

KIC 011904704

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})
011904704-01	OBS	7489.01	0.565707	131.665711	74.5	0.875	8.1	9.5	0.88	5220	0.93	3197.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011904704-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

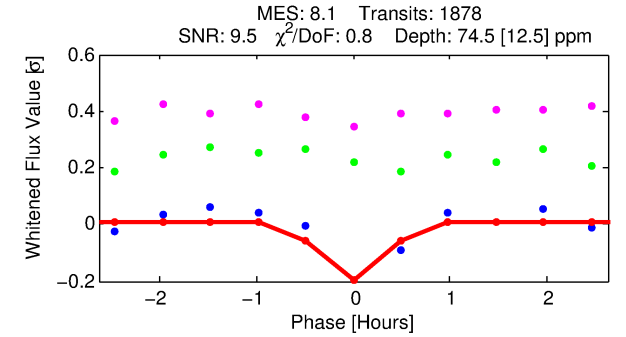
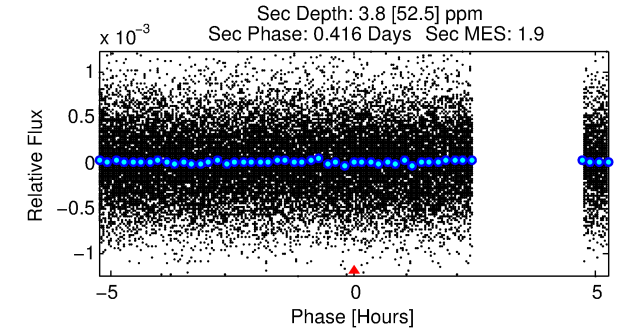
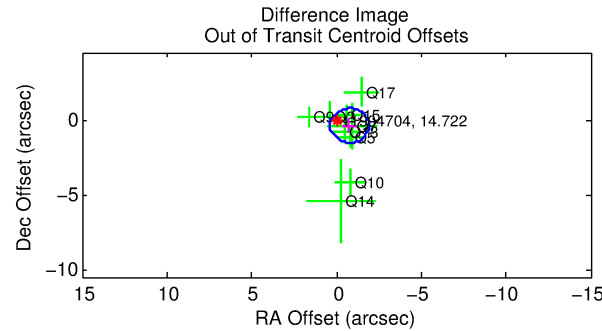
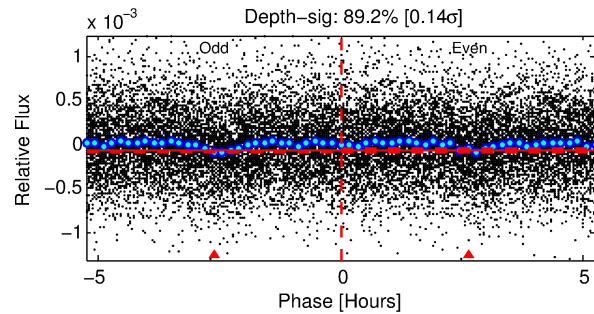
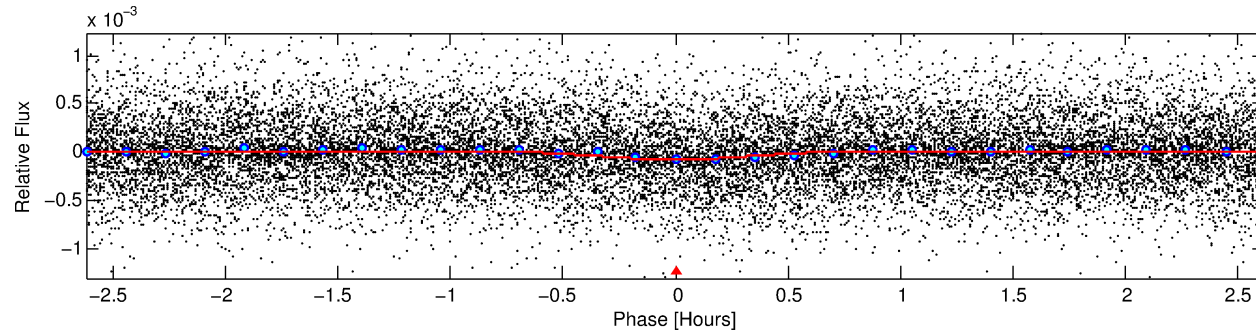
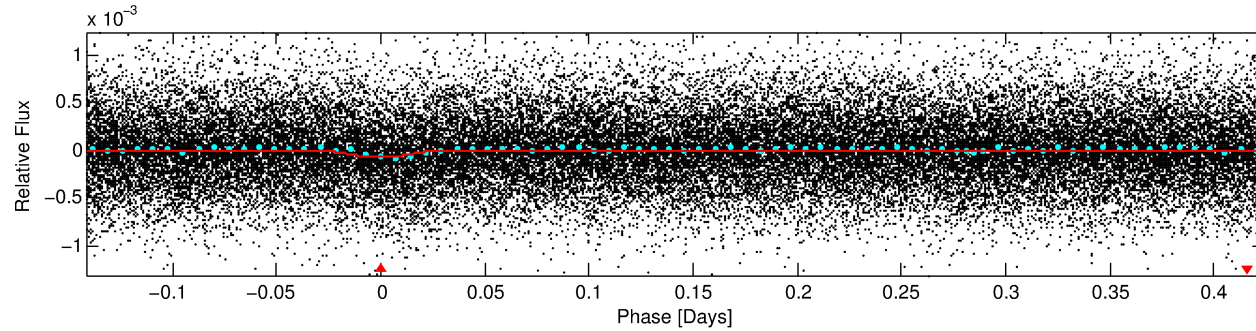
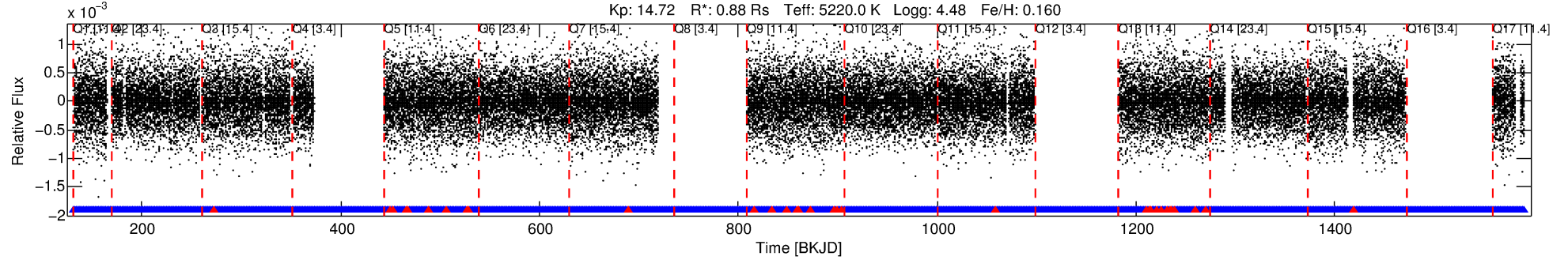
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011904704-01

No Significant Match Found

DV One-Page Summary

KIC: 11904704 Candidate: 1 of 1 Period: 0.566 d
KOI: K07489.01 Corr: 0.802



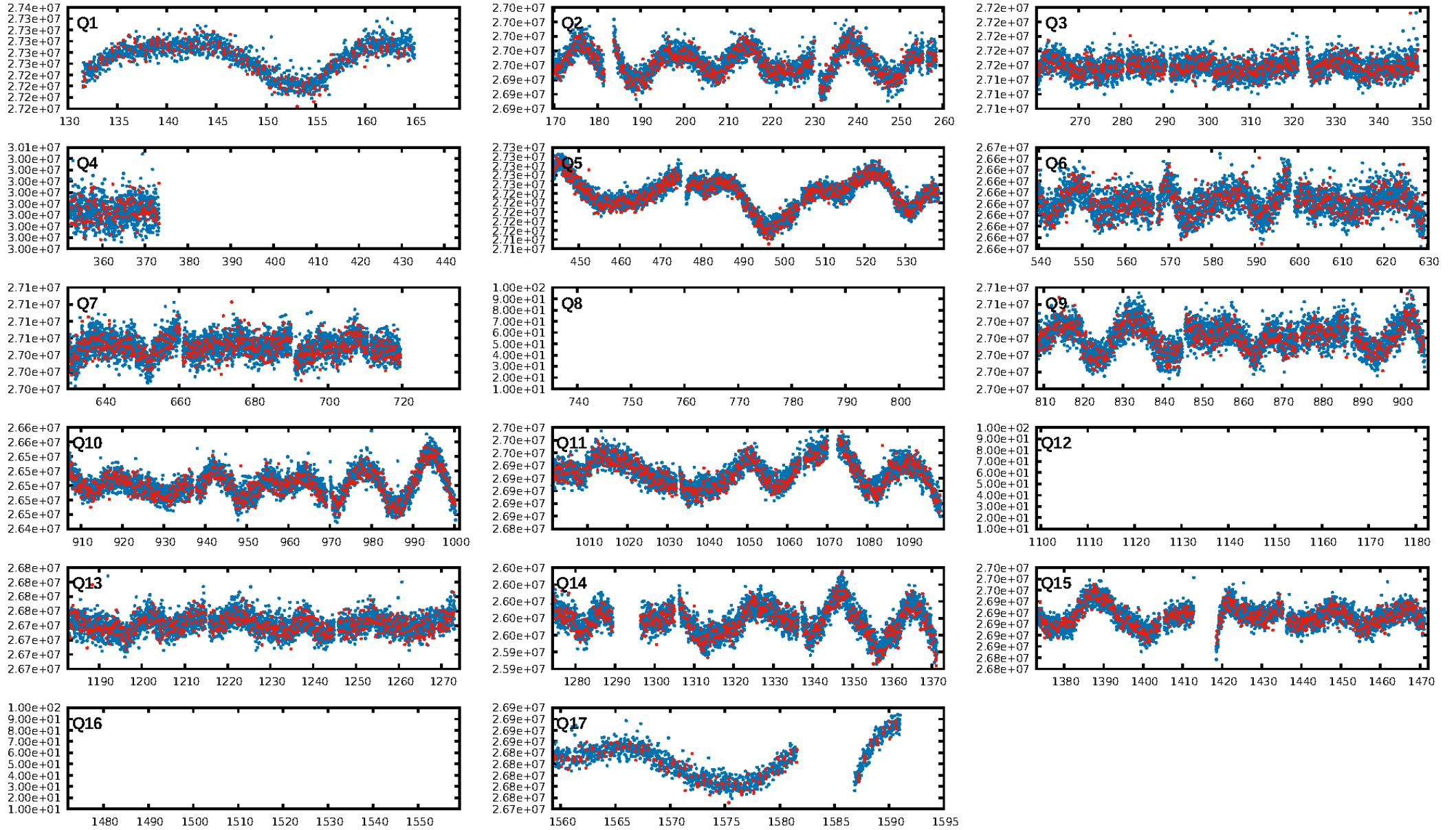
DV Fit Results:

Period = 0.56571 [0.00001] d
Epoch = 131.6657 [0.0016] BKJD
Rp/R* = 0.0097 [0.0048]
a/R* = 2.45 [4.08]
b = 0.90 [0.44]
Seff = 3197.21 [710.62]
Teff = 1917 [107] K
Rp = 0.93 [0.48] Re
a = 0.0127 [0.0016] AU
Ag = 0.38 [5.35] [-0.11 σ]
Teffp = 2334 [8127] K [0.05 σ]

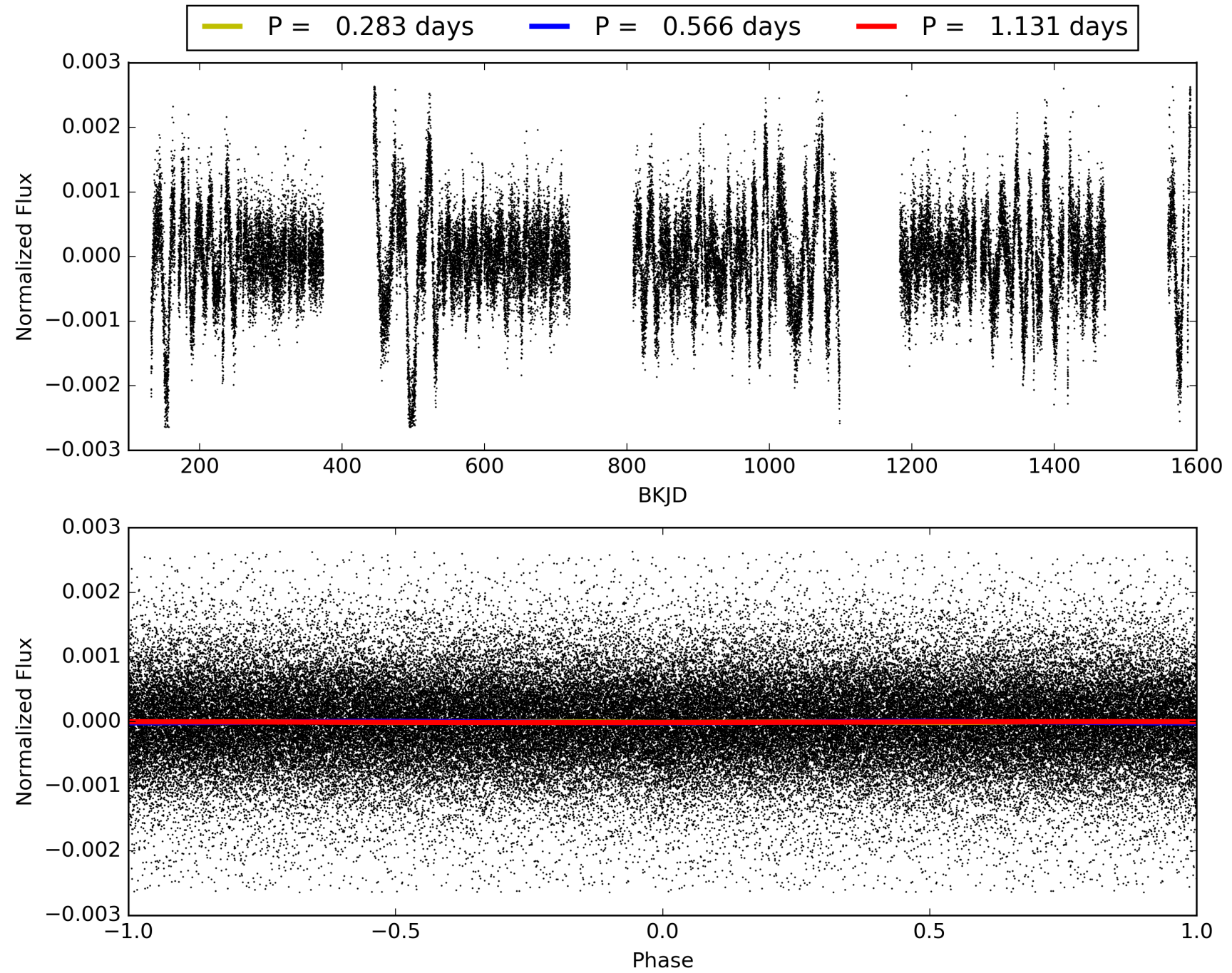
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.49e-16
RollingBand-fgt: 0.98 [1701/1735]
GhostDiagnostic-chr: 2.415
Centroid-sig: 3.0%
Centroid-so: 3.610 arcsec [2.43 σ]
OotOffset-rm: 0.861 arcsec [2.26 σ]
KicOffset-rm: 0.986 arcsec [2.63 σ]
OotOffset-st: 3/2/0/4 [9]
KicOffset-st: 3/2/0/4 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011904704-01, PDC Light Curves

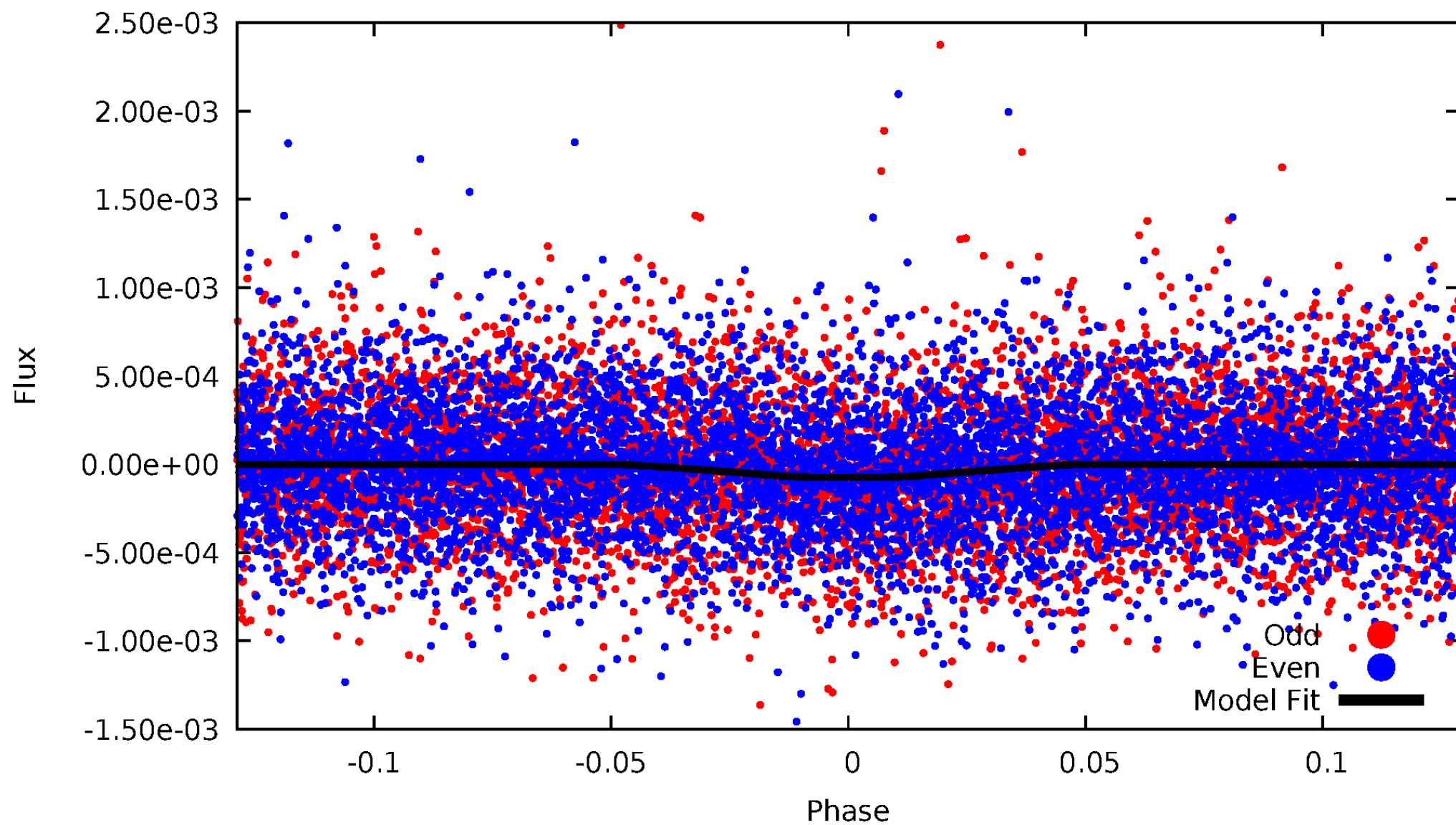


TCE 011904704-01



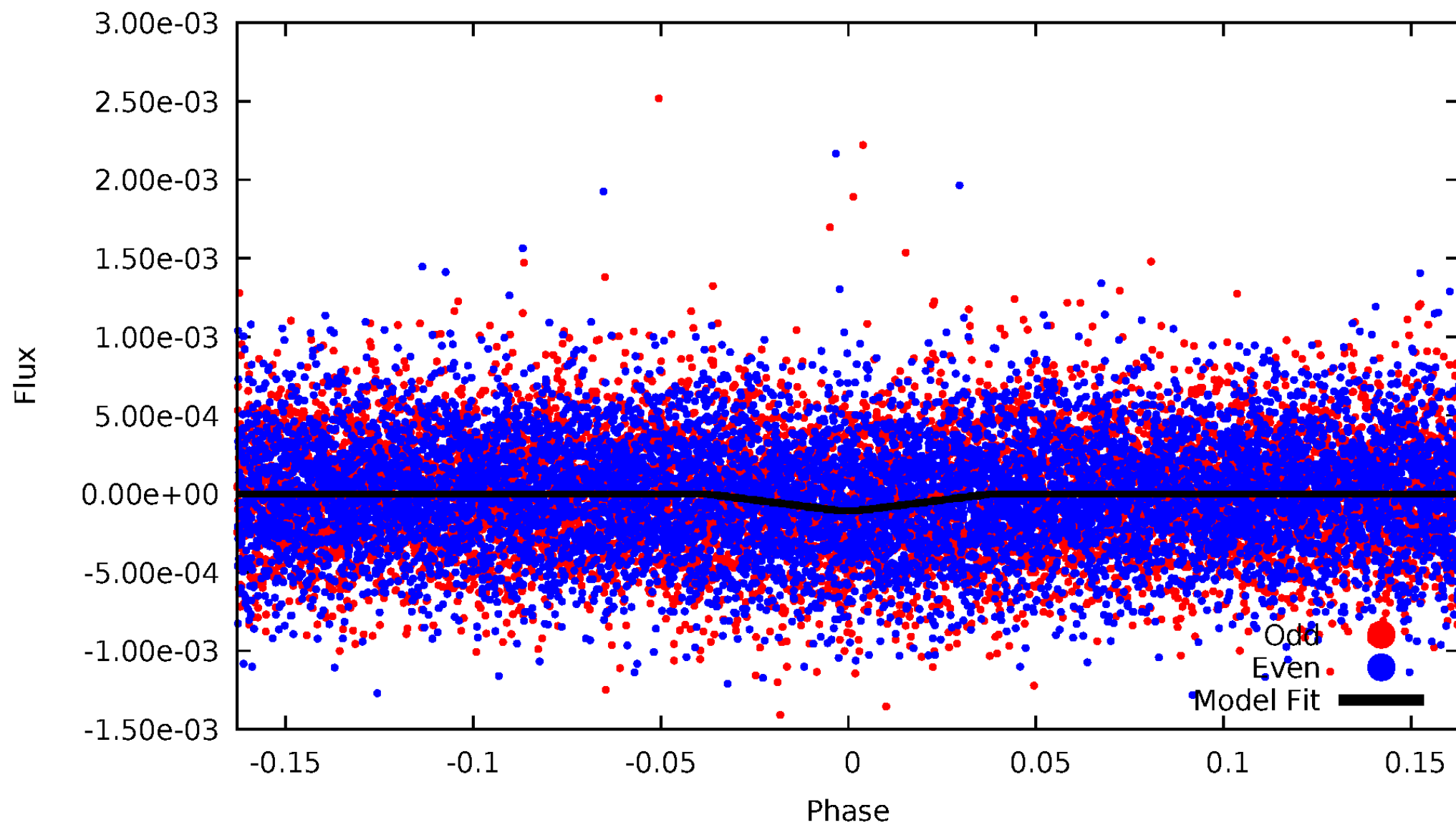
DV Odd/Even

TCE 011904704-01



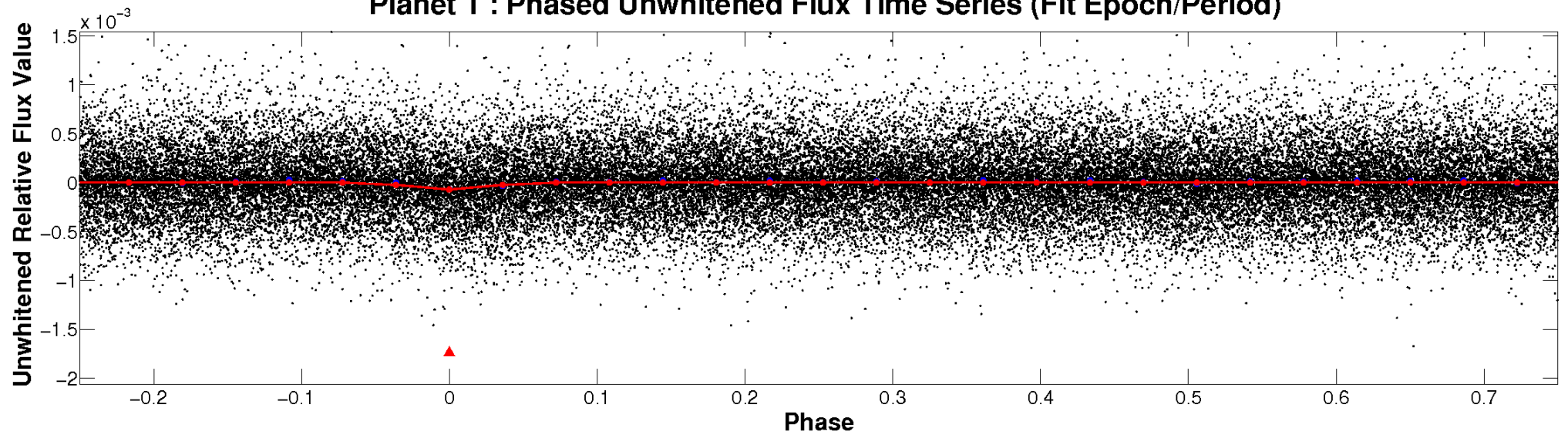
ALT Odd/Even

TCE 011904704-01

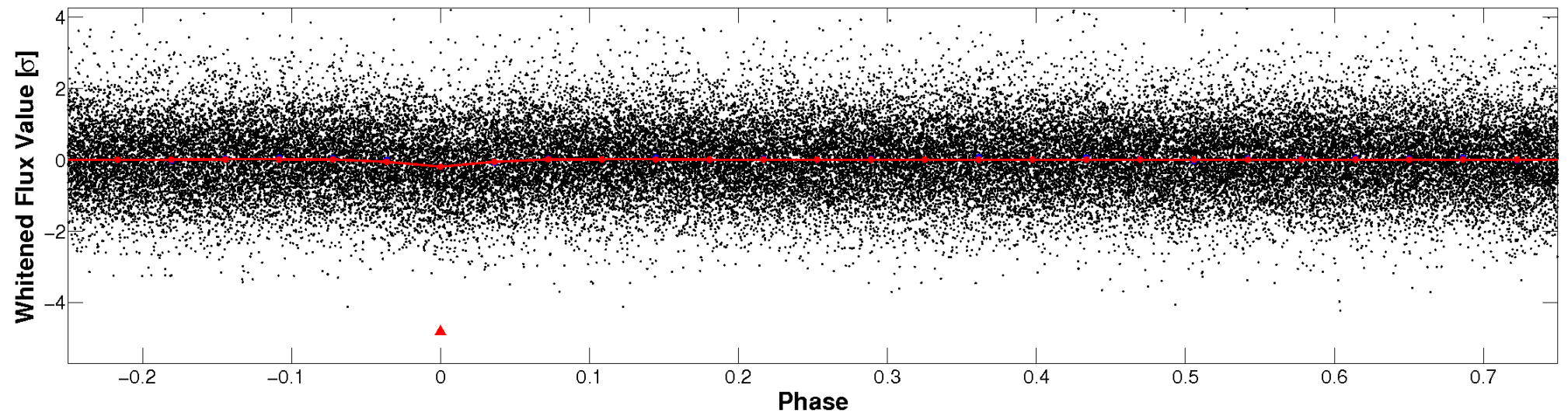


Non-Whitened Vs. Whitened Light Curve

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

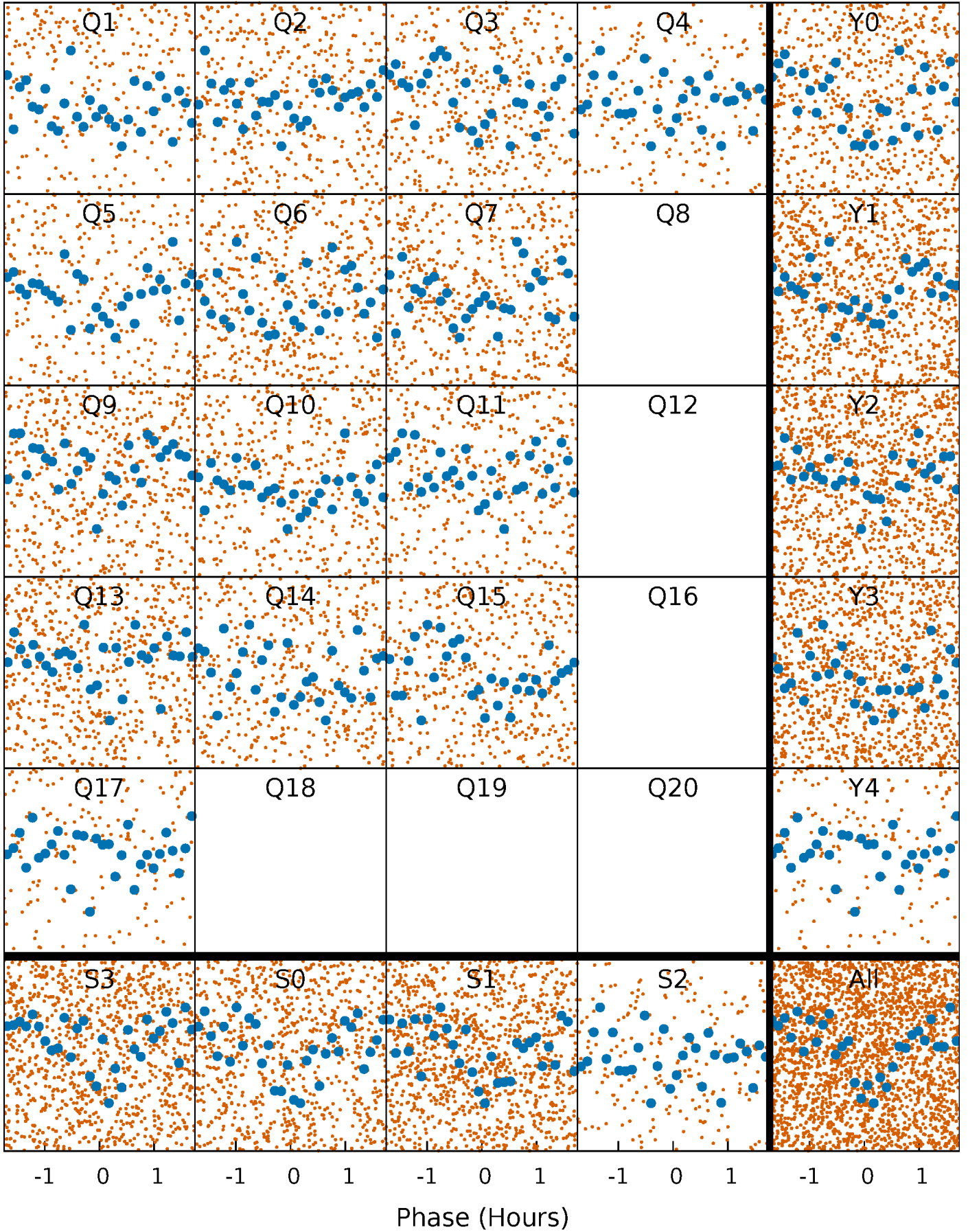


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



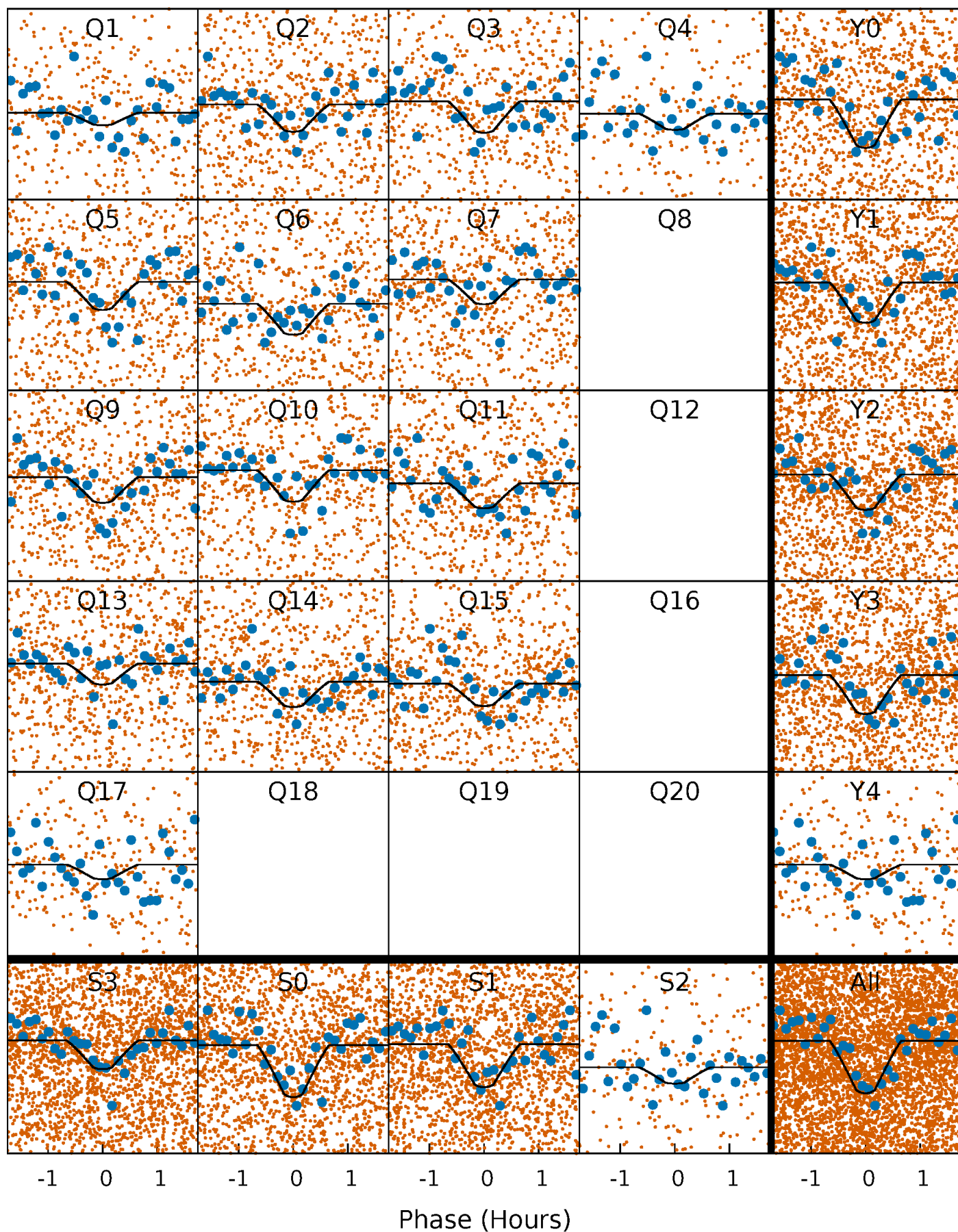
PDC Quarter-Phased Transit Curves

TCE 011904704-01 P= 0.565707 Days $T_0=131.665711$ (BKJD)



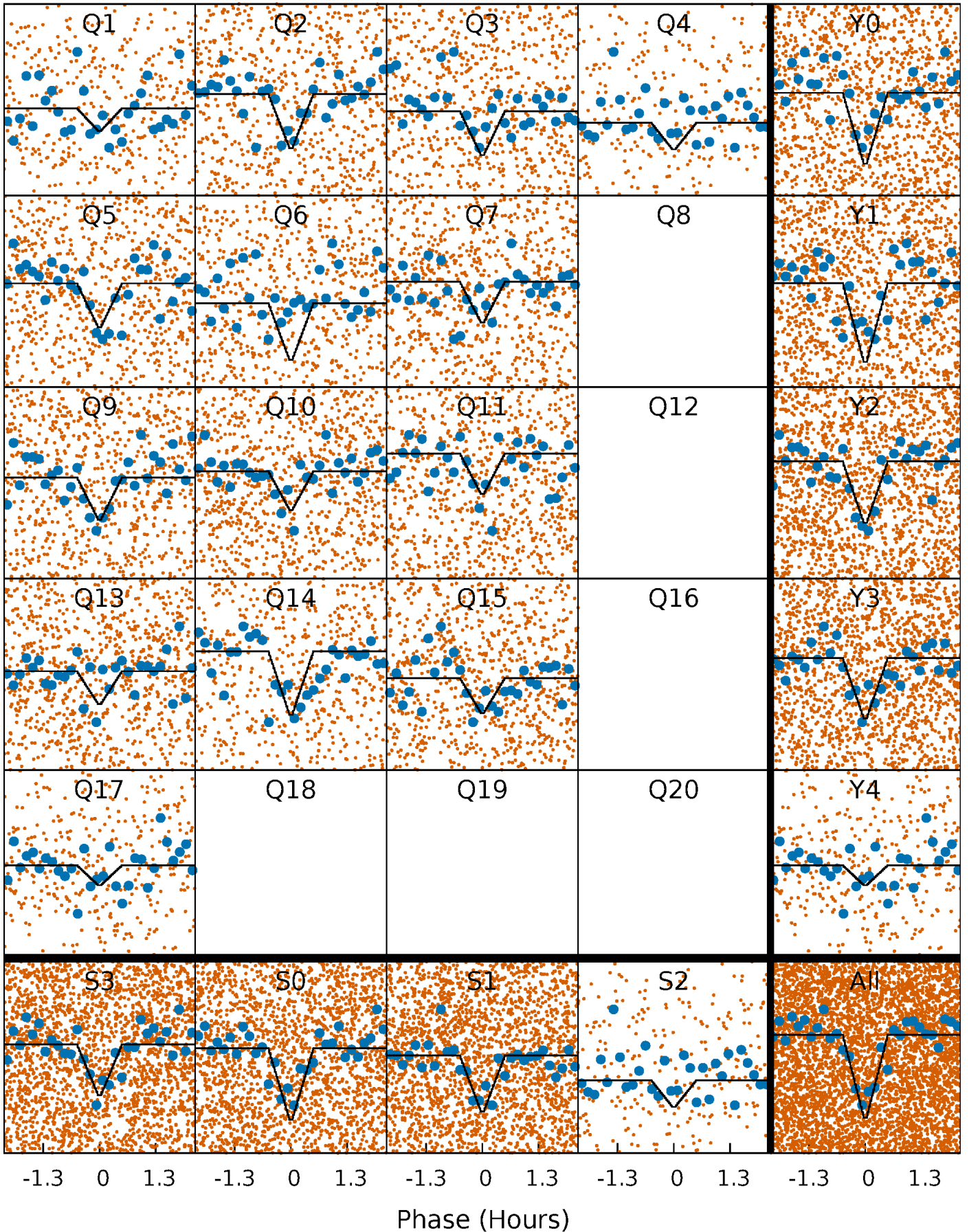
DV Quarter-Phased Transit Curves

TCE 011904704-01 P= 0.565707 Days $T_0=131.665711$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

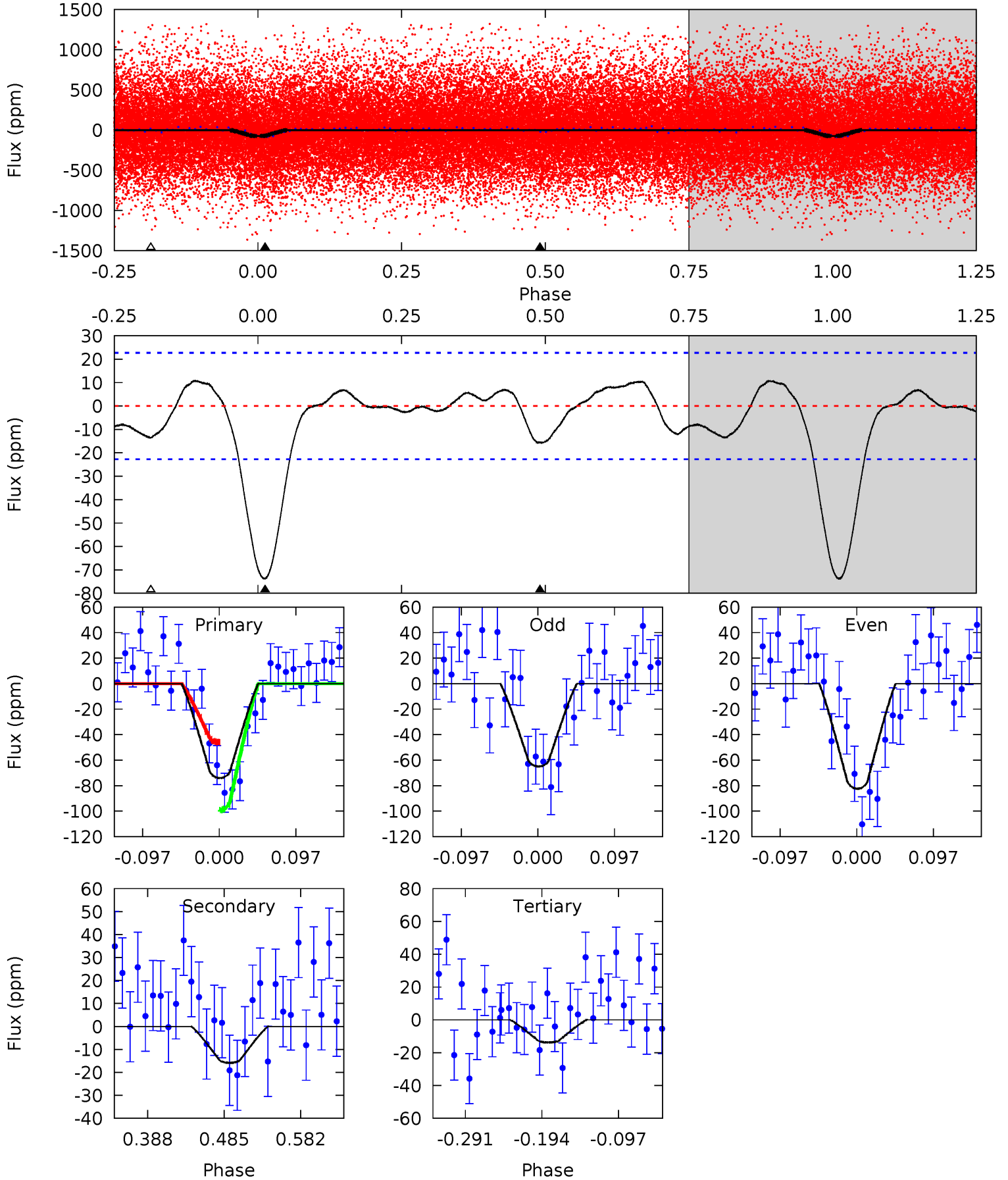
TCE 011904704-01 P= 0.565712 Days $T_0=131.665278$ (BKJD)



DV Model-Shift Uniqueness Test

011904704-01, P = 0.565707 Days, E = 131.100004 Days

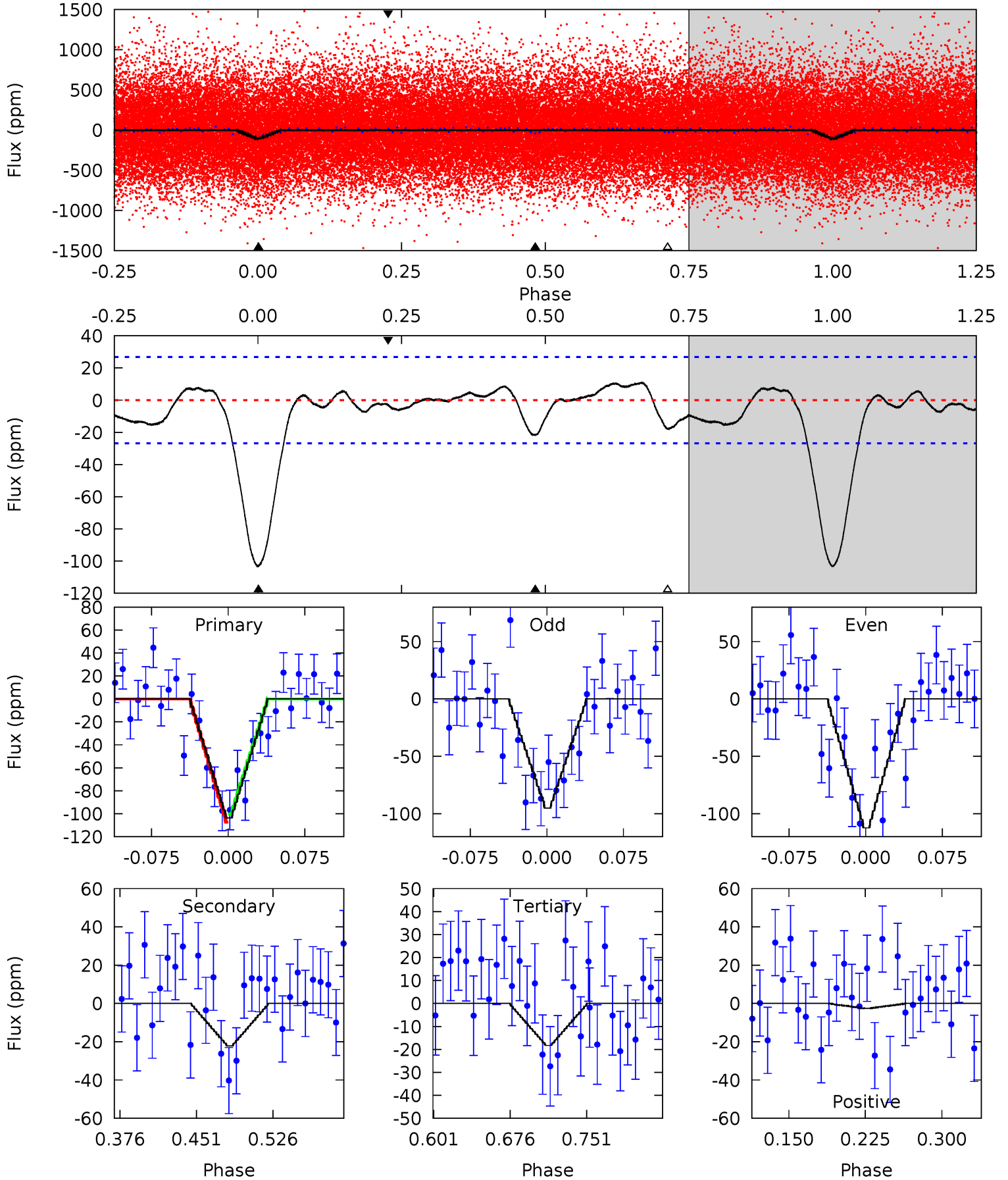
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	3.19	2.77	0	4.57	1.66	1.39	12.1	14.9	0.42	3.19	1.76	0.88	0.13	5.37



Alt Model-Shift Uniqueness Test

011904704-01, P = 0.565712 Days, E = 131.099566 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.9	3.83	3.16	-0.44	4.62	1.78	1.30	14.7	18.3	0.67	4.27	1.49	1.03	0.10	0.62



Stellar Parameters For KIC 011904704

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5220^{+157}_{-157}	$4.480^{+0.086}_{-0.105}$	$0.160^{+0.250}_{-0.300}$	$0.881^{+0.125}_{-0.094}$	$0.855^{+0.077}_{-0.070}$	$1.760^{+0.608}_{-0.573}$
	+3%/-3%	+2%/-2%	+156%/-188%	+14%/-11%	+9%/-8%	+35%/-33%
Source	PHO1	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 011904704-01 / KOI 7489.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 5	$0.94^{+0.45}_{-0.44}$	2693^{+115}_{-124}	3568^{+1018}_{-630}	$1.547^{+3.950}_{-0.916}$
Alt.	-22 ± 6	$1.04^{+0.46}_{-0.48}$	2685^{+130}_{-119}	3674^{+1051}_{-537}	$1.815^{+4.417}_{-0.974}$

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 $A_{obs} \gg 1.0$

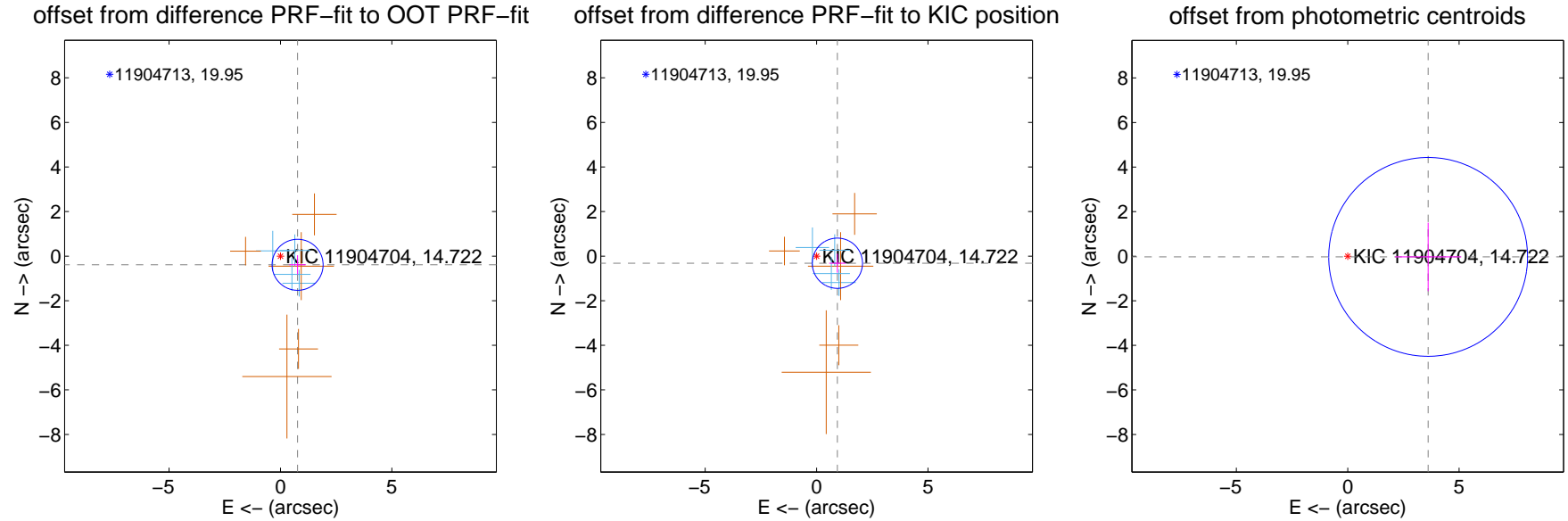
DV Centroid Data

Supplemental centroid analysis for 011904704-01. Kepler magnitude: 14.72. Transit SNR 9.53

There are 4 quarters with good PRF difference image offsets

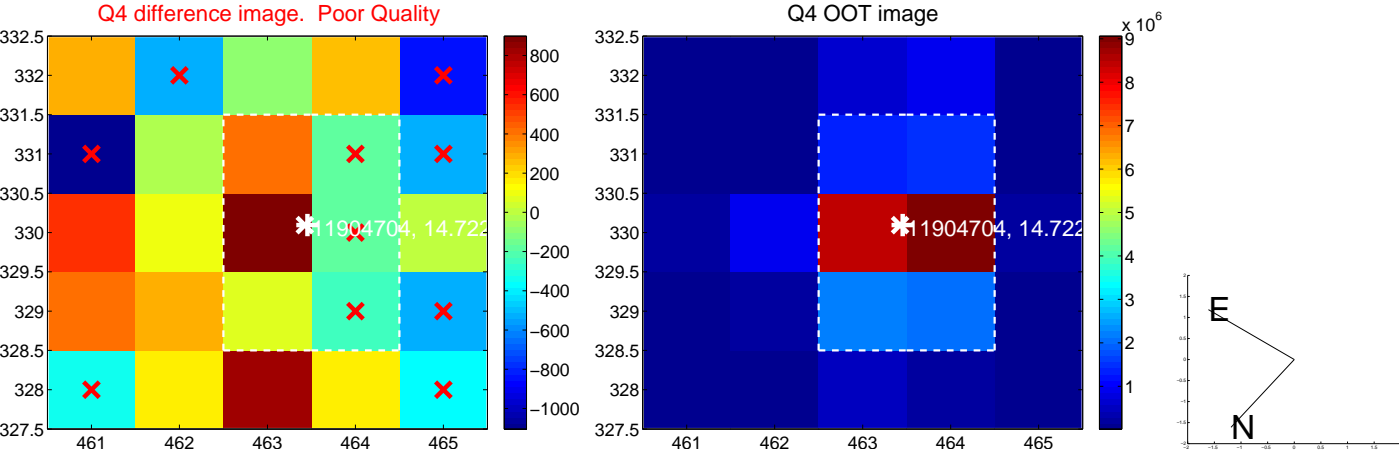
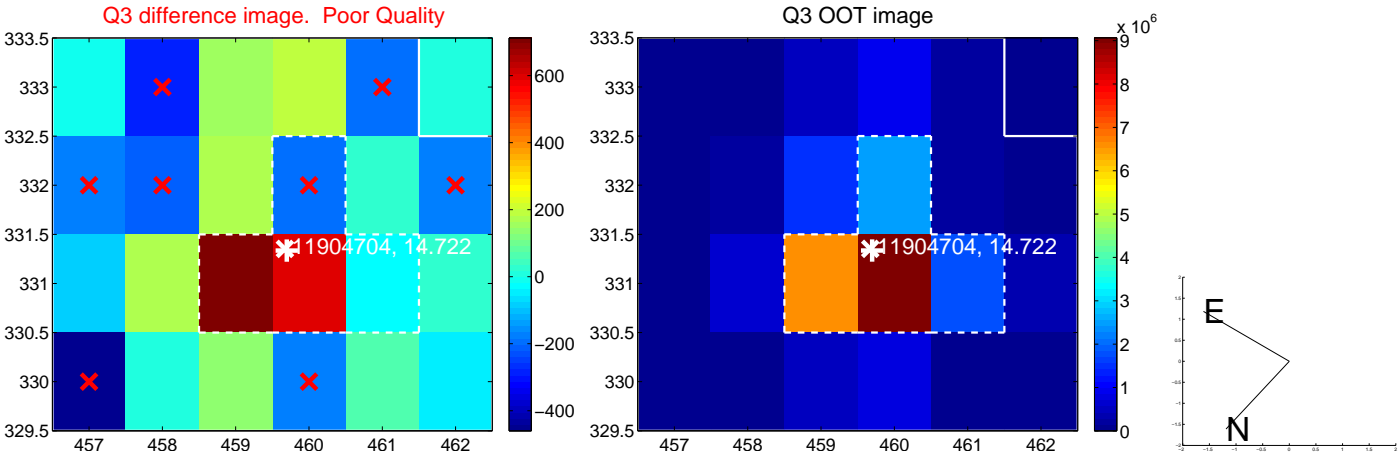
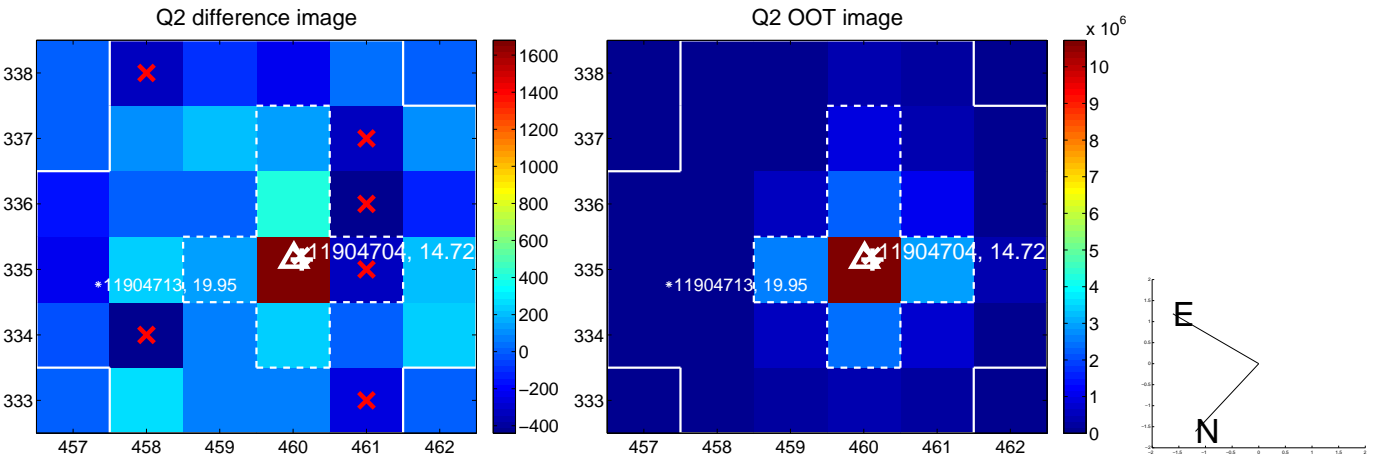
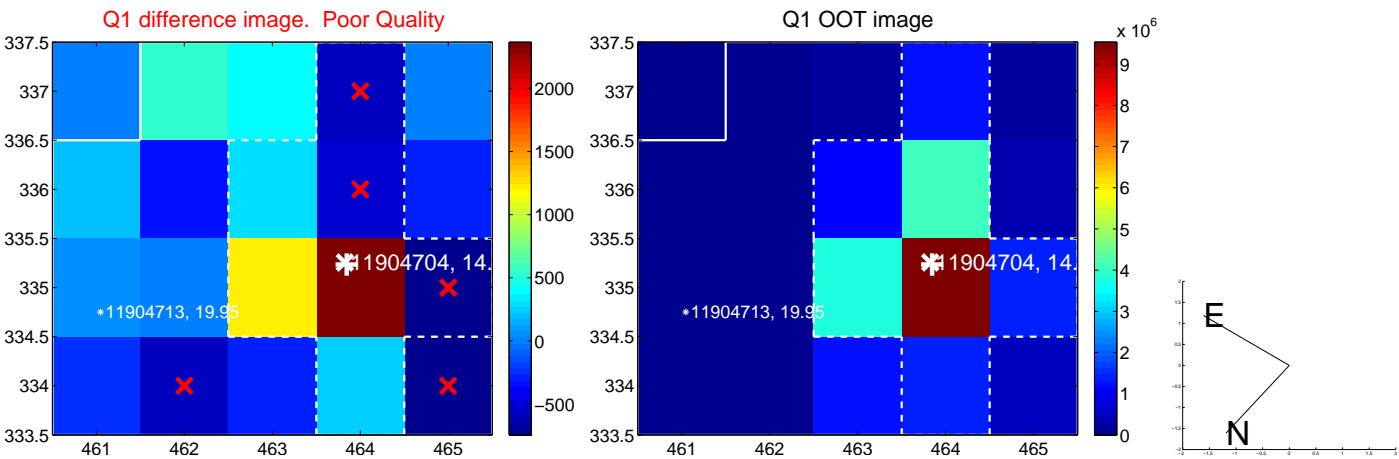
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.861 ± 0.382	2.26	-0.769 ± 0.369	-0.389 ± 0.426
PRF-fit source offset from KIC position	0.986 ± 0.376	2.63	-0.933 ± 0.369	-0.318 ± 0.426
photometric centroid source offset	3.61 ± 1.49	2.43	-3.61 ± 1.49	-0.03 ± 1.54

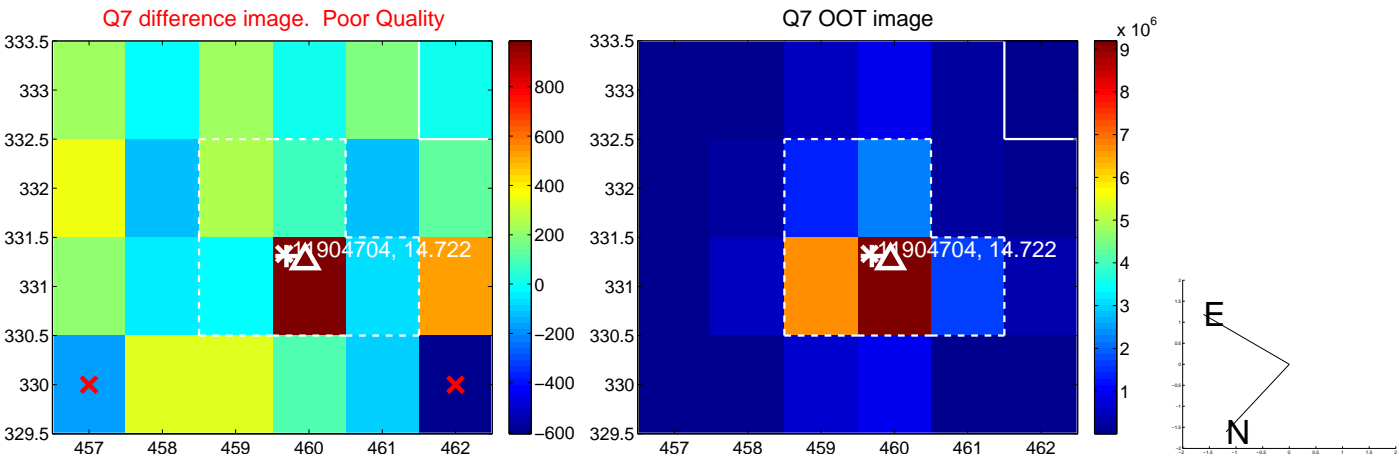
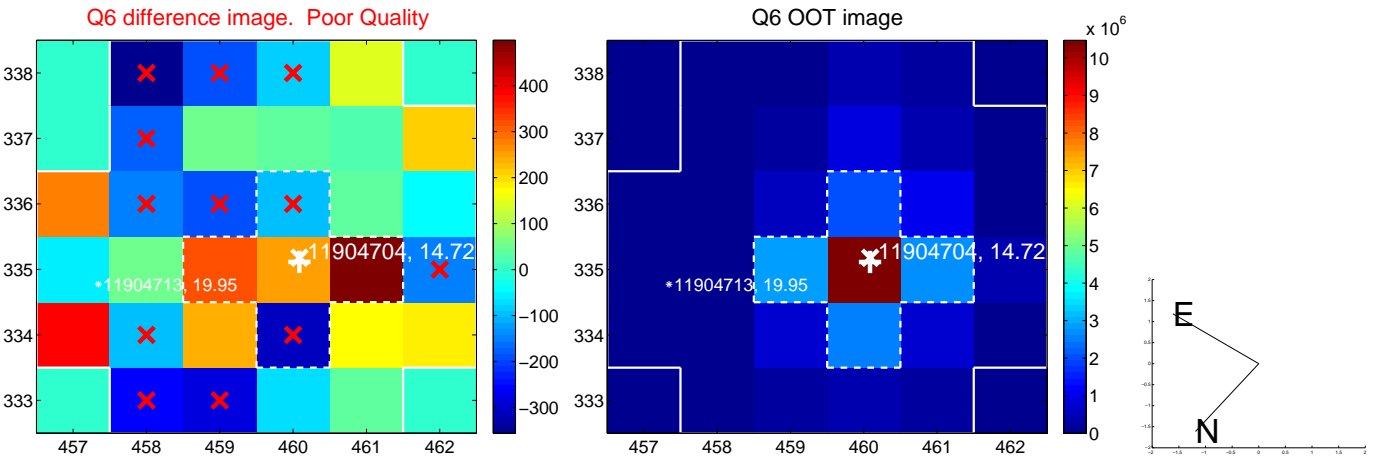
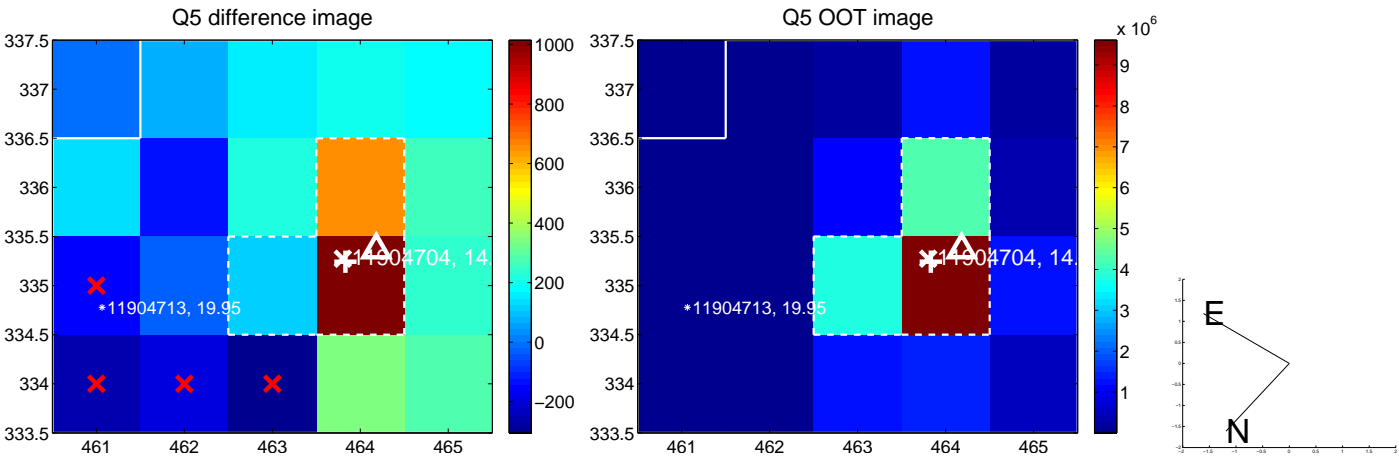


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

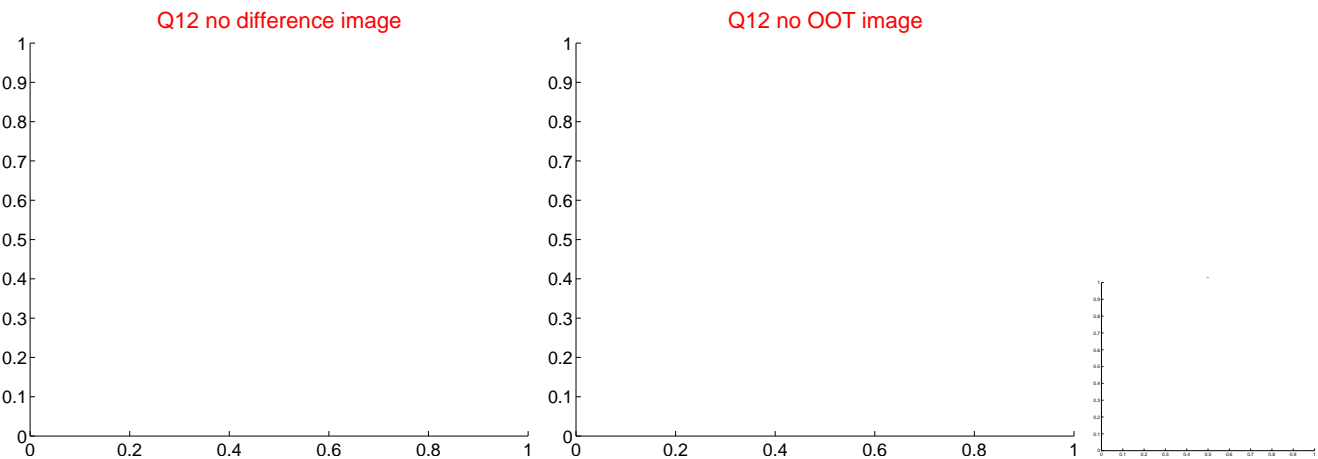
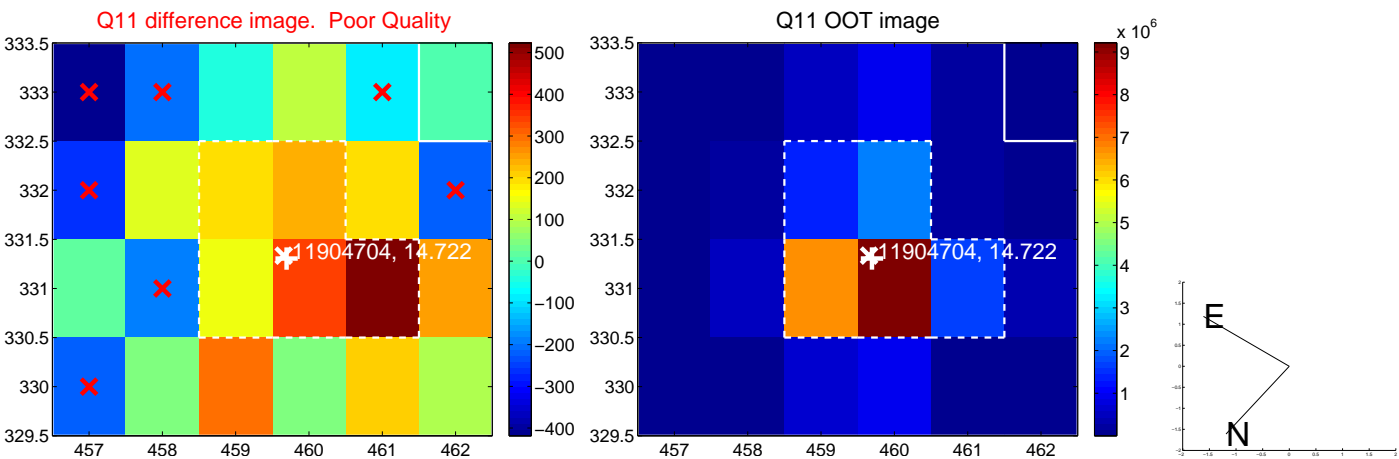
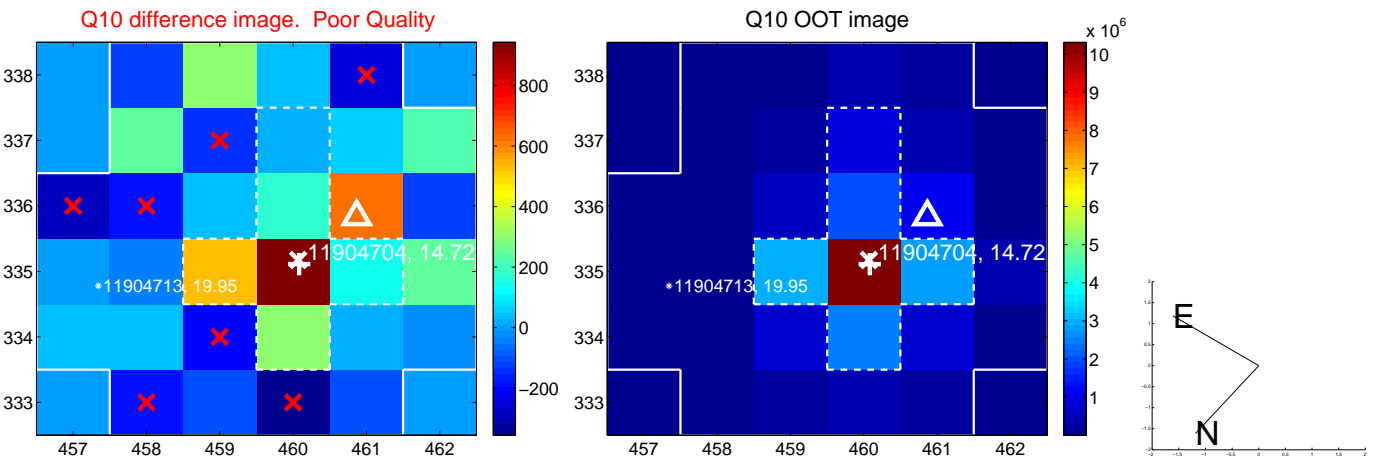
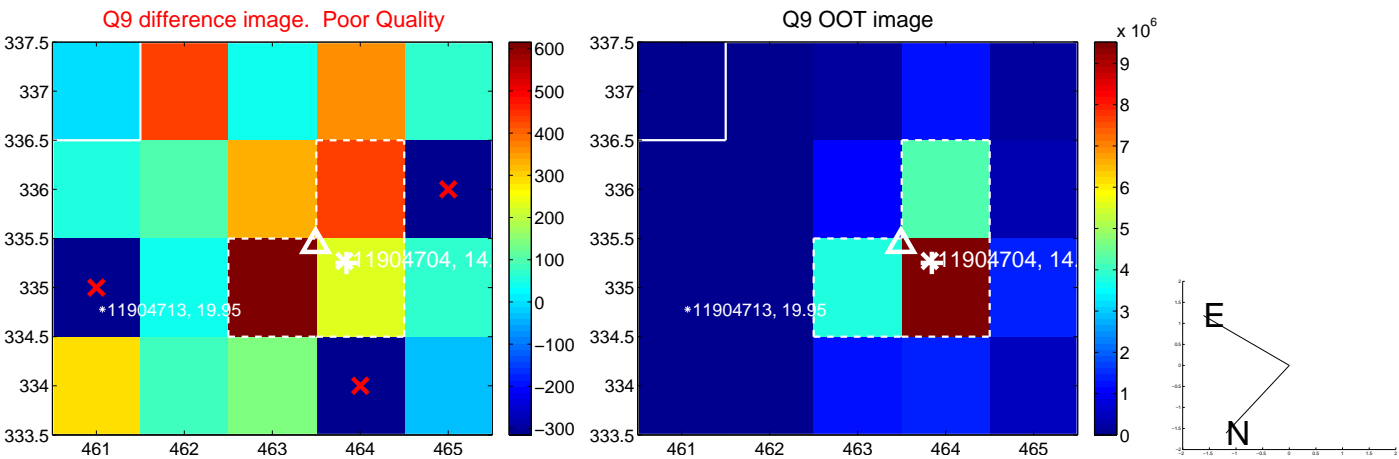
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



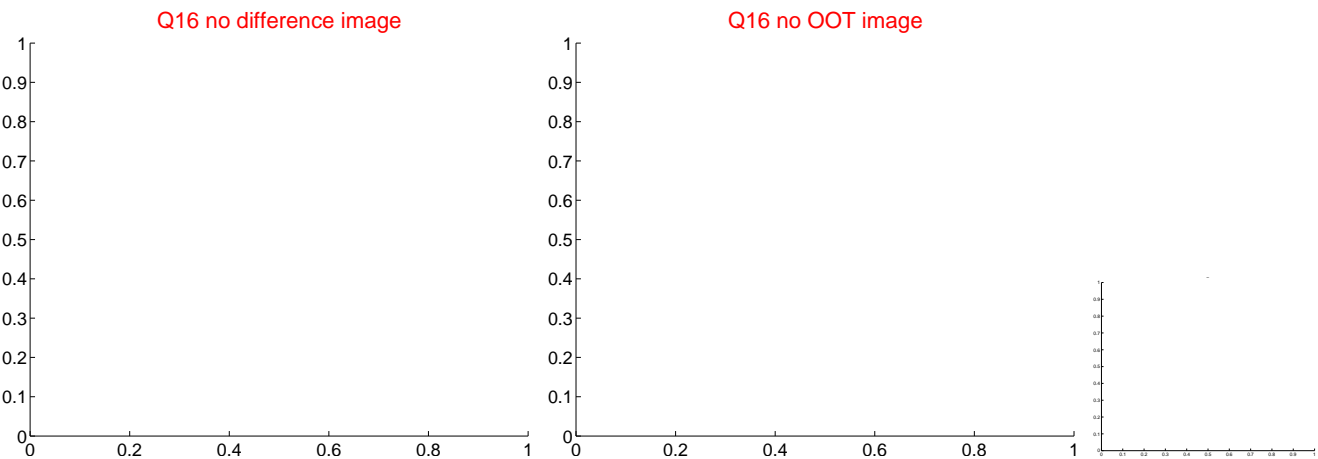
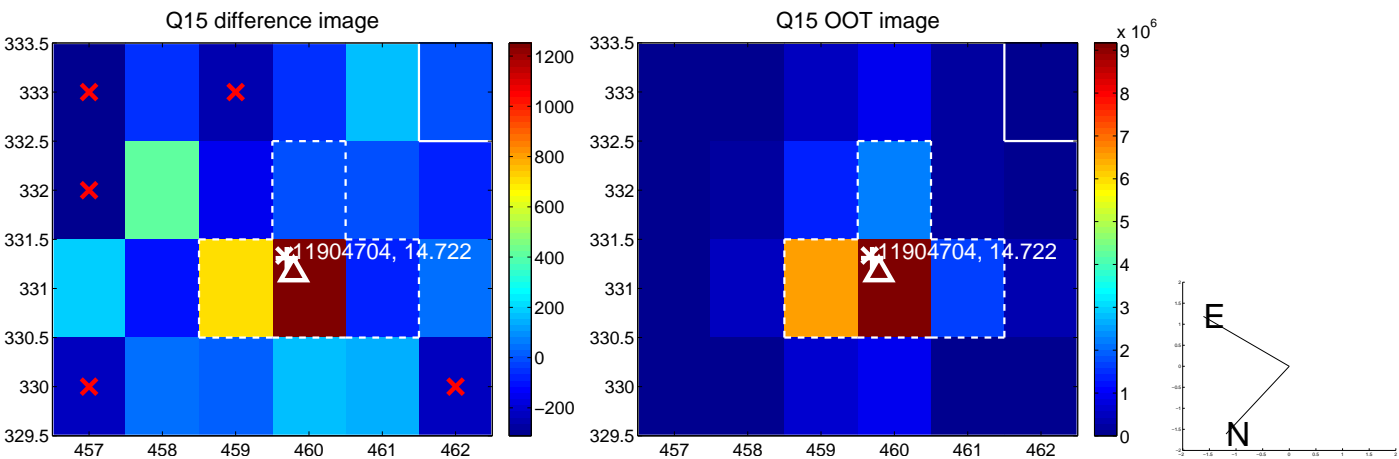
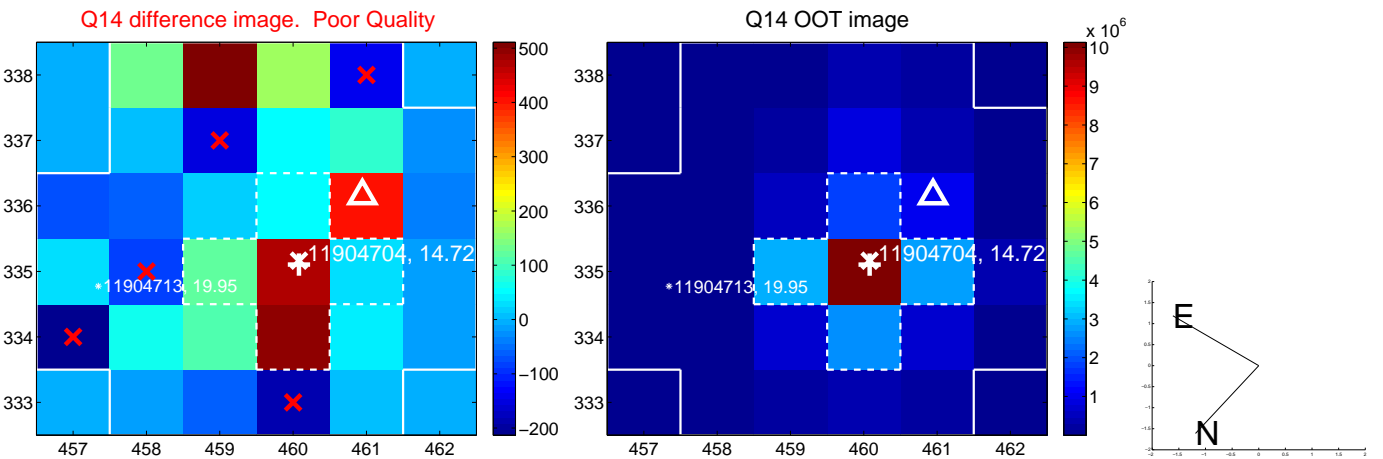
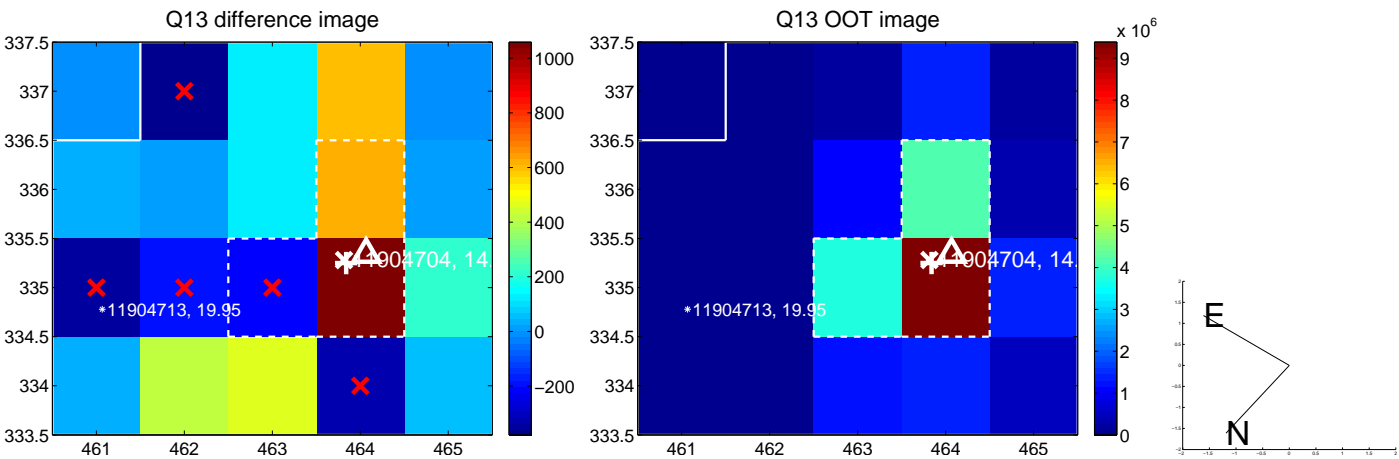
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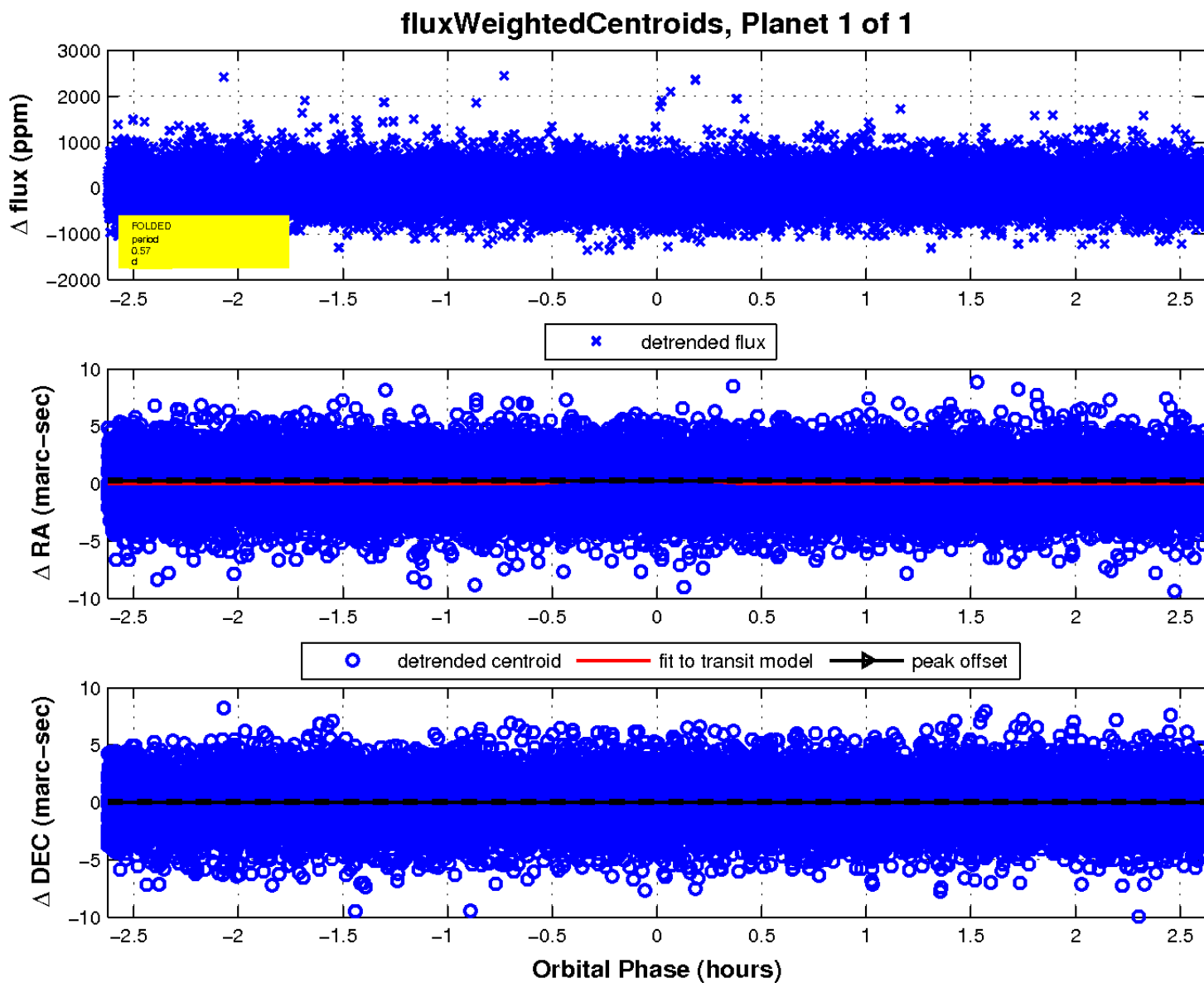
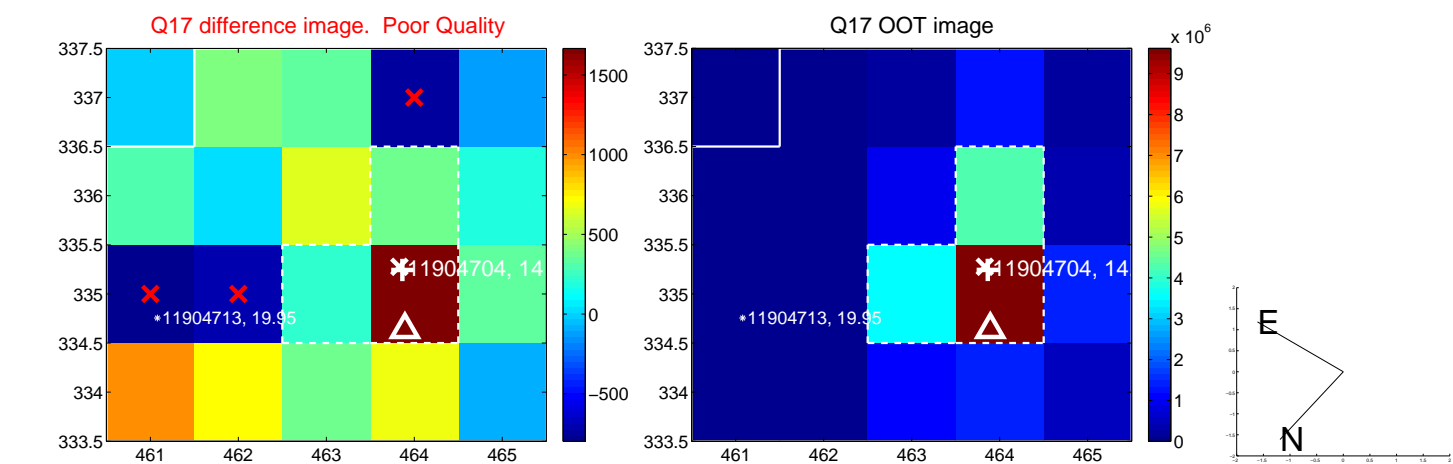
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UKIRT Image

Declination

