

KIC 011953757

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})
011953757-01	OBS	No	373.981343	304.550483	953.0	22.855	7.7	8.1	0.68	5403	2.31	0.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011953757-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

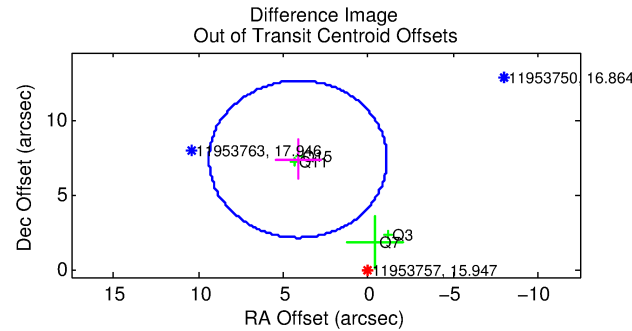
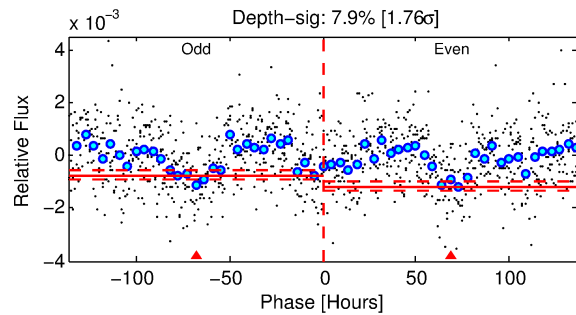
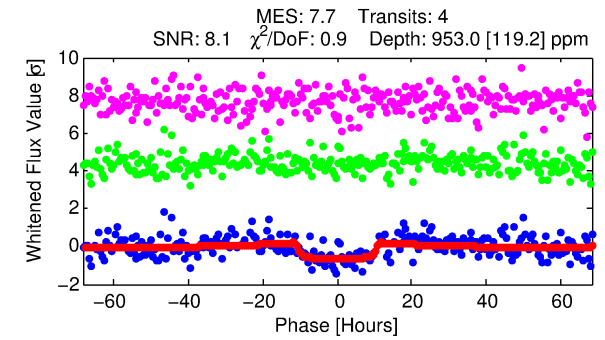
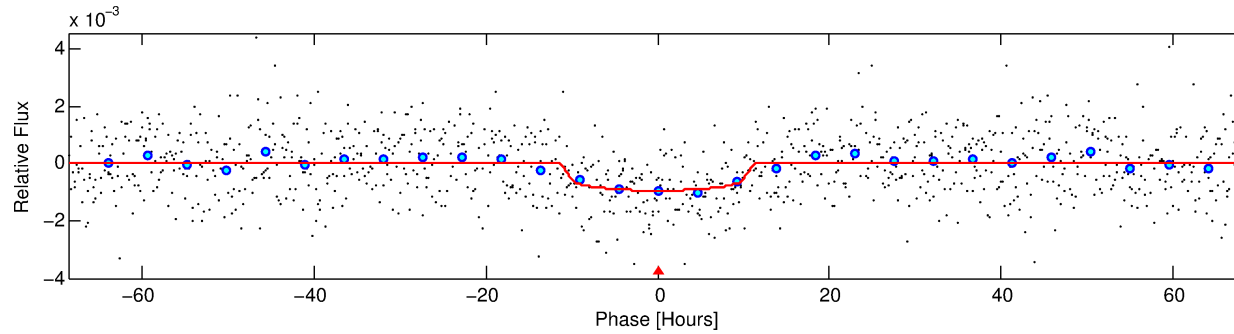
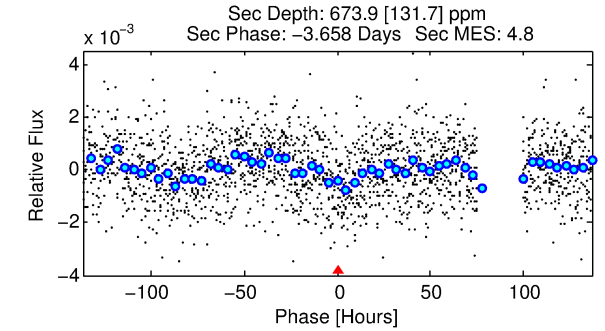
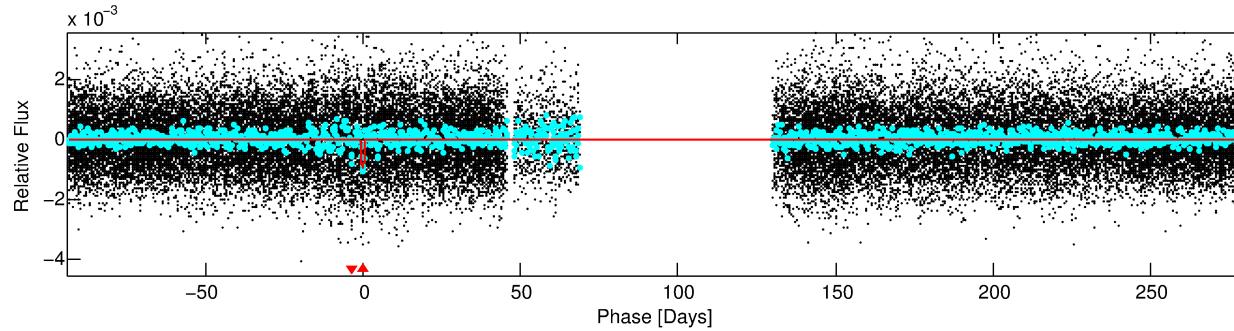
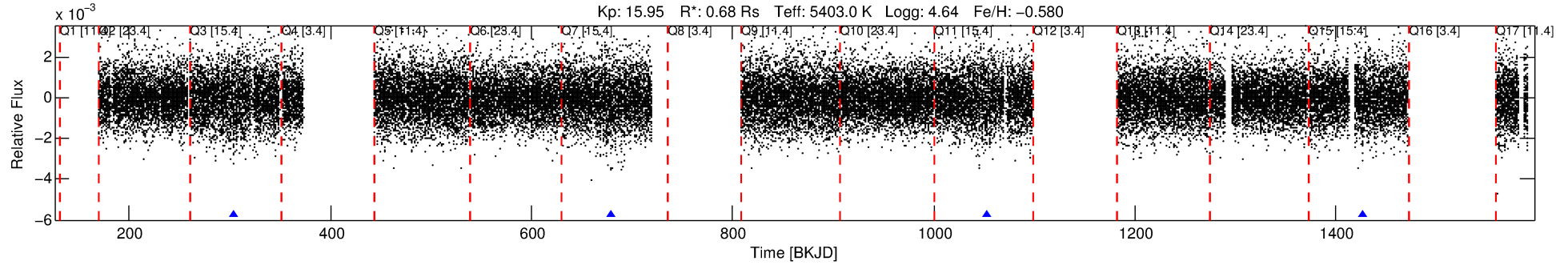
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011953757-01

No Significant Match Found

DV One-Page Summary

KIC: 11953757 Candidate: 1 of 1 Period: 373.981 d



DV Fit Results:

Period = 373.98134 [0.01875] d
Epoch = 304.5505 [0.0358] BKJD
Rp/R* = 0.0310 [0.0060]
a/R* = 85.26 [66.46]
b = 0.77 [0.41]
Seff = 0.42 [0.09]
Teq = 205 [11] K
Rp = 2.31 [0.58] Re
a = 0.9239 [0.1160] AU
Ag = 59058.41 [27661.08] [2.14σ]
Teffp = 4943 [557] K [8.50σ]

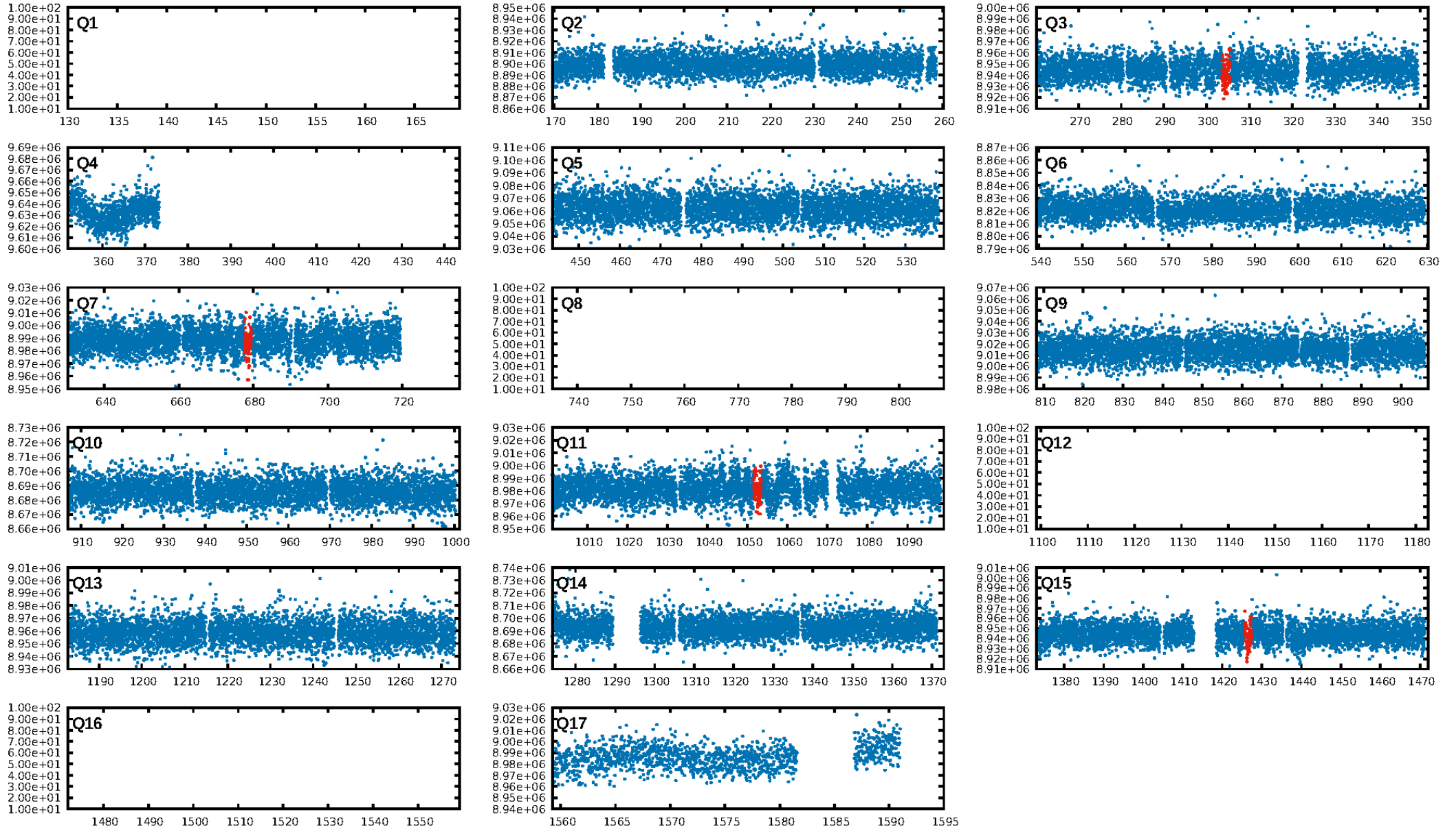
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 65.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.13e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.4376
Centroid-sig: 0.9%
Centroid-so: 5.618 arcsec [2.21σ]
OotOffset-rm: 8.440 arcsec [4.83σ]
KicOffset-rm: 8.487 arcsec [4.75σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [4/4]

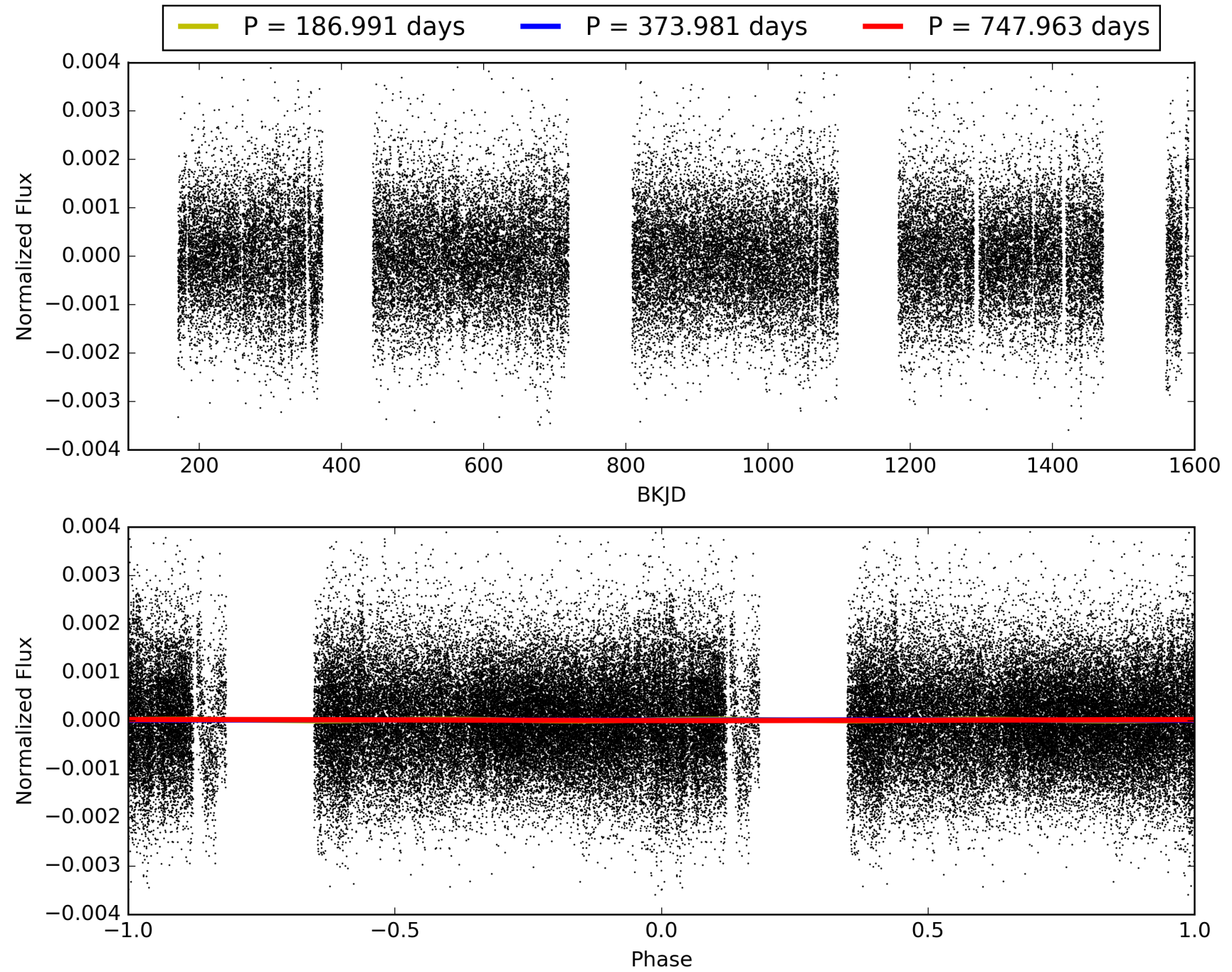
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:49:29 Z

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

TCE 011953757-01, PDC Light Curves

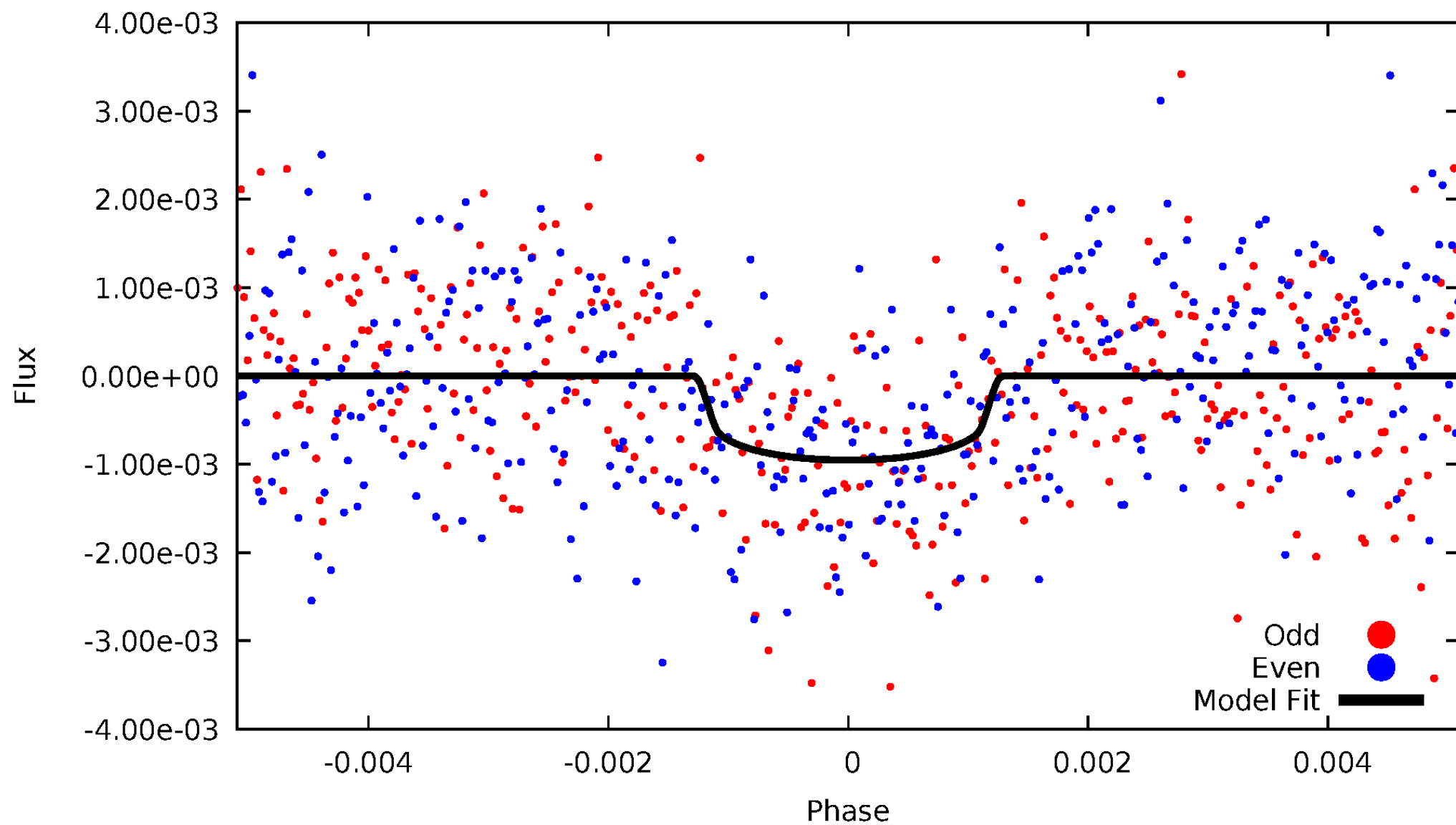


TCE 011953757-01



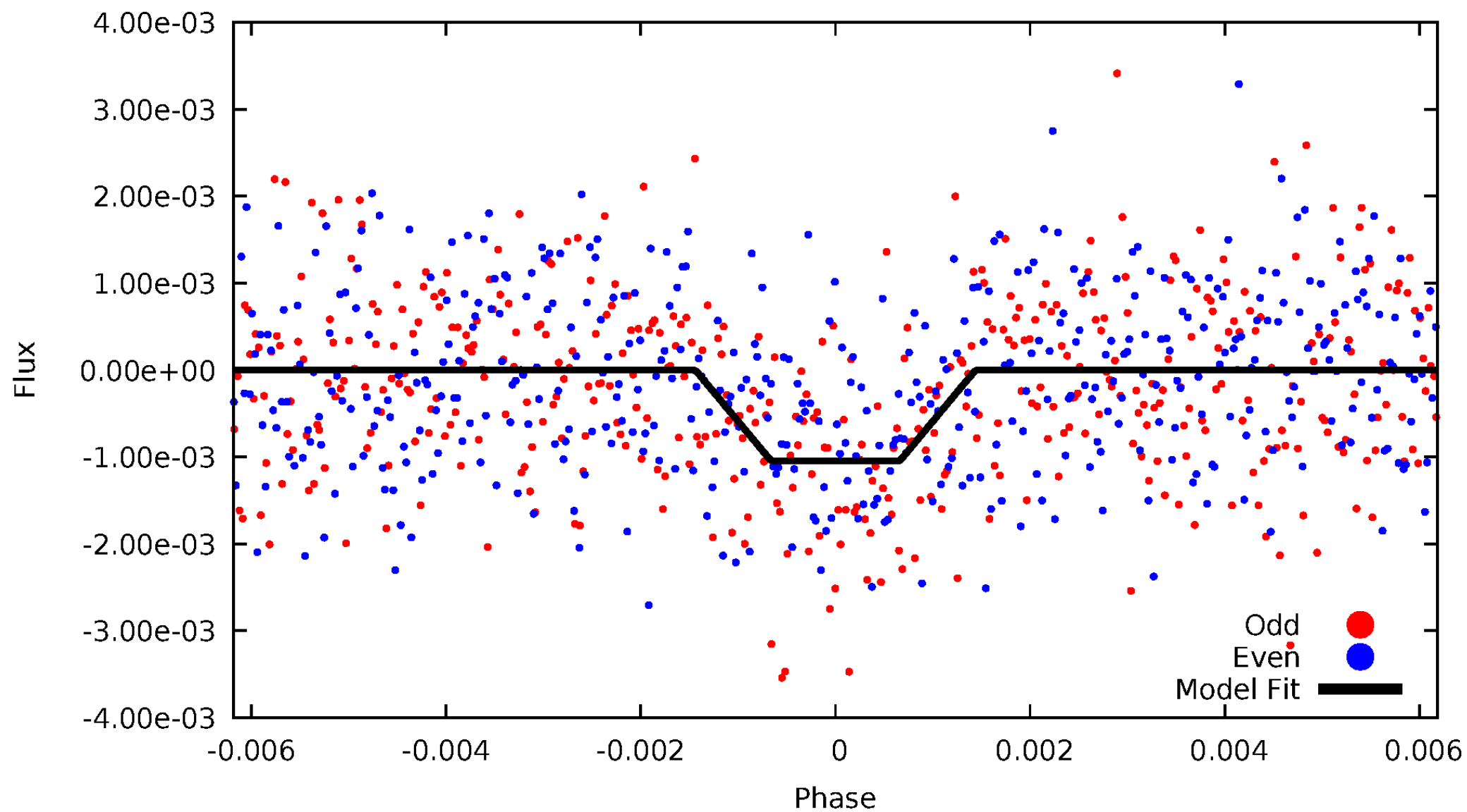
DV Odd/Even

TCE 011953757-01



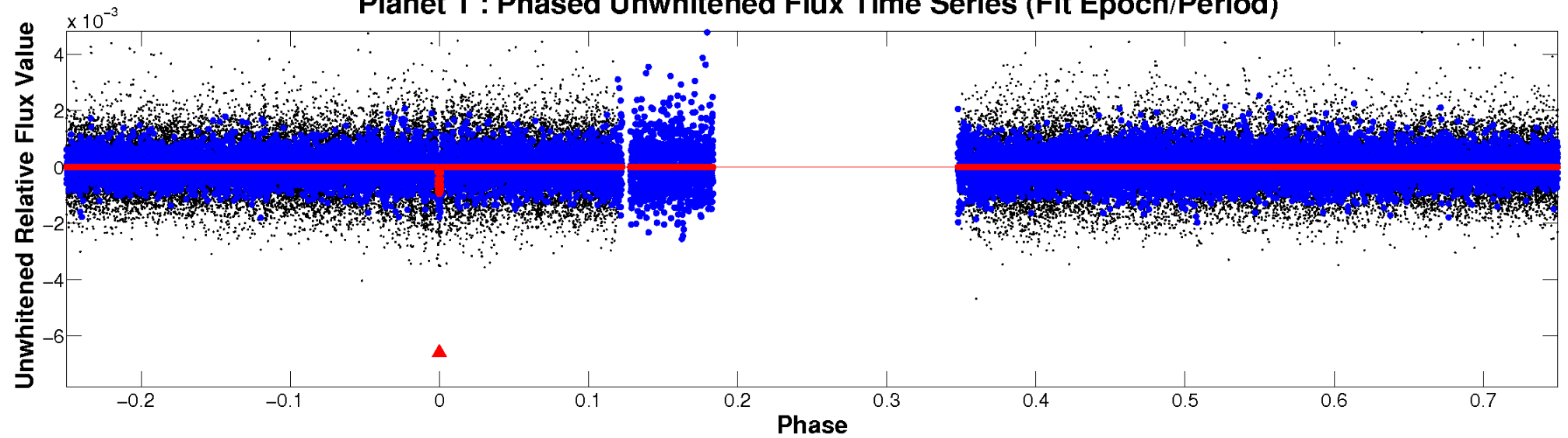
ALT Odd/Even

TCE 011953757-01

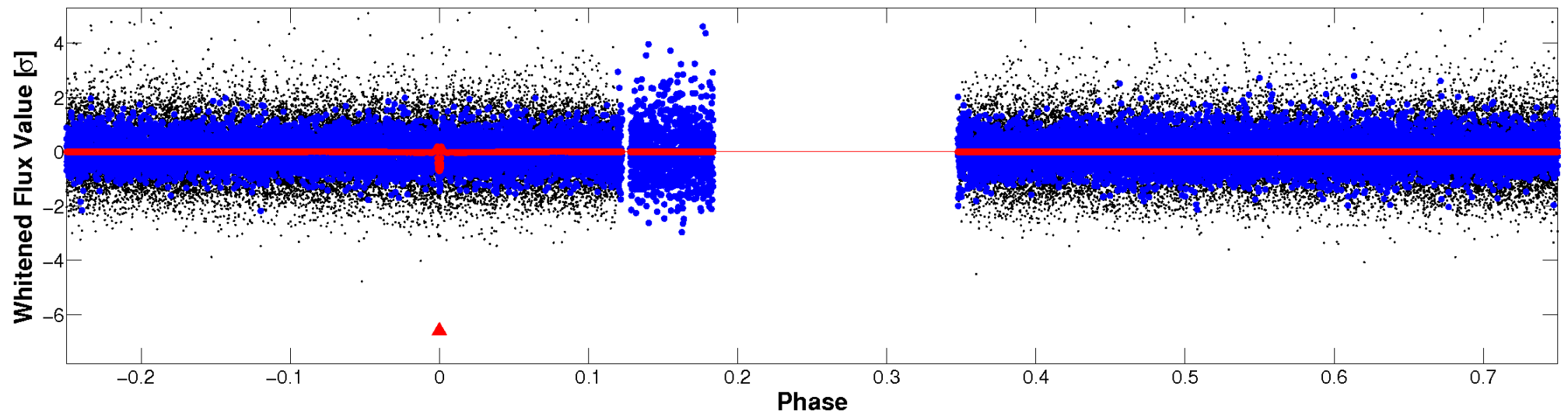


Non-Whitened Vs. Whitened Light Curve

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

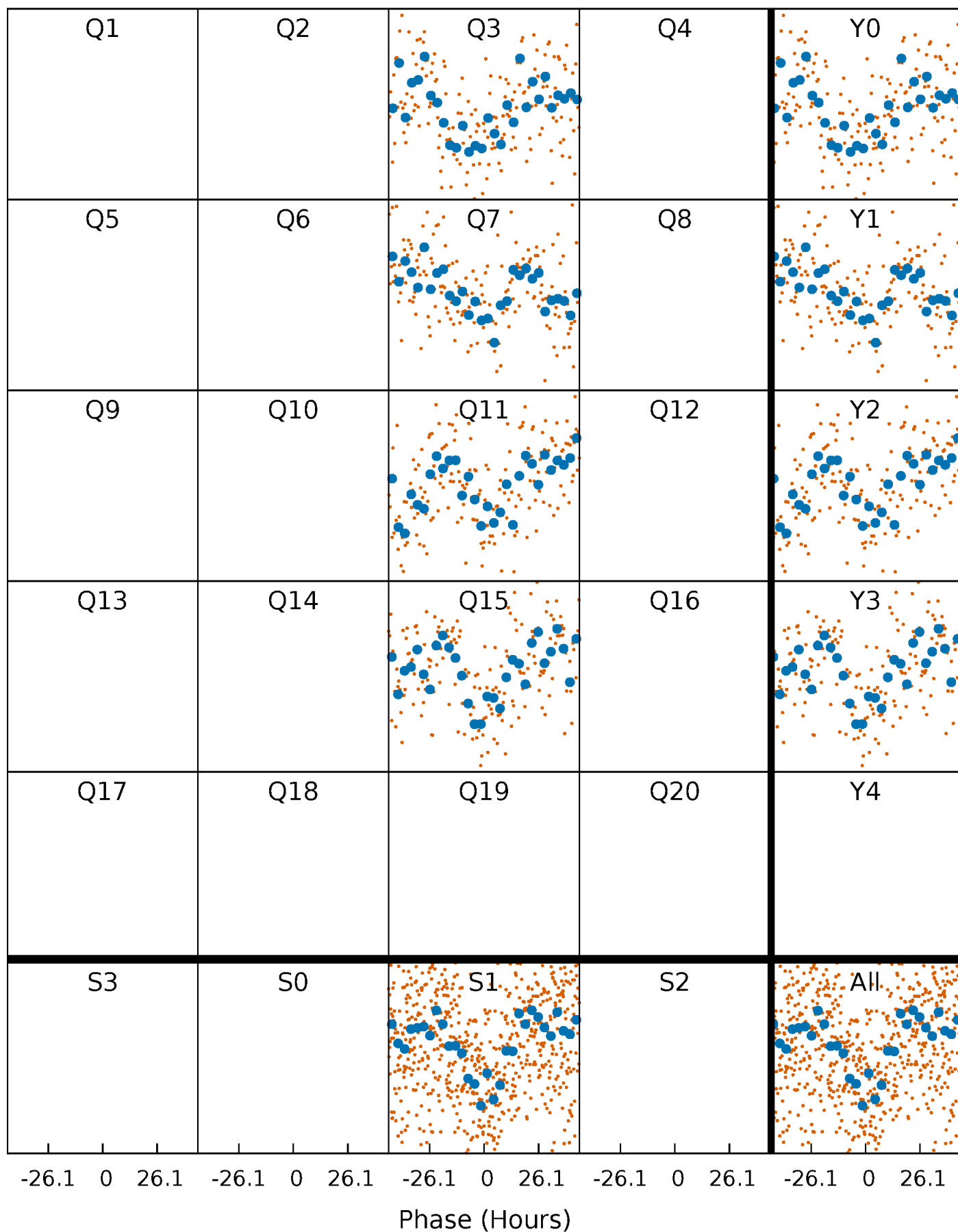


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



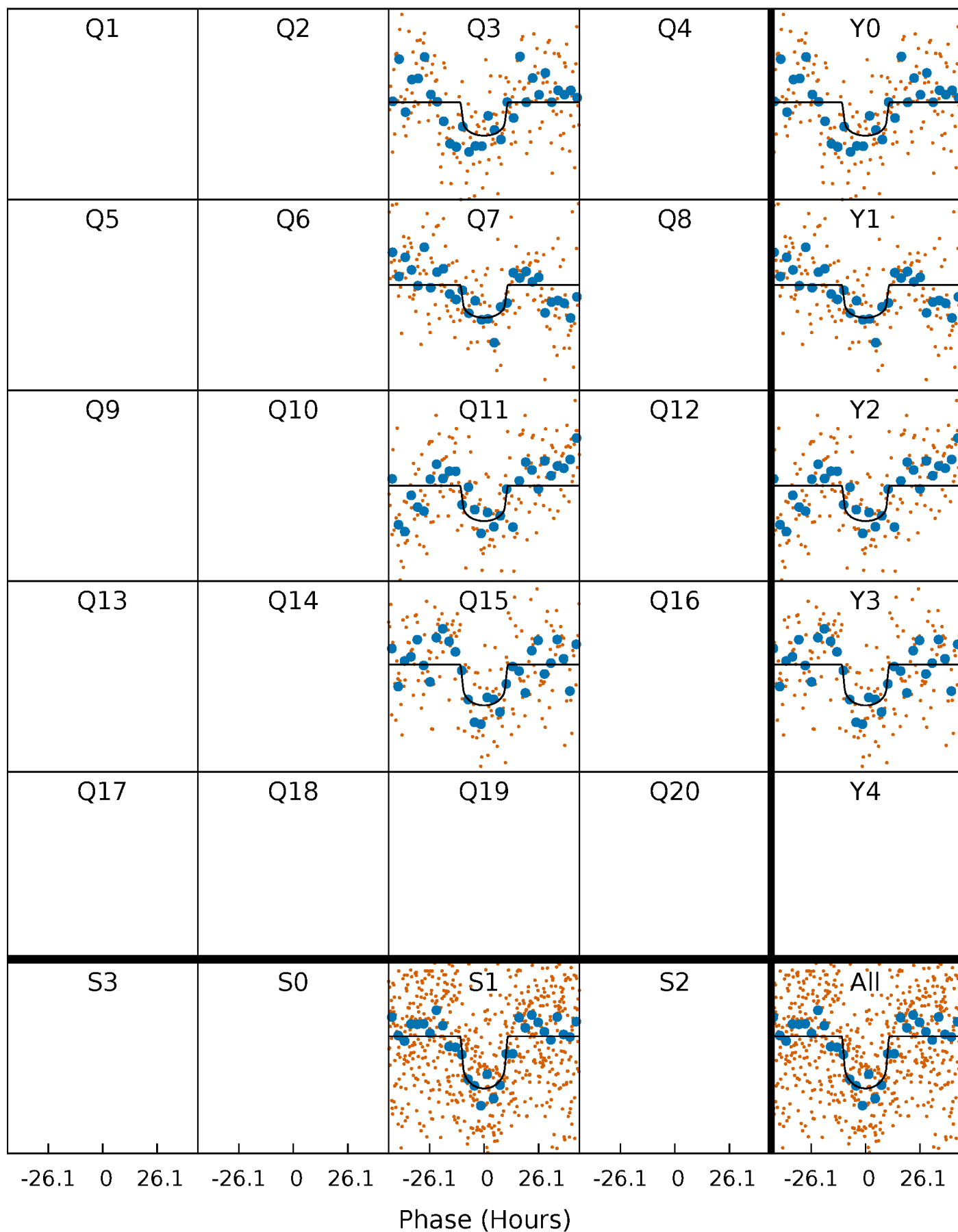
PDC Quarter-Phased Transit Curves

TCE 011953757-01 P=373.981343 Days $T_0=304.550483$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011953757-01 P=373.981343 Days $T_0=304.550483$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

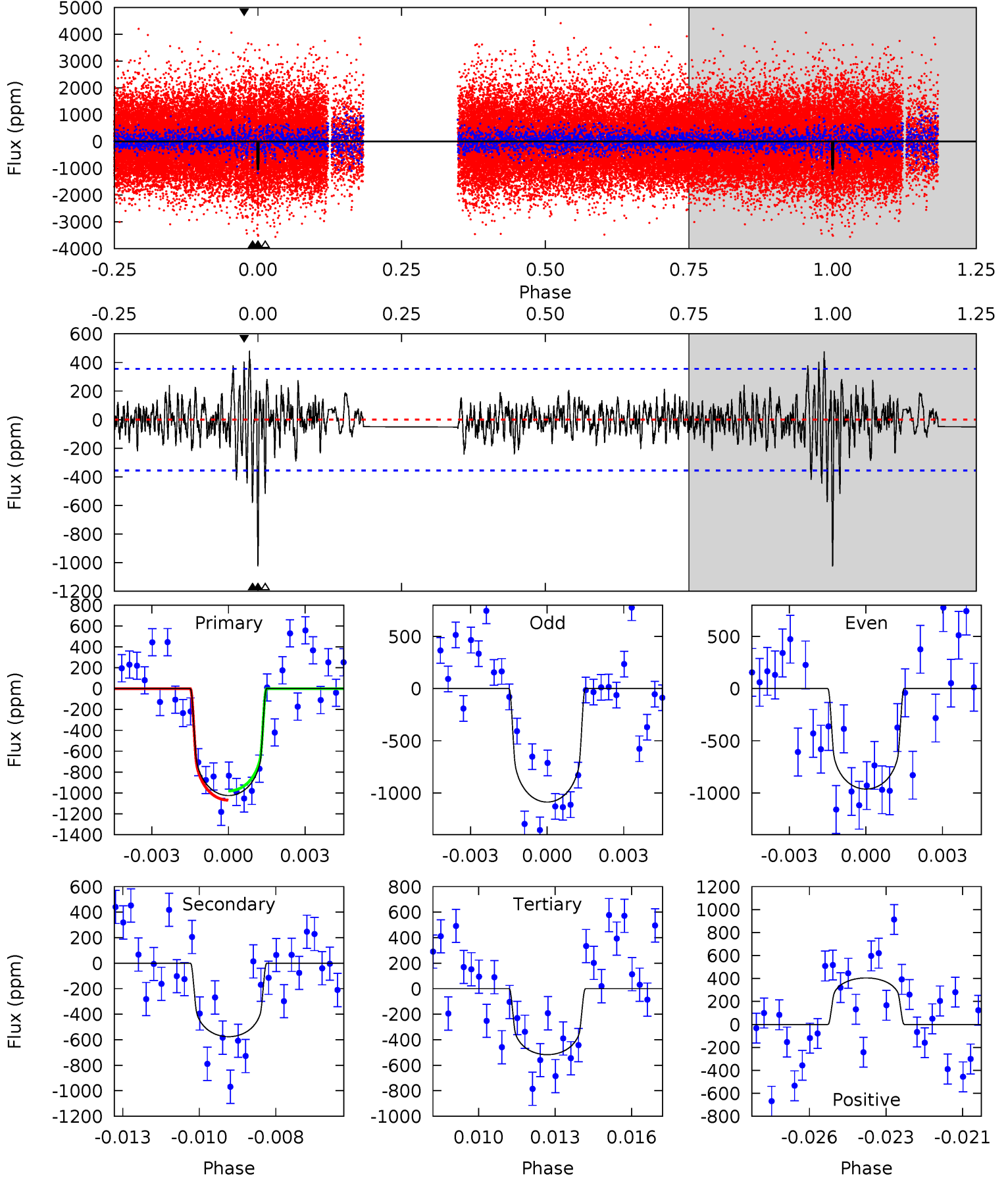
TCE 011953757-01 P=373.920526 Days $T_0=304.689160$ (BKJD)



DV Model-Shift Uniqueness Test

011953757-01, P = 373.981343 Days, E = 304.550483 Days

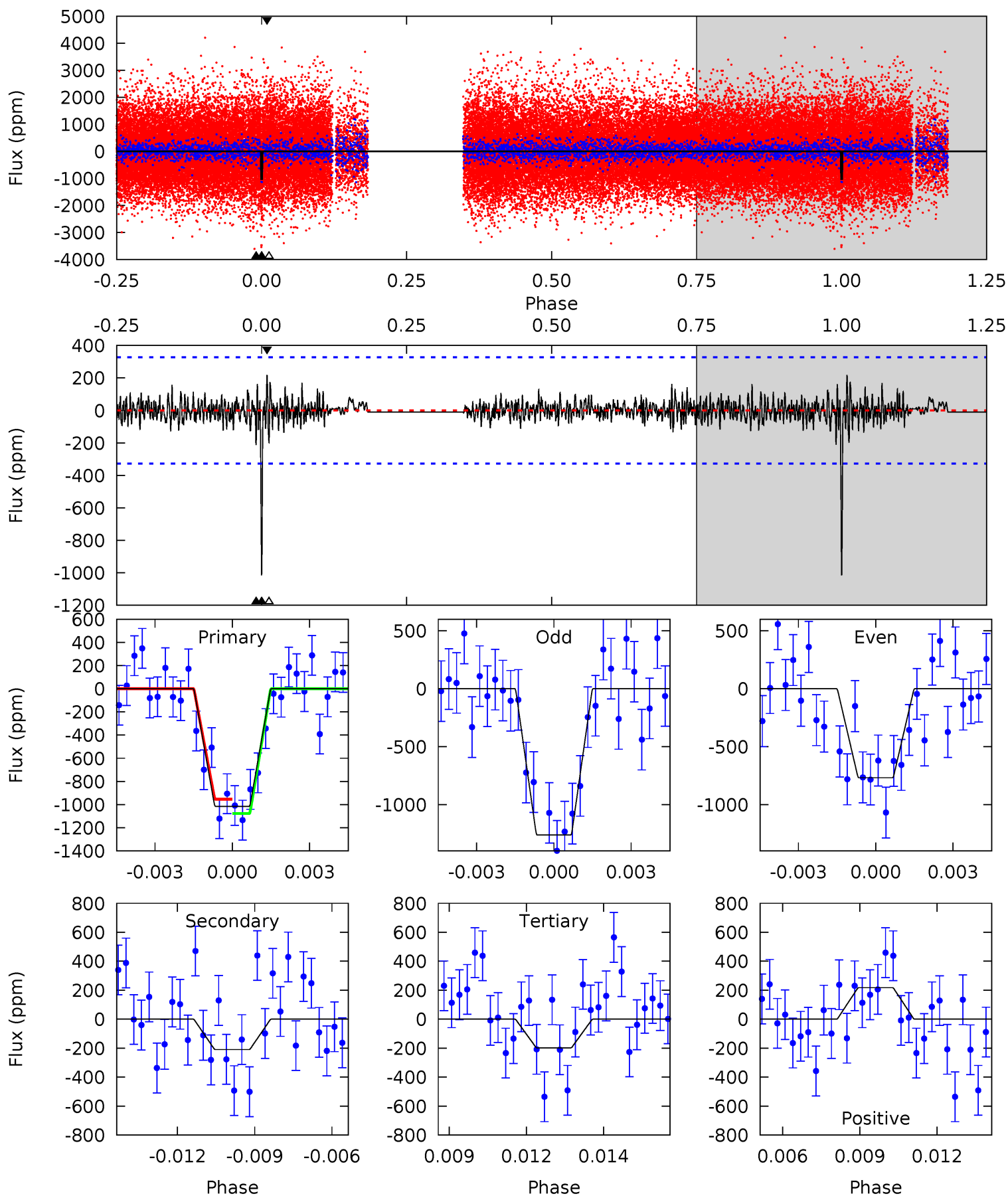
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	8.57	7.69	6.02	5.28	3.01	1.54	7.56	9.23	0.88	2.55	0.93	0.98	0.32	0.65



Alt Model-Shift Uniqueness Test

011953757-01, P = 373.920526 Days, E = 304.689160 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	3.37	3.18	3.50	5.26	2.98	0.77	13.1	12.8	0.19	-0.13	3.97	1.07	0.18	0.98



Stellar Parameters For KIC 011953757

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5403^{+162}_{-162}	$4.644^{+0.032}_{-0.091}$	$-0.580^{+0.350}_{-0.300}$	$0.684^{+0.107}_{-0.050}$	$0.759^{+0.075}_{-0.067}$	$3.342^{+0.451}_{-0.998}$
	+3%/-3%	+1%/-2%	+60%/-52%	+16%/-7%	+10%/-9%	+14%/-30%
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 011953757-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-576 ± 67	$2.37^{+0.52}_{-0.46}$	290^{+13}_{-11}	4818^{+487}_{-362}	47510^{+27218}_{-15905}
Alt.	-210 ± 62	$2.45^{+0.52}_{-0.48}$	290^{+12}_{-11}	3932^{+356}_{-315}	16167^{+10008}_{-6421}

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 $A_{obs} \gg 1.0$

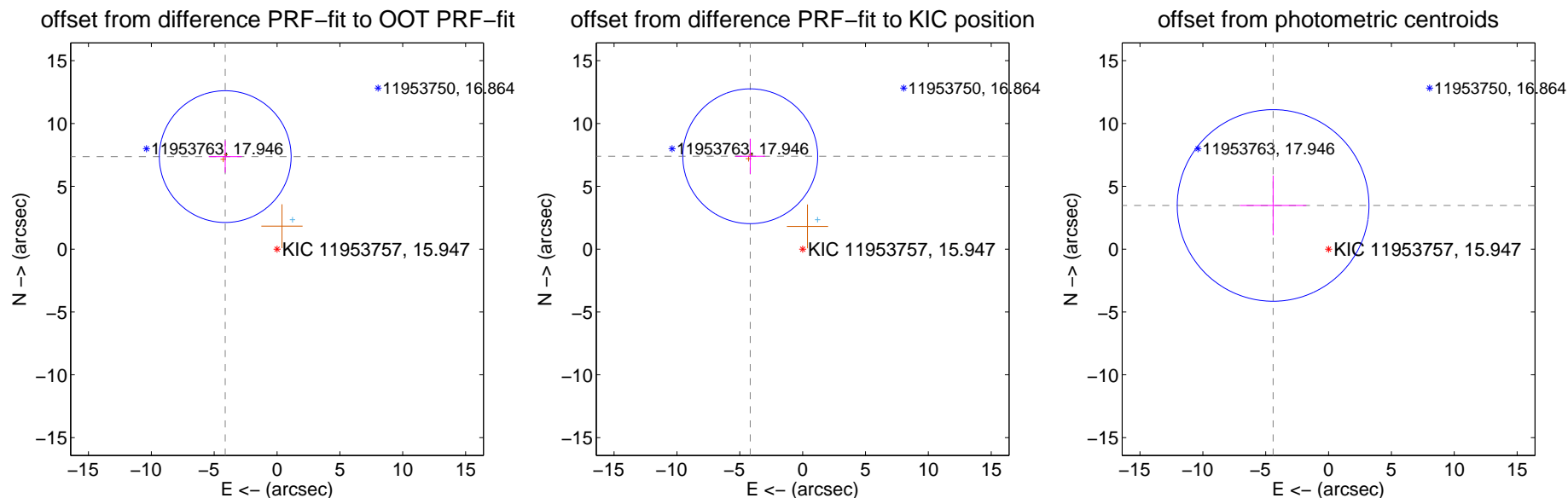
DV Centroid Data

Supplemental centroid analysis for 011953757-01. Kepler magnitude: 15.95. Transit SNR 8.11

There are 1 quarters with good PRF difference image offsets

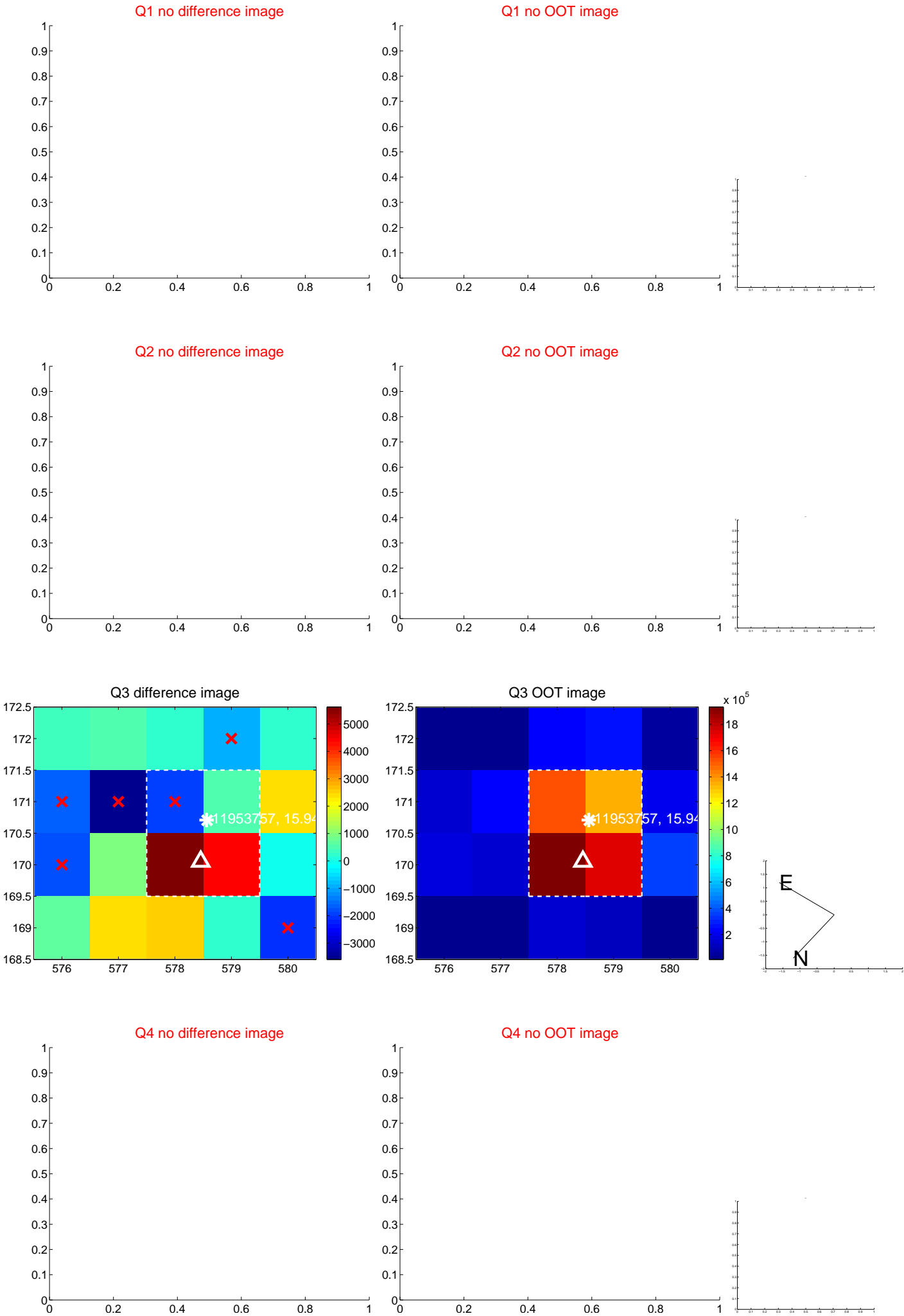
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.440 ± 1.747	4.83	4.122 ± 1.311	7.365 ± 1.283
PRF-fit source offset from KIC position	8.487 ± 1.788	4.75	4.168 ± 1.180	7.393 ± 1.400
photometric centroid source offset	5.62 ± 2.54	2.21	4.41 ± 2.64	3.48 ± 2.37

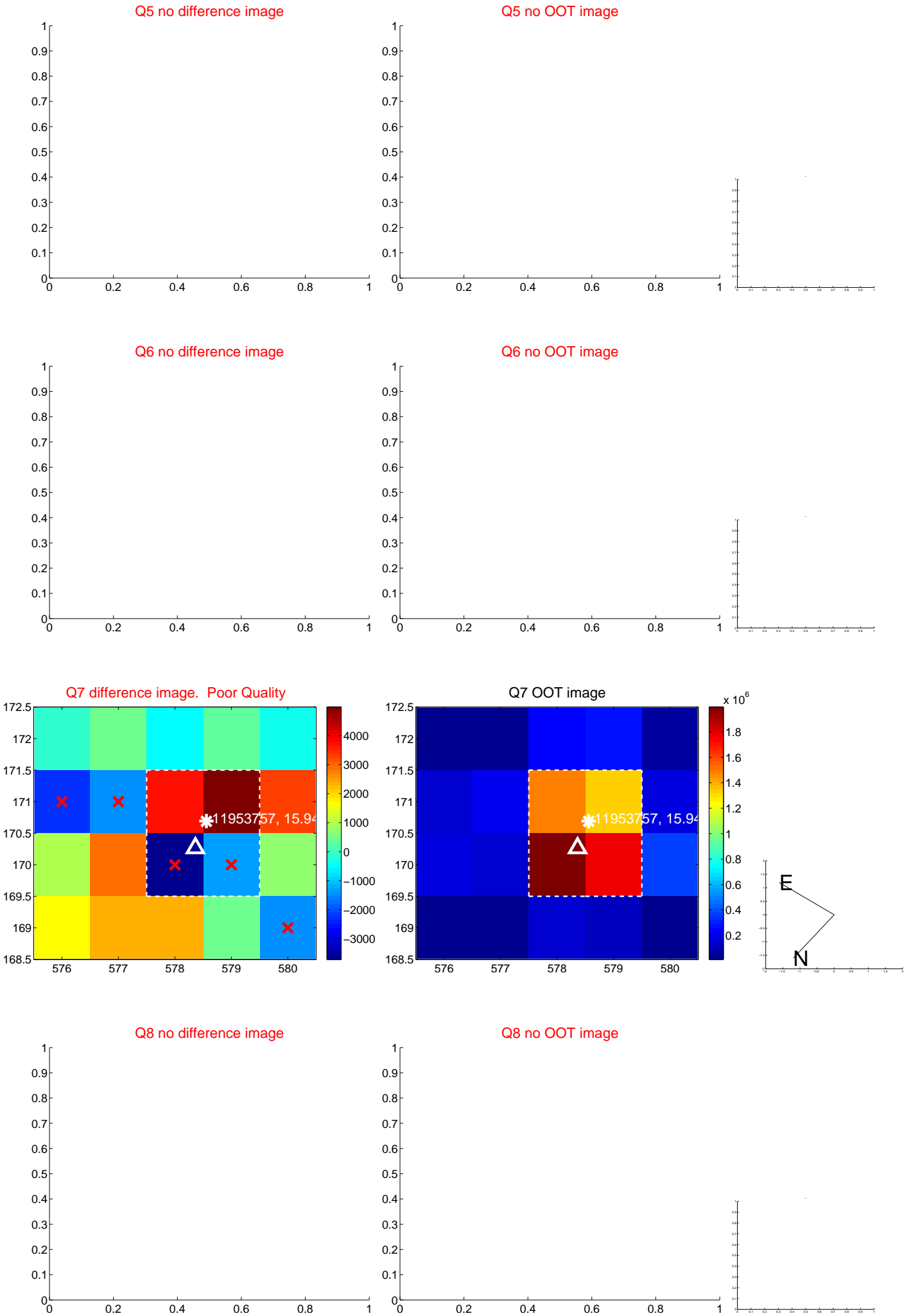


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

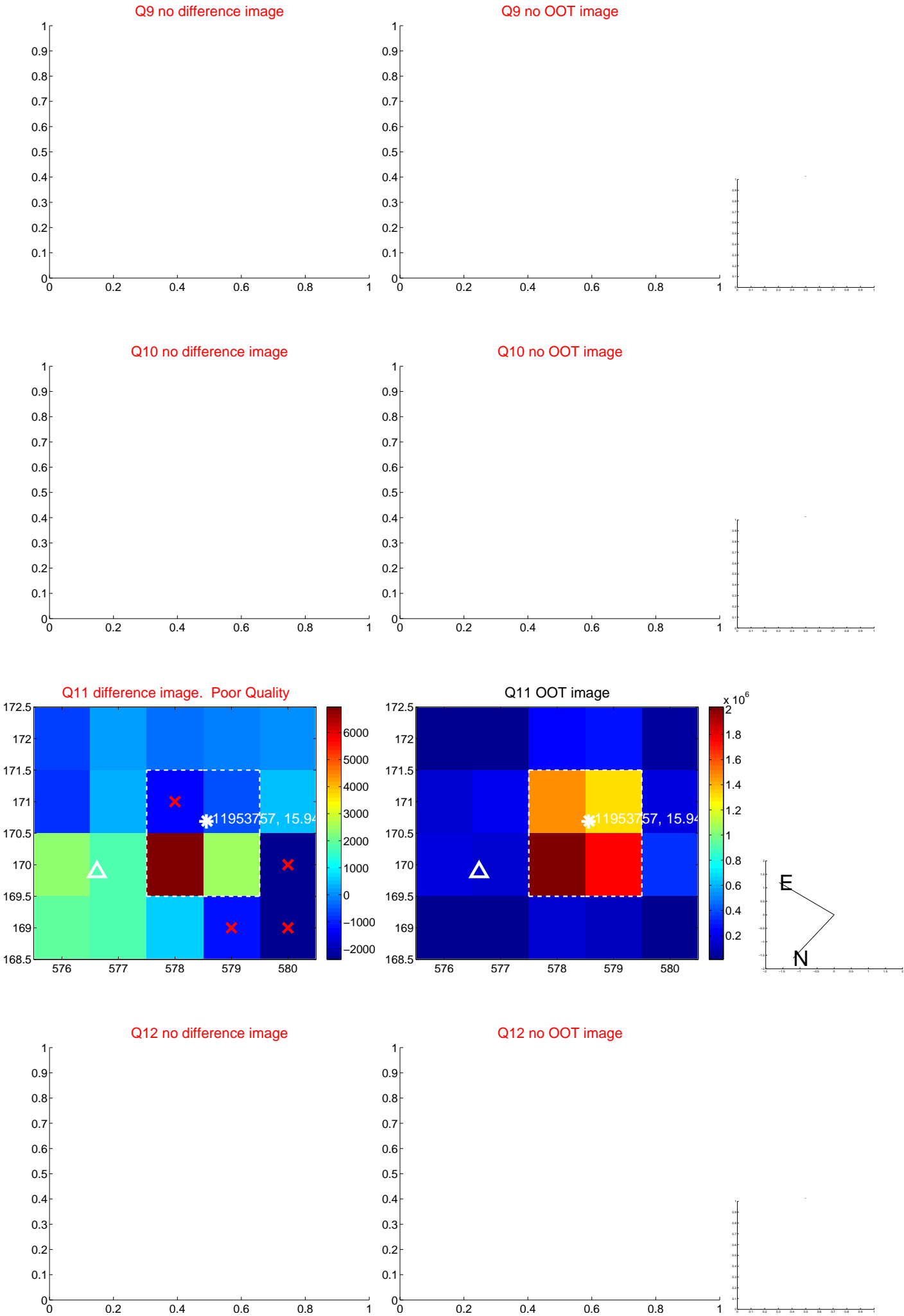
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



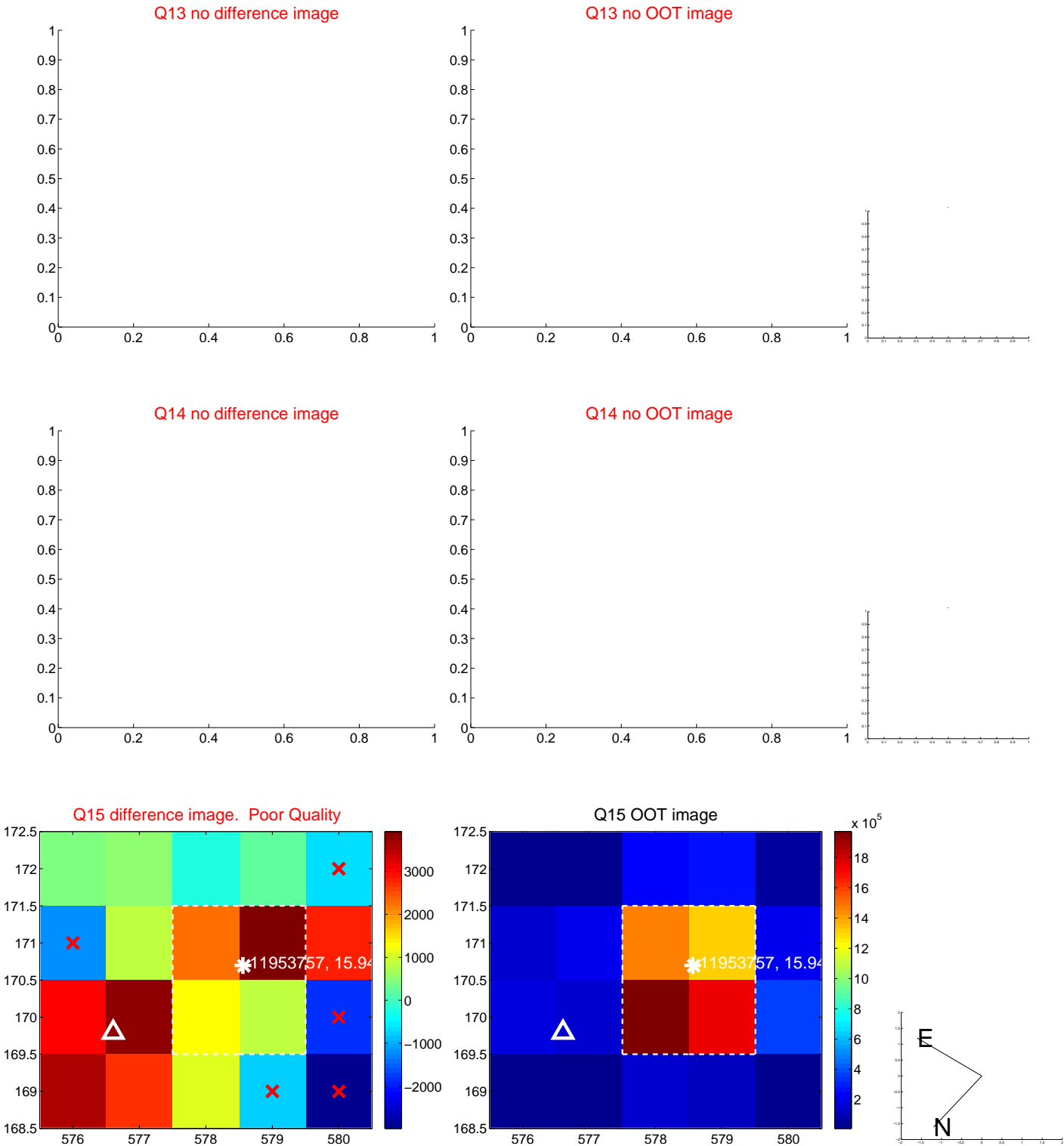
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



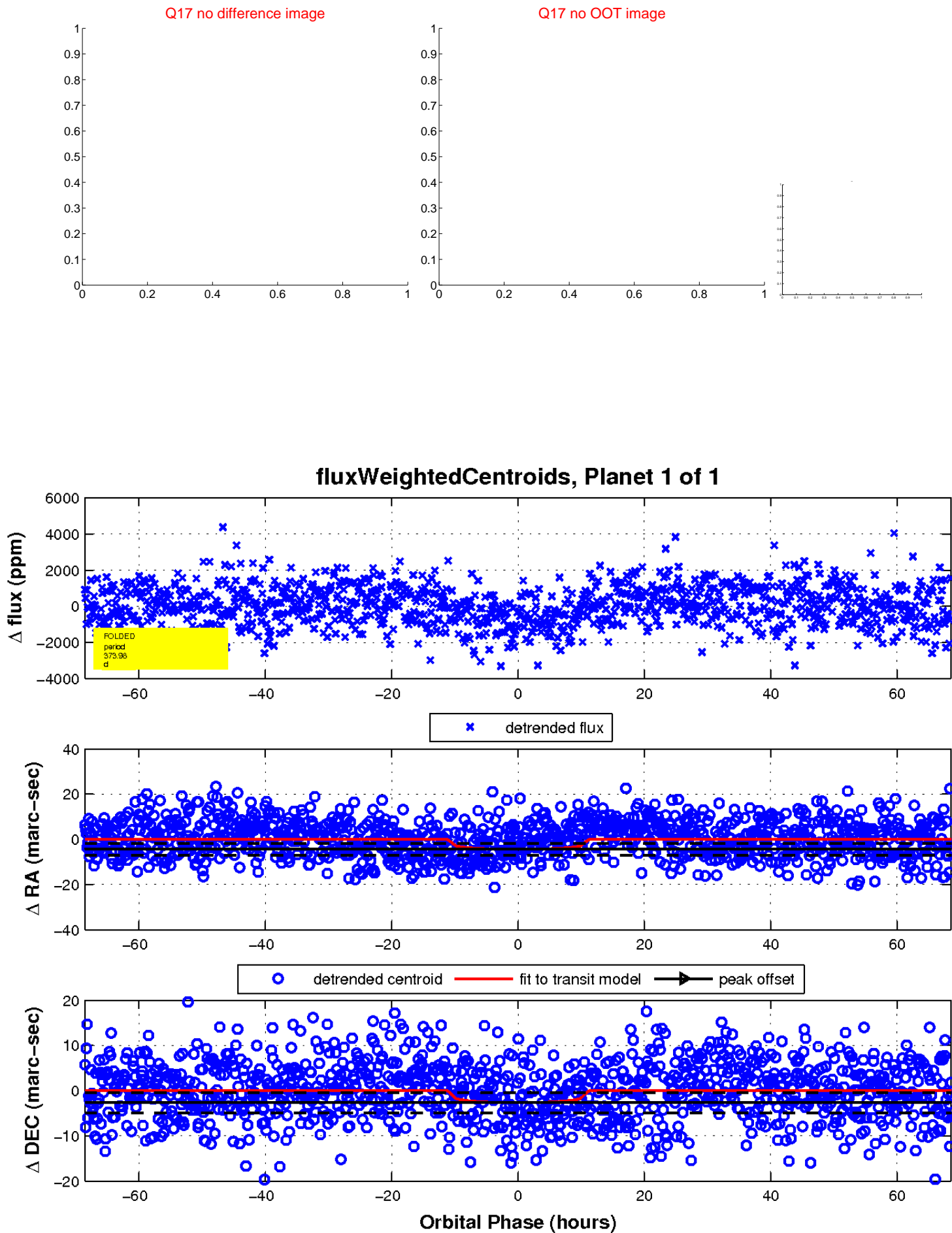
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

