

KIC 007661935

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})
007661935-01	OBS	No	387.934352	310.322369	191.8	8.720	7.2	7.2	1.39	6681	2.11	2.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007661935-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

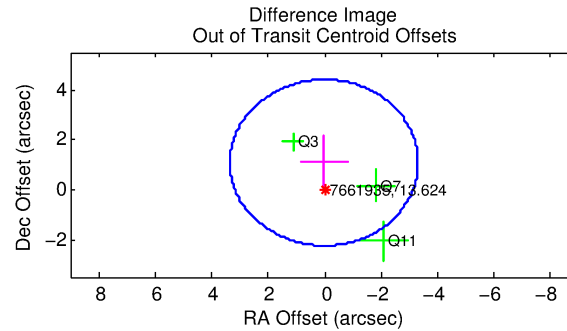
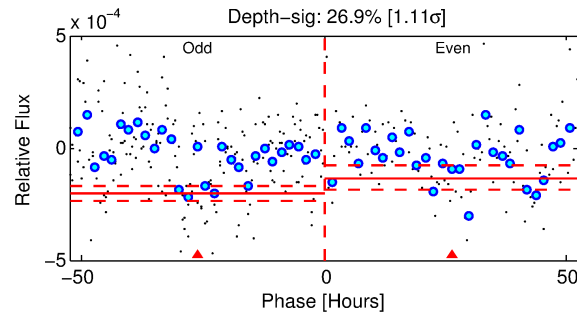
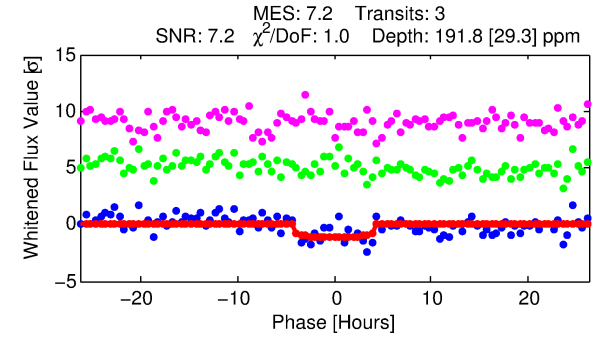
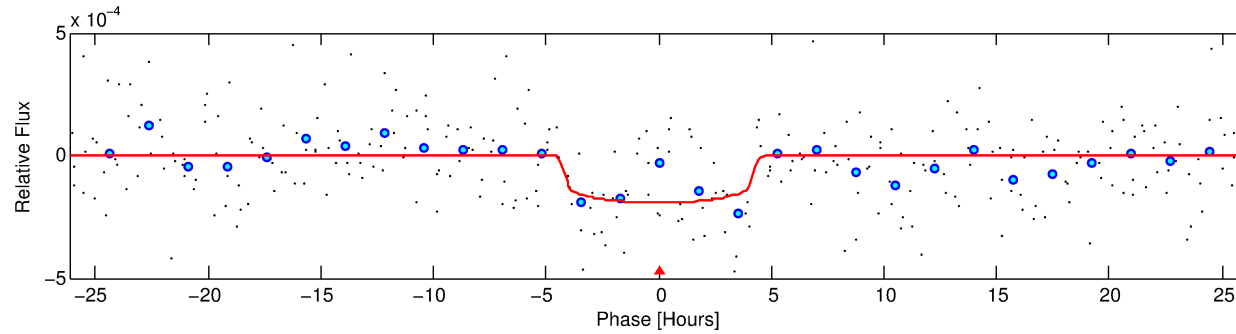
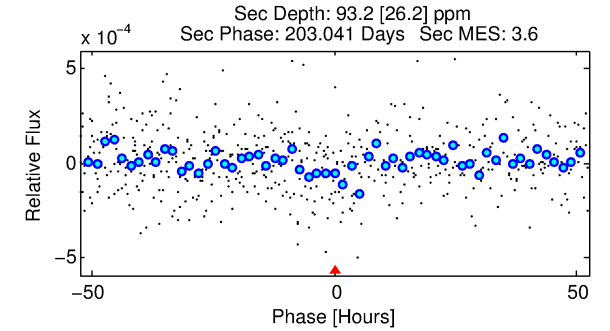
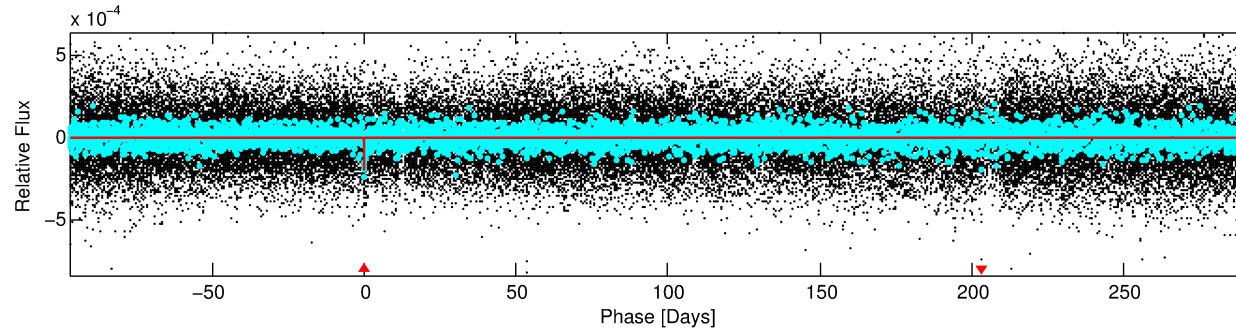
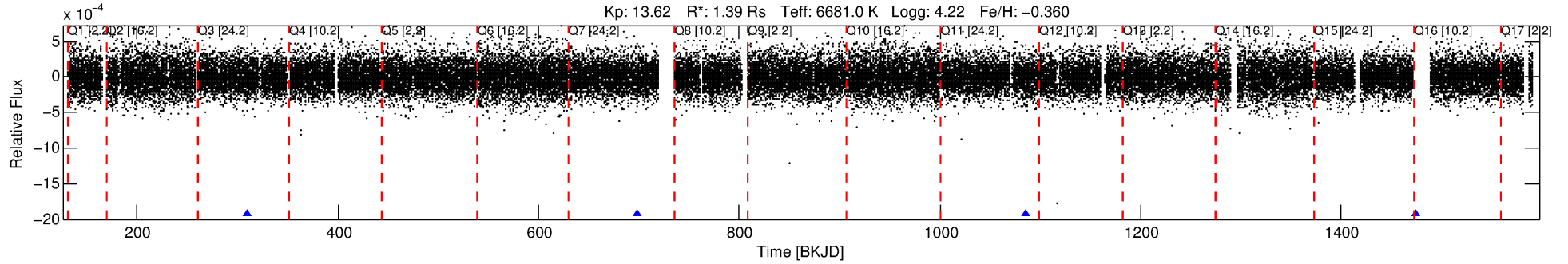
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007661935-01

No Significant Match Found

DV One-Page Summary

KIC: 7661935 Candidate: 1 of 1 Period: 387.934 d



DV Fit Results:

Period = 387.93435 [0.01512] d
Epoch = 310.3224 [0.0192] BKJD
Rp/R* = 0.0139 [0.0068]
a/R* = 222.90 [608.00]
b = 0.77 [1.43]
Seff = 2.87 [1.03]
Teq = 332 [30] K
Rp = 2.11 [1.18] Re
a = 1.1000 [0.2563] AU
Ag = 13927.06 [14869.04] [0.94σ]
Teffp = 5573 [1424] K [3.68σ]

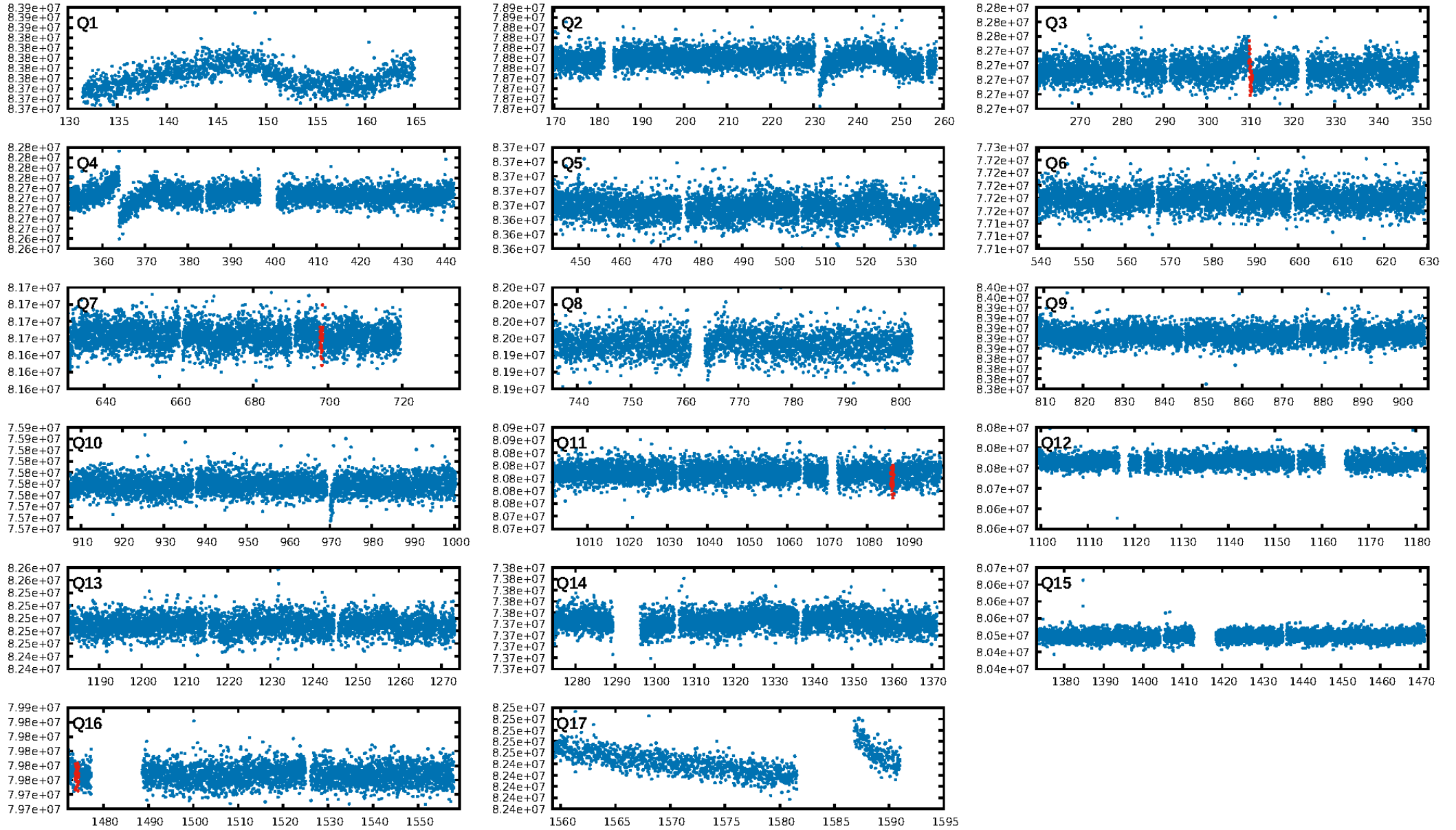
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.5%
ModelChiSquareGof-sig: 94.7%
Bootstrap-pfa: 1.48e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.848
Centroid-sig: 87.1%
Centroid-so: 0.699 arcsec [0.38σ]
OotOffset-rm: 1.080 arcsec [0.97σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-rm: 1.242 arcsec [1.18σ]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

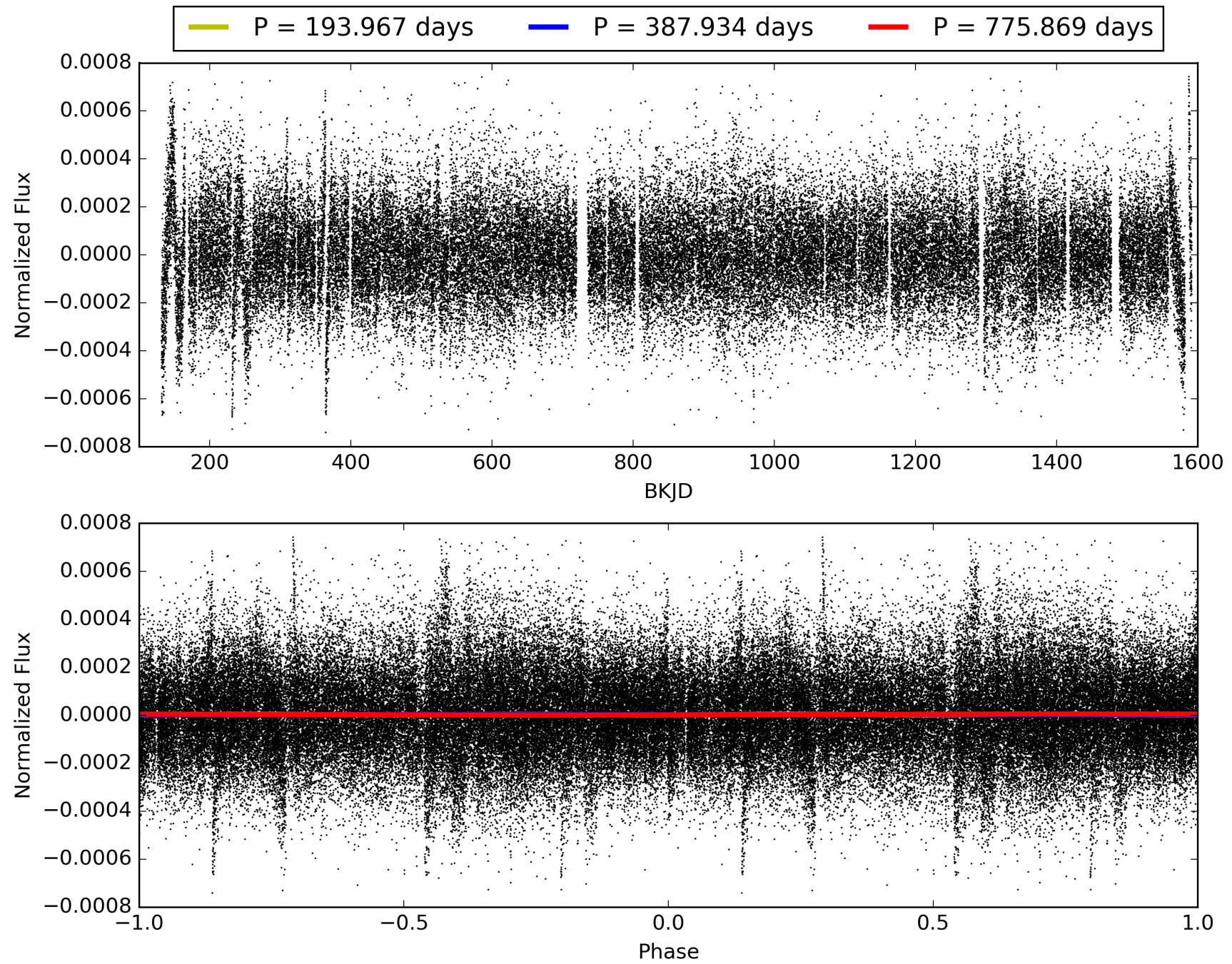
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 00:53:25 Z

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

TCE 007661935-01, PDC Light Curves

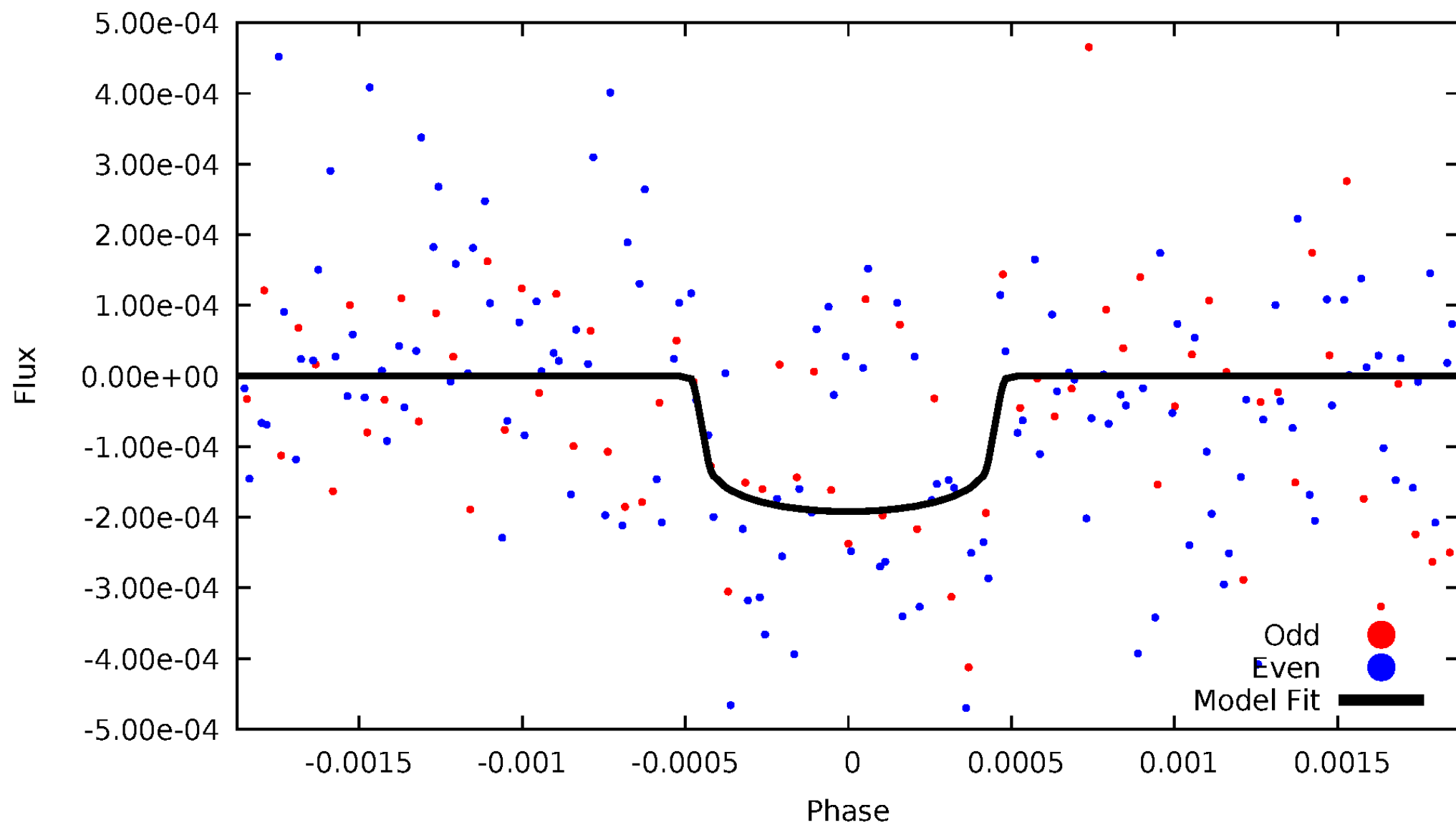


TCE 007661935-01



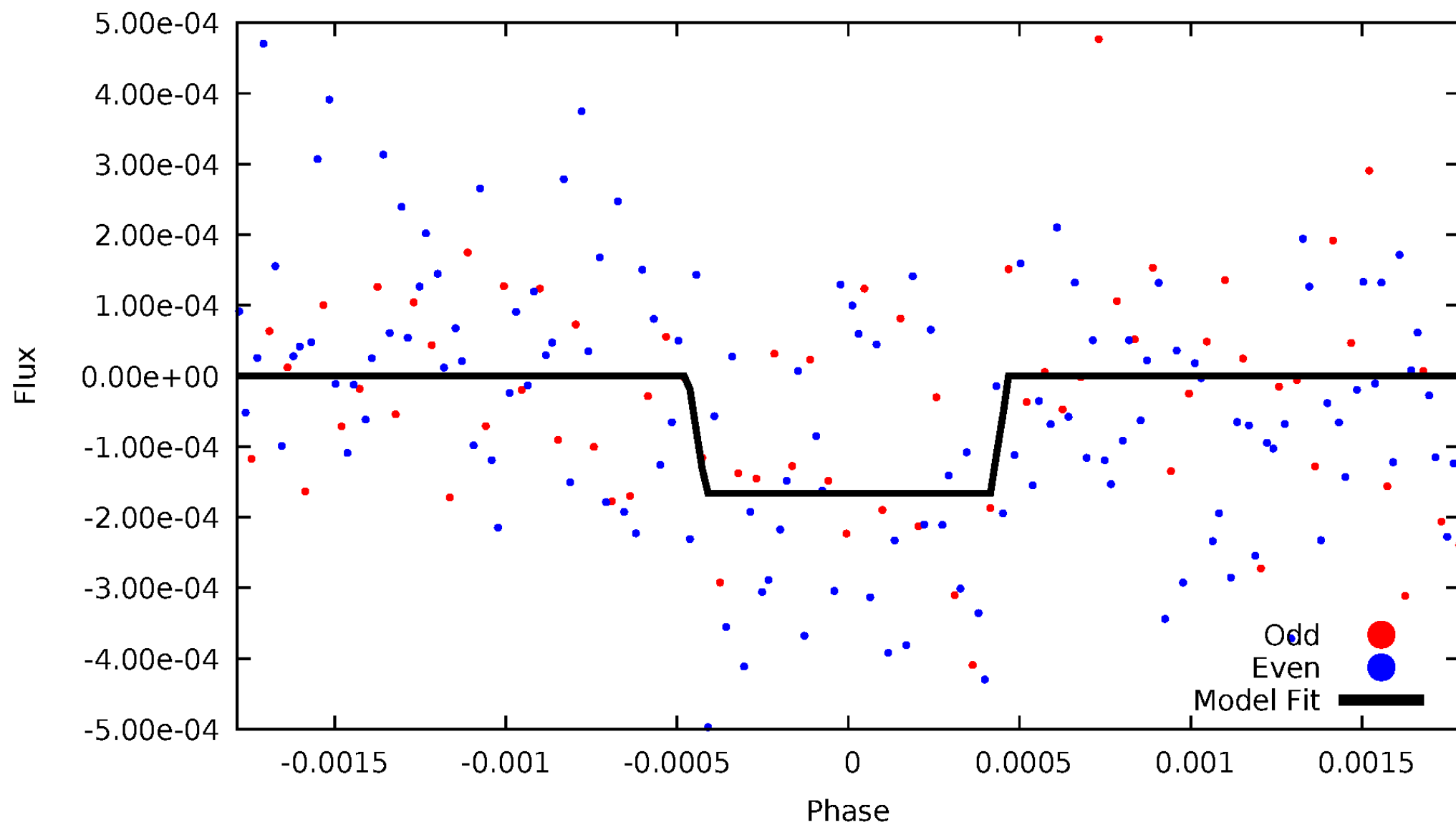
DV Odd/Even

TCE 007661935-01



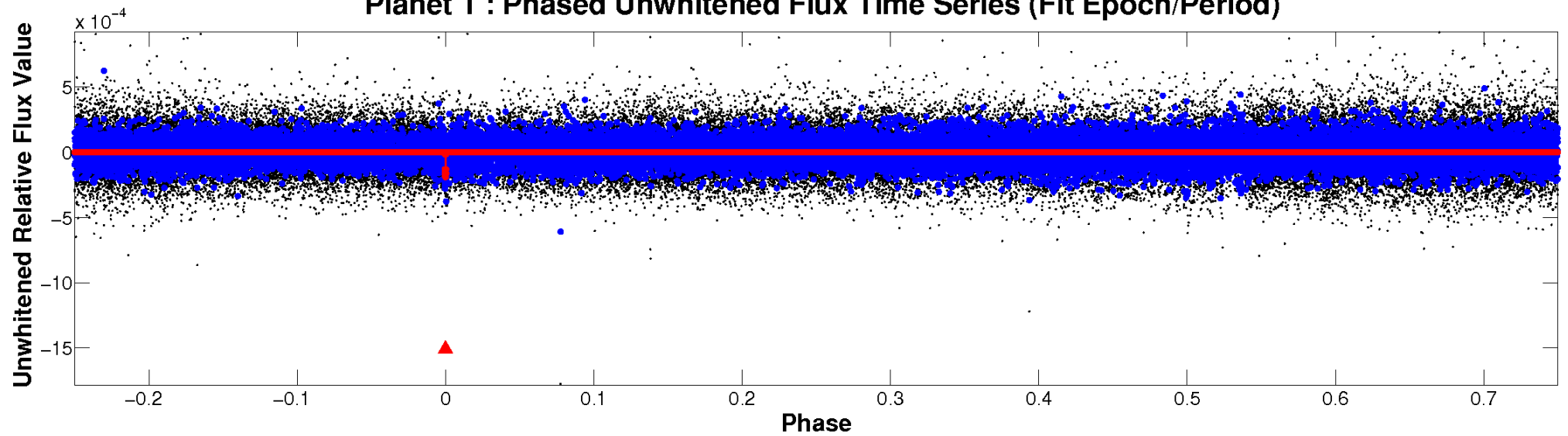
ALT Odd/Even

TCE 007661935-01

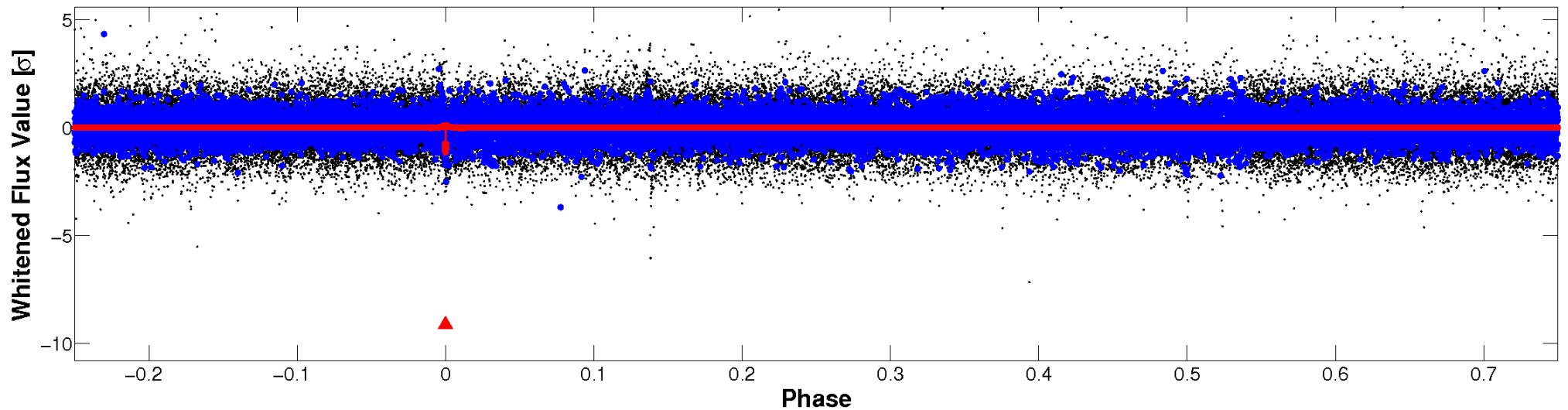


Non-Whitened Vs. Whitened Light Curve

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

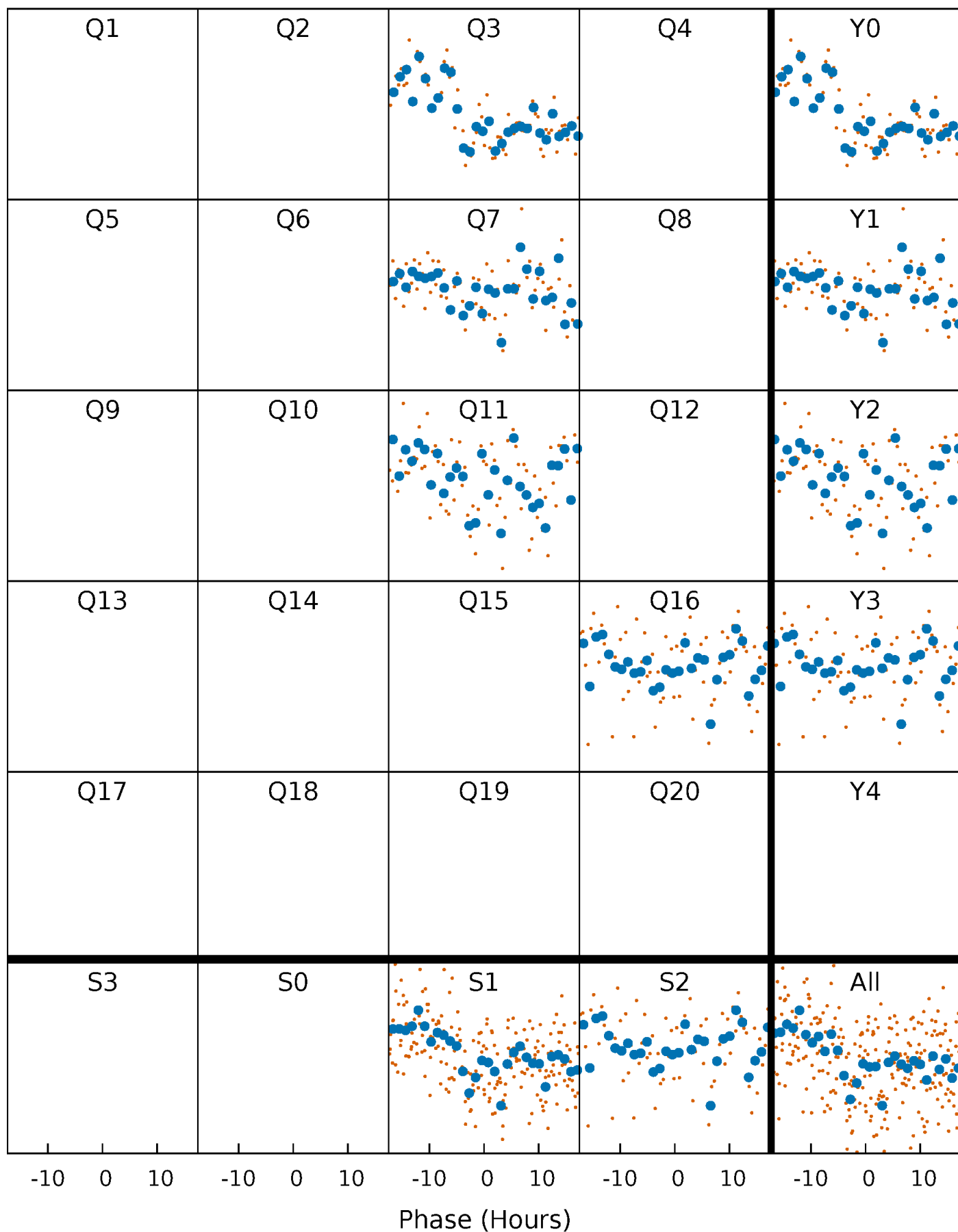


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007661935-01 P=387.934352 Days $T_0=310.322369$ (BKJD)



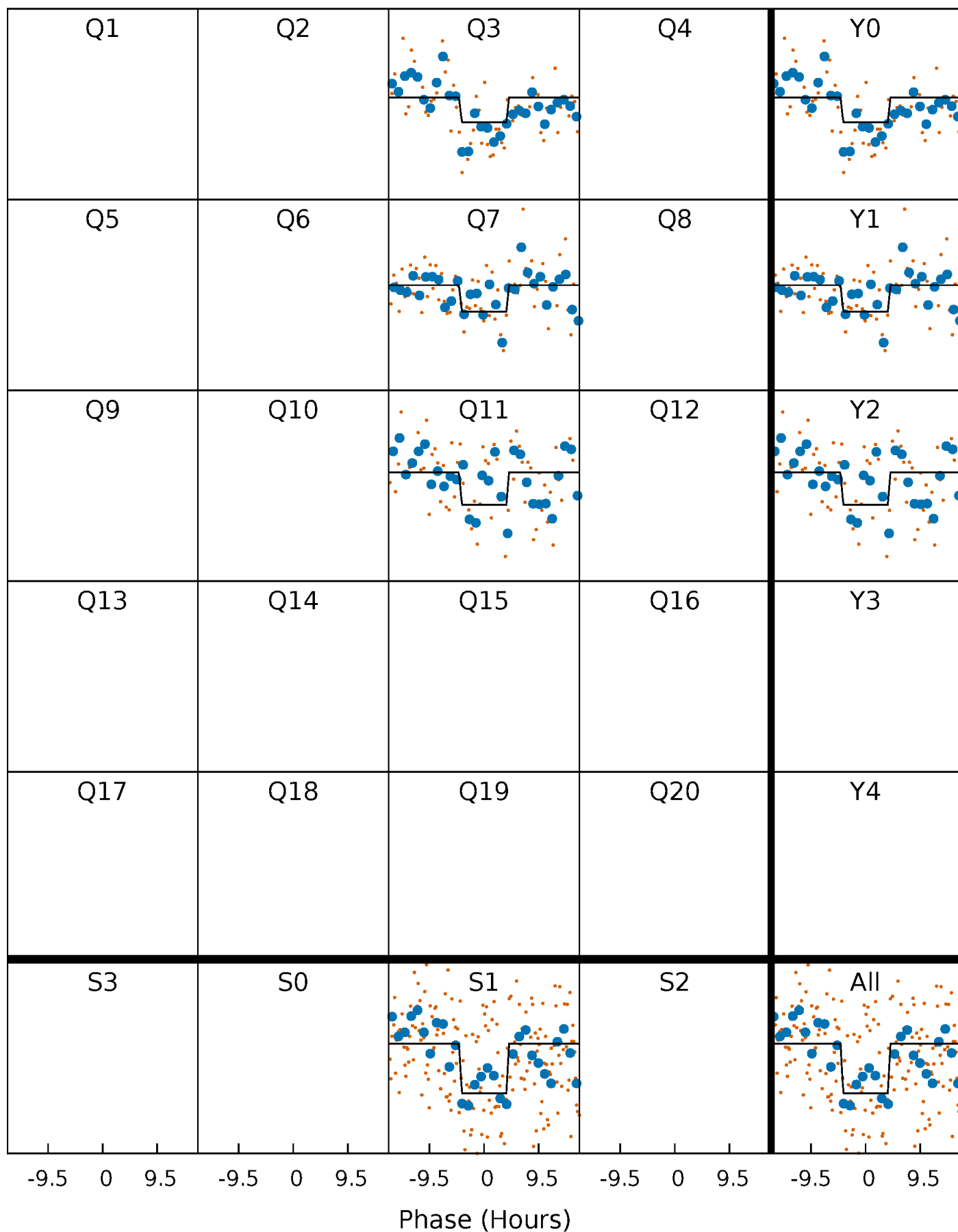
DV Quarter-Phased Transit Curves

TCE 007661935-01 $P=387.934352$ Days $T_0=310.322369$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

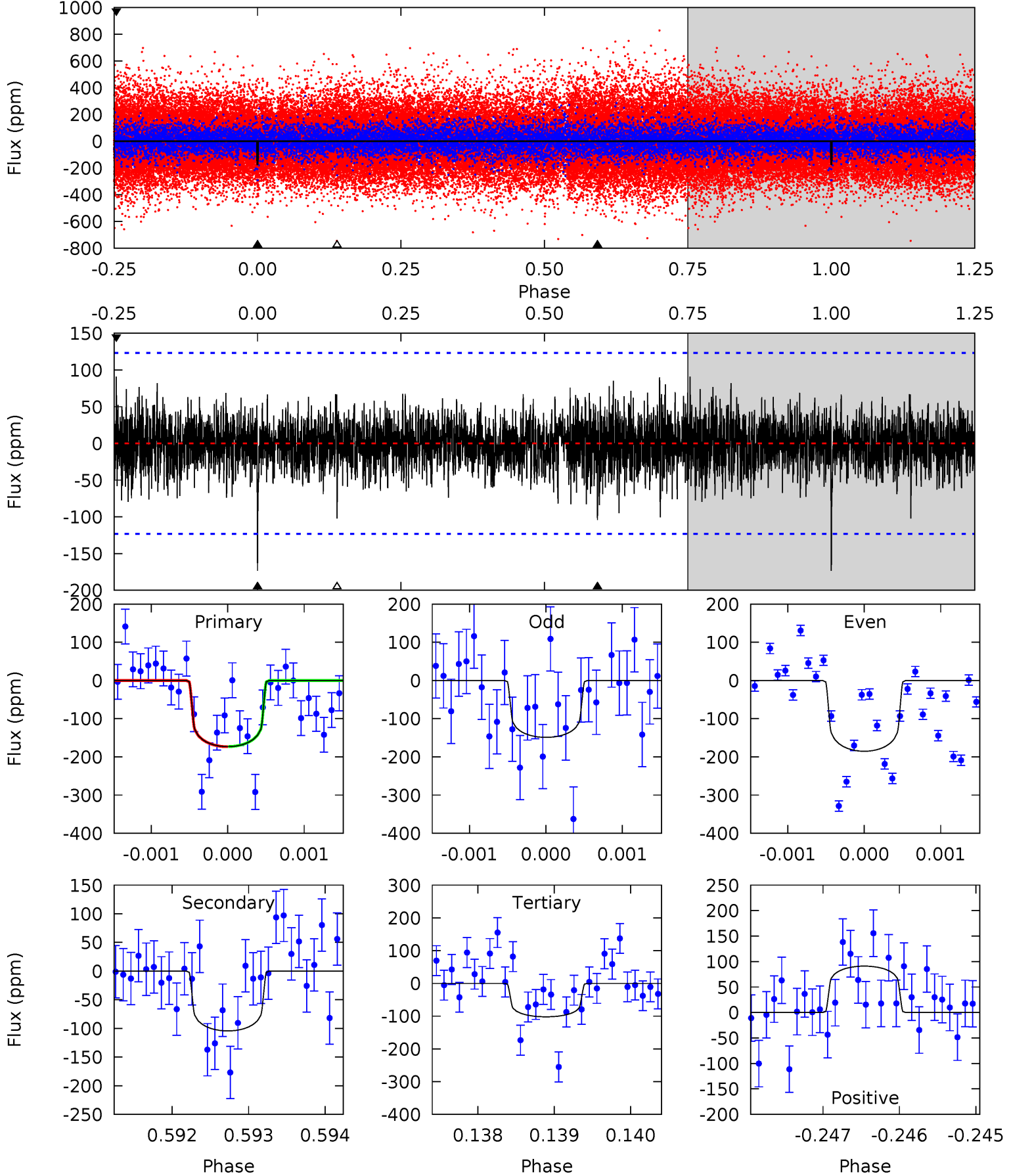
TCE 007661935-01 P=387.917514 Days $T_0=310.341453$ (BKJD)



DV Model-Shift Uniqueness Test

007661935-01, P = 387.934352 Days, E = 310.322369 Days

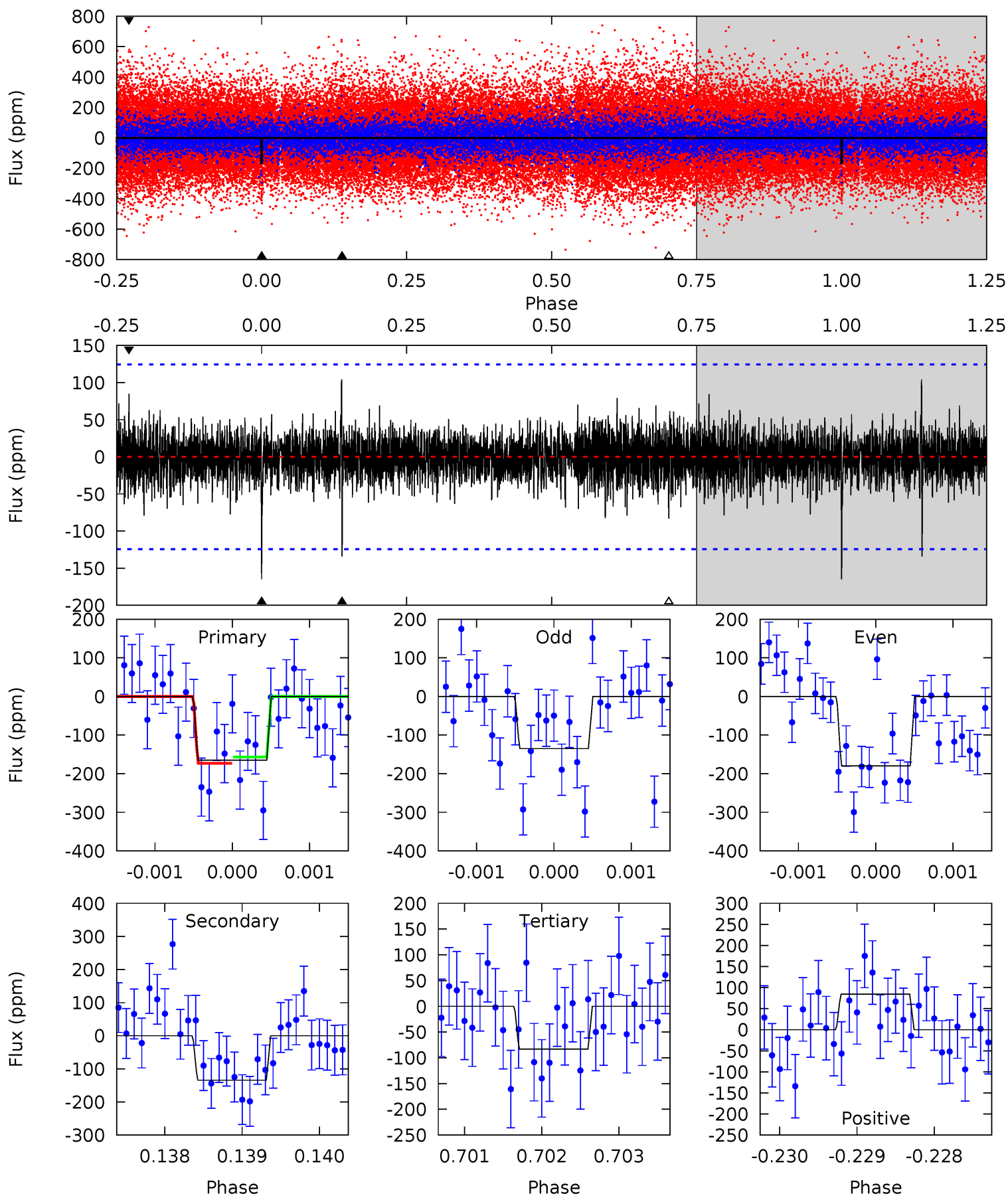
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.68	4.63	4.52	4.03	5.46	3.30	1.12	3.15	3.64	0.10	0.59	0.76	1.16	0.34	0.01



Alt Model-Shift Uniqueness Test

007661935-01, $P = 387.917514$ Days, $E = 310.341453$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.25	5.90	3.66	3.72	5.46	3.31	0.93	3.59	3.53	2.23	2.18	0.94	1.22	0.39	0.35



Stellar Parameters For KIC 007661935

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6681^{+152}_{-220}	$4.221^{+0.165}_{-0.182}$	$-0.360^{+0.250}_{-0.300}$	$1.394^{+0.390}_{-0.283}$	$1.184^{+0.175}_{-0.175}$	$0.616^{+0.532}_{-0.282}$
	+2%/-3%	+4%/-4%	+69%/-83%	+28%/-20%	+15%/-15%	+86%/-46%
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 007661935-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-104 ± 23	$2.21^{+0.99}_{-1.07}$	463^{+31}_{-29}	5620^{+2155}_{-918}	13994^{+39239}_{-7650}
Alt.	-134 ± 23	$2.01^{+1.10}_{-0.99}$	463^{+33}_{-30}	6229^{+2898}_{-1101}	21795^{+61544}_{-13203}

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

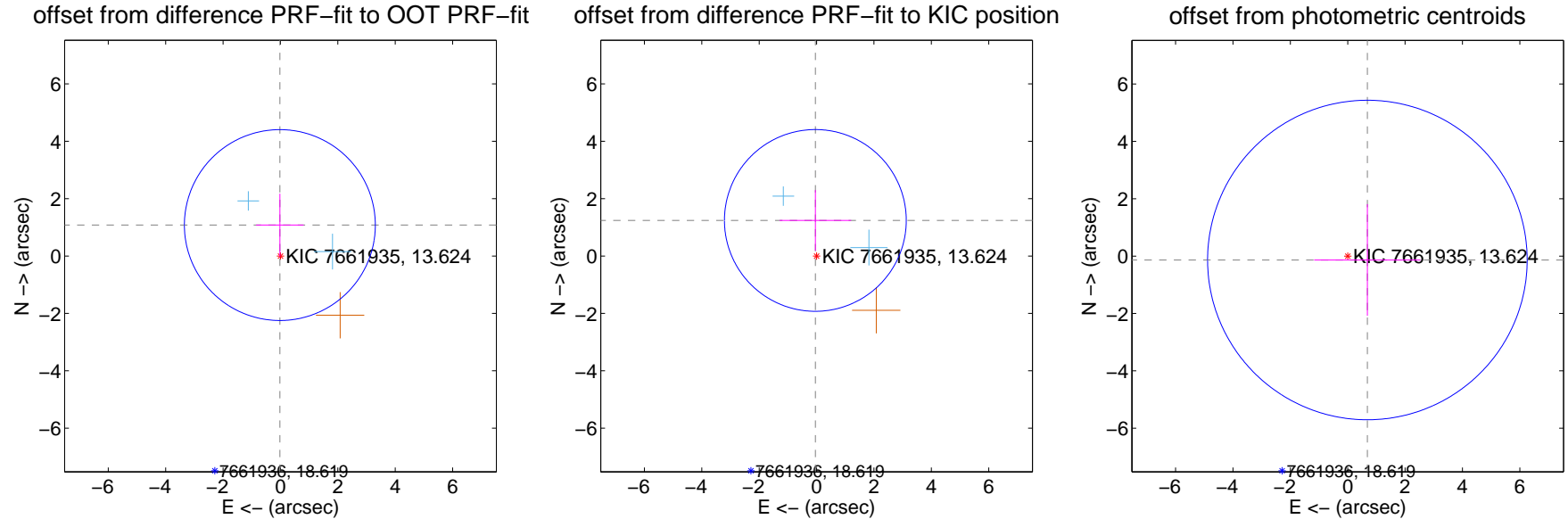
DV Centroid Data

Supplemental centroid analysis for 007661935-01. Kepler magnitude: 13.62. Transit SNR 7.16

There are 2 quarters with good PRF difference image offsets

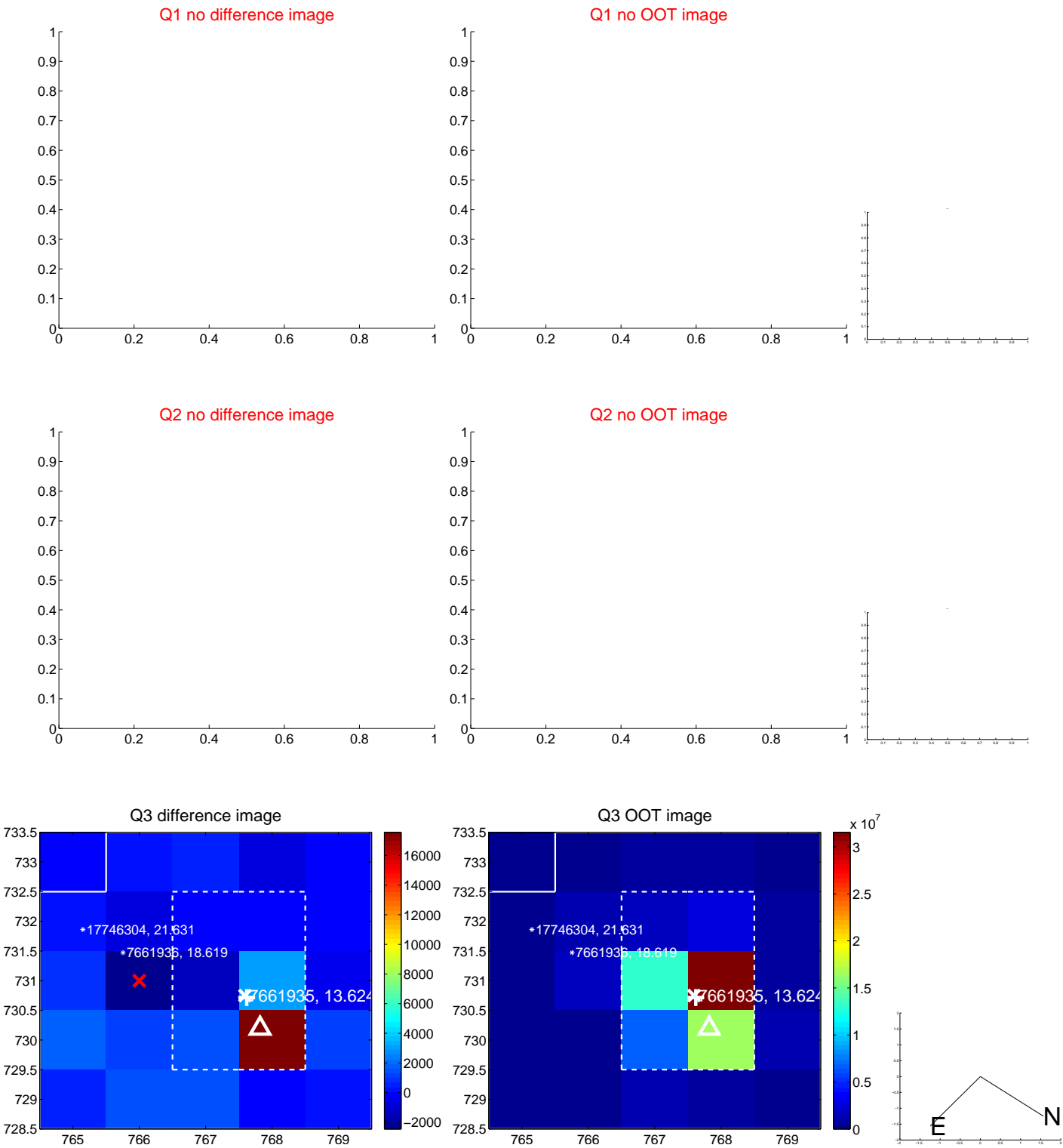
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.080 ± 1.109	0.97	0.021 ± 0.827	1.079 ± 1.095
PRF-fit source offset from KIC position	1.242 ± 1.056	1.18	0.043 ± 1.247	1.241 ± 1.056
photometric centroid source offset	0.70 ± 1.86	0.38	-0.69 ± 1.85	-0.14 ± 1.95

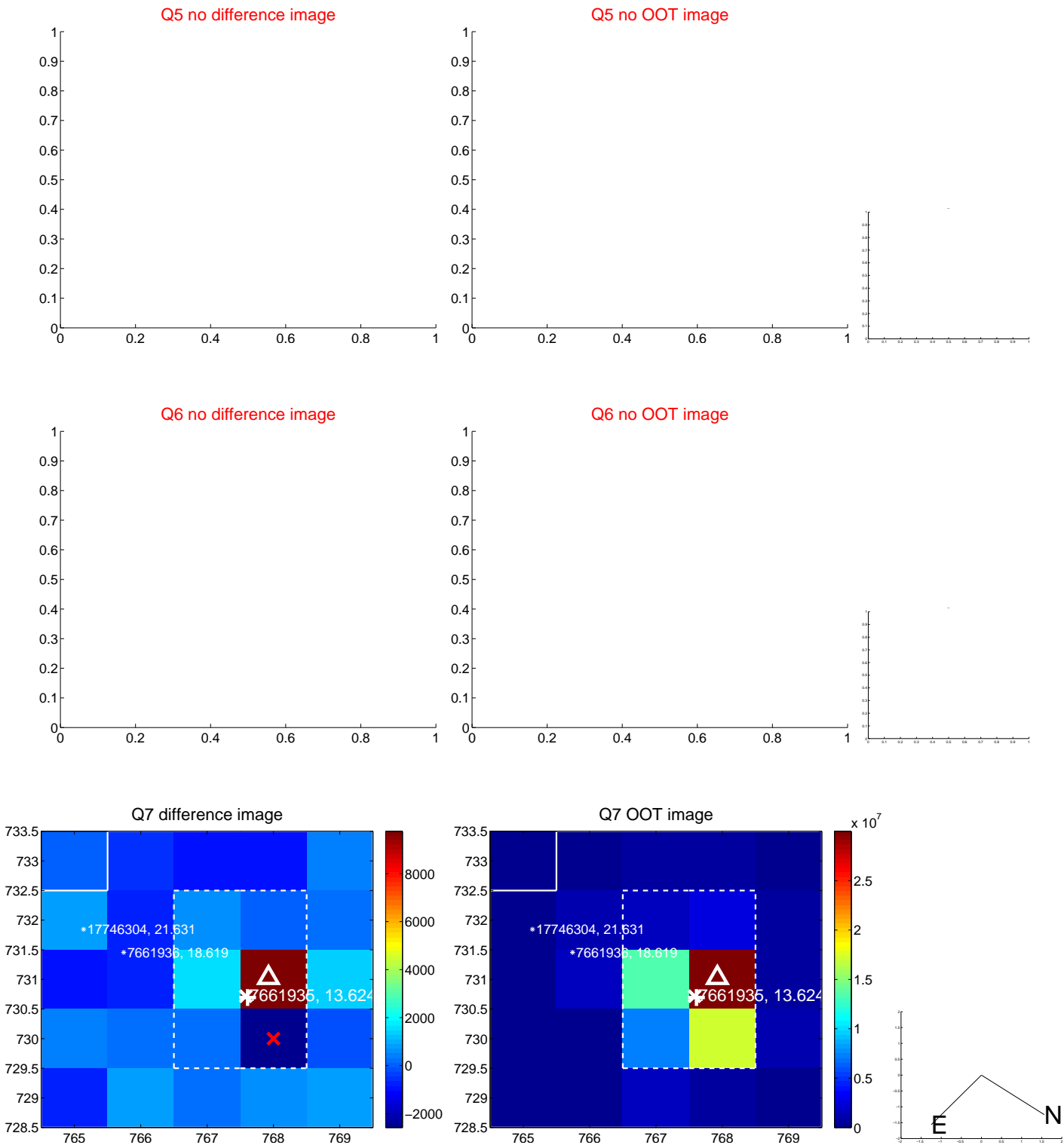


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

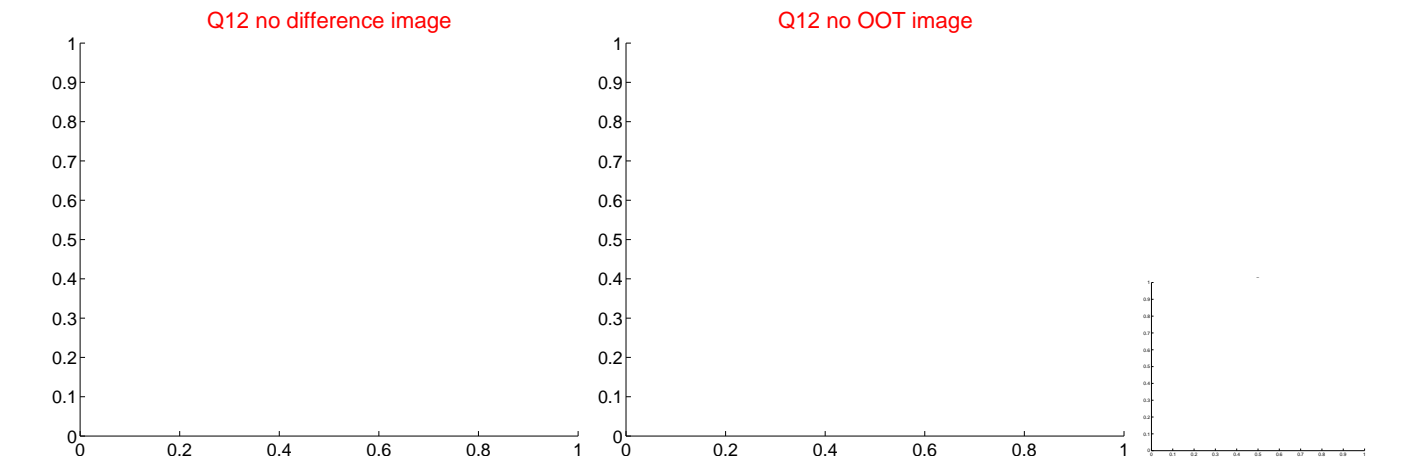
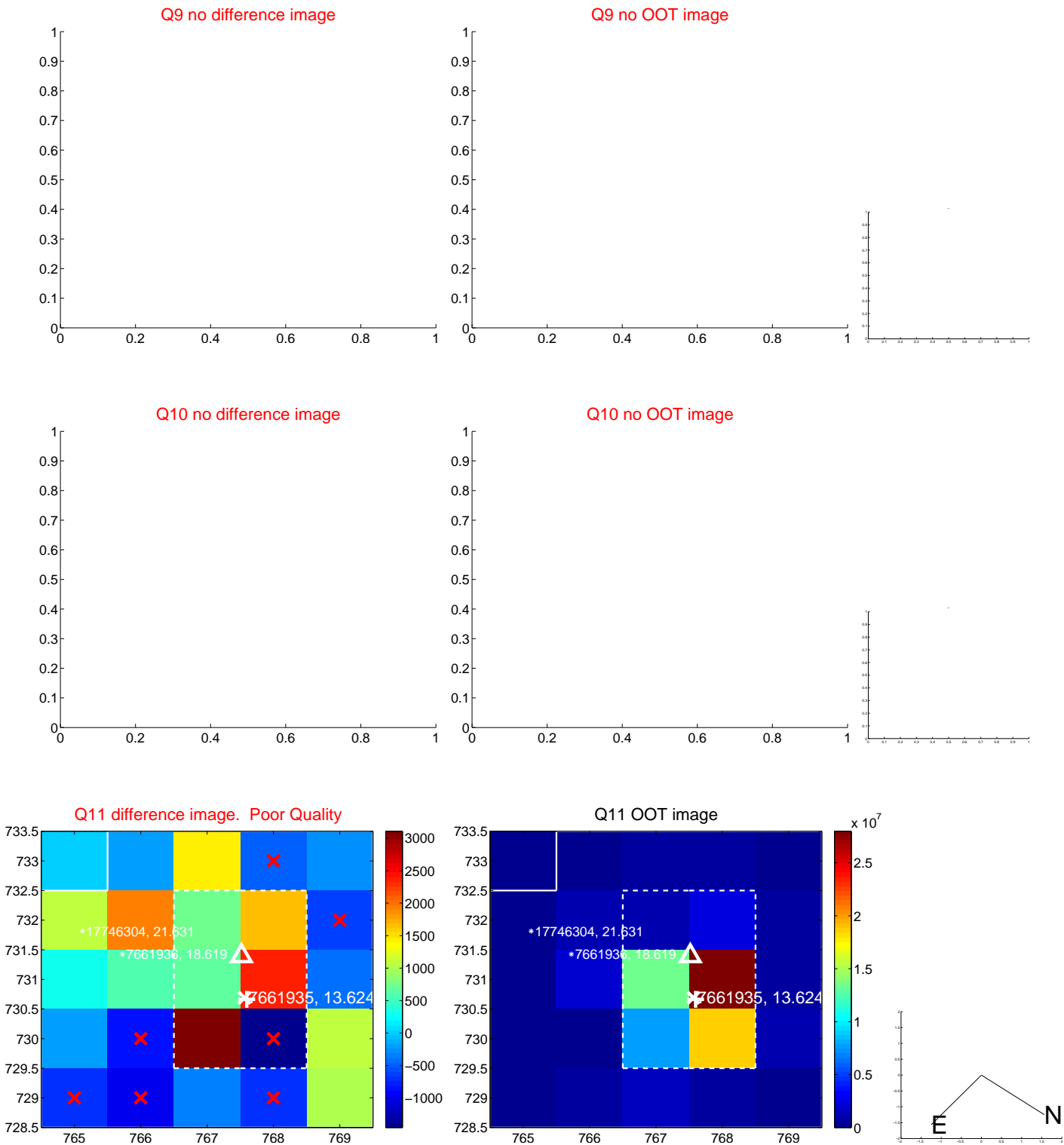
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



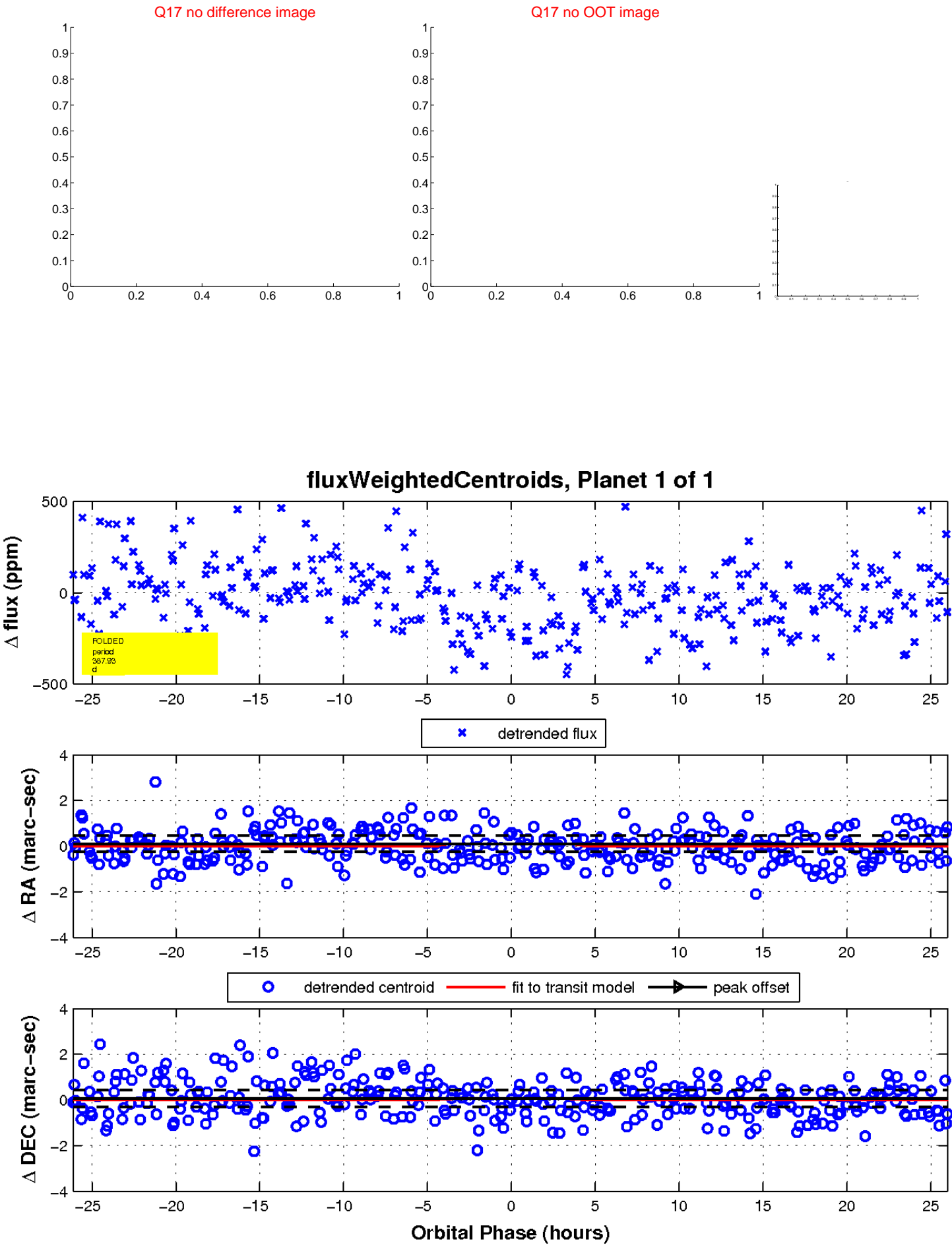
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

