

KIC 007984890

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})
007984890-01	OBS	No	0.900529	131.797959	3.0	7.531	9.4	2.2	4.31	6751	0.76	72681.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007984890-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—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.

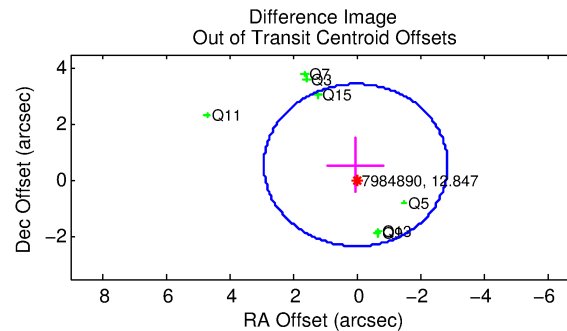
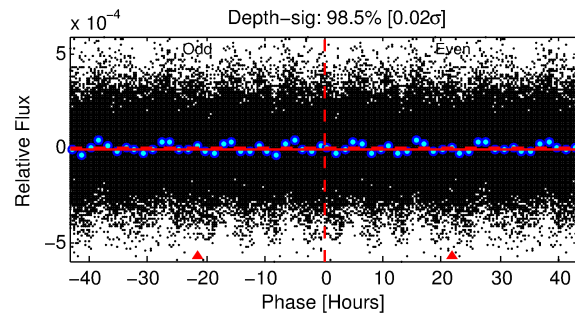
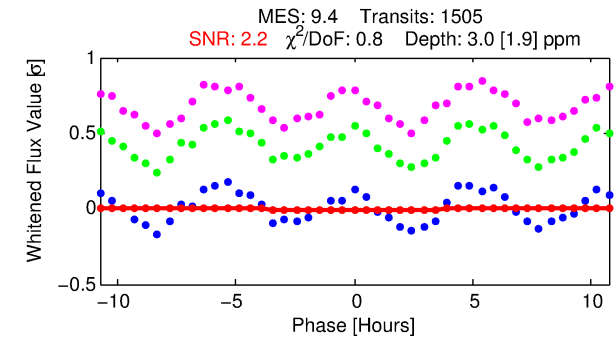
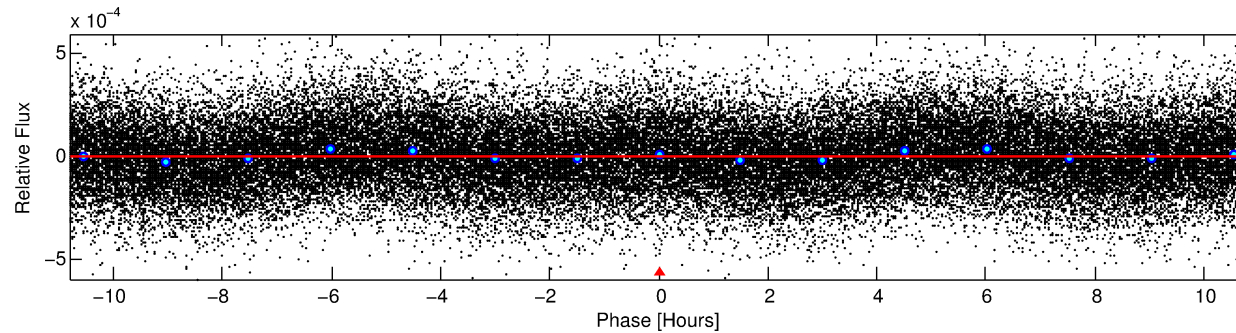
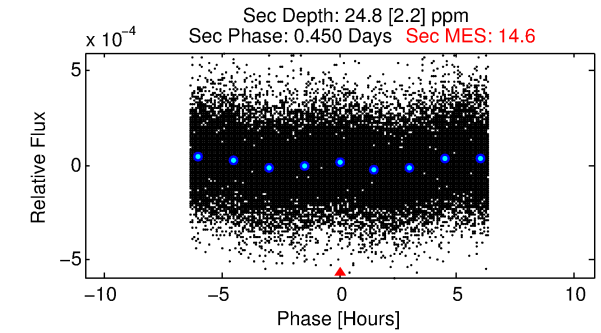
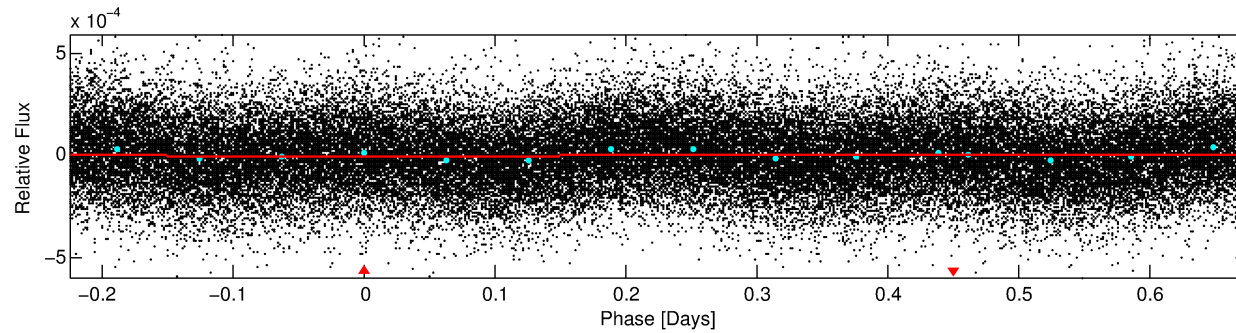
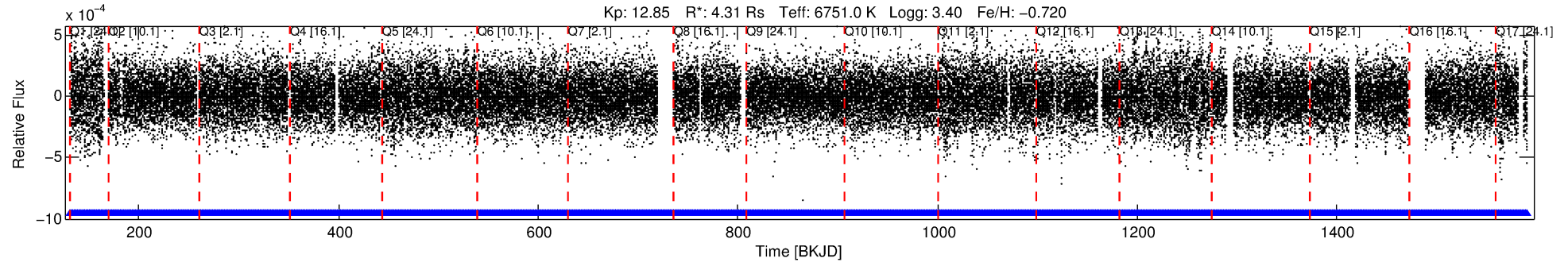
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007984890-01

No Significant Match Found

DV One-Page Summary

KIC: 7984890 Candidate: 1 of 1 Period: 0.901 d



DV Fit Results:

Period = 0.90053 [0.00008] d
Epoch = 131.7980 [0.0260] BKJD
Rp/R* = 0.0016 [0.0058]
a/R* = 1.12 [4.42]
b = 0.29 [64.49]
Seff = 72681.16 [54856.01]
Teq = 4187 [790] K
Rp = 0.76 [2.73] Re
a = 0.0218 [0.0103] AU
Ag = 11.22 [80.34] [0.13σ]
Teffp = 11847 [21095] K [0.36σ]

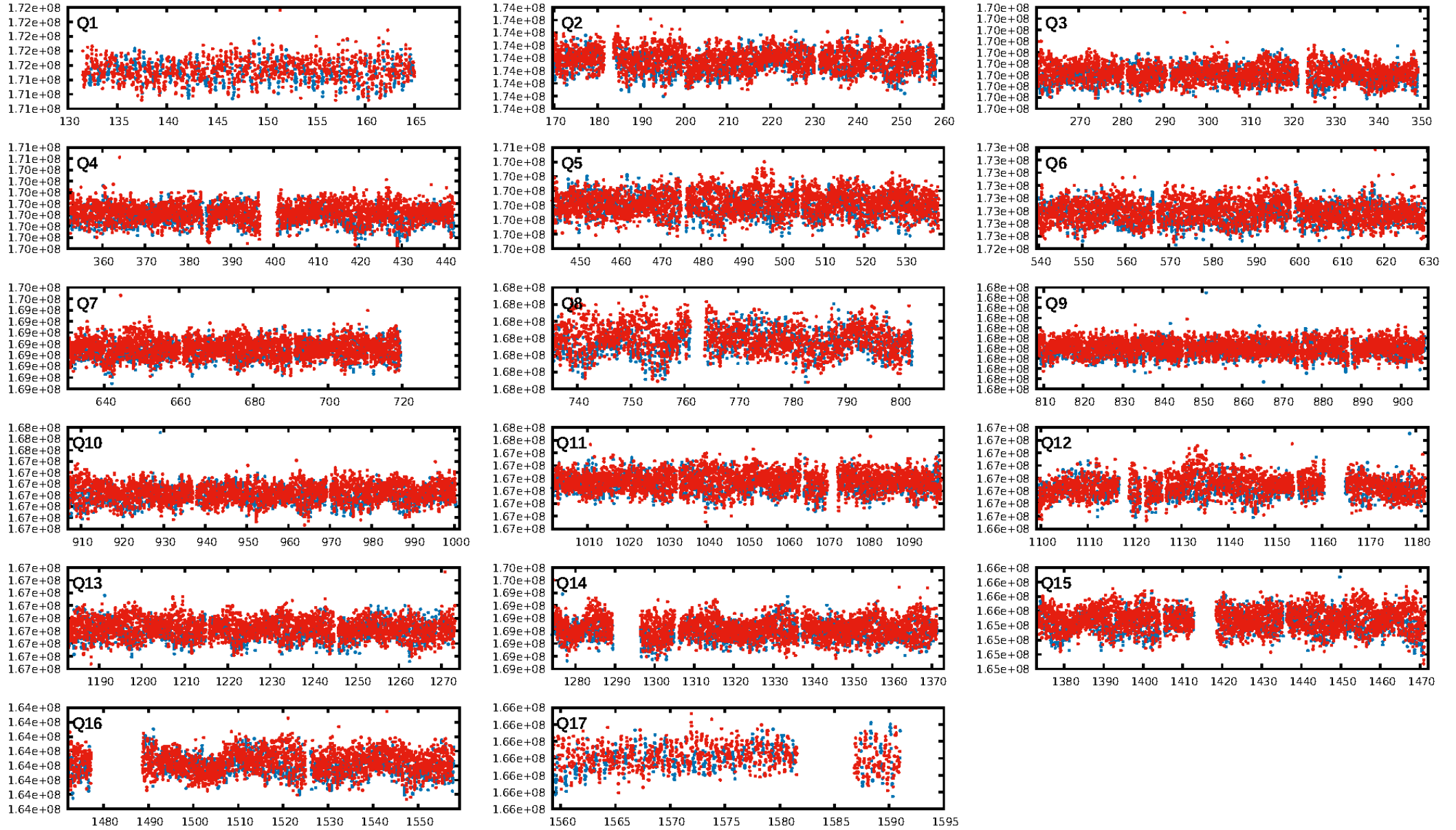
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1436/1436]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.555 arcsec [0.58σ]
KicOffset-rm: 0.647 arcsec [0.67σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [17/17]

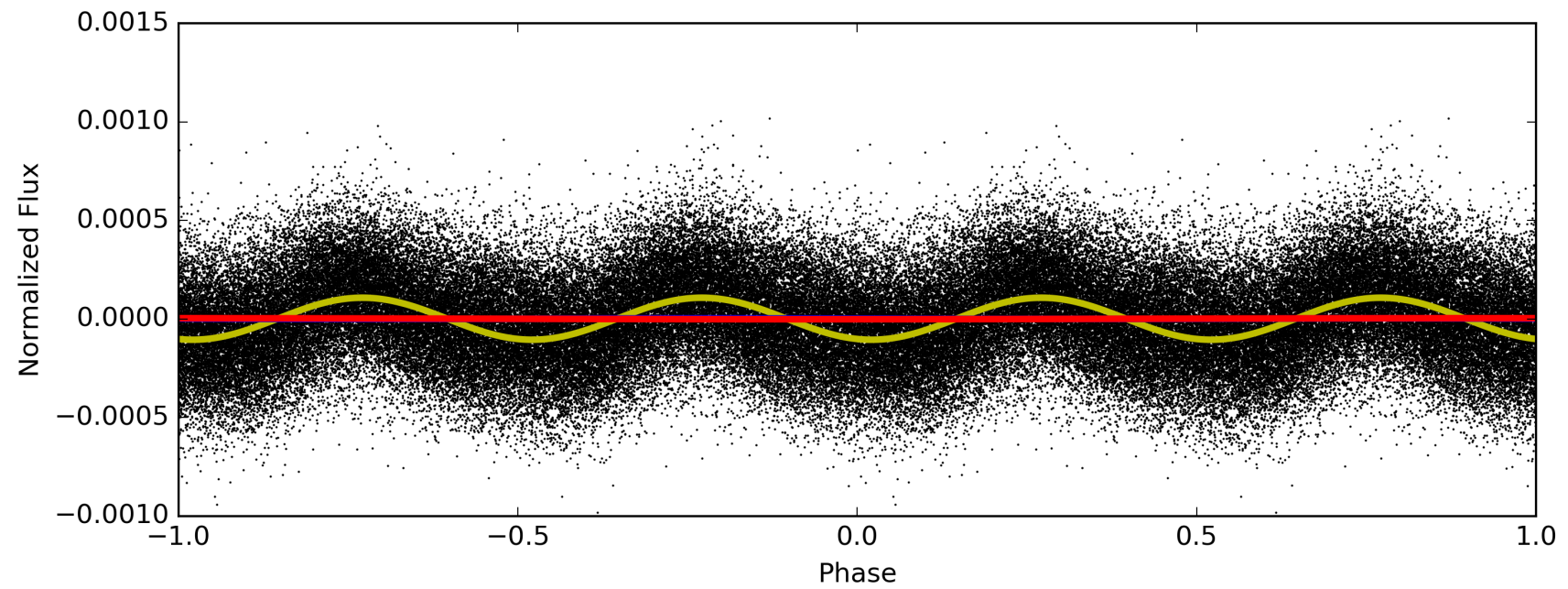
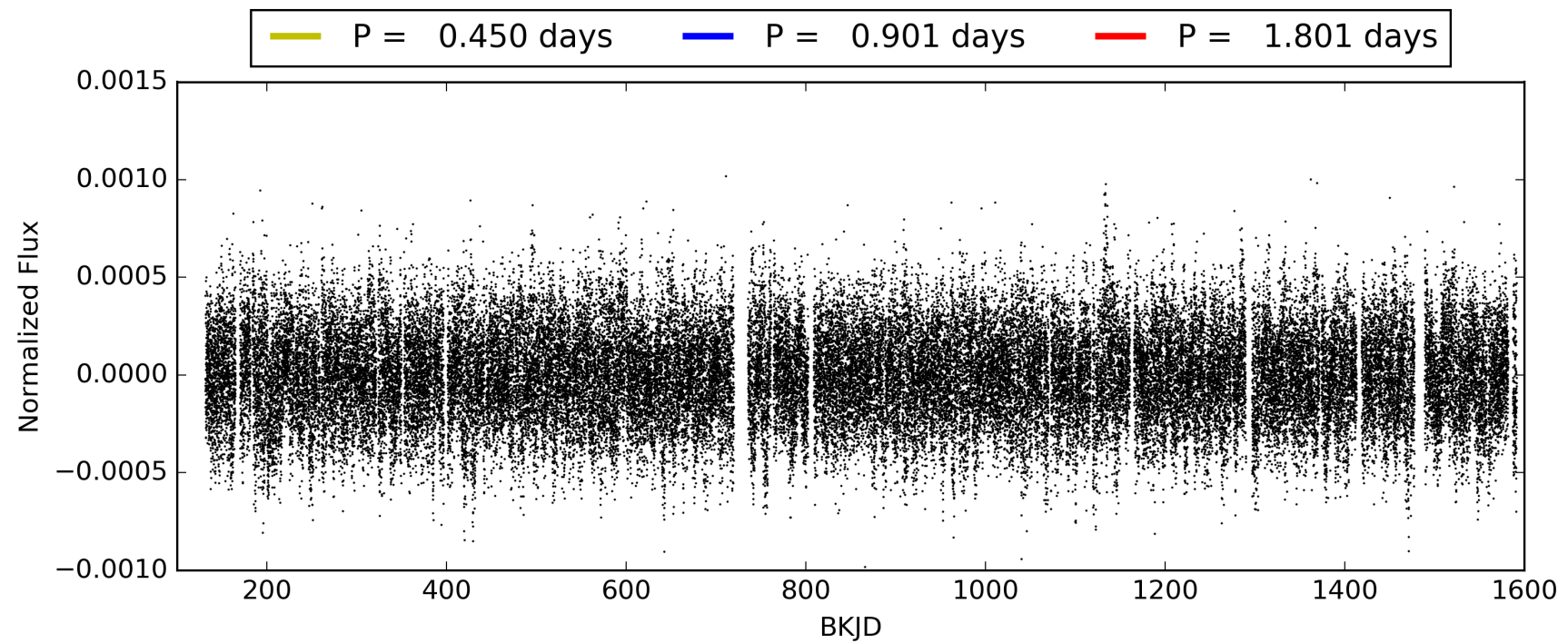
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:46:05 Z

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

TCE 007984890-01, PDC Light Curves

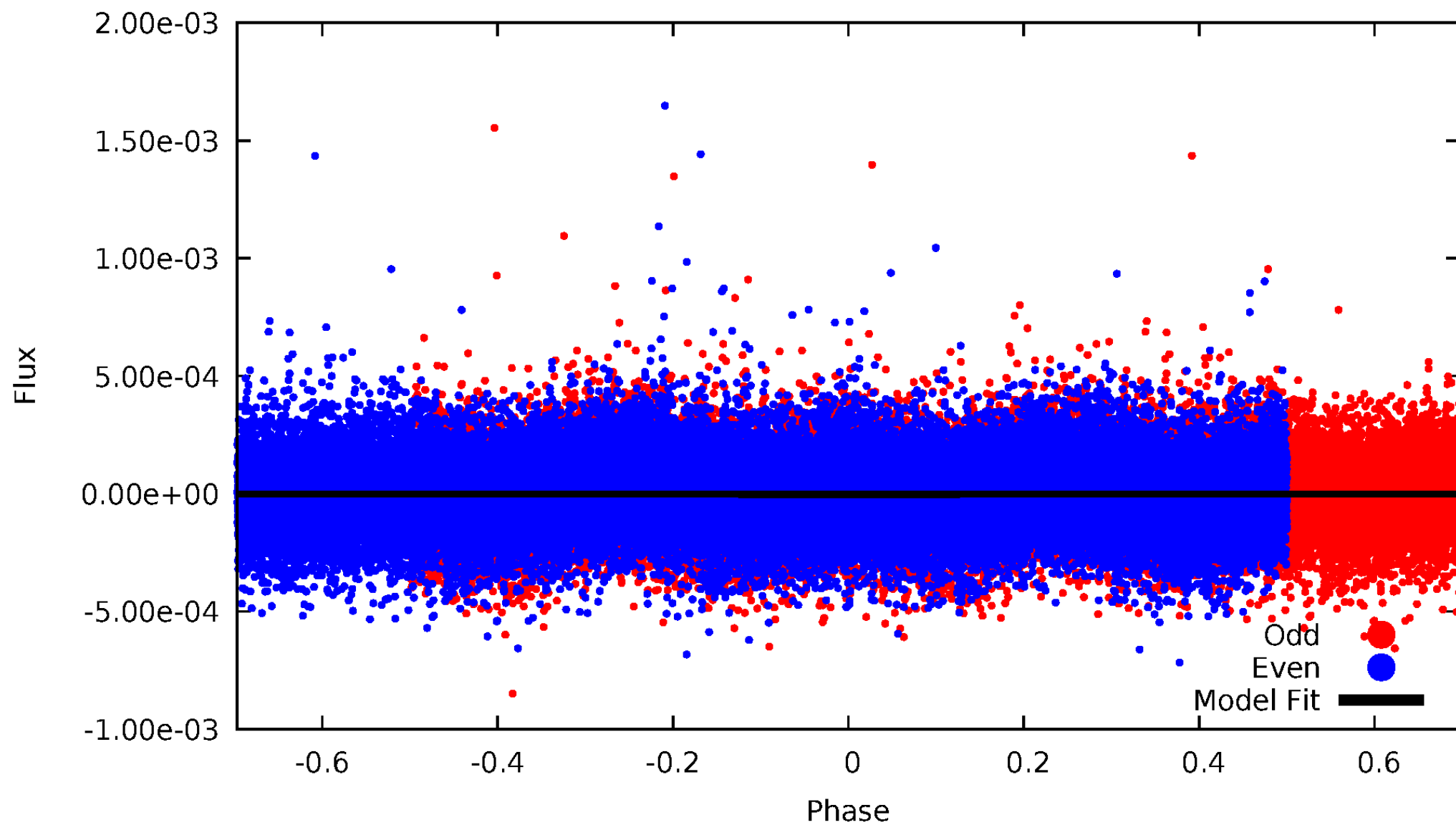


TCE 007984890-01



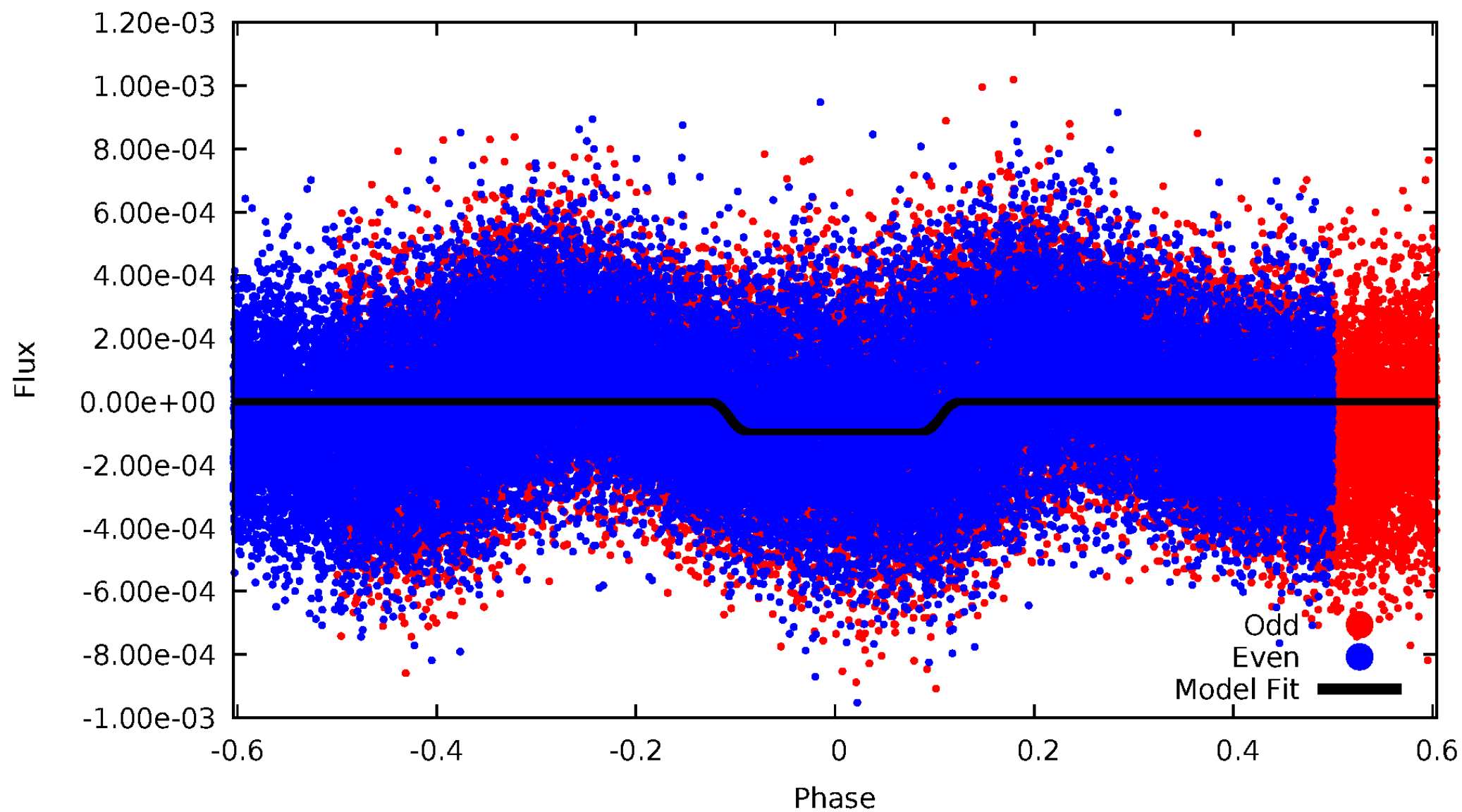
DV Odd/Even

TCE 007984890-01



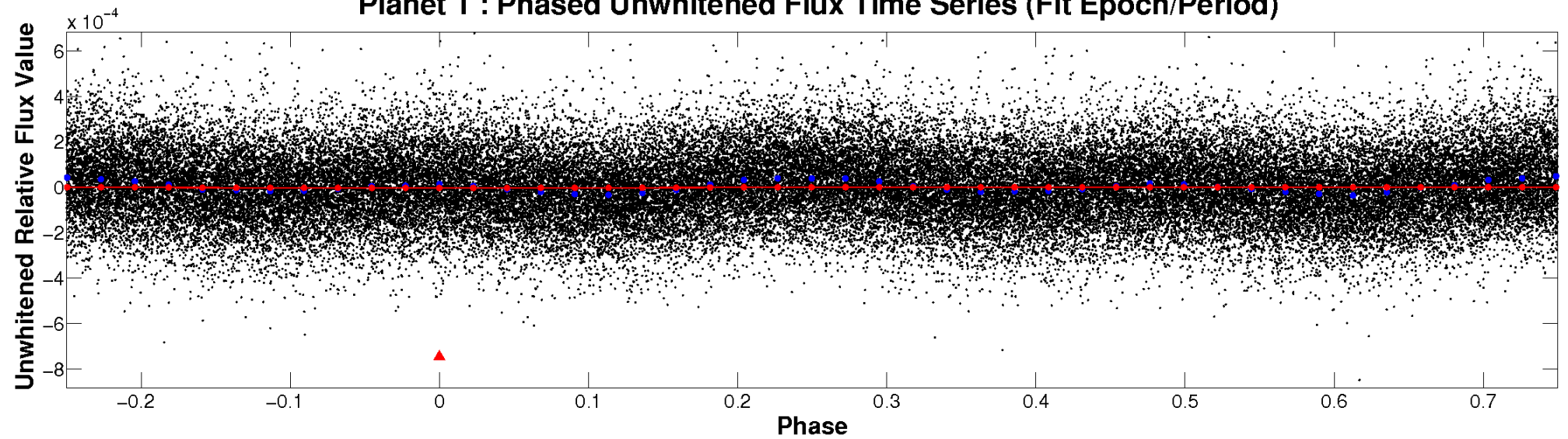
ALT Odd/Even

TCE 007984890-01

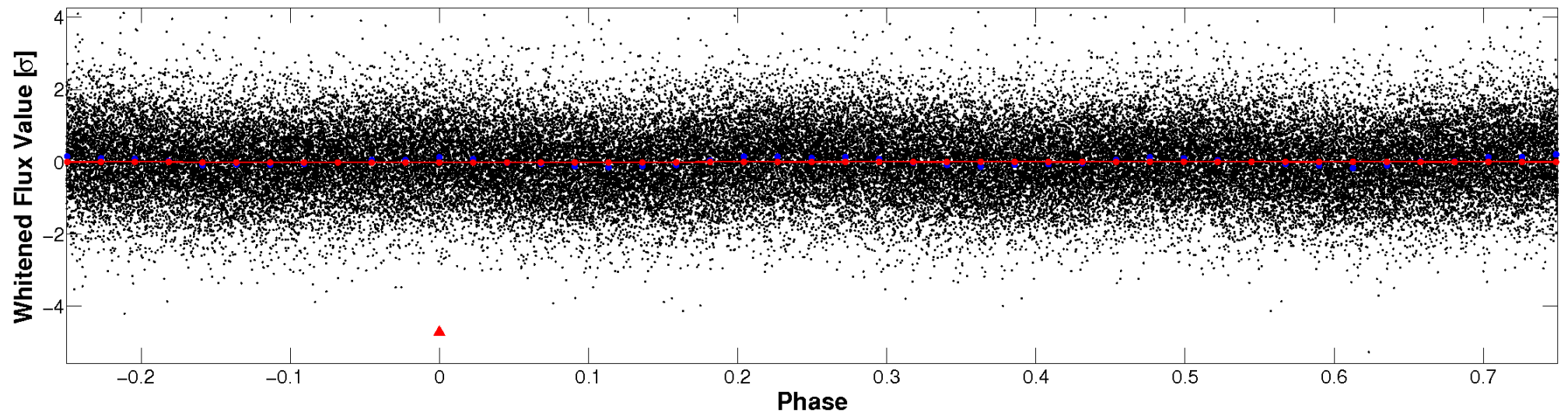


Non-Whitened Vs. Whitened Light Curve

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

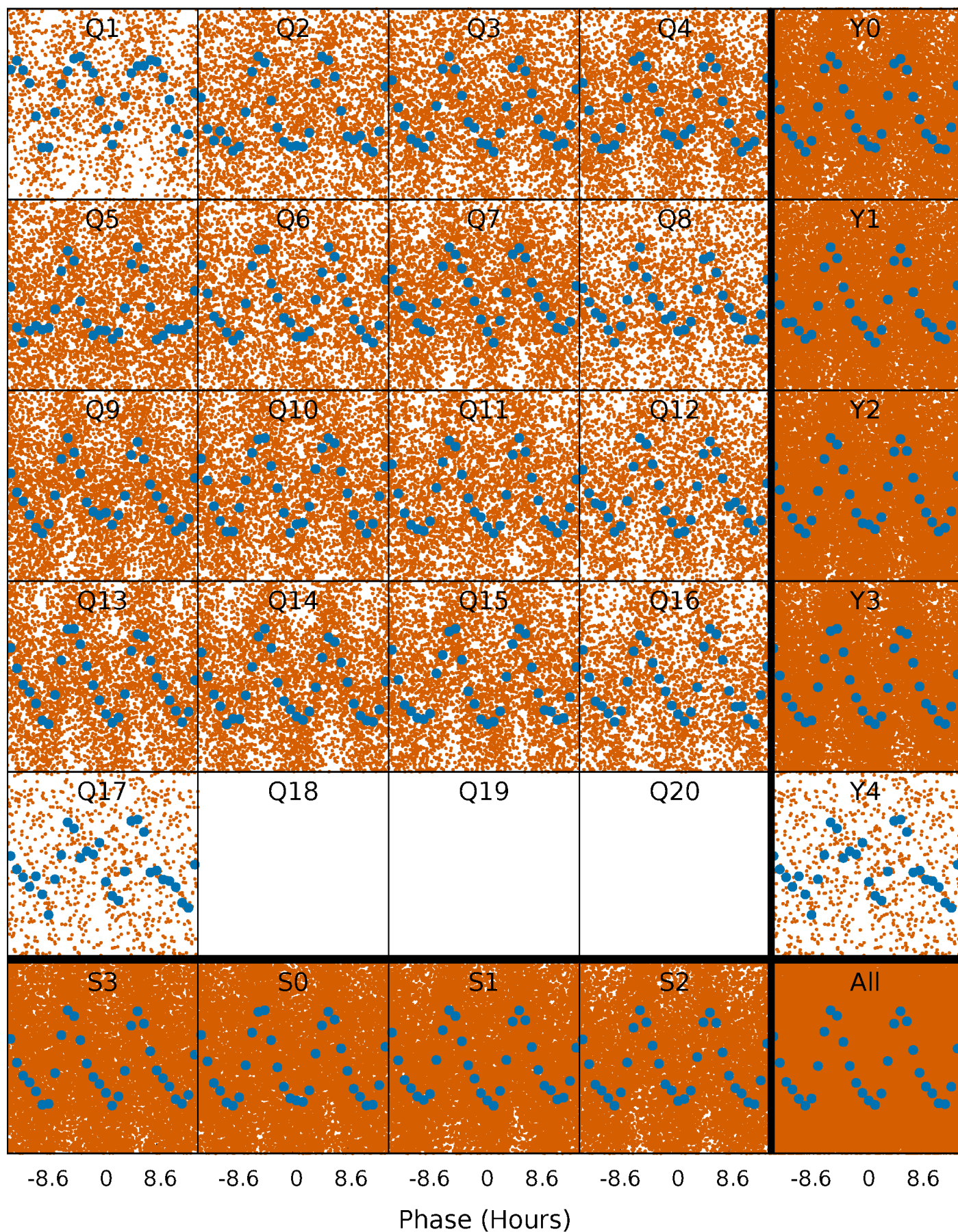


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



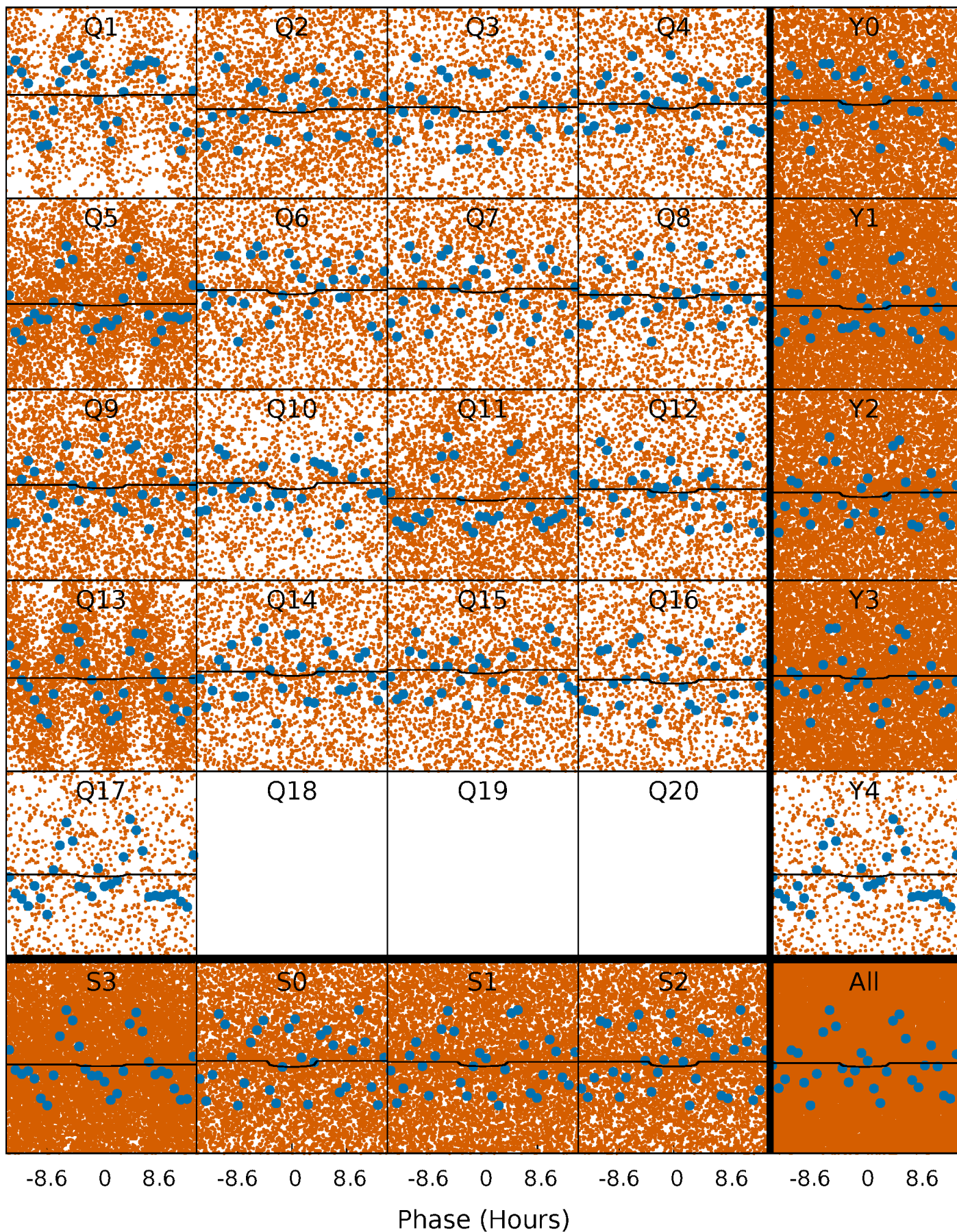
PDC Quarter-Phased Transit Curves

TCE 007984890-01 P= 0.900529 Days $T_0=131.797959$ (BKJD)



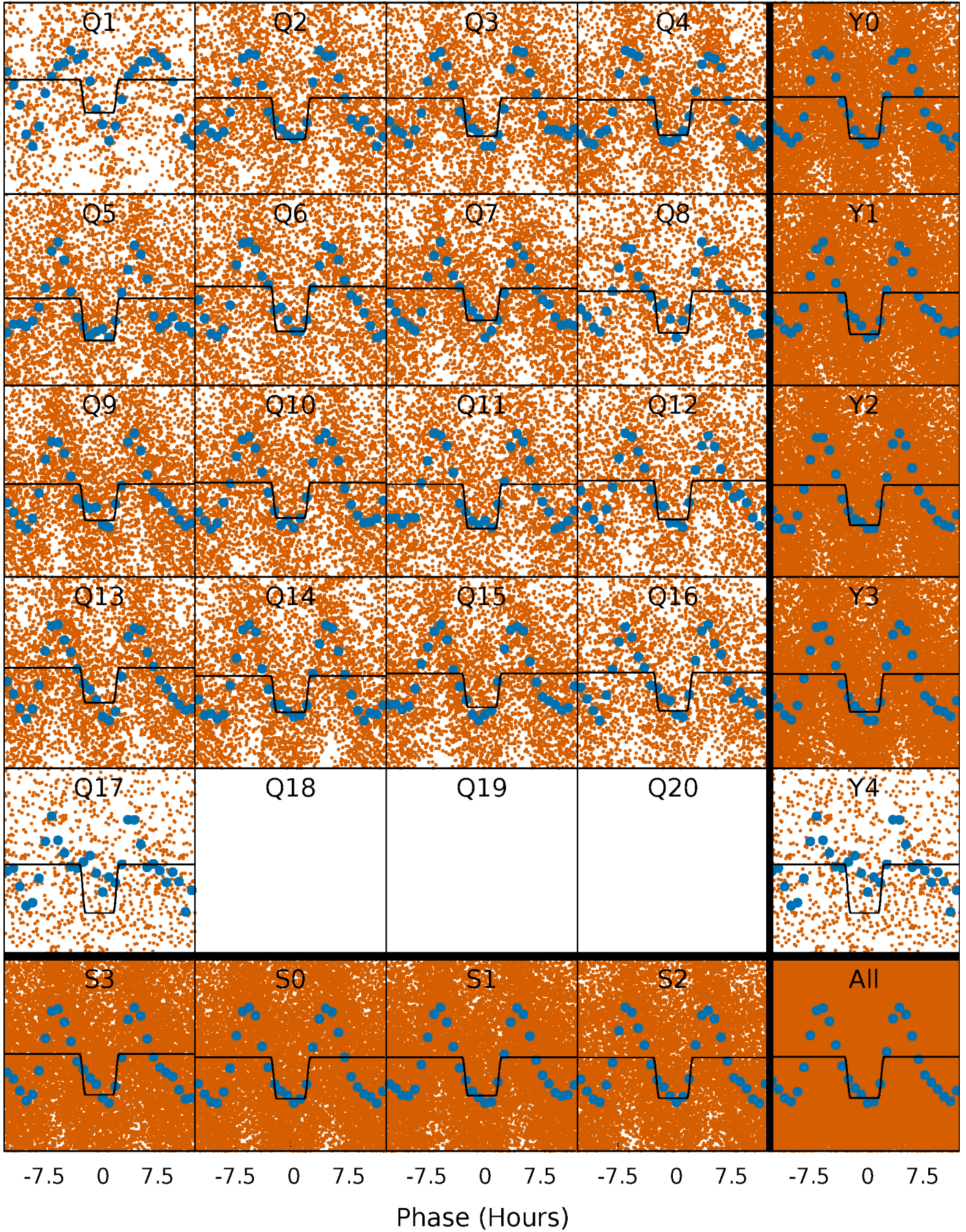
DV Quarter-Phased Transit Curves

TCE 007984890-01 P= 0.900529 Days $T_0=131.797959$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

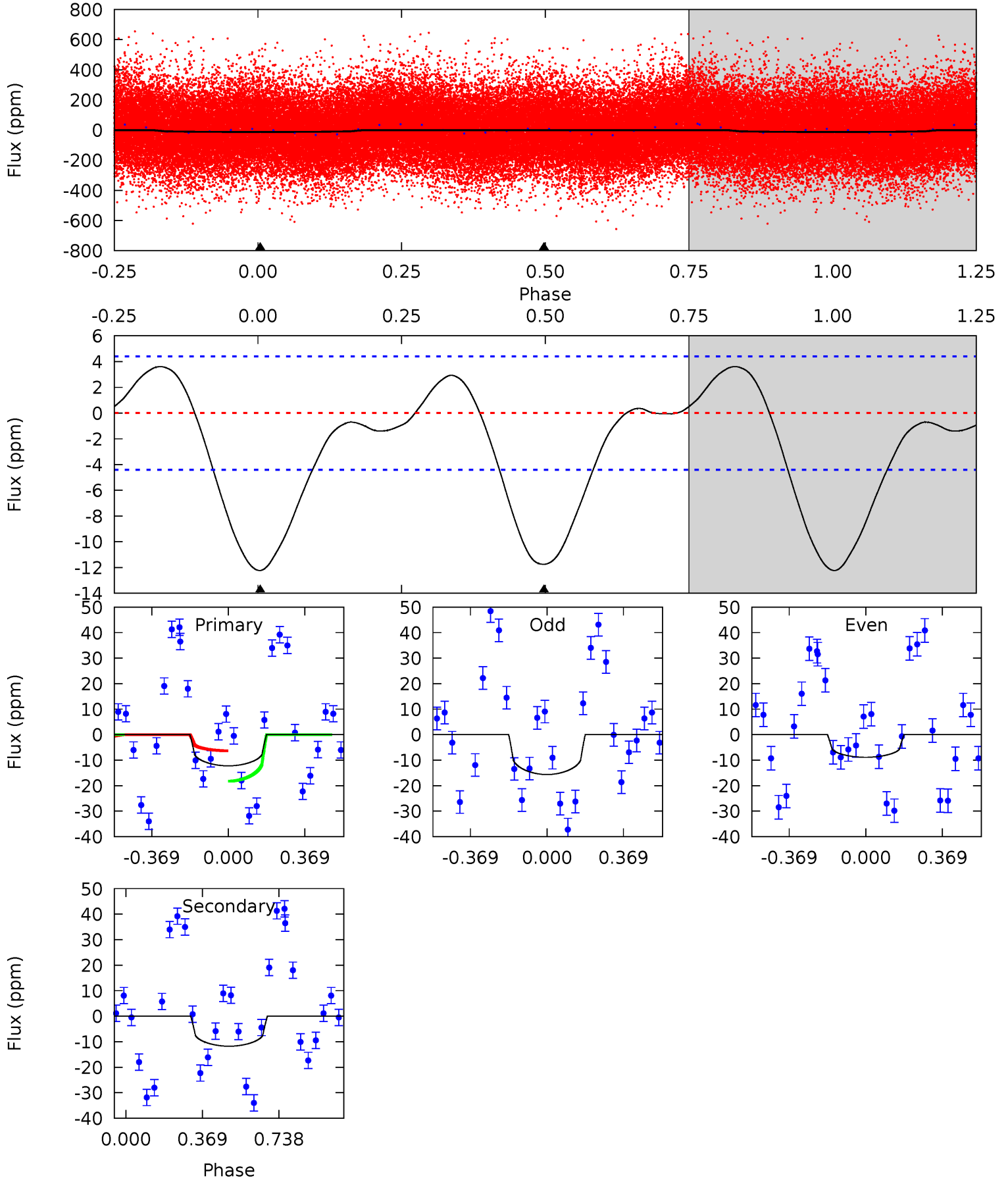
TCE 007984890-01 P= 0.900551 Days $T_0=131.805819$ (BKJD)



DV Model-Shift Uniqueness Test

007984890-01, P = 0.900529 Days, E = 130.897430 Days

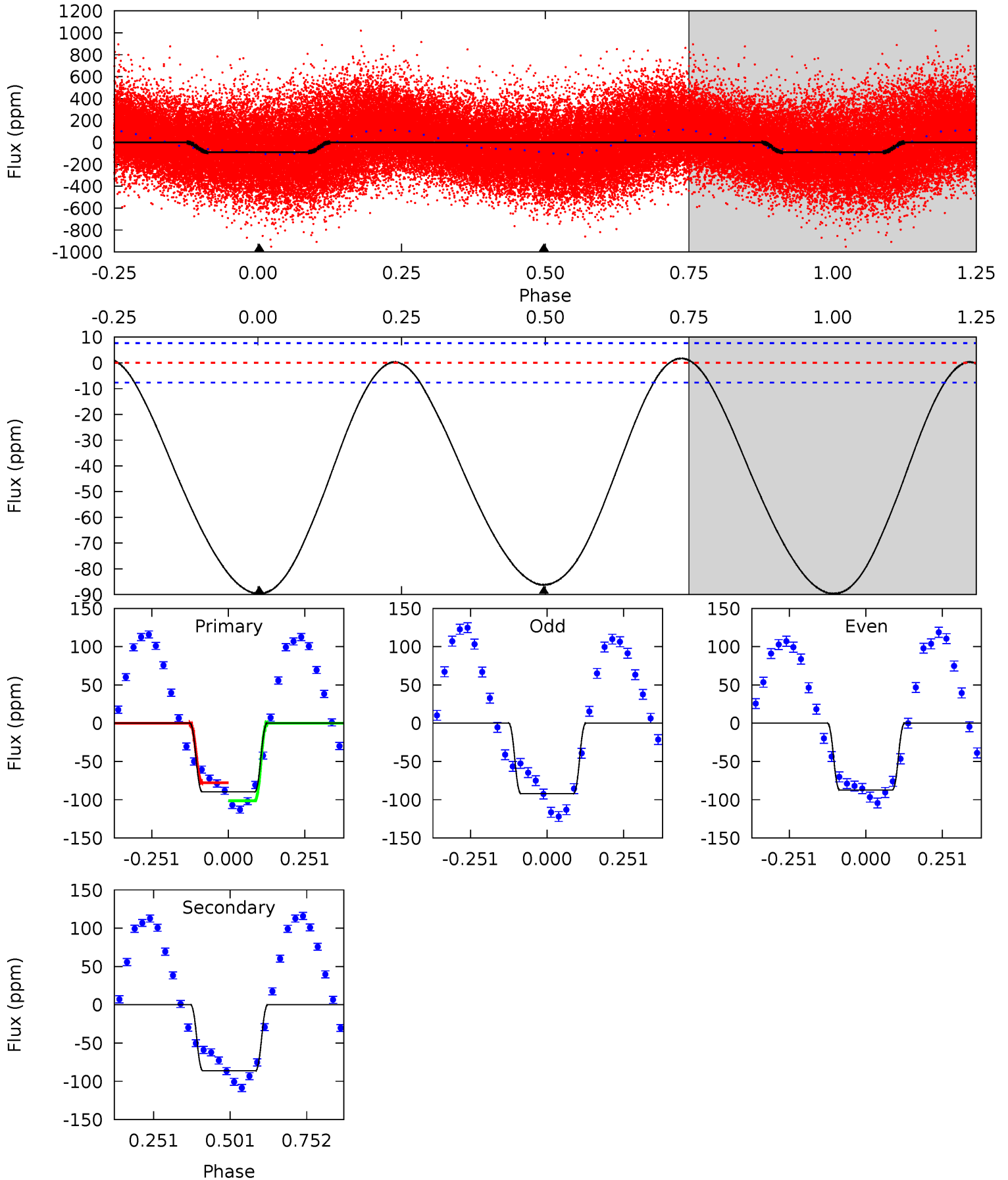
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	11.4	0	0	4.28	0.90	0.86	11.9	11.9	11.4	11.4	3.31	1.02	0.23	5.96



Alt Model-Shift Uniqueness Test

007984890-01, P = 0.900551 Days, E = 130.905268 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.1	49.1	0	0	4.37	1.15	1.05	51.1	51.1	49.1	49.1	1.33	1.00	0.02	6.66



Stellar Parameters For KIC 007984890

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6751^{+162}_{-222}	$3.401^{+0.433}_{-0.076}$	$-0.720^{+0.400}_{-0.300}$	$4.311^{+0.506}_{-2.150}$	$1.707^{+0.160}_{-0.481}$	$0.030^{+0.129}_{-0.008}$
	+2%/-3%	+13%/-2%	+56%/-42%	+12%/-50%	+9%/-28%	+429%/-26%
Source	PHO1	FLK73	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 007984890-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-12 ± 1	$2.06^{+2.10}_{-1.45}$	5718^{+309}_{-585}	5004^{+6761}_{-9064}	$0.710^{+7.599}_{-0.536}$
Alt.	-86 ± 2	$4.34^{+2.71}_{-2.35}$	5670^{+335}_{-619}	5885^{+3647}_{-1749}	$1.188^{+4.309}_{-0.727}$

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

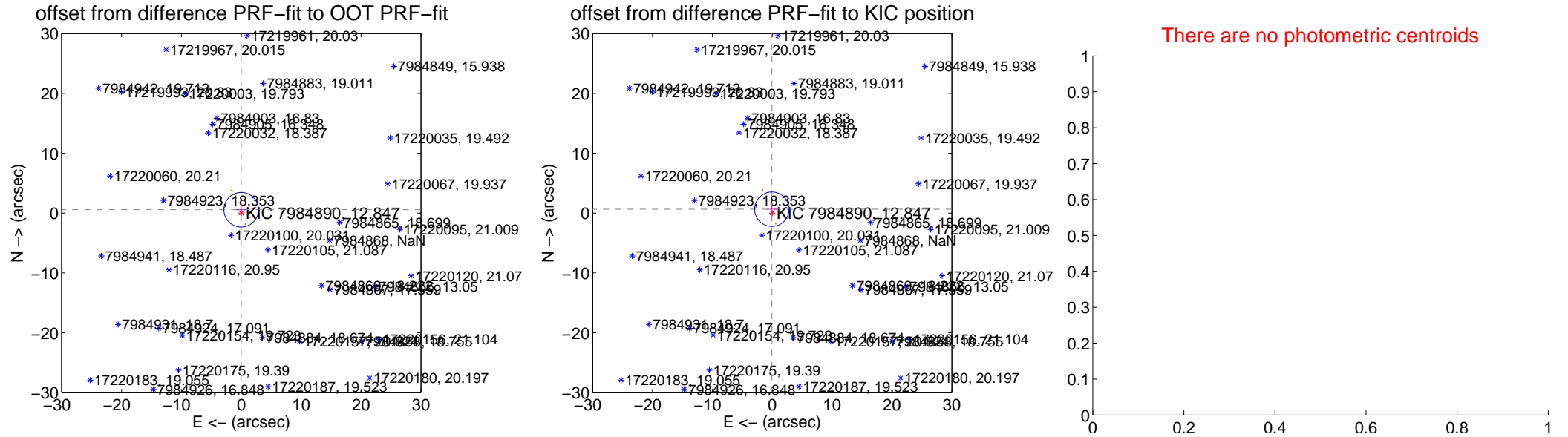
DV Centroid Data

Supplemental centroid analysis for 007984890-01. Kepler magnitude: 12.85. Transit SNR 2.22

There are 0 quarters with good PRF difference image offsets

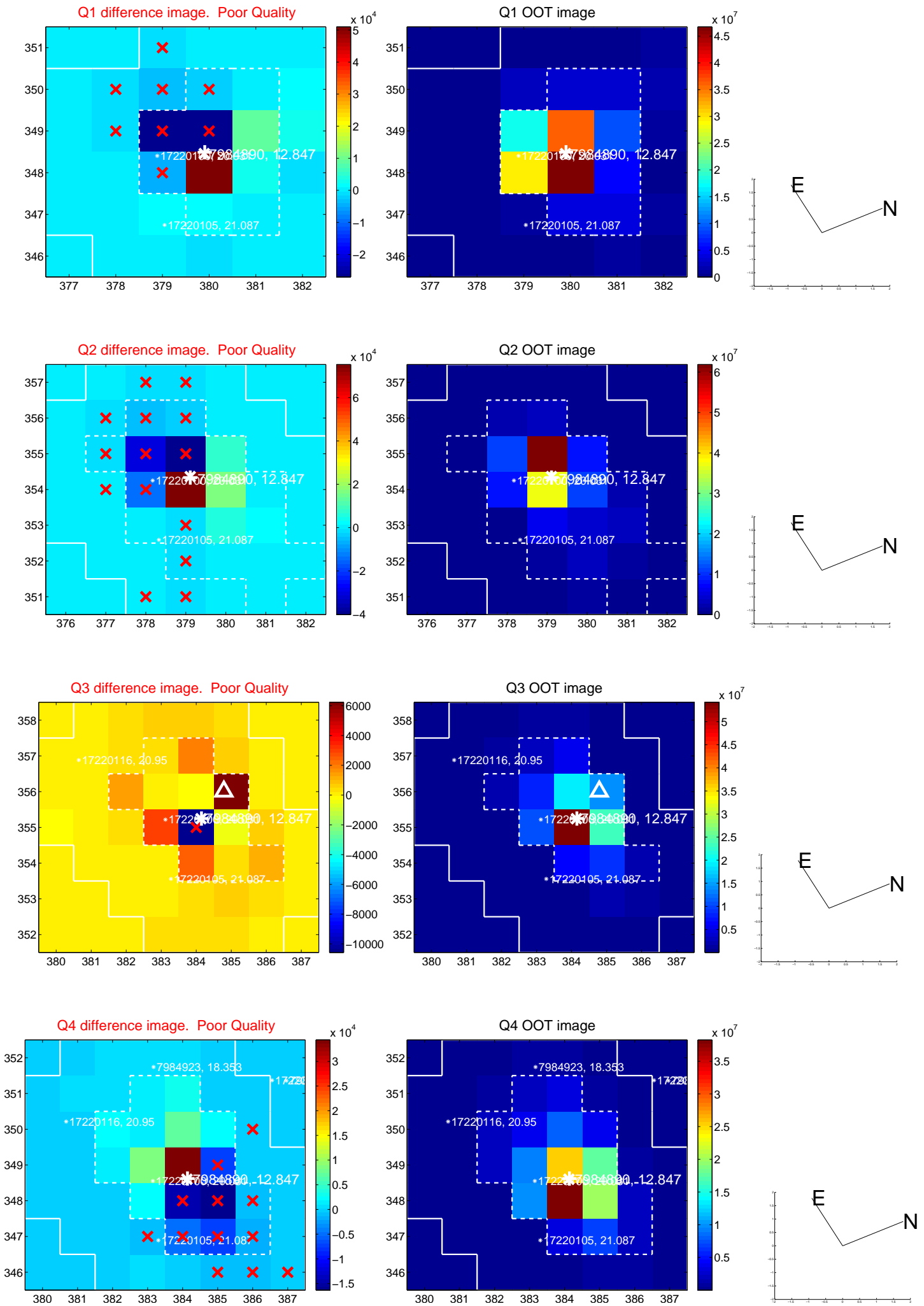
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.555 ± 0.963	0.58	0.021 ± 0.871	0.555 ± 0.963
PRF-fit source offset from KIC position	0.647 ± 0.959	0.67	0.054 ± 0.844	0.644 ± 0.960
photometric centroid source offset	—	—	—	—

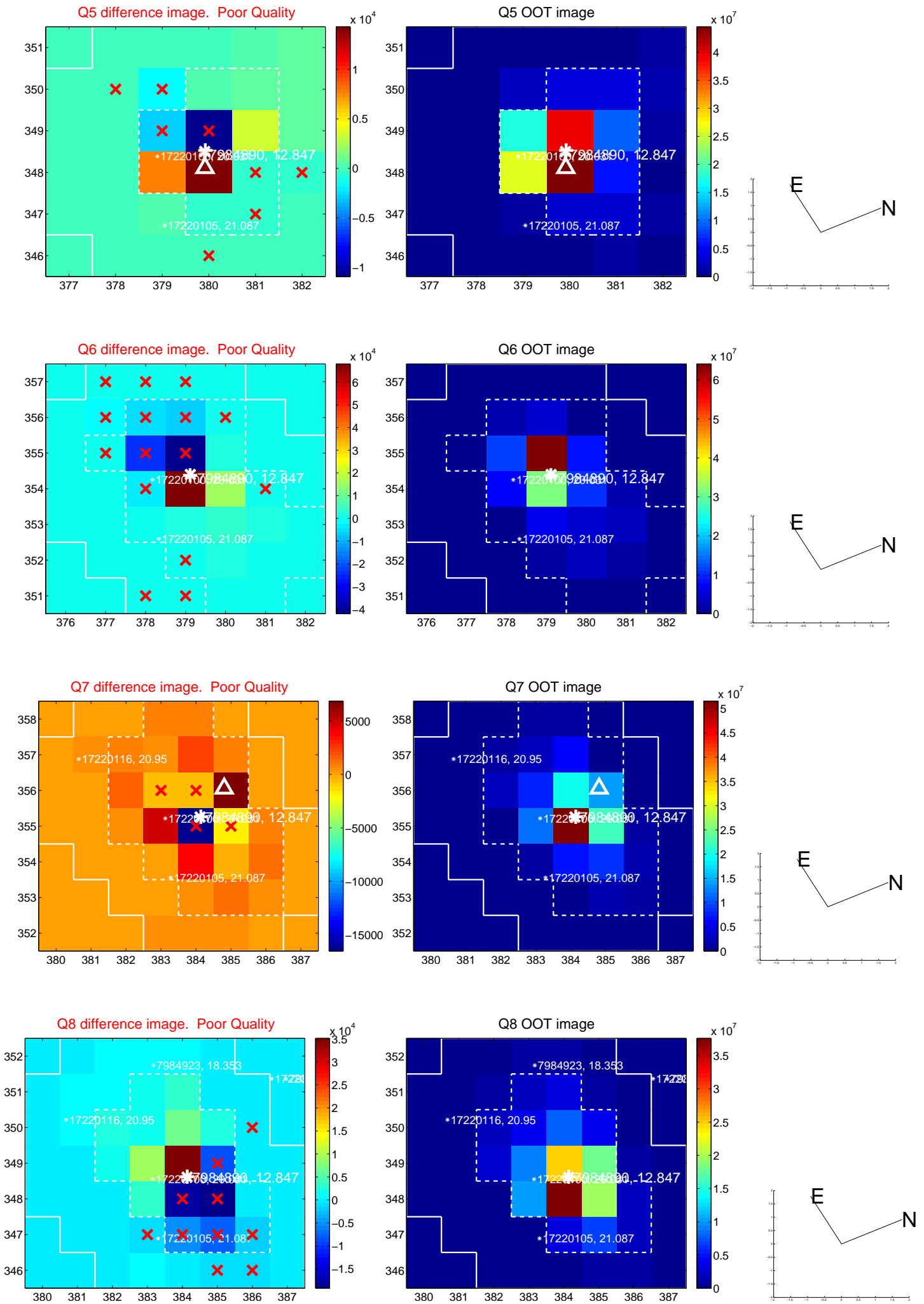


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

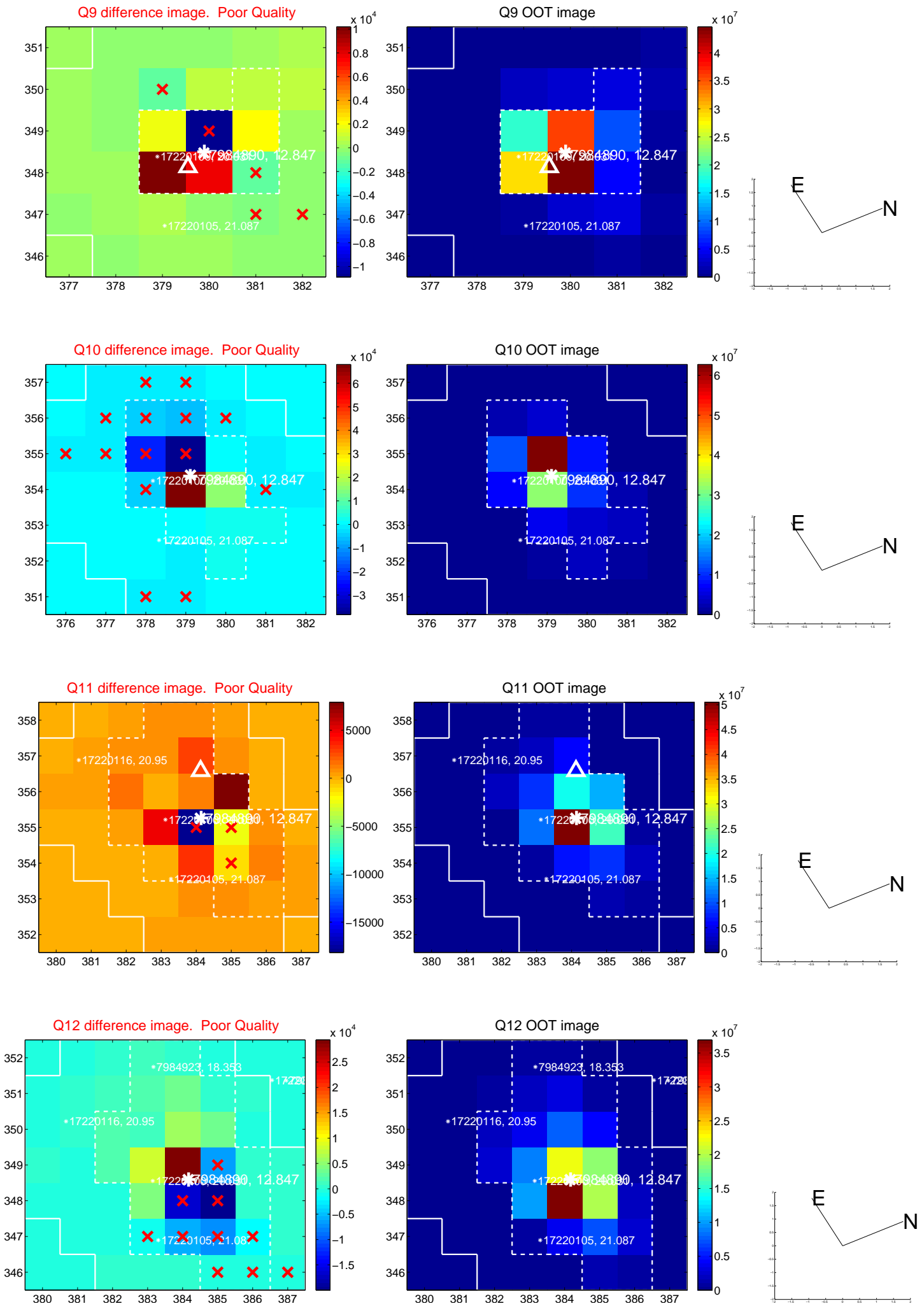
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



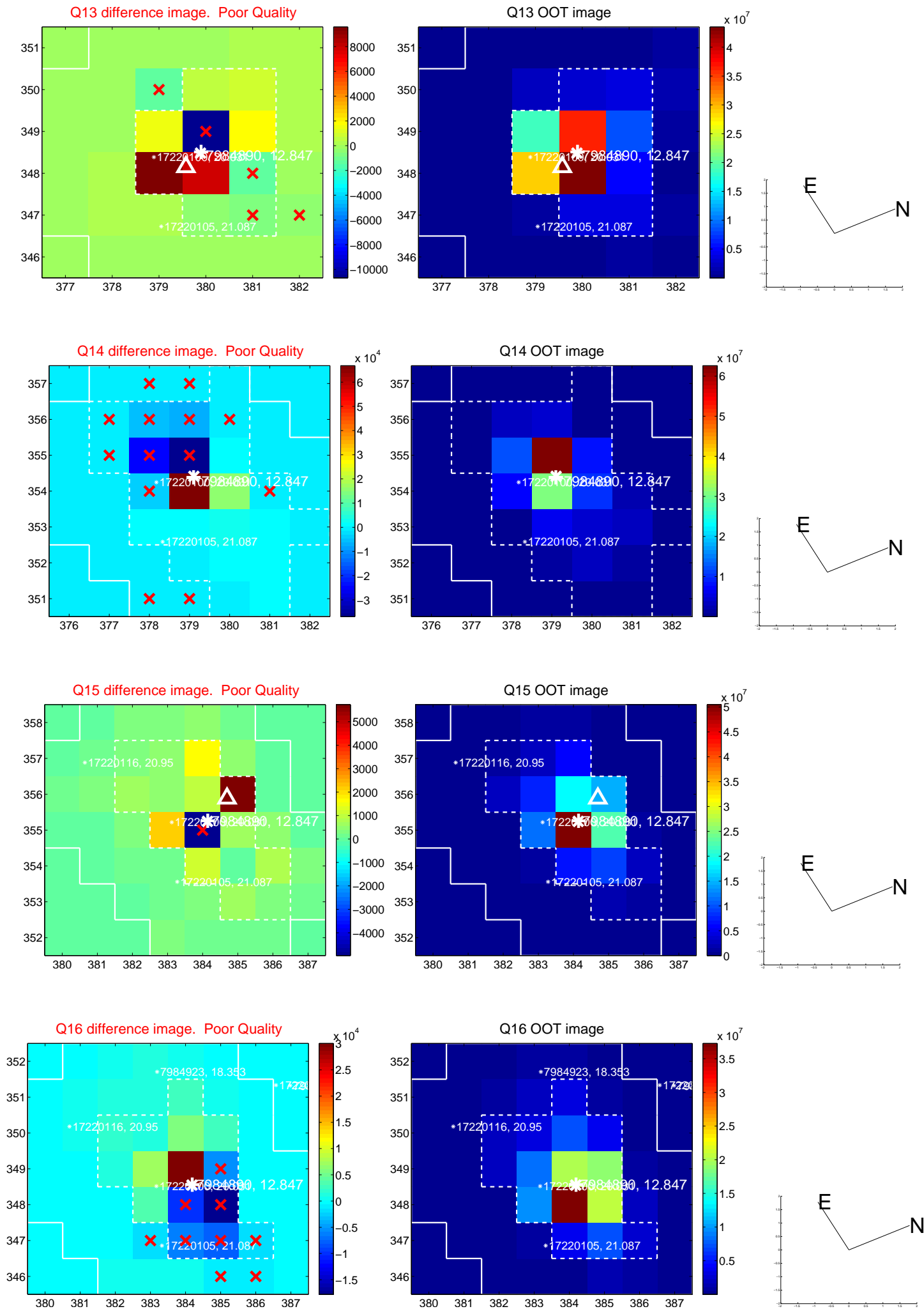
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



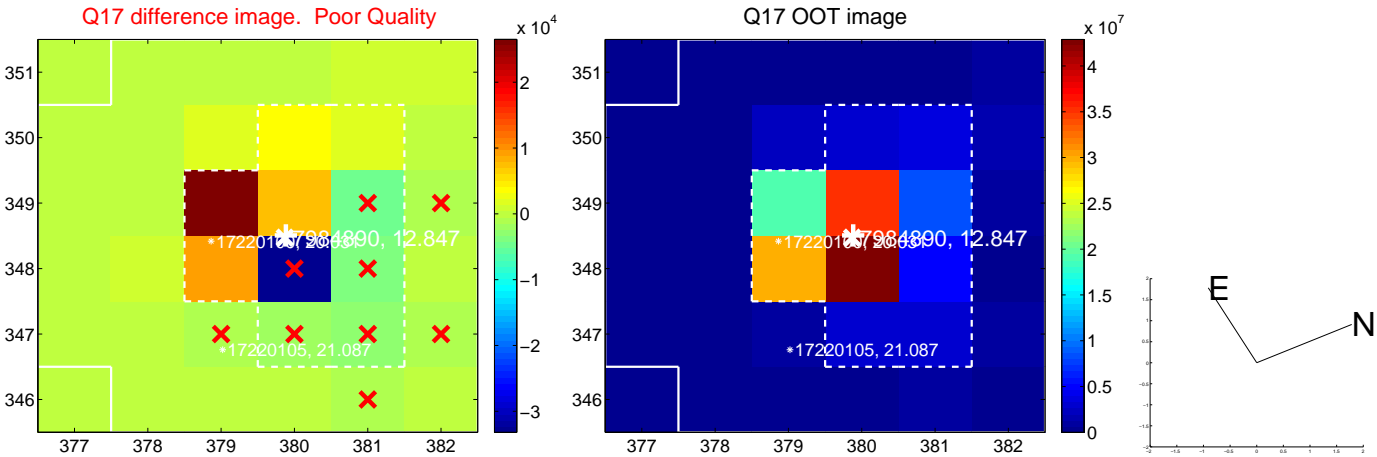
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

