

KIC 005015667

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})
005015667-01	OBS	No	327.800929	427.183966	453.2	24.189	10.5	5.4	1.05	6033	2.41	1.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005015667-01	OBS	FP	0.00	1	0	0	0	LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—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.

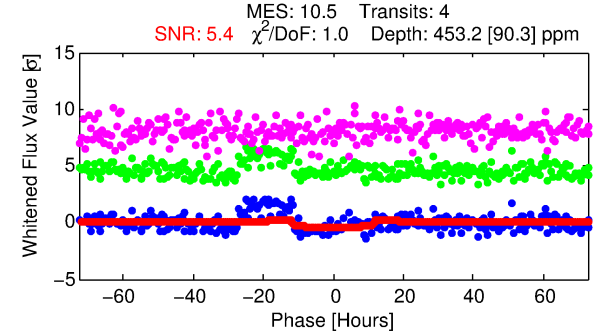
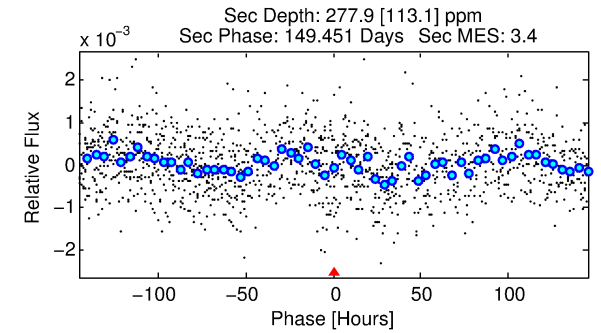
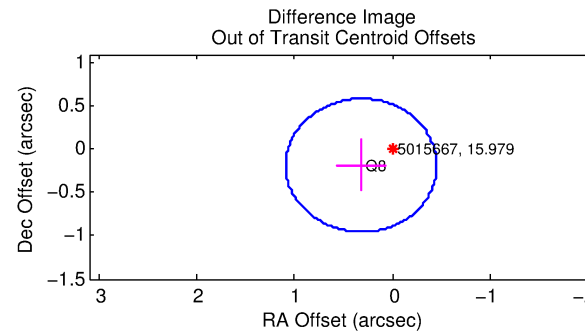
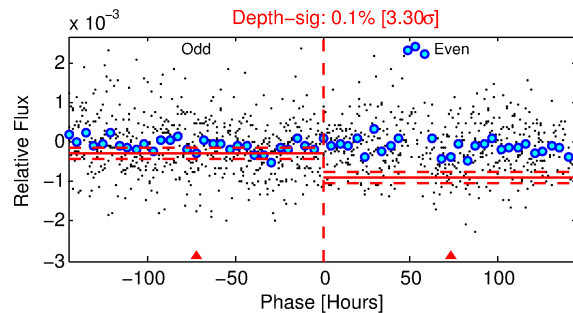
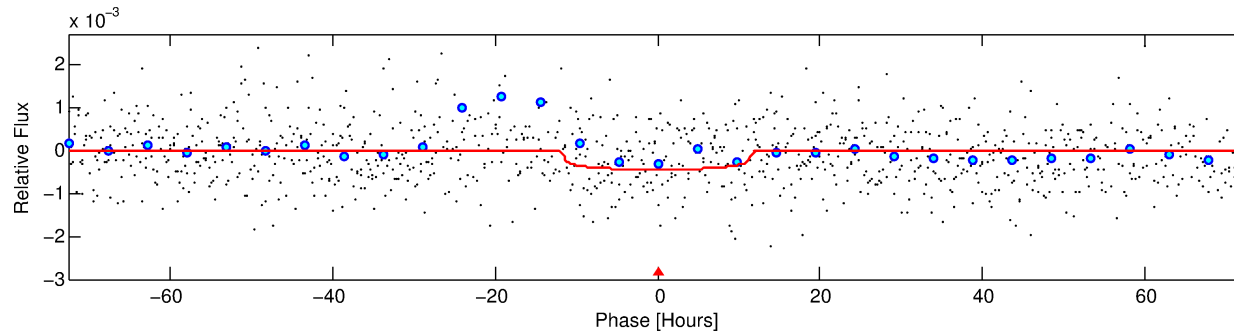
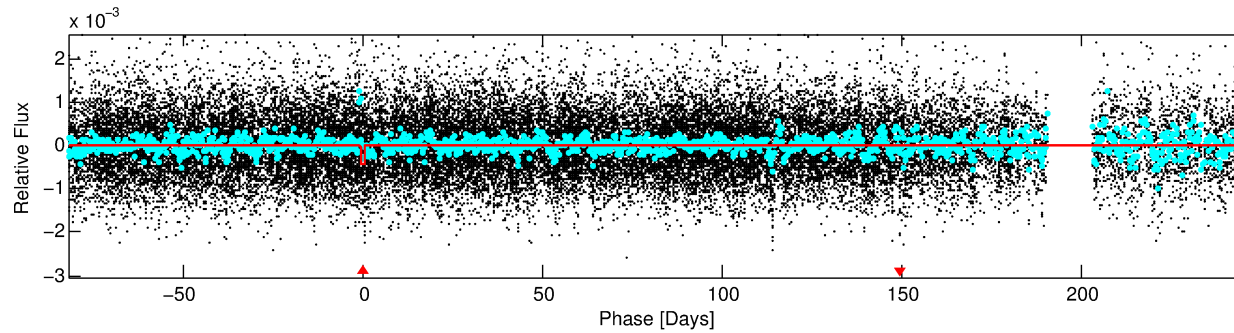
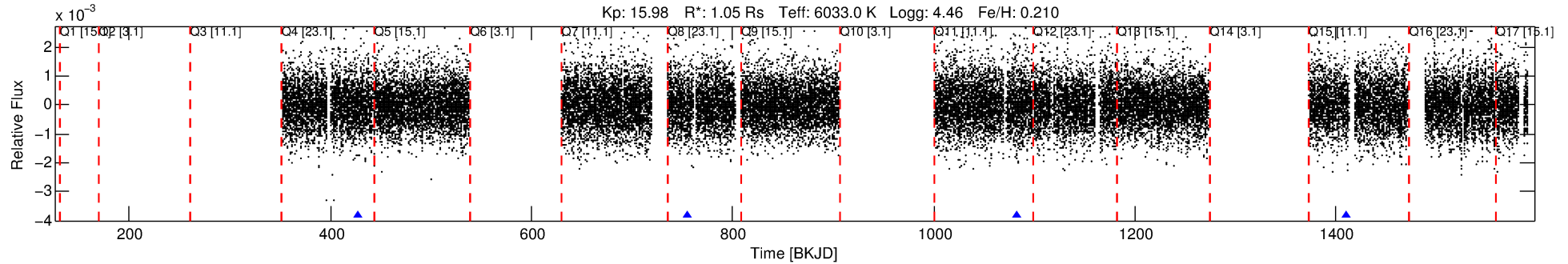
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005015667-01

No Significant Match Found

DV One-Page Summary

KIC: 5015667 Candidate: 1 of 1 Period: 327.801 d



DV Fit Results:

Period = 327.80093 [0.02468] d
Epoch = 427.1840 [0.0442] BKJD
Rp/R* = 0.0211 [0.0071]
a/R* = 72.93 [107.99]
b = 0.74 [0.92]
Seff = 1.37 [0.56]
Teq = 276 [28] K
Rp = 2.41 [1.12] Re
a = 0.9753 [0.2595] AU
Ag = 25078.81 [22029.35] [1.14 σ]
Teffp = 5363 [1079] K [4.71 σ]

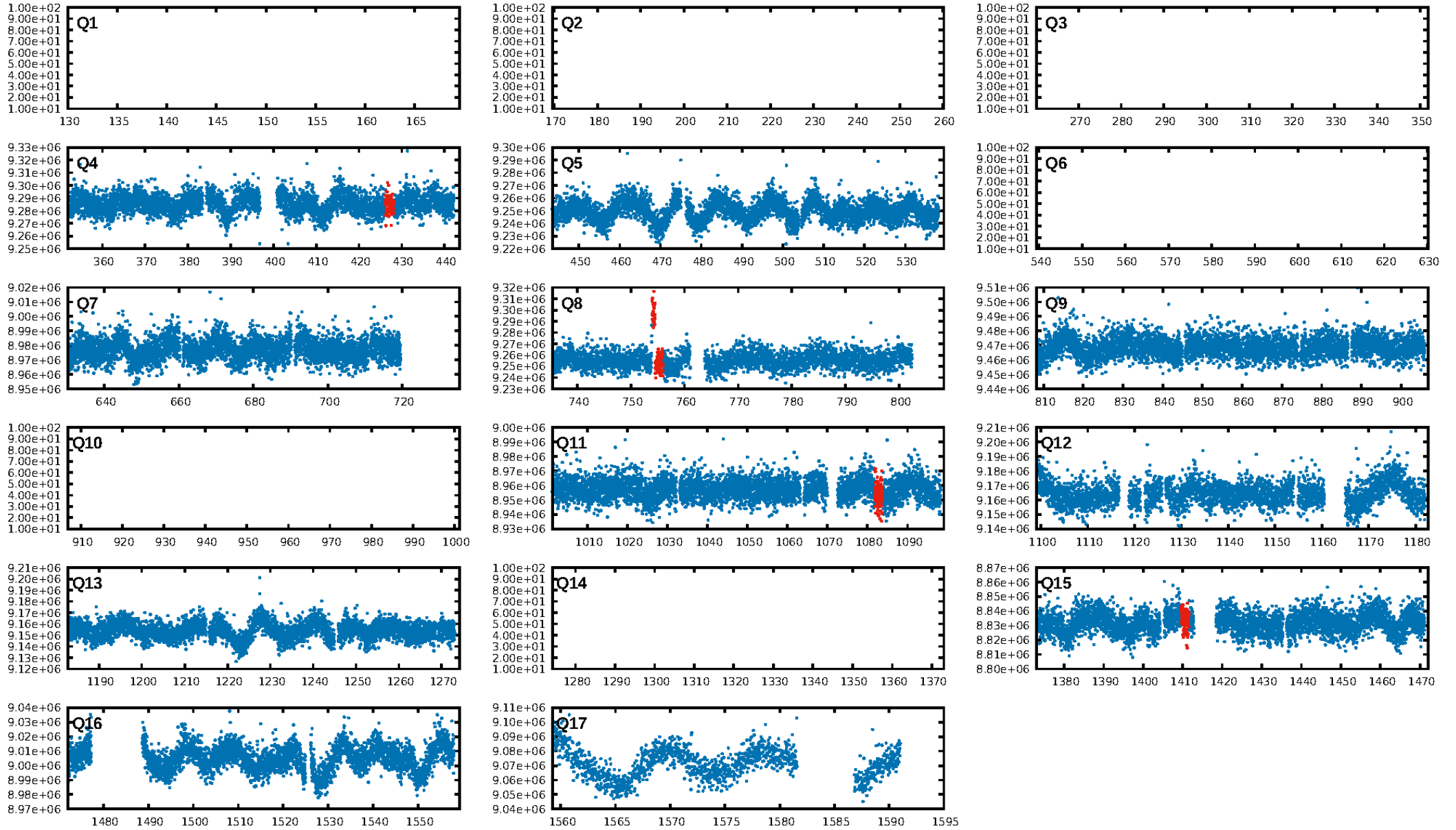
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.55e-15
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.751
Centroid-sig: 0.4%
Centroid-so: 3.586 arcsec [1.86 σ]
OotOffset-rm: 0.369 arcsec [1.43 σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-rm: 0.341 arcsec [1.26 σ]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

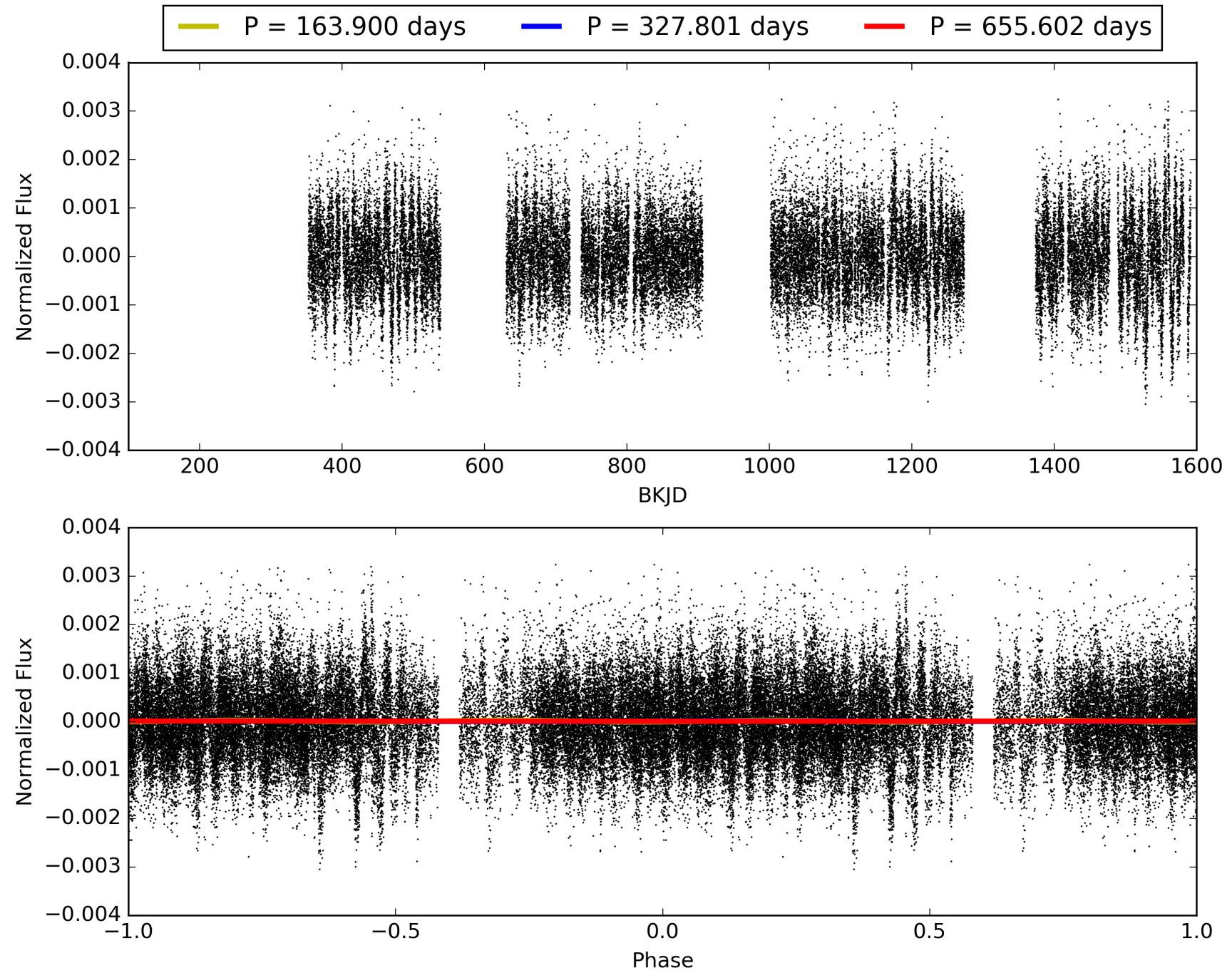
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:01:16 Z

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

TCE 005015667-01, PDC Light Curves

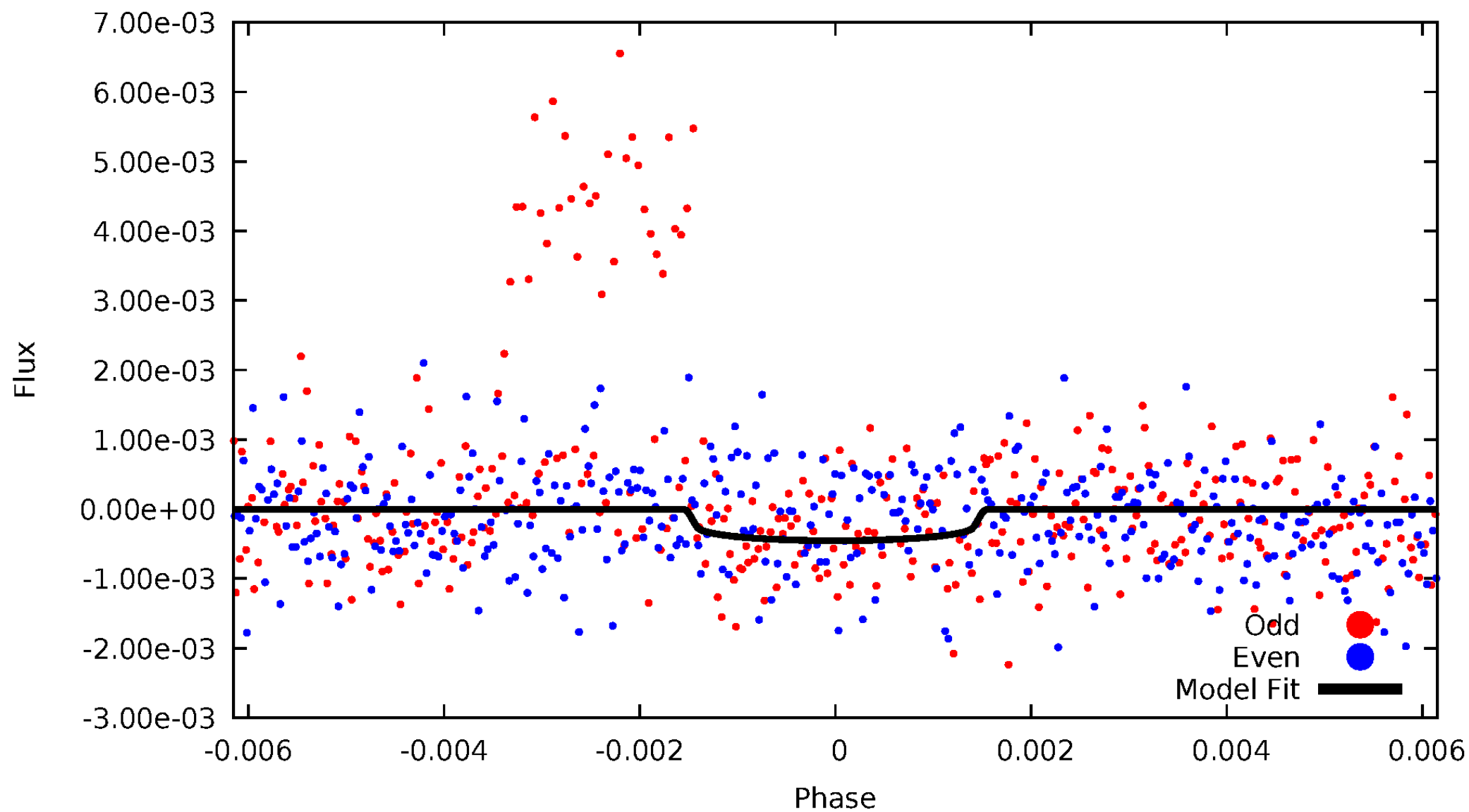


TCE 005015667-01



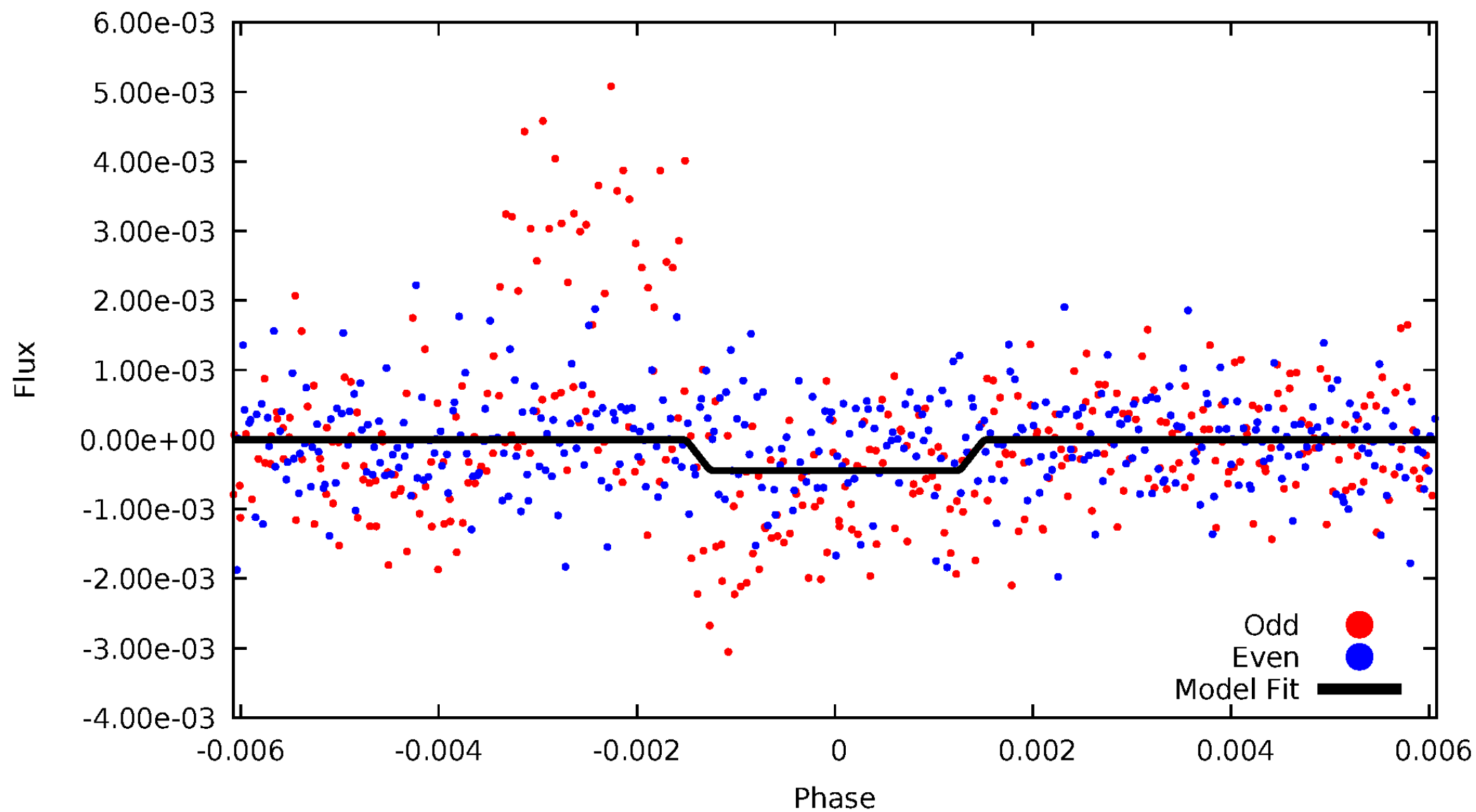
DV Odd/Even

TCE 005015667-01

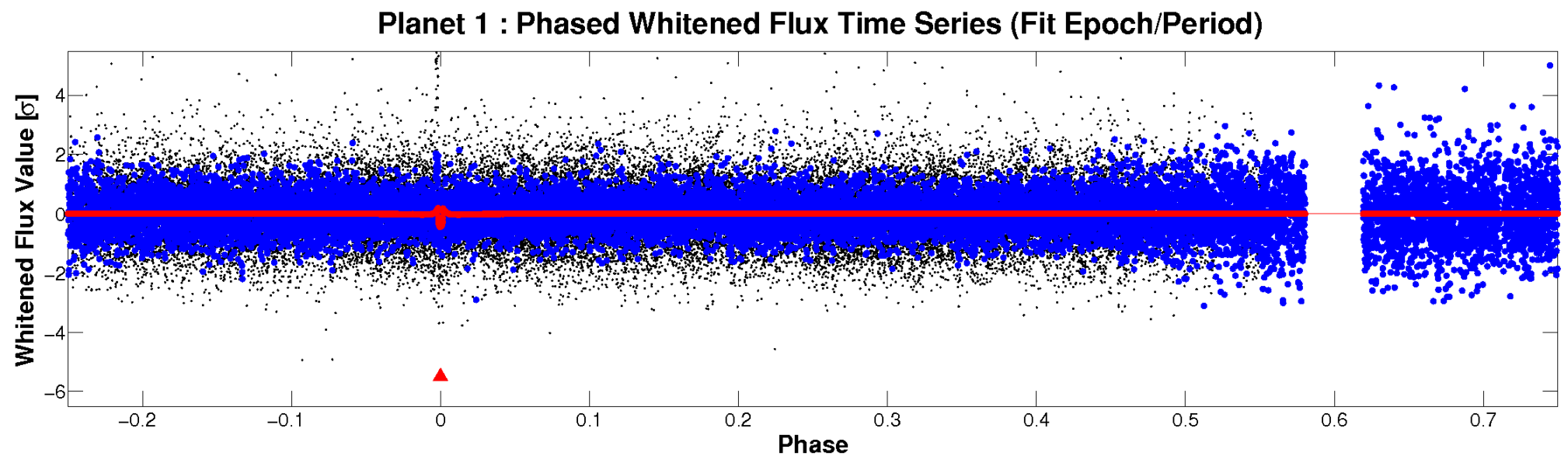
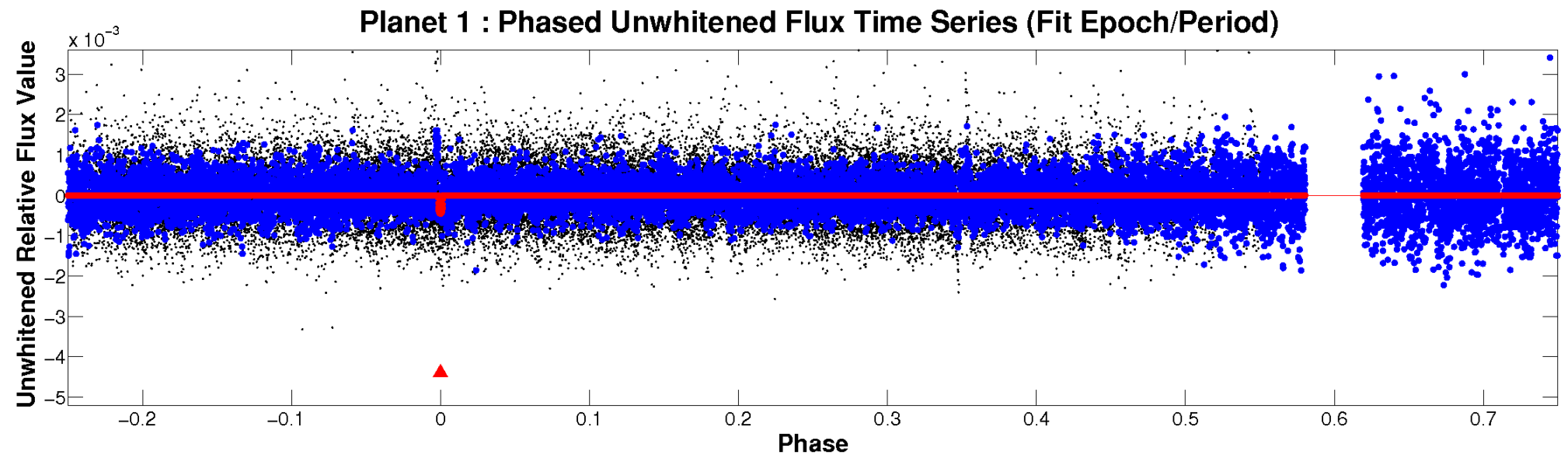


ALT Odd/Even

TCE 005015667-01

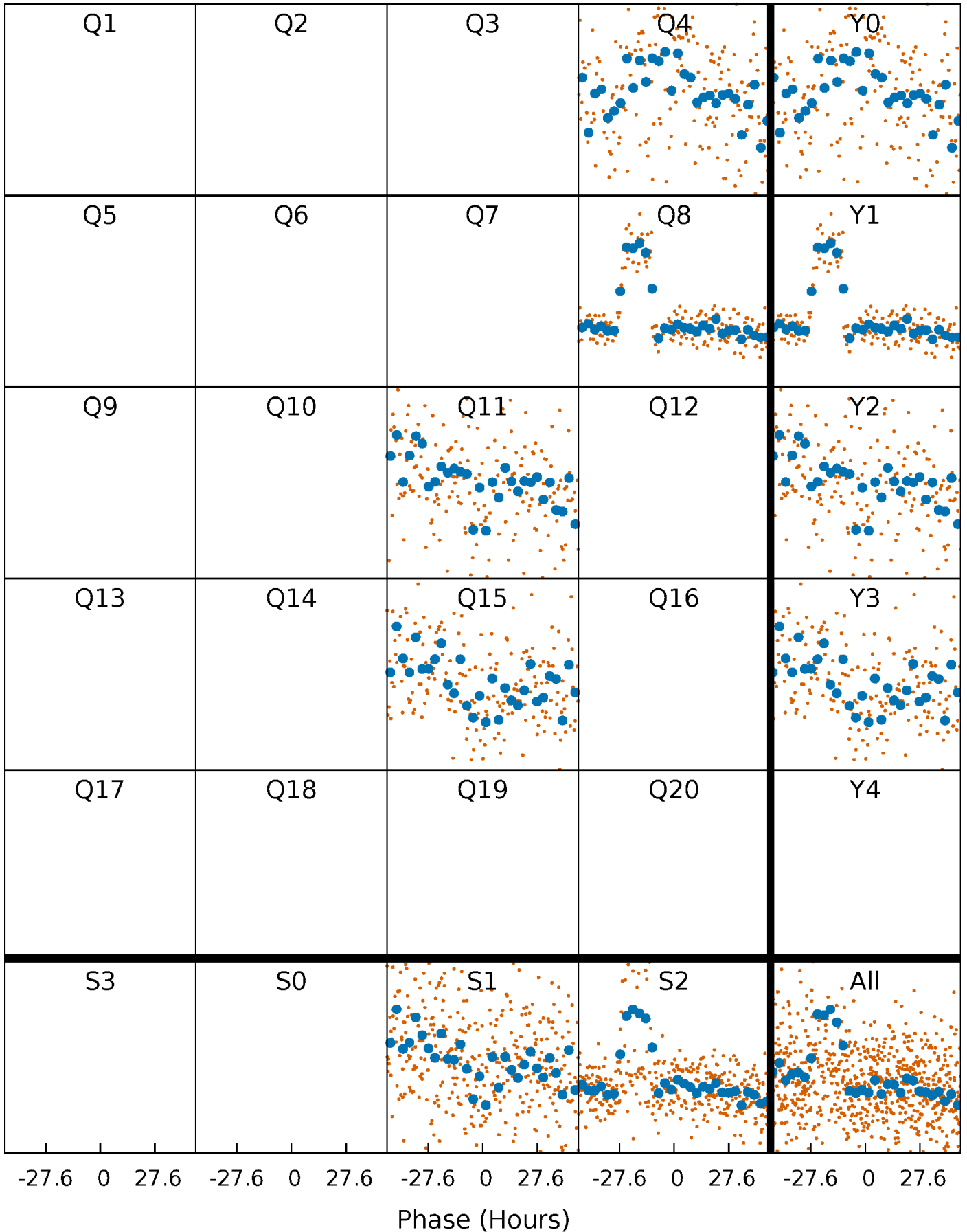


Non-Whitened Vs. Whitened Light Curve



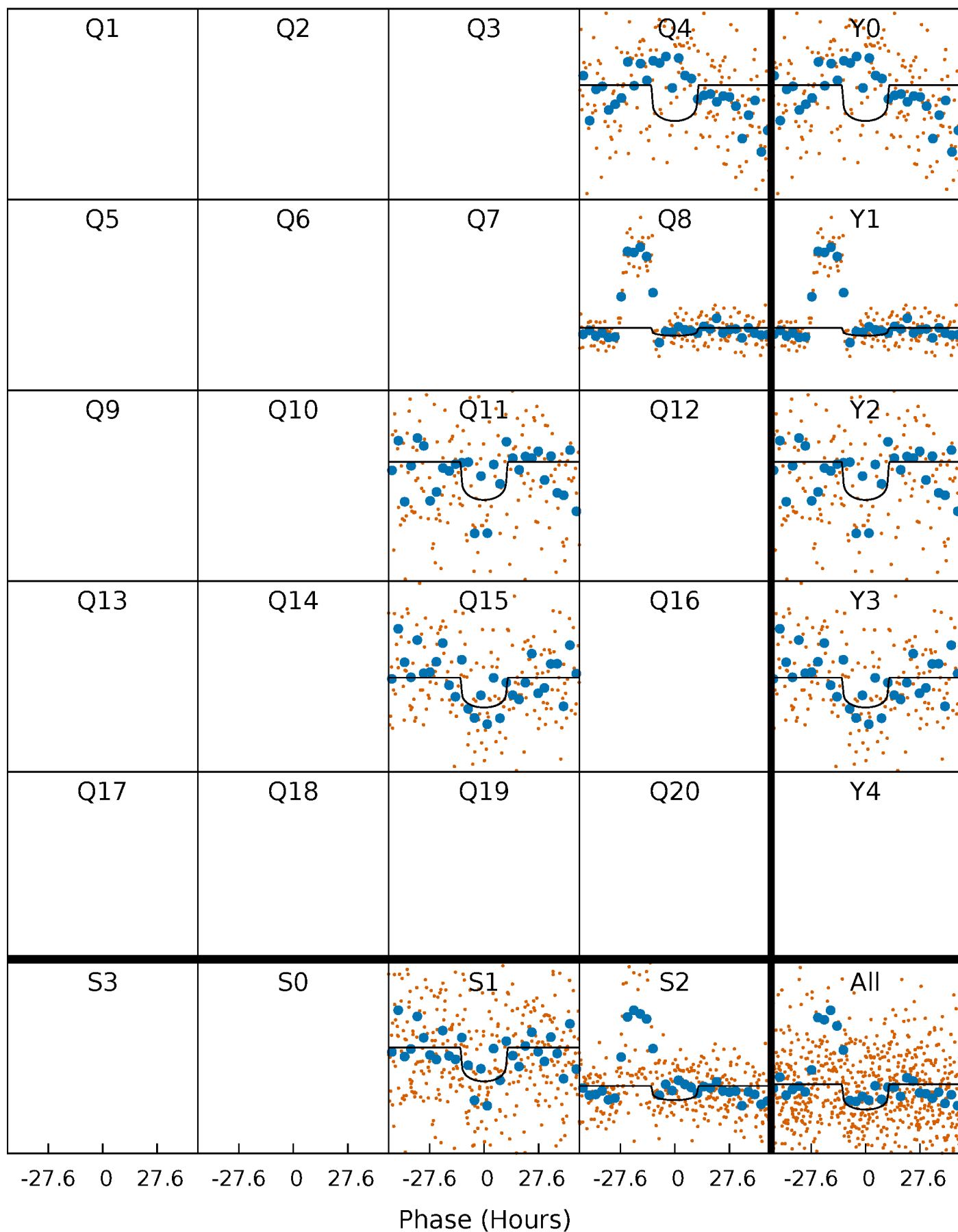
PDC Quarter-Phased Transit Curves

TCE 005015667-01 P=327.800929 Days $T_0=427.183966$ (BKJD)



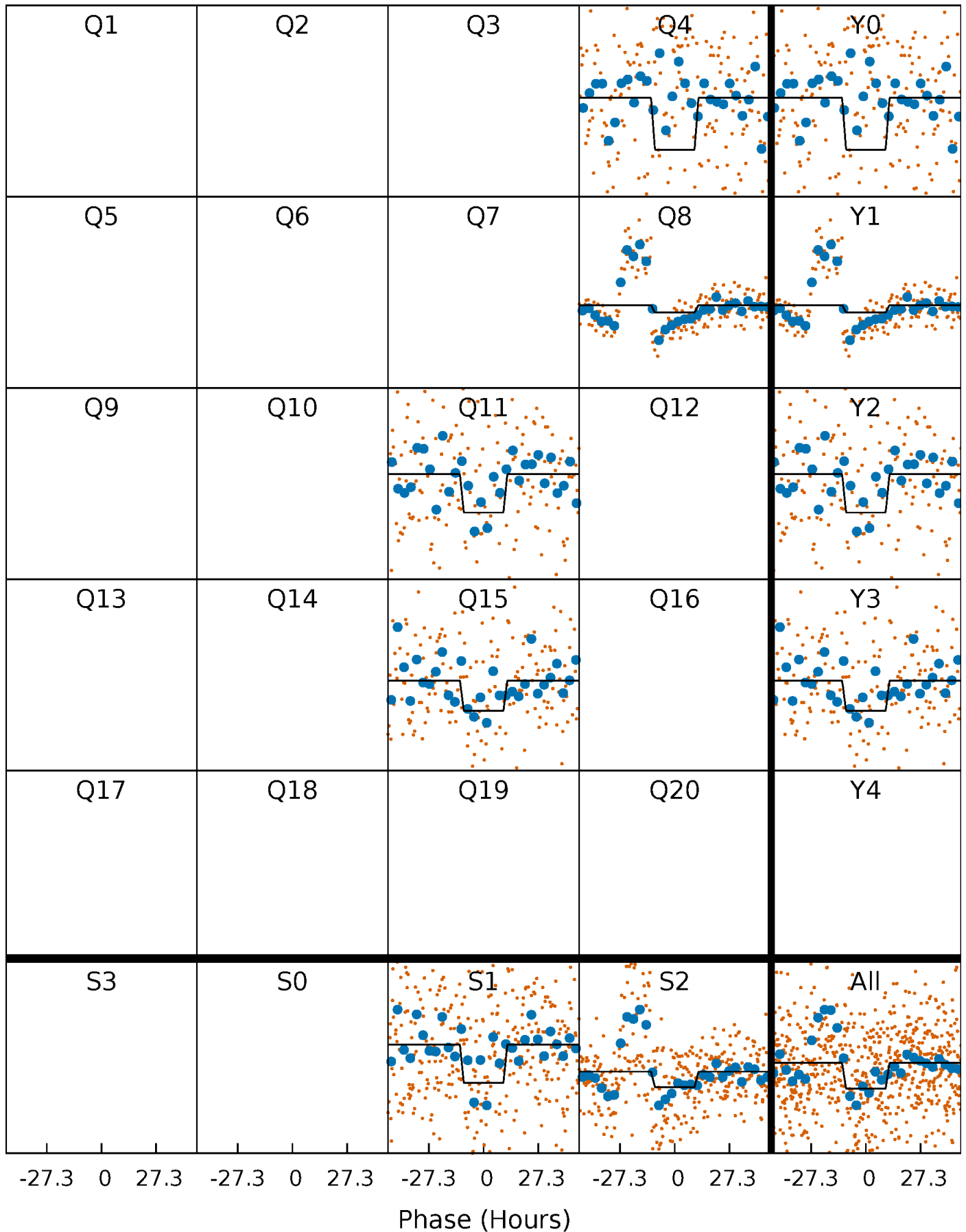
DV Quarter-Phased Transit Curves

TCE 005015667-01 P=327.800929 Days $T_0=427.183966$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

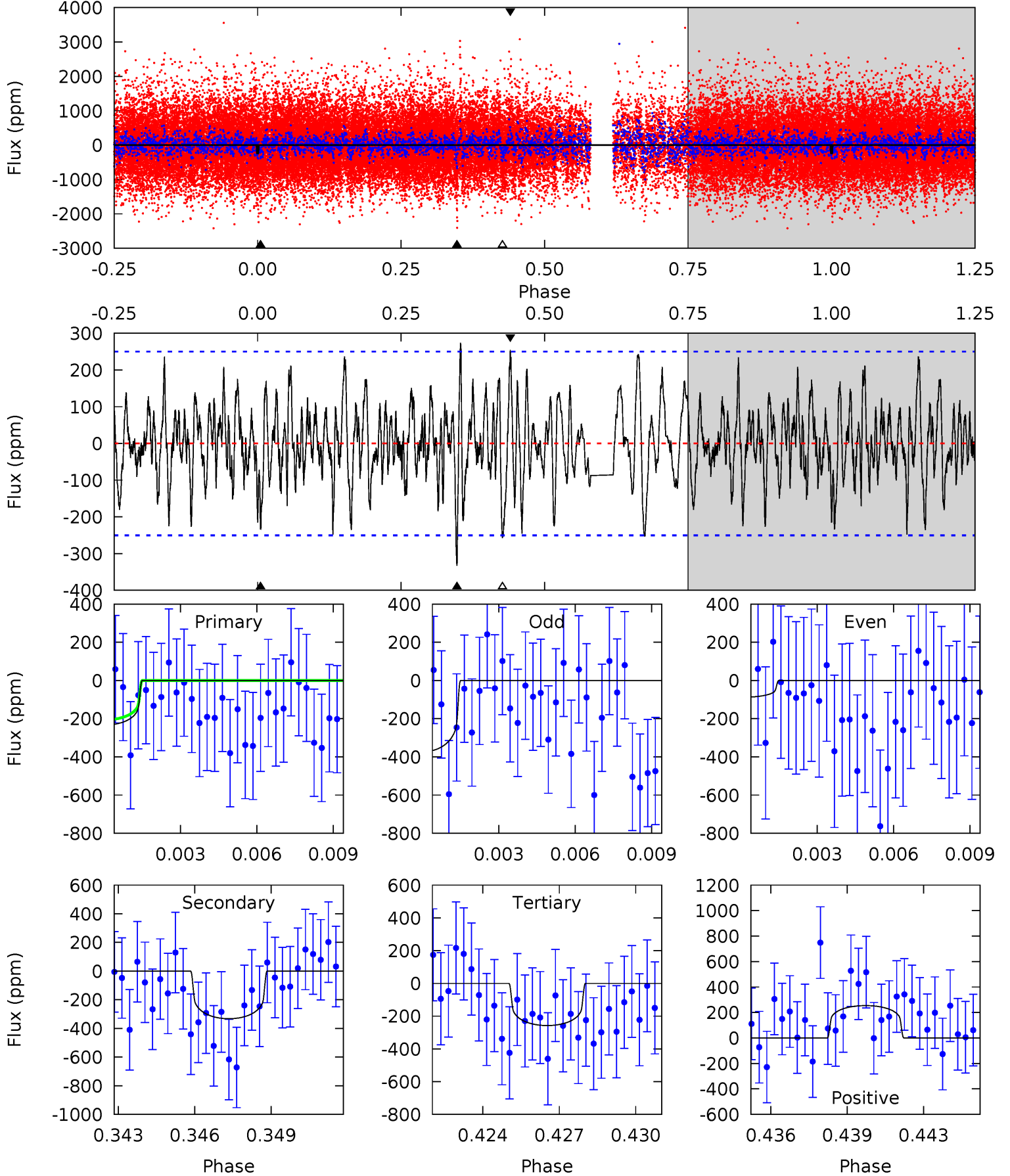
TCE 005015667-01 P=327.788358 Days $T_0=427.216491$ (BKJD)



DV Model-Shift Uniqueness Test

005015667-01, $P = 327.800929$ Days, $E = 99.383037$ Days

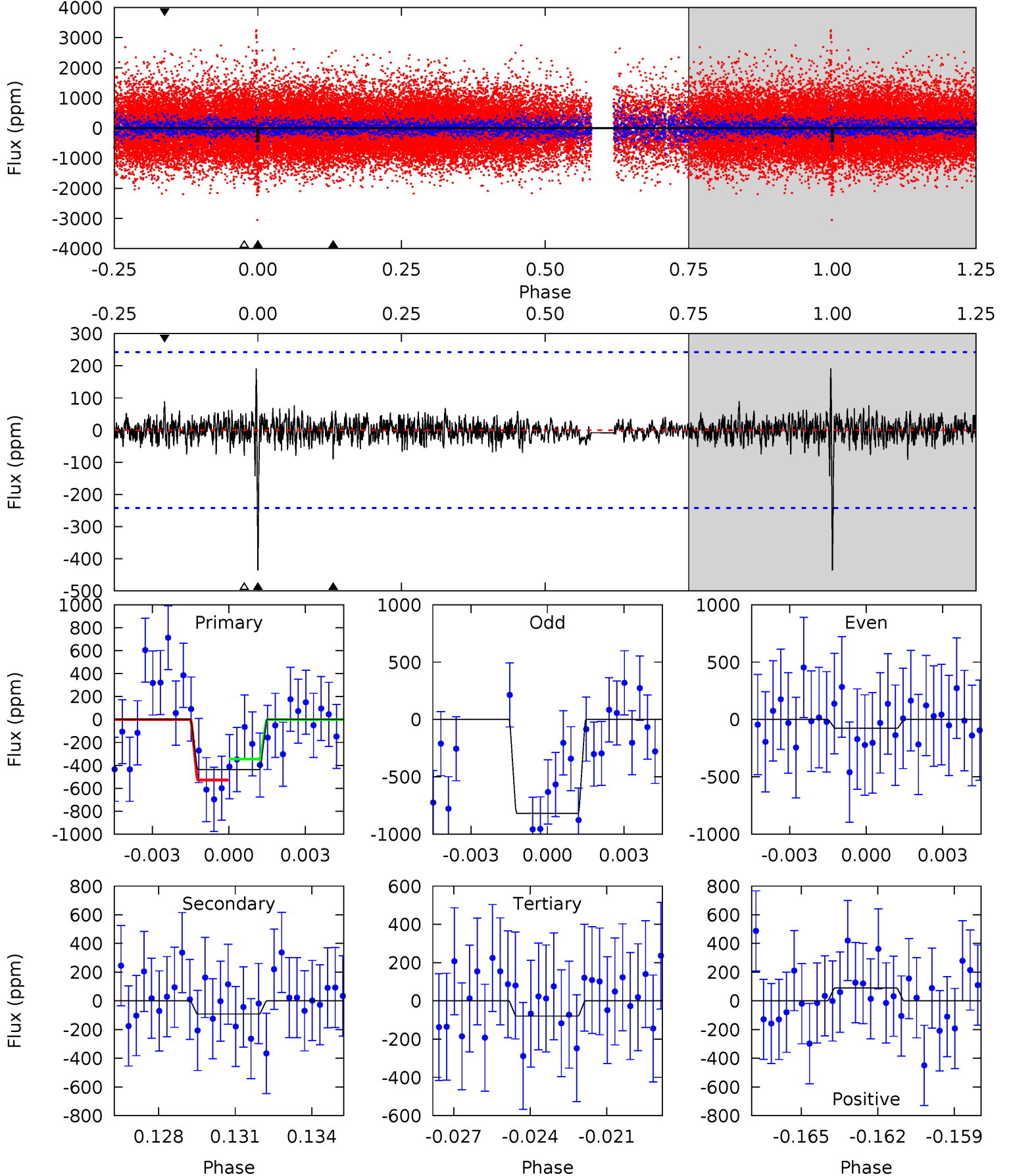
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.90	6.97	5.40	5.33	5.25	2.96	1.87	-0.50	-0.43	1.57	1.64	3.00	0.77	0.45	0.57



Alt Model-Shift Uniqueness Test

005015667-01, $P = 327.788358$ Days, $E = 99.428133$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.45	1.98	1.73	1.93	5.25	2.96	0.53	7.73	7.52	0.26	0.05	8.05	1.59	0.30	1.96



Stellar Parameters For KIC 005015667

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6033^{+190}_{-232}	$4.460^{+0.052}_{-0.208}$	$0.210^{+0.200}_{-0.350}$	$1.046^{+0.334}_{-0.111}$	$1.153^{+0.138}_{-0.166}$	$1.418^{+0.397}_{-0.740}$
	+3%/-4%	+1%/-5%	+95%/-167%	+32%/-11%	+12%/-14%	+28%/-52%
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 005015667-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-332 ± 48	$2.53^{+0.99}_{-0.91}$	393^{+32}_{-20}	5586^{+1458}_{-713}	26090^{+37492}_{-12679}
Alt.	-92 ± 46	$2.57^{+0.96}_{-0.94}$	394^{+29}_{-22}	4231^{+875}_{-627}	6858^{+10618}_{-4334}

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

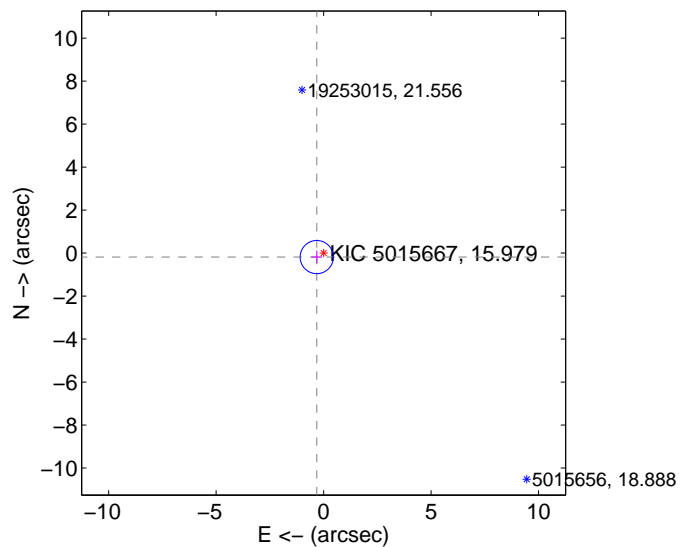
Supplemental centroid analysis for 005015667-01. Kepler magnitude: 15.98. Transit SNR 5.36

There are 1 quarters with good PRF difference image offsets

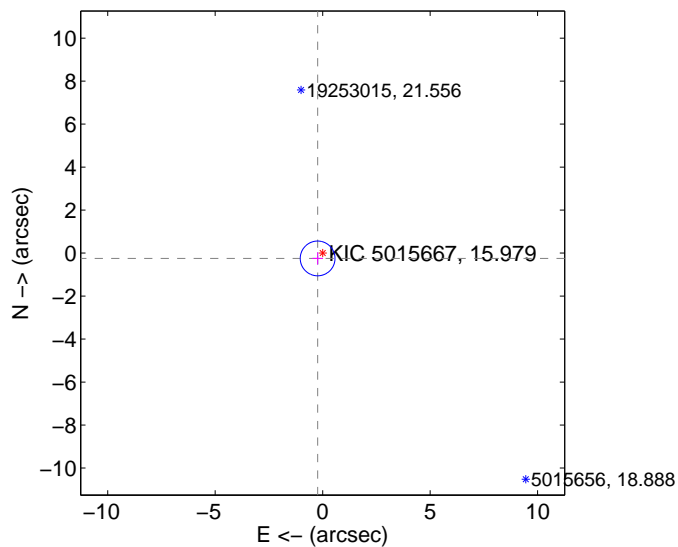
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.369 ± 0.257	1.43	0.319 ± 0.246	-0.185 ± 0.289
PRF-fit source offset from KIC position	0.341 ± 0.270	1.26	0.234 ± 0.246	-0.248 ± 0.289
photometric centroid source offset	3.59 ± 1.93	1.86	-0.39 ± 2.32	-3.56 ± 1.93

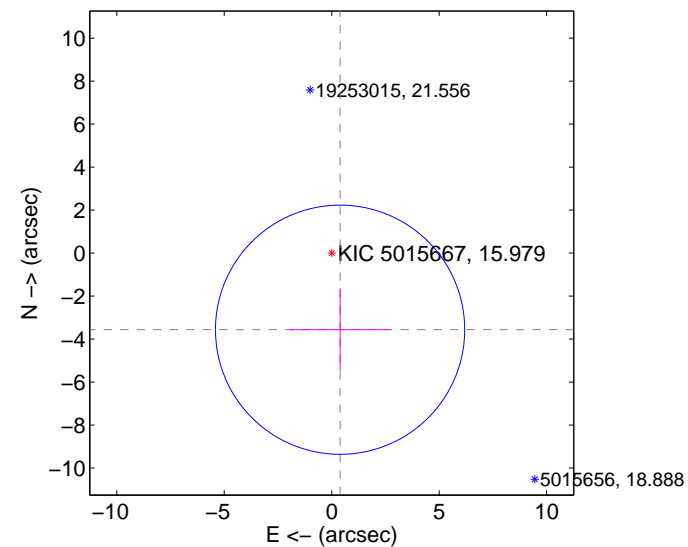
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

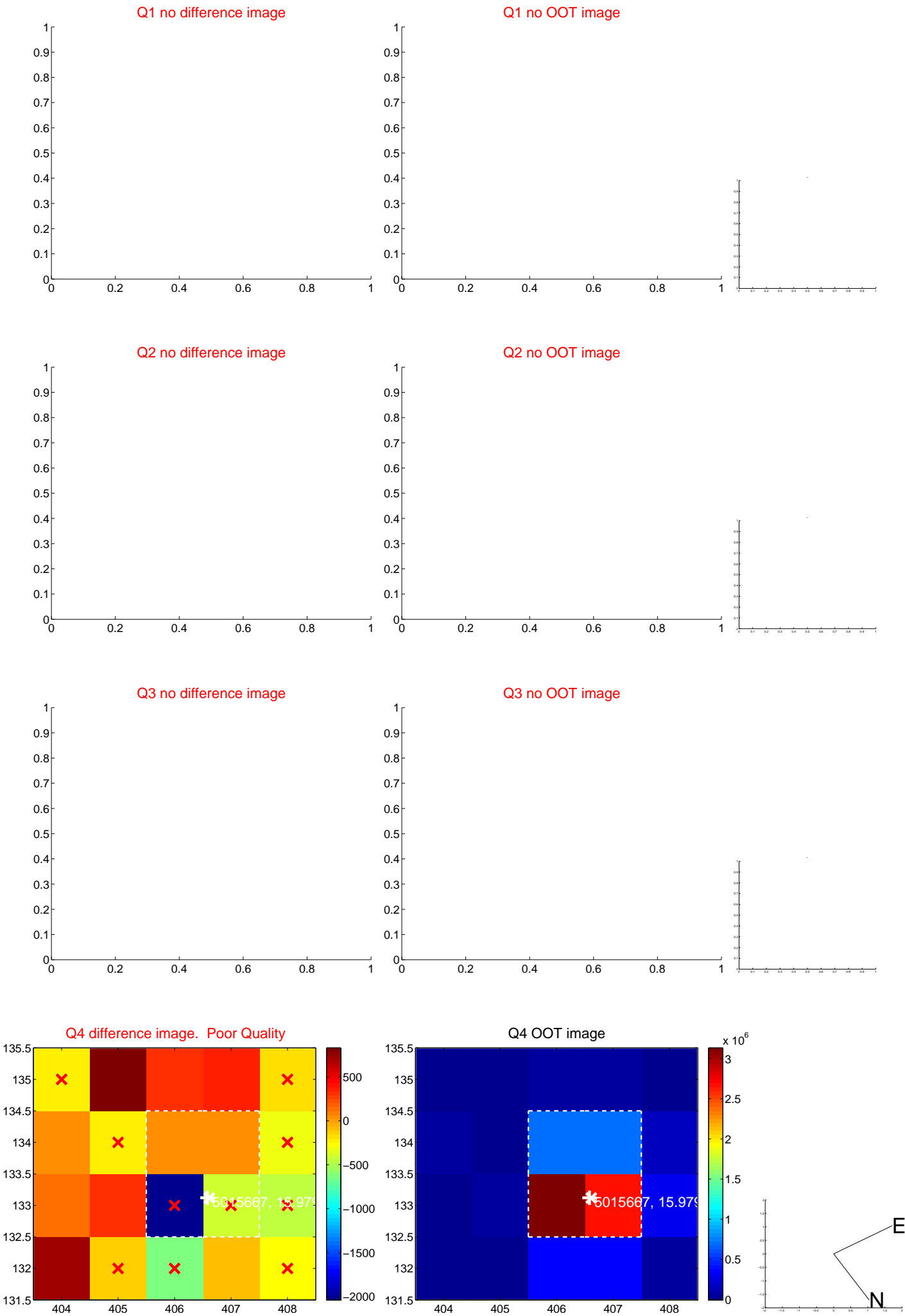


offset from photometric centroids

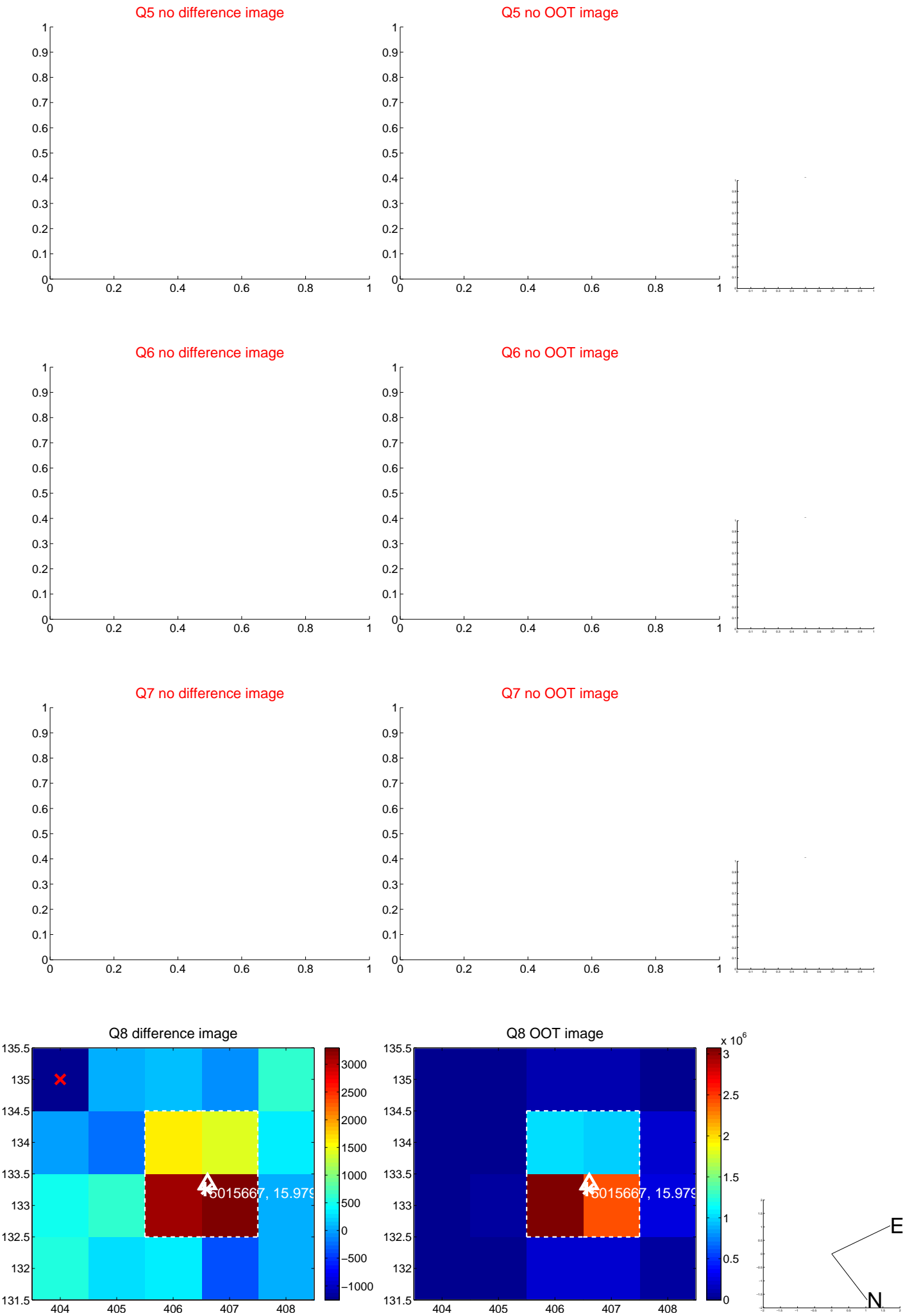


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



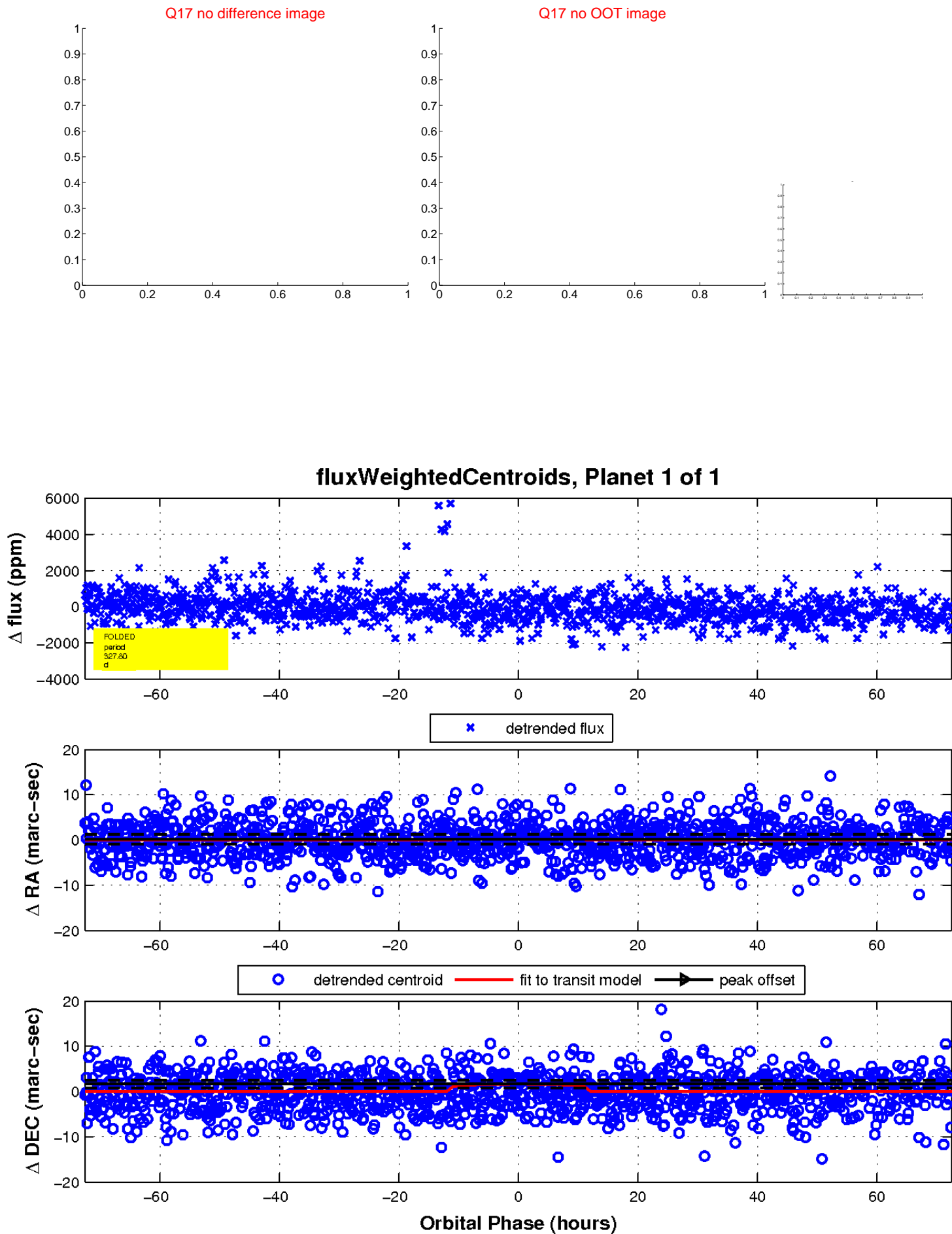
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

