

KIC 007757897

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})
007757897-01	OBS	No	389.830402	377.417805	952.4	12.062	7.8	8.2	1.08	6116	3.37	1.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007757897-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

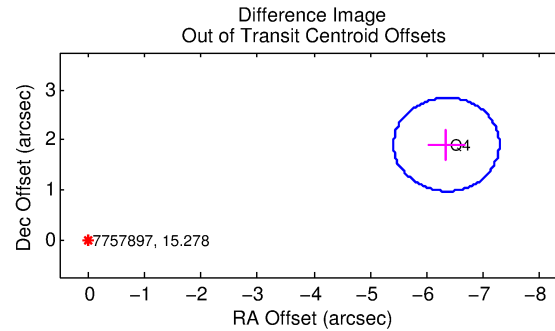
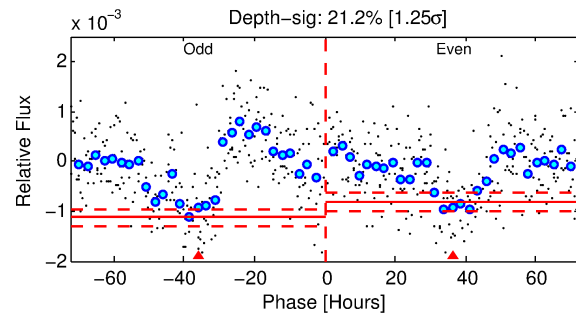
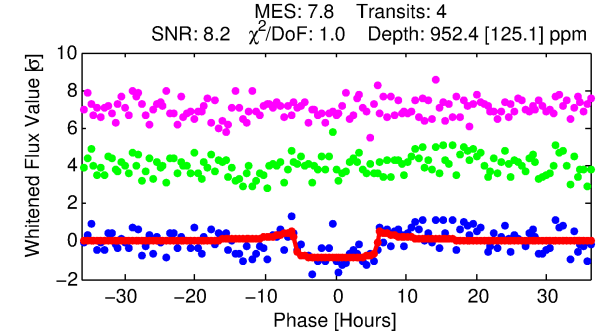
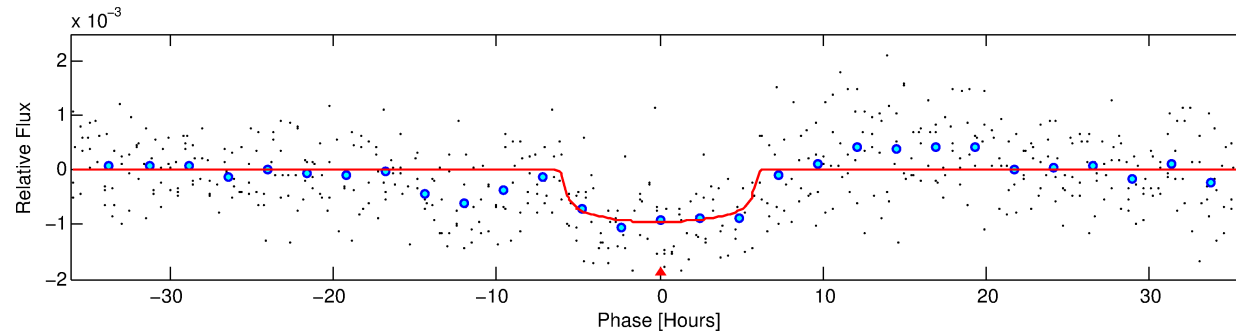
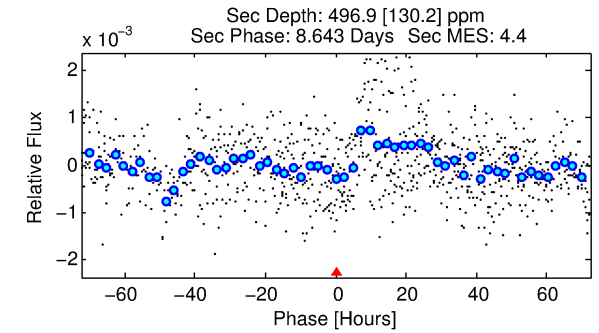
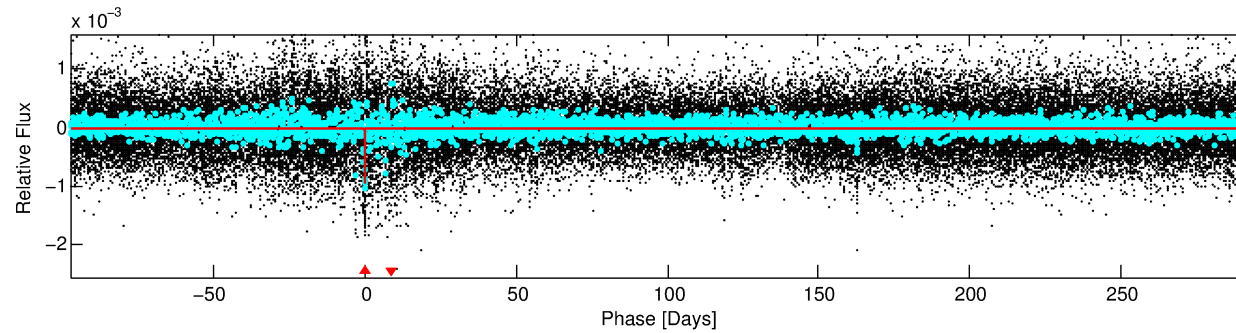
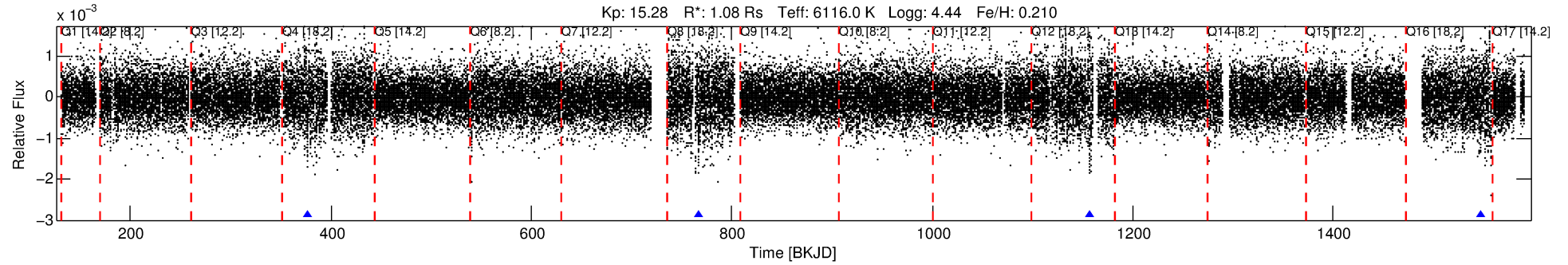
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007757897-01

No Significant Match Found

DV One-Page Summary

KIC: 7757897 Candidate: 1 of 1 Period: 389.830 d



DV Fit Results:

Period = 389.83040 [0.00672] d
Epoch = 377.4178 [0.0137] BKJD
Rp/R* = 0.0285 [0.0132]
a/R* = 239.12 [504.67]
b = 0.35 [5.38]
Seff = 1.21 [0.52]
Teq = 267 [29] K
Rp = 3.37 [1.91] Re
a = 1.1040 [0.3026] AU
Ag = 29297.21 [30469.79] [0.96σ]
Teff = 5408 [1319] K [3.90σ]

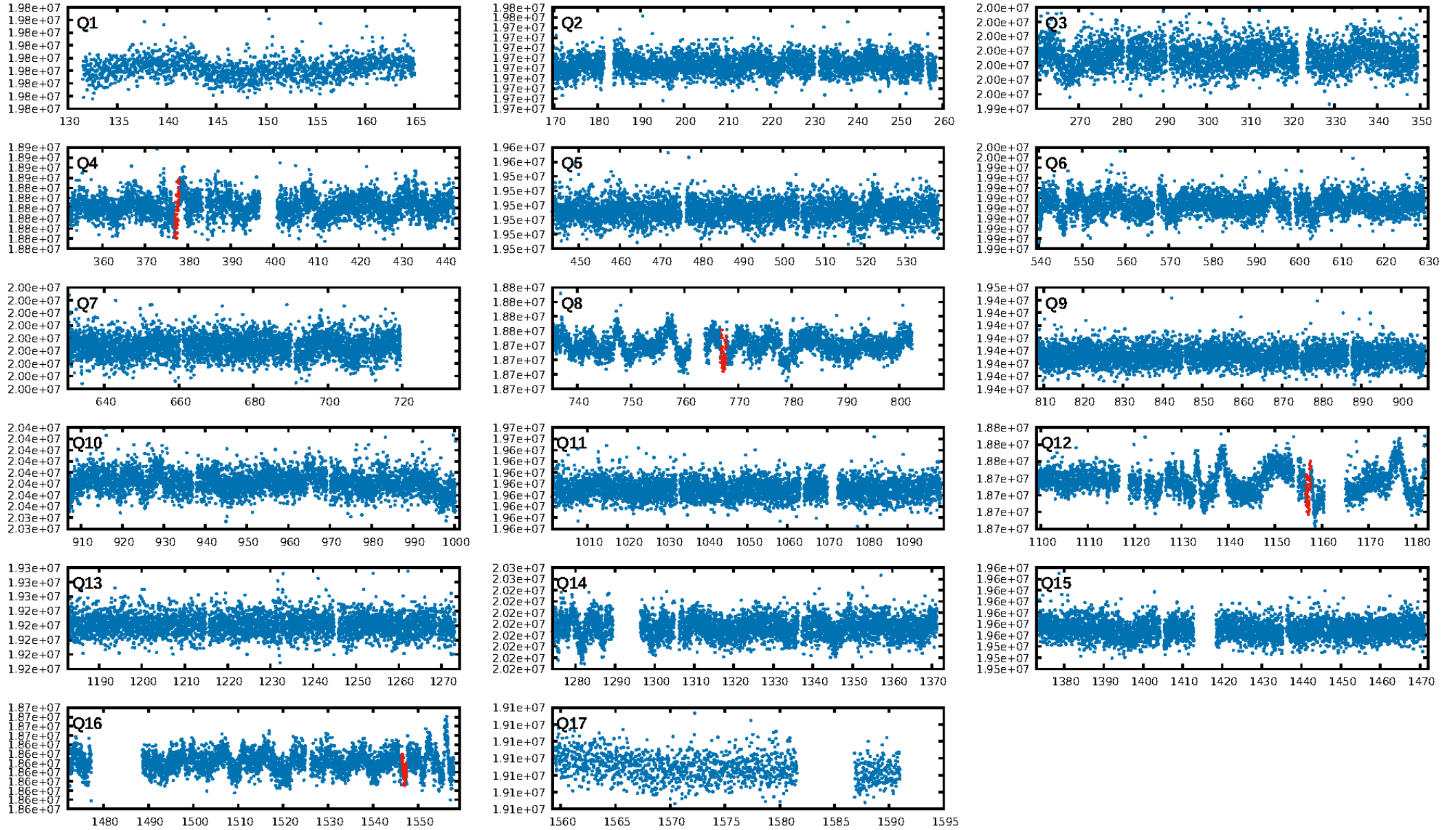
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.7%
ModelChiSquareGoF-sig: 99.9%
Bootstrap-pfa: 2.98e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -4.048
Centroid-sig: 0.0%
Centroid-so: 4.070 arcsec [2.40σ]
OotOffset-rm: 6.626 arcsec [21.26σ]
KicOffset-rm: 6.516 arcsec [20.91σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

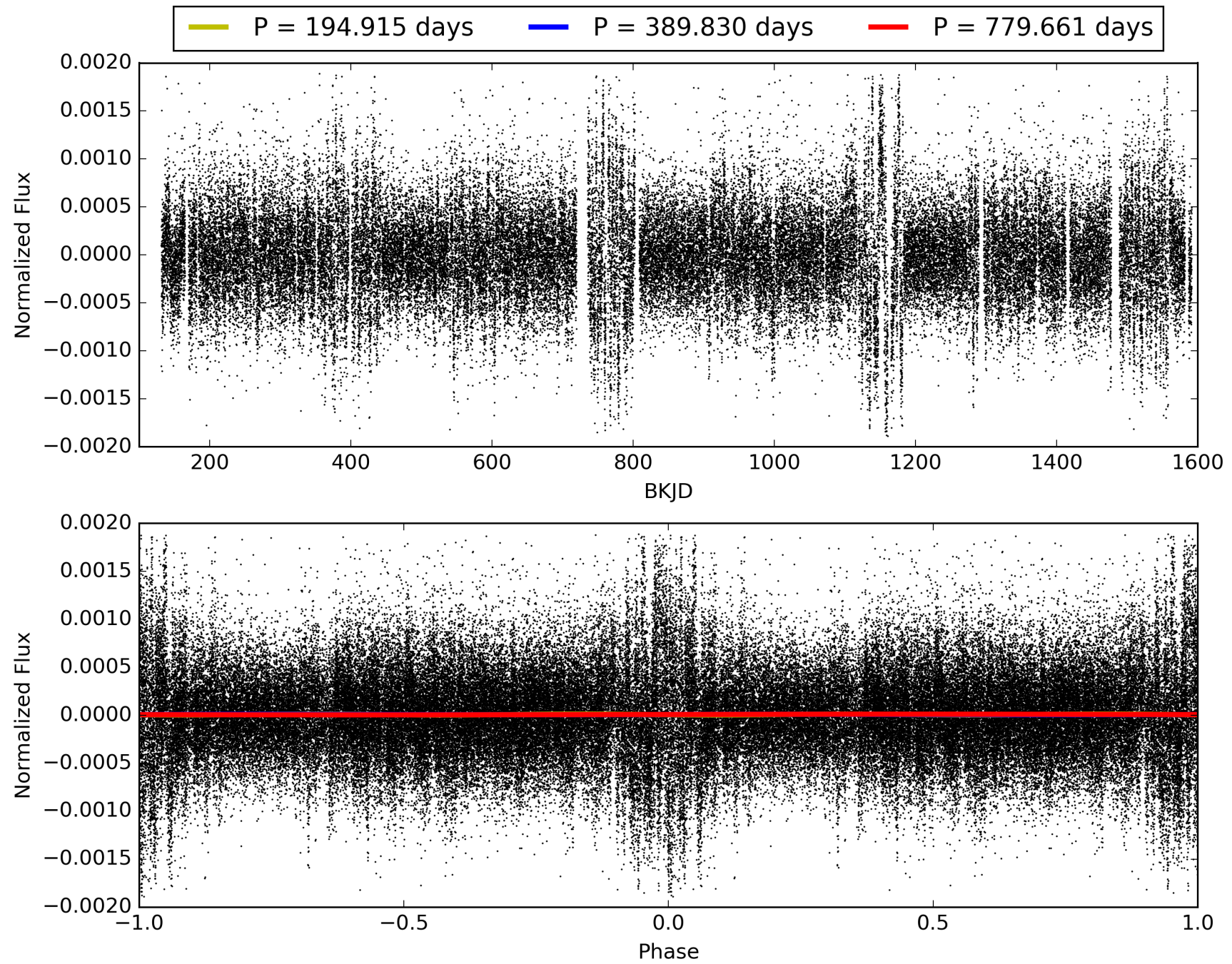
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:21:57 Z

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

TCE 007757897-01, PDC Light Curves

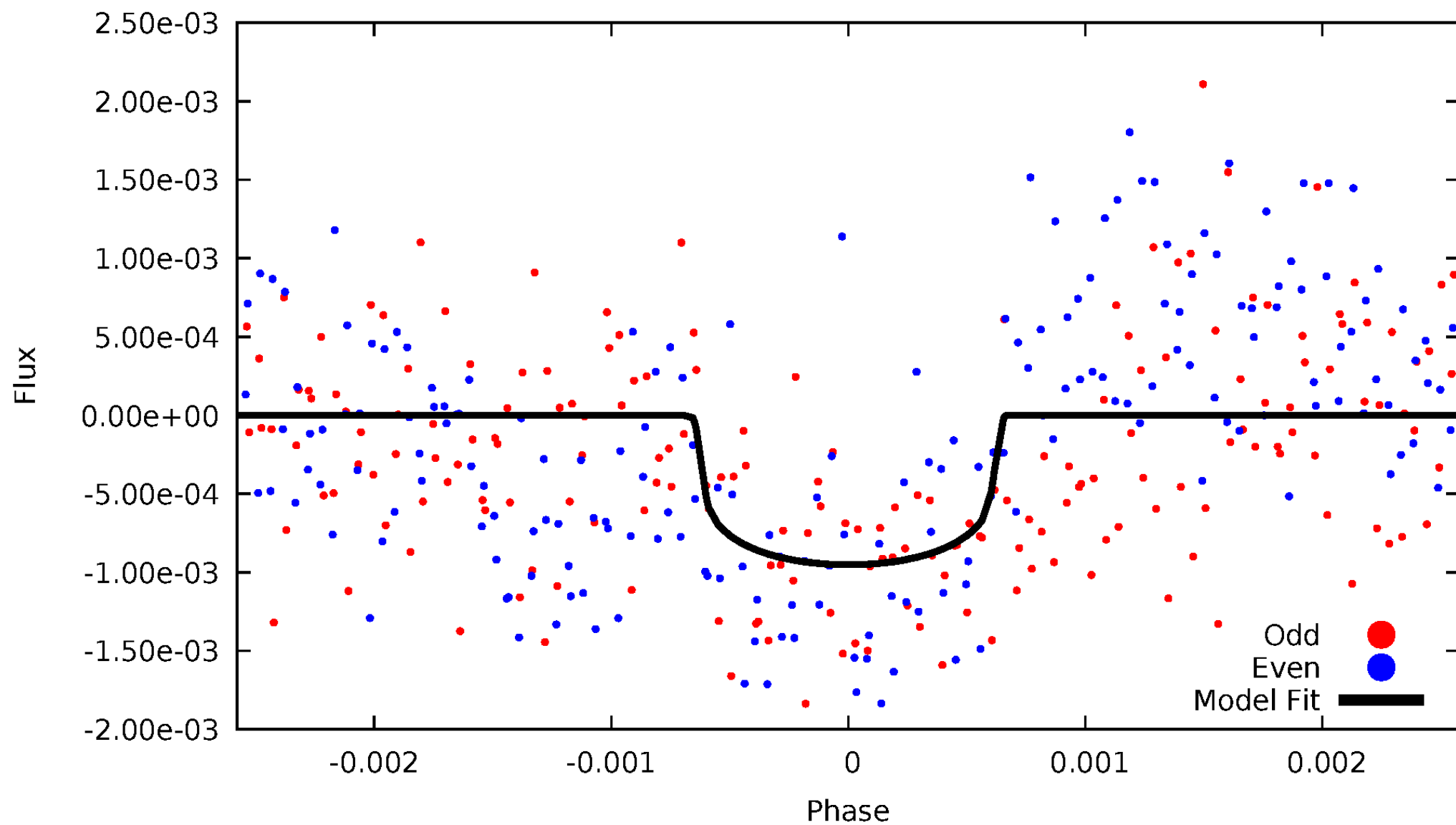


TCE 007757897-01



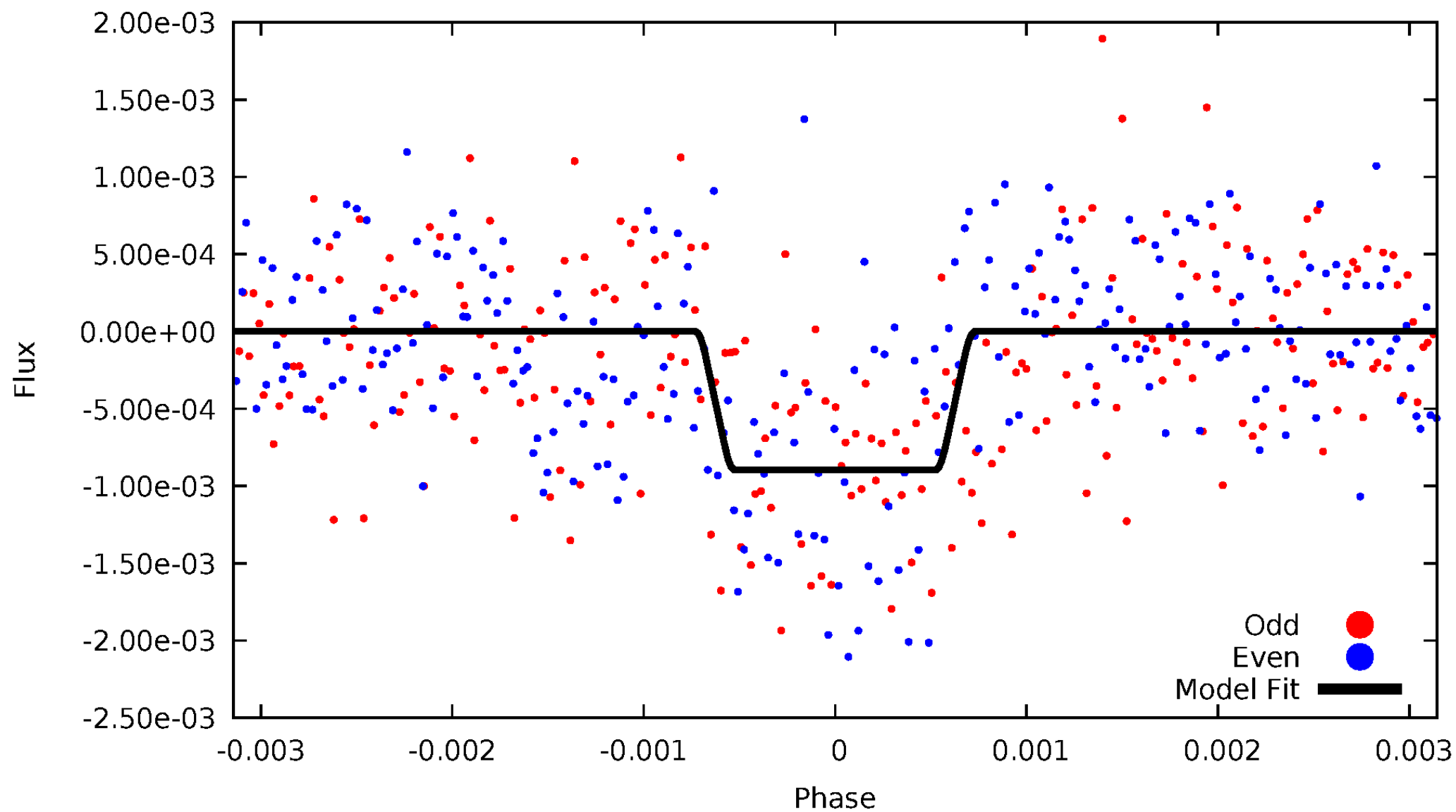
DV Odd/Even

TCE 007757897-01



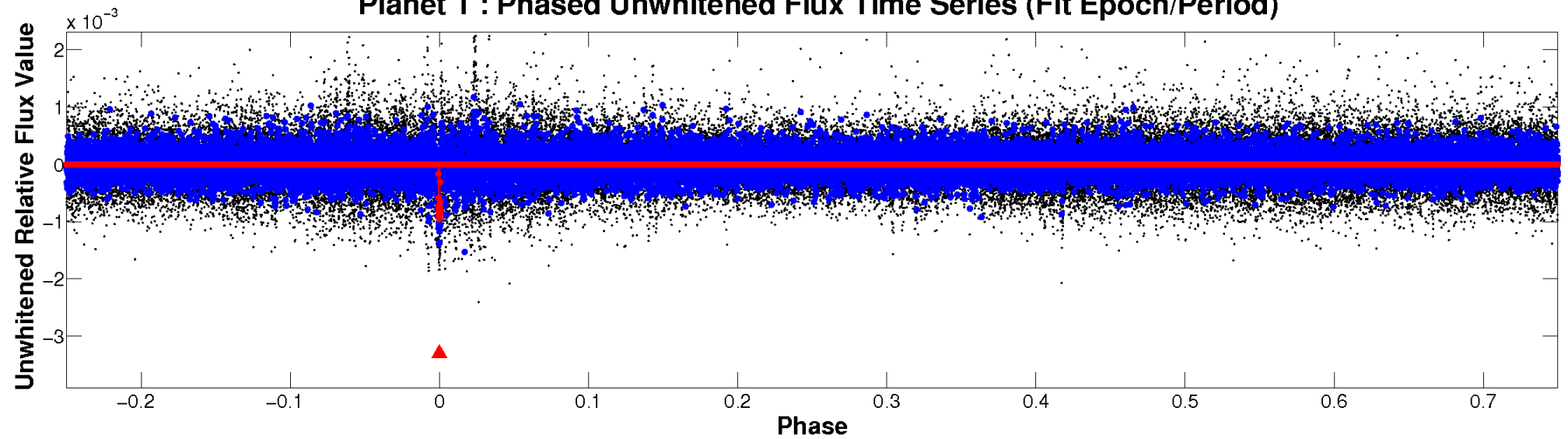
ALT Odd/Even

TCE 007757897-01

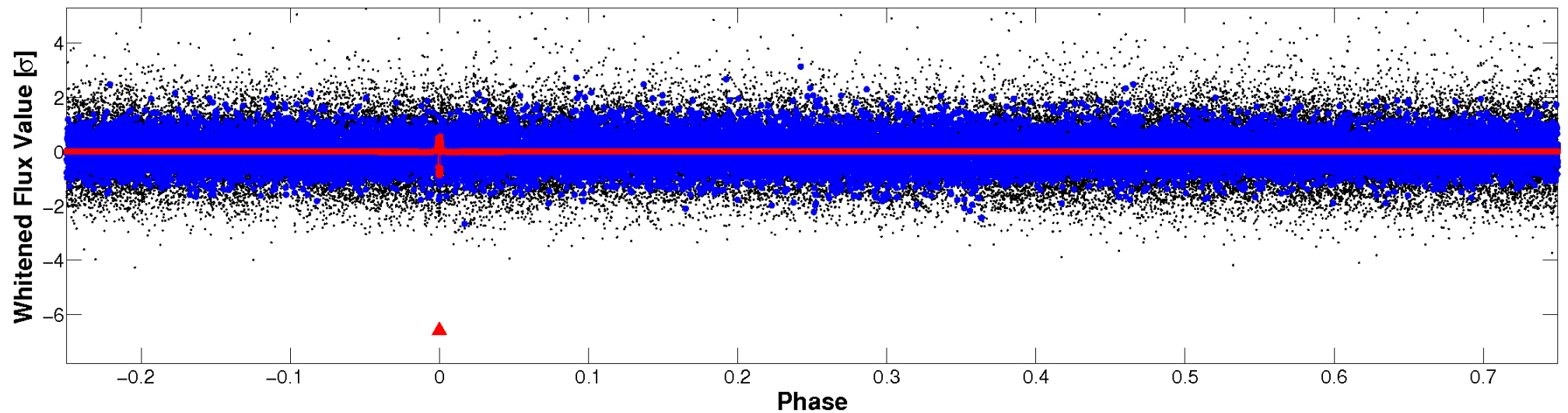


Non-Whitened Vs. Whitened Light Curve

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

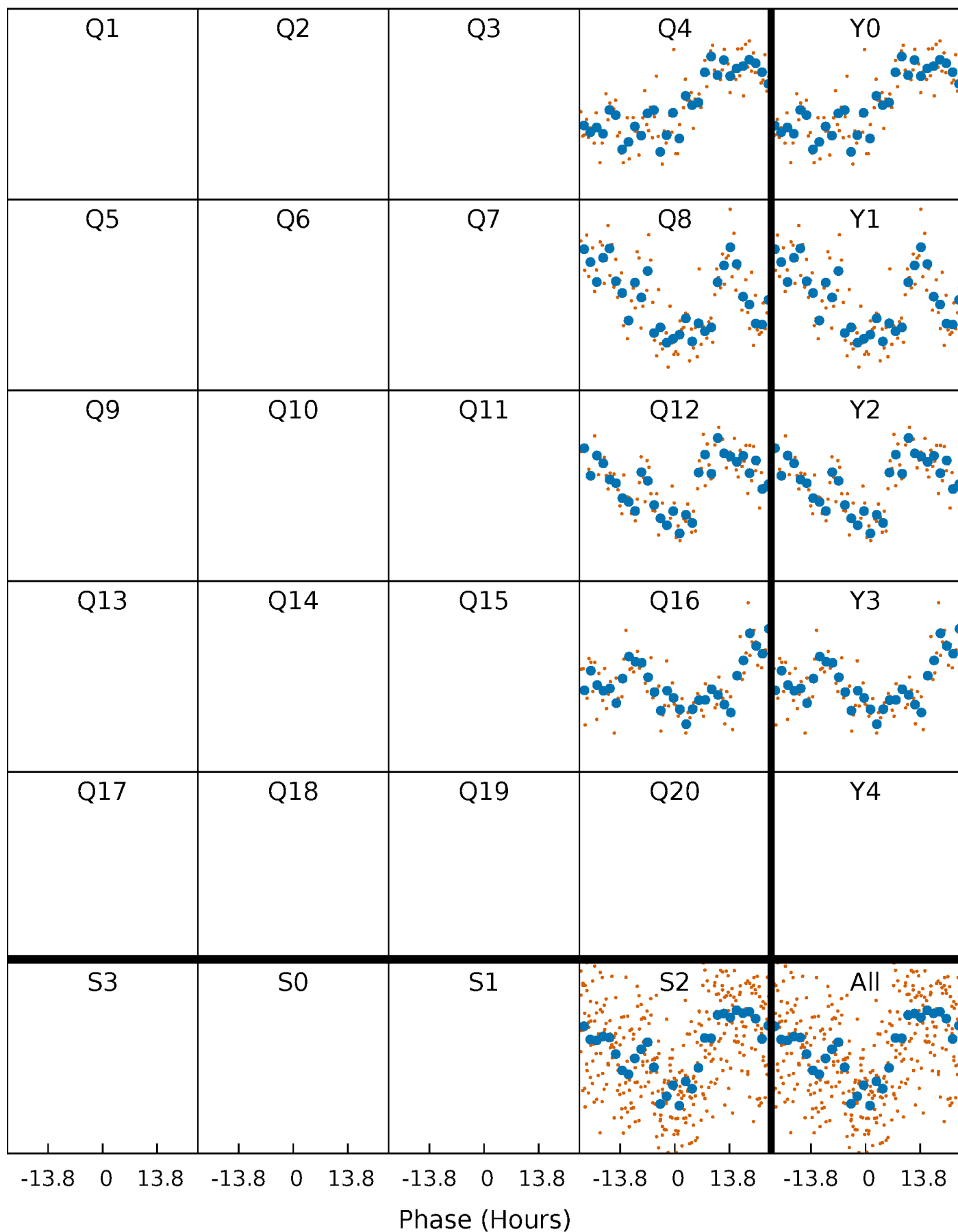


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 007757897-01 P=389.830402 Days $T_0=377.417805$ (BKJD)



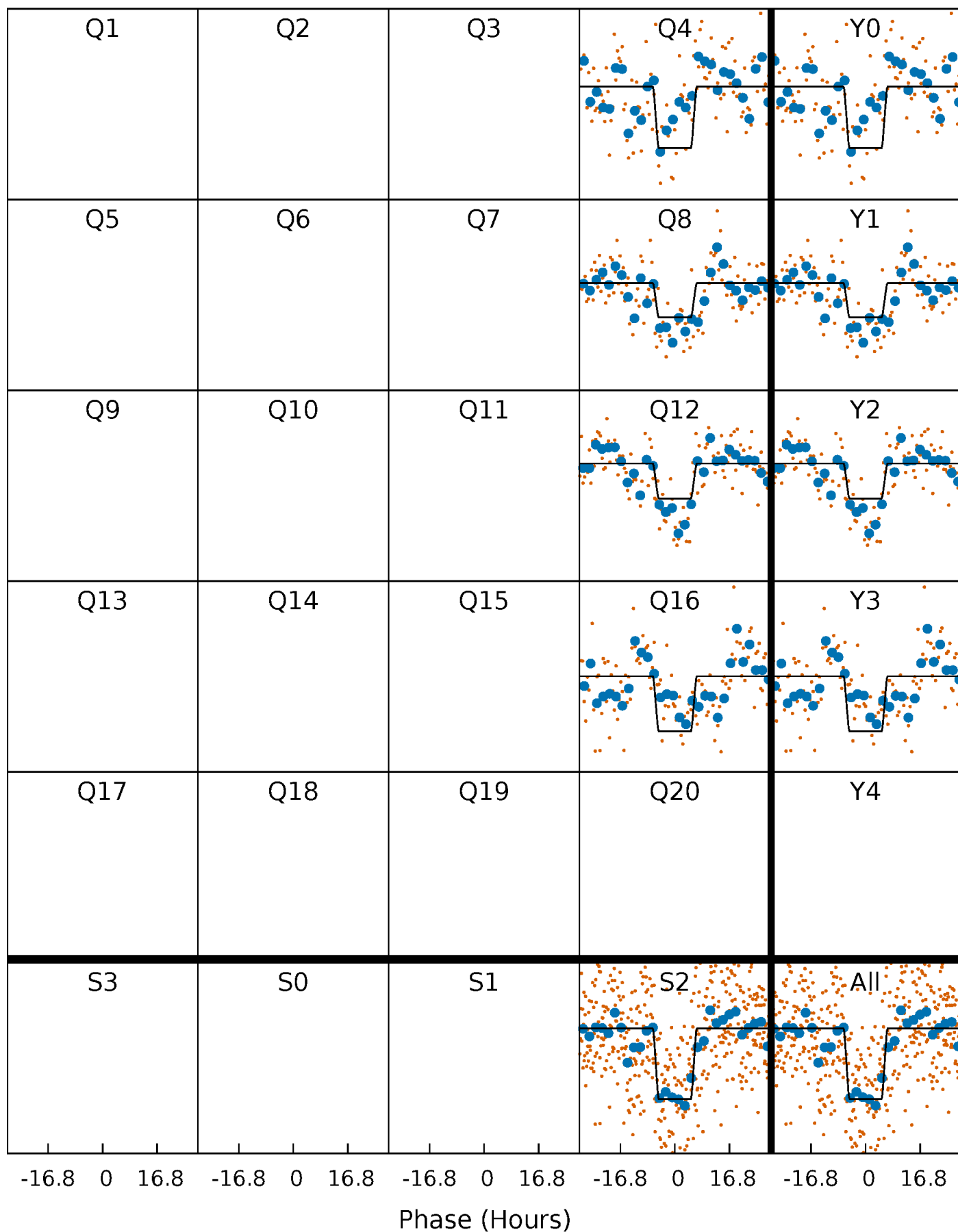
DV Quarter-Phased Transit Curves

TCE 007757897-01 P=389.830402 Days $T_0=377.417805$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

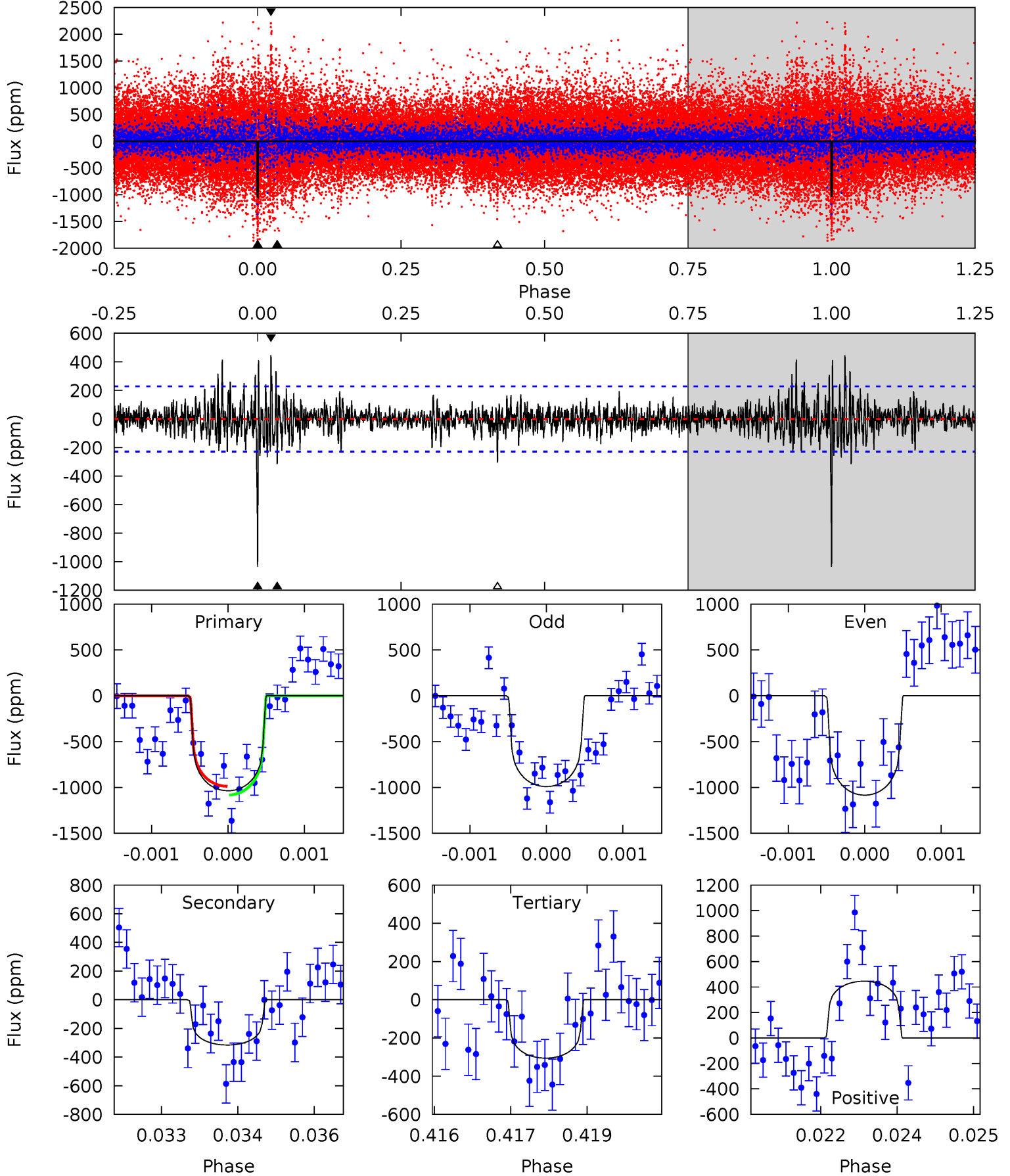
TCE 007757897-01 P=389.817835 Days $T_0=377.470240$ (BKJD)



DV Model-Shift Uniqueness Test

007757897-01, P = 389.830402 Days, E = 377.417805 Days

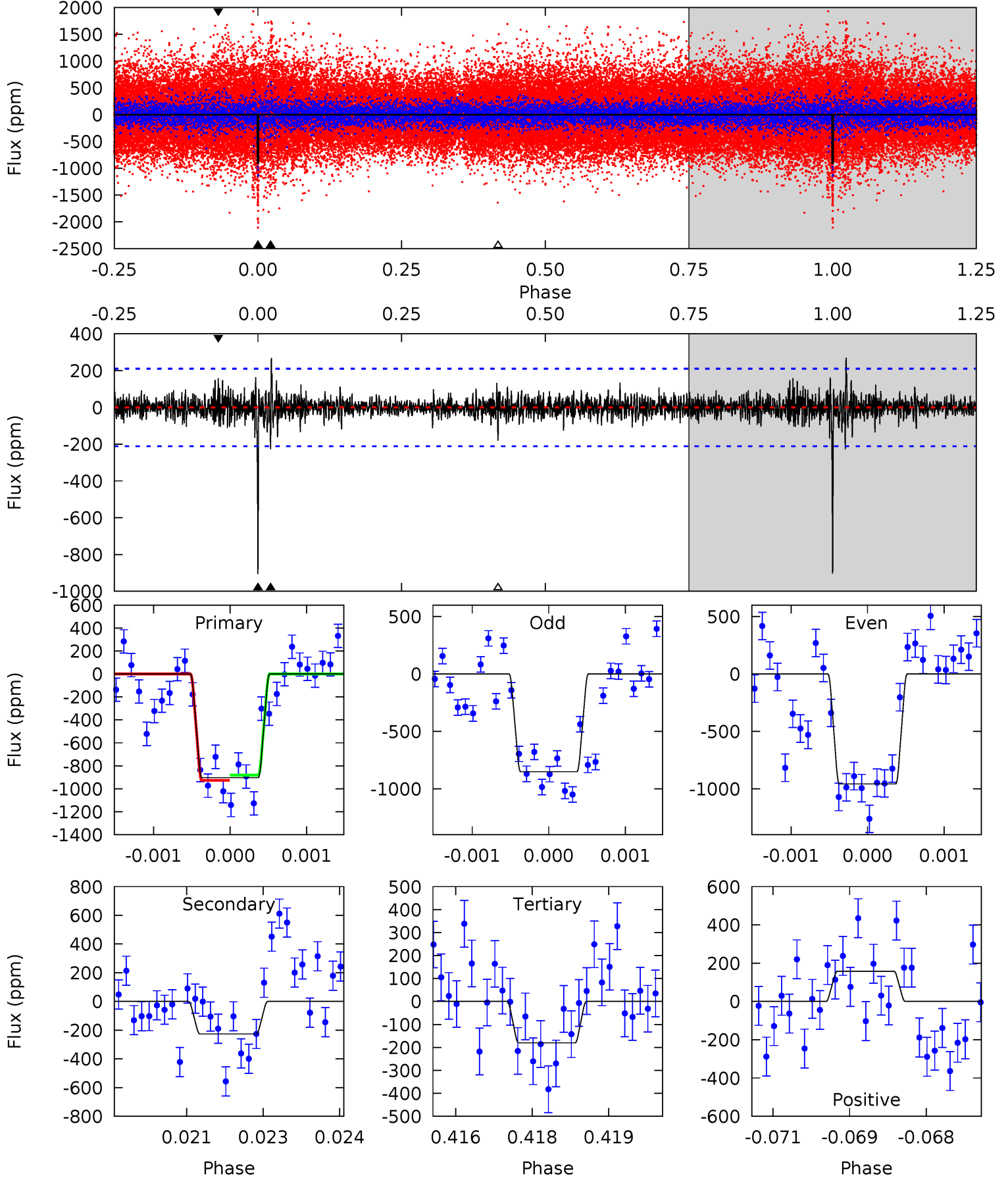
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	7.47	7.23	10.5	5.40	3.21	1.71	17.3	14.0	0.24	-3.07	1.11	1.02	0.30	1.11



Alt Model-Shift Uniqueness Test

007757897-01, P = 389.817835 Days, E = 377.470240 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.1	5.78	4.61	4.04	5.39	3.19	0.99	18.5	19.0	1.17	1.74	1.36	1.04	0.23	0.59



Stellar Parameters For KIC 007757897

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6116^{+169}_{-253}	$4.440^{+0.054}_{-0.216}$	$0.210^{+0.150}_{-0.300}$	$1.084^{+0.355}_{-0.118}$	$1.181^{+0.136}_{-0.151}$	$1.307^{+0.362}_{-0.706}$
	+3%/-4%	+1%/-5%	+71%/-143%	+33%/-11%	+12%/-13%	+28%/-54%
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 007757897-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-316 ± 42	$3.67^{+1.58}_{-1.70}$	381^{+29}_{-20}	4908^{+1555}_{-714}	15953^{+38283}_{-8813}
Alt.	-226 ± 39	$3.81^{+1.86}_{-1.74}$	380^{+31}_{-19}	4446^{+1352}_{-574}	9934^{+25403}_{-5348}

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 $A_{obs} \gg 1.0$

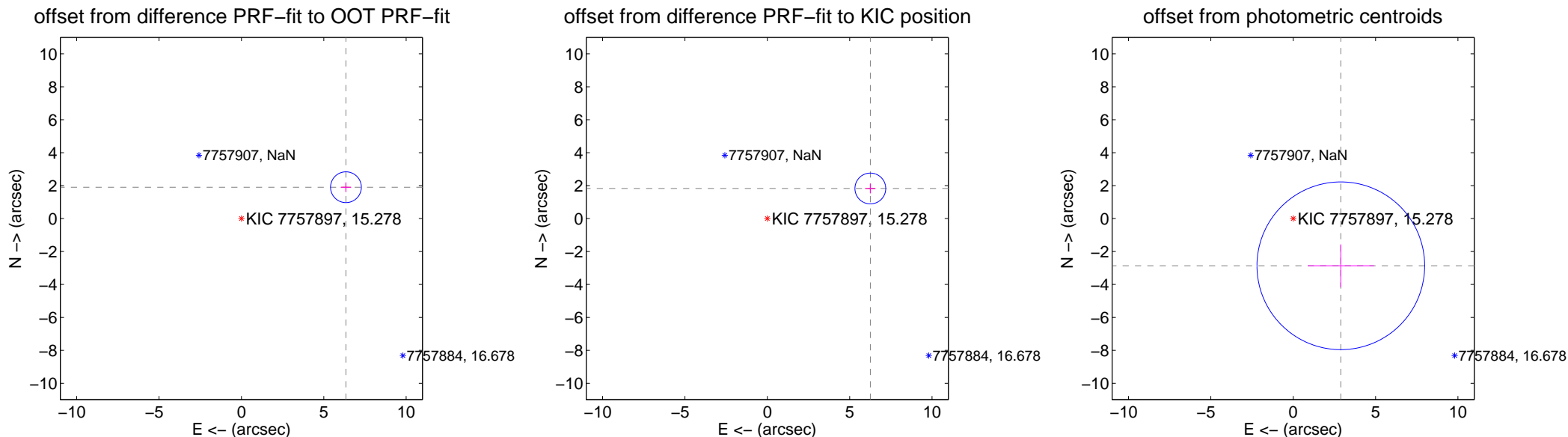
DV Centroid Data

Supplemental centroid analysis for 007757897-01. Kepler magnitude: 15.28. Transit SNR 8.24

There are 0 quarters with good PRF difference image offsets

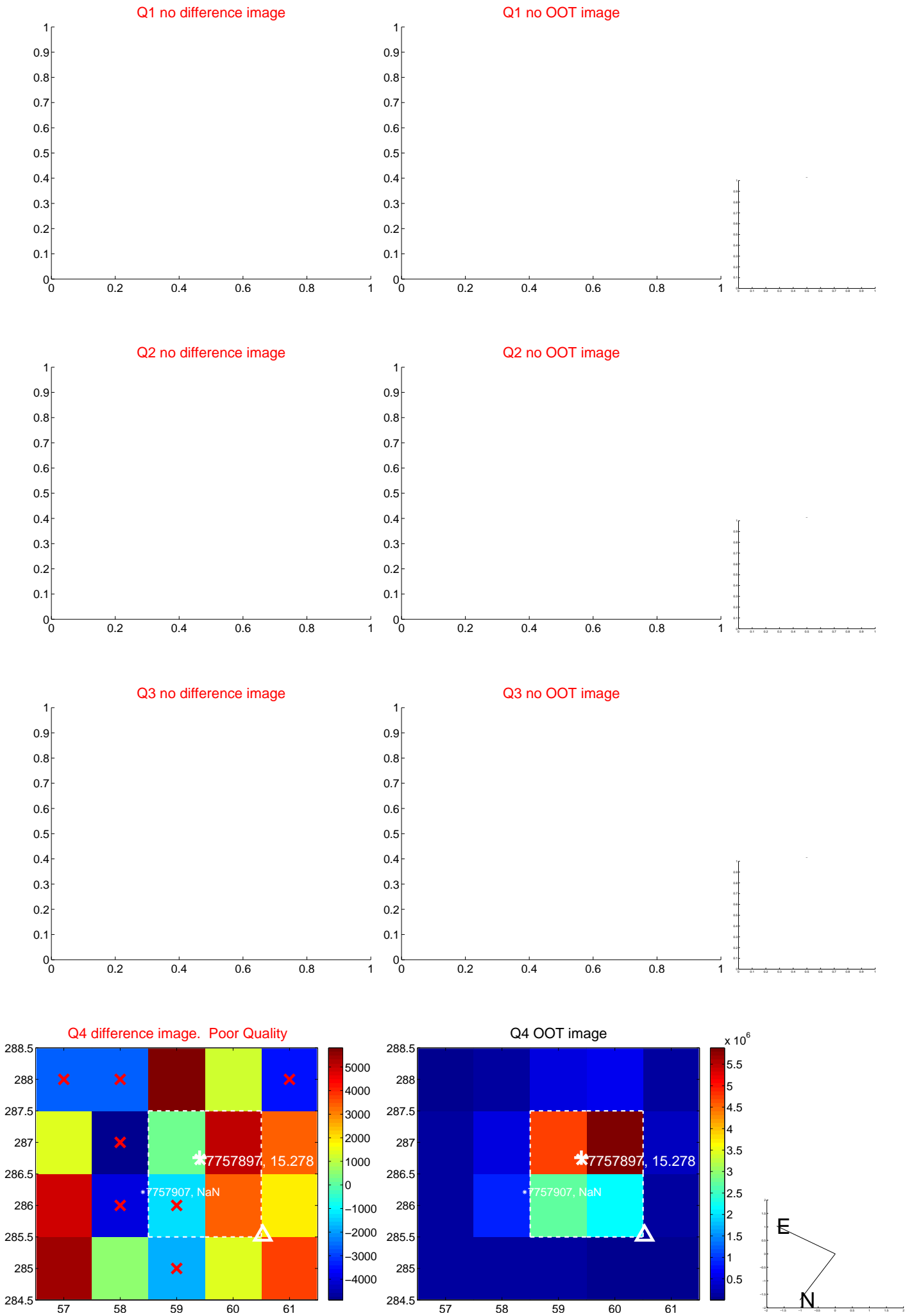
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.626 ± 0.312	21.26	-6.346 ± 0.313	1.904 ± 0.294
PRF-fit source offset from KIC position	6.516 ± 0.312	20.91	-6.255 ± 0.313	1.826 ± 0.294
photometric centroid source offset	4.07 ± 1.70	2.40	-2.89 ± 2.01	-2.87 ± 1.30

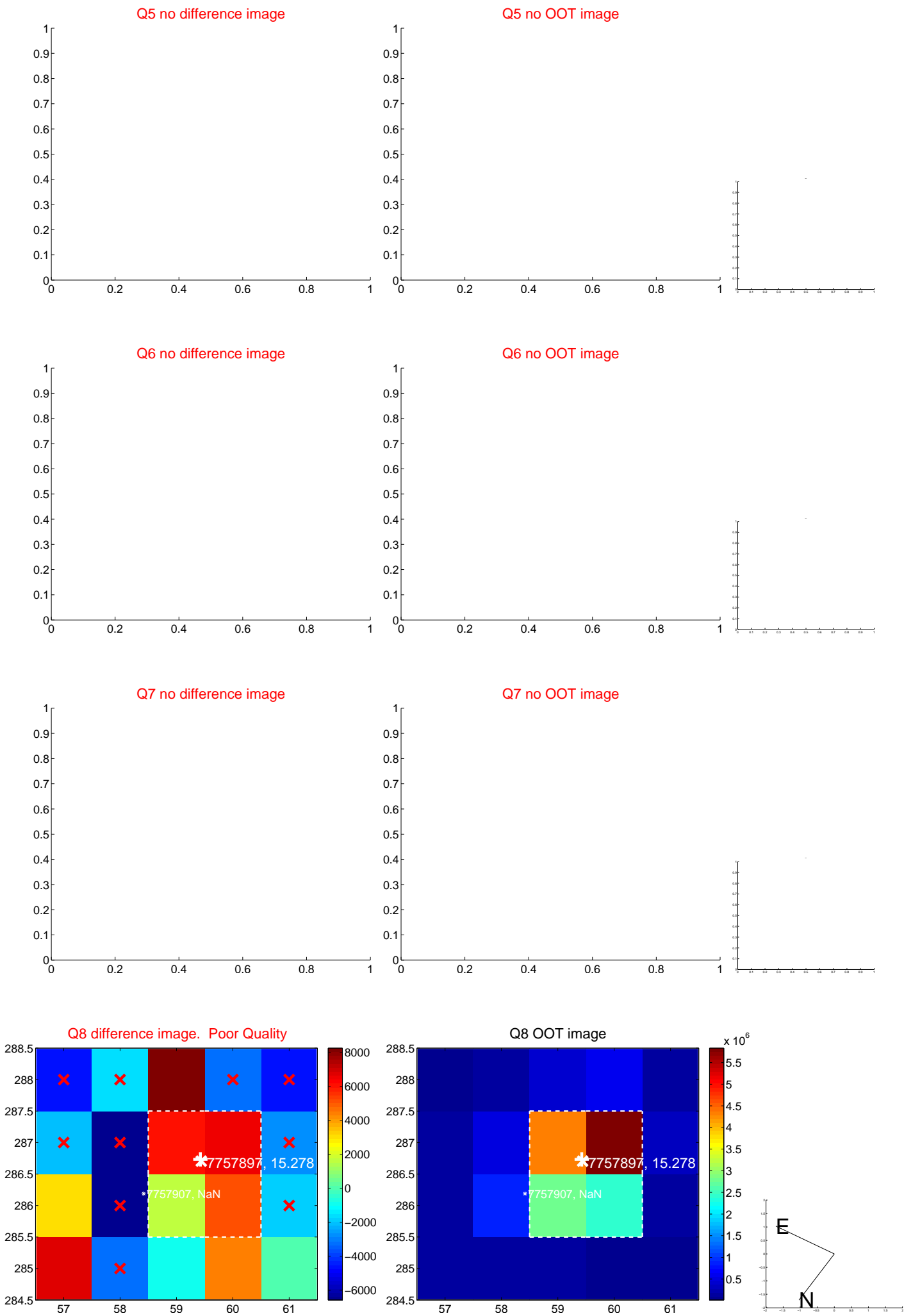


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

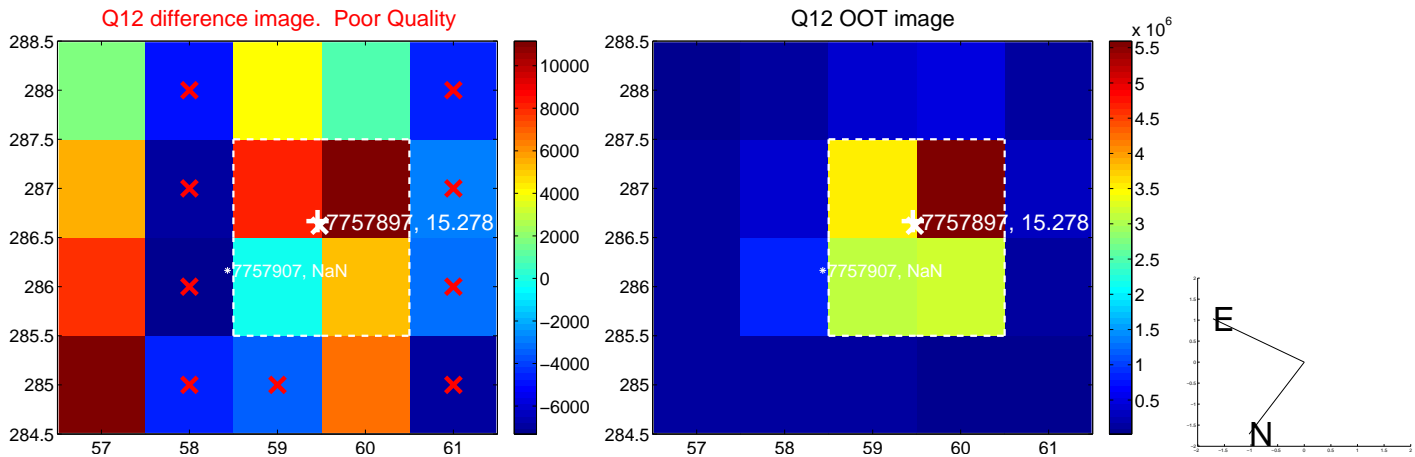
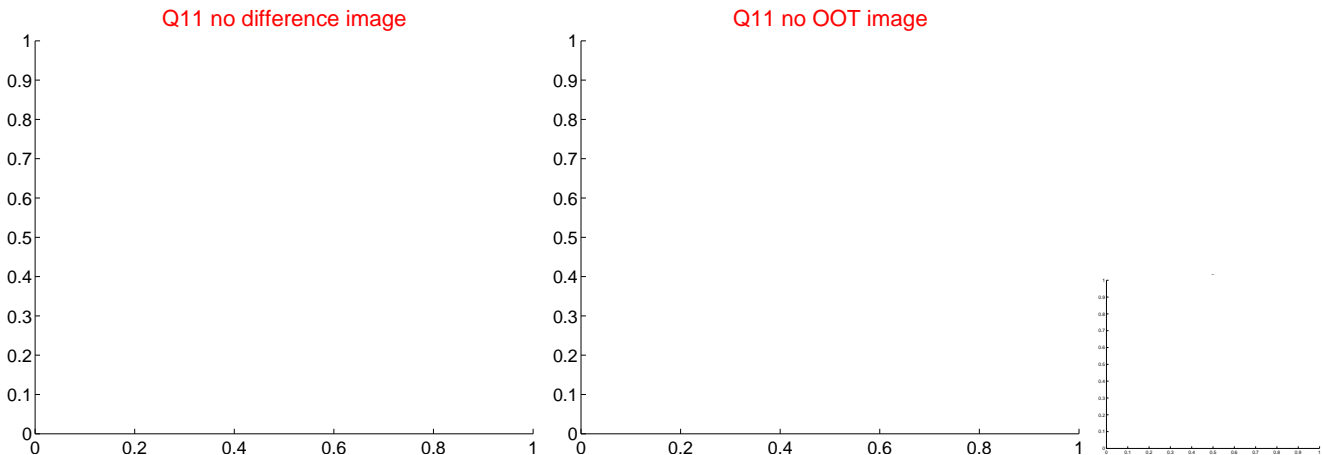
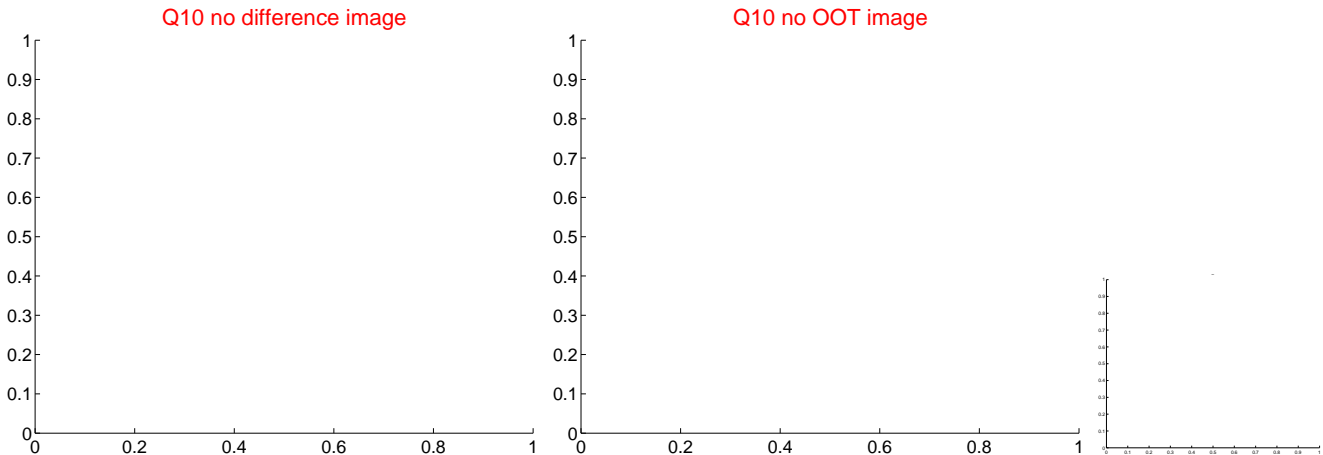
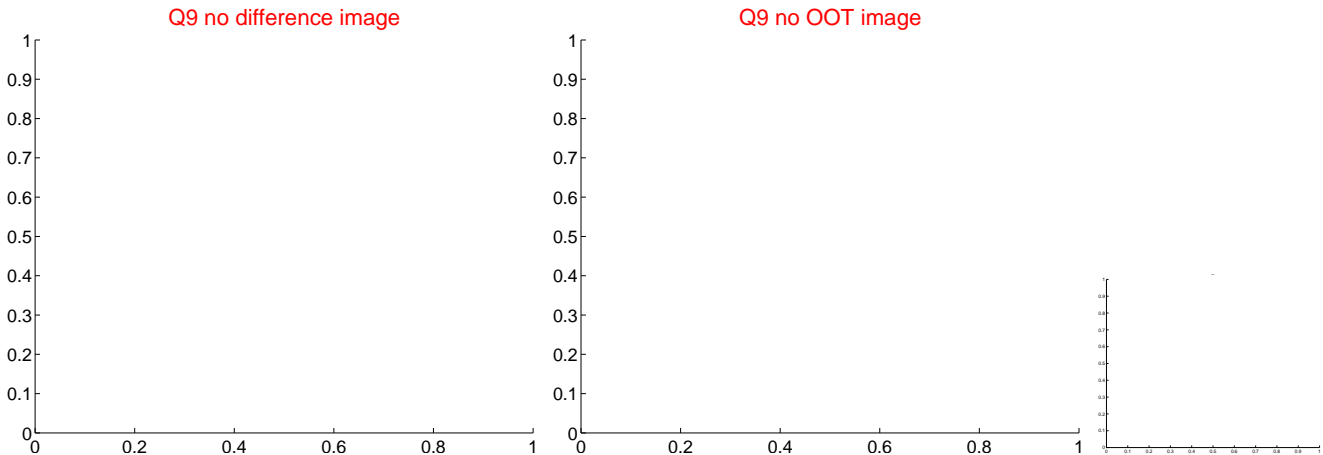
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



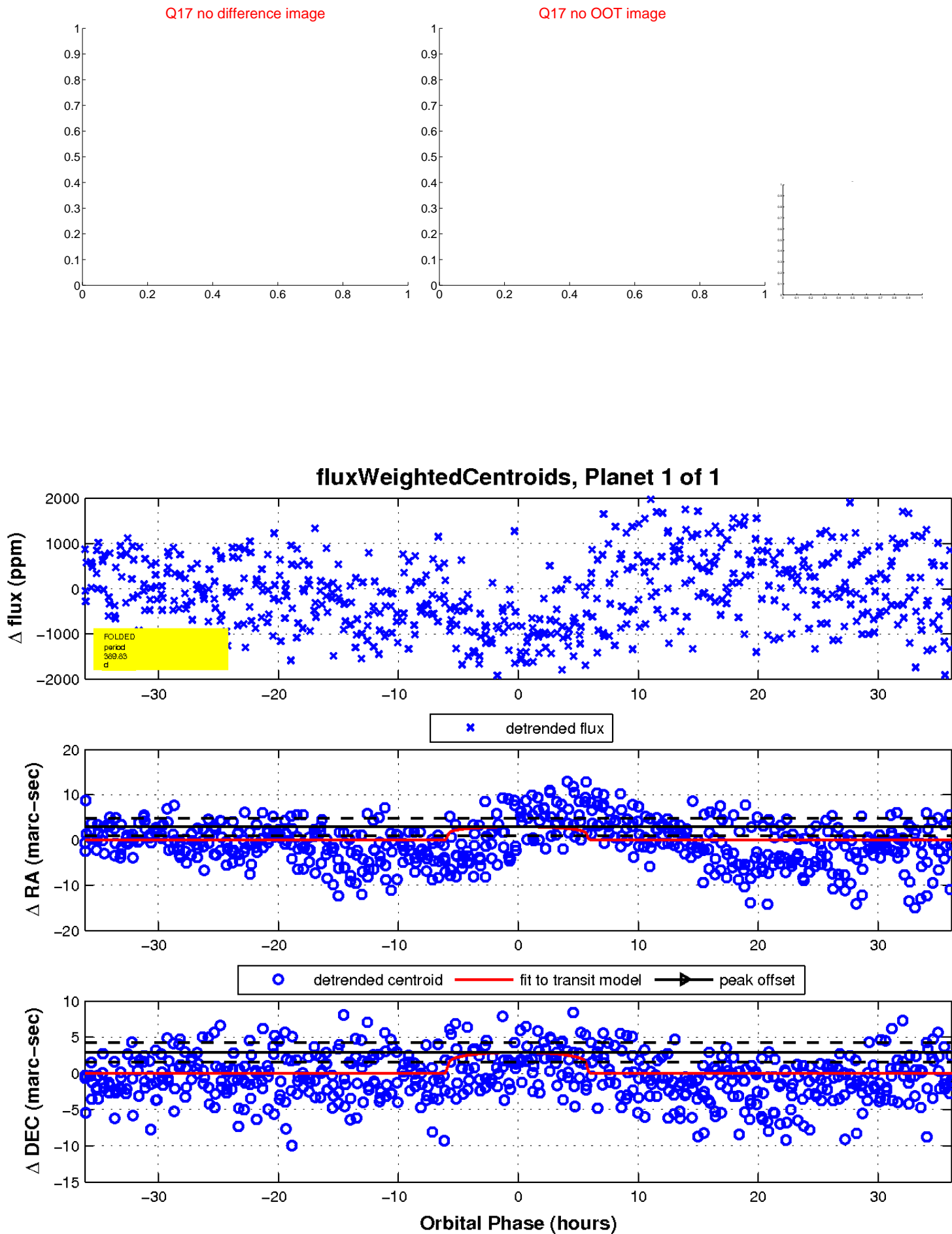
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

