

KIC 005685704

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})
005685704-01	OBS	No	0.513081	131.965235	9.4	4.423	9.9	0.4	0.55	3874	0.17	576.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005685704-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—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.

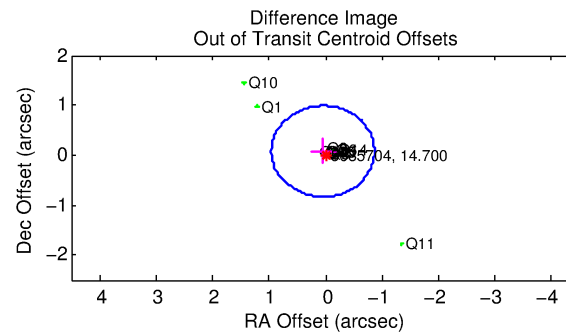
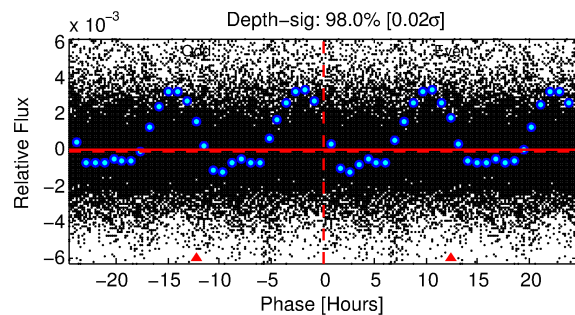
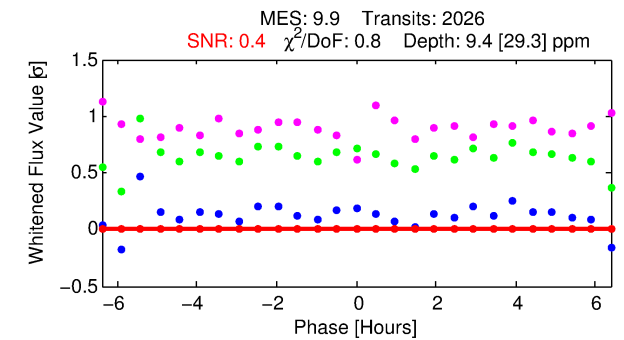
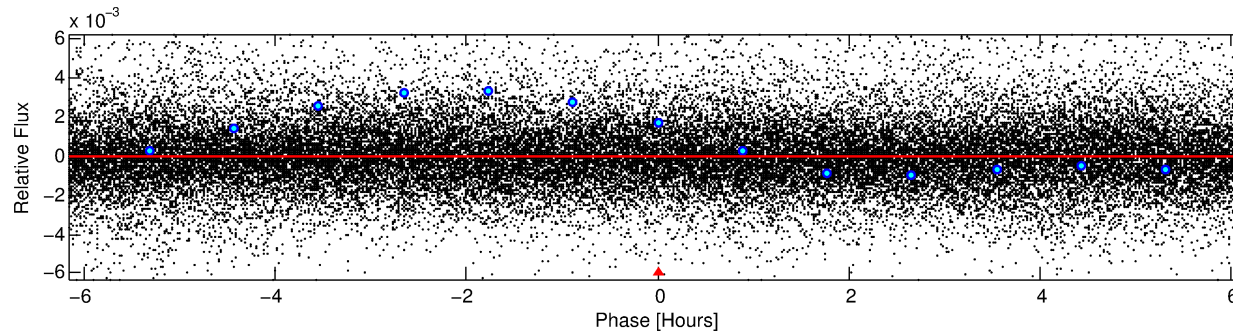
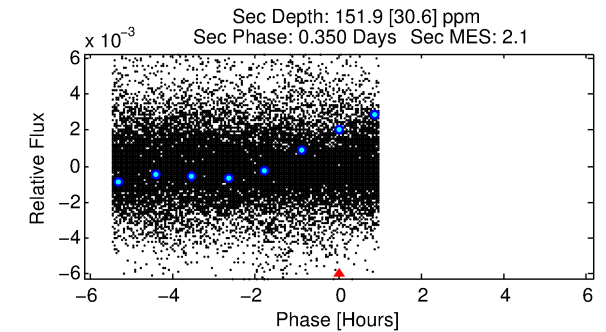
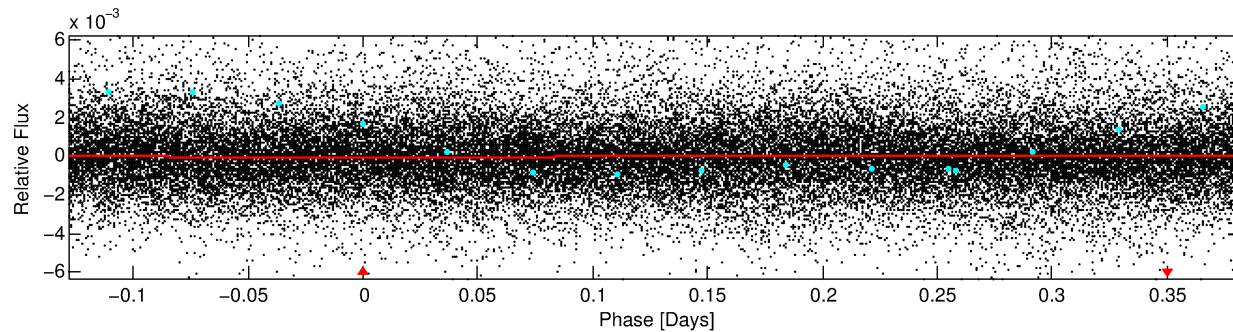
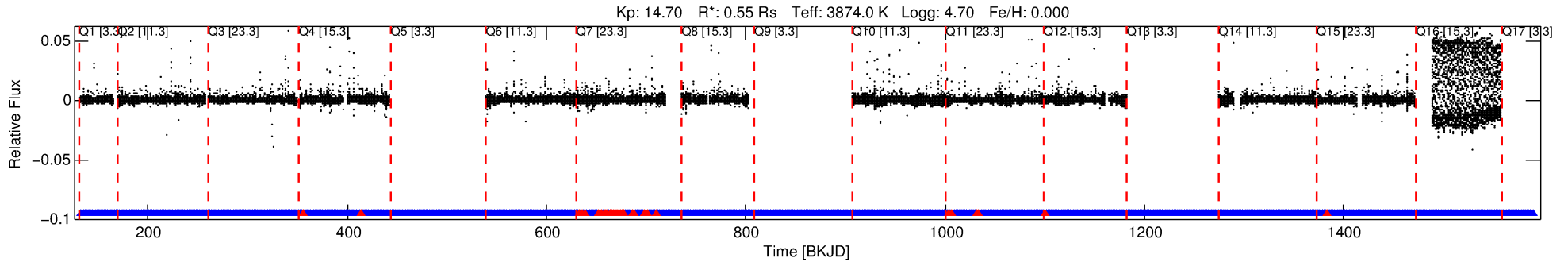
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005685704-01

No Significant Match Found

DV One-Page Summary

KIC: 5685704 Candidate: 1 of 1 Period: 0.513 d



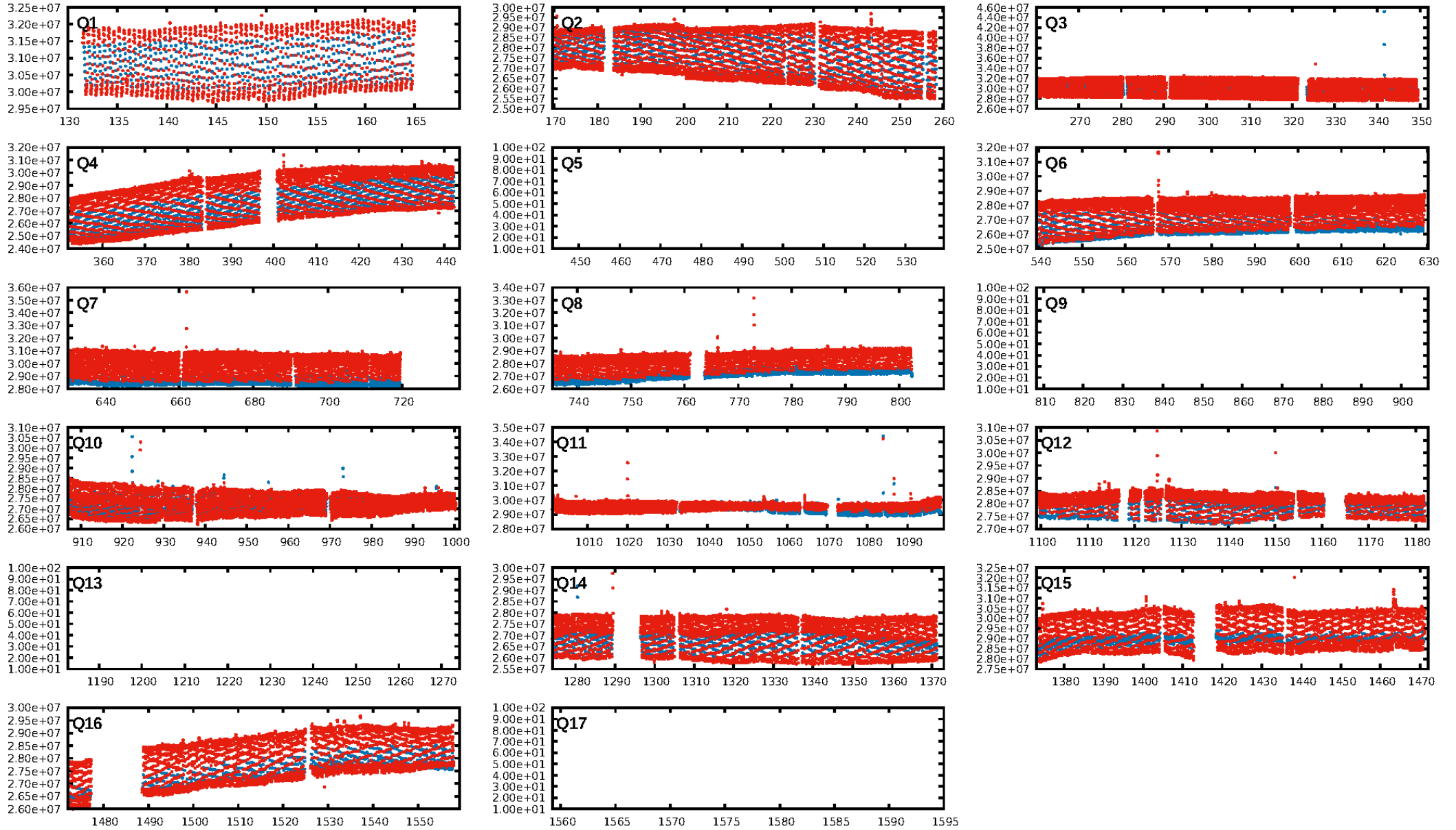
DV Fit Results:

Period = 0.51308 [0.00024] d
Epoch = 131.9652 [0.0448] BKJD
Rp/R* = 0.0028 [0.0271]
a/R* = 1.10 [7.08]
b = 0.35 [96.19]
Seff = 576.21 [62.74]
Teff = 1249 [34] K
Rp = 0.17 [1.63] Re
a = 0.0103 [0.0005] AU
Ag = 314.30 [6098.48] [0.05 σ]
Teffp = 8133 [39452] K [0.17 σ]

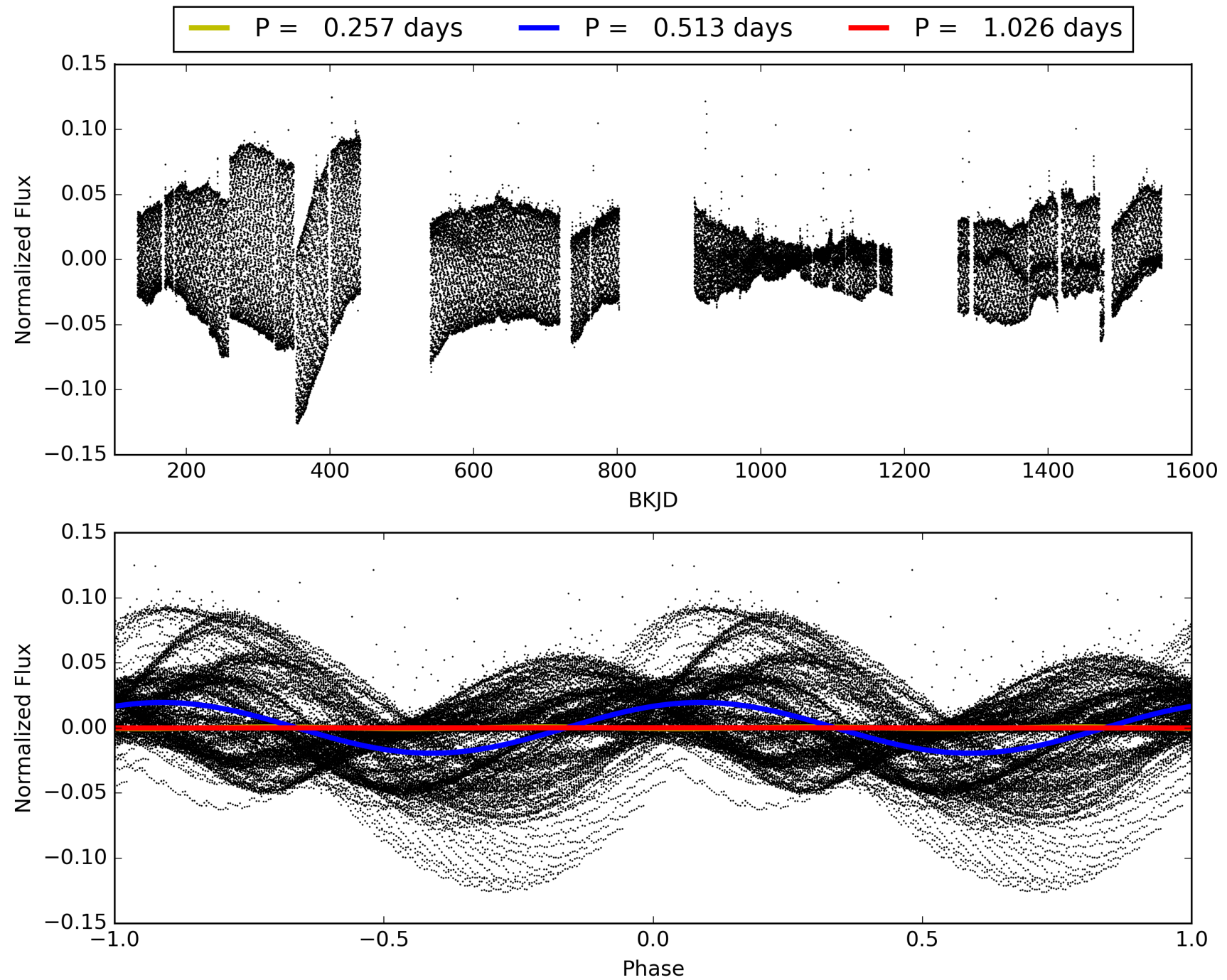
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1914/1960]
GhostDiagnostic-chr: -4.475
Centroid-sig: 0.0%
Centroid-so: 15.067 arcsec [2.57 σ]
OotOffset-rm: 0.092 arcsec [0.30 σ]
KicOffset-rm: 0.136 arcsec [1.64 σ]
OotOffset-st: 3/4/4/1 [12]
KicOffset-st: 3/4/4/1 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 005685704-01, PDC Light Curves

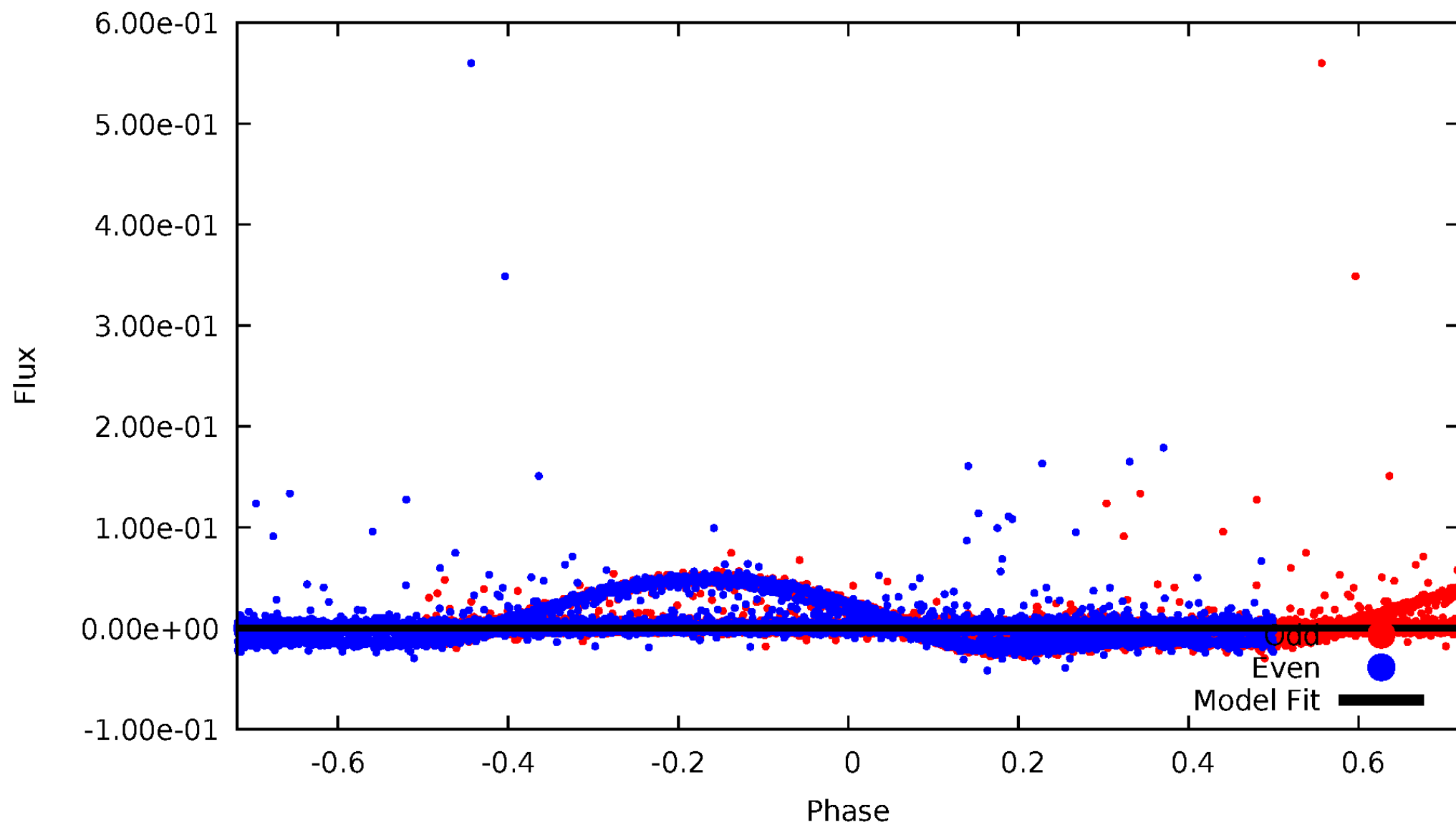


TCE 005685704-01



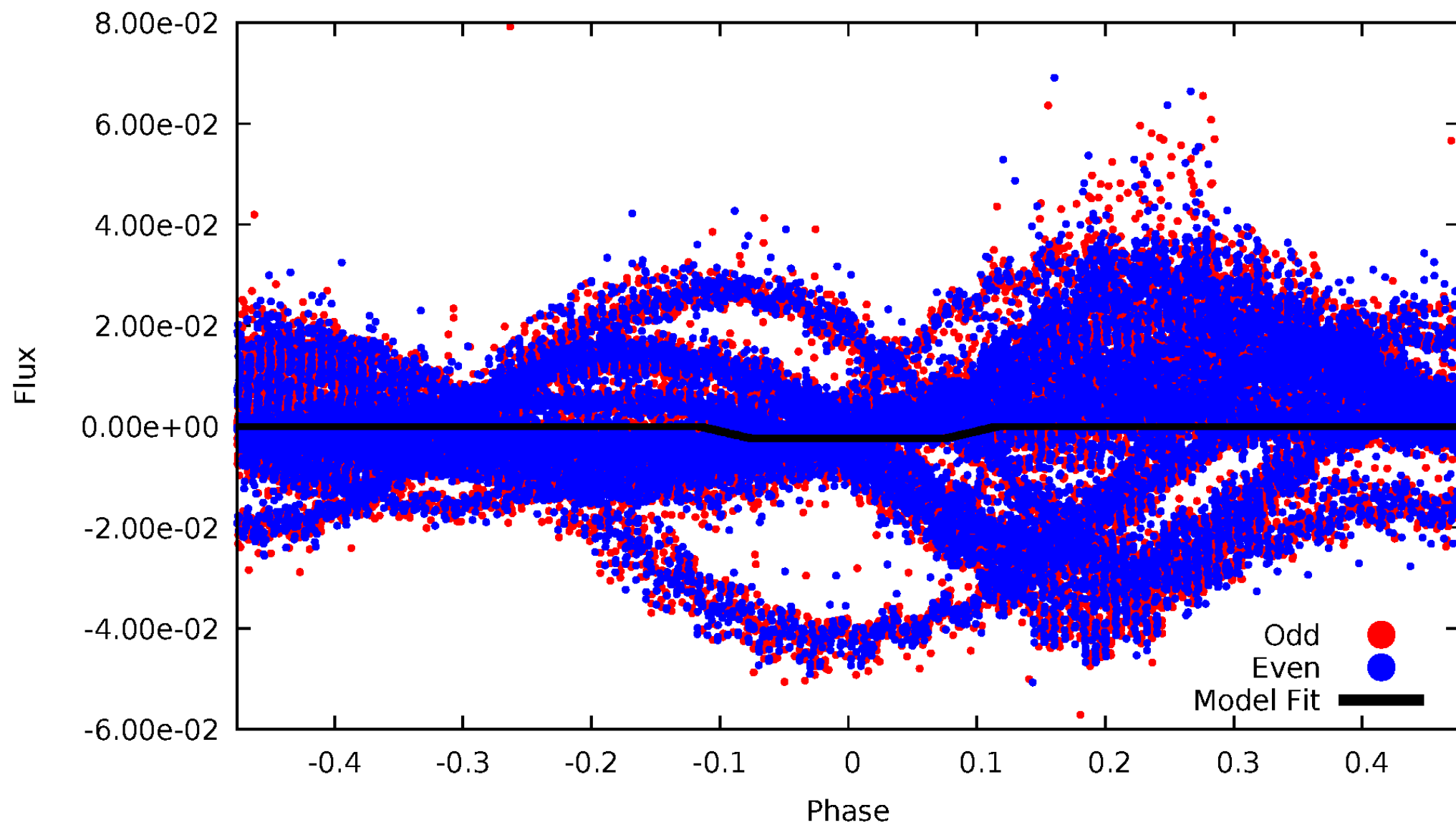
DV Odd/Even

TCE 005685704-01



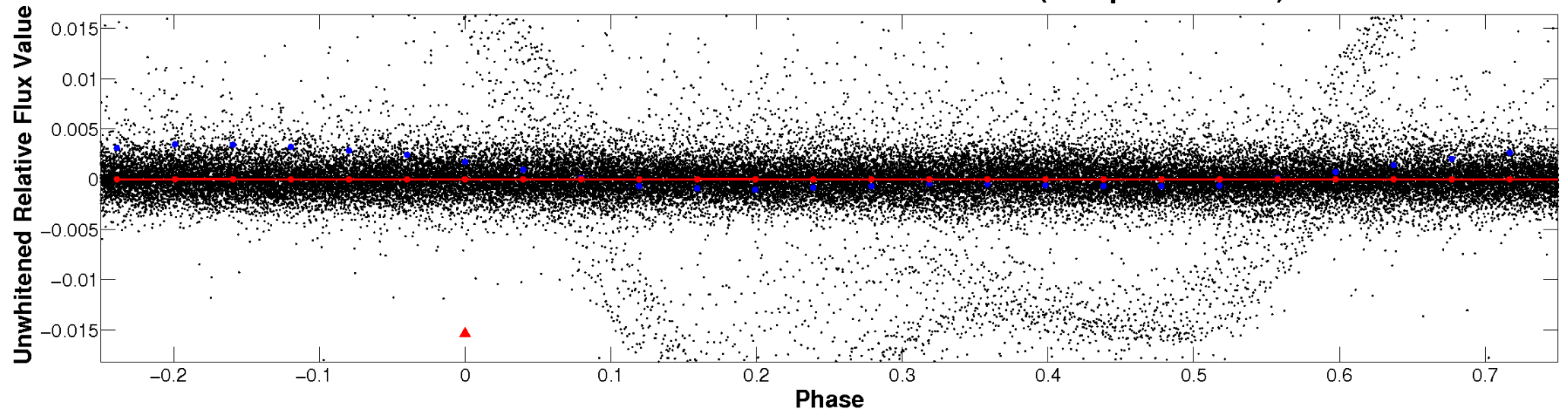
ALT Odd/Even

TCE 005685704-01

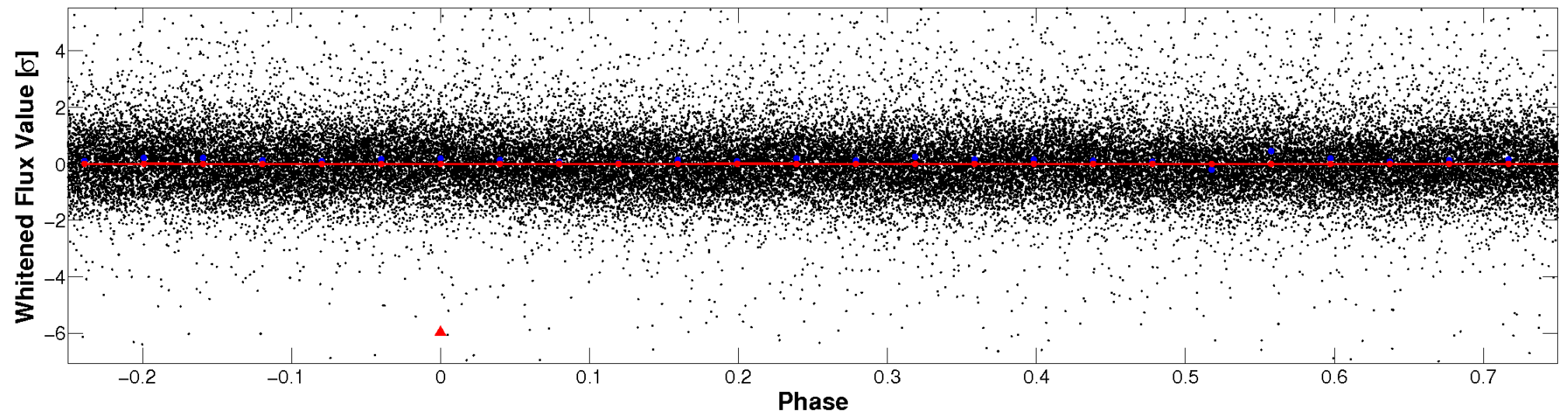


Non-Whitened Vs. Whitened Light Curve

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

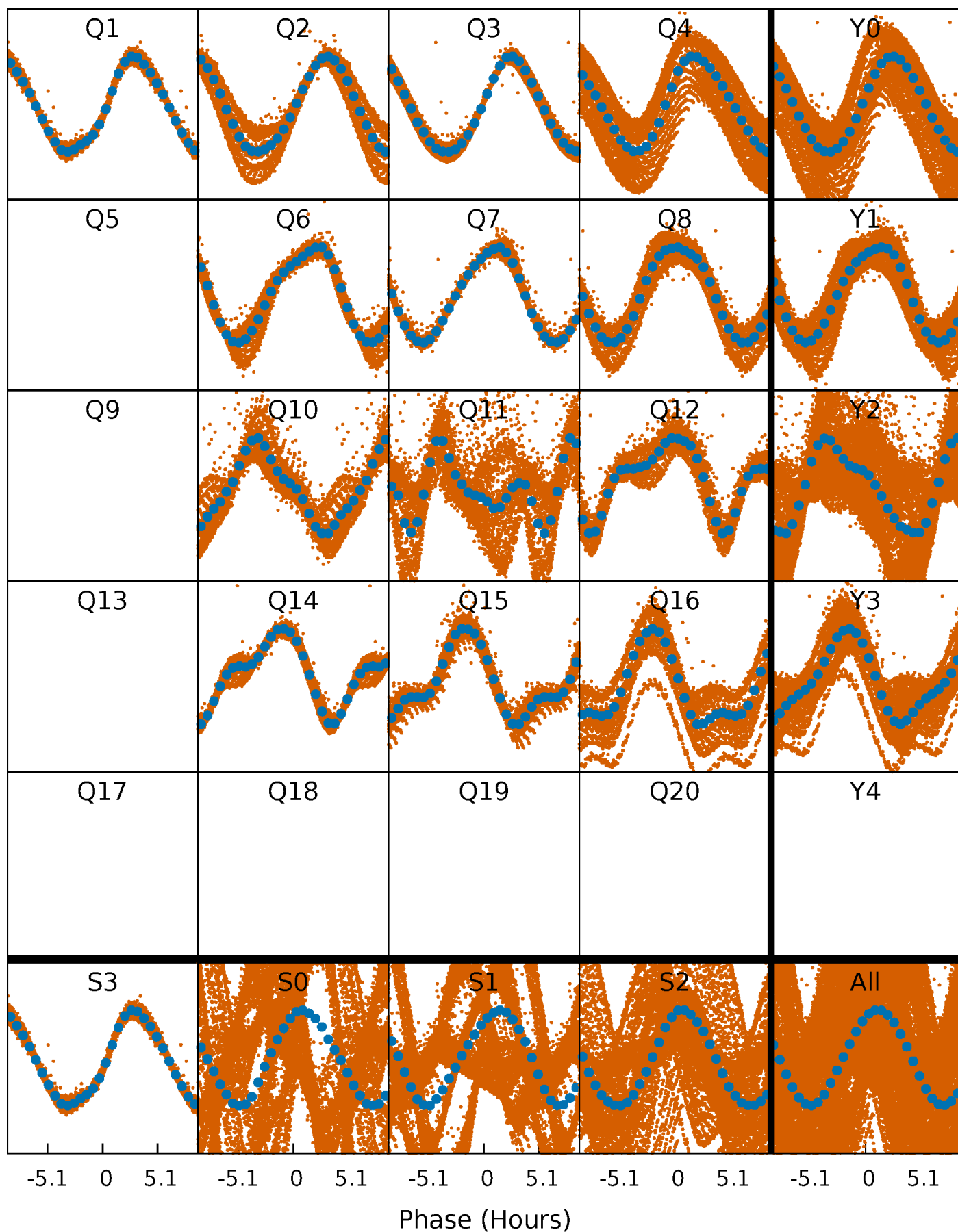


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



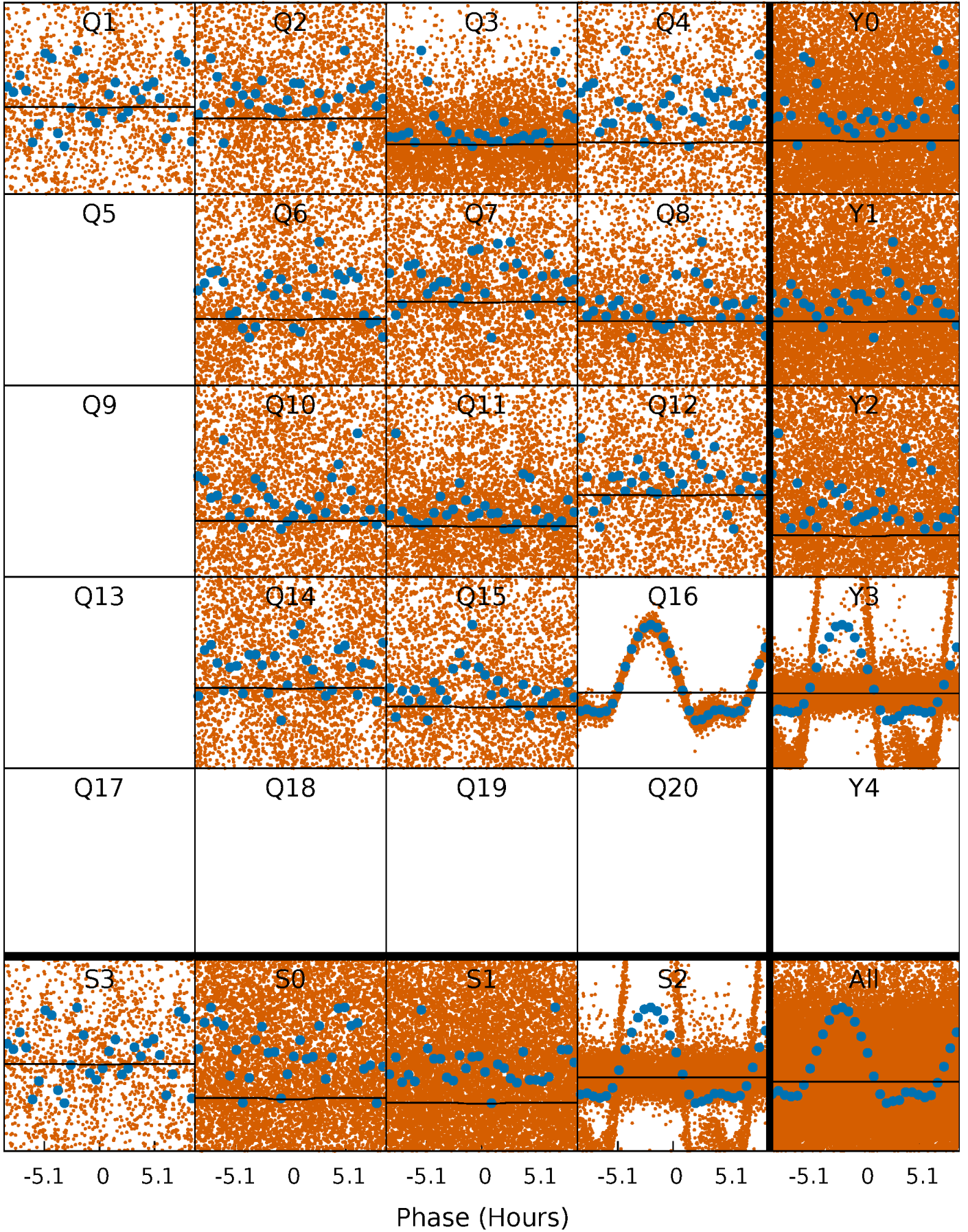
PDC Quarter-Phased Transit Curves

TCE 005685704-01 P= 0.513081 Days $T_0=131.965235$ (BKJD)



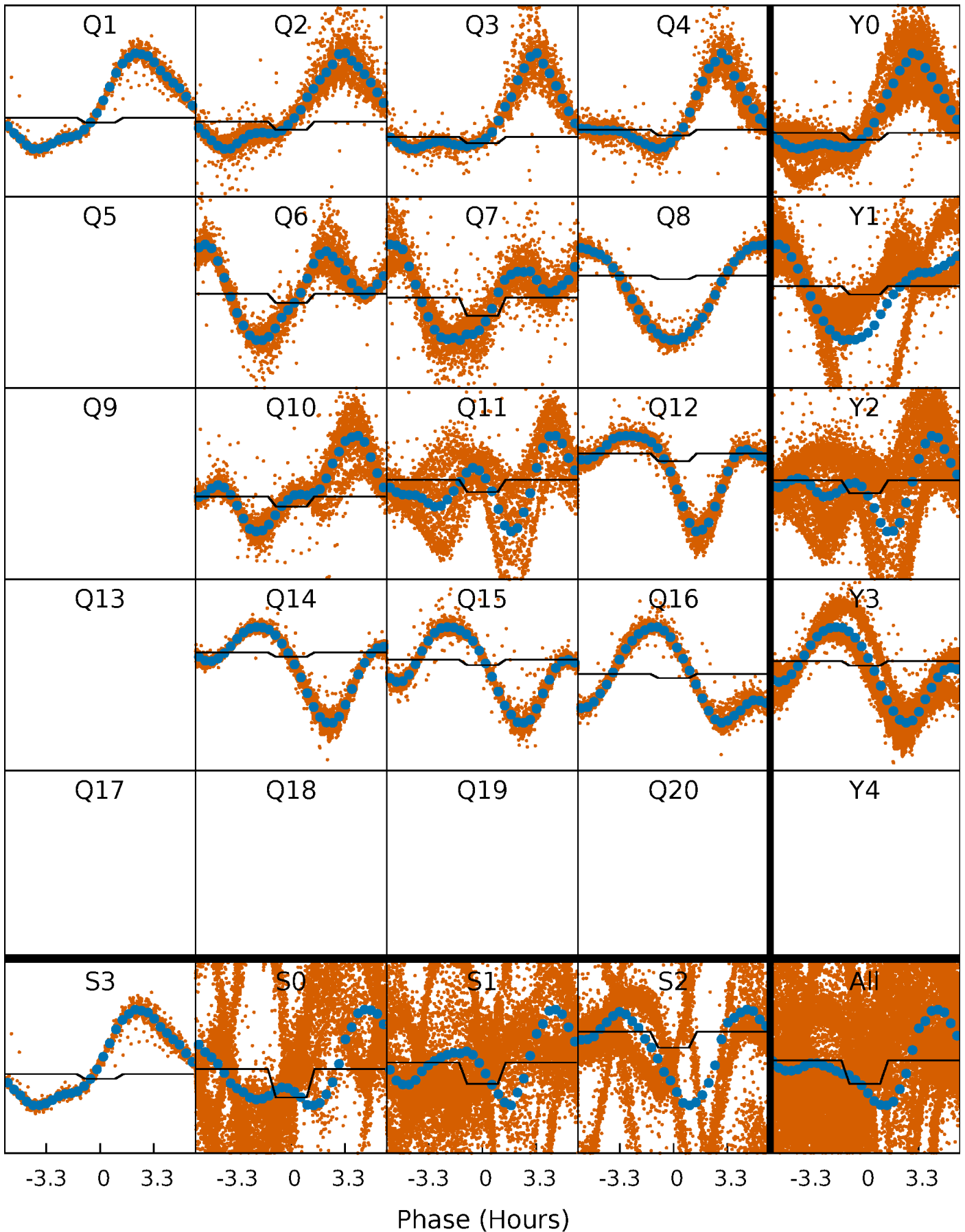
DV Quarter-Phased Transit Curves

TCE 005685704-01 P= 0.513081 Days $T_0=131.965235$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

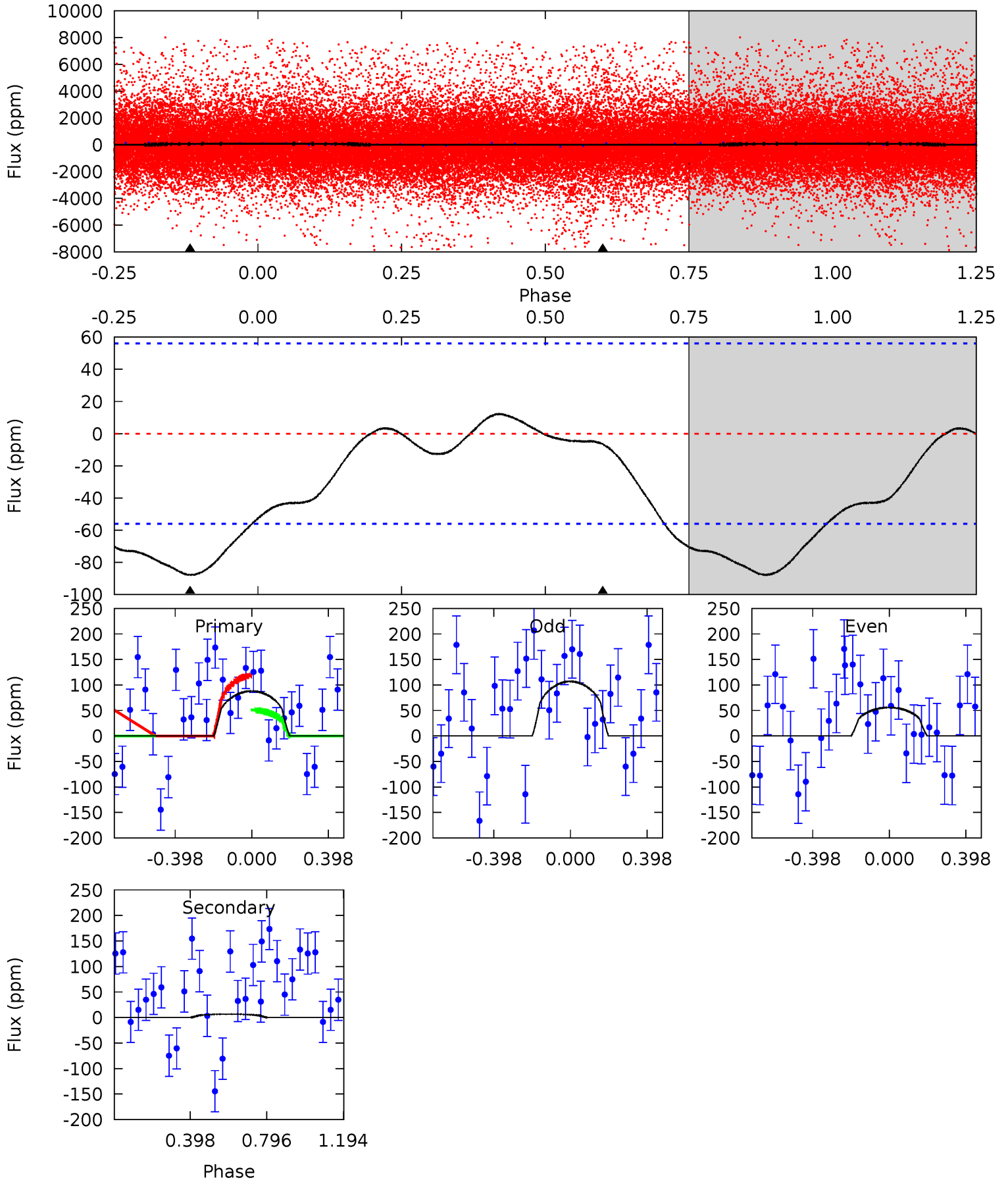
TCE 005685704-01 P= 0.512870 Days $T_0=131.987422$ (BKJD)



DV Model-Shift Uniqueness Test

005685704-01, P = 0.513081 Days, E = 131.452154 Days

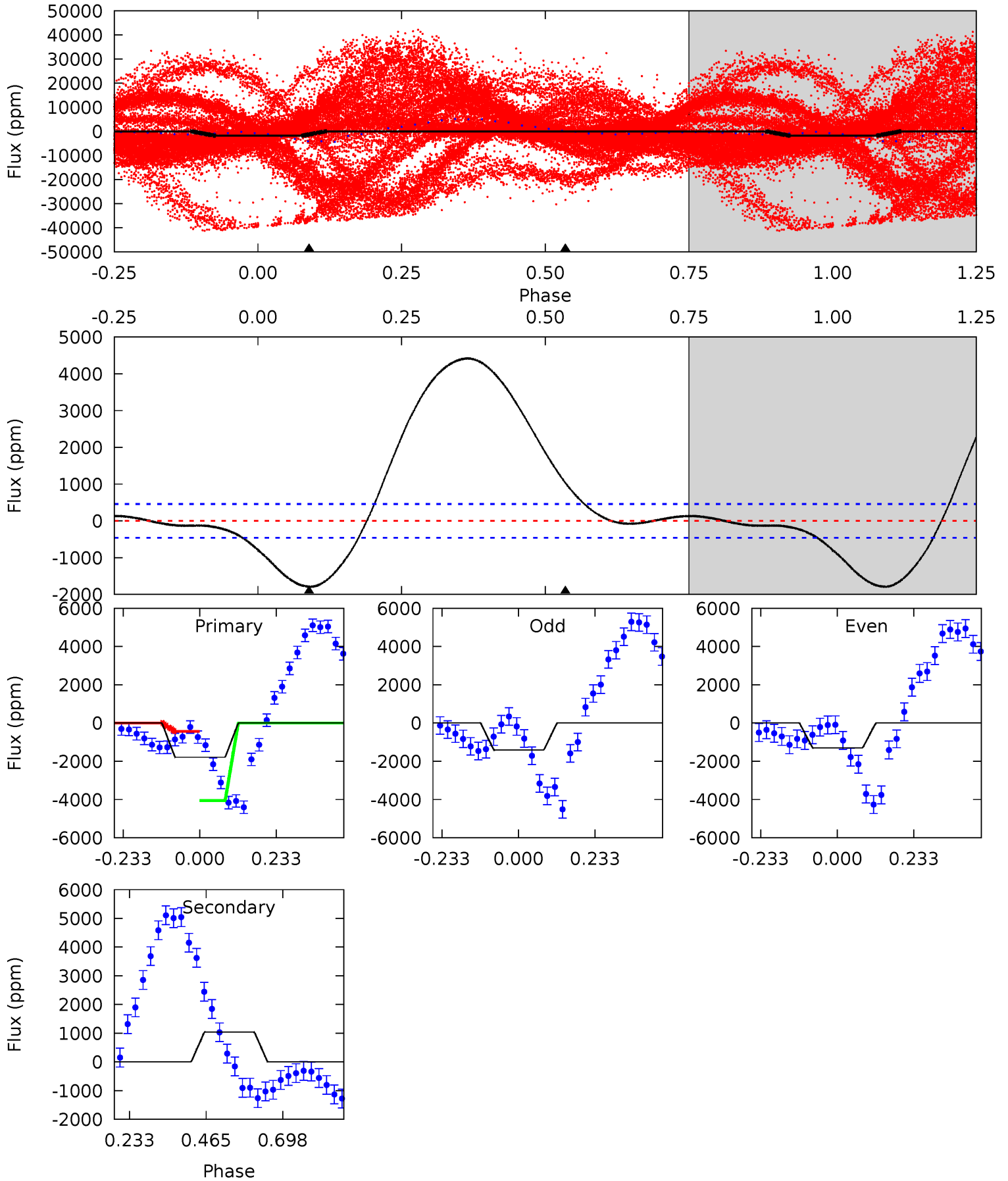
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.69	0.50	0	0	4.27	0.85	0.34	6.69	6.69	0.50	0.50	1.96	11.0	0.12	2.61



Alt Model-Shift Uniqueness Test

005685704-01, P = 0.512870 Days, E = 131.474552 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	-9.91	0	0	4.38	1.19	0.80	17.1	17.1	-9.91	-9.91	0.52	2.10	0.71	0



Stellar Parameters For KIC 005685704

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3874^{+85}_{-77}	$4.701^{+0.033}_{-0.018}$	$0.000^{+0.100}_{-0.100}$	$0.552^{+0.025}_{-0.033}$	$0.559^{+0.029}_{-0.029}$	$4.674^{+0.696}_{-0.413}$
	+2%/-2%	+1%/-0%	+inf%/-inf%	+5%/-6%	+5%/-5%	+15%/-9%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 005685704-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 13	$1.10^{+1.25}_{-0.76}$	1740^{+43}_{-40}	-2063^{+4994}_{-320}	$0.163^{+2.686}_{-0.385}$
Alt.	1037 ± 105	$2.93^{+1.59}_{-1.43}$	1739^{+42}_{-39}	-3388^{+364}_{-863}	$-7.001^{+3.960}_{-20.034}$

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

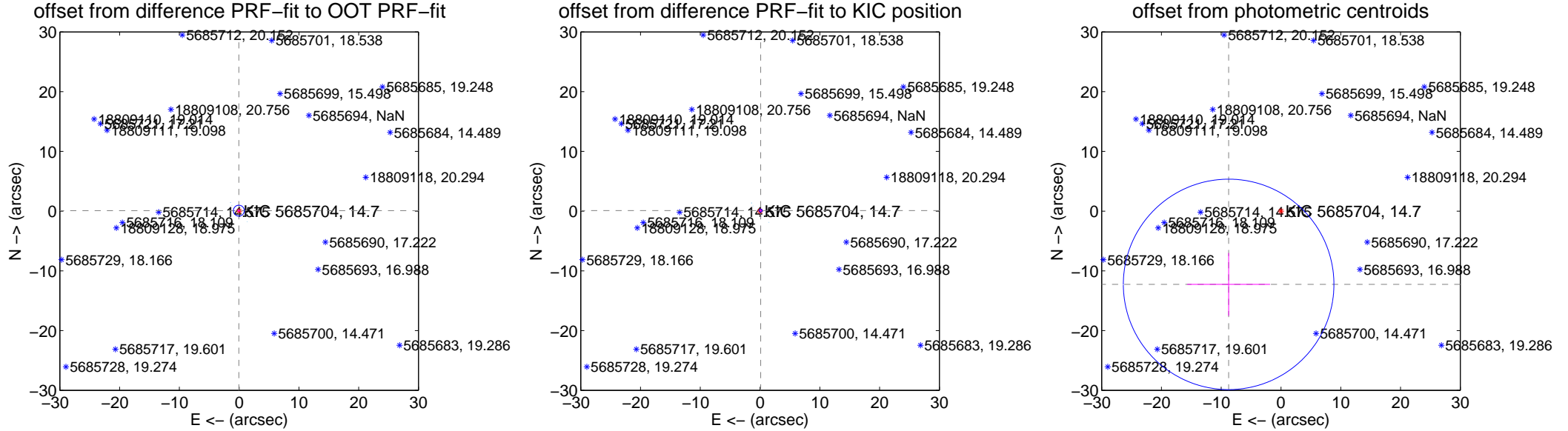
DV Centroid Data

Supplemental centroid analysis for 005685704-01. Kepler magnitude: 14.70. Transit SNR 0.42

There are 3 quarters with good PRF difference image offsets

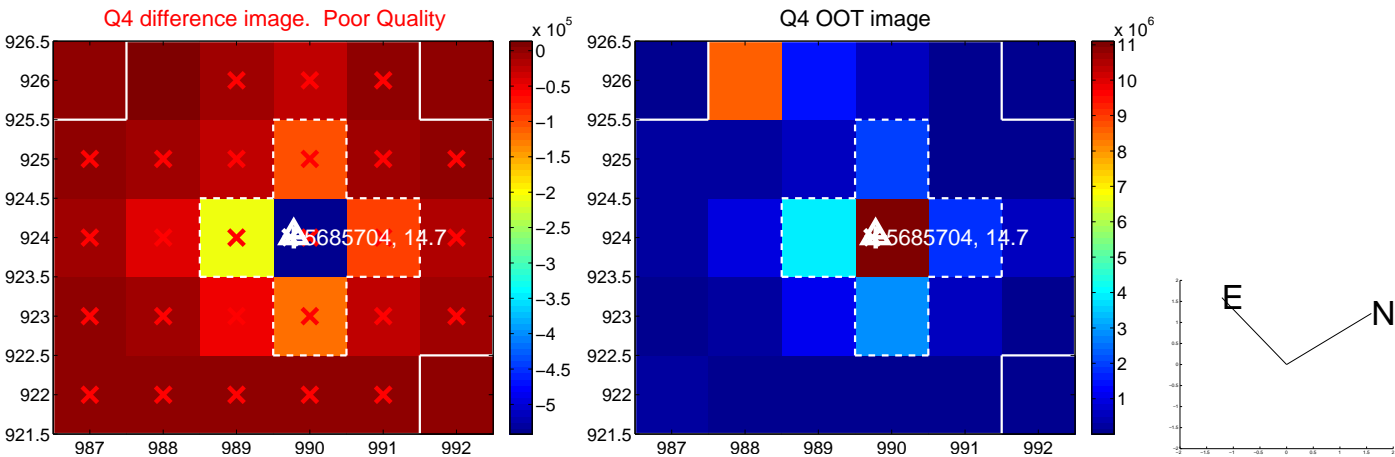
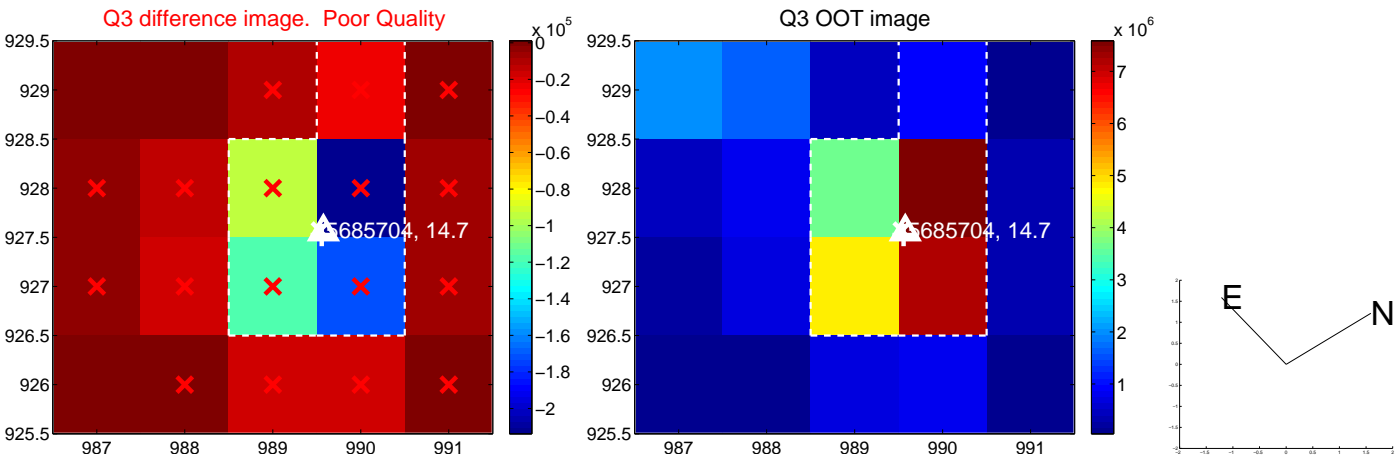
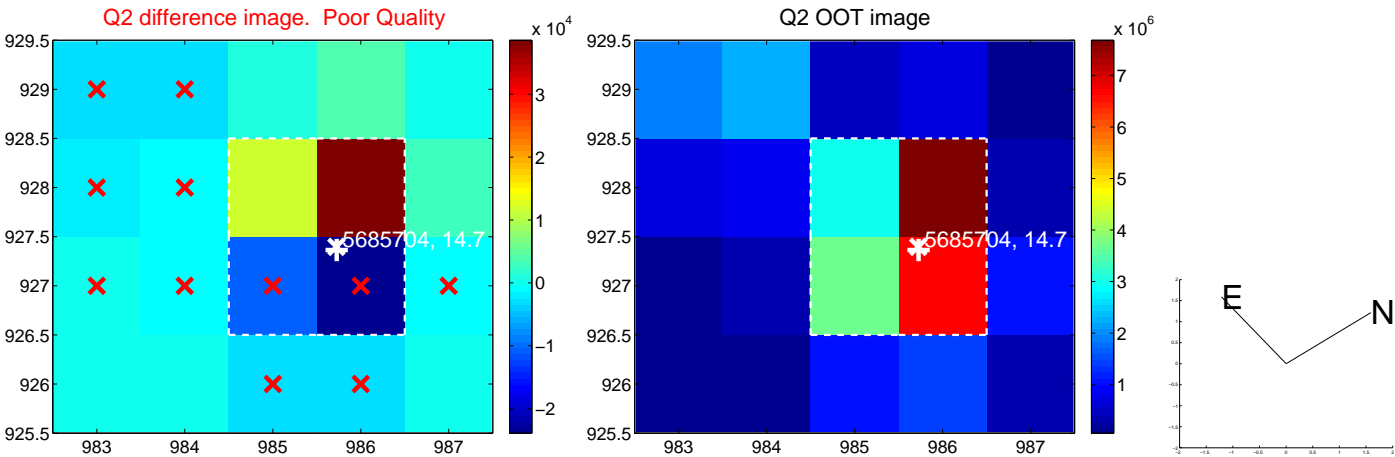
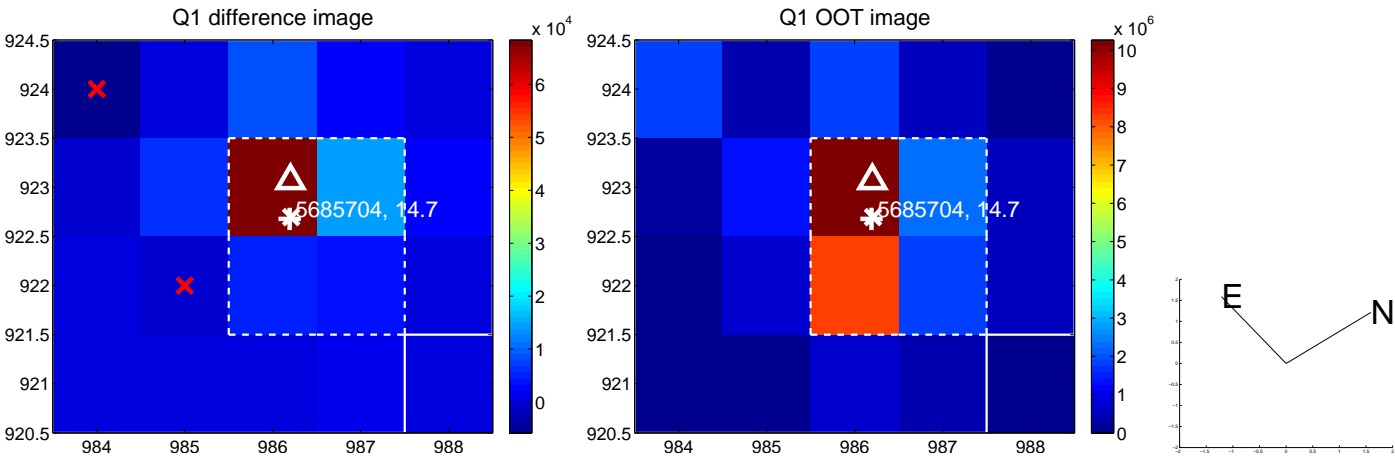
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.092 ± 0.304	0.30	0.048 ± 0.214	0.079 ± 0.235
PRF-fit source offset from KIC position	0.136 ± 0.083	1.64	-0.103 ± 0.203	0.089 ± 0.203
photometric centroid source offset	15.07 ± 5.87	2.57	8.76 ± 6.93	-12.26 ± 5.25

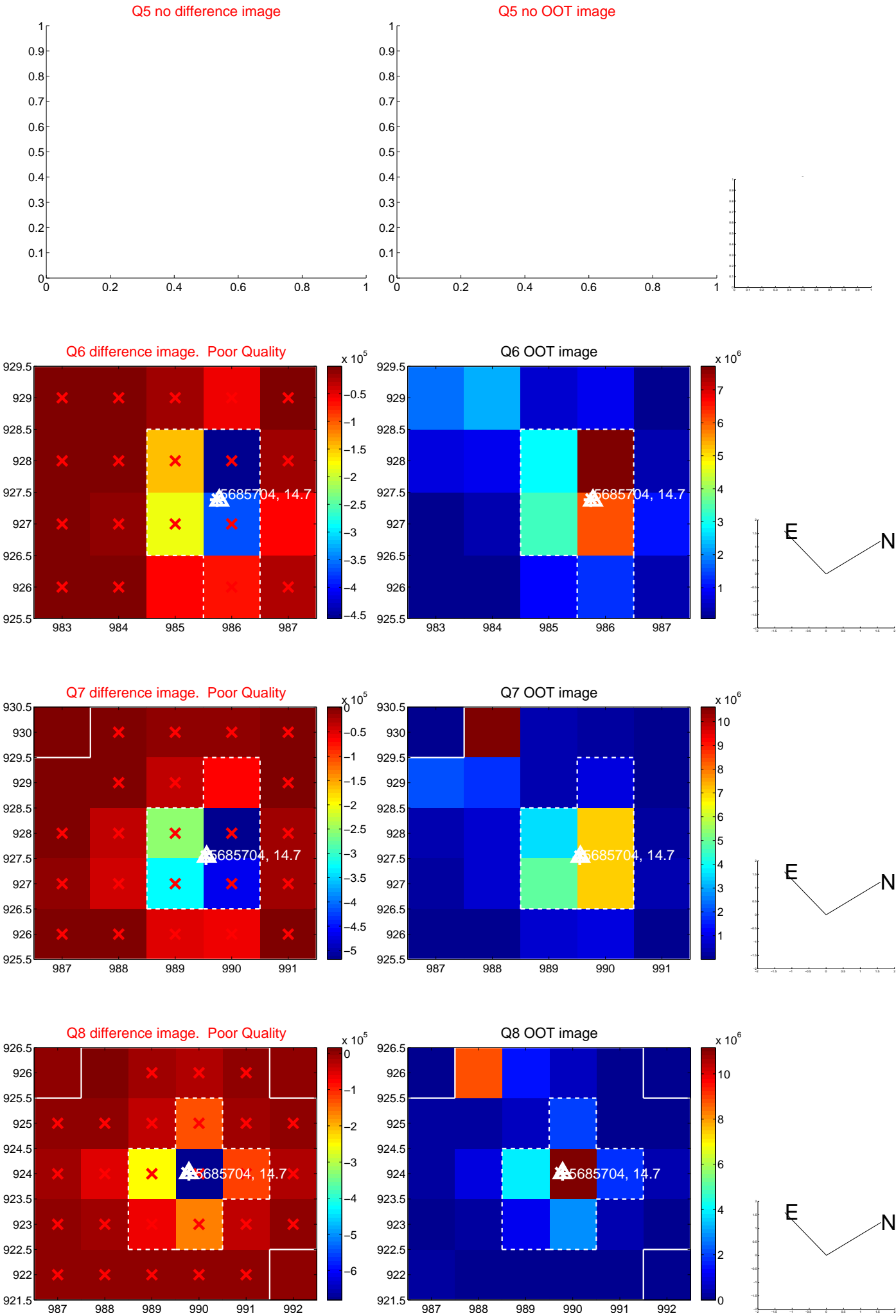


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

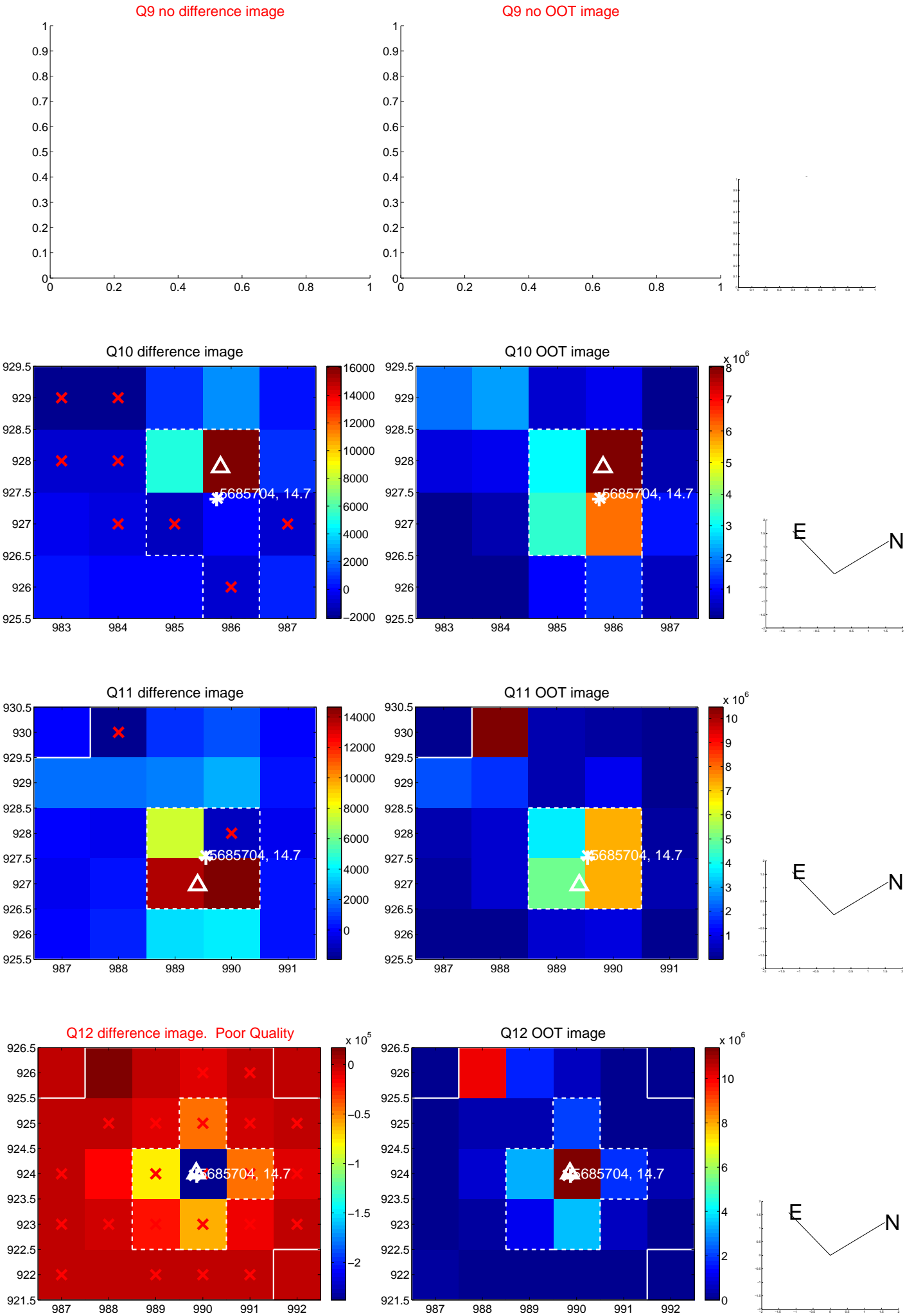
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



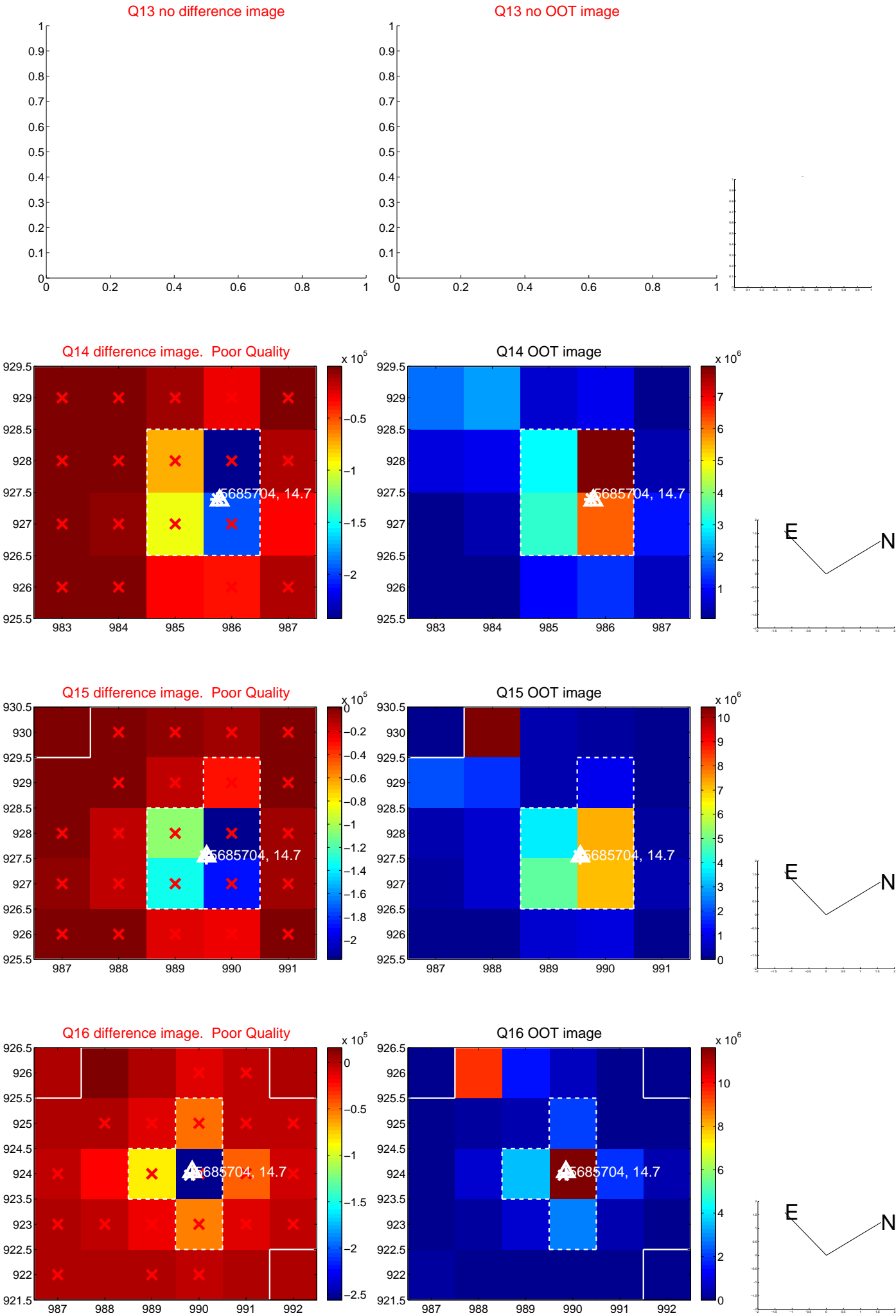
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



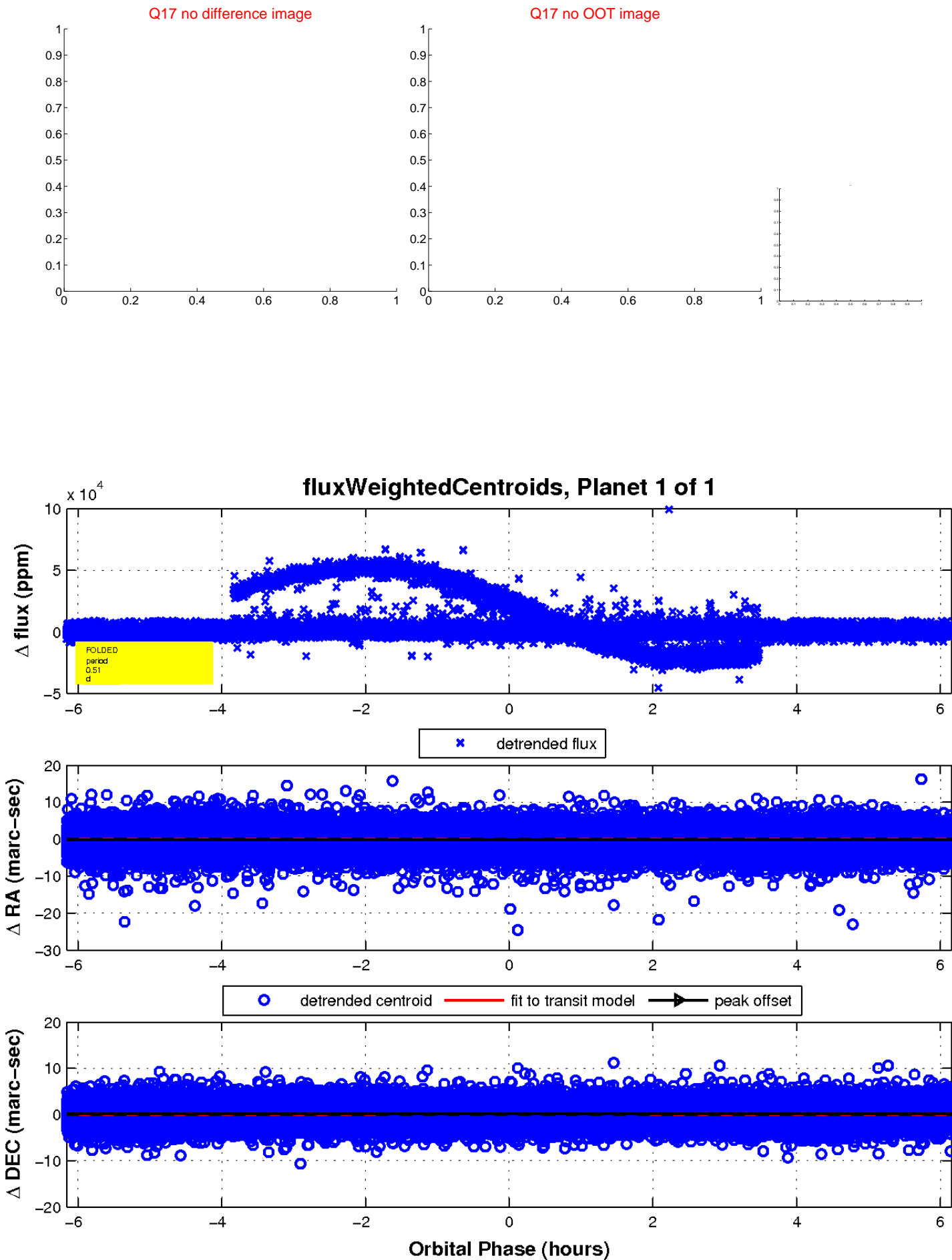
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

