

KIC 008949316

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})
008949316-01	OBS	3849.01	0.604269	131.764119	10260.1	1.500	131.5	-1.0	0.43	3569	4.29	234.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008949316-01	OBS	PC	0.95	0	0	0	0	CENT_NOFITS

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.

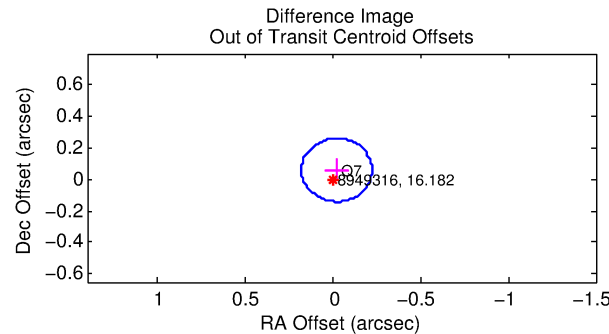
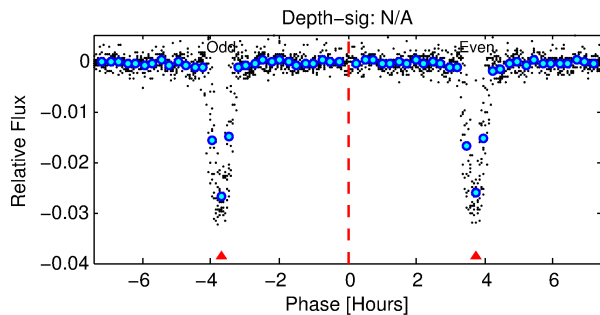
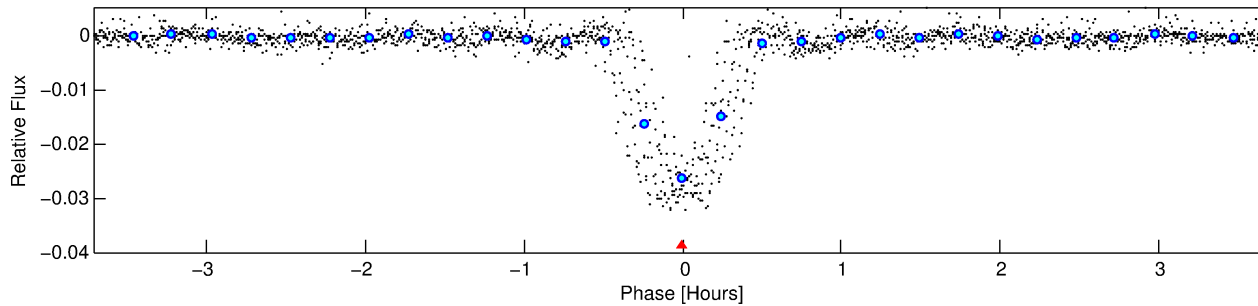
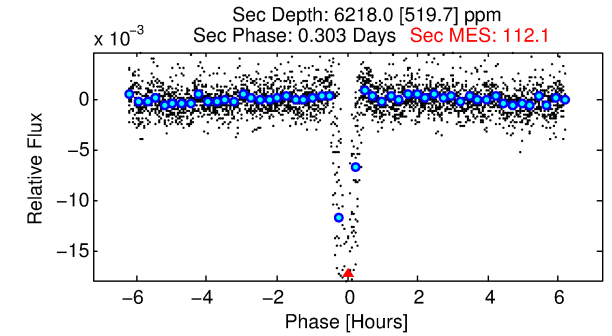
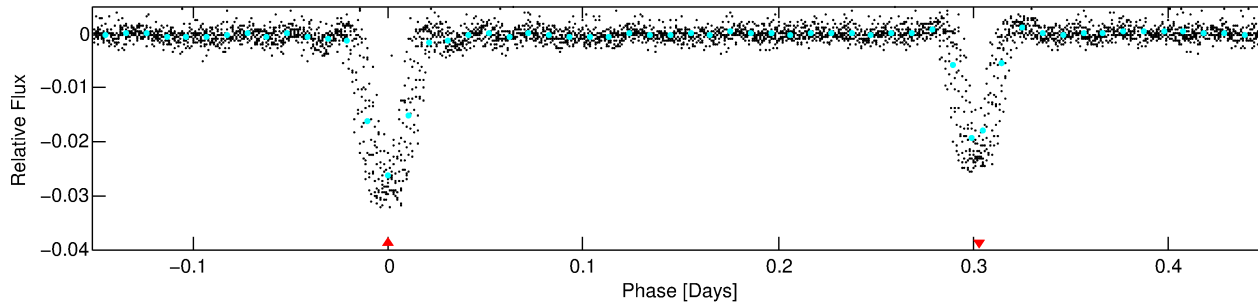
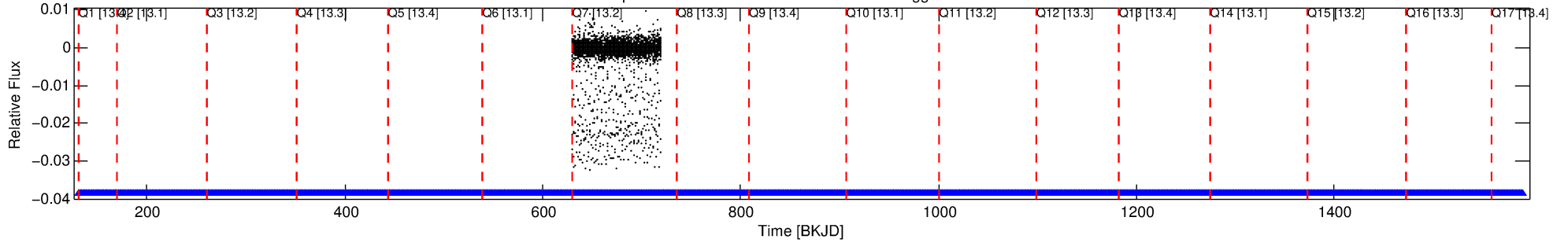
Ephemeris Match Information For 008949316-01

No Significant Match Found

DV One-Page Summary

KIC: 8949316 Candidate: 1 of 1 Period: 0.604 d
KOI: K03849 Corr: No Ephemeris Match

Kp: 16.18 R*: 0.43 Rs Teff: 3569.0 K Logg: 4.82 Fe/H: 0.000



TPS TCE Results:

Period = 0.60427 d
Epoch = 131.7641 BKJD

DV fit results are unavailable

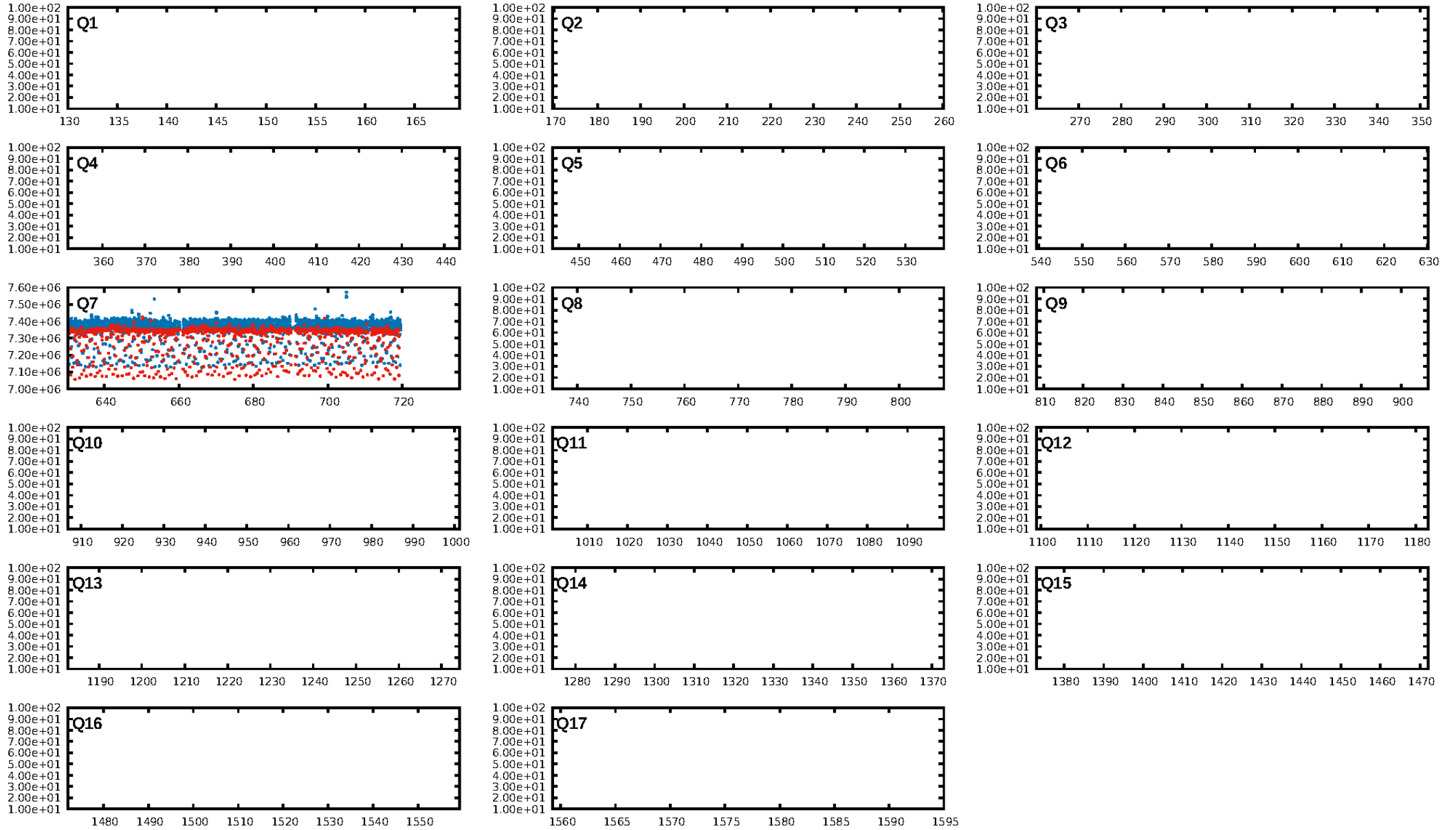
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [144/144]
GhostDiagnostic-chr: 4.481
Centroid-sig: 0.1%
Centroid-so: 0.631 arcsec [25.03σ]
OotOffset-rm: 0.065 arcsec [0.97σ]
KicOffset-rm: 0.414 arcsec [6.18σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

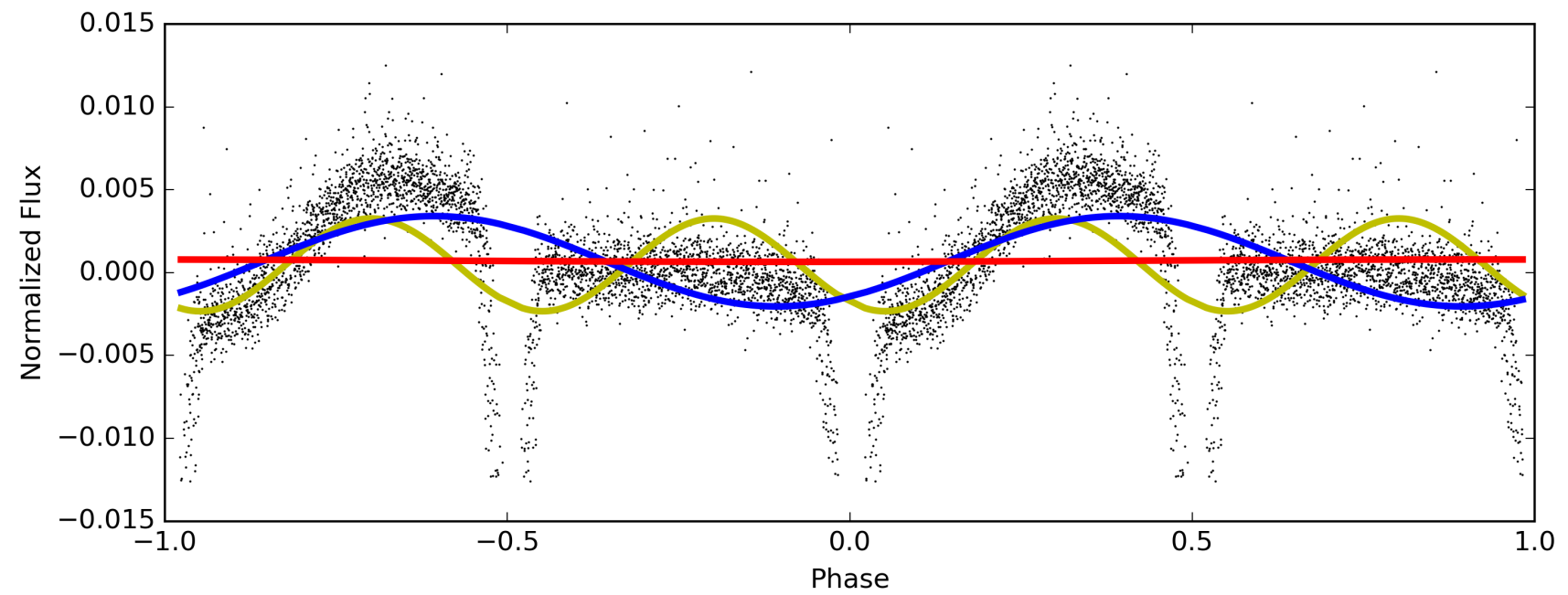
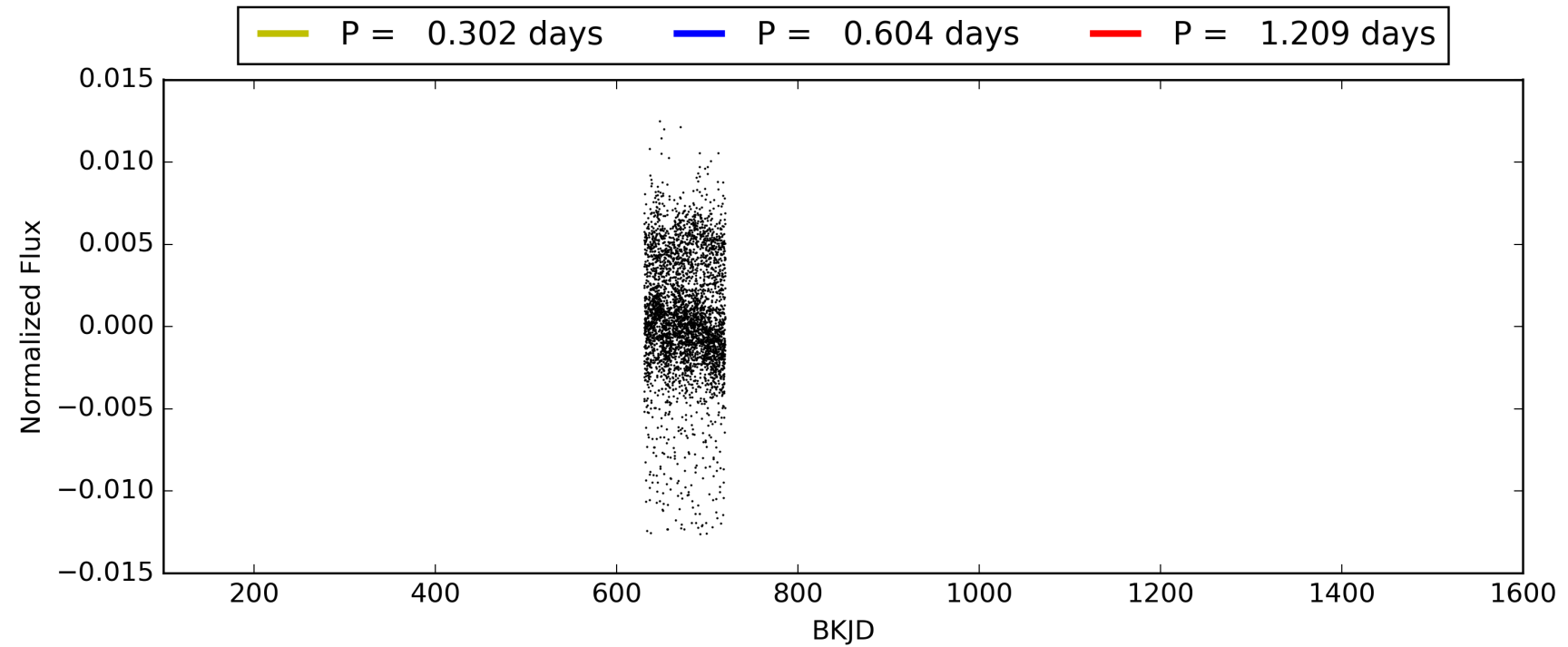
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:10:47 Z

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

TCE 008949316-01, PDC Light Curves

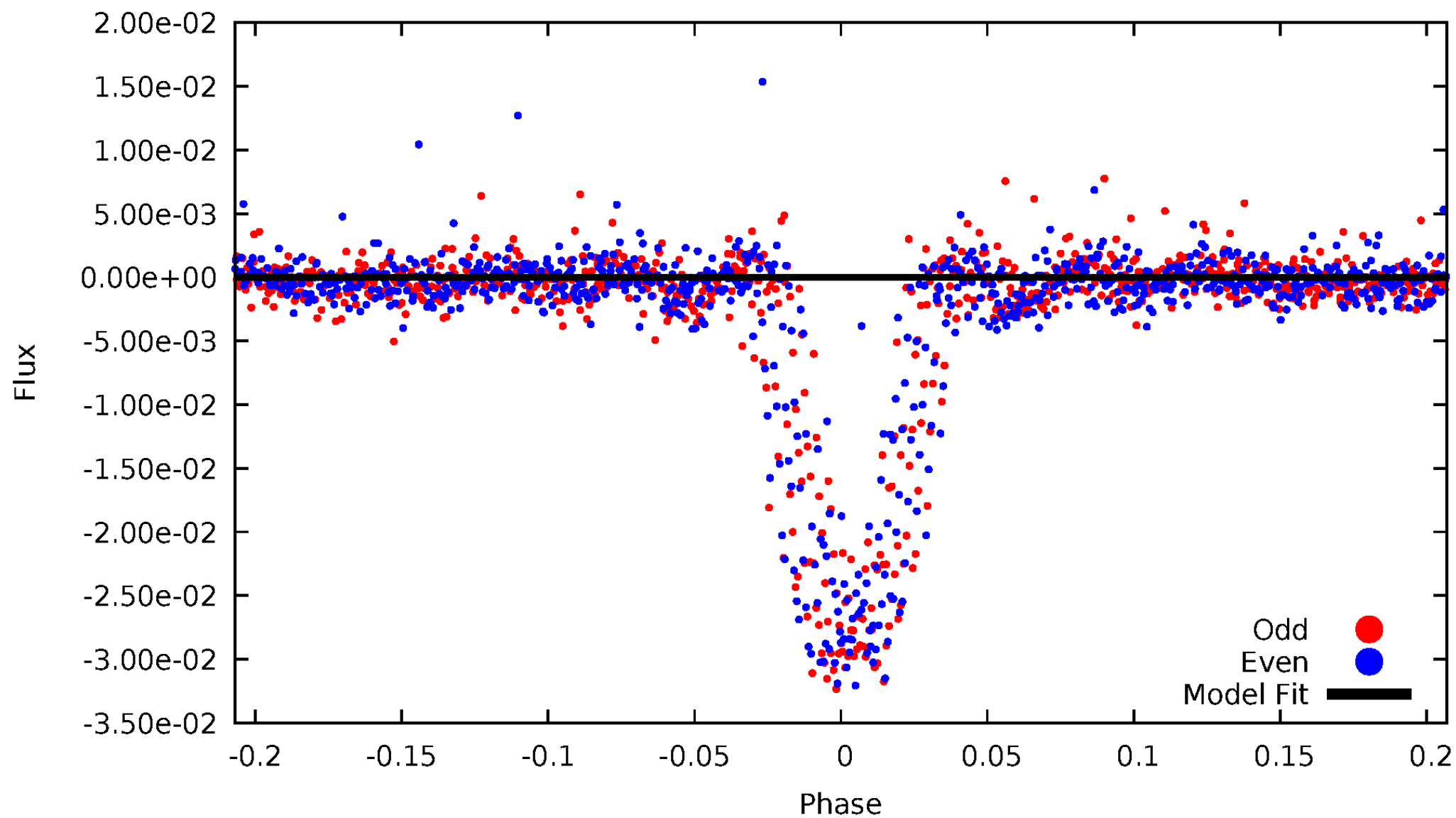


TCE 008949316-01



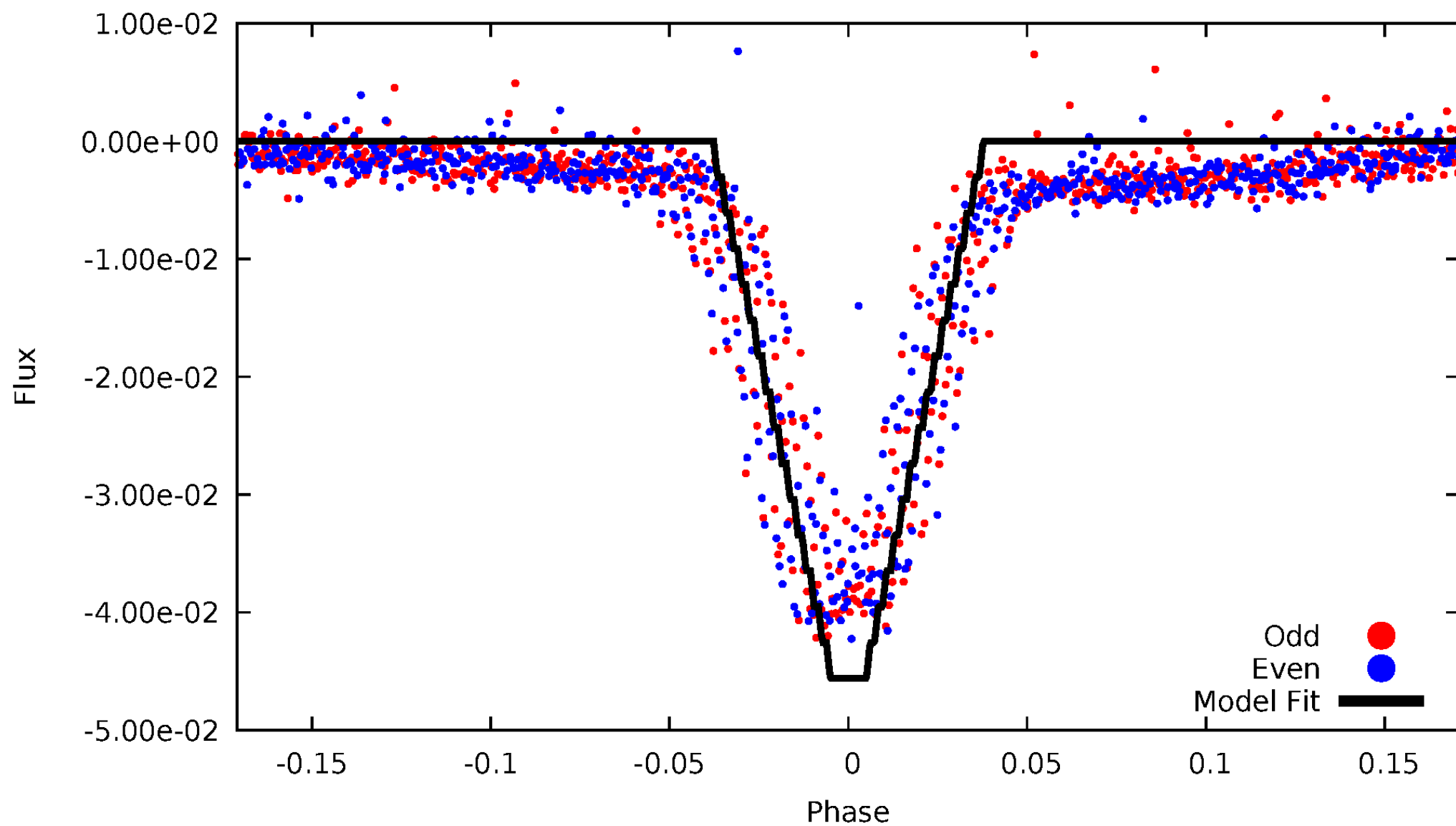
DV Odd/Even

TCE 008949316-01



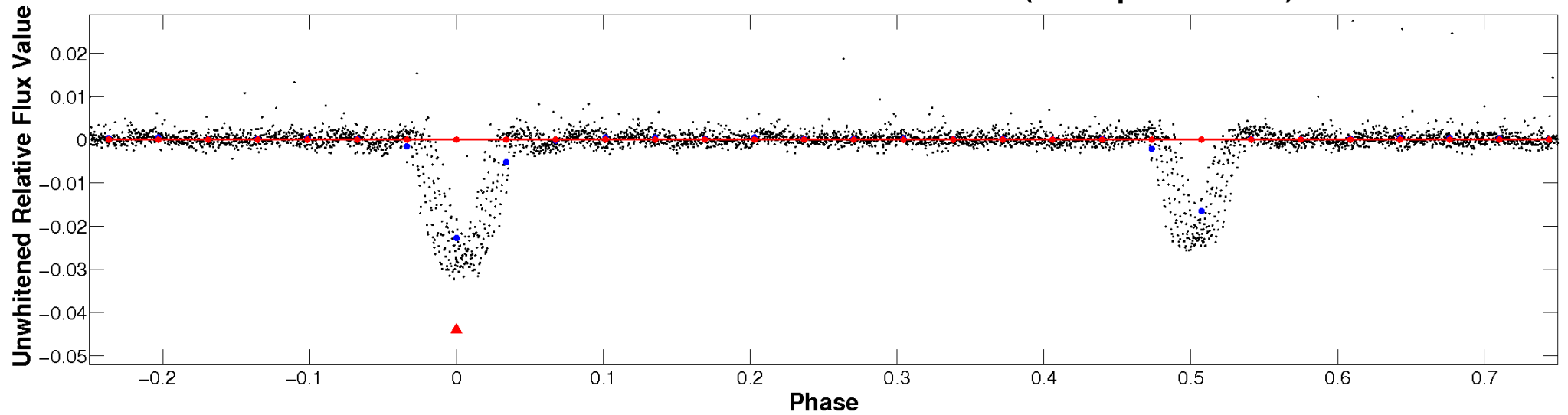
ALT Odd/Even

TCE 008949316-01

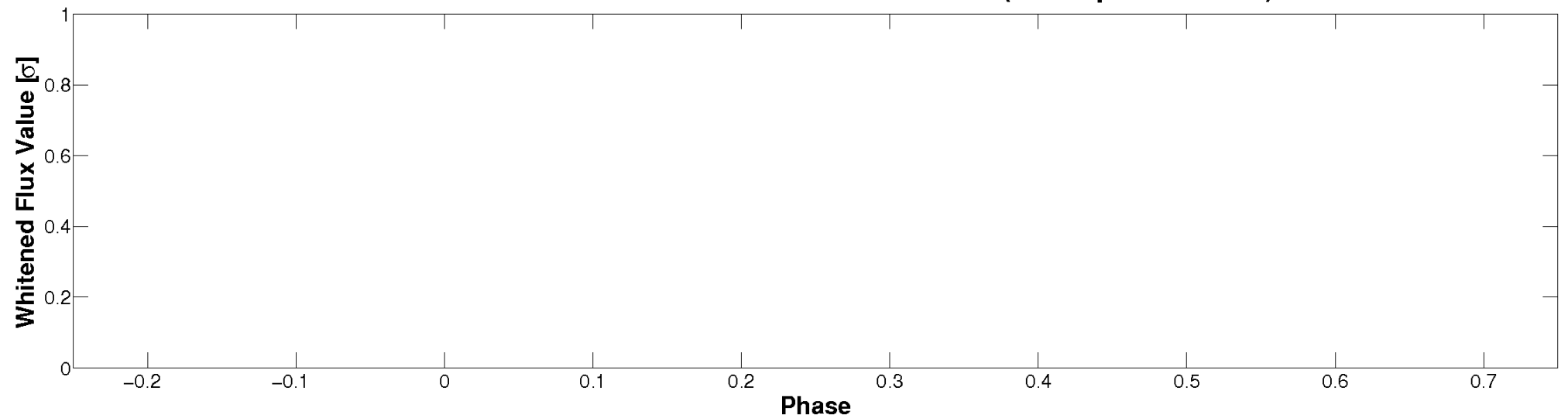


Non-Whitened Vs. Whitened Light Curve

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

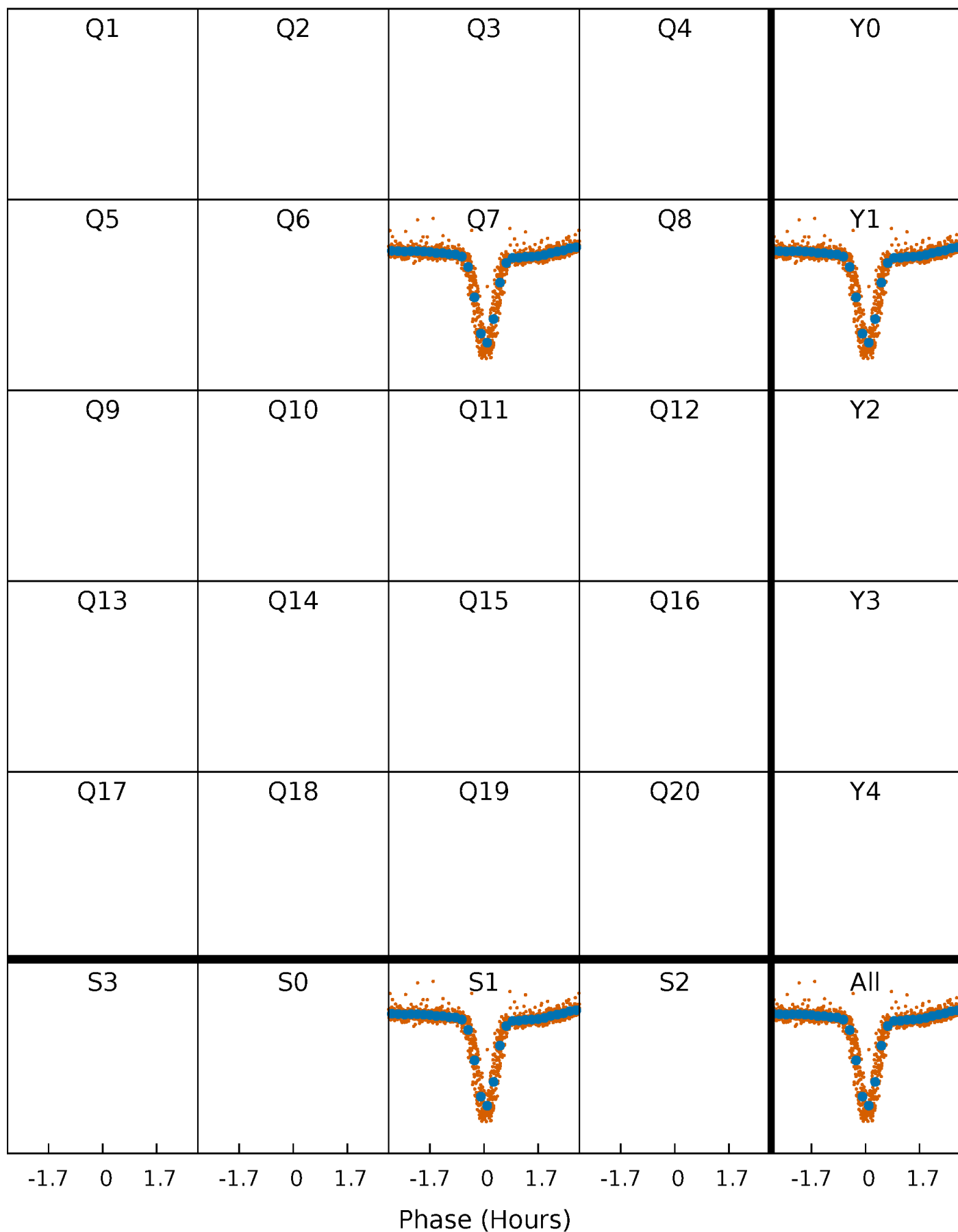


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



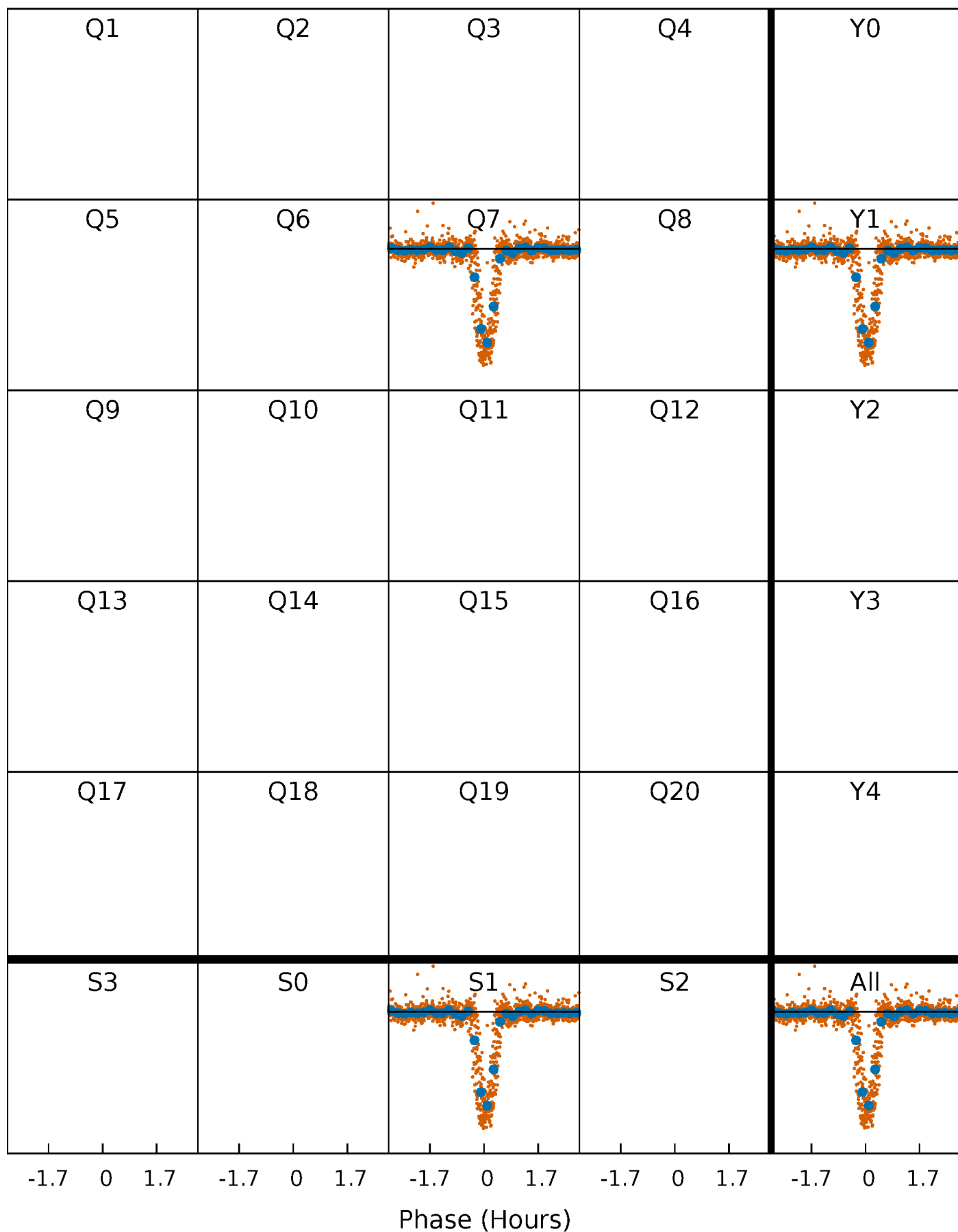
PDC Quarter-Phased Transit Curves

TCE 008949316-01 P= 0.604269 Days $T_0=131.764119$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008949316-01 P= 0.604269 Days $T_0=131.764119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

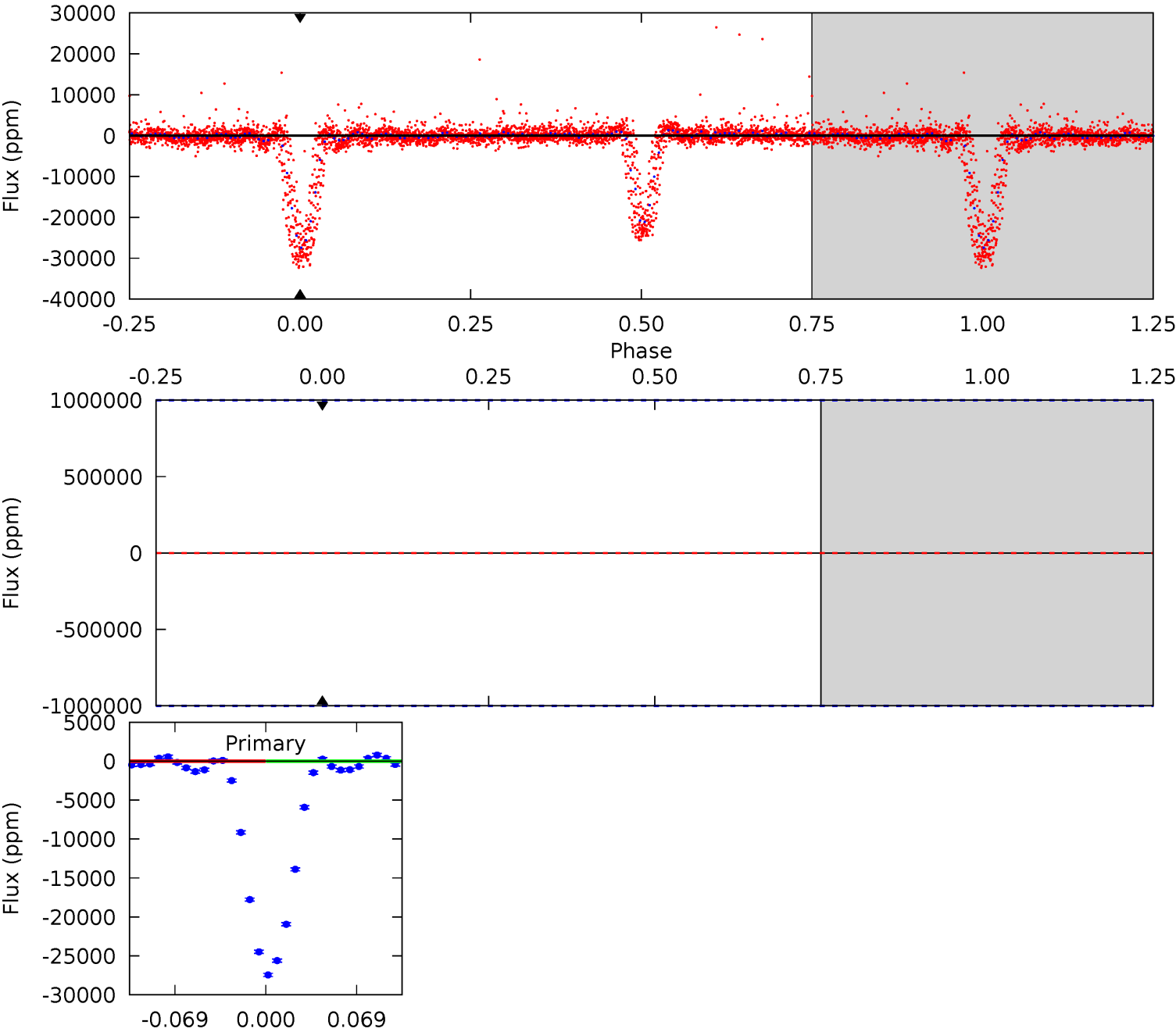
TCE 008949316-01 $P = 0.604269$ Days $T_0 = 131.766609$ (BKJD)



DV Model-Shift Uniqueness Test

008949316-01, P = 0.604269 Days, E = 131.764119 Days

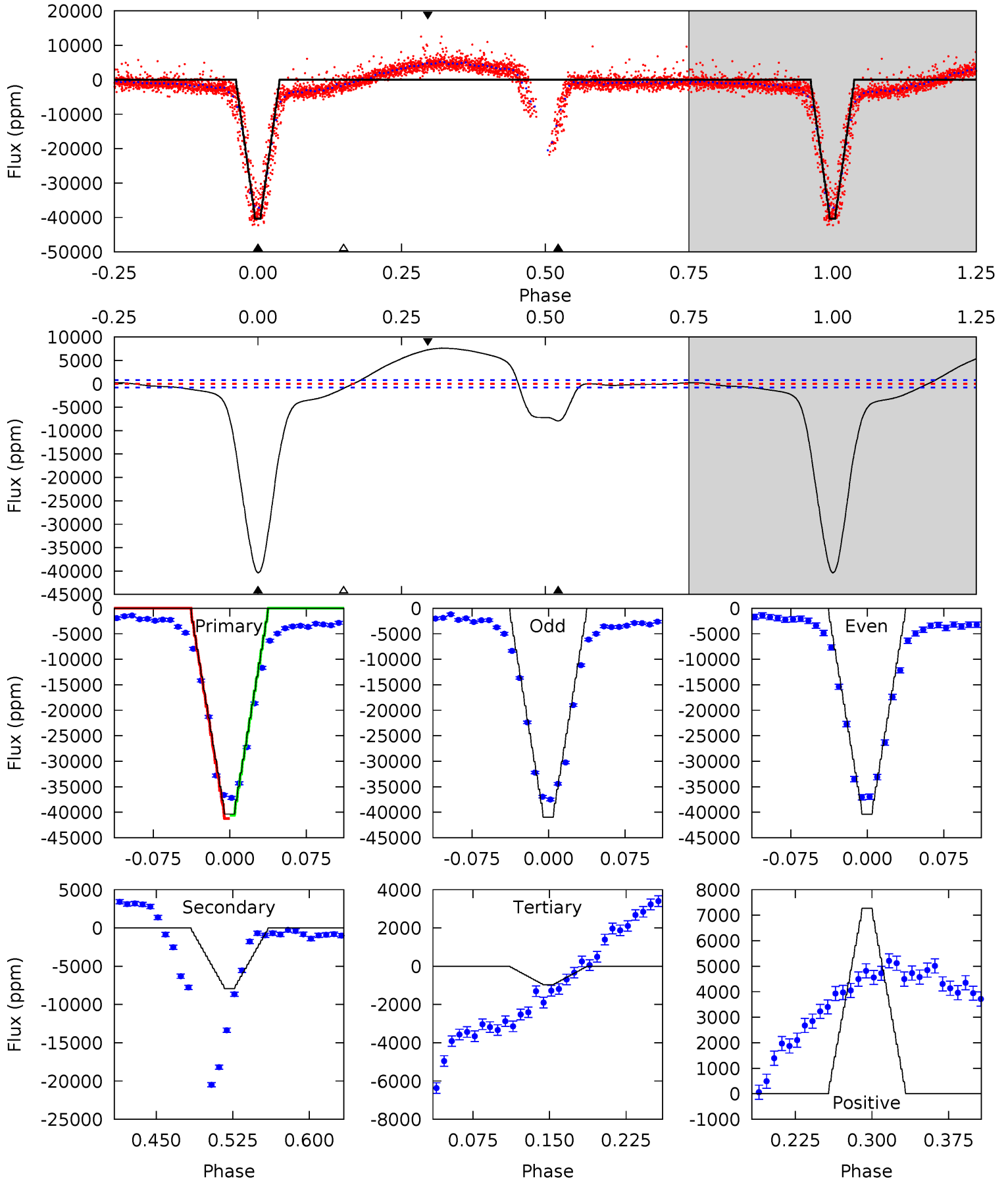
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

008949316-01, P = 0.604269 Days, E = 131.766609 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
235.4	46.2	5.67	42.4	4.62	1.78	20.0	229.7	193.0	40.5	3.77	1.73	0.99	0.16	1.96



Stellar Parameters For KIC 008949316

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3569^{+50}_{-57}	$4.820^{+0.042}_{-0.028}$	$0.000^{+0.100}_{-0.100}$	$0.427^{+0.031}_{-0.038}$	$0.439^{+0.037}_{-0.037}$	$7.946^{+1.696}_{-0.962}$
	+1%/-2%	+1%/-1%	+inf%/-inf%	+7%/-9%	+8%/-8%	+21%/-12%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008949316-01 / KOI 3849.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$5.21^{+4.22}_{-3.44}$	1390^{+31}_{-29}	2433^{+3614}_{-8209}	$1.921^{+427.588}_{-347.961}$
Alt.	-7914 ± 171	$10.21^{+4.64}_{-4.34}$	1388^{+29}_{-31}	2724^{+469}_{-268}	$4.808^{+9.785}_{-2.522}$

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

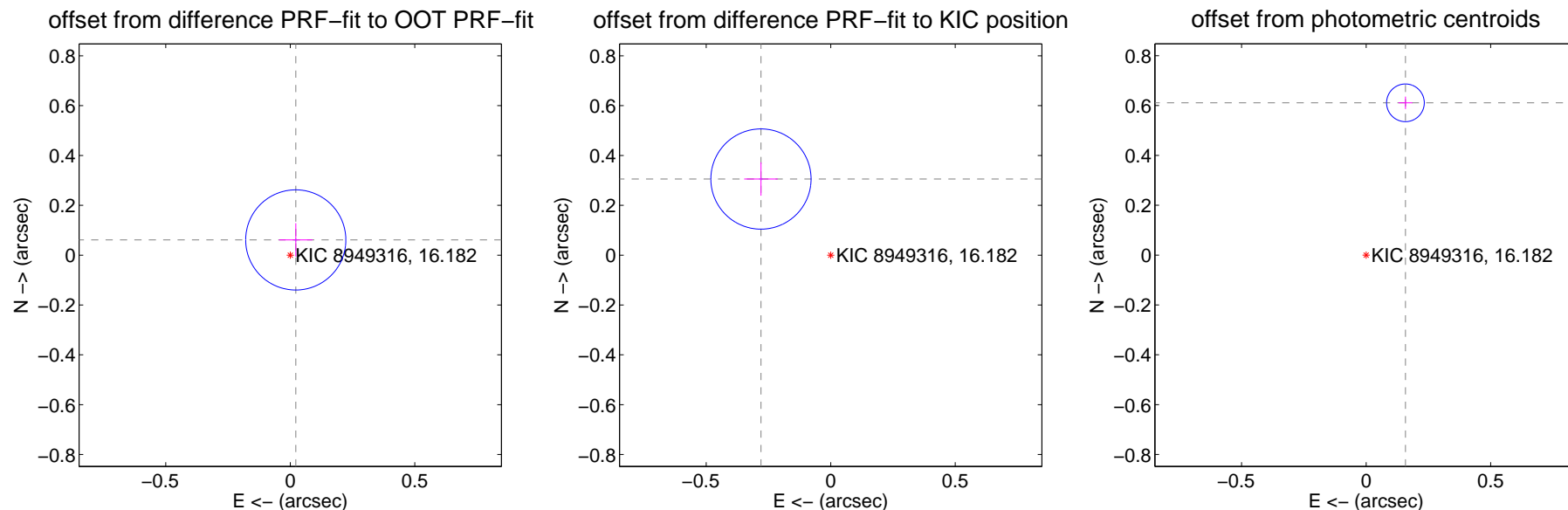
DV Centroid Data

Supplemental centroid analysis for 008949316-01. Kepler magnitude: 16.18. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.065 ± 0.067	0.97	-0.022 ± 0.067	0.061 ± 0.067
PRF-fit source offset from KIC position	0.414 ± 0.067	6.18	0.280 ± 0.067	0.305 ± 0.067
photometric centroid source offset	0.63 ± 0.03	25.03	-0.16 ± 0.03	0.61 ± 0.03

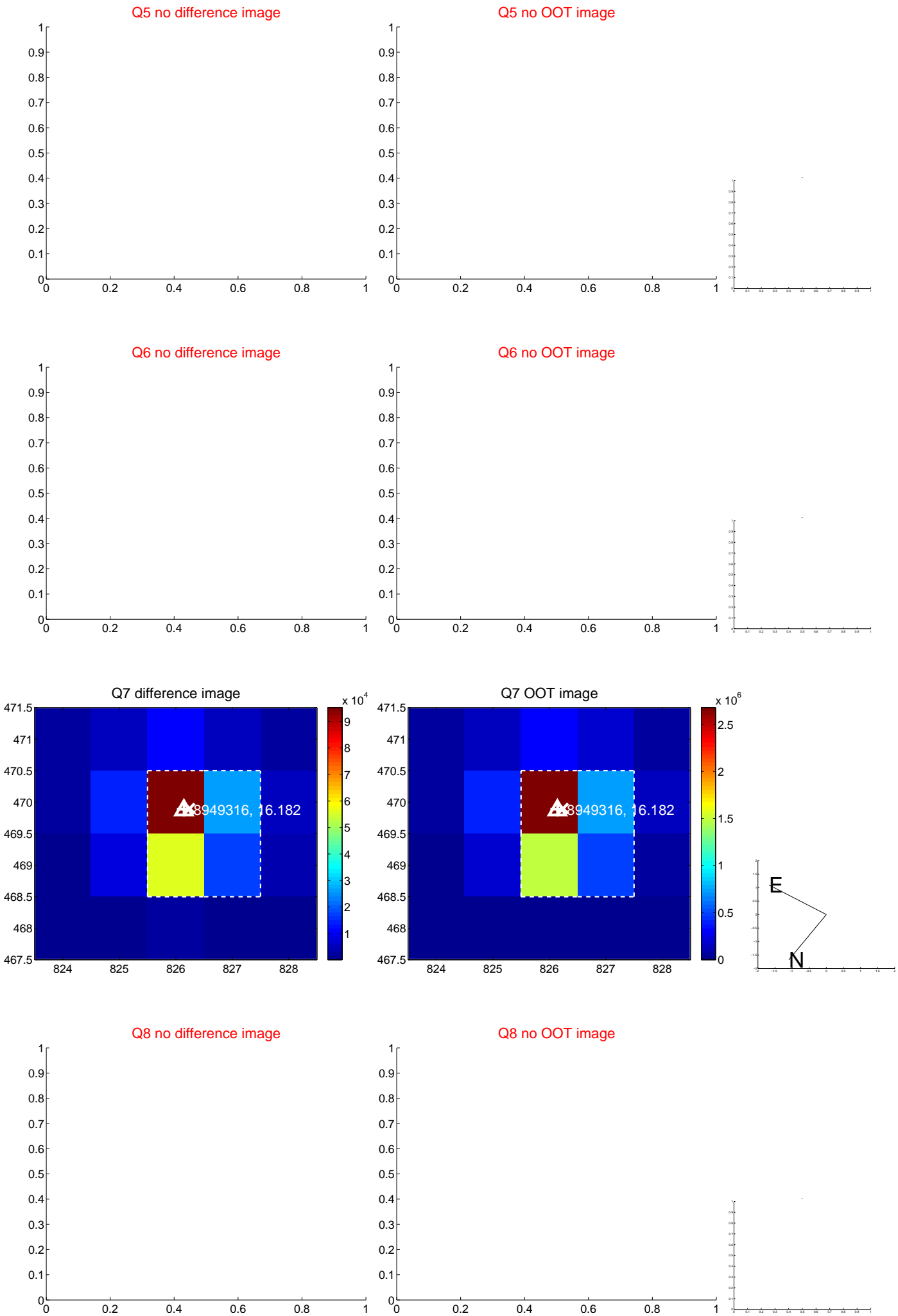


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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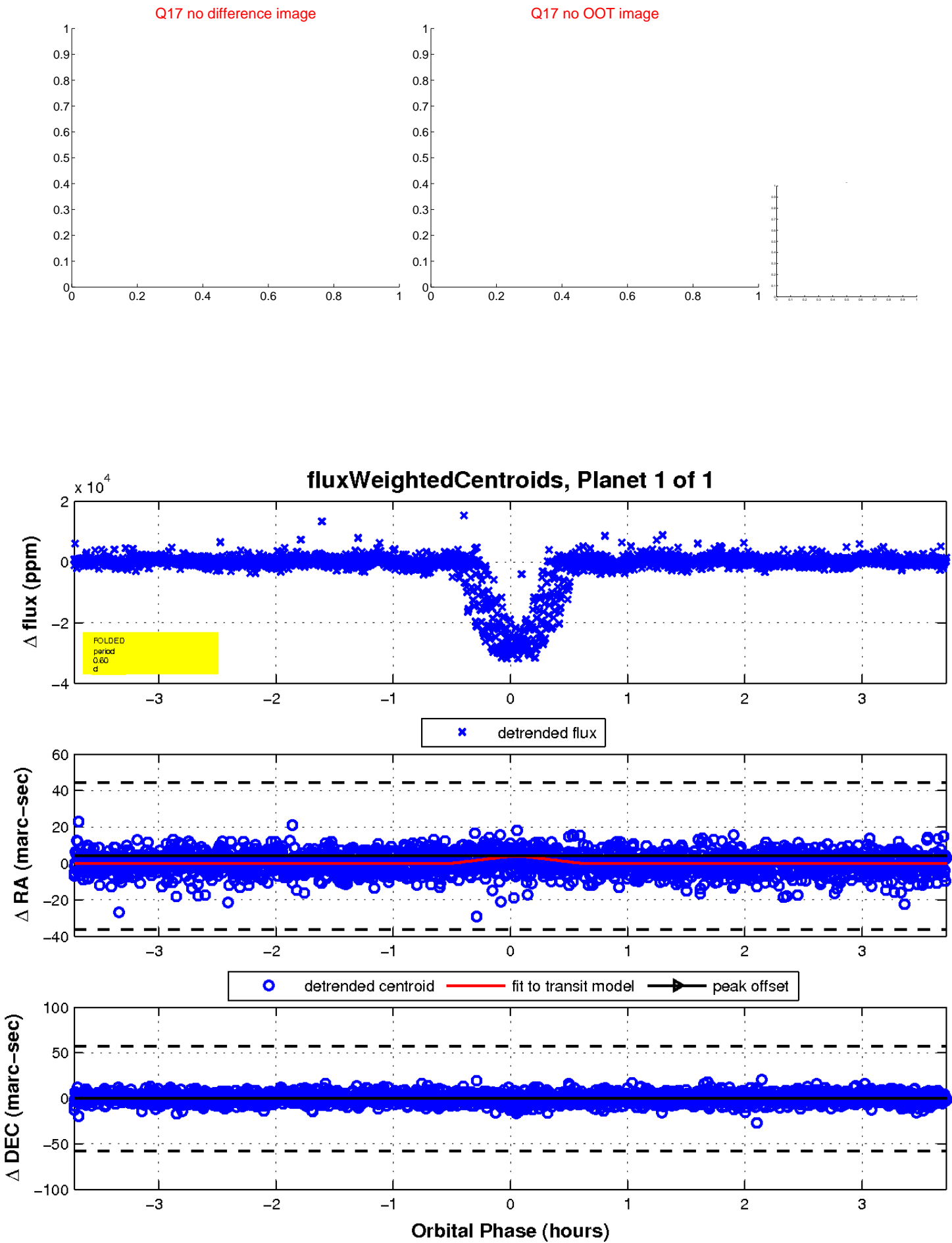
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UKIRT Image

Declination

