

KIC 011666503

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})
011666503-01	OBS	No	1.827754	131.556099	24.4	19.395	8.3	10.1	1.67	7390	0.89	6584.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011666503-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

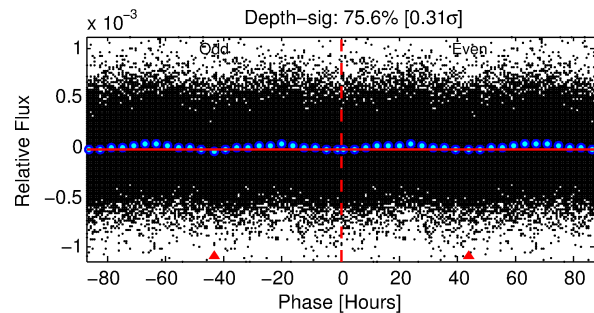
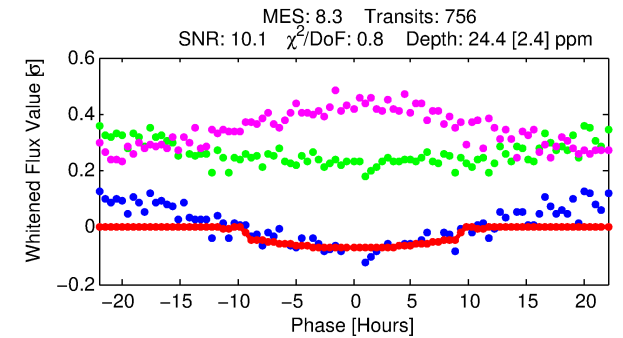
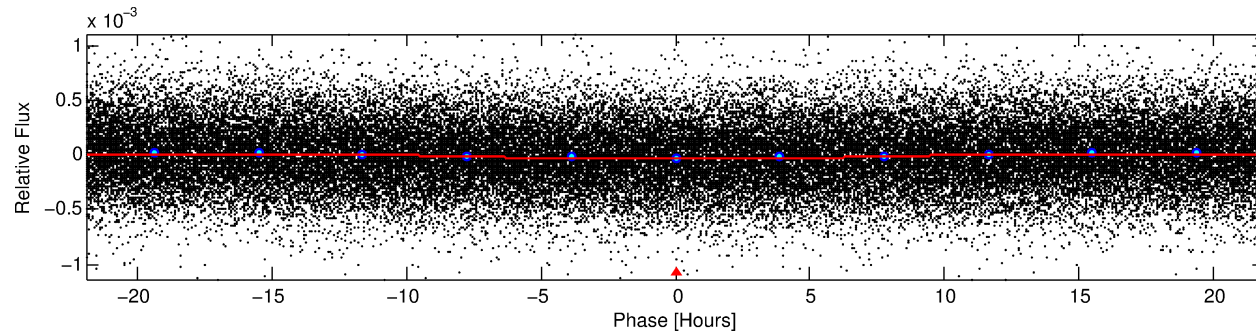
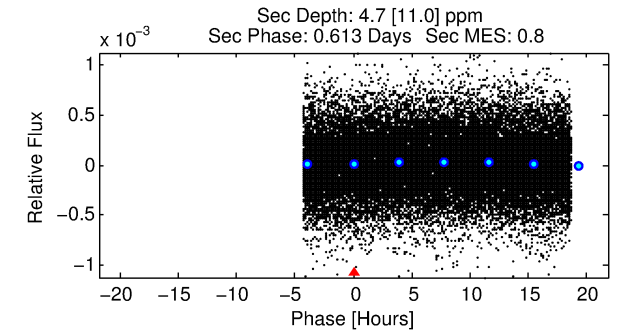
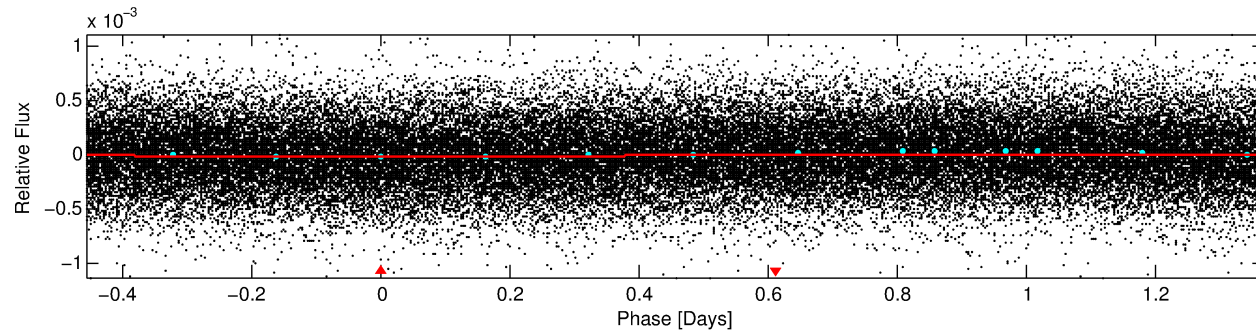
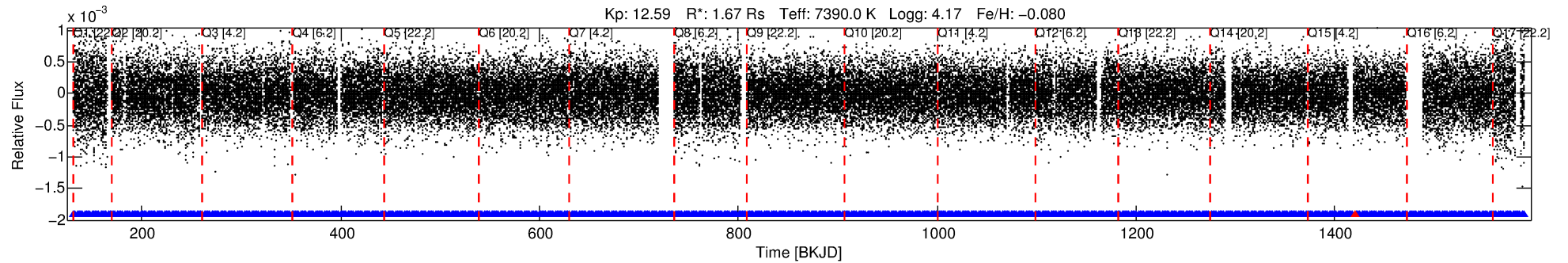
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011666503-01

No Significant Match Found

DV One-Page Summary

KIC: 11666503 Candidate: 1 of 1 Period: 1.828 d



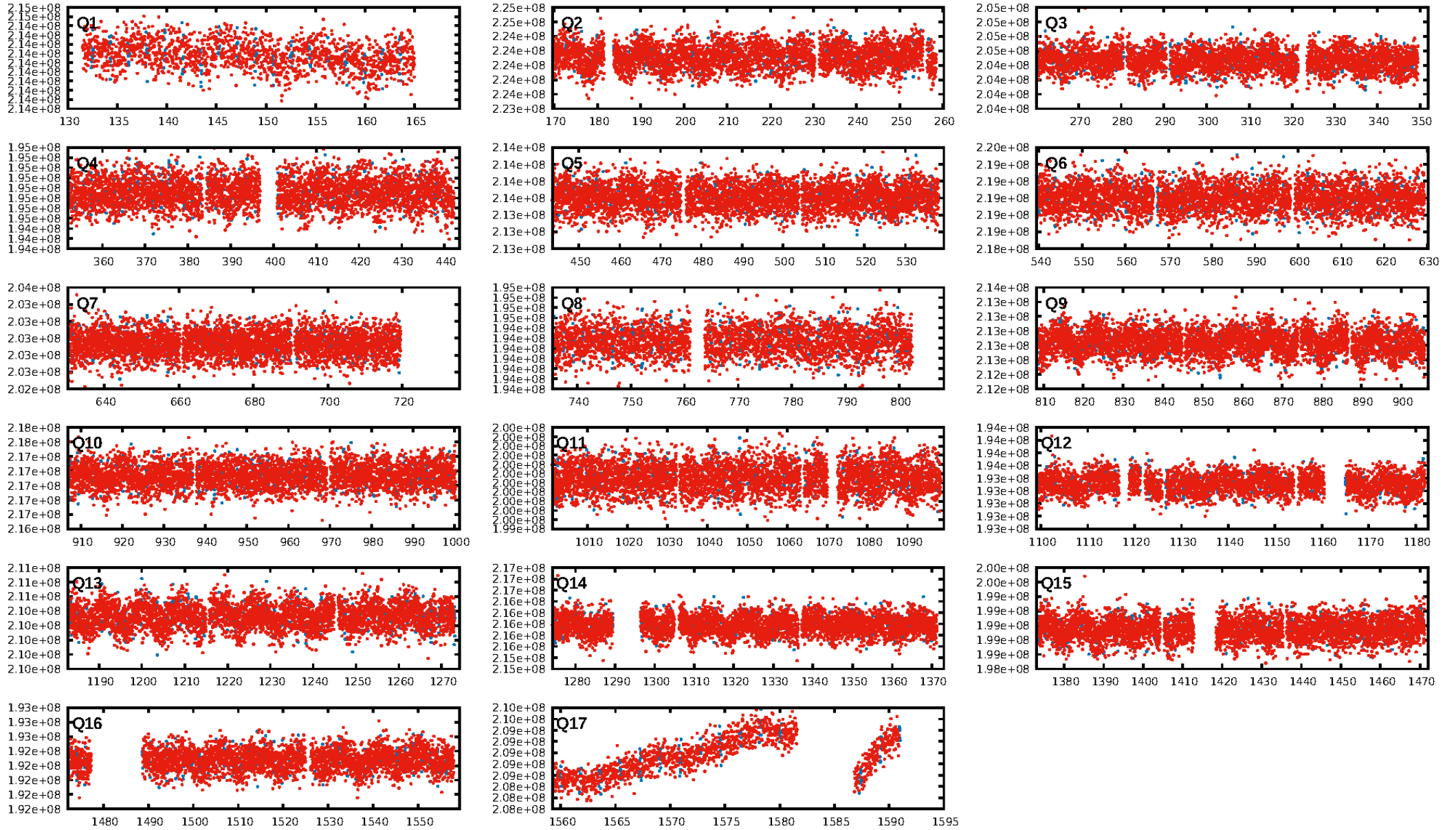
DV Fit Results:

Period = 1.82775 [0.00005] d
Epoch = 131.5561 [0.0138] BKJD
Rp/R* = 0.0049 [0.0011]
a/R* = 1.01 [0.03]
b = 0.74 [0.85]
Seff = 6584.95 [1511.79]
Teq = 2297 [132] K
Rp = 0.89 [0.26] Re
a = 0.0336 [0.0052] AU
Ag = 3.70 [8.77] [0.31σ]
Teffp = 4924 [2909] K [0.90σ]

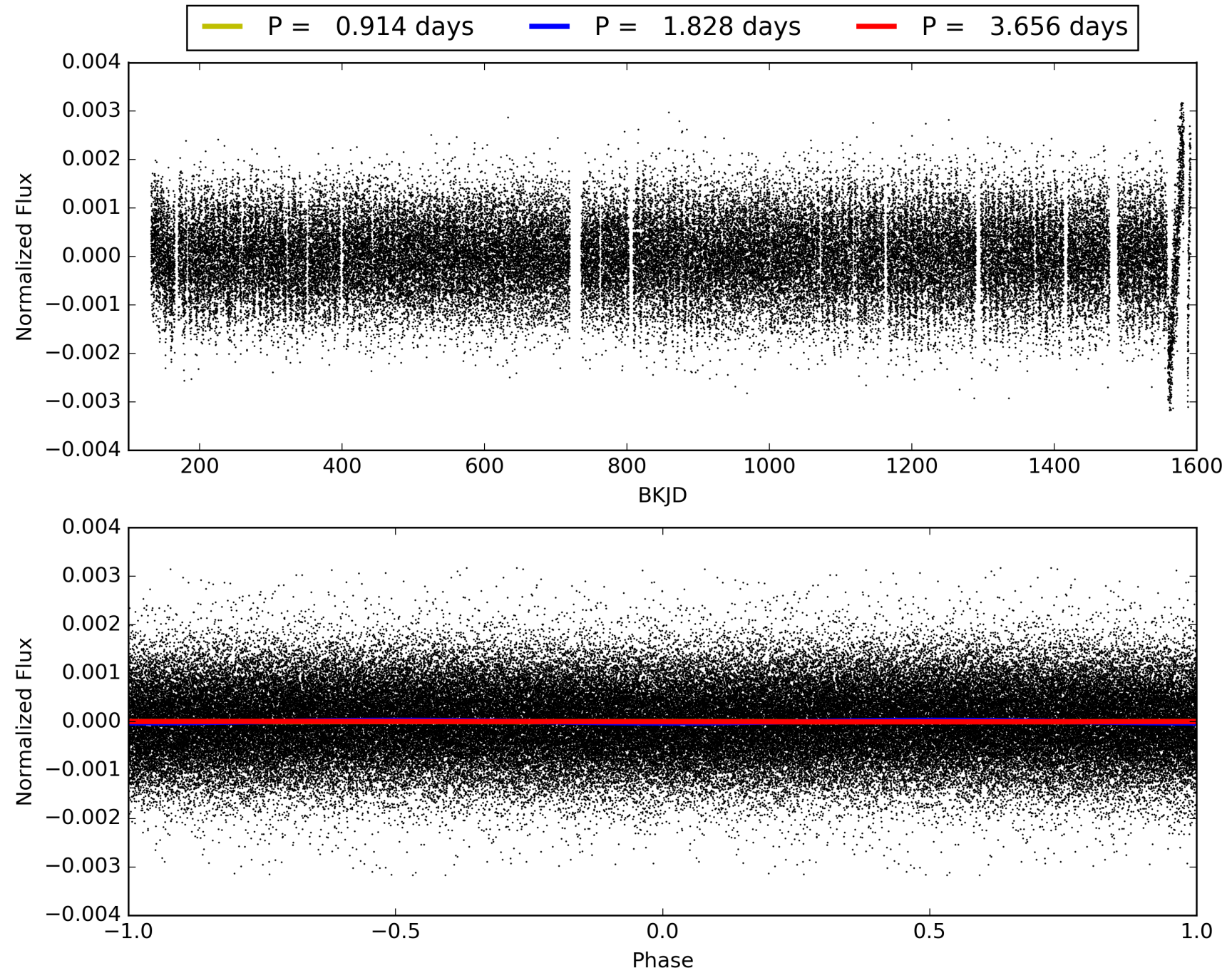
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [720/721]
GhostDiagnostic-chr: 0.91
Centroid-sig: 76.5%
Centroid-so: 0.350 arcsec [0.67σ]
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 01166503-01, PDC Light Curves

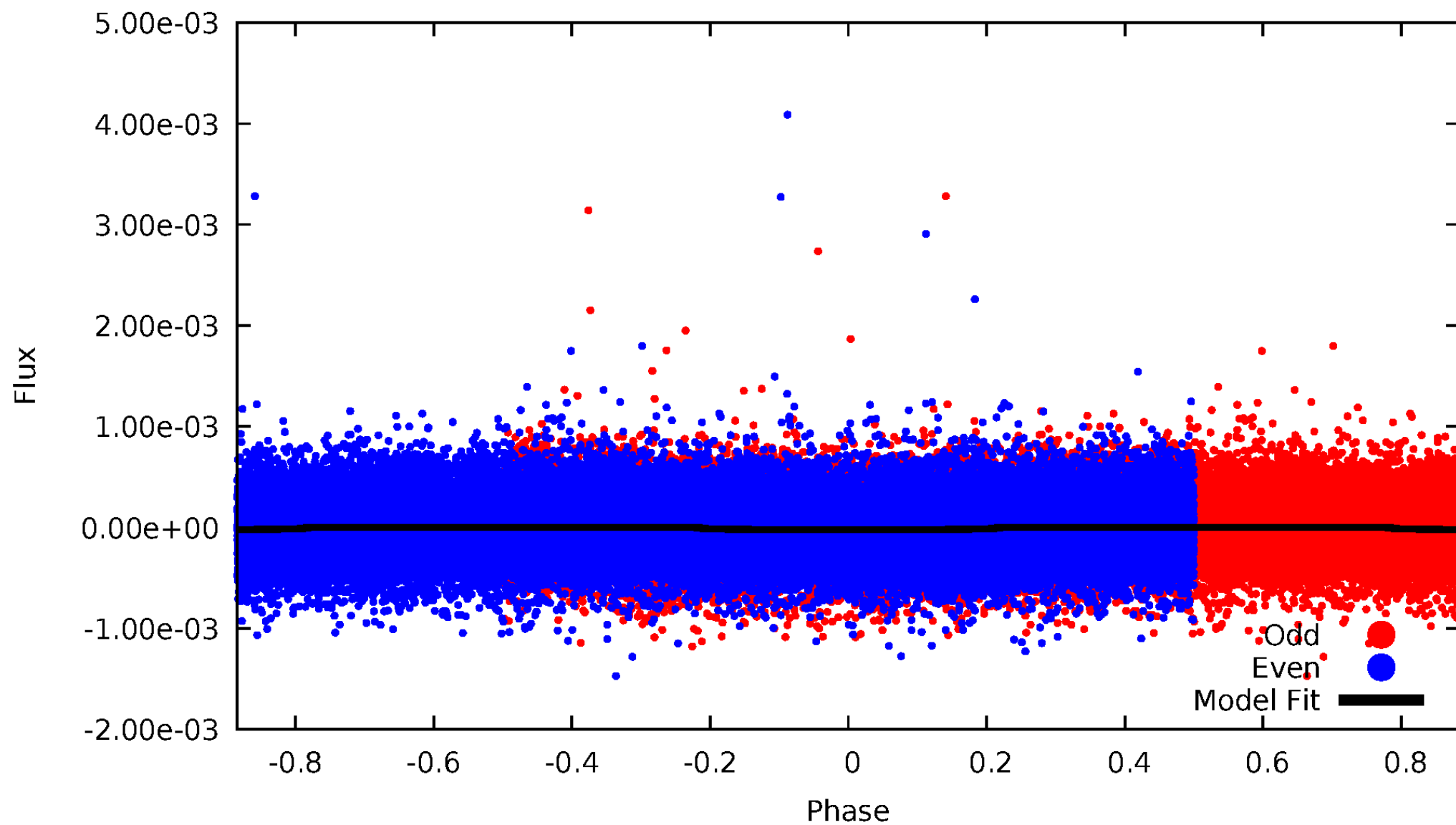


TCE 011666503-01



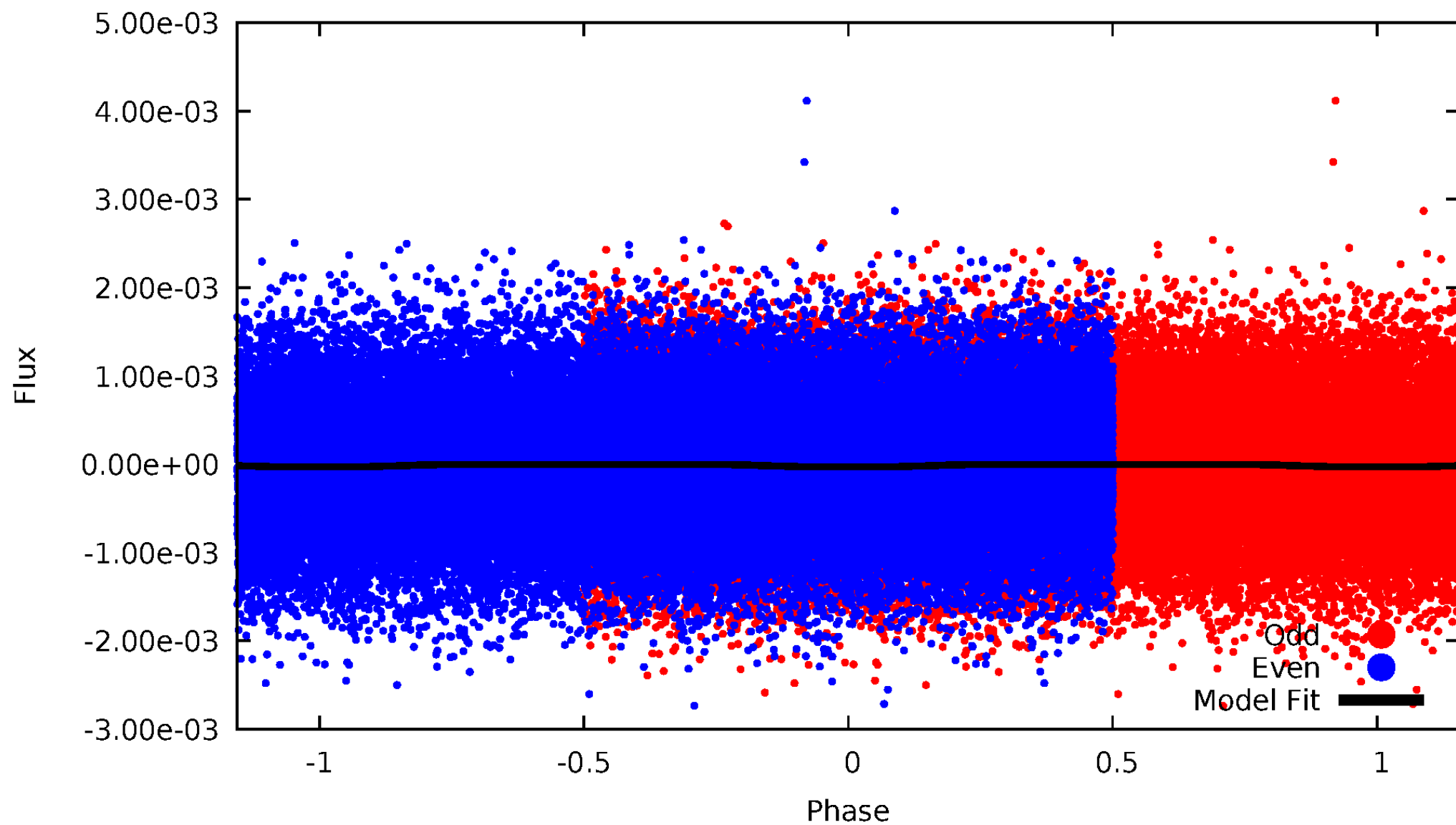
DV Odd/Even

TCE 011666503-01

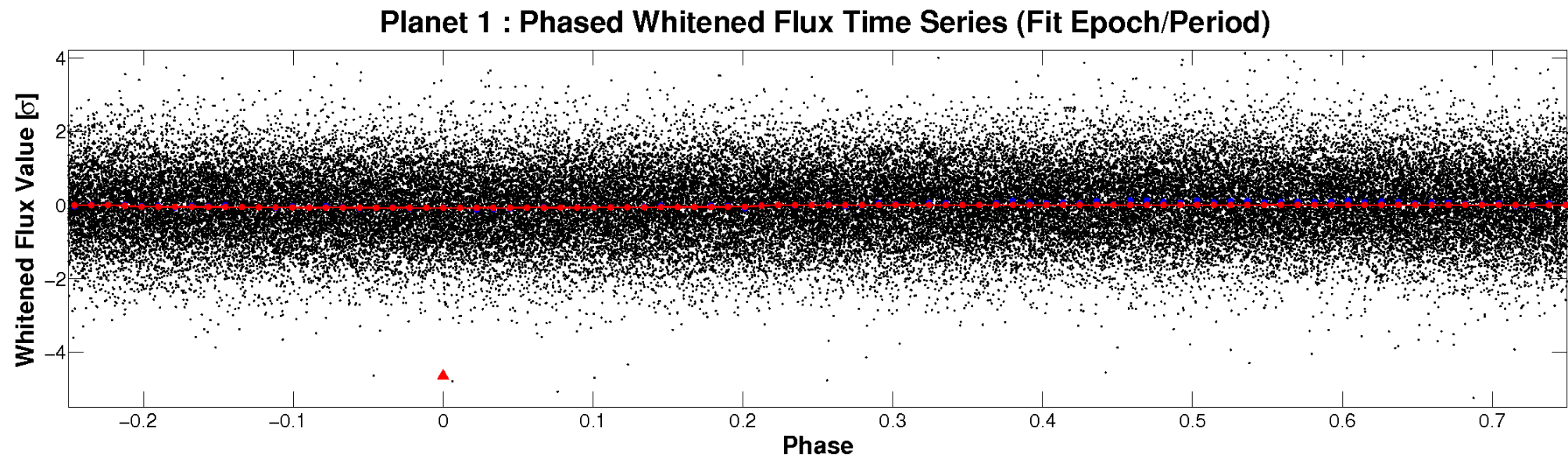
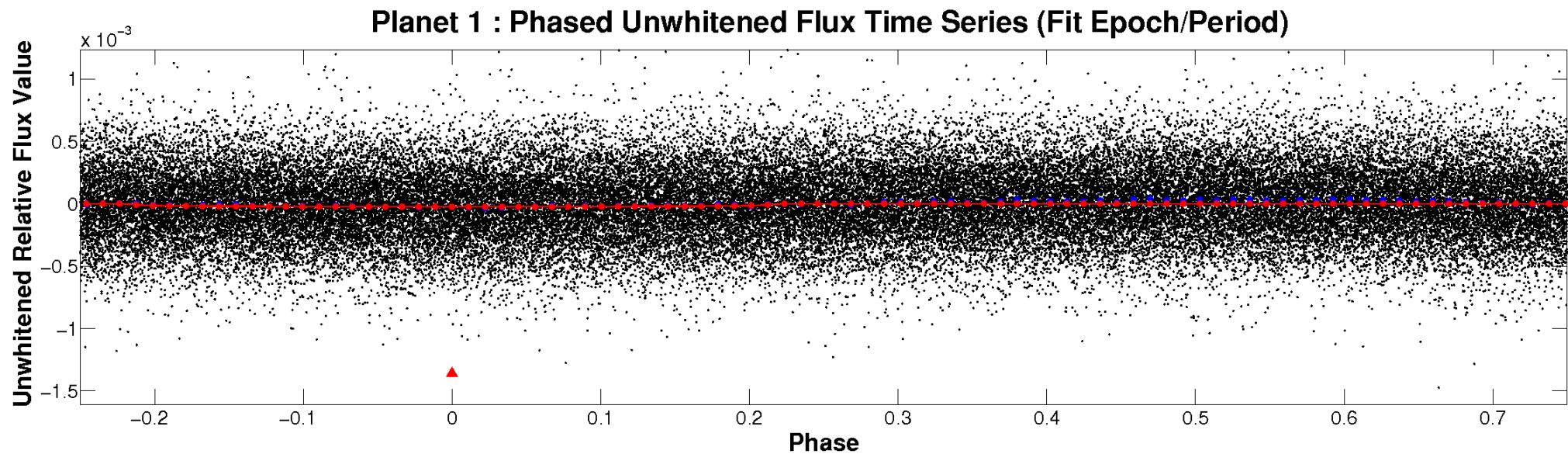


ALT Odd/Even

TCE 011666503-01

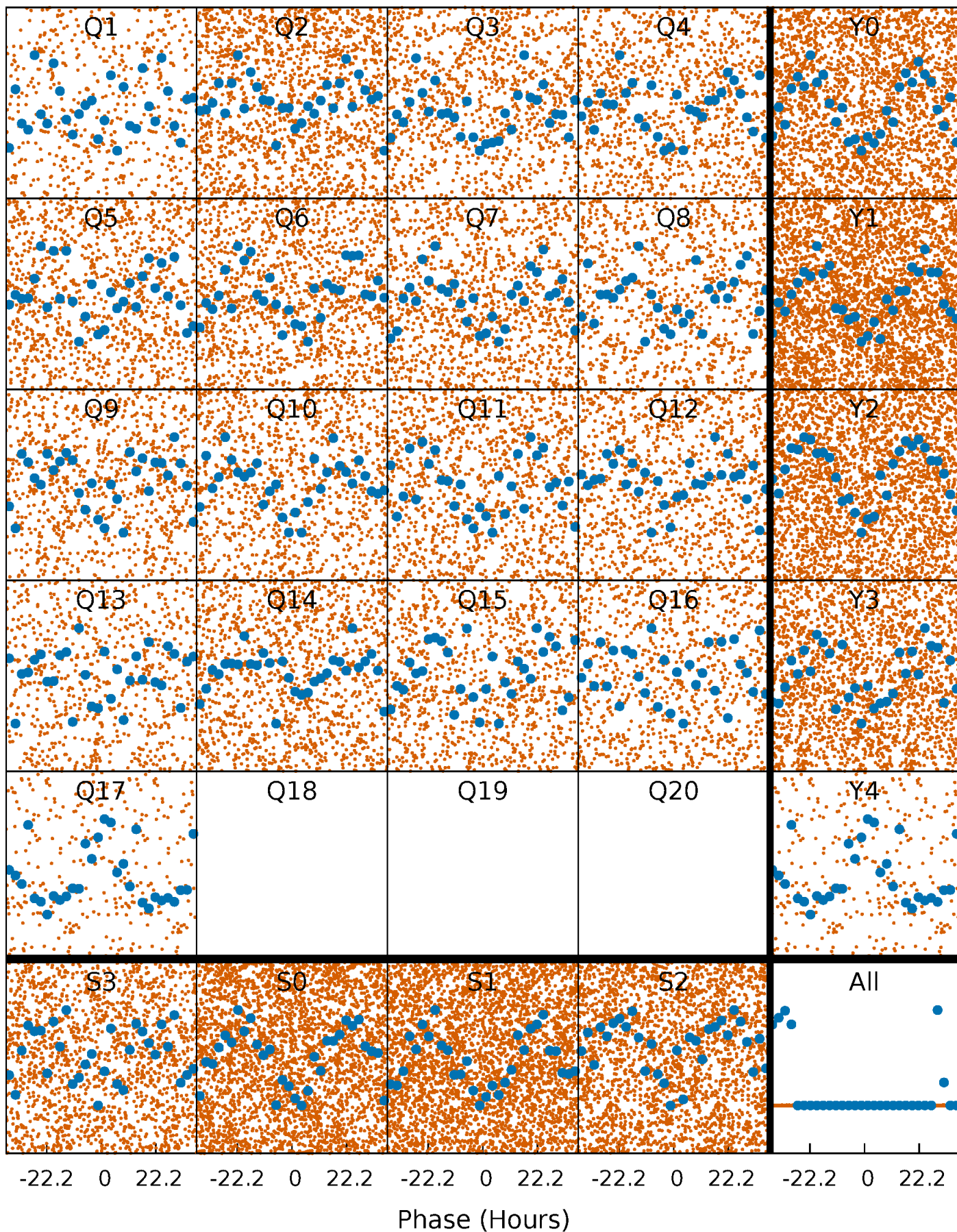


Non-Whitened Vs. Whitened Light Curve



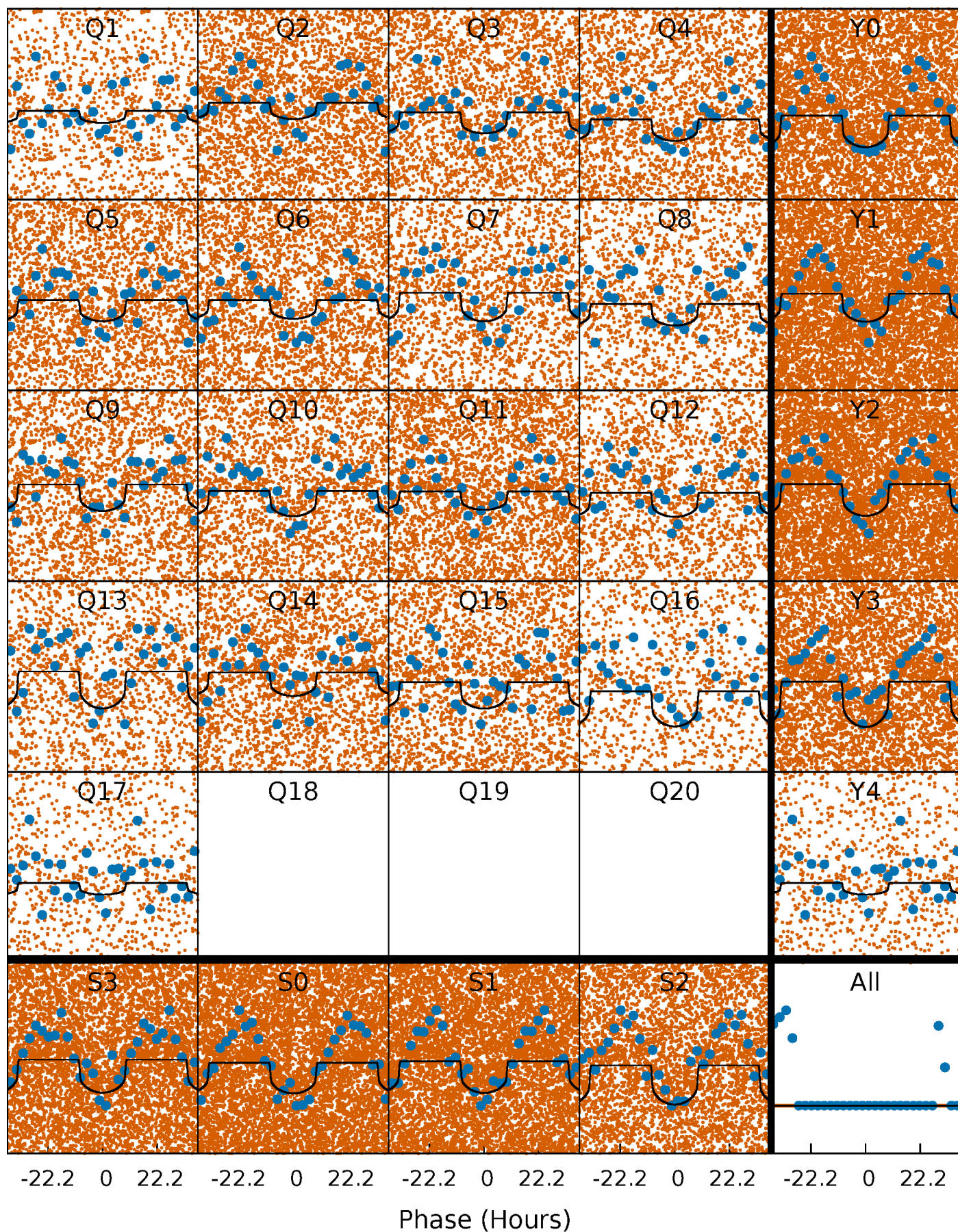
PDC Quarter-Phased Transit Curves

TCE 011666503-01 P= 1.827754 Days $T_0=131.556099$ (BKJD)



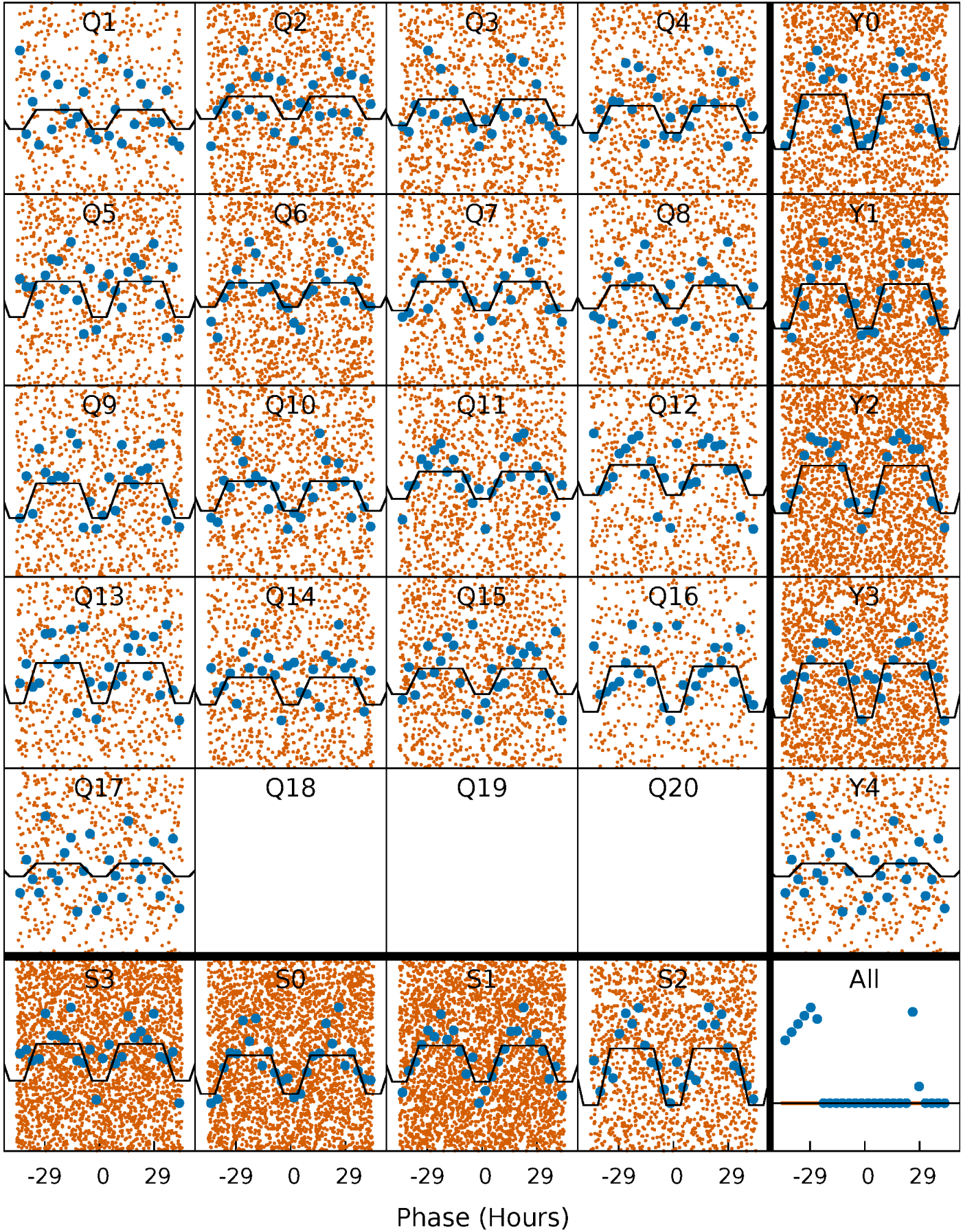
DV Quarter-Phased Transit Curves

TCE 011666503-01 P= 1.827754 Days $T_0=131.556099$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

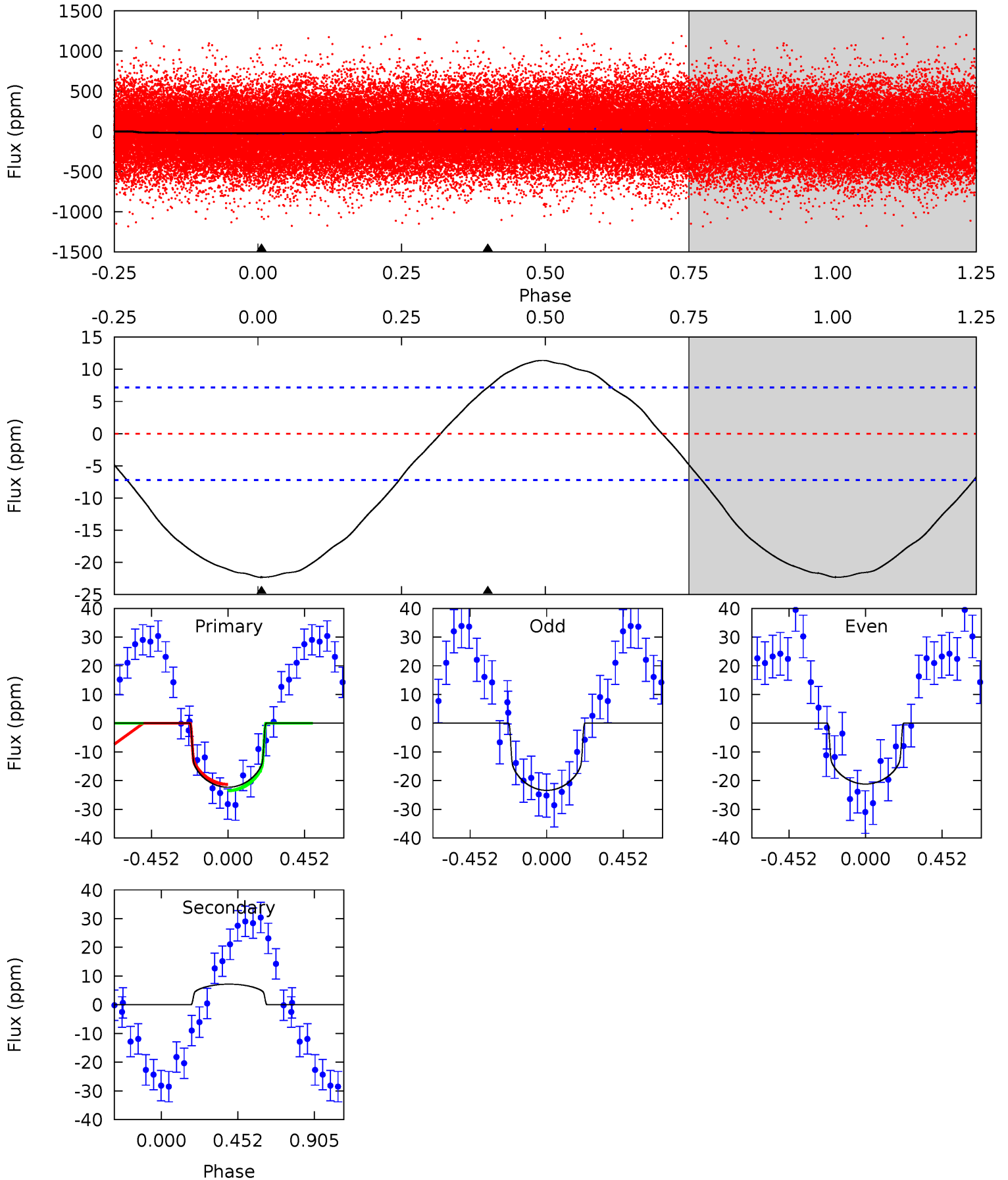
TCE 011666503-01 P= 1.827581 Days $T_0=131.648052$ (BKJD)



DV Model-Shift Uniqueness Test

011666503-01, P = 1.827754 Days, E = 129.728345 Days

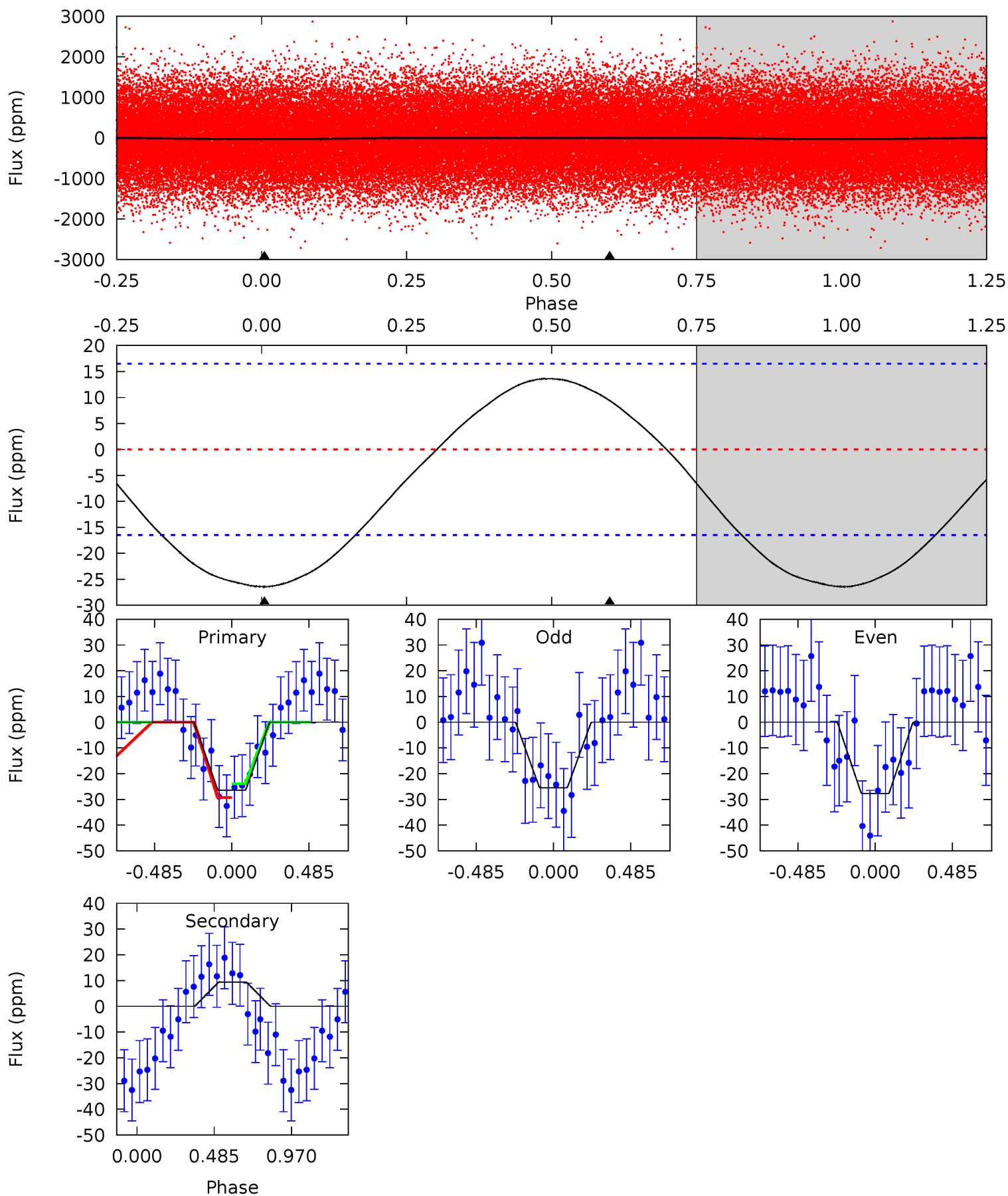
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	-4.23	0	0	4.24	0.75	1.80	13.1	13.1	-4.23	-4.23	0.65	0.85	0.34	0.66



Alt Model-Shift Uniqueness Test

011666503-01, P = 1.827581 Days, E = 129.820471 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.77	-2.41	0	0	4.22	0.70	0.82	6.77	6.77	-2.41	-2.41	0.29	1.06	0.34	0.70



Stellar Parameters For KIC 011666503

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7390^{+74}_{-81}	$4.174^{+0.066}_{-0.123}$	$-0.080^{+0.150}_{-0.150}$	$1.669^{+0.308}_{-0.166}$	$1.514^{+0.124}_{-0.093}$	$0.459^{+0.125}_{-0.165}$
	+1%/-1%	+2%/-3%	+188%/-188%	+18%/-10%	+8%/-6%	+27%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 011666503-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	7 ± 2	$0.91^{+0.22}_{-0.21}$	3229^{+145}_{-97}	-5470^{+514}_{-787}	$-5.294^{+2.197}_{-4.187}$
Alt.	9 ± 4	$0.98^{+0.23}_{-0.21}$	3228^{+131}_{-98}	-5616^{+725}_{-902}	$-5.896^{+2.931}_{-5.570}$

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

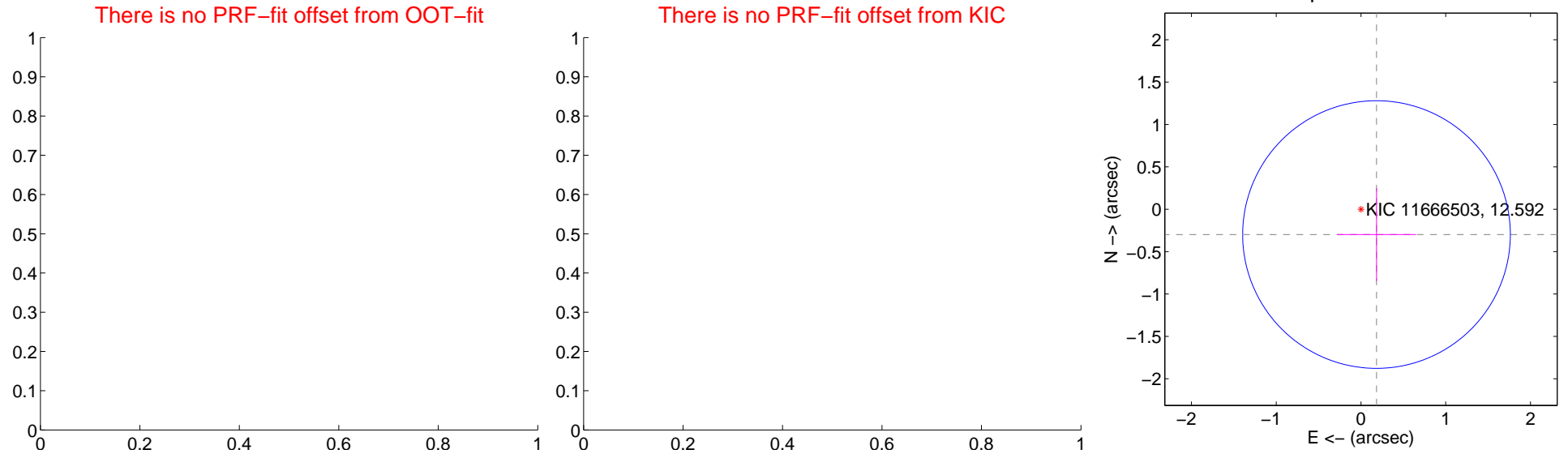
DV Centroid Data

Supplemental centroid analysis for 011666503-01. Kepler magnitude: 12.59. Transit SNR 10.09

There are 0 quarters with good PRF difference image offsets

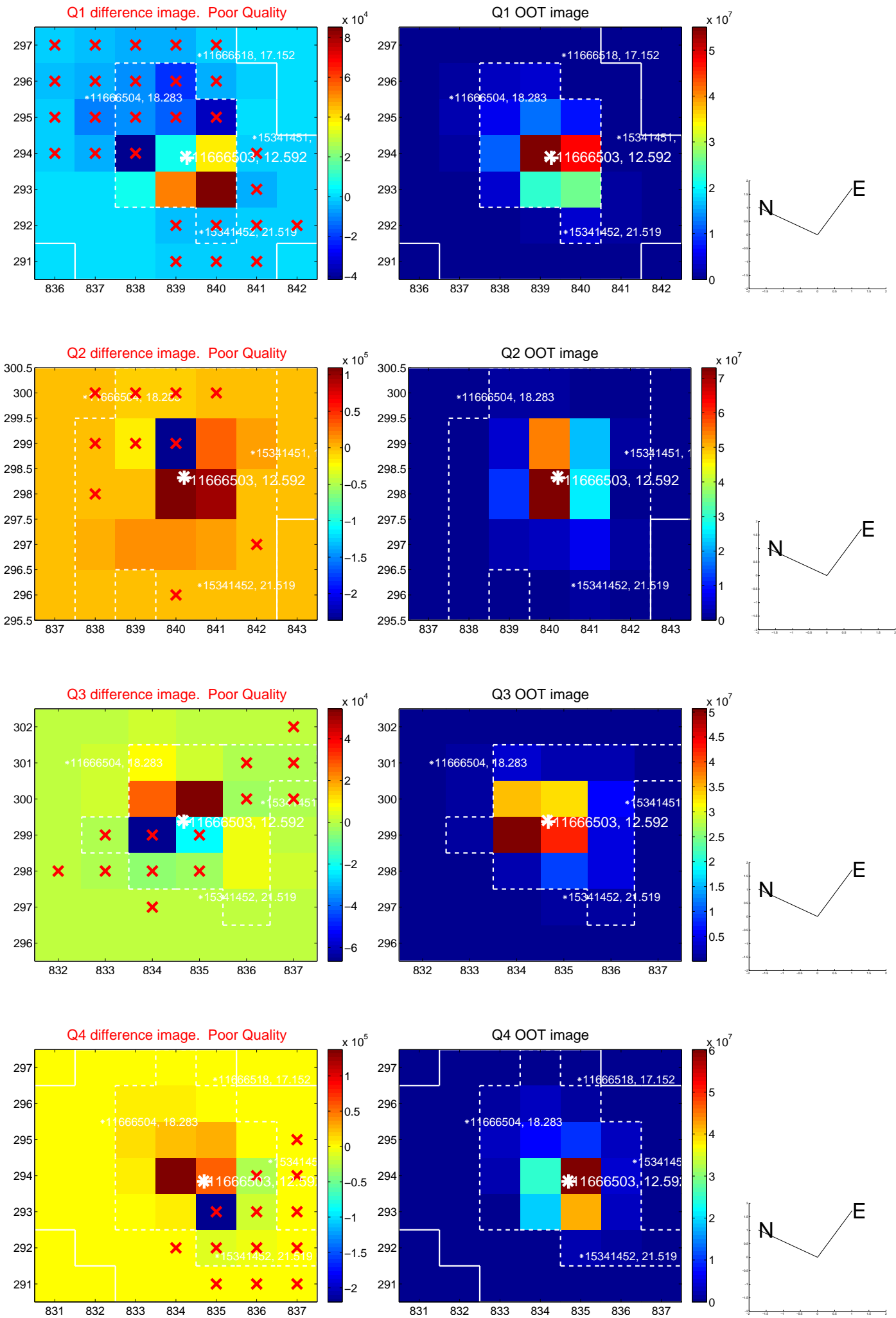
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	0.35 ± 0.53	0.67	-0.18 ± 0.47	-0.30 ± 0.55

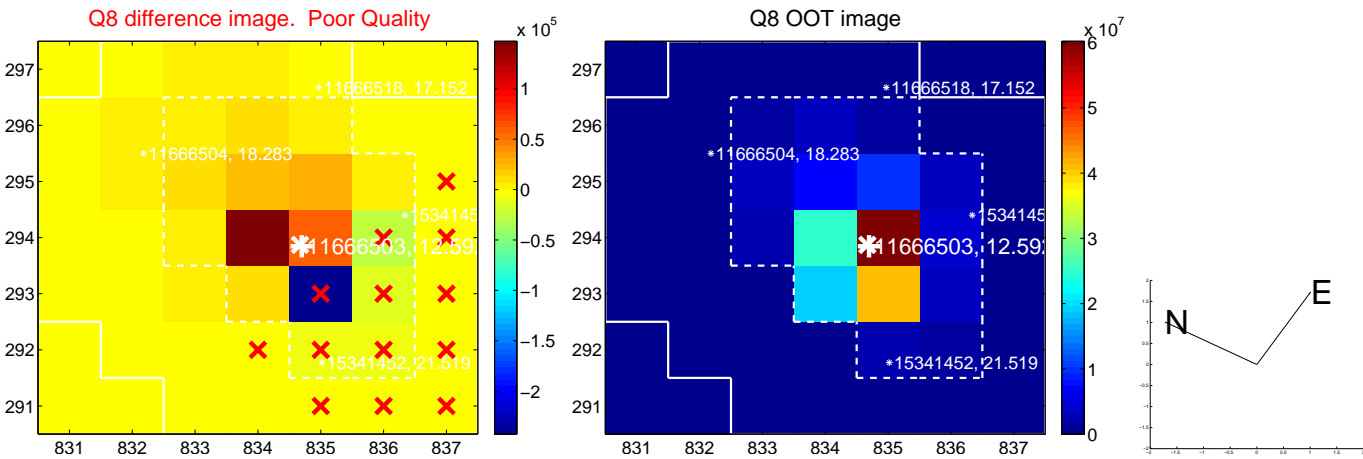
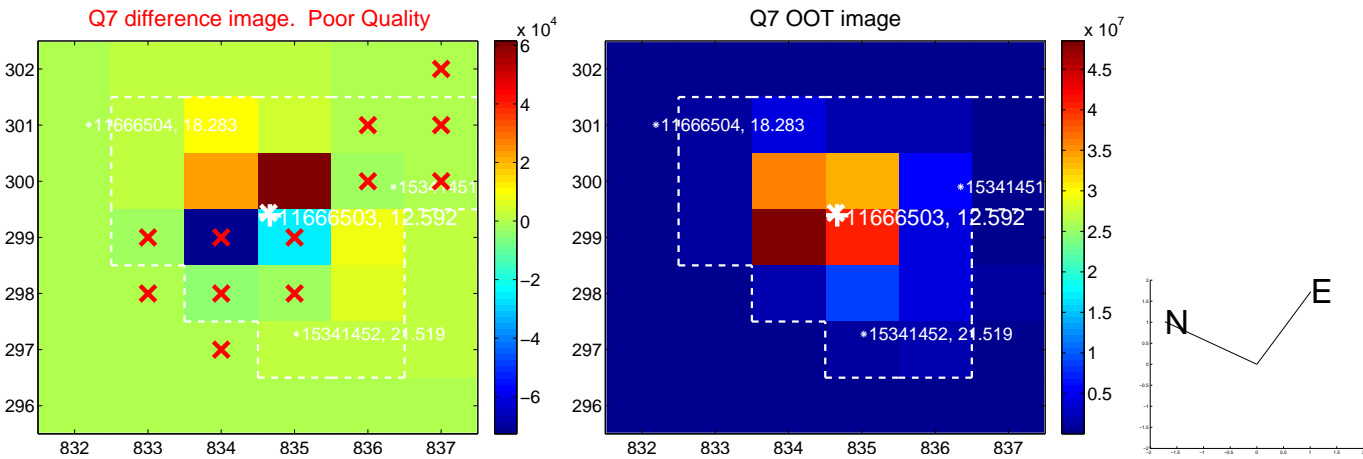
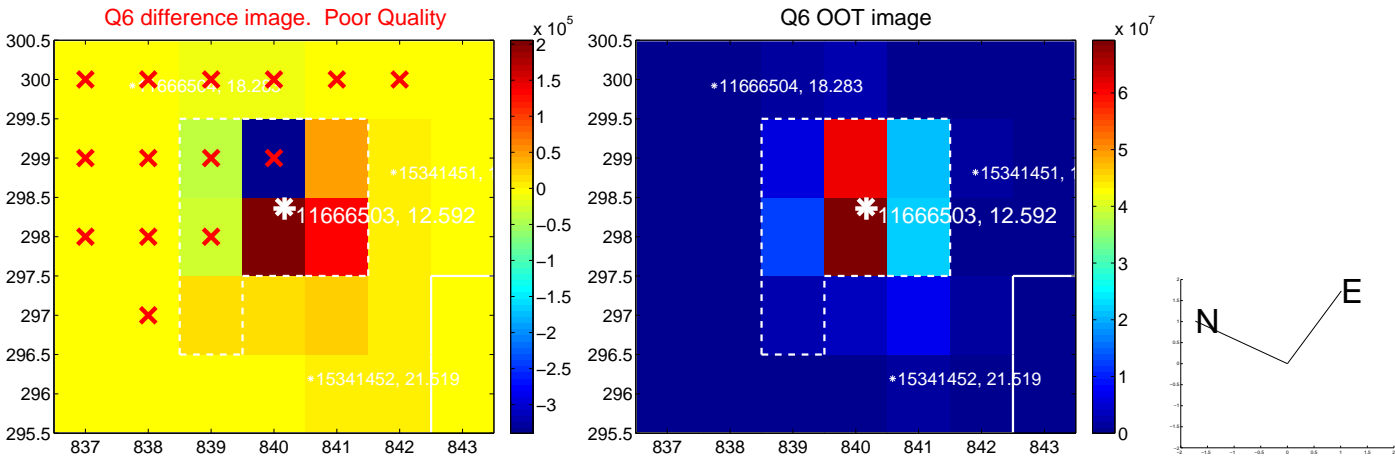
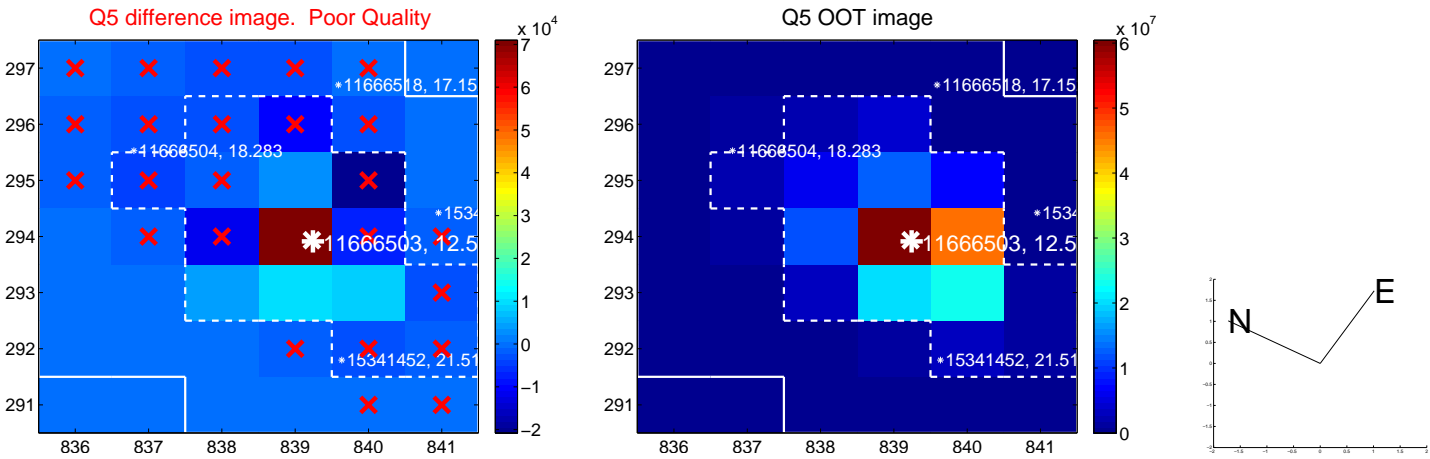


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

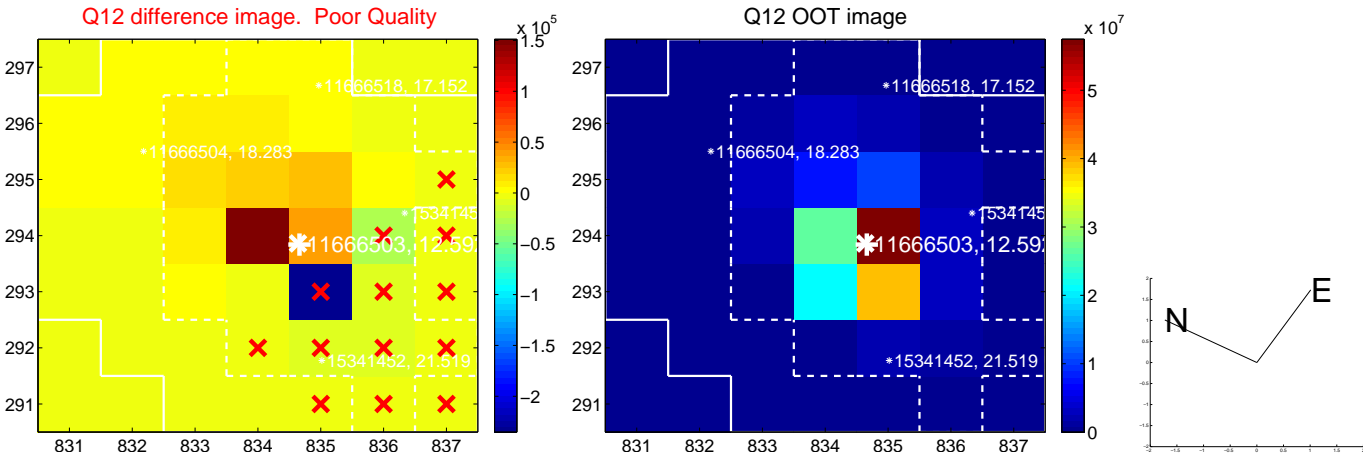
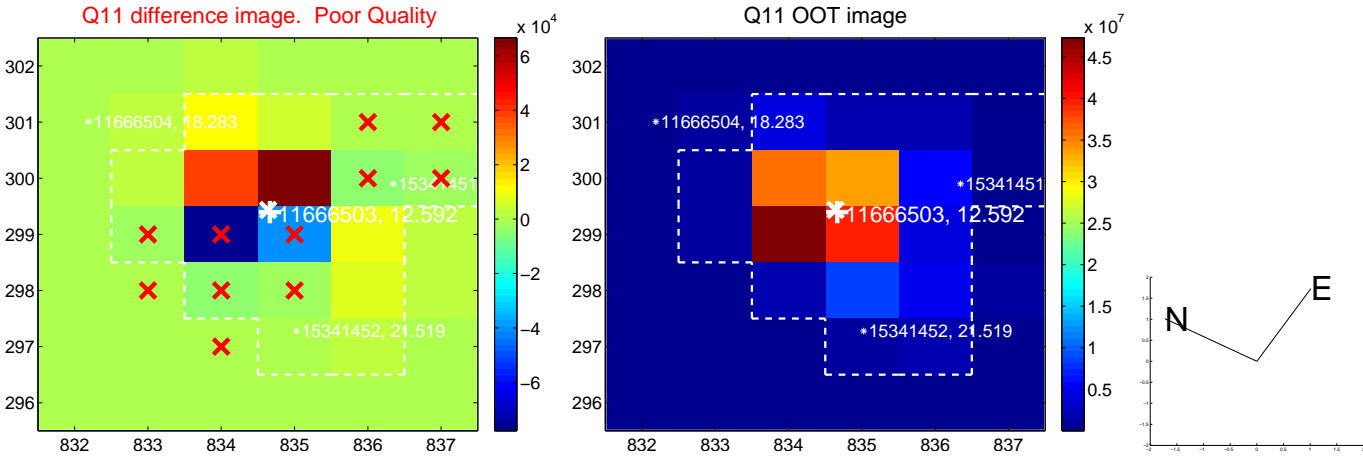
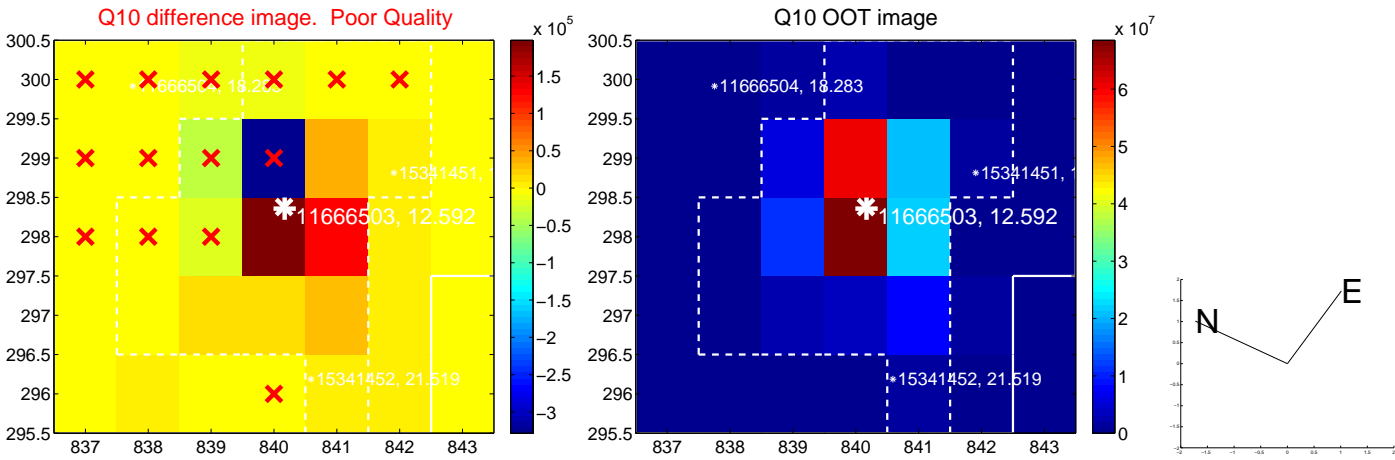
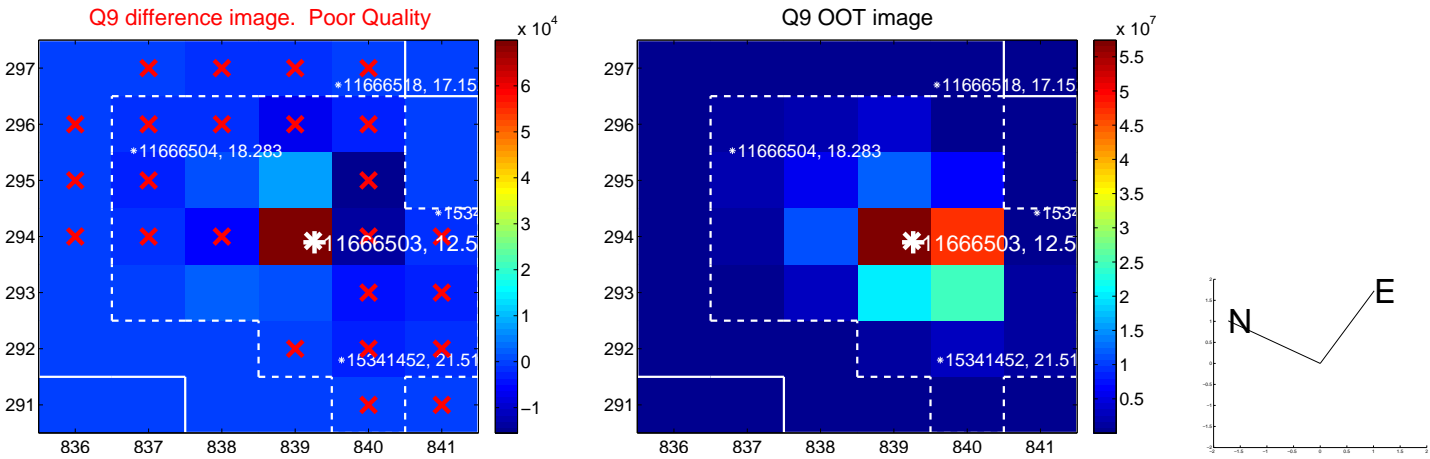
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



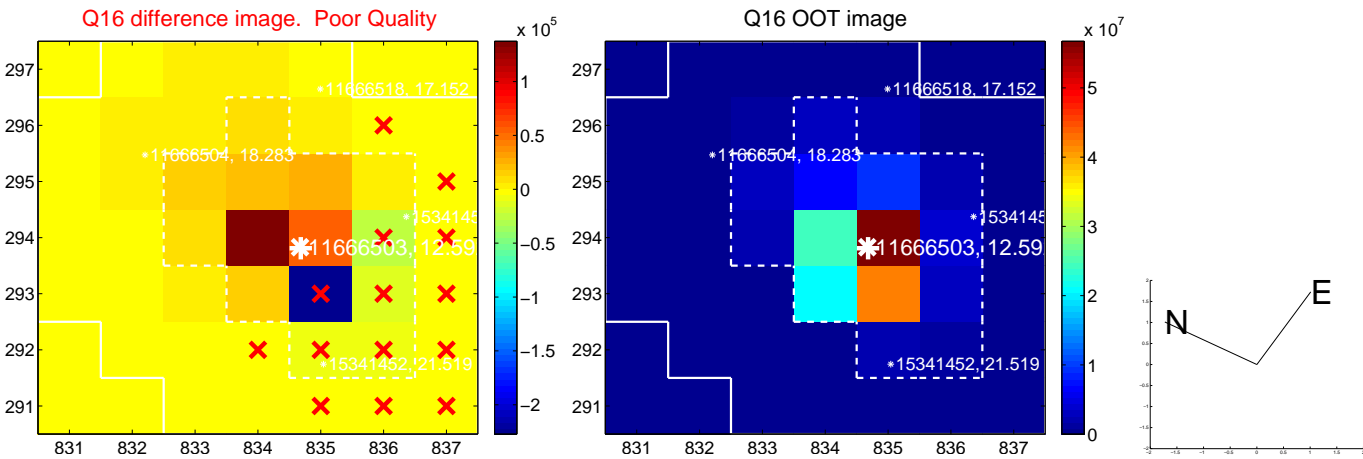
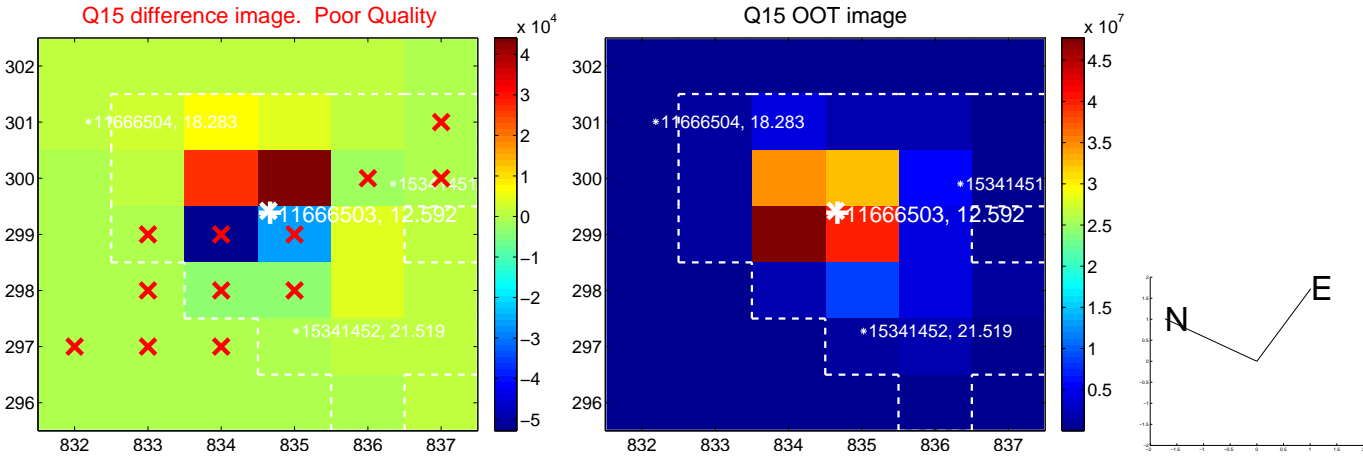
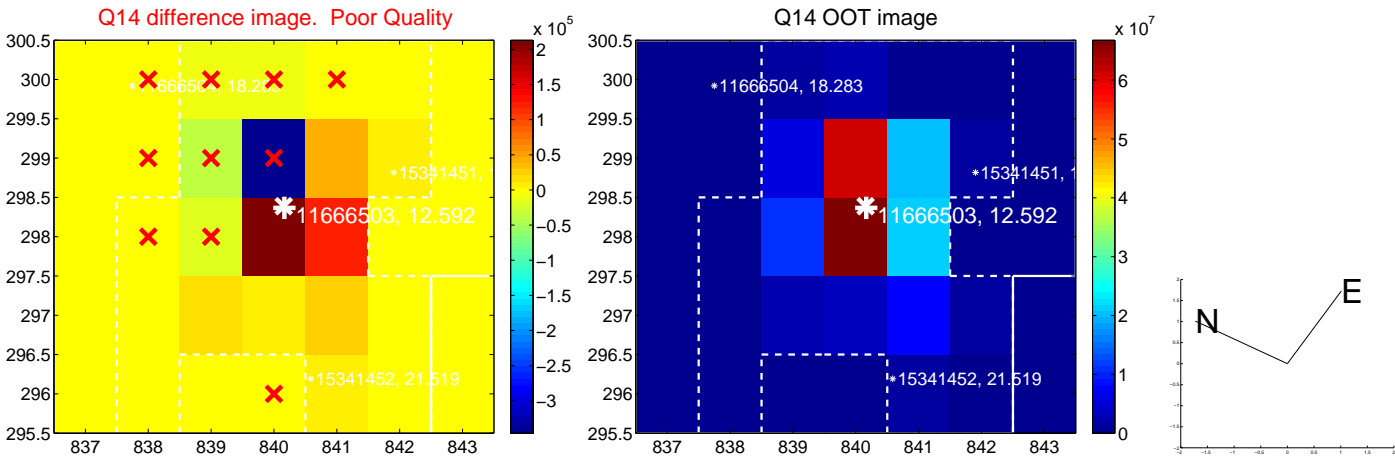
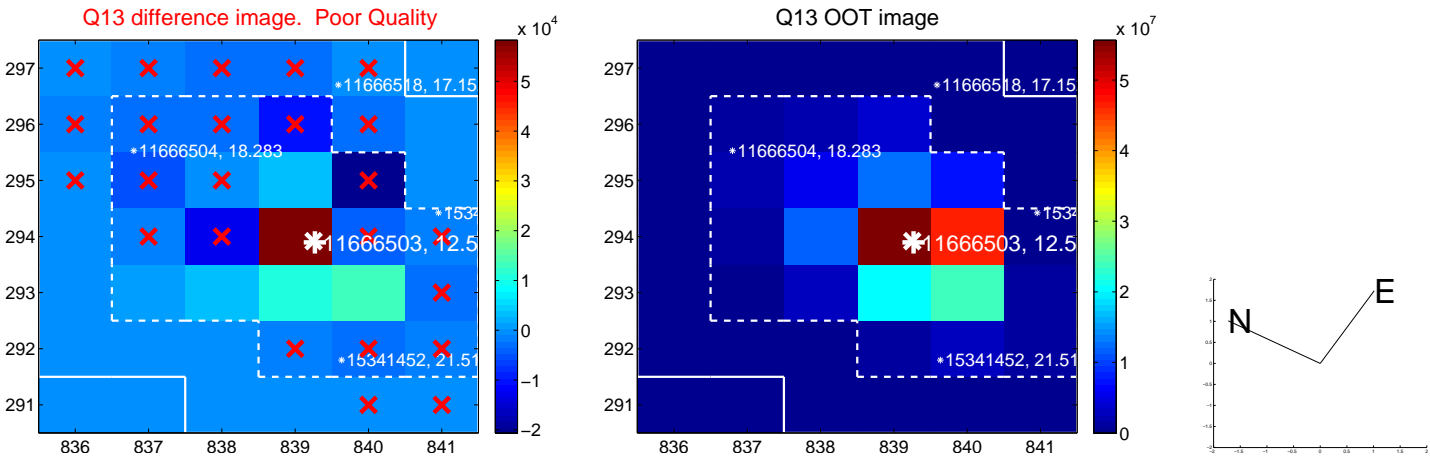
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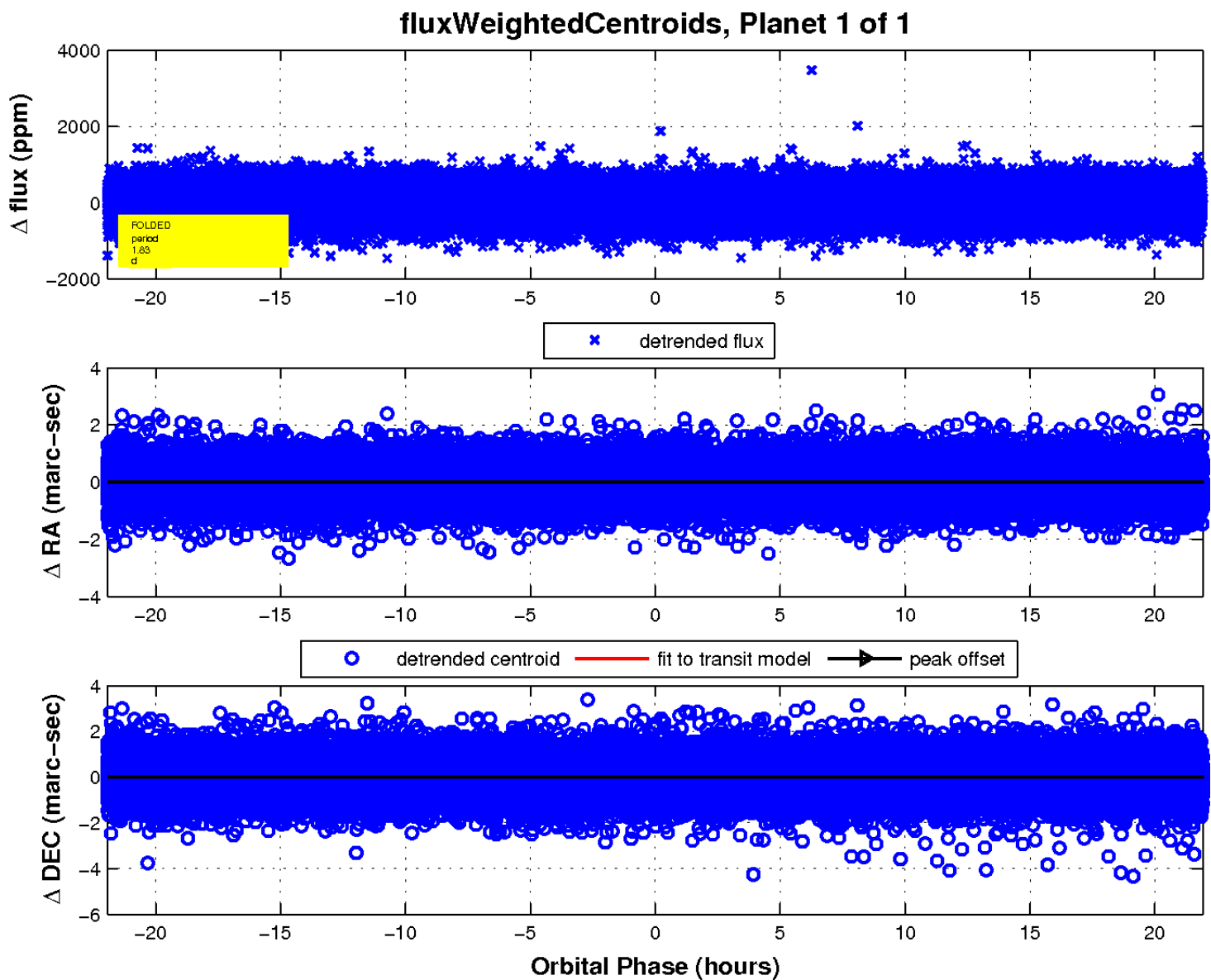
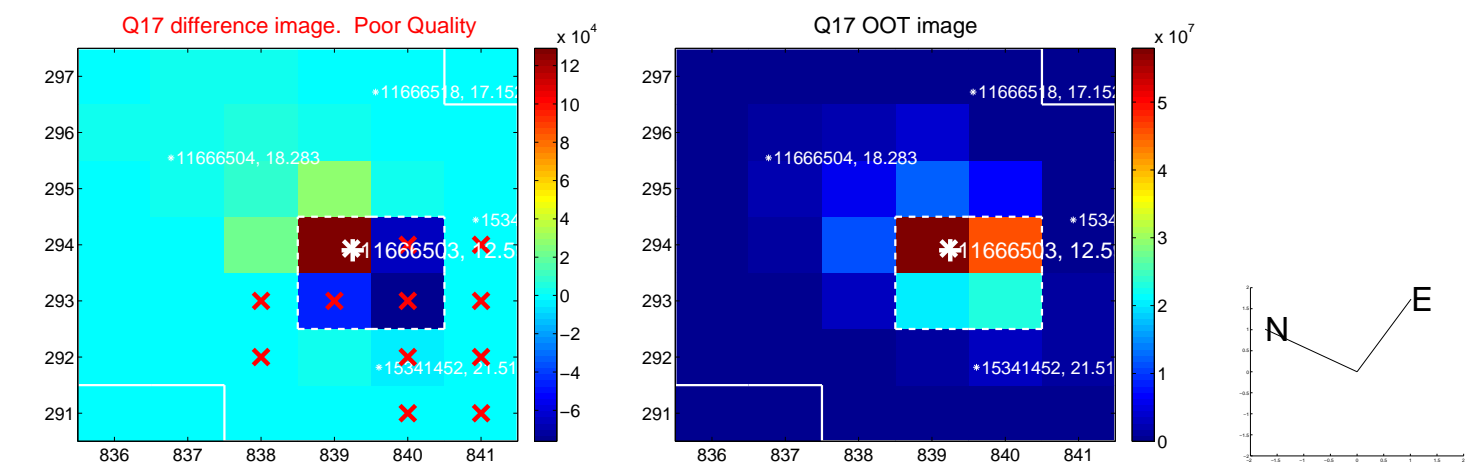
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UKIRT Image

Declination

