

KIC 010552697

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})
010552697-01	OBS	No	1.896375	131.928706	67.9	16.714	7.1	7.6	0.75	5777	0.61	703.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552697-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

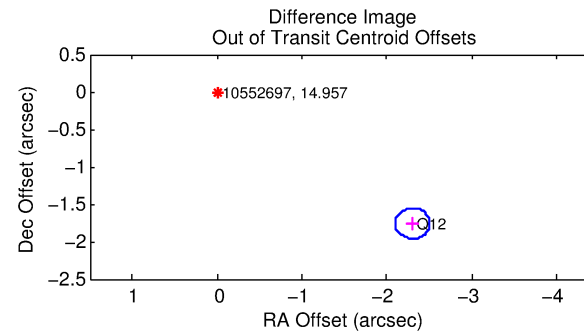
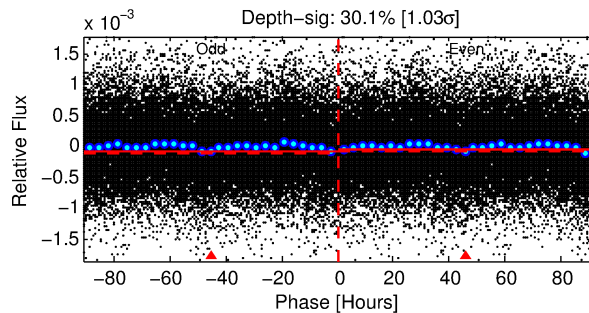
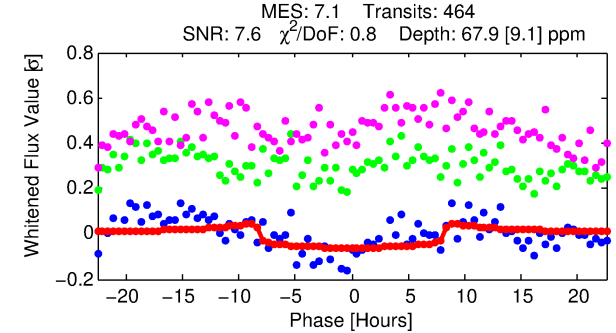
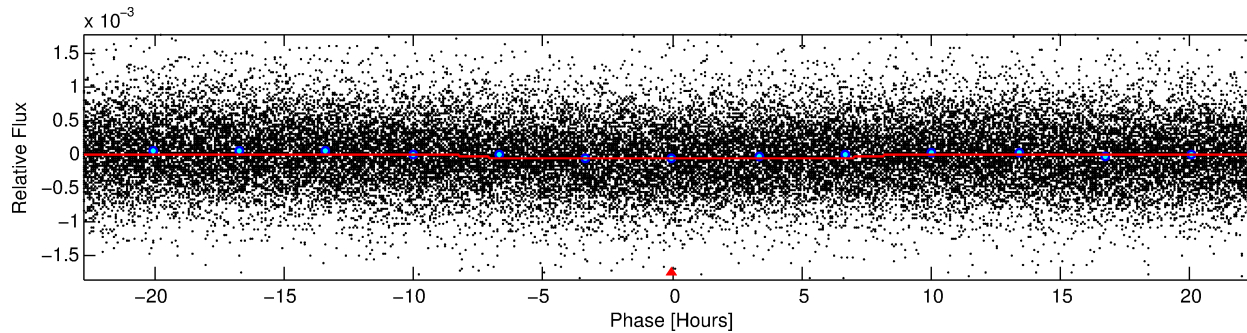
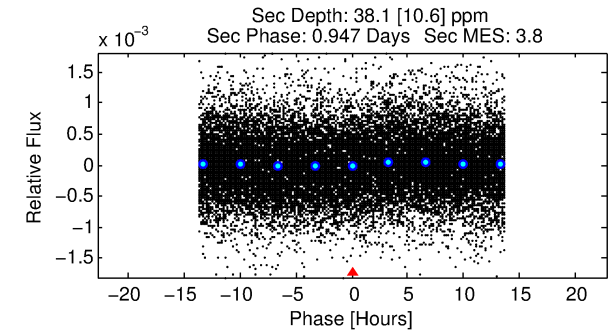
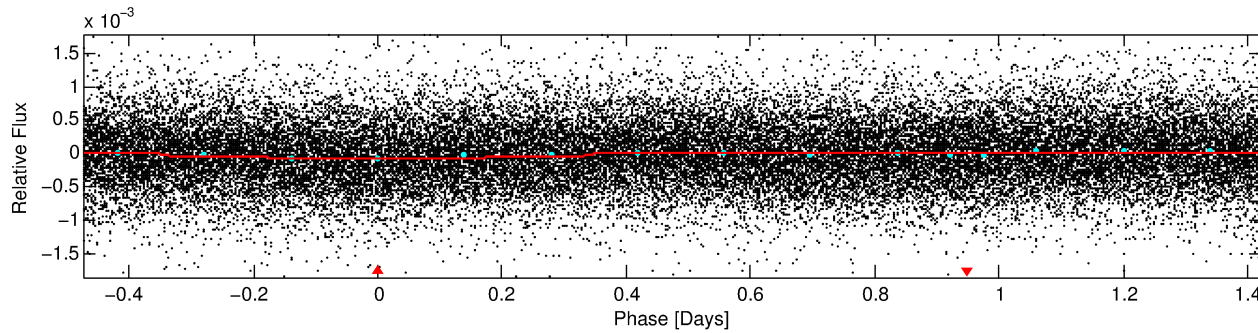
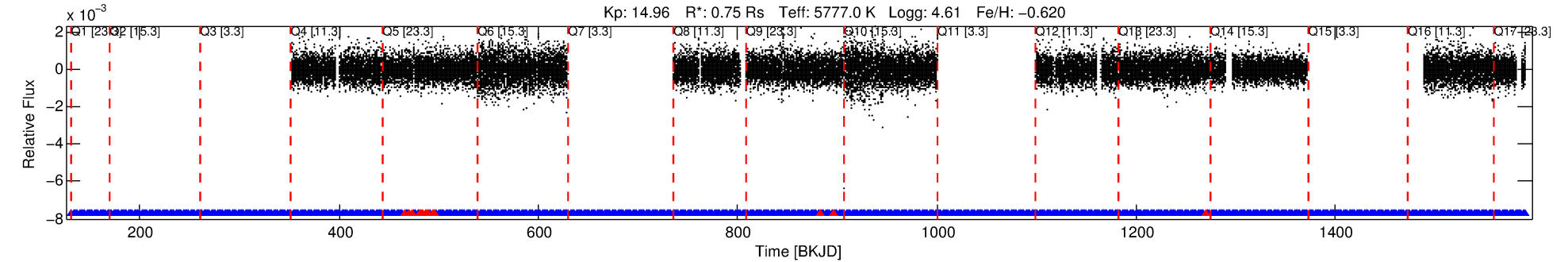
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010552697-01

No Significant Match Found

DV One-Page Summary

KIC: 10552697 Candidate: 1 of 1 Period: 1.896 d



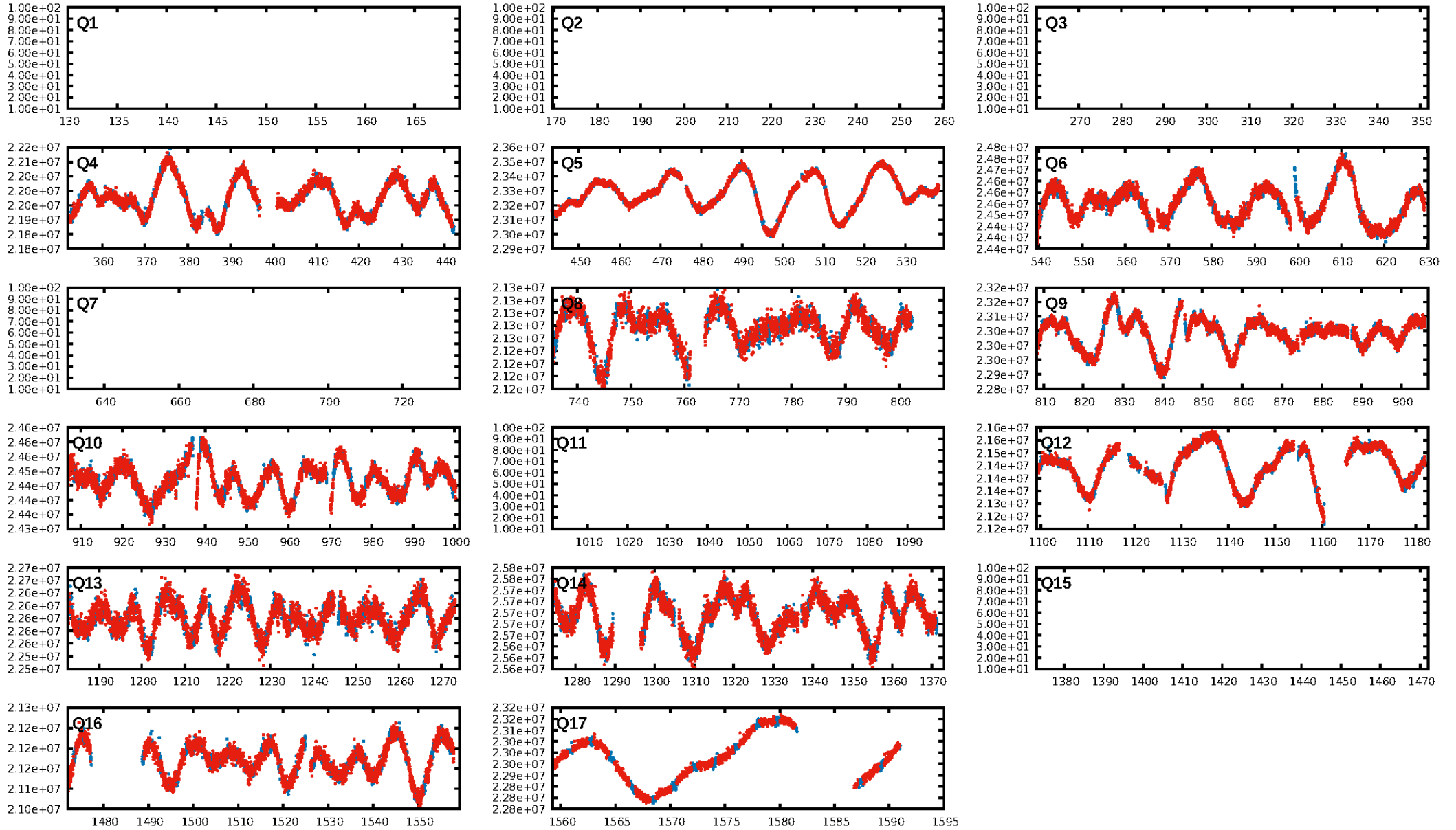
DV Fit Results:

Period = 1.89638 [0.00003] d
Epoch = 131.9287 [0.0103] BKJD
Rp/R* = 0.0075 [0.0076]
a/R* = 1.10 [0.95]
b = 0.01 [441.06]
Seff = 703.64 [215.50]
Teq = 1313 [101] K
Rp = 0.61 [0.64] Re
a = 0.0281 [0.0053] AU
Ag = 44.09 [90.81] [0.47σ]
Teffp = 5232 [2676] K [1.46σ]

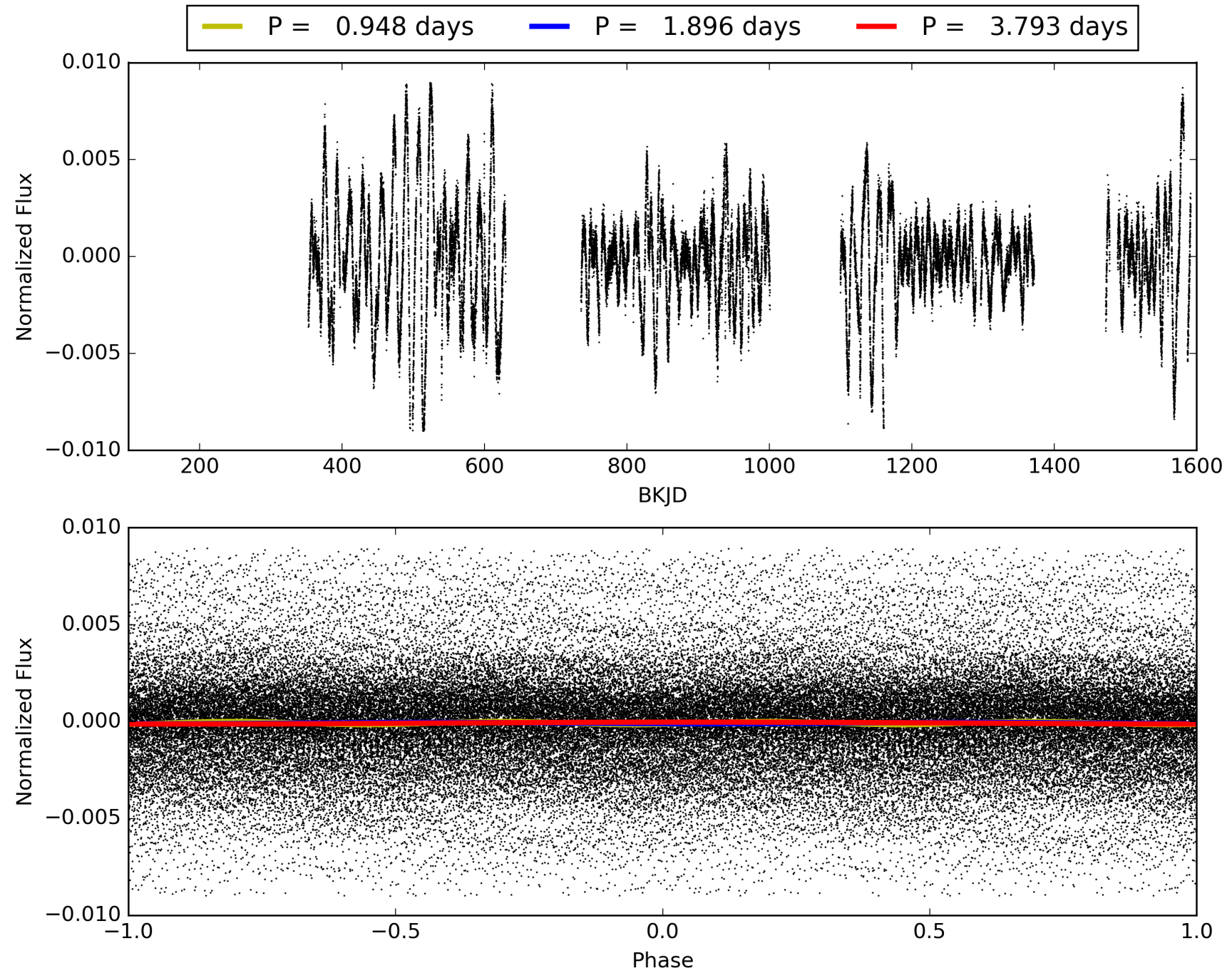
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [436/450]
GhostDiagnostic-chr: -2.479
Centroid-sig: 90.0%
Centroid-so: 4.900 arcsec [12.24σ]
OotOffset-rm: 2.901 arcsec [42.81σ]
KicOffset-rm: 6.550 arcsec [97.16σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [11/11]

TCE 010552697-01, PDC Light Curves

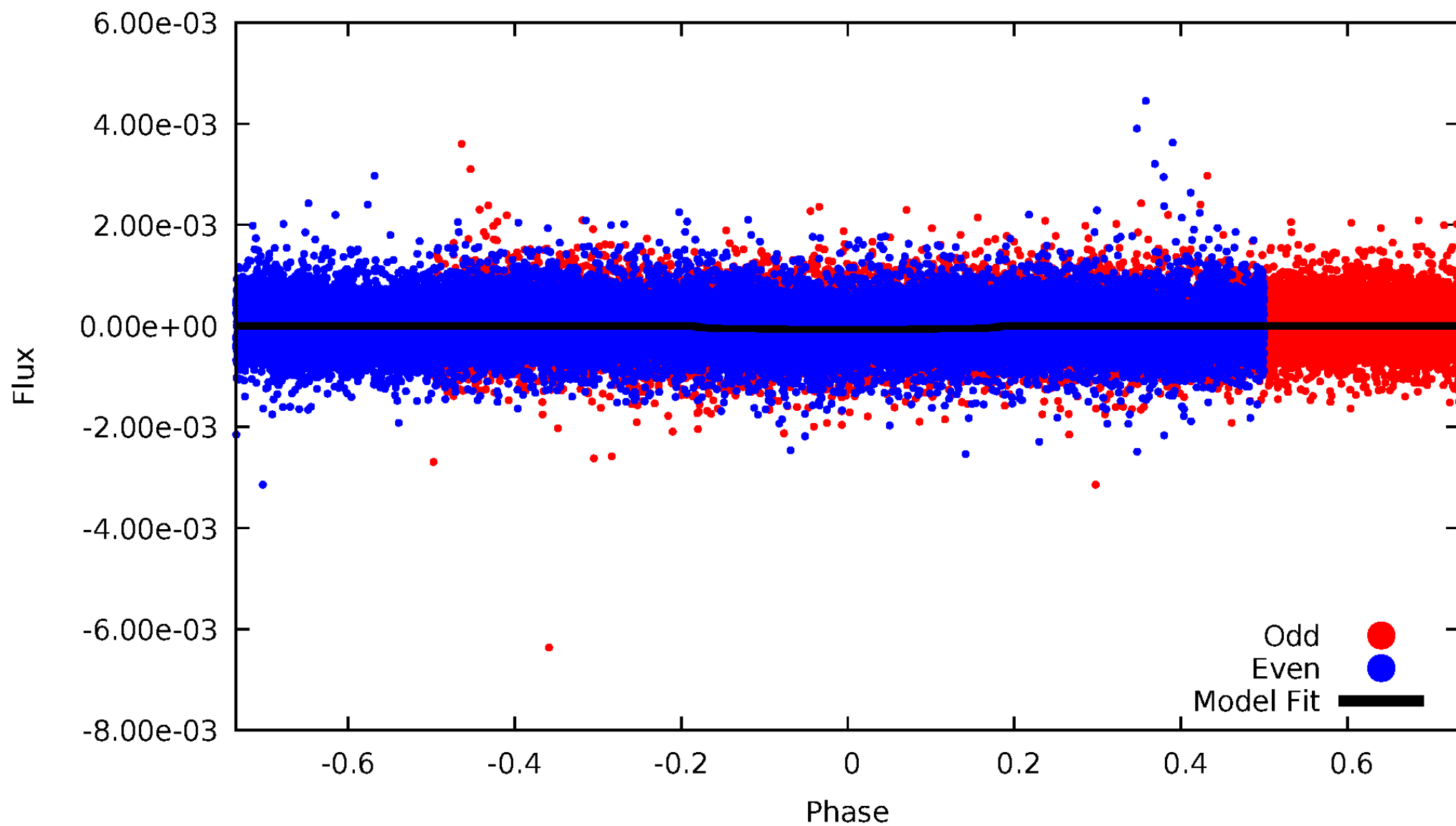


TCE 010552697-01



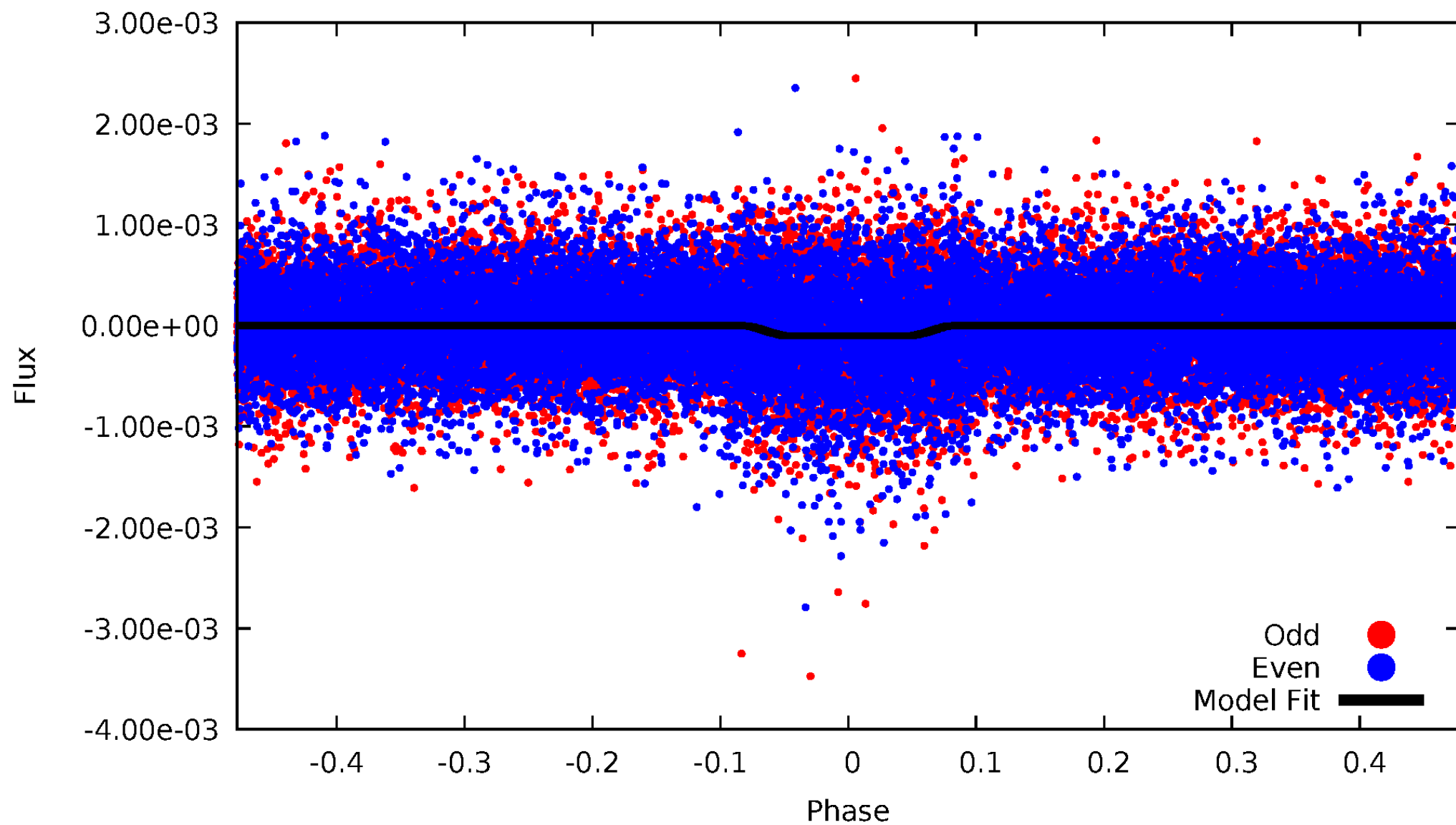
DV Odd/Even

TCE 010552697-01



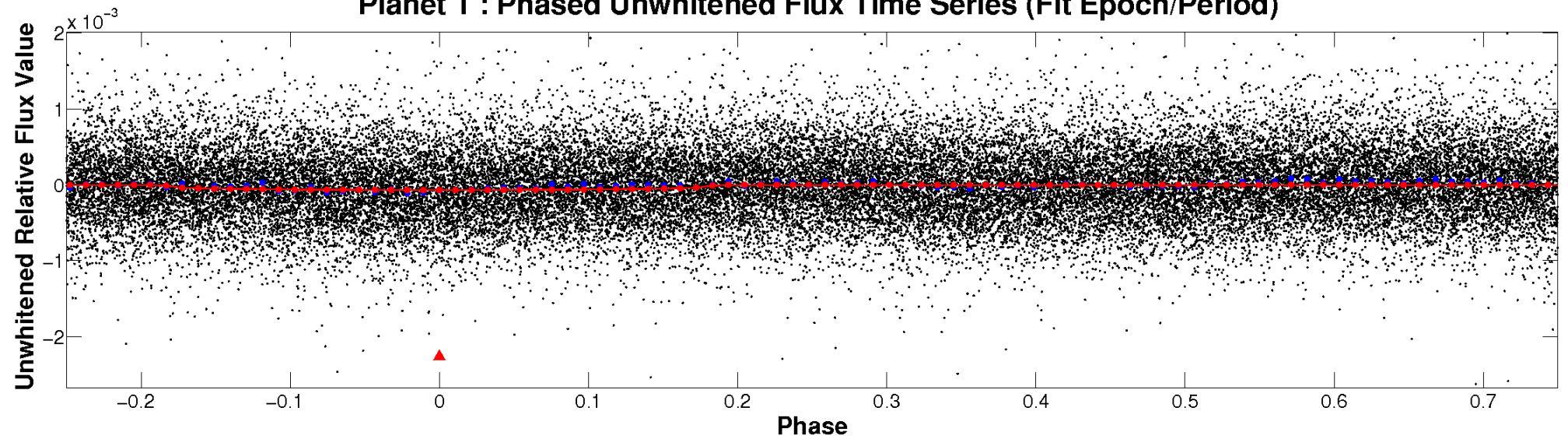
ALT Odd/Even

TCE 010552697-01

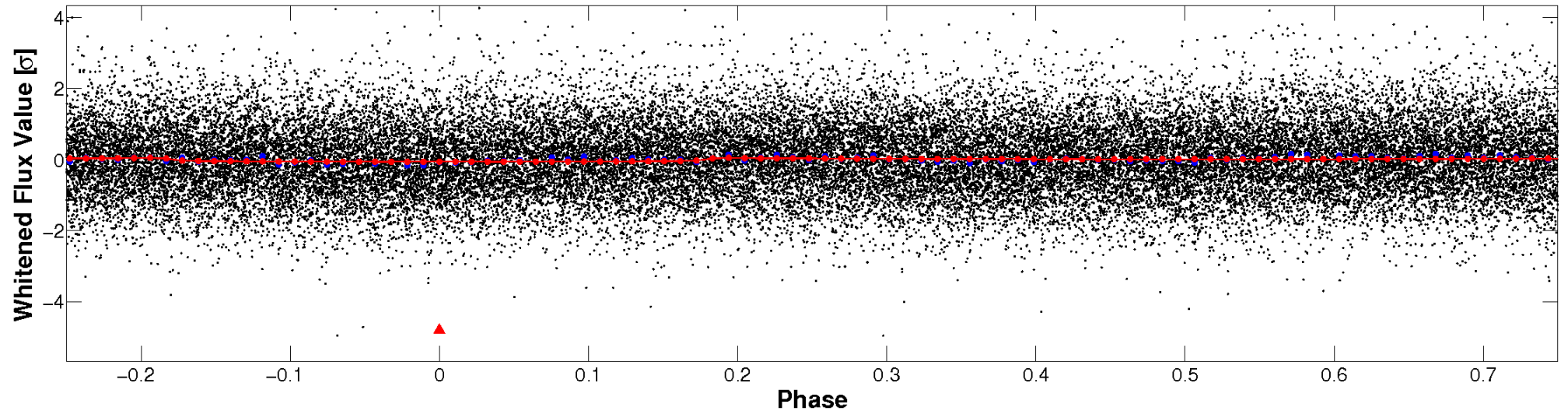


Non-Whitened Vs. Whitened Light Curve

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

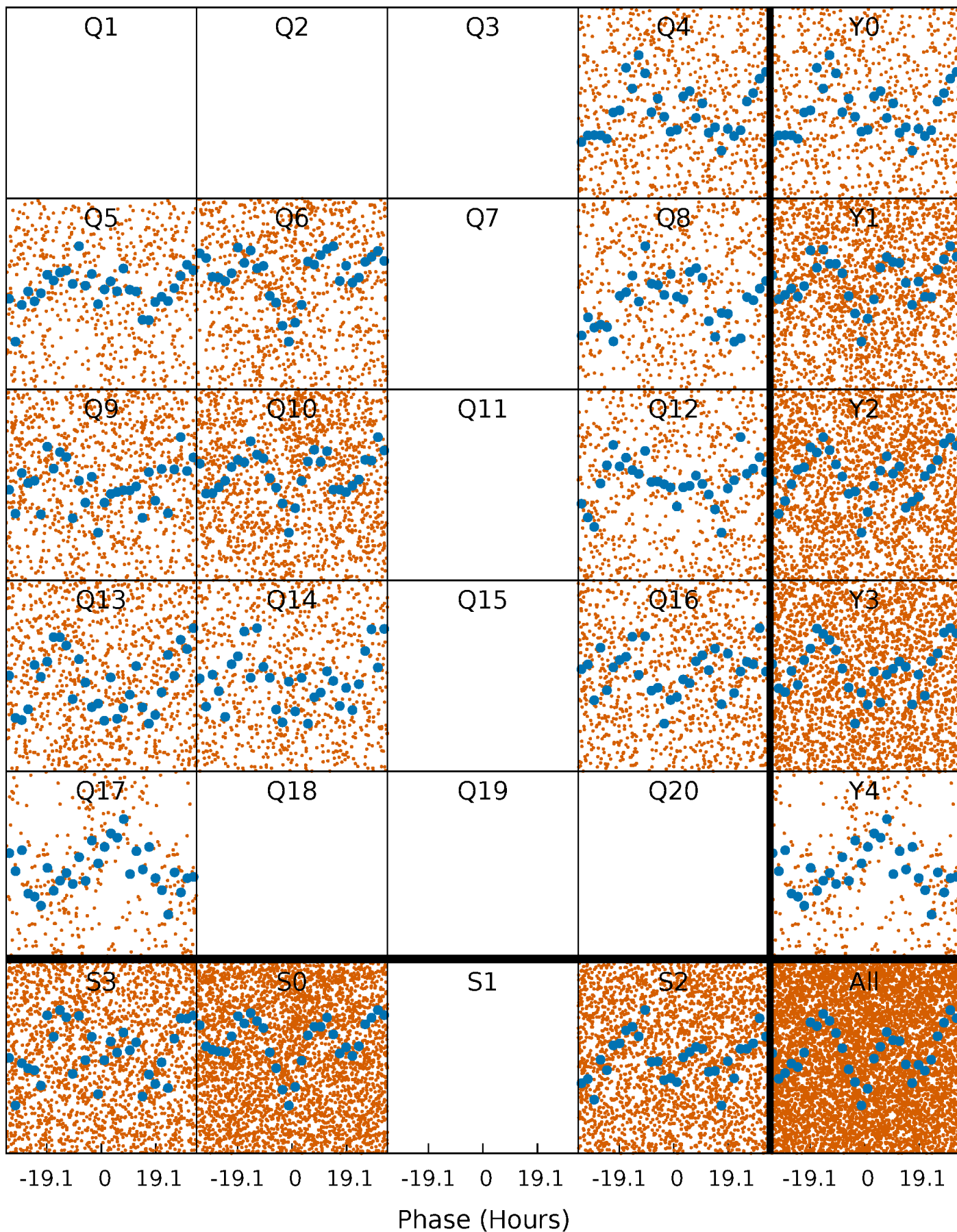


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



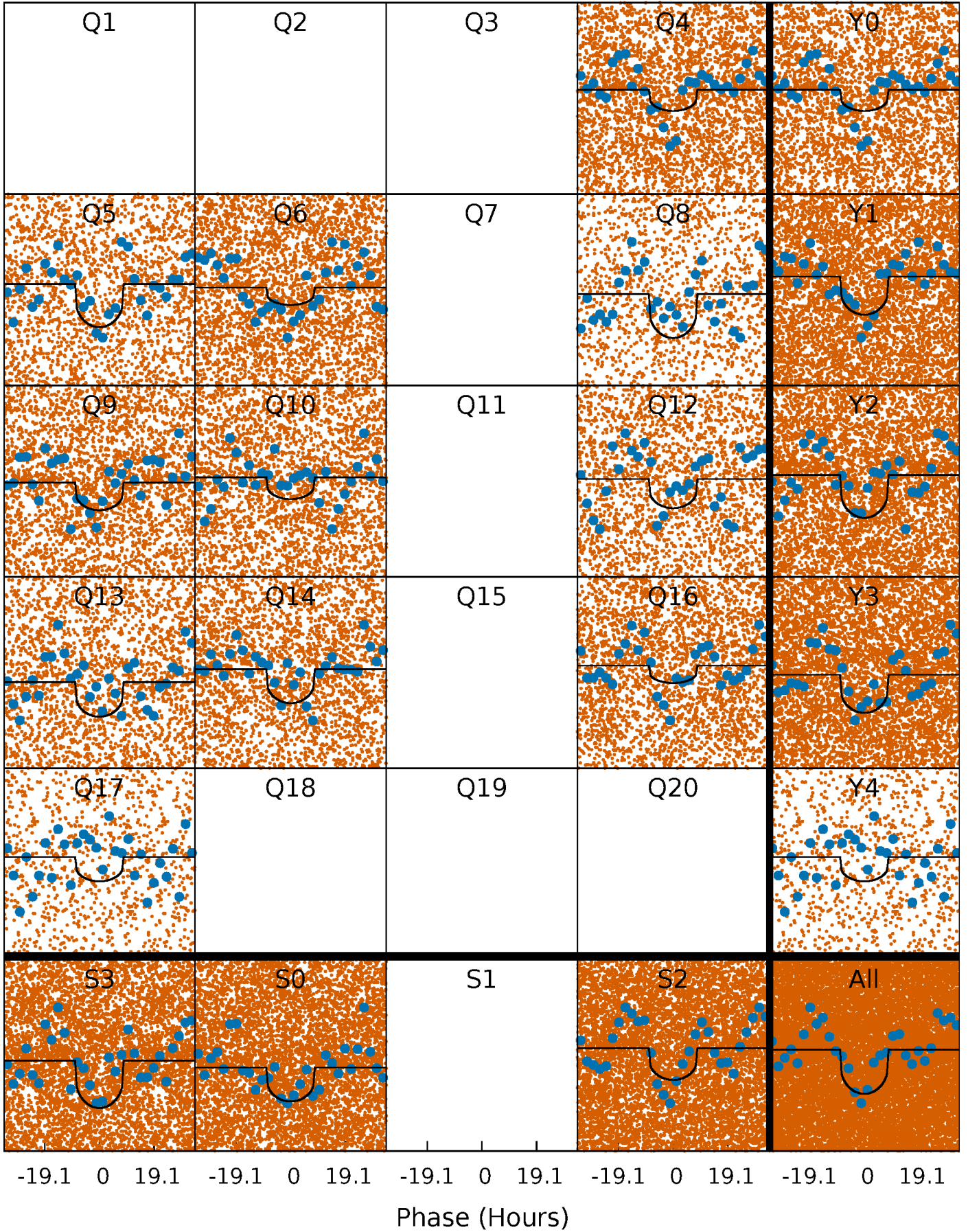
PDC Quarter-Phased Transit Curves

TCE 010552697-01 P= 1.896375 Days $T_0=131.928706$ (BKJD)



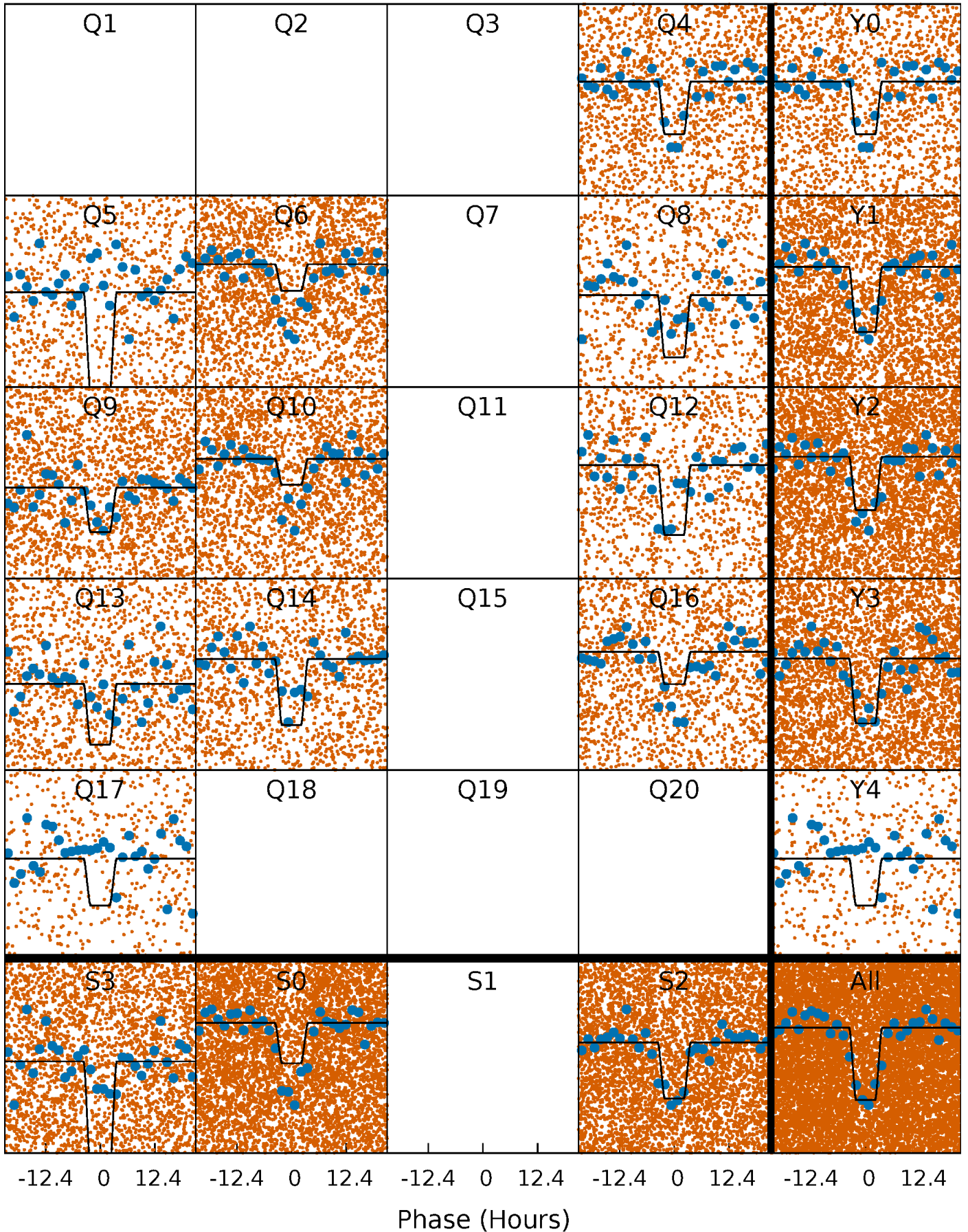
DV Quarter-Phased Transit Curves

TCE 010552697-01 P= 1.896375 Days $T_0=131.928706$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

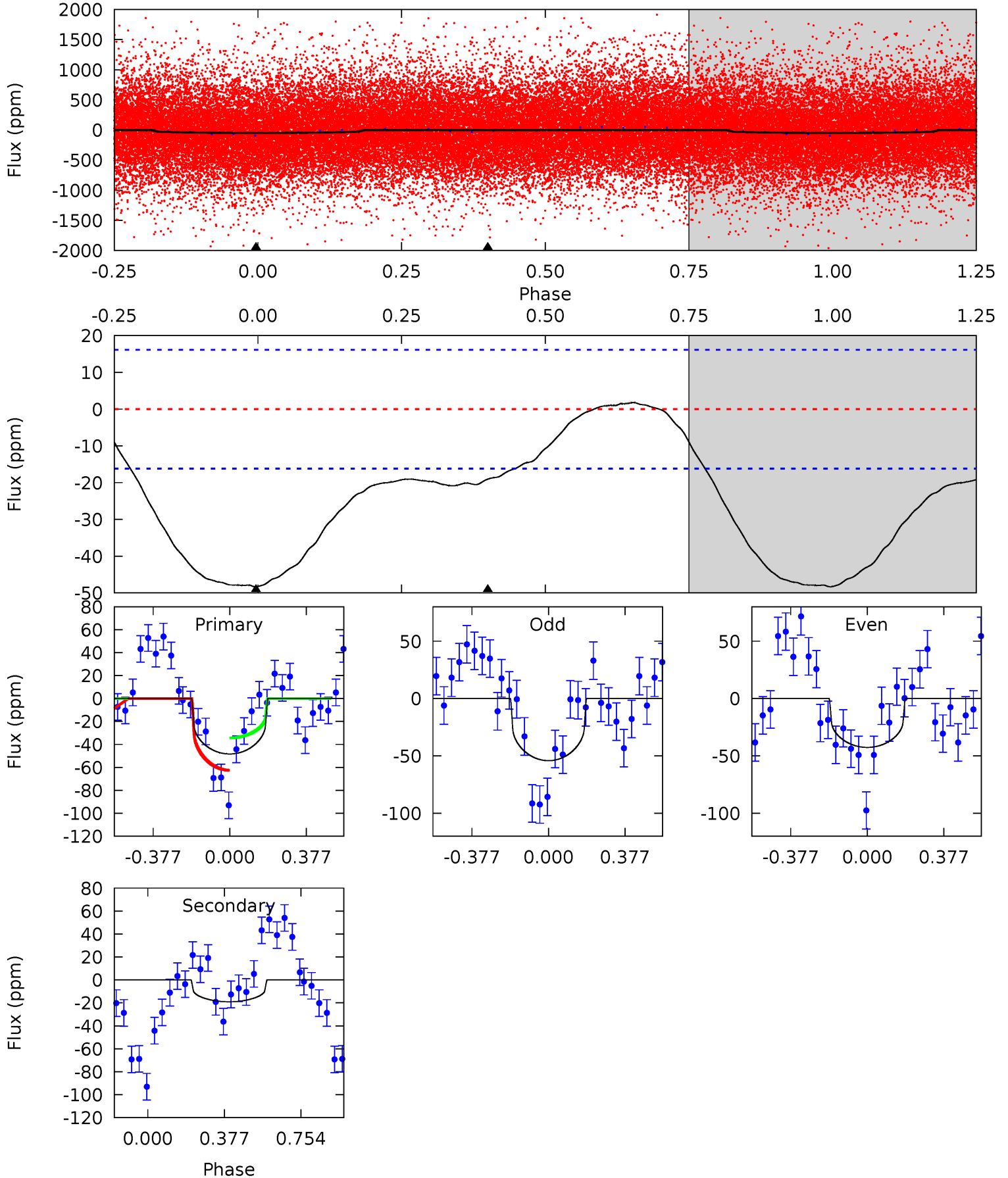
TCE 010552697-01 P= 1.896160 Days $T_0=131.953660$ (BKJD)



DV Model-Shift Uniqueness Test

010552697-01, P = 1.896375 Days, E = 131.928706 Days

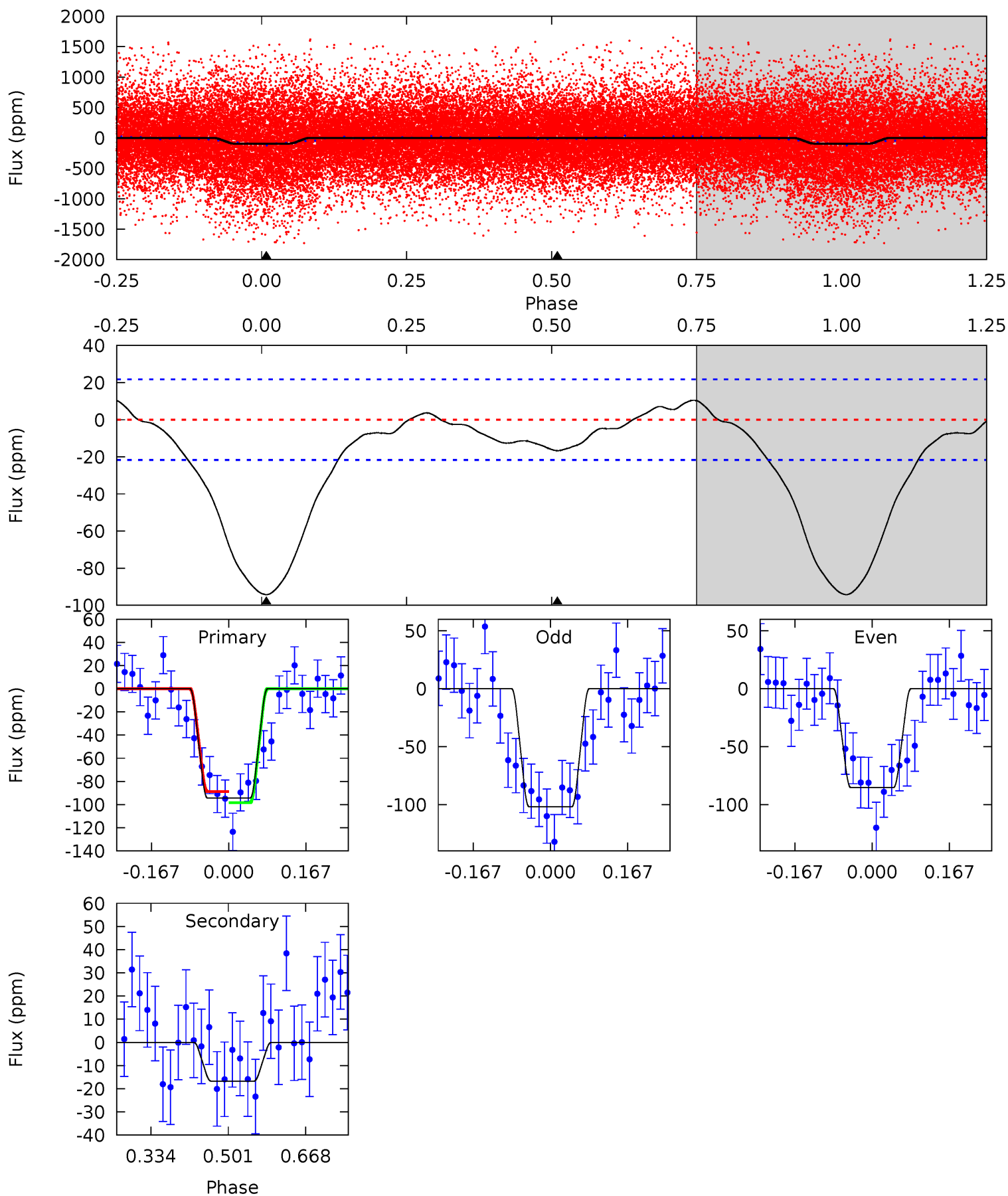
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	5.04	0	0	4.28	0.88	0.79	12.8	12.8	5.04	5.04	1.54	1.00	0.04	3.75



Alt Model-Shift Uniqueness Test

010552697-01, P = 1.896160 Days, E = 131.953660 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	3.43	0	0	4.46	1.38	1.15	19.3	19.3	3.43	3.43	1.69	1.07	0.10	0.98



Stellar Parameters For KIC 010552697

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5777^{+192}_{-192}	$4.608^{+0.038}_{-0.152}$	$-0.620^{+0.300}_{-0.300}$	$0.747^{+0.165}_{-0.059}$	$0.832^{+0.077}_{-0.094}$	$2.806^{+0.434}_{-1.172}$
	+3%/-3%	+1%/-3%	+48%/-48%	+22%/-8%	+9%/-11%	+15%/-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 010552697-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 4	$0.77^{+0.58}_{-0.50}$	1868^{+104}_{-77}	4201^{+2381}_{-775}	13^{+87}_{-9}
Alt.	-17 ± 5	$0.91^{+0.60}_{-0.53}$	1869^{+112}_{-83}	3862^{+1663}_{-647}	$8.152^{+41.309}_{-5.258}$

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 $A_{obs} \gg 1.0$

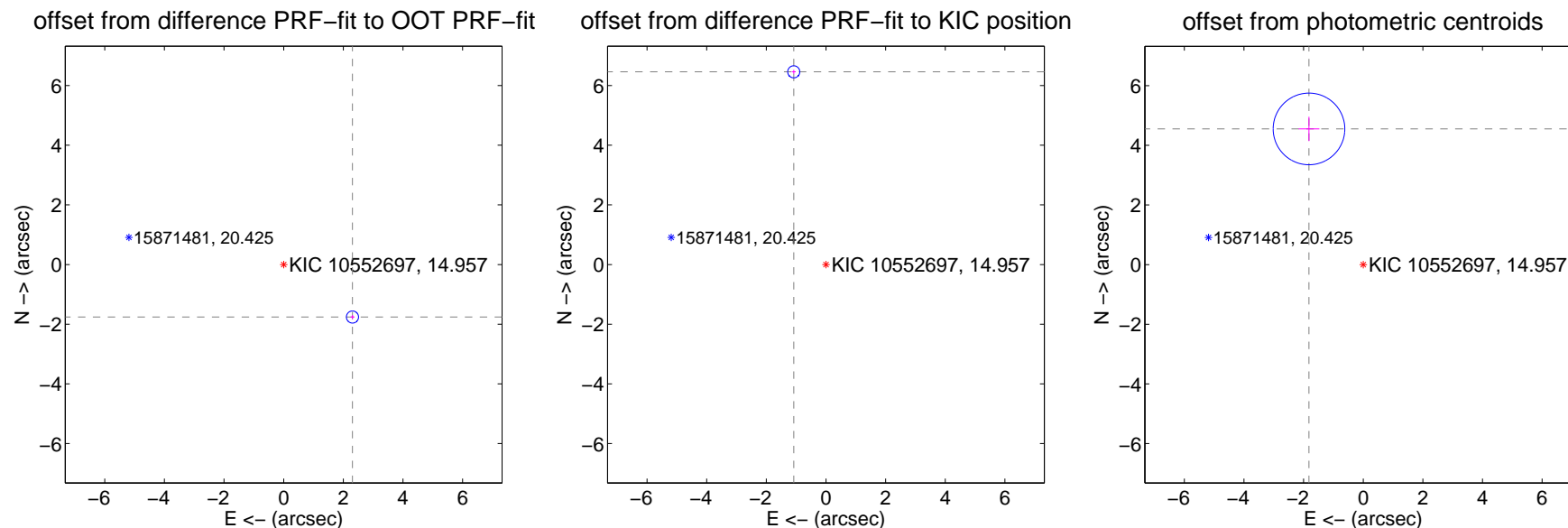
DV Centroid Data

Supplemental centroid analysis for 010552697-01. Kepler magnitude: 14.96. Transit SNR 7.60

There are 0 quarters with good PRF difference image offsets

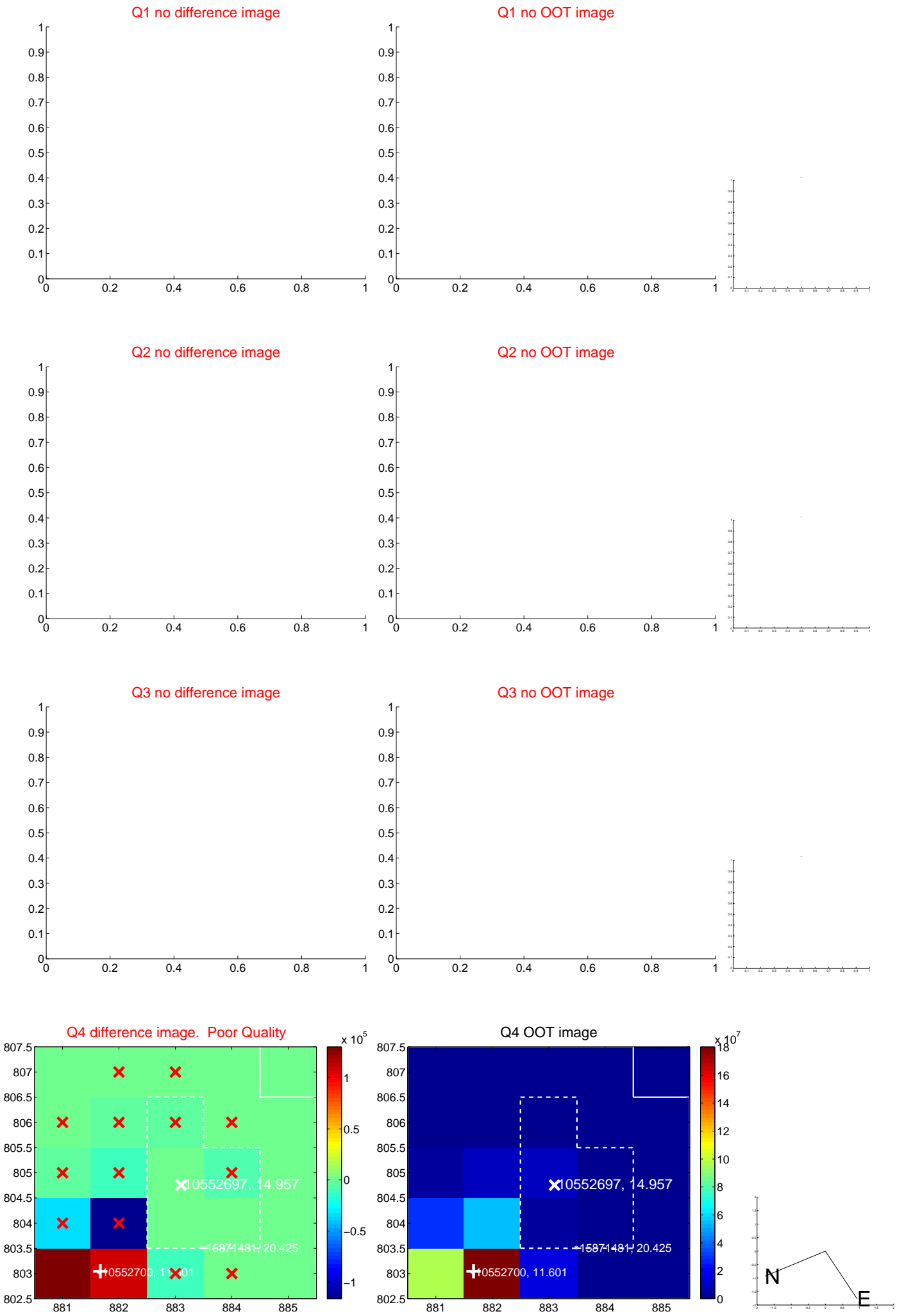
The OOT PRF centroid is offset from the target star catalog position by about 8.89 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.901 ± 0.068	42.81	-2.306 ± 0.068	-1.759 ± 0.067
PRF-fit source offset from KIC position	6.550 ± 0.067	97.16	1.080 ± 0.068	6.460 ± 0.067
photometric centroid source offset	4.90 ± 0.40	12.24	1.82 ± 0.35	4.55 ± 0.41

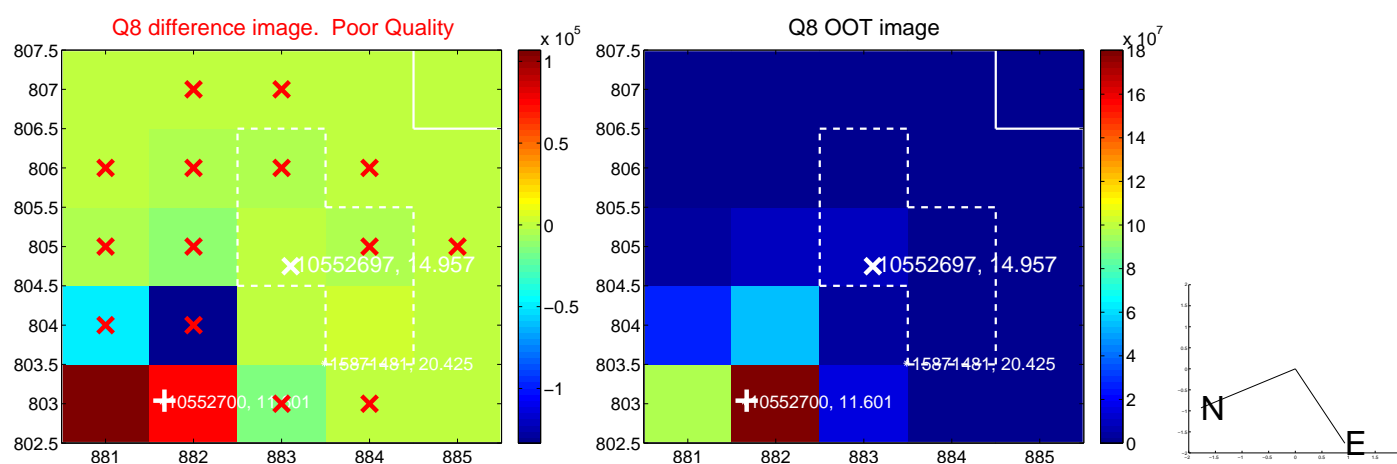
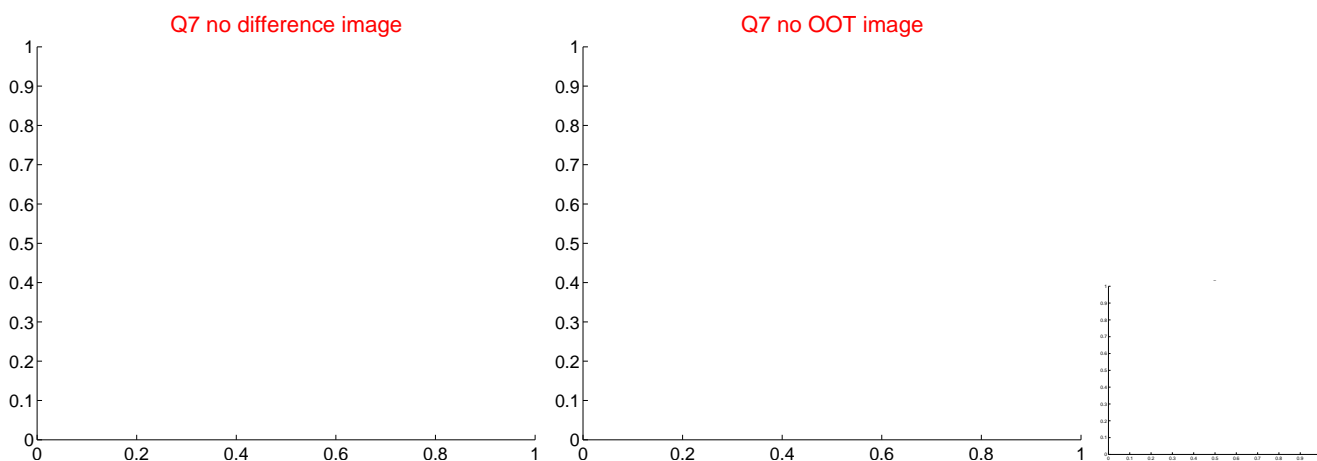
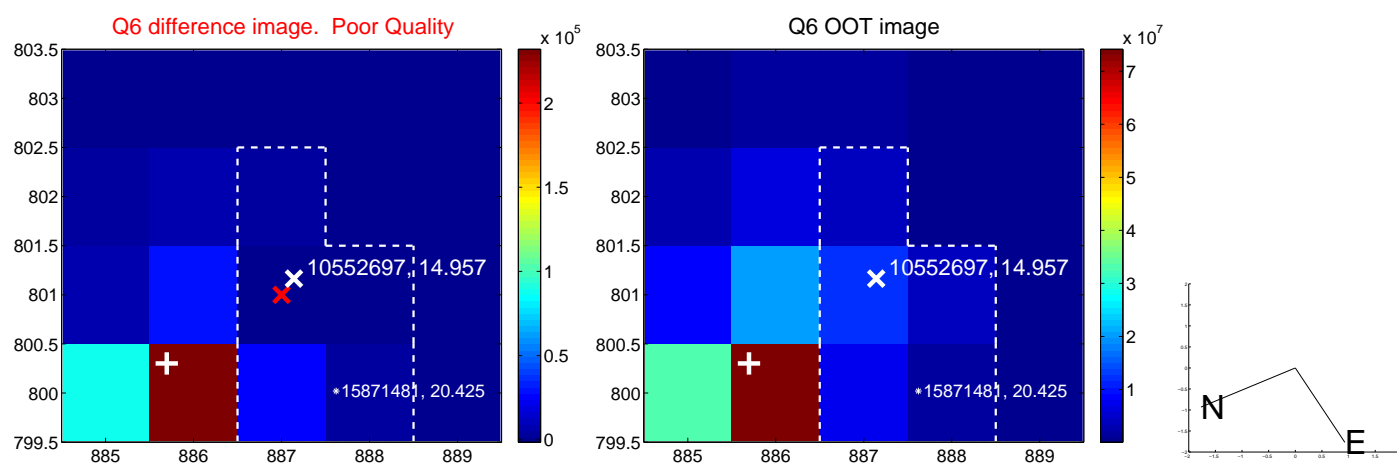
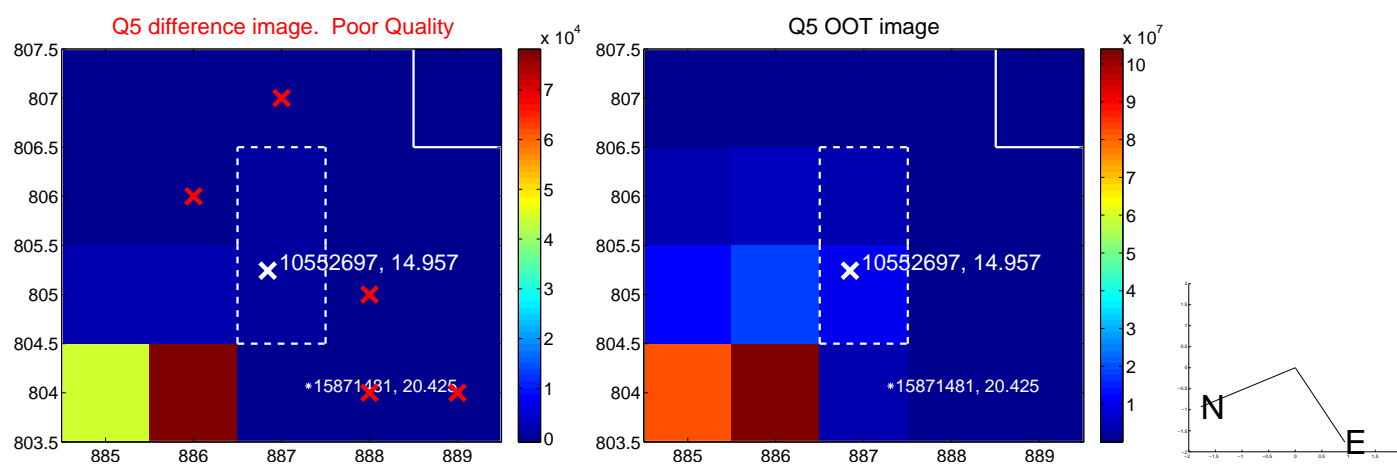


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

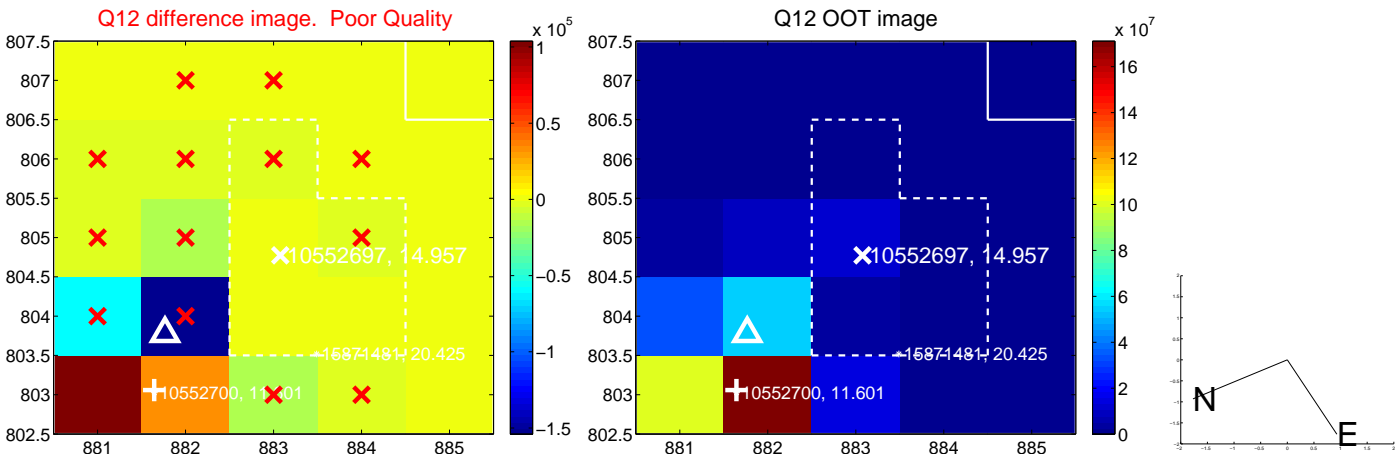
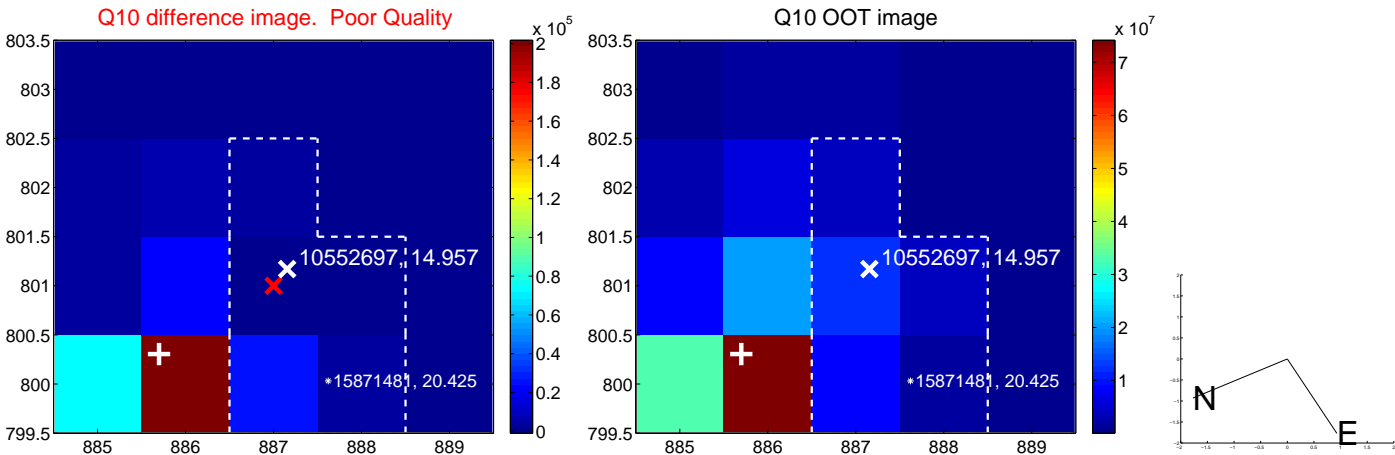
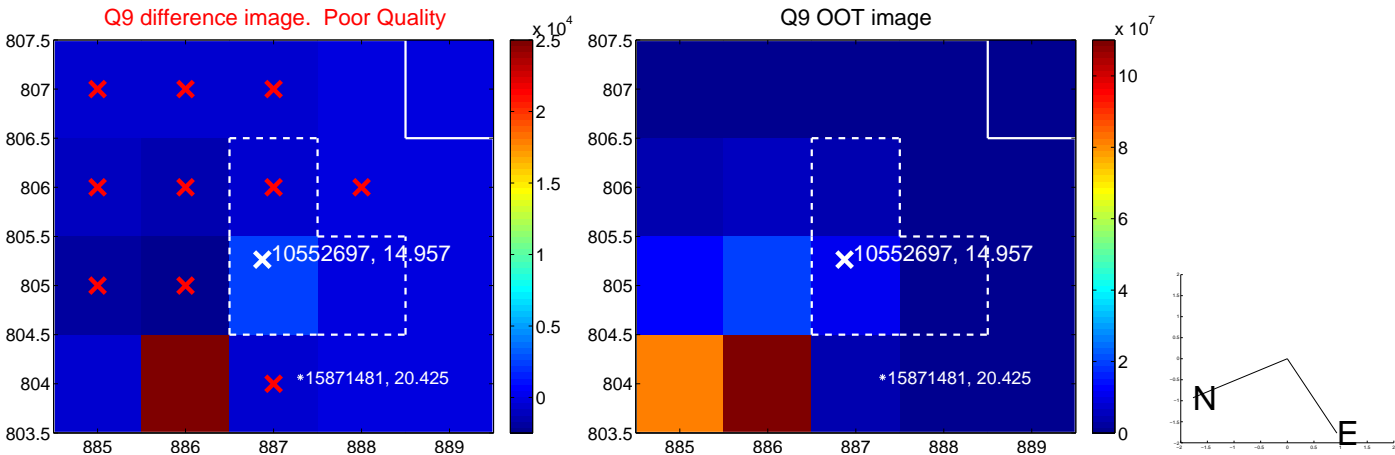
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



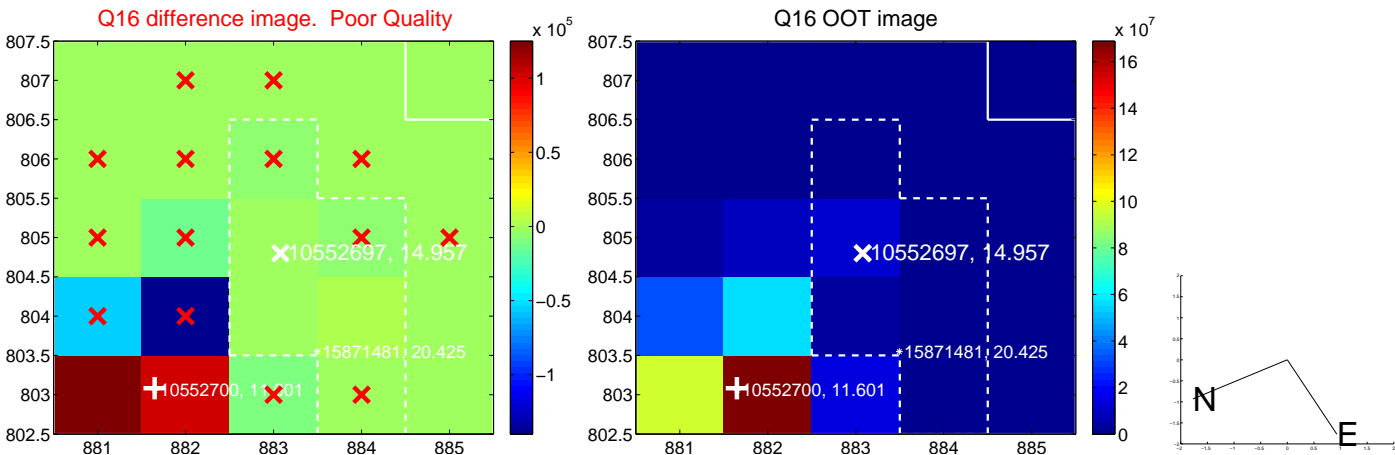
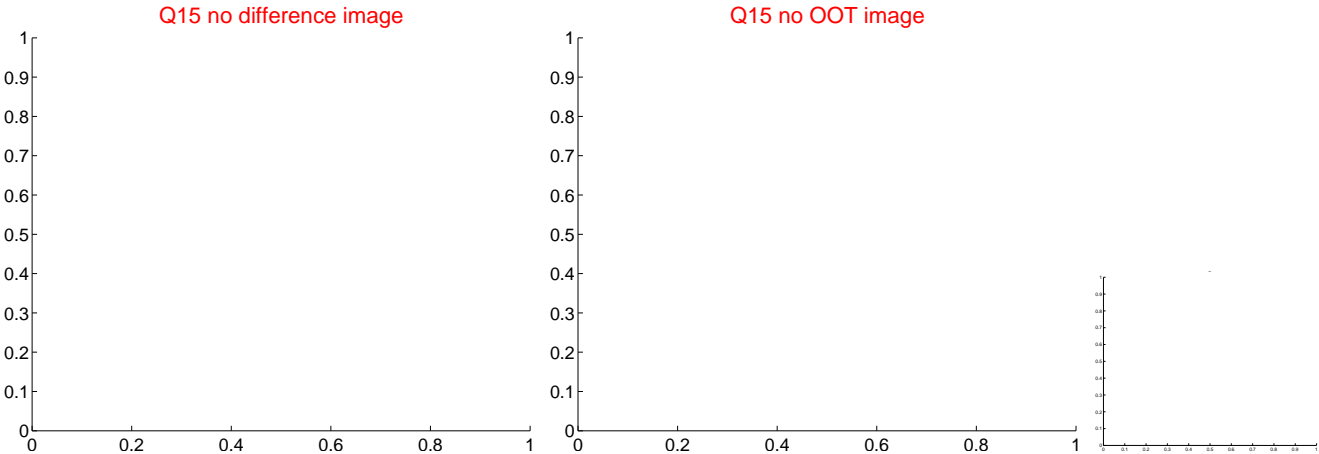
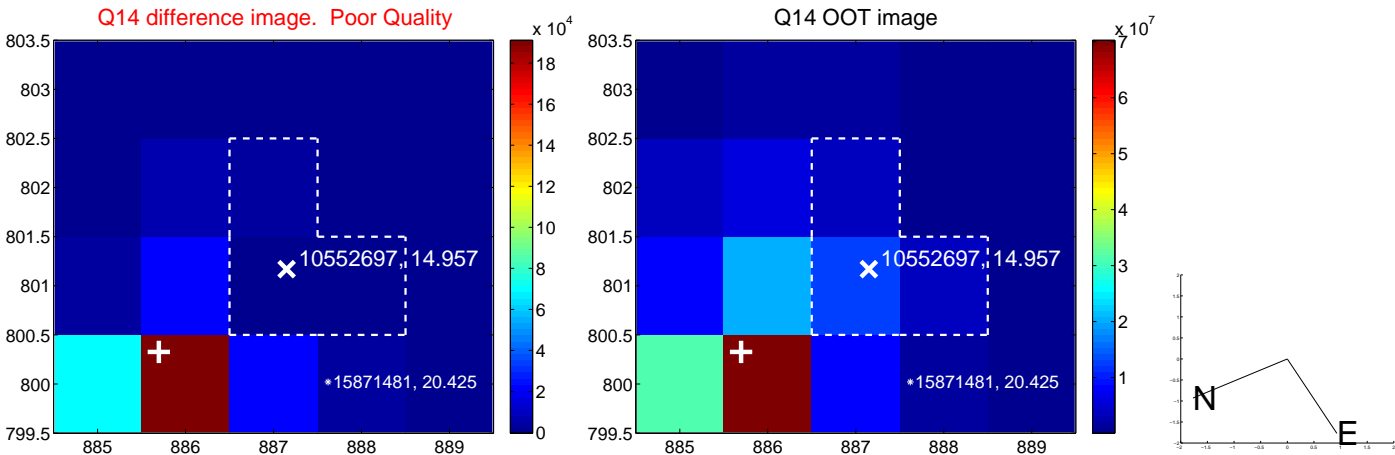
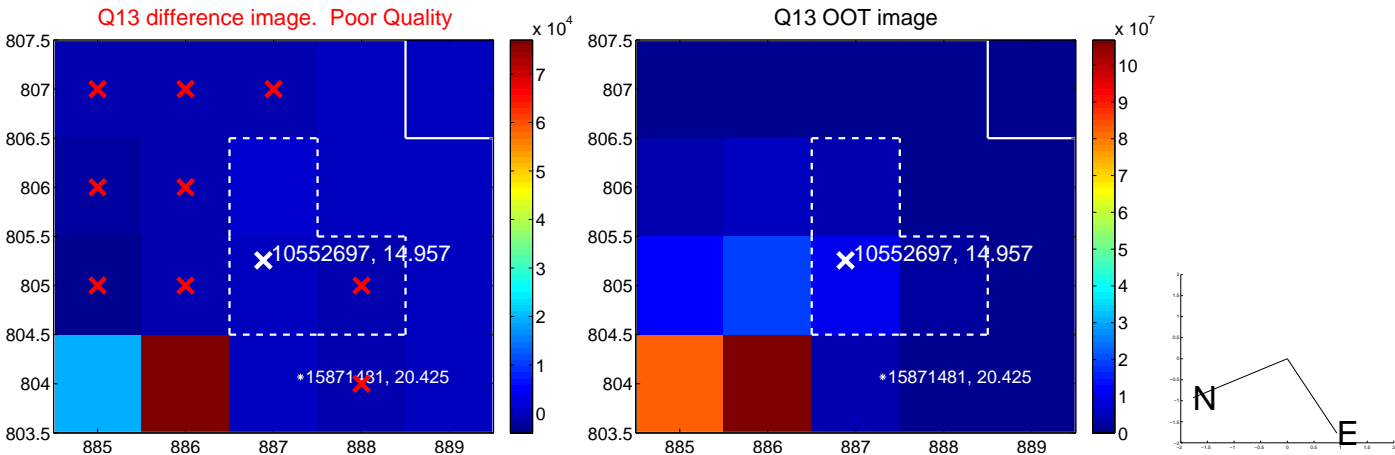
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



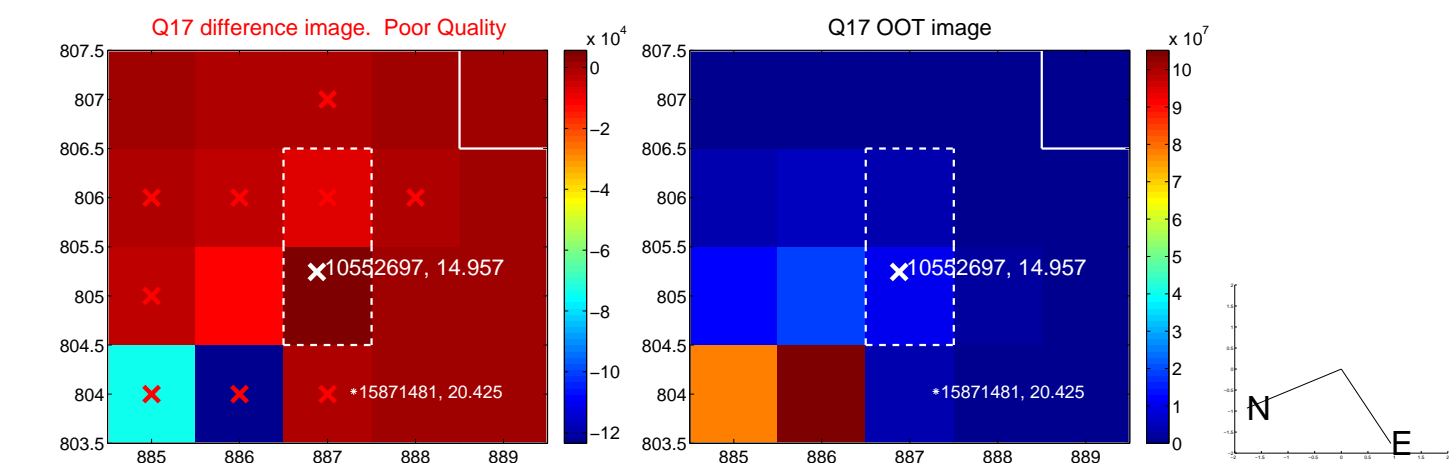
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



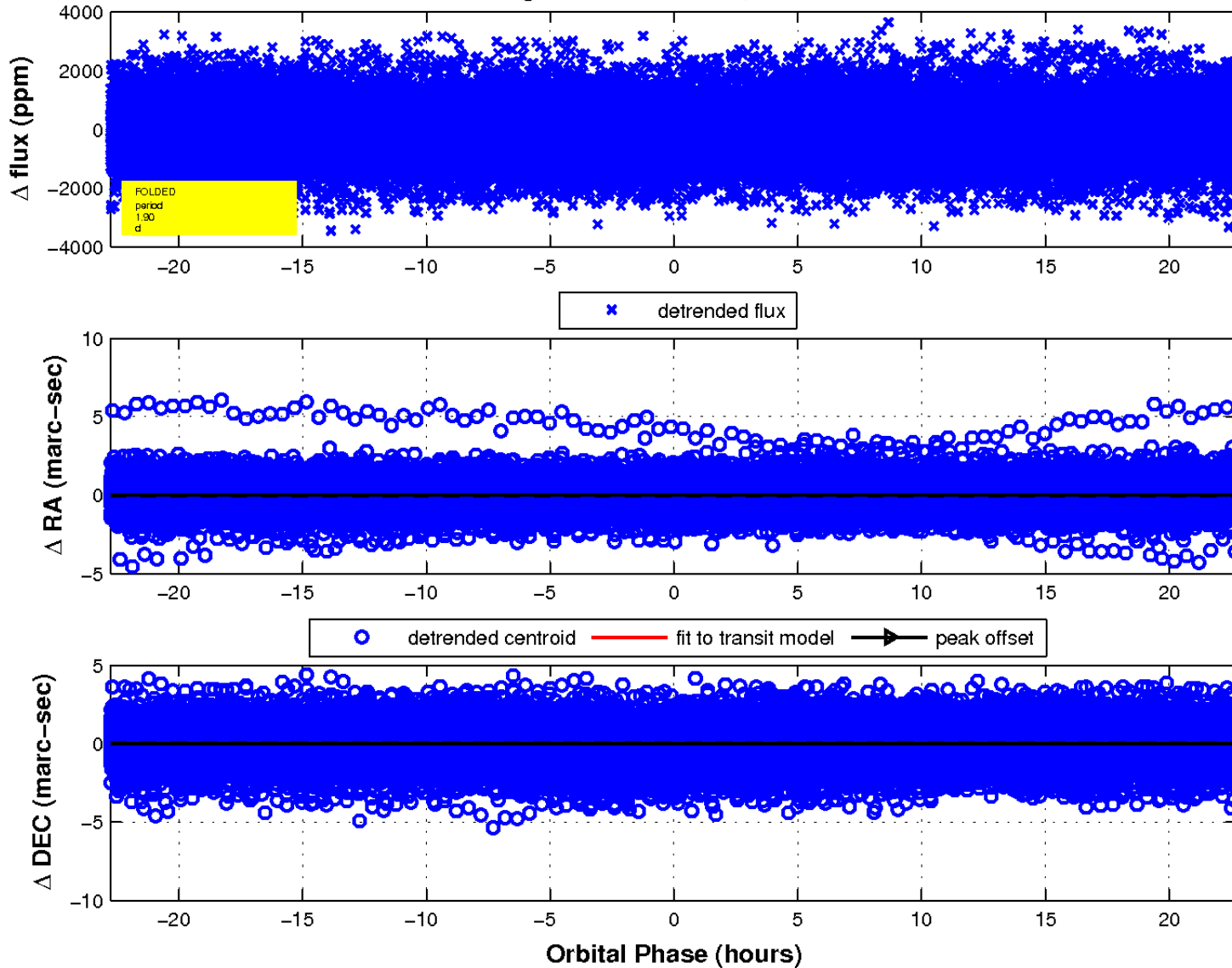
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

