

KIC 008701662

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})
008701662-01	OBS	No	0.530334	131.887353	10.0	4.828	9.8	7.0	1.61	6984	0.52	25937.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008701662-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

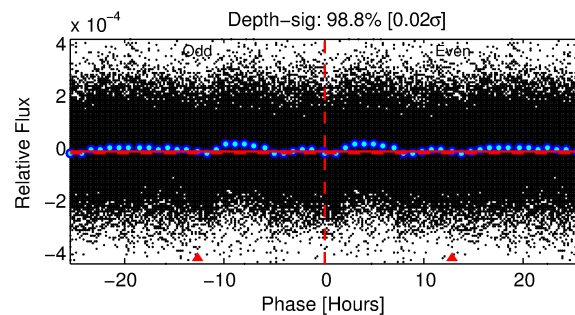
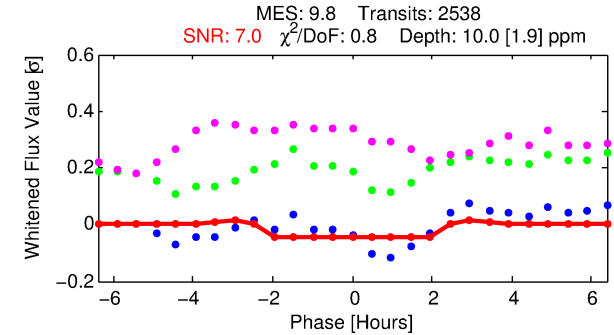
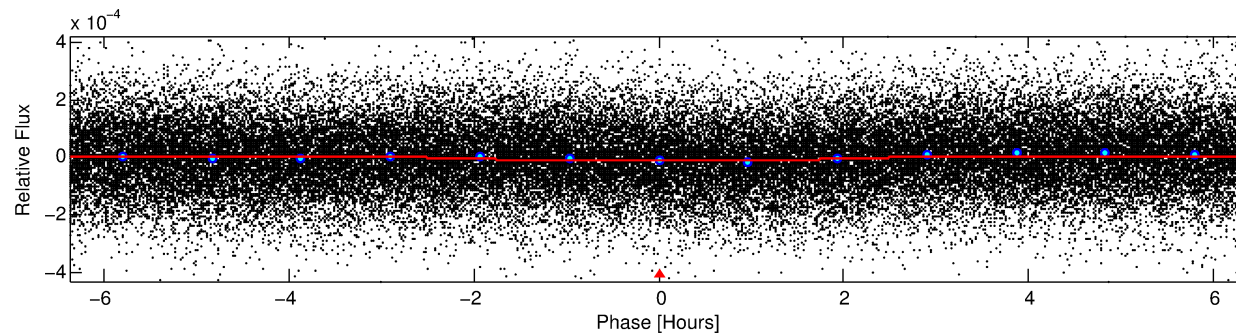
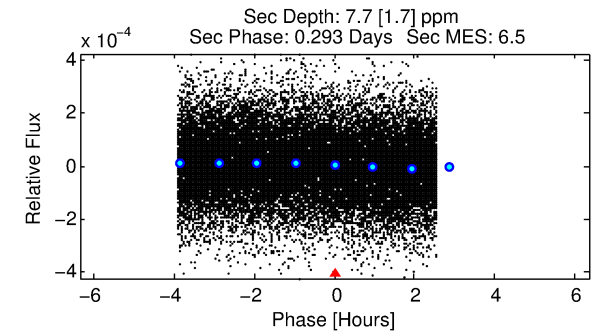
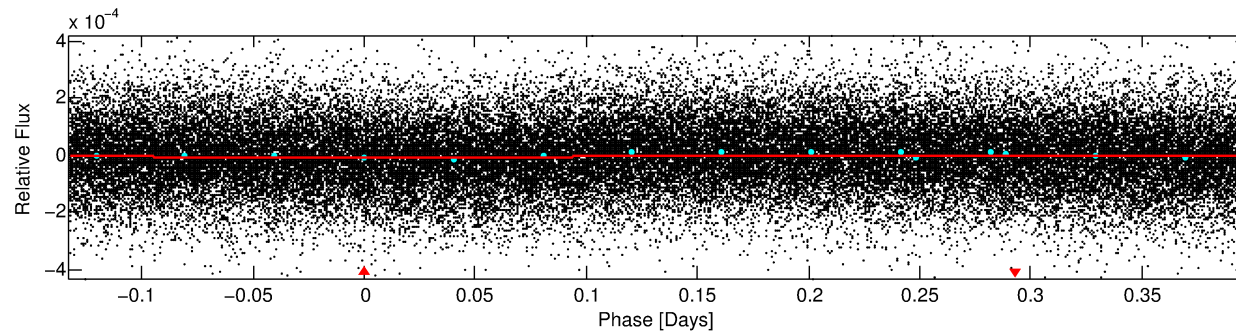
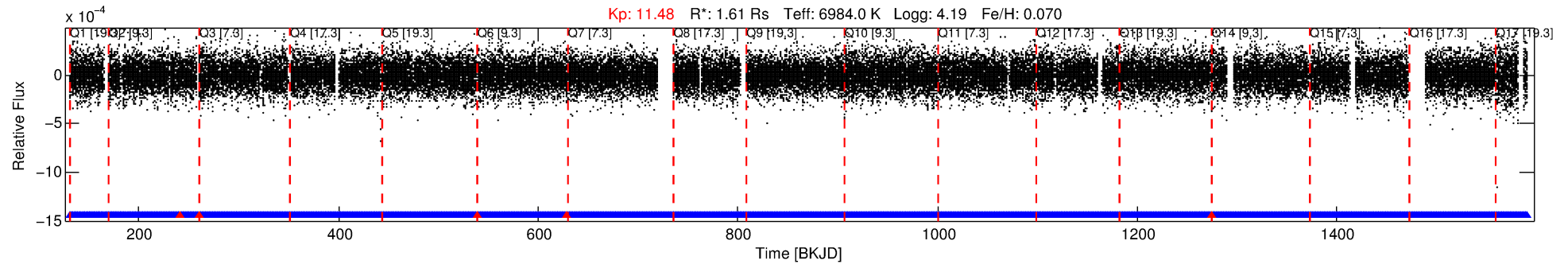
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008701662-01

No Significant Match Found

DV One-Page Summary

KIC: 8701662 Candidate: 1 of 1 Period: 0.530 d



DV Fit Results:

Period = 0.53033 [0.00001] d
Epoch = 131.8874 [0.0040] BKJD
Rp/R* = 0.0030 [0.0025]
a/R* = 1.07 [0.68]
b = 0.30 [14.92]
Seff = 25937.16 [10823.54]
Teff = 3236 [338] K
Rp = 0.52 [0.47] Re
a = 0.0146 [0.0039] AU
Ag = 3.34 [5.81] [0.40σ]
Teffp = 6762 [2896] K [1.21σ]

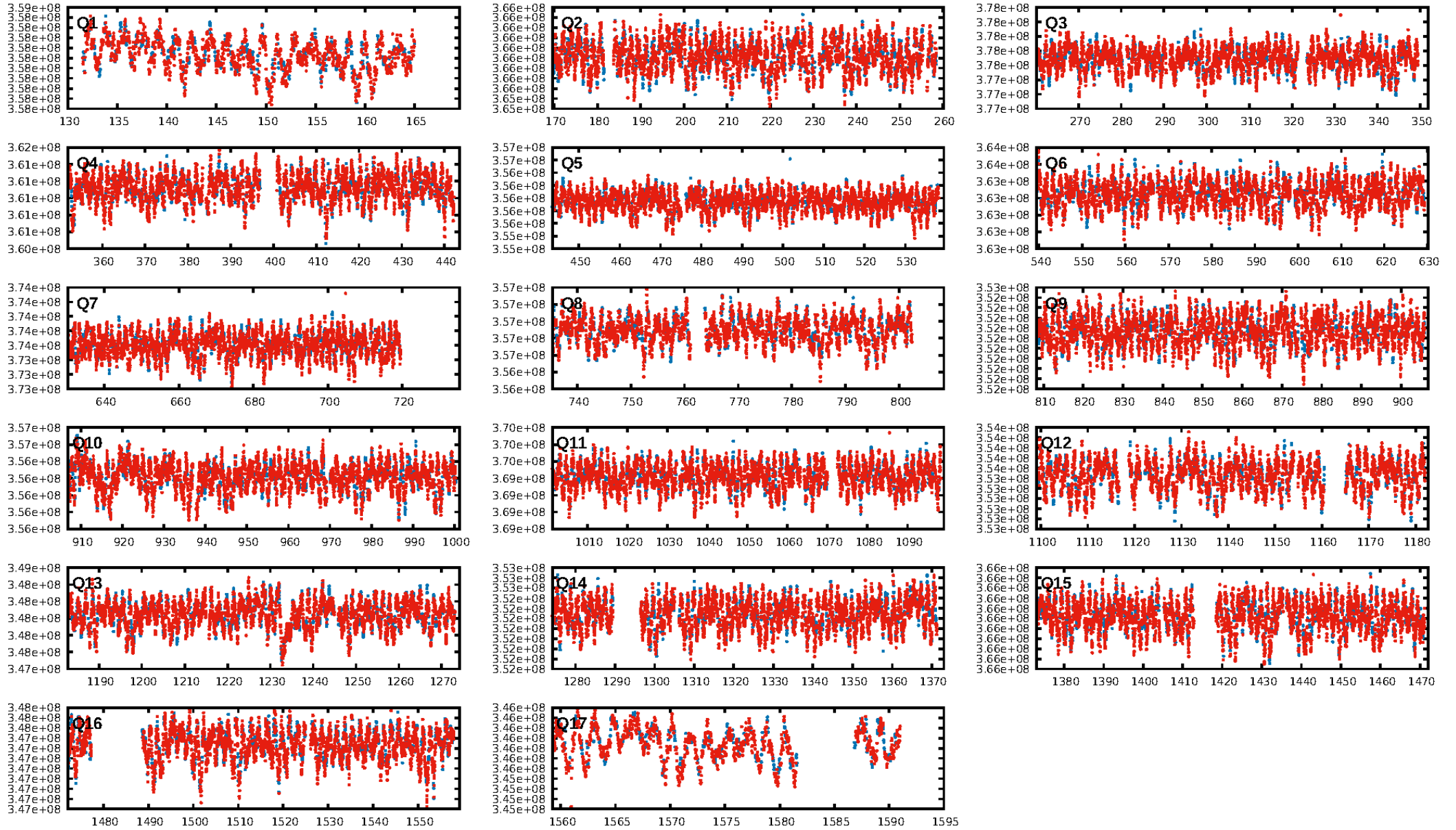
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2420/2425]
GhostDiagnostic-chr: 4.584
Centroid-sig: 0.0%
Centroid-so: 1.405 arcsec [2.37σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

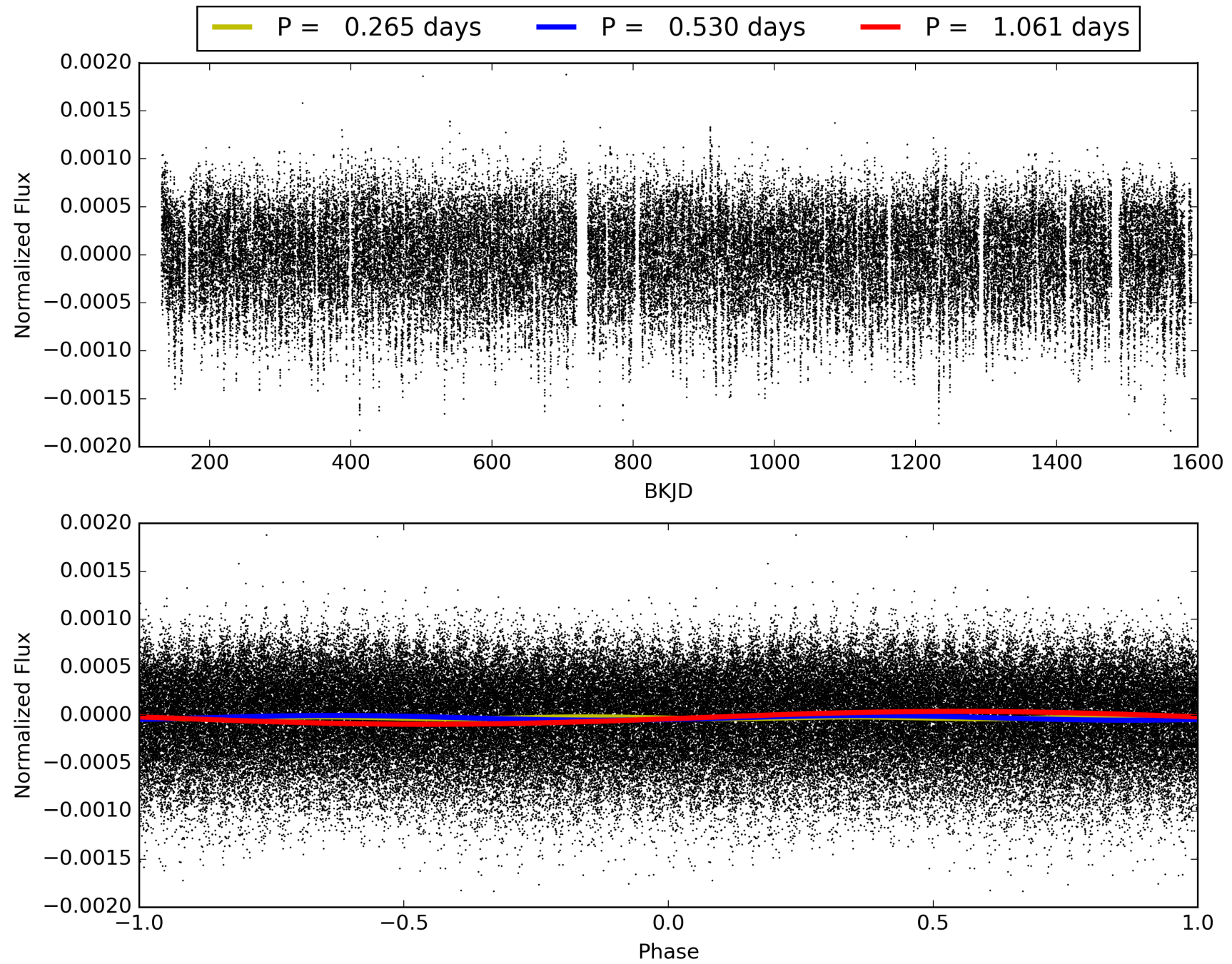
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:10:35 Z

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

TCE 008701662-01, PDC Light Curves

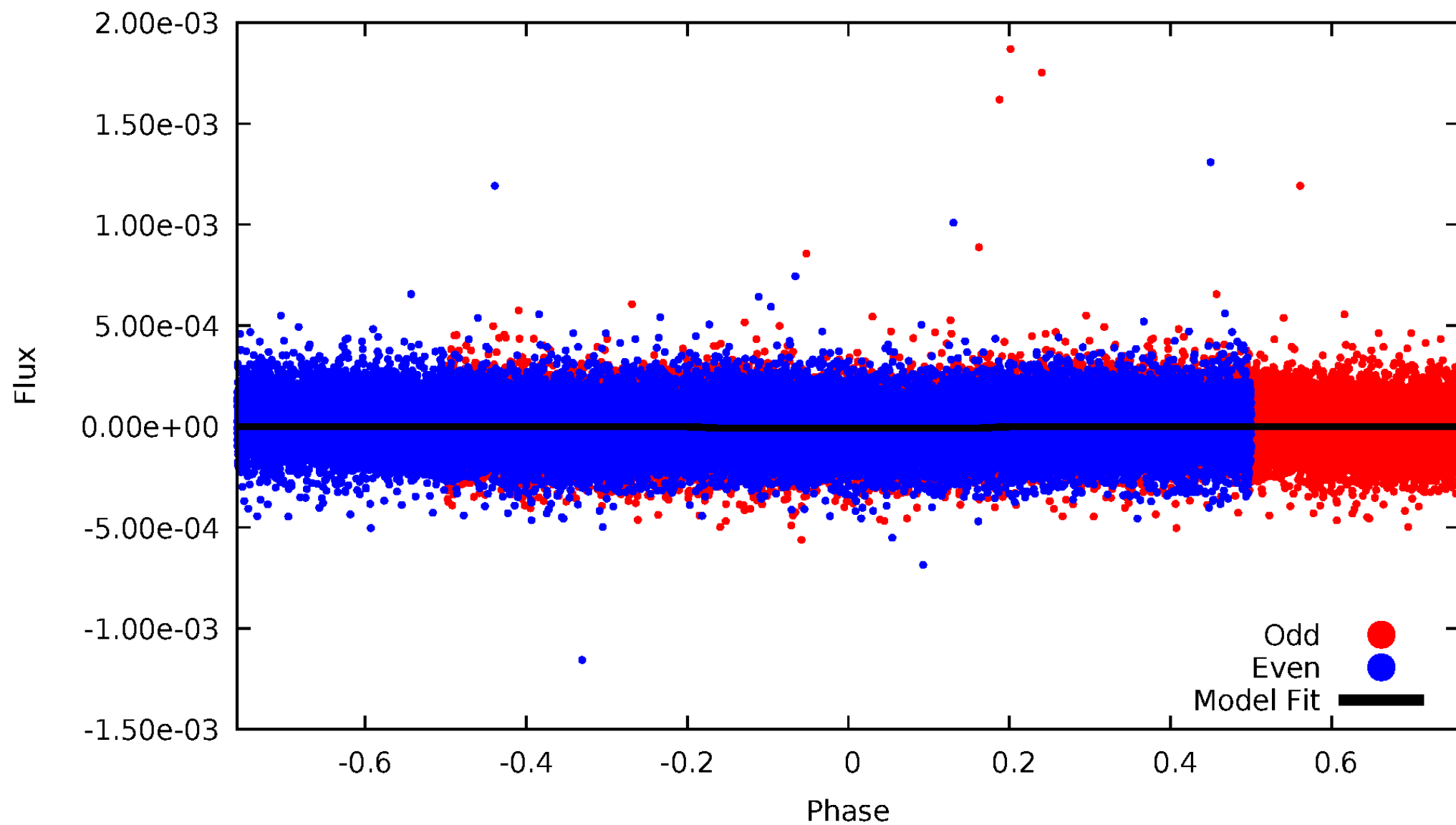


TCE 008701662-01



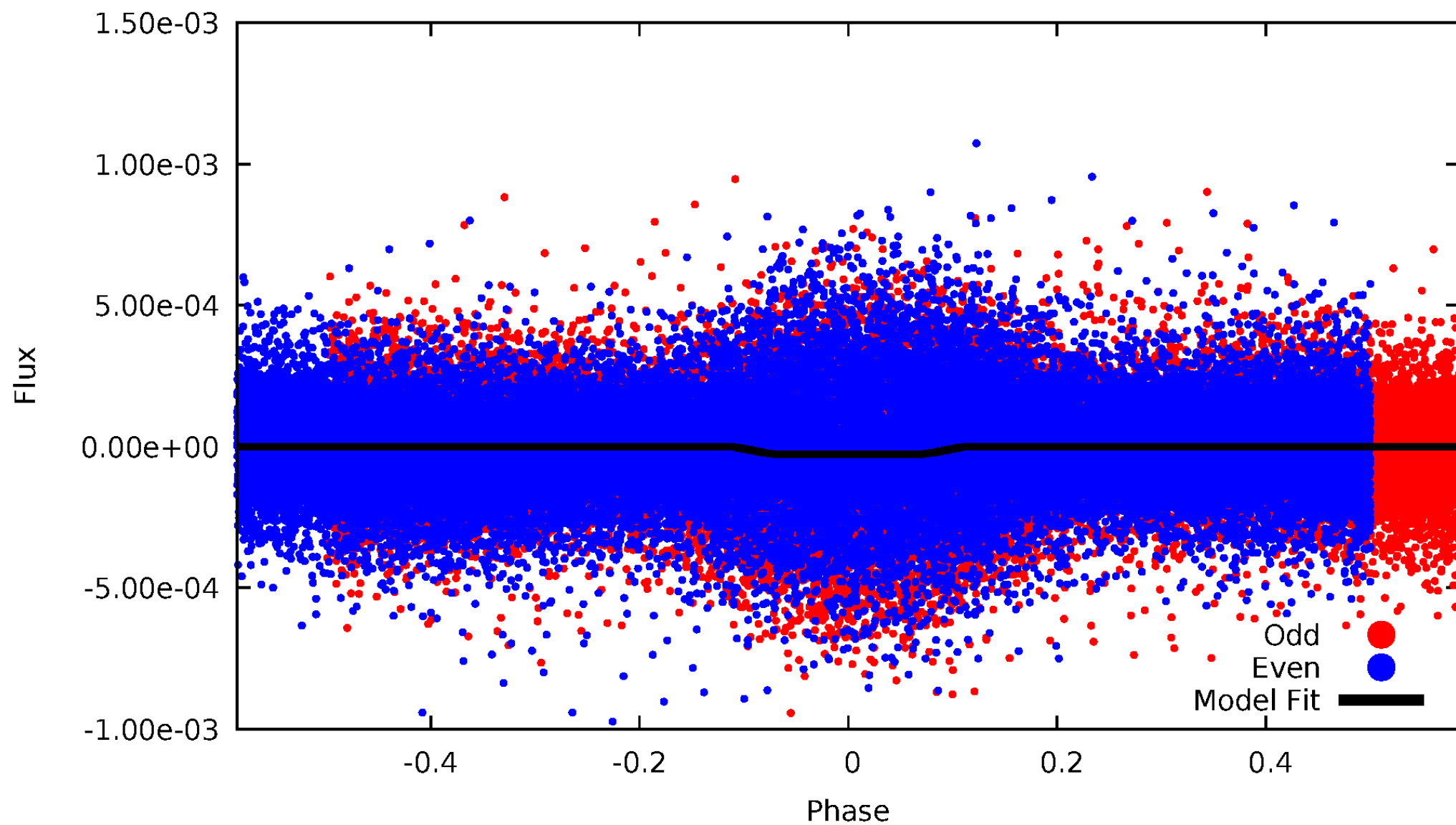
DV Odd/Even

TCE 008701662-01



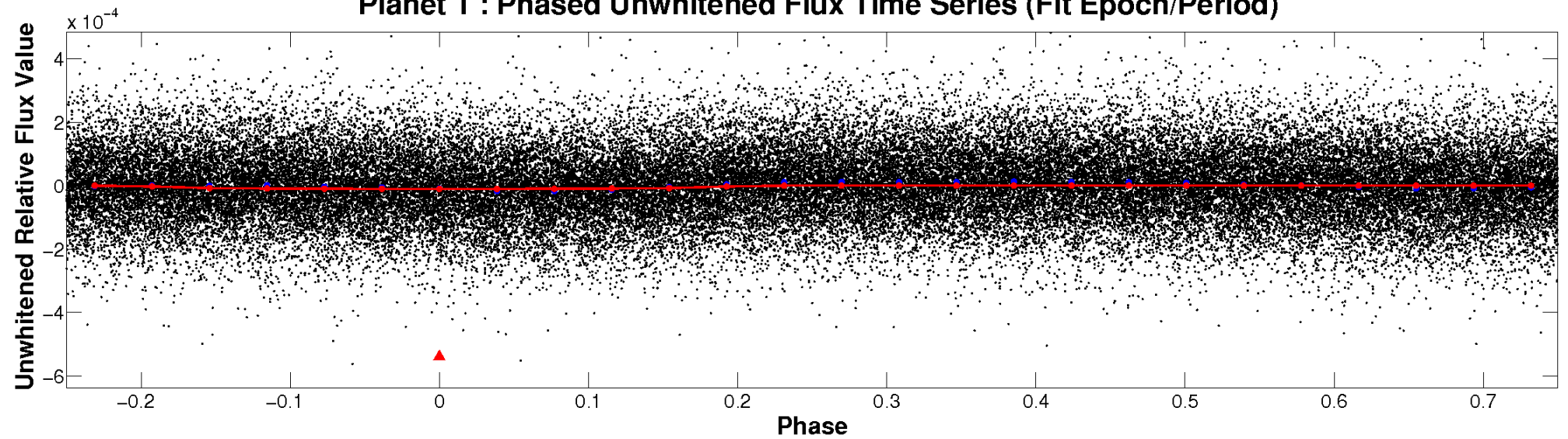
ALT Odd/Even

TCE 008701662-01

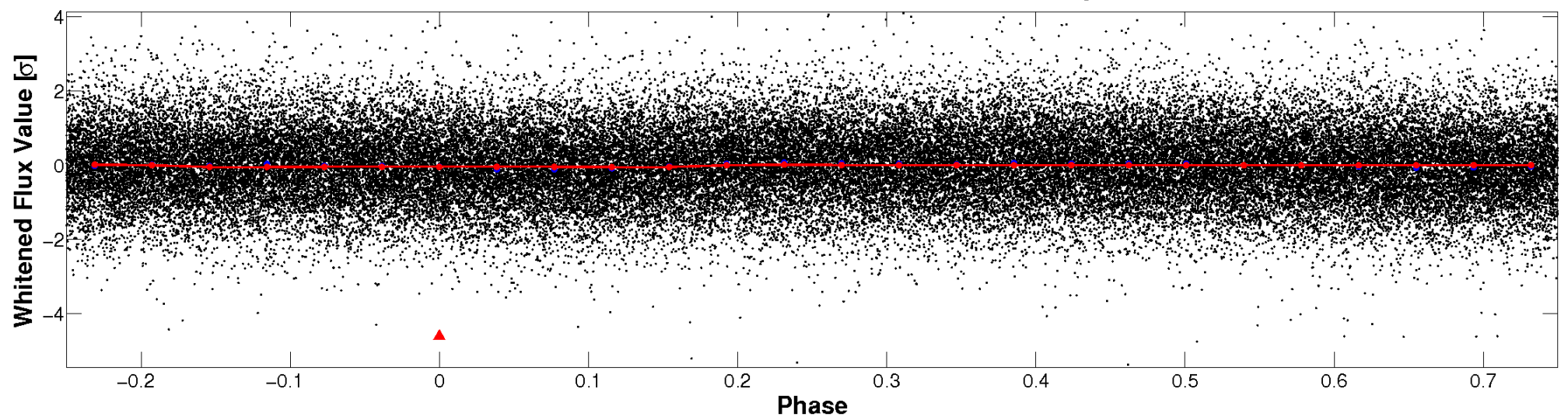


Non-Whitened Vs. Whitened Light Curve

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

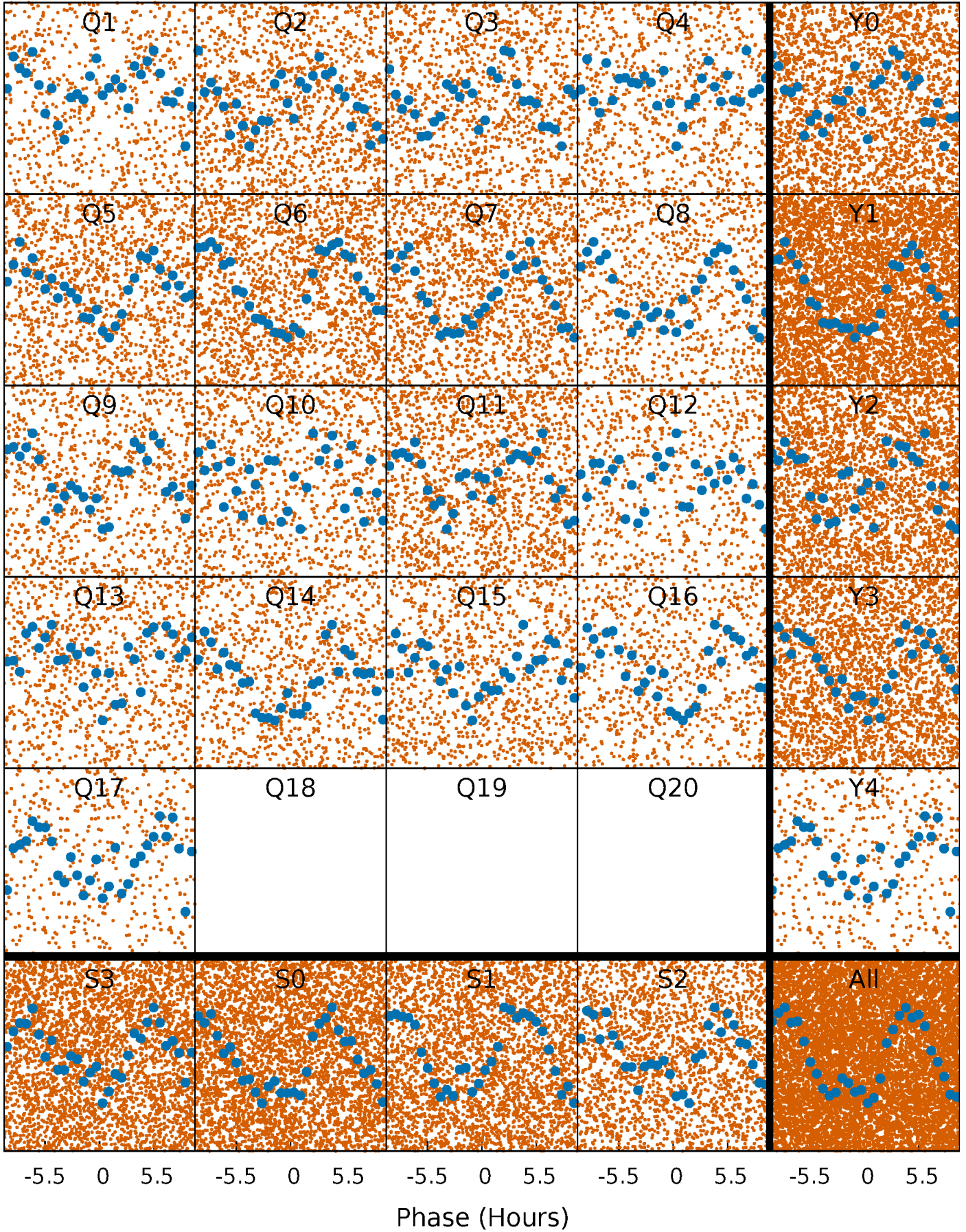


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



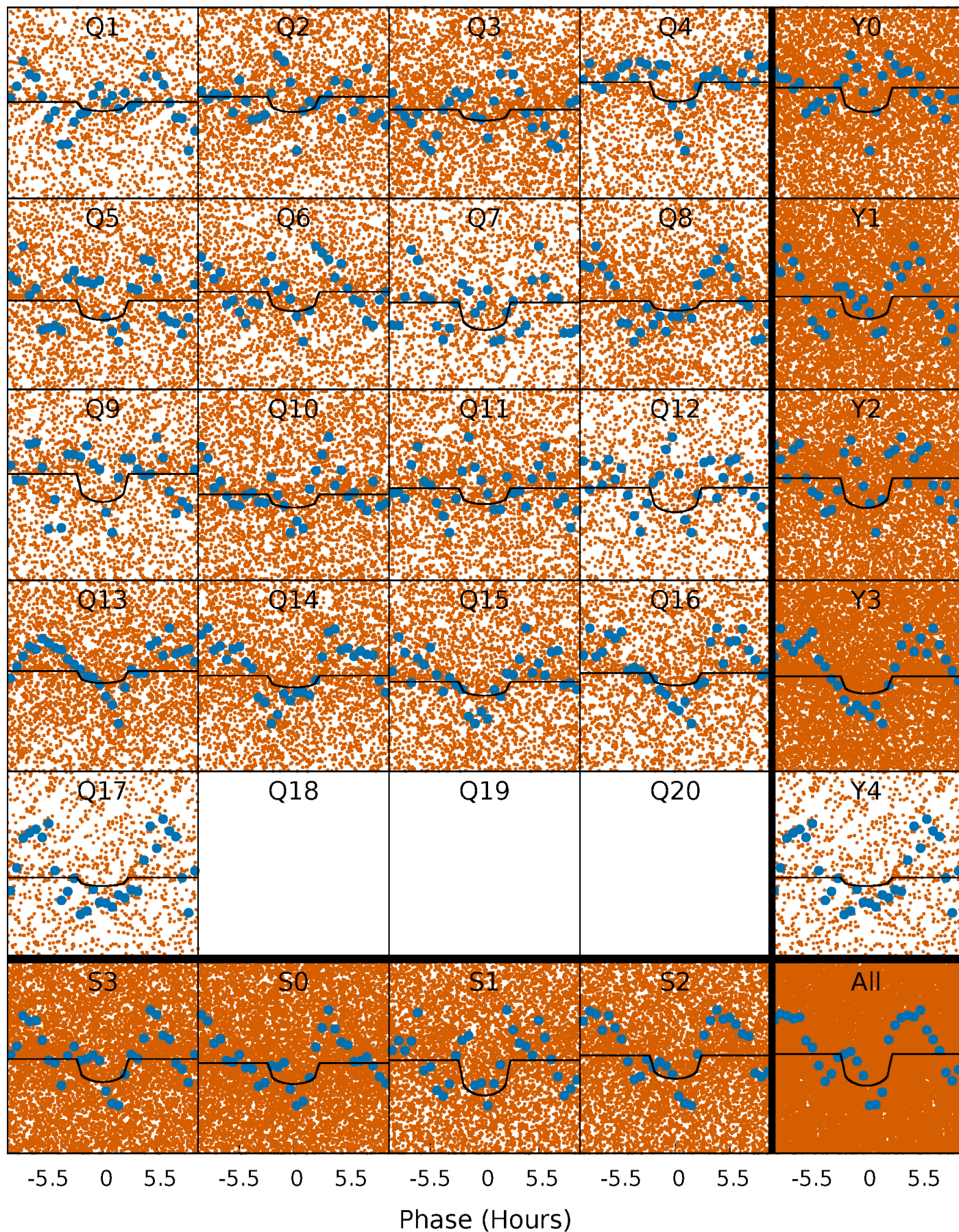
PDC Quarter-Phased Transit Curves

TCE 008701662-01 P= 0.530334 Days $T_0=131.887353$ (BKJD)



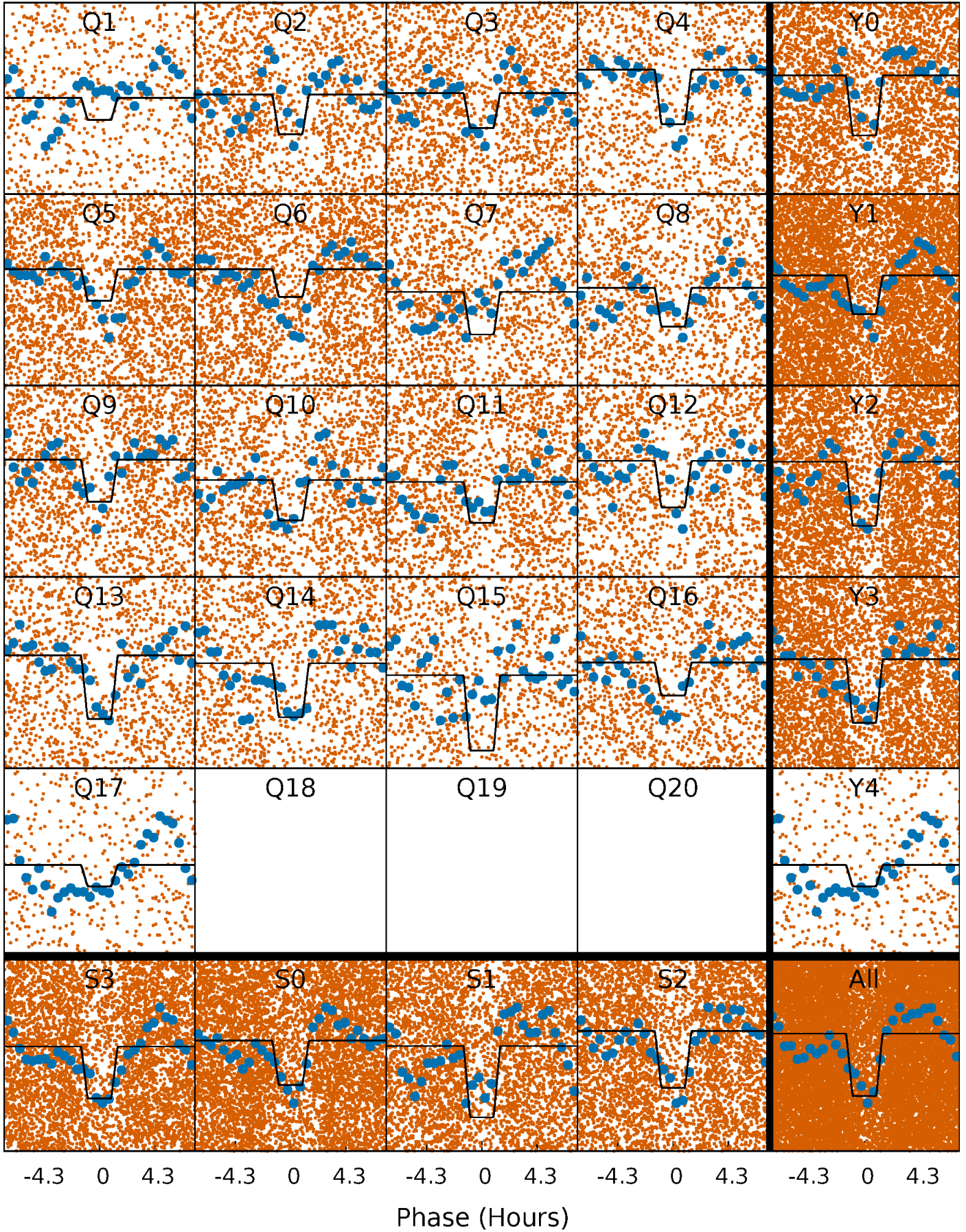
DV Quarter-Phased Transit Curves

TCE 008701662-01 P= 0.530334 Days $T_0=131.887353$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

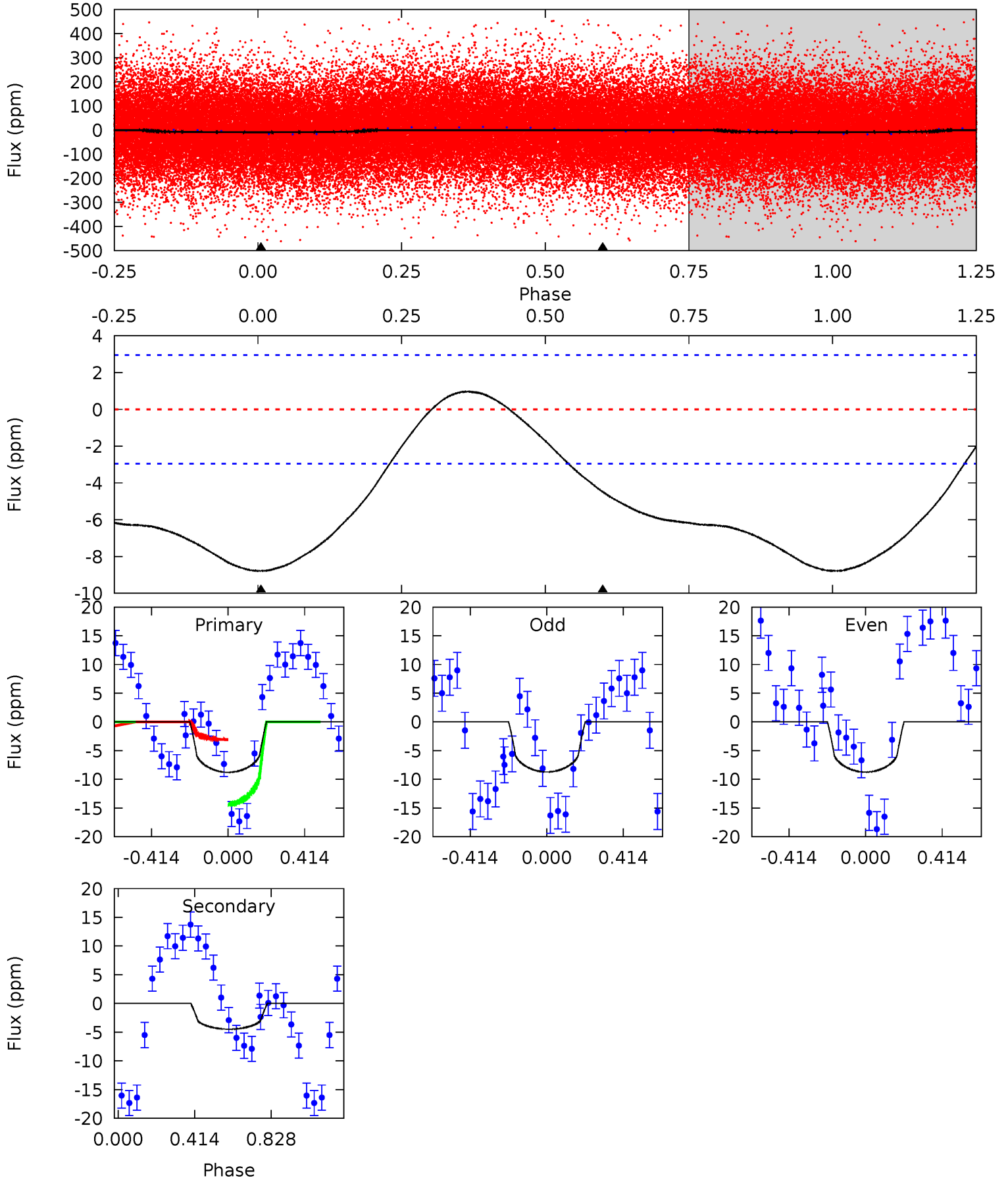
TCE 008701662-01 P= 0.530356 Days $T_0=131.888848$ (BKJD)



DV Model-Shift Uniqueness Test

008701662-01, P = 0.530334 Days, E = 131.357019 Days

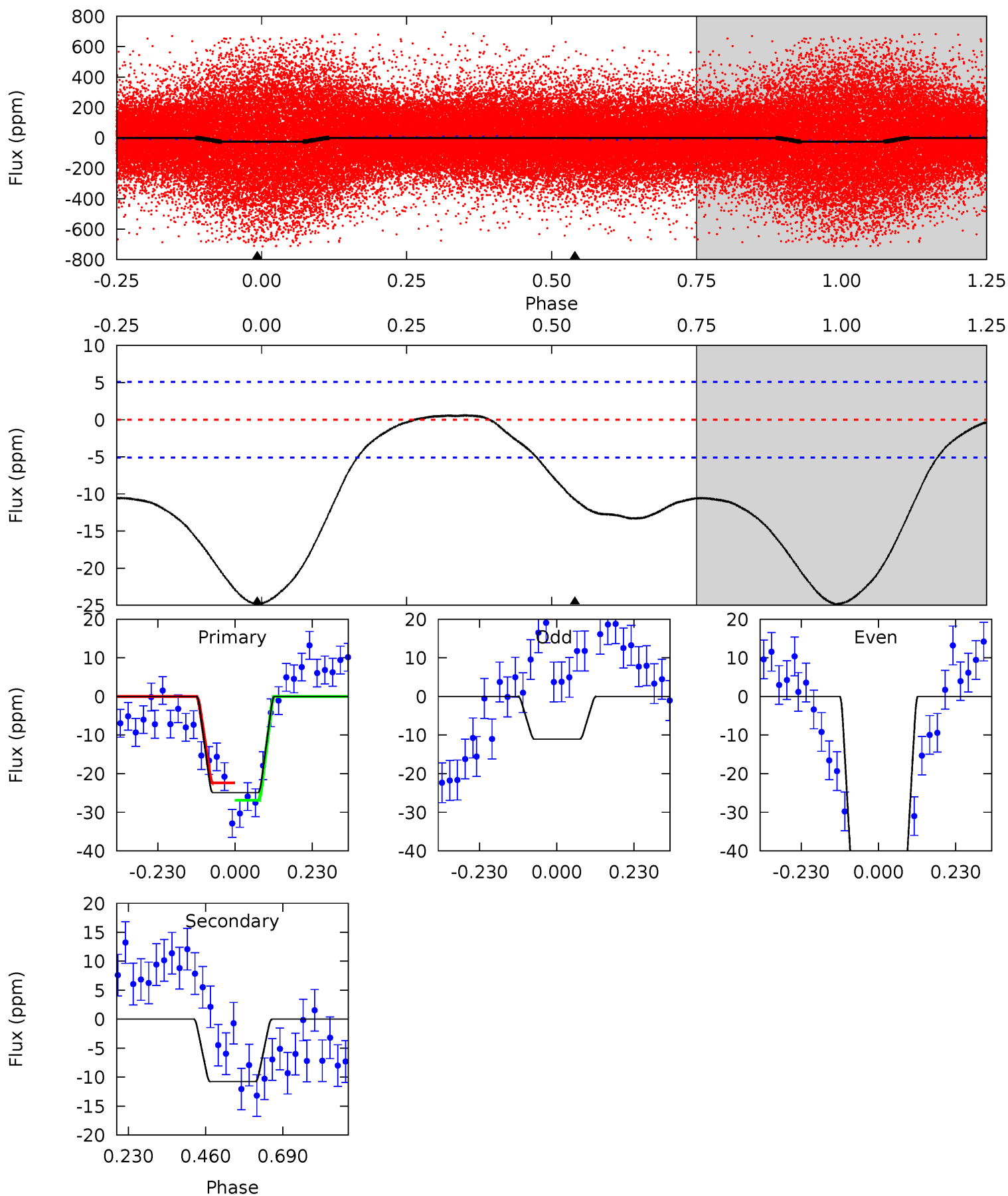
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	6.47	0	0	4.26	0.82	1.26	12.7	12.7	6.47	6.47	0.02	0.96	0.10	8.18



Alt Model-Shift Uniqueness Test

008701662-01, P = 0.530356 Days, E = 131.358492 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.4	9.27	0	0	4.39	1.20	1.81	21.4	21.4	9.27	9.27	19.7	1.38	0.02	1.94



Stellar Parameters For KIC 008701662

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6984^{+194}_{-333}	$4.192^{+0.105}_{-0.195}$	$0.070^{+0.200}_{-0.350}$	$1.607^{+0.529}_{-0.285}$	$1.468^{+0.216}_{-0.238}$	$0.498^{+0.253}_{-0.249}$
	+3%/-5%	+3%/-5%	+286%/-500%	+33%/-18%	+15%/-16%	+51%/-50%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008701662-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4 ± 1	$0.58^{+0.47}_{-0.33}$	4564^{+356}_{-284}	5255^{+3517}_{-1604}	$1.488^{+6.731}_{-1.032}$
Alt.	-11 ± 1	$0.95^{+0.51}_{-0.46}$	4573^{+334}_{-325}	5126^{+2354}_{-1059}	$1.365^{+3.792}_{-0.767}$

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 $A_{obs} \gg 1.0$

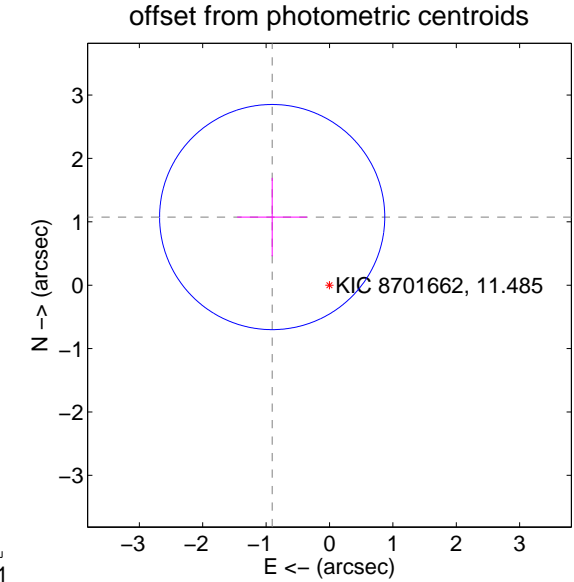
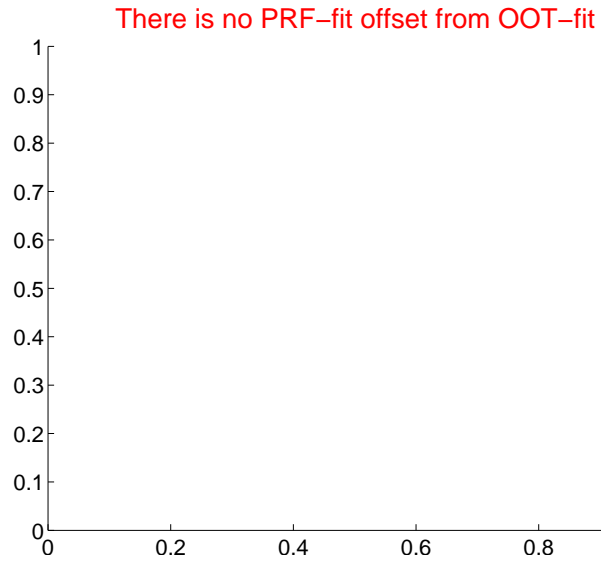
DV Centroid Data

Supplemental centroid analysis for 008701662-01. **Kepler magnitude: 11.48.** Transit SNR 7.00

There are 0 quarters with good PRF difference image offsets

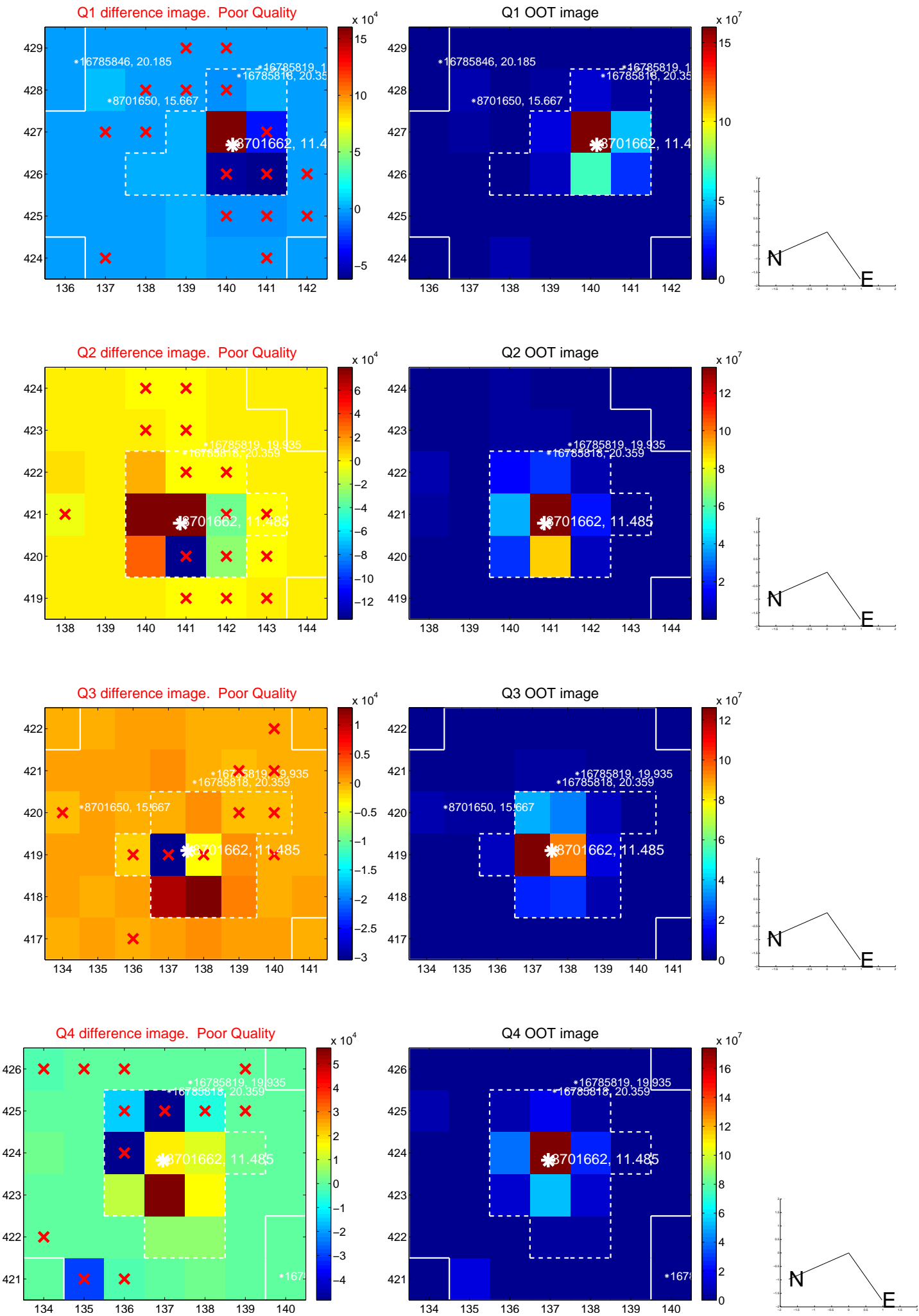
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.40 ± 0.59	2.37	0.90 ± 0.55	1.07 ± 0.62

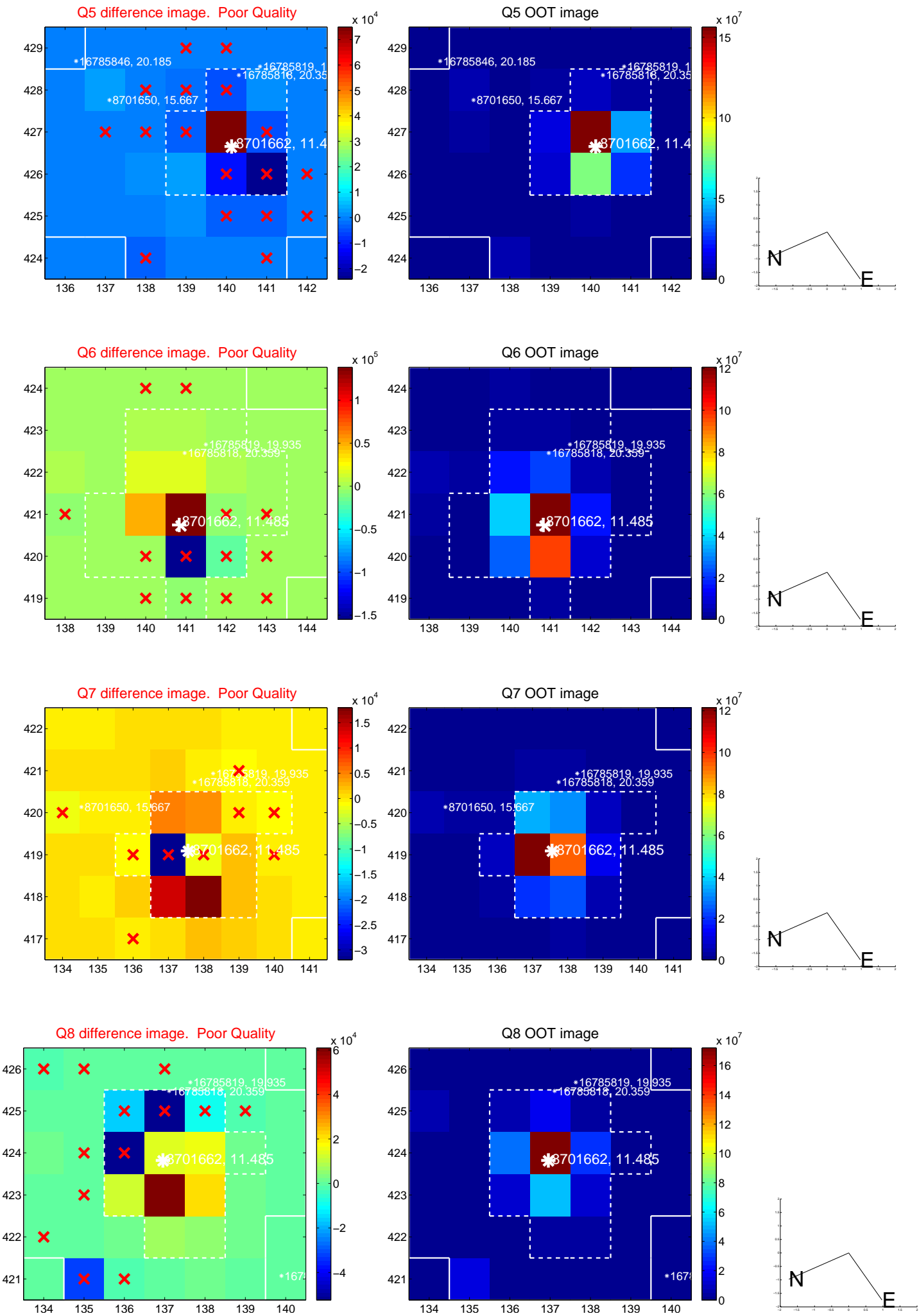


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

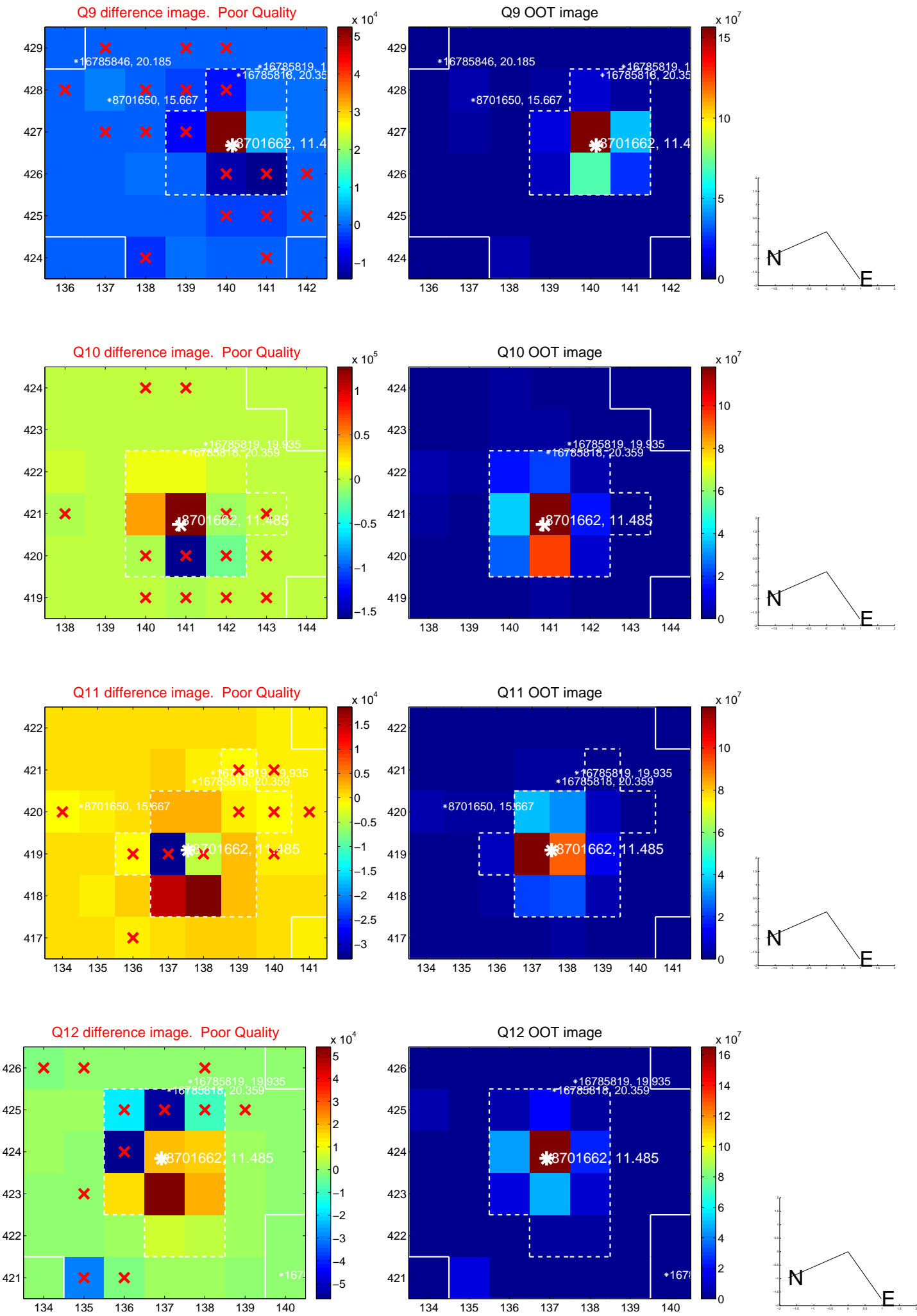
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



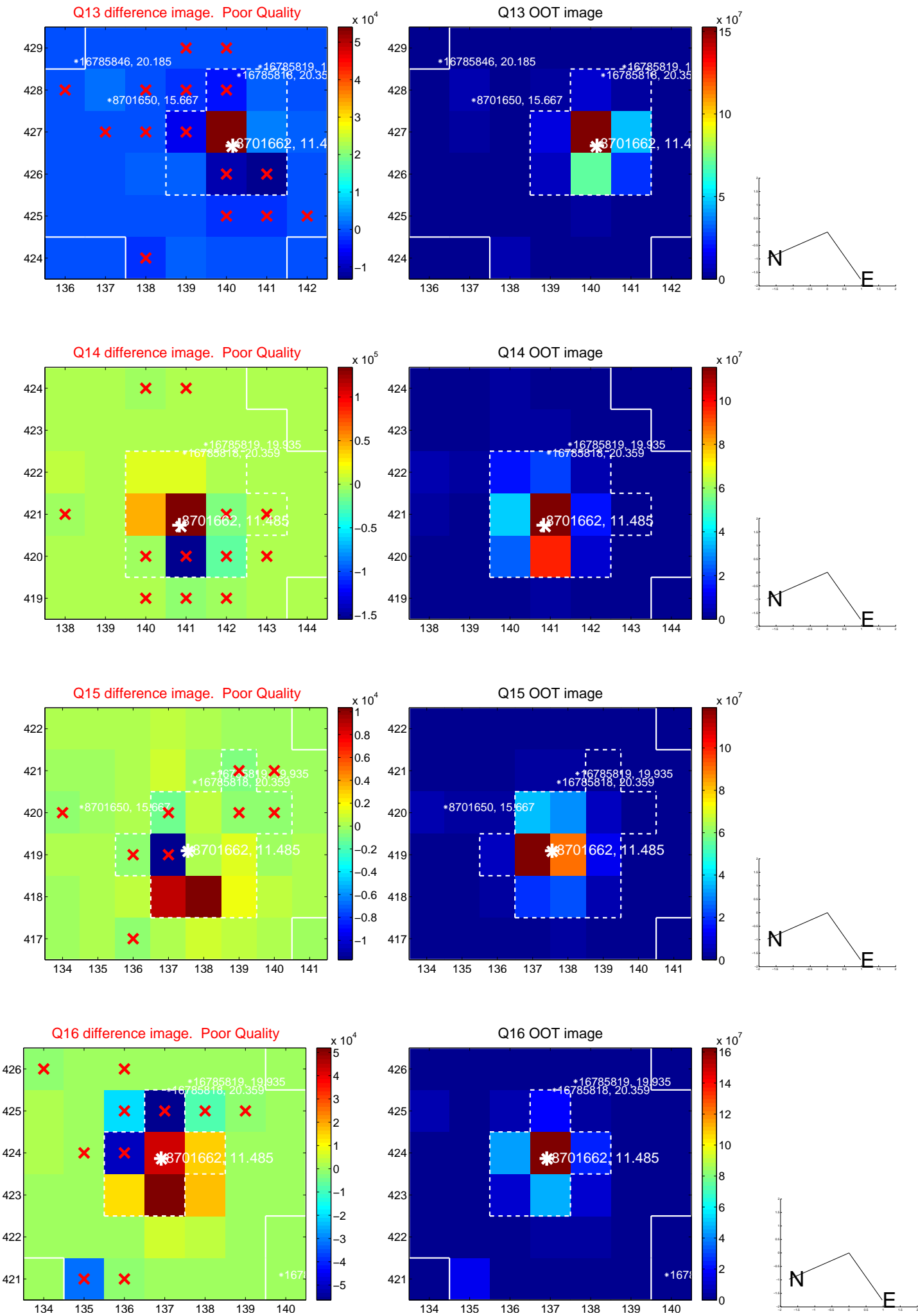
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



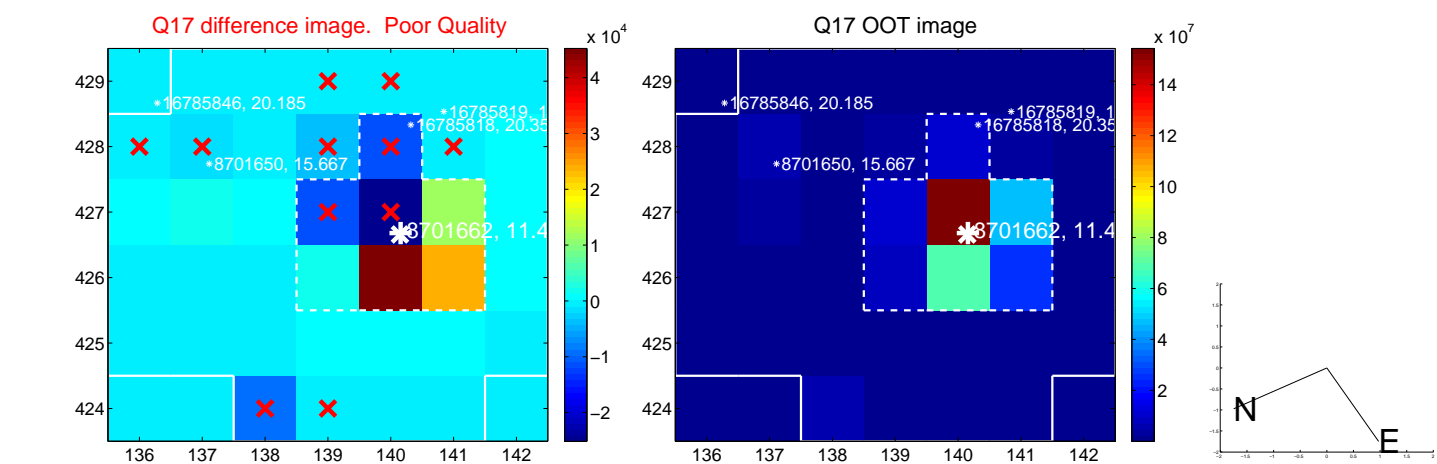
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



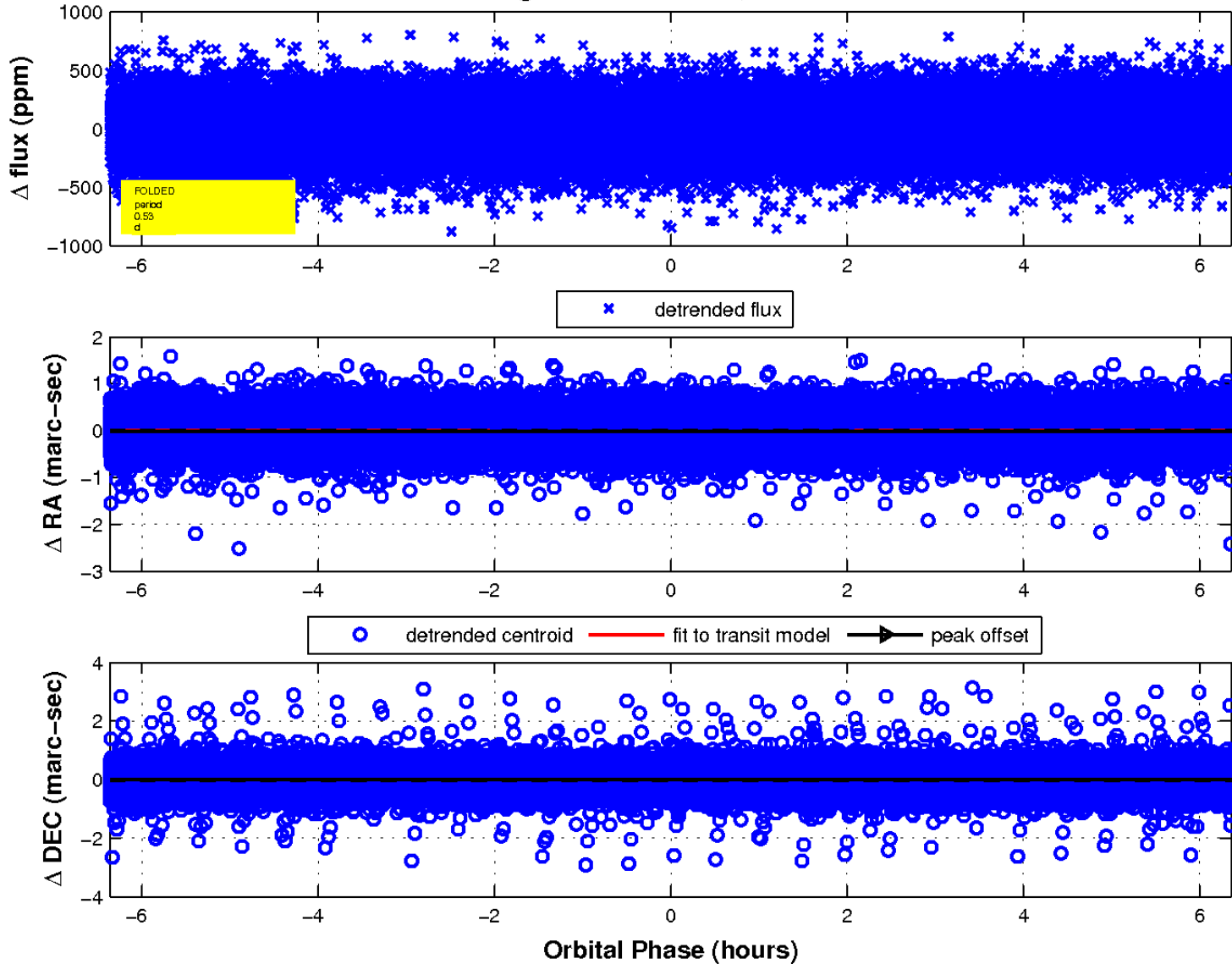
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

