

KIC 005648096

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})
005648096-01	OBS	No	1.573197	132.314061	39.2	17.844	10.6	14.1	2.01	8211	1.56	16118.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005648096-01	OBS	FP	0.00	1	0	0	0	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.

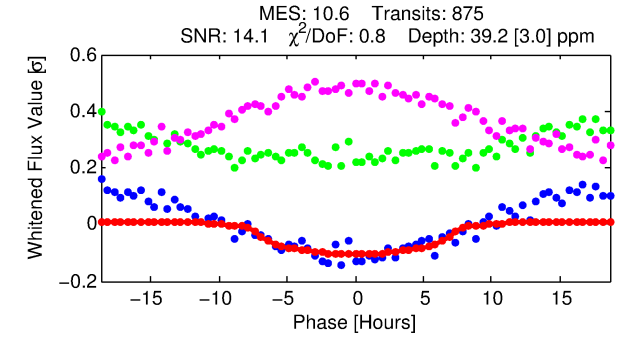
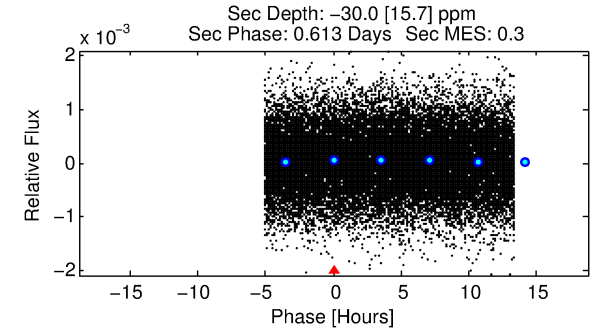
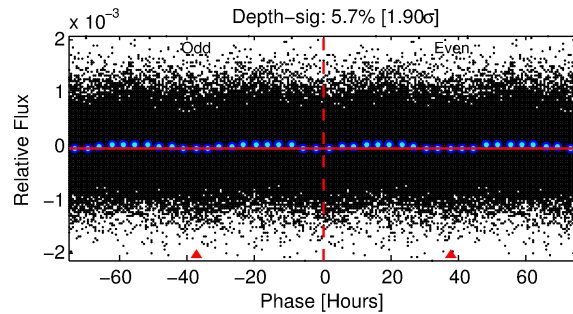
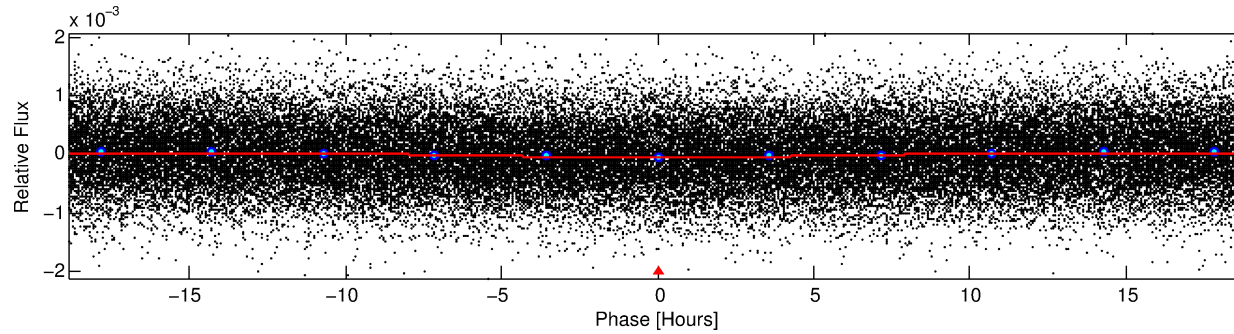
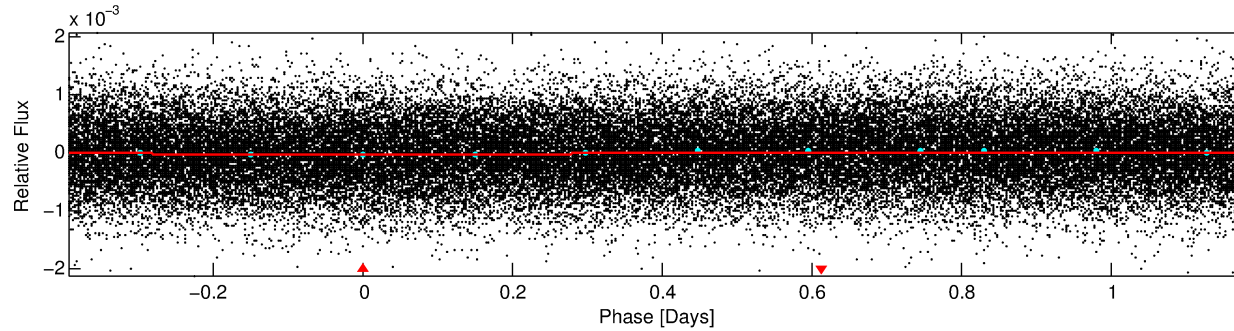
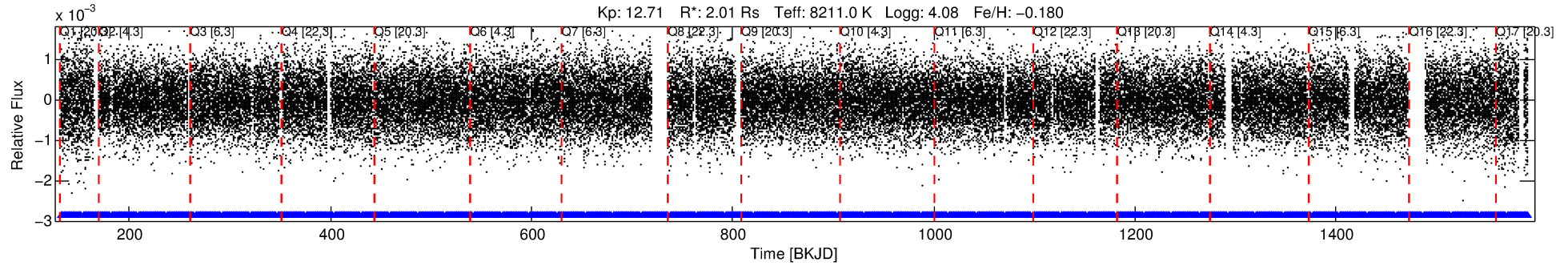
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005648096-01

No Significant Match Found

DV One-Page Summary

KIC: 5648096 Candidate: 1 of 1 Period: 1.573 d



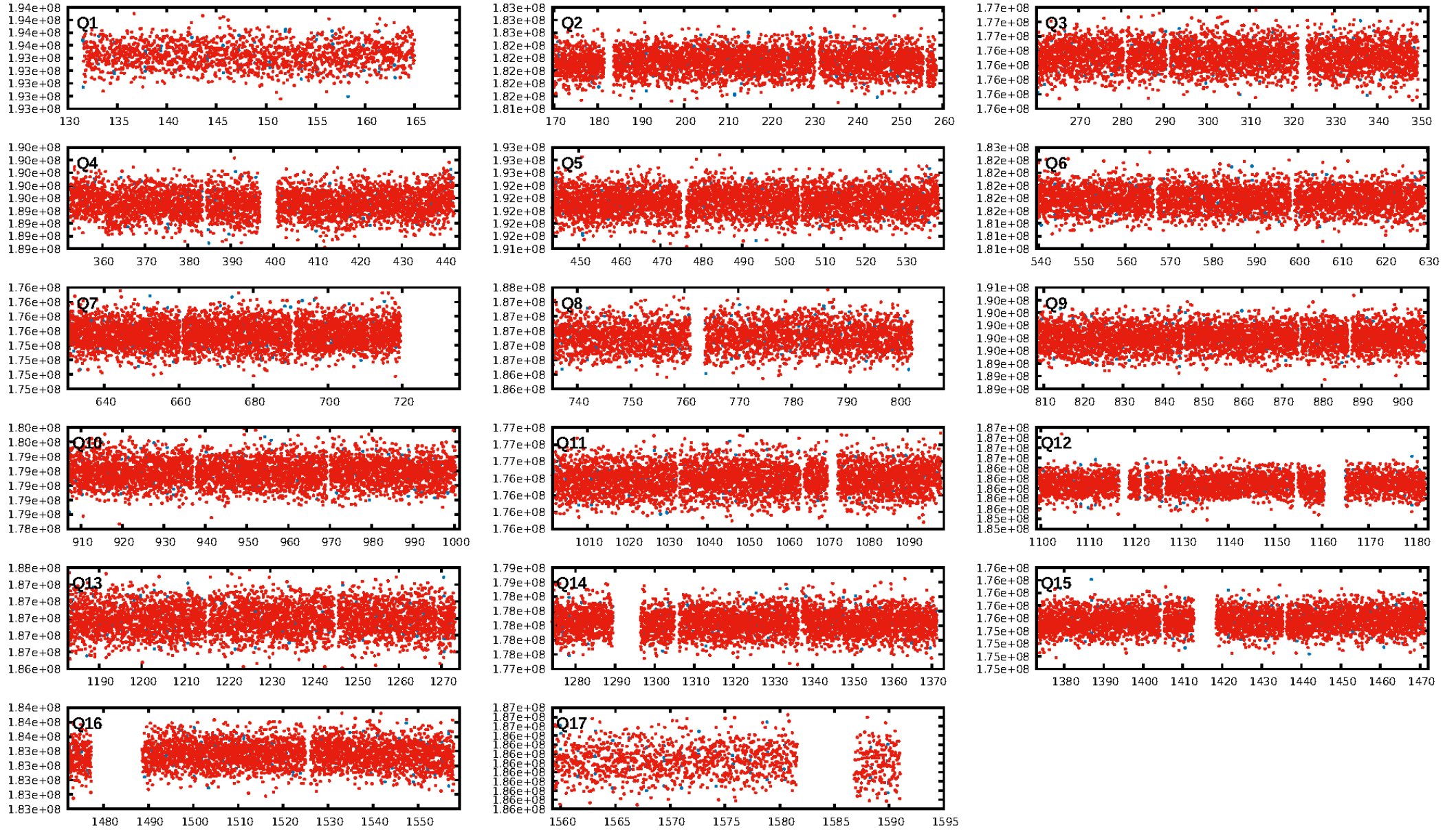
DV Fit Results:

Period = 1.57320 [0.00005] d
Epoch = 132.3141 [0.0245] BKJD
Rp/R* = 0.0071 [0.0005]
a/R* = 1.01 [0.01]
b = 0.96 [0.04]
Seff = 16118.71 [5559.07]
Teq = 2873 [248] K
Rp = 1.56 [0.37] Re
a = 0.0320 [0.0064] AU
Ag = N/A
Teffp = N/A

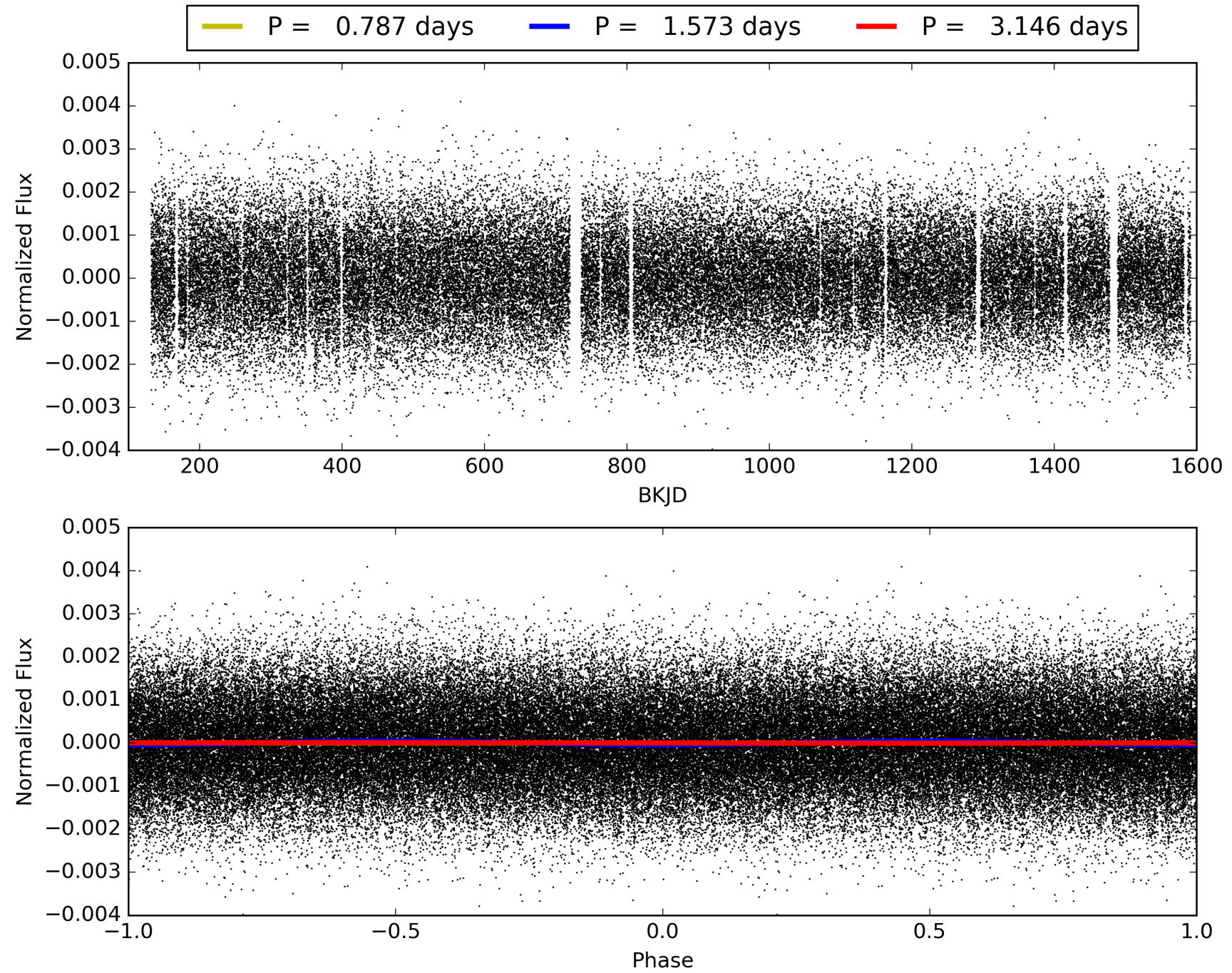
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [835/835]
GhostDiagnostic-chr: 5.346
Centroid-sig: 16.8%
Centroid-so: 0.430 arcsec [1.17 σ]
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 [17/17]

TCE 005648096-01, PDC Light Curves

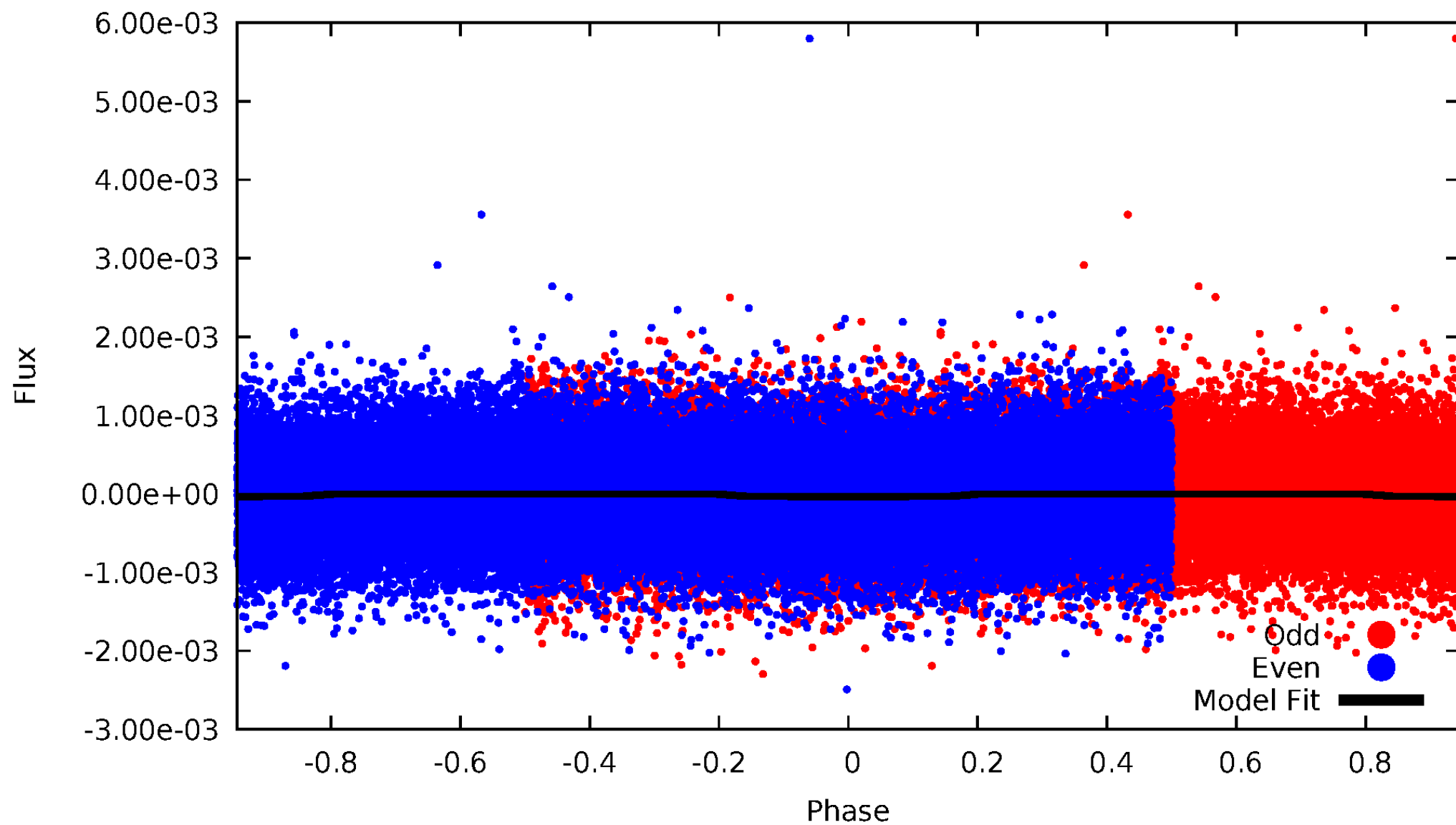


TCE 005648096-01



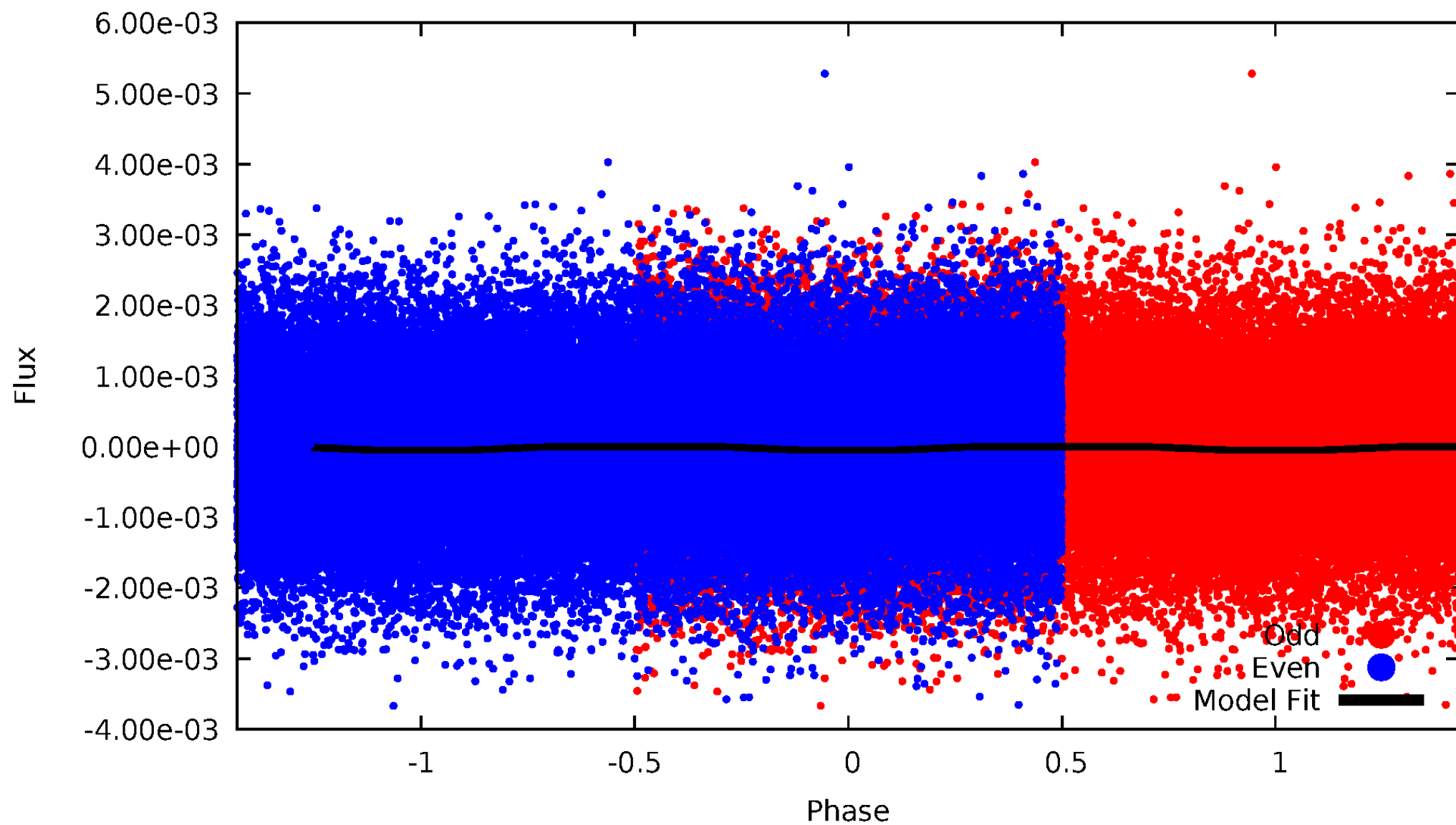
DV Odd/Even

TCE 005648096-01

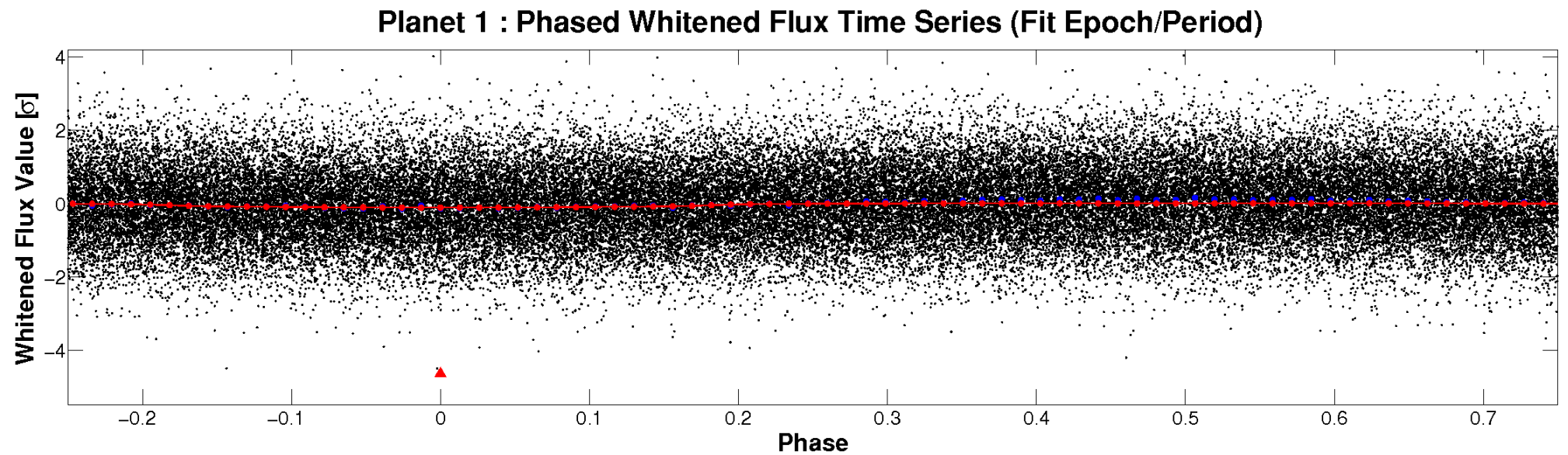
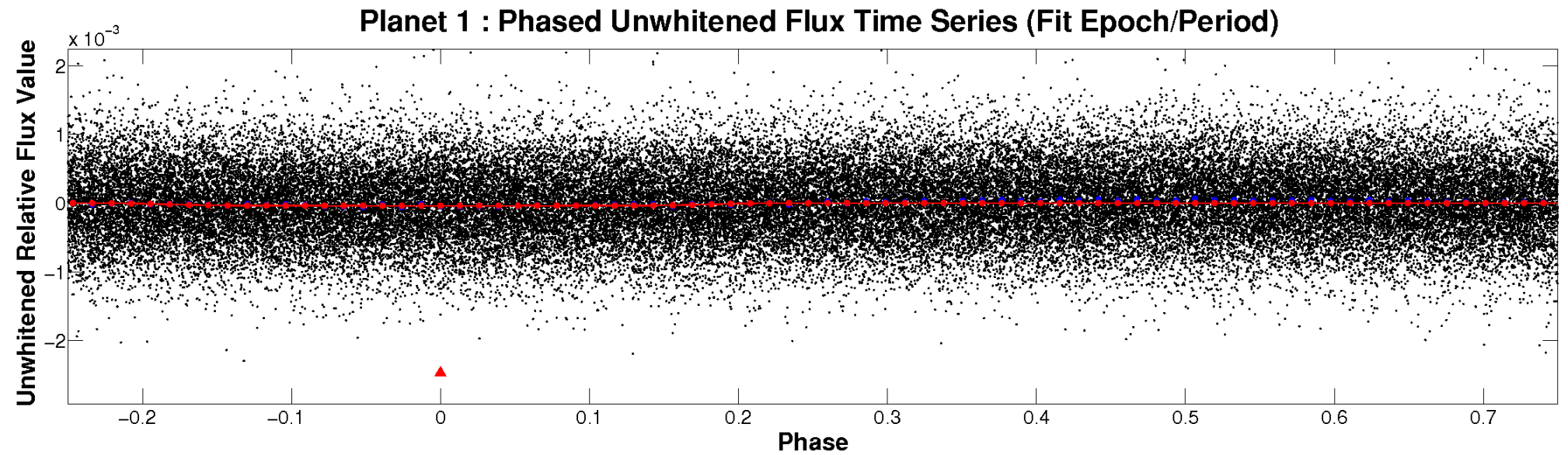


ALT Odd/Even

TCE 005648096-01

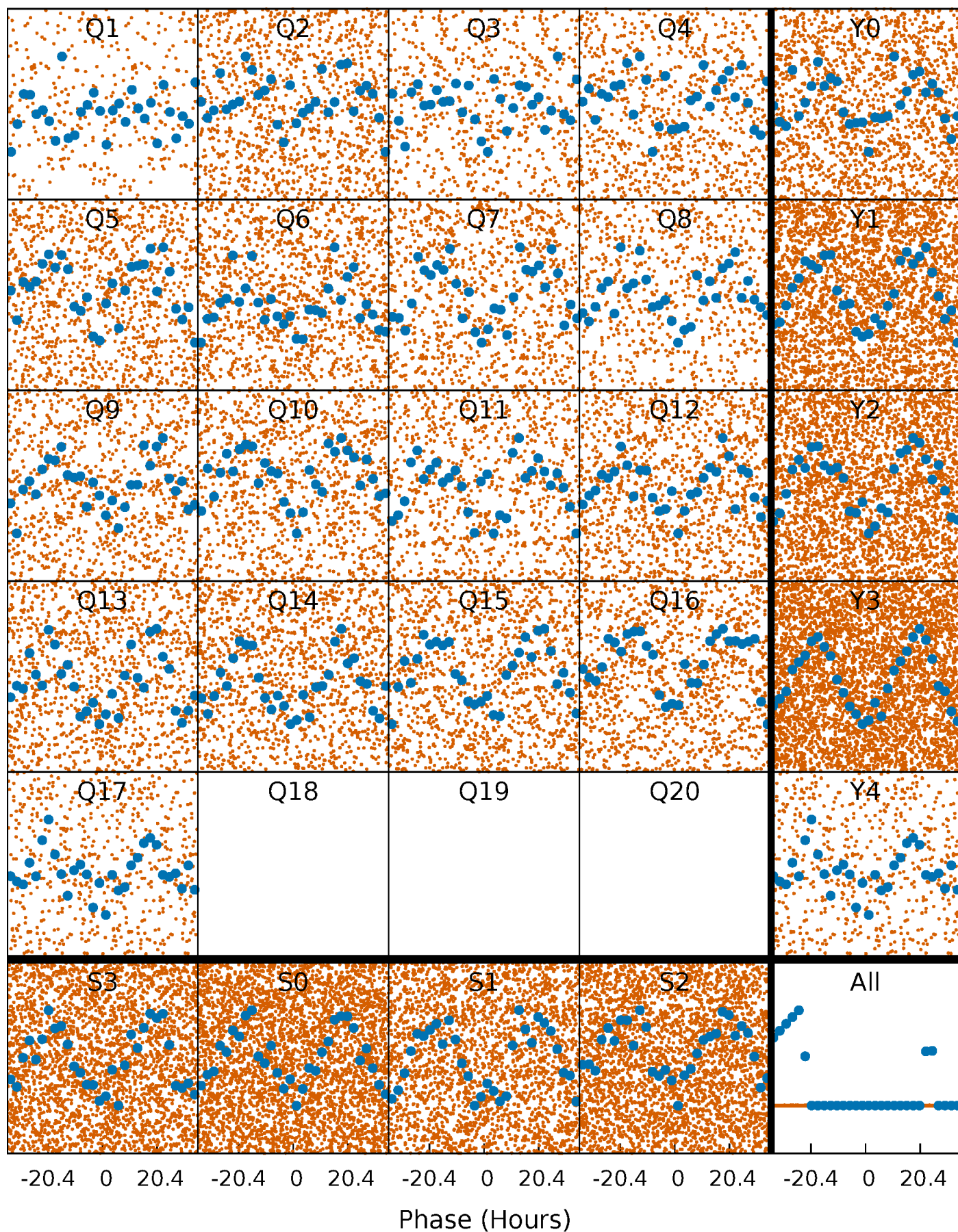


Non-Whitened Vs. Whitened Light Curve



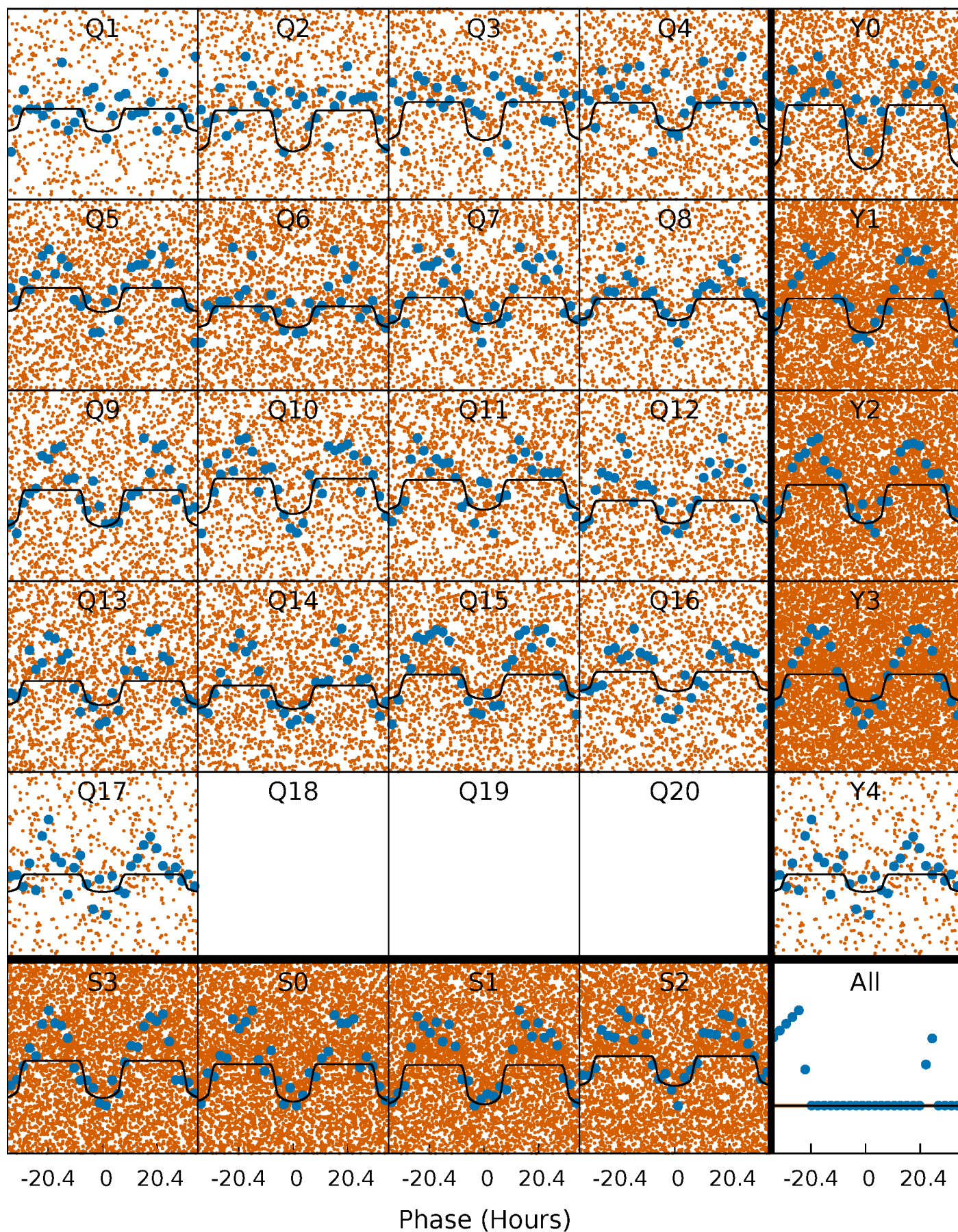
PDC Quarter-Phased Transit Curves

TCE 005648096-01 P= 1.573197 Days $T_0=132.314061$ (BKJD)



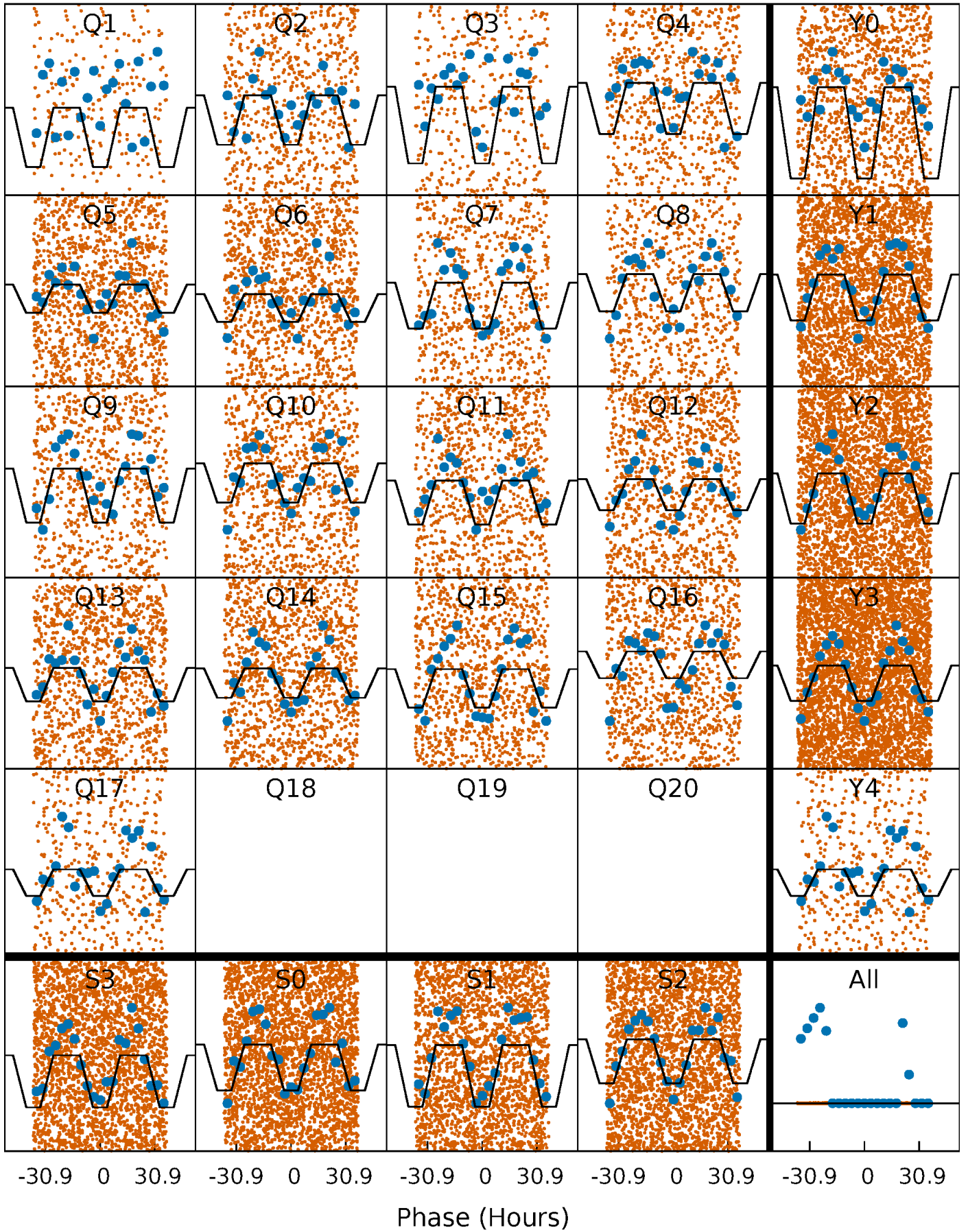
DV Quarter-Phased Transit Curves

TCE 005648096-01 P= 1.573197 Days $T_0=132.314061$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

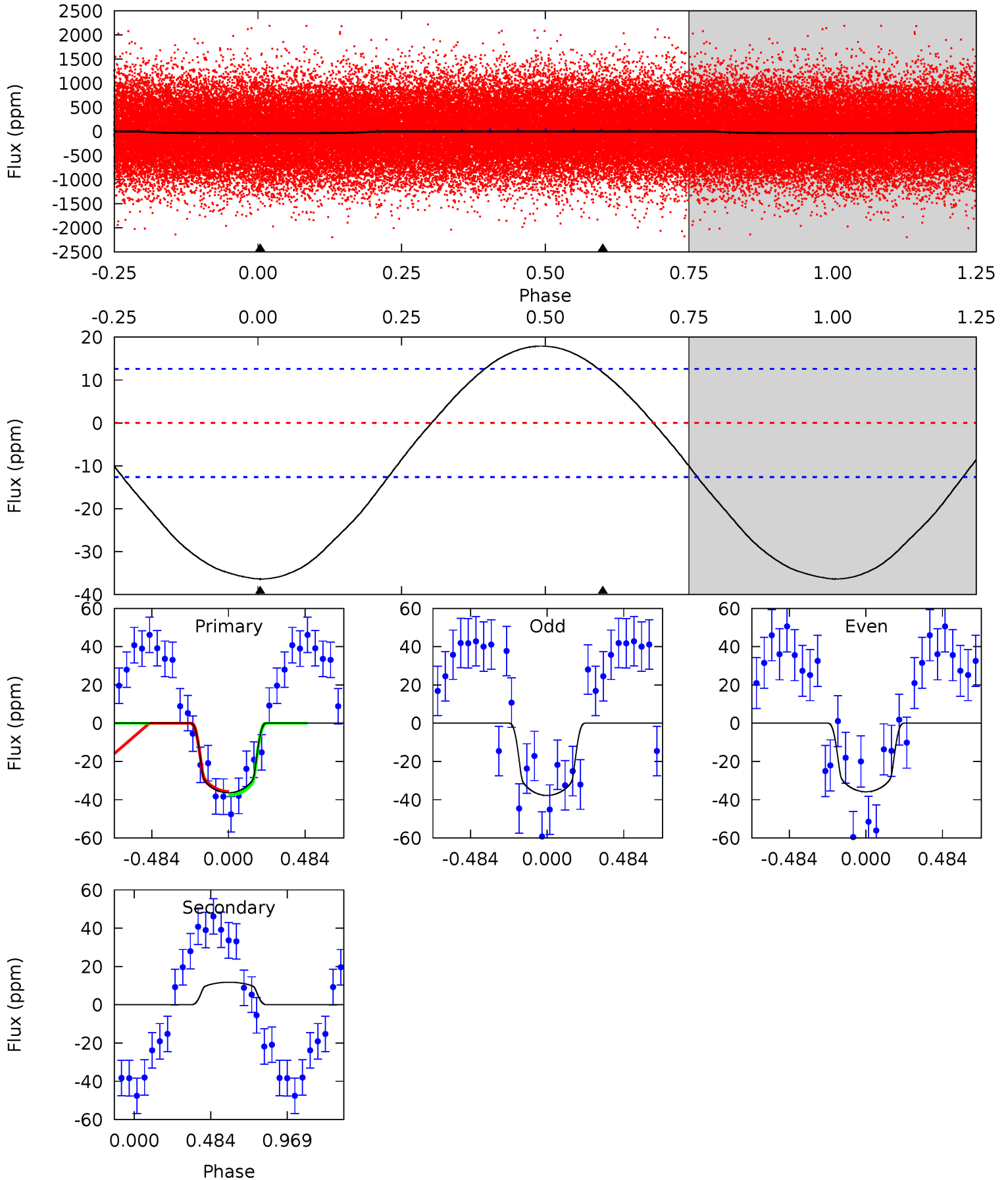
TCE 005648096-01 P= 1.573129 Days $T_0=132.348378$ (BKJD)



DV Model-Shift Uniqueness Test

005648096-01, P = 1.573197 Days, E = 130.740864 Days

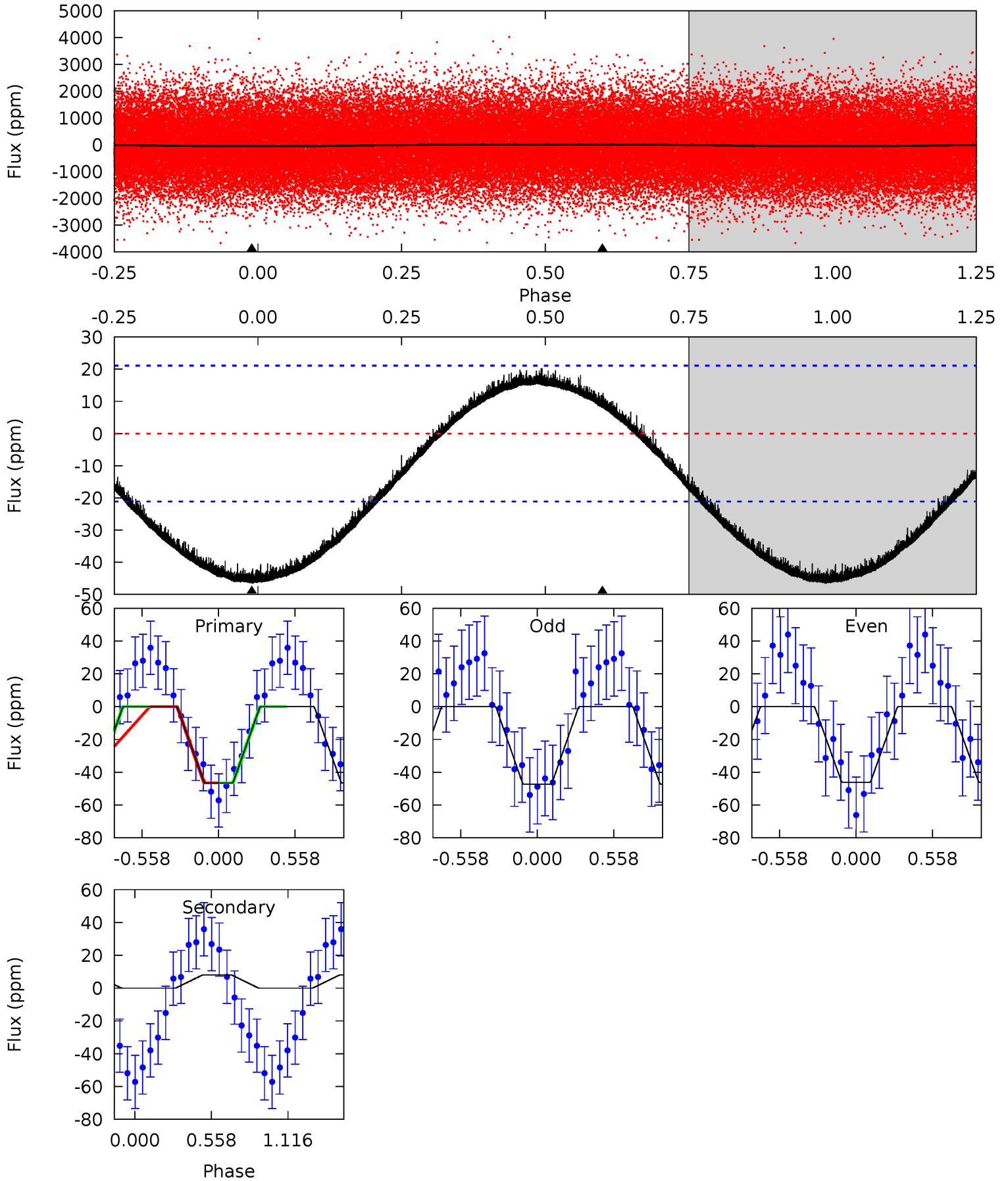
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	-3.94	0	0	4.22	0.70	1.53	12.2	12.2	-3.94	-3.94	0.32	0.05	0.33	0.32



Alt Model-Shift Uniqueness Test

005648096-01, P = 1.573129 Days, E = 130.775249 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.24	-1.60	0	0	4.19	0.59	0.99	9.24	9.24	-1.60	-1.60	0.11	0.99	0.30	0.00



Stellar Parameters For KIC 005648096

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8211^{+226}_{-340}	$4.077^{+0.170}_{-0.139}$	$-0.180^{+0.250}_{-0.350}$	$2.013^{+0.416}_{-0.462}$	$1.763^{+0.146}_{-0.291}$	$0.304^{+0.283}_{-0.128}$
	+3%/-4%	+4%/-3%	+139%/-194%	+21%/-23%	+8%/-17%	+93%/-42%
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 005648096-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	12 ± 3	$1.54^{+0.24}_{-0.22}$	3999^{+258}_{-278}	-5678^{+381}_{-400}	$-2.706^{+0.898}_{-1.316}$
Alt.	8 ± 5	$1.56^{+0.22}_{-0.22}$	3983^{+257}_{-290}	-5177^{+666}_{-591}	$-1.820^{+1.141}_{-1.242}$

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 $A_{obs} \gg 1.0$

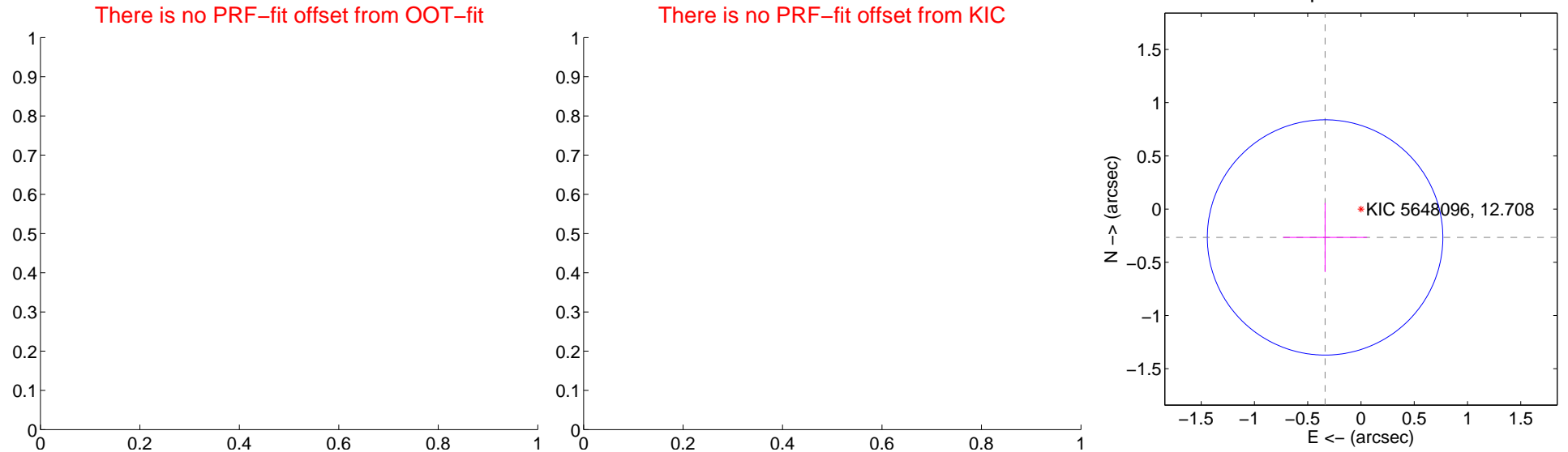
DV Centroid Data

Supplemental centroid analysis for 005648096-01. Kepler magnitude: 12.71. Transit SNR 14.09

There are 0 quarters with good PRF difference image offsets

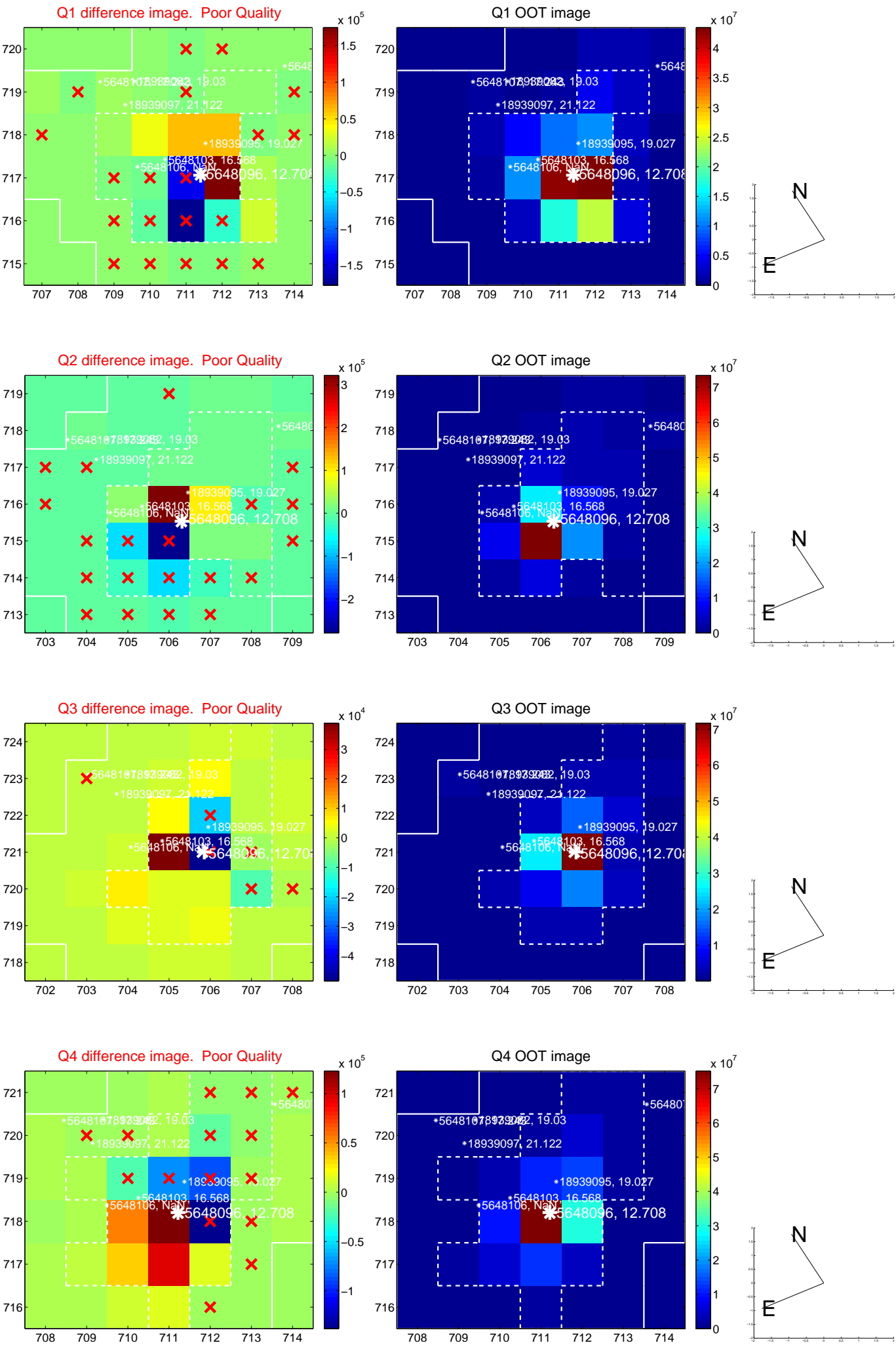
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.43 ± 0.37	1.17	0.34 ± 0.39	-0.27 ± 0.32

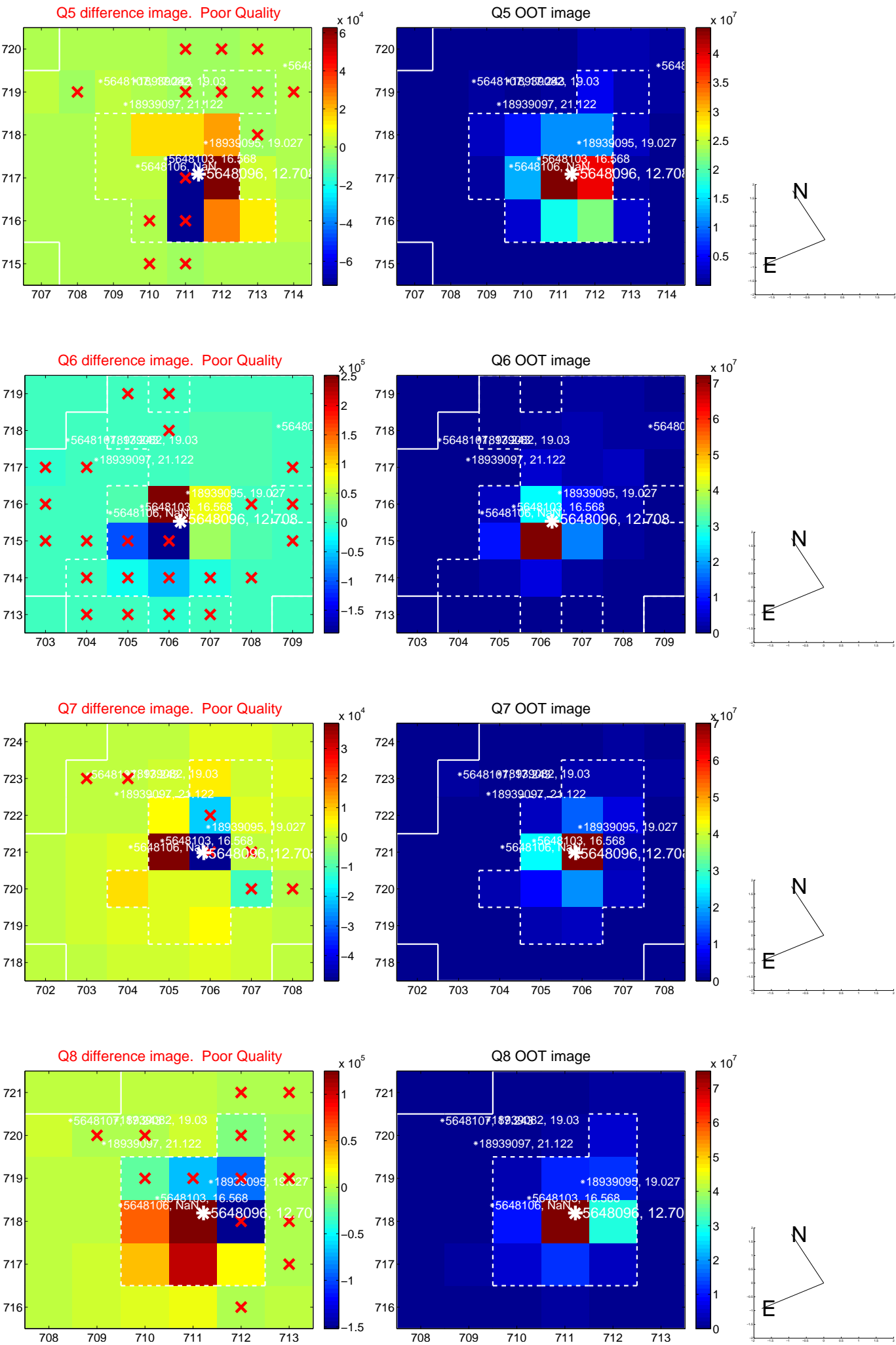


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

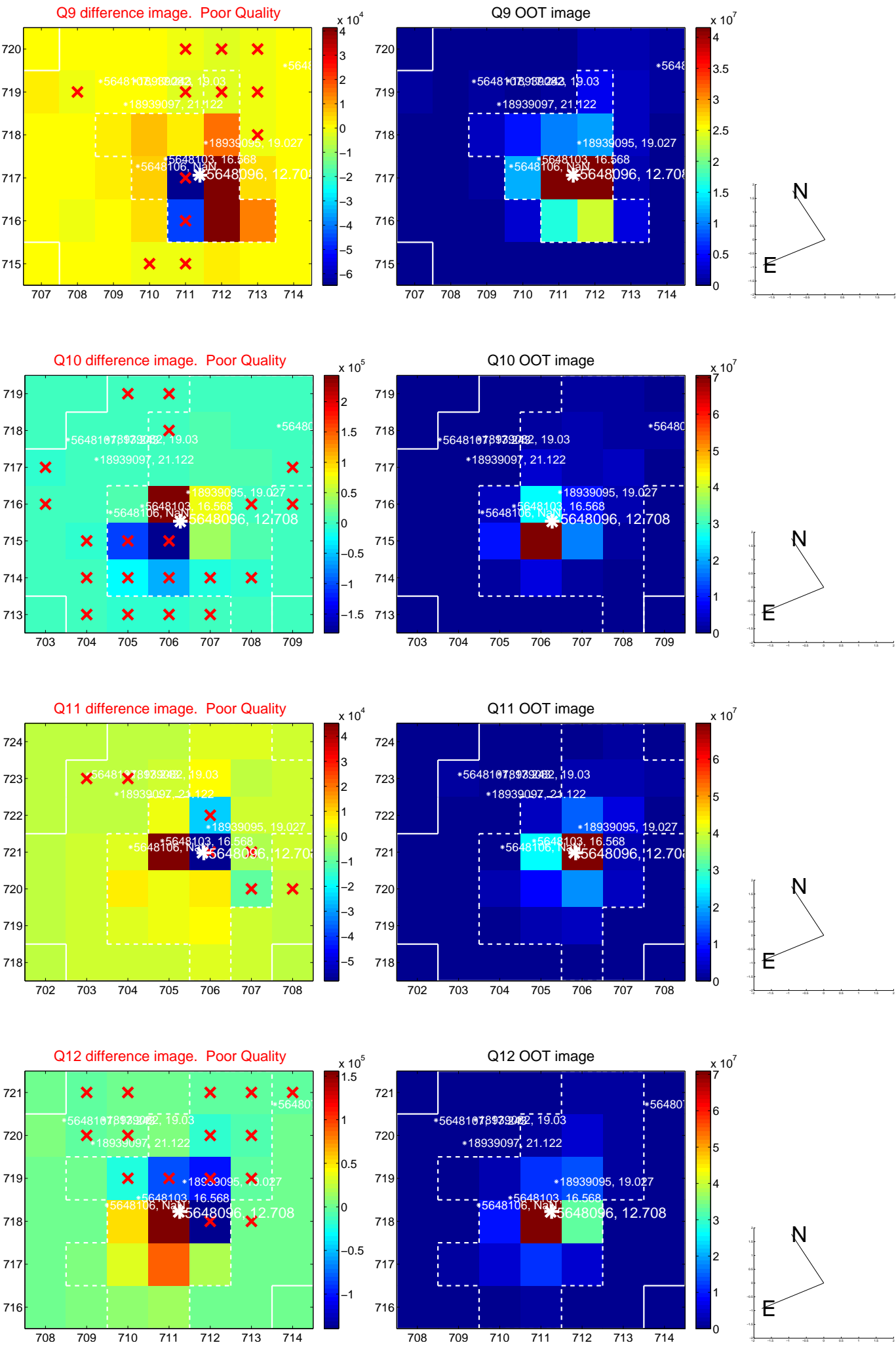
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



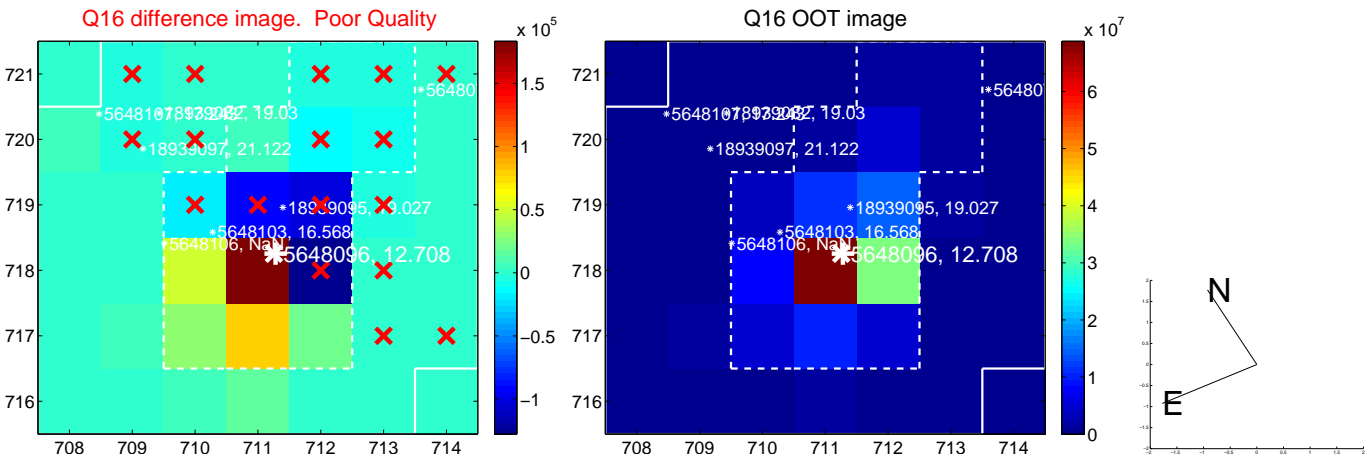
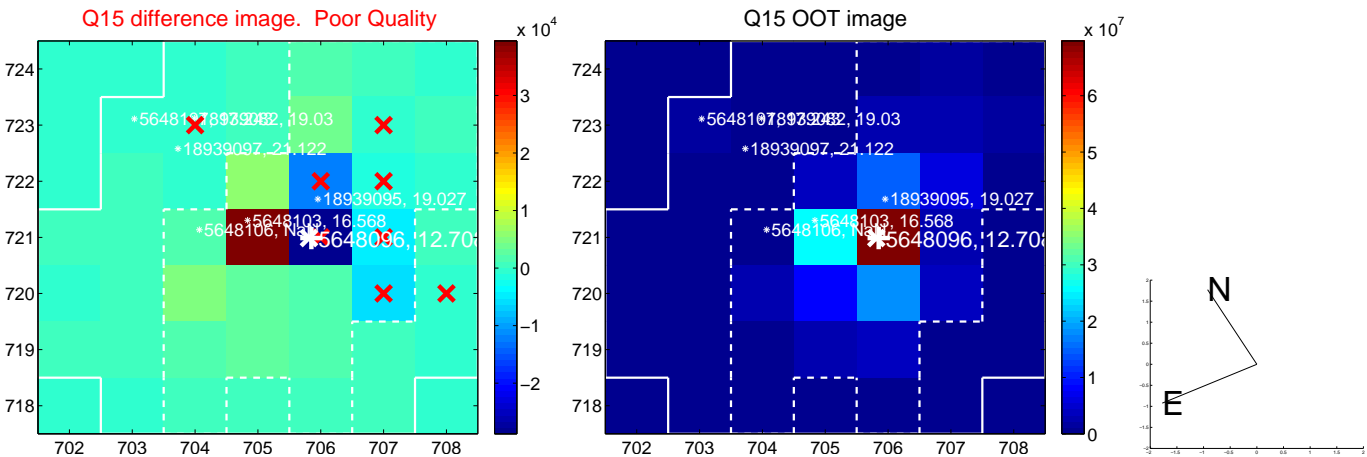
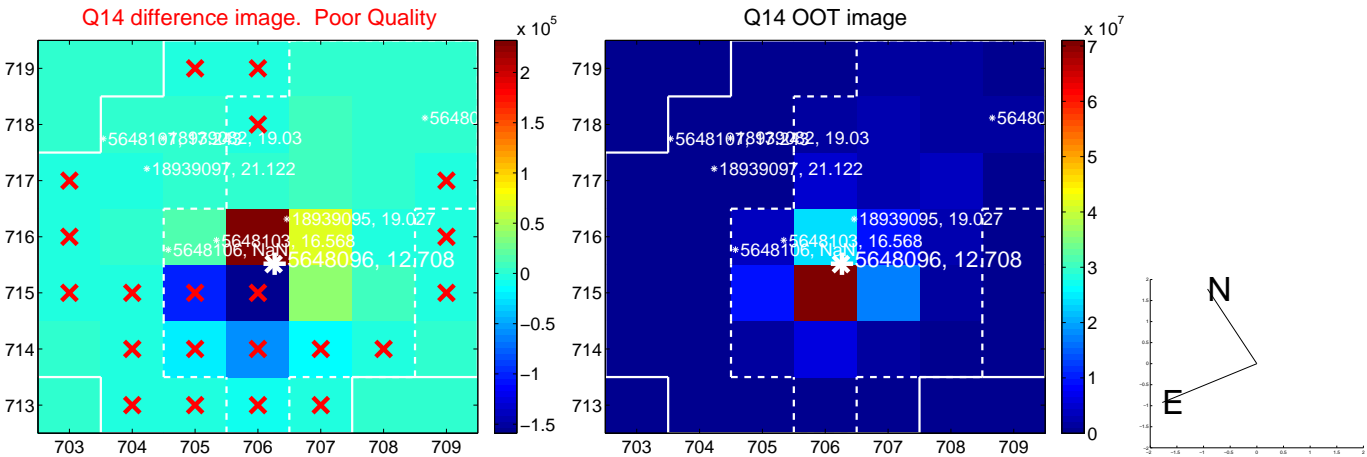
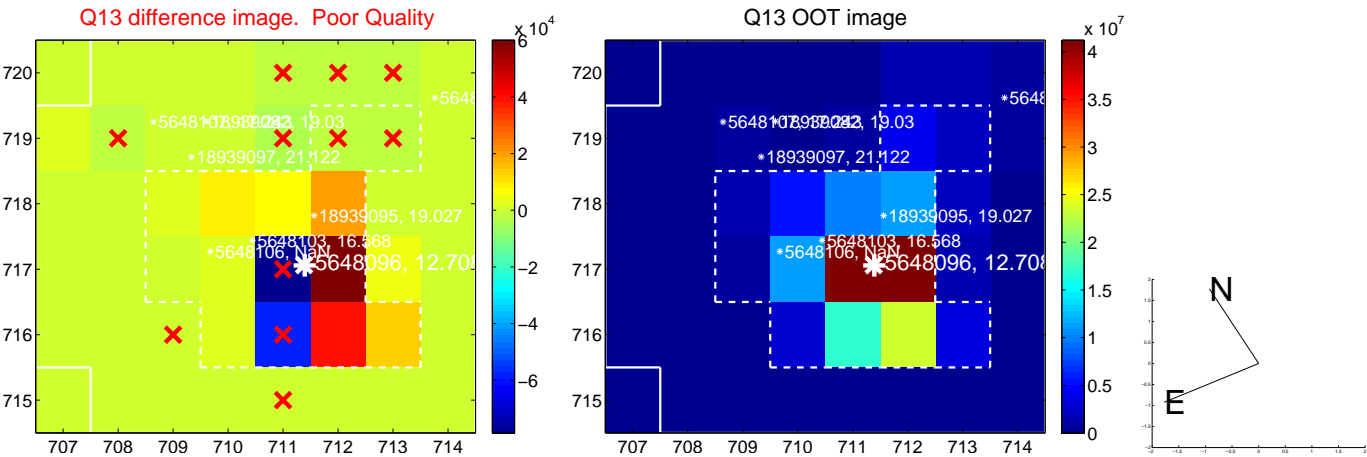
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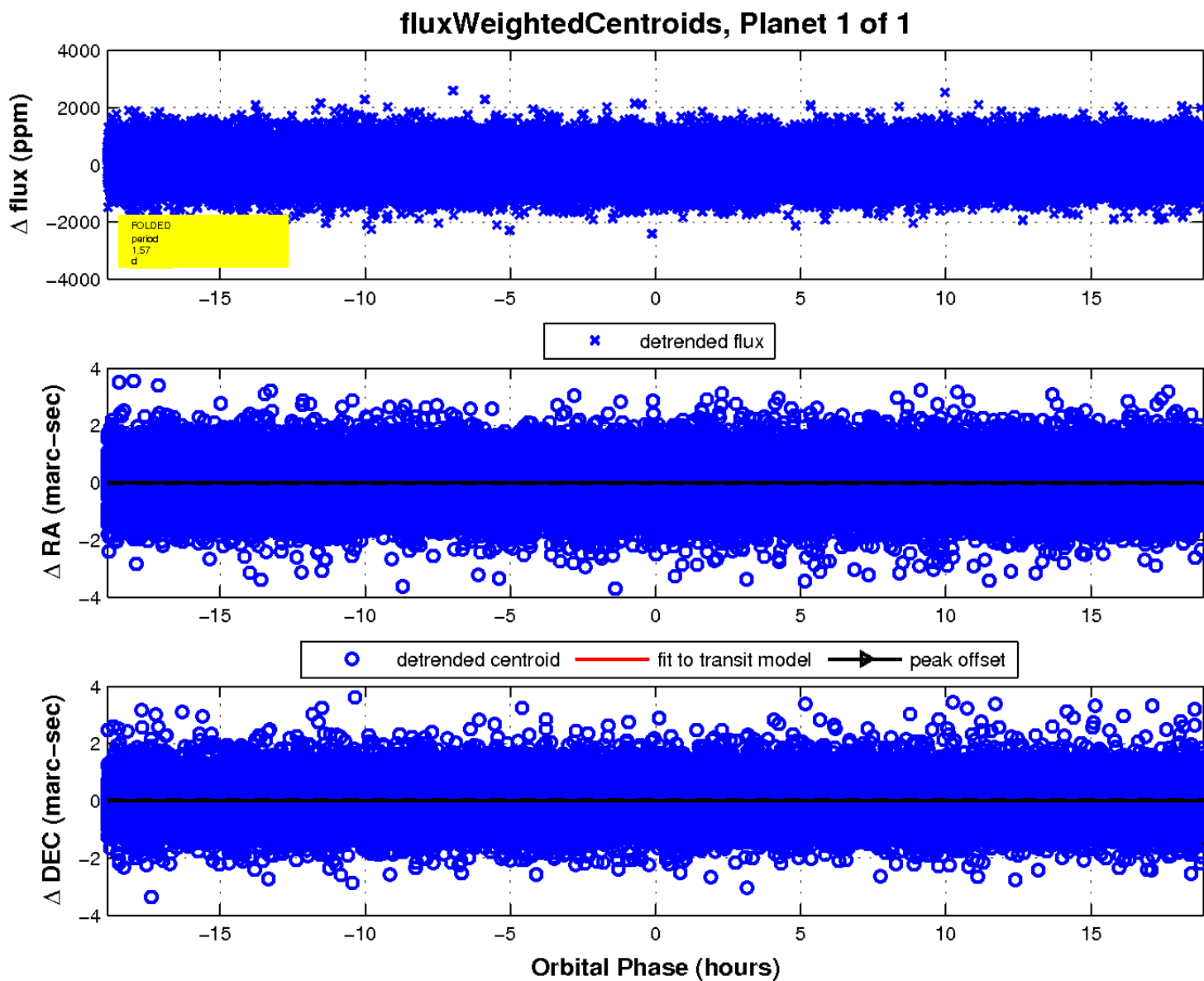
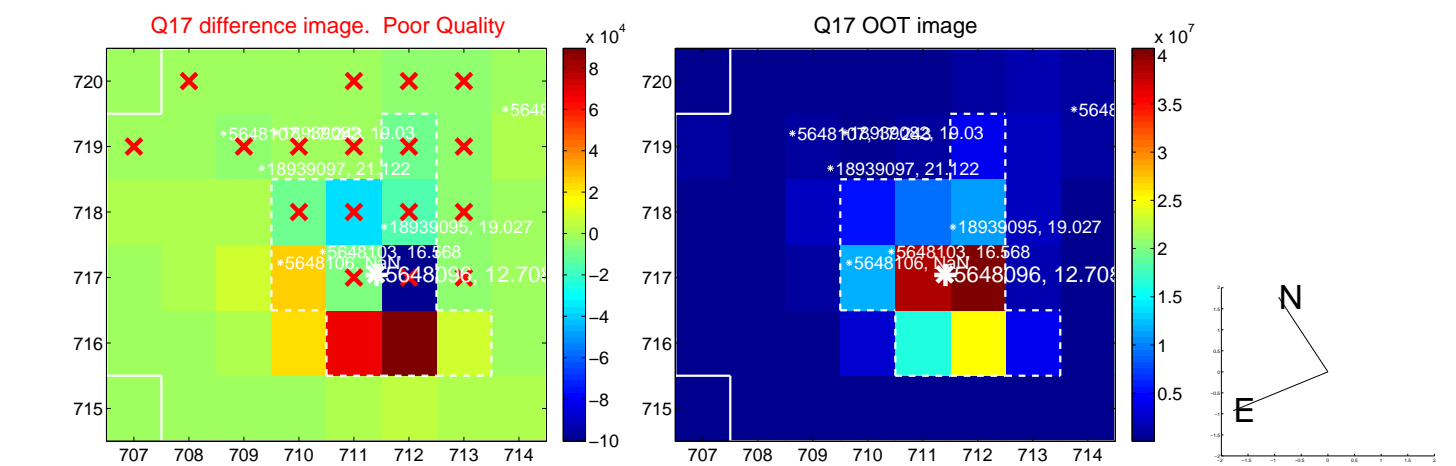
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UKIRT Image

Declination

