

KIC 011453349

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})
011453349-01	OBS	8055.01	4.406617	133.354549	66.7	2.163	7.3	7.4	1.00	6063	0.94	416.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011453349-01	OBS	PC	0.91	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.

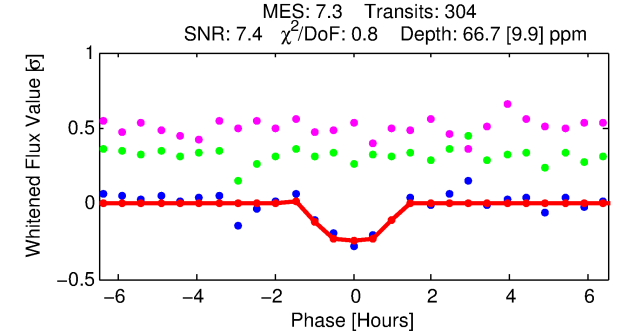
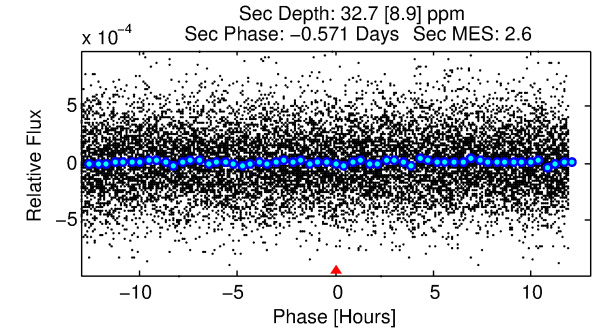
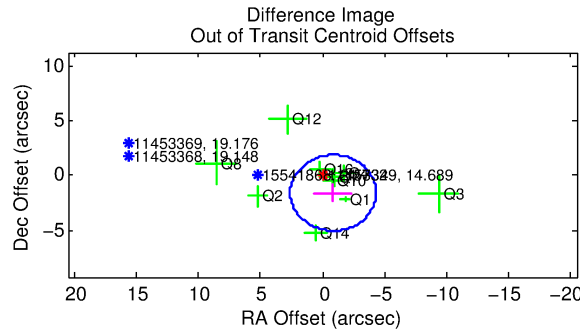
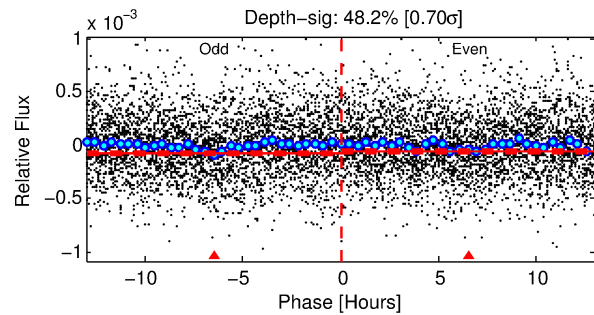
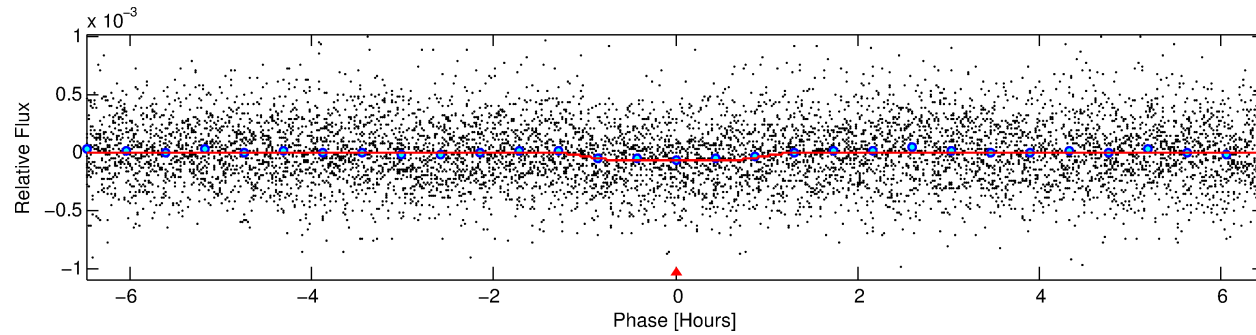
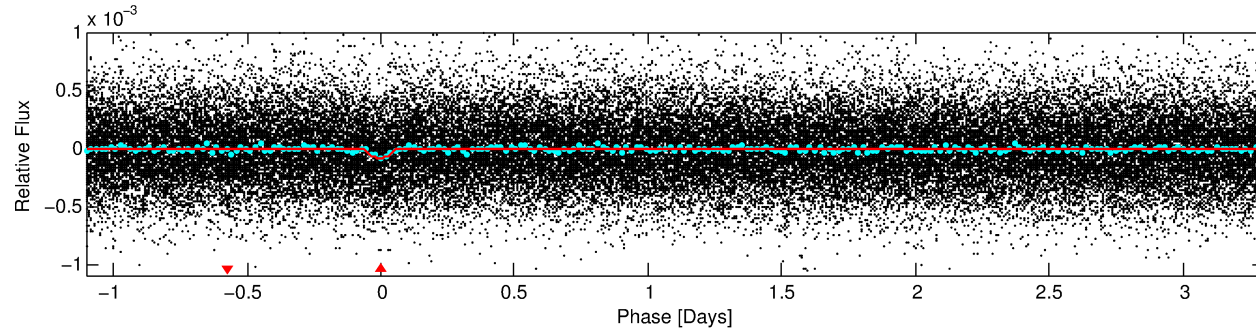
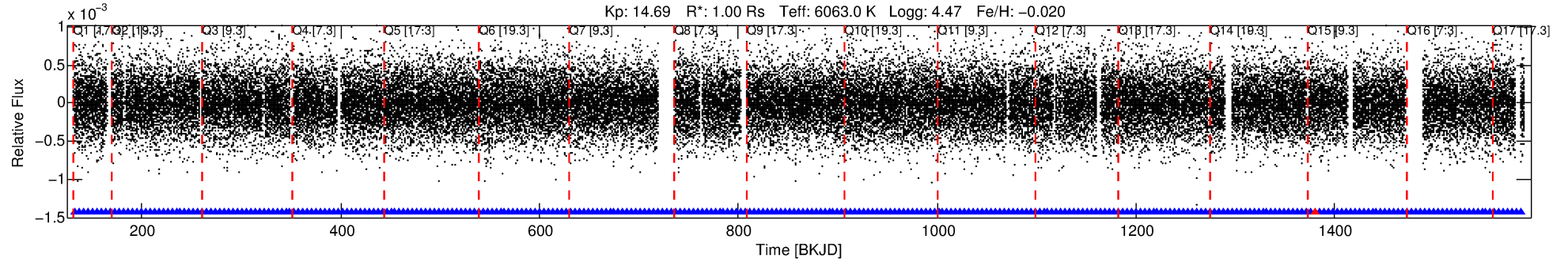
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011453349-01

No Significant Match Found

DV One-Page Summary

KIC: 11453349 Candidate: 1 of 1 Period: 4.407 d



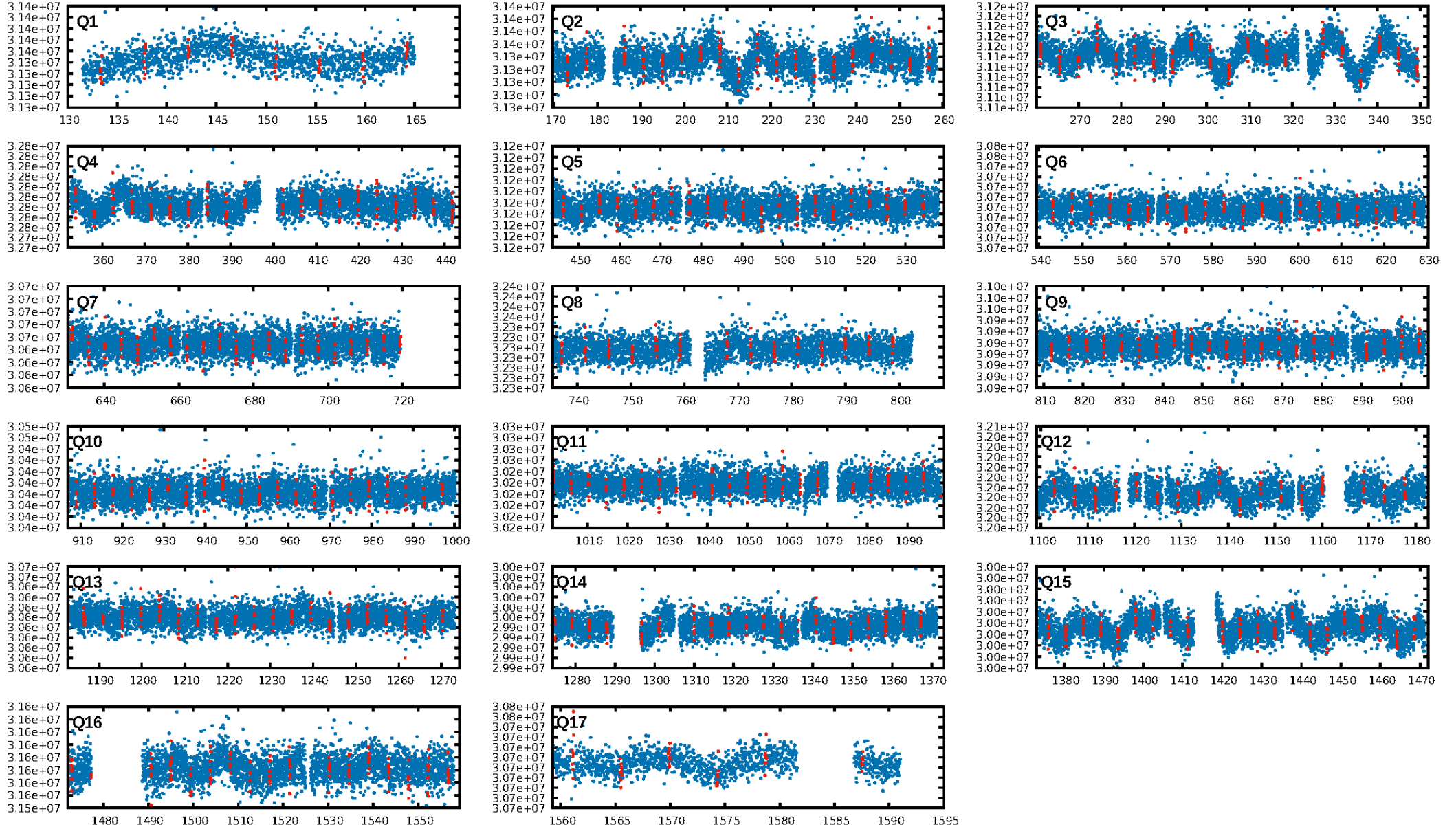
DV Fit Results:

Period = 4.40662 [0.00004] d
Epoch = 133.3545 [0.0055] BKJD
Rp/R* = 0.0086 [0.0071]
a/R* = 8.33 [34.01]
b = 0.86 [1.31]
Seff = 416.67 [169.86]
Teq = 1152 [117] K
Rp = 0.93 [0.83] Re
a = 0.0540 [0.0143] AU
Ag = 59.92 [102.94] [0.57 σ]
Teffp = 4956 [2082] K [1.82 σ]

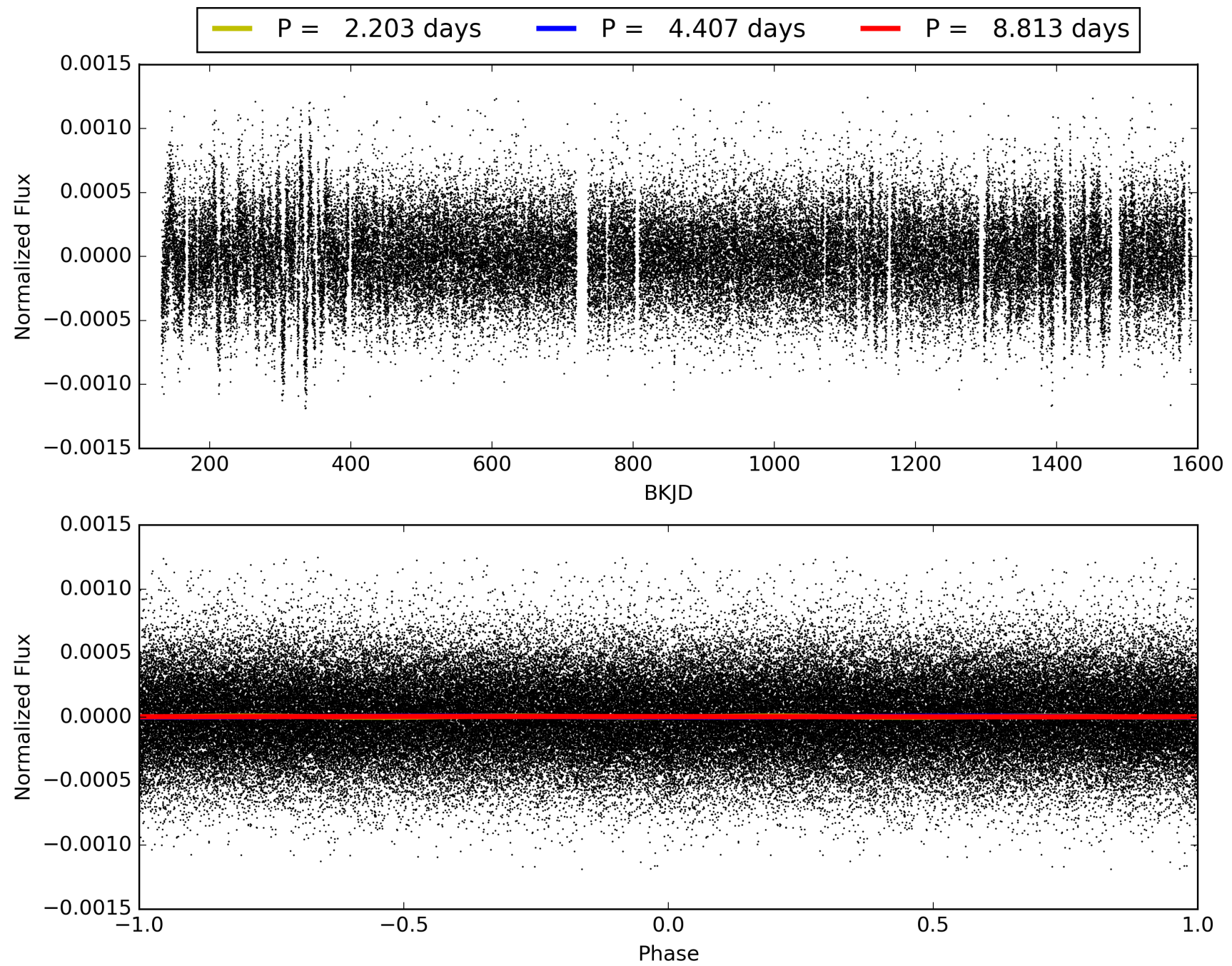
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.58e-13
RollingBand-fgt: 1.00 [289/290]
GhostDiagnostic-chr: -3.732
Centroid-sig: N/A
Centroid-so: 2.179 arcsec [1.30 σ]
OotOffset-rm: 1.792 arcsec [1.55 σ]
KicOffset-rm: 1.749 arcsec [1.43 σ]
OotOffset-st: 3/2/4/1 [10]
KicOffset-st: 3/2/4/1 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011453349-01, PDC Light Curves

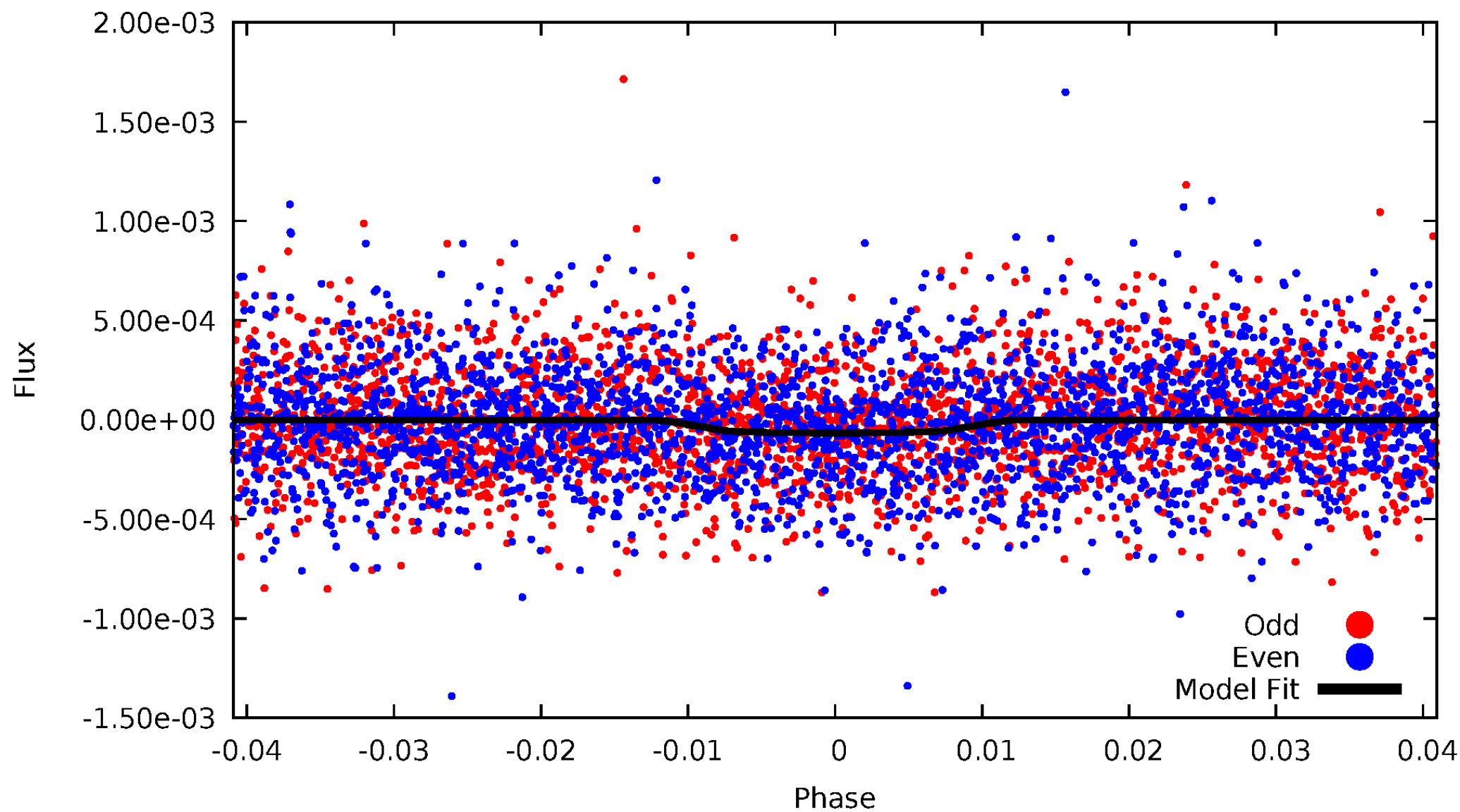


TCE 011453349-01



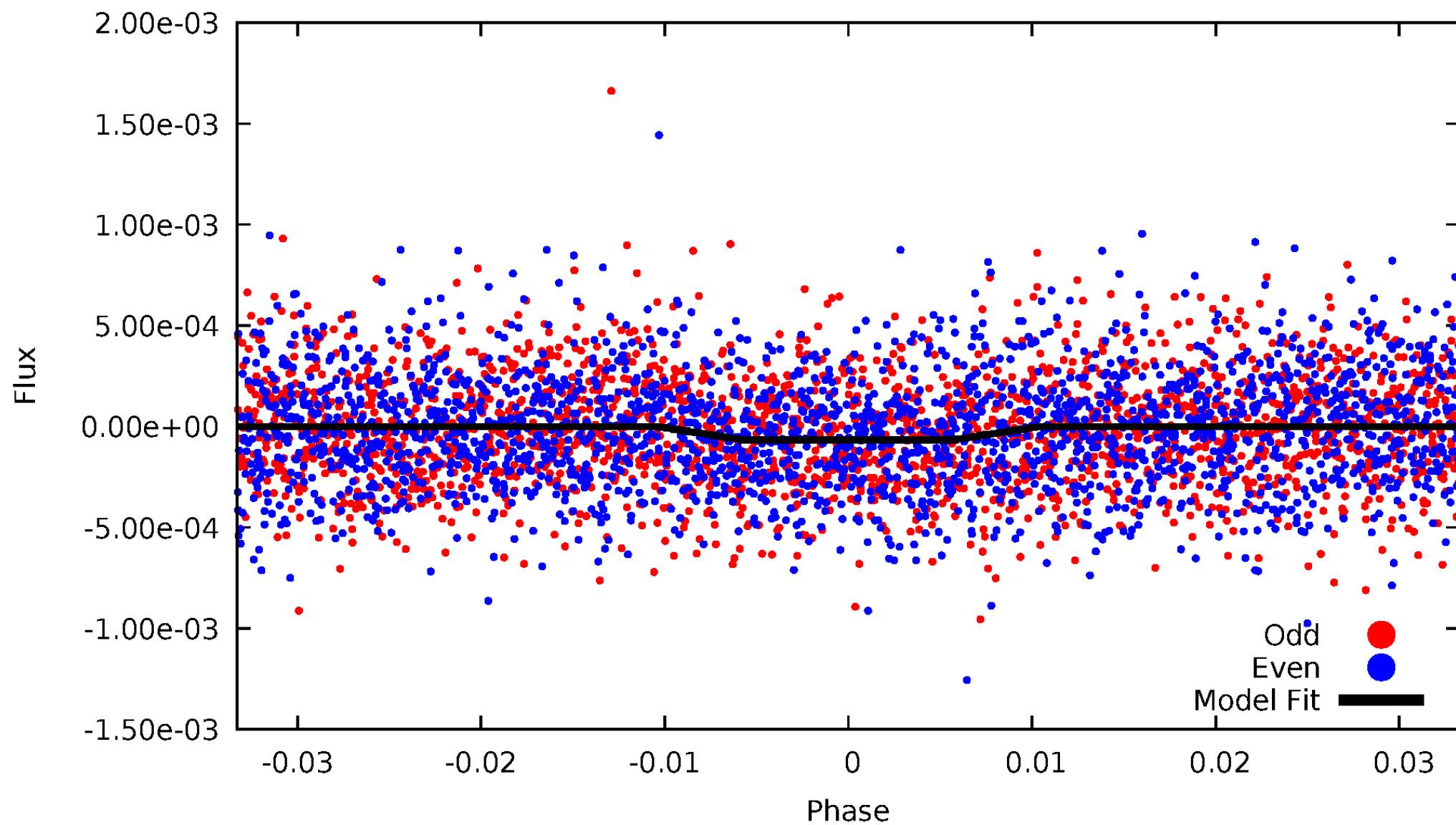
DV Odd/Even

TCE 011453349-01



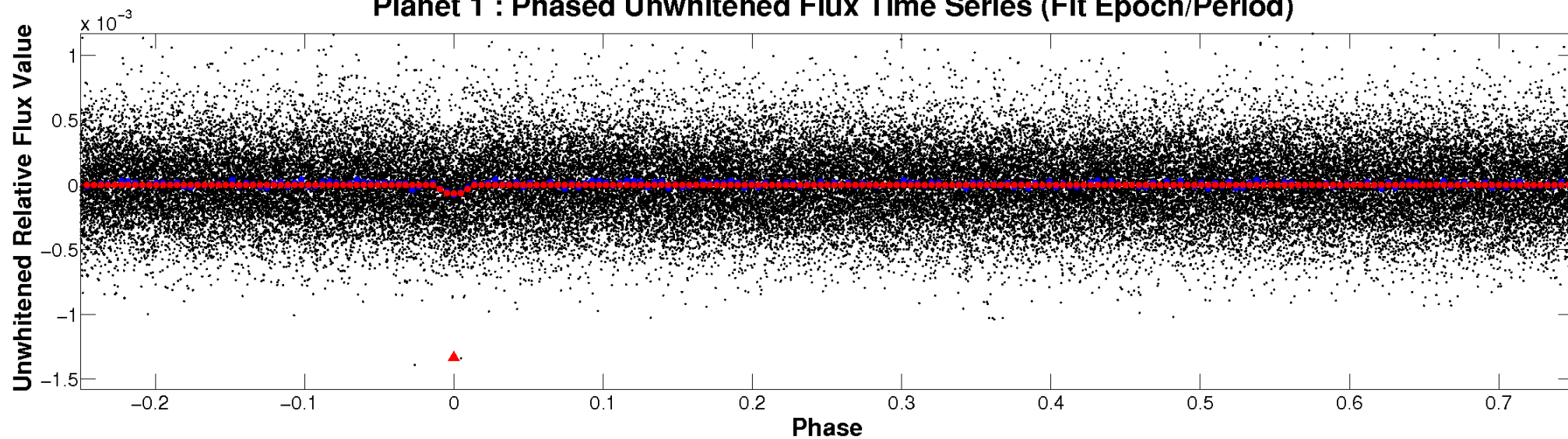
ALT Odd/Even

TCE 011453349-01

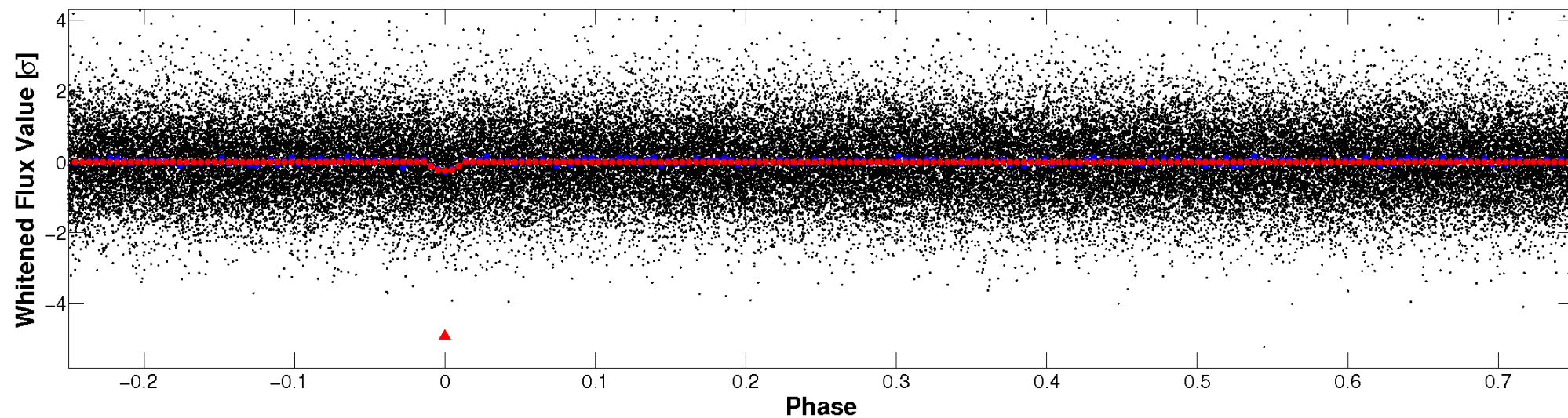


Non-Whitened Vs. Whitened Light Curve

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

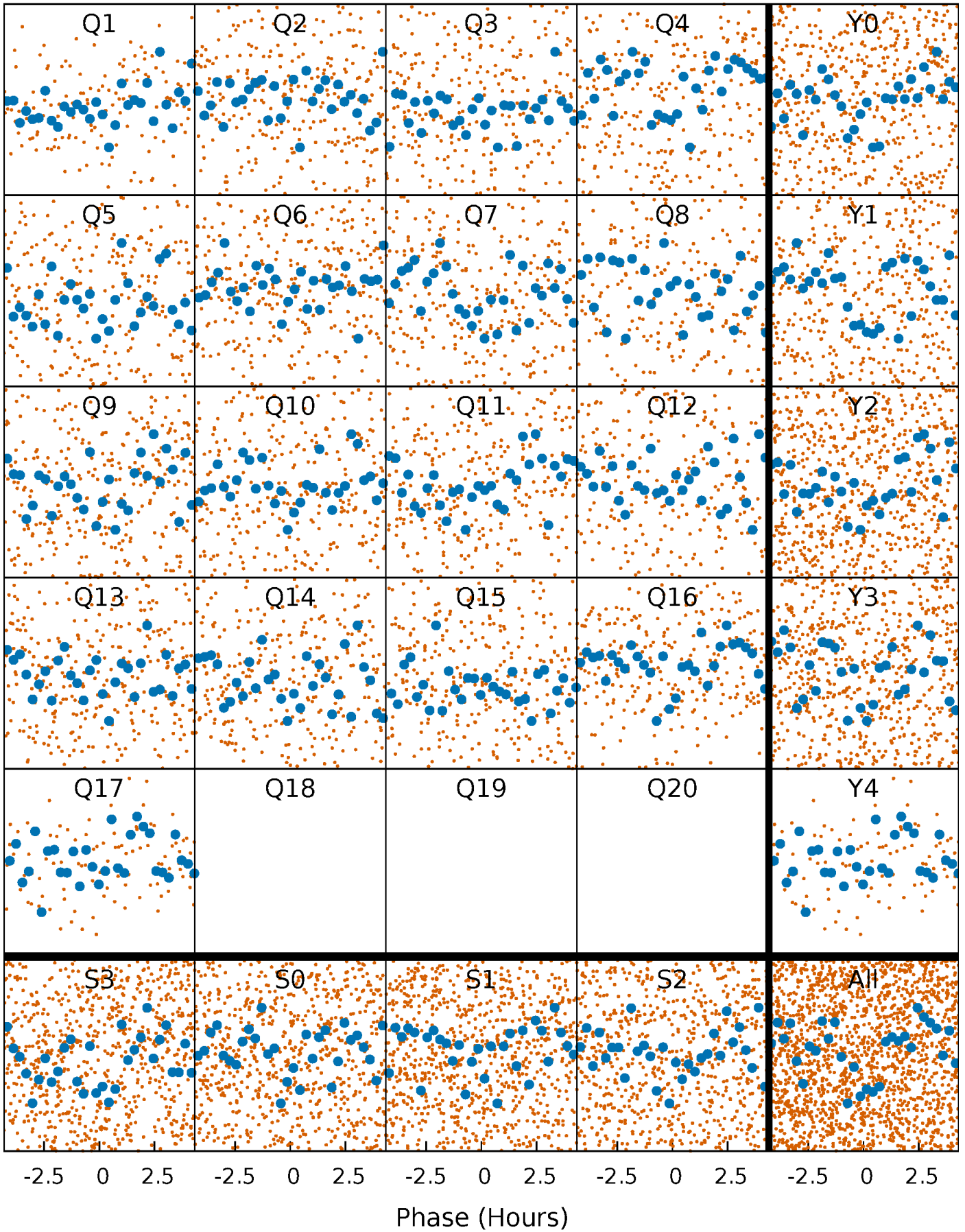


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



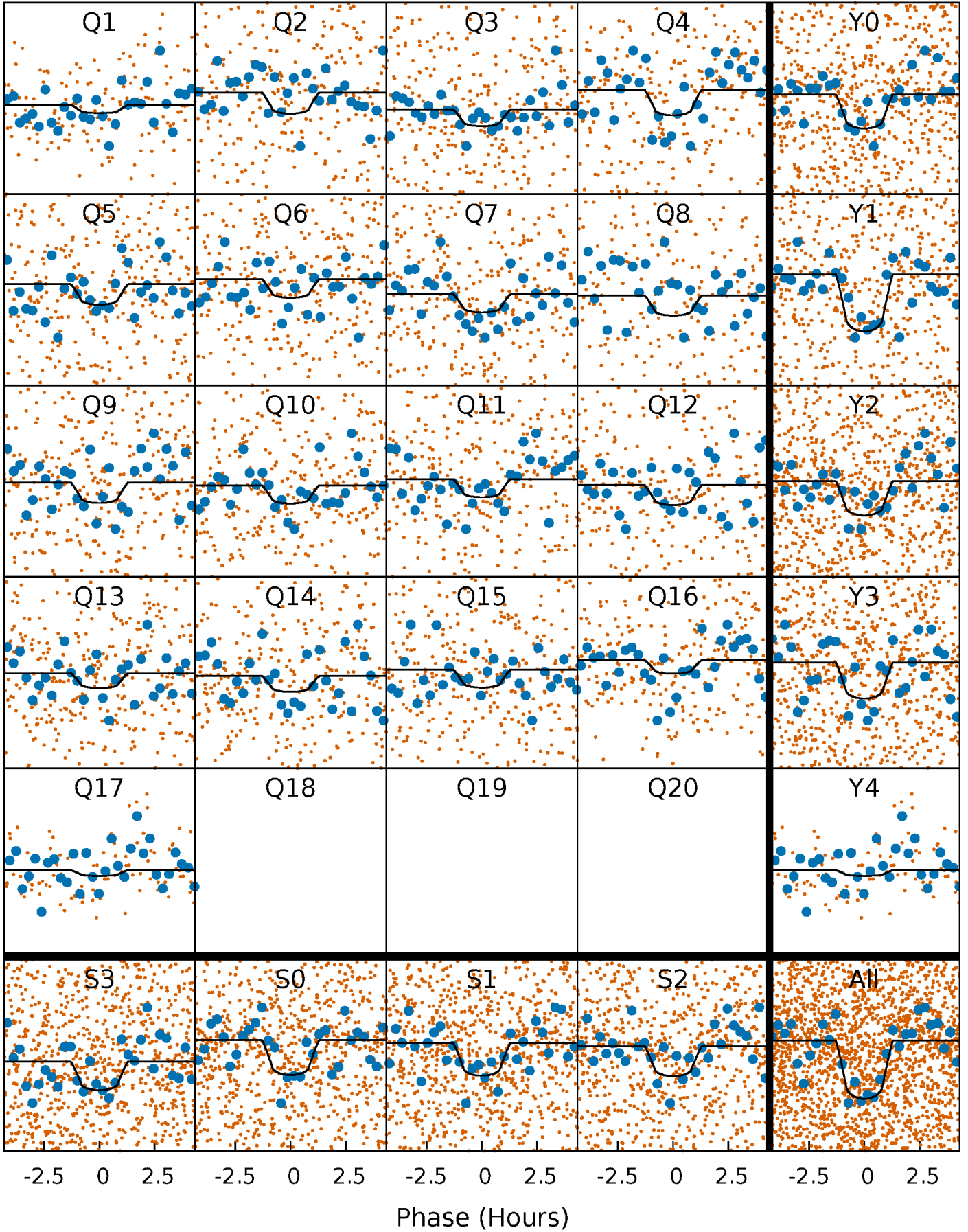
PDC Quarter-Phased Transit Curves

TCE 011453349-01 P= 4.406617 Days $T_0=133.354549$ (BKJD)



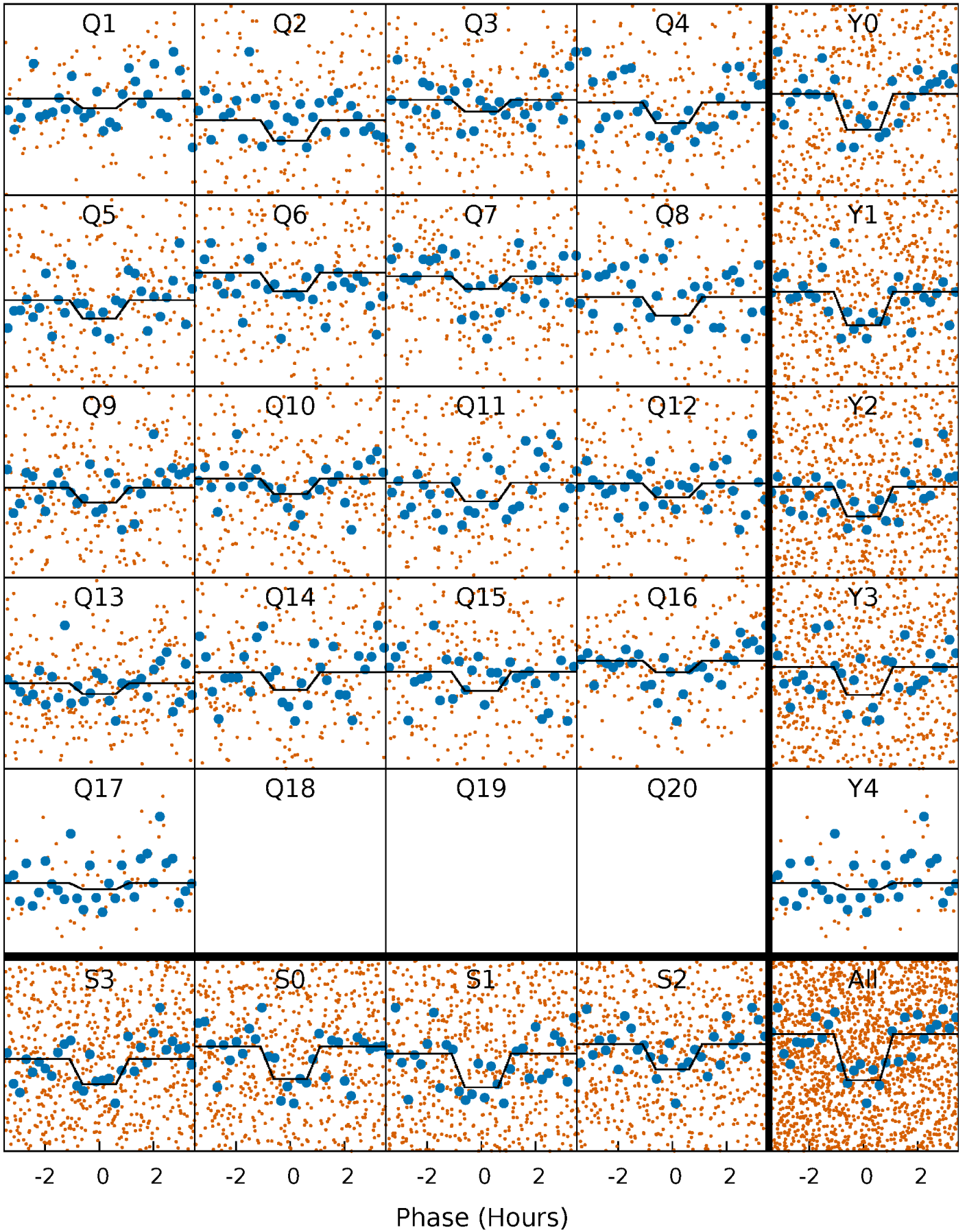
DV Quarter-Phased Transit Curves

TCE 011453349-01 P= 4.406617 Days $T_0=133.354549$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

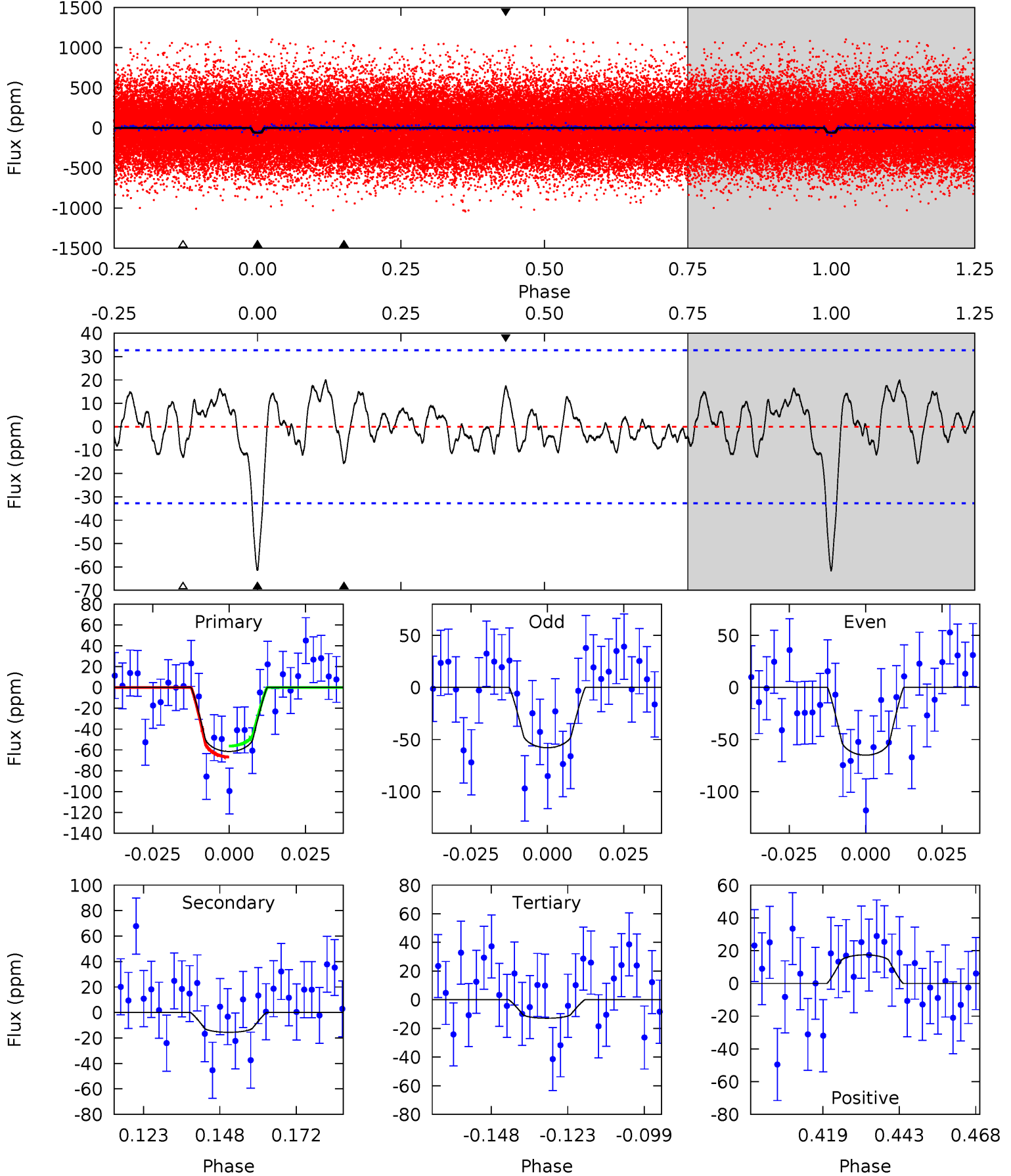
TCE 011453349-01 P= 4.406596 Days $T_0=133.353141$ (BKJD)



DV Model-Shift Uniqueness Test

011453349-01, P = 4.406617 Days, E = 128.947932 Days

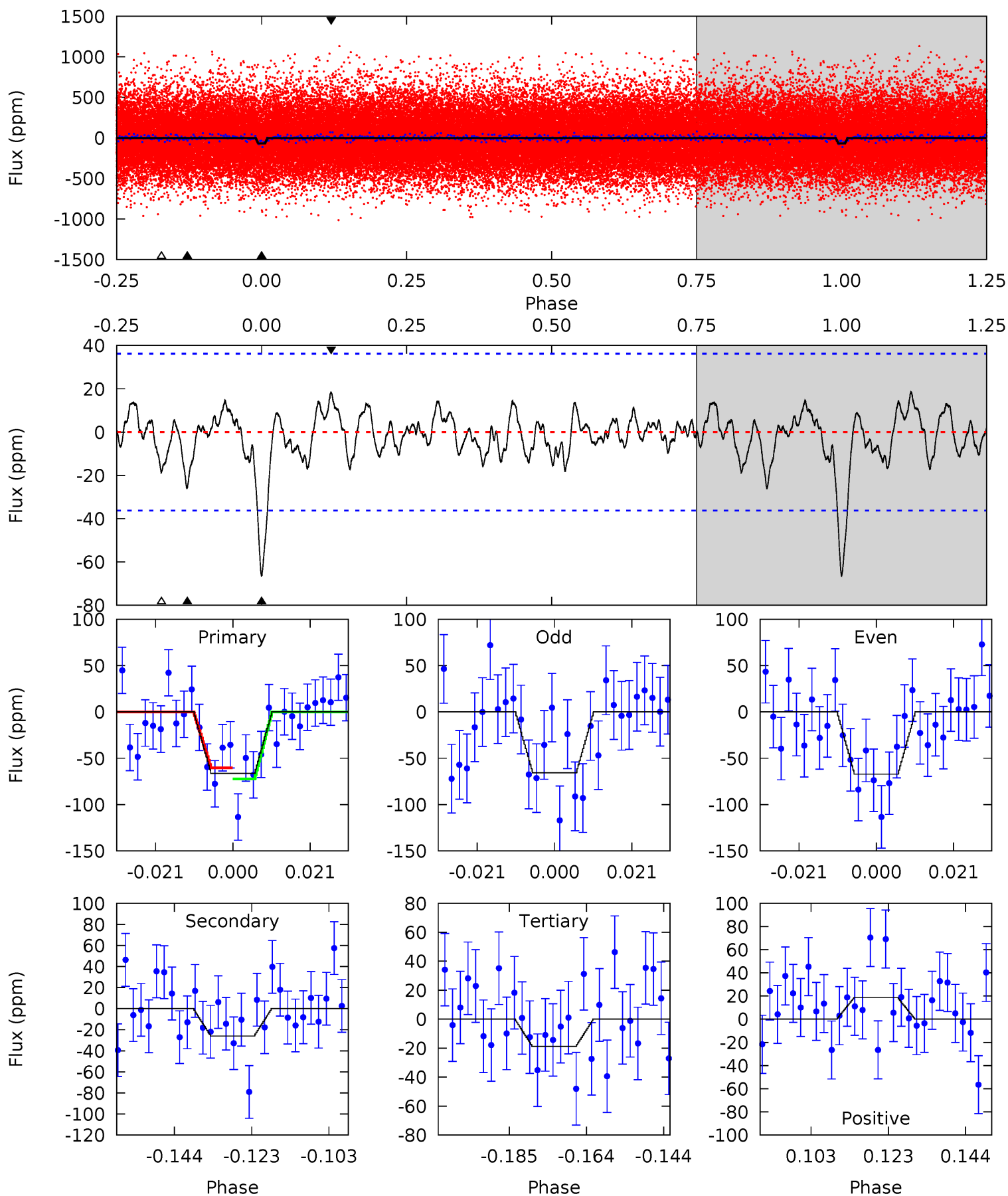
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.11	2.31	1.92	2.58	4.85	2.25	1.08	7.20	6.53	0.39	-0.27	0.53	0.94	0.24	0.77



Alt Model-Shift Uniqueness Test

011453349-01, P = 4.406596 Days, E = 128.946545 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.97	3.50	2.54	2.51	4.89	2.32	1.02	6.42	6.45	0.96	0.99	0.10	1.06	0.22	0.80



Stellar Parameters For KIC 011453349

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6063^{+190}_{-211}	$4.470^{+0.052}_{-0.208}$	$-0.020^{+0.250}_{-0.350}$	$1.001^{+0.318}_{-0.106}$	$1.079^{+0.145}_{-0.145}$	$1.517^{+0.419}_{-0.782}$
	+3%/-3%	+1%/-5%	+1250%/-1750%	+32%/-11%	+13%/-13%	+28%/-52%
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 011453349-01 / KOI 8055.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-16 ± 7	$1.06^{+0.89}_{-0.61}$	1645^{+127}_{-83}	4163^{+1806}_{-847}	20^{+89}_{-15}
Alt.	-26 ± 7	$1.05^{+0.81}_{-0.61}$	1649^{+120}_{-83}	4635^{+2341}_{-848}	36^{+157}_{-24}

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

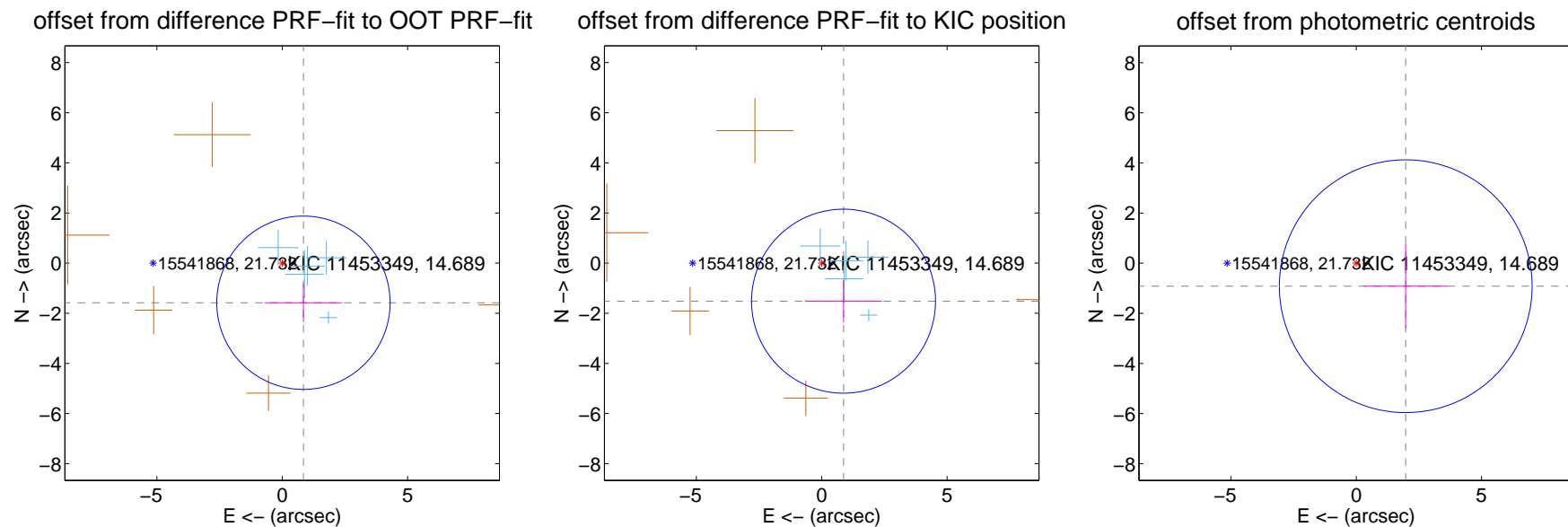
DV Centroid Data

Supplemental centroid analysis for 011453349-01. Kepler magnitude: 14.69. Transit SNR 7.43

There are 5 quarters with good PRF difference image offsets

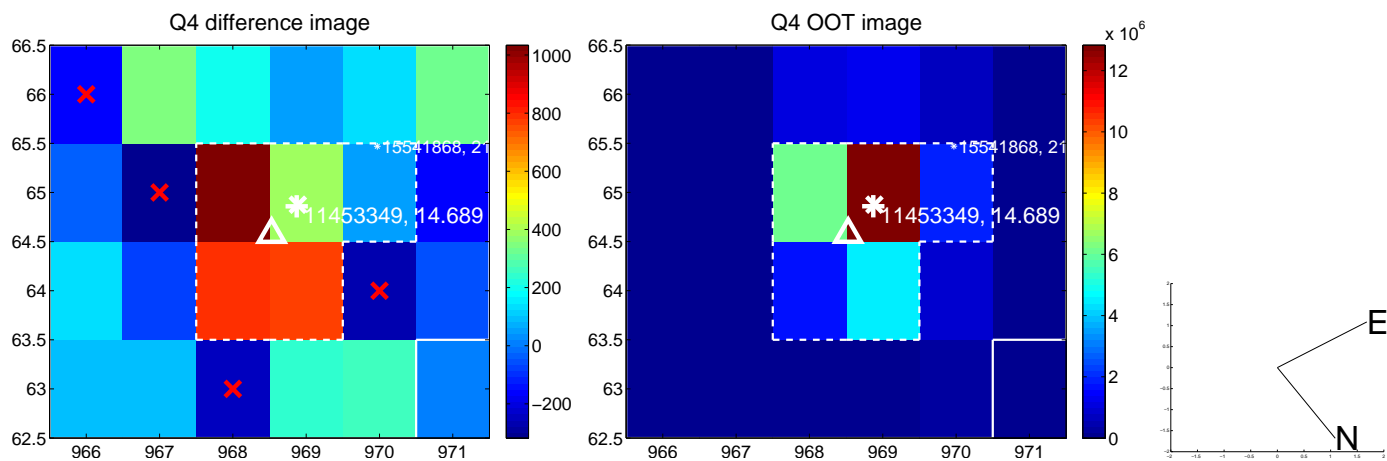
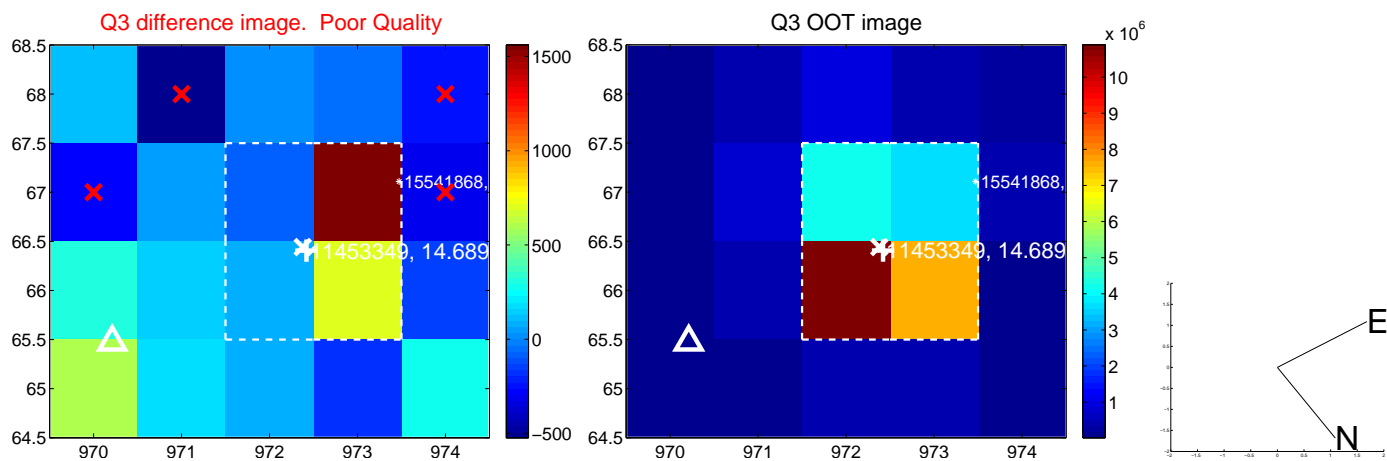
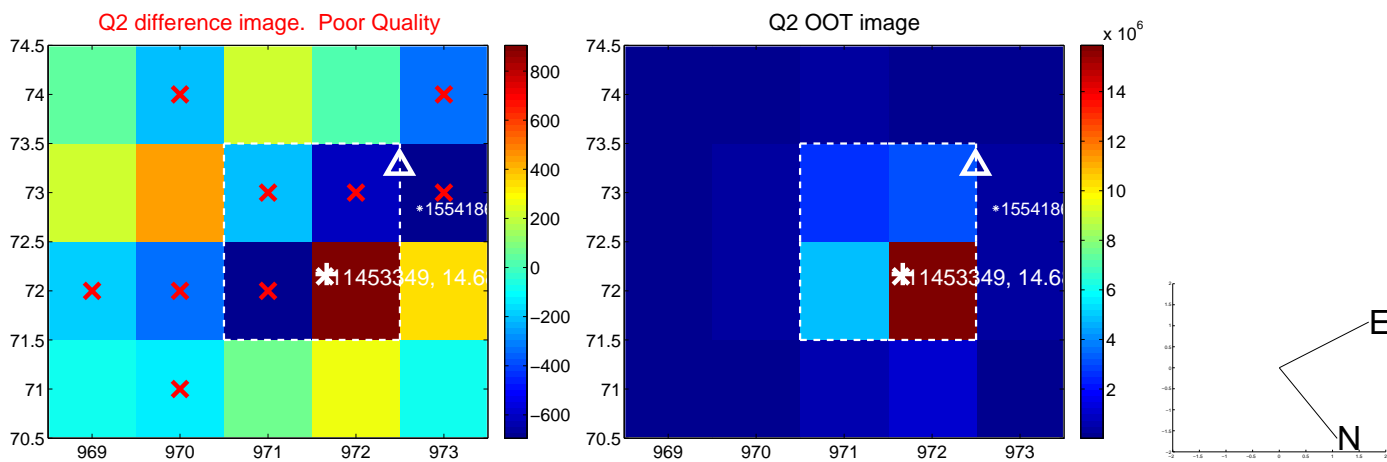
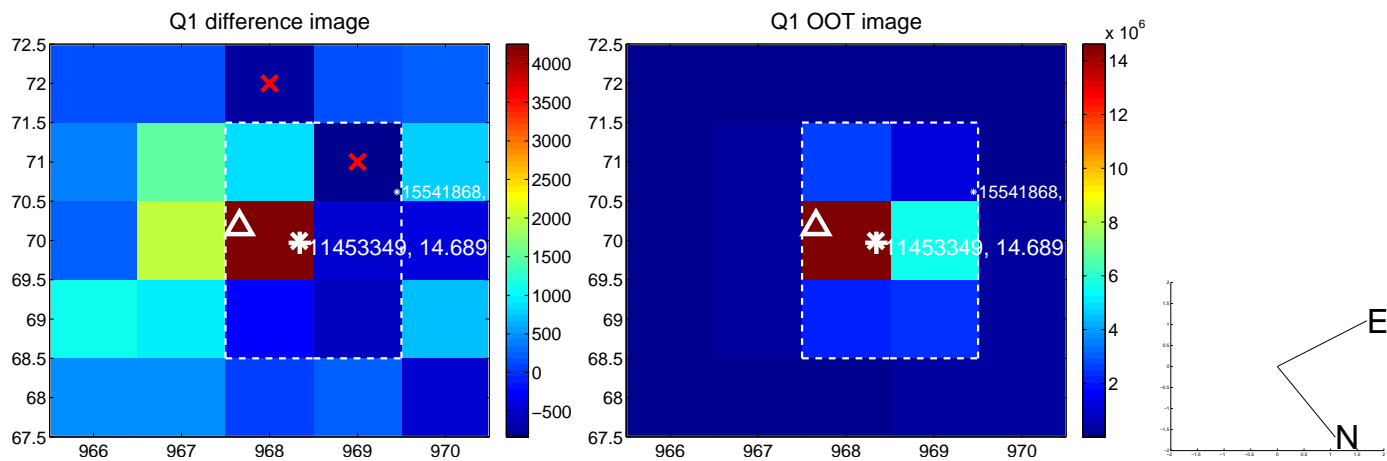
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.792 ± 1.153	1.55	-0.847 ± 1.549	-1.580 ± 0.765
PRF-fit source offset from KIC position	1.749 ± 1.223	1.43	-0.870 ± 1.536	-1.518 ± 0.854
photometric centroid source offset	2.18 ± 1.68	1.30	-1.98 ± 1.68	-0.92 ± 1.68

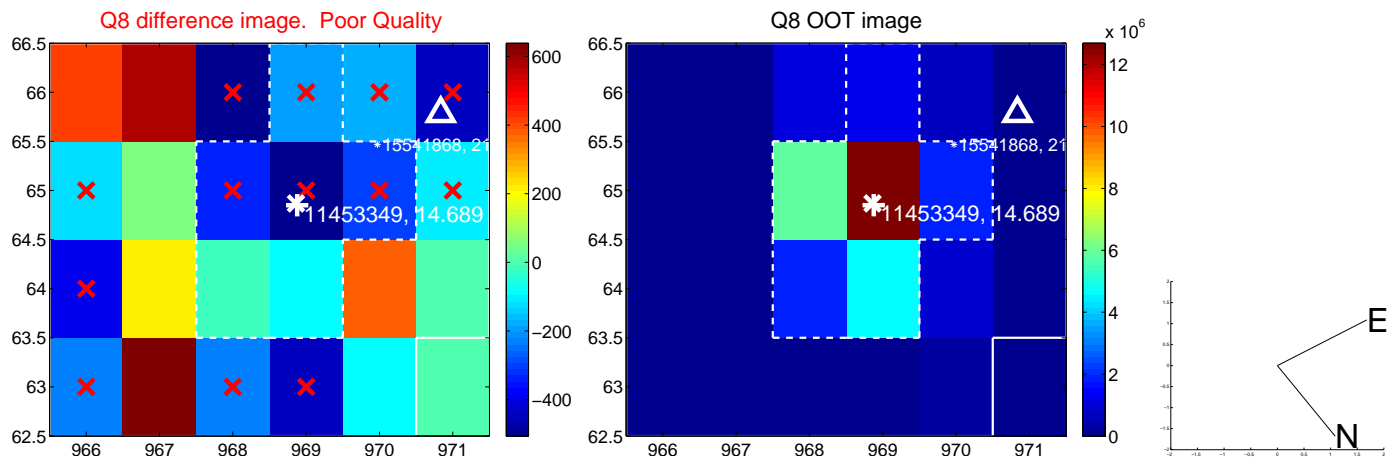
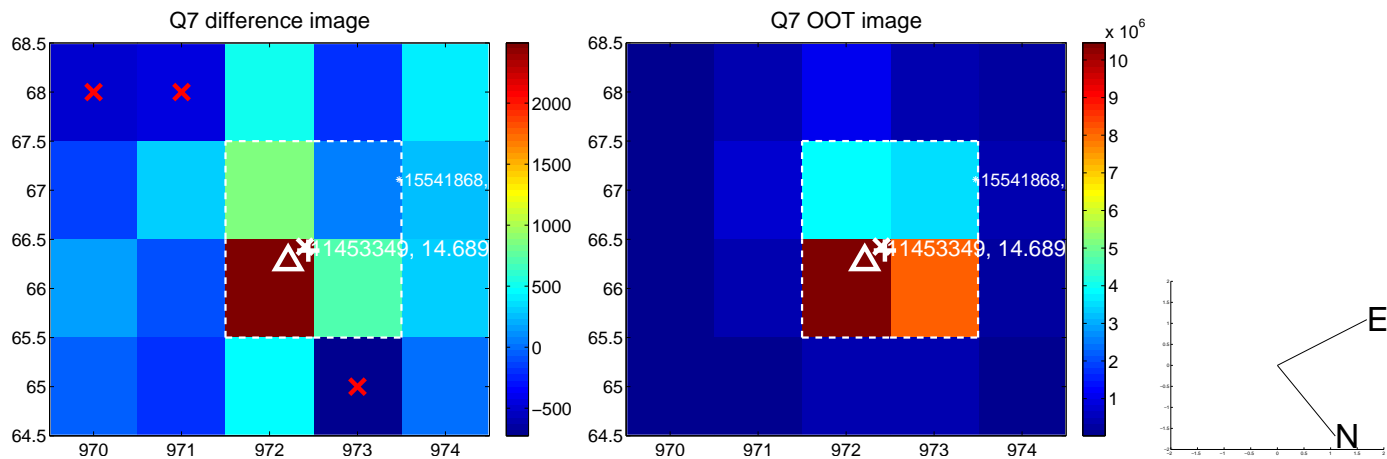
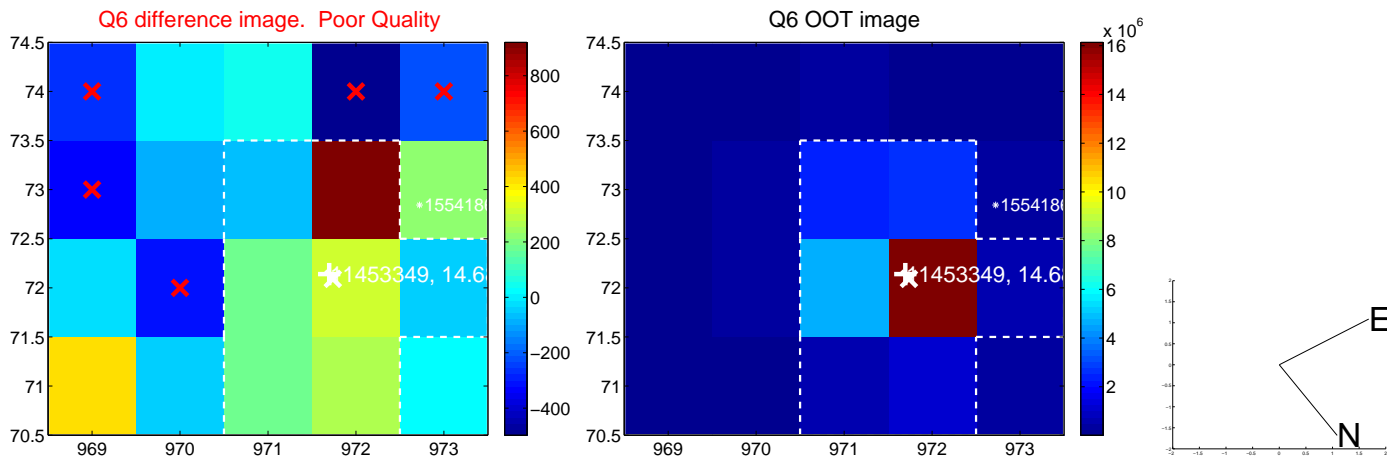
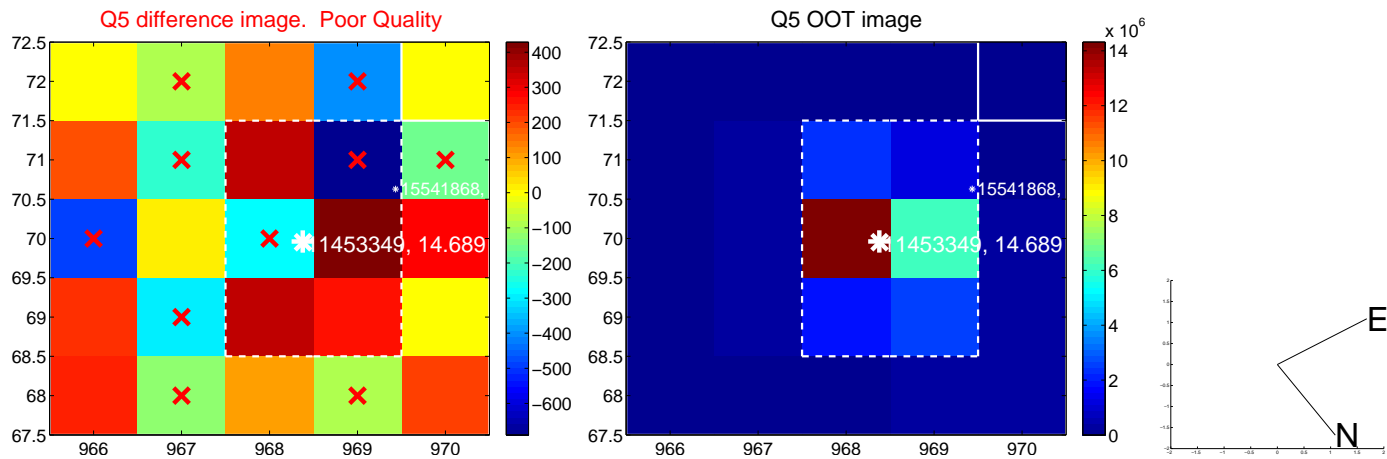


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

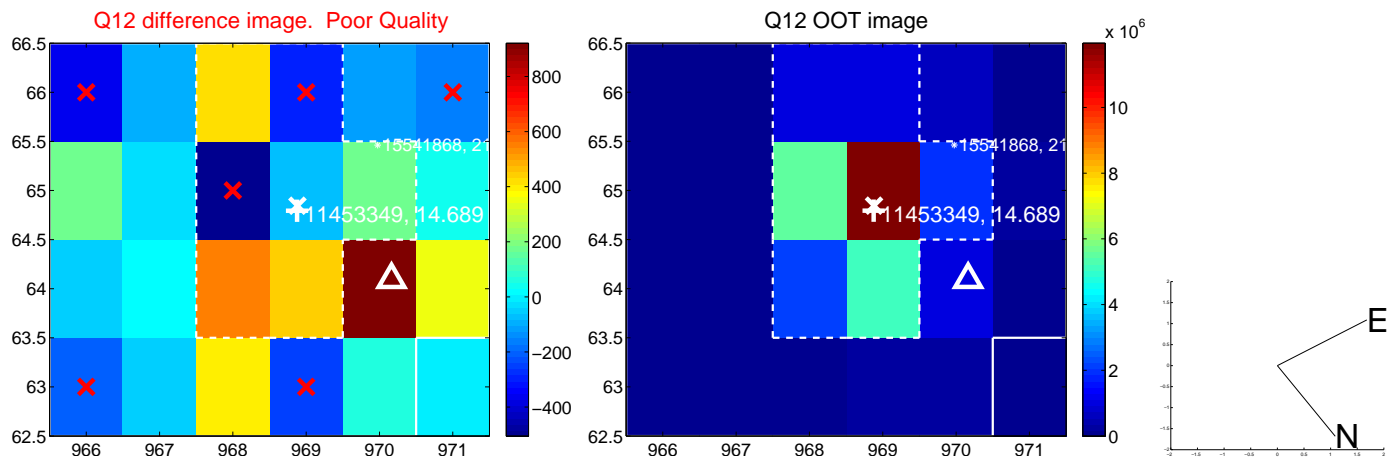
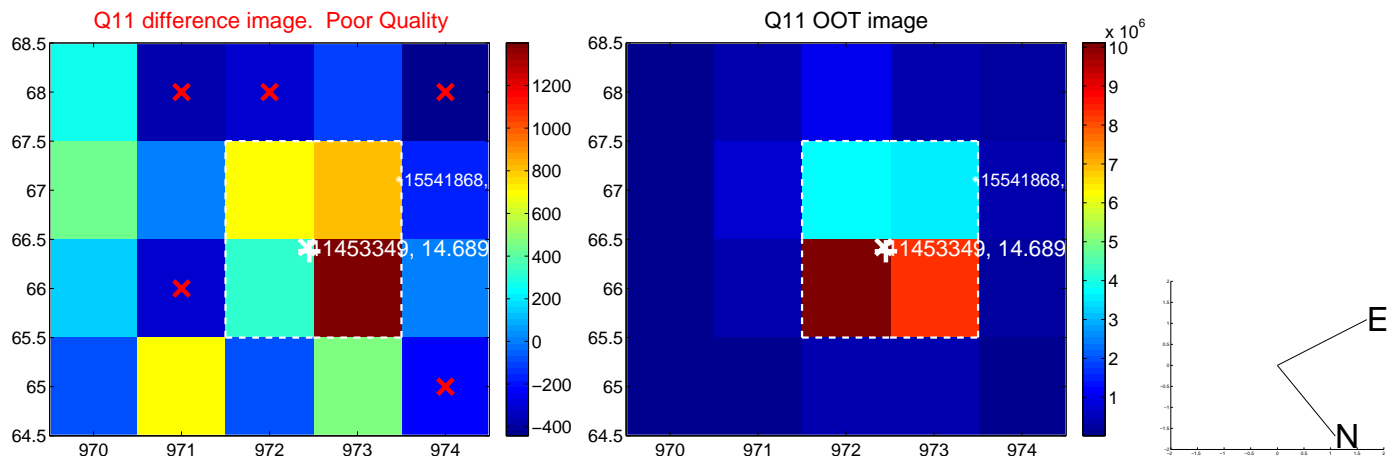
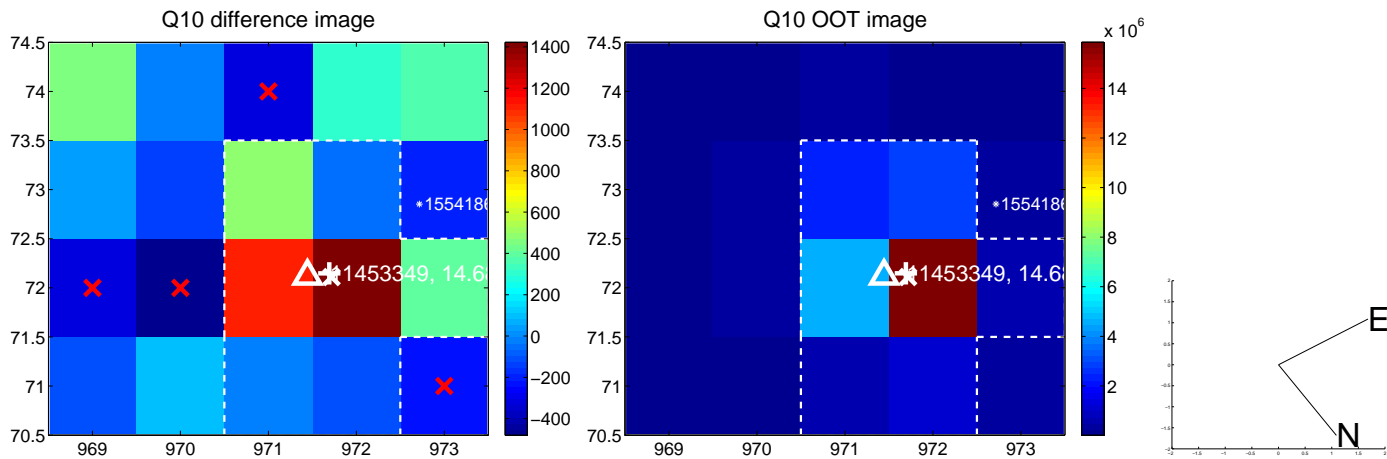
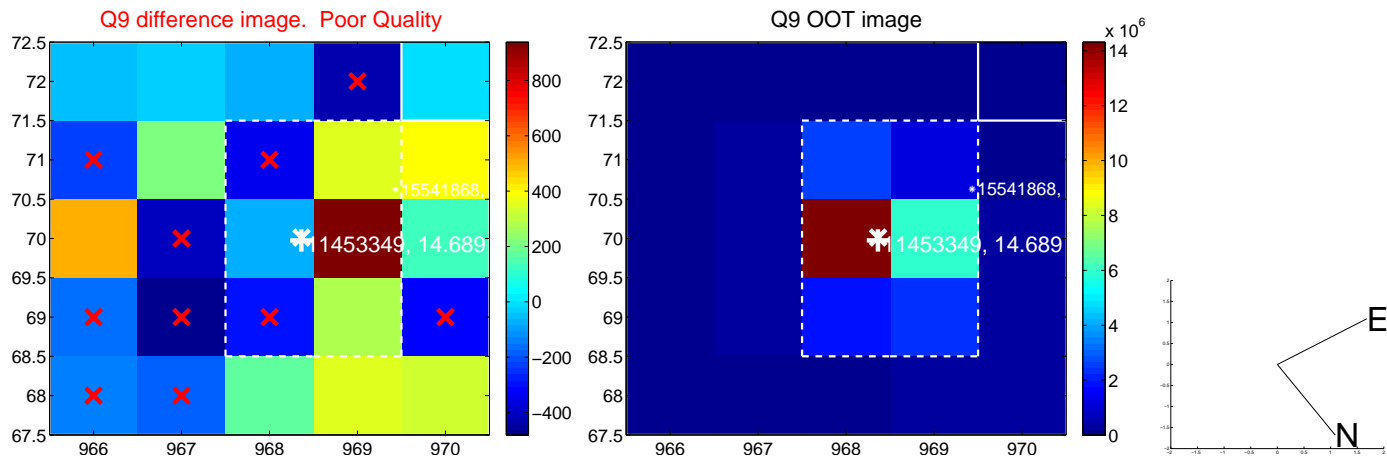
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



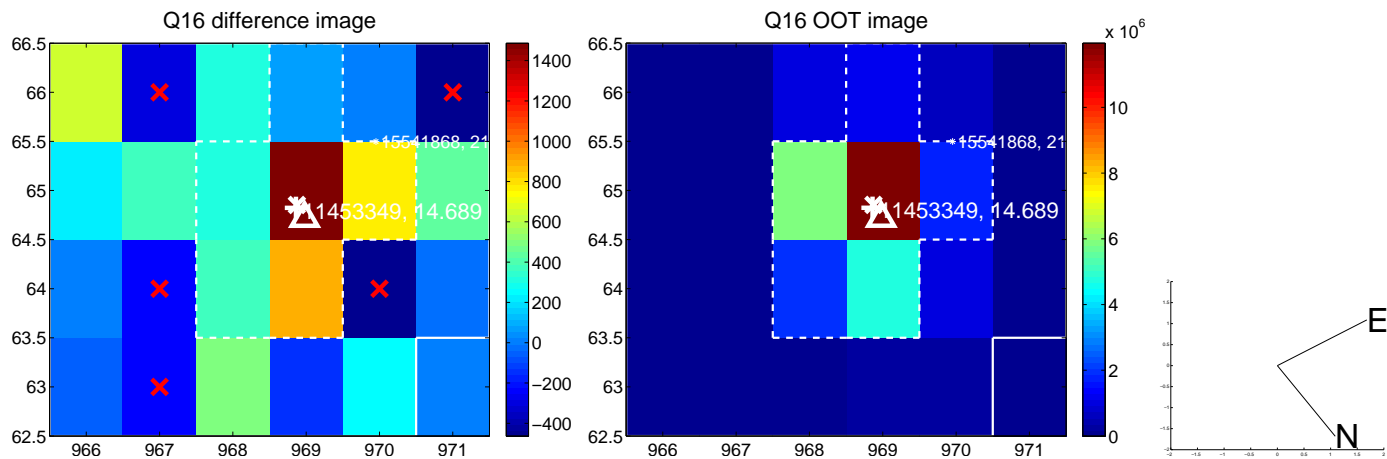
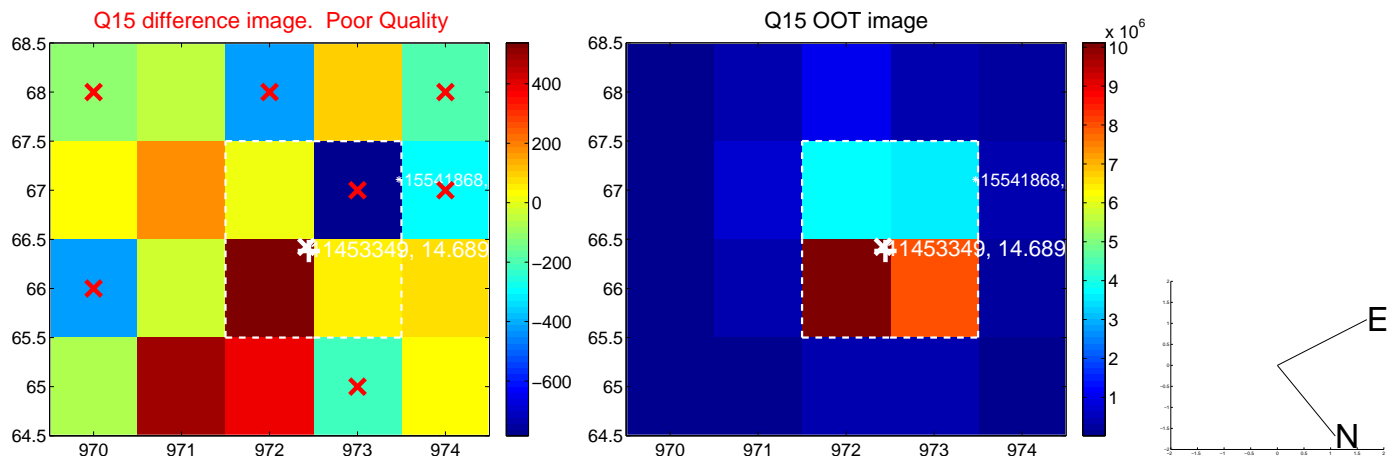
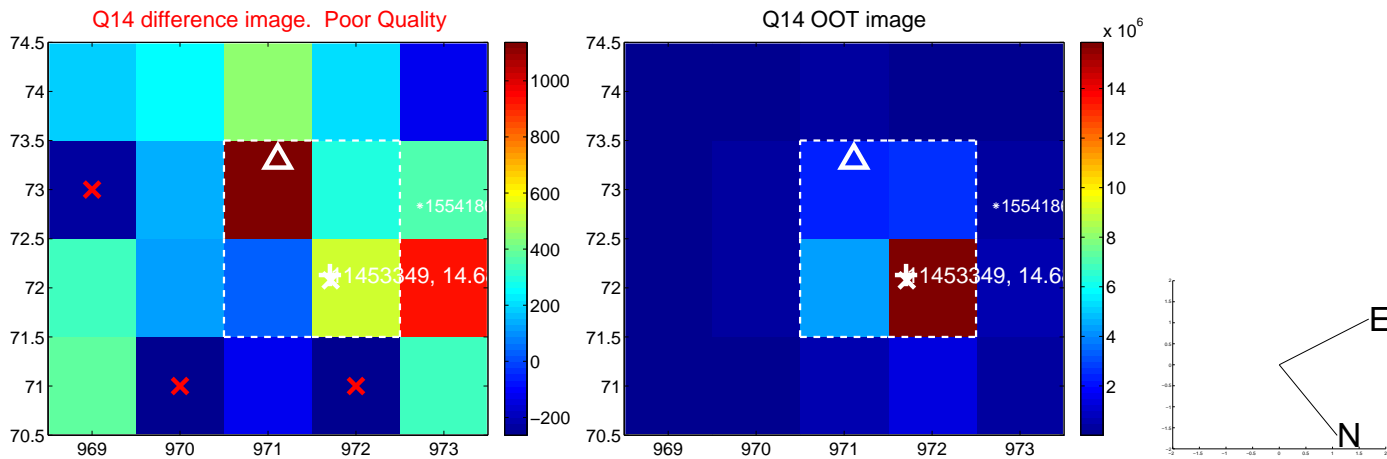
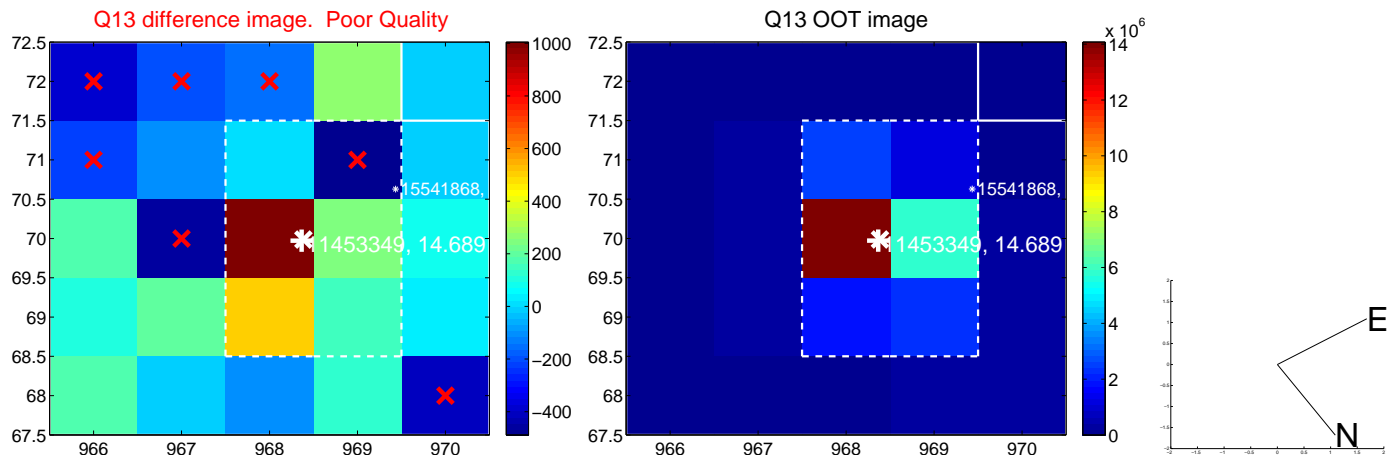
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



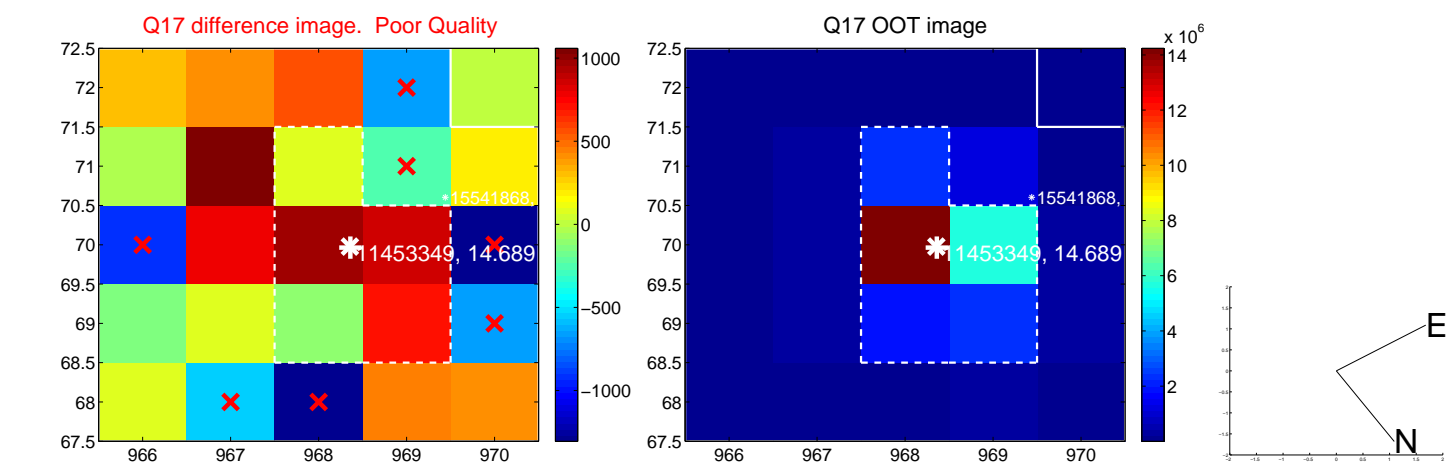
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



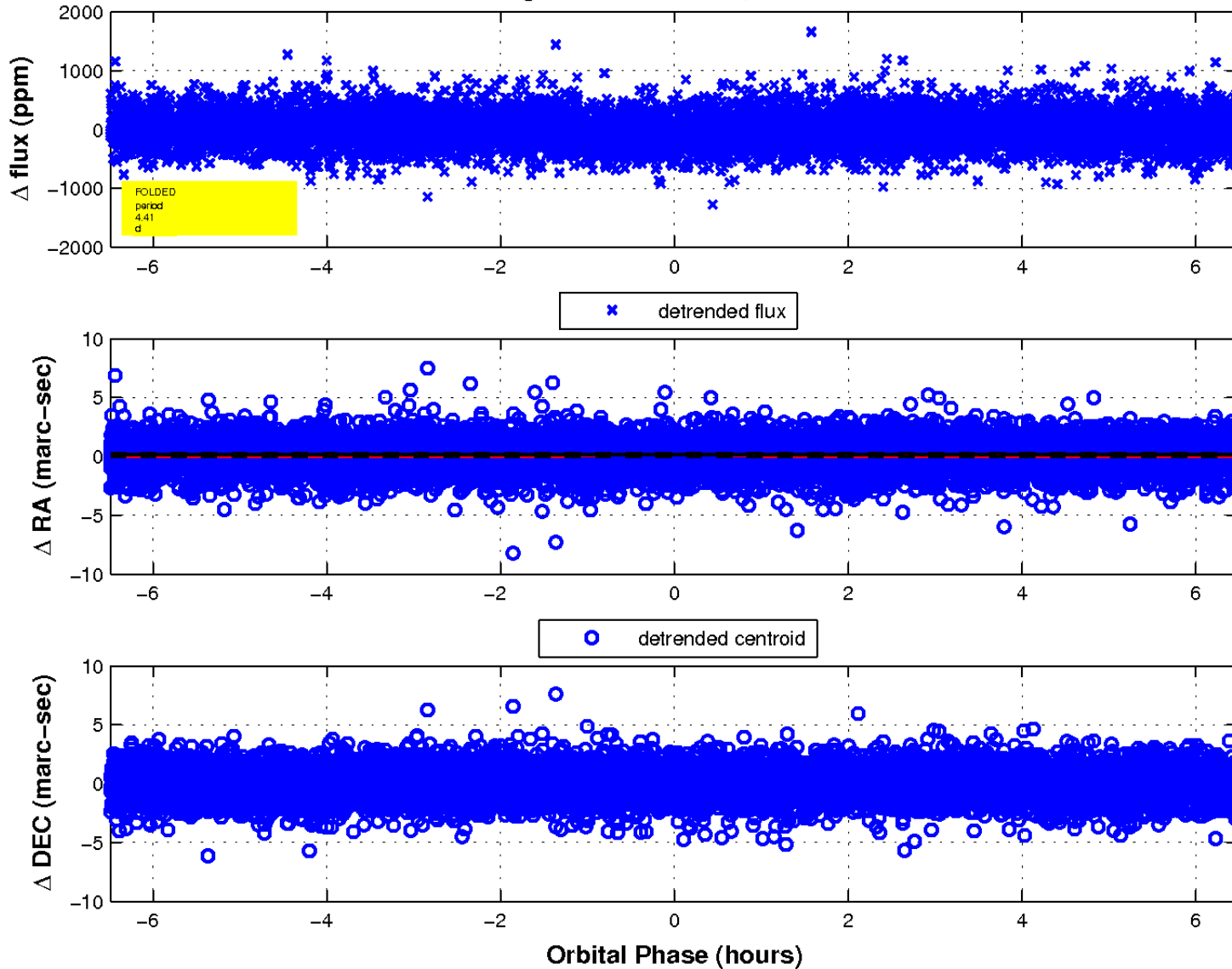
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

