

KIC 010676927

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})
010676927-01	OBS	3830.01	1.031100	131.871610	80080.4	2.000	689.1	-1.0	0.75	5666	21.31	1489.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010676927-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

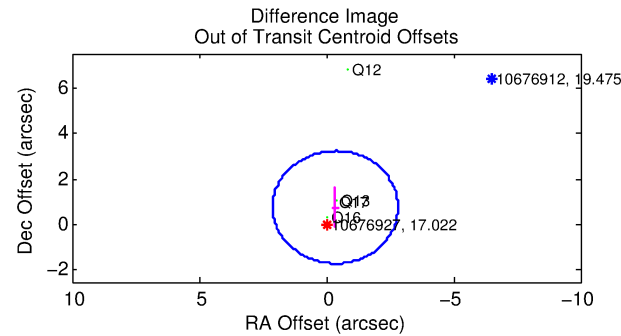
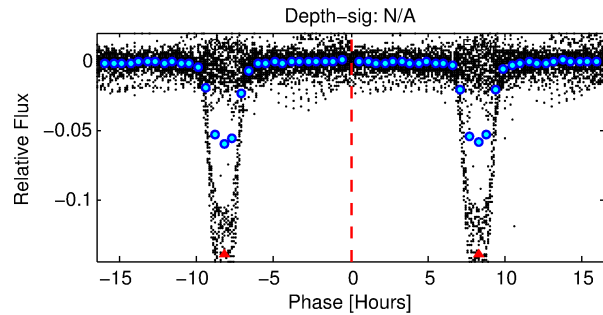
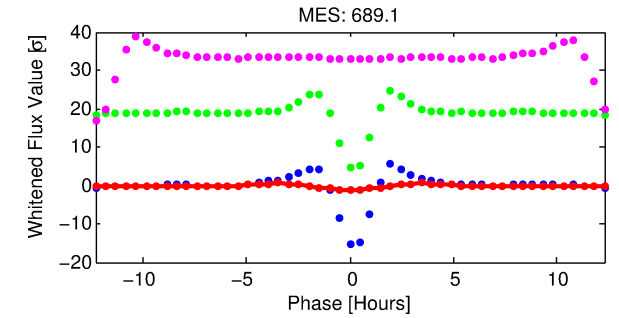
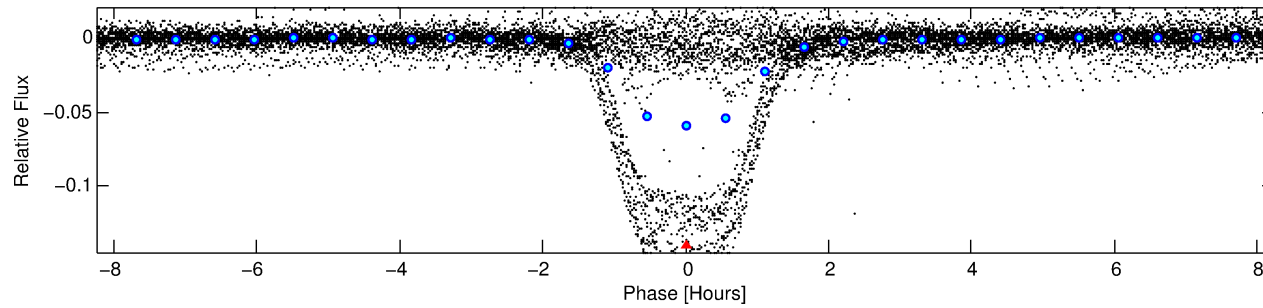
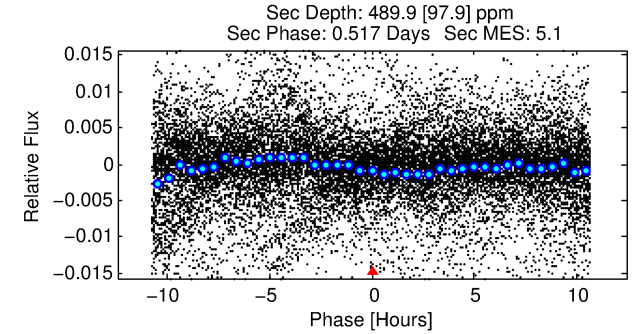
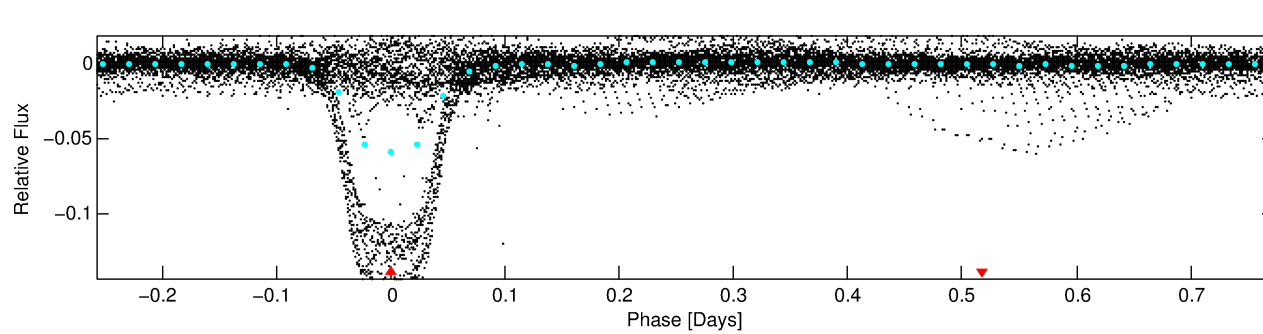
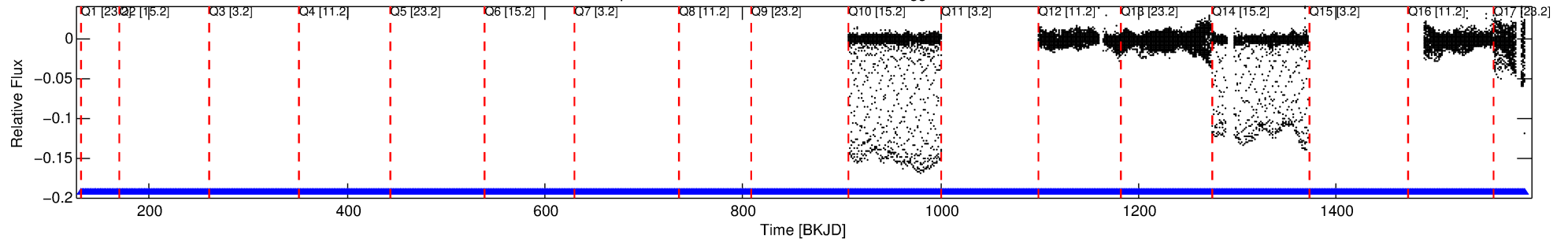
Ephemeris Match Information For 010676927-01

No Significant Match Found

DV One-Page Summary

KIC: 10676927 Candidate: 1 of 1 Period: 1.031 d
KOI: K03830.01 Corr: 0.816

Kp: 17.02 R*: 0.75 Rs Teff: 5666.0 K Logg: 4.60 Fe/H: -0.480



TPS TCE Results:

Period = 1.03110 d
Epoch = 131.8716 BKJD

DV fit results are unavailable

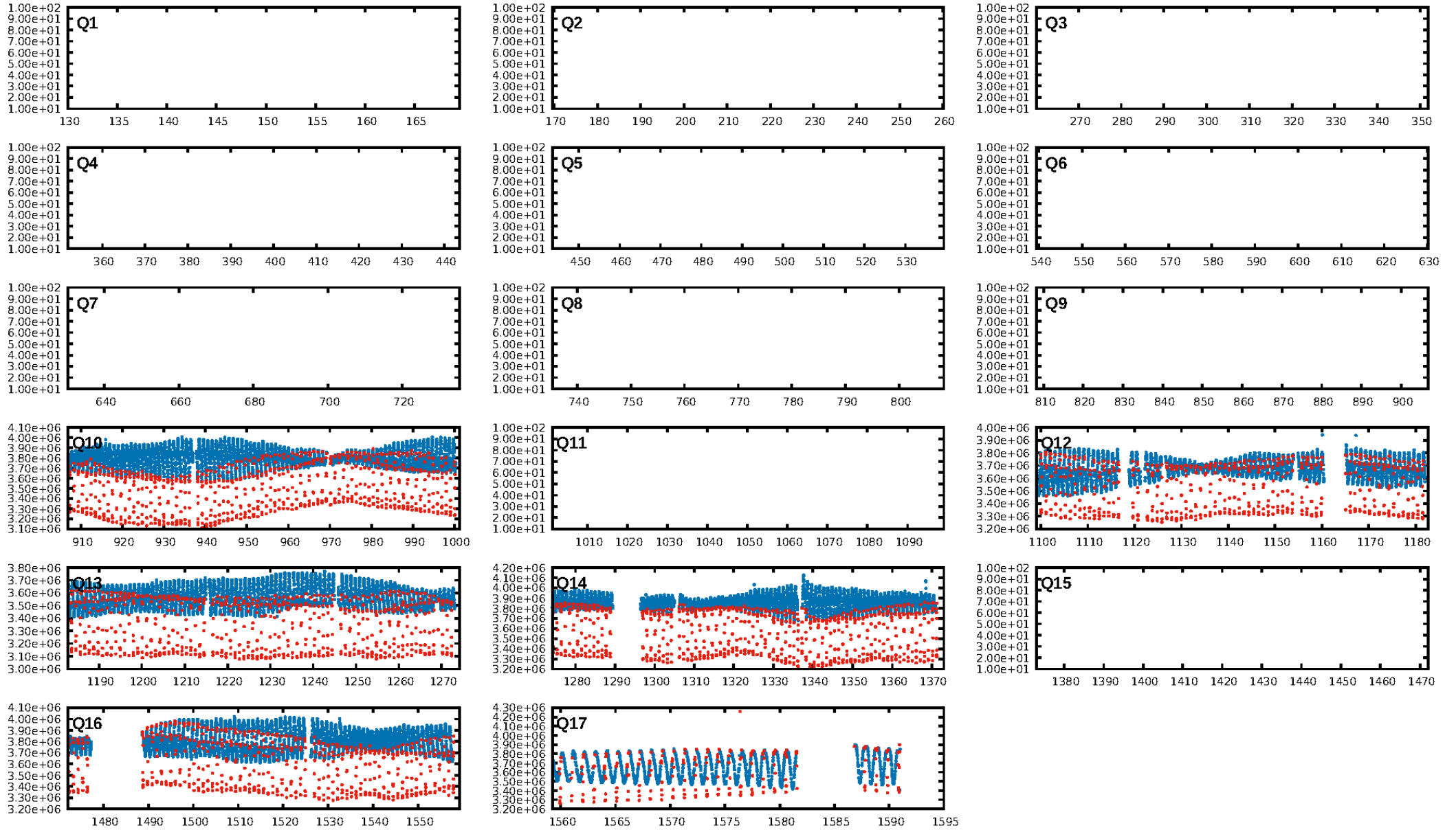
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [401/401]
GhostDiagnostic-chr: 0.3268
Centroid-sig: N/A
Centroid-so: 3.081 arcsec [546.83σ]
OotOffset-rm: 0.850 arcsec [1.03σ]
KicOffset-rm: 0.164 arcsec [2.34σ]
OotOffset-st: 0/0/2/2 [4]
KicOffset-st: 2/0/2/2 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

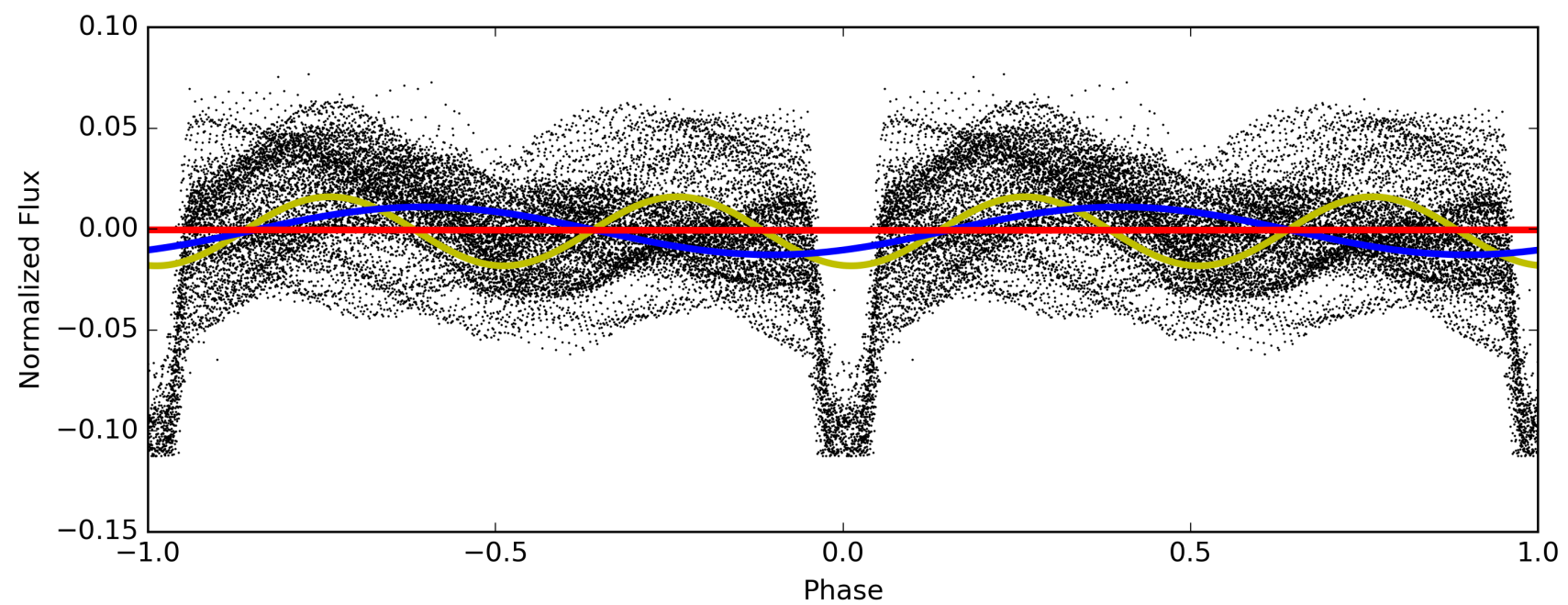
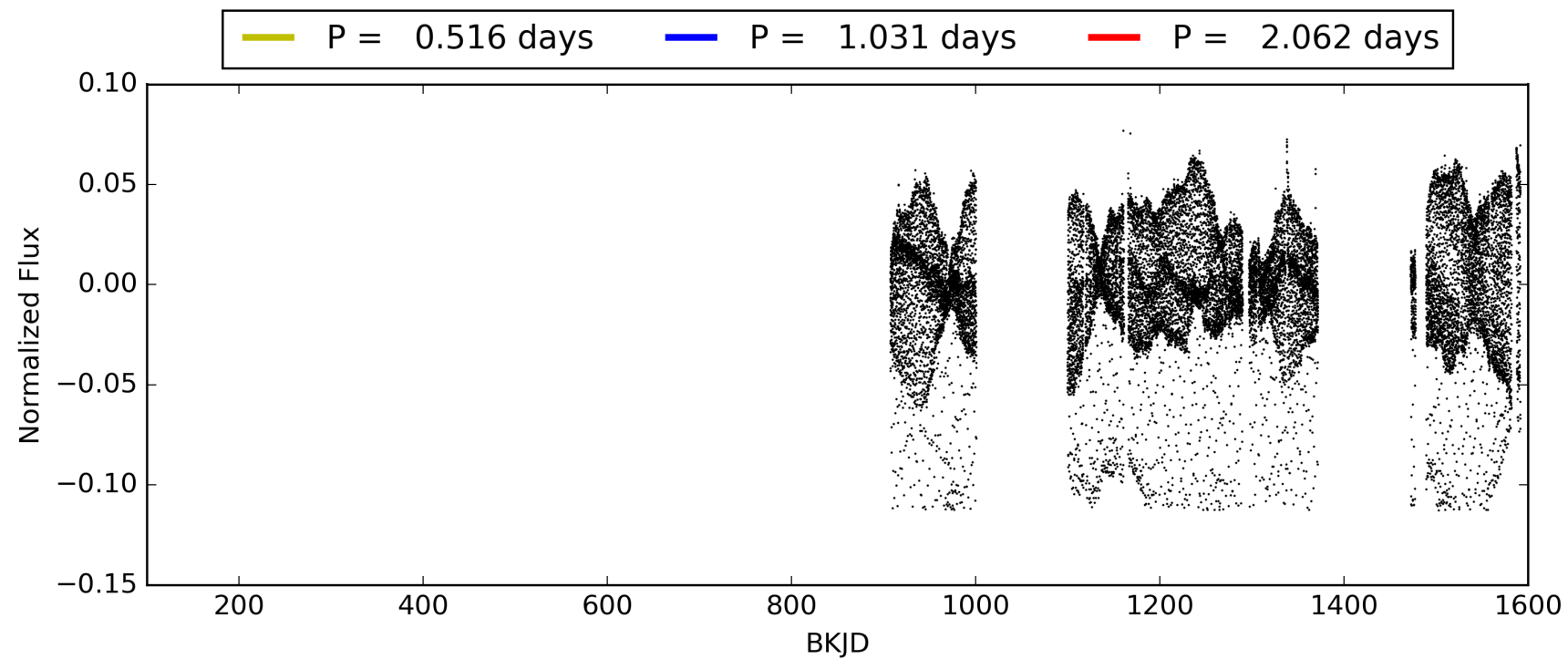
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:53:12 Z

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

TCE 010676927-01, PDC Light Curves

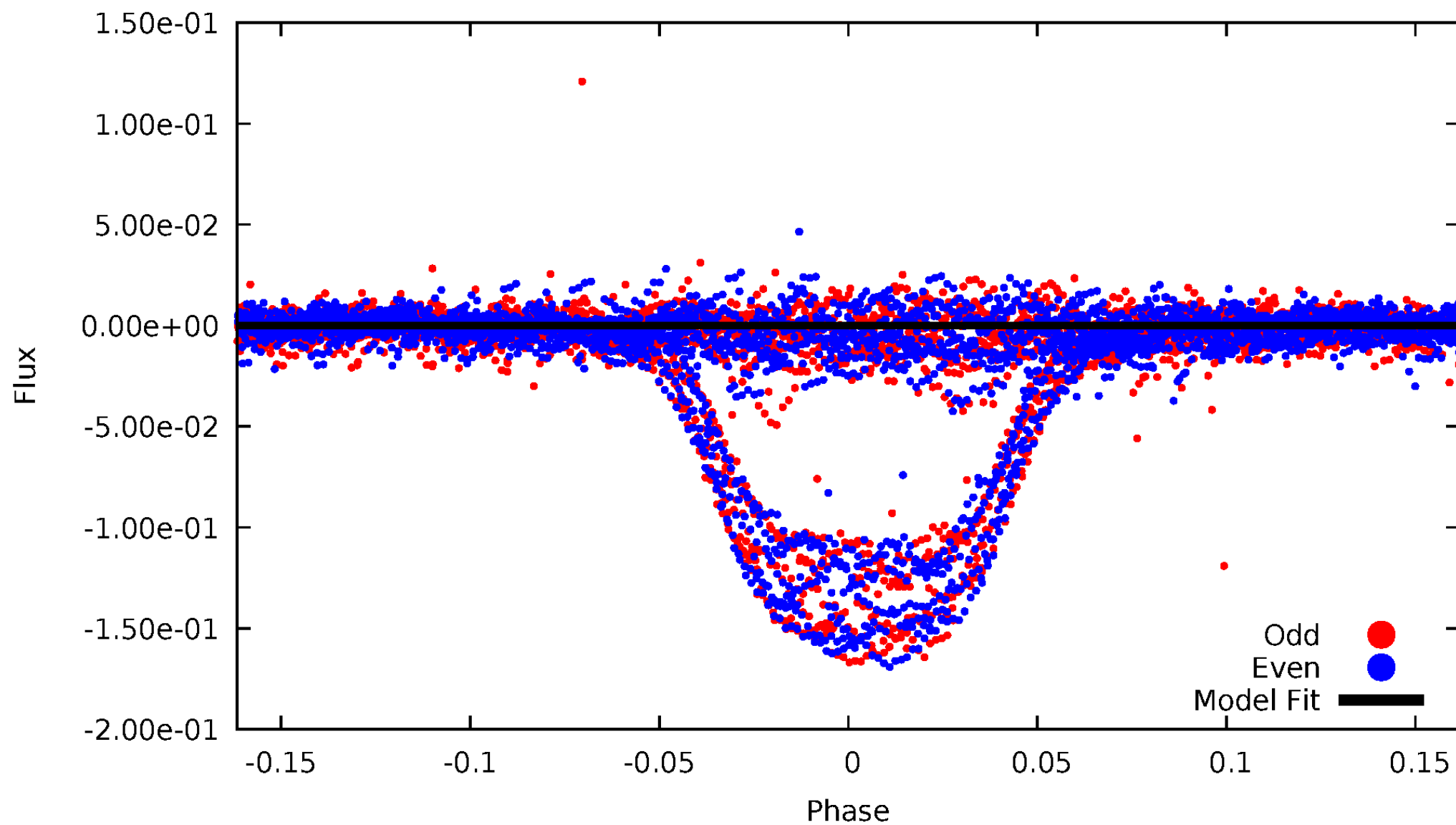


TCE 010676927-01



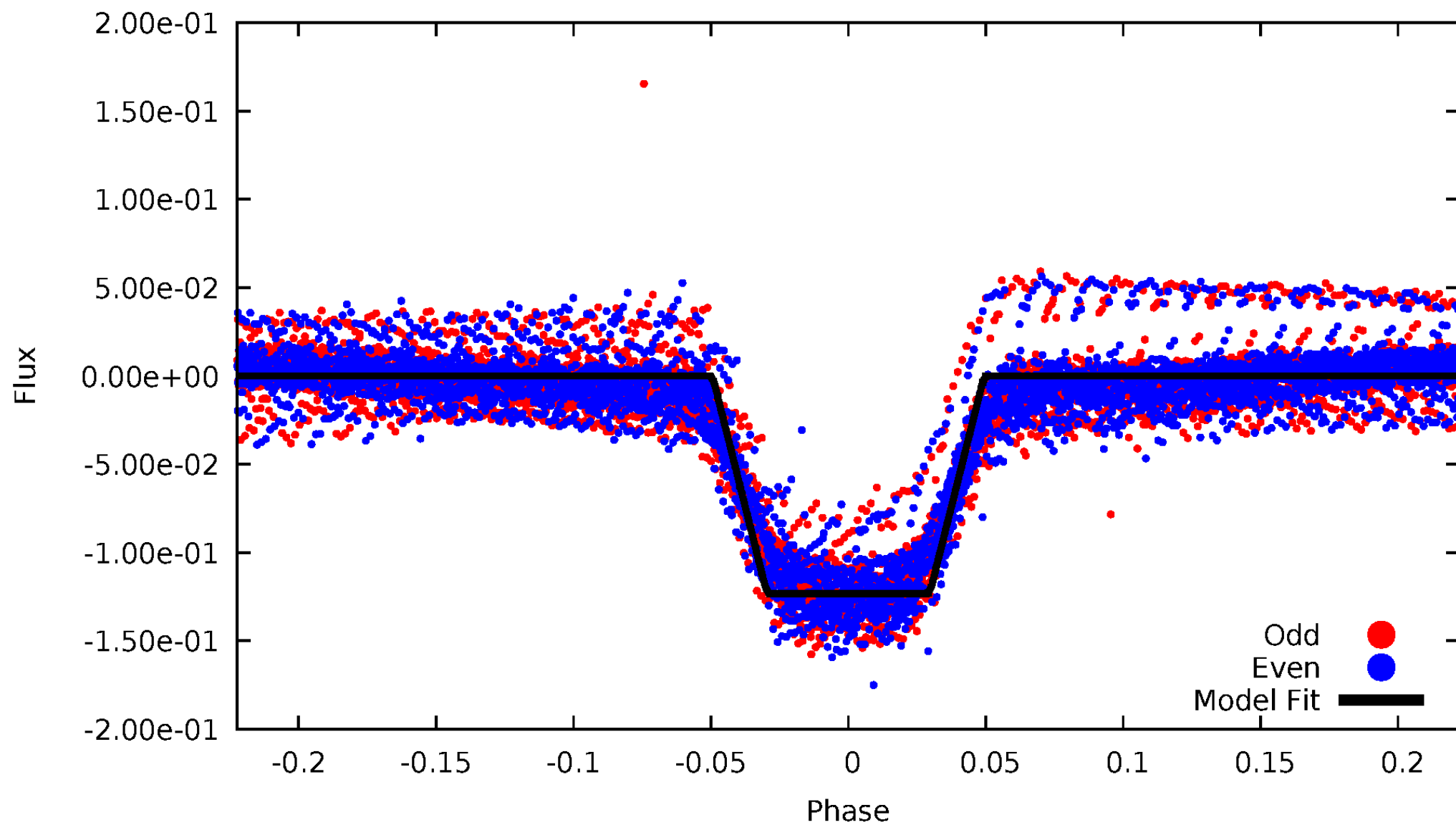
DV Odd/Even

TCE 010676927-01



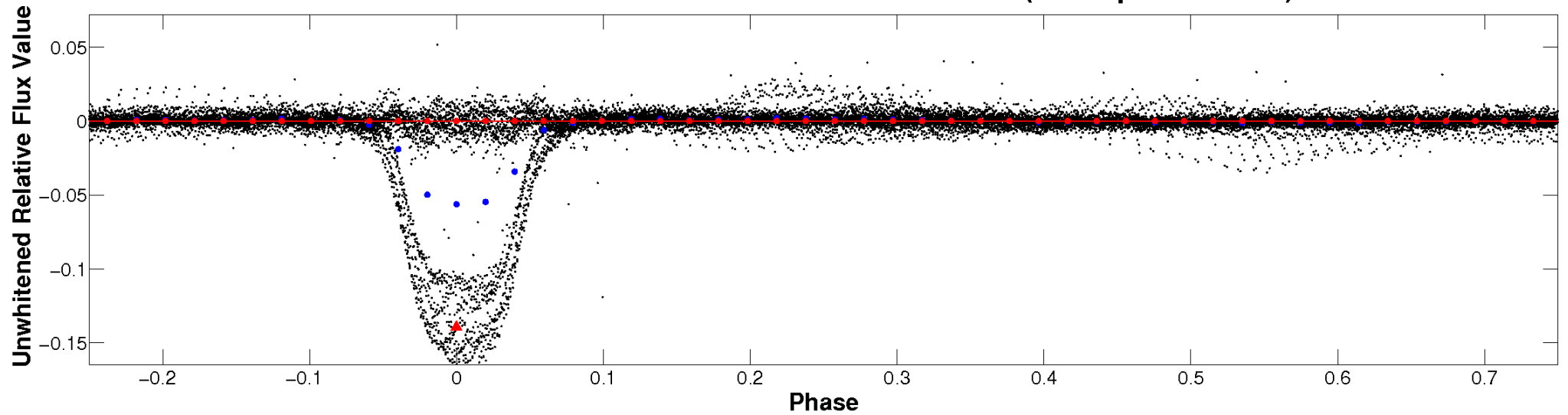
ALT Odd/Even

TCE 010676927-01



Non-Whitened Vs. Whitened Light Curve

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

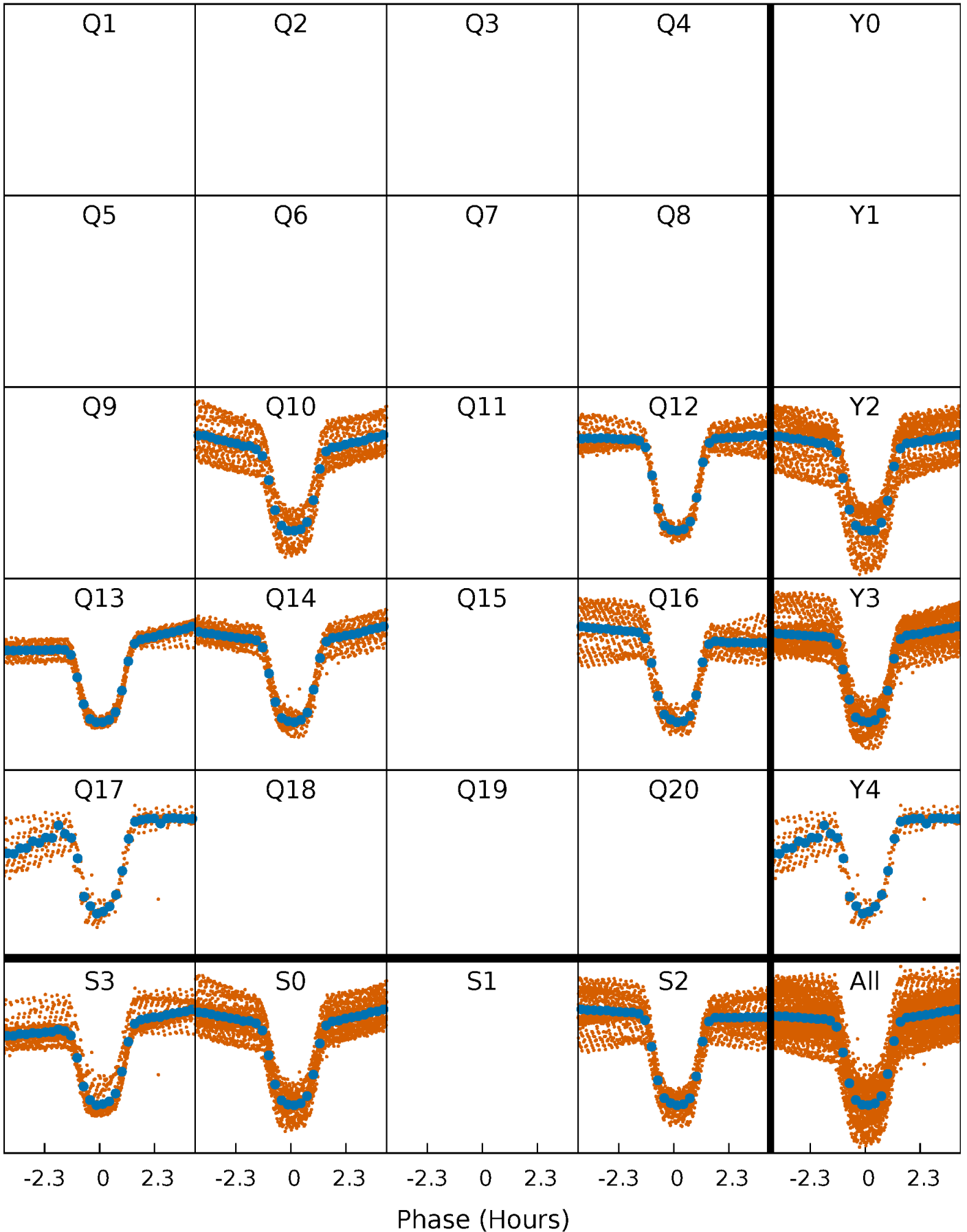


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



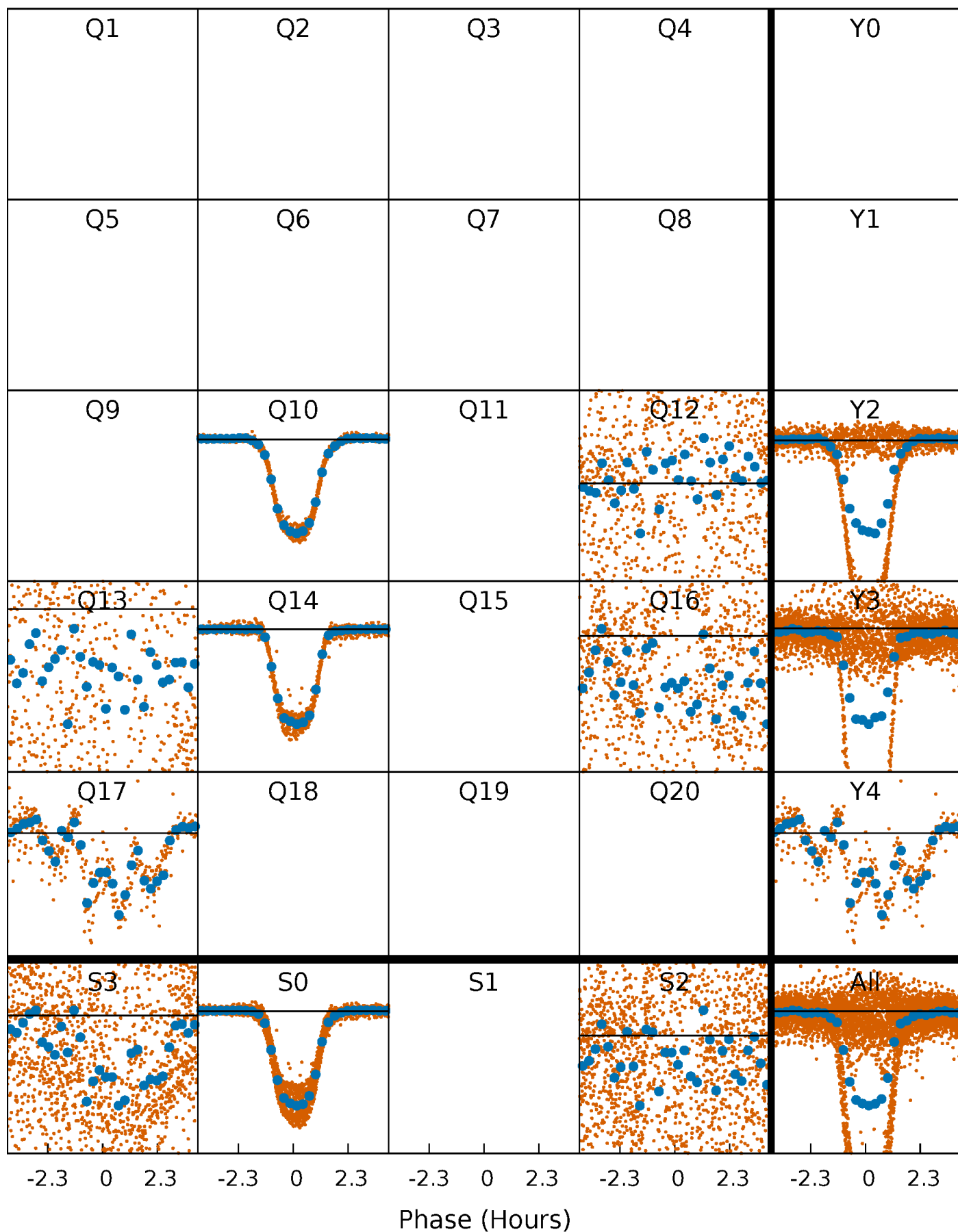
PDC Quarter-Phased Transit Curves

TCE 010676927-01 P= 1.031100 Days $T_0=131.871611$ (BKJD)



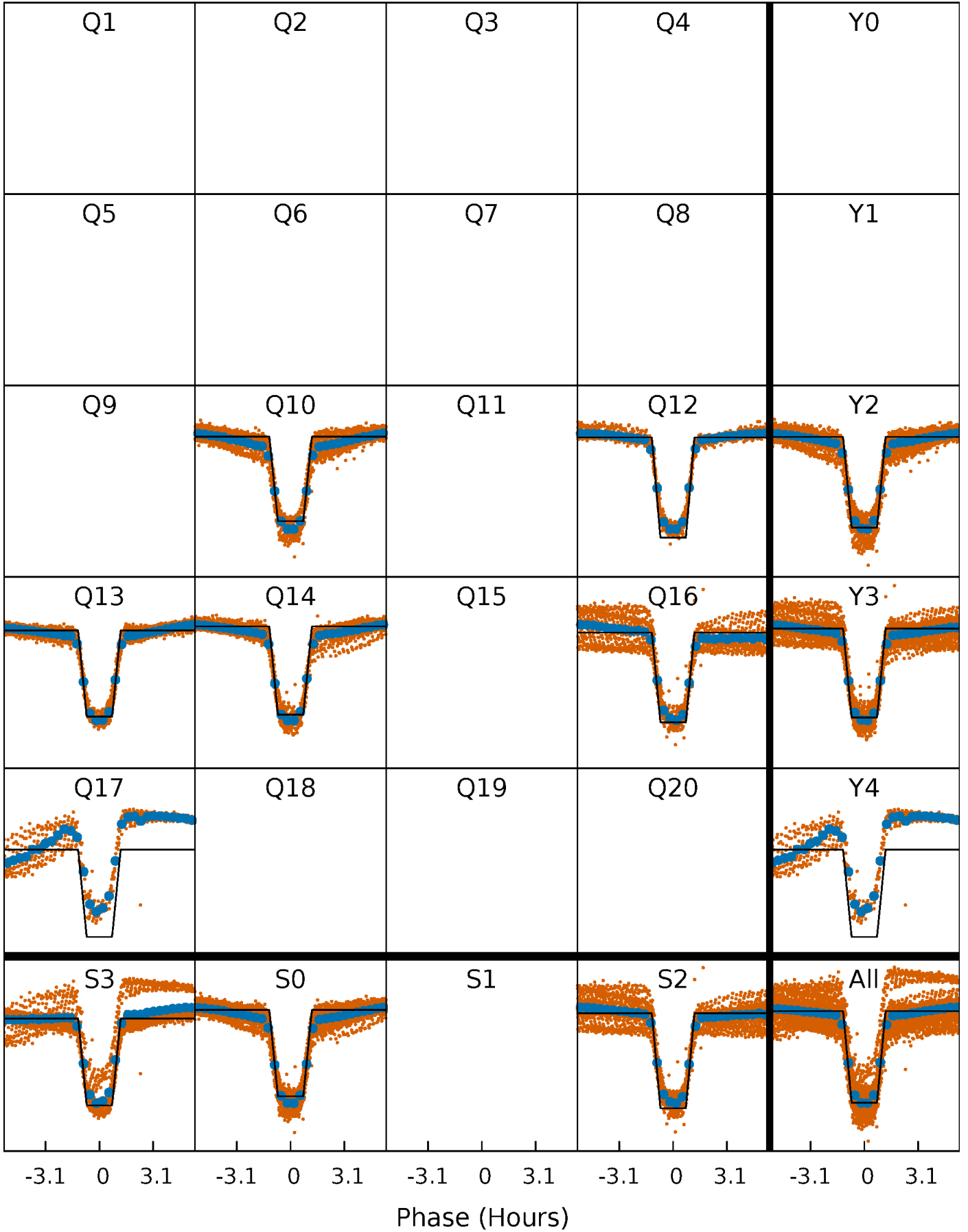
DV Quarter-Phased Transit Curves

TCE 010676927-01 P= 1.031100 Days $T_0=131.871611$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

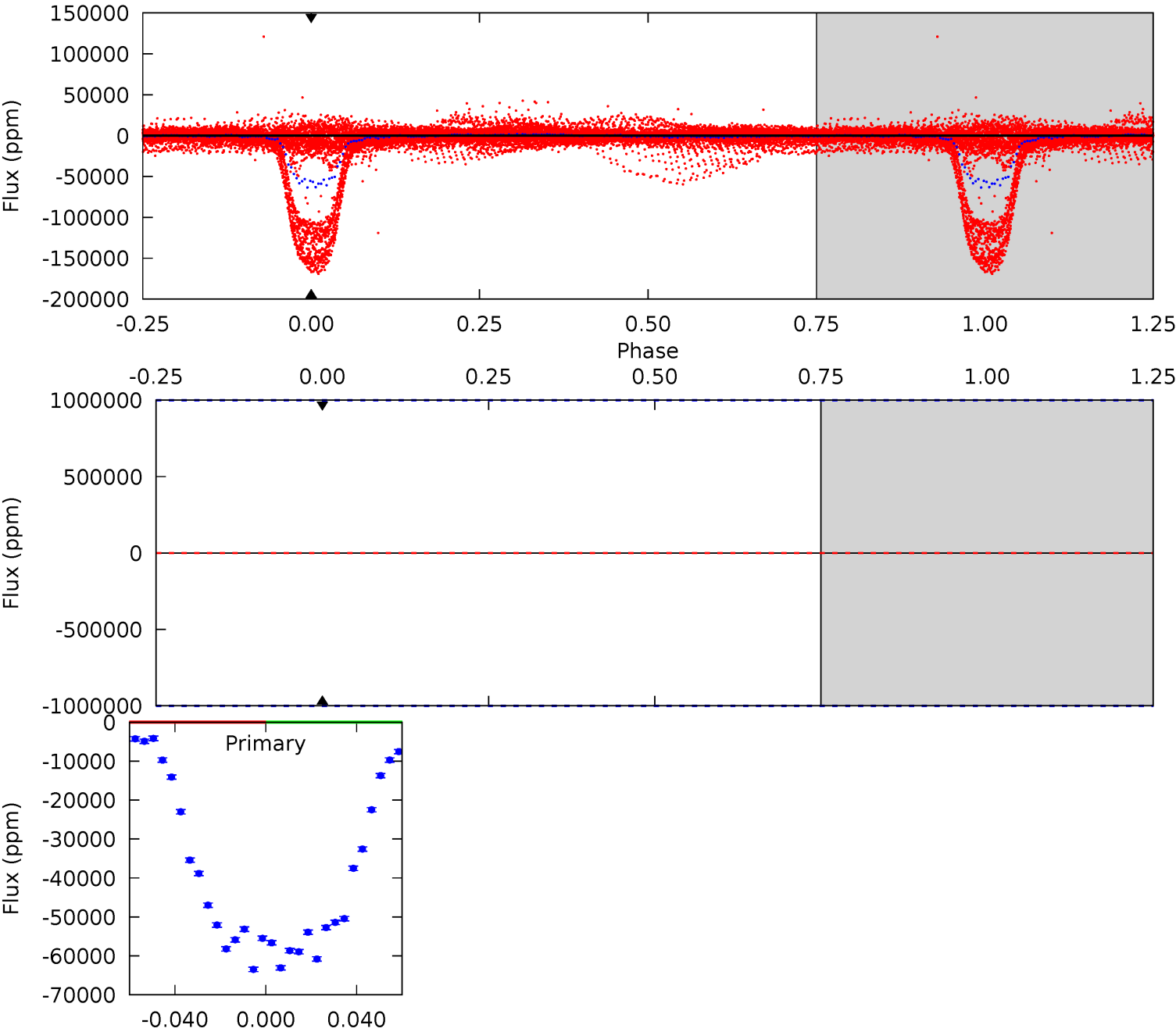
TCE 010676927-01 P= 1.031100 Days $T_0=131.875662$ (BKJD)



DV Model-Shift Uniqueness Test

010676927-01, P = 1.031100 Days, E = 131.871611 Days

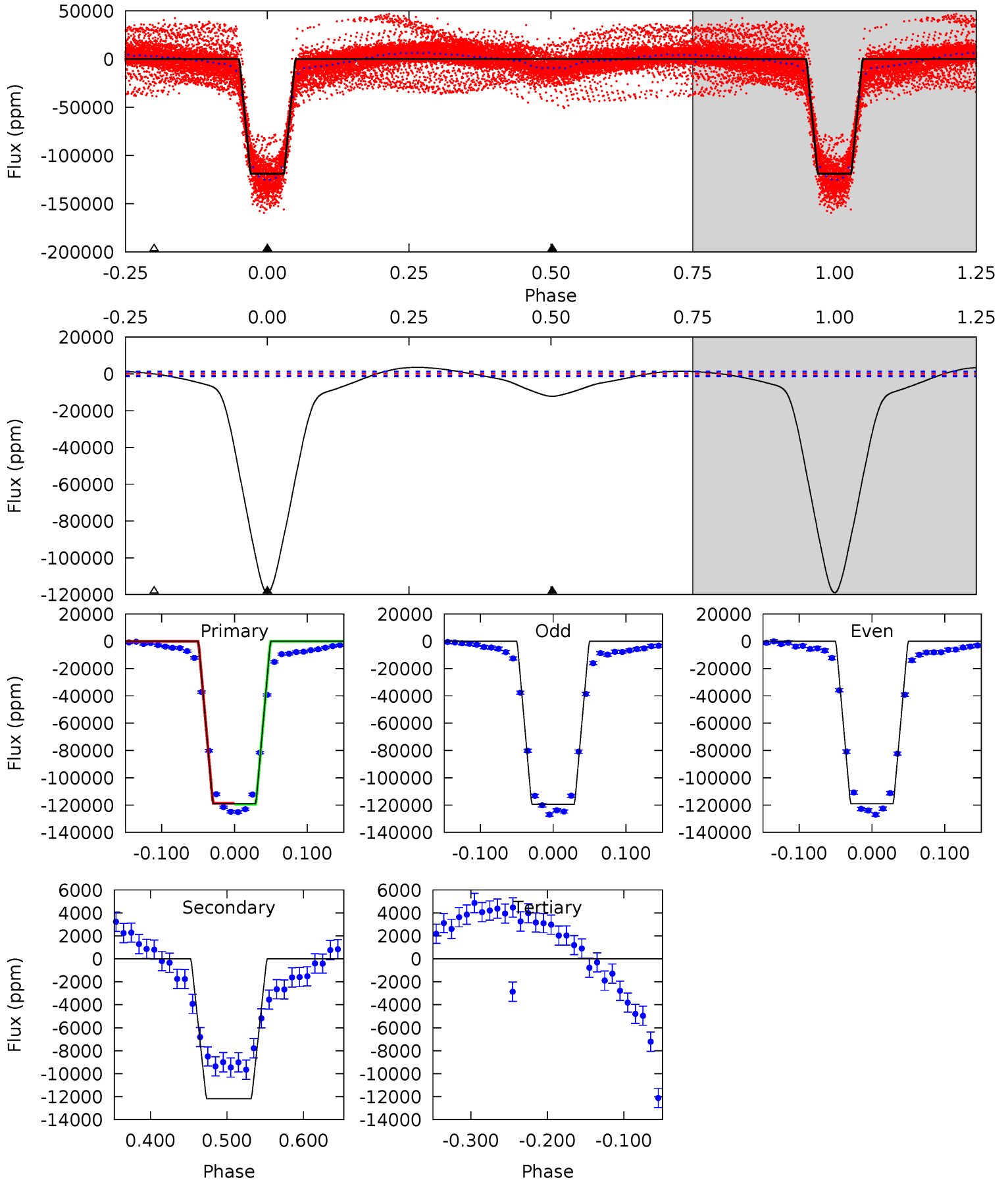
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010676927-01, P = 1.031100 Days, E = 131.875662 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
446.8	45.7	0	0	4.56	1.64	11.7	446.8	446.8	45.7	45.7	0.95	0.99	0.03	1.23



Stellar Parameters For KIC 010676927

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5666^{+181}_{-202}	$4.601^{+0.036}_{-0.135}$	$-0.480^{+0.300}_{-0.300}$	$0.752^{+0.157}_{-0.067}$	$0.841^{+0.079}_{-0.096}$	$2.781^{+0.510}_{-1.162}$
	+3%/-4%	+1%/-3%	+62%/-62%	+21%/-9%	+9%/-11%	+18%/-42%
Source	KIC0	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 010676927-01 / KOI 3830.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$21.50^{+8.90}_{-7.18}$	2249^{+115}_{-104}	2551^{+3970}_{-8846}	$0.583^{+47.545}_{-41.770}$
Alt.	-12179 ± 266	$30.57^{+8.75}_{-8.82}$	2252^{+119}_{-98}	3527^{+443}_{-303}	$2.562^{+2.289}_{-1.009}$

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

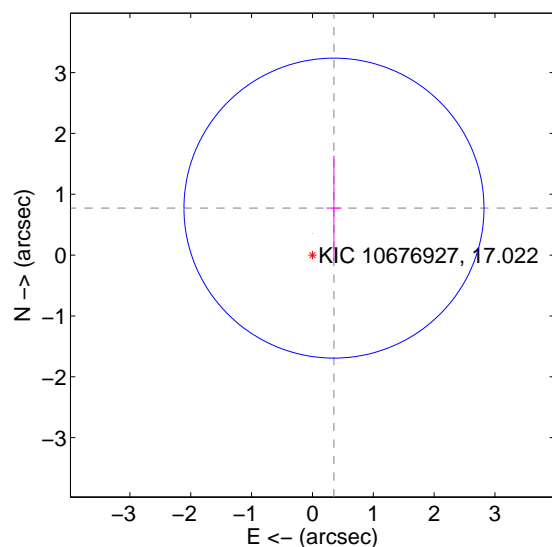
Supplemental centroid analysis for 010676927-01. Kepler magnitude: 17.02. Transit SNR -1.00

There are 6 quarters with good PRF difference image offsets

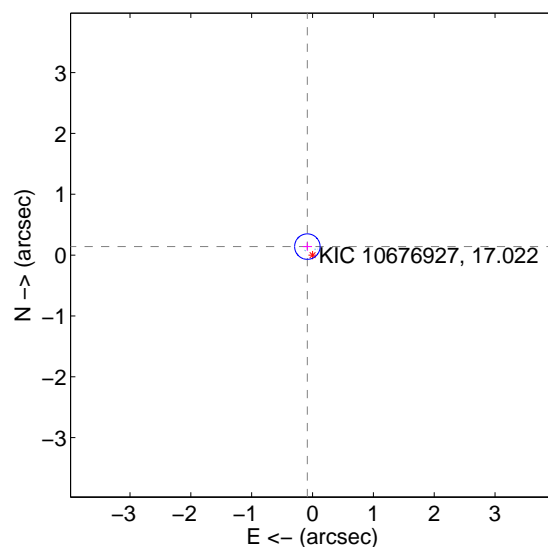
The direct PRF centroid is offset from the target star catalog position by about 0.97 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.850 ± 0.822	1.03	-0.354 ± 0.123	0.772 ± 0.861
PRF-fit source offset from KIC position	0.164 ± 0.070	2.34	0.085 ± 0.076	0.140 ± 0.068
photometric centroid source offset	3.08 ± 0.01	546.83	-0.49 ± 0.00	-3.04 ± 0.01

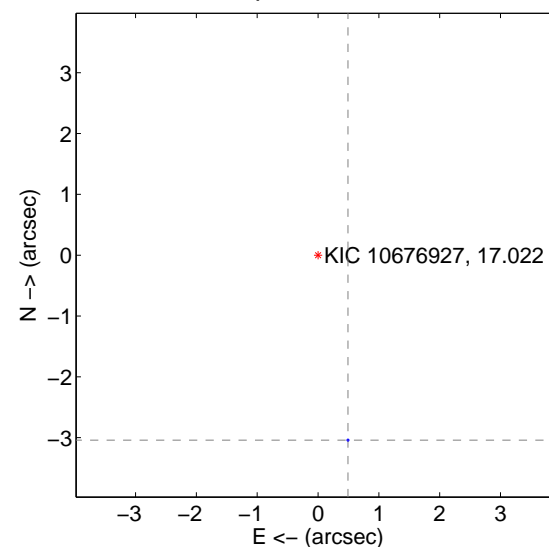
offset from difference PRF-fit to OOT PRF-fit



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.

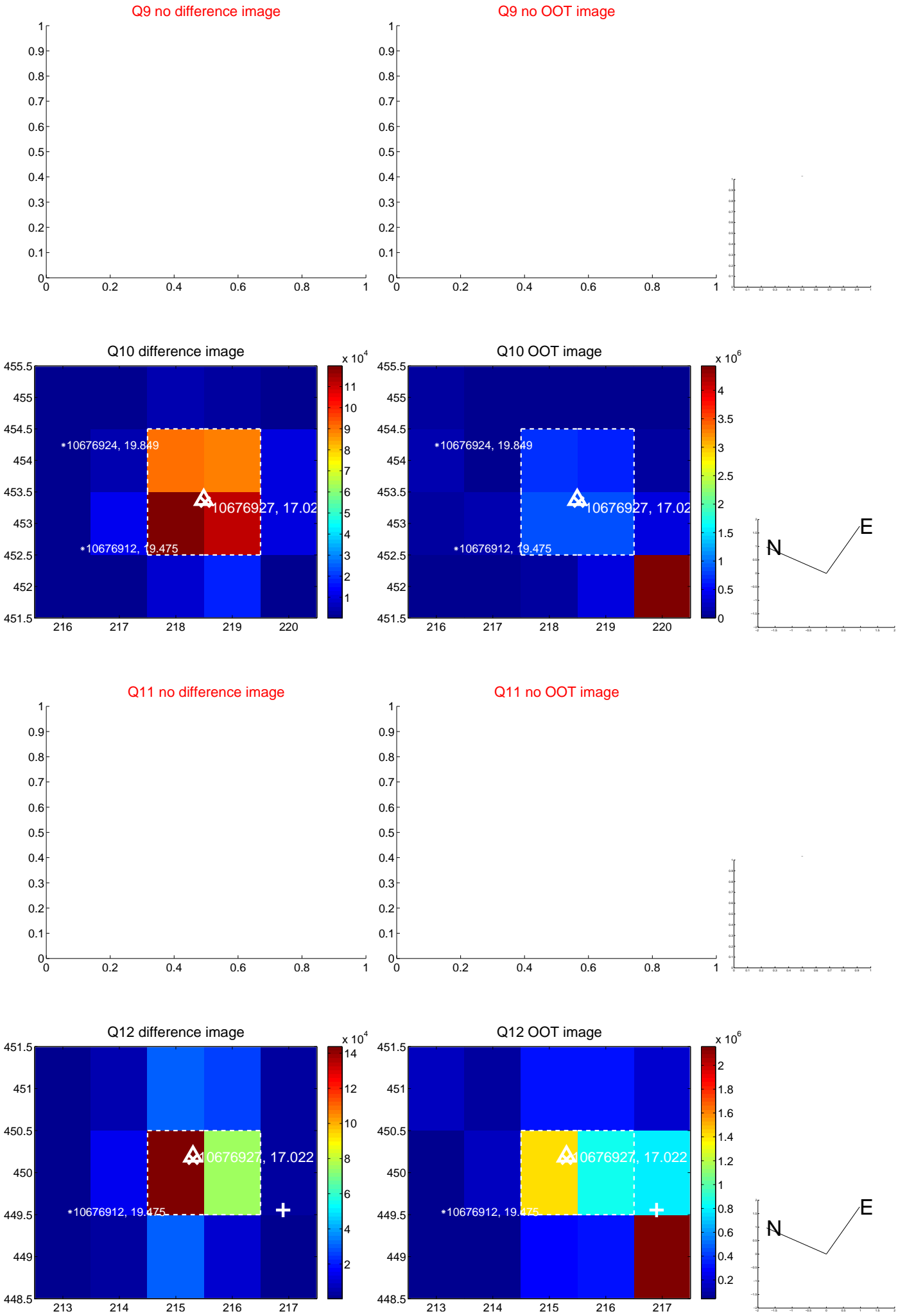
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



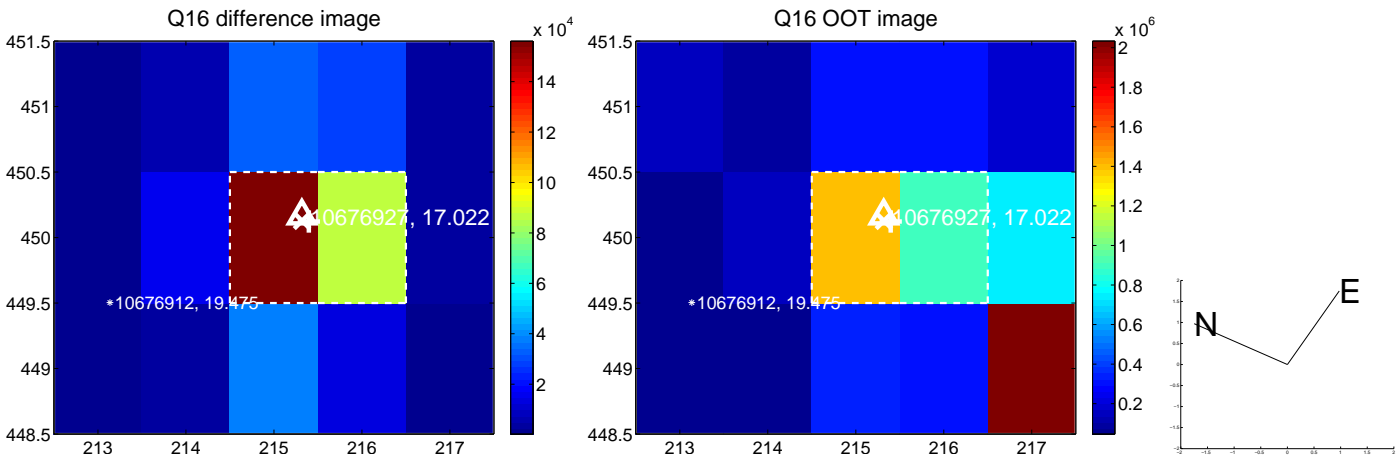
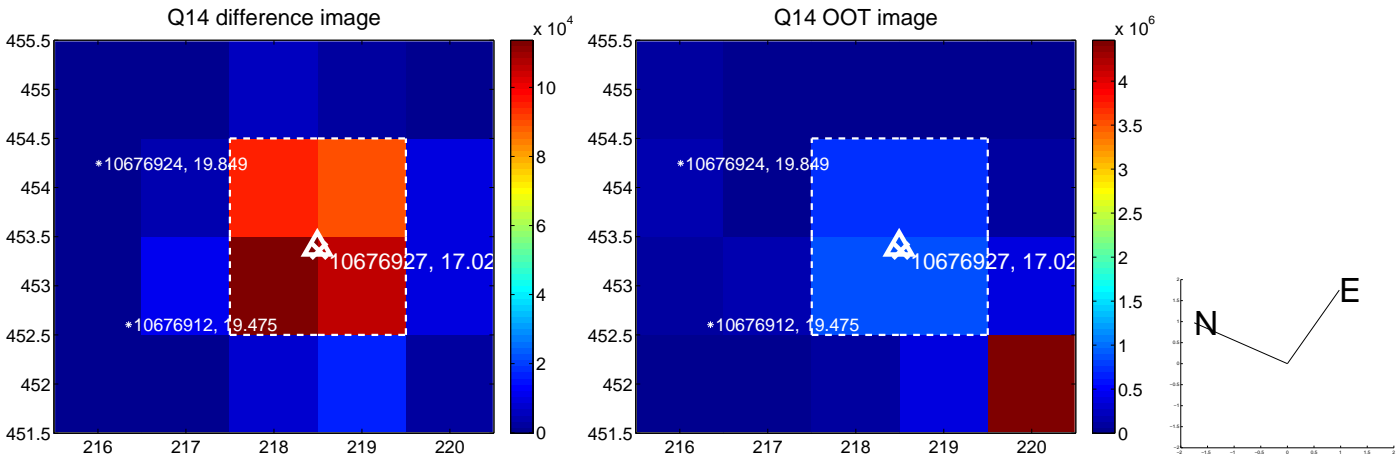
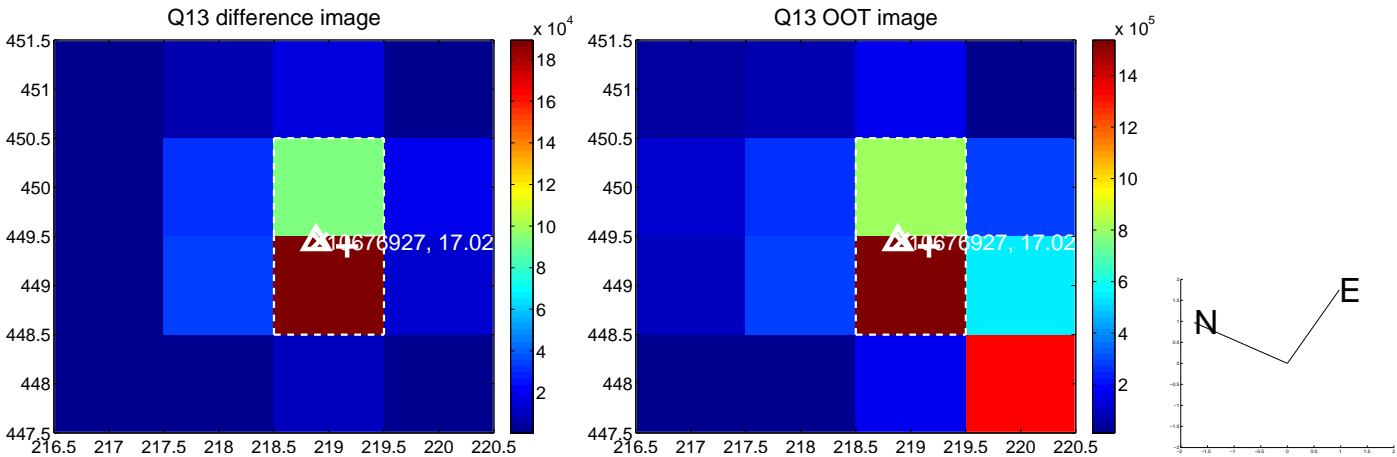
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



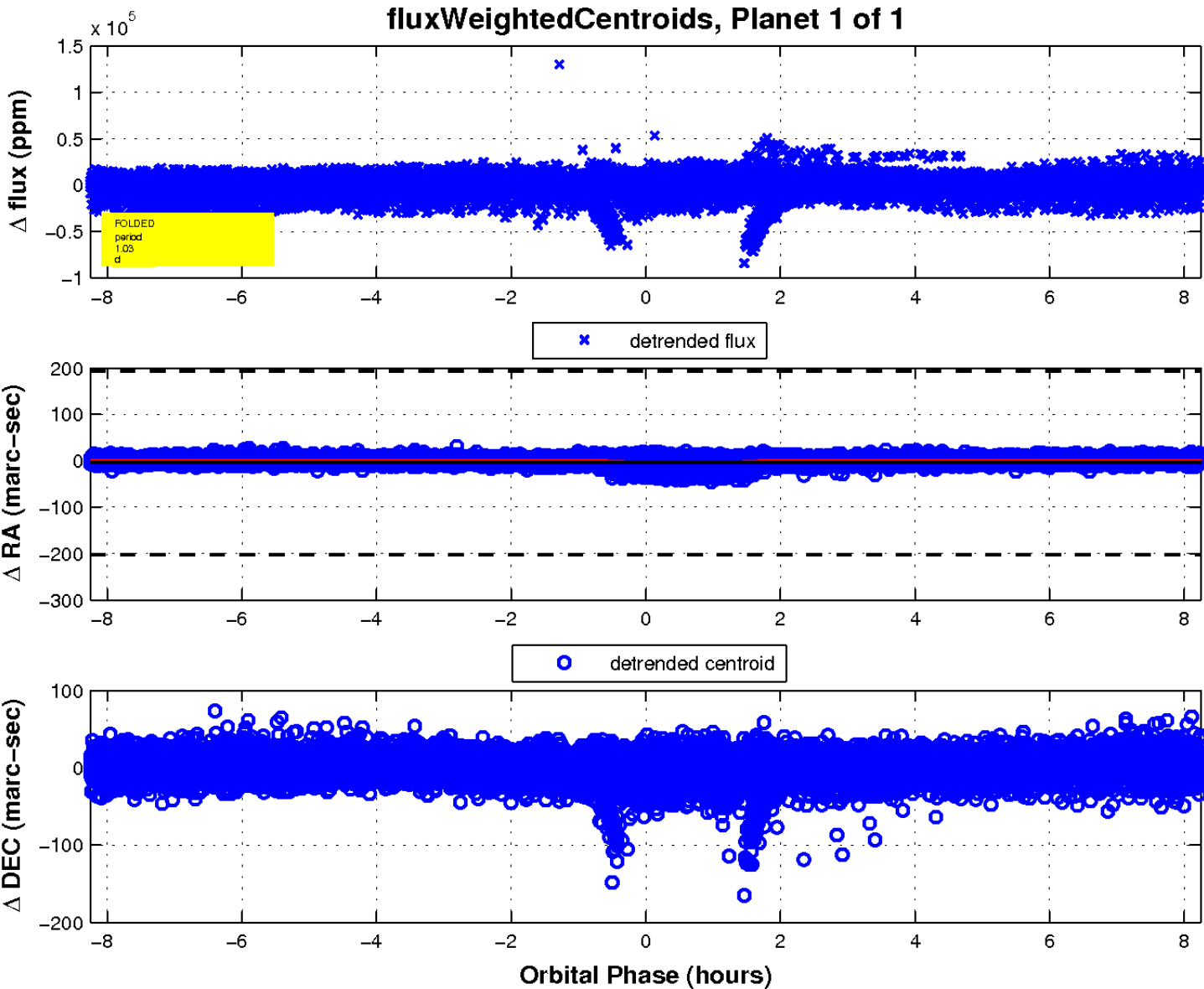
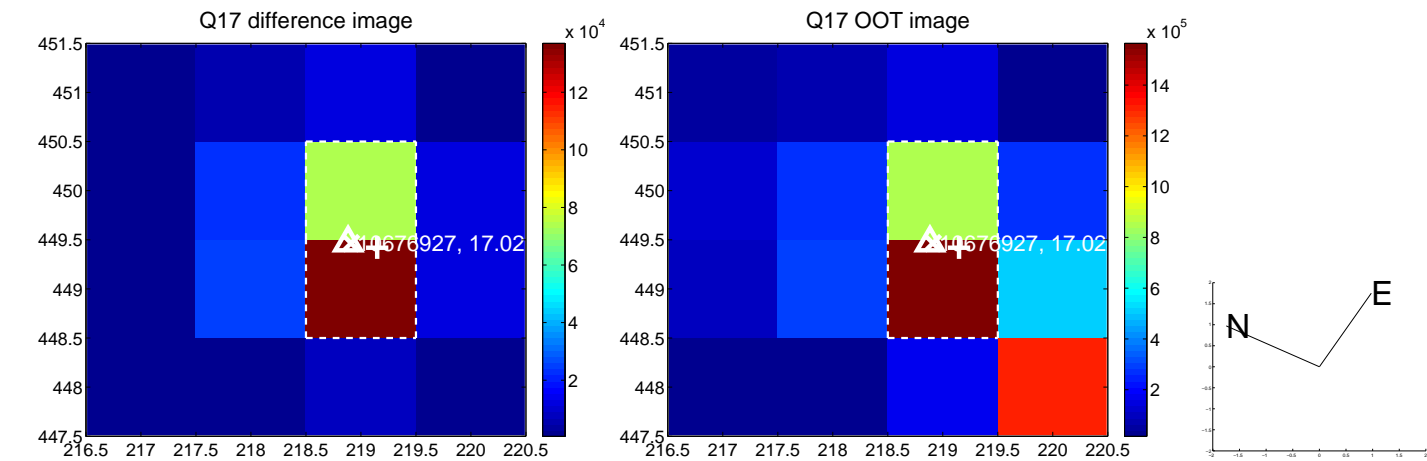
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UKIRT Image

