

KIC 003555678

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})
003555678-01	OBS	No	261.372374	309.562782	940.2	15.735	8.4	8.7	0.82	5582	2.53	1.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003555678-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—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.

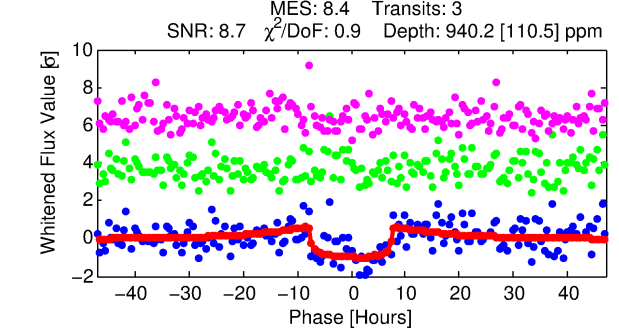
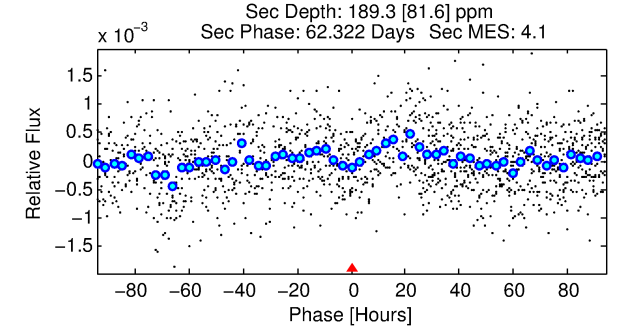
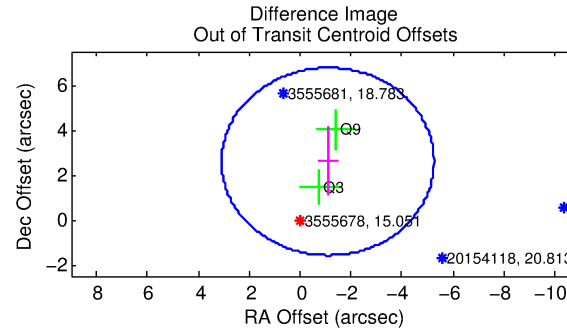
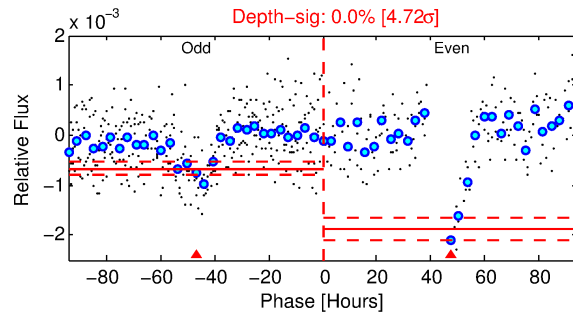
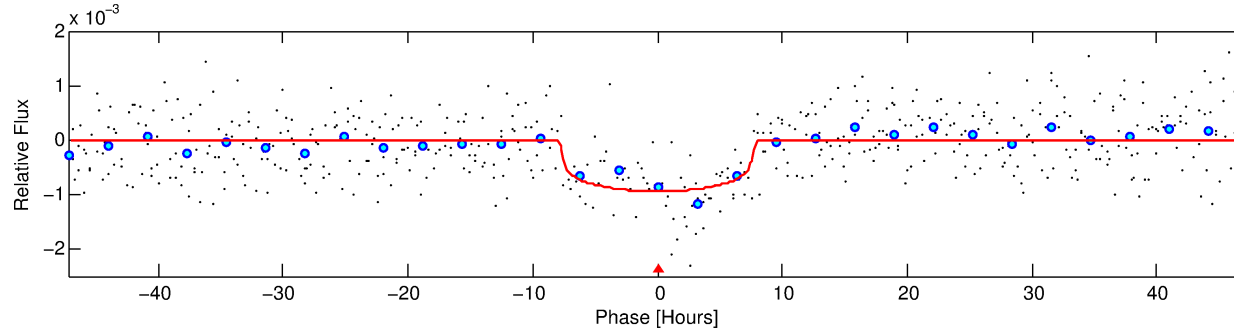
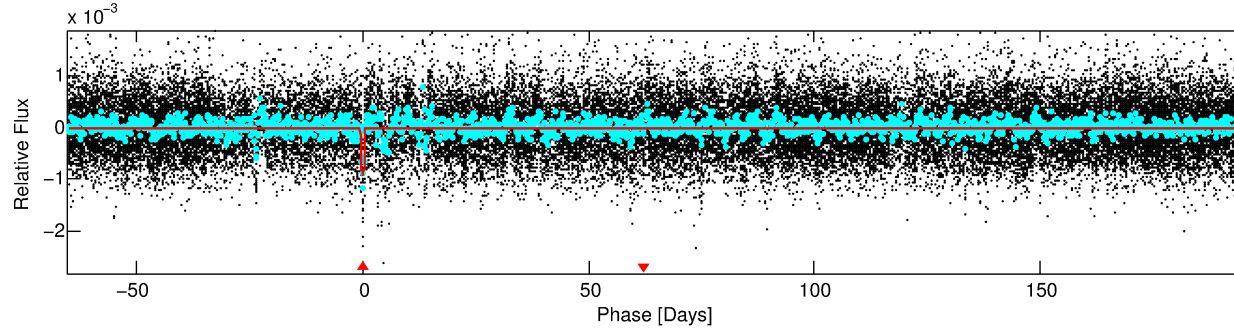
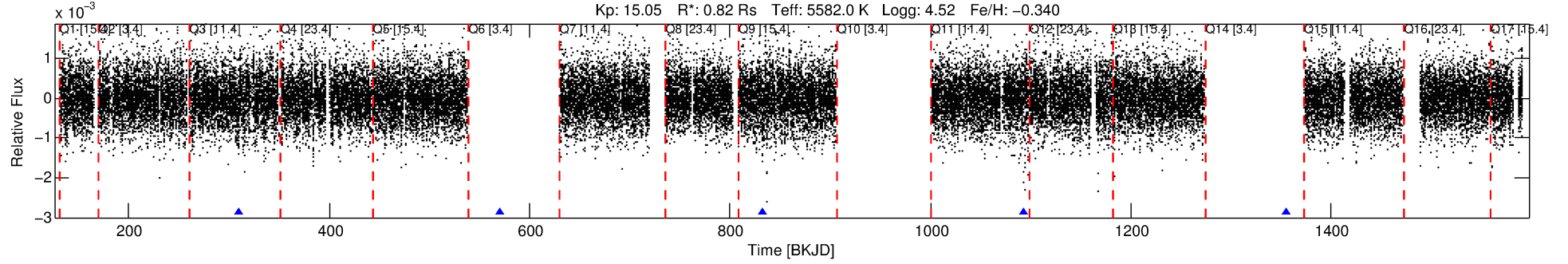
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003555678-01

No Significant Match Found

DV One-Page Summary

KIC: 3555678 Candidate: 1 of 1 Period: 261.372 d



DV Fit Results:

Period = 261.37237 [0.00823] d
Epoch = 309.5628 [0.0144] BKJD
Rp/R* = 0.0282 [0.0242]
a/R* = 123.03 [459.15]
b = 0.34 [9.67]
Seff = 1.05 [0.30]
Teq = 258 [18] K
Rp = 2.53 [2.24] Re
a = 0.7472 [0.1335] AU
Ag = 9109.25 [16326.66] [0.56σ]
Teffp = 3901 [1734] K [2.10σ]

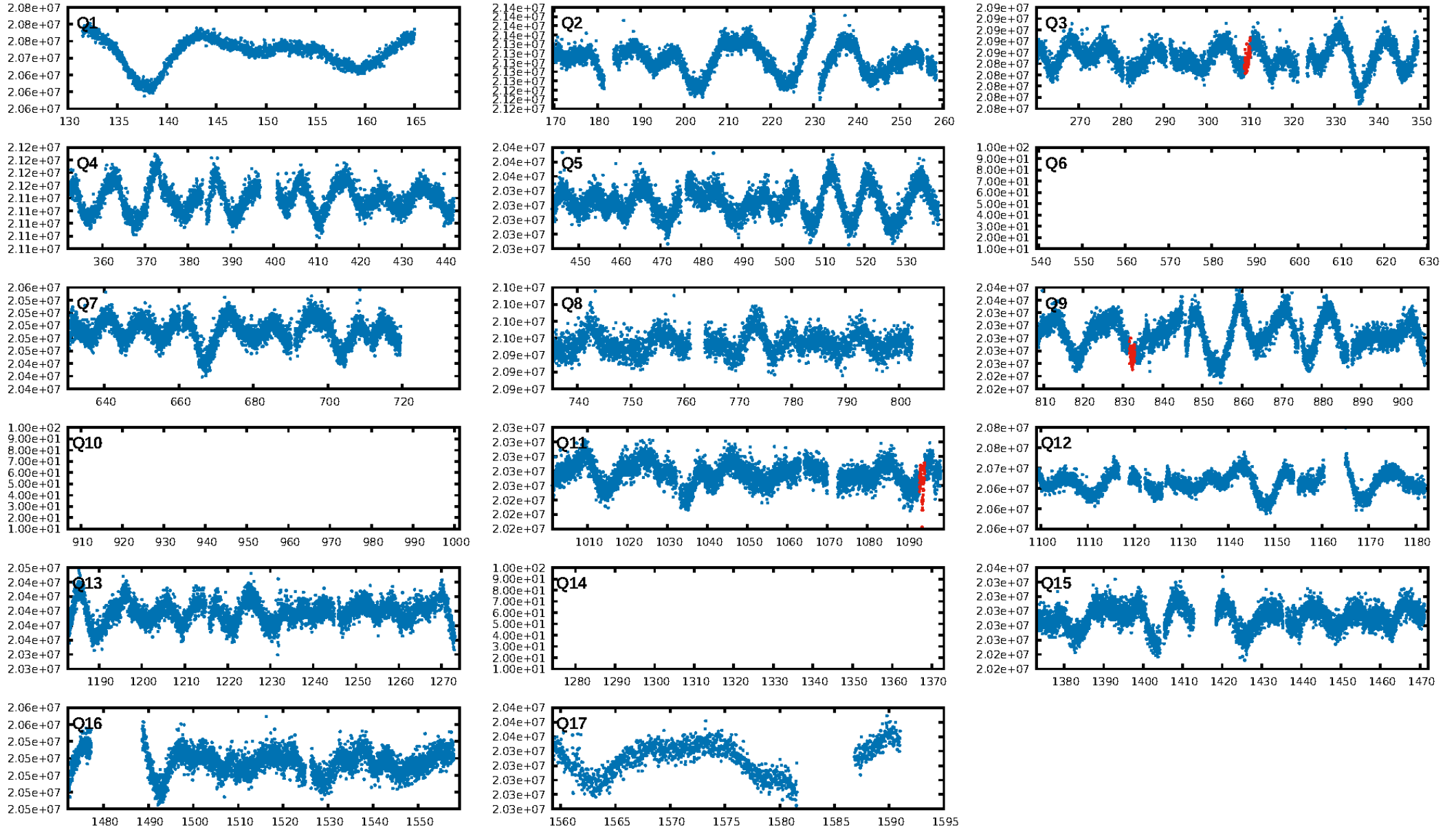
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.84e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 86.06
Centroid-sig: 9.8%
Centroid-so: 0.670 arcsec [0.73σ]
OotOffset-rm: 2.814 arcsec [2.02σ]
KicOffset-rm: 2.616 arcsec [2.05σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

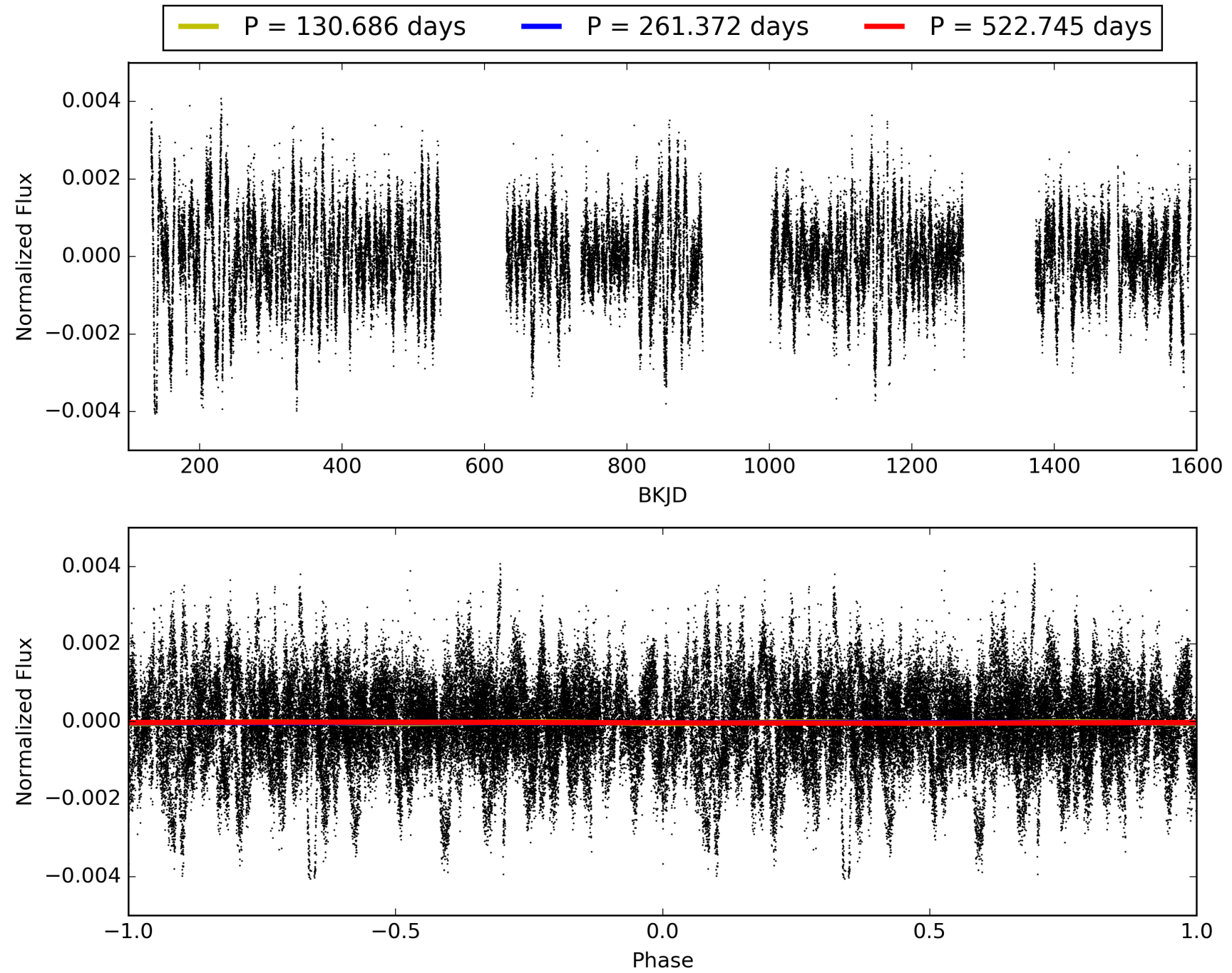
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:38:50 Z

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

TCE 003555678-01, PDC Light Curves

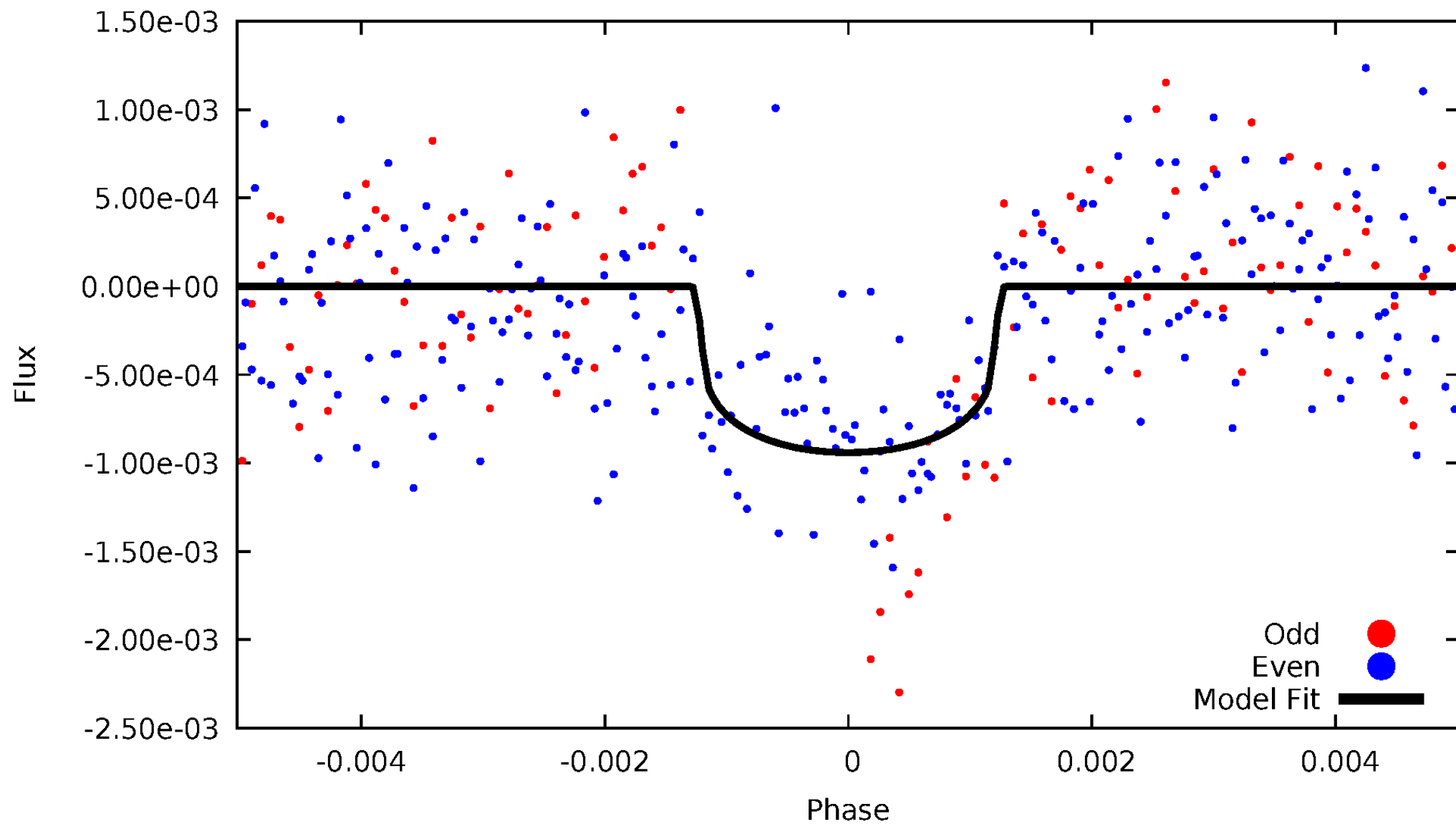


TCE 003555678-01



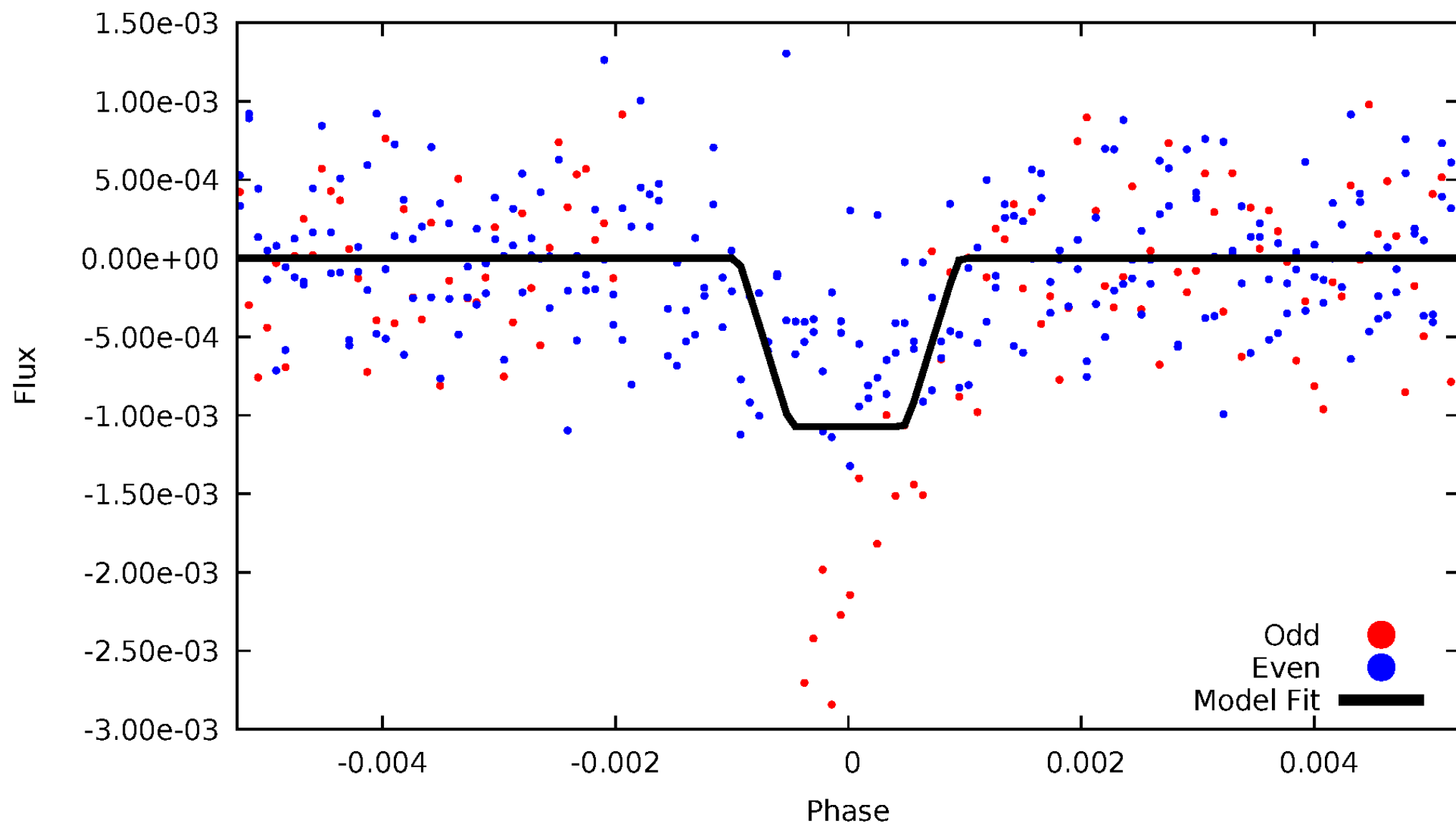
DV Odd/Even

TCE 003555678-01

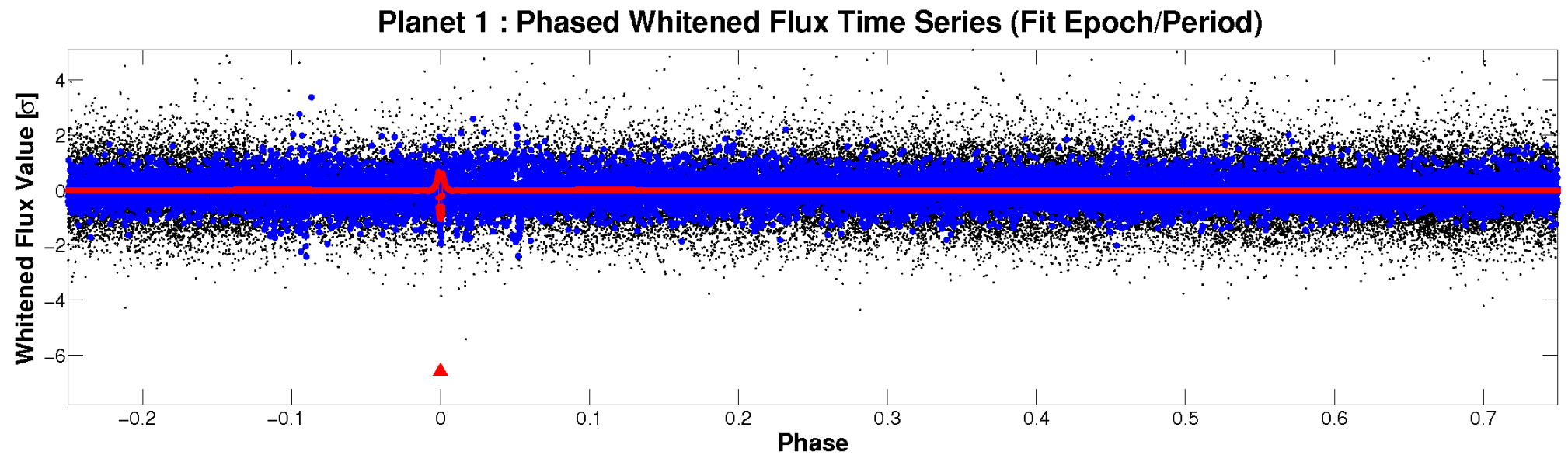
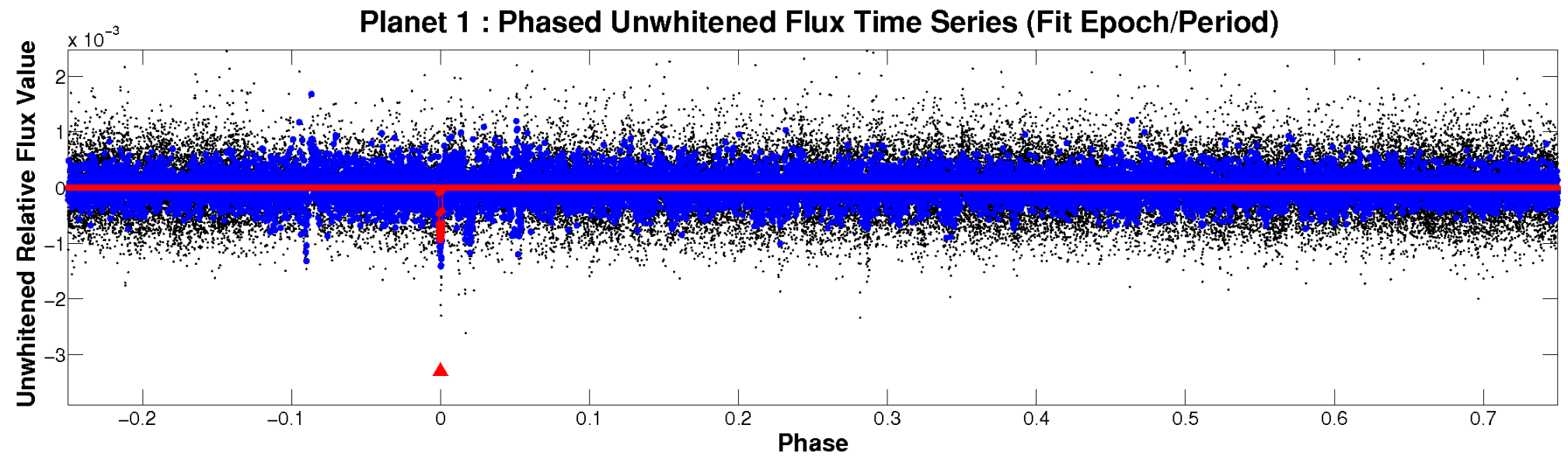


ALT Odd/Even

TCE 003555678-01

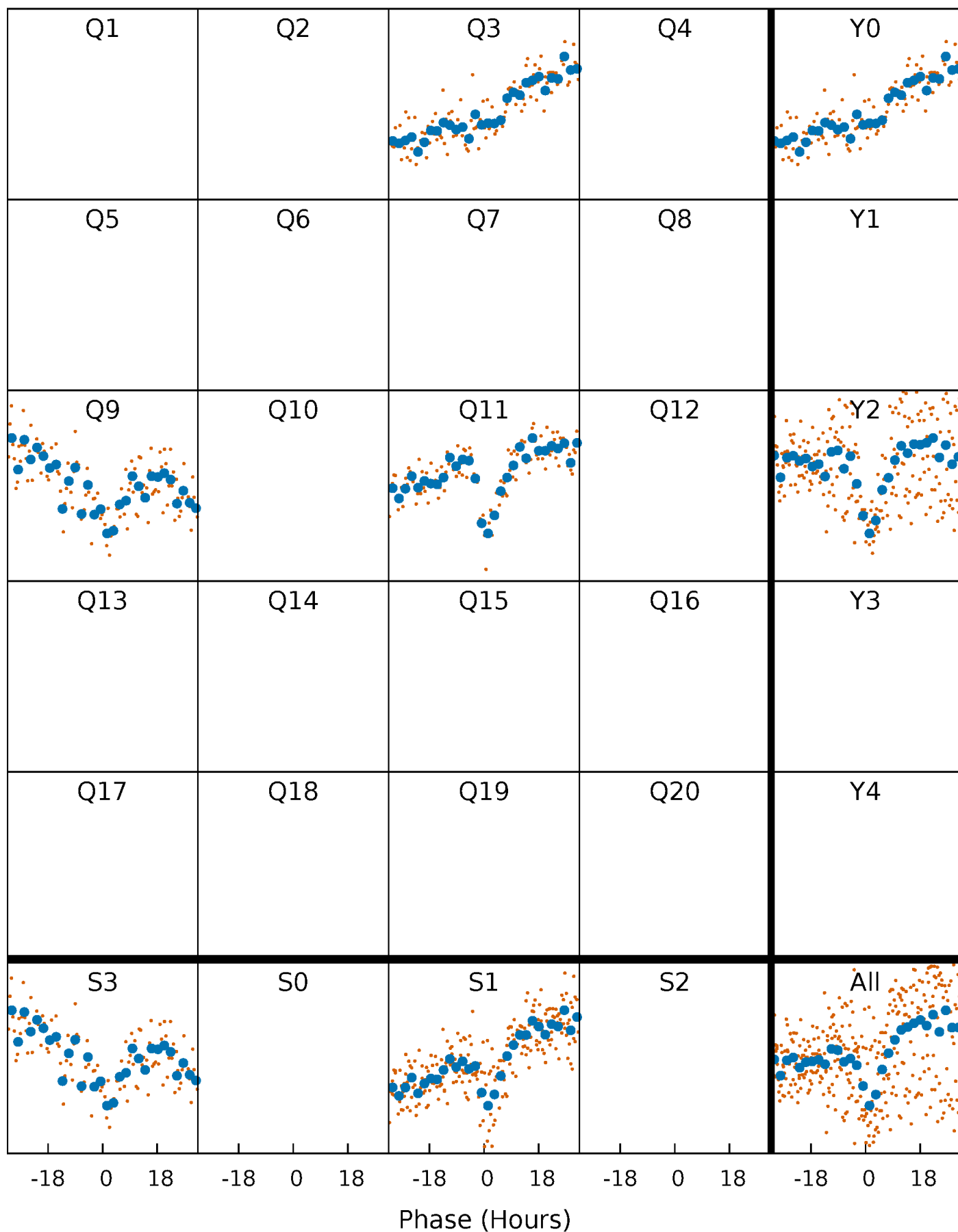


Non-Whitened Vs. Whitened Light Curve



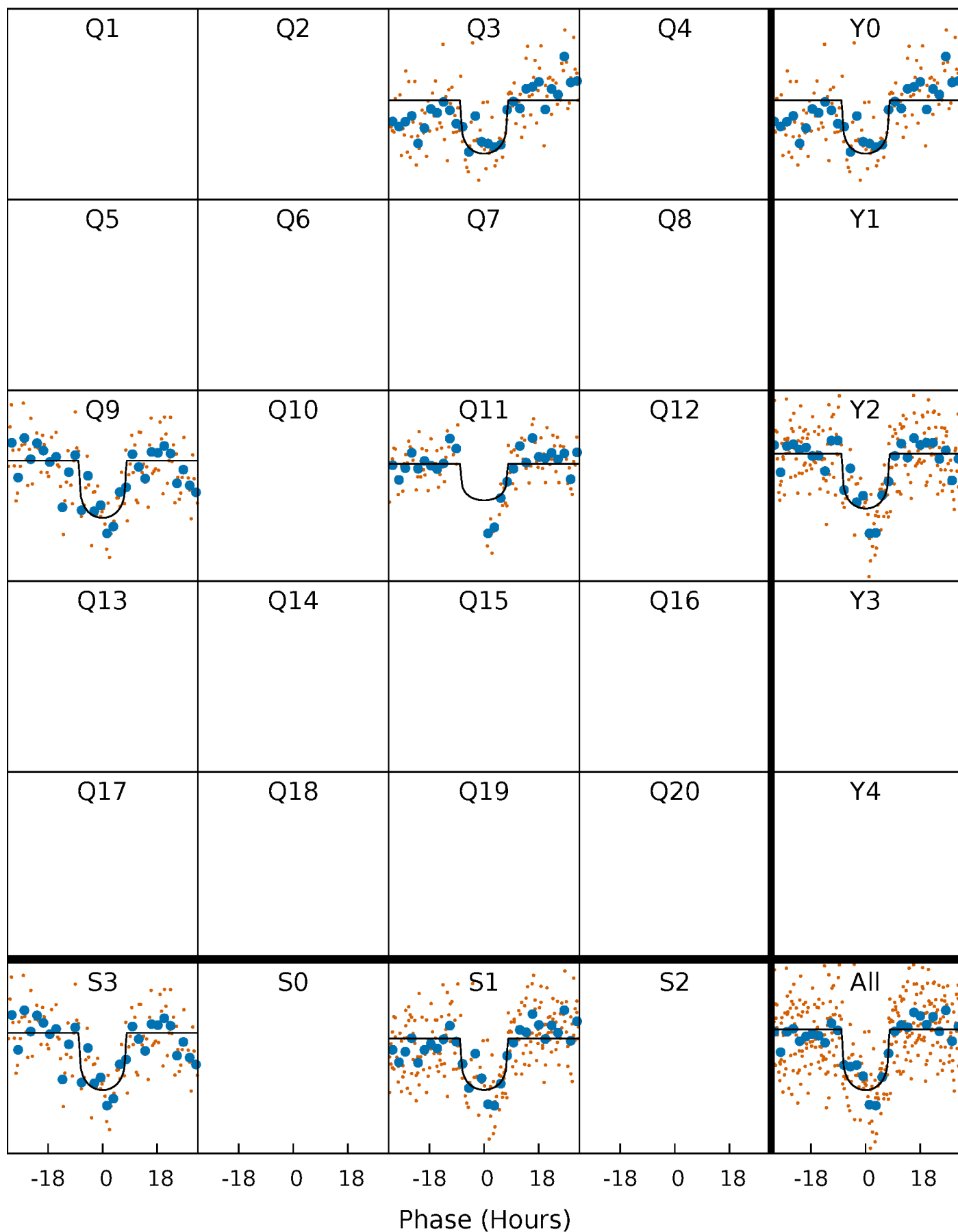
PDC Quarter-Phased Transit Curves

TCE 003555678-01 P=261.372374 Days $T_0=309.562782$ (BKJD)



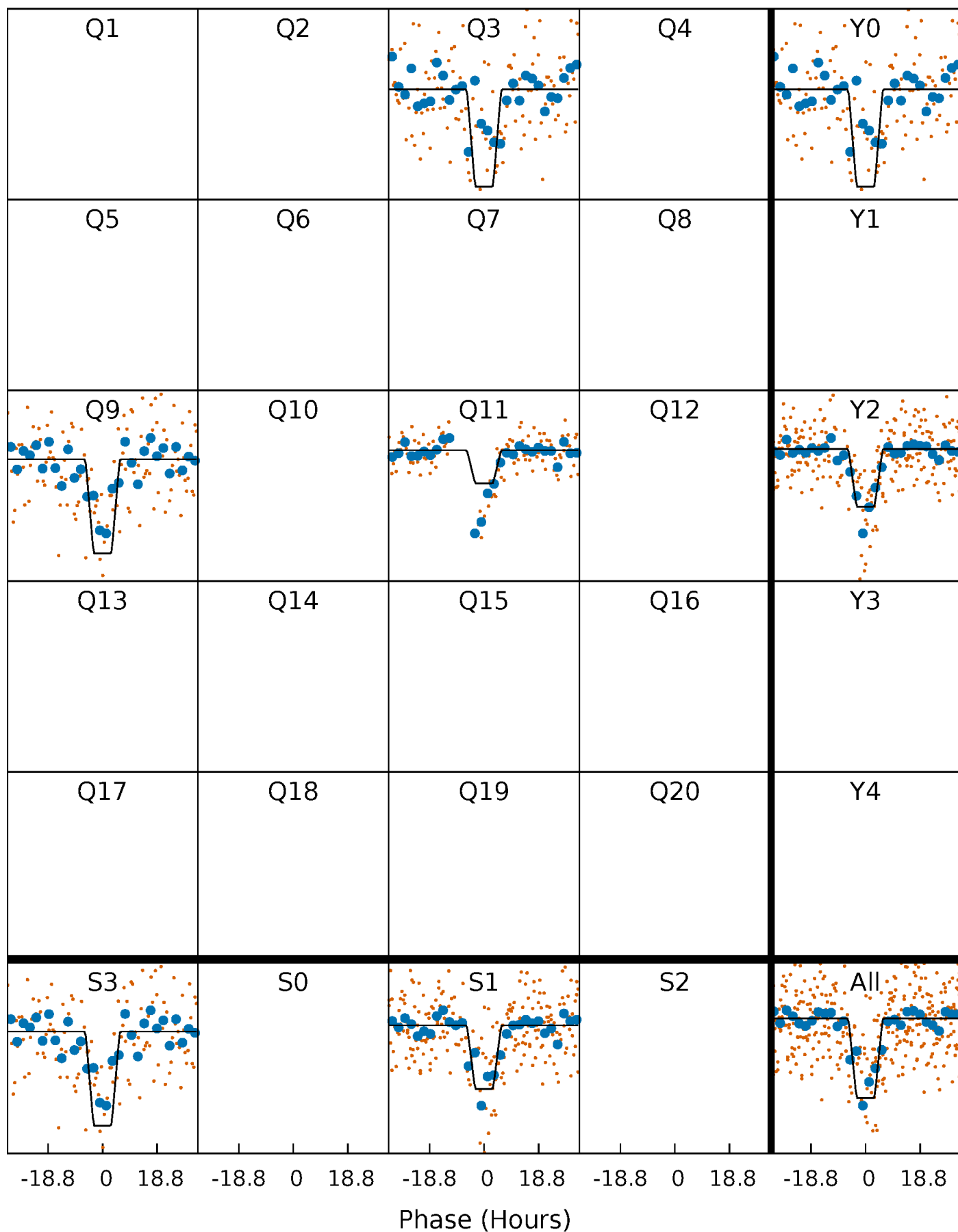
DV Quarter-Phased Transit Curves

TCE 003555678-01 $P=261.372374$ Days $T_0=309.562782$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

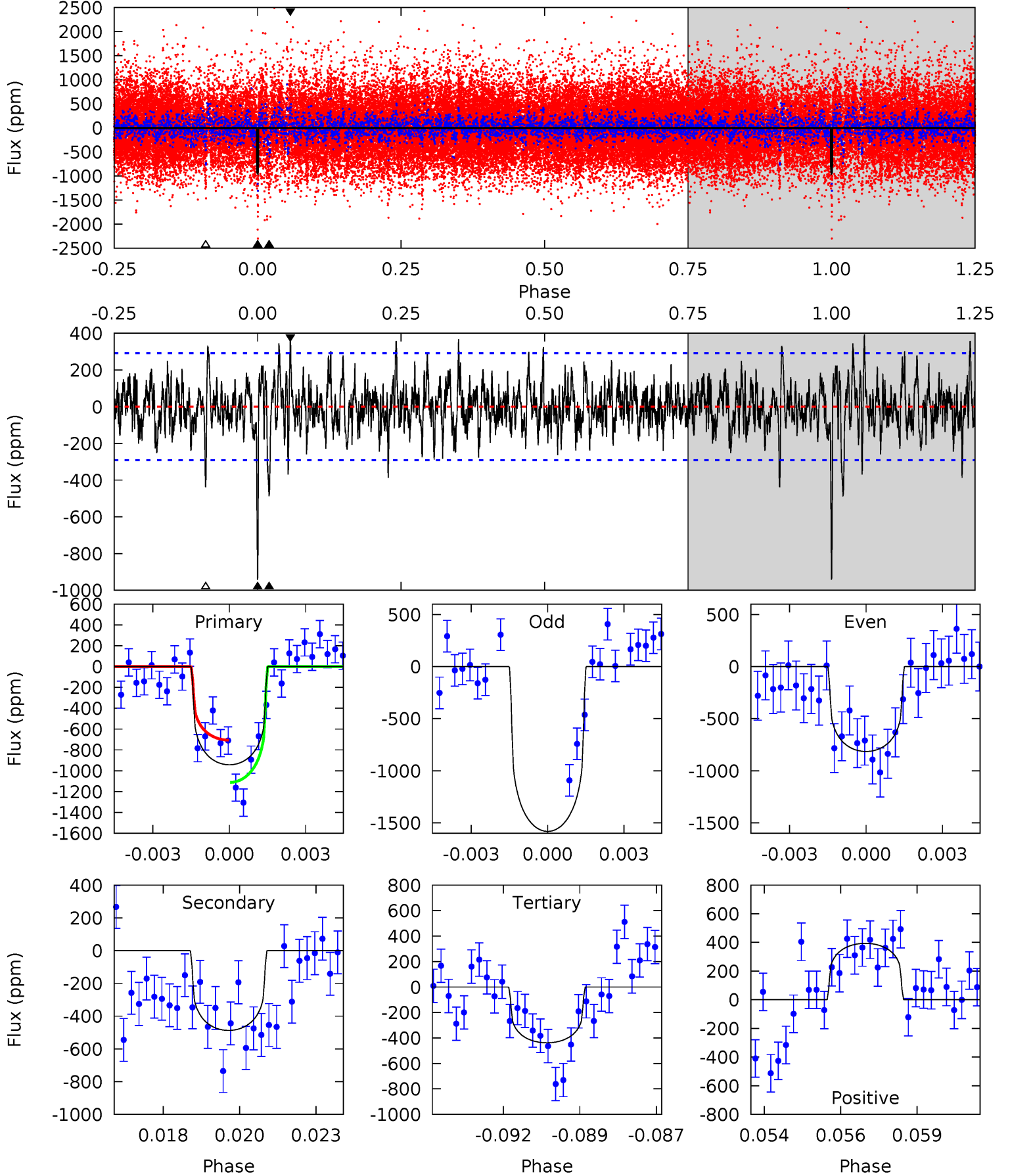
TCE 003555678-01 P=261.426967 Days $T_0=309.545592$ (BKJD)



DV Model-Shift Uniqueness Test

003555678-01, P = 261.372374 Days, E = 48.190408 Days

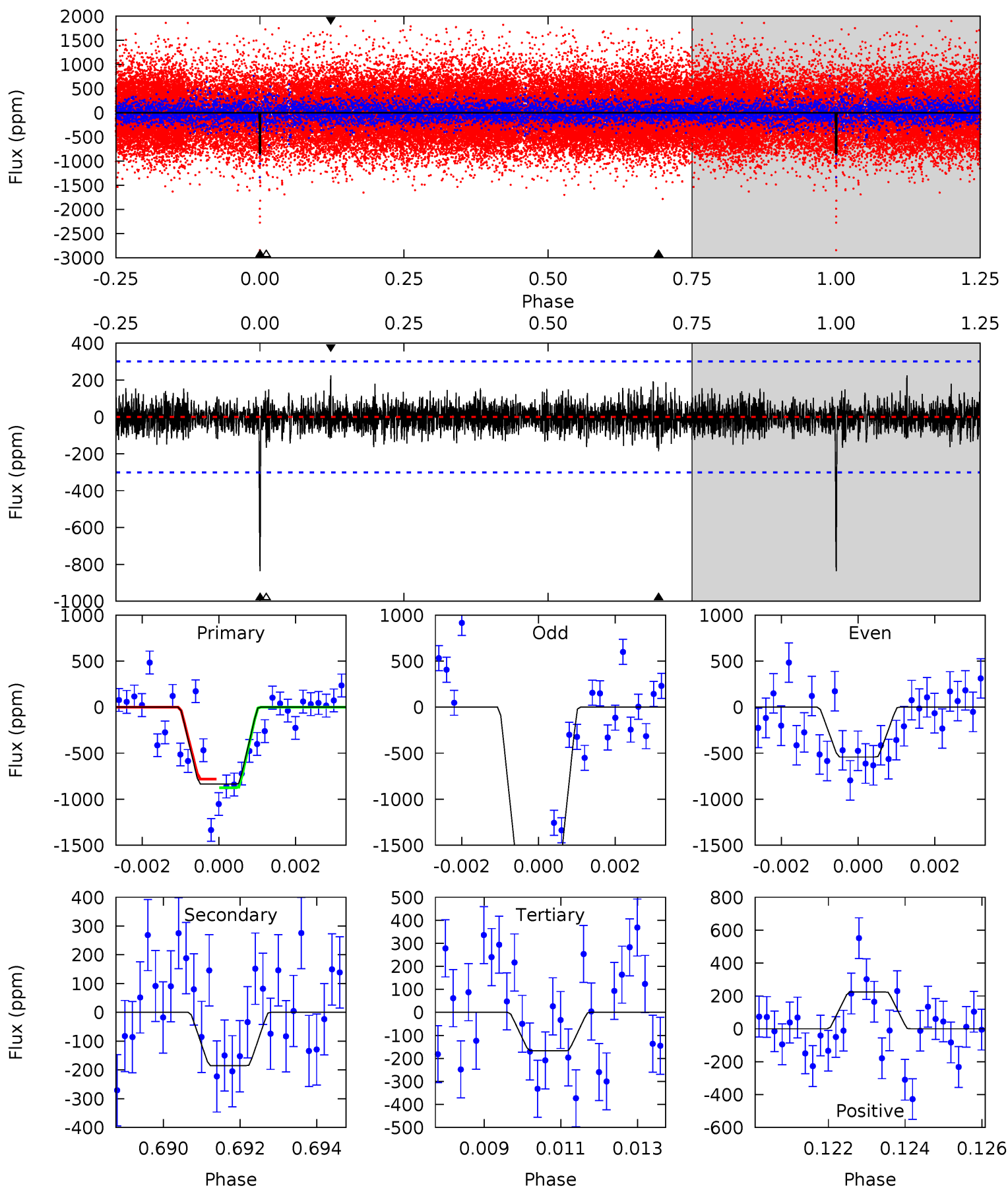
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	8.84	7.95	7.14	5.28	3.02	1.87	9.15	9.96	0.89	1.70	5.38	1.26	0.29	3.64



Alt Model-Shift Uniqueness Test

003555678-01, P = 261.426967 Days, E = 48.118625 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	3.28	2.96	3.97	5.34	3.11	0.92	11.9	10.8	0.33	-0.69	10.6	1.46	0.21	0.81



Stellar Parameters For KIC 003555678

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5582^{+169}_{-152}	$4.519^{+0.074}_{-0.137}$	$-0.340^{+0.300}_{-0.300}$	$0.822^{+0.178}_{-0.082}$	$0.813^{+0.106}_{-0.071}$	$2.064^{+0.639}_{-0.809}$
	+3%/-3%	+2%/-3%	+88%/-88%	+22%/-10%	+13%/-9%	+31%/-39%
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 003555678-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-487 ± 55	$2.92^{+2.14}_{-1.75}$	364^{+20}_{-17}	4754^{+2683}_{-903}	17335^{+92363}_{-11540}
Alt.	-185 ± 56	$3.14^{+2.31}_{-1.86}$	364^{+21}_{-16}	3829^{+1671}_{-594}	5439^{+27601}_{-3605}

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

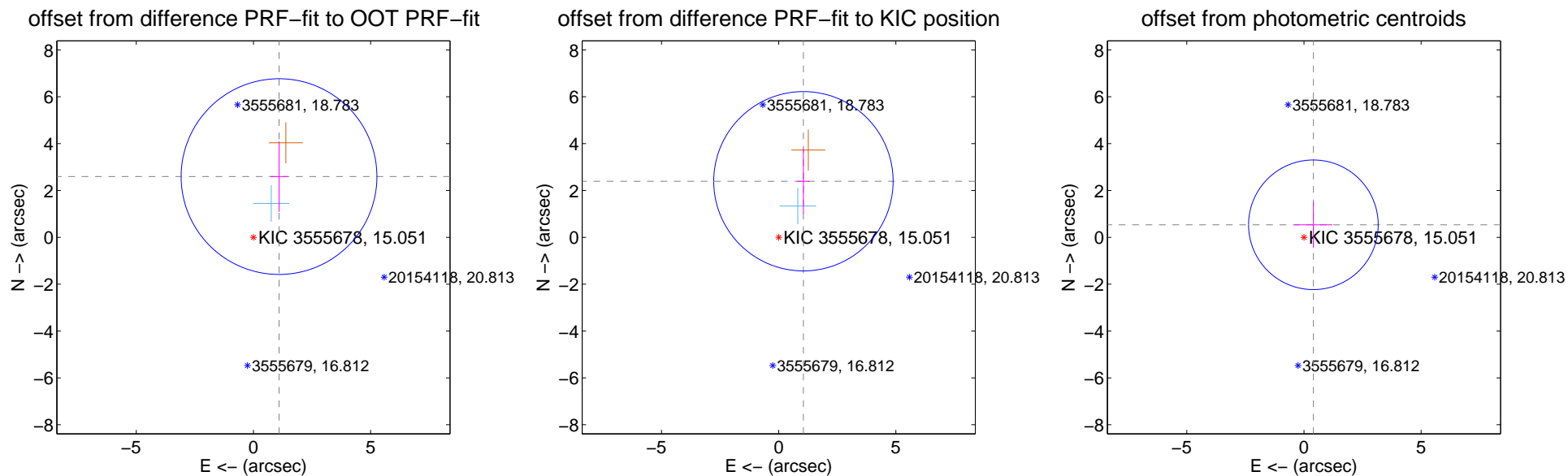
DV Centroid Data

Supplemental centroid analysis for 003555678-01. Kepler magnitude: 15.05. Transit SNR 8.72

There are 1 quarters with good PRF difference image offsets

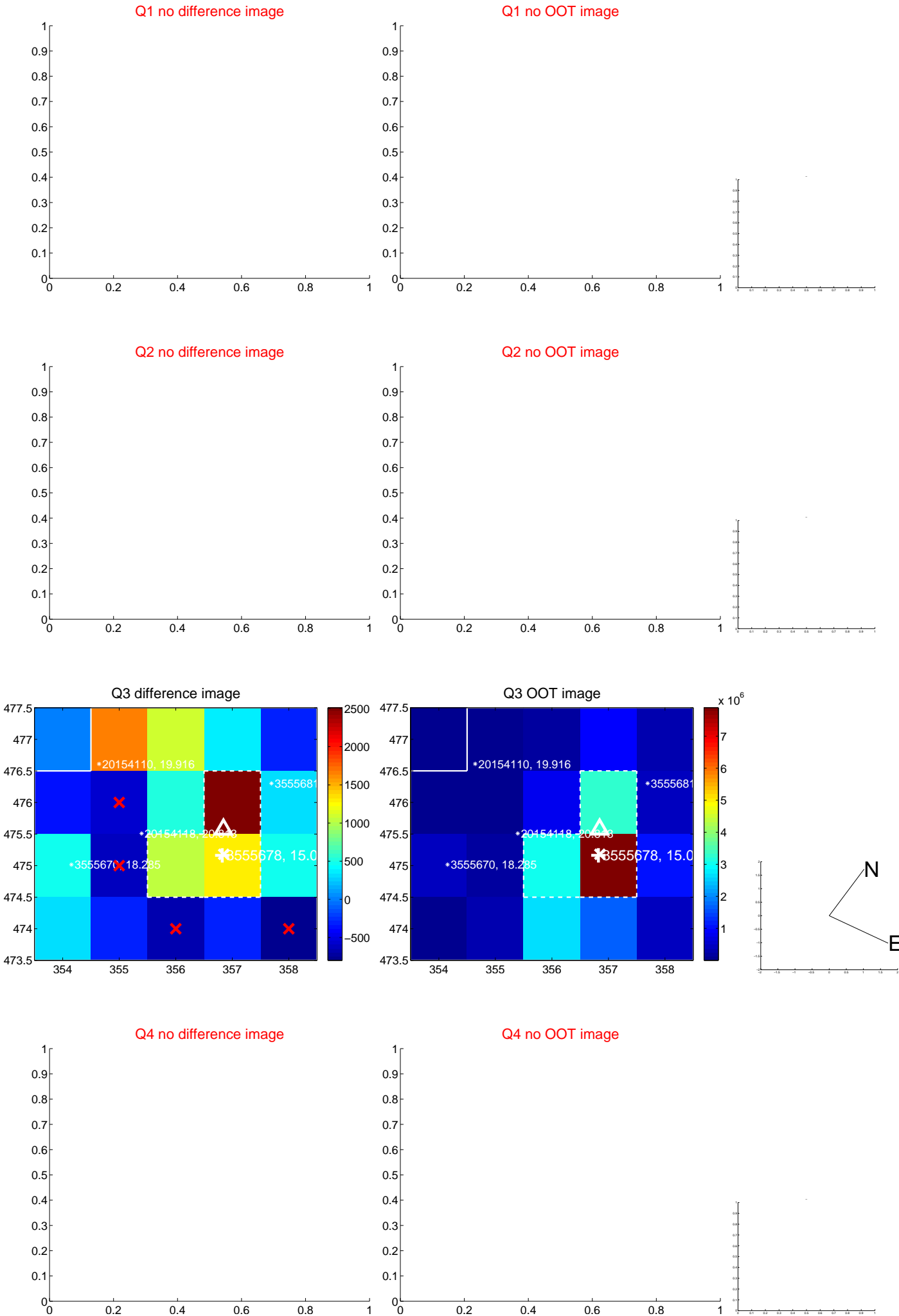
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.814 ± 1.393	2.02	-1.093 ± 0.371	2.593 ± 1.503
PRF-fit source offset from KIC position	2.616 ± 1.276	2.05	-1.055 ± 0.270	2.394 ± 1.389
photometric centroid source offset	0.67 ± 0.92	0.73	-0.40 ± 0.81	0.54 ± 0.98



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.

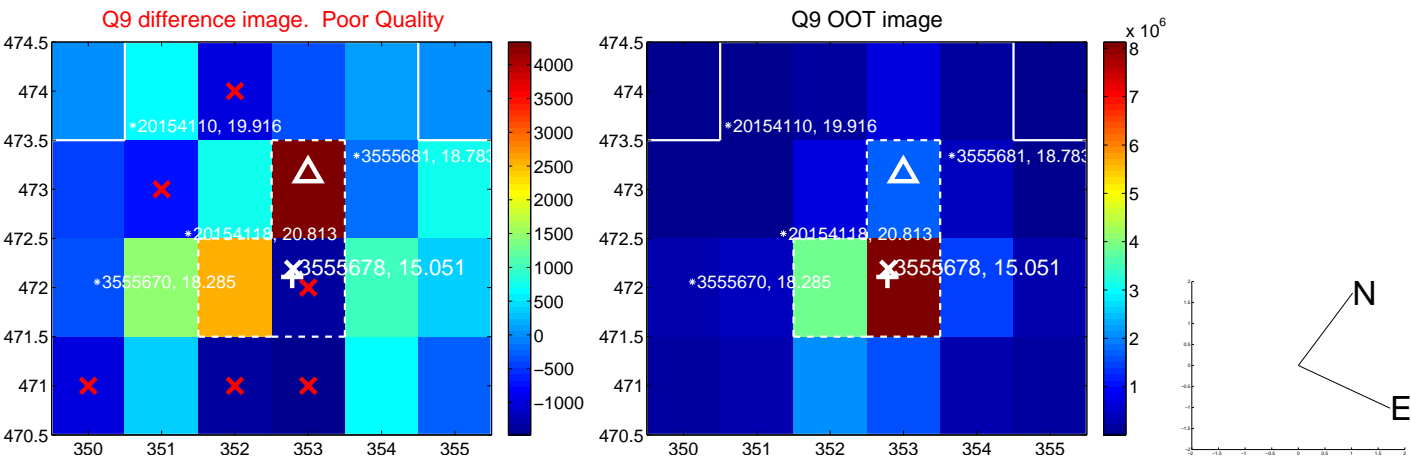
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



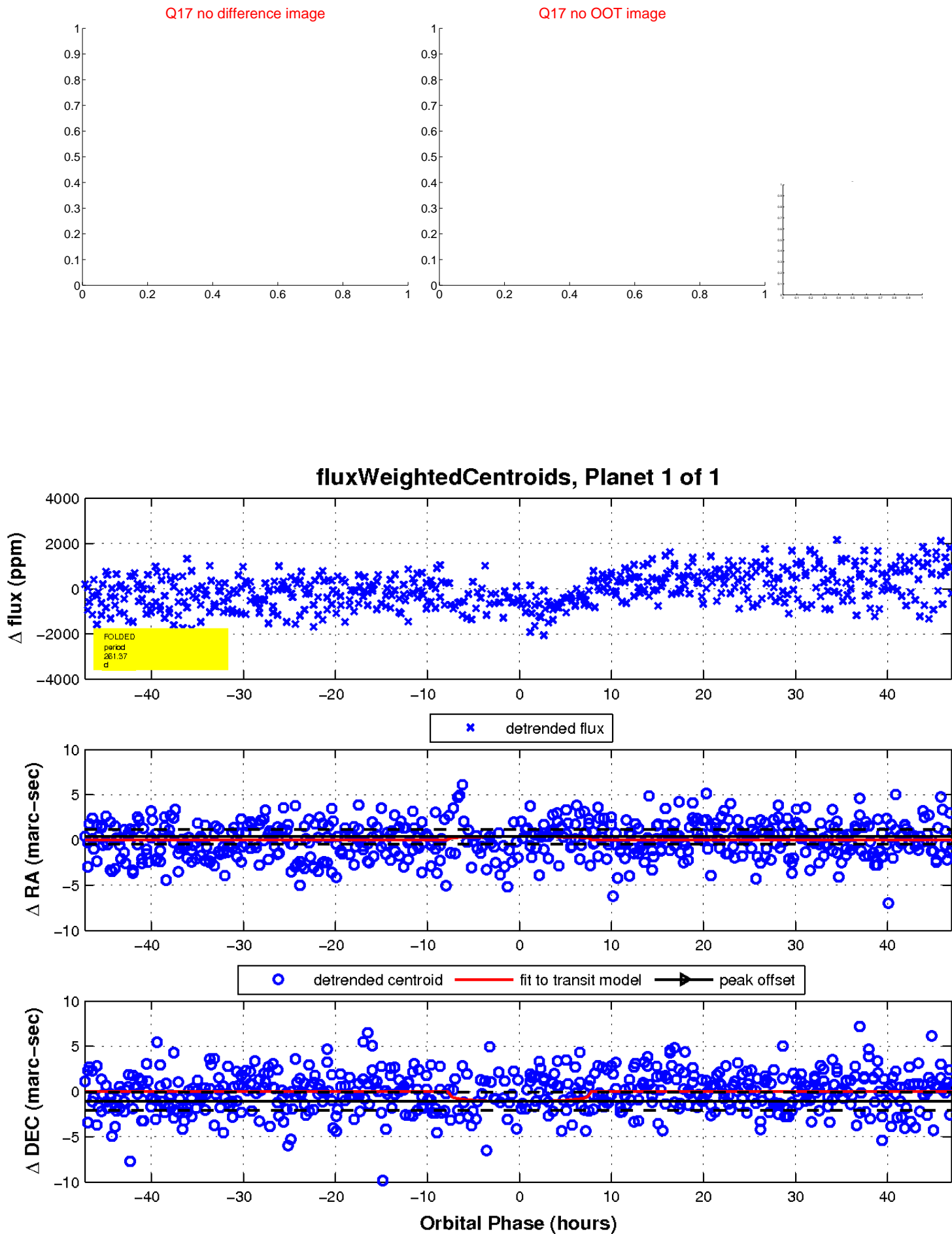
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

