

KIC 010921757

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})
010921757-01	OBS	No	7.314230	134.466576	65.0	25.570	9.5	10.6	2.01	7350	3.16	1429.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010921757-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

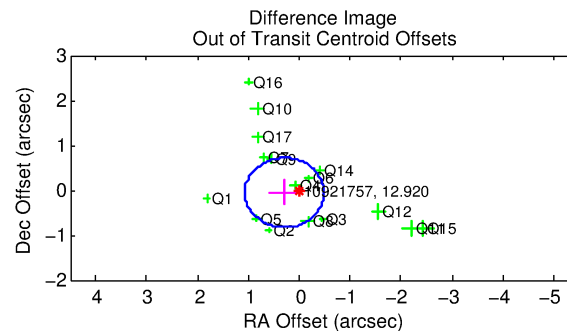
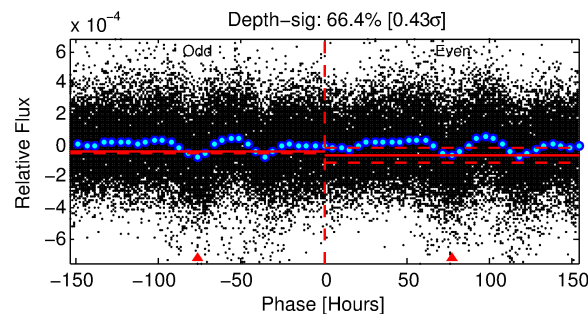
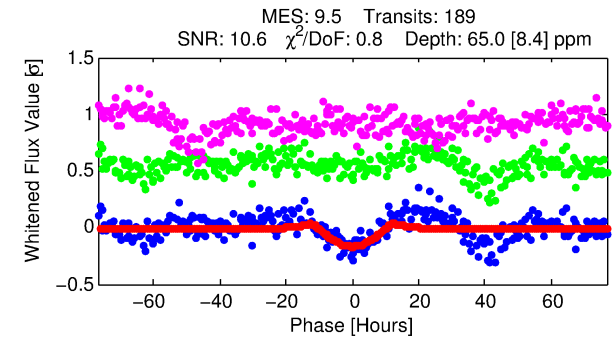
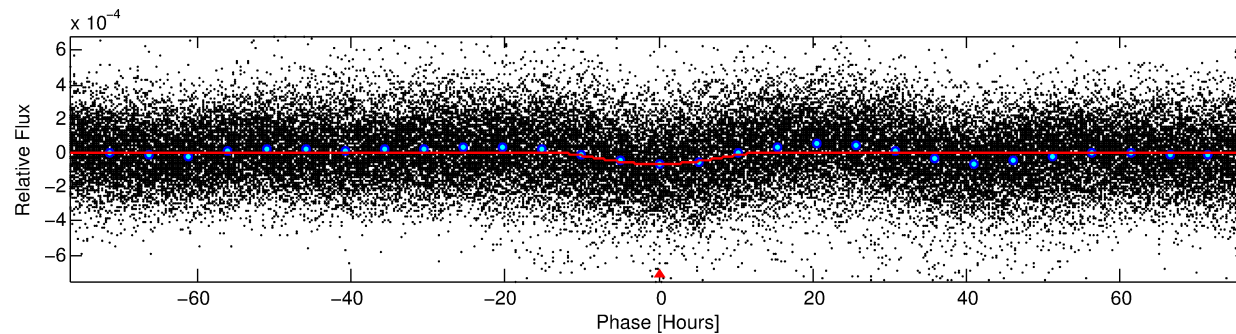
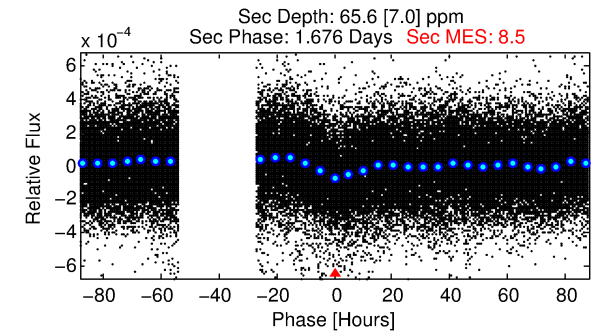
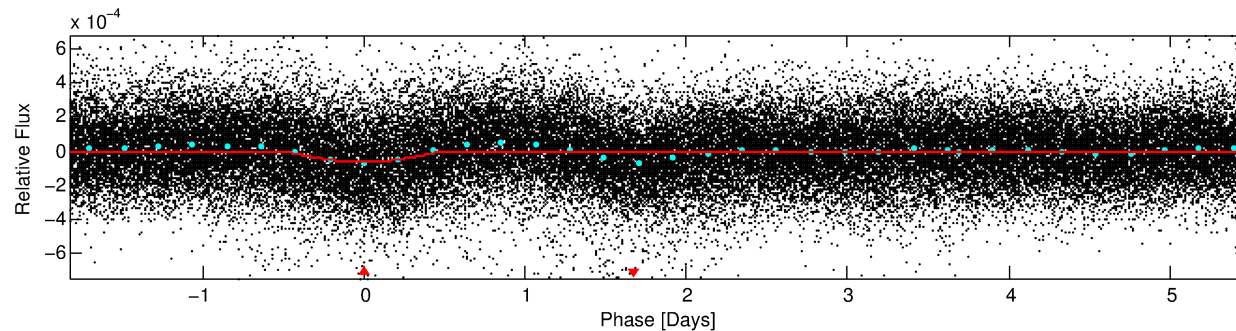
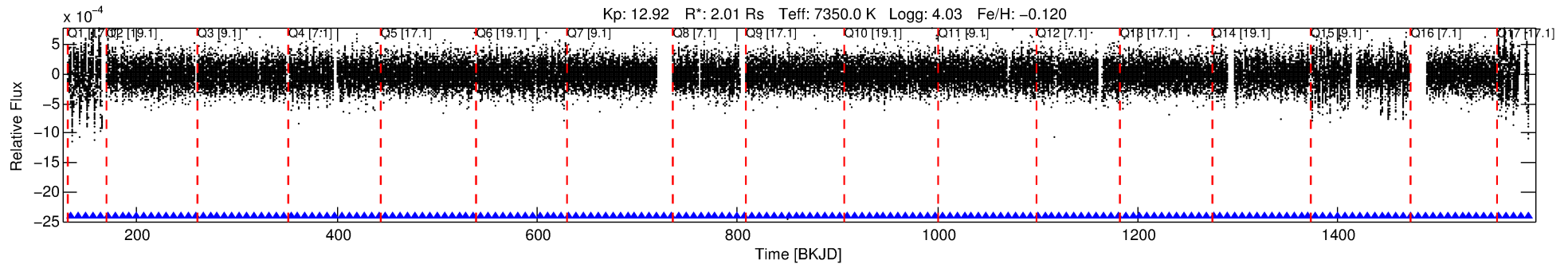
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010921757-01

No Significant Match Found

DV One-Page Summary

KIC: 10921757 Candidate: 1 of 1 Period: 7.314 d



DV Fit Results:

Period = 7.31423 [0.00044] d
Epoch = 134.4666 [0.0498] BKJD
Rp/R* = 0.0144 [0.0257]
a/R* = 1.07 [0.04]
b = 1.00 [0.04]
Seff = 1429.05 [567.92]
Teq = 1568 [156] K
Rp = 3.16 [5.72] Re
a = 0.0861 [0.0204] AU
Ag = 26.74 [96.09] [0.27σ]
Teffp = 5512 [4934] K [0.80σ]

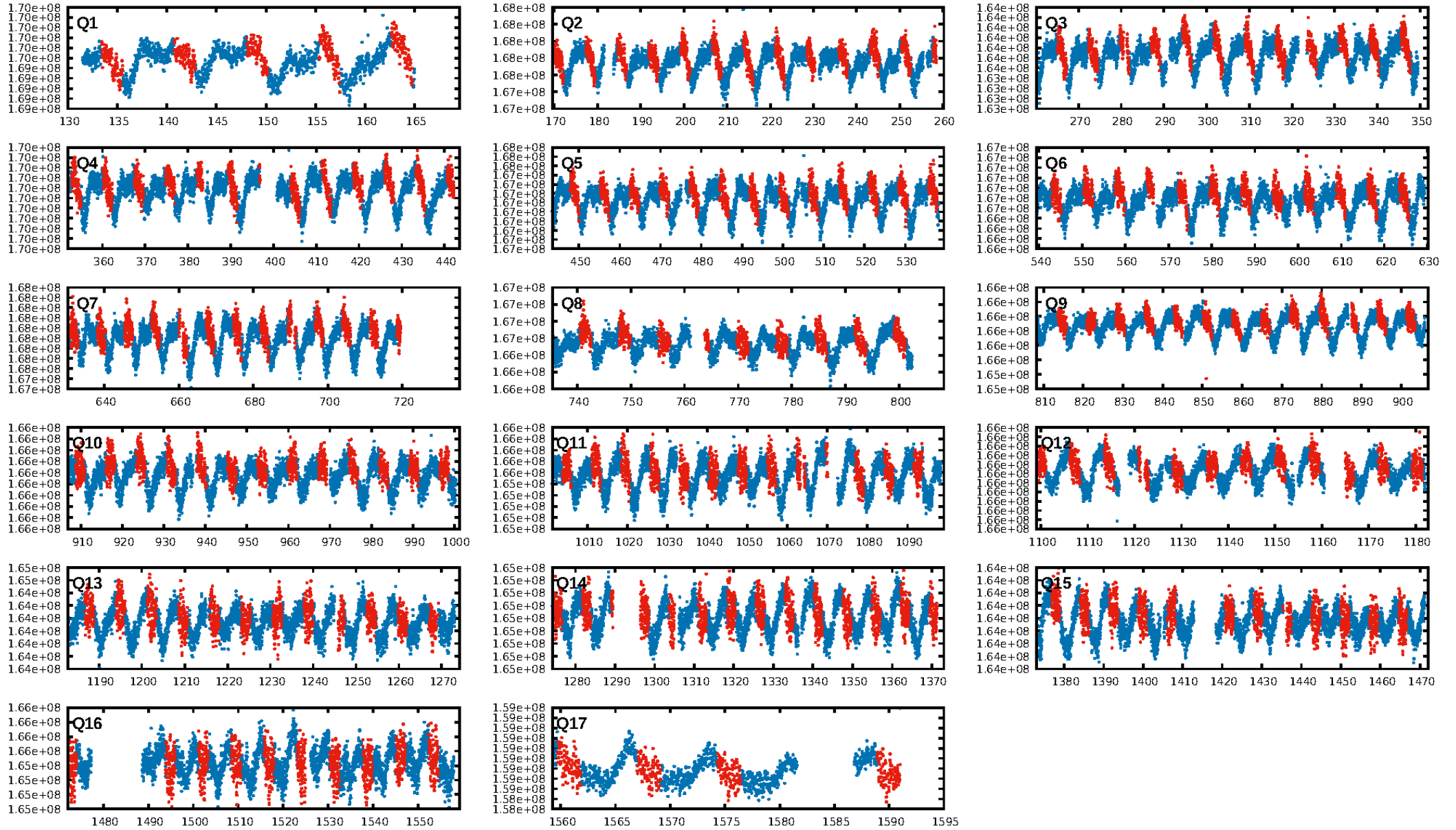
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 6.45e-21
RollingBand-fgt: 1.00 [180/180]
GhostDiagnostic-chr: 0.8922
Centroid-sig: 86.8%
Centroid-so: 0.316 arcsec [0.89σ]
OotOffset-rm: 0.300 arcsec [1.16σ]
KicOffset-rm: 0.378 arcsec [1.28σ]
OotOffset-st: 4/4/4 [16]
KicOffset-st: 4/4/4 [16]
DiffImageQuality-fgm: 0.25 [4/16]
DiffImageOverlap-fno: 1.00 [17/17]

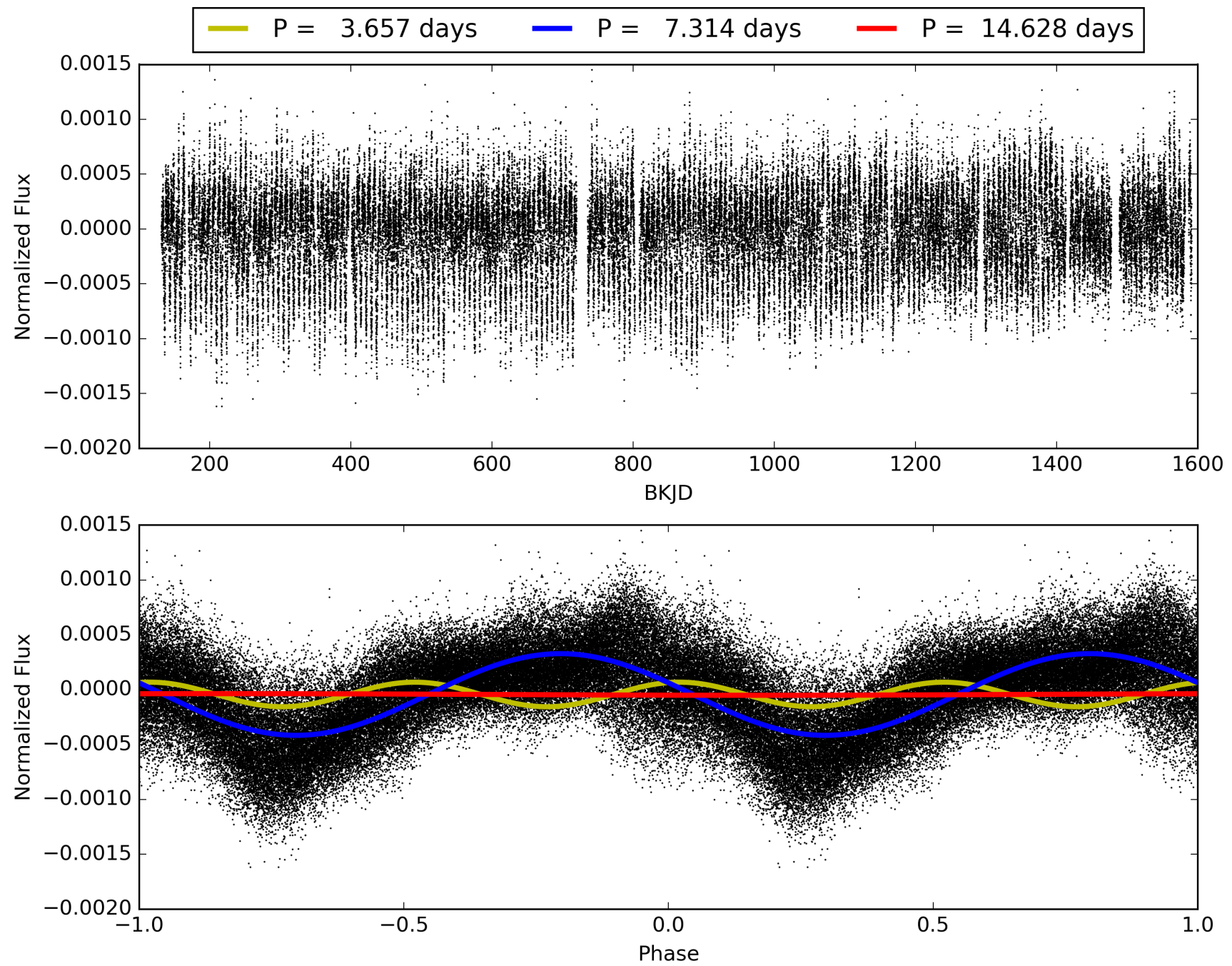
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:17:08 Z

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

TCE 010921757-01, PDC Light Curves

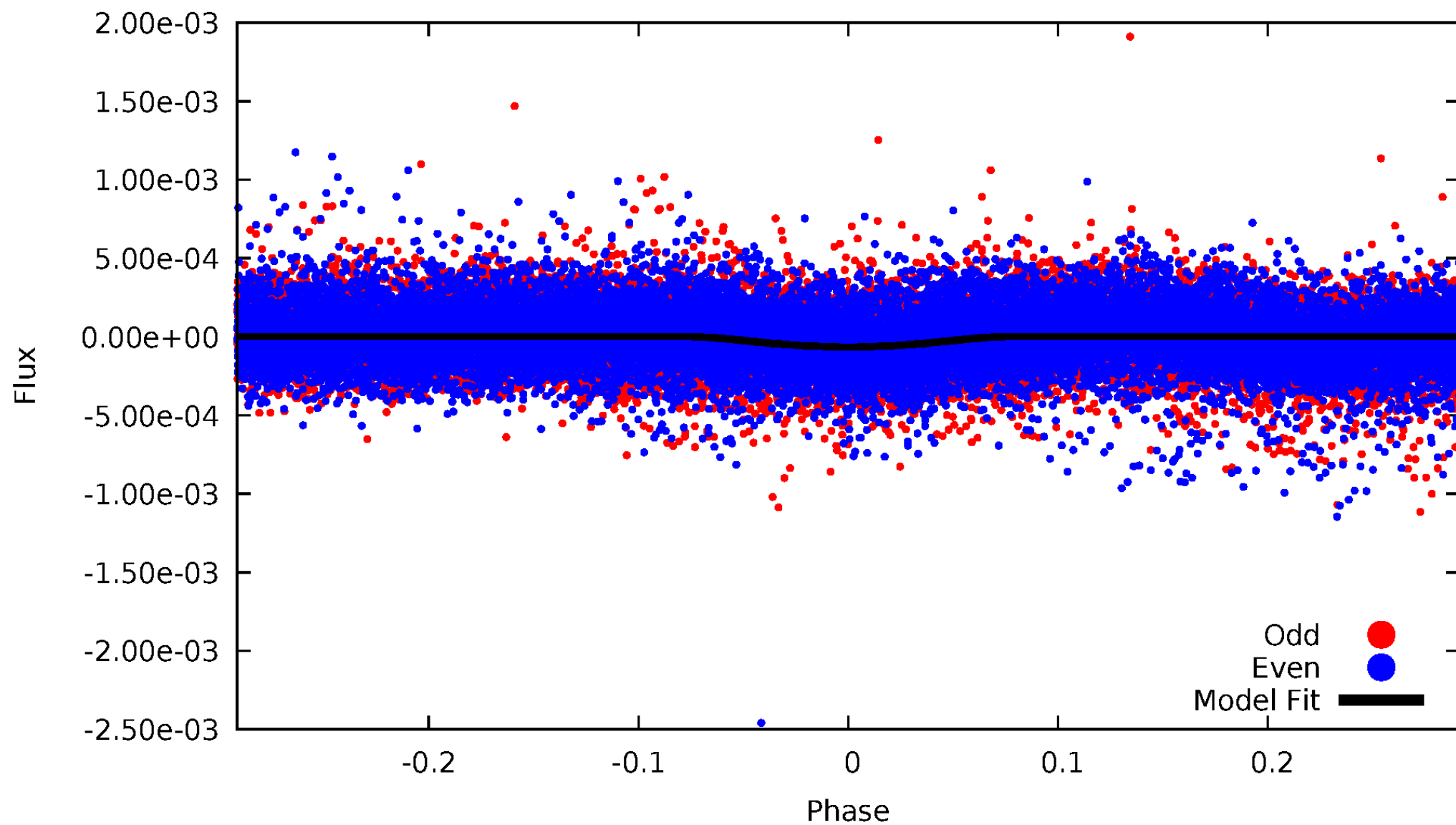


TCE 010921757-01



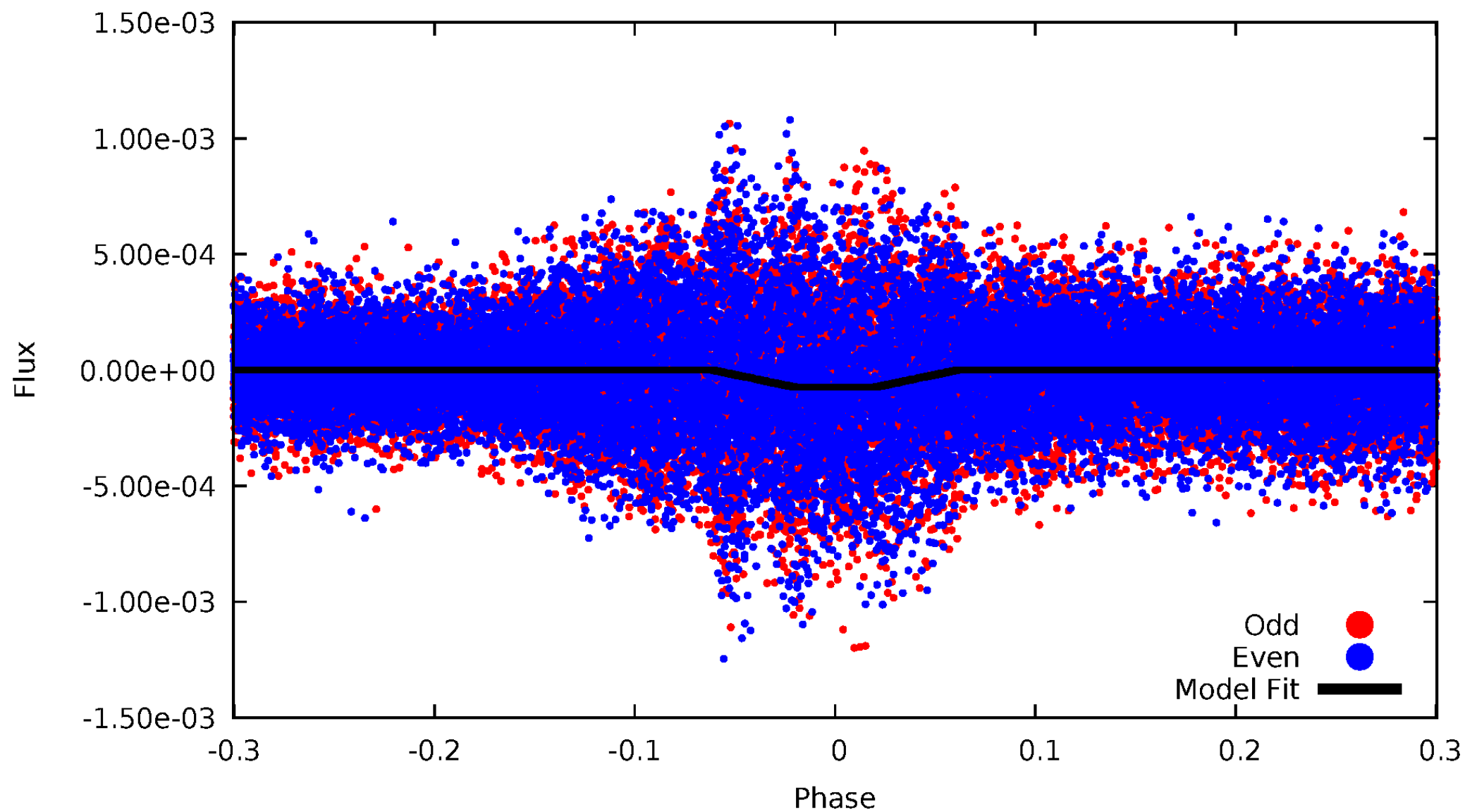
DV Odd/Even

TCE 010921757-01



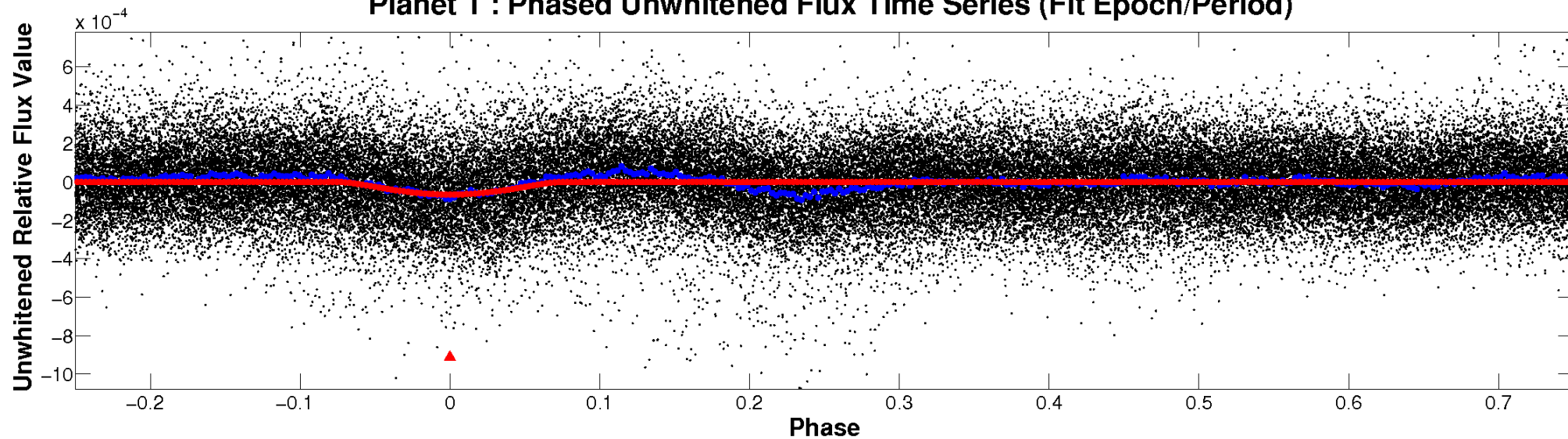
ALT Odd/Even

TCE 010921757-01

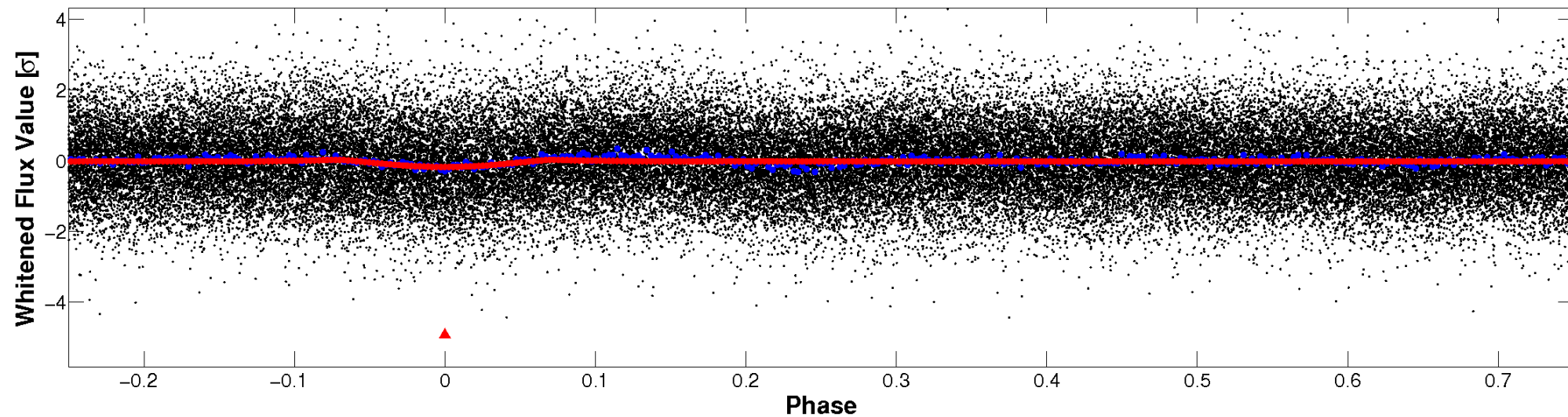


Non-Whitened Vs. Whitened Light Curve

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

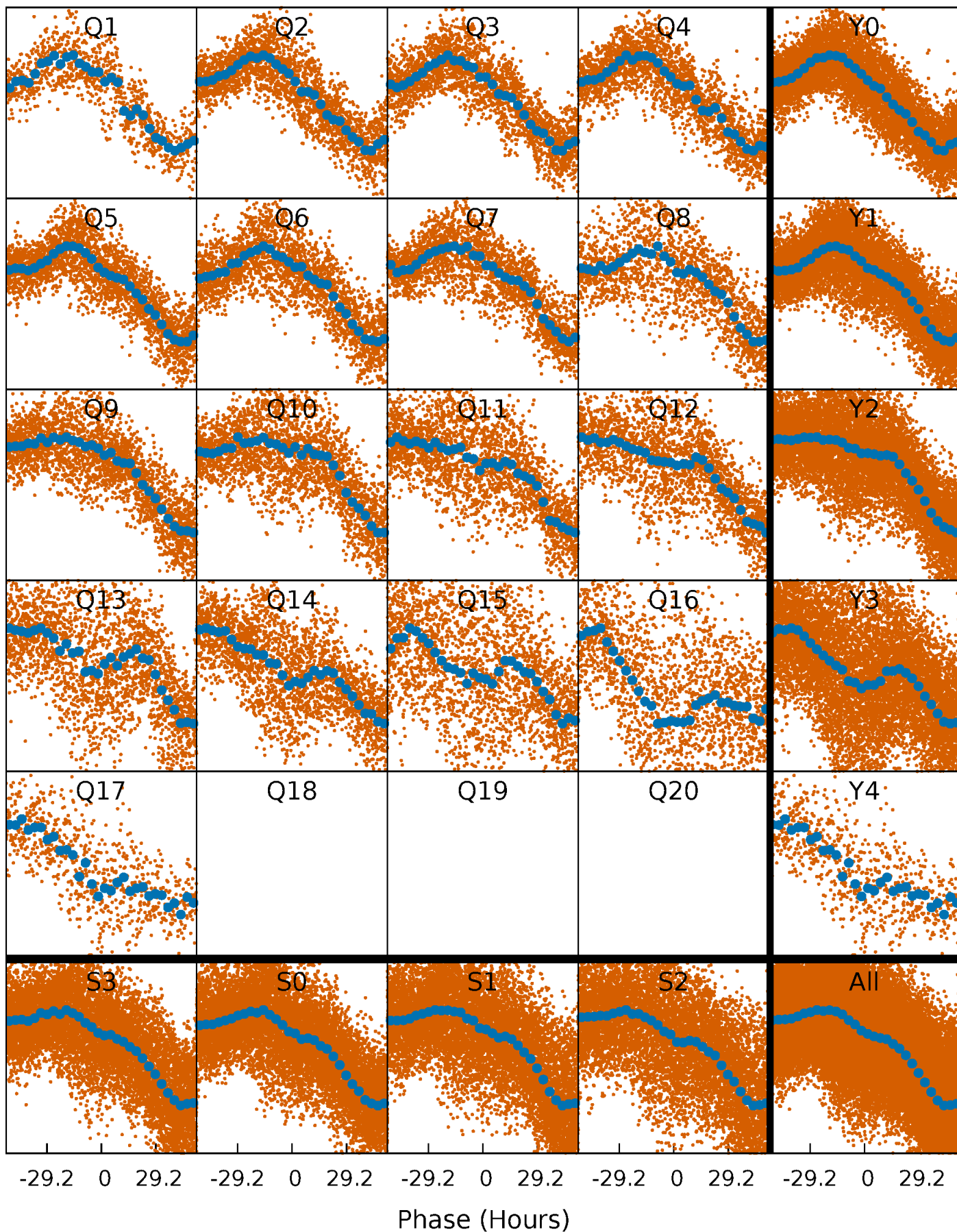


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



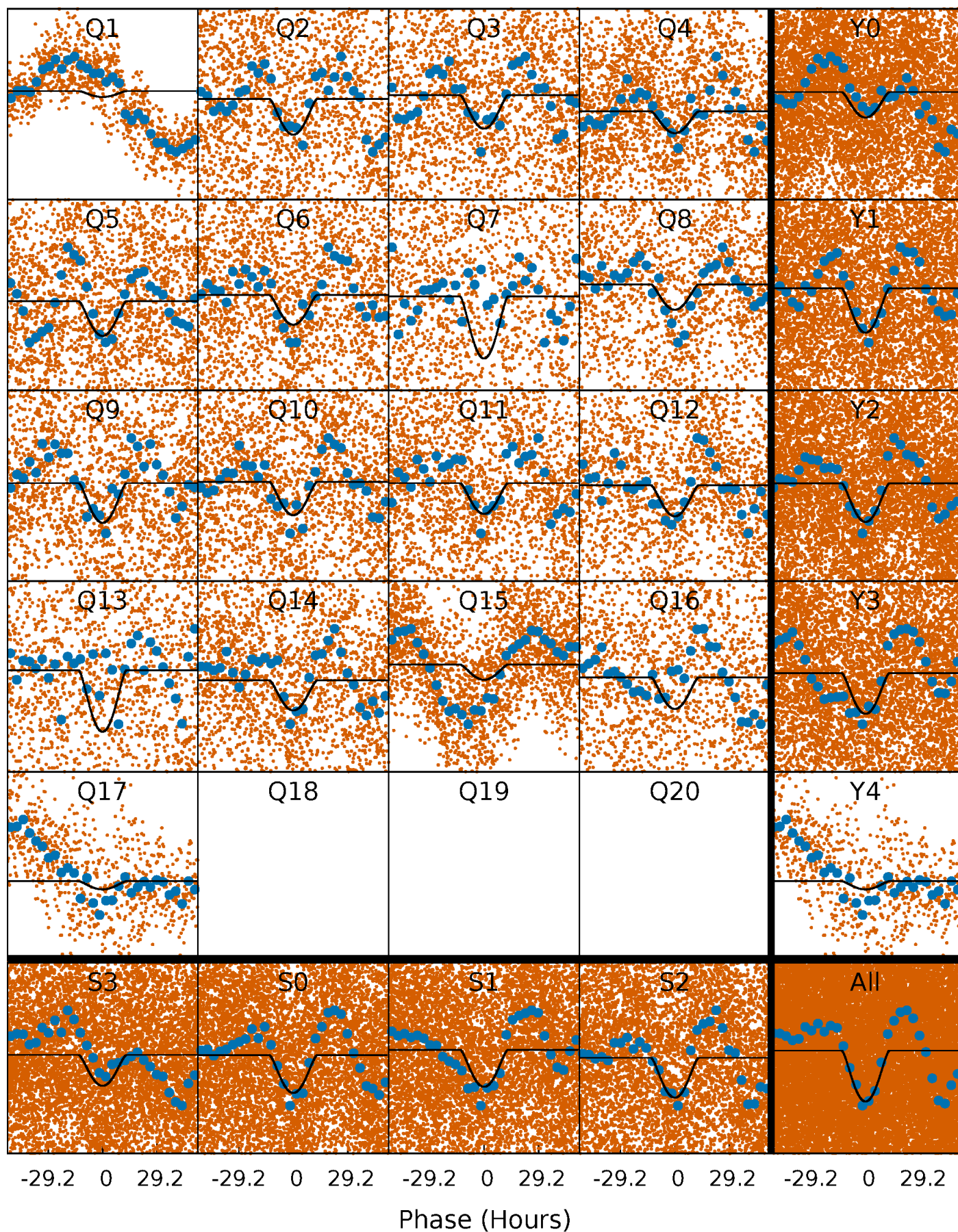
PDC Quarter-Phased Transit Curves

TCE 010921757-01 P= 7.314230 Days $T_0=134.466576$ (BKJD)



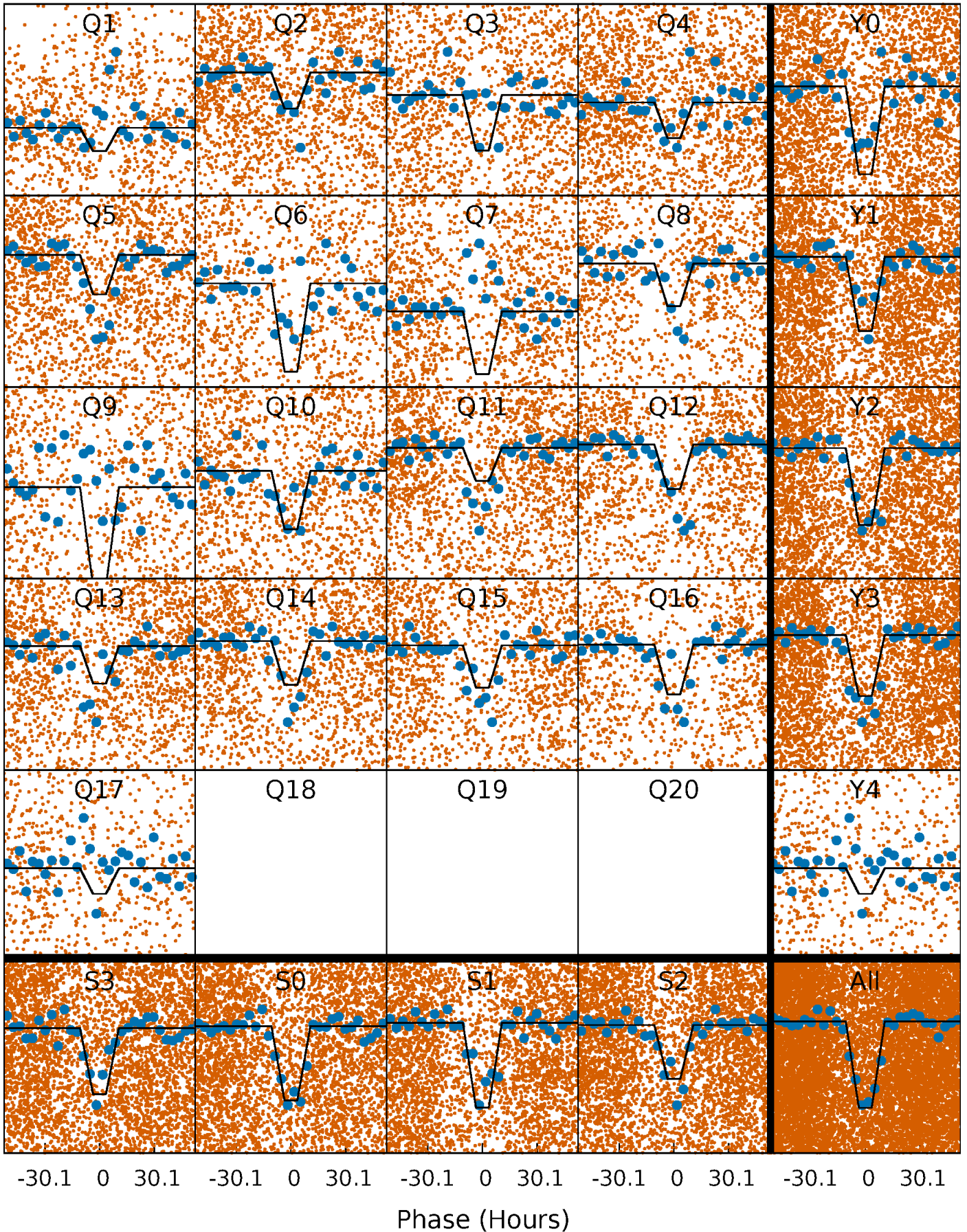
DV Quarter-Phased Transit Curves

TCE 010921757-01 P= 7.314230 Days $T_0=134.466576$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

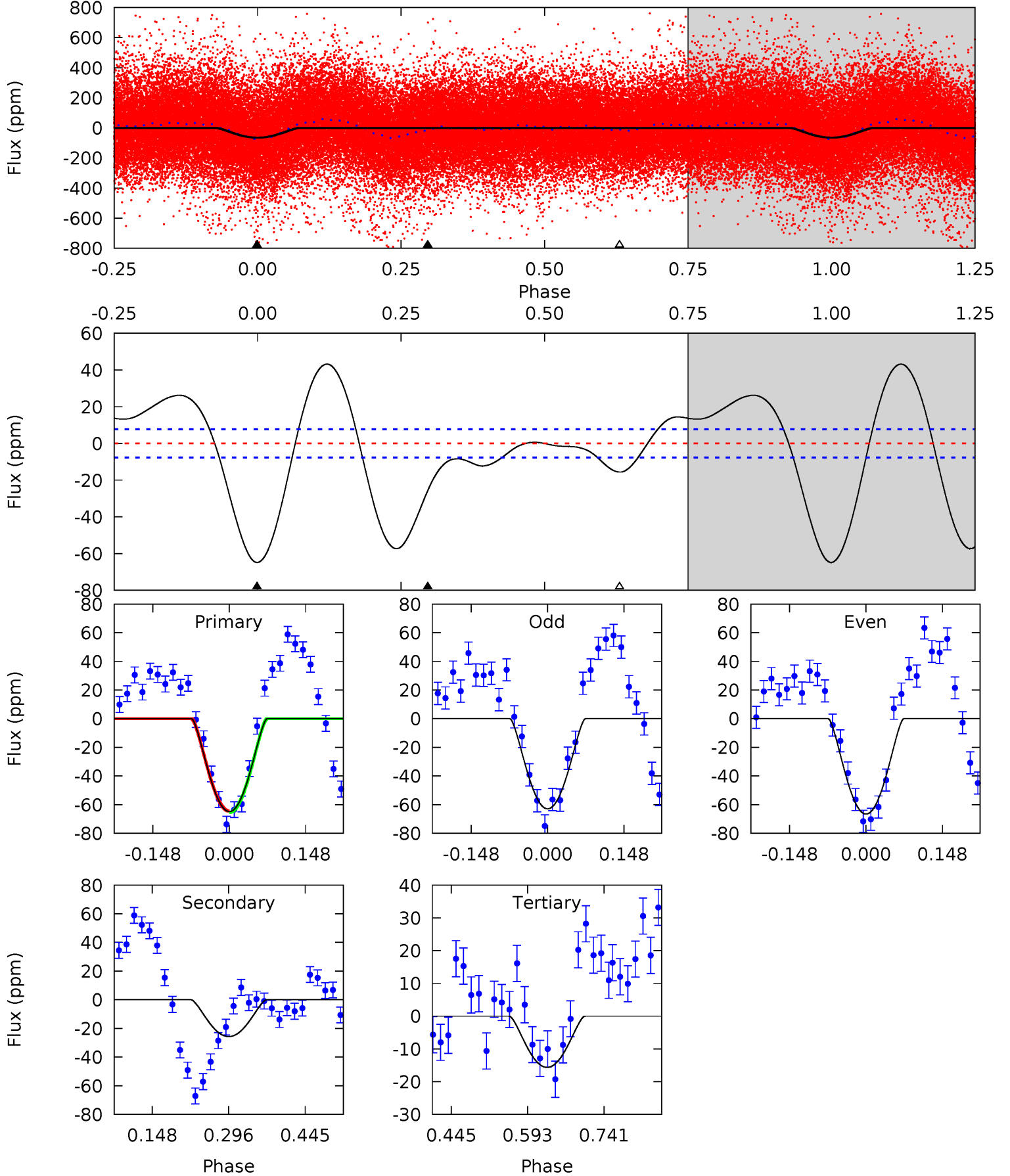
TCE 010921757-01 P= 7.314437 Days $T_0=134.454322$ (BKJD)



DV Model-Shift Uniqueness Test

010921757-01, P = 7.314230 Days, E = 127.152346 Days

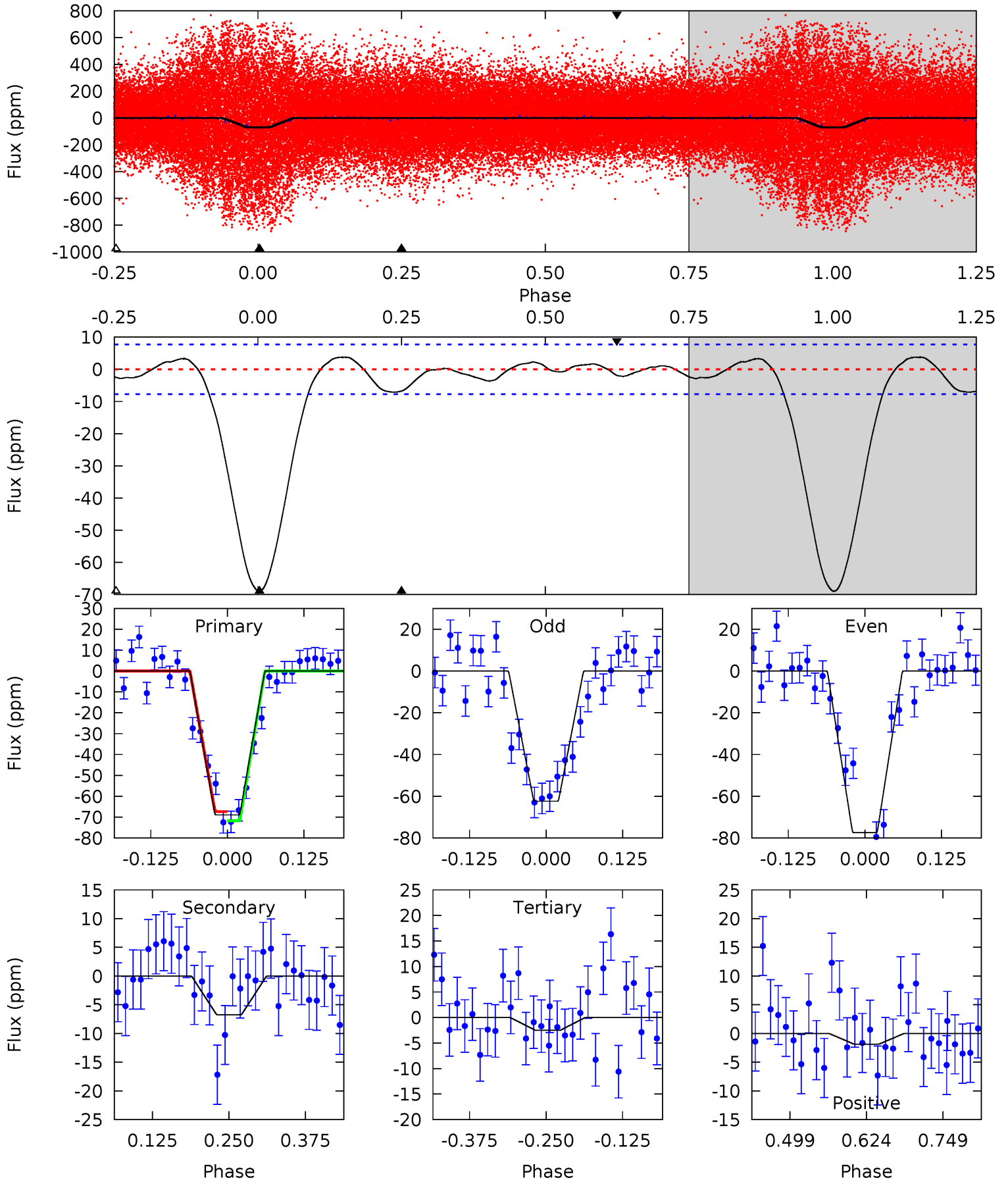
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.7	14.9	9.09	0	4.48	1.45	6.63	28.6	37.7	5.84	14.9	1.06	0.90	0.40	0.27



Alt Model-Shift Uniqueness Test

010921757-01, P = 7.314437 Days, E = 127.139885 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.3	3.94	1.47	-1.09	4.52	1.53	1.05	38.8	41.4	2.48	5.04	4.37	1.10	0.05	1.14



Stellar Parameters For KIC 010921757

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7350^{+203}_{-330}	$4.032^{+0.198}_{-0.162}$	$-0.120^{+0.250}_{-0.350}$	$2.013^{+0.551}_{-0.551}$	$1.589^{+0.187}_{-0.281}$	$0.274^{+0.309}_{-0.124}$
	+3%/-4%	+5%/-4%	+208%/-292%	+27%/-27%	+12%/-18%	+113%/-45%
Source	KIC0	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 010921757-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-26 ± 2	$5.49^{+4.73}_{-3.76}$	2173^{+178}_{-168}	3607^{+2042}_{-729}	$3.510^{+31.407}_{-2.523}$
Alt.	-7 ± 2	$4.75^{+4.54}_{-3.33}$	2176^{+167}_{-178}	2949^{+1673}_{-1208}	$1.166^{+12.545}_{-0.859}$

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

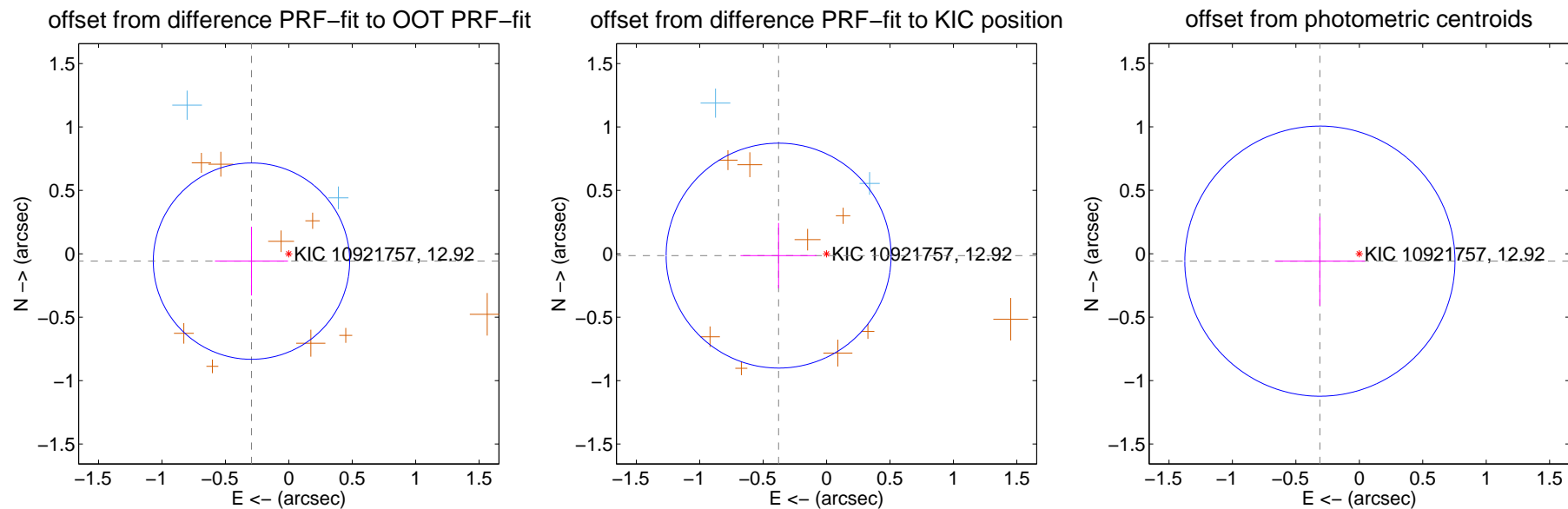
DV Centroid Data

Supplemental centroid analysis for 010921757-01. Kepler magnitude: 12.92. Transit SNR 10.60

There are 4 quarters with good PRF difference image offsets

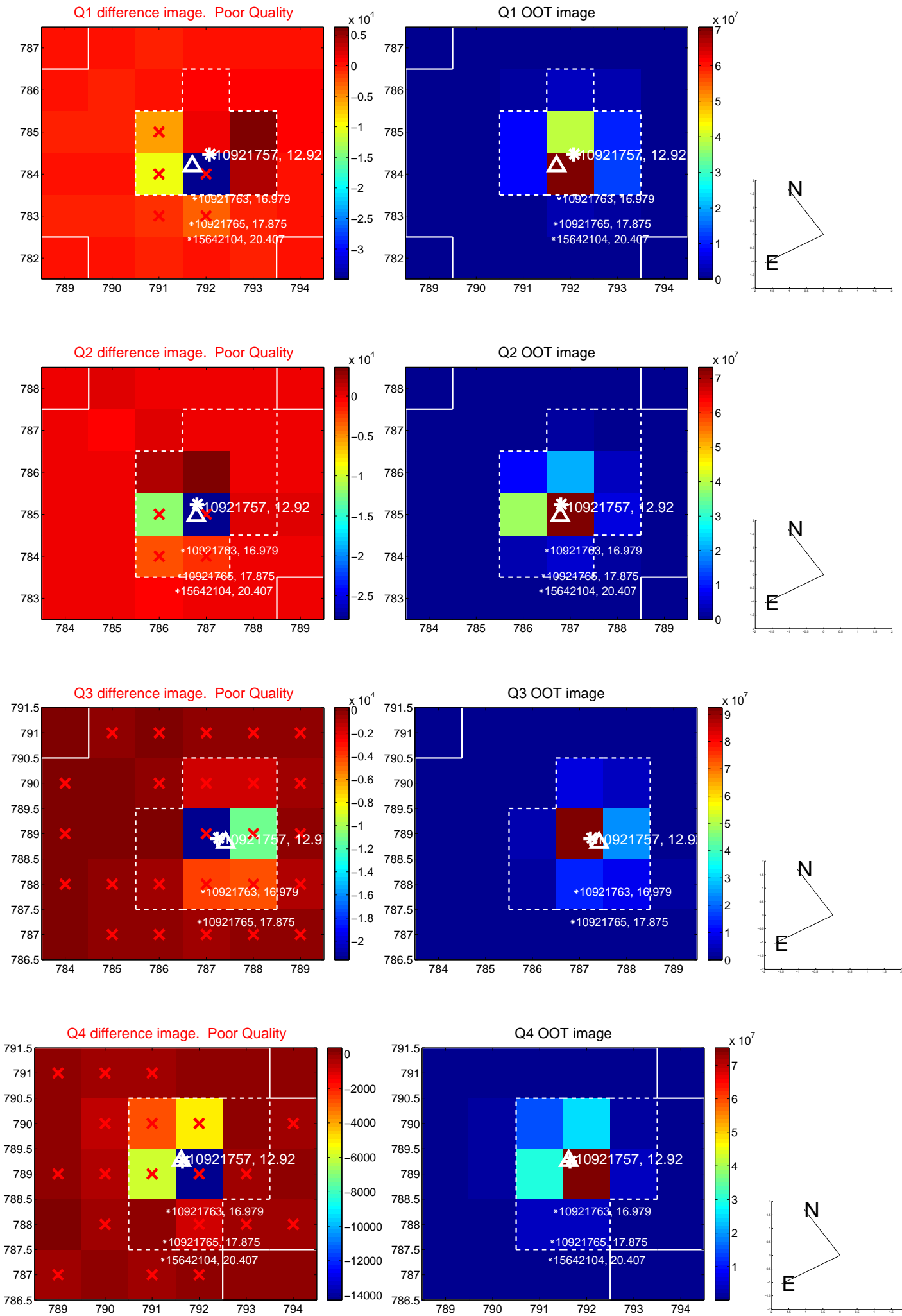
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.300 ± 0.258	1.16	0.294 ± 0.288	-0.058 ± 0.271
PRF-fit source offset from KIC position	0.378 ± 0.296	1.28	0.378 ± 0.300	-0.015 ± 0.257
photometric centroid source offset	0.32 ± 0.35	0.89	0.31 ± 0.36	-0.06 ± 0.35

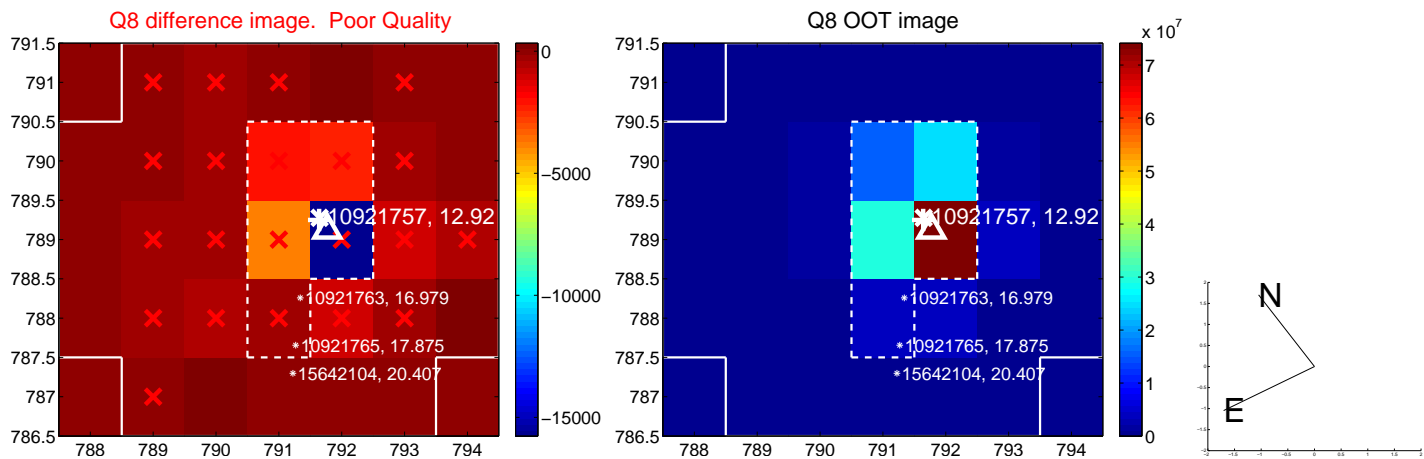
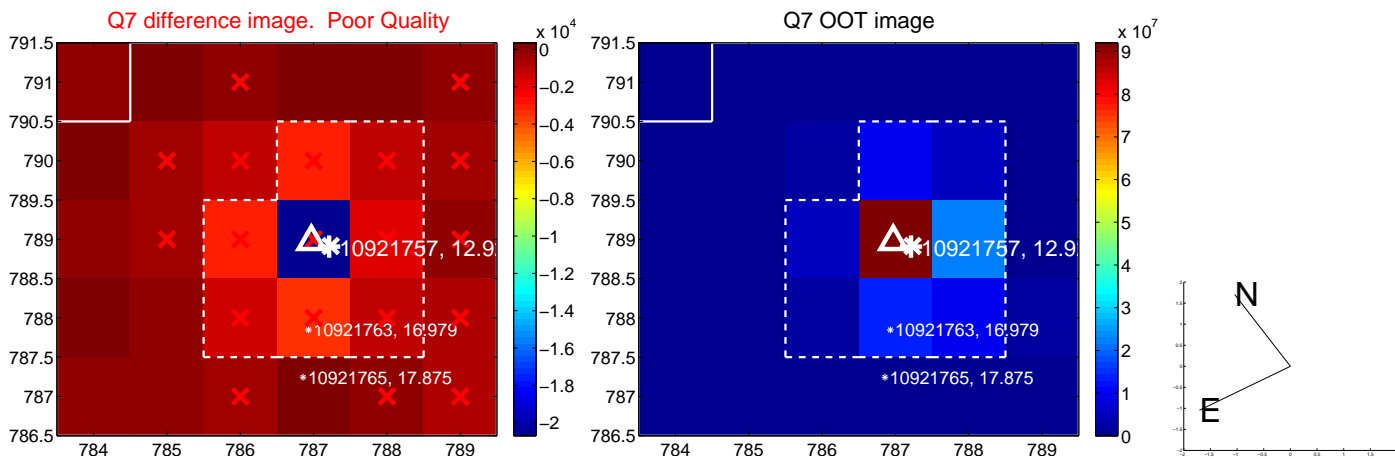
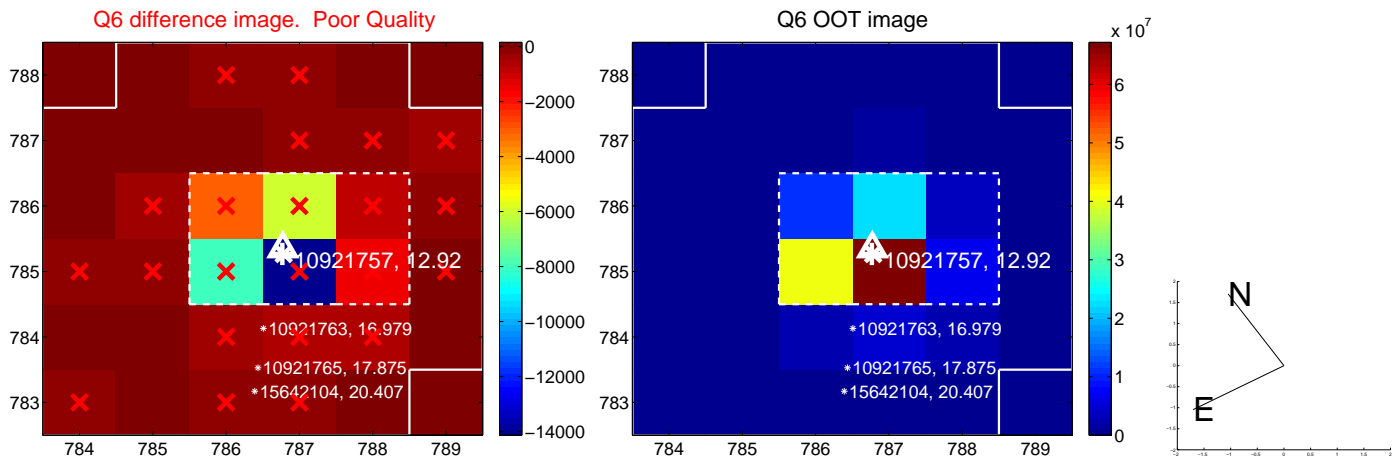
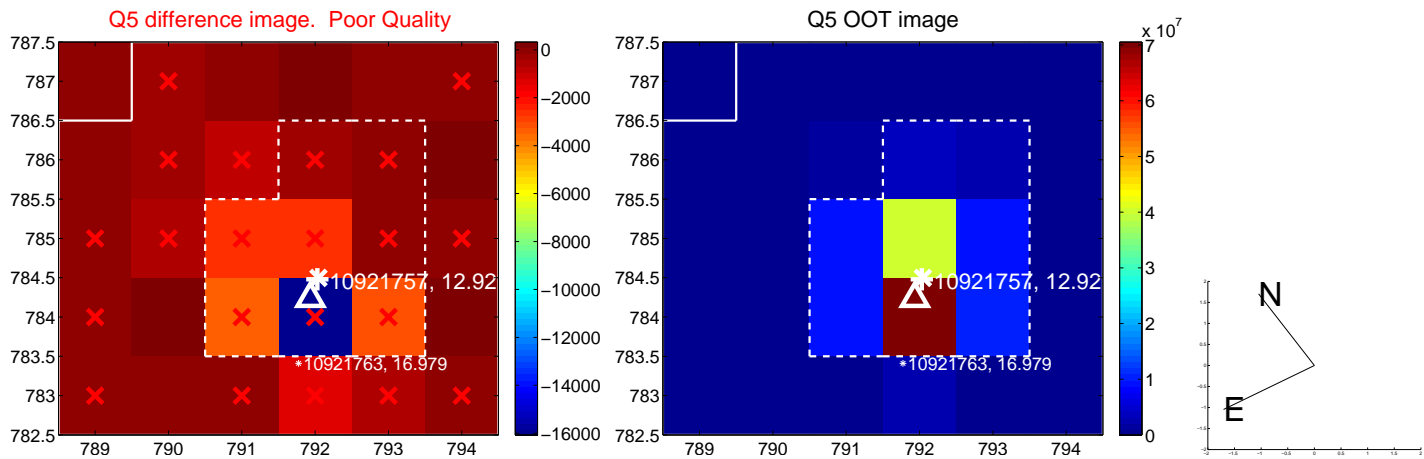


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

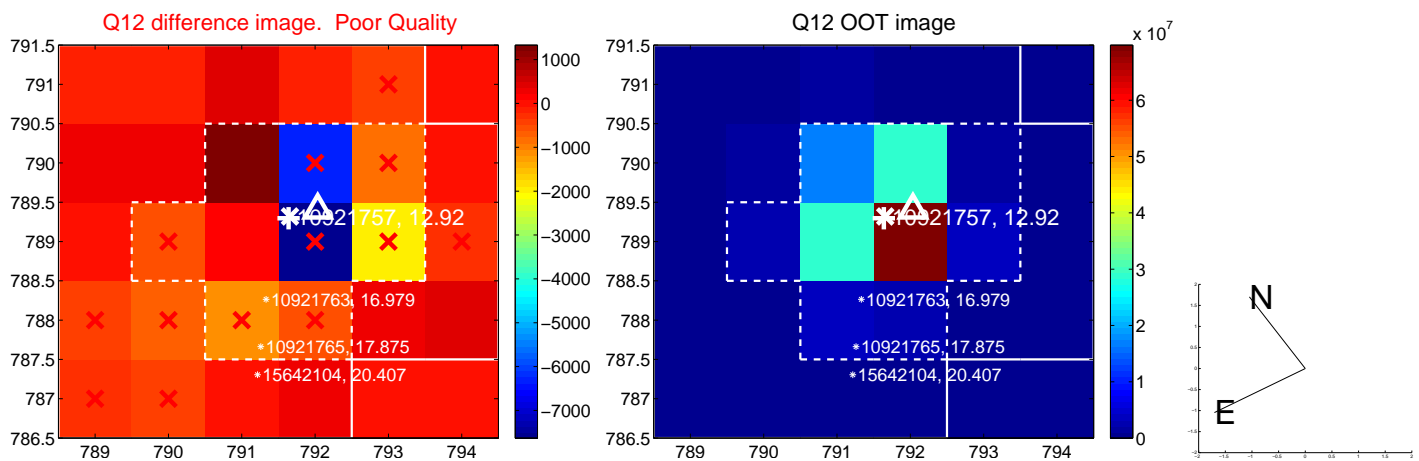
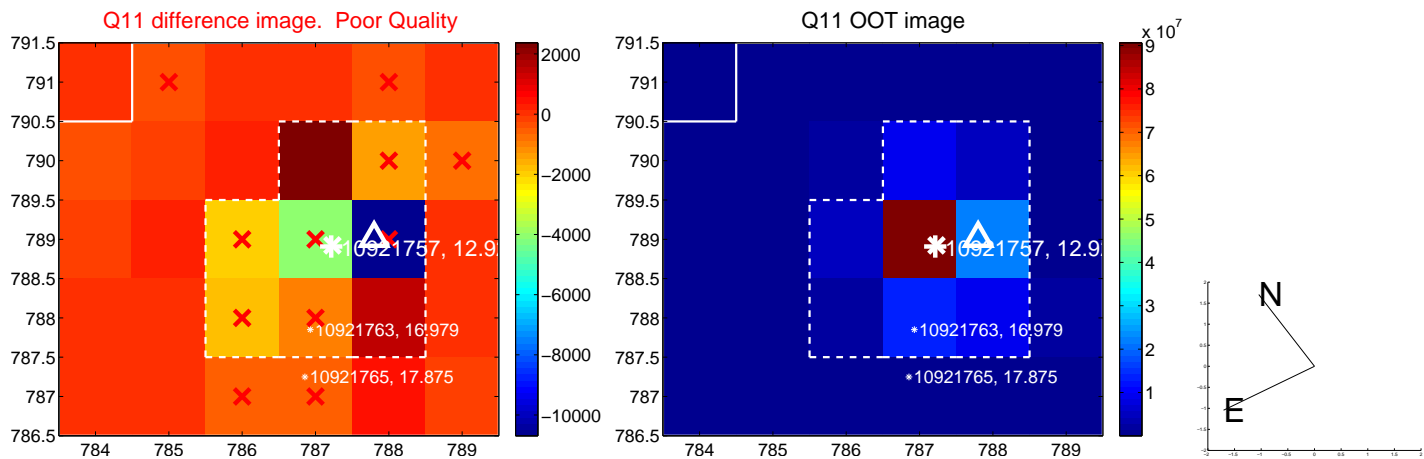
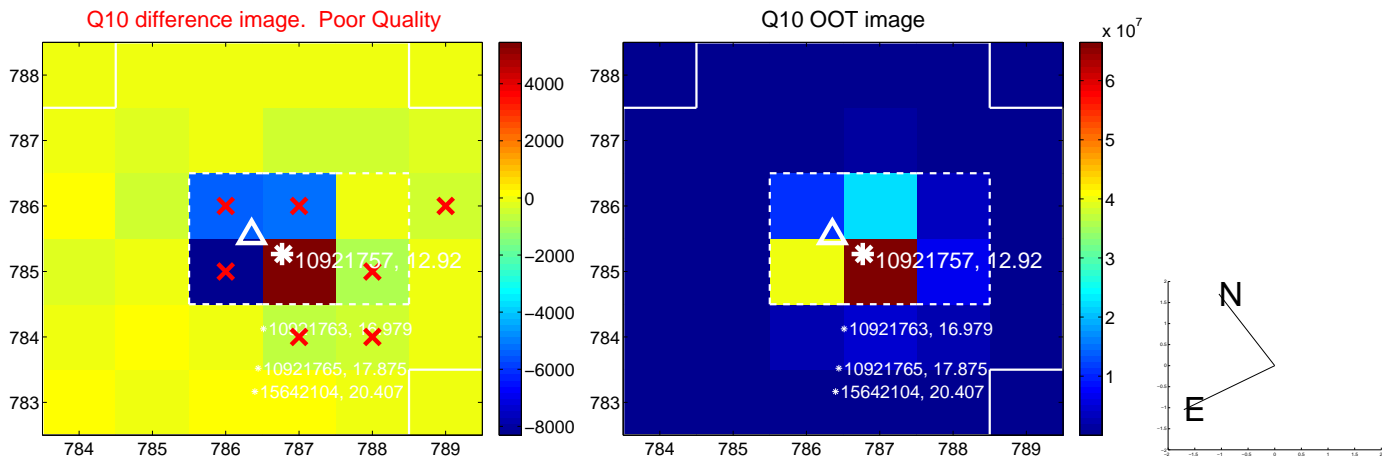
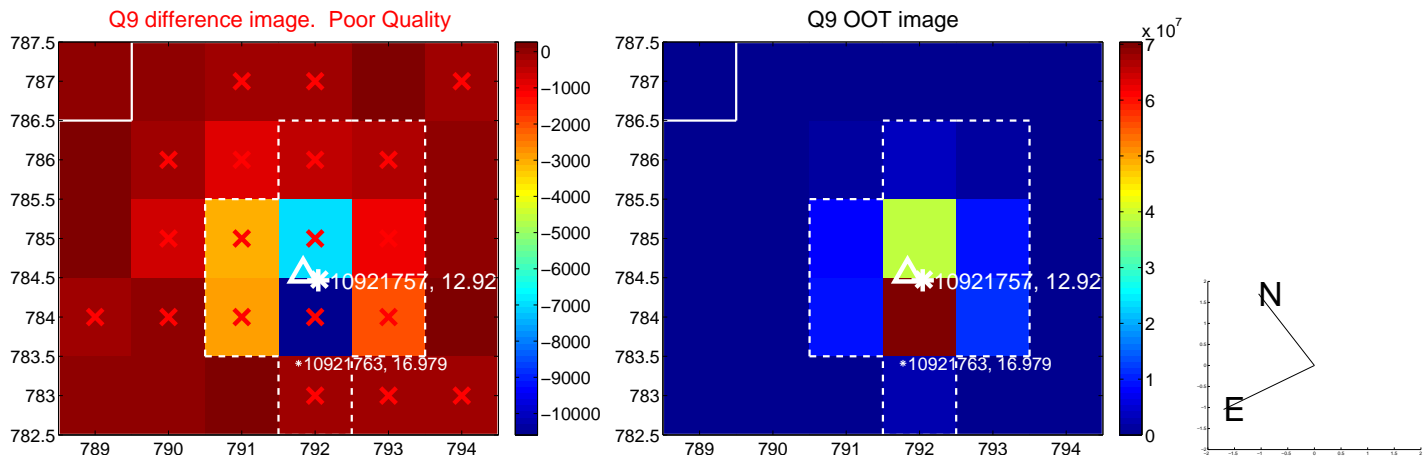
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



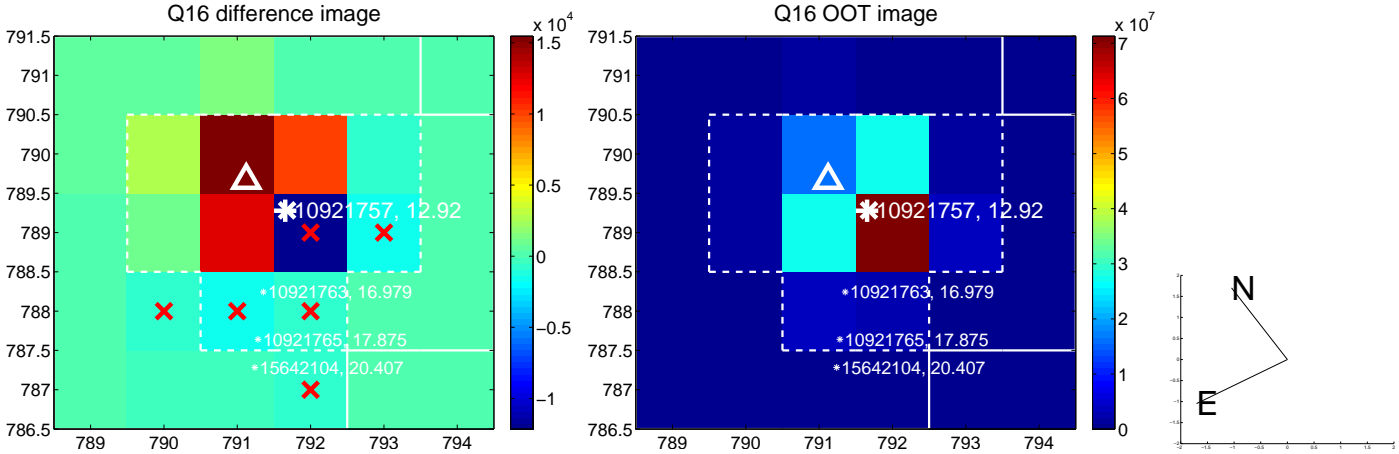
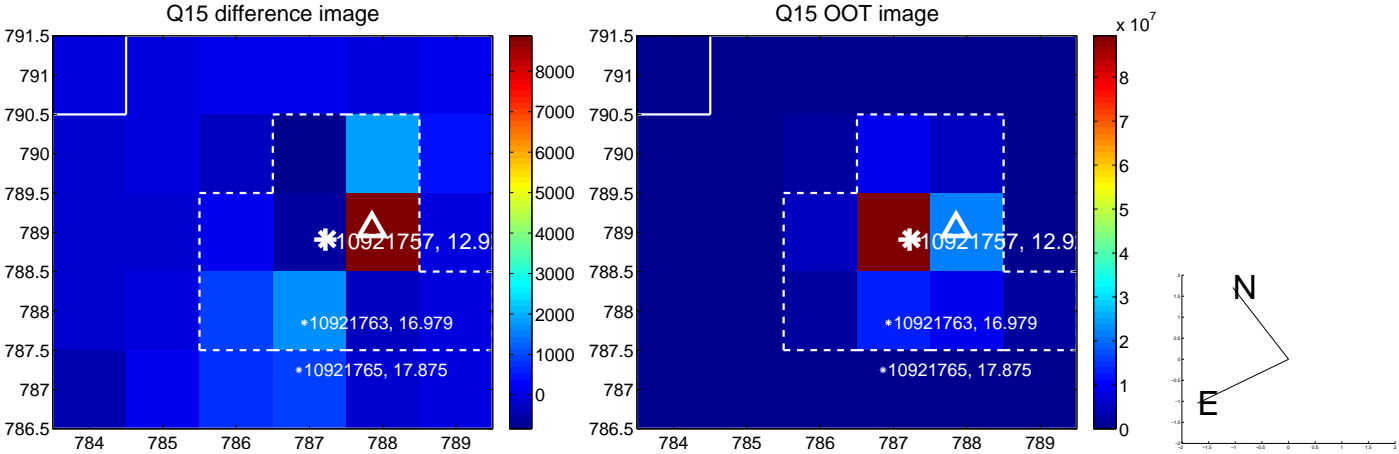
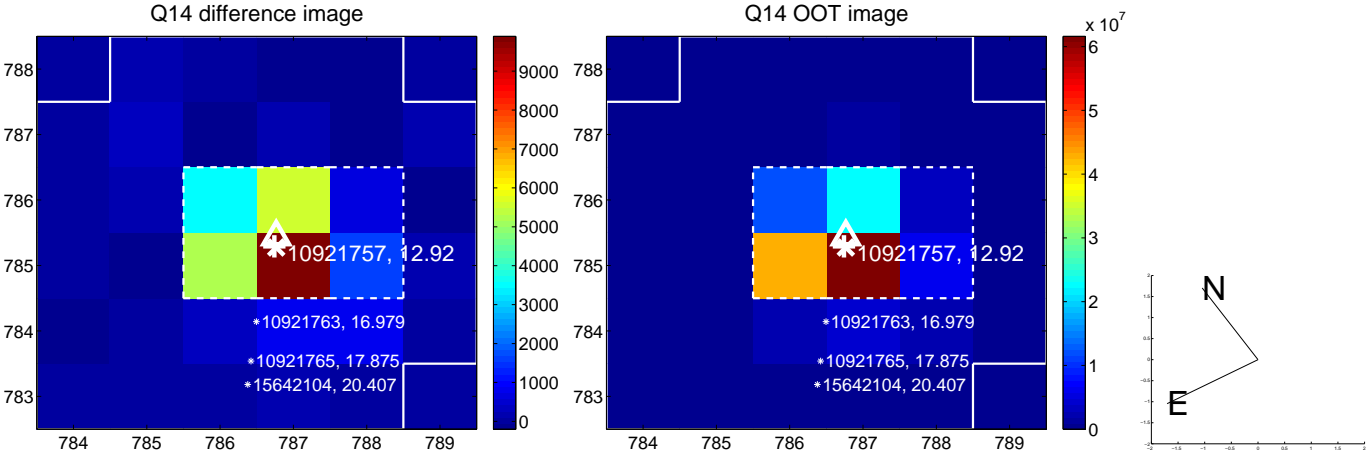
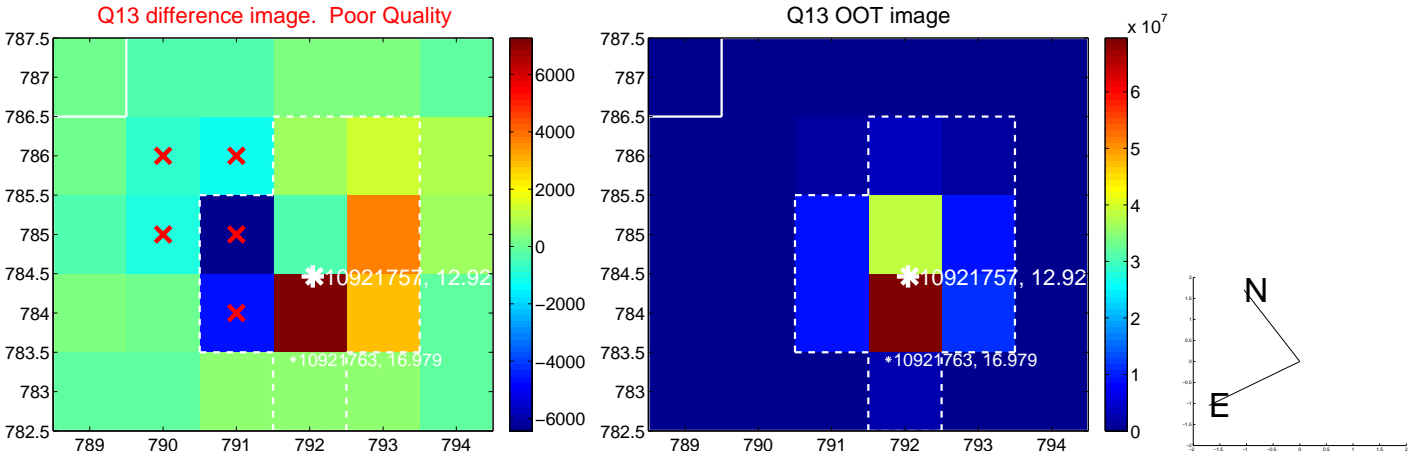
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



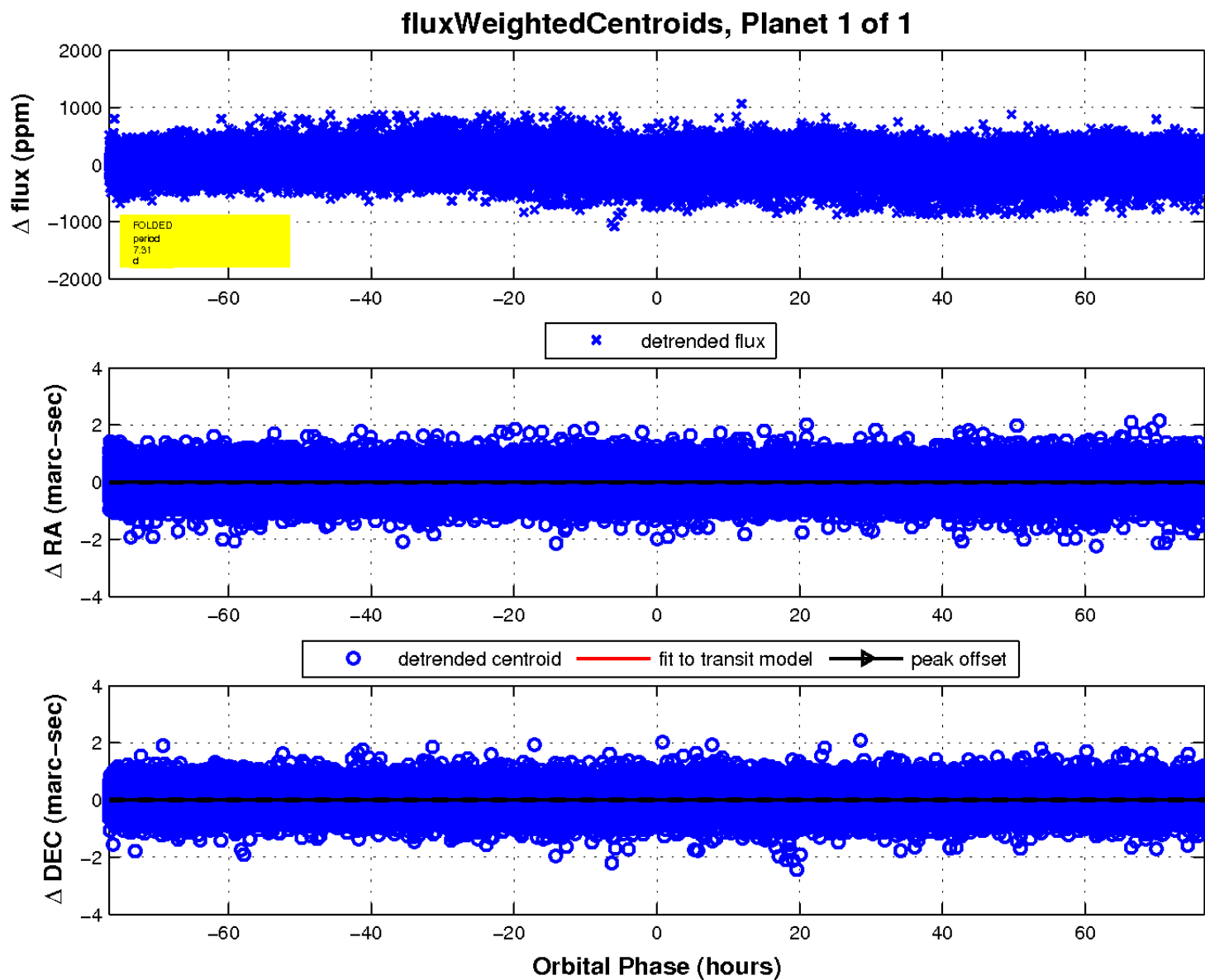
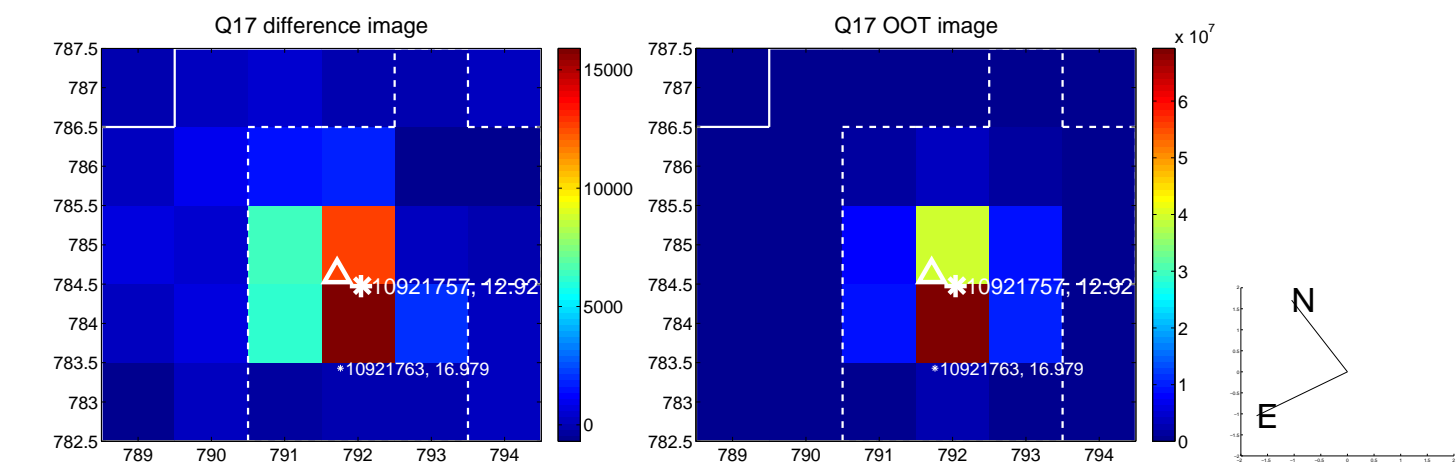
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

