

KIC 007955708

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})
007955708-01	OBS	No	226.434959	248.652126	585.3	3.306	7.1	8.0	1.00	6127	2.62	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007955708-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_FEW_MEAS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

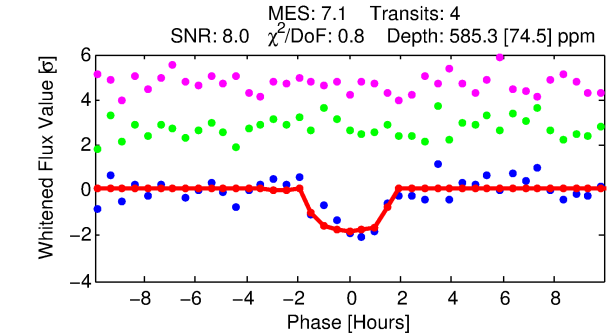
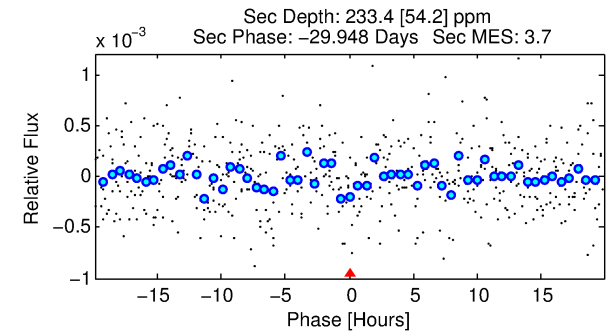
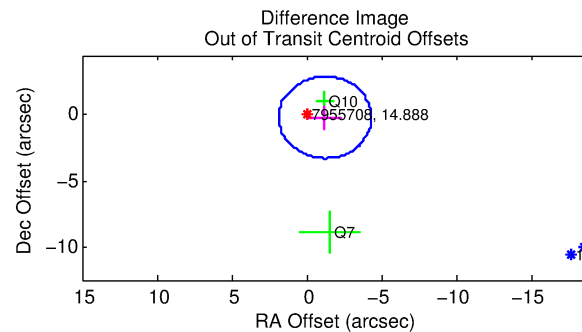
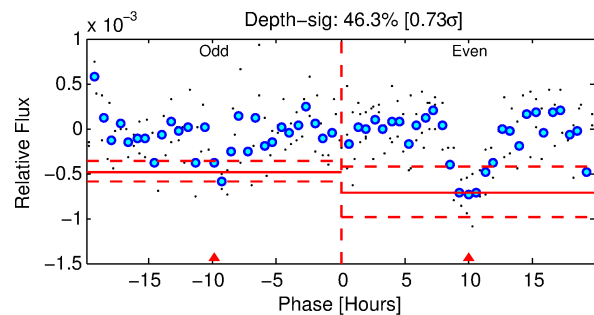
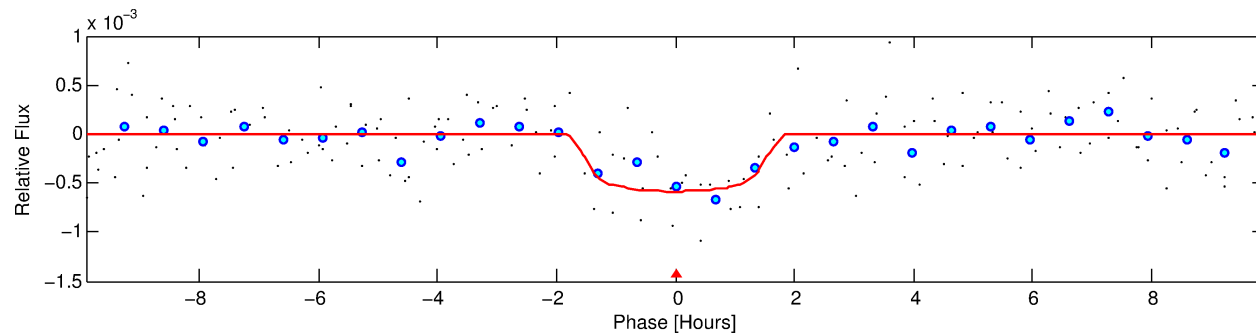
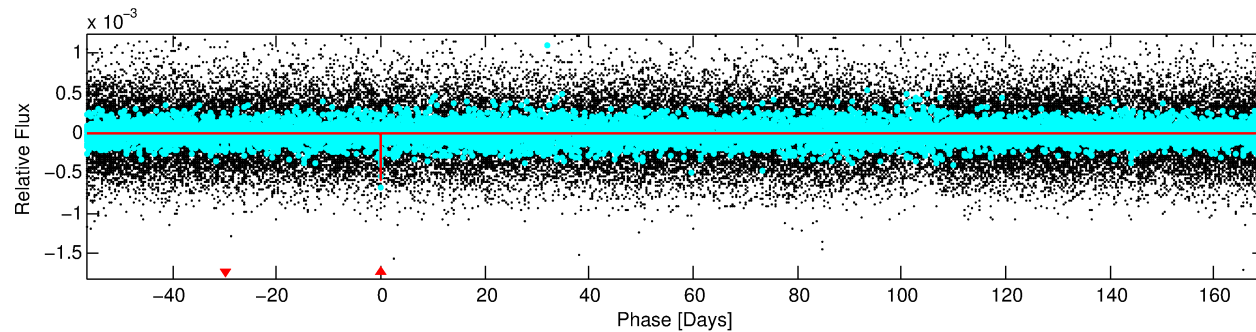
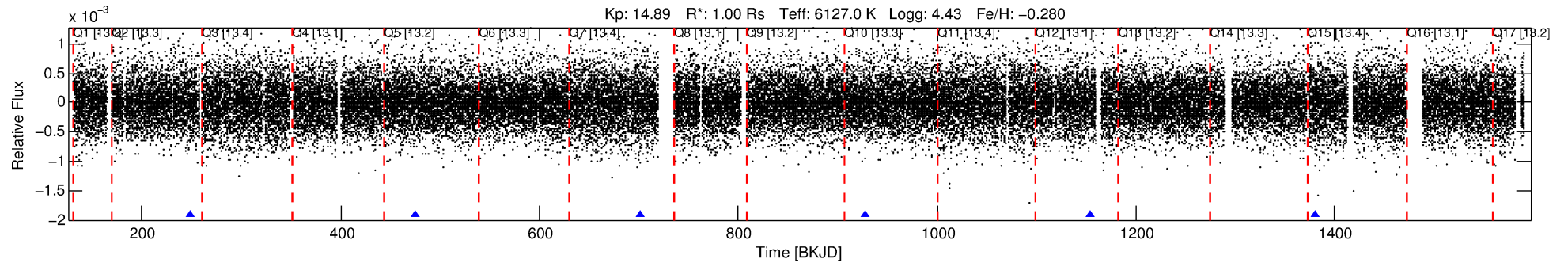
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007955708-01

No Significant Match Found

DV One-Page Summary

KIC: 7955708 Candidate: 1 of 1 Period: 226.435 d



DV Fit Results:

Period = 226.43496 [0.00268] d
Epoch = 248.6521 [0.0092] BKJD
Rp/R* = 0.0240 [0.0249]
a/R* = 369.23 [1950.84]
b = 0.74 [3.24]
Seff = 2.42 [0.94]
Teq = 318 [31] K
Rp = 2.62 [2.84] Re
a = 0.7238 [0.1833] AU
Ag = 9772.91 [20720.16] [0.47σ]
Teff = 4887 [2558] K [1.79σ]

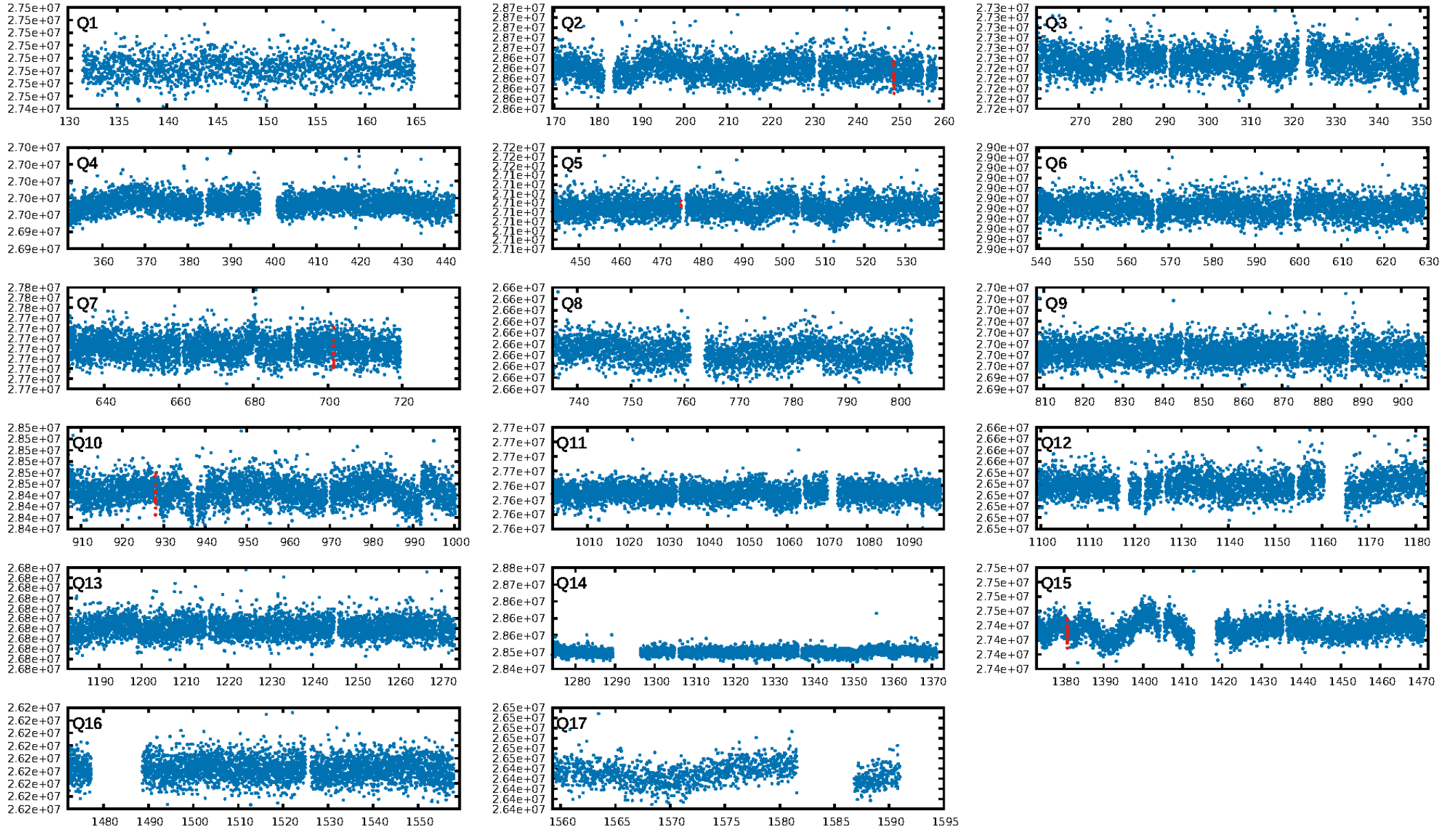
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 45.9%
ModelChiSquareGof-sig: 99.1%
Bootstrap-pfa: 1.62e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -2.189
Centroid-sig: 16.0%
Centroid-so: 2.917 arcsec [1.46σ]
OotOffset-rm: 1.250 arcsec [1.21σ]
KicOffset-rm: 1.187 arcsec [1.15σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

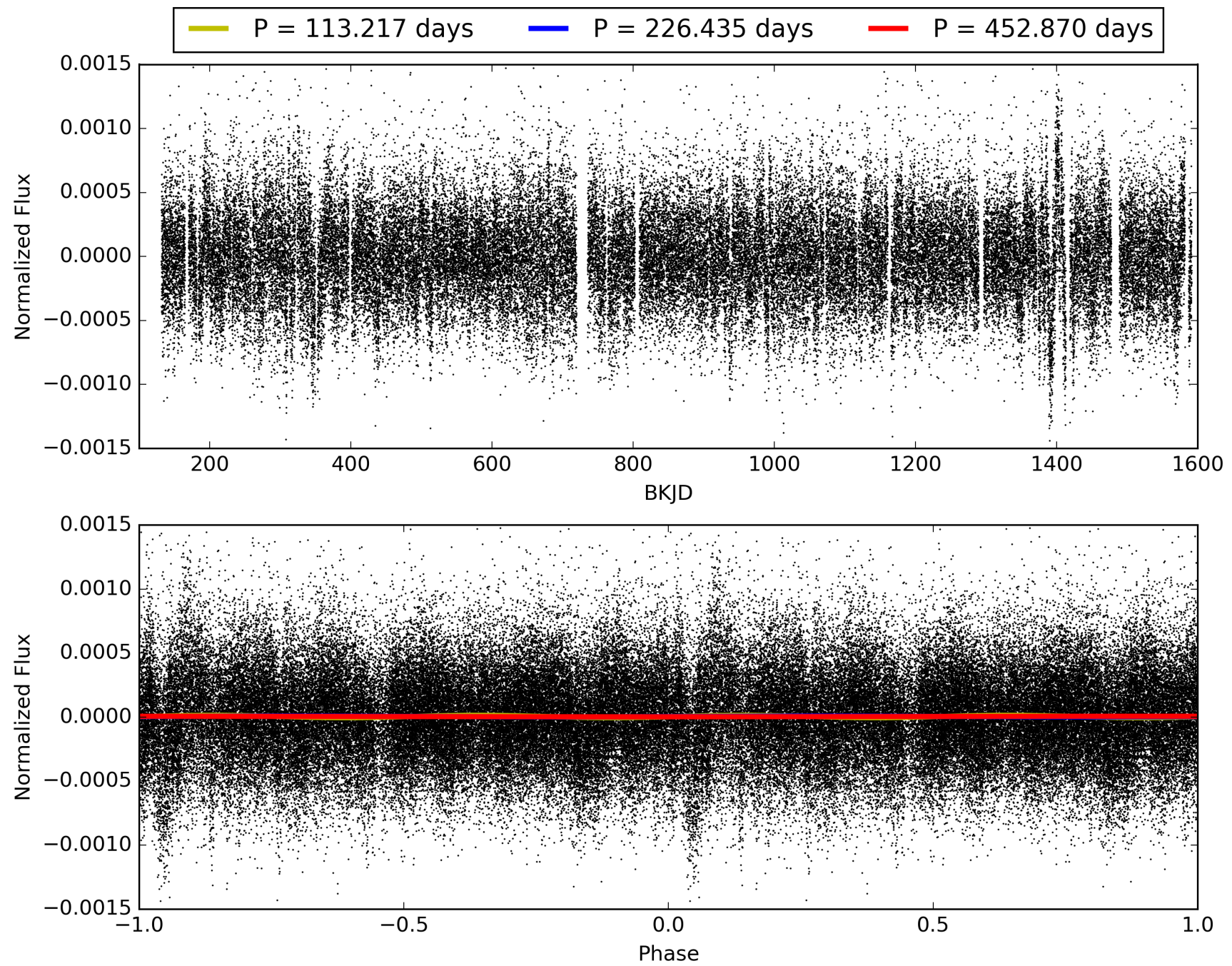
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:19:40 Z

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

TCE 007955708-01, PDC Light Curves

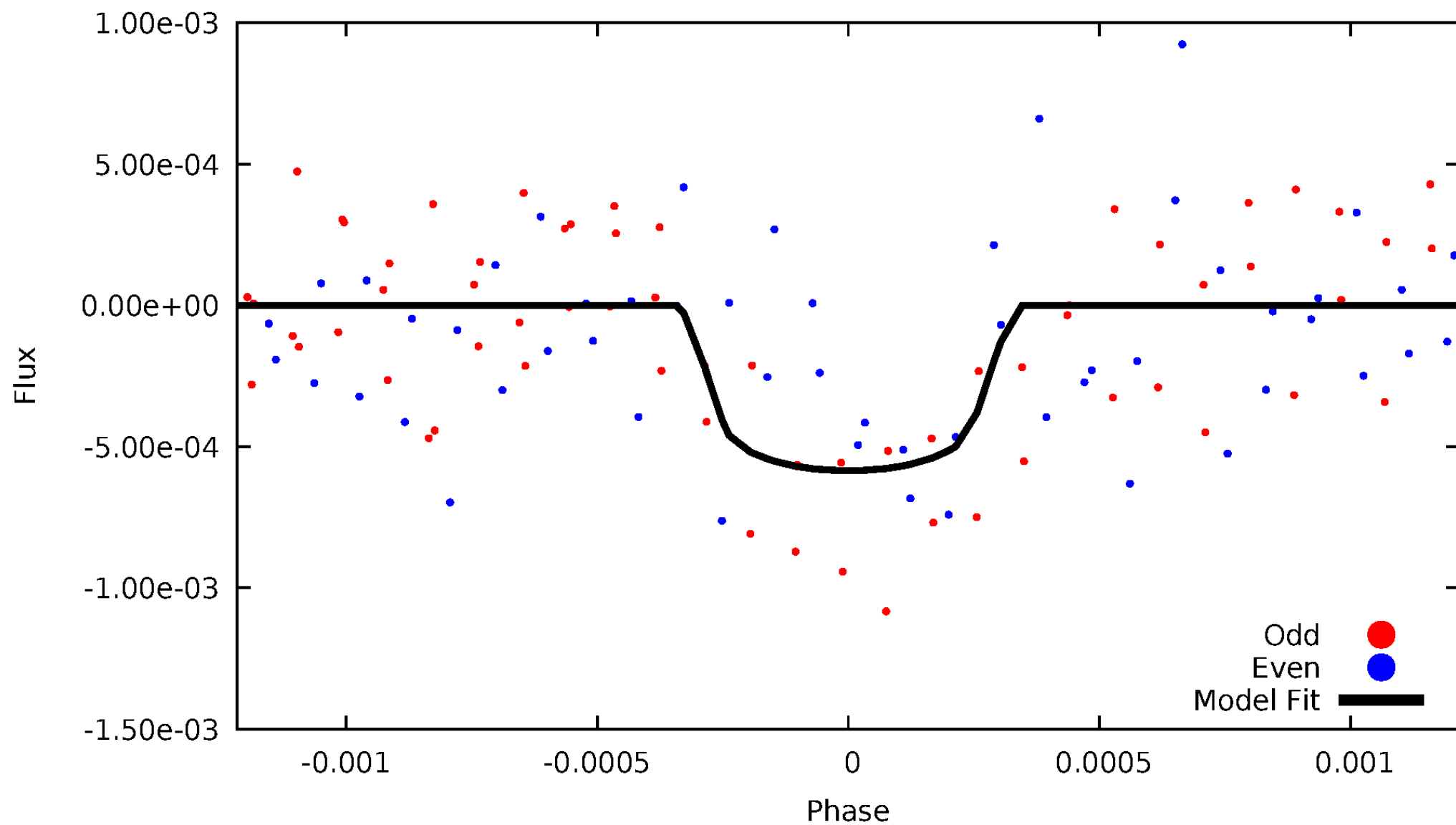


TCE 007955708-01



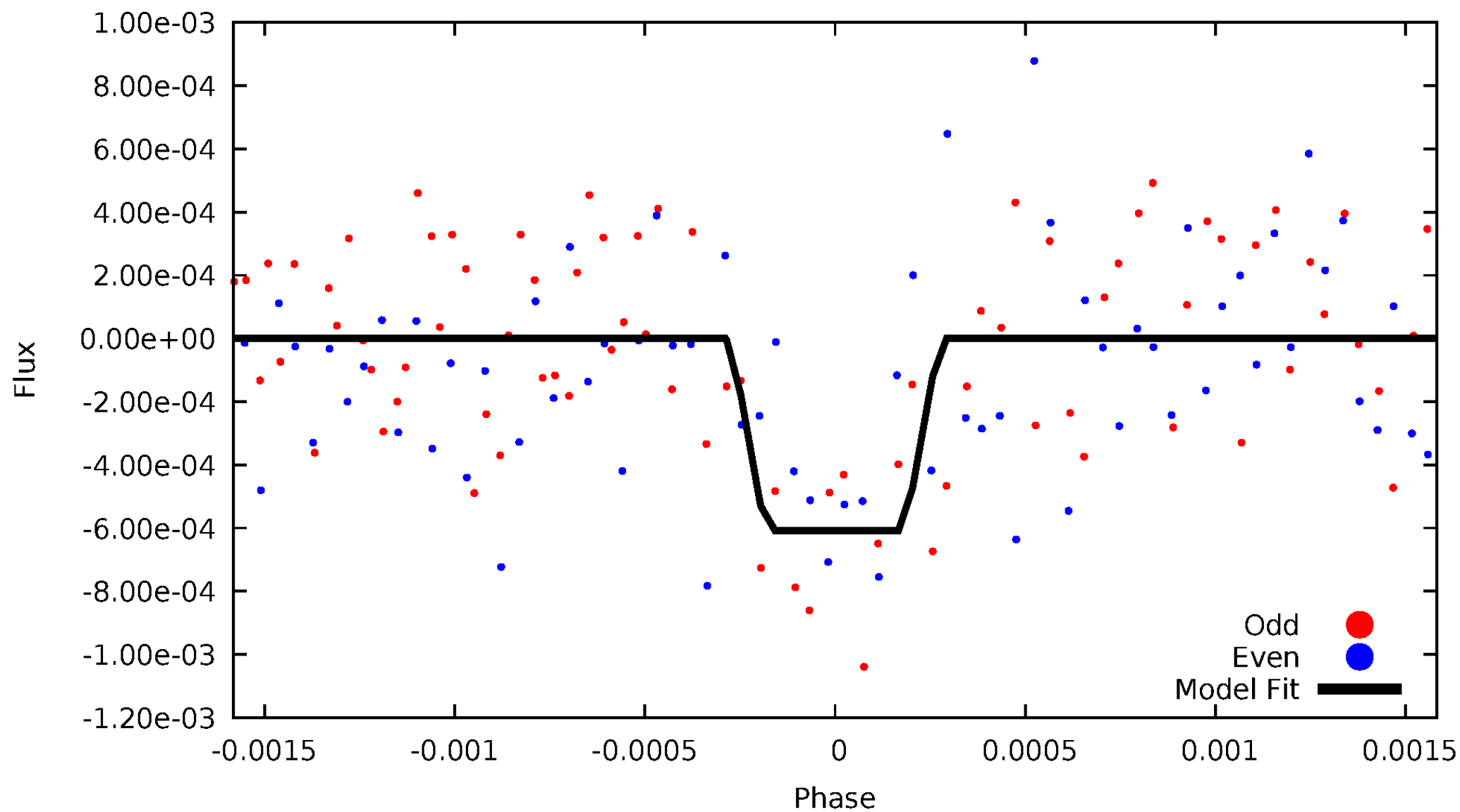
DV Odd/Even

TCE 007955708-01



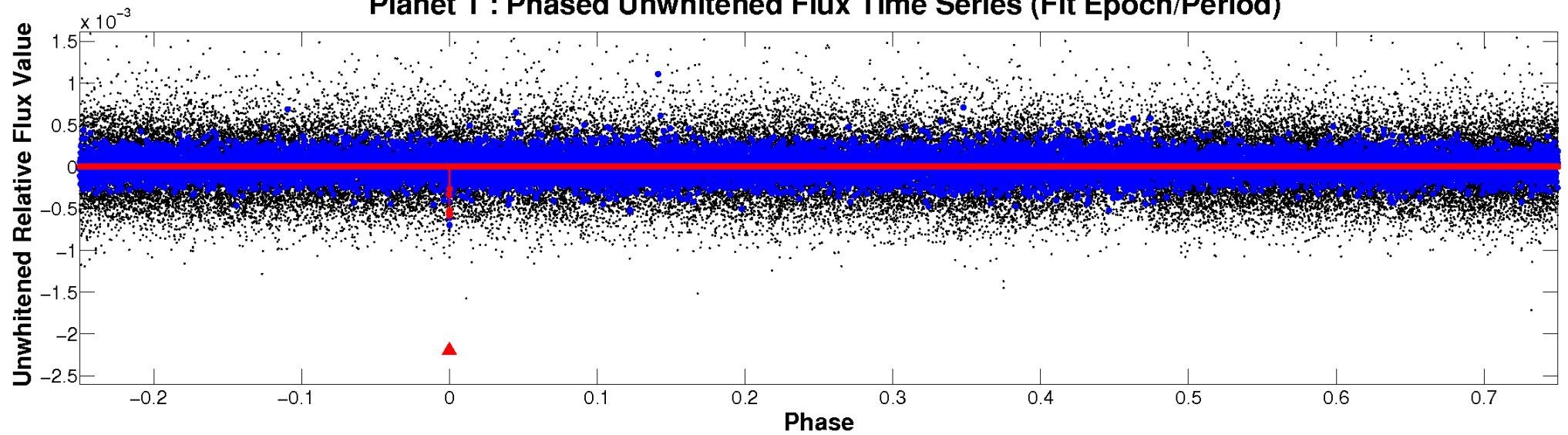
ALT Odd/Even

TCE 007955708-01

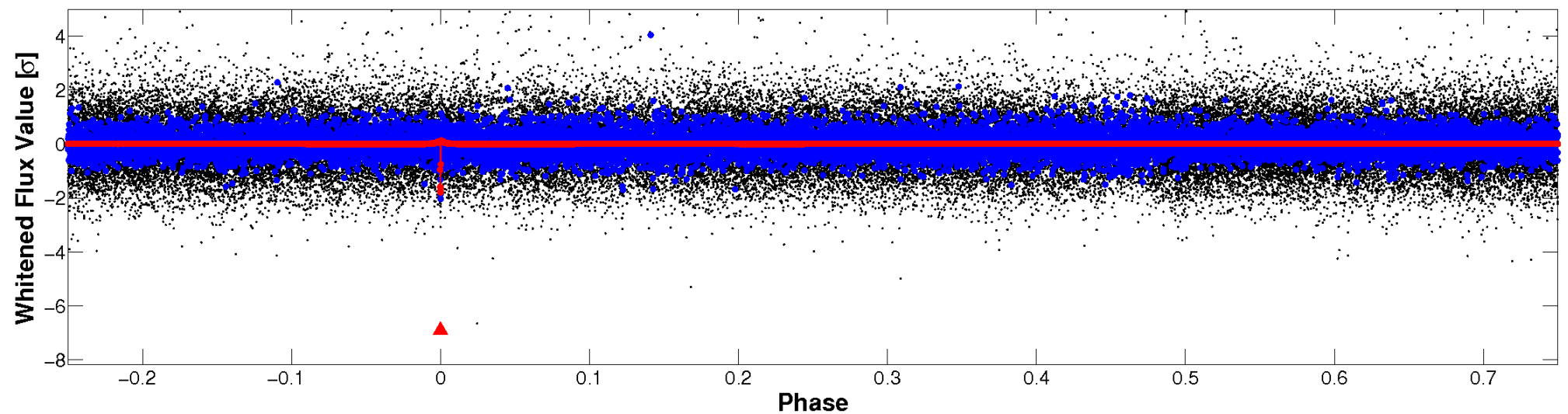


Non-Whitened Vs. Whitened Light Curve

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



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



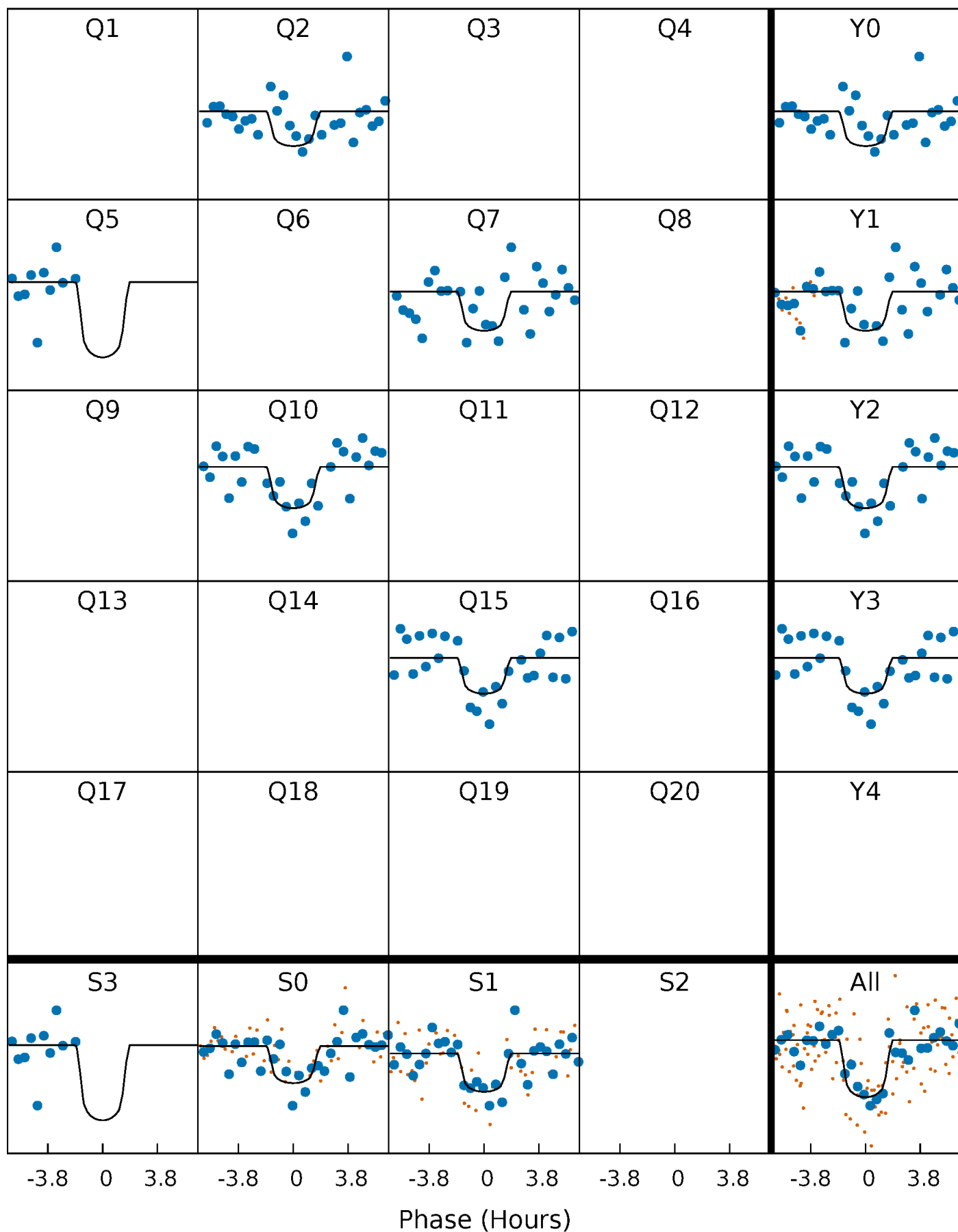
PDC Quarter-Phased Transit Curves

TCE 007955708-01 P=226.434959 Days $T_0=248.652126$ (BKJD)



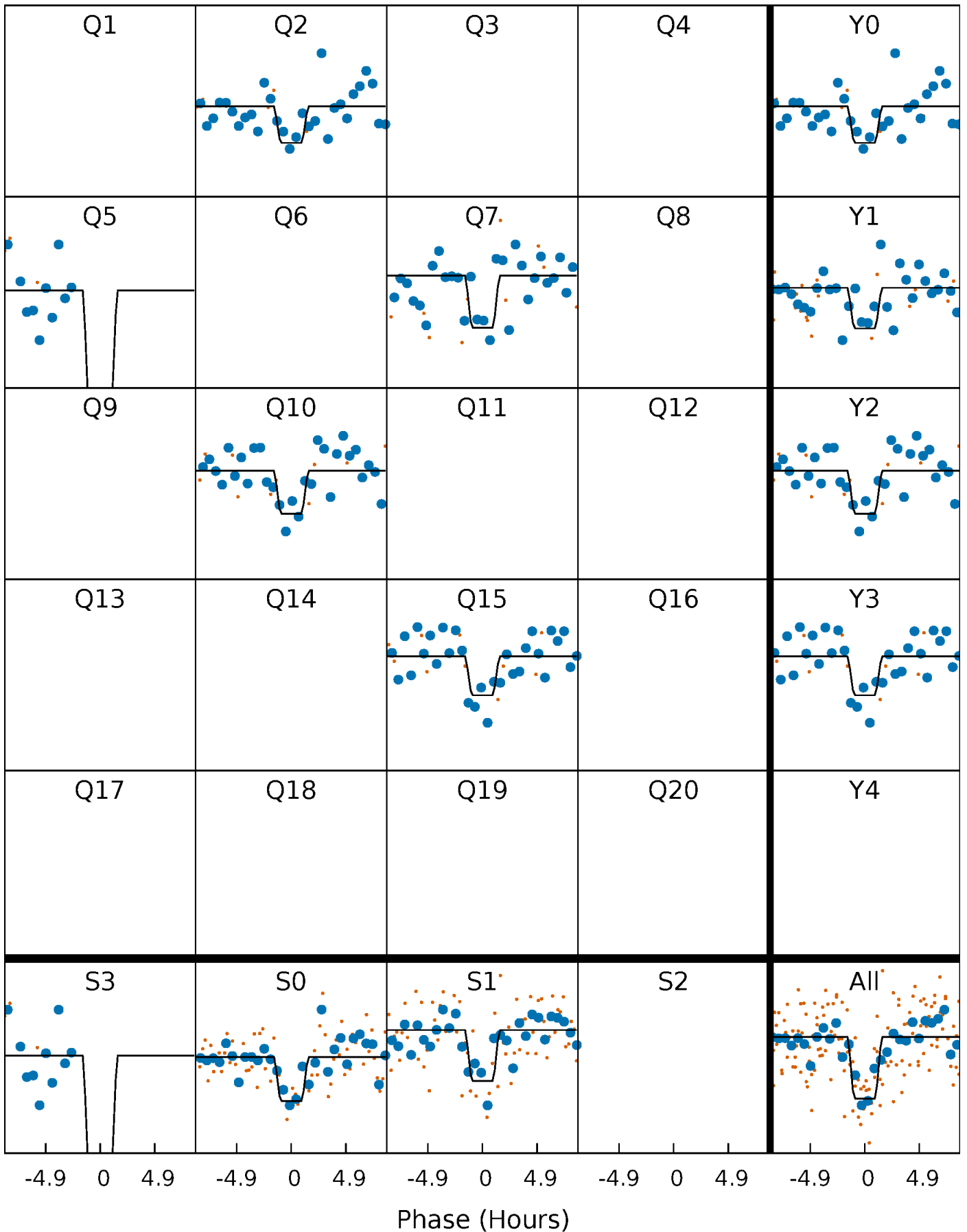
DV Quarter-Phased Transit Curves

TCE 007955708-01 P=226.434959 Days $T_0=248.652126$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

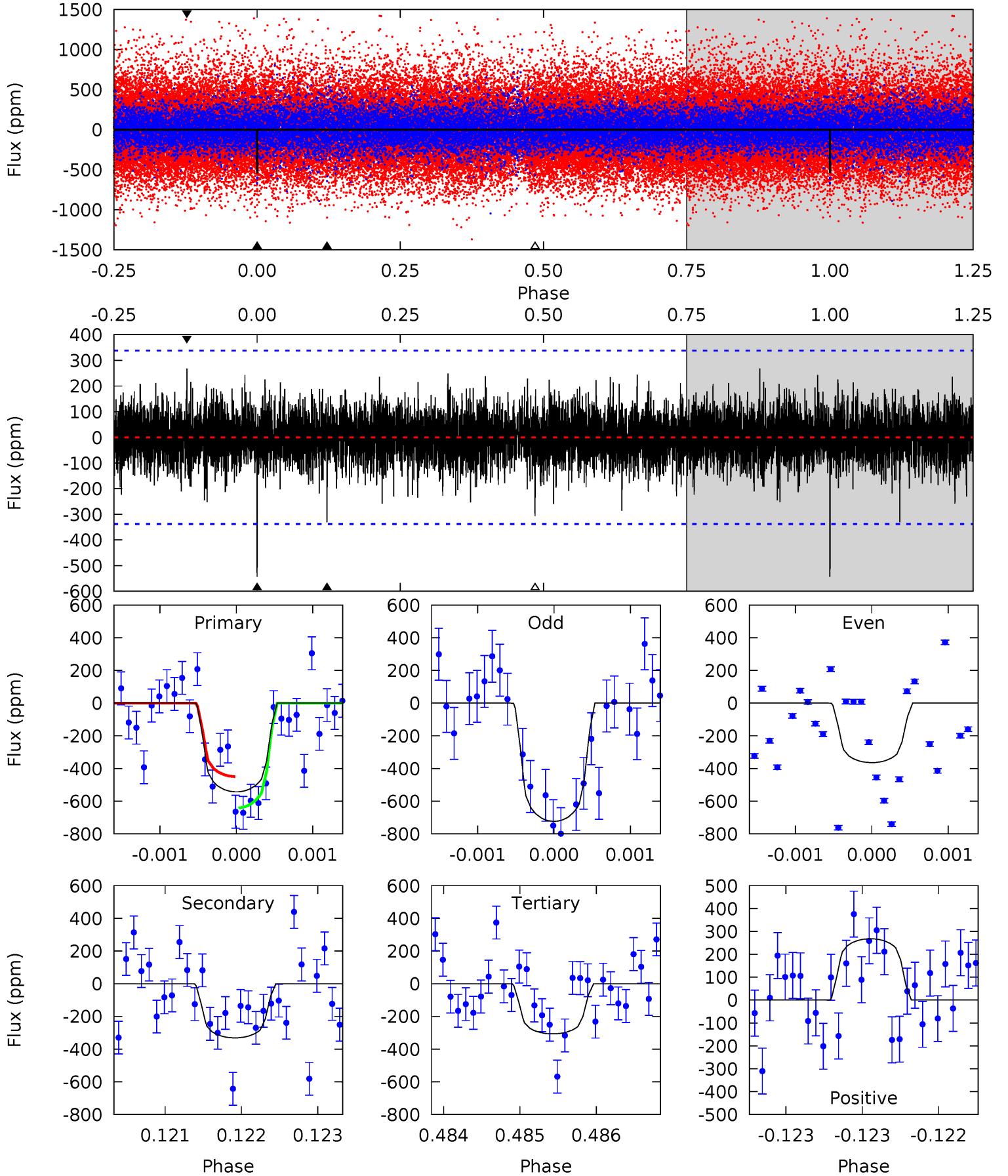
TCE 007955708-01 P=226.428530 Days $T_0=248.684141$ (BKJD)



DV Model-Shift Uniqueness Test

007955708-01, $P = 226.434959$ Days, $E = 22.217167$ Days

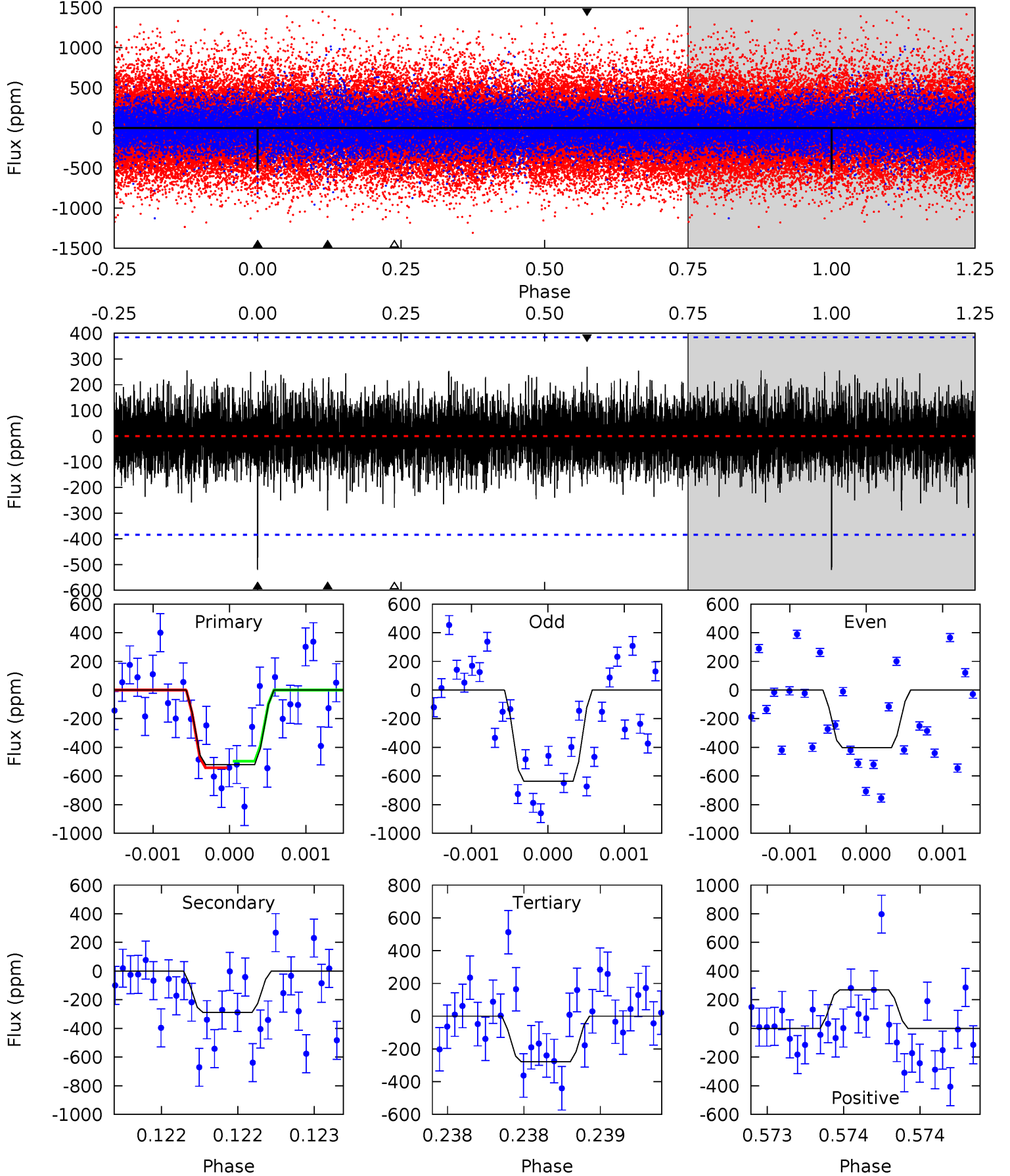
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.89	5.42	5.02	4.38	5.53	3.41	1.15	3.87	4.50	0.40	1.04	2.95	1.01	0.33	1.57



Alt Model-Shift Uniqueness Test

007955708-01, P = 226.428530 Days, E = 22.255611 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.55	4.19	4.04	3.90	5.57	3.48	1.05	3.51	3.65	0.15	0.30	1.70	1.06	0.34	0.33



Stellar Parameters For KIC 007955708

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6127^{+164}_{-219}	$4.431^{+0.084}_{-0.196}$	$-0.280^{+0.300}_{-0.300}$	$1.001^{+0.306}_{-0.131}$	$0.986^{+0.141}_{-0.115}$	$1.385^{+0.505}_{-0.707}$
	+3%/-4%	+2%/-4%	+107%/-107%	+31%/-13%	+14%/-12%	+36%/-51%
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 007955708-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-331 ± 61	$3.47^{+2.48}_{-2.14}$	450^{+33}_{-26}	4791^{+3016}_{-832}	8080^{+45383}_{-5473}
Alt.	-289 ± 69	$3.37^{+2.70}_{-2.20}$	450^{+31}_{-26}	4664^{+3119}_{-866}	7033^{+47164}_{-4970}

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

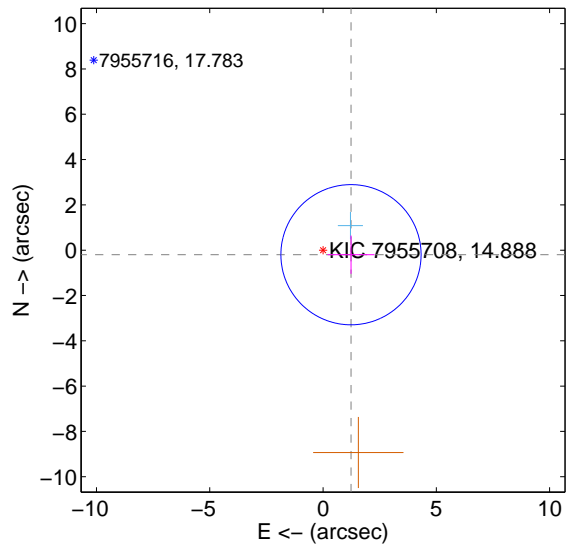
Supplemental centroid analysis for 007955708-01. Kepler magnitude: 14.89. Transit SNR 8.00

There are 1 quarters with good PRF difference image offsets

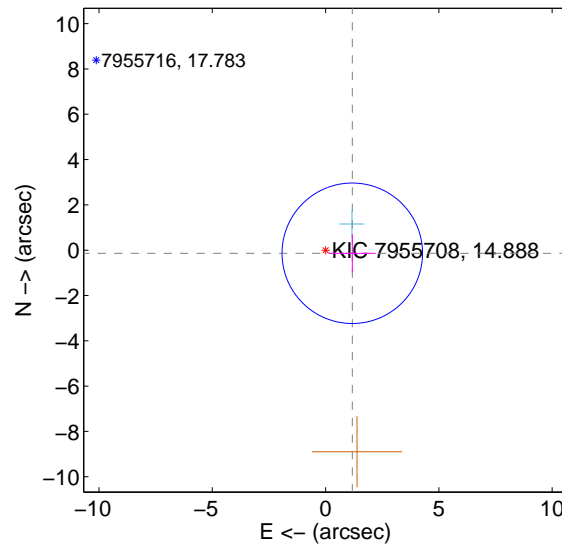
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.250 ± 1.031	1.21	-1.234 ± 1.036	-0.201 ± 0.843
PRF-fit source offset from KIC position	1.187 ± 1.033	1.15	-1.179 ± 1.036	-0.137 ± 0.843
photometric centroid source offset	2.92 ± 1.99	1.46	-2.91 ± 1.99	-0.26 ± 2.13

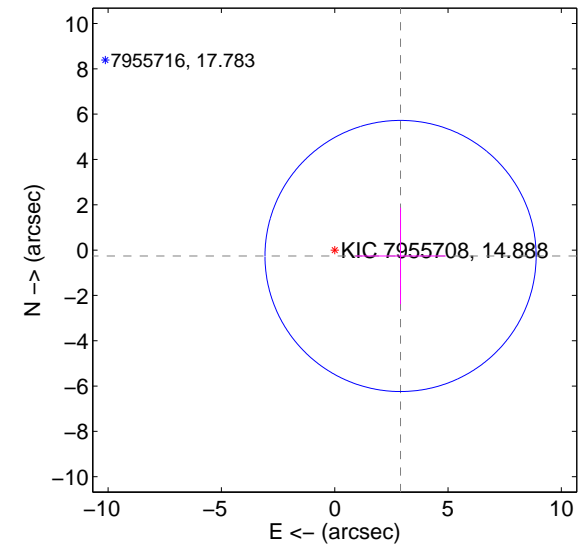
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

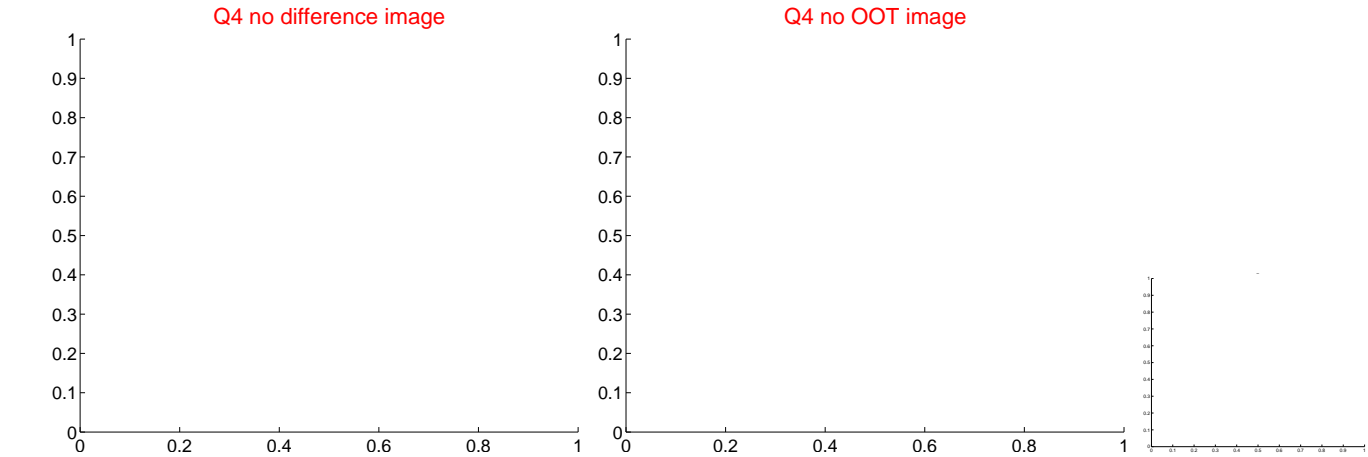
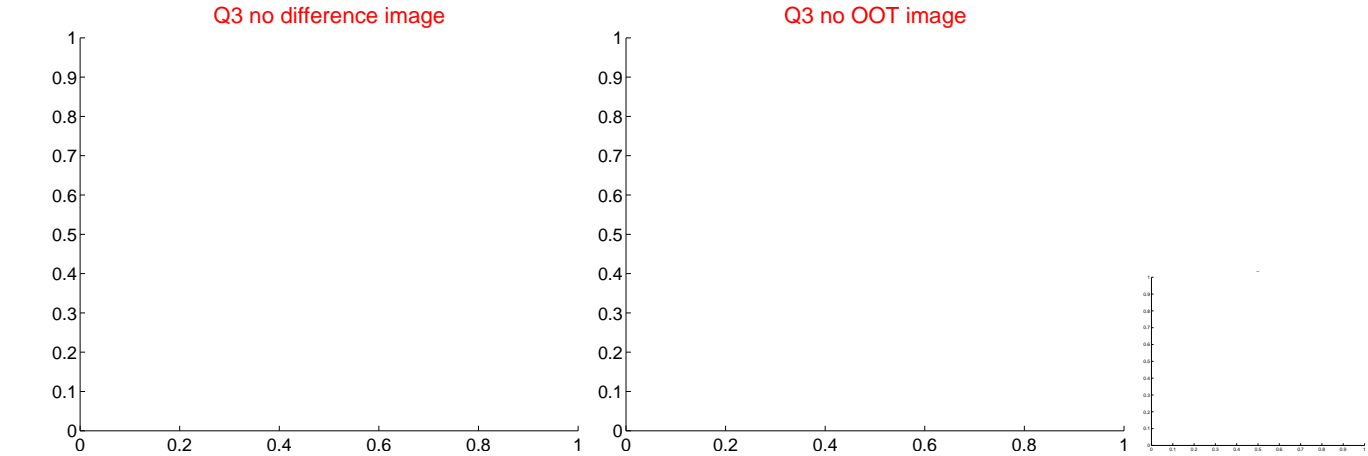
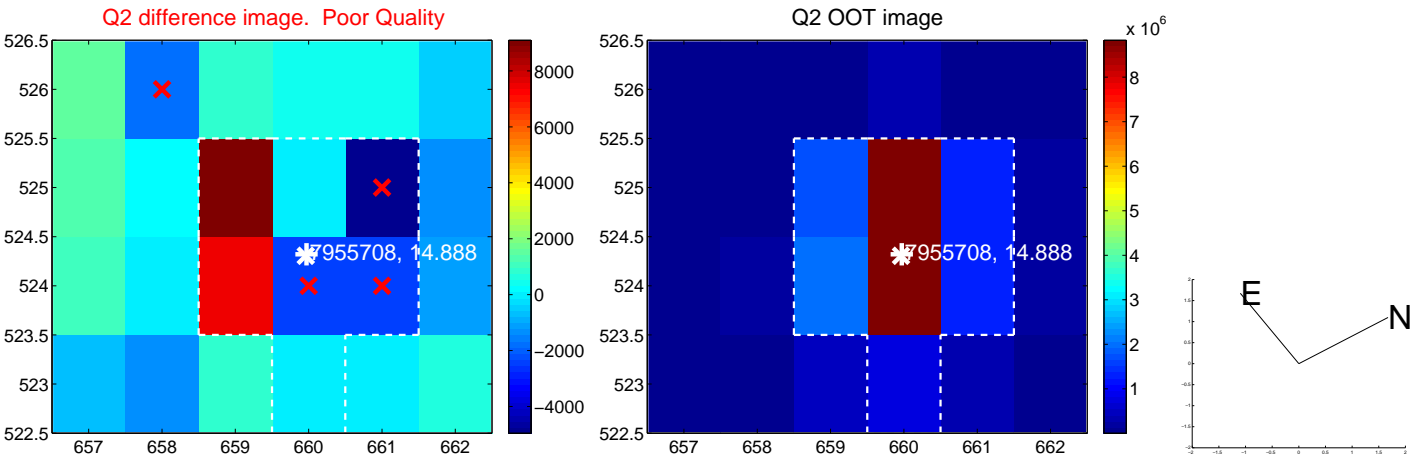
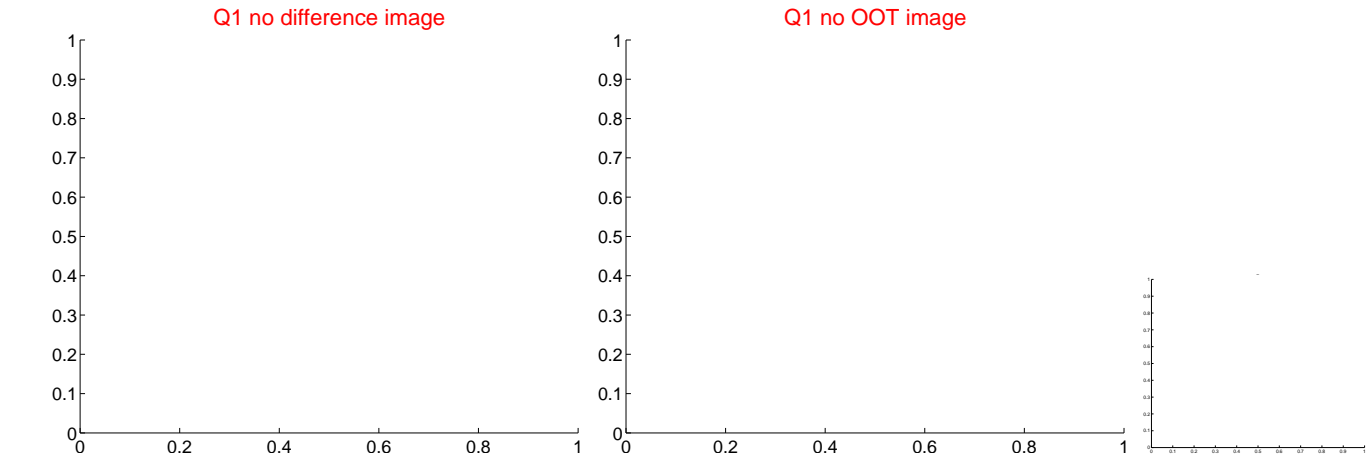


offset from photometric centroids

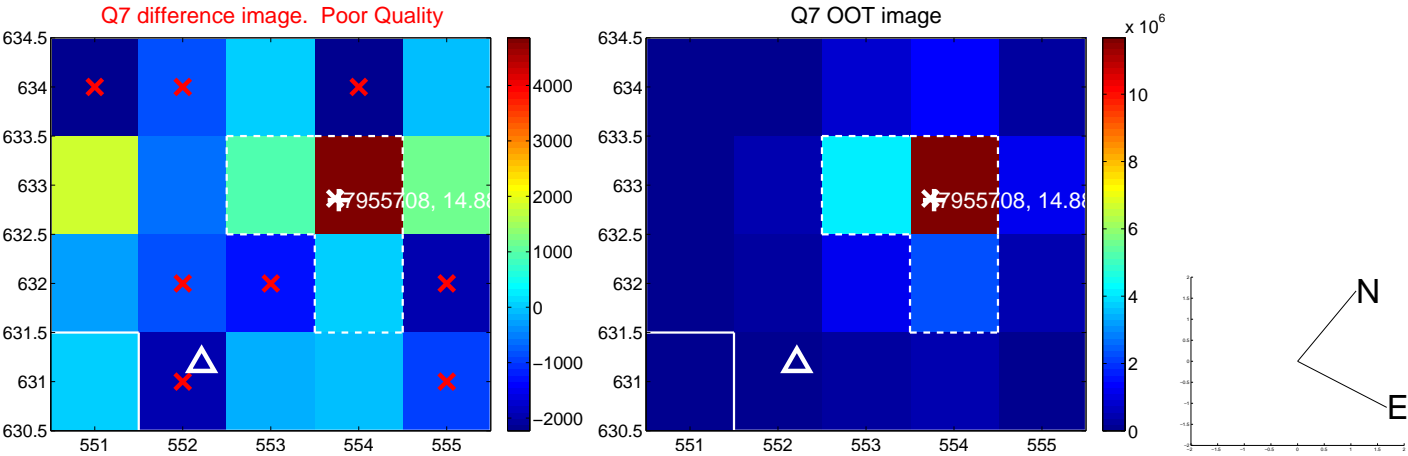


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

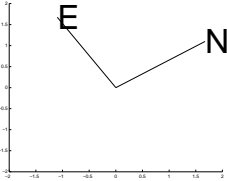
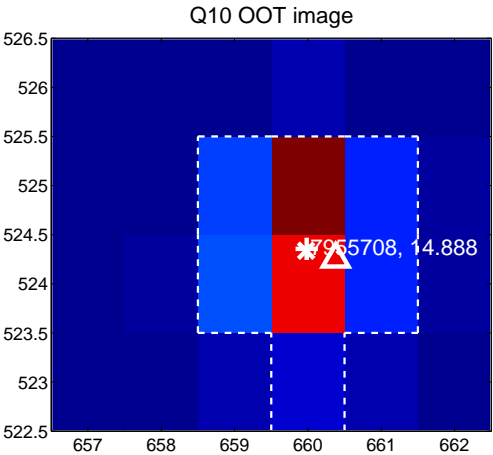
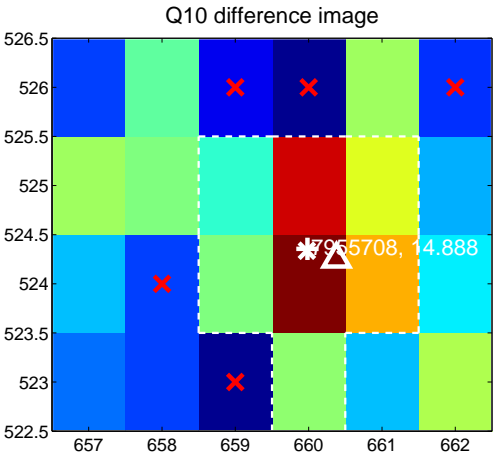


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

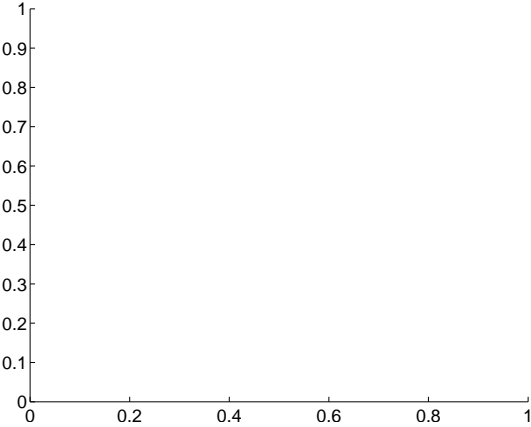
Q9 no difference image



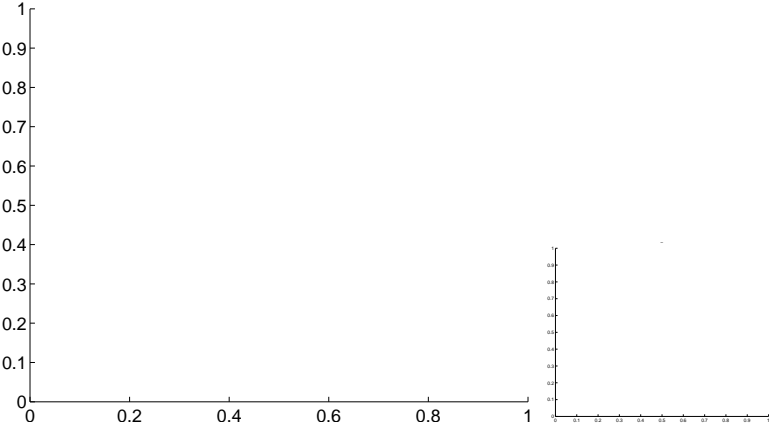
Q9 no OOT image



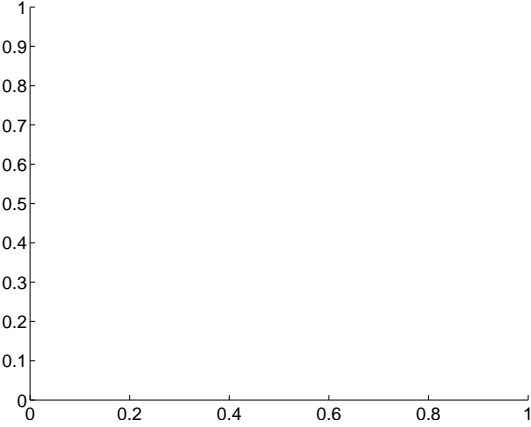
Q11 no difference image



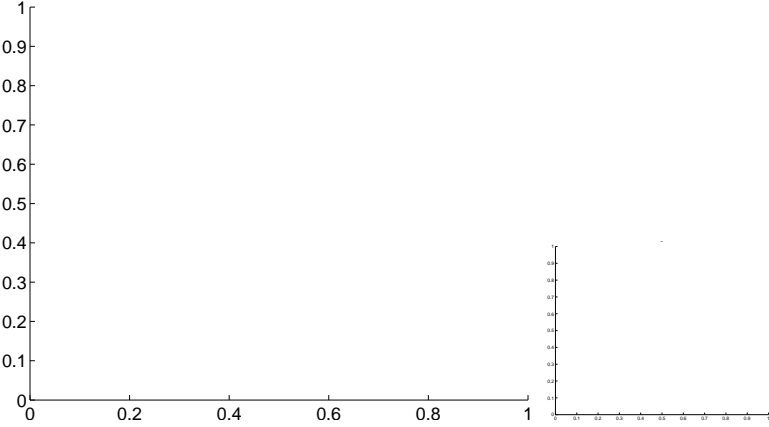
Q11 no OOT image



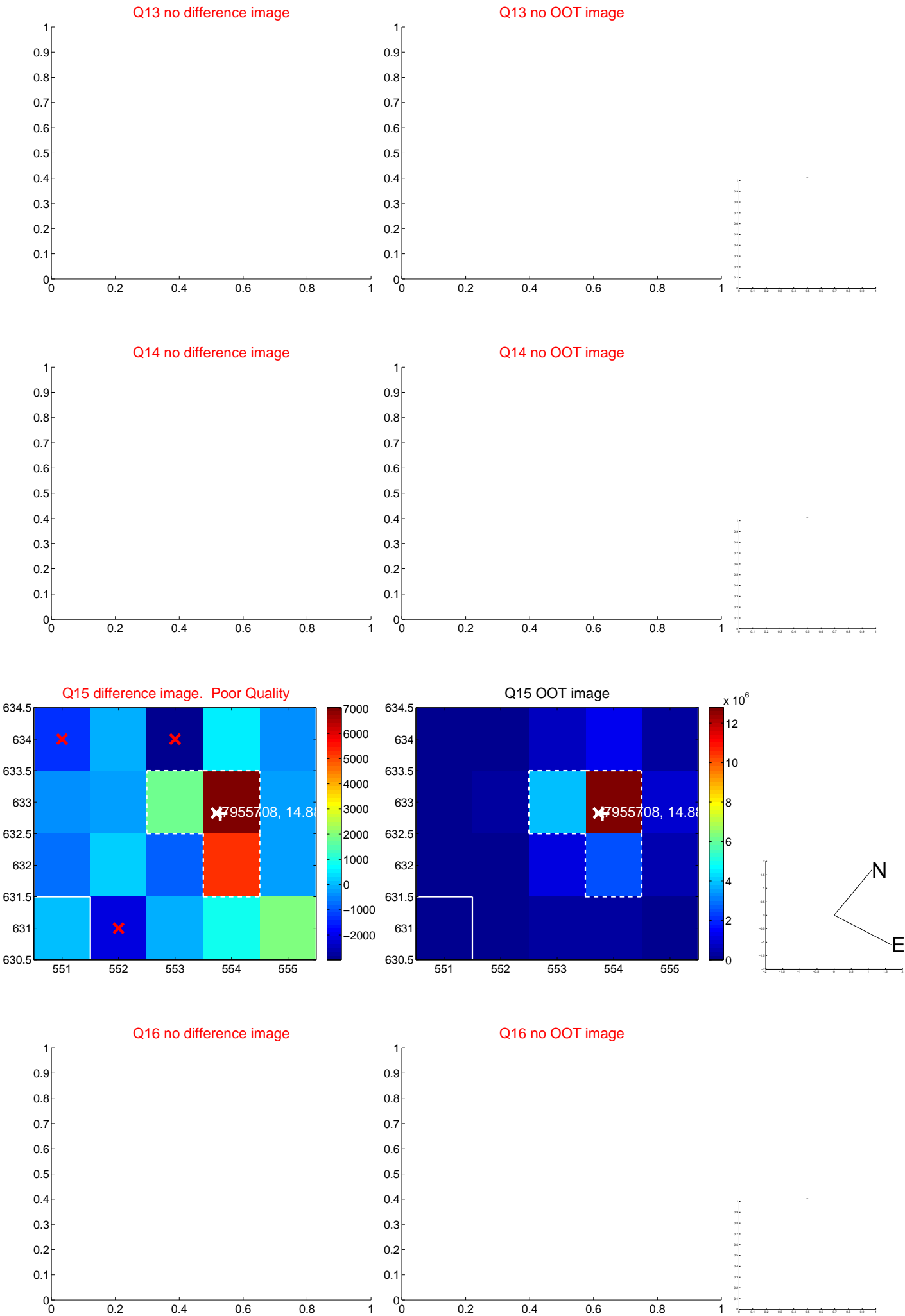
Q12 no difference image



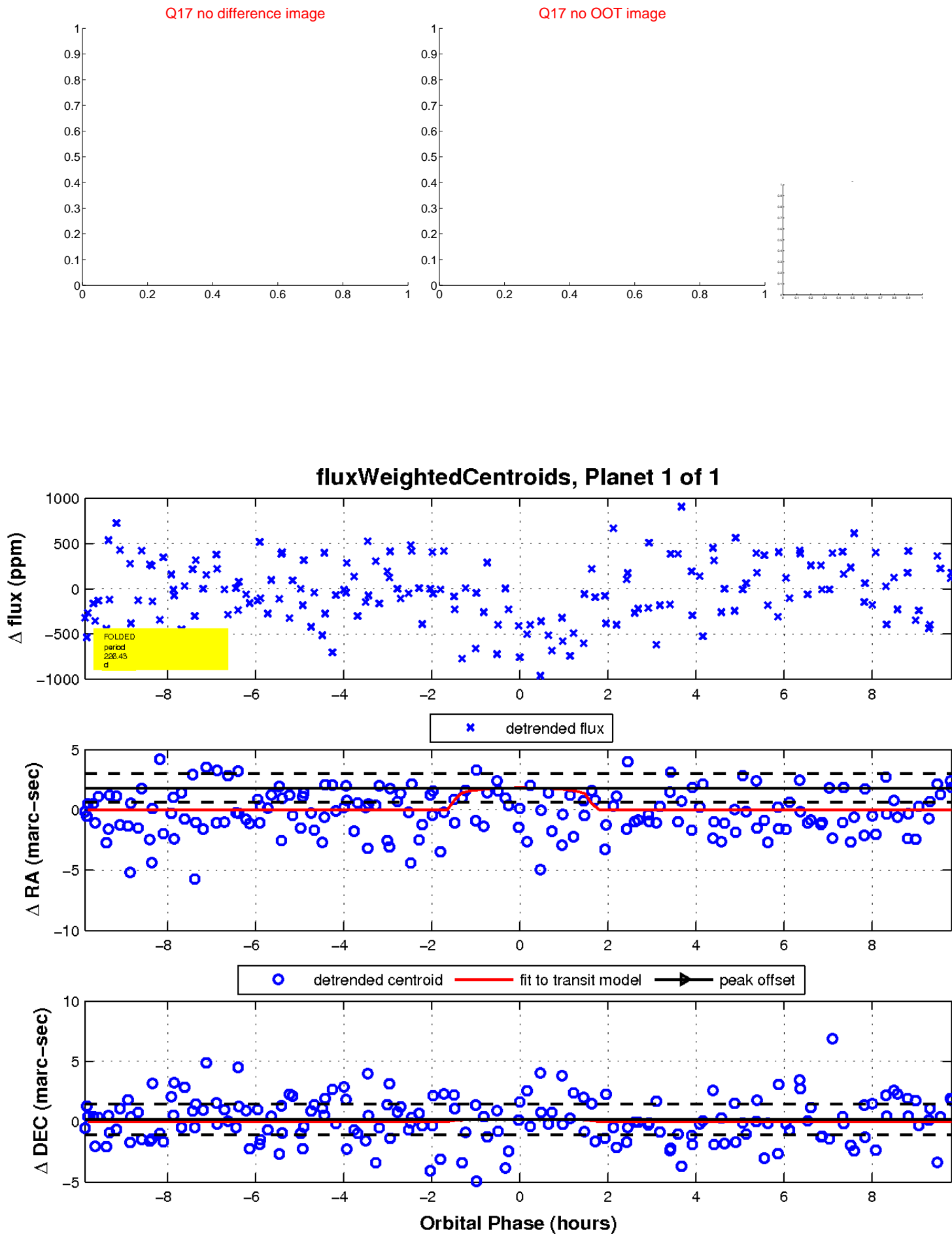
Q12 no OOT image



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

Declination

