

KIC 007177105

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})
007177105-01	OBS	No	5.892603	132.624377	31.7	34.471	9.5	11.0	1.84	7201	1.09	1585.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007177105-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

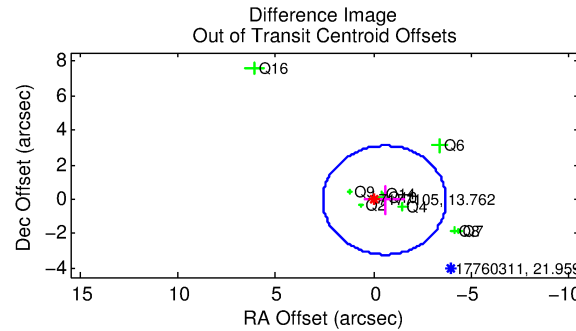
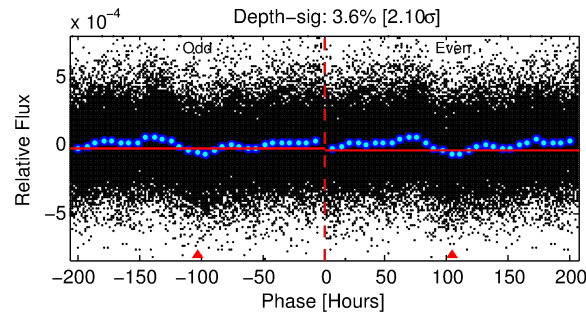
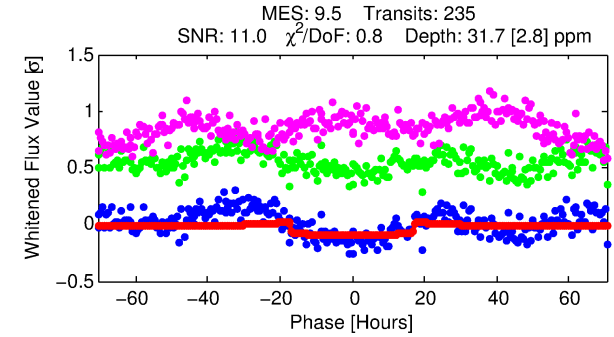
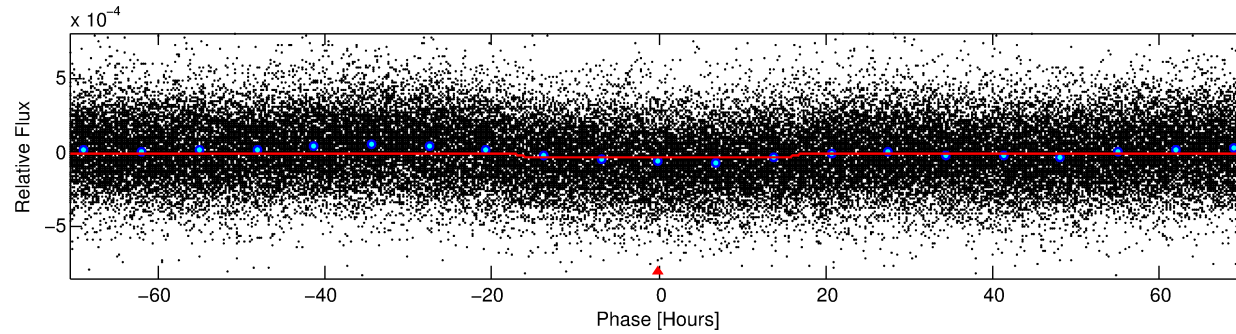
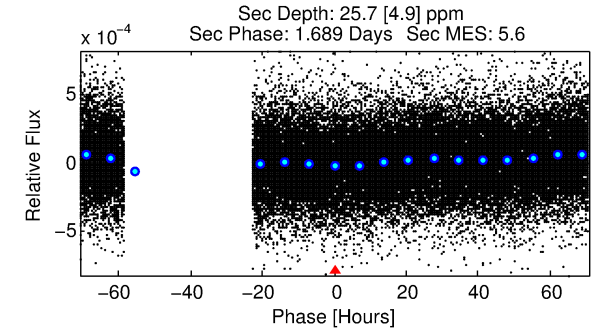
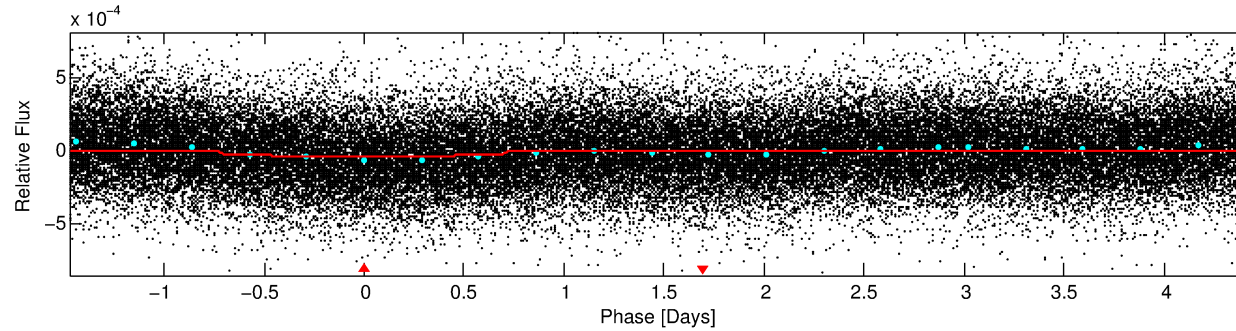
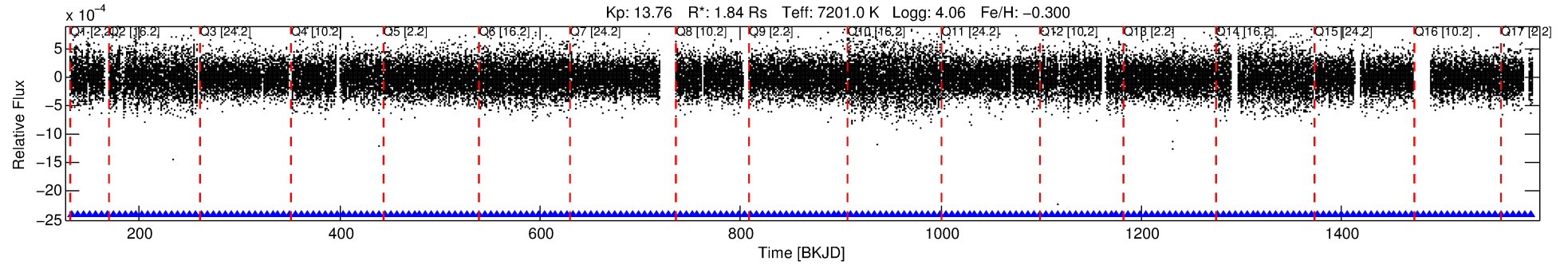
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007177105-01

No Significant Match Found

DV One-Page Summary

KIC: 7177105 Candidate: 1 of 1 Period: 5.893 d



DV Fit Results:

Period = 5.89260 [0.00015] d
Epoch = 132.6244 [0.0184] BKJD
Rp/R* = 0.0054 [0.0017]
a/R* = 1.32 [1.07]
b = 0.57 [2.22]
Seff = 1585.09 [651.55]
Teq = 1609 [165] K
Rp = 1.09 [0.46] Re
a = 0.0719 [0.0182] AU
Ag = 61.61 [46.56] [1.30σ]
Teffp = 6969 [1168] K [4.54σ]

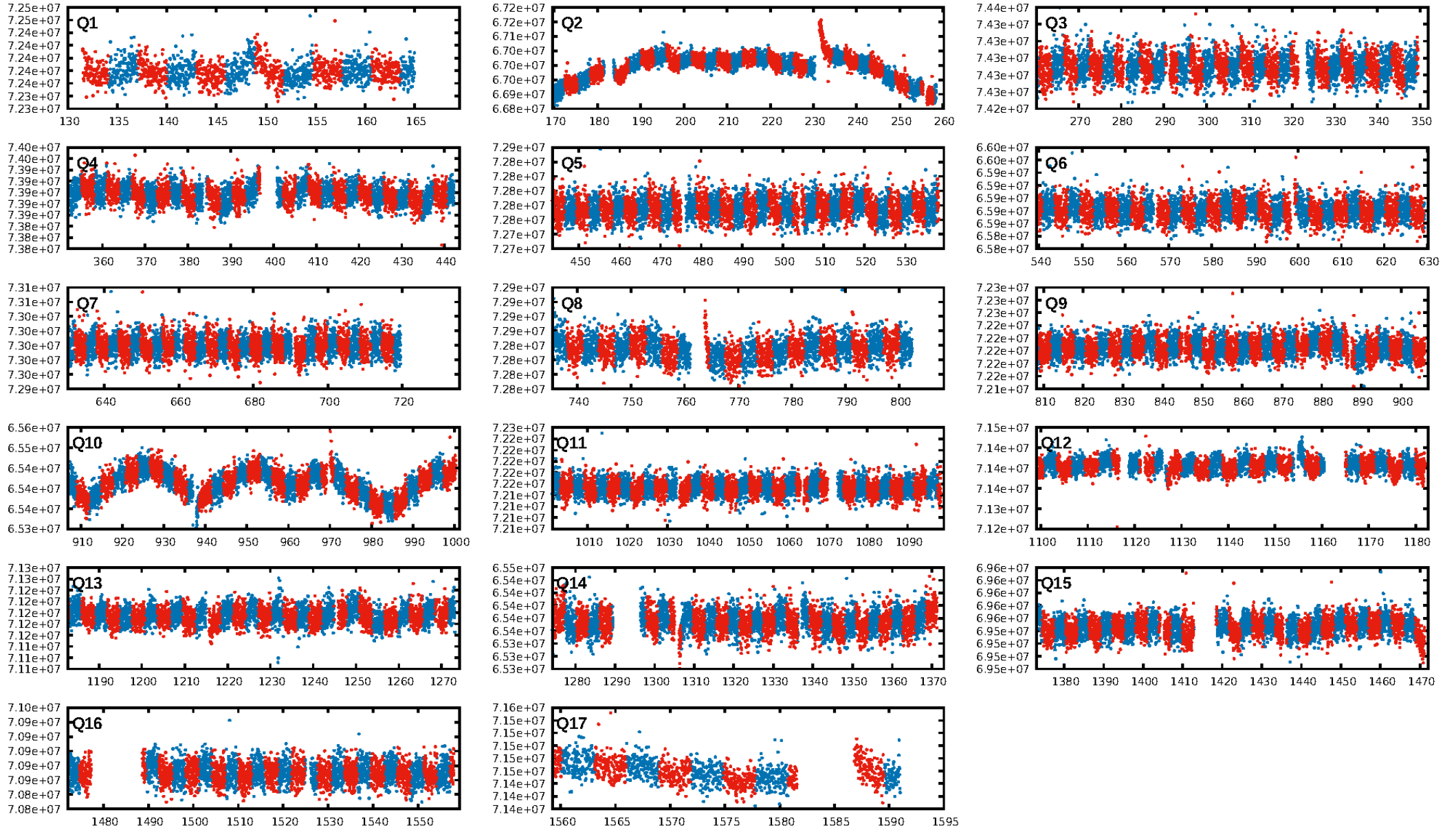
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.50e-28
RollingBand-fgt: 1.00 [224/224]
GhostDiagnostic-chr: 8.02
Centroid-sig: 1.4%
Centroid-so: 1.187 arcsec [1.27σ]
OotOffset-rm: 0.565 arcsec [0.54σ]
KicOffset-rm: 0.279 arcsec [0.34σ]
OotOffset-st: 4/1/3/1 [9]
KicOffset-st: 4/1/3/1 [9]
DiffImageQuality-fgm: 0.67 [6/9]
DiffImageOverlap-fno: 1.00 [17/17]

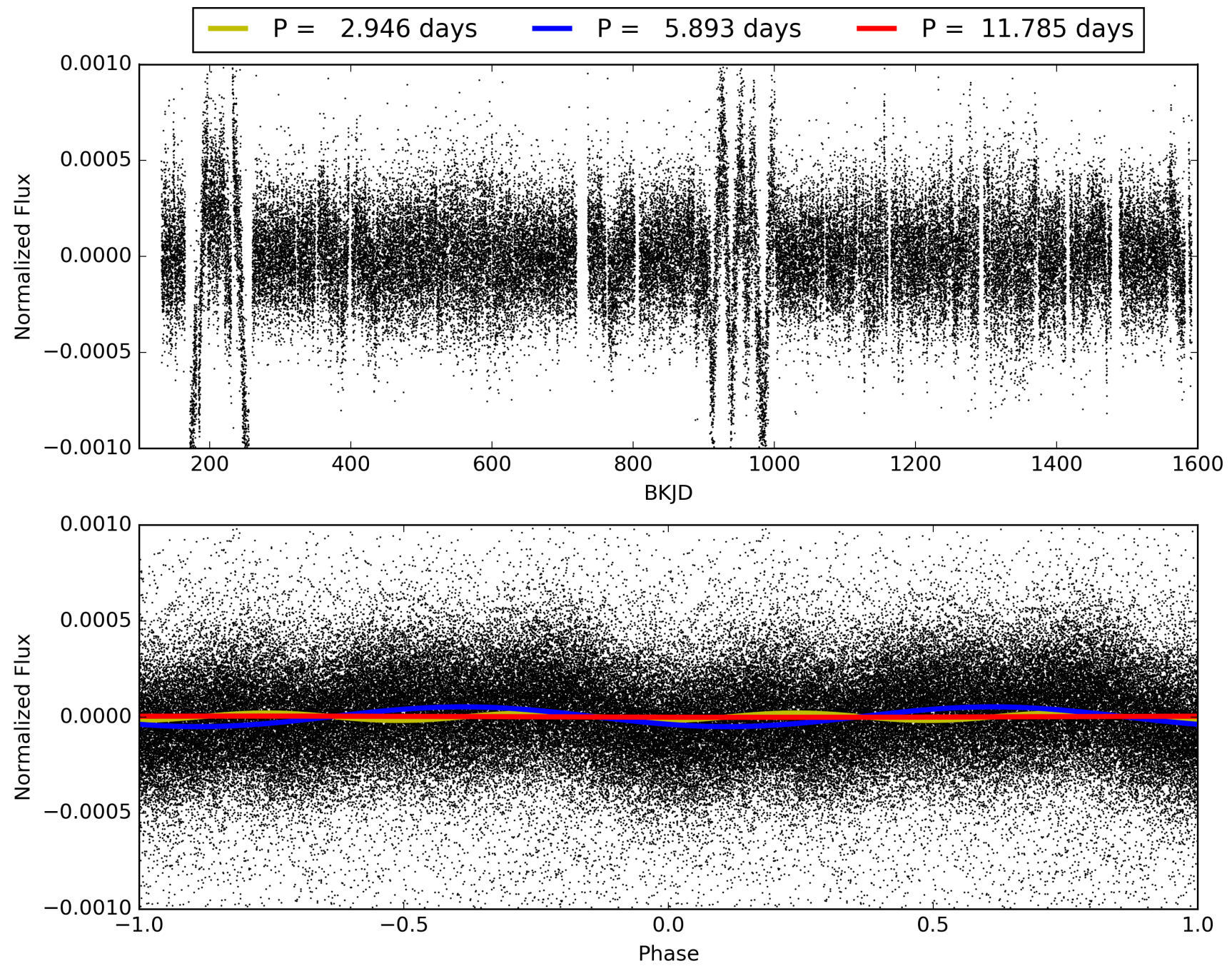
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:39:27 Z

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

TCE 007177105-01, PDC Light Curves

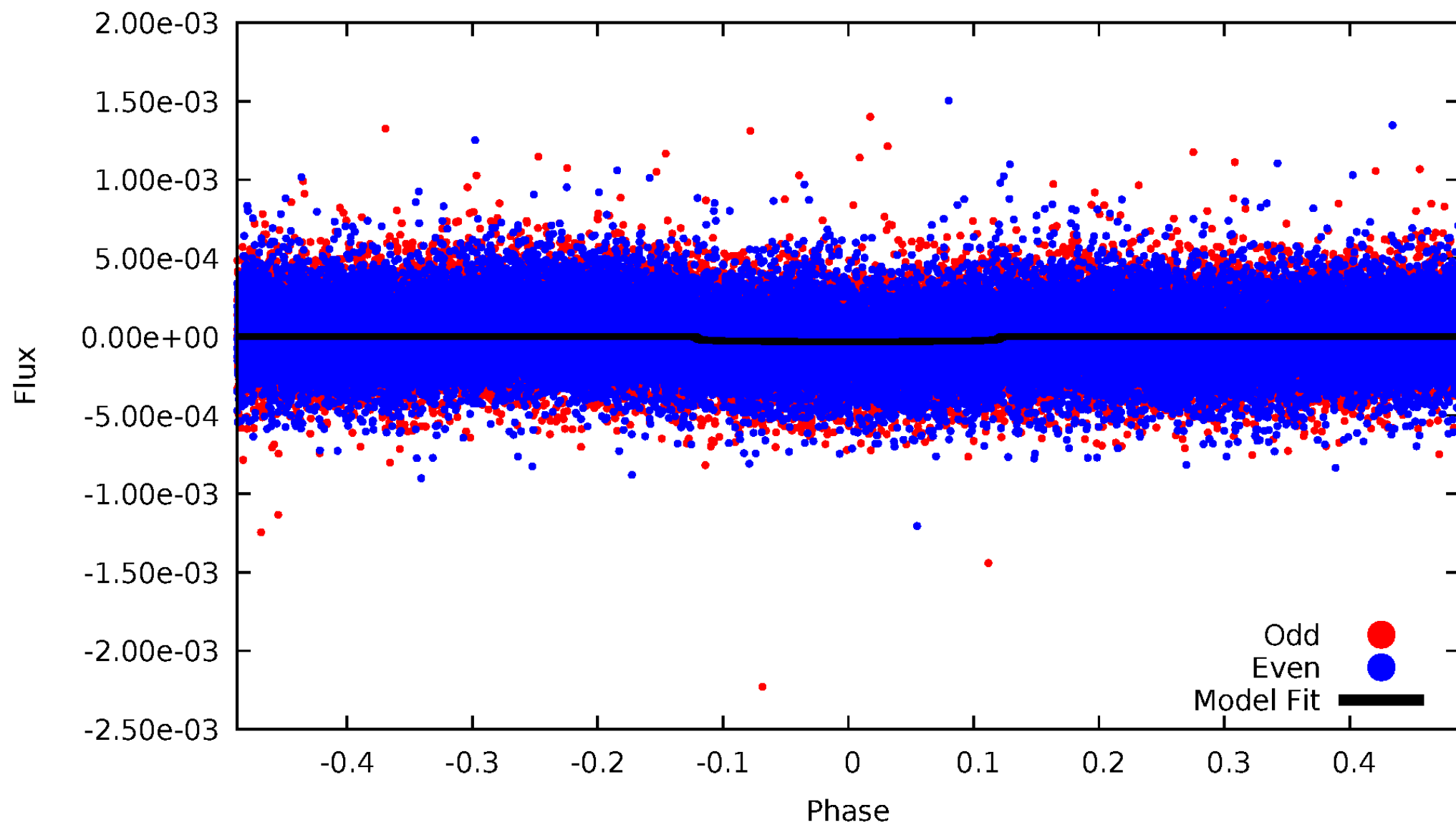


TCE 007177105-01



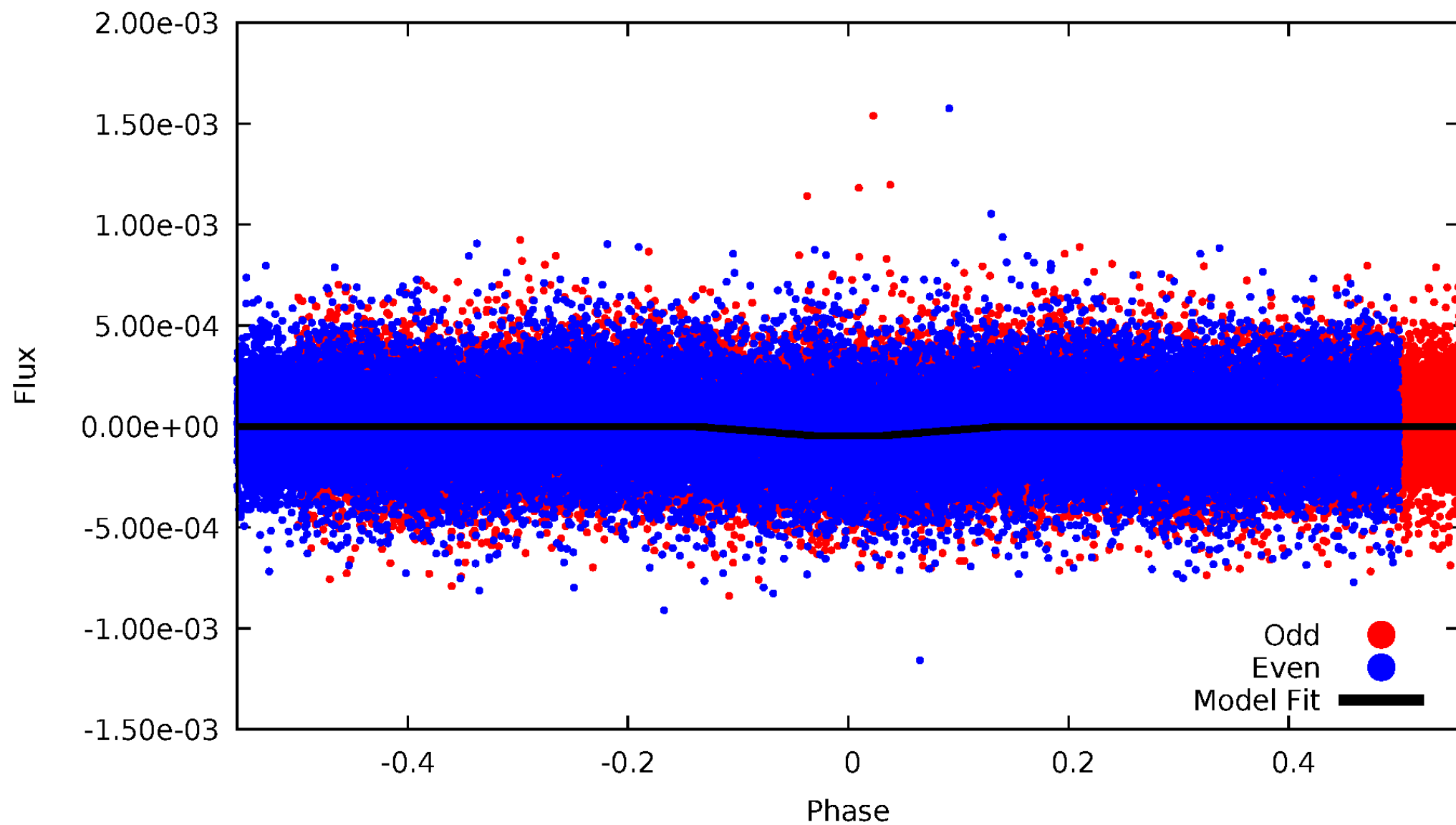
DV Odd/Even

TCE 007177105-01



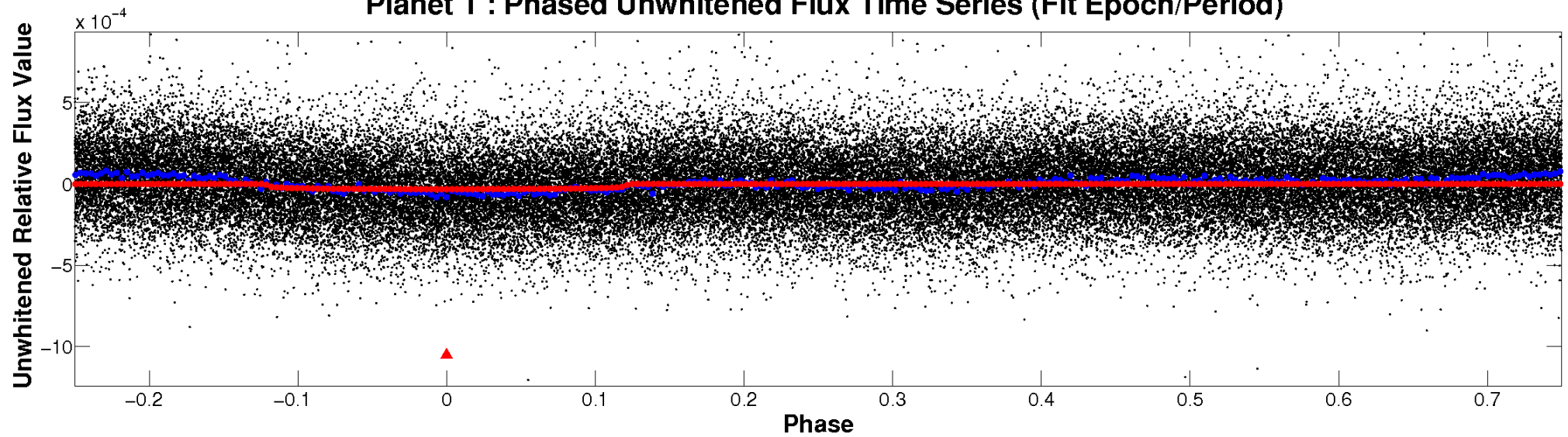
ALT Odd/Even

TCE 007177105-01

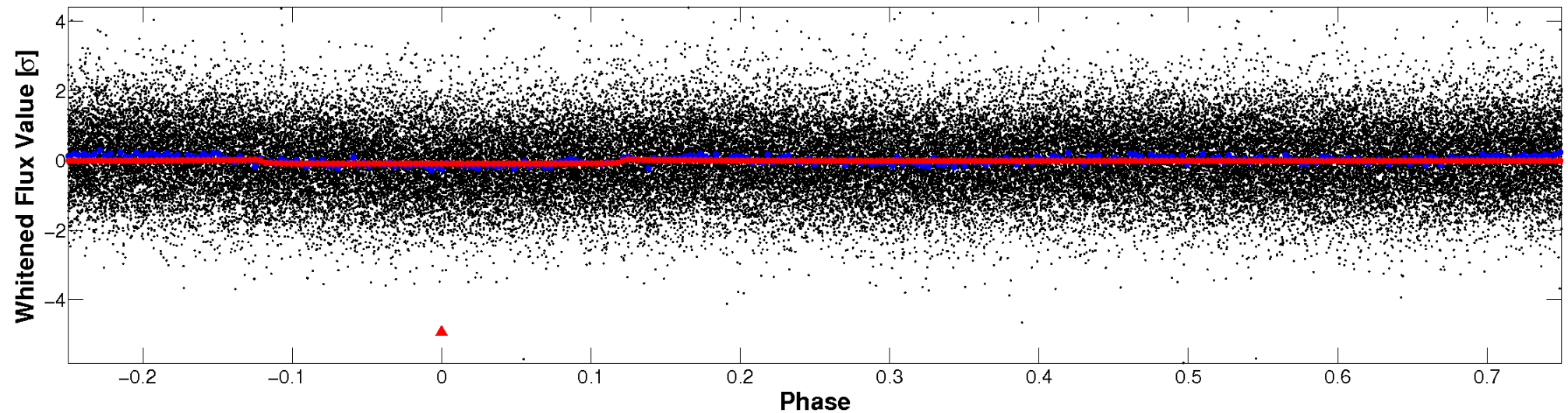


Non-Whitened Vs. Whitened Light Curve

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

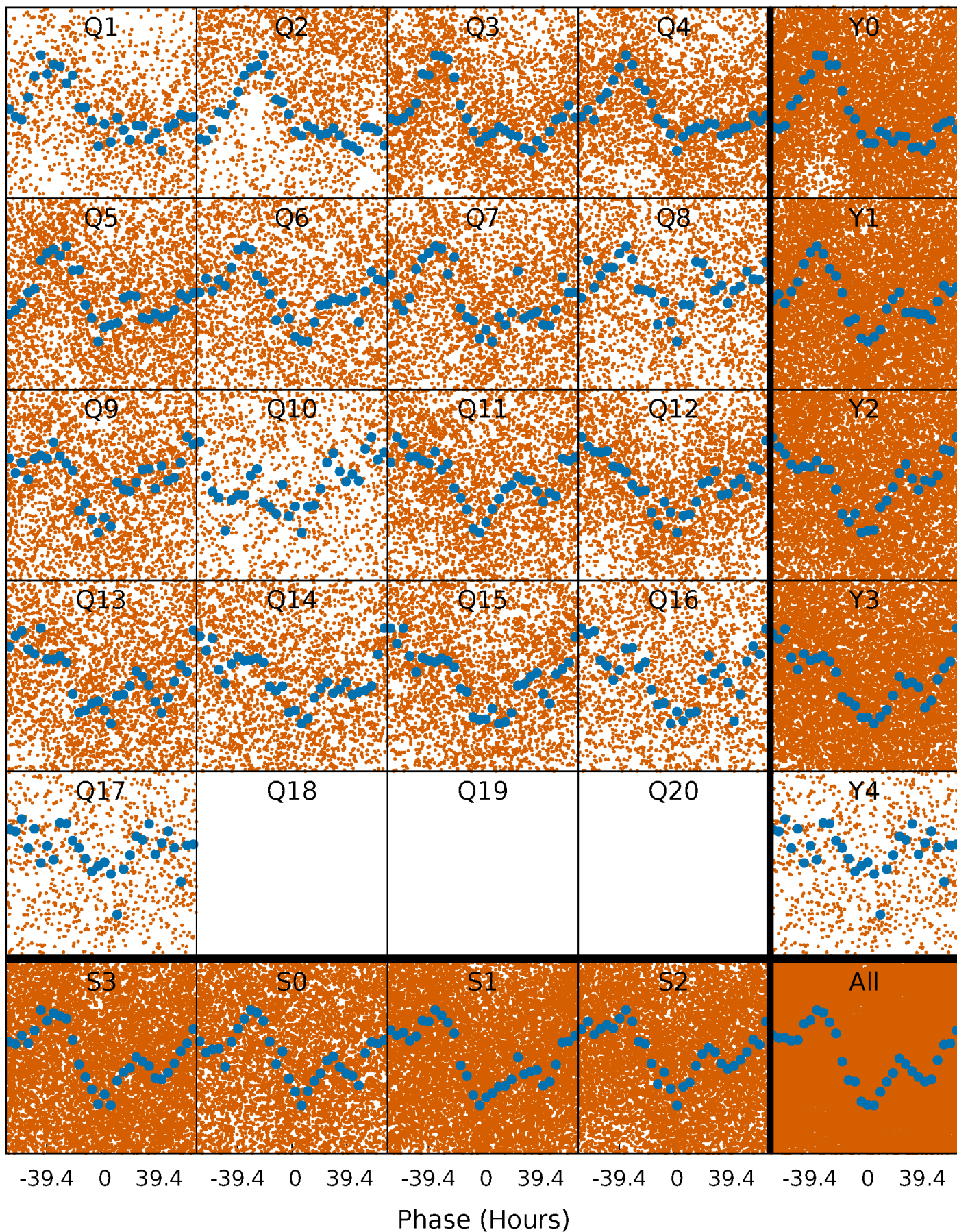


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



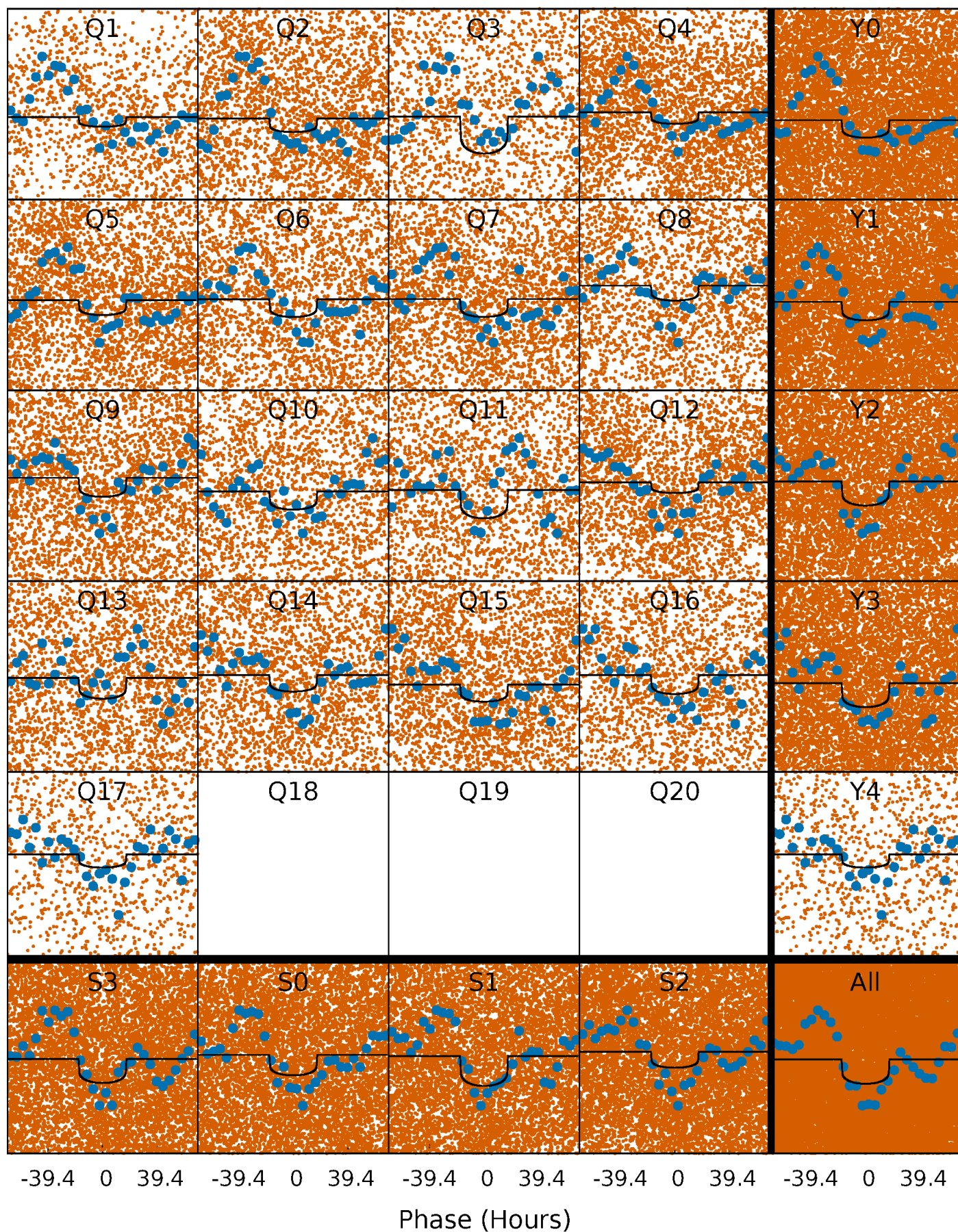
PDC Quarter-Phased Transit Curves

TCE 007177105-01 P= 5.892603 Days $T_0=132.624377$ (BKJD)



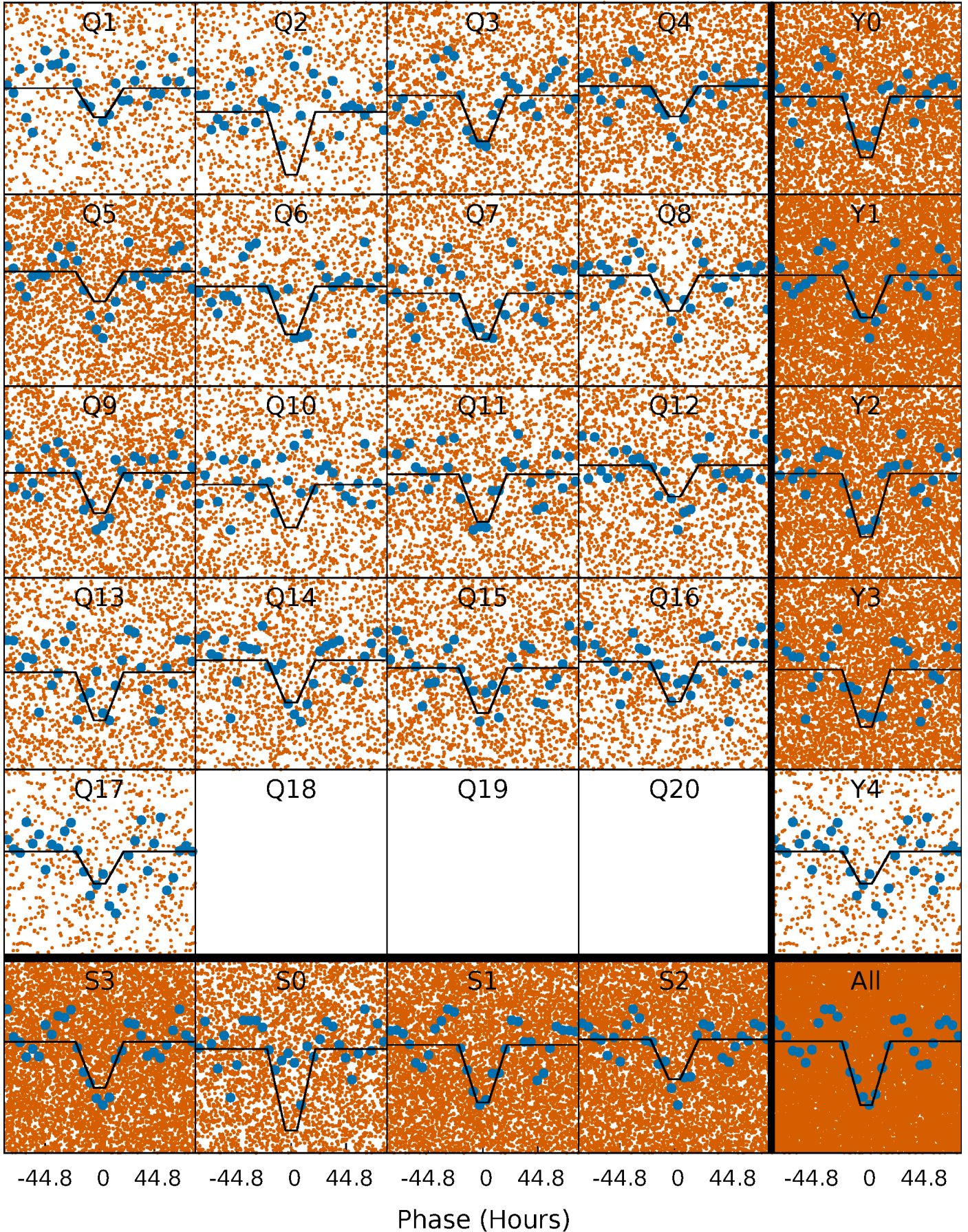
DV Quarter-Phased Transit Curves

TCE 007177105-01 P= 5.892603 Days $T_0=132.624377$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

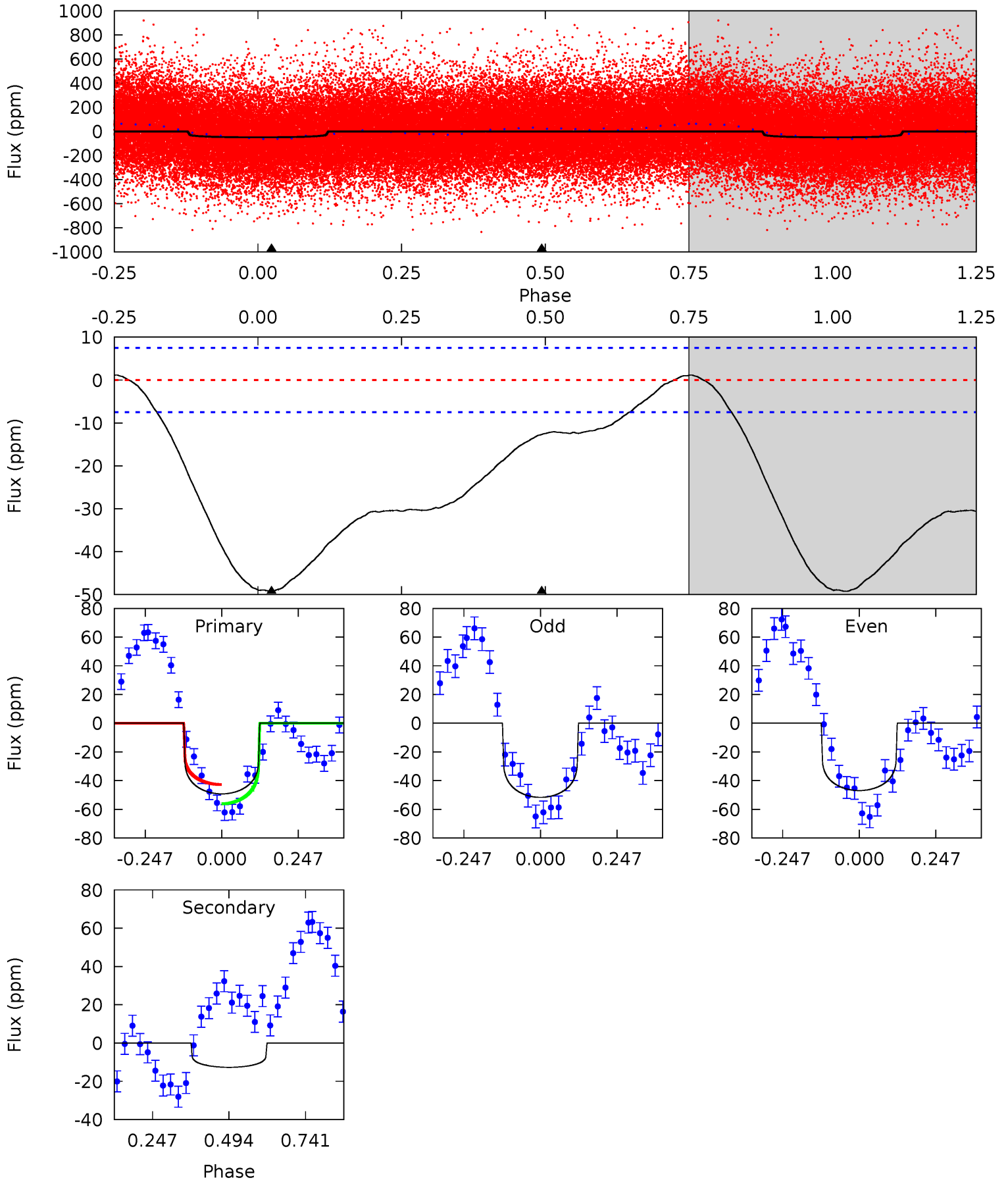
TCE 007177105-01 P= 5.892898 Days $T_0=132.549668$ (BKJD)



DV Model-Shift Uniqueness Test

007177105-01, P = 5.892603 Days, E = 126.731774 Days

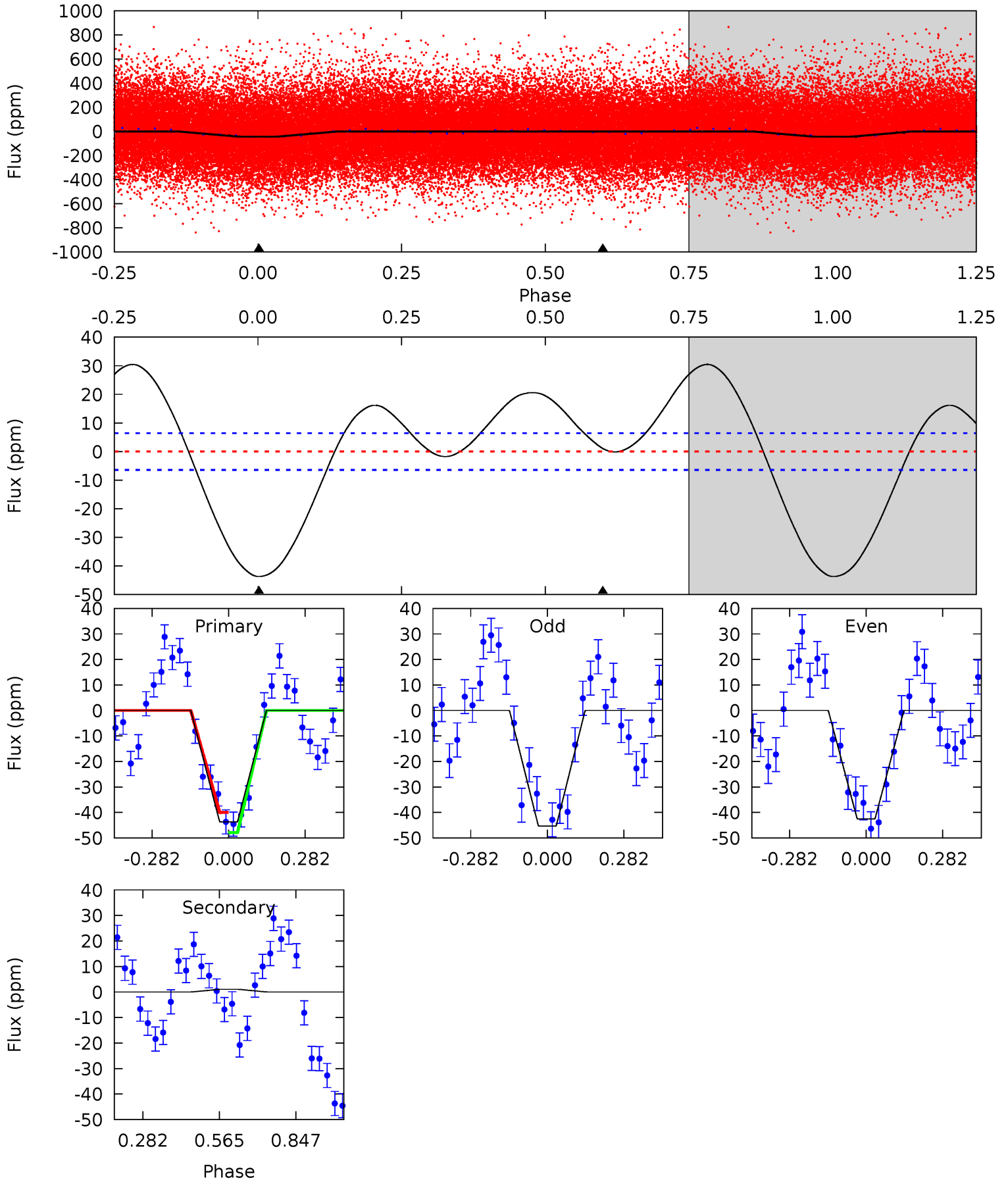
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.8	7.41	0	0	4.37	1.16	7.21	28.8	28.8	7.41	7.41	1.39	1.01	0.02	3.93



Alt Model-Shift Uniqueness Test

007177105-01, P = 5.892898 Days, E = 126.656770 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.4	-0.72	0	0	4.34	1.08	2.38	29.4	29.4	-0.72	-0.72	0.95	0.68	0.41	2.64



Stellar Parameters For KIC 007177105

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7201^{+226}_{-277}	$4.061^{+0.214}_{-0.156}$	$-0.300^{+0.250}_{-0.350}$	$1.845^{+0.535}_{-0.481}$	$1.428^{+0.206}_{-0.251}$	$0.320^{+0.405}_{-0.159}$
	+3%/-4%	+5%/-4%	+83%/-117%	+29%/-26%	+14%/-18%	+126%/-50%
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 007177105-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 2	$1.06^{+0.42}_{-0.33}$	2228^{+167}_{-168}	5759^{+1194}_{-747}	31^{+38}_{-15}
Alt.	1 ± 1	$1.31^{+0.43}_{-0.35}$	2234^{+156}_{-168}	-3374^{+5930}_{-627}	$-1.592^{+2.119}_{-3.389}$

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

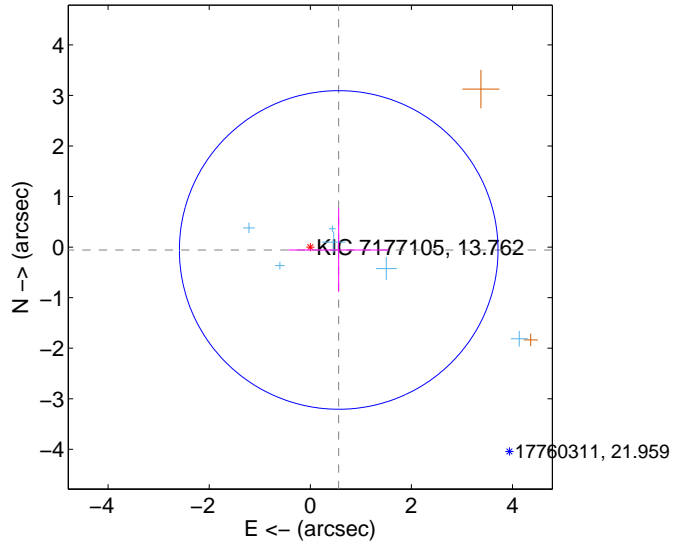
Supplemental centroid analysis for 007177105-01. Kepler magnitude: 13.76. Transit SNR 10.97

There are 6 quarters with good PRF difference image offsets

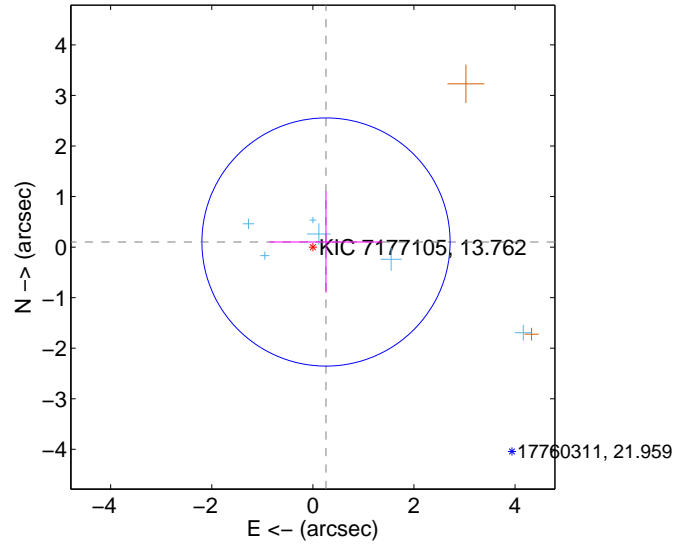
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.565 ± 1.050	0.54	-0.562 ± 0.992	-0.057 ± 0.825
PRF-fit source offset from KIC position	0.279 ± 0.818	0.34	-0.260 ± 1.118	0.100 ± 1.000
photometric centroid source offset	1.19 ± 0.93	1.27	-0.28 ± 0.90	-1.15 ± 0.94

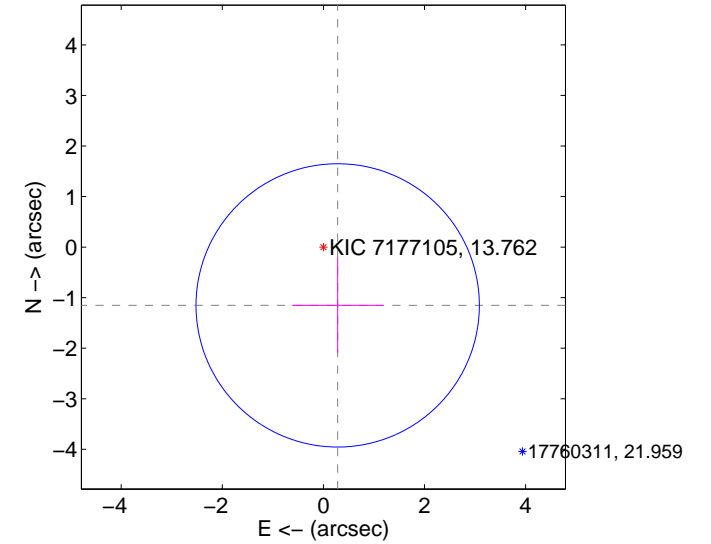
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

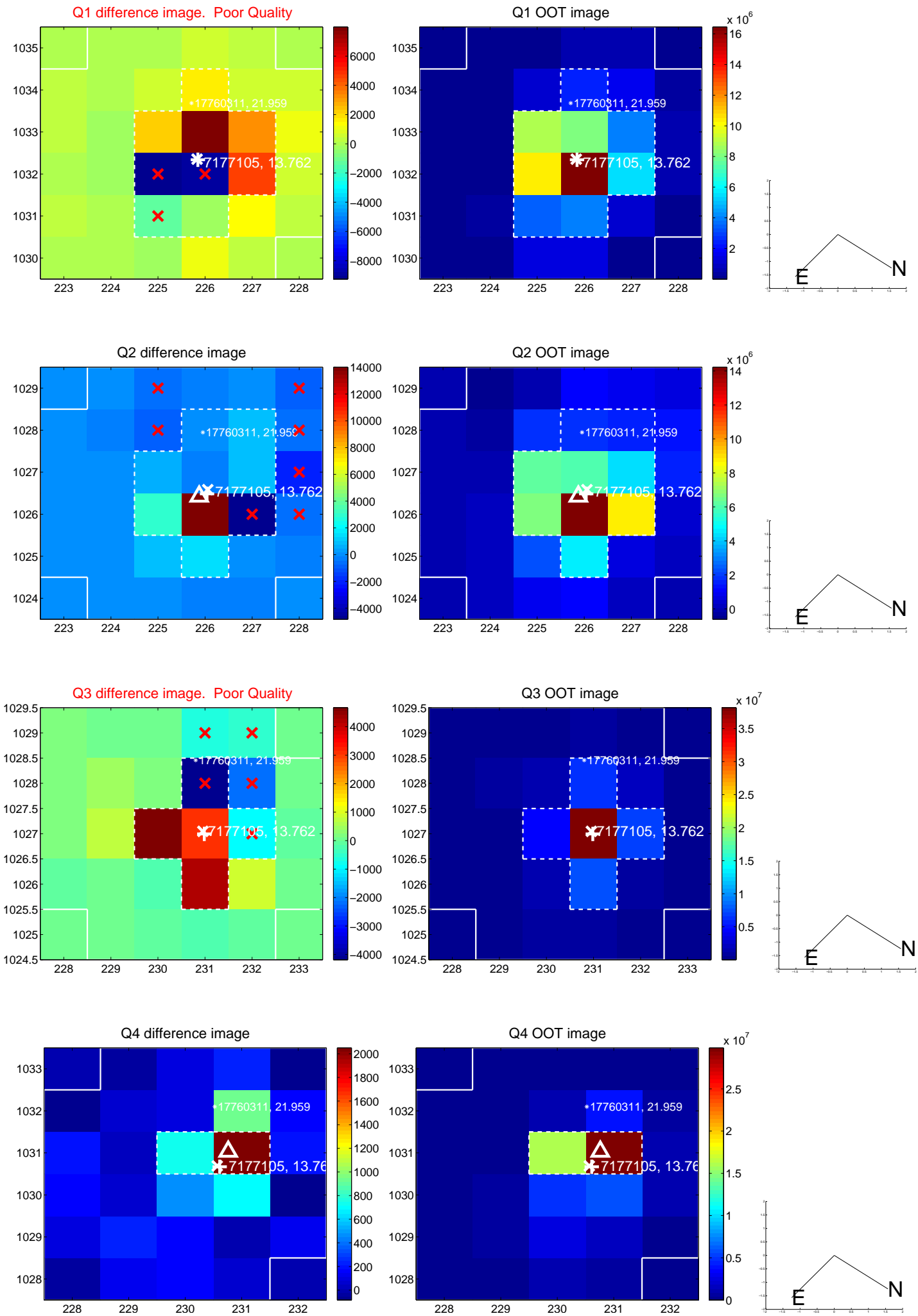


offset from photometric centroids

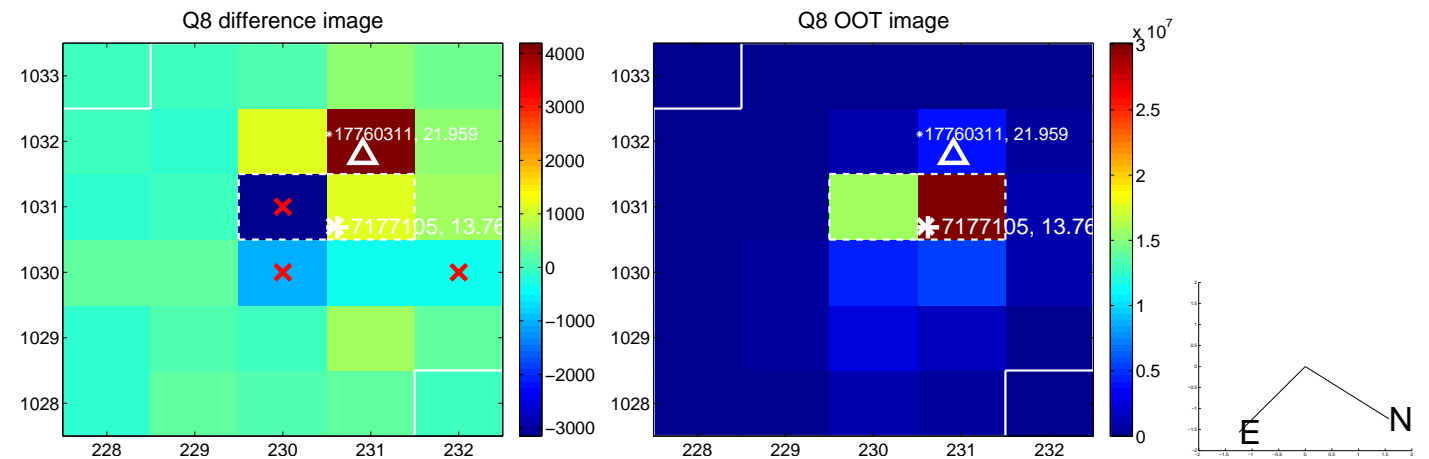
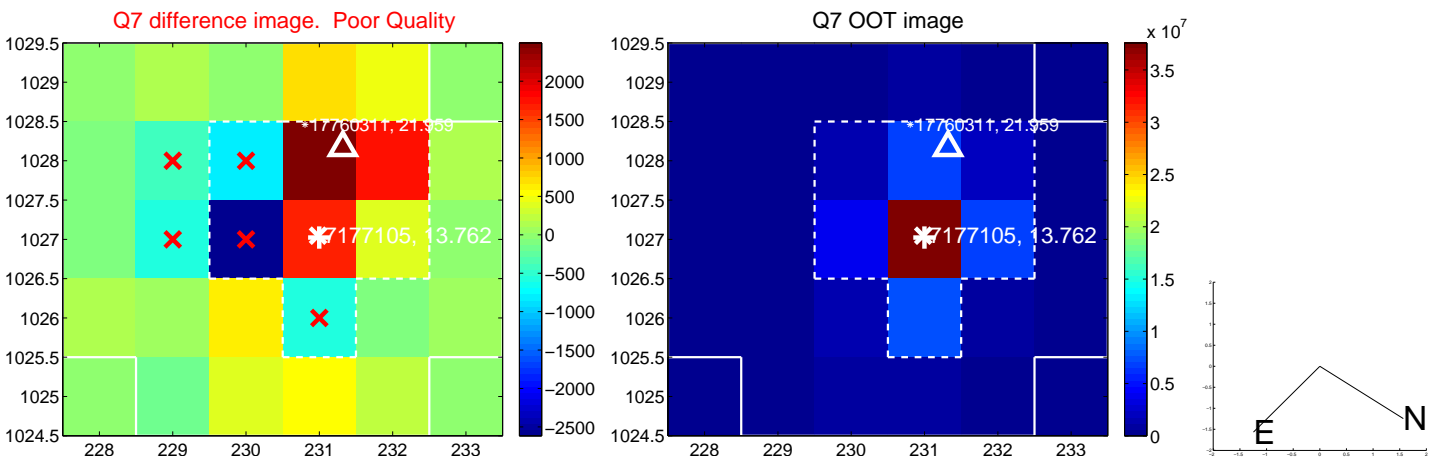
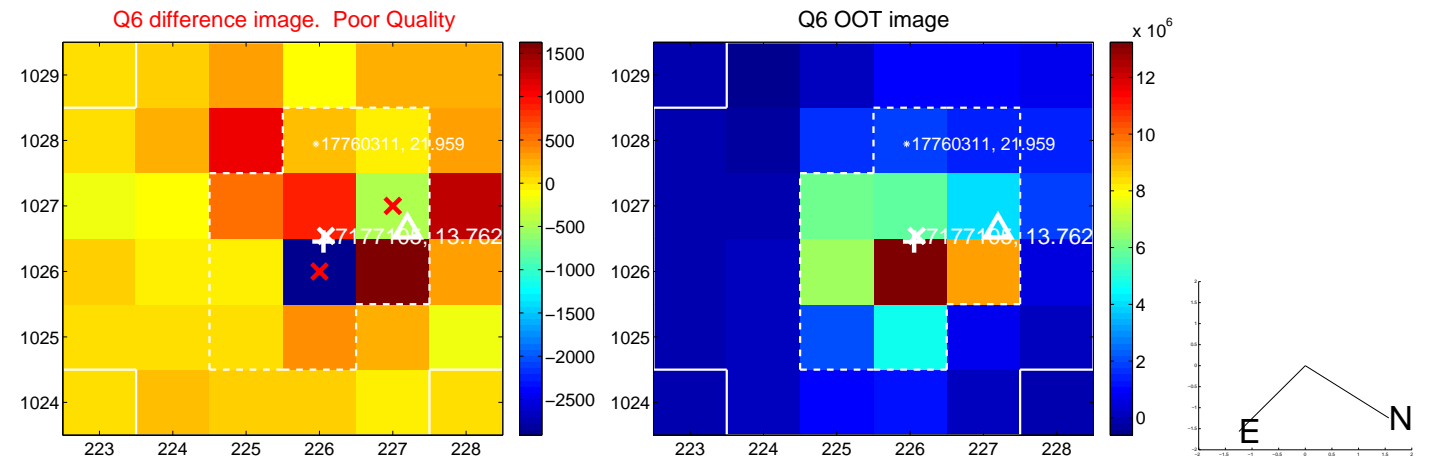
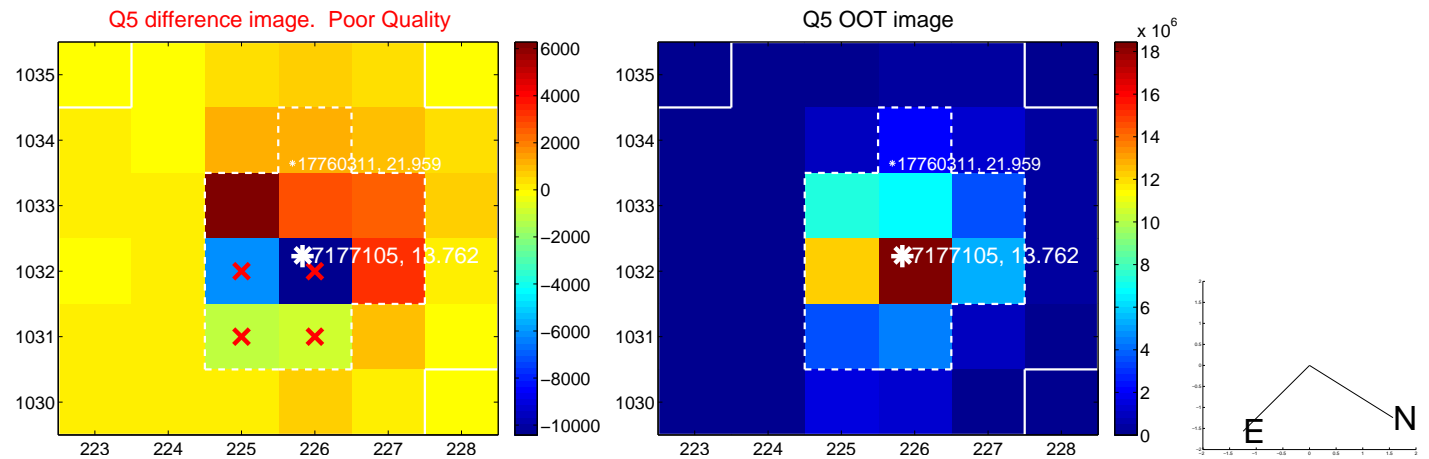


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

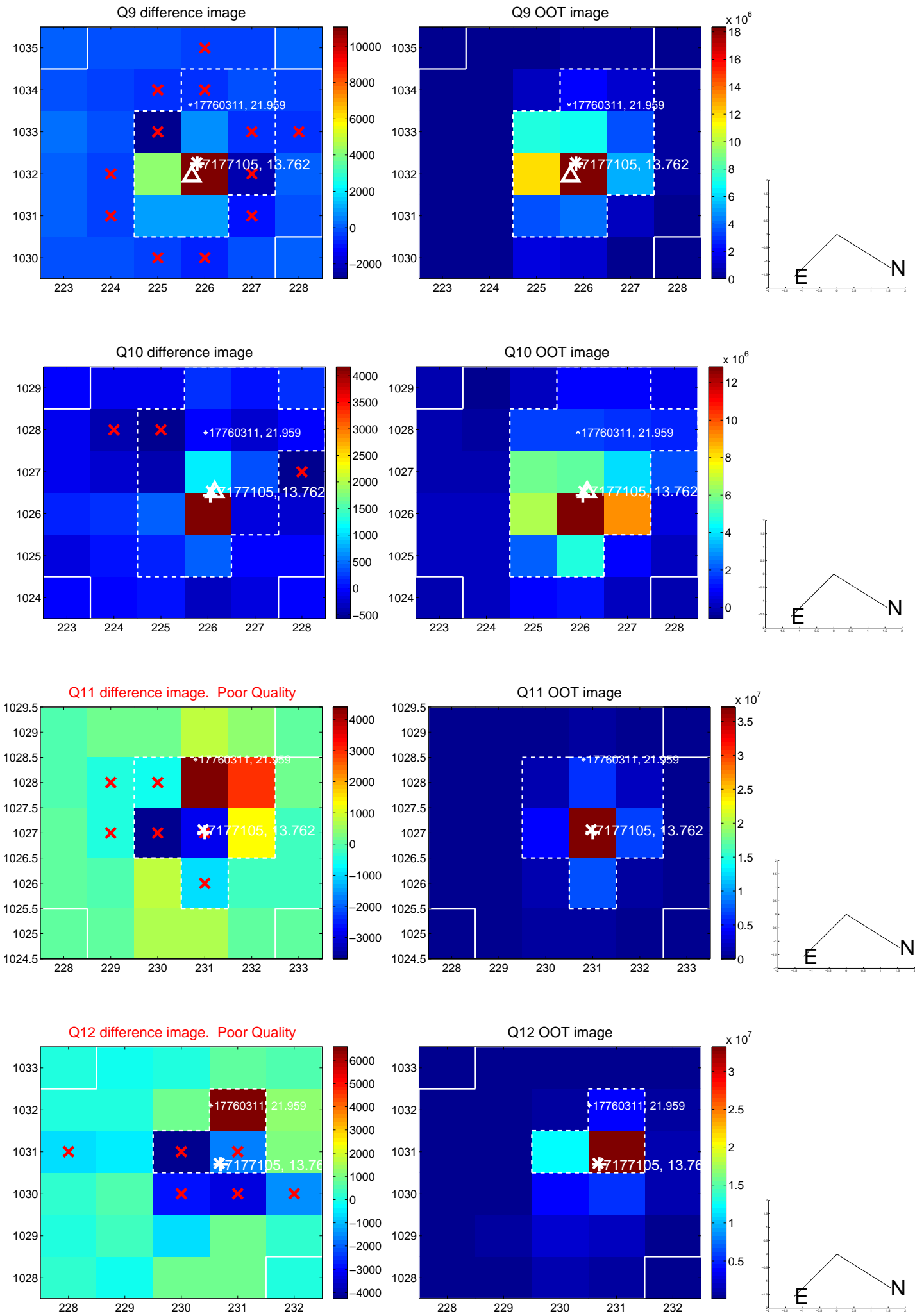
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



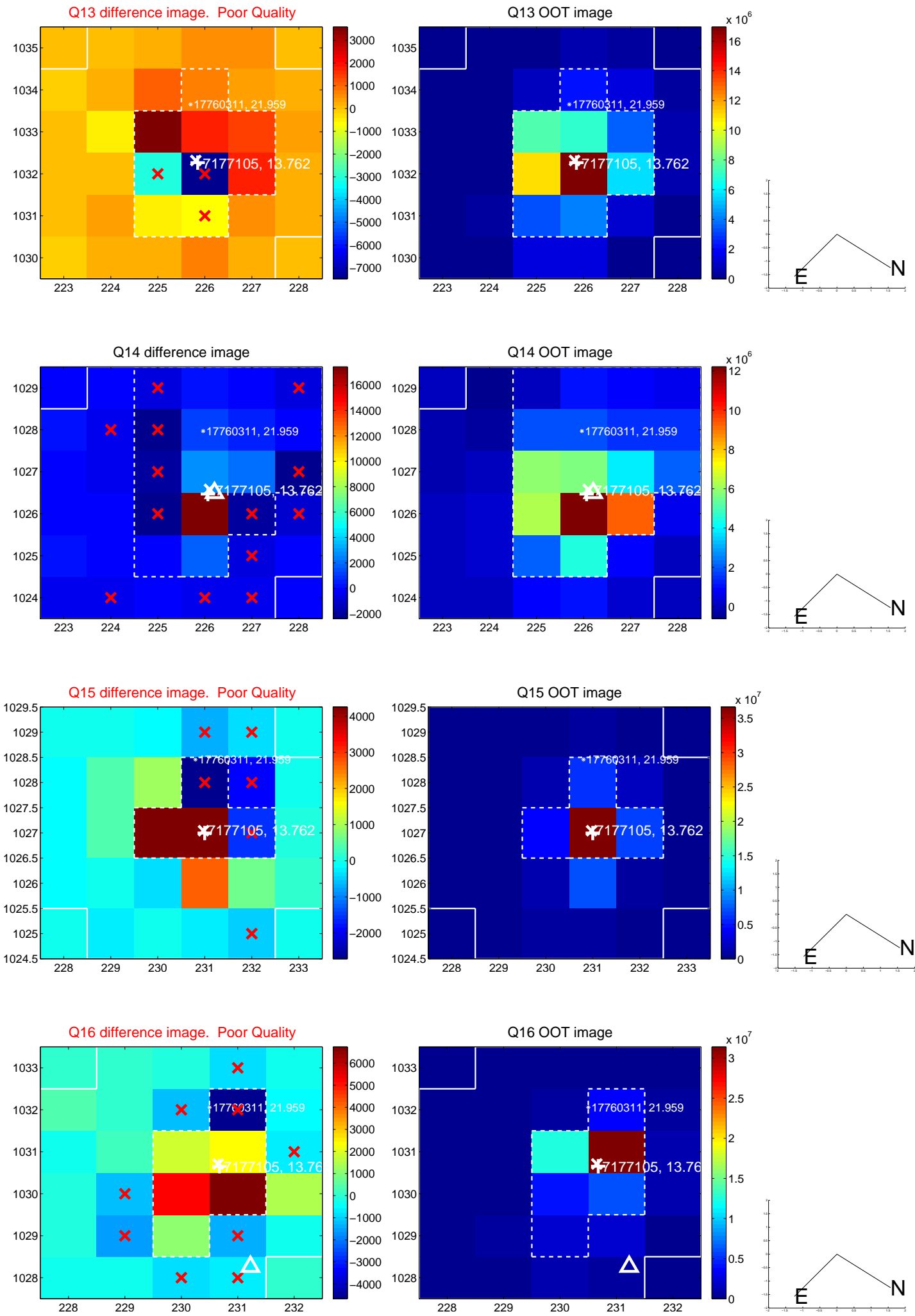
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



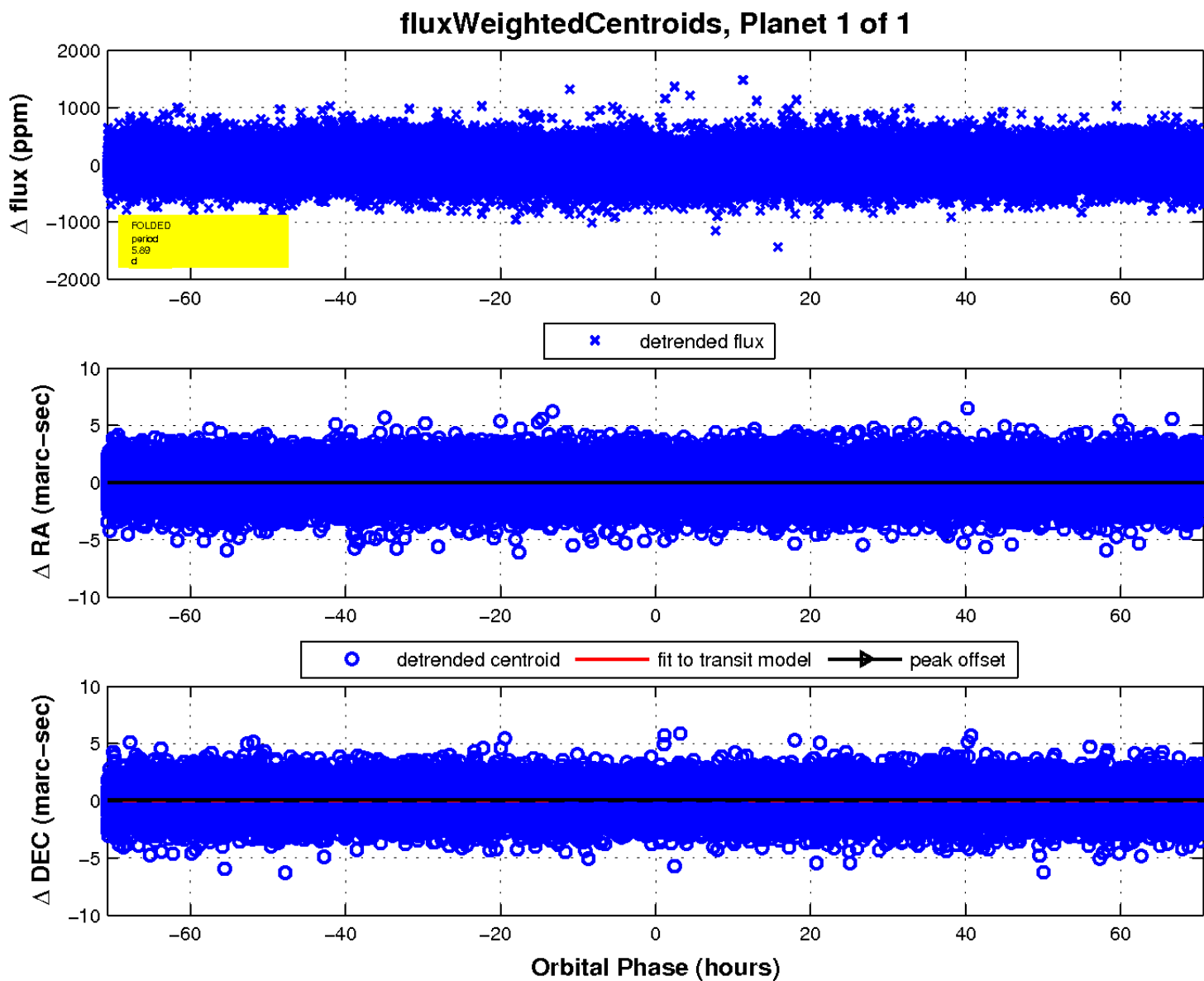
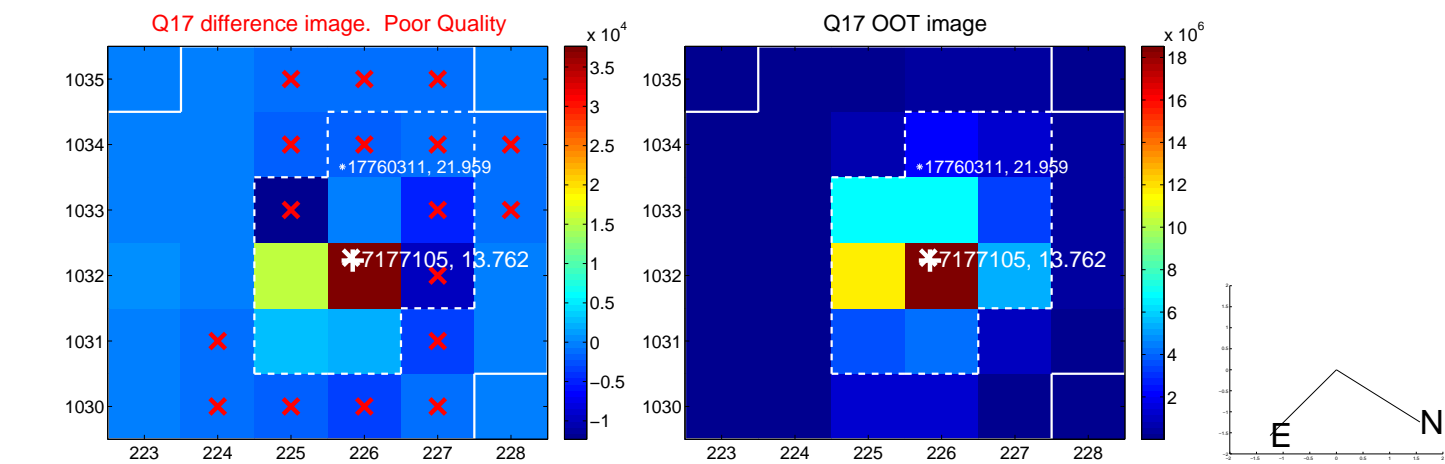
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

