

KIC 006280625

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})
006280625-01	OBS	No	382.655815	501.423246	934.5	27.292	7.2	7.2	1.15	6257	5.60	1.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006280625-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

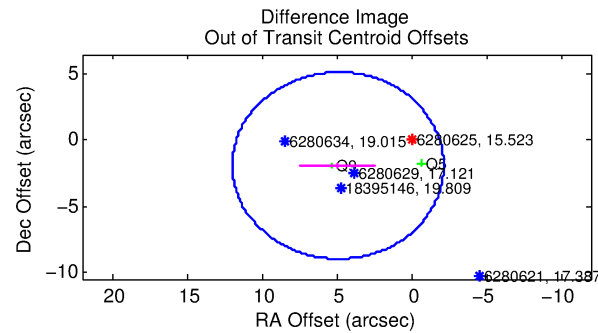
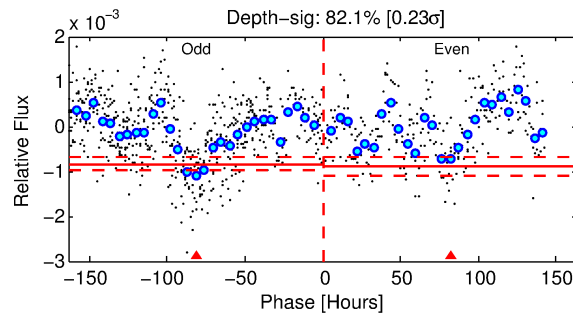
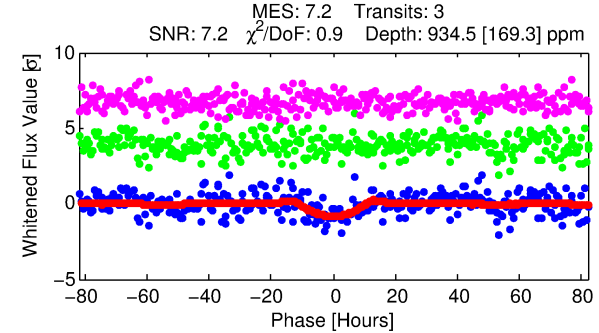
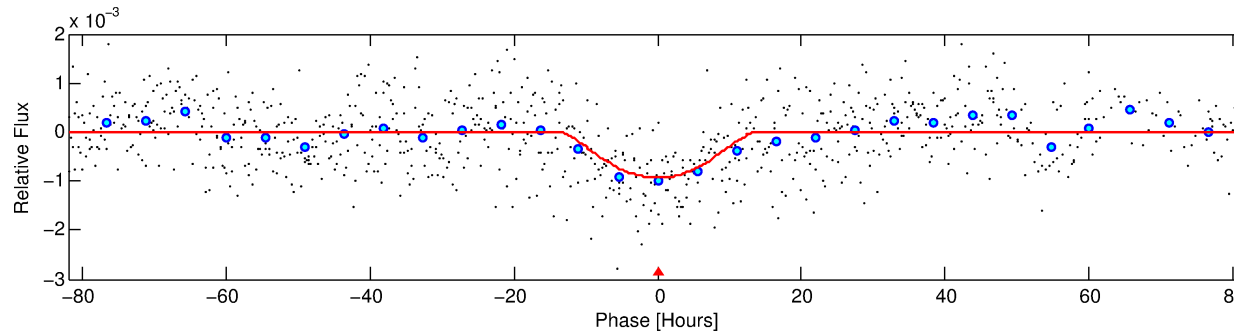
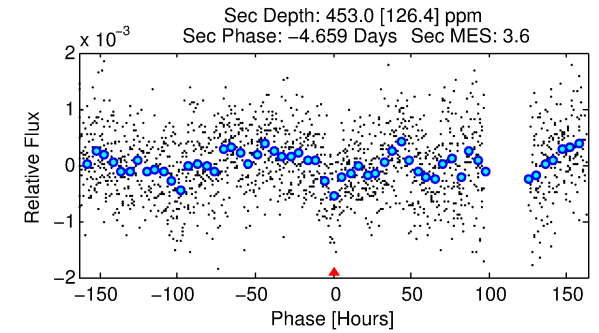
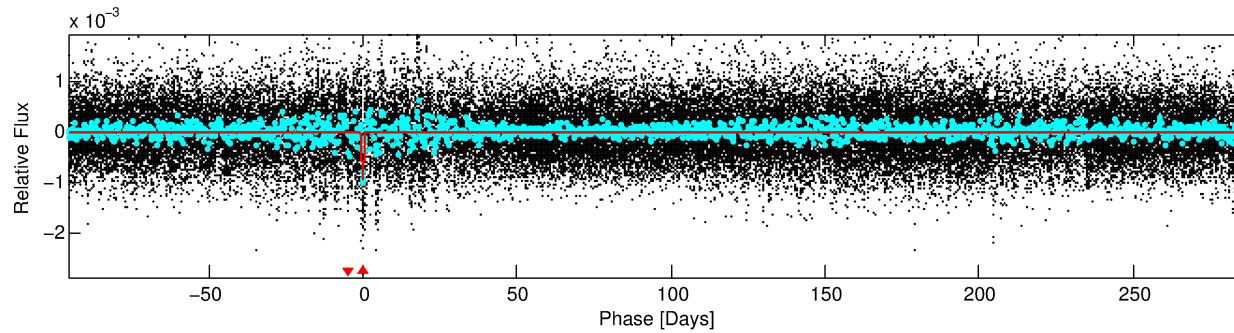
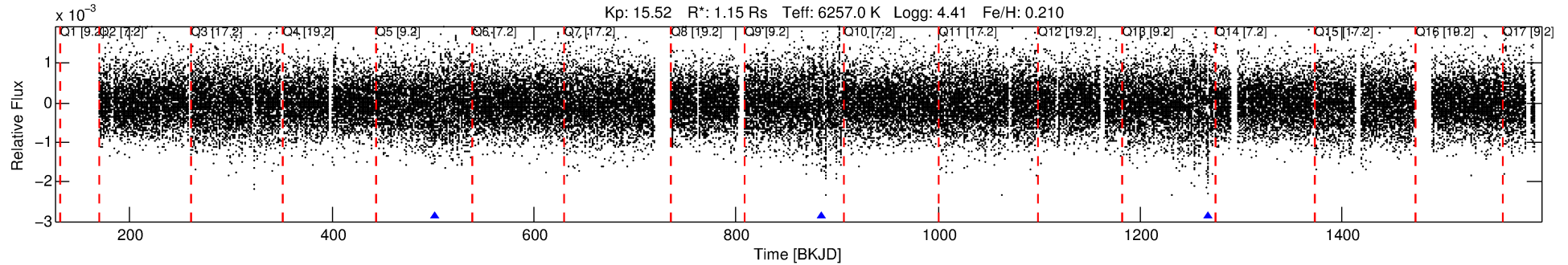
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006280625-01

No Significant Match Found

DV One-Page Summary

KIC: 6280625 Candidate: 1 of 1 Period: 382.656 d



DV Fit Results:

Period = 382.65581 [0.05034] d
Epoch = 501.4232 [0.0566] BKJD
Rp/R* = 0.0448 [0.0656]
a/R* = 37.22 [18.20]
b = 0.99 [0.12]
Seff = 1.48 [0.60]
Teq = 281 [29] K
Rp = 5.60 [8.40] Re
a = 1.1065 [0.2876] AU
Ag = 9721.99 [28871.44] [0.34σ]
Teffp = 4315 [3183] K [1.27σ]

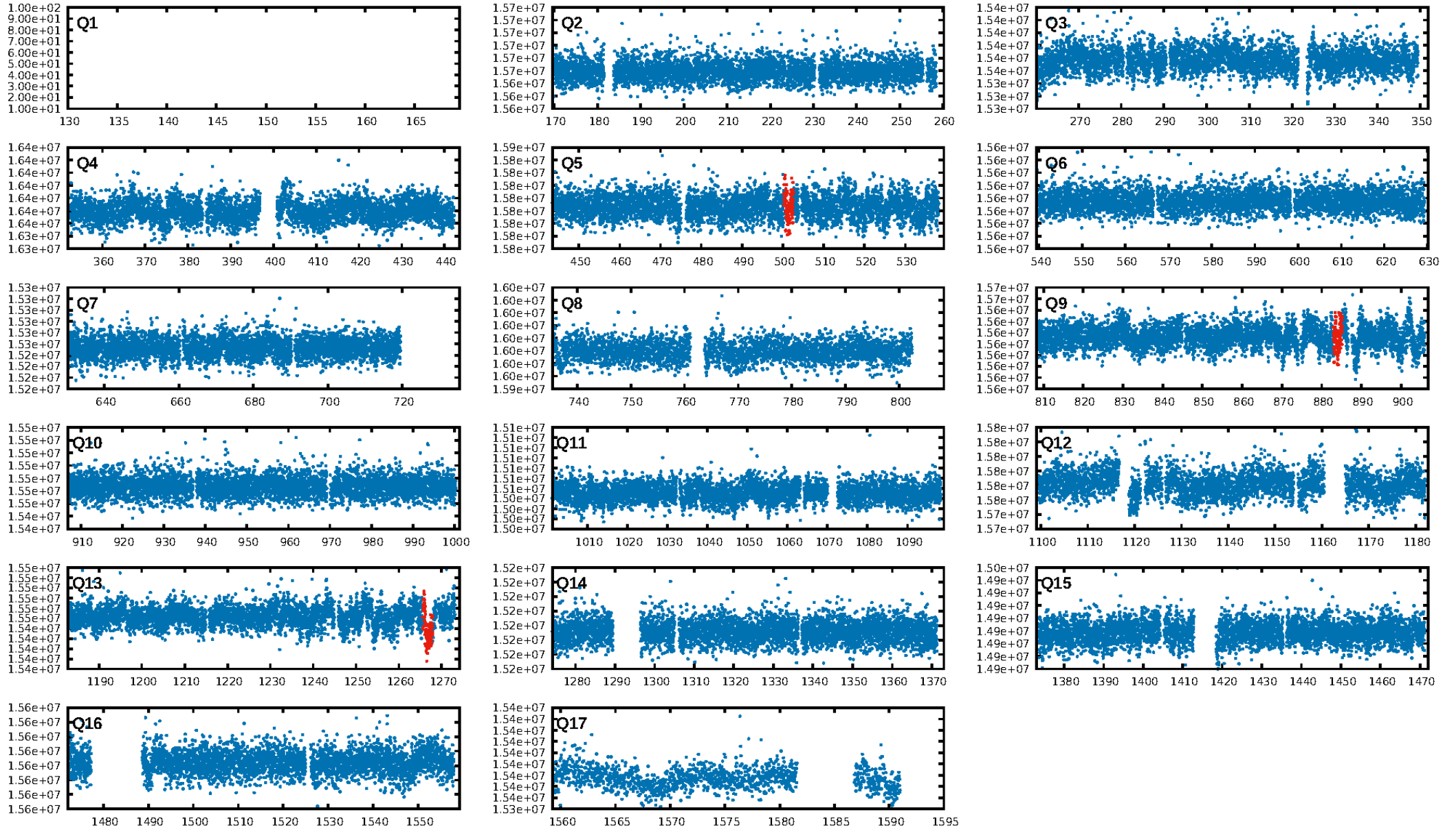
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 59.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.95e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.611
Centroid-sig: 53.7%
Centroid-so: 2.059 arcsec [0.71σ]
OotOffset-rm: 5.258 arcsec [2.23σ]
KicOffset-rm: 5.242 arcsec [2.96σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

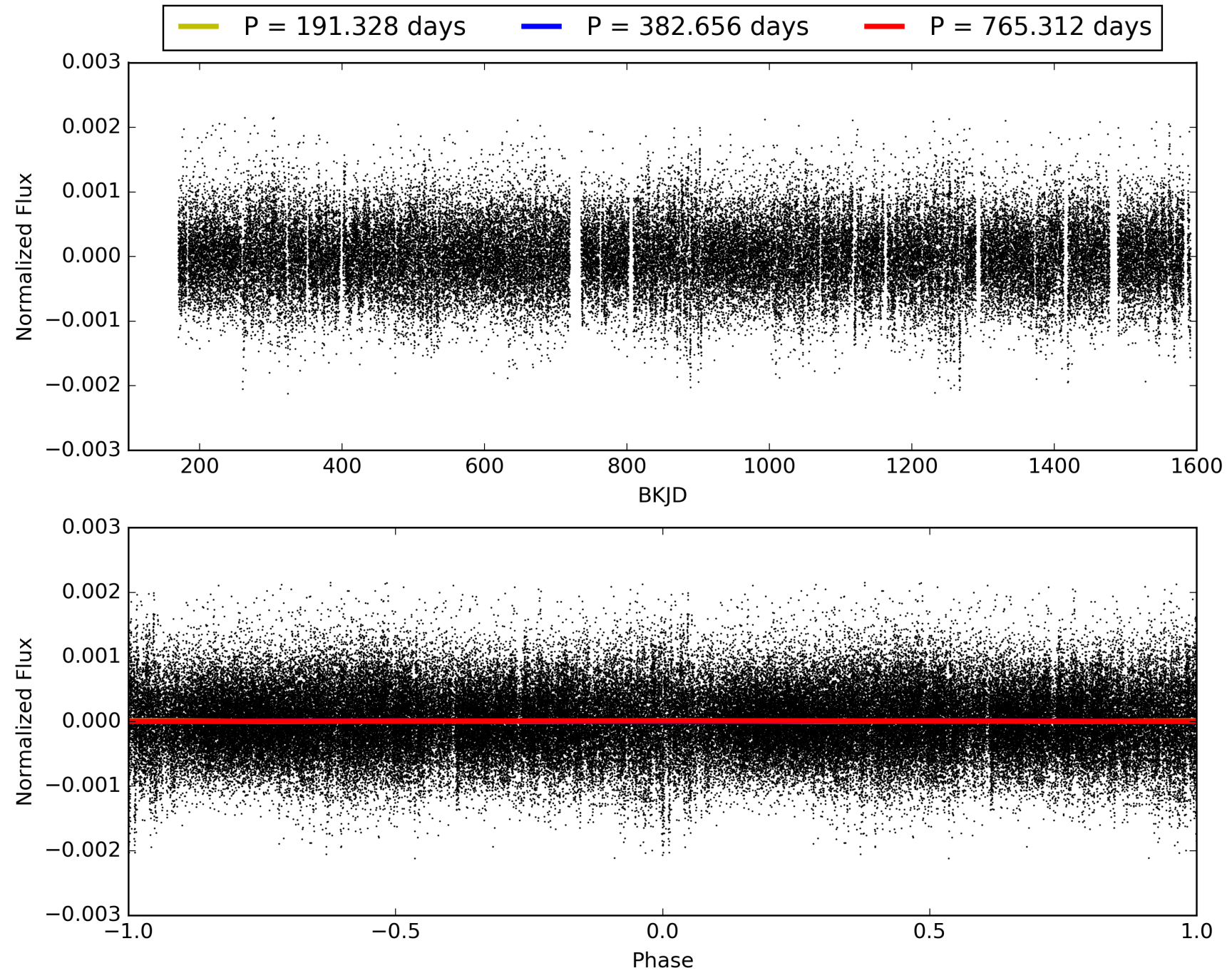
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:17:11 Z

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

TCE 006280625-01, PDC Light Curves

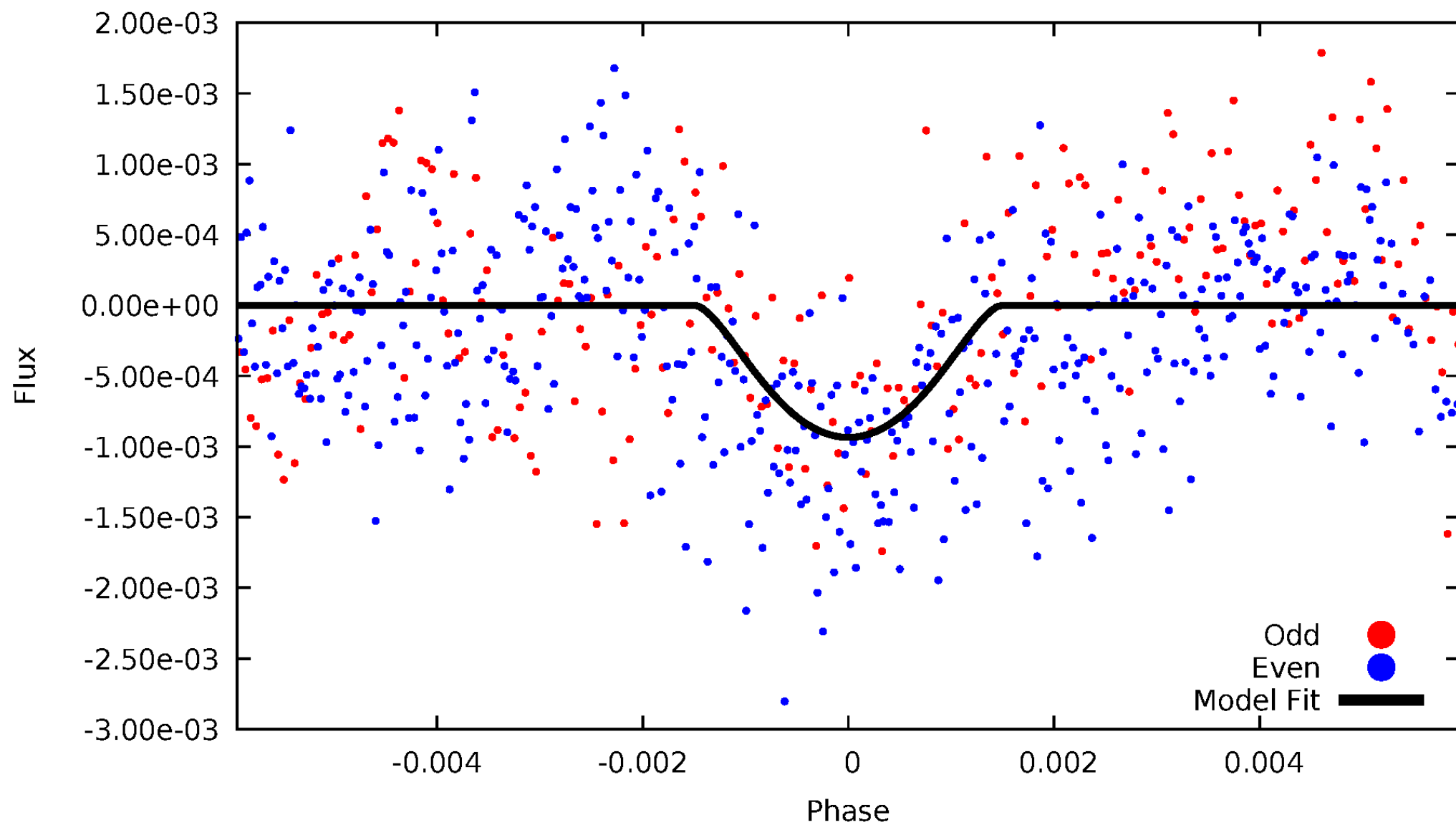


TCE 006280625-01



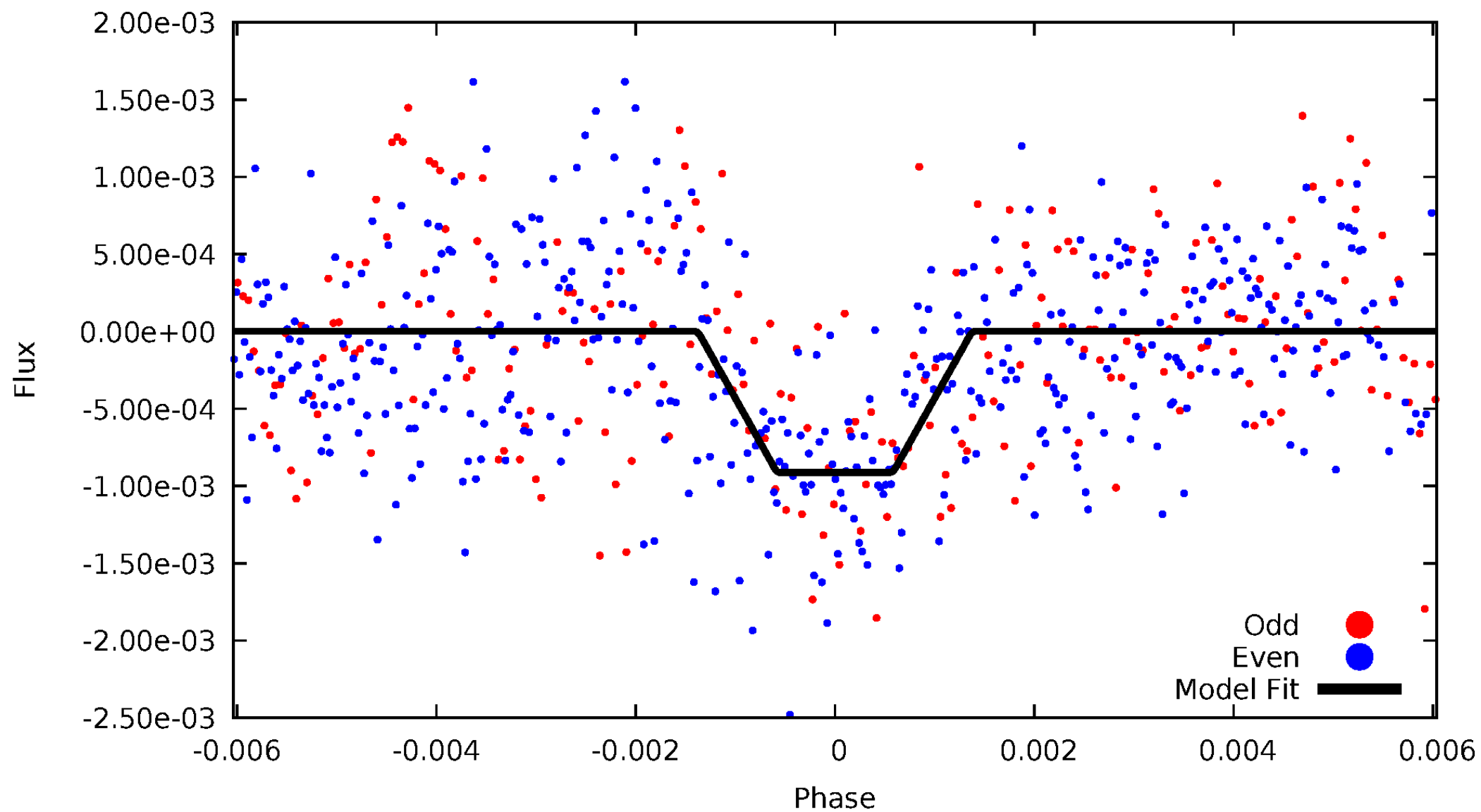
DV Odd/Even

TCE 006280625-01

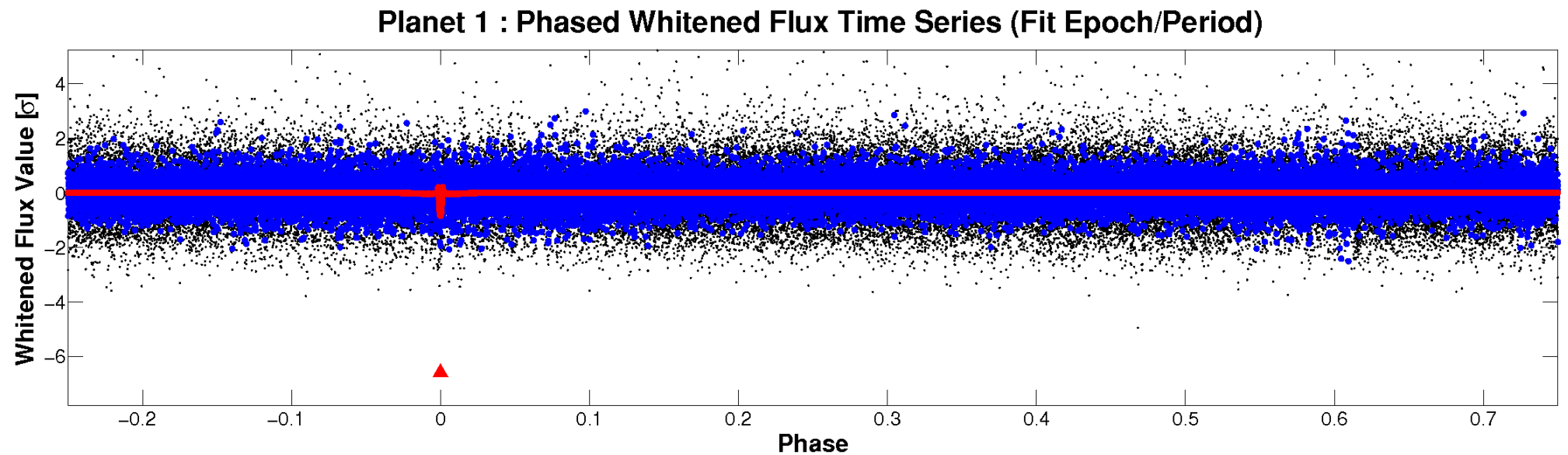
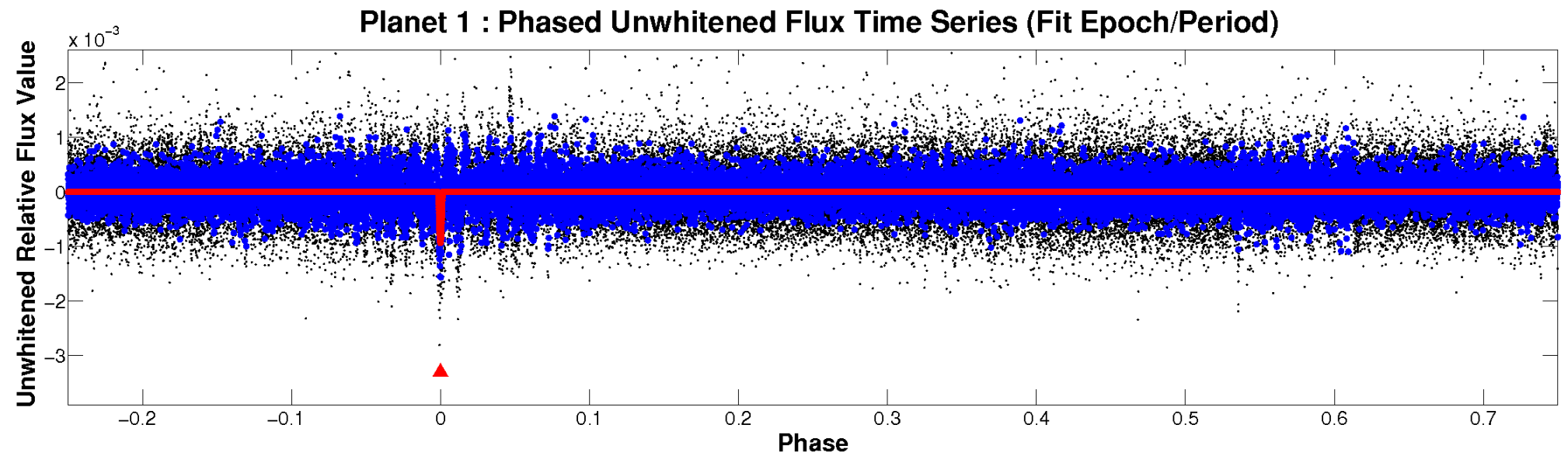


ALT Odd/Even

TCE 006280625-01

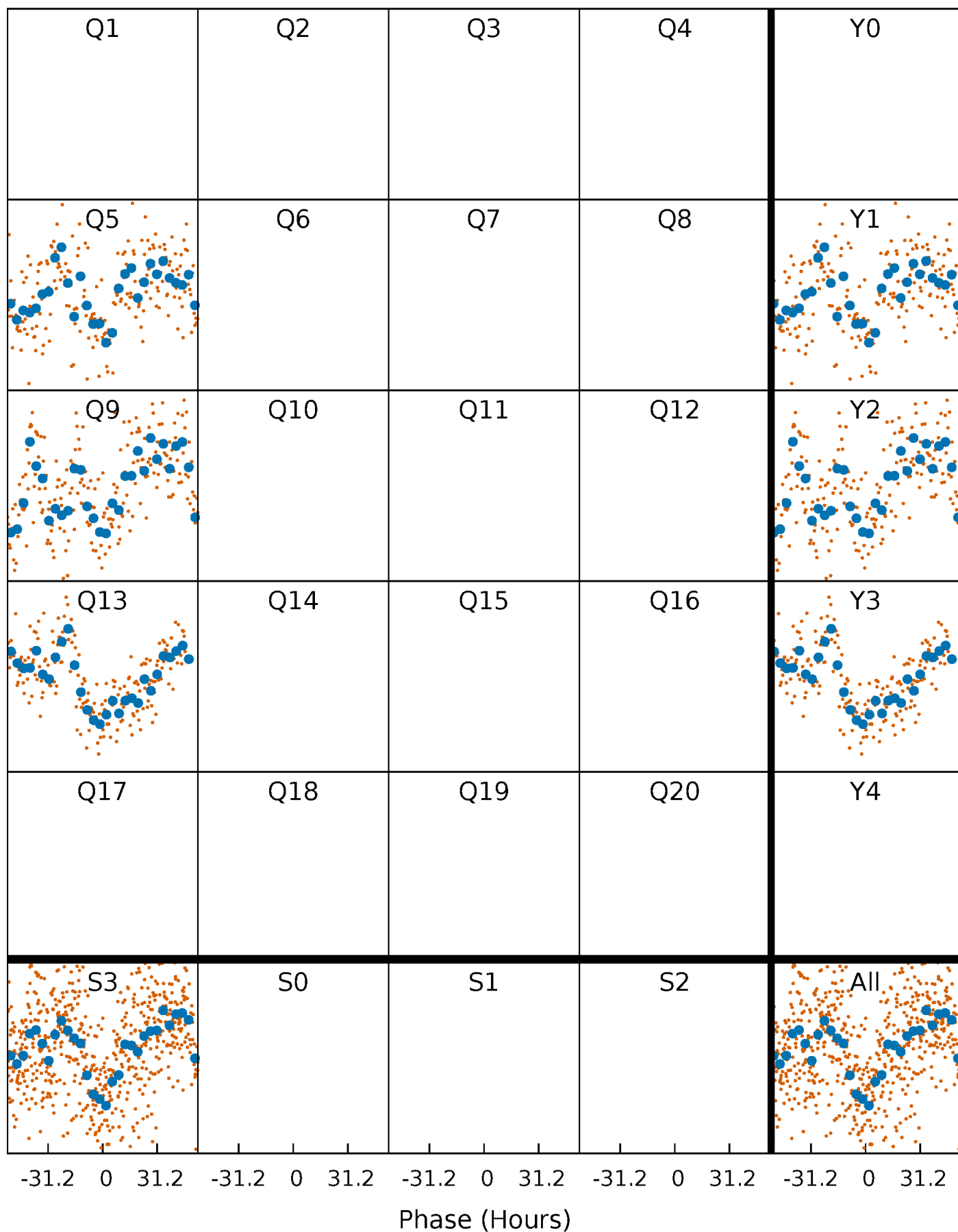


Non-Whitened Vs. Whitened Light Curve



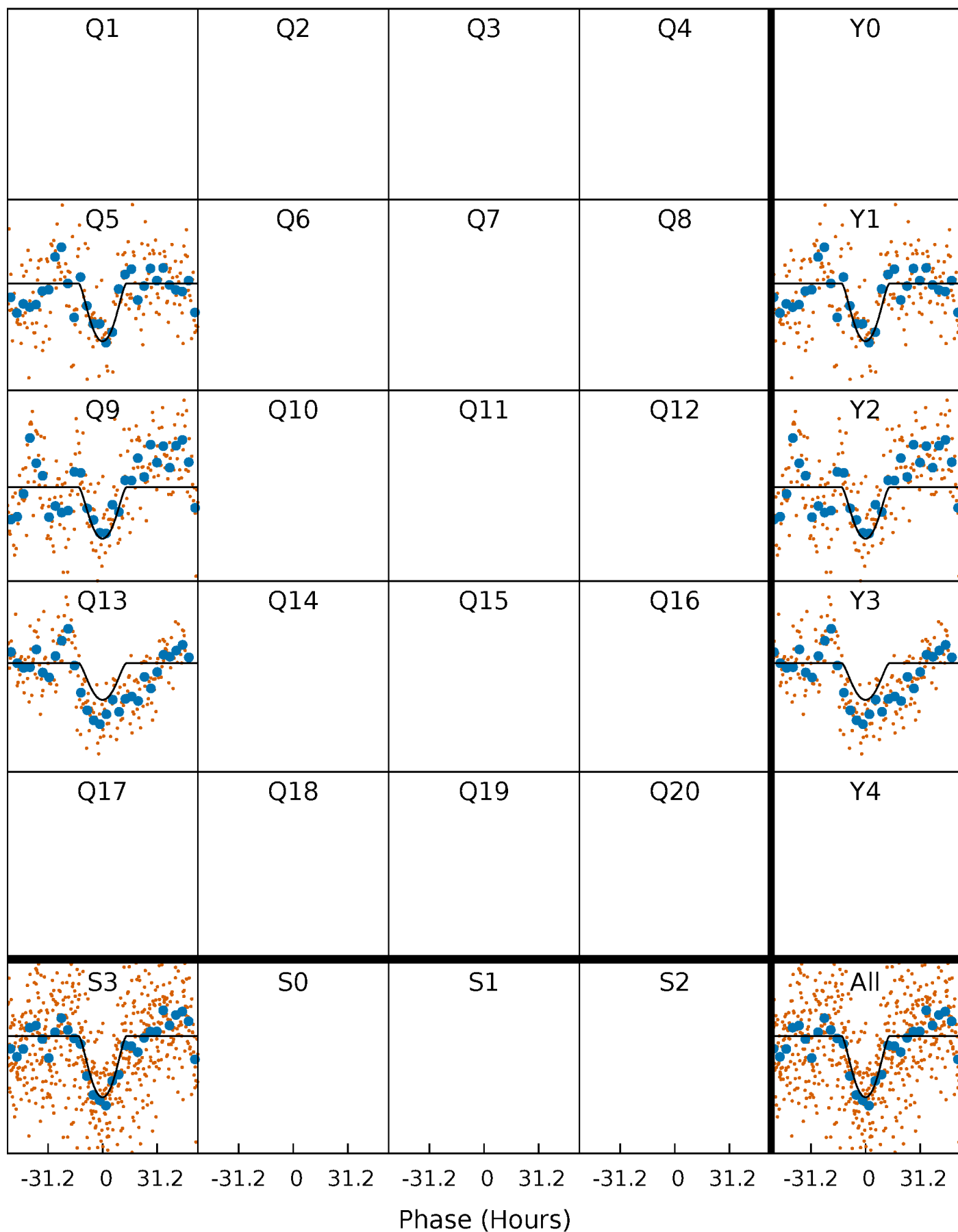
PDC Quarter-Phased Transit Curves

TCE 006280625-01 P=382.655815 Days $T_0=501.423246$ (BKJD)



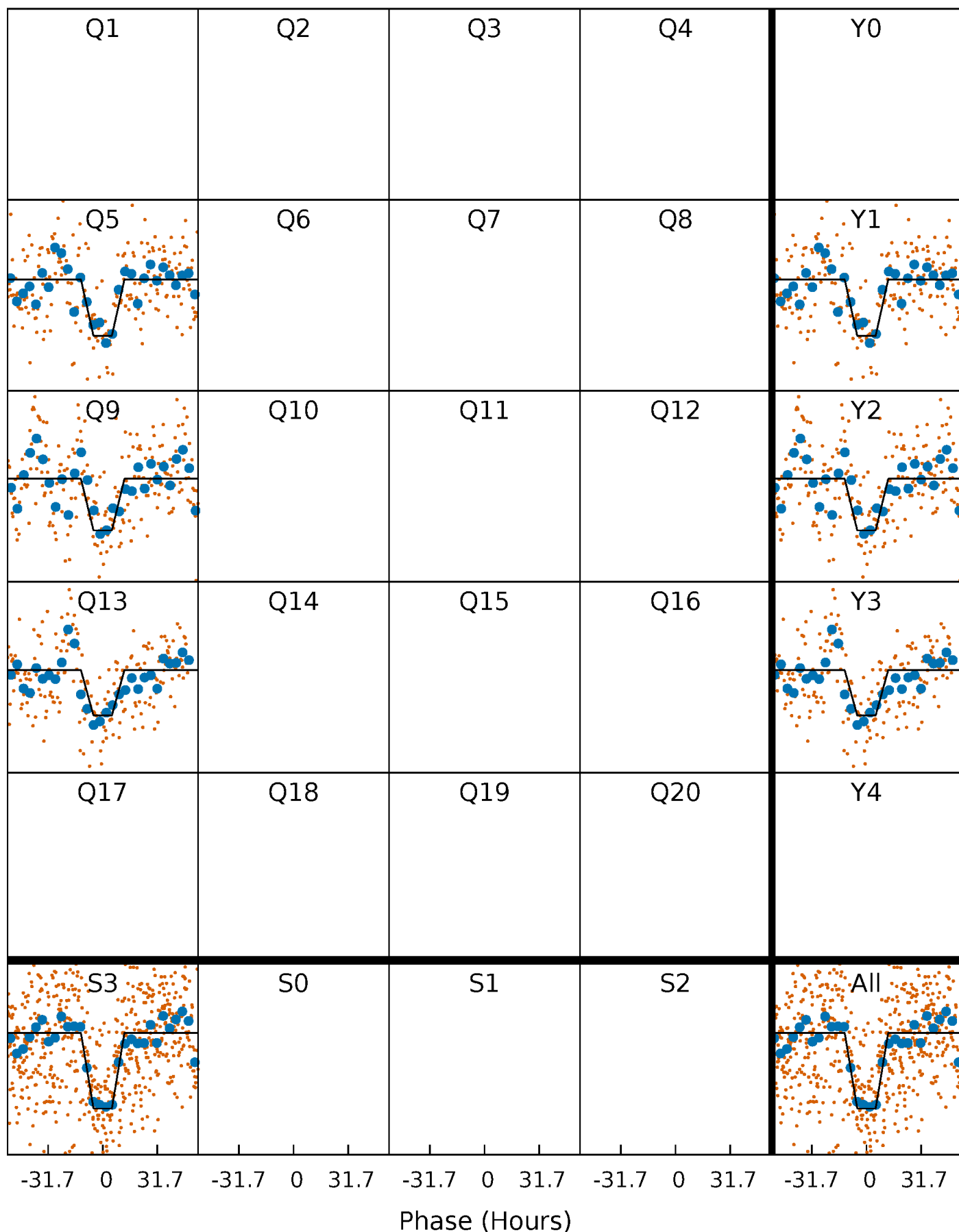
DV Quarter-Phased Transit Curves

TCE 006280625-01 P=382.655815 Days $T_0=501.423246$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

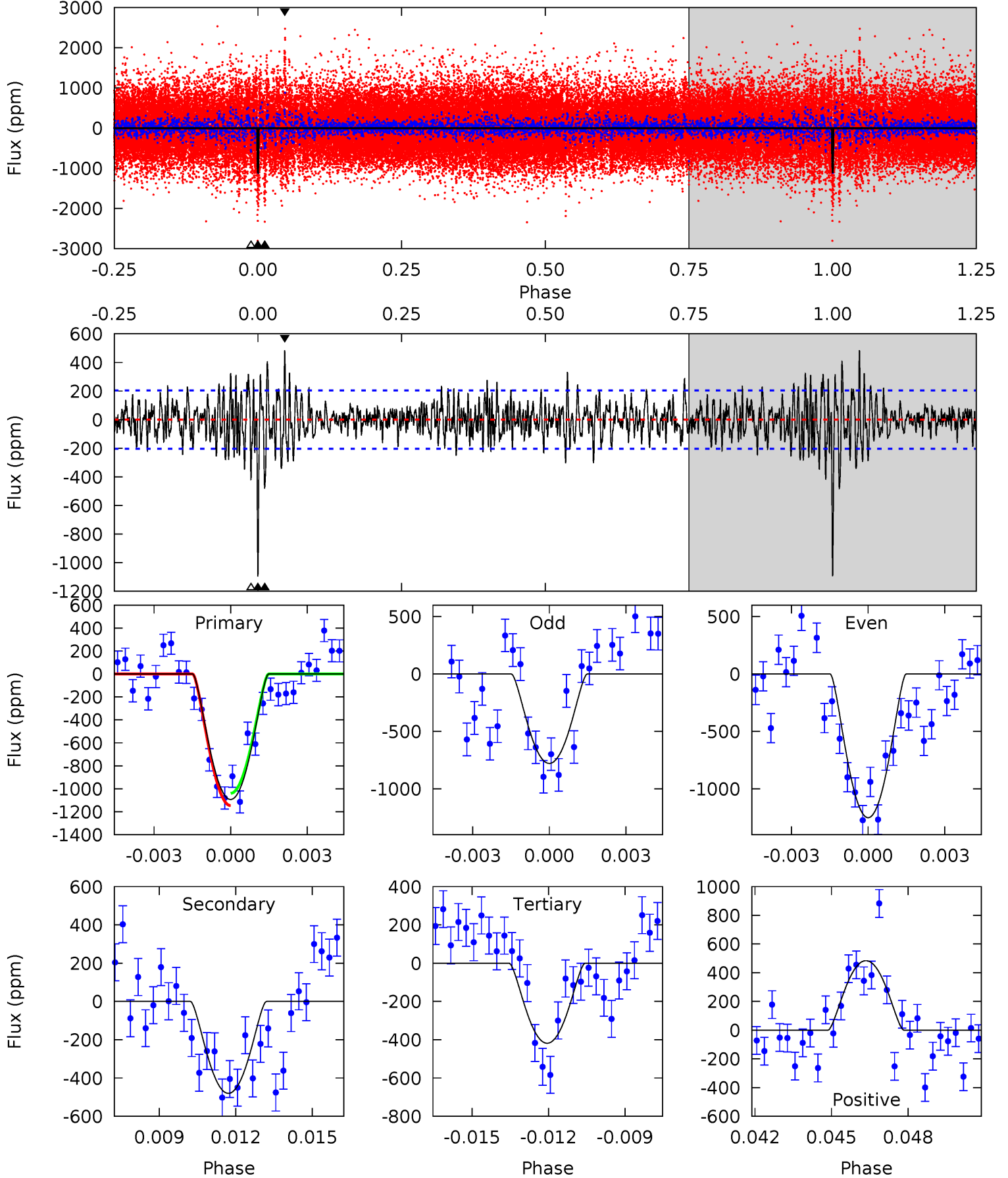
TCE 006280625-01 P=382.625222 Days $T_0=501.420084$ (BKJD)



DV Model-Shift Uniqueness Test

006280625-01, P = 382.655815 Days, E = 118.767431 Days

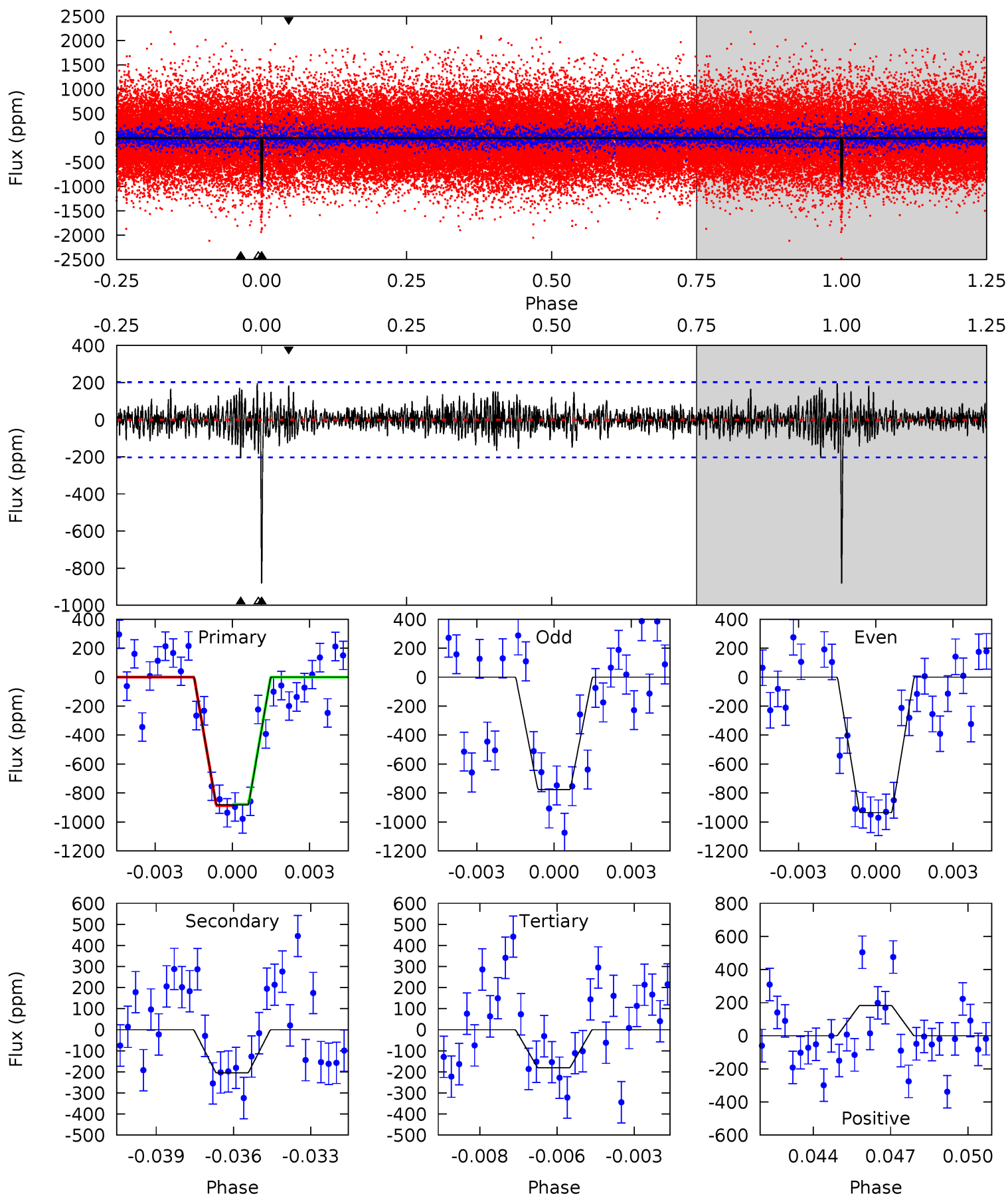
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.2	12.4	10.8	12.5	5.25	2.97	2.64	17.4	15.7	1.59	-0.10	5.79	1.32	0.31	1.38



Alt Model-Shift Uniqueness Test

006280625-01, P = 382.625222 Days, E = 118.794862 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	5.32	4.69	4.75	5.27	2.99	1.24	18.2	18.2	0.63	0.57	1.95	1.04	0.18	0.11



Stellar Parameters For KIC 006280625

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6257^{+175}_{-262}	$4.410^{+0.054}_{-0.202}$	$0.210^{+0.200}_{-0.350}$	$1.147^{+0.359}_{-0.128}$	$1.233^{+0.154}_{-0.171}$	$1.152^{+0.327}_{-0.603}$
	+3%/-4%	+1%/-5%	+95%/-167%	+31%/-11%	+12%/-14%	+28%/-52%
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 006280625-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-480 ± 39	$8.78^{+7.59}_{-5.82}$	401^{+28}_{-21}	3948^{+2062}_{-725}	4190^{+30906}_{-2985}
Alt.	-205 ± 39	$7.12^{+7.82}_{-4.79}$	399^{+30}_{-22}	3599^{+2048}_{-701}	2605^{+22981}_{-2001}

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

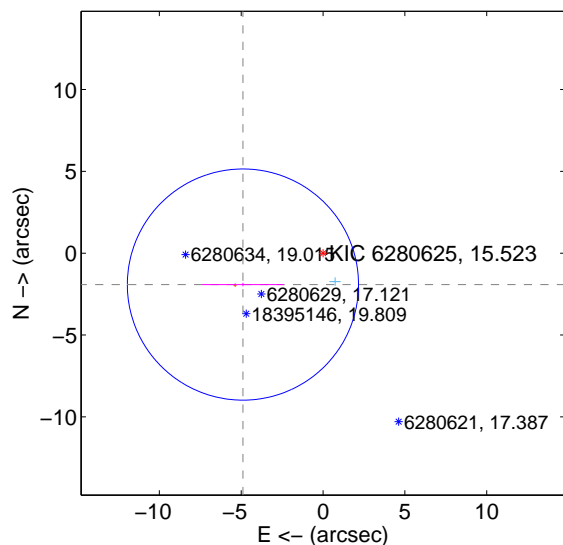
Supplemental centroid analysis for 006280625-01. Kepler magnitude: 15.52. Transit SNR 7.17

There are 1 quarters with good PRF difference image offsets

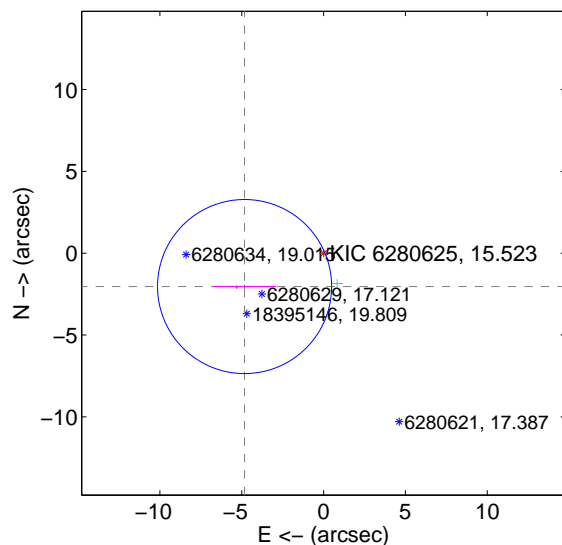
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.258 ± 2.355	2.23	4.896 ± 2.495	-1.918 ± 0.110
PRF-fit source offset from KIC position	5.242 ± 1.773	2.96	4.829 ± 1.924	-2.040 ± 0.119
photometric centroid source offset	2.06 ± 2.90	0.71	-1.92 ± 2.94	-0.75 ± 2.56

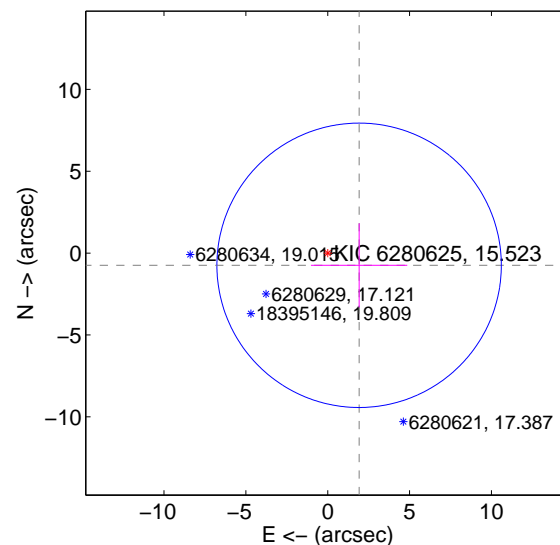
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

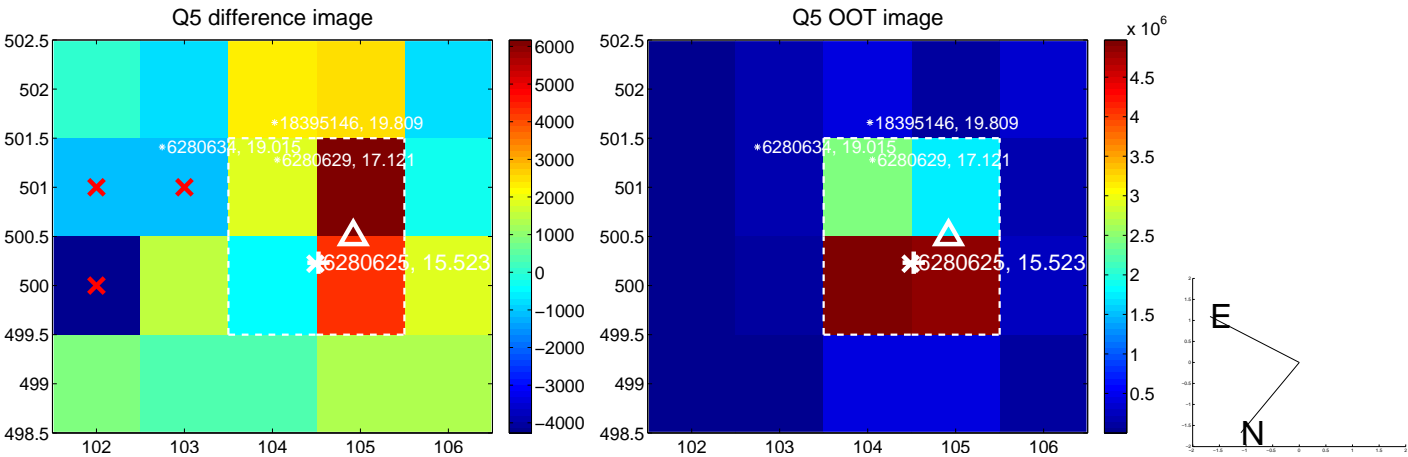


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

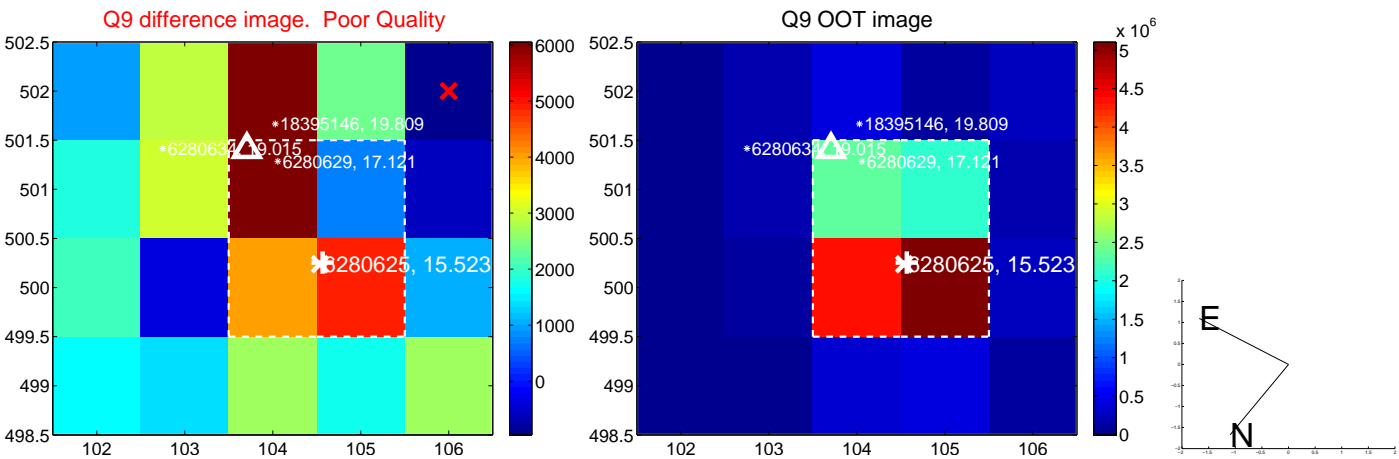
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



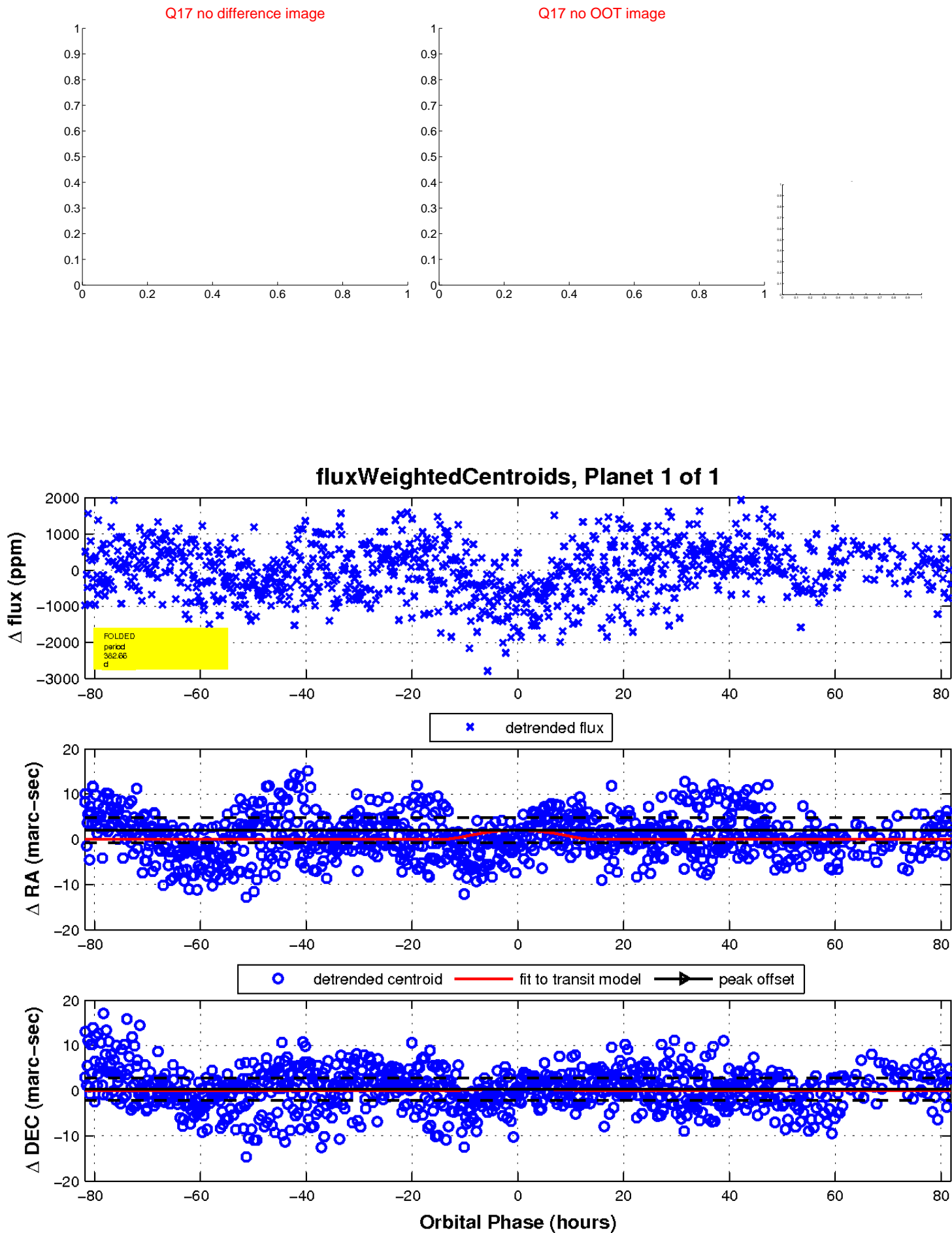
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

