

KIC 010669587

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})
010669587-01	OBS	No	287.737390	230.684375	244.8	13.059	7.3	7.3	1.02	6122	1.81	1.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010669587-01	OBS	FP	0.06	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—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.

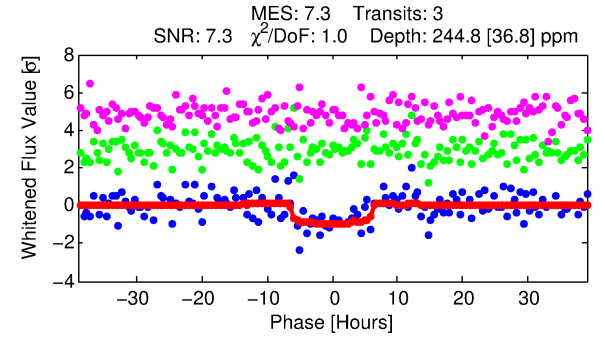
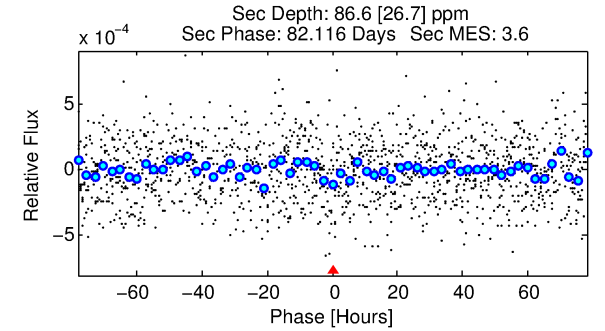
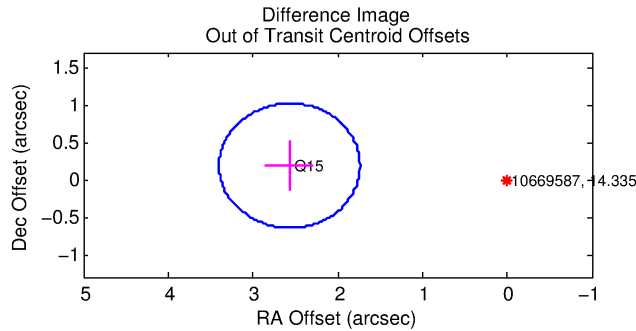
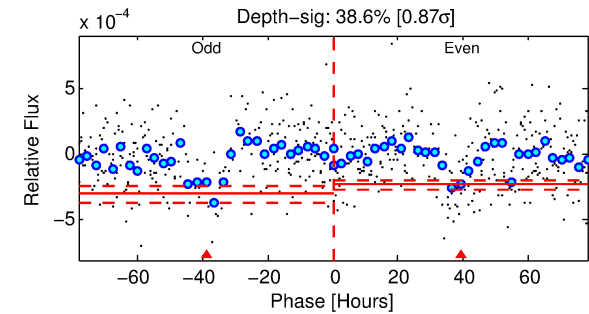
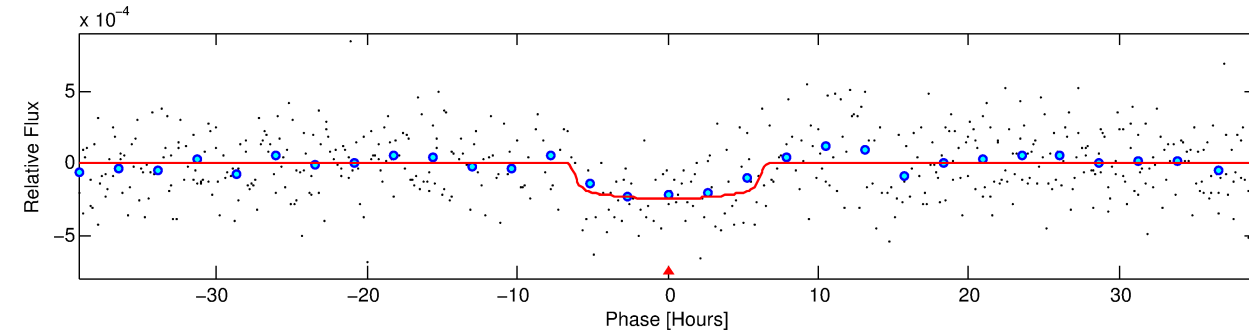
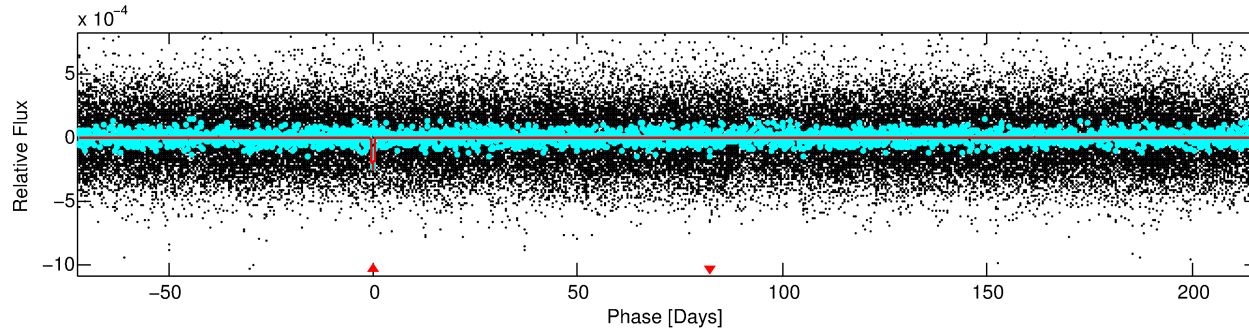
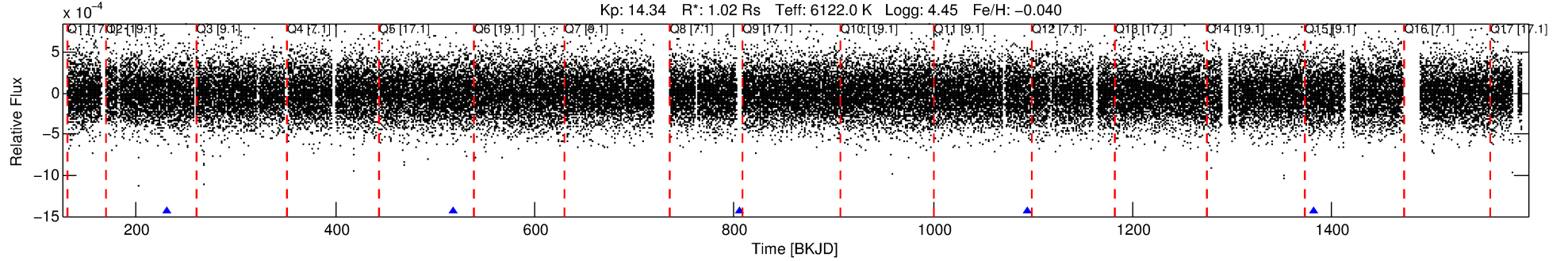
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010669587-01

No Significant Match Found

DV One-Page Summary

KIC: 10669587 Candidate: 1 of 1 Period: 287.737 d



DV Fit Results:

Period = 287.73739 [0.01177] d
Epoch = 230.6844 [0.0336] BKJD
Rp/R* = 0.0162 [0.0050]
a/R* = 95.46 [144.53]
b = 0.84 [0.53]
Seff = 1.71 [0.74]
Teq = 292 [31] K
Rp = 1.81 [0.83] Re
a = 0.8775 [0.2464] AU
Ag = 11173.16 [9001.05] [1.24 σ]
Teffp = 4638 [819] K [5.30 σ]

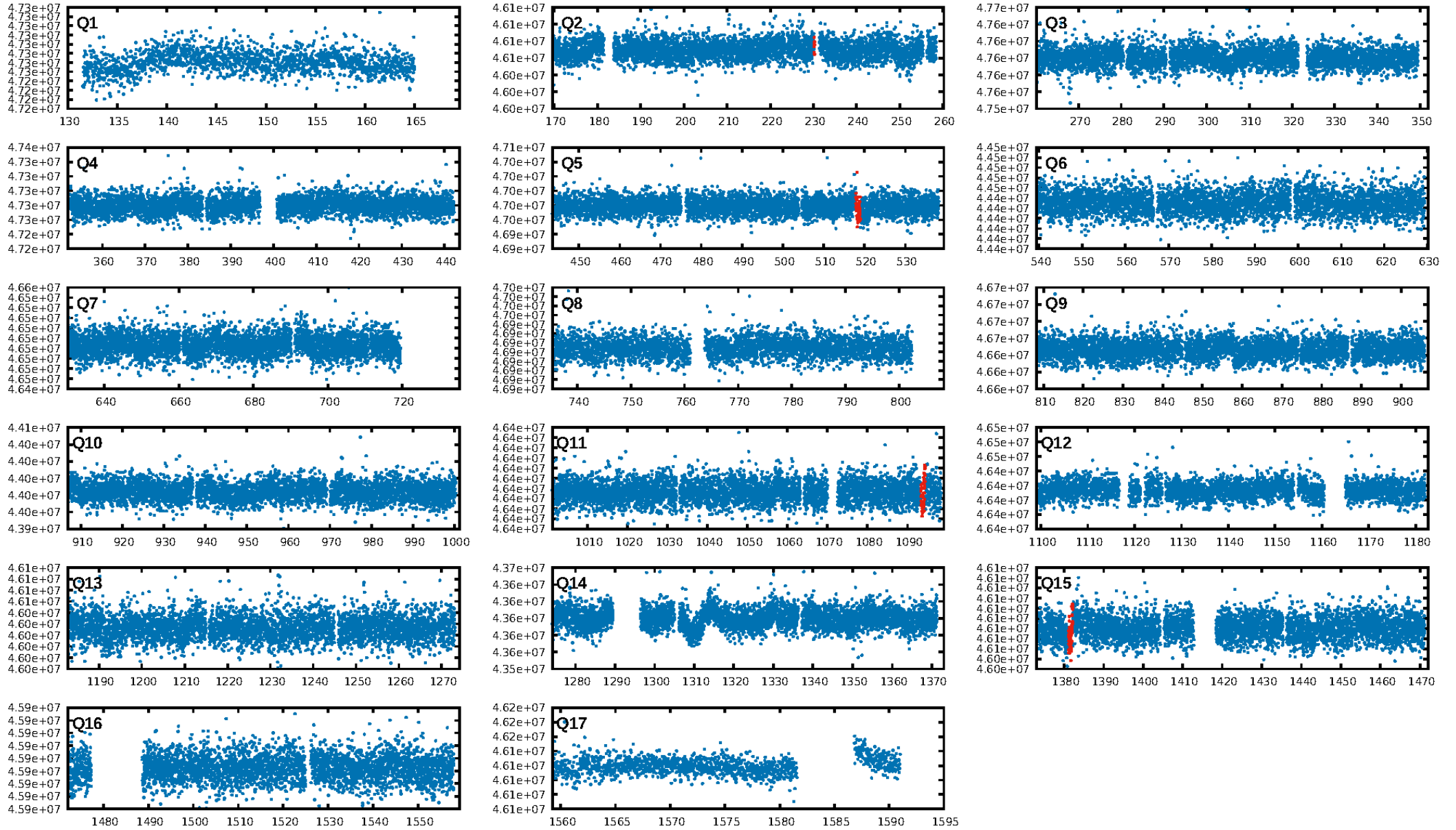
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 56.8%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 6.82e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.331
Centroid-sig: 0.0%
Centroid-so: 6.640 arcsec [4.28 σ]
OotOffset-rm: 2.573 arcsec [9.29 σ]
KicOffset-rm: 2.310 arcsec [8.34 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

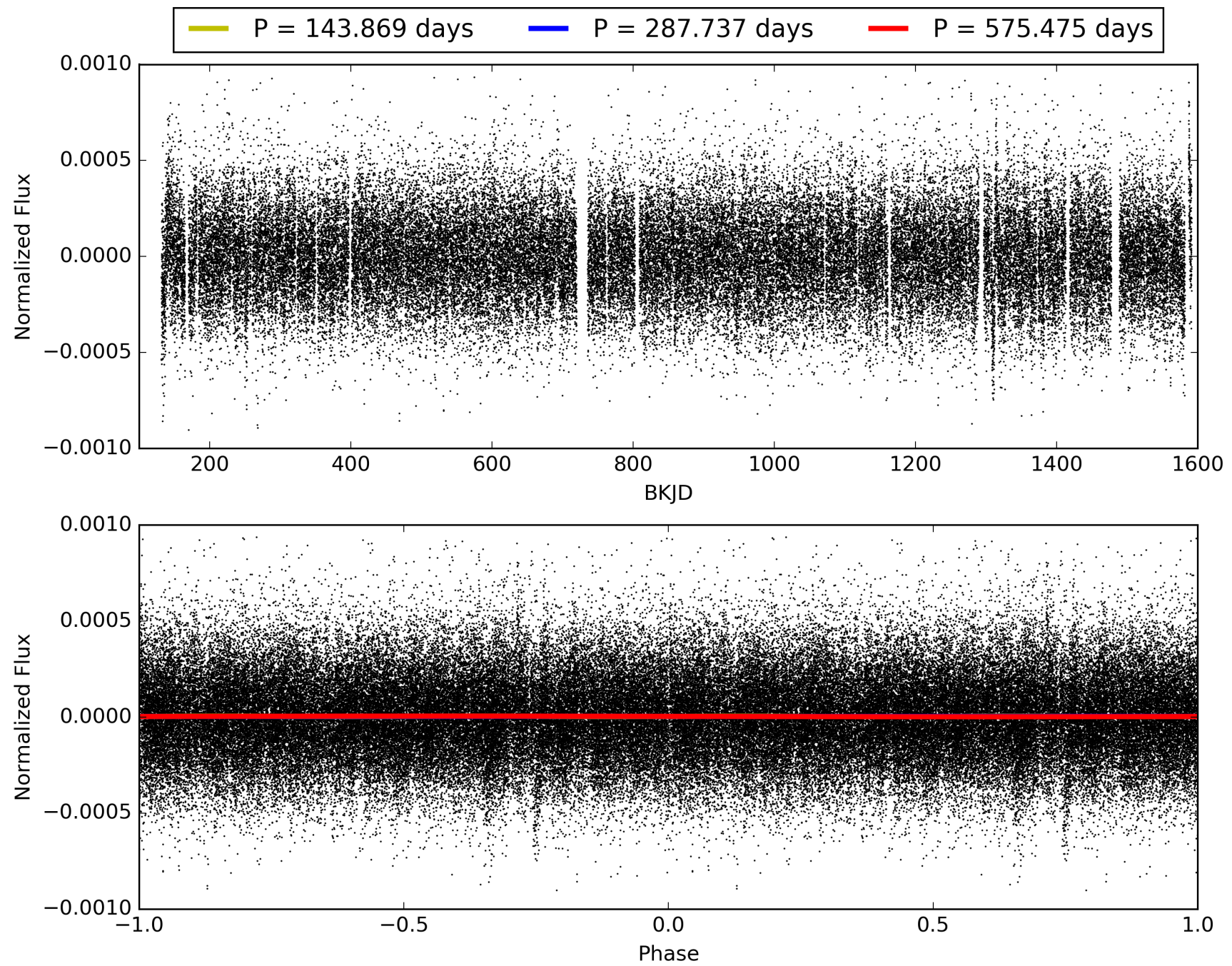
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:21:05 Z

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

TCE 010669587-01, PDC Light Curves

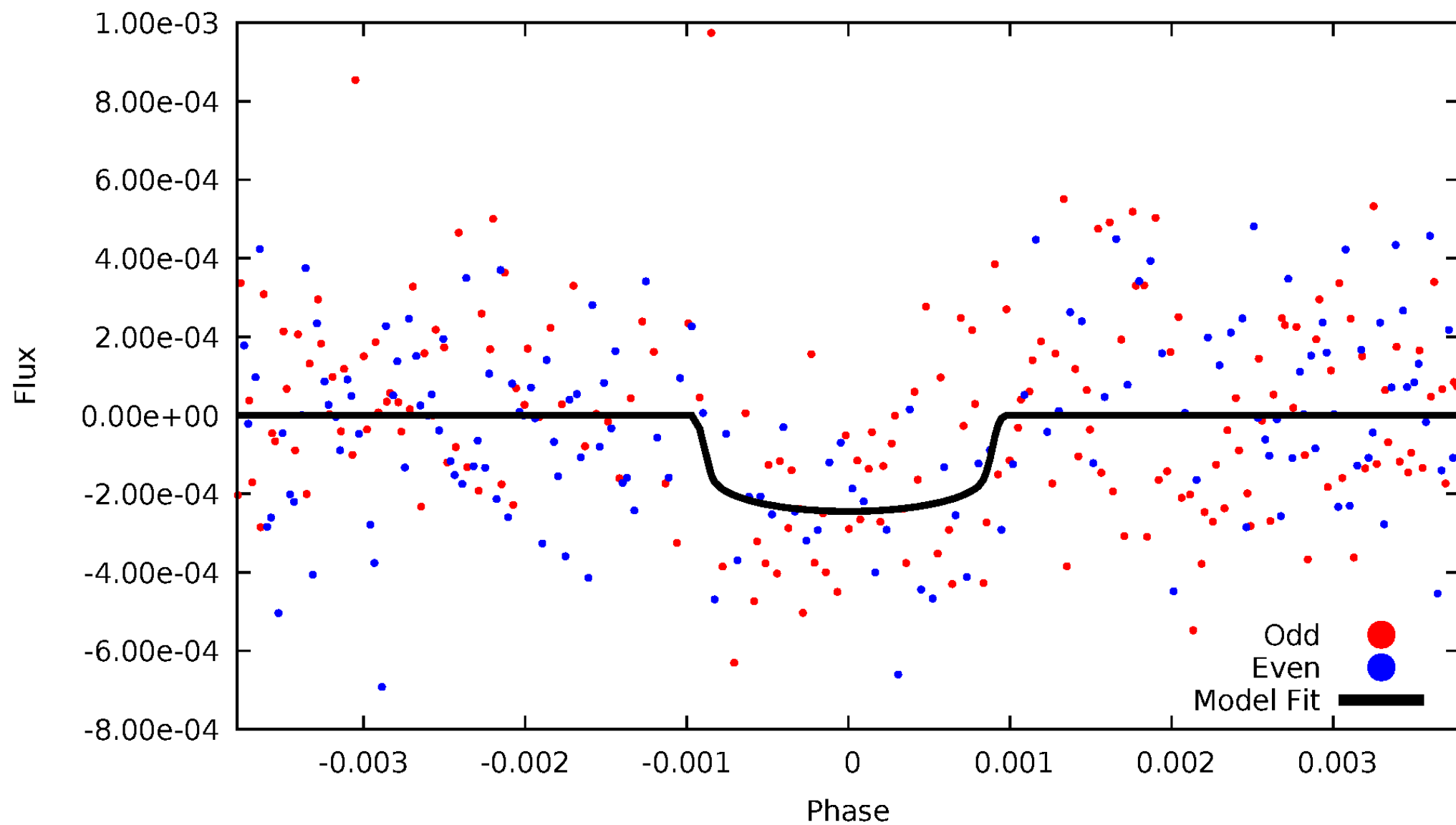


TCE 010669587-01



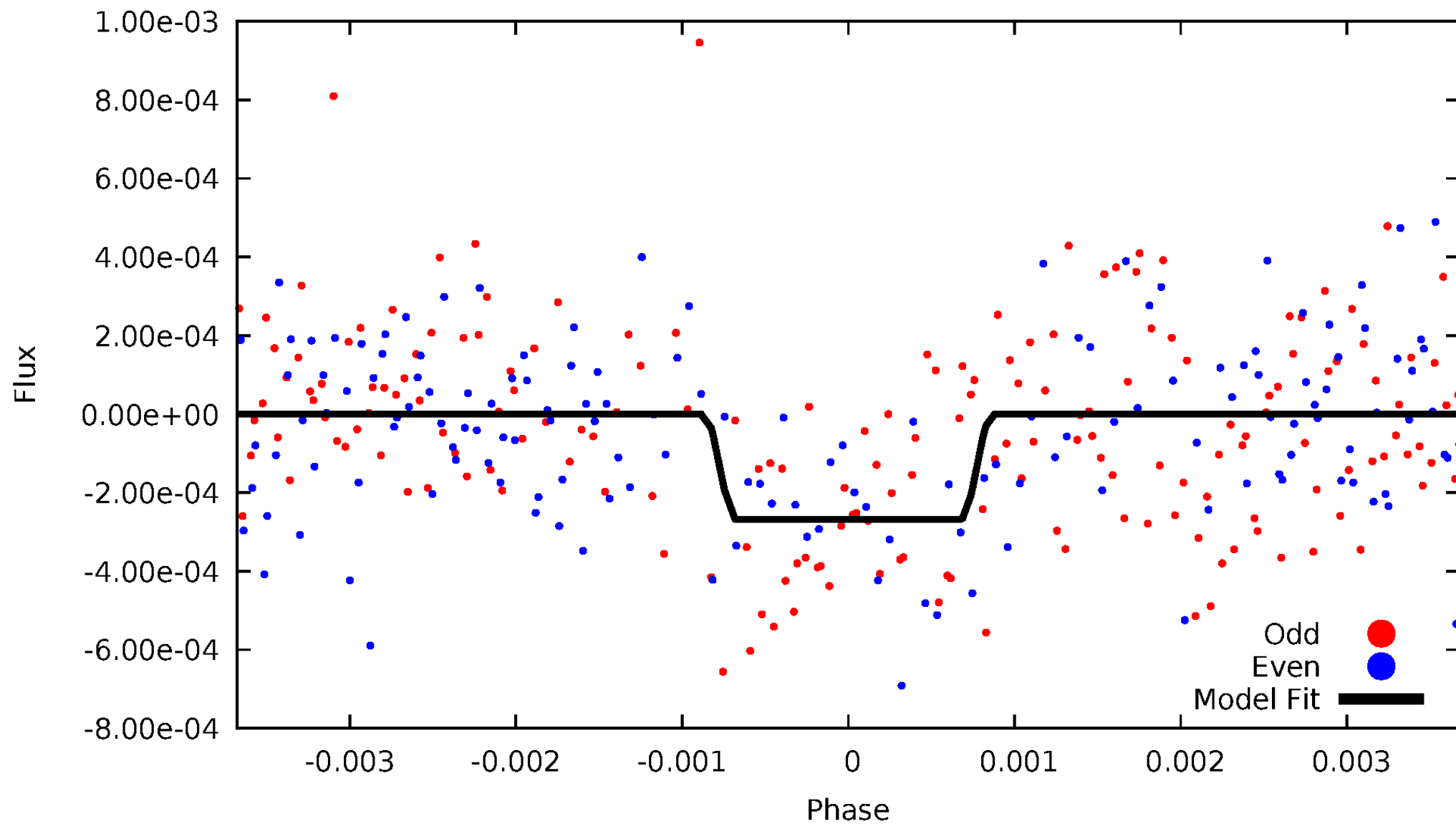
DV Odd/Even

TCE 010669587-01



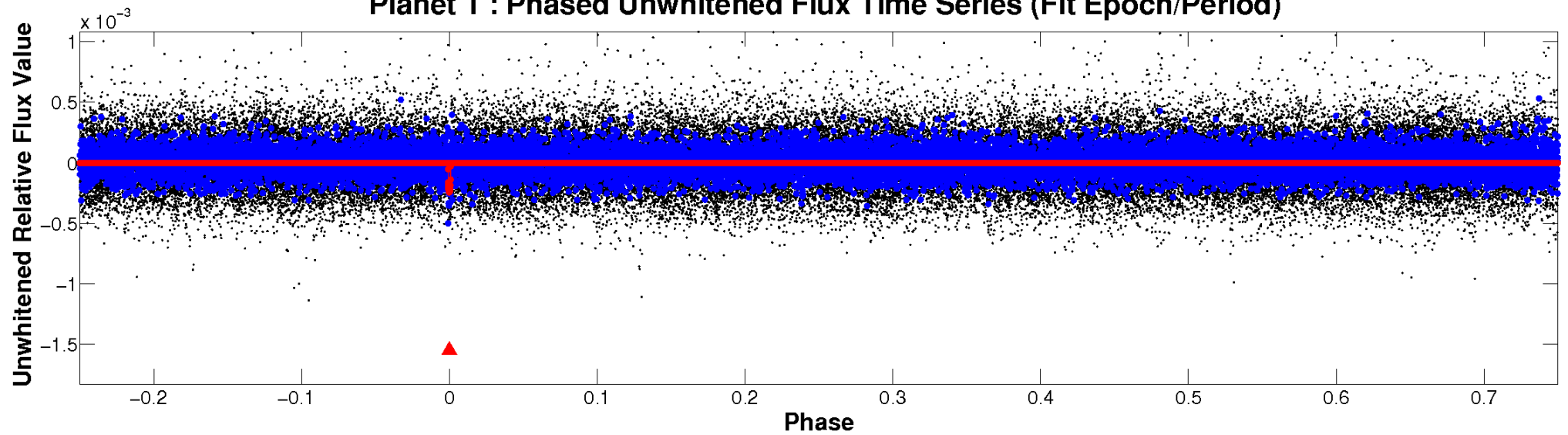
ALT Odd/Even

TCE 010669587-01

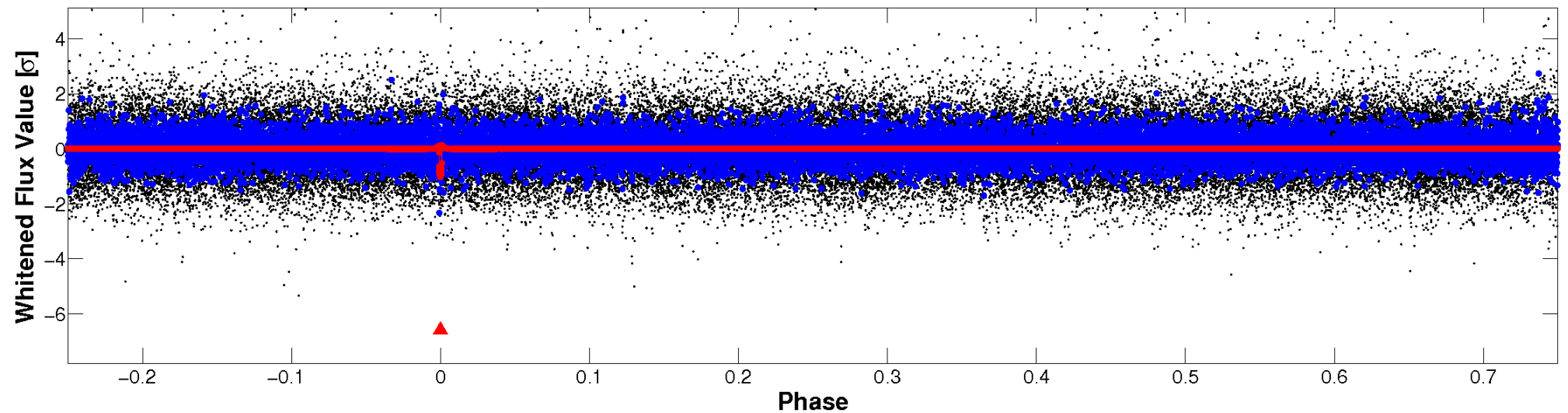


Non-Whitened Vs. Whitened Light Curve

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

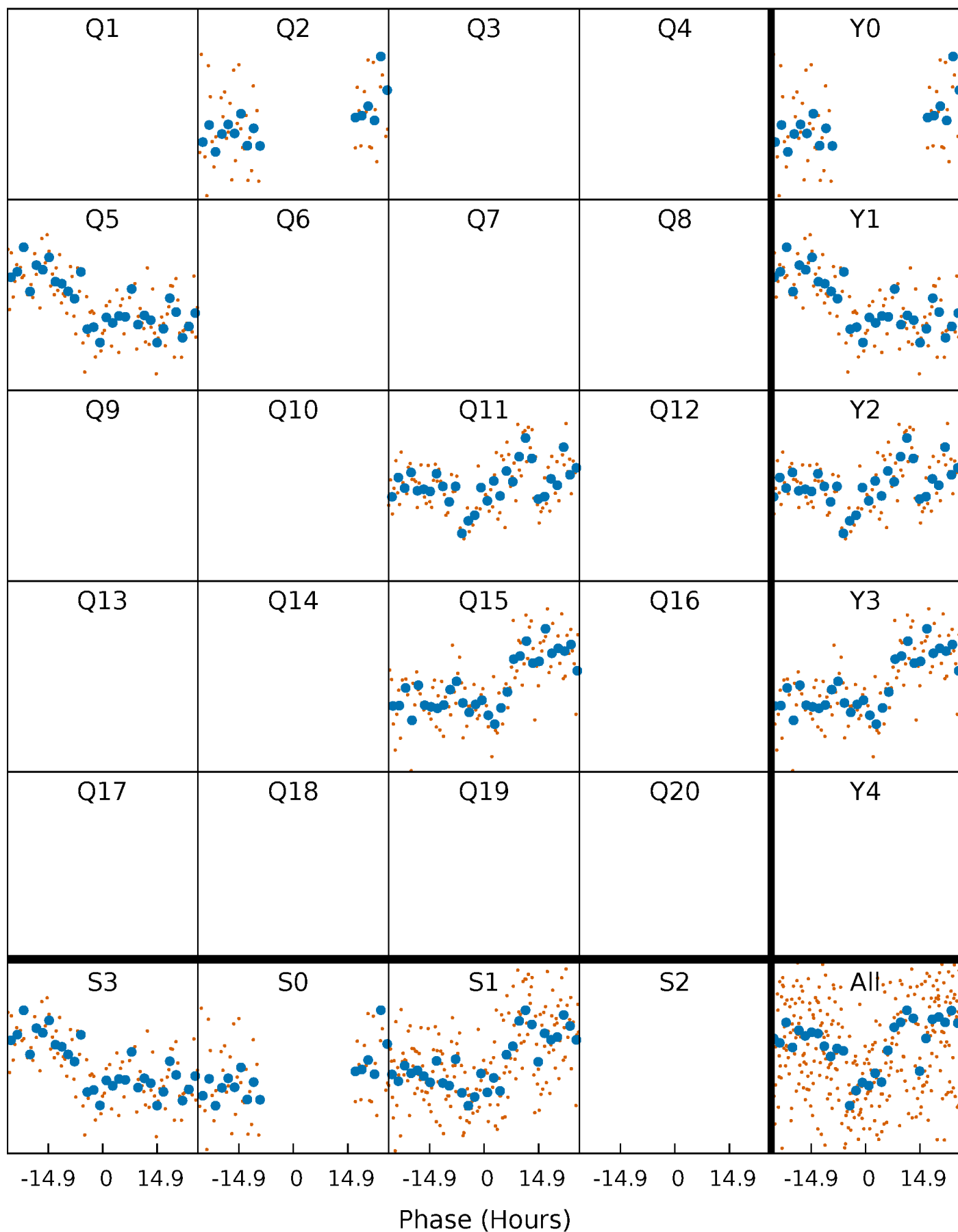


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



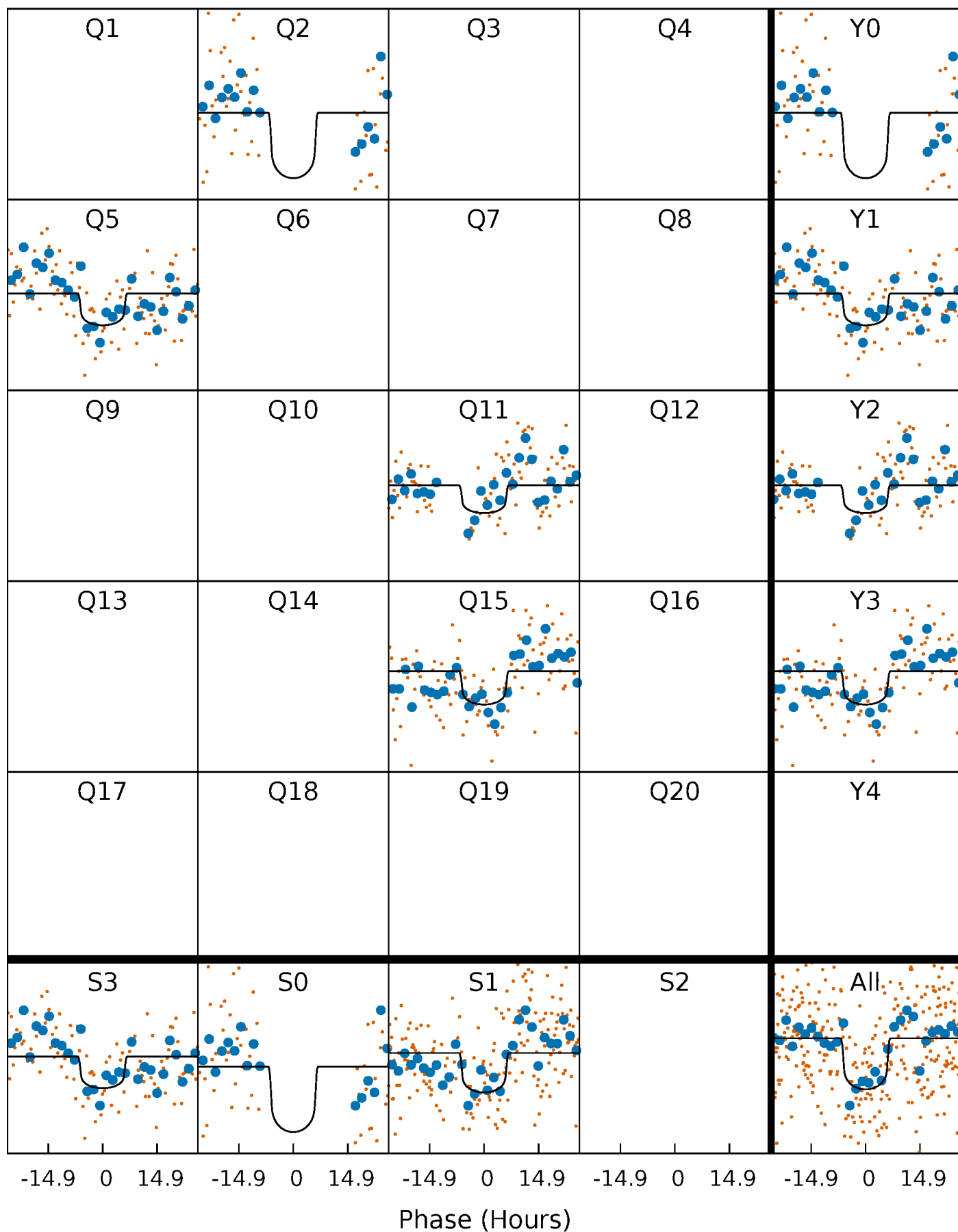
PDC Quarter-Phased Transit Curves

TCE 010669587-01 $P=287.737390$ Days $T_0=230.684375$ (BKJD)



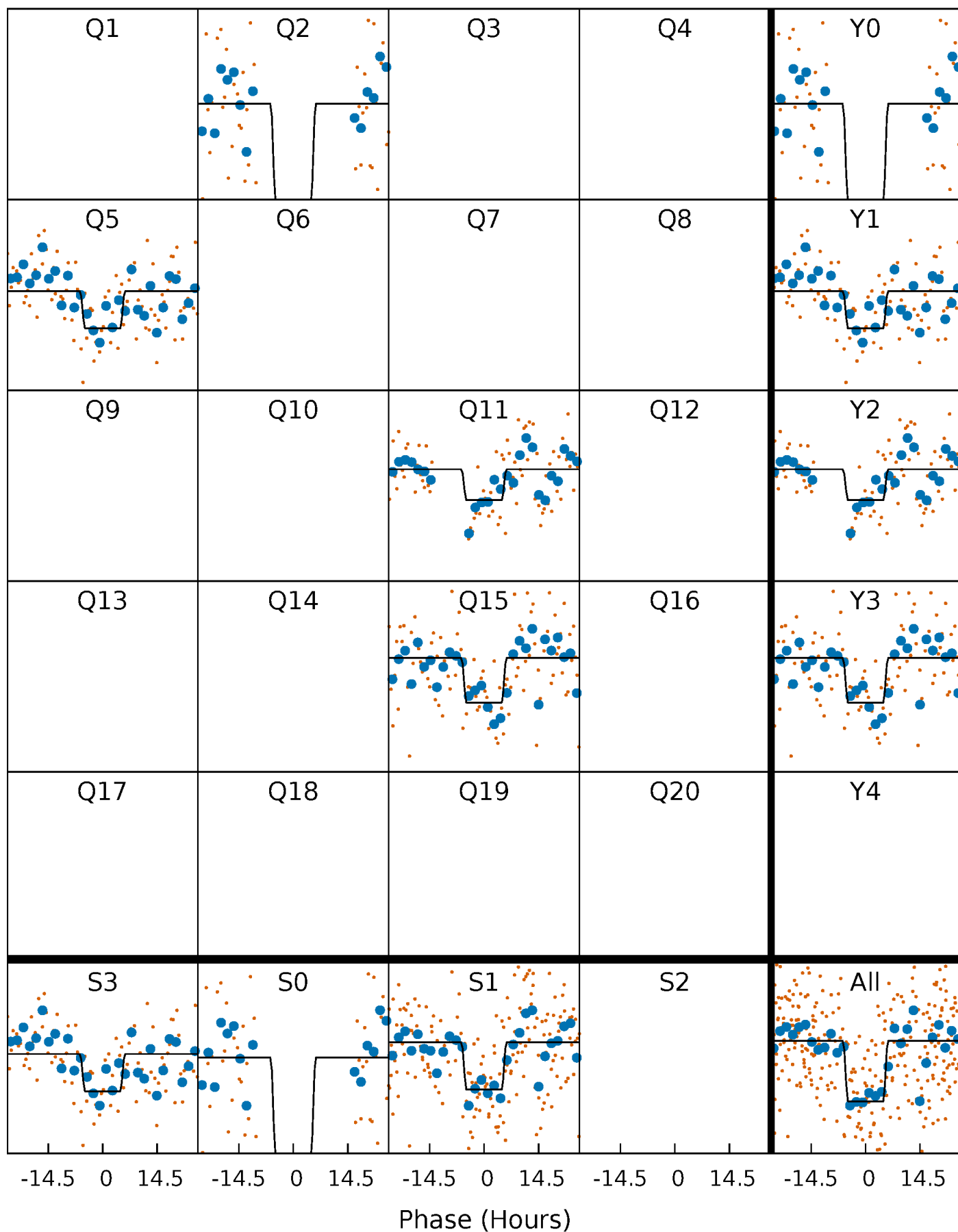
DV Quarter-Phased Transit Curves

TCE 010669587-01 P=287.737390 Days $T_0=230.684375$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

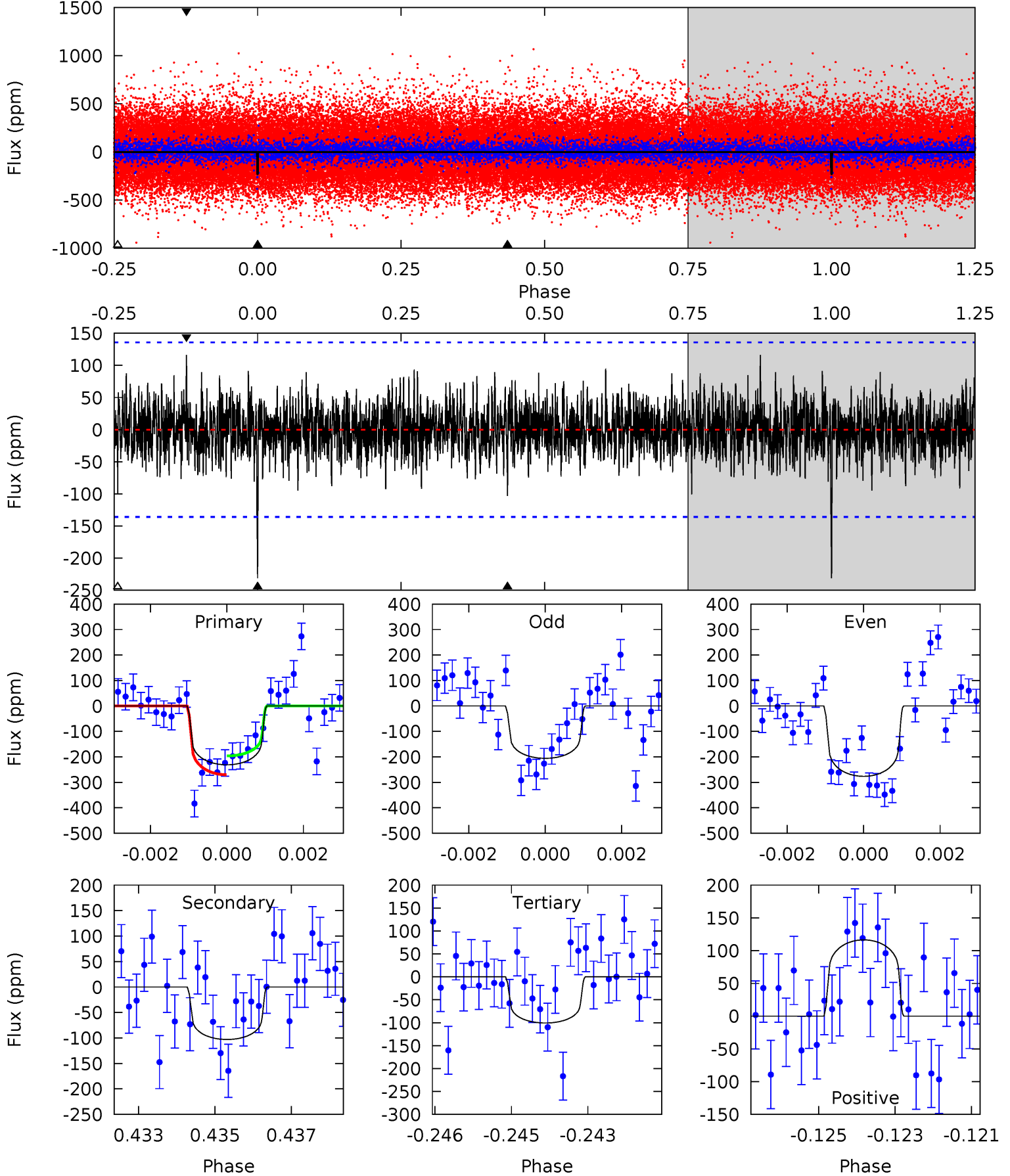
TCE 010669587-01 P=287.731769 Days $T_0=230.703417$ (BKJD)



DV Model-Shift Uniqueness Test

010669587-01, P = 287.737390 Days, E = 230.684375 Days

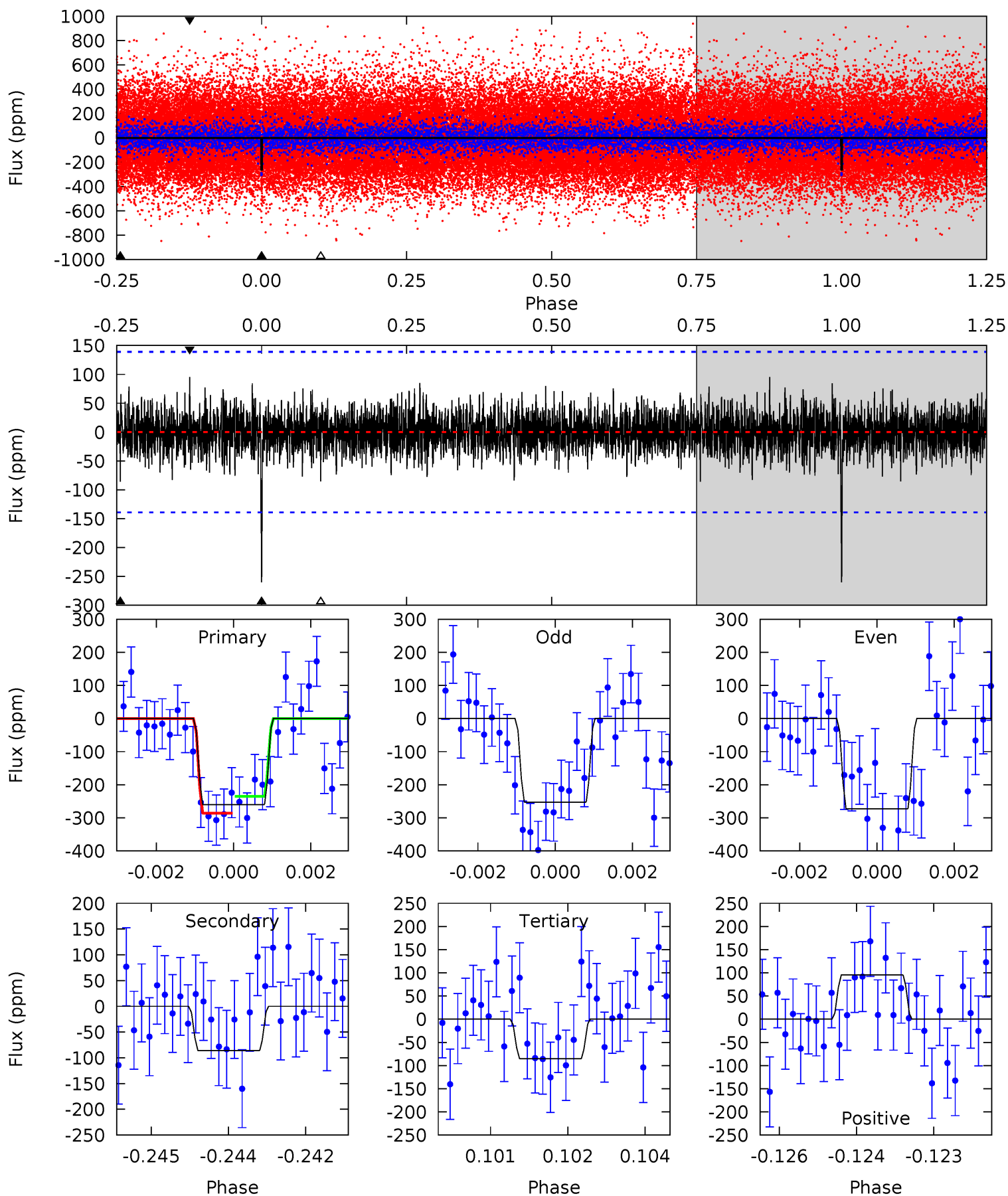
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.09	4.05	3.96	4.58	5.34	3.11	1.14	5.13	4.51	0.09	-0.53	1.34	1.00	0.33	1.45



Alt Model-Shift Uniqueness Test

010669587-01, P = 287.731769 Days, E = 230.703417 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	3.31	3.28	3.68	5.36	3.14	0.95	6.73	6.33	0.03	-0.37	0.38	0.95	0.27	0.97



Stellar Parameters For KIC 010669587

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6122^{+165}_{-202}	$4.454^{+0.056}_{-0.224}$	$-0.040^{+0.250}_{-0.300}$	$1.024^{+0.341}_{-0.114}$	$1.085^{+0.153}_{-0.139}$	$1.423^{+0.431}_{-0.779}$
	+3%/-3%	+1%/-5%	+625%/-750%	+33%/-11%	+14%/-13%	+30%/-55%
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 010669587-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-103 ± 25	$1.85^{+0.67}_{-0.58}$	416^{+30}_{-21}	4937^{+1019}_{-589}	11955^{+15467}_{-5732}
Alt.	-86 ± 26	$1.88^{+0.65}_{-0.58}$	416^{+35}_{-20}	4777^{+865}_{-584}	9935^{+11802}_{-4988}

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

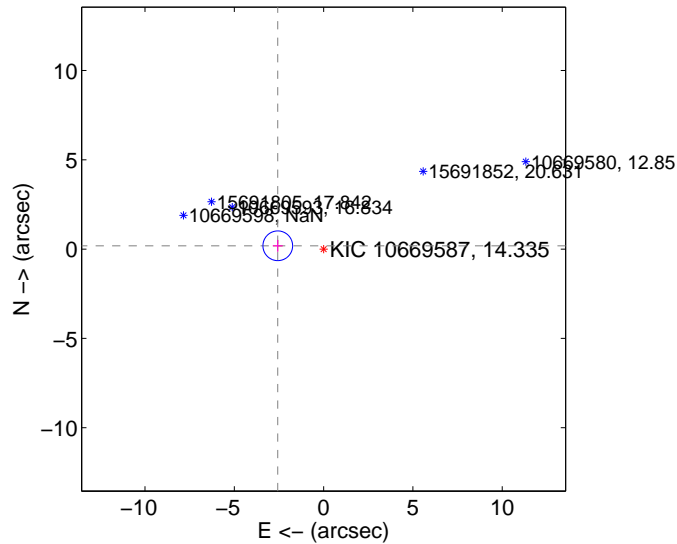
Supplemental centroid analysis for 010669587-01. Kepler magnitude: 14.34. Transit SNR 7.27

There are 0 quarters with good PRF difference image offsets

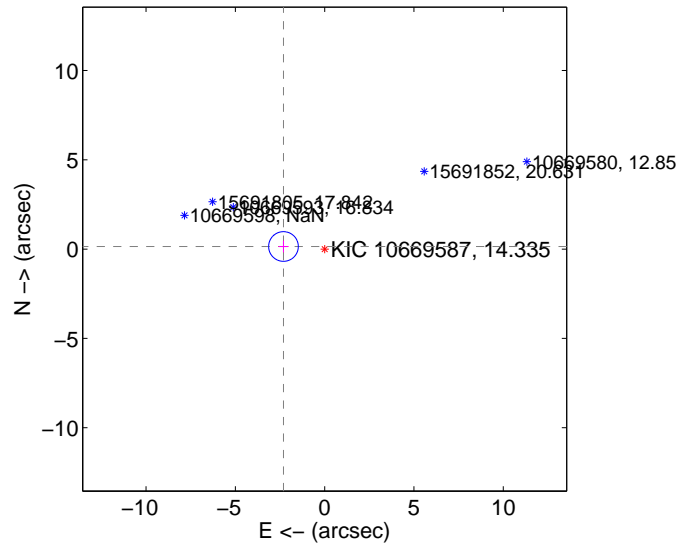
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.573 ± 0.277	9.29	2.566 ± 0.277	0.186 ± 0.333
PRF-fit source offset from KIC position	2.310 ± 0.277	8.34	2.306 ± 0.277	0.146 ± 0.333
photometric centroid source offset	6.64 ± 1.55	4.28	3.40 ± 2.10	-5.70 ± 1.30

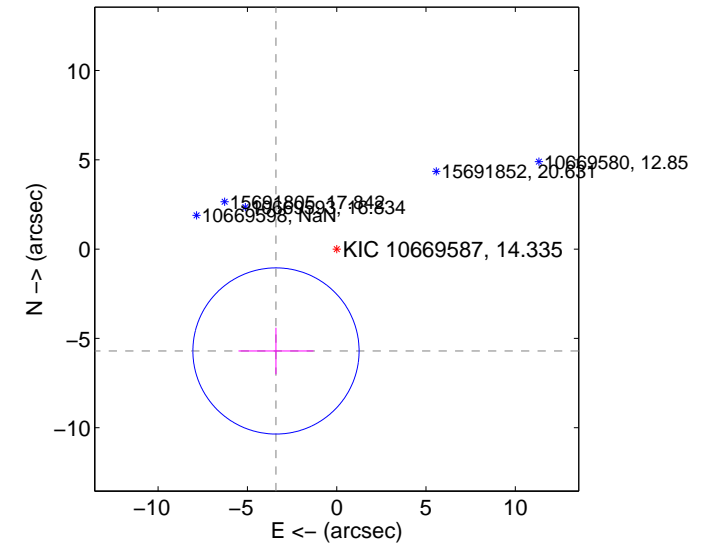
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

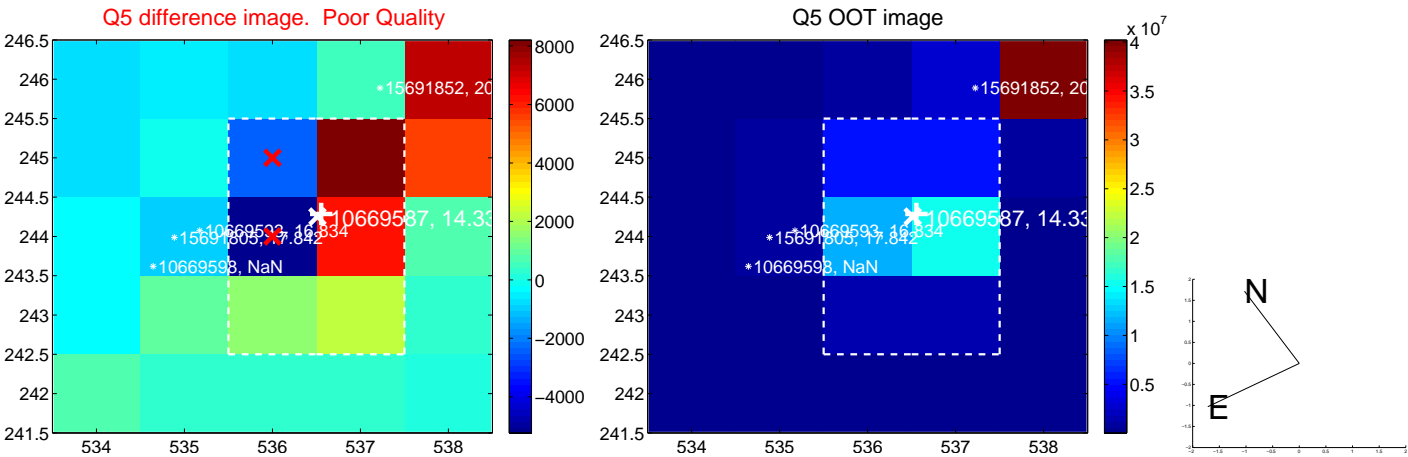


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



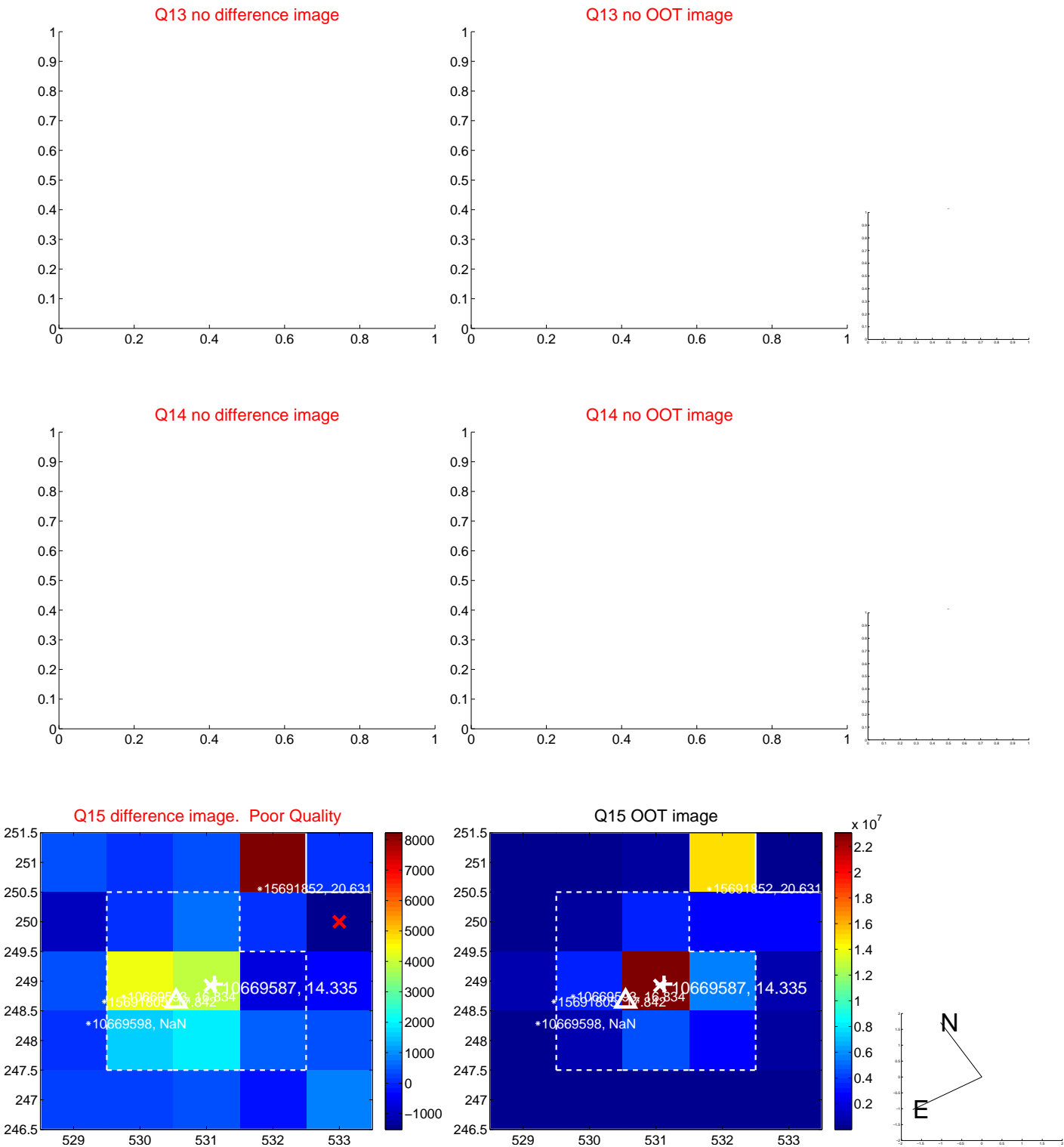
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



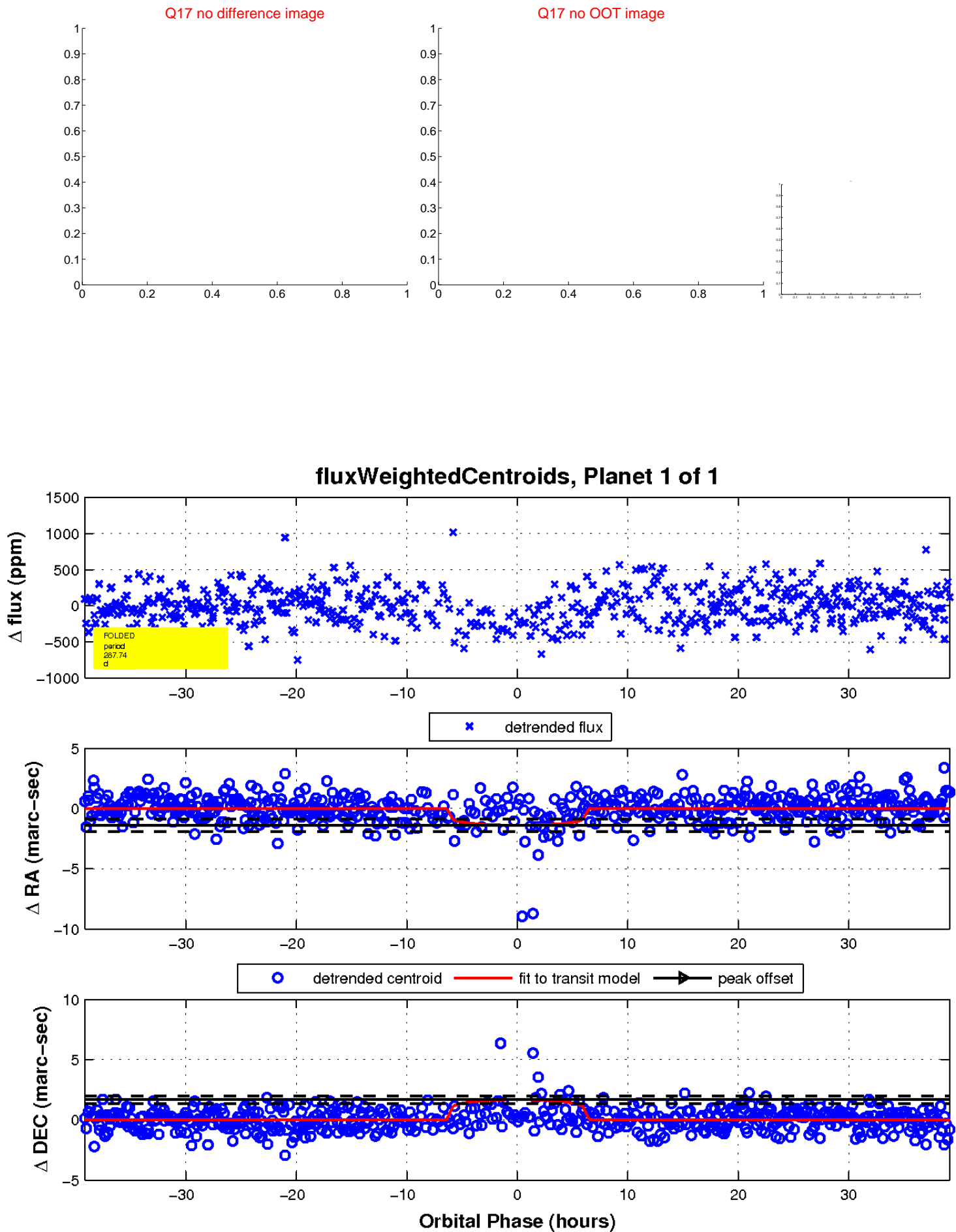
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

