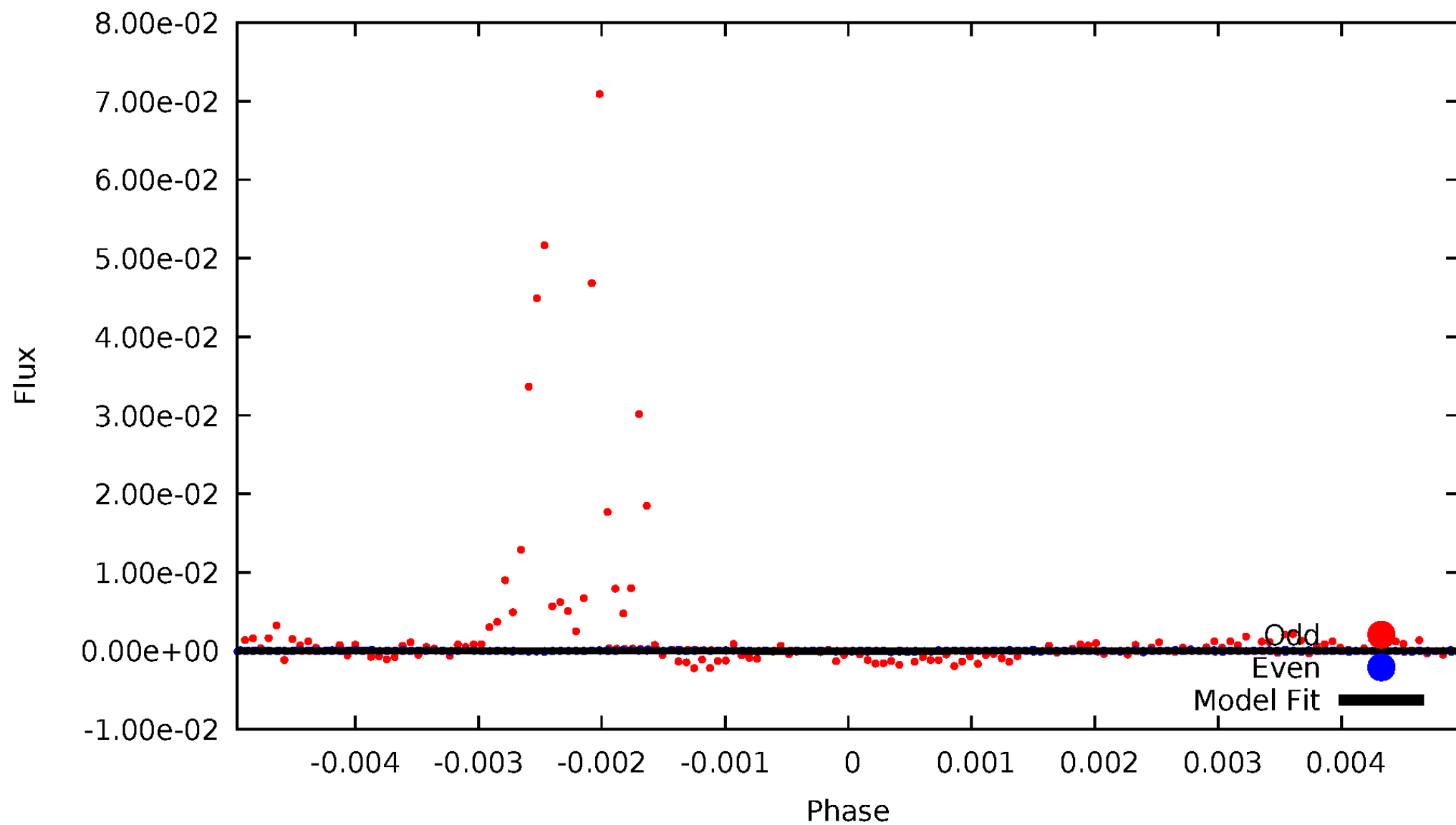


TCE 010005499-01



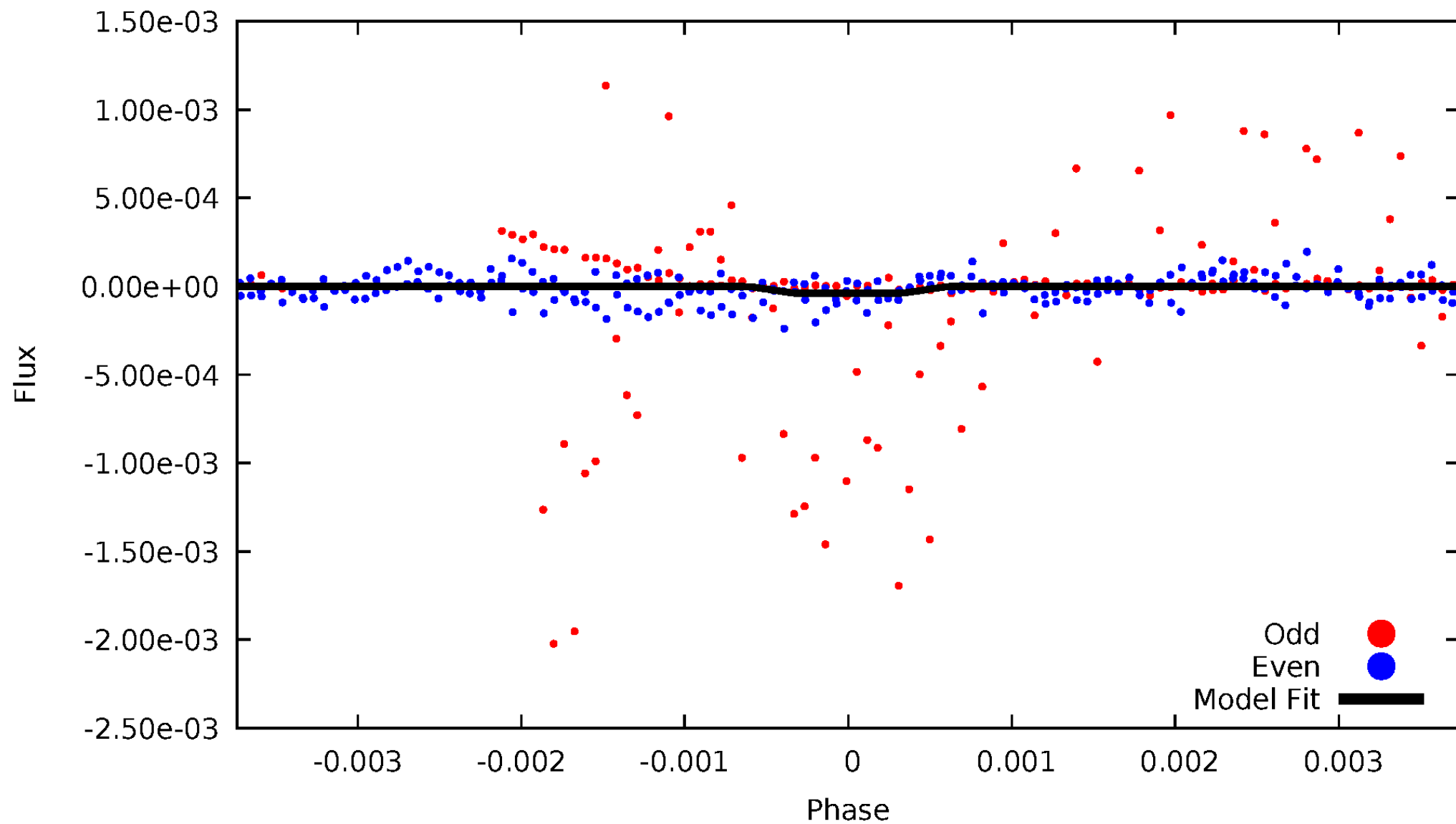
DV Odd/Even

TCE 010005499-01



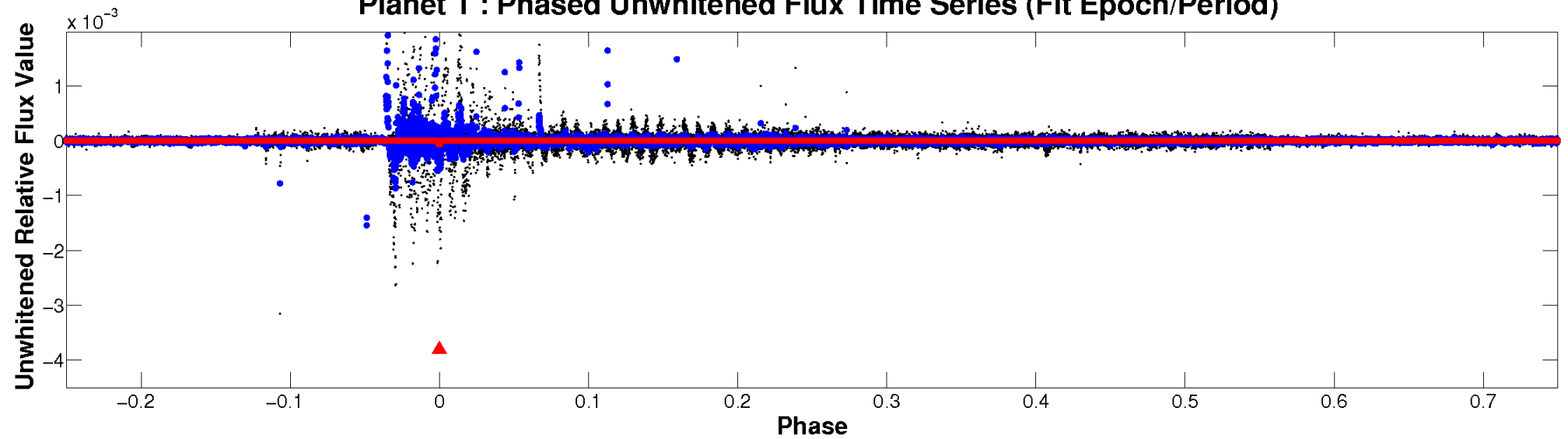
ALT Odd/Even

TCE 010005499-01

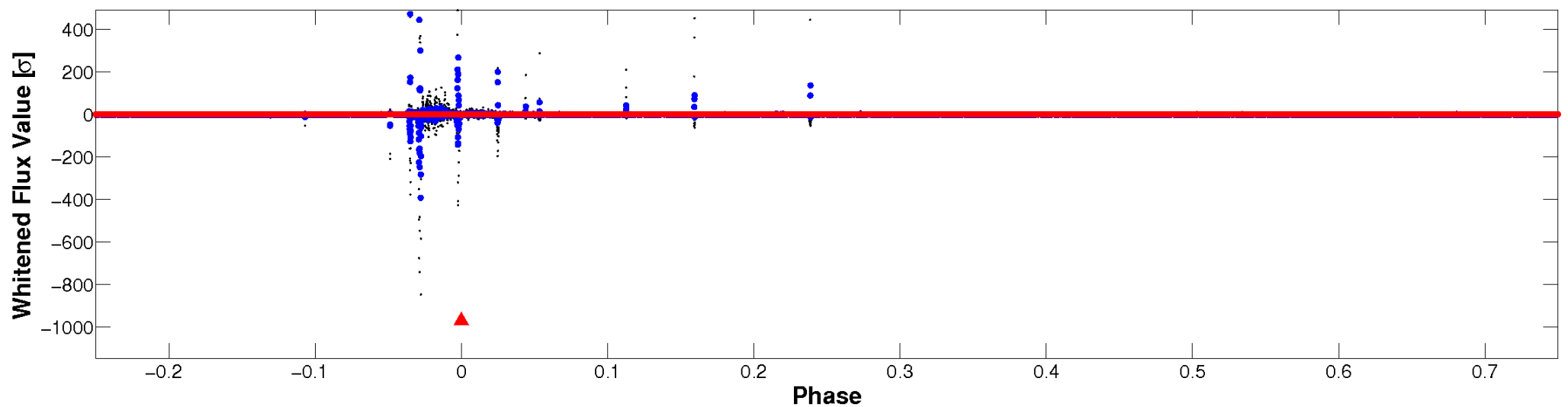


Non-Whitened Vs. Whitened Light Curve

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

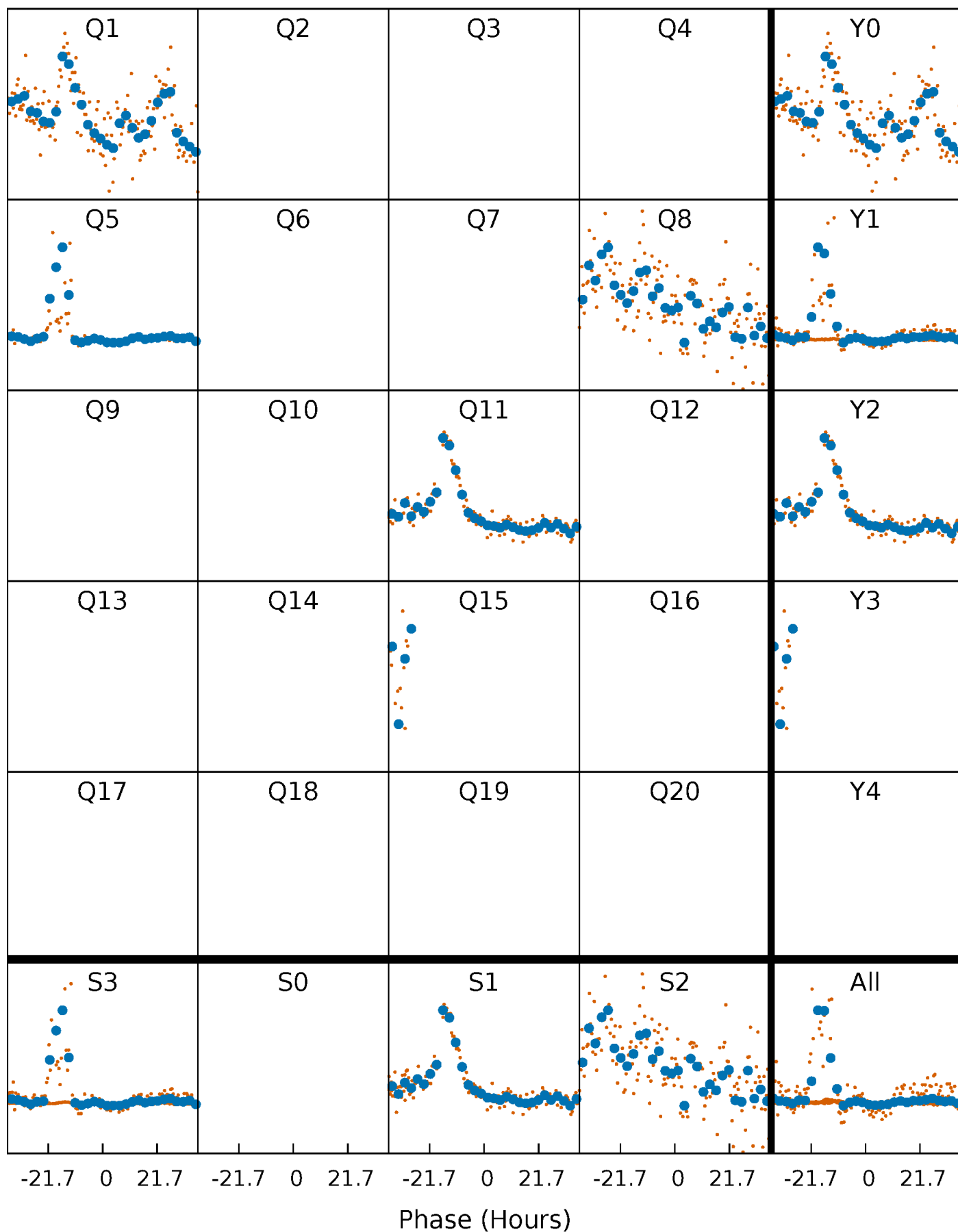


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



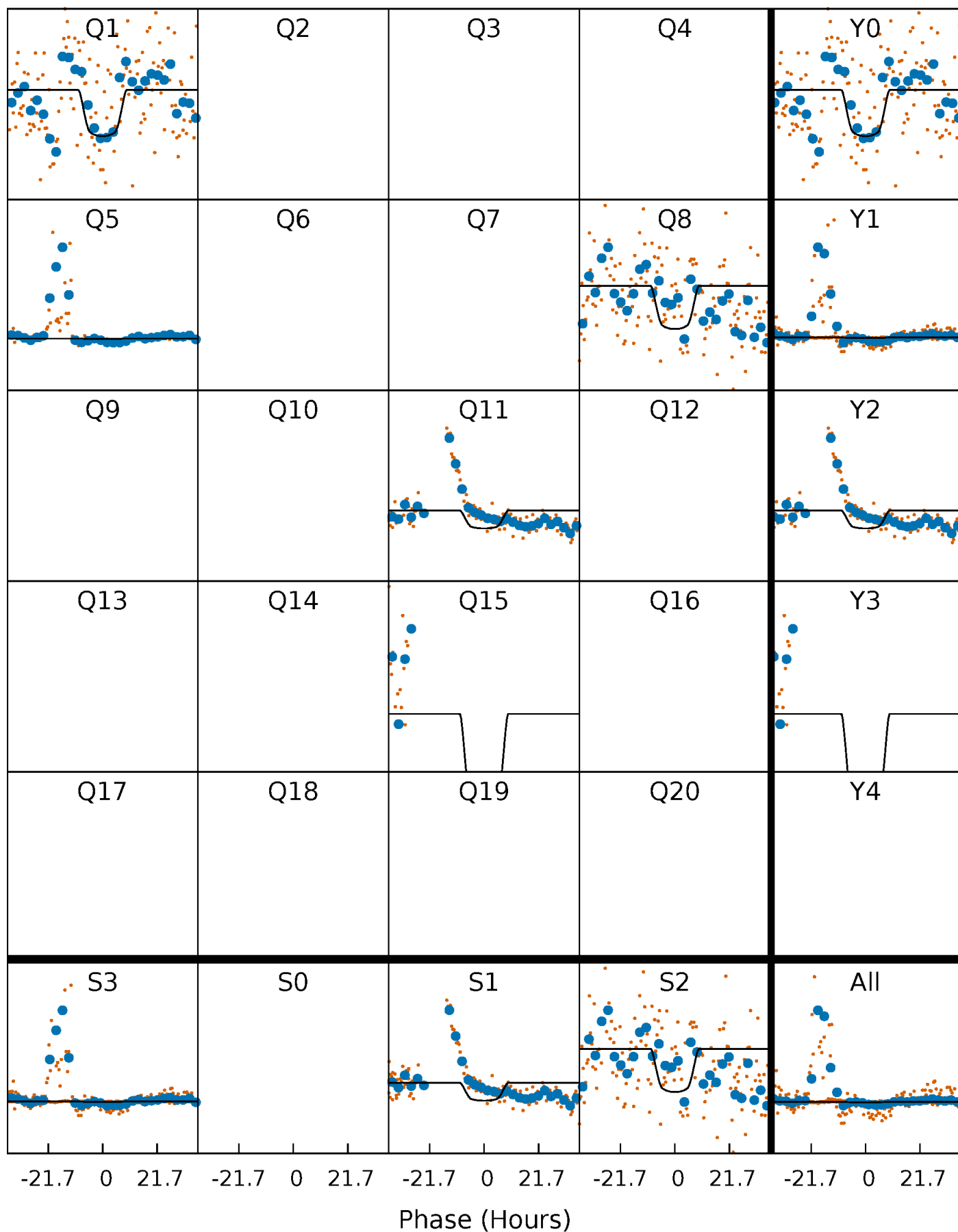
PDC Quarter-Phased Transit Curves

TCE 010005499-01 P=319.701939 Days $T_0=135.243020$ (BKJD)



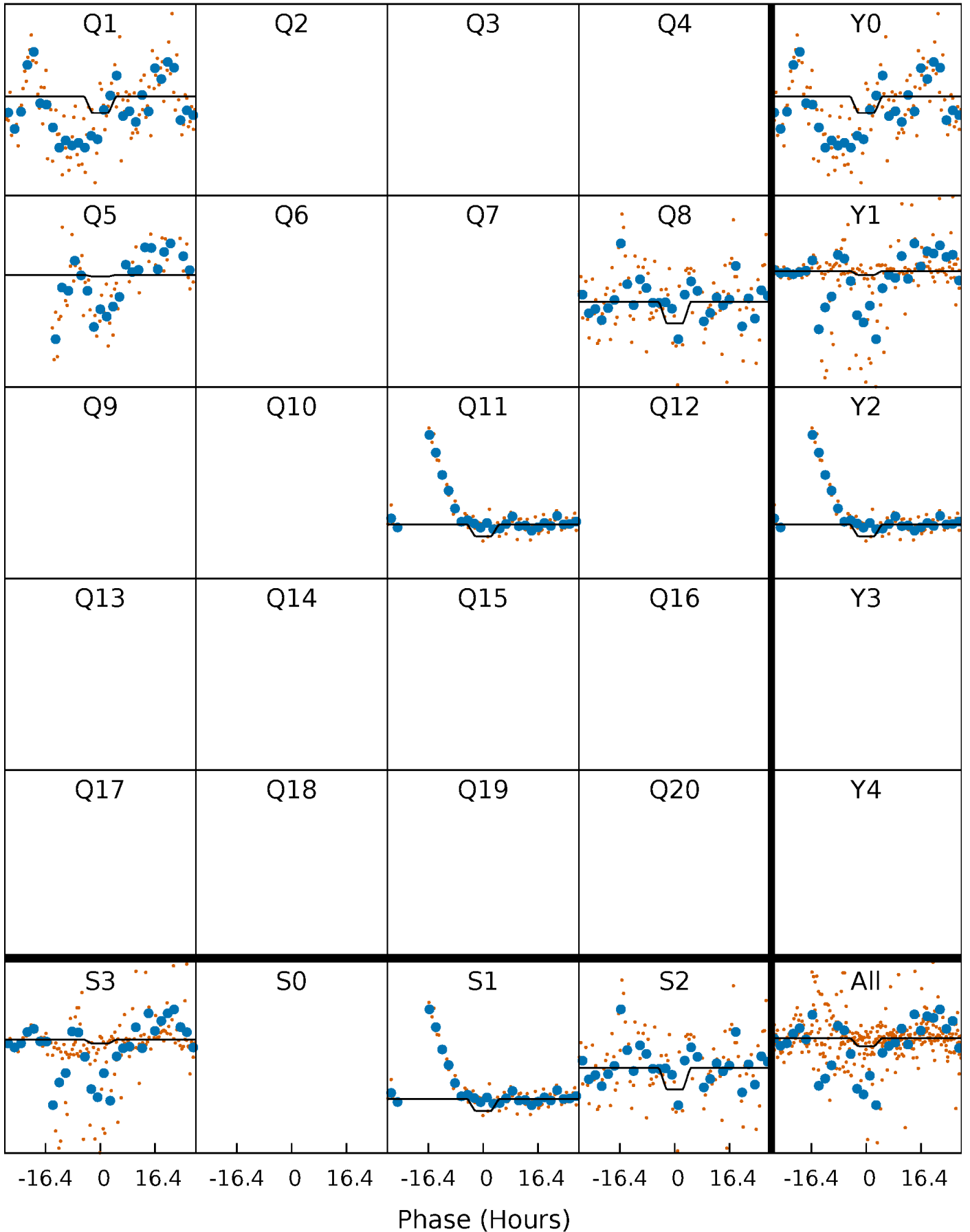
DV Quarter-Phased Transit Curves

TCE 010005499-01 P=319.701939 Days $T_0=135.243020$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

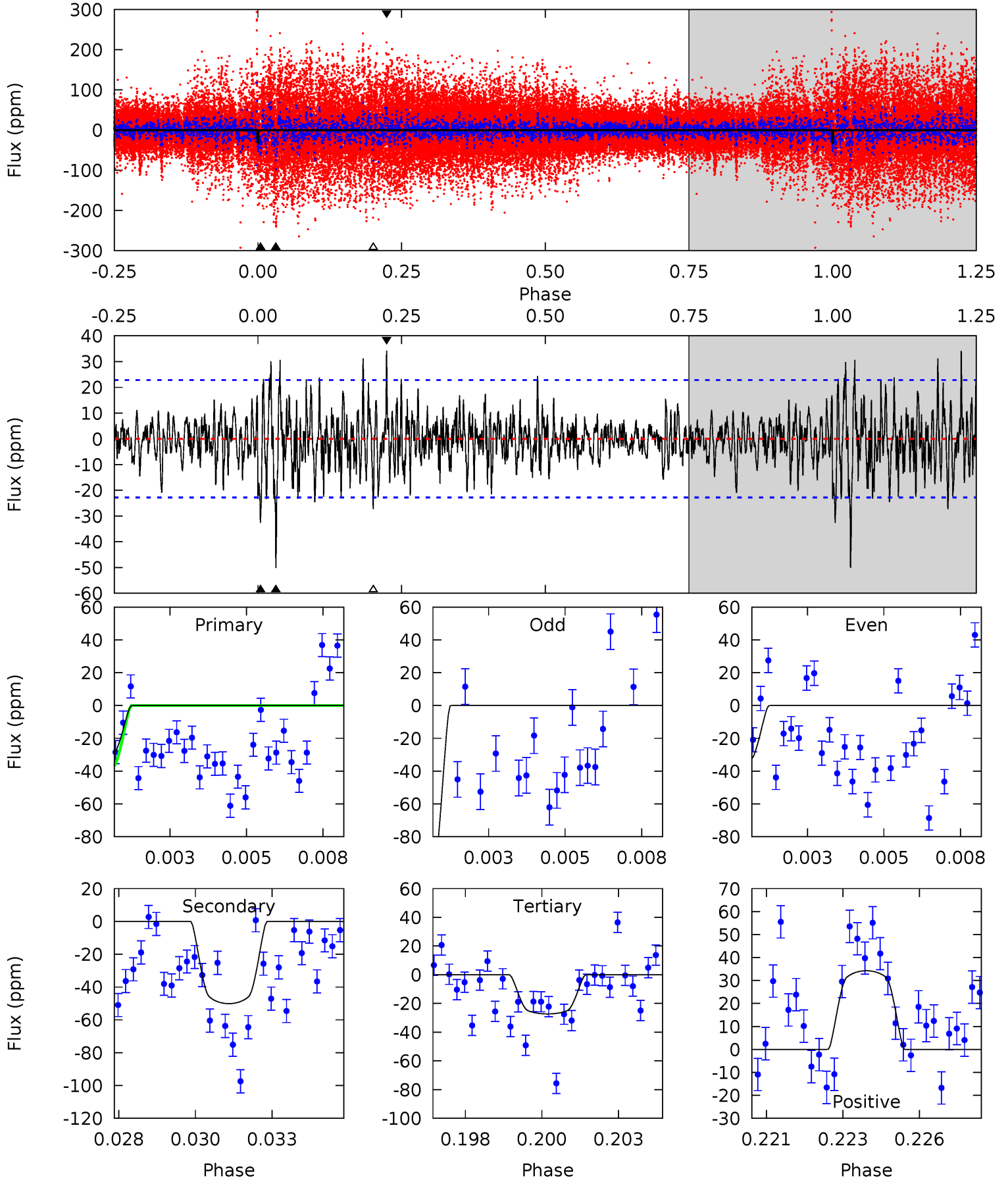
TCE 010005499-01 P=319.642179 Days $T_0=135.479156$ (BKJD)



DV Model-Shift Uniqueness Test

010005499-01, P = 319.701939 Days, E = 135.243020 Days

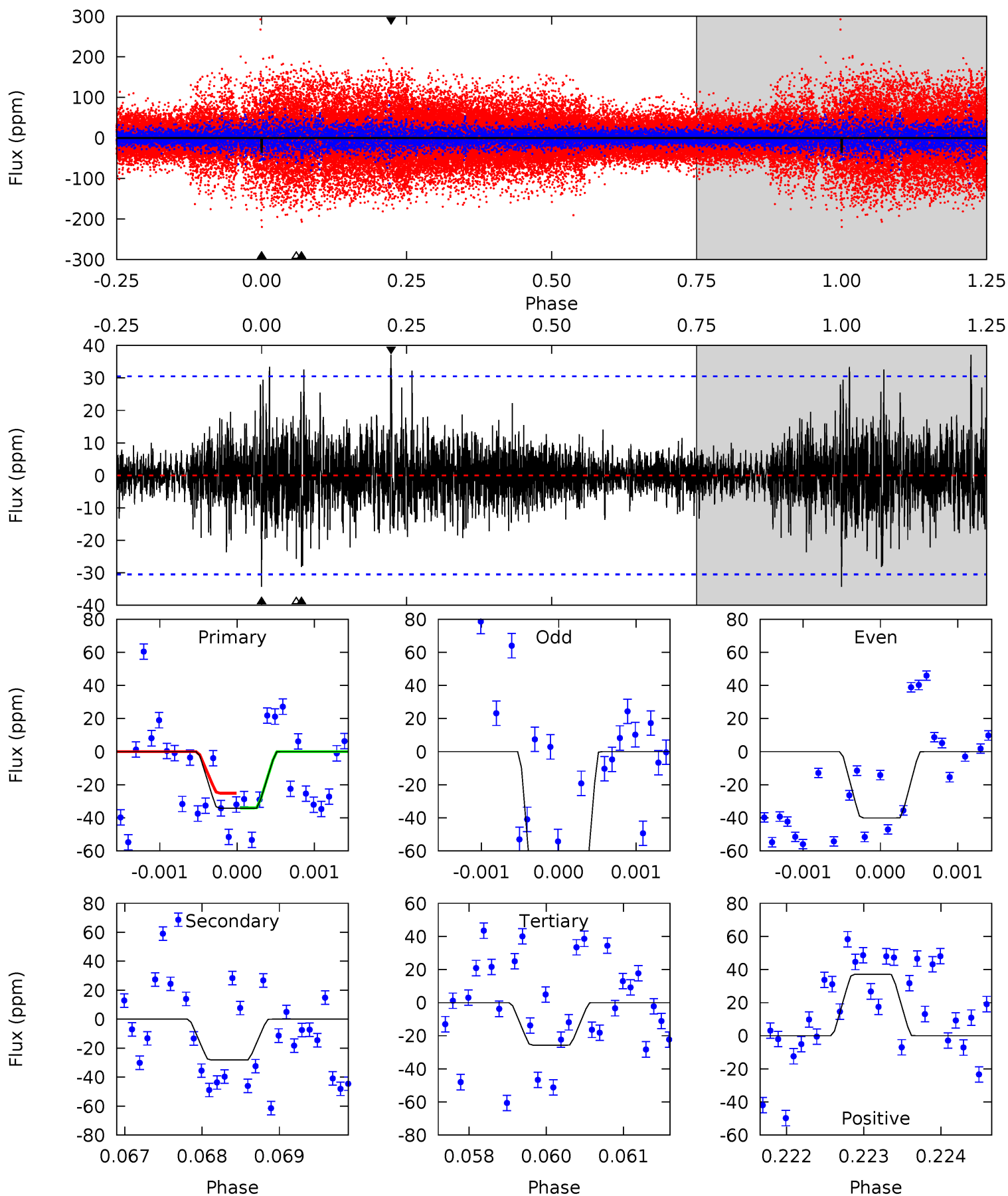
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.54	11.6	6.32	7.93	5.29	3.02	1.79	1.22	-0.39	5.28	3.67	1.33	6.79	0.41	1.84



Alt Model-Shift Uniqueness Test

010005499-01, P = 319.642179 Days, E = 135.479156 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.08	5.01	4.56	6.59	5.42	3.23	1.12	1.52	-0.51	0.45	-1.58	7.15	6.31	0.52	0.79



Stellar Parameters For KIC 010005499

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5557^{+150}_{-133}	$4.457^{+0.121}_{-0.099}$	$-0.400^{+0.350}_{-0.250}$	$0.858^{+0.126}_{-0.114}$	$0.769^{+0.106}_{-0.049}$	$1.714^{+0.913}_{-0.504}$
	+3%/-2%	+3%/-2%	+87%/-62%	+15%/-13%	+14%/-6%	+53%/-29%
Source	PHO1	FLK73	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 010005499-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-50 ± 4	$1.43^{+1.24}_{-0.96}$	347^{+17}_{-16}	4080^{+2554}_{-753}	9931^{+76806}_{-7098}
Alt.	-28 ± 6	$1.23^{+1.20}_{-0.85}$	344^{+15}_{-15}	3851^{+2283}_{-737}	7077^{+65399}_{-5264}

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

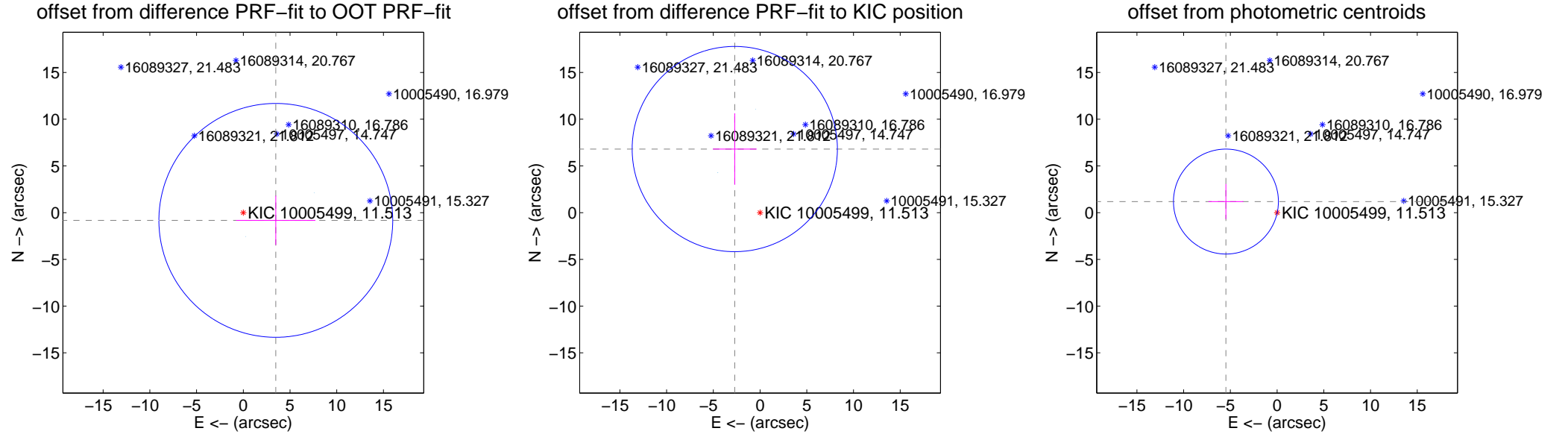
DV Centroid Data

Supplemental centroid analysis for 010005499-01. **Kepler magnitude: 11.51.** Transit SNR 5.84

There are 2 quarters with good PRF difference image offsets

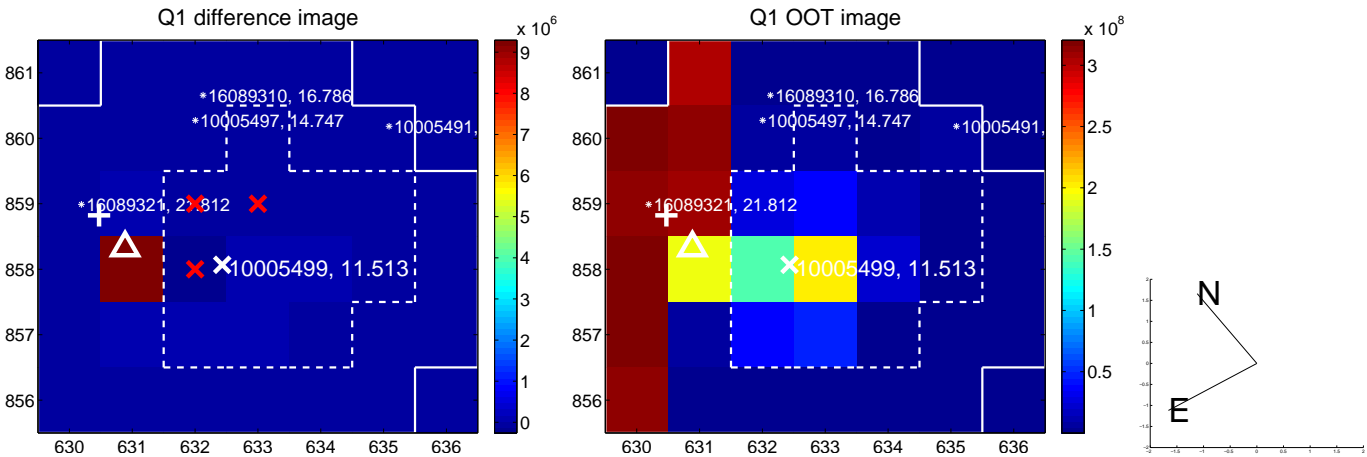
The OOT PRF centroid is offset from the target star catalog position by about 12.06 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.577 ± 4.171	0.86	-3.480 ± 4.241	-0.826 ± 2.635
PRF-fit source offset from KIC position	7.324 ± 3.660	2.00	2.706 ± 2.346	6.806 ± 3.827
photometric centroid source offset	5.60 ± 1.87	2.99	5.47 ± 1.87	1.19 ± 1.88

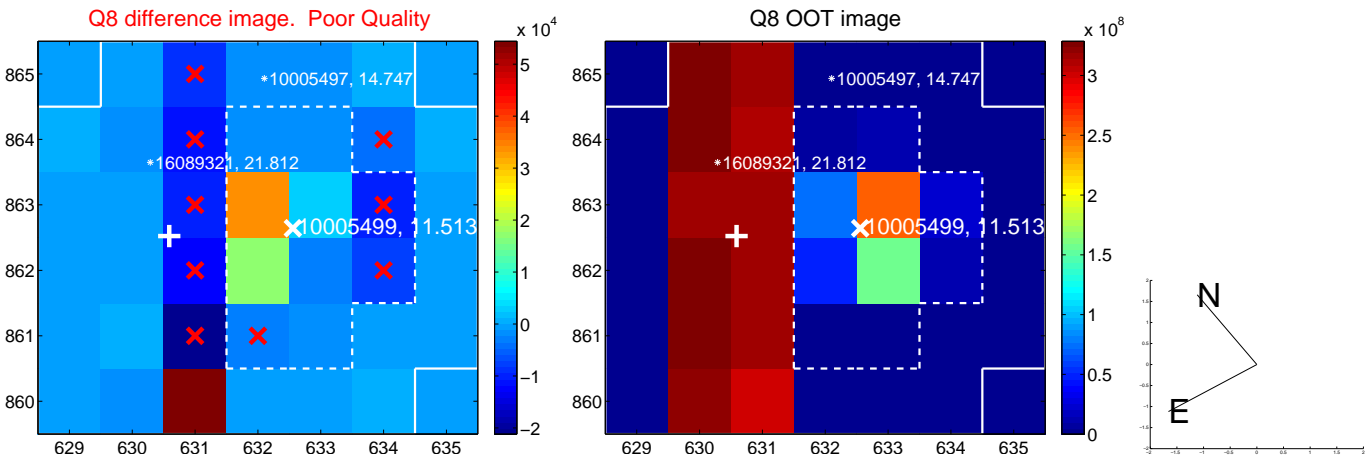
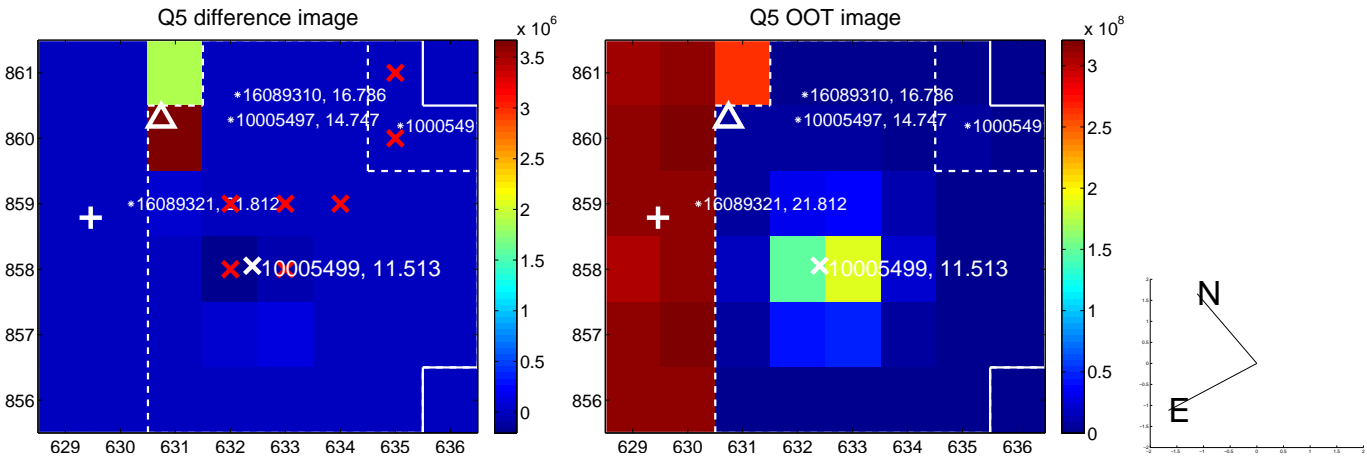


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



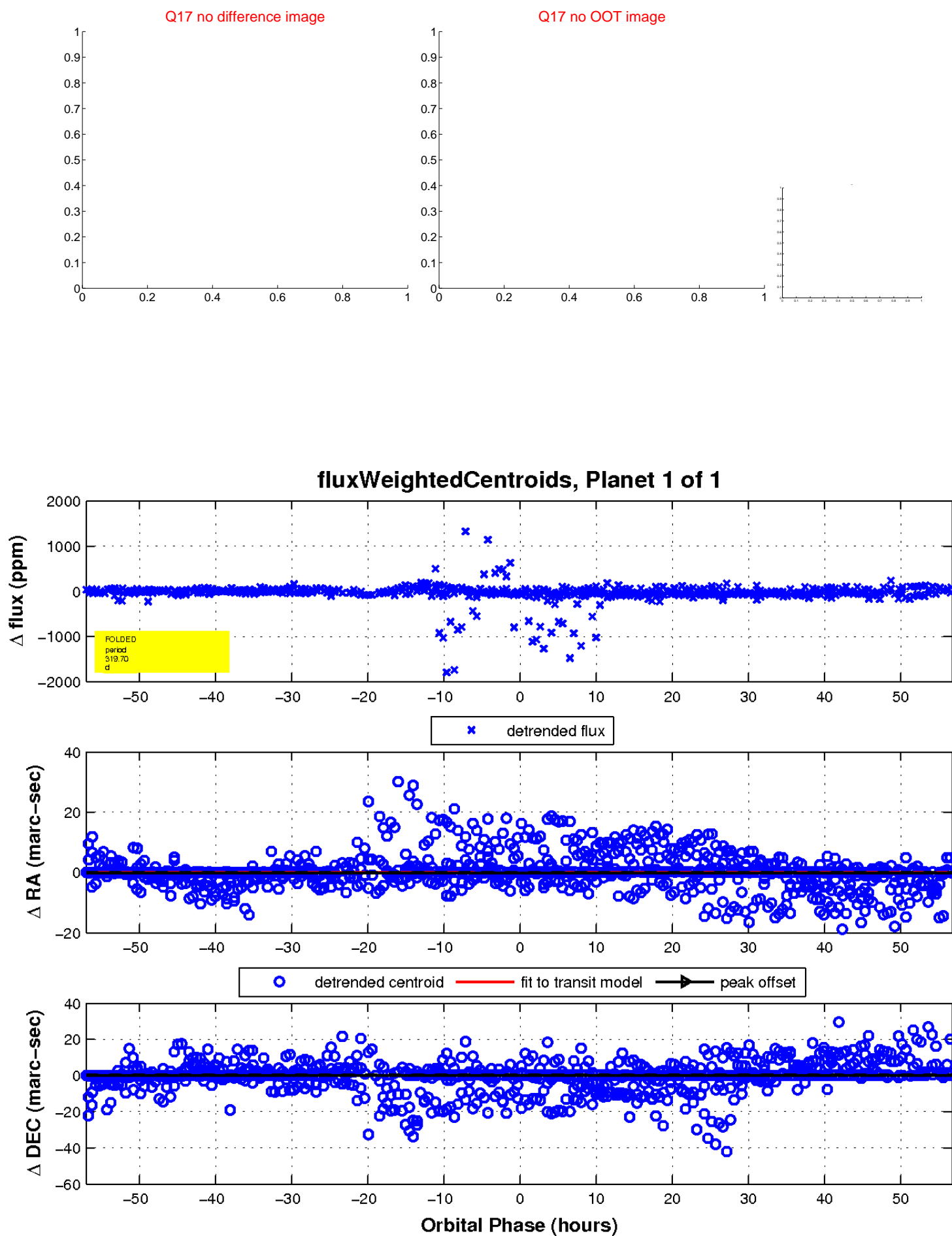
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

