

KIC 004927985

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})
004927985-01	OBS	No	3.412332	133.515297	46.2	40.948	12.7	23.3	2.54	7810	2.13	7101.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004927985-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_MEAS

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

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

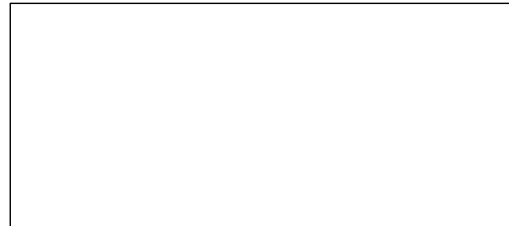
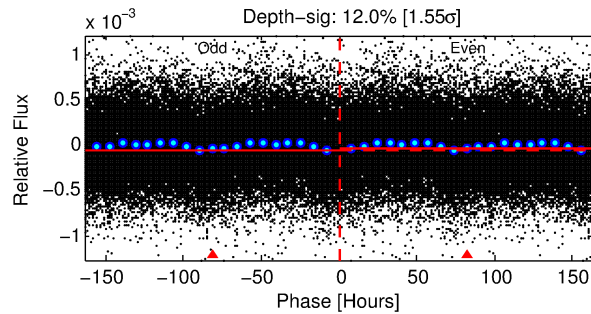
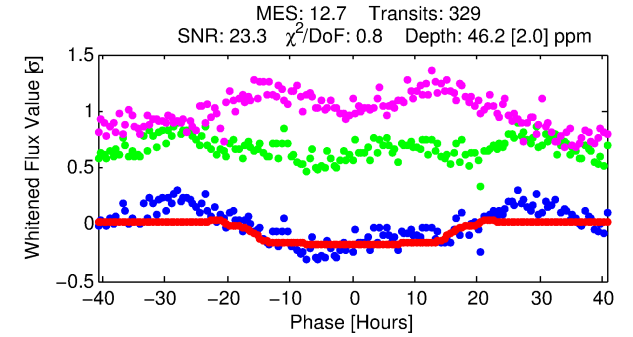
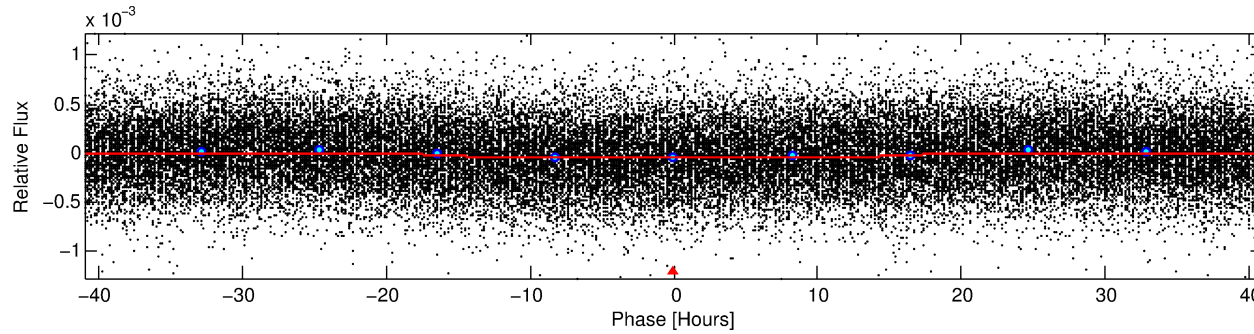
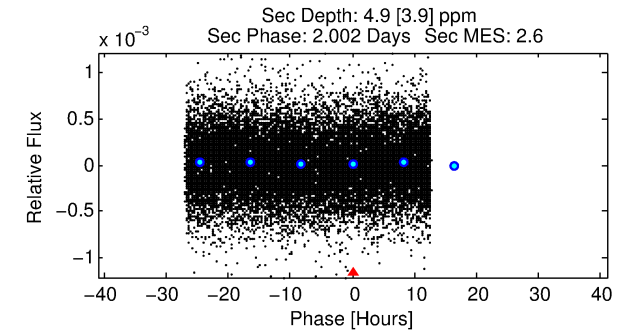
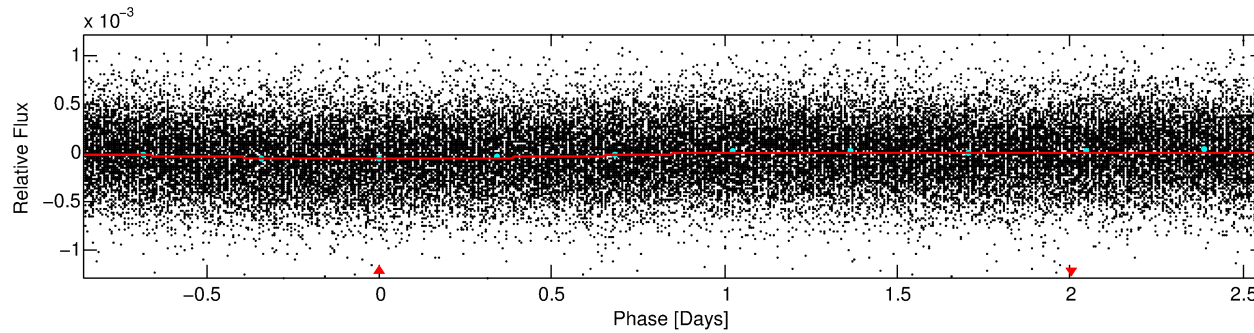
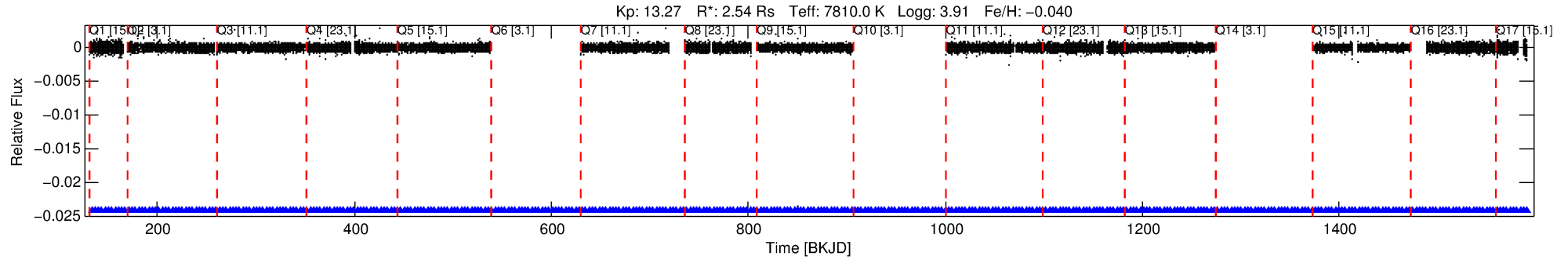
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004927985-01

No Significant Match Found

DV One-Page Summary

KIC: 4927985 Candidate: 1 of 1 Period: 3.412 d



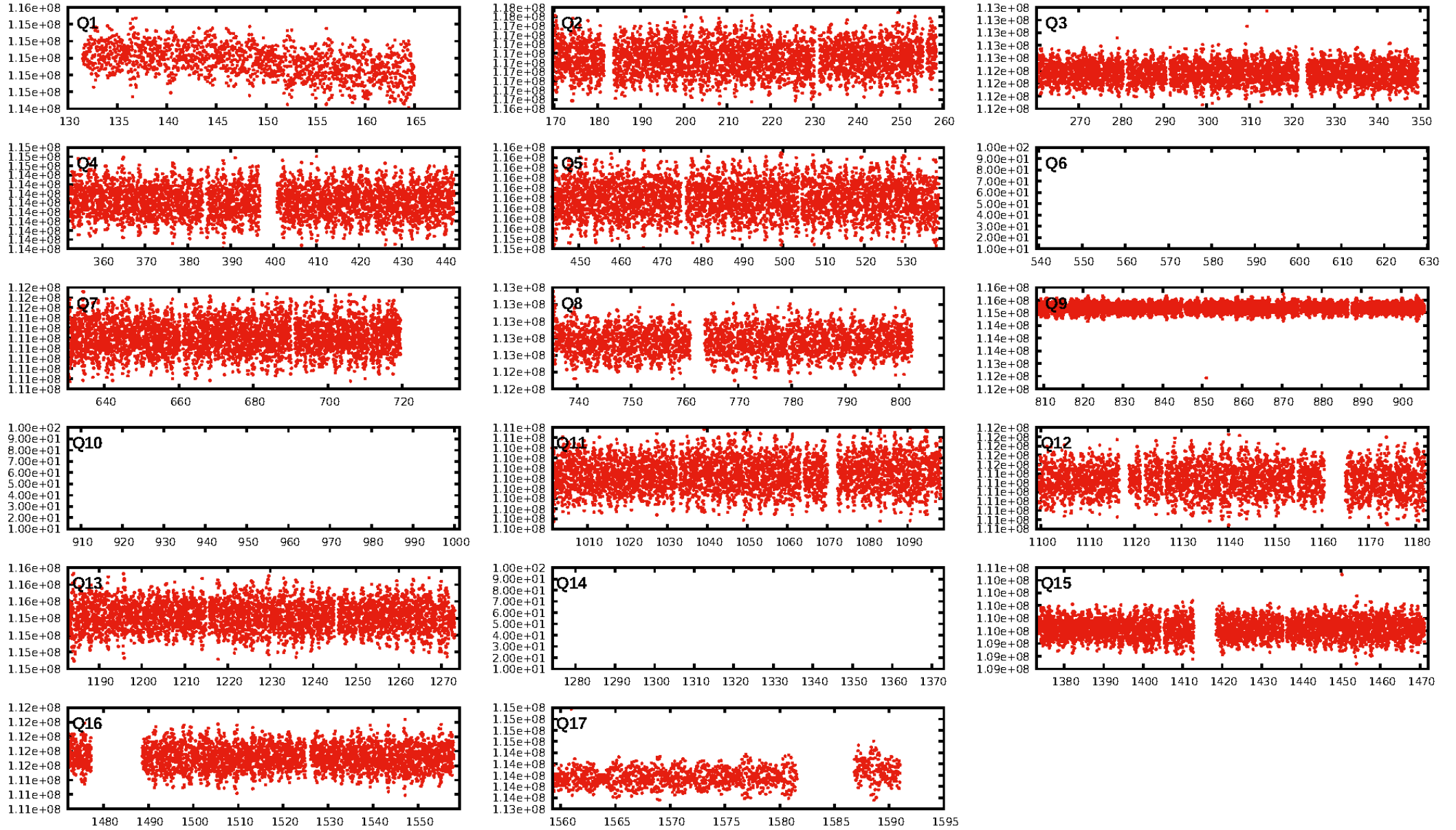
DV Fit Results:

Period = 3.41233 [0.00010] d
Epoch = 133.5153 [0.0238] BKJD
Rp/R* = 0.0077 [0.0002]
a/R* = 1.00 [0.00]
b = 0.96 [0.01]
Seff = 7101.00 [3691.47]
Teq = 2341 [304] K
Rp = 2.13 [0.77] Re
a = 0.0550 [0.0178] AU
Ag = 1.78 [1.67] [0.47σ]
Teffp = 4180 [850] K [2.04σ]

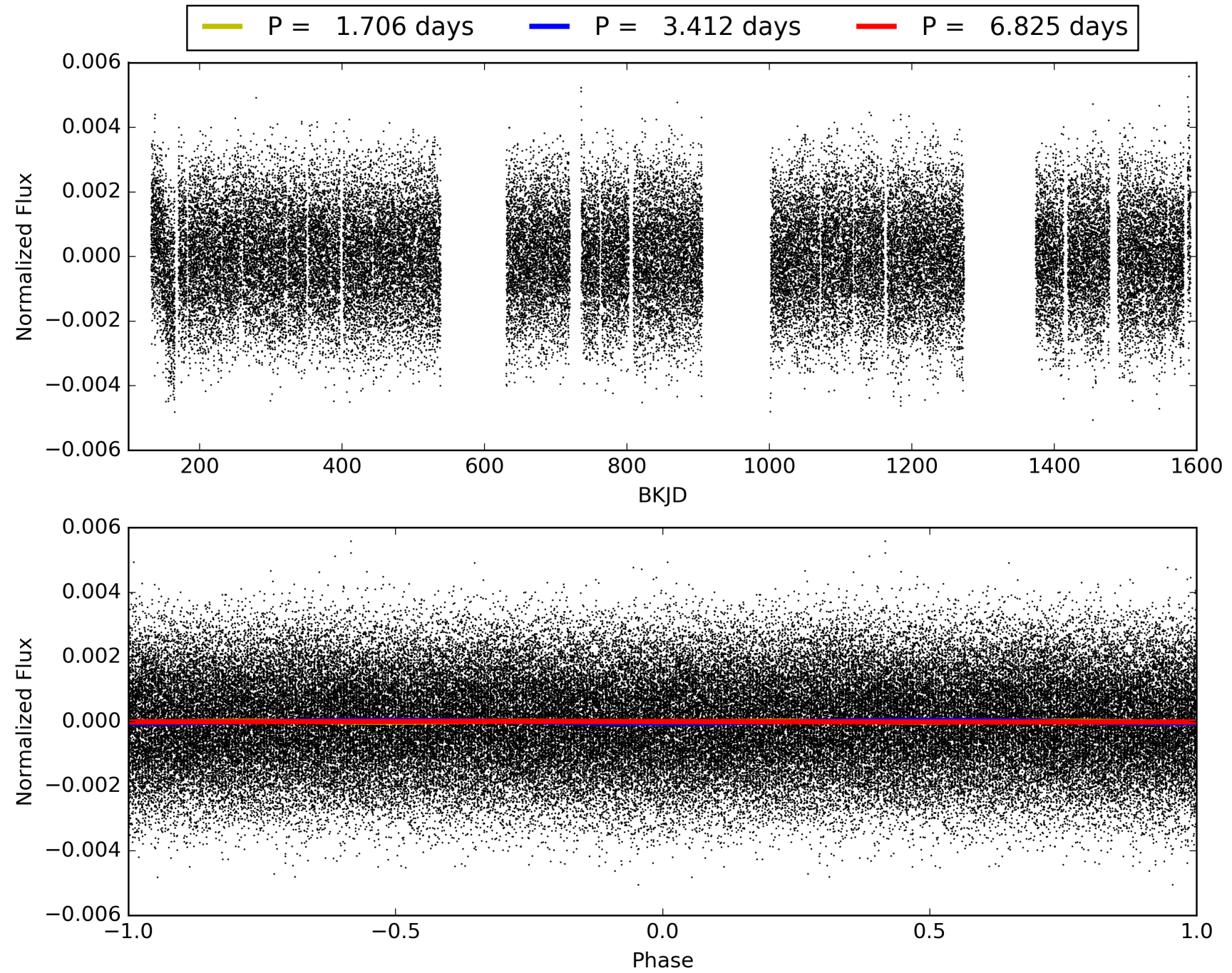
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [310/310]
GhostDiagnostic-chr: 3.437
Centroid-sig: 0.0%
Centroid-so: 0.261 arcsec [0.78σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [14/14]

TCE 004927985-01, PDC Light Curves

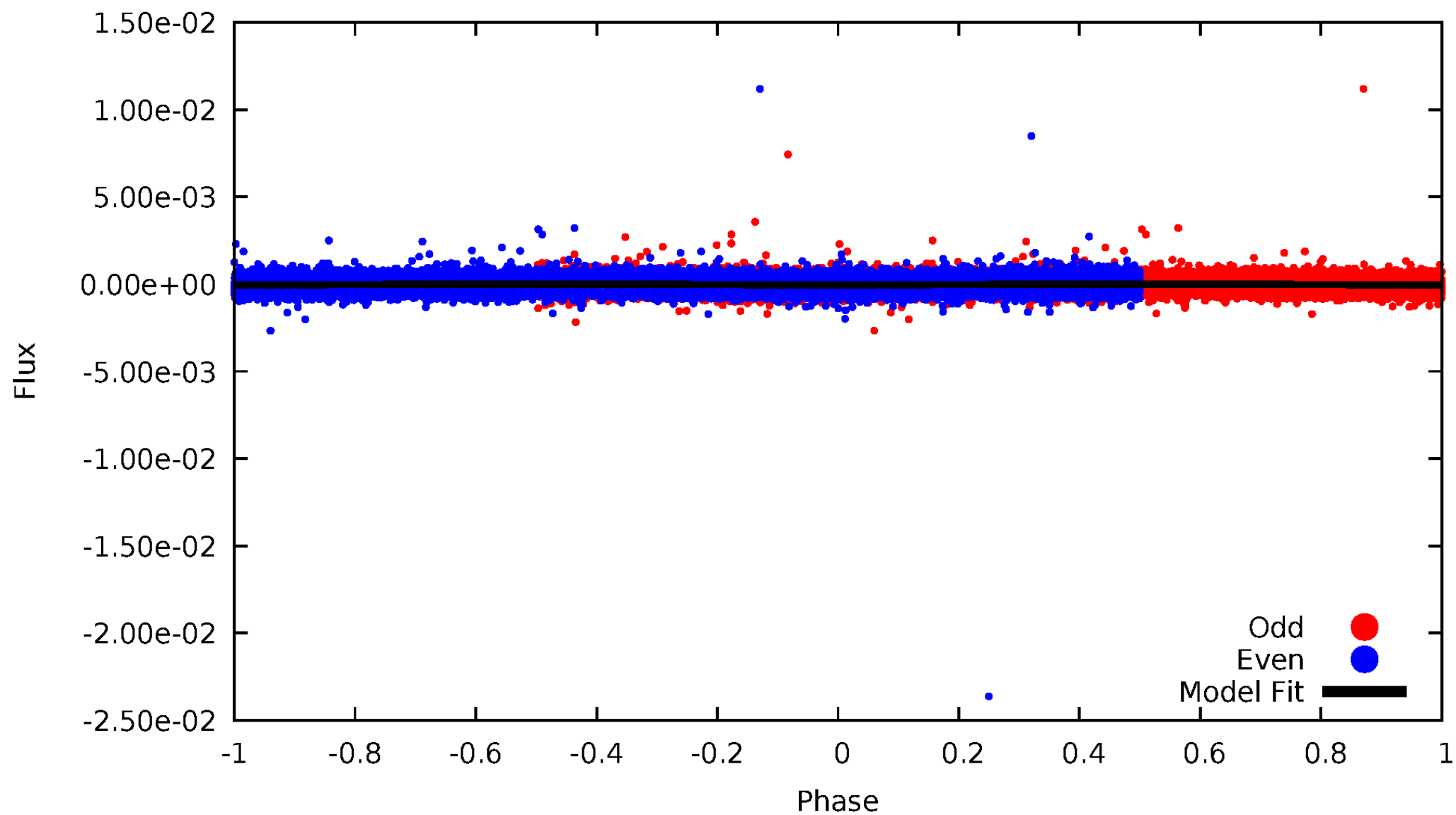


TCE 004927985-01



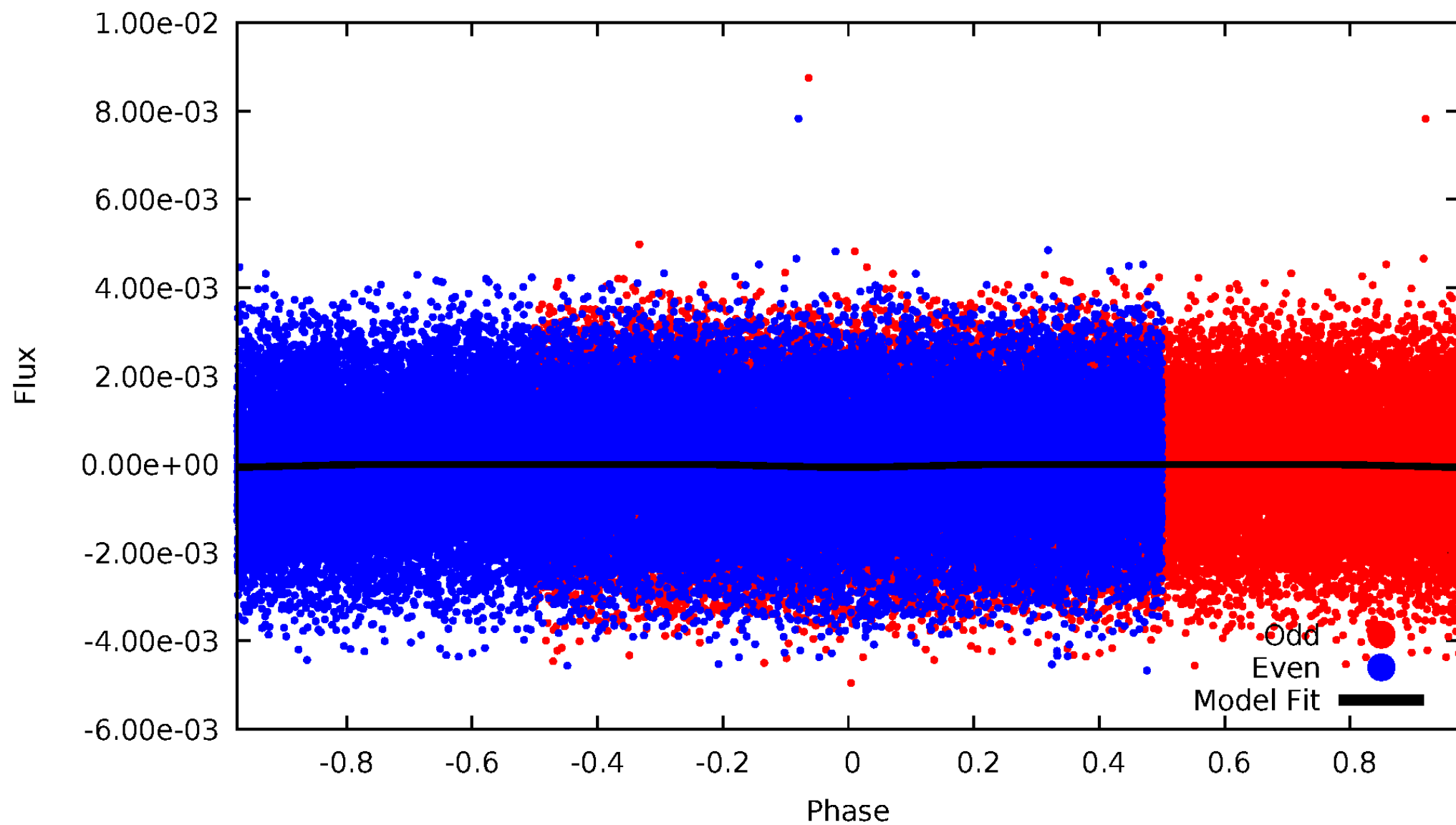
DV Odd/Even

TCE 004927985-01



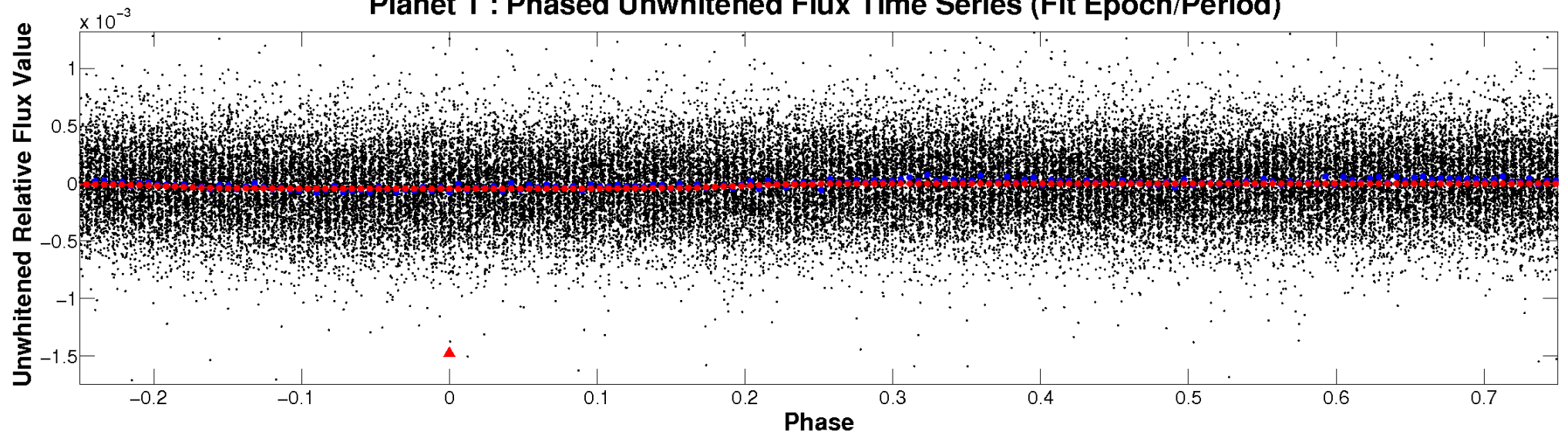
ALT Odd/Even

TCE 004927985-01

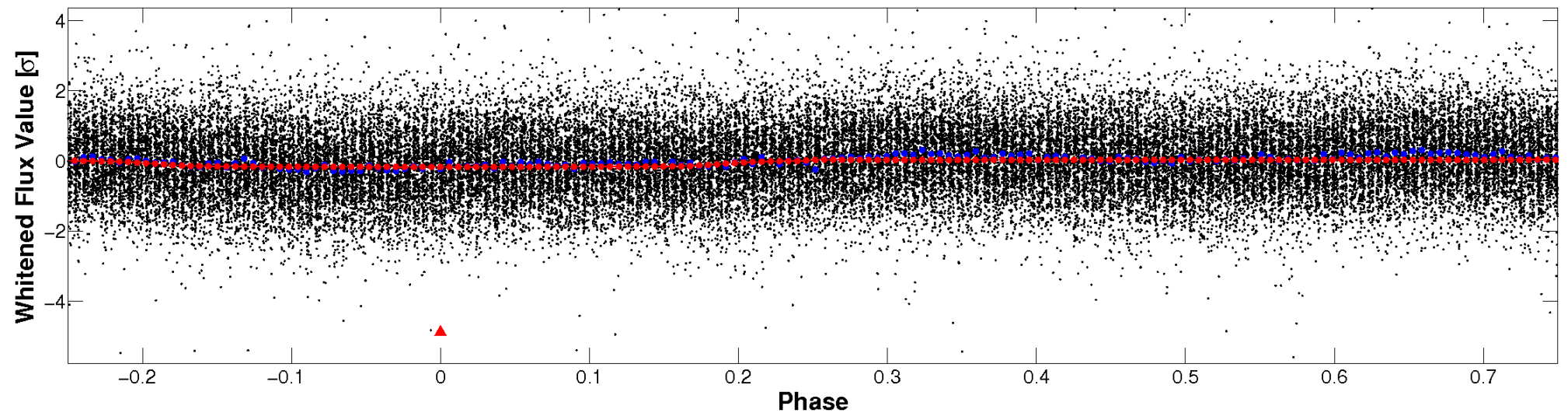


Non-Whitened Vs. Whitened Light Curve

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

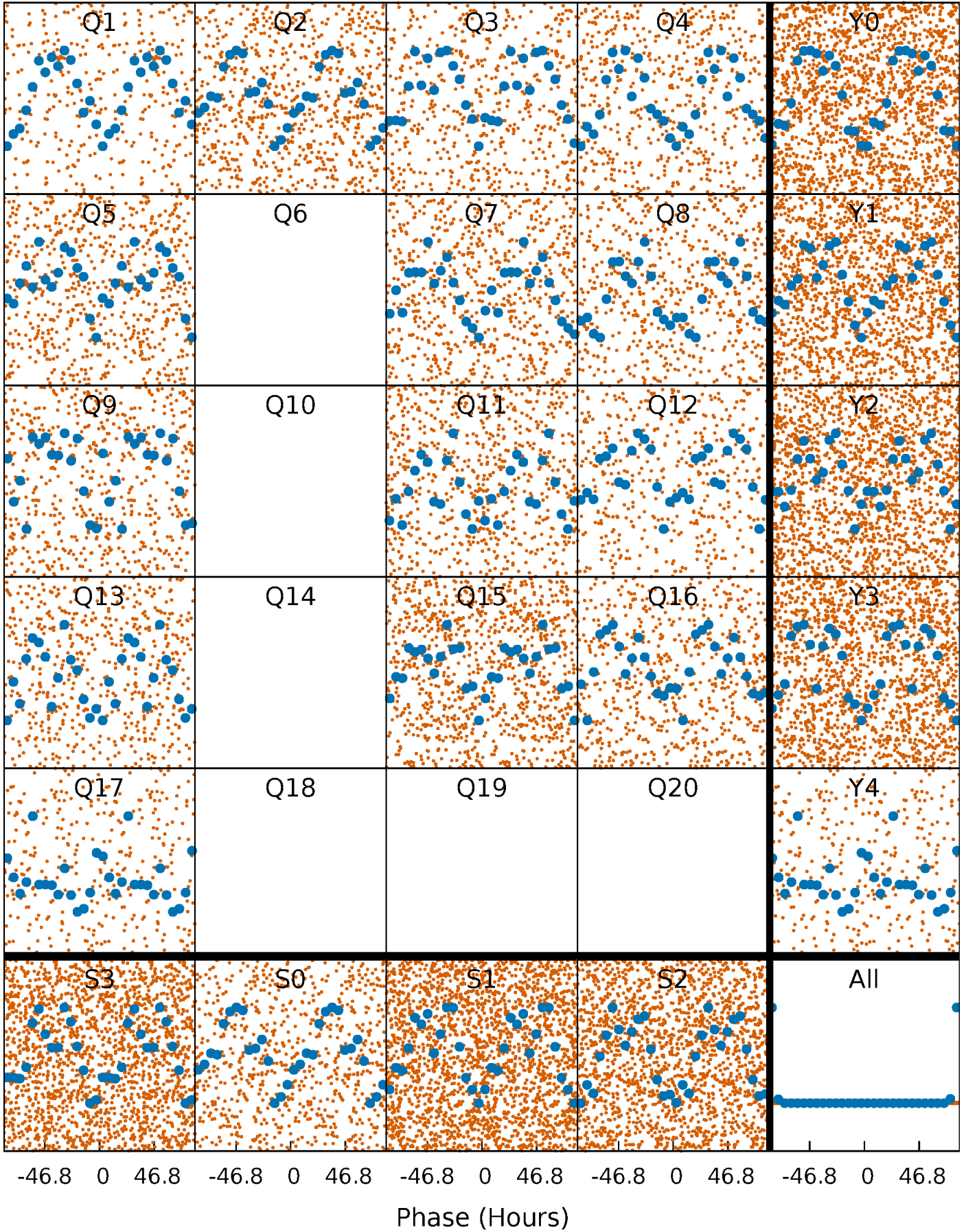


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



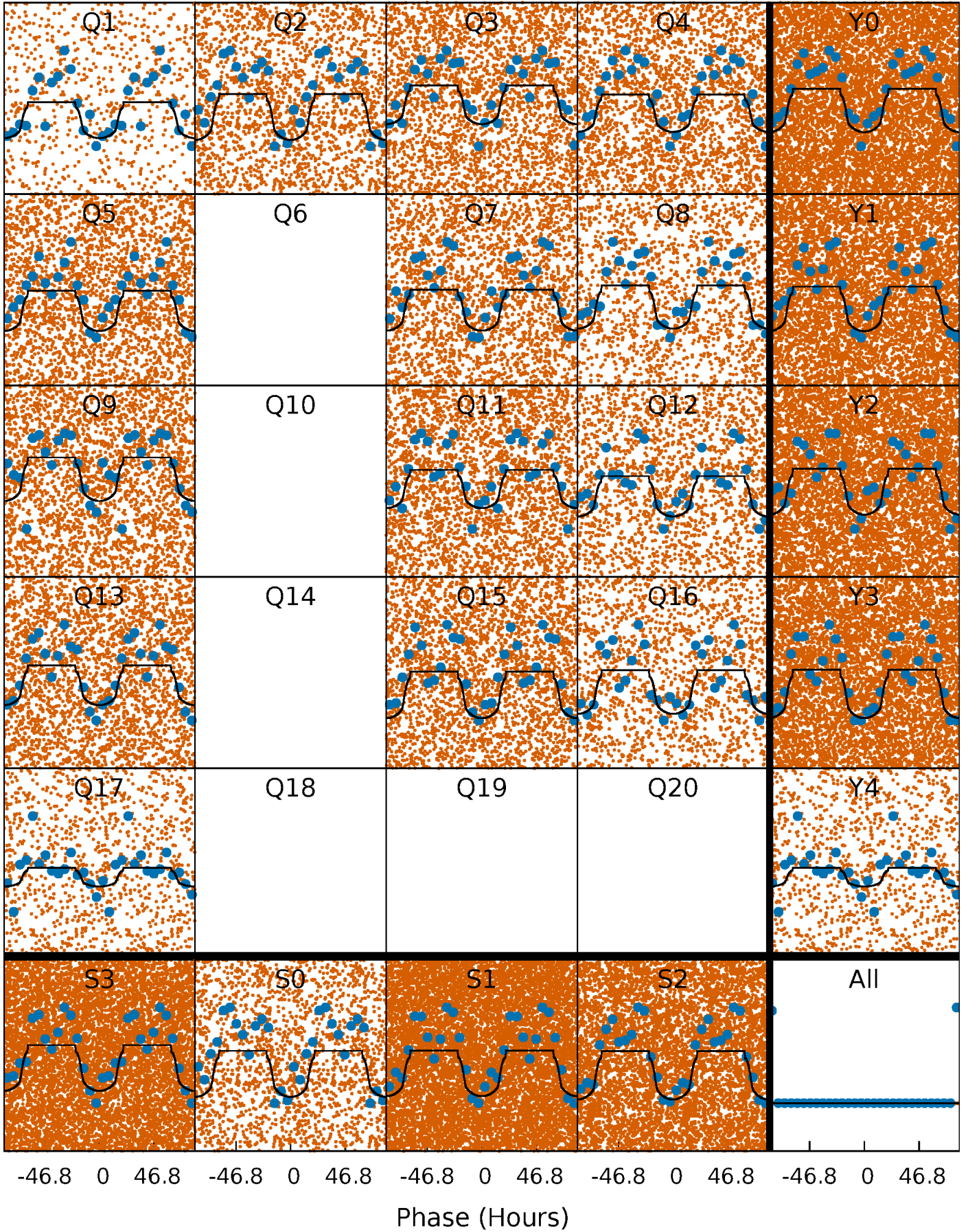
PDC Quarter-Phased Transit Curves

TCE 004927985-01 P= 3.412332 Days $T_0=133.515297$ (BKJD)



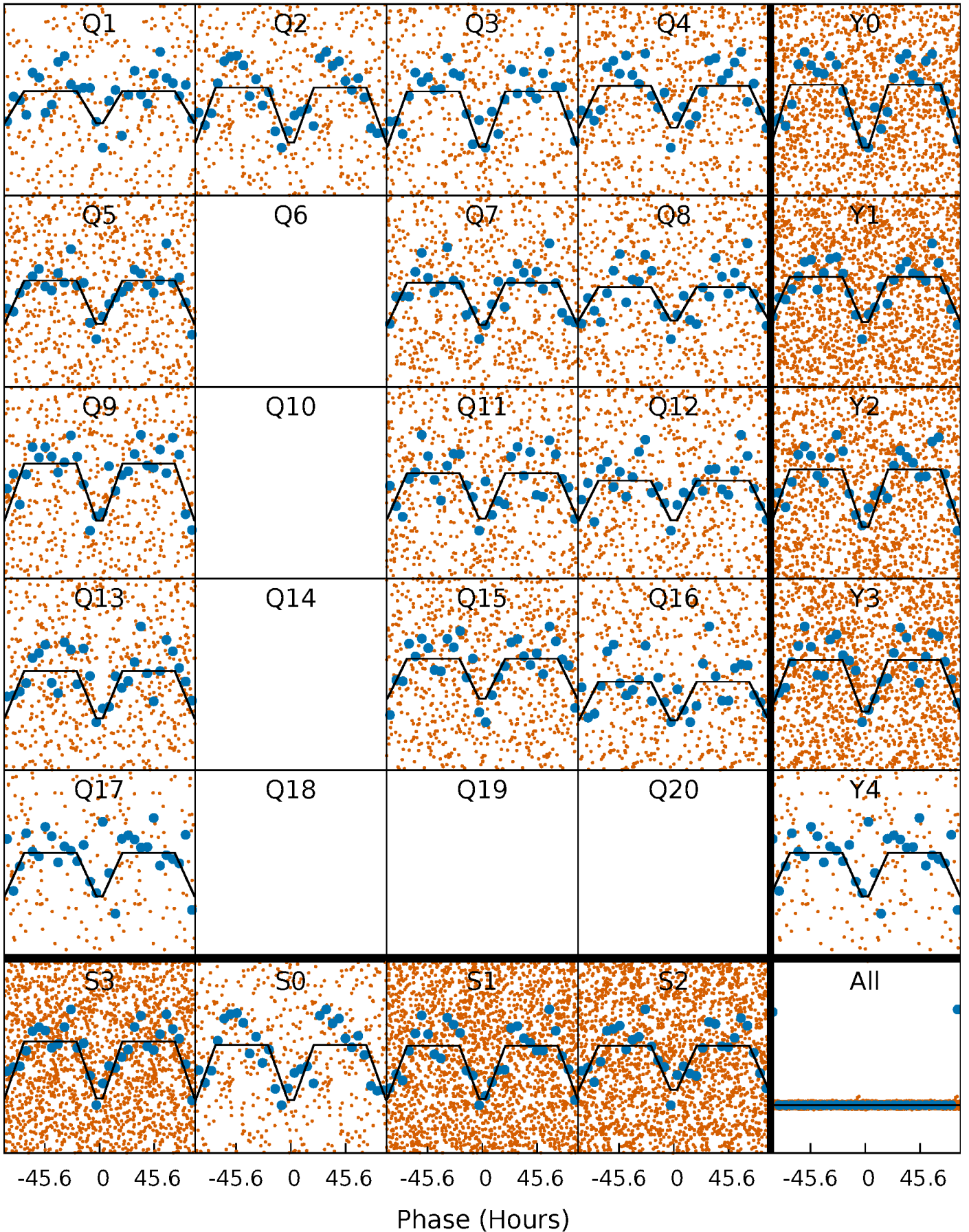
DV Quarter-Phased Transit Curves

TCE 004927985-01 P= 3.412332 Days $T_0=133.515297$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

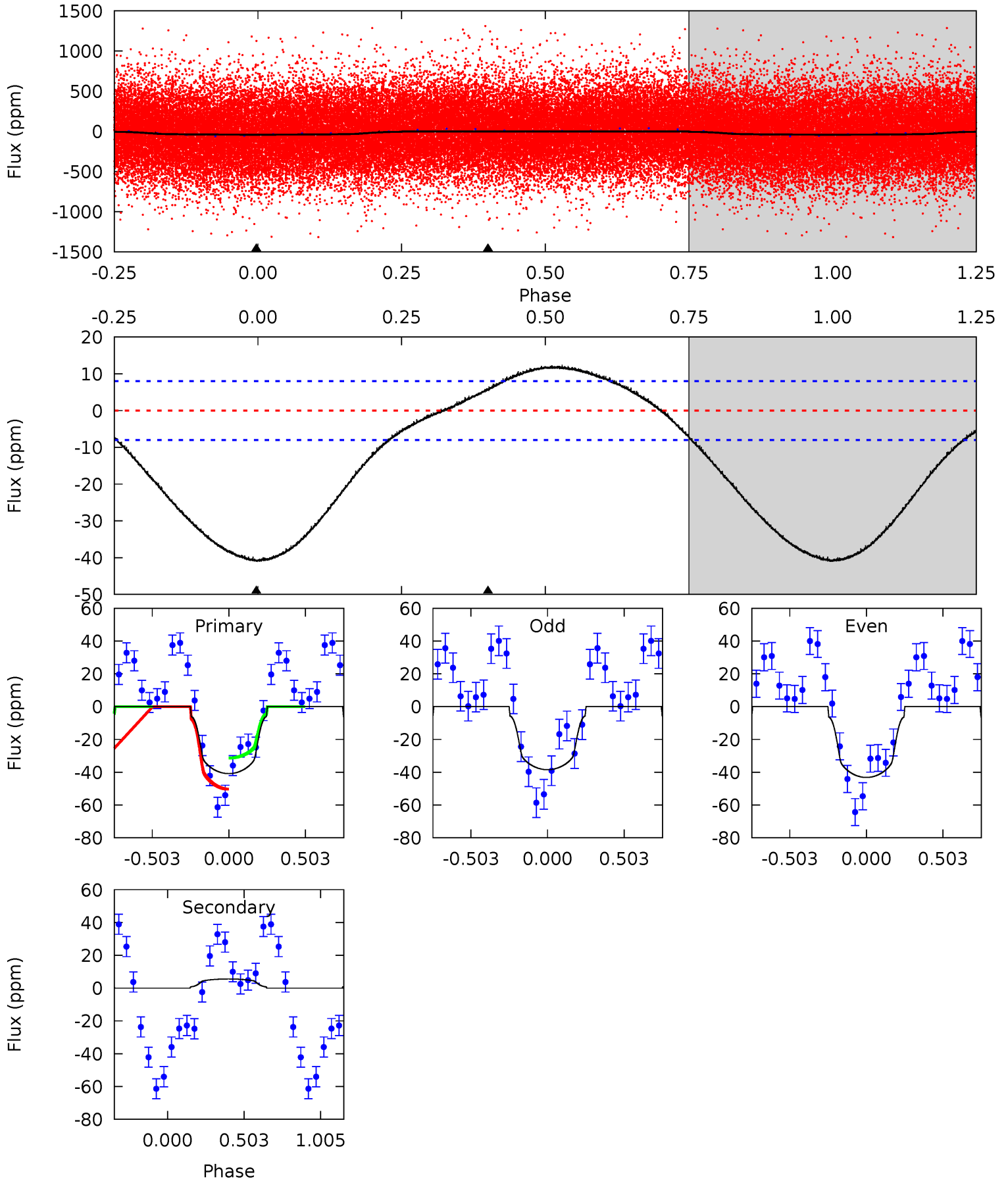
TCE 004927985-01 P= 3.412024 Days $T_0=133.463988$ (BKJD)



DV Model-Shift Uniqueness Test

004927985-01, P = 3.412332 Days, E = 130.102965 Days

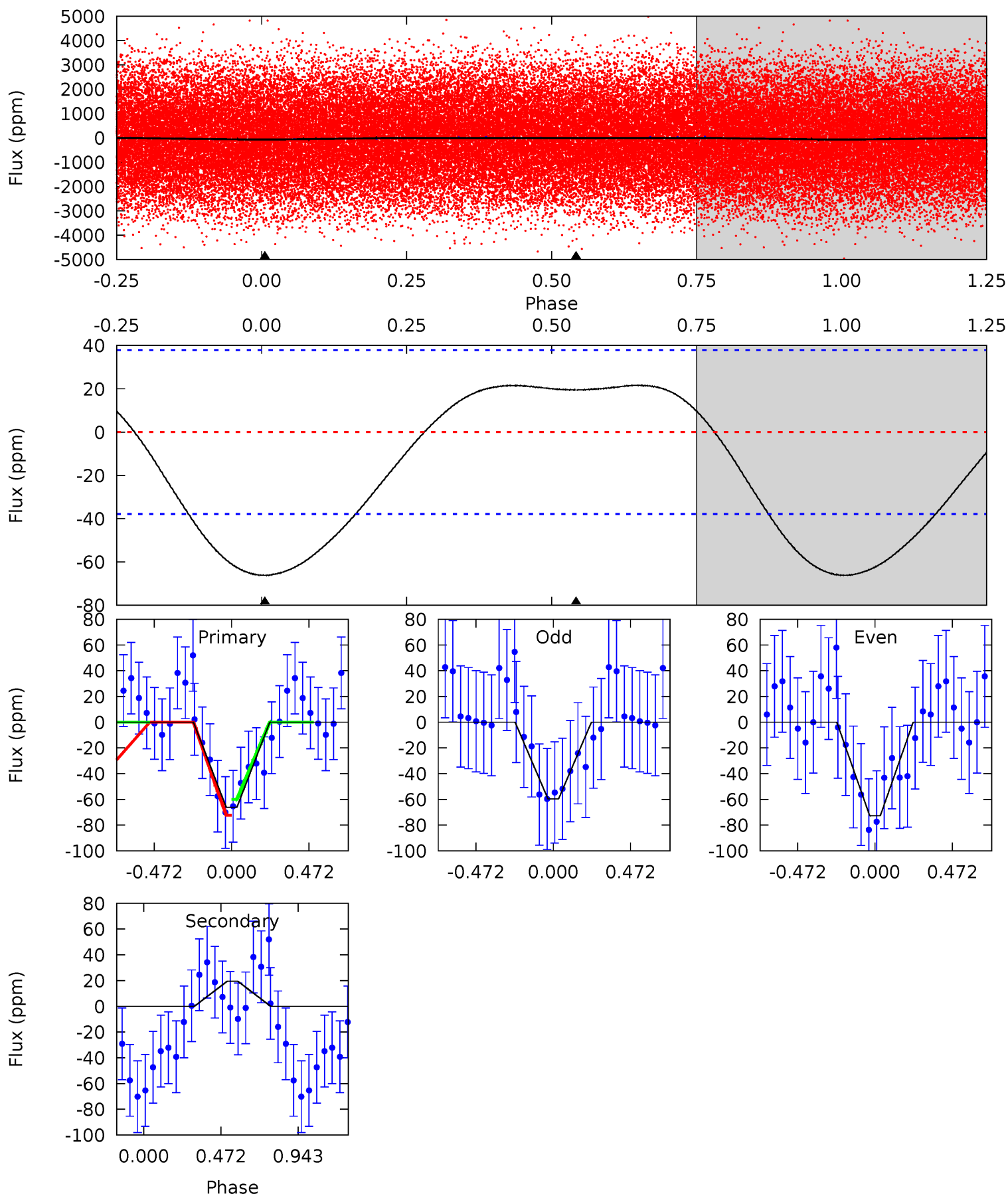
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	-2.92	0	0	4.21	0.67	2.00	21.5	21.5	-2.92	-2.92	1.25	0.96	0.23	0



Alt Model-Shift Uniqueness Test

004927985-01, P = 3.412024 Days, E = 130.051964 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.39	-2.17	0	0	4.23	0.72	0.80	7.39	7.39	-2.17	-2.17	0.72	1.08	0.25	0.69



Stellar Parameters For KIC 004927985

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7810^{+214}_{-322}	$3.909^{+0.280}_{-0.120}$	$-0.040^{+0.200}_{-0.350}$	$2.540^{+0.394}_{-0.920}$	$1.906^{+0.103}_{-0.439}$	$0.164^{+0.316}_{-0.061}$
	+3%/-4%	+7%/-3%	+500%/-875%	+16%/-36%	+5%/-23%	+193%/-37%
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 004927985-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	6 ± 2	$2.10^{+0.24}_{-0.38}$	3226^{+216}_{-277}	-4540^{+288}_{-271}	$-2.132^{+0.770}_{-1.228}$
Alt.	19 ± 9	$2.23^{+0.21}_{-0.41}$	3228^{+205}_{-279}	-5670^{+676}_{-566}	$-6.659^{+3.098}_{-4.196}$

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

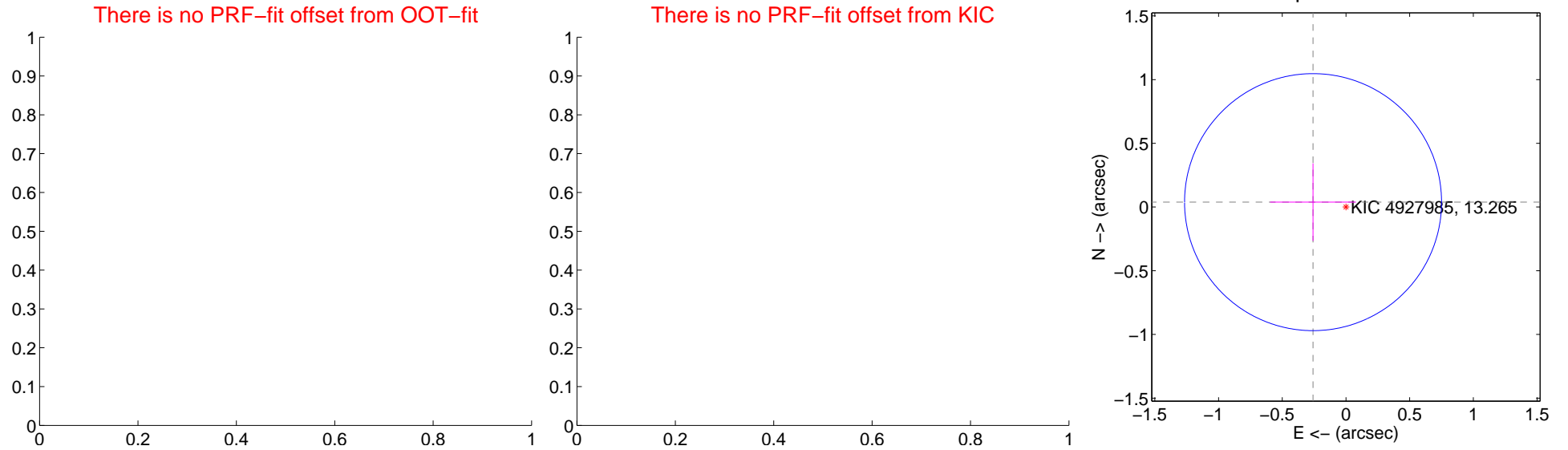
DV Centroid Data

Supplemental centroid analysis for 004927985-01. Kepler magnitude: 13.27. Transit SNR 23.31

There are 0 quarters with good PRF difference image offsets

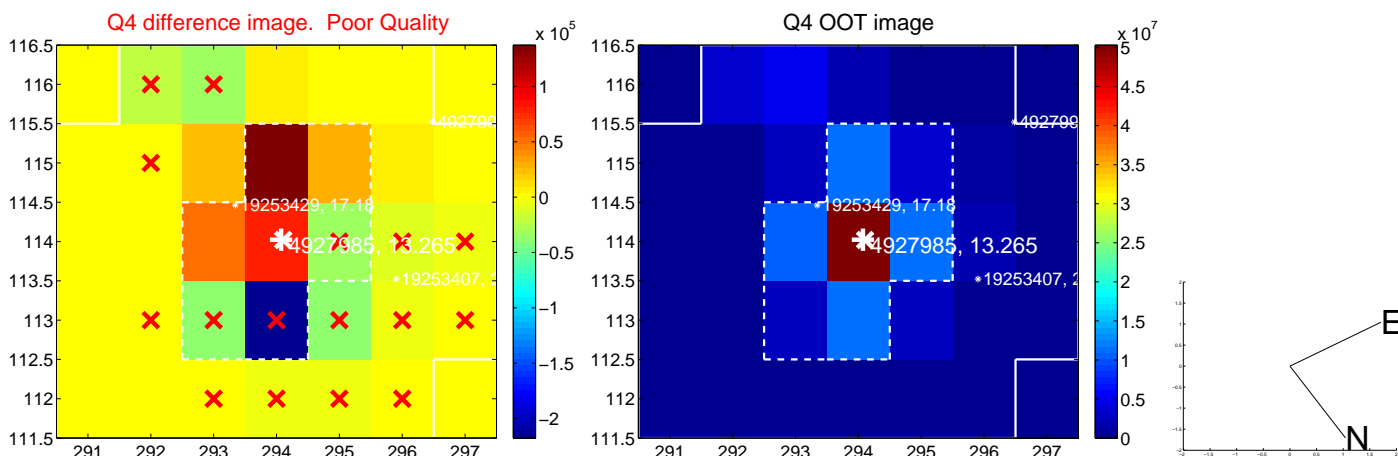
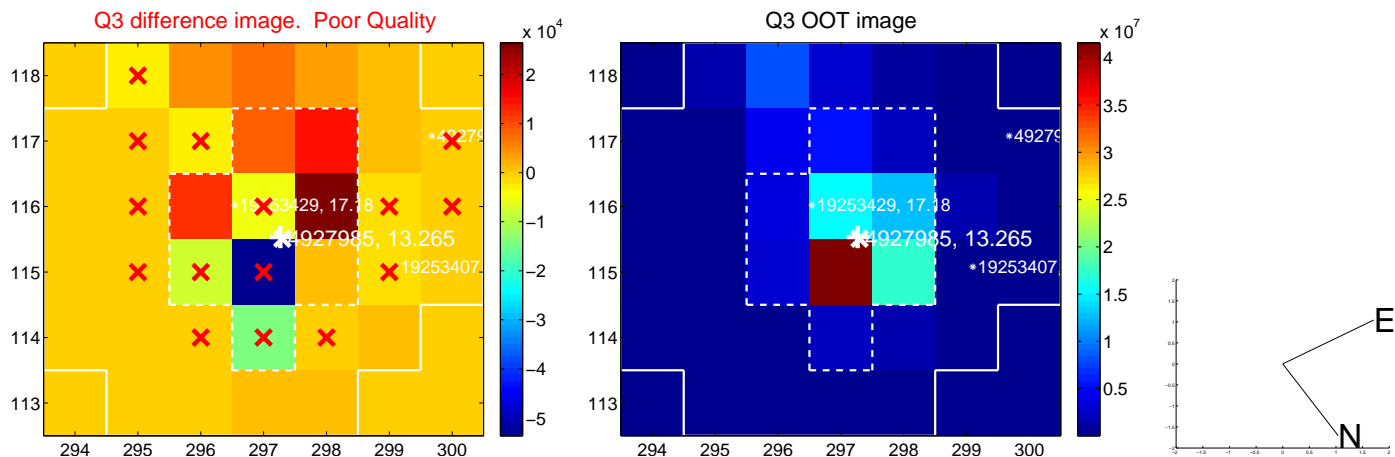
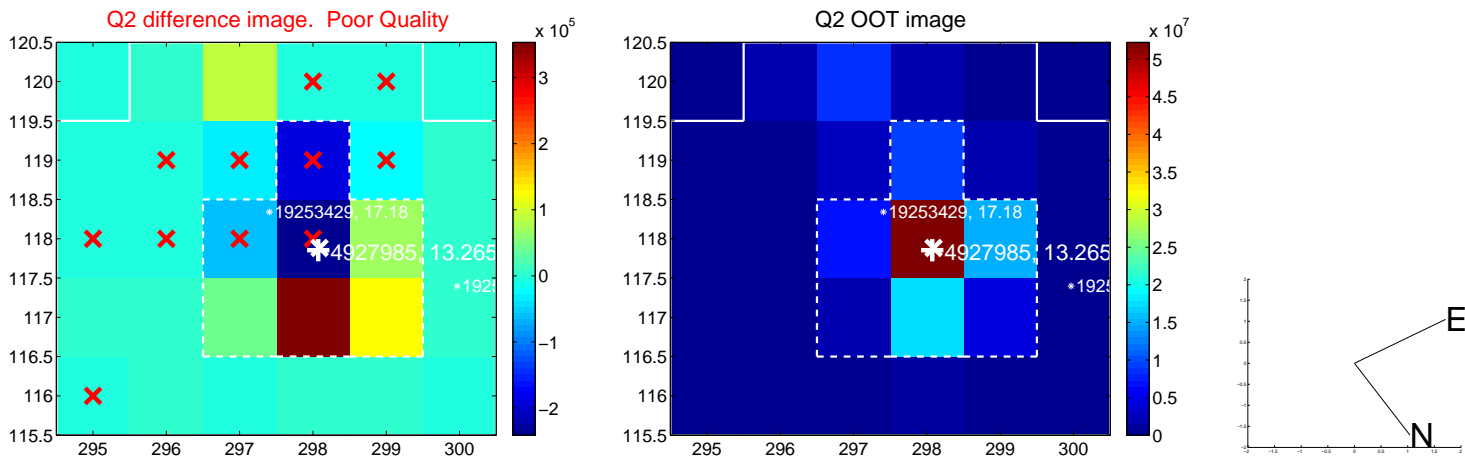
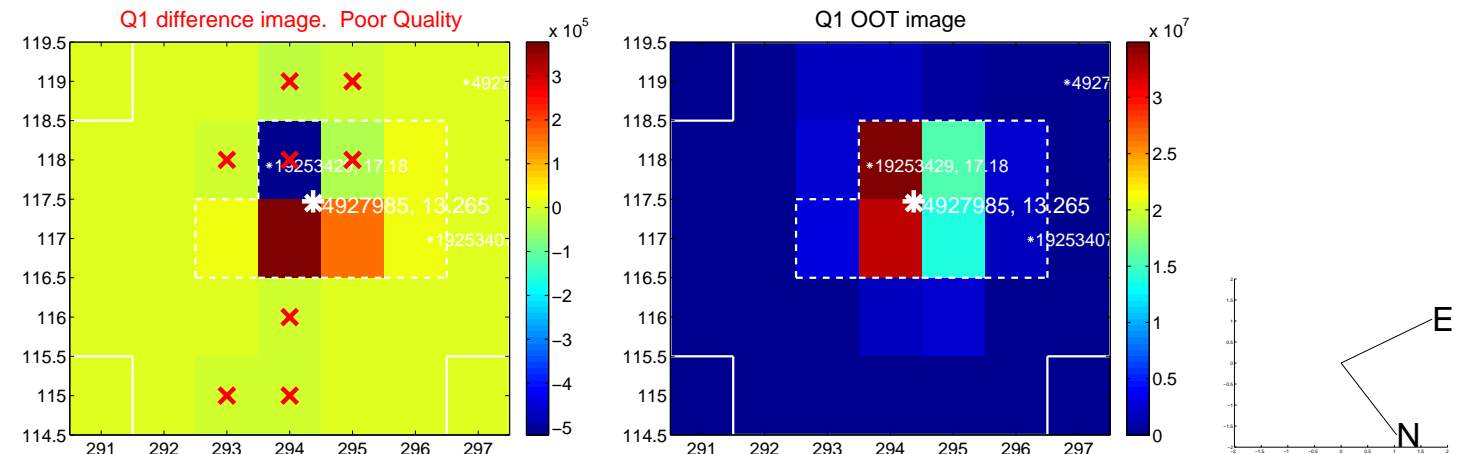
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.26 ± 0.34	0.78	0.26 ± 0.34	0.04 ± 0.30

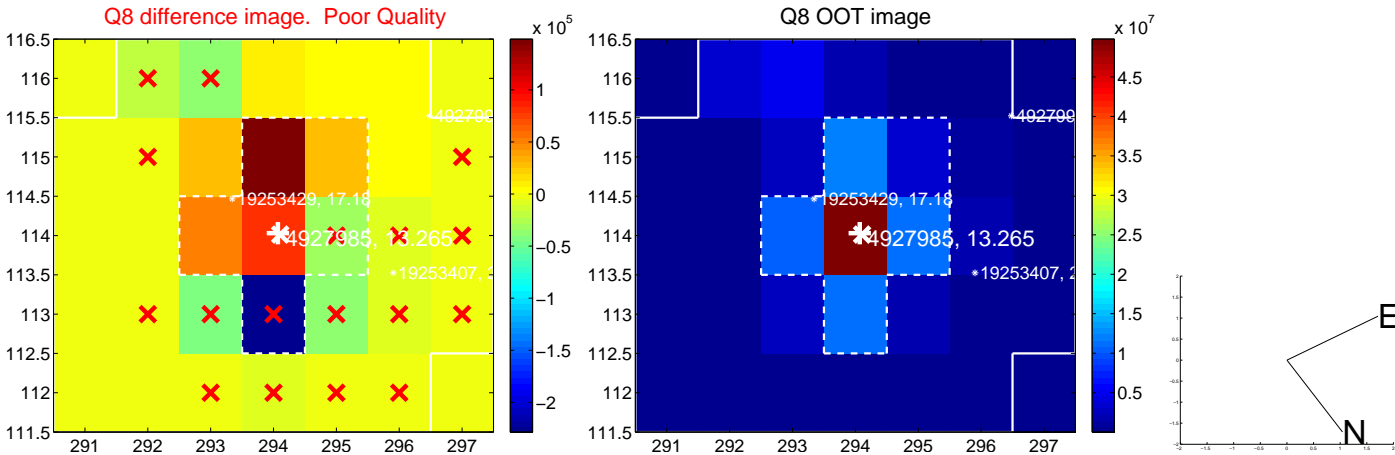
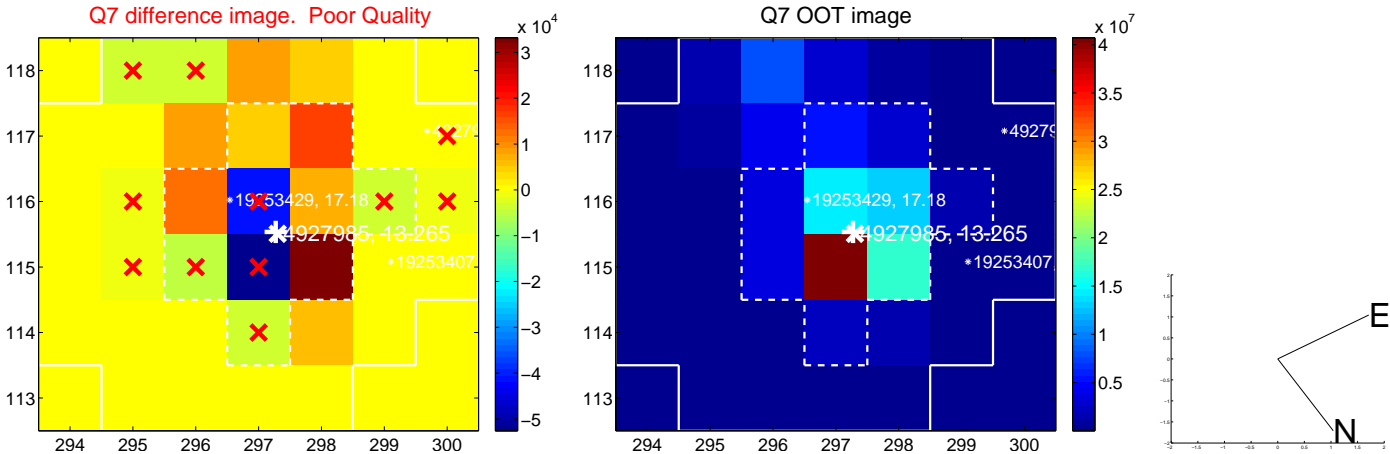
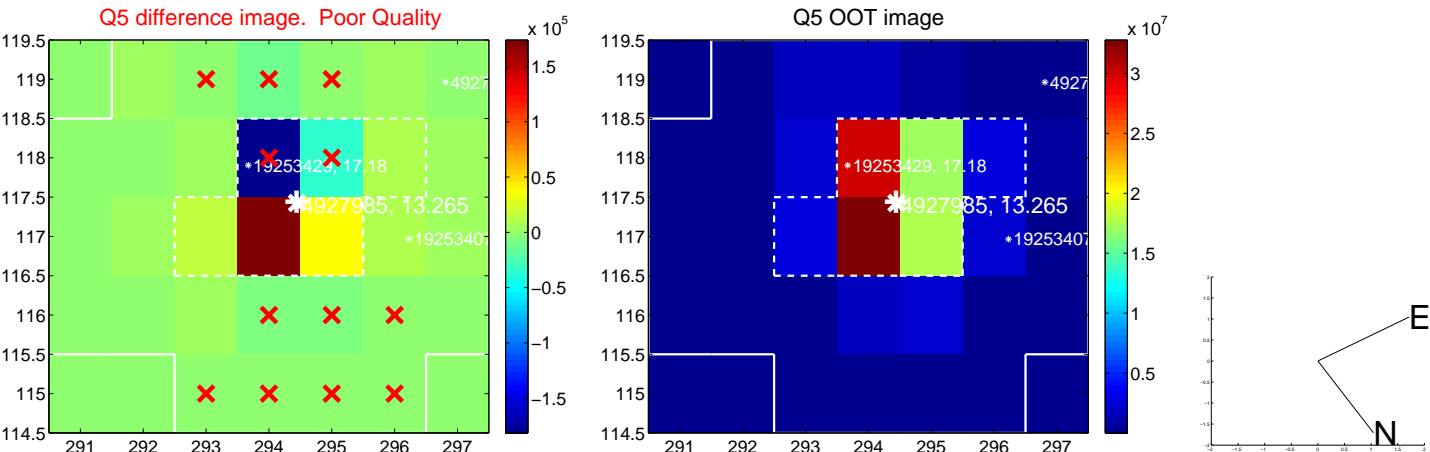


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

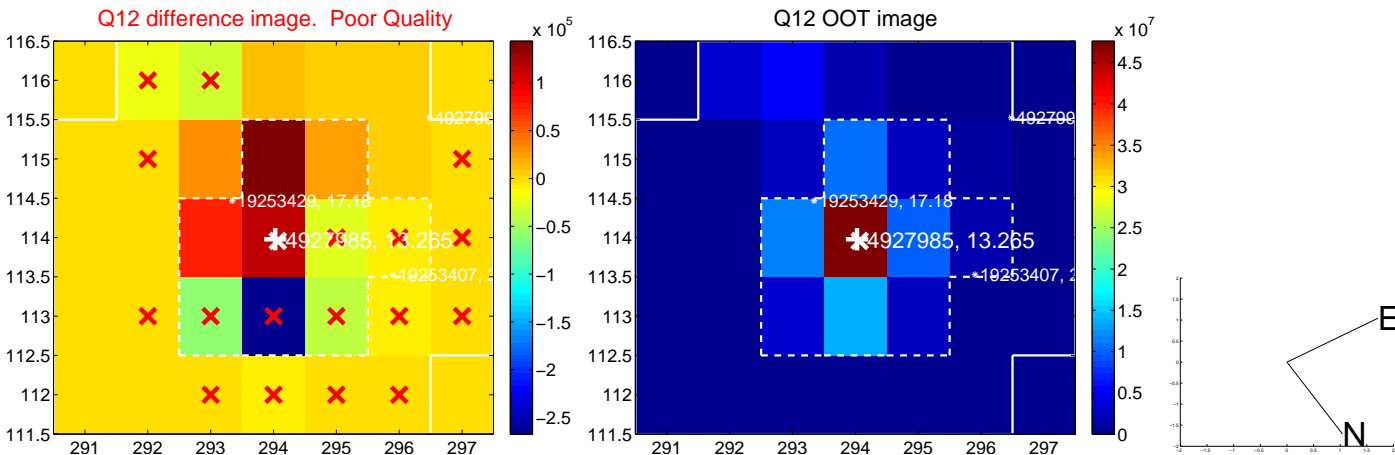
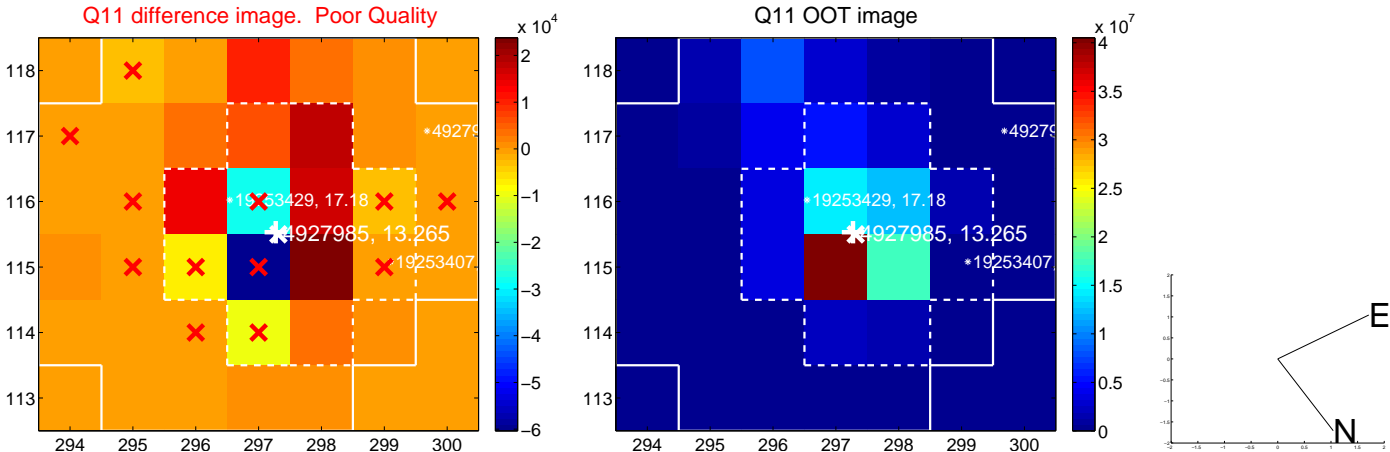
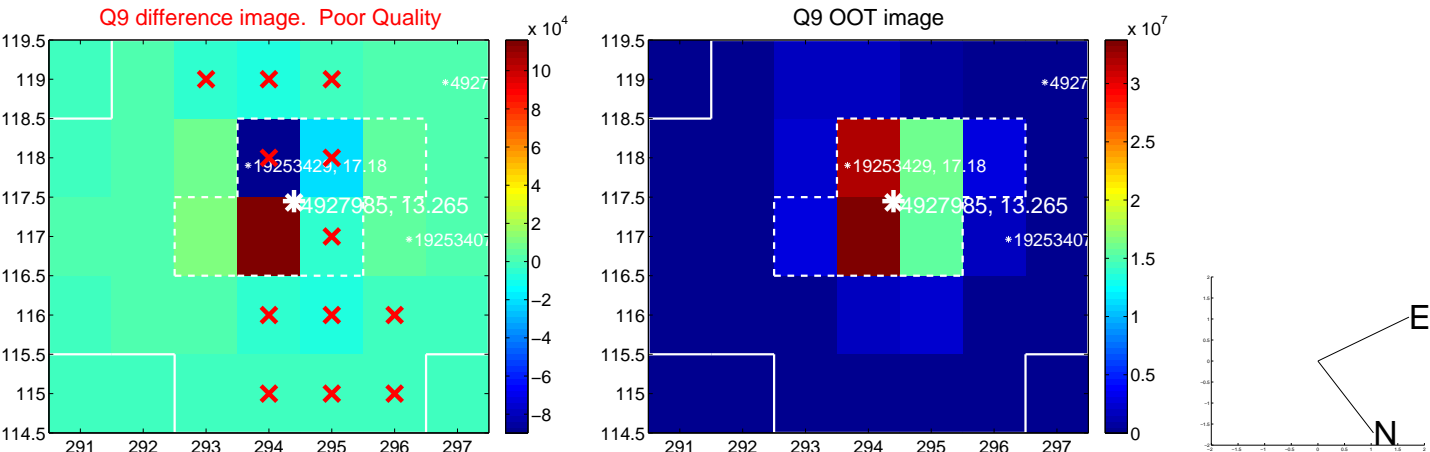
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



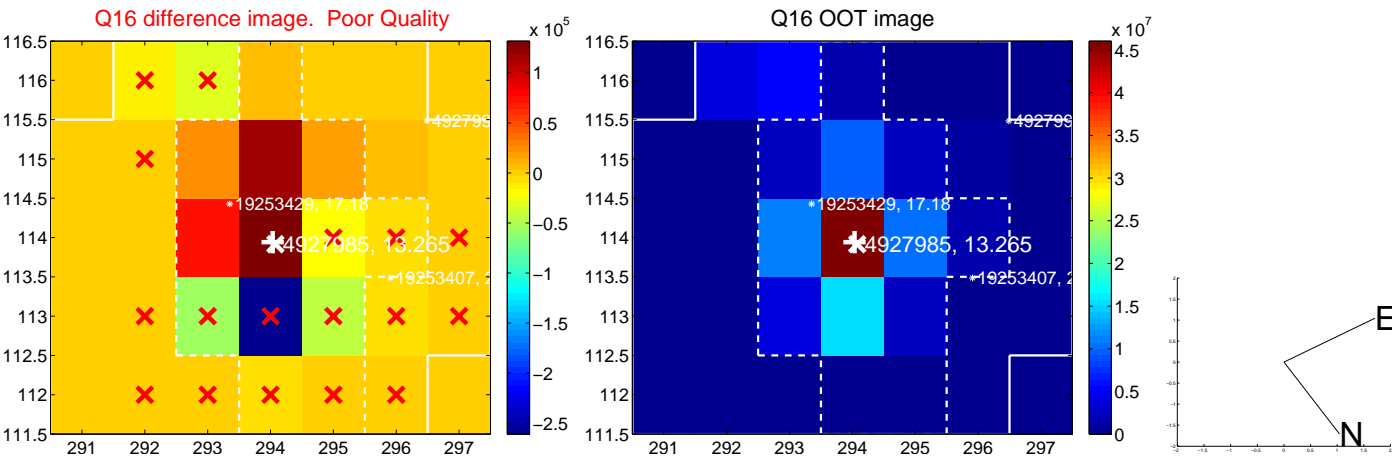
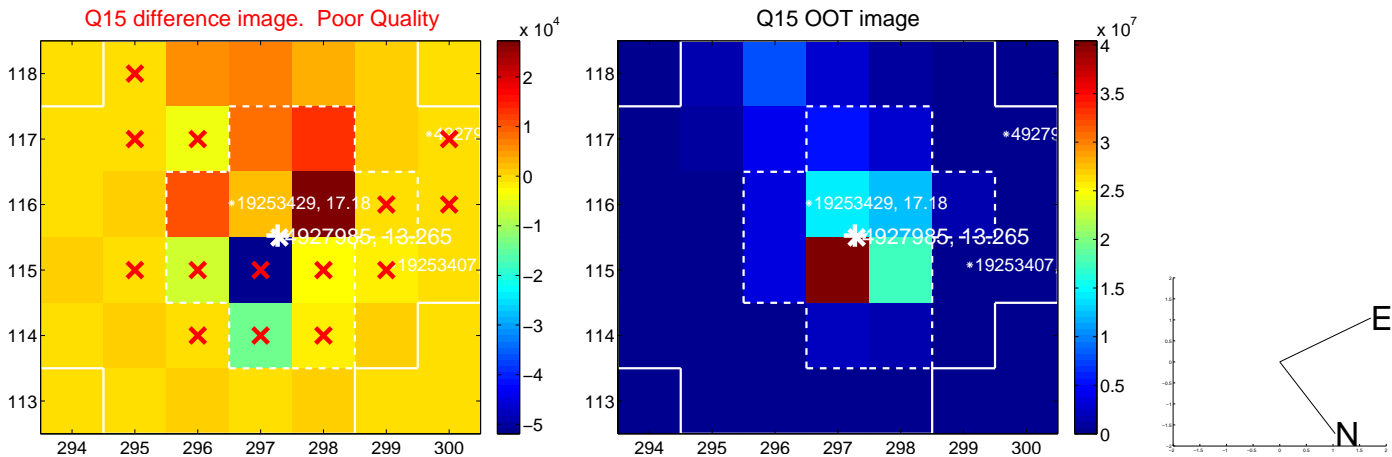
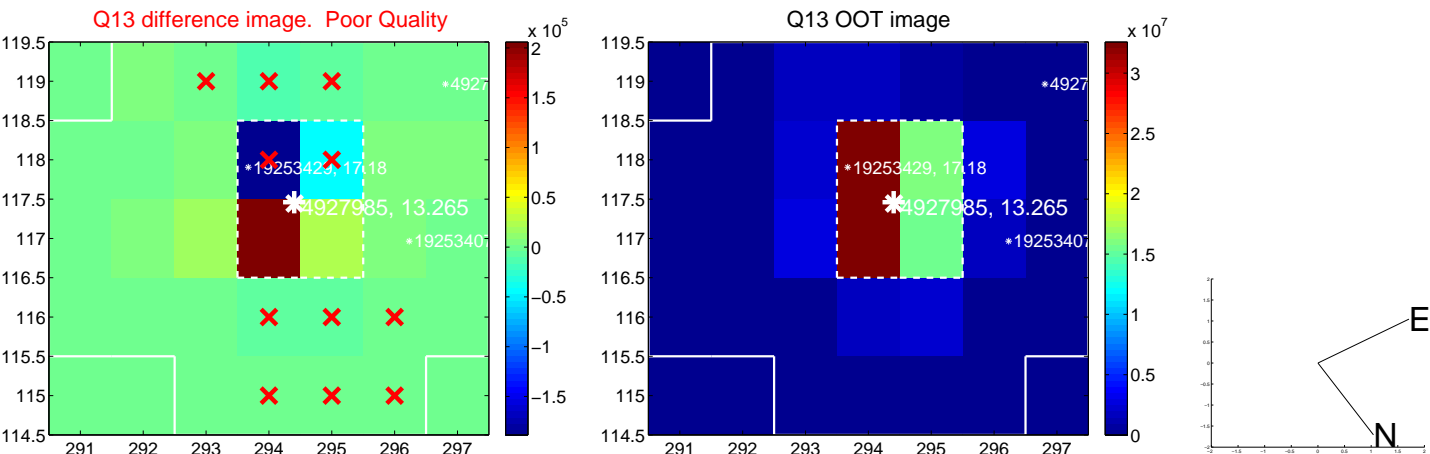
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



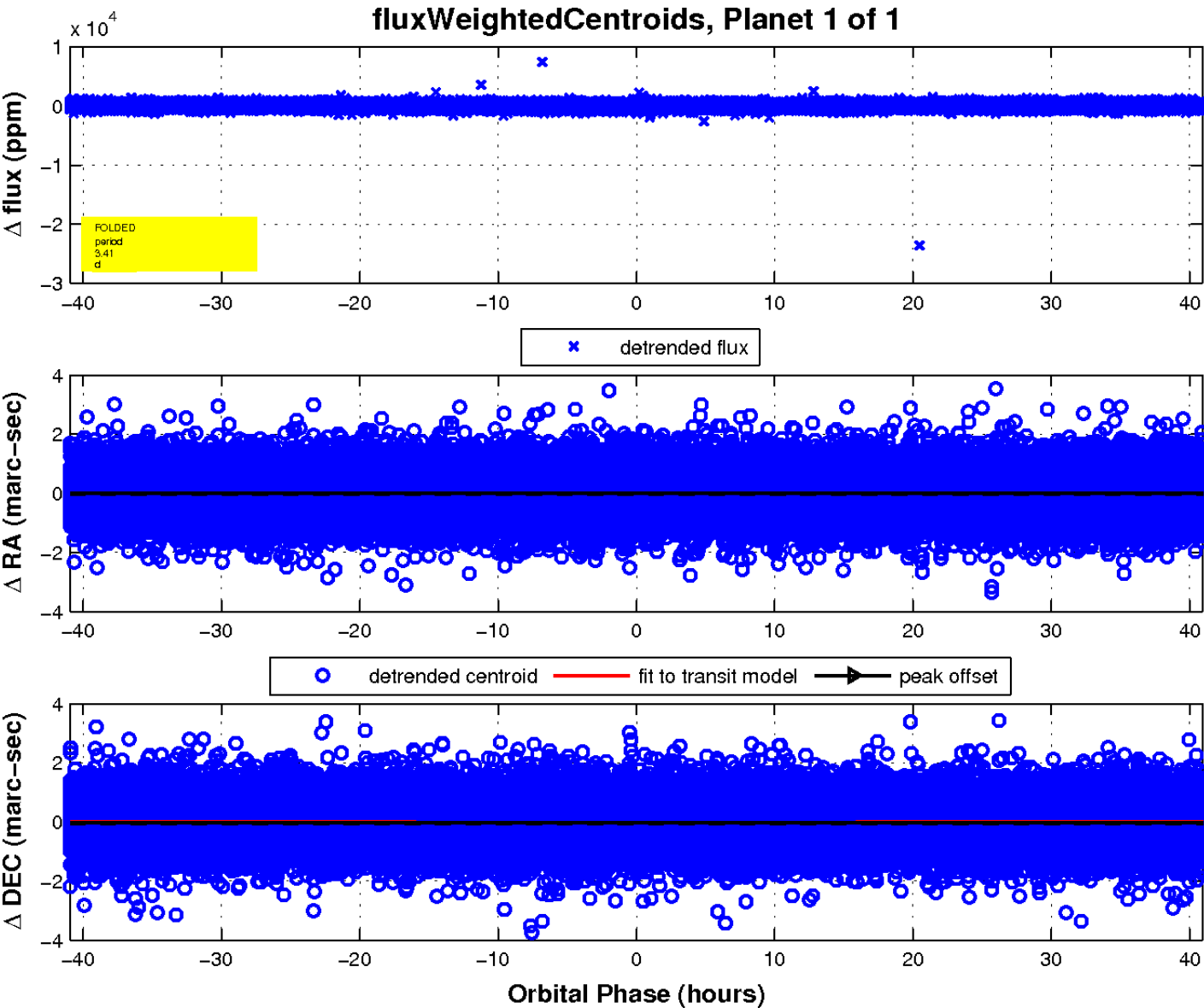
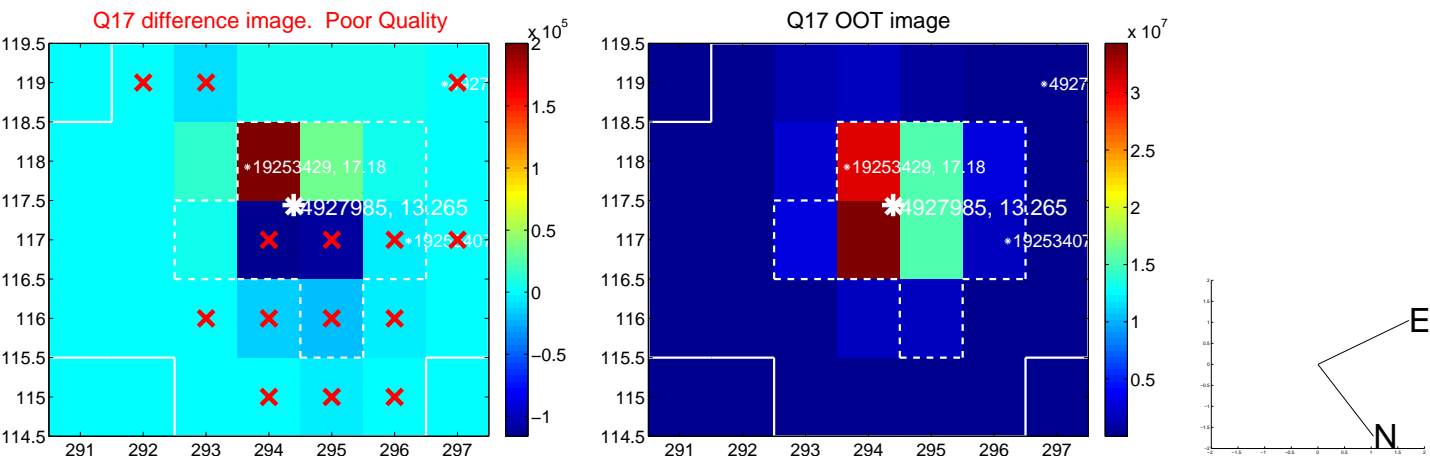
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UKIRT Image

Declination

